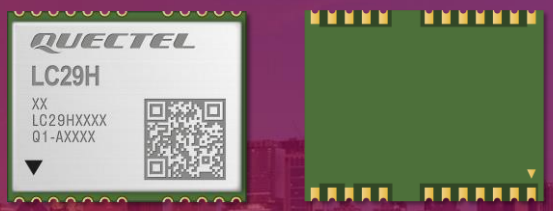
Quectel LC29H(EA)_RSA

GNSS Module



LC29H(EA)_RSA Release Notes

GNSS Module Series

Rev. LC29H(EA)_Firmware_Release_Notes_V1103S

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Contents

1. Release Content

This document provides the Release Notes for LC29H(EA)_RSA.

The release version is LC29HEANR11A03S_RSA.

2. Take Note of

SN	Item
[1]	The default satellite constellation configuration is GPS L1/L5 + GLONASS L1 + Galileo E1/E5 + BDS B1I/B2a + QZSS L1/L5.
[2]	The default UART baud rate is 460800 bps.
[3]	The validity period of GPS week number is from January 2015 to August 2034.

3. Release History

3.1. Firmware Release History

Firmware Version	Description
LC29HEANR11A03S_RSA	Mass production
LC29HEANR11A02S_RSA	Mass production
LC29HEANR11A01S_RSA	Mass production

3.2. New Features

LC29HEANR11A03S_RSA	
SN	**Brief Description**
[1]	Added the support of satellite constellation configurations: BDS only, GPS + Galileo + QZSS and GPS + Galileo +BDS + QZSS.
[2]	Added the support of 1 Hz, 2 Hz and 5 Hz fix update rate.
[3]	Added the **PQTMCFGFIXRATE** command to configure the fix rate.
[4]	Added the **$PQTMCFGRTK** command to configure the RTK working mode.
[5]	Added the **$PQTMPVT** message to output the PVT (Position, Velocity, and Time) result. This message is disabled by default.
[6]	Added the **$PQTMGNSSSTART** command to start the GNSS engine.
[7]	Added the **$PQTMGNSSSTOP** command to stop the GNSS engine.
[8]	Added the **$PQTMCFGCNST** command to configure the constellations.
[9]	Added the **$PQTMCFGODO** command to configure the Odometer feature. This feature is disabled by default.
[10]	Added the **$PQTMRESETODO** command to reset the distance traveled calculated by the Odometer.
[11]	Added the **$PQTMODO** message to output the Odometer information. This message is disabled by default.

[12]	Added the **$PQTMVEL** message to output the velocity of module. This message is disabled by default.
[13]	Added the **$PQTMDOP** message to output the dilution of precision. This message is disabled by default.
[14]	Added **$PQTMEPE** message to output the estimated position error. This message is disabled by default.

LC29HEANR11A02S_RSA	
SN	**Brief Description**
[1]	Added **$PQTMCFGSVIN** command to configure the Survey-in feature.
[2]	Added **$PQTMSVINSTATUS** message to report Survey-in status.
[3]	Added **$PQTMCFGRCVRMODE** command to configure the receiver working mode.
[4]	Added **$PQTMCFGGEOFENCE** command to configure the Geofence feature.
[5]	Added **$PQTMGEOFENCESTATUS** message to report Geofence status.
[6]	Added **$PQTMTAR** message to report UTC and attitude in Heading mode.
[7]	Added the support of GLONASS satellite constellation.

LC29HEANR11A01S_RSA	
SN	**Brief Description**
[1]	Restriction has been added to normal positioning, timing and other functions of the module in regions such as RUS and IRN, thus ensuring that the module can be used only for civilian applications. While trying to use the module in the restricted regions, the module will output **$PQTMTXT,1,01,01,03,The version is not in service area.*2E**.

3.3. Improved Features

LC29HEANR11A03S_RSA	
SN	**Brief Description**
[1]	Fixed the issue that the previously enabled **$PQTMSVINSTATUS** message was disabled after using the **$PQTMCFGSVIN** command to enable the Survey-in function.
[2]	Fixed the issue that the **<StateN>** field in the **$PQTMGEOFENCESTATUS** message was incorrect when the module was not positioned.
[3]	Fixed the issue that the module did not respond with **$PAIR001** and **$PAIR650** messages after receiving the correctly formatted **$PAIR650** command.
[4]	Fixed the issue that the NMEA messages configured by the **$PAIR062** command could be saved without sending the **$PQTMSAVEPAR/$PAIR513** command to save after the module

	was reset.
[5]	Changed the validity period of GPS week number from January 2015–January 2038 to January 2015–August 2034.
[6]	Fixed the issue that sending the **$PQTMRESTOREPAR** command could not restore the parameters of the **$PQTMCFGGEOFENCE** command to the default value.
[7]	Improved the positioning accuracy of the module in tree shade and half-sky scenes.
[8]	Improved heading accuracy when using dual modules.

LC29HEANR11A02S_RSA	
SN	**Brief Description**
[1]	Changed the default UART baud rate from 921600 bps to 460800 bps.
[2]	Changed the default output rate of the **GSA** and **GSV** messages from 10 Hz to 1 Hz when module not fixed.
[3]	Optimized the performance of TTFF.

4. Functions List

Category	Item	Supported Version (Since)	Note
Basic Function	GPS	LC29HEANR11A01S_RSA	/
	GLONASS	LC29HEANR11A02S_RSA	/
	Galileo	LC29HEANR11A01S_RSA	/
	BDS	LC29HEANR11A01S_RSA	/
	QZSS	LC29HEANR11A01S_RSA	/
	1PPS	LC29HEANR11A01S_RSA	/
	AGNSS	LC29HEANR11A01S_RSA	/
	Low Power	LC29HEANR11A01S_RSA	/
	RTK	LC29HEANR11A01S_RSA	/
	Upgrading	LC29HEANR11A01S_RSA	/
	Heading	LC29HEANR11A02S_RSA	/
Special Function	Geofence	LC29HEANR11A01S_RSA	/
	Odometer	LC29HEANR11A03S_RSA	/
	Jamming Detection	LC29HEANR11A01S_RSA	/
Protocol	NMEA 0183	LC29HEANR11A01S_RSA	/
Interface	UART	LC29HEANR11A01S_RSA	/

About Quectel

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