

03 MEMORY CARD

EPLUS Memory Card



- Quick response. For consumer electronic devices.
- **Type:** EPLUS V10 / EPLUS V30
- **Package:** SD / microSD
- **Capacity:** 8GB / 16GB / 32GB / 64GB / 128GB / 256GB / 512GB
- **Operating Temperature:** -25°C~85°C
- **Speed grade:** C10 U1 V10 A1 / C10 U3 V30 A2

Industrial Memory Card



- High quality and high reliability products. Localized and customized services.
- **Type:** Industrial / Industrial WT / Industrial pSLC
- **Package:** SD / microSD
- **Capacity:** 8GB / 16GB / 32GB / 64GB / 128GB / 256GB / 512GB
- **Operating Temperature:** -25°C~85°C / -40°C~85°C
- **Durability:** 3,000 P/E ; 5,000 / 3,000 P/E ; 30,000 P/E

04 MEMORY MODULE

Enterprise DIMM



- Adopting mature DDR5 / DDR4 chips from wafer manufacture, supporting an 80-bit / 72-bit width and ECC error correction, the reliability and stability meets the requirements of data centre grade products.
- **Type:** DDR5 RDIMM / DDR4 RDIMM
- **Capacity:** 32GB / 64GB / 96GB
- **Data Rate:** 3200Mbps / 5600Mbps
- **Operating temperature:** 0°C~85°C Extended 95°C

CXL2.0 Memory Expansion Modules



- Empowering cloud AI to achieve better performance.
- **Interface:** PCIe 5.0x8 lanes
- **Protocol:** CXL1.1 / 2.0
- **Specification:** DDR5
- **Bandwidth:** 32GB/s
- **Capacity:** 64GB / 128GB / 192GB

LPCAMM2



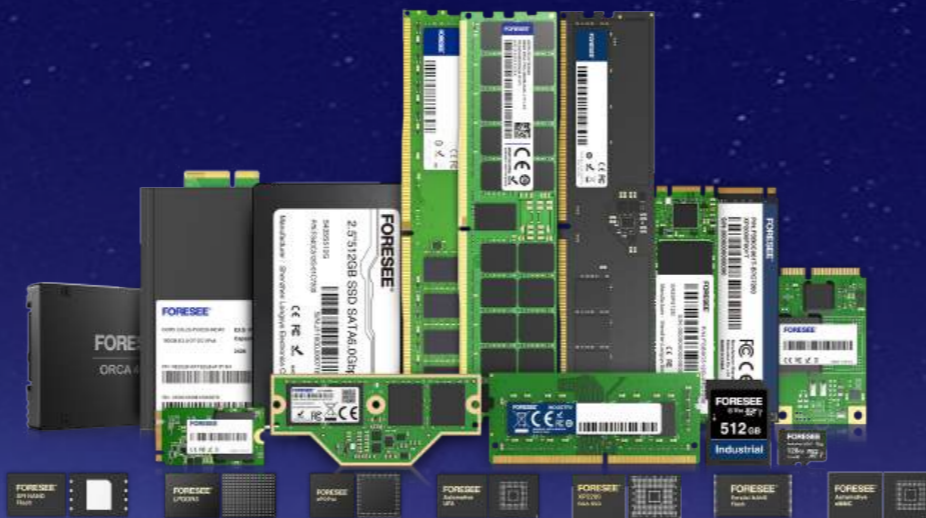
- A new form factor for memory that promises to bridge mobile DRAM to PC applications.
- **Capacity:** 16GB / 32GB / 64GB
- **Specification:** LPDDR5 / LPDDR5x
- **Data rate:** 7500Mbps
- **Bit width:** 128bit

BRAND INTRODUCTION

The industry storage brand FORESEE was founded in 2011. Powered by technology, focused on customers, and driven by innovation, FORESEE has been engaged in the memory and storage industry for many years. It owns four product lines: embedded storage, mobile memory, solid-state drive, and memory module, offering memory and storage solutions for commercial, industrial, automotive and enterprise grade applications.

