

Amphenol ICC

Double Density Cool Edge 0.80mm Connectors

HIGH SPEED SPACE-SAVING HYBRID CONNECTOR FOR BOARD-TO-BOARD APPLICATIONS

The 0.80mm pitch Double Density Cool Edge connectors offer a compact design with 2 rows of contacts. This highly configurable single piece connector can accommodate both high speed and low speed signal and power. This hybrid connector reduces more than half of the PCB footprint when compared to 1.00mm PCIe Cool Edge. It supports PCIe Gen 5 and is designed for multiple Add-In-Card thicknesses.

- Provide options for 1.60mm and 2.36mm AIC
- Hybrid configuration with differential, single-ended and power pin options
- High speeds of up to 32GT/s(or 56GT/s PAM4) capability
- Saves much more space than most of the cardedge connectors in market
- 76 to 428 contacts



FEATURES

- 0.80mm pitch
- 2A per pin for power application
- 0.5A per pin for signal application
- Signal pins options from 76 to 428
- Hybrid configurations
- Accommodates 1.60mm and 2.36mm thick mating boards
- Optimized contact design to meet 32Gb/s
- Special power contact design
- Compact connector design
- Cable solution is available

BENEFITS

- Support high density hybrid applications
- Support maximum 70 lanes per connector
- Allows flexible power-signal combinations
- Supports most of the standard AIC applications
- Meets next generation signal speed requirements
- Can carry more than 2A per pin
- Shortened trace lengths compared with standard cool edge connectors
- Increased system interconnect flexibility

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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: (Initial) 30m Ω max., 15m Ω max. change after test
- Current Rating: 2A per pin for power application/0.5A per pin for signal application with temperature rise not exceeding 30°C
- Dielectric Withstanding Voltage: 500V
- Operating Voltage: 12V DC (for special requirements, please contact us)

MECHANICAL PERFORMANCE

- Durability: 100 mating cycles
- Mating Force: 0.38N/pin max. for signal pin
- Unmating Force: 0.03N/pin min. for signal pin

ENVIRONMENTAL

- Temperature Life: 105±2°C for 240 hours per EIA 364-17
- Thermal Shock: 10 cycles between -55°C to +85°C per EIA 364-32
- Humidity: 24 cycles between 25±3°C at 80±3% RH and 65±3°C at 50±3% RH per EIA 364-31
- Mixed flow gas
- Operating Temperature Range: -55°C to +105°C
- Storage Temperature Range: -15°C to +55°C

APPROVALS AND CERTIFICATIONS

RoHS compliant

PACKAGING

- Tray
- Tape & Reel (support less than 284pin)

TARGET MARKETS/APPLICATIONS



Baseband Commercial Systems Networking Radio Units High-end Computing System Server and Storage Systems



High-end Computing System Server and Storage Systems

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Disclaimer

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

PART NUMBER SELECTOR – CABLE CONNECTOR

CED	x	1	XXX	1		1	X		X	XX		x	x Plating spec			
														1	0.76µm Au	
	Total Pin Count			nt										2	0.38µm Au	
		076												3	Gold flash	
		112												4	0.76µm PdNi+	GF
	148															
		200														
	248									Sing		d wafer				
		284								00	0 w	/afer				
		320								01	1w	afer				
		356								•						
		392									Мо	re option	is ava	ailabl	e	
		428														
Power Pin				1						Car	d Thio	ckness]			
0 No power wafer									1	1.6	0mm (1.5	1				
1	1 Power wafer									2	2.36mm					1
2	2 Power															
					Packaging Specification											
9	Dower w	Power wafer			1 Hard tray (320X230) with mylar											
A		10 Power wafer			2 ⊦	Hard tray (320X136) with mylar										
B		11 Power wafer			3 Т	Tube with mylar										
		-				Tape & Reel with mylar (support pin count less than 284)										
	More op	More options available			5 H	Hard tray (320X230) without mylar										
						Hard tray (320X136) without mylar										

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