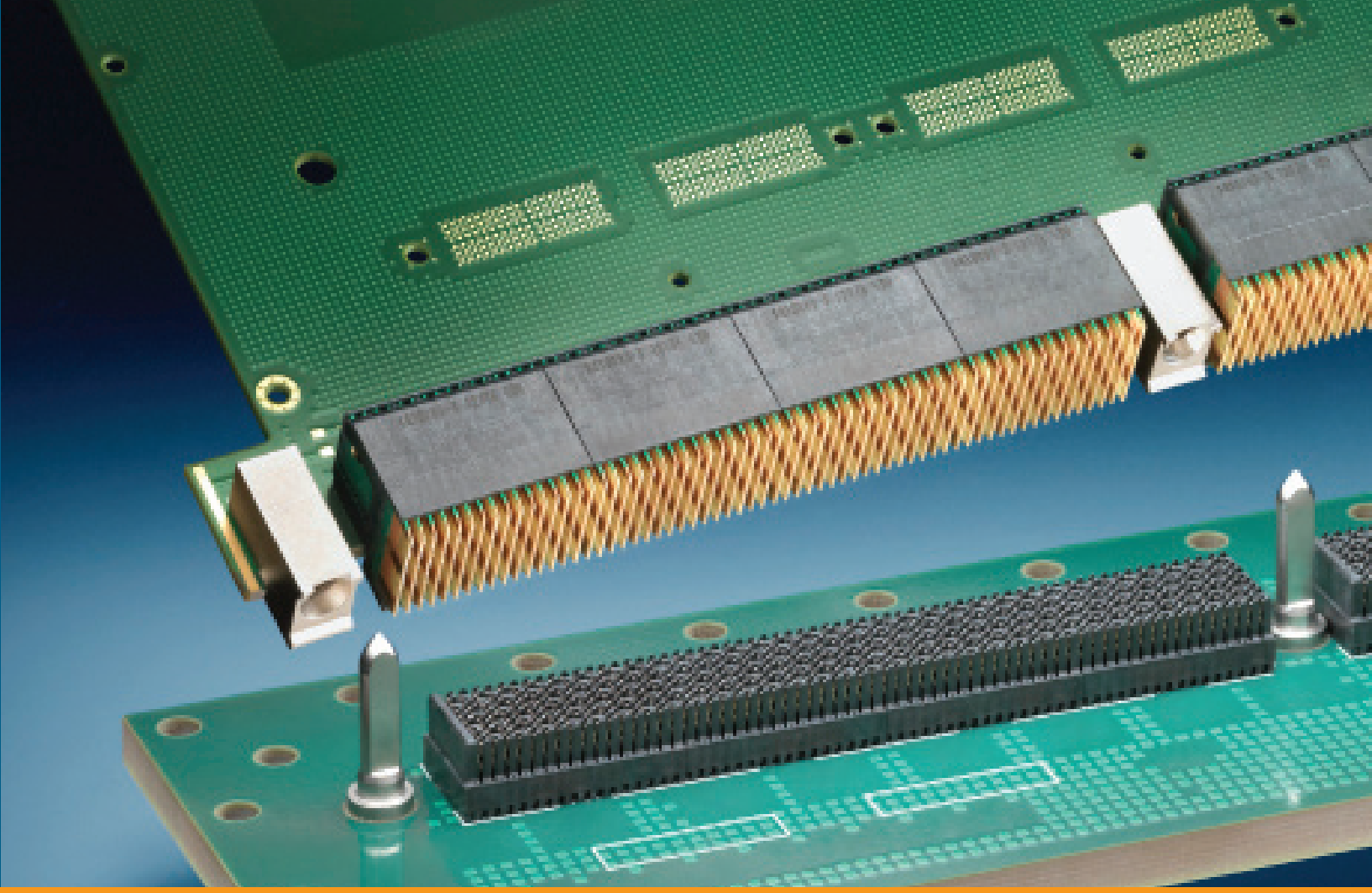


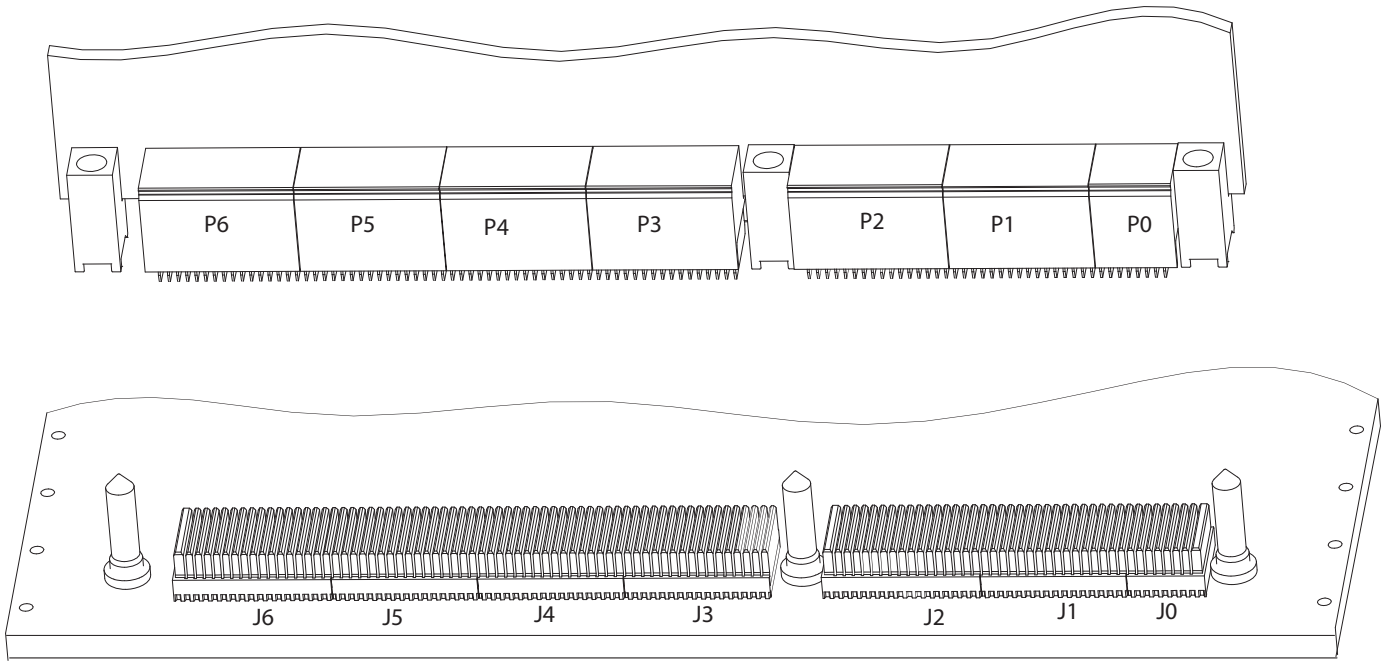
Introducing

MULTIGIG RT 2-R Ruggedized Connectors for VPX Applications

VPX

TE connectivity

PART CONFIGURATIONS



DAUGHTERCARD

Module Position		Part No.	
		MULTIGIG RT 2 Connectors	Ruggedized MULTIGIG RT 2-R (Extended Pad Wafers)
PO		1410189-3	2102772-1
P1, P2, P3, P4, P5, P6	Differential	1410187-3	2102771-1
	Single-Ended	1410190-3	2102847-1
Keying Guide Modules		1-1469492-X Standard (Zinc Die Cast) Guide Socket	2000713-X Machined 6061 Aluminum Guide Socket, w/ESD Contact

