

# JMC ELECTRONICS CO.,LTD.



**TAIEX : 6552**

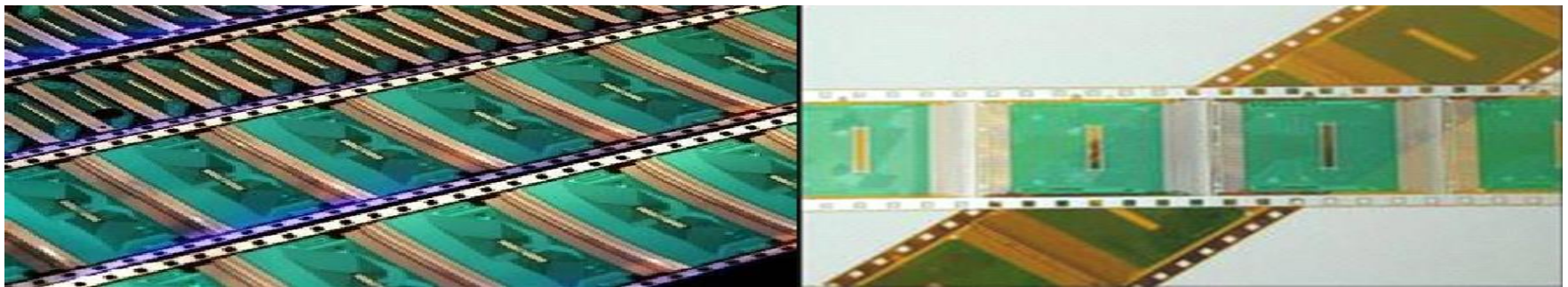
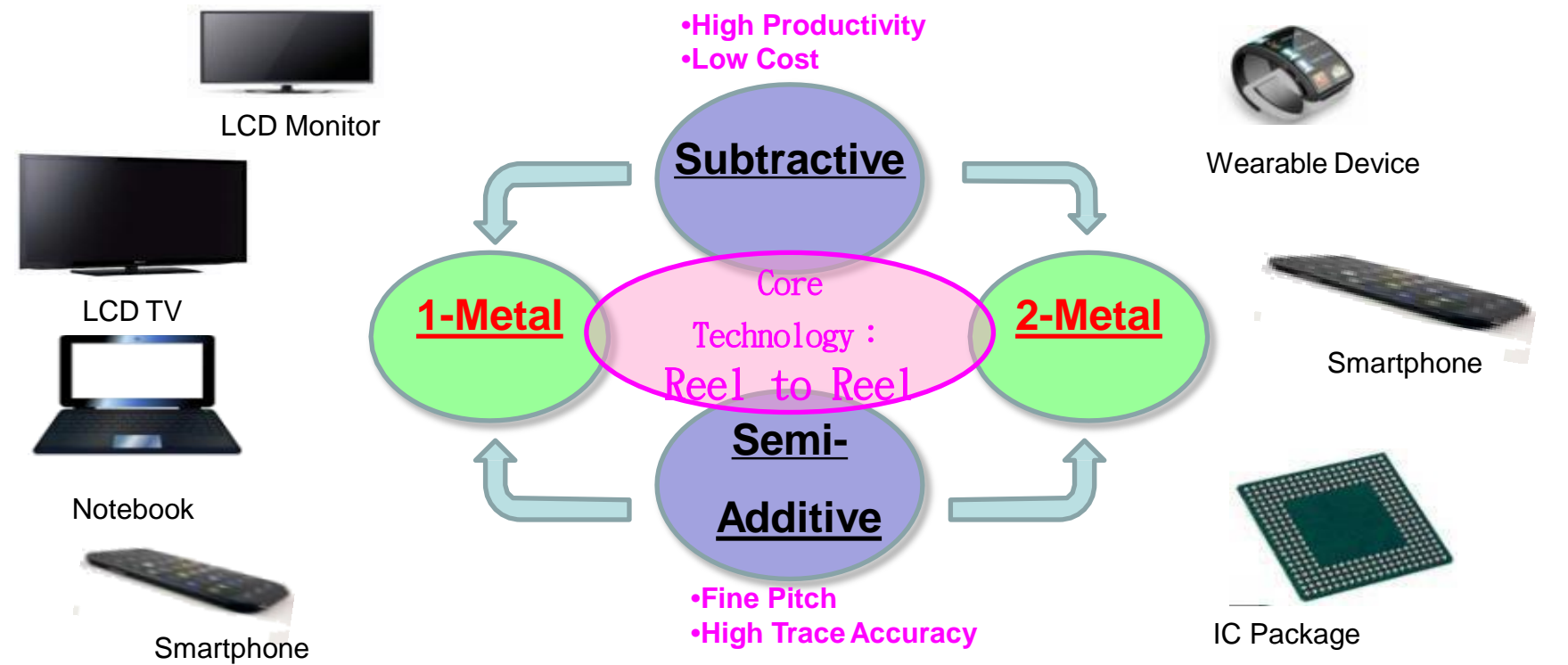
**2019/03/18**

