

For AQ6315 OSA users What's new for the AQ6374?



The AQ6374 is the successor model to the AQ6315 "Wide-range" Optical Spectrum Analyzer. With a range from 350 to 1750 nm, the AQ6374 is the only OSA that covers both visible light and the telecommunication wavelengths. It provides 40X faster measurement and vastly improved operability, maintainability as well as excellent optical performance equivalent to the AQ6315. New to the AQ6374 is equipped with a purge feature that reduces the influence of water vapor absorption to measurements.

40 times faster sweep

Faster measurement!

The AQ6374 sweeps up to 40 times faster than the AQ6315, thanks to the new monochromator design and high-speed measurement technology nurtured through the development of the AQ6370 series.

AQ6315: 20 minutes	AQ6374: 31 seconds	
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*Reference example: sensitivity: HIGH3, span: 50 nm, number of sampling points: 1001, resolution: 2 nm, double-speed mode

100 times more wavelength sampling

The AQ6374 has 100000 points of wavelength sampling (100 times more than the AQ6315). Thus, it can measure a broad wavelength range at high wavelength resolution with a single sweep.

In contrast, the AQ6315 has to divide the broad measurement range into multiple narrow segments and repeat the measurements multiple times to complete the full range, making an excessively long process.

AQ6374: 100001

AQ6315: 1001

Easy

Auto correction with optical maintenance! alignment and wavelength calibration

The AQ6374 can automatically correct errors due to misalignment of the monochromator caused by external shock or vibration. Since the AQ6315 does not have this feature, it must be returned to the factory for repair when there is an optical misalignment. Moreover, the AQ6374 can easily maintain the wavelength accuracy by calibrating a wavelength using a built-in reference light source, while the AQ6315 always requires an external reference source.

Precision Making

Bright, easy-to-see LCD

AQ6315's LCD is too dim!

Large 10.4-inch high-intensity color LCD display enables easy operation of the menu functions and helps identify fine details of the measurement waveforms.

Intuitive operation with USB mouse

The AQ6315's menu is limited to front panel push button access which can degrade over repeated use. The AQ6374 offers both the push buttons and a more intuitive menu access using a USB mouse and keyboard. This provides a much easier menu interface to change measurement settings, execute sweeps, as well as store data. The AQ6374 can pan and zoom the trace as desired with simple click and drag operations of the USB mouse.



LF AQ6370SR-02EN

Can you still even Data saving to USB storage find Floppy discs?

The AQ6315 utilized the antiquated floppy disc for data storage while the AQ6374 provides both internal storage (512 MB) and external USB storage (memory/HDD). This therefore provides vastly increased capacity and greater number of file handling, directory creation and flexible file naming benefits to ease your data management tasks.

High-speed remote control 100 times faster! and data transfer through Ethernet

The AQ6374 includes a modern high-speed processor and Ethernet interface. These features enable up to 100 times faster control and data transfer than the AQ6315's much slower GPIB interface.

As a result, the trace data saved in the internal memory of the AQ6374 can be easily and quickly copied to a PC. Furthermore, the AQ6374 also supports the control commands of the AQ6315 making it backwards compatible with pre-existing control programs written for the AQ6315.

AQ6315: GPIB AQ6374: Ethernet, GPIB, RS232

Real-time remote control and data analysis with AQ6374 Viewer

With the AQ6374 Viewer, you can remotely conduct measurements on the AQ6374 and see the OSA trace sweep on your PC in real time through the Ethernet link as if directly operating the actual AQ6374 on site. You can even transfer the measurement data from the OSA to your PC's memory to display and analyze traces using the software on the PC and free up the OSA to continue making measurements. This capability is an invaluable tool for analysis of issues at a remote production site as well as remotely monitoring longterm tests in a separate lab, for example.



*The Viewer is an optional application software installed on a PC.

Reduction of water vapor absorption

The water vapor (OH group) is detected in the upper Near-IR wavelength region and could overlap with or mask the spectral characteristics of the actual device under test in the affected regions. Because of the influence of light absorption, the AQ6315 sometimes cannot measure correctly. However, by continuously supplying a pure purge gas such as nitrogen to the monochromator through the ports on the back panel, the AQ6374 can virtually eliminate the influence of water vapor absorptions and provide much more reliable and accurate measurements than ever before.



*The waveforms are plotted with offset.

Comparison (AQ6315 vs. AQ6374)

	AQ6315	AQ6374
Wavelength range	350 to 1750 nm	
Wavelength resolution	0.05 to 10 nm	
Wavelength accuracy	0.05 nm	
Max. number of sampling points	1001	100001
Level range	+20 to -85 dBm	+20 to -85 dBm (typ.)
Dynamic range	60 dB	
Sweep speed*	20 Minutes	31 Seconds (40x Faster)
Wavelength calibration	External light source only	Built-in & external light source
Data storage	Internal: None External: FD	Internal: 512 MB External: USB
Number of traces	3	7
Purge feature	_	Yes
Built-in printer	Yes	_
Monochromator output	Yes (only B model)	_

*Reference example: sensitivity: HIGH3, span: 50 nm, number of sampling points: 1001, resolution: 2 nm, double-speed mode

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