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Simbol Test Systems is the one-stop shop for all your fiber optic test equipment and measurement needs. As we are exclusively focused on e-commerce and international distribution of photonic products since 2000, our customers rely on the [AssetRelay](#) catalog to find our stock listings of thousands of used and refurbished popular test equipment. They know they can get repair, customization and calibration services from our laboratory for their own fiber optic instruments from all renowned brand manufacturers.

If you wish to buy or sell an AQ6317B, visit our catalog [here](#) to see our current stock with actual photos; our refurbished units with floppy drives replaced by USB, new bezel, new side bumpers and other upgrades look quite good!

Ando AQ6317B Optical Spectrum Analyzer (OSA) Calibration and Repair Services

With more than 20 years of expertise in repair of OSA, Tunable Lasers, Wavemeters and more, the quality of our services is renowned amongst the service centers community and highly appreciated by our partners and customers. We developed custom software allowing us to perform automatic calibration tests and write up to date results in the OSA calibration tables. Don't settle for a two-page summary assessment to trust that your OSA is operating on the full range; our report contains the complete table of all results, confirming it has **really** been tested.

Ando AQ6317B Optical Spectrum Analyzer (OSA) Repair and Calibration Services

The AQ6317B OSA goes through a premium calibration to ensure it meets or exceeds manufacturers published specifications. The equipment is shipped with a comprehensive 9-page calibration report including before-and-after data, a calibration sticker and its own dated calibration certificate. A report from other labs with less data points reflects a not completely calibrated unit.

Simbol Test Systems is the only North America independent lab with the capability of mechanically realigning Ando/Yokogawa monochromators as found in the AQ6317B. If your unit does not pass calibration, we will quote a complete repair and get your OSA back to perfect working condition.

List of specifications calibrated

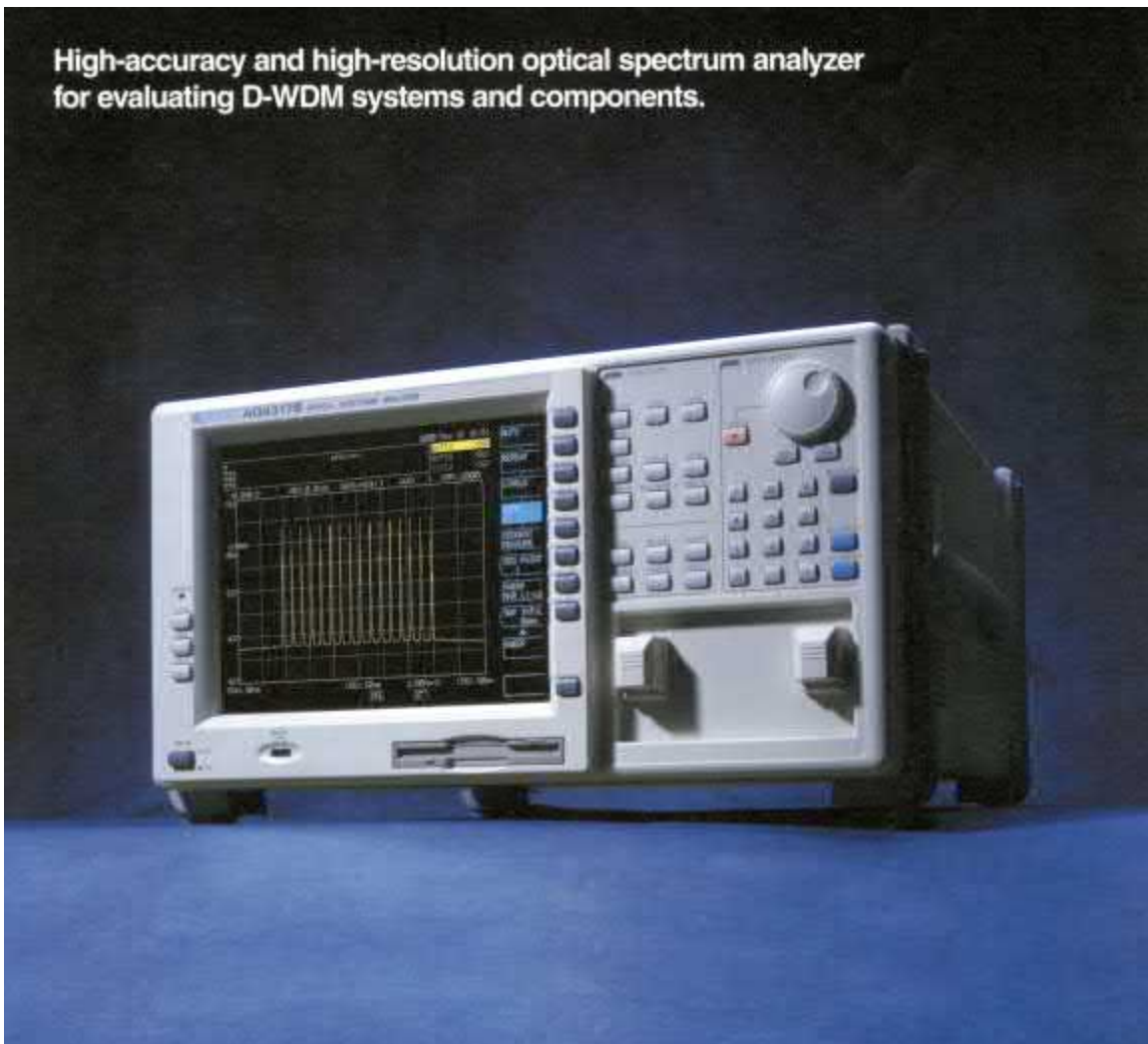
- Optical Alignment
- Wavelength Calibration with Internal Cell
- Wavelength Accuracy cal external source
- Wavelength Resolution Accuracy
- Wavelength Reproducibility
- Wavelength Linearity
- Level Accuracy
- Level Flatness
- Level Response
- Waveform Symmetry, Flatness and Ripple
- Stability (Wavelength and Power)
- Polarization Dependency
- Dynamic Range
- Power Linearity

