

# DDR3 MEMORY MODULE SOCKETS

## OVERVIEW

Memory module sockets from FCI are designed to accept most industry standard memory types (DDR, DDR2, DDR3) and form factors such as DIMM, 50-DIMM or VLP DIMM. The sockets allow convenient memory expansion in servers, workstations, desktop PCs, mobile PCs and embedded applications in communications and industrial equipment.

DDR3 memory sockets accept 240-position DDR3 memory modules as per JEDEC M0-269. Low contact resistance versions support the use of RDIMM (registered DIMM) which is becoming more and more popular in use because it helps further reducing power consumption in data communication systems such as servers.

DDR3 memory sockets from FCI are available in various form factors including VLP (very low profile) providing an overall connector height of less than 20.8mm and comply to JEDEC 80-007 specifications.



## FEATURES & BENEFITS

- Connectors provide mechanical voltage keying and end latches for module retention and ejection
- DIMM connectors feature a low insertion-force socket design that requires less than 24 pounds force for module installation
- Available solder tail options for vertical DDR3 connectors support use on 1.58mm (.062in.) or 2.36mm(.093in.) thick motherboards, while press-fit options extend use to thicker motherboards
- Contact design protects against stubbing and supports high-speed serial differential signaling at data rates extending to 4.8Gb/s for DDR3
- RoHS-Compliant and “Lead-free” process-compatible options are available to aid compliance with lead elimination initiatives
- Low Level Contact Resistance (LLCR) featured on DDR3 sockets accept RDIMM DDR3 modules
- VLP form factors provide connector heights of less than 21mm above the board, while accepting modules with a seating height of less than 2.4mm
- Slim latch and connector body designs facilitate optimized airflow

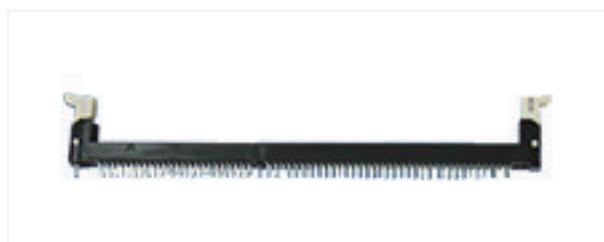
## TARGET MARKETS/APPLICATIONS

- Data
  - Server communications
  - Routers
  - Switches
  - Base stations
- Industrial
  - Embedded systems

## ► DDR3 MEMORY MODULE SOCKETS

### 240-POSITION VERTICAL DDR3 RDIMM SOCKETS

Standard height, press-fit



Description	Part Series
Press-fit and plastic post	10119101

### FEATURES & BENEFITS

- Low LLCR; 20 mΩ max.
- Typically used with 30mm tall DIMM
- Provides 3.12mm module card seating height (standard height)
- 23.1mm connector height above the board
- Contact area: 3µin., 15µin., or 30µin. gold plating
- Housing color options: Black, ivory and blue
- Additional colors available for press-fit
- Ejector color options: Black, ivory and amber
- Lead-free, RoHS compliant versions available

## TECHNICAL INFORMATION

### MATERIALS

- Housing: High-temperature thermoplastic, UL94V-0
- Latch: High performance thermoplastic, UL94V-0
- Contact base metal: Copper alloy
- Contact area finish: Gold over nickel
- Solder area finish: Tin over nickel

### ELECTRICAL PERFORMANCE

- Initial contact resistance: 10mΩ max.
- Current rating: 0.75A DC current (De-rated) in consecutive 10 pairs

### MECHANICAL PERFORMANCE

- Durability: 25 cycles min.

### SPECIFICATIONS

- FCI
  - GS-12-61: DDR3 200P press fit socket product specification
  - GS-12-528 DDR 3 240P sockets packaging specification
- JEDEC
  - Module outline: MO-269

### PACKAGING

- Tray

## ► DDR3 MEMORY MODULE SOCKETS

### Very Low Profile (VLP), Through Hole



Description	Part Series
Through mount and metal clip	10079192

### FEATURES & BENEFITS

- Low LLCR; 20mΩ max.
- Typically used with 18.75mm tall DIMM
- Provides 2.3mm module card seating height (very low profile)
- 20.6mm connector height above the board
- Various solder tail options for 1.58mm (0.062in.) to 2.36mm (0.093in.) PCB thickness
- Contact area: 3µin., 15µin., or 30µin. gold plating
- Housing color options: Black and ivory
- Ejector color options: Black, ivory and amber
- Lead-free, RoHS compliant versions available

## TECHNICAL INFORMATION

### MATERIALS

- Insulation resistance:  $\geq 1000\text{M}\Omega$
- Housing: High-temperature thermoplastic, UL94V-0
- Latch: High performance thermoplastic, UL94V-0
- Contact base metal: Copper alloy
- Contact area finish: Gold over nickel
- Solder area finish: Tin over nickel
- Fork lock: Copper alloy

### ELECTRICAL PERFORMANCE

- Initial contact resistance: 10mΩ max.
- Current rating: 0.75A DC current (de-rated) in consecutive 10 pairs

### MECHANICAL PERFORMANCE

- Durability: 25 cycles min.

### SPECIFICATIONS

- FCI
  - GS-12-486: VLP DDR3 R-DIMM 240P 1mm pitch socket product specification
  - GS-12-899 DDR II 240P sockets packaging specification
- JEDEC
  - Pending

### PACKAGING

- Tray

## ► DDR3 MEMORY MODULE SOCKETS

### Very Low Profile (VLP), Press Fit



Description	Part Series
Press-fit with plastic pose	10120194
Press-fit with plastic pose	10123411
Press-fit with plastic pose	10076443

### FEATURES & BENEFITS

- Low LLCR; 20mΩ max.
- Typically used with 18.75mm tall DIMM
- Provides 2.3mm module card seating height (very low profile)
- 20.6mm connector height above the board
- Various solder tail options for 1.58mm (0.062in.) to 2.36mm (0.093in.) PCB thickness
- Contact area: 3µin., 15µin.s, or 30µin. gold plating
- Housing color options: Black, ivory and blue
- Ejector color options: Black, ivory and blue
- Lead-free, RoHS compliant versions available

## TECHNICAL INFORMATION

### MATERIALS

- Housing: high-temperature thermoplastic, UL94V-0
- Contact Base Metal: Copper alloy
- Contact Area Finish: Gold over nickel
- Solder Area Finish: Tin over nickel

### ELECTRICAL PERFORMANCE

- Initial contact resistance: 10mΩ max.
- Current rating: 0.75A/contact max.

### MECHANICAL PERFORMANCE

- Durability: 25 cycles minimum

### SPECIFICATIONS

- FCI
  - GS-12-0924: DDR3 R-DIMM press fit product specification
  - GS-14-528: DDR3 240P sockets packaging specification
- JEDEC
  - Module Outline: MO-269

### PACKAGING

- Tray