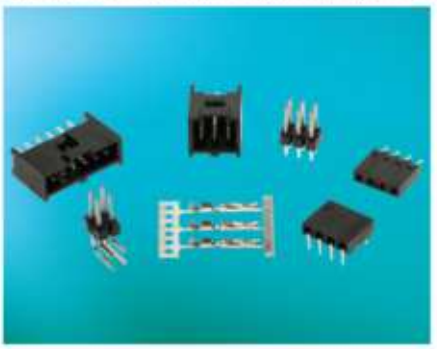
The third generation C-Grid III™ 2.54mm (.100") pitch header and receptacle interconnection system offers complete design flexibility and modular components that provide the widest range of electronic packaging alternatives. C-Grid III™ is a highly versatile 2.54mm interconnection system offering unique design features.

C-Grid III™ has been developed to meet the latest industry requirements. Two different wire termination techniques, crimp and insulation displacement, are combined in a complete interconnection system which is based on north/south contact orientation.

2.54mm (.100") Pitch C-Grid III™ Modular Interconnect System



Molex's C-Grid III™ provides complete design flexibility to meet your application needs

FEATURES AND BENEFITS

- 2.54mm (.100") pitch, mates with 0.64mm (0.025") square pins
- Wire-to-Board, Board-to-Board Modular Interconnection System
- Single and Dual Row options available
- North/South orientation allows ease of mating
- Halogen-Free and Glow Wire Compliant versions available
- Intermateable with Molex's QF-50 product family

Header

- Easy breakaway feature to produce smaller sizes for design flexibility and quick turnaround
- Shrouded header comes with polarization and friction lock feature
- Contact and plating orientation according to DIN 41651
- Gold flash and two-sided gold plating on contact available for a more cost effective solution
- High pin retention force
- High mechanical stability after soldering

Receptacle

- Stackable end-to-end
- Contact and plating orientation according to DIN 41651
- Meets HE-13/14 specification

Crimp Housing

- Polarization and friction lock options available

SPECIFICATIONS

Electrical

Voltage: 350V max.
Current: 3A max.
Contact resistance: 20 milliohms max.
Insulation Resistance:

Headers and shrouded headers	5,000 Megohms min.
PCB connectors, crimp housings and modules	1,000 Megohms min.

Mechanical

Contact Retention to Housing:

Header	20N (2.0kgf) min.
Receptacle and Crimp Terminal	15N (1.5kgf) min.
Crimp Housing:	
Series 90147, 90148, 90151	15N (1.5kgf) min.
Series 90152	8.8N (0.88kgf) min.

Physical

Refer to Product Information table on the reverse side

Reference Information

Product Specification: PS-99020-0001
UL File No: E29179 (excluding series 90121, 90122, 90136, 91814)
CSA File No: LR19980 (for series 90059, 90147, 90148, 90160)

APPLICATIONS

Computer/Peripherals

- Desktop PCs
- Office Equipment
- Servers
- Monitors

Medical

- Laboratory Devices
- Medical Equipment

Consumer

- White and Brown Goods
- Home Entertainment Systems
- Vending Machines

Telecom/Datacom

- Exchange Stations
- Base Stations
- Control Rooms

Industrial

- Industrial Equipment
- Measurement Equipment

Transportation

- Safety System
- Engine Trains
- Infotainment
- Body Electronics

PRODUCT INFORMATION

	Headers			
				
Series	90120	90121	90131	90122
Options	Single Row		Dual Row	
Type	Vertical	Right Angle	Vertical	Right Angle
Circuits	01 - 20		02- 40	
Material	Housing: 15% Glass Filled Polyester, Pins: Brass			

Board-to-Board System

Receptacle	Series	Options	Type	Circuits	Material	Overall Height	Overall Mated Height			
	90147	Single Row	Vertical	02 - 32	Housing: 15% Glass Filled Polyester Pins: Phosphor Bronze	8.50mm (.335")	11.00mm (.433")	11.00mm (.433")	-	-
	90148	Single Row	Right Angle	02 - 32		3.30mm (.130")	3.30mm (.130")	3.30mm (.130")	-	-
	90151	Dual Row	Vertical	04 - 50		8.50mm (.335")	-	-	11.00mm (.433")	11.00mm (.433")
	90152	Dual Row	Right Angle	04 - 50		5.84mm (.230")	-	-	5.84mm (.230")	5.84mm (.230")

Wire-to-Board System

Terminal	Series	To Use With	Type	Wire Gauge	Material	Reeling	Packaging	Contact Retention to Housing	Normal Force
	90119	Crimp Housing	Reel/Loose	22 - 28 AWG	Phosphor Bronze	Left Hand Feed	Reel/Bag	15N (1.5kgf)	1N (0.1kgf)

Housing	Series	Options	Feature	Circuits	Material	Overall Height	Overall Mated Height			
	90123	Single Row	With or Without Polarizing Button	02 - 32	Polyphenylene Oxide (PPO)	2.54mm (.100")	2.54mm (.100")	2.54mm (.100")	-	-
	90143	Dual Row		04 - 50		5.08mm (.200")	-	-	5.08mm (.200")	5.08mm (.200")

	Shrouded Headers					
						
Series	90136		90130		91814 (High Temp Version of 90130)	
Options	Single Row		Dual Row		Dual Row	
Type	Vertical	Right Angle	Vertical	Right Angle	Vertical	Right Angle
Circuits	01 - 20		02 - 40		02 - 40	
Material	Housing: 15% Glass Filled Polyester, Pins: Brass					

Wire-to-Board System

Housing	Series	Options	Circuits	Material	Overall Height	Overall Mated Height				
	90156	Single Row	02 - 32	Polyphenylene Oxide (PPO)	3.81/5.35mm (.150/.211")	19.00mm (0.748")	5.35mm (.211")	-	-	-	-
	90142	Dual Row	06 - 50		6.20/7.72mm (.244/.304")	-	-	19.00mm (0.748")	9.75mm (.384")	19.00mm (0.748")	9.75mm (.384")

Others

Micro Shunt	Series	Height	Material	Voltage	Current Rating	Contact Resistance	Insulation Resistance	Mating Force	Unmating Force	Durability	Packaging
	90059	4.95mm (.195") max.	Housing: 30% Glass Filled Polyester Pins: Phosphor Bronze	350V	3.0A (Gold) 1.5A (Tin)	12 miliohms max. (Gold) 15 miliohms max. (Tin)	2000 Megohms max.	7N max.	0.3N (Gold) 0.5N (Tin) min.	50 Cycle (Gold) 20 Cycle (Tin)	Strip/Bag

Housing	Series	Options	Circuits	Material	Feature	Overall Height	Design Config.	Use With	Use With	Packaging
	90160	Dual Row	06 - 50	Polyphenylene Oxide (PPO)	Polarized Friction Side Lock Locking Ear	6.20/7.72mm (.244/.304")	Wire-to-Wire	90119 crimp terminal	QF50 90663 shrouded header with 90635 receptacle	Bag

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