

2G Terminals



TC65 Terminal Plug into the wireless M2M market



Terminal



Quad-Band



TCP/IP



GPRS
Class 12



SIM Access
Profile



Powerful
Processor



FAX Functionality



Industrial
Interface



JAVA



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.

Thanks to its full type approval (FTA), there is no worry about obtaining appropriate certification anymore – the TC65 comes with approvals from major mobile network carriers across the globe, including those from US operators.

TC65 Terminal

Plug into the wireless M2M market



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 x 130 x 38 mm
- Weight: < 190 g

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 SMS

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

Specification for fax

- Group 3, class 1

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

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)

Interfaces

- SMA 50 Ω antenna connector
- 24 pin Micro-N-Lok connector
 - I²C bus and SPI bus
 - 2 x 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

Special features

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

Approvals

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

For detailed specification please see **Hardware Interface Description**.

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- GCF/PTCRB conform pretests to validate approval readiness
- Guidelines for local approvals and acceptances
- Regular training workshops



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