# 1. Company Introduction - Company Snapshot

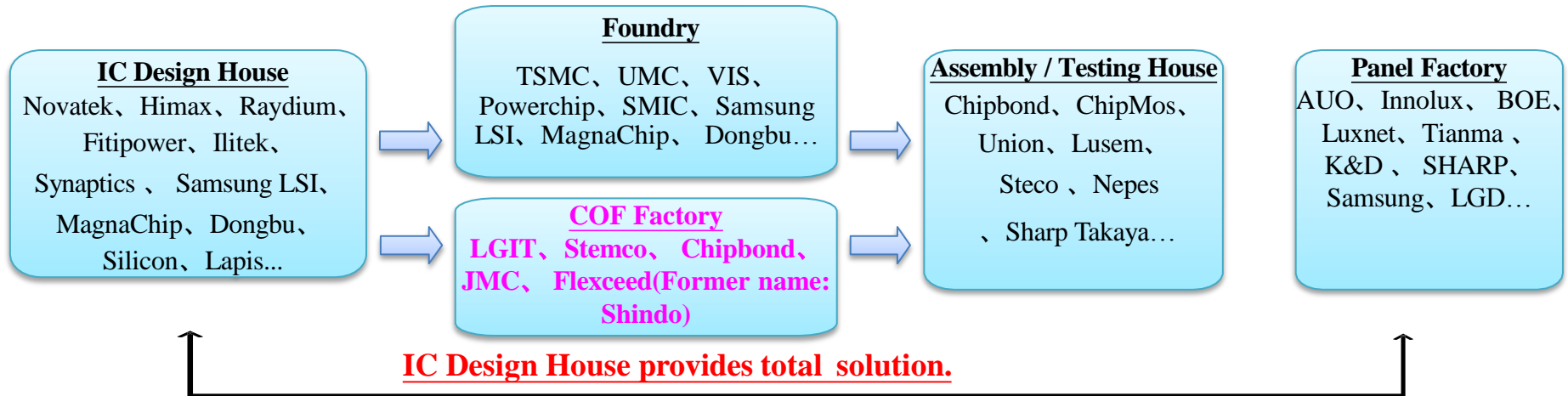
- Established : October 6 ,1973
- Chairman : Canon Huang
- General Manager : Jane Lee
- Capital Stock : 1,000 million
- Major Shareholders : CWE 42% 、 ChipMos 19%
- Number of employees as of Sep 30,2018 : 594
- Major Product : COF(Reel to Reel Chip on Film)



# 1. Company Introduction - Product Application



## 2. Industry Outlook - Driver IC Supply Chain



Process Technology			1-Metal Subtractive(Etching)	1-Metal Semi-Additive(Plating)	2-Metal
Application	Channel/48mm		<1400 /48mm	1400~1900 /48mm	1900~2500 /48mm
	Channel/70mm		<2000 /70mm	2000~3000 /70mm	3000~4000 /70mm
Capacity	Korea	S社	90~100KK		7-10KK
		L社	120~130KK		5-7KK
	Taiwan	F社	20KK		2KK Etching
		C社	70~90KK		
		JMC	20KK (The other 20KK is restarting.)	40KK	5KK Plating+Etching (Installing)

Recently there are only five COF vendors in the world, and JMC is just one of the two vendors in Taiwan.

