

Anritsu Advancing beyond

CMA5 Series

Optical Loss Tester/Light Source/Optical Power Meter



Optical Loss Tester/Light Source/Optical Power Meter CMA5 Series

Compact Lightweight Model for Optical Fiber I&M

The CMA5 series (Optical Loss Tester/Light Source/Optical Power Meter) measures optical loss and power for optical fiber I&M. The CMA5 series are compact and lightweight, its excellent cost performance and simple operation with the required minimum number of functions make it ideal for onsite I&M. Service engineers can choose from three models — optical loss tester, optical source, and optical power meter — to match the onsite application.

Optical Loss Tester

- All-in-one light source and optical power meter supporting SM (1310 nm/1550 nm) and MM (850 nm/1300 nm) fiber
- Compact and lightweight (300 g)
- Measures +23 dBm max. optical power*1
- 20 hours of battery (dry cell) operation*2
- Useful fiber identification modulation function (270 Hz, 1 kHz, 2 kHz and CW)

*1: SM type (CATV model) only
*2: With 9-V alkaline batteries using optical source and optical power meter

Optical Loss Tester*	
SM Model	1310 nm/1550 nm (Power Meter: Standard)
	1310 nm/1550 nm (Power Meter: CATV)
MM Model	850 nm/1300 nm

*: One 9 V alkaline battery as standard. No AC adapter.



*: Photographs about same size as actual instruments.

Optical Loss Tester/Light Source/Optical Power Meter CMA5 Series

Optical Loss Tester

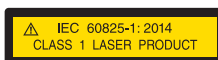
Specifications

Model	5LT35	5LT35C	5LT83
Light Source Port			
Supported Optical Fiber	10 μm/125 μm SM fiber, PC-polished		62.5 μm/125 μm MM fiber, PC-polished
Emitter Type	LD		
Wavelength	1310 nm/1550 nm ±20 nm		850 nm/1300 nm ±20 nm
Output Power	≥-7 dBm*1, *2		≥-7 dBm*3
Source Line Width (FWHNM)	≤5 nm		
Modulation Output	CW, 270 Hz, 1 kHz, 2 kHz (±2%)		
Stability	±0.05 dB/15 minutes		
	±0.10 dB/8 hours (1310 nm/1550 nm), ±0.15 dB/8 hours (850 nm/1300 nm)		
Connector Type	FC/PC, SC/PC, ST/PC (user replaceable)		
Optical Power Meter Port			
Supported Optical Fiber	SM (10 μm/125 μm)/MM (50 μm/125 μm, 62.5 μm/125 μm)		
Detector Type	InGaAs		
Setting Wavelength	850, 1300, 1310, 1490, 1550, 1625 nm		
Measurement Range	-60 to +5 dBm*2 -50 to +10 dBm (850 nm)*2	-40 to +23 dBm*2	-60 to +5 dBm*2 -50 to +10 dBm (850 nm)*2
Accuracy	±0.2 dB*4, *6, ±0.5 dB*5		
Linearity	±0.2 dB*2		±0.5 dB
Display Resolution	0.01 dB		
Auto-Zero Setting	Supported		
Warm-up Time	60 s		
Connector Type	FC, SC, ST (user replaceable)		
General Specifications			
Input Power	9 V Alkaline battery, or optional AC adapter (input: 100 V to 240 V, 50 Hz to 60 Hz, output: 7.5 V)		
Battery Operation	40 hours min. (Optical Power Meter), 20 hours min. (Optical Power Meter & Light Source)		
Auto Off Function	5 minutes		
Others	Reference setting function, Loop loss testing function		
Operating Temperature Range	-10°C to +50°C		
Storage Temperature Range	-25°C to +60°C		
Relative Humidity	0 to 95% (no condensation)		
Dimensions	75 (W) × 145 (H) × 25 (D) mm (2.9 × 5.7 × 1 inch) (Excluding Rubber Protective Cover)		
Mass	300 g (0.66 lbs) or less (Excluding Rubber Protective Cover and 9 V Alkaline Battery)		
Warranty	3 years		
Laser Safety*7	IEC 60825-1: 2014 CLASS1, 21CFR 1040.10 and 21CFR 1040.11 Excludes deviations caused by conformance to Laser Notice No. 56 dated May 8, 2019		
CE	EMC	2014/30/EU, EN61326-1, EN61000-3-2	
	LVD	2014/35/EU, EN61010-1	
	RoHS	2011/65/EU, (EU) 2015/863, EN IEC 63000: 2018	
UKCA	EMC	S.I. 2016 No.1091, EN 61326-1, EN61000-3-2	
	LVD	S.I. 2016 No.1101, EN 61010-1	
	RoHS	S.I. 2012 No.3032, EN IEC 63000: 2018	

