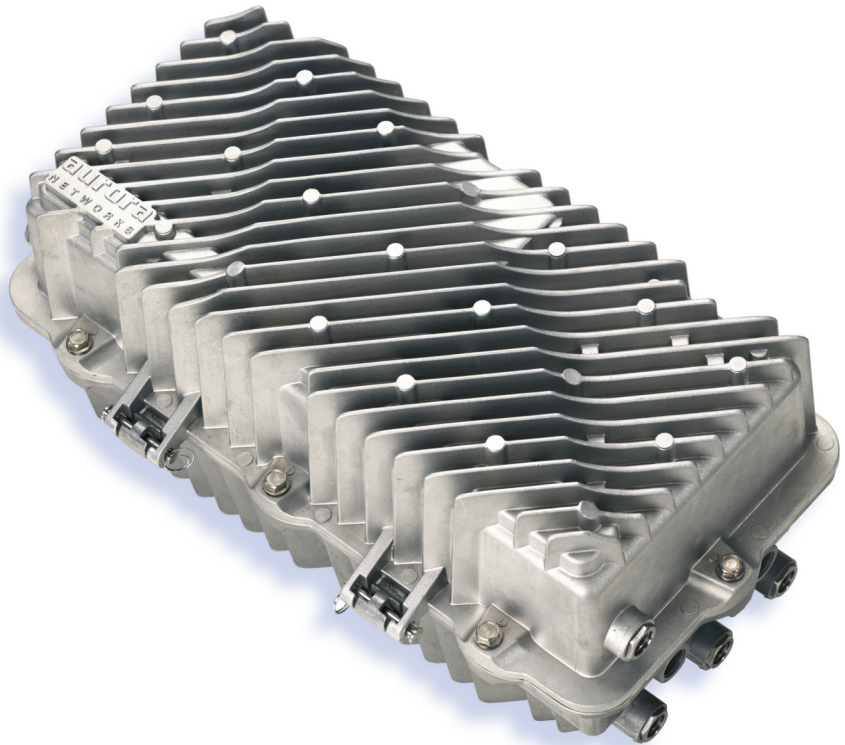


Features

- 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 – 56.5 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 OA4114HG 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 56.5 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 (5-65 / 85-1002)

Product Specifications

60-ch System D/K & 64-ch System B/G

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:

- RF Test Points (Fwd and Rtn): -20 dB
- Flatness: ±1 dB
- Output return loss (at the node output): > 16 dB

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

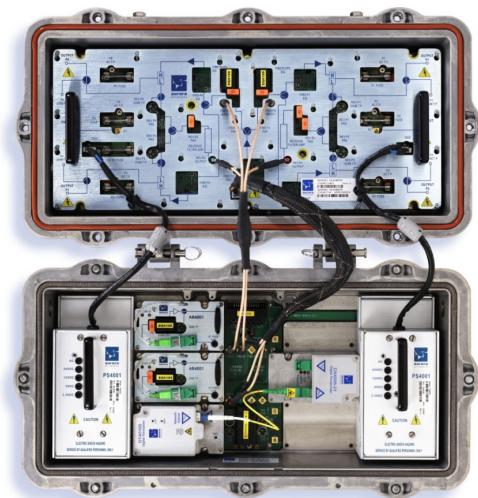
(Note 1: Performance with input to node's Optical Receiver from a Normal grade Model ATxxG-N-1-AS 1310nm Transmitter)

Application

Fiber Deep HFC

| | B/G | D/K |
|---|------------------|---------|
| • System standard: | B/G | D/K |
| • Forward passband (MHz): | 85-1002 | 85-1002 |
| • Channel loading: | | |
| Up to 600 MHz | 64 | 60 |
| 600-1002 MHz | 256QAM at -6 dBc | |
| • Optical input level at Node Receiver (dBm): | -3 | -3 |
| • Nominal slope, linear (dB) 85-1002 MHz: | 17.5 | 17.5 |
| • Nominal output level (per port, dBmV): | | |
| at 1002 MHz | 56.5 | 56.5 |
| at 85 MHz | 39 | 39 |
| • Output return loss at the Node output (dB): | >16 | >16 |
| • Link performance (see Note 2) | | |
| CNR (dB) | 47 | 47 |
| CSO (dB) | 58 | 58 |
| CTB (dB) | 56.5 | 56 |

Note 2: Link performance, including transmitter (with CW channel loading to 600 MHz and 256QAM loading above 600 MHz at -6 dBc)



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 85-1002 MHz optical receiver module (AR4403G) with SC/APC connectors, the OA4114HG 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, DT4032 and DT4232 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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