# E7495A/B Base Station Test Set Firmware History

Rev: 18 June 2005

Note: This list is provided for informational purposes only and is subject to change.

# A.04.00 (15 June 2005)

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#### New Features:

- 1xEV-DO Analyzer (Option 205)
  - 1xEV-DO Forward Link demodulation measurement capability
  - 1xEV-DO Reverse Link Signal Generator capability
- Improved Distance To Fault measurements
  - Added Start/Stop Distance settings to allow user to zoom in to a section of feed line
  - Added the option to select between 256, 512, or 1024 data points for optimum resolution
  - Several cable types added
  - Added VSWR results to metrics display
- •Updated the Save Data capture to include start/stop distance, calibration frequencies, and cable type information
- Added Spurious Emissions mask for cdma2000 and 1xEV-DO
- The MAC address is now displayed on the startup screen
- Enhanced Calibrations for DTF, Return Loss, and One Port Insertion Loss
  - Allows for a common calibration between the DTF, Return Loss, and 1-Port measurements
  - Allows users to select the Start/Stop calibration frequencies to cover the frequency range of the Distance to Fault, Return Loss, and One Port Insertion Loss Measurement Screens.

#### **Defect fixes / improvements / other changes:**

- Fixed: Intermittent lockup issue when switching source modulation formats rapidly
- Fixed: WCDMA Amp Capacity was being reported as 200% on revisions A.03.10 and A.03.20
- Resolved: Spectrum Analyzer Limits Span setting would not update with the RPG
- Fixed: Two Port Insertion Loss Source Level did not change when switching from Auto to Manual until a new value was entered.
- Fixed: Pass/Fail indicator still present after a preset.

# A.03.20 / A.03.21 (10 March 2005)

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#### **New Features:**

- Nortel CDMA Test Software (Option 330)
- Flexible Limit Lines and Limits added to the following Screens: Return Loss, Distance to Fault, Spectrum Analyzer, and Channel Scanner
- Flexible Limits added to the following Screens: 2 Port Insertion Loss, CDMA Analyzer, and CDMA Over Air Analyzer
- Added 3 new detector types to the Spectrum Analyzer: Sample, Average, and Negative Peak
- Added GSM OBW metric to the GSM TX Analyzer

# **Defect fixes / improvements / other changes:**

- Improved the OBW Occupied Power measurement accuracy by using the Average detector
- Fixed an issue with formatting the PCMCIA and CF media cards
- Resolved an issue with Saving Data and Printing Screen results to the PCMCIA and CF media cards
- Fixed an intermittent lockup caused by switching Source mod formats repetitively

# A.03.10 (15 September 2004)

**New Features:** 

• GSM Analyzer (Option 230)

#### Defect fixes / improvements / other changes:

- Fixed the Save State function to allow long save state names to prevent measurement server errors
- W-CDMA (UMTS) Over Air measurement improvements:
  - Better decode of signals with low pilot power (as in Test Model 4)
  - Improved the Multipath Power and Pilot Dominance measurements
  - Allow display of the PSCH and SSCH in the control channel view display when the multipath power exceeds the Valid Measurement Setting

# A.03.00 (01 July 2004)

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### **New Features:**

- Occupied Bandwidth measurement
- W-CDMA (UMTS) Over Air measurement (Option 250)
- Interference Analysis (Option 270)
- Faster W-CDMA (UMTS) measurement
- Print to light background (System → Save Data Setup → Light Background)
- Range Up/Down control in Spectrum Analyzer, Channel Scanner, and Adjacent Channel Power
- Save trace data (System → Save Data Setup → Include Trace toggles on/off)
- Running Average count
- · Codogram screen added to W-CDMA (UMTS) & W-CDMA (UMTS) Over Air measurements
- Remote Graphical User Interface of E7495A/B using a PC
- Implemented a more reliable Firmware upgrade process
- Implemented an improved Flash File System (JFFS2) for increased reliability
- Added E-GSM and R-GSM channelizations

### **Defect fixes / improvements / other changes:**

- Copyright on Splash Screen and via System → System Stats → Copyrights
- Can now turn on Signal Generator after Preset
- RF IN LOSS now handled correctly on Preset
- Fixed Spectrum Analyzer Start/Stop Frequency over/under frequency entry errors
- Can now enter negative frequency offsets for Delta Markers

# A.02.12 (14 April 2004)

# **Defect fixes / improvements / other changes:**

- W-CDMA measurement will now work with DTX signals.
- Modified the Firmware update process to reload the DSP code during the Firmware upgrade.
- Fixed some problems as a result of going into sleep mode (ADS board compatibility).

