



OPTILAB

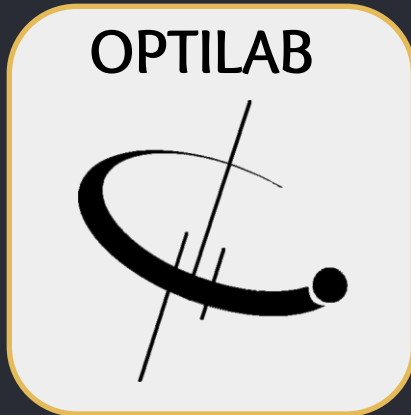
OFC 2021

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You will be surprised by what we have to offer
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Last but not least!



OUR COMPANY



Optilab is dedicated to becoming one of the leading suppliers of the optoelectronics and photonics industry.

We provide and cover from passive component to complete solutions for many sectors of industry including

- Telecom
- Sensor
- Quantum Photonics
- Space Application
- And More

Let us know of your application, and we will fulfill your needs!

LOCATION

Optilab is located in Arizona, USA where it can be handy and fast to deliver the products to the customers.

Phoenix, AZ





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Product Lineup

You will be surprised by what
we have to offer

Proudly Presenting

QUANTUM PHOTONICS

IMP-750-0.5-PM
IMP-850-0.5-PM
PPLN-SHG-1570-M

SPACE QUALIFIED

BPR-23-SQ
QPSK-1550-12-ST

LASER SOURCES

LD-785/850-PM-CM
DFB-1310H-PM
DFB-1550C-PM
SWL-1550-MC

INSTRUMENTS

LLA-1310/1550-R
THS-XX-R
MTS
PMA

QUANTUM PHOTONICS

IMP-785/850-0.5-PM



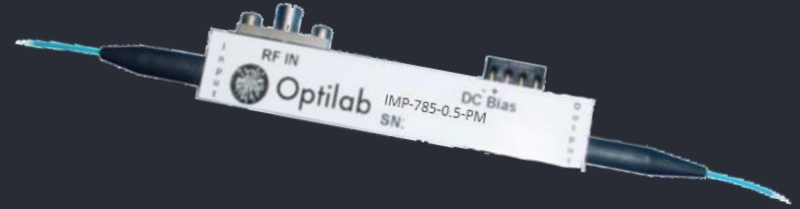
FEATURES

- Low insertion loss, low V_{pi} .
- High input power handling capability.
- Excellent stability in a biased circuit.
- 785 & 850 nm operating wavelengths.

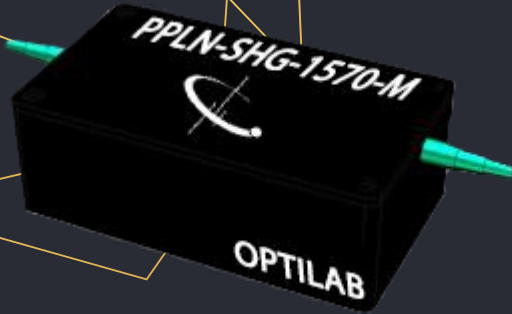
- Low insertion loss, low V_{pi} .
- High input power handling capability.
- Excellent stability in a biased circuit.
- 785 & 850 nm operating wavelengths.

APPLICATIONS

Optilab's IMP-785/850-0.5-PM are Intensity Modulators designed for analog modulation of up to 500 MHz for satellite links, antenna remoting, and RF over Fiber. Featuring an Annealed Proton Exchange (APE) waveguide, this modulator provides low insertion loss, low V_{pi} , and high-power handling capability.



PPLN-SHG-1570-M



Optilab's PPLN-SHG-1570-M is a second harmonic generator based on Periodically Poled Lithium Niobate (PPLN) design for operation at 1570 nm wavelength region. This device is fabricated with waveguide structure that allows high power density to enhance second harmonic conversion efficiency.

FEATURES

1570 to 1580 nm band signal

Low Insertion Loss < 4dB

High Conversion Efficiency

Built-in TEC

Heralded Single Photon Source

ERP Photon Source

Second Harmonic Generation (SHG)

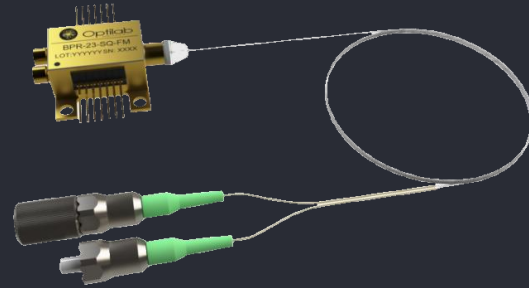
Quantum Key Distribution (QKD)

APPLICATIONS

The background features a dark blue color with several thin, light-colored lines forming abstract geometric shapes and patterns. A prominent white 'C' logo is visible in the top right corner. The main text is enclosed in a thin, light-colored rectangular border.

