

MT1040A Network Master Pro Release Notes

Product Configuration

The following table shows the relationship between the changed application and modules described in the Revision History.

Main frame/Module	Changed Application
MT1040A	[Framework][Remote][SEEK]
MU104014A MU104015A MU104011A MU100010A MU100011A	[ETH][OTN][CPRI][FC][SDH/SONET][PDH][MxH]
MU100020A MU100021A MU100022A MU100023A	[OTDR][FTTA][OLTS]

Latest Installer File Name

MT1040A
12.08.MT1040A_SW MX100001A-Setup-12.08-xxxxx.exe MX100003A-2.0.0.62-xxxxx.exe

The following table shows the latest software and corresponding operation manuals.

Operation Manual	Doc. No.	Version
MT1040A Transport Modules Operation Manual	M-W4038AE	13
MT1000A/MT1100A/MT1040A Remote Scripting Operation Manual	M-W4041AE	10
MT1000A Network Master Pro Transport modules Operation Manual	M-W3933AE	27
MT1000A Network Master Pro OTDR Modules Operation Manual	M-W3810AE	23
MT1000A Network Master Pro OTDR Modules Remote Scripting Operation Manual	M-W3859AE	8
MX100003A Scenario Edit Environment Kit Operation Manual	M-W4042AE	4

Installation Procedure

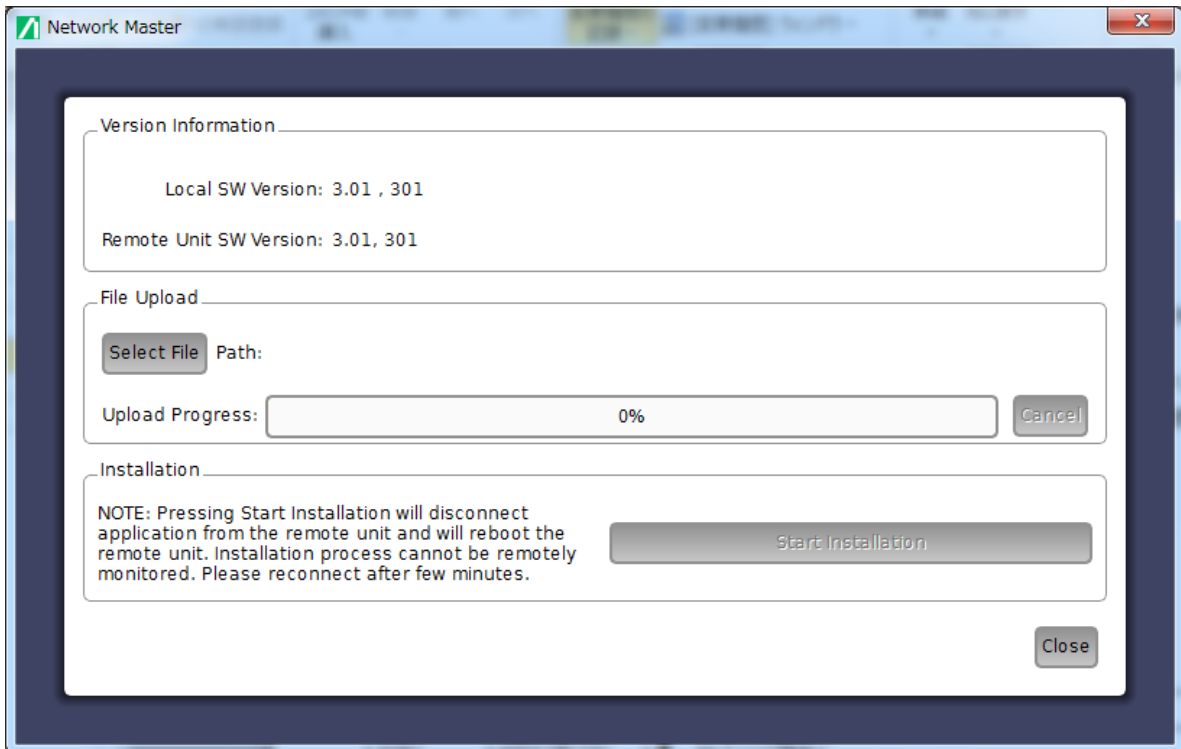
1. Confirm that the USB memory used for installation is recognized by the MT1040A and that the USB memory is empty. (*1)
2. When using battery, make sure that there is 40% (or more) power in the battery of the instrument.
3. Remove the USB memory from the MT1040A.
4. Press the power button to shut down the MT1040A. Never force to power off by holding the power button pressed for several seconds.
5. Remove the AC adapter or cable and see the power button turns to gray.
6. Copy the installer (X.XX.MT1040_SW) to an empty USB memory stick (refer to step 1) formatted to FAT32 or NTFS file system.
7. Insert the USB memory stick into MT1040A.
8. Boot MT1040A to start installer.
The instrument will detect the USB stick, and start installing the software. After the installation has finished the instrument will reboot and start with the new software.
9. Remove USB stick after installation is complete

You can check the installed version at **System Information** screen.

