

China Technology

**OUTPERFORM
(Maintain)**

Switching from AI/ChatGPT to demand recovery, innovation and localization into 2Q23E

After a strong rally driven by AI/ChatGPT theme in past three months ([note in Feb](#)), we believe most near-term positives have been priced in AI-tech value chain (+65%/146%/45%/62% YTD for chip/optical/PCB/server), and we expect profit-taking pressure ahead of 1Q23 earnings season in late April. We suggest to switch into three themes we addressed in Jan ([note](#)) which will continue to drive supply chain opportunities into 2Q23E, including demand recovery, MR innovation and localisation. We recommend to focus on recovery plays (Sunny Optical, SG Micro and 3Peak), innovation (Cowell, Luxshare, Goertek for MR) and semi localization (Hua Hong Semi, NAURA, AMEC).

- Take a breather for AI/ChatGPT theme.** While we believe AI/ChatGPT is an inevitable megatrend with robust demand for computing power and cloud infrastructure, we think it is time to take a breather, after stellar share price performance YTD (+65%/146%/45%/62% YTD for chip/optical/PCB/server). In terms of valuation, chip/optical subsectors trade at 91x/35x FY23E P/E, close to 1-sd above 5-year avg. P/E, while PCB/server subsector trade at 22x/12x FY23E P/E, slightly above 5-year avg. P/E. Near-term negative catalysts include 1Q23 earnings downside in late April and lack of catalysts after LLM launches from major tech giants by mid-April (Huawei on 4/8, SenseTime on 4/10, Alibaba on 4/11).
- Top three themes for 2Q23E: Recovery, innovation and localization.** We expect semi/component sector recovery is on the horizon, backed by 1) MLCC/panel price rebound, 2) Micro/Samsung CAPEX reduction, and 3) smartphone/ PC bottoming out in 3Q23E. In addition, looking into 2H23E, we expect product launch of Apple MR device and new iPhone 15, boosting upgrade in optic (3D pancake), display (Micro-OLED) and OEM/casing. On the back of ongoing geopolitical tensions, China semi localization trajectory remains solid in the long term, benefiting foundry and SPE names.
- Mindful about 1H23 earnings downside risks; Be selective on stocks.** For 2023, we are positive on investment opportunities in semi self-reliance, supply chain localisation, MR innovation and demand recovery. Considering 3-month sector rally on AI/ChatGPT theme, we recommend to revisit laggard blue-chip stocks with quality fundamentals and clear upgrade trends which will benefit from potential fund flows and style shift in 2Q23E. We recommend to focus on demand recovery (Sunny Optical, SG Micro and 3Peak), MR/optics innovation (Cowell, Luxshare, Goertek) and semi localization (Hua Hong Semi, NAURA, AMEC).

Valuation Table

Name	Ticker	Mkt Cap (US\$ mn)	Price (LC)	P/E (x) FY23E	P/E (x) FY24E	P/B (x) FY23E	ROE FY23E
Sunny Optical	2382 HK	12,883	92.2	26.9	21.3	3.6	13.7
Cowell	1415 HK	1,995	18.58	19.7	13.5	4.4	22.7
Luxshare	002475 CH	31,825	30.73	16.6	13.5	3.7	22.7
Goertek	002241 CH	11,236	22.64	15.2	12.2	2.2	14.7
Hua Hong Semi	1347.HK	6,262	37.6	15.2	14.4	1.7	11.8
NAURA	002371 CH	23,016	299.7	55.9	42.7	7.3	13.5

Source: Company data, Bloomberg, CMBIGM estimates

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- China Technology - Reality check on smartphone supply chain: Prefer Apple and RF names - 14 Feb 2023 ([link](#))
- ChatGPT 跨行业专题报告: AIGC 发展大年, 推动新一轮产业革命 - 10 Feb 2023 ([link](#))
- China Technology - Apple FY1Q23 miss on macro and supply chain issues; Expect weakness to persist in near term - 3 Feb 2023 ([link](#))

