

**SIEMENS**

# TC65 Terminal – Plug into the Wireless M2M Market

Wireless  
Modules



The new TC65 Terminal sets unprecedented standards in the field of machine-to-machine communication. It features a Java™ software development platform, a wide range of standard interfaces plus GPRS class 12. Due to its quad-band support, the intelligent terminal can be employed in GSM and GPRS networks anywhere in the world. The integrated TCP/IP stack enables the use of IP-based services through powerful GPRS connections.

Java™ makes it possible to control complex customer applications, by using internal resources such as the processor and memory. It can also be integrated quickly and easily due to its plug & play functionality.

As well as permitting e-maintenance, the TC65 Terminal can reduce your costs and lower the barriers to a wide number of business fields such as:

- fleet management
- security
- vending machines
- remote control

# TC65 Terminal

preliminary

# TC65 Terminal – Succeed with Java™

The TC65 Terminal with Java™ technology is the missing link between M2M applications and the world of IP-based services involving GSM/GPRS communication. Having the latest version of IMP 2.0 embedded in it, the TC65 Terminal offers a complete software development platform with which to create licence-free, hardware-independent applications. The new standard provides control of M2M applications and enables user-friendly over-the-air software updates (OTA) for reliable e-maintenance and secure data transmission using https and PKI encryption. The variety of industrial interfaces and the plug & play functionality included allow quick and easy implementation. With its extended temperature range as well, it is the perfect stand-alone device for sophisticated M2M solutions. The TC65 Terminal is lead-free, meeting the European requirement on limiting the use of hazardous substances in electrical and electronic devices (RoHS).



## Wireless Modules Benefits and hard facts

### General features

- Quad-band:  
850/900/1800/1900 MHz
- GSM release 99
- RF Output power:
  - Class 4 ((2 W) for EGSM 850 and 900
  - Class 1 ((1 W) for GSM 1800 and 1900
- AT commands Hayes GSM 07.05 and GSM 07.07
- SIM application toolkit release 99
- Supply voltage range:  
+ 8V ... + 30V DC
- Power save mode
- Dimensions: 130 x 90 x 38 mm
- Weight < 190 g
- Ambient temp. range:
  - 30 to +65 °C
  - Automatic switch off at +75 °C
  - Storage temp. range:  
- 40°C ...+ 85°C

### Open application platform features

- ARM7 processor
- Memory: 400 kbytes (RAM) and 1.7 Mbytes (Flash)
- Improved power-saving modes
- TCP/IP stack access via AT commands

### Java™ features

- CLDC 1.1 HI
- J2ME™ with IMP 2.0
- Secure data transmission with HTTPS and PKI
- Support of TCP, UDP, HTTP, FTP, SMTP, POP3
- Application SW update over-the-air (OTAP)

### Specification for GPRS data transmission

- Multislot class 12
- PBCCH support
- Coding scheme 1 to 4
- Class B mobile station

### 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

### Specification for voice

- GSM-FR, GSM-HR, GSM-EFR and AMR speech codecs supported
- Adaptive multirate AMR
- Basic hands-free operation
- Echo cancellation
- Noise reduction

### Specification for SMS

- Via GSM or GPRS
- Point-to-point MO and MT
- Text and PDU mode
- SMS cell broadcast

### Approvals

- R&TTE, FCC, UL, IC, GCF, PTCRB, E1 mark
- Local approvals and network operator certifications

### Interfaces

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

More about Siemens  
Wireless Modules at:  
[www.siemens.com/wm](http://www.siemens.com/wm)

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