Services & Support
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General Caution

Please use a USB Memory Stick for firmware updates.
Suitable firmware can be found on Anritsu's web site under the instrument library listings.
If your existing firmware is older than v1.32, please use Master Software Tools and the
Ethernet interface for firmware updates.

If there is a firmware update question, please contact Anritsu service support at
www.Anritsu.com, and then click on "Technical Support" for further information.

What will the customer see in this release?
Product : MS2721B
Application Package : V1.51
Release Date : 9/30/2016

-> Software - OS/Base
Fix sort order persistence in save/recall dialogs.

-> Software - HiPM
Fixed a bug that did not zero the MA24106A sensor properly.
Fixed a bug where the power reading was off by 20 dB following a preset.

What will the Customer See in this release? MS2721B Application Package V1.50 07-05-2012

General Features

-Updated Antenna File to V2.03
Additional Anritsu Antenna selections have been added to the files
Anritsu_2000-1659-R

Anritsu_2000-1660-R
Anritsu_2000-1645-R_lowband
Anritsu_2000-1645-R_highband
Anritsu_2000-1648-R

Spectrum Analyzer

- Fix a problem in firmware that had problems working with DSP FPGA older than 3.04

Interference Analyzer

- No Changes

Channel Scanner

- No Changes

PIM Analyzer

- No Changes

Power Meter

- No changes

High Accuracy Power Meter

- No Changes

CDMA Analyzer

- No Changes

EVDO Analyzer

- No Changes

GSM Analyzer

- No changes

TD-SCDMA Analyzer

- No Changes

WCDMA Analyzer

- Fixed a lock failure problem at certain frequencies.

LTE Analyzer

- No Changes

Fixed WiMAX Analyzer

- No changes

Mobile WiMAX Analyzer

- No Changes

DVB-T/H SFN Analyzer

-no change

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DVB-T/H Analyzer

- no change

ISDB-T SFN Analyzer

- no change

ISDB-T SFN Analyzer

- no change

What will the Customer See in this release? MS2721B Application Package V1.48 12-14-2011

General Features

- Added a new feature which automatically pops up a firmware update window when a USB stick containing the firmware is attached to the instrument.
- Temperature reading in status window now displays both in Celsius and Fahrenheit
- Fixed a bug that would sometimes include the save dialog when saving as a jpeg

Spectrum Analyzer

- Fixed the problem of which marker jumps onto trace A when user presses button to search next peak to the left/right.
- Stopped displaying antenna factor in field strength measurement if the spectrum measurement is outside of the valid antenna's frequencies.
- Disallow recalling of a setup if the instrument is in measurement recall mode.
- TG turn on will now remember last sweep detection type and return to that detection method when TG is turned off.

- Fixed a bug where Save-on-event would continue to save after switching to other modes
- Fixed a bug in the saved measurement file that caused Reference Level Offset to be incorrectly read and applied in Master Software Tools
- Fixed a bug where Quasi-peak detection wouldn't use the correct CISPR RBW filters

Interference Analyzer

- Fixed the problem of which the spectrum sweep doesn't reset after it has been recorded into the spectrogram trace under some circumstances.
- Improved timing accuracy of sweep interval in RSSI

Channel Scanner

- Fixed the problem of which the signal standard list window was dismissed prematurely when user has selected an invalid signal standard such as "NONE."

PIM Analyzer

- Added support the new PIM Master model MW8209A
- Changed the way calibration is performed in distance-to-PIM mode.
- Reset MW8209A 900MHz upper frequency limit from 970MHz to 960MHz.
- Added additional Cal/Measure capability for MW8208A DTP measurement
- Implemented PIM SCPI command for changing between DTP and PIM.
- Bug fix to keep display from updating PIM measurement during DTP Cal.
- PIM Analyzer mode is now standard on all models that include Spectrum Analyzer (no longer tied to the option 419)
- Added support for Distance-to-PIM measurement for PIM Master with option 420.

Power Meter

- No changes

High Accuracy Power Meter

- Added support for the new power sensor model MA24240A, and MA24105A.

