

MULTIGIG RT 3 and MULTIGIG RT 2-S Connectors

Board-to-board connectors engineered for the world's most demanding and rugged environments:

- Data transfer rates to 32+ Gb/s
- Modular design with backward interoperability
- Ruggedized multipoint contact system meets VITA vibration standards

MULTIGIG RT 3 AND MULTIGIG RT 2-S CONNECTORS

VPX Advances with TE's MULTIGIG RT Connector Platform



FAST

- Enhanced PCB wafer and contact design supports increased bandwidth up to **32+ Gb/s**

FLEXIBLE

- Meets interface requirements for VITA 46 connectors allowing backward compatibility with legacy VPX products
- Customizable to meet unique application requirements

MODULAR

- Modular design enables numerous configurations by interchanging higher-speed MULTIGIG RT 3 connectors with the legacy MULTIGIG RT 2 and MULTIGIG RT 2-R connectors.

RUGGED

- Contact design utilizes quad redundant contacts for optimum performance in shock and vibration

TE Connectivity's (TE) MULTIGIG RT 2-S and MULTIGIG RT 3 next generation lightweight, rugged, high speed backplane connectors meet the interface dimensions for VITA 46 VPX connectors.

They are backward compatible with legacy MULTIGIG RT products and offer the same reliable interface.

The new contact and wafer designs optimize signal integrity, extending data rates from 16-32+ GB/s.

APPLICATIONS/MARKETS

- Military Electronics/C4ISR
- Avionics
- Ground Defense
- Missile Defense
- Space

STANDARDS AND SPECIFICATIONS

- Application Specification: 114-163004 (MULTIGIG RT 2, RT 2-R and MULTIGIG RT 3 Signal Connectors)
- Product Specification: 108-2072 (MULTIGIG RT 3)
- Qualification Test Report: 501-544 (MULTIGIG RT 2R) and 501-134091 (MULTIGIG RT 3)
- Electrical Performance Report: 505-2 (RT 3)
- Backplane Connector Removal: 408-10127 (RT 3)
- Daughtercard Connector Removal: 408-10454 (RT 3)
- Standards and Test Reports: #204690 (VITA 72 VPX Connector Report)



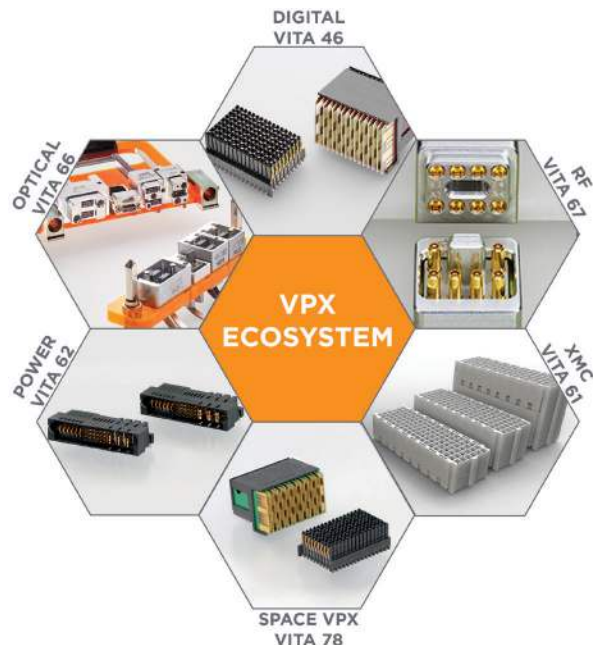
PRODUCT OFFERING



	MULTIGIG RT 2	MULTIGIG RT 2-R	MULTIGIG RT 2-S	MULTIGIG RT 3
Speeds	10+ Gb/s	10+ GB/S	16+ Gb/s	32+ Gb/s
Ruggedized	-	✓	✓	✓
Mating Cycles	200	500	500	500
Quad-redundant Contact System	-	✓	✓	✓
Flexibility with Wafer Configuration	✓	✓	✓	✓
VITA 46 Intermateable	✓	✓	✓	✓
PCB Hole Dimension (Backplane)	0.56 (Ref)	0.56 (Ref)	0.56 (Ref)	0.37 (Ref)
PCB Hole Dimension (Daughtercard)	0.46 (Ref)	0.46 (Ref)	0.46 (Ref)	0.32 (Ref)
Release Date	2003	2013	2019	2019
Open VPX Standard	VITA 46.0	VITA 46.0	VITA 46.0	VITA 46.30

