

科技行业

上游公司表现改善；新产品和贸易谈判为短期市场焦点

- 在过去一个月，香港上市的硬件股继续落后于 A 股、台湾和美国上市同业。
- 多家台湾的科技公司公布了 8 月营业额数据。总的来说，它们表现有所改善，但总的来说并没有惊喜。
- 有关新产品发布的行业消息以及贸易谈判的报道将主导市场情绪。对于中美双方在 10 月恢复贸易谈判，我们持正面看法。
- 一些公司公布业绩后遭到抛售，这大致属于预期之内，而市场已重设对这些股份的预期。
- 尽管市场关注共建共享的影响，但中兴通讯[0763.HK]、京信通信[2342.HK]和摩比发展[0947.HK]等设备股已出现再次进场机会。比亚迪电子[0285.HK]在公布疲弱的 2019 年中期业绩后，股价曾大幅反弹，本土 EMS 公司光弘科技[300735.HK]将受益于本土化趋势。预计冠捷科技[0903.HK]的私有化行动将不会有重大阻滞。槟杰科达[1665.HK]是可穿戴设备出货量强劲增长的受惠者。

上游公司 8 月录得较佳同比增长

就平均股价表现而言，香港上市的硬件股跑输大盘以及 A 股、台湾及美国上市同业，我们认为这是由于：a) 区内的宏观事件；b) 一些下游公司遭受沽压。舜宇光学[2382.HK]、丘钛科技[1478.HK]、冠捷科技[0903.HK]、TCL 电子[1070.HK]和中兴通讯[0763.HK]等股价跑赢。苹果阵营方面，上游公司如大立光电和玉晶光（镜头）、铠胜控股（外壳）、台积电（处理器）和稳懋半导体（VCSEL）的 8 月收入同比增速较 7 月加快。在苹果阵营中，稳懋半导体和玉晶光的表现优异。对于总个安卓阵营，我们留意到一些关于供应链的正面信息，但联发科技 8 月同比增长并未带来任何惊喜。

预计五个投资主题在中期而言仍是焦点

致茂电子和亚德客等上游机械和材料公司的收入在 8 月有所改善，但平均而言，行业的同比收入跌幅较 7 月略为扩大。但是，圣晖工程科技表示其订单减少，特别是一些搬迁生产设施的客户的订单减弱。由于中国企业投资回升以及国家集成电路产业投资基金对精测电子[300567.CH]子公司作出投资，我们仍然预计 TMT 硬件相关设备股投资情绪会继续改善。投资者一直在追捧能够通过以下方式实现增长的公司：a) 提升市场份额；b) 多元化产品组合或生产基地。我们继续看好以下四个投资主题：a) 5G；b) 下一代终端；c) 物联网/边缘计算；d) RICS-V 发展；以及 e) 重塑供应链。我们仍然较看好电信设备供应商和一些定位独特的细分行业，特别是 VSCEL 和设备相关公司。

8 月录得较高增速的六个板块

大多数在台湾上市的科技股（材料和设备、晶圆、半导体、IC 设计、LED、光通信、PCB、TFT-LCD、外壳、镜头、DRAM、ODM、光学元件和外壳、网络、汽车电子、终端和分销）公布了 2019 年 8 月的营业额。行业中有六个细分板块（晶圆、代工厂、PCB、TFT-LCD、LEDs 和 Drams）的 8 月同比增速高于 7 月。总的来说，我们看到上游公司的收入同比增长回升，但仍然没有看到全面的改善。至于 PC 方面，PCB 公司包括微星科技和技嘉 8 月的表现优于 7 月。华硕 8 月表现较 7 月改善。宏基 8 月的表现较 7 月进一步恶化。整体而言，笔记本 ODM 在 8 月的同比增速较 7 月减弱，这可能会对 PC 相关公司构成压力。尽管不确定性增加，我们较看好巨腾[3336.HK]，因为汇率走势对公司较为有利。

预计 EMS 公司在下半年有较佳表现

比亚迪电子[0285.HK]公布中报后股价调整，这颇为超出我们的预期，市场对公司中期业绩感到失望。然而，比亚迪电子管理层提到，2019 年中期业绩疲弱是由于项目延误造成，而由于中国的本土化趋势持续，公司预计下半年业绩将会改善。公司股价已反弹，我们认为这反映中期业绩的因素已被消化。随着中国企业转移订单，比亚迪电子[0285.HK]和光弘科技[300735.CH]将会受益。

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Technology - Others

Upstream names show improvement; new product launches and trade talks become near-term themes

- HK-listed hardware names continued to underperform their peers in the A-share, Taiwan and US markets on a one-month basis.
- Taiwan-listed technology names reported their Aug 2019 turnover. In general, they showed improvement, but overall there were no positive surprises.
- Industry news flow on topics such as new product launches and macro news flow on trade talks are expected to dominate the market. We are positive regarding the resumption of trade talks between China and the US in Oct 2019.
- The post-results selling pressure was somewhat expected, and the expectations have been re-set.
- Despite concerns about co-building and co-sharing, equipment names such as ZTE [0763.HK], Comba [2342.HK] and Mobi [0947.HK] offer a good re-visit opportunity. We also saw BYDE's [0285.HK] sharp share price rebound after weak 1H 2019 results and local EMS DBG [300735.HK] will benefit from increasing localization. The privatization of TPV [0903.HK] is expected to be completed with no major obstacles. Pentamaster [1665.HK] is a good proxy for strong growth in wearables shipments.

