此本资产评估报告依据中国资产评估准则编制

华虹半导体有限公司拟发行股份购买资产所涉及的上海华力微电子有限公司股东全部权益价值资产评估报告

东洲评报字【2025】第2446号

共1册 第1册

上海东洲资产评估有限公司

2025年12月29日

中国资产评估协会

资产评估业务报告备案回执

报告编码：	3131020001202502983
合同编号：	东洲评委(202511108)号
报告类型：	法定评估业务资产评估报告
报告文号：	东洲评报字【2025】第2446号
报告名称：	华虹半导体有限公司拟发行股份购买资产所涉及的上海华力微电子有限公司股东全部权益价值资产评估报告
评估结论：	8,480,000,000.00元
评估报告日：	2025年12月29日
评估机构名称：	上海东洲资产评估有限公司
签名人员：	余哲超 （资产评估师） 正式会员 编号：31190125 王欣 （资产评估师） 正式会员 编号：31120008
余哲超、王欣已实名认可	
 （可扫描二维码查询备案业务信息）	

说明：报告备案回执仅证明此报告已在业务报备管理系统进行了备案，不作为协会对该报告认证、认可的依据，也不作为资产评估机构及其签字资产评估专业人员免除相关法律责任的依据。

备案回执生成日期：2025年12月29日

ICP备案号京ICP备2020034749号

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声明

一、本资产评估报告依据财政部发布的资产评估基本准则和中国资产评估协会发布的资产评估执业准则和职业道德准则编制。

二、委托人或者其他资产评估报告使用人应当按照法律、行政法规规定和资产评估报告载明的使用范围使用资产评估报告；委托人或者其他资产评估报告使用人违反前述规定使用资产评估报告的，资产评估机构及资产评估专业人员不承担责任。

三、资产评估报告仅供委托人、资产评估委托合同中约定的其他资产评估报告使用人和法律、行政法规规定的资产评估报告使用人使用；除此之外，其他任何机构和个人不能成为资产评估报告的使用人。

四、资产评估报告使用人应当正确理解和使用评估结论，评估结论不等同于评估对象可实现价格，评估结论不应当被认为是对评估对象可实现价格的保证。

五、资产评估报告使用人应当关注评估结论成立的假设前提、资产评估报告特别事项说明和使用限制。

六、资产评估机构及其资产评估专业人员遵守法律、行政法规和资产评估准则，坚持独立、客观、公正的原则，并对所出具的资产评估报告依法承担责任。

七、我们与本资产评估报告中的评估对象没有现存或者预期的利益关系；与相关当事人没有现存或者预期的利益关系，对相关当事人不存在偏见。

八、评估对象涉及的资产、负债清单由委托人、被评估单位申报并经其采用签名、盖章或法律允许的其他方式确认。根据《中华人民共和国资产评估法》：“委托人应当对其提供的权属证明、财务会计信息和其他资料的真实性、完整性和合法性负责。”

九、我们已对评估对象及其所涉及的资产进行现场调查；已对评估对象及其所涉及资产的法律权属状况给予必要的关注，并对所涉及资产的法律权属资料进行了核查验证，对已经发现的可能对评估结论有重大影响的事项在本资产评估报告中进行了如实披露，并且已提请委托人及其他相关当事人完善产权以满足出具资产评估报告的要求。但我们仅对评估对象及其所涉及资产的价值发表意见，我们无权对它们的法律权属作出任何形式的保证。本报告亦不得作为任何形式的产权证明文件使用。

十、我们对设备等实物资产的勘察按常规仅限于其表观的质量、使用状况、保养状况等，并未触及其内部被遮盖、隐蔽及难于观察到的部位，我们没有能力也未接受委托对上述资产的内部质量进行专业技术检测和鉴定，我们的评估以委托人和其他相关当事人提供的资料为基础。如果这些评估对象的内在质量存在瑕疵，本资产评估报告的评估结论可能会受到不同程度的影响。

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资产评估报告

（目录）

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华虹半导体有限公司拟发行股份购买资产所涉及的上海华力微电子有限公司股东全部权益价值资产评估报告

东洲评报字【2025】第2446号

摘要

特别提示：本资产评估报告仅为报告中描述的经济行为提供价值参考。以下内容摘自资产评估报告正文，欲了解本评估业务的详细情况和正确理解评估结论，应当阅读评估报告正文。

上海东洲资产评估有限公司接受委托，根据法律、行政法规和资产评估准则的规定，坚持独立、客观和公正的原则，采用合适的评估方法，按照必要的评估程序，对经济行为所对应的评估对象进行了评估。资产评估报告摘要如下：

委托人：上海华虹（集团）有限公司、华虹半导体有限公司

被评估单位：上海华力微电子有限公司（简称“华力微”）

评估目的：发行股份购买资产

经济行为：根据上海华虹（集团）有限公司《关于推进彩虹项目的决议》（沪华虹董[2025]第8号）、华虹半导体有限公司《董事会决议》（港华董（2025）第15号）以及上海华力微电子有限公司《关于同意公司股权转让的决议》（沪华力微股(2025) 第12号），华虹半导体有限公司拟通过发行股份的方式向上海华虹(集团)有限公司、上海集成电路产业投资基金股份有限公司、国家集成电路产业投资基金二期股份有限公司、上海国投先导集成电路私募投资基金合伙企业(有限合伙)等4名华力微股东购买其持有的华力微97.4988%股权。

评估对象：被评估单位股东全部权益价值。

评估范围：评估范围为被评估单位全部资产及全部负债，具体包括流动资产、非流动资产及负债等。被评估单位申报的全部资产合计账面价值7,258,502,795.25元，负债合计账面价值5,256,589,024.59元，所有者权益2,001,913,770.66元。

价值类型：市场价值

评估基准日：2025年8月31日

评估方法：采用资产基础法、市场法，本评估报告结论依据市场法的评估结果。

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评估结论：经评估，被评估单位股东全部权益价值为人民币8,480,000,000.00元。大写：人民币捌拾肆亿捌仟万元整。

评估结论使用有效期：为评估基准日起壹年内，即有效期自评估基准日2025年08月31日至2026年08月30日。

如本评估项目涉及国有资产，并按相关规定需履行国有资产管理部门备案、核准程序的，本评估报告需经国有资产监督管理部门备案后方可正式使用，且评估结论仅适用于本报告所示经济行为。

特别事项：

1.被评估单位分立事项

2025年6月26日，根据沪华力微股（2025）第4号股东会决议，全体股东一致同意公司存续分立的方案，采取存续分立的形式，将公司分立为上海华力微电子有限公司（存续公司，以下简称“分立后的华力微”）及新设公司。分立后的华力微继续运营位于中国（上海）自由贸易试验区高斯路568号的12英寸晶圆厂晶圆代工等相关的业务，并承继与之相关的资产、债权债务、人员及其他约定的权利义务，新设公司承继长期股权投资及相应的业务、资产、债权债务、人员及其他约定的权利义务。分立后的华力微与新设公司保持业务、资产、人员、财务、机构等方面的相互独立。公司于2025年8月21日完成了分立行为。分立后的华力微注册资本与新设公司的注册资本之和等于本次分立前华力微的注册资本。各股东在分立后的华力微与新设公司的持股比例，与本次分立前在华力微的持股比例一致。分立后的华力微为本次重组拟注入华虹公司的标的资产。

本次评估对象为分立后的华力微，基于此，评估工作以华力微在分立框架下编制的模拟财务报表及反映的业务实质为基础展开。

2．抵质押事项

截至评估基准日，华力微涉及的抵押、担保等事项如下：

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合同编号	借款人	贷款人	借款金额（万元）	借款期限	借款用途	借款利率	担保情况
3100201606100000054号借款合同	华力微	委托贷款人：国开发展基金有限公司； 受托贷款人：国家开发银行股份有限公司	300,000.00	2016年8月4日-2026年8月3日	产线建设	年利率1.2%	华力微以评估值合计152,243.77万元的设备向委托贷款人提供抵押担保
3100201506100000015001号借款合同	华力微	委托贷款人：国开发展基金有限公司； 受托贷款人：国家开发银行股份有限公司	100,000.00	2015年11月24日-2030年11月23日	产线投建	年利率1.2%	华力微以评估值合计116,263.96万元的设备向委托贷款人提供抵押担保
3100202301100002961	华力微	国家开发银行上海市分行、交通银行股份有限公司上海新区支行、上海银行股份有限公司徐汇支行、中国建设银行股份有限公司上海张江分行	96,000.00	2023年2月-2031年2月	研发	3%	华力微以评估值合计29,052.85万元的设备向贷款人提供抵押担保

本次未考虑上述抵押或质押事项对评估结果的可能影响，提请报告使用人注意。

3.或有事项

截至2025年8月31日止，华力微银行保函业务担保余额为人民币10,000,000.00元，最后一笔将于2026年2月10日到期。

截至2025年8月31日止，华力微未履行完毕的不可撤销信用证未使用金额美元1,360,050.00（等值人民币9,660,435.15元），最后一笔将于2026年1月13日到期。

本次评估未考虑上述或有事项对评估值的影响。

以上特别事项可能对本评估结论产生影响，提请评估报告使用人在实施本次经济行为时予以充分关注；此外，评估报告使用人还应关注评估报告正文中所载明的评估假设以及期后重大事项对本评估结论的影响，并恰当使用本评估报告。

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东洲评报字【2025】第2446号

正文

上海华虹（集团）有限公司、华虹半导体有限公司：

上海东洲资产评估有限公司接受贵公司的委托，按照法律、行政法规和资产评估准则的规定，坚持独立、客观和公正的原则，采用资产基础法、市场法，按照必要的评估程序，对华虹半导体有限公司拟发行股份购买资产所涉及的上海华力微电子有限公司股东全部权益于2025年8月31日的市场价值进行了评估。现将资产评估情况报告如下：

一、委托人、被评估单位和其他资产评估报告使用人

（一）委托人

委托人一：

企业名称：上海华虹（集团）有限公司

统一社会信用代码：91310000132263312B

企业类型：有限责任公司(国有控股)

注册地址：中国（上海）自由贸易试验区碧波路177号

法定代表人：秦健

注册资本：1352148.449300万人民币

成立日期：1996年04月09日

经营范围：组织开发、设计、加工、制造和销售集成电路和相关产品，投资集成电路设计、制造、销售、应用及相关高科技产业，咨询服务，资产管理，自有房屋租赁，停车场（库）经营。【依法须经批准的项目，经相关部门批准后方可开展经营活动】

委托人二：

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企业名称：华虹半导体有限公司

证券简称：华虹公司/华虹半导体

证券代码：688347.SH/1347.HK

企业英文名称：Hua Hong Semiconductor Limited

注册地址：香港中环夏悫道12号美国银行中心2212室

成立日期：2005年01月21日

上市时间：2023年08月07日

公司简介：华虹半导体有限公司的主营业务是开发与应用嵌入式／独立式非易失性存储器、功率器件、模拟及电源管理和逻辑及射频等‘8英寸+12英寸’差异化特色工艺技术,为客户提供晶圆制造服务。公司的主要产品是功率器件、嵌入式非易失性存储器、模拟与电源管理、逻辑与射频、IP设计服务、测试服务、晶圆后道加工服务。

（二）被评估单位

公司名称：上海华力微电子有限公司（简称“华力微”）

统一社会信用代码：91310000550057087 6

企业类型：有限责任公司（外商投资企业与内资合资）

注册地址：中国（上海）自由贸易试验区高斯路568号

法定代表人：秦健

注册资本：人民币203619.2198万元整

成立日期：2010年01月18日

经营范围：开发、设计、加工、制造和销售集成电路和相关产品，从事货物及技术的进出口业务。【依法须经批准的项目，须经相关部门批准后方可开展经营活动】

1.公司历史沿革

（1）2010年1月设立

华力微系由上海联和投资有限公司、上海华虹（集团）有限公司、上海华虹NEC电子有限公司及上海宏力半导体制造有限公司共同出资于2010年1月18日设立，设立时的注册资本为660,000万元，其中，上海联和投资有限公司出资450,000万元，持

有华力微68.1817%的股权；华虹集团出资70,000万元，持有华力微10.6061%的股权；华虹NEC出资70,000万元，持有华力微10.6061%的股权；上海宏力半导体制造有限公司出资70,000万元，持有华力微10.6061%的股权；首期由上海联和投资有限公司出资200,000万元，其余部分由上海联和投资有限公司和其他各方股东在2年内出资完成。

根据中瑞岳华会计师事务所有限公司于2010年1月13日出具的中瑞岳华沪验字[2010]第004号《验资报告》，截至2010年1月13日，华力微已收到上海联和投资有限公司以货币缴纳的首期注册资本200,000万元。

华力微设立时的股权结构如下：

金额单位：人民币万元

序号	股东名称	认缴出资额	实缴出资额	股权比例%
1	上海联和投资有限公司	450,000.00	200,000.00	68.18
2	上海华虹（集团）有限公司	70,000.00	0.00	10.61
3	上海华虹NEC电子有限公司	70,000.00	0.00	10.61
4	上海宏力半导体制造有限公司	70,000.00	0.00	10.61
	合计	660,000.00	200,000.00	100.00

（2）2010年4月实收资本变更

根据上海立信佳诚东审会计师事务所有限公司于2010年4月15日出具的沪立信佳诚验字（2010）第1010号《验资报告》，截至2010年4月13日，华力微已收到上海宏力半导体制造有限公司以货币缴纳的第二期注册资本35,000万元。

本次实收资本变更完成后，股权结构为：

金额单位：人民币万元

序号	股东名称	认缴出资额	实缴出资额	股权比例%
1	上海联和投资有限公司	450,000.00	200,000.00	68.18
2	上海华虹（集团）有限公司	70,000.00	0.00	10.61
3	上海华虹NEC电子有限公司	70,000.00	0.00	10.61
4	上海宏力半导体制造有限公司	70,000.00	35,000.00	10.61
	合计	660,000.00	235,000.00	100.00

（3）2010年10月实收资本变更

根据上海立信佳诚东审会计师事务所有限公司于2010年10月8日出具的沪立信佳诚验字（2010）第1035号《验资报告》，截至2010年9月30日，华力微已收到上

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海联和投资有限公司以货币缴纳的第三期注册资本100,000万元。

本次实收资本变更完成后，华力微的股权结构如下：

金额单位：人民币万元

序号	股东名称	认缴出资额	实缴出资额	股权比例%
1	上海联和投资有限公司	450,000.00	300,000.00	68.18
2	上海华虹（集团）有限公司	70,000.00	0.00	10.61
3	上海华虹NEC电子有限公司	70,000.00	0.00	10.61
4	上海宏力半导体制造有限公司	70,000.00	35,000.00	10.61
	合计	660,000.00	335,000.00	100.00

（4）2010年12月第一次增资

2010年11月20日，华力微股东会作出决议，同意华力微注册资本由660,000万元增至790,000万元，新增注册资本130,000万元由上海联和投资有限公司以130,000万元的价格认缴。

根据上海立信佳诚东审会计师事务所有限公司于2010年11月26日出具的沪立信佳诚验字（2010）第1039号《验资报告》，截至2010年11月25日，华力微已收到上海联和投资有限公司以货币缴纳的第四期注册资本58,083万元。

本次增资完成后，华力微的股权结构如下：

金额单位：人民币万元

序号	股东名称	认缴出资额	实缴出资额	股权比例%
1	上海联和投资有限公司	580,000.00	358,083.00	73.42
2	上海华虹（集团）有限公司	70,000.00	0.00	8.86
3	上海华虹NEC电子有限公司	70,000.00	0.00	8.86
4	上海宏力半导体制造有限公司	70,000.00	35,000.00	8.86
	合计	790,000.00	393,083.00	100.00

（5）2011年4月实收资本变更

根据上海立信佳诚东审会计师事务所有限公司于2011年4月28日出具的沪立信佳诚验字（2011）第1011号《验资报告》，截至2011年4月28日，华力微已收到上海联和投资有限公司以货币缴纳的第五期注册资本127,550万元。

本次实收资本变更完成后，华力微的股权结构为：

金额单位：人民币万元

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序号	股东名称	认缴出资额	实缴出资额	股权比例%
1	上海联和投资有限公司	580,000.00	485,633.00	73.42
2	上海华虹（集团）有限公司	70,000.00	0.00	8.86
3	上海华虹NEC电子有限公司	70,000.00	0.00	8.86
4	上海宏力半导体制造有限公司	70,000.00	35,000.00	8.86
	合计	790,000.00	520,633.00	100.00

（6）2011年8月实收资本变更

根据上海立信佳诚东审会计师事务所有限公司于2011年8月2日出具的沪立信佳诚验字（2011）第1020号《验资报告》，截至2011年8月2日，华力微已收到上海联和投资有限公司以货币缴纳的第六期注册资本71,917万元。

本次实收资本变更完成后，华力微的股权结构如下：

金额单位：人民币万元

序号	股东名称	认缴出资额	实缴出资额	股权比例%
1	上海联和投资有限公司	580,000.00	557,550.00	73.42
2	上海华虹（集团）有限公司	70,000.00	0.00	8.86
3	上海华虹NEC电子有限公司	70,000.00	0.00	8.86
4	上海宏力半导体制造有限公司	70,000.00	35,000.00	8.86
	合计	790,000.00	592,550.00	100.00

（7）2011年11月实收资本变更

根据上海立信佳诚东审会计师事务所有限公司于2011年11月14日出具的沪立信佳诚验字（2011）第1030号《验资报告》，截至2011年11月14日，华力微已收到上海联和投资有限公司以货币缴纳的第七期注册资本22,450万元。

本次实收资本变更完成后，华力微的股权结构如下：

金额单位：人民币万元

序号	股东名称	认缴出资额	实缴出资额	股权比例%
1	上海联和投资有限公司	580,000.00	580,000.00	73.42
2	上海华虹（集团）有限公司	70,000.00	0.00	8.86
3	上海华虹NEC电子有限公司	70,000.00	0.00	8.86
4	上海宏力半导体制造有限公司	70,000.00	35,000.00	8.86
	合计	790,000.00	615,000.00	100.00

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（8）2012年1月实收资本变更

根据上海立信佳诚东审会计师事务所有限公司于2012年1月16日出具的沪立信佳诚验字（2012）第1002号《验资报告》，截至2012年1月16日，华力微已收到华虹集团和华虹NEC以货币缴纳的第八期注册资本140,000万元。

本次实收资本变更完成后，华力微的股权结构如下：

金额单位：人民币万元

序号	股东名称	认缴出资额	实缴出资额	股权比例%
1	上海联和投资有限公司	580,000.00	580,000.00	73.42
2	上海华虹（集团）有限公司	70,000.00	70,000.00	8.86
3	上海华虹NEC电子有限公司	70,000.00	70,000.00	8.86
4	上海宏力半导体制造有限公司	70,000.00	35,000.00	8.86
	合计	**790,000.00**	**755,000.00**	**100.00**

（9）2014年2月实收资本变更

根据上海立信佳诚东审会计师事务所有限公司于2014年2月14日出具的沪立信佳诚验字（2014）第1001号《验资报告》，截至2014年2月13日，华力微已收到上海宏力半导体制造有限公司以货币缴纳的第九期注册资本35,000万元。

本次实收资本变更完成后，华力微的股权结构如下：

金额单位：人民币万元

序号	股东名称	认缴出资额	实缴出资额	股权比例%
1	上海联和投资有限公司	580,000.00	580,000.00	73.42
2	上海华虹（集团）有限公司	70,000.00	70,000.00	8.86
3	上海华虹NEC电子有限公司	70,000.00	70,000.00	8.86
4	上海宏力半导体制造有限公司	70,000.00	70,000.00	8.86
	合计	**790,000.00**	**790,000.00**	**100.00**

（10）2016年4月股东变更

根据上海华虹NEC电子有限公司与上海宏力半导体制造有限公司于2012年4月23日签订的《上海华虹NEC电子有限公司与上海宏力半导体制造有限公司合并协议》，双方以新设合并方式设立公司，名称为“上海华虹宏力半导体制造有限公司”，合并后，上海华虹NEC电子有限公司与上海宏力半导体制造有限公司解散，其债权、债务全部由上华虹宏力承继。据此，华虹NEC及上海宏力半导体制造有限公司持有的华力微股

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权均变更为由合并后的华虹宏力持有。

本次股东变更完成后，华力微的股权结构如下：

金额单位：人民币万元

序号	股东名称	认缴出资额	实缴出资额	股权比例%
1	上海联和投资有限公司	580,000.00	580,000.00	73.42
2	上海华虹宏力半导体制造有限公司	140,000.00	140,000.00	17.72
3	上海华虹（集团）有限公司	70,000.00	70,000.00	8.86
	合计	**790,000.00**	**790,000.00**	**100.00**

（11）2016年12月第二次增资

2016年11月18日，华力微股东会作出《关于同意上海华力微电子有限公司增资的决议》，同意华力微注册资本由790,000万元增至2,190,000万元，其中上海联和投资有限公司以520,000万元的价格认缴新增注册资本520,000万元，上海集成电路产业基金以880,000万元的价格认缴新增注册资本880,000万元。

本次增资完成后，华力微的股权结构如下：

金额单位：人民币万元

序号	股东名称	认缴出资额	实缴出资额	股权比例%
1	上海联和投资有限公司	1,100,000.00	1,100,000.00	50.2283
2	上海集成电路产业投资基金股份有限公司	880,000.00	880,000.00	40.1827
3	上海华虹宏力半导体制造有限公司	140,000.00	140,000.00	6.3927
4	上海华虹（集团）有限公司	70,000.00	70,000.00	3.1963
	合计	**2,190,000.00**	**2,190,000.00**	**100.0000**

（12）2019年12月第一次股权转让及第三次增资

2019年12月13日，华力微股东会作出《关于上海华力微电子有限公司股权变更和增资的决议》，同意上海联和投资有限公司将其所持有的华力微50.2283%股权（对应注册资本1,100,000万元）以1,148,510万元的价格转让给上海华虹（集团）有限公司；同意华力微注册资本由2,190,000万元增至2,207,239.727995万元，新增17,239.727995万元注册资本由上海华虹（集团）有限公司以18,000.00万元的价格进行认缴。

本次股权转让及增资完成后，华力微的股权结构如下：

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金额单位：人民币万元

序号	股东名称	认缴出资额	实缴出资额	股权比例%
1	上海华虹（集团）有限公司	1,187,239.727995	1,187,239.727995	53.7884
2	上海集成电路产业投资基金股份有限公司	880,000.000000	880,000.000000	39.8688
3	上海华虹宏力半导体制造有限公司	140,000.000000	140,000.000000	6.3428
	合计	**2,207,239.727995**	**2,207,239.727995**	**100.0000**

（13）2023年11月第四次增资

2023年11月18日，华力微股东会作出决议，同意华力微增资，增资方为上海华虹（集团）有限公司，国家集成电路产业投资基金二期股份有限公司。

本次增资完成后，华力微的股权结构如下：

金额单位：人民币万元

序号	股东名称	股权比例（%）
1	上海华虹（集团）有限公司	53.85
2	上海集成电路产业投资基金股份有限公司	30.98
3	国家集成电路产业投资基金二期股份有限公司	10.24
4	上海华虹宏力半导体制造有限公司	4.93
	合计	**100.00**

（14）2025年4月第五次增资

2025年3月28日，华力微股东会作出决议，同意华力微增资，增资方为上海华虹（集团）有限公司，上海国投先导集成电路私募投资基金合伙企业（有限合伙），国家集成电路产业投资基金二期股份有限公司。

本次增资完成后，华力微的股权结构如下：

金额单位：人民币万元

序号	股东名称	股权比例（%）
1	上海华虹（集团）有限公司	63.54
2	上海集成电路产业投资基金股份有限公司	15.72
3	国家集成电路产业投资基金二期股份有限公司	10.25
4	上海国投先导集成电路私募投资基金合伙企业（有限合伙）	7.98
5	上海华虹宏力半导体制造有限公司	2.50
	合计	**100.00**

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（15）2025年8月分立

2025年6月26日，华力微股东会通过了《关于公司分立的决议》（沪华力微股（2025）第4号），同意华力微进行分立，分立基准日为2024年11月30日，分立后华力微继续存续，同时将华力微的长期股权投资及相应的业务、资产、债权债务、人员及其他约定权利义务依法分出给新设公司；分立后，华力微的注册资本变更为203,619.219806万元，分立后的各公司股东持股比例与分立前保持一致，分立前的债务由分立后的华力微及新设公司承担连带责任。

2025年6月26日，华力微于报纸发布了关于华力微分立事宜的公告。2025年6月27日至2025年7月4日，华力微向债权人发出《债权人通知书》。

本次分立完成后截至评估基准日，华力微的股权结构如下：

金额单位：人民币万元

序号	股东名称	认缴出资额（万元）	实缴出资额（万元）	股权比例（%）
1	上海华虹（集团）有限公司	129,388.277164	129,388.277164	63.54
2	上海集成电路产业投资基金股份有限公司	32,012.074045	32,012.074045	15.72
3	国家集成电路产业投资基金二期股份有限公司	20,871.634314	20,871.634314	10.25
4	上海国投先导集成电路私募投资基金合伙企业（有限合伙）	16,254.404321	16,254.404321	7.98
5	上海华虹宏力半导体制造有限公司	5,092.829962	5,092.829962	2.50
合计		203,619.219806	203,619.219806	100.00

2.公司经营状况

（1）主营业务情况

华力微以逻辑工艺为基础，同时深耕特色工艺，为设计公司、IDM公司和其他系统公司提供包括逻辑与射频、嵌入式/独立式非易失性存储器、高压等多元化工艺平台的晶圆代工及配套服务。

华力微在半导体制造领域拥有超过15年的技术积累，长期坚持自主创新，不断研发并掌握了特色工艺的关键核心技术，目前拥有中国大陆第一条全自动12英寸集成电路Foundry生产线，工艺水平达到65/55nm、40nm技术等级，设计产能3.8万片/月。

华力微广泛的工艺组合为客户提供完整的技术解决方案，应用于通信、消费电子等终端产品市场，生产的芯片产品涵盖基带处理器、图像传感器、中小尺寸液晶屏驱动

芯片、触控屏控制器、触控和显示驱动二合一芯片、无线连接射频、微处理器、智能卡、机顶盒集成芯片、电源管理芯片等。

（2）主要产品及服务

华力微主要向客户提供12英寸晶圆的特色工艺代工服务，在不同工艺平台上，按照客户需求为其制造多种类的半导体产品；同时为客户提供包括设计、测试等配套服务。

1）晶圆代工服务

华力微紧密围绕市场需求，立足成熟技术节点与特色工艺平台，通过集中优势研发力量进行针对性攻关，持续深化与拓展其技术平台。通过多年不断地技术积累，现已涵盖逻辑与射频、嵌入式/独立式存储器、高压等多元化工艺平台。

① 逻辑与射频

华力微依托自身成熟的55nm逻辑工艺技术与量产经验，成功自主研发了55nm超低功耗工艺技术。该技术作为实现物联网与可穿戴设备芯片制造的关键，通过与国际领先的集成电路设计公司合作，重点优化了器件工作电压与漏电流控制，并开发出超高阈值电压器件，从而快速完成了工艺认证并实现量产出货。此项自主创新技术平台的建立，不仅助力华力微在超低功耗领域抢占市场先机，切入物联网与可穿戴设备市场，更以此为基点，向40nm技术节点延伸，成功开发了40nm低功耗逻辑平台及成套生产工艺。该平台采用超浅结、激光退火与多孔超低介电常数材料等先进技术，在性能与功耗之间实现优异平衡，并已进入量产阶段。平台不仅通过Grade1汽车电子级认证，助力公司获得IATF16949体系认证，更具备完善的设计环境，可支持丰富的单元库与IP，多款产品已通过大规模量产验证，性能表现卓越。自2015年3月首批产品出货以来，华力微在汽车电子、数字电视、视频监控、蓝牙耳机等领域持续拓展，并于2019年实现射频工艺平台量产。

华力微依托55nm低功耗逻辑平台，像素工艺采用与客户合作开发的方式，2013年成功打造了55nmCIS平台并成功导入首颗CIS手机类产品，2014年起手机类产品开始规模量产。后续几年间华力微不断拓展CIS应用范围，成功开发了安监类、医疗类等产品。尤其是近3年，近红外监控、0.7微米极小像素类等产品的开发和量产，使得华

力微CIS应用进一步拓宽，范围涵盖旗舰手机前摄、PC、高端安防、指纹识别、车载等诸多领域。

②嵌入式/独立式存储器

华力微基于自主开发的55nm低功耗平台，构建了55nm嵌入式闪存平台，通过引入SONOS工艺并优化2T+SONOS结构，显着提升了能效表现与工作灵活性，增强了系统兼容性并有效控制了成本。作为华力微的特色工艺，55nm嵌入式闪存平台建立了完整的SPICE模型与PDK，具备完善的设计数据库与IP资源，能够充分满足客户的多元化需求。相较于传统合封MCU方案，55nm嵌入式闪存平台所实现的MCU类产品在工艺复杂度、成本结构及系统兼容性方面均表现出显着优势，具备更强的市场竞争力。目前，该平台主要聚焦于MCU类产品的工艺开发与性能提升，相关产品已广泛应用于消费电子、智能家居及工业控制等领域。（MCU：即Micro controller Unit，指微控制单元，又称单片微型计算机或者单片机，是把中央处理器的频率与规格做适当缩减，并将内存、计数器、USB、A/D转换、UART、PLC、DMA等周边接口，甚至LCD驱动电路都整合在单一芯片上，形成芯片级的计算机，为不同的应用场合做不同组合控制）

自2017年实现55nmSONOS存储技术大规模量产以来，华力微持续推进技术迭代，并于2020年成功突破40nmSONOS存储技术。55nmSONOS技术具备低成本、低功耗与高可靠性等核心优势，产品覆盖低功耗存储、触控、高速MCU、嵌入式FPGA、智能卡、安全芯片及NB-IOT等多个领域，对我国实现信息安全和产业技术升级具有重要战略意义。

③高压

华力微55nm高压工艺平台基于成熟的55nm低功耗平台构建，通过工艺流程架构的优化，成功集成了1.2V低压、5V/6V/8V中压以及32V高压三类器件。这些器件在电气特性上相互独立，互不制约，可分别进行灵活调试，为不同系列产品的研发提供了充分的设计空间。该平台集成度高，能够全面满足液晶驱动芯片设计的多样化需求，性能达到业界领先水平。

基于此55nm高压平台，华力微成功开发了全国产OLED及其他全系列应用驱动芯片。通过与国内设计公司及知名面板厂商的紧密合作，华力微有效支持了本土设计企业的发展，共同构建了全系列驱动芯片完整产业链。依托驱动芯片市场的广阔前景以及华力微扎实的制造基础，该平台形成了具有自主知识产权的技术体系，可满足从低

端到高端各类终端应用的需求，为“物联网”建设的持续推进提供了坚实支撑。

2）配套服务

①多元化设计服务

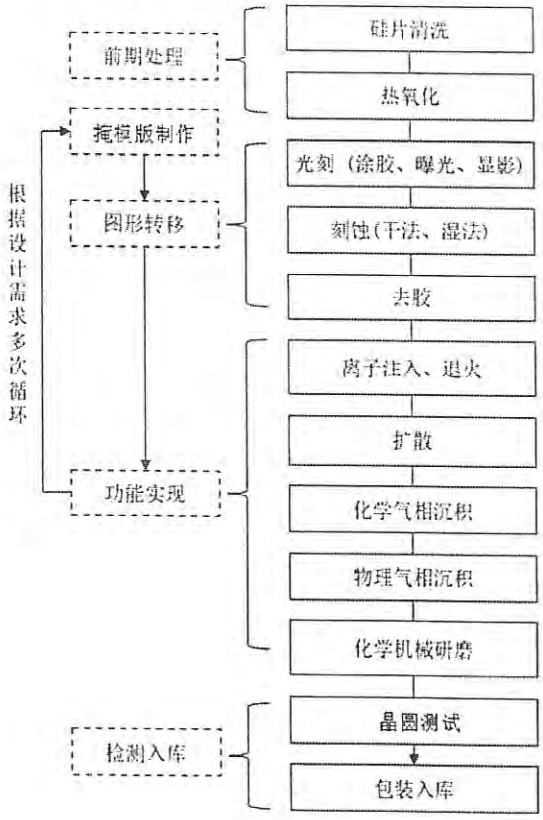
华力微建立了较为完善的设计服务支持平台，包括流片支持、内部 IP 设计、版图及验证、失效分析、测试设计等，能够为设计公司提供良好的设计流程、技术文件、IP 开发等必不可少的支持，为客户量产提供高效高质量的服务工作。

②测试服务

华力微打造了一整套先进的测试、评估、分析平台，建设了涵盖产品工程、测试工程、可靠性工程、失效分析等精密设备硬件基础，为客户提供一站式设计验证、测试开发、电性物性分析、良率提升等配套服务。

（3）主要产品的工艺流程

华力微主要以晶圆代工模式从事半导体制造业务，一般性工艺流程如下：



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工艺流程介绍：

1）前期处理

①硅片清洗

使用喷淋或沉浸的方式，先用多种化学品对半导体硅片进行清洗，再用超纯水对半导体硅片进行二次清洗去除残留的化学液。清洗工序的目的是去除半导体硅片表面的尘埃颗粒、残留有机物、表面金属离子等杂质，提高后续生长热氧化层的质量，保证后续工艺的稳定性（后续每步操作后亦有清洗工序）。

②热氧化

在高温氧气和惰性气体的环境下，在半导体硅片表面生成二氧化硅薄膜。

2）掩模版制作

掩模版由其他专业厂商生产，华力集当前不涉及掩模版制造业务。

3）图形转移

①光刻

光刻主要由涂胶、曝光和显影三个步骤组成：A涂胶：将光刻胶均匀地涂布在旋转的半导体硅片上；B曝光：利用光刻机，通过特定波长的光线的照射，改变光刻胶的性质，将光掩模版上的电路图形转移到光刻胶上；C显影：利用显影液，去除曝光后光刻胶中的可溶解部分，准确地使光刻胶上形成图形。

②刻蚀

刻蚀是在光刻后，有选择性地去除半导体硅片上未被光刻胶覆盖区域的材料。常见的刻蚀方法包括湿法刻蚀和干法刻蚀，其中：湿法刻蚀使用液态化学品进行刻蚀，干法刻蚀利用等离子体进行刻蚀。

③去胶

刻蚀完成后，去除半导体硅片上未被溶解的光刻胶。

4）器件结构形成与功能实现

①离子注入、退火

在真空、低温的环境下，将特定种类的杂质离子以高能离子束的形式植入晶圆表面的特定区域，常见的离子元素种类包括硼、磷、砷等。离子注入后，在高温环境下消除离子注入导致的晶格缺陷，改变晶圆表面及内部的微观结构，以实现特定性能。

②扩散

在高温环境下，使杂质离子在不同离子浓度的区域间发生转移，改变和控制晶圆内杂质的类型、浓度和分布，形成不同电特性的区域，改变晶圆的电特性。

③化学气相沉积

利用不同分压的气态化学原材料在晶圆表面发生化学反应，并在晶圆表面沉积一层固态薄膜。

④物理气相沉积

利用溅射镀膜、真空蒸发、离子体镀膜、分子束外延等物理方法，轰击靶材，在晶圆表面沉积一层固态薄膜。

⑤化学机械研磨

利用机械摩擦和化学反应对晶圆进行抛光，使晶圆表面平坦化。

5）检测入库

①晶圆测试

晶圆加工完成后，使用探针等检测设备对晶圆性能进行测试，验证其功能是否符合工艺平台的规格要求。

②包装入库

将检测合格的晶圆真空包装后入库。

（4）主要经营模式、盈利模式和结算模式

1）采购模式

华力微制定《采购审批制度》《采购管理规程》等制度规范采购行为，建立完善的采购管理体系和规程。标的公司采购活动，均按照年度预算的要求，由需求部门或主管部门根据实际的投资需求、运营需求，以请购单方式提出并经过审批，其中，生产用原材料和备件的请购由生产计划部物料控制科根据生产计划、库存量和交货期等提出。

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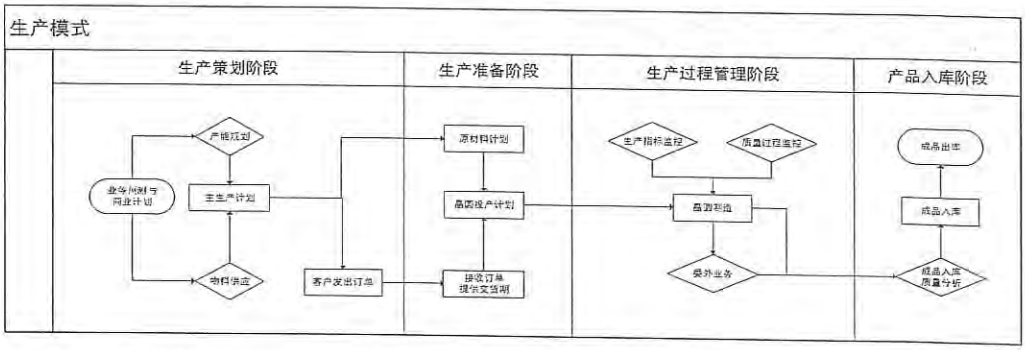
生产计划部采购科收到请购需求后，核对请购单准确性，确认无误后依据采购需求开展采购活动。华力微根据不同采购类别确定恰当的采购方式和标准，依法开展招标采购活动与直接采购活动，遵循公开、公平、公正和诚实信用原则，达到科学、择优的采购目的，保证采购质量，提高经济效益，最大限度降低综合采购成本，所有采购行为均依据公司制度由相应的采购审批机构进行审批。

生产计划部采购科与供应商签署采购订单并跟踪交期，物流科负责运输、报关工作，仓储科负责来料的接收、存储工作，品质与可靠性部负责原材料的质量检验工作，固定资产、无形资产、服务等由用户部门进行检查、验收。各部门通力协作开展多元化、国产化工作，不断导入备选供应商，健全供应链体系，针对关键物料的供应风险进行评估并制定相应对策，降低采购风险，以保持业务连续性。

2）生产模式

华力微根据销售预测规划产能并确定主生产计划（即生产计划，依据市场预测与产能情况规划产品生产计划），按客户订单需求进行投产，产品从生产策划到成品出库主要经过四个阶段，分别为生产策划阶段、生产准备阶段、生产过程管理阶段以及产品入库阶段，具体流程如下：



①生产策划阶段

在生产策划阶段，销售部提供从客户处获取的未来的业务预测以及与客户达成的商业计划，生产计划部按照业务预测以及产能规划，根据客户需求、客户订单、产能、原材料供应情况和工艺技术准备情况，制定主生产计划。

②生产准备阶段

在生产准备阶段，物料控制科根据主生产计划制定原材料计划并协同采购及时准

备原材料。生产计划部根据主生产计划及原材料计划制定投产计划。

③生产过程管理阶段

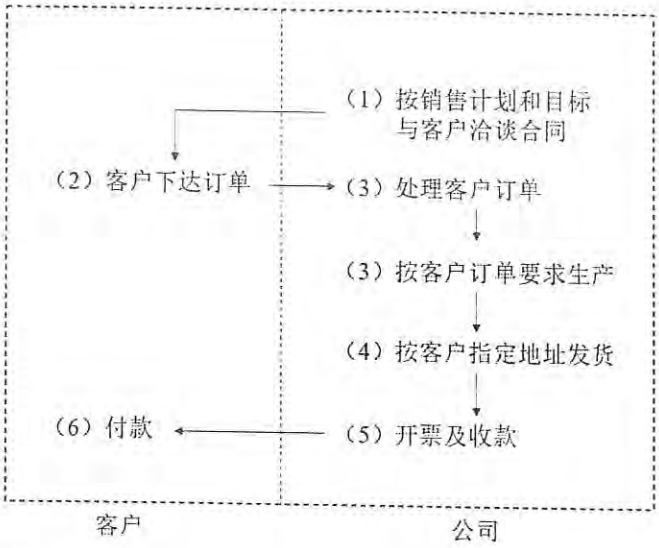
在生产过程管理阶段，制造部根据主生产计划及投产计划安排和管理晶圆生产，生产计划部监督生产周期、生产进度，产量等指标，品质与可靠性部负责产品的质量管控。生产计划部根据客户委外业务需求，安排晶圆相应委外业务。

④产品入库阶段

在产品入库阶段，完成全部生产流程的产品经检验合格后入库。

3）销售和结算方式

华力微采用直销模式开展销售业务，与客户直接沟通并形成符合客户需求的解决方案，最终达成与客户签订订单。销售流程如下：



①制定销售计划

销售部门基于市场信息与客户需求拟订公司年度销售计划后，销售部门按照计划目标和客户沟通，并定期更新客户需求预测和情况，将客户需求的变化反馈回公司相关部门。

② 签订合同和处理订单

与客户签订合同，达成业务关系后，销售人员根据客户需求将公司主管核准的报价单提供给客户，客户通过邮件或传真等方式向销售人员/客户服务人员下达订单，客户服务人员将订单下达到内部进行生产，并反馈预计交货时间给客户。

③生产制造

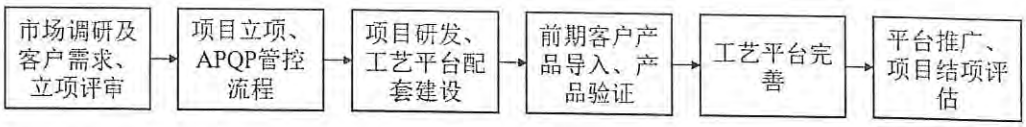
销售部门收到客户订单后按业务计划安排生产，生产计划部根据此业务计划结合产能情况制定相应的投入和产出计划并生成产品交货日期，公司根据客户的要求通过系统或邮件的方式及时告知客户产品的生产状态。

④发货与收款开票

产品生产完毕后通常由客户服务人员根据客户要求安排发货至指定地点。客户依据协议的付款周期安排付款，财务部在收到客户的付款后，进行财务复核并完成相关账务处理。

4）研发模式

华力微的研发策略主要依靠自主研发对各类工艺平台进行技术创新与升级。公司为规范并加强项目运行过程的管理，建立了较为完善的研发体系及项目管理流程，明确项目组成员职责及目标，从项目的立项、研发及结案全过程进行规范，并通过新项目立项申请流程、产品质量先期策划规程等进行分阶段、系统性管理。公司的具体研发流程如下：



注：APQP 指 Advanced Product Quality Program，即产品质量先期策划。

5）盈利模式

华力微主要从事基于不同工艺节点、不同技术的工艺平台的可定制半导体晶圆代工服务从而实现收入和利润。

3.公司近年财务状况

截至评估基准日，华力微资产合计为725,850.28万元，负债合计为525,658.90万元，所有者权益为200,191.38万元。公司近年财务状况如下：

金额单位：人民币万元

项目\年份	2023年12月31日	2024年12月31日	2025年8月31日
资产总额	889,982.17	625,889.26	725,850.28
负债总额	815,741.47	499,195.99	525,658.90
所有者权益	74,240.70	126,693.27	200,191.38

项目\年份	2023年	2024年	2025年1-8月
营业收入	257,920.73	498,797.09	343,066.86
利润总额	-37,229.11	52,152.40	51,464.21
净利润	-37,229.11	52,152.40	51,464.21

上述数据摘自于大华会计师事务所（特殊普通合伙）出具的无保留意见审计报告的审计数据，报告文号为：大华审字【2025】0011016213号。

公司根据实际发生的交易和事项，按照财政部颁布的《企业会计准则——基本准则》和具体企业会计准则、企业会计准则应用指南、企业会计准则解释及其他相关规定进行确认和计量，在此基础上，结合中国证券监督管理委员会《公开发行证券的公司信息披露编报规则第15号——财务报告的一般规定》(2023年修订)的规定，编制模拟财务报表。模拟财务报表涉及以下事项：

（1）模拟华力微在报告期内均已完成存续分立。华力微于2025年8月21日完成存续分立，华力微（分立前主体）分立为分立后的华力微（现存续主体）和新设公司。公司对2025年8月21日之前的报告期财务报表数据按照分立拆分原则，进行模拟拆分：即假设华力微于报告期初即已完成了存续分立，按照分立协议约定分立拆分原则完成财务数据的拆分。

（2）公司模拟于报告期期初即已执行华虹半导体有限公司的会计估计及会计政策，并已作了追溯调整。

4.主要税种和优惠政策

企业执行企业会计准则，增值税率为13%、9%、6%、3%和0%，城市维护建设税税率为5%，教育费附加及地方教育费附加税率分别为3%、2%。

根据国务院颁布的《国务院关于印发新时期促进集成电路产业和软件产业高质量发展若干政策的通知》（国发[2020]8号）和财政部、税务总局、发展改革委及工业和信息化部颁布的《关于促进集成电路产业和软件产业高质量发展企业所得税政策的公

告》（财政部税务总局发展改革委工业和信息化部公告[2020]45 号）的相关规定，本公司为集成电路线宽小于 65 纳米（含），且经营期在 15 年以上的集成电路生产企业，按照税法相关规定可以自获利年度起，第一年至第五年免征企业所得税，第六年至第十年按照 25%的法定税率减半征收企业所得税。

（三）委托人与被评估单位之间的关系

委托人一上海华虹（集团）有限公司是持有被评估单位上海华力微电子有限公司63.5443%股权的控股股东，委托人二华虹半导体有限公司是拟发行股份购买资产的收购方。

（四）其他资产评估报告使用人

根据资产评估委托合同约定，本资产评估报告使用人为委托人、相关管理及监管单位，委托合同中约定的其他资产评估报告使用人，以及国家法律、行政法规规定的资产评估报告使用人，其他任何第三方均不能由于得到本资产评估报告而成为本资产评估报告的合法使用人。

