

SHAPING LIGHT.

HELPING ENGINEERS AND SCIENTISTS IN
ADVANCING HOW THE WORLD COMMUNICATES,
SENSES AND CONNECTS



ID OSA – OPTICAL SPECTRUM ANALYZER DATA SHEET

ID OSA – OPTICAL SPECTRUM ANALYZER

The ID OSA is a versatile Optical Spectrum Analyzer designed for R&D and production test applications, offering picometer-class spectral resolution across the C-Band or L-Band. This makes it a cost-effective solution for spectral monitoring.

With two input ports featuring different sensitivities, it extends the available power range beyond 90dB, enabling accurate analysis of both low-power signals and high-power DWDM bands.

The unit is compact and rugged, as it contains no moving parts and does not require recalibration. It can be controlled via USB or Ethernet interface, and an integrated web server allows control through any browser-based device, such as smartphones, without the need for software installation.



ID OSA – OPTICAL SPECTRUM ANALYZER

KEY FEATURES

- **312.5 MHz / 2.5 pm scan resolution**
- **2 Hz (0.5 s) scan rate** at full resolution and width
- Greater than **70 dB dynamic power range**
- **No calibration required** and no moving optical parts
- **Compact footprint** (1HE half-size 19-inch rack)
- Available in **C- and L-Band configurations**

TYPICAL APPLICATIONS

- High-resolution spectral analysis
- DWDM transport testing
- OSNR characterization
- Modulated signal characterization
- Transceiver testing
- Network monitoring

WHAT DIFFERENTIATES OUR ID OSA SOLUTION AND DRIVES SUCCESS



HIGH RESOLUTION & FAST SCAN SPEED

The ID OSA delivers rapid performance, scanning the entire spectrum at full resolution of 312.5 MHz/2.5 pm in just 0.5 seconds.



NO MOVING PARTS

The ID OSA features a design with no moving parts in the optical path, ensuring exceptional ruggedness and reliability.



COMPACT FOOTPRINT

The ID OSA offers a superior compact footprint and light weight compared to traditional OSA devices



50% SAVINGS OVER TRADITIONAL OSA'S

This is achieved without compromising on performance or reliability. The ID OSA provides high-resolution spectral analysis, a wide dynamic range, and a compact, rugged design.

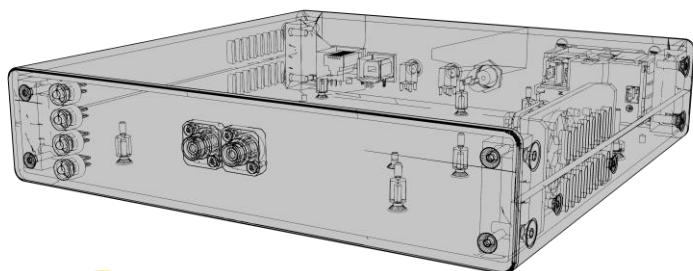


SIMPLE, INTUITIVE USABILITY

A comprehensive GUI allows setting up, control and monitoring the unit within minutes. Remote control via Ethernet or USB gives a maximum of flexibility connecting to the board.

DESIGNED & MADE IN GERMANY

Blends innovation and precision to ensure success



DESIGNED & MADE
IN GERMANY

German craftsmanship is renowned worldwide for its meticulous attention to detail and use of high-quality materials.

It signifies a commitment to exceptional quality and precision engineering.

At ID Photonics, our entire operations are based in Germany, ensuring top-notch craftsmanship. We handle everything from manufacturing and hardware design to software and circuit design. This comprehensive approach guarantees products that are reliable, durable, and innovative. By choosing ID Photonics, you invest in engineering excellence and timeless design, all crafted with meticulous attention to detail in Germany.

SIMPLE, INTUITIVE CONTROL OF YOUR ID OSA

The ID OSA comes with an intuitive and easy-to-use graphical user interface (GUI) that requires no installation. It's designed to provide a seamless experience, allowing you to control and monitor the laser with ease.

- Simplicity at Its Best:** Say goodbye to complex installations and hello to instant control. Our ID OSA features an embedded graphical user interface (GUI) that requires no additional software. Just connect, and you're ready to operate
- Intuitive Design:** Navigate with ease through our clean and modern dashboard. Monitor real-time performance, adjust settings, and ensure safety with just a few clicks
- Plug-and-Play Convenience:** Start using your laser system right out of the box. Connect via USB or Ethernet, open your web browser, and take control through the built-in interface
- Instant Local Control:** The unit can be operated using the modern touch panel display at the front, eliminating the need for any external devices



1

ID OSA - WEB GUI
ON TABLET



2

ID OSA - WEB GUI
ON DESKTOP



SPECTRAL ANALYSIS

ID OSA – OPTICAL SPECTRUM ANALYZER

The ID OSA is an Optical Spectrum Analyzer based on coherent detection principles.

Designed for versatility and efficiency, it provides picometer-class spectral resolution across the C-band or the L-band and completes full-resolution scans in just 0.5 seconds.

