

# MXE Instrument Software Revision History

## (Windows XP Only)

It is recommended that all instruments be kept up to date by installing the most recent version of software available. The most recent version for the N9038A software can be downloaded from:

[http://www.agilent.com/find/mxe\\_software](http://www.agilent.com/find/mxe_software)

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## Version A.14.10

Release Date: September 2014

### Enhancements

None

### Issues Resolved

#### General

- Fixed issue causing Save, Data softkey not to update when different data types are selected
- Fixed issue causing control of ESH2Z5 LISN Protective Earth control to be inverted

#### N9060B – Spectrum Analyzer Mode

- ACP Measurement
  - Fixed issue causing Offset F on the positive side to not be displayed correctly in the upper trace window when the Offset Freq Define setting is changed from its default value

#### N6141A – EMI Receiver Mode

- Fixed possible instrument application crash caused by out of memory condition when making repeated remote queries for meter values
- Frequency Scan Measurement
  - Fixed issue causing saved states with the Auto Rules set to Log % of Freq to recall set to Points / RBW
  - Fixed issue causing certain states from older software revisions not to be recalled properly
  - Fixed issue causing time domain scans not to run with very low frequencies and very narrow spans

#### N9068A – Phase Noise Mode

- Fixed issue causing states saved in continuous sweep to be in single when recalled

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## Version A.14.09

Release Date: July 2014

### Enhancements

None

### Issues Resolved

#### General

- Fixed issue causing the instrument application to hang after performing a software update due to invalid values in the PowerOnPersistents.bin file
- Fixed issue causing the RF Preselector alignment scheduler not to start for non-recurring alignments
- Fixed issue causing scheduled RF Preselector alignments to run multiple times
- Fixed issue causing the internal alignments to fail if RF Input 2 is being used when the alignment begins
- Fixed issue causing possible noise floor conflict between noise floor extension and a USB preamp

#### N9060B – Spectrum Analyzer Mode

- Fixed issue causing the start time for spectrogram measurements not to be saved properly in measurement results file

#### N6141A – EMI Receiver Mode

- Frequency Scan Measurement
  - Fixed issue causing the: status:operation:condition? query to change state before entire sequence was completed
  - Fixed issue causing the “Preamp: Accy unspec'd below 100 kHz” status message to appear even when the selected frequency range is above 100 kHz
  - Fixed issue causing the amplitude units saved in an html report when the amplitude units are set to dBμA
  - Fixed issue when moving the marker on the trace with a mouse when X Scale Type is Log
- Monitor Spectrum Measurement
  - Fixed issue causing RPG increment of Frequency not to follow the CF Step setting

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## Version A.14.06

Release Date: June 2014

### Enhancements

#### General

- Modified effect on the internal preamp state when a USB preamp is used – Spectrum Analyzer and Noise Figure modes only
  - Internal preamp will not be forced on when USB preamp is connected
  - Internal preamp state can be changed when USB preamp is used

#### N9060B – Spectrum Analyzer Mode

- Added support for remote only LISN control – Requires Option LSN

#### N6141A – EMI Receiver Mode

- Autorange for meters will start at 0 dB if Autorange Atten 10 dB Minimum is Off

### Issues Resolved

#### General

- Fixed issue causing not enough sections of the internal alignments to be run if ESC is pressed to abort the instrument power on alignments
- Fixed issue that could cause USB preamp calibration data to not be loaded properly when the preamp is connected
- Fixed intermittent issue causing instrument application software to hang when saving files
- Fixed issue causing the instrument not to be recognized remotely when being controlled via the USB interface after the controlling computer wakes from sleep mode

#### N9060B – Spectrum Analyzer Mode

- Fixed issue causing the Average Count in saved .csv trace files to always be 0
- Fixed issue causing the Detector value in saved .csv trace file to report NegPeak instead of Sample
- Fixed issue with Y-axis units in saved .csv trace files when trace is Normalized
- Channel Power Measurement
  - Fixed issue that could cause the measurement to freeze after running for an extended period of time
- Spectrum Emission Mask Measurement
  - Fixed issue that could cause the displayed sweeptime to be incorrect when using FFT Sweep Type

#### N6141A – EMI Receiver Mode

- Fixed issue causing meters Peak Hold not to reset if set to Adjustable
- Fixed issue causing current EMC Standard setting to change when EMC Standard Preset To is changed

