

Product change note

Topic **SARA-R510M8S-71B firmware update**
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1 Affected products

| Product name | Ordering code | Type number (old) | Firmware (old) | Type number (new) | Firmware (new) |
|--------------|------------------|---------------------|----------------|---------------------|----------------|
| SARA-R510M8S | SARA-R510M8S-71B | SARA-R510M8S-71B-00 | 03.25, A00.01 | SARA-R510M8S-71B-01 | 03.25, A00.04 |

2 Type

- | | |
|--|---|
| <input type="checkbox"/> Product status change | <input type="checkbox"/> Documentation update |
| <input 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 of changes

3.1 Firmware

A new firmware release is available for the affected products and will be applied in production according to the schedule below. The firmware changes are as follows.

Registration / Network services

- [u-blox ID 61-89][u-blox ID 61-98][u-blox ID 61-106][u-blox ID 61-141] KT Mobile Network Operator profile added. Implementation of requirements and fixes to comply with KT network specifications. Changes are network operator specific and applied only to KT +UMNOPROF profile.
- [u-blox ID 61-12] CDRX feature can be enabled and disabled with +UDCONF=91 command.
- [u-blox ID 61-126] Improved IMSI swap handling.

LwM2M client

- [u-blox ID 61-55] LwM2M client disabled by default.

4 Schedule

| Product type number (new) | Estimated first shipment date ¹ |
|---------------------------|--|
| SARA-R510M8S-71B-01 | 2023 CW27 |

5 Customer impact and recommended action

- u-blox has taken utmost care to ensure full backward compatibility to the previous versions. The product with the new firmware is functionally equivalent to the previous version. However, a system check before deployment in production is recommended.
- The FW changes from the “71B-00” to the “71B-01” type number do not affect electrical, RF or EMC properties of the modem.

6 Certifications

6.1 Certifications achieved

Certifications available for the “71B-00” product versions are also valid for the “71B-01” product versions.

The KT approval has been added for “71B-01” type numbers.

¹ The estimated first shipment date is the forecasted date when a customer may expect to receive the changed product with the new type number. This is determined by the estimated date of inventory depletion on the PCN issue date. This may be affected by fluctuations in supply and demand. Consequently, although customers should be prepared to receive the changed product on this date, u-blox will continue to ship the pre-changed product until the inventory has been depleted. This may result in the pre-changed product being shipped to customers after this forecasted date.

7 Firmware update

- SARA-R510M8S-71B-00 (03.25, A00.01) units can be updated to this PCN firmware.

7.1 Firmware update packages and md5 signature

| Product / delivery | Filename | md5sum |
|--|--|----------------------------------|
| SARA-R510M8S | | |
| EasyFlash | SARA-R510M8S-71B-01-IP-0325A0004-006K00.dof | 7cb4e5abbc8549c626cc31d43a591d09 |
| FOAT | SARA-R510M8S-71B-01-IP-0325A0004-006K00.upd | d4484bac22c6eeda41f932c27dd7c072 |
| FOTA 71B-00 to 71B-01 uFOTA ID: 2085 | SARA-R510M8S-71B-00-IP-0325A0001-006K00_SARA-R510M8S-71B-01-IP-0325A0004-006K00.upd | 45144d13bb6f58978ac3a3f34f359c1d |
| FOTA test 03.25 to ENG FOTA ID: 2087 | SARA-R510M8S-71B-01-IP-0325A0004-006K00_SARA-R510M8S-71B-01-IP-0325ENG1599A0004-006K00.upd | dc5ce35450bc44ba86e219a0f34fbd9c |
| FOTA test ENG to 03.25 uFOTA ID: 2088 | SARA-R510M8S-71B-01-IP-0325ENG1599A0004-006K00_SARA-R510M8S-71B-01-IP-0325A0004-006K00.upd | 382a3a746b3112d1277aa4528d00d00c |

For FW packages, contact u-blox technical support, www.u-blox.com/support. For more details of FW update, see SARA-R5 series FW update application note [4].

8 Tools

- [m-center v02.08.00](#)
- [EasyFlash 13.07](#)

9 Related documentation

- [1] SARA-R5 series AT commands manual, [UBX-19047455](#)
- [2] SARA-R5 series data sheet, [UBX-19016638](#)
- [3] SARA-R5 series system integration manual, [UBX-19041356](#)
- [4] SARA-R5 series FW update application note, [UBX-20033314](#)

Appendix

A Restrictions compared to specifications

A.1 Hardware

None.

A.2 Firmware

None.

B Known limitations

Connectivity

- [u-blox ID 1645] The CONNECT result code is not returned after entering data mode via ATO.
- [u-blox ID 4565] The ATO command does not respond if the “NO CARRIER” final result code is received during OLCM. Suggestion: ATO shall be issued only if the module is in OLCM.
- [u-blox ID 6980] When AT&D0 is set, a DTR transition during packet switched data mode leads to a context deactivation instead of a no action as expected.
- [u-blox ID 5898] The +UUSIMSTAT URC may return an extra space before the reported value.

Internet suite

- [u-blox ID 4723] Keep-alive packets are not sent when the feature is enabled.
- [u-blox ID 3925] Two +UUPSDD URCs are issued when the internal PDP context is mapped to a specific context identifier.
- [u-blox ID 4237] The AT+UMQTT=6 output (read all unread MQTT messages) may be truncated when unread messages content is larger than 1 kB. It is recommended to read messages one by one with AT+UMQTTC=6,1.
- [u-blox ID 6567] The DNS configuration via +UPSD AT command cannot be applied to initial default bearer DNSs.

Registration/Network services

- [u-blox ID 4578] Manual registration (AT+COPS=1) with alphanumeric format may lead to long PLMN scans if the name in <oper> field belong to multiple PLMNs (same name, but different MCC and MNC). Manual registration (AT+COPS=1) with alphanumeric format is not recommended, it is instead suggested to use numeric format.

Power saving

- [u-blox ID 3642] A module reboot is needed to apply +UPSV: 2 (power saving controlled by UART RTS line) when the UART interface is used in 4-wire configuration.
- [u-blox ID 3708] The module is not able to enter deep-sleep mode if the UART with hardware flow control is enabled, RTS is OFF and some data (e.g., an URC) is ready to be sent to the DTE.

System time

- [u-blox ID 4580] Wake-up from +CALA alarm is delayed by the time elapsed between the alarm set and the module power-off event. It is suggested to set the +CALA AT command as the last operation before the module power-off. Exit from PSM deep sleep mode is delayed by about 2 s.

u-blox features

- [u-blox ID 6861] The +UUSTS: 2,2 URC is printed every 2 s once the temperature threshold is reached instead of just once.

GPIO

- [u-blox ID 6770] Unable to disable the pin set as SIM card detection. As a workaround, after a first attempt to disable the pin, a reboot shall be issued with AT+CFUN=16. After a second attempt, the pin will be disabled.