Upstream names reported better YoY growth in Aug 2019

In terms of share price performance, on average, HK-listed hardware names have underperformed the market and their A-share-, Taiwan- and US-listed peers, which in our view, is due to: a) local macro issues, and b) selling pressure on some downstream names. Names such as Sunny Optical [2382.HK], Q-Tech [1478.HK] TPV [0903.HK], TCL [1070.HK] and ZTE [0763.HK] have outperformed. In the Apple camp, upstream names, such as Largan and Genius (lenses), Castek (casings), TSMC (processor) and WINS (VCSEL), reported faster YoY turnover growth in Aug than in Jul 2019. WINS and Genius stand out among Apple camp names. Regarding overall Android camp names, we have seen positive news flow from the supply chain, but Mediatek's YoY growth in Aug 2019 didn't offer any upside surprise.

Five investment themes expected to remain hot in the medium term

The top-line performance of upstream machinery and materials names, including Chroma and Airtac, improved in Aug 2019, but on average, the YoY turnover decline in the sector widened slightly vs. Jul 2019. However, Acter said it saw a reduction in orders, particularly from clients regarding the relocation of manufacturing facilities. We still expect to see sentiment on TMT hardware-related equipment names continue to improve due to a pick-up in investment by Chinese players and the China IC Fund's investment in Wuhan Jingce's [300567.CH] subsidiary. Investors have been chasing companies that can deliver growth through: a) gaining market share, and b) diversifying their product portfolio or production base. We continue to prefer the following four investment themes: a) 5G, b) next-generation terminals, c) IoT/edge computing, d) RICS-V development, and e) rebuilding the supply chain. We still prefer telecommunications equipment suppliers and some niche segments, especially VCSEL and equipment names.

Six segments saw higher top-line growth in Aug 2019

Most of the Taiwan-listed technology names (materials and equipment, wafers, semiconductors, IC design, LEDs, optical communications, PCBs, TFT-LCDs, casings, lenses, DRAMs, ODMs, optical components & casings, networking, auto electronics, terminals and distribution) have reported their Aug 2019 turnover. Sector-wide, six segments – wafers, foundries, PCBs, TFT-LCD, LENS and Drams – saw higher YoY top-line growth in Aug vs. Jul 2019. In general, we saw YoY turnover growth for upstream names pick up, but we still didn't see an across-the-board improvement. Regarding the PC side, PCB names MSI and Gigabyte reported better performance in Aug than in Jul 2019. Asustek reported better performance in Aug vs. Jul 2019. Acer's performance deteriorated further in Aug vs. Jul 2019. Overall, YoY growth for notebook ODMs weakened further in Aug vs. Jul 2019. This may put pressure on PC-related names. Despite the increasing uncertainties, we prefer Ju Teng [3336.HK], as a more favorable FX environment is positive for it.

EMS names expected to see better performance in 2H 2019

BYDE's [0285.HK] post-1H 2019 results share price correction was somewhat beyond our expectation, as the market was disappointed with the Company's 1H 2019 results. However, BYDE management mentioned that the weak 1H 2019 results were due to projects delays and that it expects to see better performance 2H 2019 due to the increasing localization of China names. Shares of BYDE rebounded, which we believe indicates that the 1H 2019 results have been digested. BYDE [0285.HK] and DBG Technology [300735.CH] will benefit from the shift by Chinese names.

Analysts

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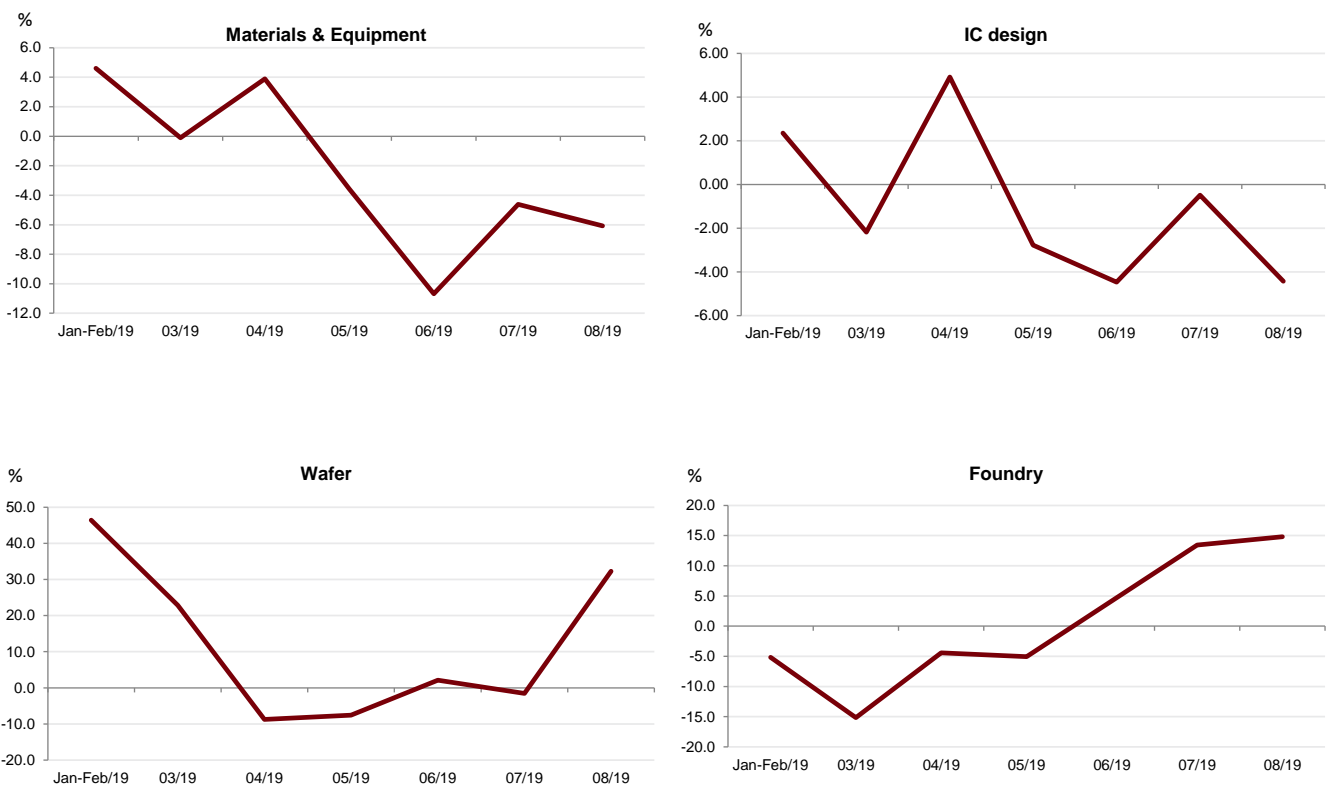
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Semiconductors. The Aug 2019 figures reported by Taiwanese foundries suggests a pick-up in Aug vs. Jul 2019. But niche player VIS lagged behind TSMC and UMC in Aug. As we discussed earlier, the solid Aug 2019 figures from WINS and VPEC somewhat confirmed our view that demand from the VSCEL supply chain (ToF cameras) and 5G upstream (PA) remains solid after a strong pick-up in Jun and Jul 2019. YoY growth of Novatek softened in Aug 2019 vs. Jul 2019, but Egis reported faster YoY growth in Aug 2019. Mediatek reported higher monthly turnover figures in Aug 2019, but YoY turnover growth may indicate that overall, Android camp names may not report good volume shipment growth in the coming months. In terms of share price, SMIC [0981.HK] underperformed Hua Hong [1347.HK] on a one-month basis, which we believe indicates that the market is looking for lower valuation names in the current market environment. We continue to point out that the performance of King Yuan (no major slowdown in YoY growth in Aug 2019 vs. Jul 2019) and Andes Technology are indicators of two industry trends. King Yuan is benefiting from increasing demand from local Chinese companies due to changes in procurement location, and King Yuan has benefited from increasing demand from Chinese customers, including Huawei. Andes Technology's strong growth momentum continued in Aug 2019, given the increasing adoption of RISC-V, a free, open, extensible instruction set architecture for all computing devices. As discussed earlier, RISC-V is expected to be the best fit for the development of IoT, edge computing and machine learning, which require massive customization. Industry news flow suggests that Apple has kicked off volume production of related components for next-generation AirPods (SiP), which will enable ODM production partners to begin mass assembly as early as Oct 2019. We maintain the view that Luxshare [002475.CH] and Pentamaster [1665.HK] will be beneficiaries of strong growth in wearables.

