



Umec

環隆科技股份有限公司

Universal Microelectronics Co., Ltd.

(股票代號：2413)

法人說明會



2019年12月4日

1	公司簡介
2	產品應用與發展
3	市場佈局
4	營運展望

1 公司簡介



- **INITIAL OPERATION :**

- » January 1984

- **EMPLOYEES :**

- » Taiwan — 700
- » China — 4000
- » Vietnam — 1000

- **CAPITAL :**

- » US\$43,209,000

- **INITIAL PUBLIC OFFERINGS:**

- » October 1998

- **ANNUAL SALES:**

- » US\$127,745,746. (2018)

- **PLANT FLOOR AREA :**

- » 32,100 m² ---- Taiwan HQ and Factory
- » 72,200 m² ---- Shenzhen Factory
- » 10,000 m² ---- Longyan Factory
- » 7,200 m² ---- Meizhou Factory
- » 13,000 m² ---- Hanoi Factory



**Headquarter
Taichung Taiwan**



Taichung Factory



Shenzhen Factory



Meizhou Factory



Hanoi Factory



Longyan Factory

Your Solution Provider
Your Partner
UMEC



2 產品應用與發展



Universal Microelectronics Co., Ltd

UMEC



- * RF transformer
 - * Telecommunications
 - * Power Transformer
 - * Inductor Products
 - * Custom Design
- Transformer/ Inductor



- * DC/DC Converters
 - * AC Open Frame
 - * Power Adapter
 - * Hot-swappable
- Redundant Power



- DMS/ EMS
- * Marine & GPS Product
 - * Automotive Radar
 - * Wearable Device
 - * BLE related Consumer



- * 3.5inch ~ 19inch
- * COG, FOG, POG
- * Lamination, OCR
- * Film on Sensor Glass
- * LCM assembly



- * Ultra High Speed AOC :
HDMI, DVI, USB3.0,
SFP+, QSFP+
- * Passive Components:
CWDM/ DWDM
Fused Biconical Taper

• CERTIFICATIONS:

- » Taiwan Factory
 - ISO 9001
 - ISO 14001
 - ISO/TS 16949
 - ISO 13485
 - TL 9000
 - UL / TUV
 - SONY GP
 - MFi Manufacturing

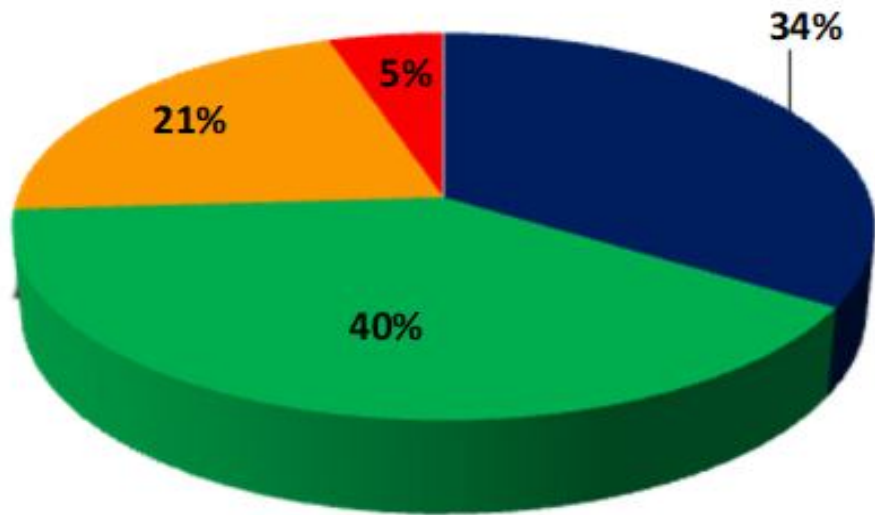
- » China Factory
 - ISO 9001
 - ISO 14001
 - ISO/TS 16949
 - UL / TUV
 - QC 080000
 - SONY SPP
 - OHSAS 18001
 - MFi Manufacturing

