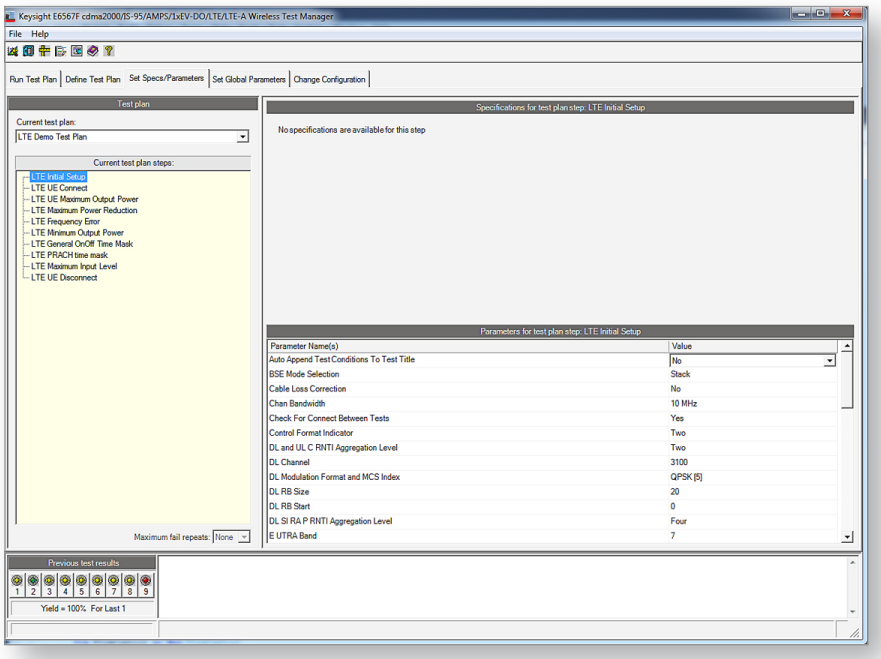
Keysight E6567F
cdma2000/1xEV-DO/LTE/LTE-A Wireless Test Manager

Technical Overview



KEYSIGHT TECHNOLOGIES

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
- Expandor 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

8960 test set specifications, product literature, application notes, and configuration guide are available at
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

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