聚辰半导体
GIANTEC SEMICONDUCTOR

GIANTEC SEMICONDUCTOR

Company Profile

2023 Q3

www.giantec-semi.com

聚辰半导体
GIANTEC SEMICONDUCTOR

01

Part 1

Company Profile

Giantec Milestones

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2009

Spun off from ISSI (EEPROM / Smart Card)

2013

EEPROM and Smart Card were Awarded as Shanghai Famous Brand

2017

Awarded as High-speed growth headquarters

2016

TOP supplier at EEPROM CCM market

2019

Be listed in SSE STAR Market (stock code: 688123)

2020

Awarded as Top 10 China IC Brands

2021

Qualified as a key IC design enterprise by the National Development and Reform Commission and the Ministry of Industry and Information Technology

2022

Qualified as "Specialized and Sophisticated" enterprise by Shanghai Economic and Information Technology Commission

Giantec Worldwide Offices

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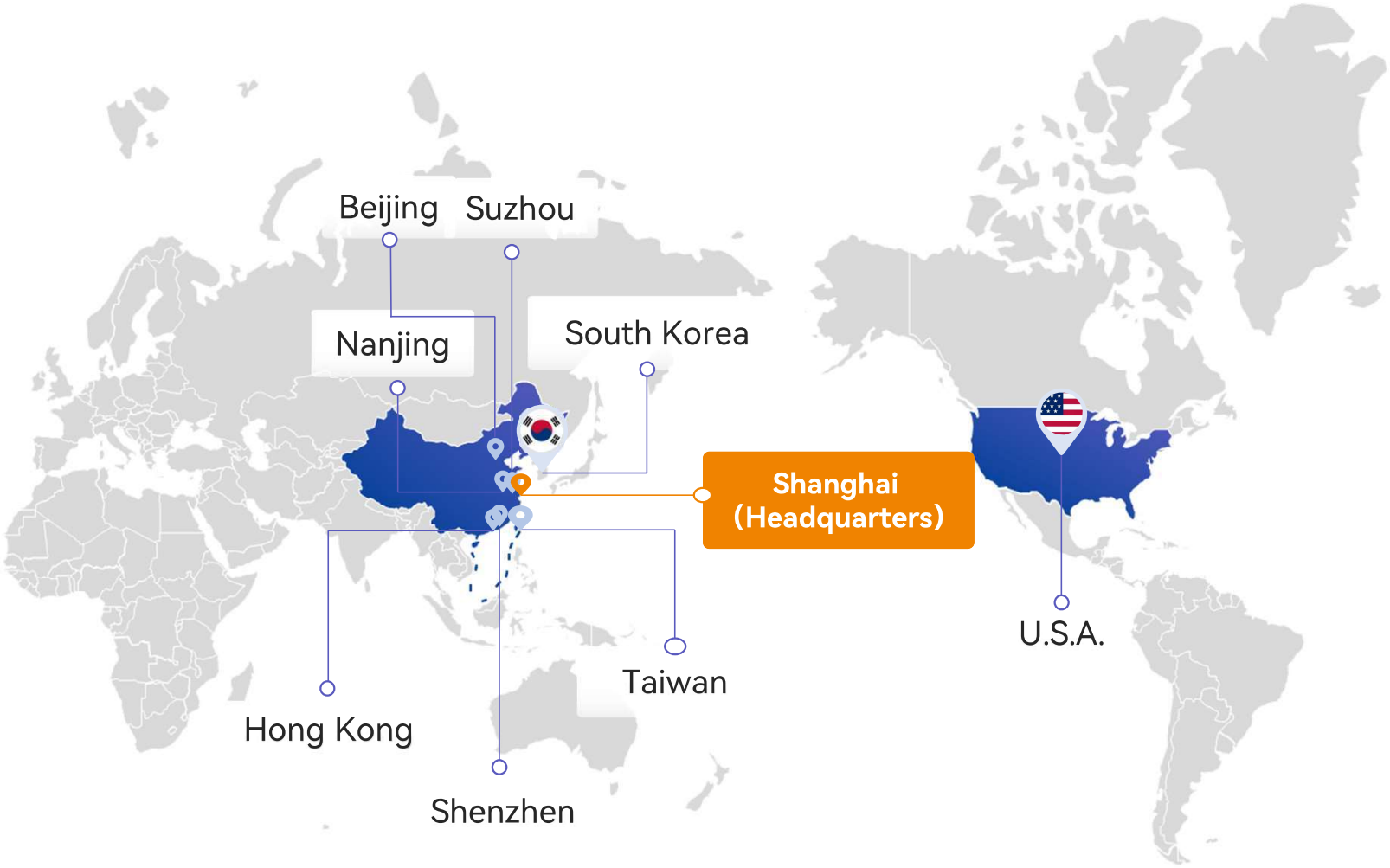

