

For MT8820C Radio Communication Analyzer

MX882005C

PHS Measurement Software

MX882005C-011

Advanced PHS Measurement Software





for PHS

Solution for PHS Terminals and Base Stations Production Lines

The MX882005C PHS Measurement Software supports transmitter and receiver measurements of PHS mobile terminals now spreading worldwide centered on Asia, including Japan. Installing the MX882005C PHS Measurement Software in one MT8820C main frame supports evaluation of major transmitter and receiver characteristics of PHS terminals and base stations. Advanced DSP and parallel measurement technologies greatly reduce manufacturing and test times for PHS terminals and base stations.

In addition, multiple measurement items can be selected freely for batch processing, while the number of repeat measurements can be set for each individual measurement.

At PHS measurement, selected items can be batch-measured by one touch for quick and simple Pass/Fail evaluation of major items, such as transmit frequency, modulation accuracy, transmit power, adjacent channel power and BER.

The standard GPIB and Ethernet interface allows the MT8820C to be built into automated production lines and test systems at service and repair depots.

• PHS Measurement

Transmitter Tests	Output Power
	Modulation Accuracy
	Occupied Bandwidth
	Adjacent Channel Power
Receiver Tests	Transmission Rate
	Bit Error Ratio

MX882005C PHS Measurement Software

Transmitter Measurement

Transmit Power

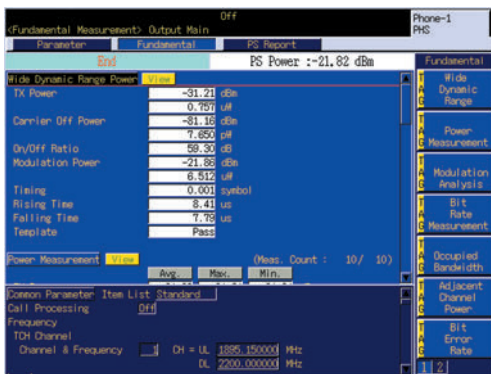
The RF power and carrier-off leakage power of PHS terminals and base stations are measured and the max., average and min. values are displayed by setting the number of repeat measurements to 2 or more, so variations in PHS terminal characteristics can be assessed. This repeat measurement function is also supported for other measurements.



Normal Measurement

Wide Dynamic Range Mode

The absolute value and On/Off ratio of carrier-off leakage power are measured. When the carrier-off level is low, measurement can be performed in the wide dynamic range mode.



Wide Dynamic Range Mode

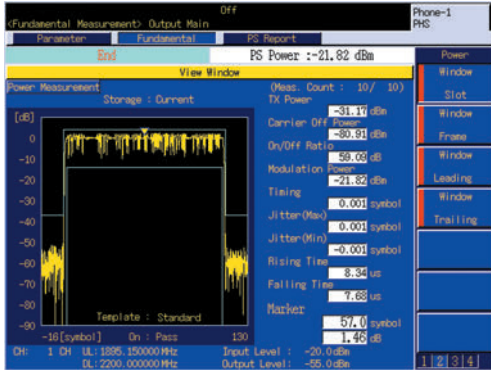
Modulation Accuracy

The frequency, frequency errors (kHz and ppm), modulation accuracy, phase error, amplitude error and origin offset of PHS terminals and base stations are measured simultaneously. A waveform display function is also provided.

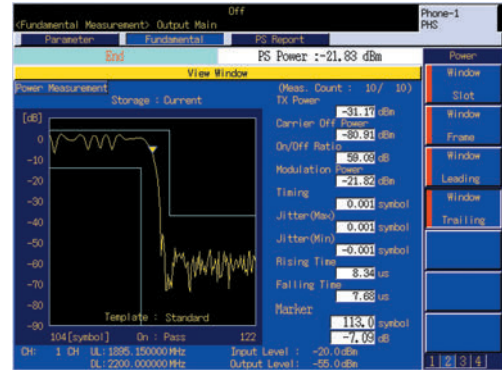


Burst Waveform Display

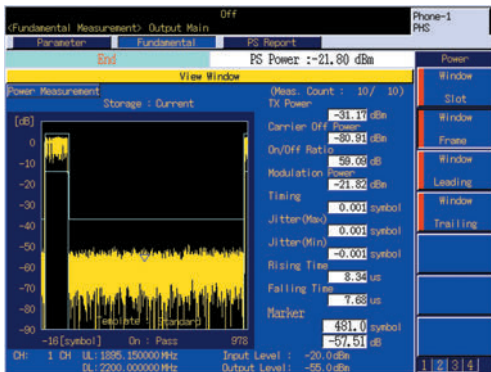
The burst waveform can be displayed graphically. Magnified display of the entire time slot and whole frame as well as the rising/falling edges enables users to easily check whether or not the burst waveform meets the PHS standard template.



