

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, 2406LR-5V-B50 is used to receive GPS signals over fiber when combined with 2408LT13-5V-B50 transmitter.

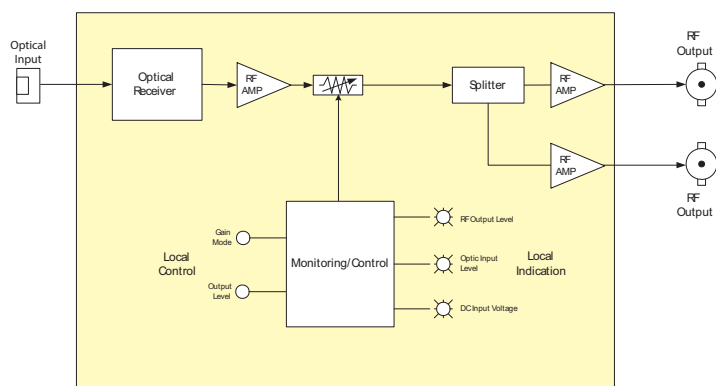
### ►Features & Benefits

- Mounts directly to the antenna structure or other outdoor locations
- -WP option provides a weatherproof version of the product
- 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-color LED status indicators for optical input, DC input and RF output levels
- Flexible powering options including power brick (+PS option), 2400PSU-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

### 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



### ►Specifications

#### RF Outputs:

Number of Outputs: 2  
 Connector: F-Type (50Ω BNC optional)  
 Conductor Range: 23–18 AWG (0.26–0.82 mm<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: 1270nm–1610nm  
 Maximum Input Power:  
 2406LR: +3dBm  
 2406LR-H: -7dBm  
 Optical Sensitivity:  
 2406LR: -14dBm @ 35dB C/N on a 36MHz carrier  
 -20dBm @ 35dB C/N on a 36MHz carrier  
 2406LR-H:

#### 10MHz Performance

2408T13-10MHz+7708R-10MHz pair:  
 Manual Gain Range: -5 to +10dB  
 Input Power Range: +10 to -40dBm  
 OIP3: +29dB  
 Harmonic Rejection: +60dB

#### DC Input:

Voltage:  
 2406LR-5V-B50: 4.8–5.2V DC (range must be supplied by a regulated 5V source)  
 Other 2406LR models:  
 +18VDC nominal, +11V DC to +20V DC range  
 Connector: F-Type  
 Conductor Range: 23–18 AWG (0.26–0.82 mm<sup>2</sup>)

#### Physical:

Dimensions (with flanges):  
 5.4"L x 2.4"W x 1.2"H  
 (138mm L x 61mm W x 31mm H)

#### Environmental:

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

### ►Ordering Information

2408LR	L-Band/Wideband standalone fiber receiver
2408LR-H	High sensitivity L-Band/Wideband standalone fiber receiver

#### Ordering Options:

+PS External DC power supply brick, 100–240VAC auto-ranging input, indoor mounting with F-Type connector  
 -WP Weatherproof option

#### Connector and Impedance Options:

Note: standard RF connectors are 75Ω F-Type  
 -B50 50Ω BNC connector