

L86 Release Notes

GNSS Module Series

Rev.L86_Firmware_Release_Notes_V0202S

Date: 2018-05-22

1. Preamble

This document provides the Release Notes for L86 firmware version **L86NR02A02S**^[1]. It describes major changes compared to L86 firmware version **L86NR02A01S**. 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 \$PMTK353,1,1,1,1,0*2B .	R02A01S
2	Added the SDK command \$PQBAUD to modify and save baudrate.	R01A03S
3	Added the SDK command \$PQ1PPS to modify output mode of 1PPS.	R01A03S
4	Added the SDK command \$PQEPE to set PQEPE sentence output.	R01A03S
5	Added packet type \$PMTK351 , \$PMTK352 , \$PMTK262 , \$PMTK285 and \$PMTK875 .	R01A03S
6	Added the SDK command \$PQTXT to set GPTXT sentence output.	R01A03S
7	Added the PMTK command \$PMTK886 to set navigation mode.	R01A03S
8	Added the SDK command \$PQECEF to set ECEFPOSVEL sentence output.	R01A04S
9	Added the SDK command \$PQODO to start or stop odometer reading.	R01A04S
10	Added the SDK command \$PQPZ90 to enable or disable switching from WGS84 to PZ-90.11.	R01A04S
11	Added the SDK command \$PQGLP to enter into or exit from GNSS low power (GLP) mode.	R01A04S
12	Added the SDK command \$PQVEL to enable or disable 3 ways velocity sentence output.	R01A04S
13	Added the PMTK command \$PMTK838 to enable or disable jamming detection function.	R01A05S
14	Added the PMTK command \$PMTK886 to set navigation mode.	R02A01S
15	Added the SDK command \$PQGEO to configure parameters of geofencing.	R02A01S
16	Added the SDK command \$PQPREC to configure decimal places of longitude, latitude and altitude in NMEA sentences	R02A01S
17	Added the SDK command \$PQJAM to enable or disable jamming detection.	R02A01S

18	Added the SDK command \$PQGBS to enable or disable sentence of GNSS satellite fault detection sentence.	R02A01S
19	Added mode 5 to \$PMTK285 to fix that 1PPS period is longer than 1s when just positioning.	R02A02S

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
5	Modified Locus function for overlap mode.	R02A02S
6	Fixed that latitude and longitude are sometimes 6-bit precision in GGA when data valid segment is invalid in RMC.	R02A02S
7	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.	R02A02S
8	Fixed drift or non-positioning problems caused by QZSS satellites 194 and 195.	R02A02S

4. Functions

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

NOTES

- ^[1] Form R02A01S to the latest version 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] “Y” means the firmware supports this function.