

AQ1100 MFT-OLTS

Multi Field Tester OLTS

Optical Loss Test Set

Supports MM850/1300 nm and SM1310/1550/1625 nm,
and up to +27 dBm with optical power meter



Light Source + Optical Power Meter in One

- Light Sources (3 models)
 - SM1310/1550 nm
 - SM1310/1550/1625 nm
 - MM850/1300 nm and SM1310/1550 nm
- Optical Power Meter Selections
 - Standard: +10 to -70 dBm
 - High power: +27 to -50 dBm
 - PON : 1490/1550 nm Parallel measurement

Excellent Functionality and Operability

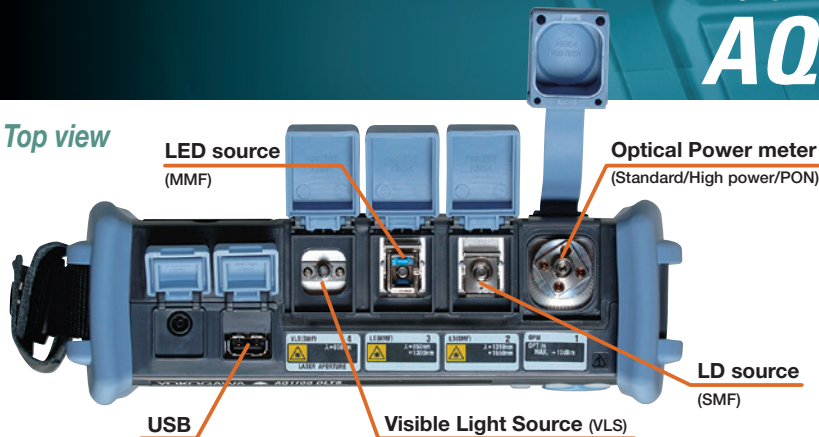
- 5.7 inch color LCD for easy viewing
- Multi-Language support
- Multi-core fiber measurement with a pair set
- Auto Loss Testing
- USB port for data storage
- PING Test function (optional)
- Visible light Source (optional)

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Multi Field Tester OLTS

AQ1100 MFT-OLTS

Top view



Specifications

Models		AQ1100A	AQ1100B	AQ1100D
Light source	Wavelength (nm) ¹⁾	1310/1550 ±25	1310/1550/1625 ±25	1310/1550 ±25 (SM) 850/1300 ±30 (GI)
	Light emitting device	LD	LD	LD (SM), LED (GI)
	SM (LD) Spectral width (nm) ^{1) 2)}	<5 / <10	<5 / <10 / <10	<5 / <10
	GI (LED) Spectral width (nm) ^{1) 3)} (FWHM)	—	—	40 (typ)/140 (typ)
	Optical output level (dBm)	-3 ±1	-3 ±1	SM: -3 ±1, GI: -20 ±1
	Level stability (dB) ⁴⁾	±0.05	±0.05	SM: ±0.05, GI: ±0.1
	Modulation mode	CW, CHOP (270 Hz, 1 kHz, 2 kHz) ⁵⁾		
	Applicable fiber	SM (ITU-T G.652), GI (50/125 μm)		
	Optical Connector	SC, FC, 1.25 mm dia. ferrule, SC/Angled-PC	SC, FC, 1.25 mm dia. ferrule	SC, FC, 1.25 mm dia. ferrule
	Laser class	Class 1		

Built-in Optical Powermeter			
	Standard (/SPM)	High Power (/HPM)	PON (/PPM)
Wavelength setting	Simple mode: 850/1300/1310/1490/1550/1625/1650 nm Detail mode: 800 nm to 1700 nm, 1 nm step CWDM mode: 1270 nm to 1610 nm 20 nm step		1310/1490/1550 nm (1490 nm and 1550 nm can be measured separately)
Applicable fiber	SM (ITU-T G.652) GI (50/125 μm)		
Power range	+10 to -70 dBm (CW) +7 to -70 dBm (CHOP)	+27 to -50 dBm (CW) +24 to -50 dBm (CHOP) ⁶⁾	+27 to -50 dBm: 1550 nm +10 to -70 dBm: 1310/1490 nm
Noise level	0.5 nW (-63 dBm, 1310 nm)	50 nW (-43 dBm, 1310 nm)	0.5 nW (-63 dBm, 1310 nm) 50 nW (-43 dBm, 1550 nm)
Uncertainty under standard conditions ⁷⁾	±5%	±5%	±0.5 dB (10%)
Readout resolution	0.01		
Level unit	Absolute: dBm, mW, μW, nW Relative: dB		
Modulation mode	CW CHOP (270/1 k/2 kHz)	CW CHOP (270/1 k/2 kHz)	CW
Average function	1, 10, 50 and 100 times		
Logging function	Measurement intervals: 500 ms, 1 s, 2 s, 5 s, 10 s, Measurement count: 10 to 1000		

