QUANTIFI PHOTONICS™

wavetel
a simac group company

SLED

1000 SERIES BROADBAND OPTICAL SOURCE

SPECIFICATION SHEET

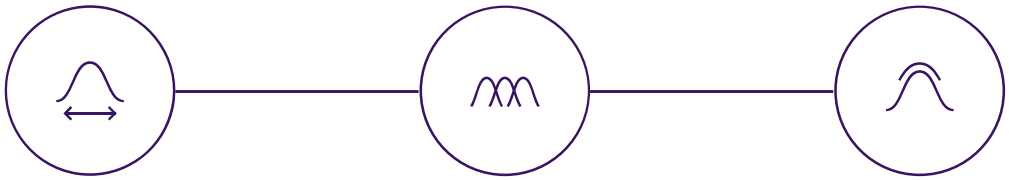
AVAILABLE IN PXIE

AVAILABLE IN MATRIQ

quantifiphotonics.com

Quantifi Photonics' SLED 1000 Series is ideal for helping you build a customized optical testing platform and deliver reliable and repeatable results in manufacturing or research and development environments.

The SLED comes in various wavelength models to address various key applications such as the telecom and datacom markets.



Large bandwidth.

The large spectral bandwidth brings you a short coherence length for high resolution inteferometry and optical coherence tomography.

Various wavelength ranges.

With a choice of multiple wavelength ranges you can find the model that fits in with your wavelength of interest.

Stable wavelength spectrum output.

Broad and smooth spectral profile enables consistent testing across a wide range of wavelengths.

Fully programmable.

Plug and play with USB or Ethernet connectivity; Controllable via the web-based GUI, COHESIONUI, LabVIEW or SCPI commands.

Compact.

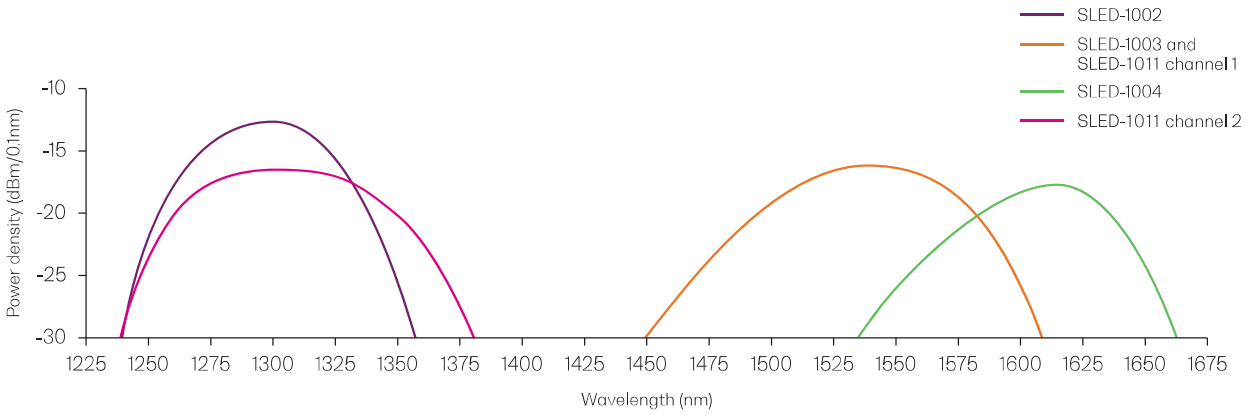
Up to four channels per PXIe slot, or available with up to four channels in the compact benchtop MATRIQ version.

APPLICATIONS

- Broadband source for component spectral characterization
- White light interferometry
- Broadband noise source for stress tests
- Optical coherence tomography

MODEL SELECTION

Choose from a combination of wavelength ranges and output powers. If you do not see a model that matches your requirements please contact us to discuss customization.



CHOOSE YOUR FORM FACTOR

PXIe – MODULAR

Our expanding range of PXIe optical test solutions are used by customers in mixed-signal test and measurement systems, reducing complexity, lowering the cost of test and accelerating time to market.

