# SocketModem® iCell



# Intelligent Cellular Modems

The SocketModem® iCell intelligent cellular modem is a complete, ready-to-integrate communications device ideal for customers looking to add wireless communication or GPS tracking to their solutions.

The intelligence of the embedded Universal IP® stack allows for automatic/persistent connectivity for mission critical applications and enhanced M2M functionality.

## **Key Features & Benefits**

- · 2G and 3G, GSM and CDMA models
- Universal Socket connectivity
- Intelligent Universal IP stack for enhanced M2M functionality
- Models with GPS tracking capability
- NMEA-0183 V3.01 compliant GPS messages
- Event monitoring and reporting via four programmable GPIOs
- Short Message Services (SMS)
- UFL antenna connectors
- · Serial only or Serial/USB models
- · Serial interface supports speeds up to 921.6K bps
- AT command compatible
- Two-year warranty

#### **Benefits**

- Intelligent Universal IP stack for persistent/automatic connectivity and ease of network migrations
- Approved by carriers and regulatory agencies saving customers time, money, and protection from the risks associated with pursuing their own certifications
- 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

# 



# **Specifications**

Models	MTSMC-H5-IP/GP	MTSMC-EV3-IP/GP		
Performance	HSPA+	EV-DO Rev A		
Frequency Bands	3G: 850/900/1700 (AWS)/1900/2100 MHz 2G: 850/900/1800/1900 MHz	800/1900 MHz		
USB	USB 2.0 Full Speed	USB 2.0 Full Speed		
TCP/IP Functions	DNS resolve, FTP client, Ping, POP3 client, PPP			
Connectors	Antenna: Up to 3 UFL (Cellular, Rx Diversity & GPS) Mini SIM; 1.8V & 3V	Up to 3 UFL (Cellular, Rx Diversity & GPS)		
Dimensions	3.15" x 1.375" (80.010 mm x 34.925 mm)			
Power Draw*	IP Models: 5VDC; 81mA idle, 502mA maximum GP Models: 5VDC; 154mA idle, 580mA maximum	EV3-IP Models: 5VDC; 83mA idle, 485mA maximum		
Input Power	3.3V - 5VDC			
Environmental				
Operating Temperture	-35° to +85° C	-40° to +85° C		
Storage Temperture	-40° to +85° C			
Humidity	20% to 90% RH, non-condensing			
Certifications				
EMC Compliance	FCC Part 15 Class B, EN55022, EN55024	FCC Part 15 Class B		
Radio Compliance	FCC Part 22, FCC Part 24, RSS 132, RSS 133, EN 301 511, EN 301 489-1, EN 301 489-7	FCC Part 22, FCC Part 24		
Safety	UL 60950-1 2nd ED, cUL 60950-1 2nd ED, IEC 60950-1 2nd ED			
Network	PTCRB	N/A		
Carrier	AT&T, Aeris, T-Mobile	Verizon, Aeris		

<sup>\*</sup> See device guides for additional information.

## **Highlights**

#### Universal IP for Enhanced M2M Connectivity

Multi-Tech's Universal IP® stack consists of a common set of TCP/IP and other common modem functions that are implemented using a standard set of AT commands. The result for customers is reduced development time when using more than one cellular technology or when a cellular module/radio goes end-of-life. Multi-Tech products with Universal IP are designed for applications needing enhanced M2M communications connectivity, including:

- Auto Connect/Persistent Connectivity Allows a modem to connect and stay connected without being managed by an intelligent device. It can also work with remote wake up to start a connection, as well as ping and TCP keep alive to keep the connection active.
- Device Monitoring Acts as a watchdog to monitor and manage the connection. If the device becomes unresponsive, the device monitor can perform a reset to get it back to a known state.
- Event Monitoring and Reporting via GPIO Uses general purpose input/outputs to monitor the state of a connected device. Universal IP can be configured to send status updates when the state of the connected device has passed pre-configured thresholds.

