

# **L86** Release Notes

#### **GNSS Module Series**

Rev.L86\_Firmware\_Release\_Notes\_V0201S

Date: 2017-07-20



#### 1. Preamble

This document provides the Release Notes for L86 firmware version **L86NR02A01S**<sup>[1]</sup>. It describes major changes compared to L86 firmware version **L86NR01A05S**. For more information, refer to the other documents about L86.

#### 2. New Features

NO.	Brief description	Since				
1	Supported Galileo satellites system. "GPS+GLONASS+Galileo" multi-GNSS can be enabled by PMTK command <b>\$PMTK353,1,1,1,1,0*2B</b> .					
2	Added the SDK command <b>\$PQBAUD</b> to modify and save baudrate.	R01A03S				
3	Added the SDK command <b>\$PQ1PPS</b> to modify output mode of 1PPS.					
4	Added the SDK command <b>\$PQEPE</b> to set PQEPE sentence output.					
5	Added packet type <b>\$PMTK351</b> , <b>\$PMTK352</b> , <b>\$PMTK262</b> , <b>\$PMTK285</b> and <b>\$PMTK875</b> .					
6	Added the SDK command <b>\$PQTXT</b> to set GPTXT sentence output.	R01A03S				
7	Added the PMTK command <b>\$PMTK886</b> to set navigation mode.	R01A03S				
8	Added the SDK command <b>\$PQECEF</b> to set ECEFPOSVEL sentence output.	R01A04S				
9	Added the SDK command <b>\$PQODO</b> to start or stop odometer reading.	R01A04S				
10	Added the SDK command <b>\$PQPZ90</b> to enable or disable switching from WGS84 to PZ-90.11.	R01A04S				
11	Added the SDK command <b>\$PQGLP</b> to enter into or exit from GNSS low power (GLP) mode.	R01A04S				
12	Added the SDK command <b>\$PQVEL</b> to enable or disable 3 ways velocity sentence output.	R01A04S				
13	Added the PMTK command <b>\$PMTK838</b> to enable or disable jamming detection function.	R01A05S				
14	Added the PMTK command <b>\$PMTK886</b> to set navigation mode.	R02A01S				
15	Added the SDK command <b>\$PQGEO</b> to configure parameters of geofencing.	R02A01S				
16	Added the SDK command <b>\$PQPREC</b> to configure decimal places of longitude, latitude and altitude in NMEA sentences	R02A01S				
17	Added the SDK command <b>\$PQJAM</b> to enable or disable jamming detection.	R02A01S				



18	Added the SDK command <b>\$PQGBS</b> to enable or disable sentence of GNSS	R02A01S
	satellite fault detection sentence.	

## 3. Improved Features

NO.	Brief description	Since
1	Improved 1PPS time accuracy.	R01A03S
2	Improved the positioning performance under the weak signal environment.	R01A03S
3	Improved driving performance at multipath and weak signal condition.	R02A01S
4	Optimized speed accuracy performance.	R02A01S



### 4. Functions

Basic Function									
AIC	EASY	EPO	SBAS	Always Locate	LOCUS	PPS sync NMEA			
Y <sup>[2]</sup>	Υ	Υ	Υ	Υ	Υ	Υ			
SDK Command Function									
PQBAUD	PQEPE	PQ1PPS	PQVEL	PQTXT	PQECEF	PQODO	PQPZ90	PQGLP	
Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	
PQGEO	PQPREC	PQJAM	PQGBS						
Υ	Υ	Υ	Υ						
Special Function									
Jamming Detection									
Υ									

#### **NOTES**

- 1. [1] R02A01S uses NMEA v4.10 protocol, and added a new segment before "\*" in RMC, GSA and GSV sentences. Please note compatibility issues with older versions.
- 2. [2] "Y" means the firmware supports this function.