Traceability: Instrumentation used during this calibration is traceable to N.I.S.T (National Institute of Standards and Technology) or C.N.R.C. (Canadian National Research Council).



Optical Spectrum Analyzer 6317B

High-accuracy and high-resolution optical spectrum analyzer
for evaluating D-WDM systems and components.



High-accuracy and high-resolution optical spectrum analyzer for evaluating DWDM systems and components

The AQ6317B is an advanced optical spectrum analyzer for a wide range of applications, including light source evaluation, measurement of loss wavelength characteristics in optical devices, and waveform analysis of WDM (Wavelength Division Multiplexing) systems.

Especially at C-band and L-band, the unit achieves high wavelength accuracy and wavelength linearity, and can evaluate optical devices for WDM. Analysis functions make operation and expandability simple.

The AQ6317B contains the latest Ando technology for optical spectrum analyzers. A reference equipment for the next generation.

In comparison with the former model, the wavelength accuracy of the AQ6317B has been improved to ± 20 pm, and it is specified as for the L-band as well WDM analysis function and notch width analysis function are improved, and multi-channel N F analysis function and optical filter analysis function are newly added. It has become much easier to use with other improvements, such as sweep speed-up.



Features

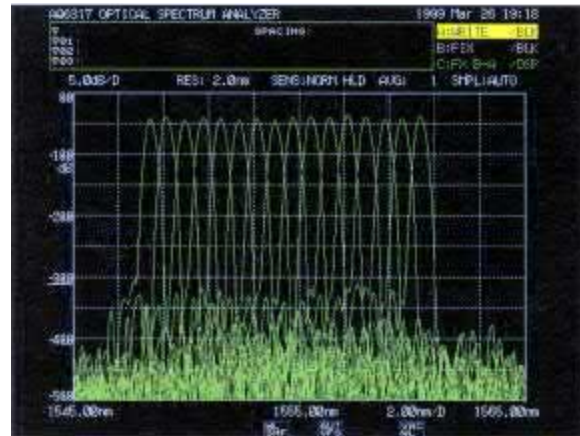
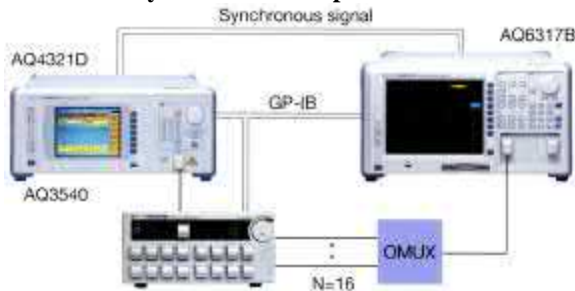
- **Wide dynamic range for 50 GHz WDM-Signals** The dynamic range is 70 dB at peak ± 0.4 nm, and 60 dB at peak ± 0.2 nm. High-resolution measurement achieves wide dynamic range with 50 GHz spacing WDM system.
- **High wavelength accuracy** Provides ± 0.02 nm wavelength accuracy at 1520 to 1580 nm, and ± 0.04 nm at 1580 to 1620 nm, with ± 0.01 nm wavelength linearity, making it especially useful for high-precision loss wavelength characteristics and other evaluation of WDM devices. The wavelength scale indicates both in air and in vacuum.
- **High wavelength resolution** Achieves wavelength resolution of 0.015 nm.
- **Versatile analysis functions** Analysis functions for WDM and other optical devices (LD, LED, FBG, etc).

