



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# MultiModem<sup>®</sup> Cell



## Cellular Modems

The MultiModem<sup>®</sup> Cell family of cellular modems offers a full range of options including 2G and 3G models with GSM or CDMA technologies. Each MultiModem Cell modem is fully certified and carrier approved, allowing customers to get to market extremely fast and benefit from M2M connectivity sooner. Multi-Tech products are specifically designed for M2M applications thus they are durable, stable, reliable, and easy to deploy. In addition, the MultiModem Cell is available with interface options to cover a wide variety of application needs.

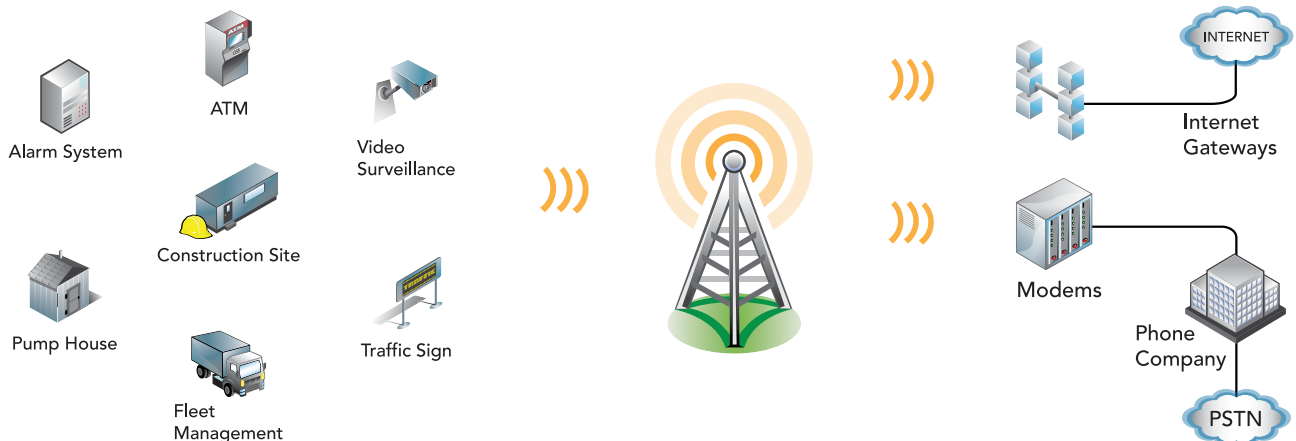


### Features

- 3G and 2G models available
- GSM and CDMA models available
- Models with USB connector
- Models with Serial connector
- Configured using AT commands
- FCC, PTCRB, Industry Canada, and R&TTE certified
- Carrier approved
- Two-year warranty

### Benefits

- Quick deployments to shorten time to market
- Long and stable life cycles
- Certified and carrier approved





## Specifications

Models	MTCBA-H5	MTCBA-E1
		
Performance	HSPA+	EDGE: E-GPRS Class 12 GPRS: Multislot Class 12
Frequency Band	Penta-band 850/900/1700/1900/2100 MHz	Quad-band 850/900/1800/1900 MHz
Packet Data*	HSDPA data service of up to 21.0 Mbps HSUPA data service of up to 5.76 Mbps	EDGE: E-GPRS up to 240K bps, coding scheme MCS1-9, mobile station Class B, LLC layer, 4 time slots GPRS: Full PBCCH support, coding scheme 1-4, mobile station Class B
Circuit Switched Data	N/A	Up to 14.4 Kbps, non-transparent
SMS	Text & PDU, Point-to-Point, Cell broadcast	
RF Antenna Connector	50 ohm SMA (female connector)	
SIM Connector	Standard 1.8 and 3V SIM receptacle	
USB Connector	Type B	
RS-232 Connector	DE9	DE9
Power Connector	2.5mm miniature (screw-on)	2.5mm miniature (screw-on)
Voltage	9V to 32V DC (serial only) 5.0V (USB input voltage supplied by USB connector)	9V to 32V DC (serial only) 5.0V (USB input voltage supplied by USB connector)
Physical Dimensions (L x W x H)	2.35" x 4.11" x 1.07" (8.6cm x 12.5cm x 2.7cm)	2.35" x 4.11" x 1.07" (8.6cm x 12.5cm x 2.7cm)
Physical Weight	0.4 lbs 0.175 Kg	0.4 lbs 0.175 Kg
Chassis Type	Aluminum	
Operating Temperature**	-22°to +167° F (-30° to +75° C)	-31° to +167° F (-35° to +75° C)
Storage Temperature	-40° to +185° F (-40° to +85° C)	
Humidity	Relative humidity 20% to 90% noncondensing	
EMC Compliance Certifications	FCC Part 15, EN55022, EN55024	FCC Part 15, EN55022, EN55024
Radio Compliance Certifications	FCC Part 22, 24, RSS132, 133, EN301 489-1, EN301 489-7, EN301 489-24	FCC Part 22, 24, RSS132, 133, EN301 489-1, EN301 489-7, EN301 511, AS/ACIF S042.1, S042.3
Safety Certifications	UL/cUL 60950-1 2nd Ed, IEC60950-1:2nd Ed am.1	
Network Certifications	PTCRB	