Figure 1: Monthly YoY turnover growth of Taiwan-listed companies (1)



SOURCES: MOPS.TWSE.COM.TW; BLOOMBERG, CGIS RESEARCH

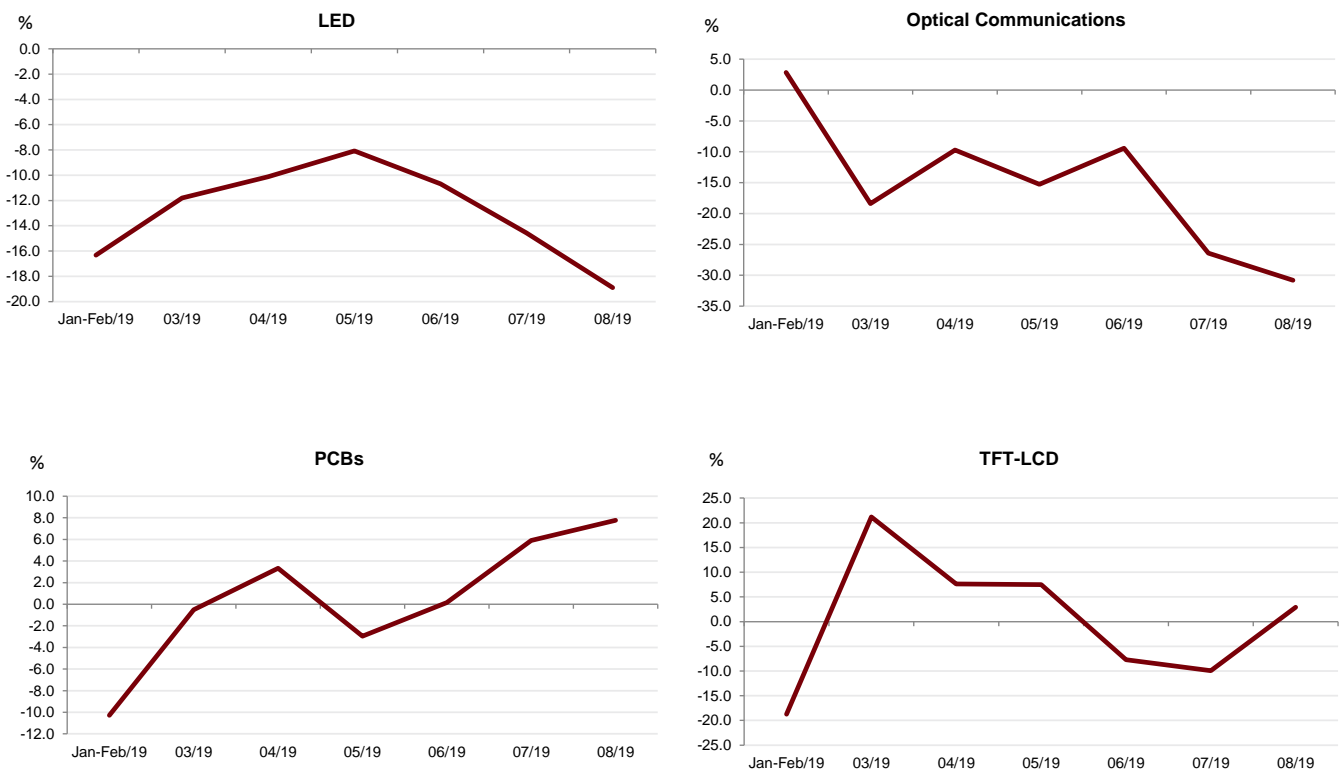
Optical communications. The optical communications sector reported weaker performance in Aug 2019 vs. Jul 2019, dragged down mainly by Elite and Luxnet. However, according to news flow, makers for optical communication components are expecting shipments of 5G devices to grow steadily, starting in Q3 2019 before booming in 1H 2020 despite their soft Aug 2019 turnover figures. TrueLight said that it began shipping long-wavelength 25G components at a rate of 5,000–10,000 units a month in Jul 2019. LandMark revealed that it will begin volume production of 25G single-line chips and VCSEL products for 5G applications in Sep–Oct 2019. We still believe that YOFC [6869.HK] will lag behind, as there has been no major pick-up in optical fibre pricing. Some investors may have concerns about the outlook for telecommunications equipment

