Product Line

DRAM Module		UDIMM		SODIMM				Mini DIMM		
Function	I/F	Standard	VLP	Standard	VLP	ULP	XR-DIMM	Standard	VLP	ULP
Unbuffered	SDRAM			0.1|0.2|0.5						
	DDR1	0.5|1		0.2|0.5|1						
	DDR2	1|2|4		0.5|1|2|4						
	DDR3	2|4|8	2|4|8	1|2|4|8	2|4|8		4|8			
	DDR4	2|4|8|16|32	4|8|16	2|4|8|16|32	4|8					
ECC	DDR2	1|2								
	DDR3	2|4|8	2|4|8	2|4|8		2|4				2|4
	DDR4	4|8|16|32	4|8|16	4|8|16|32	4|8		8|16		4|8|16	
Register	DDR3	2|4|8	4|8					8	2|4	
	DDR4	4|8|16|32	4|8|16|32						4|8	
		Red Fonts represents for *Wide Temperature* is included.								

Product Overview - Added Values

▲: Optional

			Wide Temperature	Free Anti-sulfuration	30µ" Gold Finger	Heat Spreader	Mounting Holes	Connector	iRAM	iSMART / iCAP	Conformal Coating	Side Fill
Embedded	DDR1	UDIMM				▲				▲	▲	▲
		SODIMM				▲				▲	▲	▲
	DDR2	UDIMM				▲				▲	▲	▲
		UDIMM VLP				▲				▲	▲	▲
		SODIMM	●			▲				▲	▲	▲
	DDR3	UDIMM	●			▲				▲	▲	▲
		UDIMM VLP				▲				▲	▲	▲
		SODIMM	●			▲				▲	▲	▲
		SODIMM VLP				▲				▲	▲	▲
	DDR4	UDIMM	●	●		▲				▲	▲	▲
		UDIMM VLP	●	●		▲				▲	▲	▲
		SODIMM	●	●		▲				▲	▲	▲
		SODIMM VLP		●		▲				▲	▲	▲
Server	DDR2	ECC UDIMM			●	▲			●	▲	▲	▲
	DDR3	ECC UDIMM	●		●	▲			●	▲	▲	▲
		ECC UDIMM VLP			●	▲			●	▲	▲	▲
		ECC SODIMM	●		●	▲			●	▲	▲	▲
		ECC SODIMM VLP			●	▲			●	▲	▲	▲
		ECC SODIMM ULP			●				●	▲	▲	▲
		RDIMM			●				●	▲	▲	▲
		RDIMM VLP			●				●	▲	▲	▲
		Mini RDIMM			●				●	▲	▲	▲
		Mini RDIMM VLP			●				●	▲	▲	▲
		Mini ECC ULP			●				●	▲	▲	▲
	DDR4	ECC UDIMM	●	●	●	▲			●	▲	▲	▲
		ECC UDIMM VLP		●	●	▲			●	▲	▲	▲
		ECC SODIMM	●	●	●	▲			●	▲	▲	▲
		ECC SODIMM VLP		●	●	▲			●	▲	▲	▲
		RDIMM	●	●	●				●	▲	▲	▲
		RDIMM VLP	●	●	●				●	▲	▲	▲
		Mini ECC VLP		●	●				●	▲	▲	▲
		Mini RDIMM VLP		●	●				●	▲	▲	▲
Customization	DDR3	XR-DIMM	▲			▲	●	●		▲		▲
		ECC XR-DIMM	▲			▲	●	●	●	▲		▲
	DDR4	ECC XR-DIMM	▲	●		▲	●	●	●	▲		▲
		Rugged SODIMM		●		▲	●			▲		▲
		ECC Rugged SODIMM		●	●	▲	●		●	▲		▲

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Product Overview - Applications

