# **Designed with the Features that Matter Most**

When buying products, you tend to choose ones that are innovative and from established companies. When you need to install and maintain optical networks, this should also apply. With over 50 years of combined OTDR design, Anritsu, which now includes NetTest, delivers the features that matter.

Having been in the test and measurement business for a long time, we understand that things like performance, portability, reliability, easy operation and of course price are important.

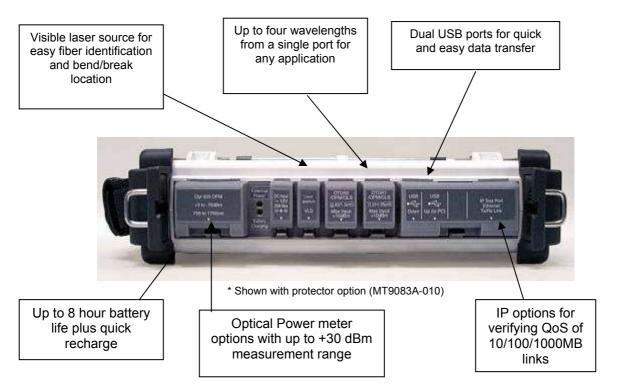
Quick Startup	No Experience Required
The MT9083A is ready for measurement just 15 seconds after	With the MT9083A, the experience is built in. With specialized testing
power-on so productive work can start immediately.	modes, automatic parameter selection, PASS/FAIL indicators as well as features to virtually eliminate the chance to get "bad" results, the
Long Battery Life Since AC power is not always available where you need it,	MT9083A can make anyone seems like a 20 year veteran. It's not called the ACCESS Master for nothing!
especially at fiber pedestals, the MT9083A typically provides up to 8	
hours of operation on a single charge. This coupled with an optional	Easy "drag and drop" File Transfers
car cord (for cigarette lighter operation) guarantees the MT9083A is	When the MT9083A is connected to a PC via a USB cable, the
ready when you are.	internal memory of the ACCESS Master can be directly accessed.
	Data can be selected, dragged and dropped into the PC memory,
Portable	greatly simplifying file transfers. The MT9083A also supports use of
With its light weight design and user friendly dimensions, the MT9083A is perfect for the outside plant environment and can easily	USB memory sticks.
be managed with one hand. The shoulder strap (part of the	Common OTDR Data Format
protector option) further increases portability when traveling from the	The MT9083A supports the universal Telcordia SR-4731 (issue 2)
truck to the testing site.	format making it compatible with not only legacy Anritsu and NetTest
	products, but with many other vendors data.
Rugged	
The MT9083A features a solid casework with no fans or vents to	Free and Simple Software Upgrades
allow dust or moisture from entering the unit. In addition, the	Firmware upgrades are easily performed via USB and available from
protector option (MT9083A-010) includes rubber bumpers and a	the Anritsu website for registered users or through Anritsu customer
display cover for additional protection from those minor mishaps.	support.
Generous Data Storage	
With the ability to store up to 1,000 traces in internal memory and up	
to 30,000 via a USB device, the MT9083A offers plenty of storage	
for collecting and managing data.	

# With its versatile built-in functions, the MT9083A offers the ideal solution for efficient optical fiber construction and maintenance.

# All-in-one Test Set

The MT9083A delivers full featured OTDR performance plus loss test set and quality of service measurement in a surprisingly small and lightweight package. At only 28.4cm wide x 20cm tall x 7.7cm deep and 2.2 kg (4.8 lbs.), it is field portable, yet rugged enough to withstand the outside plant environment. When equipped with power meter, visual light source and IP test options, it replaces several, larger pieces of test equipment.





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# Exceptional OTDR Performance...from the World's First OTDR Manufacturer

Evaluation of access networks ranging from a few kilometers to metro networks reaching up to 100 km in length is becoming commonplace, requiring OTDRs to have the performance and functions for evaluating both short and long fibers. Designed with this in mind, the ACCESS Master delivers on both fronts.

## **Improved Short Fiber Analysis**

An event dead zone of less than 1m (80 cm typical) and a sampling resolution of 5 centimeters allow the MT9083A to evaluate connections and troubleshoot central office, FTTx and intra-building faults with ease – providing a level of detail never before seen.