二、评估目的

根据上海华虹（集团）有限公司《关于推进彩虹项目的决议》（沪华虹董[2025]第8号）、华虹半导体有限公司《董事会决议》（港华董（2025）第15号）以及上海华力微电子有限公司《关于同意公司股权转让的决议》（沪华力微股(2025) 第12号），华虹半导体有限公司拟通过发行股份的方式向上海华虹(集团)有限公司、上海集成电路产业投资基金股份有限公司、国家集成电路产业投资基金二期股份有限公司、上海国投先导集成电路私募投资基金合伙企业(有限合伙)等4名华力微股东购买其持有的华力微97.4988%股权。

三、评估对象和评估范围

（一）评估对象

评估对象为被评估单位股东全部权益价值。评估对象与拟实施的经济行为一致。

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（二）评估范围

评估范围为被评估单位全部资产及全部负债，具体包括流动资产、非流动资产及负债等。被评估单位申报的全部资产合计账面价值7,258,502,795.25元，负债合计账面价值5,256,589,024.59元，所有者权益2,001,913,770.66元。委托评估范围与拟实施的经济行为所涉及的评估范围一致。

本资产评估报告的账面资产类型与账面金额业经大华会计师事务所（特殊普通合伙）审计，出具了标准无保留意见的专项审计报告，报告文号为：大华审字【2025】0011016213号。

（三）委估资产的主要情况

本次评估范围中委估资产主要为流动资产、非流动资产，其中非流动资产主要包括长期应收款、固定资产、在建工程、使用权资产、无形资产、长期待摊费用、其他非流动资产，具体情况如下：

1.流动资产

流动资产主要由货币资金、应收票据、应收账款、预付款项、其他应收款、存货、一年内到期的非流动资产、其他流动资产等组成。

2.长期应收款

长期应收款系华力微设备出租的租赁收入。

3.设备

华力微拥有的设备共28,122台（套），按其不同用途分为机器、车辆、电子设备及其他设备三类。

（1）机器设备2,756台（套），主要有：半导体器件加工专用设备等集成电路科研生产设备及其配套设施，以及安保系统、变配电设备、纯水废水废液系统、公用动力设备、化学品输运系统、洁净室系统及一般机电系统、特气系统、消防系统等配套系统，集成电路科研生产设备及其配套设施均为企业自行采购，经安装调试完成验收后投入使用，分布于净化车间，运行状况良好；配套系统主要分布于辅助生产楼。

（2）车辆2辆，为别克商务车、本田奥德赛混合动力多用途乘用车各1辆。

（3）电子设备及其他设备25,364台（套），主要有：光罩盒、叉车、磁盘列阵等

网络设备、成像仪等仪器设备、办公家具、空调、投影仪、复印机、电视机、冰箱、电脑等，主要分布于辅助生产楼和各职能部门。

上述设备中20,234台（套）设备账面原值为零值，主要包括：机器设备138台（套），电子设备及其他设备20,096台（套）。账面原值为零值的原因包括供应商无偿赠送、因模拟报表口径变化原因调整部分资产一次性费用化处理，以及采用政府补助净额法核算等原因。具体详见“（五）被评估单位申报的表外资产的类型、数量”。

4.在建工程

在建工程—设备安装工程账面值为137,406,487.45元，其中设备费134,537,892.13元，资金成本0.00元，安装费及其他2,868,595.32元，为物理气相沉积氮化钽、铜薄膜设备、高覆盖率多晶硅成膜设备、技术授权及IP共享服务平台等，共计111项。

5.使用权资产

截至评估基准日，华力微的租赁事项如下：

序号	出租方	租赁地址	租赁面积	租赁期限	用途
1	上海宏力半导体制造有限公司	上海市浦东新区张江高科技园区13街坊2丘厂房	91,563.11平方米	2010年3月1日至2030年2月28日	厂房
2			化学品仓库、动力厂房和生产厂房	自验收合格交付之日起20年	
3			192平方米	2021年6月1日至2025年12月31日	厂房

6.长期待摊费用

长期待摊费用均系待摊的厂房装修费用。

7.其他非流动资产

其他非流动资产主要为设备预付款。

（四）被评估单位申报的其他无形资产

1.账面记录的无形资产

华力微申报的账面记录的无形资产主要为外购软件、IP及License等，共244项，原始入账金额511,322,687.50元，账面价值129,892,439.12元。

2.账面未记录的无形资产

华力微申报的账面未记录的无形资产主要为专利和集成电路布图，具体如下：

（1）已授权专利

华力微申报的已授权专利共2043项，具体清单详见“报告附表-专利清单”。

（2）已申请未授权专利

华力微申报的未授权专利共434项，具体清单详见“报告附表-专利清单”。

（3）集成电路布图设计

截至评估基准日，华力微拥有10项集成电路布图设计，具体如下：

序号	申请号	布图设计名称	申请日	授权日
1	BS.165515805	HL55LPPOR06S1V1P0	2016-08-29	2016-10-11
2	BS.165515813	HL55LPPOR12D1V1P0	2016-08-29	2016-10-12
3	BS.165515791	HL55LPAD12S025D1V1	2016-08-29	2016-10-12
4	BS.165515783	AD12S025D1V1_DAC	2016-08-29	2016-10-11
5	BS.165515775	HL55LPBGR12D1V1P0 TOP_B	2016-08-29	2016-10-12
6	BS.165515767	HL55LPVR100D1V1P0	2016-08-29	2016-10-11
7	BS.165515759	HL55LPBGR12D1V1P0 TOP_A	2016-08-29	2016-10-12
8	BS.165515732	HL55LPPLL1500S1V1P0_A	2016-08-29	2016-10-12
9	BS.165515740	HL55LPPLL1500D1V1P0	2016-08-29	2016-10-11
10	BS.165515724	HL55LPLD0100D1V1P0	2016-08-29	2016-10-11

（五）被评估单位申报的表外资产的类型、数量

华力微目前共有20,234台（套）设备账面原值为零值，主要包括：机器设备138台（套），电子设备及其他设备20,096台（套）。账面原值为零值的原因包括供应商无偿赠送、因模拟报表口径变化原因调整部分资产一次性费用化处理，以及采用政府补助净额法核算等原因。具体如下：

（1）供应商赠送设备共计93台（套），其中机器设备54台（套），电子设备及其他设备39台（套）。

（2）因模拟报表口径变化原因调整部分资产一次性费用化的设备共计20,033台（套），均为价值较低的电子设备及其他设备。

（3）企业对于获得政府补助采购的设备采用净额法核算，将补助款直接冲抵固定资产原值，导致其中108台（套）设备账面原值为零，其中机器设备84台（套），电

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子设备及其他设备24台（套）。

经清查，上述账面未反映的设备类资产仍可正常使用，主要分布于辅助生产楼和各职能部门，本次将这部分固定资产纳入评估范围。

除此之外，被评估单位未申报其他表外资产。

（六）引用其他机构出具的报告结论所涉及的资产类型、数量和账面金额

本资产评估报告无引用其他机构出具的报告结论情况。

四、 价值类型及其定义

考虑到本次评估目的为发行股份购买资产，而所执行的资产评估业务对市场条件和评估对象的使用等并无特别限制和要求，因此根据评估目的、市场条件、评估对象自身条件等因素，确定本次评估对象的价值类型为市场价值。

市场价值是指自愿买方和自愿卖方在各自理性行事且未受任何强迫的情况下，评估对象在评估基准日进行正常公平交易的价值估计数额。

“公平交易”是指在没有特定或特殊关系的当事人之间的交易，即假设在互无关系且独立行事的当事人之间的交易。

五、 评估基准日

本项目资产评估基准日为2025年8月31日。

评估基准日是在综合考虑经济行为实施的需要、会计期末资料提供的便利，以及评估基准日前后利率和汇率的变化情况，由资产评估师与委托人协商后确定。

六、 评估依据

本次资产评估遵循的评估依据情况具体如下：

（一）经济行为依据

1. 上海华虹（集团）有限公司《关于推进彩虹项目的决议》（沪华虹董[2025]第8号）；

2. 华虹半导体有限公司《董事会决议公告》（港华董（2025）第15号）；

3. 上海华力微电子有限公司《关于同意公司股权转让的决议》（沪华力微股(2025)

第12号）；

（二）法律法规依据

1.《中华人民共和国资产评估法》（2016年7月2日第十二届全国人民代表大会常务委员会第二十一次会议通过）；

2.《中华人民共和国公司法》（2023年12月29日第十四届全国人民代表大会常务委员会第七次会议修正）；

3.《中华人民共和国证券法》（2019年12月28日第十三届全国人民代表大会常务委员会第十五次会议修订）；

4.《资产评估行业财政监督管理办法》（财政部令第86号发布，财政部令第97号修改）；

5.《中华人民共和国企业国有资产法》（2008年10月28日第十一届全国人民代表大会常务委员会第五次会议通过）；

6.《企业国有资产监督管理暂行条例》（国务院令第378号，国务院令第709号修订）；

7.《国有资产评估管理办法》（国务院令第91号，2020年国务院令第732号修订）；

8.《关于印发<国有资产评估管理办法施行细则>的通知》（国资办发[1992]36号）；

9.《企业国有资产评估管理暂行办法》（国务院国有资产监督管理委员会令第12号）；

10.《关于加强企业国有资产评估管理工作有关问题的通知》（国资委产权[2006]274号）；

11.《上市公司国有股权监督管理办法》（国资委、证监会、财政部令第36号）；

12.《关于企业国有资产评估报告审核工作有关事项的通知》（国资产权[2009]941号）；

13.《企业国有资产评估项目备案工作指引》（国资发产权[2013]64号）；

14.《上海市企业国有资产评估报告审核手册》（沪国资委评估[2018]353号）；

15.《上海市企业国有资产评估管理暂行办法》（沪国资委评估[2019]366号）；

16.《上海市企业国有资产评估核准备案操作手册》（沪国资委评估[2020]100号）；

17.《中华人民共和国企业所得税法》（2018年12月29日第十三届全国人民代表大

会常务委员会第七次会议第二次修正）；

18. 国务院关于废止《中华人民共和国营业税暂行条例》和修改《中华人民共和国增值税暂行条例》的决定（国务院令第691号）；

19. 《中华人民共和国增值税暂行条例实施细则》（财政部、国家税务总局令第50号，依据2011年财政部、国家税务总局令第65号修订）；

20. 《关于全面推开营业税改征增值税试点的通知》（财税第[2016]36号）；

21. 《财政部税务总局关于调整增值税税率的通知》（财税[2018]32号）；

22. 《关于深化增值税改革有关政策的公告》（财政部税务总局海关总署公告2019年第39号）；

23. 《中华人民共和国专利法》（2020年10月17日第十三届全国人民代表大会常务委员会第二十二次会议第四次修订）；

24. 《中华人民共和国民法典》（2020年5月28日十三届全国人大三次会议表决通过）；

25. 《中华人民共和国车辆购置税法》（2018年12月29日第十三届全国人民代表大会常务委员会第七次会议通过）

26. 其他与评估工作相关的法律法规。

（三）评估准则依据

1. 《资产评估基本准则》（财资[2017]43号）；

2. 《资产评估职业道德准则》（中评协[2017]30号）；

3. 《资产评估执业准则—资产评估委托合同》（中评协[2017]33号）；

4. 《资产评估执业准则—利用专家工作及相关报告》（中评协[2017]35号）；

5. 《资产评估执业准则—无形资产》（中评协[2017]37号）；

6. 《资产评估执业准则—机器设备》（中评协[2017]39号）；

7. 《资产评估执业准则—资产评估报告》（中评协[2018]35号）；

8. 《资产评估执业准则—资产评估程序》（中评协[2018]36号）；

9. 《资产评估执业准则—资产评估档案》（中评协[2018]37号）；

10. 《资产评估执业准则—企业价值》（中评协[2018]38号）；

11. 《资产评估执业准则—资产评估方法》（中评协[2019]35号）；

12.《资产评估执业准则—知识产权》（中评协[2023]14号）；

13.《企业国有资产评估报告指南》（中评协[2017]42号）；

14.《资产评估机构业务质量控制指南》（中评协[2017]46号）；

15.《资产评估价值类型指导意见》（中评协[2017]47号）；

16.《资产评估对象法律权属指导意见》（中评协[2017]48号）；

17.《专利资产评估指导意见》（中评协[2017]49号）；

（四）资产权属依据

1. 国家出资企业产权登记证；

2. 房屋租赁合同；

3. 专利权证书或申请通知书；

4. 著作权（版权）证书；

5. 机动车行驶证；

6. 重要资产购置合同或记账凭证；

7. 固定资产台账、记账账册等；

8. 其他资产权属证明资料。

（五）评估取价依据

1. 全国银行间同业拆借中心受权公布的最新贷款市场报价利率（LPR）；

2. 中国人民银行外汇管理局公布的基准日汇率中间价；

3.《机电产品报价手册》中国机械工业出版社；

4.《懂车帝》等网上汽车价格信息资料；

5. 设备网上可予查询的价格信息资料；

6. 被评估单位历史年度财务报表、审计报告；

7. 被评估单位管理层提供的历史年度合同、订单资料；

8. 同花顺资讯系统有关金融数据及资本市场信息资料；

9. 资产评估师现场勘察记录及收集的其他相关估价信息资料。

（六）其他参考资料

1. 被评估单位及其管理层提供的评估基准日会计报表、账册与凭证以及资产评估申报表；

2.《资产评估常用技术指标和参数大全》（经济管理出版社2019年版）；

3.《机动车强制报废标准规定》（商务部、发改委、公安部、环境保护部令2012年第12号）；

4. 国家宏观经济、行业、区域市场及企业统计分析资料；

5. 上海东洲资产评估有限公司技术统计资料；

6. 其他相关参考资料。

七、评估方法

（一）评估方法概述

依据《资产评估基本准则》、《资产评估执业准则—资产评估方法》，确定资产价值的评估方法包括市场法、收益法和成本法三种基本方法及其衍生方法。

依据《资产评估执业准则—企业价值》，执行企业价值评估业务可以采用收益法、市场法、成本法（资产基础法）三种基本方法：

收益法是指将预期收益资本化或者折现，确定评估对象价值的评估方法。对企业价值评估采用收益法，强调的是企业的整体预期盈利能力。

市场法是指将评估对象与可比上市公司或者可比交易案例进行比较，确定评估对象价值的评估方法。对企业价值评估采用市场法，具有评估数据直接选取于市场，评估结果说服力强的特点。

资产基础法是指以被评估单位评估基准日的资产负债表为基础，合理评估企业表内及可识别的表外各项资产、负债价值，确定评估对象价值的评估方法。对企业价值评估采用资产基础法，可能存在并非每项资产和负债都可以被充分识别并单独评估价值的情形。

（二）评估方法的选择

依据《资产评估执业准则—企业价值》，“执行企业价值评估业务，应当根据评估目的、评估对象、价值类型、资料收集等情况，分析收益法、市场法、成本法（资产基础法）三种基本方法的适用性，选择评估方法。”“对于适合采用不同评估方法进行企业价值评估的，资产评估专业人员应当采用两种以上评估方法进行评估。”

资产基础法适用性分析：资产基础法的基本思路是按现行条件重建或重置被评估资产，潜在的投资者在决定投资某项资产时，所愿意支付的价格不会超过购建该项资产的现行购建成本。本评估项目能满足资产基础法评估所需的条件，即被评估资产处于继续使用状态或被假定处于继续使用状态，具备可利用的历史经营资料。采用资产基础法可以满足本次评估的价值类型的要求。

市场法适用性分析：市场法的基本思路是通过与可比公司比较、修正来获取被评估单位市场价值。目前资本市场与被评估单位可比的上市公司满足数量条件，且披露信息相对充分，本次适合采用市场法评估。

收益法适用性分析：被评估单位系晶圆代工企业，晶圆代工行业受国际关系和宏观环境影响重大、行业周期性及不确定性较强、未来盈利情况难以可靠预测的情况。并且在当前国际半导体设备进口管制背景下，国内晶圆制造企业普遍依赖定期维护和部件更换等方式延长设备使用周期以维持生产连续性。然而，随着技术迭代加速、半导体设备国产化进程推进，以及老旧设备运维成本上升、经济性逐步下降等多重因素共同作用，华力微未来的设备维护与更新路径面临延续定期维护或是设备更替等多种情景，不同情景对应的设备清单、国产化比例及资本投入预算差异较大，因而存在较大不确定性。此类不确定性将导致企业未来的资本性支出计划与生产成本结构预测难度增大，相关风险也难以可靠量化。

收益法的适用前提是能够对企业未来收益及相关风险做出合理、可靠的预测。鉴于华力微在评估基准日时点所面临的上述设备更替与资本支出不确定性较高，管理层认为，在当前条件下对华力微未来年度的经营收益及风险无法形成具备合理依据的预测基础，因此本次评估不具备采用收益法的前提条件。

综上分析，本次评估确定采用资产基础法、市场法进行评估。

（三）资产基础法介绍

资产基础法具体是指将构成企业的各种要素资产的评估值加总减去负债评估值求得企业股东全部权益价值的方法。

各类主要资产及负债的评估方法如下：

1. 货币资金类

货币资金包括现金、银行存款、其他货币资金。对人民币现金及银行存款，以核实后的金额为评估值；对外币现金及银行存款，按核实后外币账面金额结合基准日人民币兑外币汇率确定评估值。

2. 应收款项类

应收款项类具体主要包括应收票据、应收账款、预付账款和其他应收款等，在对应收款项核实无误的基础上，根据每笔款项在扣除评估风险损失后，按预计可能收回的数额确定评估值。对关联方往来等有充分理由相信能全部收回的款项，评估风险损失率为0%。对有确凿证据表明款项不能收回或账龄超长的，评估风险损失率为100%。对很可能收不回部分款项的，且难以确定收不回账款数额的，借助于历史资料和现在调查了解的情况，按照账龄分析法，估计出评估风险损失作为扣除额后得出应收款项的评估值。账面上的“坏账准备”科目按零值计算。

3. 存货类

存货包含原材料、合同履约成本、产成品、在产品等。具体评估方法如下：

（1）原材料

原材料根据清查核实后的数量乘以现行市场购买价，再加上合理的运杂费、损耗、验收整理入库费及其他合理费用确定评估值。被评估单位原材料采用实际成本核算，账面价值包括购置价及其他合理费用。对于价格变动较大的原材料，以评估基准日近期的市场价格并考虑合理费用作为评估值；对于价格变动不大的原材料，以核实后的账面值作为评估值。

（2）产成品

产成品根据企业提供不含税售价，结合产品的销售费用、营业利润情况，按照正常产成品进行评估。

正常产品的评估值＝产成品数量×不含增值税销售单价－销售费用－销售税金及附加－所得税－部分净利润

＝产成品数量×不含税的销售单价×[1－销售费用率－销售税金及附加率－销售利润率×所得税税率－销售利润率×（1－所得税税率）×净利润折减率]

原账面计提的产成品跌价准备评估为零。

（3）在产品

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正常在产品根据企业提供不含税售价，结合产品的销售费用、营业利润情况,参考在产品的完工进度进行评估。

正常在产品的评估值=产成品数量×不含税的销售单价×产品完工进度×[1－销售费用率－销售税金及附加率－销售利润率×所得税税率－销售利润率×（1－所得税税率）×净利润折减率]

各项参数选取同产成品。

4. 一年内到期的非流动资产

一年内到期的非流动资产项目反映企业非流动资产项目中在一年内到期的金额，系长期应收款的一年内到期部分，清查方法同长期应收款保持一致，通过核查，确认账面属实，按照核实后的账面值确定评估值。

5. 长期应收款

长期应收款系华力微应收的设备租赁费。评估人员在核查相关的合同等资料后，确认账面价值为华力微拥有的收益，按账面值评估。

6. 设备类资产

根据《资产评估执业准则—机器设备》，执行机器设备评估业务，应当根据评估目的、评估对象、价值类型、资料收集等情况，分析成本法、市场法和收益法三种资产评估基本方法的适用性，选择评估方法。本次通过对所涉及的各类设备特点、用途以及资料收集情况分析，对机器设备、电子设备及其他设备采用成本法进行评估；对车辆采用市场法评估。

机器设备、电子设备及其他设备（成本法）

成本法评估计算公式为：

评估值＝重置全价－实体性贬值－功能性贬值－经济性贬值

＝重置全价×综合成新率

（1）重置全价的确定

重置全价由评估基准日时点设备的购置价（即重置现价）、运杂费、基础费、安装调试费及其它合理费用组成，一般均为更新重置价，即：

重置全价＝重置现价＋运杂费＋基础费＋安装调试费＋其他合理费用

根据2008年11月10日发布的《中华人民共和国国务院令第538号》、自2009

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年1月1日起施行的《中华人民共和国增值税暂行条例》之第八条规定："纳税人购进货物或者接受应税劳务，支付或者负担的增值税额为进项税额，准予从销项税额中扣除。"

根据2016年3月23日发布的财税〔2016〕36号《关于全面推开营业税改征增值税试点的通知》，从2016年5月1日起，在全国范围内全面实现营业税改征增值税，建筑业、房地产业、金融业、生活服务业等由缴纳营业税改为缴纳增值税，因此设备涉及的相关费用进项税额准予从销项税额中扣除。

根据2019年3月20日发布的财政部、税务总局、海关总署2019年第39号《关于深化增值税改革有关政策的公告》，从2019年4月1日起，增值税一般纳税人发生增值税应税销售行为或者进口货物，原适用16%税率的，税率调整为13%；原适用10%税率的，税率调整为9%。

由于企业购入固定资产的增值税额可从销项税额中抵扣，故设备的重置全价应扣除增值税，即：

重置全价＝重置现价＋运杂费＋基础费＋安装调试费＋其他合理费用－可抵扣增值税额

（2）综合成新率的确定

1）价值量较大的重点、关键设备成新率的确定

在年限法理论成新率的基础上，再结合各类因素进行调整，最终合理确定设备的综合成新率，计算公式：

综合成新率＝理论成新率×调整系数K

其中：

理论成新率＝尚可使用年限÷（已使用年限＋尚可使用年限）×100%

调整系数K＝K1×K2×K3×K4×K5等，即：

综合成新率＝理论成新率×K1×K2×K3×K4×K5

各类调整因素主要为设备的原始制造质量、维护保养（包括大修理等）情况、设备的运行状态及故障频率、设备的利用率、设备的环境状况等。

尚可使用年限依据设备的实际运行状态确定。

2）价值量较小的一般设备及电子类设备成新率的确定

直接采用年限法理论成新率确定。

车辆（市场法）

市场比较法是根据替代原理，将评估对象与在近期发生交易的类似车辆加以比较对照，从已发生交易的类似车辆的交易价格，通过交易日期、交易情况、个别因素等的修正，修正得到评估对象价值的一种评估方法，车辆市场法计算公式如下：

车辆市场价值＝可比交易实例不含税价×交易日期修正系数×交易情况修正系数×个别因素修正系数

关于车辆牌照费的确定

为加强上海市机动车总量控制，规范非营业性客车额度管理，根据上海市人民政府关于沪府发〔2016〕37 号《上海市非营业性客车额度拍卖管理规定》，非营业性客车额度是指通过拍卖方式取得，允许在本市中心城区通行的个人自用、单位公务等之需的非营业性客车上牌指标，包括个人客车额度和单位客车额度。

由于运用了拍卖这一市场化手段配置，从而使得上海客车牌照商品化，所以目前上海客车牌照除沪 C 和新能源客车外，单位公务之需的非营业性“沪”字客车牌照均需通过拍卖方式取得，根据目前我国牌照管理现状，近年陆续有广州、杭州、深圳、天津等牌照通过拍卖方式取得，以对其城市机动车进行总量控制，所以客车牌照市场价值客观存在。

综上所述，本次对上海非沪 C 客车、非新能源客车牌照的评估中，拟参照市场行情，考虑单位公务之需的非营业性客车牌照的价值。

车辆牌照费按上海国际商品拍卖有限公司公布的评估基准日当月上海市单位非营业性客车额度拍卖成交均价评估。

车辆牌照费不计成新率，直接加计入评估值中。

7. 在建工程

在建工程—设备安装工程按基准日汇率重置加计资金成本测算，公式如下：

评估值＝设备费评估值＋安装费及其他评估值＋资金成本评估值

资金成本评估值＝在建工程含税重置价×贷款年利率×资金占用周期/2

8. 使用权资产

评估人员通过核查相关的合同、付款凭证，使用权资产的位置、数量、起始日和到

期日以及摊销过程等，确认资产真实有效，账面计量准确，按照核实后的账面值评估。

9. 无形资产-其他无形资产

无形资产主要为账面反映的外购软件、IP及License；账面未反映的专利、集成电路布图、技术服务许可等。根据《资产评估执业准则-无形资产》，确定无形资产价值的评估方法包括市场法、收益法和成本法三种基本方法及其衍生方法。对所涉及的评估对象相关情况以及资料收集情况充分了解，并分析上述三种基本方法的适用性后选择合理的评估方法。

（1）外购软件、IP：该类账面无形资产近年来价格变动幅度较小，虽在会计记账角度已计提摊销，实际仍可无限期使用，本次按照评估基准日的市场价格确定评估值。

（2）License：该类账面无形资产近年来价格变动幅度较小，且账面已根据其许可使用年限进行摊销，在核实受益期和受益额无误的基础上按尚存受益期确定评估值。

（3）专利及集成电路布图：根据形成无形资产的全部投入，考虑无形资产价值与成本的相关程度，通过计算其合理的成本、利润、资金成本和相关税费后确定其重置成本，并考虑其贬值因素后得到评估对象无形资产市场价值。

10. 长期待摊费用

评估人员在核对明细账、总账与评估申报表的一致性的基础上，对其中金额较大或时间较长的款项抽查了有关原始入账凭证，了解入账依据、摊销年限，并抽查有关摊销凭证。

评估人员审查了相关的合同、对摊销过程进行了复核，经过清查，企业摊销正常。按照账面值评估。

11. 其他非流动资产

其他非流动资产系企业预付的设备款，按核实后账面值确定评估值。

12. 负债

负债主要包括流动负债和非流动负债。在清查核实的基础上，以各项负债在评估目的经济行为实施后被评估单位实际需要承担的债务人和负债金额确定评估值。

（四）市场法介绍

1. 概述

市场法，是指将评估对象与可比上市公司或者可比交易案例进行比较以确定评估对象价值的评估方法。市场法实质是利用活跃交易市场上已成交的类似案例的交易信息或合理的报价数据，通过对比分析的途径确定委估企业或股权价值的一种评估技术。

市场法中常用的两种方法是上市公司比较法和交易案例比较法。

上市公司比较法是指获取并分析可比上市公司的经营和财务数据，计算适当的价值比率，在与被评估单位比较分析的基础上，确定评估对象价值的具体方法。

交易案例比较法是指获取并分析可比企业的买卖、收购及合并案例资料，计算适当的价值比率，在与被评估单位比较分析的基础上，确定评估对象价值的具体方法。

鉴于A股资本市场可收集到至少三个与评估对象同行业的可比上市公司，且可以充分可靠的获取可比公司的经营和财务数据，本次评估选择上市公司比较法。

2.评估步骤

（1）确定可比参照企业。

由于被评估单位是一家非上市公司，其股权不具备公开交易流通市场，因此不能直接确定其市场价值。我们采用在国内上市公司中选用可比企业，可比企业的筛选过程如下：

1）根据被评估单位所在的行业、主要经营模式及产品类型进行初步筛选，筛选标准为：

①截至评估基准日至少有两年的上市历史，以避免市场信息不够充分及IPO效应、市场预期等因素造成的股价波动影响。

②与被评估单位同属于半导体制造或晶圆代工行业，主要经营模式为大规模投资、高资本支出及技术工艺持续投入的IDM（垂直整合制造模式）或Foundry（代工模式）模式，且产品应用领域相似。

③评估基准日近期股票正常交易，未处于停牌等非正常交易状态，或未因基准日近期发生并购重组交易而使得股票价格异常波动。

④鉴于ST股票（退市风险警示股票）较可能因市场中的投机、炒作等因素使得股票价格较大程度偏离其实际价值，故将ST股票剔除出可比公司范围。

本次评估人员筛选与被评估单位同属于所属申银万国行业分类--电子--半导体--分立器件、集成电路制造的上市公司，共计25家上市公司（清单）具体如下所示：

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证券代码	证券名称	上市日期	筛选过程
688249.SH	**晶合集成**	**2023-05-05**	**主要为Foundry模式，产品应用领域相似，进一步筛选**
688347.SH	华虹公司	2023-08-07	基准日近期存在停牌等非正常交易状态，剔除
688396.SH	**华润微**	**2020-02-27**	**主要为IDM模式，产品应用领域相似，进一步筛选**
688469.SH	芯联集成	2023-05-10	基准日近期发生并购重组，剔除
688691.SH	灿芯股份	2024-04-11	主要为Fabless模式，经营模式差异较大，剔除
688981.SH	中芯国际	2020-07-16	主要为Foundry模式，工艺制程存在较大差异，剔除
300456.SZ	赛微电子	2015-05-14	主要为Foundry模式，产品应用领域存在差异，剔除
600360.SH	*ST华微	2001-03-16	ST股票，股票价格较大程度偏离其实际价值，剔除
600460.SH	**士兰微**	**2003-03-11**	**主要为IDM模式，产品应用领域相似，进一步筛选**
600745.SH	闻泰科技	1996-08-28	主要为IDM模式，产品应用领域存在差异，剔除
603290.SH	斯达半导	2020-02-04	主要为Fabless模式，经营模式差异较大，剔除
605111.SH	新洁能	2020-09-28	主要为Fabless模式，经营模式差异较大，剔除
688048.SH	长光华芯	2022-04-01	主要为IDM模式，产品应用领域存在差异，剔除
688167.SH	炬光科技	2021-12-24	主要为IDM模式，产品应用领域存在差异，剔除
688172.SH	燕东微	2022-12-16	**主要为IDM模式，产品应用领域相似，进一步筛选**
688230.SH	芯导科技	2021-12-01	主要为Fabless模式，经营模式差异较大，剔除
688261.SH	东微半导	2022-02-10	主要为Fabless模式，经营模式差异较大，剔除
688498.SH	源杰科技	2022-12-21	主要为IDM模式，产品应用领域存在差异，剔除
688689.SH	银河微电	2021-01-27	主要为半导体封测，经营模式差异较大，剔除
688693.SH	锴威特	2023-08-18	主要为Fabless模式，经营模式差异较大，剔除
688711.SH	宏微科技	2021-09-01	主要为Fabless模式，经营模式差异较大，剔除
300046.SZ	台基股份	2010-01-20	主要为Fabless模式，经营模式差异较大，剔除
300373.SZ	扬杰科技	2014-01-23	**主要为IDM模式，产品应用领域相似，进一步筛选**
300623.SZ	捷捷微电	2017-03-14	**主要为IDM模式，产品应用领域相似，进一步筛选**
300831.SZ	派瑞股份	2020-05-07	主要为Fabless模式，经营模式差异较大，剔除

初步筛选后，符合上述参照标准（即主要是从企业商业模式、产品应用领域等方面）的公司概况如下表所示：

证券代码	证券名称	公司简介	主营业务构成
688249.SH	晶合集成	合肥晶合集成电路股份有限公司的主营业务是12英寸晶圆代工业务及其配套服务。公司的主要产品是DDIC、CIS、PMIC、MCU、Logic。	集成电路晶圆制造代工：98.5703%；其他业务：1.4020%；其他：0.0277%
688396.SH	华润微	华润微电子有限公司的主营业务是功率半导体、智能传感器与智能控制等领域，为客户提供丰富的半导体产品与系统解决方案。公司的主要产品是MOSFET、IGBT、功率二极管、物联网应用专用IC、功率IC、光电耦合及传感、SiC、GaN。	产品与方案：50.9277%；制造与服务：46.3278%；其他业务：2.7445%
600460.SH	士兰微	杭州士兰微电子股份有限公司的主营业务是电子元器件的研发、生产和销售。公司的主要产品是硅基集成电路、分立器件和化合物半导体	分立器件产品：48.4601%；集成电路：36.5858%；发光二极管产

证券代码	证券名称	公司简介	主营业务构成
		器件（LED芯片和成品，SiC、GaN功率器件）产品。	品：6.8476%；其他业务：4.4177%；其他：3.6887%
688172.SH	燕东微	北京燕东微电子股份有限公司的主营业务是产品与方案和制造与服务两类业务。公司的主要产品是产品与方案、制造与服务。	产品与方案：47.1756%；制造与服务：43.9067%；其他：5.7855%；其他业务：3.1323%
300373.SZ	扬杰科技	扬州扬杰电子科技股份有限公司的主营业务是功率半导体硅片、芯片及器件设计、制造、封装测试研发、生产、销售。公司的主要产品是半导体器件、半导体芯片、半导体硅片。	半导体器件：86.2474%；半导体芯片：8.3270%；半导体硅片：3.0766%；其他业务收入：2.3490%
300623.SZ	捷捷微电	江苏捷捷微电子股份有限公司的主营业务是功率半导体芯片和器件的研发、设计、生产和销售。公司的主要产品是晶闸管系列、防护器件系列、二极管系列、MOSFET系列、IGBT系列、厚模组件、碳化硅器件、其他。	功率半导体器件：66.9693%；功率半导体芯片：31.0471%；其他业务收入：1.3637%；功率器件封测：0.6199%

2）鉴于被评估单位是一家独立的晶圆代工厂，若可比上市公司的业务规模小于被评估单位且差距较大，则其可比性将相应减弱。此外，考虑到被评估单位在评估基准日的固定资产账面价值已基本计提完折旧，且其主要生产经营场所均来源于租赁，未拥有自有厂房及土地，本次筛选过程中选取设备类固定资产账面原值规模可比的样本。

经计算各公司设备类固定资产账面原值具体如下：

证券代码	证券名称	设备类固定资产账面原值（亿元）
688249.SH	晶合集成	373.37
688396.SH	华润微	208.96
600460.SH	士兰微	114.24
688172.SH	燕东微	67.74
300373.SZ	扬杰科技	47.07
300623.SZ	捷捷微电	54.72
被评估单位	华力微	153.59

最终筛选确定的可比上市公司概况如下表所示：

证券代码	证券名称	上市日期	公司简介	主营业务
688249.SH	晶合集成	2023-05-05	合肥晶合集成电路股份有限公司的主营业务是12英寸晶圆代工业务及其配套服务。公司的主要产品是DDIC、CIS、PMIC、MCU、Logic。	12英寸晶圆代工业务。
688396.SH	华润微	2020-02-27	华润微电子有限公司的主营业务是功率半导体、智能传感器与智能控制等领域，为客户提供丰富的半导体产品与系统解决方案。公司的主要产品是MOSFET、IGBT、功率二极管、物联网应用专用IC、功率IC、光电耦合及传感、SiC、GaN。	芯片设计、晶圆制造、封装测试等全产业链一体化经营。
600460.SH	士兰微	2003-03-11	杭州士兰微电子股份有限公司的主营业务是电子元器件的研发、生产和销售。公司的主要产品是硅基集成电路、分立器件和化合物半导体器件	电子元器件的研发、生产和销售。

证券代码	证券名称	上市日期	公司简介	主营业务
			（LED芯片和成品，SiC、GaN功率器件）产品。	

（2）对被评估单位和可比参照企业的差异进行必要的调整。

利用从公开、合法渠道获得的可比参照企业经营业务和财务各项信息，与被评估单位的实际情况进行比较、分析，并做必要的差异调整。

（3）选择确定价值比率。

1）价值比率选择

价值比率通常包括资产价值比率、盈利价值比率、收入价值比率和其他特定价值比率，根据被评估单位所属行业特征、所处经营阶段等因素，在其中选择适用的价值比率，并计算各可比上市公司的价值比率。在选择过程中充分考虑了下述因素：选择的价值比率有利于合理确定评估对象的价值；计算价值比率的数据口径及计算方式一致；应用价值比率时尽可能对可比参照企业和被评估单位间的差异进行合理调整。本次价值比率选取如下：

①资产价值比率

如市净率（P/B）、企业价值与总资产比率（EV/TBVIC）等。由于截止基准日被评估单位的主要固定资产账面净值率较低，导致基准日的净资产和总资产金额处于企业生命周期中的相对低位。相比之下，所选可比上市公司的平均净值率约为50%，两者在资产基础上存在较大差异。尽管净资产和总资产受行业周期性波动的影响相对有限，但其数值在企业生命周期的不同阶段往往呈现显著差别。被评估单位当前的低净值状态反映了其资产已多年累计折旧、账面价值较低的现实，若此时采用P/B或EV/TBVIC等基于账面价值的价值比率进行评估，容易导致评估结果失真。因此本次评估未采用资产价值比率。

②盈利价值比率

如市盈率(P/E)、企业价值与息税前利润比率（EV/EBIT)、企业价值与息税折旧摊销前利润比率(EV/EBITDA)等。被评估单位作为一家晶圆代工企业，具有资本投入高、回报周期长的典型特征，在扣除高额折旧与摊销费用后，常于净利润及息税前利润（EBIT）层面呈现暂时性亏损或利润水平偏低的现象。此情况会导致市盈率（P/E）及企业价值与息税前利润比率（EV/EBIT）等价值比率失真。因此，上述价值比率不适用于本次评估。相比之下，企业价值与息税折旧摊销前利润比率（EV/EBITDA）通过将折

旧摊销加回，消除了高资本支出特征对利润率的影响，更能公允地衡量被评估单位的持续盈利能力。因此本次评估采用企业价值与息税折旧摊销前利润比率（EV/EBITDA）。

③收入价值比率

如市销率(P/S)、企业价值与营业收入比率（EV/S）等。收入价值比率隐含的估值逻辑是企业的核心价值与其销售收入规模之间存在直接、稳定的线性关系。然而，对于晶圆代工企业而言，其核心价值主要取决于技术工艺等要素，最终综合体现为企业的持续盈利能力。盈利价值比率与晶圆代工行业的估值逻辑更为契合，因此，本次评估未采用收入价值比率。

2）相关性测试

评估人员对所选取的三家可比公司，以企业价值（EV）为因变量、息税折旧摊销前利润（EBITDA）为自变量，进行了EV/EBITDA价值比率的线性回归分析，相关分析结果如下表所示：

检验指标	EV/EBITDA
R	0.9461
R方	0.8951

经相关性测试，EV/EBITDA的R方较高，一般认为R方在0.7到0.9之间具有较高的拟合，意味着息税折旧摊销前利润与企业价值存在较强的正相关关系，故本次评估宜采用EV/EBITDA作为价值比率。

（4）确定评估结论。

在调整并计算可比企业的价值比率后，结合被评估单位相应的财务数据或指标，计算得出被评估单位的企业价值，并通过对被评估单位的非经营性资产、负债和溢余资产价值进行调整，最终得到被评估单位股东全部权益价值。

（5）对流动性及控制权的考虑

本次市场法评估采用上市公司比较法，由于选取的可比公司为上市公司，而被评估单位为非上市公司，评估中考虑了流动性对评估对象价值的影响。

由于暂无针对中国市场的比较可靠且能让市场参与者均予认可的控制权溢价率或缺乏控制权折价率权威统计数据，本次市场法评估未考虑控制权对评估对象价值的影响。

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八、评估程序实施过程和情况

我们根据中国资产评估准则以及国家资产评估的相关原则和规定，实施了本项目的评估程序。整个评估程序主要分为以下四个阶段进行：

（一）评估准备阶段

1. 接受本项目委托后，即与委托人就本次评估目的、评估基准日和评估对象范围等问题进行了解并协商一致，订立业务委托合同，并编制本项目的资产评估计划。

2. 配合企业进行资产清查，指导并协助企业进行委估资产的申报工作，以及准备资产评估所需的各项文件和资料。

（二）现场评估阶段

根据本次项目整体时间安排，现场评估调查工作阶段是2025年8月下旬～9月下旬。经选择本次评估适用的评估方法后，主要进行了以下现场评估程序：

1. 对企业申报的评估范围内资产和相关资料进行核查验证：

（1）听取委托人及被评估单位有关人员介绍企业总体情况和纳入评估范围资产的历史及现状，了解企业相关内部制度、经营状况、资产使用状态等情况；

（2）对企业提供的资产评估申报明细表内容进行核实，与企业有关财务记录数据进行核对，对发现的问题协同企业做出调整或补充；

（3）根据资产评估申报明细表内容，对实物类资产进行现场勘察和抽查盘点；

（4）查阅收集纳入评估范围资产的产权证明文件，对被评估单位提供的权属资料进行查验，核实资产权属情况。统计瑕疵资产情况，请被评估单位核实并确认这些资产权属是否属于企业、是否存在产权纠纷；

（5）对设备类资产，了解管理制度和实际执行情况，以及相应的维护、改建、扩建情况，查阅并收集相关技术资料、合同文件、决算资料、竣工验收资料、土地规划文件等。对通用设备，主要通过市场调研和查询有关价格信息等资料；

（6）对所涉及到的无形资产，了解其成本构成、历史及未来的收益情况，对应产品的市场状况等相关信息；查阅收集无形资产的法律文件、权属有效性文件或者其他证明资料；调研无形资产特征、资产组合情况、使用状况；无形资产实施的地域范围、领域范围、获利能力和收益模式；判断是否能够持续发挥作用并给权利人带来经济利益；了解无形资产的法定保护期限、收益期限以及保护措施；调研无形资产实施过程中

所受到的法律、行政法规或者其他限制等；

（7）对评估范围内的负债，主要了解被评估单位实际应承担的债务情况。

2. 对被评估单位的历史经营情况、经营现状以及所在行业的现实状况进行了解，判断企业未来一段时间内可能的发展趋势。具体如下：

（1）了解被评估单位存续经营的相关法律情况，主要为有关章程、投资及出资协议、经营场所及经营能力等情况；

（2）了解被评估单位执行的会计制度、固定资产折旧政策、存货成本入账和存货发出核算方法等，执行的税率及纳税情况，近几年的债务、借款以及债务成本等情况；

（3）了解被评估单位业务类型、经营模式、历史经营业绩，包括主要经营业务的收入占比、主要客户分布，以及与关联企业之间的关联交易情况；

（4）获取近年经审计的资产负债表、损益表、现金流量表以及产品收入和成本费用明细表等财务信息数据；

（5）了解企业资产配置及实际利用情况，分析相关溢余资产和非经营性资产、负债情况，并与企业管理层取得一致意见；

（6）通过对被评估单位管理层访谈方式，了解企业的核心经营优势和劣势；主要经营业务收入和成本构成及其变化趋势等；

（7）与被评估单位主要供应商、销售客户进行访谈，了解其与被评估单位的业务合作情况、主要的合作基础条件、未来的合作意向等情况；

（8）了解与被评估单位属同一行业，或受相同经济因素影响的可比企业、可比市场交易案例的数量及基本情况。

（三）评估结论汇总阶段

对现场评估调查阶段收集的评估资料进行必要地分析、归纳和整理，形成评定估算的依据；根据选定的评估方法，选取正确的计算公式和合理的评估参数，形成初步估算成果；并在确认评估资产范围中没有发生重复评估和遗漏评估的情况下，汇总形成初步评估结论，并进行评估结论的合理性分析。

（四）编制提交报告阶段

在前述工作基础上，编制初步资产评估报告，与委托人就初步评估报告内容沟通交换意见，并在全面考虑相关意见沟通情况后，对资产评估报告进行修改和完善，经履

行完毕公司内部审核程序后向委托人提交正式资产评估报告书。

九、评估假设

本项目评估中，资产评估师遵循了以下评估假设和限制条件：

（一）基本假设

1. 交易假设

交易假设是假定所有评估资产已经处在交易的过程中，资产评估师根据评估资产的交易条件等模拟市场进行价值评估。交易假设是资产评估得以进行的一个最基本的前提假设。

2. 公开市场假设

公开市场假设是对资产拟进入的市场条件以及资产在这样的市场条件下接受何种影响的一种假定。公开市场是指充分发达与完善的市场条件，是指一个有自愿的买方和卖方的竞争性市场，在这个市场上，买方和卖方的地位平等，都有获取足够市场信息的机会和时间，买卖双方的交易都是在自愿的、理智的、非强制性或不受限制的条件下进行。公开市场假设以资产在市场上可以公开买卖为基础。

3. 企业持续经营假设

企业持续经营假设是假设被评估单位在现有的资产资源条件下，在可预见的未来经营期限内，其生产经营业务可以合法地按其现状持续经营下去，其经营状况不会发生重大不利变化。

4. 资产按现有用途使用假设

资产按现有用途使用假设是指假设资产将按当前的使用用途持续使用。首先假定被评估范围内资产正处于使用状态，其次假定按目前的用途和使用方式还将继续使用下去，没有考虑资产用途转换或者最佳利用条件。

（二）一般假设

1. 本次评估假设评估基准日后国家现行有关法律、宏观经济、金融以及产业政策等外部经济环境不会发生不可预见的重大不利变化，亦无其他人力不可抗拒及不可预见因素造成的重大影响。

2. 本次评估没有考虑被评估单位及其资产将来可能承担的抵押、担保事宜，以及

特殊的交易方式可能追加付出的价格等对其评估结论的影响。

3.假设被评估单位所在地所处的社会经济环境以及所执行的税赋、税率等财税政策无重大变化，信贷政策、利率、汇率等金融政策基本稳定。

4.被评估单位现在及将来的经营业务合法合规，并且符合其营业执照、公司章程的相关约定。

（三）市场法评估特别假设

1.假设被评估单位严格遵循企业会计准则及其相关规定，评估基准日及历史各期财务数据均真实、可靠；

2.假设所选可比上市公司披露的财务与经营数据真实、可靠；

3.除特殊说明外，假设资本市场的交易行为均基于公开、公平、自愿及公允的原则；

4.未考虑遇有自然力及其他不可抗力因素的影响，也未考虑特殊交易方式可能对评估结论产生的影响。

5.未考虑将来可能承担的抵押、担保事宜。

本资产评估报告评估结论在上述假设条件下在评估基准日时成立，当上述假设条件发生较大变化时，签名资产评估师及本评估机构将不承担由于假设条件改变而推导出不同评估结论的责任。