SPACE QUALIFIED

BPR-23-SQ



FEATURES

MGC and AGC modes

Dual GPPO for differential RF output

14 pin mini-DIL package

Linear TIA with integrate VGA

Hermetically sealed

48 Gbit/s DQPSK systems

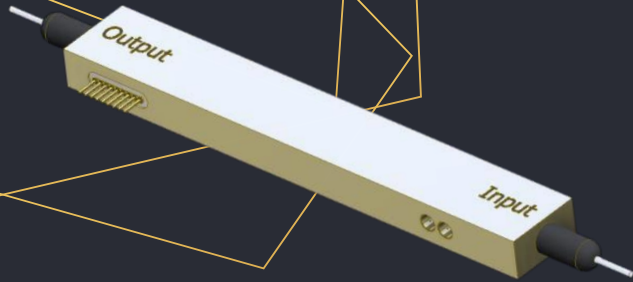
Low-noise analog heterodyne detection

≤ 23 GHz RFoF Link Systems

APPLICATIONS

Optilab's BPR-23-SQ is a linear balanced photoreceiver with a configurable bandwidth up to 23 GHz. It is carefully designed, manufactured, and tested to meet space application requirements and comes with space grade MINI-AVIM connectors.

QPSK-1550-12-ST



Optilab's QPSK-1550-12-ST, Quadrature Phase Shift Keying (QPSK) modulator, is a dual parallel structure of two Mach-Zehnder modulators embedded in a Mach-Zehnder super-structure. Each internal modulator is designed to support 12 Gb/s signals.

FEATURES

≥ 10 GHz Bandwidth.

12 Gb/s Data Rate.

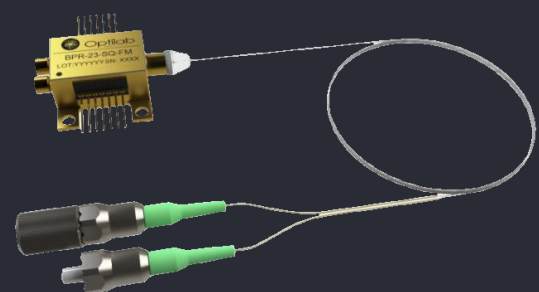
Dual MZI parallel with two RG inputs.

Extinction Ratio > 23 dB.

- Free Space Communication
- SSB Suppressed Carrier Modulation
- Coherent Transmission / Sensing
- QAM / OFDM
- QPSK / DQPSK Transmission

APPLICATIONS

PR-30-ST



FEATURES

Adjustable 3 dB Bandwidth up to 35 GHz

High Conversion Gain up to 2000 V/W

MGC and AGC Mode

14 pin mini-DIL package

Linear TIA with integrate VGA

Hermetically sealed

30 GHz Analog RFoF Link

PAM-4

Linear Receiver up to 30 GHz

Transponder and Line Card Designs

APPLICATIONS

Optilab's PR-30-ST is a linear photo receiver designed for analog applications. This compact photo receiver contains a surface coupled coplanar waveguide PIN photodiode and a linear transimpedance amplifier within a hermetically sealed 14-pin butterfly package. With an integrated variable gain amplifier (VGA).

LASER SOURCES

LD-785-40-PM-CM & LD-850-70-PM-CM



Optilab's LD-785-40-PM-CM & LD-850-70-PM-CM is a 785 nm & 850 nm pigtailed laser module, with an 8-pin package. This high-efficiency and high stability product is featured in a TEC cooler and internal photodiode. The 785 has a 40 mW output power with the 850 version having a 70 mW output power. Both devices have 5 μm PM fiber and can be used in medical laser treatment and biotechnology.

FEATURES

785 & 850 nm wavelengths.

5 μm PM fiber.

Internal photodiode.

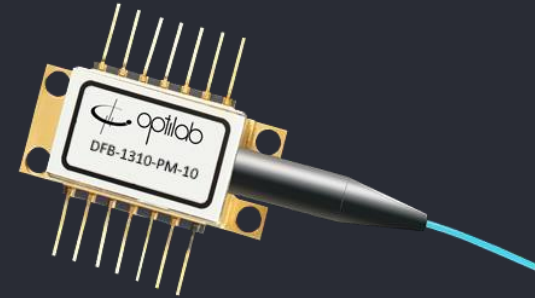
40 & 70 mW output power available.

8-Pin package.

- Quantum Photonics
- Biotechnology
- Medical laser treatment
- Optical Pumping

APPLICATIONS

DFB-1310H



FEATURES

Up to 150 mW output power.

Built-in TEC, Thermistor & Monitor PD.

Side Mode Suppression Ratio 50 dB.

Zero Chromatic Dispersion.

Polarization maintained Fiber Output.

Light Source for Interferometer.

PM Pulse Laser Source.