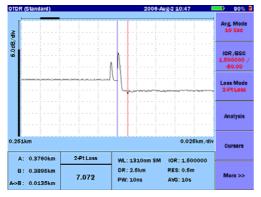


Fig. 1: With its high resolution optics, the MT9083A provides exceptional detail allowing users to quickly determine where the problem is – even when events are closely spaced.

# **Convenient Features**

### **Active Fiber Check**

Not only can OTDR measurements be effected when the optical fiber is in-service but there is a potential risk of damage to the transmitter and OTDR receiver. To prevent these problems, the MT9083A verifies if light is present before starting measurement and will not transmit if it is. An on-screen warning and internal OTDR protection are also part of this useful feature.

### Waveform Comparison Function

Compare current and stored trace data to easily assess changes over time and to locate problems before they effect service or compare traces at different wavelengths to identify installation issues such as macrobending.

### Integrated Macrobend Detection

With many technicians making the switch from copper installations to optical fiber, installation issues such as macrobends are bound to occur. To help prevent this, Anritsu has developed a macrobend detection feature for the MT9083A that will alert technicians when a possible macrobend is present. This provides a higher quality of service for the customer and eliminates costly troublesheating for you

troubleshooting for you.

# Extended Range Testing of 100+km Fibers

In addition to its superb high-resolution performance, the MT9083A also features up to 38.5dB of dynamic range allowing it to easily test 100+ km spans making it a very useful tool for any network type.

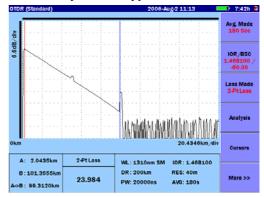


Fig 2: Spans of over 100 km are also easily tested making the MT9083A the only tool you will need - for any network type.

### **Event Table with User Defined Thresholds**

PASS/FAIL thresholds for key acceptance criteria such as splice loss, connector loss and reflectance can be set in the MT9083A allowing technicians to easily assess a fiber's condition. Failing values are clearly highlighted in the event table alerting technicians of potential problems.

### **Multiple Wavelengths and Models**

With nine available wavelengths spanning both single mode and multimode, the ACCESS Master MT9083A is sure to meet your individual needs. Up to four of these wavelengths can be combined into a single optical output providing full spectrum characterization.

### Wavelengths for Today's Networks

Sometimes you just need more than the traditional 1310 and 1550 nm wavelengths to certify your next generation networks. The MT9083A offers a host of specialized wavelengths including1383 nm for water peak verification of CWDM carrying fibers, 1650 nm (with integrated filter) for live fiber troubleshooting, 1490 nm for verification of voice, data and IP based video services and 780 nm for inservice troubleshooting of FTTx networks - without the need for any additional filters.

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# **Solutions for Various Measurement Needs**

Products that offer many features are often complicated to use. The MT9083A however, simplifies operation by offering taskspecific testing modes that automate testing and guide novice users. Dedicated testing modes are available for fault location, cable installation, loss budget testing, visual fault location and IP testing.

# **Simple Operation**

To simplify testing, the MT9083A features dedicated measurement modes via the top menu to automate and simplify the task at hand.

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August Print Party	-	1988
P Test		

Fig.3: Dedicated measurement modes simplify testing for any skill level

# **Fault Location**

FAULT LOCATE mode is designed for the novice or someone who only uses an OTDR occasionally. Simply connect the fiber and press START. The unit will verify the fiber is connected correctly, select testing parameters and provide a text response indicating fault/break location - easy to read results for any skill level.

# **General OTDR Testing**

For those who have more experience or would like to perform more advanced testing, STANDARD OTDR mode allows the user to set all parameters and compare traces manually, automatically or somewhere in between.

# **Optical Fiber Construction and Certification**

When final cable acceptance is the task at hand, CONSTRUCTION mode greatly simplifies operation through its innovative wizard. Select the required testing wavelengths, number of fibers and file naming scheme and construction mode acts as the project manager guiding the user through the testing, while ensuring consistency with testing parameters and filenames – virtually eliminating user induced errors and missing files.

# Value

Whatever your construction or maintenance needs, the new ACCESS Master MT9083A is designed to reduce the time to install, commission and maintain your optical networks – without breaking your budget.

