

Aerodynamic Through-hole, Press-fit and standard Through-hole, SMT and Press-fit DDR4 DIMM sockets offer space-savings as well as significant assembly-processing compatibility for high-speed data and networking server applications

Features and Benefits

Streamlined housing and latch design (Aerodynamic series)	Minimizes trapping of hot air around high-density memory modules during operation
Metal-reinforced latch tower housing	Prevents cleavage or separation of tower bridge due to wear and tear
Anti-stubbing contact terminal design	Promotes smooth module lead-in and contact grip during insertion
Low 2.40mm seating plane	Overcomes vertical space limitations in ATCA* blade systems by allowing for more flexible module design heights
Compact socket footprint	Frees up valuable PCB real estate for high-density trace routing on PCBs
Multiple soldertail length options available for Through-hole and Press-fit sockets	To suit various PCB thicknesses
Flush soldertail design for Standard SMT version sockets	Minimize accidental damage to terminals due to bending

DDR4 DIMM Sockets, Halogen-free Aerodynamic and Standard versions

Aerodynamic (aka Slim-Tower), Vertical

151016 Through hole

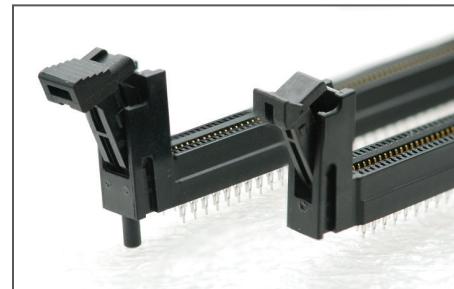
151024 Press-fit

Standard, Vertical

78726 Through hole

78730 SMT

78731 Press-fit



Highly streamlined latch and housing of the Press-fit Aerodynamic DDR4 DIMM socket (right) versus Standard version (left)

* The Advanced Telecom Computing Architecture (Advanced TCA or ATCA) specifications

Applications

Data/Computing
High-end computing
Personal computers

RAID / Storage
Telecommunications/Networking
Infrastructure
Networking



Servers



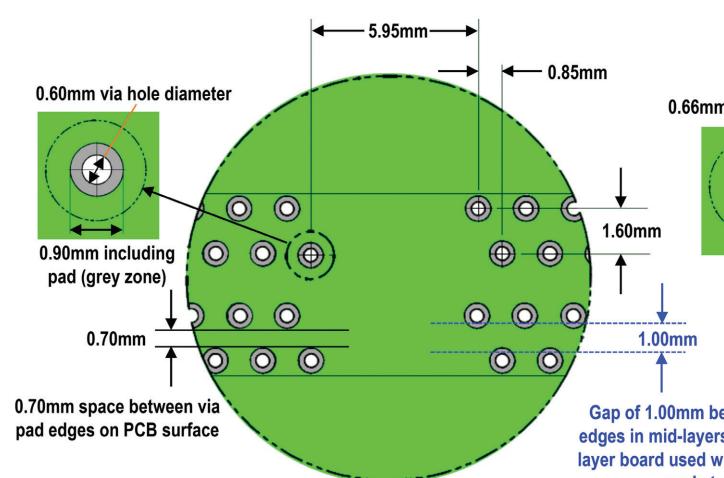
Networking

Product Features

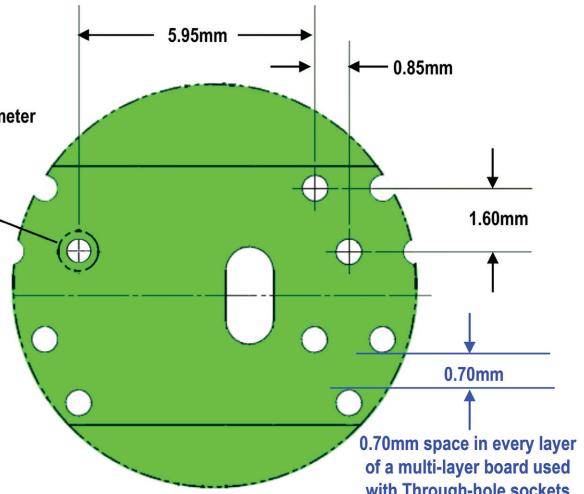
Significant space savings can be achieved when pad areas in mid-layers of a multi-layer PCB are freed up for all 288-circuit terminations of a Press-fit Aerodynamic DDR4 DIMM Socket versus the Through-hole equivalent

