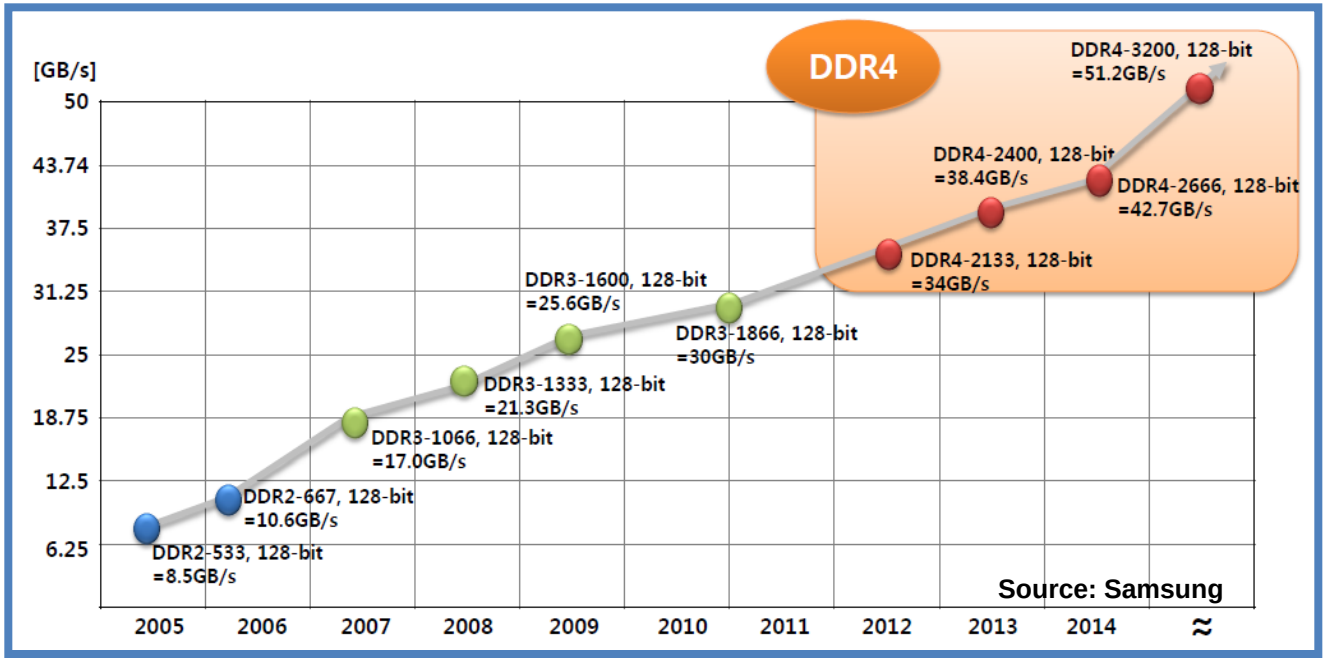
Memory Module Sockets

Product Presentation

DDR4 Memory is Coming!

- JEDEC specifications for DDR4 DIMM are progressing
- Intel plans to support DDR4 with the Grantley server platform (Haswell EP and EN processors) scheduled for 2014 release
- IHS iSuppli predicts:
  - By beginning of 2016 DDR4 will account for more than half of DRAM
  - Total DRAM module shipments is approximately 1.1billion units

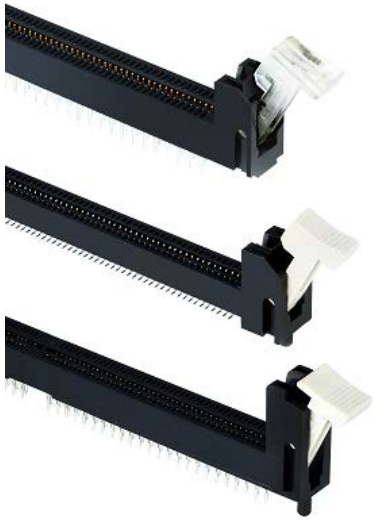


FCI DDR4 DIMM Development Milestones

- Product documentation (available now)
  - Drawings & 3D models
  - Product specification (GS-12-1092)
  - Signal Integrity report