Entire Time Slot



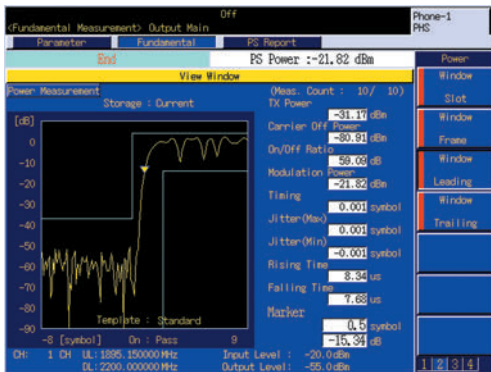
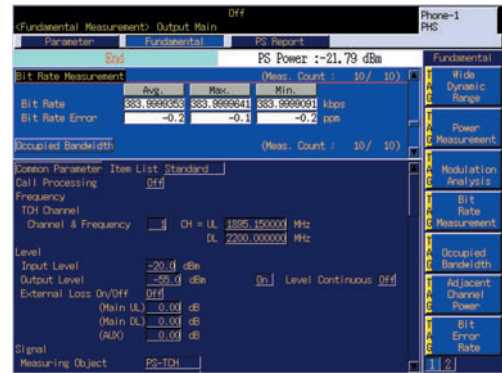
Falling Edge



Whole Frame

Transmission Rate

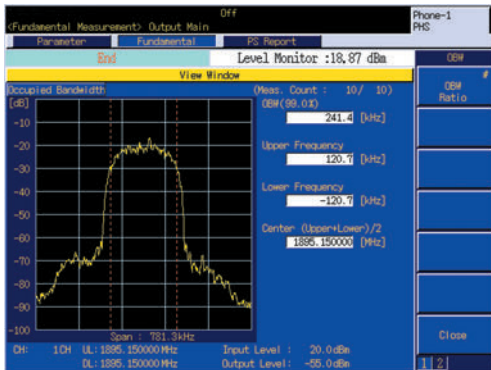
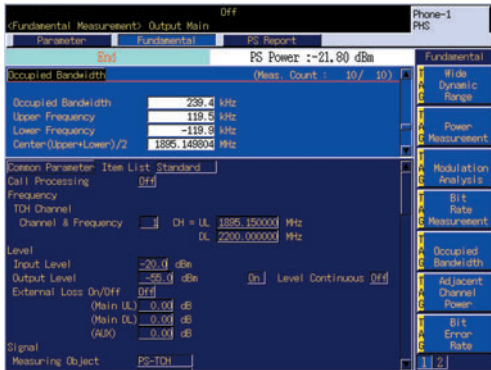
Transmission rate and transmission speed error of PHS terminals and base stations can be measured.



Rising Edge

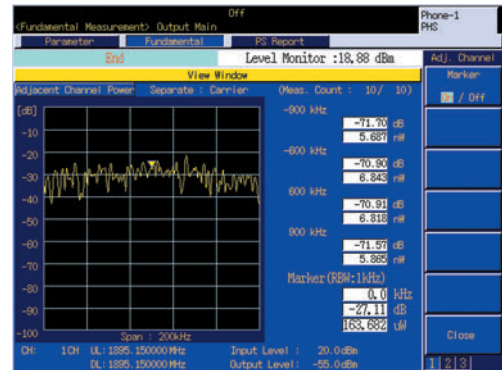
Occupied Bandwidth

Occupied bandwidth of PHS terminals and base stations is measured. The bandwidth ratio for total power can be changed within the range of 80.0 to 99.9%. Measurements can be performed in the high-speed mode. Waveform can be displayed in the normal mode.



Adjacent Channel Power

The adjacent channel power of PHS terminals and base stations is measured. The power spectrum is measured at four frequency points (-900, -600, +600, +900 kHz) offset from the carrier frequency. Advanced DSP technology and parallel processing of the power spectrum with other measurements enable high-speed measurement. And the waveforms can be displayed too.



Receiver Measurement

Bit Error Rate (BER)

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

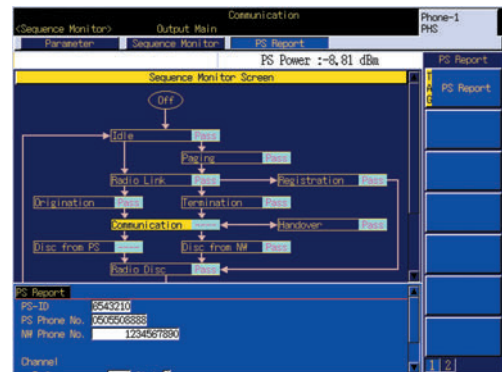


Bit Error Rate

Call Processing Function

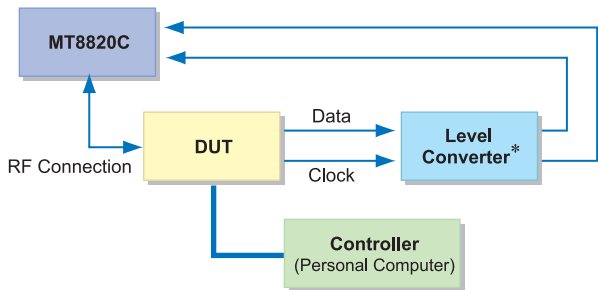
Connection Test

The call processing function supports various connection tests, including location registration, terminal call origination, network call origination, call communication, network disconnection, terminal disconnection, and handover. During a call, the user's voice can be echoed back from the PHS terminal to provide a simple voice communication test.