CDMA Analyzer

- Pilot Scanner no longer displays gray bars for noise

EVDO Analyzer

- Fixed the problem which the pass/fail mode would report incorrect spurious emission test result.
- Pilot Scanner no longer displays gray bars for noise

GSM Analyzer

- No changes

TD-SCDMA Analyzer

- No Changes

WCDMA Analyzer

- No Changes

LTE Analyzer

- Added Power vs. RB measurement
- Added support for Freq Error averaging

- Added Indicator for EVM Auto status
- Added Indicator for which Antenna was detected
- Added support for EVM Max Hold
- Added RSRP, RSRQ, SINR measurements to Scanner
- Added TxTest measurement
- Added support for in-instrument Mapping

Fixed WiMAX Analyzer

- No changes

Mobile WiMAX Analyzer

- Fixed a bug where "Preamble scanner Error" message would not get cleared
  even when error conditions got cleared

DVB-T/H SFN Analyzer

-no change

DVB-T/H Analyzer

- no change

ISDB-T SFN Analyzer

- no change

ISDB-T SFN Analyzer

- no change

What will the Customer See in this release? MS2721B Application Package V1.47 5-09-2011

General Features

- The parameter being edited is now displayed in a larger white color font for better readability in poor lighting
- Some improvements to the speed of switching modes (varies with modes).
- Power Offset is now a shared parameter across modes.

Spectrum Analyzer

- Overhaul of the User Interface (see New Measurement Guide 10580-00244 for more details)
  - More setup information is now displayed on the left edge of the screen.
  - Amplitude menu
    - Reference Level Offset is now more consistent with 'Power Offset' used in other modes. It now accepts 'Gain' or 'Loss' as terminators and the value is shared with other modes by default.
  - BW menu
    - RBW and VBW values are now maintained separately for zero-span measurements.
    - The default value of Span/RBW is now 100.
    - A new button to change VBW average type to Log.
  - Marker menu
    - A 'Large' setting is now available for the Marker table to view marker readout in a large font.
  - Trace menu
    - A new Trace Info button is now available in the Trace menu to show a concise listing of all parameters for the selected trace.
    - 'Reset Sweep' button has been renamed to 'Reset Trace' and moved to the Trace menu.
  - Sweep menu
    - 'Manual Trigger' is now called 'Sweep Once'.
    - A new 'Sweep n Averages' button has been added to allow a full set of averages to sweep when the sweep

is set to Single.
- A new 'Auto Sweep Time' button has been added.
- Trigger sub-menu has been revamped with the ability to add hysteresis to the video trigger level.
- Gated Sweep Setup (Option 90) is now more responsive and has separate controls for the gate view (zero span).

- Improvements and bug fixes to the Field Strength measurement.

Interference Analyzer

- New Interference Mapping capability added.
- Fixed a bug where the 'Save' window would also be saved when saving to jpeg from Spectrogram measurements.

Channel Scanner

- Fixed several bugs related to Script Master.

CDMA Analyzer

- Improved the Pilot Scanner's Ec/Io sensitivity to about -35 dB when 'Meas Speed' is set to slow.
  As a result of this improvement, the y-axis for this view has been increased to 45 dB.

Mobile WiMAX Analyzer

- Added 'Timing Error' result to Modulation Summary view
- Fixed a bug where Manual DL-MAP settings would cause an error message while performing modulation analysis

LTE Analyzer

- Added support for additional BWs (1.4, 3, 5 MHz).
- Added a new Spectral Emission Mask measurement under Option 0541 (RF Measurements).
- Added support for a "PBCH Only" EVM measurement for measurements made over the air (default selection for OTA-Scanner view).

- Added support for Watts units.
- Added marker support for Channel Spectrum view.
- Changed scale of bars in Control Channel Power view and OTA-Scanner view to better match live signals.
- Changed scale and color of dominance bar to improve readability.
- Added ability to sync to Reference Signals (RS) on 2nd Tx port (10 MHz BW only).
- Made significant improvements to reduce false positives in the OTA Scanner measurement.
- Fixed a bug with PBCH Power measurements where results were 6 dB higher when directly connected to a Transmitter.
- Fixed a bug in PCFICH power calculation for certain physical cell ID values.
- Added a new Table view that shows Total Powers for Control Channel Power measurements.

ISDB-T Analyzer

- Bug fixes related to spectrum masks in the Brazil channel map
- Vertical range in Modulation Analysis Delay Profile view now update their respective graphs immediately (no need to switch out of the view and back in).
- Fixed issue where unit would crash if the Save Files hard key was pressed and then a mode switch was performed.
- Save Files hardkey operation now saves files to the location specified in the current Save Location setting, making it possible to save these files to an external USB stick or Compact Flash card.
- :MMEMory:STORe:FILE now saves files equivalent to the Save Files hardkey operation to maintain backwards compatibility.
- Addressed issue where antennas added to the Antenna List after row 20 would not get loaded correctly.

