



iRCVR-1 | FTTH Optical Receiver



The QAMnet iRCVR-1 series optical receivers are versatile, low-cost and compact optical receivers for use in HFC, FTTH and deep fiber applications. The iRCVR-1 uses a broadband PIN diode and low distortion RF amplifier circuit to deliver sufficient level of CNR, while maintaining optimal CSO and CTB distortion specifications.

Designed to operate in very low input level, iRCVR provide high optical gain across the input level. At -8dBm of input level (OMI index of 3.5%), iRCVR-1-b can still provide 44 dB of CNR and RF output level of 17 dBmV.

With a compact dimensions and light weight, iRCVR-1 can be utilized in almost any space requirements. The operating temperature range of iRCVR-1 is from -20°C to +50°C.

Features

- High linearity analog PIN diode with low-noise, high-gain RF amplifier
- Wide range of input power from +3dBm to -11dBm
- Manual gain control for the adjustment RF output level
- LED input optical power status indicators
- 45-870 MHz modulation bandwidth
- Compact, light weight with metal housing
- Operating temperature range is from -20°C to +50°C.
- 110 VAC power adaptor included

Ordering Information

- iRCVR-1-x
- x: a for +3dBm to -9dBm input power level
b for -1dBm to -11dBm input power level



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Technical Specifications

Receiver Wavelength Range	1200 nm - 1600 nm
Input Optical Power Level	+3 dBm to -9 dBm for iRCVR-a -1 dBm to -11dBm for iRCVR-b
RF Output Power Level (3.5% OMI)	16 dBmV @ -5 dBm iRCVR-a 17 dBmV @ -8 dBm iRCVR-b
Optical Return Loss	50 dB Minimum
Carrier to Noise Ration (CNR)	50 dBc Typical @ -5 dBm
Composite Second Order (CSO) Distortion	-61 dBc Maximum @ -5 dBm
Composite Triple Beat (CTB) Distortion	-63 dBc Maximum @ -5 dBm
Output Attenuation Range	0 - 18 dB (manual adjustment)
Frequency Range	45 MHz to 870 MHz
Flatness in Frequency Range	±1.0 dB
Output Impedance	75 Ω
Output RF Return Loss	13 dB Minimum

Environment / Mechanical Specifications

Temperature Range	-20°C to +50°C (operation) -40°C to +70°C (storage)
Power Supply	12 VDC, 100 mA (receiver) 80 – 240 V, 43 – 63 Hz AC (AC adaptor)
Power Consumption	5 W Maximum
Housing Dimensions	2.5"(W) x 4"(L) x0.9"(H)
Display	LED Indicates Optical Input Power Level
Optical Connectors	SC/APC or Customer Specified



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