



丘鈦科技(集團)有限公司

Q Technology (Group) Company Limited

Stock Code 股份代號 : 1478

**2024 Interim Results
Investor Presentation**
12 Aug 2024

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- 01 **2024 Interim Results Business Review**
- 02 **Smartphone/Automotive/IoT Business Segments Outlook**
- 03 **Q Tech Corporate Strategy**

»» Financial Summary

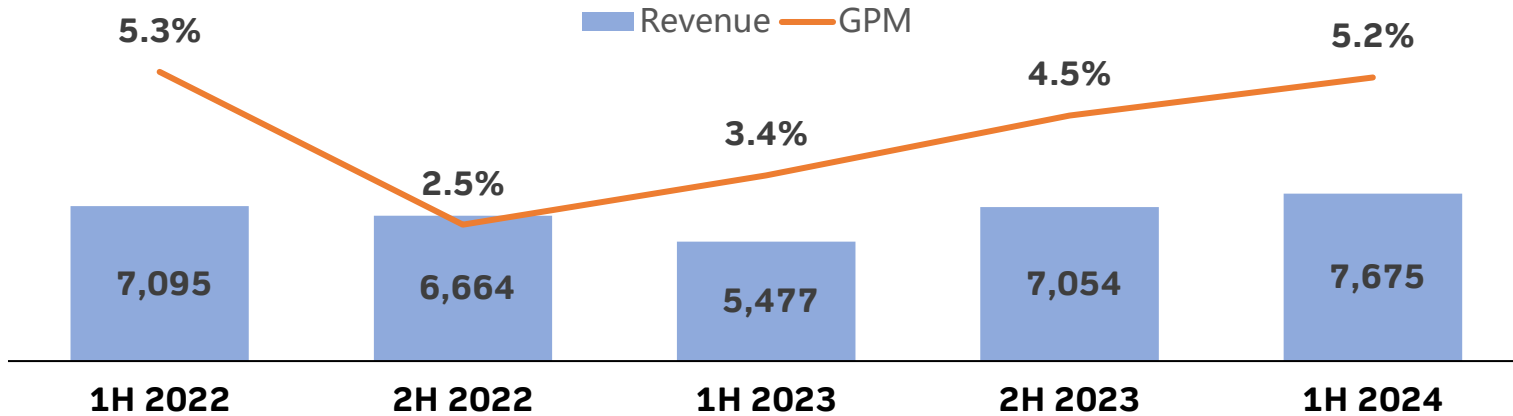


RMB K	FY		(YoY) Change	2H	
	2024	2023		2023	(HoH) Change
Phone CCM Sales Volume	215,920K	166,583K	+29.6%	199,370K	+8.3%
Other Fields CCM Sales Volume	5,464K	2,726K	+100.4%	4,910K	+11.3%
FPM Sales Volume	59,084K	50,611K	+16.7%	59,627K	-0.9%
Revenue	7,675,142	5,476,543	+40.1%	7,054,256	+8.8%
Gross Profit	400,099	188,303	+112.5%	320,553	+24.8%
Gross Profit Margin	5.2%	3.4%	+1.8pts	4.5%	+0.7pts
OPEX Ratio	4.9%	5.0%	-0.1pts	4.7%	+0.2pts
Net Profit/Loss	115,232	21,692	+431.2%	61,839	+86.3%
Net Profit Margin	1.5%	0.4%	+1.1pts	0.9%	+0.6pts
Basic EPS	9.7 cents	1.8 cents	+438.9%	5.1 cents	+90.2%
Operating Cash Flow	691,268	-89,714	N/A	-289,069	N/A

»» Highlight 1: Revenue and GPM Improved



1H2022- 1H2024 Trend of Revenue and GPM (M RMB)



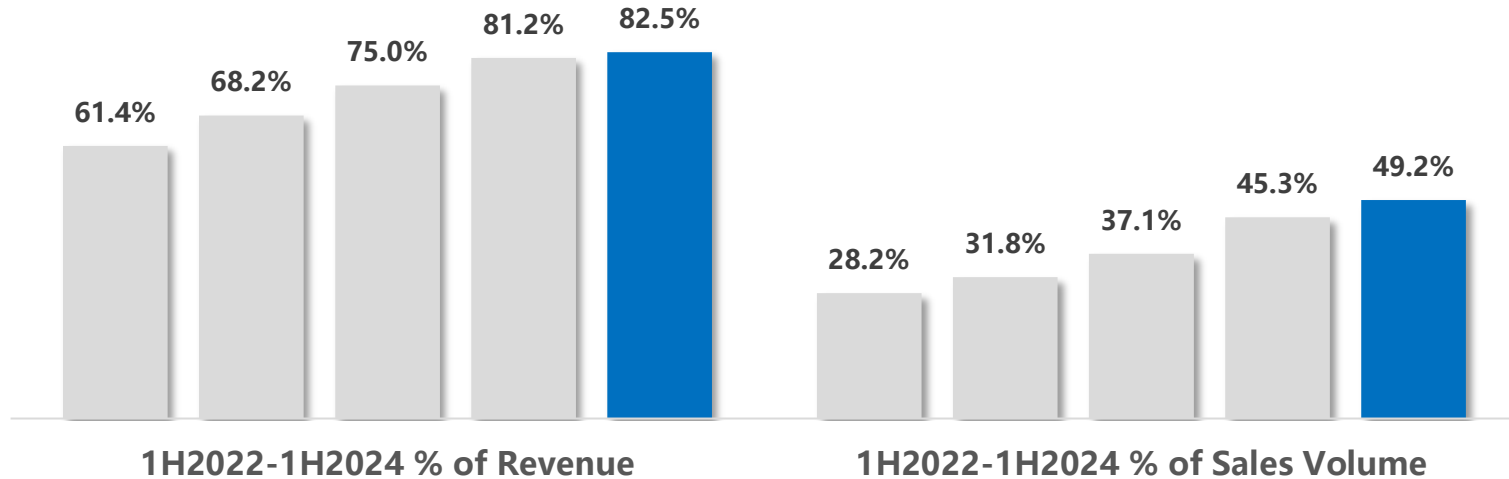
- During the Period, the Group's sales volume of CCM recorded a YoY increase of approx. 30.8%, with the sales volume of CCM for smart vehicles and Internet of Things (IoT) terminals surging significantly by approx. 100.4% YoY. Additionally, the sales volume of FPM also grew by approx. 16.7% YoY, enabling the Group's revenue to achieve rapid growth compared to the Corresponding Period. Revenue for the Period was approx. RMB7.68B representing an increase of approx. 40.1% as compared with that in the Corresponding Period.
- During the Period, the GPM of the Group was approx. 5.2%, representing an increase of approx. 1.8pts as compared with approx. 3.4% in the Corresponding Period, which was mainly attributable to the following: (i) the global smartphone market rebounded during the Period, with the Group securing a higher market shares in major smartphone brands worldwide. Additionally, the Group made significant strides in its CCM business for automotive and IoT applications, and the utilization rate of production capacity was significantly improved compared to the Corresponding Period, average down the allocation of costs such as depreciation and labour costs; and (ii) the Group's combined sales volume of CCM with resolutions of 32M and above for mobile phones and the CCM for other applications accounted for approx. 49.2% of the total sales volume of CCM, with higher added value.

