Discover What's Possible™

Anritsu

MX860850A

HSDPA Measurement Software

(For MS8608A Digital Mobile Radio Transmitter Tester)

For Evaluation of HSDPA Transmission Systems

Supporting HSDPA (High Speed DownLink Packet Access)

– From R&D & Manufacturing to Construction & Maintenance –

MX860850A HSDPA Measurement Software is the application software designed for MS8608A Digital Mobile Radio Transmitter Tester.
The installation of MX860850A enables the evaluation of transmitter side conforming to HSDPA standards.

Features

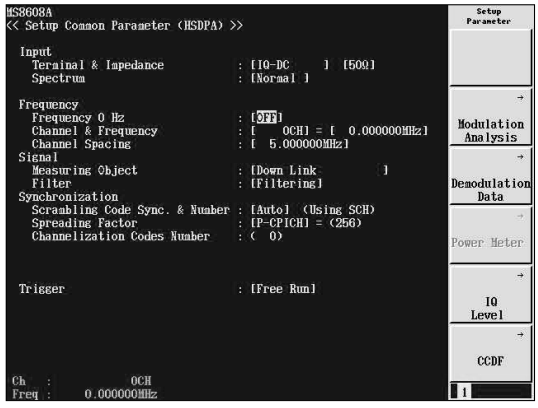
- Base-band signal analysis for max. 4 multi carriers
- Modulation analysis per/ multi code channel
- CCDF measurement for 4 multi carriers

MX860850A measurement item

Modulation analysis:
  Carrier frequency, Vector error (EVM), Phase error, Magnitude error
Code domain analysis:
  Code domain power, Code domain error
Demodulation data display
Amplitude measurement: Transmission power, Linearity
CCDF measurement
IQ level measurement

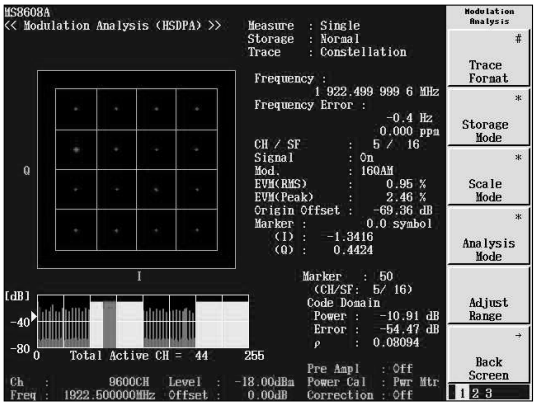
Parameter setup

This setup screen is for conditions necessary for HSDPA analysis, such as modulation accuracy and code domain power measurement. Measurement is performed with simple operations after parameter setup.



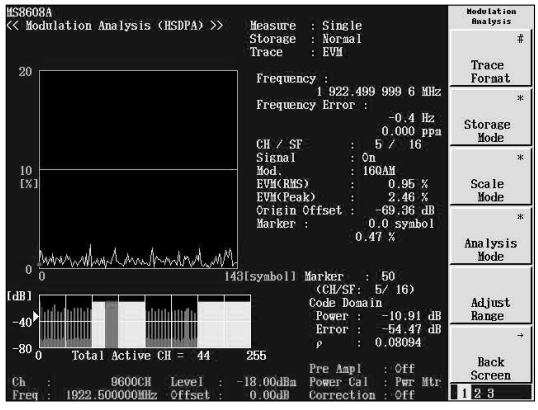
Modulation analysis (constellation)

Display pattern is selective from either constellation only or constellation and code domain. Constellation of the code channel selected on code domain screen is displayed.



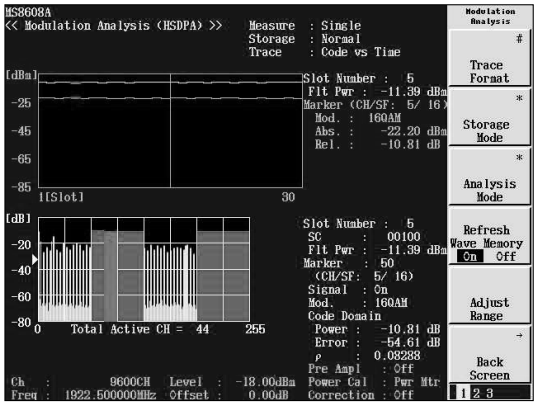
Modulation analysis (vector error)

Display pattern is selective from either vector error only or vector error and code domain. Residual vector error (rms) is 1% (typ.), enabling high-accuracy measurement.



