Product Brochure

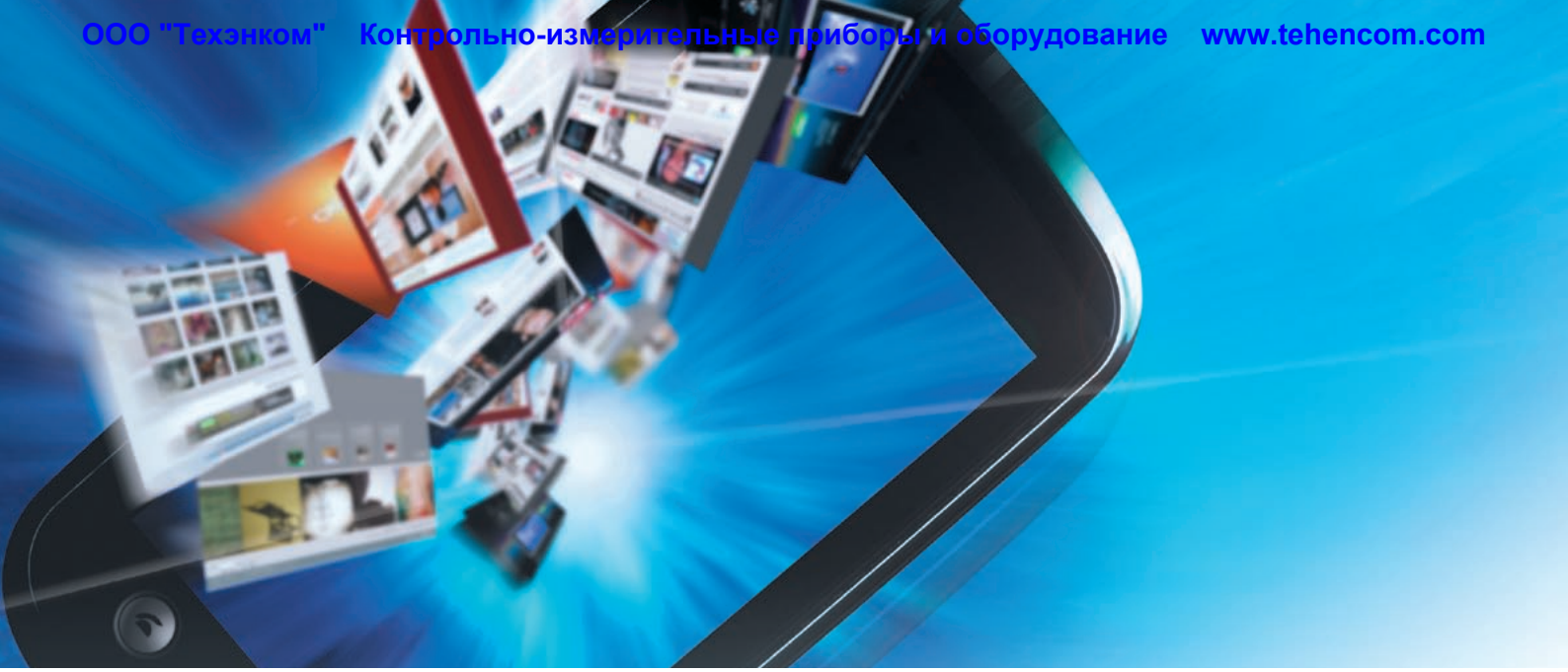
Anritsu

MT8820C

Radio Communication Analyzer

30 MHz to 2.7 GHz

Excellent Eco Product



All in 1 Unit for Basic Tx and Rx Measurements of LTE FDD, W-CDMA/HSPA/HSPA Evolution/DC-HSDPA, GSM/GPRS/EGPRS, CDMA2000 1X/1xEV-DO Rev. A, PHS/Advanced PHS, and TD-SCDMA/HSPA Systems

Supports Multi-communication Systems

The MT8820C Radio Communication Analyzer platform covers a frequency range of 30 MHz to 2.7 GHz.
When the dedicated optional measurement software and hardware is installed, the major Tx and Rx characteristics of LTE FDD, W-CDMA/HSPA/HSPA Evolution/DC-HSDPA, GSM/GPRS/EGPRS, CDMA2000 1X, CDMA2000 1xEV-DO Rev. A, PHS/Advanced PHS, and TD-SCDMA/HSPA terminals can be measured using a single MT8820C unit.

Advanced Digital Signal Processing and Batch Measurement

Manufacturing and inspection test times have been dramatically cut by incorporating advanced DSP and parallel measurement technologies. Furthermore, several measurement items can be selected freely for batch measurement, and the number of measurements for each measurement item can be configured separately.
The one-touch operation supports easy and quick measurement of Tx and Rx characteristics, including transmit frequency, modulation accuracy, transmit power, spectrum emission mask, adjacent channel leakage power ratio, occupied bandwidth, and BER.

Parallelphone Measurement

When the Parallelphone Measurement option is installed in the MT8820C main frame, two different mobile terminals can be connected and tested simultaneously with a single MT8820C using its second RF, AF, GPIB, and Ethernet port. This functionality significantly improves manufacturing efficiency by reducing production costs (return on investment and energy saving) and space.

MT8820A/B Compatibility

All functions, performance, remote commands are backwards compatible with the MT8820A/B, so customers can easily retask control software and knowledge from the MT8820A/B.

MT8820C

Radio Communication Analyzer

30 MHz to 2.7 GHz

Supports Multi-communication Systems

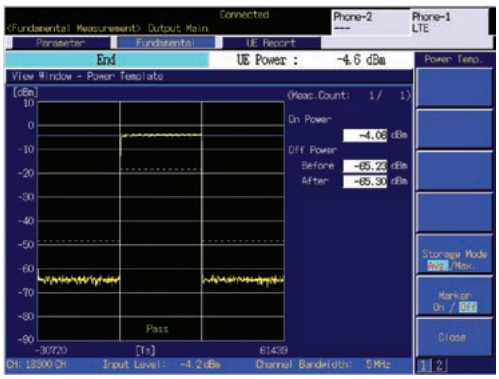
All-in-one Support for Basic Tx and Rx Measurements of LTE FDD, W-CDMA/HSPA/ HSPA Evolution/DC-HSDPA, GSM/GPRS/EGPRS, CDMA2000 1X/1xEV-DO Rev. A, PHS/Advanced PHS, and TD-SCDMA/HSPA Systems

LTE FDD Measurement

3GPP-compliant measurements of Tx characteristic of 3.9G LTE FDD terminals.

Transmitter Measurement

The transmit power, frequency error, occupied bandwidth, spectrum emission mask, adjacent channel leakage power ratio, modulation accuracy, and constellation can be measured.



Transmitter Measurement

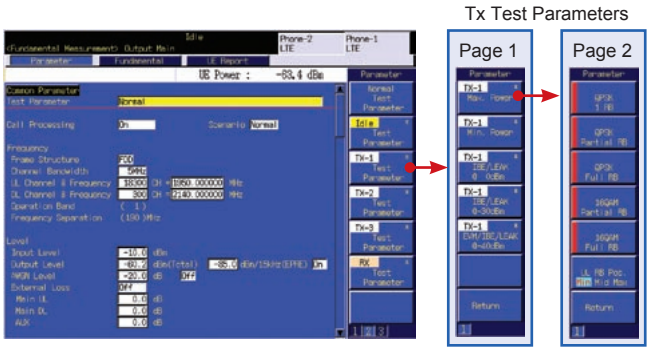
Receiver Measurement

The LTE FDD throughput can be measured by counting the number of ACK blocks from the LTE FDD terminal. And statistical analysis can be performed on CQI values reported by the LTE FDD terminal.