»» Highlight 2: Product Mix of CCM Enhanced Significantly



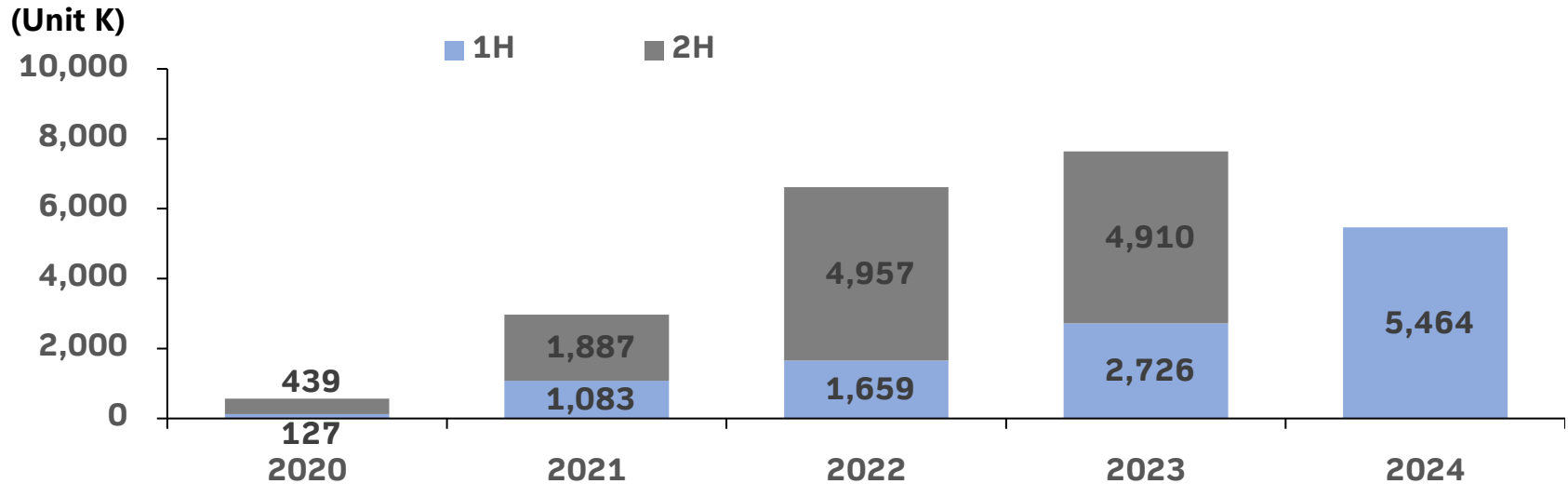
Proportion of 32M and above CCM

*Combined sales volume of CCM with resolutions of 32M and above for mobile phones and for other applications



➤ During this Period, the Group continued to adhere to the business strategy of focusing on mid-to-high-end CCM. The combined sales volume of CCM with 32M and above used in mobile phones and other fields reached approx. 49.2% of total sales volume of CCM, of which OIS products and periscope products accounted for 12.0% and 0.7% of total sales volume of CCM respectively in 1H 2024, higher than the 11.3% and 0.3% respectively in 1H 2023. During this Period, the ASP of CCM was approx. RMB 32.6, a YoY increase of 10.5% and a MoM increase of 1.2%. (Lower than expected HoH growth also impacted by the change of accounting treatment of certain customer using net service charges to account for the project revenue)

Highlight 3: Sales Volume of CCM applied in Other fields Increased Significantly

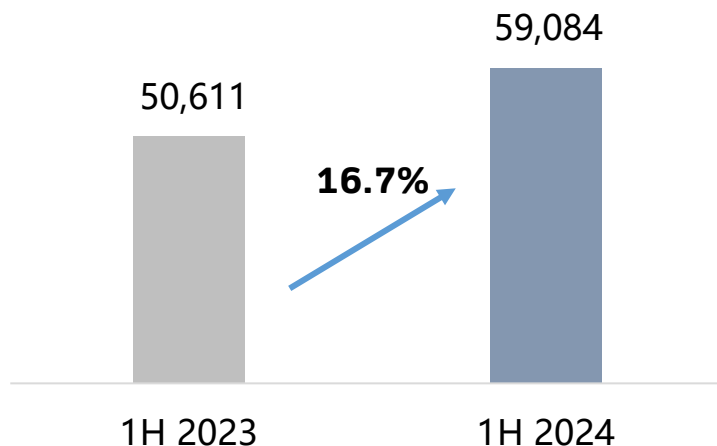


- Customer structure and product structure of CCM used in smart vehicles and IoT terminals have been improved significantly, with sales volume increased 100.4% YoY and 11.3% HoH. The HoH growth is lower due to the Company turn off certain low end CCM projects in IoT industry.
- Attributable to the major business engagement with several global Tier-1 customers as well as major specs upgrade, sales volume of CCM used in smart vehicles during the Period increased more than 15x, with total sales volume exceeding 2 millions unit.

»» Highlight 4 : Other Businesses Rebounded

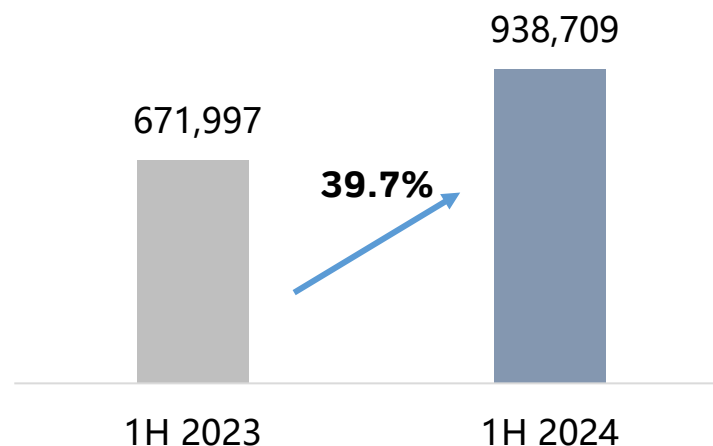
Sales Volume of FPM (pcs K)

1H 2023 VS 1H 2024



Revenue of Newmax (TWD K)

1H 2023 VS 1H 2024



- **Biometric business:** During this period, the sales volume of FPM increased by approx. 16.7% YoY. Among them, the proportion of high-end optical FPM increased from approx. 61.6% in the Corresponding Period to 75.0% in the Period. In addition, the new high-end product ultrasonic FPM commenced production during the period, with cumulative sales in the Period reaching approx. 400,000 units.
- **Lens business of associate company:** During the Period, benefiting from the recovery of the mobile phone market and the improvement of own product mix, the revenue of the Group's associate company Newmax Technology increased significantly by 39.7% YoY, and the GPM improved significantly from -10.5% in the Corresponding Period to approx. 7.9% in the Period.

