



# 丘鈦科技（集團）有限公司

## Q Technology (Group) Company Limited

Stock Code 股份代號: 1478

# 2018 Annual Results Presentation

25 March 2019

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# Financial Highlights

## Camera module (CCM)

Sales volume (Units mn)

2017

172.5

2018

263.9

+53.0%

## Fingerprint recognition module (FPM)

Sales volume (Units mn)

80.7

107.6

+33.2%

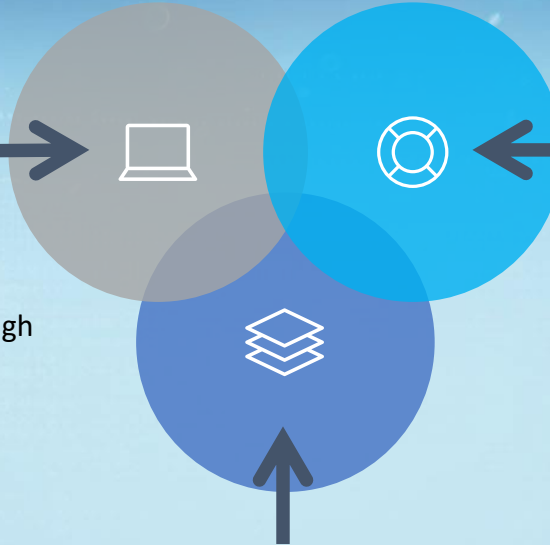
# Financial Highlights

RMB '000	FY		YoY Change	2H	1H	HoH Change
	2018	2017		2018	2018	
Sales Volume (units)	<b>371.4KK</b>	253.2KK	+46.7%	223.3KK	148.1KK	+50.8%
Revenue	<b>8,135,161</b>	7,938,958	+2.5%	4,928,449	3,206,712	+53.7%
Gross profit	<b>353,108</b>	882,733	-60.0%	314,052	39,056	+704.1%
Gross profit margin	<b>4.3%</b>	11.1%	-6.8 pts	6.4%	1.2%	+5.2 pts
OPEX ratio	<b>4.5%</b>	4.4%	+0.1 pts	4.4%	4.6%	-0.2 pts
Net profit	<b>14,399</b>	436,277	-96.7%	65,687	-51,288	N/A
Net profit margin	<b>0.2%</b>	5.5%	-5.3 pts	1.3%	-1.6%	+2.9 pts
Basic EPS	<b>1.3 cents</b>	39.8 cents	-96.7%	5.9 cents	-4.6 cents	N/A
Operating cash flow	<b>-172,505</b>	2,221,513	N/A	105,602	-278,107	N/A
ROE	<b>0.7%</b>	20.3%	-19.6 pts	3.1%	-2.5%	+5.6 pts

# Business Review

## Large-scale production

- Get into full range of Huawei camera supply chain
- The sales volume of CCM exceeded 30 million units/month, hit new historical high
- Production automation upgrades are getting more efficient



## Vertical integration has shown progress

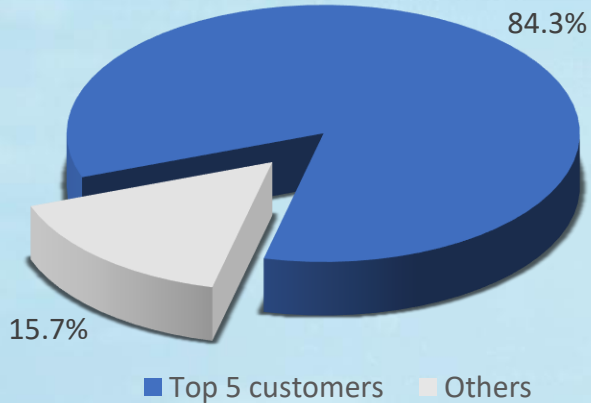
- Newmax Technology (3630.TW) reported monthly revenue doubled year-on-year from May 2018 to December 2018
- Full technology cooperation between the two in 3D and under-glass FPM products
- Introduced Newmax's RGB lens via Apollo project

## New materials, new processes, new products

- First mass production and sales of 3D structured light modules in China
- Led the second generation under-glass fingerprint recognition modules
- Mass production of MOC miniaturized module products

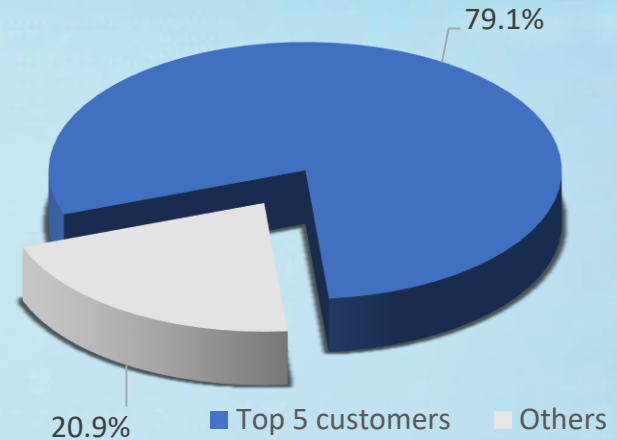
# CCM Customer Portfolio Improved Significantly

## 2018 CCM Top 5 Customers



Top 5 customers by sales volume were vivo, Huawei, OPPO, Xiaomi and Yinuo

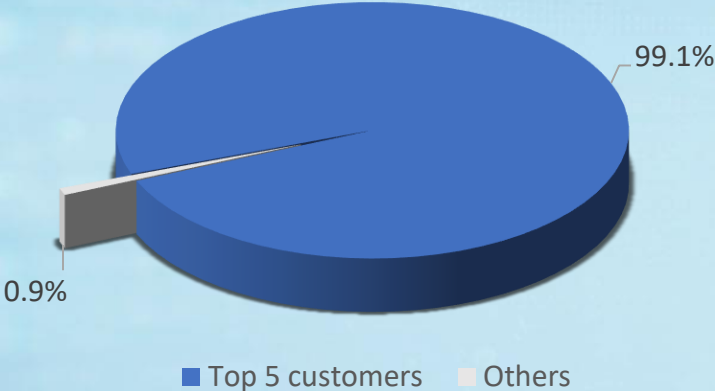
## 2017 CCM Top 5 Customers



Top 5 customers by sales volume were vivo, OPPO, Xiaomi, Huaqin and Lenovo

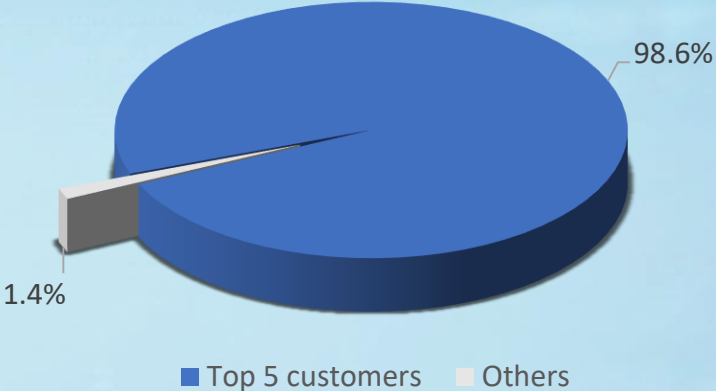
# FPM Customer Portfolio Remained Stable

