# **Company update**

# Q Technology (1478 HK)

# 1H18 unfavorable product mix and margin pressure

Q-tech's 1H18 revenue of Rmb3,206.7mn (down 11% YoY) and net loss of Rmb51.3mn is roughly in line with market expectation given previous profit warning, but the 1.2% GPM is the major disappointment. GPM was dragged by various factors including unfavourable product mix change, higher depreciation cost and one key project loss, etc., and will slightly recover in 2H18 as 3D sensing CCM and underglass FPM will contribute higher ASP and margin. 2019 growth will be driven by increasing demand for 3D-sensing CCM and underglass FPM (for full screen). We revised down our 2018E/2019E net profit forecast to reflect lower ASP and worse-than-expected margin erosion. We revised down our DCF-based target price from HK\$6.5 to HK\$5.0, 16.4x 2019E PER. Maintain HOLD on 7% downside

- CCM & FPM ASP drop. Q-tech's 1H18 CCM ASP dropped to Rmb25.1 (Rmb30.9 in 1H17 and Rmb37.3 in 2H17), mainly due to 1) unfavorable change in product mix as the company accepted many low-end CCM projects (<5MP) for Huawei in 1H18, with the shipment volume percentage of <5MP CCM increased from 27.7% in 1H17 to 46.5% in 1H18, 2) mid-to-low-end DCM are shipped as two single cameras and 3) fiercer industry competition in 1H18. On the other hand, ASP of FPM also dropped significantly by 54% YoY to Rmb17.1, mainly due to increasing competition.
- Worse-than-expected GPM due to mainly internal factors. 1H18 CCM GP margin dropped to only 3.3% from 13.3% in 1H17, while FPM GP margin dropped to -7.9% from 8.8% in 1H17. Various factors affected the GP margin and ranked by their extent of impact are: 1) slower-than-expected product mix improvement, lower ASP with increasing raw material price, 2) higher fixed asset and thus higher depreciation cost, 3) higher labor cost and 4) Rmb depreciation in May and June. Loss from one of the key FPM project with Huawei also resulted in the negative GP margin of FPM business.
- ASP and GPM to slightly recover in 2H18. The management believes that ASP and margin will start to rebound in 2H18 as 1) the company already started to supply high-end CCM for Huawei, 2) the industry competition and price war in 1H18 has eased now, and 3) high-end projects like 3D-sensing structure light camera modules (>1mn units) and underglass FPM (>7mn units) will contribute higher ASP and margin in 2H18. Product mix will improve as Q-tech start to supply high-end CCM models for Huawei, 3D sensing models for OPPO and underglass FPM for Vivo.
- Maintain HOLD. We revised down our 2018E/2019E GPM forecast by 4.9ppts/6.4ppts and revised down 2018E/2019E net profit by 81.3%/64.8%. 2019E FPM revenue is revised up by 9% to reflect the strong demand for underglass FPM expected next year. Growth driver for next year include strong demand to adopt underglass fingerprint recognition and 3D sensing camera. We revised down our DCF-based target price from HK\$6.5 to HK\$5.0, 16.4x 2019E PER. Maintain HOLD on 7% downside.

## **Investment Summary**

FY-end Dec	2016	2017	2018E	2019E	2020E
Turnover (Rmb mn)	4,991	7,939	7,607	10,071	11,904
Chg (%)	127	59	(4)	32	18
Net Profit (Rmb mn)	191	436	38	294	440
Chg (%)	87	129	(91)	682	50
EPS (Rmb)	0.18	0.40	0.03	0.26	0.39
Chg (%)	82	117	(92)	682	50
P/E (x)	19.5	23.0	137.8	17.6	11.8
P/B (x)	2.5	4.8	2.5	2.2	1.9
P/OCF (x)	-	3.6	8.1	7.6	6.3
EV/EBITDA (x)	12.0	16.1	27.2	14.3	11.7
DPS (Rmb)	0.04	0.04	0.01	0.05	0.08
Yield (%)	1.0	0.4	0.1	1.1	1.7

Source: Company data, Orient Securities (Hong Kong)

