

# 华大九天 Empyrean Technology (301269 CH)

## 首次覆盖：多增长极拉动业绩高增，力争 EDA 工具全流程覆盖

### Multi-growth Poles to Drive High Growth, Striving for Full Process Coverage of EDA Tools: Initiation

观点聚焦 Investment Focus

#### 首次覆盖优于大市 Initiate with OUTPERFORM

评级	优于大市 OUTPERFORM
现价	Rmb100.00
目标价	Rmb125.38
市值	Rmb7.34bn / US\$1.02bn
日交易额(3个月均值)	US\$232.76mn
发行股票数目	73.44mn
自由流通股(%)	100%
1年股价最高最低值	Rmb138.00-Rmb75.00

注：现价 Rmb100.00 为 2022 年 10 月 18 日收盘价



Jul-22

资料来源：Factset

	1mth	3mth	12mth
绝对值	-13.3%		
绝对值(美元)	-15.5%		
相对 MSCI China	24.3%		

(Rmb mn)	Dec-21A	Dec-22E	Dec-23E	Dec-24E
营业收入	579	801	1,083	1,444
(+/-)	40%	38%	35%	33%
净利润	139	190	259	354
(+/-)	34%	36%	36%	37%
全面摊薄 EPS (Rmb)	0.26	0.35	0.48	0.65
毛利率	89.4%	89.9%	90.3%	90.3%
净资产收益率	14.0%	16.0%	17.9%	19.7%
市盈率	390	286	210	153

资料来源：公司信息, HTI

(Please see APPENDIX 1 for English summary)

**国产 EDA 龙头企业。**北京华大九天软件有限公司成立于 2009 年 6 月，为中国电子信息产业集团（CEC）旗下集成电路业务板块二级企业，是一家集成电路设计自动化（EDA）软件及硅知识产权（IP）提供商。公司主要从事用于集成电路设计与制造的 EDA 工具软件开发、销售及相关服务业务。公司主要产品包括模拟电路设计全流程 EDA 工具系统、数字电路设计 EDA 工具、平板显示电路设计全流程 EDA 工具系统和晶圆制造 EDA 工具等 EDA 工具软件，并围绕相关领域提供技术开发服务。公司产品和服务主要应用于集成电路设计及制造领域。

**前三季度业绩保持较高增长水平。**公司披露前三季度业绩预告：预计归母净利润 1-1.16 亿元，同比增长 30%-51%；扣非后净利润 0.26-0.30 亿元，同比增长 32%-49%。营业收入预计 4.7-4.9 亿元，较上年同期增长 36%-42%。业绩上升的主要原因为：1、国内 EDA 行业的持续增长和公司市场份额的不断提升带动了公司报告期内软件销售业务收入的持续增长。2、公司持续加大研发投入，积极推动产品升级换代和新产品开发，不断满足原有客户需求，并积极拓展新客户。

**产品矩阵持续丰富，力争全流程覆盖。**2022 年 7 月，华大九天在 DAC2022 会议期间发布了一款高性能晶体管级电源完整性分析工具——Empyrean Patron®。该工具聚焦于模拟芯片的电源完整性检查，可高效地提供精准、全面、可靠的 EM/IR 分析数据及多种 EM/IR 检查报告。对于低压设计、物联网设计和汽车电子产品而言，电迁移和 IR-drop (EM/IR) 的挑战将是严峻的。同时，由于器件/金属加热效应的敏感性，先进节点也需要热感知电磁分析。我们认为公司立足于模拟 EDA 全流程工具，不断完善 EDA 其他工具，致力于模拟、数字、制造 EDA 全流程覆盖，有望成为国产 EDA 软件最全最强大的供应商。

**客户合作不断深入，不断拓展新客户。**2022 年 6 月，电源管理芯片和分立器件提供商韦尔股份已采用华大九天的 Empyrean Polas® 工具作为其可靠性分析解决方案，更大限度保障分立器件和电源芯片的设计可靠性及设计合理性。Empyrean Polas® 是一款适用于 IC 版图设计和分立器件版图设计的可靠性和设计合理性分析工具，能够结合 PCB 和封装设计，形成完整系统分析解决方案。我们认为公司在不断提升产品力，不断拓展产品矩阵的发展思路下，客户拓展也取得长足进展，公司将陪同国产芯片设计公司和制造公司协同发展。