names, such as China Tower [0788.HK], CCS [0552.HK] and ZTE [0763.HK], given co-building and co-sharing between China Telecom [0728.HK] and China Unicom [0762.HK]. However, we remain constructive on equipment names, as the CAPEX recovery remains intact, and because of share price weakness after the formal announcement by China Unicom and China Telecom. The market might chase smaller names, such as Comba [2342.HK] and Mobi [0947.HK].

Displays. The YoY top-line growth of TFT-LCDs picked up in Aug 2019 vs. the level in Jul 2019, which drove better performance of AUO, Innolux and Hannstouch Solution. This sub-segment outperformed most of the others. Amtran reported 6.6% YoY turnover growth in Aug 2019 vs. 24.1% YoY turnover growth in Jul 2019, but still outperforming TFT-LCDs. We admit that we were a bit too cautious on TCLE [1070.HK] because of concern about US tariffs. Shares of TCLE performed well after its 1H 2019 results announcement, and we may see a further re-rating if there is a breakthrough in trade talks between China and US in Oct 2019. We still believe that the privatization of TPV [0903.HK] will go through without major obstacles, which still offers some opportunity for investors who don't want to take risks. We also maintain that Truly's [0732.HK] recovery remains on track.

PCBs and PC ODMs: PCBs for communications equipment are one of the hottest sectors. Shares of A-share-listed PCBs companies, including Shennan Circuit [002916.HK], WUS Printed Circuit Kunshan [002463.CH] and Shengyi Technology [600183.CH], have performed well, as they are benefiting from 5G-related orders. We believe AVIC International [0161.HK] (major shareholder of Shennan Circuit) could play catch-up. High-end PCB names are even more upstream than antenna and RF manufacturers. The strong operating performance of the PCB names reaffirms our positive view of telecommunications equipment names. Aug 2019 turnover figures for the PC ODMs were mixed, as Quanta Computer and Wistron both had a YoY decline in turnover in Aug 2019, but Pegatron reported a YoY increase in turnover in Aug 2019. All three ODMs expect sales to pick up in Q4 2019.

Figure 2: Monthly YoY turnover growth of Taiwan-listed companies (2)



SOURCES: MOPS.TWSE.COM.TW; BLOOMBERG, CGIS RESEARCH

Figure 3: Monthly YoY turnover growth of Taiwan-listed companies (3)



SOURCES: MOPS.TWSE.COM.TW; BLOOMBERG, CGIS RESEARCH

Figure 4: Monthly YoY turnover growth of Taiwan-listed companies (4)