			Gaming	Medical	Retail	Automation	Surveillance	Networking	In-vehicle	Digital Signage	Mission Critical
Embedded	DDR1	UDIMM									
		SODIMM	●			●	●	●	●	●	
	DDR2	UDIMM		●	●	●		●	●		
		UDIMM VLP		●			●				
		SODIMM	●		●	●	●		●	●	
	DDR3	UDIMM	●	●	●	●		●	●	●	
		UDIMM VLP					●				
		SODIMM	●	●	●	●	●	●	●	●	
		SODIMM VLP					●	●			
	DDR4	UDIMM	●	●	●	●	●	●	●		●
		UDIMM VLP		●			●	●			
		SODIMM	●	●	●	●	●	●	●	●	●
		SODIMM VLP		●			●				●
Server	DDR2	ECC UDIMM									
	DDR3	ECC UDIMM		●			●	●			
		ECC UDIMM VLP					●				
		ECC SODIMM		●			●	●	●		
		ECC SODIMM ULP					●				
		RDIMM		●				●			●
		RDIMM VLP					●	●			●
		Mini RDIMM		●							
		Mini RDIMM VLP					●				
		Mini ECC ULP					●				
	DDR4	ECC UDIMM		●			●	●			
		ECC UDIMM VLP		●			●	●			
		ECC SODIMM		●				●	●		
		ECC SODIMM VLP		●			●		●		
		RDIMM		●		●		●			
		RDIMM VLP					●	●			
		Mini ECC VLP					●				
		Mini RDIMM VLP					●				
Wide Temperature	DDR2	SODIMM	●			●			●	●	
	DDR3	UDIMM		●					●	●	
		ECC UDIMM		●			●				
		SODIMM	●	●		●		●	●	●	●
		ECC SODIMM	●	●			●				●
	DDR4	UDIMM		●					●	●	
		UDIMM VLP					●				
		ECC UDIMM		●			●				
		SODIMM	●	●		●		●	●	●	●
		ECC SODIMM	●	●			●				●
		RDIMM		●			●				
		RDIMM VLP					●		●		
Customization	DDR3	XR-DIMM							●		●
		ECC XR-DIMM							●		●
	DDR4	ECC XR-DIMM							●		●
		Rugged SODIMM							●		●

IC Grade

IC Hierarchy

Original IC	**Original IC (Innodisk)** - Fully tested by major IC suppliers
eTT	**Effectively Tested DRAM** - Effectively tested but test patterns can vary by suppliers - Logo unmarked or only marked with partial IC part number
uTT	**Untested DRAM** - Untested - Logo unmarked
Low Grade	**Low Grade** - DRAM IC with unknown quality confirmed as not having full data sheet parts

Distinguishing Original from Lower-grade IC

Original IC

Manufacturer logo

IC P/N

Manufacturer code

SEC 907
K4A8G08
5WB BCRC
EDKE790K

Lower-grade IC

1. No manufacturer logo
2. Incomplete IC P/N
3. Incomplete manufacturer code

SEC 07
K4A G08
5WB BCRC
EDKE790K
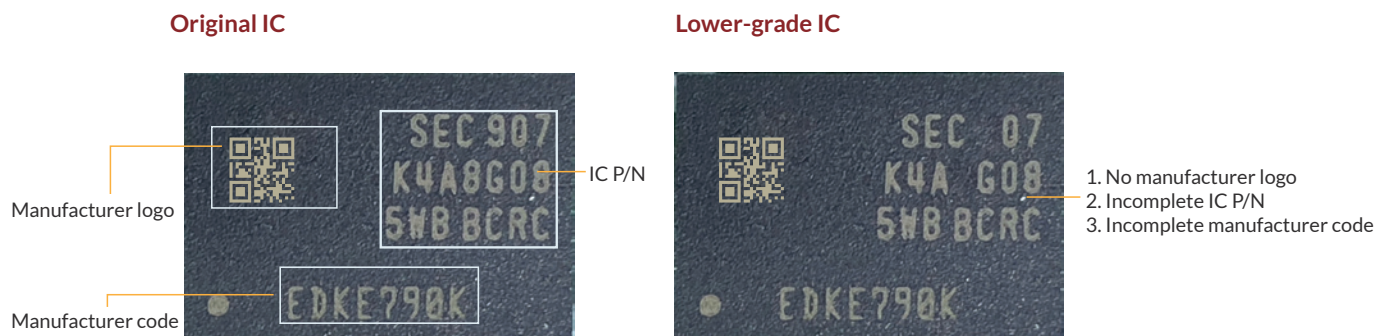
Why do we only use "Original IC?"

