Anritsu

Quick Reference Guide
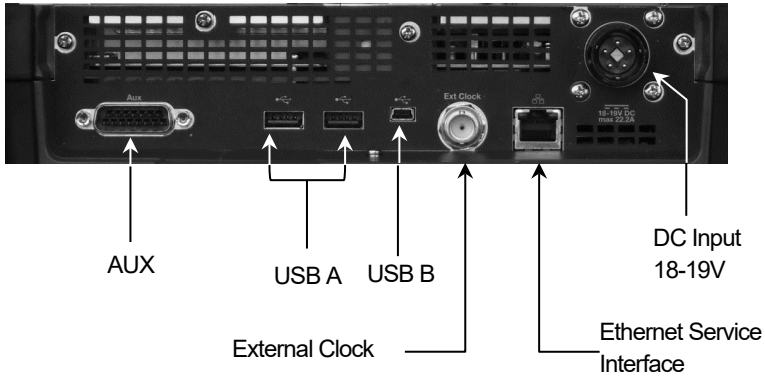
MT1040A
Network Master Pro
Transport Modules

Fourth Edition

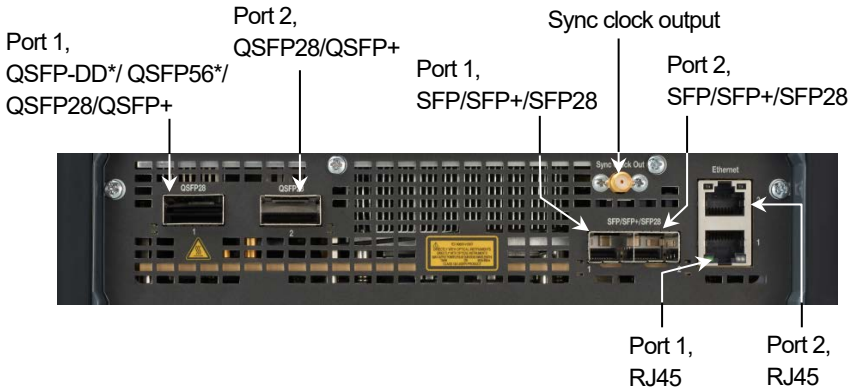Touch Screen display

Power button

Battery
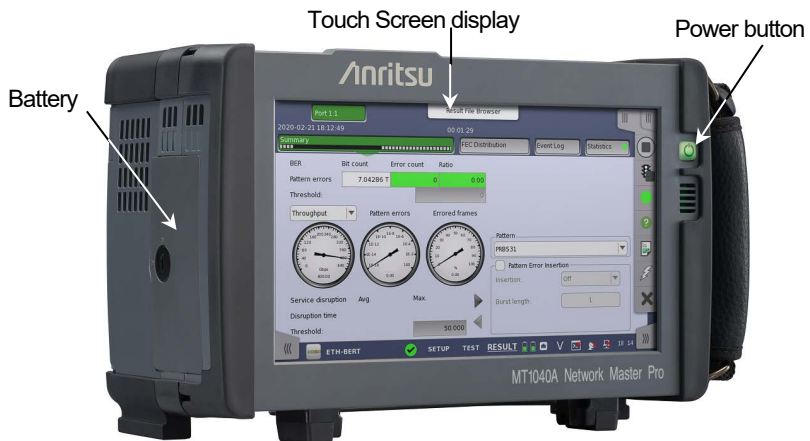
- For safety and warning information, please read this manual before attempting to use the equipment.
- Additional safety and warning information is provided within the MT1040A Transport Modules Operation Manual. Please refer to it before using the equipment.
- Keep this manual with the equipment.
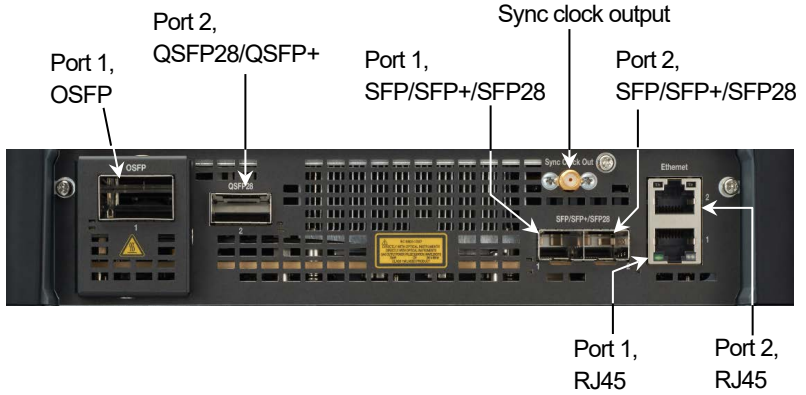
MT1040A Service Interface

