

Sitronix Technology Corp.

矽創電子股份有限公司

8016: TT

Investor Conferences 投資人會議

Sitronix

關於我們

Company Name	Sitronix Technology Corp.
Established	July 9, 1998
Capitalization	TWD 1.2 billion
Chairman and CEO	Vincent Mao
IPO Listing	December 25, 2003 (8016)



Consolidated

矽創電子

Sitronix

Display Driver IC



Incubator since 2009

產品組合

Mobile Displays

Industrial & Automotive Displays

Sensors

SoC

Mobile Display Driver IC
手機顯示器

Automotive Display Driver IC
車載顯示器

Industrial Display Driver IC
工控顯示器

System on Chip (SoC) products
其他非顯示器 IC



Subsidiary



Subsidiaries

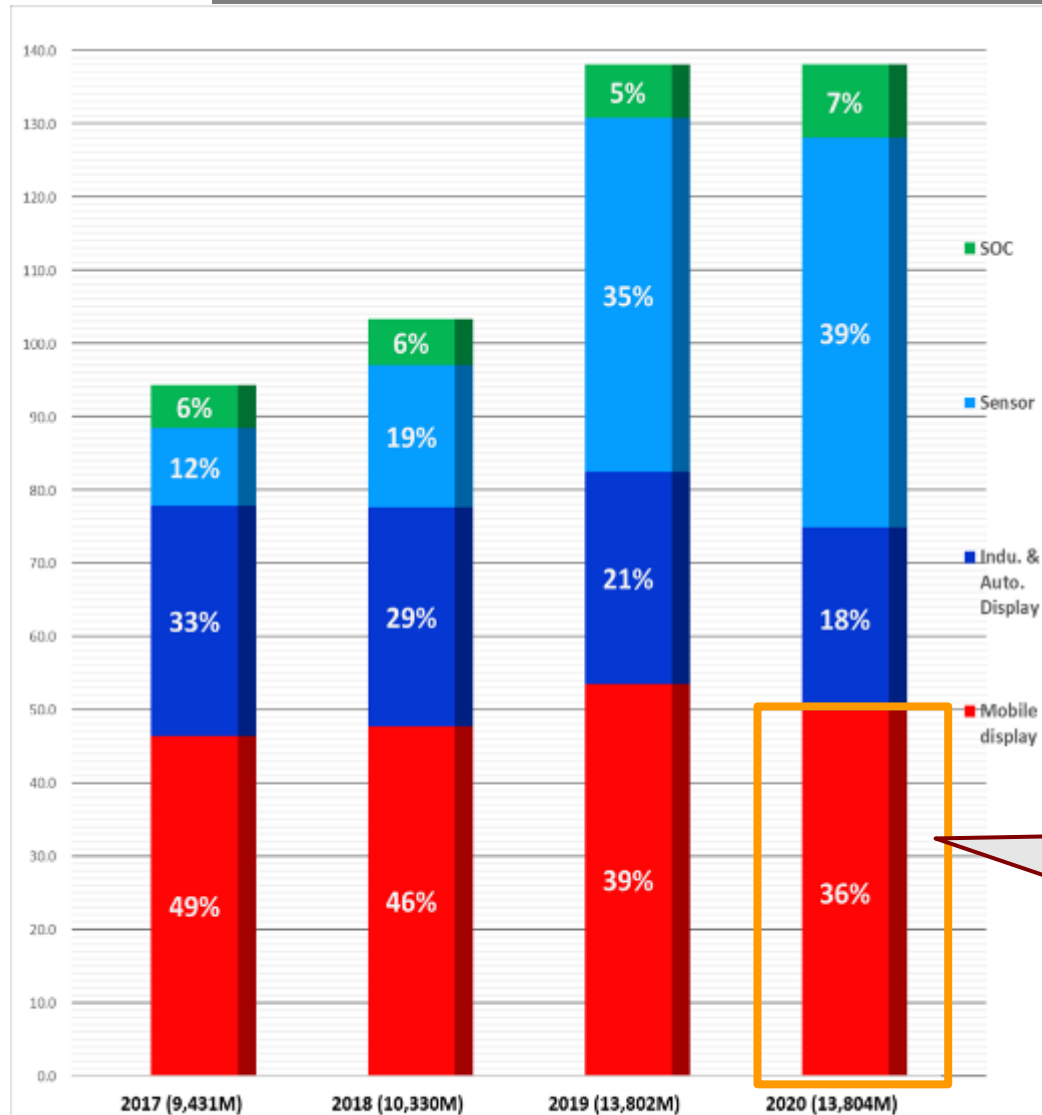


Differentiation