- » Vietnam Factory
 - ISO 9001
 - UL / TUV
 - ISO 14001
 - MFi Manufacturing



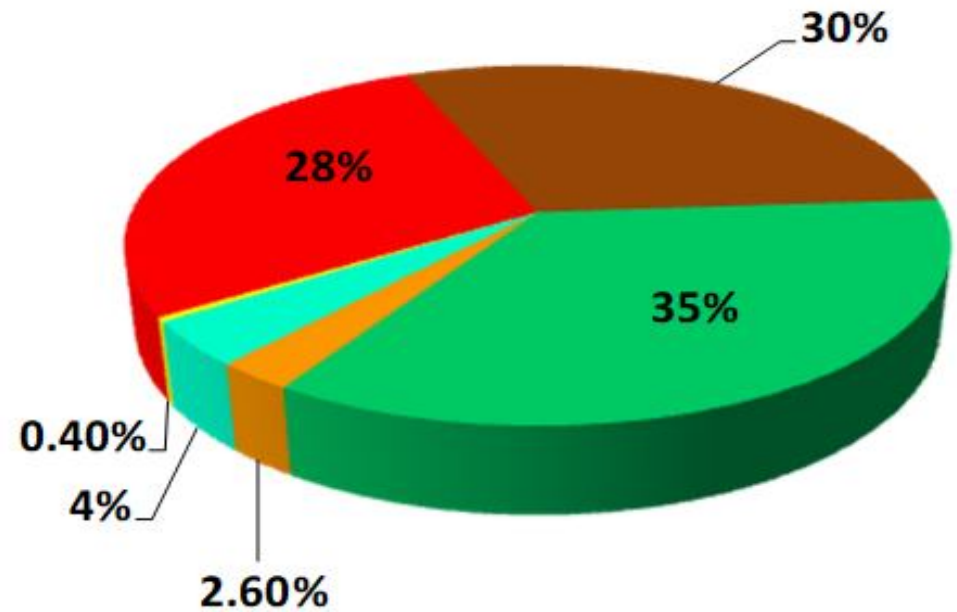
2018 ANNUAL SALES: US\$127,745,746.

● By Territory



■ Asia ■ USA ■ Taiwan ■ EU

● By Product Line



■ Magnetics ■ Power Supply ■ ICP
 ■ Optical ■ LCM ■ Others

- Total Capacity: 20KKpcs/ month

RF Baluns/Transformers



SMD Transformer



Common Mode Choke



SMD Inductor



ISDN S/U-interface Transformers



Data Coupling Transformers



Common Mode Chock for ADSL/VDSL



Transformer for Power Applications



XDSL Transformers/POTS Inductors



Transformer & Inductor by Ringing Core Design



Flat Wire Common Mode Choke



Transformer for Automotive Application



IC Manufacturer	Technical
<i>ADI</i>	HomePlug/VDSL2
<i>Broadcom</i>	ADSL/ADSL2+/VDSL2/ADSL2+/VDSL3/G.FAST/ G.mgfast HomePlug/VDSL/VDSL2
<i>Broadcom(Gigle)</i>	HomePlug
<i>Ikanos(Globespan)</i>	ADSL/ADSL2+/G.SHDSL/VDSL
<i>Ikanos(Globespan,Conexant)</i>	ADSL2+/G.SHDSL/VDSL/VDSL2
<i>Lantiq</i>	Power
<i>Intel (Lantiq, Infineon)</i>	ADSL/ADSL2+/MDSL/SDSL /VDSL/VDSL2/G.FAST/ G.mgfast
<i>Level One</i>	DDS
<i>Marvell (DS2)</i>	G.hn/HomePlug
<i>MicroSemi (Zarlink, Legerity)</i>	ADSL/ADSL2+/POTS
<i>Mstar, Qualcomm(Atheros,Intellon), Silicon Labs</i>	HomePlug
<i>Realtek, Metanoia, Scipio</i>	G.FAST/VDSL2
<i>Sigma Designs (CopperGate)</i>	G.hn/HomePlug/HPNA3
<i>Silicon Labs</i>	VoIP (Power)
<i>Texas Instruments, STM</i>	Power
<i>Teridian</i>	Analog
<i>Triductor, INTEL(Lantiq), Metanoia</i>	VDSL2