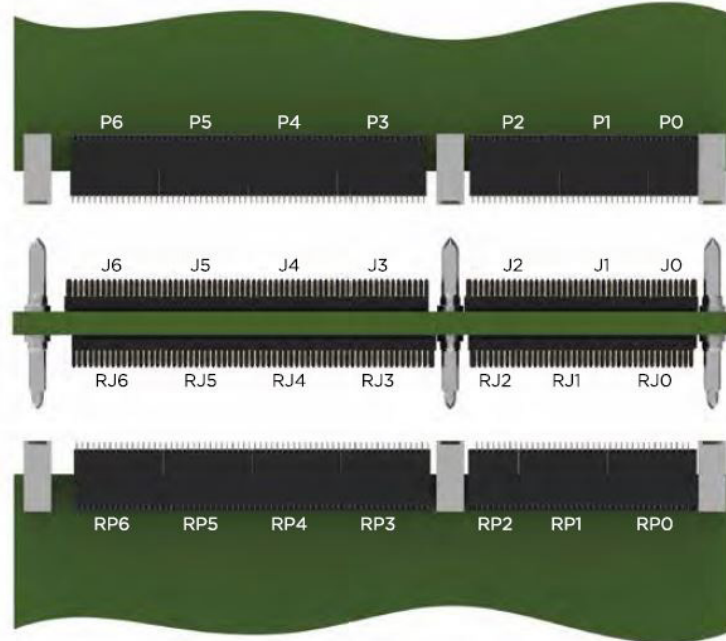
A VERSATILE PORTFOLIO THAT SUPPORTS FLEXIBILITY IN APPLICATIONS:

- PLUG-IN MODULES
- SYSTEMS
- POWER SUPPLIES
- BACKPLANES
- MEZZANINE (XMC) CARDS





VITA 46 VPX PART NUMBERS



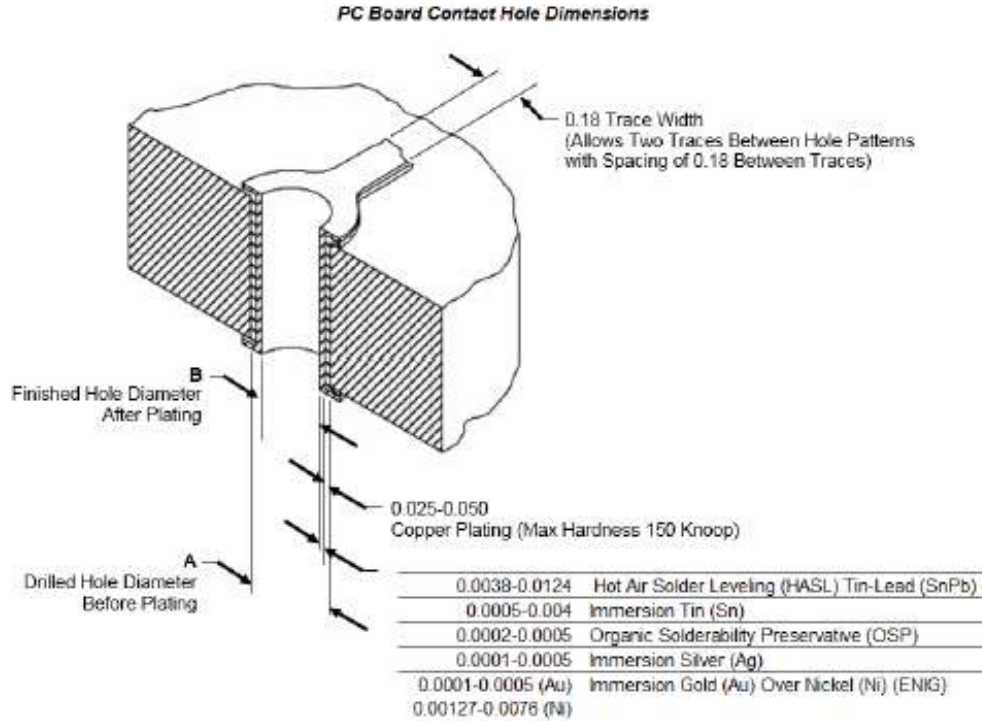
Reference only

refer to [IE Spec 114-163004](http://www.ieee.org/standards/public/114-163004) for most up to date information