# NETWORKS PC Software for Analysis and Reporting

Once the data is collected, NetWorks PC emulation software makes analysis and report generation a breeze. Professional reports including splice loss, fiber acceptance and exceptions as well as various printing options are possible with only a few mouse clicks.

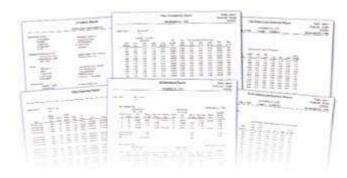


Fig.4: Comprehensive, professional reports are easily generated

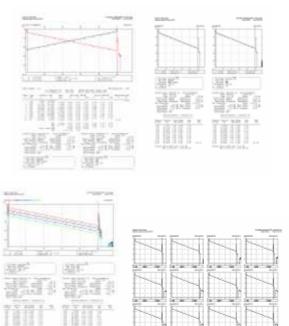


Fig.5: Various printing options ensure you have the results you need.

# A True all-in-one Tester

An OTDR, Optical Power Meter, Visible Light Source, and IP tester are built into Anritsu's compact, light-weight MT9083A supporting tasks ranging from searching for faults in optical fibers to QoS evaluation to FTTx troubleshooting with just one unit.

# **Complete Loss Test Set Features**

# **Standard Stabilized Light Source**

The OTDR port also functions as a stabilized light source providing continuous wave, 270Hz, 1kHz and 2kHz modulations for easy fiber identification. This is standard equipment on all models – a chargeable option on most other OTDRs.

### **Standard Integrated Power Meter**

In the base unit, the OTDR port also functions as an integrated power meter for verification of optical power levels. Additional power meter options are available for higher power transmissions and loop-back testing.

# Visual Laser Source for easy fault location and fiber identification

A Visible Light Source is useful for tracking down bad connections, splices and fiber management issues such as macrobends. The optional Visible Light Source is factory installed in the MT9083A and features up to 5 km (3 miles) of operation.

# Optical Power Meter Options - up to +30 dBm

In place of the standard power meter, the MT9083A offers three optional optical power meters; one supports both SM and MM fibers (MT9083A-003) while the others feature higher measurement range for SM only applications (-004, -005). When measurement of high optical powers, typically more than +20 dBm (like those used by CATV companies) is required, power meter (Option 005) using an optical integrator sphere can be used to make long-term measurements with high stability at levels above +30 dBm.

# **Data Table for Saved Results**

Loss test set measurements for multiple wavelengths can be saved into a results table for easy comparison and archiving. The table can also be saved as a text file and exported to a PC spreadsheet program for further manipulation or integration into a standard company template.

# **Optical Access Network QoS Evaluation Using IP Test**

Faults that cause drops in FTTx service speed are handled differently according to whether the cause is outside or inside the building. In addition, business users are starting to think about guaranteed bandwidth services and higher-speed gigabit services. The MT9083A has a built-in IP Network Connection Check function that can be used for both optical fibers and optical access QoS evaluation.

Connection and Ping Tests	Throughput Measurement and Frame Counter
The first step in testing a service is to verify continuity. The built-in IP	The MT9083A has a two-way throughput measurement function for
Connection Test Function supports both PPPOE and DHCP services.	efficient evaluation of guaranteed bandwidth services. When an
	MT9083A is connected to each end of the service, both the upload and
FTTx Download Speed Evaluation	download speeds can be evaluated. And since the built-in frame
	counter functions can be used to measure received frame types and to
FTTx service performance is easily evaluated from the download	count error frames, network usage efficiency can be measured easily
throughput. Previous evaluation systems were always limited by the PC	too.
performance (CPU speed, memory size, OS, load) and never provided	Gigabit Ethernet Support
accurate measurements. Using the MT9083A Download Throughput	
Measurement function frees the results from the impact of PC	The MT9083A has an optional built-in 1000Base-T electrical interface
performance and provides accurate results. This allows the causes of	for evaluating Gigabit Ethernet throughput (up to full line rate) for
drops in FTTx service speeds to be pinpointed to the network side or	verifying performance on increasing common Gigabit Ethernet services.
the user's PC side.	Faults Identified
	When issues are present, possible causes are displayed on-screen to help isolate the source of the problem.