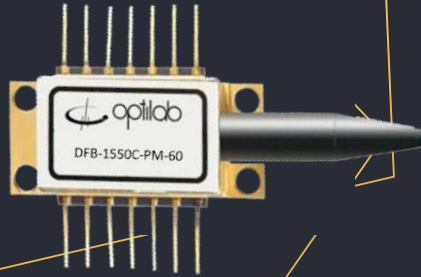
External Modulation Optical Link.

Stabilized Single Frequency Source.

APPLICATIONS

Optilab's DFB-1310H is a single frequency laser coupled with Polarization Maintaining fiber. Built with Distributed Feedback Grating (DFB) as cavity reflector, it provides pure, single longitudinal mode, hopping free and extremely stable wavelength source.

DFB-1550C-PM



Optilab's DFB-1550C-PM is a single frequency laser coupled with Polarization Maintaining fiber. Built with Distributed Feedback Grating (DFB) as cavity reflector, it provides pure, single longitudinal mode, hopping free and extremely stable wavelength source. This laser diode is fabricated with Multiple Quantum Well (MQW) for excellent reliability and stability (also comes in wavelengths from 1549 ~ 1553 nm with output powers of 40, 50, 60 mW).

FEATURES

Laser linewidth, 250 KHz typ.

Up to 60 mW output power.

Low RIN noise, -145 dB/Hz max.

Wavelengths Range to select: 1549 ~ 1553 nm.

General laboratory and research use.

Dense Wavelength Division Multiplex (DWDM).

Hybrid Fiber-Coaxial (HFC).

CW Laser source.

RF over Fiber (RFoF).

APPLICATIONS

SWL-1550-MC



FEATURES

Wide sweeping range up to 10 nm.

RS-232 interface for status monitoring.

High Speed : 100 kHz.

Built-in Amplifier (Optional)

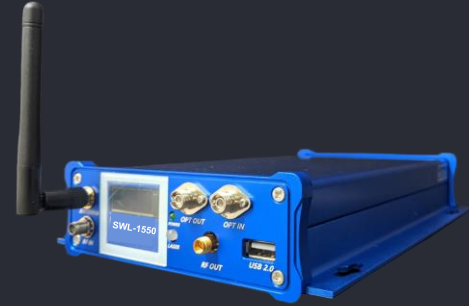
FBG sensing

Fiber optic component qualification

OCT application

Variable wavelength laser source

APPLICATIONS



Optilab's SWL-1550-MC is a laser source module unit provides fast continuous wavelength sweeping, driven by an electrical ramp voltage input, and contains a fast tunable laser source with control electronics (available in rackmount housing and in 1540, 1558, and 1566 nm wavelengths).

INSTRUMENTS

LLA-1310/1550-R



Optilab's LLA-1310/1550-R is a laser linewidth analyzer based on the delayed self-heterodyne interferometric technique. It consists of a high-performance LiNbO₃ phase modulator as the frequency shifter in the delayed self-heterodyne interferometer.

FEATURES

- Narrow Linewidth Laser Test.
- Phase Modulator for Frequency Shifting.
- High-Gain Photoreceiver & RF Amplifier.
- Integrated RF Spectrum Analyzer (SA).

- Laser linewidth Measurement.
- Coherent Communications.
- Test & Measurement.

APPLICATIONS

THS-XX-R



FEATURES

Large Signal Tuning Ranges up to 10 THz.

User-Friendly USB Interface.

High CNR: 55 dB.

13 dBm PM Output.

Spectroscopic Detection.

Topographical Imaging.

Frequency or Phase Modulator Detection.

FSK

APPLICATIONS



Optilab's THS-XX-R series is a set of fully integrated optical heterodyne signal sources packaged in a 1u rack mount configuration. Based on Tunable Wavelength Laser (TWL) systems, the THS-XX-R series produce optical heterodyne signals up to 10 Terahertz.

MTS



Optilab's MTS is a Modulator Test Station that is specifically designed to test temperature & burn-in test.

FEATURES

- 16 Channels Test
- Temperature Test
- Burn-in Test
- Stability Test

Modulator Test Station
Research & Development

APPLICATIONS

PMA



FEATURES

Vpi Measurement

Insertion Loss Measurement

Phase Modulator Test Station

Research & Development

APPLICATIONS

Optilab's PMA is a Phase Modulator Analyzer, which is designed to test & measure data of Phase Modulators, such as Vpi and Insertion Loss. It has built-in 7" display that enables user's easy access usability and controls for the test setup.



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And More

Last but not least!

OEQUEST

OEQuest now features over thousands of passive components, including Coupler, Isolator, Circulator, Splitter and MORE!

Check Optilab's **WDMQuest** category for more information

Available Components

- Coupler
- Isolator
- Circulator
- VOA
- Switch
- Splitter
- Filter
- Combiner
- Fiber
- And MORE!



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THANKS!

DO YOU HAVE ANY QUESTION?

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