Receiver Measurement

One-touch Setting of Tx Test Items

Settings for 3GPP-compliant main Tx tests are made by one touch operation. Evaluation starts when measurement is completed by pressing “Single”, continuously, allowing even novices to perform accurate measurements successfully. In addition, control programs can be created simply and test speed can be faster using relevant GPIB commands.



For example, pressing 

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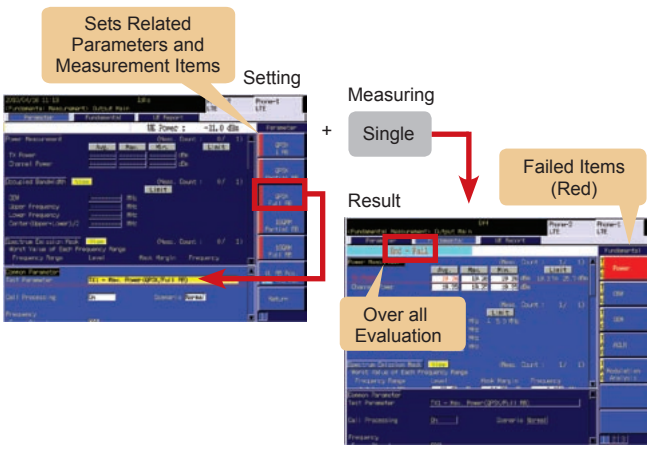
sets the parameters to measure the mobile terminal maximum output (QPSK Full RB) automatically and simultaneously. The overall evaluation, and Pass/Fail items (displayed in red) can be seen at a glance at measurement completion.



∗ Requires MT8820C-008 and MX882012C for the main Tx and Rx characteristics of LTE FDD terminal with Call Processing function.
∗ Requires MX882042C for the main Tx characteristics of LTE FDD terminal without Call Processing function.
MX882042C is non-Call Processing product.
Refer to the MX882012C or MX882042C catalog for detail.
∗ For terminal connectivity, contact your Anritsu sales representative.

W-CDMA Measurement

3GPP-compliant measurements of Tx and Rx characteristics of 3G W-CDMA terminals.

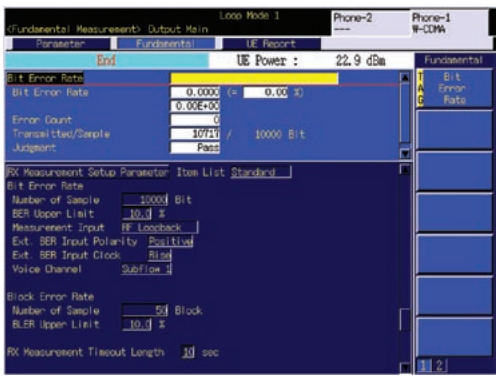
Transmitter Measurement

The transmit power, frequency error, occupied bandwidth, spectrum emission mask, adjacent channel leakage power ratio, modulation accuracy, and peak code domain error can be measured.

Transmitter Measurement

Receiver Measurement

The Bit Error Rate (BER) can be measured using the 3GPP-compliant loopback test mode. In addition, feeding the demodulated data and clock signals from the W-CDMA terminal directly to the MT8820C supports bit error rate measurement. Both PN9 and PN15 can be set as the downlink RF signal data pattern.



BER

∗ Requires MT8820C-001, MX882000C, and MX88205xC

HSPA Measurement

3GPP-compliant measurement of Tx and Rx characteristics of 3.5G HSPA (HSDPA/HSUPA) terminals is supported.

HSDPA Measurement

HSDPA call-processing functions, including Tx/Rx items, such as transmit power, spectrum emission mask, and adjacent channel leakage power ratio of the HS-DPCCH transmission slot are measured. At measurement in the time domain, the power step at the HS-DPCCH slot boundary, modulation, and code domain power are measured. Moreover, HSDPA throughput with 64QAM can be measured by counting the number of ACK blocks from the terminal.

HS-DPCCH Measurement

HSUPA Measurement

HSUPA call-processing functions, including Tx/Rx items, such as transmit power, spectrum emission mask, and adjacent channel leakage power ratio at HS-DPCCH and E-DCH transmission are measured.
Moreover, E-DCH throughput is calculated from the E-TFCI notification from the HSUPA terminals. In addition, the E-TFCI statistics (average, median, maximum and minimum) are displayed.

Transmitter Measurement

∗ MT8820C-001, MX882000C, MX882000C-011, and MX882050C required for HSDPA measurements
∗ MT8820C-001, MX882000C, MX882000C-011, MX882000C-021, and MX882050C required for HSUPA measurements

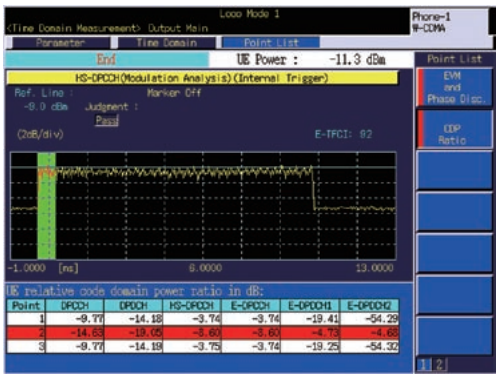
Refer to the MX882000C catalog for details.

HSPA Evolution Measurement

3GPP-compliant measurements of Tx and Rx characteristics, throughput and CQI of enhanced 3.5G HSPA Evolution terminals. FRC H-Set 8 (64QAM) and HS-DSCH Category 14 (21 Mbps class) test signals can be transmitted for HSPA Evolution throughput measurements.

Transmitter Measurement

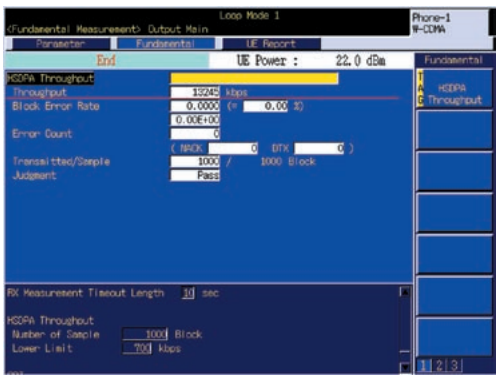
At measurement in the time domain, mobile terminal relative code domain power accuracy for HS-DPCCH and E-DCH with 16QAM are measured.



Code Domain Power

Receiver Measurement

The HSDPA throughput with 64QAM can be measured by counting the number of ACK blocks from the terminal.



Throughput

∗ Requires MT8820C-001, MX882000C, MX882000C-011, MX882000C-021, MX882000C-031, and MX882050C

∗ For terminal connectivity, contact your Anritsu sales representative.

