# The First Half of 2020 Operation Briefing of Nan Ya PCB Corp.

August 20<sup>th</sup> 2020



## 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.



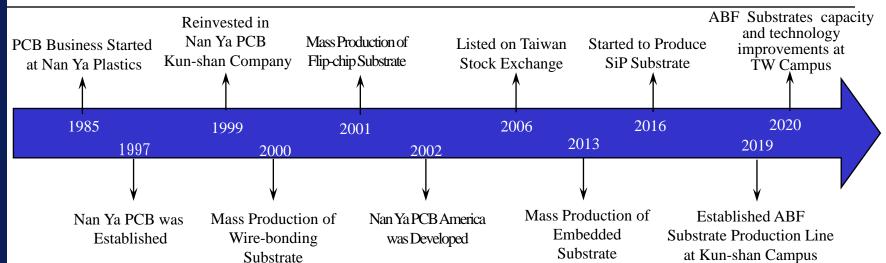
# • Company Profile

- Financial Status
- Future Product Development
- Operational Goals





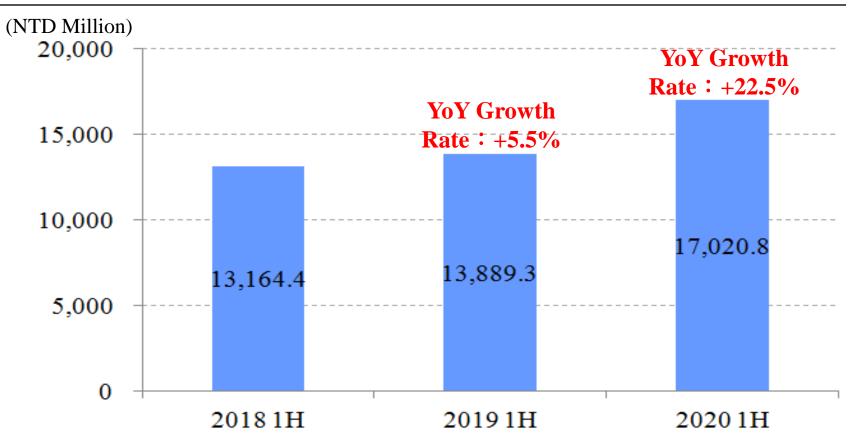
## **Company Profile Milestone**



- 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
- 2020 : Capacities increases and manufacturing processes enhancements in ABF substrates at TW Campus



**Consolidated Revenues(IFRS) in Last 3 Years** 



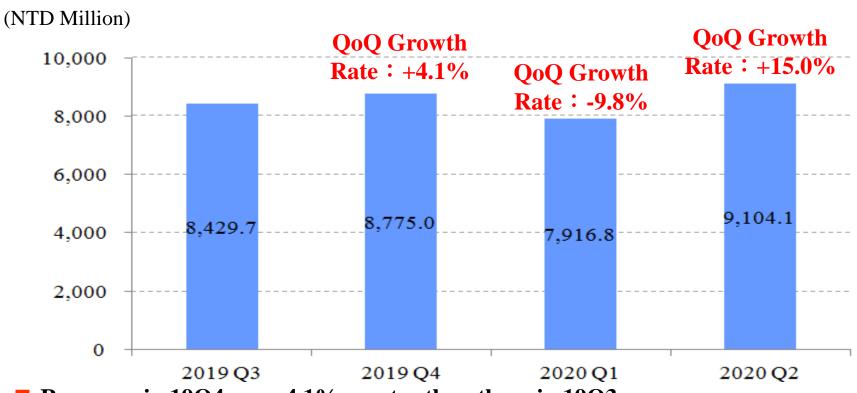


**Revenues in 2019 1H were 5.5 greater than those in 2018 1H:** 

Nan Ya PCB continued to increase the sales ratio of high-value products, enabling the average selling price to rise. The revenues in 2019 1H kept growing from 2018 1H.