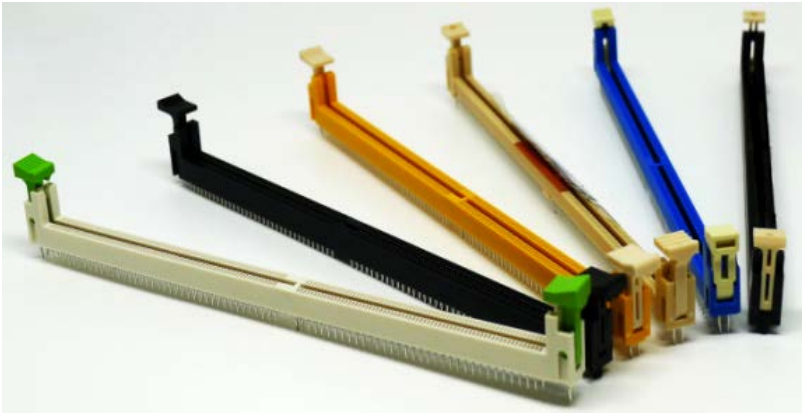
- SMT, PTH and PF test results on JEDEC SI test boards (available now)

- Project Priorities & Project Timelines
  - Priority Ranking: #1 PTH, #2 SMT, #3 PF
  - PTH Solder
    - samples – available now; mass production – available now
  - SMT
    - samples – available now; mass production – available now
  - Press-Fit
    - samples – available now; mass production – available now



Features & Benefits

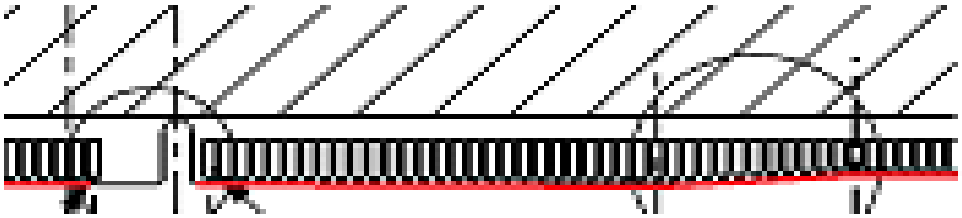
- Sockets provide mechanical voltage keying and end latches for module retention and ejection
- Low insertion-force design require less than 24 pounds force for module installation
- Available solder tail options support use on 1.6mm or 2.4mm thick motherboards
- Press-fit termination option supports use on 1.6mm (minimum) host PCBs
- Contact design protects against stubbing and supports high speed differential signaling at data rates extending to 6.4 Gb/s for DDR4
- Low contact resistance supports RDIMM modules
- Slim latch design optimizes airflow
- RoHS-Compliant and lead-free process

