Cinterion® BGS5

Release Notes

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1   Introduction

This Release Note refers to product:
   Cinterion® BGS5 02.000
   Firmware Revision: 02.000
   Application Revision Number: 01.001.06
   Based on previous release: BGS5 01.100, ARN00.000.21

1.1 Related Documents

[1]   BGS5 AT Command Set, v02.000
[2]   BGS5 Hardware Interface Description, v02.000
[3]   Hardware Migration Guide: Differences between BGS1, BGS2, BGS5, EHSx, ELSx and EMSx, v01
[4]   DSB75 Support Board Hardware Interface Description, v014
[5]   Multi-Adapter R1 User Guide, v04
[6]   Getting Started with BGS5, v01
[7]   BGS5 Java User's Guide, v07
[8]   Multiplex Driver Installation Guide, v17
[9]   Multiplex Driver Developer's Guide, v19
[10] Application Note 16: Upgrading ELS61, EHSx, PDSx, BGS5 Software, v03
[11] Application Note 17: Firmware Update over the Air, v01
[12] Application Note 24: Application Developer's Guide, v07
[13] Application Note 26: Power Supply for Wireless Applications, v08
[14] Application Note 39: USB Interface Description, v01
[15] Application Note 45: Jamming Detection - Radio Link Stability, v08
[16] Application Note 48: SMT Module Integration, v05

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

2   New Features

Feature	Brief description
AT+ICF	AT Command AT+ICF controls character framing and parity format used for receiving and transmitting data on the asynchronous serial interfaces ASC0 and ASC1. Details refer to [1].
"Xon/Xoff" software flow control	AT command AT\Q now supports XON/XOFF software flow control by setting parameter <n> to 1. Note that XON/XOFF software flow control takes effect only on ASC0. Details refer to [1].
Dynamic Buffer Size adaption on serial interface	To support low latencies using low baudrates communication on the serial interface, the used buffer size now dynamically adapts to the used baudrates.
Dual Point-to-Point Protocol (PPP) support	Current release of firmware supports two PPP connections at the same time using two different CDC/ACM channels of BGS5 module.
Bearer Independent Protocol (BIP)	The BGS5 module supports the BIP letter class "e" for the (U)SIM Application Toolkit, which is now enabled by default.
Extended OTAP password protection	The BGS5 module now supports to configure a local password using AT command AT^SCFG= "Userware/Passwd2". Once configured, the AT^SJOTAP write command is protected by the local password (Passwd2). Details refer to [1].
SensorLogic service	The BGS5 module now supports to use the SensorLogic service. This service is pre-installed but not enabled by default. Details refer to [1].

3   Improved Features

Feature	Brief description
AT command	The AT^SJRA command is no longer supported in this release. Use the AT^SJAM command instead of AT^SJRA to launch and manages Java applications.
	The AT+COPS? command response is corrected and now shows registration mode according to 3GPP specification.
	The detection of the "+" character on an AT interface in data mode has been improved.
Automatic answering for data calls	The ATS0 settings are improved, and automatic answering for data calls can work normally after rebooting the module.
Autobauding	BGS5 Autobauding function (AT+IPR=0) now works properly to detect baudrates when Echo mode off (ATE0) is set.
Documentation updates	The description about the behaviour of changing AT+CNMI parameters is improved in the BGS5 AT Command Set. Changing AT+CNMI parameters on one of the ME's interfaces will automatically restore AT+CNMI factory settings on all other interfaces. Details refer to [1].
	The AT^SPOW parameters' default values are now correctly documented in the BGS5 AT Command Set. The AT^SPOW parameters' default values are: <mode>=1 <timeout>=0 <awake>=0 Details refer to [1].
	The behavior that AT^SJDL command is affected by OBEX state is now documented in the BGS5 AT Command Set. Details refer to [1].
	The certificate installation related description is improved in the BGS5 Java User Guide. Details refer to [7].
Java Virtual Machine (JVM)	The IOError Exception have been extended. Along with the error code, an error message is available.
	AT command responses are not interrupted by URCs. By improved synchronization, AT command and URC now appears correctly.
	Java MIDlet can be installed correctly via the OTAP install process (AT^SJOTAP) using HTTPS servers.
	Several improvements to the "Secure Data Transfer" functionality have been implemented. This covers HTTPS and TLS/SSL functionality.

Feature	Brief description
	The module can send SMS successfully when UCS2 data coding scheme is used with the international number format.
Operator selection	The module can successfully select operator by manually operation using AT+COPS command when the network signal level keeps over -90dbm.
Power consumption	If CommConnection had been opened, and then AT^SPOW=0,0,0 is set, the power consumption can be reduced correctly.
Real Time Clock	For the Real Time Clock (AT+CCLK), the year characters (yy) can update correctly during power down or when the year changes.
Improved UDP package handling	The risk of UDP package loss throughout the network in a roaming environment has been improved in this release.

4   Known Issues

Feature	Brief description
AT command	When using the AT^SCFG command, the "Userware/Jamfile/Chkinterval" and "Userware/Jamfile/Chkrcvy" configuration settings may show in response. Do not enable or configure either of them to avoid unknown issues.
Bearer Independent Protocol (BIP)	The BIP downloading may be interrupted while the module dials up.
File system	For a deep path (which contains multiple levels of subfolders), its maximum path length is less than 128 characters. This affects to file access via AT commands and using the Java API FileConnection.
	To ensure performance and stability on the file system, it is strongly recommended to use 90% memory at maximum of the file system.
Internet service	When using the UDP client, you must use dynamically generated port numbers for the UDP client. Any settings to the local port take no effect.
	In case of loss of network coverage, it may take a few minutes for the AT command to respond, if: - Turn off an opened HTTP post connection (AT^SISC) - Send data with EOD flag applied (AT^SISW=x,0,1)
	When closing a UDP client or an endpoint service, the URC "^SISR:x,2" may not appear.
Java Virtual Machine (JVM)	In rare cases, the Java Midlet cannot be installed by the JAR file. Meanwhile the Java Midlet can be installed by the JAD file successfully.
	API FileConnection cannot delete empty directories. An unexpected Java exception may show: "javax.microedition.io.file.IllegalModeException: Connection is write only".

Network service	Incorrect values may be transferred to the network if an APN contains any of the following special characters:
	  # (number sign)
	  % (percent sign)
	  ; (semicolon)
	  : (colon)
	  ' (apostrophe)
	  ` (accent grave)

	Escape sequences, such as "\00" and "\02", cannot be interpreted correctly.
	After attaching or detaching GPRS via the AT+CGATT command, the GPRS status index (for example, "E" or "-") in the AT^SMONI command response may be incorrect.

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