Diversification

Incubator

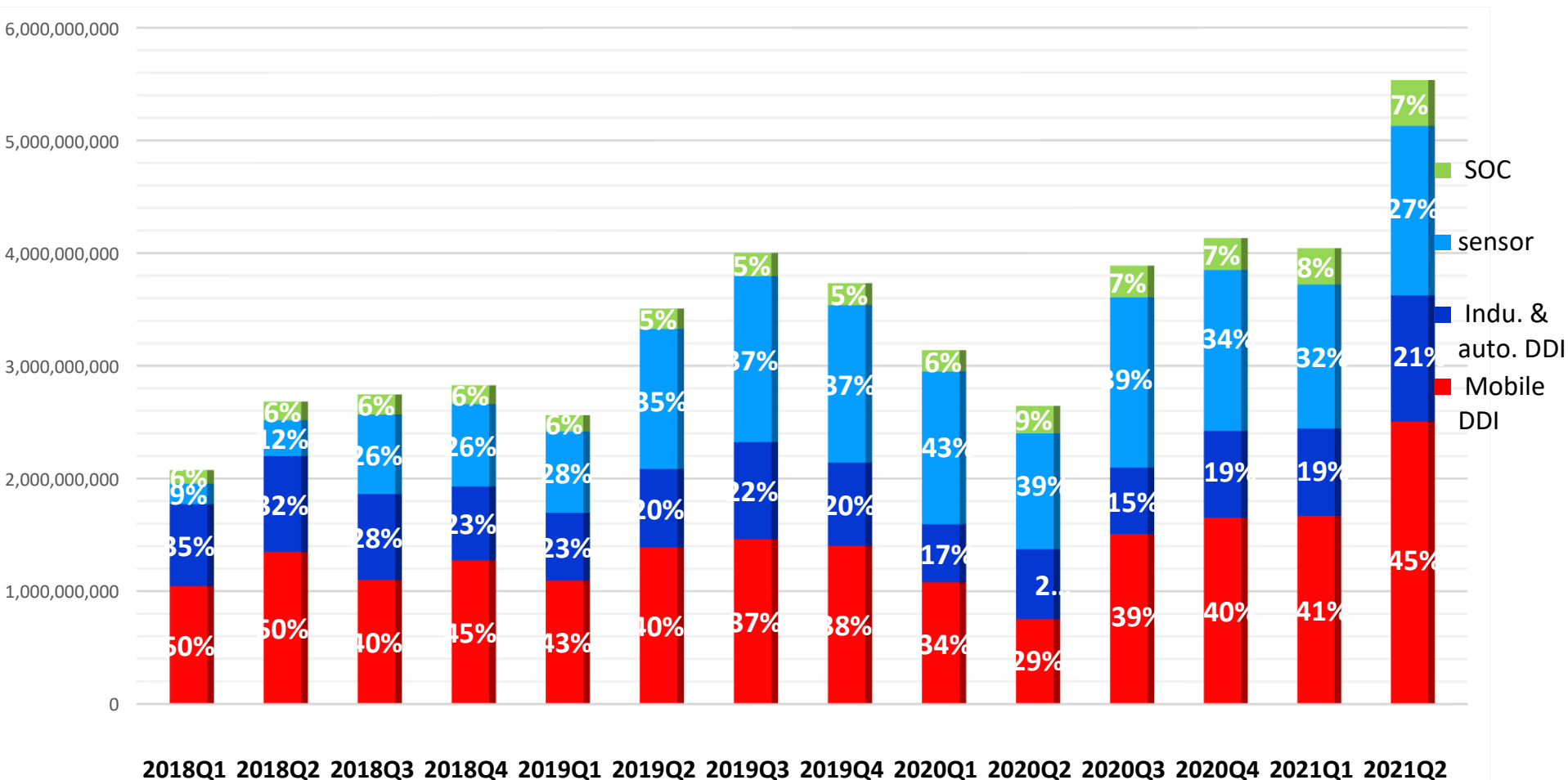
產品組合



Unit: NTD

> 70% AIoT
< 30% cell phones

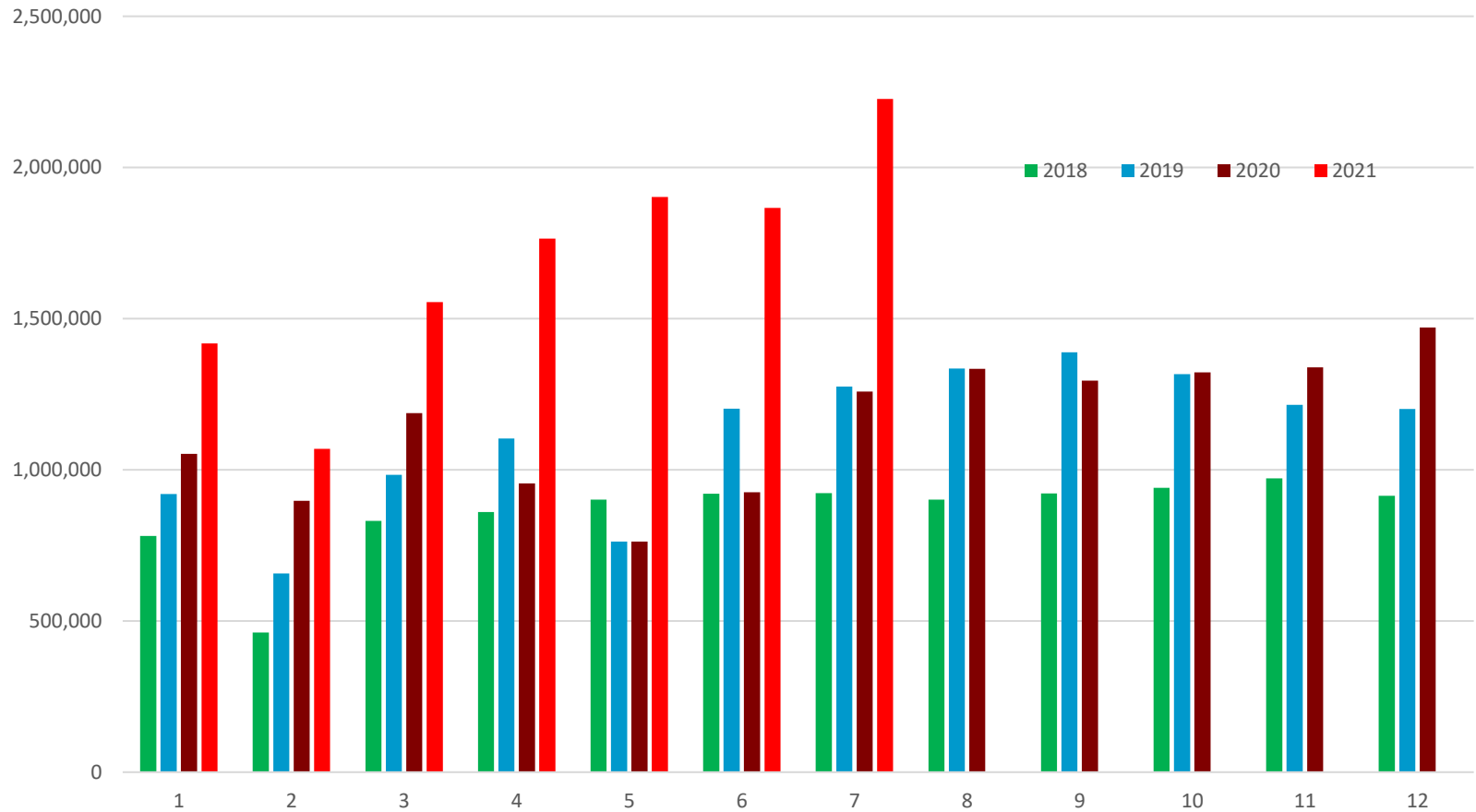
每季產品組合



Unit: NTD

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月營收



Unit: NT\$ thousands

Accounting standard: IFRS

Sitronix Confidential. Do Not Copy or Distribute.

合併損益表

Item	Q2 21		Q1 21		2020 annual		Q4 20		Q3 20		Q2 20		Q1 20	
	Results	% of sales	Results	% of sales	Results	% of sales	Results	% of sales	Results	% of sales	Results	% of sales	Results	% of sales
Net Sales	5,534,516	100%	4,042,640	100%	13,804,562	100%	4,132,917	100%	3,887,941	100%	2,644,857	100%	3,138,847	100%
Gross Profit	3,146,831	57%	1,906,725	47%	4,785,825	34%	1,595,562	39%	1,253,220	32%	925,366	35%	1,011,677	32%
Operating Expense	1,058,320	19%	769,430	19%	2,495,301	18%	770,858	19%	628,945	16%	525,562	20%	569,936	18%
Operating Income	2,094,621	38%	1,137,566	28%	2,383,048	17%	824,947	20%	624,540	16%	400,466	15%	533,095	17%
Income before Tax	2,144,026	39%	1,157,423	29%	2,523,626	18%	847,825	21%	628,840	16%	497,065	19%	549,896	17%
Net Income*	1,560,121	28%	786,603	19%	1,384,818	10%	485,902	12%	315,601	8%	291,899	11%	291,416	9%
EPS	13.00	-	6.55	-	11.53	-	4.04	-	2.63	-	2.43	-	2.43	-

Unit: NT\$ thousands (except EPS)

