

IN – Information Note

Topic:	TOBY-L100 Release of version 00S to Initial Production
	UBX-14002653
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1 Affected Products

Product Name	Order Number	Type No	Remarks
TOBY-L100	TOBY-L100-00S	TOBY-L100-00S-00	Status: Initial Production

2 Type of Change

- Hardware modification
- Firmware update
- Documentation update
- Design status changed from "Engineering Samples" to "Initial Production"

3 Description of Change

Release to Initial Production of the TOBY-L100 module; firmware version is G0.V.00.00.15R. The following new documents have been released:

- Data sheet [1]
- AT command manual [2]
- System Integration Manual [3]

Newly implemented features and known limitations are listed in Annex A.

Actions to take for customers proceeding to certification are described in Annex B.

4 Schedule

This information is effective as of 10 July, 2014.

5 Customer Impact and Recommended Action

N/A

6 Reference Documents

[1] TOBY-L100 Data-sheet, u-blox document UBX-13000868

[2] TOBY-L1 / MPC1-L1 series AT Command Manual, u-blox document UBX-13002211

[3] TOBY-L1 / MPC1-L1 series System Integration Manual, u-blox document UBX-13001482

A Description of Changes

A.1 Hardware

A.1.1 New features

No new features from previous hardware version

A.2 Firmware (from G0.V.00.00.13R)

A.2.1 New Features

No new features from previous firmware version

A.2.2 Changes and Bugs fixed

- +CMSS returns ERROR after sending several SMS messages, and any subsequent message will do the same, this would cause the host to retry sending the message
- Verizon Lab Conformance Failures
 - a. [Protocol] Failed TC 9.2.1.1.1a
 - b. [RRM 3GPP TS 36.521-3] Failed TC 7.1.1
 - c. [USAT] Failed TC 4.65
 - d. [Protocol] Failed 7.1.3.2
 - e. [Data Retry] Failed TC 2.5
 - f. [OTADM] Failed TC 2.1.4
 - g. [Data Throughput] Failed TC 3.4.2.9/3.6.2.1 – B4 @ 15MHz
 - h. [Inter-Band]: Failed TC 5.2.1, 5.2.2, 8.1, 8.2, 8.3
- BSP_Dop_network_scanning_parameters, causing the module not to work on the total BW for B4, which causes the device not to register; it needs a complete list of Channels on Verizon's Band4 deployment to work seamlessly, the list was not previously available per Verizon deployment plan
- Power Consumption Optimization not at 3mA idle mode target
- If PIN is enabled, the SIM supply will be removed if USB is not connected and the module is in idle; causing the SIM to request the PIN at every USB reconnection

A.2.3 Known Limitations

The following features are not implemented:

- FOTA

Issues with AT Commands:

- +COPS=0 causes device to hang
- +CLAC, u-blox AT commands are missing
- +CGPADDR not returning correct info from Test and Action commands when more than 1 APN is active
- +COPS=4 returns ERROR and device does not function properly
- +COPS=1 only supports numeric <oper>
- Some %GETCFG commands return ERROR
- +CGCONTRDP returns the response in IPV4 format
- +CGDSCONT doesn't work as specified
- +CPWD="PN" accepts password length less than 8 characters
- +CPAS returns wrong value

Device Configuration:

The device has predefined configurations for setting up a PDN connection. Verizon IMS and Admin PDN will be automatically set up if the device registers to the network. The Internet PDN which is used for on-demand PDN is not set up automatically.

Workaround: To enable the Internet PDN execute the following AT command to get the connection.

- a. Get Command: AT%DPDNaCT?
- b. Set Command: AT%DPDNaCT=1

SMS in Text mode:

TOBY_L100-370: In Text mode inbound SMSes from a 3GPP carrier do not get converted to ASCII; the SMSes remain in HEX. Whereas SMSes from a 3GPP2 carrier are fully converted to ASCII.

Workaround: The module shall be operated in SMS PDU mode only.

B Customer Device Certification

In order for customers to certify devices incorporating the TOBY-L100 the Execute Script AT command (AT%EXE) will need to be executed. This command is not available on locked production modules.

Recommended Action: Unlocked TOBY-L100 modules must be used for certification. Customers should contact u-blox support to get access to such modules.