

淳安電子股份有限公司

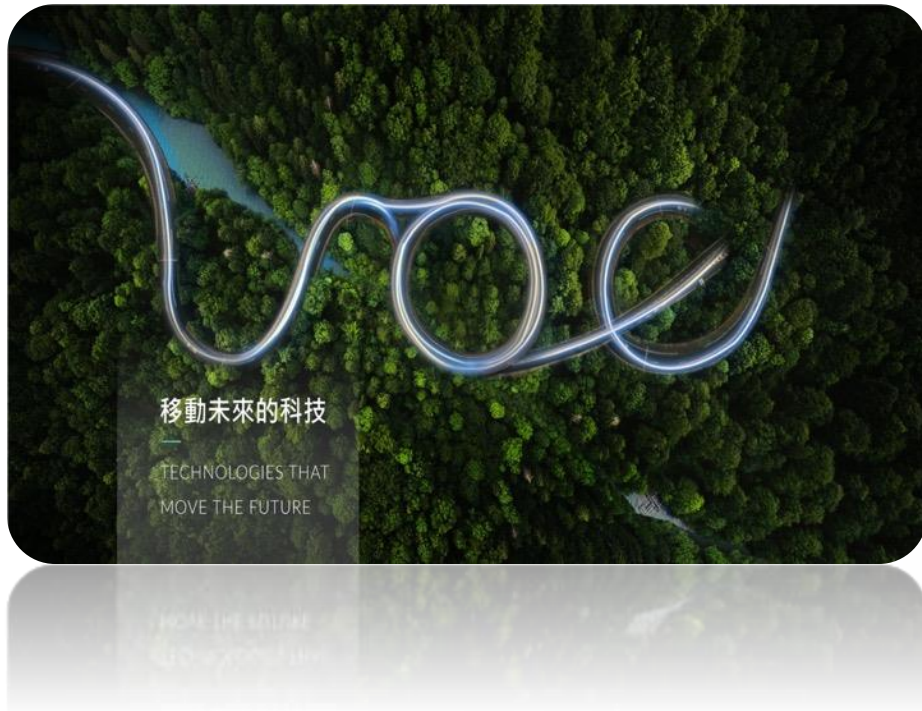
SHUN ON ELECTRONIC CO., LTD.

6283.TW

2020/12



淳安電子



- 成立於1996年1月12日 Established in 1996
- 實收資本額新台幣14.8億 Registered Capital NTD 1.48B
- 員工人數約1,700人 (2020/12) approx. 1,700 employees
- 主要股東：敏台投資、智嘉投資、群光集團、富邦人壽等。
Major shareholders : Min Tai 、Giga Investment Co. 、
Chicony Electronics 、Fubon Life Assurance ... etc.



- 多元且國際化的團隊。A diverse and international team.
- 榮獲天下雜誌2020年Fast快速成長100強第29名。
Ranked 29th in the Fast Growth Top 100 in 2020 by Common Wealth Magazine.
- 高解析度攝相頭技術引領全球車電市場。Focused on industry leading high-resolution automotive camera technology.

公司歷程 Company History

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跨足汽車，不斷強化競爭優勢，與全球車廠建立長期業務關係，致力於成為汽車廠的優秀供應夥伴。

Venture into automobiles, continuously strengthen competitive advantages, establish long-term business relationships with global automakers, and strive to become an excellent supplier and partner for automakers.



管理團隊 Management Team

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許清文 Anderson Hsu
CEO
Age : 52

- 26年汽車產業經驗
- 同致電子科技(昆山)總經理
- 中華汽車產品經理
- 億光電子汽車事業部主管
- 宏致電子汽車事業部主管
- 光寶汽車電子執行長特別助理
- 光寶汽車電子PMC處長
- 光寶汽車電子影像事業處處長



