

## 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

# 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 77 NTSC channels loading
RF Output Stability (across optical input power range)	+/- 1.5 dB
Distortion, OMI = 3.5 % CTB CSO	>64 dBc @ -1dBm Optical Power Input >61 dBc @ -1dBm Optical Power Input
Carrier to noise ratio CNR	>51 dB @ -1 dBm Optical Power Input >49 dB @ -3 dBm Optical Power Input

## Transmitter Specifications

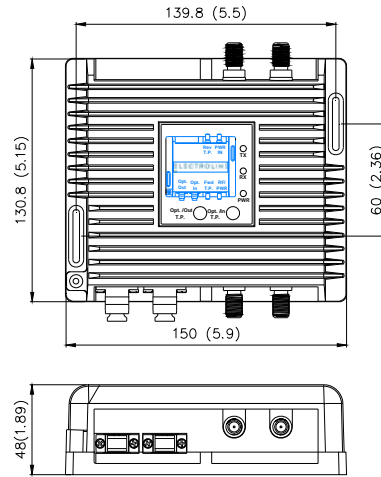
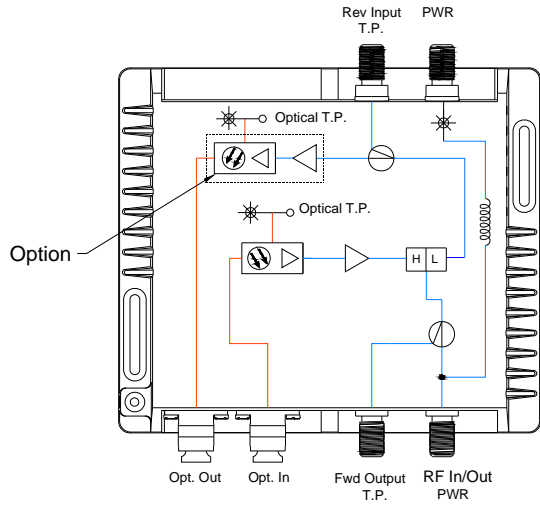
Optical Specifications	
Output Wavelength	1310 nm +/-20 , 1550 nm +/-20 or ITU CWDM Ch. +/-3nm
Optical Output Power	Refer to ordering options
Optical Return Loss	>55 dB for APC Connector
Optical Power Test Point	1 V/mW
Optical Indicator On	> -3 dBm
Link Performance	
CNR	>48 dB @ FP(2 channel loading), >51 dB @ DFB (4 channel loading)
CSO	<-51 dBc @ FP(2 channel loading), <-55 dBc @ DFB (4 channel loading)
CTB	<-55 dBc @ FP(2 channel loading), <-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

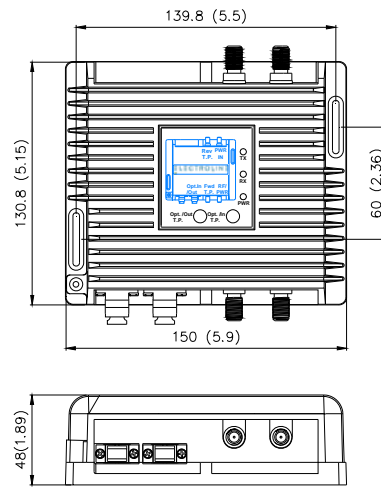
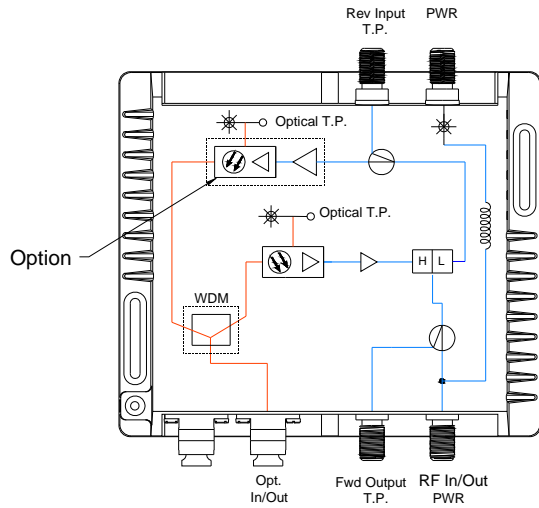
Electrical, Environmental and Mechanical Specifications	
Power Consumption	12 Watts – receiver only versions 14.5 Watts – transmitter versions
Powering	20~37 Vdc F-type connector AC to DC power adapter supplied or RF output port with optional power inserter
Operating Temperature	-40°C to +60°C 0°C to +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)

\* Specifications are subject to change without notice.

