

**PRELIMINARY**

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**Anritsu**

# MT8510A

## Service Tester



*For the After-Service of W-CDMA Mobile Terminal*



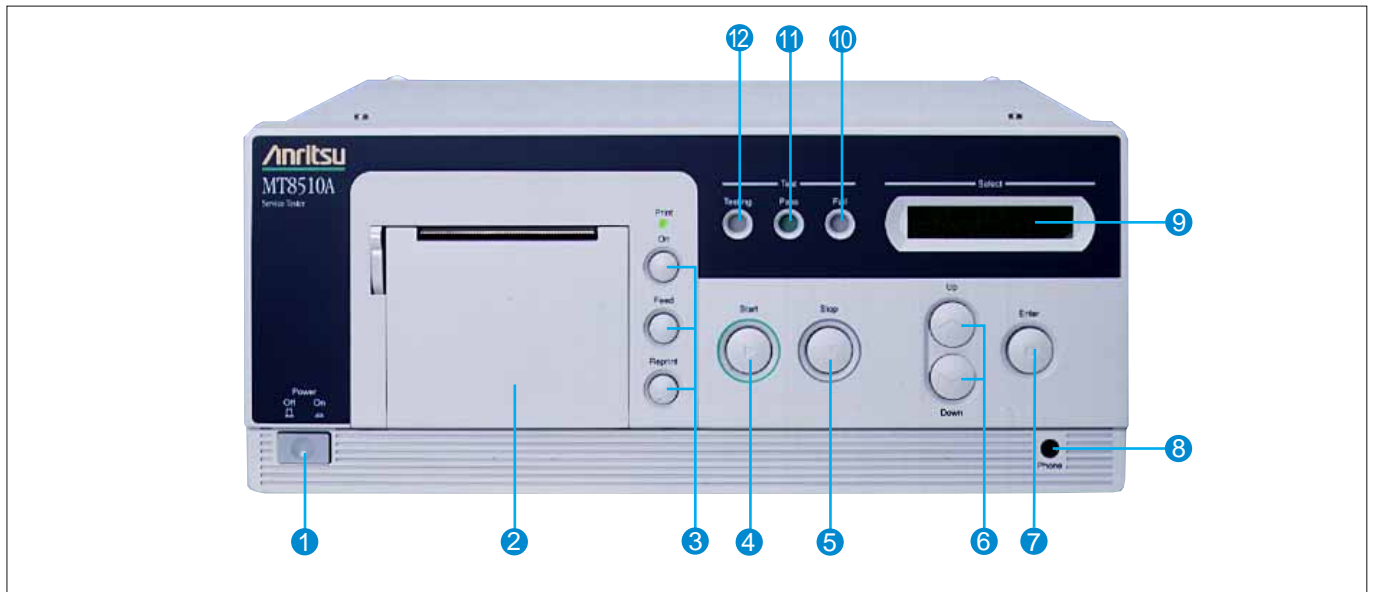
The MT8510A Service Tester is designed for failure diagnosis of mobile terminal conforming to the 3rd-generation communication system, W-CDMA.

Along with the popularization of mobile equipment, especially mobile phones in recent years, the mobile terminal is becoming more and more close to the users' life. This trend enhances the importance of after-sales service that bears the reliability of mobile terminal day by day.

The MT8510A features simple operability without requiring any expertise on mobile terminal, test contents conforming to the environment where mobile terminal is used and network administration support by remote control. It is useful at after service points of mobile terminal, ranging from sales points of mobile phones (service points) to repair/adjustment points (service centers).

## Simple operability

Testing starts only by selecting the mobile equipment model on LCD of the mainframe and then pressing a START button. After the test, evaluation results are immediately displayed on LCD and LED. The results are printed out when the setting of built-in printer is ON.



- ① Power switch
- ② Built-in printer: For test result display
- ③ Setup buttons for built-in printer
- ④ **START** button: For test start
- ⑤ **STOP** button: For test end
- ⑥ **UP/DOWN** button: For selection of settings
- ⑦ **ENTER** button: For fixation of settings
- ⑧ **Earphone** jack: For voice test
- ⑨ **LCD**: Parameter selection and result display
- ⑩ **LED (red)**: Lights during failure evaluation
- ⑪ **LED (green)**: Lights during normal evaluation
- ⑫ **LED (orange)**: Lights during test



Upper: MA8120A (Sold separately)  
Lower: MT8510A

## Test contents

For accurate decision of defective mobile terminal as “defective”, it is necessary to perform measurements in the environment similar to the field where mobile equipment is actually used.

### • Protocol test

The MT8510A performs call connection/disconnection with mobile terminal by functioning as a base station simulator and makes the decision of [process succeeded/failed]. The MT8510A is capable of performing evaluations to individual call process of [location registration], [origination], [termination], [disconnection from mobile terminal] and [disconnection from network].

### • Performance test

Mobile equipment and base stations are combined by air connection. Accordingly, tests should be conducted under the similar environment.

Comprehensive evaluation including mobile terminal's antenna is achieved by setting the mobile terminal in shield box with a built-in wide band antenna (MA8120A, separately sold) and conducting performance test under air connection between mobile terminal and MT8510A. It is also possible to perform tests by connecting mobile equipment and MT8510A with a cable.