十、评估结论

根据国家有关资产评估的规定，我们本着独立、公正和客观的原则及执行了必要的评估程序，在本报告所述之评估目的、评估假设与限制条件下，得到被评估单位股东全部权益于评估基准日的市场价值评估结论。

（一）相关评估结果情况

1.资产基础法评估值

采用资产基础法对企业股东全部权益价值进行评估，得出被评估单位在评估基准日的评估结果如下：

评估基准日，被评估单位所有者权益账面值200,191.38万元，评估值782,761.17万元，评估增值582,569.79万元，增值率291.01%。其中，总资产账面值725,850.28万元，

评估值1,306,836.22万元，评估增值580,985.94万元，增值率80.04%。总负债账面值525,658.90万元，评估值524,075.05万元，评估减值1,583.85万元，减值率0.30%。

2.市场法评估值

采用市场法对企业股东全部权益价值进行评估，得出的评估基准日的评估结果如下：

被评估单位所有者权益账面值为200,191.38万元，评估值为848,000.00万元，评估增值647,808.62万元，增值率323.59%。

（二）评估结果差异分析及最终评估结论

1.不同方法评估结果的差异分析

本次评估采用市场法得出的股东全部权益价值为848,000.00万元，比资产基础法测算得出的股东全部权益价值782,761.17万元高65,238.83万元。

不同评估方法的评估结果差异的原因主要是各种评估方法对资产价值考虑的角度不同，资产基础法是从企业各项资产现时重建的角度进行估算；市场法是从现时市场可比价格角度进行测算，导致各评估方法的评估结果存在差异。

2.评估结论的选取

根据《资产评估执业准则—企业价值》，对同一评估对象采用多种评估方法时，应当结合评估目的、不同评估方法使用数据的质量和数量，采用定性或者定量的方式形成评估结论。

鉴于华力微属于晶圆加工产业，其主要价值除了固定资产、营运资金等有形资源之外，还应包含工艺路线、企业管理水平、人才技术团队、自创商誉等重要的无形资源的贡献。由于资产基础法的特性，其评估结果仅对各单项有形资产和可确指的无形资产进行了价值评估，并不能完全衡量各单项资产间的互相匹配和有机组合因素可能产生出来的企业整体效应价值，对于被评估单位的工艺路线、企业管理水平、人才技术团队、自创商誉等重要的无形资源价值一般也难以在资产基础法中体现，资产基础法评估结果较市场法存在一定局限性。其次，市场法的数据采用可比上市公司的公开数据，近年来随着中国的股市日臻成熟，相对成熟的资本市场环境也提供了市场法定价的基础。

通过以上分析，我们选用市场法评估结果作为本次被评估单位股东全部权益价值

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评估结论。经评估，被评估单位股东全部权益价值为人民币8,480,000,000.00元。大写：人民币捌拾肆亿捌仟万元整。

评估结论根据以上评估工作得出。

（三）评估结论与账面价值比较变动情况及原因说明

本次评估采用市场法的评估结论，正是基于采用市场法评估结论的原因，该公司拥有企业账面值上未反映的工艺路线、企业管理水平、人才技术团队、自创商誉等重要的无形资源价值，因此采用市场法比账面值增值较大。

（四）关于评估结论的其他考虑因素

本次市场法评估采用上市公司比较法，由于选取的可比公司为上市公司，而被评估单位为非上市公司，本次评估对象为股东全部权益价值，评估中考虑了流动性对评估对象价值的影响。

由于暂无针对中国市场的比较可靠且能让市场参与者均予认可的控制权溢价率或缺乏控制权折价率权威统计数据，本次市场法评估未考虑控制权对评估对象价值的影响。

（五）评估结论有效期

依据现行评估准则规定，本评估报告揭示的评估结论在本报告载明的评估假设没有重大变化的基础上，且通常只有当经济行为实施日与评估基准日相距不超过一年时，才可以使用本评估报告结论，即评估结论有效期自评估基准日2025年08月31日至2026年08月30日。

超过上述评估结论有效期时不得使用本评估报告结论实施经济行为。

（六）有关评估结论的其他说明

评估基准日以后的评估结论有效期内，如果评估对象涉及的资产数量及作价标准发生变化时，委托人可以按照以下原则处理：

1.当资产数量发生变化时，应根据原评估方法对资产数额进行相应调整；

2.当资产价格标准发生变化、且对资产评估结果产生明显影响时，委托人应及时聘请有资格的资产评估机构重新确定评估价值；

3.对评估基准日后，资产数量、价格标准的变化，委托人在实施经济行为时应给予充分考虑。

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十一、特别事项说明

评估报告使用人在使用本评估报告时，应关注以下特别事项对评估结论可能产生的影响，并在依据本报告自行决策、实施经济行为时给予充分考虑：

（一）权属等主要资料不完整或者存在瑕疵的情形：

资产评估准则规定，资产评估师执行资产评估业务的目的是对评估对象价值进行估算并发表专业意见，对评估对象及其所涉及资产的法律权属确认或发表意见超出资产评估师执业范围。委托人和相关当事人委托资产评估业务，应当提供评估对象法律及其所涉及资产的权属等资料，并对所提供评估对象及其所涉及资产的法律权属资料的真实性、完整性和合法性承担责任。根据《资产评估对象法律权属指导意见》，资产评估师对所纳入本次评估范围内资产的权属资料进行了适当的关注。

本次评估资产权属资料基本完整，资产评估师未发现存在明显的产权瑕疵事项。委托人与被评估单位亦明确说明不存在产权瑕疵事项。

（二）委托人未提供的其他关键资料说明：

评估师通过现场调查，未发现相关事项。但基于资产评估师核查手段的局限性，评估机构不能对上述事项是否完整发表确定性意见。

（三）评估基准日存在的未决事项、法律纠纷等不确定因素：

资产评估师未获悉企业截至评估基准日存在的未决事项、法律纠纷等不确定因素。委托人与被评估单位亦明确说明不存在未决事项、法律纠纷等不确定事项。但基于资产评估师核查手段的局限性，评估机构不能对上述事项是否完整发表确定性意见。

（四）重要的利用专家工作及相关报告情况：

1. 利用专业报告：

执行本次评估业务过程中，我们通过合法途径获得了以下专业报告，并审慎参考利用了专业报告的相关内容：

（1）大华会计师事务所（特殊普通合伙）出具的专项审计报告，报告文号：大华审字【2025】0011016213号；

本资产评估报告的账面资产类型与账面金额业经大华会计师事务所（特殊普通合伙）审计，出具了标准无保留意见的专项审计报告，报告文号为：大华审字【2025】

0011016213号。该审计报告的意见为：“我们审计了上海华力微电子有限公司（以下简称“华力微电子”）模拟财务报表，包括2025年8月31日、2024年12月31日、2023年12月31日的模拟资产负债表，2025年1-8月、2024年度、2023年度的模拟利润表、模拟现金流量表、模拟所有者权益变动表以及相关模拟财务报表附注。我们认为，后附的模拟财务报表在所有重大方面按照模拟财务报表附注三所述编制基础编制，公允反映了华力微电子2025年1-8月、2024年12月31日、2023年12月31日的模拟财务状况以及2025年1-8月、2024年度、2023年度的模拟经营成果和模拟现金流量”。资产评估专业人员根据所采用的评估方法对财务报表的使用要求对其进行了分析和判断，但对相关财务报表是否公允反映评估基准日企业的财务状况和当期经营成果、现金流量发表专业意见并非资产评估专业人员的责任。

根据现行评估准则的相关规定，我们对利用相关专业报告仅承担引用不当的相关责任。

（五）重大期后事项：

评估基准日至本资产评估报告出具日之间，委托人与被评估单位已明确告知不存在重大期后事项。我们也确认评估基准日至本资产评估报告出具日之间，评估参数和评估假设并无重大变化，被评估单位股权价值并未发生重大变化。

（六）评估程序受限的有关情况、评估机构采取的弥补措施及对评估结论影响的说明：

本次并未发现影响资产核实的事项。

（七）担保、租赁及其或有负债（或有资产）等事项的性质、金额及与评估对象的关系：

1．抵质押事项

截至评估基准日，华力微涉及的抵押、担保等事项如下：

合同编号	借款人	贷款人	借款金额（万元）	借款期限	借款用途	借款利率	担保情况
3100201606100000054号借款合同	华力微	委托贷款人：国开发展基金有限公司； 受托贷款人：国家开发银行股份有限公司	300,000.00	2016年8月4日-2026年8月3日	产线建设	年利率1.2%	华力微以评估值合计152,243.77万元的设备向委托贷款人提供抵押担保

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合同编号	借款人	贷款人	借款金额（万元）	借款期限	借款用途	借款利率	担保情况
3100201506100000015001号借款合同	华力微	委托贷款人：国开发展基金有限公司； 受托贷款人：国家开发银行股份有限公司	100,000.00	2015年11月24日-2030年11月23日	产线投建	年利率1.2%	华力微以评估值合计116,263.96万元的设备向委托贷款人提供抵押担保
3100202301100002961	华力微	国家开发银行上海市分行、交通银行股份有限公司上海新区支行、上海银行股份有限公司徐汇支行、中国建设银行股份有限公司上海张江分行	96,000.00	2023年2月-2031年2月	研发	3%	华力微以评估值合计29,052.85万元的设备向贷款人提供抵押担保

本次未考虑上述抵押或质押事项对评估结果的可能影响，提请报告使用人注意。

2．租赁事项

序号	出租方	租赁地址	租赁面积	租赁期限	用途
1	上海宏力半导体制造有限公司	上海市浦东新区张江高科技园区13街坊2丘厂房	91,563.11平方米	2010年3月1日至2030年2月28日	厂房
2			化学品仓库、动力厂房和生产厂房	自验收合格交付之日起20年	
3			192平方米	2021年6月1日至2025年12月31日	厂房

3.出租事项

序号	出租方	承租方	租赁标的	用途
1	华力微	上海华力集成电路制造有限公司	部分洁净厂房	设备放置
2	华力微	公司B	设备	生产经营使用

4.或有事项

截至2025年8月31日止，华力微银行保函业务担保余额为人民币10,000,000.00元，最后一笔将于2026年2月10日到期。

截至2025年8月31日止，华力微未履行完毕的不可撤销信用证未使用金额美元1,360,050.00（等值人民币9,660,435.15元），最后一笔将于2026年1月13日到期。

本次评估未考虑上述或有事项对评估值的影响。

评估师通过现场调查，除上述披露事项以外，亦未发现其他相关事项。但基于资产评估师核查手段的局限性，以及担保、或有负债（资产）等形成的隐蔽性，评估机构不能对上述事项是否完整发表确定性意见。

（八）本次资产评估对应的经济行为中，可能对评估结论产生重大影响的瑕疵情形：

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ORIENT APPRAISAL
上海东洲资产评估有限公司
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此次资产评估对应的经济行为中，我们未发现可能对评估结论产生重大影响的瑕疵事项。

（九）其他需要说明的事项：

1. 本资产评估报告中，所有以万元为金额单位的表格或者文字表述，如存在总计数与各分项数值之和出现尾差，均为四舍五入原因造成。

2. 本次在对评估范围内的资产进行评估时，我们未考虑部分资产的评估增值额对于所得税的影响。

3. 本评估报告仅为委托人合同约定的经济行为对应的评估目的服务，不构成对市场其他投资人的相关标的投资建议或决策建议。

4. 被评估单位分立事项

2025年6月26日，根据沪华力微股（2025）第4号股东会决议，全体股东一致同意公司存续分立的方案，采取存续分立的形式，将公司分立为上海华力微电子有限公司（存续公司，以下简称“分立后的华力微”）及新设公司。分立后的华力微继续运营位于中国（上海）自由贸易试验区高斯路568号的12英寸晶圆厂晶圆代工等相关的业务，并承继与之相关的资产、债权债务、人员及其他约定的权利义务，新设公司承继长期股权投资及相应的业务、资产、债权债务、人员及其他约定的权利义务。分立后的华力微与新设公司保持业务、资产、人员、财务、机构等方面的相互独立。公司于2025年8月21日完成了分立行为。分立后的华力微注册资本与新设公司的注册资本之和等于本次分立前华力微的注册资本。各股东在分立后的华力微与新设公司的持股比例，与本次分立前在华力微的持股比例一致。分立后的华力微为本次重组拟注入华虹公司的标的资产。

本次评估对象为分立后的华力微，基于此，评估工作以华力微在分立框架下编制的模拟财务报表及反映的业务实质为基础展开。

5. 汇率波动风险

鉴于被评估单位涉及外币结算，其经营业绩不可避免地受到汇率波动的影响。然而，汇率波动受到多种复杂因素的制约，包括宏观经济、地缘政治等，这些因素相互交织，评估师难以准确判断并量化汇率波动所引发的具体风险程度。

鉴于本次评估采用上市公司比较法，选取的半导体制造行业上市公司普遍面临汇率波动风险。这种行业共性使得市场法评估结果在一定程度上已经隐含了汇率波动风

险的影响。据此，本次评估并未单独考虑汇率波动风险的额外影响。

评估报告使用人在使用本资产评估报告时，应当充分关注前述特别事项对评估结论的影响。

十二、评估报告使用限制说明

（一）本资产评估报告仅限于为本报告所列明的评估目的和经济行为的用途使用。

（二）委托人或者其他资产评估报告使用人未按照法律、行政法规规定和本资产评估报告载明的使用范围使用本资产评估报告的，本评估机构及资产评估师不承担责任。

（三）除委托人、资产评估委托合同中约定的其他资产评估报告使用人和法律、行政法规规定的资产评估报告使用人之外，其他任何机构和个人不能成为本报告的使用人。

（四）资产评估报告使用人应当正确理解和使用评估结论，评估结论不等同于评估对象可实现价格，评估结论不应当被认为是对评估对象可实现价格的保证。

（五）如本评估项目涉及国有资产，并按相关规定需履行国有资产管理部门备案、核准程序的，本评估报告需经国有资产监督管理部门备案后方可正式使用，且评估结论仅适用于本报告所示经济行为。

（六）本资产评估报告包含若干附件及评估明细表，所有附件及评估明细表亦构成本报告的重要组成部分，但应与本报告正文同时使用才有效。对被用于使用范围以外的用途，如被出示给非资产评估报告使用人或是通过其他途径掌握本报告的非资产评估报告使用人，本评估机构及资产评估师不对此承担任何义务或责任，不因本报告而提供进一步的咨询，亦不提供证词、出席法庭或其他法律诉讼过程中的聆讯，并保留向非资产评估报告使用人追究由此造成损失的权利。

（七）本资产评估报告内容的解释权属本评估机构，除国家法律、法规有明确的特殊规定外，其他任何单位、部门均无权解释；评估报告的全部或者部分内容被摘抄、引用或者披露于公开媒体，需经本评估机构审阅相关内容后，并征得本评估机构、签字评估师书面同意。法律、法规规定以及相关当事人另有约定的除外。

十三、评估报告日

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资产评估报告日是评估结论形成的日期，本资产评估报告日为2025年12月29日。

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评估机构	上海东洲资产评估有限公司
法定代表人	徐峰
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评估报告日	2025 年 12 月 29 日
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资产评估报告

（报告附件）

项目名称 华虹半导体有限公司拟发行股份购买资产所涉及的上海华力微电子有限公司股东全部权益价值资产评估报告

报告编号 东洲评报字【2025】第2446号

序号附件名称

1. 与评估目的相对应的经济行为文件
2. 委托人和被评估单位法人营业执照
3. 委托人和被评估单位国家出资企业产权登记证
4. 被评估单位专项审计报告
5. 被评估单位专利证书及其其他权利证明
6. 评估委托人和相关当事方承诺函
7. 资产评估委托合同
8. 上海东洲资产评估有限公司营业执照
9. 上海东洲资产评估有限公司从事证券业务资产评估许可证
10. 上海东洲资产评估有限公司资产评估资格证书
11. 负责该评估业务的资产评估师资格证明文件
12. 资产评估机构及资产评估师承诺函
13. 资产账面价值与评估结论存在较大差异的说明
14. 资产评估汇总表或者明细表
15. 报告附表-专利清单

资产账面价值与评估结论存在较大差异的说明

上海东洲资产评估有限公司接受贵公司的委托，按照法律、行政法规和资产评估准则的规定，坚持独立、客观和公正的原则，采用资产基础法、市场法，按照必要的评估程序，对华虹半导体有限公司拟通过发行股份的方式向上海华虹(集团)有限公司、上海集成电路产业投资基金股份有限公司、国家集成电路产业投资基金二期股份有限公司、上海国投先导集成电路私募投资基金合伙企业(有限合伙)等4名华力微股东购买其持有的华力微97.4988%股权所涉及的上海华力微电子有限公司股东全部权益于2025年8月31日的市场价值进行了评估。资产账面价值与评估结论存在较大差异的说明如下：

被评估单位申报的股东权益200,191.38万元。本次评估值848,000.00万元，评估增值647,808.62万元，正是基于采用市场法评估结论的原因，该公司拥有企业账面值上未反映的工艺路线、企业管理水平、人才技术团队、自创商誉等重要的无形资源价值，因此采用市场法比账面值增值较大。

第一章.资产基础法评估结论

采用资产基础法对企业股东全部权益价值进行评估，得出被评估单位在评估基准日的评估结果如下：

评估基准日，被评估单位所有者权益账面值 200,191.38 万元，评估值 782,761.17 万元，评估增值 582,569.79 万元，增值率 291.01%。其中，总资产账面值 725,850.28 万元，评估值 1,306,836.22 万元，评估增值 580,985.94 万元，增值率 80.04%。总负债账面值 525,658.90 万元，评估值 524,075.05 万元，评估减值 1,583.85 万元，减值率 0.30%。

一、 资产基础法评估结论与账面价值比较变动情况及原因

本次资产基础法的评估结论，主要增减值分析如下：

金额单位：人民币万元

项　　目	账面价值	评估价值	增值额	增值率%
	A	B	C=B-A	D=C/A×100%
流动资产	502,209.71	526,180.75	23,971.04	4.77
非流动资产	223,640.57	780,655.47	557,014.90	249.07
长期应收款	6,362.46	6,362.46	0.00	0.00
固定资产	150,987.78	558,573.56	407,585.78	269.95
在建工程	13,740.65	13,816.45	75.80	0.55
使用权资产	38,118.47	38,118.47	0.00	0.00
无形资产	12,989.24	162,346.03	149,356.79	1,149.85
长期待摊费用	526.11	526.11	0.00	0.00
其他非流动资产	915.86	912.39	-3.47	-0.38
资产总计	725,850.28	1,306,836.22	580,985.94	80.04
流动负债	204,107.99	204,135.14	27.15	0.01
非流动负债	321,550.91	319,939.91	-1,611.00	-0.50
负债总计	525,658.90	524,075.05	-1,583.85	-0.30
所有者权益（净资产）	200,191.38	782,761.17	582,569.79	291.01

1.流动资产

流动资产账面值 502,209.71 万元，评估值为 526,180.75 万元，增值 23,971.04 万元。增值主要源于存货评估，存货中的产成品和在产品账面值仅反映生产成本，而在评估过程中，是根据不含税出厂价，扣除为实现销售所必要的税费确认评估值，其价值高于生产成本导致评估增值。

2. 固定资产

固定资产账面净值 150,987.78 万元，评估净值为 558,573.56 万元，增值

407,585.78 万元，主要原因有两点：其一、由于企业财务对设备类资产采用直线法计提折旧，折旧较快，评估依据设备的经济寿命结合设备的实际状况确定成新率，比较客观地反映了设备的实际价值，因财务折旧年限短于评估所采用的经济寿命，致使评估增值。其二、本次将账面未反映的设备类资产纳入评估范围形成评估增值。

3. 在建工程

在建工程账面值 13,740.65 万元，评估值为 13,816.45 万元，增值 75.80 万元。主要原因是评估过程中考虑了在建工程的资金成本，故评估增值。

4. 无形资产

无形资产账面值 12,989.24 万元，评估值为 162,346.03 万元，增值 149,356.79 万元。主要原因有两点：其一、部分软件和许可权，账面已计提摊销但实际仍可使用，本次评估反映其合理价值，形成评估增值；其二、本次将账面未记录的专利、布图设计等无形资产纳入评估范围形成评估增值。

5. 其他非流动资产

其他非流动资产账面值 915.86 万元，评估值为 912.39 万元，减值 3.47 万元。主要原因系其他非流动资产中包含外币账款，评估按基准日汇率折算成人民币金额确认评估值，由于外币账款入账时点汇率和基准日汇率波动形成评估减值。

6. 负债

负债账面值为 525,658.90 万元，评估值为 524,075.05 万元，减值 1,583.85 万元。主要原因是由于将义务履行完的递延收益评估为零导致评估减值。

评估结论详细情况见评估结果汇总表和评估明细申报表。

第二章市场法评估

一、 市场法应用简介

1. 市场法定义

市场法，是指将评估对象与可比上市公司或者可比交易案例进行比较以确定评估对象价值的评估方法。市场法实质是利用活跃交易市场上已成交的类似案例的交易信息或合理的报价数据，通过对比分析的途径确定委估企业或股权价值的一种评估技术。

市场法中常用的两种方法是上市公司比较法和交易案例比较法。

上市公司比较法是指获取并分析可比上市公司的经营和财务数据，计算适当的价值比率，在与被评估企业比较分析的基础上，确定评估对象价值的具体方法。上市公司比较法中的可比企业应当是公开市场上正常交易的上市公司，评估结论应当考虑流动性对评估对象价值的影响。

交易案例比较法是指获取并分析可比企业的买卖、收购及合并案例资料，计算适当的价值比率，在与被评估企业比较分析的基础上，确定评估对象价值的具体方法。运用交易案例比较法时，应当考虑评估对象与交易案例的差异因素对价值的影响。

2. 市场法特点

（1）评估数据直接来源于市场，评估过程简单、直观；

（2）评估方法以市场为导向，评估结果说服力强。

3. 市场法适用前提条件

（1）必须有一个充分发展、活跃的资本市场；

（2）存在三个及三个以上相同或类似的可比企业，可比企业应当与被评估企业属于同一行业，或者受相同经济因素的影响；

（3）可比企业与被评估企业的价值影响因素明确，可以量化，相关资料可以搜集。

4. **评估假设**

（1）假设被评估单位严格遵循企业会计准则及其相关规定，评估基准日及历史各期财务数据均真实、可靠；

（2）假设所选可比上市公司披露的财务与经营数据真实、可靠；

（3）除特殊说明外，假设资本市场的交易行为均基于公开、公平、自愿及公允的原则；

（4）未考虑遇有自然力及其他不可抗力因素的影响，也未考虑特殊交易方式可能对评估结论产生的影响；

（5）未考虑将来可能承担的抵押、担保事宜。

5. **市场法评估模型介绍**

（1）上市公司比较法

上市公司比较法是指获取并分析可比上市公司的经营和财务数据，计算适当的价值比率，在与被评估单位比较分析的基础上，确定评估对象价值的具体方法。

（2）交易案例比较法

交易案例比较法是指获取并分析可比企业的买卖、收购及合并案例资料，计算适当的价值比率，在与被评估单位比较分析的基础上，确定评估对象价值的具体方法。

鉴于A股资本市场可收集到至少三个与评估对象同行业的可比上市公司，且可以充分可靠的获取可比公司的经营和财务数据，本次选择上市公司比较法。

二、 评估技术思路

本次上市公司比较法的基本评估思路如下：

1. **确定可比参照企业**

由于被评估单位是一家非上市公司，其股权不具备公开交易流通市场，因此不能直接确定其市场价值。我们采用在国内上市公司中选用可比企业，可比企业的筛选过程如下：

（1）根据被评估单位所在的行业、主要经营模式及产品类型进行初步筛选，筛选标准为：

1）截至评估基准日至少有两年的上市历史，以避免市场信息不够充分及 IPO 效应、市场预期等因素造成的股价波动影响。

2）与被评估单位同属于半导体制造或晶圆代工行业，主要经营模式为大规模投资、高资本支出及技术工艺持续投入的 IDM（垂直整合制造模式） 或 Foundry （代工模式）模式，且产品应用领域相似。

3）评估基准日近期股票正常交易，未处于停牌等非正常交易状态，或未因基准日近期发生并购重组交易而使得股票价格异常波动。

4）鉴于 ST 股票（退市风险警示股票）较可能因市场中的投机、炒作等因素使得股票价格较大程度偏离其实际价值，故将 ST 股票剔除出可比公司范围。

本次评估人员筛选与被评估单位同属于所属申银万国行业分类--电子--半导体--分立器件、集成电路制造的上市公司，共计25家上市公司（清单）具体如下所示：

证券代码	证券名称	上市日期	筛选过程
688249.SH	**晶合集成**	**2023-05-05**	**主要为 Foundry 模式，产品应用领域相似，进一步筛选**
688347.SH	华虹公司	2023-08-07	基准日近期存在停牌等非正常交易状态，剔除
688396.SH	**华润微**	**2020-02-27**	**主要为 IDM 模式，产品应用领域相似，进一步筛选**
688469.SH	芯联集成	2023-05-10	基准日近期发生并购重组，剔除
688691.SH	灿芯股份	2024-04-11	主要为 Fabless 模式，经营模式差异较大，剔除
688981.SH	中芯国际	2020-07-16	主要为 Foundry 模式，工艺制程存在较大差异，剔除
300456.SZ	赛微电子	2015-05-14	主要为 Foundry 模式，产品应用领域存在差异，剔除
600360.SH	*ST 华微	2001-03-16	ST 股票，股票价格较大程度偏离其实际价值，剔除
600460.SH	**士兰微**	**2003-03-11**	**主要为 IDM 模式，产品应用领域相似，进一步筛选**
600745.SH	闻泰科技	1996-08-28	主要为 IDM 模式，产品应用领域存在差异，剔除
603290.SH	斯达半导	2020-02-04	主要为 Fabless 模式，经营模式差异较大，剔除
605111.SH	新洁能	2020-09-28	主要为 Fabless 模式，经营模式差异较大，剔除
688048.SH	长光华芯	2022-04-01	主要为 IDM 模式，产品应用领域存在差异，剔除
688167.SH	炬光科技	2021-12-24	主要为 IDM 模式，产品应用领域存在差异，剔除
688172.SH	燕东微	2022-12-16	**主要为 IDM 模式，产品应用领域相似，进一步筛选**
688230.SH	芯导科技	2021-12-01	主要为 Fabless 模式，经营模式差异较大，剔除
688261.SH	东微半导	2022-02-10	主要为 Fabless 模式，经营模式差异较大，剔除
688498.SH	源杰科技	2022-12-21	主要为 IDM 模式，产品应用领域存在差异，剔除
688689.SH	银河微电	2021-01-27	主要为半导体封测，经营模式差异较大，剔除
688693.SH	锴威特	2023-08-18	主要为 Fabless 模式，经营模式差异较大，剔除
688711.SH	宏微科技	2021-09-01	主要为 Fabless 模式，经营模式差异较大，剔除

证券代码	证券名称	上市日期	筛选过程
300046.SZ	台基股份	2010-01-20	主要为 Fabless 模式，经营模式差异较大，剔除
300373.SZ	扬杰科技	2014-01-23	**主要为 IDM 模式，产品应用领域相似，进一步筛选**
300623.SZ	捷捷微电	2017-03-14	**主要为 IDM 模式，产品应用领域相似，进一步筛选**
300831.SZ	派瑞股份	2020-05-07	主要为 Fabless 模式，经营模式差异较大，剔除

初步筛选后，符合上述参照标准（即主要是从企业商业模式、产品应用领域等方面）的公司概况如下表所示：

证券代码	证券名称	公司简介	主营业务构成
688249.SH	晶合集成	合肥晶合集成电路股份有限公司的主营业务是 12 英寸晶圆代工业务及其配套服务。公司的主要产品是 DDIC、CIS、PMIC、MCU、Logic。	集成电路晶圆制造代工：98.5703%；其他业务：1.4020%；其他：0.0277%
688396.SH	华润微	华润微电子有限公司的主营业务是功率半导体、智能传感器与智能控制等领域，为客户提供丰富的半导体产品与系统解决方案。公司的主要产品是 MOSFET、IGBT、功率二极管、物联网应用专用 IC、功率 IC、光电耦合及传感、SiC、GaN。	产品与方案：50.9277%；制造与服务：46.3278%；其他业务：2.7445%
600460.SH	士兰微	杭州士兰微电子股份有限公司的主营业务是电子元器件的研发、生产和销售。公司的主要产品是硅基集成电路、分立器件和化合物半导体器件（LED 芯片和成品，SiC、GaN 功率器件）产品。	分立器件产品：48.4601%；集成电路：36.5858%；发光二极管产品：6.8476%；其他业务：4.4177%；其他：3.6887%
688172.SH	燕东微	北京燕东微电子股份有限公司的主营业务是产品与方案和制造与服务两类业务。公司的主要产品是产品与方案、制造与服务。	产品与方案：47.1756%；制造与服务：43.9067%；其他：5.7855%；其他业务：3.1323%
300373.SZ	扬杰科技	扬州扬杰电子科技股份有限公司的主营业务是功率半导体硅片、芯片及器件设计、制造、封装测试研发、生产、销售。公司的主要产品是半导体器件、半导体芯片、半导体硅片。	半导体器件：86.2474%；半导体芯片：8.3270%；半导体硅片：3.0766%；其他业务收入：2.3490%
300623.SZ	捷捷微电	江苏捷捷微电子股份有限公司的主营业务是功率半导体芯片和器件的研发、设计、生产和销售。公司的主要产品是晶闸管系列、防护器件系列、二极管系列、MOSFET 系列、IGBT 系列、厚模组件、碳化硅器件、其他。	功率半导体器件：66.9693%；功率半导体芯片：31.0471%；其他业务收入：1.3637%；功率器件封测：0.6199%

（2）鉴于被评估单位是一家独立的晶圆代工厂，若可比上市公司的业务规模小于被评估单位且差距较大，则其可比性将相应减弱。此外，考虑到被评估单位在评估基准日的固定资产账面价值已基本计提完折旧，且其主要生产经营场所均来源于租赁，未拥有自有厂房及土地，本次筛选过程中选取设备类固定资产账面原值规模可比的样本。

经计算各公司设备类固定资产账面原值具体如下：

证券代码	证券名称	设备类固定资产账面原值（亿元）
688249.SH	晶合集成	373.37
688396.SH	华润微	208.96
600460.SH	士兰微	114.24

证券代码	证券名称	设备类固定资产账面原值（亿元）
688172.SH	燕东微	67.74
300373.SZ	扬杰科技	47.07
300623.SZ	捷捷微电	54.72
被评估单位	华力微	153.59

最终筛选确定的可比上市公司概况如下表所示：

证券代码	证券名称	上市日期	公司简介	主营业务
688249.SH	晶合集成	2023-05-05	合肥晶合集成电路股份有限公司的主营业务是 12 英寸晶圆代工业务及其配套服务。公司的主要产品是 DDIC、CIS、PMIC、MCU、Logic。	12 英寸晶圆代工业务。
688396.SH	华润微	2020-02-27	华润微电子有限公司的主营业务是功率半导体、智能传感器与智能控制等领域，为客户提供丰富的半导体产品与系统解决方案。公司的主要产品是 MOSFET、IGBT、功率二极管、物联网应用专用 IC、功率 IC、光电耦合及传感、SiC、GaN。	芯片设计、晶圆制造、封装测试等全产业链一体化经营。
600460.SH	士兰微	2003-03-11	杭州士兰微电子股份有限公司的主营业务是电子元器件的研发、生产和销售。公司的主要产品是硅基集成电路、分立器件和化合物半导体器件（LED 芯片和成品，SiC、GaN 功率器件）产品。	电子元器件的研发、生产和销售。

2. 对被评估单位和可比参照企业的差异进行必要的调整

利用从公开、合法渠道获得的可比参照企业经营业务和财务各项信息，与被评估单位的实际情况进行比较、分析，并做必要的差异调整。

3. 选择确定价值比率

（1）价值比率选择

价值比率通常包括资产价值比率、盈利价值比率、收入价值比率和其他特定价值比率，根据被评估单位所属行业特征、所处经营阶段等因素，在其中选择适用的价值比率，并计算各可比上市公司的价值比率。在选择过程中充分考虑了下述因素：选择的价值比率有利于合理确定评估对象的价值；计算价值比率的数据口径及计算方式一致；应用价值比率时尽可能对可比参照企业和被评估单位间的差异进行合理调整。本次价值比率选取如下：

1）资产价值比率

如市净率（P/B）、企业价值与总资产比率（EV/TBVIC）等。由于被评估单位的固定资产截至基准日已基本折旧完毕，净值率不足10%，导致基准日的净资产和总资产金额处于企业生命周期中的相对低位。相比之下，所选可比上市公司的平均净值率约为50%，两者在资产基础上存在较大差异。尽管净资产和总资产受行业周期性波动的影响相对有限，但其数值在企业生命周期的不同阶段往往呈现显著差别。被评估单位当前的低净值状态反映了其资产已多年累计折旧、账面价值较低的现实，若此时采用P/B或EV/TBVIC等基于账面价值的价值比率进行评估，容易导致评估结果失真。因此本次评估未采用资产价值比率。

2）盈利价值比率

如市盈率(P/E)、企业价值与息税前利润比率（EV/EBIT）、企业价值与息税折旧摊销前利润比率（EV/EBITDA）等。被评估单位作为一家晶圆代工企业，具有资本投入高、回报周期长的典型特征，在扣除高额折旧与摊销费用后，常于净利润及息税前利润（EBIT）层面呈现暂时性亏损或利润水平偏低的现象。此情况会导致市盈率（P/E）及企业价值与息税前利润比率（EV/EBIT）等价值比率失真。因此，上述价值比率不适用于本次评估。相比之下，企业价值与息税折旧摊销前利润比率（EV/EBITDA）通过将折旧摊销加回，消除了高资本支出特征对利润率的影响，更能公允地衡量被评估单位的持续盈利能力。因此本次评估采用企业价值与息税折旧摊销前利润比率（EV/EBITDA）。

3）收入价值比率

如市销率(P/S)、企业价值与营业收入比率（EV/S）等。收入价值比率隐含的估值逻辑是企业的核心价值与其销售收入规模之间存在直接、稳定的线性关系。然而，对于晶圆代工企业而言，其核心价值主要取决于技术工艺等要素，最终综合体现为企业的持续盈利能力。盈利价值比率与晶圆代工行业的估值逻辑更为契合，因此，本次评估未采用收入价值比率。

（2）相关性测试

评估人员对所选取的三家可比公司，以企业价值（EV）为因变量、息税折旧摊销前利润（EBITDA）为自变量，进行了EV/EBITDA价值比率的线性回归分析，相关分析结果如下表所示：

检验指标	EV/EBITDA
R	0.9461
R 方	0.8951

经相关性测试，EV/EBITDA的R方较高，一般认为R方在0.7到0.9之间具有较高的拟合，意味着息税折旧摊销前利润与企业价值存在较强的正相关关系，故本次评估宜采用EV/EBITDA作为价值比率。

4. **确定评估结论**

在调整并计算可比企业的价值比率后，结合被评估单位相应的财务数据或指标，计算得出被评估单位的企业价值，并通过对被评估单位的非经营性资产、负债和溢余资产价值进行调整，最终得到被评估单位股东全部权益价值。

5. **对流动性及控制权的考虑**

本次市场法评估采用上市公司比较法，由于选取的可比公司为上市公司，而被评估单位为非上市公司，评估中考虑了流动性对评估对象价值的影响。

由于暂无针对中国市场的比较可靠且能让市场参与者均予认可的控制权溢价率或缺乏控制权折价率权威统计数据，本次市场法评估未考虑控制权对评估对象价值的影响。

三、 市场法评估过程

1. 可比企业的选择

由于被评估单位是一家非上市公司，其股权不具备公开交易流通市场，因此不能直接确定其市场价值。我们采用在国内上市公司中选用可比企业，可比企业的筛选过程如下：

（1）根据被评估单位所在的行业、主要经营模式及产品类型进行初步筛选，筛选标准为：

1）截至评估基准日至少有两年的上市历史，以避免市场信息不够充分及 IPO 效应、市场预期等因素造成的股价波动影响。

2）与被评估单位同属于半导体制造或晶圆代工行业，主要经营模式为大规模投资、高资本支出及技术工艺持续投入的 IDM （垂直整合制造模式）或 Foundry （代工模式） 模式，且产品应用领域相似。

3）评估基准日近期股票正常交易，未处于停牌等非正常交易状态，或未因基准日近期发生并购重组交易而使得股票价格异常波动。

4）鉴于 ST 股票（退市风险警示股票）较可能因市场中的投机、炒作等因素使得股票价格较大程度偏离其实际价值，故将 ST 股票剔除出可比公司范围。

本次评估人员筛选与被评估单位同属于所属申银万国行业分类--电子--半导体--分立器件、集成电路制造的上市公司，共计25家上市公司（清单）具体如下所示：

证券代码	证券名称	上市日期	筛选过程
688249.SH	**晶合集成**	**2023-05-05**	**主要为 Foundry 模式，产品应用领域相似，进一步筛选**
688347.SH	华虹公司	2023-08-07	基准日近期存在停牌等非正常交易状态，剔除
688396.SH	**华润微**	**2020-02-27**	**主要为 IDM 模式，产品应用领域相似，进一步筛选**
688469.SH	芯联集成	2023-05-10	基准日近期发生并购重组，剔除
688691.SH	灿芯股份	2024-04-11	主要为 Fabless 模式，经营模式差异较大，剔除
688981.SH	中芯国际	2020-07-16	主要为 Foundry 模式，工艺制程存在较大差异，剔除
300456.SZ	赛微电子	2015-05-14	主要为 Foundry 模式，产品应用领域存在差异，剔除
600360.SH	*ST 华微	2001-03-16	ST 股票，股票价格较大程度偏离其实际价值，剔除
600460.SH	**士兰微**	**2003-03-11**	**主要为 IDM 模式，产品应用领域相似，进一步筛选**
600745.SH	闻泰科技	1996-08-28	主要为 IDM 模式，产品应用领域存在差异，剔除
603290.SH	斯达半导	2020-02-04	主要为 Fabless 模式，经营模式差异较大，剔除

证券代码	证券名称	上市日期	筛选过程
605111.SH	新洁能	2020-09-28	主要为 Fabless 模式，经营模式差异较大，剔除
688048.SH	长光华芯	2022-04-01	主要为 IDM 模式，产品应用领域存在差异，剔除
688167.SH	炬光科技	2021-12-24	主要为 IDM 模式，产品应用领域存在差异，剔除
688172.SH	燕东微	2022-12-16	**主要为 IDM 模式，产品应用领域相似，进一步筛选**
688230.SH	芯导科技	2021-12-01	主要为 Fabless 模式，经营模式差异较大，剔除
688261.SH	东微半导	2022-02-10	主要为 Fabless 模式，经营模式差异较大，剔除
688498.SH	源杰科技	2022-12-21	主要为 IDM 模式，产品应用领域存在差异，剔除
688689.SH	银河微电	2021-01-27	主要为半导体封测，经营模式差异较大，剔除
688693.SH	锴威特	2023-08-18	主要为 Fabless 模式，经营模式差异较大，剔除
688711.SH	宏微科技	2021-09-01	主要为 Fabless 模式，经营模式差异较大，剔除
300046.SZ	台基股份	2010-01-20	主要为 Fabless 模式，经营模式差异较大，剔除
300373.SZ	扬杰科技	2014-01-23	**主要为 IDM 模式，产品应用领域相似，进一步筛选**
300623.SZ	捷捷微电	2017-03-14	**主要为 IDM 模式，产品应用领域相似，进一步筛选**
300831.SZ	派瑞股份	2020-05-07	主要为 Fabless 模式，经营模式差异较大，剔除

初步筛选后，符合上述参照标准（即主要是从企业商业模式、产品应用领域等方面）的公司概况如下表所示：

证券代码	证券名称	公司简介	主营业务构成(2024 年度)
688249.SH	晶合集成	合肥晶合集成电路股份有限公司的主营业务是 12 英寸晶圆代工业务及其配套服务。公司的主要产品是 DDIC、CIS、PMIC、MCU、Logic。	集成电路晶圆制造代工：98.5703%；其他业务：1.4020%；其他：0.0277%
688396.SH	华润微	华润微电子有限公司的主营业务是功率半导体、智能传感器与智能控制等领域，为客户提供丰富的半导体产品与系统解决方案。公司的主要产品是 MOSFET、IGBT、功率二极管、物联网应用专用 IC、功率 IC、光电耦合及传感、SiC、GaN。	产品与方案：50.9277%；制造与服务：46.3278%；其他业务：2.7445%
600460.SH	士兰微	杭州士兰微电子股份有限公司的主营业务是电子元器件的研发、生产和销售。公司的主要产品是硅基集成电路、分立器件和化合物半导体器件（LED 芯片和成品，SiC、GaN 功率器件）产品。	分立器件产品：48.4601%；集成电路：36.5858%；发光二极管产品：6.8476%；其他业务：4.4177%；其他：3.6887%
688172.SH	燕东微	北京燕东微电子股份有限公司的主营业务是产品与方案和制造与服务两类业务。公司的主要产品是产品与方案、制造与服务。	产品与方案：47.1756%；制造与服务：43.9067%；其他：5.7855%；其他业务：3.1323%
300373.SZ	扬杰科技	扬州扬杰电子科技股份有限公司的主营业务是功率半导体硅片、芯片及器件设计、制造、封装测试研发、生产、销售。公司的主要产品是半导体器件、半导体芯片、半导体硅片。	半导体器件：86.2474%；半导体芯片：8.3270%；半导体硅片：3.0766%；其他业务收入：2.3490%
300623.SZ	捷捷微电	江苏捷捷微电子股份有限公司的主营业务是功率半导体芯片和器件的研发、设计、生产和销售。公司的主要产品是晶闸管系列、防护器件系列、二极管系列、MOSFET 系列、IGBT 系列、厚模组件、碳化硅器件、其他。	功率半导体器件：66.9693%；功率半导体芯片：31.0471%；其他业务收入：1.3637%；功率器件封测：0.6199%

（2）鉴于被评估单位是一家独立的晶圆代工厂，若可比上市公司的业务规模小于被评估单位且差距较大，则其可比性将相应减弱。此外，考虑到被评估单位在评估基准日的固定资产账面价值已基本计提完折旧，且其主要生产经营场所均来源于租赁，未拥有自有厂房及土地，本次筛选过程中选取设备类固定资产账面原值规模可比的样本。

经计算各公司设备类固定资产账面原值具体如下：

证券代码	证券名称	设备类固定资产账面原值（亿元）
688249.SH	**晶合集成**	**373.37**
688396.SH	**华润微**	**208.96**
600460.SH	**士兰微**	**114.24**
688172.SH	燕东微	67.74
300373.SZ	扬杰科技	47.07
300623.SZ	捷捷微电	54.72
被评估单位	华力微	153.59

最终筛选确定的可比上市公司概况如下表所示：

证券代码	证券名称	上市日期	公司简介	主营业务
688249.SH	晶合集成	2023-05-05	合肥晶合集成电路股份有限公司的主营业务是 12 英寸晶圆代工业务及其配套服务。公司的主要产品是 DDIC、CIS、PMIC、MCU、Logic。	12 英寸晶圆代工业务。
688396.SH	华润微	2020-02-27	华润微电子有限公司的主营业务是功率半导体、智能传感器与智能控制等领域，为客户提供丰富的半导体产品与系统解决方案。公司的主要产品是 MOSFET、IGBT、功率二极管、物联网应用专用 IC、功率 IC、光电耦合及传感、SiC、GaN。	芯片设计、晶圆制造、封装测试等全产业链一体化经营。
600460.SH	士兰微	2003-03-11	杭州士兰微电子股份有限公司的主营业务是电子元器件的研发、生产和销售。公司的主要产品是硅基集成电路、分立器件和化合物半导体器件（LED 芯片和成品，SiC、GaN 功率器件）产品。	电子元器件的研发、生产和销售。

2. 可比企业财务概况

可比企业一：士兰微（600460.SH）

公司全称：杭州士兰微电子股份有限公司

（1）资产负债表（合并报表）

金额单位：万元

项目\年份	2023/12/31	2024/12/31	2025/6/30
流动资产：			
货币资金	613,122.98	452,033.46	444,510.01
交易性金融资产	0.00	0.00	0.00
衍生金融资产	0.00	0.00	0.00
应收票据及应收账款	244,610.00	303,671.42	327,813.76
应收款项融资	93,839.37	151,269.10	192,637.98
预付款项	4,152.76	3,582.99	3,654.47
其他应收款合计	2,552.38	2,253.64	2,387.59
合同资产	0.00	0.00	0.00
存货	373,203.41	389,894.30	378,229.34
持有待售资产	0.00	0.00	0.00
一年内到期的非流动资产	1,720.00	960.00	1,200.00
其他流动资产	15,329.26	31,437.47	13,912.33
流动资产合计	1,348,530.16	1,335,102.39	1,364,345.47
非流动资产：			
债权投资	0.00	0.00	0.00
长期应收款	3,610.00	2,650.00	1,750.00
长期股权投资	67,830.28	127,834.49	147,654.84
其他权益工具投资	2,250.71	2,226.29	2,380.90
其他非流动金融资产	56,623.79	43,886.84	41,555.06
投资性房地产	0.00	0.00	0.00
固定资产合计	643,080.08	687,001.45	686,726.42
在建工程合计	149,717.00	180,666.10	207,442.93
使用权资产	1,221.08	763.74	839.25
无形资产	47,186.51	36,951.98	31,462.31
开发支出	2,619.90	4,872.77	9,382.82
商誉	24,535.99	24,507.00	24,507.00
长期待摊费用	10,177.79	7,209.44	6,702.13
递延所得税资产	10,736.87	15,788.13	14,577.91
其他非流动资产	22,638.42	10,236.49	11,561.12
非流动资产合计	1,042,228.41	1,144,594.71	1,186,542.71
资产总计	2,390,758.57	2,479,697.11	2,550,888.18
流动负债：			
短期借款	181,056.81	149,163.93	161,461.23
交易性金融负债	111.63	0.00	0.00

