OSA20

Optical Spectrum Analyzer

Yenista's OSA20 is the most practical, high performance OSA on the market. It provides fast, accurate, high dynamic range scans, eliminating many of the compromises of conventional instruments. It is also the first OSA to incorporate a touch sensitive display with multi-touch gesture control.

Fast

Every measurement is taken at the highest resolution and the highest accuracy. Scan speed is determined solely by choice of the sensitivity level: -55 dBm at 2000 nm/s down to -80 dBm at 0.5 nm/s. A 100 nm repeat scan of 50.001 data points and a sensitivity level of -60 dBm will display the result every 275 ms.

Accurate

The OSA20's monochromator utilizes **Yenista**'s renowned filter technology. The scanning filter has a 20 pm bandwidth, steep edges and low stray light. Power is integrated over 2 pm steps resulting in 225,001 data points for a 450 nm span. This allows for DWDM channel analysis down to 12.5 GHz spacing. The instrument has a high wavelength accuracy over the full wavelength range with ±20 pm specified over the C&L wavelength bands.

Easy to Use

The OSA20 is operated through its 12" capacitive touch screen with multi-touch gesture control, an industry first. This allows very fast navigation, scrolling and zooming in an intuitive manner.

Communication Ports

All wide range of interfaces is available for remote control and export of data:

7x USB, 2x Ethernet (10/100/1000), GPIB, DVI, VGA, HDMI, Trigger IN & OUT

Performance Specifications

Wavelength Range	1250 - 1700 nm
Measurement Samples	225,001 points
Scan Speed	up to 2000 nm/s
Wavelength Accuracy	±20 pm*
Wavelength Reference	Acetylene cell
Wavelength Resolution	0.02 nm*
Wavelength Repeatability	±2 pm
Dynamic Range	-80* to +18 dBm
Power Accuracy	±0.4 dB*
Power Level Flatness	±0.2 dB*
Optical Return Loss	≥ 45 dB

** over CL-band*

Analysis Modes & Functions

The OSA20 has one general operation mode and six application oriented analysis modes:

OSA	Optical Spectrum Analyzer (general)
WDM	Wavelength Division Multiplexing
OFA	Optical Fiber Amplifier
SML	Single Mode Laser
MML	Multimode Lasers
BBS	Broadband Source
PCT	Passive Component Test

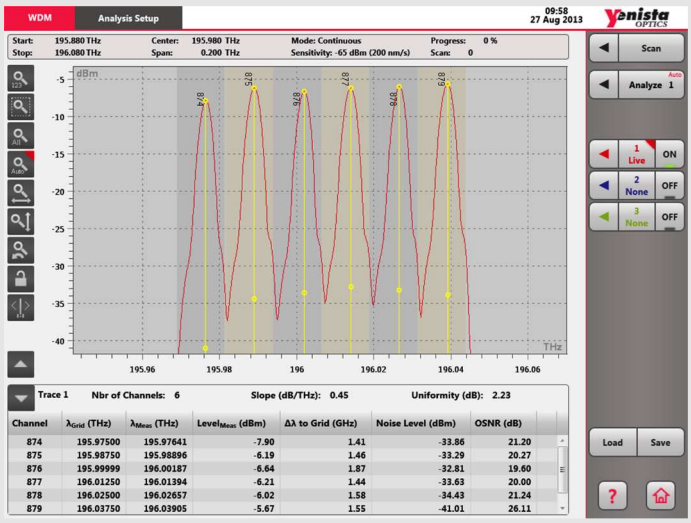
Each mode has a full suite of analysis functions for detailed spectrum analysis.

Measurement examples using three different analysis modes are shown on the next page.

Examples of Analysis Modes

SML- Single Mode Laser

- λ_c - Center wavelength
- σ - Bandwidth
- SMSR - Side Mode Suppression Ratio
- OSNR - Optical Signal to Noise Ratio
- Side mode spacing/period
- Mode offset
- Center offset
- Stop band



WDM - Wavelength Division Multiplexing

- Channel detection on defined grid
- Number of channels
- Power level per channel
- Bargraph of integrated channel power
- Wavelength offset from reference channel
- Channel uniformity & slope
- OSNR
- Noise level at channel wavelength

BBS - Broadband Source

- Mean wavelength
- Center wavelength
- Bandwidth at any specific power level
- Power density around peak wavelength
- Total power
- Power level at mean & center wavelength
- Ripple amplitude
- Ripple spacing/period

Information and specifications are subject to change without notice.
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