

FEATURES

- Analog forward path receiver for NC4000 and NC2000 series Fiber Optic Nodes
- Passband: 51 to 1218 MHz
- Optical Input: 1260 to 1620 nm
- Optical ALC to support route redundancy with unequal optical paths
- High gain to support lower input levels and longer reach of new architectures
- Optical and RF test points
- LED optical level indicator
- Industry standard JXP RF pad and EQ plug-ins
- Hot plug-in/out
- Local and remote status monitoring capability

The AR4214E Analog Forward Path Receiver is designed as a plug-in module for the CommScope NC4000™ and NC2000 series Fiber Optic Nodes.

Forward path receivers convert incoming optical signals (from the headend or hub) to RF signals that are sent to the RF amplifier tray. One or more AR4214E modules are shipped with each node—the exact model and quantity dependent on network architecture requirements.

The AR4214E receiver features high gain and optical ALC circuitry and operates over 51–1218 MHz bandwidth and supports all currently available band splits: 42–51 MHz, 65–85 MHz, 85–102 MHz, and 204–258 MHz.

Following optical-to-electrical (O/E) conversion of the incoming optical signals, level and slope control of the RF signal can be adjusted with plug-in pads and equalizers (EQ). These levels can be maintained when in ALC mode; this functionality is particularly well suited for route redundancy applications with unequal optical paths.



SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions	4.0" D x 2.2" W x 1.4" H (10.2 cm x 5.6 cm x 3.6 cm)
Weight	0.6 lbs (0.27 kg)
Environmental	
Operating Temperature Range (inside closed node)	-40° to +60°C (-40° to +185°F)
Storage Temperature Range	-40° to +85°C (-40° to +185°F)
Humidity	5% to 95% non-condensing
General	
	O/E Transmission Path
	Manual Level and Slope Control
	Selectable ALC Mode (On/Off)
	Hot plug-in/out
RF and Optical Interface	
RF Output	Connector at base of module
Optical Connector	SC/APC
Power Requirements	
Input Voltage	5 VDC and 24 VDC nominal from host node
Power Consumption	11 W Typical
Optical	
Input Wavelength	1260 nm to 1620 nm
Optical Input Power Range	-7 to +2 dBm
Electrical	
Passband	51–1218 MHz
Output Level (Minimum at Full Gain)	45 dBmV @ 1218 MHz (over entire optical ALC range with ALC on, 3% OMI, any EQ installed, 0 dB pad)
Output Return Loss	16 dB Minimum
Nominal Slope	5 dB
Level Control	0 to 12 dB (via plug-in pad)
Slope Control	5 to 18 dB (via EQ plug-in)
ALC Control	-7 to +2 dBm (over optical input power range)
Local Test Facilities	
Optical Input Level Test Point	1 ± 0.2 V/mW (2.08 mm sockets)
RF Test Point	-20 ± 1 dB (G-male)
LED Indicators	
Alarm	Optical Input Power Level Green = -7 to +2 dBm Blinking Green = -12 to -7 dBm, +2 to +3 dBm Red = Low level < -12 dBm, High level > +3 dBm
ALC	Green = ALC On Amber = Manual ALC Off

ORDERING INFORMATION

Model Name	Description
AR4214E-AS	1.2 GHz High Gain Forward Analog Receiver with ALC for NC4000 and NC2000 Series Nodes for HFC Segmentable applications 51 to 1218 MHz passband and SC/APC connector.

RELATED PRODUCTS

Optical Nodes	Optical Patch Cords
SFPs	Optical Passives
Fiber Service Cable	Installation Services

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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