

Product change note

Topic TOBY/MPCI-L200-03S /L210-03S/L280-03S product change notification
 UBX-20033492 C1-Public
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1 Affected products

Product name	Ordering code	Old type number	Old FW version	New type number	New FW version
TOBY-L200	TOBY-L200-03S	TOBY-L200-03S-01	16.19 A01.04	TOBY-L200-03S-02	17.00 A01.00
TOBY-L210	TOBY-L210-03S	TOBY-L210-03S-01	16.19 A01.04	TOBY-L210-03S-02	17.00 A01.00
TOBY-L280	TOBY-L280-03S	TOBY-L280-03S-01	16.19 A01.04	TOBY-L280-03S-02	17.00 A01.00
MPCI-L200	MPCI-L200-03S	MPCI-L200-03S-01	16.19 A01.04	MPCI-L200-03S-02	17.00 A01.00
MPCI-L210	MPCI-L210-03S	MPCI-L210-03S-01	16.19 A01.04	MPCI-L210-03S-02	17.00 A01.00
MPCI-L280	MPCI-L280-03S	MPCI-L280-03S-01	16.19 A01.04	MPCI-L280-03S-02	17.00 A01.00



The new FW version can be used to update an old type number (field update)

Table 1: Affected products in production

2 Type

- | | |
|--|--|
| <input type="checkbox"/> Product status change | <input checked="" type="checkbox"/> Documentation update |
| <input type="checkbox"/> Hardware/component change | <input type="checkbox"/> Certification information |
| <input checked="" type="checkbox"/> Firmware/software update | <input type="checkbox"/> Security advisory |
| <input type="checkbox"/> Label change | <input type="checkbox"/> Other |

3 Firmware changes

Forward compatibility with radio network

TOBY-L2 and MPCI-L2 series modules will include changes for tolerant handling of new system information block 24 messages (SIB24), which is introduced with 3GPP rel. 15 (or higher).

- [CA-90921 / u-blox ID-2 3492] In some mobile networks, when the LTE network deploys SIB24 for 4G-to-5G SA reselection, the module receives scheduling information in SIB1 which contains SIB Type = sibType24-v1530. The current firmware does not handle this newly defined value, which results in dropping the SIB1 message. Consequently, the cell that broadcasts SIB24 is considered as barred, and eventually the module will move to 2G or 3G network and lose 4G services. The new firmware properly handles the SIB24 value and prevents this condition.

Other product improvements:

- [u-blox ID 3501]: Applied new usage setting (+CEMODE:2 data centric) to support seamless functionality after AT&T 3G sunset (TOBY-L200).
- [CA-102167 / u-blox ID 3491]: Corrected an issue causing the module reset in CDC-ECM configuration triggered by AT+UDCONF=78,x cycles.
- [CA-101790 / u-blox ID 3498]: Added option to save in NVM +UMWI AT command setting.
- [CA-101689 / u-blox ID 3448, ID 3464, ID 3477]: Local SIM profile management: resolved an issue with activating eSIM profile on eUICC without pre-activated profile (blank SIM).
- [CA-101689 / u-blox ID 2848]: Local SIM profile management: +USIMSTAT diagnostic AT command added to notify SIM refresh events via URC.
- [CA-099519 / u-blox ID 3514]: Local SIM profile management: support of SIM profile swap in PIN required state.
- [CA-099252, CA-94268 / u-blox ID 3479]: Corrected an issue when BIP client cannot bind to the established PDP context in +UBMCONF: 2 (bridge mode).
- [u-blox ID 3485]: Extended +UFACTORY AT command (<fs_op>=1) to prevent cache mounting problem (FW update cannot be performed).
- [CA-087605 / u-blox ID 3473]: Resolved an issue of the module when it cannot receive CBM message with length equal to 180 characters.
- [CA-065179, CA-084515 / u-blox ID 3388]: Resolved an issue when a DSP reset might occur during cell reselection (intra-LTE handover).
- [CA-077885 / u-blox ID 3410]: Corrected an issue in URRP measurement handing which might cause crash in mobility in 3G RAT.
- [CA-094268 / u-blox ID 3509]: Resolved an issue with BIP session which might fail because of missing connection to remote server caused by the discard of SEND DATA proactive command.
- [CA-107933 / u-blox ID 3450]: Improved network connection stability in idle mode by fixing a ping pong among 4G and 3G cells of the same MNO.
- [CA-097133, CA-107116 / u-blox ID 3475]: CSFB is delayed due to Security Mode Command being discarded by RRC.