**DDR4 DIMM Sockets,
Halogen-free
Aerodynamic and
Standard versions**

Press-fit Aerodynamic DDR4 DIMM Socket PCB footprint



Through-hole Aerodynamic DDR4 DIMM Socket PCB footprint



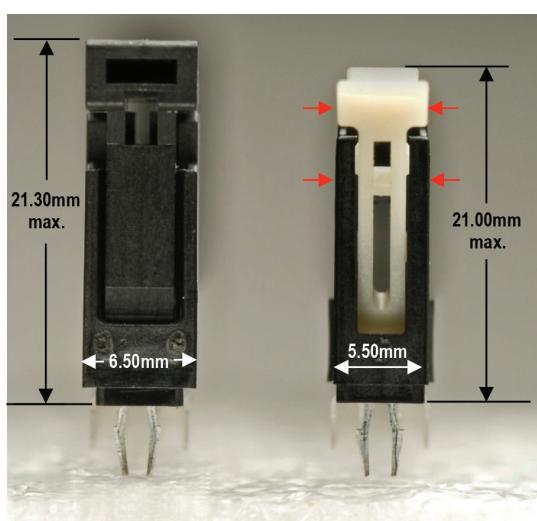
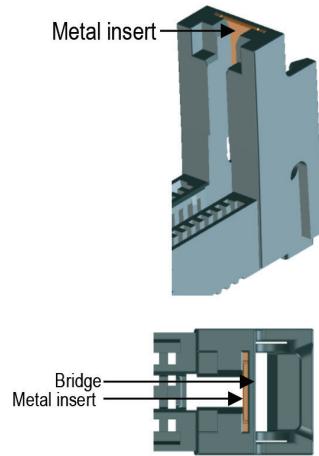
Press-fit Aerodynamic DDR4 DIMM Sockets offer more routing space in mid-layers of a multi-layer board due to smaller via hole sizes without the need for pad space

Note: Illustrations are not drawn to scale

Additional Product Features

With more streamlined latch and housing features, the Aerodynamic DDR4 DIMM socket (Series 151016) offers more airflow around the module and space-savings than Standard versions (Series 78726 chosen)

Standard DDR4 DIMM Socket Latch Tower



Aerodynamic DDR4 DIMM Socket Latch Tower



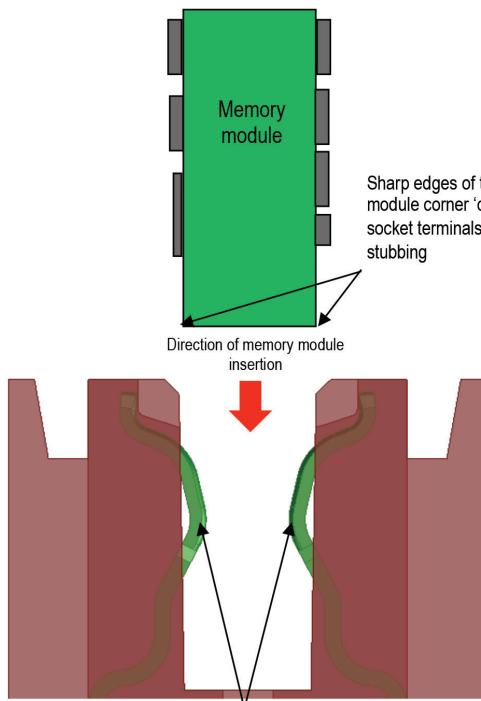
**Applicable to all termination styles, greater
space savings is achieved with more streamlined
Aerodynamic DDR4 sockets (right picture) than
Standard DDR4 DIMM equivalents**

