

JMC ELECTRONICS CO.,LTD.



TAIEX : 6552

2023/11/21

- * JMC's statements of its current expectations are forward looking statements subject to significant risks and uncertainties and actual results may differ materially from those contained in the forward-looking statements.
- * Except as required by law, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events, or otherwise.



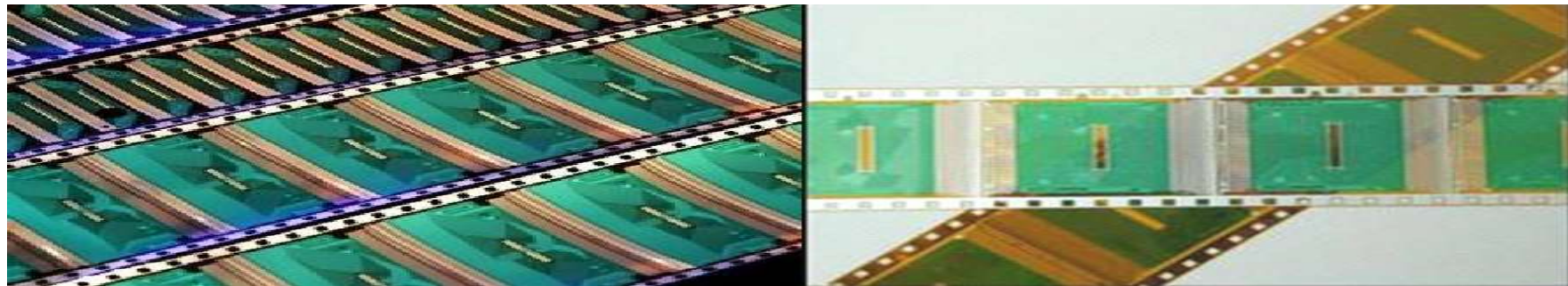
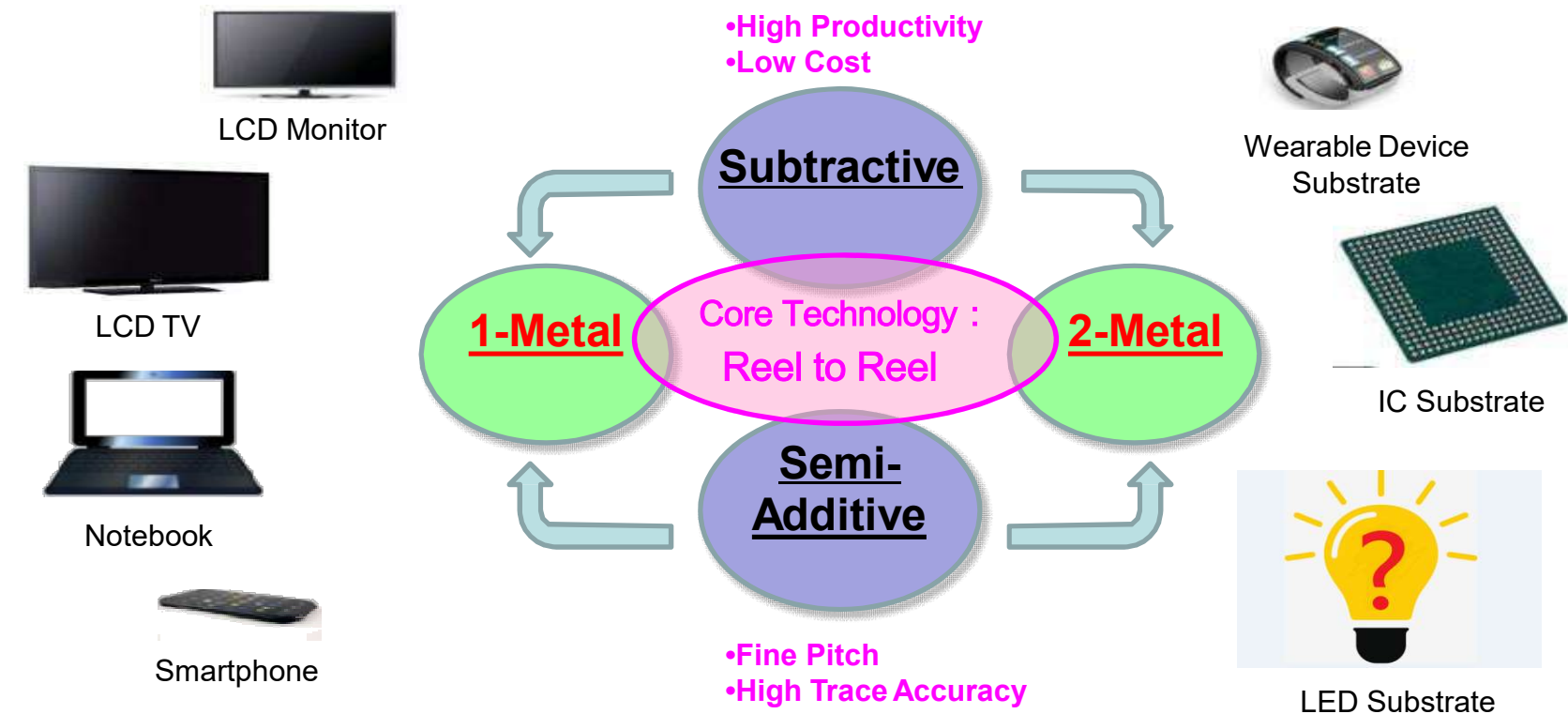
-Professional Reel-to-Reel Fine-Pitch Service

