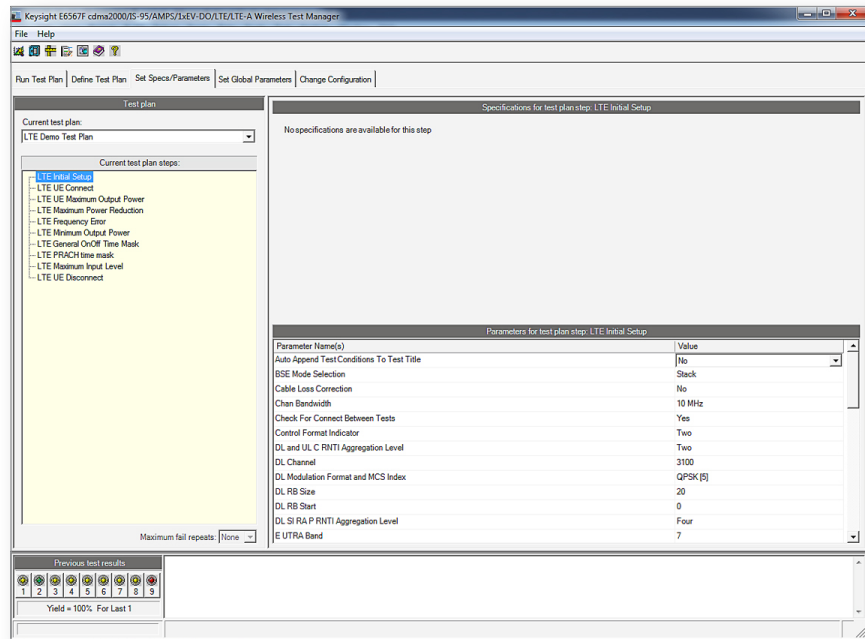


# Keysight E6567F

## cdma2000/1xEV-DO/LTE/LTE-A

### Wireless Test Manager

#### Technical Overview



Reduce wireless devices test cost for manufacturing and accelerate production by using powerful, easy-to-use test automation software

## Tests Supported

### LTE/LTE-A transmitter tests

- Minimum output power
- Maximum output power
- Aggregate power control tolerance
- EVM equalizer spectrum flatness
- Occupied bandwidth
- Additional maximum power reduction
- Configured UE transmitted output power
- Spectrum emission mask
- Additional spectrum emission mask
- PRACH time mask
- SRS time mask
- Power control absolute power tolerance
- PUSCH-EVM with exclusion period
- In-band emissions for non-allocated RB
- Maximum power reduction
- Frequency error
- Error vector magnitude
- Carrier leakage
- Adjacent channel leakage power ratio
- General ON/OFF time mask

### LTE/LTE-A receiver tests

- Reference sensitivity level
- Maximum input level
- Adjacent channel selectivity (ACS)
- In-band blocking
- Reference sensitivity level for CA
- Maximum input level for CA
- LTE tiered Rx sensitivity search
- LTE tiered Rx sensitivity search at UE

### CDMA call processing

- MEID supported (Yes/No)
- Public long code mask type (ESN based, BS assigned, MEID based)
- Registration
- Page (base station origination)
- MS (mobile station) origination
- Base station release
- Voice quality analog quick audio functionality
- Talk time
- IMT-2000, Japan CDMA, NMT-450, Korean PCS, US PCS, AWS, US cellular, Upper 700 MHz, 400 MHz European PAMR, and 800 MHz PAMR bands
- Hard handoff (system, band, channel, and PN offset)
- CDMA AMPS interband handoff

### CDMA transmitter tests

- Waveform quality
- Code domain power
- Traffic channel open loop power control
- Closed loop power control
- Time response of open loop power control
- Maximum RF output power
- Minimum controlled output power
- Access probe open loop power
- Gated power
- Code channel timing and phase error
- Transmitter spurious emissions
- Handoff waveform quality
- Code channel power accuracy
- Spurious emission

### CDMA receiver tests

- Traffic channel FER with AWGN
- Supplemental channel FER with AWGN
- Receiver sensitivity FER
- Receiver sensitivity level search

### CDMA Rx/Tx tests

- Quick general test

### AMPS transmitter tests

- Frequency error
- RF power output
- Audio frequency response
- Audio distortion
- FM hum and noise
- SAT deviation and frequency error
- Compressor response
- Analog DTMF
- Analog signaling tone

