

# MD1260A Release Notes

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## 1. Manuals

The latest edition of relevant operation manuals is listed as follows:

Operation Manual	Document No.	Edition
MD1260A 40/100G Ethernet Analyzer Operation Manual	M-W3395AE	10.0
MD1260A Remote Control Operation Manual	M-W3406AE	6.0
MD1260A 40/100G Ethernet Analyzer Add-on Function Operation Manual	M-W3483AE	2.0
MZ1225A Adapter for QSFP+ Operation Manual	M-W3485AE	2.0

## 2. Added Function, Specification Changes and Bug Fixes

Date, Version	Description
February 2014 3.02.22	<b>Bug Fixes</b> <ul style="list-style-type: none"> <li>➤ Mismatched between MFAS byte and Lane Marker at OTN Tx. (CM2416:1523)</li> <li>➤ Results of Rx Skew value are displayed as "----". (CM2416 1522)</li> </ul>
July 2013 3.02.21	<b>Bug Fixes</b> <ul style="list-style-type: none"> <li>➤ Fixed bug sometimes causing self-test INITIALIZATION_TIMEOUT_ERROR. (CM2416:1520)</li> </ul>
March 2013 3.02.20	<b>Bug Fixes</b> <ul style="list-style-type: none"> <li>➤ Fixed the bug that If the very short period of Indefinite signal received (despite locked-CDR), PCS lane error might occur. (CM2416:1495)</li> </ul>
December 2012 3.02.19	<b>Added Function</b> <ul style="list-style-type: none"> <li>➤ Added the following protocol header edit screens to the 40/100 G Ethernet Stream setting screen. <ul style="list-style-type: none"> <li>➤ ARP</li> <li>➤ ICMPv4 / ICMPv6</li> </ul> </li> <li>➤ Added The Destination MAC Address field resolution function that can resolve from Destination IP Address for 40/100 G Ethernet Stream setting.</li> </ul>

Date, Version	Description
	<ul style="list-style-type: none"> <li>➤ Added items for PCS Rate Display (Individual tab screen), PBB, ARP Request, ARP Reply, PINGv4 Request, PINGv4 Reply, NDP(NS), NDP(NA), PINGv6 Request, PINGv6 Reply (All Lanes tab screen) to 40/100 G Ethernet Counter measurement items</li> <li>➤ Added following protocol functions to 40/100 G Ethernet.               <ul style="list-style-type: none"> <li>➤ ARP/NS packet transmit function.</li> <li>➤ ARP/NA, ICMP Ping Reply function.</li> <li>➤ PING function (including a feature of variable packet size)</li> </ul> </li> <li>➤ Added FEC decode function to OTU3-PRBS, OTU4-PRBS, ODTU4.8-ODU2e-PRBS/10GbE, ODTU4.1-ODU0-PRBS/GbE.</li> </ul> <p><b>Specification Changes</b></p> <ul style="list-style-type: none"> <li>➤ Added PCS Error Insertion type (All, Rate, Alternate) to 40/100 G Ethernet.</li> <li>➤ Added Expansion display of the counter result in chart screen.</li> </ul> <p><b>Bug Fixes</b></p> <ul style="list-style-type: none"> <li>➤ Fixed the bug that the application is down if the disk become full during logging (CM2416:1357)</li> <li>➤ Fixed the bug that the History LED of Error might be ON when application boot. (CM2416:1478)</li> <li>➤ Fixed the bug that the LED display of Programmable alarm (Red of Green) is determined regardless type of alarm. (CM2416:1382)</li> </ul>
May 2012 3.01.10	<p><b>Added Function</b></p> <ul style="list-style-type: none"> <li>➤ Added the following protocol header edit screens to the 40/100 G Ethernet Stream setting screen.               <ul style="list-style-type: none"> <li>➤ MPLS-TP / MPLS</li> <li>➤ PBB (IEEE 802.3ah)</li> <li>➤ IPv6</li> </ul> </li> <li>➤ Added Modifier function that can select and vary an arbitrary protocol header field for 40/100 G Ethernet generated frame from Increment/Decrement/Random.</li> <li>➤ Enhanced options for each flow identification filter setting of 40/100 G Ethernet. This enabled the flow identification by received frame arbitrary field.</li> <li>➤ Added items for each destination MAC address Broadcast/Multicast to 40/100 G Ethernet Counter measurement items</li> <li>➤ Added CFP optical output On/Off operation</li> </ul> <p><b>Specification Changes</b></p> <ul style="list-style-type: none"> <li>➤ Expanded maximum MAC frame size from 16,300 bytes to 32,700 bytes</li> <li>➤ Changed measurement result report output file format from CSV to HTML and PDF</li> <li>➤ Improved response speed for Counter measurement start/stop, Error/Alarm addition start/stop, and Stream transmission start/stop with remote commands</li> </ul> <p><b>Bug Fixes</b></p> <ul style="list-style-type: none"> <li>➤ Fixed the bug that causes the problem where exceeding 2,000 times of switching generated abnormal end when the mapping switching function was used with :SYSTem:CONFIg remote command (CM2416:1142)</li> <li>➤ Fixed the bug that causes the problem where 34-bit error might have existed in the frame received first right after starting with 40/100 G Ethernet Frame BER measurement (CM2416:1354)</li> </ul>