### 2018 Top 5 FPM Customers



Top 5 customers by sales volume were Huawei, Xiaomi, vivo, OPPO and Huaqin

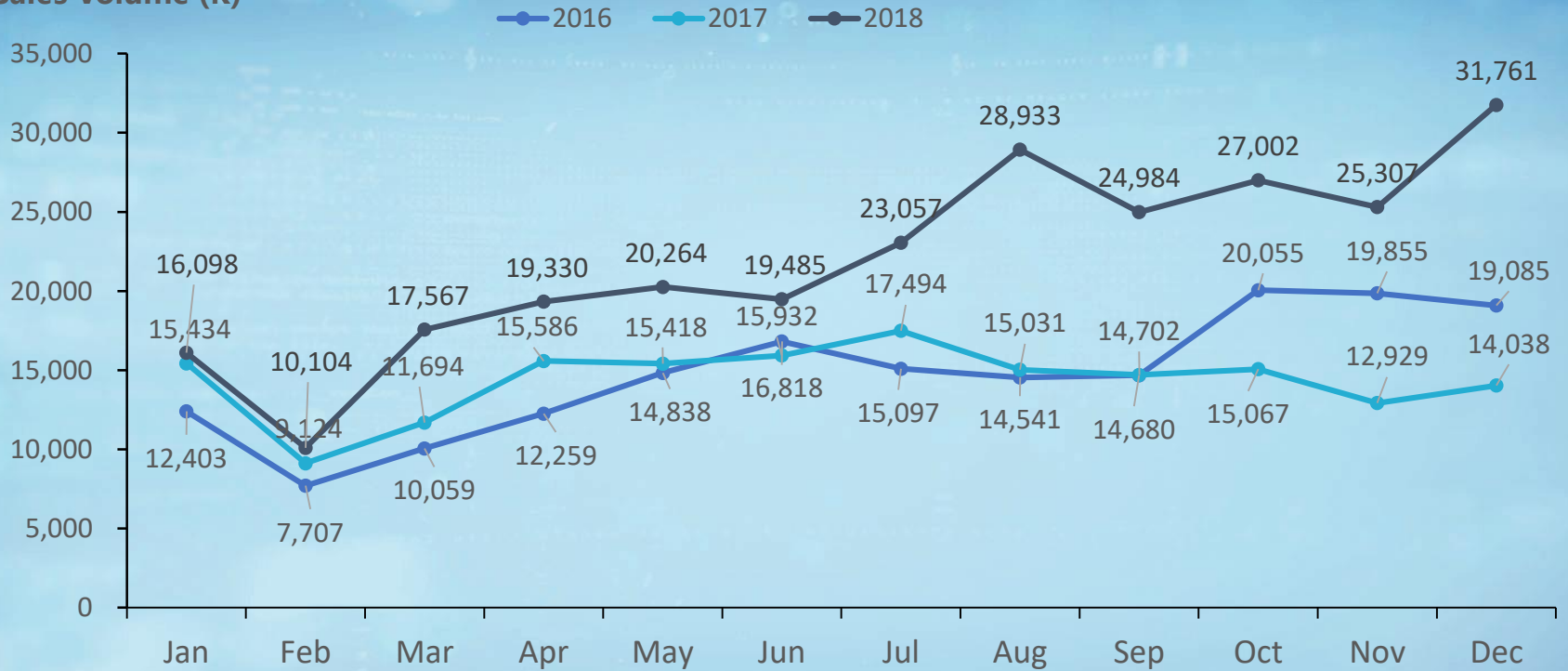
### 2017 Top 5 FPM Customers



Top 5 customers by sales volume were Huawei, OPPO, Xiaomi, vivo, Wingtech

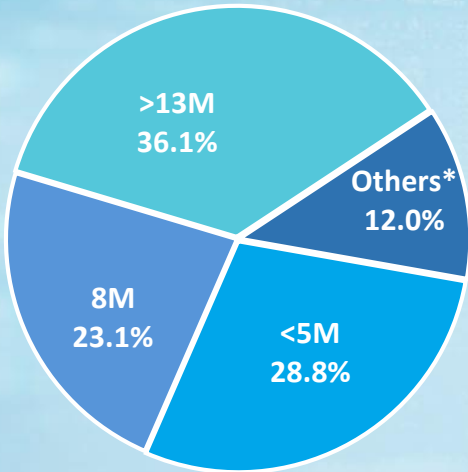
# Sharp Growth in CCM Sales Volume

Sales Volume (K)

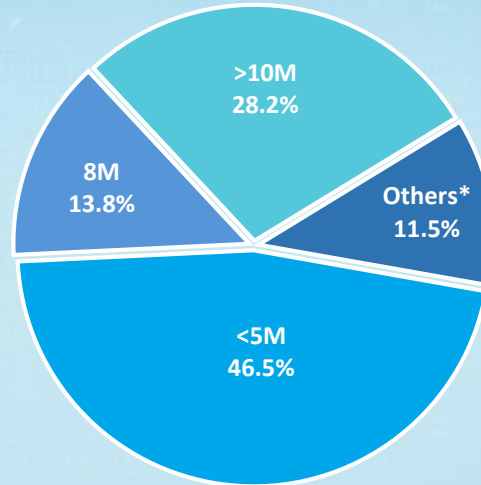


# Product mix improved gradually in 2H 2018

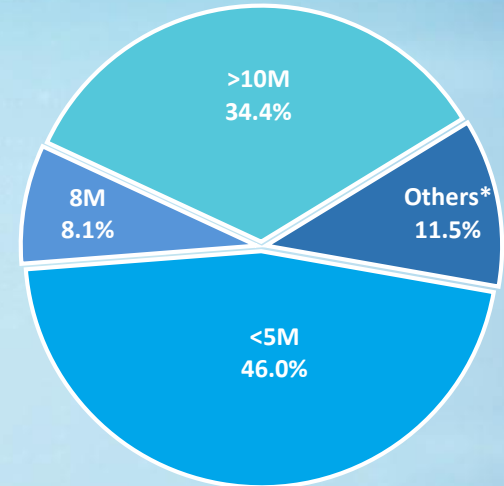
2017



1H 2018



2H 2018



\*Others including dual/multi camera modules, 3D camera modules and vehicle camera modules

