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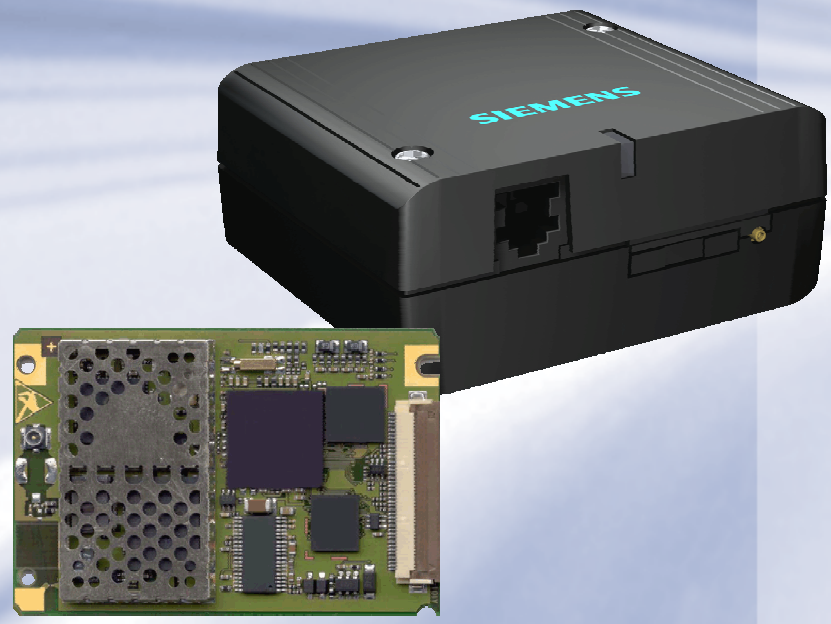

MC35i Module
MC35i Terminal

Siemens Cellular Engines

Version: 01.03
DocID: MC35i_rn_v01.03

Release Notes

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Contents

1 Preamble

This Release Note introduces **MC35i Version 01.03** and briefly describes the advantages over earlier releases. You also find a list of problems and deficiencies known of the present version.

Referred to as MC35i, the firmware applies to the Siemens GSM engines **MC35i** and **MC35i Terminal.**

1.1 Related documents

[1] MC35i AT Commands Set, Version 01.03
[2] MC35i Hardware Interface Description, Version 01.03
[3] MC35i Terminal Hardware Interface Description, Version 01.03
[4] GPRS Startup User's Guide
[5] Remote-SAT User's Guide
[6] Multiplexer User's Guide
[7] Multiplex Driver Developer's Guide for Windows 2000 and Windows XP
[8] Multiplex Driver Installation Guide for Windows 2000 and Windows XP
[9] DSB35 Support Box – Evaluation Kit for Siemens Cellular Engines
[10] Application Note 02: Audio Interface Design
[11] Application Note 14: Audio and Battery Parameter Download
[12] Application Note 16: Upgrading MC35i Firmware
[13] Application Note 24: Application Developer's Guide

2 New features

AT command / feature	Brief description
AT^SIND	AT^SIND is a new Siemens defined command for extended indicator control. The command provides two new features and improves the handling of event indicators: • New feature: For better control of GSM network coverage, AT^SCFG allows to activate the URC "+CIEV: netlost". The URC indicates that a network registration or location update failed due to a bad uplink connection ("+CIEV: netlost, 1") or was successful ("+CIEV: netlost, 0"). If the location update fails repeatedly due to bad network coverage, usually no further log-on attempt will be made even when the signal strength is back to normal. This behavior is requested by the GSM specification 04.08. To make this apparent to the user the URC "+CIEV: netlost" was introduced. The URC can be evaluated by the application to take the necessary action, for example notifying the user of the registration status or trying to register to the network once again. To prompt the ME to register once again after having received the URC "+CIEV: netlost, 1", the following procedure is recommended: AT+COPS=2 (ME deregisters from the network.) OK AT+COPS=0 (Prompts the ME to automatically select an operator. OK Alternatively, enter AT+COPS=1,2,<oper> to select a specific operator.) • New feature: The new indicator "ciphcall" feature allows the ME to detect that ciphering is not switched on and to indicate this to the user as defined in GSM specifications 02.07 and 02.09. • Compared with the GSM 07.07 standard command AT+CIND, the Siemens command AT^SIND gives you greater flexibility to handle event indicators. Its major advantage over AT+CIND is that you can easily view the current status of all indicators supported by AT+CIND and AT^SIND. Also, you can use the AT^SIND write command to register or deregister the indicators of both commands. We therefore recommend to replace AT+CIND with the more powerful and flexible command AT^SIND.
AT^SCKS	When detecting an unsupported SIM card type (e.g. other than 3 Volt SIM card), MC35i immediately shuts down the SIM interface to prevent damage to the module. To alert the user the URC "^SCKS: <SimStatus>" will be generated prior to the shutdown. For this purpose, the parameter <SimStatus> (named <m> in earlier releases) now includes the additional value "2" which indicates that the SIM interface has been deactivated.
AT^SPIC	AT^SPIC now includes a read and write command and the additional parameter <facility>. While the execute command AT^SPIC simply returns the number of attempts to enter the currently required password, the write command allows to query the number of remaining attempts related to a specific lock type ("SC", "PS", "P2", "PN").

