

HIGH SENSITIVITY FORWARD PATH RECEIVER FSX-RXDQ DTX-RXDQ



The IPITEK® High Sensitivity forward path optical receiver is a premium quality unit, especially designed for operation in systems which utilize QAM transmitters, either separately or in DWDM operations and which require higher sensitivity in order to optimize the system link budgets. The High Sensitivity Optical Receiver accepts a wide range of optical input levels without contributing additional distortions. The unit is especially designed to accept input optical signals in the range of -8 dBm to 0 dBm. The receiver circuitry is optimized for operations at these lower optical levels and provides an RF output which is not compromised.

The receiver utilizes a high responsivity PIN photo detector and advanced RF circuitry. The FSX/DTX-RXDQ series offers reliable, high performance detection of signals transmitted at 1310 nm or 1550 nm from systems operating in a QAM transport application. It is especially effective in recovering signals transmitted by the IPITEK FSX/DTX-TXDQ

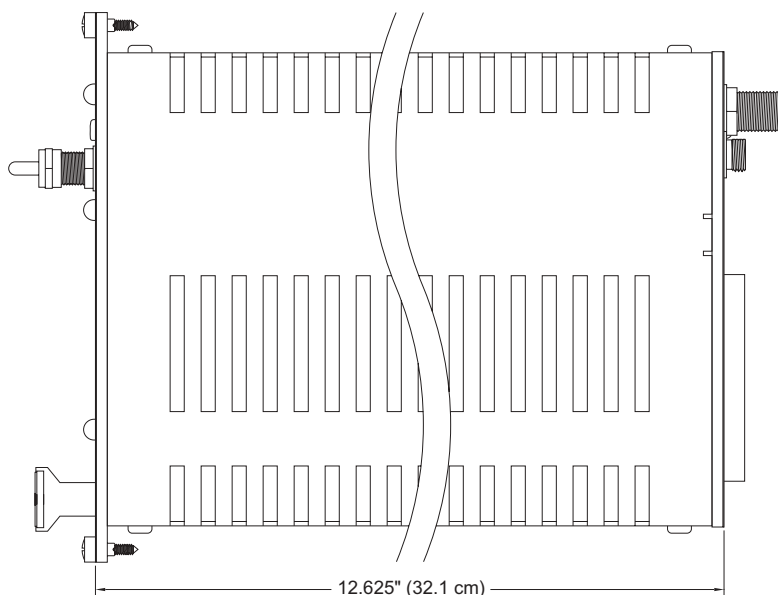
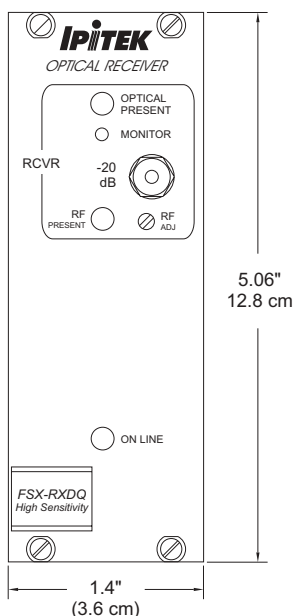
FEATURES & BENEFITS

- Full performance with forward bandwidth to 870 MHz
- Wide sensitivity optical input with excellent RF noise and distortion
- Optimized performance for QAM digital signals
- Compact size allows up to 8 Rx's (DTX) or 10 Rx's (FSX) in one chassis

QAM transmitter. The FSX/DTX-RXDQ receiver provides a wide RF output level, allowing ideal operation in systems which have medium to high level RF system requirements. Front panel RF level adjustment and indicators provide simple setup and operation.

The FSX/DTX-RXDQ receiver may be operated in a stand alone operation, or may be used as part of an IPITEK DWDM system which includes multiple receivers fed by the output of an IPITEK DWDM optical demultiplexer. The FSX/DTX-RXDQ can also be integrated with other elements of the FSX/DTX families to provide flexible system configurations.

MECHANICAL



SPECIFICATIONS

Optical Performance

Optical Input: 1200 nm to 1600 nm
 Input Power: -8 dBm to 0 dBm
 Input Return Loss: >-55 dB with a flat polish connector
 Equivalent Noise Input: 8 pA \sqrt Hz typ.
 Connector: SC/APC standard; type FC or E-2000 optional

Electrical Performance

RF Bandwidth: 50 to 870 MHz
 Frequency Response: \pm 0.5 dB (550 - 870 MHz)
 \pm 1 dB (50 - 870 MHz)
 Rated Output Signal: @ nominal -4 dBm input and 3.67% OMI/6 MHz,
 -30 dBmV/Hz for 200 MHz of QAM signals (+37.8 dBmV/6 MHz)
 RF Test Point: -20 dB, \pm 1 dB
 Output Return Loss: >16 dB
 Output Impedance: 75 ohms nominal

Distortions

Noise Power Ratio(NPR): >48 dB at rated output (Rx + Tx* combination)
 *Tx=TXDQ-860-N15-IXX

Electrical/ Environmental/Mechanical

Powering: Supplied by DTX Power System
 Operating Temperature: 0°C to +50°C
 Storage Temperature: -40°C to +70°C
 Humidity: 5% to 85% non-condensing
 Dimensions: 5.06"H x 1.78"W x 12.6"D
 12.9 cm x 4.5 cm x 32.1 cm
 Weight: 4 lbs. (1.8 kg)

ORDERING INFORMATION

Model	Bandwidth	Pilot Tone	AGC	RF Connector	Optical Connector	Polish
FSX-RXDQ - 860 - N - N - FT - XX - X	860 = 50-860 MHz	N = None	N = None	FT = F-Type	FC = FC SC = SC E2 = E-2000	A = APC P = UPC
DTX-RXDQ - 860 - N - N - FT - XX - X	860 = 50-860 MHz	N = None	N = None	FT = F-Type	FC = FC SC = SC E2 = E-2000	A = APC P = UPC



2330 Faraday Avenue • Carlsbad • CA • 92008
 (760) 438-1010 • Toll Free (888) 4-IPITEK (447-4835)

IPITEK reserves the right to modify product specifications without prior notification.