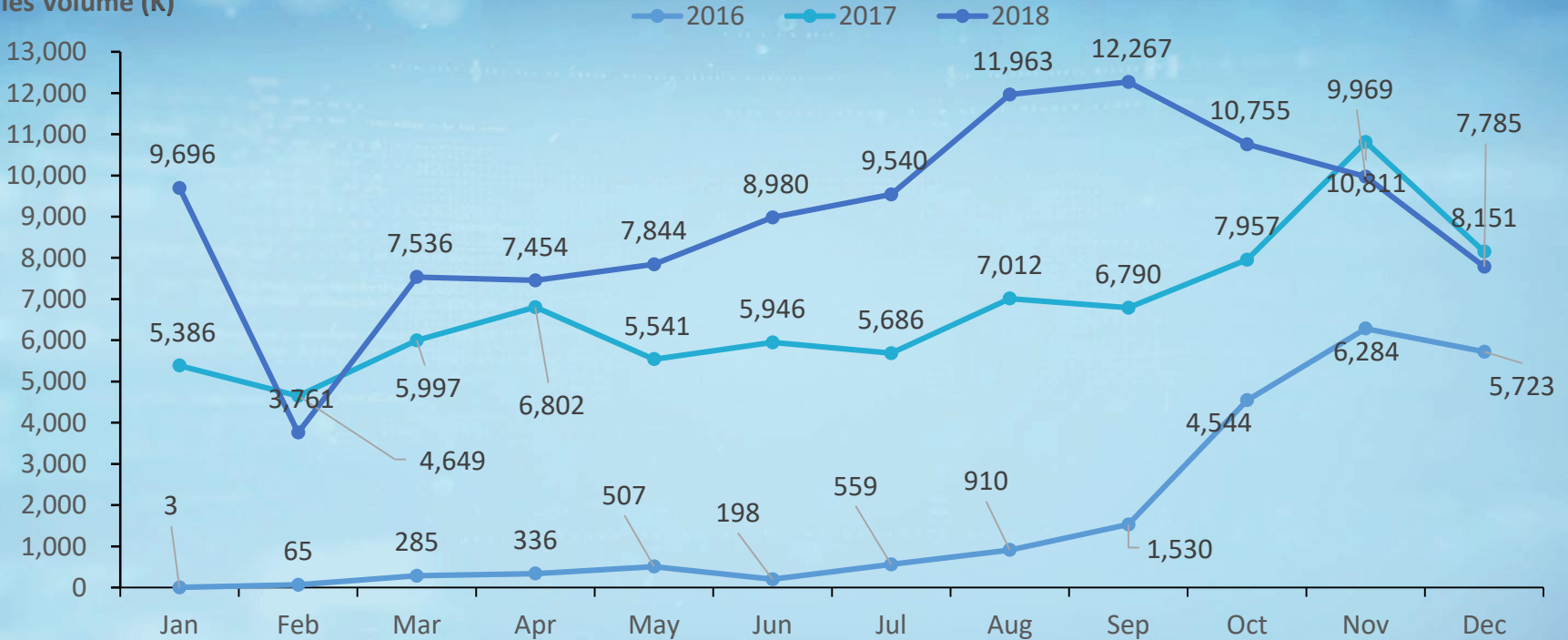
#According to market development, mid-to-high end product categorization has been changed from 13M and above in 2017 to 10M and above in 2018

# Decline of CCM Average Selling Price was Stablised in 2H 2018



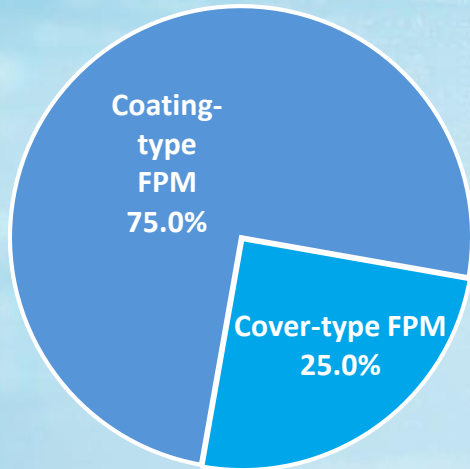
# Sales Volume of FPM Grew Steadily

Sales Volume (K)