Organization Chart

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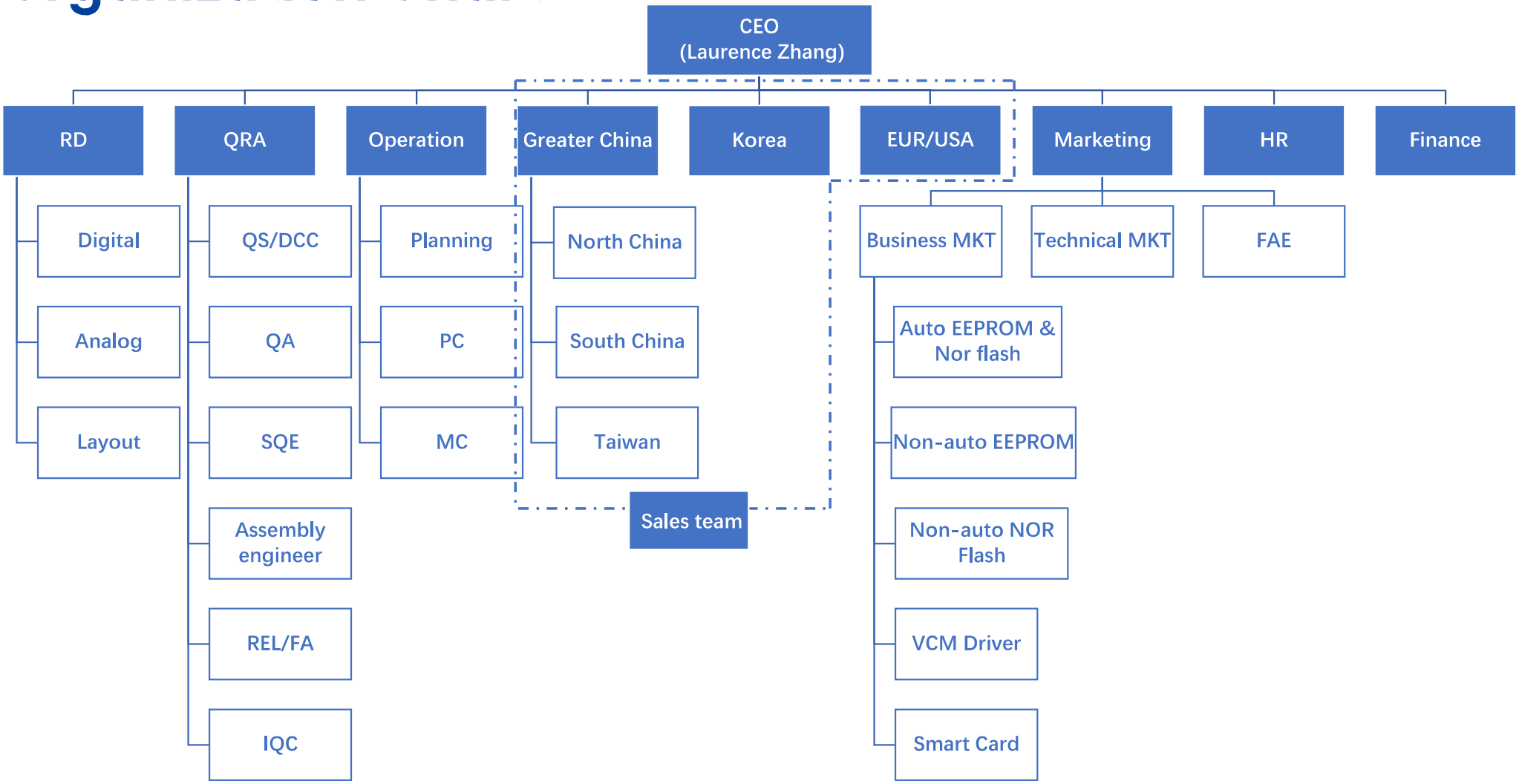

Leading Supplier at EEPROM Market

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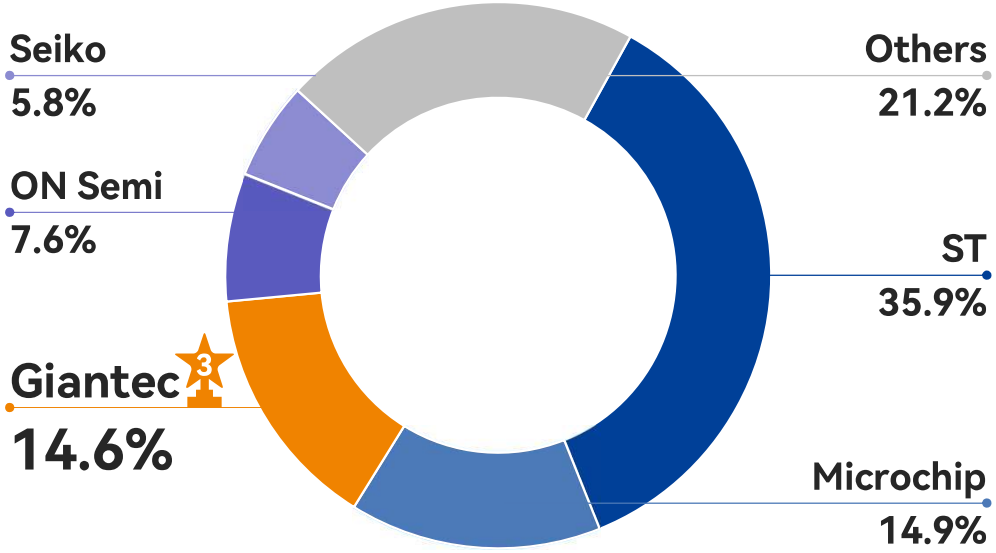
Giantec EEPROM