Accounting standard: IFRS

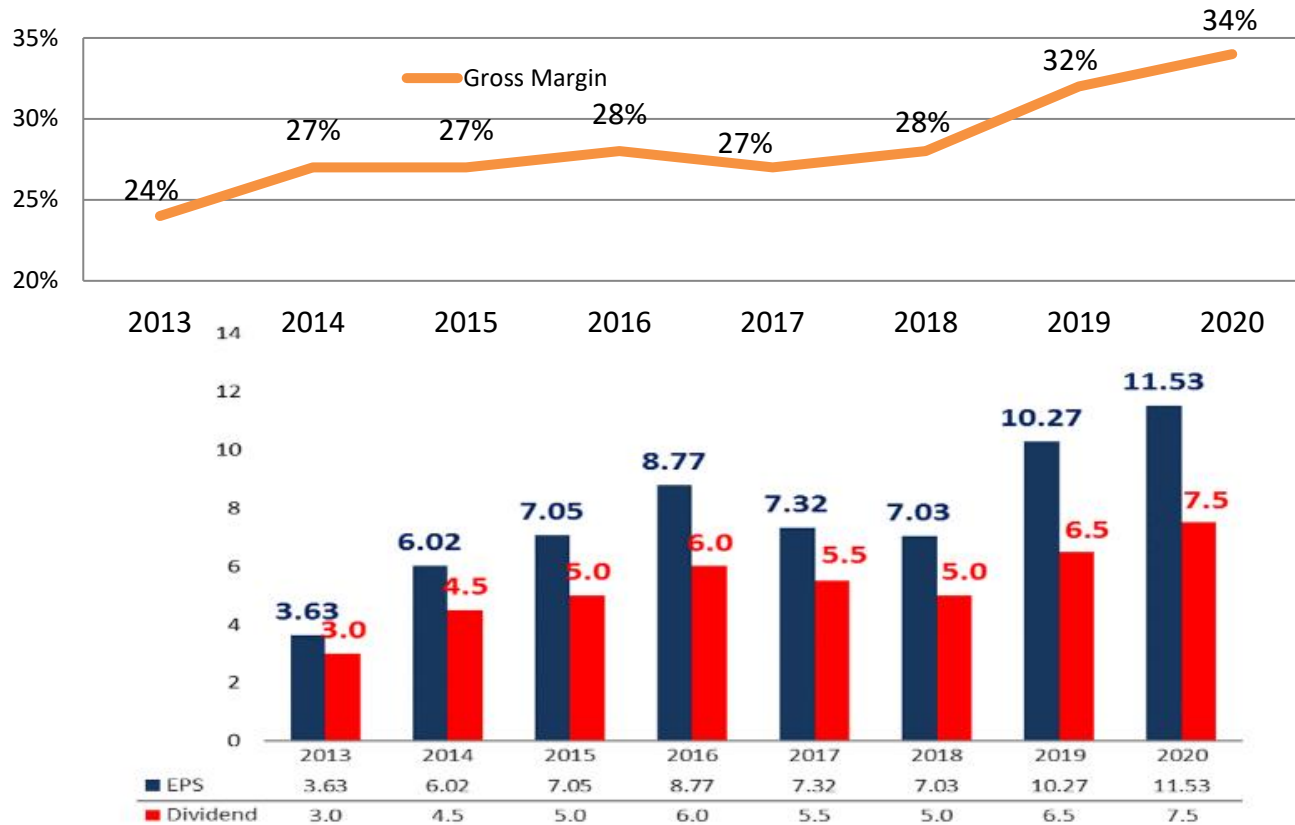
* Listed on the English translation of our financial statements as
"Profit (loss), attributable to owners of parent"

合併資產負債表

Item	2021/6/30	2021/3/31	2020/12/31	2020/9/30	2020/6/30	2020/3/31
Total Assets	18,007,392	15,205,696	13,816,160	12,691,112	13,313,165	11,315,424
Current Assets	14,619,722	12,168,616	11,544,737	10,741,502	11,320,483	9,386,607
Cash & Equivalents	8,189,048	5,352,063	5,586,541	3,751,335	4,123,024	3,356,031
AR	1,652,183	1,335,828	1,378,563	1,239,710	1,103,291	1,248,372
Inventory	1,980,952	1,778,865	1,543,734	1,818,842	2,495,793	2,387,205
Total Liability	7,263,450	6,341,128	4,537,083	3,886,615	5,046,401	5,630,077
AP	2,089,573	1,965,114	1,893,923	1,616,864	1,411,218	2,065,666
Shareholder Eq.	10,743,942	8,864,568	9,279,077	8,804,497	8,266,764	5,685,347