AUX

USB A   USB B

DC Input
18-19V

External Clock

Ethernet Service
Interface

Test Interface

MU104011A 100G Multirate Module
MU104014A QSFP-DD 400G Multirate Module

Port 1,
QSFP-DD*/ QSFP56*/
QSFP28/QSFP+

Port 2,
QSFP28/QSFP+

Port 1,
SFP/SFP+/SFP28
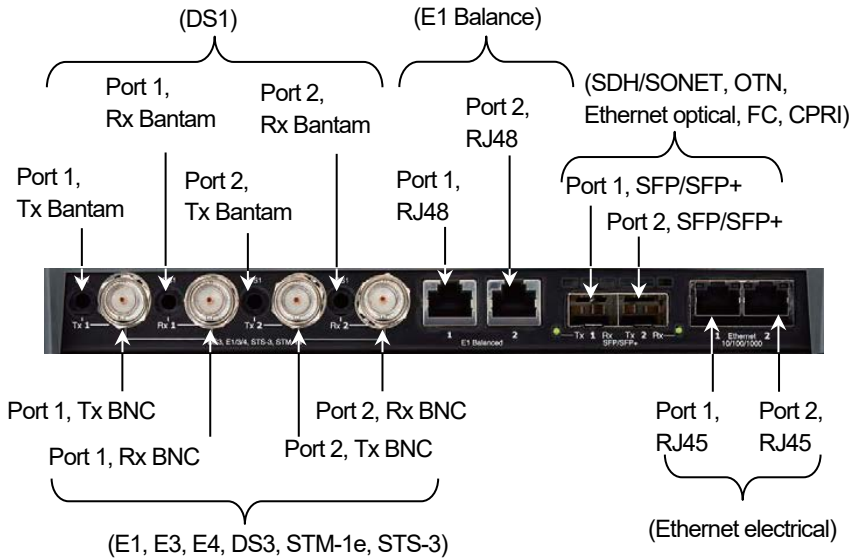
Sync clock output

Port 2,
SFP/SFP+/SFP28

Port 1,
RJ45

Port 2,
RJ45

*:   QSFP-DD and QSFP56 can be used only if your multirate module is the MU104014A.

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MU104015A OSFP 400G Multirate Module

Port 1, OSFP

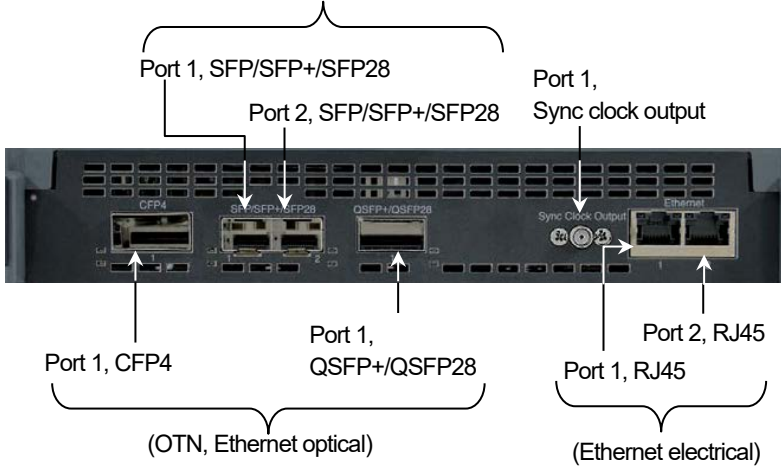Port 2, QSFP28/QSFP+

Port 1, SFP/SFP+/SFP28

Sync clock output

Port 2, SFP/SFP+/SFP28

Port 1, RJ45

Port 2, RJ45

MU100010A 10G Multirate Module

(DS1)

(E1 Balance)