葉一慧
Elaine Yei

CFO

Age : 45

- 加入淳安19年
- 國家記帳士資格



羅華美
May Lo

CHO

Age : 50

- 人力資源領域14年經驗
- 教育學博士



曹淑琴
Stacy Tsao

CPO

Age : 52

- 採購領域15年經驗
- 多年深耕於電子產業



荻野 均
Ogino Hitoshi

COO

Age : 55

- 28年相關產品開發經驗
- 曾任夏普騰夏契合科技總經理



山崎 治
Yamazaki OsaMu

CMO

Age : 60

- 35年車載開發經驗
- 熟知車廠考評模式與應對



田中誠一
Tanaka Seiichi

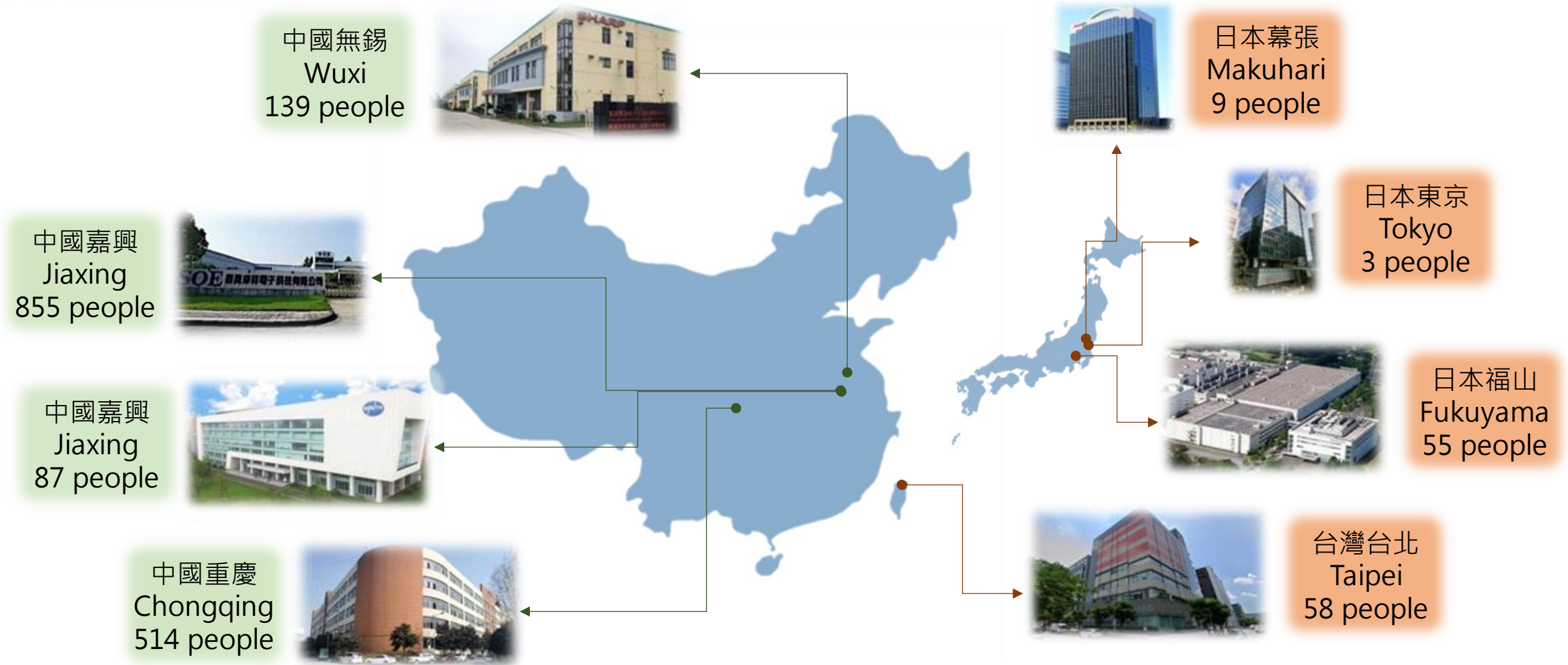
CTO

Age : 52

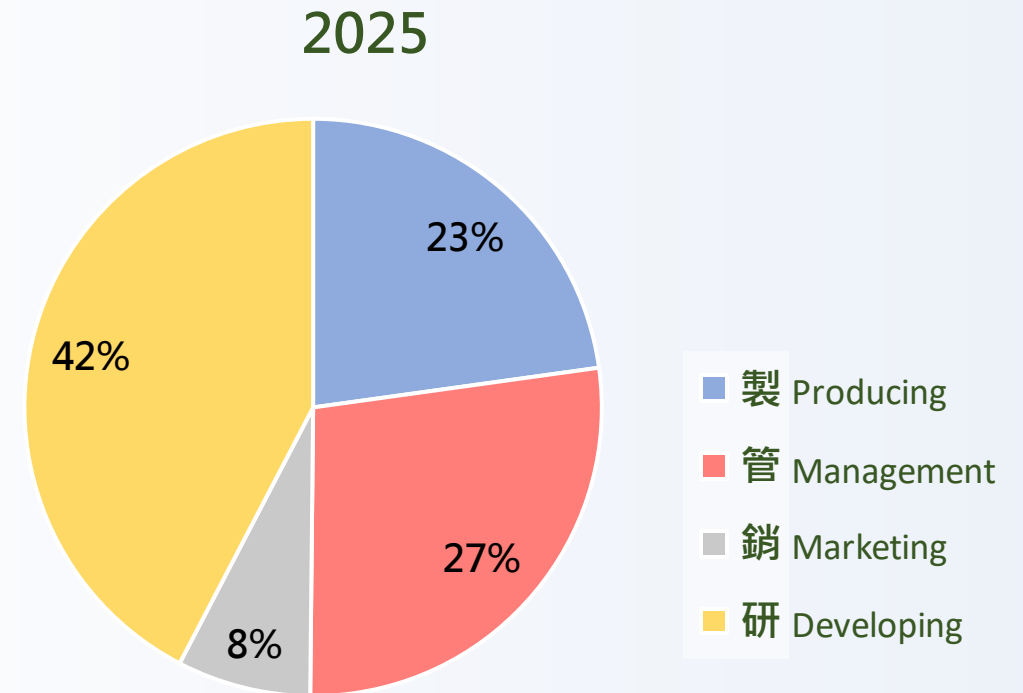
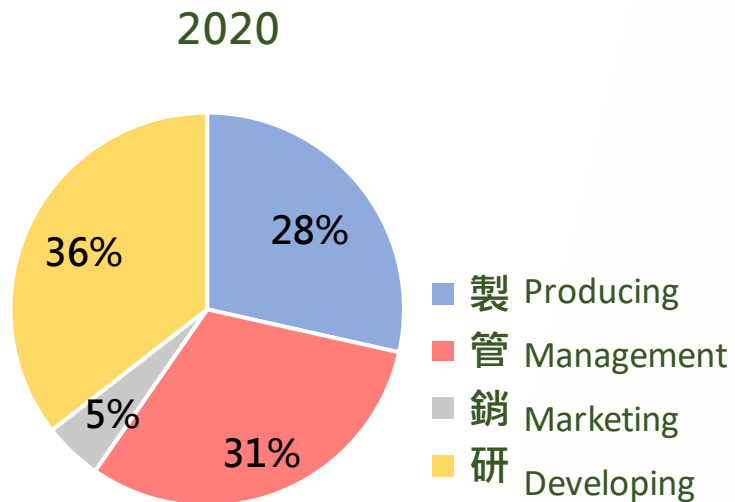
- 27年車載相關經驗
- 27年軟體開發相關經驗

公司基地 Company Locations

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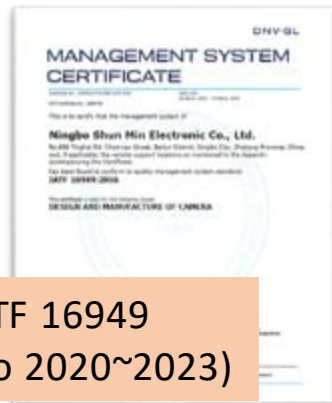
- 研發人員將由現有佔比36%提升至42%。Increase R&D team to 42%.
- 增加銷售人力。Increase marketing team.



品質與客戶認證 Quality and Customer Certification



IATF 16949
(Wuxi 2018~2021)



IATF 16949
(Ningbo 2020~2023)



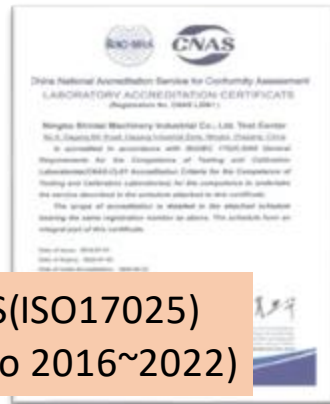
ISO 14001
(Wuxi)



ISO 14001
(Ningbo 2008~2021)



OHSAS 18001
(Ningbo 2018~2021)



CNAS(ISO17025)
(Ningbo 2016~2022)



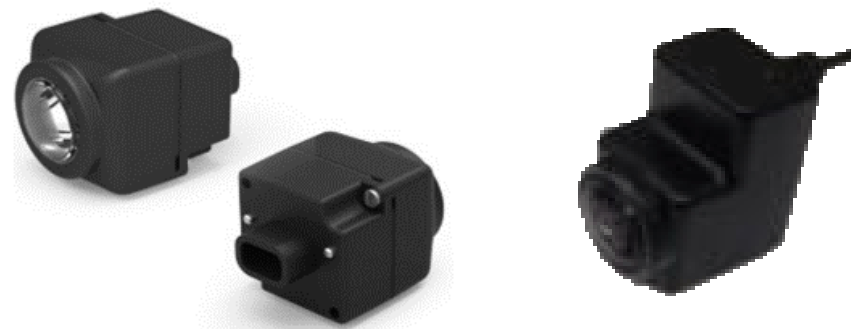
NIO Laboratory Accreditation
(Ningbo-2018/2019)

薄膜
Keyboard
Membrane



- 筆電腦鍵盤、滑鼠、繪圖板、電話機等薄膜開關。 Membrane for keyboard, mouse, graphics tablet, phone... etc.
- 電器產品—各類電器按鍵薄膜開關。 Membrane for dome switches of various electronic products.
- 工業設備—工業電腦、工具機按鍵薄膜開關。 Membrane for industrial equipment such as IPC and machining center.

