

Features

- Dynamic optical input range -20 to -4 dBm at 1550 nm and -18 to -3 dBm at 1310 nm
- High RF output (-31 dBmV/Hz typ)
- RF output gain control with local or remote status monitoring
- High packaging density (up to 28 receivers per chassis)
- Front access -20 dB output test points
- Hot plug-in/out
- Local and remote status monitor capability
- Occupies one full-depth slot

Analog Dual Return Receiver (85 MHz)



The AR3001H is a high gain dual analog return path receiver (RPR) and supports the Next Generation Network Architecture (NGNA) guidelines for the evolution of HFC architectures. The high output power of the AR3001H allows passive RF splitting while increasing reliability.

Its compact design (single-width module) makes it the highest density packaging in the market. It allows the operator to install up to 28 return path receivers in one 3RU chassis. This compact design minimizes rack space requirements in the headend and hubs, and enhances deployment of traditional HFC, passive HFC and fiber to the home (FTTH) networks.

AR3001H

Product Specifications

Physical:

- Dimensions:
13.0" D x 4.3" H x 1.0" W (3RU) (33 cm x 11 cm x 2.5 cm)
- Weight:
1.6 lbs (0.72 kg)

Environmental:

- Operating temperature range: -20° to $+65^{\circ}\text{C}$ (-4° to 149°F)
- Storage temperature range: -40° to $+85^{\circ}\text{C}$ (-40° to 185°F)
- Humidity: 5% to 95% non-condensing

RF and Optical Interface:

- 2 RF outputs:
F-type (female connectors at Back Plate BP-A2)
- 2 RF output test points:
G-type (male connectors at front panel, -20 dB)
- Optical connector:
SC/APC (at Back Plate BP-A2)

Power Requirements:

- Input voltage:
 12 V_{DC}
- Power consumption:
12 W

Electrical:

- Pass band: 5–85 MHz
- Frequency response: ± 0.25 dB
- Nominal output level: -31 dBmV/Hz (45 dBmV total)
- Output return loss: Minimum 18 dB
- Level stability: ± 0.5 dB
- Gain control range: 26 dB minimum
- Gain control step: 1.0 dB nominal

Optical:

- Wavelength: 1260nm – 1620nm
- Input return loss: 45 dB
- Optical power input range:
 P_{IN} max 1310/1550 nm : $-3 / -4$ dBm
 P_{IN} min 1310/1550 nm: $-18 / -20$ dBm

General:

- Hot plug-in/out
- Manual gain alignment

Ordering Information

High Gain Analog Dual Return Receiver

AS = SC/APC Connector

AR3001H - AS

Required Module Back Plate
(Back Plate is included with ordered module.)

BP - A 2



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