

# SocketModem® GPRS

## Embedded Cellular Modem



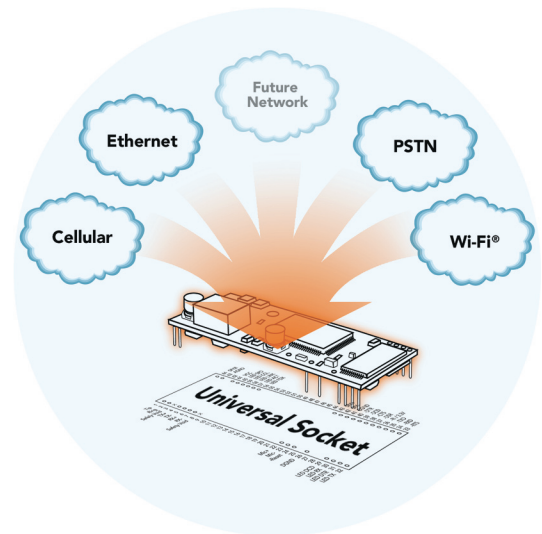
The SocketModem® GPRS cellular modem is a complete, ready-to-integrate, communications device that offers standards-based GSM/GPRS Class 10 performance. This quick-to-market communications device allows developers to add wireless communication to products with a minimum of development time and expense. The intelligence of the embedded Universal IP™ stack, available on certain models, allows for automatic/persistent connectivity for mission critical applications and enhanced M2M functionality. The SocketModem GPRS cellular modem is based on industry-standard open interfaces and utilizes Multi-Tech's Universal Socket design.

### Features

- GPRS Class 10
- Quad-band GSM 850/900/1800/1900 MHz
- Packet data up to 85.6K bps
- Universal Socket connectivity
- Universal IP connectivity
- Circuit-switched data up to 14,400 bps transparent and non-transparent
- Short Message Services (SMS)
- Advanced management features include phone book management, fixed dialing number, real time clock and alarm management
- MMCX antenna connector and SIM socket
- Serial interface supports DTE speeds to 115.2K bps
- AT command compatible
- MNP 2 error correction, V.42bis compression
- Two-year warranty

### Universal Socket Benefits

- Interchangeable communications devices
- Quick-to-market
- Global approvals
- Easy migration to future networks



## Highlights

**Applications.** The SocketModem GPRS cellular modem is targeted at applications that periodically need to send or receive data over a wireless network. It is ideal for:

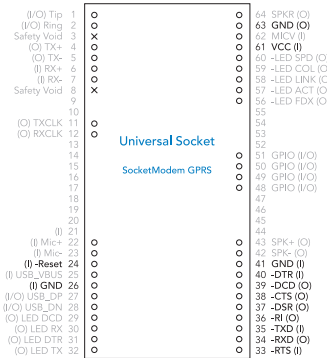
- Appliances
- Asset tracking
- ATM terminals
- Automotive
- Data collection
- Industrial and medical remote monitoring systems
- Remote diagnostics
- Remote metering
- Security systems
- Vending/gaming machines
- Other devices requiring wireless connectivity

**Reduces Development Time.** The SocketModem GPRS 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.

**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 machine-to-machine (M2M) 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. (Note: standard models contain a basic TCP/IP stack)

**SocketModem GPRS Pin-Out.** The SocketModem GPRS cellular modem interfaces easily with existing products through a standard serial communication channel. The serial DTE channel is capable of transfer speeds to 115.2K 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.



**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.

## Specifications

### Packet Data Features

- GPRS Class 10, PBCCH support
- Coding Schemes: CS1 to CS4
- Embedded TCP/IP stack

### Circuit Switched Data Features

- Asynchronous, transparent & non-transparent up to 14.4K bps, MNP2 & V.42 bis

### SMS Features

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

### Connectors

- Antenna: MMCX
- SIM: Standard 3V SIM receptacle

### IP Protocols Supported (MTSMC-G-F4-IP)

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

### M2M Applications (MTSMC-G-F4-IP)

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

### Power Requirements

- 5VDC; 400mA typical, 1.4A maximum

### 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 +70° C (FCC certified from -30° to +50° C)

### Certifications

- CE Mark, R&TTE
- EMC: FCC Part 22, 24, EN 301 489-1, EN 301 489-7, RSS 132, 133
- Safety: UL 60950-1, EN 60950-1, AS/NZS 60950:2000
- Network: PTCRB

## Ordering Information

| Product           | Description                      | Region |
|-------------------|----------------------------------|--------|
| MTSMC-G-F4*       | GSM/GPRS Modem                   | Global |
| MTSMC-G-F4-ED†    | GSM/GPRS Modem                   | Global |
| MTSMC-G-F4-V*     | GSM/GPRS Modem with Voice        | Global |
| MTSMC-G-F4-V-ED†  | GSM/GPRS Modem with Voice        | Global |
| MTSMC-G-F4-IP*    | GSM/GPRS Modem with Universal IP | Global |
| MTSMC-G-F4-IP-ED† | GSM/GPRS Modem with Universal IP | Global |

\* Quad-band Modem, 850/1900 MHz default

† Quad-band Modem, 900/1800 MHz default

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

Features and specifications are subject to change without notice.

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