

Toner

TIN40R-1000

2-Way Indoor Optical Node

Toner
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Features

- Full forward bandwidth up to 1 GHz
- 5-42 MHz reverse, 2 Mw DFB laser
- 1550 nm reverse optical wavelength
- High RF output range; 40 dBmV stable within wide optical input range (-8 to +4 dBm) with AGC feature
- GaAs E-pHEMT push-pull technology for high and stable output level with very low power consumption
- Optical input test point
- LED display of optical levels
- External powering (11-35 Vdc) or remote powering over coax line via power inserter
- Surge protection (6kV) at RF output
- SCTE compliant F type connectors
- Diecast aluminum housing for excellent heat dissipation and RFI shielding



The TIN40R-1000 is a two-way fiber optic node for CATV, SMATV, FTTx, MDU, or private business applications. The TIN40R-1000 has a wide optical input bandwidth range from 1200 to 1600 nm making it ideal for either 1310 nm or 1550 nm systems. The fiber optic receiver has an AGC circuit to maintain an RF output over a -8 to +4 dB optical input level. The high RF output level of 40 dBmV eliminates the need for a separate RF amplifier for distribution. A 0-18dB gain control makes system balancing easy without external pads. The GaAs E-pHEMT push-pull hybrid provides superior performance with low distortions. With a 2 Mw DFV reverse band optical laser, the node is ideal for 2-way systems where reverse channels or modem data is present. Using a 1550 nm laser allows for greater distances with lower optical loss for improved performance. The node uses an external 12VDC power supply (included) which can be connected directly or diplexed on the RF output cable for remote powering. the optical input is a SC/APC connector and features a multicolor LED for input level reference. Also featured is an internal LED display showing optical levels.

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Specifications

FORWARD	
Optical Performance	
Wavelength Operational AGC Input Optical Power Range Optical Input Test Point Optical Input LED	1200-1600 nm Standard AGC is operational within -8 to +4 dBm 1 V/mW, external, with calibrated power meter 3 color
RF Performance	
Bandwidth Gain Flatness Gain Control Output Return Loss Test Point	54-1000 MHz / 85-1000 ± 1 dB 0 to 18 dB ≤ -14 dB -20 dB
Link Performance (0 dBm optical input power, NTSC77 channel, OMI = % 3,8)	
REVERSE	
Optical Performance	
Wavelength Optical Output Connector	1550 nm 2 mW SC/APC
RF Performance	
Bandwidth Frequency Response Accuracy Return Loss Input Range Level Control Test Port	5-42 MHz ±1 dB -16 dB 8-27 dBmV Standard plug in pads (TBLE-9518**) -30 dB
Output Level CNR CSO CTB	40 dBmV min (stable from -8 to +4 dBm optical level due to AGC) 51 dBc 63 dBc 60 dBc
ELECTRICAL & PHYSICAL PERFORMANCE	
Surge Withstand Powering - External Adaptor Powering Over Coax Power Consumption Temperature Enclosure Weight Dimensions	IEEEEC62.41 Cat.A3 (6kV, 200A) 12 VDC external power supply, connection with F type connector (DC powering) Yes 8, 0 Watt 0 to 55°C Aluminum diecast housing (IP54) 3.7 lbs (1.7 kg) 7 5/8 x 5 3/8 x 3 inches (195 x 136 x 75 mm)