



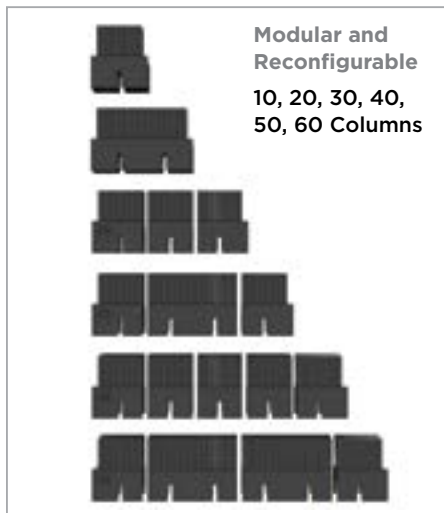
## FORTIS Zd CONNECTORS

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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

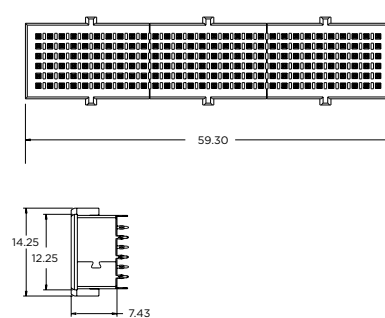
With high speeds and high reliability in demanding applications, the Fortis Zd connector family is designed to meet processing-intensive applications. The connectors support speeds of 12+ Gb/s in a design that saves weight and space.

### MECHANICAL/ENVIRONMENTAL

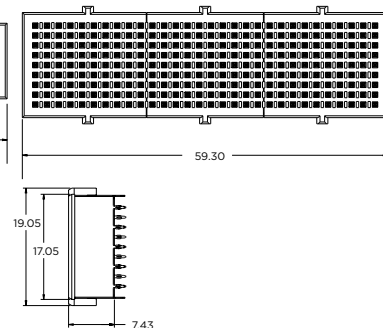
- **Durability:** 500 mating cycles min
- **Operating Temperatures:** -65°C to +125°C
- **Contact Mating Force:** 4.0 oz max per contact; 3 oz typical
- **Contact Unmating Force:** 1.44 oz min
- **Voltage:** 250 volts AC
- **Current:** 1.5 amperes (single circuit, free air)
- **Characteristic Impedance:** 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, reparability, and superior electrical performance
- Protected pin field on backplane for reliability and durability

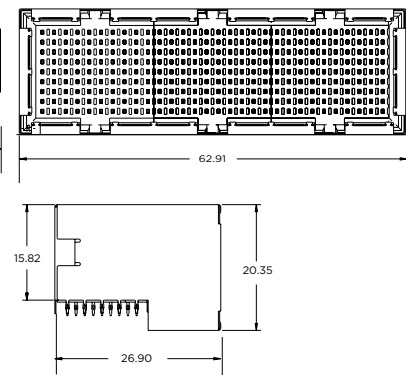
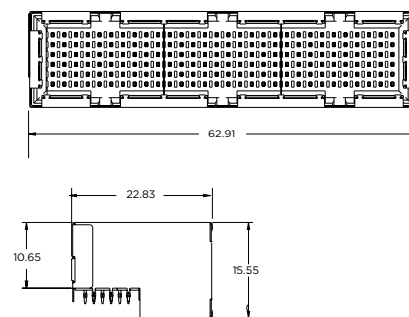
### FLEXIBLE

- 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.

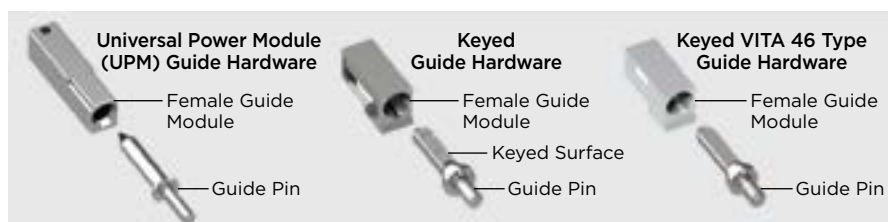
# Fortis Zd Connectors

## 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.
<b>6-Row (2-Pair) Connector Modules</b>							
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
<b>9-Row (3-Pair) Connector Modules</b>							
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.
		<b>6-Row (2-Pair) Connector Modules</b>					
Right-Angle	Differential	2102515-1	2102515-2	—	—	—	—
Vertical	—	2102516-1	2102516-2	—	—	—	—
<b>9-Row (3-Pair) Connector Modules</b>							
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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- [Connect with our experts to find the right tool for your application](#)

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