

## Embedded Solutions

# DRAM Modules DDR5



Transcend's DDR5 DRAM modules operate at a nominal voltage of only 1.1V, offering higher energy efficiency and exceptional clock speeds to cater to the demands of the embedded industry. Power management integrated circuits (PMIC) provides better signal integrity and more stable power. All components are of the highest quality, having been sourced directly from the world's first-tier supplier of DRAM chips and stringently tested for unparalleled compatibility, reliability, and performance.

## Features

- 1.1V low power supply
- Power management IC (PMIC), high energy efficiency
- On-die ECC
- Burst Length: 16, 32
- 16 bit pre-fetch
- Multi-Purpose Command (MPC)
- Decision Feedback Equalization (DFE)
- SPD Hub with Thermal Sensor
- 100% tested for stability, compatibility and performance
- Limited Lifetime Warranty

## Advanced Technologies



Anti-Sulfur  
Technology



30 µm  
Gold Finger

# DDR5 DIMMs



Module Type	DDR5 Long-DIMM	DDR5 SO-DIMM
Standard	JEDEC®	
Speed	6400/5600/4800MT/s	
Capacity	8GB~48GB	
Voltage	1.1V	
Pin Count	288 pin	262 pin
PCB Height	1.23 inches	1.18 inches
PCB Gold Finger Thickness	30μ" (ECC & Registered)	
Anti-Sulfuration	Default (ECC & Registered)	
Operating Temperature	Standard Temperature: 0°C ~ 95°C Extended Temperature: -20°C ~ 95°C Wide Temperature: -40°C ~ 95°C	

## Ordering Information

### DDR5-6400 Unbuffered DIMM

	Capacity	Component Composition	Rank x Org.	CUDIMM	CSODIMM
Standard Temp. (0°C~85°C)	16GB	(2Gx8)x8	1Rx8	TS2GLA64V4E3	TS2GSA64V4E3
	32GB	(2Gx8)x16	2Rx8	TS4GLA64V4E3	TS4GSA64V4E3

### DDR5-5600 Unbuffered DIMM

	Capacity	Component Composition	Rank x Org.	Long-DIMM	SO-DIMM	
Standard Temp. (0°C~95°C)	16GB	(2Gx8)x8	1Rx8	TS5600ALE-16G	TS5600ASE-16G	
		(2Gx8)x8	1Rx8	TS2GLA64V6E1	TS2GSA64V6E1	
	32GB	(2Gx8)x16	2Rx8	TS5600ALE-32G	TS5600ASE-32G	
		(2Gx8)x16	2Rx8	TS4GLA64V6E1	TS4GSA64V6E1	
48GB	(3Gx8)x16	2Rx8	TS6GLA64V6E3	TS6GSA64V6E3		
	Extended Temp. (-20°C~ 95°C)	8GB	(1Gx16)x4	1Rx16	TS1GLA64V6G	TS1GSA64V6G
		16GB	(2Gx8)x8	1Rx8	TS2GLA64V6E	TS2GSA64V6E
32GB		(2Gx8)x16	2Rx8	TS4GLA64V6E	TS4GSA64V6E	
Wide Temp. (-40°C ~ 95°C)	8GB	(1Gx16)x4	1Rx16	-	TS1GSA64V6G-I	
	16GB	(2Gx8)x8	1Rx8	-	TS2GSA64V6E-I	
	32GB	(2Gx8)x16	2Rx8	-	TS4GSA64V6E-I	
	48GB	(3Gx8)x16	2Rx8	-	TS6GSA64V6E3-I	

Product specifications are subject to change without notice. Pictures shown may differ from actual products. Due to the complexity and variety of industrial applications, Transcend cannot guarantee 100% compatibility with all platforms and under all scenarios. For special applications and environments, it is strongly suggested that you contact Transcend beforehand for clarification.

## DDR5-4800 Unbuffered DIMM

	Capacity	Component Composition	Rank x Org.	Long-DIMM	SO-DIMM
Standard Temp. (0°C~95°C)	8GB	(1Gx16)x4	1Rx16	TS1GLA64V8G	TS1GSA64V8G
	16GB	(2Gx8)x8	1Rx8	TS2GLA64V8E	TS2GSA64V8E
	32GB	(2Gx8)x16	2Rx8	TS4GLA64V8E	TS4GSA64V8E
Wide Temp. (-40°C ~ 95°C)	8GB	(1Gx16)x4	1Rx16	-	TS1GSA64V8G-I
	16GB	(2Gx8)x8	1Rx8	-	TS2GSA64V8E-I
	32GB	(2Gx8)x16	2Rx8	-	TS4GSA64V8E-I

## DDR5-5600 ECC DIMM

	Capacity	Component Composition	Rank x Org.	Long-DIMM	SO-DIMM
Extended Temp. (-20°C~ 95°C)	16GB	(2Gx8)x10	1Rx8	TS2GLA72V6E	TS2GSA72V6E
	32GB	(2Gx8)x20	2Rx8	TS4GLA72V6E	TS4GSA72V6E

## DDR5-4800 ECC DIMM

	Capacity	Component Composition	Rank x Org.	Long-DIMM	SO-DIMM
Standard Temp. (0°C~95°C)	16GB	(2Gx8)x10	1Rx8	TS2GLA72V8E	TS2GSA72V8E
	32GB	(2Gx8)x20	2Rx8	TS4GLA72V8E	TS4GSA72V8E
Wide Temp. (-40°C~95°C)	16GB	(2Gx8)x10	1Rx8	-	TS2GSA72V8E-I
	32GB	(2Gx8)x20	2Rx8	-	TS4GSA72V8E-I

## DDR5-6400 Registered DIMM

	Capacity	Component Composition	Rank x Org.	Long-DIMM
Standard Temp. (0°C~85°C)	16GB	(2Gx8)x10	1Rx8	TS2GAR80V4E3
	32GB	(2Gx8)x20	2Rx8	TS4GAR80V4E3

## DDR5-5600 Registered DIMM

	Capacity	Component Composition	Rank x Org.	Long-DIMM
Extended Temp. (-20°C~ 95°C)	16GB	(2Gx8)x10	1Rx8	TS2GAR80V6E
	32GB	(2Gx8)x20	2Rx8	TS4GAR80V6E

## DDR5-4800 Registered DIMM

	Capacity	Component Composition	Rank x Org.	Long-DIMM
Standard Temp. (0°C~95°C)	16GB	(2Gx8)x10	1Rx8	TS2GAR80V8E
	32GB	(2Gx8)x20	2Rx8	TS4GAR80V8E
Wide Temp. (-40°C~95°C)	32GB	(2Gx8)x20	2Rx8	TS4GAR80V8E-I