BOSA 100

The Brillouin OSA with an external TLS

Aragon Photonics produces the most advanced and versatile Optical Spectrum Analyzer, the BOSA. Thanks to our unique optical filtering and full spurious free dynamic range the BOSA achieves reliable measurements avoiding artifacts and undesired effects on your measurements.

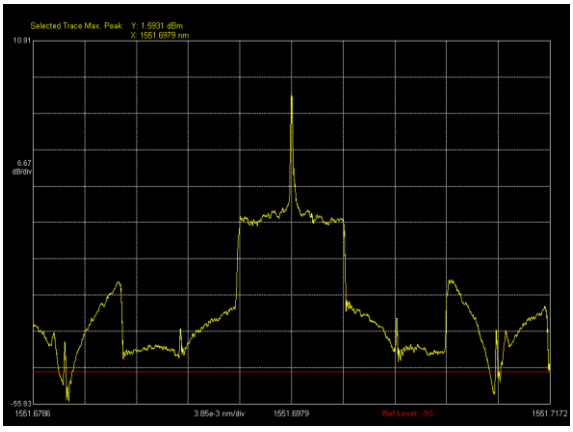
BOSA 100 key features

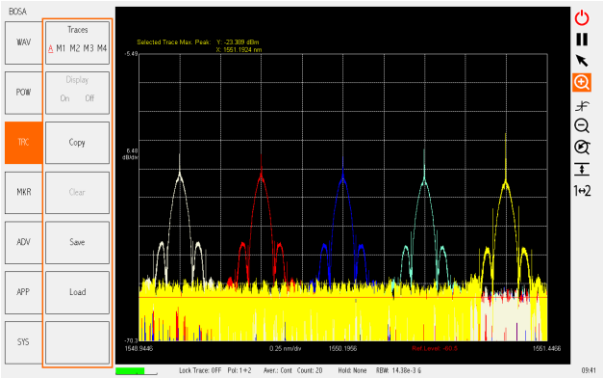
- ✓ 10 MHz pure optical resolution
- ✓ Unique >80 dB spurious free dynamic
- ✓ Wavelength calibrator
- ✓ 20 nm/s measurement speed
- ✓ C, L & O bands available
- ✓ Several compatible TLS's: Keysight,Santec, Luna, Yenista, NewFocus…
- ✓ Easily automated
- ✓ Add-on options available

The BOSA 100 series works with an external TLS. Should you already have a compatible model get advantage of the maximum performance of BOSA technology at a minimum cost.

BOSA 100 + your own TLS bundle is a good tool to reveal the optical spectra of the signals with detail and precision enabling direct measurement of performance parameters and dynamic effects of:

- Advance modulation formats: Nyquist-WDM, OFDM, 100G, 400G
- Optical communication systems
- Lasers: VCSEL, DFB…
- Comb/pulsed sources





BOSA 100 series can be made possible thanks to the high quality components used and the careful control of all, including the external TLS. Besides, all the graphic interface has been redesigned to be faster and more operative than ever.

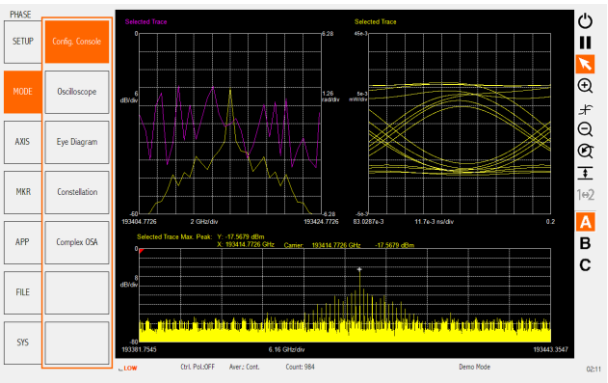
Take most of your measurements with some of the advanced functions included:

Peak analysis
ONSR app
Trace-locking
Dual-channel polarization
Variable resolution
Multiple traces
Power integral
Macro editor tool

Add-on options

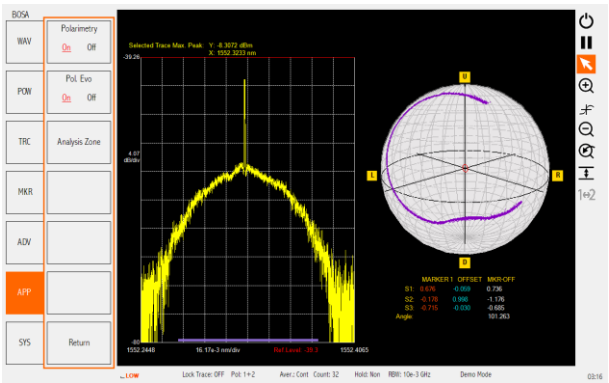
Phase measurement

Turn the BOSA 100 into an **Optical Complex Spectrum Analyzer (OCSA)** taking advantage of the Brillouin effect to obtain the optical phase of modulated signals with only ±1° accuracy.
Working with a PPG or AWG and within a range of **70 MHz to 2 GHz of pattern frequency** BOSA Phase retrieves the time domain information – **eye-diagram**, constellation, time-resolved chirp – without the need of demodulation and independent of the modulation format.



Polarimetry extension

This options is also available in BOSA 100 series. Turn it into the most advanced tool for polarization analysis and measure the **state of polarization** (SOP) spectrally-resolved.
Use markers to measure polarization differences between different light sources or different spectral components or plot the evolution of the SOP with wavelength to measure DGD.
Besides, this option enables **PDL** measurement for passive devices.



Component analyzer

You can turn your BOSA 100 into a **passive component** analyzer as well. Including a high-dynamic range measurement port synchronized with the TLS sweep, the response of optical filters or Bragg gratings can be measured with high precision of ±0.2 dB, fast speed at 100 nm/s and great sensitivity: **-70 dBm (IL) & -45 dBm (RL).**

Tunable Laser Source

Use the high quality external laser independently or through the application inside BOSA, you choose.
All the compatible TLS's have great specs: **high accuracy, narrow linewidth**, fast scanning speed. Some lasers have **high output power and low SSE**. Don´t hesitate to ask us!

BOSA 100[1] main specifications	C band	L band	O band
Model Parameters			
Wavelength Range	1525 – 1565 nm	1565 – 1615 nm	1265 – 1355 nm
Optical Resolution[2]	10 MHz		
Wavelength Accuracy	Typ ±2 pm		
Spurious free Dynamic Range[2]	>80 dB		
Calibrated Input Power Range	+13 to -70 dBm		
Close-in Dynamic range	>40 dB @ ±0.2 pm	>60 dB @ ±0.4 pm	
Max. Safe Input Power	+20dBm		
Sensitivity[2]	-70dBm/0.1pm		
Power accuracy[2]	±0.5dB		
Polarization Measurement	Two orthogonal polarization channels. Full state-of-polarization with polarimetry extension		
Measurement time	1 sec. for 20 nm		1 sec. for 10 nm

[1]BOSA100 specs may depend on TLS model used with BOSA.
[2]Typical values, measured at 0 dBm @ 1550 nm, 1590 nm and 1310 nm.
[3]If customer already owns a laser with SMF, please contact us.
[4]Full specs of Yenista lasers available in Yenista datasheet.

Contact us:
Tel: +34976359972
Mail: info@aragonphotonics.com
C/Prado 5, local. 50009. Zaragoza. Spain