



4 LNB / satellite polarities over one strand of single-mode fiber for MDU, headend, remote dish, and provider-compliant satellite distribution.



Front panel: 4 CH L-Band receiver/transmitter chassis with LCD status display, SAT indicators, front-panel controls, and Thor Fiber branding.



Rear panel: RF ports, optical input/output, RS232, LAN, redundant AC power, and grounding connection.

Model Number

F-LB41-CWDM-TxRx

Manufacturer: Thor Fiber

Primary Purpose: A rack-mount transmitter/receiver kit for transporting up to four LNB / satellite RF feeds over a single strand of single-mode fiber. Designed for DirecTV, DISH Network, free-to-air, ATSC, MDU, headend, and remote-dish applications where coax distance is limited.

4 LNB Feeds Transport four satellite polarities over one optical path.	Single Fiber CWDM multiplexing reduces fiber count and simplifies cable paths.	Up to 32 Endpoints Supports optical splitting to multiple receiver locations.	Headend Ready LCD, redundant power, LAN / RS232, and optional SNMP management.
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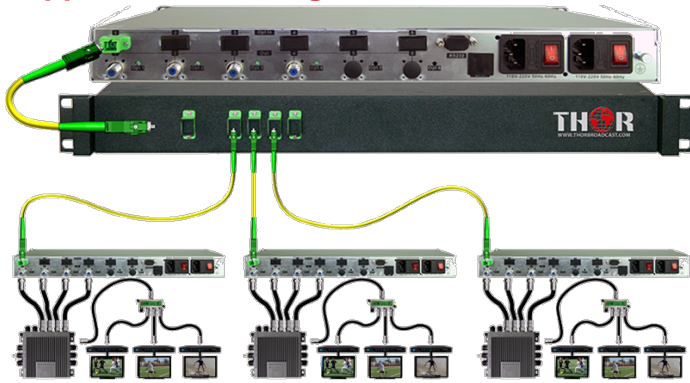
Key Specifications

Category	Extracted Value
Model Number	F-LB41-CWDM-TxRx
RF Inputs / Outputs	4x Type-F 75 Ohm
Frequency Range	54-3000 MHz
RF Input Power Level	+20 to +35 dBmV / 80 to 95 dBuV / -29 to -14 dBm
Optical Wavelengths	4x CWDM, 20 nm spacing, 1510-1570 nm
Optical Output Power	3.0 dBm (2 mW) - standard
Optical Port	1x SC/APC
Laser Type	Feedback controlled DFB type CWDM
RF Return Loss / RF Link Gain	12 dB return loss / 25 dB link gain
Control Interface	Front panel; optional SNMP network management
Power Supply	110 / 220 VAC auto-switching; redundant power supply
Power Consumption	>50 W
Dimensions / Weight	19 x 15 x 1.75 in; 3.5 kg
Operating Temperature	0 - 65 °C
Warranty	2 years

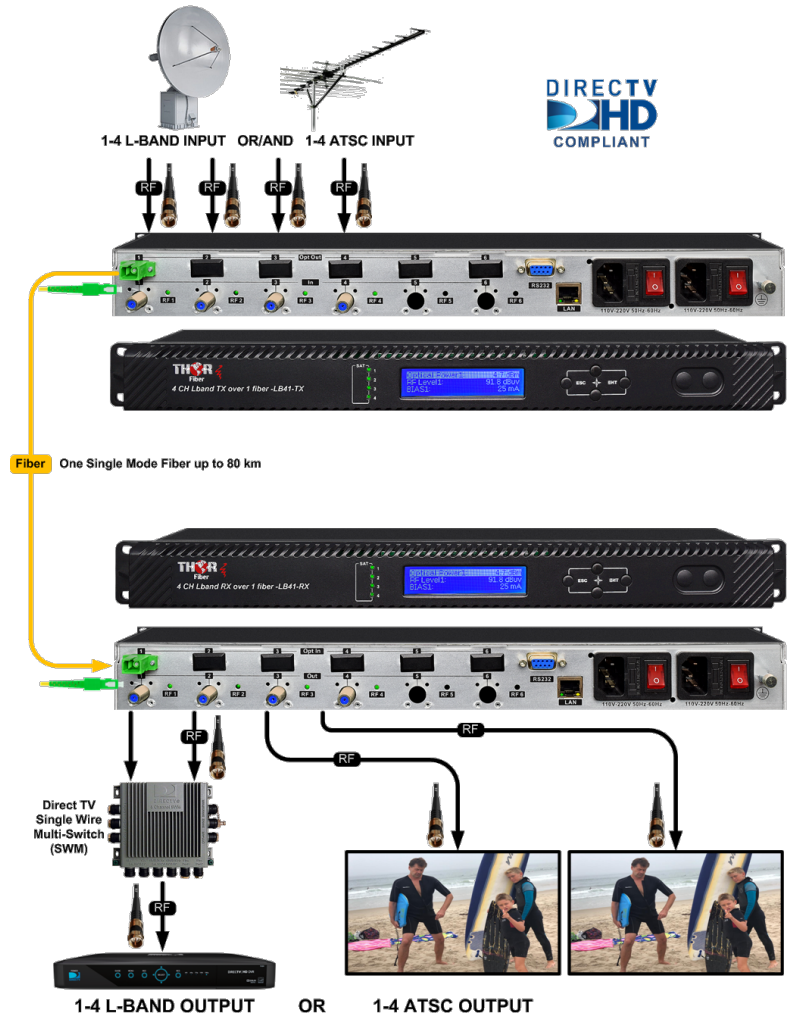
Core Features

- Transports up to four LNB / satellite RF feeds over one single-mode fiber strand.
- Supports wideband satellite and ATSC RF transport for 54-3000 MHz systems.
- Designed for DirecTV, DISH Network, Bell Canada, free-to-air, and SWiM-style distribution systems.
- Transparent RF link: RF signal into the transmitter is restored as RF output at the receiver.
- Transmitter RF input can power the LNB at 13 V or 18 V and send a 22 kHz control tone.
- LCD display and front-panel controls show optical power, RF level, and bias / system status.
- Standard CWDM system can feed up to 32 optical receiver endpoints from one transmitter.
- Rack-mount 19 in chassis keeps dish/headend installations organized and serviceable.

Application Drawings



4 LNB's Satellite Distribution System for MDU over 1 fiber - DWDM- High Power



Target Applications

- MDU satellite TV distribution and multi-building systems
- DirecTV, DISH Network, Bell Canada, and free-to-air satellite systems
- Campus, stadium, resort, and corporate TV systems
- Remote satellite dish placement where coax runs are too long
- Headend and hospitality video distribution
- ATSC antenna + L-Band transport over the same fiber infrastructure

Model / Option	Description	Installation Notes
F-LB41-CWDM-TX/RX	4 LNB over fiber kit, up to 20 km	• Use SC/APC angle-polished optical connectors to avoid optical reflections.
F-LB41-CWDM-TX/RX-40	4 LNB over fiber kit, up to 40 km	• If existing fiber is terminated with SC/ST/FC-PC flat connectors, use a PC-to-SC/APC jumper for proper conversion.
F-LB41-CWDM-TX/RX-80	4 LNB over fiber kit, up to 80 km	• Single-mode fiber is recommended for RF over fiber satellite distribution; multimode fiber is not recommended for this RF transport system.
F-SNMP	Optional IP Ethernet SNMP monitoring for transmitter and receiver	• No price or availability information is included in this datasheet.

Document note: Specifications are summarized from the product page and supplied product images. All specifications are subject to change without notice.