

MC89 Basic Terminal

2G M2M Gateway, powered by Java™



General features:

- Cinterion® BGS5 embedded
- Quadband GSM850/900/1800/1900 MHz 3GPPRelease 6
- GPRS multi-slot class 12
- Compliant to GSM phase 2/2+
- Output power
Class 4 (2W) for GSM 850 and GSM 900
Class 1 (1W) for GSM 1800 and GSM 1900
- SIM Application Toolkit, class 3
- Control via standardized and extended AT commands (Hayes, TS 27.007 + 27.005)
- TCP/IP stack access via AT command and transparent TCP services
- Secure Connection for client IP services
- Internet Services TCP/UDP server/client, DNS, Ping, FTP client, HTTP client
- Supply voltage range: 8 - 30V
- Operational temperature range: -30 °C to +75 °C
- Dimensions: 65x74x33mm
- Weight: approx. 110g
- DIN rail mounting
- Screw fixing

Java™ Open Platform features:

- Java™ ME 3.2
- Secure data transmission with HTTPS/SSL
- Multi-threading programming and Multi-Application execution
- 5 MB RAM and 10 MB Flash File System

Special features:

- USB interface supports multiple composite modes and a Linux-/Mac- compliant mode
- Firmware update via USB and serial interface
- Real time clock with alarm functionality
- Multiplexer according 3GPP TS 27.010
- RLS Monitoring (Jamming detection)
- Informal Network Scan
- Hardware watchdog
- Integrated FOTA, configurable and royalty free

Specification for data:

- GPRS Class 12 data rates
DL: max. 85.6 kbps, UL: max. 85.6 kbps, Mobile Station Class B
- CSD data transmission up to 9.6 kbps, V.110, non-transparent
- USSD support
- SMS text and PDU mode support

Approvals:

- R&TTE, CE
- WEEE, EuP, RoHS and REACH compliant

Interfaces:

- Power connector 6-pole Western jack
- Mini SIM card reader, 1,8V and 3,0V
- Antenna connector FME (male)
- 2 operating status LED's
- 6 programmable LED's
- USB 2.0 HS interface up to 480 Mbps
- V.24/ V.28 RS-232 interface (D-sub 9-pole female socket) 920kbps, auto bauding

optional:

- **RS-485**
- **Multi Drop Bus (MDB) for vending machines**
- **Digital and analog GPIOs**
- **Any customer specific interface possible**

Driver:

- USB, MUX driver for Microsoft® Windows XP™, Vista™ and 7™
- RIL, USB driver for Microsoft® Windows Embedded Handheld™ >= 6.x
- MUX driver for Microsoft® Windows XP™, Vista™ and 7™



Java embedded



USB 2.0 High Speed compatible



Advanced Temperature Management



FOTA configurable & free of charge



Embedded TCP/IP Stack



RLS Monitoring (Jamming Detection)

MC89 HSPA Terminal

3G High speed M2M Gateway, powered by Java™



General features:

- Cinterion® EHS6 embedded
- 3GPP Rel.7 Compliant Protocol Stack
- Five Bands UMTS (WCDMA/FDD)
Bands: 800, 850, 900, 1900 and 2100 MHz
- Quadband GSM850/900/1800/1900 MHz
- SIM Application Toolkit, letter class "b", "c", "e"
- Control via standardized and extended AT commands (Hayes, TS 27.007 + 27.005)
- TCP/IP stack access via AT command and transparent TCP services
- Secure Connection for client IP services
- Internet Services TCP/UDP server/client, DNS, Ping, FTP client, HTTP client
- Supply voltage range: 8 - 30V
- Operational temperature range: -30 °C to +75 °C
- Dimensions: 65x74x33mm
- Weight: approx. 110g
- DIN rail mounting
- Screw fixing

Java™ Open Platform features:

- Java™ ME 3.2
- Secure data transmission with HTTPS/SSL
- Multi-threading programming and Multi-Application execution
- 10 MB RAM and 10 MB Flash File System

Approvals:

- R&TTE, CE
- WEEE, EuP, RoHS and REACH compliant

Special features:

- USB interface supports multiple composite modes and a Linux-/Mac- compliant mode interface
- Firmware update via USB and serial interface
- Real time clock with alarm functionality
- Multiplexer according 3GPP TS 27.010
- RLS Monitoring (Jamming detection)
- Informal Network Scan
- Hardware watchdog
- Integrated FOTA, configurable and royalty free

Specification for data:

- HSDPA Cat.8 / HSUPA Cat.6 data rates
DL: max. 7.2 Mbps, UL: max. 5.76 Mbps
- EDGE Class 12 data rates
DL: max. 237 kbps, UL: max. 237 kbps
- GPRS Class 12 data rates
DL: max. 85.6 kbps, UL: max. 85.6 kbps, Mobile Station Class B
- CSD data transmission up to 9.6 kbps, V.110, non-transparent
- SMS text and PDU mode support