- Total Capacity : 20kkpcs per month.
- Telecom Transformers/Inductors : 9kkpcs per month
(Ferrite EE5, EP7, EP10, EPX10, EP13, EPC13, RM4, RM5, RM6, TKH7---)
- LAN, ISDN, T1/E1, T3/E3 Transformers/Inductors : 3kkpcs/ per month
(Ferrite Ring core T2.5~T10 ----)
- Power Transformers/Inductors : 8kkpcs per month
(Ferrite EF16~EF32/11, EE40,-----)



Power Supply Product

DC/DC Brick

Encapsulated 1/2, 1/4, 1/8 and 1/16 Brick series are available from 50W to 350W.



For Telecom / Datacom & Industrial Control System



AC / DC Adapter

Adapters are available with power range from 3W to 160W.



For Datacom System



DC/DC Cu Case

Industrial DC/DC Module series are available from 6W to 60W.



For Telecom / Datacom & Industrial Control System



AC / DC Open Frame

I.T.E Power Supply are available with power range from 5W to 880W.



For Color Laser Printer, Multifunction Printer



DC/DC Multilayer Converter

Hi Density DC/DC Board Mount Modules are available from 50W to 420W.



For Telecom / Datacom and Industrial Control System



Redundant(CRPS)

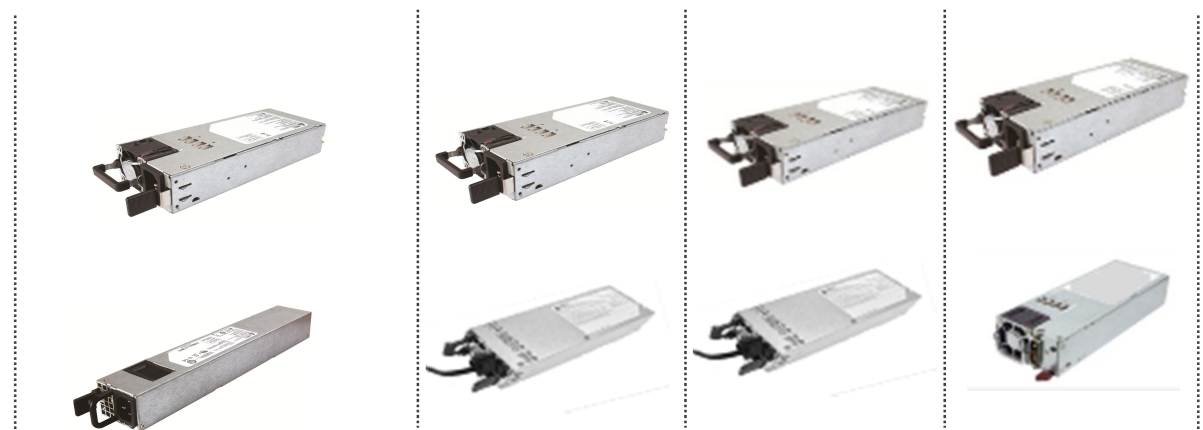
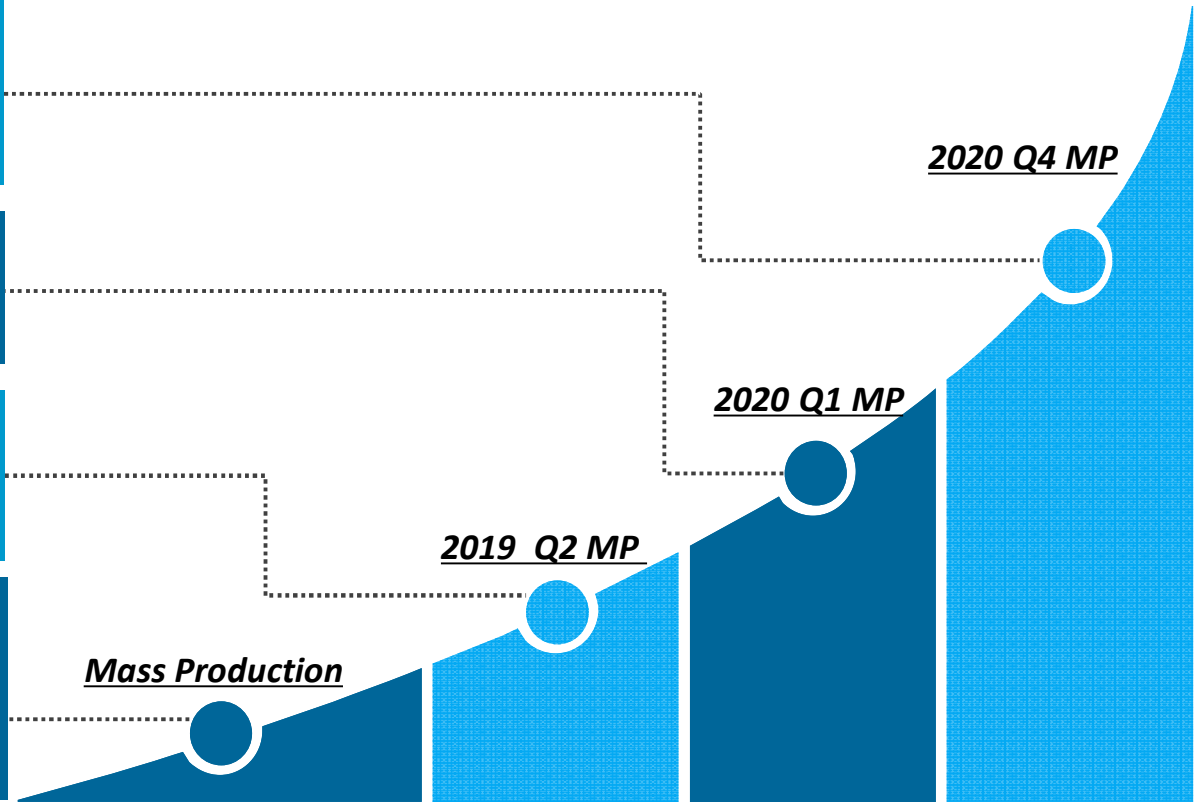
Redundant PoE Switch Application with range: from 250W to 2000W.



