

## 3500A Release Notes – 3.8.0

Important Note: This new update is for the 3500A only.

1. This new release contains new digital radio test options for NXDN™ and DMR. Included with these options are measurements of FSK error, symbol deviation, frequency error, power, and BER. For DMR the measurements also include Magnitude error, slot power, and decode of color code, radio ID, and call ID. For NXDN™, the 3500A can decode the RAN (Radio Access Number). Both of these options also include the ability to generate the 1031 Hz test tone pattern, Cal pattern, and a random data pattern (O.153). The DMR option also includes a BR (Base Repeater) pattern. This pattern is important for testing DMR mobiles in duplex mode that require a signal from a repeater to synchronize with before they will transmit. The DMR option is 35XXOPT34, and the NXDN™ option is 35XXOPT33.
2. The Hold/Save operation now provides the user with the file name that the screen shot will be save under.
3. Increased the volume of the audio to the speaker MIC. The volume has been increase by four times.
4. Fixed issue with the generator frequency, when FM modulated.
5. The squelch setting now has an affect on the audio out. The audio out signal is squelched, when the RF signal drops below the squelch level.
6. Added indication of the setting of the external attenuation to the RF Power and RSSI tile. This indication is shown in the upper right hand corner of the RF Power and RSSI tiles.
7. Fixed problem with decoding DCS when there is a large RF frequency error.
8. Fixed problem with the AF Cntr lower and upper limit markings.
9. Fixed problem with the initial DCS code not being used for the DCS generator.
10. The RF frequency range has been extended, so that the user can enter values down to 0 MHz. The specification is unchanged, but the useable range for transmit is 0.500 MHz and the usable range for receive is 0.750 MHz.
11. Changed the P25 pattern .153 to O.153, to reflect the name of the ITU standard that specifies the random data sequence that is used for this pattern.
12. The resolution of the start and stop frequencies in the HW CONFIG screen are changed from 0.1 MHz resolution to 0.001 MHz.
13. Fixed lockup that occurred when re-entering the tracking generator screen.
14. Fixed lockup that occurred when editing the source field in the oscilloscope.

1. Version 3.7.2 corrects an intermittent issue that could prevent some 3500s or 3500As with version 3.7.1 from booting up. There is no reason to install this firmware update unless you are experiencing these boot up issues.

#### 3500 Release notes – 3.7.1

1. 3.7.1 corrects the issue that made 3.7.0 incompatible with the 3500. This release is now compatible with both the 3500 and 3500A.

#### 3500 Release notes – 3.7.0

1. Added bar graph indicating progress in ANT-CABLE test screen.
2. Improved speed of the ANT-CABLE sweep when in a high RF environment. The maximum sweep time is now 15 seconds.
3. Added edit fields for source on mini-tiles for audio level, AF counter, demod, distortion and scope.
4. Created news default screens that can be recalled.
5. Implemented a peak hold and average in the spectrum analyzer.
6. Changed the units for the tracking generator from dBm to dB. These new units represent the level relative to the maximum output of 3500 (which is approximately +5 dBm).
7. Added a zoom selection for P25 Demod tile, which includes setups for pass/fail and average.
8. Added an On/Off indication to the generator tile to indicate the state of the RF generator.
9. Added a peak hold indication to the mini modulation meter.
10. Improved power bandwidth markers matching selection.
11. Two issues with the normalize function that have been improved. The normalize no longer is affected by the external attenuation value. The normalize restores the pre-amp to its pre-normalize state.
12. ANT-CABLE test screen now remembers range values.
13. Fixed problem with the generator level that would occur when the user toggled between dBm and uV.
14. Peak hold is improved for the modulation meters.
15. Scope lockup problem that could occur when switching source has been resolved.
16. Improved the loss value in DTF when units selected for DTF was meters.
17. Not all fields for the SINAD and distortion meter were included in the save/recall.
18. Fixed issue with zeroing the RF power meter when an attenuation value was entered.
19. Fixed a lockup that occasionally would occur when editing the RF level field.

20. External Attenuator settings from the Analog Duplex or Transmitter test screens are no longer used in the stand-alone Analyzer.

#### 3500 Release notes – 3.6.4

1. Modifications to the VSWR diagnostic test were necessary to prevent false failures from being reported.

#### 3500 Release notes – 3.6.3

1. NAC encode and decode operation has been added to the P25 operation.
2. In the ANT CABLE TEST screen the vertical and horizontal graticules adjust with the vertical and horizontal scale.
3. The ANALYZER screen now includes markers (two).
4. A Frequency find setup was added to the HW Config screen under the Util menu. This setup includes user settings for threshold, range, and channel spacing.
5. A Unit copy feature has been added that will allow configurations of one unit to be transferred to a second unit by means of a ethernet connection.
6. The Diagnostics test was modified so that it could run successfully without a 50 ohm load on the SWR port.
7. The HTML interface to the 3500 now includes the capability to acquire the Hold/Save screens and data.

#### 3500 Release notes – 3.5.1

1. The Tracking generator option is now available.
2. The P25 testing option is now available. A demod tiles has been added that includes modulation fidelity, symbol deviation, Tx BER, signal power, and frequency error. A P25 group has been added to the modulation tile that enables the user to select one of the standard P25 modulation patterns. The modulation patterns available are the standard 1011 Hz tone pattern, the Calibration pattern, and the random data pattern, called O.153 (also known as V.52).
3. There are new indicator status icons, for temperature, battery, input overload, flash save, receiver compression level, and Gen-Rec PLL Lock. These icons are placed in the top bar of the display, next to the screen name.
4. There is now a level squelch for setting the receive squelch level in dBm.
5. Pass/Fail indicators are now available for all of the meter tiles.
6. Meter ranges are user settable for all of the meter screens.
7. ANT-CABLE test screen graphics have been changed to be similar to the spectrum analyzer and oscilloscope graphics.
8. A selection for Feet/Meters has been added to the ANT-CABLE test screen.
9. The scale for the ANT-CABLE test screen can now be auto or user selectable.
10. Pressing the “Hold” softkey now results in the softkey labels changing to prompt the user to either “Save” or “Resume”.
11. An External Attenuation field was added to the Generator tiles. This is used to compensate for any external attenuation present due to cable loss or attenuators.

