

CHP Max Headend Optics Platform

CHP-L2RR-S Low Noise Dual Return Path Receiver

FEATURES

- Low noise option for RFoG applications with squelch function
- Squelch function allows combining multiple L2RR returns together
- High Sensitivity enables long optical link budgets to serve more subscribers, increase link distance, and allow more RF combining into the CMTS
- Configure, monitor, and manage with CORView™ Element Management System



PRODUCT OVERVIEW

The CHP-L2RR-S return path receiver module is specifically designed for RF-over-Glass (RFoG) and Fiber Deep applications that require large optical link budgets. The module utilizes very low-noise photo detectors to enable the receiver to operate at very low optical input powers. For typical RFoG networks, this increases the return-path link budget to optically combine up to 128 subscribers, increase link distances, and allow more RF combining into a Cable Modem Termination System (CMTS) port.

For RFoG applications, the CHP-L2RR low-noise return receiver achieves the best distortion performance with a lower optical input range for longer distances. The receiver supports an optional dual window squelch function, which provides an attenuation of >35 dB when return path RF is below the preset RF threshold level. This improves overall link performance by reducing the noise contribution of combined receivers.

SPECIFICATIONS

Low Noise Dual Return Path Receiver (CHP-L2RR-S)

Optical Specifications

| | |
|------------------------|-----------------|
| Input Wavelength Range | 1260 to 1620 nm |
| Optical Input Range | -26 to -10 dBm |

RF Specifications

| | |
|--|---|
| RF Output Bandwidth | 5 to 100 MHz |
| RF Output Power Level, min., per channel (Notes 1 and 2) | 28 dBmV, with -21 dBm input and 7% OMI from return TX |
| Frequency Response Flatness, peak-to-valley | ± 0.75 dB |
| Frequency Response Slope, highest frequency to lowest | ± 1.0 dB |
| RF Gain Adjustment Range | 0 to -31.5 in 0.5 dB steps |
| Return Loss, min. | 16 dB |
| RF Test Point | -20 ± 0.5 dB |

Performance Specifications

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|---|------------------------------------|
| Equivalent Noise Input, max. | <1.5 pA/Hz ^{0.5} (Note 3) |
| Channel-to-Channel Isolation, RF Output Bandwidth | > 65dB |
| Power Consumption | 16 W |

Mechanical Specifications

| | |
|------------------------|---|
| Dimensions (W x H x D) | 1.25 x 3.44 x 18.5 in. (3.18 x 8.74 x 46.99 cm) |
|------------------------|---|

Environmental Specifications

| | |
|-------------------------------|-------------------------|
| Operational Temperature Range | 32 to 122°F (0 to 50°C) |
|-------------------------------|-------------------------|

Notes:

1. Measured with CW carriers.
2. RF output for the CHP-L2RR is based on an optical input of -21 dBm and a transmitter OMI of 7%.
3. <1.5 pA/Hz^{0.5} from 5 to 100 MHz, <1.3 pA/Hz^{0.5} from 5 to 42 MHz.

Ordering Information

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| C | H | P | - | 1 | 2 | R | R | - | 3 |
| L | | | | L | 2 | | | | S |

| | |
|----------|-------------------------|
| 1 | Receiver Type |
| L | Low Noise |
| 2 | No. of Receivers |
| 2 | Dual Receivers |
| 3 | Connector Type |
| S | SC/APC |

RELATED PRODUCTS

| | |
|-------------------|-----------------------|
| CHP Chassis | Optical Patch Cords |
| Power Supplies | Optical Passives |
| Management Module | Installation Services |

Note: Specifications are subject to change without notice.

Customer Care

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656

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CHP-L2RR_04MAR15

(rev 03-2015)