

# MultiModem® EDGE

## Cellular Modems



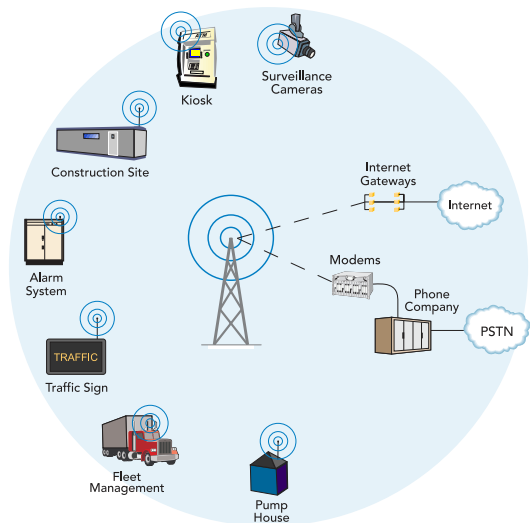
The MultiModem® EDGE cellular modem delivers some of the fastest wireless data speeds by utilizing EDGE technology. It allows users to connect to the Internet and send and receive data up to three times faster than possible with an ordinary GSM/GPRS network making it ideal for highly data-intensive multimedia applications. Based on industry-standard open interfaces, the MultiModem EDGE cellular modem is equipped with quad-band GSM, which means it can be used worldwide on all existing GSM networks. It is available with a broad range of interface options including RS-232, USB and Ethernet, so that you are guaranteed to find a solution that meets your application needs.

## Features

- EDGE (E-GPRS) Class 12
- GPRS Class 12
- Quad-band GSM 850/900/1800/1900 MHz
- Packet data rates up to 240K bps (coding scheme MCS-9, LLC layer, 4 time slots)
- Embedded TCP/IP stack
- Circuit-switched data up to 14.4K bps non-transparent mode
- Short Message Services (SMS)
- SMA antenna connector
- Desktop or panel mounting
- RS-232, USB and Ethernet interfaces
- AT command compatible
- Carrier approved
- Numerous LEDs provide operational status
- Voice features include Half rate (HR), Full rate (FR), Enhanced full rate (EFR), Adaptive multi rate (AMR), as well as hands free echo cancellation, and noise reduction
- Two-year warranty

## Benefits

- Up to 3X faster than GPRS modems
- RS-232, USB and Ethernet interfaces
- Carrier approved



## Highlights

**Applications.** With packet data speeds up to three times faster than ordinary GPRS modems, the MultiModem EDGE cellular modem is ideal for highly data-intensive applications such as remote video surveillance and other multimedia applications where you are sending digital images, web pages and photographs. Application examples include:

- Automated machine-to-machine (M2M)
- Public Safety/Emergency Services
- Public Transit
- Remote Industrial, Medical, Environmental Monitoring
- Remote Diagnostics
- Security Systems
- Telemetry/Remote Metering
- Vehicle Tracking/Fleet Management/AVL

**Reduces Development Time.** The MultiModem EDGE cellular modem can make your existing and next generation device communication-ready without requiring any hardware changes to its design. It actually provides faster time-to-market because it relieves the burden and expense of obtaining PTCRB and RF approvals. This complete, ready-to-deploy cellular modem allows you to enhance your product while you focus on developing its core features.

**Packet-switched Data.** The MultiModem EDGE cellular modem supports EDGE Class 12 packet-switched data. This enables mobile Internet functionality by allowing interworking between the existing Internet and the cellular network at speeds up to 240K bps. Any service that is used over the fixed Internet today – File Transfer Protocol (FTP), web browsing, chat, e-mail, telnet is available over the cellular network as well. It includes support for PBCCH, coding schemes: CS1 to CS4 and is compliant with SMG31bis.

**Circuit-switched Data (CSD).** The MultiModem EDGE cellular modem also supports GSM circuit-switched data connections up to 14.4K bps. CSD cellular connections are ideal for applications that require a quick wireless replacement of an existing point-to-point analog dial-up connection. They integrate seamlessly with your current application requiring little infrastructure change.

**Short Message Services.** The MultiModem EDGE cellular modem offers SMS features such as text and PDU, Point-to-Point (MT/MO) and cell broadcast.

**Internet-enabled.** The MultiModem EDGE cellular modem includes an embedded TCP/IP protocol stack to bring Internet connectivity to any device without making changes to its hardware design. Using the Internet protocols and the wireless connection to an IP network, it sends and receives data over the Internet.

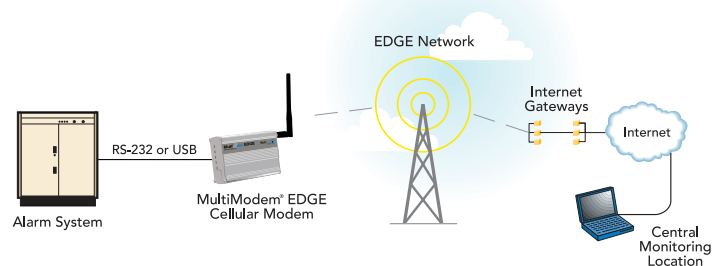
**Industrial Chassis.** The MultiModem EDGE cellular modem is packaged in a rugged, industrial chassis with an SMA antenna connector. It can be desktop or panel mounted and features numerous LEDs providing operational status.

