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Anritsu

MX882022A

CDMA2000 Wireless Application Test Software
(For MT8820A Radio Communication Analyzer)



For application test of CDMA2000 mobile terminals

MX882022A

CDMA2000 Wireless Application Test Software

The MX882022A CDMA2000 Wireless Application Test Software is designed for evaluating various applications incorporated in mobile terminals conforming to the 3rd generation system, CDMA2000 1x (IS-2000). It operates on the platform of MT8820A Radio Communication Analyzer.

Recent mobile terminals are evolving to multimedia communication terminals for such as voice communication, data communication and streaming, increasing evaluation time and cost. The MX882022A realizes the function to simulate each test of call processing, voice/data communication and short message service (hereafter abbreviated as "SMS") under the environment similar to actual network. This contributes to the improvement of work efficiency in evaluating terminal application software operation when executing various functions and tests of mobile terminals.

Call processing test: Functional test of location registration, origination, termination, network disconnect, terminal disconnect

Voice communication test: Functional test by echo-back of voice signal from a terminal inside MT8820A

Data communication test: Functional test of data communication such as still picture and motion picture between terminals and external server equipments via MT8820A

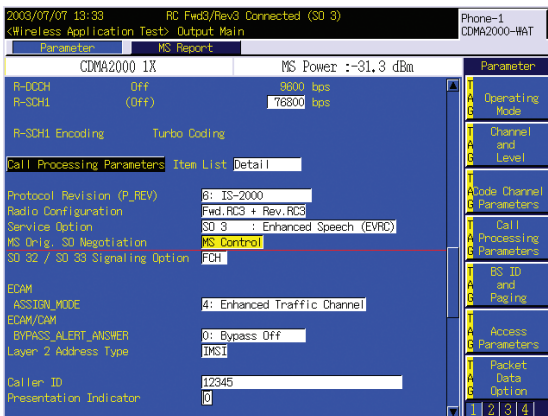
SMS test: Functional test of SMS communication under changing parameters such as Teleservice ID.

Others: Various functional test such as Call Waiting and Dormant



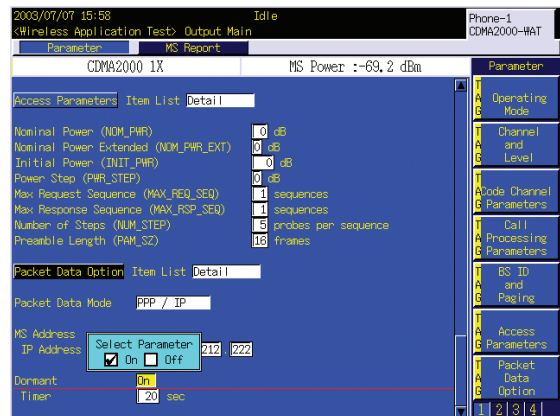
Call processing test

Call processing test is performable for such as location registration, origination, termination, terminal disconnect and network disconnect. Network/Terminal control can be selected for negotiation of Service Option. Also, in communication state, voice communication test is performable by echo back of voice from a terminal to down-link signal.



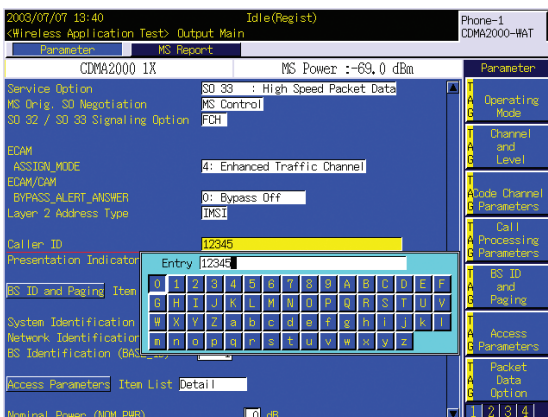
Dormant, Call Drop test

The state jumps to Dormant if packet data on traffic channel suspends for a period of time longer than preset timer value after data communication session. Also, Call Drop is detected after passing preset timer value if a call is disconnected without passing normal disconnection process in call processing state.



