ShibaSoku®

MW777A

COMMUNICATION INSTRUMENTS

WIRELESS NETWORK ANALYZER

General

- The MW777A is used to analyze and maintain WCDMA 3G cellular networks.
- Supports both 3GPP Release 1999 and Release 4 standards.
- Performs MAC layer analysis.
- Performs protocol analysis ofboth up link and down link communications. (*1)

Features

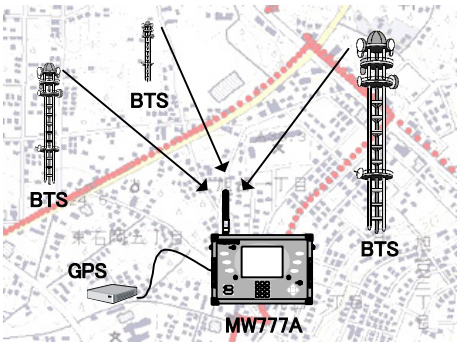
- Lightweight design issuitable for use in the field.
- Suitable for investigation of area transmission characteristics for both network planning and BTS maintenance.
- Dual batteries allow up to12 hours of continuous operation. (*1: With optional long-life battery)

Note: *1 Optional function

Multiple use

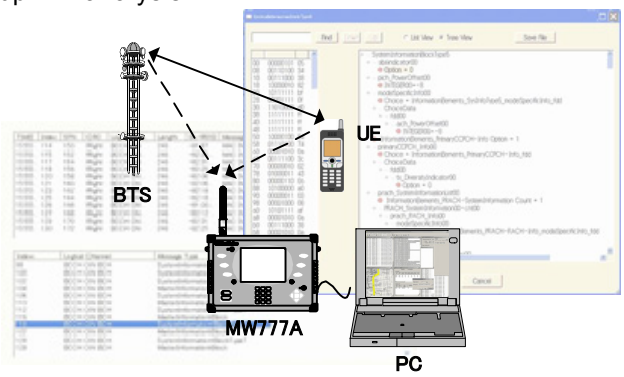
- Area investigation

  Can scan up to 512 BTSes at high speed using a high performance RF module and custom algorithms. Reception resistant to phasing and multi-path is made possible by the adoption of high-precision correlation.



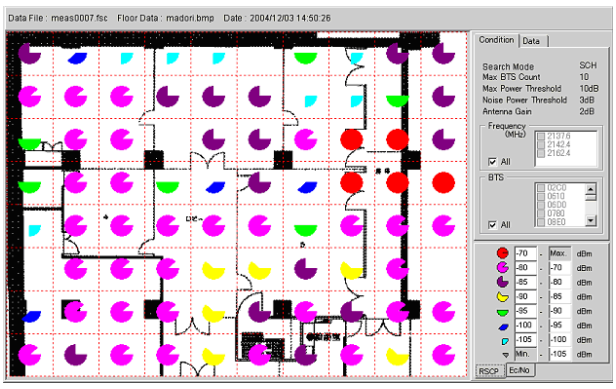
- Protocol analysis

  Communication between a BTS and a UE can be analyzed. PC-based software supports MAC layer (BCCH-BCH) analysis.
  Translation of the Master Information Block supports up link analysis.



- Floor plan manager

  The MW777A's patended interior floor planner maps signal strength inside department stores, train station, even underground, without GPS, using floor maps downloaded from a PC.



Measurement samples

- Area investigation

  This mode, used to look for an unknown BTS, searches CPICH. It measures the scramble code of the BTS, RSCP and Ec/No.

