CX300 Software Release Notes

Software Version 2.2.1

10/15/2024

Improvements

1. Added RCI command for mute/unmute: ROUTe:VOLume:MUTed.
2. Widened DMR tracking toop to support additional DMR base stations and repeaters.

Fixes

1. Fixed missing mouse cursor when using local mouse.
2. Fixed issue preventing the demod psophometric filters from working.
3. Fixed issue where stored AF level values set in dBm would not recall correctly.
4. Fixed saving results when using Chinese Language GUI.
5. Fixed issue preventing Save and Recall in Analog Tab.
6. Fixed issue preventing store/recall of RF Generator Level Offset setting.
7. Fixed issue preventing store/recall of Receiver Level Offset setting.
8. AF Level meter now adjusts reading to match impedance change when Audio In switches from 2V range to 20V range.
9. Fixed issue with some DMR repeaters not reading 0% Transmit BER on strong signals.
10. Fixed issue with closed loop DMR repeater testing would fail ater altering pattern.
11. Fixed issue that caused Vocoder to crash when switching modes.
12. Fixed issue that caused NXDN decode to fail when switching tabs.
13. Fixed issue causing NXDN mode to read power incorrectly.
14. Fixed issue causing NXDN call tone to not be decoded by radio.
15. Fixed issue causing NXDN to intermittently decode RAN with an incorrect value.
16. Fixed issue causing NXDN stored values to not be cleared with tab reset.
17. Fixed Auto-Test so that it would not show MOTOTRBO even if it was not installed.
18. Fixed incorrect Carrier Feed-through measurement in Tetra system.

Stay Connected

To help you stay informed of Radio Test Set Updates, please sign up for notifications at https://comms.viavisolutions.com/Software-Update-Notifications.

For suggestions or feedback, contact us at avcomm.sales@viavisolutions.com

Software Version 2.2.0

07/31/2024

New Features

1. Added NXDN test option.
2. Added DMR Repeater test option.
3. Added an option that provided the ability to link setup files from a PDF document.
4. Added option to support spectrum post-analysis using the VIAVI OneViewer application.

Improvements

1. Added PPM units to DMR frequency error meter.
2. Added mV, mW and mA units to audio measurements.
3. Added external load function to the AF Generator when units are set to Watts.
4. Added Power Profile function to TETRA MS T1.
5. Added capability to reset Min/Max readings on meters in digital systems.
6. Added persistence to the Help menu so that it stays on the same page when closed and re-opened.
7. Vocoder option now supports DMR and NXDN.

Fixes

1. Fixed GPS indicator displaying green and locked after GPS was disconnected.
2. Fixed screen snapshot function capturing blank screens.
3. Fixed P25 base station BER test sync.
4. Fixed issue with incorrect display of P25 Constellation/Distribution when maximized and switching tabs.
5. Fixed an issue where TETRA signal power measurements were lower than expected.
6. Fixed an issue where TETRA T1 loopback settings were not initially applied.
7. Fixed an error with TETRA MST1 that prevented loopback from working correctly with some radios.
8. Fixed Auto-Test progress bars to be based on number of tests, not total tests on the screen.
9. Fixed Auto-Test test status indicating Auto Gen Report active when it was set to off.
10. Fixed an issue where Auto-Test fails when Region is set to anything other than United States.
11. Fixed issue where self-test would intermittently fail generator level self-test at 5.123 GHz.
12. Fixed PPM limits function.

13. Fixed PPM function in the Analog System.

14. Fixed current screen shot from being added to the report function.

15. Fixed DTF changing Start/Stop Distance when switching tabs.

16. Fixed intermittent initial power meter display error after recalling setups.

17. Fixed grayed out buttons appearing on Frequency List edit screen.

18. Fixed unresponsive keypad pin function.

19. Fixed errors with Japanese translations.

Software Version 2.1.0

05/22/2024

New Features

1. Added P25 Vocoder option.

2. Added AES/DES encryption option to P25.

3. Added keyloader function to P25 encryption option.

4. Added new L3Harris and Motorola radios to Auto-Test 1.3.5 included with this release. For more information, refer to the Auto-Test Release Notes.

