

# SocketModem® iCell

## Intelligent HSPA Cellular Modem



The SocketModem® iCell intelligent cellular modem is a complete, ready-to-integrate communications device that offers standards-based tri-band HSPA 7.2 performance. This quick-to-market communications device allows developers to add wireless communication and GPS tracking to products with a minimum of development time and expense. The intelligence of the embedded Universal IP™ stack allows for automatic/persistent connectivity for mission critical applications and enhanced M2M functionality. The SocketModem iCell intelligent cellular modem is based on industry-standard open interfaces and utilizes Multi-Tech's Universal Socket design.

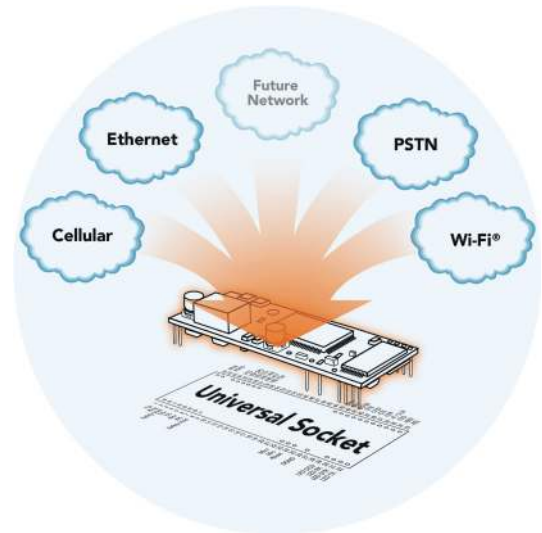
### Features

- Tri-band HSPA 7.2
- Quad-band GSM/GPRS/EDGE
- Universal Socket connectivity
- Intelligent Universal IP stack for enhanced M2M functionality
- Models with GPS tracking capability
- Event monitoring and reporting via integrated GPIO pins (-MI builds)
- NMEA-0183 V3.01 compliant GPS messages
- Circuit-switched data up to 14.4K bps
- Short Message Services (SMS)
- UFL antenna connector and SIM socket
- Serial only or serial/USB models
- Serial interface supports DTE speeds to 921.6K bps\*
- AT command compatible
- PTCRB and carrier certified
- Two-year warranty

\* Effective throughput is 700-750K bps

### Universal Socket Benefits

- Interchangeable communications devices
- Intelligent Universal IP stack
- Quick-to-market
- Easy migration to future networks



## 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.

**Universal Socket Connectivity.** Multi-Tech's Universal Socket is a flexible, comm-port architecture that provides cellular, Ethernet, PSTN or Wi-Fi 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.

**Universal IP.** Multi-Tech's Universal IP consists of a common set of TCP/IP networking protocols and M2M (machine-to-machine) applications implemented using a standard AT command interface. Universal IP allows developers to write their host application one time while having the freedom to select from a growing number of Universal Socket communication devices.

**Reduces Development Time.** The SocketModem iCell intelligent 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 PTCRB and RF approvals.

**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 DTE channel is capable of transfer speeds 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, circuit-switched dial-up, or packet data networks. It also includes an onboard LED to display network status.

## Ordering Information

Product	Description	Region
MTSMC-H4-IP	HSPA 7.2 Serial Embedded Modem	Regional
MTSMC-H4-GP	HSPA 7.2 Serial Embedded Modem (GPS)	Regional
MTSMC-H4-MI-IP	HSPA 7.2 Serial/USB Embedded Modem	Regional
MTSMC-H4-MI-GP	HSPA 7.2 Serial/USB Embedded Modem (GPS)	Regional

### Ordering Codes

-P1	Generic - Europe
-P2	For AT&T Networks (USA)

Produced in the US of US and non-US components.

Features and specifications are subject to change without notice.

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**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](http://www.multitech.com/pdfs/devkit.go)

## Specifications

### Packet Data Features

HSPA 7.2/UMTS/EDGE/GPRS

### Frequency Bands

3G: 850/1900/2100 MHz

2G: 850/900/1800/1900 MHz

### Connectors

Antenna: UFL (one each, cellular & GPS)

SIM: Standard 1.8/3V SIM receptacle

### GPIO Functions (MI builds only)

Pins 48 & 49: Programmable digital input/output

Pins 50 & 51: Programmable digital input/output or ADC

### IP Protocols Supported

DNS resolve, FTP client, Ping, POP3 client, PPP (dial-out), SMTP client, TCP RAW client & server, UDP RAW client & server, PAP, CHAP authentication

### GPS

Position: 2.5 meters

Aquisition: Hot start 1 second; cold start 29 seconds avg.

Sensitivity: Tracking -161 dBm

Protocol: NMEA-0183 V3.01, GGA, GLL, GSA, GSV, RMC, VTG

### M2M Applications

Automatic connect/reconnect, device monitor, modem emulation, Ping & TCP keep alive, wake-up on Caller ID, wake-up on ring, GPIO event monitoring & alerts

### Power Requirements

IP Models: Sleep: 130mA; Typical: 530mA; Maximum: 910mA

GP Models: Sleep: 205mA; Typical: 650mA; Maximum: 995mA

### Physical Description

3.1" L x 1.4" W x 0.5" H; 1 oz.

(7.8 cm x 3.5 cm x 1.2 cm; 28 g)

### Operating Environment

-30° to +75° C

### Certifications

CE Mark, R&TTE

EMC: FCC Part 15 Class B, 22, 24, EN 301 489-1, EN 301 489-7, RSS 132, 133

Radio Compliance: EN 301 489-24, EN 301 489-3 (GPS models)

Safety: cUL 60950-1, IEC 60950-1, UL 60950-1, AS/NZS 60950-1

Network: PTCRB / RoHS Compliant

### World Headquarters

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