General Caution

Please use a USB Memory Stick for firmware updates.

If there is a firmware update question, please contact Anritsu service support at
https://www.anritsu.com/test-measurement/contact-us for further information.

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What will the customer see in this release?

Product   : S33xE, S36xE, MS271xE, MT821xE, S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MT822xB, MT8220T, MW82119B
Application Package   : V4.20
Release Date   : Quarterly Release Jan. 2021
Information below may not apply to every model/option in Product list

*** IMPROVEMENTS ***

 -> Software - PIM
[SPH-4510] DTP overlay previously had to be re-applied/measured every time a user switched to another PIM measurement mode (Swept PIM or PIM vs. Time). with this fix the DTP overlay will stay active between PIM measurement modes. This will save the technician time in the field since they will only need a single DTP overlay measurement per antenna.

*** BUG FIXES ***

 -> Software - SPA and Sub-apps
[SPH-4939] Fixed an issue in PIM Hunting mode when a user changed the default settings the unit did not remember the last settings.
[SPH-4947] Fixed an issue where the PIM Hunter Menu button would show up in IA mode of operation.
[SPH-4950] Fixed a problem when switching between PIM Analyzer mode (1st generation/legacy PIM Master receiver mode) and PIM Hunting mode in our spectrum analyzers. The sweep in PIM Hunting mode stopped and the left side parameters were not reset.
[SPH-4952] Fixed an issue in PIM Hunting mode. When manually changing the span (normal spectrum analyzer function) and resetting to Zero span or using last span. PIM Hunting mode would not restart. PIM Hunting mode is a Zero Span measurement.

[SPH-4983] Fixed an issue in PIM Hunting mode under certain conditions when switching from PIM Hunting mode to another measurement mode (ie. LTE) the unit would freeze up or reboot.
[SPH-4984] Fixed an issue when in PIM Hunting mode the sweep would slow down if power cycled or switched back and forth between other modes.

 -> Software - PIM
[SPH-4674] Fixed an issue where the MW82119B PIM Master was not remembering non-default F1 and F2 settings.
[SPH-4954] Fixed an issue were user defined F1 and F2 values and calibration were lost going between High band and Low band in the MW82119B-0700 700 MHz PIM Master. The unit will now remember both the F1 and F2 values and the calibration between High band and Low band.
[SPH-4958] Fixed an issue in PIM Hunting mode when the 1 KHz RBW was used the trace sweep would stop.
[SPH-4968] Resolved an issue using the SCPI command (programming language) to recall the residual PIM value returned the wrong value.
[SPH-4986] Fixed an issue in PIM Hunting mode when the 1 KHz RBW was used the trace sweep would stop.

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What will the customer see in this release?
Product   : S33xE, S36xE, MS271xE, MT821xE, S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MT822xB, MT8220T
Application Package: V4.00
Release Date   : Quarterly Release Sept. 2020
Information below may not apply to every model/option in Product list

*** NEW FEATURES ***

 -> Software - SPA and Sub-apps
[SPH-4917] Resolved an issue where it was not possible to set Zero Span time markers to negative values remotely. This change applies only to Spectrum Analyzer (SPA) modes.

*** IMPROVEMENTS ***

 -> Software - SPA and Sub-apps
[SPH-4809] Added .csv file save format for the Cable/Antenna analyzer (CAA) measurements.

*** BUG FIXES ***

 -> Software - CAA
[SPH-4935] In response to numerous customer requests, dual trace .dat measurement files will no longer result in 2 individual files saved. Dual trace .dat measurement files saved are fully compatible with Line Sweep Tools (LST). This change affects the Cable/Antenna analyzer (CAA) mode only.
[SPH-4936] Fixed an issue in PIM Hunting mode when the RBW was set at 1 KHz the sweep could freeze.
[SPH-4937] Fixed an issue were the attenuation level was changing based on the Reference Level setting. For the PIM Hunting application this behavior has been changed so that the value stays the same and the default is 0 dB attenuation.
[SPH-4957] Resolved an issue where certain combinations of start/stop frequency and number of data points could result in spikes appearing after calibration.

 -> Software - SPA and Sub-apps
[SPH-4949] Fixed an issue were the Spectrum graph in PIM Hunting measurement covered the Center Frequency as well as Span and other annotations in (ms/s) after switching

mode from SPA PIM Hunting to AM-FM-PM => PIM Analyzer => Spectrum Analyzer.

 -> Software - VNA

[SPH-4830] Resolved an issue where recalling a [Trace + Memory]/2 measurement resulted in the Trace Math function being re-applied.

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What will the customer see in this release?

Product   : S33xE, S36xE, MS271xE, MT821xE, S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MT822xB, MT8220T, MW82119B

Application Package: V3.90

Release Date   : Release May. 2020

Information below may not apply to every model/option in Product list

*** IMPROVEMENTS ***

 -> Software - CAA

[SPH-2095] The following cables have been added per customer requests: RLCX-SL 158R, RLCX-SL 114R, RLCX-SL 078R, RLCX-SL012R, RLCX-SL038R, RLCX-SL014R, RLCX-SL012S, RLCX-SL038S, RLCX-SL014S, RLCX-SL012R FPR.

[SPH-4778] CSV file format added to File Save Menu.

 -> Software - VNA

[SPH-2095] The following cables have been added per customer requests: RLCX-SL 158R, RLCX-SL 114R, RLCX-SL 078R, RLCX-SL012R, RLCX-SL038R, RLCX-SL014R, RLCX-SL012S, RLCX-SL038S, RLCX-SL014S, RLCX-SL012R FPR.

*** BUG FIXES ***

 -> Software - CAA

[SPH-4731] Resolved an issue where sometimes the last point marker value displayed would not match the last point data in the saved measurement.

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What will the customer see in this release?

Product   : S33xE, S36xE, MS271xE, MT821xE, S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MT822xB, MT8220T, MW82119B
Application Package: V3.80
Release Date   : Release Jan. 2020
Information below may not apply to every model/option in Product list

*** NEW FEATURES ***

 -> Software - LTE
[SPH-4852] Adding initial support for TD-LTE measurements for S412E.

 -> Software - PIM
[SPH-4844] Added Support for MW82119B-0703 option.

 -> Software - OS/Base
[SPH-4806] Added support for amplitude blanking capability in S11 and S21 Log Mag graph types only, for models with option 007 installed.

 -> Software - SPA and Sub-apps
[SPH-4808] New PIM Hunting mode, used for PIM Hunting applications on rooftops with the PIM Hunting probe or Yagi antennas.

*** BUG FIXES ***

 -> Software - P25/P25p2
[SPH-4884] Corrected an error on the Band plan. The frequency and channel numbers for P25 will now be correct.

 -> Software - PTC
[SPH-4798] Improved Trigger Timeout message responsiveness.

 -> Software - VNA
[SPH-4760] Resolved an issue in VNA Mode where saving a measurement + JPG could result in repeated file confirmation messages.

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What will the customer see in this release?

Product   : MS271xE, MT821xE, MS2720T, MT822xB, MT8220T

Application Package   : V3.71

Release Date   : Quarterly Release October 2019

Information below may not apply to every model/option in Product list

*** NEW FEATURES ***

 -> Software - CAA

[SPH-4784] Added (Trace + Memory)/2 feature to Trace Memory. Allows users to reduce or eliminate peak-to-peak ripple caused by standing waves when making 1-port cable loss measurements.

*** BUG FIXES ***

 -> Software - DMR2

[SPH-4000] regional language Support for S412E LMR Master is available.

 -> Software - NXDN

[SPH-4000] regional language Support for S412E LMR Master is available.

 -> Software - dPMR

[SPH-4000] regional language Support for S412E LMR Master is available.

 -> Software - NBFM

[SPH-4000] regional language Support for S412E LMR Master is available.

 -> Software - TETRA

[SPH-4000] regional language Support for S412E LMR Master is available.

[SPH-4690] Fixed an issue where TETRA Base Station Receiver Sensitivity loading of customer patterns did not operate correctly. Added a softkey to display BCC, MCC, and MNC of

loaded BSRS custom patterns.

 -> Software - P25/P25p2
[SPH-4000] regional language Support for S412E LMR Master is available.

 -> Software - PTC
[SPH-4000] regional language Support for S412E LMR Master is available.

 -> Software - PDT
[SPH-4000] regional language Support for S412E LMR Master is available.

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What will the customer see in this release?
Product   : S33xE, S36xE, MS271xE, MT821xE, S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MT822xB, MT8220T
Application Package: V3.50
Release Date   : Quarterly Release April 2019
Information below may not apply to every model/option in Product list

*** IMPROVEMENTS ***

 -> Software - CPRI
[SPH-4627] Added Samsung and Huawei to PIM Aid radio preset selections.

*** BUG FIXES ***

 -> Software - SPA and Sub-apps
[SPH-4691] Fixed an issue where field strength measurement settings might not properly apply after power cycle.

 -> Software - OS/Base

[SPH-4617] Fixed an issue in S412E where setting the Input Power Warning to ON would prevent the 'available firmware update message' from displaying when appropriate during power-up.

[SPH-4713] Fixed an issue where automatic firmware updates would not execute in S412E under some circumstances.

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What will the customer see in this release?

Product   : S33xE, S36xE, MS271xE, MT821xE, S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MT822xB, MT8220T, MW82119B

Application Package: V3.40

Release Date   : Quarterly Release January 2019

Information below may not apply to every model/option in Product list

*** NEW FEATURES ***

 -> Software - CAA

[SPH-4535] Added cal coefficient support for cal kits with 4.3-10 connectors.

 -> Software - PTC

[SPH-4442] Added common American Association of Railroads (AAR) frequency standards to our Signal Standards lists, and made them available in PTC mode.

