

TIN40-1220 Optical Node (Receive Only)

Features

- Full forward bandwidth up to 1220 MHz
- High RF output range; 40 dBmV stable within wide optical input range (-6 to 2 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
- Three colored LED indicator for optical input level
- 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 TIN40-1220 is a new, one way fiber optic node for CATV, SMATV, FTTx, MDU or private business applications. The TIN40-1200 has a wide optical input 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 a RF output over a -6 to +2 dB optical input level. The high RF output level of 40 dBmV eliminates the need for a separate RF amplifier for distribution. A 0-18 dB gain control makes system balancing easy without external pads. The GaAs E-pHEMT push pull hybrid provides superior performance with low distortions. 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.

TIN40-1220

Specifications

Typical, for T: 68°F, Optical input: 1550nm Impedance: 75 ohms			
Parameter	Notes	TIN-40-1220	Units
Optical Performance			
Wavelength		1200-1600	nm
Operational AGC		Available	
Input Optical Power Range		AGC is operational within -6 to +2	dBm
Optical Input Test Point	External, with calibrated power meter	1	V/mW
Optical Input LED		3 color	
RF Performance			
Bandwith		54-1218	MHz
Gain Flatness		±1,5	dB
Gain Control	JXP plug-in(1)	0 to 18 dB in 2 dB steps	dB
Slope Control	JXP plug-in(1)	0 to 10 dB in 2 dB steps	dB
Output Return Loss		≤-14	dB
Test Points		-30 ±1,5	dB
Link Performance	0dBm optical input power, NTSC 74 analog channels, 109.25 to 547.25 MHz, + 75 SC-QAM-256 digital channels, 555to 999 MHz -6 dB offset relative to the analog carrier.		
Output Level		min. 40 dBmV (stable from -6 to +2 dBm optical level due to AGC)	dBmV
CTB		-60	dBc
CSO		-60	"
MER		38 (min 35 at optical input power -6 dBm)	dB
Electrical & Physical Performance			
Surge Withstand		IEEE C62.41-Cat. A3(6KV, 200A)	
Powering		11-36VDC external via F type connector	VDC
Powering over coax		11-36VDC external powering available	VDC
Power Consumption		4	Watt
Input/Output Connections		Optical: SC-APC; RF: F-type	
Operating Temperature Range		32 to 131	°F
Enclosure		Aluminium diecast housing (IP54)	
Power Requirement		Wall Power Transformer, Input = 90-240VAC , 50-60Hz, 1A	
Operating Temperature Range		-4 to +130	degF
Weight		1,35 / 615	lbs / gr
Dimensions (L x W x H)		5,8 x 5,5 x 2 / 147 x 138 x 52	inch/ mm
(1) Universal 0,45" JXP type pads. 0dB jumper pads are default.			