2022 H1 Operation Briefing of Nan Ya PCB Corp.

September 6th 2022

Disclaimer

The description of historical events might include the information that was not reviewed by accountants. Thus, it might be insufficient to fully exhibit the financial status or operation results of Nan Ya PCB Corp.

The actual operation results, financial status, and sales outlook in the future might be different from what will be indicated or implied in this meeting. The reasons may be including but not limited to the market demand, price fluctuation, competition dynamic, global economy, supply-chain, foreign exchange rate, and other risks that the Company cannot control.

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.

Agenda

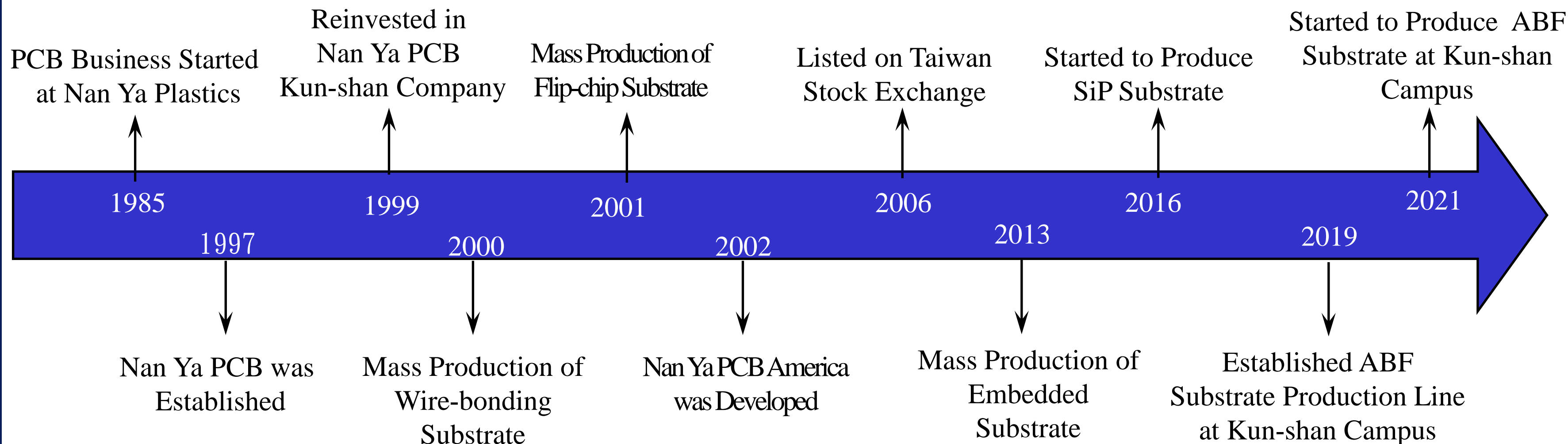
- **Company Profile**
- **Financial Status**
- **Future Product Development**
- **Operational Goals**

Company Profile
Business Overview

- Subsidiary Company of Nan Ya Plastics Corp.
- Manufacture and Sell PCBs and IC Substrates
- 2022 H1 Consolidated Revenues: NTD 29.7 Billion
- Market Value: NTD 168.3 Billion(June 30st 2022)
- Production Locations：Taiwan and China