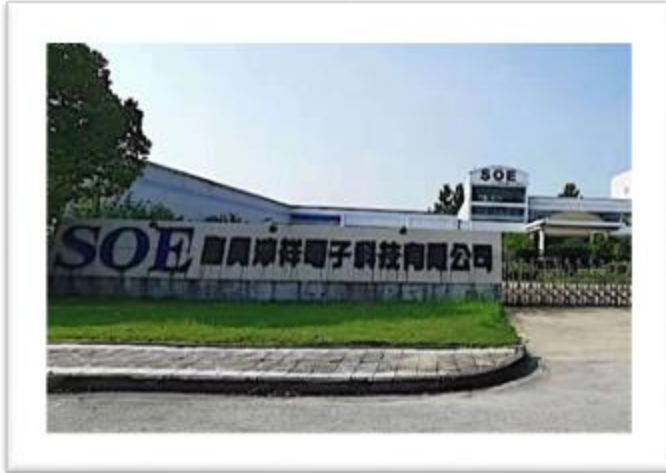
車用產品
Automotive
Parts



- 0.3M、1M、2M、4M、5M、8M車用攝像頭。 0.3M、1M、2M、4M、5M、8M cameras for automobile.
- 3D AVM、DMS、BDS、LAW等ADAS用車用攝像頭。 Cameras for ADAS functions such as 3D AVM、DMS、BDS、LAW... etc.
- E-mirror、自動駕駛用車用攝像頭。 Cameras for E-mirror or autopilot.