With two input ports of different sensitivity, it boosts the available power range to more than 90 dB, allowing for accurate analysis of both low power signals and high power DWDM bands. Its compact and sturdy design, without any moving parts, makes it the ideal instrument for both research in the lab and production testing.

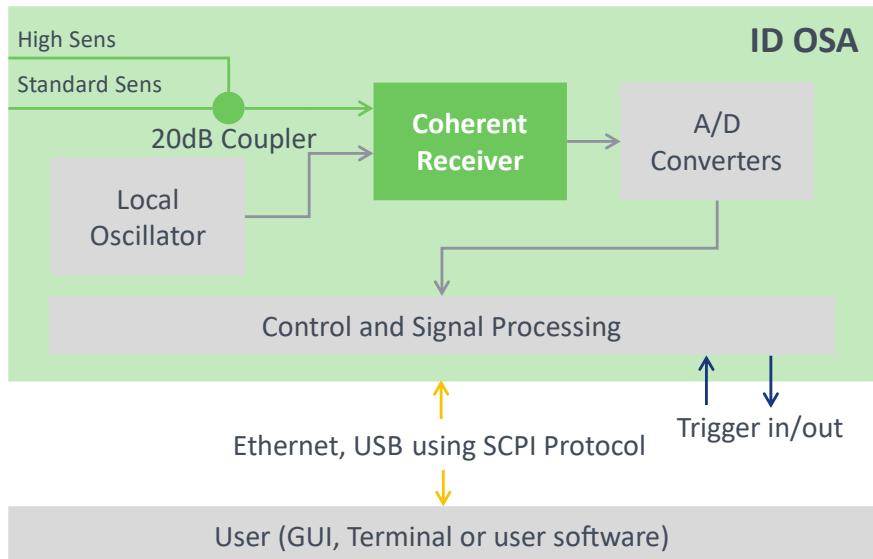
	Weight
1.8 kg / 3.9 lbs.	

	Size of device
44 x 205 x 210 mm 1.7 x 8 x 8.2 inch	

	Operating Temperature
0 to 40 °C	

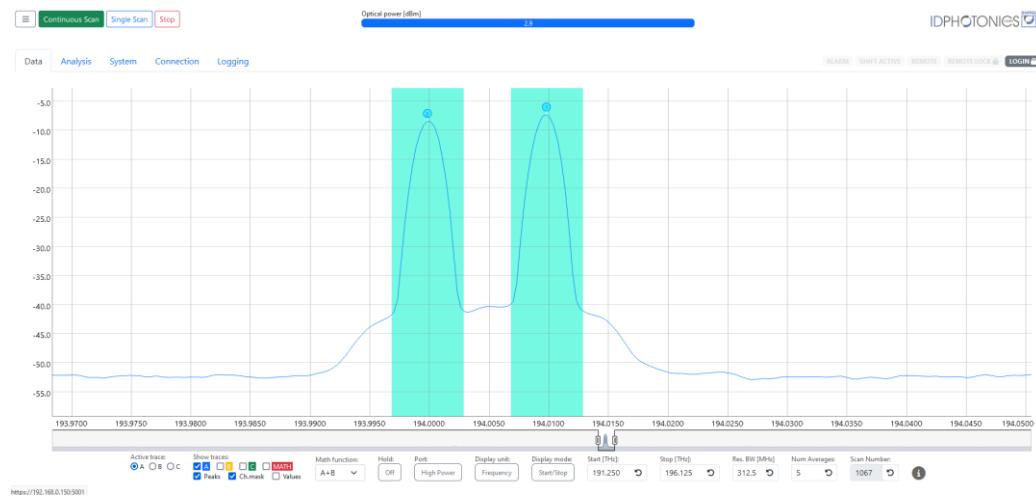
	Our standards
RoHS-compliant CE-conform	

