

Stock Number: 2428



THINKING ELECTRONIC INDUSTRIAL CO., LTD.

**LEGAL PERSON BRIEFING SESSION
2020 Q4**

2021.04.16

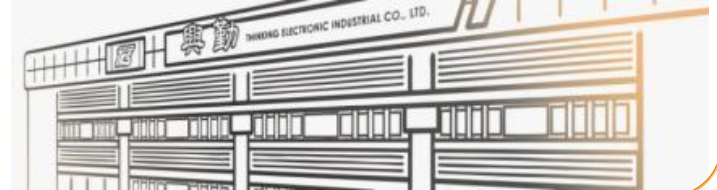


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The presentation is exclusively for the purpose of providing information, and not for the purpose of investment advice. The company does not undertake obligations of accuracy and completeness of the information and any losses caused by using the information of the presentation.

- A 42 year old protective component manufacturer
- Owns 7 factories and 4000 employees



● THINKING Factories

Taiwan



**Kaohsiung 1st
Factory**



**Kaohsiung 2nd
Factory**



**Kaohsiung 3rd Factory
(under construction)**



Yilan Factory

China



**Changzhou
Factory**



**Dongguan
Factory**



**Jingdezhen
Factory**

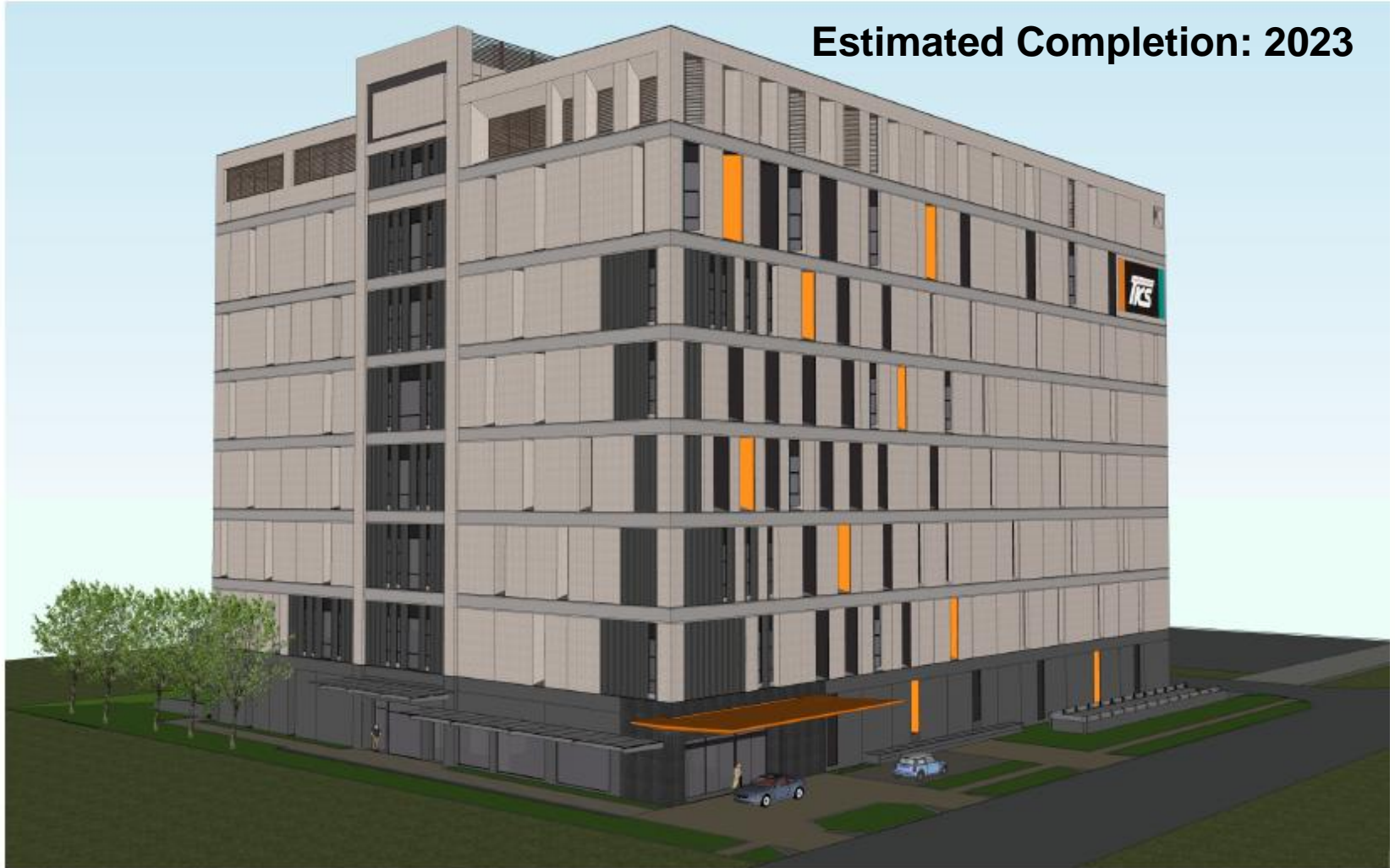


**Yichang
Factory**

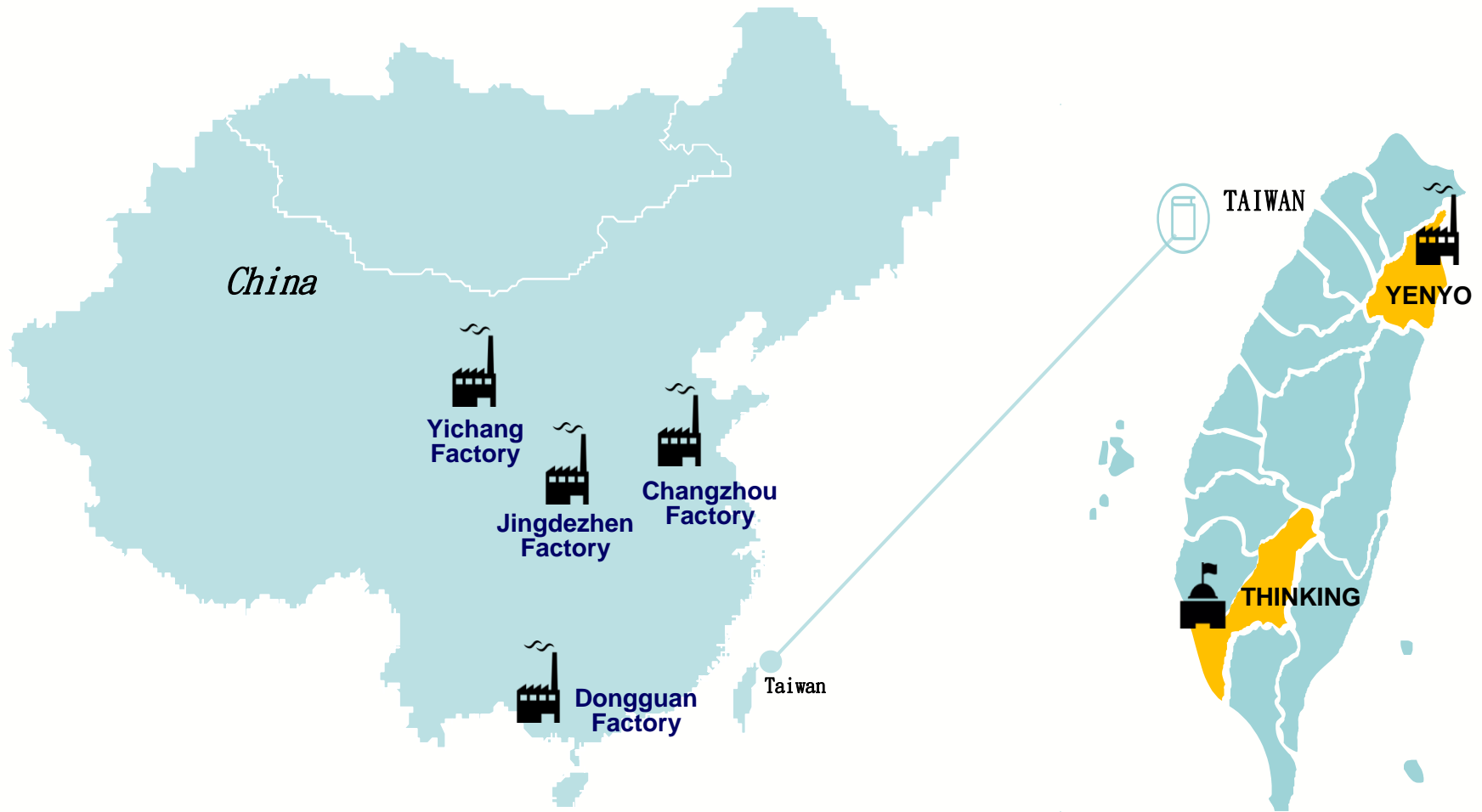


Expansion Plan in Taiwan: Kaohsiung 3rd Factory

Estimated Completion: 2023



Locations of THINKING Group



Over-Voltage Protection



General Protection



Primary Protection



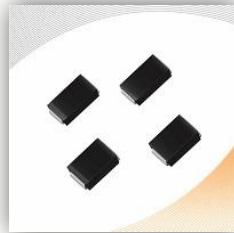
ESD Protection



TVS Diode



Spark Gap Protector



Thyristor Surge Suppressor

Over-Current Protection



NTC ICL



Ceramic PTC Thermistor



Polymer PTC Thermistor

Over-Temperature Protection



NTC Thermistor



Ceramic PTC Thermistor



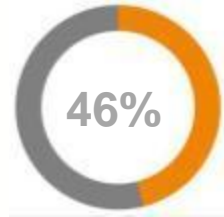
Temperature Sensor

All Around The World.



