

# MTX-65+G-V3 Terminal

## Versatile Communication & Location Unit

Powered by CINTERION Wireless Module XT65 rel.2



Quad Band GSM  
GPRS Class12

16 Channels GPS  
Receiver

1 RS232 serial  
port

USB port  
SPI-I2C bus

Opto isolated  
Inputs/Outputs

Integrated  
TCP/IP Stack

JAVA  
applications

Automatic Restart  
after shutdown

Internal  
Watchdog

Internal battery  
as an option

### NEW MTX-65+G V3 TERMINAL

#### Communicate

The MTX-65+G terminal is an all-in-one solution enabling Voice, SMS, Fax and Data (GPRS class 12).

Has intrinsic powerful TCP-IP stack communication with Internet Services: TCP, UDP, HTTP, FTP, SMTP, POP3

The Quad Band functionality allows operation in all relevant GSM frequencies.

#### Locate

The MTX-65+G includes a 16-channels high sensitivity (-158dBm) GPS receiver with a logical integration into the GSM engine.

AGPS, DGPS and SBAS (EGNOS, WAAS) techniques are enabled.

#### Intelligence

The MTX-65+G terminal is a powerful combination of GSM/GPRS radio system and a GPS receiver, including a range of I/Os and USB/SPI-I2C/RS232 ports.

The MTX-65+G compact self-contained unit can host and control your Java J2ME application, allowing developing and embedding your code directly onto the MTX-65+G, shortening time to market and reducing costs.

Together with its small size and all the standardized connectors -USB and RS232 port interfaces, internal SIM card reader-, allow connectivity to PC's, control boards and other peripherals minimising the need for further hardware components and makes it easy to integrate.

MTX-65+G is RoHs & WEEE compliant and it is manufactured with the ISO 9001 & ISO 14001 Quality certifications.

MTX-65+G V3 B is an optional version with internal Li-Ion Battery 1250 mA/h incorporated.

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
- Control via AT commands
- SIM Application Toolkit (release 99)
- TCP/IP stack access via AT commands
- Internet Services: TCP, UDP, HTTP, FTP, SMTP, POP3
- Supply voltage range: 9 ... 28 V
- Power consumption (at 12 V):
  - Power down 0,5 mA
  - Sleep mode (registered DRX = 6) 5.5 mA
  - Speech mode (average) 300 mA
  - GPRS class 12 (average) 600 mA
- Temperature range
  - Operation\*: -30°C to +85°C
- Dimensions. Excluding connectors: 78,1 x 66,8 x 37,2 mm
- Weight: < 190 g (without battery)

**Interfaces:**

- GSM FME M antenna connector
- GPS SMA F antenna connector
  - 3 Opto isolated Inputs (1 for pulse counter)
  - 3 Opto isolated Outputs
  - 1 TTL input/output GPIO
  - 2 Analog Inputs
  - 1 x I2C/SPI bus
  - 1 x 2-wires RS232 UART
- USB 2.0 port
- Operating status LED
- SIM card interface 3 V, 1.8 V
- Plug-in power supply. 5V Regulated Output
- Handset audio interface

**Open application resources**

- ARM© Core, Blackfin© DSP
- Memory: 400 KB (RAM) and 1.2 MB (Flash)
- Improved power-saving mode

**Java™ features :**

- CLDC 1.1 HI
- J2ME™ profile IMP-NG
- Watchdog

**Over-the-air update :**

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

Ordering information: MTX-65+G V3: 199.801.086  
 MTX-65+G V3 B (BATTERY INSIDE): 199.801.084

**Specification for GPS**

- Receiver 16 channel, L1 1575.42 MHz
- Accuracy Position: 2.5 m CEP; 5.0 m SEP
- Position with DGPS/SBAS: 2.0 m CEP; 3.0 m SEP
- GPS dedicated AT commands
- Support of SBAS (WAAS/EGNOS) data
- GPS active antenna supply: 3.0 V
- A-GPS enabled
- Tracking sensitivity: -157 dBm (with external antenna)
- Date WGS-84
- Start-up Time
  - Hot start: < 3.5 s
  - Warm start: 33 s
  - Cold start: 34 s
- Protocols: NMEA-0183 V2.3, RTCM protocol V2.2, UBX binary protocol

**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

**Internal Battery specification**

Ion-lithium 3,7V 1250mA/h

Matrix Madrid	Matrix Barcelona	Matrix Bilbao	Matrix Valencia
Matrix Electronica S.L. C/ Alejandro Sánchez, 109 28019 - Madrid España Tel. +34 91 5602737 Fax. +34 91 5652865 <a href="mailto:matrix@matrix.es">matrix@matrix.es</a>	Matrix Electronica S.L. Pol. Ind. Can Rosés Nave 109, Of. 6-9 08191 – Rubí - Barcelona España Tel. +34 93 5882137 Fax. +34 93 5886172 <a href="mailto:aps@matrix.es">aps@matrix.es</a>	Matrix Electronica S.L. Zubibitarte, 11 48220 Maitena - Abadiano -Vizcaya España Tel. +34 902 198146 Fax. +34 91 5652865 <a href="mailto:bilbao@matrix.es">bilbao@matrix.es</a>	Matrix Electronica S.L. Valencia España Tel. +34 902 99 54 14 Fax. +34 915 65 28 65 <a href="mailto:valencia@matrix.es">valencia@matrix.es</a>
Matrix Andalucía	Matrix Lisboa	Matrix Paris	Matrix Toulouse
Matrix Electronica S.L. Sevilla España Tel. +34 95 5600020 Fax. +34 91 5652865 <a href="mailto:andalucia@matrix.es">andalucia@matrix.es</a>	Lusomatrix, Lda Av. Coronel Eduardo Galhardo, 7, 1ºC 1170-105 Lisboa Portugal Tel. +351 218162625 Fax. +351 218149482 <a href="mailto:comercial@lusomatrix.pt">comercial@lusomatrix.pt</a>	Fleximatrix Electronique 10, avenue du Québec BP 116 - Villebon sur Yvette 91944 Courtaboeuf cedex France Tel. +33 (0) 1 60924292 Fax. +33 (0) 1 69290919 <a href="mailto:ventes@fleximatrix.com">ventes@fleximatrix.com</a>	Fleximatrix Electronique Toulouse France Tel. +33 (0) 561420199 Fax. +33 (0) 169290919 <a href="mailto:ventes@fleximatrix.com">ventes@fleximatrix.com</a>