BLOCK DIAGRAM



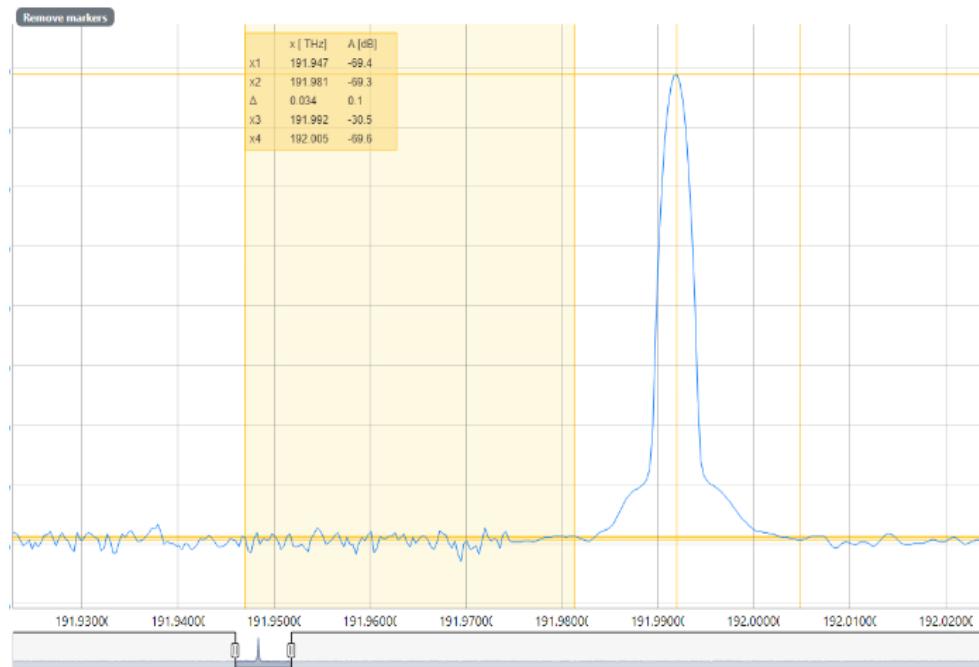
MEASUREMENT EXAMPLE OF 2 LASER LINES SPACED AT 10 GHz

The lines are clearly separated, with the green color indicating the integration used by the device to calculate the integrated power for the detected channels.



MEASUREMENT EXAMPLE OF 1 LASER LINES USING MARKERS

This example showcases the resolution of the ID OSA by scanning a narrow line-width laser. It allows for the measurement of the laser's noise floor, highlighting the device's dynamic range. Additionally, the zoom and marker functions of the Web GUI are demonstrated.



SPECIFICATION

DEVICE PARAMETER	C - BAND	L - BAND
SCAN RANGE Frequency [THz] Wavelength [nm]	191.25 – 196.125 1528.5 – 1567.5	186.25 – 191.05 1569.080 – 1609.731
MAX. SPECTRAL SAMPLING RESOLUTION		312.5 MHz 2.5 pm
RESOLUTION BANDWIDTH, -3 dB -20 dB		1.7 GHz / 13.6 pm 4 GHz / 32 pm
ABSOLUTE FREQUENCY ACCURACY		+/- 1 GHz 8 pm
MEASUREMENT UPDATE RATE FULL RANGE, FULL RESOLUTION, 15.600 POINTS		2 Updates / s
OPTICAL INPUT POWER RANGE; Standard Port High Sensitivity Port		-30 – +23 dBm -60 – +3 dBm
RELATIVE POWER ACCURACY		0.4 dB
ABSOLUTE POWER ACCURACY		+/- 0.7 dB
SPURIOUS DYNAMIC RANGE		> 45 dB
OPTICAL RETURN LOSS		> 35 dB
OPTICAL INPUT CONNECTOR		FC/APC
TRIGGER IN/OUTPUT		3.3V TTL (SMA female)
DATA INTERFACES		USB, Ethernet
PHYSICAL DEVICE SPECIFICATION		
OPERATING TEMPERATURE STORAGE TEMPERATURE		0 – 40 °C, non-condensing -20 – 60 °C
SIZE OF DEVICE (H X W X D)		44 x 205 x 210 mm 1.7 x 8 x 8.2 inch
WEIGHT		1.8 kg / 3.9 lbs.
POWER SUPPLY		100-240 VAC, 80 VA, 50/60 Hz, 40 W

CONFIGURE ID OSA

1

DEVICE

ID-OSA-MPD-



PRODUCT:

- 01: OSA Main unit, C-Band
- 11: OSA Main unit, L-Band

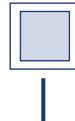


ID OSA

2

ACCESSORIES

ID-OSA-ACC-RM-



- 01: 19 inch Rackmount kit, for 1 unit per 1 HE

CONTACT

info@id-photonics.comid-photonics.com

Phone: +49-89-201 899 16

FURTHER RESOURCES

[DOWNLOAD MANUAL](#)[APPLICATION NOTES](#)[DOWNLOAD CENTER](#)

REQUEST A QUOTATION

Get in touch with us via info@id-photonics.com or send a request via our [web form](#).



SCAN ME

SHAPING LIGHT.

**HELPING ENGINEERS AND SCIENTISTS IN
ADVANCING HOW THE WORLD COMMUNICATES,
SENSES AND CONNECTS**

Copyright © 2025 ID Photonics GmbH. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form, be it electronically, mechanically, or by any other means such as photocopying, recording or otherwise, without the prior written permission of ID Photonics GmbH.

Information provided by ID Photonics GmbH is believed to be accurate and reliable. However, no responsibility is assumed by ID Photonics GmbH for its use nor for any infringements of patents or other rights of third parties that may result from its use. No license is granted by implication or otherwise under any patent rights of ID Photonics GmbH.

The information contained in this publication is subject to change without notice.



ID PHOTONICS GMBH

Anton-Bruckner-Straße 6
85579 Neubiberg
GERMANY

Tel: +49-89-201 899 16
info@id-photonics.com