

# DDR5 Memory Module Sockets (SMT)

## COMPLIES TO NEW INTERFACE STANDARD JEDEC SO-023

Vertical DDR5 DIMM sockets from Amphenol ICC provide 288 contacts on 0.85mm pitch and are designed to accept DDR5 memory modules that conform to JEDEC MO-329. The sockets facilitate convenient memory expansion in servers, workstations, desktop PCs, and embedded applications in communications and industrial equipment.

- Able to withstand high level system level shock and vibration testing module weight
- Easy to insert and extract the module card
- Supports thicker multilevel motherboard
- Optimizes airflow
- Meets environmental requirements



### TARGET MARKETS



### FEATURES

- Smaller pitch and lower operating voltage
- Supports faster data rates
- Reduced product width
- Lower insertion force
- Different color options for housing and latches
- Narrow latch option

### BENEFITS

- Results in less energy consumption
- Faster transition
- Saves board space
- Easier for module card insertion and extraction
- Facilitates quick visual identification from PCB
- Facilitates good airflow

# TECHNICAL INFORMATION

## MATERIAL

- Contacts: Copper alloy, Gold flash or 15 µin min. of gold or 30 µin min. of gold (Contact area), Tin or matte tin plating (Solder Area), Nickel plating over all (Underplate)
- Insulator: High temperature, thermal plastic (UL94V-0), color option
- Boardlock: Copper alloy, Tin plating (Solder Area), Nickel plating overall (Underplate)

## ELECTRICAL PERFORMANCE

- Voltage Rating: 30V AC (RMS)/DC
- Current Rating: 1.0 Amps/pin max.

## MECHANICAL PERFORMANCE

- Insertion Force: 106.8N max.
- Withdrawal Force: 19.77N min.
- Retention Force:
  - Contact: 300gf min. per pin
  - Boardlock: 13.3N min.
- Durability: 25 cycles
- Vibration, Mechanical Shock
- Latch Overstress Force: 3.5kg min. force held for 10s with no damage
- Reseating: No damage
- Latch Actuation Force: The force to fully actuate the latch open shall be 4.0kgf max. per latch
- Module Rip Out Force: 9.1kgf min. retention force of the module in connector with no damage
- Retention of Connector to PCB: No lifting of connector from applicable PCB
- Total Insertion Force: 35N max.

## ENVIRONMENTAL

- Solderability: 95% min.
- Resistance to Soldering Heat: Visual-no damage or discoloration of connector materials
- Temperature Life, Thermal Shock
- Cycling Temperature and Humidity
- Temperature Rise: 30°C max.
- Mixed Flowing Gas, Thermal Disturbance, Salt Spray

## APPROVALS & CERTIFICATION

- UL E66906

## SPECIFICATIONS

- Amphenol Product Specification: S-DDR-005
- Amphenol Packaging Specification: PKSDDR5002
- Amphenol Application Specification: S-DDR-006
- JEDEC Module Outlines: MO-329
- JEDEC Socket Outlines: SO-023

## PACKAGING

- Tray

## TARGET MARKETS/APPLICATIONS



Routers  
Switches  
Wireless Infrastructure



Desktop PCs  
Server and Storage Systems  
Super Computers  
Workstations



Embedded Systems

## ▶ DDR5 Memory Module Sockets (SMT)

### PART NUMBERS

Description	Type	Part Numbers
DDR5	U DIMM Socket, Standard latch, Surface mount (SMT) termination with board lock	DDR503*
DDR5	R/LR DIMM Socket, Standard latch, Surface mount (SMT) termination with board lock	DDR504*
DDR5	UDIMM Socket, Narrow latch, Surface mount (SMT) termination with board lock	DDR505*
DDR5	R/LR DIMM Socket, Narrow latch, Surface mount (SMT) termination with board lock	DDR506*

\*denotes base part number. Please contact Amphenol ICC for complete part numbers.

SS/ODDR502/EA4

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