

Company Report: AAC Tech (02018 HK)

公司报告: 瑞声科技 (02018 HK)

Ricky Lai 黎柏坚
(852) 2509 2603
ricky.lai@gjjas.com.hk
21 May 2018

Affected by Slower iPhone Shipments, "Buy"

受较慢的iPhone出货量影响, "买入"

- **AAC Tech's 1Q18 results came in weaker than expected with 6.0% yoy growth in net profit due to lower-than-expected gross margin.** Gross margin lowered by 3.6 ppt yoy to 38.0% in 1Q18 due to RMB appreciation and a change in product mix. Albeit, gross margin declined 3.6 ppt yoy, net profit margin only decreased by 0.9 ppt to 24.3%, thanks to the contribution from fair value change in investment gains.
- **We cut FY18-FY20 revenue by 5.1%/ 6.5%/ 6.9%, respectively, to reflect the impact from weaker iPhone shipment growth.** AAC Tech's 1Q18 revenue grew 10% yoy, driven by acoustic components contributions, offset by decline in haptics revenue. 1Q18 acoustic revenue grew 27% yoy thanks to super linear structure SLS platform and specification upgrade cycle contributions.
- **We lower FY18-FY20 gross margin by 2.7 ppt/ 2.3 ppt/ 1.9 ppt to 39.0%/ 39.7%/ 40.3%, respectively, due to market competition, lower contributions from iPhone shipments and different product mix.** Gross margin is expected to be affected by weaker iPhone shipments, fierce market competition and a change in product mix.
- **We maintain the Company's investment rating of "Buy" but cut the TP from HK\$200.00 to HK\$155.00.** We lower FY18-FY20 EPS by 6.4%/ 7.3%/ 7.8%, respectively. The new TP represents 22.5x FY18 PER, 17.6x FY19 PER and 14.2x FY20 PER.
- 由于毛利率低于预期, 瑞声科技 2018 年第 1 季度业绩低于预期, 净利润同比增长 6.0%。由于人民币升值和产品结构变化, 第 1 季度毛利率同比下降 3.6 个百分点至 38.0%。尽管毛利率同比下降 3.6 个百分点, 但净利润率仅下降了 0.9 个百分点至 24.3%, 因受益于投资收益公允变化的贡献。
- 我们分别下调 2018-2020 财年收入 5.1%/ 6.5%/ 6.9%, 以反映 iPhone 出货增长放缓的影响。瑞声科技第 1 季度营收同比增长 10%, 因触控产品收入的下降抵消了声学组件收入上升的贡献。凭借超线性结构 SLS 平台和升级周期贡献, 第 1 季度声学收入同比增长 27%。
- 我们分别下调 2018-2020 年毛利率 2.7 个百分点/ 2.3 个百分点/ 1.9 个百分点至 39.0%/ 39.7%/ 40.3%, 因市场竞争激烈、iPhone 出货增长放缓和不同产品组合贡献。预计毛利率将受到 iPhone 出货量疲软, 市场竞争激烈以及产品结构变化的影响。
- 我们维持公司的投资评级为"买入"及目标价从 200.00 港元下调至 155.00 港元。我们分别下调 2018-2020 财年每股净利 6.4%/ 7.3%/ 7.8%。新目标价相当于 22.5 倍 2018 财年市盈率、17.6 倍 2019 财年市盈率及 14.2 倍 2020 财年市盈率。

Rating:

Buy

Maintained

评级:

买入 (维持)

6-18m TP 目标价:

HK\$155.00

Revised from 原目标价:

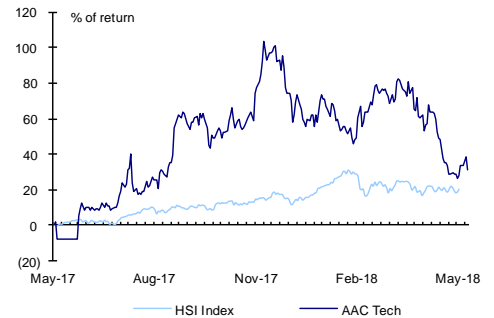
HK\$200.00

Share price 股价:

HK\$113.400

Stock performance

股价表现



Change in Share Price	1 M	3 M	1 Y
股价变动	1 个月	3 个月	1 年
Abs. % 绝对变动 %	(20.2)	(26.7)	25.2
Rel. % to HS Index 相对恒指变动 %	(22.7)	(26.6)	2.5
Avg. Share price(HK\$) 平均股价 (港元)	121.6	139.9	130.6

Source: Bloomberg, Guotai Junan International.

