

**Sitronix Technology Corp.**

矽創電子股份有限公司

8016: TT

**Investor Conferences**

***Sitronix***

# About Sitronix

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

# Product Portfolio

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

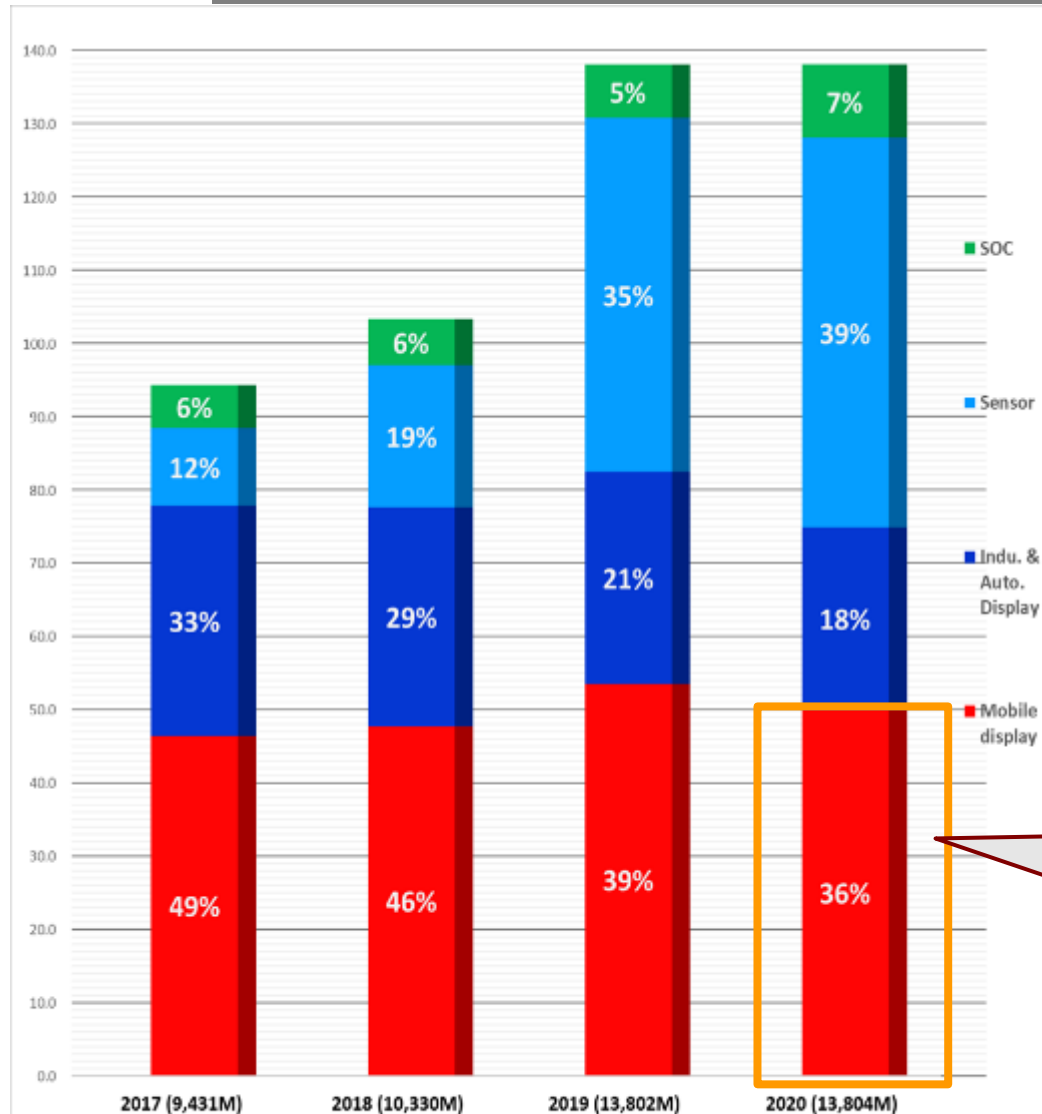


Differentiation

Diversification

Incubator

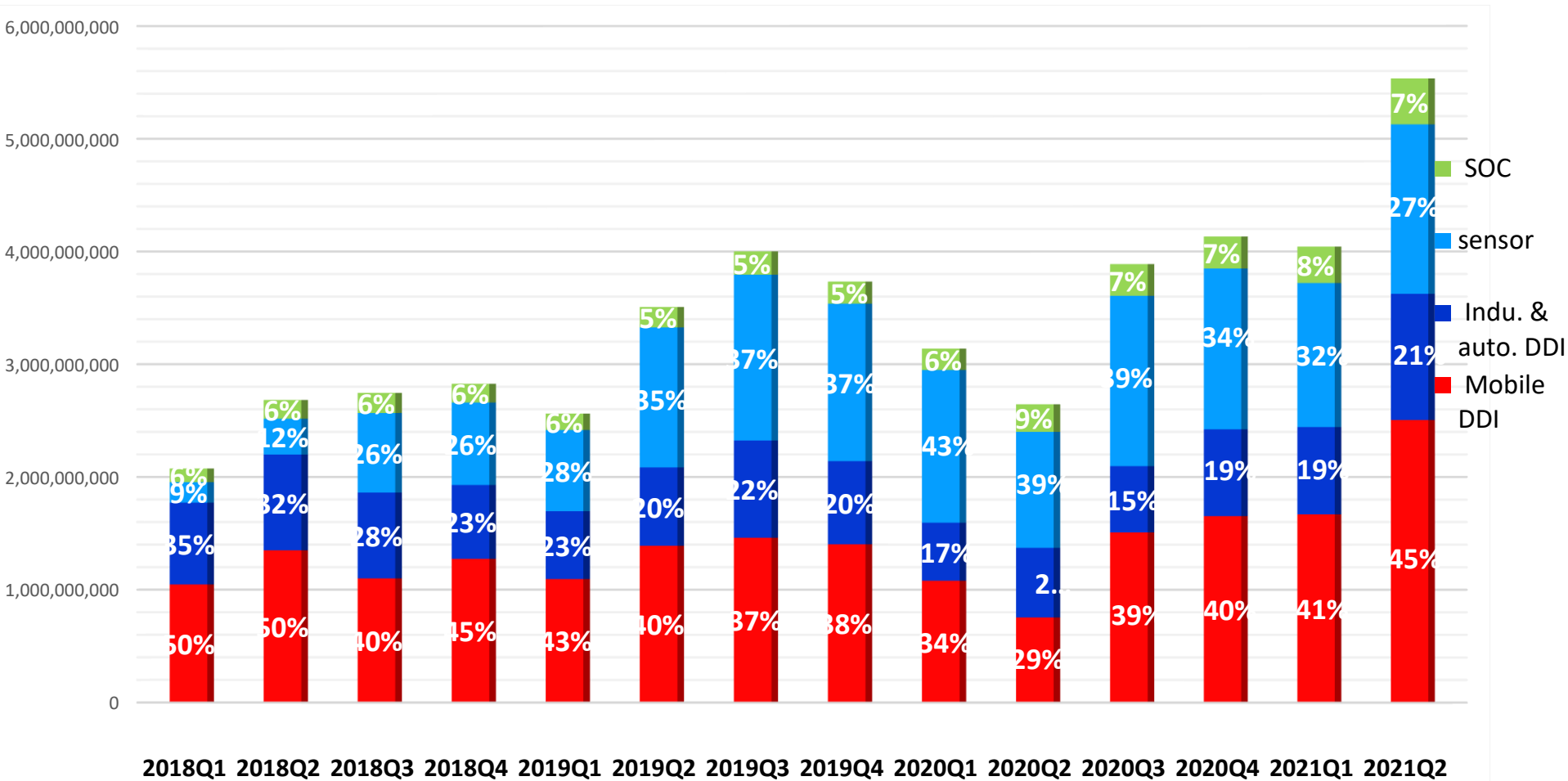
# Product Mix



> 70% AIoT  
< 30% cell phones

Unit: NTD