Major Markets in 2020

Information
and
Communication
Technology



Telecom



Power Supply



Computer



Consumer
Electronics

Home Appliances
and
Lighting



Home Appliances



Lighting

Automotive
and
Industrial

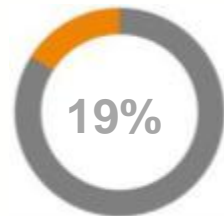


Automotive



Industrial

Medical
and
Others



Medical

Other

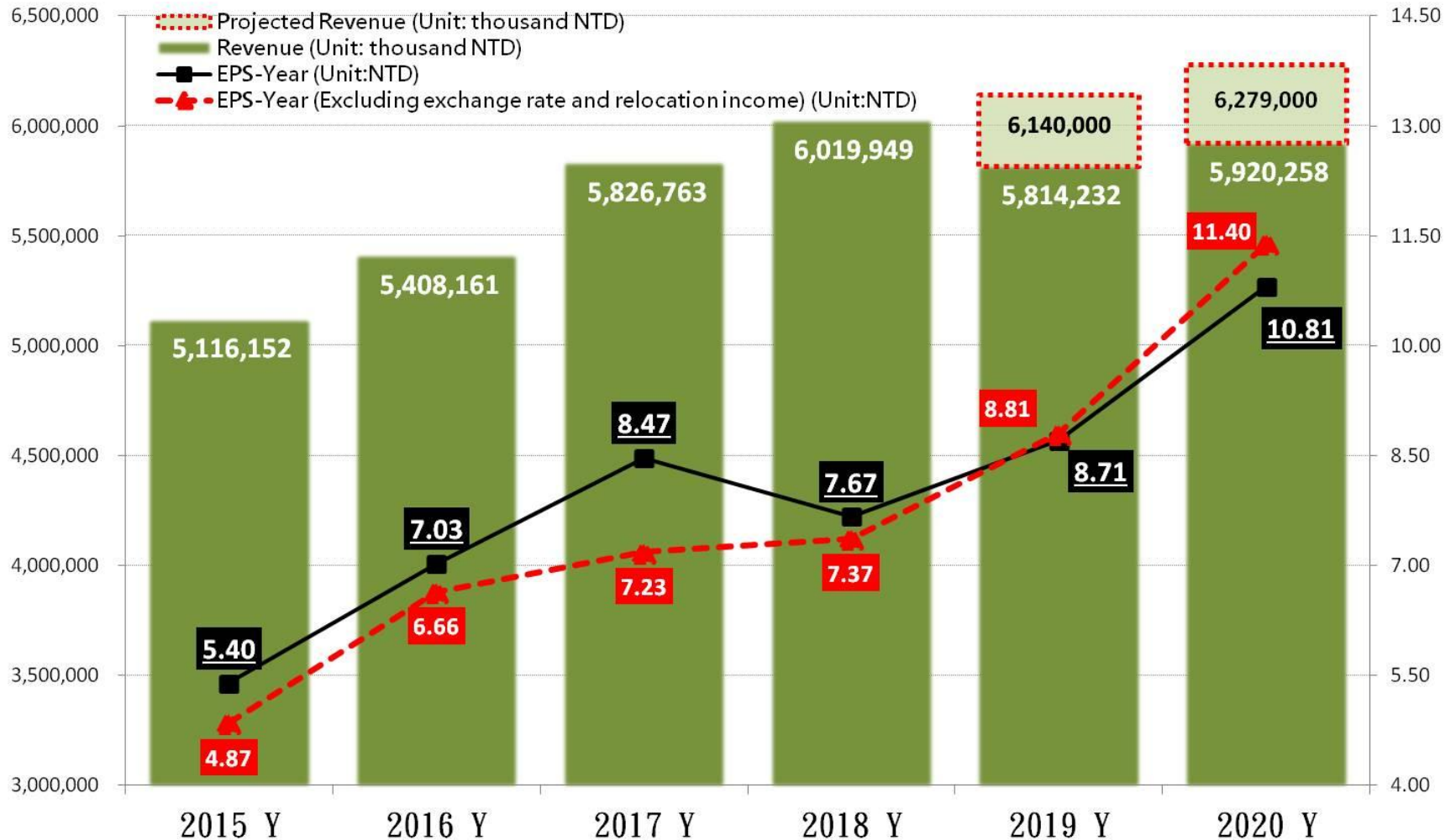
Other
applications



Distributor



Operation Overview: Revenue and EPS of Recent Years





Operation Overview: Yearly Consolidated Income Statement

Unit: Thousand NTD

Item	2019 Q4	2020 Q3	2020 Q4	QoQ	YoY
Net sales	1,522,209	1,619,691	1,706,280	5.3%	12.1%
Gross profit	635,191	781,079	817,983	4.7%	28.8%
Gross profit margin	41.7%	48.2%	47.9%	-0.3%	6.2%
Operating expenses	238,442	201,829	274,611	36.1%	15.2%
Operating net profit	396,749	579,250	543,372	-6.2%	37.0%
Operating profit ratio	26.1%	35.8%	31.8%	-3.9%	5.8%
Non-operating income and expenses	-9,616	10,812	-3,210	-129.7%	-66.6%
Net income	286,288	418,950	428,059	2.2%	49.5%
Earning per share (NTD)	2.25	3.27	3.34	0.07	1.09
Net profit margin	18.8%	25.9%	25.1%	-0.8%	6.3%



Operation Overview: Consolidated Balance Sheets

Unit: Thousand NTD

Item	2019.12.31	2020.9.30	2020.12.31	%	QoQ	YoY
Cash and cash equivalent	1,774,594	1,944,631	2,505,348	23%	28.8%	41.2%
Account receivable	2,046,553	2,189,769	2,432,303	22%	11.1%	18.8%
Inventories	822,298	1,042,569	1,266,112	11%	21.4%	54.0%
Current assets	6,067,809	7,327,076	8,084,389	73%	10.3%	33.2%
Fixed assets	2,090,206	2,168,369	2,227,877	20%	2.7%	6.6%
Non-current assets	2,682,706	2,784,409	2,946,271	27%	5.8%	9.8%
Total assets	8,750,515	10,111,485	11,030,660	100%	9.1%	26.1%
Account payable	533,753	582,192	645,786	6%	10.9%	21.0%
Other account payable	427,390	399,853	550,843	5%	37.8%	28.9%