# MT9083A ACCESS MASTER SPECIFICATIONS

ltem	General Specif	ications	
	Without protector (option 010)	Size: 270(W) x 165(H) x 61(D) mm	
Dimensions and mass	Without protector (option 010)	Weight: 2.2 kg (4.8 lbs) including battery	
Dimensions and mass	With protector (option 010)	Size: 284(W) x 200(H) x 77(D) mm	
	Weight: 2.9 kg (6.4 lbs) including battery		
Display	6.5 inch TFT-LCD (640×480, with ba		
Interface	USB 1.1, TypeA×1(memory), Type B×1(USB mass storage).		
Data Storage	Internal memory: 20 MB (~1000 traces) External memory (USB): ~30,000 traces with 512 MB		
Power supply	12 VDC, Allowable input voltage range: 10.8 – 15 VDC 100 to 240 VAC, Allowable input voltage range: 90 to 264 V, 50/60 Hz		
Battery	Type: Lithium ion Operating Time <sup>*1</sup> : 8 hours Recharge Time: <5 hrs (power off)		
Power saving functions	Backlight off: disable/1–99 minutes Auto shutdown: disable/1–99 minute	95	
Vertical scale	0.05, 0.125, 0.25, 0.5, 1.25, 2.5, 5, 6	3.5 dB/div	
IOR setting	1.000000 - 1.999999 (0.000001step	s)	
Units	km, m, kft, ft, mi		
Languages		Chinese - contact Anritsu for availability of others)	
Sampling Points <sup>*2</sup>	Normal: 5001, High density: 20001 d	or 25001	
Sampling Resolution	5 cm (min)		
Reflectance Accuracy	Single mode: <u>+</u> 2 dB, multimode: <u>+</u> 4 dB		
Distance accuracy	<u>+1m +3 x measurement distance x <math>10^{-5}</math> + marker resolution (excluding IOR uncertainty)</u>		
Distance Range	Single mode: 0.5, 1, 2.5, 5, 10, 25, 50, 100, 200 km (except 780nm: 0.5, 1, 2.5km) Multimode: 0.5, 1, 2.5, 5, 10, 25, 50, 100 km		
Testing Modes	Fault locate: provides end/break location, end to end loss, fiber length Standard OTDR: user selectable automatic or manual set-up Construction OTDR: automated, multi-wavelength testing Light source: stabilized light source (CW, 270Hz, 1kHz, 2kHz output) Loss test set (optional): power meter and light source Visual fault locator (optional): visible red light for fiber identification and troubleshooting IP test (optional): connectivity and throughput for 10/100/1000 MB		
Fiber event analysis	Auto or manual operation, displayed User defined PASS/FAIL thresholds - reflective and non-reflective eve - reflectance: 20.0 to 60.0 dB (0.' - fiber end/break: 1 to 99 dB (1 dl Number of detected events: up to 99 Macrobend detection	: ents: 0.01 to 9.99 dB (0.01 dB steps) 1 dB steps) B steps)	
OTDR trace format	Telcordia universal issue 2 (SR-473	1)	
Other functions	Real time sweep <sup>*3</sup> : 0.15 second Loss modes: 2 point loss, dB/km, 2 point LSA, splice loss, ORL Averaging modes: timed (5 – 180 seconds) Live Fiber detect : verifies presence of communication light in optical fiber( ≥-40dBm) Connection check: Automatic check of OTDR to FUT connection quality Trace overlay and comparison		
Environmental conditions	Vibration: Conforming to MIL-T-2880	-20 to +60C, <80% (non-condensing)	
EMC	EN61326:1997/A1:1998/A2:2003 (	Class A, Annex A)	
		lel 051, 052, 060, 061, 062 Class:1M model 050	

Notes

<sup>1</sup> Typical, backlight off, sweeping halted at 25°C, 6 hours typical continuous testing <sup>2</sup> Either high density value is selected depending on distance range <sup>3</sup> Sampling mode normal. Except models 062, 068 – 1 second or less