薄膜產能介紹 Membrane Factory Capacity

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薄膜嘉興廠

Membrane Jiaxing Factory

產能220萬片/月

Capacity 2.2 millions pcs / month



薄膜重慶廠

Membrane Chongqing Factory

產能260萬片/月

Capacity 2.6 millions pcs / month

研發據點 R&D



台灣 台北 Taipei
HW&SW 研發中心



日本 福山/幕張 Japan
HW&SW 研發中心



中國 嘉興 China
生產現地研發基地



美國 紹斯菲爾德 U.S
現地技術應對



德國 慕尼黑 Germany
現地技術應對

生產據點 Factories



中國 嘉興 China
全自動化生產導入(2020/3)
IATF16949認證工廠
最大產能10Mpcs/年



中國 無錫 China
全自動化生產導入(2021/6)
IATF16949認證工廠
最大產能4Mpcs/年



越南 順安 Vietnam
全自動化生產導入(2020/11)
IATF16949認證工廠
最大產能3Mpcs/年
對應北美市場

商務據點 Sales Office



德國 慕尼黑 Germany



美國 紹斯菲爾德 U.S

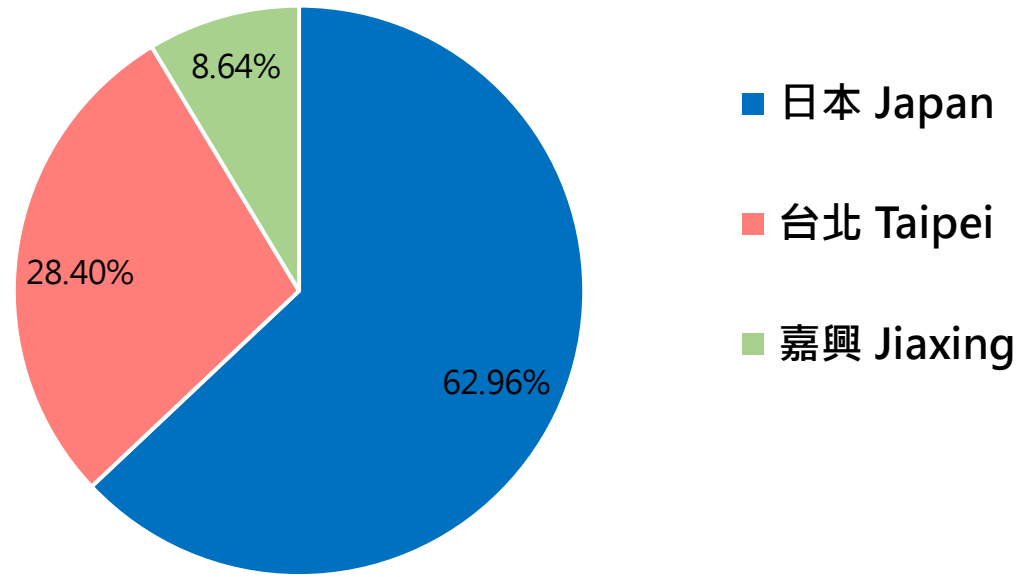


中國 嘉興 China

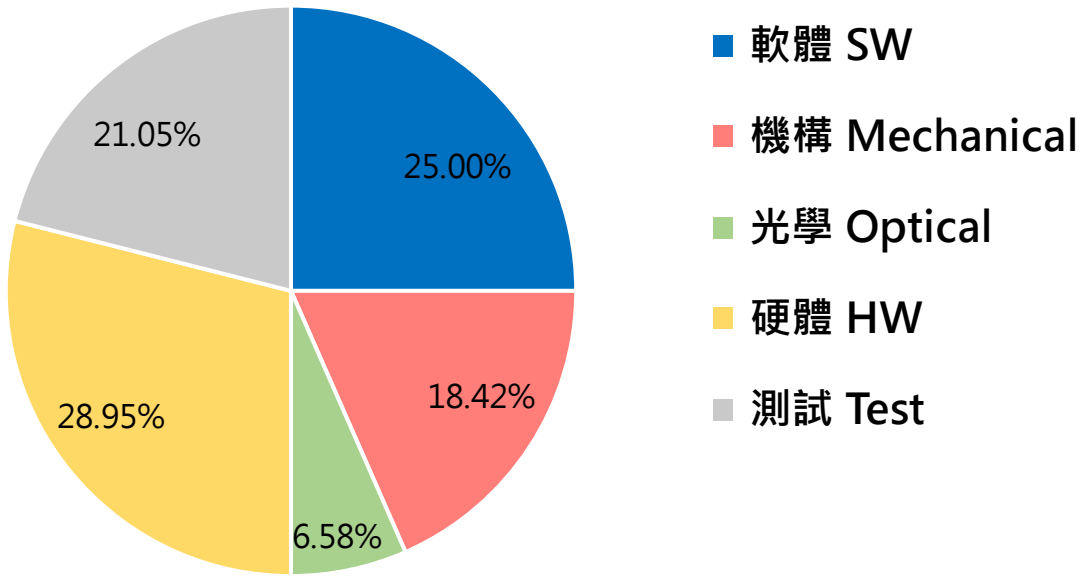


日本 東京 Japan

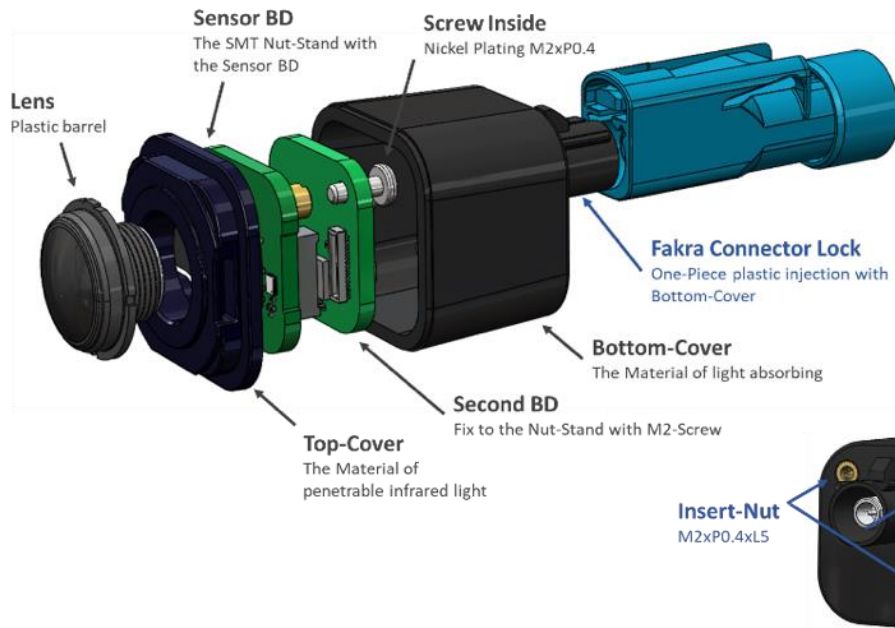
研發人員所在地
Development team by location



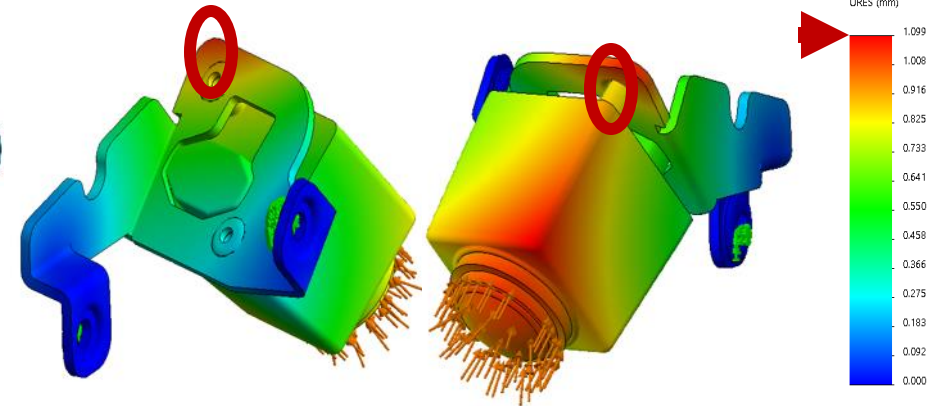
研發團隊組成
Development team by function



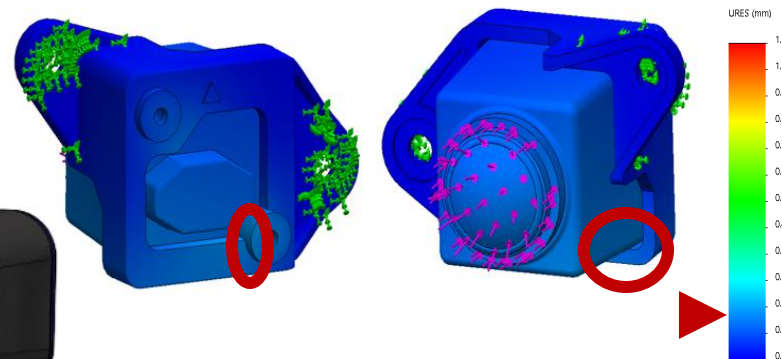
- 螺絲鎖附 Screw lock
- 超音波接合 Ultrasonic bonding
- 雷射接合 Laser bonding



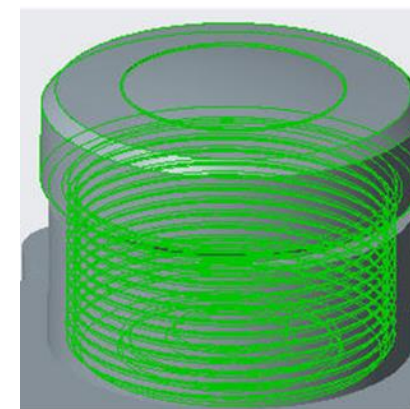
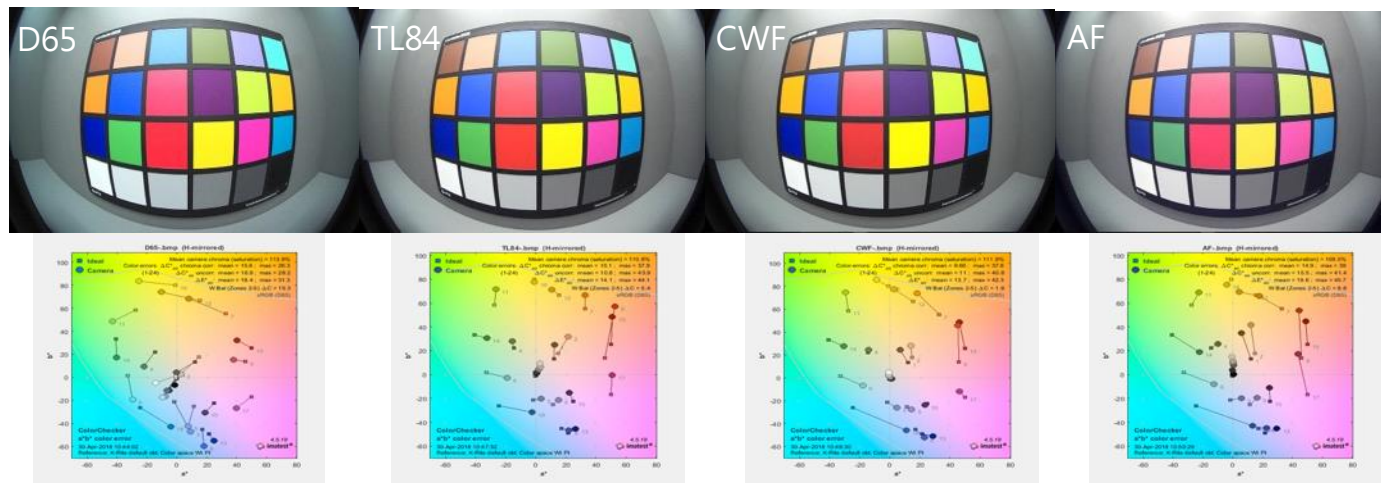
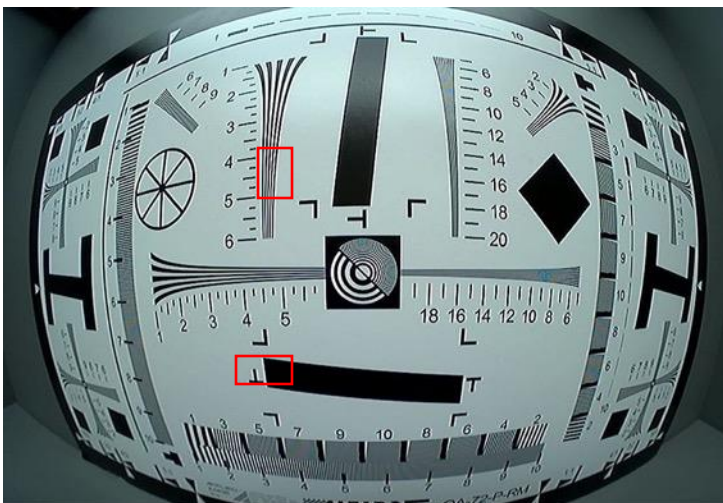
Before optimizing