Year End	Turnover	Net Profit	EPS	EPS	PER	BPS	PBR	DPS	Yield	ROE
年结	收入	股东净利	每股净利	每股净利变动	市盈率	每股净资产	市净率	每股股息	股息率	净资产收益率
12/31	(RMB m)	(RMB m)	(RMB)	(Δ %)	(x)	(RMB)	(x)	(RMB)	(%)	(%)
2016A	15,507	4,026	3.278	29.6	31.0	11.576	8.8	1.070	1.1	31.6
2017A	21,119	5,325	4.347	32.6	21.1	14.328	6.4	1.358	1.5	33.6
2018F	27,092	7,161	5.860	34.8	15.7	18.314	5.0	1.758	1.9	35.9
2019F	34,117	9,160	7.496	27.9	12.3	23.410	3.9	2.249	2.4	35.9
2020F	41,911	11,301	9.248	23.4	9.9	29.744	3.1	2.774	3.0	34.8
Shares in issue (m) 总股数 (m)				1,222.0	Major shareholder 大股东			Ms. Ingrid Chunyuan Wu	40.3%	
Market cap. (HK\$ m) 市值 (HK\$ m)				138,574.8	Free float (%) 自由流通比率 (%)					59.7
3 month average vol. 3 个月平均成交股数 ('000)				6,836.0	FY18 Net gearing (%) FY18 净负债/股东资金 (%)					3.7
52 Weeks high/low (HK\$) 52 周高/低 (HK\$)				137.000 / 81.250	FY18 Est. NAV (HK\$) FY18 每股估值 (港元)					170.0

Source: the Company, Guotai Junan International.

1Q18 Results Review

AAC Tech's 1Q18 results were below expectations due to gross margin decline. Gross margin lowered by 3.6 ppt yoy to 38.0% in 1Q18 due to RMB appreciation and a change in product mix. Albeit, gross margin declined 3.6 ppt yoy, net profit margin only decreased by 0.9 ppt to 24.3%, thanks to the contribution from fair value change in investment gains. The slowing down of iPhone shipments affected AAC Tech's gross margin with a change in product mix with less contribution from high-end components. Android smartphone contribution is ramping up, which helped to partially offset the slowing down of iPhone shipment growth. 1Q18 acoustics revenue improved by 27% yoy in 1Q18 thanks to the launch of SLS platform and specifications upgrade cycle. Optics lens shipments met expectation and is expected to have stronger shipments in 2H18 on the back of capacity improvement completion. However, we expect AAC Tech's gross margin may be affected by market competition, product mix and the slowing down of iPhone shipments. We will lower the Company's gross margin and earnings estimations. The management of AAC Tech had changed revenue guidance for FY18 from over 25% growth to double-digit growth, which signaled weaker business prospects, especially from slower iPhone contributions. Product shipments to Android smartphones are expected to ramp up in 2H18 thanks to robust shipments of Chinese smartphone makers such as Huawei, OPPO, Vivo and Xiaomi.

