EDX Series Optical Mini Node

50dBmV

Description

The EDX series Mini nodes are designed to offer optical node application flexibility in an extremely compact housing. They are also ideal for advanced fiber-to-the-building and FTTH applications for CATV and telephony networks. The EDX series nodes provide a high RF output level up to 1GHz (1003MHz) which will reduce or eliminate the need for post-node amplifiers in the network. These mini-nodes have the unique combination of high output (50dBmV), 1GHz operation, and wide selection of return lasers including CWDM to overcome fiber bottlenecks.

Applications

The EDX series Mini nodes are ideal for use in high-density applications: MDUs, and commercial complexes such as universities, hospitals, and business parks. The mini node boasts a 50 dBmV output to handle any size establishment. Return transmitters can be added and ordered as either 1310nm or 1550nm depending on the system requirements. Optional WDM technology allows two-way operation on a single fiber. CWDM return transmitters are offered to combine multiple two-way nodes on a single fiber for ultimate fiber utilization, up to 8 buildings on a single fiber.

The Electroline Advantage

A long-standing solution provider of high-quality products for specialized broadband applications, Electroline is pleased to offer the EDX series Mini node, which is the ideal node for wherever space is limited but performance requirements are high. EDX eliminates the need for expensive installation of larger nodes, while providing comparable performance in a compact ISO-9001 manufactured package.

Features

- 1003MHz output with GaAs technology
- High RF output — 50dBmV
- Compact housing size
- 6-KV surge protection for RF I/O port
- I/O optical level test points (1V/mW)
- -20 dB directional coupler test points for forward and reverse
- LED indicators for power, optical input and optical output
- Die-cast aluminum housing
- Low power consumption
- WDM and CWDM technology available for two-way services on a single fiber
- Flexible powering at local or remote sites.
- Auto gain control (AGC) functionality
- RoHS compliant

EDX Series Optical Mini Node – 50dBmV

Receiver Specifications

Optical Specifications	
Input Wavelength	1200 to 1600 nm
Optical Input Power	-3 to +2 dBm AGC controlled
Optical Power Test Point	1 V/mW
Optical Indicator On	> -4 dBm
RF Specifications	
Frequency Bandwidth	54 to 1003, 70 to 1003, 85 to 1003 MHz
Impedance	75 Ohms
Flatness	+/- 1.0 dB
Output Return Loss	> 16 dB
Operating RF Output Level With 14.7 dB True Tilt (typical)	35.3/50 dBmV @ -1dBm Optical Power (Levels referenced to analog channels, OMI = 3.5%)
RF Output Stability (across optical input power range)	+/- 1.5 dB
Distorsion (Note 1) CTB CSO	 >64 dBc @ -1dBm Optical Power Input >61 dBc @ -1dBm Optical Power Input
Carrier to noise ratio (Note 1) CNR	 >51 dB @ -1 dBm Optical Power Input >49 dB @ -3 dBm Optical Power Input

Note 1: 78 NTSC + 75QAM at -6dBc channel loading. OMI = 3.5%

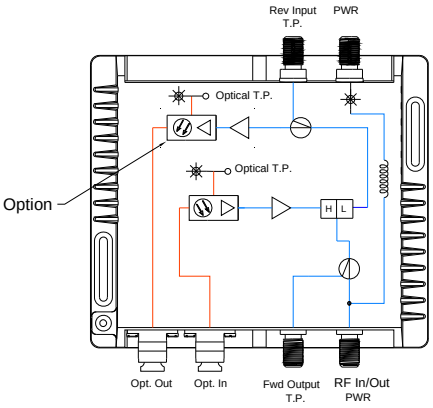
Transmitter Specifications

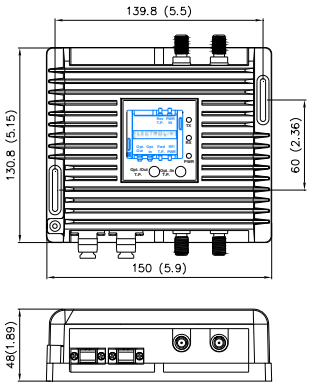
Optical Specifications	
Output Wavelength	1310 nm +/-20 , 1550 nm +/-20 or ITU CWDM Ch.+/-3nm
Optical Output Power	Refer to ordering options
Optical Return Loss	>55 dB for APC Connector
Optical Power Test Point	1 V/mW
Optical Indicator On	> -3 dBm
OMI	10% +/-2dB (1 CW carrier at 30MHz, +20dBmV)
Link Performance	
CNR	>51 dB @ DFB (4 channel loading)
CSO	<-55 dBc @ DFB (4 channel loading)
CTB	<-55 dBc @ DFB (4 channel loading)
RF Specifications	
Frequency Bandwidth	5 to 42 MHz; 5 to 55 MHz; 5 to 65 MHz
RF Input Levels	20 dBmV
Flatness	+/- 0.75 dB
Return Loss	> 16 dB