Company Profile

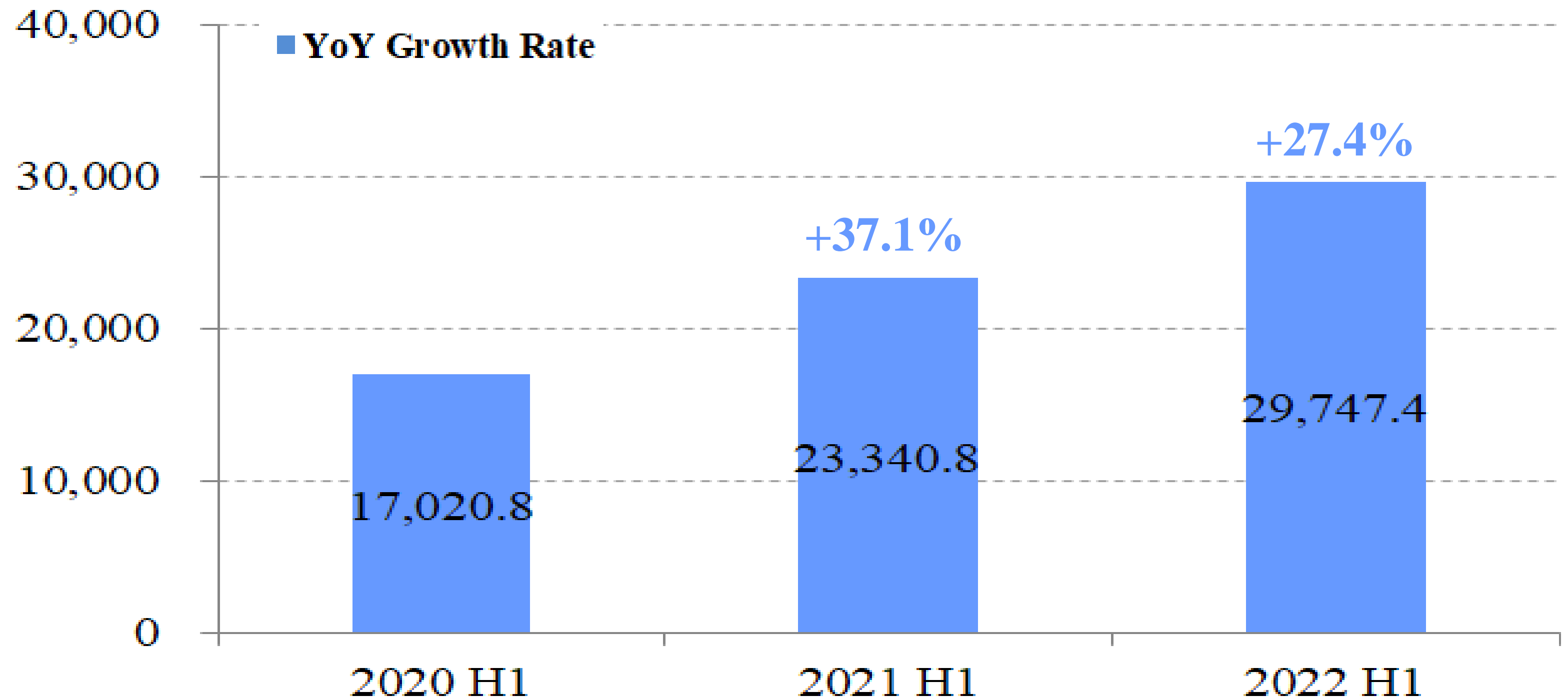
Milestone



- **1985 : PCB business unit was formed at Nan Ya Plastics Corp. and started manufacturing PCBs**
- **1997 : Approved by the Board of Nan Ya Plastics, Nan Ya PCB Corp. was established via reinvestment**
- **1999 : Reinvested Nan Ya PCB Kun-shan Company with capital of USD29.8 million**
- **2000 : Started manufacturing wire-bonding substrates**
- **2001 : Upgraded technologies and produced flip-chip substrates**
- **2002 : Established Nan Ya PCB America Corp.**
- **2006 : Listed on Taiwan Stock Exchange with ticker 8046 TT**
- **2013 : Upgraded technologies and produced Embedded substrates**
- **2016 : Started to produce System in Package (SiP) substrates**
- **2019 : In response to market demand, Nan Ya PCB Corp. started to build ABF substrate production line at Kun-shan Campus**
- **2021 : Kun-shan Campus started to manufacture ABF substrates**

Financial Status

H1 Consolidated Revenues(IFRS) in Last 3 Years



- **Revenues in 2021 H1 were 37.1% greater than those in 2020 H1:**
  Work from home and stay at home entertainment drove demands and lifted the Company's performance with a significant annual growth in revenues.
- **Revenues in 2022 H1 were 27.4% greater than those in 2021 H1**
  Nan Ya PCB was helped by the increasing demands in large area and high layer counts IC substrates, and the revenues grew annually.

Financial Status

Quarterly Consolidated Revenues(IFRS) in a Year

NTD Million

	2021 Q3	2021 Q4	2022 Q1	2022 Q2
Revenue	14,113.7	14,774	14561.655	15185.715
Change		+4.7%	-1.4%	+4.3%

- **Revenues in 21Q4 were 4.7% greater than those in 21Q3:**
  Because the sales of the high-end IC substrates maintained strong in 21Q4, the revenues kept growing regardless of the slow season.
- **Revenues in 22Q1 were 1.4% lower than those in 21Q4:**
  Because of fewer working days, the 22Q1 revenues declined from 21Q4.
- **Revenues in 22Q2 were 4.3% greater than those in 22Q1:**
  Better product mix led by increasing high value product sales offset the impacts of Kunshan lockdown in April and pandemic outbreak in May, and enabled quarterly revenue growth.