 -> Software - SPA and Sub-apps

[SPH-4566] Added dBuW, dBmA, and dBuA units in SPA mode.

 -> Software - VNA

[SPH-4535] Added cal coefficient support for cal kits with 4.3-10 connectors.

*** IMPROVEMENTS ***

 -> Software - LTE

[SPH-4590] Added Band 71, the new 600 MHz LTE Band to the signal standard list.

*** BUG FIXES ***

 -> Software - LTE
[SPH-4597] Fixed an issue where recalled 4x4 MIMO LTE measurement would not properly display the green/grey antenna icons.

 -> Software - ISDBT/SFN
[SPH-4687] Corrected the antenna.txt file so that it would behave correctly in ISDB-T mode.

 -> Software - VNA
[SPH-4689] Fixed an issue in field mode that unnecessarily limited scale settings in Field Mode VSWR measurements.

 -> Software - SPA and Sub-apps
[SPH-3745] Fixed a corner case error with averaging in Interference Analysis Field Strength measurement.
[SPH-4458] Antenna selection list now includes EMI antennas when 'All' is selected.

 -> Software - PIM
[SPH-4642] Changed the time/date text layout in the PIM Calibration Due popup.
[SPH-4644] Addressed an issue that could cause an option 600 or 902 instrument to lock up when they are set to high band and perform a calibration via the SCPI command:
CAL:PIM:FULL ON

 -> Software - OS/Base
[SPH-4593] Fixed an issue where unit would hang during power-up under certain conditions after recalling a VNA setup from SPA mode.

 -> Software - CAA
[SPH-4593] Fixed an issue where unit would hang during power-up under certain conditions after recalling a VNA setup from SPA mode.

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What will the customer see in this release?
Product   : S33xE, S36xE, MS271xE, MT821xE, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MT822xB, MT8220T

Application Package: V3.30
Release Date   : Quarterly Release October 2018
Information below may not apply to every model/option in Product list

*** NEW FEATURES ***

 -> Software - TETRA
[SPH-3853] External - Used Training Sequence symbols to determine BER for both allocated and unallocated signal bursts.

*** BUG FIXES ***

 -> Software - ISDBT/SFN
[SPH-3731] Fixes an issue where over a 100 ISDBT files were saved into a folder which resulted in the unit slowing down in time. Files are now saved in multiple folders with date and timestamp.

 -> Software - VNA
[SPH-4026] Fixes an issue where the application would hang in Transmission Measurement mode when recalling a set up file to put the unit into Cable and Antenna Analyzer Mode, and then attempting to run an OSL calibration.
[SPH-4028] Fixes an issue where the SPA Amplitude Menu would show up in Transmission Measurement Mode.

[SPH-4605] Fixed an issue in VNA mode where glitches would appear at 375MHz and 1500 MHz after a calibration.

 -> Software - SPA and Sub-apps
[SPH-3745] Fixed a corner case error with averaging in Interference Analysis Field Strength measurement
[SPH-3951] Disabled the use of Start Freq and Stop Freq in Interference Analysis mode. Center Freq is the proper way to set frequency in this mode.
[SPH-4547] Fixed an issue with field strength limits under V/m units setting

 -> Software - TETRA
[SPH-3570] Fixed a bug in TETRA where some units would not recall the correct Tx Output pattern as part of a recalled measurement or setup

[SPH-3943] Fixed an issue in TETRA app where recalling a measurement or setup would not correctly recall the Tx pattern.

 -> Software - OBSAI
[SPH-3738] Fixed an issue where the system time would not recall properly under some saved measurement conditions

 -> Software - CPRI
[SPH-3738] Fixed an issue where the system time would not recall properly under some saved measurement conditions

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What will the customer see in this release?
Product   : S33xE, S36xE, MS271xE, MT821xE, S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MT822xB, MT8220T, MW82119B
Application Package: V3.20
Release Date   : Quarterly Release beginning July 2018
Information below may not apply to every model/option in Product list

*** NEW FEATURES ***

 -> Software - TETRA
[SPH-4471] Motorola EBTS added to Base Station Selections in Tetra Base Station Sensitivity Tests

 -> Software - NB-IoT
[SPH-4569] Fixes an issue where performing a preset does not set the center frequency of the analyzer correctly. Similar behavior can be noticed during setup and measurement recall.

 -> Software - PIM
[SPH-4546] Changed the default F2 frequencies for Option 700 to 764 / 761 MHz for low / high band, respectively.

 -> Software - OS/Base
[SPH-4429] Improved battery charge algorithm.

*** BUG FIXES ***

 -> Software - DMR2
[SPH-3621] Fixes an issue where the Back soft button is inactivated incorrectly after pressing Max/Min Active Graph soft button
[SPH-3797] Fixes an issue where ENTER button from keypad to collect new data points from Coverage Mapping doesn't work.

 -> Software - NXDN
[SPH-3797] Fixes an issue where ENTER button from keypad to collect new data points from Coverage Mapping doesn't work.

 -> Software - VNA
[SPH-4504] Fixes an issue where in Dual Channel mode, the Smith Chart marker table TR1 and TR2 readout text would overwrite each other.

 -> Software - dPMR
[SPH-3797] Fixes an issue where ENTER button from keypad to collect new data points from Coverage Mapping doesn't work.

 -> Software - OS/Base
[SPH-4426] Fixed the issue where saving files to a USB memory via the MMEMory:STORe:JPEG command failed when the usr folder was not present in the USB memory.

 -> Software - TETRA
[SPH-3797] Fixes an issue where ENTER button from keypad to collect new data points from Coverage Mapping doesn't work.

 -> Software - NBFM
[SPH-3797] Fixes an issue where ENTER button from keypad to collect new data points from Coverage Mapping doesn't work.

 -> Software - P25/P25p2
[SPH-3797] Fixes an issue where ENTER button from keypad to collect new data points from Coverage Mapping doesn't work.

 -> Software - PTC
[SPH-3797] Fixes an issue where ENTER button from keypad to collect new data points from Coverage Mapping doesn't work.

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What will the customer see in this release?

Product   : MS271xE, MT821xE, MS2720T, MT822xB, MT8220T
Application Package: V3.13
Release Date   : Release beginning April 2018
Information below may not apply to every model/option in Product list

*** BUG FIXES ***
 -> Software - NB-IoT
[SPH-4568] - Fixed a bug where NB-IoT was adversely affected by other options.

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What will the customer see in this release?
Product   : MS2720T
Application Package: V3.11
Release Date   : Quarterly Release beginning April 2018
Information below may not apply to every model/option in Product list

*** NEW FEATURES ***

 -> Software - NB-IoT
[SPH-4545] Initial release of NB-IOT application(option 887)

*** BUG FIXES ***

 -> Software - LTE
[SPH-3833] Fixed an issue where values for PHICH and PDCCH in LTE application did not export correctly into Master Software Tools.

 -> Software - SPA and Sub-apps
[SPH-3940] Fixed an issue in spectrum analyzer mode where adding multiple markers, and/or setting markers beyond the instrument's frequency range, could cause the instrument to lock up.

 -> Software - OS/Base

[SPH-4360] Fixed an issue where the GPS information in the title would disappear after recalling a setup file.

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What will the customer see in this release?
Product   : MS2720T
Application Package: V3.01
Release Date   : Intermediate Release February 2018

*** NEW FEATURES ***

 -> Software - LTE

[SPH-4335] Fixed an issue where adjacent LTE20 carriers would provide improper frequency accuracy measurements under certain conditions.

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What will the customer see in this release?
Product   : S33xE, S36xE, MS271xE, MT821xE, S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MT822xB, MT8220T, MW82119B
Application Package: V3.00
Release Date   : Quarterly Release beginning January 2018
Information below may not apply to every model/option in Product list

*** NEW FEATURES ***

 -> Software - CAA

[SPH-3864] Added additional save type Measurement and JPG" to the uWave VNA family."

 -> Software - PIM

[SPH-3921] PIM Measurement Tx1 range adjusted to cover 731 MHz to 734.5 MHz

 -> Software - VNA

[SPH-3864] Added additional save type Measurement and JPG" to the uWave VNA family."

*** BUG FIXES ***

-> Software - VNA
[SPH-3591] Fixes an issue with Cable Loss mode where limit lines would change after a calibration was completed.
[SPH-3646] Fixes an issue where the touch screen functionality would be disabled due to the Attention" dialog moving behind the main form window."

-> Software - CPRI
[SPH-2932] Fixed an issue in single sweep CPRI Spectrogram where it would not always stop the measurement after one sweep.
[SPH-3536] Fixed an issue - Limits can now only be recalled if the limits were saved in the same mode of operation (SPA, CPRI, OBSAI) as is currently running on the unit.

-> Software - OS/Base
[SPH-3572] Fixed an issue where the GPS tag does not disappear even though GPS is off. This would occur when recalling a trace with GPS data then switching to a live trace and switching modes.
[SPH-3739] Fixed an issue where the unit didn't display an error message when setting the Save Location to USB, then removing the USB, and pressing the camera icon to save a screenshot.
[SPH-3829] Fixed an issue where the option list on the boot up screen was beyond the right edge.

-> Software - OBSAI
[SPH-3536] Fixed an issue - Limits can now only be recalled if the limits were saved in the same mode of operation (SPA, CPRI, OBSAI) as is currently running on the unit.

-> Software - P25/P25p2
[SPH-3321] Fixed an issue with file format. Saving control channel files now places each group of associated data on its own line, when recalled with a text editor.

-> Software - CAA
[SPH-3646] Fixes an issue where the touch screen functionality would be disabled due to the Attention" dialog moving behind the main form window."
[SPH-3837] Fixes an issue where the Dmax value could be manually set to a value that was large then the calculated Dmax value.

