Cinterion® EHSx

Release Notes

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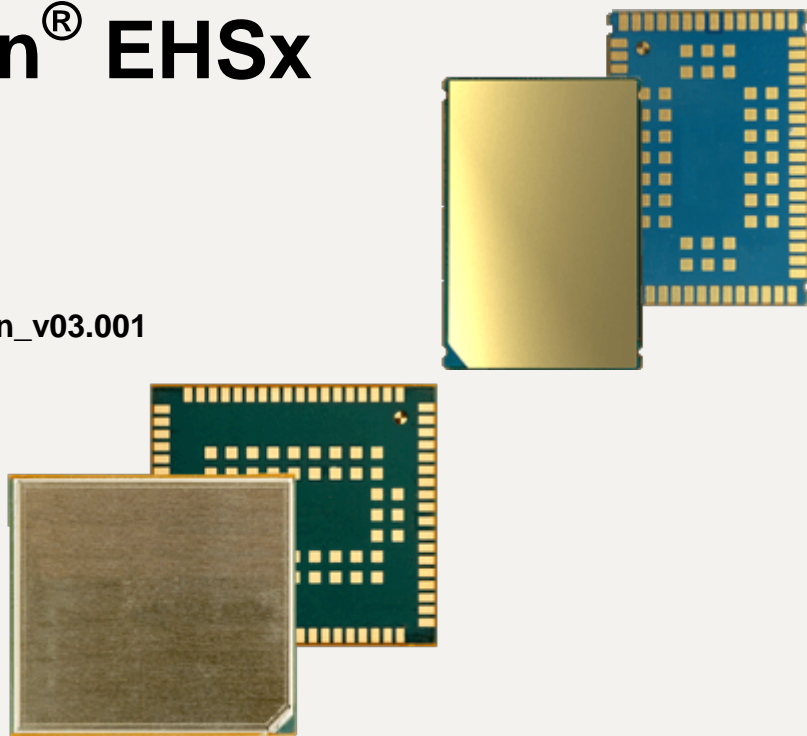
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Contents

1   Introduction

This Release Note refers to the Cinterion® EHSx modules
- **Cinterion® EHS5-E 03.001**
- **Cinterion® EHS5-US 03.001**
- **Cinterion® EHS6 03.001**
- **Cinterion® EHS6-A 03.001**
- **Cinterion® EHS8 03.001**

Cinterion® EHSx 03.001 comes with JRC (Java Maintenance Application) installed when shipped from factory or when updated to the latest firmware. Required for proper operation the JRC should not be changed. Also, please never disable the command AT^SCFG="Userware/Autostart","1" needed to automatically start the JRC each time after reboot.

DISCLAIMER for EHS5-E, EHS6, EHS6-A:
The approval process and the implementation of ERA-GLONASS and panEU eCall are still undergoing reviews and changes, with all parties being involved. Gemalto M2M strives to provide all customers with the most recent and use case compliant software. This implies that future module firmware updates may become mandatory for the applications to comply with those use cases. Gemalto M2M undertakes to supply such software updates under the agreed terms and conditions. It is then the responsibility of the customer, and at their discretion, to update previously delivered modules if needed.

1.1   Related Documents

[1]   EHS5-E AT Command Set, v03.001
       EHS5-US AT Command Set, v03.001
       EHS6 AT Command Set, v03.001
       EHS6-A AT Command Set, v03.001
       EHS8 AT Command Set, v03.001
[2]   EHS5-E Hardware Interface Description, 03.001
       EHS5-US Hardware Interface Description, 03.001
       EHS6 Hardware Interface Description, 03.001
       EHS6-A Hardware Interface Description, 03.001
       EHS8 Hardware Interface Description, 03.001
[3]   Hardware Migration Guide: Differences between BGS2 Rel1+2 and EHSx, v07
[4]   DSB75 Support Board Hardware Interface Description, v014
[5]   Multi-Adapter R1 User Guide, v03
[6]   Getting Started with EHSx, v03
[7]   EHSx Java User's Guide, v07
[8]   Multiplexer Driver Developer's Guide, v19
[9]   Application Note 16: Updating EHSx, PDSx, BGS5 Firmware, v02
[10]   Application Note 17: Firmware Update over the Air, v02
[11]   Application Note 39: USB Interface Description, v04
[12]   Application Note 26: Power Supply for Wireless Applications, v05
[13]   Application Note 40: Thermal Solutions for EHS5 Applications, v02
       Application Note 40: Thermal Solutions for EHS6x, EHS8 Applications, v02
[14]   Application Note 48: SMT Module Integration, v04