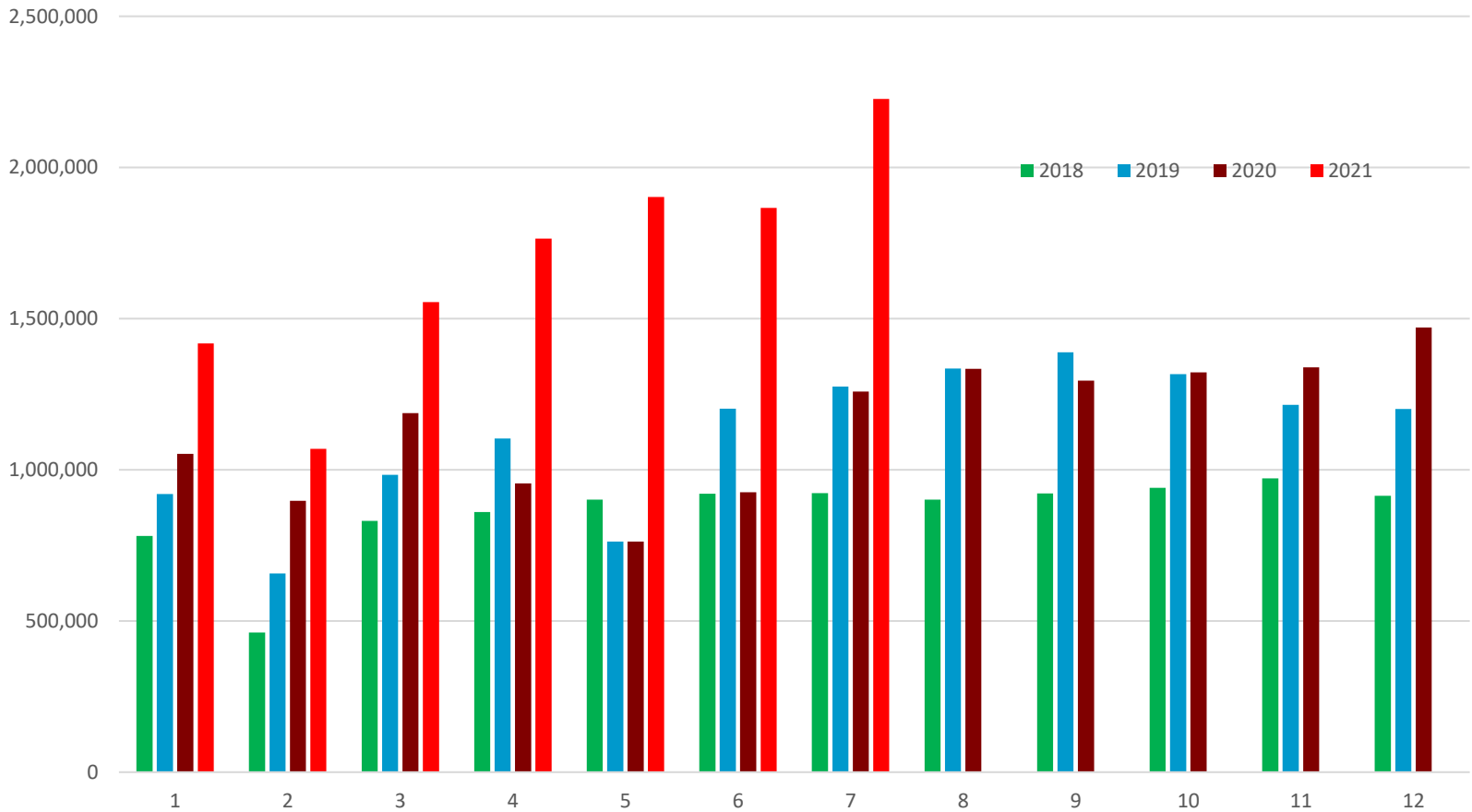
# Revenue by Product



Unit: NTD

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# Monthly Revenue



# Consolidated Income Statement

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"