For Networking System



- AC(HVDC)-DC (CRPS) : 12V-2000W
- DC(LVDC)-DC (CRPS) : 12V-550W/880W/1200W
- AC(HVDC)-DC (SSI) : 12V -400W
- AC(HVDC)-DC(CRPS) PoE : (54V)-300W/2000W
- AC(HVDC)-DC(CRPS) : (12V)-550W/880W/1200W
- AC-DC(CRPS): 250W
- AC(HVDC)-DC (CRPS) POE: 54V-600W/ 1200W
- AC(HVDC)-DC (CRPS) PoE : (54V)-920W



DMS/ EMS

● Marine Products

- GPS System
- Radar
- Fish Finder, Transducer
- Marine Chart Plotter
- Trolling Motor Control System
- Solid State Marine Radar

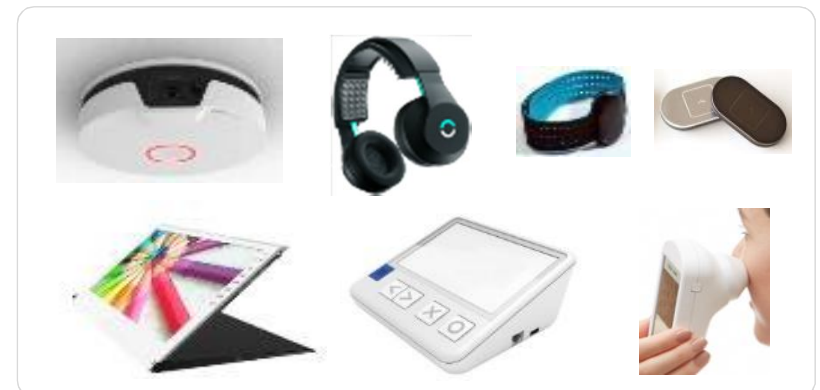
● Automotive Products

- Automotive FMCW Radar
- Car Multimedia System
- Power Lift Gate module

● Consumer Products

- Wearable & IOT Devices
- Controlling Center Platform & System in ZigBee/ Wi-Fi/BT