	OTDR Specifications					
Model	Wavelength <sup>*4</sup>	Fiber Type	Pulsewidth <sup>*8</sup>	Dynamic Range <sup>*5</sup>	Deadzone (Fresnel) <sup>*6</sup>	Deadzone (Backscatter) <sup>*7</sup>
050	1310 <u>+</u> 30nm			38.5dB		<u>&lt;</u> 5m
051	1550 <u>+</u> 30nm			37dB	≤1m (80 cm typical)	<u>&lt;</u> 5.5m
052	1650 <u>+</u> 5nm		single Mode SMF) -10/125um rU-T G.652	33.5dB		<u>&lt;</u> 6.5m
053	1310/1550 <u>+</u> 30nm	]		38/36.5dB		<u>&lt;</u> 5/5.5m
054	1550 <u>+</u> 30/1650 <u>+</u> 5nm			36/33.5dB		<u>&lt;</u> 5.5/6.5m
055	1310/1550 <u>+</u> 30nm, 1650 <u>+</u> 5nm			37.5/36/33.5dB		<u>&lt;</u> 5/5.5/6m
056	1310/1490/1550 <u>+</u> 30nm	Single Mode		36/34.5/34.5dB		<u>&lt;</u> 6/6.5/6.5m
057	1310/1550/1625 <u>+</u> 30nm	8-10/125um		36/34.5/31.5dB		<u>&lt;</u> 6/6.5/7.5m
058	1310/1490/1550/ 1625 <u>+</u> 30nm	110-1 0.002		34/32.5/32.5/ 29.5dB		<u>&lt;</u> 7/7.5/7.5/8.5m
059	1310/1550/1625 <u>+</u> 30n m, 1383 <u>+</u> 2nm			34/32.5/29.5/ 33dB		<u>&lt;</u> 7/7.5/8.5/7.5m
060	1490 <u>+</u> 30nm			36.5dB		<u>&lt;</u> 5.5m
061	1625 <u>+</u> 30nm	1		33.5dB		<u>&lt;</u> 6.5m
062	780 <u>+</u> 20nm		700,000 5, 40,000	8dB (10ns)	1m	<u>&lt;</u> 7m
068	780 <u>+</u> 20/1550 <u>+</u> 30nm		780nm: 5, 10ns	8/36.5dB	1m	<u>&lt;</u> 7/5.5m
063	1310/1550 <u>+</u> 30nm, 850/1300 <u>+</u> 30nm	HYBRID (SMF/MMF)	Same as SMF & MMF	38/36.5dB, 28/27dB	<u>&lt;</u> 1m	<u>≤</u> 5/5.5m, <u>≤</u> 4/5m (3/4m typ)
064	850/1300 <u>+</u> 30nm	Multimode	3, 10, 20, 50, 100,	28/27dB	(80 cm typical)	<u>&lt;</u> 4/5m (3/4m typ)
065	850 <u>+</u> 30nm	(MMF) 62.5/125um	200, 500, 1000, 2000, 4000ns	28dB		<u>≺</u> 4m (3m typ)

\*6

#### Notes

<sup>\*4</sup> 25°C, Pulse width: 1 μs (all except 850, 1300, 780 nm) , 850/1300 nm: 100ns, 780 nm: 10ns

<sup>\*5</sup> Pulse width: 20 μs (Options 050 to 061, Option 063 1310/1550 nm, Options 068 1550 nm) Pulse width: 4 μs (Options 063, 064 1300 nm), Pulse width: 100 ns (Options 063, 065 850 nm)

Pulse width: 10 ns (Options 062, 068 780 nm) Distance range: 100 km (Options 050 to 061, Option 063 1310/1550 nm, Options 068 1550 nm) Distance range: 25 km (Option 063 850/1300 nm, Options 064, 065 850/1300 nm) Distance range: 2.5 km (Option 062, 068 780 μm)

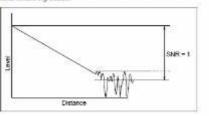
....Averaging: 180 seconds, SNR=1 method, 25°C

 $^{*6}$  Pulse width: 3 ns (Options 050 to 061, 063, 064, 065, Options 068 1550 nm)

Pulse width: 5 ns (Options 062, 068, 780 nm)

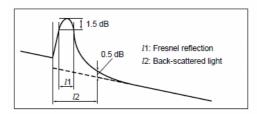
Return loss: 40 dB, 25°C (Refer to the figure below)

Dynamic range (one-way back-scattered light), SNR = 1. The level difference between the RMS noise level and the level where near end back-scattering occurs.



