

# ▶ VBI50 L-Band Transmission System

## ▶ DESCRIPTION

The Radiant Model VBI50 L-Band Fiber Transport System transports RF signals between 950MHz and 2200MHz up to 50 km over a single optical fiber. By reproducing the original RF signal at the receiving end of the link, the system remains format independent.

The VBI50 is a high performance, cost-effective solution for transporting L-Band signals over single mode fiber. The links have low noise characteristics (CNR up to 50 dB or better), a wide temperature range (-40° to +60°C) and are easy to install. The pass band is flat within +/-2 dB over ANY 500 MHz range

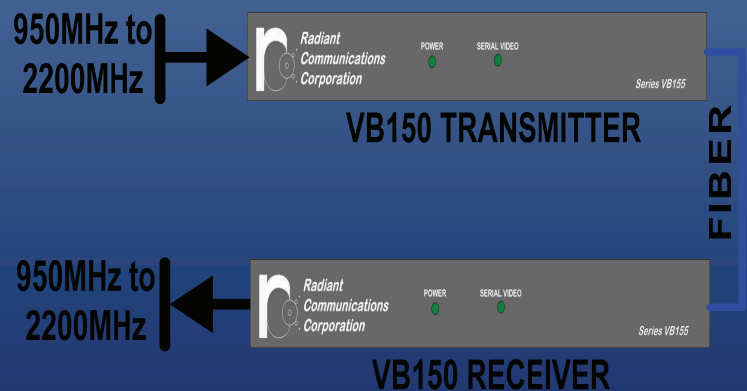


## ▶ BENEFITS

- Protocol transparent -transmits video, audio &/or data
- LNB Power through
- Transmission distances of 50 km

## ▶ FEATURES

- Broadband transmission from 950 to 2200 MHz
- Options for 50 and 75ohm models
- Options for CWDM AND DWDM Systems (ITU Grid)



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## SPECIFICATIONS

### Electrical

75 Ohm Models (F Connector)  
 I/O Impedance 75 Ohms  
 50 Ohm Models (SMA Connector)  
 I/O Impedance 50 Ohms  
 Carrier-to-Noise Ratio (@ 0dB Opt. Loss, 27 MHz BW)  
 RF Input Level = 10 dBmV 40 dB  
 RF Input Level = 20 dBmV 50 dB  
 Carrier-to-Noise Ratio (@ 12dB Opt. Loss, 27 MHz BW)  
 RF Input Level = 10 dBmV 25 dB  
 RF Input Level = 20 dBmV 38 dB  
 Link RF Gain (@0 dB Opt. Loss) 15 21 25 dB  
 Link RF Gain (@12 dB Opt. Loss) -9 -3 +1 dB  
 RF Gain Variation Over Temp. -2 +2 dB  
 Composite 1 dB Compression Point +34 dBmV  
 Second Order Intercept Point (IP2) - 0 dB Opt. Loss +50 dBmV  
 Second Order Intercept Point (IP2) - 12 dB Opt. Loss +57 dBmV  
 Third Order Intercept Point (IP3) +48 dBmV  
 Noise Figure (@ 0 dB Opt. Loss) 15 dB  
 Noise Figure (@ 12 dB Opt. Loss) 32 dB

### Optical

Wavelength: 1310nm, 1550nm, CWDM, DWDM  
 Number of Fibers: 1  
 Optical Connector: SC/APC, SC, FC, FC/APC

### General Characteristics

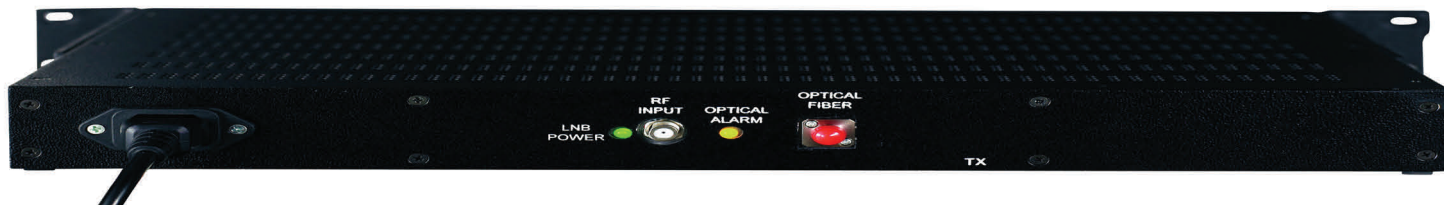
Power: 15W @ 90 to 240V AC  
 Operating Temp: -40° to 60° C  
 Size: 17.0" W x 13.0D x 1.75" H

## ORDERING INFORMATION

PART NUMBER	DESCRIPTION	ATTENUATION	MAX DISTANCES
<b>VB150S-T-XY3</b>	<b>L-Band 950MHz—2200MHZ, Transmitter</b>	<b>12dB</b>	<b>35 km</b>
<b>VB150S-R-XY3</b>	<b>L-Band 950MHz—2200MHZ, Receiver</b>	<b>12dB</b>	<b>35 km</b>

### Note:

- Specify X—packaging of the unit: U—IU rack mount, M—modular (standalone), R—card cage rack mount
- Specify Y—connector type: A—SC/APC, E—SC, B—FC, Z—FC/APC
- Add -48 for 48VDC power
- For 1550nm, CWDM and DWDM versions contact factory
- Due to product enhancements, specifications are subject to change without notice



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