4 Schedule

Samples	Dates
IP release date:	27-May-2021
Estimated first shipment date:	27-Aug-2021
Documentation (e.g. release note)	Available

5 Certification

Certification IDs remain unchanged between old and new type number.

Certification scheme	TOBY-L200-03S-02	TOBY-L210-03S-02	TOBY-L280-03S-02
PTCRB conformance	•		
Model name/number	TOBY-L200-03-01		
CE (Europe)	•	•	•
Model	TOBY-L200	TOBY-L210	TOBY-L280
FCC (USA)	•	•	•
FCC ID	XPYTOBYL200	XPYTOBYL210	XPYTOBYL280
ISED (Canada)	•	•	•
ISED certification number	8595A-TOBYL200	8595A-TOBYL210	8595A-TOBYL280
ANATEL (Brazil)	•		•
ANATEL certificate number	0806-15-5903		4537-15-5903
RCM (Australia)			•
Model			TOBY-L280
NCC (Taiwan)		•	•
NCC ID		CCAI15Z10030T0	CCAI15Z10120T1
GITEKI (Japan)		•	
[T] certificate number		ADF150154003	
[R] certificate number		003-150062	
AT&T (MNO)	•		
Model	TOBY-L200-03-01		
Rogers (MNO)	•		
Model	TOBY-L200-03-01		
Deutsche Telekom (MNO)		•	
Model		TOBY-L210	



Certification of cellular radio modules is no longer mandatory according to current IFT Mexico regulatory rules

Table 2: Certification scheme for TOBY-L2 products

Certification scheme	MPCI-L200-03S-02	MPCI-L210-03S-02	MPCI-L280-03S-02
CE (Europe)	•	•	•
Model	TOBY-L200	TOBY-L210	TOBY-L280
FCC (USA)	•	•	•
Contains FCC ID	XPYTOBYL200	XPYTOBYL210	XPYTOBYL280
ISED (Canada)	•	•	•
Contains IC	8595A-TOBYL200	8595A-TOBYL210	8595A-TOBYL280
ANATEL (Brazil)	•		•
ANATEL certificate number	0806-15-5903		4537-15-5903
RCM (Australia)			•
Model			MPCI-L280
NCC (Taiwan)		•	•
NCC ID		CCAI15Z10050T6	CCAI15Z10190T9

Table 3: Certification scheme for MPCI-L2 products

6 Customer impact and recommended action

It is strongly recommended to apply the firmware update to all products in the field to

- eliminate the risk of facing incompatibility issues with certain MNO networks [CA-90921]
- avoid loss of cellular connectivity in the event that MNOs dismiss legacy RATs (3G/2G) and CSFB service [u-blox ID 3501]



Applying updates does not affect modem performance and there are no changes to interfaces.

Alternatively, to firmware update, customer can resolve issue [u-blox ID 3501] by changing the CEMODE configuration to “data centric” (+CEMODE: 2). In this case customer shall notify AT&T of the change in the TOBY-L200 product configuration in order to obtain necessary approval.

The new firmware version can be applied to older type numbers, as outlined in section 7.1.

Certification impact:

- Mobile Network Operators (MNO) approvals:
 - Mobile Network Operators approvals of the modules have been updated.
 - u-blox recommends that integrators having any MNO approvals in place for the host product notify the related Mobile Network Operator of the change in the product (no testing is expected, paperwork only).
- Conformance approvals:
 - u-blox recommends that integrators of TOBY-L200 modules having the PTCRB approval in place for the host product to execute the PTCRB ECO request process due to the change in the product (no testing is expected, paperwork only).
- Country regulatory approvals:
 - Applicable country regulatory approvals of the modules remain valid.
 - u-blox recommends that integrators check with their preferred certification body to find out if any action is needed for the regulatory approvals of the host product. For example, FCC US and ISED Canada IDs remain unchanged: no action is needed if the module ID is re-used.