1. Top Quality

Since Innodisk primarily operates in industrial markets where applications face significant environmental challenges, Innodisk products are required to be long-lasting and meet stringent quality requirements—which in turn necessitates the highest-quality components, and IC is no exception.

While the higher quality of original IC is a primary consideration, Innodisk also uses original IC for the international expertise and experience provided by the IC manufacturer. Together with the IC manufacturer, Innodisk can offer the most thorough guarantee, ensuring that customers are equipped to face any challenges in their way.

Further, only high-quality original ICs satisfy the strict requirements posed by applications in the growing 5G and AIoT markets. With heavy workloads and a need for high-performance components, such applications in the embedded and industrial markets only live up to their full potential with original IC.

2. Original Manufacturer Report

Any device operating under long periods of time will be susceptible to breakdowns and damage. The original manufacturer can not only help recycle faulty products and repair damaged ICs, but also provides a complete repair report. This will allow the customer to better understand the reason behind the malfunction and take the necessary steps to avoid future occurrences. However, the original manufacturer will not acknowledge lower-grade ICs (as these are third-party products) and will neither provide any repair reports.

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Embedded

Embedded UDIMM

UDIMM modules are DRAM modules meant to be used as standard products for general embedded applications. These modules are compliant with JEDEC standards and available in DDR1, DDR2, DDR3, DDR3L, and DDR4.

Series	Standard Solution	
Module Type	DDR4 UDIMM	DDR3 UDIMM
Data Rate	2133 MT/s, 2400 MT/s, 2666 MT/s, 2933 MT/s, 3200 MT/s (new)	800 MT/s, 1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s
Capacity	2GB/4GB/8GB/16GB/32GB* (new)	1GB/2GB/4GB/8GB
Function	Non-ECC Unbuffered Memory	
Pin Number	288pin	240pin
Width	64Bits	64Bits
Voltage	1.2V	1.5V/1.35V
PCB Height	1.23 Inches	1.18 Inches
Operating Temperature	0 ~ 85°C	0 ~ 85°C
Anti-Sulfuration	√ (Included for Free)	—
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader	

32GB*: The schedule for the 32GB solution by 2Gbx8 IC is dependent on supplier status

Series	Standard Solution	
Module Type	DDR2 UDIMM	DDR UDIMM
Data Rate	533 MT/s, 667 MT/s, 800 MT/s	333 MT/s, 400 MT/s
Capacity	512MB/1GB/2GB/4GB	256MB/512MB/1GB
Function	Non-ECC Unbuffered Memory	
Pin Number	240pin	184pin
Width	64Bits	64Bits
Voltage	1.8V	2.6V
PCB Height	1.18 Inches	1.16 Inches
Operating Temperature	0 ~ 85°C	0 ~ 70°C
Anti-Sulfuration	—	—
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader	

Embedded SODIMM

Small-outline DIMMs (SODIMM) modules are general DRAM modules meant to be used as standard products for embedded applications with limited space. These modules are compliant with JEDEC standards and help in eliminating the need for changing designs due to limited space.

