innodisk

DATA INTELLIGENCE

INNODISK DRAM AT-A-GLANCE

THE INNODISK ADVANTAGE

Customer Design Options

Innodisk offers hardware customization services to ensure successful application needs.

Rugged Clips

Crafted from robust PANLITE® PC material, it clamps onto both sides of the DRAM slot, enhancing module stability and high-impact strength.

Heat Spreader

DRAM module add-on that helps to passively disperse heat by cooling the module by 4 to 5 percent.

Conformal Coating

Conformal coating is the chemical material layered over the components to protect against moisture, contaminants, dust, and acid or alkaline materials. The coating thickness ranges between 0.03 mm and 0.13 mm and meets electronic components IPC-A-610 standards.

Wide / Ultra Temperature

Innodisk Wide / Ultra Temperature DRAM modules are built for extreme conditions. The Wide Temp. series functions from -40°C to 95°C, while the Ultra Temp. series supports temperatures from -40°C up to 125°C. Both feature 30μ"/45u" gold fingers for high-quality performance.

Anti-sulfuration

Anti-sulfuration effectively covers the resistors with a sulfur resistant material, ensuring smooth operation in harsh environments. It is available on all DDR4 and DDR5 modules.

Side Fill

Side fill technology improves the device's reliability and extend product life during strong tremors or stringent thermal cycling. Resin is applied to 3 sides of the DRAM IC reinforcing the BGA and the PCB joint, so it can tolerate 1.5 times the amount of tension.

Warranty

Lifetime Warranty on DRAM products includes examination, repair and replacement parts.

DRAM SERIES

Innodisk's industrial-grade DRAM series, DDR5,DDR4, DDR3, DDR2, DDR1, and SDRAM, are high-quality memory modules designed and developed for embedded and server needs providing a complete turnkey solution. They come with a warranty and value adds that include conformal coating, wide temperature, rugged design, and side fill allowing for customized design options.

Registered DIMM

Ideal for Server and AIOT

- Capacity: 2/4/8/16/32/64GB
- Generation: DDR3/DDR4/DDR5
- Speed: 1333/1600/1866/2133/2400/2666/2933/3200/4800/5600/6400 MT/s

Mini DIMM

Ideal for Server

- Capacity: 2/4/8/16/32GB
- Generation: DDR3/DDR4
- Speed: 1600/2133/2400/2666 MT/s
- Functionality: Registered, ECC

Very Low Profile Series

Ideal for Server, AIOT, and Industrial

- Capacity: 1/2/4/8/16GB/32GB
- Generation: DDR2/DDR3/DDR4/DDR5
- Speed: 1333/1600/2133/2400/2666/2933/3200/4800/5600 MT/s
- Form Factor: SODIMM, UDIMM, RDIMM
- Functionality: Registered, ECC, non-ECC

Mounting Rugged SODIMM

Ideal for Ruggedized

- Capacity: 4/8/16GB
- Generation: DDR4
- Speed: 2133/2400/2666 MT/s
- Customizable Mounting Holes
- Functionality: ECC, non-ECC

Wide Temperature Series

Ideal for Ruggedized, Industrial, and Server

- Capacity: 1/2/4/8/16GB/32GB
- Generation: DDR2/DDR3/DDR4/DDR5
- Speed: 533/667/800/1333/1600/2133/2400/2666/2933/3200/4800/5600 MT/s
- Temp Range(Tc): -40°C~95°C
- Functionality: Registered, ECC, non-ECC

Ultra Temperature Series

Ideal for AIOT and Industrial

- Capacity: 8/16/32GB
- Generation: DDR4/DDR5
- Speed: 2133/2400/2666/2933/3200/4800 MT/s
- Temp Range(Tc): -40°C~105/125°C
- Functionality: ECC, non-ECC