ISDB-T SFN Analyzer

- Addressed issue where antennas added to the Antenna List after row 20 would not get loaded correctly.

DVB-T/H Analyzer

- Fixed bug where the displayed TPS data was not being scaled correctly in the Constellation measurement view.
- Fixed bug where the Spectrum Monitor Zone Channel would be off by 1 relative to the Channel parameter.
- Fixed bug in Center Frequency recall (both from power up and recalled file states)
- Addressed issue with an instrument running DSP FPGA V2.18/V3.05 or earlier reporting a fatal error during measurement.
- Added Shoulder Attenuation measurement view.

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DVB-T/H SFN Analyzer

- Fixed bug where unit could hang if a Trigger Sweep operation is performed immediately after a Detect Parameter operation.
- Fixed bug in Center Frequency and Reference Level recall (both from power up and recalled file states)
- Addressed issue with an instrument running DSP FPGA V2.18/V3.05 or earlier reporting a fatal error during measurement.
- Addressed issue where antennas added to the Antenna List after row 20 would not get loaded correctly.

What will the Customer See in this release? MS2721B Application Package V1.44 8/19/2010

General Features

- Improved battery communication handling.

Spectrum Analyzer

- Fixed Powermeter Auto Scale error.
- Fixed a bug regarding display in IA Spectrogram Measurements.
- For Gated Sweep Option 90, fixed the display in Channel Power and Occupied BW Measurements.

What will the Customer See in this release? MS2721B Application Package V1.43 05-03-2010

DVB-T/H

- Fixed bug where the displayed TPS data was not being scaled correctly in the Constellation measurement view.
- Fixed bug where the Spectrum Monitor Zone Channel would be off by 1 relative to the Channel parameter.
- Fixed bug where opting to keep the recalled BER settings would sometimes cause a Fatal Hard Error to be reported.
- Fixed bug in Center Frequency recall (both from power up and recalled file states)
- Fixed problem where text was not being translated in the Japanese language setting in the BER measurement view.

DVB-T/H SFN

- Fixed bug where unit could hang if a Trigger Sweep operation is performed immediately after a Detect Parameter operation.
- Fixed bug in Center Frequency and Reference Level recall (both from power up and recalled file states)

ISDBT

- Implemented more intuitive preset behavior for Custom, Easy and Batch modes.
- Fixed bug in Center Frequency recall (both from power up and recalled file states)

ISDBTSFN

- Fixed bug where unit could hang if a Trigger Sweep operation is performed immediately after a Detect Parameter operation.
- Fixed bug in Center Frequency and Reference Level recall (both from power up and recalled file states)

What will the Customer See in this release? MS2721B Application Package V1.42 02-16-2010

General

- Added ability where a user can still acquire an IP address if Ethernet cable is not plugged in at boot-up
  (takes 15-20 seconds after plugging in cable)
- New File menu with significant overhaul of save/recall
- New signal standards menu with "Favorites" feature
- "/usr" is no longer the default directory when saving to external drives
- Added a feature to allow Shared center frequency across modes
    - By default, this feature is ON
    - Can be toggled at System->System Options->Center Freq Share
- Improved ability to delete multiple user files

WCDMA

- HSDPA view has improved code marker behavior
- Speed enhancements
    3x improvement to multipath
    2x improvement to scanner

Channel Scanner

- Various fixes to scriptmaster

High Accuracy Power Meter

- Fixed bug where sensor would not work if plugged in prior to switching into mode

ISDBT,ISDBTSFN

- New filter mask for Brazil channel maps

What will the Customer See in this release?
MS2721B Application Package V1.36 11-02-2009

General

- Antenna factors for several Japanese antennas corrected in default file
- Customers can now upgrade FW using a USB memory stick

Spectrum Analyzer

- SCPI remote commands added for Gated Sweep Option
- Fixed a bug in recall setup that could cause a power measurement error.

Mobile WiMAX Analyzer

- Fixed a bug in the display of BSID when DL-MAP is in compressed mode
- Added absolute power values for preamble power in preamble scanner measurement

LTE

- Initial Release

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What will the Customer See in this release? MS2721B Application Package V1.34 9-1-2009

Spectrum Analyzer Enhancements

Improved spur performance over previous version of firmware

Channel Scanner

Fixed a problem discovered in V1.32 related to channel BW causing incorrect channel power measurements.