**Multiple Interface Options.** The MultiModem EDGE cellular modem is designed around a broad range of interface options including RS-232, USB and Ethernet to provide you with seamless connectivity for your application. Each interface option offers unique features and benefits related to the technology it supports.



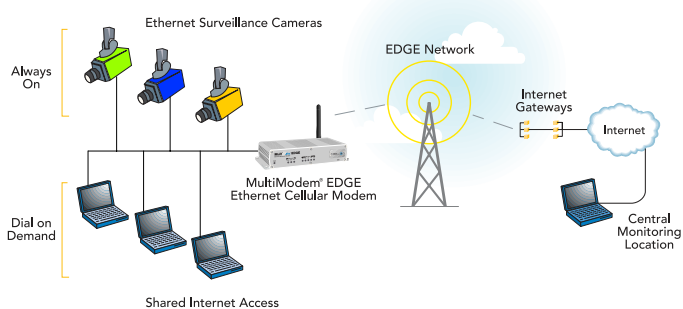
**Serial Connectivity.** The MultiModem EDGE cellular modem with a serial interface utilizes RS-232 or USB to connect to any serial device to provide access to the Internet. The RS-232 model supports DTE speeds of 460K bps and provides a DE-15 voice/data interface and permanent screw-type power connector. The USB model provides for the easiest modem installation. The USB interface features a 12M bps serial connection and utilizes an RJ-9 jack for voice connectivity. In addition, it is host-based USB powered which means no external power supply is required.

## RS-232/USB Application



**Ethernet Connectivity.** The MultiModem EDGE cellular modem with an Ethernet interface provides shared Internet access with one IP address. The built-in routing capabilities provide DHCP services and firewall security utilizing Network Address Translation. The modem can be configured for one of three network connections: always-on, wake-up on ring, or dial-on demand. The always-on network connection automatically establishes a wireless data connection and allows for around the clock surveillance, monitoring or real-time data acquisition of any remote Ethernet device such as a Web camera. If the data link is dropped in the event of poor reception or a complete loss of service, it will automatically re-establish the data link. The wake-up on ring configuration allows the modem to “wake up” and initiate a connection when it detects an incoming ring. For security reasons, you can setup the modem to wake up based on the caller ID. This configuration is ideal for reducing the costs associated with the modem being online and available 24/7. When configured for dial-on demand, the cellular modem only accesses the Internet when data is present. This configuration is ideal for sharing Internet access among networked PCs.

## Ethernet Application



**Industry-standard Modem Commands.** The MultiModem EDGE cellular modem provides industry-standard AT-style commands for ease of integration into your existing software application.

**Comprehensive Service and Support.** The Multi-Tech commitment to service means we provide a two-year product warranty and service that includes technical support, 24-hour web site and ftp support.

## Specifications

### Packet Data Features

EDGE: E-GPRS Class 12, Modulation and coding scheme MCS 1-9, Mobile station Class B  
GPRS: GPRS Class 12, full PBCCH support, coding scheme 1 – 4, Mobile station Class B

### Circuit Switched Data/Fax Features

Asynchronous, non-transparent up to 14.4K bps

### SMS Features

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

### Internet Protocols Supported

TCP, UDP, DNS, FTP, SMTP, POP3, HTTP

### Voice Features

Half rate (HR), Full rate (FR), Enhanced full rate (EFR), & Adaptive multi rate (AMR). Basic hands free operation with echo cancellation & noise reduction

### Antenna Connector

RF Antenna: 50 ohm SMA (Female connector)

### SIM Connector

Standard 3V SIM receptable

### Interface Connectors

RS-232 Model: DE-15  
USB Model: USB Type B  
Ethernet Model: RJ-45, 10BaseT/100BaseTX, 802.3

### Power Connectors

RS-232 & Ethernet Models: 2.5mm miniature screw  
USB Model: Bus Powered

### Voice Connectors

RS-232 Model: Optional Y-cable  
USB & Ethernet Models: RJ-9 4-pos modjack

### Power Requirements

5V to 32VDC (external models)

## Physical Description

### RS-232, & USB Models:

4.3" L x 2.4" W x 0.94" H; 4.2 oz.  
(11 cm x 6.1 cm x 2.4 cm; 119g)

### Ethernet Model:

2.8" L x 7.0" W x 1.2" H; 11.5 oz.  
(7.1 cm x 17.8 cm x 3.0 cm; 326g)

## Operating Environment

-30° to +65° C

## Certifications

CE Mark, R&TTE

EMC: FCC Part 2, 15 Class A, 22, 24; EN 55022; EN 55024

Safety: cUL, UL 60950; EN 60950

Network: PTCRB

## Ordering Information

Product	Description	Region
MTCBA-E	Quad-Band EDGE Class 12	Global

### Ordering Codes

-U	USB Interface
-EN	Ethernet Interface
-NAM	Includes US style power cord
-EU	Includes Euro style power cord
-GB/IE	Includes UK style power cord

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

Features and specifications are subject to change without notice.

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