# SocketModem® Cell

MultiTech® Systems

Embedded Cellular Modems for Verizon Wireless

The SocketModem® Cell embedded cellular modem is a complete, ready-to-integrate communications device ideal for customers looking to add cellular communications to their solutions.

All of Multi-Tech's embedded modems provide Verizon Wireless Open Development certification; decreasing your time to market and saving you money.

Key Features & Benefits

- 2G and 3G CDMA models
- Universal Socket connectivity
- Short Message Services (SMS)
- Serial or USB interfaces
- Serial interface supports speeds up to 921.6K bps
- AT command compatible
- USB 2.0 HS compliant (EV3 only)
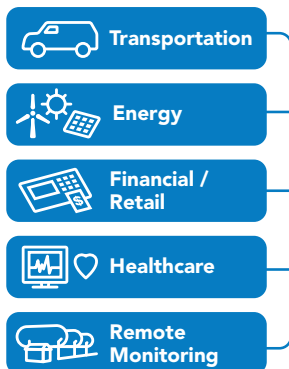- Two-year warranty
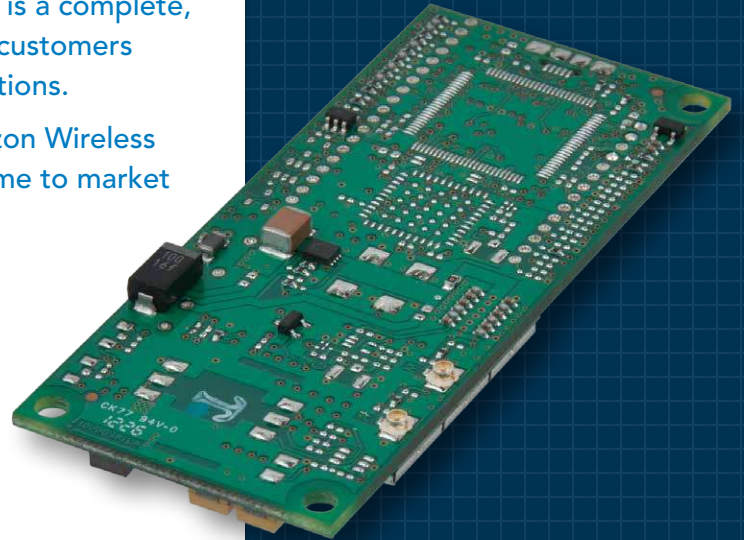
verizon

Verizon Wireless Specific Features

- **Approved by Verizon Wireless and regulatory agencies** saving customers time, money, and protection from the risks associated with pursuing their own certifications
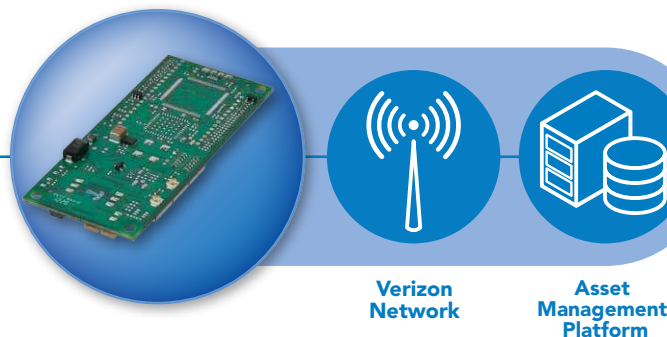
Benefits

- Quick to market leveraging Multi-Tech's approvals
- Interchangeable communications devices for easy migration to future networks
- Long solution lifecycle reduces redesign time and cost
- High quality, reliable solution delivers on the promise of "M2M Simplified"
- Support from the leading experts in M2M technology

Your Devices & Data

- Transportation
- Energy
- Financial / Retail
- Healthcare
- Remote Monitoring

Connecting Your Devices

Verizon Network

Asset Management Platform

Insight + Action + Control

- Email / SMS — Alerts
- Real-Time Management
- Reports

M2M Simplified.™ *Innovative Designs, Innovative Solutions.*
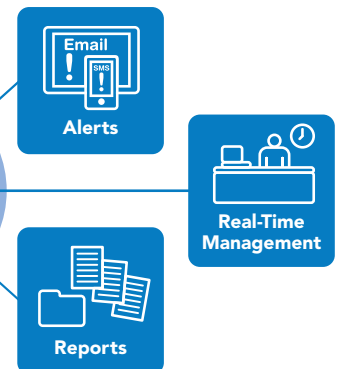
Specifications

Models	MTSMC-EV3	MTSMC-C2
Performance	EV-DO Rev A	CDMA2000 1xRTT
Frequency Bands	800/1900 MHz	800/1900 MHz
USB	USB 2.0 High Speed	N/A
TCP/IP Functions	DNS resolve, FTP client, Ping, POP3 client, PPP (dialout), SMTP client, TCP RAW client & server	DNS resolve, FTP client, Ping, PPP (dial-out), SMTP client, TCP client & server, UDP client & server, PAP, CHAP authentication
Connectors	Up to 2 UFL (Cellular & Rx Diversity)	1 UFL
Dimensions	3.15" x 1.375" (80.010 mm x 34.925 mm)	
Power Draw*	5VDC; 22mA sleep, 34mA idle, 423mA maximum	5VDC; 32mA sleep, 45mA idle, 552mA maximum
Input Power	3.3V - 5VDC	
Environmental		
Operating Temperature	-40° to +85° C	
Storage Temperature	-40° to +85° C	
Humidity	20% to 90% RH, non-condensing	
Certifications		
EMC Compliance	FCC Part 15 Class B	
Radio Compliance	FCC Part 22, FCC Part 24	
Safety	UL 60950-1 2nd ED, cUL 60950-1 2nd ED, IEC 60950-1 2nd ED	

* See device guides for additional information.

