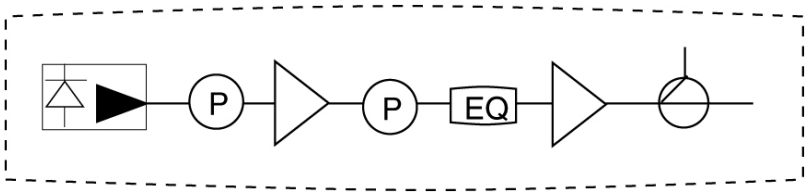
Optical Node Series (HL2)

NRM3111H

HL2 Series PWRBlazer™ Optical Node Receiver Module

FEATURES

- 20 dB directionally coupled RF test point and VDC optical power test point allow easy in-service testing of the optical path
- I2C interface provides a connection to status monitoring transponder for full network control and supervision
- Optimized for fiber deep nodes



PRODUCT OVERVIEW

The ARRIS HL2 Series compact PWRBlazer™ Optical Node's optical receiver module, NRM3111H, uses state-of-the-art GaAs power-doubling hybrid output amplifier for superior distortion performance. For convenient deployment, each module has a fiber connector as well as locations for two plug-in pads and a slope equalizer, all accessible from the top.

Two LED indicators on the module indicate DC power's presence and optical input below –6 dBm, visually indicating that the module is operating. The module also features an RF output test point to allow troubleshooting of optical links.

SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions (with plug-ins)	5.5” W x 2.0” H x 1.9” D (14 cm x 5.1 cm x 4.9 cm)
Weight	0.7 lbs (0.3 kg)
Power Requirements	
Power Consumption, maximum	18.4 W
Optical Input	
Wavelength	1300-1600 nm
Nominal Optical Input	0 dBm
Optical Input Range	–10 to +3 dBm
Optical Return Loss	≥ 45 dB
Detector Noise	≤ 7 pA/√Hz
Detector Responsivity, nominal	0.85 A/W @ 1310nm 0.95 A/W @ 1550nm
Connectors	• NRM3111H-AS: SC/APC • NRM3111H-US: SC/UPC • NRM3111H-AF: FC/APC • NRM3111H-UF: FC/UPC • NRM3111H-AE: E2000
RF Output	
Nominal Output Level at Minimum Full Gain[1]	38 dBmV
Plug-in Options	Slope equalizer and two inter-stage pads
Passband	46-1003 MHz
Frequency Response Ripple	–0.5 to +0.5 dB: 45 to 1003 MHz
Slope	• 1.0 ± 1.0 dB: –20° to +75°C • 1.0 ± 1.5 dB: –40° to +85°C
C/CSO	≥ 78 dB[2] ≥ 75 dB[3]
C/CTB	≥ 83 dB[2] ≥ 77 dB[3]
CNR	≥ 54 dB[2] ≥ 53 dB[3]
User Interface	
Monitor Points	• Optical Power: 1 V/mW • RF Output: –20 ± 1 dBc directionally coupled
LED Indicator for Module Powering	GREEN = Module Power ON; OFF = Module Power OFF
LED Indicator for Input Optical Power Alarm	GREEN = Normal; RED = Optical Power < -6 dBm
Status Monitor Interface	
Monitored parameters	• Optical input power • Optical alarm • Module version
Remotely controllable parameters	• Status monitor carrier on/off

NOTES:

1. At 0 dBm optical input with 3.7% modulation index and 8 dB pad.
2. At 42 dBmV output level at 1003 MHz with 14 dB slope, 78 NTSC CW carriers, 256 QAM digital at -6 dB, optical input = 0 dBm, 3.7% OMI, without transmitter contribution.
3. At 46 dBmV output level at 1003 MHz with 14 dB slope, 78 NTSC CW carriers, 256 QAM digital at -6 dB, optical input = 0 dBm, 3.7% OMI, without transmitter contribution.

ORDERING INFORMATION

Part Numbers	Description
NRM3111H-zz	zz designates the optical connector = AS: SC/APC US: SC/UPC AF: FC/APC UF: FC/UPC AE: E2000

RELATED PRODUCTS

HLN3142C	HLN3142E
HLN3144	

Customer Care

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656

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