

# L Band Optical Transmitter and Receiver Data Sheet

Model numbers: MXDS-26S L-Band Optical Transmitter  
MXRS-26S L-Band Optical Receiver



## PRODUCT FEATURES

- 950-2600MHz operating bandwidth, transmitting all L Band analog and digital satellite signals, including satellite GPS signals
- Excellent P/P ratio
- Simplicity with Performance

## MAIN APPLICATION

- Satellite L Band fiber distribution system
- Satellite L Band fiber link
- GPS over Fiber extensions



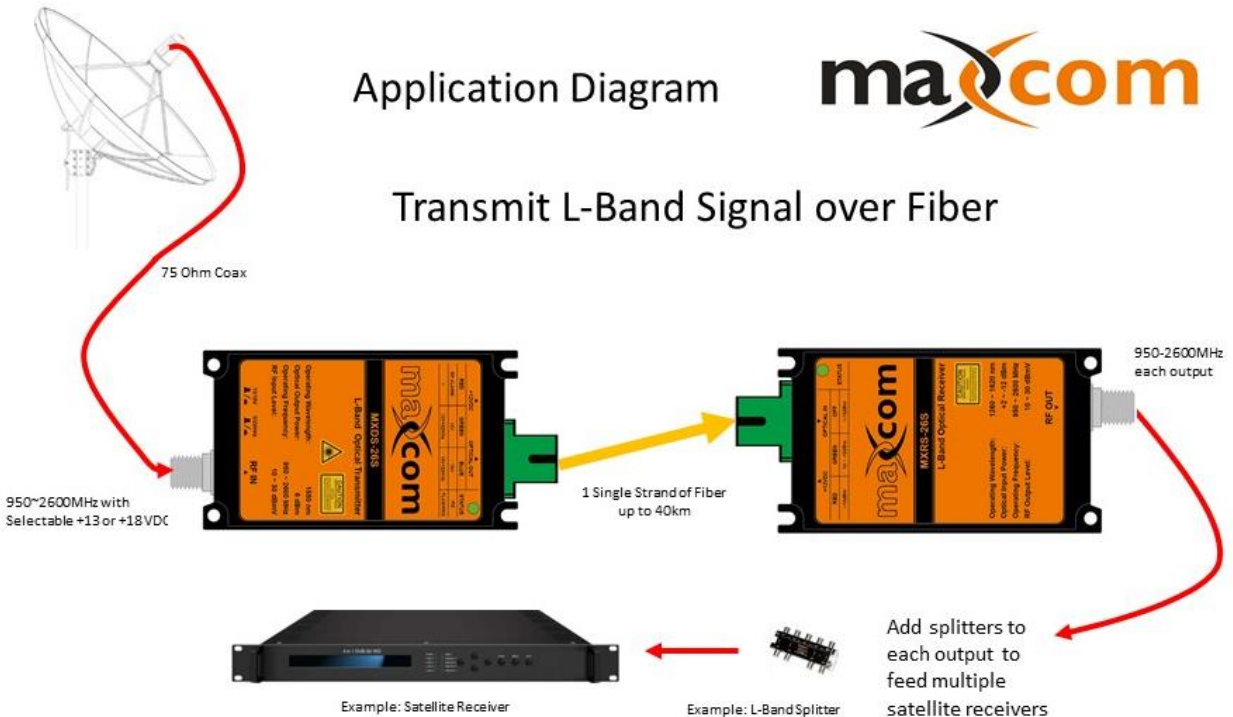
Transmitter

Receiver

## Application Diagram



## Transmit L-Band Signal over Fiber



Model numbers: MXDS-26S L-Band Optical Transmitter  
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## Common optical link data:

Standard transmitter units come with +4 dBm optical output @ 1550nm wavelength.  
Standard receivers accept an optical input of +2 ~ -12 dBm  
This combination of transmitter and receiver will support distances of 40km (25 miles)

## Operational Instructions

Several LNB types require voltage and/or signaling. The transmitter provides options as may be required for the desired results or control. Note that there are two push buttons to the left of the input RF connector. The button sequences determine the following modes:

'A' button - 'Out' position = 0 Hz (no tone)  
'A' button - 'In' position = 22KHz tone  
'B' button - 'Out' position = 13 Volts DC  
'B' button - 'In' position = 18 Volts DC

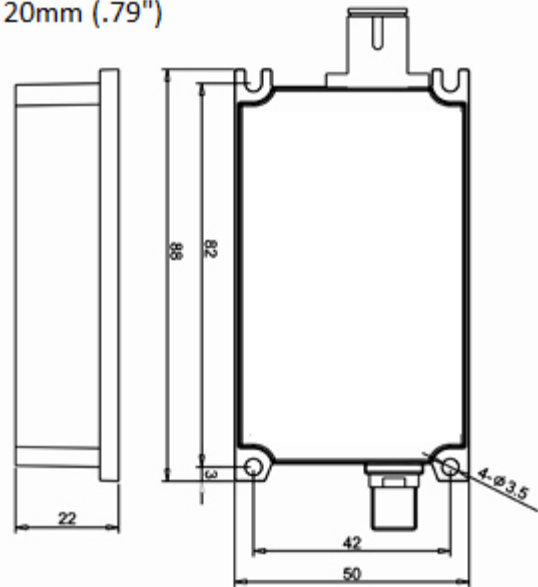
### TX SPECIFICATIONS:

OUTPUT POWER : +4 dBm, WAVELENGTH: 1550NM  
FREQUENCY RANGE 950~2600 MHZ  
RF INPUT LEVEL: 10~30 dBmV  
SIDE MODE SUPPRESSION RATION: -1 ~ 0 dB  
OPTICAL ISOLATION: MIN. 30 dB  
EXTINCTION RATIO: MIN. 8.2 dB  
RETURN LOSS: MIN. 50 dB  
RF: CNR >28, CTB <-36, CSO <-36 dB  
LNB SUPPLY VOLTAGE: 13/18V, 300 mA CURRENT,  
90~220VAC TO 12 VDC EXT PS  
CONNECTORS: OPTICAL SC/APC, RF: 75OHM F

### RX SPECIFICATIONS:

RECEIVING INPUT POWER : +2 ~ -12 dBm  
WAVELENGTH: 1260NM ~ 1620NM  
FREQUENCY RANGE 950~2600 MHZ  
RF OUTPUT LEVEL: 10~30 dBmV  
FLATNESS: -1 ~ +1 dB  
OUTPUT RETURN LOSS: MIN. 12 dB  
CHANNEL LOADING TYPICAL 36 CH QPSK  
IF: IM3 >-65, HUM >-60, IP1 >18 dBm  
90~220VAC TO 12 VDC EXT PS  
CONNECTORS: OPTICAL SC/APC, RF: 75OHM F

50mm (1.97")  
X  
88mm (3.47")  
X  
20mm (.79")



# Supplemental GPS Application Diagram