## Specifications

Models	MTCBA-G2	MTCBA-C1
		
Performance	GPRS Class 10	CDMA2000 1xRTT
Frequency Band	Quad-band 850/900/1800/1900 MHz	Dual-band 800/1900 MHz
Packet Data*	Up to 85.6K bps, coding schemes CS1 to CS4	Up to 153.6K bps forward and reverse
Circuit Switched Data	Up to 14.4 Kbps, transparent and non-transparent	IS-95A, IS-95B up to 14.4K bps forward and reverse
SMS	Text & PDU, Point-to-Point, Cell broadcast	
RF Antenna Connector	50 ohm SMA (female connector)	
SIM Connector	Standard 1.8 and 3V SIM receptacle	NA
USB Connector	Type B	
RS-232 Connector	DE9	
Power Connector	2.5mm miniature (screw-on)	
Voltage	9V to 32V DC (serial only) 5.0V (USB input voltage supplied by USB connector)	
Physical Dimensions (L x W x H)	2.35" x 4.11" x 1.07" (8.6cm x 12.5cm x 2.7cm)	
Physical Weight	0.4 lbs 0.175 Kg	
Chassis Type	Aluminum	
Operating Temperature**	-40° to 185° F	
Storage Temperature	-40°to 185° F	
Humidity	Relative humidity 20% to 90% noncondensing	
EMC Compliance Certifications	FCC Part 5, EN55022, EN55024	FCC Part 15
Radio Compliance Certifications	FCC Part 22, 24, RSS132, 133, EN301 489-1, EN301 489-7, EN301 511, AS/ACIF S042.1, S042.3	FCC Part 22, 24, RSS132, 133
Safety Certifications	UL60950-1, cUL60950-1, IEC60950-1, AS/NZS60950-1	UL60950-1, cUL60950-1, IEC60950-1
Network Certifications	PTCRB, GCF	N/A

\* Actual performance speeds may be affected by a variety of attributes such as cell tower distance, data loads, packet sizes, etc.

\*\*UL Listed @ 40°C, limited by power supply. UL Certification does not apply or extend to an ambient above 40°C and has not been evaluated by UL for ambient greater than 40°C. "UL has evaluated this device for use in ordinary locations only. Installation in a vehicle or other outdoor locations has not been evaluated by UL. UL Certification does not apply or extend to use in vehicles or outdoor applications or in ambient above 40°C."

## Highlights

### Applications

The MultiModem Cell cellular modems are ideal for automated M2M applications, such as remote diagnostics and remote monitoring, which periodically need to send or receive data over a wireless network.

### Voice Features

All of the 2G models provide telephony and Dual Tone Multi Frequency functionality, as well as QCELP (13K) and echo cancellation. The MTCBA-H3 does not support voice functionality.

## Ordering Information

### GSM Products

Product	Description	Bundle Available	Region
MTCBA-H5	HSPA+ Cellular Modem with Serial Connector	Yes*	Global
MTCBA-H5-U	HSPA+ Cellular Modem with USB Connector	Yes**	Global
MTCBA-E1	EDGE Cellular Modem with Serial Connector	Yes*	Global
MTCBA-E1-U	EDGE Cellular Modem with USB Connector	No	Global
MTCBA-G2	GPRS Cellular Modem with Serial Connector	Yes*	Global
MTCBA-G2-U	GPRS Cellular Modem with USB Connector	No	Global

\* Bundles include power supply, antenna, and cables and are noted below.

\*\* USB models include antenna and USB cable.

### Bundle Ordering Codes

-NAM	Includes US style power plug
-EU	Includes Euro style power plug
-GB/IE	Includes UK style power plug

### CDMA Products

Product	Description	Bundle Available	Region
MTCBA-C1-Nx**	1xRTT Cellular Modem with Serial Connector	Yes*	Regional
MTCBA-C1-U-Nx**	1xRTT Cellular Modem with USB Connector	No	Regional

\* Bundles include power supply, antenna, and cables and are noted below.

\*\* Nx signifies the specific Carrier that the product is approved for.

### Bundle Ordering Code

-NAM	Includes US style power plug
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### Carrier Ordering Codes

-N2	For Sprint Networks (USA)
-N3	For Verizon Wireless Networks (USA)
-N16	For Aeris Communications Networks (USA)

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

### Management Features

The MultiModem Cell cellular modem provides advanced management features, including phone book management, fixed dialing number, real time clock, and alarm management.

### Services & Warranty

Multi-Tech's comprehensive Support Services programs offer a full array of options to suit your specific needs. These services are aimed at protecting your investment, extending the life of your solution or product, and reducing total cost of ownership. Our seasoned technical experts, with an average tenure of more than 10 years, can walk you through smooth installations, troubleshoot issues and help you with configurations. Products include a 2-year warranty that can be extended up to 5 years via Multi-Tech's Extended Warranty program, which offers the convenience of Overnight Service\* for optimal uptime.

### Extended Warranty & Overnight Services

To give you peace-of-mind and protect your investment, our Extended Warranty Service Plans ensure your Multi-Tech products are covered for 1, 2, or 3 years beyond the manufacturer's warranty with an optional Overnight Service plan\*.

### Installation Support

Multi-Tech's Installation Support Service delivers priority service with the ability to work one-on-one with an experienced Multi-Tech technical support engineer, to guide you through the installation process for our products.

### Technical Support Services

At Multi-Tech, we're committed to providing you personalized attention and quality service while providing you a quick response to your product support needs. We have several options of support for you to choose from.

For additional information on Support Services as well as other service offerings, please contact your Multi-Tech representative or visit [www.multitech.com/support.go](http://www.multitech.com/support.go).

\* Overnight replacement service is currently available for U.S. customers.

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Produced in the U.S. of U.S. and non-U.S. components. Features and specifications are subject to change without notice.

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