

ESSENTIAL TRANSCEIVER

Compact Form Factor with
ARINC 801 Disconnect



APPLICATIONS

- Digital Video Communication
- Radar
- Sensor Interconnects
- Data Processing
- Industrial Data Links

Radiall has added the Essential transceiver to its range of optoelectronic transceivers. Designed for demanding environments, this transceiver combines a small form factor package with an ARINC 801 optical contact disconnect.

The Essential package is designed to withstand mil/aero environments, and it fully complies with the related standards (ARINC, MIL). Fitted with both optical and electrical disconnects, this new package simplifies handling on the host board. The transceiver is electrically pluggable and screw-mounted, whereas the optical patch cord is tool-less with a disconnect locking system.

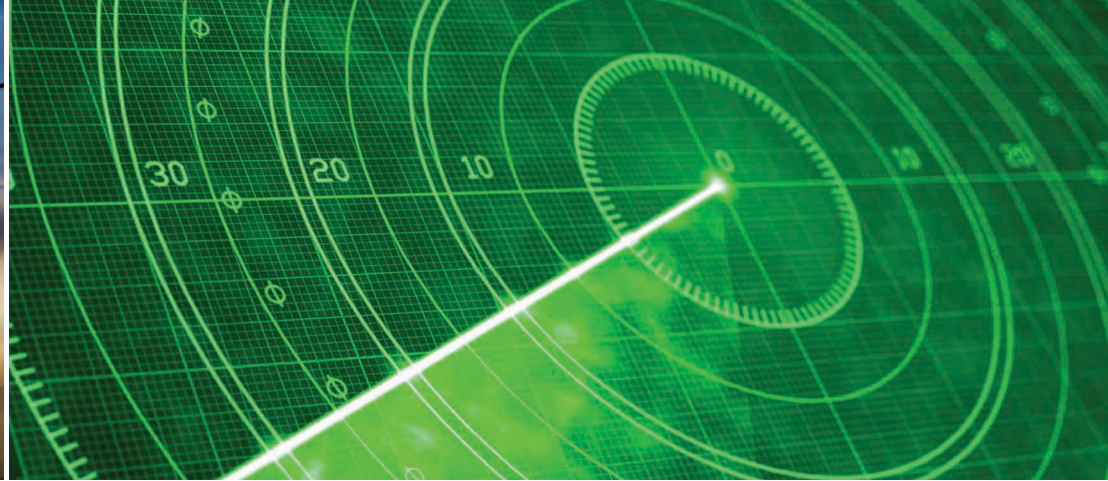
With one Tx and one Rx channel, this transceiver's pluggable LuxCis® (ARINC 801) interface offers a straight full connection to many optical connectors, such as ARINC and MIL-DTL-38999 types.

Key optoelectronic functions for transceiver monitoring are available through electrical connectors and I²C links.

With a footprint of less than 350 mm² and a low profile height below 8 mm, the product offers a balanced trade off between form factor and cost per channel, while maintaining a high level of performance.

FEATURES & BENEFITS

- Qualified for harsh environments
- Small form factor
- Tool-less removable optical patch cord with ARINC801 contact
- High optical link budget



Fitted with both optical and electrical disconnects, Radiall's Essential package offers a balanced trade off between form factor and cost per channel, while maintaining a high level of optical performance and qualification.

CONFIGURATION

- One-channel transceiver: 1 Tx + 1 Rx
- Wavelength: 850 nm
- Data rate: 0.1 to 5 Gbps
- Size: 26.6 x 13.1 x 7.95 mm with mechanical fixture
- Shielded housing for EMI protection
- Tx emitter complies with class 1 laser product (IEC 60825-1/2)
- Protocol agnostic

MAIN PERFORMANCE

- Operation range: -40 to +90 °C
- Rx sensitivity: at least -15 dBm at 5 Gbps over the full temperature range
- Link budget: > 11 dB at 5 Gbps for a BER < 10⁻¹²
- Resistant to extreme temperatures, rapid change of temperature, vibrations, mechanical shocks, thermal shocks and more

INTERFACES

- 30-pin electrical plug-in connector for data, power and main survey functions
- I²C bus for advanced monitoring
- ARINC 801 (LuxCis[®]) compliant optical receptacle
- Compatible with 50/125 μm and 62.5/125 μm multimode fiber