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**深圳补贴政策有望促进国产 EDA 进一步打开中小客户市场。**10 月 8 日，深圳市发展和改革委员会发布《深圳市关于促进半导体与集成电路产业高质量发展的若干措施（征求意见稿）》，指出加快 EDA 核心技术攻关。推动模拟、数字、射频集成电路等 EDA 工具软件实现全流程国产化。加大对国产 EDA 企业的扶持力度，对从事 EDA 工具软件研发的企业，按照不超过单个项目总投资的 40% 给予补助，最高 2 亿元。对购买国产 EDA 工具软件的企业或科研机构，按照不超过实际支出费用的 70% 给予补助，每年最高 1000 万元。对租用国产 EDA 工具软件的企业或科研机构，按照不超过实际支出费用的 50% 给予补助，每年最高 500 万元。我们认为，正版 EDA 软件对于小企业来说是一笔较大支出，此次深圳出台直接的补贴政策有望推动国产 EDA 软件进入广大的当地中小企业客户，有望提升国产 EDA 市场占有率。

**盈利预测与投资建议。**我们认为美国 BIS 最新宣布了一系列遏制中国购买或制造先进芯片的禁令，针对半导体先进制造和 EDA 进行打压，半导体全产业链国产化是必由之路也是相关企业当下的重要发展机遇。我们认为华大九天是目前产品最为丰富的国产 EDA 软件公司，当前持续发力模拟全流程，逐渐补足制造 EDA 和数字 EDA 工具产品线，客户合作和市场推广顺利，在面板软件、模拟 EDA、制造 EDA、数字 EDA 多个增长极的拉动下，业绩有望持续保持较快增长，公司整体毛利率保持稳定，2021 年公司毛利率为 89%，我们预计 2022-2024 年毛利率分别为 90%、90%和 90%。

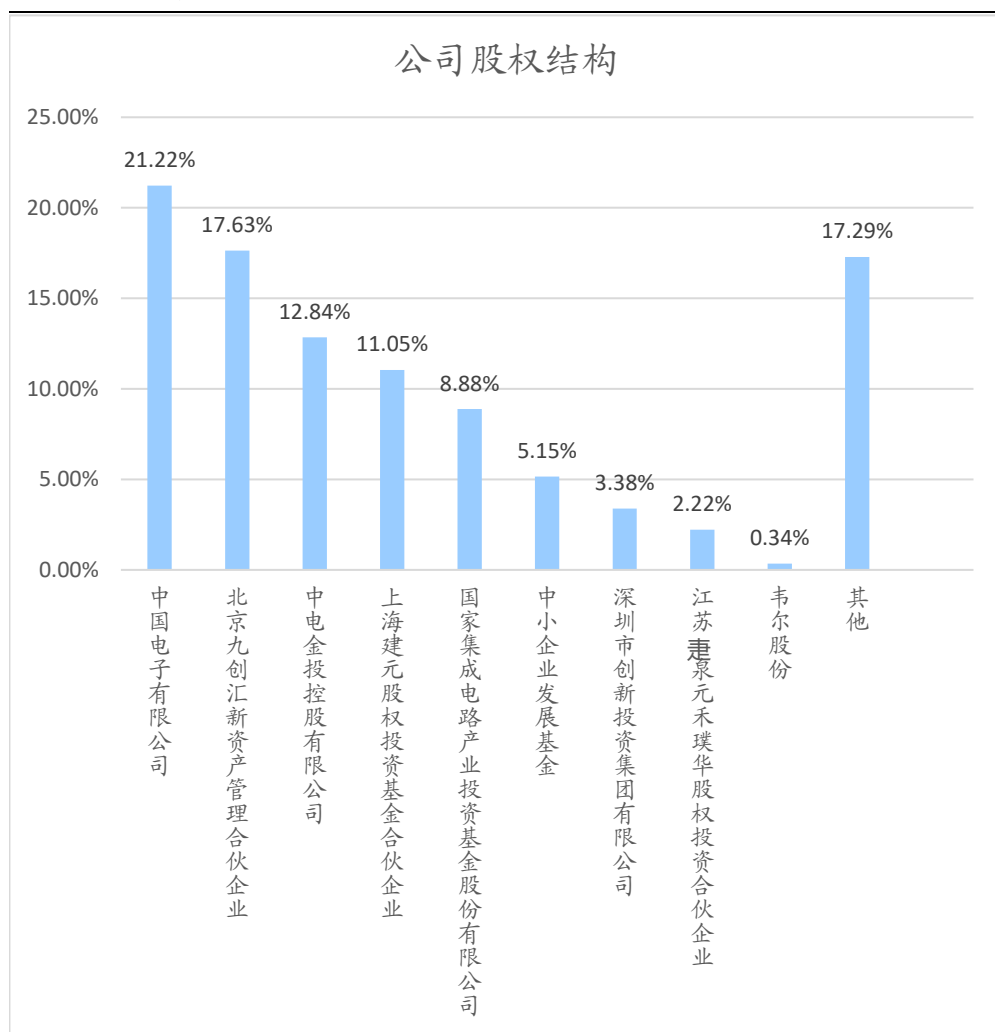
我们预测公司 2022-2024 年营业收入分别为 8.01/10.83/14.44 亿元，归母净利润分别为 1.90/2.59/3.54 亿元，对应 EPS 分别为 0.35/0.48/0.65 元。

