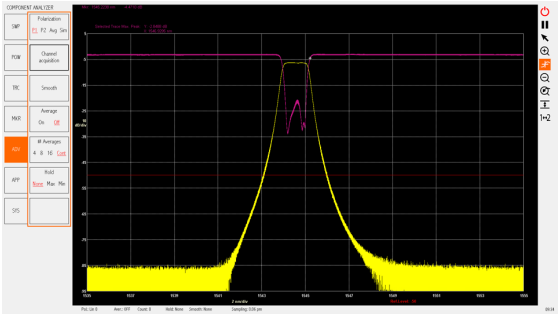
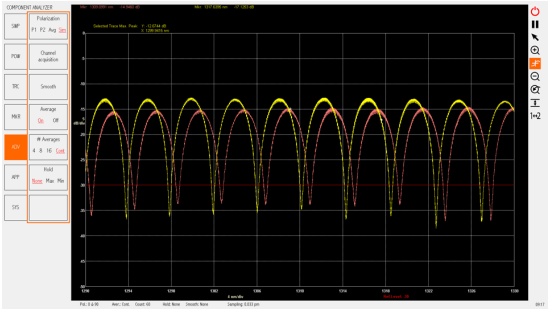
HDCA series 3

The new High Definition Component Analyzer (HDCA) is specifically designed to characterize passive optical devices with the highest resolution and wavelength accuracy, the fastest measurement time and largest dynamic range. The spectra profile of insertion losses (IL), return losses (RL) and polarization dependent losses (PDL) of passive optical devices can be measured with femtometric resolution and fully automated.





KEY FEATURES

- Real time measurement: 0.4 sec.
- Resolution down to 2.4 fm
- Dynamic range: >85 dB in a single sweep
- Wavelength repeatability: ±0.15 pm
- Wavelength accuracy: ±0.5 pm
- Wavelength range:
  O band (1265-1345 nm)
  C+L band (1510-1620 nm)
- TE/TM spectra characterization
- Configurable total data points (up to 10 million points)
- Referenced measurements using NIST traceable absorption lines
- External TLS compatible (100 series)

APPLICATIONS

- Quantum photonics (chips)
- Ring resonators
- Fiber Bragg gratings (FBG)
- Photonic integrated circuits (PICs)
- Wavelength selective switches (WSS)
- Ultra-DWDM network components

TECHNOLOGY

Based on the technology developed for the passive optical component analysis for the BOSA 400 option 20, the HDCA is capable of measuring devices under test (DUTs) with extraordinary wavelength accuracy, repeatability and unmatched resolution.

High-Definition Optical Component Analyzer

TECHNICAL SPECIFICATIONS

Optical		
Measured bands		C+L bands: 1510-1620 nm O band: 1265-1345 nm
Resolution		0.3 MHz (0.0024 pm) (Min.) 1 MHz (Typ.)
Number of channels		1 included, up to 4 optional
Calibrated Input Power Range		+10 to -90 dBm
Output power		0 dBm (Min.)
Polarization Measurement		Two orthogonal polarizations PDL measurement as option
Sweep speed		1 to 100 nm/s
Wavelength calibrator		Linearization + absolute reference
Performance		
Wavelength accuracy		±0.5 pm (Typ.)
Dynamic range	IL	>85 dB @ 100 nm/s
	RL	> 55 dB
Power accuracy	IL	±0.1 dB (Typ.)
	RL	±0.5 dB (Typ.)
Power resolution		0.001 dB
PDL accuracy		±0.04 dB
PDL repeatability		±0.02 dB
Data points		10 Million (Max.) Configurable
Measurement time		0.4 sec @ 400nm/s C+L band
Referenced measurement		Yes
Wavelength Calibrator		Yes

HDCA can be provided without internal laser so that a customer external tunable laser is used for sweeping (option 100). Inquire about compatible laser models.

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