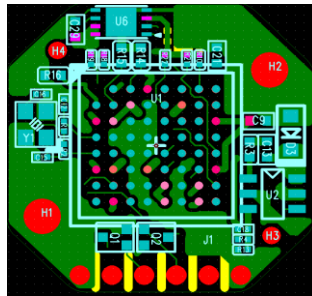
After optimizing



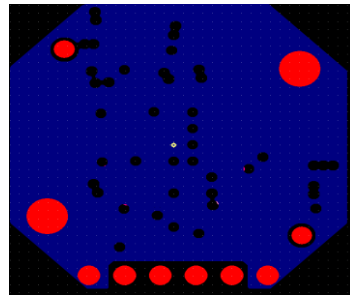
- 模流分析
Mold flow analysis
- 熱模擬
Thermal simulation
- 光學分析
Optical analysis



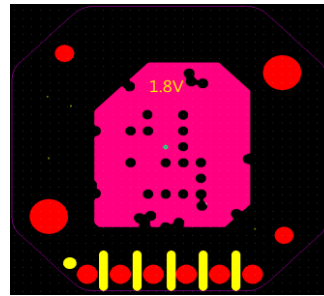
擁有EMC開發經驗與能力



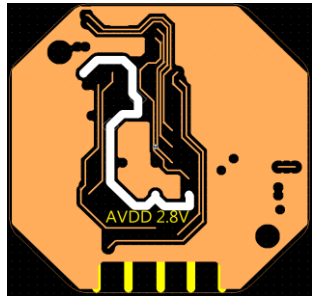
Top Layer



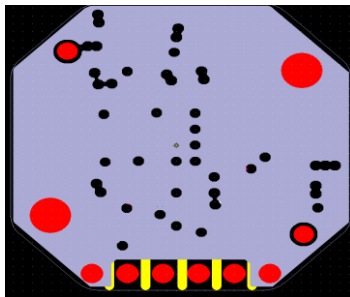
2nd Layer GND



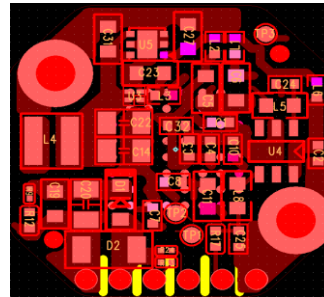
3rd Layer Power



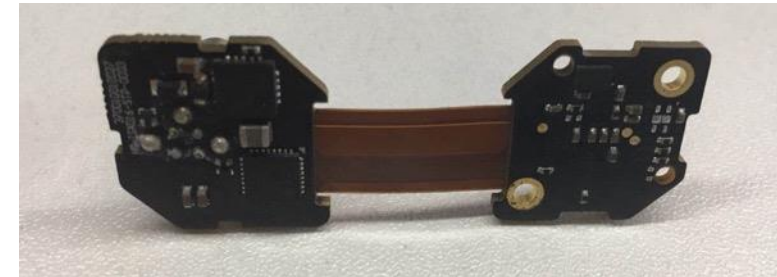
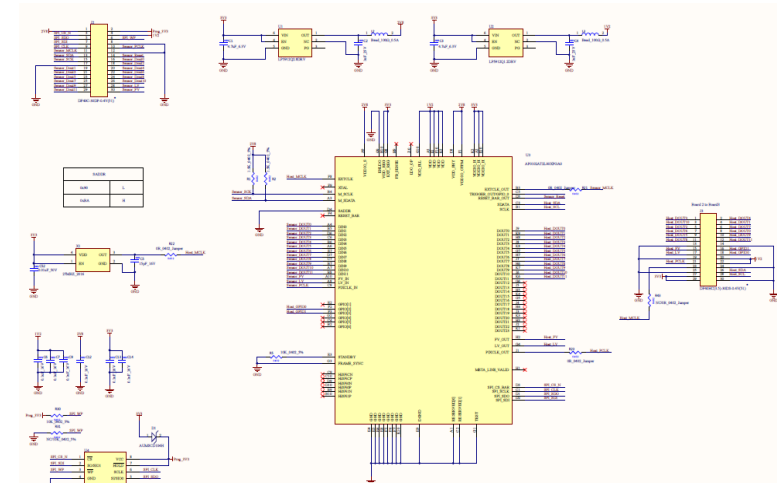
4th Layer Trace