## **HOLD**

Share Price	Target Price
HK\$5.38	HK\$5.00

#### China / Technology / Electronic Component

29 August 2018

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#### **Latest Key Data**

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Total shares outstanding (mn)	1,132
Market capitalization (HK\$mn)	6,089
Enterprise value (HK\$mn)	5,776
12M daily turnover (HK\$mn)	144.6
12M volatility (%)	95.1
PEG FY17-19E (X)	n.a.
RoE avg FY17-19E (%)	11.4
P/B FY18E (x)	2.5
Net debt/equity FY18E (%)	31.0

#### Performance (%)

	1M	YTD	12M
Absolute	(12)	(51)	(72)
Relative to HSI	(2)	(5)	2

# Major Shareholders (%)

He Ning Ning	66
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#### **Auditor**

KPMG

# **Price Chart**



Source: Bloomberg, Orient Securities (Hong Kong)

# 1H18 profit loss with low GP margin

Despite a 26% YoY growth in its 1H18 product shipment volume (23.6% YoY for CCM and 31.9% for FPM), its 1H18 revenue dropped 11% YoY to Rmb3,206.7mn, due to lower ASP from unfavorable product mix. GP margin dropped significantly by 10.9ppts to 1.2%, and it resulted in a 1H18 net loss of Rmb51.3mn. The net loss has been expected by the market (already announced in profit warning before results announcement), but the GP margin significantly below expectation (6-7%) is the major disappointment.

## Lower CCM and FPM ASP due to unfavorable product mix and increasing competition

As the company tries to strengthen its relationship with Huawei in terms of CCM business, Q-tech accepted many low-end CCM projects (<5MP) in 1H18, with the shipment volume percentage of <5MP CCM increased from 27.7% in 1H17 to 46.5% in 1H18. The trend for mid-to-low-end DCM to be shipped as two single cameras in 1H18 also resulted in lower-than-expected shipment volume percentage of DCM at only 11.4% (7.2% in 1H17, 16.6% in 2H17). This unfavorable change in product mix combined with fiercer competition (market share consolidation in 1H18) resulted in 19% YoY drop of CCM ASP in 1H18 to Rmb25.1 (Rmb30.9 in 1H17 and Rmb37.3 in 2H17). On the other hand, ASP of FPM also dropped significantly by 54% YoY to Rmb17.1, mainly due to increasing competition.

Figure 1: Q-tech CCM pixel mix change Weighting ■<5MP ■8MP ■>10MP ■ DCM 100% 29.8% 80% 46.5% 60% 17.7% 28.9% 40% 35.9% 36.3% 28.3% 20% 16.6% 11.4% **0%** 1H17 2H17 1H18

Source: Company, Orient Securities (Hong Kong,

## Both CCM and FPM margin dropped in 1H18

1H18 CCM GP margin dropped to only 3.3% from 13.3% in 1H17, while FPM GP margin dropped to -7.9% from 8.8% in 1H17. Factors affected the GP margin and ranked by their extent of impact are: 1) slower-than-expected product mix improvement, lower ASP with increasing raw material price, 2) higher fixed asset and thus higher depreciation cost, 3) higher labor cost and 4) Rmb depreciation in May and June. Loss from one of the key FPM project with Huawei also resulted in the negative GP margin of FPM business.

### ASP and GP margin to recover in 2H18

The management believes that ASP and margin will start to rebound in 2H18 as 1) the company has already started to supply high-end CCM for Huawei, 2) the industry competition and price war in 1H18 has eased now, and 3) the high-end projects like 3D-sensing structure light camera modules (>1mn units) and underglass FPM (>7mn units) will contribute higher ASP and margin in 2H18. Product mix will improve as Q-tech start to supply high-end CCM models for Huawei, 3D sensing models for OPPO Find X and underglass FPM for Vivo. The management said Q-tech is supplying the 2<sup>nd</sup> generation of underglass FPM technology (fingerprint module no need to bond with the screen) and has already entered design-in stage with most of the top smartphone brands in China.





