

PRODUCT BRIEF

18GHZ ANANALOG LINKS

Fiber Optic Transmitter



18GHz Fiber Optic Transmitter

FEATURES

- ▶ 50MHz to >18GHz Frequency Range
- ▶ 1550 Wavelength
- ▶ Hermetically Sealed Optical Components
- ▶ ≥ 6.0 dBm Optical Power Output
- ▶ Low V_{π} Modulator Increases Efficiency
- ▶ RS232 Interface for Health Monitoring of TX
- ▶ RF Input Standard SMA Connector
- ▶ Single +15V Supply
- ▶ Operating Temperature -5°C to 70°C
- ▶ Internal Microprocessor Control
- ▶ Designed for use with the Finisar Wide Bandwidth Analog Receiver
- ▶ 19" Rack and Custom Packaging Available

APPLICATIONS

- ▶ Analog Signal Distribution
- ▶ Antenna Remoting
- ▶ Phase Array Radar Remoting and Distribution
- ▶ Delay Lines
- ▶ Secure Communications
- ▶ Ultra Wide Bandwidth Analog Communications

Finisar®

OVERVIEW

Finisar's line of high performance fiber optic analog transmitters are designed exclusively for the unique requirements demanded by analog signal transport applications.

The analog product line builds upon established high performance digital transponders including the incorporation of microprocessor control and hermetically sealed optical components.

This broadband product operates at 1550nm and is optimized for no-compromise gain, noise figure and dynamic range performance for span lengths ranging from 1 meter to 2 kilometers, which encompasses most applications.

OPTICAL SPECIFICATIONS

Parameter	Value	Unit	Notes
TX Spectral Range	1530 - 1565	nm	For specified TX/RX link performance
Output Power	+7	dBmo	Typical
Output Power Stability	± 0.5	dBmo	
Optical Return Loss	27	dB	With FC/APC connector
Optical Connector Type	FC/APC		Others available upon request

RF SPECIFICATIONS

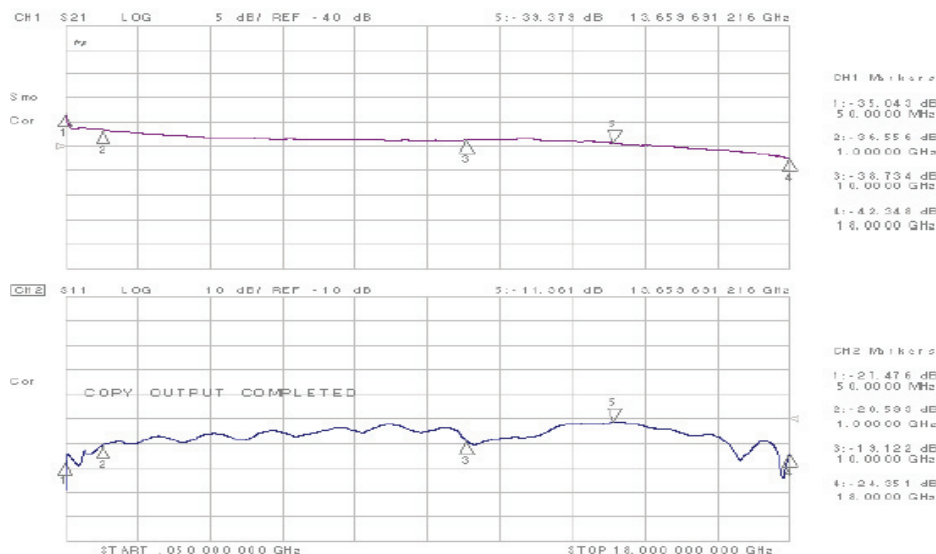
Parameter	Value	Unit	Notes
Frequency Range	50MHz to 18GHz		See plot for performance
RF Input Impedance	50	Ohms	Nominal, internal matching resistor
RF Connector	SMA		Female (SMA K-Connector Available Upon Request)
RF Return Loss	9.0	dB	
2nd Harmonics (@ -7dBm RF in)	-45	dBc	
SFDR	104	dB	@ 9GHz
NF	46*	dB	@ 9GHz
OIP3	-7.0	dBm	@ 9 GHz
Link Gain	-39	dB	@ 9GHz External RF Amplifier Option for 0dB Link Gain

*External amplifier available for 15dB noise figure option.

