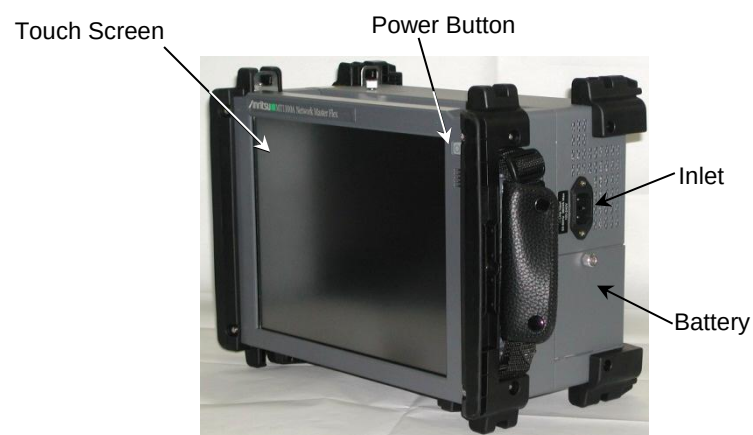


MT1100A

Network Master Flex

User's Manual

for WLAN/BT function



First Edition

ANRITSU CORPORATION

Introduction

Mainframe (MT1100A)

The MT1100A Network Master Flex is a multipurpose telecommunications test instrument up to 100 Gbit/s for field use. The installed options enable the Network Master to be used both as a full-featured transmission line quality tester and as an advanced signaling analyzer.

Results are easily read from the large color LCD display, where the colors and graphical symbols facilitate interpretation. Together with the touch screen operation, this makes the Network Master very user-friendly in operation. The instrument has the following interface for data transfer and external communication: LAN interface (Wired/Wireless), Bluetooth® interface and three USB ports.

The instrument is powered by the MU110001A/MU110002A power supply module unit.

Safety

Overvoltage Category

This equipment complies with overvoltage category II defined in IEC 61010. DO NOT connect this equipment to the power supply of overvoltage category III or IV.

Repair

Only qualified service personnel with a knowledge of electrical fire and shock hazards should service this equipment. This equipment cannot be repaired by the operator. DO NOT attempt to remove the equipment covers or unit covers or to disassemble internal components. In addition, there is a risk of damage to precision components.

Battery

When replacing the battery, use the specified battery and insert it with the correct polarity. If the wrong battery is used, or if the battery is inserted with reversed polarity, there is a risk of explosion causing severe injury or death.

DO NOT expose batteries to heat or fire. Do not expose batteries to fire. This is dangerous and can result in explosions or fire. Heating batteries may cause them to leak or explode.

LCD

This equipment uses a Liquid Crystal Display (LCD). DO NOT subject the equipment to excessive force or drop it. If the LCD is subjected to strong mechanical shock, it may break and liquid may leak. This liquid is very caustic and poisonous. DO NOT touch it, ingest it, or get in your eyes. If it is ingested accidentally, spit it out immediately, rinse your mouth with water and seek medical help. If it enters your eyes accidentally, do not rub your eyes, rinse them with clean running water and seek medical help. If the liquid gets on your skin or clothes, wash it off carefully and thoroughly.

External Storage

This equipment uses a USB memory as external storage media for storing data and programs. If this media is mishandled or becomes faulty, important data may be lost. To prevent this chance occurrence, all important data and programs should be backed-up. Anritsu will not be held responsible for lost data.

Use in Residential Environment

This equipment is designed for an industrial environment. In a residential environment, this equipment may cause radio interference in which case the user may be required to take adequate measures.

This equipment is also used more than 20cm away from the human body.

Use in Corrosive Atmospheres

Exposure to corrosive gases such as hydrogen sulfide, sulfurous acid, and hydrogen chloride will cause faults and failures.

Note that some organic solvents release corrosive gases.

Configuration

This chapter contains information about the basic configuration.

Rechargeable Battery

The Network Master is delivered with a 14.4 V Intelligent Li-Ion rechargeable and replaceable battery.

Use only original batteries delivered from Anritsu, to prevent the risk of instrument damage or personal injury. Battery should only be charged at room temperature.



To install or replace the battery in the Network Master, follow the procedure below:

1. Disconnect the power cable if it is connected.
2. Switch the Network Master **OFF**.
3. Place the instrument on its back on a plain surface and loosen the lock screw of the battery compartment.
4. Remove the lid of the battery compartment.
5. Pull out the battery from the compartment.
6. When installing the battery, note the direction of the battery terminals.
With the instrument placed on its back - and the battery compartment in front of you - the terminals should be in the upper left corner.
7. Re-install the battery compartment door and tighten the lock screw.