Revenues in 2020 1H were 22.5% greater than those in 2019 1H: Because of a better product mix, the increasing average selling price lifted the revenues in 2020 1H from 2019 1H.

#### **Quarterly Consolidated Revenues(IFRS) within a Year**





Revenues in 19Q4 were 4.1% greater than those in 19Q3:

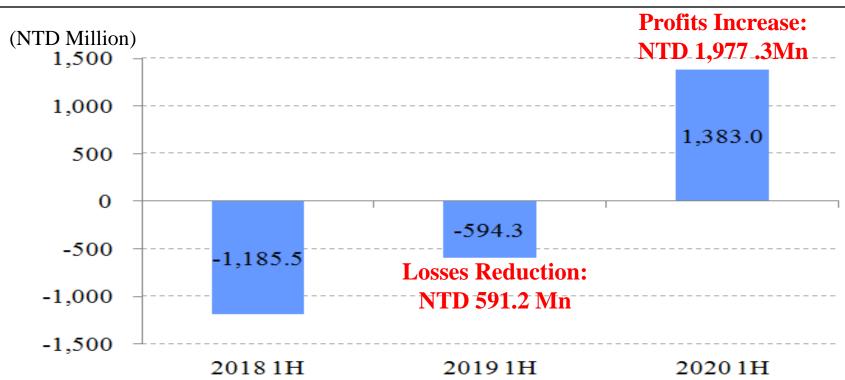
Thanks to the increasing demands in ABF substrates, 19Q4 sales continued to grow.

**Revenues in 20Q1 were 9.8% lesser than those in 19Q4:** Demands were impacted by the COVID-19, and Production days diminished 12% because of Chinese New Year; however, the revenues still grew 26.07% annually.

Revenues in 20Q2 were 15.0% greater than those in 20Q1:

Thanks to 5G market success because of our early preparation and the increasing demands in work/study from home , 20Q2 revenues grew from 20Q1.

**Operation Profits**(Losses) in Last 3 Years





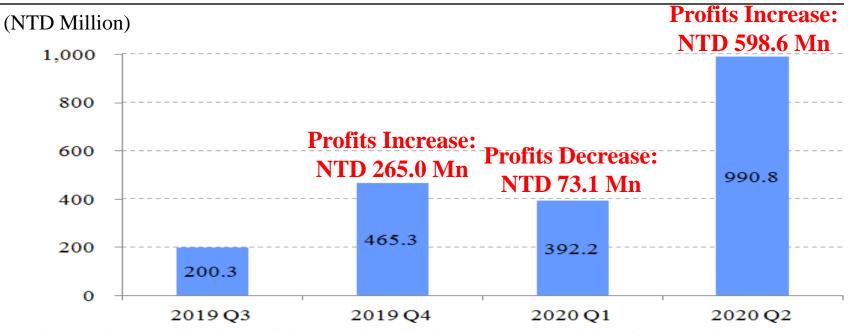
**Operation losses in 2019 1H were narrowing NTD 591.2 Mn from 2018 1H:** Because of our long term roots in high layer count and large body size telecom

substrates, which began mass production in 2019 1H, our product mix was improved and leading to narrower losses compared to 2018 1H.

**Operation profits in 2019 were increasing NTD 1,257.1 Mn from 2018:** 

Nan Ya PCB continued to expand the sales from IC substrates used in high-end telecom and system in package, improved manufacturing processes, and introduced automation to lift yield rates and reduce costs.

