



CTDI Products: End-to-End Solutions

## EdgeVideo™ 1GHz Laser Transmitter

**CTDI's 1GHz Laser Transmitter** is a state-of-the-art, high performance, optical modulator ideally suited to the demands of RF distribution. The direct modulated 1550nm transmitter is packaged in a convenient 1U 19" rack housing. It couples high optical output power with low optical linewidth resulting in unmatched performance. EdgeVideo Laser Transmitters are for use in FTTx architectures requiring high quality transmission over varying transmission lengths and EDFA output powers. The transmitter supports very high optical launch powers while controlling the detrimental effects of Stimulated Brillouin Scattering (SBS), group velocity dispersion (GVD), and self phase modulation (SPM).

### Features and Benefits

- Robust, reliable and flexible
- Front Panel RF Test Point
- RS232 Control Interface
- Electro-Fluorescence Status Display
- OMI / RF Gain Adjustment
- High performance SBS Suppression



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# EdgeVideo™ 1 GHz Laser Transmitter

## Specifications

### Physical

- 1RU, rack mounted
- 19.0" W x 17.0" D X 1.75" H
- 48.3cm W x 43.2cm D x 4.5cm H
- Weight: 9lbs / 4.1kg

### Ports

- Optical: Single SFP/APC
- Remote interface: RS-232
- RF monitoring port: -20dB ±1dB down from RF input

### Optical Wavelength

- 1555nm ±5nm

### Input Power Range

- 15 to 21 dBmV (18 dBmV nominal)

### Front panel RF Gain / OMI Adjustment Range

- +2 / -4 dB from nominal setting

### RF Frequency Range

- 50MHz – 1002 MHz

### Flatness (50MHz to 1GHz)

- ±0.75 dB

### Input impedance

- 75Ω

### Input return loss

- 16dB min

### Performance Characteristics

- Specified link length: 40 km
- Output power: 6.0 dBm
- Noise bandwidth: 4 MHz
- SBS suppression: 18.0 dBm
- CNR: 48 dB
- CSO: 58 dB
- CTB: 58 dBc

### Power and Environmental

- Operating temperature range: 0° C to 50° C
- Storage temperature range: -20° C to 70° C
- Humidity: 5%-95% relative humidity, non-condensing
- Power input voltage: 42 to 56 VDC (48 VDC nominal)
- Power consumption: 50 watts max

## Ordering Information

Part #	Description
EVL1202	1 port Laser Transmitter 50MHz - 1GHz

### Power

The following Alloptic power supplies may be used to operate EdgeVideo Optical Amplifiers.

Part #	Description
PSAC001	48VDC, 60W brick
PSAC002	48VDC, 125W rack mounted power supply
PSBRCK1B	-48VDC,500W, 10A rack-mounted power with UPS option
PSBRCK10	-48VDC,500W, 10A rack-mounted power
PSBRCK2B	-48VDC,1000W, 20A rack-mounted power with UPS option
PSBRCK20	-48VDC,1000W, 20A rack-mounted power

## Typical Application

