



## *LaserLite* OTOR-300

### STANDALONE -or- 1RU RACKMOUNT RETURN OPTICAL RECEIVER

#### Features / Benefits

- Ultra Wide 5-300 MHz Passband supports traditional 5-42/65MHz Return or newer Return Multiplexer topologies
- High Sensitivity, Wide Optical Input Window (-14dBm to +3dBm) at 1310nm or 1550nm wavelengths
- Low Noise, High RF Output Level to +45dBmV set via internal plug-in attenuator pad
- Unsurpassed Return Path Performance with High NPR of >41dB and Wide Dynamic Range of >15dB
- Unique, Self-Contained, Low-Profile, Rugged Package designed for Low-Density Standalone CATV applications
- Optional 19" EIA Rack Kit mounts up to (3) OTOR-300's on a 1RU chassis panel for Higher-Density applications
- Low Power Consumption; Runs Cool; Integrated Universal 90-240 V<sub>AC</sub> Power Supply (24 V<sub>DC</sub> option)
- Very Cost Effective



The **OLSON TECHNOLOGY INC. LaserLite Model OTOR-300** is a high quality, cost effective CATV Return Path Receiver which utilizes a new low noise, impedance matched, high efficiency 1310/1550nm broadband photodiode and advanced RF amplification circuitry to facilitate carriage of critical downstream video, data, telephony and internet traffic in an HFC broadband environment. The unit is ideally suited for direct fiber reception of CATV RF signals in FTTC, FTTH, MDU, industrial, corporate, government, educational or other I-Net applications where a high performance, compact, standalone downstream receiver is required for desktop, shelf or wall-mounting.

The **OTOR-300** is a rugged, self-contained device with external RF and optical connections and test points and internal 90-240 V<sub>AC</sub> power supply. The field-configurable SC/APC (or optional FC/APC) optical input connector can be mounted on the front-panel or rear-panel of the unit. The unit is forced air cooled via an external high-MTBF fan, which is designed to be field-replacable without interrupting operation.

The unit features a unique provision which allows the the **OTOR-300** to perform as a standalone downstream receiver -OR- as a rack mount return receiver with the addition of the Model# OTLL-RMKIT (optional). Up to (3) OTOR-300's can be can be mounted in a 1RU (1.75") 19" EIA space with each kit.

The **OTOR-300** is the perfect companion to other models in the Olson Technology, Inc. *LaserLite* and *LaserPlus* product families, but is also designed to mate with optical transmitters and receivers from most leading manufacturers. The **OTOR-300** can also be co-located with the Olson Model **OTOT-1000-x** Optical Transmitter to form the headend side of a two-way "transceiver" configuration, when mated on the remote subscriber end with the Olson Model **OTPN-1000** indoor node or Olson Model **OTMN-II** outdoor 4-port node.

Quality / Engineering / Innovation

# LaserLite OTOR-300

## - Specifications -

### Optical:

Optical Wavelength..... 1290nm to 1610nm  
Optical Input Power..... -14dBm to +3dBm  
Equivalent Noise Current..... < 7pA/Hz  
Optical Input Connector..... SC/APC Standard, FC/APC optional  
Optical Test Point..... Optical Power Monitor; Test Jack: 1V/mW

### RF:

Frequency Range..... 5MHz to 300MHz  
Frequency Response.....  $\pm 1.0$  dB  
Output Impedance..... 75 Ohms  
Output Return Loss..... > 15dB  
RF Output Level..... + 45dBmV @ -14dBm optical or greater with Olson Technology Return Transmitter with 6 Channels @ 10% OMI

#### Performance:

Noise Power Ratio (NPR)..... > 41dB  
NPR Dynamic Range..... > 15dB  
Measured with OT 3 mW Return Transmitter and 10dB fiber link

RF Connectors..... Type F  
RF Test Point..... RF Output Monitor; Test Jack: -20dB,  $\pm 1.0$ dB

### Other:

Powering Requirements..... 90 V<sub>AC</sub> to 240 V<sub>AC</sub> @ 50-60Hz; < 10 Watts  
Power Connector..... IEC 320 WITH 5X20 0.5a Slo Blo Fuse  
Operating Temperature..... 0°C to +45°C  
Humidity..... to 95% non-condensing  
Size..... 5 15/32" (W) x 1 3/8" (H) x 7 5/8" (D)  
Weight..... 1.5 lbs. / 0.68kg



(3) OTOR-300 RX's on optional OTLL-RMKIT1