

Two Port RFoG Mini-Node

The QAMnet iTRVR-T is a bi-directional analog Optical Network Unit (ONU) designed for Deep Fiber and RFoG applications.

iTRVR-T Two Port RFoG Mini-Node



Product Description

The QAMnet iTRVR-T is a bi-directional analog Optical Network Unit (ONU) designed for Deep Fiber and RFoG applications. Incorporating a 1550 nm receiver and a 1310 nm or CWDM laser transmitter on separate optical port, iTRVR-T is a very versatile mini-node. It can be used for enhancing HFC, Deep Fiber installation and RFoG. The iTRVR-T is also a compact, low cost mini-node. With standard HFC configuration of a forward receiver and a reverse transmitter, the iTRVR-T can provide the HD video and QAM data bandwidth capacity of a traditional HFC optical node, but at a fraction of the cost and size. The return path bandwidth capacity of the RFoG systems can be increased by a factor of 8, by using return path laser with from 8 different CWDM wavelengths. Additionally, the iTRVR-T is well-suited for a node splitting solution of a deep fiber system that enhances an existing HFC infrastructure.

Features

- 1550 nm forward path receiver
- Fast Burst Mode operation
- Dual optical fiber for forward / return path
- Designed for FTTH and RFoG
- Low power consumption, compact and durable
- 12 VDC power adaptor included

Applications

✓ HFC ✓ FTTH ✓ RFoG ✓ GEAPON ✓ Deep Fiber Applications

PRODUCT SPECIFICATIONS

Optical Specifications

Forward Path - Receiver

Receiver Wavelength Range	1530 nm - 1560 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

Laser Wavelength (standard)	1310 nm \pm 20 nm, FP type
Laser Wavelength (standard)	1310 nm, 1450 nm, 1470 nm, 1490 nm, 1510 nm, 1570 nm, 1590 nm, 1610 nm
Output Optical Power Level	+2 dBm typ.
RF Input Turn On Power Level	25 dBmV min.
Burst Mode Switch on Time	1.0 μ s max.
MER of QAM64	34 dB min. at 20 MHz
Frequency Range	5 MHz to 42 MHz

General Specifications

Flatness in Frequency Range	\pm 0.5 dB
Optical Return Loss	45 dB min.
RF Impedance	75 Ω
RF Return Loss	16 dB min.

Mechanical Specifications

Optical Connectors	2, SC/APC
Temperature Range	-20 to +65 $^{\circ}$ C
Power Supply	12 - 15 VDC 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-T



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