(SDH/SONET, OTN, Ethernet optical, FC, CPRI)

Port 1, Rx Bantam

Port 2, Rx Bantam

Port 2, RJ48

Port 1, Tx Bantam

Port 2, Tx Bantam

Port 1, RJ48

Port 1, SFP/SFP+

Port 2, SFP/SFP+

Port 1, Tx BNC

Port 2, Rx BNC

Port 1, RJ45

Port 2, RJ45

Port 1, Rx BNC

Port 2, Tx BNC

(Ethernet electrical)

(E1, E3, E4, DS3, STM-1e, STS-3)

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MU100011A 100G Multirate Module

(SDH/SONET, OTN, Ethernet optical, FC, CPRI)

Port 1, SFP/SFP+/SFP28

Port 2, SFP/SFP+/SFP28

Port 1,
Sync clock output

Port 1, CFP4

Port 1,
QSFP+/QSFP28

Port 2, RJ45

Port 1, RJ45

(OTN, Ethernet optical)

(Ethernet electrical)

MU100090A High Performance GPS Disciplined Oscillator,
MU100090B High Performance GNSS Disciplined Oscillator

AUX DSUB9

1pps Out

10MHz Out

OSC

1pps Sync In

GPS*

Antenna
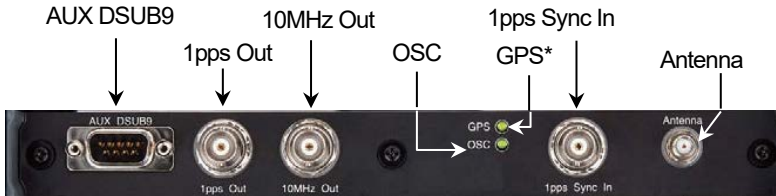
*: GPS/GNSS for MU100090B

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Network Master Pro is equipped with a touch screen display for operating the instrument and test applications.

The power button also works as menu button when the instrument is turned on. Power is supplied by an AC adopter or a Li-Ion rechargeable and replaceable battery, which is accessed from the side of the instrument. The battery compartment door is secured with a lock screw.

Power On/Power Off

To Power On:

Press the Power button.

The Application Selector screen is displayed, where you can select to either start an application or you can move to the Result File Browser screen to view the results of a previous test.
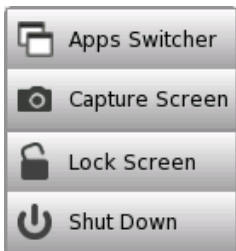
To Power Off:

1. Press the Power button to launch the power-down menu.
2. Touch **Shut Down** in the menu.
3. Touch **Yes** in the "Shut Down Instrument" dialog box.

Forced Power Down:

Disconnect the main power adapter, and press and hold the Power button until the instrument switches off.

Power Button Menu

The menu launched by the Power button when powering down has four menu items:

- **Apps Switcher** – Displays the application switcher.

- **Capture Screen** – Save an image in .PNG format of the currently displayed screen.

- **Lock Screen** – Locks or unlocks the screen.