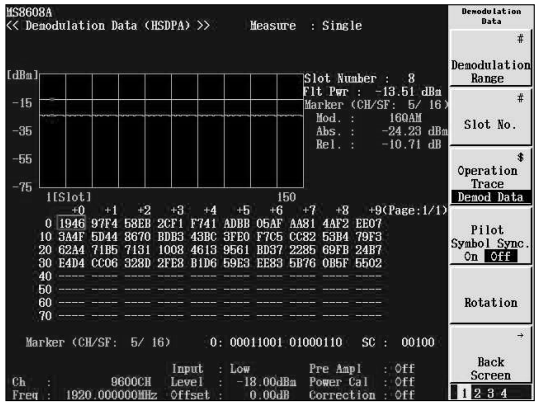
Code domain analysis

Code vs Slot can be displayed as well as normal code domain analysis display.



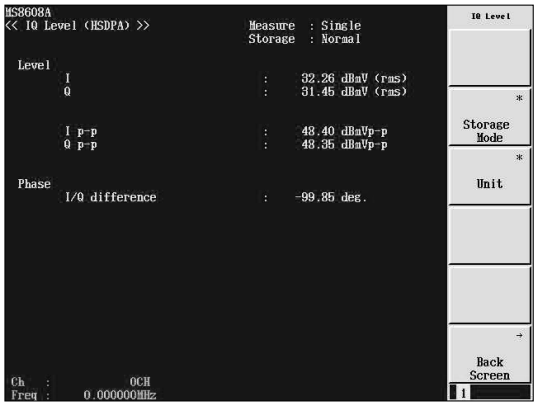
Demodulation data display

Demodulation data display of multiple signals including 16QAM (10 frames max.) is available per code channel. Max. 10 frames of demodulation data can be outputted to a PC card.



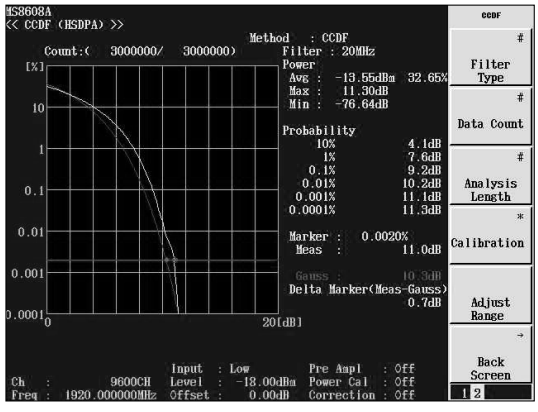
IQ level measurement

Input voltage (rms value, p-p value) for IQ can be measured.



CCDF measurement

Display pattern is selective from either CCDF for instantaneous power and average power difference or APD. CCDF for 4 multi carriers can be measured.



Specifications

Following specifications are guaranteed after optimized internal level (Range of internal receiver is automatically adjusted by pushing Adjust Range key).