Connection with DUT

TRx Measurement



*: Provide by user

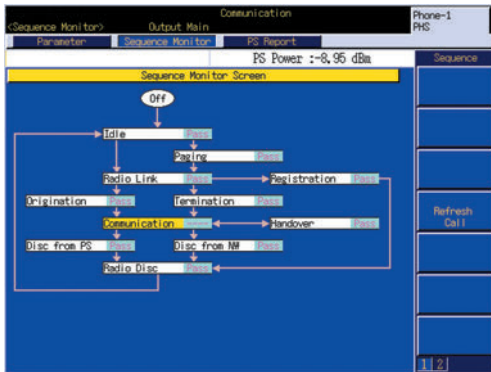
Mobile Terminal Report Monitor

Mobile terminal information reported by a PHS terminal is displayed on the screen. This information includes the identification code (PS-ID) and phone number of the PHS terminal, as well as the dial network number.



Sequence Monitor

The functions of a PHS terminal can be operated and verified using the call processing function. The MT8820C simulates the PHS base station and displays the sequence screen, so Pass/Fail results of the connection test for location registration, call origination, call termination, communication, handover (for THC switch type), network disconnection, terminal disconnection, etc., can be checked at a glance.



Measurement Result Evaluation Function

The upper and lower limits of the normal value can be specified for each item and Pass/Fail can be displayed for measurement results. This function is useful for identifying faults at service centers and repair depots.

Parameter	Fundamental	PS Report	Level Monitor :18.87 dBm	Fundamental
Total Judgement : Fail (Meas. Count : 10/ 10)				
Power Measurement (Meas. Count : 10/ 10)				
Tx Power	Avg: 9.52	Max: 9.53	Min: 9.51	dBm Pass
Carrier Off Power	8.950	8.964	8.935	dBm Pass
Carrier Off Power	-43.53	-43.42	-43.55	dBm Pass
Carrier Off Power	14.131	14.392	13.945	dBm Pass
On/Off Ratio	87.35	87.42	87.28	dB Pass
Modulation Power	18.88	18.87	18.88	dBm Pass
Timing	76.995	77.165	76.855	dBm Pass
Jitter	0.000	0.001	-0.002	symbol Pass
Rising Time	11.41	12.58	10.71	us Pass
Falling Time	11.65	12.72	9.35	us Pass
Teplate	Pass	Pass	Pass	Pass
Modulation Analysis (Meas. Count : 10/ 10)				
Carrier Frequency	Avg: 1335.1436578			MHz Pass
Carrier Frequency Error	Avg: -0.022	Max: 0.000	Min: -0.044	Hz Pass

Transmitter Test in Communication State

A transmission test can be performed in the communication state. As well as conducting evaluations during actual communications with the base station, transmission measurement can be performed regardless of restrictions on test controls, which vary with carrier and manufacturer. This function greatly improves production and maintenance efficiency.

Parameter	Fundamental	PS Report	Parameter	
PS Power :16.05 dBm (Meas. Count : 1/ 1)				
Power Measurement (Meas. Count : 1/ 1)				
Tx Power	Avg: 8.87	Max: 8.87	Min: 8.87	dBm
Carrier Off Power	8.833	8.833	8.833	dBm
Carrier Off Power	-49.35	-49.34	-49.34	dBm
Carrier Off Power	2.817	2.817	2.817	dBm
On/Off Ratio	71.88	71.88	71.88	dB
Modulation Power	16.04	16.04	16.04	dBm
Timing	40.195	40.195	40.195	dBm
Jitter	-0.678	-0.678	-0.678	symbol
Common Parameter Item List Standard				
Call Processing				
Frequency				
Channel & Frequency	71	CH = UL (1918.150000) MHz DL (1918.150000) MHz		
Channel & Frequency	81	CH = UL (1885.150000) MHz DL (1885.150000) MHz		
Level				
Test Level	15.0 dBm			



for Advanced PHS

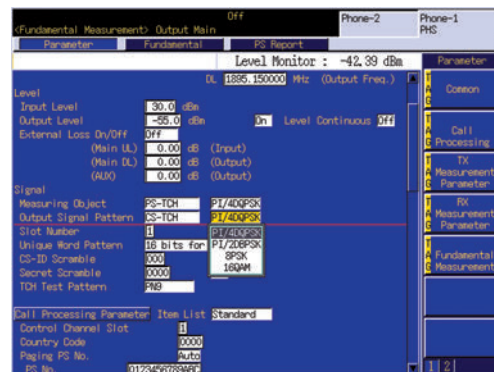
Advanced High-speed and Batch Measurement Methods Supporting Advanced PHS Base Station Production Lines

