


DRAM Modules

# DDR5

Transcend's industrial DDR5 DRAM modules deliver speeds of up to 7,200 MT/s with energy-efficient 1.1V operation, integrated PMIC, on-die ECC, and advanced signal-integrity technologies. Available in multiple form factors and temperature grades, the lineup supports demanding industrial, embedded, workstation, and server applications. ECC DIMM and Registered DIMM models feature anti-sulfur technology and 30 µ-inch gold fingers for enhanced durability and long-term reliability.

## Features

- High-speed performance up to 7,200 MT/s
- Standard, extended, and wide-temperature options for industrial applications
- JEDEC-compliant 1.1V operation with an integrated Power Management IC (PMIC)
- On-die ECC for enhanced data integrity and system reliability
- ECC DIMM and Registered DIMM options for reliability-critical systems
- Anti-sulfur technology and 30 µ-inch gold fingers on ECC DIMM and Registered DIMM models
- Available in CUDIMM, CSODIMM, Long-DIMM, and SO-DIMM form factors
- 100% tested for stability, compatibility, and performance
- Limited lifetime warranty

## Advanced Technologies




Anti-Sulfur Technology




30µ" Gold Finger

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# DDR5

| | |
|---|---|
| **Module Type** | CUDIMM / CSODIMM / Long-DIMM / SO-DIMM |
| **Speed** | 7200 / 6400 / 5600 / 4800 MT/s |
| **Voltage** | 1.1V |
| **PCB Height** | Long-DIMM / CUDIMM: 1.23 inches<br>SO-DIMM / CSODIMM: 1.18 inches |
| **Capacity** | 8GB ~ 64GB |
| **Operating Temperature** | Standard Temp.: 0°C ~ 85°C / 0°C ~ 95°C<br>Extended Temp.: -20°C ~ 85°C / -20°C ~ 95°C<br>Wide Temp.: -40°C ~ 95°C |

### Ordering Information

## DDR5-7200 Unbuffered DIMM

| Capacity | Component Composition | Rank x Org. | CUDIMM | CSODIMM |
|---|---|---|---|---|
| **Standard Temp.** (0°C ~ 85°C) | | | | |
| 8GB | (1Gx16)x4 | 1Rx16 | - | TS1GSA64V2G |
| **Extended Temp.** (-20°C ~ 85°C) | | | | |
| 8GB | (1Gx16)x4 | 1Rx16 | TS1GLA64V2G | - |
| 16GB | (2Gx8)x8 | 1Rx8 | TS2GLA64V2E | TS2GSA64V2E |

## DDR5-7200 ECC DIMM

| Capacity | Component Composition | Rank x Org. | CUDIMM | CSODIMM |
|---|---|---|---|---|
| **Extended Temp.** (-20°C ~ 85°C) | | | | |
| 16GB | (2Gx8)x10 | 1Rx8 | TS2GLA72V2E | TS2GSA72V2E |

## DDR5-7200 Registered DIMM

| Capacity | Component Composition | Rank x Org. | Long-DIMM |
|---|---|---|---|
| **Extended Temp.** (-20°C ~ 85°C) | | | |
| 16GB | (2Gx8)x10 | 1Rx8 | TS2GAR80V2E |

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## DDR5-6400 Unbuffered DIMM

| Capacity | Component Composition | Rank x Org. | CUDIMM | CSODIMM |
|---|---|---|---|---|
| **Standard Temp.** (0°C ~ 85°C) | | | | |
| 8GB | (1Gx16)x4 | 1Rx16 | TS1GLA64V4G3 | TS1GSA64V4G3<br>TS1GSA64V4G6 |
| 16GB | (2Gx8)x8 | 1Rx8 | TS2GLA64V4E3<br>TS2GLA64V4E6 | TS2GSA64V4E3 |
| 32GB | (2Gx8)x16 | 2Rx8 | TS4GLA64V4E3<br>TS4GLA64V4E6 | TS4GSA64V4E3<br>TS4GSA64V4E6 |
| 32GB | (4Gx8)x8 | 1Rx8 | TS4GLA64V4K6 | TS4GSA64V4K6 |
| 64GB | (4Gx8)x16 | 2Rx8 | TS8GLA64V4K6 | TS8GSA64V4K6 |
| **Extended Temp.** (-20°C ~ 85°C) | | | | |
| 16GB | (2Gx8)x8 | 1Rx8 | - | TS2GSA64V4E6 |
| **Wide Temp.** (-40°C ~ 95°C) | | | | |
| 16GB | (2Gx8)x8 | 1Rx8 | - | TS2GSA64V4E3-I |

## DDR5-6400 ECC DIMM

| Capacity | Component Composition | Rank x Org. | CUDIMM | CSODIMM |
|---|---|---|---|---|
| **Standard Temp.** (0°C ~ 85°C) | | | | |
| 16GB | (2Gx8)x10 | 1Rx8 | TS2GLA72V4E3 | TS2GSA72V4E3 |
| 32GB | (2Gx8)x20 | 2Rx8 | TS4GLA72V4E3 | TS4GSA72V4E3 |

## DDR5-6400 Registered DIMM

| Capacity | Component Composition | Rank x Org. | Long-DIMM |
|---|---|---|---|
| **Standard Temp.** (0°C ~ 85°C) | | | |
| 32GB | (2Gx8)x20 | 2Rx8 | TS4GAR80V4E3 |
| **Extended Temp.** (-20°C ~ 95°C) | | | |
| 16GB | (2Gx8)x10 | 1Rx8 | TS2GAR80V4E3 |

