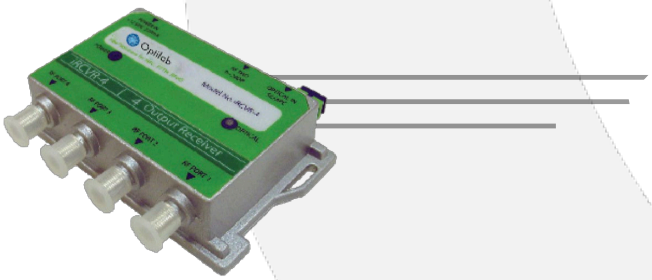
iRCVR-4



DEVICE

FTTH Optical Receiver, Four Output

OVERVIEW

The Optilab iRCVR-4 series optical receivers are versatile, low cost, and compact for use in HFC, FTTH, and deep fiber applications. The iRCVR-4 uses a broadband PIN diode and a low distortion RF amplifier circuit to deliver a sufficient level of CNR, while maintaining optimal CSO and CTB distortion specifications. Designed to operate with very low input level, iRCVR-4 provides high optical gain. At -8 dBm of input level (OMI index of 3.5%), iRVCR-4 can still provide 49 dB of CNR and RF output level of 23.7 dBmV. With compact dimensions and light weight housing, iRCVR-4 can be utilized in almost any space requirement. The operating temperature range of iRCVR-4 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 +3 dBm to -11 dBm
- Compact, light weight with metal housing
- Gain control knob for the adjustment RF output level
- LED input optical power status indicators
- 45-870 MHz modulation bandwidth
- 110 V AC power adaptor included
- Operating temp: 20°C - 50°C

USE IN

- RFoG
- Deep Fiber Applications
- HFC
- FTTH

iRCVR-4

SPECIFICATIONS

TECHNICAL

Receiver Wavelength Range	1200 nm to 1600 nm
Input Optical Power Level	+3 dBm to -12 dBm
RF Output Power Level	25 dBmV typ. @ 0 dBm
Number of Outputs	4
Optical Return Loss	50 dB min.
Carrier to Noise Ration (CNR)	53 dBc min. @ 0 dBm
Composite Second Order (CSO) Distortion	-52 dBc max.
Composite Triple Beat (CTB) Distortion	-50 dBc max.
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 min.

MECHANICAL

Operating Temperature Range	-20°C to +50°C
Storage Temperature Range	-40°C to +70°C
Power Supply	12 V DC, 100 mA (receiver) 80 – 240 V, 43 – 63 Hz AC (AC Adaptor)
Power Consumption	5 W max.
Housing Dimensions	2.5" (W) x 4" (L) x 0.9" (H)
Display	2 LEDs indicate optical input power level and power supply
Optical Connectors	SC/APC, or customer specified
Accessories Included	80 – 240 V, 43 – 63 Hz AC (AC Adaptor)