

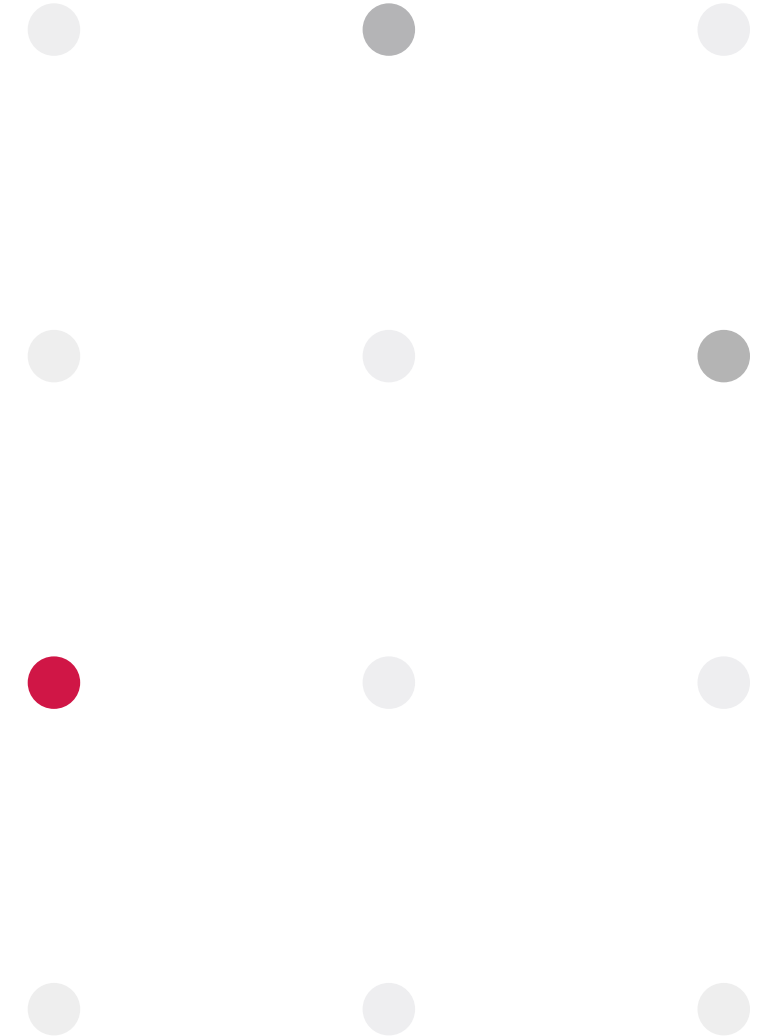


PASSIVE SYSTEM ALLIANCE

# HannStar Board Corporation

Thursday, September 19, 2024

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# HannStar Board Corporation(5469)

## 2024 Investor Conference

Thursday, September 19, 2024

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# Safe Harbor Statement

The statements in this release are forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual performance, financial condition or results of operations of Hannstar Board Corporation ( the Company) to be materially different from what may be implied by such forward-looking statements.

The Company undertakes no obligation to update these forecasts and forward-looking statements for events or circumstances that occur subsequent to such date.

The statements in respect of historical matters may contain unaudited information, which may have certain deficiency or weakness so as not to fairly present financial condition or the result of operations of the Company.

