Mini Cool Edge 0.60mm Connectors

MEETS SFF-TA-1002, GEN Z, EDSFF, OCP NIC 3.0 AND PCIE® ENCLOSURE COMPATIBLE FORM FACTOR(PECFF) SPECIFICATION

Mini Cool Edge is a 0.60mm high density, high speed card edge connector for new generation small form factor system. This fine pitch solution offers multiple BTB applications like right angle, mezzanine and coplanar and support cable interconnect options.

Mini Cool Edge 0.60mm meets SFF-TA-1002, Gen Z, EDSFF and OCP NIC 3.0 specifications.

- Common applications include Solid State Drive, Network Interface Card, Add-In Card.
- Vertical, right angle, straddle mount and orthogonal options are available
- High Speed from 32GT/s to 56GT/s, and up to 112GT/s PAM4



TARGET MARKETS

FEATURES

- Signal pin pitch at 0.60mm with current rating of 1.1A, up to 12 pins for power application
- Signal pins options from 56, 84, 140, 168, 280
- Customization of pin count upon request
- Small form factor
- Discrete pin design
- Supports 1.6mm thick mating board
- Hybrid & power individual options from 4C-HP, 4 power pins and 2 power pins available

BENEFITS

- Supports small power BTB applications
- Provides power for module card
- Supports different board-to-board, module applications like FPGA, SSD, NIC
- Serves as a space-saving connector
- Supports single-ended, high speed differential pairs up to 32G NRZ, 56G PAM4, 112G PAM4
- For most standard BTB applications
- Support accelerator card, GPU application and power module

TECHNICAL INFORMATION

MATERIAL

- Contact Base Metal: Copper alloy
- Contact Area Finish: Gold over nickel
- Solder Area Finish: Tin over nickel
- Housing: High temperature thermoplastic (UL 94V-0)

ELECTRICAL PERFORMANCE

- Contact Resistance: 15mΩ max. change after test
- Power Supply: 72W max.
- Dielectric Withstanding Voltage: 300V AC

MECHANICAL PERFORMANCE

- Durability: 200 mating cycles
- Mating Force: 0.55N/pin max.
- Unmating Force: 0.50N/pin min.

SPECIFICATIONS

- Amphenol Product Specification: S-ME-004

PACKAGING

- Orthogonal: Tube
- Straddle mount: Tray

ENVIRONMENTAL

- Humidity:EIA 364-31B Method III, without conditioning
- Temperature Life: 105±2˚C for 168 hours. Per EIA 364-17
- Thermal Shock: 5 cycles between -55˚C to +85˚C. Per EIA 364-32 Method A
- Mixed Flow Gas: 10 days to simulate 7 years field life. EIA364-65 class IIA , Option 4

TOOLING INFORMATION

- Special pin count option available upon request

TARGET MARKETS/APPLICATIONS



Baseband
Commercial Systems
Networking
Radio Units



High-end Computing System
Server and Storage Systems

PART NUMBERS

Description	Part Numbers	Gen Z	EDSFF	OCP NIC 3.0
Mini Cool Edge 0.60mm 48 signal pins, SMT, Vertical	ME1004810101011			
Mini Cool Edge 0.60mm 56 signal pins, SMT, Vertical	ME1005610101011	✓	✓	
Mini Cool Edge 0.60mm 84 signal pins, SMT, Vertical	ME1008410101011	✓	✓	
Mini Cool Edge 0.60mm 140 signal pins, SMT, Vertical	ME1014010101011	✓	✓	✓
Mini Cool Edge 0.60mm 168 signal pins, SMT, Vertical	ME1016810101011			✓
Mini Cool Edge 0.60mm 196 signal pins, SMT, Vertical	ME1019610101011			
Mini Cool Edge 0.60mm 224 signal pins, SMT, Vertical	ME1022410103011			
Mini Cool Edge 0.60mm 280 signal pins, SMT, Vertical	ME1028040101011	✓		
Mini Cool Edge 0.60mm 140 signal pins with 4 power pins, SMT, Vertical	ME1014040183011	✓		
Mini Cool Edge 4 power pins, Vertical	ME10000401P0011	✓		
Mini Cool Edge 2 power pins, Vertical	ME10000101P1011	✓		
Mini Cool Edge 0.60mm 56 signal pins, SMT, Right angle, Seating height 3.05mm	ME1005610201011	✓		
Mini Cool Edge 0.60mm 84 signal pins, SMT, Right angle, Seating height 3.05mm	ME1008410201011	✓		
Mini Cool Edge 0.60mm 140 signal pins, SMT, Right angle, Seating height 3.05mm	ME1014010201011	✓		
Mini Cool Edge 0.6mm 168 signal pins, SMT, Right angle, Seating height 3.05mm	ME1016810201011	✓		
Mini Cool Edge 0.60mm 56 signal pins, SMT, Right angle, Seating height 4.05mm	ME1005610201031		✓	
Mini Cool Edge 0.60mm 84 signal pins, SMT, Right angle, Seating height 4.05mm	ME1008410201031		✓	
Mini Cool Edge 0.60mm 140 signal pins, SMT, Right angle, Seating height 4.05mm	ME1014010201031		✓	✓

Disclaimer
Please note that the above information is subject to change without notice.

