

SUNON® FIRST CHOICE GLOBALLY
Cooling Solutions

2023 Q4 Operating Results

Sunonwealth Electric Machine Industry Co., Ltd.

2421.TW / 2421 TT

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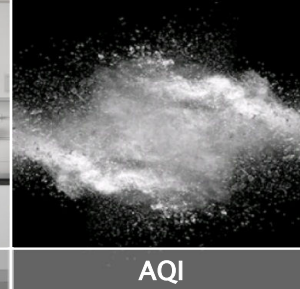
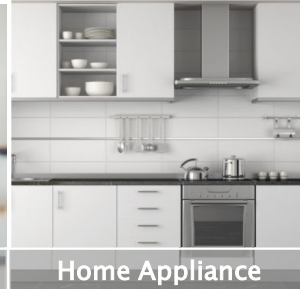
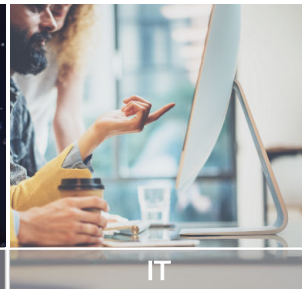
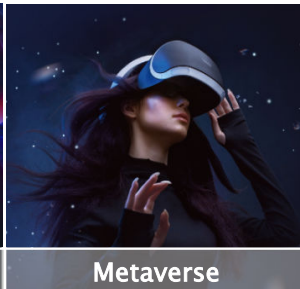
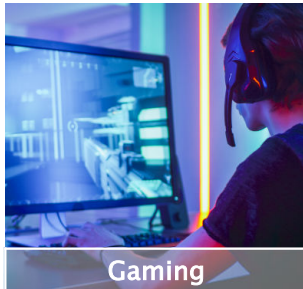
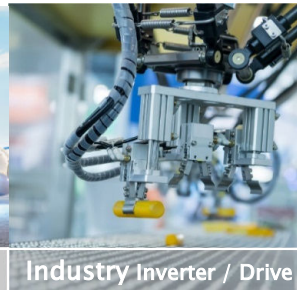
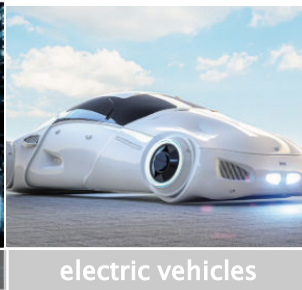
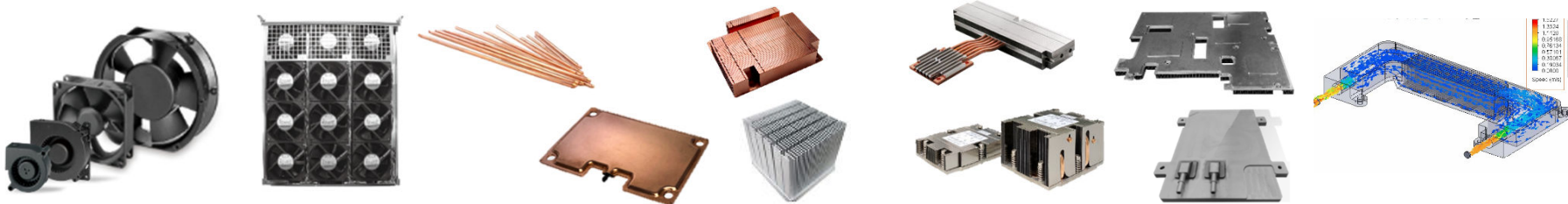
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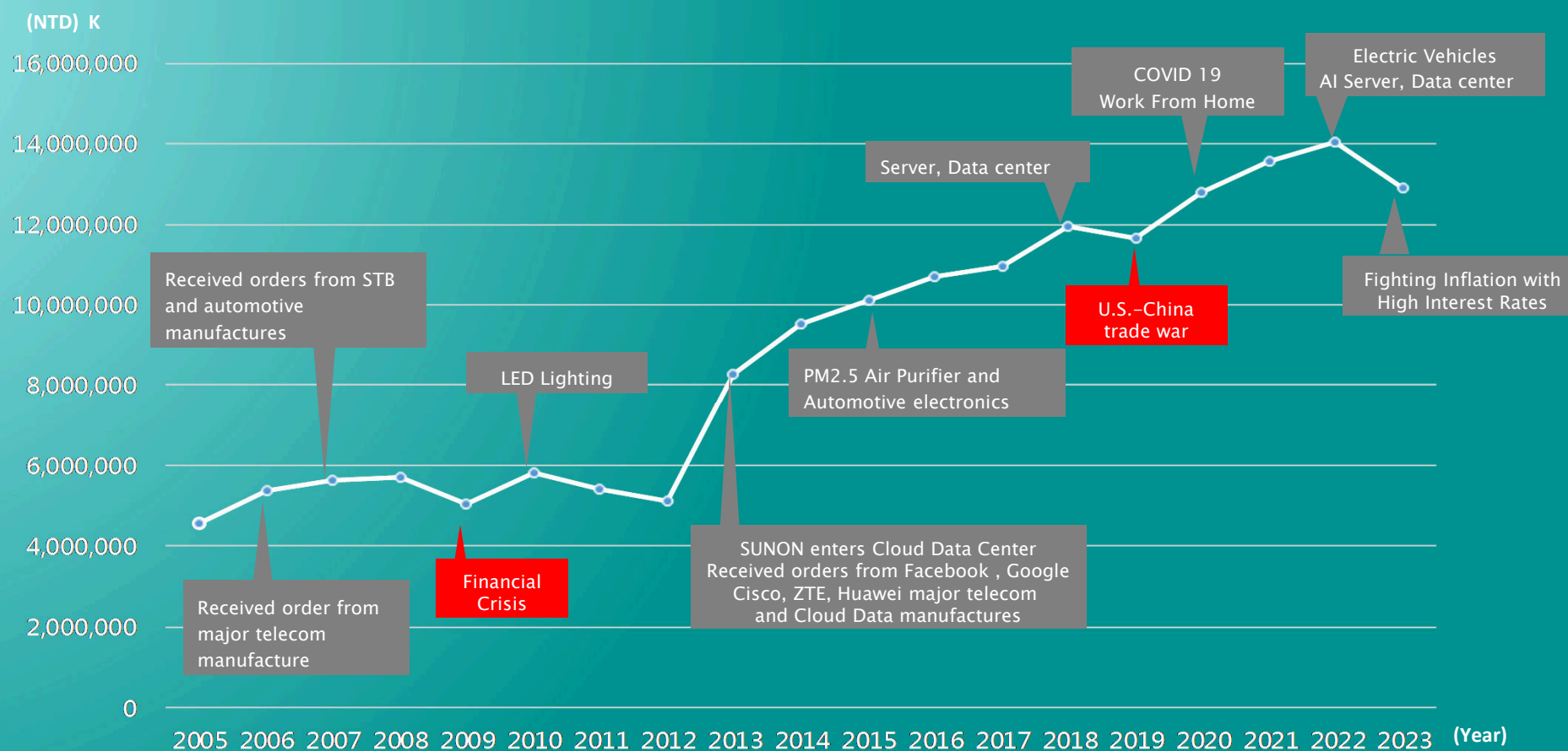
SUNON Thermal Everywhere

■ Fan ■ Fan tray ■ Heat Pipe ■ Vapor Chamber ■ Heat Sink ■ Cooling Module ■ Cold Plate ■ Liquid Cooling



3年129.1億元, 衰退原因: 生息對抗通膨

Growth Pattern

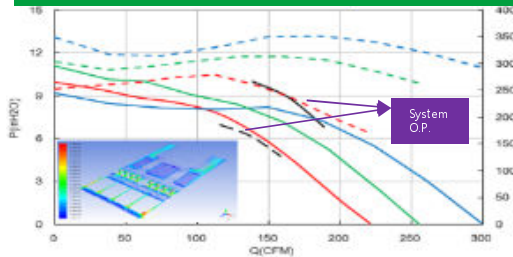


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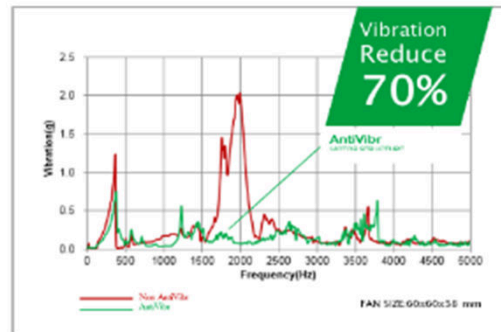
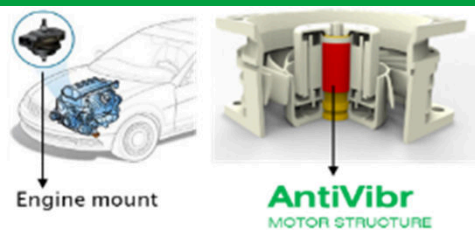
Thermal Technology Keeps Pace With the Times

Future will be supported by powerful computing capacity and the ultra-speed Internet with high reliability, which tests the effectiveness of thermal solutions. The change in the world stimulates thermal technology to update and advance to be suitable for real-time computing systems' needs. Technological advancement in heat dissipation provides the most effective operating temperature management to achieve excellence.