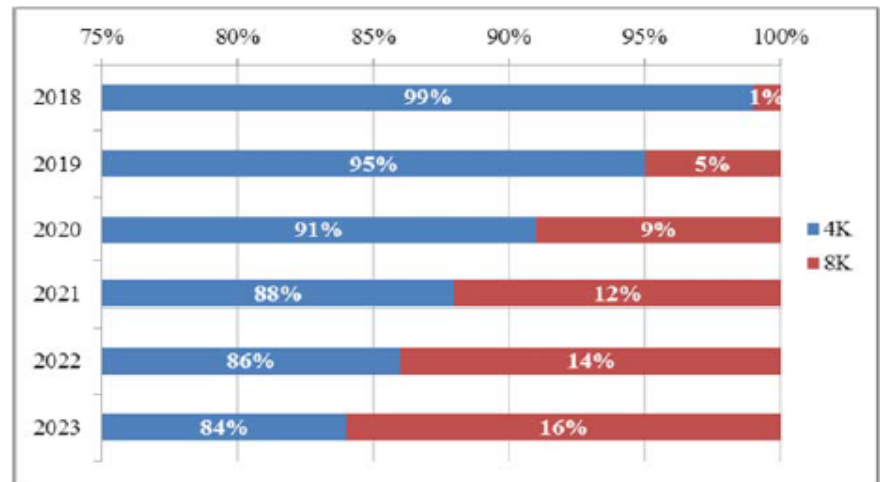
### 3. Market Overview - The Development Trend of Screen Panel ?

✓ The demand of 4K is slightly increasing ; 8K will be a big growth.

- ◎ The main design of TV is 4K right now, and the market keeps growing up. Therefore, the overall COF demand for large- sized panels is slightly increasing.
- ◎ The panel factories already launch their new products ,8K TV, and the next TV product plan is also heading towards 8K. Thus, market expects 8K TV panel will be the next opportunity for COF demand growth.



65吋以上面板市場4K、8K面板滲透率預估



Data Source: The Capital Group

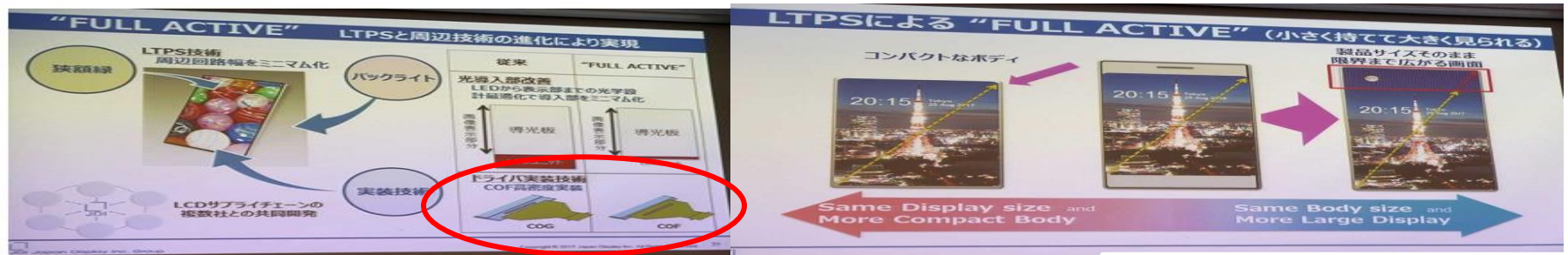
✓ The design trend of other screen panel.

- ◎ NB and Tablet computer panels come to full-screen design.
- ◎ Automotive panels...?

### 3. Market Overview - The Trend Of Small Size Panel ? (1)

✓ Smartphone panels turn to COF because of the full-screen design.