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What will the Customer See in this release? MS2721B Application Package V1.32 8-20-2009

Master Software Tools compatibility

This version of firmware requires that v2.15 or newer of MST be used for USB connectivity.

General Enhancements

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Added new USB firmware - Users will now be able to update the instrument firmware via a USB memory stick after this firmware update
Added new arrow style to application buttons with sub-menus - Will be solid and shown all the time
Added LTE channel information to the Signal Standards list
Support for new High Accuracy power sensors (requires option 19)

- MA24104A Inline High power sensor 600 MHz to 4 GHz
- MA24108A Microwave USB power sensor 10 MHz to 8 GHz
- MA24118A Microwave USB power sensor 10 MHz to 18 GHz

Spectrum Analyzer Enhancements

New integrated code which includes the Spectrum Analyzer, Interference Analyzer, Channel Scanner and Power Meter

- This greatly speeds up mode switching between these four measurement modes

General Spectrum Analyzer bug fixes

- Fixed W and V issue in Field Strength measurement
- Fixed Zero Span and Counter Marker incompatibility issue
- Fixed Trace A-B -> C issue
- Fixed Trace B & C Max & Min hold issues
- Fixed 75O measurement issue

Interference Analyzer Enhancements

New integrated code which includes the Spectrum Analyzer, Interference Analyzer, Channel Scanner and Power Meter

- This greatly speeds up mode switching between these four measurement modes

Channel Scanner

New integrated code which includes the Spectrum Analyzer, Interference Analyzer, Channel Scanner and Power Meter

- This greatly speeds up mode switching between these four measurement modes

WCDMA Enhancements

Added support for HSPA+ (64 QAM only)

Added support for DTX (discontinuous transmission)
- o AMR (Adaptive Multi-Rate) support is included in this update

OTA (Over-the-Air) scanner speed improvement- Approximately twice as fast
Improved CDP (Code Domain Power) over the air measurement performance
- o Lower EVM
- o More active channels displayed

Added RMS Phase Error measurement to Modulation Summary screen
Fixed some W-CDMA bugs
- o Improved ghosting issues in Multi-Path measurement
- o CDP and Constellation measurements now synchronized in HSDPA screen (option 65)
- o Fixed manual SC (Scrambling Code) settings in OTA scanner

TD-SCDMA Measurement Mode

Added CDP (Code Domain Power) marker capability
Added CDP Table measurement
Added support for MBMS (Multimedia Broadcast Multicast Service)
Added SCPI (National Instruments VISA) programming support

DVB-T/H Enhancements

Updated the GUI (User Interface) to be consistent with all other measurement modes
Improved the measurement speed about 40%
New save file format for saving measurements that is compatible with MST (Master Software Tools)

CDMA Enhancements

Added new Limit Test measurement to the OTA (Over-the-Air) option in CDMA
CDMA Scanner improvements
- o Improved PN scan speed by more than 2X
- o Added PN Increment
- o Added a 'PN Sort'

o Added new Absolute Power measurement field
Motorola LMF (base station control software)
o Fixed a problem with Motorola LMF compatibility
o Added support for Motorola UBS base stations to LMF
Fixed Tau measurement problem with Samsung BTS using external-trigger

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What will the Customer See in this release? MS2721B Application Package V1.29 12-3-2008

General Features

- Updated Signal Standards and Antenna files to fix errors
- Minor improvement in power on booting time
- Support for handling Compact Flash/USB drives > 4GB
- Allow instrument to turn on even if there is a problem communicating with smart battery

CDMA Application

- Watts unit selection will now scale power results dynamically to mW, uW, pW, etc

Channel Scanner Application

- Added support for running scripts that will enable scanning of many more channels than standard offering.

DVB-T/H Application

- bug fix to maintain lock on signal when switching from Modulation Analysis to BER measurement for certain signal conditions
- bug fix to disable results in Field Strength measurement if antenna chosen doesn't match freq band

DVB-T/H SFN Application

- Added support for 5, 6 MHz BWs

EVDO Application

- Watts unit selection will now scale power results dynamically to mW, uW, pW, etc

GSM Application

- Added support for 'Script Master' which allows a user to run tests based on scripts generated in MST

High Accuracy Power Meter Application

- Added support for MA24104A Inline High Power sensor

Interference Analyzer Application

- Minor Signal ID algorithm enhancements

Spectrum Analyzer Application

- Fixed several bugs related to Markers and Limit lines
- Users can now enter a specific marker frequency value without the instrument 'snapping' to the closest valid freq point
- Added Support for Option 90 - Gated Sweep
- Added a new Emission Mask measurement
- Fixed bug where Saved Measurement files contain Trace B and Trace C data even though they are not being used.
  They are now saved only when the traces are ON when saving

