

## General Caution

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Please use a freshly formatted 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 : MG362x1A

Application Package : v2022.7.2

Release Date : Release Aug. 2022

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

### \*\*\* NEW FEATURES \*\*\*

-> Software - BE

- Added option 0037 SD card capability.
- Added the capability to select the list sweep frequency and power list for GUI display.
- Added ELO Native command.
- Added LEO Native command.
- Added SQO Native command.
- Added ULO Native command.
- Added PEO Native command.
- Added MB0 MB1 MB2 Native commands.
- Added FB0 and FB1 Native commands.
- Added SB0 and SB1 Native commands.
- Added LS0 and LS1 Native commands.
- Added extended GPS information return with Fetch:Gps:All?
- Added LO Native command.
- Added the Native CLR command.

- Added the Native OPP command.
- Fixed \*IDN? not capitalizing Anritsu when using a model override.
- Disabled 100 series sensors from Internal Level Calibration use.

-> Software - FE

- Added option 0037 SD card capability.
- Added the capability to select the list sweep frequency and power list for GUI display.
- Added more information to the GNSS screen.
- Moved Internal Level Cal export cal data to the diagnostics menu.
- Added a Ref Cold indicator for option 3 units to indicate the reference has yet to be successfully self-calibrated.

-> Software - Test

- Added the capability to select the list sweep frequency and power list for GUI display.

\*\*\* BUG FIXES \*\*\*

-> Software - BE

- Fixed the selected list from changing when a change is made to an unselected list.
- Fixed the rear panel locked/leveled indicator inactive on a level only change when not going unlevelled.
- Fixed pulse setup separation of 10ns exactly causing an error.
- Fixed an issue with the option 18 ALC calibration not being used during the attenuator calibration, creating poor measurement results.
- Optimized system preset operations to reduce preset time.
- Fixed unit types other than dBm and level offsets not displaying correctly in List Sweep.
- Fixed RF Unlocked status not set when Wide FM is enabled.

-> Software - FE

- Fixed EULA text extending onto the scroll bar.
- Fixed AM card showing the first time into the modulation menu when only pulse modulation is installed.
- Fixed list navigation up/down not paging from the current location after scrolling through the list.
- Fixed backspace key not deleting entire name when editing a file name.

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What will the customer see in this release?

Product : MG362x1A  
Application Package : V2022.5.1  
Release Date : Release May. 2022

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

\*\*\* NEW FEATURES \*\*\*

-> Software - BE

- Added Internal Level Cal. Part of option 18.
  - Added GPS reference - option 66. Added reference cal by GPS - part of option 18.
  - Added sweep ramp rest capability.
  - Implementation of logarithmic sweep spacing. Now the GUI or SCPI SWEep:SPACing selection of sweep spacing type does change between LINear and LOGarithmic.
  - Added range capability to List<n>:Freq? query.
  - Added overlapped \*OPC? support for commands which change frequencies: :SOURce:FREQuency:MODE :SOURce:LIST<n>:INDEX :SOURce:LIST<n>:START :SOURce:LIST<n>:STOP :SOURce:LIST:DWELI :TRIGger:TYPE :TRIGger:MODE :TRIGger:SOURce. These commands overlap with the other commands that change CW frequency: :SOURce:FREQuency and :DIAGnostic:CALibration:ATTenuator:INTernal:STATE.
- Added two additional overlapping command groups for operations pending on a trigger command: one which blocks SCPI commands until a point increments when performing a manual sweep and the other which blocks SCPI commands until a single sweep reaches the configured stop index.
- When configured for a manual list index change (:TRIGger:TYPE MANual) issuing a \*TRG or TRIGger followed by \*OPC? will block until the point has been incremented. When configured for a single sweep (:TRIGger:TYPE SINGle) issuing a \*TRG or TRIGger followed by \*OPC? will block until the sweep reaches the stop index of the sweep.
- Fixed DIAG:MOD:INFO? output for accuracy and removed module identification that did not belong in the query.
  - Added support for recognizing the Native PC4 command for backwards compatibility.
  - Added the Native P0 command to turn off pulse modulation.
  - Added the Native CF0 command.
  - Added the Native PMD1-4 commands to control internal pulse count.
  - Added the Native PTG1-6 commands to control internal pulse trigger type.
  - Added the Native PER command to control the period of internal pulse modulation.
  - Added the Native PDY and D1 commands to control internal pulse delay 1.

- Added the Native IP command which enables internal pulse modulation and disables external pulse modulation.
- Added the Native P3 and P4 commands for backward compatibility.
- Added the Native XP command which enables external pulse modulation and disables internal pulse modulation.
- Added the Native PW and W1 commands to control internal pulse width 1.
- Added the set/query command :SYSTem:MODel:OVERride to allow cosmetic \*IDN? model overrides to older MG series.
- Added ability to manually turn on and off the rubidium reference module.
- Add ability to calibrate the 10 MHz reference using the GPS/GNSS receiver when option 0003 and 0066 are installed.

-> Software - FE

- Added Internal Level Cal. Part of option 18.
- Added sweep ramp rest capability.
- Added 10 MHz calibration source to the 10 MHz calibration information.
- Added button to the option 56 Rubidium interface to toggle Rb reference.

-> Software - Test

- Added Internal Level Cal. Part of option 18.
- Added sweep ramp rest capability.

\*\*\* IMPROVEMENTS \*\*\*

-> Software - FE

- Added the discovery tool to the remote GUI.

\*\*\* BUG FIXES \*\*\*

-> Software - BE

- Decoupled manual attenuation changes are now being updated for power level changes. Originally they were frequency (and power level) changes which created longer level dip times that did not match auto attenuation change times.
- Fixed level sweep parameters not adjusting when auto attenuation is toggled.
- Fixed a case where the remote GUI sometimes showed an incorrect reference source after the instrument was rebooted.

