

10 MHz Sine Wave Transmission System

INST/INSR-4101

For High Precision 10 MHz Sine Wave Transmission Applications

The **LuxLink®** INST/INSR-4101 fiber optic transmission system consists of the INST-4101 transmitter and INSR-4101 receiver. Both units utilize precision analog circuitry and internal low pass filters to transmit 10 MHz high purity sine waves via fiber optic cables over distances of up to 20 miles.

The system operates with standard multimode (mm) or single-mode (sm) fiber and installation only requires a simple one-minute level adjustment to compensate for fiber attenuation. In addition, integral LEDs are provided to continuously indicate the presence of sine wave signals as well as the presence of operating power making system troubleshooting simple.

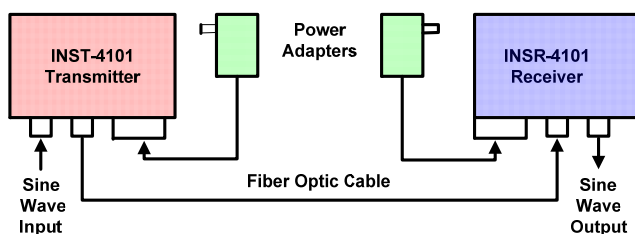


Technical Specifications

System Bandwidth	10 MHz \pm 1%
Input/Output Impedance	50 ohms
Input Level	0.5 to 1.5 volts pp
Output Level (Adjustable)	1 volt pp, 50 ohms
Input/Output VSWR	less than 20 dB
Input/Output Isolation	>100 dB
Harmonic Levels*	>60 dBc*
Phase Noise	>140 dBc/Hz
Signal Connectors	BNC
Optical Connectors	ST (mm), FCPC (sm)
MTBF (MIL-HDBK-217)	>100,000 hours
Operating Temperature	-35° to +75°C
Power Requirements**	11-18 VAC/DC @350 mA
Physical Size (mm)	5.0" (127) x 7.0" (177) x 1.0" (25.4)

**The INST/INSR-4101 system will typically degrade the harmonic levels of an input signal by approximately 5 dB. For example, an input signal with a third harmonic level of -65dBc will result in an output signal with a third harmonic level of approximately -60dBc. Transmission distance and random noise will be a function of the type of optical fiber used.*

All specifications are subject to change without prior notice.



Typical Fiber Optic 10 MHz Transmission System

Important Features

- **10 MHz Analog Bandwidth**
- **Integral 10 MHz Low Pass Filter**
- **Low Phase Noise and Harmonic Suppression**
- **Stand-alone, DIN or Rack Mountable (same unit)**

Ordering Information

Transmitter INST-4101-X
Receiver INSR-4101-X

"X" = Wavelength/Fiber

-1 = 850nm Multimode
-3 = 1310nm Multimode
-7 = 1310nm Single-mode

For stand-alone operation order a PS-1205 power supply for each unit.

For rack mounted operation all operating power is provided by power supply used with the rack mounting panel.

LuxLink®
Fiber Optic Transmission Systems

www.LuxLink.com
USA 516-931-2800