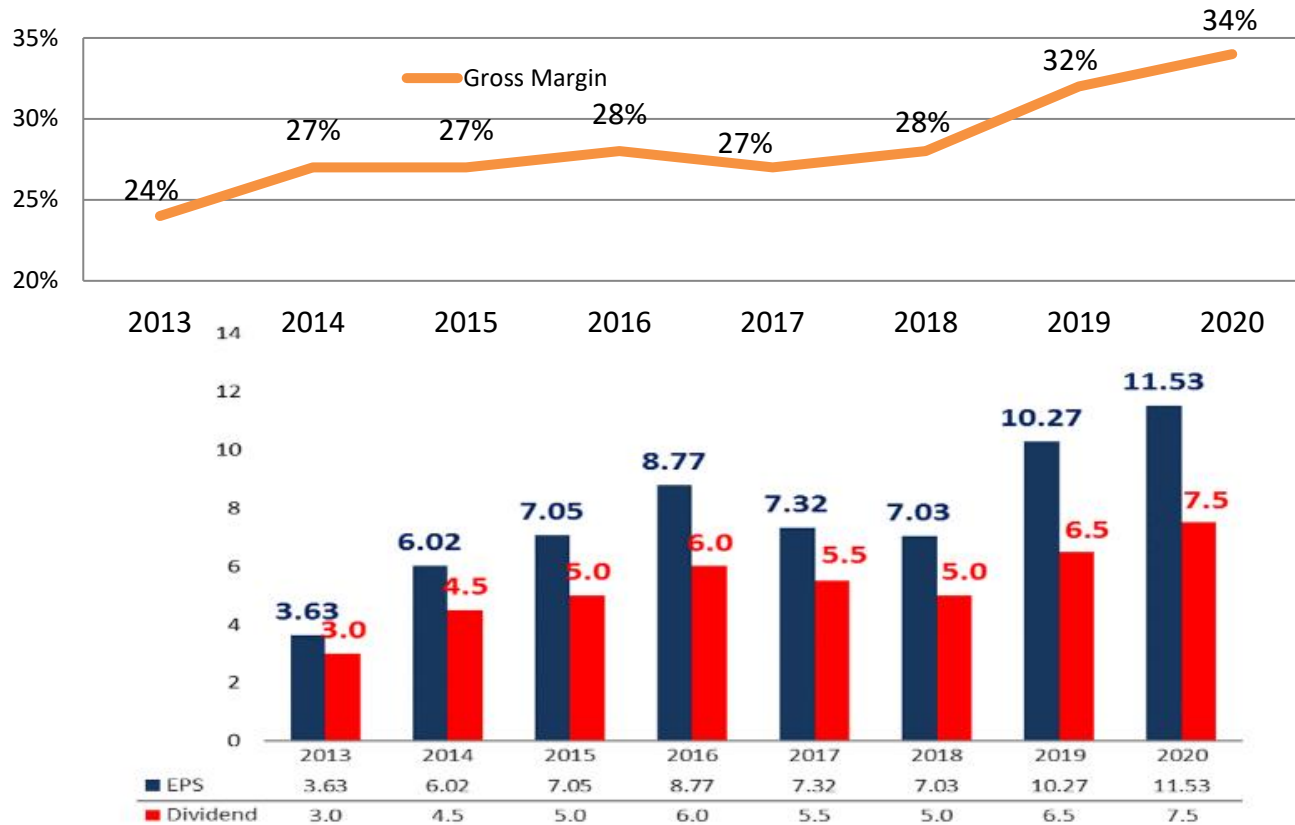
# Consolidated Balance Sheet

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



# GM, EPS, and Dividends



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

# Mobile Device DDIC

## Small-sized DDIC (1-3 inch displays)

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



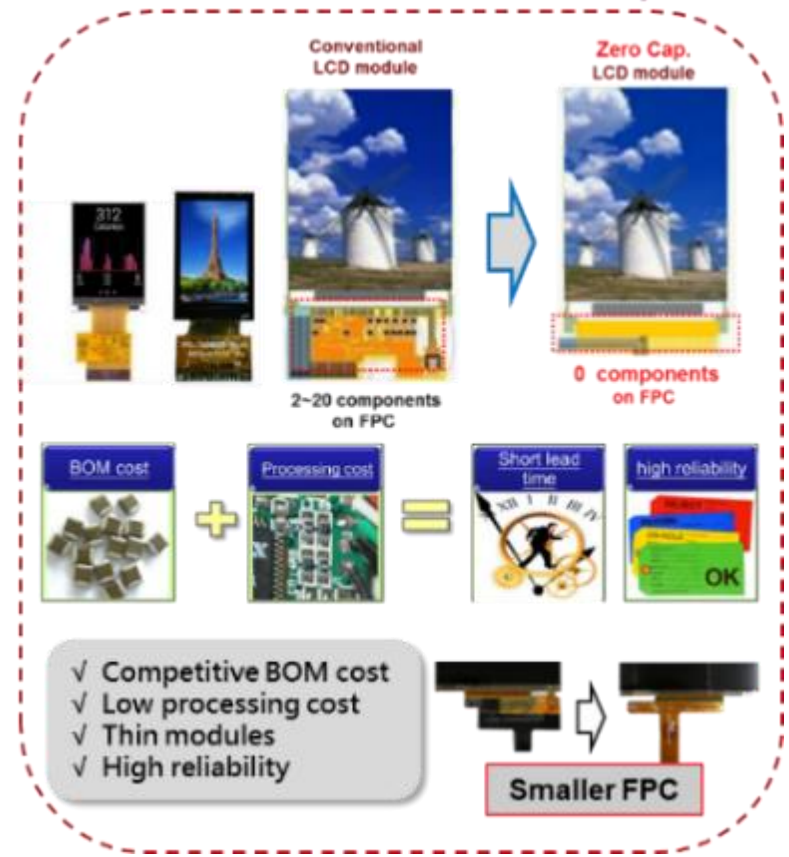
## Mid-sized DDIC (4-6 inch displays)

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



## Differentiation

Sitronix's Patents



# Over 70% of Mobile DDIs are for AIoT Applications

## 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



# Automotive Display Driver ICs

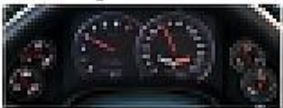
< 6 inch displays

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





# 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



# Sensitivity Upgrades → ASP Boosts

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

# RGB + Flicker Sensors for Smartphone Cameras

## 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.

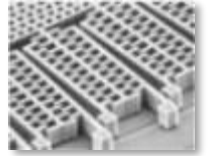




# 微機電感測晶片 MEMS sensors

## G-sensor shipment

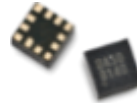
2018 : >30M pcs  
2019 : >55M pcs  
2020 : >80M pcs



### 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

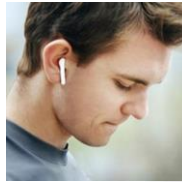


# Wearable Devices: Optical + MEMS

## True wireless stereo (TWS) earbuds

Accelerometers → click detection 敲擊偵測

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



FreeBuds 3

### 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

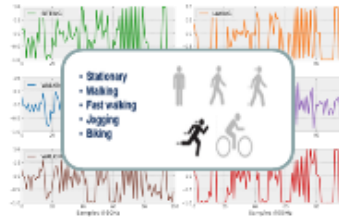
## Smart watches & fitness trackers

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

# Going Forward

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  
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Addressable Market  
400-500M/year

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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