(*1) The USB memory can be used when it is recognized by the File Manager after insertion in the MT1040A. (Refer section 4.2.1 Toolbar in the Network Master Pro MT1040A Transport Module operation manual for the File Manager display method.) If the inserted USB memory is not recognized, it cannot be used for installation. Choose another USB memory instead.

Installation Procedure via network.

1. When using battery, make sure that there is 40% (or more) power in the battery of the instrument.
2. Install the Control Software(MX100001A) on your PC.
(Please refer “3.4.1 Installation of Control Software” on MT1040A Transport Modules Operation Manual.)
3. Configure the Ethernet communication between the Control Software(MX100001A) and MT1040A.
(Please refer “3.4.2 Connection and Setup” on MT1040A Transport Modules Operation Manual.)
Select the update tab on Control Software to show the upgrading box.



4. Touch Select File to launch the dialog box.
5. Select the software file. Progress bar shows Upload Progress. Touching Cancel aborts the file uploading.
6. After file uploading finishes, touch Start Installation.
Touching Start Installation will reboot the Network Master. Installation process cannot be remotely monitored. Please reconnect after several minutes.

Revision History

Version	Date	Description
12.08	Feb 1, 2023	<ul style="list-style-type: none"> ● Fixed bugs <ul style="list-style-type: none"> ➤ [ETH] Fixed bug causing Frame Loss and large latency result exceeding 200 μs when using Reflector application at 10GbE (14629) ➤ [ETH] Fixed bug preventing recovery when inserting/removing transceiver at QSFP-DD temperature alarm (14635) ➤ [ETH] Fixed bug sometimes causing Unavailable occurrence when Frame Loss mis-detected at long-term Performance Test at E-Mix sending using SAT (Y.1564) application (14639)
12.07	Dec 8, 2022	<ul style="list-style-type: none"> ● Key Added Features <ul style="list-style-type: none"> ➤ Added 200G/400G support to function for dynamically varying size of Ethernet frames sent by test equipment (14588) ➤ Added output of FEC distribution graph to FEC Distribution PDF report (14557) ● Fixed bugs <ul style="list-style-type: none"> ➤ Fixed bug causing unexpected Ping Reply to Ping Request including checksum error (12819) ➤ [ETH] Fixed bug causing TX Code counter to lose consistency when TX frequency changed by Stimuli function (14446) ➤ [CPRI] Fixed bug causing incorrect high-layer Hyperframe and Code word counts (undefined value) whether Loss of signal (LOS) and/or LOF detected (14505) ➤ [OTN] Fix bug causing incorrect excess LOF count due to severe jitter out-of-specification test equipment conditions when evaluating OTU3 and OTU4 signal using MU104011A/14A/15A (14513) ➤ [ETH] Fixed bug causing incorrect UDP checksum in Sync message sent by test equipment 25GbE IEEE1588v2 function (14552) ➤ [ETH] Fixed bug sometimes preventing detection of LOS and LOSA recovering in less than 1 s (14527, 14572) ➤ [OTDR] Added screen operation for registering calibration date to solve issue of lost test-equipment calibration date after equipment shipment (14555) ➤ [ETH] Fixed bug causing missing High SER alarm in output report (14557)