General Specifications

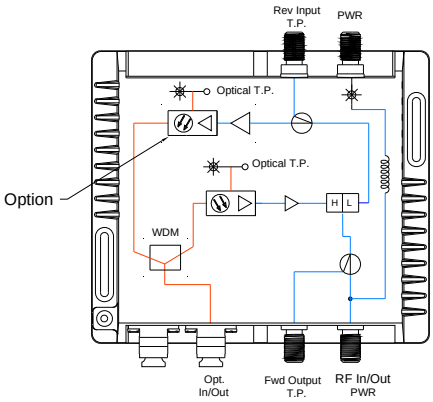
Electrical, Environmental and Mechanical Specifications	
Power Consumption	12 Watts – receiver only versions 14.5 Watts – transmitter versions
Powering	20~37 Vdc F-type connector AC to DC power adapter supplied or RF output port with optional power inserter
Operating Temperature	-40˚C to +60˚C 0˚C to +40˚C for power adapter
Humidity	< 95%
Dimensions	Length: 5.90” (150 mm) Height: 1.89” (48 mm) Width:5.15” (130.8 mm)
Weight	1.76 lbs (0.8 kg)

Standard Transmit / Receive Type

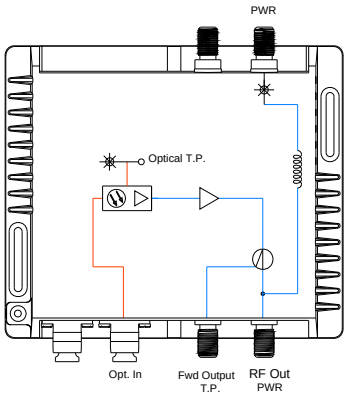




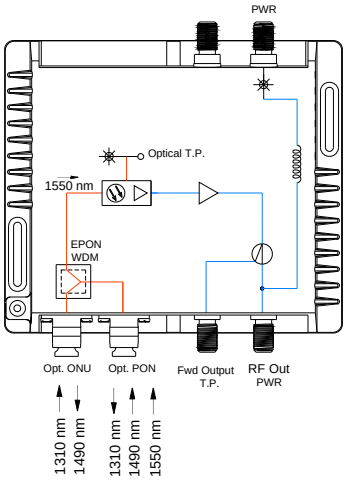
WDM Transmit / Receive Type



Receiver Onlv Type



Receiver Only with EPON Pass-Through Type



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Ordering Options

North American Models (42/54 MHz split, Universal (NA/EU/UK/AU) Power adaptor)	
Model Number	**Description**
One-Way Receive Only	
ED1-10-000-1-SA50	ED1 Series Mini Node - with receiver only, 50dBmV
Two-Way on 2 Fibers	
ED1-10-D13-1-SA50	ED1 Series Mini Node - with DFB 1310nm 2mW tx, 50dBmV
ED1-10-D15-1-SA50	ED1 Series Mini Node - with DFB 1550nm 2mW tx, 50dBmV
ED1-10-C**-1-SA50	ED1 Series Mini Node - with CWDM 2mW tx, 50dBmV
Two-Way on 1 Fiber (using WDM)	
ED1-15-D13-1-SA50	ED1 Series Mini Node - with DFB 1310nm 2mW tx, 50dBmV - with WDM
ED1-13-D15-1-SA50	ED1 Series Mini Node - with DFB 1550nm 2mW tx, 50dBmV - with WDM
ED1-13-C**-1-SA50	ED1 Series Mini Node - with CWDM 2mW tx, 50dBmV - with WDM
***** in CWDM lasers filled in by the CWDM channel number: 47,49,51,53,55,57,59,61 (where 47 = 1470nm, 49 = 1490nm, etc.)***	

European Models (65/85 MHz split, Universal (NA/EU/UK/AU) Power adaptor	
Model Number	**Description**
One-Way Receive Only	
ED1-10-000-3-SA50	ED1 Series Mini Node - with receiver only, 50dBmV
Two-Way on 2 Fibers	
ED1-10-D13-3-SA50	ED1 Series Mini Node - with DFB 1310nm 2mW tx, 50dBmV
ED1-10-D15-3-SA50	ED1 Series Mini Node - with DFB 1550nm 2mW tx, 50dBmV
ED1-10-C**-3-SA50	ED1 Series Mini Node - with CWDM 2mW tx, 50dBmV
Two-Way on 1 Fiber (using WDM)	
ED1-15-D13-3-SA50	ED1 Series Mini Node - with DFB 1310nm 2mW tx, 50dBmV - with WDM
ED1-13-D15-3-SA50	ED1 Series Mini Node - with DFB 1550nm 2mW tx, 50dBmV - with WDM
ED1-13-C**-3-SA50	ED1 Series Mini Node - with CWDM 2mW tx, 50dBmV - with WDM
***** in CWDM lasers filled in by the CWDM channel number: 47,49,51,53,55,57,59,61 (where 47 = 1470nm, 49 = 1490nm, etc.)***	

For 55/70 MHz or other band splits, FC optical connectors, please contact your Electroline representative.

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