- Multi vendor, open standard with over 2500 PXI modules available
- Advanced timing and synchronization capabilities across instruments
- Low latency, high performance processing and fast data throughput
- Design and build scalable, high channel count systems
- Small footprint and lower power consumption

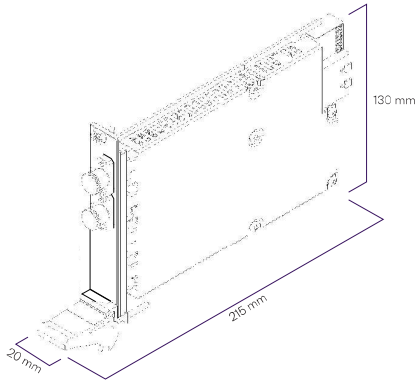
MATRIQ – COMPACT & PORTABLE

The MATRIQ series provides the same high-performance test capabilities of our PXIe modules in an compact benchtop design. MATRIQ instruments are simple to setup and easy to operate, making them the perfect choice for your optical lab or test bench.

- Same performance and control as our PXIe modules
- Plug and play with USB or Ethernet connectivity
- Control via the web-based GUI, COHESIONUI or SCPI commands
- Compact and portable design saves benchtop space

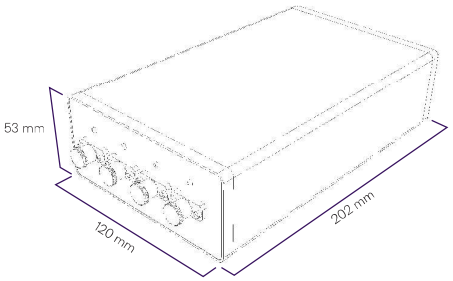
PXI

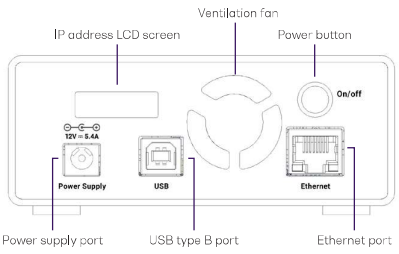
SLED-1002-2-FC-PXIE



MATRIQ

SLED-1002-4-FC-MTRQ





SLED TECHNICAL SPECIFICATIONS

General Specifications	PXI	MATRIQ
Bus connection	PXIe	USB and ethernet
Slot count	1	-
Optical connector type	FC/PC, FC/APC, SC/PC and SC/APC	FC/PC, FC/APC, SC/PC and SC/APC
Number of channels	**1002, 1003, 1004:** 1, 2 or 4 **1011:** 2	**1002, 1003, 1004:** 1, 2 or 4 **1011:** 2
Dimensions (HxWxD)	130 x 20 x 215 mm | 5.1 x 0.8 x 8.5 inches	53 x 120 x 202 mm | 2.1 x 4.7 x 8.0 inches
Weight	~0.4kg | ~0.88 lbs	~0.4kg | ~0.88 lbs
Operating temperature range	5°C to 45°C | 41°F to 113°F	5°C to 45°C | 41°F to 113°F
Storage temperature range	-40°C to 70°C | -40°F to 158°F	-40°C to 70°C | -40°F to 158°F

Power Specifications	PXI	MATRIQ
AC input voltage range	Please refer to the latest PXI Express Hardware Specifications published by the PXI Systems Alliance.	90 to 264 VAC
AC input current		1.3A (115Vac), 0.9A (230Vac)
AC frequency range		47 to 63 Hz
DC output voltage		12V
DC output current max		5.41A
Dimensions (LxWxH)		4.58 x 2.06 x 1.23" (116.3 x 52.4 x 31.3 mm)

Model Number	1002	1002
Wavelength range	1280 to 1340 nm	1280 to 1340 nm
Center wavelength	1310 nm	1310 nm
Center wavelength accuracy	± 10 nm	± 10 nm
Output power	15 dBm	15 dBm
Full width at half max	58 nm	58 nm
Fiber type	SMF-28	SMF-28
Power spectral density	> -8 dBm/nm Typical	> -8 dBm/nm Typical
Laser safety disable	No	No
Laser saftey class	1	1