Cables

Cables are connected to the input and output connectors located on the connector panel of the instrument. When connecting the Network Master to the line, it is recommended always to use shielded cables of good quality.

Support Stand

The Network Master is equipped with a support stand keeping the instrument at a convenient angle during the operation. To extract the stand: pull out the metal bar on rear of the instrument - it automatically stays in the correct position.



Carrying Strap and Handle

The included carrying strap can easily be mounted for your convenience when transporting and/or using the Network Master.

The carrying strap is equipped with hooks for easy installation.

Use the Carrying Strap around your sholder. Do not wrap the strap around your neck.

Man-Machine-Interface

Touch Screen Display

The 12.1 inch active TFT display with SVGA resolution (800x600 pixels) is used for setups and for presentation of results. As the display includes touch screen functionality, it is possible to navigate and operate directly from it.



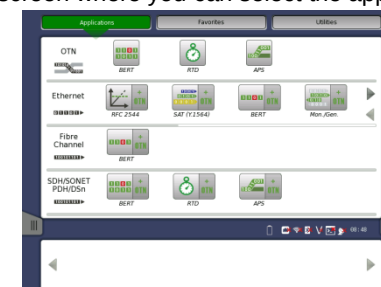
Power Button



The only physical operator key is the Power button. The Power button on the front panel of the instrument is used to switch power ON and OFF. In addition, the menu used for power-off also contains a few extra options (e.g. to lock the screen).

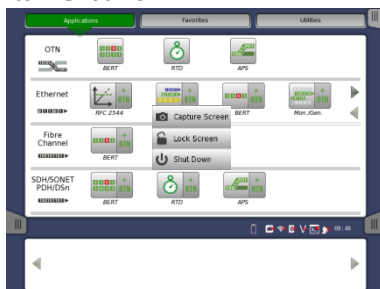
Switching power ON

When you press the Power button to switch on power, the TFT display presents you with a startup screen where you can select the application you want to use.



Switching power OFF

When you press the Power button to switch off power, a pop-up menu is displayed, containing the menu item Shut Down.



Select the Shut Down menu item and then confirm by selecting OK in the "Are you sure?" dialog displayed afterwards.

Forcing power OFF

If, for some reason, you need to force a power-off, you can do so by removing the AC power cable and pressing the Power button and holding it down until the power switches off.

Additional options in power button menu

Capture Screen

Can be used to save an image in .PNG format of the currently displayed screen. The image file will be saved on an attached USB memory stick.

Lock Screen

Locks the screen.

Graphical User Interface

General Handling of the GUI

The operating principle of the graphical user interface (GUI) presented on the touch screen display is that it guides you through all setup steps required for running a specific test and then finally presents you with the test results.

Toolbars

A toolbar is available on the right-hand side of the screen. The Instrument toolbar contains general system functions and information (e.g. Instrument configuration, Battery time etc.). It is available directly on the screens related to the desktop.

The Instrument toolbar is shown in the figure below. When the toolbar is hidden, it is represented by its icon tab in the top right-hand corner of the screen.



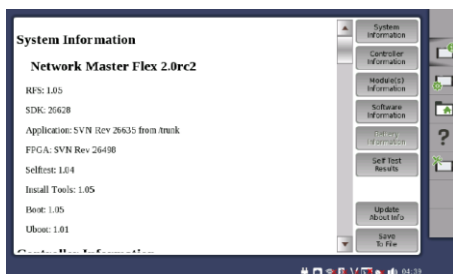
The Instrument toolbar contains the following functions/status:

- Instrument information
- Configuration
- File manager
- Help
- Resource monitoring

Instrument information



The Information icon launches the System Information screen. Press the Generate About Info button to generate the instrument information.



The following information is presented on the screen:

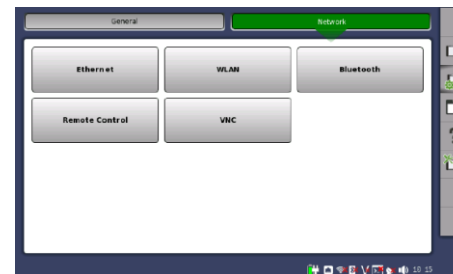
- The instrument's Serial Number
- Version Number of the software, the hardware, and the mechanics used
- List of Options Installed

Configuration



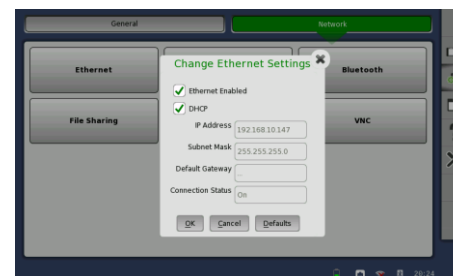
The Configuration icon launches the Global Configuration screen. From this screen it is possible to configure both the general instrument settings (such as date/time, password etc.) and various network settings.