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What will the customer see in this release?

Product   : S33xE, S36xE, MS271xE, MT821xE, S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MT822xB, MT8220T
Application Package: V2.90
Release Date   : Quarterly Release beginning October 2017
Information below may not apply to every model/option in Product list

*** NEW FEATURES ***

 -> Software - LTE
[SPH-3136] Added Option 886 for 256 QAM extension to FD-LTE and TD-LTE applications
[SPH-3777] Fixed an issue in TD-LTE that would cause constellation to occasionally make bad measurements on valid 256 QAM input signals. (MS2720T Only)
Fixed an issue where changing modes directly to LTE or TD-LTE after a factory default would not correctly display a 256-QAM constellation (MS2720T Only)

[SPH-3188] Added 3GPP Release 13 Spectral Emission Masks for frequencies > 3 GHz in LTE & TD-LTE measurements.

 -> Software - PIM
[SPH-3658] SPH-3658 Adds support for the SCPI command MMEMory:DELete for deleting setup and measurement files.

 -> Software - VNA
[SPH-2592] Increases the number of markers from 8 to 12 in VNA mode
(S412E, MS202xB, MS203xB, MS202xC, MS203xC Instruments, VNA and Field measurement views).

*** IMPROVEMENTS ***

 -> Software - DMR2
[SPH-2941] Added remote command to maximize/minimize the active graph type. (See Programming manual for details)

*** BUG FIXES ***

 -> Software - VNA

[SPH-2451] Fixes an issue where the Cable List Window was not remaining the top-most form and would move behind the VNA graph.
[SPH-2593] Changes the S412E, MS202xB, MS203xB, MS202xC, MS203xC Instruments Limit Line Feature such that each measurement mode can now have independent limit line settings.

 -> Software - OS/Base
[SPH-3237] Fixed the issue where using the arrow keys to move around the indoor map was slow in the Spectrum Analyzer mode.
Fixed the issue where moving the cursor around the indoor map failed after recalling a AZM file.
Fixed the issue where pressing the Enter key didn't record data points in indoor map in Spectrum Analyzer mode.

 -> Software - NBFM
[SPH-2811] Fixed a bug in NBFM that would cause beep with every sweep when Auto Scan is On.

 -> Software - CPRI
[SPH-3029] Fixed a bug that could prevent the second waterfall graph from displaying in a Dual Display recalled spectrogram measurement.

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What will the customer see in this release?
Product   : MS2720T
Application Package: V2.84
Release Date   : September 2017

*** NEW FEATURES ***
Adds Option 886 - 256-QAM LTE/TD-LTE demodulation measurements

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What will the customer see in this release?
Product   : S33xE, S36xE, MS271xE, MT821xE, S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MT822xB, MT8220T, MW82119B
Application Package: V2.80
Release Date   : Quarterly Release beginning July 2017
Information below may not apply to every model/option in Product list

*** BUG FIXES ***

 -> Software - LTE
[SPH-2922] In LTE-EMF mode, when the EMF antenna is disconnected, error messages have been reorganized to have better readability.
[SPH-2924] In WCDMA-EMF mode, when the EMF antenna is disconnected, error messages have been reorganized to have better readability.

 -> Software - VNA
[SPH-2594] Fixed an issue with multiple markers and touching the trace, which was causing the nearest marker to become active and move to the touched location.The new behavior is such that touching the trace will result in the marker that is already active to move to the location that was touched.
[SPH-2595] Fixed an issue where when Marker on trace" was set to "All" (in field mode for example) the marker would not update correctly when the start or stop frequency was changed."

 -> Software - CPRI
[SPH-2708] Preset now set Spectrogram Record to 'Off' state
[SPH-2898] Starting with MST V2.36.8 and unit firmware V2.8x, MST will support multiple traces from OBSAI and CPRI applications.
[SPH-2969] Corrected preset values for limit lines in CPRI and OBSAI applications.
[SPH-2970] Fixed a bug where CPRI/OBSAI limit lines would not correctly export to Master Software Tools. Also requires MST v2.36.8
[SPH-2971] Lower Limit line default value corrected in CPRI and OBSAI to match the RF applications
[SPH-3232] Fixed a bug where internal time base would not always lock to external or GPS reference in CPRI mode

 -> Software - SPA and Sub-apps
[SPH-2841] Fixes an issue where EMI antenna selection was off by one.
[SPH-3138] Fixes rounding error of BW value in Channel Scanner file after Scriptmaster scan.

 -> Software - OS/Base
[SPH-3237] Fixed the issue where using the arrow keys to move around the indoor map was slow in the Spectrum Analyzer mode. Also fixed the issue where moving the cursor around the indoor map failed after recalling a AZM file.

 -> Software - OBSAI
[SPH-2975] Fixed a bug where Single Sweep mode would occasionally cause the Layer 2 Alarms display to flicker

 -> Software - P25/P25p2
[SPH-3147] Mapping data collection for is now limited to 8 hours or 60,000 points of data collection to avoid memory overrun issues.

-> Software - CAA

[SPH-2424] Fixed an issue where the unit would hang if a SCPI preset was issued and the Cable list table dialog was open.

NOTE: THIS FIX ALSO APPLIES TO THE PIM MASTER.

[SPH-2548] Fixed an issue where the marker would not move when adjusting the twiddle knob to the left.

[SPH-3114] Fixed an issue where Marker-to-Peak and Marker-to-Valley were shifted 1 pixel to the left when recall a measurement file type .dat.

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What will the customer see in this release?

Product   : S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MW82119B

Application Package: V2.70

Release Date   : Quarterly Release beginning April 2017

Information below may not apply to every model/option in Product list

*** NEW FEATURES ***

*** IMPROVEMENTS ***

-> Software - DMR2

[SPH-2156] Tx Output will now synchronize to Base Station downlink signal

-> Software - VNA

[SPH-2402] The limit line behavior in the Cable and Antenna mode of the BTS Master has been enhanced. With this update, the limit line settings for each measurement type will be unique for that measurement and will persist even if the measurement type is changed.

*** BUG FIXES ***

-> Software - SPA and Sub-apps

[SPH-2337] Fixes an issue where Emission Mask measurements produced erroneous pass/fail results under certain conditions.
[SPH-2504] Fixed an issue where Field Strength measurements in Coverage Mapping did not display the correct results for non-dBm units

 -> Software - OS/Base
[SPH-2860] Added support for commands with a block data parameter for the raw socket SCPI interface.

 -> Software - TETRA
[SPH-2397] Fixed a bug where saved .mtd files were not correctly storing EVM data.

 -> Software - NBFM
[SPH-2891] Fixed a bug in NBFM where changing DCS value could corrupt the Signal Generator pattern outputs for all LMR demod applications

 -> Software - CAA
[SPH-2393] Fixed an issue with the Back soft key in the Application Options menu that would not return the user back to the System Menu once they have entered into the Bias Tee menu.

 -> Software - PTC
[SPH-2455] SOURce:DM:PATTern and SOURce:DM:PATTern? remote commands are now functional

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What will the customer see in this release?
Product   : S33xE, S36xE, MS271xE, MT821xE, S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MT822xB, MT8220T, MW82119B
Application Package: V2.60
Release Date   : Quarterly Release beginning January 2017
Information below may not apply to every model/option in Product list

*** NEW FEATURES ***

 -> Software - DMR2
[SPH-1811] DMR2 Application nomenclature changed to DMR" Remote command remain compatible."

 -> Software - CAA

[SPH-2508] Added support for easyTest in the VNA Master (MS20xxB series) and LMR Master (S412E).
[SPH-1506] Added a SCPI command to allow saving of .dat measurement files.

 -> Software - LTE

[SPH-2296] Added limited support for TD-LTE 4x4 MIMO

 -> Software - VNA

[SPH-2508] Added support for easyTest in the VNA Master (MS20xxB series) and LMR Master (S412E).
[SPH-1506] Added a SCPI command to allow saving of .dat measurement files.

 -> Software - CPRI

[SPH-2180] For Option 751 CPRI - Added the ability to show two spectrum or spectrogram graphs which can display up to four separate AxC groups (traces).
[SPH-2448] Added support for CPRI line rate 8 (10.1376 Gbps)
[SPH-2449] Added support for compressed LTE sampling rate on 20 MHz LTE signals
[SPH-2640] Auto Detect improved with Ericsson presets

*** IMPROVEMENTS ***

 -> Software - OS/Base

[SPH-2515] Web UI tab removes model information.

*** BUG FIXES ***

 -> Software - LTE

[SPH-47] Fixed a bug in LTE EMF recalled measurements where RS values might recall improperly
[SPH-2240] Fixed an issue that prevented 4x4 MIMO time alignment data from recalling properly to unit.
[SPH-2788] Shift-1 Preset is now prevented while a recalled measurement is displayed.

 -> Software - SPA and Sub-apps

[SPH-1988] Fixes a bug where the zero span max RBW value was incorrectly limited in the GUI and as a result was out of sync with the actual RBW value.

-> Software - OS/Base
[SPH-1812] Fixed an issue where black on white and color on white schemes were not displaying correctly in some LMR Master modes.

-> Software - HiPM
[SPH-1667] Fixed a bug where the unit would unexpectedly attempt to zero the sensor after recalling a measurement
[SPH-2381] Fixes an issue where the Quick name buttons were not saved with the setup in Hi-PM mode.

-> Software - TETRA
[SPH-2376] Save on Event .csv measurement files are updated to contain results for recently-added RMS Vector Error and Peak Vector Error measurements.

