

Optical Resolution (@3dB)	80fm (10MHz @1550nm)
Wavelength Range	1528-1565nm
Span Range	1 pm to complete wavelength range
Wavelength Accuracy	Option 100 : depends on TLS model Option 210 : ± 2pm (@1550nm)
Dynamic Range	>80dB
Close-in Dynamic Range	>40dB @±0.33pm (filter width @ 40dB depth) >60dB @±0.44pm (filter width @ 60dB depth)
Power Range	+10 to -70dBm
Maximum Safe Total Input Power	+20 dBm
Sensitivity (1)	-70dBm/0.1pm
Power Accuracy (2)	± 1.5 dB
Polarization Dependence	± 0.5 dB
Measurement time	1s for 10 nm
TLS output	Yes (Option # 210)
TLS output power	0 dBm (Option # 210)
Advanced Functions	Spectral width, Total power integration, Power meter, Traces & Markers functionalities, Polarization control, Peak search, Ref. level search, Hold max/min, Averaging, Auto measurement, Macro Editor Tool (Automated measurements), Output TLS software functionalities (Option #210)....
External Application	BOSA Traces Viewer Application
Data storage	Internal memory External USB storage File type: traces file (*.txt, *.csv, *.jpg), program file (*.txt), measurement condition file (*.txt, *.csv) Video recording (*.avi format)
Interface	GPIO Ethernet 10/100 base T
Display	12.1 Inch colour TFT (resolution: 800x600 pixels) Touch sensitive screen
Optical Input	SMF; FC/APC (other on request)
Power Requirement	100/110/220v, 50/60Hz
Maximum Power Consumption	150W
Dimensions (mm ³) and mass	430 (W) x 230 (H) x 470 (D), Approx. 22 kg.
Operating Temperature	+15°C to +35°C

(1) Sensitivity is defined as signal value > 6x RMS noise value, after averaging, polarization control and with Lock Trace on.
(2) Valid for any wavelength and power value (polarization dependence included). Valid for measurements made with polarization control, in high sampling rate mode and averaging. For 1σ (63 % of the cases) typical value: ± 1 dB.

Options #	
100	BOSA unit without built-in Tunable Laser Source (TLS) An external TLS is required. To get information about compatible TLS, please contact with support@aragonphotonics.com
200	BOSA unit with built-in TLS.
210	Option#200 with an optical output for the internal TLS. An extra optical output in the front panel is included to access the internal laser source. Software functionalities allow the user to operate the BOSA as a standalone TLS.

These specs are subject to change without further notice. Check out the latest status in www.aragonphotonics.com.

BOSA

High Resolution Spectrum Analyser



Now you see the light

IN REAL TIME

0.08 pm (10MHz @ 1550nm) resolution
80dB dynamic range



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The most innovative
2008 photonic test
& measurement
equipment



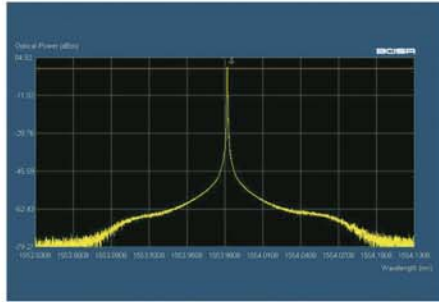
Prism Awards
FOR PHOTONICS INNOVATION

BOSA opens the way to new research and developments in different fields of applications with its superior performance in terms of spectral resolution and dynamic range throughout the full C band and fast measurement speed.



LASER CHARACTERIZATION

DFB laser source



With the **BOSA** you can fully describe the spectral characteristics of any laser source: ECL, DFB, VCSEL, TLS, ... Working parameters of laser can be obtained from its CW optical spectrum.