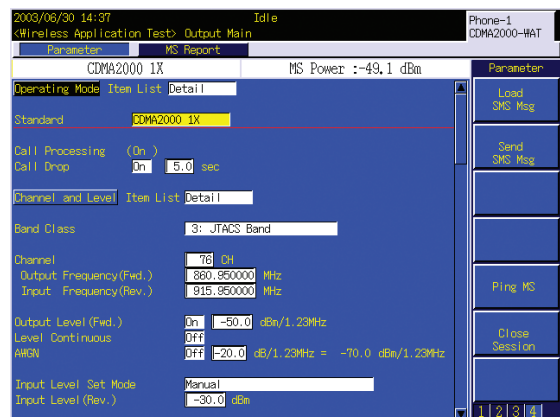
Caller ID, PI setup function

Caller's telephone number (Caller ID) can be set and transmitted to a mobile terminal, also, Presentation Indicator On/Off is selectable.



Data comm. session control

Restart of data communication in Dormant state (Ping MS) and suspension of compulsory session during data communication (Close Session) can be controlled on screen.

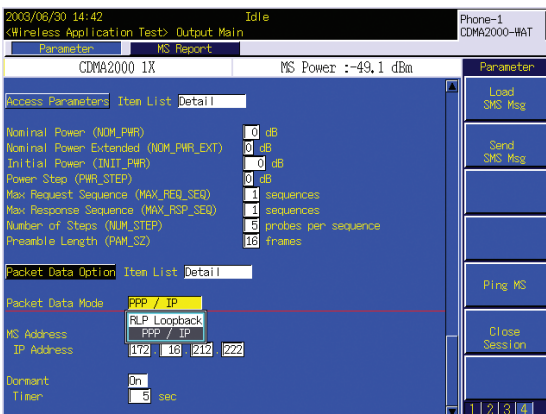


Data communication test function

Packet data transfer is performable between the local/network application server connected to Ethernet connector (10Base-T connector) in the rear of MT8820A mainframe and a terminal. Below 2 modes are supported as packet data transfer modes.