1. Company Introduction - Company Snapshot

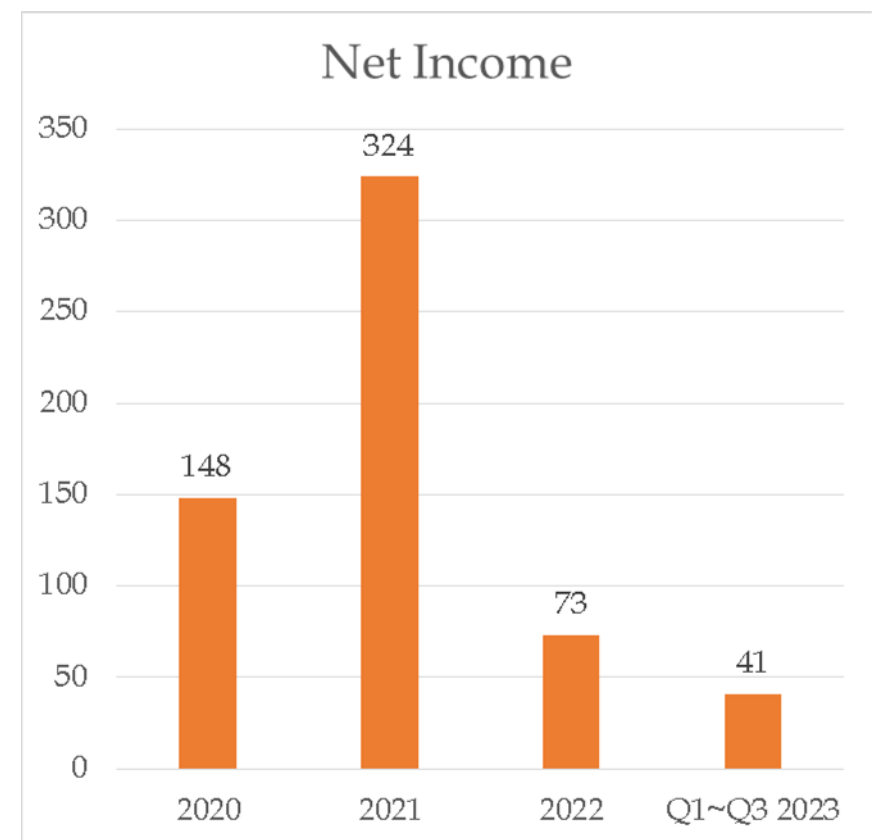
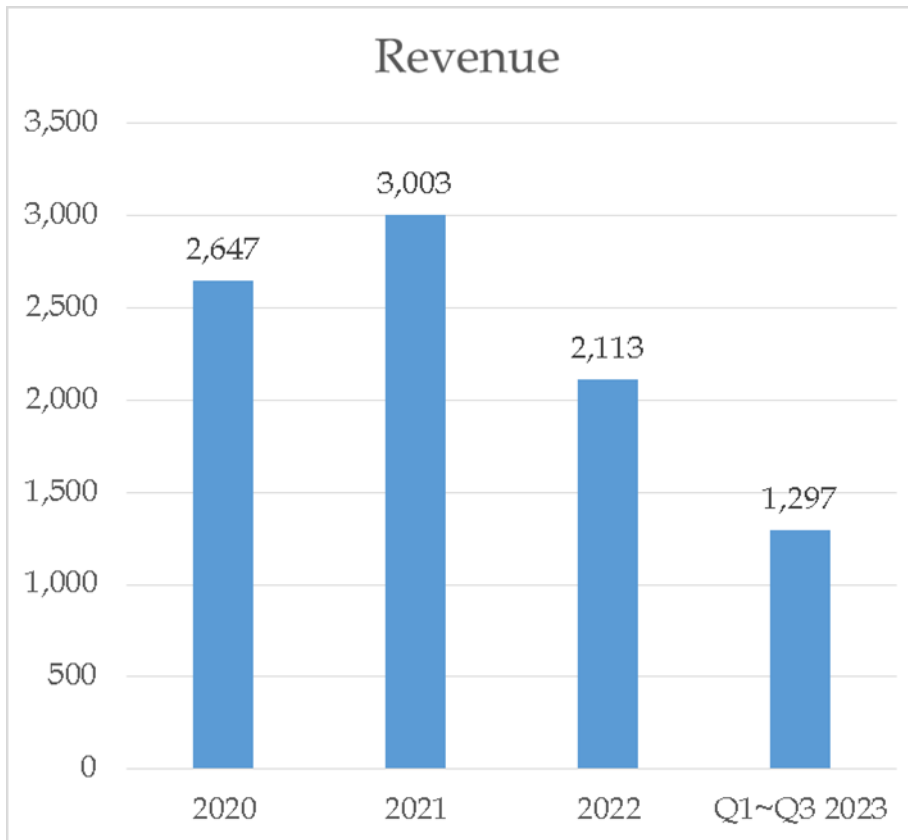
- Established : October 6 ,1973
- Chairman : WAN WEN-TSAI
- General Manager : Jane Lee
- Capital Stock : 830 million
- Major Shareholders : CWE 42.8%、 ChipMos 10%
- Number of employees as of Oct. 31,2023 : 616
- Major Product : COF(Reel to Reel Chip on Film)
- Headquarter : Kaohsiung,Taiwan