Unit: NT\$ thousands
Accounting standard: IFRS

毛利, EPS, 和股利



Year	Q1		Q2		Q3		Q4		Annual		
	EPS	GM	EPS	GM	EPS	GM	EPS	GM	EPS	GM	Cash dividend
2021	6.55	47%	13.00	57%							
2020	2.43	32%	2.43	35%	2.63	32%	4.04	39%	11.53	34%	7.5
2019	1.70	33%	2.80	33%	3.22	32%	2.55	30%	10.27	32%	6.5

行動裝置驅動IC

Small-sized DDIC (1-3 inch displays)

2018: 500M pcs
2019: 400M pcs
2020: 300M pcs



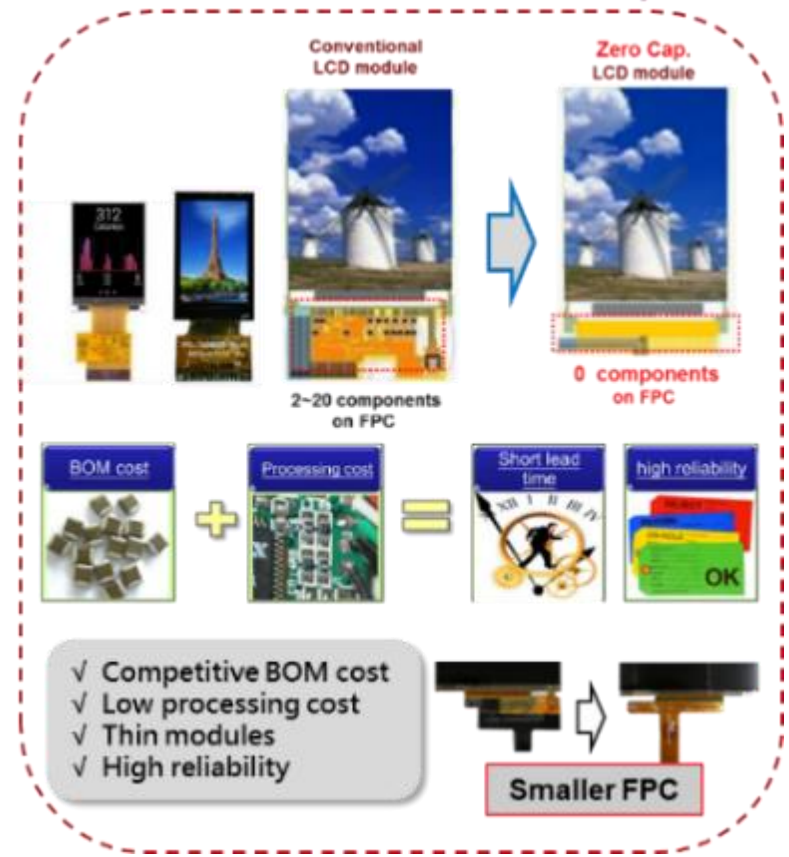
Mid-sized DDIC (4-6 inch displays)

2018: > 130M pcs
2019: > 250M pcs
2020: > 320M pcs



Differentiation

Sitronix's Patents



超過70%的行動裝置驅動IC是AIoT應用

Tablets / payment terminal

- WXGA for tablets
- HD for tablets
- FHD for tablets



Work from home

- Projectors
- Printers
- Sound systems



Wearable devices

- QQVGA for fitness trackers
- QVGA for watches
- OLED for fitness trackers & watches



Automotive & outdoors

- Sports cams
- Navigators
- Aerial cameras
- CSD / HUD
- E-mirrors
- Cluster / Knob



Medical devices

- WVGA for monitors
- QQVGA for thermometers



Smart Home

- WVGA for Echo
- QVGA for door locks
- FHD for tablets



車載驅動IC

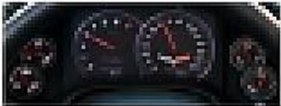
< 6 inch displays

7 - 9 inch displays

Diversification

Instrument Cluster Display

Analog



No Display

Hybrid (Analog + Digital)



Meters

Full Digital



Virtual
Cockpit



Automobile Monitors



Multi-Function CSD



Display Audio



Climate Control



Twin CSDs
Display Audio
+
Navigation



Rearview Mirror Display



Overhead Monitor



Dual Headrest



Segment TN

Character TN

Graphic STN

Mono TFT

Color TFT

工控驅動IC

Diversification

TN / STN / mono TFT / color TFT



Ultra Low Power a-TFT Drivers
for new applications
IoT, wearable devices, e-payment

Wearable Devices



Wearable Products



光學感測晶片 Optical Sensors

Proximity Sensors (PS)

近接感測晶片 → 關屏防誤觸
turns off the display (anti-touch)

Ambient Light Sensors (ALS)