-> Software - VSG
[SPH-1800] BTS Master VSG now allows up to 48 waveforms to be loaded

-> Software - P25/P25p2
[SPH-2373] Fixed an issue that could cause the unit to hang when recalling setups for an application other than the current one.
[SPH-2501] Updated remote DISPlay:TRACe<Tr>:FORMat:SIGAnalyzer command/query parameters to match the Programming Manual.

-> Software - WiMAX
[SPH-2309] Fixed a bug where the unit would intermittently hang when displaying Spectral Emission Mask

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What will the customer see in this release?
Product   : MS271xE, MT821xE, MS2720T, MT822xB, MT8220T
Application Package: V2.51
Release Date   : Quarterly Release beginning October 2016
Information below may not apply to every model/option in Product list

*** BUG FIXES ***
[SPH-2694] - Fixed an issue with TD-LTE application becoming unresponsive in several measurement views, including the default "Summary" screen while Bandwidth selection is

greater than 10 MHz.

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What will the customer see in this release?
Product   : S33xE, S36xE, MS271xE, MT821xE, S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MT822xB, MT8220T, MW82119B
Application Package: V2.50
Release Date   : Quarterly Release beginning October 2016
Information below may not apply to every model/option in Product list

*** NEW FEATURES ***

 -> Software - TETRA
[SPH-2147] Added Residual Carrier Magnitude measurement to the Summary display
[SPH-2149] TETRA remote queries :FETCh:SIGAnalyzer? :READ:SIGAnalyzer?   :MEASure:SIGAnalyzer? will now contain two additional values in the response for Peak Vector Error and Residual Carrier Magnitude
[SPH-1603] Added Police Digital Trunking Options 563 and 562

 -> Software - OS/Base
[SPH-119] Improved error message on LTE trace save failure when trying to save before the end of the first sweep.

 -> Software - NBFM
[SPH-1919] Remote command :FETCh:SIGAnalyzer? updated so the second returned value in the string will represent the value indicated by the Summary Freq Disp front panel setting. (Carrier Frequency or Frequency Error)

 -> Software - VNA
[SPH-1921] Added select SCPI commands to support VNA Field Mode.

*** BUG FIXES ***

 -> Software - VNA

[SPH-2307] Resolved an issue with marker interpolation on Smith Charts or Polar Charts that caused stray lines to be drawn over the entire screen. This issue only affected VNA mode in the VNA Master products.

 -> Software - SPA and Sub-apps

[SPH-282] Fixed an issue where Markers on Result traces do not jump to the right frequency when markers are toggled between traces.

[SPH-2182] In SPA field strength graph, negative antenna factors show correctly over frequency.

 -> Software - OS/Base

[SPH-1642] Fixed a typo in the power limit warning message at boot.

[SPH-1653] Clearing old messages when changing modes from a recall state.

[SPH-1681] Fixed a black out of the web interface remote display in Chrome when selecting a different browser tab then selecting the remote display tab.

[SPH-1863] Fixed an issue where SPA application performed a LO Null search on the second application load after a master reset.

[SPH-1889] Fixed a problem where user defined calibration files were getting deleted on entering the PIM application a second time after a master reset.

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What will the customer see in this release?

Product   : S33xE, S36xE, S412E, MS202xB, MS203xB, MS202xC, MS203xC, MS2720T, MS822xB, MT8220T, MW82119B

Application Package: V2.40

Release Date   : Quarterly Release beginning July 2016

Information below may not apply to every model/option in Product list

*** NEW FEATURES ***

 -> Software - VNA

[SPH-1744] Added support for interpolated markers in VNA mode. When marker values are set via the numeric keypad or via SCPI, interpolation will be used if the desired marker x-axis value is not an actual measurement point. Markers will continue to snap to the nearest point if the twiddle knob or the arrow keys are used to set their location.

 -> Software - dPMR

[SPH-1656] Added remote command support for dPMR.

 -> Software - SPA and Sub-apps

[SPH-1914] New trace result types Max Hold and Total Max Hold added to EMF Measurements.

 -> Software - OS/Base
[SPH-116] Added Quick Name Matrix support to Transmission Mode.
[SPH-1858] Added EasyTest repeat script capability.

 -> Software - TETRA
[SPH-1565] Added remote command support for RMS, Peak Vector Error and Residual Carreer Feed Through.

 -> Software - CPRI
[SPH-1804] Added Option 413 Ethernet, which is compatible with all options.

 -> Software - P25/P25p2
[SPH-36] P25P2 - Added four new Control Channel summary displays - Active Control Channel Summary, Adjacent Site Summary, Band Plan Summary, Backup Control Channel Summary.

*** IMPROVEMENTS ***

 -> Software - OS/Base
[SPH-1510] Fixed an issue where web server popups were showing up off screen on pages that can be scrolled.

*** BUG FIXES ***

 -> Software - DMR2
[SPH-660] Fixed an issue with pan and zoom with indoor maps where data points would not zoom in sync with the map.

 -> Software - NXDN
[SPH-660] Fixed an issue with pan and zoom with indoor maps where data points would not zoom in sync with the map.

 -> Software - VNA

[SPH-502] Resolved an issue that prevented the instrument settings from getting preset after a measurement file was recalled.

 -> Software - HiPM
[SPH-1606] Fixed a bug in High Accuracy Power Meter mode where max power for the MA24106A sensor could not be set up to +23 dBm.

 -> Software - OS/Base
[SPH-104] Fixed as issue where Option 31 (GPS) was listed as an add-on option in MT8220T. It is standard in this model.
[SPH-107] Fixed an issue where instruments would respond to multiple IP addresses.
[SPH-1859] Fixed the issue where the instrument would hang at the last step when executing an easyTest script with the maximum number of steps(500) allowed.

 -> Software - SPA and Sub-apps
[SPH-283] VBW set to correct bandwidth in Zero Span after presetting the instrument.
[SPH-284] Enabled ability to turn on Markers after sending Preset command over SCPI.
[SPH-289] Initial attenuation level values are restored after going in and out of Coverage Mapping.
[SPH-298] Fixed an issue where sweep time was not estimated correctly after preset
[SPH-302] Preset SCPI command now resets Auto RBW from Off to On when C/I is turned On.
[SPH-303] RBW/VBW ratio returns to default value after AM/FM/PM mode switching.
[SPH-304] Navigation hard keys when map is not loaded works in Coverage Mapping.
[SPH-305] Fixed an issue where a mode switch, after Esc-On, from SPA into IA and then back into SPA, will cause the Save On Event button to vanish.
[SPH-307] Fixed an issue where IFBW state indicator in the status window displays incorrectly.
[SPH-325] Fixed an issue where recalling a measurement file with field strength units would not recall correctly.

 -> Software - TETRA
[SPH-660] Fixed an issue with pan and zoom with indoor maps where data points would not zoom in sync with the map.
[SPH-1443] Fixed an issue where 'Received Pwr' of the summary display did not show power with in acceptable range.
[SPH-1513] TETRA - Fixed a bug where recalled measurements would not correctly populate values in the Summary Table

 -> Software - NBFM
[SPH-660] Fixed an issue with pan and zoom with indoor maps where data points would not zoom in sync with the map.

 -> Software - P25/P25p2
[SPH-660] Fixed an issue with pan and zoom with indoor maps where data points would not zoom in sync with the map.

[SPH-1665] Modified SCPI command to include new Summary display graphs in P25 P2 Analyzer measurement
[SPH-1690] Fixed Motorola Base Station Test in P25 Phase 2 app. Removed additional sampling that was added when when implementing FDMA Control Channel measurement. Additional sampling was causing improper delay estimation for re-sync of signal pattern.

 -> Software - PTC
[SPH-660] Fixed an issue with pan and zoom with indoor maps where data points would not zoom in sync with the map.
[SPH-1555] EVM and other summary measurements were adversely affected by PTC burst selection method when frequency offset between transmitter and receiver was more than about 150Hz. The burst selection method was optimized to increase the frequency offset capability to at least +/- 340Hz. This should allow customers to measure the standard of +/- 330Hz Wayside requirement.

Changed 'IQ Imbal' to 'IQ Offset' to better reflect all combined DC offsets (LO leakage, IQ DC Offset, etc...). Measurement now responds to changes in IQ DC Offset injection
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What will the customer see in this release?
Product   : MS2720T
Application Package: V2.30
Release Date   : May 19, 2016

*** NEW FEATURES ***

  Spectrum Analyzer and Sub-modes [1]
   - Added Field Strength measurements to coverage mapping option measurement in SPA mode. #3342

        LTE and TD-LTE Analyzer [1]
        - Added Support for 4x4 MIMO LTE-FDD measurements.

  High Accuracy Power Meter [1]
   - Added support for MA243xxA USB power sensors.

*** ENHANCEMENTS ***

  General [4]

 - Substantial updates Japanese Language translation files for SPA and System applications.
 - Substantial updates Chinese Language translation files for all applications.
 - Updated Signal Standards files to include LTE Bands 29,30,31,32, and 66A to keep up with recent standards releases.
 - Added Disclaimer notice on web server login page. QDF-81

*** BUG FIXES ***

 General [2]
 - Fixed an issue where the instrument would display an incorrect IP address when using a Zyxel mobile router powered by the instrument's USB
   port. #23728
 - Fixed an issue where the status window reported an invalid IP address of 169.254.x.x if the window was opened shortly after the Ethernet cable
   was plugged in. #23045

 High Accuracy Power Meter [1]
 - Fixed an issue with zeroing external USB high accuracy sensors.

 Spectrum Analyzer and Sub-modes [1]
 - Fixed an issue with MS2720T marginal TOI measurements on 9 GHz optioned instruments.

 LTE and TD-LTE Analyzer [4]
 - Fixed an issue where the recalled channel power did not match the initially saved value #22962
 - Fixed an issue whereTD-LTE OTA Carrier Aggregation Measurement didn't detect MOD signal. #23779
 - Fixed an issue with "Cell ID" defaulting to 0 upon reselecting the Sync menu.

