

## MTX-65ULP TERMINAL

ULTRA LOW POWER GSM/GPRS TERMINAL



Powered by CINTERION Wireless TC65 Module

Quad Band GSM

GPRS Class 12

Precise  
LowPower Real  
Time Clock

4 Wake-Up  
optoisolated  
inputs

2 RS232 serial  
ports

USB port

Wide and useful  
range of I/O

Integrated  
TCP/IP Stack

JAVA  
applications

### MTX-65ULP TERMINAL

The MTX-65ULP terminal is variant model for the successful MTX-65 terminal, but with a very powerful feature: ULTRA LOWER POWER mode.

The MTX-65ULP is the perfect choice for applications that are battery operated, in remote locations, just needs to use GSM/GPRS radio in a proper moment of the day/week/month or when some event has happen. The MTX-65ULP is the most suitable equipment for metering application.

The MTX-65ULP just need 2.3 uA (typ) in ULTRA low-power mode. In this mode, the GSM terminal is completely powered-off, only a precise RTC and wake-up latches inputs are powered. MTX-65ULP contains a battery capable to run the RTC for 10 years even if the terminal is not externally powered.

When the programmed RTC alarm or an input is triggered, the GSM is powered-on, getting the normal power from the source. After the transmission, the terminal can be put in the ULTRA low-power mode again.

MTX-65ULP include Java embedded programmability and full range of I/Os. The unit can host and control your Java J2ME application allowing developing and embedding your code directly inside, shortening time to market and reducing costs. The new internal Watchdog supervisor avoids hangs-up.

The USB and RS232 ports allow connectivity to PC's, control boards and other peripherals like GPS, Bluetooth, RFID or other devices.

The MTX-65ULP terminal is able to handle Voice and Data call, SMS, Fax, and GPRS with its powerful TCP-IP stack communication with Internet Services: TCP, UDP, HTTP, FTP, SMTP, POP3.

MTX-65ULP is RoHs, WEEE, FCC and CE compliant. It is manufactured with the ISO 9001 & ISO 14001 Quality certifications

A full list of antennas, cables and supplies accessories are available.

### General features:

- Quad-Band GSM 850/900/1800/1900 MHz
- GPRS multi-slot class 12
- GSM release 99
- Output power:
  - Class 4 (2 W) for EGSM850 & EGSM900
  - Class 1 (1 W) for GSM1800 & GSM1900
- Control via AT commands (Hayes 3GPP TS 27.007 and 27.005)
- SIM Application Toolkit (release 99)
- TCP/IP stack access via AT commands
- Internet Services: TCP, UDP, HTTP, FTP, SMTP, POP3
- Supply voltage range: 5.9 - 10 Vdc; typ 7.2 Vdc
- Power consumption:
  - "ULTRA" Low Power mode: typ 2.3 uA max 8uA
  - Idle mode (registered DRX = 5) 29 mA
  - Speech mode (average) 250 mA
  - GPRS class 12 (average) 570mA max
- Temperature range
  - Operation: -20°C to +75°C
  - Storage: -40°C to +85°C
- Dimensions. Excluding connectors: 78,1 x 66,8 x 37,2 mm
- Weight: < 190 g

### Interfaces:

- FME M 50 Ohm antenna connector
- 9 pins subD connector for serial interfaces (ITU-T V.24 protocol)
- 15 pins HD-subD connector Expansion Port:
  - o 5 Digital CMOS/TTL Input/Output
  - o 1 Analog Input
  - o 1 Analog Output
  - o 1 x I2C/SPI bus
  - o 1 x 2-wires RS232 UART
- USB 2.0 port
- 2 Operating status LEDs
- SIM card interface 3 V, 1.8 V
- Plug-in power supply
- Handset audio interface

### Specification for GPRS data transmission:

- GPRS class 12
- Mobile station class B
- PBCCH support
- Coding schemes CS 1-4

### Specification for CSD data transmission:

- Up to 14.4 Kbit/s
- V.110
- Non-transparent mode
- USSD support

### Specification for SMS:

- Point-to-point MO and MT
- SMS cell broadcast
- Text and PDU mode

### Specification for fax:

- Group 3, class 1, 2

### Specification for voice:

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

### Open application resources

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

### Java™ features

- CLDC 1.1 HI
- J2ME™ profile IMP-NG
- Secure data transmission with HTTPS, SSL and PKI

### Over-the-air update

- Application SW: OTAP
- Firmware: FOTA (OMA compliant)

Ordering information: MTX-65-ULP: 199.801.104

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