

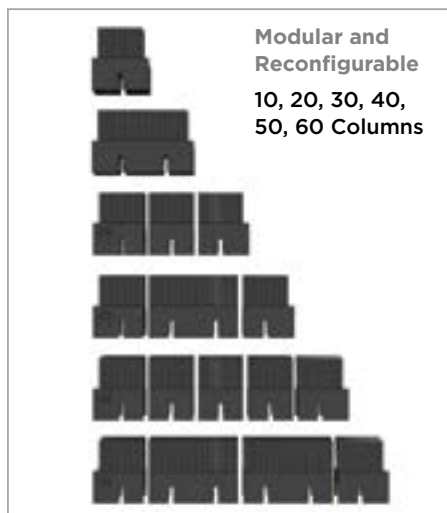


FORTIS Zd CONNECTORS

EXTREME MECHANICAL AND ELECTRICAL PERFORMANCE FOR APPLICATIONS OF 12+ GB/S



Extreme mechanical and electrical performance for applications of 12+ Gb/s



Modular and Reconfigurable
10, 20, 30, 40,
50, 60 Columns

Extreme Mechanical and Electrical Performance for the Most Demanding Bandwidth Applications

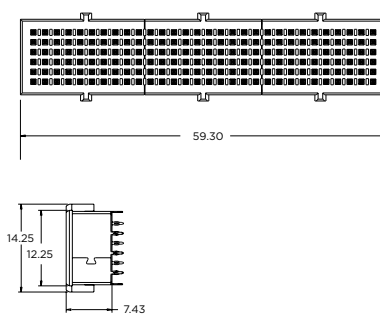
With high speeds and high reliability in demanding applications, the Fortis Zd connector family is designed to meet processing-intensive applications. The connectors support speeds of 12+ Gb/s in a design that saves weight and space.

MECHANICAL/ENVIRONMENTAL

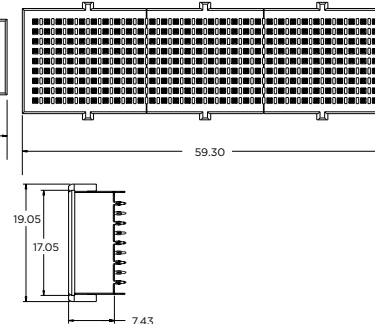
- **Durability:** 500 mating cycles min
- **Operating Temperatures:** -65°C to +125°C
- **Contact Mating Force:** 4.0 oz max per contact; 3 oz typical
- **Contact unmating Force:** 1.44 oz min
- **Voltage:** 250 volts AC
- **Current:** 1.5 amperes (single circuit, free air)
- **Characteristic Impedance:** 100 ohms

Receptacle Modules

Six-Row Connectors



Nine-Row Connectors



FAST

- Allows 12+ Gb/s data rates in a design that saves weight and space

RUGGED

- Extreme mechanical and electrical performance for the most demanding applications
- Space-compatible materials
- Proven compliant pin board attach facilitates manufacturing efficiency, repairability, and superior electrical performance
- Protected pin field on backplane for reliability and durability

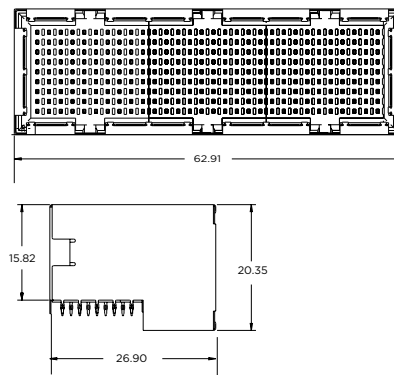
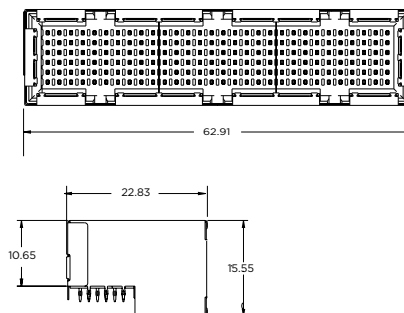
FLEXIBLE

- Modular design allows for user configurability and modular evolution
- M55302-heritage Mini-Box separable interface provides four points of contact on all sides of the pin
- Staggered daughtercard pin field supports two-level maintenance

HIGH PERFORMANCE

- 3-pair (9-row) and 2-pair (6-row) versions available to accommodate multiple slot pitches
- Shielded versions for EMI protection

Plug-in Modules



The Mini-Box contact, with spring contact on all four of the mating posts, has years of proven reliability in rugged applications.