DC-HSDPA Measurement

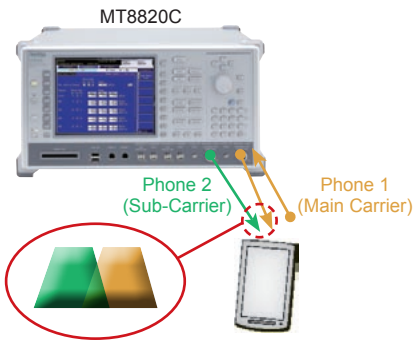
Measurement of key Rx characteristics, throughput and CQI is supported for 3GPP-compliant DC-HSDPA terminals.

Receiver Measurement

DC-HSDPA call processing can be measured using the two RF ports of the MT8820C. Moreover, the number of ACK blocks sent from the mobile terminal can be counted and two-cell throughput can be measured. Measurement of the highest throughput (42 Mbps) in HS-DSCH category 24 is supported.

Throughput

CQI



MT8820C Connection Example

∗ MT8820C-012, MT8820C-001 2 sets, MX882000C, MX882000C-011, MX882000C-021, MX882000C-031, MX882000C-032, and MX882050C required for DC-HSDPA measurements (MT8820C 1unit)

Refer to the MX882000C catalog for details.

GSM/GPRS Measurement

Measures Tx and Rx characteristics of GSM/GPRS terminals — world's most common digital mobile standard.

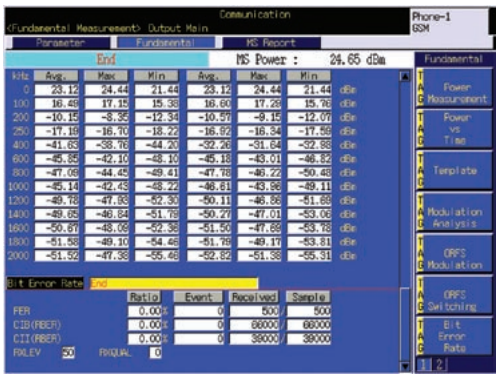
Transmitter Measurement

At GSM/GPRS measurement, the transmit frequency, phase error (RMS and peak), transmit power, power vs. time (template mask), and output RF spectrum can be measured.

Power vs. Time (GSM)

Receiver Measurement

The uplink RF signal, which is looped back from GSM terminal, is demodulated by controlling the GSM terminal in the loopback condition to measure the frame error, bit error, and CRC error rates. And FAST BER measurement is supported.
The block error rate can be measured with the BLER and Test Mode B connection by controlling the GPRS terminal in the loopback condition.
The above receiver measurements can be performed in parallel with transmitter measurements.



BER (GSM)

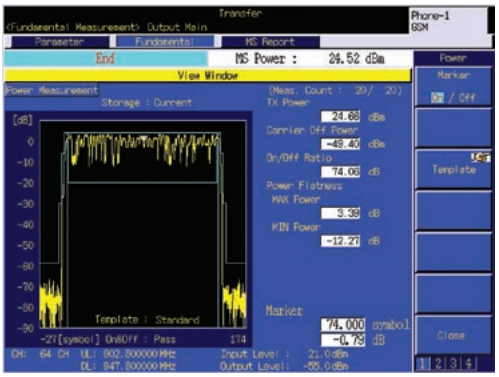
∗ Requires MT8820C-002 and MX882001C

EGPRS Measurement

Measures Tx and Rx characteristics of enhanced GPRS system (EGPRS) terminals.

Transmitter Measurement

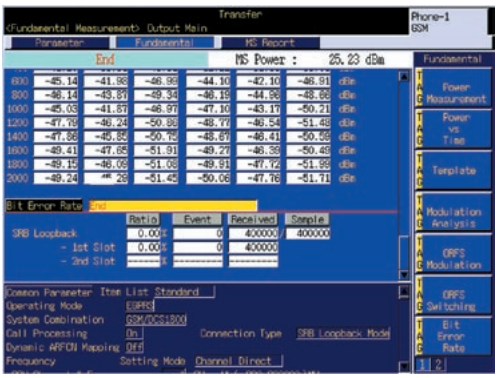
At EGPRS measurement, the transmit frequency, EVM (RMS and peak), origin offset, transmit power, power vs. time (template mask), and output RF spectrum can be measured.



Burst Waveform Display (8PSK)

Receiver Measurement

The uplink RF signal, which is looped back from EGPRS terminal, is demodulated by controlling the EGPRS terminal in the loopback condition to measure the block error or bit error.
The above receiver measurements can be performed in parallel with transmitter measurements.



BER (SRB Loopback)

∗ Requires MT8820C-002, MX882001C, and MX882000C-011

Refer to the MX882001C catalog for details.

CDMA2000 1X Measurement

3GPP2-compliant measurements of Tx and Rx characteristics of 3G CDMA2000 1X terminals.

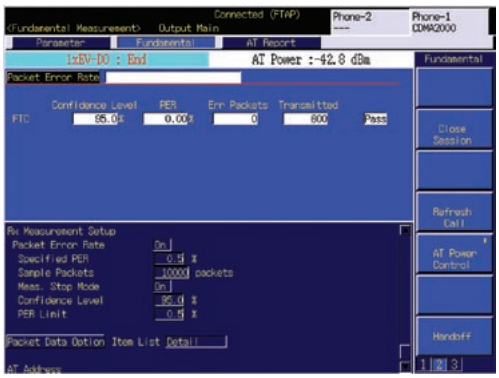
Transmitter Measurement

The transmit power, modulation analysis, occupied bandwidth, code domain power, spurious emission, and access probe power can be measured.

Modulation Analysis

Receiver Measurement

The Frame Error Rate (FER) and Pass/Fail evaluation can be performed in SO2, SO9, SO55 and SO32 (TDSO) to display the FER, error frame count, Tx frame count, confidence level, and Pass/Fail results.



FER

∗ Requires MT8820C-003 and MX882002C

CDMA2000 1xEV-DO Rev. 0/Rev. A Measurement

3GPP2-compliant measurements of Tx and Rx characteristics of 3.5G 1xEV-DO Rev. 0/Rev. A terminals.

Measurement Software and Protocol Revision

Model	Protocol Revision
MX882006C	IS-856-0 (1xEV-DO Rev. 0)
MX882006C-002	IS-856-0 (1xEV-DO Rev. 0)
MX882006C-011	IS-856-A (1xEV-DO Rev. A)

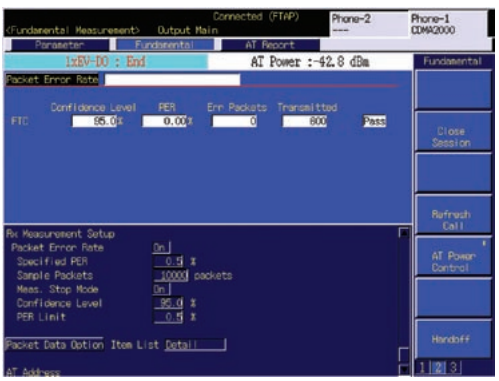
Transmitter Measurement

The transmit power, modulation analysis, occupied bandwidth, code domain power, spurious emission, and access probe power can be measured.

Code Domain Power

Receiver Measurement

Packet Error Rate (PER) measurement and Pass/Fail evaluation can be performed in FTAP to display the PER, error packet count, transmission packet count, confidence level, and Pass/Fail results.



PER

∗ Requires MT8820C-003, MT8820C-005, MX882002C, and MX882006C
∗ Installing the MT8820C-003, MT8820C-005, MX882002C, MX882006C, and MX882006C-011 can measure of Tx and Rx characteristics of 1xEV-DO Rev. A terminal.