 $^{\star7}$  Pulse width 10 ns, return loss 55 dB, Deviation ±0.5 dB, 25  $^{\circ}\text{C}$ 

 $^{*8}$  1000-4000 ns cannot be selected when wavelength is 850 nm



	Loss Test Set Specifications – Standard on all models <sup>*10</sup>			
	<b>d Light Source</b> h OTDR port)		e <b>grated Power Meter<sup>*13</sup></b> ugh OTDR port)	
Item	Specification	Item Specification		
Wavelength	Same as OTDR	Maximum Input	+10 dBm	
Spectral Width*9	<u>&lt;</u> 10nm (1383: <u>&lt;</u> 1nm)	Measurement Range	-50 to -5 dBm	
Fiber Type	Same as OTDR	Fiber Type	Same as OTDR	
Optical Connector	Same as OTDR	Optical Connector	Same as OTDR	
Output Power <sup>*9</sup>	–5 ±1.5 dBm	Accuracy <sup>*16</sup>	<u>+</u> 6.5%	
Output Stability <sup>*11</sup>	<u>+</u> 0.1dB	Supported Wavelengths	1310, 1550, 1625 nm plus	
Modes of Operation *12	CW, 270Hz, 1kHz, 2kHz		* 1490 nm (056, 058, 060) * 1383 nm (059)	
Laser Safety	Same as OTDR		* 1650 nm (050, 051, 053, 054, 055, 057, 061)	

Loss Test Set Specifications – Optional on all Models*13 Power meters (003, 004, and 005) and visual light source must be added as separate line items.			
<b>Optical Power Meter</b> (Option 003, 004, 005) <sup>13</sup>			
MT9083A-003	MT9083A-003 MT9083A-004 MT9083A-005		
Single Mode: 8-10/125 um (G.652), Multimode: 62.5/125um	Single Mode: 8-10/125 um (G.652) *PC only for UPC connector, angled only for APC connector*	Single Mode: 8-10/125 um (G.652)	
+3 to -70 dBm	+23 to -50 dBm	+30 to -43 dBm	
750 to 1700 nm	750 to 1700 nm 1200 to 1700 nm		
850, 1300, 1310, 1383, 1490, 1550, 1625, 1650 nm	1310, 1383, 1490, 1550, 1625, 1650 nm		
Universal – uses MA9005A adapters			
<u>+</u> 5%	<u>+</u> 5%		
<u>+</u> 3%			
Store reference, loss table, recognition of modulated light (270Hz, 1kHz, 2kHz)			
Visible L	ight Source (Option 002)		
650 nm ±15 nm (at 25°C)	650 nm ±15 nm (at 25°C)		
-2 ± 1.5 dBm (CW)			
8-10/125 μm, SMF (ITU-T 0	G.652)		
2.5mm universal			
IEC Pub 60825-1Class 3R,	21CFR1040.10		
Same as OTDR	Same as OTDR		
	Etters (003, 004, and 005) and v    Optical Power    MT9083A-003    Single Mode: 8-10/125    um (G.652), Multimode:    62.5/125um    +3 to -70 dBm    750 to 1700 nm    850, 1300, 1310, 1383,    1490, 1550, 1625, 1650    nm    Universal – uses    MA9005A adapters    ±5%    ±3%    Store reference, loss table,    Visible L    650 nm ±15 nm (at 25°C)    -2 ± 1.5 dBm (CW)    8-10/125 µm, SMF (ITU-T 0)    2.5mm universal    IEC Pub 60825-1Class 3R,	Arrow State  Coptical Power Meter (Option 003, 004, 005) <sup>13</sup> MT9083A-003  MT9083A-004    Single Mode: 8-10/125  Single Mode: 8-10/125 um (G.652)    um (G.652), Multimode:  62.5/125um    62.5/125um  Single Mode: 8-10/125 um (G.652)    *PC only for UPC connector, angled only for APC connector*    +3 to -70 dBm  +23 to -50 dBm    750 to 1700 nm  1200 to 1700    850, 1300, 1310, 1383, 1490, 1550  1310, 1383, 1490, 1550    universal – uses  Universal – uses UNIV-XX adapters (same as OTDR)    ±5% 3%    Store reference, loss table, recognition of modulated light (270Hz, 1kH    Visible Light Source (Option 002)    650 nm ±15 nm (at 25°C)    -2 ± 1.5 dBm (CW)    8-10/125 µm, SMF (ITU-T G.652)    2.5mm universal    IEC Pub 60825-1Class 3R, 21CFR1040.10	