The weighting of 13MP & above CCM notably dropped in 2018 from the peak at end -2017, and only started to pick up in July.

Source: Company data, Orient Securities (Hong Kong)

See last page for disclaimer.

## Model revision, maintain Hold

#### 8kk/mth DCM and 2kk/mth underglass capacity

As of end-June 2018, CCM capacity is 34kk/mth (8kk/mth DCM). FPM capacity is 17KK (2kk/mth underglass). Underglass FPM capacity can be transformed from COB capacity and don't require additional capex input. Capex spending for 1H18/2H18E is guided at Rmb180mn/Rmb200-300mn. Thus we revised down our 2018E capex forecast from Rmb592mn to Rmb444mn.

#### Model revision

We revised down our 2018E/2019E revenue forecast by 12.6%/1.5% to reflect unfavorable product mix change this year. 2019E FPM revenue is revised up by 9% to reflect the strong demand for underglass FPM expected next year. We also revised down our 2018E/2019E GPM forecast by 4.9ppts/6.4ppts to reflect the worse-than-expected margin. The net effect is 81.3%/64.8% downward revision to 2018E/2019E net profit.

GP margin → Net margin

Figure 3: Q-tech's margin to drop



Source: Company, Orient Securities (Hong Kong)

Figure 5: Assumptions of Q-tech's DCF model

IIIOUCI	
WACC	12.0%
Terminal growth rate	3%
PV of Terminal value (HK\$mn)	1,618
Total PV of FCF (HK\$mn)	6,239
Net Cash/Debt (Rmb mn)	(652)
Target price (HK\$)	5.00
Upside potential	-7%

Source: Company data, Orient Securities (Hong Kong)

Figure 4: Q-tech's model revision												
		2018	BE			2019	ĐE					
Rmb mn	Revision	Previous	Chg. (%)	YoY (%)	Revision	Previous	Chg. (%)	YoY (%)				
Revenue	7,607	8,703	(12.6)	-4.2	10,071	10,229	(1.5)	32.4				
-CCM	5,525	6,315	(12.5)	-6.4	8,197	8,510	(3.7)	48.4				
-FPM	2,082	2,388	(12.8)	2.3	1,874	1,719	9.0	-10.0				
Gross profit	300	773	(61.2)	-66.0	684	1,346	(49.2)	127.9				
EBIT	91	347	(73.7)	-83.2	383	1,031	(62.9)	320.9				
Pretax profit	45	232	(80.7)	-91.2	340	966	(64.8)	659.7				
Net profit	38	201	(81.3)	-91.4	294	836	(64.8)	682.3				
Gross margin (%)	3.9	8.9	-4.9 ppt	-7.2 ppt	6.8	13.2	-6.4 ppt	2.8 ppt				
Operating margin (%)	1.2	4.0	-2.8 ppt	-5.6 ppt	3.8	10.1	-6.3 ppt	2.6 ppt				
Net margin (%)	0.5	23	-1 8 nnt	-5 0 nnt	2 9	8.2	-5 3 nnt	2.4 nnt				

Source: Company data, Orient Securities (Hong Kong)

#### Revised down DCF-implied target price to HK\$5.0

Based on the revised earnings forecast and revised capex assumption, we revised down our DCF- based target price from HK\$6.5 to HK\$5.0, implying 16.4x 2019E/PER.

Figure	6:	Q-tech	'S	DCF	forecast	

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Rmb mn	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E
Pre-tax income	45	340	509	664	867	962	1208	1232	1273	1305
Tax paid	(7)	(46)	(69)	(90)	(117)	(130)	(163)	(166)	(172)	(176)
Depreciation & Amortization	279	309	313	316	321	340	361	365	369	373
Change in Working Capital	250	12	36	278	122	371	116	64	58	50
Capex	(444)	(329)	(333)	(336)	(425)	(451)	(383)	(387)	(391)	(396)
Free Cash flow (HK\$mn)	144	337	537	980	902	1,286	1,339	1,303	1,337	1,360

Source: Company data Orient Securities (Hona Kona)