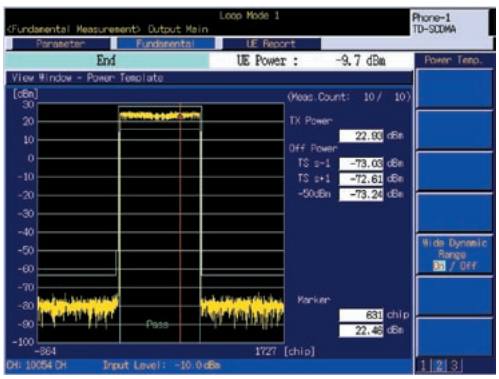
Refer to the MX882002C/MX882006C catalog for details.

TD-SCDMA Measurement

3GPP-compliant measurements of the main Tx and Rx characteristics of 3G TD-SCDMA (1.28 Mcps TDD) and 3.5G HSDPA/HSUPA mobile terminals is supported.

Transmitter and Receiver Measurement

3GPP-compliant measurement of TD-SCDMA with call-processing functions, including Tx/Rx items such as transmit power, power template, frequency error, occupied bandwidth, spectrum emission mask, adjacent channel leakage power ratio, modulation accuracy, peak code domain error, open loop power control, closed loop power control, out-of-sync handling, BER, and BLER, is supported. In addition, one-touch setting of main Tx/Rx test items and closed loop power control offer easy configuration of automated 3GPP-compliant test systems.



Power Template

TD-SCDMA HSDPA Measurement

3GPP-compliant Throughput, and CQI measurements of TD-SCDMA HSDPA terminals are supported. The signals for Throughput measurement include RMC signals for all TD-SCDMA HS-DSCH categories as well as maximum category-15 data rates (2.8 Mbps).

TD-SCDMA HSUPA Measurement

3GPP-compliant Tx measurement and Performance test of TD-SCDMA HSUPA with call-processing are measured.
The signals for Tx measurement include HSUPA RMC category 1 to 6 (2.23 Mbps UE class) terminals can be transmitted.
And, HSUPA performance measurement is calculated the information about bit rate by detecting E-DCH TB (Transport Block size). Index include E-UCCH sent from the mobile terminal to MT8820C.

∗ Requires MT8820C-001, MT8820C-007, and MX882007C for TD-SCDMA measurements.
Requires MT8820C-001, MT8820C-007, MX882007C, and MX882007C-011 for TD-SCDMA HSDPA measurements.
Requires MT8820C-001, MT8820C-007, MX882007C, MX882007C-011, and MX882007C-021 for TD-SCDMA HSUPA measurements.
∗ For terminal connectivity, contact your Anritsu sales representative.

Refer to the MX882007C catalog for details.

PHS/Advanced PHS Measurement

Measures Tx and Rx characteristics of PHS terminals/Advanced PHS terminals and base stations in compliance with ARIB RCR-STD-28 edition 5.0 supporting π/4DQPSK, 8PSK, and 16QAM modulation methods.

Transmitter Measurement

The transmit frequency, modulation accuracy, transmit power, transmission rate, occupied bandwidth, adjacent channel leakage power of PHS terminals/Advanced PHS terminals and base stations are measured simultaneously.

Adjacent Channel Power

Receiver Measurement

The bit error rate can be measured on receipt of demodulation data and clocks output from a terminal/base station by controlling the terminal/base station with an external PC. This measurement can be performed in parallel with transmitter measurements.

BER (8PSK)

∗ Requires MT8820C-002 and MX882005C for PHS measurements.
Requires MT8820C-002, MX882005C, and MX882005C-011 for Advanced PHS measurements.

Refer to the MX882005C catalog for details.

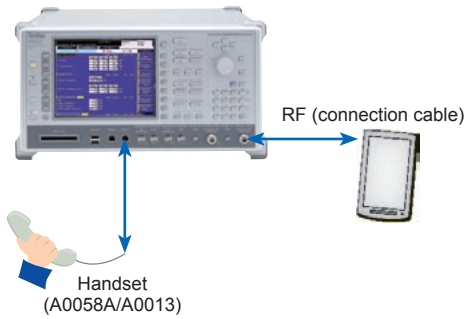
Supports All Function Tests

Real-time Voice Encoding and Decoding

Voice tests with a handset are supported by the real-time voice encoding and decoding function of the W-CDMA (GSM, CDMA2000 1X, TD-SCDMA) Measurement Software.
In addition, the call Tx and Rx audio can be measured using the audio measurement function.

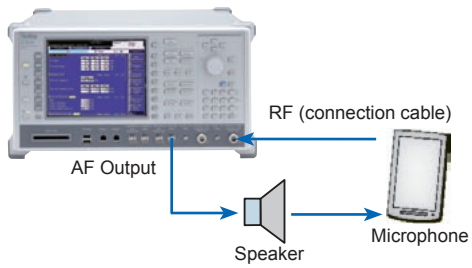
End-to-End Communications Test

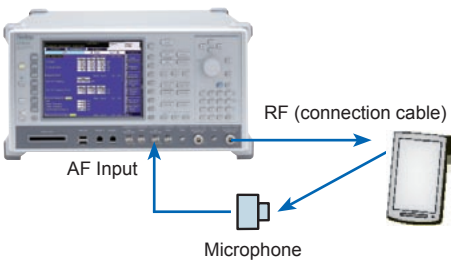
This supports the end-to-end communications test between an Anritsu handset (A0058A/A0013) connected to the RJ11 connector on the MT8820C and a mobile terminal.



Audio Transmitter and Receiver Measurement

The tone signal from the MT8820C AF Output connector is supplied to the microphone of the mobile terminal and the audio transmitter characteristics of the mobile terminal can be measured using the MT8820C to demodulate the uplink RF signal and measure the level, frequency, and distortion of the demodulated tone signal.





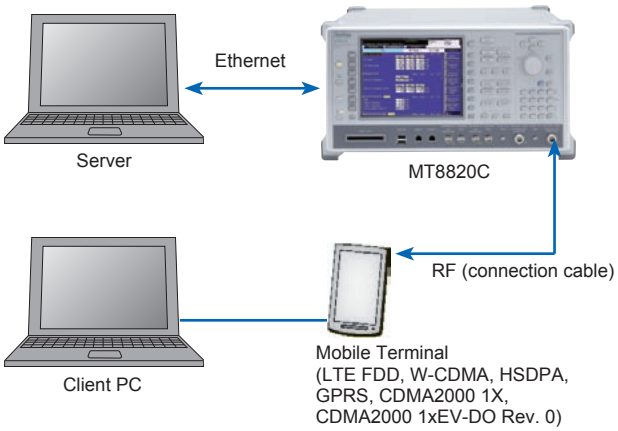
* Requires MT8820C-011, MX882000C-001, MX882001C-001, MX882002C-001 or MX882007C-001
* Audio Transmitter and Receiver Measurement supports W-CDMA, GSM, TD-SCDMA
  Audio Transmitter and Receiver Measurement does not support CDMA2000 1X

Refer to the MX882000C, MX882001C, MX882002C and MX882007C catalog for details.