Table-1: AAC Tech's Income Statement Analysis

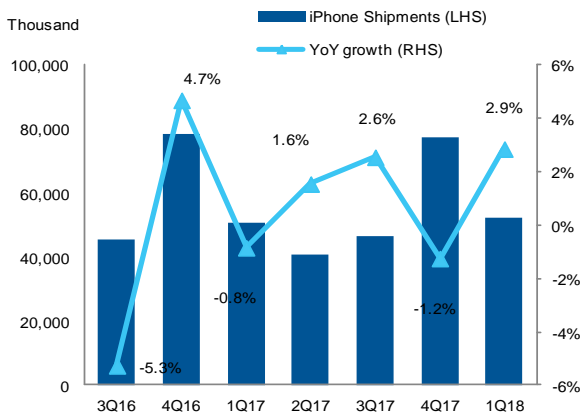
RMB (Million)	1Q18	1Q17	YoY	Comments
Total net revenue	4,638	4,215	10.0%	Driven by components upgrade cycle
Cost of goods sold	(2,875)	(2,461)	16.8%	
Gross profit	1,764	1,754	0.6%	
Other income	37	33	12.1%	
Fair value gain on available-for-sale investment	75	0	n.a.	
Distribution & selling expenses	(73)	(61)	19.7%	
Administrative expenses	(140)	(126)	11.1%	
R&D expenses	(362)	(337)	7.4%	
Others	0	(2)	n.a.	
Exchange loss	(15)	(4)	275.0%	
Finance costs	(51)	(32)	59.4%	
Profit before tax	1,236	1,226	0.8%	
Tax	(110)	(164)	(32.9%)	
Net income	1,126	1,062	6.0%	
EPS (RMB)	0.92	0.86	7.0 %	
Gross profit margin	38.0%	41.6%	(3.6 ppt)	Due to RMB appreciation and a change in product mix Gross margin decline offset by fair value gain on available for sale investment
Net profit margin	24.3%	25.2%	(0.9 ppt)	

Source: the Company.

We cut FY18-FY20 revenue by 5.1%/ 6.5%/ 6.9%, respectively, to reflect impact from weaker iPhone shipment growth amid Android smartphone contributions. AAC Tech's 1Q18 revenue grew 10% yoy, driven by acoustic components contributions offset by decline in haptics revenue. 1Q18 acoustic revenue grew 27% yoy thanks to super linear structure SLS platform and specification upgrade cycle contributions. There was a trend of upgrading smartphones with waterproof, stereo sound acoustic components. The SLS design is expected to further be improved in FY18 with the applications in various area smart speakers, AR/VR and automotive industry markets. AAC Tech may face headwinds from competition from other peers, including Goertek, Merry and Luxshare. Haptics and RF mechanical components revenue declined by 11% yoy in 1Q18, mainly due to slower demand for iPhones. There is a growing number of smartphone gaming apps providing vibration features, which may raise demand of haptics components in the market. The development and shipments of optics products were in line in 1Q18 with 5 million monthly shipments of wafer level glass WLG lenses and 20 million monthly shipments of plastic lenses. The sales of optics lenses accounted for single digits of total revenue in 1Q18. WLG manufacturing capacity is improving, which is expected to push shipments in 2H18. AAC Tech is also preparing hybrid lens design solutions for markets other than the smartphone market in a bid to grow product shipments. AAC Tech is ramping up shipments for 5P and 6P lens solutions. Plastic lens shipments in Jun. 2018 is expected to reach 25 million, compared to 15 million in May 2018.

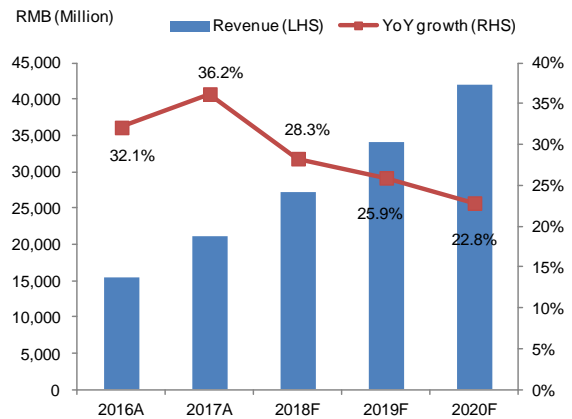
Haptics & RF mechanical components to be driven from Android smartphone makers. Haptics & RF mechanical revenue grew 51.2% yoy, which accounted for 50% of total revenue in FY17 (up 5 ppt yoy). There was a growing demand for upgrading touch screen sensors with minimal bezels, which helped to drive haptics product ASP. The adoption of AAC Tech's RF components showed significant improvement from Android customers thanks to product quality and unique technology features. AAC Tech is also developing new materials and antenna designs for 5G smartphones, which is expected to drive shipments in FY18. We expect higher adoption of touch sensing functions by Android, which can help AAC Tech to compensate for the slowing down of iPhone shipment growth. We expect FY18-FY20 haptics & RF mechanical revenue to grow yoy by 40.0%/ 35.4%/ 29.7%, respectively.