For EHS5-E, EHS6, EHS6-A:
[15]   Application Note 54: EU eCall and ERA GLONASS for Cinterion® EHS5-E, EHS6,
       EHS6-A

To visit the Gemalto M2M Website you can use the following link:
http://m2m.gemalto.com/

2 New Features

Feature	Brief description
AT^SCFG "MEShutdown/sVsup/ threshold"	The AT^SCFG subcommand "MEShutdown/ sVsup/threshold" can be used to adjust the module's undervoltage threshold. The feature is only intended for applications operating at the limit of the tolerance defined for voltage drops during transmit burst. Therefore, you are advised to take great care when using this option. In particular, it is strongly recommended to implement an additional external supply voltage monitoring circuit to ensure that the module operates within range.
AT^SIND "Call/Speech/Codec"	The new AT^SIND "Call/Speech/Codec" subcommand can be used to configure speech version indication compliant with 3GPP TS 24.008 in the bearer capabilities of voice calls.
For EHS6, EHS6-A only:	
eCall / ERA-GLONASS	EHS6 and EHS6-A now support eCall and ERA-GLONASS compliant with CEN and 3GPP standards. Related AT commands are: AT+CECALL AT^SCFG "Call/Ecall/AckTimeout" AT^SCFG "Call/Ecall/Callback" AT^SCFG "Call/Ecall/CallbackTimeout" AT^SCFG "Call/Ecall/Msd" AT^SCFG "Call/Ecall/Pullmode" AT^SCFG "Call/Ecall/SessionTimeout" AT^SCFG "Call/Ecall/StartTimeout" AT^SCFG "MEopMode/Dormancy" AT^SIND ecallco indicator AT^SIND ecallda indicator AT^SIND ecaller indicator AT^SIND voiceprompt indicator AT^SAFH Audio File Handling (voiceprompts)

3   Improved Features

Feature	Brief description
AT^SIND, Jamming Detection, RAT reselection	Indication of jamming with AT^SIND "lsta" is now effective during reselection from UMTS to GSM.
AT^SISW via ATCommand class	To use Internet Services from an ATCommand class instance take care to install the latest WTK. This ensures that the AT^SISW command is now working properly.
AT^SISW, FTP upload	Sending data packets to an FTP server using the AT^SISW command no longer causes the module to restart.
AT^SISW, HTTP post	In case of network loss or low signal strength, the time needed to finish a HTTP POST opening request or to close a HTTP POST connection is now maximum 1 minute.
AT^SISS, Socket TCP parameters "keepcnt", "keepintvl"	The optional profile parameters "keepcnt", "keepintvl" specified in [1] for all Socket TCP services are now fully implemented.
Pulse counter, AT^SSCNT	If pulse counter Start-Stop mode AT^SSCNT=1 is enabled just after having read the pulse counter with AT^SSCNT=2, then the counter no longer increments by one pulse as long as there is no new pulse counter generated yet.
AT^SFSA	The subcommands AT^SFSA "close" and "remove" are working fine now.
AT^SAFH	Playing a voiceprompt during an active voice call no longer mutes the voice call (as observed with earlier EHS5-E release).
USSD via SIM Application Toolkit	USSD actions will now take only 3 seconds, no matter whether sent via AT+CUSD (e.g. AT+CUSD=1,"*120#"), or as SEND_USSD proactive command in SAT Explicit Response (ER) mode or automatically in SAT Automatic Response mode (AR).
Firmware update, AT^SCFG, "Serial/Inter-face/Allocation AT+CPMS	A firmware update to release 03.001 no longer erases user defined settings, such as AT^SCFG: "Serial/Interface/Allocation" and the SMS "ME" memory.
AT+CSCS	Updating to a newer release no longer changes the powerup default of AT+CSCS to "UCS2".

4   Known Issues

Feature	Brief description
Power saving on USB	If the module connects to Linux OS and the USB interface is in Suspended state it may happen that the CDC-ACM ports do not re-enumerate when a wakeup event occurs. Workaround: Restart the module.
Firmware update over ASC0 interface	When the firmware is updated over the ASC0 interface it may happen that the JRC Midlet is not installed. Workaround: Download the firmware over the USB Modem interface.

AT^SISS profile for SMTP	To use international conversion in the mail subject parameter AT^SISS=x,"smSubj" we recommend to follow the scheme described in RFC2047.
	
