

Bi-Directional Transceiver

The QAMnet iTRVR-B is a bi-directional optical transceiver designed for deep fiber implementation in HFC networks.



iTRVR-B Bi-Directional Transceiver

Product Description

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 fraction of the cost. The 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.

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)

Applications

- ✓ HFC ✓ FTTH ✓ RFoG ✓ PON ✓ Deep Fiber Applications

PRODUCT SPECIFICATIONS

Optical 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 typ.
Carrier to Noise Ratio (CNR)	50 dB typ. @ 0 dBm Input Level
Composite Second Order (CSO) Distortion	-60 dBc max.
Composite Triple Beat (CTB) Distortion	-60 dBc max.
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 typ.
Carrier to Noise Ratio (CNR)	dB typ. @ 0dBm
Composite Second Order (CSO) Distortion	dBc max.
Composite Triple Beat (CTB) Distortion	dBc max.
Frequency Range	5 MHz to 42 MHz
General Specifications	
Flatness in Frequency Range	±0.5 dB
Optical Return Loss	45 dB min.
RF Impedance	75 Ω
RF Return Loss	16 dB min.

Mechanical Specifications

Optical Connectors	1, SC/APC
Temperature Range	-20 to +65 °C
Power Supply	12 - 15 VDC (receiver) 80 - 240 V, 43 - 63 Hz AC (AC adaptor)
Power Consumption	5 W max.
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

Ordering Information

iTRVR-B