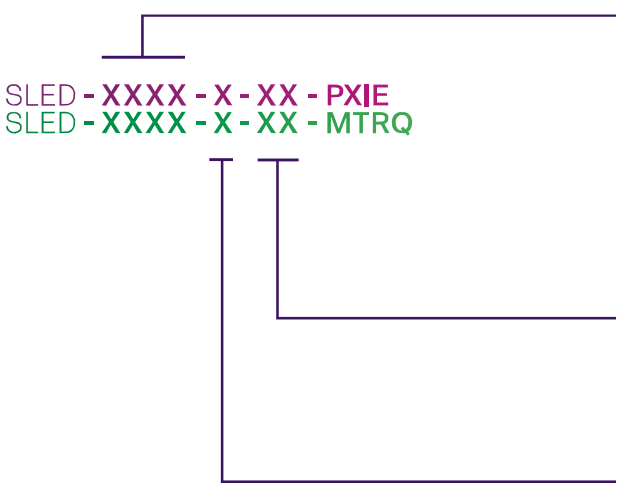
SLED TECHNICAL SPECIFICATIONS

Model Number	1003	1003
Wavelength range	1510 to 1590 nm	1510 to 1590 nm
Center wavelength	1550 nm	1550 nm
Center wavelength accuracy	± 10 nm	± 10 nm
Output power	12 dBm	12 dBm
Full width at half max	80 nm	80 nm
Fiber type	SMF-28	SMF-28
Power spectral density	> -12 dBm/nm Typical	> -12 dBm/nm Typical
Laser safety disable	No	No
Laser saftey class	1M	1M

Model Number	1004	1004
Wavelength range	1570 to 1630 nm	1570 to 1630 nm
Center wavelength	1600 nm	1600 nm
Center wavelength accuracy	± 10 nm	± 10 nm
Output power	9 dBm	9 dBm
Full width at half max	60 nm	60 nm
Fiber type	SMF-28	SMF-28
Power spectral density	> -15 dBm/nm Typical	> -15 dBm/nm Typical
Laser safety disable	TBD	TBD
Laser saftey class	1M	1M

Model Number	1011	1011
Wavelength range	**Channel 1**: 1510 to 1590 nm **Channel 2**: 1280 to 1340 nm	**Channel 1**: 1510 to 1590 nm **Channel 2**: 1280 to 1340 nm
Center wavelength	**Channel 1**: 1550 nm **Channel 2**: 1310 nm	**Channel 1**: 1550 nm **Channel 2**: 1310 nm
Center wavelength accuracy	± 10 nm	± 10 nm
Output power	**Channel 1**: +12 dBm **Channel 2**: +11 dBm	**Channel 1**: +12 dBm **Channel 2**: +11 dBm
Full width at half max	**Channel 1**: 80 nm **Channel 2**: 60 nm	**Channel 1**: 80 nm **Channel 2**: 60 nm
Fiber type	SMF-28	SMF-28
Power spectral density	**Channel 1**: > -12 dBm/nm Typical **Channel 2**: > TBDm Typical	**Channel 1**: > -12 dBm/nm Typical **Channel 2**: > TBDm Typical
Laser safety disable	TBD	TBD
Laser saftey class	1M	1M

ORDERING INFORMATION



Model number
1, 2 or 4 channels:
1002 = SLED with 1310 nm center wavelength
1003 = SLED with 1550 nm center wavelength
1004 = SLED with 1600 nm center wavelength

2 channels only:
1011 = SLED with 1550 nm center wavelength (channel 1)
and 1310 nm center wavelength (channel 2)

Connector type
FC = FC/PC
FA = FC/APC
SC = SC/PC
SA = SC/APC

Number of channels
1 = 1 channel
2 = 2 channels
4 = 4 channels

WARRANTY INFORMATION

This product comes with a standard 1 year warranty.

EXTENDED WARRANTIES AND CALIBRATION PLANS

With an Extended Warranty and Calibration Plan you can spend more time focused on your priorities and less time worrying about maintenance.

Over time and with regular use, all optical parts and connectors require re-calibration and maintenance to guarantee accurate and reliable performance.

Add a 3 or 5 year Extended Warranty at the time of purchase.

Guarantee peak performance

Ensure your equipment is operating at its best for reliable and accurate results.

Lower cost of ownership

Lock in savings and maximise your budget with a lower cost of ownership.

Peace of mind

Spend less time worrying about maintenance and more on generating results.

CALIBRATION PLANS FOR ADDITIONAL DISCOUNTS

Order a Calibration Plan when you purchase your Quantifi Photonics' test instruments and qualify for additional discounts.

