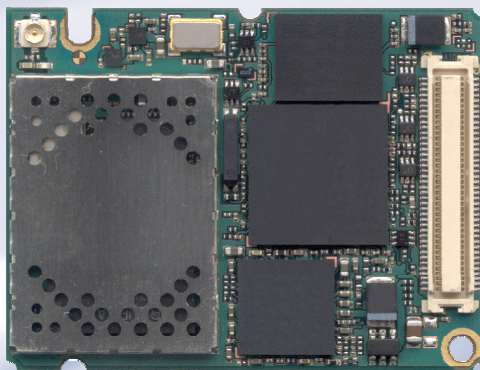


SIEMENS



TC63
Siemens Cellular Engine

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Release Notes

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1 Preamble

This Release Note applies to the Siemens TC63 Firmware Release 00.490.

The major benefit over earlier Siemens wireless modules is that TC63 supports Remote SIM Access, GPRS Class 12 and additionally offers a USB port, an I²C interface 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 TC63 in advance of its full implementation. The modules are provisioned with an early TC63 firmware which allows testing basic GSM and GPRS features, but does not contain all functions of the later product.

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] TC63 Hardware Interface Description, Version 00.490 (Draft)
- [2] TC63 AT Command Set, Version 00.490 (Draft)
- [3] DSB75 Support Box – Evaluation Kit for Siemens Cellular Engines

2 Improved Features

The following chapter lists features or parameters that have been improved over the preceding TC63 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.
- The I²C Interface has been consolidated.
- The 1.8V SIM interface is supported.
- The EMERG_RST line now shuts down the module and can be used as emergency-off. The description in [1] has been changed accordingly.
If hardware driven reset is required this can be achieved by activating the EMERG_RST and IGT line simultaneously. The EMERG_RST line must be released first.
- Enhanced network selection (ENS) is implemented.
- TCP/IP connectivity enabled with the new Internet service AT commands AT[^]SICS, AT[^]SISS, AT[^]SISO, AT[^]SISC, AT[^]SISR and AT[^]SISW is now supported both for GPRS and CSD (circuit switched data transfer).
- Fax transmission has been consolidated.
- The module's robustness during the shutdown process has been improved.
- The management of power saving has been stabilized, all SLEEP modes can be configured with AT+CFUN.
- If overvoltage conditions occur, alert messages ("Overvoltage" URCs) will be correctly indicated before the module switches off automatically.
- The command AT+CFUN=x,1 is functional and can be used to reset the module.
- Transition from Charge-only mode to Normal mode via IGT line works correctly.
- The baseband switch defined in [2], section AT[^]SCFG, for selecting different frequency bands is now fully functional.
- The Airplane mode designed to shut down the module's radio part (PA and receiver), deregister from the GSM/GPRS network and disable all AT commands whose execution requires a radio connection, is fully functional.
- Dialing from the active phonebook using the command ATD<str> is fully supported.
- All emergency numbers, including 08, are supported now.
- If character framing is configured to 8P1 mode (AT+ICF=2,n with n=0;1) or 8N1 mode (AT+ICF=1,n with n=0;1) MO and MT data calls will be correctly handled.
- The Multiparty feature has been improved. It is now possible to accept a 3rd party ISDN call by using the ATA command.
- The presentation of URCs has been improved. For example, when GPRS or circuit switched data are transferred, URCs will no longer be embedded into an AT command response.
- The URC "+CGREG" can be enabled.
- The AT&V command correctly indicates the current profile.
- The commands AT&W, ATZ and AT&F work correctly.
- *# commands return appropriate explicit Result Codes rather than only OK or ERROR.
- Single numbering scheme for Fax connections is supported.
- SMS: Cell broadcasting can be configured by using the AT+CSCB command as described in [2].

3 General Hardware and Software Limitations

- Audio interfaces: 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 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.
- The 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.
- In rare cases, when transferring large amounts of circuit switched data (several Megabytes), loss of data packets may still occur.
- AT command controlled TCP/IP connectivity: 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.

4 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.