- Frequency Scan Measurement
  - Fixed issue allowing the Scan Time to be set to values that are invalid with other parameter settings, improving frequency accuracy of measurements
  - Fixed issue with Peak Search and Mkr -> List when first powered on with signals already in the signal list
  - Fixed issue causing the minimum meter frequency to be limited when using the up and down arrows
- Monitor Spectrum Measurement
  - Fixed issue causing states using wider than default spans to not be recalled correctly
- Disturbance Analyzer Measurement
  - Fixed issue causing the response of the Quasi-Peak detector to not be in sync with the Peak detector
  - Fixed issue causing Marker and Delta Marker to go to the start of the trace instead of on the currently displayed portion of the trace
  - Fixed issue causing marker to not be the active function when Peak Search is selected

#### N9069A – Noise Figure Mode

- Fixed issue causing Auto Scaling to be off after a state with Auto Scaling on is recalled
- Fixed issue causing state files to recall with the trace data appearing to be reversed
- Fixed issue causing input attenuator value to always be set to 0 dB after an alignment is run

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## Version A.14.03

Release Date: April 2014

### Enhancements

#### General

- All new instruments from this point forward will ship with the Windows Embedded Standard 7 operating system (WES7P)
- Added the SYST:LOFF remote command to log off the current user
- Added support for USB preamps in the Spectrum Analyzer and Noise Figure modes
- Increased the time between instrument auto alignments, especially during instrument initial warm-up time

#### N9060B – Spectrum Analyzer Mode

- Added PSG E8257D and E8267D as supported instruments for option ESC, External Source Control
- Modified Peak Table to have a white background and black text when the display theme is set to one of the flat themes
- Channel Power Measurement
  - Removed the 1 GHz limitation of the Integration Bandwidth

#### IQ Analyzer (Basic) Mode

- Added Avg Type Auto setting. This will cause it to use Power Average (RMS) when Noise Markers and Band Power Markers are activated

#### N6141A – EMI Receiver Mode

- Added the Disturbance Analyzer (Click) measurement
- Frequency Scan Measurement
  - Added a Meters Increment softkey to the FREQ Channel menu
  - Added view of other settings in the Scan Table
  - Added the Display Line function to the View / Display, Display menu
- Strip Chart Measurement
  - Freq Step softkey changes to Freq Incr and the Auto value is now equal to RBW/2
- Monitor Spectrum Measurement
  - Added the Frequency Scan Graph view to the display. Can be turned on and off from the View / Display menu

#### N9063A – Analog Demod Mode

- Added support for N9063A-AFP with the following enhancements:
  - Attack/Release view that provides RF envelope and FM demodulation on same T-axis
  - Marker Table on AF Spectrum to easily quantify multi-tone metrics
  - Eliminate clipping, scaling, and wrapping issues for FM and PM on analog output

- Long demod waveform provides up to 3.6 MSa or >100 seconds at 25 kHz bandwidth

## Issues Resolved

### General

- Fixed issue that was causing the instrument application to boot up with a blank screen if the display theme was changed from the default of 3D Color
- Fixed issue causing the highest digit in the displayed time to be distorted

### N9060B – Spectrum Analyzer Mode

- Fixed possible instrument application crash when the :DISP:ENAB remote command is used
- Fixed the Open/Short graphic when multiple calibrations are performed with option ESC, External Source Control
- TOI Measurement
  - Updated the rules for phase noise optimization to correct a bow in the noise floor
- ACP Measurement
  - Fixed issue that could cause data errors when Min or Max Hold is used with Noise Corrections turned on

### N6141A – EMI Receiver Mode

- Fixed issue causing Preset To setting for EMC Standard not to be saved in instrument state
- Fixed issue causing the \*IDN? response to be ESU26 instead of ESU44 in a 44 GHz MXE when the Mode IDN Response is set to R&S ESU
- Frequency Scan Measurement
  - Fixed issue that caused the wrong trace to be referenced when Meas at Mkr Results →List is used for a Measure at Marker that was performed on a trace other than 1
  - Fixed issue that could cause the noise floor to be too high at low frequencies when Discrete Scan Type is used
  - Fixed issue that could cause the actual scan time to be too long under certain conditions when Discrete Scan Type is used
  - Fixed issue causing a Peak Search while using marker delta to exit marker delta
  - Fixed issue that could cause EMC32 software to loose connection when an overload occurs when autoranging is used
  - Fixed issue that was causing the vertical scale not to be displayed properly if the Scale/Div setting was less than 1 dB
  - Fixed possible instrument application crash when :TRAC:FEED:CONT ALW remote command is used
  - Fixed possible instrument application crash when Time Domain Scan Type is selected under certain condition
- Strip Chart Measurement
  - Fixed issue causing all traces to be cleared when using the :FETC:SCH2|3|4? remote query after a measurement has completed using single sweep