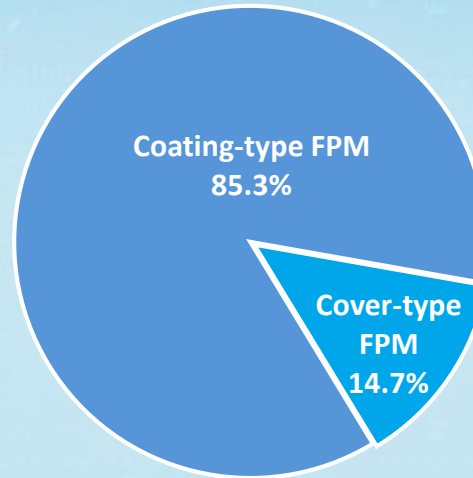


# Leading Position in the Under-glass FPM Business

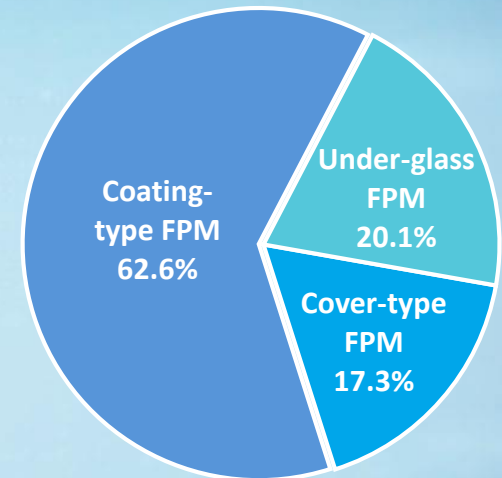
2017



1H 2018



2H 2018



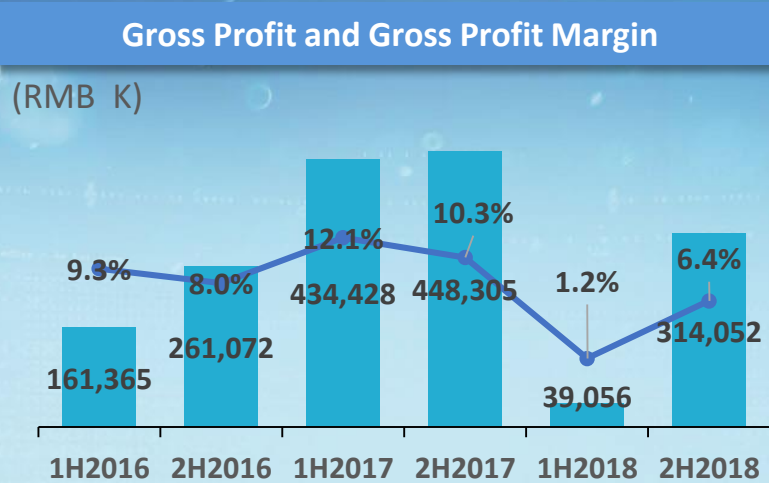
# Key Financial Indicators



◆ Sales revenue grew by 2.5% YoY which was far below the growth of sales volume, mainly due to the initial stage of cooperation with individual customer, product structure improvement took time, and caused rapid decline in average selling price (ASP), briefly explains as follows:

- The ASP of CCM was about RMB 23.86 , decreased by 30.3% from RMB34.22 of the Year before
  - 1) In 1H of 2018, the upgrade of camera specification of mobile remained slow, while the ASP of legacy product with old specification declined significantly
  - 2) The cooperation between the Group and a major mobile phone customer was in the initial stage, and the major projects shipped were low-end single CCM of 2 mega pixels, which makes the overall product structure of CCM worsen off
  - 3) Some of the dual camera adopted a split procurement strategy, which reduced the proportion of dual CCM. As the split procurement of dual camera module count as two separate single camera modules , the number of single CCM of 8 mega pixels and below has increased
- The ASP of FPM was about RMB17.1, 32.2% lower than RMB25.23 of the Year before
  - 1) Technology maturation of coating FPM led to more intense market competition and rapid decline in ASP
  - 2) New products such as the optical under-glass FPM were only shipped in batches in 2H 2018, unable to offset the downward pressure on the ASP of legacy products

# Key Financial Indicators

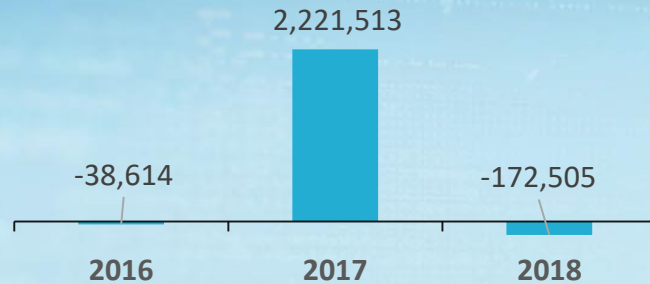


- ◆ **Gross profit margin fell by 6.8 pts YoY to 4.3% which mainly due to following factors:**
  - **Improvement of CCM product portfolio took time, which increased the proportion of low-value-added low-pixel CCM and caused the drop of the ASP in CCM**
  - **Expansion of production capacity and fixed assets investment in automation equipment increased the proportion of equipment depreciation and labor costs**
  - **The selling price of coating FPM dropped significantly, while the optical under-glass FPM was only shipped in batches in 2H2018. The overall proportion has yet to be improved, which affected the overall gross profit margin of the FPM products**
  - **The exchange rate of RMB against USD depreciated more than 5% from 6.5342 at the end of 2017 to 6.8632 at the end of 2018. The increase in US dollar-denominated material cost cannot be effectively passed onto customers**

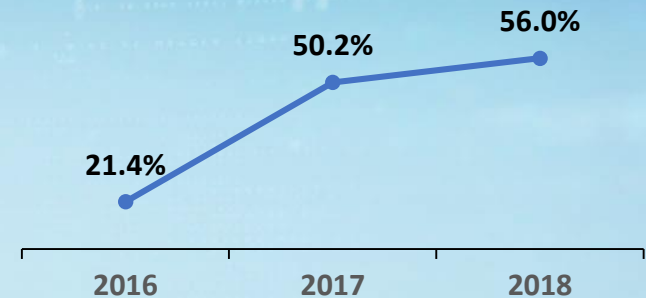
# Key Financial Indicators

## Operating Cash Flow

(RMB K)



## Debt-to-Equity Ratio



- ◆ In 2018, the net cash outflow of operating activities was RMB172.51 million, mainly due to:
  - The Group's gross profit margin decreased during the year. An operating cash inflow of approximately RMB 105.6 million was recorded in 2H 2018 when GP margin improved to 6.4%.
  - Relevant customers of the Group made their payment due at the beginning of next month according to the settlement rules, resulting in a balance of trade and other receivables of approximately RMB 3.031 billion, representing a substantial increase of approximately RMB 996 million from RMB 2.035 billion of last year. The turnover days of accounts receivable of the Group for the year was approximately 113 days, representing an increase of approximately 9 days from approximately 104 days of last year. The Group usually makes its payment due at the end of each month, resulting in a balance of trade and other payables of approximately RMB 3.061 billion, representing a slight increase of approximately RMB 231 million from approximately RMB 2.83 billion of last year.
- ◆ In 2018, the Debt-to-Equity increased by 5.8 pts from 50.2% to 56.0%, mainly due to:
  - The balance of the Group's bank borrowings increased by approximately RMB 100.12 million, while the net assets decreased by approximately RMB 42.22 million due to the payment of 2017 final dividends of RMB 91.62 million.