**Both Aerodynamic and Standard DDR4 DIMM Sockets offer more robust latch
operations with a reinforced tower-housing design**

Product Features

Molex's Standard and Aerodynamic DDR4 DIMM sockets provide anti-stubbing contacts for easy module insertion. Contact terminals of Molex's DDR4 DIMM sockets are crowned to increase contact pressure with mated (memory) module for improved electrical reliability

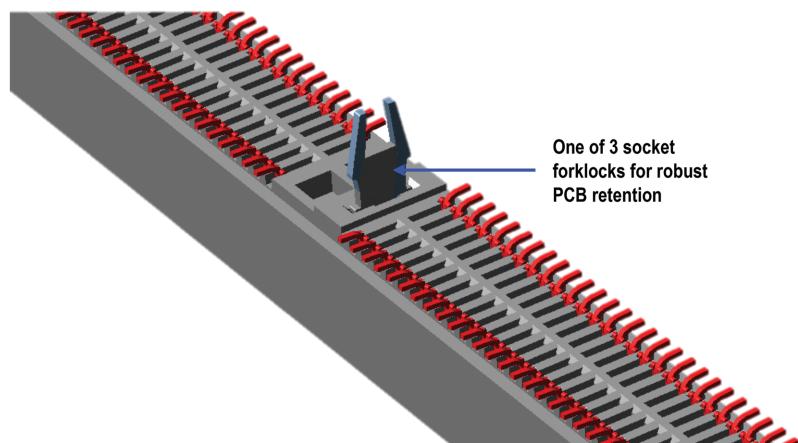
**DDR4 DIMM Sockets,
Halogen-free
Aerodynamic and
Standard versions**



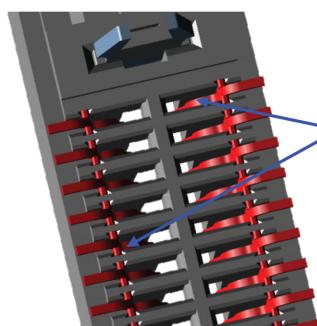
Specially profiled contacts have a smooth radius of curvature to prevent contact stubbing as well as improve electrical reliability

Additional Product Features

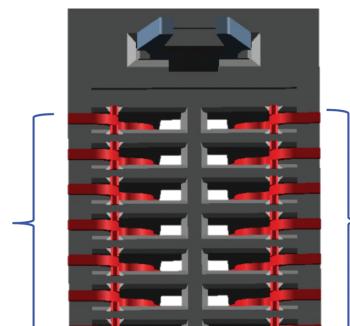
Socket housing and terminal (SMT version)



Underside of SMT version DDR4 DIMM Socket showing housing and soldertail design



Recessed soldertails of the SMT DDR4 DIMM Socket

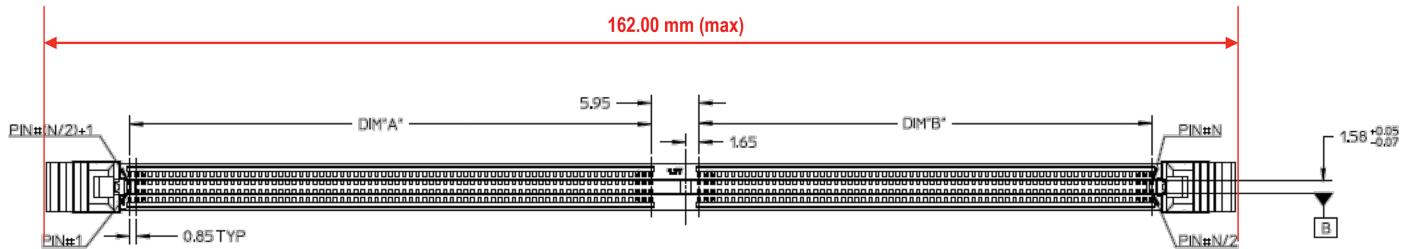


Soldertails of the SMT DDR4 DIMM socket are flush with the connector edge (width) on both sides