- Fixed issue that caused the trace not to be drawn all the way across the screen if the full screen X scale range is not an integer multiple of the dwell time

#### N9069A – Noise Figure Mode

- Fixed issue that could cause an offset in results when using Table Loss Compensation
- Changed DUT rule when external L.O. source control is activated

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## Version A.13.60

Release Date: March 2014

### Enhancements

None

### Issues Resolved

N6141A – EMI Receiver Mode

- Frequency Scan Measurement
  - Fixed issue that could cause errors in time domain measurements if option B25 is not present

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## Version A.13.59

Release Date: December 2013

### Enhancements

None

### Issues Resolved

#### N6141A – EMI Receiver Mode

- Frequency Scan Measurement
  - Fixed possible instrument application crash when performing a search sequence for a multiple range scan
  - Fixed issue that could cause noise floor dropouts when using time domain scan type
  - Fixed issue that could cause noise floor extension to not work properly when using time domain scan at the low end of CISPR band B
- Amplitude Probability Distribution Measurement
  - Fixed possible instrument application crash if the data for a blank trace is remotely queried

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## Version A.13.58

Release Date: November 2013

### Enhancements

#### General

- Added support for Option 544 – 44.0 GHz Frequency Ranges

#### N6141A – EMI Receiver Mode

- Added Monitor Spectrum (IF Mode) measurement – Requires Option DP2
- Added APD (Amplitude Probability Distribution) measurement – Requires Option DP2
- Added support for Option TDS – Time Domain Scan – Requires Option DP2
- Added support for Option LSN – External LISN Control
- When EMC Standard is changed to CISPR the Measure and Meter detectors will automatically change to Peak, Quasi-Peak, and EMI Average
- When EMC Standard is changed to MIL the Measure and Meter detectors will automatically change to Peak, Average, and Negative Peak
- Frequency Scan Measurement
  - Increased the maximum number of Scan Points from 40,001 to 500,001

### Issues Resolved

#### General

- Fixed intermittent RF alignment failure in instruments with option DP2

#### N9060B – Spectrum Analyzer Mode

- TOI Measurement
  - Fixed issue causing reported TOI values was incorrect when using narrow resolution bandwidths

#### N6141A – EMI Receiver Mode

- Frequency Scan Measurement
  - Fixed issue causing the markers not to work on a copied trace
  - Fixed issue causing measurement report formatting issues when save as .pdf
  - Fixed issue causing measurement to not find signal peak when between trace points under certain conditions
  - Fixed issue causing wrong current temperatures for RF preselector assemblies in Alignment Statistics screen
- Strip Chart Measurement
  - Fixed issue causing Average detector to not work properly in CISPR Bands A and B

#### N9069A – Noise Figure Mode

- Fixed issue causing the application to close when the Sweep/Control front panel key was pressed

- Fixed issue causing subsequent noise source calibrations to not function properly after cancelling out of a noise source calibration

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## Version A.13.27

Release Date: August 2013

### Enhancements

#### General

- Added support for Option CR3 - Rear Panel 2nd IF Output
- Added support for Option DP2 - High Performance Digital Processor
- Updated the System, Alignments, Align Now menu to include RF Preselector alignments (behavior of some alignment remote commands have been changed)

#### N6141A – EMI Receiver Mode

- Added ability to use the Average detector throughout the mode
- Frequency Scan Measurement
  - Added ability to mark either upper or lower duplicates in the signal list
  - Added ability to couple the meters to the marker frequency
  - Added ability to save test report in .pdf format

### Issues Resolved

#### General

- Fixed issue causing the Current Temperature values of the RF Preselector to not be displayed in the Align Statistics screen
- Fixed issue causing application not to run if Remote Language Compatibility is power-on application and GPIB Controller is set to Enabled
- Fixed issue causing .csv limit line files edited with Excel not to load
- Fixed issue causing limit lines not to be saved properly when Antenna Units are dB $\mu$ A
- Fixed issue causing antenna units of None in recalled states to not be applied