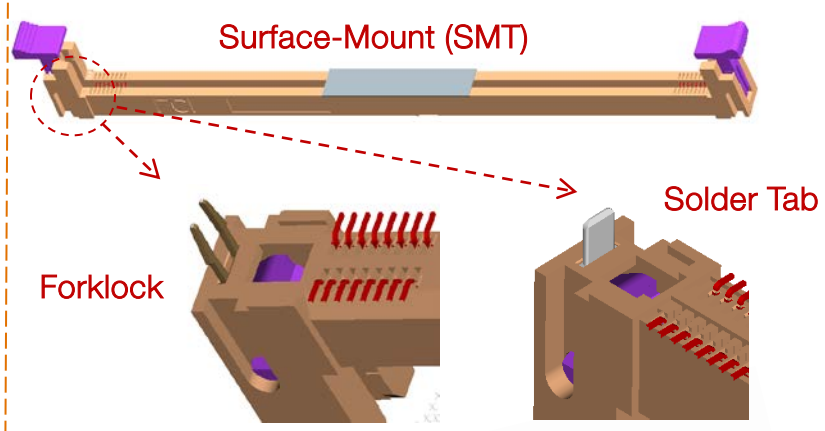


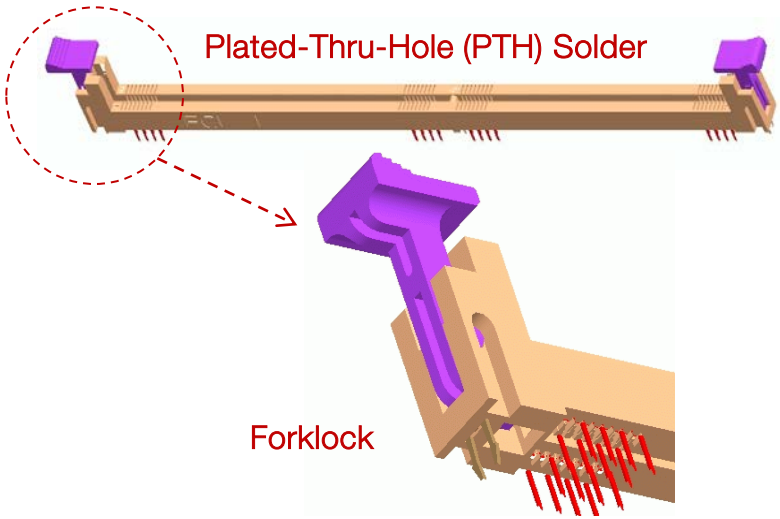
FCI Planned DDR4 DIMM Offering

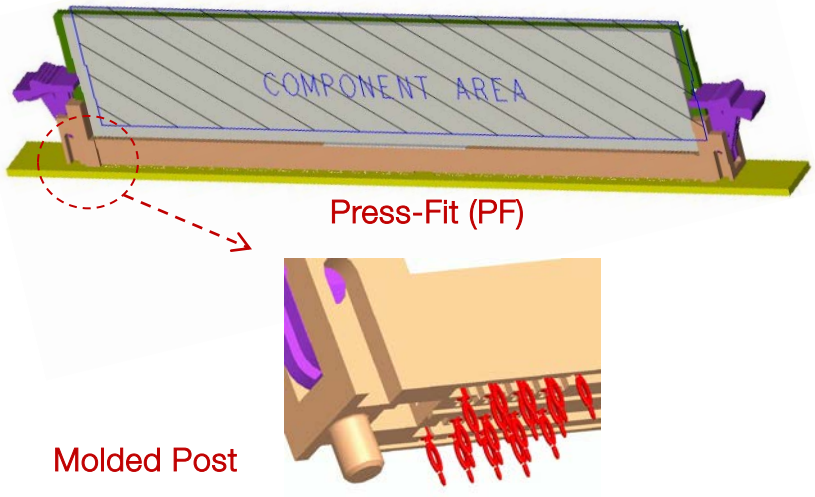
288 positions, 0.85mm contact pitch, 2.4mm module seating plane

- P/N 10124677 – surface mount
- P/N 10124632 – through-hole solder
- P/N 10124806 – press fit
- Accept modules per MO-309
  - New card edge design for lower insertion force