WCDMA Application

- Watts unit selection will now scale power results dynamically to mW, uW, pW, etc
- Added support for 'Script Master' which allows a user to run tests based on scripts generated in MST

- Fixed a bug in the EVM calculation that caused some signals to report a higher symbol EVM

Fixed WiMAX Application

- No changes

Mobile WiMAX Application

- Added a new Preamble Scanner measurement to the OTA option (Option 37)
- Added Max/Min information to Spectral Flatness measurement

TD-SCDMA Application

- Added HSDPA support
- Added Spectral Emission Mask measurement

ISDBT Application

- No changes

ISDBT-SFN Application

- No changes

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What will the Customer See in this release? MS2721B Application Package V1.28 7-28-2008

General Features

- Updated Signal Standards and Antenna files to fix errors

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Operating System

- No changes

CDMA Application

- No changes

Channel Scanner Application

- No changes

DVB-T/H Application

- Added support for 5, 6 MHz BWs.
- Added capability to specify frequency offset to offset frequency from normal channel map.

DVB-T/H SFN Application

- No changes

EVDO Application

- Added ability to specify a 1.35 MHz span to be used for OBW calculation instead of the standard 2.5 MHz.

GSM Application

- Added BSIC decoding which replaces TSC as a measurement result.

High Accuracy Power Meter Application

- No changes

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Interference Analyzer Application

- Fixed a critical bug in Signal ID measurement that would cause the instrument to hang when used in certain spans.

Spectrum Analyzer Application

- Fixed critical bug that would cause instrument to hang when using fast sweeps and Save On Event
- Fixed several bugs in Limit lines and Markers
- Fixed bug that caused manual RBW/VBW values to not recall correctly
- Revised some warning messages to be more informative (ADC Over range, Mixer Saturation, etc)
- Fixed a bug that caused Max Hold to not reset when RBW, VBW changed

WCDMA Application

- Fixed a bug where markers would not read out correctly in non default spans
- Added ability to change units to W and mW

Fixed WiMAX Application

- Improved responsiveness to button presses

Mobile WiMAX Application

- Added CINR measurement to the Constellation, EVM vs. Subcarrier and EVM vs. Symbol views (replaced Freq Error (ppm))
- Ability to switch Freq Error unit from Hz to ppm (due to replacement of ppm result by CINR)
- Improved preamble detection to better sync to a frame when DL burst is lower in power than UL burst
- Improved responsiveness to button presses

TD-SCDMA Application

- Revised Signal Standards

ISDBT Application

- No changes

ISDBT-SFN Application

- No changes

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What will the Customer See in this release? MS2721B Application Package V1.27 5-14-2008

General Features

- No changes

Operating System

- No changes

CDMA Application

- No changes

Channel Scanner Application

- Fixed a bug where measurement accuracy was off by several dB on some versions of HW
- Fixed a bug where channel powers and channels (in 'scan channels' mode) recalled from a setup are different from when they were saved.

DVB-T/H Application

- No changes

DVB-T/H SFN Application

- No changes

EVDO Application

- No changes

GSM Application

- Added support for demodulating Siemens BTS model 240

High Accuracy Power Meter Application

- No changes

Interference Analyzer Application

- New measurement called 'Signal ID' added
- In spectrogram, change sweep interval to best accommodate for changes in time span instead of clipping the time span.
- Fixed Spectrogram color map so that it goes from black to red instead of black to blue.
- Changed incorrect warning messages in RSSI when the screen had not yet filled up with data
- Fixed a bug where measurement accuracy was off by several dB on some versions of HW
- Signal standards forced a change in span when channel numbers were changed, this has been changed to no longer change span when channel numbers are changed

Spectrum Analyzer Application

- Sweep improvements in graphic update of the screen

- Front panel response improved
- Added Zero-span markers and limits
- Added save/recall functionality for Trace B and Trace C
- Added relative reference and scale for trace math
- Added the message "*Settings changed, sweep data invalid*" when a sweep has not been completed with the new setting
- Min/Max hold on Trace B
- Fixed a signal standard problem where changing span would invalidate the signal standard but not removing it from the screen
- Added resizable marker table
- Added sweep progress indicator at the bottom of the graph
- Fixed a problem where turning on Counter Marker in a narrow span would crash the system
- More robust GPS behavior
- Sweep time display is more stable and accurate