»» Highlight 5: Enhanced Customer Mix

New Smartphone Customer

G Customer (US)

New Automotive Customer

- **International Tier-1 Customer B (Project won)**
- **JV of Japanese Carmaker (Vendor Code)**

New IoT Customer

**M Customer (US)
(Vendor Code)**



»» Highlight 6: Enhanced Product Mix

LiDAR Module

1. Leading drone customer project
2. Automotive Tier-1 customer AVL

Ultrasonic FPM

1. Largest ultrasonic FPM market share in China market

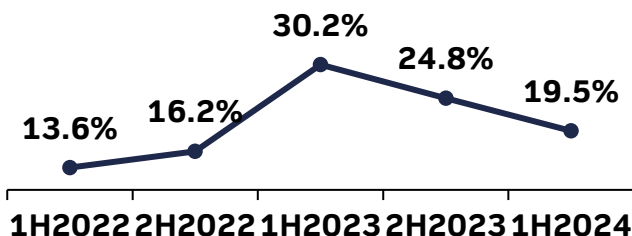
Surveillance Camera (COB)

1. Large Customer AVL

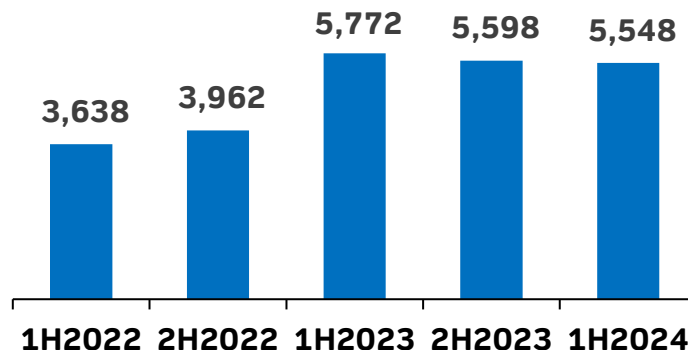


Highlight 7: Decent Financial Position Set for Future Development

Adjusted Net Debt to Equity Ratio



Cash Assets (RMB M)



➤ The company's net debt to equity ratio has increased YoY and MoM, mainly due to the reduction in cash and cash equivalents. The Company has decreased the bank loans to approx. RMB 4.14 billion by end of the Period, representing a decrease of 5.3% YoY. The total amount of the Company's cash assets (including cash and cash equivalents, bank time deposits with an original maturity of more than three months, pledged bank deposits, financial assets at fair value through profit or loss and financial assets measured at amortized cost reached approximately RMB 5.55 billion, fully covering the outstanding bank loans. In addition, quick ratio, adjusted net debt to equity ratio etc. both showing improvement. Therefore, the company financial position is very secure even in the difficult time of macro economic environment.

Highlight 8: Streamlined Internal Process

Implemented IPD & LTC, strengthen vertical integration capabilities and realize digitalization of sales and R&D



• Traceable Transaction Process



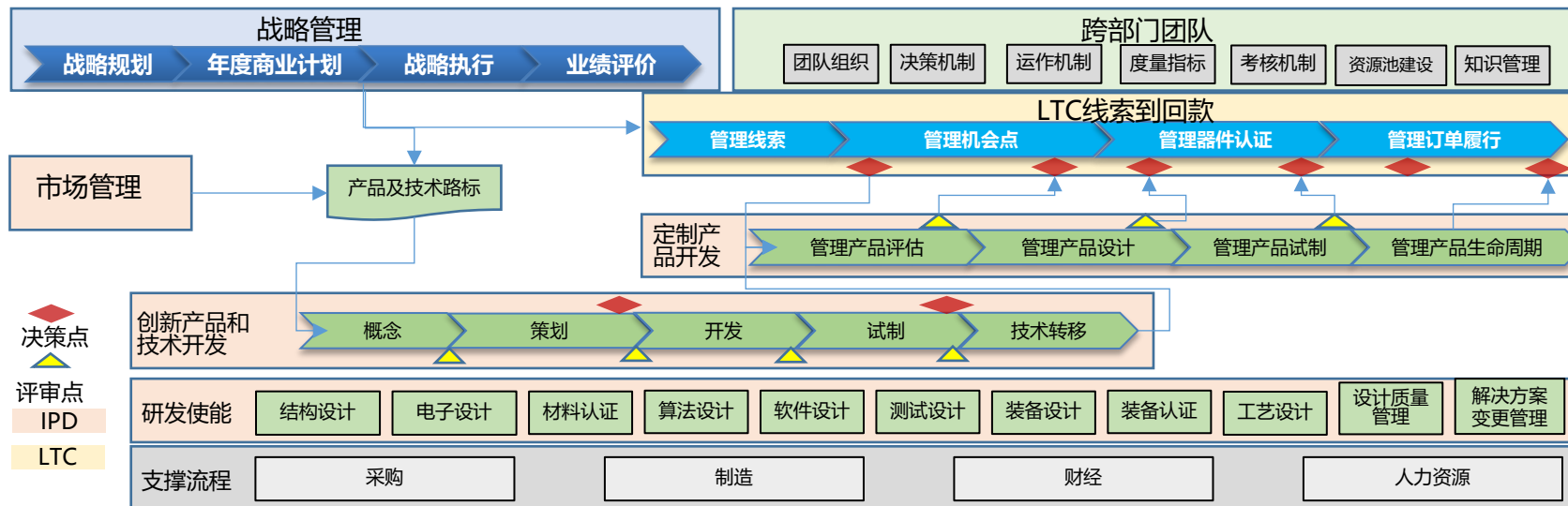
• Online collaborative research and development
• Data multi-system integration



• Digital visualization and traceability of the R&D process
• R&D knowledge base management