7 Firmware update

New firmware can be used to update old type number modules (list of modules to which firmware update is applicable is specified in the table below).

7.1 Products no longer in production

Product name	Ordering code	Type number	FW version released earlier		New FW
TOBY-L200	TOBY-L200-03S	TOBY-L200-03S-00	15.90 A01.50	15.90 A01.52	17.00 A01.00
TOBY-L210	TOBY-L210-03S	TOBY-L210-03S-00	15.63 A01.50	15.63 A01.52	17.00 A01.00
TOBY-L280	TOBY-L280-03S	TOBY-L280-03S-00	15.63 A01.50	15.63 A01.52	17.00 A01.00
MPCI-L210	MPCI-L210-03S	MPCI-L210-03S-00	15.63 A01.50	15.63 A01.52	17.00 A01.00
TOBY-L200	TOBY-L200-00S**	TOBY-L200-00S-00	09.71 A01.15	09.71 A01.21	09.72 A01.01
TOBY-L200	TOBY-L200-02S	TOBY-L200-02S-00	15.90 A01.00	15.90 A01.02	17.00 A01.00
TOBY-L200	TOBY-L200-02S	TOBY-L200-02S-01	15.90 A01.10	15.90 A01.12	17.00 A01.00
TOBY-L210	TOBY-L210-00S*	TOBY-L210-00S-00	09.71 A01.15	09.71 A01.21	09.72 A01.01
TOBY-L210	TOBY-L210-02S	TOBY-L210-02S-00	15.63 A01.03	15.63 A01.14	17.00 A01.00
TOBY-L210	TOBY-L210-02S	TOBY-L210-02S-01	15.63 A01.10	15.63 A01.18	17.00 A01.00
TOBY-L280	TOBY-L280-02S	TOBY-L280-02S-00	15.63 A01.03	15.63 A01.14	17.00 A01.00
TOBY-L280	TOBY-L280-02S	TOBY-L280-02S-01	15.63 A01.10	15.63 A01.18	17.00 A01.00
MPCI-L200	MPCI-L200-02S	MPCI-L200-02S-00	15.90 A01.00	15.90 A01.02	17.00 A01.00
MPCI-L200	MPCI-L200-02S	MPCI-L200-02S-01	15.90 A01.10	15.90 A01.12	17.00 A01.00
MPCI-L200	MPCI-L200-03S	MPCI-L200-03S-00	15.90 A01.50	15.90 A01.52	17.00 A01.00
MPCI-L210	MPCI-L210-00S*	MPCI-L210-00S-00	09.71 A01.15	09.71 A01.21	09.72 A01.01
MPCI-L210	MPCI-L210-02S	MPCI-L210-02S-00	15.63 A01.03	15.63 A01.14	17.00 A01.00
MPCI-L210	MPCI-L210-02S	MPCI-L210-02S-01	15.63 A01.10	15.63 A01.18	17.00 A01.00
MPCI-L280	MPCI-L280-02S	MPCI-L280-02S-00	15.63 A01.03	15.63 A01.14	17.00 A01.00
MPCI-L280	MPCI-L280-02S	MPCI-L280-02S-01	15.63 A01.10	15.63 A01.18	17.00 A01.00
MPCI-L280	MPCI-L280-03S	MPCI-L280-03S-00	15.63 A01.50	15.63 A01.52	17.00 A01.00

*Note: FW patch for those products include only u-blox ID-2 3492

**Note: FW patch for this product include only u-blox ID-2 3492 and u-blox ID 3501

Table 4: Products that can be updated with new FW but are no longer in production

7.2 How to apply new firmware in field

- Customers can apply the new firmware to the modules in the field via FOAT (+UFWUPD AT command) and FOTA (+UFWINSTALL AT command). For more information, see u-blox AT commands manual [1] and u-blox cellular modules firmware update application note [5].
- All needed files (*.bin or *.zip) are provided by u-blox together with the md5 to be used in the related AT commands.



Warning for FOTA:

- When using FOTA (+UFWINSTALL) it is important to check the status of the cache partition first. In rare cases this cache partition can become damaged or be removed. This is typically caused by an improper power on/off sequence applied to the module.