100% made in China
Ranked 3rd worldwide And No.1 in China



Unit: Million dollars

Ranking	Supplier	Sales in 2022
1	ST	327
2	Microchip	136
3	Giantec	133.2
4	ON	69
5	Ablic(Seiko)	53
6	Others	191.9
Sum		910.1

Source: Web-feet Research (Apr,2023)

Foundry /Assembly Partners

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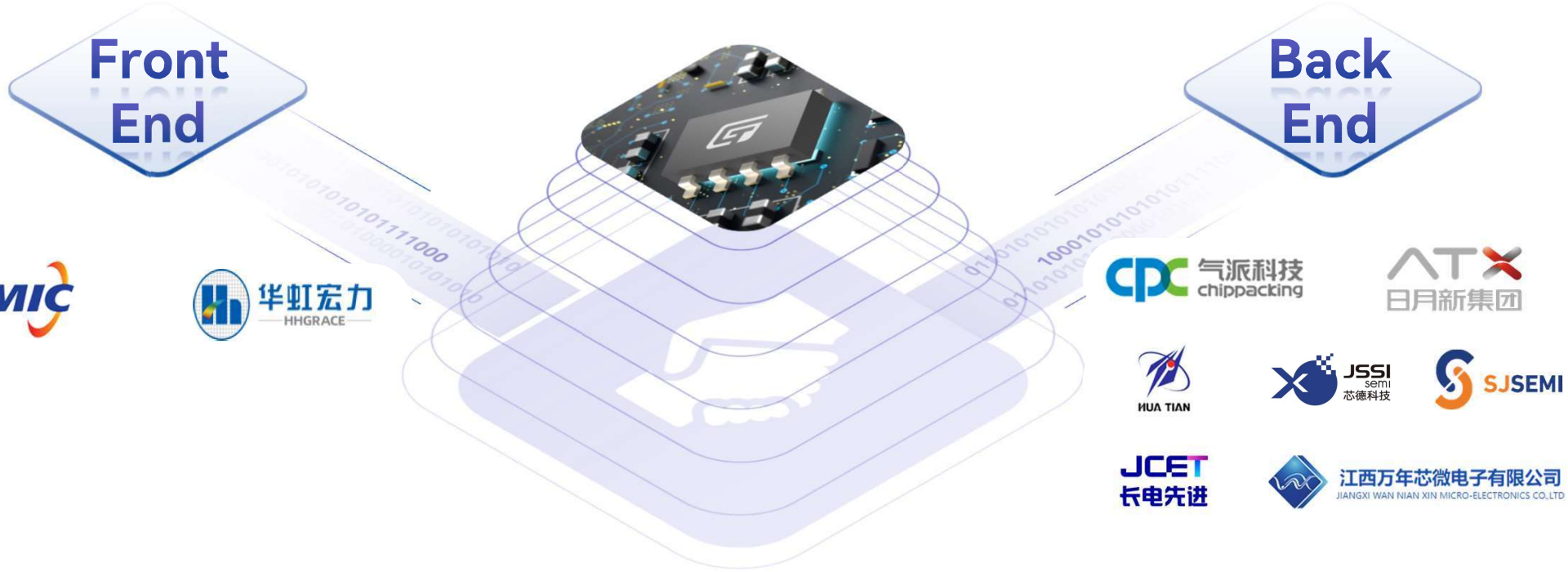

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02

Part 2

Giantec Products

Product Lines

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EEPROM

- I2C/SPI/Microwire bus
- Vcc=1.7-5.5V
- 85/105/125℃
- TS/SPD for DIMM
- Full line WLCSP
- WW Top 3 supplier
- AEC-Q100

NOR Flash

- SPI NOR Flash
- Vcc=1.7-5.5V
- 85/105/125℃
- Retention 50 year
- Endurance 200K
- Chip erase 6ms

VCM Driver

- Uni-direction Driver
- Bi-direction driver
- Close Loop
- OIS
- Driver +EEPROM

Smart Card

- 13.56Mhz Type A
- C/C-Less / Dual interface CPU card
- Multi I/O Flash Card
- RF & I2C Tag IC
- Dual interface RF/ IIC