Figure-1: iPhone Shipments and YoY Growth



Source: the Company, Guotai Junan International.

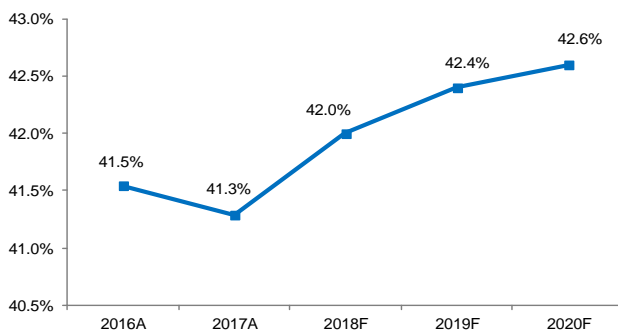
Figure-2: AAC Tech's Revenue and YoY Growth



Source: the Company, Guotai Junan International.

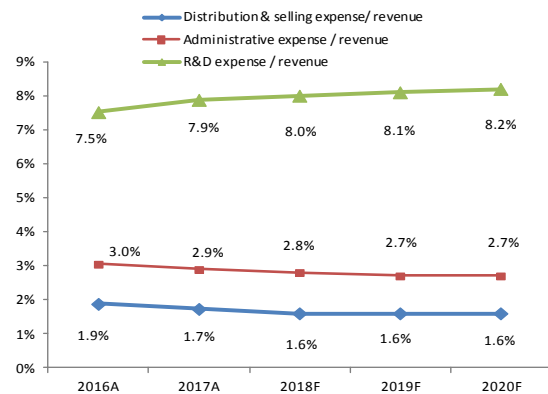
We lower FY18-FY20 gross margin by 2.7 ppt/ 2.3 ppt/ 1.9 ppt to 39.0%/ 39.7%/ 40.3%, respectively, due to market competition, lower contributions from iPhone and different product mix. Gross margin declined 3.6 ppt yoy to 38.0% in 1Q18 due to RMB appreciation and a change in product mix. The RMB appreciated 7.5% yoy in 1Q18. Due to lower contributions from iPhone, AAC Tech's gross margin was impacted with lower contribution from high-end components. Market competition is also fierce in the smartphone components sector due to the launch of similar electronic components from other peers. We forecast fierce market competition; higher revenue contributions from Android smartphones compared to iPhone smartphones would further affect AAC Tech's gross margin in 2018. Although 1Q18 gross margin lowered by 3.6 ppt yoy, net profit margin only decreased by 0.9 ppt to 24.3%, thanks to the contribution from fair value change in investment gains. We project FY18-FY20 net profit to be 23.7%/ 24.3%/ 24.6%, respectively. We expect AAC Tech's net profit to grow 8.4%/ 20.2%/ 16.4%, respectively.

Figure-3: AAC Tech's Gross Margin



Source: the Company, Guotai Junan International.

Figure-4: AAC Tech's Operating Expenses Analysis



Source: the Company, Guotai Junan International.

Profit Revisions

We cut FY18-FY20 EPS by 6.4%/ 7.3%/ 7.8%, respectively, due to revenue and gross margin forecast adjustments. We lower FY18-FY20 revenue forecasts by 5.1%/ 6.5%/ 6.9%, respectively, due to weaker iPhone shipments and market competition. We trim FY18-FY20 gross margin by 2.7 ppt/ 2.3 ppt/ 1.9 ppt due to different product mix.