Sector	Ticker	Name	01/19	Jan-Feb/19	03/19	04/19	05/19	06/19	07/19	08/19	YoY growth picked up in Apr 2019 vs Mar 2019	YoY growth picked up in May 2019 vs Apr 2019	YoY growth picked up in Jun 2019 vs May 2019	YoY growth picked up in Jul 2019 vs Jun 2019	YoY growth picked up in Aug 2019 vs Jul 2020	YoY growth picked up in Aug 2019 vs Jul 2020		
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	Yes	Yes	Yes	Yes	Yes	Yes	
Materials & Equipment	2360 TT Equity	CHROMA ATE	-8.6	-19.0	-24.0	-19.5	-49.9	-47.4	-10.0	-3.6	Yes	Yes	Yes	Yes	Yes	Yes		
	2395 TT Equity	ADVANTECH	4.4	11.2	3.7	23.2	3.9	6.3	11.6	9.0	Yes	Yes	Yes	Yes	Yes	Yes		
	6414 TT Equity	ENNOCORP CORP	71.5	65.1	57.3	64.5	65.4	8.0	7.6	-4.8	Yes	Yes	Yes	Yes	Yes	Yes		
	6166 TT Equity	ADLINK TECHNOLOGY INC	23.4	18.1	17.2	3.9	-16.3	0.1	-11.0	-0.6	Yes	Yes	Yes	Yes	Yes	Yes		
	1590 TT Equity	AIRTEC INTERNATIONAL	-15.6	-6.4	-6.4	8.1	-7.1	-11.0	-0.3	5.4	Yes	Yes	Yes	Yes	Yes	Yes		
	6510 TT Equity	Chunghwa Precision	1.7	-12.3	-28.0	-32.6	-33.2	-4.9	0.5	16.1	Yes	Yes	Yes	Yes	Yes	Yes		
	2049 TT Equity	HIWIN TECHNOLOGIES CORP	-26.1	-24.0	-21.2	-20.5	-22.0	-22.9	-24.7	-42.5	Yes	Yes	Yes	Yes	Yes	Yes		
	8215 TT Equity	BENO MATERIALS CORP	12.0	15.5	12.7	20.0	25.5	18.4	17.9	0.2	Yes	Yes	Yes	Yes	Yes	Yes		
	5536 TT Equity	ACTER CO LTD	13.1	-6.8	-12.3	-2.1	1.5	-42.8	-33.2	-33.9	Yes	Yes	Yes	Yes	Yes	Yes		
	Average			8.4	4.6	-0.1	3.9	-3.6	-10.7	-4.6	-6.1	Yes	Yes	Yes	Yes	Yes	Yes	
IC design	3034 TT Equity	NOVATEK	39.46	45.70	37.72	32.20	22.45	14.82	7.71	5.47	Yes	Yes	Yes	Yes	Yes	Yes		
	2379 TT Equity	REALTEK	20.64	20.34	21.60	29.80	40.49	38.16	28.31	27.13	Yes	Yes	Yes	Yes	Yes	Yes		
	6462 TT Equity	EGIS TECHNOLOGY INC	-43.14	-28.98	16.16	31.73	33.40	19.85	6.60	15.21	Yes	Yes	Yes	Yes	Yes	Yes		
	2454 TT Equity	MEDIATEK INC	-3.52	2.91	10.98	13.35	-6.30	-0.79	-1.77	-1.95	Yes	Yes	Yes	Yes	Yes	Yes		
	5274 TT Equity	ASPEED TECHNOLOGY INC	12.05	9.42	-9.43	-5.12	-4.98	-3.48	6.64	13.73	Yes	Yes	Yes	Yes	Yes	Yes		
	2344 TT Equity	WINBOND ELECTRONICS CORP	-6.49	-10.31	-10.74	-13.03	-10.61	-1.15	-5.87	-6.32	Yes	Yes	Yes	Yes	Yes	Yes		
	2337 TT Equity	MACRONIX INTERNATIONAL	-26.89	-30.02	-39.62	-28.14	-14.51	-4.37	-0.35	17.17	Yes	Yes	Yes	Yes	Yes	Yes		
	6138 TT Equity	ANPEC ELECTRONICS CORP	-3.82	-2.36	-10.83	-5.82	-18.60	-16.05	-16.14	-13.53	Yes	Yes	Yes	Yes	Yes	Yes		
	6411 TT Equity	AMAZING MICROELECTRONIC	-34.37	-33.87	-6.18	1.31	8.28	3.34	6.76	-26.12	Yes	Yes	Yes	Yes	Yes	Yes		
	3014 TT Equity	ITE TECHNOLOGY INC	-10.64	-8.65	-6.94	2.72	9.78	8.37	8.27	11.14	Yes	Yes	Yes	Yes	Yes	Yes		
4947 TT Equity	ON-BRIGHT ELECTRONICS INC	1.17	-0.10	-3.72	-18.90	-11.41	-13.91	-12.94	-2.54	Yes	Yes	Yes	Yes	Yes	Yes			
2436 TT Equity	WELTRENDS SEMICONDUCTOR INC	-12.79	-14.00	-17.25	-16.57	-10.97	-8.83	-4.87	-13.36	Yes	Yes	Yes	Yes	Yes	Yes			