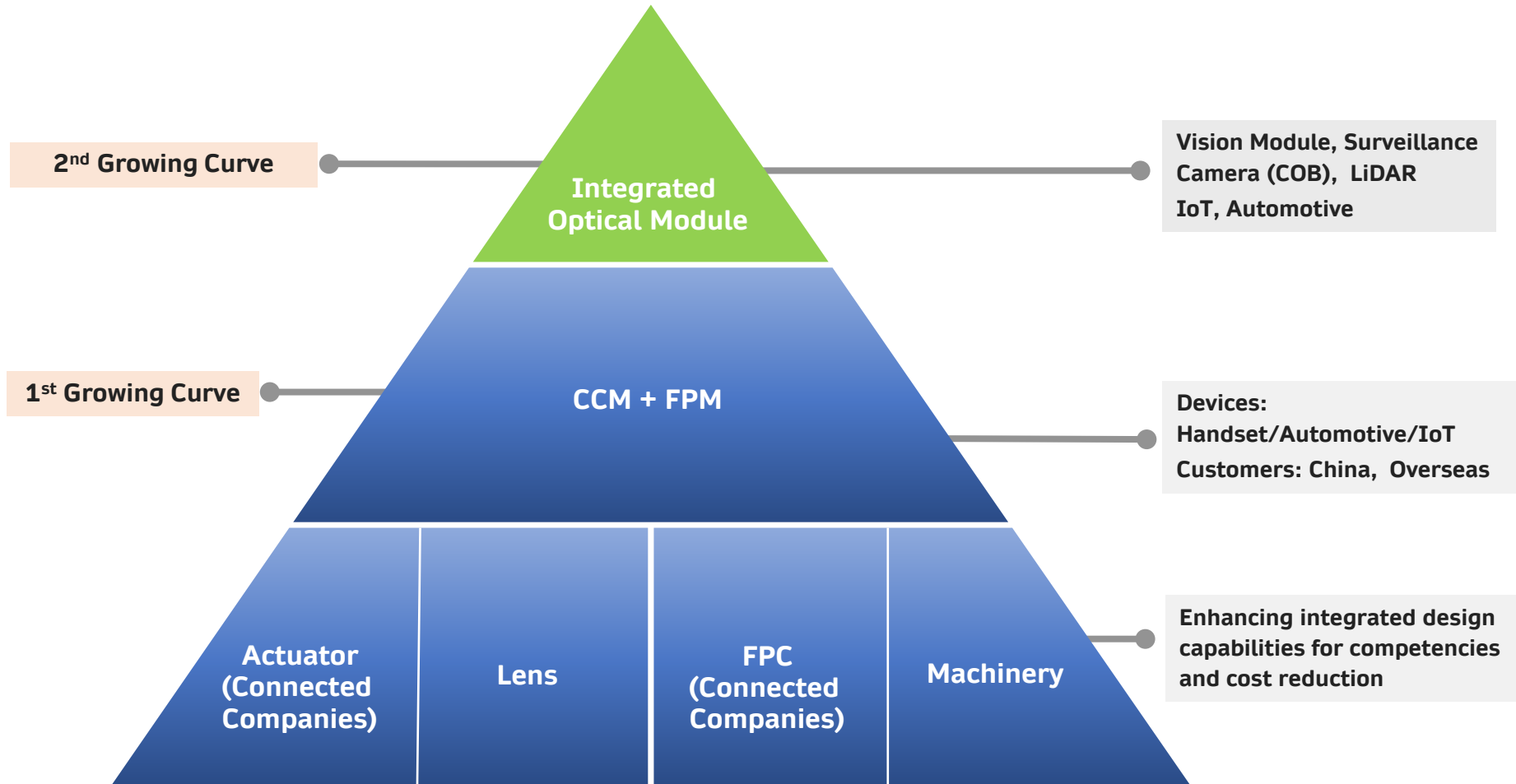
The order process is digitally visible and traceable





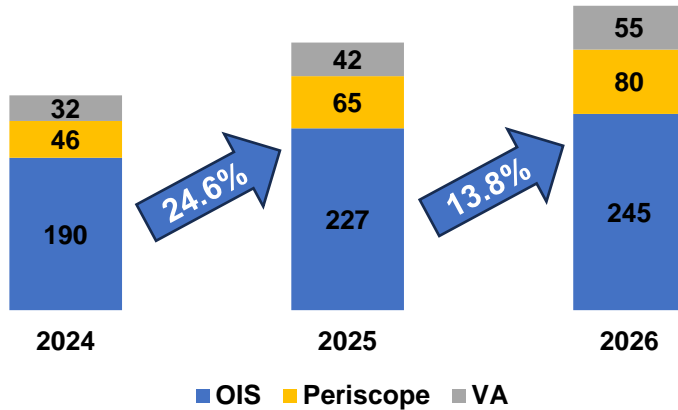
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»» Growth Strategy of Q Tech Business

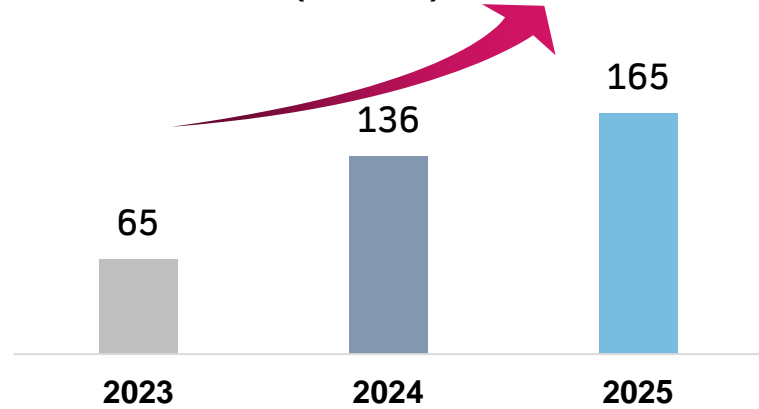


»» Handset: Demand for High-end CCM stepping up

2024-2026 Demand for Hi-end Specs CCM
in China Market
(Unit KK)



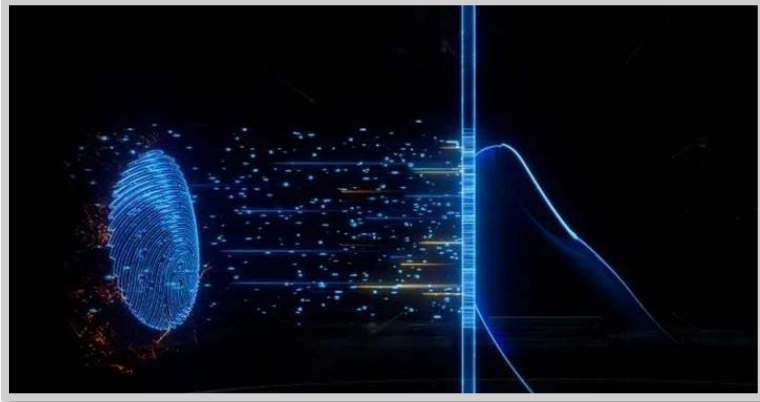
Global Demand for Periscope CCM
(Unit KK)



*Subjective forecast based on market dynamics and for reference only

- The penetration rate of domestic OIS smartphones continues to increase. During this period, The Group shipped approximately 26M unit CCM with OIS, among which periscope OIS modules are the key product direction in the future.
- As the second main camera, the periscope CCM is moving further into lower end models, and the shipment forecast for the next three years has been raised compared to the beginning of this year. The structure presents multiple forms to meet different needs; high performance, miniaturization, and low cost are the main technical paths.