Series	Standard Solution		
Module Type	DDR4 SODIMM	DDR3 SODIMM	DDR2 SODIMM
Data Rate	2133 MT/s, 2400 MT/s, 2666 MT/s, 2933 MT/s, 3200 MT/s (new)	800 MT/s, 1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s	533 MT/s, 667 MT/s, 800 MT/s
Capacity	2GB/4GB/8GB/16GB/32GB* (new)	1GB/2GB/4GB/8GB	512MB/1GB/2GB/4GB
Function	Non-ECC Unbuffered Memory		
Pin Number	260pin	204pin	200pin
Width	64Bits	64Bits	64Bits
Voltage	1.2V	1.5V/1.35V	1.8V
PCB Height	1.18 Inches	1.18 Inches	1.18 Inches
Operating Temperature	0 ~ 85℃	0 ~ 85℃	0 ~ 85℃
Anti-Sulfuration	√ (Included for Free)	—	—
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader		

32GB*: The schedule for the 32GB solution by 2Gbx8 IC is dependent on supplier status

Series	Standard Solution	
Module Type	DDR SODIMM	SDRAM SODIMM
Data Rate	333 MT/s, 400 MT/s	100 MT/s, 133 MT/s
Capacity	256MB/512MB/1GB	128MB/256MB/512MB
Function	Non-ECC Unbuffered Memory	
Pin Number	200pin	144pin
Width	64Bits	64Bits
Voltage	2.6V	3.3V
PCB Height	1.25 Inches	1.25 Inches
Operating Temperature	0 ~ 70℃	0 ~ 70℃
Anti-Sulfuration	—	—
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader	

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Server

Registered DIMM

Registered DIMM (RDIMM) modules are designed to ensure data integrity at both the device and system level of the server. In addition, all Innodisk RDIMM modules are tested using our exclusive iRAM testing software to ensure stable performance.

Series	Server Solution	
Module Type	DDR4 RDIMM	DDR3 RDIMM
Data Rate	2133 MT/s, 2400 MT/s, 2666 MT/s	1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s
Capacity	4GB/8GB/16GB/32GB**	2GB/4GB/8GB
Function	Registered Memory with ECC	
Pin Number	288pin	240pin
Width	72Bits	72Bits
Voltage	1.2V	1.5V/1.35V
PCB Height	1.23 Inches	1.18 Inches
Operating Temperature	0 ~ 85℃	0 ~ 85℃
Golden finger 30μ"	√ (Included for Free)	√ (Included for Free)
Anti-Sulfuration	√ (Included for Free) (**With exception of the 32GB module)	—

Wide Temperature

Wide Temperature Unbuffered DIMM

Designed for industrial systems, Innodisk's Wide Temperature DRAM modules are the best choice for applications operating in harsh conditions. Our wide temperature modules use industrial-grade SDRAM components with 30μ" gold fingers to ensure that the memory maintains its high-quality signal, even at temperatures as low as -40℃ or as high as 85℃.

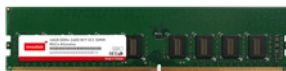| Series	Wide Temperature Solution		
Module Type	DDR4 WT UDIMM	DDR4 WT UDIMM VLP	DDR4 WT SODIMM
Data Rate	2133 MT/s, 2400 MT/s, 2666 MT/s	2133 MT/s, 2400 MT/s, 2666MT/s	2133 MT/s, 2400 MT/s, 2666 MT/s
Capacity	4GB/8GB/16GB/32GB* (new)	8GB/16GB	4GB/8GB/16GB/32GB* (new)
Function	Non-ECC Unbuffered Memory		
Pin Number	288pin	288pin	260pin
Width	64Bits	64Bits	64Bits
Voltage	1.2V	1.2V	1.2V
PCB Height	1.23 Inches	0.738 Inches	1.18 Inches
Operating Temperature	-40 ~ 85℃	-40 ~ 85℃	-40 ~ 85℃
Golden finger 30μ"	√	√	√
Anti-Sulfuration	√ (Included for Free)	√ (Included for Free)	√ (Included for Free)
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader		

