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# MMCModem™ CDMA

## Embedded Cellular Modem



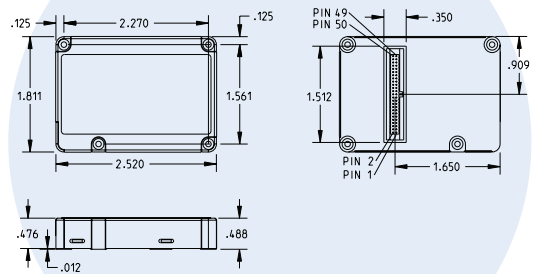
The MMCModem™ CDMA cellular modem offers standards-based multi-band CDMA2000 1xRTT performance. Packaged in a compact, rugged industrial chassis, this quick-to-market communications device allows developers to add wireless communication to products with a minimum of development time and expense. The MMCModem CDMA cellular modem is based on industry-standard open interfaces and can be board-to-board or board-to-cable mounted.

### Features

- CDMA2000 1xRTT
- Qualcomm MSM6050 chipset
- CDMA IS-95A, IS-95B backwards compatible
- Dual-band 800/1900 MHz CDMA
- Packet data up to 153.6K bps forward and reverse
- Circuit-switched data up to 14.4K bps
- Short Message Services (SMS)
- Supports DTMF, AMPS Voice, QCELP (13K) and echo cancellation
- Compatible with supplementary services
- Advanced management features include phone book management, fixed dialing number, real time clock and alarm management
- MMCX antenna connector
- Board-to-board or board-to-cable mounting
- Serial interface supports DTE speeds to 230K bps
- AT command compatible
- Two-year warranty

### Benefits

- Compact, rugged industrial chassis
- Board-to-board or board-to-cable mounting
- Quick time-to-market
- Carrier approved



## Highlights

**Applications.** With packet data speeds up to 153K bps, the MMCModem CDMA cellular modem is targeted at applications that periodically need to send or receive data over a wireless network. It is an ideal solution for:

- Appliances
- ATM terminals
- Automotive
- Data collection
- Gas pumps
- Industrial and medical remote monitoring systems
- Remote diagnostics
- Remote metering
- Security systems
- Vending/gaming machines
- Other devices requiring wireless connectivity

**Reduces Development Time.** The MMCModem CDMA cellular modem enhances your product while you focus on developing its core features. It actually provides faster time-to-market because it relieves the burden and expense of obtaining CDG 1 and 2 network and RF approvals.

**Integration Reduces Space, Power and Cost.** The MMCModem CDMA cellular modem integrates the controller, RF transceiver, and antenna interface into one compact unit. This integration requires low power, low real estate and provides an overall reduction in costs.

**MMCModem Pin-Out.** The MMCModem CDMA cellular modem interfaces easily with existing products through a standard serial communication channel. The serial DTE channel is capable of transfer speeds to 230K bps and can be interfaced directly to a UART or microcontroller. The complete on-board RF transceiver interfaces with an antenna for direct connection to wireless SMS, circuit-switched dial-up, or packet data networks. It can be board-to-board or board-to-cable mounted.

**Developer's Kit.** The Developer's Kit allows you to plug in the communications device and use it for testing, programming and evaluation. The kit includes one development board with RS-232 DB-25 connector, universal power supply, antenna and RS-232 cable.

### Pin Connector

GND	1	2	GND
+5V	3	4	+5V
CT109/DCD	5	6	GND
GPI04	7	8	SPK2N
CT125/RI	9	10	SPK2P
Flashing LED	11	12	SPK1P
CT106/CTS	13	14	SPK1N
ON/-OFF	15	16	MIC2P
AUXV0	17	18	MIC2N
~RST	19	20	MIC1P
GND	21	22	MIC1N
BOOT	23	24	GND
CT103/TX	25	26	GPI00
CT107/DSR	27	28	CT104/RX
CT108-2/DTR	29	30	CT105/RTS
COL3	31	32	COL4
COL1	33	34	COL2
ROW4	35	36	COL0
ROW2	37	38	ROW3
ROW0	39	40	ROW1
NC	41	42	SPI_EN
SPI_JO	43	44	SPI_CLK
SIMCLK	45	46	SIMRST
SIMVCC	47	48	SIMPRES
SIMDATA	49	50	GPO0

## Specifications

### Packet Data Features

CDMA2000 1xRTT, up to 153K bps forward & reverse channels

### Circuit Switched Data/Fax Features

IS-95A, IS-95B up to 14.4K bps

### SMS Features

Text & PDU, Point-to-Point, cell broadcast

### Connectors

50-pin

Antenna: MMCX

### Power Requirements

5VDC; 400mA typical, 700mA maximum

### Physical Description

2.5" w x 1.8" h x 0.48" d; 2.8 oz.

(6.4 cm x 4.6 cm x 1.2 cm; 79 g)

### Operating Environment

-30° to +70° C

### Certifications

EMC: FCC Part 2, 15, 22, 24, EN 55022, EN 55024

Safety: cUL, EN 60950, UL 60950

Network: CDG 1 & 2

## Ordering Information

Product	Description	Region
MTMMC-C*	800/1900 MHz CDMA2000 1xRTT	Regional

Ordering Codes	Description
-N2	For Sprint Networks
-N3	For Verizon Networks

\* Use ordering codes for specific build options. Go to [www.multitech.com](http://www.multitech.com) for detailed product model numbers.

Made in Mounds View, MN, U.S.A.

Features and specifications are subject to change without notice.

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