

## Agilent E6385A

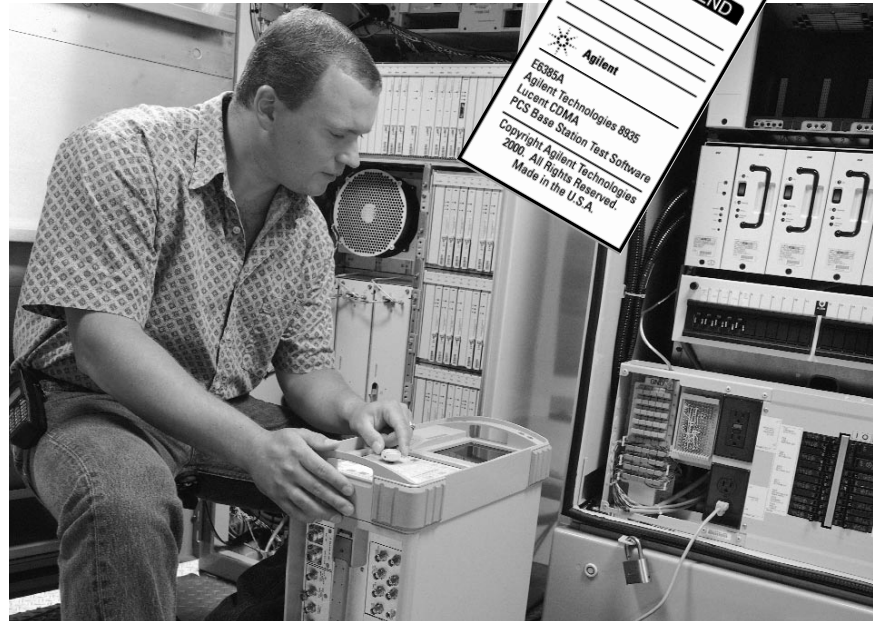
# Lucent AMPS/CDMA Cellular/PCS Base Station Test Software

### Product Overview

Agilent has introduced new software for its E6380A AMPS/CDMA base station test set to help installation and maintenance technicians reduce the time it takes to test cellular and PCS base stations. This new software is designed specifically to automate testing for AMPS/CDMA Series II, CDMA Minicell, Flexent Modcell, and Flexent Microcell base stations that are manufactured by Lucent Technologies. The software package is available as E6385A Lucent AMPS/CDMA Base Station Test Software.

E6385A provides structured, automated testing. For example, the CDMA power calibration test follows the exact, thorough, Lucent power setting procedure. This procedure is automated with specific software allowing a technician to forgo reading and following a technical procedure, the software simply guides the user through step by step. A simple menu-driven user interface requires less technical expertise to retrieve consistent, well-documented measurements. Output reports are presented in the same format and may be printed, saved to a memory card or sent to a laptop PC for detailed examination at a later time to identify key trends. This improves maintenance record keeping because the same, pertinent data is always captured.

Combined, these two powerful software-enabled features increase the base station technician's efficiency and decrease the service provider's maintenance cost with time savings. Time savings is especially realized when technicians are required to test multiple sites.



One of the most important features this package includes is the ability to control and test Series II, PCS Minicell, Flexent Microcell, and Flexent Modcell equipment through the Executive Cellular Processor (ECP) at the Mobile Switching Center (MSC). E6385A automates (ECP) control by sending all the necessary commands sent to the Lucent ECP Craft shell using the Agilent BTS laptop utilities software running on a laptop. The laptop will establish connectivity with the ECP Craft shell using one of the following connections:

- Direct ECP connection (typically performed using a DS0 breakout on a T1 line at the base station, requires two serial ports on the laptop).
- Dial into a remote access server and then telnet to the ECP using POTS line, CDPD, cellular modem or other wireless data service.
- Dial in directly to the ECP using POTS line or cellular modem.

### Other E6385A enhancements provide these efficiency benefits:

- When the software package is initiated, it pre-configures the test set for ease-of-use.
- The power calibration test for AMPS follows the Lucent -39 dBm power setting procedure. It guides the user through the process of adjusting both the radio output level and the pre-amplifier output level. As with all tests, sending the commands automatically saves time and ensures accuracy.
- The AMPS FCC test performs all necessary FCC yearly tests automatically when given the frequency plan for the base station. These tests can be run while the base station is in service if measurements are made at the test port (coupled port) of the base station. Only one radio is taken out of service at a time for testing. Results for each radio are printed to the BTS laptop utilities software and can be printed or saved for archival.



