

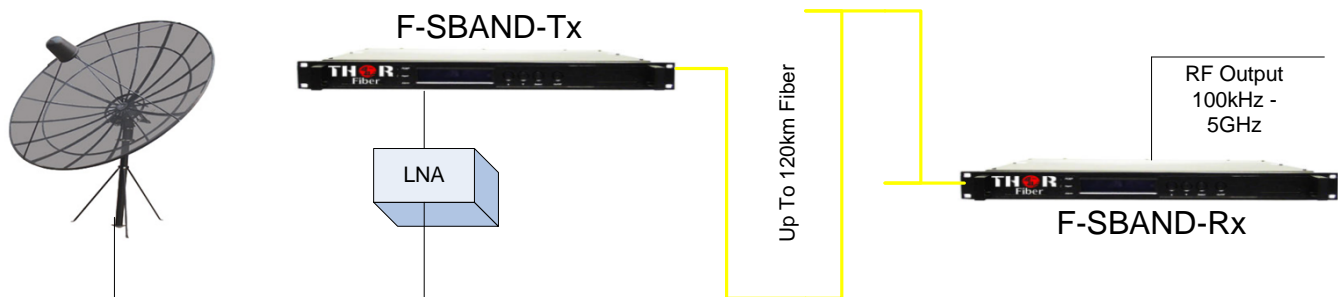
# Data Sheet: F-SBAND-Tx/Rx



The F-SBAND series wide band laser transceivers are designed for enabling a high linearity optical link for RF over fiber in the S-BAND up to 5 GHz. The unit can also be used as a repeater for extending the transmission distance of a 5 Gbps link. The F-SBAND incorporates a broadband optical transmitter and linear receiver into a compact rack mounted unit. The F-SBAND can be used for carrying almost any type of RF modulated signals such as RF over Fiber (RFoG), satellite/IF link, WiMax optical link, microwave over fiber, and mobile signals in fiber. The unit uses a lithium-niobate external modulator to convert input microwave/RF signals to optical waveforms from a frequency range of 100 kHz up to 5 GHz. The unit functions as a transparent link, transporting all satellite modulation formats over a single fiber. The F-SBAND maintains excellent gain flatness over a wide frequency range due to a very narrow line width DFB laser. Transmission distances of up to 75 miles are possible using singlemode optical fiber. The F-SBAND link is a cost effective and high performance solution for S-Band Satellite links.



## Typical S-BAND-Rx/Tx Application



## Technical Specifications

Optical Wavelength	1310 – 1550 nm FP/DFB	Communications Interface	RS232
Optical Output Power	6.0 dbm	SNMP Interface	RJ45
Optical Budget loss	24 – 32 dB	Power Consumption	8 W
Optical Return Loss	40 dB	Power Supply	12V DC
RF Frequency Range	100 kHz – 5.0 GHz	RF Connector	SMA Female
RF Input Level	12 dBm Max	Optical Connector	FC/APC or by request
RF Gain	10 – 25 dB	Dimensions (H x W x D)	19in x 11.0in x 1.75in
RF Gain Flatness	4.0 +/- 2.0	Weight	0.75 Kg
Input Impedance	50 Ohm	Operating Temp. (°C)	-10 to +65 (°C)
RF Return Loss	10 dB <10 GHz	Storage Temp. (°C)	-40 to +85 (°C)
	8 dB 13~15 GHz	Relative Humidity (%)	0 to 95 %
	6 dB 18~20 GHz		
RF Noise	15 dB Max		
VSWR Input / Output	2.0 : 1		
CNR	40 dB		
IMD	40 dB		