Packet Communication Data Transfer Test

End-to-End Data Transfer Test

Using the External Packet Data Software option supports end-to-end data transfer between a mobile terminal (W-CDMA, HSDPA, GPRS, CDMA2000 1X, CDMA2000 1xEV-DO Rev. 0) and an application server connected to the MT8820C, or a PC client connected to the terminal, and various application tests.
The IP data transfer software option supports end-to-end data transfer with an LTE FDD terminal.

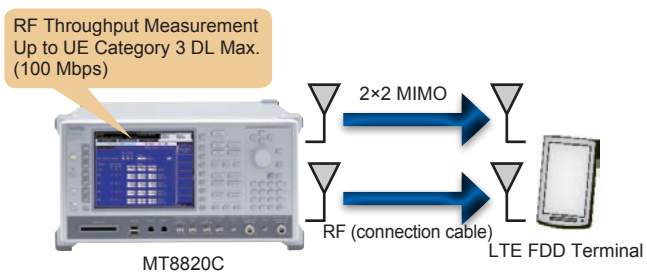


Sample MT8820C connection

LTE FDD 2×2 MIMO

Throughput Measurement

The LTE FDD 2×2 MIMO DL option supports throughput measurement of 2×2 MIMO downlink signals connected to the MT8820C.



MT8820C Connection Example

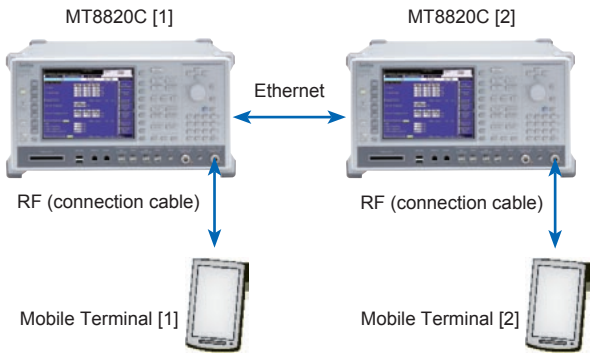
* Packet Communication Data Transfer Test requires either MX882012C-006, MX882050C-002, MX882050-011, MX882050C-002, MX882001C-002, MX882002C-002 or MX882006C-002
* MIMO Test requires MT8820C-012, MT8820C-008, and MX882012C, MX882012C-011

Refer to the MX882012C, MX882000C, MX882001C and MX882002C/ MX882006C catalog for details.

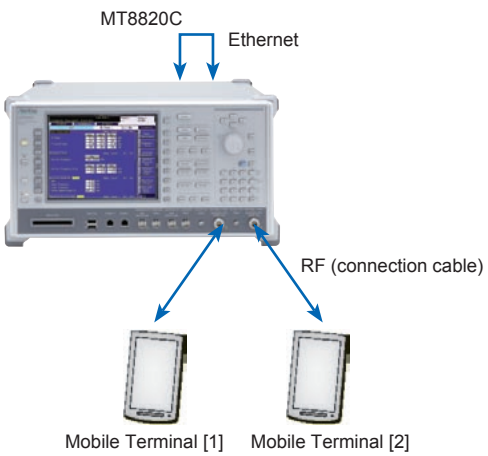
Video Phone Test

End-to-End Video Phone Test

The MT8820C supports two-ways tests between W-CDMA (TD-SCDMA) terminals with video functions via the MT8820C Ethernet port.
Two-way video phone tests require either two MT8820C units or one unit with the Parallelphone option.



Sample MT8820C connection: when MT8820C is two sets



Sample MT8820C connection: when MT8820C is one set (Parallelphone measurement correspondence)

∗ Requires MX88205xC-003 or MX882007C-003

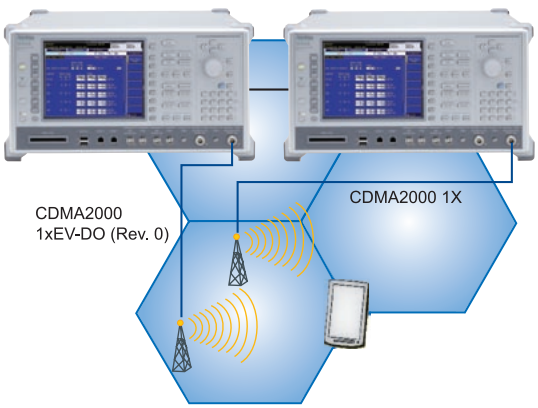
Refer to the MX882000C and MX882007C catalog for details.

CDMA2000 1X/1xEV-DO (Rev. 0) Synchronous Function

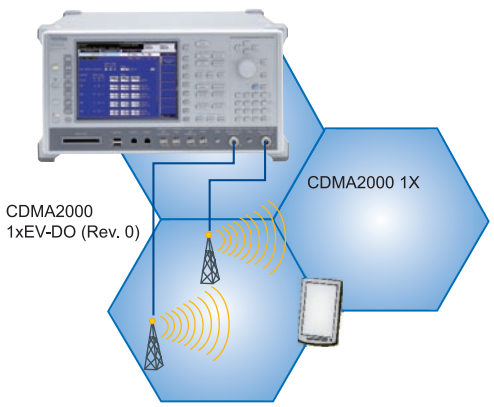
CDMA2000 1X/1xEV-DO (Rev. 0) Hybrid Terminal Function Test

By using the MX882002C and MX882006C with two MT8820C units or one MT8820C unit with the Parallelphone measurement option, the CDMA2000 1X and 1xEV-DO (Rev. 0) forward link signals can be output with synchronized system times, supporting function tests of terminals for both CDMA2000 1X and 1xEV-DO (Rev. 0) systems*

∗: This function cannot be used when MX882000C W-CDMA Measurement Software or MX882007C TD-SCDMA Measurement Software is loaded. Please perform unload, when MX882000C or MX882007C is loaded.
∗: Installing the MX882006C-011 option supports the mobile terminal connection test with ETAP only.



Sample MT8820C connection: when MT8820C is two sets



Sample MT8820C connection: when MT8820C is one set (Parallelphone measurement correspondence)

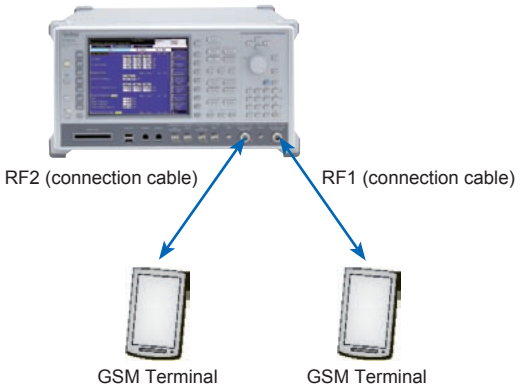
Refer to the MX882002C/MX882006C catalog for details.

Higher Productivity

High Production Efficiency and Smaller Equipment Footprint using Parallelphone Measurement

Simultaneous Measurement of Two Mobile Terminals

Installing the Parallelphone Measurement option supports simultaneous measurement of two terminals using the second RF, AF, GPIB, or Ethernet port of a single MT8820C unit.



