

Specifications

Specifications		Display 10.4-inch color LCD 800×600 dots SVGA				
LCD screen	Measurement waveform	Strain distributions, Brillouin scattering spectrum, Brillouin scattering distribution (1 trace and 3D)				
	Measurement conditions	Measurement frequency, distance range optical pulse width, average times, etc.				
	Measurement result	Cursor distance, two points distance, difference of strain at two points, waveform of difference at strain				
Horizontal axis	Distance range	1, 2, 5, 10, 20, 40, 80km				
	Shift	0 to distance range				
	Readout resolution	Min. 5cm				
	Sampling points	Max. 20,000 points				
	Refractive index setting	1.00000 to 1.99999, 0.00001 step				
	Distance accuracy	$\pm(2.0 \times 10^{-5} \times \text{measurement distance (m)} + 0.2\text{m} + 2 \times \text{sample resolution (m)})$				
	Distance scale	km, mile, kf				
Vertical axis	Display range	-6 to +6% (or -60,000 to +60,000 μe)				
	Vertical scale	Strain distribution : 0.001, 0.002, 0.005, 0.01, 0.02, 0.05, 0.1, 0.2, 0.5, 1.0, 2.0% Brillouin spectrum : 1.0, 2.0, 5.0, 10.0 dB				
	Readout resolution	0.0001%				
	Strain scale	%, μe				
Wavelength	1.55 μm band					
Measurement frequency range	9.9 to 11.9 GHz					
Measurement frequency span	1, 2, 5, 10, 20, 50 MHz					
Average time setting	2^{10} to 2^{24}					
Strain measurement range ¹⁾	-1.5 to +1.5% (typ.)					
Pulse width	10 ns	20 ns	50 ns	100 ns	200 ns	
Distance resolution (m)	1	2	5	11	22	
Dynamic range (dB) ²⁾	2	6	10	13	15	at strain accuracy $\pm 0.004\%$ (2σ)
	—	—	8	11	13	at strain accuracy $\pm 0.003\%$ (2σ)
Strain measurement accuracy ³⁾	$\pm 0.004\%$ (2σ) ($\pm 0.01\%$)		$\pm 0.003\%$ (2σ) ($\pm 0.005\%$)			
Repeatability ⁴⁾	<0.04%		<0.02%			
Memory	3.5-inch floppy disk, Internal hard disk (5 GB or more)					
Interface	Keyboard	PS/2 connector				
	Mouse	PS/2 connector				
	VGA	15-pin D-sub connector (SVGA)				
	GP-IB	Compatible IEEE-488				
	Serial port	9-pin D-sub connector				
Optical connector	FC-SPC (or SC-SPC) ⁵⁾					
Printer	Internal high speed printer					
Power requirements	AC100 to 240 V 50/60 Hz 200 VA					
Environmental conditions	Operational temperature: 10 to 40°C, humidity: 85% RH or less (no condensation)					
	Storage temperature: 0 to 50°C					
Dimensions and mass	Approx. 445(W)×249(H)×495(D) mm, approx. 20kg					
Accessories	Instruction manual×1, power code×1, mouse×1, printer paper×2					
Laser class	Class 1M; IEC60825-1(2001)					

1) At single-mode (SM) fiber compatible ITU-T G.652.

2) Measurement conditions: Average times 2^{14} , frequency sweep span 10 MHz (5 MHz, at pulse width 100 ns or 200 ns), optical fiber loss of the standard deviation (2σ) of 100 consecutive data on strain distribution waveform of UV covered SM fibers with unstrained condition is within strain measurement accuracy ($\pm 0.003\%$ or 0.004%).

3) Measurement conditions: Average times 2^{14} , frequency sweep span 10 MHz (5 MHz, at pulse width 100 ns or 200 ns), standard deviation (2σ) of 100 consecutive data on strain distribution waveform of UV covered SM fibers with unstrained condition. The values in () are noise peak width on strain distribution waveform (sample value).

4) Measurement conditions: Average times 2^{14} , frequency sweep span 10 MHz (5 MHz, at pulse width 100 ns or 200 ns), change width of 10 consecutive data of any distance on strain distribution waveform of UV covered SM fibers with unstrained condition.

5) Optical connector SC-SPC is a factory option

Model and Suffix Code

Product	Model	Suffix Code	Note
AQ8603	813919500		
Optical Fiber Strain Analyzer		-1	Power Voltage 100 to 120 V
		-5	Power Voltage 200 to 240 V
		-D	UL-3P Power Cord
		-F	CEE-C7 Power Cord
		-G	SAA-3P Power Cord
		-H	BS3Pcircle Power Cord
		-M	JIS3P Power Cord (with 3 to 2 Adaptor)
		-Q	BS3Psquare Power Cord
		/CE	CE Marking
		/SCC	SC Connector

Note



Pursuant to the Foreign Exchange and Foreign Trade Control Law, Japanese government approval may be required to export this product from Japan.
The information presented in this bulletin is subject to change without notice due to performance and quality improvements.

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