### AMPS receiver tests

- SINAD
- Audio frequency response
- Audio distortion
- Hum and noise
- Expander response

### 1xEV-DO calling processing (Applies to Release 0, A, and B)

- Open/end session
- Open data connection
- IMT-2000, Japan CDMA, NMT 450, Korean PCS, US PCS, AWS, US cellular, Upper 700 MHz, 400 MHz European PAMR, and 800 MHz PAMR bands
- Handoff (interband and channel)
- CDMA AMPS interband handoff

## 1xEV-DO transmitter test (Applies to Release 0, A, and B)

- Waveform quality
- Code domain accuracy
- Transmitter spurious emissions
- Data, RRI, DRC, and ACK channel output power
- Maximum output power
- Access probe open loop power
- Minimum controlled output power
- Closed loop power control
- Time response for open loop power control

## 1xEV-DO receiver tests (Applies to Release 0, A, and B)

- Traffic channel PER with AWGN
- Receiver sensitivity and dynamic range

## General tests

- Current drain
- Start loop
- End loop
- Send/Receive GPIB command
- Data analyzer
- Send/Receive DUT command
- Keysight 14565B device characterization software control

## Hardware Supported

### Test instruments

- E7515A UXM wireless communications test set
- E7530A LTE test application and E7630A LTE lab application
- Keysight 8960 Series 10 wireless communications test set
  - E5515E or E5515C mainframe (or equivalent E5515B/T) with Option 003
  - E1962B cdma2000®/IS-95/AMPS mobile test application (revision B.15.18 or later)
  - E1966A 1xEV-DO test application (revision A.10.18 or later)
  - E1987A GSM/GPRS/EGPRS, AMPS/136, cdma2000, 1xEV-DO, W-CDMA fast switching mobile test application (revision A.09.21 or later)
- Keysight 66311B, 66319B, and 66321B power supplies
- Keysight 34970A with 34901A, 34903A, and 34907A data acquisition/switch unit

### Fixtures

Tescom TC-5941, TC-5942, and TC-5952B

## Adapters

- Keysight 82357A USB/GPIB interface
- National Instruments GPIB-USB-A external controller

## PC cards

- Keysight GPIB
- National Instruments GPIB
- Advantech PCI 1750 E6567F-1TP
- Control RocketPort 95870-3 and 99096-3 multi-port serial card

## Peripherals

- Symbol LS-1220-1200A fixed bar code reader
- Symbol LS-3603MX-1200A, P300FZY, and LS40041-I100 handheld bar code reader
- HP printers
- Epson TM-U200D and TM-U200D strip printer

## PC requirements

- Operating system: Microsoft Windows 7 Professional and Enterprise
- Microsoft Visual Studio.NET
- Microsoft Internet Explorer Version 6.0 or later
- 600 MHz Pentium III or higher (1 GHz Pentium III or higher for extended capability)
- 512 MB RAM minimum (1024 MB is recommended for normal development and is required for extended capability operation)
- 200 MB free hard drive space
- CD-ROM
- GPIB card or converter with VISA drives (one per test system)
- LAN port for remote control of UXM
- Serial ports for fixtures, device control, and bar code reader

## Order Information

- E6567F cdma2000/1xEV-DO/LTE/LTE-A Wireless Test Manager
- E6567F-1TP transportable perpetual license, development, and run time version for E6567F
- E6569F Wireless Test Manager suite, including E6567F and E6568F
- E6569F-1TP transportable perpetual license, development, and run time version for E6567F and E6568F
- E6571F Wireless Test Manager run-time license
- E6571F-1TP transportable perpetual license, run time only version for both E6567F and E6568F
- E6567FU upgrade existing E6567x to E6567F
- E6567FU-1TP transportable perpetual license, development, and run time version for E6567x upgrade to E6567F
- E6571FU upgrade existing E6571x to E6571F
- E6571FU-1TP transportable perpetual license, run time only version for upgrade E6567x and E6568X to E6567F and E6568F respectively

## For More Information

E6567E Wireless Test Manager specifications and product literature are available at [www.keysight.com/find/e6567f](http://www.keysight.com/find/e6567f)

8960 test set specifications, product literature, application notes, and configuration guide are available at [www.keysight.com/find/8960](http://www.keysight.com/find/8960)

E7515A UXM test set specifications, product literature, application notes, and configuration guide are available at [www.keysight.com/find/e7515a](http://www.keysight.com/find/e7515a)

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