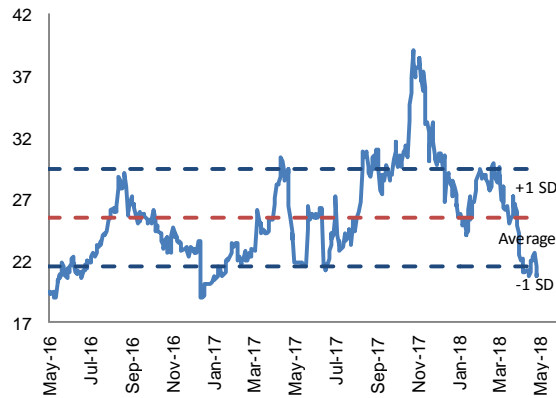
Table-2: Financial Estimation Revisions

RMB (Million)	OLD			NEW			CHANGE		
	2018F	2019F	2020F	2018F	2019F	2020F	2018F	2019F	2020F
Total revenue	25,689	30,605	35,217	24,379	28,616	32,787	(5.1%)	(6.5%)	(6.9%)
Net profit	6,167	7,488	8,764	5,772	6,941	8,080	(6.4%)	(7.3%)	(7.8%)
EPS (RMB)	5.046	6.127	7.171	4.723	5.680	6.612	(6.4%)	(7.3%)	(7.8%)

Source: the Company, Guotai Junan International.

Valuation

Maintain the investment rating of "Buy", but cut the TP from HK\$200.00 to HK\$155.00. AAC Tech is expected to benefit from growing demand from Android smartphones, which is expected to be partially offset by slower iPhone shipments. Chinese smartphone shipments are expected to remain robust, which should increase contributions to AAC Tech. The new TP represents 22.5x FY18 PER, 17.6x FY19 PER and 14.2x FY20 PER.

Figure-5: AAC Tech's PE Graph


Source: Bloomberg.

