iTRVR-B | Bi-Directional Optical Transceiver

The QAMnet iTRVR-B is a bi-directional optical transceiver designed for deep fiber implementation in HFC networks. Using proven Wavelength Division Multiplexing (WDM) technology, a 1550 nm receiver and a 1310 nm transmitter are combined into a common optical input/output port. The iTRVR-B is a versatile, compact, low cost transceiver module. With standard HFC configuration of forward receiver and reverse transmitter, the iTRVR can provide the HD video and QAM data bandwidth capacity of a traditional HFC optical node, but at a small fraction of the cost.

Along with other QAMnet products, iTRVR-B is an ideal deep fiber solution for delivering Switch Digital Broadcasting (SDB), as well as high-speed QAM data services over existing HFC infrastructure. Using a single optical input/ output design, iTRVR-B can be easily integrated with the next generation HFC networks architectures, such as RF over Glass (RFoG) or Cable Passive Optical Networks (Cable PON).

Features

- 1550 nm forward path receiver
- 1310 nm return path transmitter
- Single optical fiber input/output
- Compatible with existing HFC installation
- Designed for RFoG and Cable PON networks
- Low power consumption
- Compact and durable
- Receiving and transmitting built in RF test ports (-20dB)
- 12-15 VDC power adaptor included

Ordering Information

- iTRVR-B

iTRVR-B | Bi-Directional Optical Transceiver

QAMnet
5110 N. 44th Street
Suite 200L
Phoenix, AZ 85018

1.877.303.3888 toll free
sales@qamnet.com email
www.qamnet.com website

Technical Specifications

Forward Path - Receiver	
Receiver Wavelength Range	1527 nm - 1600 nm
Input Optical Power Level	+3 dBm to -6 dBm
RF Output Power Level	25 dBmV Typical
Carrier to Noise Ration (CNR)	50 dB Typical @ 0 dBm Input Level
Composite Second Order (CSO) Distortion	-60 dBc Maximum
Composite Triple Beat (CTB) Distortion	-60 dBc Maximum
Frequency Range	54 MHz to 870 MHz
Return Path - Transmitter	
Transmitter Wavelength	1310 nm ± 20 nm
Output Optical Power Level	+3 dBm to -3 dBm
RF Input Power Level	15 dBmV Typical
Carrier to Noise Ration (CNR)	45dB Typical @ 0dBm
Composite Second Order (CSO) Distortion	-53dBc Maximum
Composite Triple Beat (CTB) Distortion	-65dBc Maximum
Frequency Range	5 MHz to 42 MHz
General Specifications	
Flatness in Frequency Range	±0.5 dB
Optical Return Loss	45 dB Minimum
RF Impedance	75 Ω
RF Return Loss	16 dB Minimum

Environment / Mechanical Specifications

Optical Connector	1, SC/APC
Temperature Range	-20 to +65 ºC
Power Supply	12 – 15 VDC (receiver) 80 – 240 V, 43 – 63 Hz AC (AC adaptor)
Power Consumption	5 W Maximum
Housing Dimensions	4.6”(W) x 5“(L) x 1.3”(H)
Control / Monitoring	Voltage Monitoring: Optical Level 1V/mW
Display	3 LEDs: Optical Input/Output and Power

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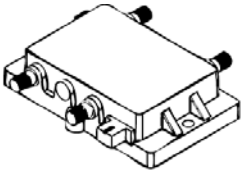
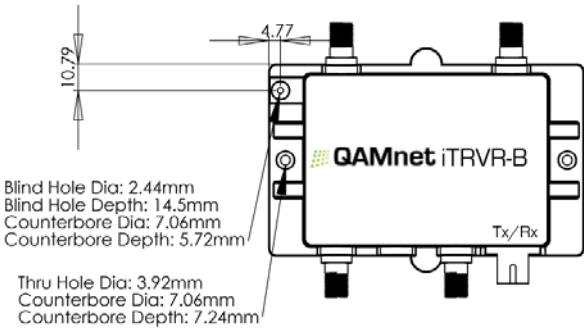
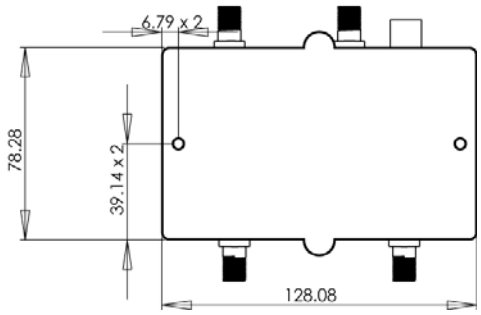
Installation Guide







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