Case of GSM Parallel Phone Measurements

Model	Name	Required number
MT8820C	Radio Communication Analyzer	1
MT8820C-002	TDMA Measurement Hardware	2
MT8820C-012	Parallel Phone Measurement Hardware	1
MX882001C	GSM Measurement Software	1
MX882010C	Parallel Phone Measurement Software	1

Specifications

MX882010C Parallel Phone Measurement Software

Main2 Input/Output Aux2 Output	Identical to Main1 Input/Output and Aux1 Output specified by the MT8820C and the measurement software installed in the MT8820C.
AF2 Input/Output	Identical to AF1 Input and Output specified by the measurement software. These are enabled only when the MT8820C-011 Audio Board is installed.

∗ The MT8820C-012 Parallel Phone Measurement Hardware requires the MX882010C Parallel Phone Measurement Software as well as installation of the required measurement software and two measurement hardware units.

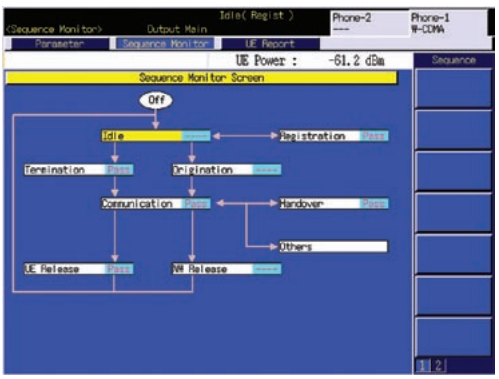
Supports Multi-system Call Processing Test

Call Processing Test

Call Processing

Connection Test

Various connection tests, such as registration, origination, termination, handover, terminal disconnect, and network disconnect, can be tested using the call processing functionality. Moreover, voice from the mobile terminal can be echoed back while calling to test simple voice communications.



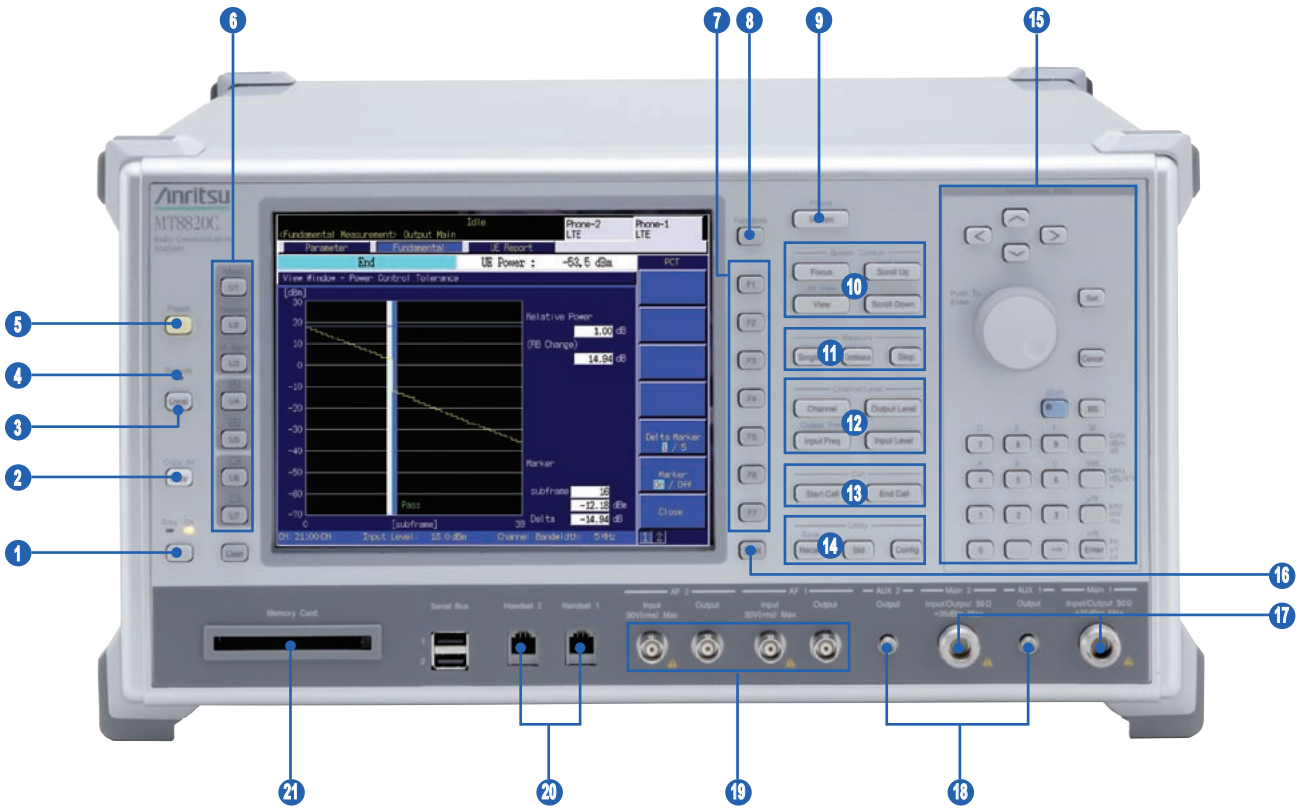
Sequence Monitor (W-CDMA)

Mobile Terminal Report Monitor

The mobile terminal status can be displayed as a periodic report sent by the mobile terminal to the MT8820C. The downlink RF signal level at the mobile receiver can be checked with the Rx level reported from the mobile terminal.

Mobile Terminal Report Monitor (GSM)

Panel Layout



1 **Power Switch**
Switches mode between power-on and standby

2 **Copy Key**
Copies screen

3 **Local Key**
Switches remote control to manual control

4 **Remote Lamp**
Lit while in remote control mode

5 **Preset Key**
Starts initializing

6 **User function keys**
Execute user menu contents displayed in the leftmost area of the screen, when the common window is enabled

