



OSAPXle-1001

# OSAPXle 1000 Series

## Optical Spectrum Analyzer

---

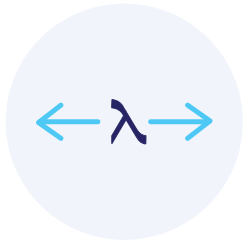
### PRELIMINARY SPEC SHEET

Coherent Solutions' OSAPXle brings grating-based spectral analysis to the market in a compact PXIe form factor.

OSAPXle enables new measurement capabilities in PXI for truly effective mixed-signal testing. Conduct all your DUT characterization from one platform and spend less time switching cables and patchcords between instruments.



# Features and Benefits



## Range of wavelengths

Choose the model that meet your requirements and pay for only the capabilities you need. OSAPXIe can also be customized to other customer specified wavelength range.



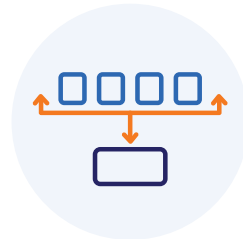
## Grating-based architecture

Accurate measurement of optical spectrum without artifacts: good dynamic range, high optical throughput, high spectral resolution and high wavelength accuracy.



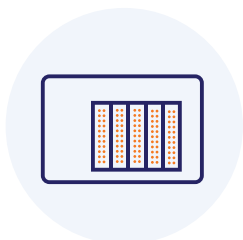
## Simple operation

With our modern and intuitive GUI, operation is simple.



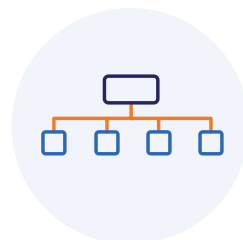
## Single platform testing

Conduct all your DUT characterization on one platform and spend less time switching cables and patchcords between instruments.



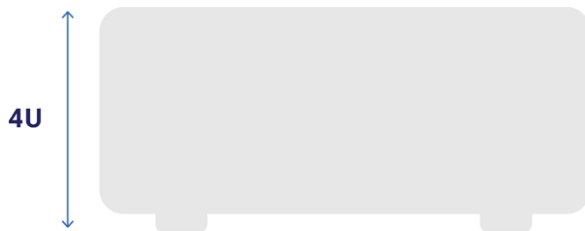
## Space-saving form factor

Replace bulky individual optical test instruments with one small PXIe module and drastically reduce the footprint of your test setup.

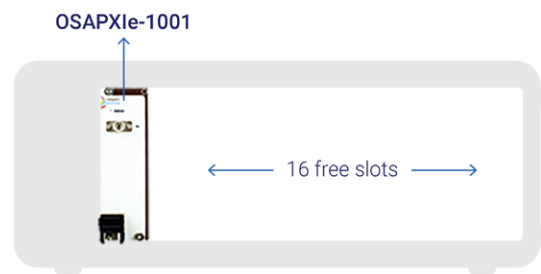


## Seamless PXI integration

Take advantage of PXI's integrated triggering and synchronization capabilities across electrical and optical instruments.



Conventional OSA



18-slot PXIe chassis

# Target Applications

- Power and wavelength measurements
- High-resolution spectral analysis on optical components
- WDM Channel monitoring
- Optical Signal to Noise Ratio (OSNR) measurements
- Side-mode Suppression Ratio (SMSR) measurements
- Passive component spectral response characterization
- Data modulation analysis
- Modulator bias adjustments
- General purpose spectral analysis R&D labs
- Gain equalization

# The world-leader in PXI optical test & measurement

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

Over 15 years of experience designing and building advanced coherent optical communications instruments gives us the expertise to quickly and cost-effectively customize our products to meet your requirements. If you don't see what you need, contact us today at [sales@coherent-solutions.com](mailto:sales@coherent-solutions.com).



## **LaserPXle** **Tunable Laser Source**

Full tunability across C and/or L band. Narrow 100 kHz linewidth, up to 15 dBm of power.



## **PowerPXle** **Terminating Power Meter**

Large-area detector power meter available with either large dynamic range or high sensitivity. Equipped with an external trigger input.



## **VOAPXle** **Variable Optical Attenuator**

Operates in fixed attenuation or constant output power modes. Integrated power meter for precise output power control.