		<ul style="list-style-type: none"> ➤ Fixed bug causing sudden shutdown when MU100011A and any one of MU101411A/MU104014A/MU101415A installed in MT1040A main unit (14596) ➤ [ETH] Changed Clock Source default setting at IEEE1588v2 setting screen from Internal to GPS (14614) ➤ [ETH][OTN] Fixed bug preventing change settings at MU100011A Transceiver setting (14622)
12.06	Aug 31, 2022	<ul style="list-style-type: none"> ● Key Added Features <ul style="list-style-type: none"> ➤ [ETH] Added Operation mode to Reflector application at reception of multicast MAC frame. Supports “Layer 2 Transparency test”. (14502) ● Fixed bugs <ul style="list-style-type: none"> ➤ [ETH] Fixed bug causing PRBS Sync Alarm detection when multicast frame, such as PAUSE frame, STP or LLDP, received during BERT measurement. (13412) ➤ [ETH] Fixed bug at measurement port setting preventing obtaining correct DHCP client IPv4 address on VLAN network. (14289) ➤ Increased QSFP+, QSFP28, and QSFP-DD I2C communications speed. (14397) ➤ [ETH] Fixed bug causing incorrect time stamp when using SyncE frame dedicated capture function. (14433) ➤ [ETH] Fix bug causing wrong description of 400G-ZR at I2C Analysis screen. (14438) ➤ [ETH] Fixed bug sometimes preventing 400G-2FR4 Link up. (14445) ➤ [ETH] Fixed bug sometimes preventing LOS detection at QSFP-DD, OSFP, and QSFP56. (14447) ➤ [ETH] Solved issue of non-starting 400G-ZR modules from specific vendors. (14508)
12.05	Feb 22, 2022	<ul style="list-style-type: none"> ● Key Added Features <ul style="list-style-type: none"> ➤ [ETH] Added N Port BERT application. (14389) Adding software option supports measurement using breakout-type 400G optical transceivers. ➤ [ETH] Added support for use of OIF 400ZR-compliant QSFP-DD optical transceivers. (14388) ➤ [ETH] Added 400G and 200G support to SAT(Y.1564) application. (14390)

		<ul style="list-style-type: none"> ● Fixed bugs <ul style="list-style-type: none"> ➤ [ETH] At 400G measurement with BERT application, fixed bug causing PRBS Sync Alarm detection when receiving Frame with mismatched address filter when "Include addresses in frame filter on receiver" set. (13281) ➤ [ETH] At 400G rate setting with BERT application, fixed bug causing PRBS Sync Alarm detection due to loss of Rx signal. (14391) ➤ [MxH] When using MU100011A module, fixed bug causing dual-port mis-selection even when not using 25G eCPRI/RoE Dual Port Ability function. (14342) ➤ [ETH] When creating report after loading measurement results, fixed bug preventing output of LOS item with and without optical transceiver. (13916) ➤ [ETH] [MxH] When using 25GbE or faster interface, fixed bug causing BER_Alarm when MPLS protocol set. (14401) <ul style="list-style-type: none"> - MU104011A/14A/15A Module: Occurs with V12.04 or later - MU100011A Module: Occurs with V12.00 or later ➤ [VIP] Fixed bug preventing operation of Auto Capture function when using G0306B. (14356)
12.04	Dec 20, 2021	<ul style="list-style-type: none"> ● Fixed bugs <ul style="list-style-type: none"> ➤ [ETH] [MxH] Fixed bug causing screen freeze when receiving packets at destination UDP port with different setting to send source UDP port when using UDP protocol at either Ethernet or CPRI/RoE BERT applications (12575) ➤ [ETH] Fixed bug causing non-existent FCS error when setting interface of 10GbE or less at Reflector application (13954) ➤ [ETH] Fixed bug causing status alarm when long-term measurement stops (14085) ➤ [SDH/SONET] Fixed bug causing incorrect display of AU3 pointer monitor results (14089) ➤ [ETH] Fixed bug causing lost configuration and inability to test when executing One-way Test with VLAN enabled at Y.1564 application (14139) ➤ [ETH] Fixed bug preventing error identification when receiving ICMP reply packet including packet length error of 463 or more bytes at 10GbE or slower interface (14273) ➤ [ETH] Changed initialization of FEC settings when switching