Interfaces:

- Power connector 6-pole Western jack
 - Mini SIM card reader, 1,8V and 3,0V
 - Antenna connector FME (male)
 - 2 operating status LED's
 - 6 programmable LED's
 - USB 2.0 HS interface up to 480 Mbps
 - V.24/ V.28 RS-232 interface (D-sub 9-pole female socket) 920kbps, auto bauding
- optional:**
- **RS-485**
 - **Multi Drop Bus (MDB) for vending machines**
 - **Digital and analog GPIOs**
 - **Any customer specific interface possible**

Driver:

- USB, MUX driver for Microsoft® Windows XP™, Vista™ and 7™
- RIL, USB driver for Microsoft® Windows Embedded Handheld™ >= 6.x
- MUX driver for Microsoft® Windows XP™, Vista™ and 7™

MC Technologies MC89 Terminal and accessories

Article description	Article-No.
MC89 Basic Terminal - <i>Made by MC Technologies -</i>	MC1213889-BASIC-TERM
MC89 Basic Terminal with RS485 - <i>Made by MC Technologies -</i>	MC1213889-BASIC-485
MC89 HSPA Terminal - <i>Made by MC Technologies -</i>	MC1213889-HSPA-TERM
MC89 HSPA Terminal with RS485 - <i>Made by MC Technologies -</i>	MC1213889-HSPA-485
MC89 GPS Terminal - <i>Made by MC Technologies -</i>	MC1213889-GPS-TERM
Power supply incl. connecting cable / Western plug, EU plug - <i>also with UK- / US-Stecker available</i>	MC1213114-45-EU
Power adapter Western Plug / open end, approx. 1,5m	MC1213115
12-24V KFZ-Adapter, 1,5m Kabel	MC1213116
Data cable 1,8m, 9 pin male - 9 pin female	MC1213226
USB cable A/B, 1m	MC1213229-1
USB cable A/B, 1,8m	MC1213229-2
12V Accupack	MC1213152
Mounting Kit incl. 2 fixing bolts	Mounting Kit TC/MC

MC89 GPS Terminal

Global 3G with Java™ embedded and GPS



General features:

- Cinterion® EHS8 embedded
- 3GPP Rel.7 Compliant Protocol Stack
- Five Bands UMTS (WCDMA/FDD)
Bands: 800, 850, 900, 1900 and 2100 MHz
- Quadband GSM 850/900/1800/1900 MHz
- SIM Application Toolkit, letter class "b", "c", "e" with BIP and RunAT support
- Control via standardized and extended AT commands (Hayes, TS 27.007 + 27.005)
- TCP/IP stack access via AT command and transparent TCP/UDP services
- Secure Connection with TLS
- Internet Services TCP/UDP server/client, DNS, Ping, FTP client, HTTP client
- Supply voltage range: 8 - 30V
- Operational temperature range: -30 °C to +75 °C
- Dimensions: 65x74x33mm
- Weight: approx. 110g
- DIN rail mounting
- Screw fixing

GPS features:

- Integrated 32 Channel GNSS receiver
- NMEA-183, EGNOS, WAAS
- Position Accuracy (CEP50): 1.5m
- TTFF (-130dBm): 1s Hot Start, <35s Cold Start
- Sensitivity (active antenna):
 - Acquisition -145dBm
 - Navigation -156dBm
 - Tracking -162dBm

Special features:

- USB interface supports multiple composite modes and a Linux-/Mac- compliant mode
- Firmware update via USB and serial interface
- RLS Monitoring (Jamming detection) in 2G and 3G
- Informal Network Scan
- Integrated FOTA, configurable and free of charge
- Hardware watchdog

Java™ Open Platform features:

- Java™ ME 3.2
- Multi-threading programming and Multi-Application execution
- 10 MB RAM and 10 MB Flash File System

Approvals:

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- GPRS Class 12 data rates
DL: max. 85.6 kbps, UL: max. 85.6 kbps, Mobile Station Class B
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- MUX driver for Microsoft® Windows XP™, Vista™ and 7™



Power supply



12V Accupack



USB cable



RS232 cable



DIN rail mounting kit (with terminal)



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Company profile

We are a leading European provider of innovative solutions for:

- Machine-to-machine (M2M) hardware and end-to-end solutions
- GSM/GPRS/UMTS/HSPA+/LTE/GPS modules, terminals, router and industrial computers
- Short range modules and solutions
- Customer-specific cable assemblies
- Connectors and assembly groups for industry
- Measuring and inspection technology

Thanks to our many years of experience we can offer:

- A broad, attractively priced range of products meeting German quality standards
- Development of the optimum solution specifically tailored to your application
- Competent technical advice on product selection and design-in
- Quick, professional implementation of all associated commercial and logistical processes
- Comprehensive service concepts for our products and solutions

