

Product change note

Topic LARA-R203-03B-01, LARA-R202-03B-01, TOBY-R200-03B-01 release to production
UBX-21003301- R01 C1-Public

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1 Affected products

Product name	Ordering code	Type number (old)	Firmware (old)	Type number (new)	Firmware (new)
LARA-R203	LARA-R203-03B	LARA-R203-03B-00	30.55 A01.00	LARA-R203-03B-01	30.71 A01.00
LARA-R202	LARA-R202-03B	LARA-R202-03B-00	30.55 A01.00	LARA-R202-03B-01	30.71 A01.00
TOBY-R200	TOBY-R200-03B	TOBY-R200-03B-00	30.55 A01.00	TOBY-R200-03B-01	30.71 A01.00

2 Type

- | | |
|---|---|
| <input type="checkbox"/> Product status change | <input checked="" type="checkbox"/> Documentation update |
| <input checked="" type="checkbox"/> Hardware/component change | <input checked="" 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 Description (vs "03B-00" type number)

3.1 Hardware changes

The component supplier has announced end of life (EOL) of the MCP memory combo (NAND + LPDDR2) currently used in the affected products.

- [u-blox ID 5200 - PCR133] – An equivalent MCP memory combo has been introduced with new product type numbers to ensure products availability. The PCB has been changed for LARA-R203-03B-01 and LARA-R202-03B-01 to accommodate the equivalent MCP memory combo, while only the BOM has been changed for TOBY-R200-03B-01.
- [u-blox ID 5188 - PCR200] – LARA-R203-03B-01, LARA-R202-03B-01 type numbers include changes in power supply circuitry (BOM changes only) as the previous LARA-R203-02B-04 and LARA-R202-02B-04 type numbers. These hardware changes only relate to design and logistics optimizations.

3.2 Firmware changes

The firmware has been updated to support the alternative MCP memory combo. The firmware appropriately configures and controls the equivalent component to ensure full compatibility in the general operations of module.

4 Schedule

Samples:

IP release date:	21-Dec-2021
Estimated first shipment date ¹ :	11-Jan-2022
Documentation (e.g., release note)	Available

5 Certifications

There are no changes in the certification scheme, as compared to "03B-00" type numbers:

Certification scheme	LARA-R202-03B-01	LARA-R203-03B-01	TOBY-R200-03B-01
PTCRB (PCS Type Certification Review Board)	■	■	■
RED (Europe)			■
FCC (USA)	■	■	■
FCC identification number	XPY1EIQ24NN	XPY1DIQN3NN	XPY1EHM44NN
ISED (Canada)	■	■	■
ISED certification number	8595A-1EIQ24NN	8595A-1DIQN3NN	8595A-1EHM44NN
ANATEL (Brazil)			■
AT&T (US network operator)	■	■	■
T-Mobile (US network operator)	□	□	□
USCC (US network operator)	□	□	□
Rogers (Canada network operator)	□	□	
Telus (Canada network operator)	□	□	□

Note: ■ = certified as voice and data □ = certified as data only

6 Customer impact and recommended action

The mentioned changes do not affect RF / EMC properties of the modem. All process properties remain unchanged and no adaptation to the production process is needed (e.g., solder profile).

The current consumption in low power idle mode is slightly higher on the new type numbers.

Certification impact:

- Conformance approvals:
 - PTCRB certification available for predecessor is also achieved for successor version.
 - u-blox recommends integrators having PTCRB certification in place for the host product to execute the PTCRB ECO certification process due to the use of the new hardware and firmware version of the module in the host product.
- Mobile network operators (MNO) approvals:
 - MNOs approvals of the modules have been updated.
 - u-blox recommends integrators having any MNO approval in place for the host product to notify the related mobile network operator due to the use of the new HW and FW version of the module in the host product (no testing is expected, paperwork only).

¹ The estimated first shipment date is the forecasted date that a customer may expect to receive product with the new type number.

- Country regulatory approvals:
 - Country regulatory approvals of the modules remain valid.
 - u-blox recommends integrators to check with their preferred certification body if any action is needed for the regulatory approvals of the host product.

7 Firmware update

- LARA-R202-03B-00, LARA-R203-03B-00 cannot be updated to this PCN firmware.
- TOBY-R200-03B-00 can be updated to this PCN firmware.
- It is not possible to downgrade the products with the previous FW version.
- New firmware can be used to update these old type number modules (list of modules to which firmware update is applicable is specified in the table below).

7.1 Upgradable products on the field

Product name	Ordering code	Type number	FW version released earlier	New identification
LARA-R202	LARA-R202-82B	LARA-R202-82B-01	30.53 A01.03	30.71 A01.00
LARA-R202	LARA-R202-02B	LARA-R202-02B-04	30.44 A01.02	30.71 A01.00
LARA-R203	LARA-R203-02B	LARA-R203-02B-04	30.41 A01.03	30.71 A01.00
LARA-R203	LARA-R203-02B	LARA-R203-02B-35	30.54 A01.00	30.71 A01.00

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 [6].
- All needed files (*.bin or *.zip) are provided by u-blox together with the md5 to be used in the related AT commands.