## **PassivePXle** **Passive component integration**

Integrate passive optical components of your choice in a single or dual slot module. WDM couplers, splitters, band-pass filters, PM beamsplitters, circulators and more.



## **O2EPXle** **Optical-to-Electrical Converter**

High bandwidth, broadband O-to-E converter. AC or DC coupling, various conversion gain and operating wavelength range.



## **SwitchPXle** **Automated Optical Switch**

Proven reliability and fast switching time. Various wavelength options including 850 nm, 980 nm, 1310 nm & 1550 nm.



## **TrayPXle** **Passive Component Organizer**

Protect your passive fiber optic components to keep your workspace tidy & safe.



## **DopplerPXle** **Photonic Doppler Velocimeter**

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



## **OSAPXle** **Optical Spectrum Analyzer**

Fast spectral test and measurement in a compact 2-slot module. O, C and L band options.



## The perfect PXI chassis to suit your application

From a smaller 4-slot to the 18-slot rack mountable chassis, we can provide the perfect National Instruments PXIe chassis to suit your application.



# Technical Specifications

General Specifications	OSAPXle
Bus connection	PXle
Fiber type	SMF28
Optical connector type	FC/APC, FC/PC, SC/PC, SC/APC
Number of channels	1
Slot count	2
Dimensions (H x W x D)	130 x 40 x 215 mm   5.1 x 1.6 x 8.5 inch
Operating temperature range	5 °C to 45 °C   41 °F to 113 °F
Storage temperature range	-40 °C to 70 °C   -40 °F to 158 °F

Model Number	1001	1002	1004	1005	1006
Wavelength range	1265-1355 nm	1355-1445 nm	1525-1615 nm	1510-1570 nm	1565-1625 nm
OSA type	Grating				
Resolution bandwidth [FWHM]	0.20 nm	0.21 nm	0.24 nm	0.17 nm	0.17 nm
Wavelength linearity	15 pm				
Wavelength repeatability <sup>1</sup>	± 10 pm				
Wavelength accuracy <sup>1</sup>	± 25 pm (Typical) ± 50 pm (Max)				
Optical rejection @ 0.3 nm from peak	>25 dB	>21 dB	>16.5 dB	>37 dB	>37 dB
Damage input power	+30 dBm				
Max power	+10 dBm				
Absolute power accuracy <sup>1,2</sup>	± 0.6 dB				
Relative power accuracy <sup>1,2</sup>	± 0.5 dB				
Power repeatability <sup>2</sup>	± 0.1 dB				
Polarization dependence	< 0.3 dB				
Dynamic range	60 dB				
Return loss	>30 dB				
Sweep time (90 nm, 2001 pts, full sweep)	<280 ms				
Sweep time (4 nm, 101pts)	<180 ms				

PRELIMINARY SPECS AS OF JANUARY 2019

Notes  
<sup>1</sup> Input power range -40dBm to -10dBm.  
<sup>2</sup> With unpolarized source.



# Ordering Information

**OSAPXle** - XXXX - XX

**Configuration number**

**1001** = 1265 - 1355 nm

**1002** = 1355 - 1445 nm

**1004** = 1525 - 1615 nm

**1005** = 1510 - 1570 nm

**1006** = 1565 - 1625 nm

**Connector type**

FC = FC/PC

FA = FC/APC

SC = SC/PC

SA = SC/APC

## About Coherent Solutions

Coherent Solutions is the world-leader in PXI optical test and measurement. Our portfolio of PXI optical test modules is rapidly expanding to meet the needs of engineers and scientists around the globe. From enabling pioneering experiments to driving highly-efficient production testing, you'll find us working with customers to solve complex problems with simple and elegant solutions.

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

### Coherent Solutions Ltd

General enquiries: [sales@coherent-solutions.com](mailto:sales@coherent-solutions.com)

Technical support: [support@coherent-solutions.com](mailto:support@coherent-solutions.com)

Telephone: +64 9 478 4849

North America: +1-800-803-8872

 [www.linkedin.com/company/coherent-solutions-ltd](http://www.linkedin.com/company/coherent-solutions-ltd)

 [www.facebook.com/CoherentSolutionsLtd](http://www.facebook.com/CoherentSolutionsLtd)

 [www.youtube.com/CoherentSolutionsLtd](http://www.youtube.com/CoherentSolutionsLtd)