Improvements

1. CTCSS Encode selection now becomes active upon selection (does not require second selection of "Apply").

2. Microphone audio restricted to 2V range, allowing a consistent audio level to be maintained.

3. Added an Error Vector Magnitude Meter to the P25 system.

4. Added Watts/mW measurement units to the AF Level Meter.

5. Added Watts units to audio function generator output level control.

6. Added audio generator function and controls to the Spectrum Analyzer.

7. Added variable external load impedance function to audio input.

8. Added a current measurement mode to DVM when using a shunt resistor of known value.

9. Updated Spanish, Korean, and Japanese language support.

10. Improvements to Icom, Kenwood, L3Harris, and Motorola radios in Auto-Test 1.3.5 included with this release. For more information, refer to the Auto-Test Release Notes.

Fixes

1. Constellation target size increased so that in-tolerance measurements do not appear out of tolerance.

2. Fixed Tetra Decode data so that parameters appear in both the decode data field and the top pane of the display.

3. Fixed AF Gen Level function output setting not working when set to dBm units.

4. Fixed SCPI RCI commands that did not work outside Analog Duplex.

5. Fixed an issue where transmit SSB would bleed into the opposite upper or lower band.

6. Fixed bug where Frequency Error PPM Limits would recall from incorrectly stored settings.

7. Fixed bug where AF Level Meter Limits would recall incorrectly from stored settings.

8. Bug fixes to BK, Icom, Kenwood, L3Harris, and Motorola radios in Auto-Test 1.3.5 included with this release. For more information, refer to the Auto-Test Release Notes.

.

Software Version 2.0.0

01/29/2024

New Features

1. Implemented a new architecture to improve responsiveness and stability.

2. Added TIA-603 50 Hz and 300 Hz High Pass Audio and Demodulation filters.

3. Added TIA-603 3 kHz and 15 kHz Low Pass Audio and Demodulation filters.

4. Added ability to restore saved setups from older CX300 software versions.

5. Added new BK, Kenwood, and Motorola radios to Auto-Test 1.3.3 included with this release. For more information, refer to the Auto-Test Release Notes.

Improvements

1. P25 HCPM acquisition time improved.

2. User input limited during normalization to avoid potential errors.

3. User input limited during Auto-Test operation to avoid potential errors.

4. Increased resolution of audio level reading to a tenth of a millivolt.

5. Reduced boot time.

6. Improvements to BK, Icom, Kenwood, L3Harris, Motorola, and Tait radios in Auto-Test 1.3.3 included with this release. For more information, refer to the Auto-Test Release Notes.

Fixes

1. Resolved an issue with DTF where the detected fault would not move when trace distance was changed.

2. Resolved an issue with Frequency Find where too high of a bandwidth was allowed, causing Frequency Find to not be able to find the signal.

3. Fixed several RCI command issues.

4. Fixed an issue in the Audio Analyzer where the stop frequency was not limited by the IF Bandwidth causing an inaccurate plot.

5. Fixed BER synch issue with some models of TETRA base station.

6. Fixed issue in DMR where max modulation fidelity returned erroneous readings on reset acquisition.

7. Fixed issue in DMR where the All Call ID button populated the Radio ID field.

8. Bug fixes to BK, Icom, Kenwood, L3Harris, Motorola, and Tait radios in Auto-Test 1.3.3 included with this release. For more information, refer to the Auto-Test Release Notes.

Software Version 1.2.1

01/23/2023

Improvements

1. Improved User Interface by further optimizing tab performance, enhancing the user experience.

Fixes

1. Resolved an issue where using a 30kHz IF filter could cause your FM measurements to be slightly off.

2. Fixed an issue with P25 Phase II when using the 1031 pattern it would report a high BER percent.

3. Addressed an issue with DMR All Call, when pressed, was not populating the Radio ID field with the correct numerical value.

4. Resolved a problem that prevented VSWR calibration from being performed successfully.

5. Updated the DMR Generator menu to be consistent with Analog and P25 UI.

6. Fixed a potential issue where if using both a manual offset and cable loss they could override each other, thus resulting in incorrect measurements.

7. Resolved a bug with HCPM where the signal was being transmitted in both slots.

Software Version 1.2.0

10/13/2022

New Features

1. Added TETRA BS T1 Parametric Test as an available option.
2. Added TETRA MS T1 Parametric Test as an available option.
3. Added language support for Simplified Chinese (standard).
4. Added Auto-Test and Alignment application as an available option:
   a. ICOM P25 Series

Improvements

1. Improved boot time – reduced total boot time to less than 3½ minutes.
2. Reduced tab switching time in UI to improve user experience and operational performance.
3. Refactored side menu and full menu to improve operational performance.
4. Improved UI layout of quickbar to make using features like Frequency List, Frequency Find, and Normalize easier to access.
5. Added cable loss selection to Auto-Test.
6. Added Auto-Test software application version to system menu.
7. Wi-Fi password is now retained through reboots of the box.
8. Pinned keypad now updates real time when using the slider widget.