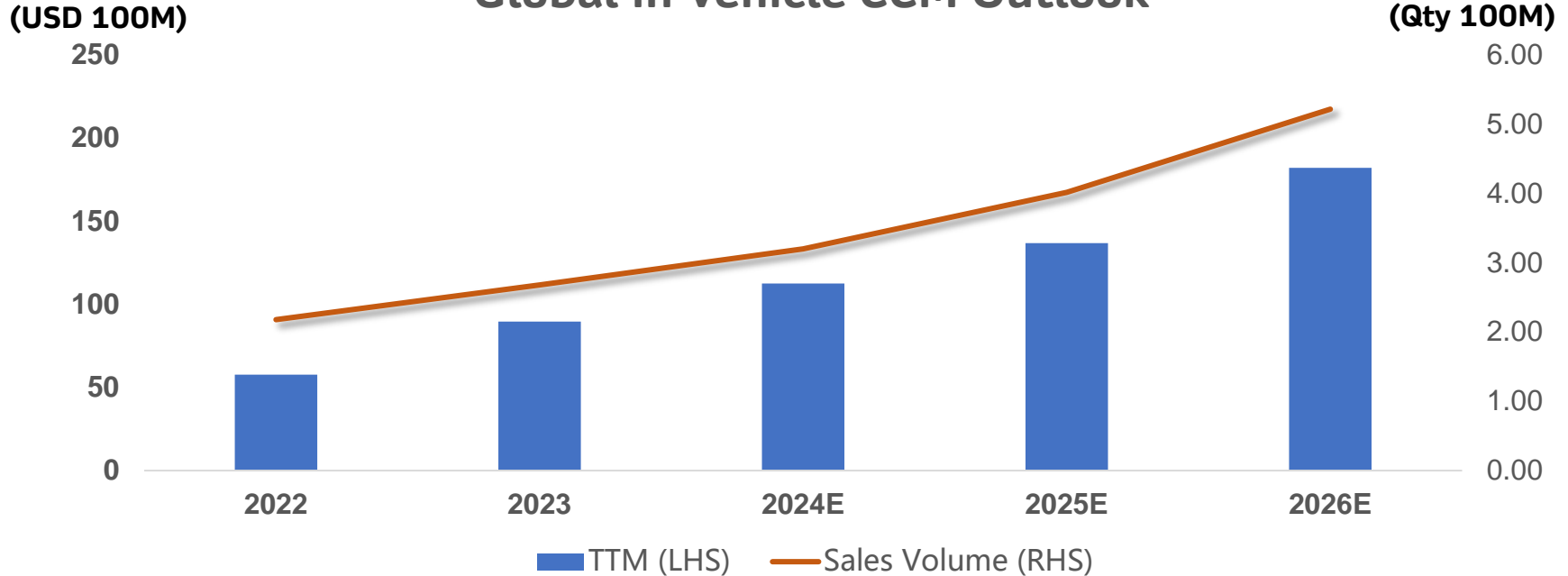
»» Handset: Ultrasonic FPM Growth Driver



With the development of high resolution and low power consumption of screens, the requirements for screen transmittance for under display FPM becomes challenging. Since the physical properties of ultrasonic FPM are more advantageous, it has begun to be widely adopted

	Capacitor Type FPM	Optical Type FPM	Ultrasonic Type FRM
AMOLED Penetration rate	N/A	Require the Display to have at least 2% penetration rate	No Limit
Form Factor	External Hole Opening	Under Display without hole	Under Display without hole
Humidity	Wet finger less effective	Dry finger less effective	No Limit
Expanded Functions	N/A	Add LED/PD can perform health check-up	Ultrasonic IC can perform health check-up directly

Global in-vehicle CCM Outlook



***Subjective forecast based on market dynamics and for reference only**

➤ According to data from a China third-party automobile industry think tank, the demand for in-vehicle cameras from the 17 major Chinese new energy automakers in 1H 2024 exceeded 21 million units, which is close to the total sales volume of the first three quarters of last year, equivalent to 6.97 camera per new energy vehicle in 1H 2024.

»» Automotive : CCM business Enter Acceleration Phrase

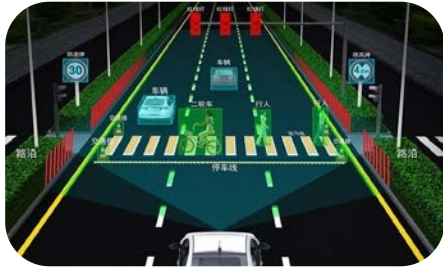


Goal	Q Tech Model	Progress
<p>To replicate Q Tech market position of Smartphone CCM in Automotive CCM market</p>	<p>Focus on Tier-1 Customers</p> <p>Focus on leading vendor of COB Vehicle CCM</p>	<p>Products: Fully cover ADAS\Surround View\In-cabin</p> <p>Customers: <u>Overseas and Domestic Tier-1:</u> H, C, B Customers <u>China NEV:</u> BYD, Xpeng, Nio, Aito, Aion, Geely</p> <p>Sales and Capacity: Sales volume increased more than 15X YoY in 1H 2024, and total production capacity exceeded 1KK/M</p> <p>Strategic Partnership: Create joint image lab with platform company</p>

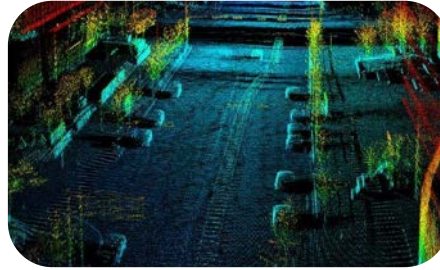
- 1) The product line covers a full range of automotive cameras and achieves large-scale shipments
- 2) Being the largest supplier to H Tier-1 customer and commencing mass production for international B Tier-1
- 3) Accelerating qualification in Tier-1 customers of Japan, France, Canada and Germany
- 3) Invest heavily in COB production and expect two large customers start mass production in Q1 2025

