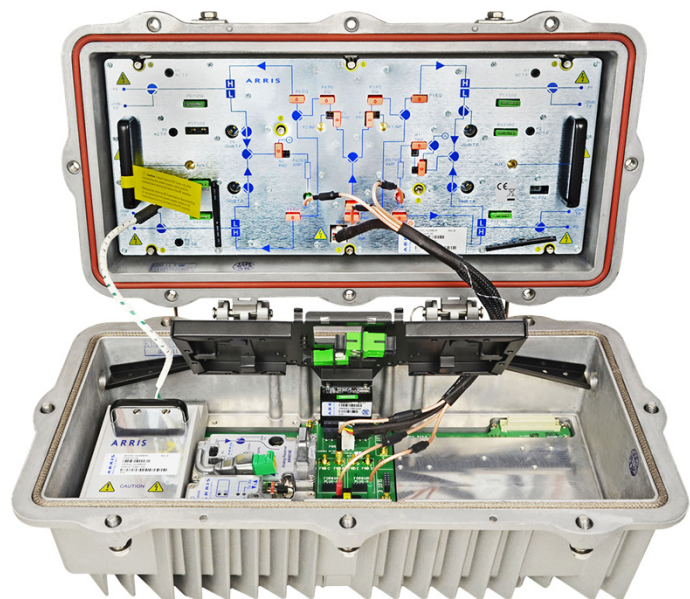


FEATURES

- 60 dBmV ultra-high output at 1.2 GHz via GaN technology for Fiber Deep applications
- Drop-in upgrade for the NC4000HG family of Fiber Deep nodes
- Five RF outputs with AC power passing
- Two dedicated AC power ports with power passing
- Two fiber ports with versatile fiber passives tray
- Five forward/return frequency split options
- Standard automotive blade style current shunts for AC power steering
- Uses industry standard JXP style pads/equalizers
- Superior upstream performance via advanced universal digital return modules
- Built-in, all-digital node status monitoring
- Redundant power supply option
- Strand or pedestal mounting

The NC4000H4 node provides a high output level of up to 60 dBmV virtual analog at 1218 MHz available on all four RF output ports of the OA4324HE RF Output Amplifier. It is designed as a “drop-in” replacement for the NC4000HG family of Fiber Deep nodes. The standard or high gain optical receivers feature optical automatic level control and support optical inputs between -7 and +2 dBm.

The NC4000H4 is segmentable in the return path supporting 1x1 and 1x2 segmentation. For 42, 60, 65, and 85 MHz, this is achieved using the DT4250 universal digital return transceiver supporting multiple modes of operation, a single (“1-fer”), dual independent returns (“2-fer”) or enhanced single return with increased performance and the option to cascade returns. For 204 MHz, this is achieved using the DT4600 digital return receiver. Upstream transmission for both is enabled with plug-in SFP modules supporting 1310 nm, 1550 nm, and CWDM or DWDM options.



The NC4000H4 supports deployment of a wide range of field-hardened EDFAs and optical switches for extended fiber reach, routing options, and system reliability. Remote monitoring capability is provided with integrated network management eliminating the added cost of a third-party status monitoring transponder.

The NC4000H4 node platform also supports next-generation architectures and technologies such as Node PON, Node QAM, EPoC, and more, providing a seamless migration to support tomorrow's services.

SPECIFICATIONS

Characteristics	Specification	
Physical		
Dimensions	20" L x 9.5" W x 10.75" H (50.8 cm x 24.1 cm x 27.3 cm)	
Weight	38 lbs (17.1 kg)	
Housing Ports	4 RF + AC ports, 2 dedicated AC power ports and 2 fiber ports	
Environmental		
Operating Temperature Range	-40° to +60°C (-40° to 140°F)	
Storage Temperature Range	-40° to +85°C (-40° to 185°F)	
Humidity	5% to 95% non-condensing	
General		
Passband Options	Reverse 5 to 42 MHz 5 to 60 MHz 5 to 65 MHz 5 to 85 MHz 5 to 204 MHz	Forward 54 to 1218 MHz 72 to 1218 MHz 85 to 1218 MHz 102 to 1218 MHz 258 to 1218 MHz
RF Test Points (Forward and Return)	-20 dB	
Flatness	± 1.25 dB	
Thermal Stability	± 0.25 db	
Output Return Loss (at the Node Output)	16 dB minimum	
Optical Input Range	-7 to +2 dBm into AR4x14E receiver (ALC range) -6 to +2 dBm into AR4x24G receiver	
Power Requirements		
Operating Input Voltage Range	45 to 90 V _{RMS} (50/60 Hz Quasi-Square Wave)	
Power Passing	15 A _{RMS}	
Power Supply Start-up Input Voltage	38–42 V _{RMS}	
Power Supply Turn Off Input Voltage	34–38 V _{RMS}	
Power Supply Efficiency	83% typical (PS4101)	
DC Power Consumption	<ul style="list-style-type: none"> 78 W in standard configuration of 4 RF outputs and 1 optical Rx, and 1 digital return Tx 6 W per additional return transceiver (DT4250 with TR4000 SFP) 11.5 W per additional forward optical receiver (AR4x14E) 	
RF Performance for HFC Applications¹		
Channel Loading ²	102–1218 MHz	Fiber Deep Application QAM + OFDM
Nominal Output Level (Per Port)	at 1218 MHz	54 dBmV QAM (60 dBmV analog)
	at 105 MHz	33 dBmV QAM (39 dBmV analog)
	at 54 MHz	32 dBmV QAM (38 dBmV analog)
Nominal Slope	54/1218	22 dB linear
Link Performance ³	MER	40 dB minimum
	BER	< 1x10 ⁻⁶

NOTES:

- Node performance only.
- For alternate channel loading performance, contact your CommScope Sales Representative
- With a total composite power of 21.05 dBm.

ORDERING INFORMATION

Model Name	Description
NC4000H4	A typical configuration of the NC4000H4 series optical node includes the NH4000-H housing with external test ports, one PS4101 power supply, one 51-1218 MHz optical receiver module (AR4x14E) with SC/APC connectors, the OA4324HE 4-port RF amplifier module, and JXP equalizers and pads. A backup PS4101 power supply may be separately ordered. Also available are additional optional plug-in modules that are described on separate data sheets; FA4500 series Optical Amplifiers, DT4250 Universal Digital Return Transceivers, optical or RF redundancy switches, and return ingress switch options. Please contact your CommScope sales representative for information regarding specific equipment configuration options to meet your requirements.

RELATED PRODUCTS

Digital Return Transmitter	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

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Note: Specifications are subject to change without notice.

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