Fixes

1. Resolved an issue in P25 and DMR where signal level was reading high.
2. Fixed an issue with DMR power meter reading inconsistently.
3. Resolved an Auto-Test bug where the AutoGen report function was not creating a report for the last run.
4. Updated user manuals with CX300 guides and instructions.
5. Resolved an issue where Constellation Plot would intermittently lose synchronization.
6. Fixed an issue where DMR stored speech waveforms were not decoding properly.
7. Resolved an issue where the VNA could become uncalibrated after a reboot.
8. Fixed an issue with power profile levels potentially reading inaccurately.
9. Numerous other fixes.

Software Version 1.1.0

07/27/2022

New Features

1. Added DMR as an available option.

2. Added 1-port VNA for Cable and Antenna Analysis.

3. Added support for external Bird Wideband Power Sensor.

4. Added SCPI compliant Remote Command Interface.

5. Added Auto-Test and Alignment applications:

6. Motorola MOTOTRBO™ Series

7. TAIT DMR Series (Test Only)

8. L3Harris P25 Series

9. Kenwood NX-X000 Series

10. BK KNG Series

11. Added Frequency Find functionality allowing you to quickly and easily find the frequency of your radio.

12. Added horizontal markers to the Oscilloscope, Channel Analyzer, and Spectrum Analyzer.

13. Added VIP Tool™ capability.

Improvements

1. Improved overall operation of Tone Signaling applications including: Two Tone, Tone Sequential, and Tone Remote.

2. Increased touch area for some UI elements to improve the touchscreen experience.

3. Removed Communication Test from the tab name, leaving only Analog, P25, Auto-Test, etc. This allows you to see the full name of the tab when using multiple tabs.

4. Increased Resolution Bandwidth on the Spectrum Analyzer to 6 MHz.

5. Level offset indicator now appears on all applicable metering.

6. Increased resolution on SINAD meter.

7. Updated SNR notch frequency limits.

8. Increased Top of Scale for Audio Analyzer.

9. Updated RF Power meter and Signal Power meter limits.

Fixes

1. Resolved an issue that occurred while creating Auto-Test reports.

2. Fixed an issue where switching tabs would not preserve cable settings.

3. Addressed an issue where saved set-ups were not saving and recalling cable loss.

4. Fixed an issue with Occupied Bandwidth not providing accurate measurements.

5. Resolved an issue where when running an APX™ Auto-Test while using a Virtual Network Computing (VNC) application, it would abort the VNC session.

6. Fixed an issue in Auto-Test where the unit was not providing an audible "beep" (when enabled) at the end of the test, signaling the end user the test was complete.

7. Resolved a level issue on the RF Output port in P25 mode for levels below -115 dBm.

8. Addressed an intermittent issue where the "Right Peak" function for the markers in Channel Analyzer would not work properly.

9. Resolved an issue where saving a P25 set-up with a NAC other than 293 caused issues on other tabs.

10. Fixed an issue that erased markers when going from a maximized plot to a minimized plot, then maximizing again.

11. Resolved an issue with Record and Playback where recording appeared to stop before the selected time had elapsed.

12. Fixed an issue where generate level in LSM was slightly low when transitioning from C4FM.

13. Fixed audio routing defaults in Analog Tx Test.

14. Numerous other fixes.

Software Version 1.0.2

05/17/2022

New Features

1. Addition of three new Auto-Test and Alignment applications.

    a. Kenwood Viking Series (P25)

    b. L3Harris XL Series (P25)

    c. Tait 9400 / 9600 Series – Test Only (P25)

Improvements

1. Improved DANL performance – updated data sheet with new specs:

    a. 900 MHz: <-146 dBm (0 dB attenuation), -162 dBm (preamp)

    b. 1000 MHz: <-142 dBm (0 dB attenuation), <-160 dBm (preamp)

Fixes

1. Fixed an Auto-Test issue where a failure would occur while running Phase II Tx parametric test in the 700 MHz band.

2. Resolved an issue with cable loss where it would not allow you to change cables if you had previously selected a cable.

3. Fixed an issue where if you manually entered a cable loss value it would default back to zero.