

# Headend Optics Platform (CH3000)

## AR3044H

### Quad High Gain Analog Return Receiver (204 MHz)

## FEATURES

- Supports DOCSIS® 3.1 HFC and RFoG architectures
- 5–204 MHz RF bandwidth
- High optical input range: –25 to –1 dBm
- High RF output level to support splitting/combining
- Manual gain control (MGC) and Automatic level control (ALC) RF gain control options
- High packaging density (up to 56 receivers per chassis)
- Front access –20 dB output test port
- Hot plug-in/out
- Local and remote status monitor capability
- Occupies one full-depth slot



## PRODUCT OVERVIEW

The AR3044H provides four high gain analog return path receivers in a single chassis module and supports both high gain HFC and RFoG architectures when used with RFoG return filters (NP31F08S06A0S). The high output power of the AR3044H allows passive RF splitting and increases system design flexibility.

The compact single-width module design of the AR3044H allows the operator to install up to 56 return path receivers in one 3RU chassis. This approach minimizes rack space requirements in the headend and hubs and enhances deployment of traditional HFC, passive HFC, and RFoG networks.

## SPECIFICATIONS

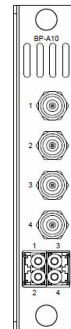
| Characteristics                              | Specification  |
|--|--|
| <b>Physical</b>                              |  |
| Dimensions (without connectors)              | 13.0" D x 4.3" H x 1.0" W (3RU) (33 cm x 11 cm x 2.5 cm)                       |
| Weight                                       | 1.6 lbs (0.72 kg)  |
| <b>Environmental</b>                         |  |
| Operating Temperature Range                  | -20° to +65°C (-4° to 149°F)   |
| Storage Temperature Range                    | -40° to +85°C (-40° to +185°F)   |
| Humidity                                     | 5% to 95% non-condensing   |
| <b>RF and Optical Interface</b>              |  |
| 4 RF outputs                                 | F-type (female connectors at Back Plate BP-A10)                                |
| RF output test point                         | Selectable for each input port. G-type (male connector at front panel, -20 dB) |
| Optical connectors                           | LC/APC (at Back Plate BP-A10)  |
| <b>Power Requirements</b>                    |  |
| Input voltage                                | 12 V <sub>DC</sub>   |
| Current consumption                          | 14.5 W   |
| <b>Electrical</b>                            |  |
| Passband                                     | 5–204 MHz  |
| Frequency response                           | ± 0.5 dB   |
| Recommended output level                     | 44 dBmV with -23 dBm optical input; 30% OMI, MGC mode, RF attenuation = 11 dB  |
| Nominal output level                         | 54 dBmV with -23 dBm optical input; 30% OMI, MGC mode, RF attenuation = 1 dB   |
| Output return loss                           | 18 dB minimum  |
| Level stability                              | ± 1 dB   |
| Gain control range                           | 26 dB minimum  |
| Gain control step                            | 1.0 dB nominal   |
| <b>Optical</b>                               |  |
| Wavelength                                   | 1260–1620 nm   |
| Input return loss                            | 45 dB  |
| Optical power input range (P <sub>IN</sub> ) | -25 to -1 dBm <sup>1</sup>   |
| <b>General</b>                               |  |
|  | Hot plug-in/out  |
|  | Manual Gain Control (MGC) and Automatic Level Control (ALC) options            |

### NOTE:

- 1 dBm maximum composite (or total) power if the receiver is operated in continuous mode, or -9 dBm maximum composite (or total) power if the receiver is operated in RFoG or burst mode.

## ORDERING INFORMATION

| Model Name   | Description   |
|--------------|---|
| AR3044H-0-AL | Quad High Gain Analog Return Receiver (204 MHz). Requires BP-A10 Back Plate, which is included with the AR3044H-0-AL product. |

BP-A10  
Back Plate

## RELATED PRODUCTS

|                      |                     |
|----------------------|---------------------|
| CH3000 Chassis       | Optical Passives    |
| NP31F08S06A0S-OLA-AL | Optical Patch Cords |
| RFoG Filter          |                     |

## Customer Care

Contact Customer Care for product information and sales:

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

**Note:** Specifications are subject to change without notice.

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