Financial Status

H1 Operation Profits(Losses) in Last 3 Years

NTD Million

	2020 H1	2021 H1	2022 H1
Operation Profit (NTD Million)	1,383.0	4,609.2	10,168.7
YoY Increase		+3,226 .2Mn	+5,559 .5Mn
Operation Profit Margin (%)	8.1%	19.7%	34.2%

- **Operation profits in 2021 H1 were increasing NTD 3,226.2 Mn from 2020 H1:**
  In addition to the contribution from the better product mix and the new IC substrate capacities at Kunshan Campus, we applied AI to manufacturing management to improve the yield rate and efficiencies to boost operation profits and margin.
- **Operation profits in 2022 H1 were increasing NTD 5,559.5 Mn from 2021 H1:**
  The high values product sales increased because of better output led by debottleneck and lifted the profits.

Financial Status

Quarterly Operation Profits in a Year

NTD Million

■ QoQ Increase
■ Operation Profit Margin

	2021 Q3	2021 Q4	2022 Q1	2022 Q2
Operation Profits (NTD Million)	3,879.3	4,382.2	4,786.5	5,382.3
QoQ Increase		+502 .9Mn	+404 .3Mn	+595 .8Mn
Operation Profit Margin (%)	27.5%	29.7%	32.9%	35.4%

- **Operation profits in 21Q4 were increasing NTD 502.9 Mn from 21Q3:**
  Because of better sales in high value products, such as telecom, AI, and HPC substrates, operation profits continued to grow.
- **Operation profits in 22Q1 were increasing NTD 404.3 Mn from 21Q4:**
  Increasing sales in PC and HPC substrates propelled profit growth.
- **Operation profits in 22Q2 were increasing NTD 595.8 Mn from 22Q1:**
  In addition to better large area and high layer count IC substrates sales, the adoption of AI in manufacturing processes improved efficiencies and yield rate and lifted profits.

Financial Status

Revenue Structure(By Applications)

	2020	2021	2022 H1
Others	5%	6%	7%
Automotive	7%	7%	8%
Consumer	23%	23%	19%
Telecommunication	48%	45%	46%
PC	17%	19%	20%

- Because of rising market share of our CPU client and recovery in telecom equipment, the PC and telecom product revenues grew in 2022 H1.
- Due to the slow season of consumer electronics and severe inflation, related revenue ratios in 2022 H1 declined from 2021.

Financial Status

Revenue Structure(By Applications)

	2020	2021	2022 H1
Others	5%	6%	7%
Automotive	7%	7%	8%
Consumer	23%	23%	19%
Telecommunication	48%	45%	46%
PC	17%	19%	20%

- Evs and better penetration rate of automotive electronics drove the demands in automotive PCBs. The related sales ration grew in 2022 H1.
- Nan Ya PCB actively explored the AI and HPC fields and successfully gained more high value orders from those areas. Thus, the revenue ratio of others continued to grow.

Future Product Development

Continue to Expand High Value Products

- **High-end ABF Substrate**

  We will keep enhancing manufacturing processes though the adoption of AI and big data and narrow the line width and space as well as the bump pitch. Also, through cross-strait capacity expansions, we could gain more market shares and will launch:

  1. High-end substrates for 5G base stations and cloud servers.
  2. High-end substrates for 5nm CPUs and 6nm GPUs.
  3. Large area and high layer counts substrates for AI and APU ASICs.

- **High-end BT Substrate**

  The Company continues to enhance manufacturing processes and narrows the line width and space of MSAP. We will launch:

  1. New generation SiP substrates for wearable devices, camera modules of smartphones, and optical sensors.
  2. Substrates for transceivers of 5G small cell and network signal switches.
  3. High-end automotive infotainment, MCU, and communication substrates.

- **HDI**

  As the designs of handset, consumer electronics, and automotive electronics are becoming sophisticated, the consumption of high value HDI is increasing. We will lift the sales ratio of high-end HDI and launch:

  1. Motherboards of high-end PCs and accelerating cards for servers.
  2. Consumption SSDs and memory modules.
  3. Mini LED application products.

Operational Goals
Management Guidelines

- Cultivating R&D and manufacturing technology talents to enhance R&D power and add values in products.
- Participating in clients' product design, co-developing products, offering raw data, and sharing manufacturing information to shorten the delivery time.
- In response to the growing trend of 2.5D packaging, we will develop more high-end IC substrates to lift the sales ratio of high value products.
- Continuing to apply AI to operation and management, implementing intelligent production, and optimizing manufacturing conditions to improve the yield rate and efficiency.
- Most of new capacities are expected to start contribution earlier:
  - Shulin Phase 1：23Q1→22Q3
  - Kunshan Phase 2：23Q1→22Q3
  - Shulin Phase 2：Start in 24Q1 as planned
- Will continue to implement ESG projects, and set the SBT to reduce emission, as well as proceeding other projects of reducing power consumption and waste to fulfill corporate social responsibilities and circular economy.

Thank You