»» Multiple Sensor Module Products per Vehicle

Automotive CCM



LiDAR



Millimeter Wave Radar



Early fusion of multi-modal sensors fuses the raw data of multiple sensors before feature extraction to achieve a better autonomous driving result

Enhanced Situational Awareness

Better Decision Making

Enhanced Algorithm Efficiency

»» IoT: Four Major Product Lines



Type	Market Data	QT Position and Development
Consumer drone, Industry drone, handheld products	<ul style="list-style-type: none"> ➤ Development of low-altitude economy is supporting the growth of industrial and consumer drones, which is necessary to carry Lidar to obtain large-scale three-dimensional landmark spatial information in a short time. LiDAR module demand will reach one million units annually in the future. ➤ Approx. 1.51 million panoramic cameras are shipped annually, with a CAGR of approx. 11.5%, and approx. 2.66 million action cameras are shipped annually, with a CAGR of approx. 15%. 	<ul style="list-style-type: none"> ➤ Being the benchmark supplier for the world's largest drone company, products offering cover main camera modules, navigation modules and LiDAR (mass production in near term)
XR Optical Products	<ul style="list-style-type: none"> ➤ Global VR sales volume are expected to reach 8.44 million units in 2024, a 12% increase from 2023, reversing the sales decline trend in the past two years, and the VR/MR industry is expected to explode in 2027. ➤ In 2024, global AR sales volume is expected to increase by approx. 90.4% to approx. 953K units, and is expected to continue to grow, reaching 15.5 million units in 2027. 	<ul style="list-style-type: none"> ➤ Covered major mainland China and Taiwan VR brands, including PICO, HTC, DPVR, etc. ➤ Obtained US M brand Vendor code. Multiple projects are under discussion and target to crack in within this year.
Integrated Optical Module	<ul style="list-style-type: none"> ➤ In 2024, the camera market size of North American VC is estimated to reach US\$2.79 billion, and the market size of USB Streaming cameras is estimated to reach US\$5.4 billion, both with a CAGR more than 10%. 	<ul style="list-style-type: none"> ➤ With QT algorithm + optical module capabilities, the Group aim to enter Europe and US major customers
Robotics	<ul style="list-style-type: none"> ➤ The size of the robotic sensor market exceeded US\$2 billion in 2023, with an estimated CAGR of higher than 11.5% from 2023 to 2028, with the fastest growth in vision related products 	<ul style="list-style-type: none"> ➤ QT cooperates with leading international sensor leaders to jointly develop projects.

***Subjective forecast based on market dynamics and for reference only**

»» IoT: Drone and Handheld Product

Consumer Drone

Entering the mature stage, demand is stable. QT is currently the main supplier of camera products and continues to increase its share.

Products: 1-inch large IC CCM + VCM/3D product



Industrial Drone

Support by policies and will become the growth engine for the next stage. Emergency service, logistics, plant protection, inspection, disaster prevention and reduction, geology and meteorology are the main application scenarios. QT aims to gain major share in this area.

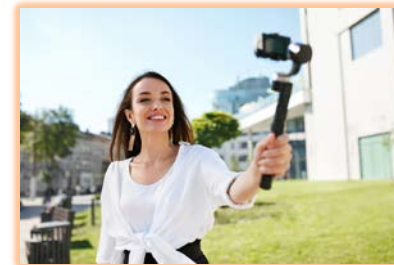
Product : CCM and LiDAR



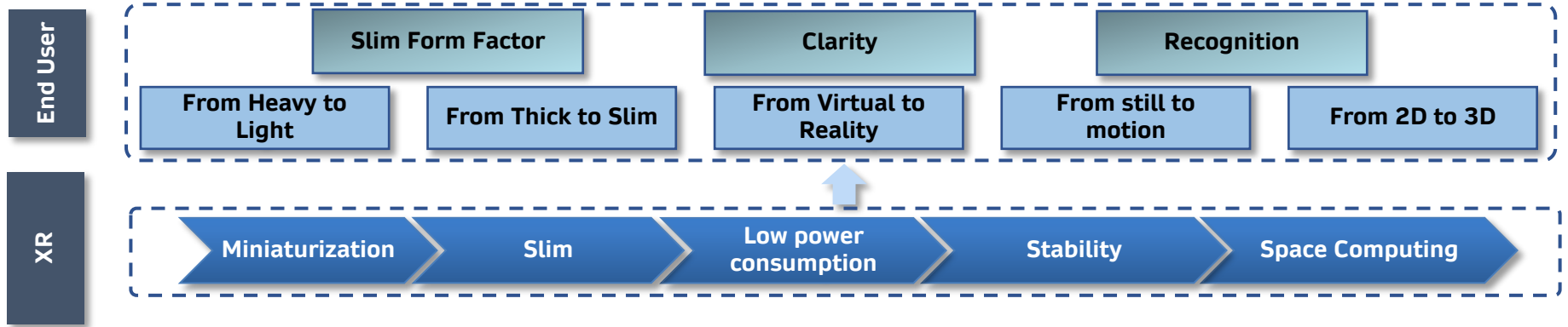
Handheld Product

Mainly used in handheld gimbals, panoramic cameras, and action cameras. It is estimated that annual sales volume will be doubled this year. QT strives to become a 50%+ supplier.