Highlights

Applications
With increased 3G packet data rates, the SocketModem iCell intelligent cellular modem will support highly data-intensive applications such as remote video surveillance, multimedia POS/ATM terminals as well as other data-intensive applications. For asset tracking and fleet management applications, models with a dedicated GPS receiver are available.

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.

Universal Socket Connectivity
Multi-Tech's Universal Socket is a flexible, comm-port architecture that provides cellular, Ethernet, PSTN or Bluetooth® network access with interchangeable communications devices. This means you can utilize one system design and populate it with your connectivity device of choice accommodating multiple connectivity requirements. In addition, you are assured a seamless migration to future technologies.
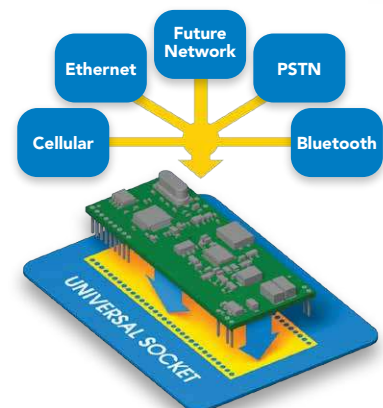
SocketModem Cell Pin-Out

The SocketModem Cell cellular modem interfaces easily with existing products through a standard serial communication channel. The serial DTE channel is capable of transfer speeds to 921.6K bps (depending on model) 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 also includes an onboard LED to display network status.
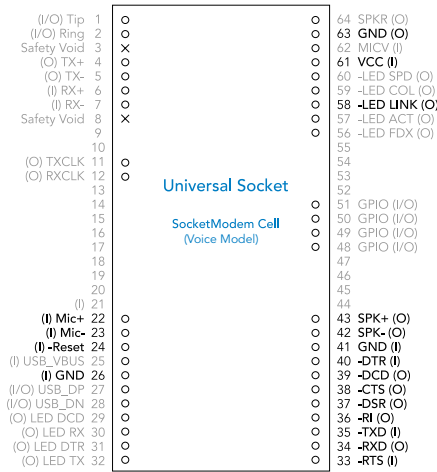
```
(I/O) Tip      1   o                                    o   64  SPKR (O)
(I/O) Ring     2   o                                    o   63  GND (O)
Safety Void    3   ×                                    o   62  MICV (I)
(O) TX+        4   o                                    o   61  VCC (I)
(O) TX-        5   o                                    o   60  -LED SPD (O)
(I) RX+        6   o                                    o   59  -LED COL (O)
(I) RX-        7   o                                    o   58  -LED LINK (O)
Safety Void    8   ×                                    o   57  -LED ACT (O)
               9                                        o   56  -LED FDX (O)
              10                                            55
(O) TXCLK     11   o             Universal Socket          54
(O) RXCLK     12   o                                       53
              13                SocketModem Cell           52
              14                  (Voice Model)        o   51  GPIO (I/O)
              15                                       o   50  GPIO (I/O)
              16                                       o   49  GPIO (I/O)
              17                                       o   48  GPIO (I/O)
              18                                            47
              19                                            46
              20                                            45
         (I)  21                                            44
(I) Mic+      22   o                                    o   43  SPK+ (O)
(I) Mic-      23   o                                    o   42  SPK- (O)
(I) -Reset    24   o                                    o   41  GND (I)
(I) USB_VBUS  25   o                                    o   40  -DTR (I)
(I) GND       26   o                                    o   39  -DCD (O)
(I/O) USB_DP  27   o                                    o   38  -CTS (O)
(I/O) USB_DN  28   o                                    o   37  -DSR (O)
(O) LED DCD   29   o                                    o   36  -RI (O)
(O) LED RX    30   o                                    o   35  -TXD (I)
(O) LED DTR   31   o                                    o   34  -RXD (O)
(O) LED TX    32   o                                    o   33  -RTS (I)
```

Ordering Information

EV-DO Models

Product	Description	Region
MTSMC-EV3-N3	EV-DO Rev A Embedded Modem (Serial Interface)	US
MTSMC-EV3-U-N3	EV-DO Rev A Embedded Modem (USB Interface)	US

CDMA Models

Product	Description	Region
MTSMC-C2-N3	CDMA2000 1xRTT Modem (Serial Interface)	US

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.

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.

World Headquarters

Multi-Tech Systems, Inc.
2205 Woodale Drive
Mounds View, MN 55112 U.S.A.
Tel: 763-785-3500
Toll-Free: 800-328-9717
Email: sales@multitech.com
www.multitech.com

EMEA Headquarters

Multi-Tech Systems (EMEA)
Unit 1, Thames Court
2 Richfield Avenue
Reading, Berkshire RG1 8EQ
United Kingdom
Tel: +(44) 118 959 7774
Email: sales@multitech.co.uk

MultiTech Systems