

MTX-65i-BAT modem

Enhanced GSM/GPRS M2M Modem + Battery



Java programmable



GSM/GPRS Quad Band



I2C
Optocoupled
GPIO



USB 2.0
RS232



Lithium Battery



3-Axis
Accelerometer



Extended
Temperature
Range



Automatic restart
after shutdown



Analog inputs



Audio handset
connector



The MTX-65i-BAT modem is an all-in-one solution consisting of a **Java J2ME programmable** modem that enables **GSM Voice, SMS, Fax and Data (GPRS class 12)**. The Quad Band functionality allows it to operate at all relevant GSM frequencies. It has an intrinsic and powerful TCP/IP communication stack with Internet Services such: TCP, UDP, HTTP, FTP, SMTP, and POP3.

The MTX-65i-BAT modem is a powerful GSM/GPRS radio system with **USB + RS232 + I2C** serial communication ports. It also includes **Analog-to-Digital** converters and **Optoisolated IOs**. You can develop and embed your Java code directly onto the modem to shorten time to market and reduce costs by avoiding external components.

The MTX-65i-BAT modem also has an **internal Li-Po battery** and a **Hardware Watchdog**.

Industrial features: the modem can be used in industrial applications due to its extended operating temperature range. It also features an automatic restart after shutdown in case of faulty power conditions.

It is manufactured following ISO-9001 & ISO-14001 Quality certifications and it is RoHS/WEEE compliant.

General features

- Quad-Band GSM 850/900/1800/1900MHz
- GPRS multi-slot class 12
- SIM Application Toolkit, 3GPP release 99
- Control via AT commands (Hayes, TS 27.007, TS 27.005)
- TCP/IP stack access via AT commands
- Internet services: TCP, UDP, HTTP, FTP, SMTP, POP3
- RJ12 supply:
 - Maximum: 6.5 to 40VDC
 - Recommended: 7 to 35VDC
- USB supply:
 - Maximum: 4.35 to 6.4VDC
 - Typical: 5.0V
- Average power consumption (at 12V) modes:
 - Power down: 10mA
 - Sleep mode (registered DRX=6): 12mA
 - Idle mode (registered DRX=6): 17mA
 - Speech mode and GPS tracking: 109mA
 - GPRS class 12 and GPS tracking: 202mA
- Operating temperature range: -30°C to +80°C
- Dimensions, excluding connectors: 78.1 x 66.8 x 37.2mm
- Weight: <190 g
- IP30 enclosure

Specification

- **GPRS**
 - GPRS class 12
 - Mobile station class B
 - PBCCH support
 - Coding schemes CS 1-4
- **CSD data transmission**
 - Up to 14.4kbit/s
 - V.110
 - Non-transparent mode
 - USSD support
- **SMS**
 - Point-to-point MO and MT
 - SMS cell broadcast
 - Text and PDU mode
- **Fax**
 - Group 3, class 1,2
- **Voice**
 - Triple-rate codec for HR, FR and EFR
 - Adaptive multi-rate AMR
 - Basic hands-free operation
 - Echo cancellation
 - Noise reduction

Interfaces

- GSM FME M antenna connector
- GPS SMA F antenna connector
- USB 2.0 High Speed port up to 480Mbps
- SIM card interface 1.8V/3V
- HD-Dsub15 female connector:
 - 1x RS232 (4-wire) port
 - 1x I2C port
 - 3x optoisolated inputs (1 for pulse counter)
 - 3x optoisolated outputs
 - 1x TTL input/output GPIO
 - 2x analog inputs
- 2 status LEDs (GSM status and user programmable)
- Handset audio interface
- Plug-in RJ12 power supply connector

- Internal Hardware Watchdog
- Internal 1650mAh Li-Po battery
- 3-Axis Accelerometer ($\pm 2g/\pm 4g/\pm 8g$)

Java™ features

- CLDC 1.1 HI
- J2ME™ profile IMP-NG
- Software watchdog for applications
- Additional accessible periphery for Java applications:
 - I/O pins, I2C, SPI interfaces, ADC/DAC
 - Serial interfaces (API): ASC0, ASC1

Over-the-air update

- Application SW: OTAP

Open application resources

- ARM® Core, Blackfin® DSP
- Memory: 400KB (RAM) and 1.7MB (Flash)
- Improved power-saving mode

Ordering information

MTX-65i-BAT: 199801307
MTX-65i-X-BAT: TBD