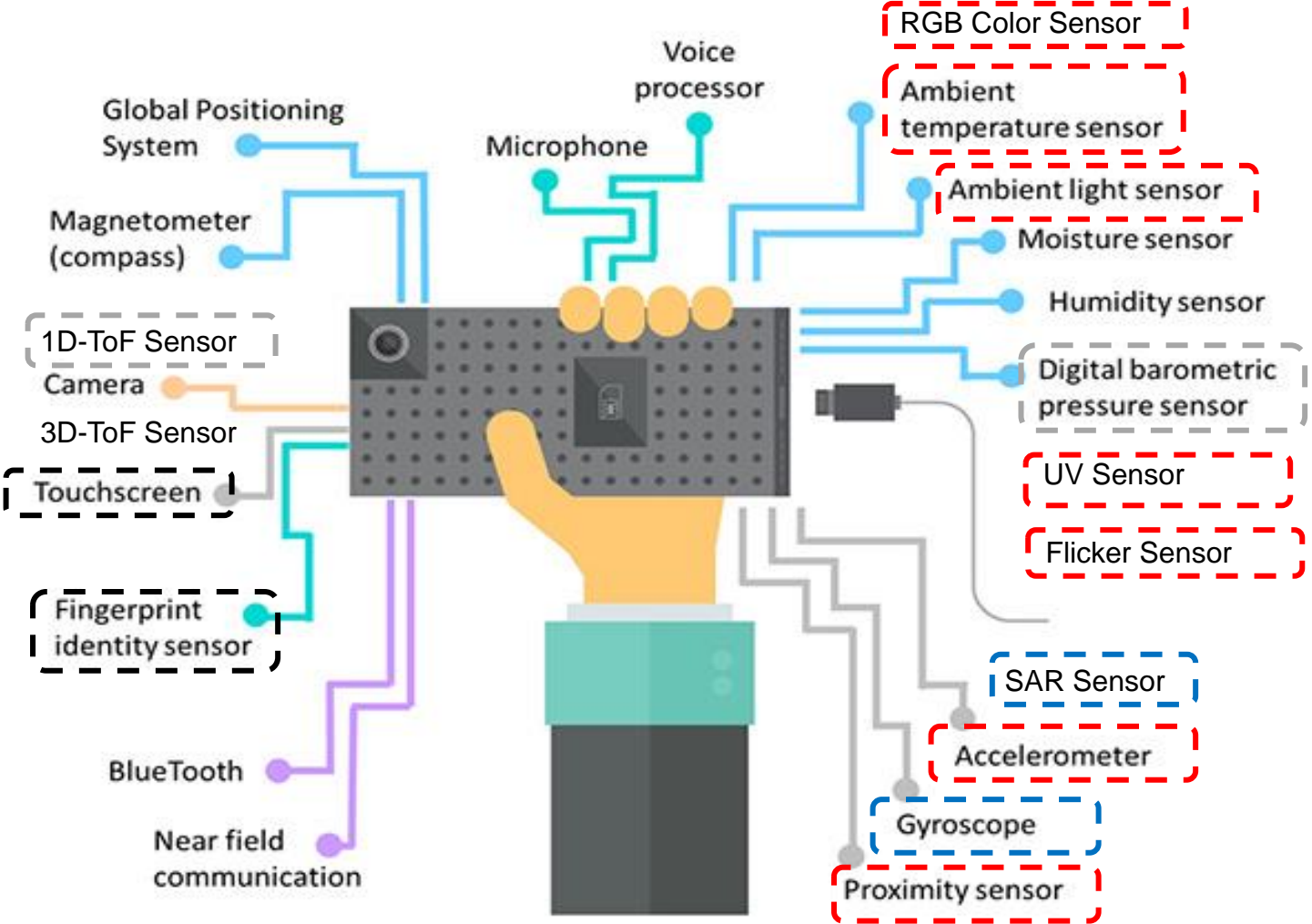
Opticals for Cameras  
Flicker sensors

MEMS  
Accelerometers

MEMS  
Accelerometers  
+ Gyroscopes

MEMS  
Accelerometers  
+ Gyroscopes

# Stay Tuned





# Our Strategy

## 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



鈇創電子(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

# We'd love to hear from you!

## Strategic Marketing Director

Jacky Chou 周德雲

Tel: +886-2-2659 1276 ext 2206

E-mail: jacky\_chou@sitronix.com.tw

## Investor Relations Officer

Vivian Mao 毛廷方

Tel: +886-2-2659 1276 ext 2395

E-mail: vivian\_mao@sitronix.com.tw

Website: <http://www.sitronix.com.tw>

Taipei office:

6F., No. 608, Ruiguang Rd., Neihu Dist., Taipei City 114, Taiwan

台北市內湖區瑞光路608號6樓

*Lighting up your life.*

**Sitronix**