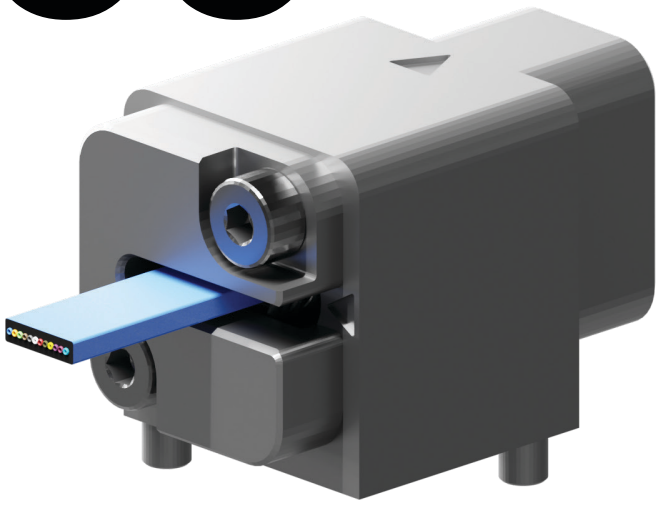
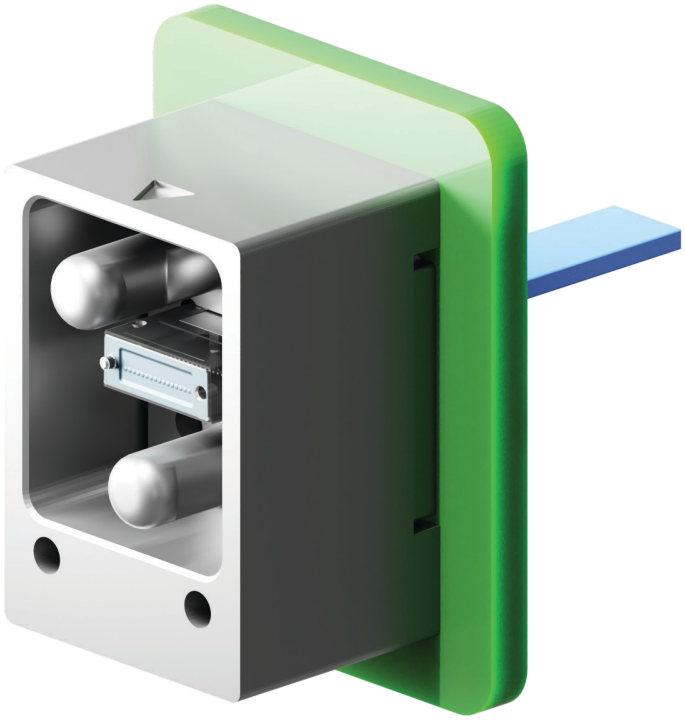
Creative
Interconnect
Solutions

VITA 66





→ Optical backplane connectors

VITA 66

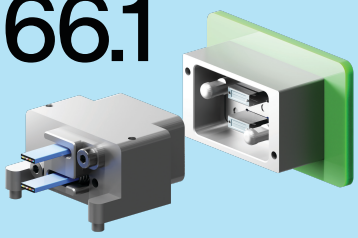
is a standard for optical backplane interconnects in the VPX (VITA 46) ecosystem. It defines a blind-mate connector system that allows for high-density, ruggedized optical connections between modules and backplanes.

This standard is designed to be flexible and scalable. It supports a wide range of optical connector types and configurations, and it can be adapted to meet the needs of a variety of applications.

- **High density:** supports up to 24 optical channels per connector (48 with 2 MT ferrules)
- **Ruggedness**: designed to be rugged and reliable, making them ideal for harsh environments
- **Performance**: offer high performance with high-speed data rates
- **Scalability**: flexible standard that can be adapted to meet the needs of various applications

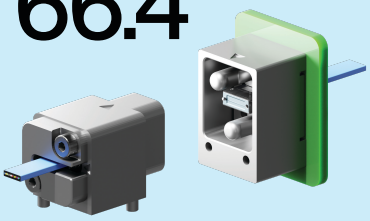
Designed to meet the requirements of VITA 47

VITA 66.1



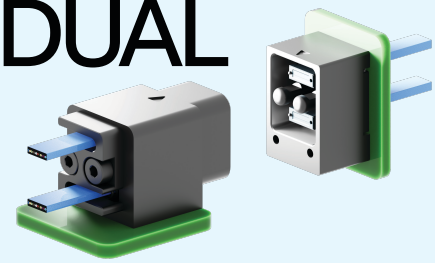
Connector with 2 MT ferrules
- With expanded beam MT ferrule
- With physical contact MT ferrule