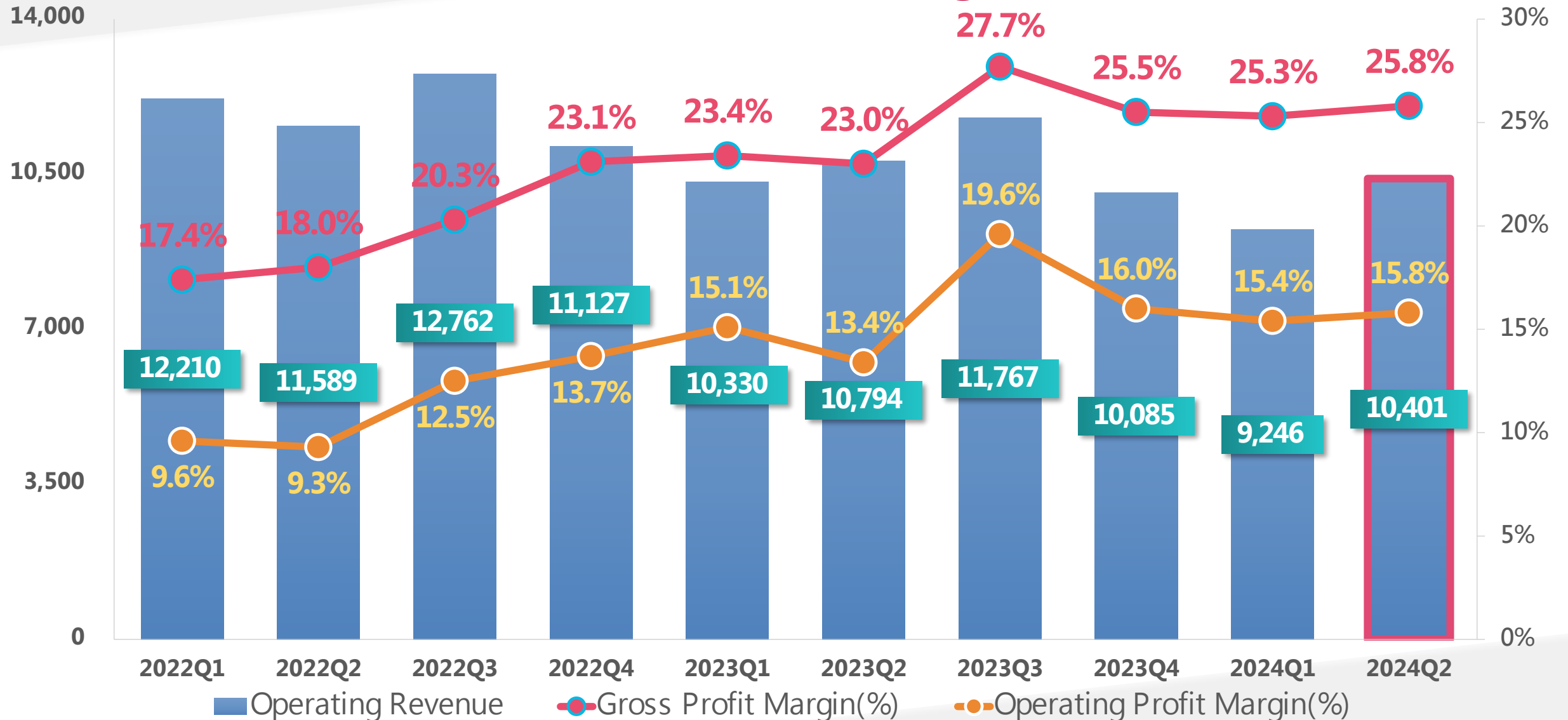
# Balance Sheet -Consolidated

NT\$ Millions	2024.06.30	%	2023.12.31	%	2023.06.30	%
Current Assets	43,136	51%	42,426	54%	44,899	59%
Non-Current Assets	41,139	49%	35,978	46%	31,764	41%
<b>Total Assets</b>	<b>84,275</b>	<b>100%</b>	<b>78,405</b>	<b>100%</b>	<b>76,663</b>	<b>100%</b>
Current Liabilities	29,129	35%	24,277	31%	25,872	34%
Non-Current Liabilities	8,219	10%	9,636	12%	10,074	13%
<b>Total Liabilities</b>	<b>37,348</b>	<b>44%</b>	<b>33,912</b>	<b>43%</b>	<b>35,946</b>	<b>47%</b>
Total Equity Attributable to Owners of the Company	32,276	38%	30,616	39%	28,095	37%
Non-Controlling Interests	14,651	17%	13,876	18%	12,622	16%
<b>Total Equity</b>	<b>46,927</b>	<b>56%</b>	<b>44,493</b>	<b>57%</b>	<b>40,717</b>	<b>53%</b>
<b>Liabilities and Equity</b>	<b>84,275</b>	<b>100%</b>	<b>78,405</b>	<b>100%</b>	<b>76,663</b>	<b>100%</b>
<b>Net Asset Value Per share (NT Dollar)</b>	<b>61.43</b>		<b>57.94</b>		<b>53.17</b>	
<b>Current ratio ( % )</b>	<b>148%</b>		<b>175%</b>		<b>174%</b>	
<b>Quick ratio ( % )</b>	<b>121%</b>		<b>144%</b>		<b>144%</b>	

# Statement of Comprehensive Income

NT\$ Millions	2024Q1	2024Q2	2024H1	2023H1	YoY
Operating Revenue	9,246	10,401	19,647	21,124	(1,477)
Gross Profit	<b>2,342</b>	<b>2,686</b>	<b>5,029</b>	<b>4,902</b>	<b>127</b>
Gross Profit Margin(%)	25.3%	25.8%	25.6%	23.2%	2.4%
Operating Profit	<b>1,424</b>	<b>1,646</b>	<b>3,070</b>	<b>3,000</b>	<b>69</b>
Operating Profit Margin(%)	15.4%	15.8%	15.6%	14.2%	1.4%
Non-operating income and expenses	<b>324</b>	<b>443</b>	<b>767</b>	<b>186</b>	<b>581</b>
Net Profit Before Tax	<b>1,747</b>	<b>2,089</b>	<b>3,837</b>	<b>3,186</b>	<b>651</b>
Net Profit	<b>866</b>	<b>1,434</b>	<b>2,300</b>	<b>2,121</b>	<b>179</b>
Net Profit Margin(%)	9.4%	13.8%	11.7%	10.0%	1.7%
<b>Net Income to Shareholders of the Parent Company</b>	<b>526</b>	<b>926</b>	<b>1,451</b>	<b>1,402</b>	<b>49</b>
(1) Contribution From HSB	<b>289</b>	<b>575</b>	<b>863</b>	<b>891</b>	<b>(28)</b>
(2). Contribution From GBM	<b>237</b>	<b>351</b>	<b>588</b>	<b>511</b>	<b>77</b>
<b>EPS (NT Dollar)</b>	<b>\$0.99</b>	<b>\$1.76</b>	<b>\$2.75</b>	<b>\$2.65</b>	<b>\$0.10</b>

