

IN – Information Note

Topic:	SARA-G340-02S/SARA-G350-02S Release to production
	UBX-16001074
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Date:	21-Jan-2016

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1 Affected Products

Product Name	Order Number	Type No	Modem firmware	Application firmware
SARA-G340	SARA-G340-02S	SARA-G340-02S-00	08.90	A00.02
SARA-G350	SARA-G350-02S	SARA-G350-02S-00	08.90	A00.02

2 Type of Change

- [x] Hardware modification
- [x] Firmware update
- [x] Documentation update

3 Description of Change

- Firmware
 - Implementation of various new firmware features and improvements
- Hardware
 - Implementation of new memory
 - Implementation of a new power amplifier (SARA-G340 only)
 - Module thickness reduction to 2.4 mm
 - Separation of digital and RF power supply

See **Appendix A** for detailed description of the changes.

4 Schedule

Production parts are already available.

5 Customer Impact and Recommended Action

5.1 System Test

u-blox has taken utmost care to achieve the highest level of backward compatibility of SARA-G340-02S and SARA-G350-02S to its predecessors. A system test is however recommended. Depending on the type of application and required certification schemes, a delta certification may apply. We recommend consulting with your preferred notified body to verify the actual requirements applicable to your product

5.2 Previous SARA-G versions

The previous versions of SARA-G340 and SARA-G350 can still be ordered by customers who want to use the older version, although the migration to the latest SARA-G350/SARA-G340 version is recommended:

6 Reference Documents

- [1] u-blox AT-commands Manual, u-blox document UBX-13002752
- [2] SARA-G3 Series Data-sheet, u-blox document UBX-13000993
- [3] SARA-G3 Series System Integration Manual, u-blox document UBX-13000995

Remark: it is not possible to upgrade previous SARA-G350 and SARA-G340 versions to the latest 08.90 A00.02 firmware.

A Description of Changes (respect SARA-G340-01S and SARA-G350-01S)

A.1 Hardware

- Module thickness reduction to 2.4 mm
- Implementation of a new flash/RAM combo memory
- Digital and RF Vcc separation; module provides separate supply inputs over the three VCC pins:
 - VCC pins #52 and #53 represent the supply input for the internal RF power amplifier
 - VCC pin #51 represents the supply input for the internal baseband Power Management Unit and the internal transceiver
- SARA-G340 ONLY: implementation of a new dual band power amplifier

A.2 Software/features

Implementation of various new features/improvements:

Features / Firmware / Software

AT+UFTPER change of interface

AT+UFTPER command behavior aligned to LISA-U and SARA-U modules.

The SARA-G340/SARA-G350 module now sends the <OK> before the URC "+UFTPER: 1,1" is received.

In the previous SARA-G versions the URC was sent before the <OK>

The current behavior is therefore as below:

```
AT+UFTPER
OK
+UFTPER: 1,1
```

BER reporting during packet data transfer

+CSQ command extended to report the BER during packet data transfer

SSL improvement

TLS1.2 implemented on HTTP, FTP and TCP

CSQ operational when SIM is not inserted

CSQ command improved in order to work also when a SIM card is not inserted

+CSNS +CBST storing

+CSNS +CBST parameters are now stored in the non volatile memory

AT Command to restore factory default

New command +UFACTORY implemented to restore the module settings to factory default

Second UART Support

Second UART can now be used – in addition to the first UART - to send/receive AT commands

Automatic selection of the authentication type for a PDP context

New module setting implemented in order to automatically select the PDP context type supported by the network (PAP/CHAP)

IPv4/IPv6 dual-stack

IPv6 supported is now supported over PPP

eUICC/BIP support support

Bearer Independent Protocol (and eUICC) implemented

Timing-advance for 6 cells

AT command +COPS extended to read the timing advance from 6 visible cells

AT+UPLAYFILE

AT+UPLAYFILE command properly working even if a call is received when a file is played

Configurable SMTP port

SMTP feature extended in order to allow the configuration of the port used by SMTP

Jamming detection indication over GPIO

Jamming detection is now reported by the module also over GPIO

Network Friendly Mode

NFM feature implemented in order to avoid signaling overload and provide a more efficient access to the network

A.2.1 Known issues

Incoming voice call during a Socket always on session

If a voice call is received during a "Socket Always On" session then the data transfer is interrupted and a switch-off/switch-on cycle must be performed to re-establish the proper SoN operation [13734].

MUX data loss during direct link data transfer

If MUX is used during a direct link data transfer then some characters might be lost [13544].

Work-around: to avoid data loss use max frame size ≤ 384 bytes.

Auto-bauding during a CS (circuit switched) data call

With certain network conditions, the auto-bauding might not be re-established after a CS data call is terminated [13625].

Work-around: send a dummy "AT<enter>" command after the NO CARRIER sent by the module (using the current baud-rate) to force the module to re-establish the proper baud-rate.

SMS with GSM char set: characters 0x07, 0x08 and 0x15 cannot be used

Characters 0x07 (Bell), 0x08 (Back Space) and 0x15 (Carriage Return) cannot be used when writing an SMS using GSM char-set [13500].

GPS tunneling

With GPS tunneling enabled it is possible to read data coming from GPS (for example the NMEA string) but it is not possible to send data to GPS (e.g. UBX messages do not reach the GNSS receiver) [14600].

Work-around: use the command +UGUBX in order to send UBX messages to GPS instead of using the GPS tunneling.