

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 (FWHM)	≤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) is 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 Optical Loss Tester 1310 nm/1550 nm (Standard Power Meter)
5LT35C-YY*8	
5LT83-YY*8	
	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 Optical Power Meter (CATV): -50 to +23 dBm
5P100C-YY*7	
	Standard accessories CMA5 Operation Manual: 1 pc Rubber Protective Cover: 1 pc 9 V Alkaline Battery*8, *10: 1 pc
GN-3HH-CASE	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)
CMA5-POUCH-A	
CMA5-BAT*8	
Z1525A*9	
CMA5-AD-PM-FC	
CMA5-AD-PM-SC	
CMA5-AD-PM-ST	
CMA5-AD-PM-ALL3	

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.

• **United States**

Anritsu Americas Sales Company

490 Jarvis Drive, Morgan Hill, CA 95037-2809, U.S.A.
Phone: +1-800-Anritsu (1-800-267-4878)

• **Canada**

Anritsu Electronics Ltd.

Americas Sales and Support

490 Jarvis Drive, Morgan Hill, CA 95037-2809, U.S.A.
Phone: +1-800-Anritsu (1-800-267-4878)

• **Brazil**

Anritsu Eletronica Ltda.

Praça Amadeu Amaral, 27 - 1 Andar
01327-010 - Bela Vista - Sao Paulo - SP, Brazil
Phone: +55-11-3283-2511
Fax: +55-11-3288-6940

• **Mexico**

Anritsu Company, S.A. de C.V.

Blvd Miguel de Cervantes Saavedra #169 Piso 1, Col. Granada
Mexico, Ciudad de Mexico, 11520, MEXICO
Phone: +52-55-4169-7104

• **United Kingdom**

Anritsu EMEA Ltd.

200 Capability Green, Luton, Bedfordshire, LU1 3LU, U.K.
Phone: +44-1582-433200
Fax: +44-1582-731303

• **France**

Anritsu S.A.

12 avenue du Québec, Immeuble Goyave,
91140 VILLEBON SUR YVETTE, France
Phone: +33-1-60-92-15-50

• **Germany**

Anritsu GmbH

Nemetschek Haus, Konrad-Zuse-Platz 1,
81829 München, Germany
Phone: +49-89-442308-0
Fax: +49-89-442308-55

• **Italy**

Anritsu S.r.l.

Spaces Eur Arte, Viale dell'Arte 25, 00144 Roma, Italy
Phone: +39-6-509-9711

• **Sweden**

Anritsu AB

Kistagången 20 B, 2 tr, 164 40 Kista, Sweden
Phone: +46-8-534-707-00

• **Finland**

Anritsu AB

Technopolis Aviapolis, Teknobulevardi 3-5 (D208.5.),
FI-01530 Vantaa, Finland
Phone: +358-20-741-8100

• **Denmark**

Anritsu A/S

c/o Regus Winghouse, Ørestads Boulevard 73, 4th floor,
2300 Copenhagen S, Denmark
Phone: +45-7211-2200

• **Spain**

Anritsu EMEA GmbH

Representation Office in Spain

Calle Manzanares 4, Primera planta, 28005 Madrid, Spain
Phone: +34-91-572-6761

• **Austria**

Anritsu EMEA GmbH

Am Belvedere 10, A-1100 Vienna, Austria
Phone: +43-(0)1-717-28-710

• **United Arab Emirates**

Anritsu A/S

Office No. 164, Building 17, Dubai Internet City
P. O. Box – 501901, Dubai, United Arab Emirates
Phone: +971-4-3758479

• **India**

Anritsu India Private Limited

6th Floor, Indigube ETA, No.38/4, Adjacent to EMC2,
Doddanekundi, Outer Ring Road, Bengaluru – 560048, India
Phone: +91-80-6728-1300
Fax: +91-80-6728-1301

• **Singapore**

Anritsu Pte. Ltd.

1 Jalan Kilang Timor, #07-04/06 Pacific Tech Centre
Singapore 159303
Phone: +65-6282-2400
Fax: +65-6282-2533

• **Vietnam**

Anritsu Company Limited

16th Floor, Peakview Tower, 36 Hoang Cau Street, O Cho Dua Ward,
Dong Da District, Hanoi, Vietnam
Phone: +84-24-3201-2730

• **P.R. China (Shanghai)**

Anritsu (China) Co., Ltd.

Room 2301-2303, Tower A, New Caohejing International Business
Center No. 391 Gui Ping Road, Shanghai, 200233, P.R. China
Phone: +86-21-6237-0898
Fax: +86-21-6237-0899

• **P.R. China (Hong Kong)**

Anritsu Company Ltd.

Unit 1006-7, 10/F., Greenfield Tower, Concordia Plaza,
No. 1 Science Museum Road, Tsim Sha Tsui East,
Kowloon, Hong Kong, P.R. China
Phone: +852-2301-4980
Fax: +852-2301-3545

• **Japan**

Anritsu Corporation

8-5, Tamura-cho, Atsugi-shi, Kanagawa, 243-0016 Japan
Phone: +81-46-296-6509
Fax: +81-46-225-8352

• **Korea**

Anritsu Corporation, Ltd.

8F, A TOWER, 20, Gwacheondaero 7-gil, Gwacheon-si,
Gyeonggi-do, 13840, Republic of Korea
Phone: +82-2-6259-7300
Fax: +82-2-6259-7301

• **Australia**

Anritsu Pty. Ltd.

Unit 20, 21-35 Ricketts Road, Mount Waverley, Victoria 3149, Australia
Phone: +61-3-9558-8177
Fax: +61-3-9558-8255

• **Taiwan**

Anritsu Company Inc.

7F, No. 316, Sec. 1, NeiHu Rd., Taipei 114, Taiwan
Phone: +886-2-8751-1816
Fax: +886-2-8751-1817