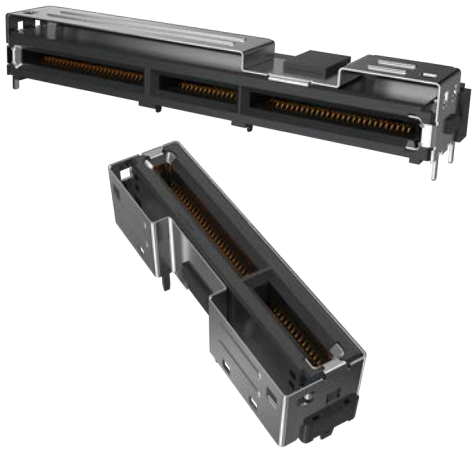
ExtremePort™ Z-Link Connector

SFF-TA-1002 STANDARD SOLUTION – UP TO 56G PAM4

Amphenol ICC introduces the SFF-TA-1002 standard solution – ExtremePort™ Z-Link, which is a 0.60mm pitch connector come with a slim form factor design, capable of transmitting high-speed signal up to 56G PAM4, and allowing much greater signal path lengths while maintaining SI performance when compared to conventional pcb routing methods.

ExtremePort™ Z-Link not only provides a SI performance ready signal transmission but also a new way of system design that is cost-effective, highly modular, scalable, and extremely easy to repair.

- Compliant to Gen-Z and OCP NIC specification
- High speed – 56Gb/s PAM4 capability
- Supports both cable and card edge applications



TARGET MARKETS

FEATURES

- 0.60mm pitch, vertical and right angle configurations
- Up to 56Gb/s PAM4, over 1.0 meter transmission distance
- Supports both cable and card edge applications with one identical connector
- SFF-TA-1002 standard form factor, with 85Ω impedance and various pin number options meeting PCIe/NVMe/OCP NIC/Gen-Z specifications

BENEFITS

- Slim form factor for compact data center system designs
- Extends transmission range far more over the conventional PCB routes
- Provides flexibility in system design to meet highly modular, scalable and easy-to-repair requirements
- Saves system material cost, engineering and certification expenses with high succession of system design

TECHNICAL INFORMATION

MATERIAL

- Contact Base Metal: Copper alloy
- Contact Area Finish: Gold over nickel
- Solder Area Finish: Tin over nickel
- Housing & Spacer: High temperature thermoplastic (UL 94V-0)
- Shorting Bar: Conductive plastic
- Cage: Stainless steel, nickel plating overall

ELECTRICAL PERFORMANCE

- Contact Resistance: 30mΩ max. initial; 15mΩ max. change after test
- Dielectric Withstanding Voltage: 300VDC

MECHANICAL PERFORMANCE

- Durability: 250 mating cycles
- Mating Force: 0.6N/pin max.
- Unmating Force: 0.06N/pin min.

ENVIRONMENTAL

- Humidity: EIA-364-31, Method III, Subject unmated specimens to 24 cycles between 25˚C/ 80%RH and 65˚C/ 50%RH
- Temperature Life: EIA-364-17, Method A Test Condition 2, Test Time Condition C, Subject mated specimens to 105˚C for 168 hours
- Thermal Shock: EIA-364-32, Method A Test condition 1, -55˚C to 85˚C (10 cycles)

APPROVALS & CERTIFICATION

- UL

SPECIFICATIONS

- Amphenol Product Specification: PS-7681

PACKAGING

- Carrier Tape

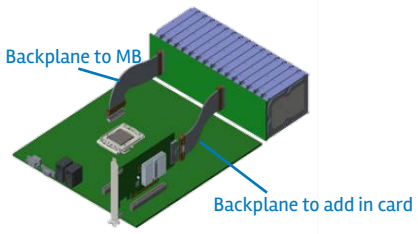
TARGET MARKETS/APPLICATIONS

Baseband
Commercial Systems
Networking
Radio Units

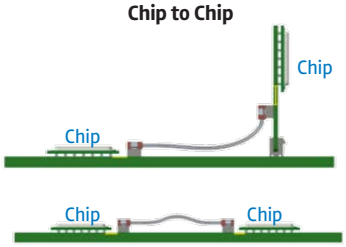
High-end Computing System
Server and Storage Systems