環境光感測晶片 → 調節螢幕亮度
screen brightness control

- G1: PS + ALS 2-in-1 visible solution (2010)
- G2: PS + ALS 2-in-1 invisible solution (2018)
 - Under-display 屏下方案 for AMOLED displays
 - Slit type 狹縫方案 for TFT displays

Color temperature Sensors (RGB)

色溫感測晶片 → 調節螢幕色溫
screen color temperature control

- G3: PS + RGB sensors (2019)
 - for better reading experience

Camera RGB sensors

色溫感測晶片 → 協助後相機白平衡校正
white balance correction (2020)

Flicker detection sensors

閃頻偵測晶片 → 協助消除光源物理閃爍
Flicker detection (2020)



PS + ALS shipment

2018 : >340M pcs
2019 : >650M pcs
2020 : >720M pcs



Waterdrop Screen

狹縫(Slit) ALS/PS
狹縫(Slit) PS / 屏下 ALS
前攝旁 ALS/PS
(Aside of Front Facing Camera)



Bezel-less Screen

屏下(Under-display) ALS/PS
狹縫(Slit) PS / 屏下 Under-display ALS



感度增加 → 平均單價提升

G1: PS + ALS visible solution 1x

G2: PS + ALS invisible solution → sensitivity 3x → 6x → 10x
- Under-display solution for AMOLED

G3: PS + RGB visible solution

G4: PS + RGB invisible solution

水滴屏 (Teardrop-shaped)



全景屏 (Full screen)



瀏海屏 (Notch type)



開孔屏 (Apature type)



16:9 → 18:9 → 19:9 ...

Upgrading because of increases in...

1. Display resolution
2. PPI density
(resulting in a decrease in light transmittance)
3. AMOLED penetration rate

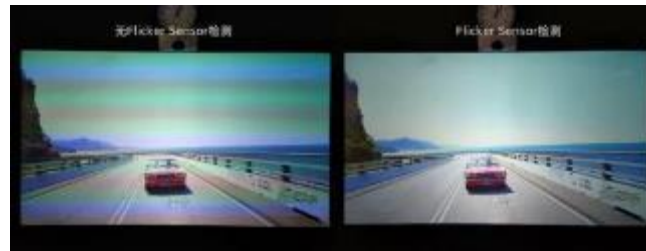
智慧手機鏡頭 RGB + Flicker 感測器

RGB Sensors

Camera RGB sensors are used for white balance correction. Different light sources come with different color temperatures, which can create unrealistic color casts in photos. White balance is the process of removing such color casts so that objects that appear white in person are rendered white in the photo. The white balance is automatically corrected and adjusted based on the color temperatures measured by the RGB color temperature sensor and the image sensor.

Flicker Sensors

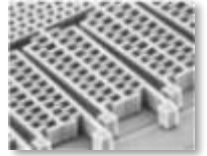
1. Detects the 50 Hz or 60 Hz flickers produced by incandescent or fluorescent lights.
2. Helps eliminate the streaks and distortion effects caused by the flickering.



微機電感測晶片 MEMS sensors

G-sensor shipment

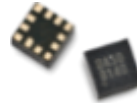
2018 : >30M pcs
2019 : >55M pcs
2020 : >80M pcs



Accelerometers (G-sensors)

→ Rotation detection

加速度感測器 → 屏幕旋轉偵測



✓ G-sensors for smartphones

✓ Low-power G-sensors for wearable & IoT devices



穿戴裝置: 光學 + 微機電感測晶片

True wireless stereo (TWS) earbuds

Accelerometers → click detection 敲擊偵測

Proximity sensors → on/off switch 功能啟用開關



敲擊偵測 Click detection

- 有來電時 Incoming call
 - 單擊接聽 Click to answer
 - 雙擊拒接 Double click to reject
- 音樂播放 Music mode
 - 單擊暫停 Click to pause
 - 雙擊換曲 Double click to switch

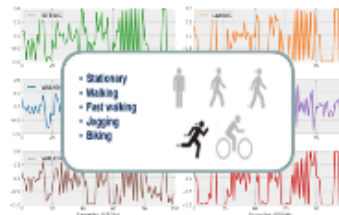
Smart watches & fitness trackers

Accelerometers → motion detection 移動偵測

Optical sensors → heartbeat detection 心律偵測 & UV sensors 紫外線感測



運動偵測 / 計步
Motion detection



抬手亮屏 / 動態心率輔助
Heartbeat detection



睡眠偵測 / 久坐提醒
Sleep quality monitoring



2020



2021

Flagship
旗艦機

High end
高階機

Mid range
中階機

Low end
低階機

Addressable Market
300-400M/year

Addressable Market
300-400M/year

Addressable Market
400-500M/year

Addressable Market
400-500M/year

Opticals for Displays
Under display
PS+ALS (VCSEL)
Visible
PS+RGB (VCSEL)

