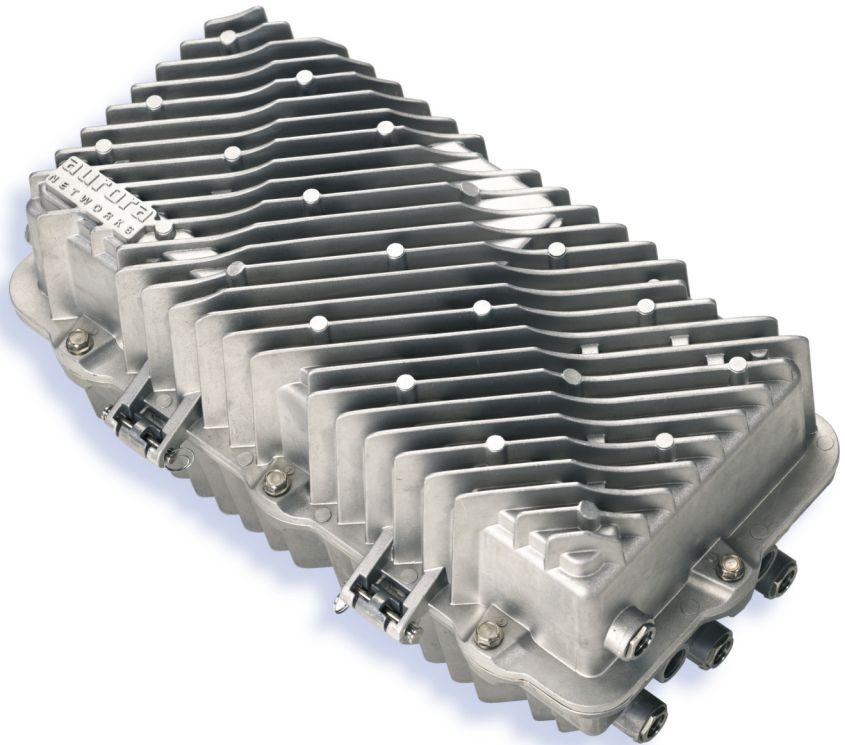


Features

- A variety of forward/return frequency split options
- Four RF outputs, two auxiliary ports for power or signal/video injection, and two optical ports
- 1x2 segmentable (1 or 2 return segments)
- Highest output level – 57.5 dBmV at 1002 MHz
- Optical capabilities:
Forward: 1300 to 1600 nm
Return: 1310nm, 1550nm, DWDM or CWDM
- Accommodates up to 6 optical transport or Ethernet modules
- Broadcast / narrowcast receiver option
- EDFA and optical switching options available
- Forward optical or RF redundancy switching, and return redundancy options
- Return ingress switch options
- A family of advanced digital return modules
- Ethernet add/drop capability for commercial business services applications
- Fully integrated network management
- Redundant power supply option
- Pedestal or strand mounting

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Fiber Node Platform with Segmentable OA4114G RF Amplifier for Fiber Deep Applications



The Aurora NC4000HG optical outdoor platform is designed to support a wide range of advanced architectures and is ideal for traditional HFC or deep fiber applications. It can be deployed in 1x1 or 1x2 with redundancy configurations.

With 57.5 dBmV at 1002 MHz available on four RF output legs, the NC4000HG can be used to extend the reach of the coax distribution network with Fiber Deep architectures. Furthermore, this flexible and rugged platform has the capability of segmenting two upstream paths using Aurora's patented digital return solutions further expanding the deployment of advanced "bandwidth hungry" services (including 100 Mbps Ethernet for commercial services) in fiber poor areas while reducing real estate requirements in the field.

The NC4000HG supports deployment of field-hardened EDFAs to cost effectively extend fiber reach into new service areas. For optimal performance and reliability in a wide range of applications, Aurora offers EDFAs at various power levels, and optical switches are available for different routing applications.

Status monitoring capability is provided via an integrated network management plug-in, eliminating the need for added-cost status monitoring transponders. The node can be configured to support split-band applications.