8261 TT Equity	ADVANCED POWER ELECTRONICS	-17.86	-17.86	-13.93	-8.92	-0.40	-17.40	-28.33	-28.02	Yes	Yes	Yes	Yes	Yes	Yes			
3317 TT Equity	NIKO SEMICONDUCTOR CO LTD	-0.07	0.00	0.09	0.20	0.15	0.14	0.20	0.04	Yes	Yes	Yes	Yes	Yes	Yes			
6435 TT Equity	SINOPOWER SEMICONDUCTOR	0.53	5.30	1.82	5.32	-28.60	-25.73	-28.50	-29.89	Yes	Yes	Yes	Yes	Yes	Yes			
4966 TT Equity	PARADE TECHNOLOGIES LTD	60.59	35.81	1.11	68.06	10.59	10.53	55.02	15.21	Yes	Yes	Yes	Yes	Yes	Yes			
5269 TT Equity	ASMEIDA TECHNOLOGY INC	105.09	67.52	9.74	40.09	-18.21	-15.57	2.09	-24.13	Yes	Yes	Yes	Yes	Yes	Yes			
3443 TT Equity	GLOBAL UNICHIP CORP	13.60	-1.95	-16.35	-19.42	-14.33	-37.10	-26.61	-30.03	Yes	Yes	Yes	Yes	Yes	Yes			
6202 TT Equity	HOLTEK SEMICONDUCTOR INC	-5.70	-3.03	-6.88	-4.98	-4.80	-17.76	-6.37	-13.26	Yes	Yes	Yes	Yes	Yes	Yes			
Average			4.62	2.36	-2.18	4.92	-2.77	-4.77	-0.49	-4.43	Yes	Yes	Yes	Yes	Yes	Yes		
Wafer	3523 TT Equity	EFUN TECHNOLOGY CO LTD	152.40	122.84	61.10	-23.04	-18.92	17.79	37.53	136.29	Yes	Yes	Yes	Yes	Yes	Yes		
	6488 TT Equity	GLOBALWAFERS CO LTD	9.71	9.88	16.17	1.61	2.79	2.37	-9.77	-8.01	Yes	Yes	Yes	Yes	Yes	Yes		
	6182 TT Equity	WAFER WORKS CORP	6.80	6.55	1.19	-4.81	-6.50	-13.75	-32.30	-31.46	Yes	Yes	Yes	Yes	Yes	Yes		
	Average			56.30	46.42	22.82	-8.75	-7.54	2.14	-1.52	32.27	Yes	Yes	Yes	Yes	Yes	Yes	
	Foundry	2330 TT Equity	TSMC	-2.07	-3.74	-23.12	-8.77	-0.66	21.91	13.97	16.54	Yes	Yes	Yes	Yes	Yes	Yes	
		2303 TT Equity	UMC	-10.48	-11.27	-16.81	-2.86	-6.37	-12.40	-4.97	0.02	Yes	Yes	Yes	Yes	Yes	Yes	
		5347 TT Equity	VANGUARD INTERNATIONAL	20.18	16.23	-7.24	7.84	-4.16	-7.88	0.09	-12.28	Yes	Yes	Yes	Yes	Yes	Yes	
		3105 TT Equity	WIN SEMI	-22.99	-21.86	-13.39	-14.04	-9.00	15.11	44.03	54.97	Yes	Yes	Yes	Yes	Yes	Yes	
		Average			-3.84	-5.16	-15.14	-4.40	-5.05	4.18	13.44	14.81	Yes	Yes	Yes	Yes	Yes	Yes
		2393 TT Equity	EVERLIGHT	-16.75	-20.29	-14.38	-10.59	-6.86	-17.57	-18.27	-19.90	Yes	Yes	Yes	Yes	Yes	Yes	
2448 TT Equity		EPistar CORP	-32.41	-30.94	-19.78	-8.92	-28.94	-32.72	-23.01	-24.82	Yes	Yes	Yes	Yes	Yes	Yes		
6271 TT Equity		TONG HING ELECTRONIC INDUST	-5.53	-5.10	-12.64	4.94	6.75	-1.37	7.03	-13.23	Yes	Yes	Yes	Yes	Yes	Yes		
3693 TT Equity		UREC ELECTRONICS CORP	-3.12	-10.00	11.28	-18.27	20.68	5.28	20.02	-12.16	Yes	Yes	Yes	Yes	Yes	Yes		
3698 TT Equity		LEXTAR ELECTRONICS CORP	-12.04	-15.27	-23.54	-17.78	-32.00	-7.02	-18.63	-24.36	Yes	Yes	Yes	Yes	Yes	Yes		
Average			-13.97	-16.32	-11.81	-10.12	-8.07	-10.68	-14.58	-18.89	Yes	Yes	Yes	Yes	Yes	Yes		
Optical Communications	3081 TT Equity	LAND MARK OPTOELECTRONICS	0.49	-8.09	-51.65	-14.12	5.12	68.89	7.76	3.11	Yes	Yes	Yes	Yes	Yes	Yes		
	3450 TT Equity	ELITE ADVANCED LASER CORP	-1.87	-12.25	-10.18	-7.19	-24.57	-42.69	-32.06	-42.65	Yes	Yes	Yes	Yes	Yes	Yes		