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	<ul style="list-style-type: none"> <li>➤ Fixed the bug that causes the problem of unstable MDIO access of CFP by Santure (CM2416:1246)</li> <li>➤ Fixed the bug that causes the problem where RFC2544 Frame Loss Rate results became minus values in rare cases (CM2146:1227)</li> <li>➤ Operation added where only Stream setting is read from 40/100 G Ethernet setting file. This allows avoiding Link disruption to DUT with setting files open (CM2416:1203)</li> <li>➤ Fixed the bug that causes the problem where manual rate setting for MDIO register was required after 40GBASE-FR CFP insertion (CM2416:1233)</li> </ul>
November 2011. 3.00.37	<p><b>Specification Changes</b></p> <ul style="list-style-type: none"> <li>➤ Improvement: Latency measurement result offset error is corrected at 100/40G Ethernet. This allows you to skip the correction procedure as explained in <i>MD1260A Ethernet Latency Measurement Error</i> (Document Number: MD1260A-E-E-1-(1.00)).</li> </ul> <p><b>Bug Fixes</b></p> <ul style="list-style-type: none"> <li>➤ Fixed bug preventing the normal return to communication when CFP is reset at MD1260A-031 MDIO Analysis. (CM2416:1223)</li> <li>➤ Fixed bug causing the display of the "wait for: timed out while waiting for more data" message and subsequent hang up, when self-test is made. (CM2416:1165)</li> <li>➤ Fixed bug preventing the execution of Add-On Lambda Measurement for 100GbE No Frame and OTU4. (CM2416:1189)</li> </ul>
June 2011 3.00.35	<p><b>Added Function</b></p> <ul style="list-style-type: none"> <li>➤ Added adapter for QSFP+ (MZ1225A)</li> <li>➤ Added mappings to OTU4 (Opt-002) <ul style="list-style-type: none"> <li>➤ ODU4-100GbE (Opt-005*)</li> <li>➤ ODTU4.8-ODU2e-PRBS/10GbE (Opt-007*)</li> <li>➤ ODTU4.1-ODU0-PRBS/GbE (Opt-006*)</li> </ul> </li> <li>➤ Added OTN function (Opt-002/004/005/006/007*) <ul style="list-style-type: none"> <li>➤ Added GMP, TP/TS, Lo ODU, GFP-T, Client Ethernet measurement functions</li> <li>➤ Added Summary display for Error/Alarm items</li> <li>➤ Added OTN-related Error/Alarm insertion and measurement items</li> <li>➤ Added OH Preset function</li> <li>➤ Added GFEC Encode</li> <li>➤ Added Payload Offset specification</li> <li>➤ Added Ethernet Frame send function</li> <li>➤ Added Through mode functions (Transparent/Analyze/OH Overwrite)</li> <li>➤ Added APS measurement function</li> <li>➤ Added Delay measurement function</li> <li>➤ Added three capture functions (Overhead, Frame, GMP Sequence)</li> <li>➤ Added TP/TS, TTI/FTFL, Cm(t), and Stuff Position to monitor items</li> </ul> </li> <li>➤ Added function operation status displays for each port (CM2416:0568, CM2416:1019)</li> <li>➤ Upgraded Error/Alarm counter and Ethernet capture Undersize/Oversize displays (CM2416:0120)</li> <li>➤ Added Mapping switching function using :SYSTem:CONFIg remote command</li> <li>➤ Reduced upgrade time using Update (CM2416:1147)</li> </ul> <p>*Options 005/006/007 also require Opt-002</p>