# **Specifications**

Models	MTSMC-G2-IP/GP	MTSMC-C2-IP/GP		
Performance	GPRS Class 10	CDMA2000 1xRTT		
Frequency Bands	850/900/1800/1900 MHz	800/1900 MHz		
USB	N/A	N/A		
TCP/IP Functions	DNS resolve, FTP client, Ping, POP3 client, PPP			
Connectors	Antenna: Up to 2 UFL (Cellular & GPS) Mini SIM; 1.8V & 3V	Up to 2 UFL (Cellular & GPS)		
Dimensions	3.15" x 1.375" (80.010 mm x 34.925 mm)			
Power Draw*	5VDC; 80mA sleep, 135mA typical, 280mA maximum	IP Models: 5VDC; 100mA idle, 689mA maximum GP Models: 5VDC; 173mA idle, 767mA maximum		
Input Power	5VDC	3.3V - 5VDC		
Environmental				
Operating Temperture	-40° to +85° C			
Storage Temperture	-40° to +85° C			
Humidity	20% to 90% RH, non-condensing			
Certifications				
EMC Compliance	FCC Part 15 Class B, EN55022, EN55024	FCC Part 15 Class B		
Radio Compliance	FCC Part 22, FCC Part 24, RSS 132, RSS 133, EN 301 511, EN 301 489-1, EN 301 489-7	FCC Part 22, FCC Part 24		
Safety	UL 60950-1 2nd ED, cUL 60950-1 2nd ED, IEC 60950-1 2nd ED			
Network	PTCRB	N/A		
Carrier	AT&T, Aeris, T-Mobile	Verizon, Aeris, Sprint		

<sup>\*</sup> See device guides for additional information.

#### SocketModem iCell Pin-Out

The SocketModem iCell intelligent cellular modem interfaces easily with existing products through a standard serial or USB 2.0 interface. The serial channel is capable of transfer speeds up to 921.6K 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 or packet data networks.

It also includes an onboard LED to display network status.

(I/O) Tip 1 (I/O) Ring 2 Safety Void 3 (O) TX+ 4 (O) TX- 5 (I) RX+ 6 (I) RX- 7 Safety Void 8 9	0 0 X 0 0 0 0 X		000000000	64 SPKR (O) 63 GND (O) 62 MICV (I) 61 VCC (I) 60 -LED SPD (O) 59 -LED COL (O) 58 -LED LINK (O) 57 -LED ACT (O) 55 -LED FDX (O)
(O) TXCLK 11 (O) RXCLK 12 13 14 15 16 17 18 19 20	0 0	Universal Socket SocketModem iCell	0000	53 54 53 52 51 GPIO (I/O) 50 GPIO (I/O) 49 GPIO (I/O) 48 GPIO (I/O) 47 46
(I) 21 (I) Mic+ 22 (I) Mic- 23 (I) -Reset 24 (I) USB_VBUS 25 (I/O) USB_DP 27 (I/O) USB_DD 28 (O) LED DDD 29 (O) LED DTD 30 (O) LED DTT 31 (O) LED TX 32	00000000000		00000000000	44 43 SPK+ (O) 42 SPK- (O) 41 GND (I) 40 -DTR (I) 39 -DCD (O) 38 -CTS (O) 37 -DSR (O) 36 -RI (O) 35 -TXD (I) 34 -RXD (O) 33 -RTS (I)

#### **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. For a complete listing of the Developer Kit contents, visit www.multitech.com/pdfs/devkit.go