Current liabilities	1,254,736	2,111,246	2,051,426	19%	-2.8%	63.5%
Non-current liabilities	980,796	1,098,269	1,534,447	14%	39.7%	56.4%
Total liabilities	2,235,532	3,209,515	3,585,873	33%	11.7%	60.4%
Total equity	6,514,983	6,901,970	7,444,787	67%	7.9%	14.3%



Operation Overview: Analysis of Financial Ratios

Item		2019.12.31	2020.9.30	2020.12.31	QoQ	YoY
Debt Ratio		25.54%	31.74%	32.50%	0.76%	6.96%
Current Ratio		483.59%	347.04%	394.08%	47.04%	-89.51%
Account receivable	Turnover ratio (times)	2.90	2.65	2.64	-0.01	- 0.25
	Average collection days	126.05	137.60	138.07	0.47	12.02
Inventories	Turnover ratio (times)	3.96	3.31	2.78	-0.53	- 1.18
	Average inventory turnover days	92.26	110.15	131.24	21.09	38.98
Account payable	Turnover ratio (times)	5.93	5.54	4.92	-0.61	- 1.01
	Average payables turnover days	61.52	65.91	74.13	8.22	12.61



Developing and Future Application Markets of THINKING Group



Electric Vehicle

Emission Reduction
Autonomous Driving
Smart Transportation
Renewable Energy



Industrial

Smart Manufacturing
Industrial IoT
Artificial Intelligence
Industry 4.0



5G Communications

High Speed Transmission
Ultra-Low Latency
Massive Throughput
Internet of Everything (IoE)



Medical & Health Care

Home Care
Telehealth
Smart Hospital
Public Health Surveillance

THINKING Products for EV/xEV



Charging Station

Varistor TVR Series Function: Over-voltage protection for PCB of charging station	Gas Discharge Tube GC82R Series Function: Over-current protection for PCB of charging station
PTC Thermistor PPL Series Function: Over-current protection for PCB of charging station	NTC Element TSM Series Function: Over-temperature protection for PCB of charging station
Temperature Sensor NTSE Series NTSB Series Function: Over-temperature protection of charging station	