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What will the customer see in this release?
Product   : MS2720T
Application Package: V2.20
Release Date   : February 12, 2016

*** NEW FEATURES ***

Spectrum Analyzer and Sub-modes [1]
- Expanded capabilities to allow easyTest to enable more complex test scripts to be executed. easyTest scripts will also be able to save files to
  a single directory allowing for a simplified process for retrieving test results. ECAA-9.
  Refer to Sky Bridge product release notes for individual product/option support.

*** MISCELLANEOUS ***

General [1]
- Adjusted LCD Horizontal and Vertical timing to work with display manufacturer revision changes.
  Updated SPL/IPL to V3.60 and ATABoot revision to V3.71 for improved handling of battery charge termination while unit is in the powered down
  state.
  SPL/IPL and ATABoot are only available for update at Factory or Customer Service Centers.

*** ENHANCEMENTS ***

General [1]
- Added ?Active Client Detection? to enable a user to maintain instrument control via the instrument?s WEB page, until the browser is closed for
  more than 1 minute.

*** BUG FIXES ***

General [1]
- Fixed an issue while executing easyTest scripts where errors during auto-advance script steps were not handled properly. #22554

Spectrum Analyzer and Sub-modes [7]
- Fixed an issue in coverage mapping where the direction hard keys would not function when a GPS map was not loaded.
- Fixed an issue in SPA mode where a Preset operation soon after a recall could cause problems with GPS measurements. #23186
- Fixed an issue in SPA mode where 'Save On Event' button was hidden after using IA mapping feature.
- Fixed an issue in SPA mode where the GPS maps Pan/Zoom functionality would not work. #3217

 - Fixed an issue in SPA mode where the reference level after recalling values from file was wrong. #22224
 - Fixed an issue where recalling a measurement caused the unit to go to the Gated Sweep menu.
 - Fixed an issue where the Chinese translation of Trace B & C operation referenced Trace A & B. #23066

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What will the customer see in this release?
Product   : MS2720T
Application Package: V1.16
Release Date   : Oct 23, 2015

*** MISCELLANEOUS ***

  General [1]
  - Adjusted LCD Horizontal and Vertical timing to work with display manufacturer revision changes.
    Updated SPL/IPL to V3.60 and ATABoot revision to V3.71 for improved the handling of battery charge termination while unit is in the powered
    down state.
    SPL/IPL and ATABoot are only available for update at Factory or Customer Service Centers.

*** ENHANCEMENTS ***

  General [1]
  - Added additional monitoring of Battery SMBus to improve the handling of battery charge termination while unit is in operation. #23219.

*** BUG FIXES ***

  Spectrum Analyzer and Sub-modes [1]
  - Fixed an issue where Fast Sweep Mode would periodically pause during the sweep under unique setups. #23002

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What will the customer see in this release?

Product   : MS2720T
Application Package: V1.15
Release Date   : September 11, 2015

*** NEW FEATURES ***

  Spectrum Analyzer and Sub-modes [1]
  - Enabled editing center frequency when in measurement setup menu of the coverage mapping mode. #21664

  High Accuracy Power Meter [1]
  - Added support for the MA24208A and MA24218A High Accuracy power sensors.

  LTE and TD-LTE Analyzer [1]
  - Added ability to demodulate LTE FDD/TDD without the sync signal for all bandwidths.

*** ENHANCEMENTS ***

  General [3]
  - Added the ability to lock an instrument from Telnet and FTP connections.
    After setting the remote password and rebooting the unit, the unit will no longer allow Telnet and FTP connections.
    To remove the lock, either do a factory reset or remove the remote password by setting it to blank. #22432
  - Changed certain icons used in Night Vision mode for better visibility. #22831
  - WEB browser file download attempts are no longer possible with iOS devices. #22499

  Spectrum Analyzer and Sub-modes [1]
  - Added Pan & Zoom functionality for .azm maps inside Coverage mapping measurements for SPA mode. #3217

  WCDMA Analyzer [1]
  - Added SENS:FREQ:SIGS:CHAN SCPI commands for WCDMA/UMTS mode. See Programming manual for details. #22665

*** BUG FIXES ***

General [8]
 - Fixed an issue in the WEB UI of device where scale on the graph showed incorrect units under certain conditions. #22659
 - Fixed an issue in the WEB UI of the device where the 'Menu' button would occasionally not be displayed, when using Internet Explorer version 10/11. #22535
 - Fixed an issue in the WEB UI where error messages associated with file save events provide more relevant information as to the cause of the error. #21444
 - Fixed an issue in the WEB UI where some elements on the screen were not displayed properly in the browser, in SPA mode. #22659
 - Fixed an issue in the WEB UI where the login button would not work when accessing the device remotely with a Safari browser. #22155
 - Fixed an issue in the WEB UI where the Remote Control screen did not show the instrument menu button when accessed through Safari browser. #22158
 - Fixed an issue where dragging an open dialog box would leave tracers on the screen. #21961
 - Fixed an issue where the File type selection in Save dialog was very slow when using the twiddle knob. #22559

Spectrum Analyzer and Sub-modes [17]
 - Fixed an issue in IA RSSI mode where color of the trace changed erroneously from yellow to red while recalling a measurement. #23007
 - Fixed an issue in SPA mode where channel power used to show 0 dBm for smaller span values. #22772
 - Fixed an issue in SPA mode where Emission Mask used to report "Fail" on segments that are actually a "Pass". #21687
 - Fixed an issue in SPA mode where enabling Gated Sweep after turning ON channel power measurement would turn off the measurement, when exiting the gated sweep settings menu. #22929
 - Fixed an issue in SPA mode where the marker value shown above graph area varied from the value shown inside the graph. #22083
 - Fixed an issue in SPA mode, where counter marker showed marker in wrong location when switching frequency. #22400
 - Fixed an issue in SPA module where the number of points for the limit envelope was not updated properly when limit envelope shape was changed. #22821
 - Fixed an issue in SPA module, where setting detection to Quasi Peak, did not allow the correct range of permitted RBW values for this detection standard. #22918
 - Fixed an issue in Spectrogram mode where invalid data was shown on screen when the view setting for the trace was set to 'blank'. #22819
 - Fixed an issue where Emission Mask would fail at times, even though the measurements were well below the limit lines. #21687
 - Fixed an issue where sweep time was not updated properly when auto sweep time was enabled in SPA mode. #22210
 - Fixed an issue where the attenuation level was set incorrectly upon recalling a measurement in IA mode. #21981
 - Fixed an issue where the frequency pop-up obscured part of the GPS not locked warning when selecting a frequency within Mapping mode.

The GPS message has been moved to the bottom of the map area to prevent the overlap. #22240, #3045
- Fixed an issue where the SCPI command returned values with incorrect number of decimal point precision in SPA mode. #11751
- Fixed an issue where the trace showed erroneous data when sweep mode was changed while a sweep was in progress. #21868
- Fixed an issue with the "Distortion/Total Vrms" value returned by the SCPI data query did not match the value displayed in the table. #21597
- Fixed an issue with the Limit Envelope Offset when using linear units of measure. #21558

WCDMA Analyzer [1]
- Fixed an issue in WCDMA module where presetting right after a measurement recall from file would cause inability of device to make any measurements. #22574

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What will the customer see in this release?
Product   : MS2720T
Application Package: V1.14
Release Date   : May 8, 2015

*** NEW FEATURES ***

General [3]
- A small camera icon has been added to the system title bar next to the floppy disk save icon. This touch screen icon can be used to quickly save a screenshot to the last-used save location.
- Added separate message dialog box when deleting folders with file type selection of other than "All file" types. #21672
- File sort method and sort order will now be persistent through window closes. #21827

Spectrum Analyzer and Sub-modes [5]
- A new message is displayed with instructions to change span, when IQ capture in zero span is attempted. #21138
- Added commands to check for end of sweep in SPA mode.
  1) :[SENSe:]SWEep:STATus?   Returns 1 when sweep is complete. Returns 0 when sweep is in progress.
  See Programming Manual for details.
- Added warning message when turning on markers 2-6 with marker 1 reference ON.
  With Marker 1 reference turned ON, turning on other markers with Delta markers OFF now turns On the Delta Marker with warning message. #21472
- Save Measurement and JPG feature added for AM/FM/PM mode. #21670

 - User can now select FM scale % values with a minimum of 0.01%. #21502

 LTE and TD-LTE Analyzer [1]
 - Added commands to check for end of sweep in LTE/TD-LTE modes.
   1) :[SENSe:]LTE:STATus?   Returns 1 when sweep is complete. Returns 0 when sweep is in progress.
   See Programming Manual for details.