BOSA High Resolution Spectrum Analyser

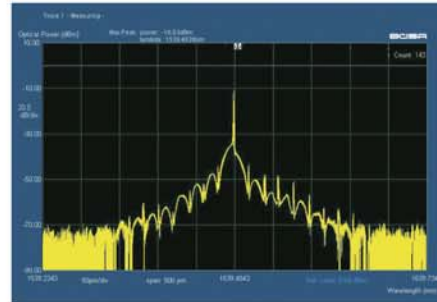
Discover the possibilities of the high resolution spectral measurements

Now you see the light
IN REAL TIME

Ready to support you in the high bandwidth transmission adventure

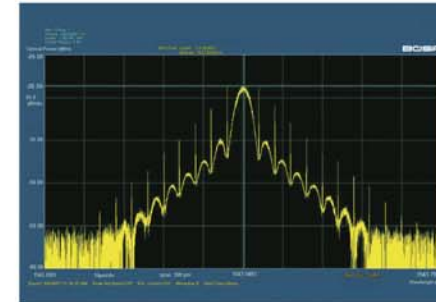
MODULATION FORMATS

NRZ PRBS signal at 2.5 Gb/s



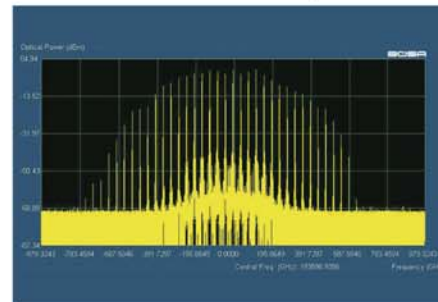
BOSA measures the optical spectrum of different types of modulated optical signals. Chirp effects in the optical spectrum of intensity modulated PRBS signals, asymmetry and double peak, are clearly observed and, by using a simple measurement setup, chirp parameters of the optical transmitter can be obtained. The optical spectrum of phase modulated optical signals can be also measured with the **BOSA**.

Externally modulated NRZ-DPSK PRBS signal at 2.5 Gb/s

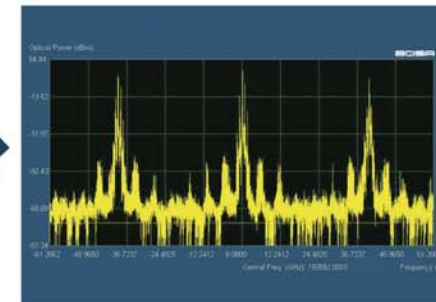


PULSED SOURCES

Picoseconds fibre laser @40 GHz. Span 1000 GHz



Span 122 GHz



Whatever spectral span is set up, the optical spectrum of pulsed laser can be measured in real time. High resolution combined with high dynamic range allows you to see secondary peaks in each principal peak with its "hidden" spectral structure.

APPLICATIONS AND MARKETS

Design and manufacturing of laser sources and modulators.

Modulation effects.

DWDM systems.

Microwave photonics and analogue modulation.

...and wherever resolution and dynamic range is required

FEATURES

Resolution of 0.08 pm (10 MHz @ 1550 nm).

Dynamic Range of 80 dB across the full C band (C, L under request)

Real time measurements.

Optional built-in tunable laser source

Large 12.1-inch colour touch in sensitive display.

TECHNOLOGY

The High Resolution OSA, **BOSA** is based on All-Optical Technology which use the Stimulated Brillouin Scattering generated in a non linear medium by a counter-propagating probe laser to analyze the optical spectrum of a signal under test. The process creates the equivalent of an optical filter with widths of 0.08 pm and 0.44 pm at depths of 3 dB and 60 dB respectively, which is valid for any wavelength span.

Clear advantages of this technology are the non-existence competitiveness between resolution, dynamic range and wavelength range which all can be simultaneously reached in the measurements, and the immunity to the internal TLS sidemodes.

UTILITIES

Programming function

The Macro editor built-in tool allows you to program your own applications.

Trace Viewer Application

External application that enables you to view, analyze and compare BOSA traces in any desktop PC or laptop.

Functionalities

GPIO and Ethernet interfaces for remote control.