New

- Temperature Sensor
- MCU
- Others

Process RoadMap

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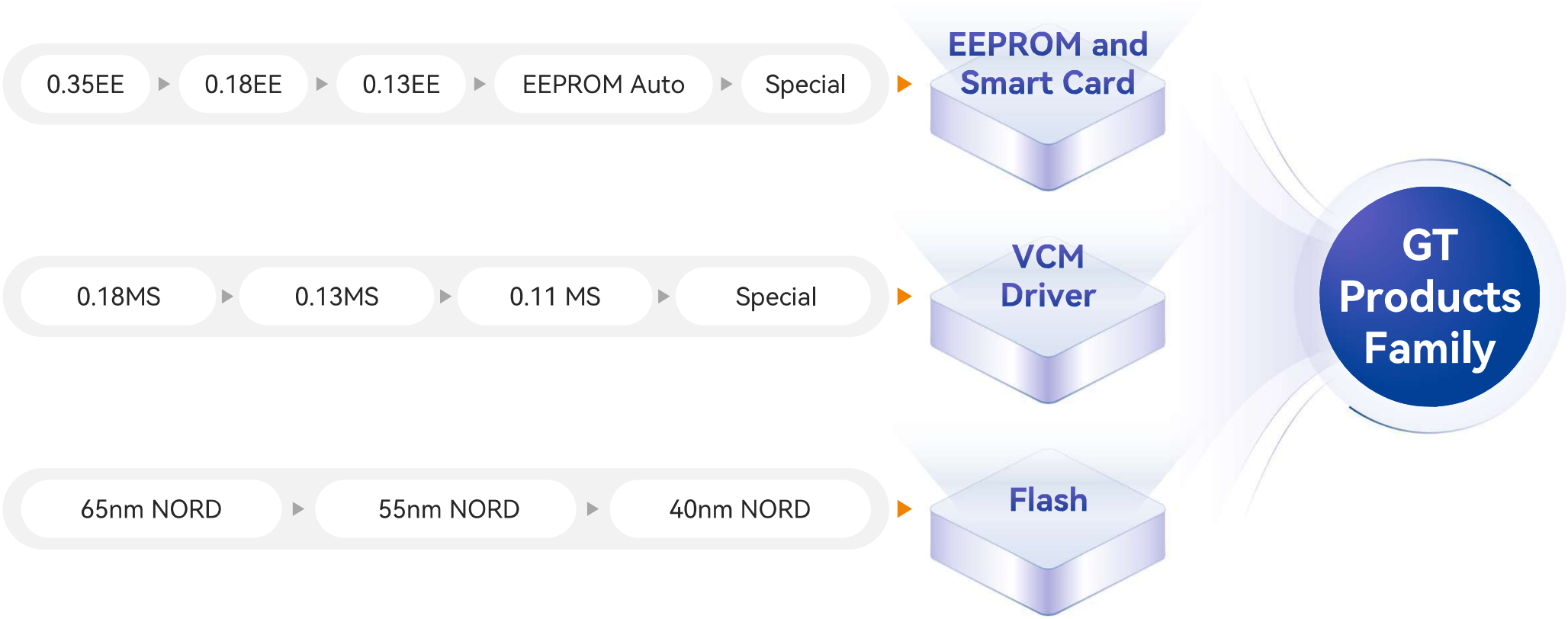

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Product Line

EEPROM

WLCSP Package Products Roadmap

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PC	Features	Density	P/N	2023				2024				2025			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
I2C	1.7v~5.5v Freq=1MHz	4Kb	GT24C04-2CLI												
		8Kb	GT24C08S-2CLI												
		16Kb	GT24C16S-2CLI												
		32Kb	GT24P32E												
	1.7v~3.6v 1.1v~2.0v Freq=1MHz	64Kb	GT24P64E												
			GT24P64H												
			GT24P64F												
			GT24P64G				ES								
	1.7v~5.5v	128Kb	GT24P128F												
	1.7v~3.6v		GT24P128H												
	1.1v~2.0v		GT24P128G												
	1.7v~5.5v	256Kb	GT24P256C												
	1.7v~3.6v		GT24P256H												
	1.1v~2.0v		GT24P256D												
	1.7v~5.5v	512Kb	GT24C512B-2CLI												
	1.1v~2.0v		GT24P512C			ES									
	1.7v~5.5v	1024Kb	GT24C1024-2CLI												
	1.1v~2.0v		GT24P1024A			ES									

Mass Production Planned ES: Estimated Sample release

Standard Alone EEPROM Roadmap

聚辰半导体 GIANTEC SEMICONDUCTOR

PC	Features	Density	P/N	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2025 Q2	2025 Q3	2025 Q4
I2C	1.7v~5.5v Freq=1MHz	2kb	GT24C02B												
		4Kb	GT24C04A					ES	C-Ver						
		8Kb	GT24C08B												
		16Kb	GT24C16B												
		32Kb	GT24C32D												
		64Kb	GT24C64F												
		128Kb	GT24C128D												
		256Kb	GT24C256C												
		512Kb	GT24C512B											ES	C-Ver
		1Mb	GT24C1024					ES	A-Ver						
	Freq=3MH1.7v~3.6v Freq=1MHz	2Mb	GT24C2048A			ES									
		4Mb	GT24C4096A			ES									
SPI	Freq=20MHz 1Million Endurance 100 Year Data Retention	2Kb	GT25C02A												
		4Kb	GT25C04A												
		8Kb	GT25C08												
		16Kb	GT25C16												
		32Kb	GT25C32B												
		64Kb	GT25C64												
		128Kb	GT25C128A												
		256Kb	GT25C256												
		512Kb	GT25C512											ES	A-Ver
		1Mb	GT25C1024					ES	A-Ver						
	1.7v~3.6v Freq=20MHz	2Mb	GT25C2048A			ES									
		4Mb	GT25C4096A			ES									
Micro -wire	1.8v~5.5v Freq=3MHz	1/2/4Kb	GT93C46/56/66A												
		8Kb	GT93C76												
		16Kb	GT93C86												
SPD	1.7v~5.5v(EE) 2.2v~3.6v(TS) Freq=1MHz	2kb	GT34C02B												
		2Kb+TS	GT34TS02B												
		4Kb	GT34C04												
		4Kb+TS	GT34TS04A												
		4Kb+TS	GT34TS04B												