The MX882005C-011 Advanced PHS Measurement Software* is a software option to enable Advanced PHS measurements in compliance with the PHS measurement specification (ARIB RCR-STD-28 edition 5.0). It evaluates the transmitter and receiver characteristics of Advanced PHS terminals and base stations. Transmitter and receiver measurement is accomplished by installing the MX882005C-011 Advanced PHS Measurement Software in the MT8820C main frame and selecting the required modulation method from $\pi/4$ DQPSK, 8PSK, and 16QAM.

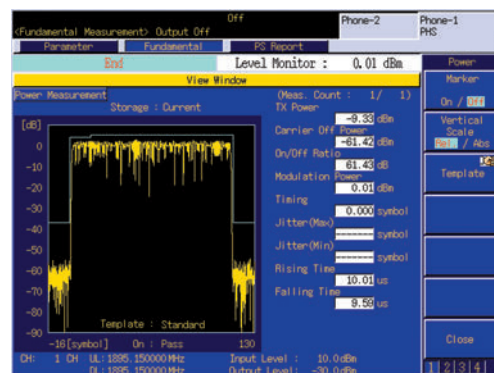
*: Requires MT8820C-002 and MX882005C

- Advanced PHS Measurement

Transmitter Tests	Output Power
	Modulation Accuracy
	Occupied Bandwidth
	Adjacent Channel Power
Receiver Tests	Transmission Rate
	Bit Error Ratio



Modulation Type Select Pop-up Window



Burst Waveform (Entire Time Slot: 8PSK)

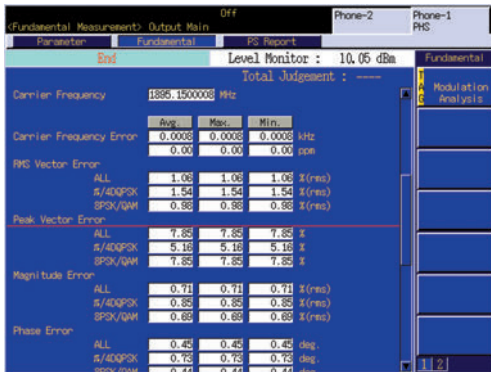
MX882005C-011 Advanced PHS Measurement Software

Transmitter Measurement

Modulation Accuracy

The frequency, frequency errors (kHz and ppm), modulation accuracy, phase error, amplitude error, and origin offset of Advanced PHS terminals and base stations are measured simultaneously.

A waveform display function is also provided.

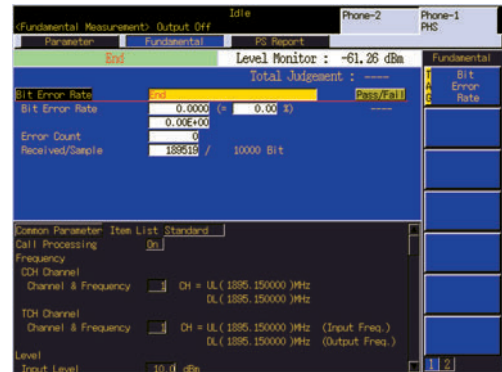


Receiver Measurement

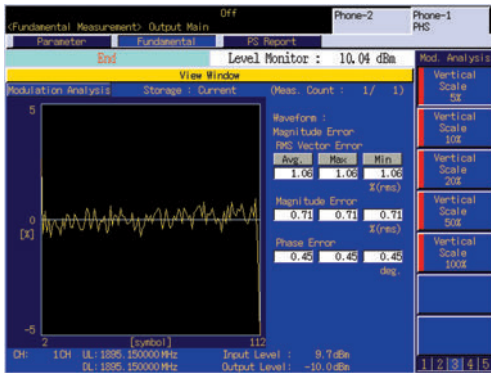
Bit Error Rate (BER)

The bit error rate can be measured on receipt of demodulation data and clocks output from an Advanced PHS terminal/base station by controlling the PHS terminal with an external PC etc.

This measurement can be performed in parallel with transmission measurement.



Bit Error Rate (8PSK)



The output power, wide dynamic range mode, burst waveform display, transmission rate, occupied bandwidth and adjacent channel power operations are similar to the MX882005C.

Call Processing Function

Connection Test

The call processing function enables various connection tests including location registration, terminal call origination, network call origination, call communication, network disconnection, terminal disconnection, and handover.

