



Общество с ограниченной ответственностью «Навтелеком»

ИНН\КПП 7718663381\771801001

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По требованию

Информационное письмо

В устройствах СИГНАЛ S-25xx и SMART S-23xx используются навигационные модули SIMCOM SIM68m и Quectel L76, созданные на базе чипсета MediaTek MT3333.

Информируем Вас о том, что, начиная с 16.09.2017 г. названные выше навигационные приемники могут иметь проблемы с определением местоположения, если они работают в зоне Восточной Европы и Азии (в диапазоне от 70° западной и до 160° восточной долготы).

По официальным данным производителей навигационных модулей (см. Приложение №1 и Приложение №2 к настоящему письму), причиной сбоев в работе навигационных приемников являются данные от спутника #194 навигационной группировки QZSS, введенного в эксплуатацию 16.09.2017 г.

Чтобы устранить влияние этой проблемы на работу устройств СИГНАЛ S-25xx и SMART S-23xx ООО «Навтелеком» выпустило прошивки с изменениями, учитывающими рекомендации по устранению проблемы, описанными в официальных ответах производителей навигационных приемников.

Первые исправления (только для модулей SIM68m) внесены начиная с версии прошивки v9.00.39 от 20.09.2017 г.

Полный пакет исправлений (для модулей SIM68m и L76) внесен начиная с версии прошивки v9.01.06 от 24.10.2017 г.

Генеральный директор
ООО «Навтелеком»



Куликов В.Ю.

Quectel GNSS Module Issue Notice

Dear Customers,

Thanks very much for your attention and trust on Quectel's products.

We are so sorry to inform you that we have met an issue that caused by chipset's positioning algorithm defect, so we write this notice to guide our friends to resolve the related issue.

● Description of Issue

In Asia Pacific area (Longitude 70°E~160°W), the modules or devices which adopt the GNSS IC with specific legacy firmware version may encounter positioning problems such as a large drift or even failure to fix after long time operation.

● Cause of the Issue

GNSS IC (for firmware versions prior to April of 2016) got the unexpected signal data from QZSS #194 satellites which just started working at Sept. 16th, 2017. Such unexpected signal data is not exactly the same as the firmware predicted, thus leading to an incorrect azimuth/elevation data. After a period of time, it will result in a large drift or even the position cannot be fixed in some worse cases.

● Affected Products

Quectel L76, L76B, L86 and L26 modules under both of the following two conditions will be affected.

1. The module's firmware is included in the affected version listed in *Table 1*. Customers can get the firmware information from the label of the module). If still uncertain, then customers can send command "\$PMTK605*31" to get the baseline, if the version is older than AXN_3.8_3333_1604210, then the issue may occur.
2. The device works in Asia Pacific area (Longitude 70°E~160°W).

● Solutions

1. If it is possible to upgrade the firmware of the module, please update to the latest firmware version.
2. If it is impossible to upgrade the firmware of the module, please disable the QZSS function by sending following PMTK commands:

Step 1: Clean the data of VRTC RAM by "\$PMTK104*37<CR><LF>" first to avoid using the previous ALM data (QZSS).

Step 2: Send "\$PMTK352,1*2B<CR><LF>" as soon as possible before positioning.

Note: If RTC power is applied, this setting can be saved. If not, the setting will be lost after re-powering on the module, hence a re-setting is needed.

Table 1: Affected Models and Versions List

Model	Affected Version	Version Suggested to be Updated To
L76	L76NR02A03	L76NR03A01S
	L76NR02A05	
	L76NR02A06	
L76B	L76BNR01A01	L76BNR02A01S
L86	L86NR01A02	L86NR02A01S
	L86NR01A03S	
L26	L26NR01A02	L26NR02A01S
	L26NR01A03	
	L26NR01A04	

Please kindly note that Quectel L76-L and MC60 (Ordering code: MC60CA-04-STD/MC60ECA-04-BLE) modules are not affected.

Please contact your local FAE for the latest firmware version. Sorry for the inconvenience caused to you.

Примечание №2



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To whom it may concern,

SIMCom Wireless Solutions Ltd. inform about GNSS receivers position lost issue. In East Europe and Asia Pacific area (longitude 70~ -160 degree) after long time operation, the modules or devices which adopt the GPS IC with specific legacy firmware version may encounter problems of positioning function. During investigation with MediaTek chipset supplier we make following conclusion:

Problem meet only with receivers based on MT3333 chipset: SIM68M, SIM33ELA, SIM68V, SIM68E, SIM68R, SIM33EAU, SIM868, SIM868E with AXN core version earlier than 5.0. GPS IC got the unexpected signal data from QZSS #194 satellites, which just start to work at 2017/09/16. Such unexpected signal data is not exactly the same as firmware predicted, and the Azimuth/Elevation data calculation is impacted. After a period of time(2-4 hours), it will result in the large drift or even position is not fixed in some worse cases.

SIMCom provide few solutions for this problem:

1. General Resolution is to update the algorithm firmware for unknown satellites: fix the Azimuth/Elevation data calculation. In the Annex #1 are listed all software versions where fix already implemented.
2. Devices in field without opportunity update GNSS receiver software over the air can turn off QZSS satellites data calculation(see "Turn off QZSS data calculation" in Annex #1).
3. Reboot GNSS receiver every 2 hours.

Name:

Position:

Date:

Signature:

Project
2017-11-
Xianhua Deng

ANNEX #1

1. List of software versions:

Module	PN	Software version	Default baud rate
SIM68M	S2-105ZC-Z1C0P	B06V13SIM68M_11	115200
SIM68M	S2-105ZC-Z1C0Q	B06V13SIM68M_96	9600
SIM68V	S2-105A5-Z0Z18	B06V10SIM68V_11	115200
SIM68V	S2-105A5-Z0Z19	B06V10SIM68V_96	9600
SIM68R	S2-10595-Z0Z1E	B06V10SIM68R_11	115200
SIM68R	S2-10595-Z0Z1F	B06V10SIM68R_96	9600
SIM68E	S2-10640-Z1G0B	B06V13SIM68E_11	115200
SIM68E	S2-10640-Z1G0C	B06V13SIM68E_96	9600
SIM33ELA	S2-105Y0-Z1E0B	B06V10SIM33ELA1	115200
SIM33ELA	S2-105Y0-Z1E0C	B06V10SIM33ELA9	9600
SIM33EAU	November 2017	B06V10SIM33EAU1	115200
SIM33EAU	November 2017	B06V10SIM33EAU9	9600
SIM868(E)	S2-xxxx-xxxx-Z1Q5Z	B04V03SIM868_T1	115200
SIM868(E)	S2-xxxx-xxxx-Z1Q61	B04V01SIM868_T9	9600
SIM868(E)	S2-xxxx-xxxx-Z1Q5N	B03V02SIM868_96	9600
SIM868(E)	S2-xxxx-xxxx-Z1Q5L	B03V02SIM868_11	115200

2. Turn off QZSS data calculation:

Step 1: Erase old almanac by \$PMTK104*37 in case VBACKUP pin always powered. If not always then put off power from VBACKUP pin.

Step 2: Send \$PMTK352,1*2B at the module start. No need reboot module after it. It is important: this command is saved in VRTC RAM in case VBACKUP pin always powered; if not, \$PMTK352,1*2B must be used in every receiver turn ON. Module response on \$PMTK001,352,3*34 means QZSS calculation disabled.