Mass Production Planned ES: Estimated Sample release

EEPROM Package Information

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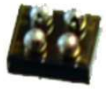
Various package types

PDIP



WLCSP

SOP8

DFN

TSSOP8

MSOP8

SOT-23-5

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Product Line

NOR Flash

NOR Flash Roadmap

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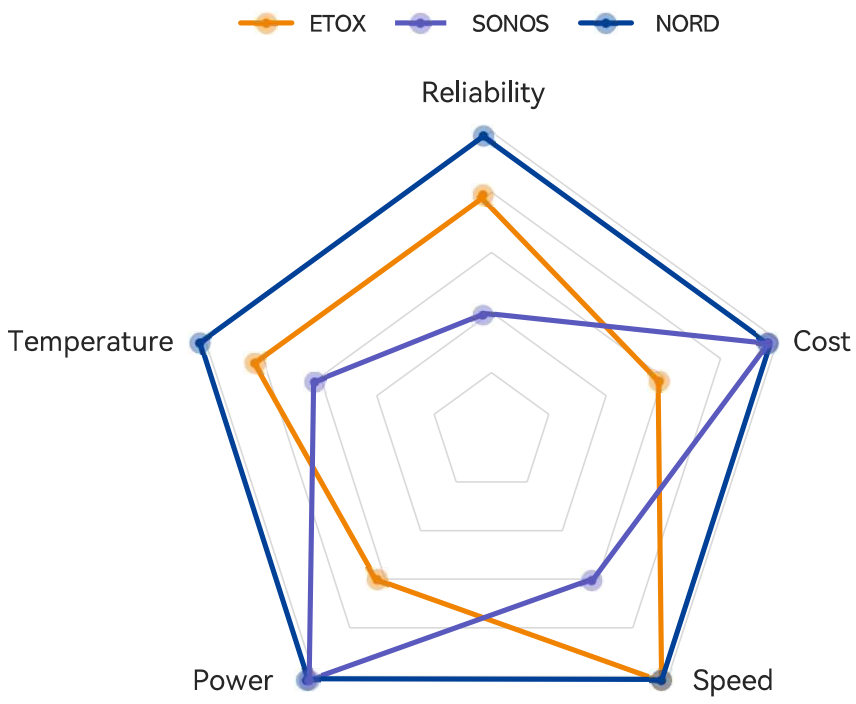
Voltage	Density	PN	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2025 Q2	2025 Q3	2025 Q4
1.65v-3.6v 120MHz SPI Dual Quad	512Kb	GT25Q05CU												
	1Mbit	GT25Q10CU												
	2Mbit	GT25Q20CU												
	4Mbit	GT25Q40CU												
	8Mbit	GT25Q80AU												
	16Mbit	GT25Q16AU												
	32Mbit	GT25Q32AU												
2.7v-3.6v	64Mbit	GT25Q64AU			ES									
	128Mbit	GT25Q128AU				ES								
	256Mbit	GT25Q256AH				ES								
	512Mbit	GT25Q512AH						ES						

Voltage	Density	Description	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2025 Q2	2025 Q3	2025 Q4
1.1~2.0V 104MHz SPI Dual Quad	32Mbit	GT25Q32BE		ES										
	64Mbit	GT25Q64BE			ES									
	128Mbit	GT25Q128BE				ES								
	256Mbit	GT25Q256CE								ES				
	512Mbit	GT25Q512CE												ES

Mass Production Planned ES: Estimated Sample release

NOR Flash Key Features

聚辰半导体 GIANTEC SEMICONDUCTOR



Typical Value (8M)	ETOX	SONOS	NORD	
Retention @ 25C	20Y	20Y	50Y	Process
Endurance	100K	100K	200K	Process
Temperature	-40~125 ℃	-40~85 ℃	-40~125 ℃	Process
Block Erase Time	250ms	8ms	3ms	Process
Chip Erase Time	4000ms	8ms	5ms	Process
Page Program Time	0.6ms	2ms	0.6*/1.25ms	Process
Erase current	20mA	3mA	1mA	Process
Program current	20mA	3mA	1mA	Process
Read current	8mA@120MHz	6mA@120MHz	5mA@120MHz	Process
Standby current	20uA	16uA	8uA	Design
DPD current	0.11uA	0.1uA	0.1uA	Design
Power Supply	1.65~3.6V	1.65~3.6V	1.65~3.6V	Design
ESD（HBM）	±2000V	±4000V	±6500V	Design
ESD（MM）	±200V	-	±450V	Design
ESD（CDM）	±750V	±1000V	±2000V	Design
LU	±200mA	±200mA	±650mA	Design

NOR Flash Package Information

聚辰半导体
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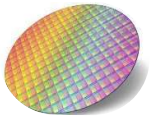
Various package types

SOP8 200



KGD

SOP8 150

USON

TSSOP8

WSON4*3

WSON5*6

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03

Part 3

Product Application

Mobile(CCM) Ecosystem

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Application & Customers (1)