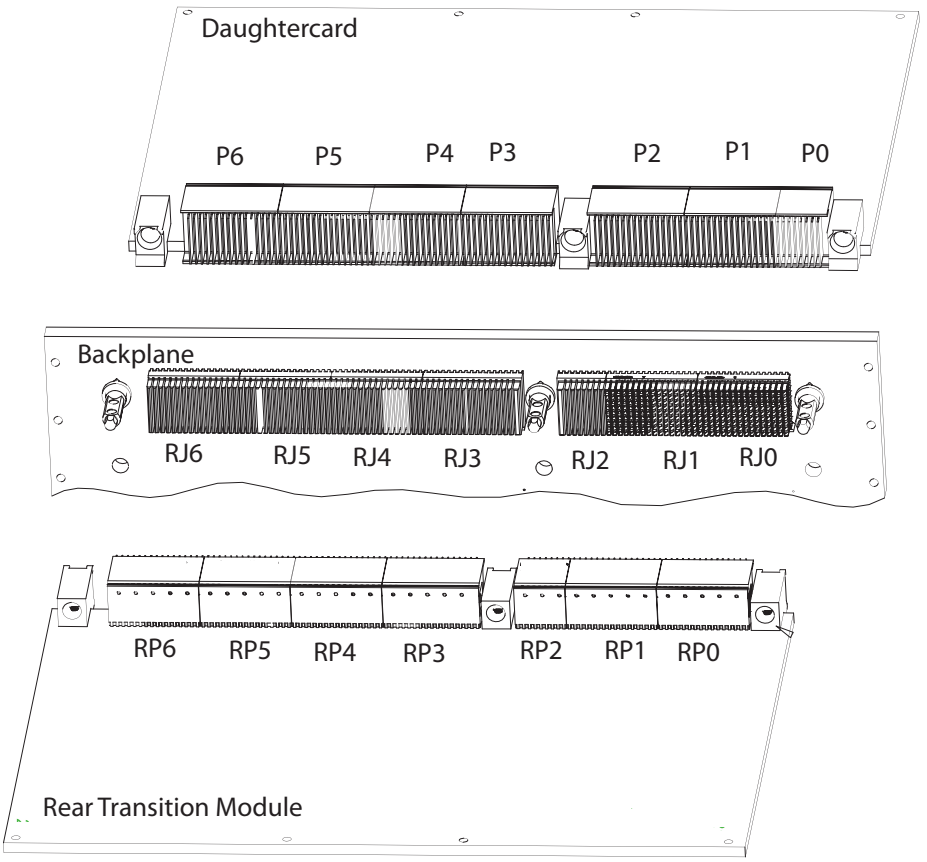
See TE drawings for guide module and pin options.

BACKPLANE

Module Position	Part No.	
	MULTIGIG RT 2 Connectors	Ruggedized MULTIGIG RT 2-R (Quad Redundant Contacts)
JO	1410186-1	2102735-1
J1, J3, J4, J5	1410140-1	2102736-1
J2, J6	1410142-1	2102737-1
Keying Guide Pin	1-1469491-X Standard (Zinc Die Cast) Guide Pin	2000676-X Stainless Steel Guide Pin

See TE drawings for guide module and pin options.

PART CONFIGURATIONS



REAR TRANSITION MODULE

Module Position		Part No.	
		MULTIGIG RT 2 Connectors	Ruggedized MULTIGIG RT 2-R (Extended Pad Wafers)
RPO		1410968-3	2102773-1
RP1	Differential	1410975-3	2102774-1
	Differential & Single-Ended	1410970-3	2102849-1
RP2	Differential	1410971-3	2102775-1
	Single-Ended	1410972-3	2102848-1
RP3, RP4, RP5, RP6	Differential	1410975-3	2102774-1
	Single-Ended	1410190-3	2102847-1
Keying Guide Modules		1-1469492-X Standard (Zinc Die Cast) Guide Socket	2000713-X Machined 6061 Aluminum Guide Socket, w/ESD Contact

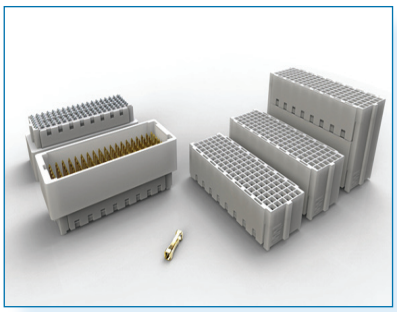
See TE drawings for guide module and pin options.

REAR TRANSITION BACKPLANE

Module Position		Part No.	
		MULTIGIG RT 2 Connectors	Ruggedized MULTIGIG RT 2-R (Quad Redundant Contacts)
RJO	See Note 1	1410964-1	2102768-1
	See Note 2	1410965-1	2102850-1
RJ1	See Note 3	1410140-1	2102736-1
	See Note 4	1410966-1	2102851-1
RJ2		1410186-1	2102735-1
RJ3		1410142-1	2102737-1
RJ4, RJ5, RJ6		1410140-1	2102736-1
Keying Guide Pin		1410956-1 Standard (Zinc Die Cast) Guide Pin	2226127-1 Stainless Steel Guide Pin

Notes (Reference VITA 46.10; Observation 3-6):
Note 1: 16 column shell, 15 columns of contacts
Note 2: 16 column shell, 7 columns of contacts present (plus contacts i9-16)
Note 3: 16 column shell, 16 columns of contacts
Note 4: 16 column shell, 8 columns of contacts present (plus contacts i1-8)

