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MX880160A Protocol Monitor Software

The Protocol Monitor is a powerful analysis tool for monitoring protocol traffic between any cdma2000 1xRTT mobile station and an Anritsu 1xRTT Radio Communication Analyzer. This software runs on a PC under the Microsoft Windows[™] operating system and is available as an option to the MT8801C, MT8801C1, or MT8802A Radio Communication Analyzers. It may also be used as a stand-alone tool to analyze previously logged files.

This useful tool decodes complex cdma2000[™] messages automatically. It allows the user to view messages unpacked and decoded or in their raw packed state. The monitor validates each field in the message and can be set to detect and flag errors. The Protocol Monitor is exceptionally useful for software development or troubleshooting for any cdma2000[™] 1xRTT mobile station project. Development cycles and time to market can be minimized with this practical tool in the developer's toolbox.

Message files can be viewed in real time or stored and analyzed later. Optional connection to an analyzer is made via the Ethernet ports on the PC and analyzer. This port is standard on all Anritsu Radio Communication Analyzers with the 1xRTT Option. Messages can be monitored or logged from Ethernet-connected analyzers from any PC connected to the LAN or from anywhere via the Internet.

A search function permits easy review of message logs. This is an indispensable tool for rapid identification of problems with protocol implementations, message sequence numbering, message formatting, message flow, and race conditions. A variety of display options allows flexibility in displaying messages: Forward paging, forward traffic, reverse paging, and reverse traffic channel messages may be independently selected or de-selected for display. Overhead messages can be ignored, logged but not displayed, or displayed and logged. The choice is yours.

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	r-dech revers	e dedicated signa	ling logical c	hannel	
issage: τνειαπισοι είστησαια ciass ο οπιγή (τνείνη)	-	_		1	1
CDMA Channel List (CCLM)	Name		th Value (dec)	Value (hex)	Value
Extended System Parameters (ESPM)	MSG_LENGTH	8	7	7	7
System Parameters (SPM)	MSG_TYPE	8	1	1	Order (ORDM)
Access Parameters (APM)	ACK_SEQ	3	3	3	3
General Page (GPM)	MSG_SEQ	3	0	0	0
General Page (GPM)	ACK_REQ	1	0	0	0
General Page (GPM)	ENCRYPTION	2	0	0	0
General Page (GPM)	ORDER	6	16	10	Mobile Station Acknowledgment Order
General Page (GPM)	ADD_RECORD	LEN 3	0	0	0
General Page (GPM)	PDU PADDING		õ	ů.	0
Neighbor List (Band Class 0 only) (NLM)	CRC	16	25119	621f	0x621F
CDMA Channel List (CCLM)	CHC	10	20110	0211	000211
Extended System Parameters (ESPM)					
Page Response Message (PRM)					
Extended Channel Assignment (ECAM)					
SSD Update (SSDUM)					
SSD Update (SSDUM)					
SSD Update (SSDUM)					
SSD Update (SSDUM)					
System Parameters (SPM)					
Extended Supplemental Channel Assignment (ES					
Extended Supplemental Channel Assignment (ES					
Access Parameters (APM)					
Neighbor List (Band Class 0 only) (NLM)					
Base Station Acknowledgment Order	1				
Mobile Station Acknowledgment Order					
CDMA Channel List (CCLM)					
Extended System Parameters (ESPM)	0407016020006	21F			
System Parameters (SPM)	0000: 04 07	01 60 20 00 62	1F		:`.b.
Service Connect (SCM)	00000. 04 07	01 00 20 00 02			
Access Parameters (APM)	-1				

Minimum Requirements to Run Software

- PC with Windows[™]98 or Windows[™]2000 Operating System
- Available USB Port
- USB Hardware Key (Included with MX880160A from Anritsu)
- Pentium III Processor or equivalent: 200 MHz min, 450 MHz recommended
- RAM: 64 MB min, 128 MB recommended
- Hard Disk Space Available: 15 MB, min

Requirements for Optional Real-Time Monitoring or Data Collection

(not required for analyzing previously recorded log files)

- Ethernet Port on PC
- · Anritsu Radio Communication Analyzer (any of the following three models):
 - MT8801C with MT8801C-20 or -21 1xRTT Hardware Options (order number for the Americas)
 - MT8801C1 with MT8801C-20 or -21 1xRTT Hardware Options (order number for the rest of the world)
 - MT8802A Upgraded from IS-95 with MT8802A-21 **1xRTT Hardware Option**
- MX880121A 1xRTT Measurement Software Option (v1.10 or higher)

Commercial Information

- MX880160A is compatible with all Anritsu Radio Communication Analyzers listed above.
- MX880160A includes software and user manual on CD-ROM and USB hardware key.
- The software may be installed on multiple computers without a site license.
- · The USB hardware key is required for operation of the Protocol Monitor on any specific computer.
- · Demonstration hardware keys are available for loan -Contact your local Anritsu sales representative.
- Demonstration loaners have 100% of the functionality of the licensed Protocol Monitor.



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