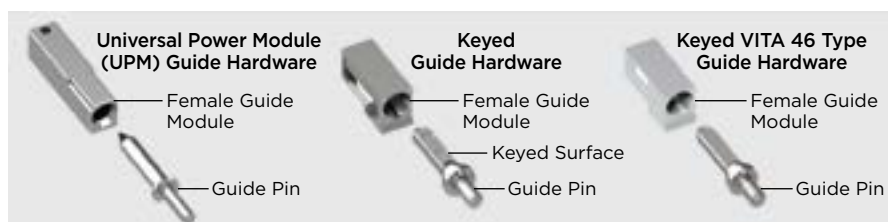
Fortis Zd Connectors

PHYSICAL OR OTHER PROPERTIES

- 10 and 20 column modules
- 3-pair (9-row) and 2-pair (6-row) modules
- 6U configuration offers 300 differential pairs
- Multi-bay shielded and rugged shell options
- 6-row modules enable 0.6" reduced form factor card pitch
- Modularity enables scalability for various card sizes

MATERIALS

- **Contacts:** High-performance copper alloy, plated 50 µin gold over 50 µin nickel in mated contact area, tin/lead or tin on compliant tails
- **Housings:** High-temperature thermoplastic
- **EMI Shield:** Copper alloy
- **Rugged Shell:** 6061 aluminum with trivalent chromate conversion coating



STANDARDS AND SPECIFICATIONS

- **Application Specification:** 114-13267
- **Product Specification:** 108-2409
- **Qualification Test Report:** 501-752
- **Electrical Performance Report:** 505-1

APPLICATION TOOLING

- **Flat Rock Tooling**
Commercially available bar stock (flat rock tooling) with a flat surface large enough must be used with the application tooling to seat and remove these modules.

STANDARD FORTIS Zd MODULES

		Part Number					
		Left	Center		Right	Full Shroud	
		10 Col.	10 Col.	20 Col.	10 Col.	10 Col.	20 Col.
6-Row (2-Pair) Connector Modules							
Right-Angle	Differential	2102086-1	2102087-1	2102096-1	2102088-1	2102081-1	2102232-1
Vertical	—	2102092-1	2102093-1	2102098-1	2102092-1	2102094-1	2102234-1
9-Row (3-Pair) Connector Modules							
Right-Angle	Differential	2000890-1	2000891-1	2000903-1	2000892-1	2102155-1	2102159-1
	Single Ended	2102314-1	2102315-1	2102316-1	2102317-1	2102318-1	2102319-1
Vertical	—	2000895-1	2000896-1	2000905-1	2000895-1	2102157-1	2102161-1

-1 parts have tin-lead plated contact tails; for lead-free tin order -2.

SHIELDED FORTIS Zd MODULES

		Part Number					
		10 Col.	20 Col.	30 Col.	40 Col.	50 Col.	60 Col.
6-Row (2-Pair) Connector Modules							
Right-Angle	Differential	2102515-1	2102515-2	—	—	—	—
Vertical	—	2102516-1	2102516-2	—	—	—	—
9-Row (3-Pair) Connector Modules							
Right-Angle	Differential	2102247-1	2102247-2	2102247-3	2102247-4	2102247-5	2102247-6
	Single Ended	2102320-1	2102320-2	2102320-3	2102320-4	2102320-5	2102320-6
Vertical	—	2102248-1	2102248-2	2102248-3	2102248-4	2102248-5	2102248-6

GUIDE HARDWARE

		Part Number		
		UPM Guide Hardware	Die Cast VITA 46 Guide Hardware	Machined VPX Guide Hardware
Guide Pin		223969-X	1-1469491-X	2000676-X
Guide Module		223979-X	1-1469492-X	2000713-X (with ESD contact)

See TE drawings for guide module and pin options.

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