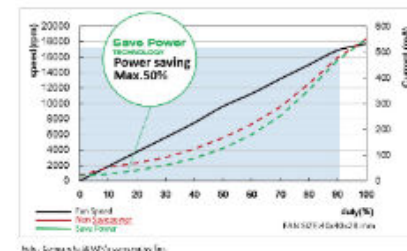
High Fan Efficiency



Low Vibration



Energy Saving

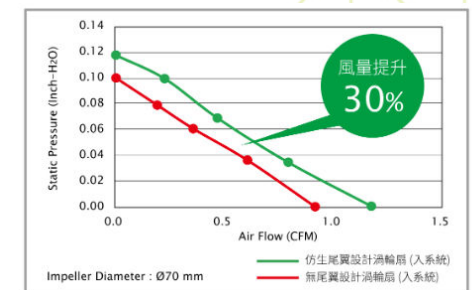
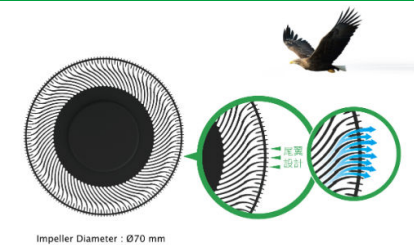


Reliability

- Salt solution: 0.05 % NaCl + 0.35 % ammonia sulphate (Flow is reduced to 20% of a normal ASTM G85 test)
- Chamber temperature: 35° C
- Test cycles first 35 days: 15 min. spray/fog followed of 45 min. drying. 3 day with Salt solution 2 days demineralized water
- Test cycles after 35 days: 30 min. spray/fog followed of 30 min. drying. 3 day with Salt solution 2 days demineralized water
- Test duration: 40 days
- Fans are running during the entire test
- Fans are checked once a day
- If Fan stops:
 1. Try to start fan with finger
 2. "Exercise" with pressurized air
 3. "Dry out" Fan in 45° C oven for 24 Hours.

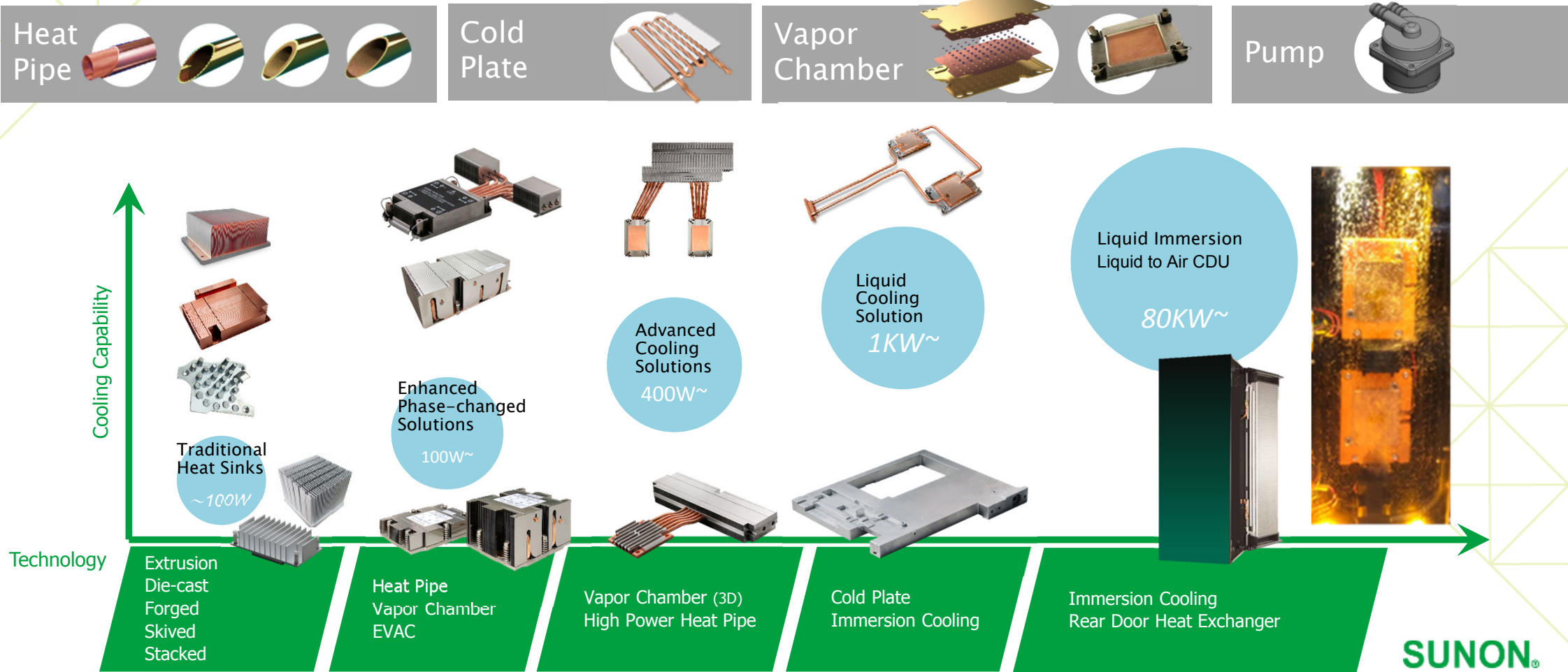


Bionic Blade Design



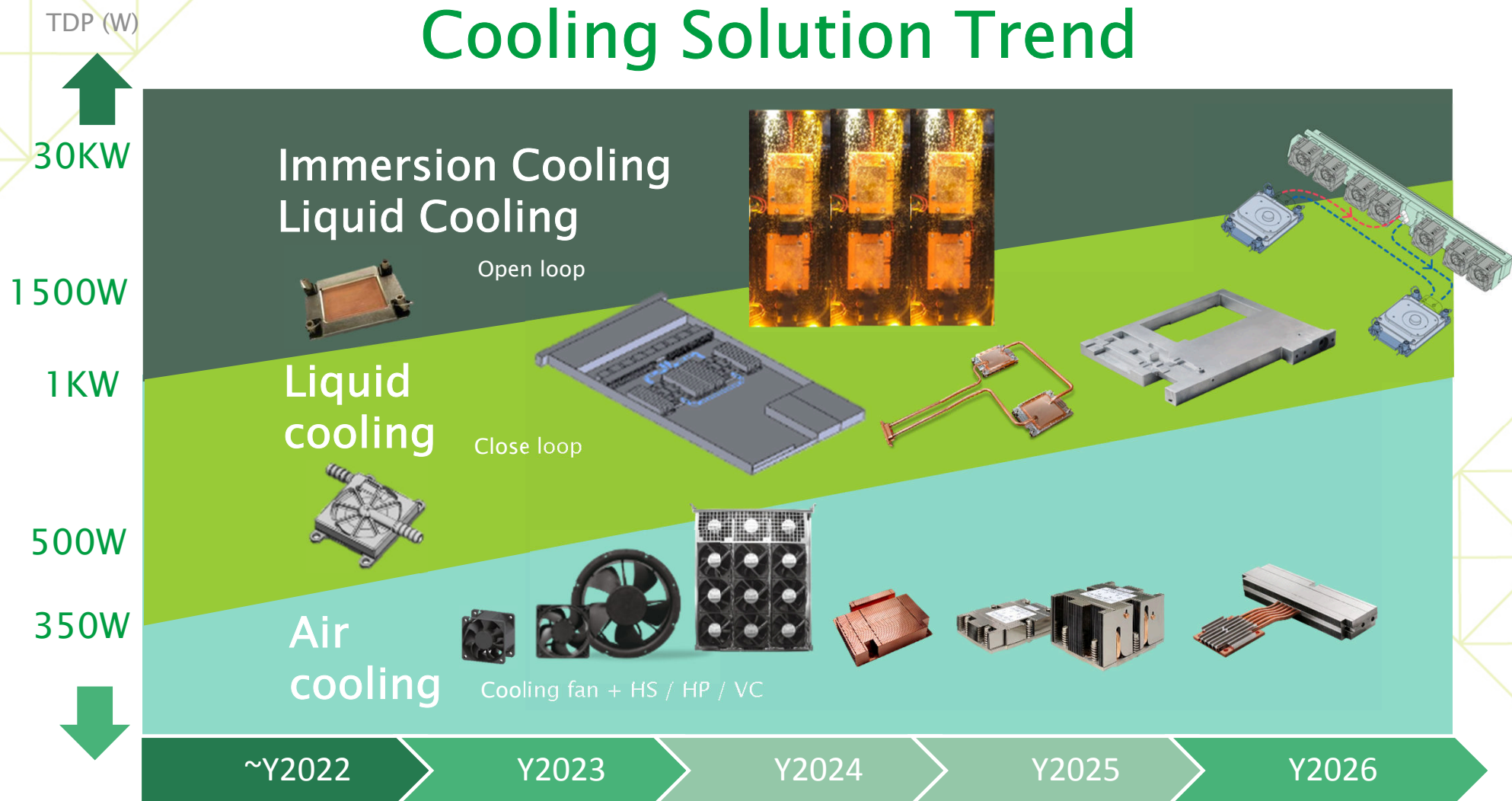
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More cooling options



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Cooling Solution Trend



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AI+5G → AI X 5G → Generative AI into daily life

The development of AI technology and the 5G network draw up a blueprint for Artificial Intelligence of Things (IoT). Numerous electronics and applications have been applied to build smart connections and rapidly adopted by various industries and into our daily life, and thus thermal needs are increasingly required.