# Trend of Revenue and Margin-Consolidated



# Historical Operating Performance

NT\$ Millions	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024H1
Operating Revenue	48,662	40,417	39,415	39,629	43,769	43,142	45,704	57,000	47,688	42,976	19,647
Gross Profit	<b>4,627</b>	<b>3,846</b>	<b>5,135</b>	<b>5,335</b>	<b>6,521</b>	<b>7,713</b>	<b>9,594</b>	<b>11,237</b>	<b>9,364</b>	<b>10,732</b>	<b>5,029</b>
Gross Profit Margin(%)	9.5%	9.5%	13.0%	13.5%	14.9%	17.9%	21.0%	19.7%	19.6%	25.0%	25.6%
Operating Profit	<b>668</b>	<b>16</b>	<b>1,295</b>	<b>1,621</b>	<b>2,321</b>	<b>3,537</b>	<b>5,364</b>	<b>6,608</b>	<b>5,378</b>	<b>6,919</b>	<b>3,070</b>
Operating Profit Margin(%)	1.4%	0.0%	3.3%	4.1%	5.3%	8.2%	11.7%	11.6%	11.3%	16.1%	15.6%
Net Profit Before Tax	<b>914</b>	<b>390</b>	<b>1,643</b>	<b>1,693</b>	<b>2,602</b>	<b>4,338</b>	<b>5,786</b>	<b>8,093</b>	<b>7,197</b>	<b>6,999</b>	<b>3,837</b>
Net Profit	<b>797</b>	<b>160</b>	<b>1,257</b>	<b>1,088</b>	<b>1,744</b>	<b>3,232</b>	<b>4,095</b>	<b>5,862</b>	<b>4,635</b>	<b>4,536</b>	<b>2,300</b>
Net Income to Shareholders of the Parent Company	<b>706</b>	<b>365</b>	<b>945</b>	<b>856</b>	<b>1,595</b>	<b>2,817</b>	<b>3,164</b>	<b>3,725</b>	<b>3,209</b>	<b>2,680</b>	<b>1,451</b>
EPS (NT Dollar)	<b>1.57</b>	<b>0.81</b>	<b>2.10</b>	<b>1.90</b>	<b>3.48</b>	<b>6.05</b>	<b>6.15</b>	<b>7.05</b>	<b>6.07</b>	<b>5.07</b>	<b>2.75</b>
Cash dividend per share (NT Dollar)	<b>0.60</b>	<b>0.20</b>	<b>0.60</b>	<b>0.80</b>	<b>1.20</b>	<b>1.67</b>	<b>2.20</b>	<b>2.20</b>	<b>2.40</b>	<b>1.60</b>	-
Net Asset Value Per share (NT Dollar)	<b>26.78</b>	<b>27.22</b>	<b>27.60</b>	<b>34.67</b>	<b>41.68</b>	<b>51.21</b>	<b>54.12</b>	<b>53.74</b>	<b>51.95</b>	<b>57.94</b>	<b>61.43</b>