32GB*: The schedule for the 32GB solution by 2Gbx8 IC is dependent on supplier status

Series	Wide Temperature Solution		
Module Type	DDR3 WT UDIMM	DDR3 WT SODIMM	DDR2 WT SODIMM
Data Rate	1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s	1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s	533 MT/s, 667 MT/s, 800 MT/s
Capacity	2GB/4GB/8GB	2GB/4GB/8GB	1GB/2GB
Function	Non-ECC Unbuffered Memory		
Pin Number	240pin	204pin	200pin
Width	64Bits	64Bits	64Bits
Voltage	1.5V/1.35V	1.5V/1.35V	1.8V
PCB Height	1.18 Inches	1.18 Inches	1.18 Inches
Operating Temperature	-40 ~ 85℃	-40 ~ 85℃	-40 ~ 85℃
Golden finger 30μ"	√	√	√
Anti-Sulfuration	—	—	—
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader		

Wide Temperature Unbuffered DIMM with ECC

Wide Temperature ECC DIMMs are designed for both industrial systems and servers, Innodisk's Wide Temperature DRAM modules are best suited for applications that must work in extreme temperatures. With the ECC function, the Wide Temperature DIMMs also ensure that data is corrected when corrupted data bits are found during data retrieval.

Series	Wide Temperature Solution			
Module Type	DDR4 WT ECC UDIMM	DDR4 WT ECC SODIMM	DDR3 WT ECC UDIMM	DDR3 WT ECC SODIMM
Data Rate	2133 MT/s, 2400 MT/s, 2666 MT/s	2133 MT/s, 2400 MT/s, 2666 MT/s	1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s	1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s
Capacity	4GB/8GB/16GB/32GB* (new)	4GB/8GB/16GB/32GB* (new)	2GB/4GB/8GB	2GB/4GB/8GB
Function	ECC Unbuffered Memory			
Pin Number	288pin	260pin	240pin	204pin
Width	72Bits	72Bits	72Bits	72Bits
Voltage	1.2V	1.2V	1.5V/1.35V	1.5V/1.35V
PCB Height	1.23 Inches	1.18 Inches	1.18 Inches	1.18 Inches
Operating Temperature	-40 ~ 85℃	-40 ~ 85℃	-40 ~ 85℃	-40 ~ 85℃
Golden finger 30μ"	√	√	√	√
Anti-Sulfuration	√ (Included for Free)	√ (Included for Free)	—	—
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader			

32GB*: The schedule for the 32GB solution by 2Gbx8 IC is dependent on supplier status

Wide Temperature Registered DIMM

Designed for industrial systems, Innodisk's Wide Temperature DRAM modules are best suited for applications that must work in extreme temperatures. These modules use industrial-grade SDRAM components with 30μ" gold fingers to ensure that the memory maintains its high-quality signal, even at temperatures as low as -40°C or as high as 85°C.

Series	Wide Temperature Solution	
Module Type	DDR4 WT RDIMM	DDR4 WT RDIMM VLP
Data Rate	2133 MT/s, 2400 MT/s, 2666 MT/s	2133 MT/s, 2400 MT/s, 2666 MT/s
Capacity	4GB/8GB/16GB/32GB(new)	4GB*/8GB/16GB 4GB* is only for 2133MT/s and 2400MT/s
Function	Registered Memory with ECC	
Pin Number	288pin	288pin
Width	72Bits	72Bits
Voltage	1.2V	1.2V
PCB Height	1.23 Inches	0.738 Inches
Operating Temperature	-40 ~ 85°C	-40 ~ 85°C
Golden finger 30μ"	√	√
Anti-Sulfuration	√ (Included for Free)	√ (Included for Free)
Value-Added Service (Optional)	Conformal Coating, Side Fill	

32GB*: The schedule for the 32GB solution by 2Gbx8 IC is dependent on supplier status

ECC DIMM

ECC modules are designed to detect and correct single-bit errors that occur during data storage and transmission. ECC modules use Hamming Code or triple modular redundancy for error detection and correction, and manage error corrections on their own without requesting that the data source resend original data.

