Leaflet

HSPA RF Testing Solutions

MT8820B/MT8815B Radio Communication Analyzer

The new 3GPP HSPA Evolution standard offers faster packet-data communications for mobile phones using 3.5G HSPA technology. This year roll-out of HSPA Evolution services will support mobile systems with always-on high-speed data and multimedia services, etc.

Anritsu's MT8820B/MT8815B Radio Communication Analyzer is the ideal solution for manufacturing and evaluating the RF performance of HSPA terminals (supporting HSPA (HSDPA/HSUPA) and HSPA Evolution).

HSPA RF Testing Solutions

- MX882000C-011 HSDPA Measurement
- MX882000C-013 HSDPA High Data Rate
- MX882000C-021 HSUPA Measurement Software
- MX882000C-031 HSPA Evolution Measurement Software

MX882000C-011 HSDPA Measurement Software

This software supports tests of RF Tx/Rx characteristics of HSDPA terminals specified in TS34.121 chapter 5 and 6, and is ideal for manufacturing and evaluating the RF performance of HSDPA terminals.

EVM and Phase Discontinuity with HS-DPCCH

Features

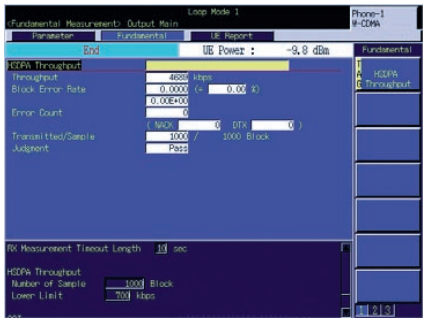
■ **Supports RF Tx/Rx characteristics tests of HSDPA terminals**
Supports all Tx/Rx characteristics test items specified in 3GPP TS34.121 chapter 5 and 6

■ **Supports throughput tests of HSDPA categories 1 to 6, 11 and 12 (up to 3.6 Mbps class) terminals**
Supports FRC H-Set 1 to 5 (QPSK and 16QAM) specified in 3GPP TS34.121

Measurement items (TS 34.121 V7.3.0)		MT8820B with MX882000C-011
5.2A	Maximum Output Power with HS-DPCCH (Release 5 Only)	Yes
5.2AA	Maximum Output Power with HS-DPCCH (Release 6 and later)	Yes
5.2C	UE Relative Code Domain Power Accuracy	Yes
5.7A	HS-DPCCH Power Control	Yes
5.9A	Spectrum Emission Mask with HS-DPCCH	Yes
5.10A	Adjacent Channel Leakage Power Ratio (ACLR) with HS-DPCCH	Yes
5.13.1A	Error Vector Magnitude with HS-DPCCH	Yes
5.13.1AA	Error Vector Magnitude and Phase Discontinuity with HS-DPCCH	Yes
5.13.2A	Relative Code Domain Error with HS-DPCCH	Yes
6.3A	Maximum Input Level for HS-PDSCH Reception (16QAM)	Yes

MX882000C-013 HSDPA High Data Rate

This software supports throughput tests of HSDPA categories 7 and 8 (7.2 Mbps class) terminals with FRC H-Set 6 QPSK and 16QAM specified in 3GPP TS34.121. It is ideal for testing the RF performance of HSDPA categories 7 and 8 terminals.
And, Category 6, Max., Category 8, Max., Category 10, Max. test signals can be selected for HSDPA throughput measurement.



Throughput Test

Features

■ **Supports throughput tests of HSDPA categories 7 and 8 (7.2 Mbps class) terminals**
Supports FRC H-Set 6 (QPSK/16QAM) specified in 3GPP TS34.121

■ **Supports throughput tests for HSDPA terminals supporting the 3.6 Mbps (category 6), 7.2 Mbps (category 8), and 14 Mbps (category 10) classes.**

Parameter (Channel Coding)	Maximum data rate (Prioritized RABs DL Max Rate)	Explanation
H-Set 6 (QPSK)	3219 kbps	3GPP-defined signal to test throughput of HSDPA terminal for HS-DSCH categories 7 and 8 (7.2 Mbps class) (QPSK modulation)
H-Set 6 (16QAM)	4689 kbps	3GPP-defined signal to test throughput of HSDPA terminal for HS-DSCH categories 7 and 8 (7.2 Mbps class) (16QAM modulation)
Category 6, Max.	3649 kbps	Signal to test throughput of HSDPA terminal for HS-DSCH category 6 (3.6 Mbps class) with maximum data rate
Category 8, Max.	7205.5 kbps	Signal to test throughput of HSDPA terminal for HS-DSCH category 8 (7.2 Mbps class) with maximum data rate
Category 10, Max.	13976 kbps	Signal to test throughput of HSDPA terminal for HS-DSCH category 10 (14 Mbps class) with maximum data rate

MX882000C-021 HSUPA Measurement Software

This software supports RF Tx characteristics tests of HSUPA terminals specified in TS34.121 chapter 5 and is ideal for manufacturing and evaluating the RF performance of HSUPA terminals.