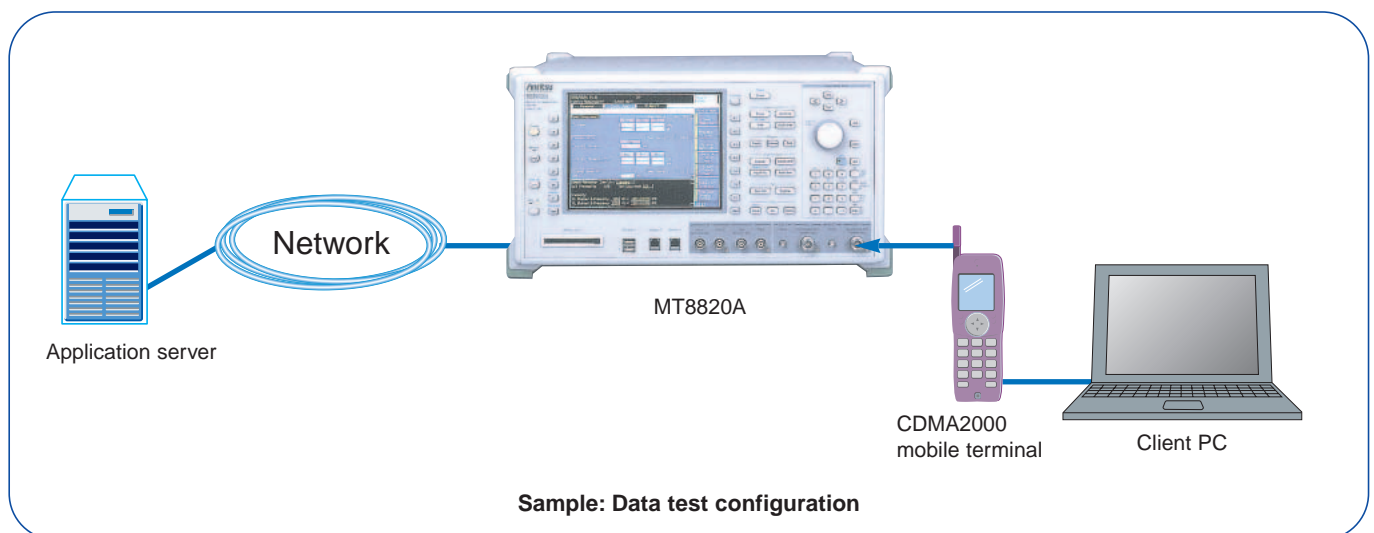
Data loop-back mode

RLP data unit received in Reverse Link is echoed back in RLP (Radio Link Protocol 3) stack inside MT8820A and transmitted in Forward Link.



IP data comm. mode

PPP connection is established with a CDMA2000 mobile terminal connected by RF and IP packet data can be transferred between a terminal and a network server. This enables various application tests using IP packet such as Web browsing and receiving mails by WAP. Furthermore, file transfer to the client PC via data port and data download test can be performed.



SMS test function

The WAT tool as a standard attachment software of MX882022A enables SMS test and Alert with Information.

SMS test

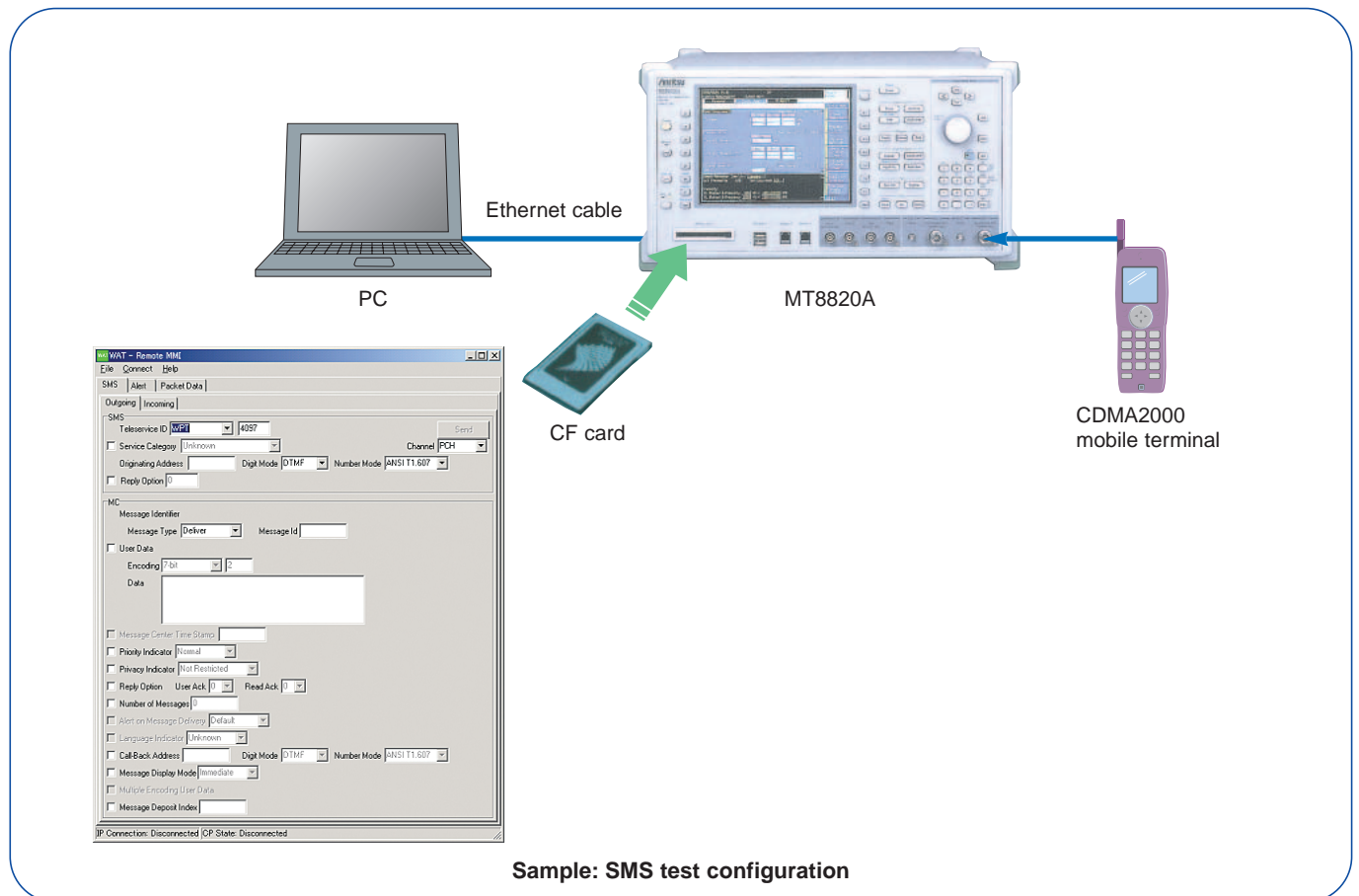
WAT tool is able to set parameters such as teleservice ID and service category, and edit the content of User Data. SMS data can be sent from a PC to a mobile terminal via MT8820A.

