

Cinterion[®] BGS5

Release Notes

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1 Introduction

This Release Note refers to the Maintenance Release
Cinterion® BGS5 01.100

BGS5 01.100 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.

1.1 Related Documents

- [1] BGS5 AT Command Set, v01.100a
- [2] BGS5 Hardware Interface Description, v01.100c
- [3] Hardware Migration Guide: Differences between BGS2 Rel1+2, EHSx and BGS5, v01
- [4] DSB75 Support Board Hardware Interface Description, v014
- [5] Multi-Adapter R1 User Guide, v03
- [6] Getting Started with BGS5, v01
- [7] BGS5 Java User's Guide, v01
- [8] Multiplex Driver Installation Guide, v17
- [9] Multiplex Driver Developer's Guide, v19
- [10] Application Note 16: Updating EHSx/BGS5 Firmware, v02
- [11] Application Note 17: Firmware Update over the Air, v01
- [12] Application Note 39: USB Interface Description, v01
- [13] Application Note 26: Power Supply for Wireless Applications, v05
- [14] Application Note 48: SMT Module Integration, v04

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

2 New and Improved Features

Feature	Brief description
AT^SCFG, "MEShutdown/sVsup/threshold"	<p>The new AT^SCFG subcommand "MEShutdown/sVsup/threshold" can be used to adjust the module's undervoltage threshold.</p> <p>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.</p>
AT^SBV	The new command AT^SBV allows to monitor the supply voltage of the module.
"^SBC" URCs	<p>BGS5 now supports Unsolicited Result Codes reporting critical undervoltage and overvoltage conditions:</p> <p>^SBC: Undervoltage Warning ^SBC: Undervoltage Shutdown ^SBC: Overvoltage Warning ^SBC: Overvoltage Shutdown.</p> <p>The URCs do not need be activated by AT command. They will be sent automatically each time when supply voltage limits are detected.</p>
Java JRC framework stability	The performance of the BGS5 Java JRC framework has been improved and stabilized.
Java CommConnection InputStream()	The blocking read method on an InputStream of a CommConnection object is now returned after the InputStream was closed.
AT^SISS	The @ character is now supported when GSM alphabet is set. This eliminates the need to use the escape sequence \00 required for earlier BGS5 releases.
Audio performance	The Echo Canceller has been improved. Audio mode AT^SNFS=2 (handsfree) is working properly now.
AT^SLED	All parameters of the AT^SLED command designed to control an LED connected to the module's STATUS line are now non-volatile.
AT^SFSA	The underline character ("_") is now fully supported.
AT^SNMON	Responses to commands AT^SNMON="INS",2,2 and AT^SNMON="INS",2 are correct.

3 Known Issues

Feature	Brief description
AT+CLCK, AT+CPWD for "PS" lock	"PS" lock is currently not supported and cannot be configured with AT+CPWD and AT+CLCK.
USB data transfer	If transferring data via USB interface with a data package size exactly equal in length to the EP (End Point) buffer size, some USB host drivers will not respond to this with a zero length package to indicate that the data transmission is finished. The module will then treat the transfer as not finished and continue to wait for an appropriate response.
AT^SFSA	If using the AT^SFSA sub-command "mkdir" to create a directory containing the special character "%", an inappropriate error message is returned (^SFSA: 2).
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>.
AT^SISS, Socket TCP parameters "keepcnt", "keepintvl"	The optional profile parameters "keepcnt", "keepintvl" specified in [1] for all Socket TCP services are currently not effective.
AT^SISS, Reusing IP service profile	The module accepts changing parameters of an existing AT^SISS service profile, but afterwards the changed service profile cannot be opened with AT^SISO. Therefore, to make a changed AT^SISS service profile take effect, simply set AT^SISS=1,"srvType","none" and then set the "srvType" parameter once again.
AT^SSPI	Repeatedly reading 2048 bytes from an I ² C connection will unexpectedly restart the module. Workaround: It is recommended that the maximum data package length should not exceed 64 bytes. Larger data packages should be split into packages of smaller or equal size, before being transferred by AT command or via API from Java MIDlets. This recommendation is valid for both 100 kbps and 400 kbps data transfer rates.
Hardware flow control	The toggling frequency at serial interface handshake input lines (e.g. RTS) should not exceed 1 kHz.

Feature	Brief description
AT+CCLK	At the end of a year, the RTC does not roll over to the next year. Instead, it switches back from December 31 to January 01 of the old year, for example from +CCLK: "14/12/31,23:59:59" to +CCLK: "14/01/01,00:00:00".

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