Relative Code Domain Power

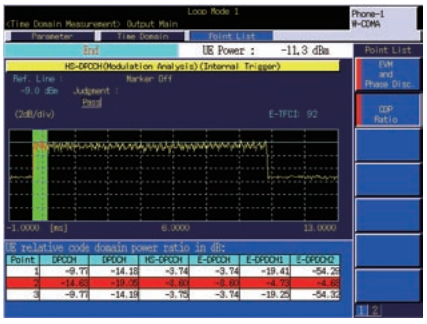
Features

- **Supports HSUPA E-DCH RF Tx characteristics tests**
  Supports measurement of maximum output power, spectrum emission mask, adjacent channel leakage power ratio, and relative code domain power
- **Supports RF Tx characteristics tests for all HSUPA categories up to 5.76 Mbps**
  Supports HSUPA categories 1 to 6, TTI 2, and 10 ms
- **Supports E-DCH throughput monitor**

Measurement items		MT8820B with MX882000C-021
5.2B	Maximum Output Power with HS-DPCCH and E-DCH	Yes
5.2D	UE Relative Code Domain Power Accuracy for HS-DPCCH and EDCH	Yes
5.9B	Spectrum Emission Mask with E-DCH	Yes
5.10B	Adjacent Channel Leakage Power Ratio (ACLR) with E-DCH	Yes
5.13.2B	Relative Code Domain Error with HS-DPCCH and E-DCH	Yes

MX882000C-031 HSPA Evolution Measurement Software

This software supports testing of the RF Tx characteristics of HSPA Evolution terminals specified in TS34.121 chapter 5 and 6. It is ideal for manufacturing and evaluating the RF performance of HSPA Evolution terminals.
In addition, maximum HS-DSCH throughout rates can be measured by selecting Category 14, Max. test signals.



Relative Code Domain Power

Features

- **Supports throughput measurement of HS-DSCH Category 13 (17.6 Mbps class) and Category 14 (21 Mbps class) HSDPA terminals**
  Supports FRC H-Set 8 (64QAM) defined by 3GPP TS34.121
- **Supports throughput measurement at maximum rate of HS-DSCH Category 14 terminals (21 Mbps class).**

Measurement items		MT8820B with MX882000C-031
5.2E	UE Relative Code Domain Power Accuracy for HS-DPCCH and E-DCH with 16QAM	Yes
5.13.2C	Relative Code Domain Error for HS-DPCCH and E-DCH with 16QAM	Yes
6.3B	Maximum Input Level for HS-PDSCH Reception (64QAM)	Yes

Parameter (Channel Coding)	Maximum data rate (Prioritized RABs DL Max Rate)	Explanation
H-Set 8 (64QAM)	13245 kbps	3GPP-defined signal to test throughput of HSDPA terminal for HS-DSCH category 13 (17.6 Mbps class) and category 14 (21 Mbps class) (64QAM modulation)
Category 14, Max.	21098 kbps	Signal to test throughput of HSDPA terminal for HS-DSCH category 14 (21 Mbps class) with maximum data rate

MT8820B/MT8815B Radio Communication Analyzer

The MT8820B/MT8815B platform covers a frequency range of 30 MHz to 2.7 GHz. When the dedicated optional measurement software and hardware are installed, the main Tx and Rx characteristics of W-CDMA/HSPA/HSPA Evolution, GSM/GPRS/EGPRS, TD-SCDMA/HSDPA, CDMA2000 1X/1xEV-DO Rev.A, and PHS/Advanced PHS terminals can be measured using a single MT8820B unit.

Features

- **Platform covering 30 MHz to 2.7 GHz**
- **One unit supports RF Tx/Rx characteristics tests for multiple communication formats**
  W-CDMA/HSPA/HSPA Evolution, GSM/GPRS/EGPRS, TD-SCDMA/HSDPA, CDMA2000 1X/1xEV-DO Rev.A, and PHS/Advanced PHS terminals
- **Efficient terminal manufacturing**
  Significantly improves manufacturing efficiency by reducing production costs and space requirements*
  Incorporation of advanced DSP and batch measurement cut production and inspection test times

*: The MT8820B supports the Parallelphone Measurement function.

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