Also, it is able to perform the same test without a PC by saving the content edited by WAT tool in a CF card in the form of files, loading it on MT8820A and transmitting SMS data.

Alert with Information test

In a mobile terminal's communication state, interrupt transmission by WAT tool can be used for testing call-waiting function.

The caller's telephone number display On/Off can be set for interrupt-call.



Specifications

MX882022A CDMA2000 Wireless Application Test Software

RF signal generator	<p>Output frequency: 300 to 2200 MHz, 1 Hz step Channel level [relative level to Ior (total level)] Pilot channel: -30 to 0 dB, 0.25 dB step or Off FCH, SCH, DCCH: -30 to 0 dB, 0.1 dB step or Off SYNCH, PCH: -30 to 0 dB, 0.25 dB step or Off OCNS: Auto, 0.01 dB step or Off QPCH channel level (Relative level to pilot channel): -5 to +2 dB, 1 dB step or Off Channel level accuracy: $\leq \pm 0.2$ dB typ. (≥ -20 dB) PN offset: 0 to 511 can be set Waveform quality: > 0.99 (Pilot only, AWGN Off) AWGN AWGN level: -20 to +12 dB (relative level to CDMA signal) or Off Maximum output level of Ior at AWGN On: -28 dBm (at MAIN output), -18 dBm (at AUX output)</p>
Call processing	<p>Band class: BC0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 Call control: Location registration, Origination, Termination, Network disconnection, MS disconnection Paging channel data rate: Full Radio configuration: F-RC1 + R-RC1, F-RC2 + R-RC2, F-RC3 + R-RC3, F-RC4 + R-RC3, F-RC5 + R-RC4 Service option: SO 1, 2, 3, 6, 9, 15, 32, 33, 55, 32768 Fwd. FCH data rate: Full, half, quarter, eighth can be set for RC1 to RC5 Fwd. SCH: Max. 1 channel Fwd. SCH data rate RC 3: 9.6, 19.2, 38.4, 76.8, 153.6 kbps RC 4: 9.6, 19.2, 38.4, 76.8, 153.6 kbps RC 5: 14.4, 28.8, 57.6, 115.2, 230.4 kbps Access probe: Access channel usable Rev. closed loop power control modes: Closed loop, Alternate, All 0 (All up), All 1 (All down) Usable protocols: IS-95B, J-STD-008C, ARIB T-53, Korean PCS, IS-2000 (SR1)</p>
External packet data	<p>Service option: SO33 Radio configuration: F-RC3 + R-RC3, F-RC4 + R-RC3 Signaling Ch: FCH Supplemental Ch: Encoding: Convolutional, Turbo Data rates: 9.6, 19.2, 38.4, 76.8, 153.6 kbps RLP (Radio Link Protocol): RLP3 Packet data mode: RLP loopback, PPP/IP RLP loopback: The mode that RLP data unit received in Reverse Link is echoed back in RLP (Radio Link Protocol 3) stack inside MT8820A and transmitted in Forward Link. PPP/IP: The mode that IP packet data is transferred between mobile terminal and server equipment.</p>