● Industrial Android Rugged Tablet Solution





24GHz Radar

- Rear Cross Traffic Alert (RCTA)
- Lane Change Assistance (LCA)
- Blind Spot Detection (BSD)
- Door Open Warning (DOW)



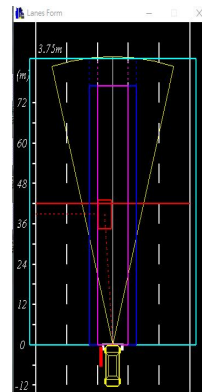
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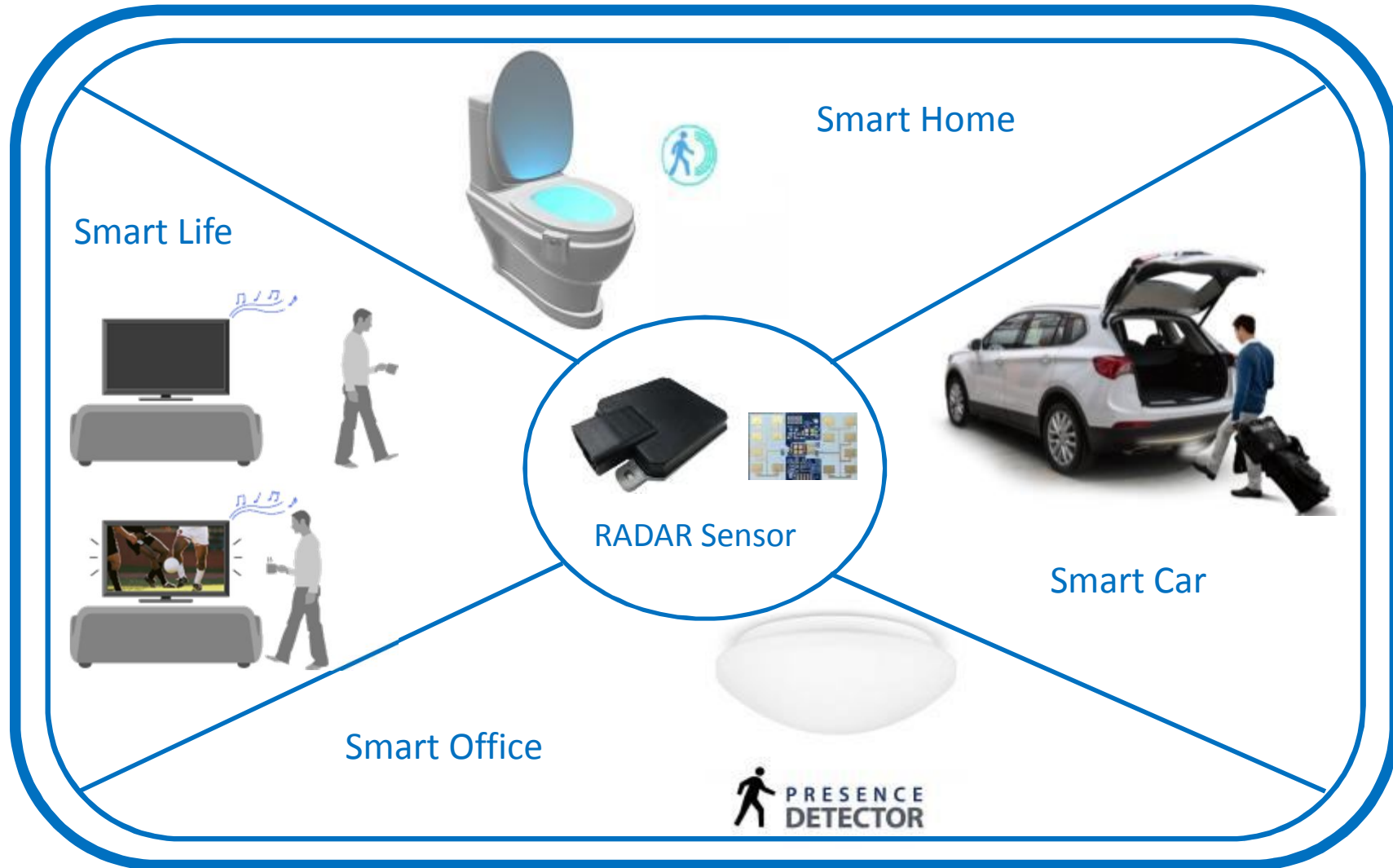
Waveform	Interleaved FMCW/CW
Horizontal Coverage	100°
Range Resolution	0.8m
Detection Distance	75m
Working Temperature	-40° to +85°C
Waterproof	IP67
Dimension (mm)	113.3 x 83.9 x 23.8
Certificate & Regulation	ISO 17387-2008, LCDAS, ISO-16750, FCC part 15.249, ISO -10605, NCC LP0002