FCI DDR4 outline

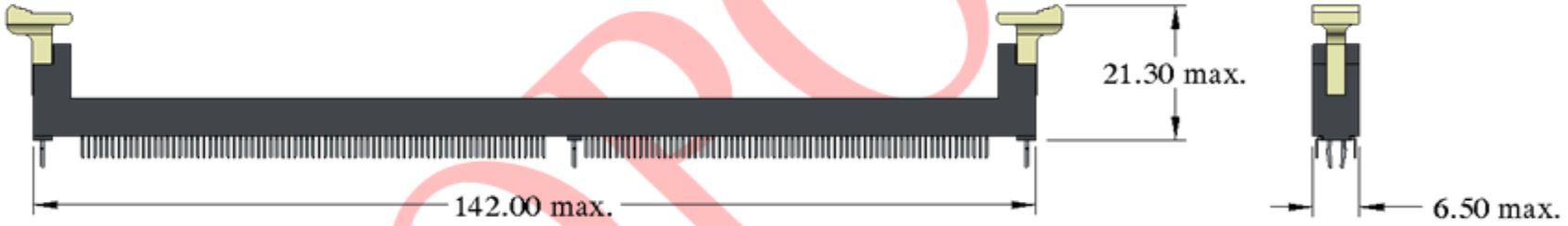


Figure 3-2 Plated Through Hole (PTH) Connector Socket Outline

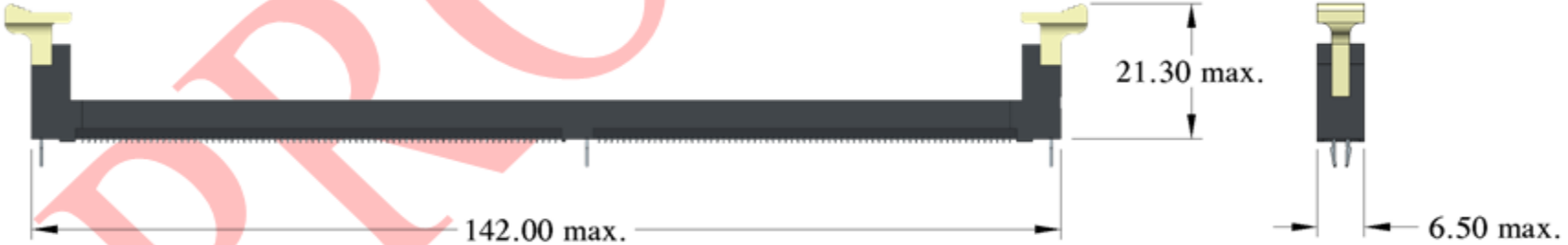


Figure 3-3 Surface Mount (SMT) Connector Socket Outline

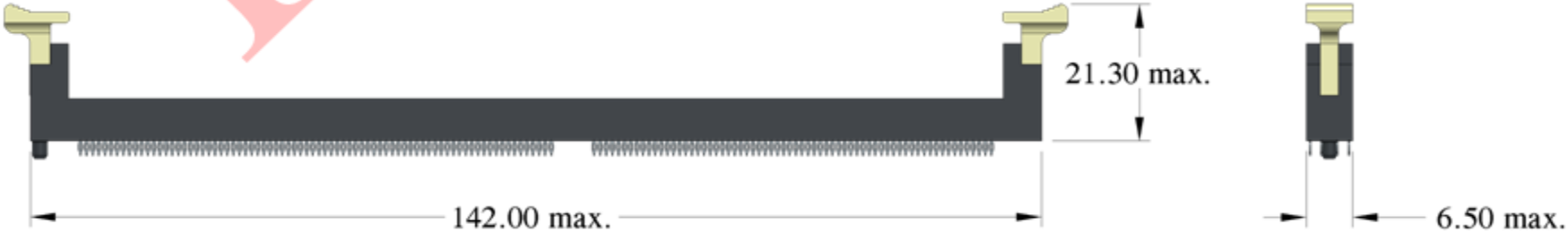
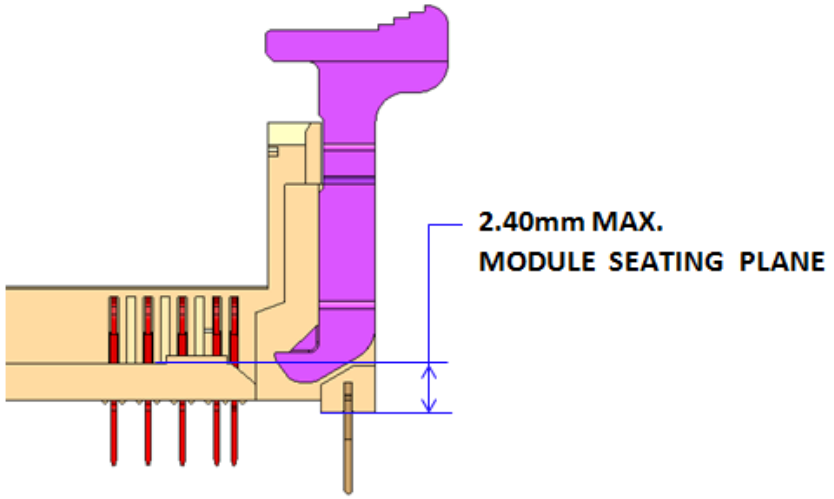


