

# 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°C to +85°C (-40°F 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>	
Pass band	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
<b>General</b>	
Hot plug-in/out	
Manual Gain Control (MGC) and Automatic Level Control (ALC) options	

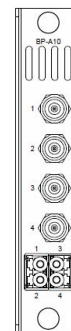
## ORDERING INFORMATION

Part Number	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.

## RELATED PRODUCTS

CH3000 Chassis	Optical Passives
NP31F08S06A0S-OLA-AL RfOG Filter	Optical Patch Cords

BP-A10  
Back Plate



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

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