BTS MEASUREMENT

SCAN | DELAY | SCH | PHY CH

Search Mode	SCH
Max BTS Count	010
Max Power Threshold	26dB
Noise Power Threshold	03dB
Center Frequency	Multi

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CODE:	FREQ:	RSCP:	Ec/No
0B20	2162.4MHz	-93.9dBm	-9.6dB
0EA0	2162.4MHz	-97.9dBm	-13.7dB
0FA0	2162.4MHz	-98.0dBm	-14.0dB
1120	2162.4MHz	-102.4dBm	-18.5dB
0780	2142.4MHz	-93.3dBm	-18.6dB
0CE0	2142.4MHz	-92.8dBm	-18.3dB
0D20	2142.4MHz	-90.5dBm	-16.1dB
1230	2142.4MHz	-88.3dBm	-13.9dB
0780	2137.6MHz	-90.6dBm	-17.3dB

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Measurement samples

SCH delay profile measurement

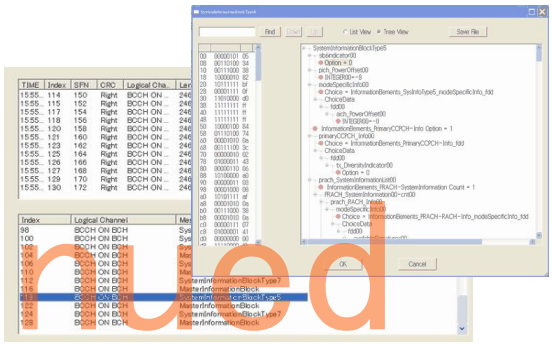
This is the relative delay between BTSes. Highly accurate measurement with a resolution of 0.5 chip is possible.

Finger display

Multi-path information on a specific BTS can be displayed. Up to 15 paths can be displayed. When the diversity mode is enabled, the condition of each antenna input can be indicated.

MAC layer analysis function

The MAC layer can be analyzed by connecting the MW777A to a Windows PC. Captured data can be displayed in detail, translating protocol fields into human-readable form. Optional software also analyzes the up/down link.

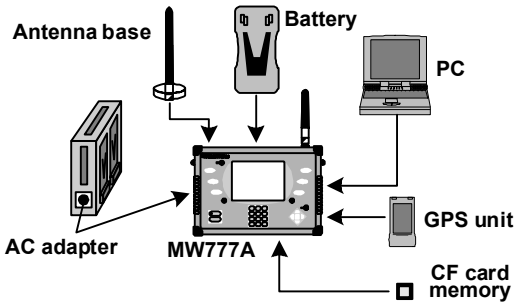


Specifications

Specifications

Frequency range	Downlink 2110 to 2170 MHz Uplink 1920 to 1980 MHz Resolution 200 kHz
Input impedance	50 ohm （TNC-J connector）
Reception signals	Physical channel P-SCH, S-SCH, P-CPICH, S-CPICH, P-CCPCH, S-CCPCH, AICH, PICH, PRACH, DPDCH, DPCCH, DPCH Transport channel BCH,FACH,PCH,RACH,DCH Logical channel BCCH/BCH, BCCH/FACH, CTCH, CCCH, PCCH, DCCH (Include option)
RSCP measurement range	-25 to -120 dBm, +/-2.0 dB -25 to -125 dBm, +/-3.0 dB
RSSI measurement range	Downlink -25 to -95 dBm, +/-2.0 dB -25 to -100 dBm, +/-4.0 dB Uplink 0 to -95 dBm, +/-3.0 dB
Measurement items	Measurement item RSCP, Ec/No, SIR Search mode CPICH mode, SCH mode Measurement mode Unspecified BTS measurement Specified BTS measurement Finger display SCH delay profile Code domain power P-CPICH delay profile MAC layer analysis mode BTS Channels Max. 512 Channels Chip resolution 0.5 Chip
General specifications	290(W) x 230(H) x 83(D) mm (without cable, anntena) Approx. 2.5 kg (without battery)

Configurations



Ordering information

1K3MW777A000	MW777A Wireless Network Analyzer (Main frame)
	Accesaries: AC adaptor and charger
	Li-Ion battery (E-50)
	Antenna and antenna base
	LAN cable
	Shoulder belt
	DC power code
[Options]	User's manual
1K3MW777A002	Protocol analysis software
40G000000038	VL-2PLUS (AC adapter)
40BT00000003	Li-Ion battery (E-50)
40BT00006001	Li-Ion battery (E-80)
40A000006001	Antenna for WCDMA band
40J000006001	Magnet antennabase (TNC connector)
40J000006002	TNC/P to SMA/J adapter
608200006005	Hard type carrying case

MW777A.2.07.YC

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