

microwave photonic systems

OFW-3427-TRX-SYS: TETRA 800 MHz Band Zone Enhancer

RF Photonic TETRA 800-Band Zone Enhancer



Expanded In-Building Coverage for 800 MHz Trunk Radio Systems for Critical Communications and First Responder Network Traffic Over Distributed Antenna Systems

The OFW-3427-TRX-SYS (TETRA); 800 Band Fiber Optic Transceiver Subsystem provides "Best of Breed" optical long-haul transmission of RF signals in the frequency range of 851 to 869 MHz (Downlink) and 860-824 MHz (Uplink). The subsystem can support the transmission of high density (multi-carrier) over distances of up to 50 km using Mil-Tactical or Commercial Grade Harsh Environment single mode interconnections.

The OFW-3427-TRX-SYS utilizes leading edge optical conversion process that is transparent to the User's dat modulation rate and format. The subsystem offers many performance advantages including a High Spur Free Dynamic Range, Embedded Fault & Alarm Status Monitoring, Bi-Directional Data Communications, SNMP Trap Alarm Programming, and Harsh Environmental Temperature Ranges.

An integrated microprocessor provides monitor and control of the system performance parameters allowing the operator to dynamically execute signal path adjustments. These adjustments are achieved through the use of the front panel input keys, or via the Ethernet port and a host computer. The integrated 19" x 1RU rack chassis design provides a front panel Vacuum Florescent Display (VFD) for immediate presentation of operation status and critical parameters such as gain stage values, internal temperature, received optical power, power supply voltages and system alarm status.

The OFW-3427-TRX-SYS can also be packaged in various form factors including a high-density plug-in card chassis or wall mount enclosures.

For more information contact us at www.b2bphotronics.com or info@b2bphotronics.com

Test Certifications

- Industry Canada RSS-131

Market Applications

- Network Operation Centers
- Emergency Response Centers
- Schools & Libraries
- Courthouses & Prisons
- Airports, Rail Road Stations, Bus Terminals
- Hospitals & Police Stations

Features & Options

- Pre & Post Band Switched Filtering
- All Passive Hardware Supports EDACS, P25 Phase 2, & TETRA Technologies
- Anti-Locking Connectors
- N+1 Dual Hot-Swap Power Supplies
- Transmit Enable / Mute Enable
- Front Panel Display of System Status
- Remote Status Monitor and Control: Ethernet, SNMP, Dry Contact
- 2 Year Warranty

Deployment Schemes

- Distributed Antenna Systems
 - Point to Point : Single or Multi-User
 - Point to Multi-Point: Single or Multi-User

Packaging Options

- Harsh Environment Wall Mount
- Hot Swappable Indoor Rack Mount
- Portable Transit Case for Emergency Response Scenarios

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System Specifications

RF Uplink Specifications

RF Frequency Response	806 MHz to 824 MHz
RF Link Gain	> 38 dB @ 3.0 dBo Optic Loss (1)
Flatness (max)	± 0.5 dB
VSWR (max)	1.5:1
Carrier to Noise	> 70 dB in a 1.25 MHz Bandwidth
RF Composite Output Power (min)	+ 38.0 dBm (1)
Input IP3 (min)	+ 20.0 dBm (1)
Input Power Level (typ)	0 dBm (per channel)



OFW-3427-TRX-HPA

Wall Mount Enclosure w/ HPA

RF Downlink Specifications

RF Frequency Response	851 MHz to 869 MHz
RF Link Gain	> 20 dB @ 3.0 dBo Optic Loss (1)
Flatness (max)	± 0.5 dB
VSWR (max)	1.5:1
Noise Figure (max)	18 dB @ 3.0 dBo Optic Loss (1)
1 dB Comp. Level (min)	- 15.0 dBm (1)
Input IP3 (min)	- 5.0dBm (1)
TX / RX Isolation (min)	>80.0 dB



OFW-3427-TRX

Indoor Rack Mount Transceiver

Optical Specifications:

Operating Wavelength	1310 nm ± 2 nm, 1550 nm ± 2 nm or CWDM Bands
Output Power (typ)	+3 dBm (output powers available up to +13 dBm)
Allowed Backreflection (max)	45 dB @ full specs
E/O Diff. Eff. (min)	0.12 W/A

General Specifications

Form Factor	Local Radio Chassis - 1RU Rackmount Remote Antenna HPA - Outdoor Wall Mount
Power Supply	Local Radio Chassis - DC Powered Remote Antenna HPA - AC Powered
Optical Input/Output Port	FC/APC, SC/APC, AVIM APC or User Specified
RF Input/Output Port	SMA(f) or N-type(f), 50 ohm
Temperature Rating	-40°C to +85°C (Storage) / -20°C to +65°C (Operational)
Alarm Interface	Panel LEDs, Remote Ethernet, SNMP
Certification	Industry Canada RSS-131 (Pending)

(1) All specifications are listed with 3.0 dBo Optic Loss.

Expand Your RF Horizon ©

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