

LS23038 Specifications (v1.2)

GPS performance		
Chip	MediaTek High Sensitivity	
Frequency	L1 1575.42MHz, C/A code	
Channels	Support 66 channels (22 Tracking, 66 Acquisition)	
Update rate	1 Hz ⁽¹⁾	
Acquisition time	Hot start (Open Sky)	< 2s
	Cold start (Open Sky)	33s (typical) without AGPS
		< 15s (typical) with AGPS (Long Term Orbit) ⁽²⁾
Position/Velocity	3m (2D RMS)/0.1 m/s without SA (autonomous mode)	
Dynamics	Speed (max.)	515 m/s
	Altitude (max.)	18000 m
	Acceleration (max.)	4 g
Differential GPS	SBAS	
Antenna	Built-in patch antenna	
Power		
Power	+5V, USB bus power	
Current consumption	43 mA	
Interfaces		
Communication	USB (virtual COM port ⁽³⁾)	
Data format	NMEA 0183	
Support OS	Windows XP, Vista, 7	
Physical		
Size	66.6 x 20.8 x 11.5 mm	
Weight	16g	
Display	Green LED ⁽⁴⁾	
Environmental		
Operating temp.	-40 ~ +85 °C	
Storage temp.	-40 ~ +85 °C	
EMC standard	CE, FCC	
Accessories		
Standard	USB extension cable	

<Specifications are subject to change without notice>

<Note 1> Only support 1Hz.

<Note 2> User can download free AGPS (Long Term Orbit) from LOCOSYS ftp server.

<Note 3> Application software, such as navigation software, can access it with any baud rate.

<Note 4> It flashes once per second when position is fixed. Otherwise it is off.

Document change list

- V1.0
 - First release on March 30, 2010.
- V1.0 to V1.1 (Applied to the device with firmware version AXN1.5 and later)
 - Changed typical “cold start time” from 35s to 33s.
 - Remove Quick start guide by printing it on the color box.
- V1.1 to V1.2 (December 15, 2011)
 - Revised the update rate to only 1Hz.
 - Changed the operating temperature from -30°C to -40°C