#### N9060B – Spectrum Analyzer Mode

- Fixed an execution error when limit line 2 is turned on, without limit line 1 on, and no trace data
- Fixed issue with noise marker on and marker table on where the Y value was reported as dBm/Hz instead of dBm
- Fixed issue when storing a CISPR D state where the RBW annotation stated “Res BW (CISPR) 120 kHz”, yet when recalled stated “Res BW (-6 dB) 120 kHz”
- Fixed Input Overload message when stop frequency is >3.6 GHz, 0 dB input attenuation and sweep time is >262 ms
- Optimized resolution bandwidth switching uncertainty when using the EMI Average Detector or RMS Average Detector and the sweep time rules are set to Accuracy
- Fixed issue with the post trigger count for all detector types when doing negative trigger delays
- Adjacent Channel Power Measurement
  - Corrected the inability to configure the sweep for the non-required side of the offset by adding [:SENSe]:ACPower:SWEep:PARTial[:STATe]
- Channel Power & Occupied BW Measurements

- Fixed .csv file to include mechanical and electronic attenuator metrics
- TOI Measurement
  - Fixed an issue where an incorrect dBc value was being reported

#### IQ Analyzer (Basic) Mode

- Fixed issue that was causing WAV:SRAT? to return incorrect data
- Fixed issue with incorrect data with IQ pairs when using large pre-trigger delays

#### N6141A – EMI Receiver Mode

- Fixed issue causing the amplitude unit terminators for the meter limits to be incorrect when the antenna units are dB $\mu$ A
- Frequency Scan Measurement
  - Fixed issue causing a trace in View to be distorted when the frequency range is changed
  - Fixed issue causing erroneous values being placed in the signal list when no values were available
  - Fixed issue causing the Dwell Time to be changed when Marker Zoom is used
  - Fixed issue causing the last data point to drop out when Discrete Scan Type and Noise Floor Extension is turned on
  - Fixed issue causing the signal list column configuration to not be saved in an instrument state file
  - Fixed possible application exception error when making a measurement at the first data point of the scan
  - Fixed issue causing the wrong resolution bandwidth to be used for the meters at CISPR band edges
  - Fixed issue causing the yellow “Saving...” window to appear in the screen capture of a test report
  - Fixed issue causing the Search sequence to not find signals at range crossing points
  - Fixed various autoranging issues when a scan is running with multiple ranges turned on
  - Fixed issue causing signal level to limit line values in the scan table to be copied into undefined cells
  - Fixed issue causing the amplitude unit terminators for the reference level setting to be incorrect when the antenna units are dB $\mu$ A
- Strip Chart Measurement
  - Fixed issue causing the strip chart measurement to draw the data one point off
  - Fixed issue causing no softkey terminators to be there for the reference level setting when an antenna unit was being used

#### N9068A – Phase Noise Mode

- Attenuator annotation is not updated after pressing Adjust Atten for Min Clip when in Log Plot

#### N9069A – Noise Figure Mode

- Fixed an issue where the noise source model and serial number entries will get updated when the ENR table is automatically filled

- Fixed an issue where the Stop Freq softkey frequency readout was represented differently than the displayed Stop frequency readout
- Fixed an issue where recalling a calibrated state file changed the cal state status from Cal to Uncal

#### N9063A – Analog Demod Mode

- Fixed an issue where an “Insufficient Data” error message was falsely stated on the analyzer display



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## Version A.12.13

Release Date: May 2013

### Enhancements

None

### Issues Resolved

#### N6141A – EMI Receiver Mode

- Fixed issue where the application may close when switching between Spectrum Analyzer and EMI Receiver modes
- Frequency Scan Measurement
  - Fixed issue that was causing the Measure at Marker and Measurement to not use the selected resolution bandwidth when the EMC Standards is set to CISPR and the resolution bandwidth setting in the Scan Table was not left in Auto
  - Fixed issue that was not allowing saved states to perform a Search sequence
  - Fixed issue that was causing the Antenna Units to not be properly updated when a state is recalled

