

# 2022 Annual Results Presentation

Stock code: 2878

### Contents



- 1. Financial Highlights
- 2. Financial Review
- 3. Business Review
- 4. Outlook
- 5. Appendix: About the Company

# FINANCIAL HIGHLIGHTS



# Financial Highlights



- Revenue increased by about 13.5% to US\$190.8 million
- Gross profit was US\$65.5 million; GP margin was 34.3%
- Operating profit increased by 18.7%
- Profit attributable to owners of the parent increased by 16.8% to US\$27.8 million
- Earnings per share were 1.1 US cents (equivalent to 8.6 HK cents); NP margin was 14.6%

# FINANCIAL REVIEW



# Financial Highlights



	2022	2021	Change %
	(US\$ million)	(US\$ million)	
Revenue	190.8	168.1	+13.5%
Gross profit GP margin	65.5 34.3%	67.3 40.0%	-2.7% -5.7p.p.
R&D expenses	27.1	30.4	-10.9%
Profit attributable to owners of the parent	27.8	23.8	+16.8%
Earnings per share (US cents)	1.1	1	+10.0%
Current ratio	3.02	2.35	

### **Balance Sheet**

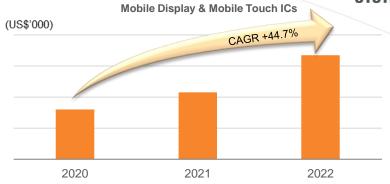


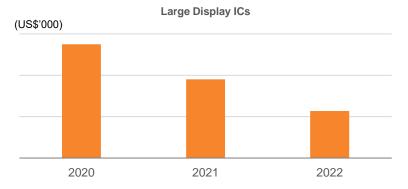
	As at 31 Dec 2022	As at 31 Dec 2021	Change %
	(US\$ million)	(US\$ million)	
Total assets	158.3	139.9	+13.2%
Shareholders' equity	109.2	86.7	+26.0%
Bank deposits and cash	51.6	41.8	+23.4%
Shareholders' funds per share (HK cents)	34	27	+25.9%
Net cash per share (HK cents)	16	13	+23.1%

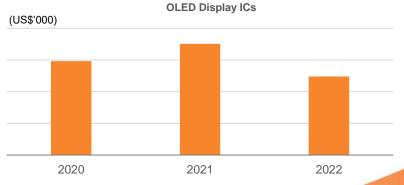
## Revenue Trend By Products



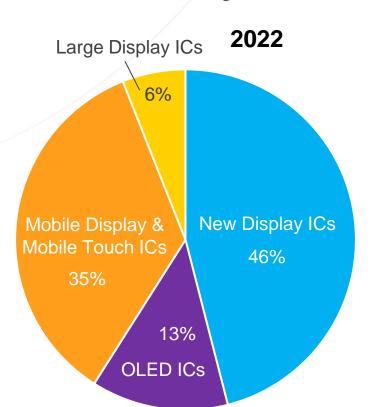


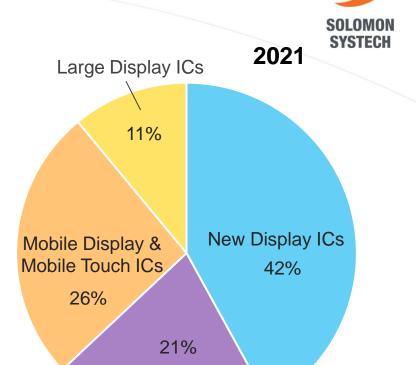






## Revenue By Products





**OLED ICs** 

# Receivable Ageing Analysis



(Based on invoice date)

	As at 31 Dec 2022	As at 31 Dec 2021
	(US\$ million)	(US\$ million)
1 - 30 days	11.6	9.8
31 - 60 days	3.7	6.5
61 - 90 days	2.8	5.5
91 - 180 days	4.4	2.3
180 - 365 days	1.0	0
Total	23.5	24.1

# Payable Ageing Analysis

(Based on invoice date)



	As at 31 Dec 2022	As at 31 Dec 2021	
	(US\$ million)	(US\$ million)	
1 - 30 days	8.0	14.7	
31 - 60 days	3.5	6.5	
61 - 90 days	4.2	2.4	
Over 90 days	0.1	0.3	
Total	15.8	23.9	

### Consolidated Cash Flow



	2022	2021	Change %
	(US\$ million)	(US\$ million)	
Net cash generated from operating activities	17.6	-6.0	-
Net increase in cash and cash equivalents	23.2	-27.4	-
Total bank deposits and cash	51.6	41.8	+23.4%

# BUSINESS REVIEW



### New Display ICs





As a globally leading supplier for e-Paper display driver ICs with the largest market share, the Group's customers include many of the world's top-ranked supermarkets.

