



Multicom Optical Micro-Node

Key Features

- » Two-way Micro Indoor Optical Receiver & Transmitter
- » 54-1000 MHz Forward Bandwidth
- » 5-42 MHz Return Bandwidth
- » Wide Optical Input Range (-6 to +3 dBm)
- » 1260nm-1620nm Optical Wavelength
- » 25 dBmV RF Output



Description

Multicom's Optical Micro-Node and Return Path Receiver provide a fully integrated solution for two-way hybrid fiber-coax deployment in MDUs. While providing a simple to install and use video distribution system, the Micro-Node's fiber optic return path allows for two way and advanced services, such as HDTV, cable modems, VoIP, and security.

The Micro-Node converts the incoming optical signal to RF and then distributes the signal to each dwelling. Return path signals are transmitted from each subscriber to the Micro-Node. An integrated laser converts the RF signals to optical and delivers these signals back to the headend.

The MUL-MN-2W-1000D-5/42 is an ideal MDU solution, for garden style living, high rise apartments, stadiums, hotels, or office parks; anywhere a high-density solution is required. These micro-nodes are so cost effective even telcos have started using them in FTTH networks with single family homes.

MUL-MN-2W-1000D-5/42

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Multicom's Optical Micro-Node

Product Specifications

| Down-stream Specifications | | Values | Notes |
|----------------------------|---------------------------------|----------------|-----------------------------|
| Optical | Operating wavelength (nm) | 1260 - 1620 | |
| | Optical Input (dBm) | -6 - +3 | |
| | Return loss (dB) | >50 | |
| | Input power test point (V/mW) | 1 | |
| | Connector | SC/APC | |
| RF | Max. operating bandwidth (MHz) | 54 - 1000 | |
| | Flatness (dB) | -0.75 - +0.75 | 54~1000 MHz |
| | Output return loss (dB) | 14~16 | 54~1000 MHz |
| | Output level (dBmV) | 25 | Optical Input at 0dBm |
| | Output level test port (dB ref) | -20 | |
| | Impedance (Ω) | 75 | |
| | RF connector | F-female | |
| Link | CNR (dB) | 52 | 78CH, Optical Input at 0dBm |
| | CTB (dB) | -65 | |
| | CSO (dB) | -60 | |
| | HUM (dB) | -60 | |
| General | Power supply - Volts DC | +12 | |
| | Power consumption (W) | 4 | |
| | Operating temp. ($^{\circ}$ C) | -20 - 65 | |
| | Storage temp. ($^{\circ}$ C) | -40 - 85 | -4 - 150 $^{\circ}$ F |
| | Relative humidity (%) | 5 - 95 | |
| | Size (W x D x H mm) | 130 x 106 x 33 | 5¼ x 4¼ x 1¼ inches |

| Up-stream Specifications | | Values | Notes |
|--------------------------|--------------------------------------|---------------|--------------------------|
| Optical | Reverse TX operating wavelength (nm) | 1310 | |
| | Type of laser with return path | FP | |
| | Output power (mW) | 1.0 | |
| | Return loss (dB) | >55 | |
| | Output power test point (V/mW) | 1.0 | |
| | Connector | SC/APC | |
| RF | Operating bandwidth (MHz) | 5 - 42 | |
| | Flatness (dB) | -0.75 - +0.75 | 5~42MHz |
| | Noise Power Ratio (dB) | 37 | FP Link loss \geq 15dB |
| | Input level (dBmV) | 20 | |
| | Return loss (dB) | 16 | 5~42MHz |
| | Input power monitor (dB) | -20 | |

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