Figure 7: Valuation Comparison

Company	Bloomberg	Rating	Price	Target	Mkt Cap		PER (x)		PEG (x)	EV/EBITDA (x)	P/B (x)	Yield (%)	ROE (%)	Net Gearing (%)
	Code		(Local	(HK\$)	(HK\$bn)	17A	18E	19E	17-19E	18E	18E	18E	17A	17A
CCM/FPM Mar	nufacturers													
Q-tech	1478 HK	Hold	5.38	5.00	6	23.0	137.8	17.6	n.a.	27.2	2.5	0.1	23.5	Net cash
Sunny Optical	2382 HK	Buy	100.4	108.0	110	31.2	30.4	22.5	1.6	4.7	9.4	0.9	46.9	Net cash
Truly	732 HK	Not Rated	1.32	-	4	158.7	7.0	4.5	n.a.	3.9	0.5	4.0	0.9	68.1
Cowell	1415 HK	Not Rated	1.32	-	1	10.2	5.1	5.1	-	0.4	0.4	3.6	8.8	Net cash
Lite-on	2301 TT	Not Rated	36	-	22	35.9	11.5	10.0	6.4	4.0	1.1	7.4	3.6	Net cash
Primax	4915 TT	Not Rated	59	-	7	16.9	13.0	10.6	0.8	6.8	2.1	5.1	18.4	Net cash
Crucial Tec	114120 KS	Not Rated	2600	-	1	-	-	-	-	-	-	-	-67.0	93.7
O-film	002456 CH	Not Rated	17.29	-	54	67.0	23.0	16.2	0.2	14.6	4.3	0.5	9.6	107.2
Average						49.0	32.6	12.4	2.3	8.8	3.2	3.1	5.6	

Source: Bloomberg, Orient Securities (Hong Kong)

See last page for disclaimer.



# **Financial statements & forecasts**

Income Statement (consolidated)									
FY-end Dec (Rmb mn)	2016	2017	2018E	2019E	2020E				
Revenue	4,991	7,939	7,607	10,071	11,904				
Camera modules (CCM)	4,272	5,903	5,525	8,197	10,218				
Fingerprint modules (FPM)	719	2,036	2,082	1,874	1,686				
Cost of sales	(4,569)	(7,056)	(7,307)	(9,387)	(11,020)				
Gross profit	422	883	300	684	884				
Other income	18	35	141	62	71				
Other gains/ (losses)	(45)	(24)	(38)	-	-				
Selling and distribution expenses	(10)	(16)	(23)	(20)	(24)				
Administrative expenses	(41)	(65)	(61)	(81)	(95)				
R&D expenses	(125)	(270)	(228)	(262)	(310)				
Operating Profit	220	543	91	383	526				
Finance cost	(6)	(17)	(43)	(47)	(28)				
Share of (losses)/profit of associate	-	(17)	(4)	4	11				
Profit before tax	215	510	45	340	509				
Income tax expenses	(24)	(73)	(7)	(46)	(69)				
Net profit	191	436	38	294	440				
EBITDA	284	662	366	696	850				
EBIT	220	526	87	387	537				
EPS (Rmb)	0.18	0.40	0.03	0.26	0.39				
DPS (Rmb)	0.04	0.04	0.01	0.05	0.08				

Cash Flow (consolidated)					
FY-end Dec (Rmb mn)	2016	2017	2018E	2019E	2020E
Pre-tax profit	213	509	45	340	509
Taxes paid	(5)	(75)	(7)	(46)	(69)
Depreciation	63	135	278	309	312
Amortization	1	1	1	1	1
Change in working capital	(405)	1,501	250	12	36
Others	93	150	74	69	39
Operating cash flow	(39)	2,222	640	685	828
CAPEX	(409)	(949)	(444)	(329)	(333)
Disposals	0	0	4	5	5
Others	(21)	(1,170)	7	9	14
Investing cash flow	(430)	(2,119)	(432)	(315)	(313)
Change in debt	(24)	218	216	129	(569)
Dividends paid	-	(37)	(87)	(8)	(59)
Repayments to/from related comp	(6)	(17)	(43)	(47)	(28)
Others	275	147	(80)	(13)	57
Financing cash flow	246	312	6	62	(599)
Free cash flow	(541)	1,122	122	287	456
Net cash flow	(223)	414	214	432	(85)

