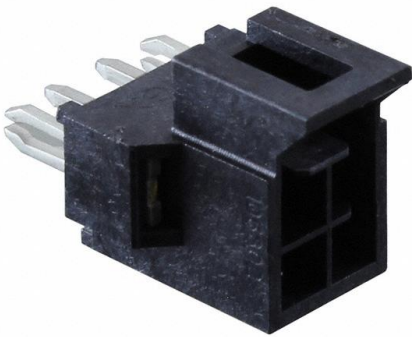


1053121204 Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	1053121204-DG
Manufacturer	Molex
Manufacturer Product Number	1053121204
Description	CONN HEADER VERT 4POS 2.5MM
Detailed Description	Connector Header Through Hole 4 position 0.098" (2.50mm)

This model 1053121204 is available at DiGi Electronics.

DiGi Electronics offers a global database of semiconductor and electronic component datasheets.

We welcome your inquiries regarding pricing, lead time, or other product-related questions.

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RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

1053121204

Series:

Nano-Fit 105312

Connector Type:

Header

Pitch - Mating:

0.098" (2.50mm)

Number of Rows:

2

Number of Positions Loaded:

All

Shrouding:

Shrouded - 4 Wall

Termination:

Solder

Contact Length - Mating:

-

Overall Contact Length:

-

Contact Shape:

Square

Contact Finish Thickness - Mating:

15.0µin (0.38µm)

Contact Material:

Brass

Features:

Board Lock

Ingress Protection:

-

Insulation Color:

Black

Voltage Rating:

250V

Contact Finish Thickness - Post:

59.0µin (1.50µm)

Base Product Number:

105312

Manufacturer:

Molex

Product Status:

Active

Contact Type:

Male Pin

Number of Positions:

4

Row Spacing - Mating:

0.098" (2.50mm)

Style:

Board to Cable/Wire

Mounting Type:

Through Hole

Fastening Type:

Latch Holder

Contact Length - Post:

0.126" (3.20mm)

Insulation Height:

0.356" (9.05mm)

Contact Finish - Mating:

Gold

Contact Finish - Post:

Tin

Insulation Material:

Liquid Crystal Polymer (LCP)

Operating Temperature:

-40°C ~ 105°C

Material Flammability Rating:

-

Current Rating (Amps):

-

Mated Stacking Heights:

21.30mm

Applications:

Automotive, General Purpose, Industrial, Medical, Military, Telecommunications

Nano-Fit Power Connectors



Nano-Fit Power Connectors deliver up to 8.0A with a 2.50mm pitch, while also offering keying options to ensure proper mating and terminal position assurance (TPA) retainers to prevent terminal backout

Features and Advantages

Smallest fully isolated headers in the market

Provides a small package that eases space constraints. Allows up to 69% more space in the x-axis than competing connectors



Multiple mechanical keying and color-coded options

Help to prevent risk of cross-mating. Enables faster assembly with visual indication of proper mating



Ultra-low mate force terminal

Reduces operator fatigue. Improves assembly compliance for high-circuit applications



Terminals available in gold and tin plating

Deliver different cost options while meeting performance needs



Retention tang and contact rib

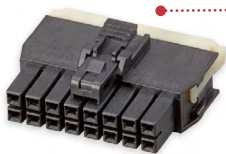
Maintain stable contact

Terminal Interface with 4 points of contact

Offers redundant, secondary current paths for long term performance and reliability

Fully isolated terminals

Protect against potential damage of terminals during handling and mating

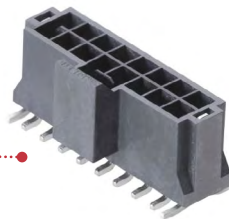


Optional TPA (Terminal Position Assurance) Retainer

Ensures terminals are fully seated in housing to reduce backout. Retains terminals if main retention feature fails

Multi-layer boards

Eliminate need of through-hole. Ensures mated connector assemblies will not accidentally disengage



Available in embossed tape for pick-and-place assembly

Enables quick and accurate component placement to meet fast time-to-market

Positive-lock housing with anti-snag design

Ensures mated connector assemblies will not accidentally disengage



Applications

Consumer/ Home Appliance

- Refrigerators
- Washers and dryers
- Mobile devices

Telecommunications/ Networking

- Servers
- Hubs

Automotive

- Interior Lighting

Lighting

- Home lighting fixtures
- Ballasts

Aerospace and Defense

- C4ISR

Industrial

- Assembly line equipment
- Food and beverage

Medical

- Healthcare IT
- Patient care equipment



Automotive Interior Lighting



Washers and Dryers

Nano-Fit Power Connectors



Specifications

REFERENCE INFORMATION

Packaging
 Terminals - Reel
 Headers - Tray, Embossed Tape, and Reel
 Receptacles - Bag
 UL File No: E29179
 CSA File No: LR19980
 Mates with: Nano-Fit Connectors and Receptacles Only- No competitive cross
 Use with: Nano-Fit Terminals and TPA Retainers Only - No competitive cross
 Terminal Used: Reel
 Designed In: Millimeters
 RoHS: Yes
 Halogen Free: Yes
 Glow Wire Capable: Yes

ELECTRICAL

Voltage (Max): 250V
 Current (Max): 8.0A
 Contact Resistance: 10 milliohms change over life
 Dielectric Withstanding Voltage: 1500V
 Insulation Resistance: 1000 Megohms

MECHANICAL

Contact Insertion Force: 2.5N
 Contact Retention to Housing: 27N
 Insertion Force to PCB: 5N
 Mating Force: 3N
 Unmating Force: 3N
 Cycles: 20 cycles (Tin), 50 cycles (Gold)

PHYSICAL

Housing:
 Receptacle: Nylon UL 94V-0
 Header: LCP UL 94V-0
 Contact: High- Conductivity Copper
 Plating:
 Contact Area —
 0.38 Tin or 381 μ (15 μ) Gold or 762 μ 0.76 (30 μ) Gold
 Solder Tail Area — Tin
 Underplating — Nickel
 PCB Thickness: 1.60 and 2.40mm
 Operating Temperature: -40 to +105°C (Tin),
 -40 to +115°C (Gold)

Ordering Information

HEADERS

Series	Row	Orientation	Circuits	Termination Style	Solder Clip	Color
105429	Dual	Vertical	4 to 16	SMT	No	Black and Natural
105431	Single	Vertical	2 to 8			
105430	Single	Right Angle	2 to 8			
105405	Dual	Right Angle	4 to 16			
105309	Single	Vertical	2 to 8	Through Hole	Yes	
105310	Dual		4 to 16			
105311	Single		2 to 8			
105312	Dual		4 to 16			
105313	Single	Right Angle	2 to 8	Through Hole	No	
105314	Dual		4 to 16			

RECEPTACLE HOUSING

Series	Circuits	Rows	Color
105307	2 to 8	Single	Black/Natural
105308	4 to 16	Dual	

PLUG HOUSING

Series	Row	Circuits	Panel Mount	Color
200277	Single	2 to 8	Panel Mount and Free Hanging	Black/Natural
201444	Dual	4 to 16		

TERMINAL POSITION ASSURANCE (TPA) RETAINER

Series	Circuits	Color
105325	2 to 8	Black/Natural

CRIMP TERMINALS

Series	Type	Wire Gauge (AWG)	Plating
201447	Male	20 to 26	Tin, Gold
105300	Female		

www.molex.com/link/nanofit.html

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