Specifications assured at 25°C (±3°C)

- *1: When SM fiber (10/125 μm, NA = 0.1, PC polish) to connected.
 *2: When GI fiber (62.5/125 μm, NA = 0.257, PC polish) is connected.
 *3: If a 50 μm/125 μm MM fiber is connected to the optical output port, the rated output power (≥-7 dBm) can not be obtained due to differences in core diameter, NA, and fiber excitation condition. The optical output power can drop by about 2 to 10 dB from the rated output power.
 *4: Wavelength 1300 nm, GI fiber (62.5/125 μm, PC polish) to connected, Input CW light.
 *5: Wavelength 850 nm, GI fiber (62.5/125 μm, PC polish) to connected, Input CW light.

- *6: Wavelength 1310 nm, 1550 nm, SM fiber (ITU-T G.652, Using Anritsu's reference PC polish connector fiber) to connected, Input CW light.
 *7: Safety measures for laser products
 This product complies with optical safety standards in 21CFR1040.10 and IEC60825-1; the following descriptive labels are affixed to the product.



This product complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC60825-1 Ed.3., as described in Laser Notice No.56 dated May 8, 2019

Ordering Information

Please specify the model/order number, name and quantity when ordering.

The names listed in the chart below are Order Names. The actual name of the item may differ from the Order Name.

Model/Order No.	Description
5LT35-YY*8	Main frame
5LT35C-YY*8	Optical Loss Tester 1310 nm/1550 nm (Standard Power Meter)
5LT83-YY*8	Optical Loss Tester 1310 nm/1550 nm (CATV Power Meter)
	Optical Loss Tester 850 nm/1300 nm (Standard Power Meter)
	Standard accessories
	CMA5 Optical Loss Tester Operation Manual: 1 pc
	Rubber Protective Cover: 1 pc
	9 V Alkaline Battery*9,*11: 1 pc

- *8: Specify one connector adapter at YY (FU = FC/PC, SU = SC/PC, TU = ST/PC).
 The specified connector adapter is fitted at each optical source and power meter connector.
 *9: This battery is not CE-compliant.
 *10: This product must not be exported to China.
 *11: This battery is not included when sold in the EMEA region.

Model/Order No.	Description
	Accessories
GN-3HH-CASE	Hard Case (for two CMA5 series)
CMA5-POUCH-A	Carrying Pouch/Shoulder Strap
CMA5-BAT*9	9 V Alkaline Battery
Z1525A*10	AC Adapter (CMA5)
CMA5-AD-LS-FC	FC Connector Adapter (Light Source Port)
CMA5-AD-LS-SC	SC Connector Adapter (Light Source Port)
CMA5-AD-LS-ST	ST Connector Adapter (Light Source Port)
CMA5-AD-LS-ALL3	Connector Adapter (FC, SC and ST)
CMA5-AD-PM-FC	FC Connector Adapter (Power Meter Port)
CMA5-AD-PM-SC	SC Connector Adapter (Power Meter Port)
CMA5-AD-PM-ST	ST Connector Adapter (Power Meter Port)
CMA5-AD-PM-ALL3	Connector Adapter (FC, SC and ST)
J1530A	SC Plug-in Converter (UPC(P)-APC(J))
J1532A	FC Plug-in Converter (UPC(P)-APC(J))
J1534A	LC-SC Plug-in Converter (for SM, SC(P)-LC(J))
J1535A	LC-SC Plug-in Converter (for MM, SC(P)-LC(J))
	*62.5 μm/125 μm type

Optical Loss Tester/Light Source/Optical Power Meter CMA5 Series

Light Source

- Supports MM model (850 nm/1300 nm), SM model (1310 nm/1550 nm)
- Lightweight at only 250 g
- 16 hours of continuous running with 9 V alkaline battery
- Light source for fiber identification (270 Hz, 1 kHz, 2 kHz and CW)

Light Source*1	
SM Model	1310 nm/1550 nm
MM Model	850 nm/1300 nm

*1: One 9 V alkaline battery as standard*6, *8. No AC adapter.