- **Shut Down** – Shuts down the instrument and turns power off.
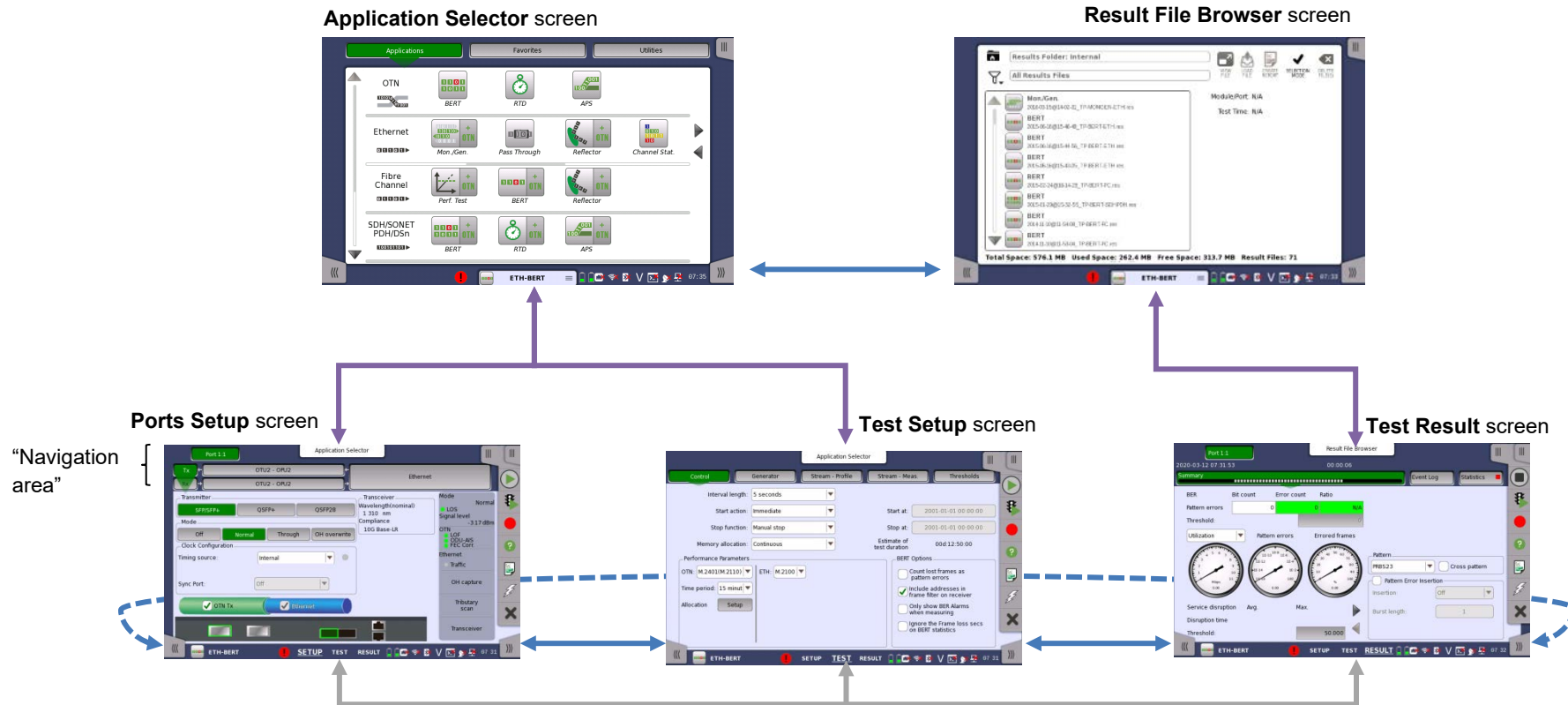
Basic Screens and Navigation

The GUI guides you through the setup and execution of the application, first asking you to configure the related port(s), then to set up and run the actual test. You go from one screen to the next by touching the tabs displayed in the screen's bottom corners.

You can, however, navigate freely both horizontally and vertically between the various screens, as shown in the figure below.

Each screen contains a number of sub-screens, accessible via tabs or buttons displayed at the top of the screen (in the "navigation area" of the screen).

On the **Ports Setup** screen, the buttons in the navigation area are related to physical ports, signal layers etc. - activating sub-screens with the setup parameters specific for that particular aspect of the port.

Application Selector screen

Result File Browser screen

Ports Setup screen

"Navigation area"

Test Setup screen

Test Result screen

Selecting Applications

A number of predefined applications are available – the types depending on which options are installed in the instrument. You select the relevant application by touching the corresponding icon on the **Application Selector** screen.
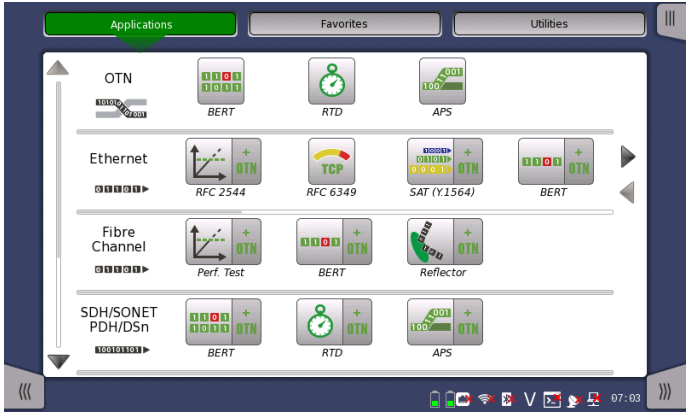
Displaying hidden icons

If an application row contains more application icons than can be displayed on the screen initially, you can access the hidden icons by scrolling the relevant row.