- **Synchronous sweep** In conjunction with an AQ4321 Tunable Laser Source, much higher wavelength resolution/wide dynamic range can be achieved by high-speed synchronous sweep.
- **High sensitivity** High sensitivity allows measurement of light at down to -90 dBm, covering from 1200 to 1650 nm.
- **Low polarization dependency** Measurements such as gain of optical amplifier can be preceded accurately because polarization dependency is suppressed as low as ± 0.05 dB.
- **High-level accuracy** Accurate within ± 0.3 dB.
- **High power measurement: Max +20 dBm (100 mW)** Even high-power output from an optical amplifier can be measured directly without an optical attenuator.
- **9.4-inch color LCD**
- **Pulsed light can be measured**
- **Three individual trace memories**

Applications

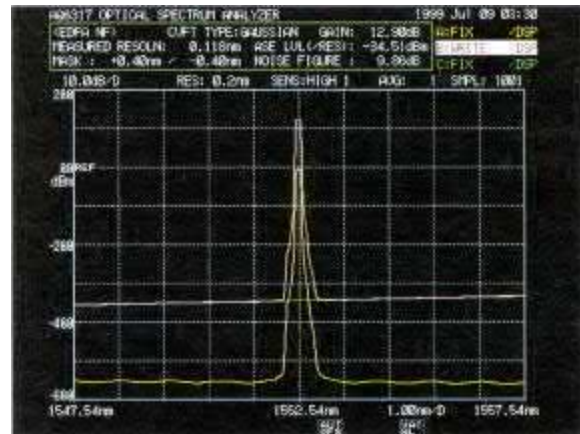
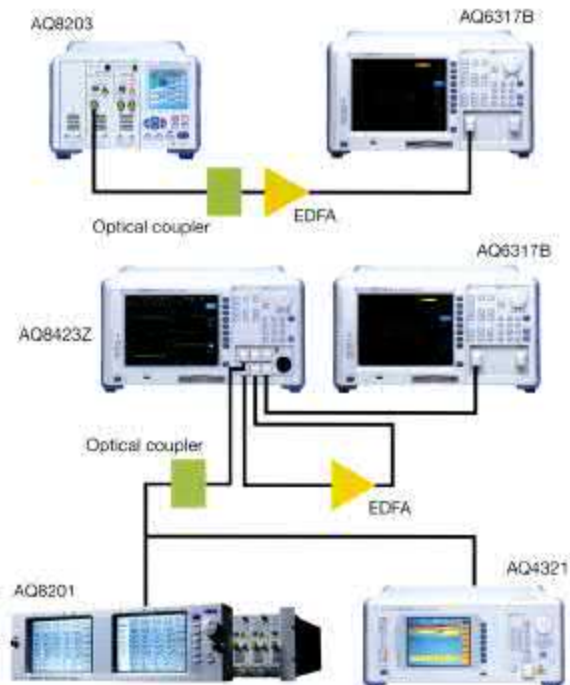
• **Optical Multiplexer evaluation** In conjunction with the AQ4321 Tunable Laser Source, the AQ6317B can achieve high wavelength resolution/wide dynamic range with high-speed synchronous sweep function, and result insertion loss, passed central wavelength and linearity as evaluation parameter of optical MUX/DEMUX.

Configuration example for measurement with synchronous sweep function

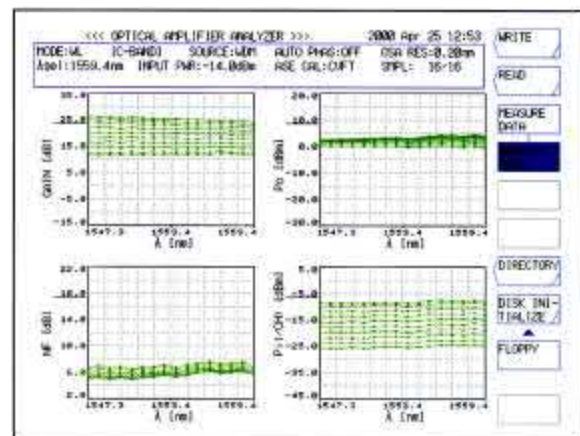


Measures transmission characteristics of 16-channel AWG and displays results on AQ6317B's screen.

• **Optical fiber amplifier (EDFA) evaluation** The ASE interpolation method is used to measure gain and NF, key parameters for optical fiber amplifier evaluation. In conjunction with the AQ8423Z optical amplifier analyzer, the system can accurately measure gain and NF with the pulse method, which is optimum for evaluation of WDM optical fiber amplifiers.