GENERAL SPECIFICATIONS

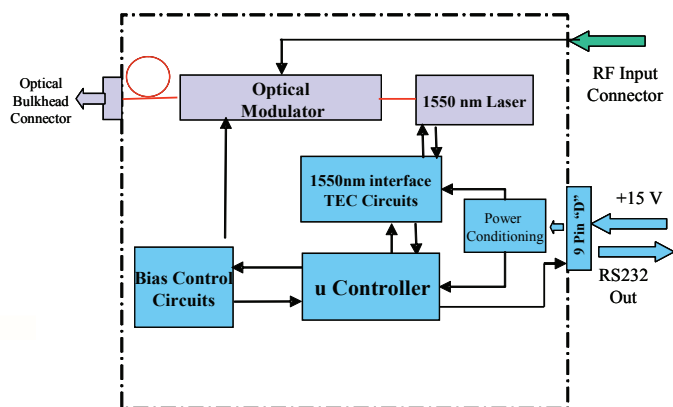
General Parameters	Value	Unit	Notes
Operating Case Temperature	-5 to +70	°C	
Storage Case Temperature	-40 to +85	°C	
Supply Voltage	+12 to +18	V	750mA maximum over temperature
Relative Humidity (non-condensing)	85	%	
Housing Construction	-		Conductively coated exterior. Laser, detector & modulator are hermetic..
Power Connector	-	-	9 pin "D" MALE
Dimensions		Inch	6.5 L x 4.0 W x 1.15 H

S21/S11 PLOT

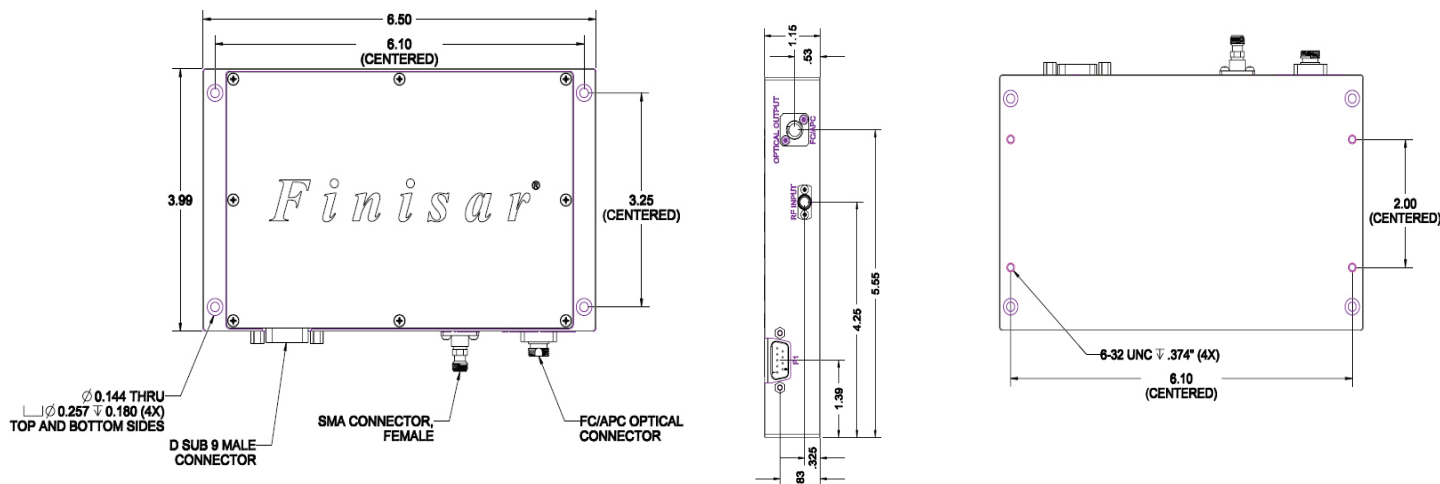


D-9 CONNECTOR PIN OUT FUNCTIONS AND BLOCK DIAGRAM

PIN	Signal Name	Signal Description
1	Ground	Power and Signal Return
2	RS 232 RXD	Data Input 9600 bps 8N1
3	RS 232 TXD	Data Output 9600 bps 8N1
4	Laser Bias Mon	DC Voltage Output 10mV/mA
5	Input Power	+12 to +18 volts, +15 nom
6	Ground	Power and Signal Return
7	Optical Power Mon	DC Voltage Output 100mV/dBm
8	Laser Temp Mon	DC Voltage Output 100mV/DEG C
9	Input Power	+12 to +18 volts, +15 nom



MECHANICAL DIMENSIONS



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Ordering Information
01100047 - Without DC Block
01100052 - With DC Block