7 **Function Key**
Executes function menu displayed on right of screen

8 **Functions**
Displays function menu on screen

9 **Screen Switch Key**
Switches screen

10 **Screen Control**
Switches display window for manual operation

11 **Measure**
Starts and stops measurement

12 **Channel/Level**
Sets channel, frequency, and level

13 **Call**
Connects and disconnects call

14 **Utility**
Saves and recalls parameters, and displays configuration

15 **Cursor/Data Entry**
Moves cursor and sets parameters

16 **Page Switch Key**
Switches function menu displayed on right of screen

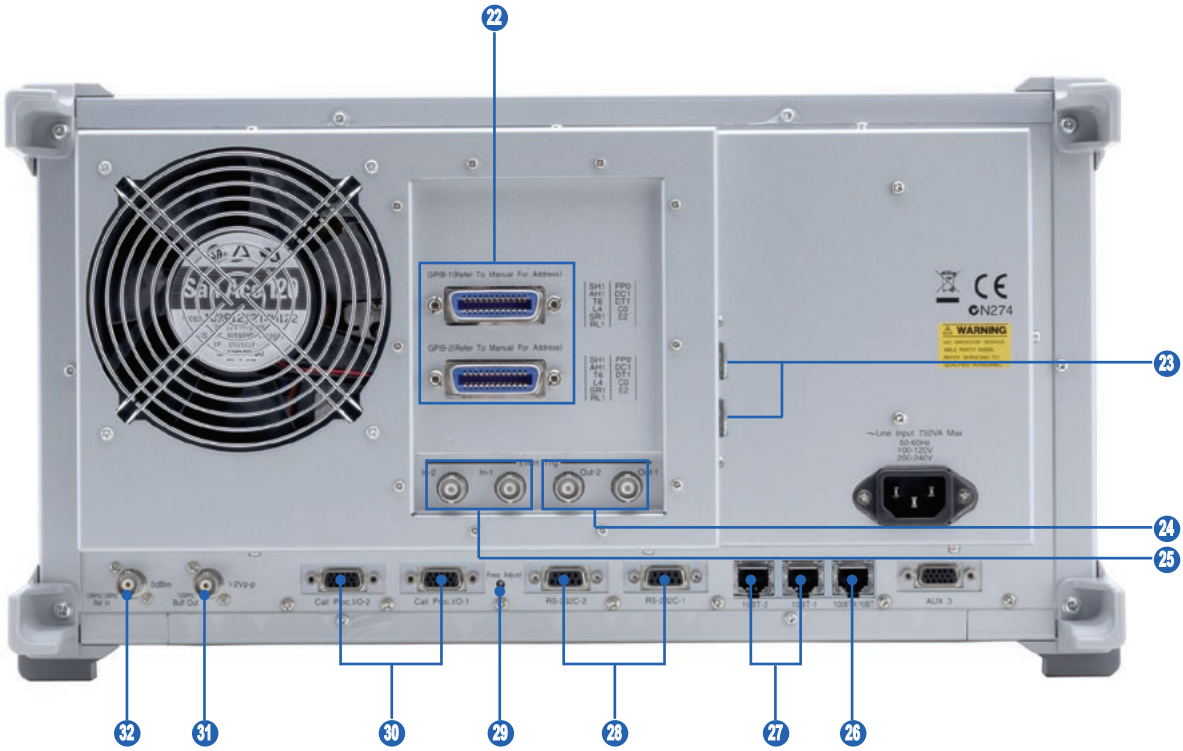
17 **Main Input/Output Connector**
Outputs RF signal for RF testing mobile terminal (N-type connector)

18 **AUX Output Connector**
Outputs RF signal for RF testing mobile terminal (SMA connector)

19 **AF Input/Output Connector**
For audio measurement

20 **Handset Connector**
For testing end-to-end voice communication between MT8820C and mobile terminal using an Anritsu handset (A0058A/A0013)

21 **Memory Card Slot**
For saving/recalling measurement parameters and update software to/from PCMCIA-compliant PC-card-type memory card (Type II)



22 GPIB Connector
For remote control of MT8820C

23 1000Base-T/100Base-TX/10Base-T port
Interface for packet and LTE communication tests (for LTE) (enabled when LTE measurement hardware installed in MT8820C)

24 Trigger Output Connector
Outputs event-timing signal to external equipment (BNC connector)

25 Trigger Input Connector
Inputs trigger signal from external equipment to measure uplink signal from mobile equipment by synchronizing (BNC connector)

26 100Base-TX/10Base-T Port
RJ-45 connector for the remote control via Ethernet (100Base-TX/10Base-T)

27 10Base-T Port
Interface for packet and W-CDMA video communication test

28 RS-232C Port
Interface for packet communication test

29 Frequency Adjust
Adjusts frequency of internal reference oscillator

30 Call Processing Input/Output Port
Interface for BER measurement and synchronization

31 Reference Signal Output Connector
Outputs 10-MHz reference signal of MT8820C (BNC connector)

32 Reference Signal Input Connector
Inputs 10/13-MHz reference signal (BNC connector)

Specifications

∗ Typical values are only for reference and are not guaranteed specifications.

General	Frequency range: 30 MHz to 2.7 GHz Max. input level: +35 dBm (Main) Main I/O Impedance: 50 Ω VSWR: ≤1.2 (<1.6 GHz), ≤1.25 (1.6 GHz to 2.2 GHz), ≤1.3 (>2.2 GHz) Connector: N type AUX output Impedance: 50 Ω VSWR: ≤1.3 (SG Output level: ≤–10 dBm) Connector: SMA type Reference oscillator Frequency: 10 MHz Level: TTL Startup characteristics: ≤±5 × 10^{-8} (10 min after startup referenced to frequency 24 h after startup) Aging rate: ≤±2 × 10^{-8}/day, ≤±1 × 10^{-7}/year (referenced to frequency 24 h after startup) Temperature characteristics: ≤±5 × 10^{-8} Connector: BNC type External reference input Frequency: 10 MHz or 13 MHz (±1 ppm) Level: ≥0 dBm Impedance: 50 Ω Connector: BNC type
RF Signal Generator	Frequency Frequency range: 30 MHz to 2.7 GHz (setting range: 400 kHz to 2.7 GHz) Setting resolution: 1 Hz Accuracy: Due to reference oscillator accuracy Output level Level range: –140 to –10 dBm (Main), –130 to 0 dBm (AUX) Resolution: 0.1 dB Accuracy: Main: ±1.0 dB, ±0.7 dB typ. (Output frequency: ≥50 MHz), ±1.5 dB (Output frequency: <50 MHz) (–120 to –10 dBm, after calibration, 10° to 40°C) AUX: ±1.0 dB, ±0.7 dB typ. (Output frequency: ≥50 MHz), ±1.5 dB (Output frequency: <50 MHz) (–110 to 0 dBm, after calibration, 10° to 40°C) Signal purity Non-harmonic spurious: ≤–40 dBc (Offset frequency: ≥100 kHz) Harmonics: ≤–25 dBc Uninterrupted level variation Variable range: –30 to 0 dB Setting resolution: 1 dB
Others	Display Color 8.4-inch TFT LCD, 640 × 480 dots External control GPIB: Control from external host with main unit as device (excluding some functions such as power-on), No external device control Interface functions: SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, C0, E2 Ethernet (100Base-TX/10Base-T): Controlled by an external controller, assuming the MT8820C as a device (except some functions such as power switch etc.). No controller function
Power Supply	100 to 120 V (ac)/200 to 240 V (ac) (250 V max.), 50 Hz/60 Hz, ≤750 VA (with all Options)
Dimensions and Mass	426 (W) × 221.5 (H) × 498 (D) mm (excluding projections), ≤30 kg (with all Options)
Environmental Conditions	Operating temperature and humidity: 0° to +50°C, ≤95% (no condensation) Storage temperature and humidity: –20° to +60°C, ≤95% (no condensation) EMC EN61326-1, EN61000-3-2 LVD EN61010-1

Ordering Information

Please specify the model/order number, name and quantity when ordering.
The names listed in the chart below are Order Names. The actual name of the item may differ from the Order Name.