Stable sales arising from ESL in the European and the North American markets, and it is also becoming an emerging trend in other Asian countries.

- New Display IC products showed a slight growth in shipment quantity of 4.7%.
- ESL is gaining popularity for its flexibility in price update and easy stock management. It also increases efficiency and reduces the carbon footprint of merchants, meeting the global trend of paperless for sustainable development.



- Commenced mass production of the AMEPD driver IC for Advanced Colour e-Paper (ACeP) products in 2022.
- Supported E Ink in developing the Display IC Solutions for Spectra™ 3100, a next-generation specialised platform for ESL and retail signage application. This significant technological break-through enables a four colour spectrum display. Spectra™ 3100 is expected to be launched in 2023.
- In addition to ESL, the Group is also committed to expanding the application of IC products to other areas, such as translators and large retail signage applications.





### OLED Display ICs





#### **OLED Display ICs**

- The Group is the world's number one PMOLED display driver IC player with a dominant market share in terms of unit of shipment in 2022.
- In 1H 2022, the demand for healthcare products related to the COVID-19 pandemic, such as oximeters, was strong as the pandemic was still severe, and gradually slowed down in 2H 2022 as the pandemic subsided.
- With the prevailing trend of smart home appliances, it is expected that demand for PMOLED smart home solutions and the Internet of Things (IoT) will continue to grow in the future.

#### Mini/micro-LED Display

As the global high-end consumer electronics market continues to expand, the orders for the Group's mini/micro-LED IC products increased during the year compared with 2021.

#### **Latest Development:**

Expected to launch the world's first small-sized passive matrix micro-LED display driver IC - SSD2363 in 2023, which can be applied to next-generation high brightness displays of 3 inches or less for wearable devices, home appliances and industrial appliances.

### Mobile Display & Mobile Touch ICs





#### Game console controller ICs drives segment demand

- Benefiting from the strong demand for game console controller ICs, the Mobile Display and Mobile Touch ICs products reported a 55.4% increase in sales revenue.
- Market demand for game console controller ICs requiring more accurate controls, faster response and longer battery runtime is growing fast. And the demand for the Group's game console controller and MIPI Bridge ICs continues to grow, and the Group has successfully secured manufacturing orders into 2024.

#### **Latest Developments:**

- The Group pioneers the MIPI solutions for display that support high-resolution, high-speed and low-power display of smart devices, which includes AR and VR products that have been favoured by the market in recent years.
- Co-developing a human interface display platform with a leading small-to-medium-sized TFT-LCD panel maker to leverage the Group's pioneering technologies in TDDI, targeting to enter mass production in 2H 2023.

## Large Display ICs













#### **New IC for entertainment**

- Due to the poor demand for large screens as a result of the COVID-19 pandemic, panel manufacturers suffered huge losses from the unsatisfactory sales.
- The Group successfully carried out the mass production of driver ICs for the 165Hz high-refresh-rate gaming monitor of 27/23.8 inches and 43-inch smart HDTV in conjunction with the panel makers and the international terminal brands.
- In the future, the Group will leverage its R&D capabilities to enhance the value of products and its visibility in the market and continue to promote its cooperation with domestic display screen factories.

# OUTLOOK



### Outlook





#### **OLED Display ICs**

 Develop the advanced technology of micro-LED IC solution for brighter and power-efficient appliances

 Continue to develop PMOLED smart home appliances display driver IC vigorously



#### **Mobile Display & Mobile Touch ICs**

Develop AR and VR products by leveraging the pioneering technologies in MIPI, in order to capture the market opportunities of the Metaverse



#### **New Display ICs**

Continue to develop and promote the 7-colour or full colour e-paper, and expand the category of application



#### Large Display ICs

- Tapping into high-speed Peer-to-peer (P2P) IC market for larger-size of 8K HDTV in advance
- Continue to develop highrefresh-rate gaming monitor

# ABOUT THE COMPANY



## About Solomon Systech



- A leading semiconductor company providing IC products and system solutions for display applications
- Established in Hong Kong in 1999, originated from a department of the mobile phone producer Motorola, which specialised in the research and design of display driver IC
- Listed on the main board of the Stock Exchange of Hong

Kong Limited in 2004 (stock code: 2878)

#### **Head Office**

Hong Kong

#### **Technology Centers**

Hong Kong **Nanjing** Shenzhen Taiwan

#### Sales Networks

Hong Kong Shenzhen Beijing **Nanjing** Shanghai Taiwan Japan Korea USA Europe

# Key Business Units



### Solomon Systech

IC & System Solutions

#### **New Display**

#### Bistable Display

- ❖ Dot-Matrix Bistable DDI
- **❖** Segment Bistable DDI

#### Custom IC

New Display
 Technologies (Mini-LED,
 Micro-LED, Bistable, etc.)