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## Version A.12.09

Release Date: March 2013

### Enhancements

None

### Issues Resolved

#### General

- Incorrect Antenna Units are used when an instrument state was recalled
- Additional EMC Limit Lines added for both EN 55015 and AS-NZS 4051 Conducted measurements
- Synchronized the front panel knob resolution to the scroll wheel on a mouse
- Updated the way the Display Theme parameter is handled
- Reporting issue between the trigger delay status query and the actual display readout

#### N9060B – Spectrum Analyzer Mode

- Center frequency spur issue in the Spectrum Emissions Mask measurement was not present

#### IQ Analyzer (Basic) Mode

- Sending WAV:SRAT? query returns the incorrect sample rate
- Sending CALC:SPEC:MARK[n]:CENT does not center the signal on the display

#### N6141A – EMI Receiver Mode

- Saved states always recall with dB $\mu$ V Y-Axis Units
- Frequency Scan Measurement
  - Limit line margin failures were called Limit Fails instead of Margin Fails
  - Execution Error when limit line 2 was turned on without limit line 1 being defined
  - Possible instrument crash caused when trying to edit a limit line after a Meas Preset is performed
  - Possible instrument hang when using a mouse to select checkboxes in the Scan Table
  - Multiple issues with the Auto Range and Auto Preamp functions
  - Up/Down arrows change the wrong setting in the Scan Table
  - Reference level shows the incorrect value when Watts was selected as the Y-Axis units
  - Increased the maximum Scan Time when the Discrete Scan Type is selected from 4 kS to 4 MS
- Strip Chart Measurement
  - Y-Axis indications are 0.0 when either Watts, Volts, or Amps were selected as the Y-Axis Units in the Strip Chart measurement
  - Display issue caused by too many digits being displayed for the Expanded Meters

#### N9063A – Analog Demod Mode

- DTMF (two-tone signal) does not have all the same metrics being reported as the single tone demodulation measurement
- Analog Output signal on the rear panel can drop out

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## Version A.11.04

Release Date: December 2012

### Enhancements

None

### Issues Resolved

#### General

- The selected marker is not always made the active function

#### N6141A – EMI Receiver Mode

- Frequency Scan Measurement
  - Fixed an issue that was causing a Meas Uncal message with Discrete Scan Type

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## Version A.11.03

Release Date: November 2012

### Enhancements

#### General

- Added dBpW amplitude unit
- Added dBμA antenna unit
- Increased number of internal state save registers from 6 to 16
- Added the ability to name State registers
- Added Average/Hold Trace Legacy Compatibility function
- Added EXG N5171B and MXG N5181B as supported instruments for option ESC, External Source Control
- Added HiSLIP (High Speed LAN) support

#### N9060B – Spectrum Analyzer Mode

- Increased Spectrogram maximum number of trace points from 1,001 to 20,001
- Added Zero Span Delay Compensation function
- The highest peak per segment is now displayed when setting the Spur Report Mode to Minimum Margin in Spectrum Emission Mask measurement
- Spurious Emissions Measurement
  - Added Sweep Type selections of Auto and Swept. In Auto, either Swept or FFT sweep type will be selected, depending upon which sweep type results in faster sweep times

#### N6141A – EMI Receiver Mode

- Frequency Scan Measurement
  - Added Subrange option to search function
  - Added a "Save As..." selection on the Meas Result configuration menu
- Strip Chart Measurement
  - Added Expand Meter function

### Issues Resolved

#### General

- Create New Folder softkey is not behaving properly
- Application will close when an SNS series noise source is connected
- CONF:CAT? returns unlicensed measurement names
- Unable to save a screen image obtained from the built-in web server
- LXI webpage incorrectly identifies the model/description of the analyzer
- ADC Overload inadvertently being displayed
- Synchronization issue causes a false error in the Event Log
- Hardware Initialization errors at boot up are now reported in the SA Event Viewer
- "Spike" on Analog Out when the display updates

#### N9060B – Spectrum Analyzer Mode

- Peak Search reporting incorrect value when in Zero Span at low frequencies
- Harmonics Measurement
  - Missing Help text for Export Data: Measurement Results or Trace
  - Bursted signal error with certain input signal characteristics
- TOI Measurement
  - Missing Help text for Export Data: Measurement Results or Trace
  - Reporting error when in zero span and the RBW is <30 Hz
- Timestamps for the individual traces are not available in the Spectrogram measurement results file, even though they are visible on the display
- Unable to set exact sweep time using the front panel keypad when in Zero span using 12,500 sweep points. Knob works fine