	Syntax according to RFC2047:
	=?charset?encoding?encoded-text?=
	
	Example:
	AT^SISS=0,smSubj,"=?UTF-8?Q?=30=31=32?= Hello World"
	
	The message body starts with the following header elements:
	        Content-Type: text/plain; charset="UTF-8"
	        Content-Transfer-Encoding: 8bit
	
	The parameters "smSubj" and "smMsg" can contain text strings of up to 255 characters. Hence, the "smMsg" parameter is usable for short emails.
	
	Long emails should be sent as attachments by using the parameters
	        AT^SISS=x,"cmd","files"
	        AT^SISS=x,"path","file:///a:<name>/"
	        AT^SISS=x,"files","<name>".
	The file extension determines the format of the Content-Type:
	If AT^SISS=x,"files","<name>" contains *.txt, *.TXT, *.log, *.LOG, *.asc or *.ASC, then the *Content-Type text/plain* will be set in the email header, otherwise *Content-Type binary/octet* (for example when using the extensions *.bin" or *.dat). In both cases, the content will be Base64 coded and, thus, exactly transmitted without character set conversion.

AT^SISS	As stated in earlier Release Notes (v02.782), the characters @ and underscore are now supported when GSM alphabet is set. On the other hand, the escape sequences \00 for @ and \11 for underscore are currently not accepted.

Feature	Brief description
AT^SISR, FTP download	In rare cases, downloading a file from an FTP server ends up with error message "Unknown error -123 during socket::read".
AT^SISW EOD flag	Other than specified in [1], it is possible to continue sending data with AT^SISW although the EOD flag was set (e.g. AT^SISW=x,0,1).
AT^SMONI, AT^SMONP	AT^SMONI and AT^SMONP are not yet fully correct: • During an active connection (Talk / Data mode) AT^SMONI and AT^SMONP do not show all parameters. • Unless SIM PIN authentication has been done AT^SMONI shows Search state, and AT^SMONP returns "+CME ERROR: operation not allowed". Workaround: To get valid responses before entering the SIM PIN please enter AT+COPS=0 and execute again AT^SMONI and / or AT^SMONP.
AT^SFSA="stat"	The AT^SFSA="stat","<path>" command shows incorrect values for parameters <date last access>, <date last modification>, <date last file stat change>: For folders: Time is always set to ^SFSA: "70/00/01,00:00:00". For files: Time is adapted to the module's system time given at the time of accessing / changing a file. This applies also when copied files are pasted to the FFS.
SW flow control	On Windows OS, software flow control (XON/XOFF) is not supported for PPP connections.
Hardware flow control	The toggling frequency at serial interface handshake input lines (e.g. RTS) should not exceed 1 kHz.
Pulse counter / GPIO8 on Evaluation Boards	On the EHSx Evaluation Boards, GPIO8 is currently not available as GPIO or pulse counter. Please contact the Gemalto M2M GmbH for information on how to enable GPIO8 on EHSx Evaluation Boards.
WinMUX demo software	Even though the WinMux driver supplied with EHSx was successfully set up on Microsoft Windows Vista, Windows XP or Windows 8, it may happen that the installed multiplex channels are not responding. Microsoft Windows 7 is not affected.
Java RecordStore API	If the module is reset while the addRecord method is writing data to the FFS it may happen that the module shuts down before saving the data.

Feature	Brief description
Module Exchange Suite (MES)	On MS Windows 7, the MES cannot complete data transmission if when file size is precisely 356318 or 77 114 bytes. This issue is due to a malfunction of MS Windows 7 only.
OTAP (Over-The-Air-Provisioning) for Java Application	Take care that there is enough free memory on the FFS for storing your Java userware. Currently, there are no warning and error result messages if OTAP is launched although the FFS has not enough memory.
Debugging Java Midlet with Eclipse 4.2.1	While debugging a Java MIDlet in Eclipse the Variables tab contents disappears if the "this" object accessed. After clicking on it you will get the message *"java.lang.IllegalArgumentException occurred invoking method"*. Trying to show the content of the current object ("this") will lead to an empty "Variables" window and the message *"com.sun.jdi.InternalException: Got error in reply: 25 occurred while retrieving value"*.
For EHS8 only:	
GPS time	Every Saturday at 00.00 a.m., the GPS date switches to January 1st, 1980 instead of showing the expected current date. On Sunday at 00.00 a.m. the correct date will be shown again.

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