Fig 1: AI Tech Supply Chain

			Price	Mkt Cap	P/E		P/B		ROE	Performance (%)				
Company		Ticker	Product	(LC)	(mn USD)	FY23E	FY24E	FY23E	FY24E	FY23E	1M%	2M%	3M%	YTD
Chips														
Nvidia	英伟达	NVDA US	GPU	271.63	670,926	83.3	60.5	31.3	26.2	29.8	18.3	27.7	70.7	85.9
AMD	超威半导体	AMD US	GPU	93.79	150,946	30.4	21.6	2.7	2.6	7.3	13.5	15.1	37.8	44.8
Cambricon	寒武纪	688256 CH	GPU	207.59	12,087	na	na	20.0	22.1	(17.2)	125.7	162.4	263.3	280.5
Jingjia Micro	景嘉微	300474 CH	GPU	107.89	7,133	106.4	76.4	13.8	11.9	12.6	46.6	33.2	96.9	97.7
Hygon Info Tech	海光信息	688041 CH	CPU	74.8	25,256	120.1	82.6	10.4	9.3	10.1	42.9	47.9	77.2	86.4
Loongson	龙芯中科	688047 CH	CPU	160.02	9,321	166.2	119.9	12.6	11.3	8.9	44.7	40.5	84.7	87.3
Lattice	莱迪思	LSCC US	FPGA	89.56	12,304	43.8	37.5	na	na	54.8	3.5	10.5	27.7	38.0
Anlu Technology	安路科技	688107 CH	FPGA	75.54	4,390	309.6	147.0	18.5	16.9	6.1	20.6	5.2	15.9	17.7
Fudan Micro	复旦微	688385 CH	FPGA	70.74	6,555	38.4	29.6	9.7	7.4	25.9	0.5	(1.1)	7.9	1.3
GigaDevice	兆易创新	603986 CH	Storage	130.86	12,680	32.5	28.4	5.0	4.4	14.3	29.5	12.3	23.0	27.7
Montage Tech	澜起科技	688008 CH	Storage	71.7	11,833	46.1	31.8	7.3	6.2	16.9	28.3	17.7	13.0	14.5
Giantec Semi	聚辰股份	688123 CH	Storage	102.61	1,802	21.6	16.6	5.2	4.1	25.1	20.9	8.9	(11.7)	1.4
Average						90.8	59.3	12.4	11.1	16.2	32.9	31.7	58.9	65.3
Foundry (localization)														
SMIC	中芯国际	688981 CH		60	34,105	75.4	55.7	3.6	3.5	4.4	39.5	39.3	45.7	45.8
Hua Hong Semi	华虹半导体	1347.HK		37.6	6,262	15.2	14.4	1.7	1.5	11.8	16.2	23.9	27.5	38.0
Average						45.3	35.1	2.6	2.5	8.1	27.9	31.6	36.6	41.9
SPE (localization)														
NAURA	北方华创	002371 CH		299.7	23,016	55.9	42.7	7.3	6.4	13.5	14.8	20.6	30.9	33.0
AMEC	中微公司	688012 CH		175.08	15,671	78.1	62.8	6.5	5.8	8.5	41.8	60.1	75.0	78.6
Piotech	拓荆科技	688072 CH		353	6,485	98.9	67.2	13.4	11.6	14.8	16.2	41.4	58.9	62.9
Average						77.6	57.5	9.1	7.9	12.3	24.2	40.7	54.9	58.2
Optical module														
Innolight	中际旭创	300308 CH		70.18	8,166	40.1	33.8	4.0	3.7	10.7	104.5	100.8	148.4	159.6
Eoptolink	光迅科技	300502 CH		71.85	5,293	37.5	31.8	6.4	5.3	17.5	133.0	121.3	188.7	202.5
Accelink	新易盛	002281 CH		27.44	3,121	27.2	24.8	2.8	2.5	10.7	22.3	22.6	68.8	74.6
Average						34.9	30.2	4.4	3.8	13.0	86.6	81.6	135.3	145.6
PCB														
DSBJ	东山精密	002384 CH		28.46	7,069	16.4	13.5	2.6	2.2	16.3	2.4	(3.5)	16.1	15.1
Shennan Circuit	深南电路	002916 CH		91.3	6,802	23.8	20.2	3.6	3.1	15.9	16.8	7.2	22.5	26.5
Shengyi Tech	生益科技	600183 CH		19.53	6,633	20.0	16.8	3.0	2.7	14.5	9.2	12.5	30.1	35.5
WUS Printed	沪电股份	002463 CH		24.13	6,648	27.0	21.5	4.7	4.0	17.7	55.7	55.7	92.6	102.8
Average						21.8	18.0	3.5	3.0	16.1	21.0	18.0	40.3	45.0
AI Server														
Foxconn Industrial	工业富联	601138 CH		17.47	50,408	14.9	13.5	2.4	2.1	16.4	61.0	78.6	85.9	90.3
Lenovo	联想集团	992 HK		8.51	13,148	8.0	7.6	2.0	1.7	31.2	16.6	29.5	32.1	32.8
Average						11.5	10.6	2.2	1.9	23.8	38.8	54.1	59.0	61.5
Components (recovery, MR innovation)														
Sunny Optical	舜宇光学	2382 HK	Optics	92.2	12,883	26.9	21.3	3.6	3.1	13.7	6.4	(10.0)	(4.0)	(0.7)
Cowell	高伟电子	1415 HK	MR Optics	18.58	1,995	19.7	13.5	4.4	3.3	22.7	22.7	8.0	43.4	71.1
BYDE	比亚迪电子	285 HK	OEM	24.5	7,032	17.0	12.2	1.7	1.5	10.6	13.7	(10.7)	(2.2)	(2.4)
AAC Tech	瑞声科技	2018 HK	Acoustics	19.32	2,950	18.5	14.0	0.9	0.8	4.9	13.2	(5.5)	8.8	8.3
Goertek	歌尔股份	002241 CH	MR OEM	22.64	11,236	15.2	12.2	2.2	1.9	14.7	14.2	1.6	26.6	34.5
Luxshare	立讯精密	002475 CH	MR OEM	30.73	31,825	16.6	13.5	3.7	3.0	22.7	6.7	(4.4)	4.7	(3.2)
Average						19.0	14.5	2.7	2.3	14.9	12.8	(3.5)	12.9	17.9

Source: Bloomberg, CMBIGM

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