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Application

LCD Panel

Major Customers

AUO
BOE
华星光电 CSOT
LG
INNOLUX 群創光電
TIANMA

TV

Monitor

NB

Mobile phone

Wearable Devices

Application & Customers (2)

聚辰半导体
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Application

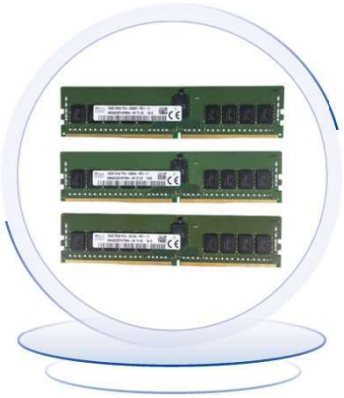
PC/Server/
Cloud

Major Customers

ADATA, amazon, AVANT, DELL, G.SKILL, αFUSION, Google, hp, Microsoft, Meta, H3C, RAMAXEL 记忆, KINGMAX, Lenovo, ASUS, Kimtigo 金泰克, longsys, inspur 浪潮, 华勤技术, SAMSUNG

PC

Server



DIMM

SSD

Cloud

Application & Customers (3)

聚辰半导体 GIANTEC SEMICONDUCTOR

Application

Telecom

Major Customers

Accelink, Comba 京信通信, 高意 COHERENT, ZTE中兴, HGTECH, MITSUMI, Juniper NETWORKS, SP SOURCE PHOTONICS, T&W, TP-LINK, ZKTel 中科通信, ICOM

Optical Module

4G/5G

GPON

Wireless

Application & Customers (4)

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Application

Consumer

Major Customers

ACON, Canon, DAEYOUNG, FUJI xerox, Haier, Hisense, ONBO, SHARP, TCL, vtech, ZEBRA, F&D 奋达科技, Midea, LittleSwan, mi, Panasonic, YAIR 扬子空调, TOSHIBA

White Goods

Digital products

Printer

Medical Detectors

Application & Customers (5)

聚辰半导体 GIANTEC SEMICONDUCTOR

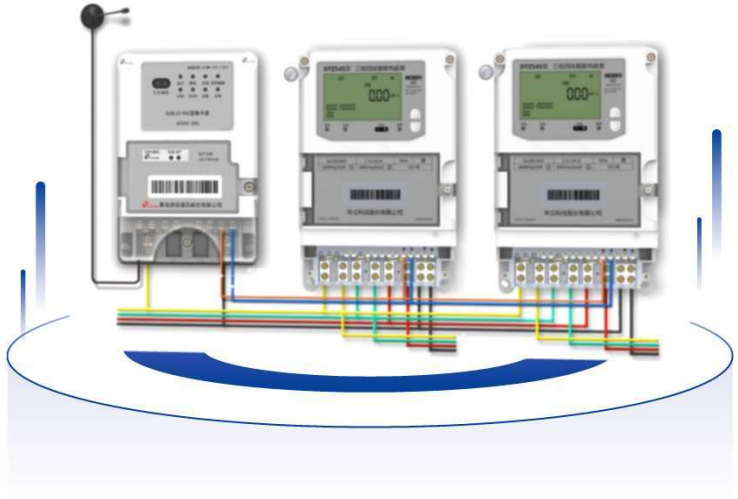
Application

Smart Meter

- Remote Metering System
- Concentrator
- Carrier Module

Major Customers

三星医疗电气 SANXING MEDICAL ELECTRIC
科陆
HOLLEY TECH 华立科技
CHNT 正泰
YTL
威胜集团 Wasion Group
迦南智能
鼎信通讯 TOPSCOMM
Eastsoft
SUNTRONT 新天科技



Application & Customers (6)

