

Communications

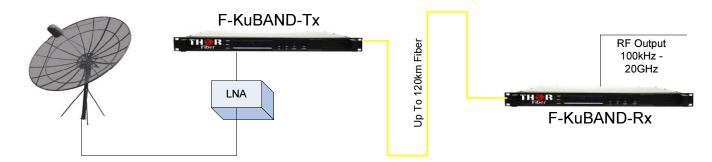
Data Sheet: F-KuBAND-Tx/Rx

The F-KUBAND series wide band laser transceivers are designed for enabling a high linearity optical link for RF over fiber in the K-BAND up to 20 GHz. The unit can



also be used as a repeater for extending the transmission distance of a 30 Gb/s link. The F-KUBAND incorporates a broadband optical transmitter and linear receiver into a compact rack mounted unit. The F-KUBAND 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 20 GHz. The unit functions as a transperent link, transporting all satellite modulation formats over a single fiber. The F-KUBAND 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-KUBAND link is a cost effective and high performance solution for KU-Band Satellite links.

Typical L-BAND-Rx/Tx Application



Technical Specifications

Optical Wavelength
Optical Output Power
Optical Budget loss
Optical Return Loss
RF Frequency Range
RF Input Level
RF Gain
RF Gain Flatness
Input Impedance

RF Return Loss

RF Noise VSWR Input / Output CNR IMD 1310 – 1550 nm FP/DFB 6.0 dbm 24 – 32 dB

40 dB

100 kHz – 20.0 GHz

12 dBm Max 10 – 25 dB 4.0 +/- 2.0 50 Ohm

10 dB <10 GHz 8 dB 13~15 GHz 6 dB 18~20 GHz

15 dB Max 2.0 : 1 40 dB 40 dB Communications Interface SNMP Interface Power Consumption Power Supply RF Connector Optical Connector Dimensions (H x W x D) Weight

Operating Temp. (°C) Storage Temp. (°C) Relative Humidity (%) RS232 RJ45 8 W 12V DC SMA Female FC/APC or by request 19in x 11.0in x 1.75in 0.75 Kg -10 to +65 (°C) -40 to +85 (°C)

0 to 95 %