	3234 TT Equity	TRULIGHT CORP	-5.58	-3.30	-18.52	-8.09	-10.12	-19.26	-25.18	-23.38	Yes	Yes	Yes	Yes	Yes	Yes		
	4979 TT Equity	LUXNET CORP	48.75	35.01	6.23	-9.48	-31.50	-44.87	-58.19	-60.36	Yes	Yes	Yes	Yes	Yes	Yes		
	Average			10.45	2.84	-18.38	-9.74	-15.27	-24.41	-26.42	-30.82	Yes	Yes	Yes	Yes	Yes	Yes	
	PCBs	2377 TT Equity	MSI	0.03	-4.85	-11.26	-14.13	-7.99	0.44	5.68	27.14	Yes	Yes	Yes	Yes	Yes	Yes	
		6269 TT Equity	FLEXIUM INTERCONNECT INC	-33.38	-31.23	20.85	6.09	-9.74	-12.97	6.30	-3.54	Yes	Yes	Yes	Yes	Yes	Yes	
		4958 TT Equity	ZHEN DING TECHNOLOGY HOLDING	-38.02	-29.65	33.01	23.17	10.54	3.47	-7.23	-2.67	Yes	Yes	Yes	Yes	Yes	Yes	
		3044 TT Equity	TRIPOD TECHNOLOGY CORP	9.64	6.01	1.83	5.61	3.24	4.00	2.91	3.77	Yes	Yes	Yes	Yes	Yes	Yes	
		2376 TT Equity	GIGABYTE TECHNOLOGY CO LTD	-24.95	-21.41	-19.36	-12.26	-20.96	-3.40	26.60	37.18	Yes	Yes	Yes	Yes	Yes	Yes	
3188 TT Equity		KINBUS INTERCONNECT TECH	3.19	-4.97	-8.96	-1.61	-20.87	-12.24	-3.58	-8.20	Yes	Yes	Yes	Yes	Yes	Yes		
6510 TT Equity		Chunghwa Precision	1.72	-12.34	-28.02	-32.56	-33.16	-4.91	0.53	16.06	Yes	Yes	Yes	Yes	Yes	Yes		
6415 TT Equity		SILERGY CORP	-2.44	-5.99	-5.13	-4.87	8.59	9.00	7.73	12.26	Yes	Yes	Yes	Yes	Yes	Yes		
3037 TT Equity		UNIMICRON TECHNOLOGY CORP	-0.36	1.75	9.50	11.44	22.74	8.53	6.16	7.93	Yes	Yes	Yes	Yes	Yes	Yes		
6153 TT Equity		CAREER TECHNOLOGY CO LTD	15.01	13.29	30.29	60.69	37.46	40.36	49.61	25.83	Yes	Yes	Yes	Yes	Yes	Yes		
6141 TT Equity	PLOTECH CO LTD	-30.15	-23.75	-28.24	-8.15	-22.56	-30.48	-23.89	-30.39	Yes	Yes	Yes	Yes	Yes	Yes			
Average			-9.07	-10.29	-0.50	3.33	-2.95	0.16	5.89	7.77	Yes	Yes	Yes	Yes	Yes	Yes		
TFT-LCD	2409 TT Equity	AUO	-17.84	-17.84	-14.25	-3.99	-14.25	-3.99	-14.25	-3.99	Yes	Yes	Yes	Yes	Yes	Yes		
	3481 TT Equity	Involux	-18.76	-10.95	-8.87	5.87	-4.51	-13.93	-18.33	-13.67	Yes	Yes	Yes	Yes	Yes	Yes		
	6116 TT Equity	Hannstar	-49.92	-39.74	-12.60	-41.02	-25.69	-20.78	-12.49	-1.60	Yes	Yes	Yes	Yes	Yes	Yes		
	8069 TT Equity	E INK HOLDINGS INC	-11.14	-8.76	23.09	6.40	16.78	-16.73	26.34	-31.54	Yes	Yes	Yes	Yes	Yes	Yes		
	8105 TT Equity	GIANTPLUS TECHNOLOGY CO LTD	-25.37	-28.01	-12.65	-1.25	-7.23	-10.14	-8.03	-13.34	Yes	Yes	Yes	Yes	Yes	Yes		
	3049 TT Equity	HANNSTOUCH SOLUTION	-30.81	-11.37	142.76	89.98	69.36	17.36	20.17	90.87	Yes	Yes	Yes	Yes	Yes	Yes		
	Average			-25.64	-18.71	21.20	7.62	7.47	-7.70	-9.93	2.92	Yes	Yes	Yes	Yes	Yes	Yes	
	Packaging & Testing	6117 TT Equity	CHIPBOND TECHNOLOGY CORP	23.84	22.82	14.44	-14.25	-3.99	18.42	13.56	26.73	Yes	Yes	Yes	Yes	Yes	Yes	
		2341 TT Equity	ASE	-47.58	-44.97	-87.84	-45.51	-44.30	-43.13	-42.76	-45.14	Yes	Yes	Yes	Yes	Yes	Yes	
		2325 TT Equity	SILICONWARE PRECISION INDS	1.87	-0.49	-5.85	-7.89	-2.71	-1.56	-3.41	-0.49	Yes	Yes	Yes	Yes			