#### N6141A – EMI Receiver Mode

- EMC Standard saved in a state will change to CISPR when the state is recalled
- Frequency Scan Measurement
  - When start frequency is changed by only 5 Hz, application may close
  - When the Restart key is pressed multiple times the application may close
  - Blank area in the trace between ranges fail the limit
  - Execution error when measurement window was resized
  - Inconsistent data is returned remotely when no value is in a cell of a signal list
  - Conflicting measurement results between Measure at Marker, Meters, and Measurement for very low level signals
  - Scan refresh rate too slow when a marker is turned on under certain conditions
  - Scan time increases when using Log % of Freq then manually setting step size
  - Entire peak trace moves up and down on the display under certain conditions
  - Correction data is displayed incorrectly in Report output
  - Incorrect data being returned when :TRACE? SCAN query is sent
  - Select Limit under Meas Setup, Limits, Properties does not work
- Strip Chart Measurement
  - Autorange will not settle with impulsive signal

#### N9063A – Analog Demod Mode

- FM Demodulation metrics improved upon for various instrument conditions
- Overshoot/Glitch with FM Rates of <1 kHz

#### N9068A – Phase Noise Mode

- External Preamplifier gain entry causes step in Log Plot at 1 MHz offset

#### N9069A – Noise Figure Mode

- L.O. Unlock message appears when DUT is Downconverter under certain DUT setup settings
- Frequency resolution is inconsistent between front panel view and SCPI query

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## Version A.10.53

Release Date: May 2012

### Enhancements

None

### Issues Resolved

#### General

- Cannot eject/stop a USB drive once you have accessed it
- Video out has glitch to 0V during retrace prior to “hold” period

#### N9060B – Spectrum Analyzer Mode

- Trace math function is not using Ref Level Offset and External Gain correctly
- When Trace 1-3 is in View and a user saves all trace data, Trace 1 data can be saved to trace 4, 5 and 6
- Increased Max Ref Channel Span limit in Spectrum Emissions Mask measurement

#### N6141A – EMI Receiver Mode

- Frequency Scan Measurement
  - Fixed possible instrument crash while reading meter values remotely with the :TRAC? SING query when not all meters are on
  - Fixed possible instrument crash when setting start and stop frequencies outside of scan table settings
  - Fixed issue that was causing limit lines to not turn on and off properly

#### N9051A – Pulse Measurement Application

- Unable to launch the pulse application using SCPI

#### N9069A – Noise Figure Mode

- :FETC:SCAL:CORR returns incorrect noise figure scalar results

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## Version A.10.04

Release Date: February 2012

### Enhancements

#### General

- Updated all EMC Limits and Ampcor Files
- Added new limit line files for multiple commercial and MIL EMC standards
- Changed all EMC Limits and Ampcor files provided to .csv file format
- Added a message to alert the user when the frequency entered is unavailable with the selected input
- Changed default Power On application to EMI Receiver
- Changed the status message from RF Preselector Overload to Input Overload;RF Preselector Overload

#### N9060B – Spectrum Analyzer Mode

- Added support for option ESC – External Source Control
- Added spectrogram enhancements
- Changed default EMC Standard to CISPR
- Added support for TV Trigger

#### N6141A – EMI Receiver Mode

- Added "Preset To" setting for EMC standard
- Added Autorange to Meters
- Added the ability to modify the Meter bandwidth filter type when EMC Standard is None
- Increased the maximum Meter Dwell Time from 1 to 100 seconds
- Added screen annotation for state of Noise Floor Extension
- Frequency Scan Measurement
  - Added html Report Generator functionality
  - Added comment field to signal list
  - Added CISPR Band E settings as default for Scan Table Range 6
  - Added Autorange to Scan Table settings
- Strip Chart Measurement
  - Added the ability to load saved traces
  - Added Single measurement capability
  - Increased the Strip Chart Max Duration from 20 minutes to 20 hours (72,000 seconds)

#### Added support for the following Measurement Applications and Features

- N9062A-2FP – SCPI Language Compatibility, R&S
- N9063A-2FP – Analog Demod
- N9063A-3FP – Analog Demod
  - FM Stereo Measurement
- N9068A-AFP – Phase Noise Enhancements
  - Phase noise offset start from 1 Hz