Model/Order No.	Name
	Main frame
MT8820C	Radio Communication Analyzer
	Standard accessories
	Power Cord: 1 pc
	CF Card: 1 pc
CA68ADP	PC Card Adapter (For CF card): 1 pc
W3320AE	MT8820C Operation Manual (CD-ROM): 1 pc
	Options
MT8820C-001	W-CDMA Measurement Hardware
MT8820C-002	TDMA Measurement Hardware
MT8820C-003	CDMA2000 Measurement Hardware
MT8820C-005	1xEV-DO Measurement Hardware*1
MT8820C-007	TD-SCDMA Measurement Hardware
MT8820C-008	LTE Measurement Hardware
MT8820C-011	Audio Board
MT8820C-012	Parallel Phone Measurement Hardware
MT8820C-043	CDMA2000 Time Offset CAL For GPS SG (requires MT8820C-003 and MX882002C)
MT8820C-101	W-CDMA Measurement Hardware Retrofit
MT8820C-102	TDMA Measurement Hardware Retrofit
MT8820C-103	CDMA2000 Measurement Hardware Retrofit
MT8820C-105	1xEV-DO Measurement Hardware Retrofit*1
MT8820C-107	TD-SCDMA Measurement Hardware Retrofit
MT8820C-108	LTE Measurement Hardware Retrofit
MT8820C-111	Audio Board Retrofit
MT8820C-112	Parallel Phone Measurement Hardware Retrofit
MT8820C-143	CDMA2000 Time Offset CAL For GPS SG Retrofit (requires MT8820C-003 and MX882002C)
MT8820C-177	TD-SCDMA Measurement Retrofit (requires MT8820C-001)
	Software options
MX882000C	W-CDMA Measurement Software (requires MT8820C-001 and MX88205xC)
MX882000C-001	W-CDMA Voice Codec (requires MT8820C-011 and MX882000C)
MX882000C-011	HSDPA Measurement Software (requires MT8820C-001, MX882000C, and MX882050C)
MX882000C-013	HSDPA High Data Rate (requires MT8820C-001, MX882000C, MX882000C-011, and MX882050C)
MX882000C-021	HSUPA Measurement Software (requires MT8820C-001, MX882000C, MX882000C-011, and MX882050C)
MX882000C-031	HSPA Evolution Measurement Software*2 (requires MT8820C-001, MX882000C, MX882000C-011, MX882000C-021, and MX882050C)
MX882000C-032	DC-HSDPA Measurement Software*2, *3 (requires MT8820C-001 (2 sets), MT8820C-012, MX882000C, MX882000C-011, MX882000C-021, MX882000C-031, MX882010C, and MX882050C)
MX882001C	GSM Measurement Software (requires MT8820C-002)
MX882001C-001	GSM Voice Codec (requires MT8820C-011 and MX882001C)
MX882001C-002	GSM External Packet Data (requires MX882001C)
MX882001C-011	EGPRS Measurement Software (requires MX882001C)
MX882001C-041	GSM High-speed Adjustment (requires MX882001C)
MX882002C	CDMA2000 Measurement Software (requires MT8820C-003)
MX882002C-001	CDMA2000 Voice Codec (requires MT8820C-011 and MX882002C)
MX882002C-002	CDMA2000 External Packet Data (requires MX882002C)
MX882005C	PHS Measurement Software (requires MT8820C-002)
MX882005C-011	Advanced PHS Measurement Software (requires MX882005C)
MX882006C	1xEV-DO Measurement Software (requires MT8820C-003, MT8820C-005, and MX882002C)
MX882006C-002	1xEV-DO External Packet Data (requires MX882006C)
MX882006C-011	1xEV-DO Rev. A Measurement Software (requires MX882006C)
MX882007C	TD-SCDMA Measurement Software (requires MT8820C-001 and MT8820C-007)
MX882007C-001	TD-SCDMA Voice Codec (requires MT8820C-011 and MX882007C)
MX882007C-003	TD-SCDMA Video Phone Test (requires MX882007C)
MX882007C-011	TD-SCDMA HSDPA Measurement Software*2 (requires MT8820C-001, MT8820C-007, and MX882007C)
MX882007C-021	TD-SCDMA HSUPA Measurement Software*2 (requires MT8820C-001, MT8820C-007, MX882007C, MX882007C-011)
MX882010C	Parallel Phone Measurement Software*4 [requires MT8820C-012, the two same measurement hardware (2 board/set) and one measurement software]
MX882012C	LTE FDD Measurement Software*2 (requires MT8820C-008)
MX882012C-006	LTE FDD IP Data Transfer*2 (requires MX882012C)
MX882012C-011	LTE FDD 2×2 MIMO DL*2, *6 (requires MT8820C-012 and MX882012C)
MX882042C	LTE FDD Measurement Software Lite*2
MX882050C	W-CDMA Call Processing Software*2 (requires MX882000C)
MX882050C-002	W-CDMA External Packet Data*2, *5 (requires MX882050C)
MX882050C-003	W-CDMA Video Phone Test*2 (requires MX882050C)
MX882050C-007	W-CDMA Band XII, XIII, XIV, XIX, XX, XXI*2, *7 (requires MX882050C)
MX882050C-008	W-CDMA Band XI*2 (requires MX882050C)
MX882050C-009	W-CDMA Band IX*2 (requires MX882050C)
MX882050C-011	HSDPA External Packet Data*2 (requires MX882000C-011)
MX882051C	W-CDMA Call Processing Software*2, *5 (requires MX882000C)
MX882051C-002	W-CDMA External Packet Data*2 (requires MX882051C)
MX882051C-003	W-CDMA Video Phone Test*2 (requires MX882051C)
MX882070C	W-CDMA Ciphering Software*2 (requires MX882050C)
MX882071C	W-CDMA Ciphering Software*2 (requires MX882051C)
	Warranty
MT8820C-ES210	2 years Extended Warranty Service
MT8820C-ES310	3 years Extended Warranty Service
MT8820C-ES510	5 years Extended Warranty Service
	Application parts
P0019	Test USIM 001*8
P0035B	W-CDMA/GSM Test USIM
A0058A	Handset
J1249	CDMA2000 Cable [D-Sub (15 pin, P-type) · D-Sub (15 pin, P-type), used in combination with J1267 (sold separately)]
J1267	CDMA2000 Cross Cable [D-Sub (9 pin, P-type) · D-Sub (9 pin, P-type), reverse cable used in combination with J1249 (sold separately)]
J0576B	Coaxial Cord, 1 m (N-P · 5D-2W · N-P)
J0576D	Coaxial Cord, 2 m (N-P · 5D-2W · N-P)
J0127A	Coaxial Cord, 1 m (BNC-P · RG58A/U · BNC-P)
J0127C	Coaxial Cord, 0.5 m (BNC-P · RG58A/U · BNC-P)
J0007	408JE-104 GPIB Cable (1 m)
J0008	GPIB Cable (2 m)
MN8110B	I/O Adapter (for call processing I/O)
B0332	Joint Plate (4 pcs/set)
B0643A	Rack Mount Kit (MT8820C)
B0499	Carrying Case (Hard type) (with protective cover and casters)
B0499B	Carrying Case (Hard type) (with protective cover, without casters)

∗1: The MT8820C-005 hardware supports both IS-856-0 (1xEV-DO Rev. 0) and IS-856-A (1xEV-DO Rev. A) RF measurements.
∗2: For terminal connectivity, contact your Anritsu sales representative.
∗3: MX882000C-032 is required a Parallelphone measurement configuration of W-CDMA HSPA Evolution.
For use MT8820C 2units, contact your Anritsu sales representative.
∗4: The following measurement hardware supports the Parallelphone measurement option: MT8820C-001, MT8820C-002, MT8820C-003, MT8820C-005, MT8820C-007, MT8820C-008.
All the measurement hardware can be installed simultaneously.
∗5: These options preinstall the integrity protection function.
∗6: MX882012C-011 is required MT8820C-012.
∗7: MX882050C-007 supports W-CDMA Band 12, 13, 14, 19, 20, 21.
∗8: This Test USIM can be worked on only W-CDMA mode.
When the connection of GSM or TD-SCDMA is necessary, P0035B can be applied.

Anritsu

Specifications are subject to change without notice.

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