# A.02.11 (4 February 2004)

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#### **Defect fixes / other changes:**

• Instrument boot-up increased by 2 seconds to keep GUI from occasionally hanging during startup.

# A.02.10 (16 January 2004)

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### **New Features:**

- Codogram added to CDMA Analyzer and CDMA Over the Air (Options 200 and 210)
- Group Max averaging has been added to the spectrum analyzer, channel analyzers, and antenna measurements.

- Help system now available for submenu buttons on W-CDMA Analyzer (Option 240) and Adjacent Channel Power (Option 220) (minimal)
- Noise correction now available for Adjacent Channel Power (Option 220).
- Simultaneous operation of CW and complex signal generator now available in Spectrum Analyzer Channel Analyzers and Antenna Measurements.
- Faster sweep speed in Spectrum Analyzer mode
- Frequency panning (Agilent patented feature) now added to Spectrum Analyzer
- Distance to Fault display resolution improvement
- Improved Time Gating in Distance to Fault mode (0 dB Step response at 0 distance after calibration)
- Distance to Fault display now shows the DC component and has 4 fault indicators.
- Upen cables added as a selection in Distance to Fault measurement.
- Graphic User Interface (GUI) responsiveness improvement (all measurement modes)
- New Power save mode with auto-dimming display brightness timer
- Battery Reconditioning now available via front panel interface (only available on instruments with serial numbers US43410240 and later)
- New Battery Status Metrics (only available on instruments with serial numbers US43410240 and later)
- Internal time base can now be field adjusted via front panel using GPS signal

### **Defect fixes / improvements / other changes:**

- W-CDMA code domain power marker to next peak now works properly (Option 240).
- Channel Scanner step size now saved with Save State (Option 220).
- Channel Scanner Meas Time and Meas BW are now restored with a Recall State (Option 220).
- Save Data and Print Screen will prompt the user if a file is going to be overwritten.
- Agilent Technologies added to Print Screen images
- The default Recall State changed from a default of "Powerup" to "User"
- Problem of help system getting lost in E1/T1 (Options 700 and 710) and Channel Scanner (Option 220) now corrected.
- External loss buttons now have on/off toggle.
- Fraction channel numbers now displayed when toggling from a frequency that doesn't correspond to a channel.
- A decimal point can now be entered for Adjacent Channel Power offsets (Option 220).

## A.02.00 (15 October 2003)

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#### **New Features:**

- Support for E7495B hardware
- W-CDMA (UMTS) Analyzer (Option 240)
- E1 Analyzer (Option 710)
- DC Bias 12 volt output (E7495B only, Option 300)
- Adjacent Channel Power Measurements added to Channel Scanner (Option 220)
- Additional External Reference input frequencies (E7495B Only):
- 1 MHz, 2.048 MHz, 4.95 MHz, 13 MHz, 15MHz
- Group averaging type (on most receiver measurements)
- Sub-hertz frequency error resolution on Channel Scanner

#### Defect fixes / improvements / other changes:

- Fixed some marker problems for Spectrum Analyzer mode
- Fixed signal resolution problem in Spectrum Analyzer mode
- Fixed channel scanner frequency list entry defect
- Fixed some problems as a result of going into sleep mode
- Lowered the default T1 volume

# New Features and Enhancements:

- Single Port Insertion Loss
- Antenna Measurement improvements
- File Name on Print Screen
- Channel Scanner Peak Power
- Improved Upgrade Process
- T1 Sound and Volume
- Insertion Loss Range vs. Accuracy Optimization
- Help System Enhancements
- Spectrum and Channel Scanner Auto Range Hold

# A.01.51

### **New Features and Enhancements:**

• Made setting Signal Generator amplitude work correctly when RF Out Loss was also entered

### A.01.50

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### **New Features and Enhancements:**

- CDMA2000 modulation for Signal Generator
- · GPS Receiver always on
- GSM 950 Channel Standard added
- Channel standard coupled to the format in the channel scanner
- Interference Rejection has been added to the antenna measurements
- Higher and low sensitivity setting added to the Spectrum Analyzer mode and Channel Scanner
- Improved T1 response time