



## iTRVR-D | Dual-Fiber Optical Transceiver



The QAMnet iTRVR-D is a dual-fiber optical transceiver designed for deep fiber implementation in HFC networks. Incorporating a 1550 nm receiver on one input port and a 1310 nm transmitter on the output port, this module is a versatile, compact and low cost transceiver. With standard HFC configuration of forward receiver and reverse transmitter, the iTRVR-D 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-D 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 dual optical input/output design, iTRVR-D can be easily integrated with next-generation HFC networks architecture, such as RF over Glass (RFoG) or Cable Passive Optical Networks (Cable PON).

### Features

- 1550 nm forward path receiver
- 1310 nm return path transmitter
- Dual optical fiber input and 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-D



5110 N. 44th Street  
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Phoenix, AZ 85018

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## 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	-61 dBc Maximum
Frequency Range	54 MHz to 870 MHz

### *Return Path - Transmitter*

Transmitter Wavelength	1310 nm $\pm$ 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 @ 0 dBm
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	$\pm$ 0.5 dB
Optical Return Loss	45 dB Minimum
RF Impedance	75 $\Omega$
RF Return Loss	16 dB Minimum

## Environment / Mechanical Specifications

Optical Connectors	2, 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 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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 **QAMnet**

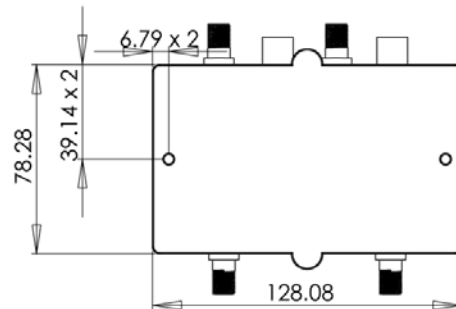
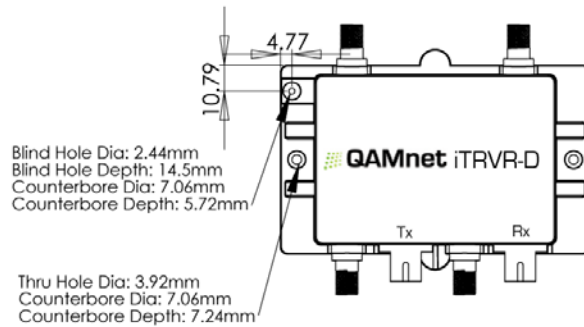
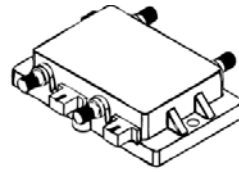
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