77GHz Radar

- Front Cross Traffic Alert
- Forward Collision Warning
- Rear Collision Warning



Waveform	FMCW/ Sawtooth
Horizontal Coverage	160°
Range Resolution	1.58m
Detection Distance	180m
Working Temperature	-40° to +85°C
Waterproof	IP67
Dimension (mm)	87*67 *14



Polarize on Glass



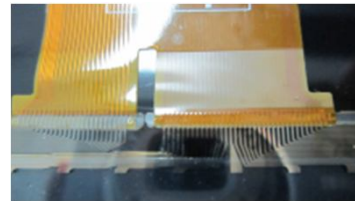
Film On Board



Chip On Glass



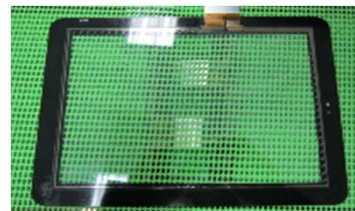
Film On Sensor Glass



FPC On Glass



Lamination(OCR)



■ Ultra High Speed AOC :

- HDMI, DVI, USB3.0, SFP+, QSFP+

■ Component:

- CWDM/DWDM
- Fused Biconical Taper (FBT)

Target Application:

- Medical Imaging Equipment
- Cloud Computing
- Telecommunications
- Conference Room Video System
- Factory Automation Systems
- LED signboards and Kiosk.



USB3.0 AOC
(5Gbps)



8CH Compact CWDM



SFP+ Transceiver
(10Gbps)



QSFP+ Transceiver
(40Gbps)