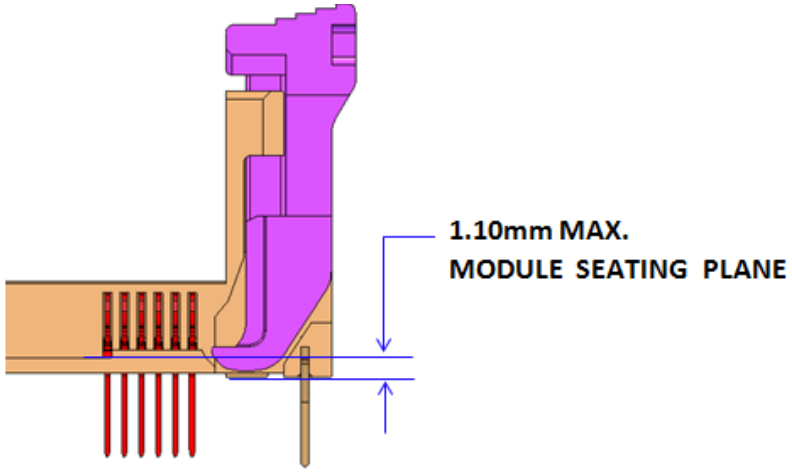
Figure 3-4 Pressfit (PF) Connector Socket Outline

DDR4 TH Ultra Low Profile

Lower seating height and latch design



Standard DDR4 with seating height of 2.4mm and Standard DIMM module



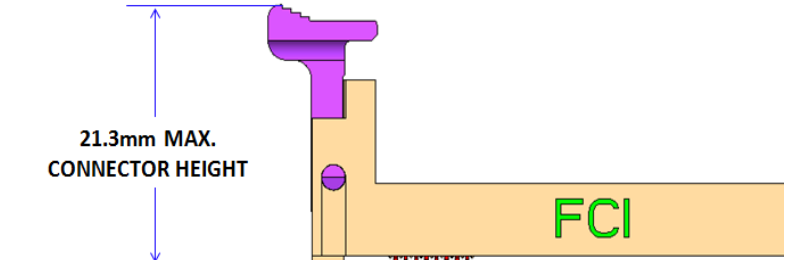
DDR4 ULP with seating height of 1.1mm and VLP DIMM module

- DDR4 ULP offers lower seating height and latch design. Coupled with low profile VLP DIMM module, the overall height can be reduced significantly by more than 13mm.
- Allows customer to improve on the air flow and address the needs for lower profile server design where space is a premium (1U server, micro server, space constraint industrial/communication application)

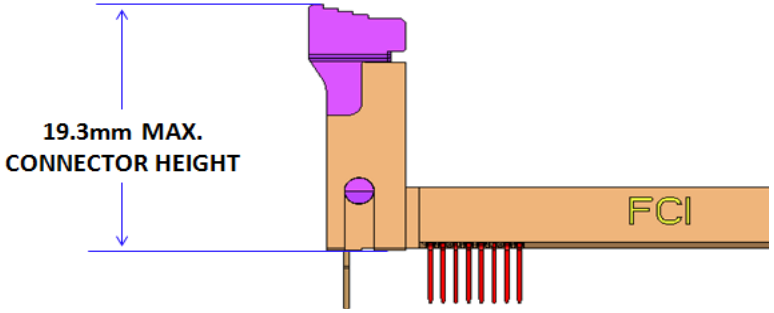
DDR4 TH Ultra Low Profile

Improving airflow while reducing the overall height profile

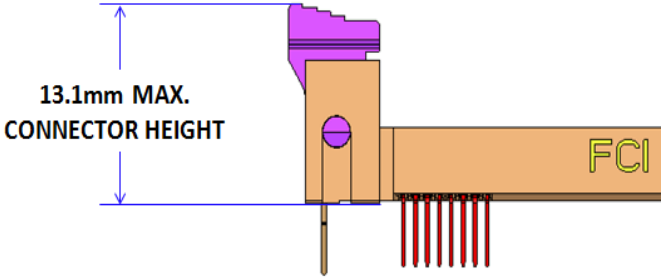
Standard DDR4 TH: 21.3mm connector height with 2.4mm seating height



DDR4 ULP TH: 19.3mm connector height with 1.1mm seating height



DDR4 ULP TH: 19.3mm connector height with 1.1mm seating height



THANK YOU