Series	ECC Unbuffered DIMM Solution	
Module Type	DDR4 ECC UDIMM	DDR4 ECC SODIMM
Data Rate	2133 MT/s, 2400 MT/s, 2666 MT/s	2133 MT/s, 2400 MT/s, 2666 MT/s
Capacity	4GB/8GB/16GB/32GB*(new)	4GB/8GB/16GB/32GB*(new)
Function	ECC Unbuffered Memory	
Pin Number	288pin	260pin
Width	72Bits	72Bits
Voltage	1.2V	1.2V
PCB Height	1.23 Inches	1.18 Inches
Operating Temperature	0 ~ 85°C	0 ~ 85°C
Golden finger 30μ"	√	√
Anti-Sulfuration	√ (Included for Free)	√ (Included for Free)
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader	

32GB*: The schedule for the 32GB solution by 2Gbx8 IC is dependent on supplier status

Series	ECC Unbuffered DIMM Solution	
Module Type	DDR3 ECC UDIMM	DDR3 ECC SODIMM
Data Rate	1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s	1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s
Capacity	2GB/4GB/8GB	2GB/4GB/8GB
Function	ECC Unbuffered Memory	
Pin Number	240pin	204pin
Width	72Bits	72Bits
Voltage	1.5V/1.35V	1.5V/1.35V
PCB Height	1.18 Inches	1.18 Inches
Operating Temperature	0 ~ 85°C	0 ~ 85°C
Golden finger 30μ"	√	√
Anti-Sulfuration	—	—
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader	

Series	ECC Unbuffered Memory Solution		
Module Type	DDR3 ECC UDIMM VLP	DDR3 ECC SODIMM ULP	DDR2 ECC UDIMM
Data Rate	1333 MT/s, 1600 MT/s, 1866 MT/s	1333 MT/s, 1600 MT/s	667 MT/s, 800 MT/s
Capacity	2GB/4GB/8GB	2GB/4GB	1GB/2GB
Function	ECC Unbuffered Memory		
Pin Number	240pin	204pin	240pin
Width	72Bits	72Bits	72Bits
Voltage	1.5V/1.35V	1.5V/1.35V	1.8V
PCB Height	0.738 Inches	0.709 Inches	1.18 Inches
Operating Temperature	0 ~ 85℃	0 ~ 85℃	0 ~ 85℃
Golden finger 30µ"	√	√	√
Anti-Sulfuration	—	—	—
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader		

Very Low-Profile (VLP) DIMM and Ultra Low-Profile (ULP) DIMM

Very Low-Profile (VLP) DIMM modules and **Ultra Low-Profile (ULP) DIMM** modules are specialized for use in 1U systems, such as blade server data centers, where the system height is lower than 1.18 inches (SODIMM PCB height). The design of these modules improves air flow inside compact systems and reduces the thermal impact.

Series	Very Low-Profile (VLP) Solution		
Module Type	DDR4 UDIMM VLP	DDR4 ECC UDIMM VLP	DDR4 SODIMM VLP
Data Rate	2133 MT/s, 2400 MT/s, 2666 MT/s	2133 MT/s, 2400 MT/s, 2666 MT/s	2133 MT/s, 2400 MT/s, 2666 MT/s
Capacity	4GB/8GB/16GB	4GB/8GB/16GB	4GB/8GB
Function	Non-ECC Unbuffered Memory	ECC Unbuffered Memory	Non-ECC Unbuffered Memory
Pin Number	288pin	288pin	260pin
Width	64Bits	72Bits	64Bits
Voltage	1.2V	1.2V	1.2V
PCB Height	0.738 Inches	0.738 Inches	0.7 Inches
Operating Temperature	0 ~ 85℃	0 ~ 85℃	0 ~ 85℃
Golden finger 30µ"	—	√	—
Anti-Sulfuration	√ (Included for Free)	√ (Included for Free)	√ (Included for Free)
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader		