WCDMA Application

- SCPI support added for changing Span in Channel Spectrum view

Fixed WiMAX Application

- Fixed a bug where Alternate ACP when BW = 6MHz was junk (~+46dBm)

Mobile WiMAX Application

- Added support for Compressed DL-MAP
- Added support for 3.5MHz and 7MHz BWs
- Added display of 48 bit BS ID
- Fixed a bug in demodulation when total number of symbols > 12
- Fixed a problem where Constellation display did not display data from all the bursts
- Fixed some bugs in Power vs. Time delta markers when multiple markers are selected

TD-SCDMA Application

- Initial Release

ISDBT Application

- Initial Release

ISDBT-SFN Application

- Initial Release

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What will the Customer See in this release? MS2721B Application Package V1.25 12-28-2007

General Features

- None

Operating System

- No changes

CDMA Application

- No changes

Channel Scanner Application

- No changes

DVB-T/H Application

- Initial Release

DVB-T/H SFN Application

- Initial Release

EVDO Application

- No changes

GSM Application

- No changes

High Accuracy Power Meter Application

- No changes

Interference Analyzer Application

- No changes

Spectrum Analyzer Application

- No changes

WCDMA Application

- No changes

Fixed WiMAX Application

- No changes

Mobile WiMAX Application

- No changes

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What will the Customer See in this release? MS2721B Application Package V1.24 11/26/2007

General Features

- Previously, Gigabit and Terabit 'GB/TB of free memory' message used integer so it looked like the device was smaller than it was. For example, using a 2GB CF with 1.7GB remaining displayed '1GB of free memory', now it displays '1.7GB' instead.

Operating System

- Disconnect/reconnect of 10-Mbit Ethernet would previously only sometimes recover. Also, when disconnected, the instrument would slow down noticeably. This has been fixed.

CDMA Application

- Added support for Band Class 6. Carrier BW selection now restricted to 3 values.
- Added RBW value to marker display and changed resolution of marker readout to kHz.
- Carrier Freq and Freq Error now show tenth of Hz in display.
- Internal high accuracy (with GPS option) will now be retained as

expected.

Channel Scanner Application

- Previously, recalling setups with custom channel scanning resulted in invalid, dashed-out channel numbers on the display. This has been fixed so that the correct channel numbers will be displayed.

EVDO Application

- Added support for Band Class 6. Carrier BW selection now restricted to 3 values.
- Added RBW value to marker display and changed resolution of marker readout to kHz.
- Carrier Freq and Freq Error now show tenth of Hz in display.
- Internal high accuracy (with GPS option) will now be retained as expected.
- Saved traces were losing freq precision from MHz to Hz. More digits were added after the decimal point (from 6 to 9) to some freq values that require tenth-Hz precision.

GSM Application

- Modified SCPI command names to be more consistent.
- Internal high accuracy (with GPS option) will now be retained as expected.
- Pass/Fail defaults would show small negative values as failures. Test limits have been updated.
- Freq Error had a factor of 10 offset. The error is now fixed.

High Accuracy Power Meter Application

- Added support for the MA24106A USB Power Sensor.

Interference Analyzer Application

- Failure of storage location (int CF, USB, ext CF) full is now
displayed correctly.
- There were previous problems with the autosave feature for RSSI
and spectrogram measurements. In some cases, duplicate files were
saved when the autosave was triggered. Also, some longer-duration
measurements would terminate after only 3 hours. Both of these issues
have been fixed.
- Better reporting for spectrogram measurements trying to set very
large save times in very large memory devices. Previously, this may
have resulted in an error that said the device did not have capacity.
- User is no longer allowed to modify the Min Sweep Time parameter when
in RSSI mode. A message appears on the screen requesting that the user
modify the Time Interval and Span parameters instead.
- Previously, When doing a Preset from RSSI mode, the trace appeared to
be squished on the left side of the graph when measurement is resumed
under the preset conditions. Settings are now properly cleared during
the preset operation.
- Display of parameters was improved in RSSI mode. Previously, when
updating a parameter value, the red text in the upper-left of the plot
on the display would get garbled as the parameter value (or parameter
text) changed. The text would become clear again when the next point
of data was received and displayed. This was most noticeable when the
Time Interval parameter was large (i.e. 5 seconds).
- Unit will not hang up in fast sweep conditions (large RBW, narrow span).
- Error message display was improved so that critical error messages would
not be missed.
- Previously, the min/max parameters of the Signal Strength measurement
could be set backwards (i.e. min > max). This is no longer allowed.

