

OTPN-1000

High Sensitivity Indoor Optical Node

Features / Benefits

- C/N of >48dB @ -6dBm optical input
- Small Size: 6.4" x 5.25" x 2.00"
- Low Power Consumption: 15 watts typical
- Available with 3mW return DFB for the optimum in return path performance



The **OLSON TECHNOLOGY INC. OTPN-1000** is a high sensitivity full feature optical node that is designed to work with input levels as low as -6dBm and provide output levels to +45dBmV. The unit operates from a universal power supply (90VAC to 240VAC) or an optional 24V DC or 48V DC input. The return optical path is from either a 1mW FP laser or a 3mW DFB laser.

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SPECIFICATIONS

Optical Input Range.....	-6dBm to +3dBm
Forward Frequency Range.....	54MHz to 870MHz, or 85MHz to 870MHz
Reverse Frequency Range.....	5MHz to 42MHz, or 5MHz to 65MHz
Forward Frequency Response.....	<1.5dB 54MHz to 870MHz
Reverse Frequency Response.....	<1.5dB 5MHz to 42MHz or 5MHz to 65MHz
Output Level (Forward).....	+45dBmV @ 550MHz -6dBm optical input 10dB slope to 870MHz Transmitter OMI @ 3.2%
Distortion.....	>62dB CSO/CTB @ above output +3dBm optical input 10dB slope to 870MHz Transmitter OMI @ 3.2% Digital loading from 550MHz to 870MHz @ -6dB below analog
Carrier to Noise.....	>53dB @ <-1dBm optical
Output Return Loss.....	>16dB @ 54MHz to 870MHz, or 85MHz to 870MHz
Input Return Loss.....	>16dB @ 5MHz to 42MHz or 5MHz to 65MHz
Return Laser Output Power.....	+3.0mW \pm 0.5mW
Return Path NPR.....	>15dB over 41dB NPR measured with 10dB fiber and Olson High Sensitivity Return Band Receiver
NPR 41dB Threshold.....	-57dBmV/Hz
Operating Temperature Range.....	-40° C to +55° C
Gain Variation vs Temperature.....	\pm 1.5dB
AC Power Requirements.....	90VAC to 240VAC -50-60Hz 15 watts maximum
Test Points.....	Output Port (forward) -20dB Return Port (reverse) -20dB Receive Power T.P. -1V/mW Return Laser T.P. -1V/mW



