

## TC65 Terminal



Quad-Band 2G



TCP/IP



GPRS  
Class 12



SIM Access  
Profile



Powerful  
Processor



FAX Functionality



Industrial  
Interface



Java



# 2G

Cinterion® TC65 Terminal  
Plug into the Wireless M2M Market

# Cinterion® TC65 Terminal Plug into the Wireless M2M Market

The TC65 Terminal sets unprecedented standards in the field of machine-to-machine communication. Based on the advanced TC65 module the intelligent Terminal version combines the most powerful and universally accepted Java™ open software platform with a wide range of industrial interfaces, to produce a smart plug & play solution in a growing M2M market.

Having the latest Information Mobile Profile NG embedded the TC65 Terminal offers the opportunity to control M2M applications by using internal resources such as a powerful processor as well as the ability to simplify over-the-air software updates (OTA) for reliable e-maintenance of applications.

Furthermore the future proved standard allows secure data transmission using https and PKI encryption. Last but not least Quad-Band technology allows applications to be used globally and the software development kit included is license free.

A wide range of industrial interfaces and the plug & play functionality included allow quick and easy implementation, reduces your costs significantly and lowers the entry barriers to a wide number of business fields such as: fleet management, security, vending machines or remote control. With its extended temperature range it is also the perfect stand-alone device for sophisticated M2M solutions.

## Plug into the Wireless M2M Market



### Gemalto M2M Support includes:

- > Personal design-in consulting for hardware and software
- > Extensive RF test capabilities
- > GCF/PTCRB conform pretests to validate approval readiness
- > Regular training workshops



Local engineers, a competent helpdesk, a dedicated team of R&D specialists and an advanced development center are the hallmarks of our leading support offer.

## Cinterion® TC65 Terminal Features

### 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
  - > Class 4 (2 W) for EGSM900
  - > Class 1 (1 W) for GSM1800
  - > Class 1 (1 W) for 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: 8 ... 30 V
- > Power consumption (at 12 V):
  - > Power down 0,5 mA
  - > Sleep mode (registered DRX = 5) 29 mA
  - > Speech mode (average) 184 mA
  - > GPRS class 12 [Power reduction = 6dB] (average) 330 mA
- > Temperature range
  - > Operating temperature: -30 °C to +75 °C
  - > Switch off: +80 °C
  - > Storage: -40 °C to +85 °C
- > Dimensions: 90 × 130 × 38 mm
- > Weight: < 190 g

#### SPECIFICATION FOR VOICE

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

#### SPECIFICATION FOR SMS

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

#### SPECIFICATION FOR GPRS DATA TRANSMISSION

- > GPRS class 12: max. 86 kbps (DL & UL)
- > 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 FAX

- > Group 3, class 1

#### OVER-THE-AIR UPDATE

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

#### OPEN APPLICATION RESOURCES

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

#### JAVA™ FEATURES

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

#### SPECIAL AUTOMOTIVE FEATURES

- > RLS Monitor (Jamming Detection)
- > Character framing 7E1 and 8E1 at serial interface
- > Programmable terminal reset
- > SIM Access Profile integrated

#### SPECIAL AUTOMOTIVE FEATURES

- > SMA 50 Ω antenna connector
- > 24 pin Micro-N-Lok connector
  - > I<sup>2</sup>C bus and SPI bus
  - > 2 × analog in (ADC)
  - > VDD (2.9 V)
  - > Multiple GPIOs
- > 9 pin sub-D connector for serial interfaces (ITU-T V.24 protocol)
- > Operating status LED
- > ON/OFF button
- > SIM card interface 3 V, 1.8 V
- > Plug-in power supply
- > Handset audio interface

#### APPROVALS

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

**For more information, please visit**

[gemalto.com/m2m](http://gemalto.com/m2m), [www.facebook.com/gemalto](http://www.facebook.com/gemalto), or Follow @gemaltom2m on twitter.

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security to be free