VITA 46 VPX Part Numbers									
Position	RT 2 (10Gb/s)		RT 2-R (Rugged 10Gb/s)		RT 2-S (+16Gb/s)		RT 3 (32+Gb/s)		RT3 Highspeed with Power
	Differential	Single Ended	Differential	Single Ended	Differential	Differential	Differential		
P0		1410189-3		2102772-1		2302318-1		2102772-1 (RT 2-R)	2332816-1
P1, 2, 3, 4, 5, 6	1410187-3	1410190-3	2102771-1	2102847-1	2302317-1		2302785-1		
DC Guide	1-1469492-X		2000713-X		2000713-X		2000713-X		
J0		1410186-1		2102735-1	2102735-1 (RT 2-R)		2102735-1 (RT 2-R)		2332817-1
J1, 3, 4, 5		1410140-1		2102736-1	2102736-1 (RT 2-R)		2302789-1		
J2, 6		1410142-1		2102737-1	2102737-1 (RT 2-R)		2302790-1		
BP Pin	1-1469491-X		2000676-X		2000676-X		2000676-X		
VITA 46.10 RTM Part Numbers									
Position	RT 2 (10Gb/s)		RT 2-R (Rugged 10Gb/s)		RT 2-S (+16Gb/s)		RT 3 (32+Gb/s)		RT3 Highspeed with Power
	Differential	Single Ended	Differential	Single Ended	Differential	Single Ended	Differential	Single Ended	
RP0		1410968-3		2102773-1		2302319-1		2302794-1	
RP1, 3, 4, 5, 6	1410975-3	1410970-3	2102774-1	2102849-1	2302320-1		2102849-1	2302795-1	2102849-1
RP2	1410971-3	1410972-3	2102775-1	2102848-1	2302321-1		2102848-1	2302796-1	2102848-1
RTM DC Guide	1-1469492-X		2000713-X		2000713-X		2000713-X		
Position	RT2		RT2-R		RT 2-S		RT3		RT3 Highspeed with Power
	Full Load	Select Load	Full Load	Select Load	Full Load	Select Load	Full Load	Select Load	
RJ0	1410964-1	1410965-1	2102768-1	2102850-1	2102768-1 (RT 2-R)	2102850-1 (RT 2-R)	2302791-1	2302792-1	
RJ1	1410140-1	1410966-1	2102736-1	2102851-1	2102736-1 (RT 2-R)	2102851-1 (RT 2-R)	2302789-1	2302793-1	
RJ2	1410186-1		2102735-1		2102735-1 (RT 2-R)		2302788-1		
RJ3	1410142-1		2102737-1		2102737-1 (RT 2-R)		2302790-1		
RJ4, 5, 6	1410140-1		2102736-1		2102736-1 (RT 2-R)		2302789-1		
RTM BP Pin	1410956-1		2226127-1		2226127-1		2226127-1		
Modules for VITA 66.4 and 67.1 3U applications									
Position	RT 2 (10Gb/s)		RT 2-R (Rugged 10Gb/s)		RT 2-S (+16Gb/s)		RT 3 (32+Gb/s)		RT3 Highspeed with Power
	Differential	Single Ended	Differential	Single Ended	Differential	Single Ended	Differential	Single Ended	
PO + P1A		1410326-3		2286250-1		2345723-1		2313237-1	
J0 + J1A		1410140-1		2102736-1		2102736-1 (RT 2-R)		2313238-1	
J0 + J1A Right End		1410142-1		2102737-1		2102737-1		2352032-1	
P1B + P2A		1410187-3		2102771-1		2302317-1		2302785-1	
J1B + J2A		1410142-1		2102737-1		2102737-1		2302790-1	



PC BOARD CONTACT HOLE DIMENSIONS



TIER	CONNECTOR	DIMENSIONS	
		A	B (nominal)
RT 2	Vertical Receptacle (Backplane)	0.63-0.67	0.56 (Ref)
RT 2-R	Right-Angle Plug (Daughtercard)	0.53 - 0.57	0.46 (Ref)
RT 2-S			
RT 3	Vertical Receptacle (Backplane)	0.43 - 0.47	0.37 (Ref)
	Right-Angle Plug (Daughtercard)	0.38 - 0.42	0.32 (Ref)

NOTE: All holes in the pc board must be precisely located to ensure proper placement and optimum performance. The pc board layout must be designed using the dimensions provided on the customer drawing.

LET'S CONNECT

We make it easy to connect with our experts and are ready to provide all the support you need. Just call your local support number or visit te.com to chat with a Product Information Specialist.

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te.com/multigig-rt3

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Consult TE for the latest dimensions and design specifications.

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