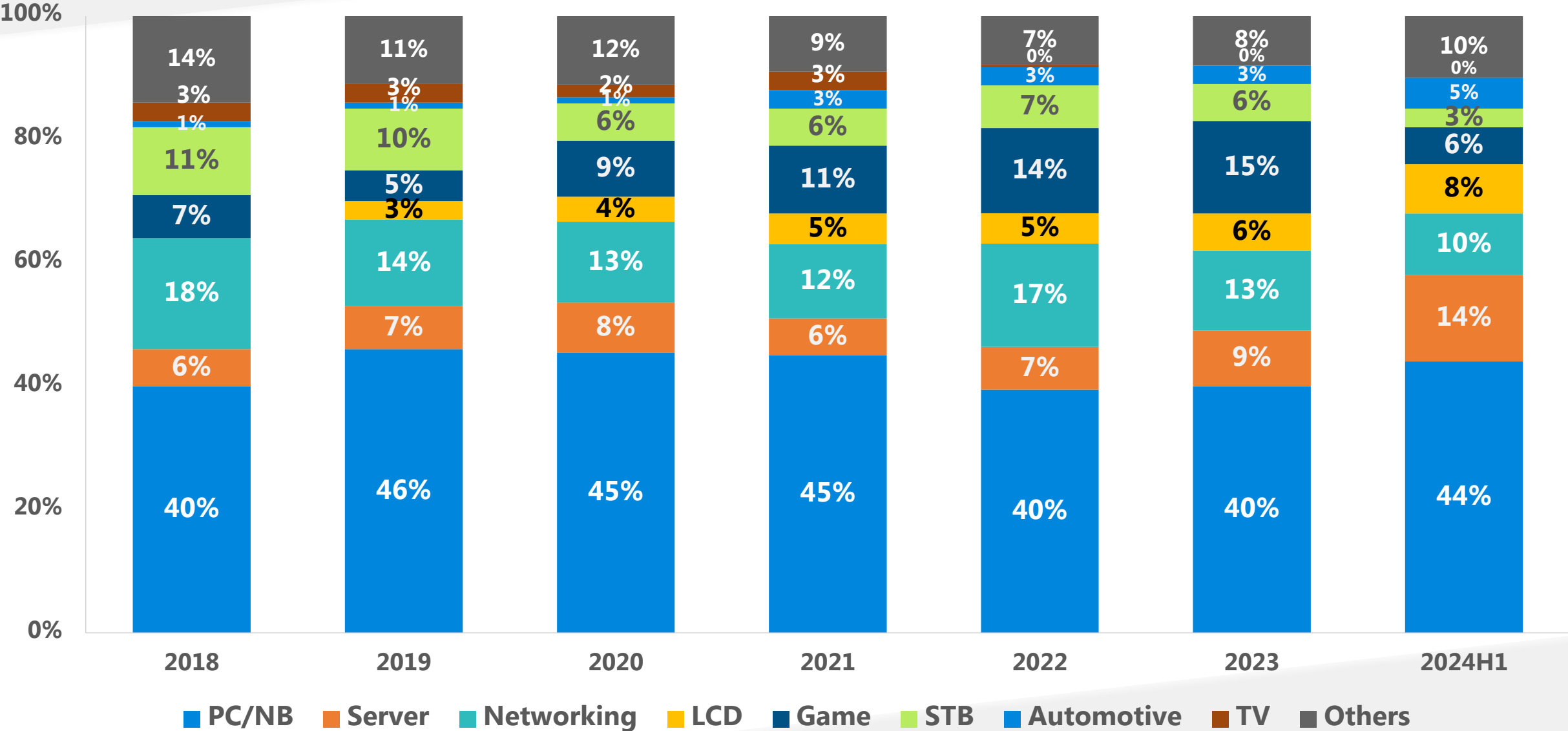
# Important Product Development



# Product Development History

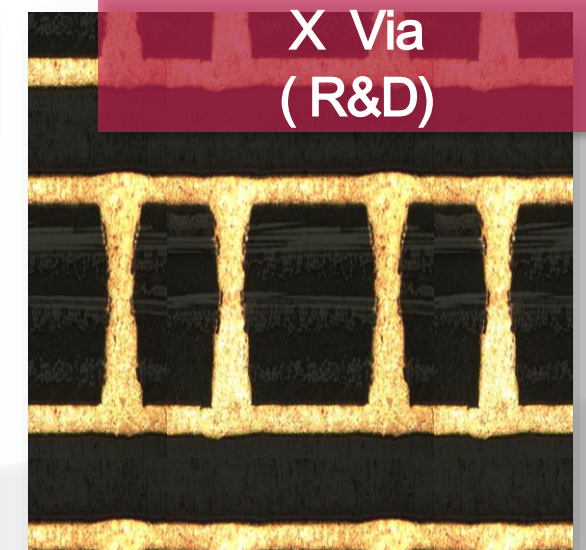
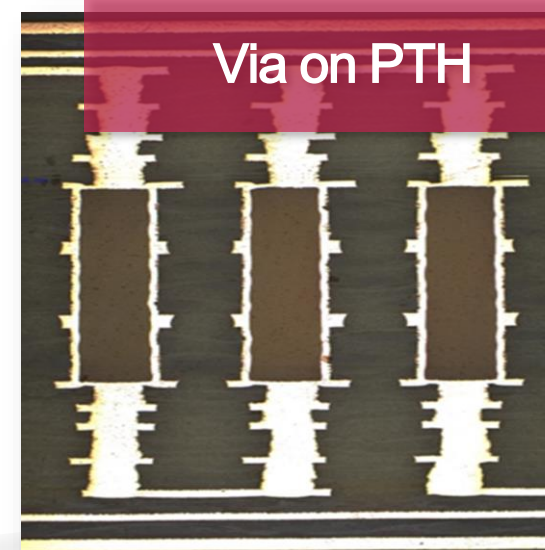
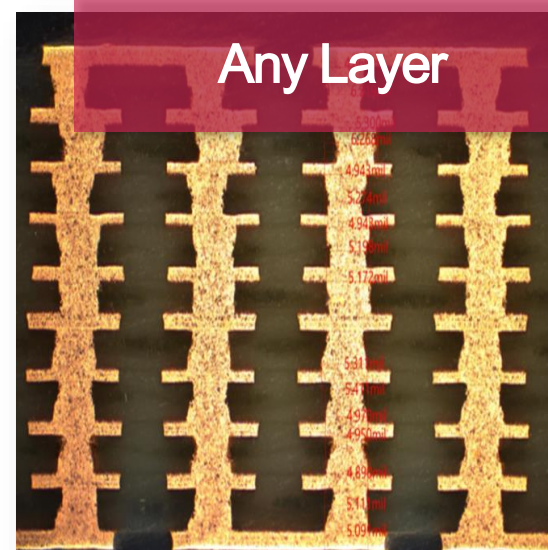
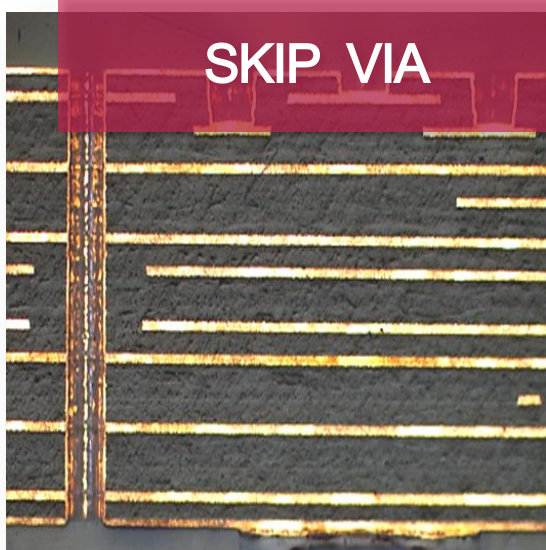
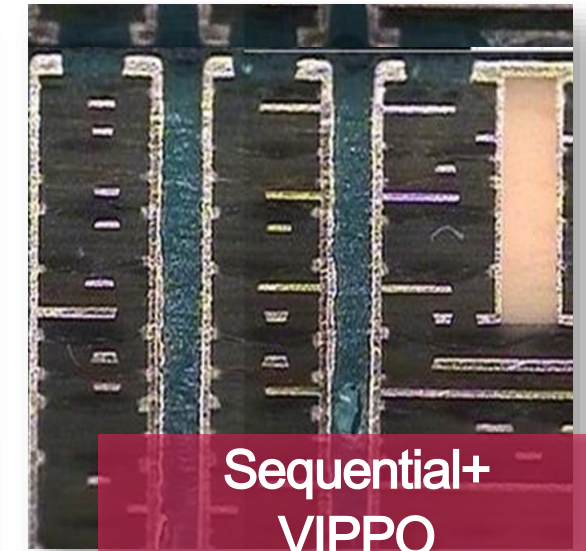
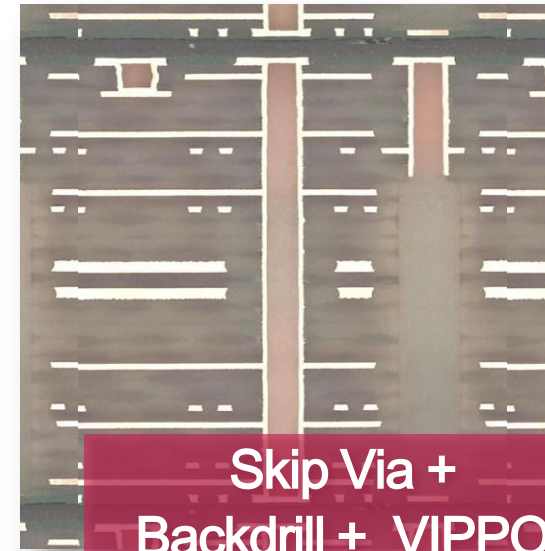
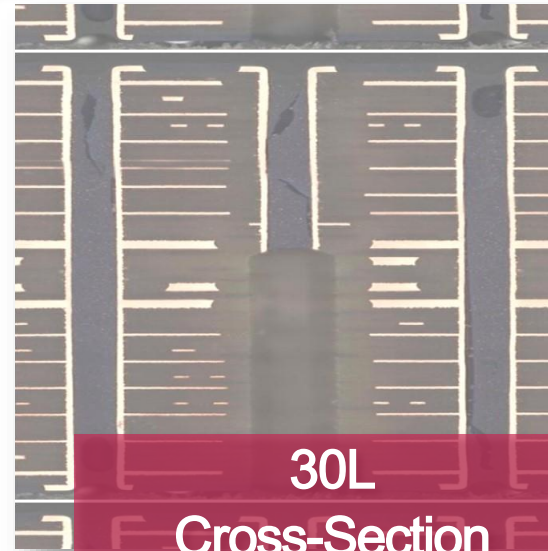