5G

SERVER

DATA
CENTER

Vehicle
Computing

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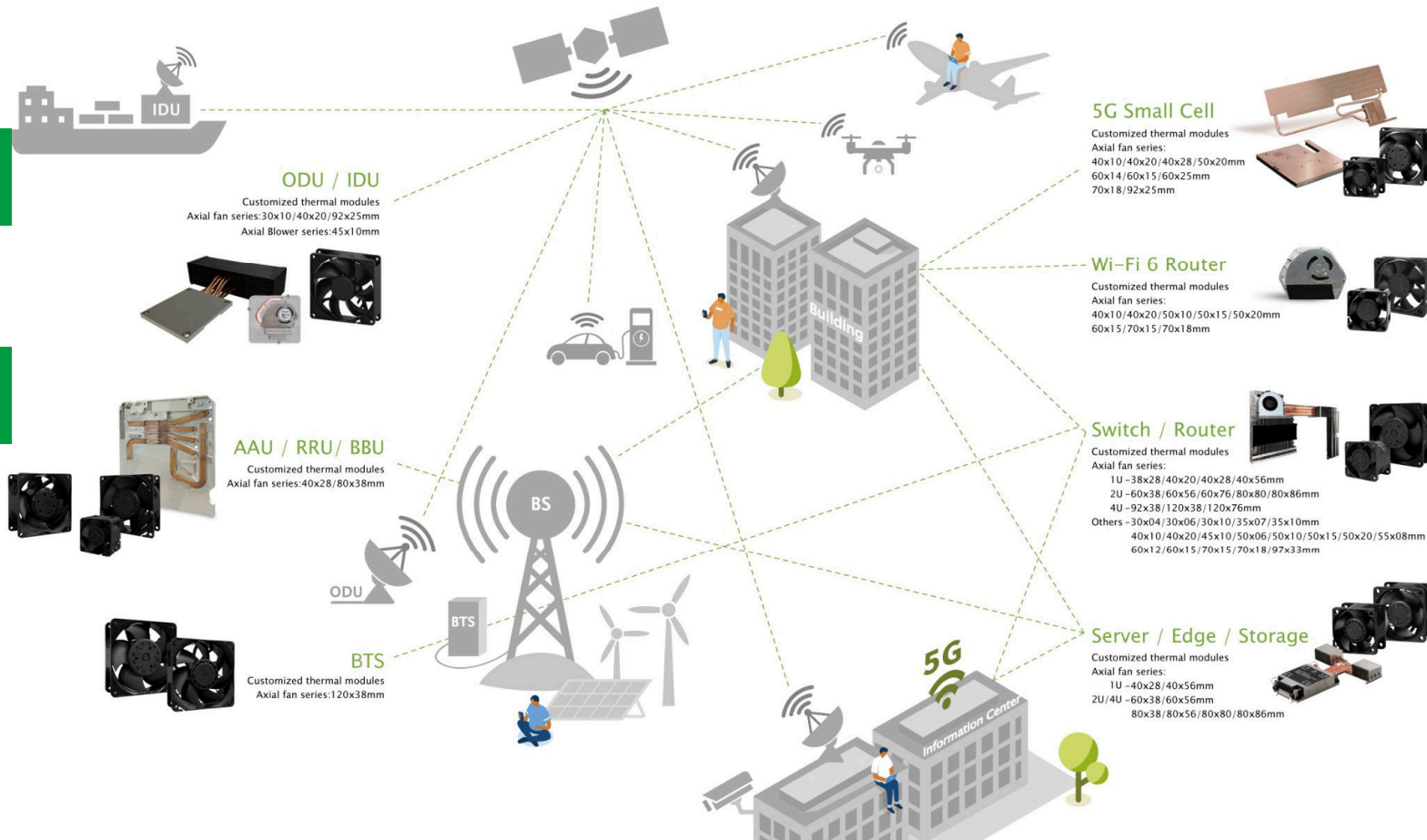
5G Cooling Solution

SUNON is one of the top cooling suppliers for 5G servers/AI servers, and can provide cooling fans, cooling modules and liquid cooling systems

LEOS

Low Earth Orbit Satellite,

Base Stations



Small Cell

Wi-Fi 6
Router

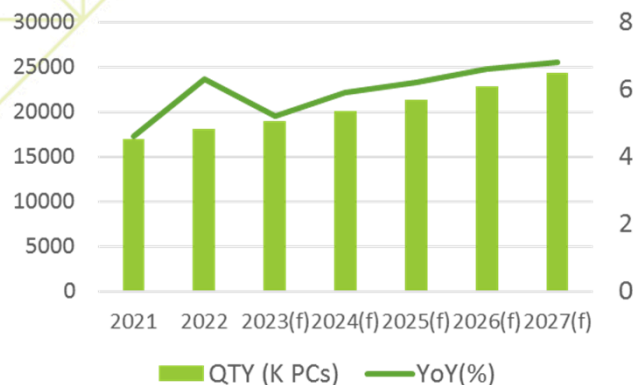
Networking
Switch / Router

Data Center

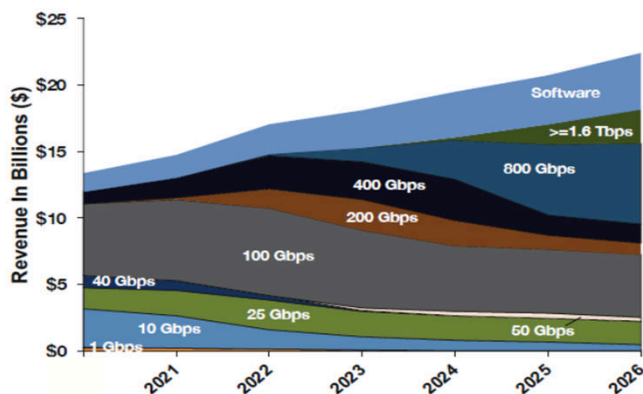
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Server / Data Center cooling product development

Global server shipment forecast


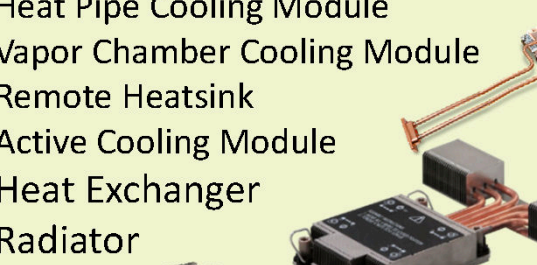





Market Potential by Speed
Data Center Ethernet Switch Revenue (\$B)



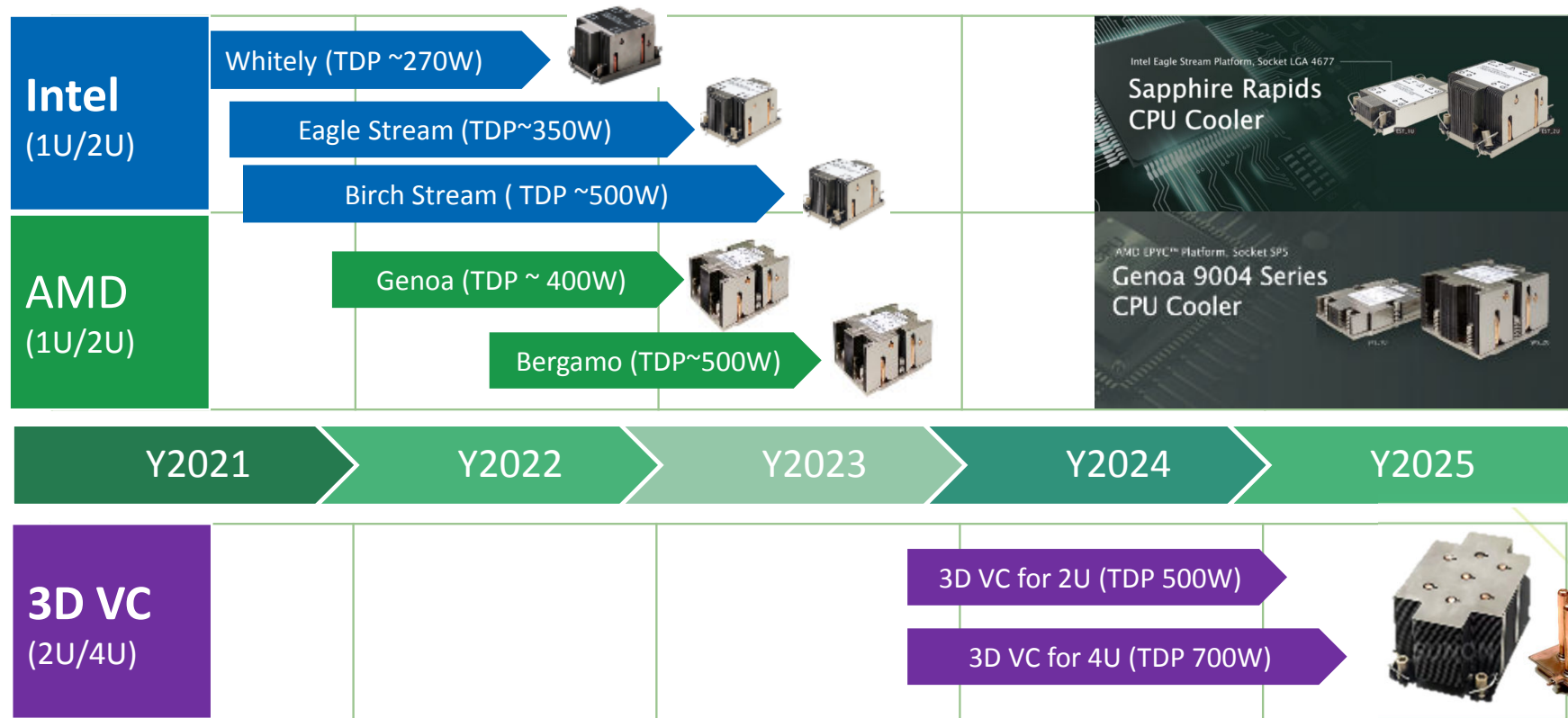
Source: Dell'Oro March 2022 - Long Term Ethernet Switch Forecast
Note - Initial 800 Gbps shipments will not be using 800 G Ethernet MAC and will be configured mostly as 2x400 Gbps or as 8x100 Gbps