### **Ordering Information**

Ordering Information	ation	
HSPA+ Models		
Model	Description	Region
MTSMC-H5-IP	Hepta-band HSPA+ Modem w/Universal IP (Serial)	Global
MTSMC-H5-MI-IP	Hepta-band HSPA+ Modem w/Universal IP (Serial & USB)	Global
MTSMC-H5-GP	Hepta-band HSPA+ Modem w/GPS (Serial)	Global
MTSMC-H5-MI-GP	Hepta-band HSPA+ Modem w/GPS (Serial & USB)	Global
EV-DO Models		
Model	Description	Region
MTSMC-EV3-IP-N3	EV-DO Rev A Modem w/Universal IP (Serial - Verizon)	US
MTSMC-EV3-IP-N16	EV-DO Rev A Modem w/Universal IP (Serial - Aeris)	US
MTSMC-EV3-MI-IP-N3	EV-DO Rev A Modem w/Universal IP (Serial & USB - Verizon)	US
MTSMC-EV3-MI-IP-N16	EV-DO Rev A Modem w/Universal IP	
	(Serial & USB - Aeris)	US
MTSMC-EV3-GP-N3	EV-DO Rev A Modem w/GPS (Serial - Verzion)	US
MTSMC-EV3-GP-N16	EV-DO Rev A Modem w/GPS (Serial - Aeris)	US
MTSMC-EV3-MI-GP-N3	EV-DO Rev A Modem w/GPS (Serial & USB - Verizon)	US
MTSMC-EV3-MI-GP-N16	EV-DO Rev A Modem w/GPS (Serial & USB - Aeris)	US
GPRS Models		
Model	Description	Region
MTSMC-G2-IP	Quad-band GPRS Class 10 w/Universal IP 850/1900 MHz Default	Global
MTSMC-G2-IP-ED	Quad-band GPRS Class 10 w/Universal IP 900/1800 MHz Default	Global
MTSMC-G2-GP	Quad-band GPRS Class 10 w/GPS 850/1900 MHz Default, Universal IP	Global
MTSMC-G2-GP-ED	Quad-band GPRS Class 10 w/GPS 900/1800 MHz Default, Universal IP	Global
CDMA Models		
Model	Description	Region
MTSMC-C2-IP-N2	CDMA 1xRTT Modem w/Universal IP (Sprint) 5V Single or 50-Pack	US
MTSMC-C2-IP-N3	CDMA 1xRTT Modem w/Universal IP (Verizon) 5V Single or 50-Pack	US
MTSMC-C2-IP-N16	CDMA 1xRTT Modem w/Universal IP (Aeris) 5V Single or 50-Pack	US
MTSMC-C2-GP-N2	CDMA 1xRTT Modem w/GPS (Sprint) 5V Single or 50-Pack	US
MTSMC-C2-GP-N3	CDMA 1xRTT Modem w/GPS (Verizon) 5V Single or 50-Pack	US
MTSMC-C2-GP-N16	CDMA 1xRTT Modem w/GPS (Aeris) 5V Single or 50-Pack	US
Developer Kit		
1 1 P 1 1 P 2		

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

Trademarks and Registered Trademarks: Multi-Tech and the Multi-Tech logo, SocketModem, Universal IP: Multi-Tech Systems, Inc. All other products and technologies are the trademarks or registered trademarks of their respective holders.

Universal Socket Developer Kit

Dev Board, Power Supply, Cables, Antennas and Docs

#### Services & Warranty

MultiTech'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**

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

#### **Technical Support Services**

At MultiTech, 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 MultiTech representative or visit www.multitech.com/support.go.

#### **World Headquarters**

Region

Global

MultiTech 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**

MultiTech Systems (EMEA) United Kingdom Tel: +(44) 118 959 7774 Email: sales@multitech.co.uk



Description

Model

MTSMI-UDK

# AMEYA360 Components Supply Platform

# **Authorized Distribution Brand:**

























# Website:

Welcome to visit www.ameya360.com

## Contact Us:

# > Address:

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd Minhang District, Shanghai , China

## > Sales:

Direct +86 (21) 6401-6692

Email amall@ameya360.com

QQ 800077892

Skype ameyasales1 ameyasales2

# Customer Service :

Email service@ameya360.com

# Partnership :

Tel +86 (21) 64016692-8333

Email mkt@ameya360.com