Date, Version	Description
	<p><b>Specification Changes</b></p> <ul style="list-style-type: none"> <li>➤ Added setting to not add errors to FAS byte at random bit error insertion (CM2416:0984)</li> <li>➤ Changed thickness of Log function setting dialog scroll bar (CM2416:1095)</li> <li>➤ Changed LED image at Statistics screen tab (CM2416:1047)</li> <li>➤ Changed fault display LED image (CM2416:0921)</li> <li>➤ Changed to disable Optical Module measurement item at Loopback setting (CM2416:0916)</li> <li>➤ Fixed numeric input keypad and list selection menu pop-up titles (CM2416:0791)</li> <li>➤ Changed OTN Payload Type monitor mnemonic display (CM2416:0103)</li> <li>➤ At clock sync loss, changed value displayed on Marker Map to display last value at sync loss (CM2256:0249, CM2416:1181)</li> <li>➤ At Loopback mode in OTN application, changed to prevent Received selection at Clock Source (CM2416:0107)</li> <li>➤ Added category line output to Log file of Log function (CM2416:0702)</li> <li>➤ Changed display contents of Unit ID string of Selector Multi Port screen (CM2416:1125)</li> <li>➤ At Frame BERT off, changed to prevent selection of PRBS Bit Error at Error/Alarm setting screen (CM2416:0385)</li> <li>➤ Changed names of Error/Alarm insertion items (OOF → OOF/LOF, OOM → OOM/LOM, LOR → OOR/LOR, FAS-LLD → FAS, LOF Lane → OOF/LOF) (CM2416:1025)</li> <li>➤ Changed OTN term (MLD → LLD)</li> <li>➤ Changed PCS term (Hi-BER → High BER)</li> <li>➤ Changed to allow Hardware Pin setting at CTRL dialog even when CFP MDIO Analysis function (Opt-031): CFP not input (CM2416:1180)</li> <li>➤ Changed operation when parameter exceeding upper limit of buffer size specified by remote command (CM2416:1119, CM2416:1135)</li> <li>➤ :Changed to return only file name instead of full path of log file returned by :MMEMory:LOG:FNAME? (CM2416:1106)</li> <li>➤ :Corrected problem of difference between Counter operation status screen operation and *RST command after execution of :MMEMory:INITialize (CM2416:1058)</li> <li>➤ :Changed :{SOURce SENSe}:MAPPing, and :MMEMory:CATalog command parameters (CM2416:0845)</li> <li>➤ :Changed "RATE" parameter of :SOURce:EALarm:TIMing:TYPE to "CRATE" (CM2416:1093)</li> </ul> <p><b>Bug Fixes</b></p> <ul style="list-style-type: none"> <li>➤ Fixed bug causing OOR detection value to be displayed as 1 value larger than true value (CM2416:0660)</li> <li>➤ Fixed ILA/OLA detection conditions (CM2416:0709)</li> <li>➤ Fixed bug preventing self test terminating at communications fault (CM2416:0768)</li> <li>➤ Fixed bug causing abnormal termination of reading of settings file displayed at Settings dialog (CM2416:0609)</li> <li>➤ Fixed bug causing abnormal output frequency at 10 MHz Output connector (CM2416:0835)</li> <li>➤ Fixed bug preventing count of Invalid Blocks at Link Down (CM2416:0805)</li> <li>➤ Fixed bug causing error detection at Rx side when returning from Clock Source loss and switching Clock Source (CM2416:0493)</li> <li>➤ Fixed bug sometimes causing display of [Failed to read transceiver settings] message when OTU3 or OTU3 no Frame operating while in non-insertion status at measured</li> </ul>