The Network tab contains the following configuration options for the instrument's network connection:



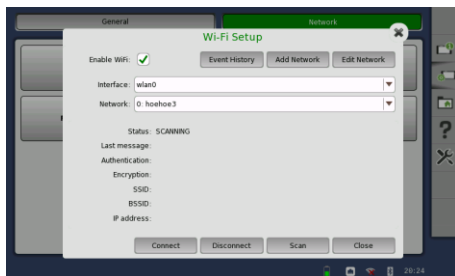
Ethernet

Allows the instrument to be connected to the Ethernet either via dynamic addressing (DHCP) or via manual specification of IP address, subnet mask and default gateway.

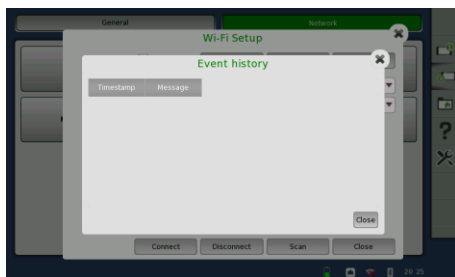


WLAN

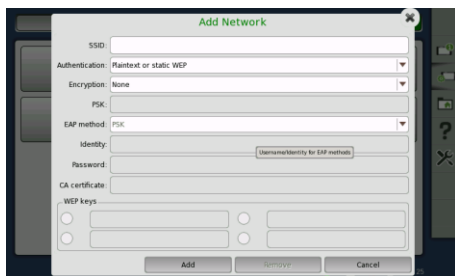
Allows the instrument to connect to a network via Wireless Local Area Network (WLAN). Note that if WLAN is enabled, the instrument cannot connect to the Ethernet via the Ethernet setting mentioned above.



Press the Event History button to display a list of recent events.



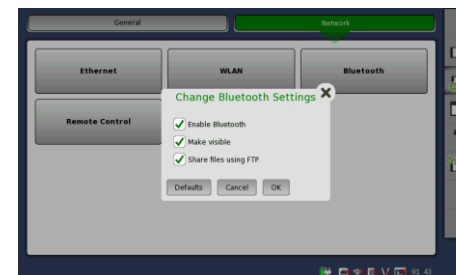
To add a network, press the Add Network button. To edit the settings of the current network, press the Edit Network button. In both cases, the NetworkConfig dialog is launched.



Bluetooth

Allows the instrument to use a Bluetooth connection. The Network Master supports File Transfer Profile (FTP).

To use file transfer, check the all checkbox.



Certification Information

Trade Mark	Anritsu
Product Name	Network Master Flex
Model Name	MT1100A
Manufacturer	Anritsu Corporation
Made in	Japan

Japan MIC 

MT1100A is certified the certification of construction type of specified radio equipment.

North America (USA FCC and Canada IC)

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of this device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage.
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Europe CE 

Hereby, Anritsu Corporation, declares that this instrument is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Support

This chapter contains information about general maintenance of the Network Master. It also contains information about how to obtain support or service assistance.

Service and Repair

There are no user-serviceable parts in the Network Master. Possible service or repair should be performed by Anritsu authorized personnel only. Please contact your local Anritsu representative to get support or service assistance.

Manufacture date

If you need to check the date of manufacture, you can check by looking the label bottom of the instrument.

Specifications

External Interfaces

Internal Clock	Accuracy	STRATUM 3 compliant
Reference Clock Input	Accuracy	ITU-T G.703 compliant
(BITS, SETS, 2 MHz)	Connector	BNC Jack (Unbalanced)
	Range	+/- 100 ppm
Serial Interface	Connector	D-sub 15 pin connector
Peripheral Interface	USB (A x 2, mini B x 1 Port, Revision 2.0)	
	RJ45 Ethernet (10/100/1000 BASE-T)	
	WLAN (2.4 GHz IEEE802.11b/g/n)	
	Bluetooth 2.1 + EDR	
	3.5 mm Audio Jack	
Remote Control	Ethernet	

Other Interfaces

Input device	Power switch, Touch panel
LCD	12.1 inch display with SVGA resolution (800x600 pixels)
LED	On, Standby, Charge
Speaker	Internal (monaural)

Environment Performance

Power Consumption	max. 45 W
Temperature Range	Operating: 0°C to +40°C (non-condensing)
	Storage: -20°C to +60°C (non-condensing)
Humidity	Operating: max. 80 % RH
	Storage: max. 80 % RH
EMC	EN61326-1, EN61000-3-2 and EN301 489-1/-17

Mechanical Performance

Size	267 (H) x 346 (W) x 55.5 (D) (Excluding projections)
Mass	2.5 kg max.

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25 September 2014 (First Edition)

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