

MC Technologies XT85/XT85-X

The M2M tracking platform - made by MC Technologies



Interfaces:

- 2 separated U.FL-R-SMT 50 Ω antenna connectors for GPS and GSM
- 80-pin board-to-board connector
 - Power supply
 - Audio: 2x analog, 1x digital
 - 1x serial interface (ITU-T V.24 protocol)
 - USB 2.0 full speed 12 MBit
 - SIM card interface 3 V, 1.8 V
 - I2C bus and SPI bus
 - ADC/DAC
 - Multiple GPIOs

General features:

- Quadband GSM850/900/1800/1900 MHz
- GPRS multi-slot class 12
- SIM Application toolkit (release 99) letter class "b", "c" and "e"
- TCP/IP stack access via AT commands and transparent TCP service
- Internet Services: TCP, UDP, HTTP, FTP, SMTP, POP3, Ping
- Supply voltage range: 3.2 ... 4.5 V
- Power consumption:
 - Power down: 50 μ A
 - Sleep mode: (registered DRX = 6) 4.5 mA
 - Speech mode (average): 300 mA
 - GPRS class 12 (average): 600 mA
- Charging control for Lithium batteries
- Temperature range
 - Normal Operation: -30 $^{\circ}$ C to +75 $^{\circ}$ C
 - Restricted Operation: -30 $^{\circ}$ C to +85 $^{\circ}$ C
 - Switch off: +90 $^{\circ}$ C
- Storage: -40 $^{\circ}$ C to +85 $^{\circ}$ C
- Dimensions: 34 x 59 x 3.5 mm
- Weight: approx. 10 g

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Specification for CSD data transmission:

- Up to 14.4 kbps
- V.110
- Non-transparent mode
- USSD support

Specification for fax:

- Group 3, class 1

Specification for voice:

- Triple-rate codec for HR, FR, and EFR
- Adaptive multi-rate AMR
- Basic hands-free operation
- Echo cancellation
- Noise reduction

Java™ features:

- CLDC 1.1 HI
- J2ME™ profile IMP-NG
- Location API (JSR179) for GPS access
- Secure data transmission with HTTPS, SSL and PKI
- Multi-threading programming and program execution

Open application resources:

- ARM 9 processor architecture
- Memory: 400 kB (RAM) and 1.2 MB (Flash)
- XT85-X: Extended memory: 1,7 MB RAM and 8 MB Flash File System
- Improved power-saving modes
- Support for integrated development environments with On-Device-Debugging

Over-the-air update:

- Application SW: OTAP
- Firmware: FOTA

Special features:

- RLS Monitoring (Jamming detection)
- Character framing 7E1 and 8E1 at serial interface
- Programmable module reset
- SIM Access Profile integrated
- RIL driver for Microsoft® Windows CE Mobile™ based devices
- Multiplex driver for Microsoft® Windows & Linux
- Serial interface modem for Microsoft® Windows 7™/XP™/Vista™
- Informal network scan (easy scan)
- Real time clock with alarm functionality

Approvals EGS5/EGS5-x:

- R&TTE, FCC, UL, IC, GCF, PTCRB, e-mark, CE
- Local approvals and network operator certifications

Specification for GPS:

- Frequency Band: GPS (L1), Glonass (L1, FDMA), Galileo (E1)
- Standards: NMEA, RTCM
- 32 channel GPS architecture
- Sensitivity:
 - Acquisition: -146 dBm
 - Navigation: -160 dBm
 - Tracking: -162 dBm
- Positional Accuracy (CEP50): 1.5m
- Accuracy:
 - Speed: < 0.05 m/s
 - Heading: < 0.01 deg
- Time to first fix (@ -130 dBm):
 - Hot start: 1 s
 - Cold start: < 35 s
- 1 PPS for precise timing
- A-GPS: ephemeris file injection
- Jammer rejection