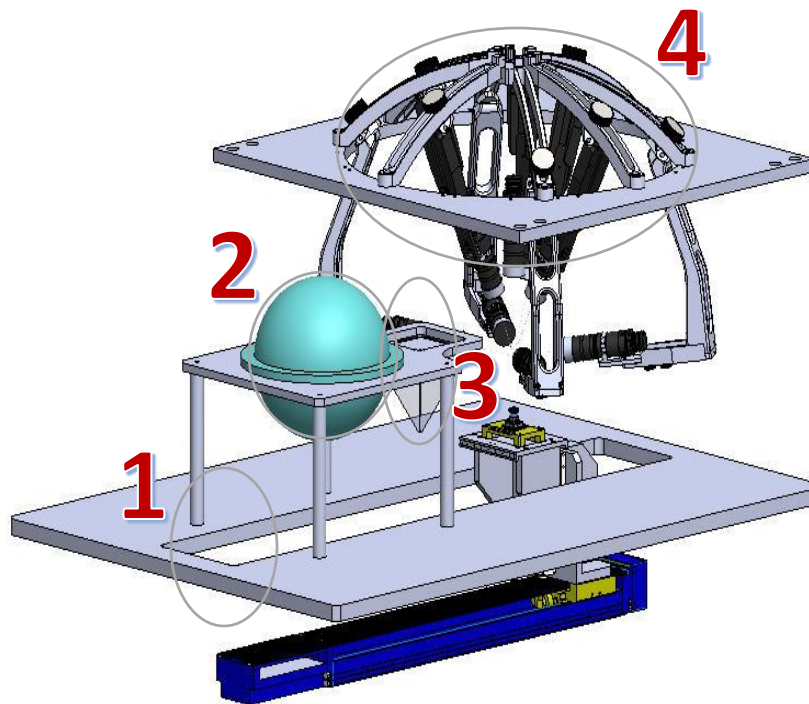
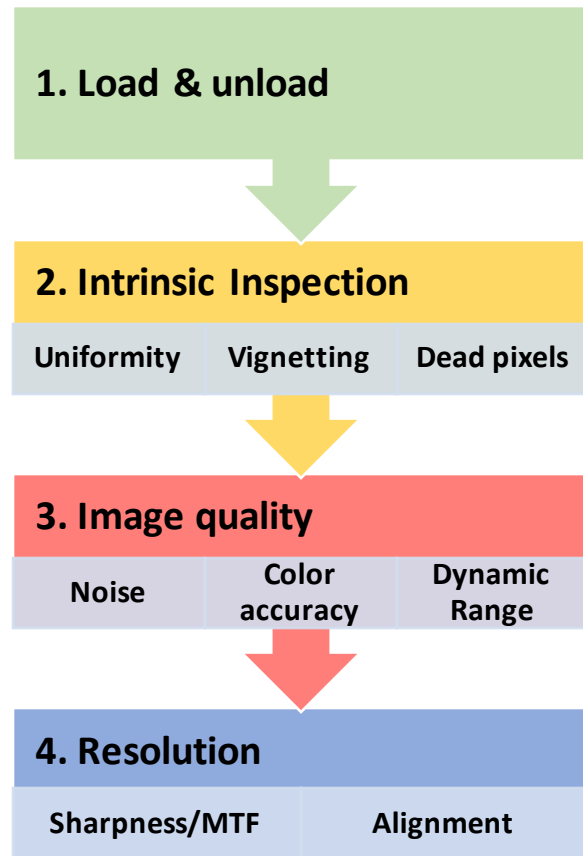


5th Layer GND

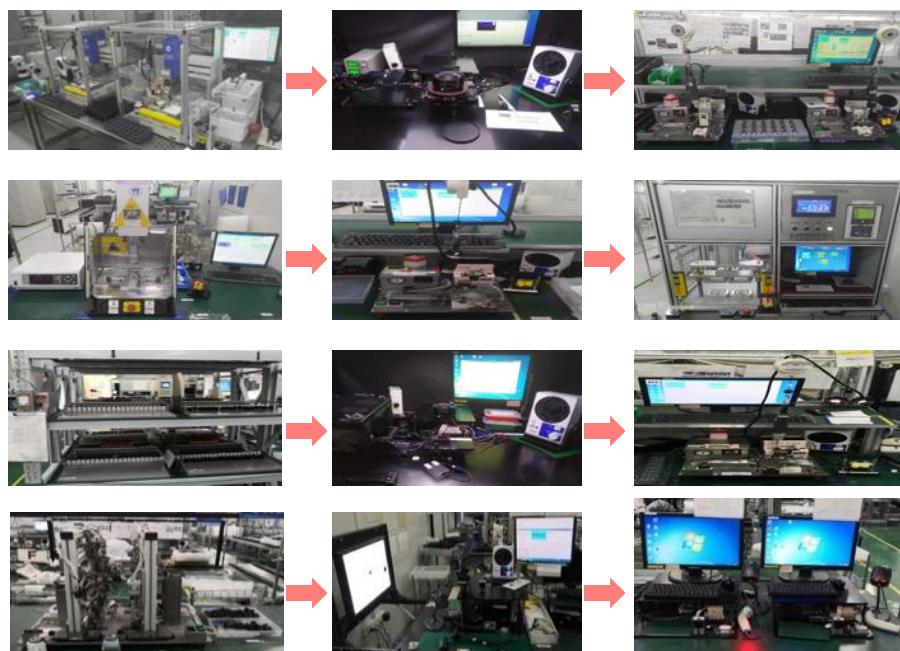


Bottom Layer





Existing manual operation 、 Low production rate



improve

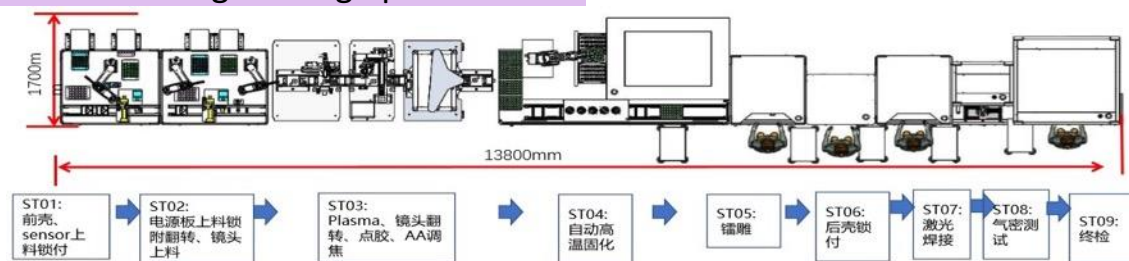
Equipment automation, high production rate

High
production
rate

Equipment automation、half automatic



Reduction of Engineering operators



DV/PV 檢測線 Testing Equipment

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- About 60% of the DV&PV test items can complete internally, Other test will be carried out in a third party approved by customers.
- Main partners of our outsourcing test are Intertek ,GRGT, SIMT, CTI etc.

Environment Test (20set)

Environmental test chamber



Thermal Shock



EE&EMC Test (8set)

Hi-Pot Test



Programming power supply



ESD Test



IP6K9K Test (4set)

Leak Test



IPX9K



IP6X

Mechanical Test (8set)

pulling force tester



Drop tester



Cable life Test



Test & Analysis (8set)