# HSB Product Portfolio



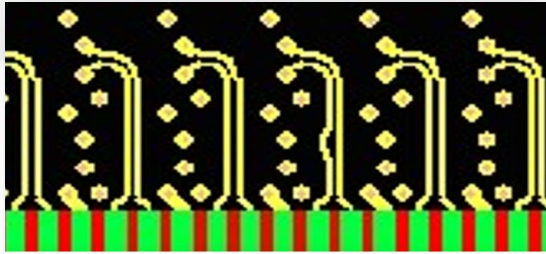


# Technical requirements I for Server/Networking Products

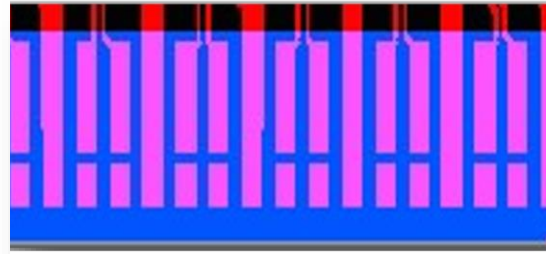




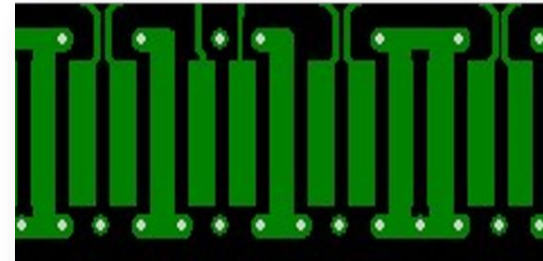
# Technical requirements II for Server/Networking Products



Two rows busless  
Gold finger



Segmented  
Gold finger



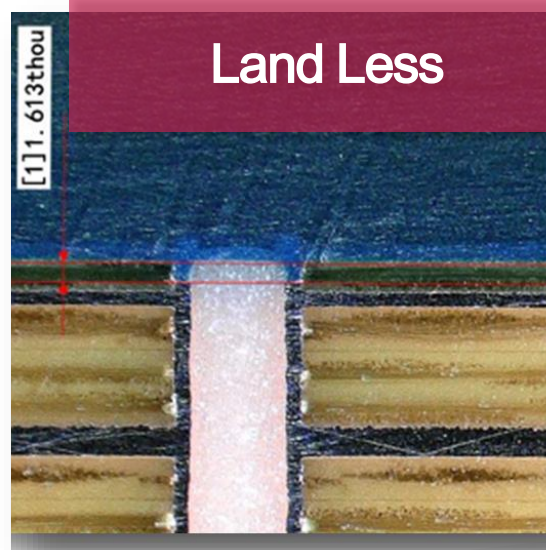
PCIE G5 G/F



Step Gold  
Finger (R&D)