PART NUMBERS

Description	Part Numbers	Gen Z	EDSFF	OCP NIC 3.0
Mini Cool Edge 0.60mm 168 signal pins, SMT, Right angle, Seating height 4.05mm	ME1016810201031			✓
Mini Cool Edge 0.60mm 56 signal pins, SMT, Right angle, Seating height 4.05mm, Gen 5	ME1005610201041		✓	
Mini Cool Edge 0.60mm 84 signal pins, SMT, Right angle, Seating height 4.05mm, Gen 5	ME1008410201041		✓	
Mini Cool Edge 0.60mm 140 signal pins, SMT, Right angle, Seating height 4.05mm, Gen 5	ME1014010201041		✓	✓
Mini Cool Edge 0.60mm 168 signal pins, SMT, Right angle, Seating height 4.05mm, Gen 5	ME1016810201041			✓
Mini Cool Edge 0.6mm 56 signal pins, SMT, Right angle, Seating height 7.05mm	ME1005610211081		✓	
Mini Cool Edge 0.60mm 56 signal pins, SMT, Straddle mount, 1.6mm PCB, 0.0mm offset	ME1005613401101	✓	✓	
Mini Cool Edge 0.60mm 56 signal pins, SMT, Straddle mount, 2.36mm PCB, 0.0mm offset	ME1005613401201	✓	✓	
Mini Cool Edge 0.6mm 56 signal pins, SMT, Straddle mount, 2.794mm PCB, 0.0mm offset	ME10056334B1A01	✓	✓	
Mini Cool Edge 0.60mm 84 signal pins, SMT, Straddle mount, 1.6mm PCB, 0.0mm offset	MET008431401101	✓	✓	
Mini Cool Edge 0.6mm 84 signal pins, SMT, Straddle mount, 1.93mm PCB, –0.3mm offset	MET008431401311	✓	✓	
Mini Cool Edge 0.6mm 84 signal pins, SMT, Straddle mount, 2.36mm PCB, 0.0mm offset	ME1008413402201	✓	✓	
Mini Cool Edge 0.60mm 140 signal pins, SMT, OCP, Straddle mount, 1.6mm PCB, 0.0mm offset	ME1014013401101	✓	✓	✓
Mini Cool Edge 0.60mm 140 signal pins, SMT, OCP, Straddle mount, 1.93mm PCB, –0.3mm offset	ME1014013401311	✓	✓	✓
Mini Cool Edge 0.60mm 140 signal pins, SMT, OCP, Straddle mount, 2.36mm PCB, 0.0mm offset	ME1014013401201	✓	✓	✓
Mini Cool Edge 0.60mm 168 signal pins, SMT, OCP, Straddle mount, 1.6mm PCB, 0.0mm offset	ME1016813401101	✓		✓
Mini Cool Edge 0.60mm 168 signal pins, SMT, OCP, Straddle mount, 1.93mm PCB, –0.3mm offset	ME1016813401311	✓		✓
Mini Cool Edge 0.6mm 168 signal pins, SMT, OCP, Straddle mount, 2.11mm PCB, 0.0mm offset	ME10168434A0601	✓		✓
Mini Cool Edge 0.60mm 168 signal pins, SMT, OCP, Straddle mount, 2.36mm PCB, 0.0mm offset	ME1016813401201	✓		✓
Mini Cool Edge 0.60mm 168 signal pins, SMT, OCP, Straddle mount, 2.6mm PCB, 0.0mm offset	ME1016843433701	✓		✓
Mini Cool Edge 0.6mm 168 signal pins, SMT, OCP, Straddle mount, 2.794mm PCB, 0.0mm offset	ME10168334B2A01	✓		✓
Mini Cool Edge 0.6mm 168 signal pins, SMT, OCP, Straddle mount, 3.00mm PCB, 0.0mm offset	ME1016813401411	✓		✓
Mini Cool Edge 0.6mm 56 signal pins, 1x1, Gen 4+, Press–fit, Orthogonal	ME2005602311011		✓	
Mini Cool Edge 0.6mm 56 signal pins, 1x4, Gen 4+, Press–fit, Orthogonal	ME2005602311041		✓	
Mini Cool Edge 0.6mm 56 signal pins, 1x1, Gen 5, Press–fit, Orthogonal	ME3005602311011		✓	
Mini Cool Edge 0.6mm 56 signal pins, 1x4, Gen 5, Press–fit, Orthogonal	ME3005602311041		✓	
Mini Cool Edge 0.60mm 56 signal pins, 1x1, Gen 3, PCB–SMT, Orthogonal, 8.655mm offset, Stamping Shell	ME1005630501211		✓	
Mini Cool Edge 0.60mm 56 signal pins, 1x1, Gen 3, PCB–SMT, Orthogonal, 8.655mm offset, Die casting Shell	ME1005630502211		✓	
Mini Cool Edge 0.60mm 56 signal pins, 1x1, Gen 4, PCB–SMT, Orthogonal, 8.655mm offset, Stamping Shell	ME2005630501211		✓	
Mini Cool Edge 0.60mm 56 signal pins, 1x1, Gen 4, PCB–SMT, Orthogonal, 8.655mm offset, Die casting Shell	ME2005630502211		✓	
Mini Cool Edge 0.60mm 56 signal pins, 1x1, Gen 5, PCB–SMT, Orthogonal, 8.655mm offset, Stamping Shell	ME3005630501211		✓	
Mini Cool Edge 0.60mm 56 signal pins, 1x1, Gen 5, PCB–SMT, Orthogonal, 8.655mm offset, Die casting Shell	ME3005630502211		✓	

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