One Key measurement

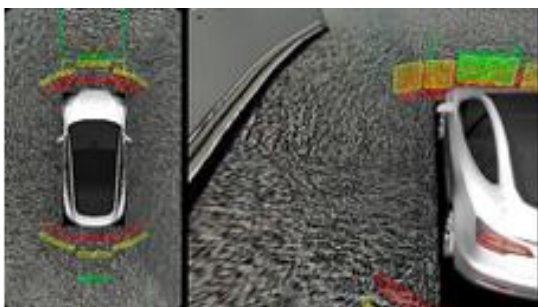


3D microscope

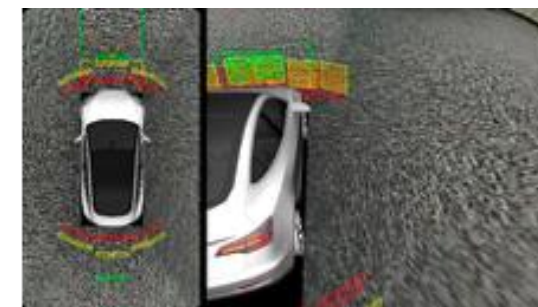


X-Ray





Low speed turn left



Low speed turn right



High speed turn left



High speed turn right

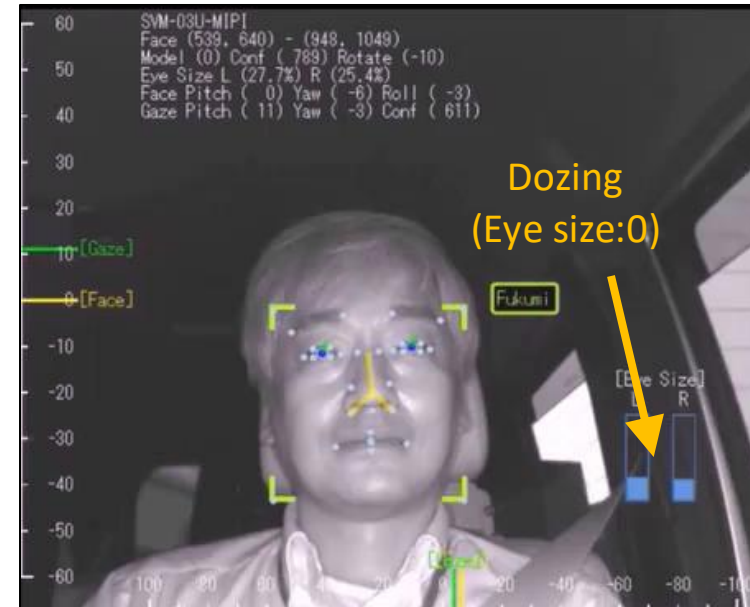
2M攝像頭搭配駕駛人監視系統 Camera with DMS

20

Video with visible camera



Near infrared camera



項目案例-1 Case Study -1

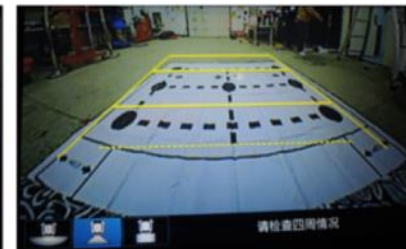
21

一顆攝像頭，三個模態
Three mode in one camera.