Specifications

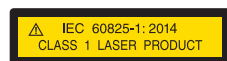
Model/Order No.	5L83	5L35
Emitter Type	LD	
Wavelength	850/1300 ±20 nm	1310/1550 ±20 nm
Output Power*2	-7 dBm*3 (62.5 µm/ 125 µm MM fiber)	-7 dBm (SM fiber)
Source Line Width (FWHM)	<5 nm	
Modulation Output	CW, 270 Hz, 1 kHz, 2 kHz	
Stability (8 hours)	±0.1 dB (25°C)	
Connector Type	FC, ST, SC (User replaceable)	
Battery Operation Time	16 h (9 V alkaline battery)	
Input Power	9 V (9 V alkaline battery)	
AC Adapter (Option)	Input: 100 V to 240 V, 50 Hz to 60 Hz, Output: 7.5 V	
Operating Temperature Range	-10°C to +50°C	
Storage Temperature Range	-25°C to +60°C	
Relative Humidity	0 to 95% (no condensation)	
Dimensions	75 (W) × 145 (H) × 25 (D) mm (excl. rubber cover)	
Mass	250 g	
Warranty	3 years	
Laser Safety*4	IEC 60825-1: 2014 CLASS 1 21CFR 1040.10 and 21CFR 1040.11 Excludes deviations caused by conformance to Laser Notice No. 56 dated May 8, 2019	
CE	EMC	2014/30/EU, EN61326-1, EN61000-3-2
	LVD	2014/35/EU, EN61010-1
	RoHS	2011/65/EU, (EU) 2015/863, EN IEC 63000: 2018
UKCA	EMC	S.I. 2016 No.1091, EN 61326-1, EN61000-3-2
	LVD	S.I. 2016 No.1101, EN 61010-1
	RoHS	S.I. 2012 No.3032, EN IEC 63000: 2018

*2: Typical (25°C)

*3: If a 50 µm/125 µm MM fiber is connected to the optical output port, the rated output power (≥-7 dBm) can not be obtained due to differences in core diameter, NA, and fiber excitation condition. The optical output power can drop by about 2 to 10 dB from the rated output power.

*4: Safety measures for laser products

This product complies with optical safety standards in 21CFR1040.10 and IEC 60825-1; the following descriptive labels are affixed to the product.



This product complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC60825-1 Ed.3., as described in Laser Notice No.56 dated May 8, 2019

Ordering Information

Please specify the model/order number, name and quantity when ordering.

The names listed in the chart below are Order Names.

The actual name of the item may differ from the Order Name.

Model/Order No.	Description
5L35-YY*5 5L83-YY*5	Main frame Light Source: 1310 nm/1550 nm (Dual wavelength for SM fiber) Light Source: 850 nm/1300 nm (Four wavelength for MM fiber)
	Standard accessories CMA5 Operation Manual: 1 pc Rubber Protective Cover: 1 pc 9 V Alkaline Battery*6, *8: 1 pc
GN-3HH-CASE CMA5-POUCH-A CMA5-BAT*6 Z1525A*7 CMA5-AD-LS-FC CMA5-AD-LS-SC CMA5-AD-LS-ST CMA5-AD-LS-ALL3	Accessories Hard Case (for two CMA5 series) Carrying Pouch/Shoulder Strap 9 V Alkaline Battery AC Adapter (CMA5) FC Connector Adapter SC Connector Adapter ST Connector Adapter Connector Adapter (FC, SC and ST)



*: Photographs about same size as actual instruments.

*5: Specify one connector adapter for YY.

FU = FC/PC, SU = SC/PC, TU=ST/PC, FA = FC/APC, SA = SC/APC
(FA = FC/APC and SA = SC/APC cannot be selected for 5L83-YY.)

*6: This battery is not CE-compliant.

*7: This product must not be exported to China.

*8: This battery is not included when sold in the EMEA region.