项目\年份	2023/12/31	2024/12/31	2025/6/30
衍生金融负债	0.00	0.00	0.00
应付票据及应付账款	217,922.27	310,155.65	315,075.33
预收款项	0.00	0.00	0.00
合同负债	2,409.47	2,526.23	2,390.84
应付职工薪酬	38,896.57	41,966.48	29,584.98
应交税费	11,017.49	9,956.03	11,030.06
其他应付款合计	6,981.88	7,593.75	9,987.80
一年内到期的非流动负债	105,257.17	196,825.01	192,653.20
其他流动负债	227.62	295.63	160.50
流动负债合计	563,880.92	718,482.72	722,343.95
非流动负债：			
长期借款	343,094.60	260,300.26	347,305.44
应付债券	0.00	0.00	0.00
租赁负债	784.06	504.01	490.86
长期应付款合计	26,741.41	12,047.05	5,408.06
长期应付职工薪酬	0.00	0.00	0.00
预计负债	0.00	0.00	0.00
递延所得税负债	10,714.38	5,843.59	4,736.08
递延收益-非流动负债	11,857.93	13,584.62	15,085.78
其他非流动负债	91,684.17	86,576.66	89,016.44
非流动负债合计	484,876.54	378,856.18	462,042.65
负债合计	1,048,757.47	1,097,338.90	1,184,386.59
所有者权益(或股东权益)：			
归属于母公司所有者权益合计	1,202,160.63	1,221,478.52	1,230,102.77
少数股东权益	139,840.48	160,879.69	136,398.81
所有者权益合计	1,342,001.10	1,382,358.20	1,366,501.59

（2）利润表（合并报表）

金额单位：万元

项目 \ 年份	2023/12/31	2024/12/31	2025/6/30
一、营业总收入	933,953.80	1,122,086.90	633,576.61
二、营业总成本	898,089.78	1,100,739.99	597,538.91
营业成本	726,479.50	907,870.61	504,223.06
税金及附加	3,829.74	5,271.47	2,532.51

项目 \ 年份	2023/12/31	2024/12/31	2025/6/30
销售费用	16,685.01	17,877.47	8,593.39
管理费用	37,866.14	46,075.83	23,036.89
研发费用	86,377.31	103,448.04	47,820.57
财务费用	26,852.08	20,196.56	11,332.50
公允价值变动收益	-61,282.20	-13,625.32	-2,331.78
投资收益	21,622.84	-775.48	-2,841.70
净敞口套期收益	0.00	0.00	0.00
汇兑收益	0.00	0.00	0.00
资产处置收益	1,108.96	-274.65	60.88
资产减值损失	9,387.11	30,833.39	20,329.81
信用减值损失	2,459.33	4,554.64	2,825.29
其他收益	9,655.22	18,643.15	8,592.32
三、营业利润	-4,877.60	-10,073.42	16,362.31
加：营业外收入	116.34	445.96	185.88
减：营业外支出	926.56	1,097.17	128.36
四、利润总额	-5,687.81	-10,724.63	16,419.83
减：所得税费用	767.95	-8,338.44	3,136.22
五、净利润	-6,455.76	-2,386.19	13,283.62
减：少数股东损益	-2,877.19	-24,372.98	-13,196.15
归属于母公司所有者的净利润	-3,578.58	21,986.78	26,479.77

上述数据摘自于士兰微历史定期报告。

可比企业二：晶合集成（688249.SH）

公司全称：合肥晶合集成电路股份有限公司

（1）资产负债表（合并报表）

金额单位：万元

项目\年份	2023/12/31	2024/12/31	2025/6/30
流动资产：			
货币资金	652,622.76	582,775.72	310,395.47
交易性金融资产	154,842.49	106,612.55	157,389.87
衍生金融资产	0.00	0.00	0.00
应收票据及应收账款	85,720.04	99,257.58	95,632.97
应收款项融资	377.71	13.07	258.65

项目\年份	2023/12/31	2024/12/31	2025/6/30
预付款项	8,439.72	3,750.70	3,354.56
其他应收款合计	2,571.80	5,245.43	4,170.25
合同资产	0.00	0.00	0.00
存货	149,268.54	150,332.06	164,554.75
持有待售资产	0.00	0.00	0.00
一年内到期的非流动资产	0.00	3,180.48	6,360.97
其他流动资产	140,689.44	23,219.06	41,381.92
流动资产合计	1,194,532.50	974,386.65	783,499.39
非流动资产：			
债权投资	0.00	0.00	0.00
长期应收款	0.00	0.00	0.00
长期股权投资	10,000.00	17,711.10	27,354.45
其他权益工具投资	10,366.92	13,424.43	17,444.90
其他非流动金融资产	30,653.50	60,738.86	50,616.15
投资性房地产	0.00	0.00	0.00
固定资产合计	2,287,260.63	2,479,217.17	2,671,579.01
在建工程合计	1,095,959.78	1,322,186.48	1,334,338.64
使用权资产	355.91	85.70	0.00
无形资产	135,802.02	131,341.88	137,113.98
开发支出	0.00	0.00	0.00
商誉	0.00	0.00	0.00
长期待摊费用	8.87	0.00	0.00
递延所得税资产	0.00	0.00	0.00
其他非流动资产	50,687.84	40,765.67	98,702.02
非流动资产合计	3,621,095.46	4,065,471.30	4,337,149.12
资产总计	4,815,627.96	5,039,857.94	5,120,648.52
流动负债：			
短期借款	65,834.90	129,114.81	67,937.17
交易性金融负债	0.00	0.00	0.00
衍生金融负债	0.00	0.00	0.00
应付票据及应付账款	799,976.35	219,372.58	271,923.94
预收款项	0.00	0.00	0.00
合同负债	87,737.18	64,851.59	28,811.36
应付职工薪酬	11,638.49	17,094.28	21,061.78
应交税费	9,478.67	9,544.18	7,800.98
其他应付款合计	284,185.04	147,583.25	114,429.79

项目\年份	2023/12/31	2024/12/31	2025/6/30
一年内到期的非流动负债	140,334.36	150,494.10	171,357.91
其他流动负债	2,475.00	4,521.77	6,656.28
流动负债合计	1,401,659.99	742,576.55	689,979.22
非流动负债：			
长期借款	1,151,003.04	1,558,942.96	1,669,458.48
应付债券	0.00	79,988.88	99,991.02
租赁负债	0.00	0.00	0.00
长期应付款合计	0.00	0.00	0.00
长期应付职工薪酬	977.20	700.83	1,225.90
预计负债	0.00	0.00	0.00
递延所得税负债	0.00	0.00	0.00
递延收益-非流动负债	48,171.21	48,751.98	45,663.14
其他非流动负债	0.00	0.00	0.00
非流动负债合计	1,200,151.45	1,688,384.65	1,816,338.54
负债合计	2,601,811.44	2,430,961.20	2,506,317.76
所有者权益(或股东权益)：			
归属于母公司所有者权益合计	2,140,980.47	2,087,031.10	2,102,478.03
少数股东权益	72,836.05	521,865.65	511,852.73
所有者权益合计	2,213,816.52	2,608,896.75	2,614,330.76

（2）利润表（合并报表）

金额单位：万元

项目 \ 年份	2023/12/31	2024/12/31	2025/6/30
一、营业总收入	724,354.14	924,925.23	519,845.47
二、营业总成本	724,299.13	889,949.83	497,180.83
营业成本	567,817.38	689,047.20	385,910.05
税金及附加	3,186.36	3,232.45	1,957.68
销售费用	5,019.63	5,483.66	2,817.30
管理费用	27,119.33	34,063.15	18,333.08
研发费用	105,751.18	128,397.52	69,482.02
财务费用	15,405.24	29,725.86	18,680.70
公允价值变动收益	1,133.40	771.60	997.75
投资收益	7,319.44	4,118.22	1,357.56
净敞口套期收益	0.00	0.00	0.00

项目 \ 年份	2023/12/31	2024/12/31	2025/6/30
汇兑收益	0.00	0.00	0.00
资产处置收益	2.34	0.07	0.00
资产减值损失	8,108.60	2,404.05	6,205.87
信用减值损失	-10.61	-174.97	13.74
其他收益	11,145.40	10,560.26	4,244.29
三、营业利润	11,557.58	48,196.47	23,044.63
加：营业外收入	601.39	217.73	160.07
减：营业外支出	224.93	168.25	0.00
四、利润总额	11,934.04	48,245.94	23,204.70
减：所得税费用	17.56	26.31	4.74
五、净利润	11,916.48	48,219.63	23,199.96
减：少数股东损益	-9,246.44	-5,064.43	-10,012.92
归属于母公司所有者的净利润	21,162.91	53,284.06	33,212.88

上述数据摘自于晶合集成历史定期报告。

可比企业三：华润微（688396.SH）

公司全称：华润微电子有限公司

（1）资产负债表（合并报表）

金额单位：万元

项目\年份	2023/12/31	2024/12/31	2025/6/30
流动资产：			
货币资金	1,173,652.79	868,294.30	893,689.13
交易性金融资产	6,200.08	2,978.39	0.00
衍生金融资产	0.00	0.00	0.00
应收票据及应收账款	155,442.95	185,302.92	209,681.80
应收款项融资	67,164.99	54,183.15	74,844.21
预付款项	6,302.52	5,474.46	6,939.98
其他应收款合计	1,803.39	319.26	701.31
合同资产	0.00	0.00	0.00
存货	196,574.29	209,642.48	213,370.04
持有待售资产	0.00	0.00	0.00
一年内到期的非流动资产	0.00	0.00	0.00
其他流动资产	3,587.57	8,808.96	9,479.90

项目\年份	2023/12/31	2024/12/31	2025/6/30
流动资产合计	1,610,728.57	1,335,003.92	1,408,706.38
非流动资产：			
债权投资	0.00	0.00	0.00
长期应收款	0.00	0.00	0.00
长期股权投资	392,166.99	601,169.18	574,644.09
其他权益工具投资	0.00	0.00	0.00
其他非流动金融资产	50,227.69	44,054.32	44,310.49
投资性房地产	279.81	3,840.81	3,757.76
固定资产合计	654,105.14	775,116.93	750,960.71
在建工程合计	76,476.36	34,865.18	43,587.64
使用权资产	10,417.80	8,342.90	7,683.92
无形资产	36,062.04	36,594.23	35,465.17
开发支出	0.00	0.00	0.00
商誉	18,532.66	52,543.54	52,543.54
长期待摊费用	3,094.94	3,848.03	2,728.98
递延所得税资产	9,781.77	10,316.94	10,396.03
其他非流动资产	59,652.22	4,986.99	19,209.26
非流动资产合计	1,310,797.41	1,575,679.04	1,545,287.61
资产总计	2,921,525.98	2,910,682.95	2,953,993.99
流动负债：			
短期借款	2,244.42	3,382.05	4,779.00
交易性金融负债	0.00	8,167.02	8,167.02
衍生金融负债	0.00	0.00	0.00
应付票据及应付账款	118,231.87	132,429.98	139,053.35
预收款项	0.00	0.00	0.00
合同负债	17,420.67	17,797.24	22,956.91
应付职工薪酬	57,776.56	56,308.37	45,534.33
应交税费	7,930.70	6,589.45	8,899.89
其他应付款合计	203,009.22	173,668.21	173,964.37
一年内到期的非流动负债	6,530.00	2,426.67	2,143.53
其他流动负债	13,645.44	12,535.73	13,611.27
流动负债合计	426,788.86	413,304.71	419,109.68
非流动负债：			
长期借款	90,665.96	0.00	0.00
应付债券	0.00	0.00	0.00
租赁负债	7,728.96	6,422.44	6,032.96

项目\年份	2023/12/31	2024/12/31	2025/6/30
长期应付款合计	0.00	0.00	48.20
长期应付职工薪酬	0.00	0.00	0.00
预计负债	1,455.59	2,177.20	2,056.48
递延所得税负债	9,510.27	7,394.97	7,261.25
递延收益-非流动负债	21,927.62	35,137.56	39,047.92
其他非流动负债	403.81	16,650.77	16,337.67
非流动负债合计	131,692.20	67,782.93	70,784.48
负债合计	558,481.06	481,087.65	489,894.17
所有者权益(或股东权益)：			
归属于母公司所有者权益合计	2,155,805.67	2,230,621.31	2,270,626.79
少数股东权益	207,239.24	198,974.00	193,473.03
所有者权益合计	2,363,044.92	2,429,595.31	2,464,099.82

（2）利润表（合并报表）

金额单位：万元

项目 \ 年份	2023/12/31	2024/12/31	2025/6/30
一、营业总收入	990,060.39	1,011,852.58	521,817.88
二、营业总成本	852,588.28	917,504.73	471,978.20
营业成本	671,021.63	736,683.88	387,973.12
税金及附加	8,406.13	8,350.37	4,802.85
销售费用	16,717.28	15,819.09	7,965.26
管理费用	65,511.45	52,316.06	26,337.17
研发费用	115,411.23	116,711.32	54,794.38
财务费用	-24,479.45	-12,375.99	-9,894.58
公允价值变动收益	-698.23	-2,846.35	256.17
投资收益	8,574.85	-38,259.80	-23,155.15
净敞口套期收益	0.00	0.00	0.00
汇兑收益	0.00	0.00	0.00
资产处置收益	-494.02	-409.44	20.29
资产减值损失	2,553.45	7,423.00	2,147.16
信用减值损失	783.83	-136.26	85.41
其他收益	25,169.91	33,114.56	10,730.37
三、营业利润	166,687.33	78,660.07	35,458.78
加：营业外收入	2,256.61	986.55	251.26

项目 \ 年份	2023/12/31	2024/12/31	2025/6/30
减：营业外支出	267.85	183.12	18.60
四、利润总额	168,676.08	79,463.50	35,691.43
减：所得税费用	24,861.52	13,293.21	7,791.06
五、净利润	143,814.56	66,170.29	27,900.37
减：少数股东损益	-4,112.01	-10,075.70	-5,979.16
归属于母公司所有者的净利润	147,926.57	76,245.99	33,879.53

上述数据摘自于华润微历史定期报告。

3. 规范被评估单位和可比公司的财务报表

对于任何一个企业，其资产负债表可能既包括经营性资产、负债，又包括非经营性资产、负债和溢余资产；其利润表可能既包括与经营性资产相关的营业收入和支出，又包括与非经营性资产、负债和溢余资产相关的收入和支出。评估专业人员在用于市场法进行企业价值评估时，由于非经营收入和支出，非经营性资产、负债和溢余资产及其相关的收入和支出的影响，可能导致基于财务报表计算的价值比率不具有可比性，因此，本次评估运用市场法进行企业价值评估时，按照统一口径对可比对象和被评估企业财务报表中的非经营性资产、负债和溢余资产及其相关的收入和支出进行剥离，然后在最终的评估结果中加回非经营性资产、负债及溢余资产的价值。

有鉴于可比企业的非经营性资产和非经营性损益，无法像委估企业一样通过详细尽调获得，考虑到数据的可获得性，我们本次对非经营性资产和非经常性损益主要限定在以下会计科目：

（1）非经营性资产（负债）

非经营性资产主要包括交易性金融资产、衍生金融资产、持有待售资产、债权投资、长期应收款、长期股权投资、其他权益工具投资、其他非流动金融资产、投资性房地产等会计科目，上述科目的全部金额一般都作为非经处理。

非经营性负债主要包括交易性金融负债、衍生金融负债、递延收益等会计科目，上述科目的全部金额一般都作为非经处理。

受制于数据的可获得性，非经营性资产和负债的评估值均等于账面值。

（2）非经常性损益

调整后的经营性营业利润＝营业利润－需要调整的非持续营业收入＋需要调整的非持续营业成本和期间费用－其他收益－投资收益－净敞口套期收益－公允价值变动收益－信用减值损失－资产减值损失－资产处置收益

调整的非经常性损益主要包括其他收益、投资收益、净敞口套期收益、公允价值变动收益、信用减值损失、资产减值损失、资产处置收益等。

4. **价值比率的计算**

经过上述分析过程，价值比率的计算如下：

具体指标	**公式**	**待估对象**	**案例一**	**案例二**	**案例三**
		华力微	士兰微	晶合集成	华润微
股价（元/股）	A		26.86	21.97	47.74
总股本（万股）	B		166,407.18	200,613.52	132,752.94
缺乏流动性折扣率	C		39.26%	39.26%	39.26%
扣除流动性折扣后市值	D=A×B×(1-C)		2,715,100.00	2,676,700.00	3,849,500.00
基准日非经营性资产、负债净额	E		193,340.81	252,780.46	608,688.12
经营性股权价值	F=D-E		2,521,759.19	2,423,919.54	3,240,811.88
付息债务	G		706,452.88	2,003,102.12	4,827.20
少数股东权益	H		136,398.81	511,852.73	193,473.03
货币资金	I		444,510.01	310,395.47	893,689.13
不含资金的经营性企业价值 EV	J=F+G+H-I		2,920,100.87	4,628,478.92	2,545,422.98
EBITDA	K	87,781.97	173,149.07	426,382.53	216,387.18
EV/EBITDA 值	L=J÷K		16.86	10.86	11.76

4.1 **经营性股权价值的计算**

经营性股权价值＝股东全部权益价值（上市公司市值）－非经营性资产负债评估值

其中：股东全部权益价值＝基准日股本总额×基准日前120日成交均价×（1－流动性折扣率）

4.2 **非流通性折扣**

由于选取的上市公司的价值是通过流通股的价格计算的，而委评公司非上市公司，

因此通过修正后的价值比率计算出来的经营性股权价值需要考虑非流通折扣。

一般认为不可流通股与流通股之间的价格差异主要由下列因素造成：

（1）承担的风险

流通股的流通性很强，一旦发生风险后，流通股持有者可以迅速出售所持有股票，减少或避免风险。非流通股持有者在遇到同样情况后，则不能迅速做出上述反应而遭受损失。

（2）交易的活跃程度

流通股交易活跃，价格上升。非流通股缺乏必要的交易人数，另外非流通股一般数额较大，很多投资者缺乏经济实力参与非流通股的交易，因而，与流通股相比，交易缺乏活跃，价格较低。

由于选取的上市公司的价值是通过流通股的价格计算的，而委估企业是非上市公司，因此通过可比公司所在的流通市场计算得到的市值需要修正。

对于流动性折扣，评估人员参考新股发行定价估算方式进行测算，所谓新股发行定价估算方式就是根据国内上市公司新股 IPO 的发行定价与该股票正式上市后的交易价格之间的差异来研究缺乏流动性的方式。

评估人员根据筛选后可比公司的细分行业分类，收集了在该行业分类下距评估基准日上市满一年的所属行业公司新股的发行价，分别研究其与上市后第 90交易日、120交易日、250 交易日收盘价之间的关系，相关概况信息如下表所示：

证券代码	证券名称	首发价格	上市后 90 日收盘价	上市后 120 日收盘价	上市后 250 日收盘价	第 90 日流动性折扣	第 120 日流动性折扣	第 250 日流动性折扣
600360.SH	*ST 华微	8.4200	23.1000	19.7000	16.0900	63.55%	57.26%	47.67%
600460.SH	士兰微	11.6000	16.1000	16.6000	35.0900	27.95%	30.12%	66.94%
603290.SH	斯达半导	12.7400	190.3266	215.5800	242.4160	93.31%	94.09%	94.74%
605111.SH	新洁能	19.9100	170.5000	166.5800	170.9505	88.32%	88.05%	88.35%
688048.SH	长光华芯	80.8000	141.5232	110.8839	116.9314	42.91%	27.13%	30.90%
688167.SH	炬光科技	78.6900	99.7400	152.8600	93.7300	21.10%	48.52%	16.05%
688172.SH	燕东微	21.9800	22.8200	23.8300	17.5000	3.68%	7.76%	-25.60%
688230.SH	芯导科技	134.8100	90.5500	88.9800	83.7498	-48.88%	-51.51%	-60.97%
688249.SH	晶合集成	19.8600	18.5700	16.6800	14.3600	-6.95%	-19.06%	-38.30%
688261.SH	东微半导	130.0000	259.8600	299.8257	243.1371	49.97%	56.64%	46.53%
688347.SH	华虹公司	52.0000	43.4700	35.0100	31.3794	-19.62%	-48.53%	-65.71%

证券代码	证券名称	首发价格	上市后 90 日收盘价	上市后120日收盘价	上市后250日收盘价	第 90 日流动性折扣	第120日流动性折扣	第250日流动性折扣
688396.SH	华润微	12.8000	58.0960	50.2398	61.5187	77.97%	74.52%	79.19%
688469.SH	芯联集成	5.6900	5.3300	5.2800	3.9300	-6.75%	-7.77%	-44.78%
688498.SH	源杰科技	100.6600	221.3500	437.8892	209.0988	54.52%	77.01%	51.86%
688689.SH	银河微电	14.0100	30.6329	40.8573	38.5684	54.26%	65.71%	63.67%
688691.SH	灿芯股份	19.8600	44.2566	55.5099	61.9895	55.13%	64.22%	67.96%
688693.SH	锴威特	40.8300	44.4300	26.1600	23.9836	8.10%	-56.08%	-70.24%
688711.SH	宏微科技	27.5100	120.8700	96.5443	89.8930	77.24%	71.51%	69.40%
688981.SH	中芯国际	27.4600	58.6400	61.5900	51.8800	53.17%	55.41%	47.07%
300046.SZ	台基股份	41.3000	36.2176	47.7013	59.1849	-14.03%	13.42%	30.22%
300373.SZ	扬杰科技	19.5000	54.4516	52.0239	52.3650	64.19%	62.52%	62.76%
300456.SZ	赛微电子	14.0100	103.2000	103.2000	86.9700	86.42%	86.42%	83.89%
300623.SZ	捷捷微电	27.6300	63.8216	70.0792	63.6609	56.71%	60.57%	56.60%
300831.SZ	派瑞股份	3.9800	19.7037	25.3133	10.1774	79.80%	84.28%	60.89%
均值						**40.09%**	**39.26%**	**31.63%**

本次评估采用上市后第 90交易日、120 交易日、250 交易日流动性折扣率中位数39.26%确定为缺乏流动性折扣率。

4.3 不含资金的经营性企业价值EV

考虑到企业一方面可能有付息债务，而另一方面又存在货币资金，而这与企业对于货币资金管理方式、风险偏好、运营资金季节性变动有关，因此为了剔除该因素的影响，在计算企业价值时剔除货币资金的影响采用，得出不含货币资金的企业价值用于计算各项价值比率，即本次企业价值EV均为不含货币资金的价值（为方便表述，以下除非专门指出，则企业价值EV均为不含货币资金的价值）即：

企业价值EV＝全口径企业价值EV－非经营性资产负债评估值

全口径企业价值EV＝经营性股权价值＋付息债务＋少数股东权益－货币资金

受制于数据的可获得性以及数据的非重要性，少数股东权益的评估值均等于账面值。

4.4 经营性损益

本次评估基准日为2025年8月31日，鉴于各可比公截至基准日仅披露了2025年中期

财务报告，为确保经营数据在完整会计期间内具有可比性，本次评估被评估单位及各可比公司统一采用2024年度的财务数据作为损益比较基础。

5. **价值比率修正**

本次评估依据从财务指标及非财务指标两个维度对被评估单位与可比公司间的差异进行量化。其中，财务指标主要涵盖企业的经营规模、偿债能力、营运能力及盈利能力；非财务指标涵盖企业的交易日期、交易情况、所处发展阶段、研发投入、设备净值率、主要经营模式等方面。在此基础上，结合行业特性和所选价值比率的内涵，我们对各项指标赋予了相应的权重。具体情况如下表所示：

特性指标			**权重**
财务指标	经营规模	资产总计	50%
		营业收入	50%
	偿债能力	资产负债率	50%
		流动比率	50%
	营运能力	流动资产周转次数	50%
		总资产周转次数	50%
非财务指标	交易日期		100%
	交易情况		100%
	发展阶段		100%
	研发投入		100%
	设备净值率		100%
	主要经营模式		100%

修正体系解释如下

5.1 **经营规模修正**

不同企业经营规模是有差异的，在衡量市场地位、市场份额方面，营业收入、总资产是非常重要的指标。并购者在其他条件相同的情况下，会对经营规模更大的企业产生更大的并购动机。

本次经营规模的衡量指标采用营业收入、资产总计等。本次通过对影响经营规模的两个指标进行打分修正，并根据各指标影响企业经营规模的重要程度赋予相应的权重，以修正后的打分加权分值来确定各指标的修正系数。

经营规模的修正是正向的，即经营规模越大，则向上修正，反之则向下修正。

5.2 偿债能力修正

企业的偿债能力是指企业用其资产偿还长期债务与短期债务的能力，是企业能否健康生存和发展的关键，反映企业财务状况和经营风险的重要标志。静态的讲，就是用企业资产清偿企业债务的能力；动态的讲，就是用企业资产和经营过程创造的收益偿还债务的能力。

偿债能力的衡量指标主要有流动比率、资产负债率等。本次通过对影响偿债能力的两个指标进行打分修正，并根据各指标影响企业偿债能力的重要程度赋予相应的权重，以修正后的打分加权分值来确定各指标的修正系数。

资产负债率修正的方向是反向的，即资产负债率越高，则向下修正；反之则向上修。流动比率修正的方向是正向的，即该指标越高，则向上修正，反之则向下修正。

5.3 运营能力修正

运营能力是指企业基于外部市场环境的约束，通过内部人力资源和生产资料的配置组合而对财务目标实现所产生作用的大小，通俗来讲，就是企业运用各项资产以赚取利润的能力。

企业营运能力的财务分析比率有：总资产周转次数、流动资产周转次数等。这些比率揭示了企业资金运营周转的情况，反映了企业对经济资源管理、运用的效率高低。企业资产周转越快，流动性越高，资产获取利润的速度就越快。

本次通过对总资产周转次数、流动资产周转次数进行打分修正，并根据各指标影响企业偿债能力的重要程度赋予相应的权重，以修正后的打分加权分值来确定各指标的修正系数。

运营能力修正是正向的，即周转率越高，则向上修正；反之则向下修。

5.4 盈利能力修正

本次采用企业价值与息税折旧摊销前利润比率（EV/EBITDA），由于该指标本身就是盈利类的价值比率，因此不宜再将盈利能力作为修正因素，因此该价值比率不进行盈利能力修正。

5.5 交易日期修正

资产的价格会因为不同的时间而发生变化，而可比企业的成交日期与评估时点通常不同。因此需要将可比企业在其成交日期时的价格调整到在评估时点的价格。这种对可比企业成交价格进行的调整，称为“市场状况调整”，或称“交易日期修正”。经过这一调整或修正之后，就将可比企业在其成交日期的价格变成了在评估时点的价格。

本次采用上市公司比较法，且计算口径均为评估基准日近期股票交易均价，因此不需要进行交易日期修正。

5.6 交易情况修正

可比企业的成交价格是实际发生的，它可能是正常的、公允的市场价值，也可能是某些特定条件、交易条款下的价格。由于要求评估对象价值是客观、公允的，所以可比企业的成交价格如果是不正常的，则应把它修正为正常的。这种对可比企业成交价格进行的修正，称为交易情况修正。

经过核查，评估人员认为，上市公司的交易价格均为活跃、公开交易下的正常市场交易价格，不需要进行交易情况修正。

5.7 发展阶段修正

可比公司可能处于不同的发展阶段，发展阶段对于企业价值的影响本质上源于市场对企业未来收益增长预期的差异。资本市场无论是对于企业的并购对价的估值逻辑还是对上市公司股权走势的判断均依赖于这一预期：增长预期越高，则估值水平相应提升；反之，则估值水平下调。

鉴于被评估单位目前已基本处于满产状态，其未来收益的增长将主要依赖于市场整体发展所带动的产品价格提升，进而推动收入与利润的同步增长。相比之下，本次所选的可比上市公司均处于发展期至成熟期，其增长驱动来源于产能扩张等多重因素，预期增长高于被评估单位。因此我们根据资本市场对于可比企业预期收益增长情况，对发展阶段进行修正。

我们对于发展阶段修正的修正幅度最大值为10个单位。

5.8 研发投入修正

研发投入指企业在产品、技术、材料、工艺、标准的研究、开发过程中发生的各种费用，包括：研发活动直接消耗的材料、燃料和动力费用；企业在职研发人员的工资、奖金、津贴、补贴、社会保险费、住房公积金等人工费用以及外聘兼职研发人员的劳务费；用于研发活动的仪器、设备、房屋等固定资产的折旧或租赁费用等等。

衡量研发投入的重要的一个指标为研发费用率，即研发费用占营业收入的比率。研发费用率越高，代表着企业在创新能力和技术研发上的投入意愿越高，对企业未来保持先进性和盈利能力是利好。

研发费用率的修正是正向的，即研发费用率越高，则向上修正；反之则向下修。

5.9 设备净值率修正

生产设备净值率是衡量企业固定资产质量与技术状态的关键指标。净值率越高，表明设备的物理损耗越低，综合运行效率越可靠，通常也意味着其投产时间较近，具备更高的技术先进性与工艺水平。

对于晶圆代工企业而言，生产设备是其核心生产要素。较高的设备净值率不仅直接关联到更优异的产能性能，此外较新的设备状态通常预示着未来短期内所需的维护维修成本及大规模更新资本支出相对较低，有利于企业维持较好的现金流。

基于上述逻辑，本次对生产设备净值率进行修正。考虑到半导体设备的财务折旧年限短于使用寿命而使得账面净值率偏低，本次通过平均使用寿命调整财务折旧年限后再进行修正。

设备净值率对企业价值的影响为正向关系。净值率越高，则向上修正；反之则向下修。

5.10 其他因素参数

在半导体制造领域，主要存在两种商业模式：垂直整合制造模式（IDM）、代工模式（Foundry），二者在产业链定位、运营逻辑与价值创造上存在一定差异，具体对比如下：

（1）垂直整合制造模式（IDM）

IDM模式覆盖了从芯片设计、制造到封装测试的全产业链环节。

1）核心优势：

①产业链整合能力：通过内部整合设计、制造与封测环节，IDM企业能够实现全流程的协同优化，有助于充分发掘技术潜力，并在产品性能、功耗及成本间取得最佳平衡。

②产能自主与供应链安全：在市场供需紧张时，其自有产能可以优先保障内部需求，同时能快速响应市场价格变动，具备显著的供应链安全与竞争优势。

③深层技术壁垒：由于覆盖了设计和制造，能够积累更多的技术和经验，从而形成更高的技术壁垒和核心竞争力。

2）经营风险

①运营风险较高：需要覆盖设计、制造与封测环节全产业链的生产流程，在市场波动尤其在下行周期，易导致利用率不足，运营风险较为集中。

②管理复杂性与技术迭代速度不足：管理覆盖多领域的庞大组织，可能带来效率损耗。同时，由于需要覆盖设计、制造与封测环节全产业链的研发迭代和技术创新，其创新速度可能不及高度专业化的分工模式。

（2）代工模式（Foundry）

Foundry模式专注于芯片的制造、封装等单一或多个环节，不从事芯片设计，而是为专业的芯片设计公司（Fabless）提供服务。

1）核心优势：

①技术快速迭代能力：通过专注于制造与封装环节的工艺技术，代工厂能够实现技术平台的快速迭代与优化，从而更敏捷地响应市场需求。

②规模效应与成本优势：仅承担代工的职能，通过承接来自全市场的芯片设计公司订单，能够最大化地提升产能利用率，摊薄单位成本，实现规模效应。

③开放的合作伙伴生态：因其不涉足竞争性的芯片设计业务，能够与众多Fabless公司建立合作关系，构建开放的产业生态。

2）经营风险

①产业链附加值不足：处于产业链中游，其附加值的实现依赖于Fabless公司的设计与终端市场需求，在响应特定客户深度定制需求时，能力可能受限。

②抗市场波动能力较弱：产能利用率与盈利能力直接受下游订单波动影响，在行业景气度下行时面临的业绩压力更为直接。

综合上述因素考量，虽然IDM模式存在运营风险集中、管理复杂与技术迭代速度不足的劣势，但其凭借全产业链整合所带来的协同优化、供应链自主可控以及更高的技术附加值，相较Foundry模式仍具备一定的优势。本次对IDM 模式作向上修正，但考虑到商业模式不同也会影响到各自的财务指标，因此对商业模式的差异修正的最大值为5个点。

比较和打分表

项目		**待估对象**	**案例一**	**案例二**	**案例三**
		华力微	**士兰微**	**晶合集成**	**华润微**
价值比率 EV（不含货币资金）/EBITDA			16.86	10.86	11.76
交易日期修正	交易指数	100	100	100	100
	打分系数	100.0	100.0	100.0	100.0
交易情况修正	交易情况	正常市场交易	正常市场交易	正常市场交易	正常市场交易
	打分系数	100.0	100.0	100.0	100.0
发展阶段修正	预期收益增长	成熟期	发展期-成熟期	发展期-成熟期	发展期-成熟期
	打分系数	100.0	110.0	110.0	110.0
经营规模修正	资产总计	718,952.0	2,357,547.4	4,867,843.2	2,331,281.7
	打分系数	100.0	105.0	105.0	105.0
	营业收入	451,697.1	1,122,086.9	924,925.2	1,011,852.6
	打分系数	100.0	105.0	105.0	105.0

项目		待估对象	案例一	案例二	案例三
		华力微	士兰微	晶合集成	华润微
	小计	100.0	105.0	105.0	105.0
偿债能力修正	资产负债率	72.9%	49.6%	50.5%	19.0%
	打分系数	100.0	102.0	102.0	104.0
	流动比率	2.5	1.9	0.9	3.4
	打分系数	100.0	99.0	97.0	102.0
	小计	100.0	100.5	99.5	103.0
运营能力修正	流动资产周转次数	0.9	0.8	1.5	0.7
	打分系数	100.0	99.0	103.0	99.0
	总资产周转次数	0.6	0.5	0.2	0.4
	打分系数	100.0	99.0	97.0	98.0
	小计	100.0	99.0	100.0	98.5
研发投入修正	研发费用率	7.2%	9.2%	13.9%	11.5%
	打分系数	100.0	101.0	105.0	103.0
设备净值率修正	设备净值率	60.6%	78.1%	85.0%	68.8%
	打分系数	100.0	103.0	104.0	101.0
其他因素修正	商业模式	Foundry	IDM	Foundry	IDM
	打分系数	100.0	105.0	100.0	105.0

四、 市场法股东全部权益价值计算

1. 委估对象评估值测算

项目	案例一	案例二	案例三
	士兰微	晶合集成	华润微
价值比率 EV（不含货币资金）/EBITDA	16.86	10.86	11.76
交易日期修正	100/100	100/100	100/100
交易情况修正	100/100	100/100	100/100
发展阶段修正	100/110	100/110	100/110
经营规模修正	100/105	100/105	100/105
偿债能力修正	100/100.5	100/99.5	100/103
运营能力修正	100/99	100/100	100/98.5
盈利能力修正	100/100	100/100	100/100
研发投入修正	100/101	100/105	100/103

项目	案例一	案例二	案例三
	士兰微	晶合集成	华润微
设备净值率修正	100/103	100/104	100/101
其他因素修正	100/105	100/100	100/105
修正后价值比率 EV/EBITDA	13.43	8.65	9.19
权重	33%	33%	33%
修正后价值比率×权重	4.48	2.88	3.06
加权修正后价值比率 EV/EBITDA	10.42		
标的企业 EBITDA			87,781.97
全口径经营性企业价值（不含货币资金）			914,688.16
减：付息债务			373,753.75
减：少数股东权益			0.00
经营性不含货币资金股权价值			540,934.41
加：非经营性资产、负债			6,898.29
加：货币资金			300,352.21
评估值			848,000.00

五、 市场法评估结论

采用市场法对企业股东全部权益价值进行评估，得出的评估基准日的评估结果如下：

被评估单位股东权益账面值为 200,191.38 万元，评估值 848,000.00 万元，评估增值 647,808.62 万元，增值率 323.59%。

This asset appraisal report is prepared in accordance with the Asset Appraisal Standards of the PRC.

Asset Appraisal Report on the Value of All Shareholders' Equity of Shanghai Huali Microelectronics Corporation in connection with the Proposed Issuance of Shares by Hua Hong Semiconductor Limited for the Acquisition of Assets

Orient Ping Bao Zi [2025] No. 2446

(Report)
(1 volume in total, Book No.1)

Shanghai Orient Appraisal Co., Ltd.

December 29, 2025

STATEMENT

I. This asset appraisal report is prepared in accordance with the Basic Standards for Asset Appraisal issued by the Ministry of Finance and the Professional Standards for Asset Appraisal and Professional Ethics Standards issued by the China Asset Appraisal Association.

II. The client or other users of the asset appraisal report shall use the asset appraisal report in accordance with the provisions of laws and administrative regulations and the scope of use specified in the asset appraisal report; if the client or other users of the asset appraisal report use the asset appraisal report in violation of the aforementioned provisions, the asset appraisal institution and asset appraisal professionals shall not be held liable.

III. The asset appraisal report shall only be used by the client, other users of the asset appraisal report as agreed in the asset appraisal engagement contract, and users of the asset appraisal report as stipulated by laws and administrative regulations. Except for the aforementioned users, no other institution or individual shall become a user of the asset appraisal report.

IV. The users of the asset appraisal report shall correctly understand and use the appraisal conclusions. The appraisal conclusions are not equivalent to the realizable price of the appraised asset, and should not be regarded as a guarantee of the realizable price of the appraised asset.

V. Users of the asset appraisal report should pay attention to the hypothetical premises for the appraisal conclusion, the special matters explanation, and the limitations on the use of the asset appraisal report.

VI. The asset appraisal institution and its asset appraisal professionals shall comply with laws, administrative regulations and asset appraisal standards, adhere to the principles of independence, objectivity and fairness, and shall be legally responsible for the asset appraisal reports issued.

VII. We have no existing or anticipated interest in the subject of this asset appraisal report, nor do we have any existing or anticipated interest in the relevant parties, and we are not biased towards the relevant parties.

VIII. The list of assets and liabilities involved in the appraisal subject shall be declared by the client and the appraised entity and confirmed by them through signature, seal, or other legally permissible means. According to the Asset Appraisal Law of the People's Republic of China: "The client shall be responsible for the truthfulness, completeness and legality of the ownership certificates, financial accounting information and other materials provided by it."

IX. We have conducted on-site investigations of the appraisal subject and the assets involved; we have given necessary attention to the legal ownership status of the appraisal subject and the assets involved, and have verified the legal ownership documents of the assets involved. Matters that have been discovered and may have a significant impact on the appraisal conclusion have been truthfully disclosed in this asset appraisal report, and the client and other relevant parties have been requested to perfect the property rights to meet the requirements for issuing the asset appraisal report. However, we only express an opinion on the value of the appraisal subject and the assets involved, and we are not authorized to provide any form of assurance regarding their legal ownership. This report shall not be used as any form of title certificate.

X. Our inspection of physical assets such as equipment is normally limited to their apparent quality, condition of use, and maintenance status, and does not extend to internal, concealed, hidden, or difficult-to-observe parts. We are neither capable nor commissioned to conduct professional technical testing and appraisal of the internal quality of the aforementioned assets. Our appraisal is based on the information provided by the client and other relevant parties. If there are defects in the internal quality of the appraisal subject, the appraisal conclusion of this asset appraisal report may be affected to varying degrees.

ASSET APPRAISAL REPORT (CONTENTS)

Asset Appraisal Report on the Value of All Shareholders' Equity of Shanghai Huali Microelectronics Corporation in connection with the Proposed Issuance of Shares by Hua Hong Semiconductor Limited for the Acquisition of Assets

Orient Ping Bao Zi [2025] No. 2446

Summary

Special note: This asset appraisal report only provides value reference for the economic activities described in the report. The following content is extracted from the text of the asset appraisal report. To understand the details of this valuation and correctly understand the appraisal conclusion, you should read the text of the appraisal report.

Upon the engagement, subject to laws, administrative regulations and asset appraisal standards, and on the principles of independence, objectivity and impartiality, Shanghai Orient Appraisal Co., Ltd. conducted an appraisal on the appraisal subject under the economic behaviors, based on appropriate valuation approaches and necessary valuation process. The summary of the asset appraisal report is as follows:

Client: Shanghai Huahong (Group) Co., Ltd., Hua Hong Semiconductor Limited

Appraised entity: Shanghai Huali Microelectronics Corporation ("HLMC")

Purpose of appraisal: Issuance of shares for asset acquisition

Economic behavior: According to the Resolution on Promoting the Rainbow Project of Shanghai Huahong (Group) Co., Ltd. ((Hu Huahong Dong [2025] No. 8), the Announcement of Resolutions of the Board of Directors of Hua Hong Semiconductor Gang Hua Dong (2025) No. 15), and the Resolution on the Approval of the Equity Transfer of the Company of Shanghai Huali Microelectronics Co., Ltd. (Hu HLMC Gu (2025) No. 12), Hua Hong Semiconductor Limited intends to acquire 97.4988% equity interest in HLMC held by four HLMC shareholders, including Shanghai Huahong (Group) Co., Ltd., Shanghai Integrated Circuit Industry Investment Fund Co., Ltd., China Integrated Circuit Industry Investment Fund (Phase II) Co., Ltd., and Shanghai Guotou IC Fund Leading Integrated Circuit Private Equity Investment Fund Partnership (Limited Partnership), by way of issuing shares.

Appraisal subject: the value of all shareholders' equity of the appraised entity.

Scope of appraisal: The scope of the appraisal covers all assets and liabilities of the appraised entity, specifically including current assets, non-current assets, and liabilities. The total book value of all assets declared by the appraised entity was RMB7,258,502,795.25, the total book value of liabilities was RMB5,256,589,024.59, and the owner's equity was RMB2,001,913,770.66.

Type of value: Market value

Base date: August 31, 2025

Appraisal methods: The asset-based approach and the market approach were adopted. The conclusion of this appraisal report is based on the appraisal results under the market approach.

Appraisal conclusion: Upon appraisal, the value of all shareholders' equity of the appraised entity was RMB8,480,000,000.00 (in words: RMBEight Billion Four Hundred Eighty Million only).

Validity period of the appraisal conclusion: the appraisal conclusion shall be valid for one year from the base date, i.e. effective from the base date, being August 31, 2025, to August 30, 2026.

If this appraisal project involves state-owned assets and is required to comply with the filing and approval procedures of the state-owned assets supervision and administration authority in accordance with the relevant regulations, this appraisal report shall be filed with the state-owned assets supervision and administration authority before it can be formally used, and the appraisal conclusion shall only apply to the economic behaviors shown in this report.

Special Matters:

1. Spin-off of the appraised entity

On June 26, 2025, pursuant to the general meeting resolution Hu HLMC Gu (2025) No. 4, all shareholders unanimously agreed to the spin-off plan, pursuant to which the company will be divided into Shanghai Huali Microelectronics Corporation (the surviving company, hereinafter referred to as "HLMC After Spin-off") and the new company by way of spin-off. HLMC After Spin-off will continue to operate the 12-inch wafer foundry and related businesses located at No. 568 Gaosi Road, China (Shanghai) Pilot Free Trade Zone, and will assume the related assets, creditor's rights and liabilities, personnel, and other agreed rights and obligations. The new company will assume long-term equity investments and corresponding businesses, assets, creditor's rights and liabilities, personnel, and other agreed rights and obligations. HLMC After Spin-off and the new company will maintain independence from each other in terms of business, assets, personnel, finance, and organization. The Company completed the spin-off on August 21, 2025. The sum of the registered capital of HLMC After Spin-off and the new company is equal to the registered capital of HLMC before this spin-off. The shareholding ratio of each shareholder in HLMC After Spin-off and the new company is consistent with their shareholding ratio in HLMC before this spin-off. HLMC After Spin-off will be the target asset to be injected into Huahong Company for this reorganization.

The appraisal subject is HLMC After Spin-off. Based on this, the appraisal is carried out on the basis of the pro forma financial statements prepared by HLMC under the spin-off framework and the business substance reflected therein.

2. Pledge and mortgage

As of the base date, pledges and guarantees in which HLMC was involved were as follows:

Contract No.	Borrower	Lender	Loan amount *(RMB0,000)*	Term of loan	Purpose of the loan	Interest rate	Guarantee
Loan Contract No. 3100201606100000054	HLMC	Entrusted lender: China Development Bank Development Fund Co., Ltd; Entrustee lender: China Development Bank Corporation	300,000.00	August 4, 2016-August 3, 2026	Production line construction	1.2% per annum	HLMC provided mortgage guarantee to the entrusted lender with equipment valued at a total of RMB1.5224377 billion
Loan Contract No. 3100201506100000015001	HLMC	Entrusted lender: China Development Bank Development Fund Co., Ltd; Entrustee lender: China Development Bank Corporation	100,000.00	November 24, 2015-November 23, 2030	Investment and construction of production lines	1.2% per annum	HLMC provided mortgage guarantee to the entrusted lender with equipment valued at a total of RMB1.1626396 billion
3100202301100002961	HLMC	China Development Bank Shanghai Branch, Bank of Communications Co., Ltd. Shanghai New Area Sub-branch, Bank of Shanghai Co., Ltd. Xuhui Sub-branch, China Construction Bank Corporation Shanghai Zhangjiang Branch	96,000.00	February 2023-February 2031	R&D	3%	HLMC provided mortgage guarantee to the lender with equipment valued at a total of RMB290,528,500

Report users are advised to take note that this appraisal does not consider the possible impact of the aforementioned mortgage or pledge matters on the appraisal results.