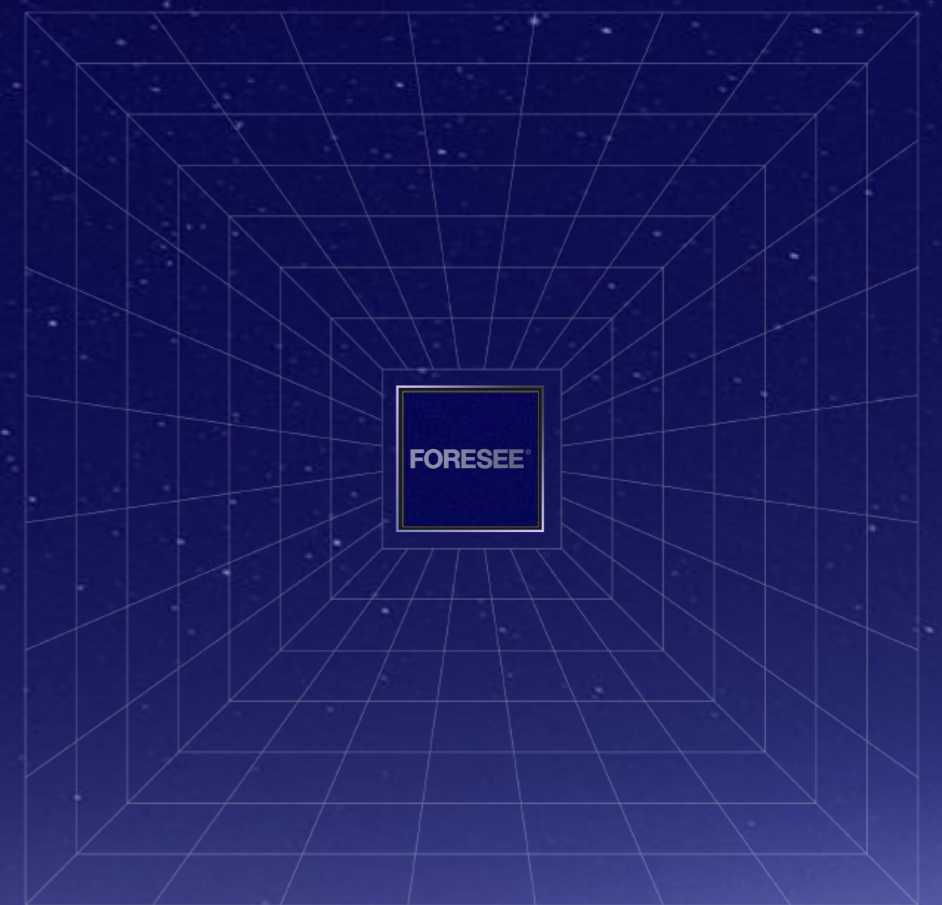
FORESEE has made continuous efforts in independent R&D as well as comprehensive quality control. It develops new products based on industry trends and market demands to optimize performance, expand storage capacity, reduce power consumption, and improve overall quality. FORESEE also provides professional and prompt technical support and market services. With the capability to deliver industry-grade storage product solutions and extensive delivery experience, FORESEE serves customers with high-quality, high-performance, and innovative storage products and solutions, establishing long-term, stable, and deep cooperation relationships with multiple high-end customers across various industries.

As a brand with industry-oriented values and a strong sense of responsibility, FORESEE will continue to strengthen its competitiveness edge in the storage industry and empower storage development and innovation across the various industries with cutting-edge technology, excellent quality and superior services.



FORESEE®

More than Foresee



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 Website: www.longsys.com

Facebook: FORESEE-Industry Storage Brand
 Twitter: FORESEE(Industry Storage Brand)
 LinkedIn: FORESEE-Industry Storage Brand

01 EMBEDDED STORAGE

Automotive UFS



- It is AEC-Q100 qualified. The product meets the automotive grade operating environment requirements.
- Capacity:** 64GB / 128GB / 256GB
- Protocol:** UFS 2.1 / UFS 3.1
- Operating Voltage:** 1.8V / 3.3V
- Operating Temperature:** -40°C~105°C

Industrial/Industrial Wide-temperature/ Automotive eMMC



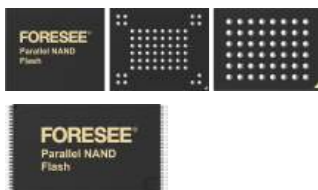
- The automotive eMMC is AEC-Q100 qualified. The high reliability and long service life ensure working around the clock for extended periods.
- Capacity:** 4GB / 8GB / 16GB / 32GB / 64GB / 128GB
- Operating Voltage:** 1.8V / 3.3V
- Protocol:** eMMC 5.1
- Operating Temperature:** -25°C~85°C / -40°C~85°C / -40°C~105°C

SPI NAND Flash



- Took the lead in releasing 512Mb SPI NAND Flash in mainland China; 2Gb products adopt 28nm process.
- Capacity:** 512Mb / 1Gb / 2Gb / 4Gb
- Operating Voltage:** 1.8V / 3.3V
- Operating Temperature:** -40°C~85°C / -40°C~105°C (Grade2)
- Size:** 8*6mm / 6*5mm

Parallel NAND Flash



- Comes equipped with internal error correcting code (ECC), comply with JEDEC standards.
- Package:** TSOP 48 / TFBGA 48 / TFBGA 63
- Capacity:** 1Gb / 4Gb / 8Gb
- Operating Voltage:** 1.7~1.95V / 2.7~3.6V
- Operating Temperature:** -40°C~85°C

