

# Release Notes



## **MTM400 MPEG Transport Stream Monitor 071-1564-02**

[www.tektronix.com](http://www.tektronix.com)



071156402

Copyright © Tektronix, Inc. All rights reserved. Licensed software products are owned by Tektronix or its suppliers and are protected by United States copyright laws and international treaty provisions.

Tektronix products are covered by U.S. and foreign patents, issued and pending. Information in this publication supercedes that in all previously published material. Specifications and price change privileges reserved.

TEKTRONIX and TEK are registered trademarks of Tektronix, Inc.

## **Contacting Tektronix**

Tektronix, Inc.  
14200 SW Karl Braun Drive or P.O. Box 500  
Beaverton, OR 97077 USA

For product information, sales, service, and technical support:

- In North America, call 1-800-833-9200.
- Worldwide, visit [www.tektronix.com](http://www.tektronix.com) to find contacts in your area.

# Release Notes

This document describes enhancements and known issues of the MTM400 MPEG Transport Stream Monitor (Version 2.1.0).

## Enhancements

- Added DPI analysis and logging.
- Added support for 8VSB, 8PSK, COFDM and new QAM (Annex B) interface cards.
- Added RF Testing, alarms and information messages about breach of limits or deltas in measurements.
- Now supports h.264 and VC-1 across all standards.
- Implemented new PCR calculation method - with user interface to set parameter and all MGF profiles.
- Added trend information to PCR drift and frequency offset graphs to give long term view of drift. The sample period may be configured under drift test in the user interface.
- Altered PCR tests so that the log entry for the end of a failure reports the peak error.
- ETR290 2.6 CAT test now checks for the CAT only on PID 1.
- RUI version information moved into device view.
- SI transport changed from SNMP to HTTP for speed.
- Improved to include all ATSC PIDs.

## Bug Fixes

- Unreferenced PIDs are now identified in the PID view.
- SI views are now responsive after adding large tables.
- Improved QPSK card MER and EVM accuracy.
- Fixed configuration screen closing issue.
- Fixed issue where standard PIDs were shown even if not present.
- Fixed problems when decoding corrupted CDT PID.
- Configuration files will now accept negative numbers.
- Fixed issue of the PCR inaccuracy test threshold being ignored.
- SNMP event names and descriptions are now fully populated.
- ATSC VCT maximum section repetition error threshold can now be set under the test in the user interface.
- EVID\_SYNTAX\_HSDTT error eventID renumbered from 0x27F0 to 0x37F0.
- Added fix for QAM MER reduction on v2.0.7 from v2.0.6.0.
- Fixed service log to use RTM device time, not UTC.
- Removed blank lines from Service log output.
- Fixed issue where the log works when the UTC offset is moved backwards, but the user interface does not.

## Known Issues

### **8PSK Interface Locking to QPSK Signals**

In software version 2.1.0, when the 8PSK interface board (MTM400 Option EP) attempts to lock to QPSK modulated signals with symbol (baud) rates between 16 and 19 MSymbols/sec, occasionally the MTM400 may become unresponsive and require a reboot. Contact Tektronix Technical Support if you need to monitor QPSK signals within this baud-rate range.

### **New Interface Cards**

The parameters on the user interface may not update to reflect changes performed by external SNMP control.

In some instances loading a v2.0.7 configuration file will prevent a user from changing parameters on the new cards. Selecting factory default will clear this condition.

If an interface card is removed, at the next boot the unit will erroneously report that it is using the ASI input, even though it is not. The user must select another interface and then switch back to ASI.

### **ASI Input**

If an ASI input is removed for several hours, the stream may not be detected when it is reconnected. The work-around is to reboot the instrument.

### **BIOS**

This software requires the MTM400 to have BIOS version 2.07; the upgrade hex file is on the firmware CD and instructions about how to perform the upgrade are on the customer documentation CD.

### **MLM1000 Integration**

Users requiring an upgrade should contact Tektronix Technical Support.

### **Java Virtual Machine**

The downloaded RUI application uses the Microsoft Java Virtual Machine. The file to install MS Java is available from the Tektronix Web site by searching for MTM400 drivers (<http://www.tek.com/site/sw/detail/1,1059,1475,00.html>). You may verify if this is installed by typing “jview” at the command prompt; the version should be at least 5.00.3809.

The Sun virtual machine disables the MS virtual machine by default; you should undo this by clearing the Internet Explorer checkbox in the browser tab (or advanced tab, applet item depending on version) of the Sun Java control panel.

### **Applying Defaults**

The units ship from the factory in DVB mode and will apply DVB default limits for tests. When commissioning to other regions, the factory default button should be selected to apply the correct default for the region in use.

<b>Template Testing does not Handle Quotes</b>	If the SI includes quotes, the service name match will fail.
<b>Templates Status</b>	Services and PIDs can have the constraint MustBePresent applied to them. If an element was present previously, but is no longer present, the appropriate state is set correctly. However, the other states associated with the service or PID are remembered from their last recorded values. The correct behavior is for these other states to be specified as Unknown.
<b>Chinese Template Matching</b>	The template service name matching function will not work when the unit is used in implied GB2312 encoding mode.
<b>Template Resets</b>	After a “reset all”, only the root and leaf nodes return to a green state.
<b>Traps</b>	Continuity Count Error sends traps with ID 0x3014 rather than 0x3132.
<b>MIBs</b>	The current MIB files are now encoded into the build; they are accessed via <a href="http://&lt;unit address&gt;/mib/adsys.mib">http://&lt;unit address&gt;/mib/adsys.mib</a> and <a href="http://&lt;unit address&gt;/mib/admpeg.mib">http://&lt;unit address&gt;/mib/admpeg.mib</a> .
<b>Service Log</b>	The service log may display the wrong time between 12:00 and 13:00 hours.
<b>Service Log Timing</b>	The Service log runs as a low priority background test; the accuracy of the sample periods is $\pm 1$ second. No data is lost, because the next sample point contains the data from the missing sample. The output file contains the actual length of the sample period so accurate measurements are still possible.
<b>WebMSM</b>	This version of the firmware will not work with WebMSM v2.0.5; it must use “v2.1.0”.
<b>Firmware Upload</b>	Very infrequently, the MTM400 may lock up after downloading new firmware. The lock up can be remedied by cycling power on the instrument. However, to prevent instrument damage, the user must be absolutely sure to allow 15 minutes from the start of the firmware download before removing power from the instrument (as per firmware upgrade instructions).
<b>8PSK Signal Level</b>	The 8PSK input power level is not optimal and will be improved in a future release.
<b>QAM (Annex B) BER</b>	In some circumstances, the indicated QAMB BER is pessimistic.

## Specific Test Issues

- Bit rate testing on User PIDs is not implemented.
- Minimum repetition interval test for NIT\_actual is not implemented.
- Minimum repetition interval test for SDT\_actual is not implemented.
- Minimum repetition interval test for EIT\_actual\_pf not implemented.
- ISDB-T LDT Tables are not tested.
- Continuity count errors may sometimes be reported incorrectly on tables that have been involved in previous sync loss events.
- TDT missing test does not fail for 10 minutes if the TDT never appears in the stream, once it appears that operation is correct.
- VCT maximum section repetition interval: there is no parameter to alter the behavior of this test.
- PCR Frequency offset: the test failure is reported on the user interface, but is not added to the log.
- The PAT and PMT should not be scrambled; if they are, the MTM400 will report an error on the table, but not the correct error report that the PAT/PMT is scrambled.