*** ENHANCEMENTS ***

 General [9]
 - Changed color for magenta to a darker shade when in "Black on White" Display mode, for better visibility of traces and text. #21738
 - Corrected error message displayed to a more meaningful one, when saving files with target memory nearly full.
 - Free space on the storage device will be checked before JPGs can be saved. #21369
 - Improved start-up power management to prevent reboot when first turned on after being off for a while, especially with less than full battery
   or running on external power. #21153
 - Restarted the timer that is used in the web server to monitor the activity on the current client connection whenever the timer expires and the
   connection is still active. This is to avoid the issue in which the web server appeared to lock out when the client PC powered down overnight
   without logging out of the web server and was assigned a different IP address when powering up the next day.
   The web server considered it as a different client and it gave the "old" client 2 minutes to keep the connection, so it appeared to lock out.
   #21740
 - The same file type used when SAVING a measurement, is initially selected when opening the RECALL measurement dialog.
 - Updated the Support File, Antenna.txt in V2.07 to include Anritsu Antenna 2000-1715-R
 - Updated the Support File, CableList.txt in V3.06, by adding support for an additional manufacturer of RG58C-U Cable with a propagation velocity
   of 0.656
 - Updated WCDMA shortcut images. #21191

 Spectrum Analyzer and Sub-modes [5]
 - Display format of amplitude units on graph is now changed. Units are displayed only on top and bottom of the grid. #22145
 - GUI updates are now consistent after Spurious Emission segment changes via SCPI. #18981
 - Improved Spur avoidance in performance mode at 8.4 GHz, 8.6 GHz and 8.8 GHz Frequencies.
 - Main Channel power no longer shows invalid values when Span is less than Main Channel BW. #20922

- When recalling saved setup, invalid channels/frequencies are shown as "--" and readings are masked out corresponding to the invalid channels. #21603

LTE and TD-LTE Analyzer [1]
 - Added functionality to decode signals with 2ms delay between them in LTE and TD-LTE modes

*** BUG FIXES ***

 General [9]
 - Buttons in web server fast mode no longer shows '0' for their toggle states. #21038
 - Fixed an issue where a '(null)' was displayed on unit buttons. #21038
 - Fixed an issue with an overflowing USB SCPI command queue by increasing the buffer size from 50 to 500.
   This solves a problem where the queue was overflowing from SCPI commands. #21312
 - Fixed an issue with changing the instrument device name to close the dialog box cleanly. #21135
 - Fixed an issue with File and directory naming. Files or directories with leading spaces in their names are prevented from being saved. #21560
 - Fixed an issue with the date/time window focus, shifting behavior after an error encountered while attempting to set a leap year date in a non
   leap year. #21366
 - Fixed an issue with the Save/Recall dialog screen size. Enlarged the screen to allow entire warning messages to fit. #20113
 - Updated Portuguese translation tables to eliminate 3 erroneous Russian translations from WiMAX mode.
 - Updated the Support File, Signal Standards in V2.11, Correcting the Starting Channel number for TD_LTE Band 41 (2496-2690 MHz) to 39650. #21874

 Spectrum Analyzer and Sub-modes [17]
 - Added a Gate delay maximum value, and set it to 100 ms. #21441
 - Corrected back button behavior in detection menu for SPA mode, to properly return to previous menu.
 - Fixed an error in the header where the Detection information was omitted in Spectral Emissions Spurious Emission files. #21207
 - Fixed an issue where Center Frequency displayed did not compensate for the Offset Frequency setting in IQ Capture menus. #21688
 - Fixed an issue where the BW could be set to 0 in Channel Scanner Custom Scan list.
   This is now limited to 1 Hz. #21960
 - Fixed an issue where the Save On Event button would show up in IA Mapping measurement mode. #21471
 - Fixed an issue with some error messages that erroneously referred to "Time Span" instead of "Recording Time" #21062
 - Fixed an issue with Sweep Once when invoked via SCPI command. #18978

- Fixed an issue with the header units for Attenuation in Spurious Emission file. #21568
- Fixed an issue with the Input Attenuation setting after loading a saved setup file. #21482
- Fixed an issue with the Limit Envelope Offset when using linear units of measure. #21558
- Fixed issue where measurement value "Distortion/Total Vrms" was not updated properly in GUI when in single sweep mode. #21597
- Fixed issue where RBW could be set to an invalid value in zero span under SPA mode. #21788
- Fixed issue where recalling spectrogram measurement file causes unit reboot. #21952
- Fixed single sweep not sweeping when manually triggered with auto sweep time turned on. #20981
- Fixed the Auto Save for Spurious Emissions when RBW & VBW are <1 MHz RBW & VBW, showing as 0 Hz. #21208
- Fixed the issue in Channel Scanner mode where power readings and graph were updated in frequency scanner mode, for invalid frequencies. #21603

High Accuracy Power Meter [1]
- Hi Accuracy Power Meter summary window now correctly clears with preset command. #21352

TD-SCDMA Analyzer [1]
- Fixed an issue where saved RF measurements were incorrectly recalled in TD-SCDMA. #21197

Mobile WiMAX Signal Analyzer [1]
- Fixed an issue where Mobile WiMAX files were incorrectly recalled using remote commands. #21065

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What will the customer see in this release?
Product   : MS2720T
Application Package: V1.13
Release Date   : March 20, 2015

*** ENHANCEMENTS ***

Spectrum Analyzer and Sub-modes [1]
- Improved spur performance at 8.4 Ghz, 8.6 Ghz and 8.8 Ghz.

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What will the customer see in this release?

Product   : MS2720T
Application Package: V1.12
Release Date   : January 30, 2015

*** NEW FEATURES ***

General [7]
- Added a Web Server function to the instrument to allow easy remote control from any HTML-5 browser.
- Added an error message pop up during Code Loading to notify the user in the case the USB stick does not have enough space to store all of the
  user files from the instrument. #20524
- Added custom Quick Name Matrix information in setup files.
- Added easyTest scripting support for MS2720T.
- Added GPS location in radians to saved measurement file headers.
- Added MA2700A compass calibration images.
- Added the firmware package version number to saved measurement files.

Spectrum Analyzer and Sub-modes [5]
- Add "CALCulate:MARKer#:MAXimum:NEXT" SCPI command to move the marker to the highest peak anywhere in the trace which is lower than the current
  marker. If the given marker is not on, the command turns it on and sets it to the second highest peak in the trace. The command uses the
  existing peak threshold values to determine what is and is not a peak.
- Added a special key combination (Shft+9+5+3) which loads a frequency calibration button in the System Menu to allow Customer Field Calibration
  of the 10MHz Reference for SPA only measurements. See the Maintenance Manual for details on use. #20761
- Added Span Setting to ACPR coverage mapping mode. #20923
- Added support for easyTest in Spectrum Analyzer application. Requires easyTest V1.05 or greater.
- First Release of EMF measurements. (option 444)

LTE and TD-LTE Analyzer [3]
- Added support for LTE-A Carrier Aggregation measurements.
- Added Time Alignment Error measurement for carrier aggregated signals.
- First Release of EMF measurements. (option 444)

WCDMA Analyzer [1]

- First Release of EMF measurements. (option 444)

*** ENHANCEMENTS ***

General [16]
 - Added a timer that automatically dims the display of the instrument when it is operating under battery power to save power.
   "Auto-Dim" feature is enabled in System Options -> Display -> Brightness menu.
   Each Model has a unique default time. Most are approximately 15 minutes. #2521
 - Added a warning message to the SAVE FILE dialog to indicate excessive files saved in a single directory, which may slow down file access
   performance.
 - Added ellipses for long names when using quick name matrix buttons. #19341
 - Added line-wrapping for option numbers in the System Status dialog. #19979
 - Added more improvements to System Level Russian language translations. #19993
 - Added more information to an error message that pops up when attempting to run an easyTest script in the wrong application mode. #20775
 - Added support for Anritsu antennas 2000-1726-R, 2000-1747-R, and 2000-1748-R for Field Strength measurements.
 - Added support for setup file shortcuts under the Menu Button to use spaces in the name. #19355
 - Fixed an issue where a save/recall would partially cover the parameter status area.
 - Improved display of sweep time to displaying >1 hr for sweep time estimates over 1 hour instead of showing ~1.2 hours.
 - Improved GPS frequency accuracy during temperature changes. #19096
 - Improved handling of Recall KML Points & Map when the map is not available. #18638
 - Improved touchscreen interface for Ethernet dialog. #18622
 - The same file type used when saving a measurement is selected when opening the recall measurement dialog.
 - Updated Support files.
   Updated the Antenna.txt file to V2.06 by adding 3 antennas.
   Updated the CableList.txt file to V3.05 by adding 13 cables.
   Updated the Signal Standards File to V2.10 by replacing 43 Standards that had been previously removed. (CDMA, Fixed WiMAX, TD-LTE, and a
   number of the 700MHz bands)
 - Updated System Level Portuguese language support.

Spectrum Analyzer and Sub-modes [19]
 - Added a message saying that Spurious Emissions is getting turned off when switching to the unsupported Interference Analyzer mode. #20123

- Added support for longer antenna names for Field Strength antenna measurements. #18714
- Added the ability to continue capturing bearings with the MA2700A after switching from Interference Mapping to Interference Analyzer Spectrum measurement. #20585
- Automatically change sweep mode to Performance when starting IQ capture. #19493
- Changed minimum value for recalled center frequency to 0 Hz in Spectrum Analyzer application after power cycle. #20021
- Improved auto reference level adjustment for field strength mode as measurement units are changed. #18642
- Improved counter marker peak search operation. #19891
- Improved Counter Marker Stability. #20559
- Improved reference level offset calculation in Emission Mask. #20204
- Improved zero span narrow VBW performance in Interference Analyzer Spectrum mode. #19248
- Improvements for Counter Marker accuracy
- Increased maximum value of RSSI time span to 7 days (60*60*24*7 = 604800 seconds). #10873
- Limited minimum sweep time entry to 7 us. #20406
- Preset will now default the upper envelope limit number of points to 20. #20182
- Revised the EEPROM error message. #18651
- Saturation and ADC over-range error messages are cleared more quickly in zero span and IA signal strength modes. #20006
- Selecting "All Measurements Off" now will turn coverage mapping off, so last span will be restored. #19502
- Sweep time is reduced from ~20 minutes or more, by adjusting VBW to a higher value.
- Updated SPA Application Chinese translations. #18427

GSM Analyzer [1]
- Corrected the inconsistent state of the Sweep Type button in GSM application.