7.3 Firmware update packages and md5 signature

Product/delivery	File name	md5sum
LARA-R202-03B-01		
EasyFlash	LARA-R202-03B-01_FW30.71_A01.00_IP.dof	454357f698e039e3fcf8e7cb56a10eed
FOAT (+UFWUPD)	LARA-R202-03B-01_FW30.71_A01.00_IP.fls	24e51c48d250f0ceca5392cae9578cd0
FOTA (+UFWINSTALL)	LARA-R202-02B-04-IP-3044A0102_LARA-R202-02B-04-P1-3044A0103.upd	c9ce3130216317fbb97b82856504756c
	LARA-R202-02B-04-P1-3044A0103_LARA-R202-03B-01-IP-3071A0100.upd	f881cfc0362cae4e9b49854e58ddc4e5
	LARA-R202-82B-01-IP-3053A0103_LARA-R202-82B-01-P1-3053A0104.upd	2157ae7db4efad74433c84070ab9bfbfd
	LARA-R202-82B-01-P1-3053A0104_LARA-R202-03B-01-IP-3071A0100.upd	efa228aae288ffd6ded0923e250fa380
	LARA-R202-03B-01-IP-3071A0100_LARA-R202-03B-01-XX-3071ENG0299A0100.upd	89eb99a2984078a27208e7dc77a22cc2

Product/delivery	File name	md5sum
	LARA-R202-03B-01-XX-3071ENG0299A0100_LARA-R202-03B-01-IP-3071A0100.upd	4f5608fc803000850dd613b642252c5a
LARA-R203-03B-01		
EasyFlash	LARA-R203-03B-01_FW30.71_A01.00_IP.dof	d4798a278ca33d252d5db5d421bb8e2c
FOAT (+UFWUPD)	LARA-R203-03B-01_FW30.71_A01.00_IP.fls	16c6a893c1fb91a238f6a32a1044f4a0
FOTA (+UFWINSTALL)	LARA-R203-02B-04-IP-3041A0103_LARA-R203-02B-04-P1-3041A0104.upd	de11a84a42d12232e1ebba95a5f1053a
	LARA-R203-02B-04-P1-3041A0104_LARA-R203-03B-01-IP-3071A0100.upd	883b82072c65e478712b3e854c4919a6
	LARA-R203-02B-35-IP-3054A0100_LARA-R203-02B-35-P1-3054A0101.upd	9bceddc0ee1b4a0609a164425c8fd991
	LARA-R203-02B-35-P1-3054A0101_LARA-R203-03B-01-IP-3071A0100.upd	518860973bf5e1a968a8788615f7e0c5
	LARA-R203-03B-01-IP-3071A0100_LARA-R203-03B-01-XX-3071ENG0299A0100.upd	a9c818592aa4359afd2e350d37ac5c45
	LARA-R203-03B-01-XX-3071ENG0299A0100_LARA-R203-03B-01-IP-3071A0100.upd	22ec35a9552306541a3f0e3ede05e33d
TOBY-R200-03B-01		
EasyFlash	TOBY-R200-03B-01_FW30.71_A01.00_IP.dof	681b3b76873dd493ed4793aa1f87f3df
FOAT (+UFWUPD)	TOBY-R200-03B-01_FW30.71_A01.00_IP.fls	2ffc352cf1a37bff025f77bada8bd92f
FOTA (+UFWINSTALL)	TOBY-R200-03B-00-IP-3055A0100_TOBY-R200-03B-01-IP-3071A0100.upd	fc3a657c6cbf6c038c597e73b0c42513
	TOBY-R200-03B-01-IP-3071A0100_TOBY-R200-03B-01-XX-3071ENG0299A0100.upd	401fd8c0f6b469047438d3e0c4a499b9
	TOBY-R200-03B-01-XX-3071ENG0299A0100_TOBY-R200-03B-01-IP-3071A0100.upd	893b952d626e268f757c3afac83adfa5

7.4 LARA-R202-82B, LARA-R202-02B, LARA-R203-02B, LARA-R203-02B FOTA FW update

The FOTA firmware update on LARA-R202-82B, LARA-R202-02B, LARA-R203-02B, LARA-R203-02B shall be performed in two steps:

- Upgrade the FW with the .upd file having the filename starting with the interested type number and "-IP": i.e., for LARA-R203-02B-04 use LARA-R203-02B-04-IP-3041A0103_LARA-R203-02B-04-P1-3041A0104.upd
- Then upgrade the FW with the .upd file having the filename starting with the interested type number and "-P1": i.e., for LARA-R203-02B-04 use LARA-R203-02B-04-P1-3041A0104_LARA-R203-03B-01-IP-3071A0100.upd.

8 Tools

- m-center v02.05.00 – Download from the u-blox.com website via this page: [m-center](#)
- EasyFlash 13.00 – Download from the u-blox.com website via this link: [EasyFlash](#)

9 Related documentation

- [1] u-blox AT commands manual, [UBX-13002752](#)
- [2] LARA-R2 series data sheet, [UBX-16005783](#)
- [3] LARA-R2 series system integration manual, [UBX-16010573](#)
- [4] TOBY-R2 series data sheet, [UBX-16005785](#)
- [5] TOBY-R2 series system integration manual, [UBX-16010572](#)
- [6] u-blox cellular modules firmware update application note, [UBX-13001845](#)