

Features and Benefits

ANTRONIX®

Antronix L-Series Fiber Node L-Series: Low-Output

Antronix introduces the Antronix Fiber Node Platform (AFN). The cost-effective AFN has been designed to receive a full compliment of video, data and telephony via a single optical fiber and converts the signal to RF for distribution through existing RF networks. Various optical return transmitters are available to complete the two-way communications link.

An available WDM allows a single fiber to carry both forward and return optical signals. The AFN allows the systems designer to bring fiber directly into the home or business. Its small size enables placement in most NID boxes. Additional applications include MDU, businesses, schools and colleges, residential homes and government.

The AFN is available in a variety of configurations. The AFN L-series (AFN-LSA-xxxx) provides +28 dBmV RF output at -1 dBm optical input. Meanwhile, the return optical transmitter can be selected from a choice of Fabry-Perot (FP) or high-performance Distributed Feedback (DFB) lasers. CWDM wavelengths are available upon request.

For easy installation and set up, the AFN provides field access to gain controls; while an external DC optical power monitor allows installation without the added cost of an optical power meter.



- **Impressive Performance**

Low distortion push-pull amplification provides excellent carrier-to-noise, CSO and CTB performance.

- **Field-Adjustable Controls**

Variable RF attenuation control optimizes RF levels to prevent return laser clipping.

- **WDM Option**

A WDM option is available to provide 2-way communications via a single fiber. Both internal and external options are available.

- **Simple Installation**

- All ports facing down design simplifies fiber installation.

- **High Functionality at a Low Cost**

- **Superior Distortion Performance**

Push-pull amplifier design improves distortion performance versus competing gain stages.

- **1 V/mW External DC Test Point**

- **Tri-Colored LED External Optical Power Indicator**

Indicates high, low or optimal optical input levels.

- **Standard SC/APC Optical Connector**

SC/APC connector minimizes optical reflections.

- **Patented CamPort® F-connectors**

Antronix's CamPort® connectors maximize connectivity and reliability.

- **Several Return Optical Transmitter Options Including:**

2.0 mW, 1310 nm, Isolated FP

2.0 mW, 1310 nm, Isolated DFB

2.0 mW, 1550 nm, CWDM isolated DFB

(optional wavelengths available)

- **Available in a High RF Output Design (H-series)**

See Antronix document DS-1050-FF

- **6 kV Ring Wave Surge Survivability**

- **Local or Remote +12 Vdc Unit Powering**

Specifications Antronix Fiber Node (AFN)



Electrical - Preliminary	
Model: AFN-LSA-xxxN	Typical
Optical Receiver RF Performance	
Frequency Range	54-1002
RF Output Level	28 dBmV @ -1 dBm
Output Return Loss	> 16 dB
Flatness	± 1 dB
Distortion Performance (@ -1 dBm input)	
CNR	53 dB
CSO	-63 dBc
CTB	-65 dBc
Optical Receiver Parameters	
Optical Receive Bandwidth	1200-1600 nm
Input Optical Power	-8 dBm to +2 dBm
Connector Type	SC/APC, FC/APC
Optical Return Loss	> 55 dB
Return Tx RF Parameters	
Frequency	5-42 MHz
Input Return Loss	16 dB
Return RF Input level	-57 dBmV/Hz (+9 dBmV per carrier)
Flatness	+1.5 dB
Return Tx Optical Parameters	
Laser type	Fabry-Perot (FP) or DFB 1310 nm and 1550 nm
Output Power	2.0 mW (FP), 2.0 mW (DFB)
Connector Type	SC/APC, FC/APC
Optical Return Loss	> 55 dB

Ordering Information

AFN-Laa-bccd

RF Output
L: +28 dBmV @ -1 dBm

aa: Connector Type
SA-SC/APC
FA/FC/APC

b: Special Feature
0: None
1: Internal WDM

d: Frequency Split
N: 42/54 MHz
B: 65/85 MHz

cc: Return Transmitter
00: No Tx
02: 2.0 mW, Isolated, 1310 nm, FP
03: 2.0 mW, Isolated, 1310 nm, DFB

CWDM Options*
47: 1470 nm
49: 1490 nm
51: 1510 nm**
53: 1530 nm**
55: 1550 nm**
57: 1570 nm**
59: 1590 nm
61: 1610 nm

Ex: **AFN-LSA-002N**
28 dBmV @ -1 dBm
SC/APC Connector
42/54 MHz Split
2.0 mW, Isolated, 1310 nm, FP

* All are 2.0 mW, isolated DFBs

** Recommended CWDM wavelengths for HFC applications