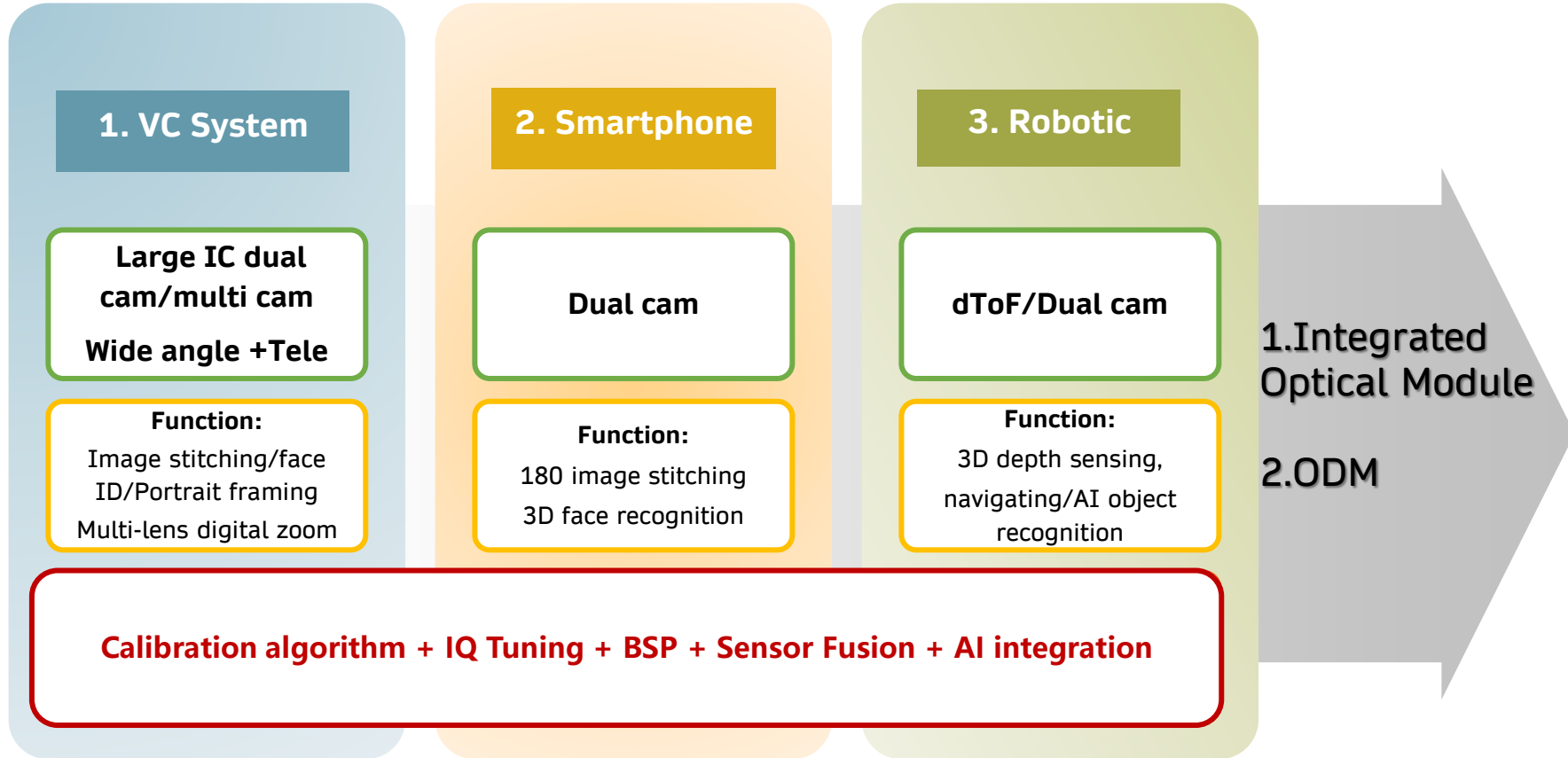
Product: 180-degree fisheye, 1-inch large IC CCM