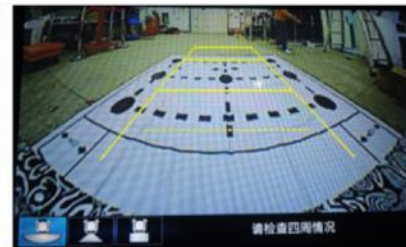


SOE

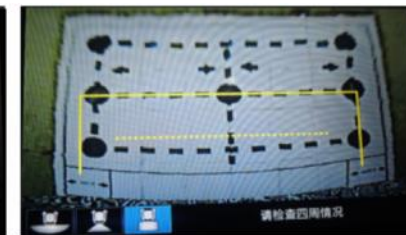
Mxxxx



normal mode

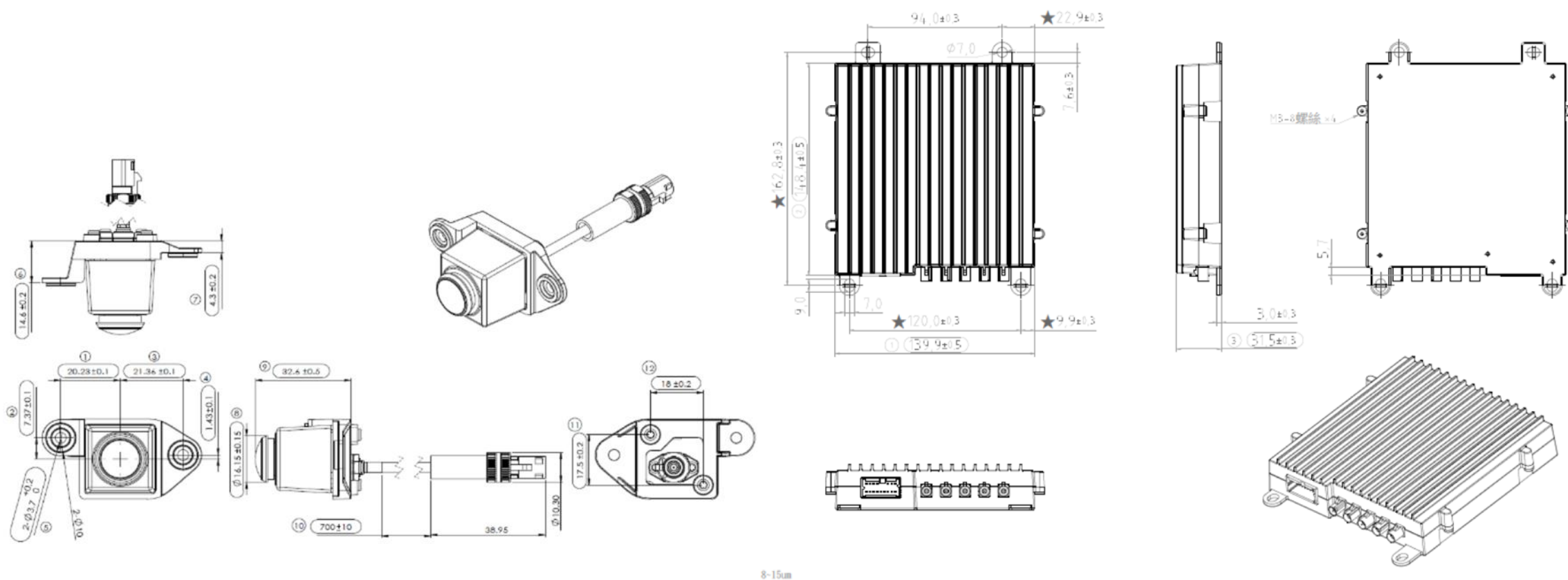


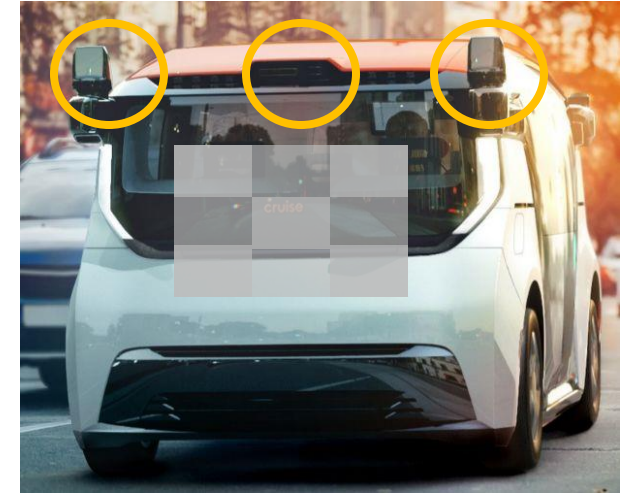
wide mode



TopDown mode

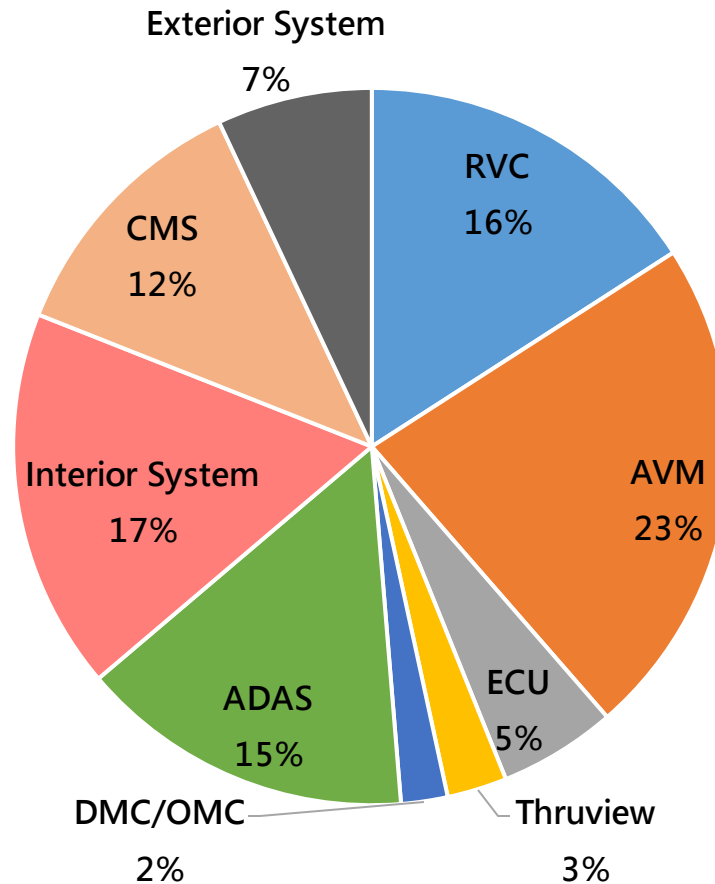
環景攝像頭(四顆)+控制盒 Around view camera with ECU





- **Bus-type passenger car for self-sustaining autonomous driving with no driver's seat (no steering wheel).**
- **5Mp High: 2 units**
- **5Mp Med: 8 units**
- **5Mp Low: 1 unit**
- **2Mp: 8 units**
- **A total of 19 cameras will be installed.**

計劃2025營業額依產品別分佈 2025 products by function



車用攝像頭產能規劃 Production Capacity

單位：M/USD

12,000

單位：千顆

10,000

8,000

6,000

4,000

2,000

0

2021

2022

2023

2024

2025

■ 生產數量

2,008

2,963

6,711

7,722

9,838

嘉興廠+無錫廠+越南廠

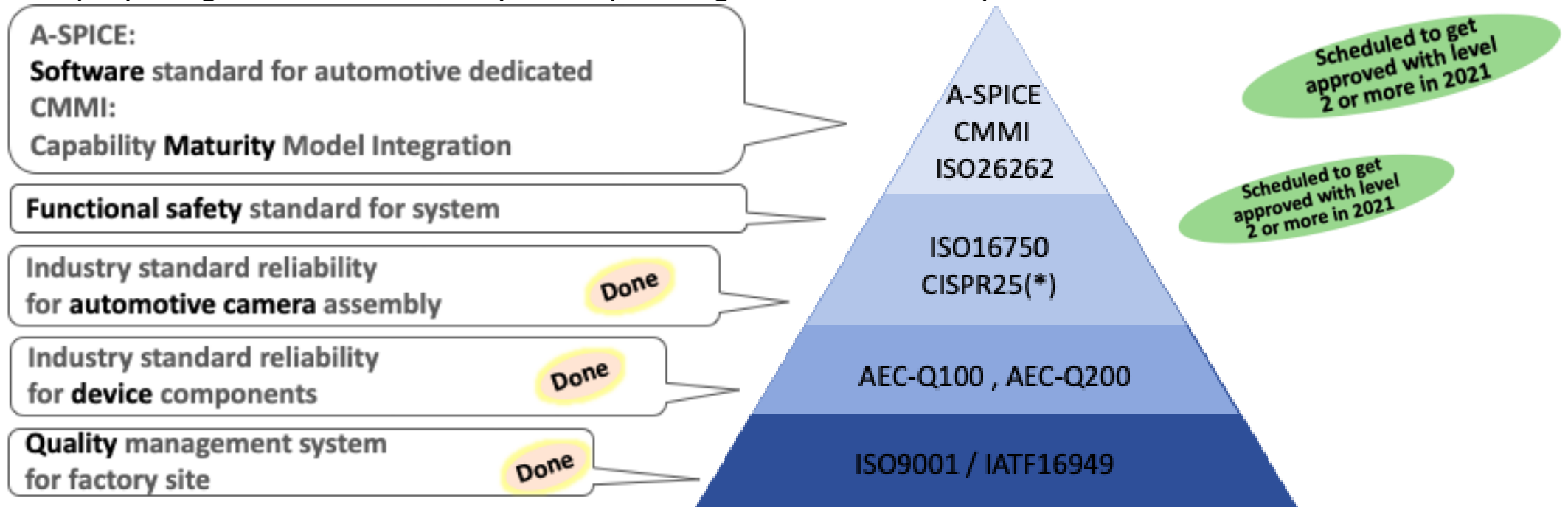
Jiaxing+Wuxi+Vietnam factory

2025產能目標1000萬顆

2025 target 10 millions camera produce capacity



Starting from certification for a factory, and for devices and components toward automotive camera.
Now we are preparing for functional safety corresponding to customers' requirements.



*CISPR (English: International Special Committee on Radio Interference) was founded in 1934 to set standards for controlling electromagnetic interference in electrical and electronic devices, and is a part of the International Electrotechnical Commission (IEC). CISPR25 is EMC standard for Automotive.

採IFRSs後財報資訊 Financial Information

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單位：新台幣仟元
In NTD thousand

	期 別	109Q1-3	108Q1-3	108年度	107年度
簡明資產負債表 I/S	資產總計 Assets	3,448,081	2,618,703	2,535,634	2,382,136
	負債總計 Liabilities	1,063,233	444,615	393,316	392,261
	權益總計 Capital	2,384,848	2,174,088	2,142,318	1,989,875
	每股淨值(元) Book Value Per Share	12.82	13.52	13.29	13.44
簡明綜合損益表 B/S	營業收入 Revenue	1,049,754	826,403	1,228,691	1,100,299
	營業利益(損失) Operating profit	-82,477	5,092	27,184	16,889
	稅前淨利(淨損) Income before tax	-27,462	65,501	66,057	36,700
	基本每股盈餘(元) EPS	-0.19	0.15	0.03	0.19
簡明現金流量表 Cash flow	營業活動之淨現金流入(流出) Net cash inflow from operating	-31,553	31,616	58,138	-161,555
	投資活動之淨現金流入(流出) Net cash inflow from investing	-443,876	-280,945	-649,779	257,707
	籌資活動之淨現金流入(流出) Net cash inflow from fundraising	274,998	157,466	152,237	661,183

Q&A