华大九天相较于可比公司，（1）是国内唯一拥有模拟 EDA 全流程的企业；（2）正在补足其他领域的 EDA 工具，产品矩阵最为丰富；（3）客户资源较为丰富，和头部设计公司开展了多年了深度合作；（4）产业生态较为完善，和国内外晶圆厂拥有良好的合作关系；（5）股东优势较为明显；（6）人才较为充足；（7）业绩增速高，毛利率较高。综合来看，具备较强的技术优势和护城河。

参考可比公司，结合目前行业阶段和公司增速及壁垒，给予 2022 年动态 PS 85 倍，对应目标价格为 125.38 元，给予首次覆盖“优于大市”评级。

**风险提示：**公司业务推进不及预期，行业政策风险。

图 1 公司大股东明细



资料来源: HTI, Wind

表 1 公司业务分拆 (百万元)

		2021	2022E	2023E	2024E
EDA 软件销售	营收	486.12	677.89	925.55	1,236.70
	同比 (%)	41%	39%	37%	34%
	毛利率 (%)	100%	100%	100%	100%
	收入占比 (%)	84%	85%	85%	86%
技术开发服务	营收	81.74	107.90	138.11	182.30
	同比 (%)	34%	32%	28%	32%
	毛利率 (%)	35%	35%	34%	33%
	收入占比 (%)	14%	13%	13%	13%
其他业务	营收	11.44	15.10	19.33	24.74
	同比 (%)	33%	32%	28%	28%
	毛利率 (%)	28%	28%	27%	28%
	收入占比 (%)	2%	2%	2%	2%
合计	营收	579.30	800.89	1,082.99	1,443.74
	同比 (%)	40%	38%	35%	33%
	毛利率 (%)	89%	90%	90%	90%
	收入占比 (%)	1	1	1	1

资料来源: Wind, HTI

表 2 可比公司估值表

证券简称	证券代码	股价 (元)	市值 (亿元)	SPS (元)			PS (倍)		
				2022E	2023E	2024E	2022E	2023E	2024E
广立微	301095	105.25	210.50	1.77	3.15	5.17	59.51	33.39	20.36
概伦电子	688206	33.55	145.54	0.66	0.94	1.32	51.02	35.58	25.43
平均				-	-	-	<b>55.26</b>	<b>34.48</b>	<b>22.90</b>
华大九天	301269	100.00	542.94	1.48	1.99	2.66	67.79	50.13	37.61

