Keysight Technologies

8960 Wireless Communications Test Set

HSPA Applications Including HSPA+, HSUPA, and HSDP

8960 HSPA Applications

For wireless device R&D: E6703G W-CDMA/HSPA lab application

For manufacturing: E1963A W-CDMA mobile test application, HSPA Options 403, 405, 413, 423

HSPA RF Parametric and Functional Test Solution

Resolve phone design problems earlier

- Test beyond typical network conditions with simultaneous Tx/Rx at the highest data rates
- Perform real world stress test to functionally verify SMS, MMS, data throughput, video, inter-RAT handovers, and other services in the presence of realistic network impairments

Ensure high-quality introductions of new phones

 Test with the fastest, most complete, and stable 3GPPcompliant TS 34.121-1 Tx/Rx measurements in an integrated UMTS/HSPA manufacturing test solution

Limited development test equipment budget?

 Get the most for your money with the largest collection of RF-to-IP test tools in a one-box tester





Key Features

Network behaviors (Lab application only)

- 21 Mbps DL and 11.5 Mbps UL HSPA+, 14.4 Mbps HSDPA, 5.7 Mbps HSUPA – keep up with the latest planned HSPA deployment
- One-box simultaneous services provides simultaneous voice and data
- HSPA+ continuous packet connectivity (CPC) – allows a much faster reactivation for temporarily inactive users of packet data
- HSDPA active CQI response realistic network behavior by responding to UE requests for channel quality changes
- Digital audio interface and vocoders provides real-time end-to-end audio capability and audio codec verification
- Multiple PDP contexts supports two primary PDP contexts for simultaneous PS services active on one UE

Analysis tools (Lab application only)

- Interactive functional test software (N5970A) – powerful software to automate and simplify functional test of HSPA mobile devices
- RF to IP layer logging via WPA software – logs protocol messages to help troubleshoot protocol problems
- Data throughput monitor sustained 21 Mbps HSPA+, 14.4 Mbps HSDPA, and 5.7 Mbps HSUPA

Handovers (Lab application only except where noted)

- UMTS inter-RAT 2-cell handovers and cell reselection between 2G/3G systems including voice, data, or voice + data together Note: 2-cell voice handover between 2G/3G systems available in test application
- 3G UMA provides connectivity and handover to/from 3G/UMA with both voice and IP data

Network services (Lab and test applications)

- Video loopback functional video call transmit/receipt with one test set
- End-to-end video, messaging check functionality between two UEs

RF parametric (Lab and test applications)

- Test modes Both signaling test mode using test control (TC) protocol and non-signaling test mode are available for HSPA+, HSUPA, and HSDPA; support of 21 Mbps DL and 11.5 Mbps UL HSPA+, 14.4 Mbps HSDPA, and 5.7 Mbps HSUPA
- Tx/Rx measurements complete suite of HSPA RF measurements for testing all categories of HSPA/W-CDMA devices (HS-DSCH Categories 1-14 and E-DCH Categories 1-7) to meet 3GPP TS 34.121-1 test standards
- All bands support support of all 3GPP frequency bands (I to XIV, XIX, XX, and XXI) gives flexibility to test devices built for any region
- Fast calibration with the Fast Device Tune measurement
- Convergence testing with the FM source, GPS source simulation

myKeysight

myKeysight

www.keysight.com/find/mykeysight

A personalized view into the information most relevant to you.



3^{VR}

www.keysight.com/find/ThreeYearWarranty

Keysight's commitment to superior product quality and lower total cost of ownership. The only test and measurement company with three-year warranty standard on all instruments, worldwide.





www.keysight.com/find/AssurancePlans

Up to five years of protection and no budgetary surprises to ensure your instruments are operating to specification so you can rely on accurate measurements.



www.keysight.com/go/quality

Keysight Technologies, Inc. DEKRA Certified ISO 9001:2008 Quality Management System

Keysight Channel Partners

www.keysight.com/find/channelpartners

Get the best of both worlds: Keysight's measurement expertise and product breadth, combined with channel partner convenience.

www.keysight.com/find/8960

www.keysight.com/find/hspa

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: www.keysight.com/find/contactus

Americas

Canada	(877) 894 4414
Brazil	55 11 3351 7010
Mexico	001 800 254 2440
United States	(800) 829 4444

Asia Pacific

Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 112 929
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Other AP Countries	(65) 6375 8100

Europe & Middle East

0800 001122
0800 58580
0800 523252
0805 980333
0800 6270999
1800 832700
1 809 343051
800 599100
+32 800 58580
0800 0233200
8800 5009286
800 000154
0200 882255
0800 805353
Opt. 1 (DE)
Opt. 2 (FR)
Opt. 3 (IT)

For other unlisted countries: www.keysight.com/find/contactus (BP-09-23-14)

0800 0260637

United Kingdom