Thermal solution

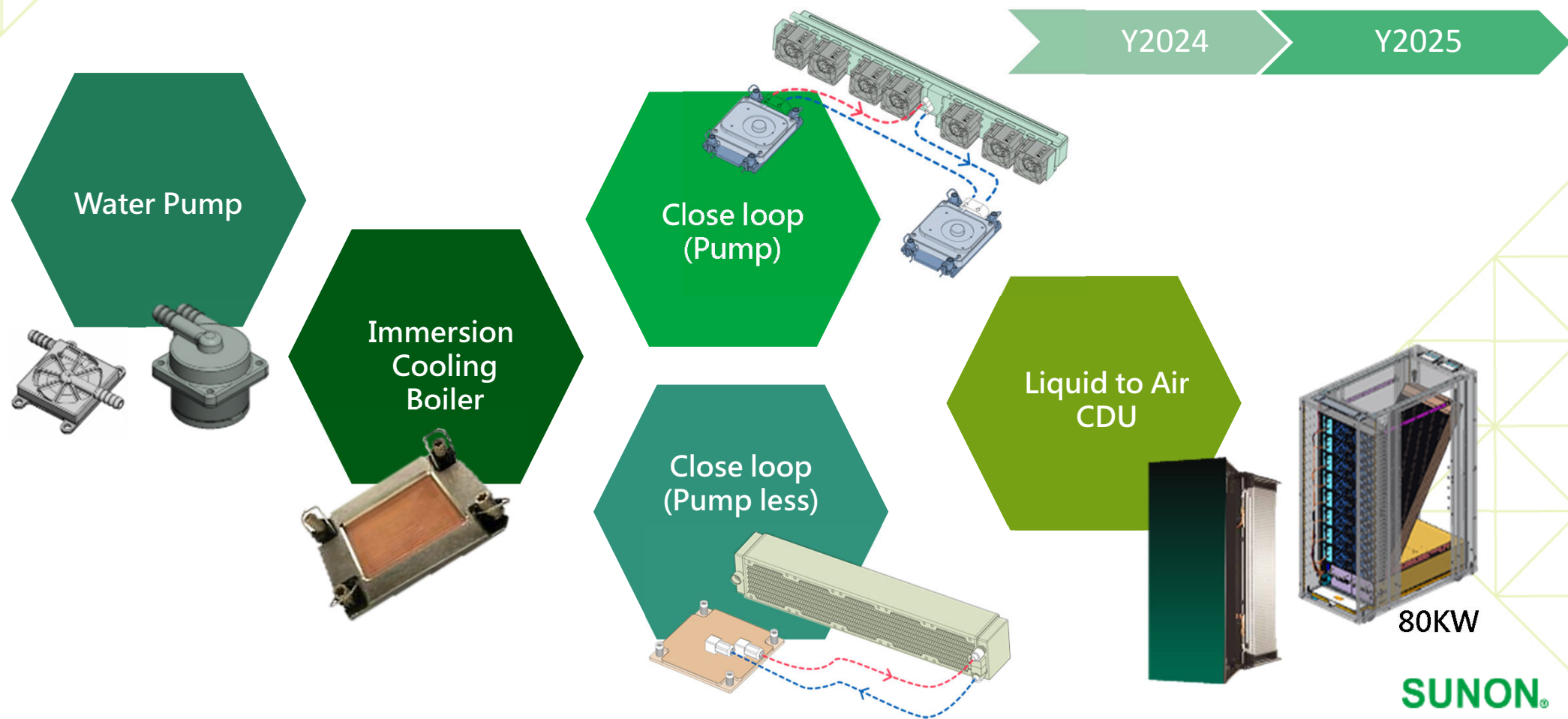
	Cooling Fan	Cooling Module
1U	40x40x28mm 40x40x56 mm 	Heat Pipe Cooling Module Vapor Chamber Cooling Module Remote Heatsink Active Cooling Module Heat Exchanger Radiator 
2U	60x60x38 mm 60x60x56 mm 60x60x76 mm 	
4U UP	80x80x56 mm 80x80x86mm 80x80x80mm 120x120x38mm 120x120x76mm 	

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Product Roadmap for Server CPU Cooler

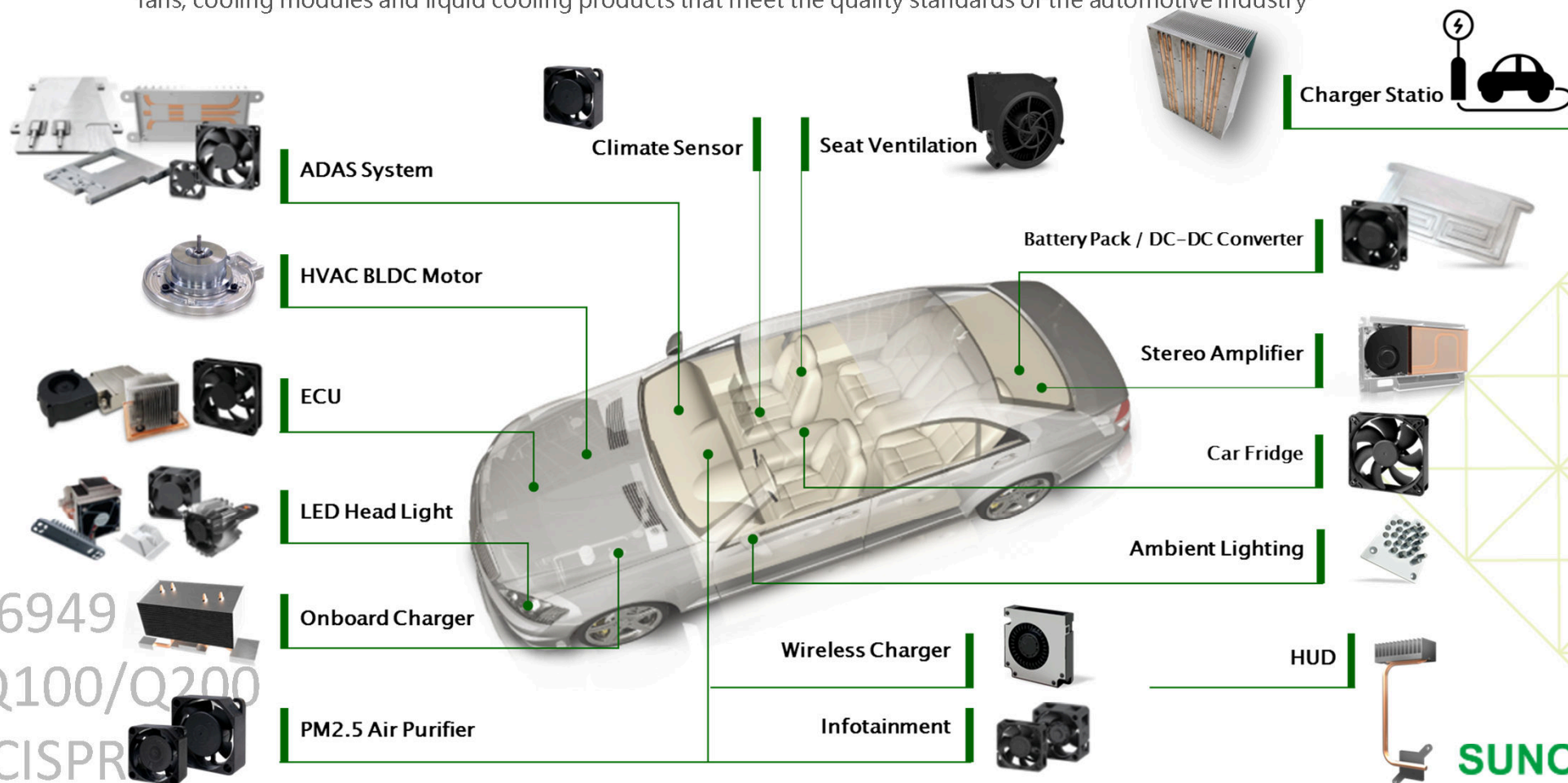


Product Roadmap for Server liquid cooling



Electric Vehicles / Auto Cooling Solution

SUNON has more than 20 years of experience in cooling solutions for the automotive industry, and can provide various cooling fans, cooling modules and liquid cooling products that meet the quality standards of the automotive industry



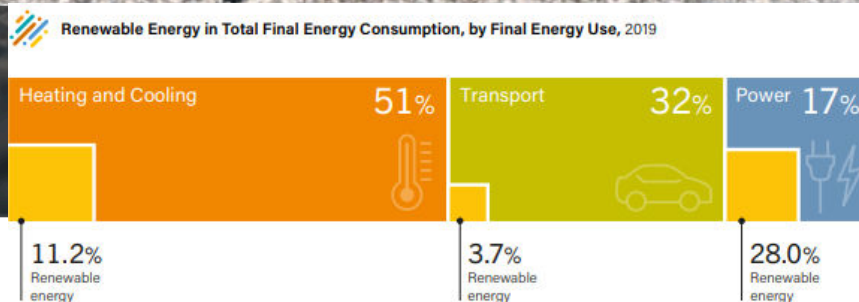
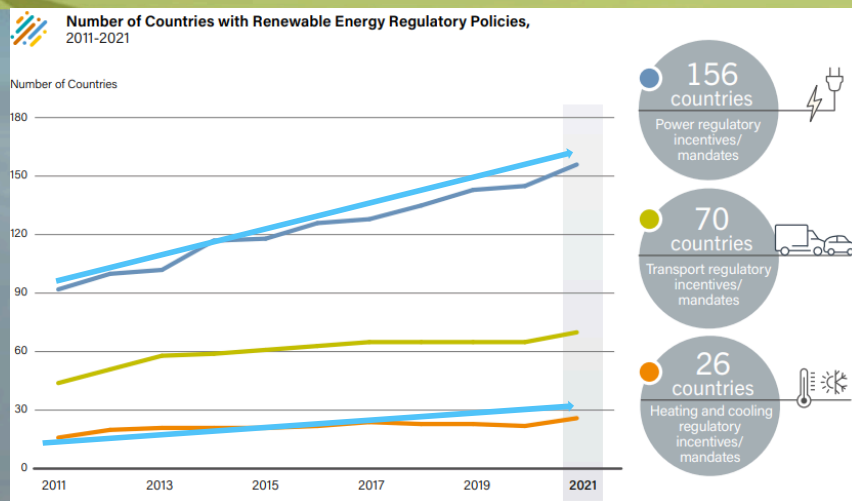
IATF16949
AEC Q100/Q200
EMC CISPR

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Net zero emissions by 2050

Energy Transition Energy Transition Business Opportunities

Having an excellent thermal system is the key to stably maintain the operation of energy storage systems. Selecting an optimal thermal solution ensures the operation stability and high system effectiveness, and it also minimizes unnecessary maintenance costs.