资料来源: Wind, HTI

注: 华大九天采用海通证券盈利预测, 其他公司采用 Wind 一致预期, 股价为 2022 年 10 月 18 日收盘价

## 财务报表分析和预测

主要财务指标	2021	2022E	2023E	2024E	利润表 (百万元)	2021	2022E	2023E	2024E
<b>每股指标 (元)</b>					<b>营业总收入</b>	<b>579</b>	<b>801</b>	<b>1083</b>	<b>1444</b>
每股收益	0.26	0.35	0.48	0.65	营业成本	62	81	105	140
每股净资产	1.83	2.18	2.66	3.31	毛利率%	89.4%	89.9%	90.3%	90.3%
每股经营现金流	0.58	0.31	0.62	0.64	营业税金及附加	8	10	14	19
每股股利	0.00	0.00	0.00	0.00	营业税金率%	1.5%	1.2%	1.3%	1.3%
<b>价值评估 (倍)</b>					营业费用	89	128	169	221
P/E	389.75	286.22	209.94	153.46	营业费用率%	15.4%	16.0%	15.6%	15.3%
P/B	54.59	45.85	37.63	30.22	管理费用	80	120	157	202
P/S	74.98	54.23	40.11	30.09	管理费用率%	13.8%	15.0%	14.5%	14.0%
EV/EBITDA	-1.28	283.71	231.03	175.90	EBIT	35	62	96	155
股息率%	0.0%	0.0%	0.0%	0.0%	财务费用	0	0	0	0
<b>盈利能力指标 (%)</b>					财务费用率%	0.1%	0.0%	0.0%	0.0%
毛利率	89.4%	89.9%	90.3%	90.3%	资产减值损失	-1	0	0	0
净利润率	24.0%	23.7%	23.9%	24.5%	投资收益	-2	0	0	0
净资产收益率	14.0%	16.0%	17.9%	19.7%	<b>营业利润</b>	<b>139</b>	<b>190</b>	<b>259</b>	<b>354</b>
资产回报率	7.7%	9.1%	10.5%	11.8%	营业外收支	0	0	0	0
投资回报率	2.8%	4.3%	5.7%	7.6%	<b>利润总额</b>	<b>139</b>	<b>190</b>	<b>259</b>	<b>354</b>
<b>盈利增长 (%)</b>					EBITDA	107	152	187	245
营业收入增长率	39.7%	38.3%	35.2%	33.3%	所得税	0	0	0	0
EBIT 增长率	-17.4%	75.2%	56.2%	60.7%	有效所得税率%	0.0%	0.0%	0.0%	0.0%
净利润增长率	34.5%	36.2%	36.3%	36.8%	少数股东损益	0	0	0	0
<b>偿债能力指标</b>					<b>归属母公司所有者净利润</b>	<b>139</b>	<b>190</b>	<b>259</b>	<b>354</b>
资产负债率	44.8%	43.2%	41.5%	39.9%					
流动比率	2.47	2.04	1.84	1.80	<b>资产负债表 (百万元)</b>	<b>2021</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>
速动比率	2.09	1.64	1.44	1.39	货币资金	378	212	219	232
现金比率	1.09	0.48	0.39	0.32	应收账款及应收票据	197	354	424	602
<b>经营效率指标</b>					存货	55	73	94	126
应收帐款周转天数	123.69	161.18	142.44	151.81	其它流动资产	226	261	300	357
存货周转天数	327.47	327.47	327.47	327.47	流动资产合计	857	900	1038	1317
总资产周转率	0.32	0.38	0.44	0.48	长期股权投资	105	105	105	105
固定资产周转率	1.23	1.84	2.72	4.00	固定资产	471	434	398	361
					在建工程	3	3	3	3
					无形资产	279	558	837	1115
					非流动资产合计	945	1187	1429	1671
<b>现金流量表 (百万元)</b>	<b>2021</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>	<b>资产总计</b>	<b>1802</b>	<b>2087</b>	<b>2466</b>	<b>2988</b>
净利润	139	190	259	354	短期借款	0	0	0	0
少数股东损益	0	0	0	0	应付票据及应付账款	100	131	171	227
非现金支出	74	90	90	90	预收账款	0	0	0	0
非经营收益	4	0	0	0	其它流动负债	247	311	393	504
营运资金变动	95	-113	-10	-98	流动负债合计	347	442	563	731
<b>经营活动现金流</b>	<b>312</b>	<b>167</b>	<b>339</b>	<b>346</b>	长期借款	182	182	182	182
资产	-378	-332	-332	-332	其它长期负债	279	279	279	279
投资	-71	0	0	0	非流动负债合计	460	460	460	460
其他	8	0	0	0	<b>负债总计</b>	<b>807</b>	<b>902</b>	<b>1024</b>	<b>1191</b>
<b>投资活动现金流</b>	<b>-441</b>	<b>-332</b>	<b>-332</b>	<b>-332</b>	实收资本	434	434	434	434
债权募资	89	0	0	0	归属于母公司所有者权益	995	1184	1443	1797
股权募资	0	0	0	0	少数股东权益	0	0	0	0
其他	-27	0	0	0	<b>负债和所有者权益合计</b>	<b>1802</b>	<b>2087</b>	<b>2466</b>	<b>2988</b>
<b>融资活动现金流</b>	<b>61</b>	<b>0</b>	<b>0</b>	<b>0</b>					
<b>现金净流量</b>	<b>-68</b>	<b>-165</b>	<b>7</b>	<b>13</b>					