Table-3: Peers Comparison

Company	Ticker	Currency	Price	PER			PB			ROE (%)	D/Y (%)	ROA (%)
				18F	19F	20F	18F	19F	20F	18F	18F	18F
HK Listed												
AAC Tech	2018 HK	HKD	113.400	17.4	14.1	12.1	5.1	4.1	3.4	32.0	2.2	19.6
Sunny Optical Tech	2382 HK	HKD	147.800	32.2	23.5	18.2	12.2	8.7	6.6	44.6	0.8	22.8
Truly Electronics Ltd	732 HK	HKD	1.820	7.1	4.9	4.1	0.7	0.6	0.6	10.2	3.9	3.4
Simple Average				18.9	14.2	11.5	6.0	4.5	3.5	28.9	2.3	15.3
Weighted Average				25.0	18.9	15.2	8.7	6.4	5.0	38.2	1.5	21.0
PRC Listed												
Jinlong Machinery & Elect-A	300032 CH	CNY	9.120	53.6	50.7	n.a.	1.5	1.5	n.a.	2.9	0.9	1.5
GoerTek Inc.	002241 CH	CNY	11.540	14.8	12.5	11.9	2.2	1.9	1.7	16.3	0.9	9.8
Simple Average				34.2	31.6	11.9	1.9	1.7	1.7	9.6	0.9	5.6
Weighted Average				21.2	18.7	11.9	2.1	1.9	1.7	14.1	0.9	8.4
Japan Listed												
Toshiba Corp	6502 JP	JPY	306.000	1.9	3.9	12.6	2.5	1.0	1.0	n.a.	0.0	18.4
Nec Corp	6701 JP	JPY	3040.000	17.2	21.2	13.7	0.9	0.9	0.8	5.3	2.0	1.7
Fujitsu Ltd	6702 JP	JPY	685.100	8.3	12.0	10.3	1.3	1.3	1.2	17.2	1.7	5.4
Simple Average				9.1	12.4	12.2	1.6	1.1	1.0	11.2	1.2	8.5
Weighted Average				7.0	9.9	12.0	1.8	1.1	1.0	12.9	0.9	10.8
Taiwan Listed												
Htc Corp	2498 TT	TWD	58.300	2.6	n.a.	n.a.	0.9	1.1	1.1	37.4	0.0	22.5
Acer Inc	2353 TT	TWD	24.100	18.4	18.1	18.3	1.2	1.2	1.2	6.6	2.9	2.6
Asustek Computer Inc	2357 TT	TWD	278.000	13.0	12.0	11.7	1.1	1.1	1.1	8.8	5.4	4.6
Primax Electronics Ltd	4915 TT	TWD	55.300	10.8	8.7	7.7	1.9	1.6	1.4	17.4	5.6	5.8
Merry Electronics Co Ltd	2439 TT	TWD	141.000	14.4	10.5	9.6	2.6	2.4	2.1	16.4	7.1	7.8
Largan Precision Co Ltd	3008 TT	TWD	4010.000	21.2	16.9	15.0	4.9	4.2	3.5	25.6	1.9	21.0
Lite-On Technology Corp	2301 TT	TWD	38.150	10.8	9.9	9.6	1.1	1.2	1.1	11.5	7.1	4.7
Simple Average				13.1	12.7	12.0	2.0	1.8	1.6	17.7	4.3	9.9
Weighted Average				17.1	14.9	13.7	3.2	2.8	2.4	19.6	3.3	14.2
US Listed												
Motorola Solutions Inc	MSI US	USD		15.1	14.2	9.5	2.3	1.8	1.6	13.5	1.7	7.9
Cisco Systems Inc	CSCO US	USD	113.400	17.6	15.6	13.2	4.0	3.0	2.5	21.2	1.7	13.6
Juniper Networks Inc	JNPR US	USD	147.800	17.4	14.1	12.1	5.1	4.1	3.4	32.0	2.2	19.6
Knowles Corp	KN US	USD	1.820	32.2	23.5	18.2	12.2	8.7	6.6	44.6	0.8	22.8
Simple Average				7.1	4.9	4.1	0.7	0.6	0.6	10.2	3.9	3.4
Weighted Average				18.9	14.2	11.5	6.0	4.5	3.5	28.9	2.3	15.3
Overall Average				25.0	18.9	15.2	8.7	6.4	5.0	38.2	1.5	21.0
Overall Weighted Average			9.120	53.6	50.7	n.a.	1.5	1.5	n.a.	2.9	0.9	1.5

Source: Bloomberg.

