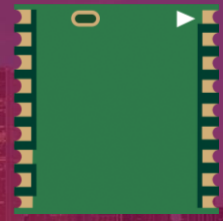


Quectel L76-L

GNSS Module



L76-L Release Notes

GNSS Module Series

Rev. L76-L_Firmware_Release_Notes_V0301S

Date: 2021-06-25

Our aim is to provide customers with timely and comprehensive service. For any assistance, please contact our company headquarters:

Quectel Wireless Solutions Co., Ltd.

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China

Tel: +86 21 5108 6236

Email: info@quectel.com

Or our local office. For more information, please visit:

<http://www.quectel.com/support/sales.htm>.

For technical support, or to report documentation errors, please visit:

<http://www.quectel.com/support/technical.htm>

Or email to support@quectel.com.

Disclaimer

While Quectel has made efforts to assure the accuracy of this document, unless otherwise provided by valid agreement, Quectel assumes no liability resulting from any inaccuracies or omissions in this document, or from use of the information obtained herein. Quectel reserves the right to make changes to any contents described herein and reserves the right to revise this document and to make changes from time to time in content hereof with no obligation to notify any person of revisions or changes. Before using any updated software, please read this statement carefully. By accessing or using the said software you irrevocably and unconditionally accept and confirm that you agree to be bound by this statement. In the event you disagree with any provision hereof and would not like to be bound by this statement you shall cease use of the said software immediately.

Duty of Confidentiality

The Receiving Party shall keep confidential all documentation and information provided by Quectel, except when the specific permission has been granted by Quectel. The Receiving Party shall not access or use Quectel's documentation and information for any purpose except as expressly provided herein. Furthermore, the Receiving Party shall not disclose any of the Quectel's documentation and information to any third party without the prior written consent by Quectel. For any noncompliance to the above requirements, unauthorized use, or other illegal or malicious use of the documentation and information, Quectel will reserve the right to take legal action.

Copyright

The information contained here is proprietary technical information of Quectel Wireless Solutions Co., Ltd. Transmitting, reproducing, disseminating and editing this document as well as using the content without permission are forbidden. Offenders will be held liable for payment of damages. All rights are reserved in the event of a patent grant or registration of a utility model or design.

Copyright © Quectel Wireless Solutions Co., Ltd. 2021. All rights reserved.

Contents

Contents	2
1. Release Content	3
2. Take Note of	3
3. Release History	4
3.1. Firmware Release History	4
3.2. New Features	4
3.3. Improved Features	5
3.4. Errata	5
4. Functions List	6

Quectel
Confidential

1. Release Content

This document provides the Release Notes for L76-L.

The release version is L76LNR03A01S.

2. Take Note of

SN	Item
[1]	It is recommended to set the baud rate of UART port at 19200 bps or above when using PPS Sync NMEA function.

3. Release History

3.1. Firmware Release History

Firmware Version	Description
L76LNR03A01S	Mass production
L76LNR02A02S	Mass production
L76LNR02A01S	Mass production

3.2. New Features

L76LNR03A01S	
SN	Brief Description
[1]	Added the SDK command \$PQODO to configure parameters of Odometer.
[2]	Revised <COG> and <SOG> fields to be empty in RMC and VTG sentences when the module does not get a fix or with the speed less than 1 knot.
L76LNR02A02S	
SN	Brief Description
[1]	Added mode 5 to \$PMTK285 to fix that 1PPS period is longer than 1s when just positioning.
L76LNR02A01S	
SN	Brief Description
[1]	Supported Galileo satellites system. "GPS + GLONASS + Galileo" multi-GNSS can be enabled by PMTK command \$PMTK353,1,1,1,1,0*2B .
[2]	Added the PMTK command \$PMTK886 to set navigation mode.
[3]	Added the SDK command \$PQGEO to Configure Parameters of Geofencing.
[4]	Added the SDK command \$PQPREC to Configure Decimal Places of longitude, latitude and altitude in NMEA sentences.
[5]	Added the SDK command \$PQJAM to enable or disable jamming detection.

[6]	Added the SDK command \$PQGBS to enable or disable sentence of GNSS satellite fault detection
-----	------------------------------------------------------------------------------------------------------

3.3. Improved Features

L76LNR03A01S	
SN	Brief Description
[1]	Modified the mechanism of the four-year interval number (N4) when the current calendar number of day (NT) is rolled over to ensure that the GLONASS satellites are not affected by the rollover event when positioning.
L76LNR02A02S	
SN	Brief Description
[1]	Fixed that latitude and longitude are sometimes 6-bit precision in GGA when data valid segment is invalid in RMC.
[2]	Fixed the problem of overlapped EPO area and code area in flash. Please note that the entire flash needs to be formatted before upgrading from an earlier version to AXN 5.16.
[3]	Fixed drift or non-positioning problems caused by QZSS satellites 194 and 195.
L76LNR02A01S	
SN	Brief Description
[1]	Improved driving performance at multipath and weak signal condition.
[2]	Optimized speed accuracy performance.

3.4. Errata

SN	Bug Description
/	/

4. Functions List

Category	Item	Supported Version (Since)	Note
Basic Function	GPS	L76LNR02A01S	/
	GLONASS	L76LNR02A01S	/
	Galileo	L76LNR02A01S	/
	BeiDou	L76LNR02A01S	/
	QZSS	L76LNR02A01S	/
	AGNSS	L76LNR02A01S	/
	1PPS	L76LNR02A01S	/
	Low power	L76LNR02A01S	/
Special Function	AlwaysLocate	L76LNR02A01S	/
	EASY	L76LNR02A01S	/
	Geofence	L76LNR02A01S	/
	Jamming Detection	L76LNR02A01S	/
	LOCUS	L76LNR02A01S	/
	Odometer	L76LNR03A01S	/
	PPS Sync NMEA	L76LNR02A01S	/
Protocol Function	NMEA 0183	L76LNR02A01S	/
Interface Function	UART	L76LNR02A01S	/

About Quectel

Quectel Wireless Solutions is the leading global supplier of cellular and GNSS modules, with a broad product portfolio covering the most recent wireless technologies of 5G, LTE/LTE-A, NB-IoT/LTE-M, UMTS/HSPA(+), GSM/GPRS and GNSS. As a professional IoT (Internet of Things) technology developer and cellular module supplier, Quectel is able to provide one-stop services for IoT cellular modules. Quectel products have been widely applied in IoT/M2M fields including smart payment, telematics and transport, smart energy, smart cities, security, wireless gateways, industry, healthcare, agriculture, and environment monitoring.