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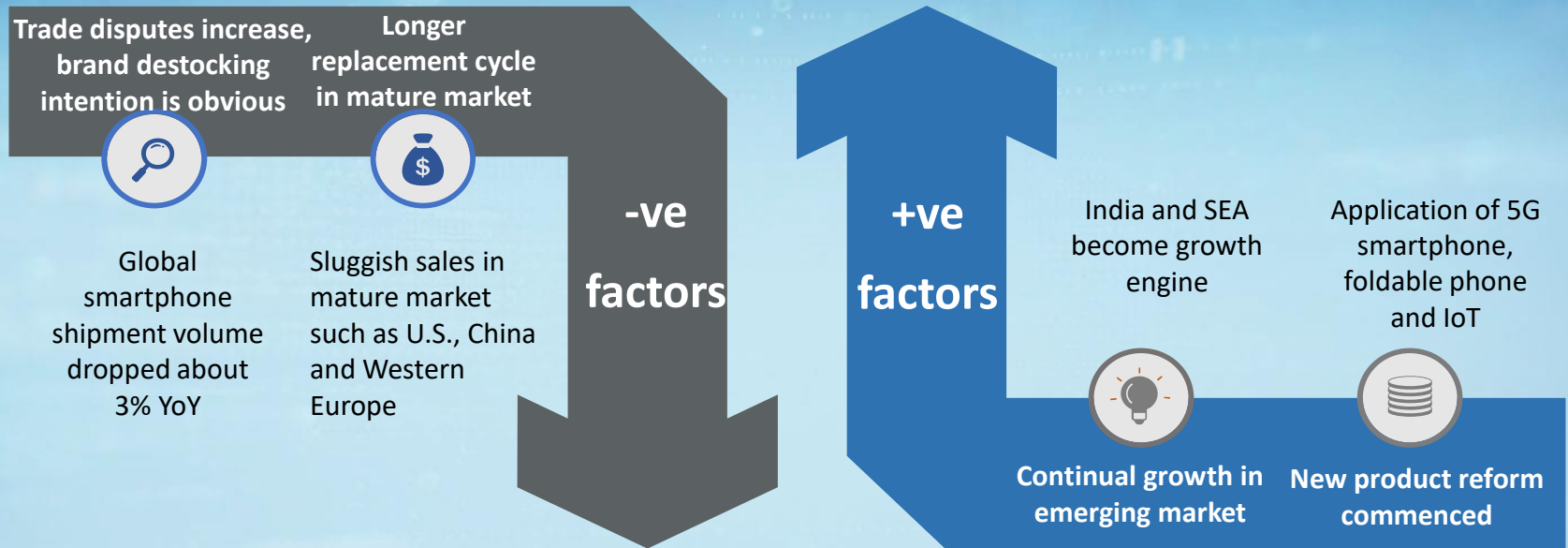
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# Coexistence of Challenges and Opportunities in Smartphone Market Development



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# Increasing quantities of CCM : Higher Quantity, Better Specifications, and Wider Application

## 1. The average number of mobile phone camera modules has increased significantly

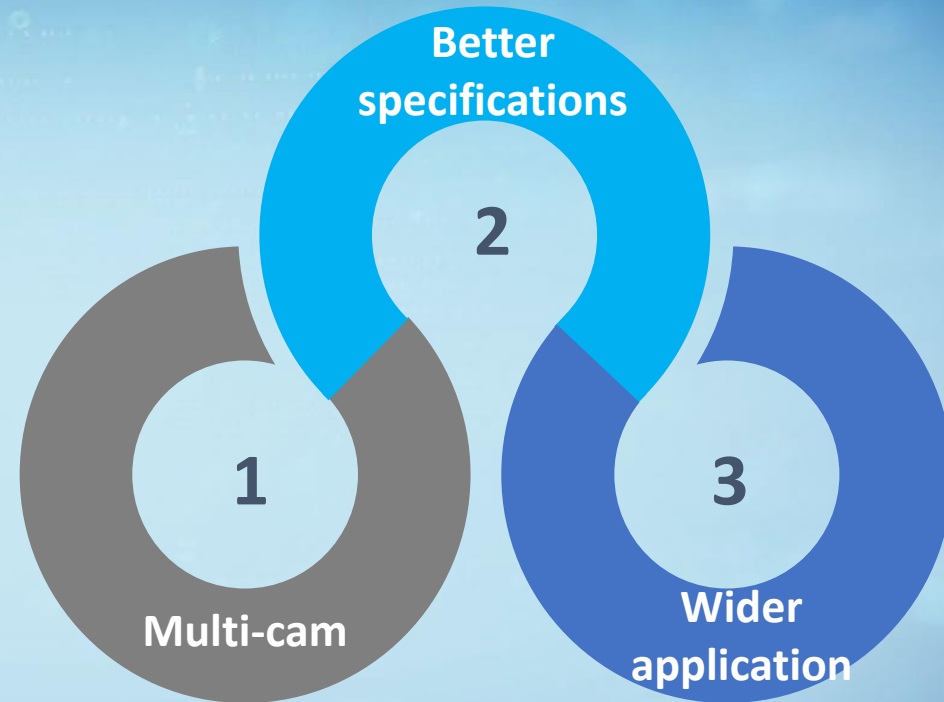
Dual-cameras/three-cameras or even four-cameras design of front and rear cameras have become a trend. According to independent research report, the global penetration rate of smartphone with dual camera modules and triple camera modules will reach 56% and 7% respectively in 2019. Some of the Chinese smartphone brands dual camera penetration rate may even exceed 80%

## 2. The value of camera module in a mobile phone largely increased

Achieve higher-end imaging quality such as multi-power optical zoom, large aperture, adjustable aperture, high pixel, 3D sensing, etc.

