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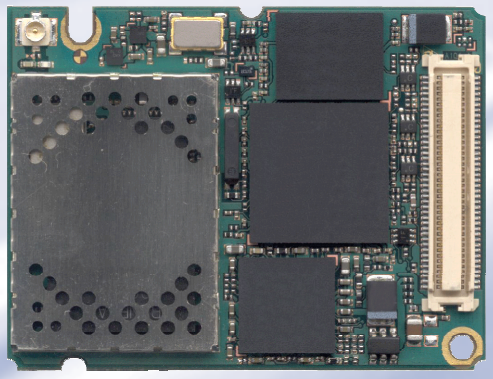

TC65
Siemens Cellular Engine

Version: 00.521
DocID: TC65_rn_v00.521

Release Notes

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Contents

1 Preamble

This Release Note applies to the Siemens TC65 Release 00.521.

The major benefit over earlier products is that TC65 supports the new Java profile IMP-NG, especially developed for data communication modules. In addition TC65 supports Remote SIM Access, GPRS Class 12 and offers a USB port, an I^2C interface, SPI and a TCP/IP stack.

The emphasis of this release is to provide first information to customers who wish to begin assessing the conceptual design of TC65 in advance of its full implementation. The modules are provisioned with TC65 firmware which allows testing basic GSM, GPRS, I^2C and Java features, but does not contain all functions of the later product. Several procedures do not operate as specified in [1], [2] and [4], or are not yet implemented to the full extent.

For using the USB port the module should be configured properly via the supplied configuration file "usbmodem.inf" at the first time of connecting to the USB host.

1.1 Related Documents

[1] TC65 Hardware Interface Description, Version 00.521 (Draft)
[2] TC65 AT Command Set, Version 00.521 (Draft)
[3] DSB75 Support Box – Evaluation Kit for Siemens Cellular Engines
[4] TC65 Java User's Guide (Draft)

2 Improved Features

The following chapter lists features or parameters that have been improved over the preceding TC65 release.

- The USB interface is now functional.
- The USB modem has no serial number. The dummy string used in earlier releases for the serial number of the USB modem has been removed.
- Enhanced network selection (ENS) is implemented.
- The module's robustness during the shutdown process has been improved.
- All emergency numbers, including 08, are supported now.
- The I/Os of the application interface which are programmable as GPIOs have been consolidated.
- Over the air update for Java applications is now supported.
- The management of power saving has been stabilized, all SLEEP modes can be configured with AT+CFUN.

3 General Hardware and Software Limitations

- Noise Reduction and Echo Cancellation are working only at low quality level. Basic Handsfree operation is not yet supported. The Ringing Tone generator does not always work reliably.
- The I/Os of the application interface which are programmable as GPIOs are working with basic functionality.
- AD/DA Conversion is currently not supported.
- The feature RTC wake-up from POWER DOWN mode is not available. Programming an alarm time (AT+CALA) will not wake up the module automatically. Despite this, AT+CALA can be used any time during normal operation.
- Remote wake-up of the host via USB is not yet supported.

3.1 Software Limitations

- Autobauding (AT+IPR=0) is deactivated.
- The blacklist is deactivated.
- Only the first serial interface ASC0, the USB interface and the first Multiplexer channel MUX1 are intended for data and fax calls.
- Currently no release causes will be displayed for bearer connections opened with AT^SISO. There are only the two return states:
  OK - bearer is up
  ERROR - bearer is down and the internet service is not started
- The SIM Application Toolkit terminal profiles E.1/10 and E.1/15 may not work correctly under all conditions.

3.1.1 Java Related Software Limitations

- OTAP does not work in the root directory of the file system. Do not use a:\ as application directory.
- The Java application autostart delay time cannot be set to a time shorter than 5 seconds.
- The following features have not been implemented yet:
  - Security:
    - Imlet security (imlet signatures)
    - Data transmission security (https)
  - HW access to:
    - SPI
    - DAC and ADC
    - Pulse counter (not yet implemented, though a preliminary description of the required commands AT^SCCNT and AT^SSCNT is provided in [2]).
  - Java application development:
    - DE integrations
    - Application debugging
  - Over the air update for:
    - Firmware

4 Java Installation Procedure

Since there is no automatic installation the delivered components have to be installed manually:

SDK Installation:
This is the J2SE SDK provided by SUN. You can skip this step if you already have a V1.4.2 SDK on your system. Yet we recommend using the provided version. To do so, double-click the j2sdk-1_4_2_07-windows-i586-p.exe file and follow the instructions of the installation process.

WTK Installation:
- Unpack the tc65_wtk.zip archive to your harddrive. Recommended location is <your program folder>/Siemens/SMTK/TC65/
- Set the environment variable IMPNG_DIR to the “wtk” (Wireless Toolkit) directory which you just unpacked, e.g. C:/Programme/Siemens/SMTK/TC65/wtk
- Set the environment variable IMPNG_JDK_DIR to your J2SE SDK directory, e.g. C:/j2sdk1.4.2_07

MES Installation:
- Unpack the module_exchange_suite.zip archive to your harddrive. Recommended location is <your program folder>/Siemens/MES/
- Double-click the register.bat in the bin directory. Now MES is ready to use.
- If desired put the MES directory into your systems PATH.

Application Compiling:
Please refer to [4], Chapter 9 for further information.

5 Using the USB Interface in a PC Environment

- When the module fails to respond while controlled via USB first close the Terminal program. Then disconnect the module from its power supply, press the IGT key on DSB75 to restart the module and finally open the Terminal program again.
- After using the command AT^SMSO on the USB port the Terminal program must be closed before the module can be restarted with IGT. The URC “^SHUTDOWN” is not generated on the USB interface.