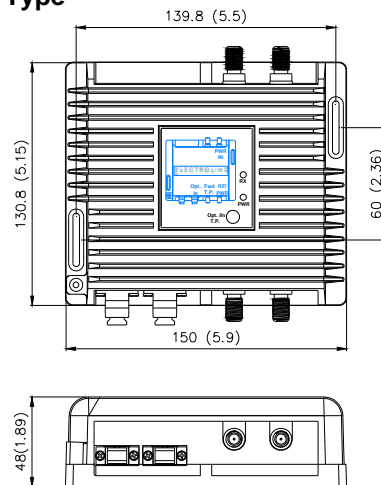
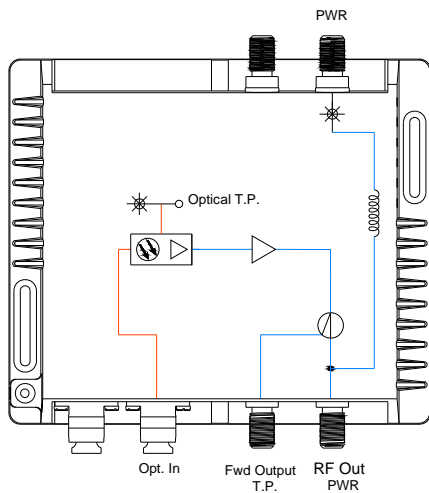
## Standard Transmit / Receive Type



## WDM Transmit / Receive Type



## Receiver Only Type



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# Ordering Options

## North American Models (42/54 MHz split, NA power adapter)

**Model Number**      **Description**

### One-Way Receive Only

ED1-10-000-1-SA10      ED1 Series Mini Node - with receiver only, 50dBmV

### Two-Way on 2 Fibers

ED1-10-FP4-1-SA10      ED1 Series Mini Node - with FP 1310 2mW tx 50dBmV

ED1-10-FP8-1-SA10      ED1 Series Mini Node - with FP 1550 2mW tx 50dBmV

ED1-10-D13-1-SA10      ED1 Series Mini Node - with DFB 1310nm 2mW tx, 50dBmV

ED1-10-D15-1-SA10      ED1 Series Mini Node - with DFB 1550nm 2mW tx, 50dBmV

ED1-10-C\*\*-1-SA10      ED1 Series Mini Node - with CWDM 2mW tx, 50dBmV

### Two-Way on 1 Fiber (using WDM)

ED1-15-FP4-1-SA10      ED1 Series Mini Node - with FP 1310 2mW tx 50dBmV - with WDM

ED1-13-FP8-1-SA10      ED1 Series Mini Node - with FP 1550 2mW tx 50dBmV - with WDM

ED1-15-D13-1-SA10      ED1 Series Mini Node - with DFB 1310nm 2mW tx, 50dBmV - with WDM

ED1-13-D15-1-SA10      ED1 Series Mini Node - with DFB 1550nm 2mW tx, 50dBmV - with WDM

ED1-13-C\*\*-1-SA10      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**

## European Models (65/85 MHz split, EU power adapter)

**Model Number**      **Description**

### One-Way Receive Only

ED1-10-000-3-SA20      ED1 Series Mini Node - with receiver only, 50dBmV

### Two-Way on 2 Fibers

ED1-10-FP4-3-SA20      ED1 Series Mini Node - with FP 1310 2mW tx 50dBmV

ED1-10-FP8-3-SA20      ED1 Series Mini Node - with FP 1550 2mW tx 50dBmV

ED1-10-D13-3-SA20      ED1 Series Mini Node - with DFB 1310nm 2mW tx, 50dBmV

ED1-10-D15-3-SA20      ED1 Series Mini Node - with DFB 1550nm 2mW tx, 50dBmV

ED1-10-C\*\*-3-SA20      ED1 Series Mini Node - with CWDM 2mW tx, 50dBmV

### Two-Way on 1 Fiber (using WDM)

ED1-15-FP4-3-SA20      ED1 Series Mini Node - with FP 1310 2mW tx 50dBmV - with WDM

ED1-13-FP8-3-SA20      ED1 Series Mini Node - with FP 1550 2mW tx 50dBmV - with WDM

ED1-15-D13-3-SA20      ED1 Series Mini Node - with DFB 1310nm 2mW tx, 50dBmV - with WDM

ED1-13-D15-3-SA20      ED1 Series Mini Node - with DFB 1550nm 2mW tx, 50dBmV - with WDM

ED1-13-C\*\*-3-SA20      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**

**For 55/70 MHz or other band splits, FC optical connectors, or power adapters for Latin America, Australia, Japan, and other regions, please contact your Electroline representative.**

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