

fRCVR



Forward-Path Receiver

The Optilab fRCVR forward-path high performance receiver is a highly linear optical to electrical converter for use in HFC, RFoG, PON, and deep fiber applications. The fRCVR uses a high gain, low distortion receiver module and low noise RF circuit to deliver 50 dB of CNR, while maintaining optimal CSO and CTB distortion specifications. It features Automatic Gain Control (AGC) for automatic adjustment of the optical input level, and Manual Gain Control (MGC) for optimal RF gain level control. It supports up to 75 NTSC analog channels, and because it is designed to be digitally ready, it can be loaded with 60 additional QAM modulated digital channels. The fRCVR model provides a standard RF output level of 40 dBmV or an optional higher RF output level or 52 dBmV. Contact Optilab for more information.

Features

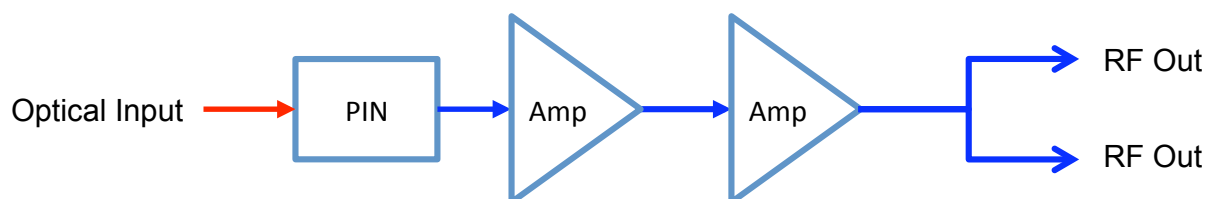
- Highly linear hybrid O/E converter module
- Automatic Gain Control (AGC)
- Manual Gain Control (MGC)
- LED front panel display and status indicators
- 45-870 MHz modulation bandwidth
- Built in RF test port (-12 dB)
- **3 year warranty standard**

Applications

- HFC
- RFoG
- PON
- Deep Fiber Applications
- For RUS/USDA projects



Functional Diagram



Forward-Path Receiver | fRCVR

OPTIONS

fRCVR-x-y

- x S, standard;
H, high power
- y Outputs: 1 or 2

TECHNICAL INFO

For technical info and support:

sales@optilab.com

www.optilab.com

PHONE

Contact Optilab at:

1-888-553-3888 (toll-free)
1-602-343-1496 (direct, int'l)

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| Optical Specifications | |
|---|--|
| Receiver Wavelength Range | 1200 nm to 1600 nm |
| Input Optical Power Level | +3 dBm to -5 dBm |
| RF Output Power Level | 40 dBmV typ. on standard version 52 dBmV typ. on high power version |
| Number of Outputs | 1 Standard, 2 Output (optional) |
| Optical Return Loss | 50 dB min. |
| Carrier to Noise Ration (CNR) | 52 dBc min. @ 0 dBm |
| Composite Second Order (CSO) Distortion | -65 dBc max. @ 0 dBm |
| Composite Triple Beat (CTB) Distortion | -58 dBc max. @ 0 dBm |
| Output Attenuation Range | 0 dB to 20 dB (manual adjustment) |
| Frequency Range | 45 MHz to 870 MHz |
| Flatness in Frequency Range | ±0.5 dB |
| Output Impedance | 75 Ω |
| Output RF Return Loss | 16 dB min. |
| Mechanical Specifications | |
| Operation Temperature Range | -20°C to +50°C |
| Storage Temperature Range | -40°C to +70°C |
| Power Supply | 80 – 240 V, 43 – 63 Hz AC |
| Power Consumption | 50 W max. |
| Housing Dimensions | 1RU 19"(W) x 14"(D) x 1.75"(H) |
| Control / Monitoring | Housing Temperature |
| Display | RF Output Power Level |
| Optical Connectors | SC/APC or Customer Specified |