Hybrid Material			
	3.000mil	3(EM-528-RTF-1078)-1/	
	1oz		
	4.150mil	3313MR(EM-528) RC61%	
	2.800mil	1078(EM-528) RC65%	
	4.150mil	3313MR(EM-528) RC61%	
	2oz		
	3.000mil	3(EM-370Z-RTF-1086)-2/	
	2oz		
	2.300mil	106HR(EM-370Z) RC77%	
	2.300mil	106HR(EM-370Z) RC77%	
	2oz		
	3.000mil	3(EM-370Z-RTF-1086)-2/	

Hybrid Material



Land Less



4 OZ  
Heavy Copper



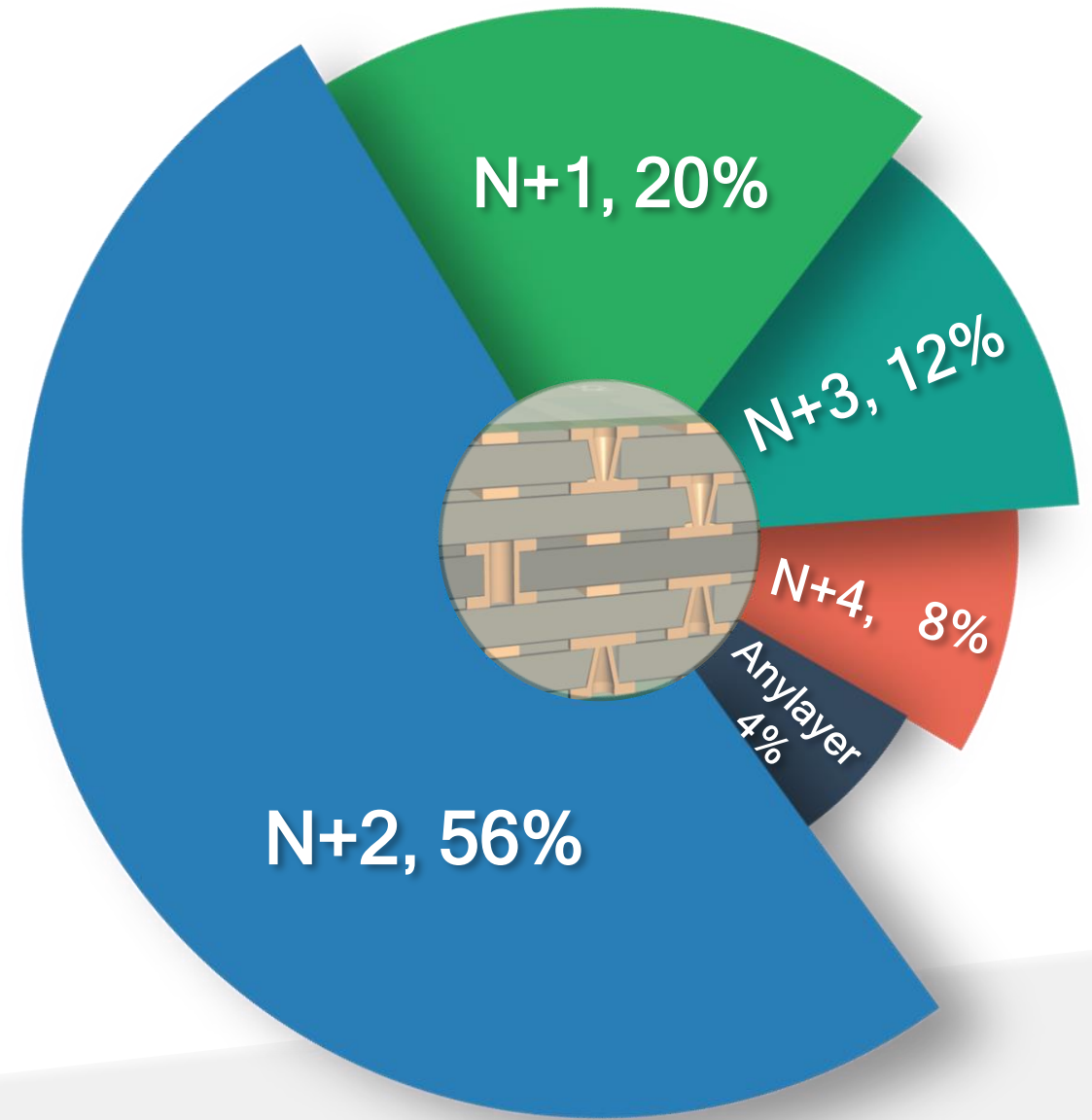
Copper Coin  
( R&D)



# HDI End-application



# HDI Stack-up



# Wide-ranging application in Automotive industry, PCB covers 4 major systems

## 動力暨充電系統



- VCU
- MCU
- BMS



- AC/DC Converter
- Inverter
- Charger

## 安全系統

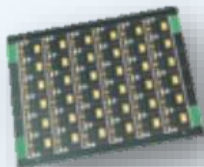


- ADAS
- Power Steering
- BCS
- ABS



- ESC/DSC
- DMS
- Air Bag
- LKS/LKAS

## 車身系統



- BCU
- Vehicle Lighting
- Instrument/AC
- Window Lift, seat



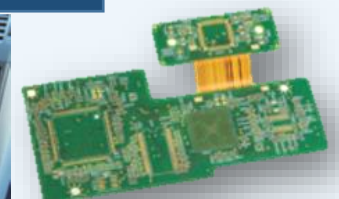
- Windshield Wiper Control
- Door Lock control and Accessory