Ordering Information

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

Model/Order No.	Name
MT8820A	Main frame Radio Communication Analyzer
	Standard accessories
	Power cord, 2.6 m: 1 pc
HB28B064C8H	CF card (64 MB): 1 pc
CA68ADP	PC card adapter: 1 pc
W1940AE	MT8820A operation manual (CD-ROM): 1 copy
	Options
MT8820A-01	W-CDMA measurement hardware
MT8820A-02	TDMA measurement hardware
MT8820A-03	CDMA2000 measurement hardware
MT8820A-11	Audio board
MT8820A-21	W-CDMA measurement hardware retrofit
MT8820A-22	TDMA measurement hardware retrofit
MT8820A-23	CDMA2000 measurement hardware retrofit
MT8820A-31	Audio board retrofit
	Softwares
MX882000B	W-CDMA Measurement Software (requires MT8820A-01 and MX882051A)
MX882000B-01	W-CDMA voice codec (requires MT8820A-11 and MX882000B)
MX882001A	GSM Measurement Software (requires MT8820A-02)
MX882001A-01	GSM voice codec (requires MT8820A-11 and MX882001A)
MX882001A-02	GSM external packet data (requires MX882001A)
MX882002A	CDMA2000 Measurement Software (requires MT8820A-03)
MX882002A-02	CDMA2000 external packet data (requires MX882002A)
MX882004A	PDC Measurement Software (requires MT8820A-02)
MX882022A	CDMA2000 Wireless Application Test Software (requires MT8820A-03)
MX882051A	W-CDMA Call Processing Software* (requires MX882000B)
MX882051A-02	W-CDMA external packet data* (requires MX882051A)
MX882051A-03	W-CDMA video phone test* (requires MX882051A)
MX882071A	W-CDMA Ciphering Software* (requires MX882051A)

*: For W-CDMA terminal connectivity, contact your Anritsu sales representative.

Model/Order No.	Name
W2161AE	MX882000B operation manual (CD-ROM, attached to MX882000B)
W2026AE	MX882001A operation manual (CD-ROM, attached to MX882001A)
W2104AE	MX882002A operation manual (CD-ROM, attached to MX882002A)
W2159AE	MX882004A operation manual (CD-ROM, attached to MX882004A)
W2230AE	MX88207xA operation manual (CD-ROM, attached to MX88207xA)
W2247AE	MX882022A operation manual (CD-ROM, attached to MX882022A)
	Warranty
MT8820A-90	Extended three year warranty service
MT8820A-91	Extended five year warranty service
	Application parts
P0019	TEST USIM001
A0012	Handset
J0576B	Coaxial cord (N-P · 5D-2W · N-P), 1 m
J0576D	Coaxial cord (N-P · 5D-2W · N-P), 2 m
J0127A	Coaxial cord (BNC-P · RG58A/U · BNC-P), 1 m
J0127C	Coaxial cord (BNC-P · RG58A/U · BNC-P), 0.5 m
J0007	GPIB cable, 1 m
J0008	GPIB cable, 2 m
MN8110A	I/O Adapter (for call processing I/O)
B0332	Joint plate (4 pcs/set)
B0333G	Rack mount kit
B0499	Carrying case (hard type, with protective cover and casters)
B0499B	Carrying case (hard type, with protective cover, without casters)
W1943AE	MT8820A operation manual (booklet)
W2162AE	MX882000B operation manual (booklet)
W2027AE	MX882001A operation manual (booklet)
W2100AE	MX882002A operation manual panel operation (booklet)
W2101AE	MX882002A operation manual remote control (booklet)
W2160AE	MX882004A operation manual (booklet)
W2231AE	MX88207xA operation manual (booklet)
W2245AE	MX882022A operation manual panel operation (booklet)
W2246AE	MX882022A operation manual remote control (booklet)



Specifications are subject to change without notice.

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