Date, Version	Description
	port (CM2416:1075) <ul style="list-style-type: none"> <li>➤ Fixed bug sometimes causing Malformed Error to be displayed as FCS Error at Ethernet MII Data Capture function (CM2416:1068)</li> <li>➤ Fixed bug sometimes preventing operation when List Selection pop-up displayed (CM2416:0996)</li> <li>➤ Fixed bug sometimes preventing display of comma separators for each three digits at numeric input pop-ups (CM2416:1077)</li> <li>➤ Fixed bug sometimes causing operation freeze of CFP MDIO Analysis function (Opt-031)</li> <li>➤ Fixed bug sometimes causing CFP MDIO versions other than 1.2/1.4 to be displayed as version 9.9 (CM2416:0997)</li> <li>➤ Fixed bug in operation at 100GBASE-LR4 CFP OTU4 rate (CM2416:1009)</li> </ul>
January 2011 2.01.06	<b>Added Function</b> <ul style="list-style-type: none"> <li>➤ CFP MDIO Analysis function is added (option 031).</li> <li>➤ Service Disruption Time Measurement function is added.</li> <li>➤ Lambda Grouping Measurement function is added.</li> </ul>
December 2010 2.00.19	<b>Added Function</b> <ul style="list-style-type: none"> <li>➤ The OTU3/OTU3 No Frame application is added (option 004).</li> <li>➤ Multi-unit control (multiport) function is added.</li> <li>➤ The visibility of operation screen is improved (Arrangement of color/character size/LED icon is changed, the total value display of the lane is added, and the Current/Accumulated display switch is added for the counter, and the gauge display is added).</li> <li>➤ The monitor function of the Tx frequency is added.</li> <li>➤ The lane allocation function is added (PCS/MLD).</li> <li>➤ The skew generator capability to a physical lane is added (previously available only for virtual lane).</li> <li>➤ Operation log function that outputs a remote command to the file is added.</li> <li>➤ The Stream function is strengthened.               <ul style="list-style-type: none"> <li>➤ Multi stream transmission (Can specify 16 or less, and the transmission rate for an individual stream, and can transmit in the random order).</li> <li>➤ Setting capability and the display of the transmission time are added.</li> <li>➤ The resolution of the transmission rate setting is improved (The gap byte number can be set to the decimal value).</li> <li>➤ The burst transmitter capability is added.</li> <li>➤ An increment/random transmitter capability of the MAC address is added.</li> <li>➤ The setting of the protocol header up to 64 bytes is added (VLAN/IP template).</li> <li>➤ The control screen where the transmission rate can be in real time is added.</li> </ul> </li> <li>➤ The MII data capture function is added.               <ul style="list-style-type: none"> <li>➤ In addition to Preamble, Ethernet frame and the gap can be analyzed.</li> <li>➤ The Ethernet frame can be analyzed by cooperation with Wireshark.</li> </ul> </li> <li>➤ Latency, sequence error, and the Back-to-back Frames measuring functions are added.</li> <li>➤ The multi flow measuring function is added (16 flows).</li> <li>➤ Added counters according to Tx/RX frame size and Tx/Rx gap size (8 kinds)</li> <li>➤ The LFS function is added (generation, detection, and analysis of LF/RF signal).</li> <li>➤ The flow control function is added (generation, detection of Pause Frame, and control of data transmission).</li> <li>➤ The Frame BER measuring function is strengthened (Rate is added to the BRBS Bit</li> </ul>