Source: <https://reurl.cc/NR85xk>

PV inverters
Enclosure cabinet equipment
EV charging systems

Energy storage systems
Battery containers,
packs and racks

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Renewable Energy Cooling Solution

SUNON is an important partner of global high-quality energy system cooling solutions, providing a full range of cooling solutions.

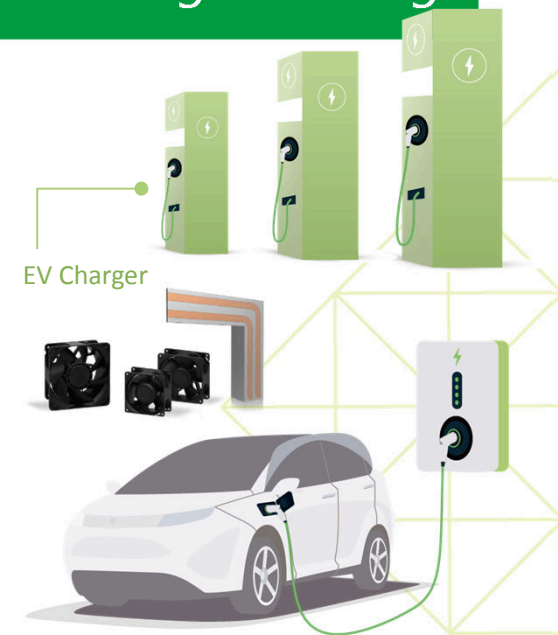
PV Inverter Cooling



ESS Cooling



EV Charger Cooling



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Established

1980



Employees

8420



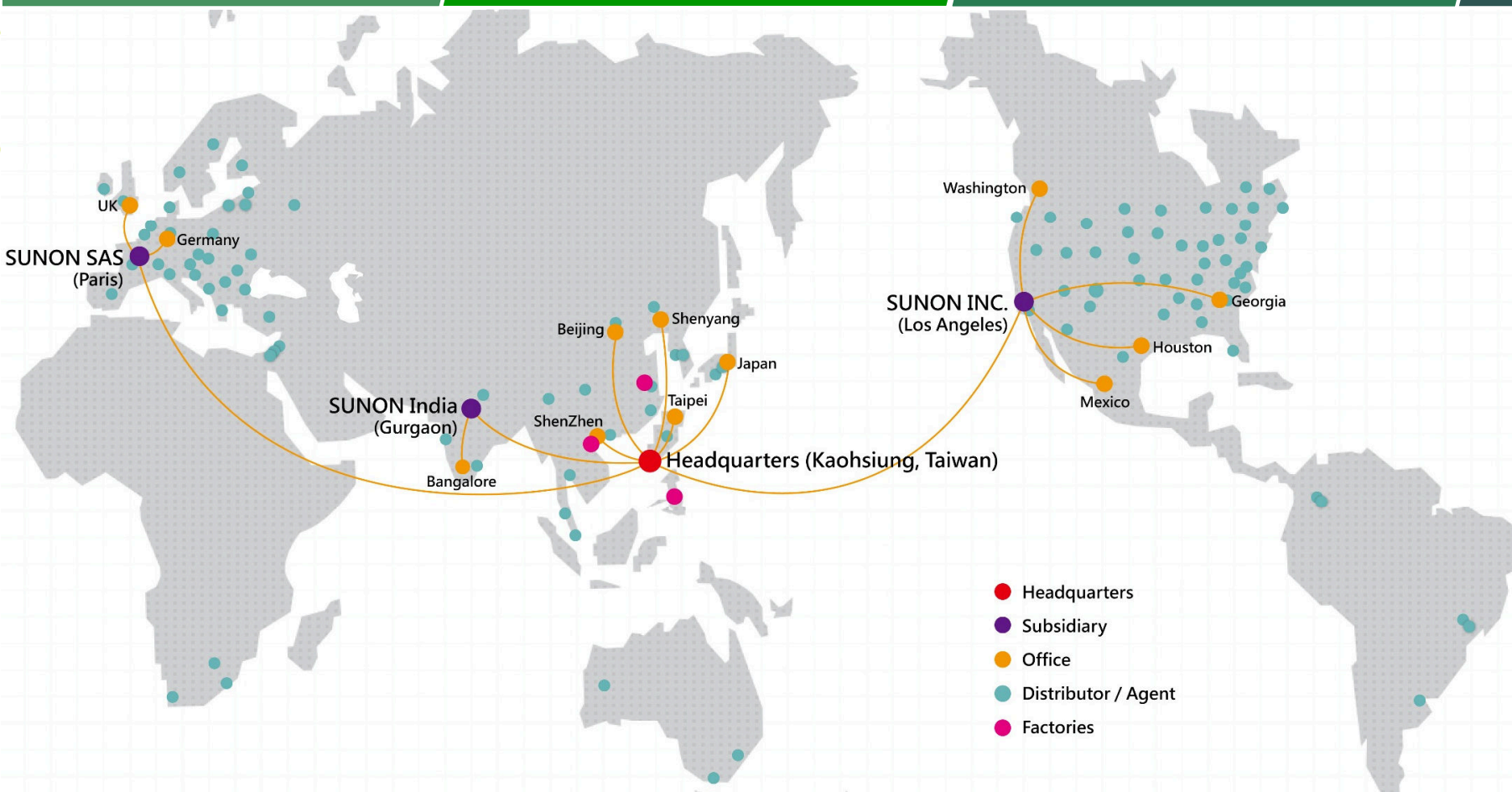
Turnover (USD)

414.1 M



Factories

5



14

Subsidiary & Office

130

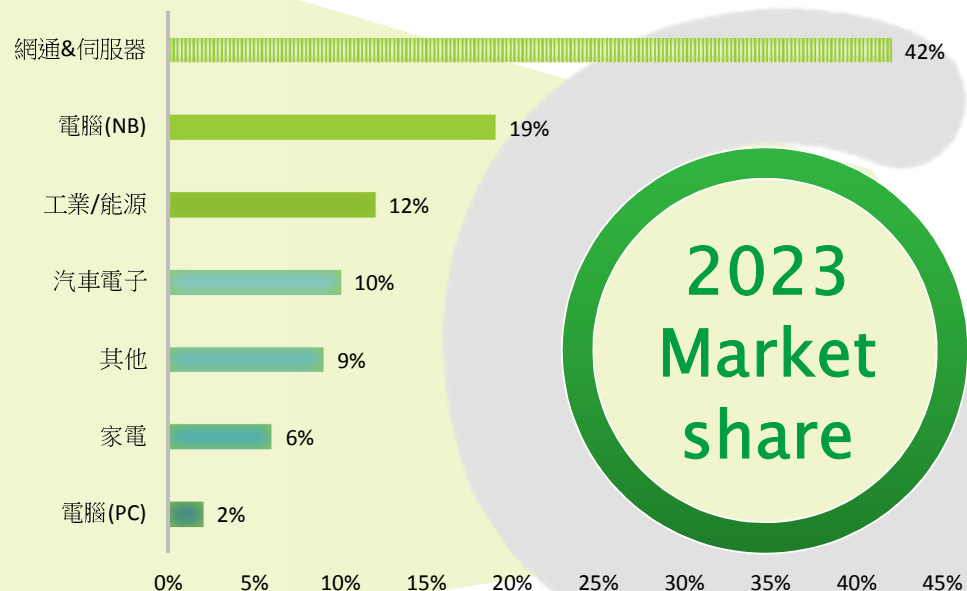
Distributor & Agent

1000+

Sales & Service sites

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Products and Applications



Fan and Motor

Air Flow Management

SUNON concentrated on its core motor technology and accumulated various inventions and innovations in this field. We now provide various sizes of motor and fan which featuring higher flexibility, energy-efficiency, lower noise, and longer service life.

SUNON Products

Air / Liquid Cooling Module

Total Thermal Solution

As a world-renowned cooling leader, we can provide customized and integrated service to our clients easily base on sophisticated experience and innovative technology.

HVLS Fan

Optimal air Circulation

It features an ultra slim motor and a stylish shape. The patented silent winglet design, energy efficient and high airflow fan creates thermal comfort and healthy environment.

Air Exchanger

Total Air Fresh Solution

It implies a demand for craftsmanship and minimalist beauty in German design and creates an all-new experience in clean air quality for the new generation of healthy homes.

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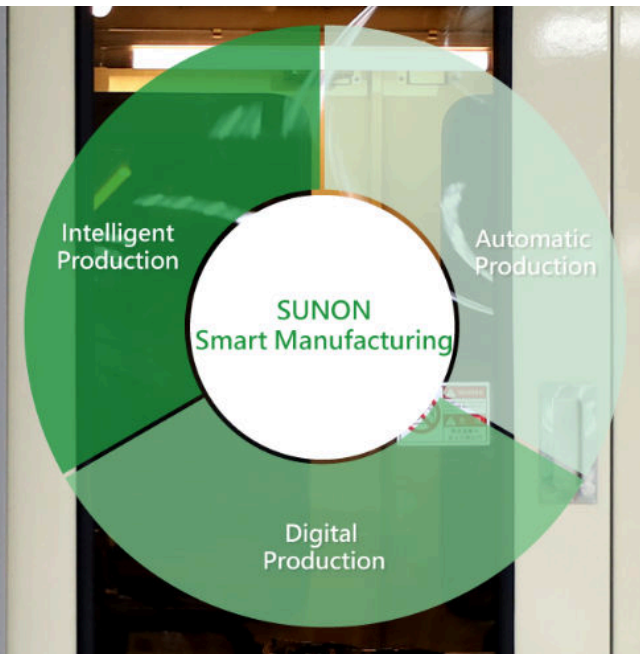
Sufficient Capability

production bases in 2023
Cooling Fans

19.4 M pcs/ month

Cooling Module

2.5M pcs/month



Kaohsiung, Taiwan
1.2M pcs /month



Beihai, Guangxi I
7.2M pcs/month



Beihai, Guangxi II
3M pcs/month



Kunshan, Jiangsu
5M pcs/month(FAN)
2.5 M pcs/month(CM)



Bataan, Philippines
3M pcs/month

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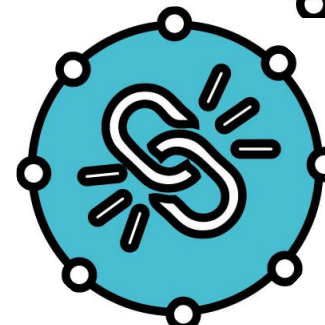
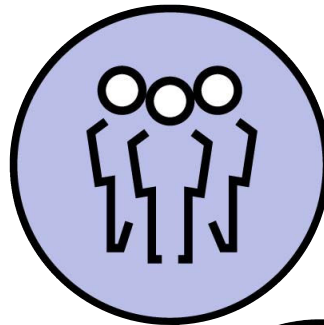
EGS Performance Highlights

Society

- Average employee training hours exceeded **66.8 hours** per year.
- Production bases in Taiwan and China have both passed ISO 45001 certification.
- Provided **care to 8,060 households** in the "Support and Care Campaign" from 2018 to 2022.