		<p>interface to 100GbE (14053)</p> <ul style="list-style-type: none"> ➤ [Remote][ETH] Fixed bug causing free change of latency-measurement timestamp resolution at SCPI control; fixed parameter to 5 ns (14193) ➤ [ETH] Fixed bug preventing correct reflection of FEC threshold setting (14209) ➤ [Remote][ETH] Fixed bug causing instrument restart when setting IFG lower threshold at SCPI control (14271) ➤ [MU100090B][Framework] Fixed bug causing screen freeze when rebooting with GPS/GNSS setting in fixed-location mode and clicking GPS/GNSS icon (14301)
12.03	Oct 04, 2021	<ul style="list-style-type: none"> ● Fixed bugs <ul style="list-style-type: none"> ➤ [ETH] Fixed bug in Mon/Gen application v7.01 and later preventing sending at set burst interval. (13893) ➤ [ETH][OTN][SDH][MxH][FC] Fixed bug causing crash when report output set to include Event Log and CSV format. Limited number of report output logs; to output all the logs, use CSV output from Event Log in application. (13579) ➤ [ETH] Fixed bug in Ping application causing output of IPv4 address instead of IPv6 address in port setting report when outputting measurement results using IPv6 as PDF report. (14083) ➤ [Framework] Now displays location name in GPS/GNSS report column when fixed position setting enabled at MU100090B. (13992) ➤ [ETH][Framework] Now displays changes in MU100090B status in Transport application Event Log. (13865) ➤ [Framework] Now permits holdover guide setting only when MU100090B-001 option (Multi-band) installed. Displays [Ready for Holdover] only when Holdover guide not enabled. (13873) ➤ [Framework] Fixed bug preventing GPS/GNSS reception when Fixed Position setting enabled at MU100090B. (13963) ➤ [Framework] Revised calculation error in permissible drift amount at Holdover using MU100090B. (13993) ➤ [Framework] Fixed bug enabling QZSS Setting when no MU100090B-002 option installed (Multi-GNSS). (13928) ➤ [Framework] Fixed bug sometimes causing OFF WLAN setting to revert mistakenly to ON. (13973)

		<ul style="list-style-type: none"> ➤ [ETH] Fix bug at IEEE1588v2 Time source [Atomicclock] setting causing drift in time at Master side when source is Internal and not GPS. (14081) ➤ [ETH][MU104011A/MU104014A/MU104015A] Revised latency measurement results. (14132)
12.02	Aug 30, 2021	<ul style="list-style-type: none"> ● Key Added Features <ul style="list-style-type: none"> ➤ Supports configuration with combination of two transport modules; as a result, one unit can perform both dual-port 400GbE and quad-port 100GbE measurements. (14087) ➤ [ETH] Added 200GbE measurement function for MU104014A module. (14086) ➤ [ETH] Added support for use of Single Lambda MSA-compliant QSFP28 optical transceivers. ● Fixed bugs <ul style="list-style-type: none"> ➤ [Framework] Fixed bug causing power cut at continuous operation; update firmware if using V12.00. (14075) ➤ [Framework] Fixed bug causing notification about power supply connector. (14075) ➤ Fixed bug when using QSFP-DD causing optical transceiver configuration error. (13933)
12.00	May 24, 2021	<ul style="list-style-type: none"> ● Key Added Features <ul style="list-style-type: none"> ➤ Added High Performance GNSS Disciplined Oscillator MU100090B module to product line supporting GPS, Galileo, GLONASS, Beidou, and QZSS. (13901) ➤ [ETH] Added SyncE support for VLAN tags. (13907) ● Fixed bugs <ul style="list-style-type: none"> ➤ [ETH][MU100011A] Fixed bug causing incorrect lane settings for VOD, Pre, Post, and DEF values at QSFP28 and CFP4 transceiver settings. (13851) ➤ [ETH] Fixed bug causing application crash when outputting IEEE1588v2 log output and setting long-term measurement. (13755) ➤ [ETH] Fixed bug in SyncE Frame Capture function sometimes enabling extra size-0 file. (13782) ➤ [Framework] Fixed bug preventing correct folder specification setting when removing USB memory while results folder set to USB. (13880)
11.08	Mar 18, 2021	<ul style="list-style-type: none"> ● Key Added Features