- Fixed TRIG:IMM not triggering a manual step.
- Fixed an issue with the Native language that required two terminations to recover from a syntax error.
- Fixed stuck pulse error when reducing pulse frequency during an error condition.
- Changed default pulse delay to 200 us and pulse width to 100 us.
- Fixed a crash that could occur when sending 16320 or more bytes at once over GPIB with <END> asserted.
- Fixed a rare case that calculated a sweep step size which caused the sweep to end slightly before the chosen stop value.
- Newline or GPIB EOI termination on semicolons is now allowed in SCPI commands.

Also fixed some queries returning an extra newline when used in a compound command.

- Fixed the GPIB Primary Address not obeying the setting value chosen by the user after a reboot.
- Fixes FM rate not programmed correctly sometimes.
- Fixed a situation where terminating a Native command with newline could create a syntax error.
- Changed pulse setup error to include 10ns buffer.
- Fixed reference output states not being saved to nonvolatile setup.
- Fixed GPIB address not being saved to nonvolatile memory sometimes.

-> Software - FE

- Removed the graph only option for screenshots.
- Fixed not all models listed in Discovery tool.

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What will the customer see in this release?

Product : MG362x1A  
Application Package : V2022.3.2  
Release Date : Release Apr. 2022

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

\*\*\* NEW FEATURES \*\*\*

-> Software - BE

- Added GPIB SRQ capability to both SCPI and Native command languages.
- Added \*OPT? common command.
- Added more native language selftest results

Byte 4 bit 5 - SWF voltage supply/current failed

Byte 5 bit 3 - MOD voltage supply failed

Byte 5 bit 6 - FEM voltage supply failed

Byte 6 bit 4 - RF was off when self test started

- Fixed mid-sweep trigger not aborting the sweep.
- Fixed GPIB settings not surviving a reboot.
- Added \*TST? capability.
- Added \*SAV and \*RCL capability.
- Added mouse cursor enable when a USB mouse is plugged in.
- Added the ability to control and query sweep resting position (ramp rest) with :CONTrol:RAMP:REST". "
- Fixed a main band level dropout issue at power on.

-> Software - FE

- Added reference reset toggle to the system reset card.
- Changed system power dialog Power Off to Standby.
- Reordered the modulation menu to AM FM Phase Pulse.
- Removed level sweep - sweep type capability.

\*\*\* IMPROVEMENTS \*\*\*

-> Software - BE

- Updated the initial splash screen logo to Anritsu without a branding phrase.

-> Software - FE

- Menu navigation is now remembered. Bottom menu navigation will remember the last side menu used instead of always going to the top side menu item.

\*\*\* BUG FIXES \*\*\*

-> Software - BE

- Fixed GPIB hang due to EOI notification and end of message byte internal buffer mismatch.
- Moved list sweep data reset from Application Reset to Factory Reset.
- Fixed power trip clear not resetting the power.
- Moved remote GPIB settings and remote language setting to system files that are reset to default only by Reset All.
- Fixed level offset not applied correctly to level preset parameters.
- Fixed pulse changes while state is ON not taking affect until pulse state is toggled OFF then ON.
- Fixed questionable unlocked status not being set correctly on a frequency change.
- Fixed pulse setup recall.
- Added messaging for sweep dwell time errors.
- Changed the default Delta-F RF to ON.
- Fixed incorrect attenuation value on the display after preset.
- Fixed triggering a level sweep by point instead of a whole sweep with the trigger type set to single.
- Fixed frequency changes were occurring during a level only sweep.
- Fixed changing level sweep stop doesn't update the sweep configuration with level sweep on.
- Stopped a frequency change from occurring incorrectly when the level DAC was programmed in Fixed Gain mode.
- Fixed POWER:STEP command not accepting dB terminator.
- Fixed reference error after disconnecting external 10 MHz.
- Fixed a false Ref Error while attempting to revert to the internal rubidium reference (opt. 0056) after removing a bad external 10 MHz reference.
- Fixed some pulse widths were incorrect by 10ns.

- Fixed manual trigger type not accepting external triggers.
- Fixed Auto Attenuation not saved in setup.
- Fixed setup recall into an auto triggered level sweep that wasn't sweeping until the trigger type changed.
- Fixed an intermittent GPIB query timeout which could occur when the GPIB output terminator is LF or CR/LF.
- Fixed the rear panel lock indicators triggering during a level sweep.
- Fixed list sweep power change at the current index not affecting the RF output power.
- Fixed manually triggered list sweeps not returning to your start index when triggered while your list index is outside the sweep range.
- Fixed failure to recognize GPIB <END> termination when it occurred on non-decimal numeric data.
- Fixed the 100 MHz calibration (without the Low Phase Noise and Ultra High Stability" option) not correctly restoring previous results when aborting a calibration."
- Fixed pulse external trigger not generating correct pulse output. Includes new mod processing firmware.
- Fixed an issue where the power protection circuit would trip and could not be reset.
- High Performance Reference Module ID now being masked properly and being read/stored correctly after power up.

-> Software - FE

- Fixed power setting display in V incorrect when near the max or min value.
- Fixed the date/time settings display truncating the time.
- Fixed some system information missing on startup.
- Changed date format for last SW update check.
- Fixed 10MHz cal messaging out of sync between remote GUI and instrument GUI.
- Fixed power increment units display.
- Fixed screenshot color selection.
- Fixed incorrect level entry for values entered with more precision than displayed.

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What will the customer see in this release?

Product : MG362x1A

Application Package : v2022.1.2

Release Date : Release February 2022

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

\*\*\* NEW FEATURES \*\*\*

-> Software

Initial Release