3. Contingencies

As of August 31, 2025, the outstanding balance of bank guarantees for HLMC was RMB10,000,000.00, with the last guarantee expiring on February 10, 2026.

As of August 31, 2025, the unused amount of irrevocable letters of credit not yet fulfilled by HLMC was USD1,360,050.00 (equivalent to RMB9,660,435.15), with the last one maturing on January 13, 2026.

This appraisal did not consider the impact of the aforementioned contingencies on the appraisal.

The above special matters may affect the conclusion of this appraisal. Users of the appraisal report are requested to pay full attention to them when implementing this economic action. In addition, users of the appraisal report should also pay attention to the valuation assumptions stated in the main body of the appraisal report and the impact of significant subsequent events on the conclusion of this appraisal, and use this appraisal report appropriately.

Asset Appraisal Report on the Value of All Shareholders' Equity of Shanghai Huali Microelectronics Corporation in connection with the Proposed Issuance of Shares by Hua Hong Semiconductor Limited for the Acquisition of Assets

Orient Ping Bao Zi [2025] No. 2446

Mainbody

Shanghai Huahong (Group) Co., Ltd., Hua Hong Semiconductor Limited:

Shanghai Orient Appraisal Co., Ltd., entrusted by your company, conducted an appraisal of the market value of all shareholders' equity of Shanghai Huali Microelectronics Corporation as at August 31, 2025, which is involved in the proposed share issuance by Hua Hong Semiconductor Limited for asset acquisition. This appraisal was performed in accordance with laws, administrative regulations, and asset appraisal standards, adhering to the principles of independence, objectivity, and impartiality, and utilizing the asset-based approach and market approach, following the necessary appraisal procedures. The asset appraisal report is as follows:

I. CLIENT, APPRAISED ENTITY AND OTHER USERS OF ASSET APPRAISAL REPORT

(I) Client

Client 1:

Company name: Shanghai Huahong (Group) Co., Ltd.

Unified social credit code: 91310000132263312B

Type of enterprise: limited liability company (state-controlled)

Registered address: No. 177 Bibo Road, China (Shanghai) Pilot Free Trade Zone

Legal representative: Qin Jian

Registered capital: RMB13,521.484493 million

Date of incorporation: April 9, 1996

Scope of business: organization, development, design, processing, manufacturing and sales of integrated circuits and related products, investment in integrated circuit design, manufacturing, sales, applications and related high-tech industries, consulting services, asset management, self-owned property leasing, and operation of parking lots (garages). (Projects subject to approval in accordance with the law may only commence operating activities upon approval by relevant departments.)

Client 2:

Company name: Hua Hong Semiconductor Limited

Stock abbreviation: 華虹公司/華虹半導體

Stock Code: 688347.SH/1347.HK

Enterprise English Name: Hua Hong Semiconductor Limited

Place of registration: Room 2212, Bank of America Tower, 12 Harcourt Road, Central, Hong Kong

Date of incorporation: January 21, 2005

Listing date: August 7, 2023

Company Profile: Hua Hong Semiconductor Limited's principal business involves the development and application of "8-inch + 12-inch" differentiated specialty technologies, including embedded/standalone non-volatile memory, power discrete, analog & power management, and logic & RF, providing wafer manufacturing services to its customers. The Company's main products are power devices, embedded non-volatile memory, analog & power management, logic & radio frequency, IP design services, testing services, and wafer back-end processing services.

(II) Appraised entity

Company name: Shanghai Huali Microelectronics Corporation ("HLMC")

Unified social credit code: 913100005500570876

Type of enterprise: limited liability company (foreign-invested enterprise and domestic joint venture)

Registered address: No. 568 Gaosi Road, China (Shanghai) Pilot Free Trade Zone

Legal representative: Qin Jian

Registered capital: RMB2.036192198 billion

Date of incorporation: January 18, 2010

Scope of business: development, design, processing, manufacturing and sales of integrated circuits and related products, and engaging in import and export business of goods and technologies. Projects subject to approval in accordance with the law can only be carried out after approval by relevant departments

1. Shareholding structure of HLMC

As of the basis date, the shareholding structure of HLMC was as follows:

Unit: RMB0,000

No.	Name of shareholder	Shareholding percentage *(%)*
1	Shanghai Huahong (Group) Co., Ltd.	63.54
2	Shanghai Integrated Circuit Industry Investment Fund Co., Ltd.	15.72
3	China Integrated Circuit Industry Investment Fund (Phase II) Co., Ltd.	10.25
4	Shanghai Guotou IC Fund Leading Integrated Circuit Private Equity Investment Fund Partnership (Limited Partnership)	7.98
5	Shanghai Huahong Grace Semiconductor Manufacturing Corporation	2.50
	Total	**100.00**

2. Operating Conditions of HLMC

(1) Principal business operations

HLMC builds upon logic process technologies while deepening its expertise in specialty processes. It provides design companies, IDM companies, and other system companies with wafer foundry and supporting services across diverse process platforms, including logic and radio frequency (RF), embedded/standalone non-volatile memory, high-voltage, and others.

HLMC has accumulated over 15 years of technological expertise in semiconductor manufacturing, consistently adhering to independent innovation, continuously developing and mastering core proprietary technologies in specialty processes. It currently operates Mainland China's first fully automated 12-inch IC foundry production line, with process technologies reaching 65nm/55nm and 40nm nodes and a design capacity of 38,000 wafers per month.

HLMC's extensive process portfolio delivers comprehensive technical solutions to customers, serving four major end markets: mobile communications, consumer electronics, Internet of Things (IoT), and automotive electronics. The chips produced encompass baseband processors, image sensors, small- and medium-sized LCD driver chips, touch screen controllers, touch and display driver integration (TDDI) chips, wireless connectivity, RF components, microprocessors, smart cards, set-top box integrated chips, and power management ICs, among others.

(2) Principal products and services

HLMC primarily offers specialty process foundry services for 12-inch wafers, manufacturing various types of semiconductor products across different process platforms according to customer requirements, while also providing complementary services including design and testing.

1) Wafer foundry services

HLMC closely aligns with market demand, leveraging mature technology nodes and specialty process platforms, and concentrates its R&D resources to conduct targeted breakthroughs, continuously deepening and expanding its technology platforms. Through years of sustained technological accumulation, it now covers diversified process platforms including logic and RF, embedded/standalone memory, and high-voltage.

① Logic and RF

Leveraging its mature 55nm logic process technology and volume production experience, HLMC successfully developed its proprietary 55nm ultra-low power (ULP) process technology. As a key enabler for IoT and wearable device chips, HLMC collaborated with leading global IC design companies to optimize device operating voltage and leakage current control, and developed ultra-high threshold voltage devices, enabling rapid process certification and volume shipments. This self-developed technology platform not only allowed HLMC to capture early-mover advantages in the ULP segment and penetrate the IoT and wearable markets, but also served as a foundation to extend to the 40nm node, where it successfully developed a 40nm low-power logic platform and full production process flow. The platform incorporates advanced technologies such as ultra-shallow junction, laser annealing, and porous ultra-low-k dielectric materials, achieving an optimal balance between performance and power consumption, and has entered volume production. It has obtained Grade 1 Automotive Electronics Fundamentals Certification, supported the Company's IATF 16949 system certification, and offered a robust design environment with extensive cell libraries and IP. Multiple products have passed high-volume production validation, demonstrating excellent performance, with SRAM operating stably at a minimum voltage of 0.8V, reflecting superior power efficiency. Since initial product shipments in March 2015, HLMC has continued to expand into automotive electronics, digital TV, video surveillance, and Bluetooth earphones, and achieved volume production of its RF process platform in 2019.

Building on its 55nm low-power logic platform, HLMC adopted a collaborative development model with customers for pixel processes, successfully establishing a 55nm CIS (CMOS Image Sensor) platform and introducing its first CIS product for mobile phones in 2013, with volume production of mobile phone products commencing in 2014. Over subsequent years, HLMC expanded CIS applications, developing products for security surveillance, medical, and other fields. Notably, in the past three years, the development and volume production of products such as near-infrared surveillance and 0.7-micron ultra-small pixels have further broadened HLMC's CIS applications, covering flagship smartphone front cameras, PCs, high-end security, fingerprint recognition, automotive, and numerous other domains.

② Embedded/standalone memory

Based on its self-developed 55nm low-power platform, HLMC built the 55nm embedded flash (55EF) platform. By introducing SONOS technology and optimizing the 2T+SONOS structure, it significantly enhanced energy efficiency and operational flexibility, improved system compatibility, and effectively controlled costs. As HLMC's proprietary specialty process, the 55EF platform features complete SPICE models and PDK, along with comprehensive design databases and IP resources, fully addressing diverse customer needs. Compared to traditional packaged MCU solutions, MCU-type products enabled by the 55EF platform demonstrate notable advantages in process complexity, cost structure, and system compatibility, yielding stronger market competitiveness. Currently, the platform focuses on process development and performance enhancement for MCU-type products, with related products widely used in consumer electronics, smart home, and industrial control applications (MCU: Micro Controller Unit, also known as a single-chip micro computer or micro controller which adopts appropriately reduced frequency and specifications of the CPU while integrating various peripheral interfaces such as memory, counters, USB, A/D conversion, UART, PLC, DMA, and even LCD drive circuits onto a single chip, forming a chip-based compute, which enables customized control combinations for different application scenarios) solutions.

Since achieving high-volume production of 55nm SONOS memory technology in 2017, HLMC has steadily advanced technological iteration, successfully breaking through 40nm SONOS memory technology in 2020. The 55nm SONOS technology offers core advantages including low cost, low power consumption, and high reliability, with products spanning low-power storage, touch control, high-speed MCU, embedded FPGA, smart cards, security chips, and NB-IoT, holding strategic significance for China's information security and industrial technology upgrading.

③ High-voltage

HLMC's 55nm high-voltage process platform is constructed upon its mature 55nm low-power platform. Through optimization of the process flow architecture, it successfully integrates three types of devices: low-voltage (1.2V), medium-voltage (5V/6V/8V), and high-voltage (32V) devices. These devices are electrically independent and non-interfering, allowing for flexible individual debugging and providing ample design space for the development of different product series. The platform features high integration, comprehensively meeting the diversified needs of liquid crystal display driver chip design. Its specialized high-voltage devices represent the highest voltage rating configuration available among current 55nm platforms. Concurrently, the platform possesses the smallest SRAM at the 55nm node, with SRAM cell static leakage current below 10pA, achieving industry-leading performance levels.

Based on this 55nm high-voltage platform, HLMC successfully developed fully domestic OLED and other full-series application driver chips, a pioneering achievement in China. Through close collaboration with domestic design companies and renowned panel manufacturers, HLMC has effectively supported the development of local design enterprises and jointly established China's first complete industrial chain for the full series of driver chips. Leveraging the broad prospects of the driver chip market and HLMC's solid manufacturing foundation, this platform has achieved a breakthrough against international technological monopolies, forming a proprietary intellectual property-based technology system. It can meet requirements from low-end to high-end terminal applications, providing robust support for the ongoing advancement of IoT infrastructure.

2) Supporting services

① Diversified design services

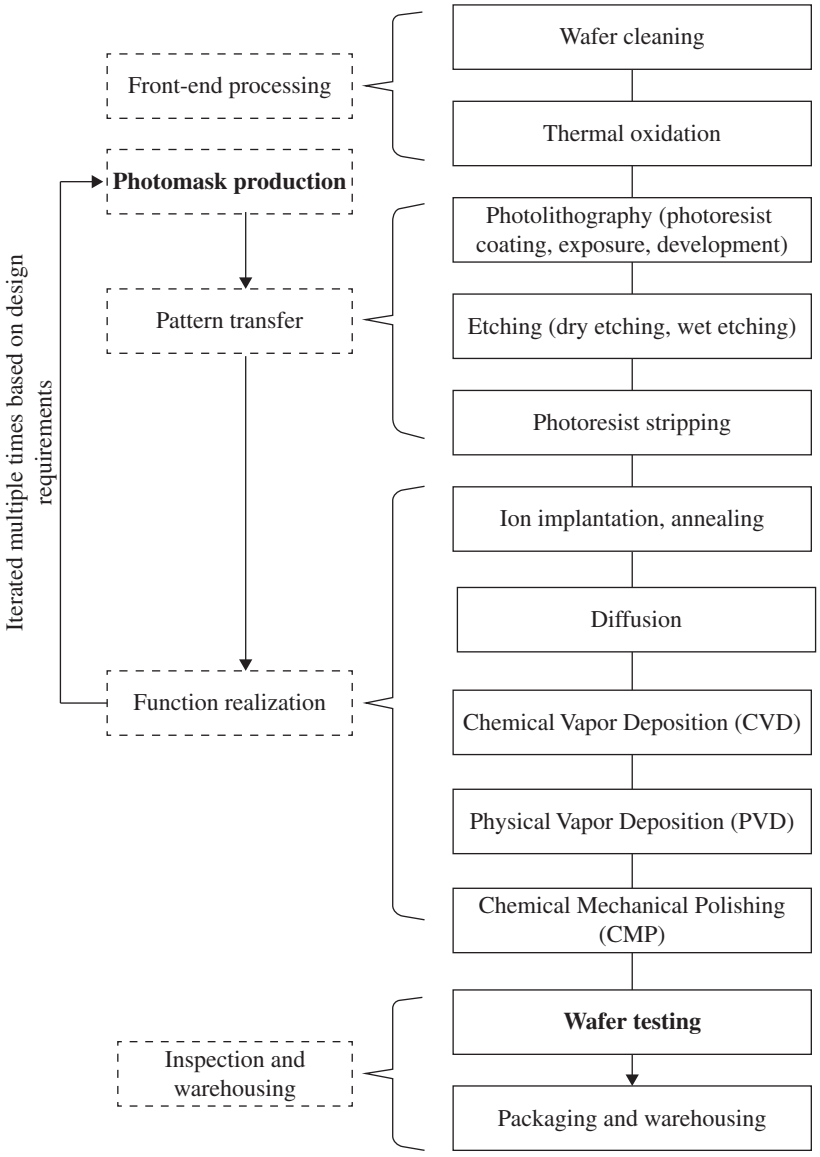
HLMC has established a comprehensive design service support platform encompassing tape-out support, internal IP design, layout and verification, failure analysis, and test design. This enables HLMC to provide design companies with essential support including robust design flows, technical documentation, and IP development, delivering efficient and high-quality services to facilitate customer volume production.

② Testing services

HLMC has built a full suite of advanced testing, evaluation, and analysis platforms, establishing a hardware foundation of precision equipment covering product engineering, test engineering, reliability engineering, and failure analysis. It provides customers with one-stop supporting services including design verification, test development, electrical and physical analysis, and yield enhancement.

(3) Process flow of major products

HLMC primarily engages in semiconductor manufacturing business under a wafer foundry model. The generic process flow is as follows:



Description of Process Flow:

1) Front-end processing

① Wafer cleaning

Semiconductor wafers are initially cleaned using various chemicals via spray or immersion methods, followed by a secondary cleaning with ultra-pure water to remove residual chemical solutions. The purpose is to remove contaminants such as

dust particles, residual organic matter, and surface metal ions from the wafer surface, improving the quality of subsequently grown thermal oxide layers and ensuring the stability of subsequent process steps (a cleaning step also follows each subsequent operation).

② Thermal oxidation

A silicon dioxide film is grown on the semiconductor wafer surface in a high-temperature environment containing oxygen and inert gases.

2) Photomask production

Photomasks are produced by other specialized manufacturers; the Issuer is not currently involved in photomask manufacturing.

3) Pattern transfer

① Photolithography

Photolithography primarily consists of three steps: A) Photoresist Coating: Uniformly applying photoresist onto a spinning semiconductor wafer; B) Exposure: Using a photolithography machine, circuit patterns on the photomask are transferred onto the photoresist by exposure to light of a specific wavelength, altering the properties of the photoresist; and C) Development: Using a developer to remove the soluble portions of the photoresist after exposure, accurately forming the pattern on the photoresist.

② Etching

Etching selectively removes material from areas of the semiconductor wafer not covered by photoresist after photolithography. Common etching methods include wet etching, which uses liquid chemicals, and dry etching, which utilizes plasma.

③ Photoresist stripping

After etching is completed, the remaining, undissolved photoresist is removed from the semiconductor wafer.

4) Device Structure Formation and Function Realization

① Ion implantation, annealing

In a vacuum, low-temperature environment, specific types of dopant ions are implanted into designated areas of the wafer surface in the form of a high-energy ion beam; common ion species include boron, phosphorus, and arsenic. Following implantation, annealing is performed in a high-temperature environment to eliminate crystal lattice defects caused by ion implantation and alter the microstructure of the wafer surface and interior to achieve specific performance characteristics.

② Diffusion

In a high-temperature environment, dopant ions migrate between regions of different ion concentrations, altering and controlling the type, concentration, and distribution of impurities within the wafer, forming regions with different electrical properties, and modifying the wafer's electrical characteristics.

③ Chemical Vapor Deposition (CVD)

A solid thin film is deposited on the wafer surface via chemical reactions involving gaseous precursor materials at different partial pressures.

④ Physical Vapor Deposition (PVD)

A solid thin film is deposited on the wafer surface using physical methods such as sputtering, vacuum evaporation, plasma plating, or molecular beam epitaxy, which involve bombarding a target material.

⑤ Chemical Mechanical Polishing (CMP)

The wafer is polished using a combination of mechanical friction and chemical reactions to planarize its surface.

5) Inspection and Warehousing

① Wafer testing

Upon completion of wafer processing, probe cards and other testing equipment are used to test wafer performance, verifying whether its functionality meets the specifications of the process platform.

② Packaging and warehousing

Wafers that pass inspection are vacuum-packed and stored in the warehouse.

(4) Primary Business Model and Settlement Model

1) Procurement model

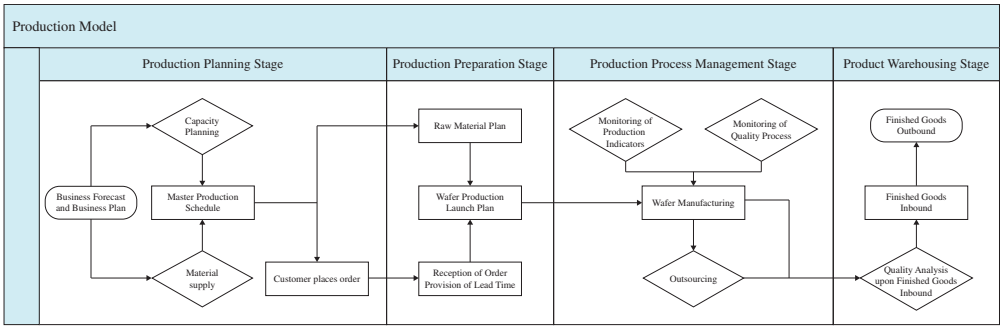
HLMC has formulated systems such as the Procurement Approval Procedures and Procurement Management Regulations to standardize procurement activities and establish a comprehensive procurement management framework. All procurement activities of the Company are conducted pursuant to annual budget requirements, initiated by the requesting department or responsible department via a purchase requisition based on actual investment and operational needs, followed by necessary approvals. Requisitions for production raw materials and spare parts are submitted by the Material Control Section of the Production Planning Department based on production plans, inventory levels, and delivery schedules.

Upon receiving the purchase requisition, the Procurement Section of the Production Planning Department verifies its accuracy and, upon confirmation, executes procurement activities according to the requirements. HLMC determines appropriate procurement methods and standards for different categories, conducting tender procurement and direct procurement activities in accordance with the law. Adhering to the principles of openness, fairness, justice, and good faith, it employs methods such as open tendering, selective tendering, and comparative sourcing to achieve scientific and optimal procurement outcomes, ensure procurement quality, enhance economic efficiency, and minimize comprehensive procurement costs. All procurement activities are subject to approval by the relevant procurement approval authorities as per Company policies.

The Procurement Section of the Production Planning Department signs purchase orders with suppliers and tracks delivery schedules. The Logistics Section handles transportation and customs declaration. The Warehousing Section manages the receipt and storage of incoming materials. The Quality and Reliability Department is responsible for the quality inspection of raw materials. Fixed assets, intangible assets, and services are inspected and accepted by the user departments. These departments collaborate closely on diversification and localization initiatives, continuously onboarding alternative suppliers, strengthening the supply chain system, assessing supply risks for key materials, and formulating corresponding countermeasures to mitigate procurement risks and maintain business continuity.

2) Production model

HLMC plans capacity and determines the Master Production Schedule based on sales forecasts, initiating production according to customer order requirements. The product flow from production planning to finished goods outbound primarily involves four stages: Production Planning Stage, Production Preparation Stage, Production Process Management Stage, and Product Warehousing Stage. The specific steps are as follows:



① Production Planning Stage

During the Production Planning Stage, the Sales Department provides future business forecasts obtained from customers and agreed business plans. The Production Planning Department formulates the Master Production Schedule based on these business forecasts, capacity planning, customer demand, customer orders, capacity, raw material supply conditions, and process technology readiness.

② Production Preparation Stage

During the Production Preparation Stage, the Material Control Section develops the raw material plan based on the Master Production Schedule and coordinates with Procurement to prepare raw materials promptly. The Production Planning Department formulates the production launch plan based on the Master Production Schedule and the raw material plan.

③ Production Process Management Stage

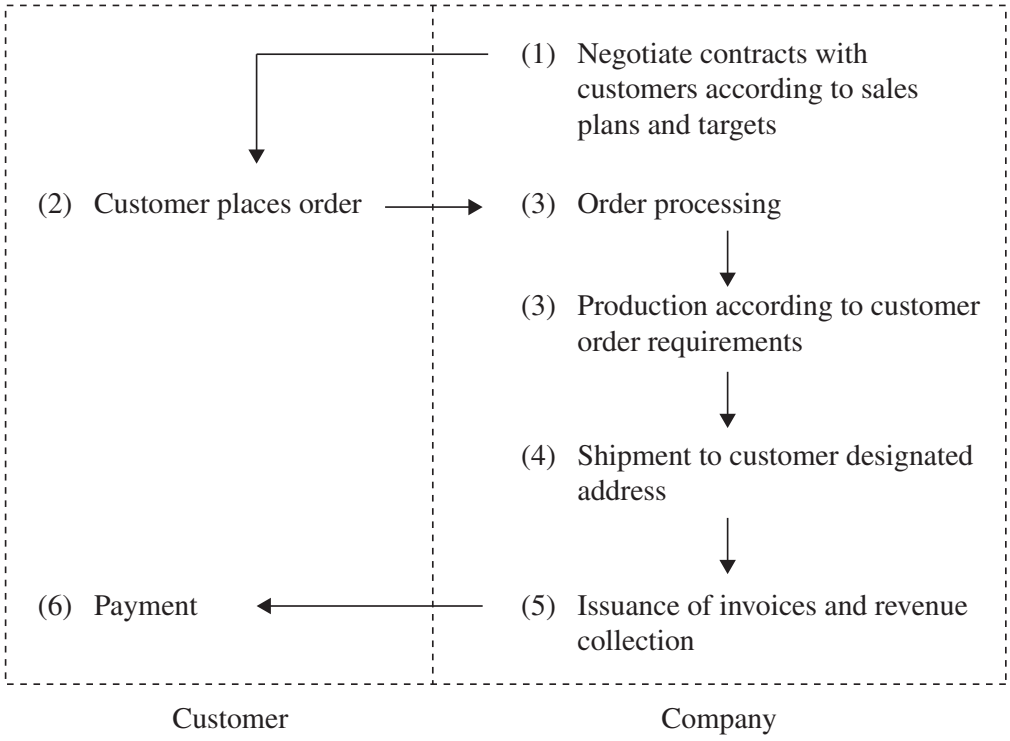
During the Production Process Management Stage, the Manufacturing Department arranges and manages wafer production according to the Master Production Schedule and the production launch plan. The Production Planning Department monitors metrics such as production cycle time, progress, and output. The Quality and Reliability Department is responsible for product quality control. The Production Planning Department arranges corresponding outsourced services for wafers based on customer requirements for external processing.

④ Product Warehousing Stage

During the Product Warehousing Stage, products that have completed the entire production process are stored in the warehouse after passing inspection.

3) Sales and settlement methods

HLMC employs a direct sales model, communicating directly with customers to develop solutions that meet their needs, ultimately leading to the signing of customer orders. The sales process is as follows:



① Sales planning

After the Sales Department drafts the annual sales plan based on market information and customer demands, it communicates the plan targets with customers, regularly updates customer demand forecasts and situations, and feeds back changes in customer requirements to relevant internal departments.

② Contract signing and order processing

After establishing a business relationship by signing contracts with customers, sales personnel provide customers with quotations approved by HLMC management based on customer needs. Customers place orders with sales/customer service personnel via email or fax, etc. Customer service personnel then input the orders internally for production and provide estimated delivery times to customers.

③ Production and manufacturing

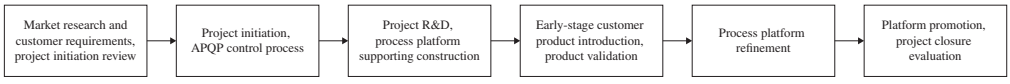
Upon receiving customer orders, the Sales Department schedules production according to the business plan. The Production Planning Department formulates corresponding input and output plans based on this business plan and capacity, generating product delivery dates. The Company informs customers of production status promptly via system or email as per customer requirements.

④ Shipment, invoicing, and revenue collection

After production is completed, products are typically shipped by customer service personnel to designated locations as requested by customers. Customers arrange payments according to the agreed payment cycle. After receiving customer payments, the Finance Department performs financial verification and completes the relevant accounting processing.

4) R&D model

HLMC's R&D strategy primarily relies on independent research and development for technological innovation and upgrades across various process platforms. To standardize and strengthen project management, the Company has established a robust R&D system and project management system, defined the responsibilities and objectives of project team members, and streamlined the entire process from project initiation to R&D and to closure. This is managed systematically in stages through procedures like the New Project Initiation Application Process and the APQP Procedure. The Company's specific R&D process is as follows:



Note: APQP stands for Advanced Product Quality Program.

5) Source of income

HLMC primarily generates revenue by providing customized semiconductor wafer foundry services based on process platforms featuring different technology nodes and diverse technologies.

3. Financial position of HLMC in recent years

As of the base date, HLMC had total assets of RMB7.2585028 billion, total liabilities of RMB5.256589 billion, and owner's equity of RMB2.0019138 billion. The Company's financial position in recent years is as follows:

Unit: RMB0,000

Item/Year	December 31, 2023	December 31, 2024	August 31, 2025
Total assets	889,982.17	625,889.26	725,850.28
Total liabilities	815,741.47	499,195.99	525,658.90
Owners' equity	74,240.70	126,693.27	200,191.38

Item/Year	2023	2024	January to August 2025
Operating income	257,920.73	498,797.09	343,066.86
Profit before tax	-37,229.11	52,152.40	51,464.21
Net profit	-37,229.11	52,152.40	51,464.21

The above data is extracted from the audited figures as set out in the unqualified audit report issued by Da Hua Certified Public Accountants (Special General Partnership), with report number: Da Hua Shen Zi [2025] 0011016213.

The Company prepares the pro forma financial statements based on the recognition and measurement of actual transactions and events in accordance with the Accounting Standards for Business Enterprises – Basic Standards and specific accounting standards, Application Guidance to the Accounting Standards for Business Enterprises, the interpretation of the Accounting Standards for Business Enterprises and other relevant provisions issued by the Ministry of Finance, combined with the provisions of the Rules for the Compilation and Submission of Information Disclosure by Companies Offering Securities to the Public No. 15 – General Requirements for Financial Reports (Revised in 2023) issued by the China Securities Regulatory Commission. The pro forma financial statements involve the following matters:

(1) HLMC completed the spin-off during the reporting period on a pro forma basis. HLMC completed its spin-off on August 21, 2025, with HLMC (the entity prior to the spin-off) being divided into the surviving HLMC (the current surviving entity) and Shanghai Huali Semiconductor Co., Ltd.. The Company performed a simulated carve-out of the financial statement data for the reporting period up to August 21, 2025, based on the spin-off principles: assuming that HLMC had completed the spin-off at the beginning of the reporting period, and the financial data was carved out in accordance with the spin-off principles stipulated in the spin-off agreement.

(2) The Company retrospectively adjusted its accounting estimates and accounting policies as if those of Hua Hong Semiconductor Limited had been adopted at the beginning of the reporting period.

(3) The pro forma financial statements do not include the pro forma statement of changes in owners' equity. When preparing the pro forma balance sheet, only the total owners' equity is presented, and the detailed items of owners' equity are no longer specifically distinguished.

4. Major taxes and preferential policies

The enterprise implements business accounting standards, with VAT rates of 13%, 9%, 6%, 3%, and 0%, an urban maintenance and construction tax rate of 5%, and education surcharge and local education surcharge rates of 3% and 2%, respectively.

According to the relevant provisions of the Notice of the State Council on Issuing Several Policies for Promoting the High-Quality Development of the Integrated Circuit Industry and Software Industry in the New Era (Guo Fa [2020] No. 8) issued by the State Council, and the Announcement on Enterprise Income Tax Policies for Promoting the High-Quality Development of the Integrated Circuit Industry and Software Industry (Announcement No. 45 of 2020 by the Ministry of Finance, the State Taxation Administration, the National Development and Reform Commission, and the Ministry of Industry and Information Technology) issued by the Ministry of Finance, the State Taxation Administration, the National Development and Reform Commission, and the Ministry of Industry and Information Technology, the Company is an integrated circuit manufacturing enterprise with a line width of less than 65 nanometers (inclusive) and an operating period of more than 15 years. In accordance with relevant tax laws, the Company is exempt from enterprise income tax for the first to fifth years from the profit-making year, and is subject to enterprise income tax at half the statutory rate of 25% from the sixth to tenth years.

(III) Relationship between the client and the appraised entity

The client 1, Shanghai Huahong (Group) Co., Ltd., is the controlling shareholder holding 63.5443% equity interest in Shanghai Huali Microelectronics Corporation, the appraised entity. The client 2, Hua Hong Semiconductor Limited, is the acquirer that intends to issue shares to purchase assets.

(IV) Other users of asset appraisal reports

Pursuant to the asset appraisal engagement contract, the users of this asset appraisal report shall be the clients, the relevant management and supervisory units, other users of the asset appraisal report as agreed in the engagement contract, and users of the asset appraisal report as required by national laws and administrative regulations. No other third party shall become a lawful user of this asset appraisal report by virtue of receiving the same.

II. PURPOSE OF APPRAISAL

According to the Resolution on Promoting the Rainbow Project of Shanghai Huahong (Group) Co., Ltd. ((Hu Huahong Dong [2025] No. 8), the Announcement of Resolutions of the Board of Directors of Hua Hong Semiconductor Gang Hua Dong (2025) No. 15), and the Resolution on the Approval of the Equity Transfer of the Company of Shanghai Huali Microelectronics Co., Ltd. (Hu HLMC Gu (2025) No. 12), Hua Hong Semiconductor Limited intends to acquire 97.4988% equity interest in HLMC held by four HLMC shareholders, including Shanghai Huahong (Group) Co., Ltd., Shanghai Integrated Circuit Industry Investment Fund Co., Ltd., China Integrated Circuit Industry Investment Fund (Phase II) Co., Ltd., and Shanghai Guotou IC Fund Leading Integrated Circuit Private Equity Investment Fund Partnership (Limited Partnership), by way of issuing shares.

III. APPRAISAL SUBJECT AND SCOPE OF APPRAISAL

(I) Appraisal subject

The appraisal subject is the value of all shareholders' equity of the appraised entity. The appraisal subject is consistent with the proposed economic activity.

(II) Scope of appraisal

The scope of appraisal covers all assets and liabilities of the appraised entity, specifically including current assets, non-current assets, and liabilities. The total book value of all assets declared by the appraised entity was RMB7,258,502,795.25, the total book value of liabilities was RMB5,256,589,024.59, and the owner's equity was RMB2,001,913,770.66. The scope of appraisal is consistent with the scope of valuation involved in the proposed economic activity.

The type and book value of the book assets in this asset appraisal report have been audited by Da Hua Certified Public Accountants (Special General Partnership), which issued a special audit report with a standard unqualified opinion, with report number: Da Hua Shen Zi [2025] 0011016213.

(III) Main particulars of assets to be valued

The assets to be valued in this appraisal mainly include current assets and non-current assets. The non-current assets mainly include long-term receivables, fixed assets, construction in progress, right-of-use assets, intangible assets, long-term prepaid expenses, and other non-current assets. The specific details are as follows:

1. Current assets

Current assets mainly consist of cash and bank balances, notes receivable, accounts receivable, prepayments, other receivables, inventories, non-current assets due within one year, and other current assets.

2. Long-term receivables

Long-term receivables are lease income from HLMC equipment rental.

3. Equipment

HLMC has a total of 28,122 sets of equipment, which fall into three categories according to their different uses: machinery, vehicles, electronic equipment, and other equipment.

(1) 2,756 sets of machinery and equipment, mainly including: Specialized equipment for semiconductor device processing, other integrated circuit (IC) R&D and production equipment, and their supporting facilities, as well as supporting systems including security systems, power transformation and distribution equipment, pure water/wastewater/waste liquid systems, utility power equipment, chemical transportation systems, cleanroom systems, general mechanical and electrical systems, special gas systems, and fire protection systems. All IC R&D and production equipment and their supporting facilities are self-purchased by the enterprise. They were put into use after completion of installation, commissioning and acceptance, and are distributed in cleanrooms with good operating conditions. The supporting systems are mainly located in auxiliary production buildings.

(2) Two vehicles, consisting of one Buick business MPV and one Honda Odyssey hybrid multi-purpose passenger vehicle.

(3) 25,364 units/sets of electronic equipment and other equipment, mainly including reticle pods, forklifts, disk arrays and other network equipment, imagers and other instruments, office furniture, air conditioners, projectors, copiers, televisions, refrigerators, computers, etc., which are mainly distributed in the auxiliary production building and various functional departments.

Among the above equipment, 20,234 units (sets) of equipment had a zero original book value, mainly including: 138 units (sets) of machinery and equipment, and 20,096 units (sets) of electronic equipment and other equipment. The reasons for a zero original book value include gratuitous gifts from suppliers, the one-off expensing of certain assets due to changes in the scope of pro forma financial statements, and accounting under the net method for government grants. For details, please refer to "(V) Types and quantities of off-balance sheet assets declared by the appraised entity".

4. Construction in process

The book value of construction in progress – equipment installation projects was RMB137,406,487.45, of which equipment costs were RMB134,537,892.13, capital costs were RMB0.00, and installation fees and other costs were RMB2,868,595.32, for a total of 111 items, including physical vapor deposition tantalum nitride, copper thin-film equipment, high-coverage polysilicon film deposition equipment, technology licensing, and IP sharing service platforms.

5. Right-of-use assets

As of the base date, HLMC's leases are as follows:

No.	Lessor	Lease address	Leased area	Lease term	Usage
1	Shanghai Grace Semiconductor Manufacturing Corporation	Premise at Plot 2, Block 13, Zhangjiang Hi-Tech Park, Pudong New Area, Shanghai	91,563.11 square meters	March 1, 2010 to February 28, 2030	Plant
2			Chemical warehouse, power plant, and production plant	20 years from the date of acceptance and delivery	
3			192 square meters	June 1, 2021 to December 31, 2025	Plant

6. Long-term deferred expenses

Long-term deferred expenses are all prepaid plant renovation expenses.

7. Other non-current assets

Other non-current assets primarily consist of prepayments for equipment.

(IV) Other intangible assets declared by the appraised entity

1. Intangible assets recorded on the books

The intangible assets recorded on the books declared by HLMC are mainly purchased software, IP, and licenses, totaling 244 items, with an original recorded amount of RMB511,322,687.50 and a book value of RMB129,892,439.12.

2. Intangible assets not recorded on the books

The unrecorded intangible assets declared by HLMC are mainly patents, integrated circuit layouts, and trademarks, and they are described as follows:

(1) Granted patents

The total number of granted patents applied by HLMC is 2,043 patents. For the detailed list, please refer to "Report Schedule – Patent List."

(2) Patents applied for but not yet granted

The total number of unauthorized patents declared by HLMC is 434 patents. For the specific list, please refer to the "Report Schedule – Patent List."

(3) Layout design of integrated circuits

As of the base date, HLMC had 20 integrated circuit layout designs, which are as follows:

No.	Application number	Layout design name	Application date	Date of grant
1	BS.165515805	HL55LPPOR06S1V1P0	August 29, 2016	October 11, 2016
2	BS.165515813	HL55LPPOR12D1V1P0	August 29, 2016	October 12, 2016
3	BS.165515791	HL55LPAD12S025D1V1	August 29, 2016	October 12, 2016
4	BS.165515783	AD12S025D1V1_DAC	August 29, 2016	October 11, 2016
5	BS.165515775	HL55LPBGR12D1V1P0 TOP_B	August 29, 2016	October 12, 2016
6	BS.165515767	HL55LPVR100D1V1P0	August 29, 2016	October 11, 2016
7	BS.165515759	HL55LPBGR12D1V1P0 TOP_A	August 29, 2016	October 12, 2016
8	BS.165515732	HL55LPPLL1500S1V1P0_A	August 29, 2016	October 12, 2016
9	BS.165515740	HL55LPPLL1500D1V1P0	August 29, 2016	October 11, 2016
10	BS.165515724	HL55LPLD0100D1V1P0	August 29, 2016	October 11, 2016
11	BS.14500368X	HL55LPPOR12D1V1	April 30, 2014	June 19, 2014
12	BS.145000532	HL40LPPLL1500D1V1	January 17, 2014	March 31, 2014
13	BS.145000540	HL40LPEFS4096D1V1	January 17, 2014	March 5, 2014
14	BS.13501322.4	HL55LPDCD100D1V1	October 28, 2013	December 12, 2013
15	BS.13501320.8	HL55LPPOR06S1V1	October 28, 2013	December 12, 2013
16	BS.13501321.6	HL55LPP1500S1V2	October 28, 2013	December 12, 2013

No.	Application number	Layout design name	Application date	Date of grant
17	BS.13501319.4	HL55LPPLL1500D1V2	October 28, 2013	December 12, 2013
18	BS.13501318.6	HL55DRGEFS2048T1V1	October 28, 2013	December 12, 2013
19	BS.13501317.8	HL55LPBGR12D1V1	October 28, 2013	December 12, 2013
20	BS.13501323.2	HL55LPVR100D1V1	October 28, 2013	December 12, 2013

(4) Trademarks

As of the base date, HLMC had 10 trademarks, which are as follows:

No.	Registration certificate number/ Application number	Trademark name	Application date	Validity	International classification	Registrant
1	57819414	HLMC	February 7, 2022	February 6, 2032	Class 36 Finance and property management	Shanghai Huali Microelectronics Corporation
2	8817979	華力微	September 14, 2012	September 13, 2032	Class 40 Processing of materials	Shanghai Huali Microelectronics Corporation
3	8818131	HLMC	September 14, 2012	September 13, 2032	42 Design and research	Shanghai Huali Microelectronics Corporation
4	8817985	華力微	February 14, 2012	February 13, 2032	Category 9 Scientific Instruments	Shanghai Huali Microelectronics Corporation
5	8817984	HLMC	February 14, 2012	February 13, 2032	Category 9 Scientific Instruments	Shanghai Huali Microelectronics Corporation
6	8817986	華力	April 21, 2012	April 20, 2032	Category 9 Scientific Instruments	Shanghai Huali Microelectronics Corporation
7	8817977	華力微	July 7, 2012	July 6, 2032	42 Design and research	Shanghai Huali Microelectronics Corporation

No.	Registration certificate number/ Application number	Trademark name	Application date	Validity	International classification	Registrant
8	8817978	HLMC	July 7, 2012	July 6, 2032	Class 40 Processing of materials	Shanghai Huali Microelectronics Corporation
9	8817981	HLMC	December 14, 2011	December 13, 2031	Class 35 Advertising and sales	Shanghai Huali Microelectronics Corporation
10	8817982	華力微	December 7, 2011	December 6, 2031	Class 35 Advertising and sales	Shanghai Huali Microelectronics Corporation

(V) Types and quantities of off-balance sheet assets declared by the appraised entity

HLMC currently has a total of 20,234 units/sets of equipment with an original book value of zero, mainly including: 138 units/sets of machinery and equipment, and 20,096 units/sets of electronic equipment and other equipment. The reasons for a zero original book value include gratuitous gifts from suppliers, the one-off expensing of certain assets due to changes in the scope of pro forma financial statements, and accounting under the net method for government grants. Details are as follows:

(1) A total of 93 units (sets) of equipment were gifted by suppliers, including 54 units (sets) of machinery and equipment, and 39 units (sets) of electronic equipment and other equipment.

(2) Due to changes in the scope of the pro forma financial statements, a total of 20,033 units (sets) of equipment, all low-value electronic and other equipment, were adjusted to be expensed in one lump sum.

(3) The enterprise adopts the net method to account for equipment purchased with government grants, directly offsetting the original value of fixed assets with the grants, resulting in a book value of zero for 108 units (sets) of equipment, including 84 units (sets) of machinery and equipment, and 24 units (sets) of electronic equipment and other equipment.

Upon inspection, the aforementioned equipment assets not reflected in the book value are still in normal use, mainly distributed in the auxiliary production building and various functional departments. These fixed assets will be included in the scope of appraisal.

Except for this, the appraised entity has not declared other off-balance-sheet assets.

(VI) Types, quantity and carrying amount of assets in reports issued by other organizations

This asset appraisal report does not cite the conclusions of reports issued by other institutions.

IV. TYPE OF VALUE AND ITS DEFINITION

Considering that the purpose of this appraisal is to issue shares for asset acquisition, and the asset appraisal business performed has no special restrictions or requirements on market conditions or the use of the appraisal subject, the type of value for this appraisal subject is determined to be market value based on factors such as the appraisal purpose, market conditions, and the appraisal subject's own conditions.

Market value refers to the estimated amount of the value of the appraisal subject in normal and fair transactions on the base date when the voluntary buyer and the voluntary seller act rationally and without any compulsion.

An "arm's length transaction" is a transaction between parties who have no specific or special relationship, that is, a transaction between parties who are assumed to be unrelated and acting independently of each other.

V. BASE DATE

The base date for this engagement is August 31, 2025.

The base date is determined by the asset appraiser and the client after considering the needs of implementing economic behaviors, the convenience of providing financial data at the end of the accounting period, and changes in interest rates and exchange rates before and after the base date.