ASSOCIATED VPX SOLUTIONS

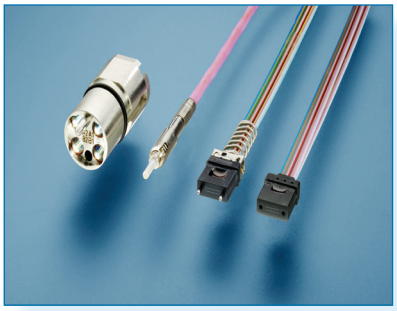


MEZALOK Mezzanine Connectors (Compliant to VITA 61)

- Utilizes the proven, reliable MIL-55302 Mini-Box contact interface, with four points of contact
- Backwards compatible with XMC board footprint
- Accommodates 10mm, 12mm, 15mm and 18mm stack heights
- Solder ball SMT attach in SnPb and RoHS options
- 114 (6 x 19) positions and 60 (6 x 10) positions
- Protected “stub-proof” socket contacts w/superior signal integrity
- Exceptional solder joint reliability (1000+ cycles thermal shock)

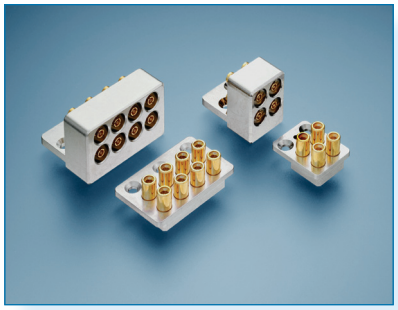
MULTI-BEAM XLE Power Connectors (Compliant to VITA 62)

- 20A and 50A power contacts, plus signal contacts
- 3-beam high-conductivity-copper contact design allows for a greater angular misalignment between mating connectors and offers a lower mating force
- Slim guide sockets reduce the overall PCB footprint
- Vented housing allows for better heat dissipation
- Hot-plug capable



Optic Connectors (Compliant to VITA 66)

- Light weight
- High bandwidth
- EMI immunity
- 3 fiber optic interface types available:
  - 66.1 has two MT ribbon ferrules up to 24 fibers each
  - 66.2 four ARINC 801 termini
  - 66.3 one expanded beam lensed insert with four fibers



RF Modules (Compliant to VITA 67)

- Excellent channel-to-channel isolation and RF performance to 65 GHz
- Modular design permits application specific configuration with high RF contact count
- Float mounted jack maintains positive RF ground
- .240 center-to-center spacing
- 4 and 8 position modules are designed to meet the requirements of VITA 67.1 and VITA 67.2

MULTIGIG RT 2-R Connectors

KEY FEATURES

Quad-redundant contact system supports high levels of shock/vibration

Compliant to VITA 46 for Open VPX applications

Supports Ethernet, Fibre Channel, InfiniBand applications, PCIe and Serial RapidIO high speed protocols

Modular, lightweight connector system

Robust “pinless” interface

Differential, single-ended and power

Ruggedized guide hardware available

Supports 0.8 inch card slot pitches

VITA 46 compliance enables upgrade in existing VPX applications

Can be combined with high power modules (VITA 62), RF modules (VITA 67) and Optical modules (VITA 66)

DESCRIPTION

TE’s MULTIGIG RT 2-R ruggedized, light weight, high speed board-to-board interconnect is compliant to VITA 46 standard. This connector system features the modularity and flexibility of the MULTIGIG RT 2 connector, with a new quad-redundant contact structure designed for high vibration levels.

APPLICATIONS

Rugged embedded computing applications:

- Ground Defense
- Electronic Systems / C4ISR
- Commercial and Military Aerospace
- Missile Defense
- Space

MATERIALS

Contacts:	High performance copper alloy, plated 50 µin Au over 50 µin Ni in mating area, tin-lead on compliant pin tails
Housings:	High temperature thermoplastic
Rugged Guide Hardware: Aluminum or passivated stainless steel	

MECHANICAL

Operating Temperature:	-55 to +105˚C
Mating Force:	0.75 N [2.70 ozf] maximum per contact, same as standard MULTIGIG RT 2 backplane connector

STANDARDS & SPECIFICATIONS

Compliant to VITA 46 (VPX)	
Product Specification:	108-2072
Application Specification:	114-13056
Qualification Test Report:	501-544

PHYSICAL OR OTHER PROPERTIES

Tested to HALT (Highly accelerated life test) vibration levels ($0.2G^2/Hz$) per VITA 72

Connector modules available for 3U and 6U VPX slot profiles, including rear transition modules

Reliable press-fit termination, requiring only flat rock tooling

Lightest weight VPX connector system: mated set of connectors and guide hardware for typical module and backplane slots:
3U - 62.66g (2.21 oz); 6U - 140.26g (4.95 oz)

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