

Information Note

Topic SARA-N2 series Release to Production

UBX-18005015 -

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1 Affected Products

Product Name	Order Code	Type No	Firmware	Remarks
SARA-N200	SARA-N200-02B	SARA-N200-02B-00	Modem: 06.57 Application: A07.03	Status: Initial Production
SARA-N201	SARA-N201-02B	SARA-N201-02B-00	Modem: 06.57 Application: A07.03	Status: Initial Production
SARA-N210	SARA-N210-02B	SARA-N210-02B-00	Modem: 06.57 Application: A07.03	Status: Initial Production
SARA-N211	SARA-N211-02B	SARA-N211-02X-00	Modem: 06.57 Application: A07.03	Status: Initial Production
SARA-N280	SARA-N280-02B	SARA-N280-02B-00	Modem: 06.57 Application: A07.03	Status: Initial Production

2 Type of Change

- Hardware modification
- Firmware update
- Documentation update
- Others

3 Description of Change

3.1 Hardware

No changes.

3.2 Firmware

New functionalities introduced:

- Generic Constrained Application Protocol (CoAP) layer (see the AT+USELCP, AT+UCOAP, AT+UCOAPC commands)
- Firmware upgrade over the air (FOTA) using CoAP (see the AT+USELCP, AT+UCOAPFWT, AT+UFOTAPT, AT+UFOTAS commands)
- RF testing in non signalling mode (see the AT+UTEST command)

Improved performance:

- Optimized transmit power in strong intra-interference conditions
- Optimized the network search performance and the cell reselection

- Improved the cell selection when exiting the PSM mode
- Optimized the cell selection, increased the probability of selecting the strongest cell
- Optimized the cell lost detection in the active mode

Main change on the AT commands syntax:

- AT+UGPIOC - the network and RING indications are moved to CTS pin

AT commands added:

- AT+UMNOCONF - to configure MNO profile for self-registration process
- AT+USELCP - CoAP component selection
- AT+UFOTAPT - FOTA poll timer configuration
- AT+UFOTAS - FOTA process status
- AT+UCOAPFWT - FOTA update package file transfer
- AT+UCOAP - CoAP profile configuration
- AT+UCOAPC - CoAP command
- AT+UCOAPS - FOTA server configuration

AT command removed:

- AT+UBANDSEL - Same functionalities are provided by the AT+NBAND command

3.3 Documentation

- Modules supply extended operating voltage rectified: changed from 2.9V - 4.2V to 2.75V - 4.2V.
- See SARA-N2 series Data Sheet [1] for more details.

See Annex B for the list of known limitations.

4 Schedule

This information is effective as of 26th February, 2018.

5 Customer Impact and Recommended Action

ES modules can be updated to the IP firmware.

6 Reference Documents

- [1] SARA-N2 series Data Sheet, u-blox document UBX-15025564, revision R13
- [2] SARA-N2 series AT Commands Manual, u-blox document UBX-16014887, revision R10
- [3] SARA-N2 series System Integration Manual, u-blox document UBX-17005143, revision R03

Annex

A Restriction compared to specifications

A.1 Hardware

No restrictions or limitations.

A.2 Features / Firmware / Software

No restrictions or limitations.

B Known bugs and limitation

B.1 Hardware

None.

B.2 Firmware

B.2.1 Functionalities

- [u-blox id 238] Group hopping feature according to 3GPP TS36.211 is not supported
 - The core network should disable this functionality to let the module register to the network
- The first network registration using a roaming SIM may take more than ten minutes in “automatic operator selection” mode (AT+COPS=0)
 - To preserve the power, it is advisable to force the module in “manual operator selection” mode (AT+COPS=1) when operating with roaming SIMs
- Limited testing executed on MT/MO SMS

B.2.2 AT commands

- [u-blox id 61] AT+CEREG: the command does not provide the EPS registration status for emergency bearer services.
- [u-blox id 159] AT+CMGC: the parameter <ackpdu> is not issued in the information text response of the read command.
- [u-blox id 160] AT+CMGS: the parameter <ackpdu> is not issued in the information text response of the read command.
- [u-blox id 174] AT+CGACT: the command returns an error result code if try to activate/deactivate all CIDs.
- [u-blox id 174] AT+CGACT: the "OK" final result code is returned before the activation of the CID.
- [u-blox id 229] AT+NBAND: the AT parser accepts a wrong syntax format. E.g. AT+NBAND=8,8,8,8,8 is accepted with an "OK" final result code.
- [u-blox id 230] AT+NSOSTF: the UE crashes when an invalid <flag> value is given.
- [u-blox id 231] AT+UTEST RX: the command response may be returned few seconds before the time duration set with the command.

- [u-blox id 232] AT+CGACT: upon activation of invalid CID, the "+CME ERROR: 521" error result code is returned instead of "+CME ERROR: 517".
- [ublox id 233] The AT+CEDRXS: 0,5 command does not disable DRX.
- [ublox id 241] Save the +UCOAP AT command setting and then restore the edited profiles before they can be used.
- [ublox id 245] Non-IP data delivery: The downlink messaging only works for the first message. After that, reset the PDP context or change it for another downlink message to be received.

B.3 Applications

- Use the tool UEUpdater version v3.5 or later to execute the FW upgrade.