- Improved autoscale feature of the Signal Strength measurement.

Spectrum Analyzer Application

- Some new strings were added to the local language translations.
- Added upgrades to move limit.
- Added vertical limit lines.
- Added limit mirror.
- Improved warnings for marker 1 reference.
- Improved warnings for full screen conflict.
- Changing signal standard channel will no longer revert the span back to 3x the channel width.
- Video Trigger Levels are now validated to avoid unreasonable values.

WCDMA Application

- Added a Span button under Channel Spectrum that allows a user to toggle between 10 MHz and 5 MHz spans for more accurate OBW measurements in a multi-carrier environment.
- Added more digits to the carrier frequency and frequency error measurements on the display.
- Improved behavior When recalling a pass/fail measurement. Previously, the ESC key would not exit recall mode properly.
- Improved the spectrum emission mask measurement. Previously, the instrument would hang if left to measure spectrum emission mask repeatedly for a long time.
- Internal high accuracy (with GPS option) will now be retained as expected.
- Spectrum Emission Mask: measurement results for highest levels in each zone of the spectrum emission mask measurement would report the correct level but it reported incorrect frequencies. This is now working.

Fixed WiMAX Application

- Internal high accuracy (with GPS option) will now be retained as expected.

Mobile WiMAX Application

- Added support for extended DIUC.
- Improved filter design to better reject power from adjacent channels during demodulation.
- Added support for CTC decoding of the DL-MAP to automatically determine the demodulation parameters.

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What will the Customer See in this release? MS2721B Application Package V1.21 9-27-2007

General Features

- In some situations the instrument may have failed to boot up completely using the previous version of firmware.
  This issue is now fixed.
- In previous versions of firmware, SCPI command results for ":TRACe:DATA?" query would occasionally return incorrect values.
  All values are now properly calculated and formatted in the query response string.

Operating System

- No changes

Spectrum Analyzer Mode

- No changes

Interference Analyzer Mode

- No changes

Channel Scanner Mode

- No changes

WCDMA Signal Analyzer Mode

- No changes

GSM/EDGE Signal Analyzer Mode

- No changes

Fixed WiMAX Signal Analyzer Mode

- No changes

Mobile WiMAX Signal Analyzer Mode

- No changes

High Accuracy Power Meter Mode

- No changes

CDMA Signal Analyzer Mode

- No changes

EVDO Signal Analyzer Mode

- No changes

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What will the Customer See in this release? MS2721B Application Package V1.20 8-28-2007

General Features

- Anritsu Logo added to the top left of the GUI

Operating System

- No changes

Spectrum Analyzer Mode

- Fixed bug where recall limit would fail and give no indication it failed. Now it does not fail.
- Fixed bug where TG output power did not use the reference level offset value correctly.

Interference Analyzer Mode

- No changes

Channel Scanner Mode

- No changes

WCDMA Signal Analyzer Mode

- Fixed bug where mode changes with GPS connected caused frequency accuracy errors.
- Improved how the zoom area is shown in codogram, CDP and HSDPA views

GSM/EDGE Signal Analyzer Mode

- Fixed bug where mode changes with GPS connected caused frequency accuracy errors.

Fixed WiMAX Signal Analyzer Mode

- Added support for 5ms and 10ms frame lengths
- Added ability to use RF power to do a rough trigger in power vs. time when no preamble is found.
  This prevents trace from jumping around even when the DL preamble is not found.

Mobile WiMAX Signal Analyzer Mode

- Initial release

High Accuracy Power Meter Mode

- No changes

CDMA Signal Analyzer Mode

- Fixed bug so carrier frequency reports the measured value correctly.
- Fixed bug where mode changes with GPS connected caused frequency accuracy errors.

EVDO Signal Analyzer Mode

- Fixed bug where mode changes with GPS connected caused frequency accuracy errors.

Services & Support
1-800-267-4878

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What will the Customer See in this release? MS2721B Application Package V1.19 6-18-2007

General Features

- Antenna list handling improved so spaces in the file name are handled correctly.
- Power save increases battery time by decreasing default screen brightness.
- remote command functionality will now handle multiple events.
- Critical data loss from EEPROM happened occasionally, now this is fixed.

Operating System

- Improved OS codeload process--mainly fixed OS codeload failures.