The added $\pi/2$ DQPSK voice communication function is based on the existing PHS standard (ARIB RCR-STD-28, $\pi/4$ DQPSK modulation). During a call, the user's voice can be echoed back from the advanced PHS terminal to provide a simple voice communication test.

The mobile terminal report monitor, sequence monitor, transmission test in communication state, and measurement result evaluation operations are similar to the MX882005C.

Specifications

• MT8820C-002 TDMA Measurement Hardware, MX882005C PHS Measurement Software

Frequency/Modulation	<p>Frequency: 300 MHz to 2.7 GHz</p> <p>Input level (Average power within burst, Main):</p> <ul style="list-style-type: none"> -30 to +40 dBm (Measurement object: PS-TCH, PS-SYNC, CS-TCH, CS-SYNC) -30 to +35 dBm (Measurement object: Continuous wave) <p>Carrier frequency accuracy: \pm (setting frequency x accuracy of the reference oscillator + 10 Hz)</p> <p>Modulation accuracy: \pm (2% of indicated value + 0.7%)</p> <p>Origin offset accuracy: \pm0.5 dB to signal level of -30 dBc</p> <p>Transmission rate: \pm1 ppm (Measurement range 384 kbps \pm100 ppm)</p>
Amplitude measurement	<p>Frequency: 300 MHz to 2.7 GHz</p> <p>Input level (Average in-burst power, Main):</p> <ul style="list-style-type: none"> -30 to +40 dBm (Measurement object: PS-TCH, PS-SYNC, CS-TCH, CS-SYNC) -30 to +35 dBm (Measurement object: Continuous wave) <p>Measurement accuracy (After calibration): \pm0.5 dB (-20 to +40 dBm), \pm0.7 dB (-30 to -20 dBm) *After calibration, 10° to 40°C</p> <p>Linearity: \pm0.2 dB (-40 to 0 dB, \geq -30 dBm)</p> <p>Carrier-off power measurement range:</p> <ul style="list-style-type: none"> \geq55 dB \geq (Magnitude measurement value [dBm] + 70) dB, (Wide dynamic range power measurement)
Occupied bandwidth	<p>Frequency: 300 MHz to 2.7 GHz</p> <p>Input level (Average in-burst power, Main):</p> <ul style="list-style-type: none"> -10 to +40 dBm (Measurement object: PS-TCH, PS-SYNC, CS-TCH, CS-SYNC) -10 to +35 dBm (Measurement object: Continuous wave)
Adjacent channel power	<p>Frequency: 300 MHz to 2.7 GHz</p> <p>Input level (Average in-burst power, Main):</p> <ul style="list-style-type: none"> -10 to +40 dBm (Measurement object: PS-TCH, PS-SYNC, CS-TCH, CS-SYNC) -10 to +35 dBm (Measurement object: Continuous wave) <p>Measurement range: \leq-60 dB (600 kHz offset), \leq-65 dB (900 kHz offset)</p>
RF signal generator	<p>Output frequency: 300 MHz to 2.7 GHz, 1 Hz step</p> <p>Modulation accuracy: \leq3% rms</p> <p>Modulation data: PN9, PN15</p>
Error rate	<p>Function: Bit error rate measurement</p> <p>Measurement object: Serial data inputted from the Call Proc. I/O terminal of a rear panel</p>
Call processing	<p>Call control: Location registration, Call origination, Call termination, Call communication, Network disconnection, Terminal disconnection, Handover</p>

• MT8820C-002 TDMA Measurement Hardware, MX882005C-011 ADVANCED PHS Measurement Software

Measurement object	<p>The specifications are the same as for the MX882005C. The measurement objects are as follows.:</p> <p>Measurement object:</p> <ul style="list-style-type: none"> PS-TCH ($\pi/4$DQPSK, $\pi/2$DBPSK, 8PSK, 16QAM) PS-SYNC ($\pi/4$DQPSK, $\pi/2$DBPSK) PS-SCCH ($\pi/2$DBPSK) CS-TCH ($\pi/4$DQPSK, $\pi/2$DBPSK, 8PSK, 16QAM) CS-SYNC ($\pi/4$DQPSK, $\pi/2$DBPSK) <p>* For modulation measurement</p> <p>Guaranteed only when no bias in symbol point when measurement object modulation type is 16QAM.</p>
Call processing	<p>Call control with $\pi/4$DQPSK or $\pi/2$DBPSK:</p> <ul style="list-style-type: none"> Location registration, Call origination, Call termination, Call communication, Network disconnection, Terminal disconnection, Handover