VI. BASIS OF APPRAISAL

The details of the appraisal basis followed in this asset appraisal are as follows:

(I) Economic behavior basis

1. Resolution on Promoting the Rainbow Project of Shanghai Huahong (Group) Co., Ltd. (Hu Huahong Dong [2025] No. 8);

2. Announcement of Resolutions of the Board of Directors of Hua Hong Semiconductor Limited (Gang Hua Dong (2025) No. 15);

3. Resolution on the Approval of the Equity Transfer of the Company of Shanghai Huali Microelectronics Co., Ltd. (Hu HLMC Gu (2025) No. 12);

(II) Legal and regulatory basis

1. Asset Appraisal Law of the People's Republic of China (adopted at the 21st meeting of the Standing Committee of the 12th National People's Congress on July 2, 2016);

2. Company Law of the People's Republic of China (amended at the 7th meeting of the Standing Committee of the 14th National People's Congress on December 29, 2023);

3. Securities Law of the People's Republic of China (Revised at the 15th Session of the Standing Committee of the Thirteenth National People's Congress on December 28, 2019);

4. Administrative Measures for the Financial Supervision and Management of the Asset Appraisal Industry (issued by Decree No. 86 of the Ministry of Finance, amended by Decree No. 97 of the Ministry of Finance);

5. Law of the People's Republic of China on State-owned Assets of Enterprises (adopted at the Fifth Session of the Standing Committee of the Eleventh National People's Congress on October 28, 2008);

6. Interim Regulations on the Supervision and Management of Enterprise State-owned Assets (State Council Order No. 378, revised by State Council Order No. 709);

7. Measures for the Administration of State-owned Assets Appraisal (State Council Decree No. 91, revised by State Council Decree No. 732 in 2020);

8. Notice on Issuing the Implementation Rules for the Administrative Measures for State-owned Assets Appraisal (Guo Zi Ban Fa [1992] No. 36);

9. Interim Measures for the Administration of State-owned Enterprise Assets Appraisal (Decree No. 12 of the State-owned Assets Supervision and Administration Commission of the State Council);

10. Circular on Issues Concerning Strengthening the Administration of State-owned Enterprise Assets Appraisal (Guo Zi Wei Chan Quan [2006] No. 274);

11. Measures for the Supervision and Administration of State-owned Equity in Listed Companies (Order No. 36 of SASAC, CSRC, and Ministry of Finance);

12. Notice on Matters Concerning the Review of Enterprise State-owned Asset Appraisal Reports (Guo Zi Chan Quan [2009] No. 941);

13. Guidelines for Filing of State-owned Enterprise Asset Appraisal Projects (Guo Zi Fa Chan Quan [2013] No. 64);

14. Shanghai State-owned Enterprise Asset Appraisal Report Review Handbook (Hu Guo Zi Wei Ping Gu [2018] No. 353);

15. Interim Measures for the Administration of State-owned Assets Appraisal of Enterprises in Shanghai (Hu Guo Zi Wei Ping Gu [2019] No. 366);

16. Manual for Approval and Filing of State-owned Asset Appraisal Projects of Enterprises in Shanghai (Hu Guo Zi Wei Ping Gu [2020] No.100);

17. Enterprise Income Tax Law of the People's Republic of China (Second Amendment by the Seventh Session of the Standing Committee of the Thirteenth National People's Congress on December 29, 2018);

18. Decision of the State Council on Abolishing the Interim Regulations of the People's Republic of China on Business Tax and Amending the Interim Regulations of the People's Republic of China on Value-Added Tax (State Council Order No. 691);

19. Detailed Rules for the Implementation of the Interim Regulations of the People's Republic of China on Value-Added Tax (Order No. 50 of the Ministry of Finance and the State Administration of Taxation, revised in accordance with Order No. 65 of the Ministry of Finance and the State Administration of Taxation in 2011);

20. Notice on the Comprehensive Implementation of the Pilot Program for the Conversion of Business Tax to Value Added Tax (Cai Shui [2016] No. 36);

21. Notice on Adjusting Value-Added Tax Rates (Cai Shui [2018] No. 32) issued by the Ministry of Finance and the State Taxation Administration;

22. Announcement on Policies Concerning Deepening Value-added Tax Reform (Announcement No. 39 of 2019 by the Ministry of Finance, the State Taxation Administration and the General Administration of Customs);

23. Trademark Law of the People's Republic of China (Amended for the fourth time by the 10th Session of the Standing Committee of the 13th National People's Congress of the People's Republic of China on April 23, 2019);

24. Patent Law of the People's Republic of China (Fourth Revision by the 22nd Session of the Standing Committee of the 13th National People's Congress on October 17, 2020);

25. The Civil Code of the People's Republic of China (adopted at the third session of the Thirteenth National People's Congress on May 28, 2020);

26. Vehicle Acquisition Tax Law of the People's Republic of China (adopted at the 7th Session of the Standing Committee of the Thirteenth National People's Congress on December 29, 2018)

27. Other laws and regulations related to the appraisal work.

(III) Appraisal criteria basis

1. Basic Standards for Asset Appraisal (Cai Zi [2017] No. 43);

2. Code of Professional Ethics for Asset Appraisal (Zhong Ping Xie [2017] No. 30);

3. Asset Appraisal Practice Standards – Asset Appraisal Engagement Contract (Zhong Ping Xie [2017] No. 33);

4. Asset Appraisal Practice Standards – Utilization of Expert Work and Related Reports (Zhong Ping Xie [2017] No. 35);

5. Asset Appraisal Practice Standards – Intangible Assets (Zhong Ping Xie [2017] No. 37);

6. Asset Appraisal Practice Standards – Machinery and Equipment (Zhong Ping Xie [2017] No. 39);

7. Asset Appraisal Practice Standards – Asset Appraisal Report (Zhong Ping Xie [2018] No. 35);

8. Asset Appraisal Practice Standards – Asset Appraisal Procedures (Zhong Ping Xie [2018] No. 36);

9. Asset Appraisal Practice Standards – Asset Appraisal Files (Zhong Ping Xie [2018] No. 37);

10. Asset Appraisal Practice Standards – Enterprise Value (Zhong Ping Xie [2018] No. 38);

11. Asset Appraisal Practice Standards – Asset Appraisal Methods (Zhong Ping Xie [2019] No. 35);

12. Asset Appraisal Practice Standards – Intellectual Property (Zhong Ping Xie [2023] No. 14);

13. Guidelines for Enterprise State-owned Asset Appraisal Reports (Zhong Ping Xie [2017] No. 42);

14. Guidelines for Business Quality Control of Asset Appraisal Institutions (Zhong Ping Xie [2017] No. 46);

15. Guidance on Types of Asset Appraisal (Zhong Ping Xie [2017] No. 47);

16. Guidance Opinions on Legal Ownership of Assets to be Appraised (Zhong Ping Xie [2017] No. 48);

17. Guidance on Patent Asset Appraisal (Zhong Ping Xie [2017] No. 49);

18. Guidance on Trademark Asset Appraisal (Zhong Ping Xie [2017] No. 51)

(IV) Asset title basis

1. State-funded enterprise property registration certificate;

2. Building lease contract;

3. Patent certificates or application notices;

4. Copyright certificate;

5. Trademark registration certificate;

6. Motor vehicle driving license;

7. Significant contracts or accounting vouchers for asset purchases;

8. Fixed assets ledger, accounting books, etc.;

9. Other documentary evidence of title to assets.

(V) Basis of pricing for appraisal

1. The latest loan prime rate (LPR) authorized to be announced by the National Interbank Funding Center;

2. The mid-point rate of the benchmark exchange rate announced by the State Administration of Foreign Exchange of the People's Bank of China on the base date;

3. Electromechanical Products Quotation Handbook published by China Machine Press;

4. Vehicle price information from Dongchedi (懂車帝) and other online channels;

5. Price information about the equipment available for online inquiry;

6. Historical financial statements and audit reports of the appraised entity;

7. Historical annual contracts and order information provided by the management of the appraised entity;

8. Financial data and capital market information from the Flush Information System;

9. On-site inspection records of asset appraisers and other relevant valuation information collected.

(VI) Other references

1. The appraised entity and its management provided the accounting statements, ledgers, vouchers, and asset appraisal declaration forms as of the base date;

2. Handbook of Common Technical Indicators and Parameters for Asset Appraisal (Economic Management Press, 2019 Edition);

3. Provisions on the Standards for Compulsory Retirement of Motor Vehicles (Order No. 12 in 2012 of the Ministry of Commerce, National Development and Reform Commission, the Ministry of Public Security, and the Ministry of Environmental Protection);

4. National macroeconomic, industry, regional market, and enterprise statistical analysis data;

5. Technical statistics of Shanghai Orient Appraisal Co., Ltd.;

6. Other relevant references.

VII. APPRAISAL APPROACH

(I) Overview of appraisal approach

In accordance with the Basic Standards for Asset Appraisal and the Asset Appraisal Practice Standards – Asset Appraisal Methods, the appraisal methods used to determine asset value include three basic approaches, namely the market approach, the income approach, and the cost approach, and their respective derivative methods.

In accordance with the Asset Appraisal Practice Standards – Enterprise Value, the three basic methods that can be adopted for enterprise value appraisal are the income approach, the market approach, and the cost approach (asset-based approach):

The income approach refers to an appraisal method to determine the value of the appraisal object by capitalization or discounting its expected income. The income approach is adopted for enterprise valuation, which emphasizes the overall expected profitability of the enterprise.

The market approach refers to an appraisal method that determines the value of the appraisal object by comparing it with comparable listed companies or comparable transaction cases. The market approach is adopted for enterprise valuation, which is characterized by direct selection of valuation data from the market and strong persuasiveness of appraisal results.

Asset-based approach refers to an appraisal method that determines the value of the appraisal object by reasonably assessing the value of all on-balance sheet and identifiable off-balance sheet assets and liabilities of the enterprise, based on the balance sheet of the appraised entity on the appraisal base date. The asset-based approach for enterprise valuation may not allow every asset and liability to be fully identified and individually valued.

(II) Selection of appraisal method

In accordance with the Asset Appraisal Practice Standards – Enterprise Value, "when conducting enterprise value appraisal, the applicability of the three basic methods, namely the income approach, market approach, and cost approach (asset-based approach), should be analyzed based on the appraisal purpose, appraisal subject, value type, data collection, and other circumstances, and the appraisal method should be selected." "For enterprise value appraisals suitable for different appraisal methods, asset appraisal professionals should use two or more appraisal methods."

Applicability analysis of the asset-based approach: The basic idea of the asset-based approach is to rebuild or replace the asset being appraised in its current condition, with the potential investor being willing to pay no more than the current acquisition and construction cost of the asset at the time he or she decides to invest in the asset. This appraisal project can meet the conditions required by the asset-based approach, that is, the appraised asset is in a state of continued use or is assumed to be in a state of continued use, and has available historical operating data. The asset-based approach can satisfy the requirements of the type of value for this appraisal.

Market approach applicability analysis: The basic idea of the market approach is to obtain the market value of the appraised entity by comparing and adjusting with comparable companies. Currently, there are sufficient comparable listed companies in the capital market relative to the appraised entity, and their disclosed information is relatively adequate, making the market approach suitable for this appraisal.

Applicability analysis of income approach: The appraised entity is a wafer foundry enterprise. The wafer foundry industry is significantly affected by international relations and the macro-environment, has strong cyclicality and uncertainty, and its future profitability is difficult to reliably predict. Furthermore, against the backdrop of current international semiconductor equipment import controls, domestic wafer manufacturing enterprises generally rely on regular maintenance and component replacement to extend the useful life of equipment to maintain production continuity. However, with the acceleration of technological iteration, the advancement of the localization process of semiconductor equipment, and the rising maintenance costs and gradually declining economic efficiency of old equipment, HLMC's future equipment maintenance and upgrade path faces multiple scenarios, such as continued regular maintenance or equipment replacement. The equipment lists, localization ratios, and capital expenditure budgets corresponding to different scenarios vary significantly, thus presenting considerable uncertainty. Such uncertainties will make it more difficult for enterprises to predict future capital expenditure plans and production cost structures, and the related risks will also be difficult to quantify reliably.

The premise for applying the income approach is the ability to make reasonable and reliable predictions of the enterprise's future earnings and related risks. Given the high uncertainty regarding equipment replacement and capital expenditure faced by HLMC at the base date, management believes that under current conditions, it is not possible to form a reasonably based prediction for HLMC's operating income and risks in future years. Therefore, this appraisal does not meet the preconditions for adopting the income approach.

Based on the above analysis, the asset-based approach and the market approach are adopted for this appraisal.

(III) Introduction to asset-based approach

The asset-based approach specifically refers to the method of adding up the appraised value of the various elemental assets that make up a business and subtracting the appraised value of the liabilities to arrive at the value of the total shareholders' equity of the enterprise.

The appraisal method for various major assets and liabilities are as follows:

1. Monetary funds

Monetary funds include cash, bank deposits, and other monetary funds. For RMB cash and bank deposits, the assessed value is based on the verified amount; and for foreign currency cash and bank deposits, the assessed value is determined by the verified foreign currency book amount on the basis of the RMB to foreign currency exchange rate on the base date.

2. Receivables

Receivables mainly include notes receivable, accounts receivable, prepayments, and other receivables. Based on the verified receivables, the appraised value is determined by the estimated recoverable amount after deducting assessed risk losses for each item. The appraised risk of loss is 0% for full collection of the receivables from related parties based on good reasons. For amounts with conclusive evidence that they cannot be recovered or are severely overdue, the risk loss rate is assessed at 100%. For cases where a portion of the payment is highly unlikely to be recovered, and the unrecoverable amount is difficult to ascertain, the estimated valuation of receivables is derived by using historical data and current investigation findings, applying the aging analysis method to estimate the assessed risk loss as a deduction. The "provision for bad debts" account on the books is calculated at zero value.

3. Inventories

Inventories include raw materials, contract performance costs, finished products, and work in progress. The specific appraisal methods are as follows:

(1) Raw materials

The appraised value of raw materials is determined by multiplying the quantity verified through inspection by the current market purchase price, plus reasonable freight and miscellaneous charges, wastage, acceptance and warehousing fees, and other reasonable expenses. The raw materials of the appraised entity are accounted for using actual cost, and the book value includes the purchase price and other reasonable expenses. For raw materials with significant price fluctuations, the appraised value is determined based on the recent market prices as at the valuation benchmark date, taking into account reasonable expenses; for raw materials with insignificant price fluctuations, the appraised value is determined based on the verified book value.

(2) Finished products

Finished goods are appraised as normal finished goods based on the tax-exclusive selling prices provided by the enterprise, taking into account the selling expenses and operating profit of the products.

Appraised value of normal products = quantity of finished goods × unit selling price excluding VAT – selling expenses – sales taxes and surcharges – income tax – portion of net profit = quantity of finished goods × unit selling price (excluding tax) × 1 – selling expense rate – sales taxes and surcharges rate – sales profit margin × income tax rate – sales profit margin × (1 – income tax rate) × net profit discount rate

The provision for write-down of finished goods originally recognized on the books was appraised at nil.

(3) Work in progress

Normal work-in-progress is appraised based on the tax-exclusive selling price provided by the enterprise, in combination with the selling expenses and operating profit of the products, and with reference to the completion progress of such work-in-progress.

Appraised value of normal work-in-progress = quantity of finished goods × unit selling price (excluding tax) × percentage of completion × 1 – selling expense rate – sales taxes and surcharges rate – sales profit margin × income tax rate – sales profit margin × (1 – income tax rate) × net profit discount rate

The selection of various parameters is the same as those for finished goods.

4. Non-current assets due within one year

The item of non-current assets due within one year reflects the amount of non-current assets of an enterprise that are due within one year, which is the portion of long-term receivables due within one year. The verification method is consistent with that for long-term receivables. Through verification, the book value is confirmed to be true, and the appraised value is determined based on the verified book value.

5. Long-term receivables

Long-term receivables are equipment lease payments receivable from HLMC. After checking relevant contracts and other documents, the appraisers confirmed that the book value was the earnings owned by HLMC, and the valuation was based on the book value.

6. Equipment assets

According to the Asset Appraisal Practice Guidelines – Machinery Equipment, when performing any valuation of machinery equipment, the applicability of the three basic asset appraisal approaches, namely the cost approach, the market approach and the income approach, shall be analyzed based on the purpose of valuation, the appraisal subject, the type of value, the collection of information, etc. to select the valuation approach. This appraisal adopts the cost approach for machinery and equipment, electronic equipment, and other equipment, based on an analysis of the characteristics, uses, and data collection status of the various types of equipment involved; the market approach is adopted for vehicles.

Machinery and equipment, electronic equipment and other equipment (cost approach)

The cost approach valuation formula is:

Appraised Value = Full replacement cost – Substantive depreciation – Functional depreciation – Economic depreciation = Full replacement price × Comprehensive newness rate

(1) Determination of full replacement cost

The full replacement cost is composed of the acquisition price of the equipment at the base date (i.e., the current replacement cost), transportation and miscellaneous expenses, foundation costs, installation and commissioning costs, and other reasonable expenses. Generally, it refers to the replacement cost new, which is:

Full replacement cost = replacement cost at current price + freight and miscellaneous expenses + foundation cost + installation and commissioning expenses + other reasonable expenses

According to Article 8 of the Interim Regulations of the People's Republic of China on Value-Added Tax, which was promulgated on November 10, 2008, as Decree No. 538 of the State Council of the People's Republic of China, and came into effect on January 1, 2009: "The value-added tax paid or borne by a taxpayer for purchasing goods or receiving taxable services shall be input tax, which is allowed to be deducted from the output tax."

Pursuant to Cai Shui [2016] No. 36 Notice on the Comprehensive Implementation of the Pilot Program for the Conversion of Business Tax to Value Added Tax issued on March 23, 2016, starting from May 1, 2016, the replacement of business tax with value-added tax was fully implemented nationwide. Industries such as construction, real estate, finance, and lifestyle services, which previously paid business tax, now pay value-added tax. Therefore, the input tax on related expenses involving equipment is allowed to be deducted from the output tax.

According to Announcement No. 39 of 2019 Announcement on Relevant Policies Concerning Deepening Value-added Tax Reform issued by the Ministry of Finance, the State Taxation Administration, and the General Administration of Customs on March 20, 2019, effective from April 1, 2019, for VAT general taxpayers engaging in VAT taxable sales or importing goods, the VAT rate will be adjusted from the original 16% to 13%; and from the original 10% to 9%.

Since the VAT amount of fixed assets purchased by enterprises can be deducted from the output tax, the full replacement price of the equipment should exclude VAT, i.e.:

Full replacement value = replacement current value + transportation and miscellaneous expenses + basic expenses + installation and commissioning expenses + other reasonable expenses – deductible VAT

(2) Determination of comprehensive newness rate

1) Determination of newness rate of key equipment with large value

Based on the theoretical newness rate under the age approach, and combined with various factors for adjustment, the comprehensive newness rate of the equipment is ultimately and reasonably determined. The calculation formula is as follows:

Comprehensive newness rate = theoretical newness rate × adjustment coefficient K

where:

Theoretical newness rate = Remaining useful life ÷ (Lapsed useful life + Remaining useful life) × 100%

Adjustment coefficient K = K1 × K2 × K3 × K4 × K5, etc., i.e.:

Integrated newness rate = theoretical newness rate × K1 × K2 × K3 × K4 × K5

Various adjustment factors mainly include the original manufacturing quality of the equipment, maintenance (including major repairs, etc.), the operating status and failure frequency of the equipment, the utilization rate of the equipment, and the environmental conditions of the equipment.

The remaining useful life is determined based on the actual operating condition of the equipment.

2) Determination of the newness rate of general equipment and electronic equipment with relatively small value

The theoretical newness rate is directly determined by the life-based approach.

Vehicle (market approach)

The market comparison approach is an appraisal method based on the principle of substitution, which compares the appraisal object with similar vehicles that have recently been transacted. The transaction prices of these similar vehicles are then adjusted for transaction date, transaction conditions, individual factors, etc., to derive the value of the appraisal object. The formula for the vehicle market approach is as follows:

Vehicle market value = comparable transaction instance tax-exclusive price × transaction date adjustment coefficient × transaction condition adjustment coefficient × individual factor adjustment coefficient

Regarding the determination of vehicle license fees

In order to strengthen the control of the total number of motor vehicles in Shanghai and regulate the management of non-commercial passenger vehicle quotas, according to the Regulations on the Administration of Non-Commercial Passenger Vehicle Quota Auction (Hu Fu Fa [2016] No. 37) issued by Shanghai Municipal People's Government, non-commercial passenger vehicle quotas refer to the license plate indicators for non-commercial passenger cars obtained through auction, allowing for personal use and official business in the central urban area of the city, including individual passenger vehicle quotas and unit passenger vehicle quotas.

Due to the use of auction as a market-oriented allocation method, Shanghai passenger vehicle licenses have been commercialized. Currently, except for Hu C licenses and those for new energy passenger vehicles, all non-commercial "Hu" prefix passenger vehicle licenses for official use by entities must be obtained through auctions. Given the current status of license plate management in China, in recent years, cities such as Guangzhou, Hangzhou, Shenzhen, and Tianjin have successively adopted auctions for their license plates to control the total number of motor vehicles in their respective cities. Therefore, the market value of passenger vehicle licenses objectively exists.

In conclusion, in this appraisal of Shanghai non-Shanghai C passenger vehicles and non-new energy passenger vehicle licenses, it is proposed to refer to market conditions and consider the value of non-operating passenger vehicle licenses for official use.

Vehicle license fees are appraised based on the average transaction price of non-operating passenger vehicle quotas for units in Shanghai during the month of the base date, as announced by Shanghai International Commodity Auction Co., Ltd..

Vehicle license fees are not included in the newness rate and are directly added to the appraised value.

7. Construction in process

Construction in progress – equipment installation project is calculated based on the replacement cost plus capital cost at the benchmark date exchange rate, and the formula is as follows:

Assessed value = appraised value of equipment cost + appraised value of installation cost and other costs + appraised value of capital cost

Appraised value of capital cost = Tax-inclusive replacement cost of construction in progress × Annual loan interest rate × Capital occupation period/2

8. Right-of-use assets

The appraisers confirmed the authenticity and validity of the assets and the accuracy of their book measurement by checking relevant contracts, payment vouchers, the location, quantity, commencement and expiry dates of right-of-use assets, and the amortization process, and appraised them based on the verified book value.

9. Intangible assets – other intangible assets

Intangible assets mainly comprise purchased software, IP, and licenses reflected in the accounts; and patents, trademarks, integrated circuit layout designs, domain names, technical service licenses, etc., not reflected in the accounts. According to the Asset Appraisal Practice Standards – Intangible Assets, the appraisal method for determining the value of intangible assets include the three basic methods of market approach, income approach, and cost approach, as well as their derivative methods. A reasonable appraisal approach is selected after a thorough understanding of the relevant circumstances of the appraisal subject and the information collected and an analysis of the applicability of the above three basic methods.

(1) Purchased software and IP: The book value of such intangible assets has experienced minor price fluctuations in recent years. Although amortization has been provided for accounting purposes, they can still be used indefinitely. This appraisal is determined based on the market price at the base date.

(2) License: The book value of such intangible assets has experienced relatively small price fluctuations in recent years, and has been amortized based on their licensed useful lives. The valuation is determined based on the remaining benefit period, provided that the benefit period and amount have been verified as accurate.

(3) Patents and integrated circuit layout designs: The market value of the intangible assets under valuation is determined by calculating their reasonable cost, profit, capital cost, and related taxes and fees, based on all inputs for forming the intangible assets and considering the correlation between the value and cost of the intangible assets, to arrive at their replacement cost, and then accounting for depreciation factors.

(4) Trademarks: As trademarks serve to identify the company's products, it is difficult to forecast their future profit contribution using the excess earnings method or the intangible asset royalty method. Therefore, the cost approach is adopted for the valuation of registered trademarks.

10. Long-term prepaid expenses

Based on verifying the consistency of the subsidiary ledger, general ledger, and valuation declaration form, the appraisers randomly checked the relevant original accounting vouchers for items with large amounts or long durations, understood the basis for recognition and the amortization period, and randomly checked the relevant amortization vouchers.

The appraisers reviewed the relevant contracts and the amortization process, and after verification, the enterprise's amortization is normal. Assessed at book value.

11. Other non-current assets

Other non-current assets are prepayments for equipment made by the enterprise, and the appraised value is determined based on the verified carrying amount.

12. Liabilities

Liabilities mainly include current liabilities and non-current liabilities. Based on the verification and confirmation, the appraised value is determined by the debtor and the amount of liabilities that the appraised entity actually needs to bear after the economic activity for the appraisal purpose is implemented.

(IV) Introduction to Market Approach

1. Overview

The market approach refers to a appraisal approach that determines the value of the appraisal object by comparing it with comparable listed companies or comparable transaction cases. The market approach is essentially a valuation technique that determines the value of an enterprise or equity by utilizing transaction information or reasonable quotation data of similar cases that have been transacted in an active trading market, through comparative analysis.

Two methods commonly used in the market approach are the listed company comparison method and the transaction case comparison method.

The listed company comparison method refers to a specific method for determining the value of an appraisal object by obtaining and analyzing the operating and financial data of comparable listed companies, calculating appropriate value ratios, and conducting a comparative analysis with the appraised entity.

The comparable transaction method refers to a specific method of determining the value of the appraisal subject based on obtaining and analyzing information on the transaction, acquisition and merger cases of comparable companies, calculating appropriate value ratios, and making comparative analyzes with the valuation entity.

Given that at least three comparable listed companies in the same industry as the appraisal subject can be found in the A-share capital market, and their operating and financial data can be fully and reliably obtained, the listed company comparison method is selected for this appraisal.

2. Appraisal steps

(1) Identify comparable companies.

Since the appraised entity is a non-listed company, its equity does not have a publicly traded market, and therefore its market value cannot be directly determined. We select comparable companies from domestic listed companies, and the screening process for comparable companies is as follows:

1) Preliminary screening is conducted based on the industry, main business model, and product type of the entity being evaluated. The screening criteria for comparable companies are as follows:

① As of the base date, it must have been listed for at least two years to avoid the impact of share price fluctuations caused by insufficient market information, IPO effects, market expectations, and other factors.

② The industry where it operates must be the semiconductor manufacturing or wafer foundry industry, i.e., the industry of the appraised entity, and its main business model is IDM (Integrated Device Manufacturer) or Foundry (Foundry model) model, which involves large-scale investment, high capital expenditure, and continuous investment in technology and processes, and its product application areas are similar to those of the appraised entity.

③ The shares were normally traded on the base date and were not in an abnormal trading state such as a trading halt, nor did the share price fluctuate abnormally due to a recent merger, acquisition, or restructuring transaction on the base date.

④ Given that ST shares (stocks under delisting risk warning) are more likely to deviate significantly from their actual value due to speculative and manipulative factors in the market, ST shares are excluded from the scope of comparable companies.

The appraisers in this appraisal have screened listed companies that belong to the same category as the appraised entity under the SWS Industry Classification – Electronics – Semiconductors – Discrete Devices, Integrated Circuit Manufacturing, and a total of 25 listed companies (list) was selected, with details as follows:

Stock code	Name of securities	Date of listing	Screening process
688249.SH	**Nexchip**	**May 5, 2023**	**Its operating model is mainly Foundry model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
688347.SH	Hua Hong	August 7, 2023	The company experienced abnormal trading such as trading suspension during the recent period prior to the base date, so it is excluded from screening
688396.SH	**CR Micro**	**February 27, 2020**	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
688469.SH	UNT	May 10, 2023	The company experienced merger, acquisition and restructuring during the recent period prior to the base date, so it is excluded from screening
688691.SH	Brite	April 11, 2024	It mainly operates under Fabless model, which is significantly different from the process of the appraised entity, so it is excluded from screening

Stock code	Name of securities	Date of listing	Screening process
688981.SH	SMIC	July 16, 2020	It mainly operates under Foundry model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
300456.SZ	SMEI	May 14, 2015	It mainly operates under Foundry model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
600360.SH	* ST Huawei	March 16, 2001	Its shares are under special treatment (ST), and its share price deviates significantly from its actual value, so it is excluded from screening
600460.SH	**Silan Microelectronics**	**March 11, 2003**	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
600745.SH	Wingtech Technology	August 28, 1996	It mainly operates under IDM model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
603290.SH	StarPower Semiconductor	February 4, 2020	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
605111.SH	NCE Power	September 28, 2020	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
688048.SH	Everbright	April 1, 2022	It mainly operates under IDM model, and its product application areas are different from those of the appraised entity, so it is excluded from screening

Stock code	Name of securities	Date of listing	Screening process
688167.SH	Focuslight Technologies	December 24, 2021	It mainly operates under IDM model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
688172.SH	Yandong Microelectronics	December 16, 2022	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
688230.SH	Prisemi	December 1, 2021	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
688261.SH	Oriental Semiconductor	February 10, 2022	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
688498.SH	Yuanjie Technology	December 21, 2022	It mainly operates under IDM model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
688689.SH	Galaxy Microelectronics	January 27, 2021	It mainly conducts semiconductor packaging and testing, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
688693.SH	Convert	August 18, 2023	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
688711.SH	MACMIC	September 1, 2021	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening

Stock code	Name of securities	Date of listing	Screening process
300046.SZ	Tech Semi	January 20, 2010	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
300373.SZ	Yangjie Technology	January 23, 2014	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
300623.SZ	Jie Jie Microelectronics	March 14, 2017	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
300831.SZ	Peri	May 7, 2020	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening

After preliminary screening, profiles of the companies that meet the above reference standards (namely they are comparable in terms of industry, main operational model and product types) are shown in the following table:

Stock Code	Name of security	Corporate Profile	Composition of Main Operations
688249.SH	Nexchip	The main business of Hefei Nexchip Semiconductor Corporation is 12-inch wafer foundry business and its supporting services. The company's main products are DDIC, CIS, PMIC, MCU, and Logic.	Integrated circuit wafer foundry: 98.5703%; Other operations: 1.4020%; Others: 0.0277%

Stock Code	Name of security	Corporate Profile	Composition of Main Operations
688396.SH	CR Micro	The principal business of China Resources Microelectronics Limited is power semiconductors, smart sensors, and smart control, providing customers with a wide range of semiconductor products and system solutions. The Company's main products are MOSFETs, IGBTs, power diodes, IoT application-specific ICs, power ICs, optocouplers and sensors, SiC, and GaN.	Products and solutions: 50.9277%; Manufacturing and services: 46.3278%; Other businesses: 2.7445%
600460.SH	Silan Microelectronics	Hangzhou Silan Microelectronics Co., Ltd. is mainly engaged in the research and development, manufacturing, and sales of electronic components. The company's main products are silicon-based integrated circuits, discrete devices, and compound semiconductor devices (LED chips and finished products, SiC, GaN power devices).	Discrete device products: 48.4601%; Integrated circuits: 36.5858%; Light-emitting diode products: 6.8476%; Other businesses: 4.4177%; Others: 3.6887%
688172.SH	Yandong Microelectronics	The principal business of Beijing Yandong Microelectronics Co., Ltd. consists of two categories: products and solutions, and manufacturing and services. The Company's main products are products and solutions, manufacturing and services.	Products and solutions: 47.1756%; Manufacturing and services: 43.9067%; Others: 5.7855%; Other businesses: 3.1323%

Stock Code	Name of security	Corporate Profile	Composition of Main Operations
300373.SZ	Yangjie Technology	The main business of Yangzhou Yangjie Electronic Technology Co., Ltd. is the design, manufacturing, packaging, testing, research and development, production, and sale of power semiconductor wafers, chips, and devices. The company's main products are semiconductor devices, semiconductor chips, and semiconductor wafers.	Semiconductor devices: 86.2474%; Semiconductor chips: 8.3270%; Semiconductor silicon wafers: 3.0766%; Other business income: 2.3490%
300623.SZ	Jie Jie Microelectronics	The main business of Jiangsu JieJie Microelectronics Co., Ltd. is the research and development, design, production, and sales of power semiconductor chips and devices. The Company's main products are thyristor series, protection device series, diode series, MOSFET series, IGBT series, thick film modules, silicon carbide devices, and others.	Power semiconductor devices: 66.9693%; power semiconductor chips: 31.0471%; other business income: 1.3637%; power device packaging and testing: 0.6199%

2) Given that the appraised entity is an independent wafer foundry, if the business scale of comparable listed companies is smaller than that of the appraised entity and the gap is significant, their comparability will be correspondingly weakened. In addition, considering that the book value of fixed assets of the appraised entity had been almost fully depreciated as of the base date, and its main production and operation sites were all leased, without self-owned factory buildings and land, comparable samples of equipment-type fixed assets with similar original book value were selected in this screening process.

The original book value of equipment-type fixed assets for each company is calculated as follows:

Stock code	**Name of security**	**Original book value of equipment assets** *(RMB: 100 million)*
688249.SH	**Nexchip**	**373.37**
688396.SH	**CR Micro**	**208.96**
600460.SH	**Silan Microelectronics**	**114.24**
688172.SH	Yandong Microelectronics	67.74
300373.SZ	Yangjie Technology	47.07
300623.SZ	Jie Jie Microelectronics	54.72
Assessed entity	HLMC	153.59

The profiles of the comparable listed companies finally selected are shown in the following table:

Stock code	**Name of security**	**Date of listing**	**Corporate profile**	**Main operation**
688249.SH	Nexchip	May 5, 2023	The main business of Hefei Nexchip Semiconductor Corporation is 12- inch wafer foundry business and its supporting services. The company's main products are DDIC, CIS, PMIC, MCU, and Logic.	12-inch wafer foundry business.

Stock code	Name of security	Date of listing	Corporate profile	Main operation
688396.SH	CR Micro	February 27, 2020	The principal business of China Resources Microelectronics Limited is power semiconductors, smart sensors, and smart control, providing customers with a wide range of semiconductor products and system solutions. The Company's main products are MOSFETs, IGBTs, power diodes, IoT application-specific ICs, power ICs, optocouplers and sensors, SiC, and GaN.	Integrated operation of the entire industry chain, including chip design, wafer manufacturing, and packaging and testing.
600460.SH	Silan Microelectronics	March 11, 2003	The principal business of Hangzhou Silan Microelectronics Co., Ltd. is the R&D, production and sale of electronic components. The company's main products are silicon-based integrated circuits, discrete devices, and compound semiconductor devices (LED chips and finished products, SiC, GaN power devices).	Research and development, production, and sales of electronic components.

(2) Make necessary adjustments for the differences between the appraised entity and comparable companies.

Information of the comparable companies obtained from public and legal channels, including their operation and financial information, are compared and analyzed against the actual situation of the appraised entity. Necessary adjustments are made for differences.

(3) Select and determine the value ratio.

1) Selection of value ratio

Valuation ratios usually include asset value ratio, earnings ratio, revenue value ratios, and other specific value ratios. Applicable value ratio should be selected based on factors such as the industry characteristics and operating stage of the appraised entity, and the value ratio of each comparable listed company should be calculated. The following factors were fully considered during the selection process: the selected value ratio is conducive to reasonably determining the value of the subject of appraisal; the data scope and calculation method for calculating the value ratio are consistent; and when applying the value ratio, differences between comparable companies and the appraised entity are reasonably adjusted as much as possible. The value ratio selected is as follows:

① Asset value ratio

Asset value ratios include price-to-book ratio (P/B), enterprise value to total business value of invested capital ratio (EV/TBVIC) and other ratios. Since the main fixed assets of the appraised entity as of the base date had with a low book net value ratio, the net assets and total assets as of the base date were at a relatively low level in the enterprise's life cycle. In comparison, the average net asset ratio of the selected comparable listed companies was approximately 50%, indicating a significant difference in their asset bases. Although net assets and total assets are relatively less affected by cyclical fluctuations in the industry, their values often show significant differences at various stages of a company's life cycle. The current low net asset status of the appraised entity reflects the reality that its assets have accumulated depreciation over many years, resulting in a low book value. If value ratio based on book value, such as P/B or EV/TBVIC, were used at this time, it would easily lead to distorted appraisal results. Therefore, the asset value ratio was not adopted in this appraisal.

② Earnings ratio

Earnings ratios include price-to-earnings ratio (P/E), enterprise value to earnings before interest and taxes ratio (EV/EBIT), and enterprise value to earnings before interest, taxes, depreciation and amortization ratio (EV/EBITDA) and others. As a wafer foundry enterprise, the appraised entity is characterized by high capital investment and a long return cycle. After deducting high depreciation and amortization expenses, earnings before interest and taxes (EBIT) often shows temporary losses or low profit levels. This situation will lead to a distortion of value ratios such as the price-to-earnings ratio (P/E) and the enterprise value to earnings before interest and taxes ratio (EV/EBIT). Therefore, the above value ratios are not applicable to this appraisal. In contrast, the enterprise value to earnings before interest,

taxes, depreciation, and amortization ratio (EV/EBITDA), by adding back depreciation and amortization, eliminates the impact of high capital expenditure characteristics on EBIT, thus providing a fairer measure of the appraised entity's sustainable operations. Therefore, this appraisal adopts the Enterprise Value to Earnings Before Interest, Taxes, Depreciation and Amortization ratio (EV/EBITDA).

③ Revenue-to-value ratio

Revenue-to-value ratios include price-to-sales ratio (P/S), enterprise value-to-sales ratio (EV/S) and others. The valuation logic implied by the revenue-to-value ratio is that there is a direct and stable linear relationship between a company's core value and its sales revenue scale. However, for wafer foundries, their core value primarily depends on factors such as technological processes, which ultimately reflect the enterprise's sustained operations. The earnings value ratio is more consistent with the valuation logic of the wafer foundry industry; therefore, the revenue value ratio was not adopted in this appraisal.

2) Relevance test

The appraisers conducted a linear regression analysis of the EV/EBITDA value ratio for the three selected comparable companies, with Enterprise Value (EV) as the dependent variable and Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA) as the independent variable. The relevant analysis results are shown in the table below:

Test indicators	**EV/EBITDA**
R	0.9461
R-squared value	0.8951

After the relevance test, the R-squared value of EV/EBITDA is relatively high. An R-squared between 0.7 and 0.9 is generally considered to indicate a high degree of fit, meaning there is a strong positive correlation between EBITDA and enterprise value. Therefore, EV/EBITDA should be adopted as the valuation multiple for this appraisal.

(4) Determine the appraisal conclusion.

After adjusting and calculating the value ratios of comparable companies, and combining them with the relevant financial data or indicators of the appraised entity, the enterprise value of the appraised entity is calculated. By adjusting the non-operating assets, liabilities, and surplus assets of the appraised entity, the total equity value of the shareholders of the appraised entity is finally obtained.

(5) Consideration of liquidity and control

The market approach in this appraisal adopts the listed company comparison method. Since the selected comparable companies are listed companies and the appraised entity is a non-listed company, the impact of liquidity on the value of the appraised entity has been considered in the valuation.

As there is currently no reliable control premium rate or authoritative statistical data on the lack of control discount rate for the Chinese market that is recognized by all market participants, the impact of control on the value of the appraisal subject was not considered in this market approach valuation.

VIII. IMPLEMENTATION PROCESS AND STATUS OF APPRAISE PROCEDURES

We have implemented the appraisal procedures for this engagement in accordance with China's asset appraisal standards and relevant principles and regulations for national asset valuation. The entire appraisal procedure is mainly divided into the following four stages:

(I) Appraisal preparation

1. Upon accepting this engagement, we immediately communicated and reached a consensus with the client regarding the purpose of this appraisal, the base date, and the scope of the appraisal subject, entered into a business engagement contract, and prepared the asset appraisal plan for this engagement.

2. Collaborate with the enterprise in asset stocktaking, guide and assist the enterprise with declaration of asset within the valuation scope and prepare documents and information necessary for asset appraisal.

(II) On-site appraisal

Based on the overall schedule of this engagement, the on-site appraisal and investigation was conducted from late August to late September 2025. After selecting the appraisal method applicable to this appraisal, the following on-site appraisal procedures were mainly carried out:

1. Verify and check the assets and relevant information within the scope of appraisal declared by the enterprise:

   (1) Obtain an introduction from the client and relevant personnel of the evaluated entity regarding the overall situation of the enterprise as well as the history and current status of the assets included in the scope of appraisal, and understand the enterprise's relevant internal systems, operating conditions, asset utilization status, and other information;

(2) Verify the contents of the asset appraisal declaration schedule provided by the enterprise, reconcile them with the relevant financial records of the enterprise, and coordinate with the enterprise to make adjustments or supplements for any issues found;

(3) Conduct on-site inspections and spot checks of physical assets based on the details in the asset appraisal declaration schedule;

(4) Review and collect the property right certificates of the assets included in the scope of appraisal, inspect the ownership documents provided by the appraised entity, and verify the ownership of the assets. To verify the status of defective assets, the appraised entity is requested to verify and confirm whether the ownership of these assets belongs to the enterprise and whether there are any property right disputes.

(5) For equipment assets, understand the management system and actual implementation, as well as corresponding maintenance, alteration, and expansion, and review and collect relevant technical data, contracts, budget data, completion inspection data, and land planning files, etc. For general equipment, this is mainly achieved through market research and by consulting relevant price information and other data;

(6) For the intangible assets involved, understand their cost composition, historical and future earnings, market conditions of the corresponding products, and other relevant information; review and collect legal documents, validity of ownership documents, or other supporting materials for the intangible assets; investigate the characteristics of the intangible assets, asset portfolio, and usage status; the geographical scope, field scope, results of operations, and revenue model of the intangible assets' implementation; determine whether they can continue to function and bring economic benefits to the rights holder; understand the statutory protection period, earnings period, and protection measures of the intangible assets. Investigate any legal, administrative regulations or other restrictions encountered during the implementation of intangible assets;

(7) For liabilities within the scope of appraisal, the main objective is to understand the actual debt obligations of the appraised entity.

2. Understand the historical operating conditions, current operating status, and the current situation of the industry in which the appraised entity operates, and assess the possible development trends of the enterprise in the foreseeable future. Details are as follows:

   (1) Understand the legal status of the appraised entity's continued operation, mainly concerning its articles of association, investment and capital contribution agreements, business premises, and operational capabilities;

   (2) Understand the accounting system implemented by the appraised entity, depreciation policy for fixed assets, accounting for inventory costs and accounting method for issued inventory, etc., the tax rate implemented and tax status, debt, borrowings and cost of debts in recent years;

   (3) Understand the business types, operating models, and historical operating performance of the appraised entity, including the revenue proportion of its main operating businesses, the distribution of major customers, and related party transactions with affiliated enterprises;

   (4) Obtain financial information data such as audited balance sheets, profit and loss statements, cash flow statements, and detailed statements of product revenue and cost expenses for recent years;

   (5) Understand the allocation and actual utilization of the enterprise's assets, analyze relevant surplus assets and non-operating assets and liabilities, and obtain consensus with the enterprise's management;

   (6) Conduct interviews with the management of the entity being evaluated to understand the core operational strengths and weaknesses of the enterprise, as well as the composition and trends of its main operating revenue and costs;

   (7) Conduct interviews with the main suppliers and customers of the appraised entity to understand their business cooperation with the appraised entity, the main basic conditions for cooperation, future cooperation intentions, and other related information;

   (8) Understand the number and basic information of comparable companies in the same industry as the appraised entity or affected by the same economic factors and their comparable market transactions.

(III) Aggregation of appraisal conclusions

Analyze, summarize and collate the valuation data collected during the on-site appraisal survey as necessary to form basis for valuation and estimate; select correct formulas and reasonable valuation parameters based on the selected appraisal approach to form a preliminary valuation result; summarize the preliminary appraisal conclusions and analyze the reasonableness of the appraisal conclusions when it is confirmed that there is no duplication or omission of appraisal in the scope of assets under appraisal.

(IV) Report submission

Based on the aforementioned work, a preliminary asset appraisal report is prepared, and opinions are exchanged with the client regarding the content of the preliminary appraisal report. After fully considering the communication of relevant opinions, the asset appraisal report is revised and improved. Upon completion of our internal review procedures, the formal asset appraisal report is submitted to the client.

IX. APPRAISAL ASSUMPTIONS

In this appraisal, the asset appraiser followed the following appraisal assumptions and restrictions:

(I) Basic assumptions

1. Transaction assumptions

The transaction assumption is to assume that all appraised assets are already in the process of transaction, and the asset appraisers appraise the value based on a simulated market, including the transaction conditions of the appraised assets. Transaction assumption is one of the most fundamental prerequisite assumptions for the appraisal of assets.

2. Open market assumption

The open market assumption is a hypothesis about the market conditions into which an asset is intended to enter and the impact the asset will experience under such market conditions. An open market, which has been fully developed with comprehensive market conditions, refers to a competitive market with willing buyers and sellers acting voluntarily and rationally on an arm's length basis, having sufficient opportunities and time to obtain market information and under no compulsion or restrictions to buy or sell. The open market assumption is based on the premise that assets can be publicly bought and sold in the market.

3. Going concern assumption

The going concern assumption is an assumption that the appraised entity, under its existing asset resources, can legally continue its production and operation activities in their current state within the foreseeable future operating period, and that its operating conditions will not undergo significant adverse changes.

4. Assumption of assets being used for current purpose

The assumption of assets being used for current purpose means assuming that the asset will continue to be used for its current purpose. Firstly, it is assumed that the assets within the scope of appraisal are in use, and secondly, it is assumed that they will continue to be used for their current purpose and in their current manner, without considering a change in asset use or optimal utilization conditions.

(II) General assumptions

1. This appraisal assumes that there will be no unforeseen significant adverse changes in the external economic environment, including the relevant laws, macroeconomic, financial and industrial policies prevailing in the country after the base date, and that there will be no significant impact caused by other human force majeure and unforeseen factors.

2. This appraisal does not consider the impact on the appraisal conclusion of any collateral or guarantee that the appraised entity and its assets may assume in the future, or additional price that may be paid as a result of special transactions.

3. It is assumed that there will be no significant changes in the socio-economic environment in which the appraised entity is located or the fiscal and taxation policies in place, such as taxes and tax rates, and that the credit policy, interest rate, exchange rate and other financial policies will be generally stable.

4. The appraised entity's current and future business operations are legal and compliant, and conform to the relevant provisions of its business license and articles of association.

(III) Market approach specific assumptions

1. It is assumed that the appraised entity strictly adheres to the Accounting Standards for Business Enterprises and its relevant regulations, and that the financial data at the base date and for all historical periods are true and reliable;

2. It is assumed that the financial and operating data disclosed by the selected comparable listed companies are true and reliable;

3. Unless otherwise specified, it is assumed that all capital market transactions are based on the principles of openness, fairness, voluntariness, and impartiality.

4. Neither the impact of natural forces and other force majeure factors nor the possible impact of a special transaction method on the appraisal conclusion are taken into consideration.

5. The possible mortgage and guarantee in the future are not considered.

The appraisal conclusion in this asset appraisal report is valid as of the base date under the aforementioned assumptions. Should there be significant changes IN the aforementioned assumptions, the signatory asset appraisers and the appraisal institution will not be held responsible for different appraisal conclusions derived from such changes in assumptions.

X. APPRAISAL CONCLUSION

In accordance with relevant national regulations on asset valuation, and adhering to the principles of independence, impartiality, and objectivity, we have performed the necessary appraisal procedures to arrive at the appraisal conclusion for the market value of the entire shareholders' equity of the appraised entity as of the base date, under the valuation purpose, assumptions, and limiting conditions stated in this report.

(I) Relevant appraisal results

1. Appraised value based on asset-based approach

The asset-based approach was adopted to evaluate the value of all shareholders' equity of the enterprise, and the appraisal results of the appraised entity on the base date are as follows:

As of the base date, the book value of the owner's equity of the appraised entity was RMB2.0019138 billion, the appraised value was RMB7.8276424 billion, the appraisal appreciation was RMB5.8257286 billion, and the appreciation rate was 291.01%. Among them, the book value of total assets was RMB7.2585028 billion, the appraised value was RMB13.0683929 billion, the appraisal appreciation was RMB5.8098901 billion, and the appreciation rate was 80.04%. Total liabilities book value RMB5.256589 billion, appraised value RMB5.2407505 billion, appraised impairment RMB15.8385 million, impairment rate 0.30%.

2. Appraised value based on Market approach

The appraisal results of the total equity value of the enterprise's shareholders as of the base date, using the market approach, were as follows:

The book value of the owner's equity of the appraised entity was RMB2.0019138 billion, the appraised value was RMB8.48 billion, and the appraisal appreciation was RMB6.4780862 billion, with an appreciation rate of 323.59%.