NC4000HG

Product Specifications

Physical:

- Dimensions: 20" L x 10.75" H x 9.5" W (51 x 27.3 x 24.3 cm)
- Weight: 38 lbs (17.1 kg)
- Housing Ports: 6 AC/RF ports and 2 fiber ports

Environmental:

- Operating temperature range: -40° to +65°C (-40° to 149°F)
- Storage temperature range: -40° to +85°C (-40° to 185°F)
- Humidity: 5% to 95% non-condensing

General:

- Passband options*:

Reverse	Forward
5–45 MHz	54–1002 MHz
5–55 MHz	70–1002 MHz
5–65 MHz	85–1002 MHz
- RF Test Points (Fwd and Rtn): -20 dB
- Flatness: ±1 dB
- Output return loss (at the node output): > 16 dB

* Contact Aurora Networks for other available options

Power Requirements:

- Operating Input voltage range: 44 to 95 V_{RMS} (47–70 Hz Quasi-Square Wave)
- Power passing: 15 A_{RMS}
- Power supply start-up input voltage: 40–44 V_{RMS}
- Power supply turn off input voltage: 34–38 V_{RMS}
- Power supply efficiency: 73% typical
- DC power consumption:
 - 73 W (standard configuration of 4 RF outputs and 1 optical Rx)
 - 11 W (second Optical Receiver)
 - 6 W (Digital Transponder)
 - 6 W (Return Transceiver)
 - 9 W (Node EDFA)

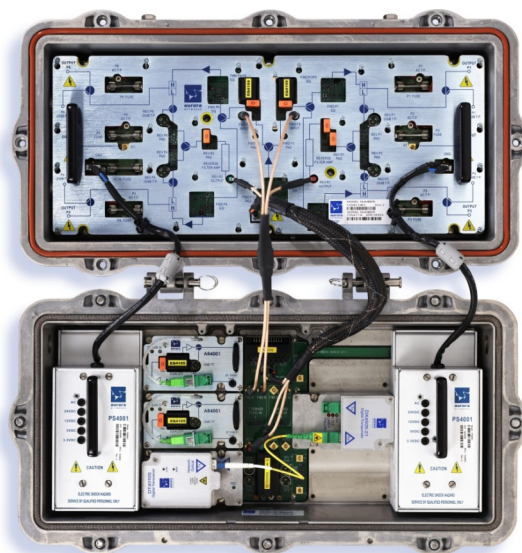
RF Performance

(Note 1: Performance with input to node's Optical Receiver from an Enhanced grade Model AT3310-A-E-AS Analog 1310nm Transmitter)

	Fiber Deep Applications		
	1 GHz	1GHz	870 MHz
• Channel loading:			
Up to 550 MHz	Analog NTSC	Analog NTSC	Analog NTSC
550-870 MHz	256QAM at -6 dBc	256QAM at -6 dBc	256QAM at -6 dBc
870-1002 MHz	256QAM at -6 dBc	256QAM at -10 dBc	N/A
• Nominal output level (per port):			
at 1002 MHz	56.5 dBmV	57.5 dBmV	N/A
at 870 MHz	–	–	58 dBmV
at 54 MHz	38.5 dBmV	39.5 dBmV	42 dBmV
• Nominal slope:			
54 / 870	–	–	16 dB linear
54 / 1002	18 dB linear	18 dB linear	
• Output return loss (at the node output):	> 16 dB	> 16 dB	> 16 dB
• Link performance (see Note 2)			
CNR (see Note 3)	49 dB	49 dB	49 dB
CSO	58 dB	58 dB	58 dB
CTB	56.5 dB	56.5 dB	56.5 dB

Note 2: Link performance, including transmitter (with CW channel loading to 550 MHz and 256QAM loading above 550 MHz at -6 dBc)

Note 3: CNR performance with input level to optical receiver of -3 dBm for Fiber Deep application



Ordering Information

A typical configuration of the NC4000HG series optical node includes the NH4000-H housing with external test ports, one PS4001 power supply, one 54–1002 MHz optical receiver module (AR4001G) with SC/APC connectors, the OA4114G high output 4-port RF amplifier module, and standard equalizers and pads. A backup PS4001 power supply may be separately ordered. Also available are additional optional plug-in modules that are described on separate data sheets. These include FA4500 series Optical Amplifiers, DT4000 and DT4200 series Digital Return Transceivers, DX4515 series Digital Return Transponders (ITU Grid), optical or RF redundancy switches, and return ingress switch options. Please contact your Aurora Networks sales representative for information regarding specific equipment configuration options to meet your particular requirements.



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