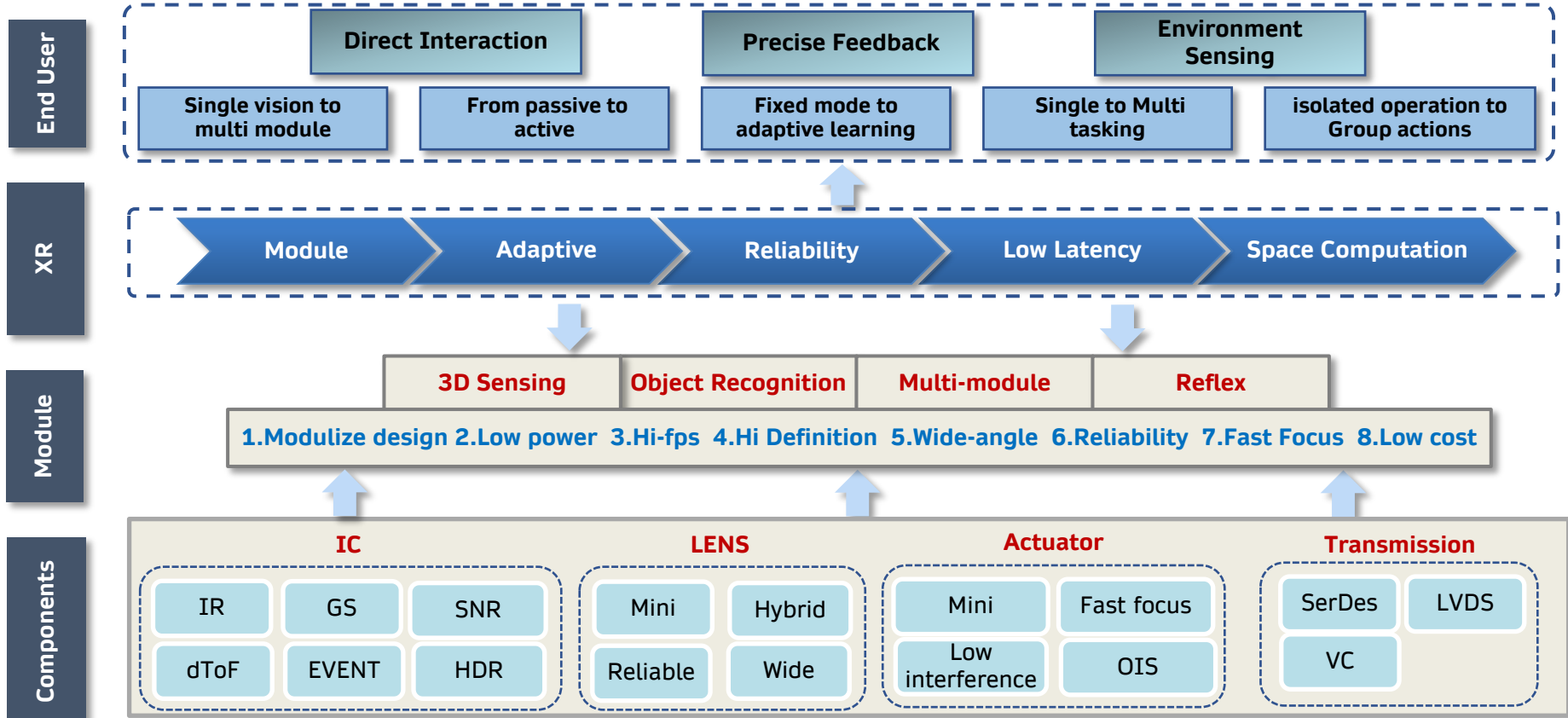


»» IoT: XR Device



IoT: Software and Hardware Integrated Optical Module



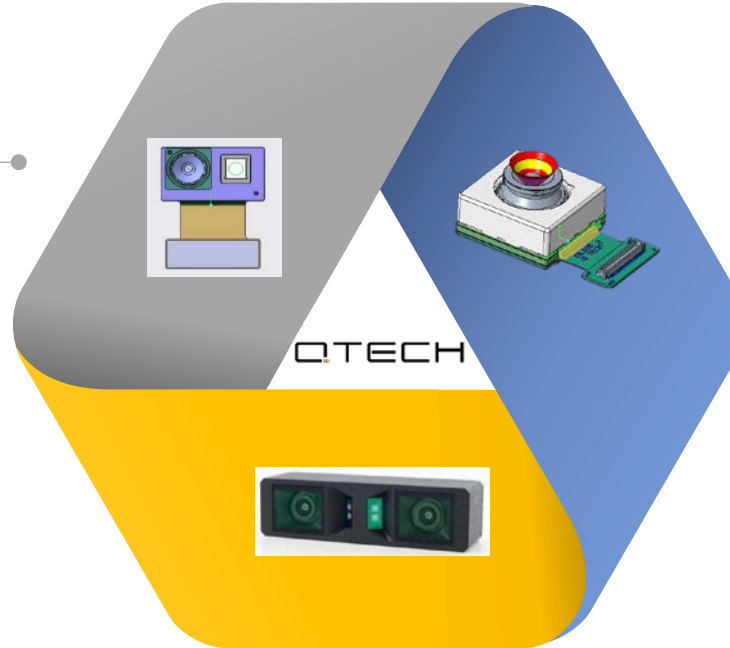




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What's QTECH

- Camera Module
- Optical System Module (AI + SoC + Camera)



Vertical Integration

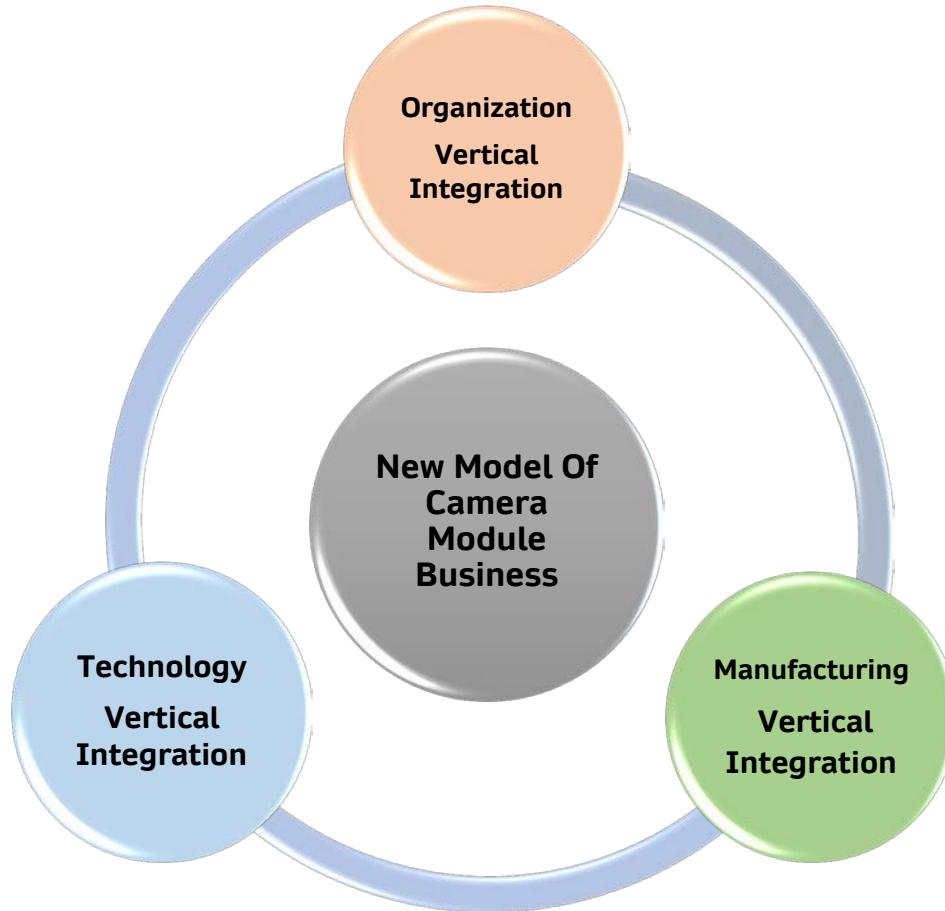
Vertical Integration On Camera Module

- a) Actuator
- b) Lens
- c) FPC
- d) Optical Part
- e) Algorithm
- f) Equipment

Strategy Product Lines

- Mobile Phone/Tablet Camera
- Automotive Camera
- AIOT Camera

»» New Model Of Camera Module Business



Development of Leading Technology Camera Module

Actuator R&D

Lens R&D

Algorithm

Automation

Module Process

Industrial Internet Large Scale Production System



生产精益化Lean Production

01



02 制造自动化Automation



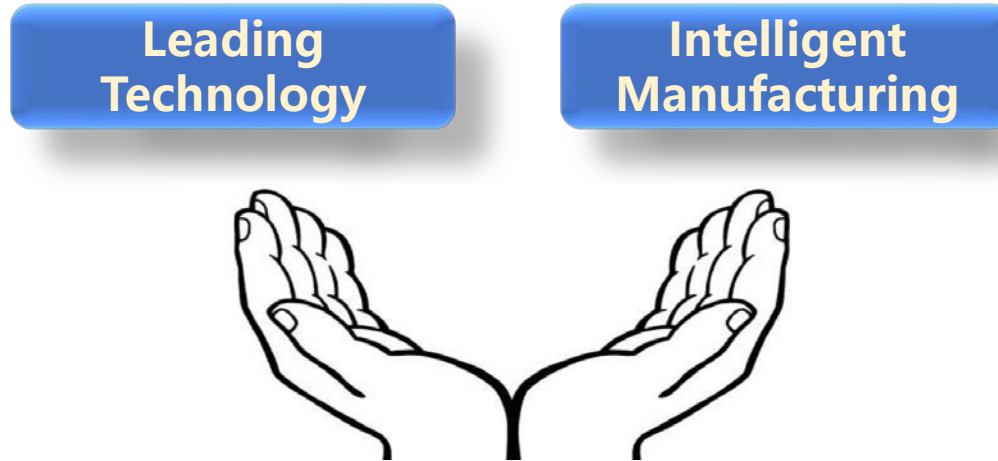
控制智能化Intelligent Control

04

03 过程数字化Digitization

Value Proposition:

The world's first-class module technology, the world's leading actuator and algorithm technology, provide customers with competitive CCM benchmarking SLR camera and exceeding human vision, and integrated optical module.





丘鈦科技(集團)有限公司

THANKS

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