(II) Analysis of differences in appraisal results and final appraisal conclusion

1. Analysis of differences in appraisal results from different approaches

The entire value of shareholders' equity derived from the market approach is RMB8.48 billion, which is RMB652.3576 million higher than the entire value of shareholders' equity of RMB7.8276424 billion derived from the asset-based approach.

The main reason for the difference in appraisal results from different appraisal approaches is that each appraisal approach considers asset value from a different perspective. The asset-based approach estimates the value from the perspective of the current reconstruction of each asset of the enterprise, while the market approach calculates the value from the perspective of current market comparable prices, leading to differences in the appraisal results of each appraisal approach.

2. Selection of appraisal conclusion

According to Asset Appraisal Practice Guidelines – Enterprise Value, when multiple appraisal approaches are used for the same appraisal subject, the conclusion of the appraisal should be formed through qualitative or quantitative methods, considering the appraisal purpose as well as the quality and quantity of data utilized by different appraisal approaches.

Given that HLMC is engaged in the wafer processing industry, its primary value, in addition to tangible resources such as fixed assets and working capital, should also include the contribution of important intangible resources such as process routes, corporate management level, talent and technical team, and self-generated goodwill. Due to the characteristics of the asset-based approach, its appraisal results only assess the value of individual tangible assets and identifiable intangible assets, and cannot fully measure the overall enterprise effect value that may arise from the mutual matching and organic combination of individual assets. Important intangible resource values such as the appraised entity's process route, enterprise management level, talent and technical team, and self-generated goodwill are generally difficult to reflect in the asset-based approach. Therefore, the asset-based approach has certain limitations compared to the market approach. Secondly, the market approach utilizes public data from comparable listed companies. In recent years, as China's stock market has become increasingly mature, this relatively sophisticated capital market environment has provided a foundation for pricing via the market approach.

Through the above analysis, we selected the market approach valuation result as the appraisal conclusion for the total equity value of the appraised entity. Upon appraisal, the value of all shareholders' equity of the appraised entity was RMB8,480,000,000.00 (in words: RMB Eight Billion Four Hundred Eighty Million only).

The appraisal conclusion is derived from the above appraisal work.

(III) Comparison of appraisal conclusion with book value and explanation of changes

The appraisal conclusion of this appraisal adopts the market approach. It is precisely because of the adoption of the market approach. The company possesses significant intangible resource values, such as process routes, enterprise management level, talent and technical team, and self-created goodwill, which are not reflected in the book value of the enterprise. Therefore, the market approach results in a large appreciation compared to the book value.

(IV) Other considerations regarding appraisal conclusions

The listed company comparison method is adopted for the market approach in this appraisal. Since the selected comparable companies are listed companies and the appraised entity is a non-listed company, the appraisal subject is the value of all shareholders' equity. The valuation considers the impact of liquidity on the value of the appraised entity.

As there is currently no reliable control premium rate or authoritative statistical data on the lack of control discount rate for the Chinese market that is recognized by all market participants, the impact of control on the value of the appraisal subject was not considered in this market approach-based appraisal.

(V) Validity period of appraisal conclusion

According to the current appraisal standards, the appraisal conclusion disclosed in this appraisal report is valid only when there are no significant changes to the appraisal assumptions stated in this report, and generally, only when the date of implementation of the economic behavior and the base date do not exceed one year, which means the validity period of the appraisal conclusion is from August 31, 2025 to August 30, 2026.

The conclusions of this appraisal report shall not be used for economic behavior if the validity period of the aforementioned appraisal conclusions has expired.

(VI) Other explanations regarding the appraisal conclusion

Within the validity period of the appraisal conclusion after the base date, if there are changes in the quantity of assets and pricing standards involved in the valuation object, the client may handle it according to the following principles:

1. When the number of assets changes, the amount of assets should be adjusted accordingly based on the original appraisal approach.

2. When there is a change in asset price standards that has a significant impact on the asset appraisal results, the client should promptly engage a qualified asset appraisal institution to re-determine the appraised value.

3. The client should give full consideration to changes in asset quantity and price standards after the base date when implementing economic behaviors.

XI. SPECIAL MATTERS

When using this appraisal report, users should pay attention to the potential impact of the following special matters on the appraisal conclusion and give full consideration to them when making decisions and implementing economic behavior based on this report:

(I) Incomplete or defective ownership and other major information:

The asset appraisal standards stipulate that the purpose of an asset appraiser performing asset appraisal services is to estimate the value of the appraisal object and express professional opinions. Confirming or expressing opinions on the legal ownership of the appraisal object and its related assets is beyond the scope of practice for asset appraisers. The entrusting party and relevant parties entrusting asset appraisal business shall provide information on the legal ownership of the appraised assets and the assets involved, and shall be responsible for the truthfulness, completeness and legality of the legal ownership information of the appraised assets and the assets involved. In accordance with the Guidance Opinions on Legal Ownership of Asset Appraisal Subjects, the asset appraisers paid appropriate attention to the ownership documents of the assets included in this appraisal.

The ownership information of the assets appraised in this instance is basically complete, and the asset appraisers have not found any obvious ownership defects. The client and the appraised entity also explicitly stated that there were no defects in ownership.

(II) Explanation about other key information not being provided by the client:

The appraiser did not find any relevant matters through on-site investigation. However, due to the limitations of the asset appraiser's verification methods, the appraisal institution cannot issue a definitive opinion on the completeness of the above matters.

(III) Uncertainties such as pending matters and legal disputes existing as at the base date:

The asset appraiser was not aware of any pending matters, legal disputes, or other uncertainties existing as at the base date. The client and the appraised entity also explicitly stated that there are no pending matters, legal disputes, or other uncertainties. However, due to the limitations of the asset appraiser's verification methods, the appraisal institution cannot issue a definitive opinion on the completeness of the above matters.

(IV) Important utilization of expert work and related reporting:

1. Utilizing professional reports:

In the process of performing this appraisal engagement, we obtained the following professional reports through legal channels and prudently referenced and utilized the relevant contents of these professional reports:

(1) Special audit report issued by Da Hua Certified Public Accountants (Special General Partnership), with report number: Da Hua Shen Zi [2025] 0011016213;

The type and book value of the book assets in this asset appraisal report have been audited by Da Hua Certified Public Accountants (Special General Partnership), which issued a special audit report with a standard unqualified opinion, with report number: Da Hua Shen Zi [2025] 0011016213. The opinion of the audit report is: "We have audited the pro forma financial statements of Shanghai Huali Microelectronics Corporation ("HLMC"), which comprise the pro forma balance sheets as at August 31, 2025, December 31, 2024, and December 31, 2023, and the pro forma income statements, pro forma cash flow statements, and related notes to the pro forma financial statements from January to August 2025, and for the years 2024 and 2023." In our opinion, the accompanying pro forma financial statements have been prepared in all material respects in accordance with the basis of preparation described in Note 3 to the pro forma financial statements, and present fairly the pro forma financial position of HLMC from January to August 2025, and as at December 31, 2024, and December 31, 2023, and its pro forma operating results and pro forma cash flows for the period from January to August 2025, the year 2024, and the year 2023. The asset appraisal professionals have analyzed and judged the financial statements based on the requirements for their use in the adopted appraisal methods. However, it is not the responsibility of the asset appraisal professionals to express a professional opinion on whether the relevant financial statements fairly reflect the financial position, current operating results, and cash flows of the enterprise as at the base date.

According to the relevant provisions of the current valuation standards, we only assume responsibility for improper citation in relation to the use of relevant professional reports.

(V) Significant subsequent events:

Between the base date and the date of issuance of this asset appraisal report, the client and the appraised entity have clearly stated that there are no material subsequent events. We also confirm that there have been no material changes in the appraisal parameters and appraisal assumptions between the base date and the date of issuance of this asset appraisal report, and there has been no material change in the equity value of the appraised entity.

(VI) Explanation about circumstances where appraisal procedures are limited, remedial measures taken by the appraisal institution, and the impact on appraisal conclusions:

No matters affecting asset verification were found during this appraisal.

(VII) Nature, amount, and relationship with the appraisal subject of guarantees, leases, and contingent liabilities (contingent assets):

1. Pledge and mortgage

As of the base date, pledges and guarantees in which HLMC was involved were as follows:

Contract No.	Borrower	Lender	Loan amount *(RMB0,000)*	Term of loan	Purpose of the loan	Interest rate	Guarantee
Loan Contract No. 310020160610000054	HLMC	Entrusted lender: China Development Bank Development Fund Co., Ltd; Entrustee lender: China Development Bank Corporation	300,000.00	August 4, 2016-August 3, 2026	Production line construction	1.2% per annum	HLMC provided mortgage guarantee to the entrusted lender with equipment valued at a total of RMB1.5224377 billion
Loan Contract No. 3100201506100000015001	HLMC	Entrusted lender: China Development Bank Development Fund Co., Ltd; Entrustee lender: China Development Bank Corporation	100,000.00	November 24, 2015-November 23, 2030	Investment and construction of production lines	1.2% per annum	HLMC provided mortgage guarantee to the entrusted lender with equipment valued at a total of RMB1.1626396 billion

Contract No.	Borrower	Lender	Loan amount *(RMB0,000)*	Term of loan	Purpose of the loan	Interest rate	Guarantee
3100202301100002961	HLMC	China Development Bank Shanghai Branch, Bank of Communications Co., Ltd. Shanghai New Area Sub-branch, Bank of Shanghai Co., Ltd. Xuhui Sub-branch, China Construction Bank Corporation Shanghai Zhangjiang Branch	96,000.00	February 2023-February 2031	R&D	3%	HLMC provided mortgage guarantee to the lender with equipment valued at a total of RMB290,528,500

Report users are advised to take note that this appraisal does not consider the possible impact of the aforementioned mortgage or pledge matters on the appraisal results.

2. Leases

No.	Lessor	Lease address	Leased area	Lease term	Usage
1	Shanghai Grace Semiconductor Manufacturing Corporation	Premise at Plot 2, Block 13, Zhangjiang Hi-Tech Park, Pudong New Area, Shanghai	91,563.11 square meters	March 1, 2010 to February 28, 2030	Plant
2			Chemical warehouse, power plant, and production plant	20 years from the date of acceptance and delivery	
3			192 square meters	June 1, 2021 to December 31, 2025	Plant

3. Leasing-out

No.	Lessor	Lessee	Subject of lease	Usage
1	HLMC	Shanghai Huali Integrated Circuit Manufacturing Co., Ltd.	Part of the clean plant	Accommodation of equipment
2	HLMC	Company B	Equipment	For use in production and operations

4. Contingencies

As of August 31, 2025, the outstanding balance of bank guarantees for HLMC was RMB10,000,000.00, with the last guarantee expiring on February 10, 2026.

As of August 31, 2025, the unused amount of irrevocable letters of credit not yet fulfilled by HLMC was USD1,360,050.00 (equivalent to RMB9,660,435.15), with the last one maturing on January 13, 2026.

This appraisal did not consider the impact of the aforementioned contingencies on the appraisal.

Save for the above disclosed matters, the appraiser did not find any other related matters through on-site investigation. However, due to the limitations of the asset appraiser's verification methods and the concealment caused by guarantees and contingent liabilities (assets), the appraisal institution cannot issue a definitive opinion on the completeness of the above matters.

(VIII) Defects that may have a significant adverse impact on the appraisal conclusion in the economic behavior corresponding to this asset appraisal:

In the economic behavior corresponding to this asset appraisal, we have not found any defects that may have a significant impact on the appraisal conclusions.

(IX) Other matters requiring explanation:

1. In this asset appraisal report, all tables or textual expressions denominated in RMB ten thousands, and any difference between the total amount and the sum of the individual sub-values is due to rounding off.

2. When assessing the assets within the scope of appraisal, we did not consider the impact of the appraised appreciation of certain assets on income tax.

3. This appraisal report only serves the valuation purpose corresponding to the economic behavior agreed upon in the client's contract, and does not constitute investment advice or decision-making recommendations for other investors in the market regarding the relevant target.

4. Spin-off of the appraised entity

On June 26, 2025, pursuant to the general meeting resolution Hu HLMC Gu (2025) No. 4, all shareholders unanimously agreed to the spin-off plan, pursuant to which the company will be divided into Shanghai Huali Microelectronics Corporation (the surviving company, hereinafter referred to as "HLMC After

Spin-off") and the new company by way of spin-off. HLMC After Spin-off will continue to operate the 12-inch wafer foundry and related businesses located at No. 568 Gaosi Road, China (Shanghai) Pilot Free Trade Zone, and will assume the related assets, creditor's rights and liabilities, personnel, and other agreed rights and obligations. The new company will assume long-term equity investments and corresponding businesses, assets, creditor's rights and liabilities, personnel, and other agreed rights and obligations. HLMC After Spin-off and the new company will maintain independence from each other in terms of business, assets, personnel, finance, and organization. The Company completed the spin-off on August 21, 2025. The sum of the registered capital of HLMC After Spin-off and the new company is equal to the registered capital of HLMC before this spin-off. The shareholding ratio of each shareholder in HLMC After Spin-off and the new company is consistent with their shareholding ratio in HLMC before this spin-off. HLMC After Spin-off will be the target asset to be injected into Huahong Company for this reorganization.

The appraisal subject is HLMC After Spin-off. Based on this, the appraisal is carried out on the basis of the pro forma financial statements prepared by HLMC under the spin-off framework and the business substance reflected therein.

5. Exchange rate fluctuation risk

Given that the appraised entity involves foreign currency settlement, its operating results is inevitably affected by exchange rate fluctuations. However, exchange rate fluctuations are constrained by various complex factors, including macroeconomic and geopolitical factors, which are intertwined, making it difficult for appraisers to accurately assess and quantify the specific degree of risk caused by exchange rate fluctuations.

Given that the listed company comparison method is adopted for this appraisal, the selected listed companies in the semiconductor manufacturing industry generally face the risk of exchange rate fluctuations. This industry commonality implies that the market approach-based appraisal results have, to a certain extent, already factored in the impact of exchange rate fluctuation risks. Accordingly, this appraisal does not separately consider the additional impact of exchange rate fluctuation risk.

Users of this asset appraisal report should pay full attention to the impact of the aforementioned special matters on the appraisal conclusion when using this report.

XII. LIMITATIONS OF USE OF APPRAISAL REPORT

(I) This asset appraisal report shall only be used for the purposes of appraisal and economic behaviors as set out herein.

(II) The appraisal institution and asset appraisers shall not be liable if the client or other users of the asset appraisal report use this asset appraisal report beyond the scope of use stipulated by laws and administrative regulations and stated in this asset appraisal report.

(III) Except for the client, other users of the asset appraisal report as stipulated in the asset appraisal engagement contract, and users of the asset appraisal report as stipulated by laws and administrative regulations, no other institution or individual may be a user of this report.

(IV) The users of the asset appraisal report should correctly understand and use the appraisal conclusions. The appraisal conclusions are not equivalent to the realizable price of the appraisal object, and should not be regarded as a guarantee of the realizable price of the appraisal object.

(V) If this appraisal engagement involves state-owned assets and is required to comply with the filing and approval procedures of the state-owned assets supervision and administration authority in accordance with the relevant regulations, this appraisal report shall be filed with the state-owned assets supervision and administration authority before it can be formally used, and the appraisal conclusion shall only apply to the economic behaviors shown in this report.

(VI) This asset appraisal report contains certain annexes and appraisal schedules, all of which also constitute an important part of this report, but shall be valid only when used in conjunction with the body of this report. The appraisal institution and the asset appraiser assume no obligation or responsibility for any use other than that for which it is used, such as being shown to the non-asset appraisal report user or the non-asset appraisal report user who otherwise has access to this report, and do not provide further consultation in connection with this report, nor do they provide testimony, appear in court or otherwise hearings in legal proceedings, and reserve the right to pursue the non-asset appraisal report user the losses incurred as a result.

(VII) The right to interpret the contents of this asset appraisal report shall rest with the appraisal institution, and no other entity or department shall have the right to interpret it, unless otherwise expressly and specifically provided for in national laws and regulations; any extract, quote or disclosure of the whole or part of the contents of the appraisal report in the public media shall be subject to the written consent of the appraisal institution and the undersigning appraiser of the report after the appraisal institution has reviewed the relevant contents. unless otherwise provided by laws and regulations or agreed by the relevant parties.

XIII. DATE OF APPRAISAL REPORT

The date of the asset appraisal report is the date on which the appraisal conclusion is made, and the date of this asset appraisal report is December 29, 2025.

Appraisal institution	**Shanghai Orient Appraisal Co., Ltd.**	
Legal representative	**Xu Feng**	
Signatory asset appraiser	Yu Zhechao	Wong Xin
Date of appraisal report	December 29, 2025	

Asset Appraisal Report
(Appendix)

Engagement Name	**Asset Appraisal Report on the Value of All Shareholders' Equity of Shanghai Huali Microelectronics Corporation in connection with the Proposed Issuance of Shares by Hua Hong Semiconductor Limited for the Acquisition of Assets**
Report No.	Orient Ping Bao Zi [2025] No. 2446

No.	**Name of Attachment**
1.	Economic behavior documents corresponding to the purpose of appraisal
2.	Business licenses of the client and appraised entity
3.	Registration certificate of state-owned assets of the client and the assessed entity
4.	Special audit report of the appraised entity
5.	Patent certificates and other rights certificates of the appraised entity
6.	Letter of undertakings of the client and related parties
7.	Engagement contract for asset appraisal
8.	Business license of Shanghai Orient Appraisal Co., Ltd.
9.	Securities-related assets appraisal certificate of Shanghai Orient Assets Appraisal Co., Ltd.
10.	Asset appraisal qualification certificate of Shanghai Orient Appraisal Co., Ltd.
11.	Qualification certificates of asset appraisers responsible for the appraisal business
12.	Letter of undertaking from asset appraisal institution and asset appraisers
13.	Explanation about significant differences between the book value of assets and the appraisal conclusion
14.	Summary or detailed statement of asset appraisal
15.	Report schedule – Patent List

Explanation About Significant Differences Between the Book Value of Assets and the Appraisal Conclusion

Shanghai Orient Appraisal Co., Ltd., entrusted by your company, conducted an appraisal of the market value of all shareholders' equity of Shanghai Huali Microelectronics Corporation as at August 31, 2025, which is involved in the acquisition of 97.4988% equity interest in HLMC held by four HLMC shareholders, including Shanghai Huahong (Group) Co., Ltd., Shanghai Integrated Circuit Industry Investment Fund Co., Ltd., China Integrated Circuit Industry Investment Fund (Phase II) Co., Ltd., and Shanghai Guotou IC Fund Leading Integrated Circuit Private Equity Investment Fund Partnership (Limited Partnership), through the issuance of shares. This appraisal was performed in accordance with laws, administrative regulations, and asset appraisal standards, adhering to the principles of independence, objectivity, and impartiality, and utilizing the asset-based approach and market approach, following the necessary appraisal procedures. The explanations for the significant differences between the book value of assets and the appraisal conclusions are as follows:

The shareholders' equity declared by the appraised entity is RMB2.0019138 billion. The appraised value is RMB8.48 billion, indicating the appraisal appreciation of RMB6.4780862 billion, which is precisely because of the market approach appraisal conclusion. The company possesses significant intangible resource values, such as process routes, enterprise management level, talent and technical team, and self-created goodwill, which are not reflected in the book value of the enterprise. Therefore, the market approach results in a large appreciation compared to the book value.

FURTHER EXPLANATORY NOTES TO THE APPRAISAL REPORT

A. Conclusion of the Asset-Based Approach Appraisal

The asset-based approach was adopted to evaluate the value of all shareholders' equity of the enterprise, and the appraisal results of the appraised entity on the base date are as follows:

As of the base date, the book value of the owner's equity of the appraised entity was RMB2.0019138 billion, the appraised value was RMB7.8276424 billion, the appraisal appreciation was RMB5.8257286 billion, and the appreciation rate was 291.01%. Among them, the book value of total assets was RMB7.2585028 billion, the appraised value was RMB13.0683929 billion, the appraisal appreciation was RMB5.8098901 billion, and the appreciation rate was 80.04%. Total liabilities book value RMB5.256589 billion, appraised value RMB5.2407505 billion, appraised impairment RMB15.8385 million, impairment rate 0.30%.

Comparison of Appraisal Conclusion under Asset-based Approach with Book Value and Explanation of Changes

The main reasons for the changes in the appraisal conclusion under this asset-based approach are analyzed as follows:

Unit: RMB0,000

Item	Book Value A	Appraised Value B	Appreciation Amount C=B-A	Appreciation Rate% D=C/A×100%
Current Assets	502,209.71	526,180.75	23,971.04	4.77
Non-Current Assets	223,640.57	780,658.54	557,017.97	249.07
Long-term Receivables	6,362.46	6,362.46	0.00	0.00
Fixed Assets	150,987.78	558,573.56	407,585.78	269.95
Construction in Progress	13,740.65	13,816.45	75.80	0.55
Right-of-Use Assets	38,118.47	38,118.47	0.00	0.00
Intangible Assets	12,989.24	162,349.10	149,359.86	1,149.87
Long-term Deferred Expenses	526.11	526.11	0.00	0.00
Other Non-Current Assets	915.86	912.39	-3.47	-0.38
Total Assets	725,850.28	1,306,839.29	580,989.01	80.04
Current Liabilities	204,107.99	204,135.14	27.15	0.01
Non-Current Liabilities	321,550.91	319,939.91	-1,611.00	-0.50
Total Liabilities	525,658.90	524,075.05	-1,583.85	-0.30
Owner's Equity (Net Assets)	200,191.38	782,764.24	582,572.86	291.01

1. Current Assets

The book value of current assets is RMB5,022,097,100, and the appraised value is RMB5,261,807,500, representing an appraisal appreciation of RMB239,710,400. The appreciation mainly derives from the appraisal of inventory. The book value of finished goods and work-in-progress only reflects production costs, whereas during the appraisal, the value is determined based on the ex-factory price excluding taxes, after deducting the necessary taxes and fees required to realize sales. This appraised value is higher than production cost, leading to the appraisal appreciation.

2. Fixed Assets

The book net value of fixed assets is RMB1,509,877,800, and the appraised net value is RMB5,585,735,600, representing an appraisal appreciation of RMB4,075,857,800. The appreciation is mainly due to two reasons: (i) the Company's financials use the straight-line method to calculate depreciation for equipment assets, which results in faster depreciation. The appraisal determines the newness rate based on the economic life of the equipment and its actual condition, which reflects the actual value of the equipment on a more objective basis. The fact that depreciation period adopted by the financial principals is shorter than the economic life used in the appraisal leads to such appraisal appreciation; and (ii) the equipment assets not reflected on the books are included in the scope of this appraisal, resulting in such appraisal appreciation.

3. Construction in Progress

The book value of construction in progress is RMB137,406,500, and the appraised value is RMB138,164,500, representing an appraisal appreciation of RMB758,000. The main reason is that the appraisal takes into account the capital cost of construction in progress, hence resulting in the appraisal appreciation.

4. Intangible Assets

The book value of intangible assets is RMB129,892,400, and the appraised value is RMB1,623,491,000, representing an appraisal appreciation of RMB1,493,598,600. The appreciation is mainly attributable to two reasons: (i) some software and licenses, though amortized on the books, are still usable in practice, and their reasonable value has been reflected in this appraisal, resulting in the appraisal appreciation; (ii) some previously unrecorded intangible assets such as patents and layout designs are included in the scope of this appraisal, resulting in the appraisal appreciation.

5. Other Non-Current Assets

The book value of other non-current assets is RMB9,158,600, and the appraised value is RMB9,123,900, representing a decreased value of RMB34,700. The main reason is that other non-current assets include foreign currency receivables for which the appraised value is determined by converting these accounts into RMB based on the exchange rate prevailing on the benchmark date. The valuation impairment resulted from fluctuations between the exchange rate at the time of recording the foreign currency accounts receivable and the exchange rate on the benchmark date.

6. Liabilities

The book value of liabilities is RMB5,256,589,000, and the appraised value is RMB5,240,750,500, representing a decreased value of RMB15,838,500. The main reason for such appraisal depreciation is that deferred income for which obligations have been fulfilled is appraised as zero.

For detailed appraisal conclusions, please refer to the appraisal result summary table and appraisal detail declaration table.

B. Market Approach Appraisal

Introduction to Application of Market Approach

Definition of Market Approach

The market approach refers to an appraisal approach that determines the value of the appraisal object by comparing it with comparable listed companies or comparable transaction cases. The market approach is essentially a valuation technique that determines the value of an enterprise or equity by utilizing transaction information or reasonable quotation data of similar cases that have been transacted in an active trading market, through comparative analysis.

Two methods commonly used in the market approach are the listed company comparison method and the transaction case comparison method.

The listed company comparison method refers to a specific method for determining the value of an appraisal object by obtaining and analyzing the operating and financial data of comparable listed companies, calculating appropriate value ratios, and conducting a comparative analysis with the appraised entity. Comparable companies in the listed company comparison method should be listed companies normally traded in the open market. The appraisal conclusion should take into account the impact of liquidity on the appraisal object's value.

The transaction case comparison method refers to a specific method for determining the value of an appraisal entity by obtaining and analyzing information on the transaction, acquisition and merger cases of comparable companies, calculating appropriate value ratios, and conducting a comparative analysis with the appraised entity.When applying the transaction case comparison method, the impact of differences between the appraisal object and the transaction cases on the value should be considered.

Characteristics of Market Approach

(1) The valuation data is derived directly from the market, making the valuation process simple and intuitive.

(2) The valuation method is market-oriented, and the valuation results are highly persuasive.

Prerequisites for Applying the Market Approach

(1) There must be a well-developed and active capital market;

(2) There are three or more comparable companies, which should be in the same industry or subject to similar economic factors as the appraised enterprise;

(3) The value-influencing factors for comparable companies and the appraised enterprise are clear, quantifiable, and relevant information can be collected.

Valuation Assumptions

(1) It is assumed that the appraised entity strictly adheres to the Accounting Standards for Business Enterprises and its relevant regulations, and that the financial data at the base date and for all historical periods are true and reliable.

(2) It is assumed that the financial and operating data disclosed by the selected comparable listed companies are true and reliable.

(3) Unless otherwise specified, it is assumed that all capital market transactions are based on the principles of openness, fairness, voluntariness, and impartiality.

(4) Neither the impact of natural forces and other force majeure factors nor the possible impact of a special transaction method on the appraisal conclusion are taken into consideration.

(5) The possible mortgage and guarantee in the future are not considered.

Introduction to Market Approach Valuation Model

(1) Listed company comparison method

The listed company comparison method refers to a specific method for determining the value of an appraisal object by obtaining and analyzing the operating and financial data of comparable listed companies, calculating appropriate value ratios, and conducting a comparative analysis with the appraised entity.

(2) Transaction case comparison method

The transaction case comparison method refers to a specific method for determining the value of an appraisal entity by obtaining and analyzing information on the transaction, acquisition and merger cases of comparable companies, calculating appropriate value ratios, and conducting a comparative analysis with the appraised entity.

Given that at least three comparable listed companies in the same industry as the appraisal subject can be found in the A-share capital market, and their operating and financial data can be fully and reliably obtained, the listed company comparison method is selected for this appraisal.

How to Implement Appraisal Approach

The basic appraisal approach under this listed company comparison method is as follows:

Identify comparable companies

Since the appraised entity is a non-listed company, its equity does not have a publicly traded market, and therefore its market value cannot be directly determined. We select comparable companies from domestic listed companies, and the screening process for comparable companies is as follows:

(1) Preliminary screening is conducted based on the industry, main business model, and product type of the entity being evaluated. The screening criteria for comparable companies are as follows:

1) As of the base date, it must have been listed for at least two years to avoid the impact of share price fluctuations caused by insufficient market information, IPO effects, market expectations, and other factors.

2) The industry where it operates must be the semiconductor manufacturing or wafer foundry industry, i.e., the industry of the appraised entity, and its main business model is IDM or Foundry, which involves large-scale investment, high capital expenditure, and continuous investment in technology and processes, and its product application areas are similar to those of the appraised entity.

3) The shares were normally traded on the base date and were not in an abnormal trading state such as a trading halt, nor did the share price fluctuate abnormally due to a recent merger, acquisition, or restructuring transaction on the base date.

4) Given that ST shares are more likely to deviate significantly from their actual value due to speculative and manipulative factors in the market, ST shares are excluded from the scope of comparable companies.

The appraisers in this appraisal have screened listed companies that belong to the same category as the appraised entity under the SWS Industry Classification – Electronics – Semiconductors – Discrete Devices, Integrated Circuit Manufacturing, and a total of 25 listed companies was selected. These companies are screened in accordance with the aforementioned screening criteria, with details as follows:

Stock code	Name of securities	Date of listing	Screening process
688249.SH	**Nexchip**	**May 5, 2023**	**Its operating model is mainly Foundry model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
688347.SH	Hua Hong	August 7, 2023	The company experienced abnormal trading such as trading suspension during the recent period prior to the base date, so it is excluded from screening
688396.SH	**CR Micro**	**February 27, 2020**	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
688469.SH	UNT	May 10, 2023	The company experienced merger, acquisition and restructuring during the recent period prior to the base date, so it is excluded from screening
688691.SH	Brite	April 11, 2024	It mainly operates under Fabless model, which is significantly different from the operating model of the appraised entity, so it is excluded from screening
688981.SH	SMIC	July 16, 2020	It mainly operates under Foundry model, and there are significant differences in process technology, so it is excluded from screening
300456.SZ	SMEI	May 14, 2015	It mainly operates under Foundry model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
600360.SH	*ST Huawei	March 16, 2001	Its shares are under special treatment (ST), and its share price deviates significantly from its actual value, so it is excluded from screening
600460.SH	**Silan Microelectronics**	**March 11, 2003**	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**

Stock code	Name of securities	Date of listing	Screening process
600745.SH	Wingtech Technology	August 28, 1996	It mainly operates under IDM model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
603290.SH	StarPower Semiconductor	February 4, 2020	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
605111.SH	NCE Power	September 28, 2020	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
688048.SH	Everbright	April 1, 2022	It mainly operates under IDM model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
688167.SH	Focuslight Technologies	December 24, 2021	It mainly operates under IDM model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
688172.SH	Yandong Microelectronics	December 16, 2022	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
688230.SH	Prisemi	December 1, 2021	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
688261.SH	Oriental Semiconductor	February 10, 2022	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
688498.SH	Yuanjie Technology	December 21, 2022	It mainly operates under IDM model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
688689.SH	Galaxy Microelectronics	January 27, 2021	It mainly conducts semiconductor packaging and testing, and its business model is significantly different from that of the appraised entity, so it is excluded from screening

Stock code	Name of securities	Date of listing	Screening process
688693.SH	Convert	August 18, 2023	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
688711.SH	MACMIC	September 1, 2021	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
300046.SZ	Tech Semi	January 20, 2010	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
300373.SZ	Yangjie Technology	January 23, 2014	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
300623.SZ	Jie Jie Microelectronics	March 14, 2017	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
300831.SZ	Peri	May 7, 2020	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening

After preliminary screening, the company profiles that meet the above reference standards (namely they are comparable in terms of industry, main operational model and product types) are shown in the following table:

Stock Code	Name of security	Corporate Profile	Composition of Main Operations
688249.SH	Nexchip	The main business of Hefei Nexchip Semiconductor Corporation is 12-inch wafer foundry business and its supporting services. The company's main products are DDIC, CIS, PMIC, MCU, and Logic.	Integrated circuit wafer foundry: 98.5703%; Other operations: 1.4020%; Others: 0.0277%

Stock Code	Name of security	Corporate Profile	Composition of Main Operations
688396.SH	CR Micro	The principal business of China Resources Microelectronics Limited is power semiconductors, smart sensors, and smart control, providing customers with a wide range of semiconductor products and system solutions. The Company's main products are MOSFETs, IGBTs, power diodes, IoT application-specific ICs, power ICs, optocouplers and sensors, SiC, and GaN.	Products and solutions: 50.9277%; Manufacturing and services: 46.3278%; Other businesses: 2.7445%
600460.SH	Silan Microelectronics	Hangzhou Silan Microelectronics Co., Ltd. is mainly engaged in the research and development, manufacturing, and sales of electronic components. The company's main products are silicon-based integrated circuits, discrete devices, and compound semiconductor devices (LED chips and finished products, SiC, GaN power devices).	Discrete device products: 48.4601%; Integrated circuits: 36.5858%; Light-emitting diode products: 6.8476%; Other businesses: 4.4177%; Others: 3.6887%
688172.SH	Yandong Microelectronics	The principal business of Beijing Yandong Microelectronics Co., Ltd. consists of two categories: products and solutions, and manufacturing and services. The Company's main products are products and solutions, manufacturing and services.	Products and solutions: 47.1756%; Manufacturing and services: 43.9067%; Others: 5.7855%; Other businesses: 3.1323%

Stock Code	Name of security	Corporate Profile	Composition of Main Operations
300373.SZ	Yangjie Technology	The main business of Yangzhou Yangjie Electronic Technology Co., Ltd. is the design, manufacturing, packaging, testing, research and development, production, and sale of power semiconductor wafers, chips, and devices. The company's main products are semiconductor devices, semiconductor chips, and semiconductor wafers.	Semiconductor devices: 86.2474%; Semiconductor chips: 8.3270%; Semiconductor silicon wafers: 3.0766%; Other business income: 2.3490%
300623.SZ	Jie Jie Microelectronics	The main business of Jiangsu JieJie Microelectronics Co., Ltd. is the research and development, design, production, and sales of power semiconductor chips and devices. The Company's main products are thyristor series, protection device series, diode series, MOSFET series, IGBT series, thick film modules, silicon carbide devices, and others.	Power semiconductor devices: 66.9693%; power semiconductor chips: 31.0471%; other business income: 1.3637%; power device packaging and testing: 0.6199%

(2) Given that the appraised entity is an independent wafer foundry, if the business scale of comparable listed companies is smaller than that of the appraised entity and the gap is significant, their comparability will be correspondingly weakened. In addition, considering that the book value of fixed assets of the appraised entity had been almost fully depreciated as of the base date, and its main production and operation sites were all leased, without self-owned factory buildings and land, comparable samples of equipment-type fixed assets with similar original book value were selected in this screening process.

The original book value of equipment-type fixed assets for each company is calculated as follows:

Stock code	Name of security	Original book value of equipment assets (RMB100,000,000)
688249.SH	Nexchip	373.37
688396.SH	CR Micro	208.96
600460.SH	Silan Microelectronics	114.24
688172.SH	Yandong Microelectronics	67.74
300373.SZ	Yangjie Technology	47.07
300623.SZ	Jie Jie Microelectronics	54.72
Assessed entity	HLMC	153.59

The profiles of the comparable listed companies finally selected are shown in the following table:

Stock code	Name of security	Date of listing	Corporate profile	Main operation
688249.SH	Nexchip	May 5, 2023	The main business of Hefei Nexchip Semiconductor Corporation is 12-inch wafer foundry business and its supporting services. The company's main products are DDIC, CIS, PMIC, MCU, and Logic.	12-inch wafer foundry business.
688396.SH	CR Micro	February 27, 2020	The principal business of China Resources Microelectronics Limited is power semiconductors, smart sensors, and smart control, providing customers with a wide range of semiconductor products and system solutions. The Company's main products are MOSFETs, IGBTs, power diodes, IoT application-specific ICs, power ICs, optocouplers and sensors, SiC, and GaN.	Integrated operation of the entire industry chain, including chip design, wafer manufacturing, and packaging and testing.

Stock code	Name of security	Date of listing	Corporate profile	Main operation
600460.SH	Silan Microelectronics	March 11, 2003	The principal business of Hangzhou Silan Microelectronics Co., Ltd. is the R&D, production and sale of electronic components. The company's main products are silicon-based integrated circuits, discrete devices, and compound semiconductor devices (LED chips and finished products, SiC, GaN power devices).	Research and development, production, and sales of electronic components.

Make necessary adjustments for the differences between the appraised entity and comparable companies.

Information of the comparable companies obtained from public and legal channels, including their operation and financial information, are compared and analyzed against the actual situation of the appraised entity. Necessary adjustments are made for differences.

Select and determine the value ratio

(1) Selection of value ratio

Valuation ratios usually include asset value ratio, earnings ratio, revenue value ratios, and other specific value ratios. Applicable value ratio should be selected based on factors such as the industry characteristics and operating stage of the appraised entity, and the value ratio of each comparable listed company should be calculated. The following factors were fully considered during the selection process: the selected value ratio is conducive to reasonably determining the value of the subject of appraisal; the data scope and calculation method for calculating the value ratio are consistent; and when applying the value ratio, differences between comparable companies and the appraised entity are reasonably adjusted as much as possible. The value ratio selected is as follows:

1) Asset value ratio

Asset value ratios include price-to-book ratio (P/B), enterprise value to total business value of invested capital ratio (EV/TBVIC) and other ratios. Since the net value ratio of the major fixed assets of the appraised entity as of the base date had been relatively low, the net assets and total assets as of the base date were at a relatively low level in the enterprise's life cycle. In comparison, the average net asset ratio of the

selected comparable listed companies was approximately 50%, indicating a significant difference in their asset bases. Although net assets and total assets are relatively less affected by cyclical fluctuations in the industry, their values often show significant differences at various stages of a company's life cycle. The current low net asset status of the appraised entity reflects the reality that its assets have accumulated depreciation over many years, resulting in a low book value. If value ratio based on book value, such as P/B or EV/TBVIC, were used at this time, it would easily lead to distorted appraisal results. Therefore, the asset value ratio was not adopted in this appraisal.

2) Earnings ratio

Earnings ratios include price-to-earnings ratio (P/E), enterprise value to earnings before interest and taxes ratio (EV/EBIT), and enterprise value to earnings before interest, taxes, depreciation and amortization ratio (EV/EBITDA) and others. As a wafer foundry enterprise, the appraised entity is characterized by high capital investment and a long return cycle. After deducting high depreciation and amortization expenses, earnings before interest and taxes (EBIT) often shows temporary losses or low profit levels. This situation will lead to a distortion of value ratios such as the price-to-earnings ratio (P/E) and the enterprise value to earnings before interest and taxes ratio (EV/EBIT). Therefore, the above value ratios are not applicable to this appraisal. In contrast, the enterprise value to earnings before interest, taxes, depreciation, and amortization ratio (EV/EBITDA), by adding back depreciation and amortization, eliminates the impact of high capital expenditure characteristics on EBIT, thus providing a fairer measure of the appraised entity's sustainable operations. Therefore, this appraisal adopts the Enterprise Value to Earnings Before Interest, Taxes, Depreciation and Amortization ratio (EV/EBITDA).

3) Revenue-to-value ratio

Revenue-to-value ratios include price-to-sales ratio (P/S), enterprise value-to-sales ratio (EV/S) and others. The valuation logic implied by the revenue-to-value ratio is that there is a direct and stable linear relationship between a company's core value and its sales revenue scale. However, for wafer foundries, their core value primarily depends on factors such as technological processes, which ultimately reflect the enterprise's sustainable operations. The earnings value ratio is more consistent with the valuation logic of the wafer foundry industry; therefore, the revenue value ratio was not adopted in this appraisal.

(2) Relevance test

The appraisers conducted a linear regression analysis of the EV/EBITDA value ratio for the three selected comparable companies, with Enterprise Value (EV) as the dependent variable and Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA) as the independent variable. The relevant analysis results are shown in the table below:

Test indicators	**EV/EBITDA**
R	0.9461
R-squared value	0.8951

After the relevance test, the R-squared value of EV/EBITDA is relatively high. An R-squared between 0.7 and 0.9 is generally considered to indicate a high degree of fit, meaning there is a strong positive correlation between EBITDA and enterprise value. Therefore, EV/EBITDA should be adopted as the valuation multiple for this appraisal.

Determine the appraisal conclusion

After adjusting and calculating the value ratios of comparable companies, and combining them with the relevant financial data or indicators of the appraised entity, the enterprise value of the appraised entity is calculated. By adjusting the non-operating assets, liabilities, and surplus assets of the appraised entity, the total equity value of the shareholders of the appraised entity is finally obtained.

Consideration of liquidity and control

The market approach in this appraisal adopts the listed company comparison method. Since the selected comparable companies are listed companies and the appraised entity is a non-listed company, the impact of liquidity on the value of the appraised entity has been considered in the valuation.

As there is currently no reliable control premium rate or authoritative statistical data on the lack of control discount rate for the Chinese market that is recognized by all market participants, the impact of control on the value of the appraisal subject was not considered in this market approach valuation.

Valuation Process under Market Approach

Selection of Comparable Companies

Since the appraised entity is a non-listed company, its equity does not have a publicly traded market, and therefore its market value cannot be directly determined. We select comparable companies from domestic listed companies, and the screening process for comparable companies is as follows:

(1) Preliminary screening is conducted based on the industry, main business model, and product type of the entity being evaluated. The screening criteria for comparable companies are as follows:

1) As of the base date, it must have been listed for at least two years to avoid the impact of share price fluctuations caused by insufficient market information, IPO effects, market expectations, and other factors.

2) The industry where it operates must be the semiconductor manufacturing or wafer foundry industry, i.e., the industry of the appraised entity, and its main business model is IDM or Foundry, which involves large-scale investment, high capital expenditure, and continuous investment in technology and processes, and its product application areas are similar to those of the appraised entity.

3) The shares were normally traded on the base date and were not in an abnormal trading state such as a trading halt, nor did the share price fluctuate abnormally due to a recent merger, acquisition, or restructuring transaction on the base date.

4) Given that ST shares are more likely to deviate significantly from their actual value due to speculative and manipulative factors in the market, ST shares are excluded from the scope of comparable companies.

The appraisers in this appraisal have screened listed companies that belong to the same category as the appraised entity under the SWS Industry Classification – Electronics – Semiconductors – Discrete Devices, Integrated Circuit Manufacturing, and a total of 25 listed companies was selected. These companies are screened in accordance with the aforementioned screening criteria, with details as follows:

Stock code	Name of securities	Date of listing	Screening process
688249.SH	**Nexchip**	**May 5, 2023**	**Its operating model is mainly Foundry model with product application areas being similar to the appraised entity, so the company is eligible for further screening**

Stock code	Name of securities	Date of listing	Screening process
688347.SH	Hua Hong	August 7, 2023	The company experienced abnormal trading such as trading suspension during the recent period prior to the base date, so it is excluded from screening
688396.SH	**CR Micro**	**February 27, 2020**	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
688469.SH	UNT	May 10, 2023	The company experienced merger, acquisition and restructuring during the recent period prior to the base date, so it is excluded from screening
688691.SH	Brite	April 11, 2024	It mainly operates under Fabless model, which is significantly different from the operating model of the appraised entity, so it is excluded from screening
688981.SH	SMIC	July 16, 2020	It mainly operates under Foundry model, and there are significant differences in process technology, so it is excluded from screening
300456.SZ	SMEI	May 14, 2015	It mainly operates under Foundry model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
600360.SH	* ST Huawei	March 16, 2001	Its shares are under special treatment (ST), and its share price deviates significantly from its actual value, so it is excluded from screening
600460.SH	**Silan Microelectronics**	**March 11, 2003**	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
600745.SH	Wingtech Technology	August 28, 1996	It mainly operates under IDM model, and its product application areas are different from those of the appraised entity, so it is excluded from screening

Stock code	Name of securities	Date of listing	Screening process
603290.SH	StarPower Semiconductor	February 4, 2020	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
605111.SH	NCE Power	September 28, 2020	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
688048.SH	Everbright	April 1, 2022	It mainly operates under IDM model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
688167.SH	Focuslight Technologies	December 24, 2021	It mainly operates under IDM model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
688172.SH	Yandong Microelectronics	December 16, 2022	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
688230.SH	Prisemi	December 1, 2021	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
688261.SH	Oriental Semiconductor	February 10, 2022	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
688498.SH	Yuanjie Technology	December 21, 2022	It mainly operates under IDM model, and its product application areas are different from those of the appraised entity, so it is excluded from screening
688689.SH	Galaxy Microelectronics	January 27, 2021	It mainly conducts semiconductor packaging and testing, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
688693.SH	Convert	August 18, 2023	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening

Stock code	Name of securities	Date of listing	Screening process
688711.SH	MACMIC	September 1, 2021	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
300046.SZ	Tech Semi	January 20, 2010	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening
300373.SZ	Yangjie Technology	January 23, 2014	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
300623.SZ	Jie Jie Microelectronics	March 14, 2017	**Its operating model is mainly IDM model with product application areas being similar to the appraised entity, so the company is eligible for further screening**
300831.SZ	Peri	May 7, 2020	It mainly operates under Fabless model, and its business model is significantly different from that of the appraised entity, so it is excluded from screening

After preliminary screening, the company profiles that meet the above reference standards (namely they are comparable in terms of industry, main operational model and product types) are shown in the following table:

Stock Code	Name of security	Corporate Profile	Composition of Main Operations
688249.SH	Nexchip	The main business of Hefei Nexchip Semiconductor Corporation is 12-inch wafer foundry business and its supporting services. The company's main products are DDIC, CIS, PMIC, MCU, and Logic.	Integrated circuit wafer foundry: 98.5703%; Other operations: 1.4020%; Others: 0.0277%

Stock Code	Name of security	Corporate Profile	Composition of Main Operations
688396.SH	CR Micro	The principal business of China Resources Microelectronics Limited is power semiconductors, smart sensors, and smart control, providing customers with a wide range of semiconductor products and system solutions. The Company's main products are MOSFETs, IGBTs, power diodes, IoT application-specific ICs, power ICs, optocouplers and sensors, SiC, and GaN.	Products and solutions: 50.9277%; Manufacturing and services: 46.3278%; Other businesses: 2.7445%
600460.SH	Silan Microelectronics	Hangzhou Silan Microelectronics Co., Ltd. is mainly engaged in the research and development, manufacturing, and sales of electronic components. The company's main products are silicon-based integrated circuits, discrete devices, and compound semiconductor devices (LED chips and finished products, SiC, GaN power devices).	Discrete device products: 48.4601%; Integrated circuits: 36.5858%; Light-emitting diode products: 6.8476%; Other businesses: 4.4177%; Others: 3.6887%
688172.SH	Yandong Microelectronics	The principal business of Beijing Yandong Microelectronics Co., Ltd. consists of two categories: products and solutions, and manufacturing and services. The Company's main products are products and solutions, manufacturing and services.	Products and solutions: 47.1756%; Manufacturing and services: 43.9067%; Others: 5.7855%; Other businesses: 3.1323%

Stock Code	Name of security	Corporate Profile	Composition of Main Operations
300373.SZ	Yangjie Technology	The main business of Yangzhou Yangjie Electronic Technology Co., Ltd. is the design, manufacturing, packaging, testing, research and development, production, and sale of power semiconductor wafers, chips, and devices. The company's main products are semiconductor devices, semiconductor chips, and semiconductor wafers.	Semiconductor devices: 86.2474%; Semiconductor chips: 8.3270%; Semiconductor silicon wafers: 3.0766%; Other business income: 2.3490%
300623.SZ	Jie Jie Microelectronics	The main business of Jiangsu JieJie Microelectronics Co., Ltd. is the research and development, design, production, and sales of power semiconductor chips and devices. The Company's main products are thyristor series, protection device series, diode series, MOSFET series, IGBT series, thick film modules, silicon carbide devices, and others.	Power semiconductor devices: 66.9693%; power semiconductor chips: 31.0471%; other business income: 1.3637%; power device packaging and testing: 0.6199%

(2) Given that the appraised entity is an independent wafer foundry, if the business scale of comparable listed companies is smaller than that of the appraised entity and the gap is significant, their comparability will be correspondingly weakened. In addition, considering that the book value of fixed assets of the appraised entity had been almost fully depreciated as of the base date, and its main production and operation sites were all leased, without self-owned factory buildings and land, comparable samples of equipment-type fixed assets with similar original book value were selected in this screening process.