#### Notes

\*9 CW, 25oC, SMF or MMF \*10 Light source not available at 780 nm, power meter not available at 780, 850, 1300 or 1650 nm \*11CW, 0° to 40 (±1) difference between max/min. values over 1 minute, SM fiber

\*<sup>12</sup> Modulation +1.5% with 10 minute warm up

<sup>\*13</sup> If option 003, 004 or 005 is ordered, the standard integrated power meter is not available

\*<sup>14</sup> Peak power, subtract 3 dB for modulated tones

<sup>\*15</sup> CW, model 003: @-10 dBm 1310 and 1550 nm, model 004/005: @0 dBm

\*<sup>16</sup> CW input, -20 dBm @ 1550 nm, 23oC

# MT9083A ACCESS MASTER Selection and Ordering Guide

# 1) Select Model

Includes ACCESS Master OTDR, AC charger/adapter, battery pack (1) and printed user's manual. Also included are choice of one OTDR connector adapter (two for model 063) and line cord – select these below.

Model/ Order No.	Wavelength	Application
MT9083-050	1310nm, single mode	General-purpose model for construction, maintenance and fault location
MT9083-051	1550nm, single mode	General-purpose model for construction, maintenance and fault location
MT9083-052	1650nm, single mode	In-service measurement – integrated filter to block transmissions
MT9083-053	1310/1550nm, single mode	General-purpose model for construction, maintenance and fault location
MT9083-054	1550nm & 1650nm, SM	General-purpose models for construction, maintenance and fault location plus In-
MT9083-055	1310/1550nm & 1650nm, SM	service measurement – integrated filter to block transmissions
MT9083-056	1310/1490/1550nm, SM	General-purpose plus 1490 nm for FTTx/PON applications
MT9083-057	1310/1550/1625nm, SM	General-purpose plus enhanced macrobend detection at 1625 nm
MT9083-058	1310/1490/1550/1625nm, SM	General purpose for any application or full spectrum characterization
MT9083-059	1310/1383/1550/1625nm, SM	General-purpose plus supports Water Peak testing at 1383 nm
MT9083-060	1490nm, single mode	FTTx/PON testing
MT9083-061	1625nm, single mode	Enhanced macrobend detection
MT9083-062	780nm, single mode	For troubleshooting live FTTx/PON networks
MT9083-068	780 &1550nm, single mode	For troubleshooting live FTTx/PON networks plus verification and macrobend detection on dark fibers
MT9083-063	850/1300 nm (multimode) 1310/1550 nm (single mode)	Best unit for contractors or anyone who installs or maintains hybrid networks
MT9083-064	850/1300 nm, multimode	Multimode fiber model
MT9083-065	850 nm, multimode	Multimode fiber model

# 2) Select Line Cord

Line Cord One line cord included at no charge - must be added as a separate line item			
Model/Order	Description Model/Order No. Description		
MT9083A-US	United States line cord	MT9083A-AU	Australia line cord
MT9083A-UK	United Kingdom line cord	MT9083A-IT	Italy line cord
MT9083A-EU	European Union line cord		

# 3) Select OTDR Connector Type

<b>Optical Connector</b> One adapter included at no charge (two with models 054, 055, 063) - must be added as a separate line item.			
Model/Order No.	Description	Model/Order No.	Description
MT9083A-025	FC-APC connector - single mode only (additional charge applies)	MT9083A-038	ST connector
MT9083A-026	SC-APC connector - single mode only (additional charge applies)	MT9083A-039	DIN connector
MT9083A-033	LC connector	MT9083A-040	SC connector
MT9083A-037	FC connector	MT9083A-043	HMS-10/A connector

# 4) Select Loss Test Set Options

Optical Power Meter			
Mu	Must be added as separate, chargeable line items.		
Model/Order No.	Description		
MT9083A-003	SMF/GIF Optical Power Meter		
MT9083A-004	MT9083A-004 SMF Optical Power Meter		
MT9083A-005	MT9083A-005 SMF High Power Optical Power Meter		
	Visible Light Source		
Model/Order No.	Description		
MT9083A-002	Visible Laser Diode		

# 4a) Select Power Meter Connector Type (option -003 or -005 only)

One adapter included at no charge, select from replacement adapter section. Must be added as a separate line item.

