

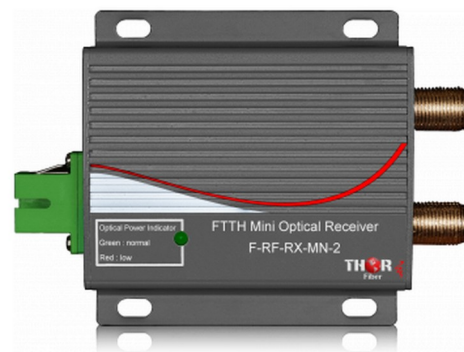
Thor Fiber Optical Mini FTTH RF CATV Receiver

Model: F-RF-RX-MN-2 | Optical-to-RF Converter | 45-1000 MHz

PRODUCT OVERVIEW

The Thor Fiber F-RF-RX-MN-2 is a compact FTTH/CATV optical receiver that converts an incoming fiber-optic RF signal back into standard 75-ohm coaxial RF. It is designed for the receive side of an RF-over-fiber link and works with analog and digital television services, including QAM, ATSC, DVB-T, and analog NTSC/PAL.

Using single-mode fiber for the long-distance portion of the link minimizes RF loss and helps isolate the signal from electrical interference. At the remote location, the receiver restores the RF signal for distribution to televisions, coax splitters, amplifiers, or CATV/MATV equipment.



F-RF-RX-MN-2

KEY FEATURES

• 45-1000 MHz RF bandwidth Supports common CATV and broadcast RF distribution channels.	• Digital and analog compatibility QAM, ATSC, DVB-T, NTSC and PAL RF services can be transported.
• Single-mode fiber interface SC/APC optical connection for low-reflection performance.	• Dual coaxial RF outputs Two F-type outputs simplify local RF distribution to multiple devices.
• Wide optical input range Designed for practical FTTH point-to-point and distribution-network operation.	• Optical status indication Color LED provides quick visual confirmation of receive-signal condition.
• Compact wall-mount design Small metal housing is easy to install in structured wiring and equipment spaces.	• Low-noise / high-linearity design Maintains stable RF performance for analog and digital TV services.

IMPORTANT - OPTICAL CONNECTOR

Use SC/APC (green, angled-polish) fiber connections. Do not connect an SC/PC (blue, flat-polish) connector directly to the receiver. If the installed fiber uses a PC-style connector, use the correct jumper/adaptor to SC/APC. Never look directly into an active fiber or optical port.

OPTICAL STATUS LED INDICATION

LED Status	Optical Input	Meaning / Recommended Action
Solid Green	+2 to -18 dBm	Optical signal is detected and within the LED normal indication range.
Flashing Green	-18 to -22 dBm	Low optical input. The link is approaching the low-signal limit; check fiber loss, connectors, and transmitter output.
Solid Red	Below -22 dBm or no input	Optical signal is too low or absent. Verify the fiber connection and confirm that the optical transmitter is operating.
Flashing Red	Above +2 dBm	Optical input is too high. Insert a suitable optical attenuator before the receiver to prevent overdrive.

Note: The LED thresholds are status indications. For best RF performance, follow the recommended receive optical level in the Technical Specifications.

TECHNICAL SPECIFICATIONS

Parameter	Specification
RF Frequency Range	45 MHz to 1 GHz
Supported RF Services	QAM, ATSC, DVB-T, analog NTSC/PAL
Optical Input Wavelength	1100-1600 nm; nominal 1550 nm receive operation with filtering
Optical Input Power Range	Approx. 0 to -15 dBm (digital); 0 to -10 dBm (analog)
Recommended RX Optical Level	+2 to -6 dBm for typical plug-and-play operation
RF Output Level	65-75 dBμV at -6 dBm optical input; 70-80 dBμV at -2 dBm optical input
RF Outputs	Dual 75-ohm F-type female coax outputs
Flatness / Slope	±1 dB flatness; 5 dB ±2 dB slope
RF Return Loss	16 dB
CTB / CSO	≥65 dB / ≥65 dB
MER	38 dB
Optical Return Loss	≥55 dB
Responsivity	≥0.9 A/W @ 1550 nm
Optical Connector	SC/APC
Power	External 12 VDC adapter
Operating Temperature	-20 °C to +55 °C
Approx. Unit Size	102 × 70 × 26 mm (4 × 2.75 × 1 in)

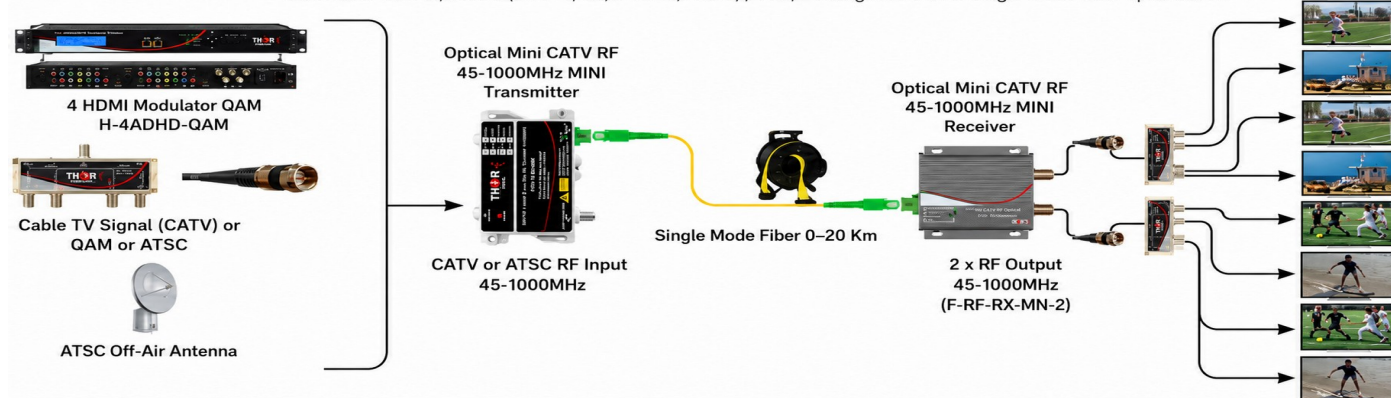
QUICK INSTALLATION - RECEIVER (RX)

1. Connect power	Connect the supplied 12 VDC power adapter. With no optical signal, the optical-status LED may indicate a fault/low-signal condition.
2. Connect RF output	Connect one or both F-type RF outputs to the 75-ohm coax distribution network, splitter, amplifier, or television system.
3. Connect fiber	Connect the incoming single-mode fiber to the SC/APC optical input. Never use SC/PC directly and never look into an active fiber.
4. Verify optical level	Target approximately +2 to -6 dBm at the receiver. If the receiver is overdriven (for example above about +5 dBm), insert a suitable optical attenuator.
5. Check status LED	Use the Optical Status LED guide on page 1 to verify the received optical level and identify low-signal, no-signal, or overdrive conditions.

TYPICAL APPLICATION

CATV RF 45-1000MHz Mini Transmitter / Receiver Kit – Application Drawing

Extend RF CATV / ATSC (DVB-T/T2, DVB-C, ATSC) / FM / Analog NTSC over single mode fiber up to 20Km



RF source / modulator → Thor Fiber optical transmitter → single-mode fiber → F-RF-RX-MN-2 → coax RF distribution

Product information: [F-RF-RX-MN-2 product page](#)