DDR3L



- Be featured with a 25nm process, comply with JEDEC standards.
- Capacity:** 2Gb / 4Gb
- Rate:** 1866Mbps / 2133Mbps
- Operating Voltage:** 1.35V / 1.5V
- Operating Temperature:** 0°C~95°C / -40°C~95°C

eMMC



- Featuring high performance, low power consumption, compatibility, and stability.
- Capacity:** 4GB / 8GB / 16GB / 32GB / 64GB / 128GB / 256GB / 512GB
- Protocol:** eMMC 5.1
- Operating Temperature:** -25°C~85°C
- NAND Flash:** QLC / MLC / TLC

LPDDR



- RAM products that are widely used for portable devices to improve performance.
- Type:** LPDDR4 / LPDDR4x / LPDDR5
- Capacity:** 16Gb / 24Gb / 32Gb / 48Gb / 64Gb
- Rate:** 3733Mbps / 4266Mbps / 6400Mbps
- Operating Temperature:** -25°C~85°C

UFS



- Featuring large capacity, high performance, and lower power consumption, UFS products ensure the longest battery life possible for users' smartphones.
- Capacity:** 64GB / 128GB / 256GB / 512GB
- UFS Protocol and Interface:** UFS 2.2
- Package:** FBGA153
- Operating Temperature:** -25°C~85°C

ePOP



- Compound products that combine eMMC and LPDDR to save space on PCBs.
- Type:** ePOP3 / ePOP4x
- Protocol:** eMMC 5.1+LPDDR3 / eMMC 5.1+LPDDR4x
- Capacity:** 8Gb+8Gb / 32Gb+8Gb / 64Gb+8Gb / 32Gb+16Gb / 64Gb+16Gb
- Number of Balls:** 136ball / 144ball
- Operating Temperature:** -25°C~85°C

NAND based MCP



- SLC NAND Flash and LPDDR4x are packaged in a single package to simplify wiring design and save space.
- Capacity:** 4Gb+6Gb / 4Gb+8Gb / 8Gb+6Gb / 8Gb+8Gb
- Package:** WFBGA 149
- Size:** 8*9.5*0.8 mm
- Page Size:** 4K Page
- Operating Temperature:** -40°C~85°C
- Voltage:** NAND: 1.7~1.95V / LPDDR4x: 1.06V~1.17V

* Data is sourced from internal testing of Longsys. The actual performance may vary between different devices.

02 SOLID-STATE DRIVE

ORCA 4836 Series Enterprise NVMe SSD



- Equipped with the latest enterprise-grade 128-layer TLC NAND Flash. Provides high-performance, low-latency, tunable power consumption, and highly reliable storage solutions for enterprise-level users.
- Type:** 2.5" U.2
- Interface:** PCIe Gen4*4
- Capacity:** 1.6TB / 1.92TB / 3.2TB / 3.84TB / 6.4TB / 7.68TB
- *Sequential Read/Write Speed:** Up to 6800MB/s / 4600MB/s
- *Random Read/Write Speed:** Up to 1000K / 380K

UNCIA 3836 Series Enterprise SATA SSD



- Equipped with enterprise-class SATA main controller and the latest enterprise-grade 128-layer TLC NAND Flash.
- Type:** 2.5inch / M.2 2280
- Capacity:** 480GB / 960GB / 1.92TB / 3.84TB
- Interface:** SATA
- *Sequential Read/Write Speed:** Up to 560MB/s / 520MB/s
- *Random Read/Write Speed (IOPS):** Up to 95K / 50K

XP2200 PCIe SSD



- FORESEE's high-capacity and high-performance Gen4 SSD for PC devices such as gaming laptops and productivity devices.
- Type:** BGA
- Interface:** PCIe Gen4*2
- Capacity:** 128GB / 256GB / 512GB / 1TB
- *Sequential Read/Write Speed:** Up to 3500MB/s / 3450MB/s
- *Random Read/Write Speed:** Up to 260K / 220K

XP2300 PCIe SSD



- FORESEE's high-capacity and high-performance Gen4 SSD products are designed for PC devices such as gaming laptops and productivity devices.
- Capacity:** 256GB / 512GB / 1TB / 2TB / 4TB
- Interface:** PCIe Gen4*4
- DRAM:** DRAM-less
- *Sequential Read/Write Speed:** Up to 7400MB/s / 6400MB/s
- *Random Read/Write Speed (IOPS):** Up to 1000K / 1050K

Industrial SSD



- On-board temperature sensor for temperature-controlled FM function.
- Type:** M.2 2242 / M.2 2280 / mSATA / 2.5inch
- Capacity:** 8GB / 16GB / 32GB / 64GB / 128GB / 256GB / 512GB / 1TB
- NAND Flash:** MLC / TLC / pSLC
- DRAM:** DRAM-less
- Interface:** SATA III
- Operating Temperature:** -40°C~85°C / -25°C~85°C
- *Mean Time Between Failures:** 3,000,000 hours