Figure 5: Relative share price performance

Ticker	Company	Share Price Performance				
		Price Lcy	1M %	3M %	6M %	YTD %
HK listed names						
2878 HK	Solomon Systech	0.16	-7.1	-30.2	-42.9	-22.3
1385 HK	Shanghai Fudan	8.00	7.8	-15.1	-29.2	14.3
85 HK	China Electronics Huada	0.71	4.4	0.0	-16.5	12.7
1679 HK	Risecomm Group	0.34	-28.4	-59.0	-74.8	-80.7
981 HK	SMIC	9.70	8.9	8.0	14.1	41.6
1347 HK	Hua Hong	15.40	10.3	-2.0	-19.7	6.2
522 HK	ASMPT	94.30	9.4	20.6	8.2	25.0
2018 HK	AAC	39.60	9.4	-9.2	-16.2	-12.9
2382 HK	Sunny Optical	115.20	38.8	56.5	25.2	65.5
1415 HK	Cowell	1.24	-1.6	-16.2	-13.9	33.3
1478 HK	Q-Tech	8.77	28.8	45.2	25.5	97.1
732 HK	Truly	1.01	5.2	-12.2	-30.3	6.3
710 HK	BOE	2.24	3.2	1.8	-26.3	-1.8
334 HK	China Display Optoelectronic	0.49	-1.0	-20.5	-48.9	-3.0
877 HK	O-Net	4.01	0.8	-7.4	-9.9	11.4
259 HK	Yeebo	1.15	-0.9	-7.3	-12.5	18.6
1979 HK	Ten Pao	0.85	16.4	3.7	-9.3	39.0
3336 HK	Ju Teng	1.82	2.2	-4.2	-11.7	-13.7
285 HK	BYDE	11.48	7.9	3.1	10.0	16.7
698 HK	Tongda	0.61	28.4	-28.7	-30.7	-21.8
6088 HK	FIT Hon Teng	3.54	14.6	13.1	-9.0	4.4
6869 HK	YOFC	14.30	15.7	-14.0	-46.9	-33.2
1665 HK	Pentamaster	1.39	3.7	51.1	39.0	56.2
1810 HK	Xiaomi	9.27	3.7	-4.9	-22.1	-28.3
763 HK	ZTE	22.60	12.4	3.4	-7.6	52.7
2342 HK	Comba	1.87	8.1	6.9	-7.4	45.0
1617 HK	Nanfang Communication	4.42	-1.3	1.4	-12.5	-20.2
992 HK	Lenovo	5.31	-11.4	-11.2	-23.3	0.4
Average			6.7	-0.1	-14.3	11.0
A share listed names						
300433 CH	Lens Technology	9.98	37.3	42.0	7.7	53.3
300136 CH	Shenzhen Sunway	34.36	22.3	42.0	13.7	59.0
300408 CH	Chaozhou Three-Circle	21.07	10.9	15.1	0.2	24.5
300115 CH	Shenzhen Everwin	14.69	43.2	40.7	4.8	79.4
002456 CH	O-Film Tech	10.73	33.0	31.0	-27.6	16.8
002241 CH	Goertek	14.37	36.1	36.9	30.5	108.9
002273 CH	Zhejiang Crystal-Optech	13.06	25.5	49.2	11.0	77.6
300083 CH	Guangdong Janus Intellig	3.19	19.5	5.3	-21.6	35.2
002475 CH	Luxshare Precision	24.37	16.1	38.4	48.7	125.3
000725 CH	Boe Technology	4.05	8.9	16.0	-2.2	54.0
300207 CH	Sunwoda Electronic	13.61	18.0	14.9	6.4	58.4
603160 CH	Shenzhen Goodix	195.00	23.8	68.1	92.5	147.8
002008 CH	Han'S Laser	33.33	24.0	-5.7	-25.1	9.8
002185 CH	Tianshui Huatian	6.13	14.2	25.3	7.8	68.9
603690 CH	Pine Process Systems	24.21	29.1	34.1	-3.9	59.5
300162 CH	Ledman Optoelectronic	7.79	3.2	23.8	21.0	60.6
600584 CH	Jiangsu Changjiang	19.04	37.0	34.2	22.0	131.1
002808 CH	Suzhou Goldengreen	10.30	27.2	4.9	-13.7	12.7
300604 CH	Hangzhou Chang Chuan	24.92	39.8	47.0	18.0	54.7
300493 CH	Shanghai Fortune Techgro	8.03	26.9	-3.1	-3.8	32.1
603986 CH	Gigadevice Semiconductor	150.72	74.8	92.5	39.4	141.8
300346 CH	Jiangsu Nata Opto-Electro	13.90	54.1	52.9	39.2	135.3
002371 CH	Naura Technology	68.58	20.1	20.1	-4.1	81.6
300672 CH	Goke Microelectronics	46.27	68.3	49.5	35.4	103.1
002049 CH	Unigroup Guoxin	57.38	28.5	26.7	32.1	98.5
300458 CH	All Winner Technology	27.58	34.5	27.7	4.8	37.9
300233 CH	Shandong Jincheng	21.95	17.6	20.0	32.3	60.8
300623 CH	Jiangsu Jiejie	22.87	26.0	6.4	-8.0	46.1
300613 CH	Shanghai Fullhan	130.30	38.6	43.2	5.1	44.8
Average			29.6	31.7	12.5	69.6
Taiwan listed names						
2330 TT	TSMC	263.00	3.7	7.6	14.1	16.6
2303 TT	UMC	13.70	3.0	2.2	19.7	21.8
3034 TT	Novatek Microelectronics	188.00	13.9	17.1	5.3	32.4
5347 TT	Vanguard International	65.00	5.7	8.3	-0.8	9.2
2311 TT	ASE	71.00	3.0	17.4	14.1	21.8
2379 TT	Realtek	215.00	3.3	0.5	29.3	51.0
6462 TT	EGIS	282.00	22.6	15.3	30.0	40.3
3105 TT	Win Semi	265.00	-3.3	41.7	64.6	124.6
3152 TT	Advanced Ceramic	275.50	27.0	31.8	12.4	12.4
5264 TT	Casatek	52.10	2.8	22.4	2.8	32.4
2474 TT	Catcher	233.50	13.1	14.7	7.1	3.8
3008 TT	Largan	3900.00	2.0	9.1	-13.1	21.3
3673 TT	TPK	57.00	6.7	14.9	3.6	18.0
2360 TT	Chroma	151.50	1.7	10.6	15.6	28.4
2317 TT	Hon Hai Precision	74.50	1.9	2.9	5.8	5.2
2354 TT	Mediatek	374.50	18.3	41.7	44.0	64.7
2342 TT	Mosel Vitelic	20.80	5.9	14.9	-10.0	4.8
3406 TT	Genius Electronic	432.00	-2.7	22.4	35.4	133.5
2439 TT	Merry Electronics	148.50	-0.7	-8.9	-14.7	20.7
2327 TT	Yageo	230.00	-10.2	-8.2	-32.0	-27.7
3707 TT	Episil	28.05	23.8	75.2	30.8	39.6
Average			6.7	15.9	12.4	32.1
Korean listed names						
066570 KS	LGE	64500.00	7.0	-21.9	-14.3	3.5
011070 KS	LG Innotek	101000.00	2.9	2.5	-7.3	16.9
009150 KS	Samsung Electro-Mechanic	97400.00	13.0	0.9	-2.6	-5.9
005930 KS	Samsung Electronics	47150.00	9.3	5.1	8.0	21.8
000660 KS	Sk Hynix Inc	82600.00	12.7	22.9	24.0	36.5
091700 KS	Partron Co Ltd	11850.00	-11.6	-34.0	9.7	44.9
Average			5.5	-4.1	2.9	19.6
US & Europe listed names						
LITE US	Lumentum	57.14	-4.3	22.5	15.3	36.0
OLED US	Universal Display	190.14	-10.6	10.4	25.1	103.2
FNSR US	Finisar	22.75	0.4	3.6	-4.7	5.3
STM FP	Stmicroelectronics	18.00	14.6	21.7	27.2	44.2
SOI FP	S.O.I.T.E.C.	96.20	10.3	11.1	39.7	90.1
VI AV US	Viavi Solutions	14.11	-0.6	7.5	13.3	40.4
AMS SW	AMS	45.40	-7.5	27.3	60.5	92.7
ASML NA	ASML	219.95	14.8	24.0	36.5	60.4
ASM NA	ASM	80.00	1.1	44.0	79.6	121.0
KLAC US	Kla-Tencor	148.75	9.3	30.2	27.2	66.2
INTC US	Intel Corp	51.82	12.7	10.6	-2.9	10.4
NXPI US	NXP	107.86	8.0	13.0	14.4	47.2
COHR US	Coherent	164.86	20.2	35.4	19.4	56.0
TXN US	Texas Instruments Inc	127.04	5.3	12.5	19.3	34.4
MU US	Micron Technology Inc	49.39	19.0	41.8	26.5	55.7
Average			6.8	21.0	25.8	57.5
HSI Index	Hang Seng Index	27159.06	4.7	-2.3	-4.7	5.1
HSCEI Index	Hang Seng China Ent Indx	10565.01	5.7	-0.5	-6.3	4.3
SHCOMP Index	Shanghai Se Composite	3008.81	8.4	2.8	-0.6	20.6
MXCN Index	Msci China	77.60	6.0	0.6	-5.7	9.0
SOX Index	Phila Semiconductor Indx	1583.15	8.1	11.6	17.3	37.0

SOURCES: CGIS RESEARCH, COMPANY DATA, BLOOMBERG

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