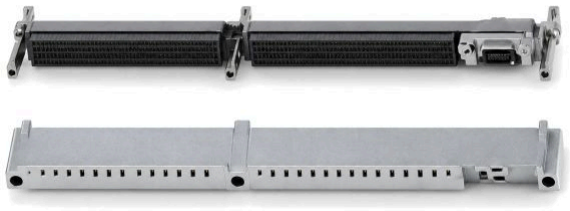
VPX Rugged Hybrid Backplane Connectors (VITA 46 / 66 / 67)

6.25 Gbps · RF to 40 GHz · MT fiber · 3U and 6U



Data rate	6.25 Gbps differential
RF	DC–40 GHz, 50 Ω
Fiber	MT, ≤ 1.5 dB
Power	8 A per circuit, 48 V
Temperature	–55 to +125 °C (+80 °C with fiber modules)

Key features

- VITA-standard module electrical interface for 3U and 6U boards
- Press-fit 100 Ω differential modules, 6.25 Gbps
- VITA 67 RF modules, DC to 18 GHz or 40 GHz
- VITA 66 fiber modules with high-density MT ferrules
- Single-ended and 8 A power modules
- Plugs, receptacles and rear-transition versions; modules chosen per position

Specifications

Differential

Parameter	Value	Condition
Data rate	6.25 Gbps	
Impedance	100 Ω	
Low-level contact resistance	≤ 80 mΩ	
Current	1 A	
Withstanding voltage	500 VAC	

RF

Parameter	Value	Condition
Frequency	DC–40 GHz	
Impedance	50 Ω	
Insertion loss	≤ 0.06 $\sqrt{f}$ dB	f in GHz
VSWR	≤ 1.15 + 0.01 f	f in GHz
Phase stability	≤ ±3° to 18 GHz; ≤ ±6° to 40 GHz	
Isolation	Better than –90 dB (0.5–18 GHz); –70 dB (18–40 GHz)	
RF leakage	Better than –80 dB (2–3 GHz)	

Fiber and power		
Parameter	**Value**	**Condition**
Fiber insertion loss	≤ 1.5 dB	
Bit error rate	≤ 10^{-12}	1.25 Gbps, PRBS $2^{23}-1$
Power	48 V, 8 A per circuit, ≤ 10 mΩ, 500 V withstanding	

Mechanical and environmental		
Parameter	**Value**	**Condition**
Random vibration	10–2000 Hz, 0.2 g^2/Hz	
Shock	80 g, half-sine, 11 ms	
Operating temperature	–55 to +125 °C	–55 to +80 °C with fiber modules
Salt spray	48 h	

Versions

Series code	Version	Notes
T / Z	Plug / receptacle	
RT / RZ	Rear-transition plug / receptacle	
A, B, G, a …	Module types: differential, single-ended, fiber, base (half) modules	

How to order

VPX - [modules] [T/Z] [key] [P0–P2 modules] [key] [P3–P6 modules] [key] - [variant]

Example: **VPX-61T8aAB8AAAG8-A** — 6U plug, 6 full + 1 half module: P0 base, P1/P3/P4/P5 differential, P2 single-ended, P6 fiber; 6 power, 128 single-ended, 132 differential pairs, 203 ground and 2 MT fibers

Code segment	Options
Modules	**e.g. 61** 6 full modules, 1 half module
Type	**T / Z / RT / RZ** Plug / receptacle / rear-transition plug / receptacle
Keys	**0, 1, 2–8** Guide key near P0/J0, P2/J2 and P6/J6

3U boards omit the P3–P6 fields.

Standards

- **VITA 46 / VITA 66 / VITA 67 (interface)** — VPX module, fiber and RF interfaces.

Request a quote or drawing: https://sinoxh.com/request-a-quote/?product=VPX