

COMPACT PULSED FIBER LASER SERIES
Single frequency at 1550nm

Release: V1.0 | Author: MM | Date: 12/05/2016

MODEL NO

cPFL-1550

DESCRIPTION:

This compact Pulsed Fiber Laser developed for field applications, generates single frequency short nanosecond pulses at 1550 nm. It is based on a MOPA (Master Oscillator Power Amplifier) architecture that uses proven subsystems and proprietary laser pulse generation, triggering, gating and ASE suppression techniques. The laser incorporates real-time stabilization, control electronics and firmware that continuously monitor and optimize laser operation.



OPTICAL PARAMETERS (AT 25°C)

| Parameter | Specification | Unit |
|-----------------------------|----------------------|------|
| Center wavelength | In range 1545 – 1555 | nm |
| Center wavelength stability | < 0.05 | nm |
| Spectral width (FWHM) | < 0.5 | nm |
| Pulse width (FWHM) - fixed | < 5 | ns |
| Pulse repetition frequency | 20 - 150 | kHz |
| Peak power ¹ | > 5 | kW |
| Pulse energy ¹ | > 20 | μJ |
| Rated average power | > 1 | W |
| Average signal to ASE ratio | > 20 | dB |
| Output polarization | Random | - |

¹ trigger input frequency of 20kHz

OPTICAL CONNECTIONS

| | |
|-----------------------|---|
| Output fiber | SMF-28 or equivalent |
| Fiber delivery length | 30cm |
| Fiber termination | FC/APC with attached output beam collimator(1/e ² =1.6mm,f=8.18mm) |

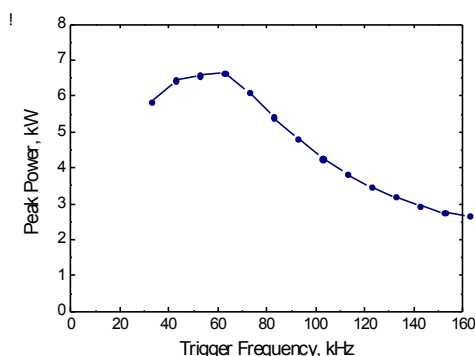
ELECTRICAL PARAMETERS

| Parameter | Specification | Unit |
|--------------|---------------|------|
| Power supply | +5 and +12 | V |

MECHANICAL PARAMETERS

| Parameter | Specification | Unit |
|--------------------|----------------|------|
| Dimensions (WxDxH) | 160 x 160 x 45 | mm |

PEAK POWER VS. TRIGGER FREQUENCY



TYPICAL OUTPUT OPTICAL PULSE, 3.5NS