Checking status of the cache partition

- If AT+ULSTFILE=1, "RAMDUMP" returns a value other than zero, then the update is safe. This indicates there is an intact cache partition, and the firmware update can be performed.
- If AT+ULSTFILE=1, "RAMDUMP" returns 0, then the update is not safe. A value of 0 indicates that there is no available memory space in the cache partition (cache partition has been damaged/removed). In this case, please contact u-blox technical support.

7.3 Firmware update packages and md5 signature

Product/delivery	File name	md5sum
TOBY-L200-03S-02		
EasyFlash	TOBY-L200-03S-02_FW17.00_A01.00_IP.dof	9d146781727ac2688906d35460261d13
FOTA (+UFWINSTALL)	TOBY-L200-03S-02_FW17.00_A01.00_IP_UFWINSTALL.zip	a6a2701aa49fb3baaa94603845c9f394
FOAT (+UFWUPD)	TOBY-L200-03S-02_FW17.00_A01.00_IP_UFWUPD_128.bin	9431e23d5eebf1b4c360fc195d9d4cff
	TOBY-L200-03S-02_FW17.00_A01.00_IP_UFWUPD_1K.bin	47f85e3ebd1e03d6304958eede1b4977
TOBY-L210-03S-02		
EasyFlash	TOBY-L210-03S-02_FW17.00_A01.00_IP.dof	9d146781727ac2688906d35460261d13
FOTA (+UFWINSTALL)	TOBY-L210-03S-02_FW17.00_A01.00_IP_UFWINSTALL.zip	a6a2701aa49fb3baaa94603845c9f394
FOAT (+UFWUPD)	TOBY-L210-03S-02_FW17.00_A01.00_IP_UFWUPD_128.bin	9431e23d5eebf1b4c360fc195d9d4cff
	TOBY-L210-03S-02_FW17.00_A01.00_IP_UFWUPD_1K.bin	47f85e3ebd1e03d6304958eede1b4977
TOBY-L280-03S-02		
EasyFlash	TOBY-L280-03S-02_FW17.00_A01.00_IP.dof	f7a8df0994af9bdecadc653d30f98980
FOTA (+UFWINSTALL)	TOBY-L280-03S-02_FW17.00_A01.00_IP_UFWINSTALL.zip	38c00acbd21cd546bcc6c4b9704844f1
FOAT (+UFWUPD)	TOBY-L280-03S-02_FW17.00_A01.00_IP_UFWUPD_128.bin	61246fec9fd90237fd567c1377312c04
	TOBY-L280-03S-02_FW17.00_A01.00_IP_UFWUPD_1K.bin	61246fec9fd90237fd567c1377312c04

Product/delivery	File name	md5sum
TOBY-L200-00S-00		
EasyFlash	TOBY-L200-00S-00_FW09.72_A01.01_IP.dof	f8d43d9de6cb53362e73668552d929f0
FOTA (+UFWINSTALL)	TOBY-L200-00S-00_FW09.72_A01.01_IP_UFWINSTALL.zip	e243f856a506a06f33a5e3272703532c
TOBY-L210-00S-00		
EasyFlash	TOBY-L210-00S-00_FW09.72_A01.01_IP.dof	f8d43d9de6cb53362e73668552d929f0
FOTA (+UFWINSTALL)	TOBY-L210-00S-00_FW09.72_A01.01_IP_UFWINSTALL.zip	e243f856a506a06f33a5e3272703532c

8 Tools

- m-center v.02.04.00 – Download from the u-blox.com website via this page: [m-center](#)
- EasyFlash v12.10 – Download from the u-blox.com website via this link: [EasyFlash](#)

9 Related documentation

- [1] u-blox AT commands manual, [UBX-13002752](#)
- [2] u-blox TOBY-L2 series data sheet, [UBX-13004573](#)
- [3] u-blox MPC1-L2 series data sheet, [UBX-13004749](#)
- [4] u-blox TOBY-L2 / MPC1-L2 series system integration manual, [UBX-13004618](#)
- [5] u-blox firmware update application note, [UBX-13001845](#)