3 市場佈局





MAGNETIC



POWER



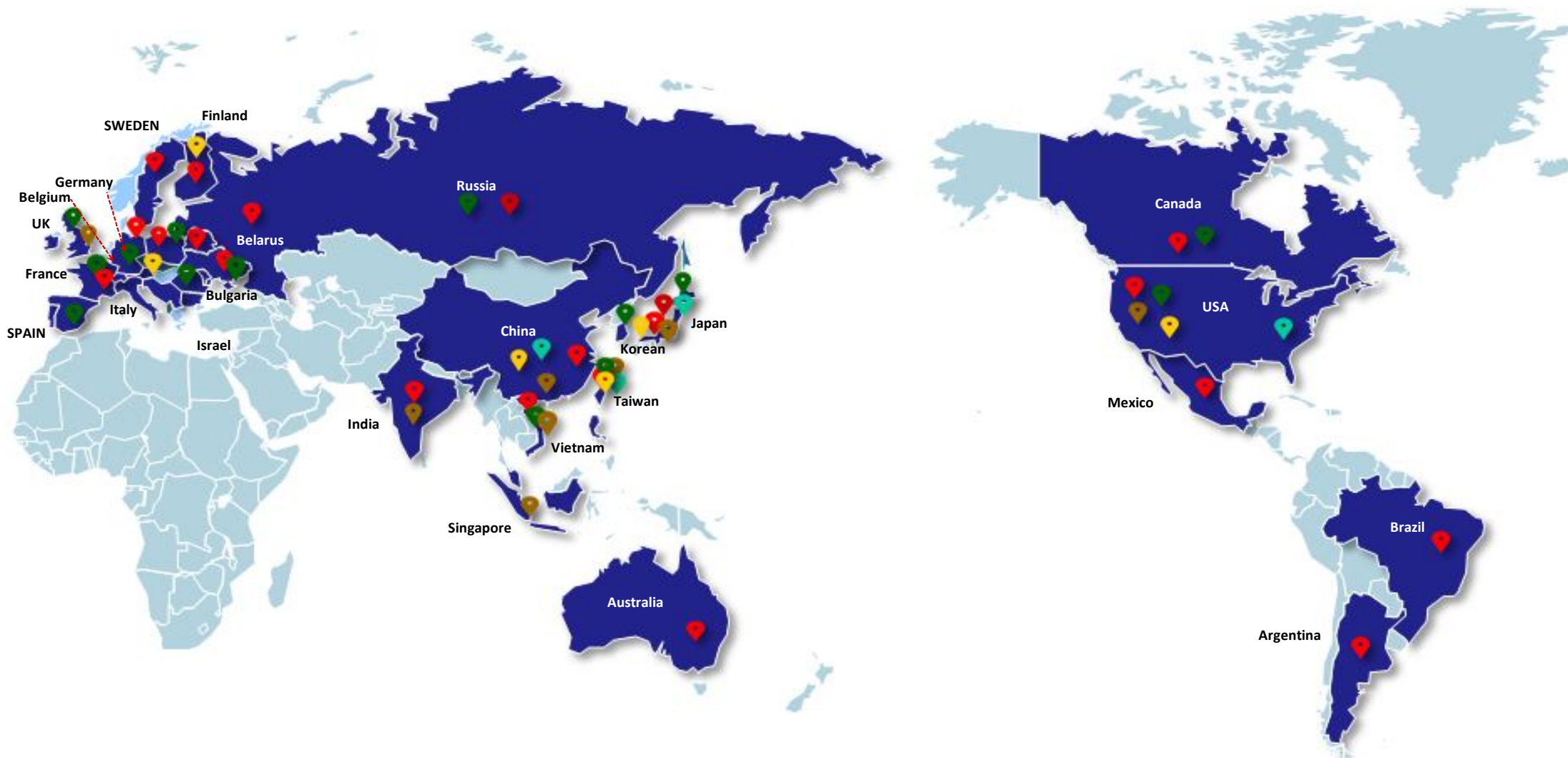
ICP(EMS/ODM)



OPTICAL



LCM



4 營運展望



- **通訊:**

- 第二代銅線寬頻通訊G. fast技術產品線, 2019年營收貢獻較2018同期成長36.6%. 後續隨電訊運營商更換設備, 比例將持續增加.
- 配合通訊IC廠開發完成第三代G. mgfast產品, 維持我司產品技術領先.

- **家電:**

- 我司扁平線變壓器產品線, 由日本配合商社導入日本家電大廠. 預計於2019 Q3起可量產貢獻營收.

- **車用:**

- 車用通訊(控制器區域網路CAN)
- 倒車超音波雷達
- 電源管理
- 電動車的自動照明及電池充電.
- 車用電子被動元件AEC-Q200驗證能力及IATF16949系統認證

- **工業, 商用, 醫療系統:**

- 建立軍用與軌道規格產品線.
- 擴大網路伺服器規格產品線.
- 醫療設備規格電源產品線.

- **行動通訊機房端系統:**

- 惠於全球營運商5G系統建置, 用戶對高功率密度、高環溫電源供應器產品需求持續增加.
- 配合客戶設備需求, 協同開發電源供應器.

- **環境能源系統:**

- 配合全球綠能產業發展, 建立相關系統需求之電源產品規格.
- 家用太陽能發電系統, 電池供電系統電源.
- 電動車充電系統電源開發.

- **車用雷達：**
 - 後向用毫米波77GHz及79G寬頻雷達已量產出貨。
 - 前向用77GH雷達，已開發完成並由日系大廠驗證中。
 - 中國2020開始針對商用車強制前向警示及煞停(AEB)的法規 JT&T 1242 的執行，目前已跟中國商用車底盤廠合作，取代現有歐美廠雷達。
- **IOT 雷達傳感器：**
 - 智慧停車，智慧馬桶，智慧門鈴，智慧下水道警示等應用，預計2020 Q1開始量產。

Thanks for Your Attention!