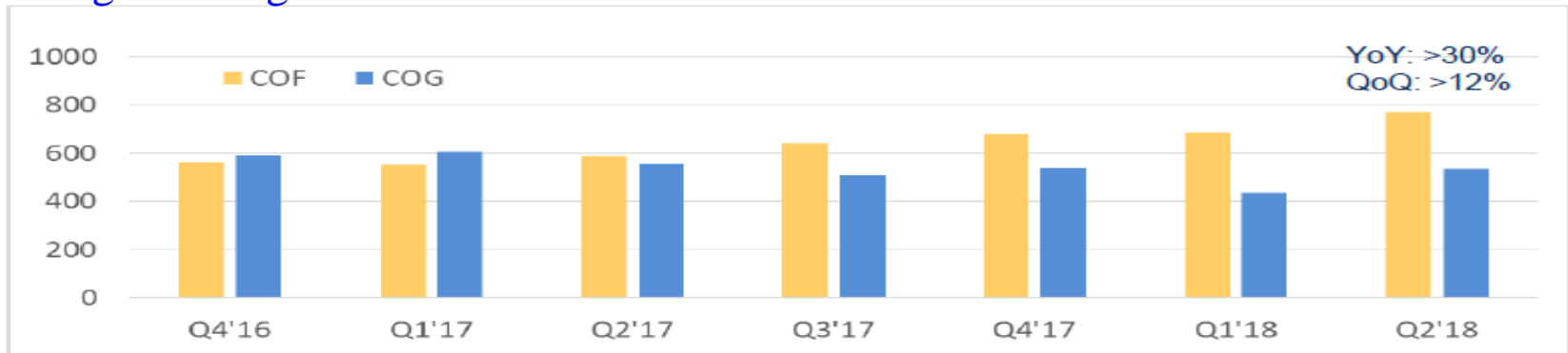
◎ Due to the trend of full-screen panel, smartphone panels turn to fine pitch COF instead of COG.



Data Source :The pictures are taken from website.

✓ COF for smartphone LTPS and TFT LCD is significant growth.

◎ LTPS and TFT LCD panels for smartphones use TDDI for COF demand is significant growth from 2018.



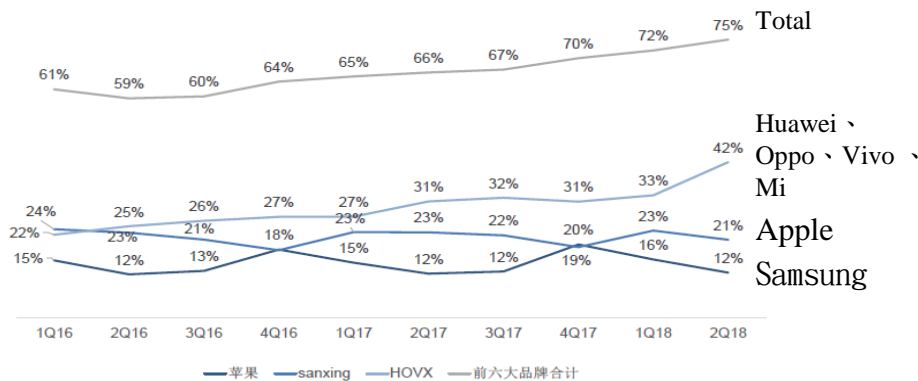
# 3. Market Overview - The Trend Of Small Size Panel ? (2)

✓ AMOLED panels for smartphones will use more COF capacity.

◎ Next stage -- AMOLED panels for mobile phones will require more COF capacity.

Factor	Content	Analysis	Impact on shipments
COF industry shutted down the plant and new technology competition.	Japan and Korea decrease their small and medium-sized panels of TFT LCD capacity and turn to AMOLED.	Samsung Display, LG Display and Japan Display shutted down many TFT LCD lines during 2015 to 2018, and which the Korean did were most the 5 <sup>th</sup> to 7 <sup>th</sup> generation lines.	The signal of the global capacity of small and medium-sized panels significant declines in production capacity so that the application of smartphone screen panels has been replaced by AMOLED.
The progress of AMOLED technology of China is not as expected.	In China, there will be 6 AMOLED lines in the process of mass production during 2018 to 2019. However, it takes 1 or 2 years to compete with LTPS TFT LCD in terms of cost and yield.	Although BOE and Tianma have already produced 6 generations of AMOLED new lines, the current shipments are still based on LTPS TFT LCD.	The time point for smartphone applications to turn to AMOLED will fall from 2021 to 2022.

