



- 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 gate view (zero span).
- Improvements and bug fixes to the Field Strength measurement.
- Fixed a bug where the instrument could lock up during preset.

#### Interference Analyzer

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- 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

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- Fixed several bugs related to Script Master.





- 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

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

## Channel Scanner

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- Various fixes to scriptmaster

## High Accuracy Power Meter

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

## ISDBT,ISDBTSFN

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

#### General Spectrum Analyzer bug fixes

- o Fixed W and V issue in Field Strength measurement
- o Fixed Zero Span and Counter Marker incompatibility issue
- o Fixed Trace A-B -> C issue
- o Fixed Trace B & C Max & Min hold issues
- o Fixed 750 measurement issue

#### SCPI remote commands added for Gated Sweep Option

Fixed a bug in recall setup that could cause a power measurement error.

Improved spur performance over previous version of firmware

#### Mobile WiMAX Analyzer

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- 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

#### WCDMA Enhancements

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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

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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

CDMA Enhancements

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

#### High Accuracy Power Meter Application

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- Added support for MA24104A Inline High Power sensor

#### Spectrum Analyzer Application

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- 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 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

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- 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

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- No changes

#### Mobile WiMAX Application

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## 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 support for demodulating Siemens BTS model 240
- Added BSIC decoding which replaces TSC as a measurement result.

## High Accuracy Power Meter Application

- No changes

## 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
- Added SCPI commands: :SENSe:OPTion:IF:BWSTate?, :SENSe:OPTion:IF:BWSTate [1|2|3|4],:CALCulate:LIMit:FAIL?, :CALCulate:LIMit:LOWer:FAIL?, :CALCulate:LIMit:UPPer:FAIL?,MMEMory:STORe:JPEG "filename", and MMEMory:DATA? "filename.ext".

## 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
- 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)
- Improved responsiveness to button presses

## 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
- 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



- Added capability to skip average count on the screen when it's sweeping faster than we can update the count on the screen
- Fixed problem with trace values not adjusting to the Reference Level Offset changed.

#### WCDMA Signal Analyzer Mode

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- No change

#### Fixed WiMAX Signal Analyzer Mode

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- No change

#### Mobile WiMAX Signal Analyzer Mode

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- No change

#### High Accuracy Power Meter Mode

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- No change

#### GSM/EDGE Signal Analyzer Mode

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- No change

#### CDMA Signal Analyzer Mode

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- No change





- 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
  - General speedup in SCPI and save/recall
  - Added resizable marker table
  - Added sweep rabbit
  - More robust limits
  - Fixed a problem where turning on Counter Marker in a narrow span would crash the system
  - New SCPI commands for Markers, limits, signal standards, save/recall, traces, occupied bandwidth, external frequency, and frequency steps
  - More stable sweep time.
  - If averaging is on, manual trigger is now changed to trigger a sweep base on the number of averaging set.
  - No full screen support
- >>> NOTE: Only dBm unit supported. It will come in the next release.

#### WCDMA Signal Analyzer Mode

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- Fixed a problem where Spectrum Emission Mask: measurement results for highest levels in each zone of the specmask had the correct level but reported incorrect frequencies
  - Modified certain frequency SCPI responses to give 1 digit after the decimal point
  - Channel INC/DEC functions on the Freq menu were not functioning properly after returning from the Band Spectrum view. Instead of getting the next/previous channel relative to the channel that was identified in Band Spectrum view, the channel was being modified based on the channel that was selected prior to entering Band Spectrum view. This problem has been fixed



## General Features

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- Anritsu Logo added to the top left of the GUI

## Operating System

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- No changes

## Spectrum Analyzer Mode

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- 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.

## WCDMA Signal Analyzer Mode

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- Improved how the zoom area is shown in codogram, CDP and HSDPA views

## Fixed WiMAX Signal Analyzer Mode

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- 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.

## High Accuracy Power Meter Mode

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- No changes



- 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.
- Lock failure bug fixed to prevent occasional lock failures on some units.
- Twiddle marker on full span would display as arrow off screen. Now marker stays on screen as expected.
- Frequency step did not handle up/down arrows properly, now it does

#### WCDMA Signal Analyzer Mode

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- 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 have 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.

#### High Accuracy Power Meter Mode

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

#### Fixed WiMAX Signal Analyzer Mode

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- New remote commands added:

[SENSe:]DEMod:EVSYmbol:START:X?;

[SENSe:]DEMod:EVSYmbol:STOP:X?;

[SENSe:]DEMod:EVSCarrier:START:X?;

[SENSe:]DEMod:EVSCarrier:STOP:X?;

[SENSe:]DEMod:EVSCarrier:START:X?;

[SENSe:]DEMod:EVSCarrier:STOP:X?;

[SENSe:]DEMod:CONStIn:POINTs?;

[SENSe:]DLFLength?;

[SENSe:]RF:PVTime:FRAME:START?;

[SENSe:]RF:PVTime:FRAME:STOP?;

[SENSe:]RF:ACPR:ADJCchannelcount?;

[SENSe:]RF:ACPR:MAINchannelcount?

- Improved Auto range time.