1.Company Introduction - Product Application



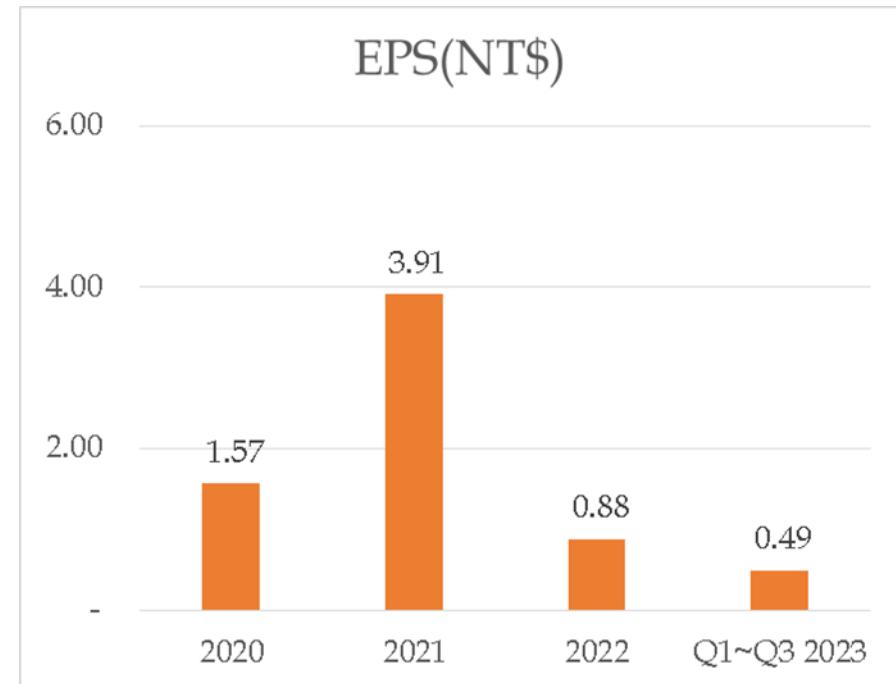
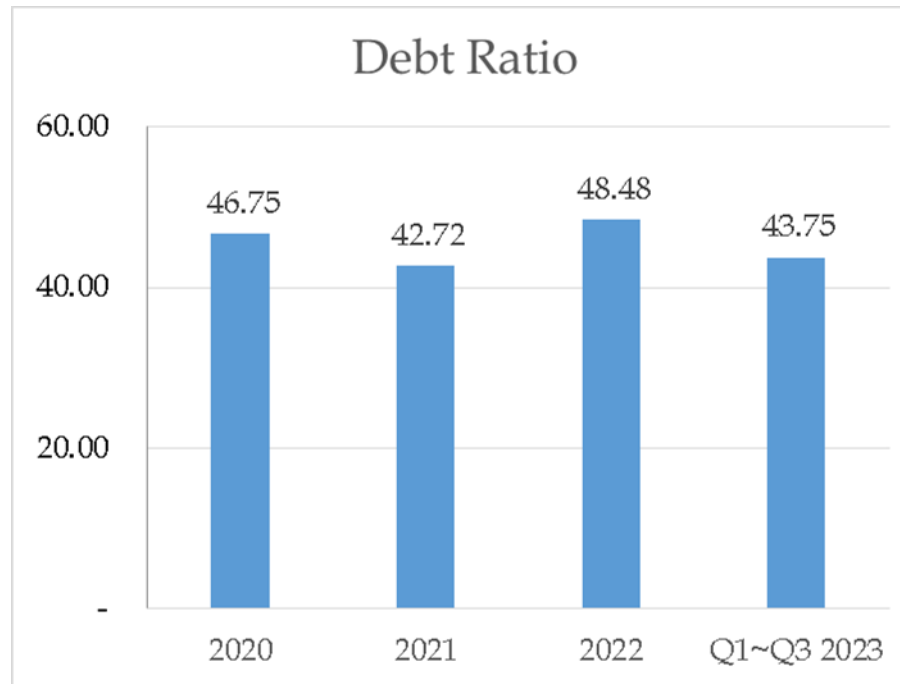
2. Financial Results - Results Highlights



