

IN – Information Note

Topic:	TOBY-L200-00S, TOBY-L210-00S, MPC1-L200, MPC1-L210: Release to Production
	UBX-14044437
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1 Affected Products

Product Name	Order Number	Type No	Firmware version	Remarks
TOBY-L200	TOBY-L200-00S	TOBY-L200-00S-00	Modem: 09.71 Application: A01.15	Status: Initial Production
TOBY-L210	TOBY-L210-00S	TOBY-L210-00S-00	Modem: 09.71 Application: A01.15	Status: Initial Production
MPC1-L200	MPC1-L200-00S	MPC1-L200-00S-00	Modem: 09.71 Application: A01.15	Status: Initial Production
MPC1-L210	MPC1-L210-00S	MPC1-L210-00S-00	Modem: 09.71 Application: A01.15	Status: Initial Production

2 Type of Change

- Hardware modification
- Firmware update
- Documentation update

3 Description of Change

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

The following documents have been modified:

- Data sheet [1], [5]
- AT command manual [2]
- System Integration Manual [3]

4 Schedule

This information is effective as of 28th January, 2015.

5 Customer Impact and Recommended Action

It is recommended to upgrade the firmware of the evaluation kits EVK-L20 and EVK-L21 to firmware version 09.71 A01.15. Contact u-blox Customer Support for assistance in doing the upgrade.

6 Reference Documents

- [1] TOBY-L2 Data Sheet, u-blox Document UBX-13004573 (revision R04)
- [2] u-blox AT Commands Manual, u-blox Document UBX-13002752 (revision R25)
- [3] TOBY-L2 / MPC1-L2 System Integration Manual, u-blox Document UBX-13004618 (revision R05)
- [4] TOBY-L2 / MPC1-L2 Sample Delivery Engineering Sample, u-blox Document UBX-14040967
- [5] MPC1-L2 Data Sheet, u-blox document UBX-13004749

Annex A - Description of changes

A.1 Hardware

A.1.1 Limitations

An I²S interface is not implemented in the hardware of TOBY-L2 modules.

A.2 Firmware

A.2.1 Changes

Both modem and application firmware have been modified.

A.2.2 New features

The following features are new (compared to what is supported in firmware 09.40 A01.03, described in [4]):

- Power-Saving mode is fully functional as specified. (It is described in [2] and [3].)
- The following AT commands are implemented in the firmware and are functional: +UCLASS, +UCIND, +UCGCLASS, +UTEST, +CIND, +CMER, +CALA, +FCLASS, +CPOL.

A.2.3 Bugs fixed

The following bugs are fixed (compared to what is supported in firmware 09.40 A01.03, described in [4]):

- [u-blox ID 909] +COPS=0, +COPS=2, +COPS=? : ERROR returned even when the commands have been properly executed. It is recommended to ignore the ERROR message.
- [u-blox ID 896] When reading the NITZ long network name during CS registration using AT+UDOPN=6, the network name is truncated (the last character is omitted).
- [u-blox ID 887] Long list of concatenated commands generates multiple OKs.
- [u-blox ID 837] The COPS status reported after the sequence AT+CFUN=4; At+CFUN=1; AT+CGACT (or CGATT or CGDATA) is not updated.
- [u-blox ID 822] AT+CFUN=1 triggers NW registration even if COPS mode is 2.
- [u-blox ID 757] +CEREG=3 does not report the error cause.
- [u-blox ID 651] +CSCS: the default is "GSM" and it cannot be changed.

A.2.4 Restrictions and limitations

- Audio is not supported.
- The following interfaces are not supported in this firmware:
 - UART
 - I²C
 - SDIO
 - GPIO
- IPv6 works under the following conditions:
 - LTE network only.
 - RNDIS in bridge-mode only. See [3], section 1.15.4 for the definition of bridge-mode.

- TOBY-L200, MPCI-L200: Default APN is "broadband". Change the APN from the default to the one used by the current operator.
- [u-blox ID 564] USSD length is limited to a maximum 133 characters.
- The +UCGED AT command is implemented in the firmware, but not fully functional. To read cell parameters the application should use +CREG, +CEREG.
- Flashing a FW image not provided by u-blox will cause the module to crash.

A.2.5 List of known bugs

- [u-blox ID 1304] SMS type "SMS-COMMAND" cannot be stored in USIM card SMS data records.
- [u-blox ID 1236] issuing AT+COPS=2 during registration (+CREG/+CEREG <stat> = 0 or 2) returns ERROR. Any further +COPS command returns ERROR. Application can use +CREG/+CEREG to read registration status.
- [u-blox ID 1188] After deleting a PDP context with +CGDEL, if the context is later re-defined, all previously existing associated data (QoS profiles, TFTs) re-appear.
- [u-blox ID 913] +CCLK setting is not saved into NVM. [u-blox ID 694] +CIND not reporting <signal> info when the module is camped on a 2G cell.
- [u-blox ID 137] +COPS=? deletes the PLMN NITZ name sent by the network (as returned by +COPS?) and returns PLMN name stored locally in the module.
- [u-blox ID 804] +URAT preferred values are not always respected if the setting is done with the sequence +COPS=2, +URAT, +COPS=0. It is suggested to use the +CFUN 4/1 sequence (+CFUN=4, +URAT. +CFUN=1).
- [u-blox ID 1357] if an SMS is received during the execution of an AT command, +CMT unsolicited response code (URC) may be split in chunks. It is recommended that the application uses the +CMGL/+CMGR command to read the status of received messages.
- [u-blox ID 1372] The +CPBW command stores the wrong <number>. It is suggested to implement phonebook management (for SMS) in the external application.