

Antronix Premise Node (AFN) M- Series MDU High-Output



Antronix introduces the Antronix Premise Node Platform 1.2 GHz (AFN). The cost-effective high output AFN has been designed to receive a full complement of video, data and telephony via single optical fiber and converts the signal to RF for distribution via 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 commercial applications. Additional applications include MDU, hotels, businesses, schools and colleges, residential homes and government. The AFN is available in a variety of configurations. The full-featured M-Series (AFN- MSA-xxxx-xxx) provides a constant +52 dBmV RF output over a wide optical input of -6 dBm to +2 dBm. Meanwhile, the return optical transmitter can be selected from a high-performance Distributed Feedback (DFB) lasers in either 1310 nm or CWDM wavelengths. The return path transmitter for two-way CATV service features an optional external wideband (5-300MHz) RF input, which eliminates the need for costly sub-band modulators and demodulators in local origination upstream video applications. The AFN is designed to interoperate with most analog optical transmitters and return receivers from leading manufacturers.

For easy installation and setup, the AFN provides field accessible gain and slope controls, while an external DC optical power monitor allows installation without an optical power meter. LED indicators further simplify installation.

- **Impressive Performance**
1.2 GHz high RF output (52 dBmV – 5/42MHz) and Low distortion push-pull amplification provides excellent carrier-to-noise, CSO and CTB performance.
- **Field-Adjustable Controls**
Variable gain and slope plug-in pads enable optimal signal levels for both forward and return path.
- **WDM Option**
A WDM option is available to provide 2-way communications via a single fiber. Both internal and external options are available.
- **Available E-option**
The patented E-option plug-ins ease system design with a simple plug-in module.
- **Plug-In Diplex Filter**
- **Simple Installation**
- **Tri-Colored LED External Optical Power Indicator**
- **1 V/mW External DC Test Point**
- **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, all CWDM wavelengths, 1310 Isolated DFB
- **Upstream Video Insertion** – (optional) External Return 5-300 MHz Input
- **DOCSIS Compliant Operation**
- **Local or Remote +12 Vdc Unit Powering**
- **6 kV Ring Wave Surge Survivability**

Specifications Antronix Premise Node (AFN)

Electrical - Preliminary

Model: APN-MSA-xxxN-xxx-G2	Typical
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Optical Receiver RF Performance

Frequency Range	54 – 1218 MHz
RF Output Level	46/50/52 dBmV @ 550/1000/1200 MHz
Output Return Loss	>16 dB
Flatness	+ /- 0.0 dB
Distortion Performance (@ -1dBm input)	Output level 40/52
CNR	53 dB **
CSO	-63 dBc **
CTB	-65 dBc **

Optical Receiver Parameters

Optical Receiver Bandwidth	1200 – 1600 nm
Input Optical Power	-6 dBm to +2 dBm
Connector Type	SC/APC, FC/APC
Optical Return Loss	55 dB

Return Tx RF Parameters

Frequency	5-42 MHz, 5-85 MHz
Input Return Loss	16 dB
Return RF Input Level	15 dB of RF range over 41 dB min NPR. NPR peak at +15dBmV R.F. input 52 dB min NPR. Tested with 17km fiber with 35MHz loading
Flatness	+/- 1.0

Return Tx Optical Parameters (Optional)

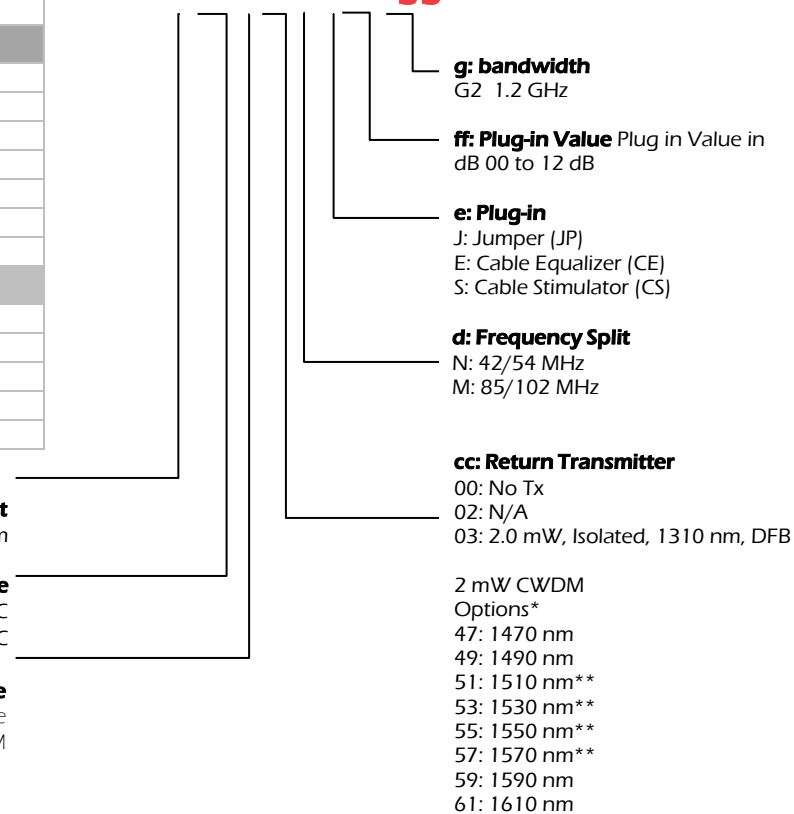
Laser Type	DFB
Output Power	2.0 mW (DFB) 1310 nm
Connector Type	SC/APC, FC/APC
Optical Return Loss	>55 dB
	** 3.2% OMI 77 Channels + QAM

Other Specifications

Physical	7.5h X 12.5w X 20.5d
Weight	1 Kg
Powering	90~240 Vac @ 50~60 Hz - IEC320
Consumption	19 W Max
Cooling	Cooled



Ordering Information AFN-Maa-bccd-eff-gg



RF Output
M: +52 dBmV @ -6 to +2 dBm

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

b: Special Feature
0: None
1: Internal WDM

Ex: **AFN-MSA-155N-E06-G2**

52 dBmV
SC/APC Connector
42/54 MHz Split
2.0 mW, Isolated,
1550 nm, DFB Internal WDM
6 dB Cable Equalizer
54-1218 MHz

* All are 3.0 mW, isolated DFBs

** Recommended CWDM wavelengths for HFC applications