

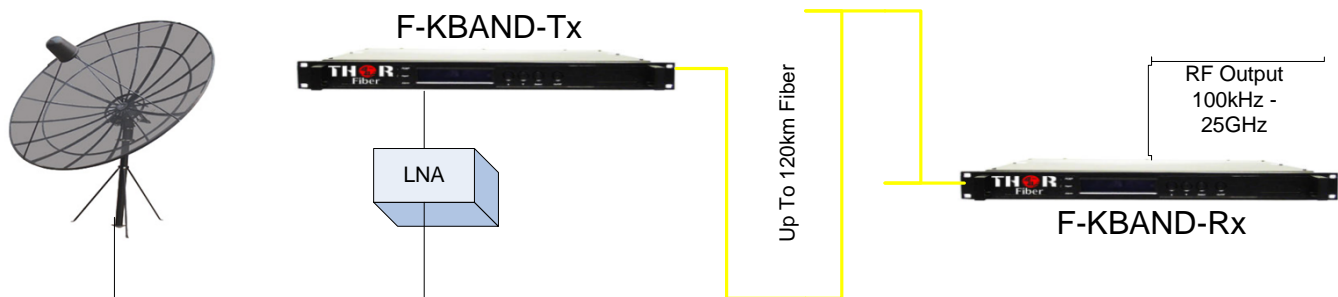
Data Sheet: F-KBAND-Tx/Rxa



The F-KBAND series wide band laser transceivers are designed for enabling a high linearity optical link for RF over fiber in the S-BAND up to 25 GHz. The unit can also be used as a repeater for extending the transmission distance of a 25 Gbps link. The F-KBAND incorporates a broadband optical transmitter and linear receiver into a compact rack mounted unit. The F-KBAND 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 25 GHz. The unit functions as a transparent link, transporting all satellite modulation formats over a single fiber. The F-KBAND 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-KBAND link is a cost effective and high performance solution for K-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 – 25.0 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 13~125 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 | | |