OverPass™ Applications

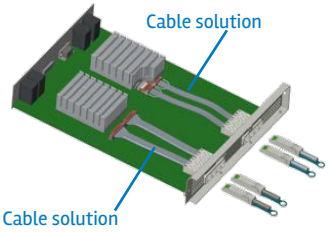
Miplane to Motherboard



Chip to Chip

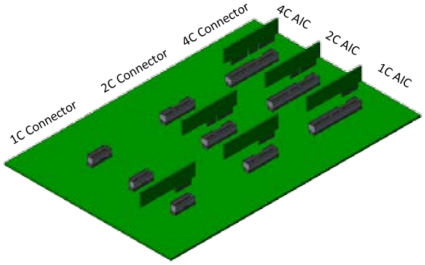


Chip to External IO

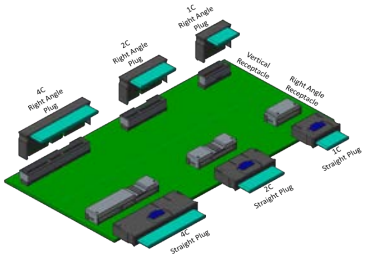


ExtremePort™ Z-Link Features

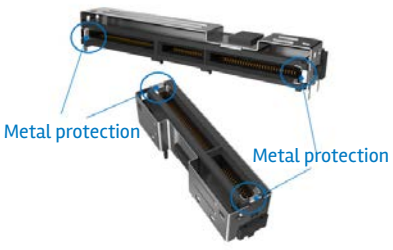
Supports Card Connection



Supports Cable Connection



Metal protection at mating interface



PART NUMBER SELECTOR

G64	X	X	X	X	X	X	X	XX	—	X

Identification	
X	Option
–	Standard

Form Factor	
V	Vertical
R	Right Angle

Compliant	
HR	Halogen-Free & RoHS compliant

Electrical Feature	
3	PAM4 56G (85Ω)

Variation (reserved for customization use)	
–	Standard

Packaging Option	
2	Tape & Reel

Pin Definition	
1	56 Pin (1C)
2	84 Pin (2C)
4	140 Pin (4C)
5	168 Pin (4C+)

Shell Pin Length	
1	1.85mm
2	2.50mm
3	3.30mm
4	4.50mm
5	1.20mm

Contact Plating	
2	15u" Gold
3	30u" Gold

PART NUMBERS

Other options available: 1.20mm, 2.50mm, 3.30mm, 4.50mm Shell DIP Length

Speed	Impedance	Form Factor	No. of Pins	Contact Finish	Shell DIP Length 1.85mm
56G PAM4	85Ω	Vertical	56 (1C)	Gold 15u"	G64V31212HR
			56 (1C)	Gold 30u"	G64V31312HR
			84 (2C)	Gold 15u"	G64V32212HR
			84 (2C)	Gold 30u"	G64V32312HR
			140 (4C)	Gold 15u"	G64V34212HR
			140 (4C)	Gold 30u"	G64V34312HR
			168 (4C+)	Gold 15u"	G64V35212HR
			168 (4C+)	Gold 30u"	G64V35312HR
		Right Angle	56 (1C)	Gold 15u"	G64R31212HR
			56 (1C)	Gold 30u"	G64R31312HR
			84 (2C)	Gold 15u"	G64R32212HR
			84 (2C)	Gold 30u"	G64R32312HR
			140 (4C)	Gold 15u"	G64R34212HR
			140 (4C)	Gold 30u"	G64R34312HR
			168 (4C+)	Gold 15u"	Coming Soon
			168 (4C+)	Gold 30u"	Coming Soon

CMIOEXTREMEZ0221EA4

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Authorized Distributor

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Amphenol:

G64R31312HR G64R32312HR G64R34312HR G64V31312HR G64V32312HR G64V34312HR G64V31352HR G64V3431BHR G64V3131BHR G64V31314HR G64V31322HR G64V3231BHR G64V34315HR G64V35333HR G64V31342HR G64V32332HR

FCI / Amphenol:

G64R31352HR G64R32332HR G64R31212HR G64R31332HR