AT command / feature	Brief description
AT^SCTM	The latest additions are a 2-minute guard period after power-up and the option to specify a phone number. If the MC35i board temperature exceeds a critical limit, automatic shutdown is deferred in the following cases: • while an emergency call is in progress • while a call to a predefined number is in progress • during the 2-minute guard period after powerup. This guard period has been introduced to allow the user to make an emergency call or a call to the predefined <phone number>. Once the guard period is expired or the call is terminated, full temperature control will be resumed. If the temperature is still out of range, MC35i switches off immediately (without another alert message). After power-up, the presentation of all "^SCTM:" URCs is now enabled for two minutes (instead of only 15 seconds as in earlier releases). The write command syntax has been enhanced as follows: AT^SCTM=<n>[, <p>[, <phone number>]]
AT^SSET	Siemens defined command to acknowledge to the user that the ME has completed reading data from the SIM card after power-up and personalization (PIN entry if required). If enabled with AT^SSET=1, the URC "SSIM READY" indicates that all commands that depend on SIM data fields can be used, e.g. phonebook and SMS commands.
AT^SMSO	After receiving the AT^SMSO command MC35i issues the URC "^SHUTDOWN" to indicate that data have been stored non-volatile and the power-off procedure has been completed. The module then enters the POWER DOWN mode.

3 Improved features

AT command / feature	Brief description
Improved handling of transmit power	The problem of low GPRS transmit power caused in rare cases when the MC35i module failed to read Power Control messages from some GSM/GPRS networks has been fixed. This enables MC35i to select the optimum power level and thus, properly handle GPRS connections.
Remote-SAT commands	The commands AT^SSTA, AT^SSTGI, AT^SSTR are no more PIN protected.

4 Known problems

AT command / feature	Brief description
AT+CFUN	An incoming or active call will be immediately terminated when the functionality level is set using AT+CFUN=1.
Autobauding and ALARM mode	If alarms (AT+CALA) are used to wake up the module from POWER DOWN mode, a fixed baudrate must be set with AT+IPR=<rate> in order to receive the ^SYSSTART ALARM MODE and +CALA: <text> indications. URCs "^SYSSTART ALARM MODE" and "+CALA: <text>" will not appear if autobauding is enabled when the module starts in ALARM mode.
Behavior of DCD line in Multiplex mode	If a data connection (CSD or GPRS) is set up on one of the Multiplex channels the DCD line is activated on the same Multiplex channel and on the physical channel. If then any URC is signaled on another channel, the DCD line of the physical interface is deactivated although the data connection remains established and the virtual DCD line of the specific channel remains active, too.
GPRS attach	Due to poor network coverage it may happen that the ME is not registered to a mobile network. As a result, an attempt to attach for GPRS will fail. In this case, it is possible that the ME keeps trying to attach at the expense of an increased current consumption. Therefore, before trying to attach for GPRS, check with AT+CREG? whether the ME is registered. The response must be either “+CREG: x,1” (registered) or “+CREG:x,5” (registered, roaming). If the ME is properly registered to the GSM network you can use the AT^SMONG command to verify whether the network is capable of GPRS at all. If the ME has already entered a state, where a GPRS attach is taking an unusually long time (e.g. several minutes) you are advised to check both the GPRS attach state and the registration status. If the ME remains detached (+CGATT: 0), further attach attempts should be stopped to minimize current consumption. An easy way to do so is to issue the following commands: AT+COPS=2 Wait 5 seconds AT+COPS=0
AT+CLIP	If CLIP is enabled and the presentation of the "+CLIP" URC is activated and stored with AT&W, the settings are always effective for incoming voice calls, but are ignored for CSD and fax calls once the module was restarted. The problem is that after restarting the module the "+CLIP" URC is not delivered when a CSD or fax call is received, even though the read command AT+CLIP? confirms with "+CLIP: 1,1" that the service is enabled. Workaround: To ensure that CLIP takes effect for incoming CSD and fax calls the write command AT+CLIP=1,1 needs to be executed each time after restarting the module. We recommend that the setting is part of the initialization sequence.