Date, Version	Description
	<p>Error Rate counter and the timing of error).</p> <ul style="list-style-type: none"> <li>➤ The RFC2544 function is added (up to 2 ports)</li> <li>➤ Unit Sync, External 10 MHz Input, Tx Reference Clock Input, and Received are added to the Clock Source setting (CM2416:0449).</li> </ul> <p><b>Specification Changes</b></p> <ul style="list-style-type: none"> <li>➤ The problem that restricts the connection with the network of 192.168.1.0/24 is fixed (CM2416:0170).</li> <li>➤ The output interval of the log function was modified to synchronize with the counter data update interval (The log data outputs only when the counter in operation) (CM2416:0229, CM2416:0248, CM2416:0475).</li> <li>➤ The log data output destination of the log function and the self-test is changed from ¥MD1260A¥Log to ¥MD1260A¥UserData¥Log (CM2416:0575).</li> <li>➤ When the Deskew tolerance is exceeded by displaying Relative Skew, overflow is displayed. When hardware capacity is exceeded, invalid is displayed. (CM2416:0437)</li> <li>➤ The default value of the Timing setting of the Log function is changed from "Every 1s" to "Whenever an error occurs" (CM2416:0466).</li> <li>➤ Counter &gt; Bit Errors Count setting is changed to Port &gt; Frame BERT setting. (CM2416:0315)</li> <li>➤ The lower bound of the Counter &gt; Oversize setting is changed from 64 to 1518 byte (CM2416:0313)</li> <li>➤ The name of the ILA status is changed to ILA/OLA (CM2416:0309).</li> <li>➤ The unit of operating time display of Setup Utility is changed from every ten minutes to hours and minutes (CM2416:0300).</li> <li>➤ Fixed the problem where Global Alarm occurs due to CFP (CM2416:0440).</li> <li>➤ The Tx-Rx display is deleted along with the addition of the sequence error measurement.</li> </ul> <p><b>Bug Fixes</b></p> <ul style="list-style-type: none"> <li>➤ Fixed the bug that causes error or intermittent output disruption of 10M Output connector, when OK/Apply is pressed although Clock Source has not been changed on the Clock setting screen (CM2416:0330, CM2416:0489).</li> <li>➤ Fixed the bug that causes the problem of not detecting Pattern Sync Loss of 0.4 µs or less (CM2416:0404).</li> <li>➤ Fixed the bug that causes the display error of seconds for the error alarm item of OTU4 (CM2416:0458).</li> <li>➤ Fixed the bug that causes the wrong value of the CFP Power monitor (CM2416:0135).</li> <li>➤ Fixed the bug that erroneously treats the frame received just after the FCS error frame and detects it as the FCS error (CM2416:0365).</li> <li>➤ Error/Alarm LED lights when CDR Unlock occurs (CM2416:0164)</li> <li>➤ Fixed the bug that prevents the normal startup of the No Frame application (CM2416:0581).</li> </ul>
August 2010 1.00.26	<p><b>Bug Fixes</b></p> <ul style="list-style-type: none"> <li>➤ Fixed bug that prevents normal operation of initializing transceiver setting values to factory defaults. (CM2416:0329, 0331)</li> </ul>
August 2010 1.00.25	<p><b>Specification Changes</b></p> <ul style="list-style-type: none"> <li>➤ Now supports CFP MSA Management Interface Specification 1.4. (CM2416:0310)</li> </ul>

Date, Version	Description
	<b>Bug Fixes</b> <ul style="list-style-type: none"> <li>➤ Fixed bug that prevents normal operation of CFP Global Alarm LED. * To enable the LED, it is necessary to configure MDIO register settings. (CM2416:0322)</li> <li>➤ Fixed bugs that do not recognize CFP normally. (CM2416:0319, 0312, 0311)</li> </ul>
July 2010 1.00.24	First Release

### 3. Known Problems

- When measurement result file logs are output, "Log Drop" may be output for the multiport configuration with more than three ports. This means that the measurement result of one second section has been lost when "Log Drop" has been output. (CM2416:1313)

### 4. Upgrade Notes

- For how to confirm the version information and other notes on use, refer to the operation manual.
- Read the "MD1260A upgrade manual" on the Upgrade CD-ROM before updating the MD1260A software.
- Normal operation is not assured when a version check error occurs. Upgrade the firmware using the Update function. For details, refer to the "MD1260A upgrade manual".
- When the software is upgraded, some remote command device messages may change. Customers using remote commands should check "Appendix C Change Information on Command" of the MD1260A Remote Control Operation Manual when performing the version upgrade.
- Upgrade your MD1260A software to the corresponding version or later before using the optional product. Check the Version Correspondence Table shown below.

Version Correspondence Table

Model Number	Name	Version
MD1260A-001	100G Ethernet	1.0 or later
MD1260A-002	OTU4	1.0 or later
MD1260A-003	40G Ethernet	1.0 or later
MD1260A-004	OTU3	2.0 or later
MD1260A-005	ODU4-100GbE Mapping	3.0 or later
MD1260A-006	ODTU4.1-ODU0-GbE Mapping	3.0 or later
MD1260A-007	ODTU4.8-ODU2e-10GbE Mapping	3.0 or later
MD1260A-030	GPB	1.0 or later
MD1260A-031	CFP MDIO Analysis	2.1 or later
MZ1225A	Adapter for QSFP+	3.0 or later