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- The CDMA PN search algorithm determines the base station PN offset value.
- CDMA specific transmitter tests like code domain timing, code domain phase, carrier feedthrough, relative code domain power, and spectrum analysis can run while the base station is in service.
- E6385A automates insertion loss measurements of cables and other RF components.

To provide a complete Lucent CDMA Series II or PCS Minicell install and maintenance solution, the E8300A base station connection kit provides all the necessary cables and adapters to simplify installation and maintenance hookups.

#### Lucent base stations tested:

- Autoplex Series II AMPS
- Autoplex Series II CDMA
- PCS CDMA Minicell
- Cellular/PCS CDMA Flexent Modcell
- Cellular/PCS CDMA Flexent Microcell

#### Tests performed:

##### CDMA transmitter tests:

- Frequency error
- Power level adjustment
- Modulation quality, Rho
- Code domain timing
- Code domain power
- Code domain phase
- Error Vector Magnitude(EVM), magnitude error and phase error
- Carrier feedthrough
- Estimated Rho
- Output power monitoring/adjustment
- Pilot time offset

##### CDMA signal analysis:

- Code domain analyzer
- CDMA analyzer
- Spectrum analyzer

##### Other:

- Power calibration
- Spurious emissions and occupied bandwidth (PCS base stations only)
- Spectrum analyzer
- PN offset search
- Automated BBA/CBR test (pilot power (dBm and watts), Rho, pilot time offset, frequency error, carrier feedthrough, estimated Rho, active Walsh Code Set: power, timing and phase, synch and paging: power, timing and phase)
- Insertion loss
- Return loss
- Test port cable calibration
- Test port calibration
- Antenna port cable calibration

#### E6380A Standard features

- A rugged, full-featured, one-box test set designed for the technician's environment
- Full signal generation and analysis capability
- Support for international PCS frequency bands
- Enhanced user interface and larger, bright, electro-luminescent display for easy operation
- Technical support and services from Agilent's industry-recognized wireless experts
- Education and training for base station test technicians and engineers

#### Sample order

For CDMA (AMPS/CDMA Series II) base station testing with a three-year repair contract.

#### E6380A CDMA

Base Station Test Set qty 1

#### Option W30

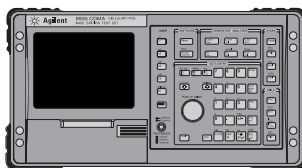
(return repair service) qty 1

#### E6385A Lucent CDMA

Base Station Test Software qty 1

#### E8300A Base Station

Connection Kit qty 1



#### E680A 8935 CDMA Base Station Test Set



#### E8300A Base Station Connection Kit



#### E6385A 8935 Lucent CDMA Base Station Test Software

#### Agilent Technologies' Test and Measurement Support, Services, and Assistance

Agilent Technologies aims to maximize the value you receive, while minimizing your risk and problems. We strive to ensure that you get the test and measurement capabilities you paid for and obtain the support you need. Our extensive support resources and services can help you choose the right Agilent products for your applications and apply them successfully. Every instrument and system we sell has a global warranty. Support is available for at least five years beyond the production life of the product. Two concepts underlie Agilent's overall support policy: "Our Promise" and "Your Advantage."

#### Our Promise

Our Promise means your Agilent test and measurement equipment will meet its advertised performance and functionality. When you are choosing new equipment, we will help you with product information, including realistic performance specifications and practical recommendations from experienced test engineers. When you use Agilent equipment, we can verify that it works properly, help with product operation, and provide basic measurement assistance for the use of specified capabilities, at no extra cost upon request. Many self-help tools are available.

#### Your Advantage

Your Advantage means that Agilent offers a wide range of additional expert test and measurement services, which you can purchase according to your unique technical and business needs. Solve problems efficiently and gain a competitive edge by contracting with us for calibration, extra-cost upgrades, out-of-warranty repairs, and on-site education and training, as well as design, system integration, project management, and other professional engineering services. Experienced Agilent engineers and technicians worldwide can help you maximize your productivity, optimize the return on investment of your Agilent instruments and systems, and obtain dependable measurement accuracy for the life of those products.

#### By internet, phone, or fax, get assistance with all your test & measurement needs

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[www.agilent.com/find/assist](http://www.agilent.com/find/assist)

##### Phone or Fax

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**Latin America:**  
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(fax) (305) 269 7599

**Canada:**  
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(fax) (905) 282 6495

**Australia:**  
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(fax) (61 3) 9210 5947

**Europe:**  
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**New Zealand:**  
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**Japan:**  
(tel) (81) 426 56 7832  
(fax) (81) 426 56 7840

**Asia Pacific:**  
(tel) (852) 3197 7777  
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Printed in U.S.A. April 1, 2001  
5966-1901E



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