Series	Very Low-Profile (VLP) Solution	
Module Type	DDR4 ECC SODIMM VLP	DDR4 RDIMM VLP
Data Rate	2133 MT/s, 2400 MT/s, 2666 MT/s	2133 MT/s, 2400 MT/s, 2666 MT/s
Capacity	4GB/8GB	4GB/8GB/16GB/32GB* (new)
Function	ECC Unbuffered Memory	Registered Memory with ECC
Pin Number	260pin	288pin
Width	72Bits	72Bits
Voltage	1.2V	1.2V
PCB Height	0.7 Inches	0.738 Inches
Operating Temperature	0 ~ 85℃	0 ~ 85℃
Golden finger 30µ"	√	√
Anti-Sulfuration	√ (Included for Free)	√ (Included for Free)
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader	

32GB*: The schedule for the 32GB solution by 2Gbx8 IC is dependent on supplier status

Series	Very Low-Profile (VLP) Solution		
Module Type	DDR3 UDIMM VLP	DDR3 ECC UDIMM VLP	DDR3 SODIMM VLP
Data Rate	1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s	1333 MT/s, 1600 MT/s, 1866 MT/s	1333 MT/s, 1600 MT/s, 1866 MT/s
Capacity	2GB/4GB/8GB	2GB/4GB/8GB	2GB/4GB/ 8GB
Function	Non-ECC Unbuffered Memory	ECC Unbuffered Memory	Non-ECC Unbuffered Memory
Pin Number	240pin	240pin	204pin
Width	64Bits	72Bits	64Bits
Voltage	1.5V/1.35V	1.5V/1.35V	1.5V/1.35V
PCB Height	0.738 Inches	0.738 Inches	1.0 Inches
Operating Temperature	0 ~ 85°C	0 ~ 85°C	0 ~ 85°C
Golden finger 30μ"	—	√	—
Anti-Sulfuration	—	—	—
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader		

Series	Ultra Low-Profile (ULP) Solution	Very Low-Profile (VLP) Solution
Module Type	DDR3 ECC SODIMM ULP	DDR3 RDIMM VLP
Data Rate	1333 MT/s, 1600 MT/s	1333 MT/s, 1600 MT/s, 1866 MT/s
Capacity	2GB/4GB	4GB/8GB
Function	ECC Unbuffered Memory	Registered Memory with ECC
Pin Number	204pin	240pin
Width	72Bits	72Bits
Voltage	1.5V/1.35V	1.5V/1.35V
PCB Height	0.709 Inches	0.738 Inches
Operating Temperature	0 ~ 85°C	0 ~ 85°C
Golden finger 30μ"	√	√
Anti-Sulfuration	—	—
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader	

Mini DIMM

All Mini DIMMs offer high speed, high density, and high performance for telecommunication and cloud systems. The 0.72 inch ULP Mini DIMM modules are specifically designed for networking applications. They are compliant with JEDEC standards and are designed to improve airflow and thermal resistance. With the ECC function, the Mini DIMMs also ensure that data is corrected when corrupted data bits are found during data retrieval.

Series	Mini DIMM Solution	
Module Type	DDR4 Mini DIMM ECC VLP	DDR4 Mini RDIMM VLP
Data Rate	2133MT/s, 2400 MT/s	
Capacity	4GB/8GB/16GB	4GB/8GB
Function	ECC Unbuffered Memory	Registered Memory with ECC
Pin Number	288pin	
Width	72Bits	
Voltage	1.2V	1.2V
PCB Height	0.738 Inches	0.738 Inches
Operating Temperature	0 ~ 85°C	0 ~ 85°C
Golden finger 30μ"	√	√
Anti-Sulfuration	√ (Included for Free)	√ (Included for Free)
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader (only for Mini DIMM & VLP)	

