QUANTIFI PHOTONICS®
A Teradyne Company



ELSFP

1000 SERIES

ELSFP-COMPLIANT
EXTERNAL LASER SOURCE

PRELIMINARY SPECIFICATION SHEET

AVAILABLE IN PXI

quantifiphotonics.com

The ELSFP 1000 Series is a PXI-based external laser platform providing multi-channel, high-power continuous-wave (CW) optical output based on the External Laser Small Form-Factor Pluggable (ELSFP) standard.

Designed for integration into scalable test systems, it delivers up to eight channels of optical power per module within a compact two-slot PXIe form factor, supporting high-density configurations for photonic device testing.

Operating at 1311 nm with MPO optical interfaces, the ELSFP 1000 Series enables test setups that align with external laser architectures used in co-packaged optics (CPO), photonic integrated circuits (PICs), and optical modules. Its architecture supports use in validation and manufacturing environments where multiple synchronized optical channels are required within a single, modular PXI-based system.

TARGET APPLICATIONS

- PIC DVT testing using ELSFP as a light source
- PIC high-volume manufacturing

ELSFP 1000 SERIES TECHNICAL SPECIFICATIONS

General Specifications	PXI
Bus connection	PXIe
Slot count	2
Dimensions (HxWxD)	130 x 40 x 215 mm (5.1 x 1.6 x 8.5 inches)
Weight	~ 1 kg | ~ 2.2 lbs
Storage temperature range	-40 °C to 70 °C | -40 °F to 158 °F

Power Specifications	PXI
AC input voltage range	Please refer to the latest PXI Express Hardware Specifications published by the PXI Systems Alliance.
AC input current	
AC frequency range	
DC output voltage	
DC output current max	
Dimensions (LxWxH)	

ELSFP 1000 SERIES TECHNICAL SPECIFICATIONS

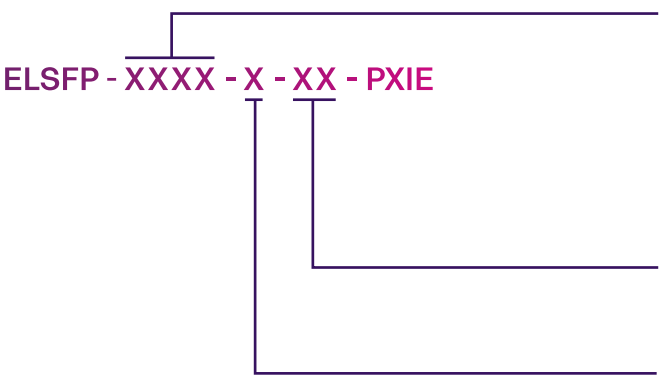
Model Number	1003[1]
ELSFP module type	8PMF-VHP-DR
Fiber type	PM1300
Optical connector type	MPO-12/APC + MPO-12/APC
Number of channels	8
Operating wavelength	1311 nm
Wavelength accuracy	± 6.5 nm
Linewidth	< 10 MHz
Maximum optical output power	20 dBm
Power accuracy	± 1.5 dB
Side mode suppression ratio (SMSR)	30 dB (Min)
Polarization extinction ratio (PER)	15 dB (Min)
Relative Intensity Noise (RIN)	-145 dB/Hz (Typical); -138 dB/Hz (Max)
Operating temperature range	15 °C to 45 °C | 59 °F to 113 °F

Model Number	1004[1]
ELSFP module type	8PMF-UHP-DR
Fiber type	PM1300
Optical connector type	MPO-12/APC + MPO-12/APC
Number of channels	8
Operating wavelength	1311 nm
Wavelength accuracy	± 1 nm
Linewidth	< 1 MHz (Typical); 5 MHz (Max)
Maximum optical output power	21 to 24 dBm
Power accuracy	± 1.5 dB
Side mode suppression ratio (SMSR)	40 dB (Min)
Polarization extinction ratio (PER)	16 dB (Min)
Relative Intensity Noise (RIN)	-150 dB/Hz (Max)
Operating temperature range	15 °C to 35 °C | 59 °F to 95 °F

NOTES:

1. Preliminary specs as of July 2026 and subject to change.

ORDERING INFORMATION



Model number
1003 = VHP 20 dBm, 1311 nm
1004 = UHP 21 - 24 dBm, 1311 nm

(**Note:** ELSFP instruments do not ship with breakout cables unless ordered. 2 breakout cables are required for each 1003 and 1004 ELSFP instrument.)

Connector type
BB = MPO-12/APC + MPO-12/APC

Number of channels
8 = 8 Channels

ACCESSORIES



Accessory number
9001 = 8 channel MPO to FC/APC breakout cable with PMF fiber

WARRANTY INFORMATION

This product comes with a standard 1 year warranty.

Versatile test modules for a wide range of requirements and applications.

Tunable Laser Source



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.

Fixed Wavelength Laser Source



DFB laser sources available in a range of wavelengths and powers up to 24 dBm. Supports SMF, MMF and PMF.

Swept, Tunable Continuous Wave Laser



Swept, tunable continuous wave (CW) laser source with 0.01 dB power stability and 400 nm/s high-speed scan rate for R&D and production testing.

Superluminescent Diode Broadband Light Source



Super-luminescent LED light source with high output power, large bandwidth and low spectral ripple and various wavelengths.

ELSFP-Compliant External Laser Source



Uses ELSFP-compliant pluggable modules to provide 8 channels of CW optical power at 1310 nm from 20 to 25 dBm.

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. Support SMF, MMF and PMF.

Polarization Controller & Scrambler



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

Optical Power Meter



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

Optical Spectrum Analyzer (OSA)



Cost-effective, spectral measurement in a compact module with built-in analysis for: SMSR, OSNR & spectral width. Targeted wavelengths for specific applications in O band, C band & L band.

Optical-to-Electrical Converter



High bandwidth, broadband O-to-E converter. Choose from 1 or 2 channels, AC or DC coupling and various conversion gain and operating wavelength ranges.

Optical Switch



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

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. SMF, MMF and PMF.

Digital Sampling Oscilloscope (DSO)



Digital equivalent-time sampling oscilloscope (DSO) with high-quality precision timebase and low jitter mode, available in 1 or 2 channels in a compact benchtop instrument.

Clock Recovery Instrument (CDR)



Clock recovery instrument for the QCA Series. Low jitter design and precise phase-locking provide a reliable, scalable solution for high-speed communication testing.

Coherent Transmitter



Generate high-quality coherent optical signals for transmitter development, testing and advanced modulation research.

Coherent Receiver



High-performance coherent optical receiver for accurate measurement and characterization of coherent modulation formats.

VISIQ Analysis Software

VISIQ

Coherent signal analysis software for intuitive DSP configuration, signal analysis and optimization.

Test. Measure. Solve.™

Quantifi Photonics provides test solutions to help customers unlock scalable and cost-effective high-volume manufacturing of photonic integrated circuits (PICs), co-packaged optics and pluggable optics. The company's portfolio includes a wide range of photonic test instruments, and digital sampling oscilloscopes, available as benchtop or the industry-standard PXI format to support cost-effective, high-throughput design verification testing and high-volume manufacturing.

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

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