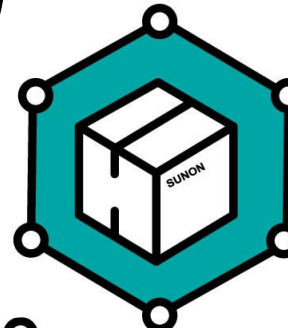
Environment

- Implemented **greenhouse gas inventory across** the entire group, and passed third-party external verification.
- The solar power generation of the Guangxing plant has exceeded **455,000 kWh**.
- Continuously passed IECQ QC 080000 certification each year.



Governance

- Consolidated revenue reached **14.063 billion NTD**, a 3.7% increase from 2021.
- The Company ranks among the **top 3 leading brands** in terms of market share.
- **Female directors account for 1/3** of the seats on the board of directors.
- A sustainability development committee has been established.
- **Zero cases** of corruption.



Products

- **Saved 318 million kWh** of electricity with product R&D. Reduced GHG emissions by 160,000 MTCO2e.
- **100.0% pass** rate of hazardous substance inspection for three consecutive years from 2020 to 2022.
- Obtained **3,332 invention patents**.

Supply Chain

- Implemented audits for new suppliers.
- Conducted annual supplier audits.
- **Local procurement rates exceed 90%.**

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Quarterly Revenue

In B. NT



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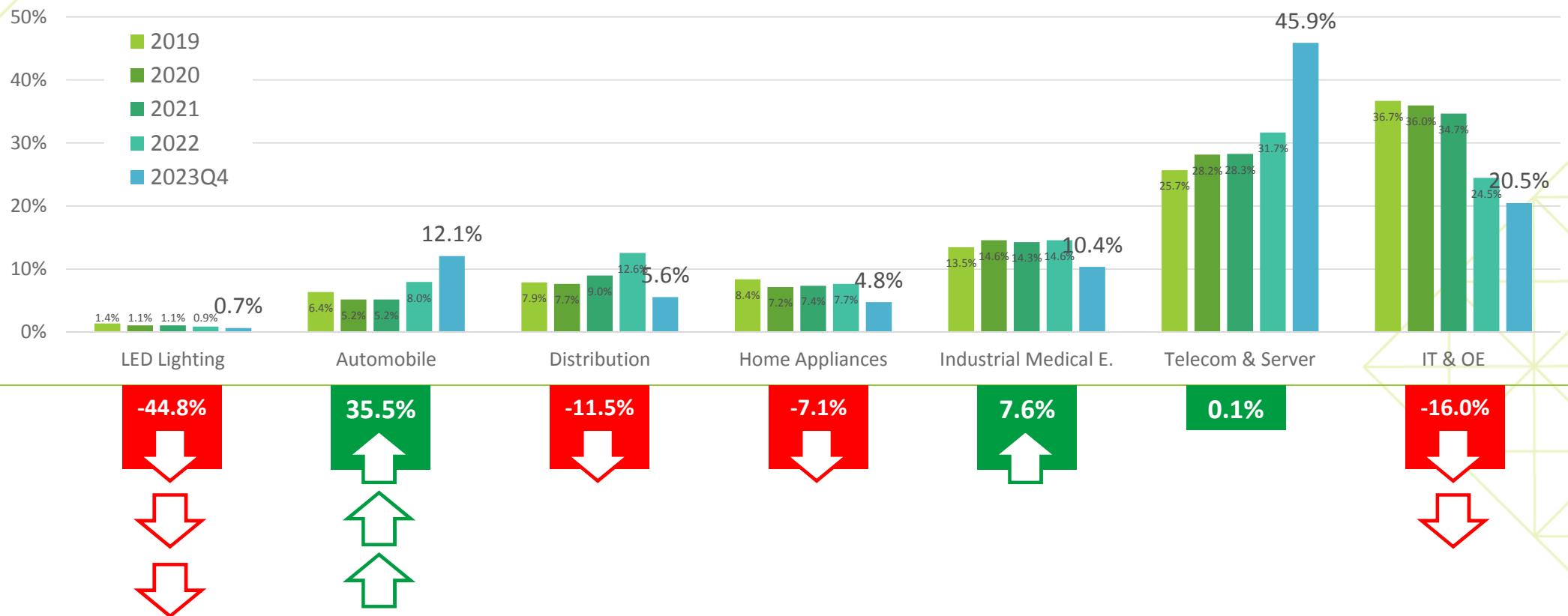
Revenue Performance

UNIT: NTD (K)



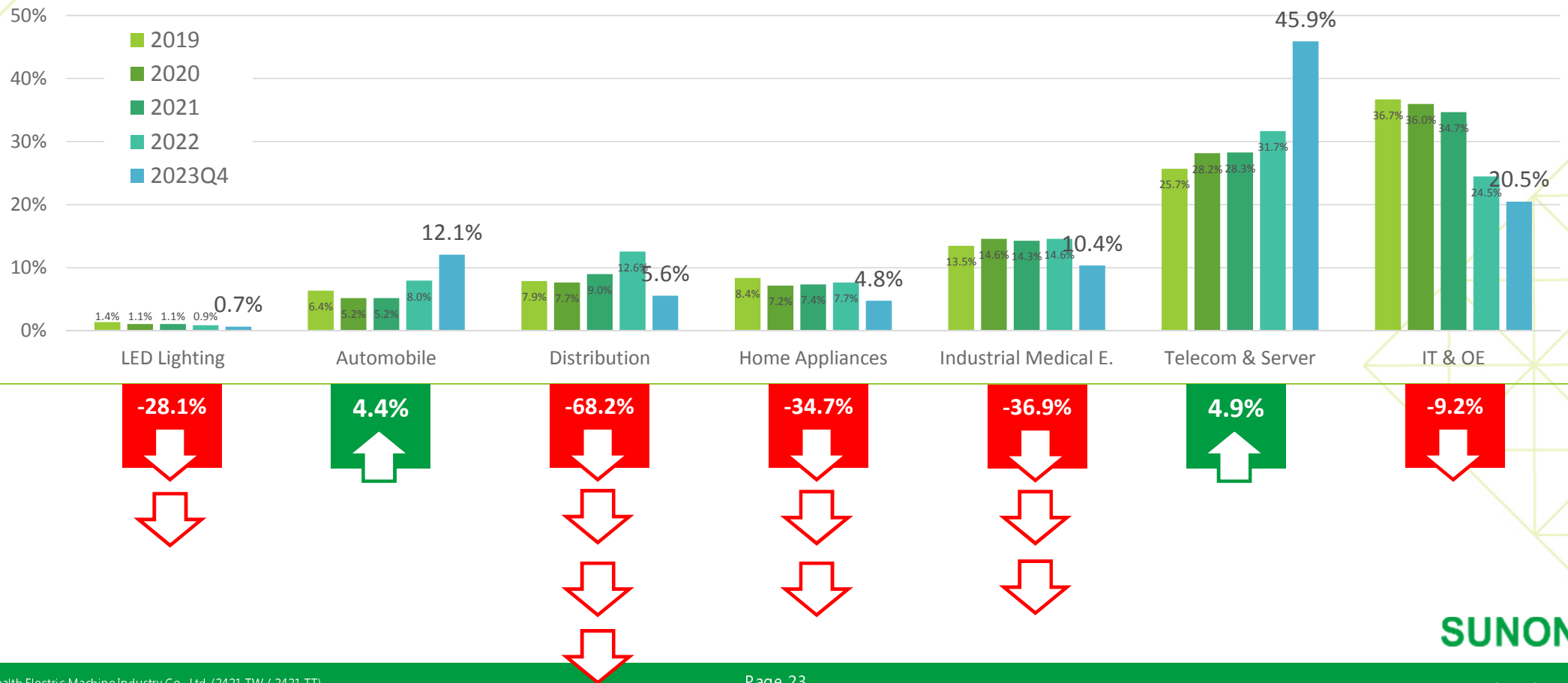
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Products Application & QoQ Growth

