

Headend Optics Platform (CH3000)

AR3002G

Analog Forward Receivers (1002 MHz)

FEATURES

- High RF output with excellent distortion performance (28 dBmV at 0 dBm input, 4% OMI)
- Demultiplexing back plates available for DWDM applications (up to four receivers per cascadable back plate)
- High packaging density (up to 14 receivers per chassis)
- Front access –20 dB output test point
- Hot plug-in/out
- Local and remote status monitor capability
- Occupies one full-depth slot



PRODUCT OVERVIEW

The AR3002G analog receiver supports a forward path passband from 46 to 1002 MHz. Its compact design (single-width module) makes it the highest density packaging FPR in the market, and allows the operator to install up to 14 receivers in one 3RU chassis.

The output power levels of the AR3002G receiver allow passive RF splitting, saving rack space and increasing reliability.

Alternate network fiber routing is supported via use of two AR3002G receivers and a user-programmable A/B switch (the Model AB32S1G-0-00 Alternate Routing Switch that also occupies one half-depth slot in the chassis).

For DWDM applications, the receiver can be used with integrated demultiplexing back plates, providing a dramatic reduction in rack space and fiber jumper requirements. Each Model BP-35D4x back plate provides a common DWDM optical input with individual RF outputs for up to four adjacent receivers in the chassis, and DWDM optical output ports permit cascading of additional back plates.

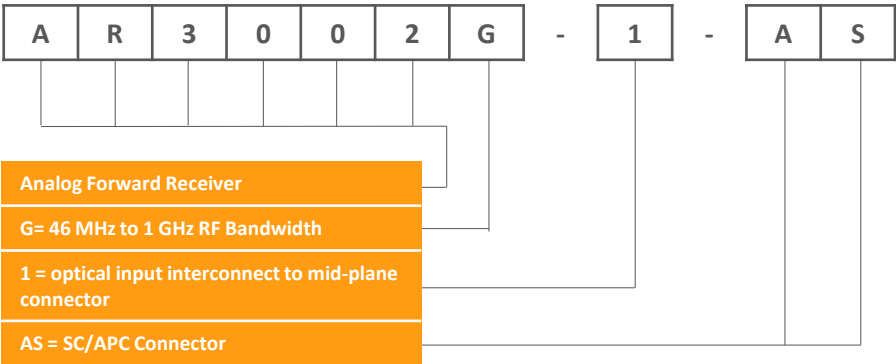
The compact design of the AR3002G receiver minimizes rack space requirements and enhances deployment of traditional HFC, passive HFC and fiber to the home (FTTH) networks.

SPECIFICATIONS

Characteristics		Specification	
Physical			
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	1.5 lbs (0.68 kg)		
Environmental			
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		
RF and Optical Interface			
RF outputs	F-type (female connectors at Back Plate)		
RF output test points	G-type (male connectors at front panel, −20 dB)		
Optical connector	SC/APC (connector at mid-plane mates to BP-A5 or BP-35D4x, see Notes in Ordering Information)		
Power Requirements			
Input voltage	12 V _{DC}		
Current consumption	10 W		
General			
Hot plug-in/out			
Optical			
Wavelength	1260–1620nm		
Input return loss	45 dB		
Optical power input range	- P_{IN} (1310/1550 nm), typ: −6 to +2 dBm - Max P_{IN}: +6 dBm (<i>damage level</i>)		
Responsivity (1310/1550 nm) nominal	0.85 / 0.95 A/W		
Electrical			
Pass band	46–1002 MHz		
Frequency response	± 0.75 dB		
Nominal output level	28 dBmV (@ 0 dBm input, 4% OMI, 1310 nm)		
Output return loss, min	18 dB		
Level stability	± 0.25 dB		
Level repeatability	± 0.5 dB		
Distortions (at nominal output level)			
AR3 002E (nominal output level +28 dBmV/Ch)			
77 CW			
	Min	typ	
C/CSO (dB)	71	76	
C/CTB (dB)	78	82	
C/XMOD (dB)	74	81	



ORDERING INFORMATION



Back Plate Options for AR3002G FPR

When ordering an AR3002G FPR (optical input interconnect to the chassis mid-plane), the back plate must be separately ordered. Two different styles of back plate are available in this case, depending on the application. One style provides connection for a single receiver. This single-width back plate may be ordered as:



The second style provides connections for a group of four receivers installed in adjacent chassis slots. These 4-channel demux back plates (for which the DWDM inputs can be cascaded from one back plate to another) may be ordered for various channel groups as specified on the associated data sheets:



RELATED PRODUCTS

CH3000 Chassis	Optical Passives
Digital Return	Optical Patch Cords
BP Back plates	Installation Services

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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