## 車載娛樂系統



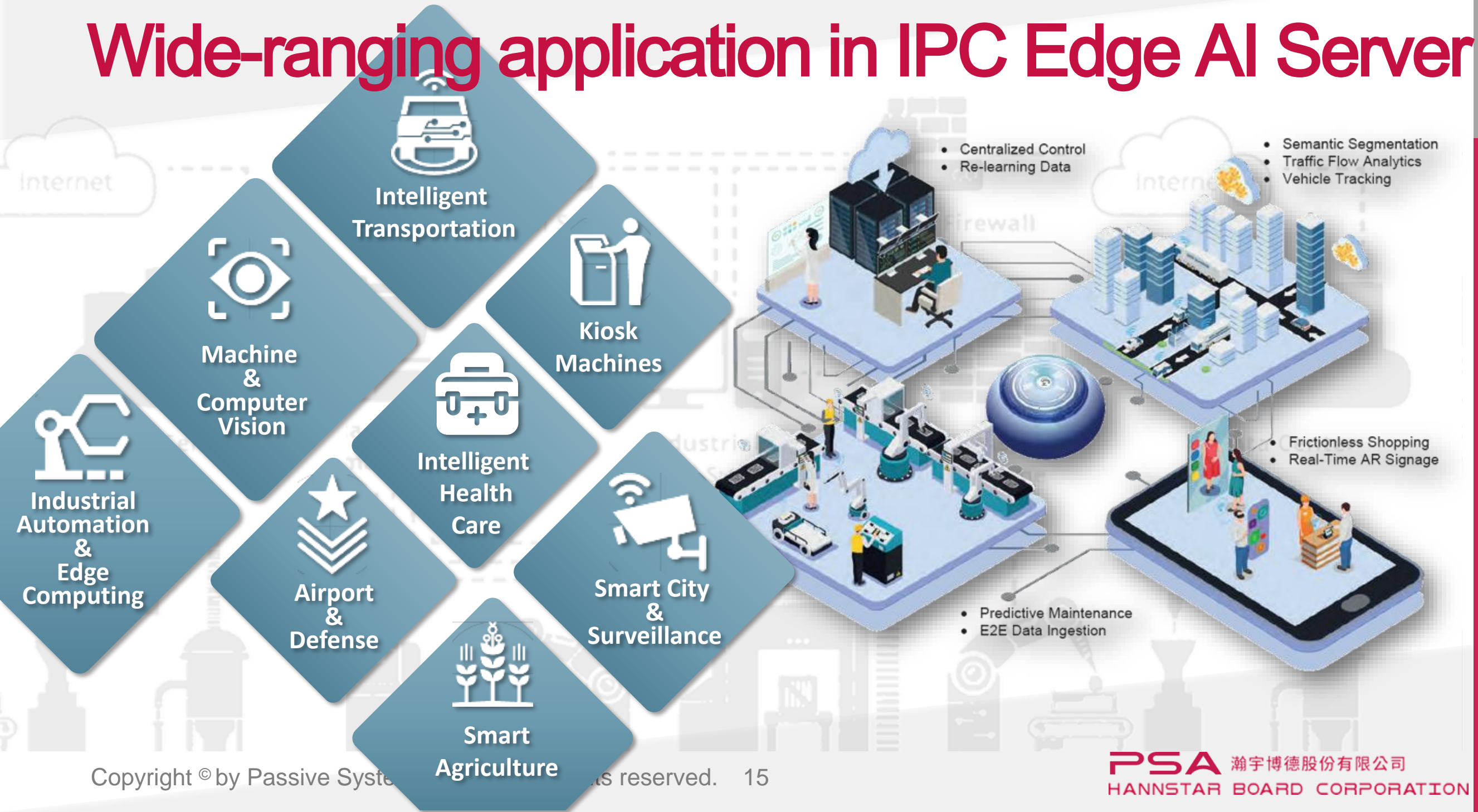
- In-Car Entertainment
- Communication Sys



- Car Navigation
- Center Display



# Wide-ranging application in IPC Edge AI Server



# Business Overlook



# PSA Sites



● KunShan  
(EMS)



● HuangJiang  
(EMS)



● IPOH  
(EMS)



● KuanYin  
(PCB)



● JiangYin  
(PCB)



● Shiga Elna  
(PCB)



● Penang Elna  
(PCB)



● Penang  
Plant II (PCB)



● Chongqing  
(PCB)



● Huangjiang  
(PCB)



● ShenZhen  
(PCB)

# Capex- Consolidated

Summary of Key CapEx For 2024 :