- Marker spurious search function
- Marker functions including integrated band power marker in dBc/band Hz and averaged power marker in dBc/Hz
- Delta marker functions including dB/decade scale, dB/octave scale
- N9069A-1FP – Noise Figure
- N9069A-AFP – Noise Figure Enhancements
  - Enhanced measurement views for making time varying noise figure measurements
  - Added meters and time trend analysis for DUT adjustments of noise figure performance over temperature

## Issues Resolved

### General

- Changed D:\Agilent\Instrument directory permissions so that the restricted users can modify files in this file location
- Corrected menu issue that can be displayed when going between the Mode menu and the Utility menu
- Fast user switching can result in two instances of the instrument application running that will cause issues with Remote Desktop Connection

### N9060B – Spectrum Analyzer Mode

- Fixed zero span gating issue
- Improved the resolution of Gate Length and Gate Delay when in Gate View
- Enhanced Gate Delay compensation when sweep time is adjusted
- Spurious Emissions Mask Measurement
  - Added SCPI command to view each of the range results
  - Allow the Channel Span to be set higher than 50 MHz
- Adjacent Channel Power Measurement
  - Manually setting the RBW to  $\leq 100$  Hz in FFT mode causes the application to close
- Harmonics Measurement
  - Fixed the SENSE:POWER:RF:RANGE:OPTIMIZE IMM SCPI command

### IQ Analyzer (Basic) Mode

- Added a way to turn off the instantaneous trace
- Changed the IF gain default from Autorange to Low when

### N6141A – EMI Receiver Mode

- Fixed possible instrument crash caused by setting Antenna Unit back to None
- Fixed issue that was causing antenna unit not to be displayed properly in the limit line editor
- Fixed issue that was causing the System IDN Response setting not to work properly
- Frequency Scan Measurement
  - Fixed possible instrument crash while reading marker value remotely
  - Fixed possible instrument crash when selecting Log % of Freq with a recalled state

- Fixed possible instrument crash when using Next Peak functions multiple times
- Fixed possible instrument crash caused by selection a MIL preset when dB $\mu$ V are not the current amplitude unit
- Fixed possible instrument crash caused by using the :TRAC:DATA? SCAN remote command
- Fixed issue that was allowing Meas Uncal message for ranges not turned on
- Fixed issue that was causing the Meas Uncal message to be dependent on order settings where changed
- Fixed issue that was causing trace data to be lost when put into Blank state
- Fixed issue that was causing the marker to be above the trace when using Discrete Scan Type
- Fixed issue that was causing a Setting conflict error when whole part of value calculated by instrument is equal to value selected
- Fixed issue that was causing the number of scans to not go beyond 100 when set higher
- Fixed issue that was causing dB $\mu$ A units to not be displayed properly in the limit line editor
- Fixed the Midspan Freq and Span remote commands

#### N9068A – Phase Noise Mode

- Application can crash when in Log Plot, start offset 100 kHz, stop offset 100 MHz when in Continuous measurement

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## Version A.08.54

Release Date: September 2011

### Enhancements

#### General

- External Gain range increased to plus and minus 120 dB

#### N9060B – Spectrum Analyzer Mode

- Added Adjacent Channel Power using 18 multi-carriers

#### N6141A – EMI Receiver Mode

- External Gain added to the measure bar
- Max Ref Level increased to +100 dBm

### Issues Resolved

#### General

- Web Server image is obscured when operator selects a utility that brings a mouse controlled screen to the foreground

#### N9060B – Spectrum Analyzer Mode

- Marker Table reported incorrect value when Marker Functions are in use
- Internal Preamp on command was ignored after a :CONF:SAN is sent to the instrument

#### N6141A – EMC Receiver Mode

- External Gain applied to Max Ref Level
- Frequency Scan Measurement
  - Fixed problem where loading a state file followed by Sweep/Control, Start would change the step size to 500 kHz
  - Corrected Peak Trace level when another trace with Quasi-Peak or EMI Average detector is also on when using Discrete Scan Type
  - Corrected the Sweep complete bit in the status register

#### N9068A – Phase Noise Mode

- Smoothed trace showed large step with 16% smoothing
- Rise in phase noise occurred between 600 kHz and 1 MHz offsets when option B25 is not present while in Log Plot

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## Version A.08.03

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Initial MXE Release