



Multicom High Power CATV Mini-Node

Key Features

- Low cost 2-way HFC node for MDU applications
- Optical AGC for consistent and reliable operation
- Software controlled RF attenuator simplifies installation
- Small form factor with rugged case
- Extended temperature for use in harsh working environments
- Fully compatible with HFC services
- Powered by 5VDC using a 120V AC adapter
- 50 to 1000MHz forward path supports advanced services as they are developed
- 5 to 42MHz return path for compatibility to most CATV systems
- View status, adjust attenuation and modify tilt to simplify system configuration



Description

The Multicom High Power Mini-Node is a high performance HFC node for use in CATV/MDU applications. It supports HFC services and content such as DOCSIS 1, 2, or 3 and high-definition video.

Fully SCTE compliant, this compact unit can be installed onto existing HFC networks using standard 2 fiber designs and existing head-ends. Receive only and PON compatible versions are also available that operate on single fiber networks.

The RF output is internally amplified to +40dBmV allowing this node to be used in multiple dwelling units without additional amplifiers, saving time and money while minimizing ongoing operation costs.

Constructed with industrial grade components in a robust sealed die-cast housing suitable for direct mounting on a wall or inside a cabinet without the need for special cooling or heating considerations.

The Multicom High Power CATV Mini-Node is equipped with multiple test points allowing RF power and optical power to be measured while it is in operation to further simplify operations and help reduce downtime.

Applications

- CATV and data services for fiber to MDU and business parks
- DOCSIS data applications as well as HDTV and interactive TV services

MUL-MN-HFC-1000R

www.multicominc.com

Multicom, Inc.

Ph: 800-423-2594

Fax: 407-339-0204

Email: multicom@multicominc.com



Multicom High Power CATV Mini-Node

Product Specifications

| General | |
|--------------------|--------------------------------|
| Dimensions (WxHxD) | 6.4"x1.58"x5.5" (163x40x125mm) |
| Weight | 19 oz. |
| Optical connectors | SC/APC |
| RF connectors | 75 Ohm female 'F' connector |
| Band plan | 42/52 MHz band split |

| Receiver (Forward Path) Performance | |
|-------------------------------------|--|
| Optical wavelength | 1260 to 1620nm |
| Optical input power range | -9 to +1 dBm |
| RF frequency | 54 to 1000MHz |
| Frequency response (flatness) | ±1.5dB (54 to 1000MHz) |
| RF output power | +40 dBmV (@0dBm input) |
| Tilt | +2 to +10 dB (54 to 1000MHz, adjustable) |
| RF pad | 0 to 14dB (adjustable) |
| CNR @0dBm input | 51dB (78 channel loading, 0dBm input) |
| CSO @0dBm input | -60dBc (78 channel loading, 0dBm input) |
| CTB @0dBm input | -60dBc (78 channel loading, 0dBm input) |
| RF test point | -20dB (referenced to output) |

| Transmitter (Return Path) Performance | |
|---------------------------------------|---------------------------------|
| Optical wavelength | 1290 to 1330nm (1310nm typical) |
| Laser output power range | 0 to +2dBm (+1dBm typical) |
| RF frequency | 5 to 42 MHz |
| Return path RF input power | +22 to +35 dBmV |
| Frequency response (flatness) | ±0.75dB (5 to 42 MHz) |
| RF test point | -20dB (referenced to input) |

| Management, Electrical, Environment | |
|-------------------------------------|--|
| Display | 3 digit numeric display with LED lamps and control buttons |
| Configuration parameters | Adjustable RF tilt, adjustable RF attenuator |
| Status information | Optical power, output power, temperature alarm |
| DC power | 5 to 8VDC |
| Power consumption | <6.5 Watts |
| AC power adapter | AC adapter 120VAC to 5VDC (included) |
| Operating temperature range | -10 to +55°C |
| Storage temperature range | -40 to +85°C |
| Humidity | 5 to 95% (non-condensing) |

MUL-MN-HFC-1000R

www.multicominc.com

Multicom, Inc.
 Ph: 800-423-2594
 Fax: 407-339-0204
 Email: multicom@multicominc.com