10% Discount

On calibrations ordered at the time of purchase.

25% Discount

Add on an extended warranty and receive a 25% discount on calibrations.

With an instrument calibration performed by Quantifi Photonics technicians you receive.

- Comprehensive calibration to factory specifications.
- End-to-end inspection to ensure all instrument functions are working and connectors are clean.
- Firmware, software and documentation updates.
- Certificate of Calibration which includes detailed test results.

We recommend Quantifi Photonics optical instruments are re-calibrated every 12 months.

How to purchase

Contact your Quantifi Photonics sales representative about our Extended Warranty or Calibration Plans or email **sales@quantifiphotonics.com.**

Extended Warranties and Calibration Plans must be ordered at the time of purchase and are available only for Quantifi Photonics' products. The 25% calibration discount only applies to calibrations while the product is covered by the Extended Warranty period.

Our portfolio of optical and electrical test modules is rapidly expanding to meet a wide range of customer requirements and applications.

Tunable Laser Sources
Versatile telecom laser sources with full tunability across C or L bands. Narrow 100 kHz linewidth, up to 16.5 dBm of power, optional whisper mode to disable frequency dither.

Erbium-Doped Fiber Amplifier (EDFA)
High power Erbium-Doped Fiber Amplifier for signal power amplification in C and L bands with various control modes, including automatic gain control.

Fixed Wavelength Laser Sources
Highly customizable DFB or FP laser sources available in a wide range of wavelengths and powers. Models support SMF, MMF and PMF.

Variable Optical Attenuator (VOA)
Fast attenuation speed with low insertion loss and built-in power monitoring. Operates in fixed attenuation or constant output power modes. Models support SMF, MMF and PMF.

Optical Power Meters
Fast terminating or inline monitoring of optical signal power from -60 to +10 dBm across 750 – 1700 nm wavelengths. Model with logarithmic analog output for applications such as silicon photonics fiber alignment.

Optical Spectrum Analyzer (OSA)
Low cost, fast spectral measurement in a compact module with built-in analysis including SMSR, OSNR and spectral width. Targeted wavelengths for specific applications in O band, C band and L band.

Optical-to-Electrical Converter
High bandwidth, broadband O-to-E converter. Available in a range of configurations; choose from 1 or 2 channels, AC or DC coupling and various conversion gain and operating wavelength ranges.

Bit Error Rate Tester (BERT)
2 or 4-channel Pulse Pattern Generator and Error Detector at rates up to 29 Gbps for the design, characterization and production of optical transceivers and opto-electrical components.

Pulse Pattern Generator (PPG)
4 channel Pulse Pattern Generator from 0.3 to 30 Gbps for high-density multichannel applications. With integrated clock synthesizer and programmable de-emphasis and CTLE processor.

Optical Switch
Proven reliability and fast switching time. Wide variety of switch onfigurations: 1x4, 1x16, 16x16 and more. Models support SMF, MMF and PMF.

Polarization Controller & Scrambler
High-speed automated polarization control with broad wavelength coverage from 1260nm to 1650nm, low insertion loss and back reflection. Full remote control via intuitive GUI, LabVIEW or SCPI.

Photonic Doppler Velocimeter (PDV)
Purpose-built module for Photonic Doppler Velocimetry (PDV). A circulator, two VOAs and a passive coupler all built into one compact module.

Passive Component Integration
Integrate passive optical components of your choice such as WDM couplers, splitters, band-pass filters, PM beamsplitters and circulators. Models support SMF, MMF and PMF.

Passive Component Storage
Protect and store your own passive fiber optic components such as splitters, connector adaptor patchcords, WDM couplers, and isolators in one handy module.

PXI – TEST MODULES | MATRIQ – TEST MODULES

We provide these products as PXIe modules and compact MATRIQ benchtop instruments.

See our website for more details **quantifiphotonics.com/products**

Test.
Measure.
Solve.

Quantifi Photonics is transforming the world of photonics test and measurement. Our portfolio of optical and electrical test instruments is rapidly expanding to meet the needs of engineers and scientists around the globe. From enabling ground-breaking experiments to driving highly efficient production testing, you'll find us working with customers to solve complex problems with experience and innovation.

To find out more, get in touch with us today.

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