LTE and TD-LTE Analyzer [4]
- EVM Max hold values (peak max and rms max) reset when either the BW, Frequency, Cyclic Prefix, EVM mode, or EVM max hold changes.
- For carrier aggregation SCPI commands, the wrong number of dashes("--") were being returned for the data string when an invalid signal was detected.
- Remove an inaccurate warning message from modulation and over the air measurements.
- Removed erroneous "bch signal" field while in the constellation measurement view.

WCDMA Analyzer [1]
- Turned on error reporting for ADC over range in Band Spectrum meas in WCDMA mode.

The error will inform the user to adjust the Ref Lvl.

*** BUG FIXES ***

General [20]
- Fixed an intermittent hang up when recalling setups from a touchscreen menu shortcut. #19066
- Fixed an issue in Spectrum Analyzer mode that did not show a warning dialog when saving a measurement file with existing filename. #20011
- Fixed an issue related to defaults on Quick Name features causing unit lockup. #20441
- Fixed an issue where ":MMEMory:DIRectory?" command was returning incorrect filenames and extensions. #19358
- Fixed an issue where "fW" was displayed when "fA" was expected. #20911
- Fixed an issue where a message "Successfully Saved File to USB1" when the save operation actually failed due to the disk being full. #20031
- Fixed an issue where Icons in Save/Recall window were not being updated to match the current color scheme of the device.
- Fixed an issue where key presses on the web server remote control were being queued in pause mode.
- Fixed an issue where multi-file downloads from the web server was not working properly in Internet Explorer 11.
- Fixed an issue where not all files were listed in the Recall dialog. #19989
- Fixed an issue where pressing the back button in the Script Master menu in GSM/EDGE would go to the incorrect menu.
- Fixed an issue where pressing the touchscreen enter key twice when saving a JPEG obscured the graph with the Save dialog. #19775
- Fixed an issue where the instrument would shut down after scrolling to the bottom of the System Status window using the touchscreen. #20675
- Fixed an issue where the user could not use the left/right arrow keys to navigate the buttons in the "Confirm File Delete" dialog when the instrument language was set to French. #19073
- Fixed an issue where, under unique conditions, the counter marker could show incorrect frequency values. #15953
- Fixed an issue with incorrect values being displayed for marker frequency, for values less than 1 Hz. #15953
- Fixed an issue with limit line value not having enough resolution in SPA and PIM modes. #10370
- Fixed an issue with 'Save Measurement As' to properly handle multiple '_' in the filename.
- Fixed an issue with the touchscreen user interface for remote user passwords. #18640.
- Fixed the French translation for "Save Measurement As". #19074

Spectrum Analyzer and Sub-modes [32]
- Added 0|1 as valid parameters to the SCPI Command ":CALCulate:MARKer:TABLe:STATe" command for consistency with Programming Manual. #20089
- Fixed a display issue with trigger level line appearing when External Trigger selected. #18623
- Fixed a limitation on Reference Level Offset while in Field Strength dBm/m2 measurements. #18650

- Fixed a problem where manually setting a sweep time with a narrow span on single sweep mode caused a very inaccurate actual sweep time to be reported. #20558
- Fixed a problem with instruments not remembering field strength measurement setup state following power cycle.
- Fixed an interaction of Reference Level and Reference Level Offset that could cancel out Antenna Factors in Field Strength measurements. #18642
- Fixed an intermittent issue with presetting the instrument in Zero Span Mode. #20439
- Fixed an issue in IA mode where the limit line would not get reset properly following a preset. #19998
- Fixed an issue in Spectrum Analyzer mode that did not show a warning dialog when saving a measurement file with existing filename. #20011
- Fixed an issue in zero span, where Marker units are sometimes in Hz, after changing from log amplitude units to linear amplitude units. #20626,
- Fixed an issue involving SCPI command to change Trigger Mode to Free Run. #20257
- Fixed an issue to restore the Reference level correctly when Field Strength is turned On/Off with linear units (Volt, Watt and A).
- Fixed an issue when incrementing or decrementing sweep times with arrow keys or twiddle knob. #19991
- Fixed an issue where ADC Over Range Error message did not appear on the screen when a marker was not located within the ADC Over Range area of the trace. #20493
- Fixed an issue where Coverage mapping measurement mode was not set properly to default values upon performing preset. #20920
- Fixed an issue where Frequency Reference = "GPS High Accuracy" was not always reported correctly. #19181
- Fixed an issue where key presses on the web server remote control were being queued in pause mode.
- Fixed an issue where not all files were listed in the Recall dialog. #19989
- Fixed an issue where some parameters were not recalled for gated sweep setups. #18278
- Fixed an issue where Spurious Emissions Mask amplitude was not set correctly for the first segment added to empty table. #18877
- Fixed an issue where the Spectrogram trace count did not reset with Sweep Interval, if the Trace mode was set to average. #20609
- Fixed an issue where the Spurious Emission menu could show up in the IA mode. #20123
- Fixed an issue where there were differences between the recalled measurement and JPEG files color and location of vertical reference lines. #20341
- Fixed an issue where, under unique conditions, the counter marker could show incorrect frequency values. #15953
- Fixed an issue with "preset" when field strength is enabled. #19595
- Fixed an issue with a header error in .spe file format.
- Fixed an issue with limit line value not having enough resolution in SPA and PIM modes. #10370
- Fixed an issue with recalled Spectrogram colors corrected to match the colors during measurement.
- Fixed an issue with recalling an AM/FM/PM measurement file with a marker on, now retains original marker position rather than snapping to center screen. #20318
- Fixed marker units not getting updated immediately after switching units. #18516

- Fixed squelch amplitude bug in AM demodulation mode below 8 MHz. #18621
- Fixed the Channel Power Measurement table not getting drawn after recalling measurement file or using several related SCPI commands. #19518, #18917

High Accuracy Power Meter [1]
- Fixed an issue with the Save Measurement button in High Accuracy Power Meter. Now it correctly selects a measurement file type instead of a setup file type.

EVDO Analyzer [1]
- Fixed an issue where the tau limits in the EVDO pass/fail measurement view were incorrectly recalled.

CDMA Analyzer [3]
- Fixed an issue where CDMA pilot scan recalls the wrong power values. #18304
- Fixed an issue with Recalling a CDP display to correctly display Page and Sync values of the saved measurement. #20216
- Fixed incorrect reporting of Channel Power in Master Software Tools operations with measurement files. #21151

GSM Analyzer [1]
- Fixed an issue where pressing the back button in the Script Master menu in GSM/EDGE would go to the incorrect menu.

LTE and TD-LTE Analyzer [6]
- Added antenna detection in Tx Test measurement. #20496
- Fixed an intermittent issue with the instrument freezing when changing parameters or changing measurements within LTE.
- Fixed an issue where the RSRP measurement in Channel Scanner was not stable. #20496
- Fixed an issue with recalling a file in LTE Pass/Fail mode, causing the unit to lock up with hour glass. #20473,16058
- Fixed an issue with the Back button in Power vs Resource Block menu in LTE and TD-LTE modes returning to the wrong menu. #20765
- Spectral Emission Mask status now shows "--" instead of "Fail" when measurement is not complete in LTE and TD-LTE modes. #20670

WCDMA Analyzer [3]
- Fixed an issue where "single" wasn't properly highlighted in the sweep menu in WCDMA when switching from another mode. #20987
- Fixed an issue where the signal standard text wasn't displayed when switching from another mode into WCDMA band spectrum measurement. #20858
- Fixed an issue where turning on the Marker Table while in single sweep mode could blank out the trace until another sweep was made. #18164

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What will the Customer See in this release?
Application Package for MS2720T Model: V1.10_MS2720T 2-11-2014

General Features

- Improved accuracy for the atomic clock option
- Fixed a problem with recalling setup files that would require an application change via the shortcut menu.

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What will the Customer See in this release?
Application Package for MS2720T Model: V1.09_MS2720T 1-14-2014

General Features

- Fixed a problem turning on the LED indicator at initial power up. Requires IPL/SPL/ataBoot version 3.28 or later.
- Added a backspace button for entering numbers.
- Fixed a frequency display accuracy problem.
- Fixed a problem when aborting the touch screen calibration.
- Fixed a problem with editing and saving of instrument names.
- Fixed a problem where ":SENSe:FREQuency:STARt" SCPI command truncates the last digit when setting frequency beyond 4,294,967,295 Hz.
- Fixed a problem with pressing '1' when Signal Standards List is displayed.
- Fixed an issue with the help window not closing.
- Added a selection in file save menu to save measurement file with a JPG screen capture.
- Fixed a problem where a setup was saved as a .dat in some cases.

- Fixed a problem with displaying large Russian fonts.
- Addressed an issue with accessing the bottom of the "Select Save Location" pop-up window.
- Added more descriptive file save error messages.
- Restricted the ability to copy from a parent directory into a subdirectory.
- Fixed a cosmetic issue with the touchscreen menu display when changing applications.
- Fixed a defect related to inconsistency between the accuracy of limit point amplitude values displayed and those saved to a measurement file.
- Corrected storage/directory names displayed in the file save/copy dialog boxes.
- Added a special case for the battery selftest so that it doesn't indicate failure when the battery is not installed,
  but it indicates that there was no response from the battery so that the user can decide if there is a failure or not.
- Fixed an issue where moving or resizing a popup window was a problem.
- Fixed an issue where GPS could not be turned ON or OFF correctly while a recalled Trace was in view,
  resulting in the On/Off Status being out of sync with button state.
- Fixed an issue with setting the date to Feb 29 in a leap year.
- Corrected a rounding issue from tenths of Hz for frequencies.
- Button text changes in System Display Settings menu.
- Added an EEPROM snapshot feature for troubleshooting. A folder named "Anritsu_Snapshot" in the
  internal memory can be deleted for security purposes.This feature does not apply to units with option 7.
- Added Atomic Clock option for frequency reference
- When Remote Access Password is set, it will now display *'s in its entry field
- Fixed a possible timing issue when switch mode repeatedly
- Applied Night Vision mode at boot-up. IPL/SPL/ataBoot V3.50 or higher is required

Spectrum Analyzer

- Added Out-of-band Spurious emissions measurement.
- Help images added for certain Generator setups.
- Fixed an issue with Max Hold in Field Strength.
- Fixed a problem with Set Marker to Channel.
- Fixed a problem with turning on QP detection when VBW type is as Log.
- Fixed a problem when the Reference Level unit is set to Volts or Watts.
- Fixed a problem with the Counter Marker units in Field Strength.
- Fixed a Sweep Time problem when RBW is narrow.

