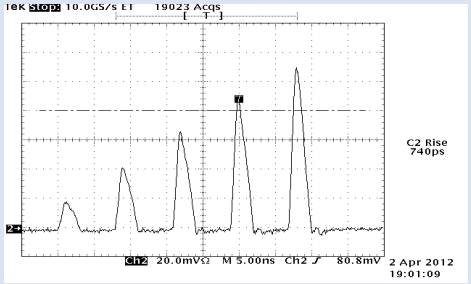
Linear Laser Transmitter series – Instrument versions

Features

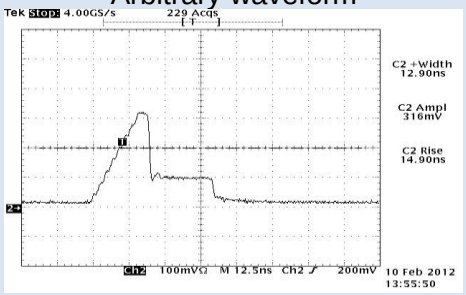
- Laser transmitter that includes:
  - Linear broad-band current driver
  - Integrated laser diode
  - TEC controller (optional)
- RF input: SMA connector, 50 ohm
- Supports arbitrary waveforms and binary signals
- Frequency range: DC up to 300MHz*
- Rise time from 1ns* to CW
- Peak optical power up to 1W*
- DC coupled and DC bias control
- Temperature control* for fine wavelength tuning
- Wide selection of laser diodes including: 1550nm, 1064nm or per request
- Fiber output (FC/PC or FC/APC)
- Laser switch and Interlock terminals

*Note: Depends on selected version

Growing 2ns pulses

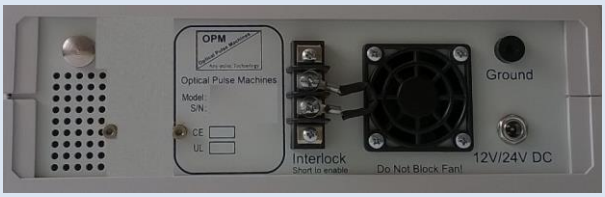


Arbitrary waveform



Front side

Back side



Description

The OPM-LEO-INS instrument series combines the features of broad bandwidth, linear response and high optical power. It operates at frequencies from DC up to 350MHz (depending on the selected version).
For analog signals the instrument offers the benefits of good linearity and broad bandwidth. For digital signals the product offers the benefits of short rise time and conversion of high-speed repetition rates with pulse-width down to 2ns.
The RF input is provided through a single ended 50 Ohm SMA connector. The required input voltage is in the 0 – 500mV range. The product is DC coupled. A DC bias control at the front panel allows the user to set the required DC level of the optical output.
The optical output is provided through an FC/APC connector.
The laser chip's temperature is controlled by a TEC controller and the user can to tune the laser's wavelength precisely.
The user may connect a safety interlock system to the interlock terminals at back side of the product.
A wide selection of laser diodes is offered with wavelengths in the visible range and IR (including 1064nm and 1550nm).
The OPM-LEO-INS is offered in 4 main variations – See ordering codes.
The product is powered by a power adaptor of 12Vdc or 24Vdc (Included).
Dimensions (L X W X H): 200mm X 224mm X 72mm

Product applications

- Seed source for Fiber Lasers
- Tester for LIDAR systems
- Optical arbitrary waveform or pulse generator in broad bandwidth systems

Ordering codes:

OPM-LEO-INS-HS-(LD type): High speed version with Tr< 1ns, peak power up to 200mW and CW power up to 100mW (Depends on selected laser diode) and duty cycle up to 25%.

OPM-LEO-INS-HC-(LD type): High power version with Tr<2.5ns, peak power up to over 1W, CW power up to 50mW (Depends on selected laser diode) and duty cycle up to 5%.

OPM-LEO-INS-HD1-(LD type): High duty cycle version with Tr<5ns, peak power and CW power up to 500mW (Depends on selected laser diode) and duty cycle up to 100%.

OPM-LEO-INS-HD2-(LD type): High duty cycle version with Tr<2.5ns, peak power and CW power up to 200mW (Depends on selected laser diode) and duty cycle up to 100%.

OEM versions are available upon request.