聚辰半导体 GIANTEC SEMICONDUCTOR

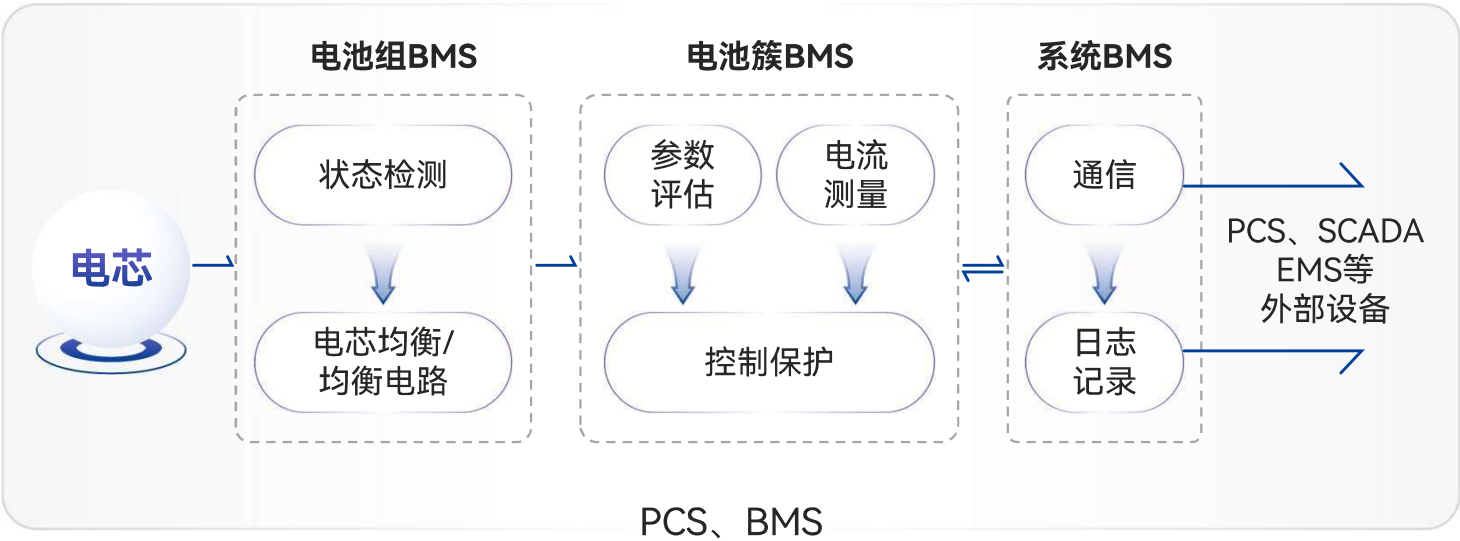
Application

Photovoltaic & Energy Storage

Major Customers

SUNGROW, Deye 德業, PYLONTECH, GOODWE, EVE 亿纬锂能, 高特电子 GOLD ELECTRONIC, 科陆, CATL 宁德时代, 索英电气 SOARING, BYD, GROWATT 古瑞瓦特

Integration of light and storage



Application & Customers (7)

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Application

Automation

Major Customers

INOVANCE 汇川技术
SIEMENS
Danfoss
XINJE
富士电机 Fuji Electric
YASKAWA
EATON
RUKING
KUKA
MOONS' moving in better ways

Industrial Automation

Industrial Internet

Industrial Robot

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03

Part 3

Why choose Giantec

Quality Certification

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Quality management

IATF 16949

IDM | Fabless | Module Subsystem | Vehicle

Reliability

AEC-Q100 | ISO/ASE/OEM Requirement | National regulations

Environment

CADSL / IMDS

Safety

ISO 26262

Quality Certification

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ISO9001:2015

ISO14001:2015

IATF16949:2021
(Compliance)

AEC-Q100:2021
(EEPROM)

AEC-Q100 :2022
(Nor Flash)

ISO 26262 certificated products will be released in 2023

EEPROM FA PPM

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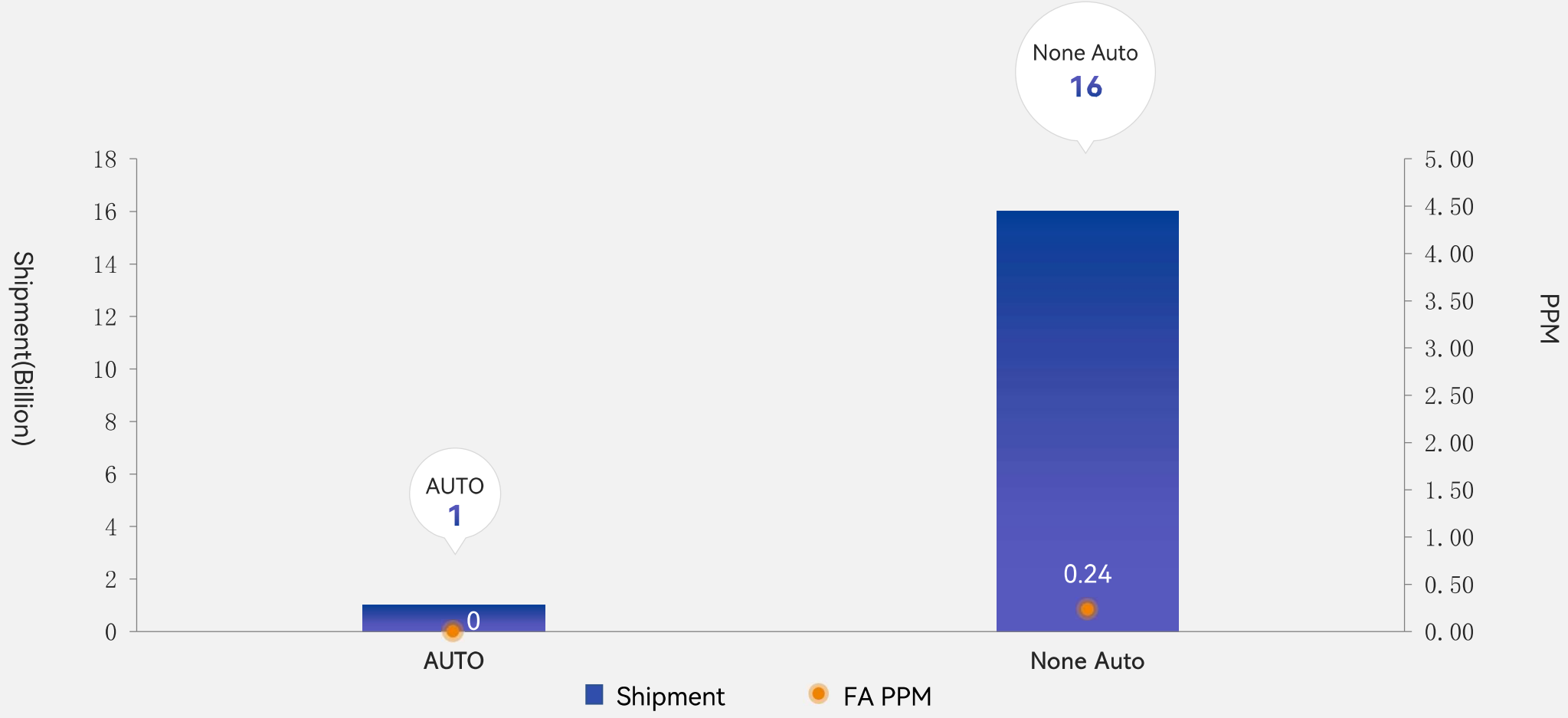