#### **Quarterly Operation Profits(Losses) in 2019**



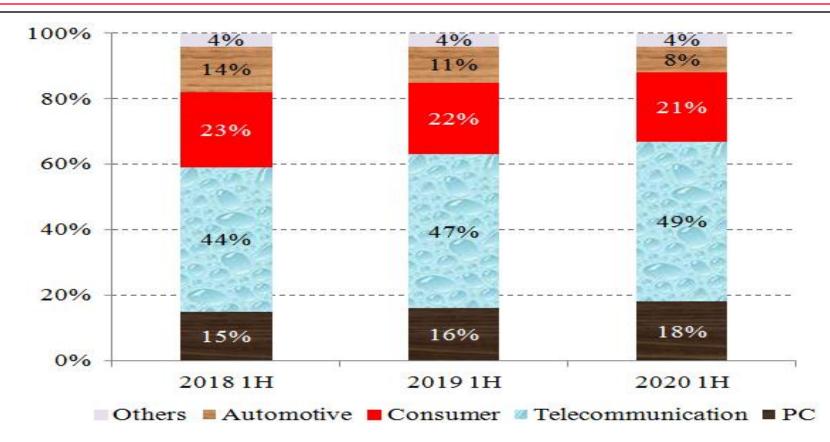
Operation profits in 19Q4 were increasing NTD 265.0 Mn from 19Q3:

Because of continuous great demands in high-layer count and large body size telecom substrates, 19Q4 operation profits increased from 19Q3.



- Operation profits in 20Q1 were decreasing NTD 73.1 Mn from 19Q4: Because of slow a traditional slow season and in creasing fees for COVID-19 prevention, 20Q1 operation profits decreased from 19Q4.
  - **Operation profits in 20Q2 were increasing NTD 598.6 Mn from 20Q1:** Because of rising sales of high-end telecom and SiP substrates, 20Q2 operation profits increased from 20Q1.

#### **Revenue Structure(By Applications)**





- Nan Ya PCB were benefited from the processor client's increasing market share and early entry to the high-end telecom market . The sales ratio of PC and telecom application products grew.
- The demands in consumer electronics and automobiles were impacted by the COVID-19, causing those contributions slightly dropped.

### **Future Product Development Continue to Expand High Value Products**

#### High-end ABF Substrate

We will collaborate with clients to manufacture high layer count and large body size substrates for 5G telecom equipment, enterprise switches, servers, and 7nm graphic chips and game console processors substrates. Also, we will roll out AI/HPC substrates, which are designed with complex circuits and required outstanding capabilities, and help the average selling price.

#### SiP(System in Package) Substrate

In response to the electronics product trend of thinner and smaller, the IC packaging technologies have shifted from single chip packaging to heterogeneous integration. The SiP substrates are not only applied to wearable devices, such as true wireless stereo and smart watch, but also adopted by mobile devices as camera modules. Thus, the demand in SiP substrates will increase.



#### HDI

As the designs of handset, consumer electronics, and automotive electronics are becoming sophisticated, the consumption of high value products, such as interposers for high-end smartphones and HDI, is increasing. Thus, we will roll out HDI for the MBs of high-end NBs and servers, SSD, and 5G smartphone interposers to drive the profits.

# **Operational Goals**

**Continue to Increase the Profits of the Company** 

Enhancing Manufacturing Processes Technologies

We will continue to recruit more R&D talents to enhance manufacturing techonologies. Via the development of new technologies, we will be able to improve yield rates and simplify manufacturing process to lower costs and increase the profits.

**Improving Manufacturing Processes via Applying AI Technologies** Not only will we continuously introduce automatic equipment to strengthen manufacturing processes, but also applied AI to manufacturing management. Through AI automatic detection, prodcution can evolve from automation to intelligence, and improve yield rates and efficiencies and reduce labor usages.

#### Increasing High Value Product Sales Ratio

We will proceed our strategy of increasing sales from high value products through collaborating with America and China based clients to develop and produce substrates for high-end telecom equipment, AI/HPC, SiP, 7nm graphics and interposers for 5G smartpphones as well as prepare for the market of 5nm chips to lift the ratio of high value products..

#### Expanding New Capacities

We will ensure our new IC substrate capacities to be ready and meet client's expectation, and gain more orders of high-end products to further strengthen our product mix, enlarge our market share, and drive the growth in revenues and profits.



# Thank You