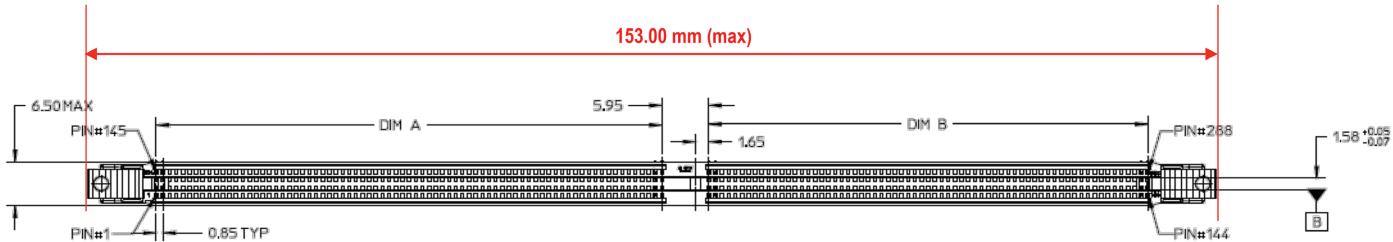
Product Features

All Aerodynamic DDR4 DIMM sockets offer greater PCB real-estate and vertical space savings than Standard DDR4 DIMM Socket versions

**DDR4 DIMM Sockets,
Halogen-free
Aerodynamic and
Standard versions**



**JEDEC Dimension Requirement of Standard DDR4 DIMM Socket
(Series 78726 with length 162.00mm and bigger latches)**



**Compact footprint of the Aerodynamic DDR4 DIMM Socket
(Series 151016 with length 153.00mm only and narrower latch design)**

Specifications

Reference Information

Packaging: Tray
UL File No.: TBA
CSA File No.: TBA
Use With:
JEDEC MO-309 memory modules
Designed In: Millimeter
RoHS: Yes
Halogen Free: Yes
Glow Wire Compliant: No

Electrical

Voltage (max.): 29V AC (RMS)/DC
Current (max.): 0.75A per pin
Low Level Contact Resistance (max.):
10 milliohms
Dielectric Withstanding Voltage:
500V AC
Insulation Resistance (min.):
1 megohm

Mechanical

Module Insertion Force
(with latches): 106.8N max
Module Rip-out Force (min.): 9.10kgf
Compliant-pin Insertion Force to PCB
(single): 4.50kgf max.
Compliant-pin Retention Force to PCB
(single): 0.30kg min.
Module Unmating Force:
2.02kgf (per pin pair)
Terminal Retention Force (min.):
300gf (per pin);
13.3N (per forklock for 151016 only)
Latch Actuation Force (max.):
3.50kgf per latch
Durability: 25 cycles

Physical

Housing: Halogen-free,
high-temperature Nylon,
glass-filled, UL94V-0
(both socket and latch)
Contact: Copper Alloy
Plating:
Contact Area —
Refer to tables below
Solder Tail Area —
Refer to tables below
Underplating —
Refer to tables below
PCB Thickness: Refer to tables below
Operating Temperature: -55 to +85°C