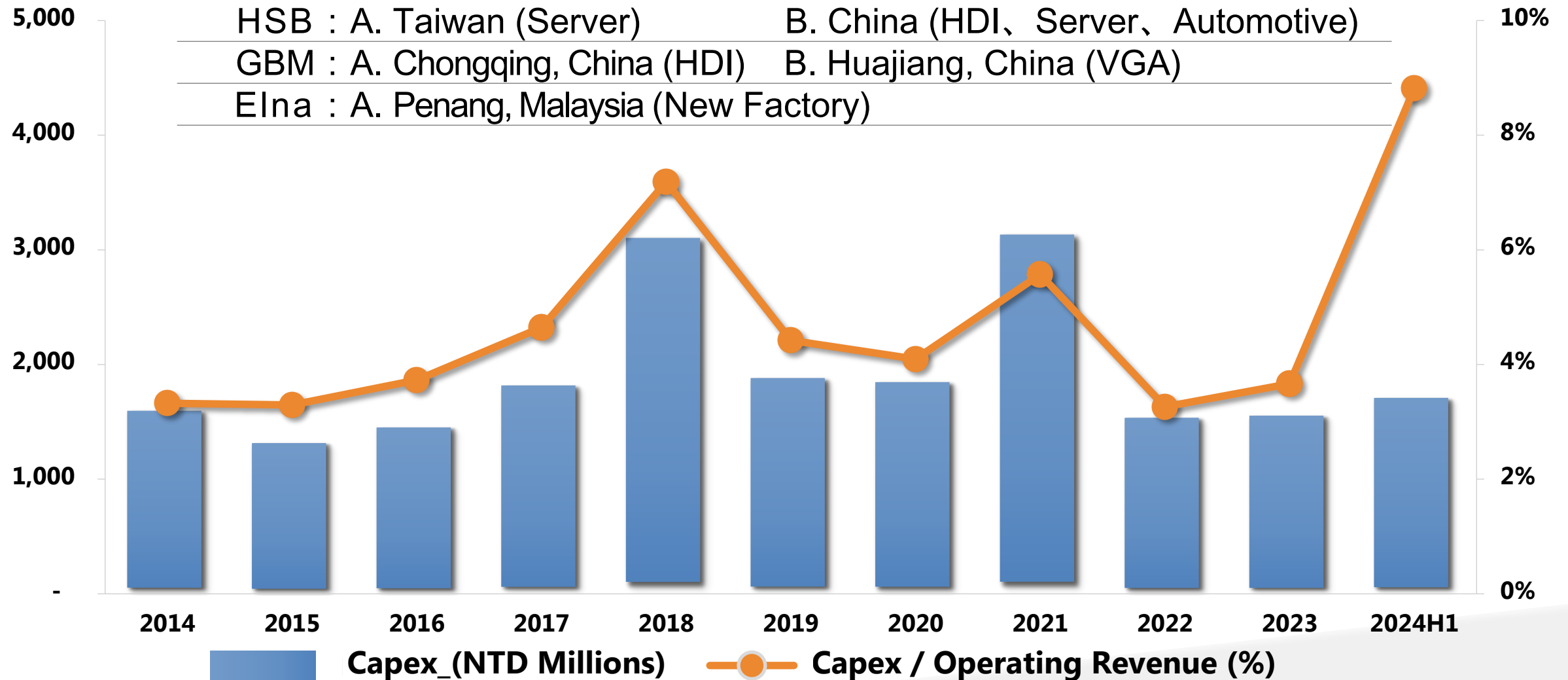
HSB : A. Taiwan (Server)

B. China (HDI、 Server、 Automotive)

GBM : A. Chongqing, China (HDI)

B. Huajiang, China (VGA)

EIna : A. Penang, Malaysia (New Factory)



# Business Overlook

- Advancing technology towards high layer counts and high-frequency products. Expanding capacity for Servers and Networking.
  - The mass production capability has reached 30+ layers, and the application of Ultra Low Loss materials for AI server motherboards continues to increase. We are progressing towards the development of higher layer count switches.
- Diversifying product portfolio by developing automotive, new energy vehicle, and AI products.
  - We have obtained certifications from multiple Tier One automotive customers and have entered the new energy vehicle supply chain.
  - The share of HDI will continue rising, including consumer products, AI PC, AI server, AI edge computing, automotive, autonomous driving applications, IPC, and more.
- Mitigating customers' supply chain risks by expanding our production capacity in Southeast Asia.
  - The new factory in Malaysia will enter mass production in the fourth quarter of 2024.
  - Integrate and deploy global smart factories using MES + AIOT.



# iFactory Implementation

## Integration of production-related system

圍繞產品生命週期的關鍵過程,有效進行狀態管理與輔助提示等各類功能,確保以滿足客戶為優先導向的平台運作模式

生產進度實時看板

產品過程分析與統計系統

產品PDM,PLM整合

物料,規格,多重整合系統

**MES NetLink**

無縫整合既有的多種系統如 PLM, PDM 又或是SAP 以及WMS以構建

使得MES能得以獲得最佳的數字信息串流以達到數字化管理的願景

**2**

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## More than visualization of data

溫度,壓力,電流,濃度...等,讓這些感測元件不僅僅只是數字讓數字更具親和力和便於管理

讓數字變得有溫度,更具親和的數字印象,豐富的儀表板

**to-see Data**

讓管理者更快速得找到優化的關鍵因子,以完全開放式的自主可視,讓每個人都能成為數字的駕駛者

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## factory status with production mobilize

搭配終端應用在工藝過程的各種場景,確保產品可靠度

機台狀態警告

品質異常通報

廠區安全推送

人員舉手接收

統計摘要提示

人員識別掃描

物料識別掃描

參數錄入掃描

工單入出掃描

**Free Carryable**

降低人員在操作各項數字橋樑工具,不受地理空間的約束,以專注在滿足客戶為前提的產品工藝上

**3**

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## Key Process control by AIoT

關鍵製程導入AIoT進行工藝參數自動化,省時安心又高效

過程監控自動化

壓合壓機,干濕製程等多種設備異常監控

製程參數自動化

壓合壓機,PCB鑽孔,Cu-I, Cu-II 電鍍製程

板厚,彎翹,阻抗,AOI, VRS, 電測

品質監測自動化

中央水電氣,EHS環安消防

公共系統雲端化

突破數據孤島,將數字化的最後一哩路完美鋪設,與MES無縫銜接

**SCADA smart**

以自行開發和構建為核心基礎同時,打造一個不僅僅只是採集數字化末端的系統更可以協助分析和加速數字模型構建

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# Thank you!

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