(In NT\$ Million)

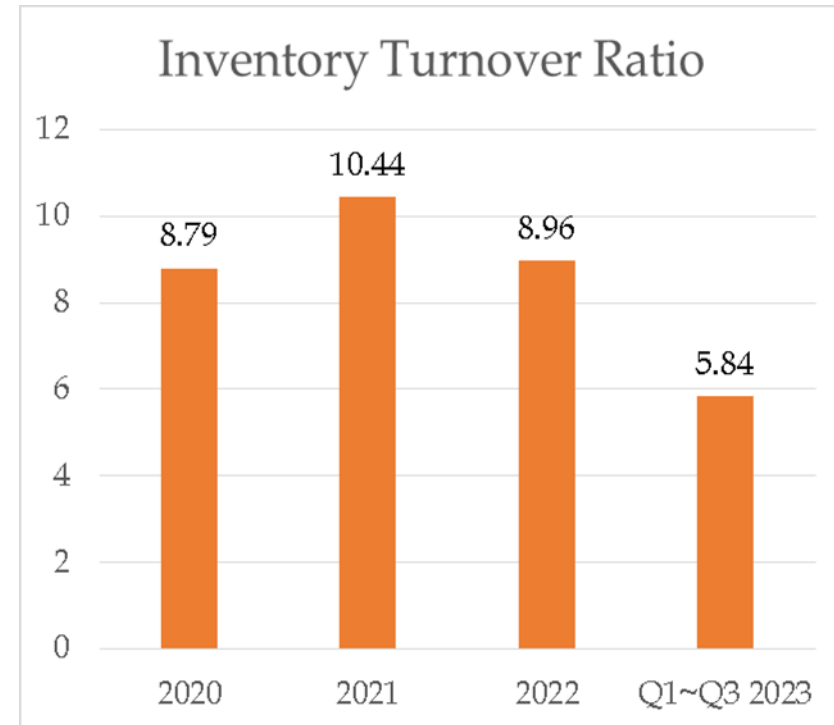
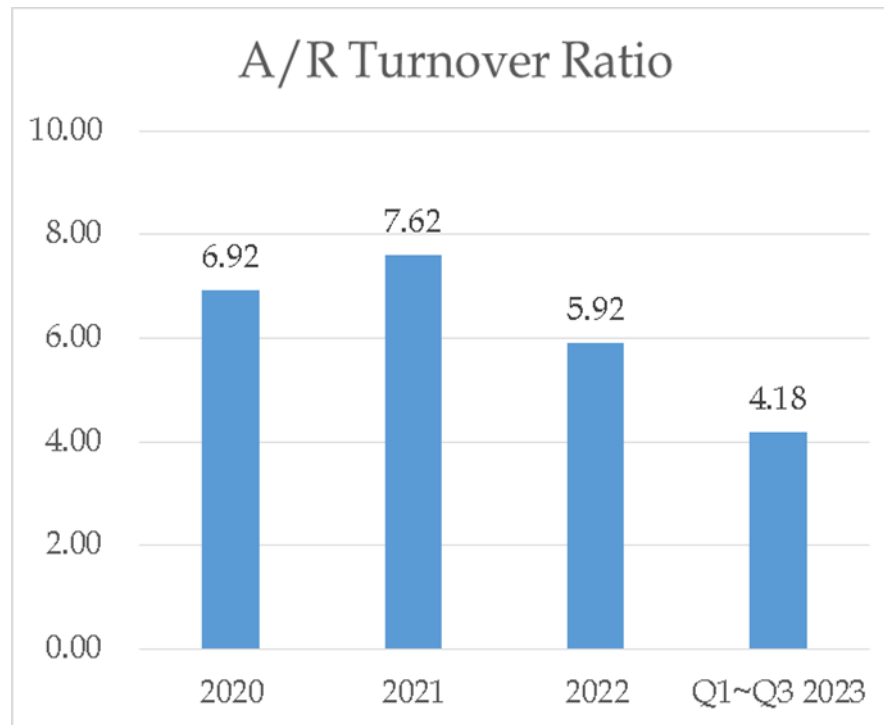
Year	2020	2021	2022	Q1-Q3 2023
Revenue	2,647	3,003	2,113	1,297
Net Income	148	324	73	41