ECC series

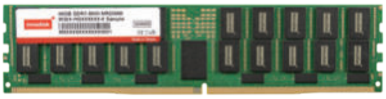
Ideal for AIOT and Industrial

- Capacity: 1/2/4/8/16/24/32/48GB
- Generation: DDR2/DDR3/DDR4/DDR5
- Speed: 667/800/1333/1600/2133/2400/2666/2933/3200/4800/5600/6400 MT/s
- Functionality: ECC

Non-ECC series

Ideal for AIOT and Industrial

- Capacity: 128/256/512MB, 1/2/4/8/16/24/32/48GB
- Generation: SDRAM/DDR1/DDR2/DDR3/DDR4/DDR5
- Speed: 100/133/333/400/533/667/800/1333/1600/2133/2400/2666/2933/3200/4800/5600/6400 MT/s
- Functionality: non-ECC



MRDIMM

Ideal for AI Server, HPC and Cloud Computing

- Density: up to 128GB
- DDR Generation: DDR5
- Speed: 8800MT/s
- DIMM Size: 133.35*31.25mm (same as RDIMM)
- Operating Temperature: 0°C to 95°C(Tc)

CXL Memory Module

Ideal for Data Center Computing with High Density

- Density: 64GB
- DDR Generation: DDR5
- Bandwidth: 31.5GB/s
- Form Factor: E3.S 2T
- CXL Compliance: CXL 1.1 & CXL 2.0
- CXL Protocol: Type 3 (CXL.mem & CXL.io)
- Interface: PCIe Gen5 x8
- Connector: EDSFF 2C (84 pin)
- Operating Temperature: 0˚C to 70˚C

LPDDR5X CAMM2

Ideal for AI Laptops, Portable Devices with Ruggedized Needs

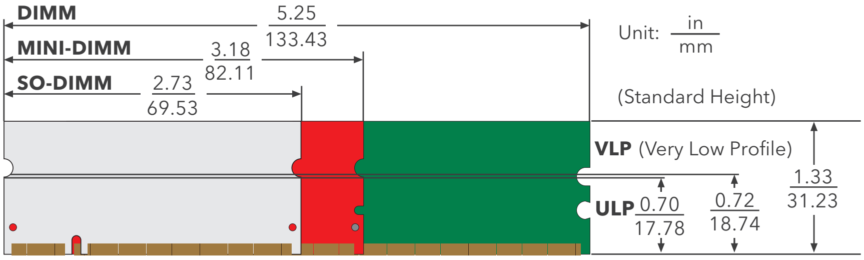
- Density: up to 64GB
- DDR Generation: LPDDR5X
- Speed: 8533MT/s
- Form Factor: CAMM2
- Operating Temperature: 0°C to 85°C(Tc)

DDR5 CAMM2

Ideal for Rugged Edge Computing Unit, AI Training, AI Inference System

- Density: up to 48GB
- DDR Generation: DDR5
- Speed: 6400MT/s
- Form Factor: CAMM2
- Operating Temperature: 0°C to 95°C(Tc)

JEDEC MODULE DIMENSIONS



DRAM VERTICAL MARKETS

Server	AIOT	Ruggedized	Industrial
Networking/5G	Manufacturing	Smart In-Vehicle	Healthcare
High Performance Computing	Kiosk/Retail	Outdoor Signage	Gaming
Cloud Computing	Robotics/AI	Aerospace	Surveillance
Edge Computing	Automation	Energy	Construction

ABOUT INNODISK

Innodisk is a service-driven provider of flash memory, DRAM modules and embedded peripherals for industrial and enterprise applications.

Founded in 2005 and headquartered in Taipei, Taiwan, Innodisk services clients globally with engineering experts and sales teams providing service to satisfied customers across the embedded, aerospace and defense, cloud storage markets and more. Demonstrating technical experience, a commitment to dependable products and unparalleled service, Innodisk develops products with excellent quality, remarkable performance and the highest reliability.

For more information about Innodisk, please visit www.innodisk.com.

ARCHITECT INTELLIGENCE

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