

Ultra-high Mating Cycle DDR5 Connectors

100,000 MATING CYCLES, SOLDERLESS 287-TERMINAL DDR5 SOCKETS

Amphenol's ultra-high mating cycle, solderless, 287-terminal DDR5 connectors are ideal for applications requiring extremely high mating and unmating cycles of up to 100,000 connections.

The solderless process allows the connector to be replaced with minimal damage to the PCB, thus avoiding equipment downtime.

Amphenol's ultra-high mating cycle DDR5 connectors also comply with the new interface standard JEDEC SO-023D and JEDEC SO-023. Both RDIMM and UDIMM versions of this DDR5 socket are tooled and available.

- Able to support 100k cycles of mating-unmating
- Solderless connection facilitates ease of replacing a new connector once the connector in use reaches 100k mating cycles
- Comes with built-in ears on connector housing for ease of securing DIMM to PCB or PCB fixtures
- Easy to insert and extract the module card
- Meets environmental requirements



TARGET MARKETS



FEATURES

- Support 100k mating cycles
- Solderless connection
- Built-in ears on connector housing
- Smaller pitch and lower operating voltage
- Supports faster data rates
- Reduced product width
- Lower insertion force

BENEFITS

- Longer product lifetime
- Ease of replacing connector without damaging PCB
- Facilitates secure connection to PCB or PCB fixtures
- Results in less energy consumption
- Faster transition
- Space-saving design
- Ease to insert and extract module card

TECHNICAL INFORMATION

MATERIAL

- Contacts: Copper Alloy, 30µin 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 : Black

ELECTRICAL PERFORMANCE

- Voltage Rating: 30VAC(RMS)/VDC
- Current Rating: 1.0A/pin max.

MECHANICAL PERFORMANCE

- Insertion Force: 106.8N max.
- Withdrawal Force: 19.77N min.
- Retention Force:
 - Contact: 300gf min. per pin
 - Board lock: 13.3N min.
- Durability: 100,000 cycles
- Vibration, Mechanical Shock
- Latch Overstress Force: 3.5kg min. force held for 10s with no damage
- Re-seating: No damage
- 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 E232356

SPECIFICATIONS

- Amphenol Product Specification: S-DDR-011
- Amphenol Application Specification: S-DDR-013
- JEDEC Module Outlines: MO-329
- JEDEC Socket Outlines: SO-023

PACKAGING

- Tray

TARGET MARKETS/APPLICATIONS



DDR Module Test Equipment
Chipset Test Equipment

PART NUMBERS

Description	Type	Part Numbers	Pin counts
DDR5	U DIMM Socket, high mating cycles, Non-soldering termination without board lock	DDR513*	287
DDR5	R/LR DIMM Socket, high mating cycles, Non-soldering termination without board lock	DDR514*	287

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