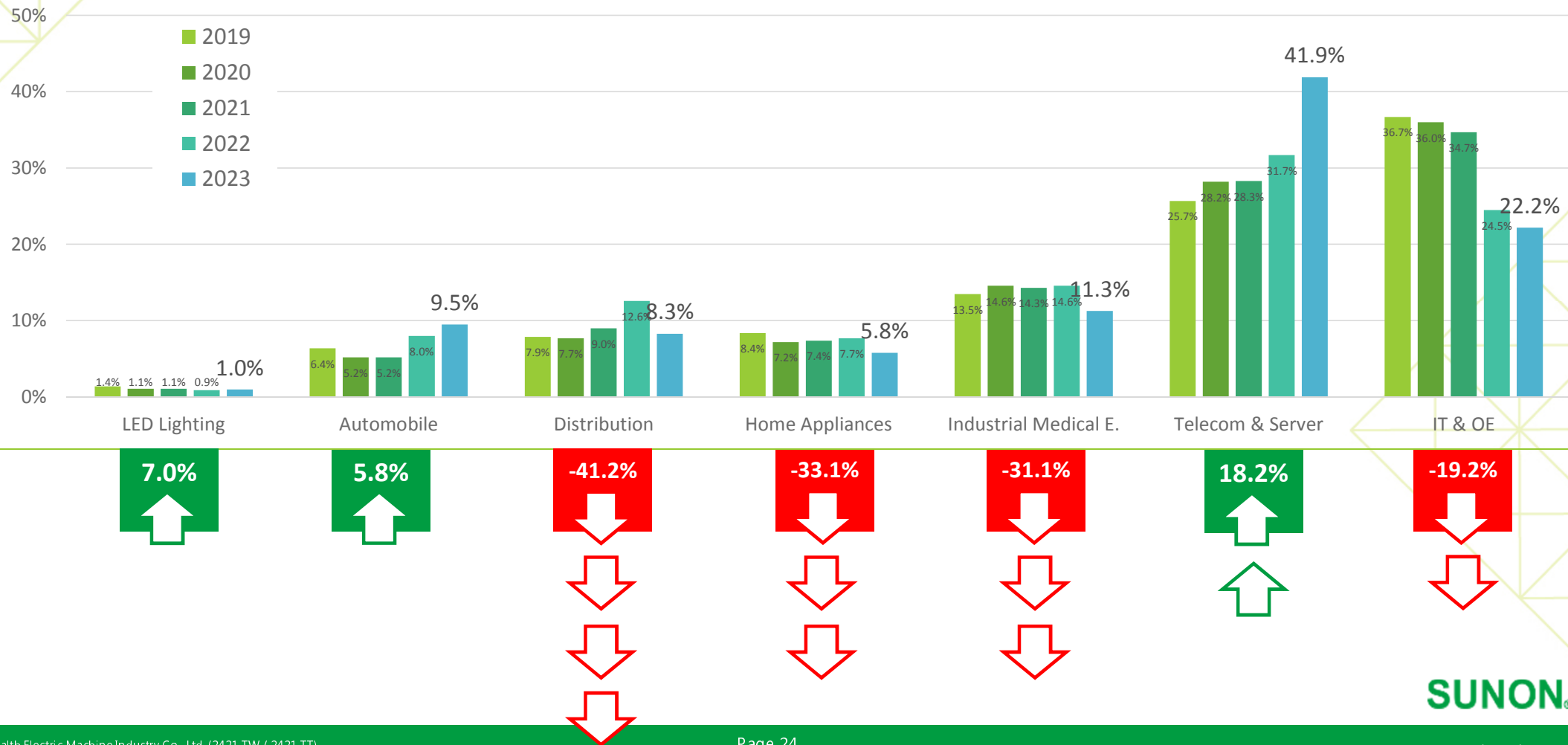


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Products Application & YoY Growth



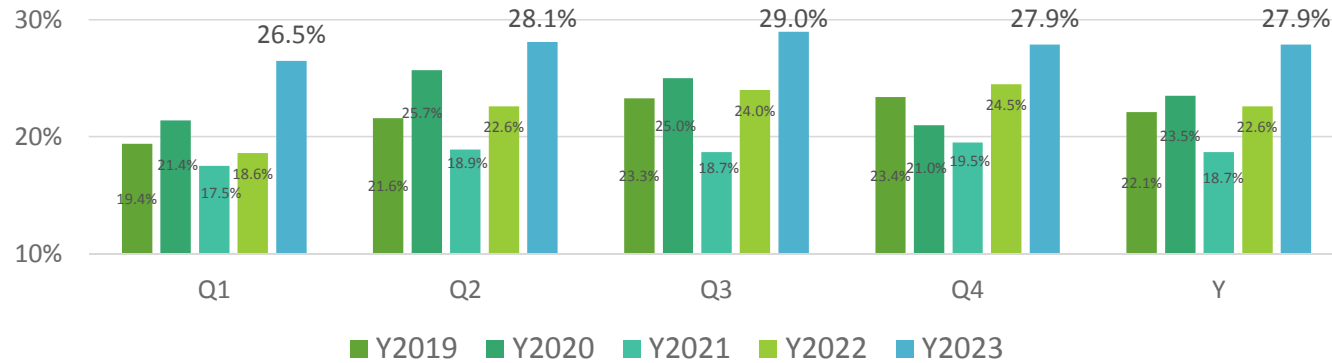
Products Application & YoY Growth



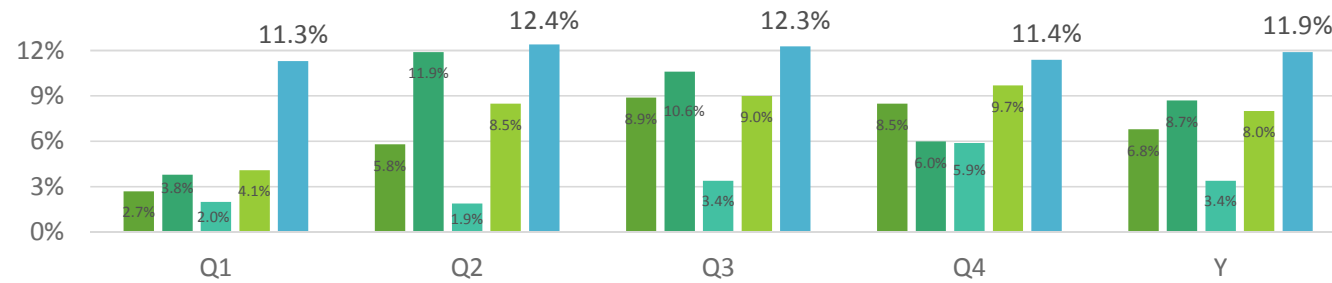
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Profit Margin