	Mar 30, 2021	<ul style="list-style-type: none"> ➤ [Framework] Added WLAN communications function using USB WLAN dongle. ➤ [ETH] Added OAM function for Reflector application. (13651) ➤ [ETH] Added function to Reflector application to respond to VLAN ARP and ping (12517) ➤ [SEEK][Framework] Added Opt-003 to MX109020A supporting upload of SEEK scenario execution results to cloud storage and customer's server (13833) ➤ [Framework] Added function for updating instrument connected to MX109020A to latest firmware version (13832) ➤ [OTDR] Added fiber length check Enable/Disable function When this setting is Enable, the fiber length is examined prior to measurement and if it exceeds the distance range, the optical pulse output interval is adjusted automatically to prevent generation of unwanted reflections from points other than the event point. When this setting is Disable, the time until measurement starts is shortened. This function is always enabled for older version, but can be enabled/disabled in this version. When the language setting is not Japanese, the Enable default is set automatically at a version upgrade. (13698) ● Fixed bugs <ul style="list-style-type: none"> ➤ [ETH] Fixed bug causing normal Link status even when HighSER detected at 400GbE interface. (13645) ➤ [ETH] Fixed bug causing non-detection of Local Fault at Link-down at 400GbE interface. (13562) ➤ [ETH][OTN][NoFrame] Added improvements to MU10401xA module QSFP-DD/QSFP28/QSFP+ start sequence (13715) ➤ [Wireshark] Fixed bug causing error when using eCPRI decode Lua script when using Wireshark version later than 3.4 on PC. (13682) ➤ [ETH] Fixed bug preventing recognition of 1519-byte Frame over size error. (13679) ➤ [SEEK] Fixed error message when SEEK results file name includes illegal character (/, !, ?, etc.). (13644) ➤ [ETH] Fixed bug preventing correct generation of report file at long-term measurement at RFC2544 application. (13507) ➤ [PDH] Fixed bug preventing communications at E3 and DS3
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		<p>interfaces (13744)</p> <ul style="list-style-type: none"> ➤ [ETH] Fixed bug causing instrument crash when executing IPv6 Stateless for IEEE1588 (13743) ➤ [ETH] Fixed bug causing detection of unintentional frame loss when executing burst test in RFC2544 application (12818) ➤ [Framework] Fixed bug preventing display of cursor when USB mouse connected (13800) ➤ [SEEK] Fixed a bug where the MU104011A or MU104015A module was not displayed in the MX100003A Scenario Edit Environment kit. (13861)
11.05	Feb 4, 2021	<ul style="list-style-type: none"> ● Key Added Features <ul style="list-style-type: none"> ➤ [Framework] A warning pop-up is added for AC adapter connection. Please follow the instructions as shown.(13767)
11.04	Sep 30, 2020	<ul style="list-style-type: none"> ● Key Added Features <ul style="list-style-type: none"> ➤ [ETH] Added support for 400GbE FEC Degrade function. (13620) <ul style="list-style-type: none"> ✧ Detect Degrade SER ✧ Detect/Insert Remote/Local Degrade ➤ [ETH] Changed default symbol error rate threshold setting from 1E-6 to 1E-4 due to FEC symbol error status at 400GbE interface. (13639) ● Fixed bugs <ul style="list-style-type: none"> ➤ [ETH] Fixed bug causing continuing frame loss count after receiving normal frame at Link-down for 1 or more minutes during 400GbE frame loss measurement. (13577) ➤ [ETH] Fixed bug causing measurement result output without errors and no saved LOFA counter history log. (13624) ➤ [ETH][MxH] Fixed bug causing sending of IFG of less than 5 bytes at line rate of at least 80% at following frame size(s) at 25GbE interface. (13559) ➤ [ETH] Fixed bug causing Ping application crash at output of PDF report after long-term measurement covering several days. (13410) ➤ [ETH] Fixed bug causing generation of file with missing data at Ping application when outputting PDF report after long-term measurement of several days. (13408) ➤ [MxH] Fixed bug preventing correct bit-rate setting at startup and file loading. (13612)

		<ul style="list-style-type: none"> ➤ Removed following security vulnerability. (13544) <ul style="list-style-type: none"> ✧ X11 server at MT1000A/MT1100A/MT1040A GUI accepts unrestricted connections from host
11.03	Aug 11, 2020	<ul style="list-style-type: none"> ● Initial release. Support for the following products: <ul style="list-style-type: none"> ➤ MT1040A Network Master Pro ➤ MU104014A 400G(QSFP-DD) Multirate Module ➤ MU104015A 400G(OSFP) Multirate Module ➤ MU104011A 100G Multirate Module ➤ MU100010A 10G Multirate Module ➤ MU100011A 100G Multirate Module ➤ MU100020A OTDR Module 1310/1550nm SMF ➤ MU100021A OTDR Module 1310/1550/850/1300nm SMF/MMF ➤ MU100022A OTDR Module 1310/1550/1625nm SMF ➤ MU100023A OTDR Module 1310/1550/1650nm SMF ➤ MU100090A High Performance GPS Disciplined Oscillator

Known Problems

	Version	Description
MT1040A MU104014A MU104015A MU104011A MU100010A MU100011A	V12.08	<ul style="list-style-type: none"> [ETH]When using 1000BASE-X, sometimes TX pattern sent from test equipment during LOS detection does not meet IEEE 802.3 specification. With Auto Negotiation On, C1/C1 code may sometimes be inserted where C1/C2 code should be sent continuously.(14589)
MT1040A MU100010A	V12.08	<ul style="list-style-type: none"> [ETH] Frame loss misdetected when traffic stopped during measurement using MU100010A Mon/GEN application; workaround by stopping traffic after stopping measurement.(14615)