Charging Inlet and Charging Cable

Temperature Sensor NTSE Series Function: Temperature detection of charging inlets and connectors of AC charging and DC charging	NTC Element TSM Series Function: Temperature detection of charging inlets and connectors of AC charging and DC charging	NTC Thermistor TTC Series Function: Temperature detection of charging inlets and connectors of AC charging and DC charging	Temperature Sensor NTSE Series BTST Series Function: Temperature detection of charge cable
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On-Board Charger

Temperature Sensor NTSG Series Function: Temperature detection of air duct in on-board charger	Varistor TVR Series Function: Over-voltage protection for PCB of on-board charger
Temperature Sensor NTSA Series Function: Temperature detection of on-board chargers	PTC Thermistor PPL Series Function: Over-current protection for PCB of on-board charger

Water Cooling System

Temperature Sensor NTSB Series Function: Temperature detection of water cooling system

BMS (Battery Management System)

Temperature Sensor NTSE Series Function: Temperature detection of battery pack input current adjustment	Temperature Sensor NTSA Series Function: Temperature detection of battery pack
NTC Element TSM Series Function: Temperature detection of battery pack	NTSB Series Function: Temperature detection of BMS

Electrical Motor

Temperature Sensor NTSB Series Function: Overheat detection of electrical motor
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Hot Water and Hot Air Circulation Heating

PTC Heater PH Series Function: Circulation heating of hot water and hot air
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Headlamp

NTC Element TSM Series Function: Over-temperature protection	PTC Element TPM Series Function: Over-temperature and over-current protections	MOV Element TVM Series Function: Over-voltage protection	TVS Diode SMF/SMA/SMB/SMC Series Function: ESD protection
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Emission Reduction
Autonomous Driving
Smart Transportation
Renewable Energy



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Smart Manufacturing
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Artificial Intelligence
Industry 4.0



5G Communications

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Home Care
Telehealth
Smart Hospital
Public Health Surveillance

THINKING Products for 5G Communications and SPD Module

THINKING Products for 5G Communications and SPD Module



Your Best Choice

5G Telecommunications Applications



<p>Gas Discharge Tube</p> <p>GB8 Series</p>	<p>Gas Discharge Tube</p> <p>Stack</p>	
<p>Thermally Protected Varistor</p> <p>TVT Series</p>	<p>Varistor for Lightning Protection</p> <p>TVA Series</p>	<p>SMD Type Varistor (MLV)</p> <p>TVM Series</p>
<p>SMD Type PTC Thermistor</p> <p>PPL Series</p>	<p>Twin SMD Type PTC Thermistor</p> <p>PPL Series</p>	

SPD Module Applications

Gas Discharge Tube



High Surge Series

Product Feature

- Size: Φ 11.8mmX12/17/18mm, Φ 15.5mmX5mm, Φ 20mmX5.5/6mm, Φ 25X10/21mm, Φ 30X12mm
- DC Spark-Over Voltage: 150V~1000V
- Impulse Discharge Current (8/20 μ s/10 times): 20KA, 25KA, 30KA, 40KA, 60KA, 80KA, 100KA
- Various terminal structures satisfy customer's design needs

Thermally Protected Varistor



TVT Series

Product Feature

- Varistor Voltage (V1mA): 100V~1600V
- I_{max}: 6KA~40KA, In reaches 20KA
- Body size: 10, 14, 20, 25, 32, and 34mm
- Two-terminal and three-terminal types are available for coating type products, and three-terminal type offers failure indication function.

Varistor for Lightning Protection



TVA Series

Product Feature

- Offer 12.5KA and 15KA (Iimp10/350 μ s) solutions for SPD Class I
- Varistor voltage (V1mA): 47V~1800V
- I_{max} of a disc is 10KA~70KA, and its In is 35KA. For two 34mm discs that connect parallelly, the In is 40KA.



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Emission Reduction
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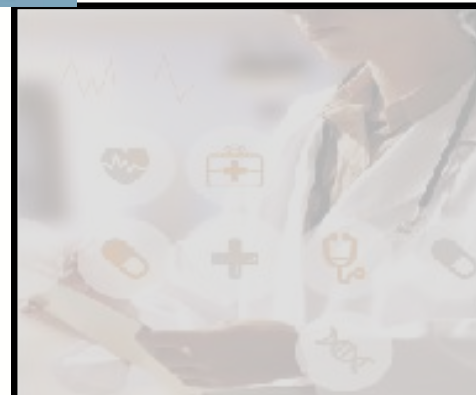
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Q&A

THANK YOU !



Thank You for Your Listening!

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