# 5) Select Network Test Options

<b>Network test function</b> Must be added as separate, chargeable line items.		
Model/Order No. Description		
MT9083A-001	IP Network Connection Check Function	
MT9083A-011	Gigabit Ethernet Upgrade (requires option MT9083A-001)	

# 6) Select Accessories & Replacement Items

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	Accessories				
	Must be added as separate, chargeable line items.				
Model/Order No.	Description				
MT9083A-010	Protector (includes rubber bumpers, display cover and shoulder strap)				
MT9083A-MAN	Hardcopy MT9083A operation manual				
MT9083A-IPMAN	IP network connection check function manual				
B0582A	Soft carrying case				
B0583A	Hard carry case for MT9083A - attaché style				
B0549	Hard carry case for MT9083A with handle and wheels				
Z0921A	Replacement battery pack for MT9083A				
J1295	Car plug cord				
NETWORKS	PC emulation software for data analysis and reporting				
	Peripherals				
BL-80R2	Thermal printer kit (must also order BL-100W AC adapter, J1314 printer cable and E	l -80-30 naner m	alle)		
			,,		
BL-100W	AC adapter for BL-80R2 printer				
J1314	Printer cable for BL-80R2 printer				
BL-80-30	Printer paper for BL-80R2 Thermal Printer (10 rolls/set)				
MT0092A 440	Retrofit Options for existing units – unit must be returned to authorized service	ce center			
MT9083A-110 MT9083A-103	Protector (retrofit)				
MT9083A-103	SMF/GIF Optical Power Meter (Retrofit) SMF Optical Power Meter (Retrofit)				
MT9083A-104					
MT9083A-102	SMF High Power Optical Power Meter (Retrofit) Visible LD (Retrofit)				
MT9083A-102	IP Network Connection Check Function (retrofit)				
MT9083A-111	Gigabit Ethernet Upgrade (retrofit - requires option MT9083A-001 or MT9083A-101)				
M19003A-111	Replacement Adapters				
	OTDR/source port/	Power meter	Power meter		
Туре	Power meter (MT9083A-004)	(MT9083A-003			
LC	UNIV-LC	MA9005A-33	MA9005B-33		
FC	UNIV-FC	MA9005A-37	MA9005B-37		
Angled FC (AFC)	UNIV-AFC	N/A	N/A		
ST	UNIV-ST	MA9005A-38	MA9005B-38		
DIN	UNIV-DIN	MA9005A-39	MA9005B-39		
HMS-10A	J0618F	MA9005A-43	MA9005B-43		
sc	UNIV-SC	MA9005A-40	MA9005B-40		

# **Related Anritsu Products**

## CMA50 Optical Loss Test Set

All-in-one light source, power meter, visual fault locator and optical return loss meter for optical fiber construction and maintenance. They are offered with common calibration wavelength and connector options to meet any testing requirement from FTTx networks to long haul telephony links to multimode LAN, and CATV.

### CMA5 Optical Power Meter and Light Source

The CMA5 Series Power Meters are ideal for attenuation and power throughput measurements on point-to-point fiber optic links. The CMA5 Series Light Sources provide an economical and stable laser source for use in point-to-point attenuation measurement. They feature a rugged design, built to withstand the difficult testing environment of fiber optic cable installation and maintenance.

### CMA 5000 Multilayer Testing Platform

The CMA5000 is the industry's premier test and measurement solution featuring Gigabit Ethernet, DWDM, SONET/SDH, OTDR, ORL, PMD and CD applications. Through its open-architecture design, the CMA5000 offers the highest performance measurement applications in one powerful, modular platform.

### CMA3000 Mobile and Fixed Access Network Tester

CMA 3000 is designed specifically for field technicians who install and maintain mobile-access and fixed-access networks. The CMA 3000 is a powerful tool for a wide range of applications, including fast first-aid troubleshooting to comprehensive, in-depth and all-layer analysis of transmission problems. The basic CMA 3000 configuration, with its two 2 Mbps receivers and transmitters, supports framed and unframed testing and monitoring of 2 Mbps systems.







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