2. Financial Results - Results Highlights



Year	2020	2021	2022	Q1-Q3 2023
Debt Ratio(%)	46.75	42.72	48.48	43.75
EPS(NT\$)	1.57	3.91	0.88	0.49

2. Financial Results - Results Highlights



Year	2020	2021	2022	Q1-Q3 2023
A/R Turnover Ratio	6.92	7.62	5.92	4.18
Inventory Turnover Ratio	8.79	10.44	8.96	5.84

3. Market & Business Overview – 1 Metal COF for Large Panel

✓ Currently – War, Inflation, and stagnant economy affects global demand

- Global economic growth forecasts continue to be revised downwards.
- War and geographical conflicts continue to increase, causing the uncertainty of the electronic product terminal application market.
- The output value of TV panels and IT panels increased significantly in 2020 and 2021, especially in 2021, reaching The growth rate reached 30% ~40%. However, the highly increased market demand was declined since 2022. In 2023, the panel producers continue to reduce production and destocking.
- It is expected that the panel market will have a chance to return to the traditional demand model in 2024, and further return to a stable demand market in 2025.

✓ Future trend – New design/application, unchanged trend with delayed demand

- TV Panel – 4K to 8K, the trend has emerged, just waiting for the demand.
- Monitor/NB/Tablet Panel – COG moves to COF due to full-screen/narrow edge design.
- Automotive Panel – Starting COF design.

3. Market & Business Overview – 1 Metal COF for Small Panel

✓ Currently – The trend changes on driver IC design of hand-held device.

- Driver IC chips of mobile phone panels : the use of COF design was decreasing due to the increasing in COP design.
- Wearable device with health management functions has become a new trend. Therefore, the COF usage in this field is growing steadily.

✓ Future trend – New design and application with unchanged trend

- High-end smartphone with flexible OLED : COP ↑ / 1-Metal COF ↓ .
- Mid-range smartphone with rigid OLED/LTPS : FHD TDDI/FTDDI use 1-Metal COF / partial COG.
- Low-end smartphone with a-Si/LTPS : HD use COG / FHD TDDI use 1-Metal COF.
- Wearable Device : The design turns to 1-Metal COF instead of COG due to the narrow edge requirement. The market is still growing up.

3. Market & Business Overview – 2 Metal IC Substrate

✓ Currently – Mini LED – direct display and backlight market are moving forward together, applications are well-developed.

- 2021 can be a year of increase in Mini LED-related products, which accelerated the development of next-generation display technology in 2022. At the CES exhibition in early 2022, all producers published new displays actively, include many Micro LED-related products, which shows the development of the advanced display product market.
- In 2023, the development and application of Micro LED will become more active.
- It is expected that 2 Metal IC Substrate will have the opportunity to apply in Mini/Micro LED products in 2024.