General Specifications	
Display	5.7 inch color LCD (640×480)
Loss test mode (only with /SPM or /HPM)	Auto loss test, Loopback test, Multi-core loss test
Internal memory	128 MByte
External interface	USB1.1 TypeA and TypeB (mini) 1 ea.
Power supply	AC adaptor: 100 to 120 VAC, 200 to 240 VAC, 50/60 Hz Battery: Li-ion, duration 6 hour ⁸⁾ , charging time 5 hours
Dimensions and mass	217.5 mm (W) × 157 mm (H) × 74 mm (D) (excl. projections) Approx. 1 kg (incl. internal battery)
Environmental condition	Operating environment: Temperature 0 to 45°C (0 to 35°C when charging the battery) Humidity 85% RH or less (no condensation) Storage environment: Temperature -20 to 60°C, Humidity 85% RH or less (no condensation)
Safety standard	EN61010-1 EN60825-1: 2014, IEC60825-1: 2007, GB7247.1-2012: Class 1 ¹⁰⁾ /Class 3R ¹¹⁾ FDA: 21CFR1040.10 ¹²⁾
EMC	EN61326-1 Class A, EN55011 Class A Group 1, C-Tick EN55011 Class A Group 1

Factory Installed Options		
Visible light source (VLS)	Optical connector	2.5 mm dia. ferrule type
	Wavelength and optical output level	650 nm ±20 nm, peak value -3 dBm or more
	Modulation mode	CHOP 2 Hz
	Laser class	Class 3R
LAN interface (/LAN)	10BASE-T/100BASE-TX, RJ-45 connector	Ping test, PC remote control

The specifications are at 23°C ±2°C unless otherwise noted. ¹⁾ 23°C ±2°C, CW ²⁾ RMS (2σ -20 dB) ³⁾ Envelope (-3 dB) ⁴⁾ for 15 minutes at a constant temperature within 23°C ±2°C ⁵⁾ CW and 270 Hz only at 850 nm and 1300 nm ⁶⁾ Except for 850 nm and 1650 nm ⁷⁾ 23°C ±2°C, standard conditions (CW, 1310 nm, 100 μW, SMF), at 1550 nm for /PPM ⁸⁾ LD ON. (in screen save mode) ⁹⁾ The visible light sources

Model and suffix codes

Model	Suffix code	Descriptions
AQ1100A		LS: 1310/1550 nm
AQ1100B		LS: 1310/1550/1625 nm
AQ1100D		LS: MM850/1300, SM1310/1550 nm
Language	-HE	English
	-HC	Chinese/English
	-HK	Korean/English
	-HR	Russian/English
Power cord	-D	UL/CSA standard, 125 V
	-F	VDE standard, 250 V
	-R	Australian standard, 250 V
	-Q	BS/Singaporean standard, 250 V
	-H	Chinese standard, 250 V
	-P	Korean standard, 250 V
Optical power meter	-SPM	Optical power meter
	-HPM	High power optical power meter
	-PPM (AQ1100A only)	PON Optical power meter
Optical connector	-USC	SC type (LS port, and OPM port)
	-UFC	FC type (LS port, and OPM port)
	-ULC	LC type (LS port, and OPM port for -PPM), 1.25 mm dia. adapter (OPM port for -SPM and -HPM)
	-ASC (except AQ1100D)	SC/Angled-PC type (LS port, and OPM port for -PPM), SC type (OPM port for -SPM and -HPM)
Factory installed options	/VLS	Visible light source, optical connector: 2.5 mm dia. ferrule
	/LAN	Ethernet (10/100BASE-TX)
	/SB	Shoulder belt
AC adapter	/AC1	Alternative AC adapter

¹⁰⁾ Standard Accessories
Power cord, AC adapter, battery pack, hand belt, user's manual (CD-ROM), operation guide

Accessories

Model	Suffix code	Descriptions
SU2006A		Soft carrying case
735480 (For optical power meters)	-SCC	Connector adapter (SC)
	-FCC	Connector adapter (FC)
735481	-LMC	Ferrule adapter (1.25 mm dia.)
SU2005A (For LS and PON optical power meter)	-SCC	Universal adapter (SC)
	-FCC	Universal adapter (FC)
	-LCC	Universal adapter (LC)
739874 (AC adapter)	-D	UL/CSA standard, 125 V
	-F	VDE standard, 250 V
	-R	Australian standard, 250 V
	-Q	BS/Singaporean standard, 250 V
	-H	Chinese standard, 250 V
	-P	Korean standard, 250 V
	-T	Taiwanese standard, 125 V
	-N	Brazilian standard, 250 V
739882		Battery pack (Spare)
B8070CY		Shoulder belt

¹⁰⁾ CLASS 1(EN60825-1: 2014, IEC60825-1: 2007, GB7247.1-2012)
¹¹⁾ CLASS 3R(IEC60825-1: 2007, GB7247.1-2012)
¹²⁾ 21CFR1040.10



Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No.38, dated June 24, 2007
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