Financial Statements and Ratios

Income Statement						Balance Sheet					
Year end 31 Dec (RMB m)	2016A	2017A	2018F	2019F	2020F	Year end 31 Dec (RMB m)	2016A	2017A	2018F	2019F	2020F
Dynamic components revenue	7,956	9,580	10,777	11,801	12,721	PP&E	9,494	13,526	16,877	20,377	24,052
Haptics & RF revenue	6,940	10,496	14,694	19,895	25,804	Available for sale investments	386	752	677	609	548
MEMS components revenue	535	848	1,210	1,619	2,016	Intangible assets	167	256	266	277	288
Others revenue	75	196	411	802	1,369	Others	1,381	1,581	1,600	1,624	1,650
Total Revenue	15,507	21,119	27,092	34,117	41,911	Total Non-current Assets	11,428	16,115	19,420	22,887	26,538
Cost of sales	(9,064)	(12,399)	(15,713)	(19,652)	(24,057)	Inventory	2,623	3,398	3,703	4,037	4,400
Gross profit	6,443	8,720	11,378	14,466	17,854	Trade and other receivables	6,156	7,155	7,298	7,444	7,593
Other income & gains	149	171	180	185	191	Cash & Cash Equivalents	3,864	4,034	4,032	5,606	8,761
Distribution & selling expenses	(291)	(365)	(433)	(546)	(671)	Other current assets	186	20	21	22	23
Administrative expenses	(472)	(610)	(759)	(921)	(1,132)	Total Current Assets	12,829	14,607	15,054	17,109	20,777
R&D costs	(1,166)	(1,664)	(2,167)	(2,763)	(3,437)	Total Assets	24,257	30,722	34,474	39,995	47,315
Others	37	(91)	(7)	(6)	(2)	Trade and note payables	5,346	6,369	6,688	7,022	7,373
Finance costs	(67)	(165)	(128)	(99)	(77)	Short term loans	3,303	4,349	3,479	2,784	2,227
Profit Before Tax	4,633	5,996	8,064	10,315	12,727	Others	476	379	422	468	520
Income Tax	(609)	(671)	(903)	(1,155)	(1,424)	Total Current Liabilities	9,125	11,097	10,589	10,274	10,120
profit After Tax	4,024	5,325	7,162	9,161	11,303	Long term loans	789	1,941	1,358	951	666
Non-controlling Interest	1	(1)	(1)	(1)	(1)	Government grants	80	87	99	113	129
Shareholders' Profit / Loss	4,026	5,325	7,161	9,160	11,301	Others	48	46	48	51	53
Basic EPS	3.278	4.347	5.860	7.496	9.248	Total Non-current Liabilities	917	2,074	1,506	1,115	848
						Total Liabilities	10,042	13,171	12,095	11,388	10,967
						Share capital	100	99	100	101	102
						Reserves	14,089	17,452	22,280	28,506	36,246
						Total Shareholders' Equity	14,189	17,551	22,379	28,607	36,347
						Minority Interest	26	0	0	0	0
						Total Equity	14,215	17,551	22,379	28,607	36,347
Cash Flow Statement						Financial Ratios					
Year end 31 Dec (RMB m)	2016A	2017A	2018F	2019F	2020F		2016A	2017A	2018F	2019F	2020F
Profit before tax	4,633	5,996	8,064	10,315	12,727	Gross margin	41.5	41.3	42.0	42.4	42.6
Interest income	(34)	(37)	(40)	(43)	(46)	Net margin	26.0	25.2	26.4	26.8	27.0
Interest expenses	67	165	128	99	77	ROA	19.8	19.4	22.0	24.6	25.9
D&A	962	782	1,999	2,099	2,204	ROE	31.6	33.6	35.9	35.9	34.8
Others	(79)	(101)	(103)	(101)	(98)	Receivable days	121.8	115.0	97.4	78.9	65.5
Change in working capital	(284)	(848)	(135)	(149)	(165)	Inventory days	87.4	88.6	82.5	71.9	64.0
Tax paid	(453)	(671)	(903)	(1,155)	(1,424)	Payable days	97.3	101.2	88.0	73.3	62.7
Cash from Operating Activities	4,812	5,287	9,011	11,066	13,274	Cash conversion cycle	112.0	102.4	91.9	77.4	66.8
CAPEX	(3,008)	(5,068)	(5,322)	(5,588)	(5,867)	Current ratio (x)	1.4	1.3	1.4	1.7	2.1
Others	(1,110)	60	(32)	(23)	(14)	Quick ratio (x)	1.1	1.0	1.1	1.3	1.6
Cash from Investing Activities	(4,117)	(5,009)	(5,353)	(5,611)	(5,881)	Debt to equity ratio (x)	0.3	0.4	0.2	0.1	0.1
Bank loan change	5,170	2,197	(1,452)	(1,103)	(842)	Net gearing (%)	1.2	13.1	3.7	Net cash	Net cash
Dividend paid	(1,314)	(1,664)	(2,148)	(2,748)	(3,390)						
Others	(3,059)	(548)	(128)	(99)	(77)						
Cash from Financing Activities	797	(14)	(3,728)	(3,950)	(4,309)						
Net Changes in Cash	1,491	264	(70)	1,504	3,083						
Cash at Beg of Year	2,224	3,864	4,034	4,032	5,606						
FX change	149	(95)	68	70	72						
Cash at End of Year	3,864	4,034	4,032	5,606	8,761						

Source: the Company, Guotai Junan International.