Double-icons

Note that applications which can be run either with or without the OTN option are represented by double-icons.
Touch the **+ OTN** part of the icon to activate the application with the OTN option.

Starting an application

Touch the relevant application icon to start the application. Select the required Port(s) by touching on the connectors on the connector image and touch **Accept**. A green mark shows your selection. A red mark shows port selected by another application.

General Functions

General functionalities such as insertion of stimuli, start/stop of test, creation of the report etc. are placed in expandable toolbars. The GUI contains two such toolbars:

- The instrument toolbar, which is available on all screens.
- The application toolbar, which is available on the screens related to a specific application.

The toolbar is placed on the right-hand side of the screen and is expanded/collapsed by pressing an icon in the upper right-hand corner of the screen. Note that on the application screens you can access the instrument toolbar from within the expanded application toolbar.
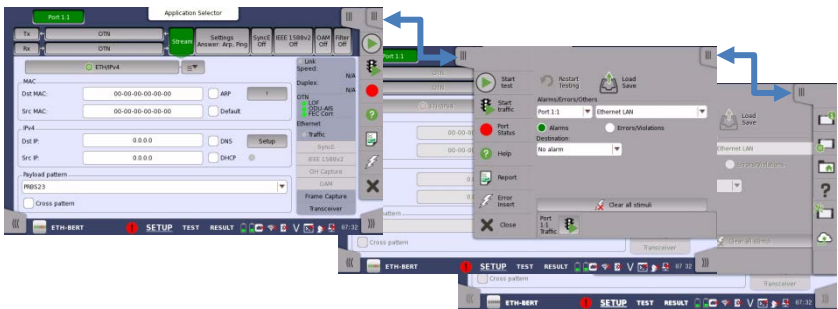
Some of the functions available in the toolbars are:

Start	Instrument information
Stop	Configuration
Traffic Start.	File Manager
Traffic Stop	Help
Report	Resource monitoring
Alarm/Error Insert	Cloud connection
Close	

Status Icons

There are status icons of the battery and the network connections at bottom of the screen. This blue area at bottom of screen is the "status bar".

When the network connection or the GPS is unusable, the red cross (✖) appears on the icon.

|	
	Battery status
	Link status of Ethernet service interface
	WLAN (when the option is installed.)
	Bluetooth (when the option is installed.)
V	VNC (Virtual Network Computing)
	Controlled by the remote command
	Connection status of GPS receiver
	External PC status
	Connection status with server service provided by Anritsu

Touching an icon shows more information.

Advanced Use of Network Master Pro

Running multiple applications

It is possible to have multiple applications active simultaneously – assigned to different ports. By displaying the application switcher, you can keep track of the progress of each application and easily switch between them. You can access application switcher in three ways.

Application switcher
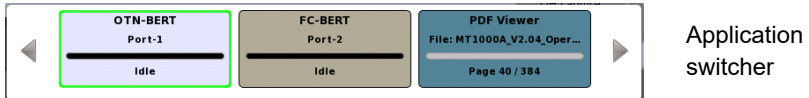
- By touching the application name or icon in the bottom of Port Setup, Test Setup and Test Result screen
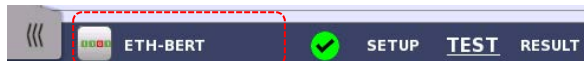
Touch this part.

- From Power Button menu.

Saving interface/test configurations for future use

You can save partial and full configuration settings of interface and/or test parameters for later re-use. The configuration is saved locally on the instrument where it is made, but can be transferred to another instrument using a USB flash drive.

Language selection

You can select a GUI language by touching in the toolbar, and under **General**, selecting **Language**.

Remote operation

You can operate MT1040A remotely from your PC using a browser or VNC.
You can use an Internet Browser or VNC tools to connect.
Instrument is connected on port 5800 for browser and port 5900 for VNC.
Browser requires Java version 7 or lower as Java 8 does not support access.
Browser Example: http://192.168.x.x:5800/
VNC Example: 192.168.x.x:5900

 Touch the V icon to enable/disable remote access

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