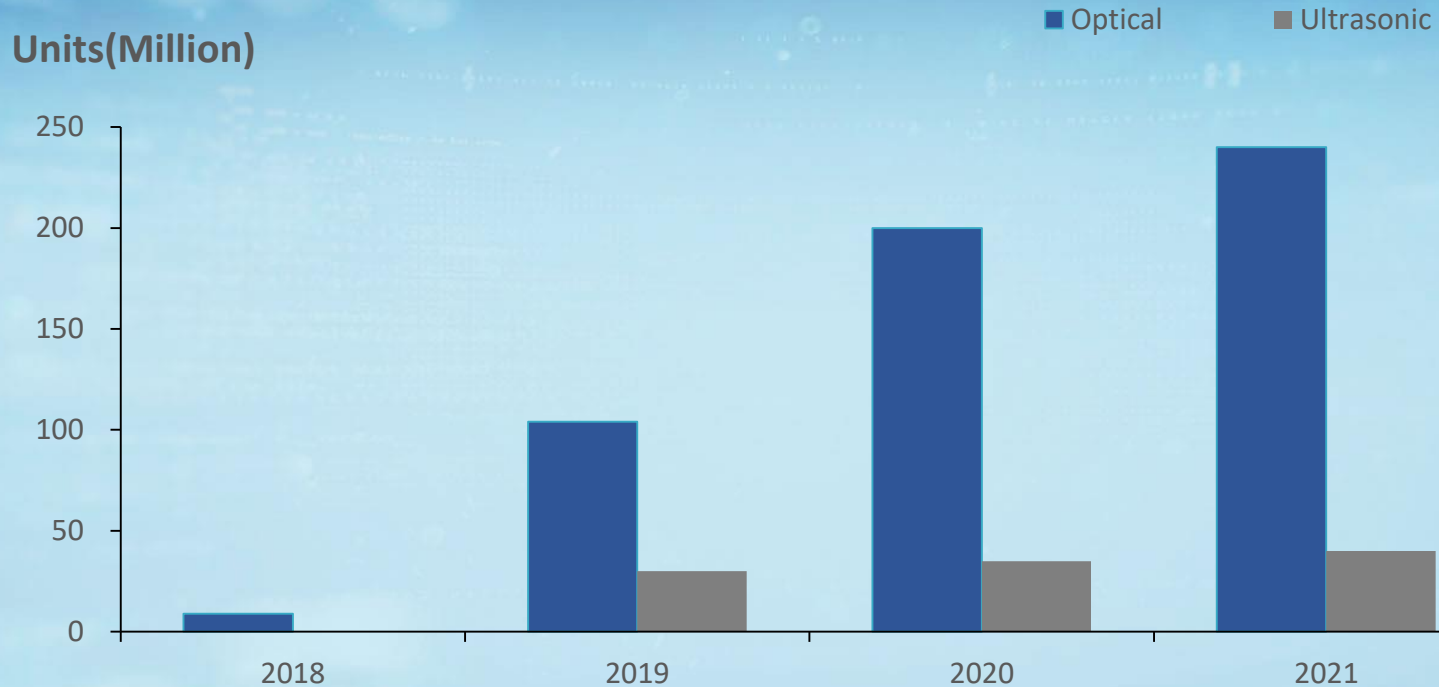
## 3. The application of the CCM has greatly expanded

Vehicle camera modules, IoT, intelligent manufacturing solutions



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# Under-glass FPM under Spotlight Due to Full-screen Design of Smartphone



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# Continue to Focus on Building Core Competitiveness in 2019

## Large-scale intelligent manufacturing

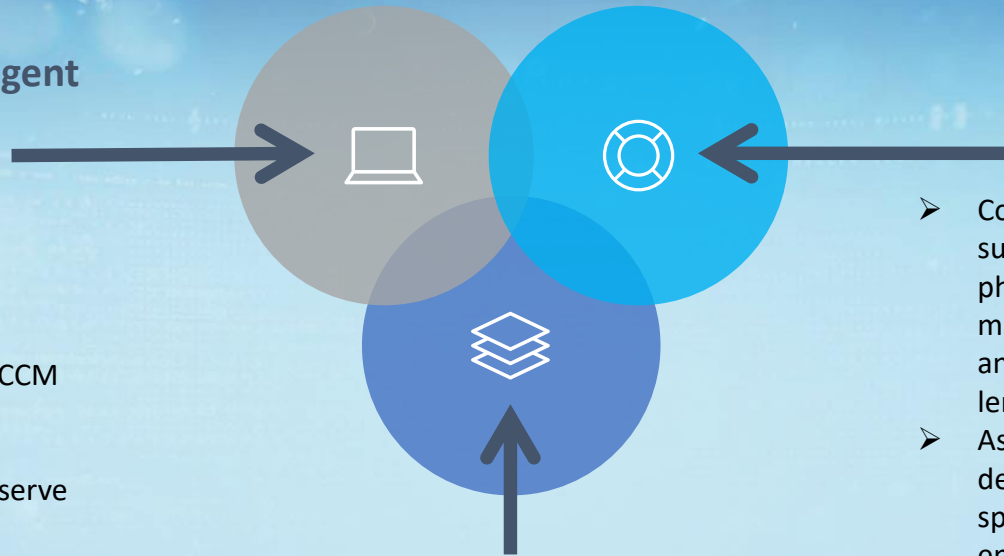
- To further improve the customer structure
- To further improve the product structure
- Production capacity of CCM to be expanded to 50KK/month, mass production capacity to serve customers
- Automation and digitalization in COB process, testing and logistics process. Standardization and systematization of production procedures

## New materials, new processes, new products

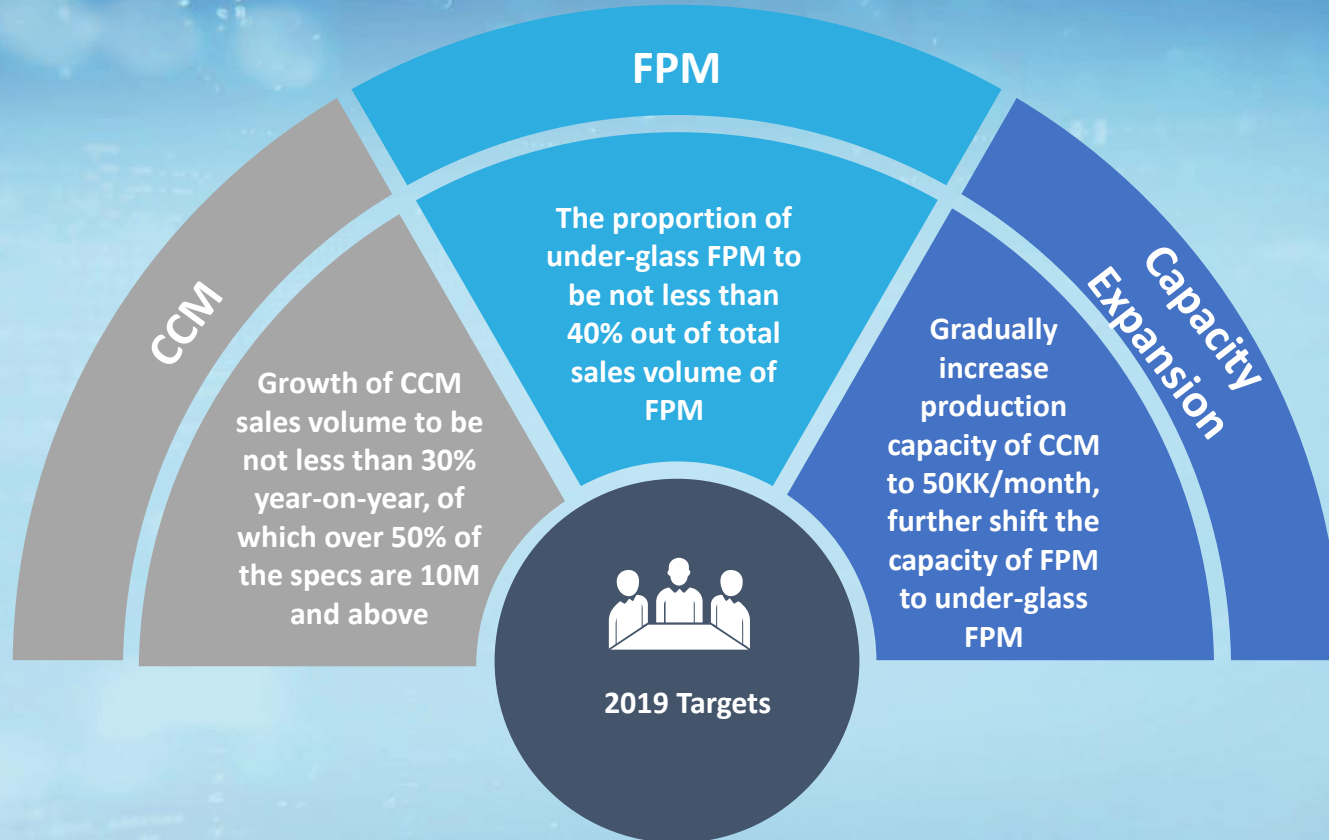
- Strengthen soft abilities and support customers' mass production requirements for high-end new technology CCM products
- Lead the technology direction of CCM