Optical Loss Tester/Light Source/Optical Power Meter CMA5 Series

Optical Power Meter

- Lightweight at only 250 g
- 40 hours of continuous running with 9 V alkaline battery
- Measures up to +23 dBm optical power*1

*1: CATV model

Specifications

Model/Order No.	5P100	5P100C
Connector Type	FC, SC, ST (User replaceable)	
Fiber Type	MM, SM	
Detector Type	InGaAs-PD	
Setting Wavelength	850/1300/1310/1490/1550/1625 nm	
Measurement Range	-60 to +10 dBm -50 to +10 dBm (850 nm)	-50 to +23 dBm
Accuracy	±0.2 dB*3, *4, ±0.5 dB*5	
Linearity*6	±0.2 dB @ 1310/1550 nm (-60 to +5 dBm) ±0.5 dB @ 850 nm (-50 to +5 dBm)	±0.2 dB @ 1310/1550 nm (-40 to +23 dBm) ±0.5 dB @ 850 nm (-40 to +23 dBm)
Display Resolution	0.01 dB	
Modulation Detection	2 kHz modulation	
Display	4-digit, 7-segment display LCD	
Others	Reference setting function, battery level display, automatic power OFF	
Battery Operation Time	40 hours min. (9 V alkaline battery)	
Input Power	9 V (one alkaline battery)	
AC Adapter (Option)	Input: 100 V to 240 V, 50 Hz to 60 Hz, Output: 7.5 V	
Operating Temperature Range	-10°C to +50°C	
Storage Temperature Range	-25°C to +60°C	
Relative Humidity	0 to 95% (no condensation)	
Dimensions	75 (W) × 145 (H) × 25 (D) mm (excl. rubber cover)	
Mass	250 g	
Warranty	3 years	
CE	EMC	2014/30/EU, EN61326-1, EN61000-3-2
	LVD	2014/35/EU, EN61010-1
	RoHS	2011/65/EU, (EU) 2015/863, EN IEC 63000: 2018
UKCA	EMC	S.I. 2016 No.1091, EN 61326-1, EN61000-3-2
	LVD	S.I. 2016 No.1101, EN 61010-1
	RoHS	S.I. 2012 No.3032, EN IEC 63000: 2018

*3: Wavelength 1300 nm, GI fiber (62.5/125 μm, PC polish) to connected, Input CW light.

*4: Wavelength 1310 nm, 1550 nm, SM fiber (ITU-T G.652, Using Anritsu's reference PC polish connector fiber) to connected, Input CW light.

*5: Wavelength 850 nm, GI fiber (62.5/125 μm, PC polish) to connected, Input CW light.

*6: 25°C

Ordering Information

Please specify the model/order number, name and quantity when ordering.
The names listed in the chart below are Order Names.
The actual name of the item may differ from the Order Name.

Model/Order No.	Description
5P100-YY*7	Main frame Optical Power Meter (Standard): -60 to +10 dBm
5P100C-YY*7	Optical Power Meter (CATV): -50 to +23 dBm
	Standard accessories
	CMA5 Operation Manual: 1 pc
	Rubber Protective Cover: 1 pc
	9 V Alkaline Battery*8, *10: 1 pc
	Accessories
GN-3HH-CASE	Hard Case (for two CMA5 series)
CMA5-POUCH-A	Carrying Pouch/Shoulder Strap
CMA5-BAT*8	9 V Alkaline Battery
Z1525A*9	AC Adapter (CMA5)
CMA5-AD-PM-FC	FC Connector Adapter
CMA5-AD-PM-SC	SC Connector Adapter
CMA5-AD-PM-ST	ST Connector Adapter
CMA5-AD-PM-ALL3	Connector Adapter (FC, SC and ST)

Optical Power Meter*2 (Calibrated for 850, 1300, 1310, 1490, 1550, and 1625 nm)	
Standard Model	-60 to +10 dBm
CATV Model	-50 to +23 dBm

*2: One 9 V alkaline battery as standard*8, *10, No AC adapter.



*: Photographs about same size as actual instruments.

*7: Specify one of FC, SC or ST connector adaptor for YY.

*8: This battery is not CE-compliant.

*9: This product must not be exported to China.

*10: This battery is not included when sold in the EMEA region.

MT9090A Series



μOTDR Module

Compact OTDR for full automatic verification of optical networks, FTTH-PON, Metro and Core.

MU909014/15

Gigabit Ethernet Module

Dedicated field test solution for installation and troubleshooting Ethernet links in access networks.

MU909060A



MU909014/15



MU909060A

ACCESS Master MT9085 Series

For WAN/MFH/DCI/FTTH Optical Fiber I&M

- Improved operability with powerful synergy of 8-inch touchscreen and hardware keys
- At-a-glance Pass/Fail evaluation using Fiber Visualizer
- All OTDR, OLTS, and Visible Light Source operations on one screen
- Short event dead zone of ≤ 0.8 m and high dynamic range of 46 dB max.
- Power meter option for measuring optical power up to +30 dBm





Specifications are subject to change without notice.

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