Opticals for Displays
Slit type
PS+ALS (IR LED / VCSEL)
Under display
PS+ALS (VCSEL)

Opticals for Displays
Slit type
PS+ALS (IR LED)

Opticals for Displays
Slit type
ALS only

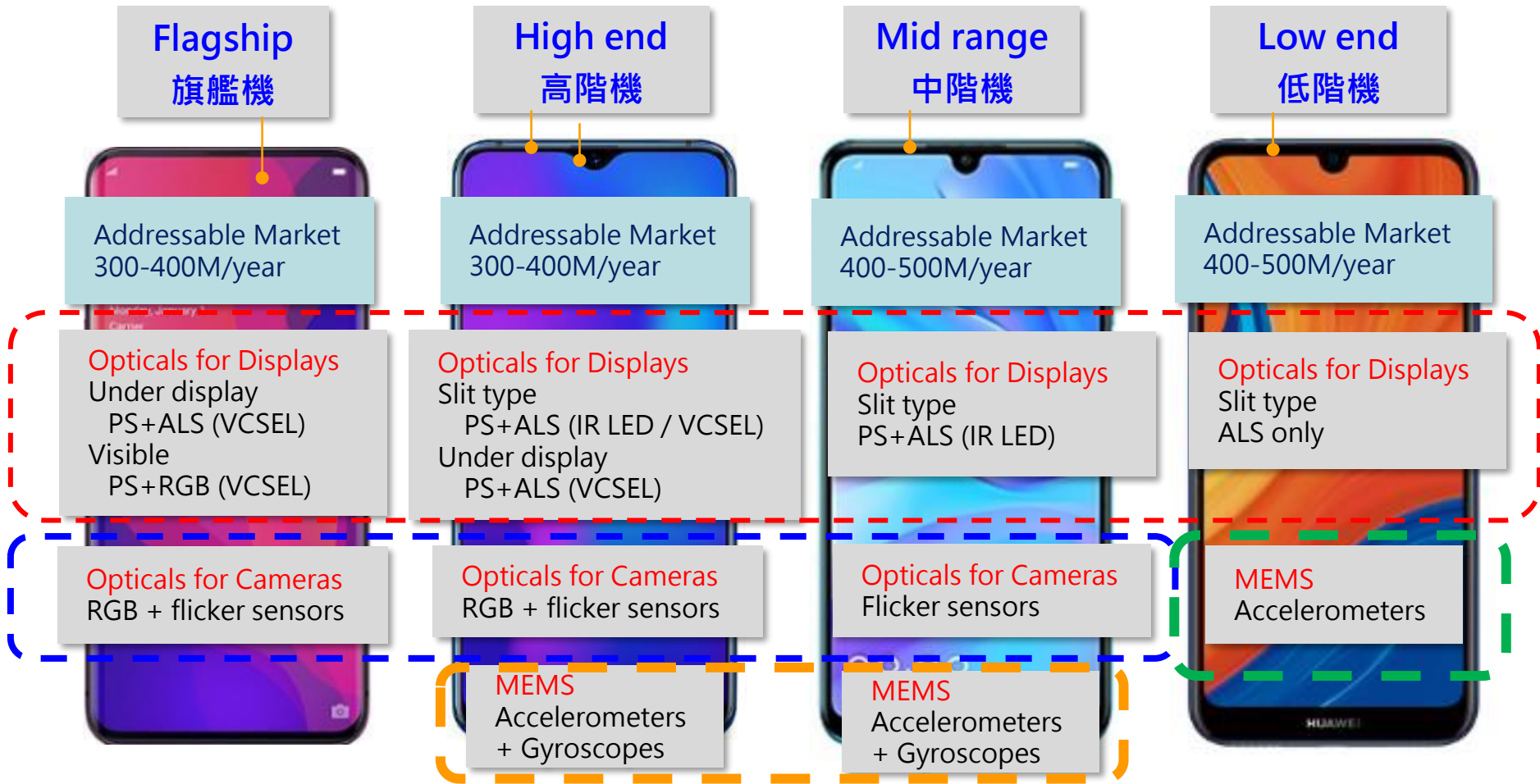
Opticals for Cameras
RGB + flicker sensors