#### **OLED Display**

#### OLED Display/Touch

- **❖ PMOLED TDDI**
- ❖ PMOLED Display Driver IC (DDI)

#### **OLED Lighting**

**❖ OLED Lighting Driver IC** 

#### **Mobile Display**

#### **Mobile Driver**

- TFT Display Driver IC (DDI)
- ❖ In-Cell TDDI
- ♦ STN DDI

#### **Mobile Interface**

- ❖ MIPI Bridge IC
- ❖ Display Controller IC

#### **Mobile Touch**

LCD Touch Controller IC (Out-Cell/ On-Cell)

#### **Large Display**

- **❖** Source DDI
- ❖ Gate DDI
- **❖** GIP Controller IC

# **Product Applications**















#### ePaper/ Electronic Shelf Label











#### **Smartphone / Tablet**





#### Medical





#### Metaverse



#### Gaming



#### **Smart Home Appliances**







### Custom ICs



- Custom ICs for digital, analog and mixed-signal applications
- One-stop solution from designing, testing to delivering
- Our turnkey services provide one of the most convenient and easiest ways from ASIC to SoC production

#### MiniLED/µLED Custom Driver Controller

- ❖ The fast-response and vivid color MiniLED/µLED display is very popular for high resolution devices nowadays.
- The Group has rich experience in passive matrix, amorphous/LTPS/Oxide-TFT driver design.
- ❖ The Group owns a library featuring state-of-the-art IPs that are tailor-made for MiniLED/µLED display.

#### **Applications**

Mobile phone, tablet PC, TV, VR/AR glasses, consumer appliance, portable game console etc.



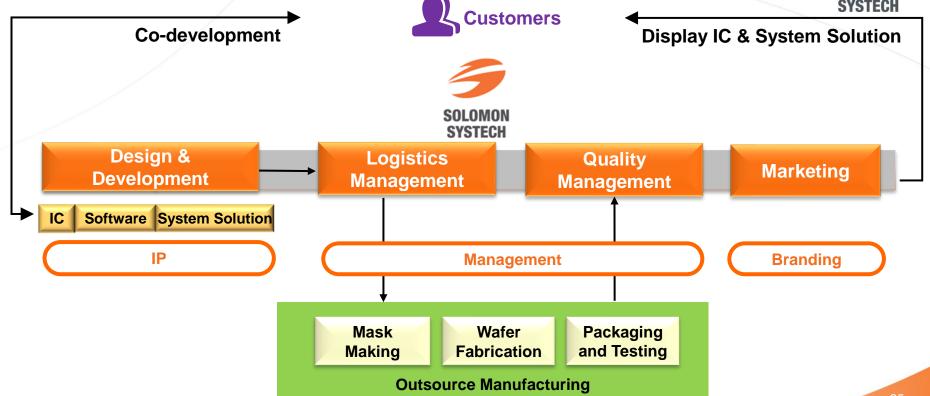






### "Fabless" Business Model





### Awards & Achievements

香港工商業獎

2014

HONG KONG

INDUSTRIES TECHNOLOGICAL

山国位

1st runner up, Industry Category of Hong Kong

**Electronics Project Competition 2019, Hong Kong** 

Institution of Engineers

**SYSTECH** 

- Ranked 1st in global market share for electronic shelf labels (ESL) applications in 2022
- Ranked 1st in global market share for PMOLED applications for consecutive years

#### Hong Kong Awards for Industries -**Technological Achievement**



科技成就獎 **TECHNOLOGICAL** ACHIEVEMENT AWARD



**IET Innovation Award** 

#### **Hong Kong ICT Awards**







#### China Semiconductor Innovative Products and Technology Award











2022 Benchmark IC **Enterprise Award** 



QuamIR Awards 2020



"Executive of the Year" of EE Awards Asia 2021



**HDSC Outstanding Semiconductor Entrepreneurs 2022** 

# International Partnership

SOLOMON SYSTECH

Solomon Systech's customers include many international labels:



#### **Display Module Makers**



### **Patents**



- Over 660 IC design patents from China, US, Europe and other Asia regions
- PMOLED
  - Developed world's first PMOLED TDDI
  - Patented driving architecture in US and China
- ePaper
  - ❖ Patent on fully automated panel defeat detection method which benefits IoT application
- ❖ Mini-LED/ Micro-LED
  - ❖ Various patents to increase color depth/ allow high refresh rate plus high dynamic range/ minimize white balance shift...etc.





### **Thank You**

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