Measurement example using EDFA analysis function (Measurement results on AQ6317B's screen)



Measurement example of wavelength dependency of gain/NF of EDFA (Measurement results on AQ8423Z's screen)

Specifications

Applicable fibers		SMF and GI (50/125 Nm)
Measurement wavelength range ①		600 to 1750 nm
Wavelength accuracy ①, ②		±0.02nm (1520 to 1580nm , after calibration with build-in reference light source) ±0.04 nm (1580 to 1620nm , after calibration with build-in reference light source) ±0.5 nm (600 to 1750nm)
Wavelength linearity ①, ③		±0.01nm (1520 to 1580nm) ±0.02nm (1580 to 1620nm)
Wavelength repeatability ①, ③		±0.005 nm (1 min)
Wavelength resolution ①, ③		Max. resolution: 0.015nm or better (1520 to 1620nm, resolution setting: 0.01nm) Resolution setting: 0.01, 0.02, 0.05, 0.1, 0.2, 0.5, 1.0, 2.0nm
Resolution accuracy ②, ③		±5 %: (1300 to 1650nm, resolution: 0.05nm or more, resolution correction: ON)
Measurement level range ②, ③		-90 to +20dBm (1200 to 1650nm, sensitivity: HIGH3) -80 to +20 dBm (1000 to 1200nm, sensitivity: HIGH3) -60 to +20 dBm (600 to 1000nm, sensitivity: HIGH3)
Level accuracy ②, ③		±0.3 dB (1310/1550nm, input: -30dBm, sensitivity: HIGH 1-3)
Level linearity ②, ③		±0.05 dB (input: +10 to -50 dBm, sensitivity: HIGH1-3)
Level flatness ②, ③		±0.1 dB (1520 to 1580 nm), ±0.2 dB (1580 to 1620nm)
Polarization dependency ②, ③		±0.05 dB (1550/1600nm), ±0.05 dB typ. (1310nm)
Dynamic range ③		60 dB (1523nm, peak ±0.2nm, resolution: 0.01nm) 70 dB (1523nm, peak ±0.4nm, resolution: 0.01nm) 45 dB (1523nm, peak ±0.2nm, resolution: 0.1nm)
Sweep time		Approx. 500 ms (Span: 100nm or less, sensitivity: NORM, HOLD, ave.: 1, 501 samples, resolution correction: OFF) Approx. 0.5 min (Span: 100nm or less, sensitivity: HIGH2, ave.: 1, 501 samples, NO signal)
Function	Automatic measurement	Program function (20 program, 200 steps), Long term measurement function
	Setting of measurement conditions	Span setting; 0 to 1200nm Measuring sensitivity setting: NORMAL HOLD/AUTO, MID, HIGH 1/2/3 Number of averaging setting: 1 to 1000 times Sample number setting: 11 to 20001, AUTO Automatic setting function of measurement conditions 0nm sweep function Pulse light measurement function TLS synchronized measurement function

Notes:

- ① Horizontal scale: wavelength display mode
- ② Vertical scale: absolute power display mode, resolution: 0.05nm or more, resolution correction: OFF
- ③ At 15 to 30 °C, with 10/125 μ m single mode fiber, after 2 hours of warm-up, after optical alignment

Function	Trace display	Level scale setting: 0.1 to 10 dB/div, linear Simultaneous display of 3 independent traces Max./Min. hold display Roll averaging display Calculation-between-traces display Normalized display Curve-fit display 3D display Split display Power density display, % display, dB/km display Frequency display of horizontal axis scale
	Data analysis	WDM waveform analysis (Wavelength/Level/SNR list display), Optical fiber amplifier analysis (GAIN/NF, Single/Multi channel), PMD analysis, Optical filter analysis, DFB-LD analysis, FP-LD analysis, SMSR analysis, Peak search, spectral width search, notch width search Delta marker (max. 200), line marker (analysis range specification) Graph display of long-term measurement result
	Others	Self-wavelength calibration function (using built-in reference light source) Wavelength/Level compensation function, label function, help function
Memory	Build-in FDD	3.5-inch 2HD
	Internal memory	32 traces, 20 programs
	File format	Trace file, program file, measuring condition file, Text file (trace, analysis data, etc.), Graphics file (BMP, TIFF)
Data output	Printer	Built-in high speed printer
Interface	Remote control	GP-IB (2 ports) TLS control interfaces (TTL)
	Others	Sweep trigger input (TTL) Sample enable input (TTL) Sample trigger input (TTL) Analog output (0 to 5 V) Video output (VGA)
Display		9.4-inch color LCD (Resolution: 640×480 dots)
Optical connector		FC (Standard)
Power requirements		AC 100 to 120/200 to 240 V, 50/60 Hz
Environmental conditions		Operating temperatures: 5 to 40°C Storage temperature: -10 to +50°C Humidity: 80%RH or less (No condensation)
Dimensions and mass		Approx. 425 (W) × 222 (H) × 450 (D) mm, approx. 30 kg

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