Company Rating Definition

The Benchmark: Hong Kong Hang Seng Index

Time Horizon: 6 to 18 months

Rating		Definition
Buy	买入	Relative Performance > 15%; or the fundamental outlook of the company or sector is favorable.
Accumulate	收集	Relative Performance is 5% to 15%; or the fundamental outlook of the company or sector is favorable.
Neutral	中性	Relative Performance is -5% to 5%; or the fundamental outlook of the company or sector is neutral.
Reduce	减持	Relative Performance is -5% to -15%; or the fundamental outlook of the company or sector is unfavorable.
Sell	卖出	Relative Performance < -15%; or the fundamental outlook of the company or sector is unfavorable.

Sector Rating Definition

The Benchmark: Hong Kong Hang Seng Index

Time Horizon: 6 to 18 months

Rating		Definition
Outperform	跑赢大市	Relative Performance > 5%; or the fundamental outlook of the sector is favorable.
Neutral	中性	Relative Performance is -5% to 5%; or the fundamental outlook of the sector is neutral.
Underperform	跑输大市	Relative Performance < -5%; Or the fundamental outlook of the sector is unfavorable.

DISCLOSURE OF INTERESTS

- (1) The Analysts and their associates do not serve as an officer of the issuer mentioned in this Research Report.
- (2) The Analysts and their associates do not have any financial interests in relation to the issuer mentioned in this Research Report.
- (3) Except for GREENLAND BROAD (01253 HK), KAISA GROUP (01638 HK), GUOTAI JUNAN I (01788 HK), BINHAI INVESTMENT (02886 HK), GFI MSCI A I (03156 HK), CAM SCSMALLCAP (03157 HK), ZHENRO PPT (06158 HK), LINK HOLDINGS (08237 HK), GFI MSCI A I-R (CNY) (83156 HK), Guotai Junan and its group companies do not hold equal to or more than 1% of the market capitalization of the issuer mentioned in this Research Report.
- (4) Guotai Junan and its group companies have not had investment banking relationships with the issuer mentioned in this Research Report within the preceding 12 months.
- (5) Guotai Junan and its group companies are not making a market in the securities in respect of the issuer mentioned in this Research Report.
- (6) Guotai Junan and its group companies have not employed an individual serving as an officer of the issuer mentioned in this Research Report. There is no officer of the issuer mentioned in this Research Report associated with Guotai Junan and its group companies.

DISCLAIMER

This Research Report does not constitute an invitation or offer to acquire, purchase or subscribe for securities by Guotai Junan Securities (Hong Kong) Limited ("Guotai Junan"). Guotai Junan and its group companies may do business that relates to companies covered in research reports, including investment banking, investment services, etc. (for example, the placing agent, lead manager, sponsor, underwriter or invest proprietarily).

Any opinions expressed in this report may differ or be contrary to opinions or investment strategies expressed orally or in written form by sales persons, dealers and other professional executives of Guotai Junan group of companies. Any opinions expressed in this report may differ or be contrary to opinions or investment decisions made by the asset management and investment banking groups of Guotai Junan.

Though best effort has been made to ensure the accuracy of the information and data contained in this Research Report, Guotai Junan does not guarantee the accuracy and completeness of the information and data herein. This Research Report may contain some forward-looking estimates and forecasts derived from the assumptions of the future political and economic conditions with inherently unpredictable and mutable situation, so uncertainty may contain. Investors should understand and comprehend the investment objectives and its related risks, and where necessary consult their own financial advisers prior to any investment decision.

This Research Report is not directed at, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any jurisdiction where such distribution, publication, availability or use would be contrary to applicable law or regulation or which would subject Guotai Junan and its group companies to any registration or licensing requirement within such jurisdiction.

© 2018 Guotai Junan Securities (Hong Kong) Limited. All Rights Reserved.
 27/F., Low Block, Grand Millennium Plaza, 181 Queen's Road Central, Hong Kong.
 Tel.: (852) 2509-9118 Fax: (852) 2509-7793
 Website: www.gtja.com.hk