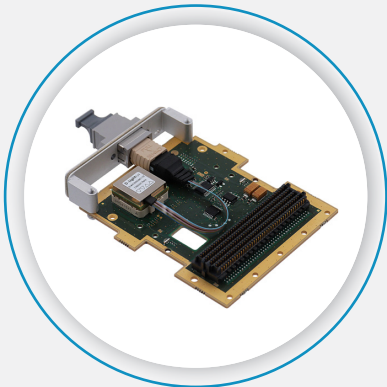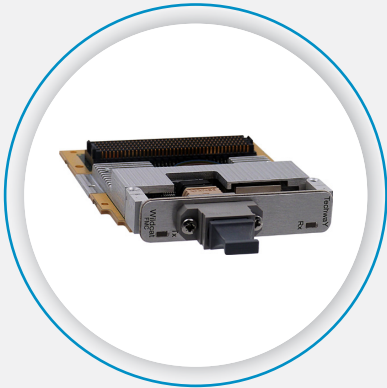# WILDCATFMC
BOARD

*Optical High-Speed and
High-Density Interface for
Ruggedized FPGA Board*

Expand the I/O capabilities of your FPGA board with high-speed and high-density optical links without re-design. The TechwaY WildcatFMC board provides all the benefits of D-Lightsys® transceivers on a VITA FMC compliant plug-in device.

In order to improve signal processing performance, FPGA (Field-Programmable Gate Array) became a key component during the last few years. Embedded on complex but well defined mother board architecture, FPGA is the Swiss-knife for processing many different signals in video systems, radars or mission computers. The new paradigm for modern FPGA is extreme high-speed I/O which requires optical links.
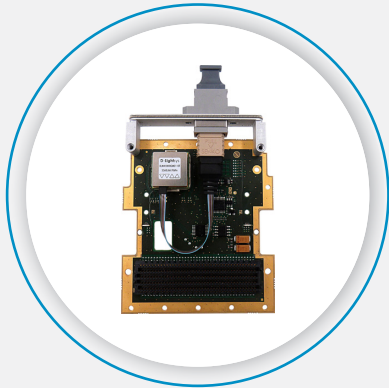
WildcatFMC enhances the modularity of the FPGA board equipped with mezzanine VITA 57 site by providing a plug-in and turn-key multi-channel optical interface. The FPGA board can achieve high speed I/O for applications requesting massive data-transfer without long and expansive re-design.

The core of the WildcatFMC board is made of 10+ G range D-Lightsys® optical transceivers, running up to 12 Gbps. The ultra-compact package of these components fits the FMC standard form factor even for boards handling 24 optical channels. WildcatFMC is designed to meet the military and aerospace environmental constraints and is qualified to fulfill the MIL standard specs.

SEVERAL VERSIONS ARE AVAILABLE

- 4 and 12 full duplex channels
- 24 Rx and 24 Tx channels per board

Optical disconnect is provided on the FMC front panel through one or two MTP connectors, or through our C-MTitan quick disconnect, depending on the configuration. ASTM B 117 & ISO 21207 Method B 5 cycles. For additional information, please contact your Radiall representative.

Scalability of signal processing electronic systems is a key point to keep benefits from last state-of-the-art technologies, in particular the latest high-speed I/O capabilites of the FPGAs. WildcatFMC provides system designer with a plug-in solution handling high speed multichannel optical I/O interface for demanding applications.

TECHWAY WILDCATFMC BOARDS

- WildcatFMC-4_12
  - 4 duplex optical links
- WildcatFMC-12_12
  - 12 duplex optical links

- WildcatFMC-24Tx_12
  - 24Tx optical links
- WildcatFMC-24Rx_12
  - 24Rx optical links

The 4 channel board complies with FMC (VITA 57.1) standard. The 12 and 24 channels ones comply with the FMC+(VITA 57.4). The WildcatFMC solutions can be provided with both air or conduction cooled configuration. The WildcatFMC series are designed and qualified to comply VITA and MIL rugged standards.

FEATURES & BENEFITS

- *Up to 24 optical links*
- *VITA 57.1 and 57.4 compliant*
- *Front panel optical disconnect*
- *Air or conduction cooled*
- *D-Lightsys® technology inside*
- *Optical upgrade on legacy system*
- *Easy-to-integrate*
- *Cost-effective solution vs new hardware design*
- *For prototype, demonstrators production*

APPLICATIONS

- *Legacy system upgrade*
- *RADAR/SONAR*
- *Electronic warfare*
- *Video broadcast and switching*

Radiall | **SIMPLIFICATION** *is our* **INNOVATION**