备注: (1) 表中计算估值指标的收盘价日期为 10 月 18 日; (2) 以上各表均为简表

资料来源: 公司年报 (2021), HTI

## APPENDIX 1

### Summary

- The first three quarters performance maintained a high growth level. The company disclosed the performance forecast for the first three quarters: net profit attributable to the mother is expected to be Rmb100-116mn, up 30%-51% YoY; recurring NP to be Rmb26-30mn, up 32%-49% YoY. Operating income is expected to be Rmb470-490mn, an increase of 36%-42% over the same period of the previous year. The main reasons for the increase in performance are: 1, the continued growth of the domestic EDA industry and the company's increasing market share drove the continued growth of the company's software sales revenue during the reporting period. 2, the company continues to increase investment in research and development, and actively promote product upgrades and new product development to continuously meet the needs of existing customers and actively expand new customers.
- The product matrix continues to be enriched and strives for full process coverage. In July 2022, UW-JT released a high-performance transistor-level power integrity analysis tool, Empyrean Patron®, during DAC2022 conference. The tool focuses on power integrity checking of analog chips and can efficiently provide accurate, comprehensive, and reliable EM/IR analysis data and multiple EM/IR check reports. For low-voltage designs, IoT designs and automotive electronics, the electromigration and IR-drop (EM/IR) challenges will be severe. Also, due to the sensitivity of device/metal heating effects, advanced nodes will require thermally aware EM analysis. We believe that the company based on analog EDA full process tools, and constantly improve EDA other tools, dedicated to analog, digital, manufacturing EDA full process coverage, is expected to become the most complete and powerful domestic EDA software supplier.
- In June 2022, Weir Corporation, a power management chip and discrete device provider, has adopted UW-9000's Empyrean Polas® tool as its reliability analysis solution to ensure the design reliability and design rationality of discrete devices and power supply chips to a greater extent. Polas® is a reliability and design rationality analysis tool for IC layout design and discrete layout design, which can be combined with PCB and package design to form a complete system analysis solution. We believe that the company has made great progress in customer expansion under the development idea of continuously improving product power and expanding product matrix, and the company will accompany domestic chip design companies and manufacturing companies to develop synergistically.
- Shenzhen subsidy policy is expected to promote domestic EDA to further open up the market for small and medium-sized customers. On October 8, the Shenzhen Municipal Development and Reform Commission released "Shenzhen on the promotion of high-quality development of semiconductor and integrated circuit industry measures (draft for comment)", pointed out to accelerate the EDA core technology research and development. Promote analog, digital, RF integrated circuits and other EDA tools and software to achieve full process localization. Increase support for domestic EDA enterprises, enterprises engaged in EDA tools and software research and development, according to a single project not more than 40% of the total investment to give subsidies, up to 200 million yuan. The purchase of domestic EDA tools and software enterprises or research institutions, according to the actual expenditure of up to 70% of the cost to subsidize, up to 10 million yuan per year. For enterprises or research institutions that rent domestic EDA tool software, subsidies will be given at 50% of the actual expenses, up to 5 million yuan per year. We believe that the genuine EDA software for small enterprises is a large expenditure, the introduction of direct subsidy policy in Shenzhen is expected to promote the domestic EDA software into the vast number of local small and medium-sized customers, is expected to enhance the market share of domestic EDA.
- We believe that the U.S. BIS latest announcement of a series of curbs on China's purchase or manufacture of advanced chip ban, for advanced semiconductor manufacturing and EDA to suppress, the semiconductor industry chain localization is the way to go is also an important development opportunity for the relevant companies now. We believe that Empyrean Technology is currently the most abundant products of domestic EDA software company, currently continue to focus on analog full process, and gradually complement the manufacturing EDA and digital EDA tools product line, customer cooperation and marketing smoothly, in the panel software, analog EDA, manufacturing EDA, digital EDA multiple growth poles of the pull, performance to maintain rapid growth. We estimate that the company's 2022-2024 revenue to be Rmb801mn/1.083bn/1.444bn, respectively, NP to be Rmb190/259/354mn, corresponding to EPS to be Rmb0.35/0.48/0.65. Reference to comparable companies, combined with the current industry stage and the company's growth rate and barriers, we value a 2022 forward PS at 85x, the target price to be Rmb125.38, initiate with an Outperform rating.
- Risk: the company's business promotion is not as expected, industry policy risk.