- Fixed firmware crashing when touching the button on the upper right corner of display all traces window.
- Fixed an issue where the GPS reference frequency does not always lock.
- Changed the Preamp warning message to reflect the Reference Level Offset.
- Fixed an issue where the wrong units were displayed while measuring channel power in units other than dBm.
- Disabled the Units menu while in Spectrogram mode.
- Fixed an issue with Limit Envelope not working correctly if the units were Volts or Watts.
- Fixed shape cal instruction available in service mode.
- Fixed an issue where KML(2D,3D) and Mapping Tab Delimited file types could not be selected or saved from File Save menu.
- Fixed an issue where certain parameters were converted to selected units during an increment/decrement operation resulting in a wrong display.
- The limit line will now stay visible regardless of which traces are visible or blanked.
- Fixed an issue where file recall during Save On Event crashes the unit. The operation is not permitted and a warning message has been added.
- Fixed an issue where Trace B was not visible by default after recalling a C/I measurement.
- C/I measurement "Min Sweep Time" button is now correctly labeled "Sweep Time".
- Fixed coupling of RBW and VBW in signal strength or RSSI with RBW and VBW in non-zero-span spectrum analyzer.
- Markers that would exceed the top of the graph area are now flipped below the trace in a downward orientation so they remain visible.
- Fixed an issue where TG Output Power twiddle/arrow key increment amounts were not correct.
- Fixed inconsistency in the precision of the limit value as displayed on the instrument and in LST.
- Updated Russian translation.
- Updated Chinese translation.
- Updated pre-amp, input attenuation, reference level interactions.
- Adjusted reference level maximum for Field Strength.
- Fixed a problem with IQ Waveform Capture when the USB memory is full.
- Increased resolution for Sweep Time annotation when in Zero Span
- Fixed a problem with power level displayed when there is a high level power input
- Fixed a problem with recalling a saved working Gated Sweep setup
- Added a safeguard to Prevent a user from starting coverage mapping data collection when GPS is not locked
- Fixed incorrect measurement with No FFT sweep mode, RBW 1 Hz, and VBW > 1 Hz
- Provided RBW delay compensation in zero-span

Interference Analyzer

- Added MA2700A support.

- Added .azm support for IA Mapping.
    - .azm maps are zoomable and panable.
    - .azm maps are created by using easyMap.
- Fixed a problem with Signal ID when the span is much wider than the bandwidth of the generated signal.
- Fixed a problem with Reset/Restart Measurement soft key in spectrogram not resetting the max hold accumulation.
- The messaging when in Single Sweep was not consistent with the functionality of the instrument, this has been fixed.
- Fixed a problem with adjusting Recording Time with the knob in Spectrogram mode
- Increased tone rate for Signal Strength
- Fixed an issue with Burst Detection where it stopped functioning with certain key sequence
- Sweep Interval will have effect only if selected trace is in Max or Min Hold.
- Spectrogram display is now for the selected trace.
- Spectrogram Status window changed.
- Added Spectrogram stitch feature for Master Software Tools.
- Added maximum and minimum values for the Reference Level.

Channel Scanner

- Adjusted the frequency range for some models.
- Fixed ddc failure and error when choosing certain signal standard in channel scanner.
- Fixed an issue with Frequency Scanner allowing set channels to exceed the instrument's sweep range.
- Fixed an issue where the instrument could hang if different rows were selected in the Channel Scanner Custom List Edit dialog.

AM-FM-PM Analyzer

- Fixed a problem with the sound output in Audio Demod.
- Fixed a problem with displaying large marker table

PIM Analyzer

- Mode switching into PIM would sometimes result in an artifact on the screen, this has been fixed.

EVDO Analyzer

? Fixed a problem where the unit hangs when Increment/Decrement channel is pressed.
? Fixed a problem with marker state not updating when using SCPI command.
? Fixed a recall issue in RF summary recall screen.
? Fixed an issue with incorrectly recalled marker table values.
? Fixed a problem with incorrect Pass/Fail recalled values.
- Fixed problems with recalling measurements in Spurious Emission and CDP Table.

CDMA Analyzer

? Fixed a problem where the unit hangs when Increment/Decrement channel is pressed.
? Fixed a problem with marker state not updating when using SCPI command.
? Fixed a recall issue in RF summary recall screen.
? Fixed a problem where Unit hangs during regression test for markers.
? Fixed an issue with incorrectly recalled marker table values.
- Fixed a problem with incorrect Pass/Fail recalled values.
- Fixed problems with recalling measurements in Spurious Emission and CDP Table.

GSM Analyzer

- Fixed a problem where the unit hangs when Increment/Decrement channel was pressed.
- Fixed an issue with saving measurement.
- Fixed a Single sweep issue in Multi-channel spectrum.
- Fixed an issue where the frequency inadvertently changes to 1GHz after mode switch.
- Fixed a Power vs Time Recall issue.
- Fixed a Pass/Fail summary mode save/recall issue

LTE Analyzer

- Added Extended CP support.
- Fixed a lockup when switching out of TX Time alignment.
- Fixed a lockup after recalling measurement.

- Fixed the backspace for marker edit.
- Fixed an issue where the reference level changes when external reference switched.
- Fixed an issue where the instrument hung after escaping from a recalled measurement.
- Added LTE and TD-LTE scanner speed-up.
- Fixed an issue while recalling an auto saved measurement file.
- Fixed a problem with clearing a measurement file after a recall.
- Fixed an issue with incorrect values when recalling measurement files.
- Fixed an issue where lock failures were falsely reported during switching reference.
- Fixed an issue where in certain instances one could not make shortcuts for touch screen softkeys.
- Fixed several issues with the SCPI commands.
- Fixed a bug in OTA scanner where incorrect Dominance was displayed when multiple signals were reported.
- Fixed an issue for 'MEAS:RF:SEM?', causing a discrepancy between the returned value and the displayed value.
- Fixed an issue for 'FETC:RF:SEM?'SCPI command, returned wrong value.
- Added improvement to auto-ranging algorithm.
- Addressed a cosmetic issue in the OTA Scanner menu.
- Fixed a problem while Recalling a Tx Test Measurement file
- Fixed a problem where an extra sweep was triggered in Single Sweep mode after saving a Power vs RB measurement
- Fixed a problem with bad Power vs Resource measurement data in save/recall
- Fixed a problem with save/recall in channel Spectrum
- Fixed a problem where the Channel # was displayed incorrectly when switching from SPA
- Fixed a problem with mode switch when OTA > Auto Save is in progress

WCDMA Analyzer

- Fixed unit conversion issues from dBm to Watts.
- In the summary table, text 'PICH' has been changed to 'PICH Power'.
- Fixed an issue in Pass/Fail mode related to ScriptMaster.
- Fixed a problem with preset after markers are turned off.
- Fixed an error in Multipath Power reading with offset setting.
- Fixed an issue with SCPI command to turn marker on/off.
- Fixed an issue with switching between single and continuous sweep after changing measurement.
- Fixed an issue with recalling band spectrum.

- Fixed an issue where preset from band spectrum did not restore default center frequency.
- Improved the auto-ranging algorithm.

Fixed WiMAX Analyzer

- Fixed a difference in scale/div and value displayed in graph.
- Fixed a SCPI command that reported the wrong span.

Mobile WiMAX Analyzer

- Fixed a difference in scale/div and value displayed in graph.
- Fixed a SCPI command that reported the wrong span.

High Accuracy Power Meter

- Fixed an overlapping test when using MA24105A sensor.

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What will the Customer See in this release?
Application Package for MS2720T Model: V1.06_MS2720T 11-18-2013

General Features

- Fixed an intermittent EEPROM error

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What will the Customer See in this release?
Application Package for MS2720T Model: V1.04_MS2720T 07-16-2013

Spectrum Analyzer Application

- During high temperature testing intermittent false lock failures have been shown on
  MS2720T options 743, 732 and 720.
  The firmware has been updated to eliminate these false indications.
- Fixed a bug that was causing the 300 kHz RBW to be about 20 kHz too wide on the MS2720T option 709.

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What will the Customer See in this release?
Application Package for MS2720T Model: V1.03_MS2720T 04-22-2013

General Features

- Adjusted the Touch Screen calibration to minimize false failures.

Spectrum Analyzer Application

- Fixed a bug for Zero Span level accuracy when RBW is set to 300kHz
- Fixed two residual spurious emissions at 1950 and 2041 MHz.

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What will the Customer See in this release?
Application Package for MS2720T Model: V1.02_MS2720T 03-11-2013

Spectrum Analyzer Application

- Fixed a bug where a duplicate signal shows up on the spectrum measurement when VBW becomes very
small compared to RBW in fast sweep mode (i.e. RBW 300 kHz, and vBW < 1 kHz)

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What will the Customer See in this release?
Application Package for MS2720T Model: V1.01_MS2720T 12-19-2012

General Features

V1.01 is the initial release for Customers

Services & Support
1-800-267-4878