✓ Future trend – New design and application

- **2-Metal technology** : In addition to the development and application of Mini/Micro LED, JMC will also expand other applications of IC substrate.

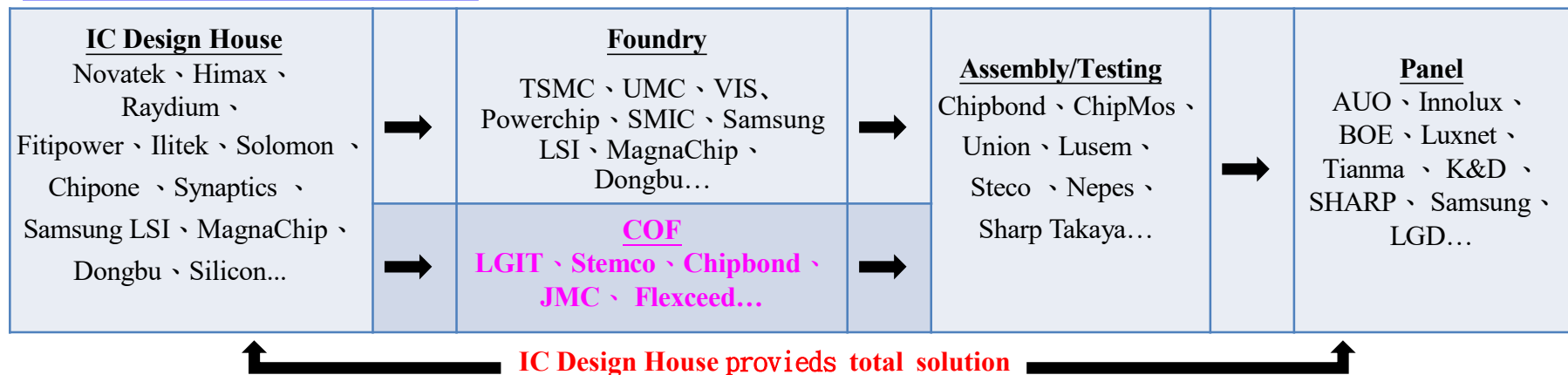
3. Market & Business Overview – Technology & Product Development

✓ A full service of flexible IC substrate provider

Process Technology	Competitive advantages	Technology/ Application	Targeted Market/ Development
1-Metal Subtractive (Etching)	<ul style="list-style-type: none"> ⊗ Fast production and high efficiency. ⊗ Independent technical ability and stable production yield. 	<ul style="list-style-type: none"> *Copper thickness #~8um *Pitch $\geq 20\mu\text{m}$ Pitch *Pin count ≤ 1440 Channel/48mm 	<ul style="list-style-type: none"> @ LCD TV @ OLED TV @ Dual Cell LCD
1-Metal Semi-Additive (Plating)	<ul style="list-style-type: none"> ⊗ 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. 	<ul style="list-style-type: none"> *Copper thickness #~12um *Pitch $\geq 18/16/14\mu\text{m}$ Pitch *Pin count ≤ 1900 Channel/48mm ≤ 3000 Channel/70mm 	<ul style="list-style-type: none"> @ High-end smartphone @ wearable device @ FoD @ FTDDI
2-Metal	<ul style="list-style-type: none"> ⊗ New process technology development capabilities. ⊗ Equipment design capability. ⊗ Good cost control. 	<ul style="list-style-type: none"> *Thin Film IC Substrate *LED IC Substrate *Pin count ≤ 2500 Channel/48mm ≤ 4000 Channel/70mm 	<ul style="list-style-type: none"> @ NAND Flash @ Mini LED @ Micro LED

4. Industry Outlook - Driver IC Supply Chain

✓ IC Design House provides total solution.



✓ Five COF suppliers have mass production capacity currently, and JMC is just one of the two vendors in Taiwan.

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	?KK(2-Metal→1-Metal)	7-10KK
		L社	120~130KK	?KK(2-Metal→1-Metal)	5-7KK
	Japan	F社	20KK	X	2KK
	Taiwan	C社	70~90KK	X	X
		JMC	40KK	40KK	5KK
	China	ESWIN Aplus	? ?	? ?	? ?



-Professional Reel-to-Reel Fine-Pitch Service

Q&A