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
MT8820C	Main frame Radio Communication Analyzer
	Standard accessories
	Power Cord: 1 pc
	CF Card: 1 pc
	PC Card Adapter (For CF card): 1 pc
W3320AE	MT8820C Operation Manual (CD-ROM): 1 pc
	Options
MT8820C-017	Extended RF Hardware*1
MT8820C-001	W-CDMA Measurement Hardware
MT8820C-002	TDMA Measurement Hardware
MT8820C-007	TD-SCDMA Measurement Hardware
MT8820C-008	LTE Measurement Hardware
MT8820C-011	Audio Board
MT8820C-012	Parallel Phone Measurement Hardware
MT8820C-018	Extended RF 3.4 GHz to 3.8 GHz (requires MT8820C-017, MT8820C-119, or MT8820C-120)
MT8820C-101	W-CDMA Measurement Hardware Retrofit
MT8820C-102	TDMA Measurement Hardware Retrofit
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-119	Extended RF Hardware for SPM Retrofit
MT8820C-120	Extended RF Hardware for PPM Retrofit
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)
MX882000C-033	DC-HSUPA Measurement Software*2, *4 (requires MT8820C-001 (2 sets), MT8820C-012, MX882000C, MX882000C-011, MX882000C-021, MX882000C-031, MX882000C-032, MX882010C, MX882050C)
MX882000C-034	4C-HSDPA Measurement Software*2, *4 (requires MT8820C-001 (2 sets), MT8820C-012, MX882000C, MX882000C-011, MX882000C-021, MX882000C-031, MX882000C-032, MX882010C, 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)
MX882005C	PHS Measurement Software (requires MT8820C-002)
MX882005C-011	Advanced PHS Measurement Software (requires MX882005C)
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-012	TD-SCDMA HSDPA Evolution Measurement Software*2 (requires MT8820C-001, MT8820C-007, MX882007C, MX882007C-011)
MX882007C-021	TD-SCDMA HSUPA Measurement Software*2 (requires MT8820C-001, MT8820C-007, MX882007C, MX882007C-011)

Model/Order No.	Name
MX882010C	Parallel Phone Measurement Software*5 (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 2x2 MIMO DL*2, *6 (requires MT8820C-012 and MX882012C)
MX882012C-016	LTE FDD CS Fallback to W-CDMA/GSM*7 (requires MX882012C)
MX882012C-021	LTE-Advanced FDD DL CA Measurement Software*2, *8 (requires MT8820C-008 (2 sets), MT8820C-012, MX882010C, and MX882012C)
MX882012C-026	LTE-Advanced FDD DL CA IP Data Transfer*9 (requires MT8820C-008 (2 sets), MT8820C-012, MX882010C, MX882012C, MX882012C-006, MX882012C-021)
MX882012C-031	LTE-Advanced FDD DL CA 3CCs Measurement Software*2, *10 (requires MT8820C 2 sets. One is required MT8820C-008 (2 sets), MT8820C-012, MX882010C, MX882012C and MX882012C-021. The other is required MT8820C-008, MX882012C.)
MX882013C	LTE TDD Measurement Software*2 (requires MT8820C-008)
MX882013C-006	LTE TDD IP Data Transfer*2 (requires MX882013C)
MX882013C-011	LTE TDD 2x2 MIMO DL*2, *6 (requires MT8820C-012 and MX882013C)
MX882013C-016	LTE TDD CS Fallback to W-CDMA/GSM*11 (requires MX882013C)
MX882013C-018	LTE TDD CS Fallback to TD-SCDMA/GSM*11 (requires MX882013C)
MX882013C-021	LTE-Advanced TDD DL CA Measurement Software*2, *8 (requires MT8820C-008 (2 sets), MT8820C-012, MX882010C, and MX882013C)
MX882013C-026	LTE-Advanced TDD DL CA IP Data Transfer*9 (requires MT8820C-008 (2 sets), MT8820C-012, MX882010C, MX882013C, MX882013C-006, MX882013C-021)
MX882013C-031	LTE-Advanced TDD DL CA 3CCs Measurement Software*2, *10 (requires MT8820C 2 sets. One is required MT8820C-008 (2 sets), MT8820C-012, MX882010C, MX882013C, MX882013C-006, MX882013C-021. The other is required MT8820C-008, MX882013C.)
MX882032C	CDMA2000 Measurement Software Lite*2
MX882036C	1xEV-DO Measurement Software Lite*2
MX882036C-011	1xEV-DO Rev. A Measurement Software*2
MX882042C	LTE FDD Measurement Software Lite*2
MX882043C	LTE TDD Measurement Software Lite*2
MX882050C	W-CDMA Call Processing Software*2, *12 (requires MX882000C)
MX882050C-002	W-CDMA External Packet Data*2 (requires MX882050C)
MX882050C-003	W-CDMA Video Phone Test*2 (requires MX882050C)
MX882050C-007	W-CDMA Band XII, XIII, XIV, XIX, XX, XXI*2, *13 (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 (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
P0035B	W-CDMA/GSM Test USIM
P0035B7	W-CDMA/GSM Test USIM*14
P0135A6	Anritsu Test UICC GA (Nano UICC size)*15
P0135A7	Anritsu Test UICC GA (Micro UICC size)*15
P0250A6	Anritsu Test UICC GT (Nano UICC size)*15
P0250A7	Anritsu Test UICC GT (Micro UICC size)*15
P0260A6	Anritsu Test UICC GM (Nano UICC size)*15
P0260A7	Anritsu Test UICC GM (Micro UICC size)*15
P0135B6	Anritsu Test UICC GA (Nano UICC size)*15
P0135B7	Anritsu Test UICC GA (Micro UICC size)*15
P0250B6	Anritsu Test UICC GT (Nano UICC size)*15
P0250B7	Anritsu Test UICC GT (Micro UICC size)*15
P0260B6	Anritsu Test UICC GM (Nano UICC size)*15
P0260B7	Anritsu Test UICC GM (Micro UICC size)*15
A0058A	Handset