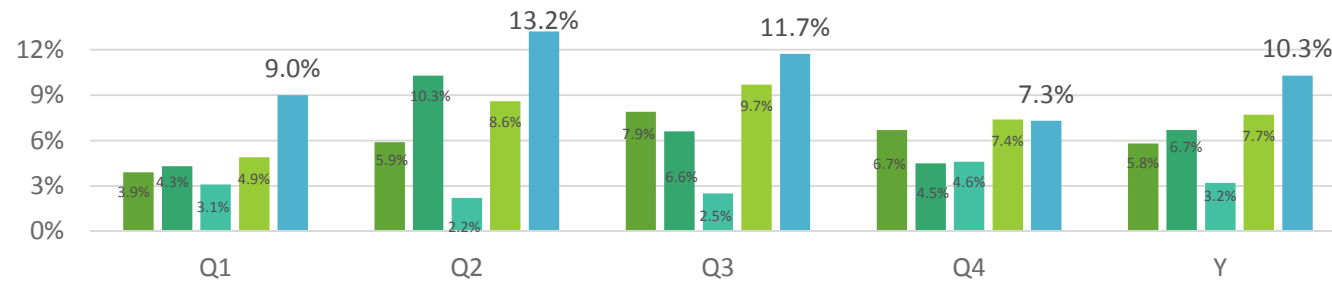
Gross Margin



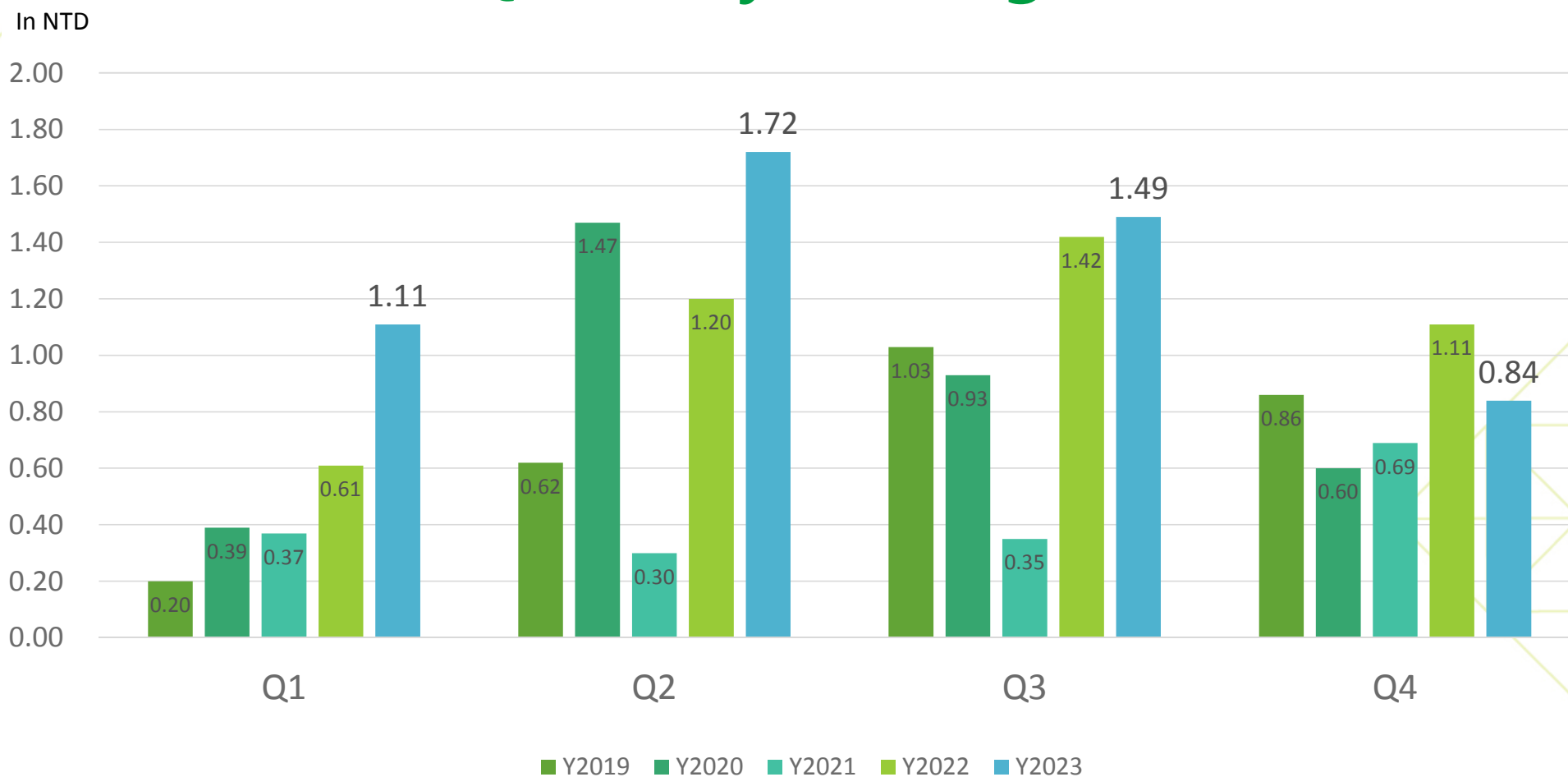
Operating Margin



Net Margin



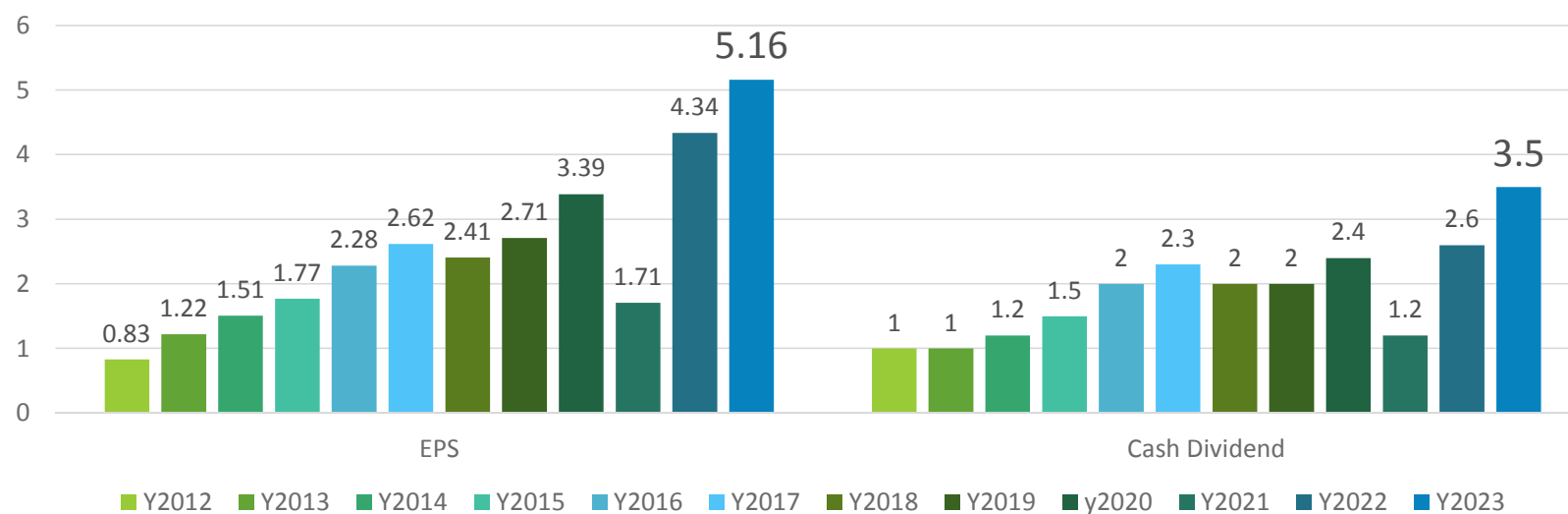
Quarterly Earning



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Earning & Cash Dividend

UNIT: NTD



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Payout R.	81.97%	79.47%	84.75%	87.72%	87.79%	82.99%	73.80%	70.80%	70.18%	60.00%	67.80%

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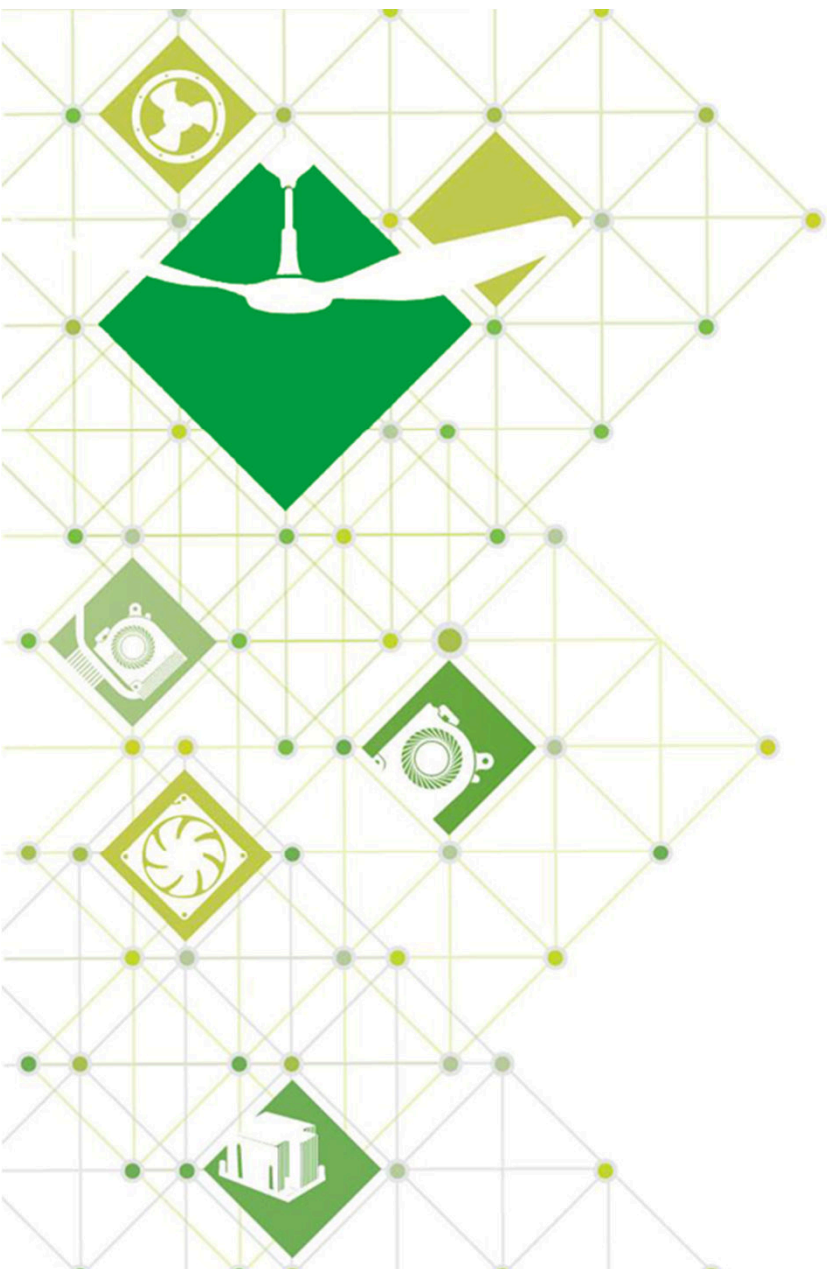
Appendix I

CONSOLIDATED BALANCE SHEETS							
NT\$ M	2020	2021	2022	2023	Growth YOY(%)		
					2021	2022	2023
TOTAL ASSETS	10,419	11,517	12,192	12,615	10.54%	5.86%	3.47%
Cash	1,575	1,912	2,457	4,031	21.40%	28.50%	64.06%
A/R, N/R	3,226	3,459	3,414	3,079	7.22%	-1.30%	-9.81%
Inventories	1,752	2,508	2,651	2,052	43.15%	5.70%	-22.60%
PP&E	2,106	2,059	2,273	2,171	-2.23%	10.39%	-4.49%
TOTAL LIABILITIES	5,825	7,150	6,989	5,396	22.75%	-2.25%	-22.79%
Short-term loans	671	1,950	1,288	458	190.61%	-33.95%	-64.44%
A/P	2,823	2,926	3,179	2,737	3.65%	8.65%	-13.90%
Long-term loans	520	524	287	213	0.77%	-45.23%	-25.78%
TOTAL EQUITY	4,594	4,367	5,203	7,219	-4.94%	19.14%	38.75%
Days sales outstanding	94	90	89	92			
Days sales of inventory	61	70	86	92			
Current Ratio	1.4984	1.3448	1.4275	2.0285			

Appendix II

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME							
NT\$ M	2020	2021	2022	2023	Growth YOY(%)		
					2021	2022	2023
OPERATING REVENUES	12,781	13,562	14,063	12,915	6.11%	3.69%	-8.16%
GROSS PROFIT	2,998	2,536	3,171	3,601	-15.41%	25.04%	13.56%
INCOME FROM OPERATIONS	1,114	464	1,122	1,530	-58.35%	141.81%	36.36%
INCOME BEFORE INCOME TAX	1,088	585	1,426	1,752	-46.23%	143.76%	22.86%
NET INCOME attribute to owners	852	429	1,089	1,334	-49.65%	153.85%	22.50%
EPS (NT\$)	3.39	1.71	4.34	5.16			
Gross Margin	23.46%	18.70%	22.55%	27.88%			
Operating Margin	8.72%	3.42%	7.98%	11.85%			
Net Margin(*)	6.67%	3.16%	7.74%	10.33%			

(*)Net Margin=Net Income attribute to owners / Revenue



Thanks

for Your Attention !



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