## 附录 APPENDIX

### 重要信息披露

本研究报告由海通国际分销，海通国际是由海通国际研究有限公司(HTIRL)，Haitong Securities India Private Limited (HSIPL)，Haitong International Japan K.K. (HTIJKK)和海通国际证券有限公司(HTISCL)的证券研究团队所组成的全球品牌，海通国际证券集团(HTISG)各成员分别在其许可的司法管辖区内从事证券活动。

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**弱于大市**，未来 12-18 个月内预期相对基准指数跌幅在 10%以上，基准定义如下

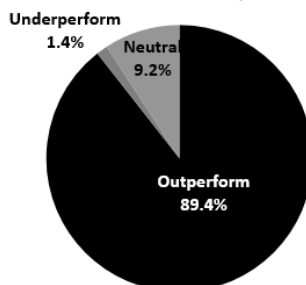
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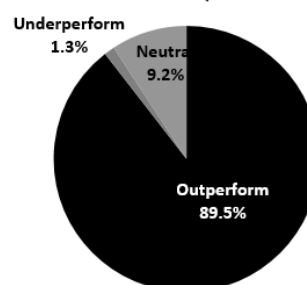
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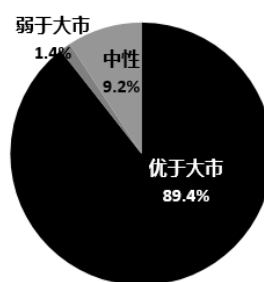
Most Recent Full Quarter



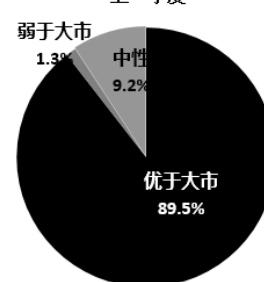
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最新季度



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#### 截至 2022 年 9 月 30 日海通国际股票研究评级分布

	优于大市	中性 (持有)	弱于大市
海通国际股票研究覆盖率	89.4%	9.2%	1.4%
投资银行客户*	5.5%	6.8%	4.5%

\*在每个评级类别里投资银行客户所占的百分比。

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买入，未来 12-18 个月内预期相对基准指数涨幅在 10%以上，基准定义如下

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卖出，未来 12-18 个月内预期相对基准指数跌幅在 10%以上，基准定义如下

各地股票基准指数：日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100; 其他所有中国概念股 – MSCI China.

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\*Percentage of investment banking clients in each rating category.

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