Ordering Information

**DDR4 DIMM Sockets,
Halogen-free
Aerodynamic and
Standard versions**

Aerodynamic DDR4 DIMM, Through Hole and Press-Fit Versions

Order No.	Termination	Housing Color	Latch Color	Recommended PCB Thickness (mm)	Plating	Product Specification
151016-0103	Through-hole	Black	Natural	1.57	0.38µm (15µ") Gold (Au) on contact; 2.54µm (100µ") Tin (Sn) on soldertails; 1.27µm (50µ") Nickel (Ni) underplate	PS-151016-0002
151016-0105		Blue				
151024-0021	Press-fit	Black	Black		0.76µm (30µ") Gold (Au) on contact; 0.38 to 1.52µm (15 to 98µ") Selective Tin (Sn) on soldertails; 1.27µm (50µ") Nickel (Ni) underplate	PS-151024-0001
151024-0022		Natural	Natural			
151024-0023		Black	Black			
151024-0021		Natural	Natural			

Standard DDR4 DIMM Sockets, Through Hole Versions

Order No.	Housing Color	Latch Color	Recommended PCB Thickness (mm)	Plating	Product Specification
78726-1002	Black	Black	1.57	0.76µm (30µ") Gold (Au) on contact; 2.54µm (100µ") Tin (Sn) on soldertails; 1.27µm (50µ") Nickel (Ni) underplate	PS-78726-001
78726-1003			2.36		
78726-1026			3.00		
78726-1040		Off-white	1.57		
78726-1004			1.57		
78726-1005			2.36		
78726-1027			3.00		
78726-1006	White	Black	1.57		
78726-1007			2.36		
78726-1028			3.00		
78726-1008		Off-white	1.57		
78726-1009			1.57		
78726-1029			2.36		
78726-1010		Blue	1.57		
78726-1011			2.36		
78726-1030			3.00		
78726-1044	Black	Blue	1.57	0.38µm (15µ") Gold (Au) on contact; 2.54µm (100µ") Tin (Sn) on soldertails; 1.27µm (50µ") Nickel (Ni) underplate	PS-78726-002
78726-1022			1.57		
78726-1023			2.36		
78726-1031		Off-white	3.00		
78726-1045			1.57		
78726-1012			1.57		
78726-1013			2.36		
78726-1032			3.00		
78726-1014		Off-white	1.57		
78726-1015			1.57		
78726-1033			2.36		
78726-1016	White	Black	1.57	0.38µm (15µ") Gold (Au) on contact; 2.54µm (100µ") Tin (Sn) on soldertails; 1.27µm (50µ") Nickel (Ni) underplate	PS-78726-002
78726-1017			2.36		
78726-1034			3.00		
78726-1048		Off-white	1.57		
78726-1018			1.57		
78726-1019			2.36		
78726-1035			3.00		
78726-1020		Blue	1.57		
78726-1021			2.36		
78726-1036			3.00		
78726-1024	Blue	Off-white	1.57	0.76µm (30µ") Gold (Au) on contact; 2.54µm (100µ") Tin (Sn) on soldertails; 1.27µm (50µ") Nickel (Ni) underplate	PS-78726-001
78726-1025			2.36		
78726-1037			3.00		

Standard DDR4 DIMM Sockets, SMT Versions

Order No.	Housing Color	Latch Color	Plating	Product Specification
78730-1002	Black	Black	0.76µm (30µ") Gold (Au) on contact; 2.54µm (100µ") Tin (Sn) on soldertails; 1.27µm (50µ") Nickel (Ni) underplate	PS-78730-001
78730-1003		Off-white		
78730-1004	White	Black	0.76µm (30µ") Gold (Au) on contact; 2.54µm (100µ") Tin (Sn) on soldertails; 1.27µm (50µ") Nickel (Ni) underplate	
78730-1005		Off-white		

Standard DDR4 DIMM Socket, Press-Fit Version

Order No.	Housing Color	Latch Color	Recommended PCB Thickness (mm)	Plating	Product Specification
78731-1002	Black	Black	1.80	0.76µm (30µ") Gold (Au) on contact; 0.38 to 1.52µm (15-60µ") Tin (Sn) on soldertails; 1.27µm (50µ") Nickel (Ni) underplate	PS-78731-001