Series	Mini DIMM Solution		
Module Type	DDR3 Mini DIMM ECC ULP	DDR3 Mini RDIMM	DDR3 Mini RDIMM VLP
Data Rate	1066 MT/s, 1333 MT/s, 1600 MT/s		
Capacity	2GB/4GB	8GB	2GB/4GB
Function	ECC Unbuffered Memory	Registered Memory with ECC	Registered Memory with ECC
Pin Number	244pin		
Width	72Bits		
Voltage	1.5V/1.35V	1.5V/1.35V	1.5V/1.35V
PCB Height	0.7 Inches	1.18 Inches	0.738 Inches
Operating Temperature	0 ~ 85°C	0 ~ 85°C	0 ~ 85°C
Golden finger 30μ"	√	√	√
Anti-Sulfuration	—	—	—
Value-Added Service (Optional)	Conformal Coating, Side Fill, Heat Spreader (only for Mini DIMM & VLP)		

Special / Customized

XR-DIMM

In order to meet the high standards of the aerospace and defense industries, our XR-DIMM comes equipped with several advantages which will satisfy your expectations for robust DRAM modules. We offer two densities of DDR4 XR-DIMM, 8GB & 16GB, both with an integrated error checking and correction function. With their 300-pin socket connectors, Innodisk's XR-DIMM modules exceed the Small Form Factor Special Interest Group's (SFF-SIG) pin number standard, ensuring an even firmer connection between the CPU and DRAM module. This customized design makes Innodisk's XR-DIMM modules highly resistant to shocks and vibrations, making them a great choice for reliable performance in the aerospace and defense industries.

Series	XR-DIMM Solutions			
Module Type	DDR4 XR-DIMM		DDR3 XR-DIMM	
Data Rate	2400 MT/s		1600MT/s, 1866 MT/s	
Capacity	8GB/16GB		4GB/8GB	
Function	ECC Unbuffered Memory	Non-ECC Unbuffered Memory	ECC Unbuffered Memory	Non-ECC Unbuffered Memory
Pin Number	300pin		300pin	
Width	72Bits	64Bits	72Bits	64Bits
Voltage	1.2V		1.5V/1.35V	
PCB Height	1.18 Inches		1.49 Inches	
Anti-sulfuration	√ (Included for Free)		—	
Mounting Hole	2		2	
Value-Added Service (Optional)	Side Fill			
Operating Temperature	Commercial 0 ~ 85°C		Wide Temperature -40 ~ 85°C	

Rugged SODIMM

Innodisk's rugged wide-temperature SODIMM modules are designed to continue operating at an optimal level even in extreme temperature conditions. With two mounting holes to ensure a shock and vibration-resistant connection to the motherboard, as well as error checking and correcting (ECC) functions, these SODIMM modules are the ideal choice for applications in extreme environments.

By using a standard SODIMM connector, these rugged wide-temperature DRAM modules can be used on regular motherboards without requiring any modifications to the board or its connectors. Moreover, with customizable PCB height, Innodisk's rugged wide-temperature SODIMM modules can guarantee a perfect fit in any application and environment.

Series	Rugged SODIMM Solutions	
Module Type	DDR4 Rugged SODIMM	
Data Rate	2133MT/s, 2400MT/s, 2666MT/s	
Capacity	8GB/16GB/32GB*(new)	
Function	Non-ECC/ECC	
Pin Number	260 pin	
Width	72Bits	
Voltage	1.2V	
PCB Height	1.338 Inches	
Anti-sulfuration	√ (Included for Free)	
Value-Added Service (Optional)	Side Fill, Heat Spreader	
Operating Temperature	Commercial 0 ~ 85°C	Wide Temperature -40 ~ 85°C

32GB*: The schedule for the 32GB solution by 2Gbx8 IC is dependent on supplier status

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