The original book value of equipment-type fixed assets for each company is calculated as follows:

Stock code	Name of security	Original book value of equipment assets *(RMB100 million)*
688249.SH	**Nexchip**	**373.37**
688396.SH	**CR Micro**	**208.96**
600460.SH	**Silan Microelectronics**	**114.24**
688172.SH	Yandong Microelectronics	67.74
300373.SZ	Yangjie Technology	47.07
300623.SZ	Jie Jie Microelectronics	54.72
Assessed entity	HLMC	153.59

The profiles of the comparable listed companies finally selected are shown in the following table:

Stock code	Name of security	Date of listing	Corporate profile	Main operation
688249.SH	Nexchip	May 5, 2023	The main business of Hefei Nexchip Semiconductor Corporation is 12-inch wafer foundry business and its supporting services. The company's main products are DDIC, CIS, PMIC, MCU, and Logic.	12-inch wafer foundry business.
688396.SH	CR Micro	February 27, 2020	The principal business of China Resources Microelectronics Limited is power semiconductors, smart sensors, and smart control, providing customers with a wide range of semiconductor products and system solutions. The Company's main products are MOSFETs, IGBTs, power diodes, IoT application-specific ICs, power ICs, optocouplers and sensors, SiC, and GaN.	Integrated operation of the entire industry chain, including chip design, wafer manufacturing, and packaging and testing.

Stock code	Name of security	Date of listing	Corporate profile	Main operation
600460.SH	Silan Microelectronics	March 11, 2003	The principal business of Hangzhou Silan Microelectronics Co., Ltd. is the R&D, production and sale of electronic components. The company's main products are silicon-based integrated circuits, discrete devices, and compound semiconductor devices (LED chips and finished products, SiC, GaN power devices).	Research and development, production, and sales of electronic components.

Financial Overview of Comparable Companies

Comparable Company 1: Silan Microelectronics (600460.SH)
Full Company Name: Hangzhou Silan Microelectronics Co., Ltd.

(1) Balance Sheet (Consolidated Statement)

Unit: RMB0,000

Item\Year	December 31, 2023	December 31, 2024	June 30, 2025
Current Assets:			
Monetary funds	613,122.98	452,033.46	444,510.01
Trading financial assets	0.00	0.00	0.00
Derivative financial assets	0.00	0.00	0.00
Notes receivable and accounts receivable	244,610.00	303,671.42	327,813.76
Receivables financing	93,839.37	151,269.10	192,637.98
Prepayments	4,152.76	3,582.99	3,654.47
Other receivables (total)	2,552.38	2,253.64	2,387.59
Contract assets	0.00	0.00	0.00
Inventories	373,203.41	389,894.30	378,229.34
Assets held for sale	0.00	0.00	0.00
Non-current assets due within one year	1,720.00	960.00	1,200.00
Other current assets	15,329.26	31,437.47	13,912.33
Total current assets	1,348,530.16	1,335,102.39	1,364,345.47

Item\Year	December 31, 2023	December 31, 2024	June 30, 2025
Non-current Assets:			
Debt investments	0.00	0.00	0.00
Long-term receivables	3,610.00	2,650.00	1,750.00
Long-term equity investments	67,830.28	127,834.49	147,654.84
Other equity instrument investments	2,250.71	2,226.29	2,380.90
Other non-current financial assets	56,623.79	43,886.84	41,555.06
Investment property	0.00	0.00	0.00
Fixed assets (total)	643,080.08	687,001.45	686,726.42
Construction in progress (total)	149,717.00	180,666.10	207,442.93
Right-of-use assets	1,221.08	763.74	839.25
Intangible assets	47,186.51	36,951.98	31,462.31
Development expenditures	2,619.90	4,872.77	9,382.82
Goodwill	24,535.99	24,507.00	24,507.00
Long-term deferred expenses	10,177.79	7,209.44	6,702.13
Deferred income tax assets	10,736.87	15,788.13	14,577.91
Other non-current assets	22,638.42	10,236.49	11,561.12
Total non-current assets	1,042,228.41	1,144,594.71	1,186,542.71
Total Assets	2,390,758.57	2,479,697.11	2,550,888.18
Current Liabilities:			
Short-term borrowings	181,056.81	149,163.93	161,461.23
Trading financial liabilities	111.63	0.00	0.00
Derivative financial liabilities	0.00	0.00	0.00
Notes payable and accounts payable	217,922.27	310,155.65	315,075.33
Advances from customers	0.00	0.00	0.00
Contract liabilities	2,409.47	2,526.23	2,390.84
Employee compensation payable	38,896.57	41,966.48	29,584.98
Taxes payable	11,017.49	9,956.03	11,030.06
Other payables (total)	6,981.88	7,593.75	9,987.80
Non-current liabilities due within one year	105,257.17	196,825.01	192,653.20
Other current liabilities	227.62	295.63	160.50
Total current liabilities	563,880.92	718,482.72	722,343.95

Item\Year	December 31, 2023	December 31, 2024	June 30, 2025
Non-current Liabilities:			
Long-term borrowings	343,094.60	260,300.26	347,305.44
Bonds payable	0.00	0.00	0.00
Lease liabilities	784.06	504.01	490.86
Long-term payables (total)	26,741.41	12,047.05	5,408.06
Long-term employee compensation payables	0.00	0.00	0.00
Projected liabilities	0.00	0.00	0.00
Deferred income tax liabilities	10,714.38	5,843.59	4,736.08
Deferred income – non-current liabilities	11,857.93	13,584.62	15,085.78
Other non-current liabilities	91,684.17	86,576.66	89,016.44
Total non-current liabilities	484,876.54	378,856.18	462,042.65
Total Liabilities	1,048,757.47	1,097,338.90	1,184,386.59
Owners' Equity (or Shareholders' Equity):			
Owners' Equity attributable to parent company (total)	1,202,160.63	1,221,478.52	1,230,102.77
Minority interests	139,840.48	160,879.69	136,398.81
Total owners' equity	1,342,001.10	1,382,358.20	1,366,501.59

(2) Income Statement (Consolidated Statement)

Unit: RMB0,000

Item/Year	December 31, 2023	December 31, 2024	June 30, 2025
(1) Total Operating Revenue	933,953.80	1,122,086.90	633,576.61
(2) Total Operating Costs	898,089.78	1,100,739.99	597,538.91
Operating Costs	726,479.50	907,870.61	504,223.06
Taxes and Surcharges	3,829.74	5,271.47	2,532.51
Selling Expenses	16,685.01	17,877.47	8,593.39
Administrative Expenses	37,866.14	46,075.83	23,036.89
Research and Development Expenses	86,377.31	103,448.04	47,820.57
Financial Costs	26,852.08	20,196.56	11,332.50
Gains from Changes in Fair Value	-61,282.20	-13,625.32	-2,331.78
Investment Income	21,622.84	-775.48	-2,841.70
Net Exposure Hedging Gains	0.00	0.00	0.00
Exchange Gains	0.00	0.00	0.00
Gains from Disposal of Assets	1,108.96	-274.65	60.88
Asset Impairment Losses	9,387.11	30,833.39	20,329.81
Credit Impairment Losses	2,459.33	4,554.64	2,825.29
Other Income	9,655.22	18,643.15	8,592.32
(3) Operating Profit	-4,877.60	-10,073.42	16,362.31
Add: Non-operating Income	116.34	445.96	185.88
Less: Non-operating Expenses	926.56	1,097.17	128.36
(4) Total Profit	-5,687.81	-10,724.63	16,419.83
Less: Income Tax Expense	767.95	-8,338.44	3,136.22
(5) Net Profit	-6,455.76	-2,386.19	13,283.62
Less: Gains and Losses Attributable to Minority Interest	-2,877.19	-24,372.98	-13,196.15
Net Profit Attributable to Owners of the Parent Company	-3,578.58	21,986.78	26,479.77

The above data is excerpted from Silan Microelectronics' historical annual reports.

Comparable Company 2: Nexchip (688249.SH)
Full Company Name: Hefei Nexchip Semiconductor Corporation

(1) Balance Sheet (Consolidated Statement)

Unit: RMB0,000

Item/Year	December 31, 2023	December 31, 2024	June 30, 2025
Current Assets:			
Monetary funds	652,622.76	582,775.72	310,395.47
Trading financial assets	154,842.49	106,612.55	157,389.87
Derivative financial assets	0.00	0.00	0.00
Notes receivable and accounts receivable	85,720.04	99,257.58	95,632.97
Receivables financing	377.71	13.07	258.65
Prepayments	8,439.72	3,750.70	3,354.56
Other receivables (total)	2,571.80	5,245.43	4,170.25
Contract assets	0.00	0.00	0.00
Inventories	149,268.54	150,332.06	164,554.75
Assets held for sale	0.00	0.00	0.00
Non-current assets due within one year	0.00	3,180.48	6,360.97
Other current assets	140,689.44	23,219.06	41,381.92
Total current assets	1,194,532.50	974,386.65	783,499.39
Non-current Assets:			
Debt investments	0.00	0.00	0.00
Long-term receivables	0.00	0.00	0.00
Long-term equity investments	10,000.00	17,711.10	27,354.45
Other equity instrument investments	10,366.92	13,424.43	17,444.90
Other non-current financial assets	30,653.50	60,738.86	50,616.15
Investment property	0.00	0.00	0.00
Fixed assets (total)	2,287,260.63	2,479,217.17	2,671,579.01
Construction in progress (total)	1,095,959.78	1,322,186.48	1,334,338.64
Right-of-use assets	355.91	85.70	0.00
Intangible assets	135,802.02	131,341.88	137,113.98
Development expenditures	0.00	0.00	0.00
Goodwill	0.00	0.00	0.00
Long-term deferred expenses	8.87	0.00	0.00
Deferred income tax assets	0.00	0.00	0.00
Other non-current assets	50,687.84	40,765.67	98,702.02
Total non-current assets	3,621,095.46	4,065,471.30	4,337,149.12
Total Assets	4,815,627.96	5,039,857.94	5,120,648.52

Item/Year	December 31, 2023	December 31, 2024	June 30, 2025
Current Liabilities:			
Short-term borrowings	65,834.90	129,114.81	67,937.17
Trading financial liabilities	0.00	0.00	0.00
Derivative financial liabilities	0.00	0.00	0.00
Notes payable and accounts payable	799,976.35	219,372.58	271,923.94
Advances from customers	0.00	0.00	0.00
Contract liabilities	87,737.18	64,851.59	28,811.36
Employee compensation payable	11,638.49	17,094.28	21,061.78
Taxes payable	9,478.67	9,544.18	7,800.98
Other payables (total)	284,185.04	147,583.25	114,429.79
Non-current liabilities due within one year	140,334.36	150,494.10	171,357.91
Other current liabilities	2,475.00	4,521.77	6,656.28
Total current liabilities	1,401,659.99	742,576.55	689,979.22
Non-current Liabilities:			
Long-term borrowings	1,151,003.04	1,558,942.96	1,669,458.48
Bonds payable	0.00	79,988.88	99,991.02
Lease liabilities	0.00	0.00	0.00
Long-term payables (total)	0.00	0.00	0.00
Long-term employee compensation payables	977.20	700.83	1,225.90
Projected liabilities	0.00	0.00	0.00
Deferred income tax liabilities	0.00	0.00	0.00
Deferred income – non-current liabilities	48,171.21	48,751.98	45,663.14
Other non-current liabilities	0.00	0.00	0.00
Total non-current liabilities	1,200,151.45	1,688,384.65	1,816,338.54
Total Liabilities	2,601,811.44	2,430,961.20	2,506,317.76
Owners' Equity (or Shareholders' Equity):			
Owners' Equity attributable to parent company (total)	2,140,980.47	2,087,031.10	2,102,478.03
Minority interests	72,836.05	521,865.65	511,852.73
Total owners' equity	2,213,816.52	2,608,896.75	2,614,330.76

(2) Income Statement (Consolidated Statement)

Unit: RMB0,000

Item/Year	December 31, 2023	December 31, 2024	June 30, 2025
(1) Total Operating Revenue	724,354.14	924,925.23	519,845.47
(2) Total Operating Costs	724,299.13	889,949.83	497,180.83
Operating Costs	567,817.38	689,047.20	385,910.05
Taxes and Surcharges	3,186.36	3,232.45	1,957.68
Selling Expenses	5,019.63	5,483.66	2,817.30
Administrative Expenses	27,119.33	34,063.15	18,333.08
Research and Development Expenses	105,751.18	128,397.52	69,482.02
Financial Costs	15,405.24	29,725.86	18,680.70
Gains from Changes in Fair Value	1,133.40	771.60	997.75
Investment Income	7,319.44	4,118.22	1,357.56
Net Exposure Hedging Gains	0.00	0.00	0.00
Exchange Gains	0.00	0.00	0.00
Gains from Disposal of Assets	2.34	0.07	0.00
Asset Impairment Losses	8,108.60	2,404.05	6,205.87
Credit Impairment Losses	-10.61	-174.97	13.74
Other Income	11,145.40	10,560.26	4,244.29
(3) Operating Profit	11,557.58	48,196.47	23,044.63
Add: Non-operating Income	601.39	217.73	160.07
Less: Non-operating Expenses	224.93	168.25	0.00
(4) Total Profit	11,934.04	48,245.94	23,204.70
Less: Income Tax Expense	17.56	26.31	4.74
(5) Net Profit	11,916.48	48,219.63	23,199.96
Less: Gains and Losses Attributable to Minority Interest	-9,246.44	-5,064.43	-10,012.92
Net Profit Attributable to Owners of the Parent Company	21,162.91	53,284.06	33,212.88

The above data is extracted from Nexchip's historical annual reports.

Comparable Company Three: CR Micro (688396.SH)
Full Company Name: China Resources Microelectronics Ltd.

(1) Balance Sheet (Consolidated Statement)

Unit: RMB0,000

Item/Year	December 31, 2023	December 31, 2024	June 30, 2025
Current Assets:			
Monetary funds	1,173,652.79	868,294.30	893,689.13
Trading financial assets	6,200.08	2,978.39	0.00
Derivative financial assets	0.00	0.00	0.00
Notes receivable and accounts receivable	155,442.95	185,302.92	209,681.80
Receivables financing	67,164.99	54,183.15	74,844.21
Prepayments	6,302.52	5,474.46	6,939.98
Other receivables (total)	1,803.39	319.26	701.31
Contract assets	0.00	0.00	0.00
Inventories	196,574.29	209,642.48	213,370.04
Assets held for sale	0.00	0.00	0.00
Non-current assets due within one year	0.00	0.00	0.00
Other current assets	3,587.57	8,808.96	9,479.90
Total current assets	1,610,728.57	1,335,003.92	1,408,706.38
Non-current Assets:			
Debt investments	0.00	0.00	0.00
Long-term receivables	0.00	0.00	0.00
Long-term equity investments	392,166.99	601,169.18	574,644.09
Other equity instrument investments	0.00	0.00	0.00
Other non-current financial assets	50,227.69	44,054.32	44,310.49
Investment property	279.81	3,840.81	3,757.76
Fixed assets (total)	654,105.14	775,116.93	750,960.71
Construction in progress (total)	76,476.36	34,865.18	43,587.64
Right-of-use assets	10,417.80	8,342.90	7,683.92
Intangible assets	36,062.04	36,594.23	35,465.17
Development expenditures	0.00	0.00	0.00
Goodwill	18,532.66	52,543.54	52,543.54
Long-term deferred expenses	3,094.94	3,848.03	2,728.98
Deferred income tax assets	9,781.77	10,316.94	10,396.03
Other non-current assets	59,652.22	4,986.99	19,209.26
Total non-current assets	1,310,797.41	1,575,679.04	1,545,287.61
Total Assets	2,921,525.98	2,910,682.95	2,953,993.99

Item/Year	December 31, 2023	December 31, 2024	June 30, 2025
Current Liabilities:			
Short-term borrowings	2,244.42	3,382.05	4,779.00
Trading financial liabilities	0.00	8,167.02	8,167.02
Derivative financial liabilities	0.00	0.00	0.00
Notes payable and accounts payable	118,231.87	132,429.98	139,053.35
Advances from customers	0.00	0.00	0.00
Contract liabilities	17,420.67	17,797.24	22,956.91
Employee compensation payable	57,776.56	56,308.37	45,534.33
Taxes payable	7,930.70	6,589.45	8,899.89
Other payables (total)	203,009.22	173,668.21	173,964.37
Non-current liabilities due within one year	6,530.00	2,426.67	2,143.53
Other current liabilities	13,645.44	12,535.73	13,611.27
Total current liabilities	426,788.86	413,304.71	419,109.68
Non-current Liabilities:			
Long-term borrowings	90,665.96	0.00	0.00
Bonds payable	0.00	0.00	0.00
Lease liabilities	7,728.96	6,422.44	6,032.96
Long-term payables (total)	0.00	0.00	48.20
Long-term employee compensation payables	0.00	0.00	0.00
Projected liabilities	1,455.59	2,177.20	2,056.48
Deferred income tax liabilities	9,510.27	7,394.97	7,261.25
Deferred income – non-current liabilities	21,927.62	35,137.56	39,047.92
Other non-current liabilities	403.81	16,650.77	16,337.67
Total non-current liabilities	131,692.20	67,782.93	70,784.48
Total Liabilities	558,481.06	481,087.65	489,894.17
Owners' Equity (or Shareholders' Equity):			
Owners' Equity attributable to parent company (total)	2,155,805.67	2,230,621.31	2,270,626.79
Minority interests	207,239.24	198,974.00	193,473.03
Total owners' equity	2,363,044.92	2,429,595.31	2,464,099.82

(2) Income Statement (Consolidated Statement)

Unit: RMB0,000

Item/Year	December 31, 2023	December 31, 2024	June 30, 2025
(1) Total Operating Revenue	990,060.39	1,011,852.58	521,817.88
(2) Total Operating Costs	852,588.28	917,504.73	471,978.20
Operating Costs	671,021.63	736,683.88	387,973.12
Taxes and Surcharges	8,406.13	8,350.37	4,802.85
Selling Expenses	16,717.28	15,819.09	7,965.26
Administrative Expenses	65,511.45	52,316.06	26,337.17
Research and Development Expenses	115,411.23	116,711.32	54,794.38
Financial Costs	-24,479.45	-12,375.99	-9,894.58
Gains from Changes in Fair Value	-698.23	-2,846.35	256.17
Investment Income	8,574.85	-38,259.80	-23,155.15
Net Exposure Hedging Gains	0.00	0.00	0.00
Exchange Gains	0.00	0.00	0.00
Gains from Disposal of Assets	-494.02	-409.44	20.29
Asset Impairment Losses	2,553.45	7,423.00	2,147.16
Credit Impairment Losses	783.83	-136.26	85.41
Other Income	25,169.91	33,114.56	10,730.37
(3) Operating Profit	166,687.33	78,660.07	35,458.78
Add: Non-operating Income	2,256.61	986.55	251.26
Less: Non-operating Expenses	267.85	183.12	18.60
(4) Total Profit	168,676.08	79,463.50	35,691.43
Less: Income Tax Expense	24,861.52	13,293.21	7,791.06
(5) Net Profit	143,814.56	66,170.29	27,900.37
Less: Gains and Losses Attributable to Minority Interest	-4,112.01	-10,075.70	-5,979.16
Net Profit Attributable to Owners of the Parent Company	147,926.57	76,245.99	33,879.53

The above data is excerpted from CR Micro's historical annual reports.

Standardizing the Financial Statements of the Appraised Entity and Comparable Companies

For any enterprise, its balance sheet may include both operating assets and liabilities as well as non-operating assets, liabilities, and surplus assets. Its income statement may also include both operating income and expenses related to operating assets, as well as income and expenses related to non-operating assets, liabilities, and surplus assets. When appraisal professionals use the market approach for enterprise value appraisal, the impact of non-operating income and expenses, non-operating assets, liabilities, and surplus assets and their related income and expenses may cause the value ratios calculated based on financial

statements to be incomparable. Therefore, when adopting the market approach for business value appraisal in this valuation, the non-operating assets, liabilities, surplus assets, and their related income and expenses of the comparable entities and the appraised entity are stripped out in a unified manner. The non-operating assets, liabilities and surplus assets are then added back to the final appraisal result at their respective values.

Given that non-operating assets and non-operating gains and losses of comparable companies cannot be obtained through detailed due diligence as with the appraisal entity, and considering data availability, our analysis of non-operating assets and non-recurring gains and losses is primarily limited to the following accounting items:

(1) Non-operating Assets (Liabilities)

Non-operating assets mainly include accounting items such as trading financial assets, derivative financial assets, assets held for sale, debt investments, long-term receivables, long-term equity investments, other equity instrument investments, other non-current financial assets and investment property. The full amounts of these items are generally treated as non-operating nature.

Non-operating liabilities mainly include accounting items such as trading financial liabilities, derivative financial liabilities and deferred income, and the full amounts of these items are generally treated as non-operating nature.

Due to data availability, the appraisal values of non-operating assets and liabilities are equal to their book values.

(2) Non-recurring Gains and Losses

Adjusted operating profit = operating profit – non-recurring operating income subject to adjustment + non-recurring operating costs and expenses for the period subject to adjustment – other income – investment income – net exposure hedging gain – gains from changes in fair value – credit impairment loss – asset impairment loss – gains from disposal of asset

The adjusted non-recurring gains and losses mainly include other income, investment income, net exposure hedging gain, gains from changes in fair value, credit impairment loss, asset impairment loss, and gains from disposal of asset.

Calculation of Value Ratios

Based on the above analysis process, the calculation of value ratios is as follows:

Specific Indicators	Formula	Assessed entity HLMC	Case 1 Silan Microelectronics	Case 2 Nexchip	Case 3 CR Micro
Share Price (RMB/share)	A		26.86	21.97	47.74
Total Share Capital (10,000 shares)	B		166,407.18	200,613.52	132,752.94
Lack-of-Liquidity Discount Rate	C		39.26%	39.26%	39.26%
Market Value After Deducting Liquidity Discount	D=A×B×(1-C)		2,715,100.00	2,676,700.00	3,849,500.00
Net Value of Non-operating Assets and Liabilities on the Base Date	E		193,340.81	252,780.46	608,688.12
Operating Equity Value	F=D-E		2,521,759.19	2,423,919.54	3,240,811.88
Interest-bearing Debt	G		706,452.88	2,003,102.12	4,827.20
Minority Interest	H		136,398.81	511,852.73	193,473.03
Monetary Funds	I		444,510.01	310,395.47	893,689.13
Operating Enterprise Value Excluding Funds (EV)	J=F+G+H-I		2,920,100.87	4,628,478.92	2,545,422.98
EBITDA	K	87,291.27	173,149.07	426,382.53	216,387.18
EV/EBITDA ratio	L=J÷K		16.86	10.86	11.76

Calculation of Operating Equity Value

Operating equity value = Total shareholders' equity value (market capitalization of the listed company) – appraised value of non-operating assets and liabilities

Where: Total shareholders' equity value = Total share capital on the base date × average trading price over the 120 days prior to the base date × (1 – liquidity discount rate)

Non-tradable Discount

Since the values of the selected listed companies are calculated based on the price of tradable shares, and the appraisal entity is not a listed company, the operating equity value calculated using the adjusted value ratio needs to take into account a non-tradable discount.

It is generally believed that the price difference between non-tradable shares and tradable shares is mainly due to the following factors:

(1) Risks Undertaken

Tradable shares are highly liquid. When risks arise, holders of tradable shares can quickly sell their shares to mitigate or avoid those risks, while holder of non-tradable shares are unable to respond quickly and thus incur losses in case of the same situation.

(2) Level of Trading Activity

Tradable shares are traded on an active market with higher prices. Non-tradable shares lack sufficient trading volume, and given their typically large denominations, many investors lack the financial capacity to participate in their trading. Consequently, compared to tradable shares, trading in non-tradable shares is less active and prices tend to be lower..

Since the values of selected listed companies are calculated based on the price of tradable shares, and the appraisal entity is not a listed company, the market value calculated by reference to the tradable shares market of the comparable companies is subject to adjustment.

For liquidity discounts, appraisers make the calculation by reference to the pricing estimation for new share issuance, which involves studying the lack of liquidity by analyzing the difference between the new issuance price of domestic listed companies under their initial public offering (IPO) and the trading price of the shares upon their official listing.

Based on the sub-segment classification of the screened comparable companies, the appraisers collected the new issuance prices of companies within that industry classification that had been listed for at least one year as of the valuation benchmark date.. They then studied the relationship between the new issuance prices and the closing prices on the 90th, 120th, and 250th trading days after listing. The relevant information is summarized in the table below:

Stock code	Name of securities	Initial Offering Price	Closing Price on the 90th Day After Listing	Closing Price on the 120th Day After Listing	Closing Price on the 250th Day After Listing	Liquidity Discount on the 90th Day	Liquidity Discount on the 120th Day	Liquidity Discount on the 250th Day
600360.SH	*ST Huawei	8.4200	23.1000	19.7000	16.0900	63.55%	57.26%	47.67%
600460.SH	Silan Microelectronics	11.6000	16.1000	16.6000	35.0900	27.95%	30.12%	66.94%
603290.SH	StarPower Semiconductor	12.7400	190.3266	215.5800	242.4160	93.31%	94.09%	94.74%
605111.SH	NCE Power	19.9100	170.5000	166.5800	170.9505	88.32%	88.05%	88.35%
688048.SH	Everbright	80.8000	141.5232	110.8839	116.9314	42.91%	27.13%	30.90%

Stock code	Name of securities	Initial Offering Price	Closing Price on the 90th Day After Listing	Closing Price on the 120th Day After Listing	Closing Price on the 250th Day After Listing	Liquidity Discount on the 90th Day	Liquidity Discount on the 120th Day	Liquidity Discount on the 250th Day
688167.SH	Focuslight Technologies	78.6900	99.7400	152.8600	93.7300	21.10%	48.52%	16.05%
688172.SH	Yandong Microelectronics	21.9800	22.8200	23.8300	17.5000	3.68%	7.76%	-25.60%
688230.SH	Prisemi	134.8100	90.5500	88.9800	83.7498	-48.88%	-51.51%	-60.97%
688249.SH	Nexchip	19.8600	18.5700	16.6800	14.3600	-6.95%	-19.06%	-38.30%
688261.SH	Oriental Semiconductor	130.0000	259.8600	299.8257	243.1371	49.97%	56.64%	46.53%
688347.SH	Hua Hong	52.0000	43.4700	35.0100	31.3794	-19.62%	-48.53%	-65.71%
688396.SH	CR Micro	12.8000	58.0960	50.2398	61.5187	77.97%	74.52%	79.19%
688469.SH	UNT	5.6900	5.3300	5.2800	3.9300	-6.75%	-7.77%	-44.78%
688498.SH	Yuanjie Technology	100.6600	221.3500	437.8892	209.0988	54.52%	77.01%	51.86%
688689.SH	Galaxy Microelectronics	14.0100	30.6329	40.8573	38.5684	54.26%	65.71%	63.67%
688691.SH	Brite	19.8600	44.2566	55.5099	61.9895	55.13%	64.22%	67.96%
688693.SH	Convert	40.8300	44.4300	26.1600	23.9836	8.10%	-56.08%	-70.24%
688711.SH	MACMIC	27.5100	120.8700	96.5443	89.8930	77.24%	71.51%	69.40%
688981.SH	SMIC	27.4600	58.6400	61.5900	51.8800	53.17%	55.41%	47.07%
300046.SZ	Tech Semi	41.3000	36.2176	47.7013	59.1849	-14.03%	13.42%	30.22%
300373.SZ	Yangjie Technology	19.5000	54.4516	52.0239	52.3650	64.19%	62.52%	62.76%
300456.SZ	SMEI	14.0100	103.2000	103.2000	86.9700	86.42%	86.42%	83.89%
300623.SZ	Jie Jie Microelectronics	27.6300	63.8216	70.0792	63.6609	56.71%	60.57%	56.60%
300831.SZ	Peri	3.9800	19.7037	25.3133	10.1774	79.80%	84.28%	60.89%
Average						**40.09%**	**39.26%**	**31.63%**

The lack-of-liquidity discount rate adopted in this appraisal was determined as 39.26%, the median of the liquidity discount rates observed on the 90th, 120th, and 250th trading days following the listing.

Operating Enterprise Value Excluding Funds (EV)

Considering that an enterprise may have interest-bearing debt on one hand and monetary funds on the other, which are related to its monetary funds management practices, risk preferences, and seasonal fluctuations in operating capital, the influence of monetary funds is excluded when calculating the enterprise value to eliminate the impact of this factor. Therefore, the enterprise value excluding monetary funds is determined to calculate the value ratios. Unless specifically stated otherwise, the enterprise value (EV) in this assessment refers to the value excluding monetary funds. The calculation is as follows:

Enterprise Value (EV) = Total Enterprise Value (EV) – Non-operating assets and liabilities appraisal value

Total Enterprise Value (EV) = Operating equity value + interest-bearing debt + minority interests – monetary funds

Due to the availability and insignificance of data, the appraisal value of minority interests is equal to their book value.

Operating Profit and Loss

The base date for this appraisal is August 31, 2025. Since the comparable companies had only disclosed their interim financial reports for 2025 as of the base date, to ensure comparability of operating data over a complete accounting period, the financial data for 2024 has been uniformly adopted by the appraisers for the appraisal entity and all comparable companies as the basis for profit and loss comparisons.

Value Ratio Adjustments

This appraisal quantifies differences between the appraisal entity and comparable companies in terms of financial indicators and non-financial indicators. Financial indicators mainly cover a company's operating scale, solvency, operation capability and earnings, while non-financial indicators mainly refer to trading dates, trading conditions, development stage, R&D investment, equipment newness ratio, and main business model. Based on this foundation, we assigned corresponding weights to each indicator by considering industry characteristics and the inherent meaning of the selected value ratios. The specific details are shown in the table below:

Characteristic Indicators			**Weights**
Financial Indicators	Operating Scale	Total Assets	50%
		Operating Revenue	50%
	Solvency	Asset-Liability Ratio	50%
		Current Ratio	50%
	Operation Capability	Current Asset Turnover	50%
		Total Asset Turnover	50%
Non-Financial Indicators	Transaction Date		100%
	Transaction Condition		100%
	Development Stage		100%
	R&D Investment		100%
	Equipment Net Value Ratio		100%
	Main Business Model		100%

Explanation of the adjustment system is as follows:

Operating Scale Adjustment

Different enterprises vary in their operating scale. When evaluating market position and market share, operating income and total assets are extremely important indicators. Given equal conditions, acquirers will have a stronger motivation to pursue mergers and acquisitions involving larger enterprises.

The metrics used to measure the operating scale in this instance include, among others, operating income and total assets. By adjusting scores to these two indicators affecting operating scale and weighting them according to their respective degree of importance in affecting the operating scale, the adjusted weighted scores are then used to establish the adjustment factors for each indicator.

The adjustment for operating scale is positive, which means the adjustment will be made upward for larger operating scale, and vice versa.

Solvency Adjustment

A company's solvency refers to its ability to repay both long-term and short-term debts using its assets. It is crucial for the company's healthy survival and development, serving as a key indicator of its financial condition and operational risks. Static solvency measures the company's capacity to settle debts using existing assets; dynamic solvency assesses its ability to repay debts using existing assets and the revenue generated by its ongoing operations.

The metrics used to measure solvency mainly include, among others, current ratio and asset-liability ratio. By adjusting scores to these two indicators affecting solvency and weighting them according to their respective degree of importance in affecting the solvency, the adjusted weighted scores are then used to establish the adjustment factors for each indicator.

The adjustment for asset-liability ratio is negative, which means the adjustment will be made downward for higher asset-liability ratio, and vice versa. The adjustment for current ratio is positive, which means the adjustment will be made upward for higher current ratio, and vice versa.

Operation Capability Adjustment

Operation capability refers to the extent to which an enterprise, constrained by the external market environment, leverages combination of internal human resources and production materials to achieve financial objectives. In gist, it is the ability of the company to use various assets to generate revenue.

Financial analysis ratios for operation capability include, among others, total asset turnover and current asset turnover, which reveal the operation turnover of enterprise funds and reflect the enterprise's efficiency of managing and utilizing economic resources. The faster the asset turnover, the higher the liquidity, and the quicker the assets generate profits.

By adjusting scores to total asset turnover and current asset turnover and weighting them according to their respective degree of importance in affecting the company's solvency, the adjusted weighted scores are then used to establish the adjustment factors for each indicator.

The adjustment for operation capability is positive, which means the adjustment will be made upward for higher turnover rate, and vice versa.

Profitability Adjustment

The ratio of enterprise value to earnings before interest, taxes, depreciation, and amortization (EV/EBITDA) is adopted for this appraisal. Since this indicator is an earnings ratio, it is not appropriate to make further profitability adjustment. Therefore, no such adjustment is made for this value ratio.

Transaction Date Adjustment

Asset prices fluctuate over time, and the transaction dates of comparable enterprises generally differ from the appraisal base date. Thus, the prices of comparable enterprises at their transaction dates need to be adjusted to reflect the prices at the base date. This adjustment is referred to as "market condition adjustment" or "transaction date adjustment." After applying this adjustment, the prices of comparable enterprises at the transaction date are converted to reflect the prices at the appraisal base date.

In this appraisal, the listed company comparison method is used, and the calculation is based on the recent average trading price of shares at the appraisal base date. Therefore, no transaction date adjustment is needed.

Transaction Condition Adjustment

The transaction price of comparable companies is for real, which may reflect normal and fair market value or may be under certain special conditions or terms. Since the appraised entity's value must be objective and fair, any abnormal transaction price of a comparable company should be adjusted to a normal value. This adjustment to comparable transaction prices is referred to as "transaction condition adjustment."

After due verification, the appraisers believe that the transaction prices of listed companies are all normal market prices under active and open trading conditions, so no transaction condition adjustment is needed.

Development Stage Adjustment

Comparable companies may be at different development stages, and the impact of development stage on enterprise value fundamentally originates from differences in market expectations for companies' future earnings growth. Capital markets rely on these expectations to determine valuation logic of corporate merger and acquisition considerations and to assess equity trends of listed companies: the higher the growth expectation, the higher the corresponding valuation; conversely, the lower the expectation, the lower the valuation.

Given that the appraised entity is currently operating at near full production capacity, its future revenue growth will mainly depend on product price increases driven by overall market development. In contrast, the selected comparable listed companies are mostly in their stage of growth or maturity, with growth driven by capacity expansion and other factors, and their expected growth exceeds that of the appraised entity. Therefore, the development stage is adjusted according to capital market expectations for the comparable companies' growth.

The maximum adjustment we make for the development stage is 10 units.

R&D Investment Adjustment

R&D investment refers to all expenses incurred by an enterprise for research and development of products, technology, materials, processes, and standards, which includes, among others, direct costs for materials, fuel and power relating to R&D activities, salaries, bonuses, allowances, subsidies, social insurance and housing funds for in-house R&D staff, and labor costs for external part-time R&D personnel, as well as depreciation or leasing costs for instruments, equipment and buildings and other fixed assets used for R&D activities.

A key indicator for measuring R&D investment is the R&D expense ratio, which is the proportion of R&D expenses to operating income. A higher R&D expense ratio indicates stronger willingness of a company to invest in innovation and technology R&D, which is beneficial for the company to maintain advancement in the future.

The adjustment to R&D expense ratio is positive, which means the adjustment will be made upward for higher R&D expense ratio, and vice versa.

Equipment Net Value Ratio Adjustment

The equipment net value ratio is a key indicator measuring the quality and technical status of an enterprise's fixed assets. A higher net value ratio means less physical wear, more reliable overall operating efficiency, and typically a more recent commissioning date, implying higher technical advancement and process level.

For wafer foundry enterprises, production equipment is the core production factor. A higher equipment net value ratio not only directly correlates to better production capacity performance, but also suggests lower future maintenance costs and capital expenditure for large-scale updates in the short term, which benefits the enterprise's cash flow.

Based on the above logic, adjustments have been made to the net value ratio of production equipment. Considering that the financial depreciation period for semiconductor equipment is shorter than its useful life, resulting in a relatively low book net value ratio, adjustments are made by revising the financial depreciation period to align with the average useful life before applying the final adjustment.

The equipment net value ratio positively affects enterprise value – the higher the net value ratio, the higher the upward adjustment, and vice versa.

Other Factor Parameters

In the semiconductor manufacturing field, there are mainly two business models: integrated device manufacturer (IDM) and foundry model (Foundry). They differ in industry chain positioning, operating logic, and value creation, as detailed below:

(1) Integrated Device Manufacturer (IDM) Model

The IDM model covers the entire industry chain from chip design and manufacturing to packaging and testing.

1) Core Advantages:

① Industry Chain Integration Capability: By internally integrating design, manufacturing, and packaging/testing, IDM enterprises can achieve full-process optimization, maximizing technical potential and balancing product performance, power consumption, and cost.

② Independent Production Capacity and Supply Chain Security: During market supply-demand tensions, their own independent production capacity can prioritize internal needs and quickly respond to market price changes, resulting in significant supply chain security and competitive advantages.

③ Deep Technical Barriers: Capability in design and manufacturing enables them to accumulate more technology and experience, forming higher technical barriers and core competitiveness.

2) Operating Risks:

① Higher Operating Risks: IDM enterprises, which are engaged in the whole production process throughout the entire industry chain, including design, manufacturing, packaging and testing, are susceptible to insufficient utilization rate and subject to relatively concentrated operating risks during market volatility, particularly during downturns.

② Management Complexity and Slower Technology Iteration: Managing a large organization across multiple fields may reduce efficiency. Besides, the necessity of conducting R&D iteration and technology innovation for the whole industry chain covering design, manufacturing, packaging and testing makes the IDM enterprises slower in their innovation as compared to the highly specialized foundry enterprises.

(2) Foundry Model

The foundry model specializes in one or multiple stages of chip sector, manufacturing, packaging or others, without engaging in chip design. Instead, they provides services to professional chip design companies (Fabless).

1) Core Advantages:

① Rapid Technology Iteration: By specializing in manufacturing and packaging processes, foundries can quickly iterate and optimize technology platforms, responding nimbly to market demand.

② Economies of Scale and Cost Advantage: Serving solely as foundries, they maximize capacity utilization, reduces unit costs, and achieves economies of scale by accepting orders from chip design companies across the entire market.

③ Open Partner Ecosystem: As they do not compete in chip design, foundries can collaborate with many Fabless companies, building an open industry ecosystem.

2) Operating Risks:

① Insufficient Industry Chain Value Addition: Being midstream players in the industry chain, their value addition depend on design of Fabless companies and demand of terminal market. Their ability to further meet customization needs may be limited.

② Weaker Resistance to Market Fluctuations: Their capacity utilization and financial position are directly affected by downstream order fluctuations, with more direct performance pressure during industry downturns.

Considering the aforementioned factors, although the IDM model presents disadvantages such as concentrated operational risks, complex management, and insufficient technological iteration speed, it still holds certain advantages over the foundry model attributable to the synergistic optimizations achieved through full-industry-chain integration, independent control over supply chain, and higher technological added value. We have revised our assessment of the IDM model upward. However, recognizing that differing business models also impact respective financial indicators, the maximum adjustment for business model differences is capped at 5 percentage points.

Comparison and Scoring Table

Items		Assessed entity HLMC	Case 1 Silan Microelectronics	Case 2 Nexchip	Case 3 CR Micro
Value Ratio EV (Excluding Monetary Funds)/EBITDA			16.86	10.86	11.76
Transaction Date Adjustment	Transaction Index	100	100	100	100
	Scoring Coefficient	100.0	100.0	100.0	100.0
Transaction Condition Adjustment	Transaction Condition	Normal market transaction	Normal market transaction	Normal market transaction	Normal market transaction
	Scoring Coefficient	100.0	100.0	100.0	100.0
Development Stage Adjustment	Expected Earnings Growth	Maturity stage	Growth stage – Maturity stage	Growth stage – Maturity stage	Growth stage – Maturity stage
	Scoring Coefficient	100.0	110.0	110.0	110.0
Operating Scale Adjustment	Total Assets	718,952.0	2,357,547.4	4,867,843.2	2,331,281.7
	Scoring Coefficient	100.0	105.0	105.0	105.0
	Operating income	451,697.1	1,122,086.9	924,925.2	1,011,852.6
	Scoring Coefficient	100.0	105.0	105.0	105.0
	Subtotal	100.0	105.0	105.0	105.0
Solvency Adjustment	Asset-Liability Ratio	72.9%	49.6%	50.5%	19.0%
	Scoring Coefficient	100.0	102.0	102.0	104.0
	Current Ratio	2.5	1.9	0.9	3.4
	Scoring Coefficient	100.0	99.0	97.0	102.0
	Subtotal	100.0	100.5	99.5	103.0

Items		Assessed entity HLMC	Case 1 Silan Microelectronics	Case 2 Nexchip	Case 3 CR Micro
Operation Capability Adjustment	Current Asset Turnover	0.9	0.8	1.5	0.7
	Scoring Coefficient	100.0	99.0	103.0	99.0
	Total Asset Turnover	0.6	0.5	0.2	0.4
	Scoring Coefficient	100.0	99.0	97.0	98.0
	Subtotal	100.0	99.0	100.0	98.5
R&D Investment Adjustment	R&D Expense Ratio	7.2%	9.2%	13.9%	11.5%
	Scoring Coefficient	100.0	101.0	105.0	103.0
Equipment Newness Ratio Adjustment	Equipment Newness Ratio	60.6%	78.1%	85.0%	68.8%
	Scoring Coefficient	100.0	103.0	104.0	101.0
Other Factors Adjustment	Business Model	Foundry	IDM	Foundry	IDM
	Scoring Coefficient	100.0	105.0	100.0	105.0

Calculation of Total Shareholders' Equity Value under the Market Approach

Valuation Estimate of the Subject of Appraisal

Items	Case 1 Silan Microelectronics	Case 2 Nexchip	Case 3 CR Micro
Value Ratio EV (Excluding Monetary Funds)/EBITDA	16.86	10.86	11.76
Transaction Date Adjustment	100/100	100/100	100/100
□ Transaction Condition Adjustment	100/100	100/100	100/100
□ Development Stage Adjustment	100/110	100/110	100/110
□ Operating Scale Adjustment	100/105	100/105	100/105
□ Solvency Adjustment	100/100.5	100/99.5	100/103
□ Operation Capability Adjustment	100/99	100/100	100/98.5
□ Profitability Adjustment	100/100	100/100	100/100
R&D Investment Adjustment	100/101	100/105	100/103
Equipment Newness Ratio Adjustment	100/103	100/104	100/101
Other Factors Adjustment	100/105	100/100	100/105

Items	Case 1 Silan Microelectronics	Case 2 Nexchip	Case 3 CR Micro
Adjusted Value Ratio EV/EBITDA	13.43	8.65	9.19
Weight	33%	33%	33%
Adjusted Value Ratio × Weight	4.48	2.88	3.06
Weighted Adjusted Value Ratio EV/EBITDA			**10.42**
Target Entity EBITDA			**87,781.97**
Comprehensive Operating Enterprise Value (Excluding Monetary Funds)			**914,688.16**
Less: Interest-bearing Debt			**373,753.75**
Less: Minority Interest			**0.00**
Operating Equity Value (Excluding Monetary Funds)			**540,934.41**
Add: Non-operating Assets and Liabilities			**6,898.29**
Add: Monetary Funds			**300,352.21**
Appraised Value			**848,000.00**

Appraisal Conclusion under Market Approach

Under the market approach, the value of total shareholders' equity in the enterprise was appraised with the appraisal result as of the base date as follows:

The book value of the appraised entity's shareholders' equity is RMB2,001,913,800, and the appraised value is RMB8,480,000,000, representing an appraisal appreciation of RMB6,478,086,200 and an appreciation rate of 323.59%.