Opticals for Cameras
RGB + flicker sensors

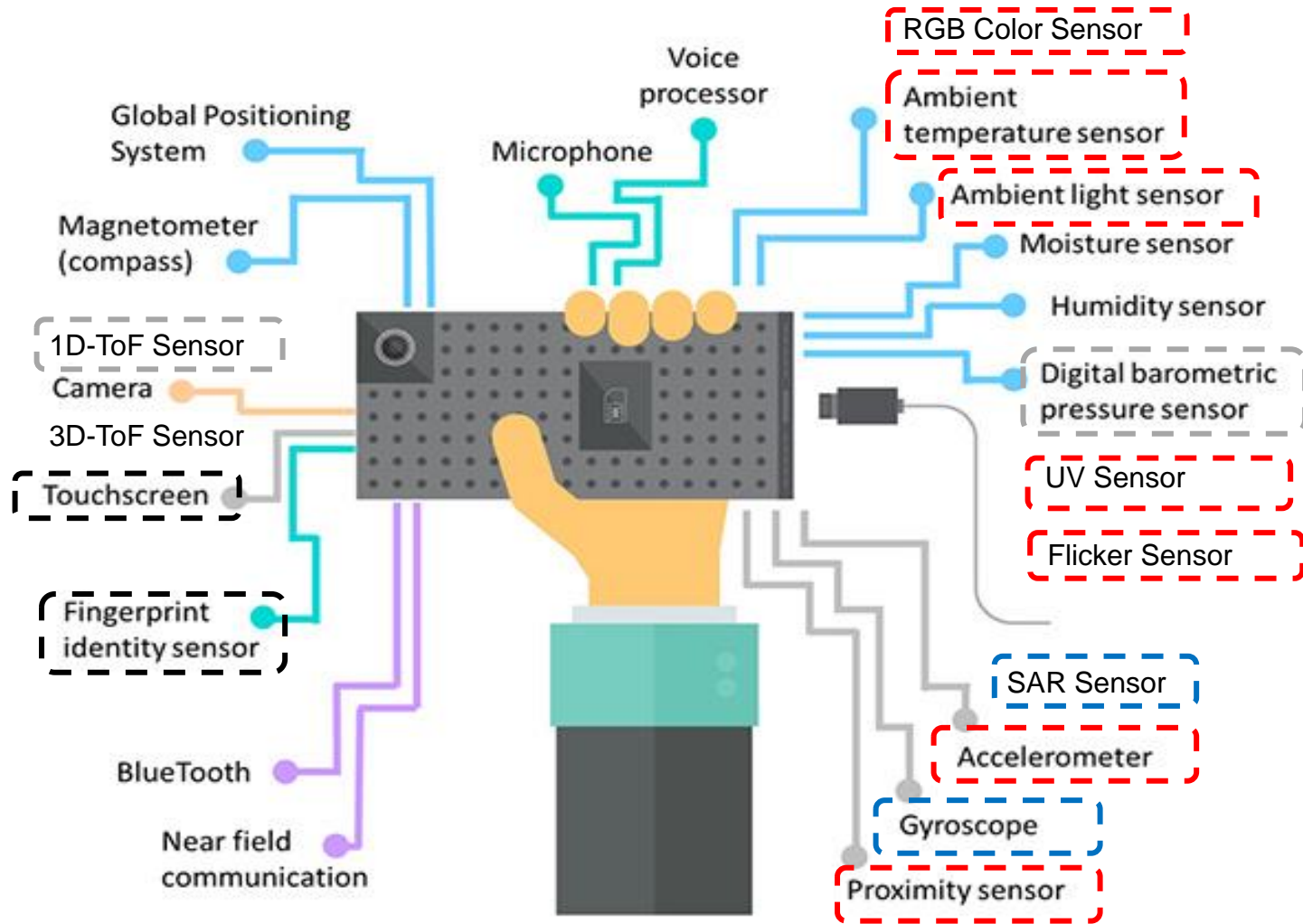
Opticals for Cameras
Flicker sensors

MEMS
Accelerometers

展望未來



敬請期待



公司策略

多樣化 (Diversification)

提供完整產品綫, 一站式採購服務
One-stop shopping

分散應用, 分散市場, 降低風險
Risk reduction

高成長+高毛利之產品組合
Balance GM & sales growth

差異化 (Differentiation)

持續創造俱市場競爭力產品
Make existing products better

持續擴展市場滲透率
Market share gains

持續孵化新產品
Incubated new products

Consolidated

矽創電子

Sitronix

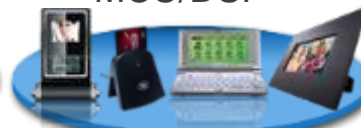
Display Driver IC



昇佳電子(46%)
sensortek
Sensor IC



鈦創電子(91%)
mCore
MCU/DSP



力領科技(100%)
FORCELEAD



HFST
合肥創發微電子(90%)
Touch & Fingerprint IC



極創電子(58%)
INFST
Power Management IC



Incubator since 2009

我們樂意為您服務！

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Lighting up your life.

Sitronix