Spectrum Analyzer Mode

- Marker frequency resolution was lost on saved measurements, now recalled measurements show the correct resolution.
- Marker peak search on slow sweeps did not work correctly on the first sweep. Now the correct data is searched.
- Extensive limit upgrades. Save/recall limit, limit envelope, limit absolute/relative, move limit (by frequency).
- application self test displays overall status better now.
- Some warning/error messaging has improved details.
- Certain types of lock failures have been prevented. Also, one LO's failure should no longer cause another LO to fail.

Interference Analyzer Mode

- No changes

Channel Scanner Mode

- No changes

WCDMA Signal Analyzer Mode

- CDP view would take up to 1 minute to refresh after closing an input window, this has been fixed.
- Traffic analysis measurement capabilities are added using both code utilization and amplifier capacity.
- Frequency error measurements now has averaging which can be enabled/disabled.
- TRACe? SPEC fixed bug where incorrect data was returned.
- Max amplifier output power was not being set correctly under certain conditions. Now it is properly set.

GSM/EDGE Signal Analyzer Mode

- No changes

Fixed WiMAX Signal Analyzer Mode

- Remote commands that set signal or channel standards did not correctly update the frequency or channel, now it does.
- New remote commands have been added.
  [SENSe:]RF:SPECtrum:FREQuency:STARt?,[SENSe:]RF:SPECtrum:FREQuency:STOP?,
  [SENSe:]DEMod:EVSYmbol:STARt?,[SENSe:]DEMod:EVSYmbol:STOP?,
  [SENSe:]DEMod:EVSCarrier:STARt?,[SENSe:]DEMod:EVSCarrier:STOP?,
  [SENSe:]DEMod:SFLatness:STARt?,[SENSe:]DEMod:SFLatness:STOP?,
  [SENSe:]DEMod:CONStln:POINts?,[SENSe:]DLFLength?,
  [SENSe:]RF:PVTime:FRAMe:STARt?,[SENSe:]RF:PVTime:FRAMe:STOP?,
  [SENSe:]RF:PVTime:SLOT:STARt?,[SENSe:]RF:PVTime:SLOT:STOP?,
  [SENSe:]RF:ACPR:ADJCchannelcount?,[SENSe:]RF:ACPR:MAINchannelcount?
- Auto range time was slow, it is now a little faster.

High Accuracy Power Meter Mode

- With max-hold on, When relative power is turned on the data would be lost. This bug has been fixed.

CDMA Signal Analyzer Mode

- Invalid PN numbers were caused when power offset was non-zero. This bug has been fixed.
- 'Slow' measurement mode now averages over more chips to get better frequency error accuracy.

EVDO Signal Analyzer Mode

- Invalid PN numbers were caused when power offset was non-zero. This bug has been fixed.

MS2721B Package V1.17 >>>
What will the Customer See in this release? MS2721B Application Package V1.17 3-29-2007

General Features

- Save file operations previously reported the amount of free space in bytes.
  This will now be reported in GB, MB or KB as appropriate.
- In some cases, the Status window was not big enough to show everything. This is now a scrollable list box.

Operating System

Spectrum Analyzer Mode

- Recall setups with manual RBW and/or VBW settings would not function properly. This has been fixed.

Interference Analyzer Mode

- Saved measurements may now be recalled from external devices successfully (CF/USB).

Channel Scanner Mode

- Saved measurements may now be recalled from external devices successfully (CF/USB).
- When Max Hold is set to the 5- second setting, after a few minutes, the unit hangs. This issue is now resolved

WCDMA Signal Analyzer Mode

- Previously, the control channel display was not updating when the user would cycle through the "abs", "rel", "delta" options. This has been fixed.
- Saved measurements may now be recalled from external devices successfully (CF/USB).
- The display artifact for "M7" on the CDP display has been removed.
- Measurement sub-menus are now persistent. Previously, the menu would go back to the "Demod" or other higher-level menu when a value was entered.
- Markers are now displayed properly on recalled measurements.

GSM/EDGE Signal Analyzer Mode

- Saved measurements may now be recalled from external devices successfully (CF/USB).

Fixed WiMAX Signal Analyzer Mode

- Saved measurements may now be recalled from external devices successfully (CF/USB).

High Accuracy Power Meter Mode

- No changes

CDMA Signal Analyzer Mode

- Initial release

EVDO Signal Analyzer Mode

- Initial release

MS2721B Package V1.03 >>
What will the Customer See in this release? MS2721B Application Package V1.03 12-05-2006

** This is the initial release of the MS2721B instrument firmware **