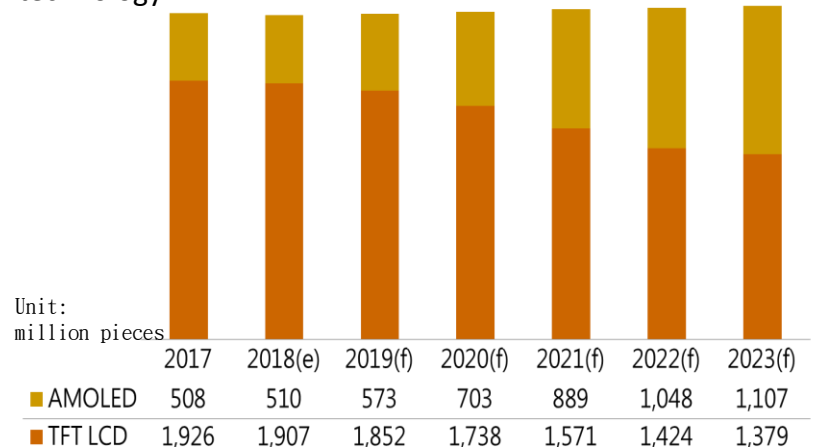
三星、苹果、HOVX 全球智能手机市占率



资料来源：IDC，广发证券(香港)  
注：HOVX 包含华为、Oppo、Vivo、小米

資料來源：DIGITIMES Research · 2018/9

Global smartphone panel shipments change and forecast - technology



資料來源：DIGITIMES Research · 2018/9

# 4. Technology Development - Application Plan & Strategy

**JMC provides a full range of product solutions for you.**

**High-end TV  
& AMOLED TV**

## Subtractive

1. Fine Pitch  
(20um Pitch)
2. High Pin count  
(1440 Channel)

**High-end Smartphone  
& wearable device**

## Semi-Additive

1. Thicker Copper COF(12um)
2. Fine Pitch (18/16/14um Pitch)
3. High Pin count  
(48mm-1900 Channel)  
(70mm-3000 Channel)

**Memory IC 、 Logic IC  
& LED Substrate**

## 2-Metal

1. Thin Film Substrate
2. High Pin count  
(48mm-2500 Channel)  
(70mm-4000 Channel)
3. High-end LED Substrate

## Competitive advantages

- ⊙ Fast production and high efficiency.
- ⊙ Independent technical ability and stable production yield.

## Competitive advantages

- ⊙ High precision size controlled COF products, and can improve the assembly of the panel module rate; help customers to lower total cost.
- ⊙ High production yield and good quality stability; absolute competitive advantage in production costs.

## Competitive advantages

- ⊙ New process technology development capabilities.
- ⊙ Equipment design capability.
- ⊙ Good cost control.



## 5. Financial Results - Results Highlights

(In NT\$ millions unless otherwise noted)

	2015	2016	2017	2018
Revenue	1,588	1,668	1,323	1,931
Gross Profit	410	345	134	396
Income from Operations	288	185	19	237
<b>Net Income</b>	<b>284</b>	<b>136</b>	<b>4</b>	<b>220</b>
EPS – basic (NT\$)	3.22	1.51	0.04	2.20

<b>Gross profit margin</b>	<b>*26%</b>	<b>21%</b>	<b>10%</b>	<b>20%</b>
Operating Margin	18%	11%	2%	12%
Net Profit Margin	18%	8%	1%	12%

\* The gross profit margin in 2015 was due to the gain on reversal of impairment loss of NT\$122.

## 5. Financial Results - Growth Trend

### ■ Revenue and profit growth trends(QoQ vs. YoY)

(In NT\$ millions unless otherwise noted)

	2018Q3	2018Q4	2017	2018
Revenue	511	685	1,323	1,931
QoQ/YoY		34.0%		46.0%
Gross Profit	103	198	134	396
QoQ/YoY		91.7%		196.2%
Income from Operations	62	147	19	237
QoQ/YoY		138.3%		1,144.2%
Net Income	53	117	4	220
QoQ/YoY		119.1%		4873.8%
<b>Gross profit margin</b>	20%	29%	10%	20%
Operating Margin	12%	22%	2%	12%
Net Profit Margin	10%	17%	1%	12%

## 5. Financial Results – Revenue continues to grow.



Adjust the products mix which caused **ASP**  $\uparrow$   $\Rightarrow$  **Revenue**  $\uparrow$

## 5. Financial Results – Profit Trend

### ■ Net Income (2017Q1-2018Q4)

Net Income  
(NT\$T)