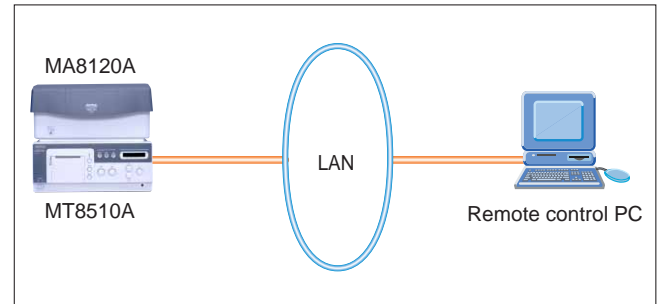
The MT8510A performs each test of max. output power, closed-loop power control, modulation accuracy and frequency error as failure evaluation of mobile equipment's transmitter, and Bit Error Rate (BER) test in loop-back status as failure evaluation of mobile terminal's receiver.

In each performance test, test item selection and evaluation threshold setting are created/saved in file format (test parameter) with remote control software of standard attachment. Also, Anritsu is able to create the test parameters. Please contact Anritsu sales representative for detail.

## Network support by remote control

Network administration of MT8510As, allocated in each service point and service center, is convenient for efficient operation.

The installation of remote control software (standard attachment) in a PC enables remote controlling of test execution/stop, MT8510A setups such as IP address setting and downloading of MT8510A mainframe firmware and test parameters.



## Specifications

Total	Frequency	Transmitter: 2110 to 2170 MHz Receiver: 1920 to 1980 MHz, Setting resolution: 200 kHz
	I/O connector	N type, Impedance: 50 Ω, VSWR: ≤1.50
	Reference oscillator	Frequency: 19.2 MHz Starting characteristics: $\leq \pm 5 \times 10^{-8}$ (after 5 min. warm-up, referenced to frequency after 24 hour warm-up) Aging rate: $\leq \pm 1 \times 10^{-9}$ /day, $\leq \pm 8 \times 10^{-8}$ /year (referenced to frequency after 24 hour warm-up) Temperature characteristics: $\leq \pm 3 \times 10^{-8}$ (0° to +70 °C, referenced to frequency at 25 °C) Reference signal output: BNC type, Impedance 50 Ω
	Output level	Level range: -110 to -45 dBm, Resolution: 0.1 dB Accuracy: $\pm 1.5$ dB (-110 to -45 dBm)
	Input level	Level range: -30 to +27 dBm Measurement accuracy*: $\pm 1.0$ dB (0 to +27 dBm), $\pm 1.2$ dB (-20 to 0 dBm), $\pm 1.5$ dB (-30 to -20 dBm)
Test item	Protocol test	Location registration, origination, termination, disconnection from mobile terminal, disconnection from network
	Performance test	Max. output power, closed-loop power control, frequency error, modulation accuracy BER test by loop back
	Communications test	Voice Communications test by tester loop back (echo back)
Display	LCD: 16 x 2 characters, LED: Testing (orange), Pass (green), Fail (red)	
External interface	Ethernet 10BASE-T/100BASE-TX	
Power	Input voltage: AC 100 to 120 V/200 to 250 V, automatic selection, 47.5 to 63 Hz	
Dimensions and mass	320 (W) x 134.5 (H) x 350 (D) mm, ≤6 kg	
Operating temperature range	Operating: 0° to +50 °C, Storage: -20 to +60 °C	
EMC	EN61326: 1997/A1: 1998 (Class A), EN61000-3-2: 1995/A2: 1998 (Class A), EN61326: 1997/A1: 1998 (Annex A)	
LVD	EN61010-1: 1993/A2: 1995 (Installation Category II, Pollution degree 2)	
Other	Self-diagnostic function	

\*: 25 ±5 °C

# Ordering information

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

Model/Order No.	Name
MT8510A	<b>Main frame</b> Service Tester
MX851020A	<b>Software</b> W-CDMA Call Processing Software*1
	<b>Standard accessories</b>
	Power, 2.6 m: 1 pc
F0023	Fuse, 3.15 A: 1 pc
J1109B	10BASE-T cross cable, 3 m: 1 pc
Z0618	Printer sheet, 5 roll: 1 set
W2094AE	MT8510A operation manual (CD-ROM): 1 copy
W2095AE	MT8510A quick start manual: 1 copy
MX851000A	W-CDMA Software
MX851010A	MT8510A Remote Control Software*2
	<b>Application parts</b>
P0019	TEST USIM 001
J1110B	10BASE-T straight cable, 5 m
J1158A	UE I/F cable, 1.5 m
J1159A	Coaxial cord, 1.5 m
BA-A858	Adaptor (N-P · SMA-J)

\*1 This is essential software for call processing with W-CDMA mobile terminal.

\*2 Recommended Remote PC spec.

Interface : 10BASE-T/100BASE-TX

OS: Windows98/ME/2000, Windows NT4.0, CPU: ≤400 MHz,

Memory: ≤64 MB, HDD: ≤25 MB



Specifications are subject to change without notice.

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