## DDR5-5600 Unbuffered DIMM

| Capacity | Component Composition | Rank x Org. | Long-DIMM | SO-DIMM |
|---|---|---|---|---|
| **Standard Temp.** (0°C ~ 85°C) | | | | |
| 8GB | (1Gx16)x4 | 1Rx16 | TS1GLA64V6G6 | TS1GSA64V6G6 |
| 16GB | (2Gx8)x8 | 1Rx8 | TS2GLA64V6E6 | TS2GSA64V6E6 |
| 32GB | (2Gx8)x16 | 2Rx8 | TS4GLA64V6E6 | TS4GSA64V6E6 |
| 48GB | (3Gx8)x16 | 2Rx8 | TS6GLA64V6E3 | - |

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| Capacity | Component Composition | Rank x Org. | Long-DIMM | SO-DIMM |
|---|---|---|---|---|
| **Standard Temp.** (0°C ~ 95°C) | | | | |
| 16GB | (2Gx8)x8 | 1Rx8 | TS2GLA64V6E8 | TS2GSA64V6E1 |
| 32GB | (2Gx8)x16 | 2Rx8 | TS4GLA64V6E1<br>TS4GLA64V6E8 | TS4GSA64V6E1<br>TS4GSA64V6E8 |
| 48GB | (3Gx8)x16 | 2Rx8 | TS6GLA64V6E5 | TS6GSA64V6E3<br>TS6GSA64V6E5 |
| **Extended Temp.** (-20°C ~ 95°C) | | | | |
| 8GB | (1Gx16)x4 | 1Rx16 | TS1GLA64V6G<br>TS1GLA64V6G7 | TS1GSA64V6G<br>TS1GSA64V6G7 |
| 16GB | (2Gx8)x8 | 1Rx8 | TS2GLA64V6E<br>TS2GLA64V6E1<br>TS2GLA64V6E2<br>TS2GLA64V6E7 | TS2GSA64V6E<br>TS2GSA64V6E2<br>TS2GSA64V6E7 |
| 32GB | (2Gx8)x16 | 2Rx8 | TS4GLA64V6E<br>TS4GLA64V6E2<br>TS4GLA64V6E7 | TS4GSA64V6E<br>TS4GSA64V6E-I<br>TS4GSA64V6E7 |
| **Wide Temp.** (-40°C ~ 95°C) | | | | |
| 8GB | (1Gx16)x4 | 1Rx16 | - | TS1GSA64V6G-I<br>TS1GSA64V6G7-I |
| 16GB | (2Gx8)x8 | 1Rx8 | - | TS2GSA64V6E-I<br>TS2GSA64V6E8 |
| 48GB | (3Gx8)x16 | 2Rx8 | - | TS6GSA64V6E3-I<br>TS6GSA64V6E5-I |

## DDR5-5600 ECC DIMM

| Capacity | Component Composition | Rank x Org. | Long-DIMM | SO-DIMM |
|---|---|---|---|---|
| **Standard Temp.** (0°C ~ 95°C) | | | | |
| 32GB | (2Gx8)x20 | 2Rx8 | - | TS4GSA72V6E |
| **Extended Temp.** (-20°C ~ 95°C) | | | | |
| 16GB | (2Gx8)x10 | 1Rx8 | TS2GLA72V6E<br>TS2GLA72V6E7 | TS2GSA72V6E<br>TS2GSA72V6E7 |
| 32GB | (2Gx8)x20 | 2Rx8 | TS4GLA72V6E<br>TS4GLA72V6E7 | TS4GSA72V6E7 |
| **Wide Temp.** (-40°C ~ 95°C) | | | | |
| 32GB | (2Gx8)x20 | 2Rx8 | - | TS4GSA72V6E-I |

## DDR5-5600 Registered DIMM

| Capacity | Component Composition | Rank x Org. | Long-DIMM |
|---|---|---|---|
| **Extended Temp.** (-20°C ~ 95°C) | | | |
| 16GB | (2Gx8)x10 | 1Rx8 | TS2GAR80V6E<br>TS2GAR80V6E7 |
| 32GB | (2Gx8)x20 | 2Rx8 | TS4GAR80V6E<br>TS4GAR80V6E7 |

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| Capacity | Component Composition | Rank x Org. | Long-DIMM |
|---|---|---|---|
| **Wide Temp.** (-40°C ~ 95°C) | | | |
| 16GB | (2Gx8)x10 | 1Rx8 | TS2GAR80V6E-I |
| 32GB | (2Gx8)x20 | 2Rx8 | TS4GAR80V6E-I |

## 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 |
| **Standard Temp.** (0°C ~ 85°C) | | | | |
| 8GB | (1Gx16)x4 | 1Rx16 | TS1GLA64V8G6 | TS1GSA64V8G6 |
| 16GB | (2Gx8)x8 | 1Rx8 | - | TS2GSA64V8E6 |
| 32GB | (2Gx8)x16 | 2Rx8 | - | TS4GSA64V8E6 |
| **Wide Temp.** (-40°C ~ 95°C) | | | | |
| 8GB | (1Gx16)x4 | 1Rx16 | - | TS1GSA64V8G-I |
| 16GB | (2Gx8)x8 | 1Rx8 | - | TS2GSA64V8E-I |
| 32GB | (2Gx8)x16 | 2Rx8 | TS4GLA64V8E-I | TS4GSA64V8E-I |

## 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 |

## DDR5-4800 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 |

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

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beforehand for clarification.

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