Model/Order No.	Name
J1195A J1249	PP2S Output Cable CDMA2000 Cable [D-Sub (15 pin, P-type) · D-Sub (15 pin, P-type), used in combination with J1267 (sold separately)]*16
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)] Cable*16
J1606A	Coaxial Cord, 1 m (N-P · 5D-2W · N-P)
J0576B	Coaxial Cord, 2 m (N-P · 5D-2W · N-P)
J0576D	Coaxial Cord, 1 m (BNC-P · RG58A/U · BNC-P)
J0127A	Coaxial Cord, 0.5 m (BNC-P · RG58A/U · BNC-P)
J0127C	Coaxial Cord, 0.5 m (BNC-P · RG58A/U · BNC-P)
J0007	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: MT8820C-017 has been a standard option that MT8820C are shipped with until July 2012 (Simultaneous order is required MT8820C and MT8820C-017).
- *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 2 units, contact your Anritsu sales representative.
- *4: MX882000C-033 (034) is required W-CDMA DC-HSDPA configuration.
- *5: The following measurement hardware supports the Parallelphone measurement option: MT8820C-001, MT8820C-002, MT8820C-007, MT8820C-008.
All the measurement hardware can be installed simultaneously.

- *6: MX882012C-011 is required MT8820C-012.
- *7: The MX882012C-016 LTE FDD CS Fallback to W-CDMA/GSM requires a separate MT8820C with the W-CDMA/GSM configuration. Contact your Anritsu sales representative for the CS Fallback function test configuration.
- *8: MX882012C (12C)-021 is required a Parallelphone measurement configuration of LTE FDD (TDD).
For Use MT8820C 2 units, contact your Anritsu sales representative.
- *9: MX882012C (13C)-026 function test is required external server PCs (2 sets).
LTE Advanced FDD (TDD) DL CA IP Data Transfer (2CCs, 2Layer) is required MT8820C LTE 2x2 MIMO DL configuration (2 sets) and external server PCs (2 sets).
- *10: One is required LTE FDD (TDD) ParallelPhone Configuration.
The other is required LTE FDD Single Phone Configuration.
For use MT8820C 3 units, contact your Anritsu sales representative.
A synchronized cable is required too.
- *11: The MX882013C-016 (018) LTE TDD CS Fallback to W-CDMA/GSM (TD-SCDMA/GSM) requires a separate MT8820C with the W-CDMA/GSM (TD-SCDMA/GSM) configuration. Contact your Anritsu sales representative for the CS Fallback function test configuration.
- *12: These options preinstall the integrity protection function.
- *13: MX882050C-007 supports W-CDMA Band 12, 13, 14, 19, 20, 21.
- *14: The P0035B7 MicroSIM is a cut-down P0035B W-CDMA/GSM Test USIM. The P0035B7 Test USIM is a microSIM. It CANNOT be used in a normal size USIM card slot. A commercial SIM adapter CANNOT be used with the P0035B7. If used, it may jam and break in the terminal.
- *15: Refer to the P0135Ax/P0250Ax/P0260Ax leaflet for details.
- *16: J1267 (J1606A) cable can use for LTE-Advanced DLCA synchronized cable.
Contact your Anritsu sales representative for details.

- Parallelphone™ is a registered trademark of Anritsu Corporation.
- CF® card is a registered trademark of SanDisk Corporation in the United States and is licensed to CFA (Compact Flash Association).



Specifications are subject to change without notice.

• United States

Anritsu Americas Sales Company

450 Century Parkway, Suite 190, Allen, TX 75013 U.S.A.
Phone: +1-800-Anritsu (1-800-267-4878)

• Canada

Anritsu Electronics Ltd.

700 Silver Seven Road, Suite 120, Kanata,
Ontario K2V 1C3, Canada
Phone: +1-613-591-2003
Fax: +1-613-591-1006

• Brazil

Anritsu Elettronica Ltda.