VITA 66.4



Connector with 1 MT ferrule
- With expanded beam MT ferrule
- With physical contact MT ferrule

VITA 66.4 DUAL



Connector with 2 MT ferrules, compact version
- With expanded beam MT ferrule

Physical Contact VS Expanded Beam

PHYSICAL CONTACT TECHNOLOGY

Low Insertion Loss
Compact Size
Cost Effective

Insertion loss of a physical contact MT ferrule under 0.3dB

EXPANDED BEAM TECHNOLOGY

Resitant to Contamination
Enhanced Durability
Easier cleaning and maintenance

We integrate the PRIZM® MT ferrule from USCONEC
Insertion loss of a PRIZM® MT ferrule under 0.6dB

Connector dedicated to VPX system, for backplane applications

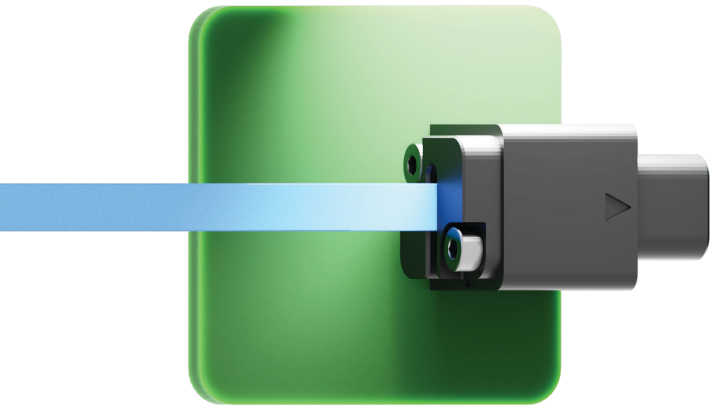
VITA 66 compliant

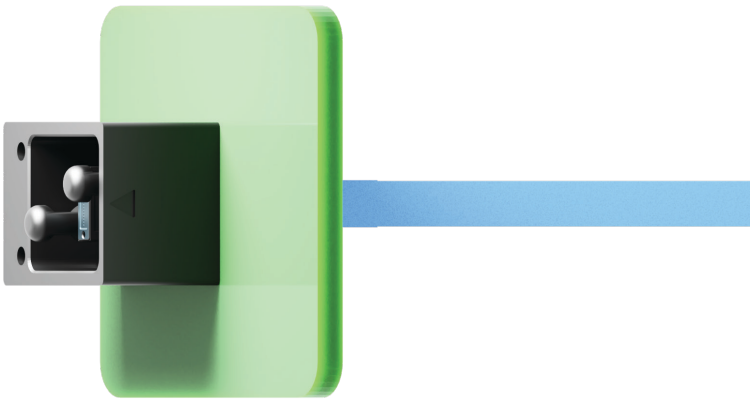
Nickel plated aluminum and passivated stainless steel materials

Product specifications

VITA66.4 with PRIZM® MT ferrule: We ensure initial IL<0.6dB and IL<1dB after test

TEST	REQUIREMENT	STANDARD
Temperature cycling	500 cycles -55°C / 105°C	VITA 47.2 MIL-STD-202H Method 107
Operating temperature	1 cycle -40°C / 85°C	VITA 47 – MIL-STD-810 - Method 501 procedure II - Method 502 procedure II
Non operating temperature	168h -55°C / 105°C	VITA 47 operating temperature MIL-STD-810 - Method 501 procedure II - Method 502 procedure II
Mating - unmating	500 cycles	EN2591-406
Humidity	10 cycles 25°C – 65°C 89% - 94% humidity	VITA 47.2 MIL-STD-810G DO 160 section 6 method B
Salt mist	48 hours	VITA 47.2 ASTM G85, annex A4, cycle A4.4.4.1
Vibrations	▪ 5Hz to 100Hz DSP, increase of 3dB/oct ▪ 100Hz à 1000Hz DSP = 0.1g²/Hz ▪ 1000Hz à 2000Hz DSP decrease of 6dB/oct	VITA 47.2 Vibration class V3
Shock	40g, 11ms, sawtooth terminal shock pulses in all three axes	VITA 47.2 shock class OS2 MIL-STD-810 method 516 procedure I
Sand & dust	1 cycle	EN2591-308





↓ Module connector

- Mounted on the plug-in cards racked in a VPX chassis
- Allows a precise ferrule alignment before connection

↓ Backplane connector

- Mounted on the backplane board
- Floating connector to compensate for system backlash (0.5mm floating)