Semi-Annual Breakdown					
FY-end Dec (Rmb mn)	2H16	1H17	2H17	1H18	2H18E
Revenue	3,264	3,605	4,334	3,207	4,400
Gross profit	261	434	448	39	261
Operating profit	129	244	300	(14)	105
Pre-tax profit	124	240	270	(61)	105
Tax	(16)	(38)	(36)	9	(17)
Net profit	109	202	234	(51)	89
Gross margin (%)	8.0	12.1	10.3	1.2	5.9
Operating margin (%)	3.9	6.8	6.9	-0.5	2.4
Effective tax rate (%)	12.8	15.8	13.2	15.5	15.7
Net margin (%)	3.3	5.6	5.4	-1.6	2.0
EPS (Rmb)	0.10	0.18	0.21	(0.05)	0.08
DPS (Rmb)	0.04	-	0.04	-	0.01

Source: Company data, Orient Securities (Hong Kong)

FY-end Dec (Rmb mn)	2016	2017	2018E	2019E	2020E
Current assets	3,694	4,147	4,434	5,711	6,160
Inventories	799	688	701	900	1,054
Trade, bills and other receivables	2,606	2,035	2,041	2,702	3,186
Other financial assets	-	873	873	873	873
Bank balances and cash	65	465	642	1,034	894
Other current assets	224	86	176	201	153
Non-current assets	826	1,953	2,113	2,135	2,163
Fixed Assets	720	1,481	1,645	1,663	1,682
Intangible assets	1	1	1	1	9
Lease payment	17	17	16	16	15
Other non-current assets	88	455	451	455	458
Total assets	4,520	6,100	6,547	7,845	8,323
Current liabilities	2,939	3,934	4,433	5,448	5,562
Trade, bills and other payables	2,593	2,830	3,113	3,999	4,682
Bank borrowings	335	1,078	1,294	1,423	854
Other current liabilities	10	26	26	26	26
Non-current liabilities	14	20	18	17	15
Deferred tax liability	2	6	6	6	6
Deferred income	12	15	13	11	10
Trade and other payables	-	-	-	-	-
Total liabilities	2,952	3,955	4,451	5,465	5,577
Share Capital	9	9	9	9	9
Share premium and reserves	1,559	2,137	2,087	2,372	2,737
Total equity	1,568	2,146	2,096	2,380	2,746
Total liabilities & equity	4,520	6,100	6,547	7,845	8,323
Net cash/(debt)	(271)	(613)	(652)	(389)	41
Working capital	756	213	1	262	598
Total capital employed	1,582	2,166	2,114	2,397	2,761

FY-end Dec	2016	2017	2018E	2019E	2020E
Growth (%)					
Revenue	127	59	(4)	32	18
Gross profit	76	109	(66)	128	29
EBITDA	70	133	(45)	90	22
EBIT	77	147	(83)	321	37
Net profit	87	129	(91)	682	50
EPS	82	117	(92)	682	50
Margins (%)					
Gross	8	11	4	7	7
EBITDA	6	8	5	7	7
EBIT	4	7	1	4	5
Net	4	5	0	3	4
Others (%)					
Effective tax rate	11	14	16	14	14
Dividend payout ratio	19	10	20	20	20
RoCE	12	20	2	12	16
Average RoE	14	23	2	13	17
Average RoA	9	12	6	10	11
Interest cover (x)	40	31	2	8	19

2016

179

2017

173

2018E

208

2019E

268

2020E

315

17

1.431

29

1.959

31

1.852

16

2.103

NC

2.426

ny data, Orient Securities (Hong Kong)	FPM shipment (mn)	21	81	102	102	102	
	Blended ASP (Rmb)	24	31	25	27	29	

FY-end Dec

CCM shipment (mn)

Net gearing (%)

**BVPS (Rmb)** 

See last page for disclaimer.

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