Praça Amadeu Amaral, 27 - 1 Andar
01327-010 - Bela Vista - Sao Paulo - SP, Brazil
Phone: +55-11-3283-2511
Fax: +55-11-3288-6940

• Mexico

Anritsu Company, S.A. de C.V.

Bldv Miguel de Cervantes Saavedra #169 Piso 1, Col. Granada
Mexico, Ciudad de Mexico, 11520, MEXICO
Phone: +52-55-4169-7104

• United Kingdom

Anritsu EMEA Ltd.

200 Capability Green, Luton, Bedfordshire, LU1 3LU, U.K.
Phone: +44-1582-433200
Fax: +44-1582-731303

• France

Anritsu S.A.

12 avenue du Québec, Bâtiment Iris 1- Silic 612,
91140 VILLEBON SUR YVETTE, France
Phone: +33-1-60-92-15-50
Fax: +33-1-64-46-10-65

• Germany

Anritsu GmbH

Nemetschek Haus, Konrad-Zuse-Platz 1,
81829 München, Germany
Phone: +49-89-442308-0
Fax: +49-89-442308-55

• Italy

Anritsu S.r.l.

Via Elio Vittorini 129, 00144 Roma, Italy
Phone: +39-6-509-9711
Fax: +39-6-502-2425

• Sweden

Anritsu AB

Isafjordsgatan 32C, 164 40 KISTA, Sweden
Phone: +46-8-534-707-00

• Finland

Anritsu AB

Teknobulevardi 3-5, FI-01530 VANTAA, Finland
Phone: +358-20-741-8100
Fax: +358-20-741-8111

• Denmark

Anritsu A/S

c/o Regus Winghouse, Ørestads Boulevard 73, 4th floor,
2300 Copenhagen S, Denmark
Phone: +45-7211-2200

• Russia

Anritsu EMEA Ltd.

Representation Office in Russia

Tverskaya str. 16/2, bld. 1, 7th floor.

Moscow, 125009, Russia
Phone: +7-495-363-1694
Fax: +7-495-935-8962

• Spain

Anritsu EMEA Ltd.

Representation Office in Spain

Paseo de la Castellana, 141. Planta 5, Edificio Cuzzo IV
28046, Madrid, Spain
Phone: +34-91-572-6761

• United Arab Emirates

Anritsu EMEA Ltd.

Dubai Liaison Office

902, Aurora Tower, P O Box: 500311- Dubai Internet City
Dubai, United Arab Emirates
Phone: +971-4-3758479
Fax: +971-4-4249036

• India

Anritsu India Private Limited

6th Floor, Indiqueb ETA, No.38/4, Adjacent to EMC2,
Doddanekundi, Outer Ring Road, Bengaluru – 560048, India
Phone: +91-80-6728-1300
Fax: +91-80-6728-1301

• Singapore

Anritsu Pte. Ltd.

11 Chang Charn Road, #04-01, Shriro House, Singapore 159640
Phone: +65-6282-2400
Fax: +65-6282-2533

• Vietnam

Anritsu Company Limited

Room No. 1635, 16th Floor, ICON 4 Tower, 243A De La Thanh Street,
Lang Thuong Ward, Dong Da District, Hanoi, Vietnam
Phone: +84-24-3760-6216
Fax: +84-24-6266-2608

• P.R. China (Shanghai)

Anritsu (China) Co., Ltd.

Room 2701-2705, Tower A, New Caohejing International
Business Center No. 391 Gui Ping Road Shanghai, 200233, P.R. China
Phone: +86-21-6237-0898
Fax: +86-21-6237-0899

• P.R. China (Hong Kong)

Anritsu Company Ltd.

Unit 1006-7, 10/F., Greenfield Tower, Concordia Plaza,
No. 1 Science Museum Road, Tsim Sha Tsui East,
Kowloon, Hong Kong, P.R. China
Phone: +852-2301-4980
Fax: +852-2301-3545

• Japan

Anritsu Corporation

8-5, Tamura-cho, Atsugi-shi, Kanagawa, 243-0016 Japan
Phone: +81-46-296-6509
Fax: +81-46-225-8352

• Korea

Anritsu Corporation, Ltd.

5FL, 235 Pangyoeyeok-ro, Bundang-gu, Seongnam-si,
Gyeonggi-do, 13494 Korea
Phone: +82-31-696-7750
Fax: +82-31-696-7751

• Australia

Anritsu Pty. Ltd.

Unit 20, 21-35 Ricketts Road, Mount Waverley, Victoria 3149, Australia
Phone: +61-3-9558-8177
Fax: +61-3-9558-8255

• Taiwan

Anritsu Company Inc.

7F, No. 316, Sec. 1, NeiHu Rd., Taipei 114, Taiwan
Phone: +886-2-8751-1816
Fax: +886-2-8751-1817