RMA Response

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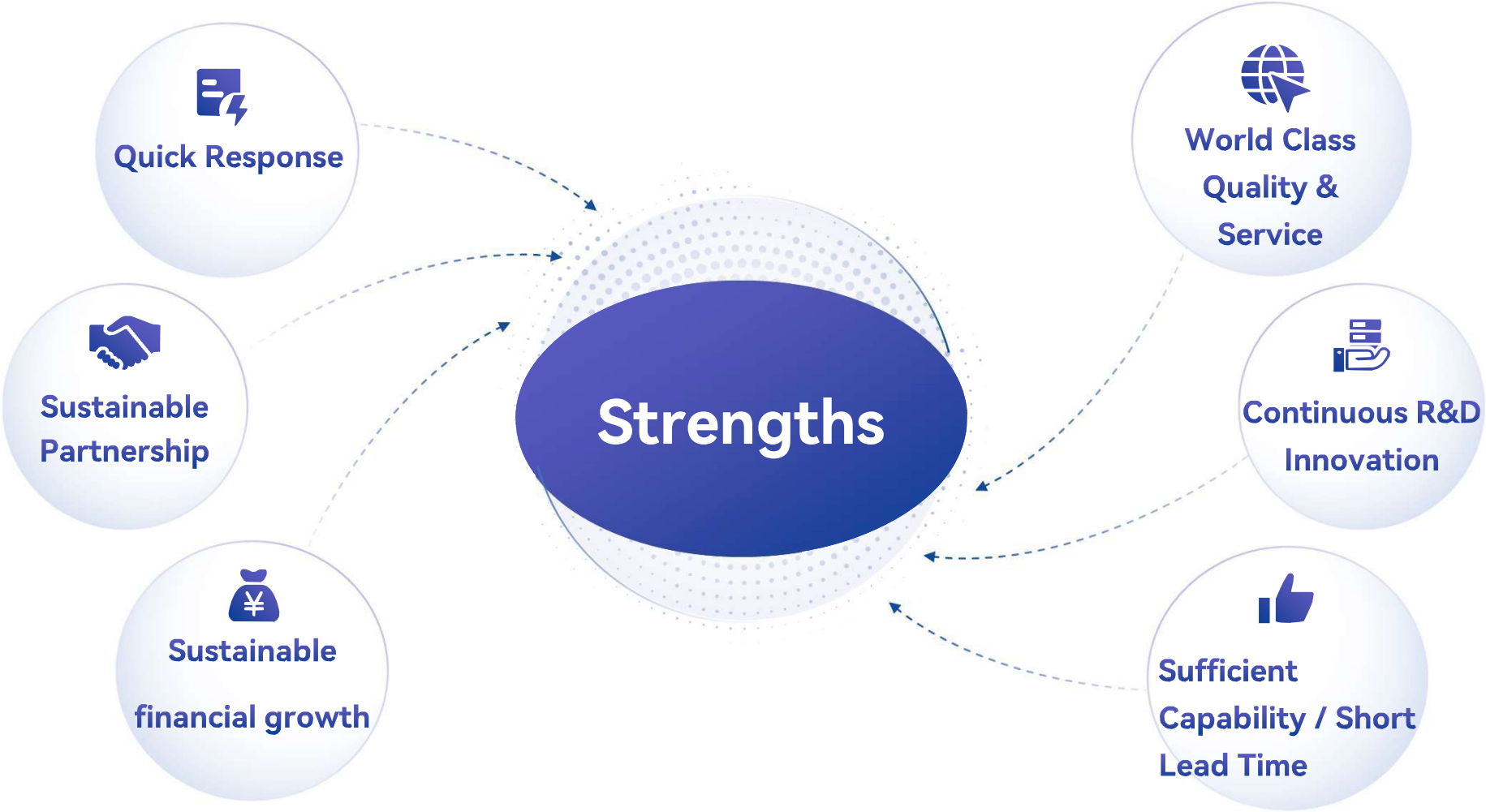
Cycle times	Automotive products (working days)	Non-automotive products (working days)
From receipt of failed Part (s) to issuance of first FA report	1	2
Issue interim report if the root cause can't be identified before the final FA report	Mandatory and whenever necessary	NA (issue email if overdue in final report)
From the preliminary FA report to the final FA report	3	5
From the final FA report to the CAR report (CAR in 8D format for automotive).	5	7 (If necessary)

Why Choose Giantec?

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