## Vertical integration to go further

- Continue to build up Newmax and support the set up of their second phase of production base, and maintain the advantages of 3D lens and under-glass fingerprint FOD lens
- Assist Newmax to promote the development of 5P/6P high-specification RGB lens, aiming to enter four major customers
- Focus on other core component integration opportunities
- Strive to let core component suppliers enter the supply chain resource pool of Huawei, Xiaomi, vivo, OPPO



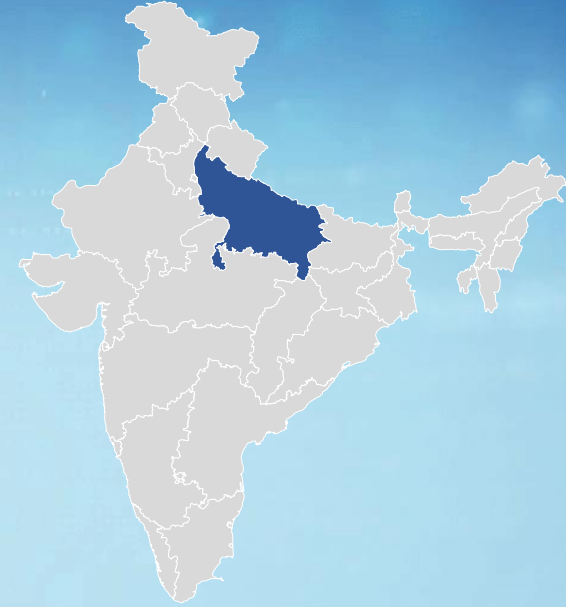
# Growth Targets for 2019



# Large-scale Intelligent Manufacturing



1. By the end of 2019, the target production capacity of CCM will gradually reach 50KK/month (2018: 35KK/month)
2. The capital expenditure in 2018 was about RMB500 million, and expected to reach RMB700 million in 2019



1. In order to provide better customer service, an overseas production base will be established in Uttar Pradesh, India this year. The target capacity of CCM is expected to reach 4KK/ month by end of 2019

# Large-scale Intelligent Manufacturing



## Automation / Digitization / Intelligent

Promote the automation and digitalization of the assembling, testing, packaging and logistics process, aiming to build comprehensive smart factory

# New Materials, New Processes, New Products



## **Simulating single lens reflex camera**

To achieve wide aperture, optical zoom and HD camera functions of SLR camera by multiple camera modules and periscopic modules



## **3D modules**

Being first to mass produce speckle structured light 3D modules in the market and will further seize ToF 3D modules market



## **Miniaturization technology**

Continue to refine lens motor integration and various packaging processes such as MOC and FAMIH to meet customers' full screen design requirement



## **Automobile CCM**

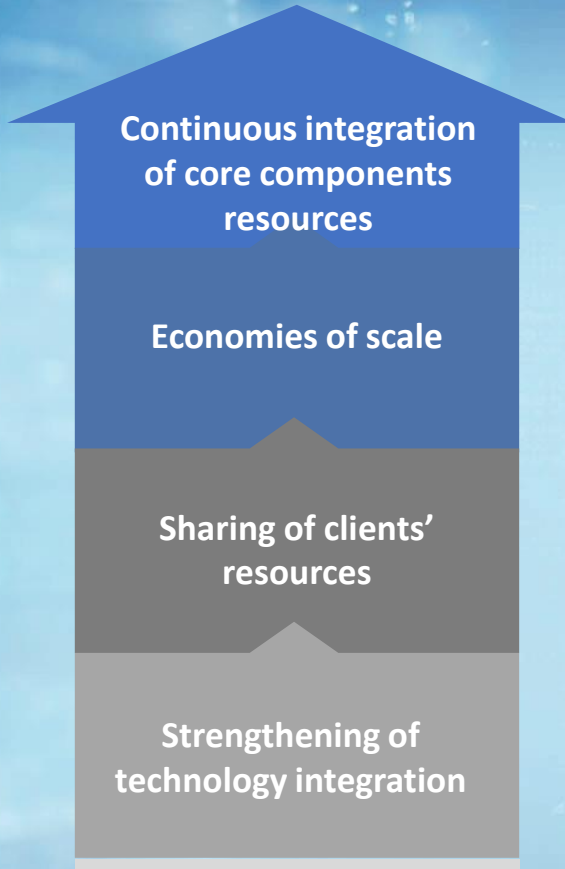
Mass production of in-cabin monitoring modules and gesture control modules during the year and qualified as Tier-2 supplier for Chinese top brands, expect to start meaningful business soon



## **Leading supplier of optical under-glass FPM**

Competitive strength in design of 2<sup>nd</sup> generation optical under-glass FPM and become a major supplier during the year. Actively deploying resource for future larger size (e.g. half-screen) recognition module design