Modulation/ frequency measurement	Measurement frequency range	50 MHz to 3 GHz, 50 MHz to 2.3 GHz (when MS8608A-08 is installed)
	Measurement level range	–40 to +40 dBm (average power within burst, high power input) –60 to +20 dBm (average power within burst, low power input) –80 to +10 dBm (average power within burst, low power input, pre-amp on[*1])
	Carrier frequency accuracy	± (reference oscillator accuracy ±10 Hz), at 1 code channel (Modulation methods: QPSK) Input level: ≥–10 dBm (high power input), ≥–30 dBm (low power input) ≥–40 dBm (low power input, pre-amp on[*1])
	Modulation accuracy	Residual vector error: <2.0%(rms), at 1 code channel (Modulation methods: QPSK) Input level: ≥–10 dBm (high power input), ≥–30 dBm (low power input), ≥–40 dBm (low power input, pre-amp on[*1]) Origin offset accuracy: ±0.5 dB, at 1 code channel (Modulation methods: QPSK) Input level: ≥–10 dBm (high power input), ≥–30 dBm (low power input) ≥–40 dBm (low power input, pre-amp on[*1]) For the signals with Origin Offset = –30 dBc
	Waveform display	Displays the following items for 1CH to multi CH input signals Constellation Vector error Phase error Amplitude error
Code domain analysis	Measurement frequency range	50 MHz to 3 GHz, 50 MHz to 2.3 GHz (When MS8608A-08 option is installed)
	Measurement level range	–40 to +40 dBm (average power within burst, high power input) –60 to +20 dBm (average power within burst, low power input) –80 to +10 dBm (average power within burst, low power input, pre-amp on[*1])
	Code domain power	Input level: ≥+10 dBm (high power input), ≥–10 dBm (low power input), ≥–20 dBm (low power input, pre-amp on[*1]) Modulation methods: QPSK Accuracy: ±0.1 dB (code power: ≥–10 dBc), ±0.3 dB (code power: ≥–25 dBc), the input signal does not have the origin offset
	Code domain error	Input level: ≥+10 dBm (high power input), ≥–10 dBm (low power input), ≥–20 dBm (low power input, pre-amp on[*1]) Modulation methods: QPSK Spread factor: 512 Residual error: <–50 dB, the input signal does not have the origin offset Accuracy: ±0.5 dB (Error: –30 dBc), the input signal does not have the origin offset
	Display function	Code domain power, code domain error display Supporting SF: 4 to 512 SF auto-detect function is equipped. SCH level measurement function is equipped.
	Code vs. Slot measurement	Code domain power is measured per slot (Max.150 slots) for the specified code channel. (supporting compressed mode)

Amplitude measurement	Measurement frequency range	50 MHz to 3 GHz, 50 MHz to 2.3 GHz (when MS8608A-08 is installed)
	Measurement level range	–40 to +40 dBm (average power within burst, high power input) –60 to +20 dBm (average power within burst, low power input) –80 to +10 dBm (average power within burst, low power input, pre-amp on*1)
	Tx power measurement	After level calibration with built-in power meter (executed automatically by a key push) Measurement range: 0 to +40 dBm (average power within burst, high power input) –20 to +20 dBm (average power within burst, low power input) –20 to +10 dBm (average power within burst, low power input, pre-amp on*1) Accuracy: ±0.4 dB
	Power measurement linearity	±0.2 dB (0 to –40dB) unchanged reference level setup after range adjustment Input level: ≥–10 dBm(high power input), ≥–30 dBm (low power input), ≥–40 dBm (low power input, pre-amp on*1)
	Filter select function	Power value after passing RRC (α = 0.22) filter can be measured
CCDF measurement	Measurement frequency range	50 MHz to 3 GHz, 50 MHz to 2.3 GHz (when MS8608A-08 is installed)
	Measurement level range	–40 to +40 dBm (average power within burst, high power input) –60 to +20 dBm (average power within burst, low power input) –80 to +10 dBm (average power within burst, low power input, pre-amp on*1)
	Measurement methods	CCDF: Displays an accumulation distribution of a ratio between instantaneous power and average power APD: Displays a distribution of a ratio between instantaneous power and average power
	Filter select function	20 MHz, 10 MHz, 5 MHz, 3 MHz, RRC: α = 0.22, RC: α = 0.22
Electric performance (IQ input)	Input methods	Balance, Unbalance
	Input impedance	1 MΩ (parallel capacitance: <100 pF), 50 Ω
	Input level range	Balance input Differential voltage: 0.1 to 1.0 Vp-p, In-phase voltage: ≤±2.5 V (at input terminal) Unbalance input: 0.1 to 1.0 Vp-p (at input terminal), DC/AC coupling: Changeable
	Measurement items	Modulation accuracy, code domain power, amplitude, IQ level Modulation accuracy measurement Residual vector error: <2.0%(rms), typical 1.0%(rms), the input signal does not have the origin offset Input level: ≥0.1 V(rms), DC coupling
	IQ level measurement	Level measurement: Measures input level of I and Q (rms, p-p) IQ phase difference measurement: When the CW signal is inputted to I and Q input terminals, measures and displays the phase difference between I- and Q- phase signals.

*1: Can be set when MS8608A-08 option is installed in the main frame.

Ordering Information

Please specify the model/order number, name, and quantity when ordering.

Model/Order No.	Name	
	– Main frame –	
MX860850A	HSDPA Measurement Software	
	– Standard accessories –	
JT32MA3-NT1	PC-ATA card (32MB, for MX860850A software backup):	1 pc
W2131AE	MX860x50A operation manual (Vol. 1):	1 copy

Note:

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Specifications are subject to change without notice.

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