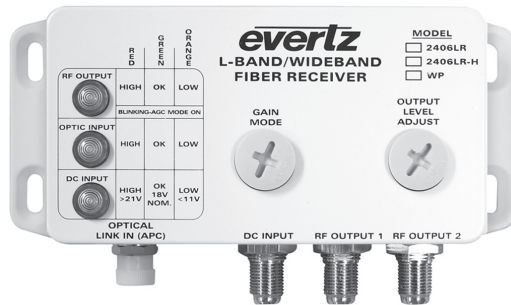


# 2406LR, 2406LR-H

L-Band/Wideband Standalone Fiber Receiver Series



The 2406LR is a fiber optic receiver for signals in the satellite L-Band and other frequency ranges. It accepts a single fiber optic input on an FC/APC connector and provides a pair of equal power electrical outputs. Packaged in a small, standalone enclosure, the 2406LR is temperature-hardened and ideal for mounting on or near antenna structures, or in any application where modular/rack-mount products are not practical. The -WP version features dust and water protection for direct outdoor mounting without a secondary enclosure. When combined with the 2408LT a bi-directional link can be created, ideal for VSAT and similar applications.

Two gain modes are provided for flexible output level adjustment to suit the requirements of the coaxial distribution system and the connected equipment. Manual gain mode allows a fixed gain level to be applied to the output signal. AGC mode allows the user to set a target output level, and the 2406LR's microprocessor will automatically apply the correct amount of gain to maintain that level. Comprehensive local LED indicators provide instant information relating to optical input, DC power input and RF output levels.

For GPS applications, the 2406LR can be used to receive GPS signals over fiber when paired with a 2408LTA13-5V transmitter.

## Applications

- L-Band over fiber transport to L-Band up-converter for uplinks
- VSAT and other bi-directional signals
- Portable antenna deployment
- Any RF fiber receive application requiring a standalone device
- GPS antenna systems

## Features & Benefits

- Mounts directly to the antenna structure or other outdoor locations
- -WP option provides a weatherproof version
- Wide bandwidth allows use with L-Band, over-the-air DTV and other frequency ranges
- Protocol independent design passes all modulation formats
- Dual, full power outputs
- Tri-colour LED status indicators for optical input, DC input and RF output levels
- Flexible powering options include power brick (+PS), 2400PSUA-8 or customer's own 11-20V DC source
- Fiber link provides electrical isolation between antenna and facility, mitigating ground loop and lightning issues
- Fiber transport offers increased signal quality over coax at longer distances and is not prone to high-frequency roll-off

# 2406LR, 2406LR-H

## L-Band/Wideband Standalone Fiber Receiver Series



### Specifications

#### RF Outputs:

Number of Outputs: 2  
Connector: F-Type  
(50Ω BNC optional)  
Conductor Range: 23–18 AWG  
(0.26–0.82mm<sup>2</sup>)  
I/O Impedance: 75Ω (50Ω optional)  
Frequency Range:  
2406LR: 88MHz–3GHz  
2406LR-H: 88MHz–2.3GHz  
Return Loss:  
88MHz–2.3GHz: > 15dB  
2.3–3GHz: > 12dB  
Output IP3: +28dBm  
IMD: < -55dBc at -3dBm  
output and 25dB gain  
Output Signal Level:  
Manual Gain: 0 to -60dBm (depending  
on input signal level, gain  
setting and optical loss)  
AGC Mode: -10 to -40dBm (adjustable,  
maintainable within  
available gain range)  
Available Gain: -6dB to +24dB in 2dB steps

#### Optical Input:

Number of Inputs: 1  
Connector: Female FC/APC  
Operating Wavelength:  
1270–1610nm  
Maximum Input Power:  
2406LR: +3dBm  
2406LR-H: -7dBm  
Optical Sensitivity:  
2406LR: -14dBm @ 35dB C/N  
on a 36MHz carrier  
2406LR-H: -20dBm @ 35dB C/N  
on a 36MHz carrier

#### 10MHz Performance (10MHz modules only):

Manual Gain Range:  
-5 to +10dB  
Input Power Range: +10 to -40dBm  
OIP3: +29dB  
Harmonic Rejection:  
+60dB

#### DC Input:

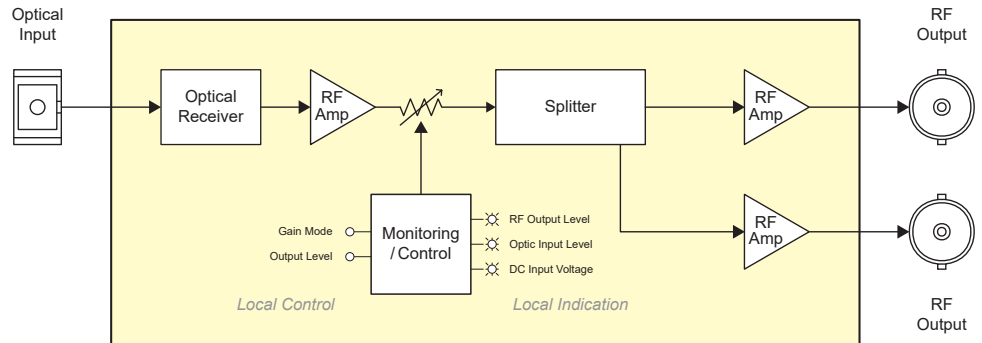
Voltage: 18V DC nominal,  
+11 to +20V DC range  
Connector: F-Type  
Conductor Range: 23–18 AWG  
(0.26–0.82mm<sup>2</sup>)

#### Physical:

Dimensions: 2.4" W x 1.2" H x 5.4" L  
(61 x 31 x 138mm)  
including flanges  
Safety: CSA listed to  
CAN/CSA–C22.2  
No. 62368–1:14,  
UL 62368–1 2nd Ed.,  
IEC 62368–1:2014  
EMI/RFI: Complies with FCC  
Part 15, Subpart B EN  
55022:1998 ICES–003

#### Environmental:

Temperature: -30 to 75°C  
Dust/Water Protection:  
IP65 (-WP version only)



### Ordering Information

<b>2406LR</b>	Wideband RF standalone fiber receiver
<b>2406LR-H</b>	Wideband RF standalone Fiber Receiver, High sensitivity
<b>2406LR-B50</b>	Wideband RF standalone Fiber Receiver, 50 Ohm BNC connectors
<b>2406LR-S50</b>	Wideband RF standalone Fiber Receiver, 50 Ohm SMA connectors
<b>2406LR-10MHZ-B50</b>	Standalone 10MHz Fiber Receiver. Standard sensitivity. BNC 50 Ohm, FC/APC connectors
<b>2406LR-10MHZ-S50</b>	Standalone 10MHz Fiber Receiver. Standard sensitivity. SMA 50 Ohm, FC/APC connectors

#### Ordering Options:

<b>+PS</b>	18VDC external power supply, 100–240V AC auto-ranging input, indoor mounting with F-Type connector
<b>-WP</b>	Weatherproof
<b>2400PSUA-8</b>	Eight channel power supply for 2406/8 LT/LR series

Note: transmitters are sold separately. Please refer to the [2408LT](#) and [7708LT](#) Series data sheets for information on companion transmitter products for 2406LR Series receivers.



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