# Vertical Integration of Upstream Components



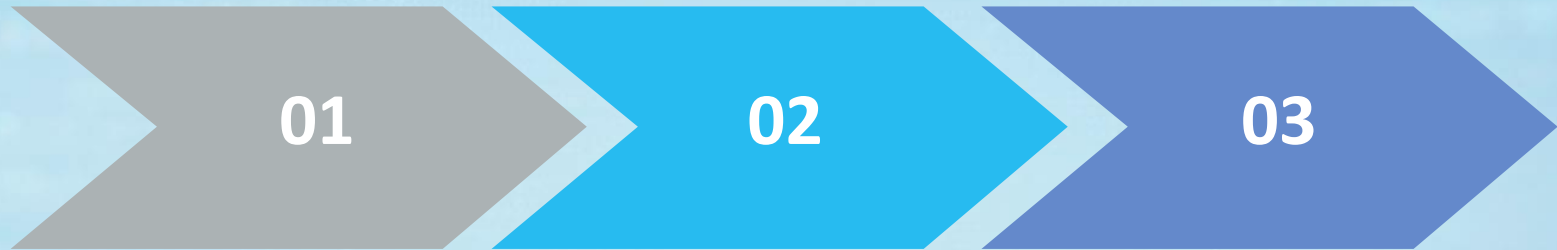
Full speed development of core component technology to gain core technology advantages

Vertical integration to improve efficiency, reduce costs, serve customers better with more cost-effective solutions to achieve win-win

Integrate customer resources, complement each other and expand sales channels

Strengthen the comprehensive cooperation with Newmax in under-glass FPM lens, 3D module Lens and RGB Lens to enhance product technology competitiveness

# Create Three Core Competencies Become the Leading CCM Company



**Leading technology**

**Ultra-large-scale  
intelligent  
manufacturing**

**Leading upstream component  
technology and manufacturing  
capabilities**

# Dual core products strategy

**CCM**

**Upstream Key  
Components**

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# Experienced Management Team with a Proven Track Record



**Mr. HE Ningning**  
*Chairman, Executive Director*

- Over 20 years of experience in the electrical and electronic industry
- Previously worked in Samsung Electro-Mechanics Dongguan Co., Ltd.
- Founded Surewheel Asia Pacific Limited, Shenzhen CK and Heyuan CK



**Mr. WANG Jianqiang**  
*Executive Director, CEO*

- Nearly 20 years of experience in the electrical and electronic industry
- Previously worked in Samsung Electro-Mechanics (H.K.) Limited
- Served as chief financial officer of Shenzhen CK and Heyuan CK



**Mr. HU Sanmu**  
*Executive Director, VP for Sales*

- Many years of experience in the electrical and electronic industry
- Held various positions in Vtech (Shenzhen) Electronic Limited, Tianjin Amphenol Kae Co., Ltd., and Van Telecom PRC

Name	Title	Biography
<b>Mr. FAN Fuqiang</b>	Chief Financial Officer	Served as assistant to the chairman of Kunshan QT, and as branch general manager and vice general manager of the corporate department of Heyuan Gao Xin Qu branch of Bank of China
<b>Mr. LIU Tongquan</b>	Deputy General Manager for Production	Served as production manager of LCD manufacturer Kunshan Giantplus Optoelectronics Technology Co., Ltd.

# Milestones

## 2007

Mr. He Ningning established Kunshan QT

One of the few precise components manufacturer with software system background

## 2010-2013

Achieved a mass production of CCM ranging from 3 mega pixels to 13 mega pixels

Won core customers including ZTE, Lenovo, Coolpad and TCL

## 2015

Received FPC certification to develop FPM business

Gradually introduced OPPO, Xiaomi and Huawei as customers and gained the qualification to supply CCM of all pixels to all customers

## 2018

Successfully developed second generation optical under-glass FPM and became the first to developed 3D structure light modules in the PRC  
Continued to expand core customer market share and saw synergies from vertical integration

Establishment of QT

Establishment of production base

Stage of Rapid growth

Listed in Hong Kong

Two Facets Development

Strategic transformation for future growth

Started mass production of mobile CCM

Established COB & COF Packaging production line

## 2008

The first Chinese company to launch CCM of 16 mega pixels and 20 mega pixels

Listed on main board of HKEX in December, 2014

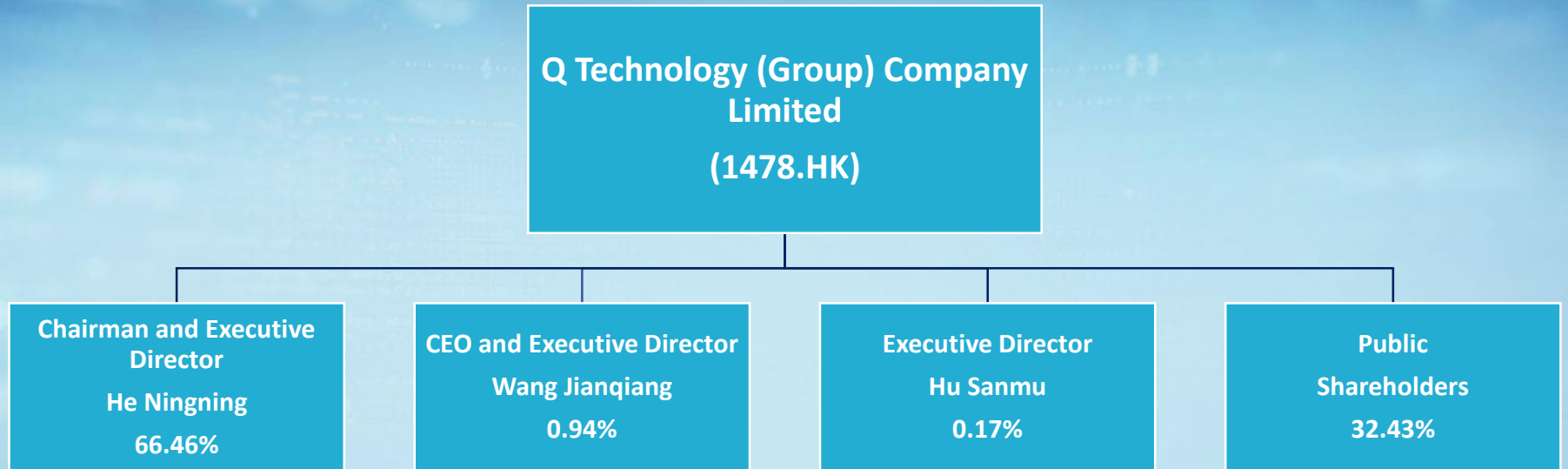
## 2014

Become a key supplier of dual-camera projects, mass production of FPM with increased market share, and obtained the direct supplier qualification of Huawei CCM

Invested in Taiwan optical company, Newmax Technology (3630.TW), vertically integrating the industrial chain to 3D imaging and multi-camera development

## 2016-2017

# Shareholding Structure



Shareholding structure as of 28 February 2019 solely for referencing purpose