

# **PRODUCT SPECIFICATION**

## **USB GPS RECEIVER**

**NL-302U**

Ver 1.04

## **Product Feature**

- “SiRF star III” high performance and low power consumption chipset
- All-in-view 20-channel parallel processing
- Built-in patch antenna
- Very High sensitivity to satellite signal (Tracking Sensitivity:-159 dBm)
- Extremely fast TTFF(Time To First Fix) at low signal level
- Build-in SuperCap to reserve system data for rapid satellite acquisition.
- Supported NMEA 0183 data protocol
- Super-cohesive magnetic for mounting on the car
- Water resisted and non-slip on the bottom
- USB interface connection port
- LED indicator for GPS fix or not fix

LEDOFF: Receiver switch off

LED ON: Position Fixed

LED Flashing: No fixed, Signal searching

## **System Specification**

<b>Electrical Characteristics (Receiver)</b>		
Chipset	SIRF Star III	
Frequency	L1, 1575.42 MHz	
C/A Code	1.023 MHz chip rate	
Channels	20 channel all-in-view tracking	
Sensitivity	-159 dBm	
<b>Accuracy</b>		
Position Horizontal	10m 2D RMS (SA off)	
Velocity	0.1m/sec	
Time	1 micro-second synchronized to GPS time	
WAAS enabled	5m 2D RMS	
<b>Datum</b>		
Datum	WGS-84	
<b>Acquisition Rate</b>		
Hot start	1 sec., average (with ephemeris and almanac valid)	
Warm start	38 sec., average (with almanac but not ephemeris)	
Cold start	42 sec., average (neither almanac nor ephemeris)	
Reacquisition	0.1 sec. average (interruption recovery time)	
<b>Protocol</b>		
GPS Protocol	Default: NMEA 0183	
GPS Output Data	SiRF binary >> position, velocity, altitude, status and control ; NMEA 0183 protocol.supports command: GGA, GSA, GSV, RMC, VTG, GLL (VTG and GLL are optional)	
GPS transfer rate	Software command setting (Default : 4800,n,8,1 for NMEA )	
<b>Dynamic Condition</b>		
Acceleration Limit	Less than 4g	
Altitude Limit	18,000 meters (60,000 feet) max.	
Velocity Limit	515 meters/sec. (1,000 knots) max.	
Jerk Limit	20 m/sec**3	
<b>Temperature</b>		
Operating	-40°~ 85°C	
Storage	-40°~ 85°C	
Humidity	Up to 95% non-condensing	
<b>Power</b>		
Voltage	4.5V ~ 6.5V	
Current	80mA typical	
<b>Physical Characteristics</b>		
Dimension	53mm diameter , 19.2mm height	
USB Cable Length	65"	



**USB GPS Receiver**

*Due to continuous product improvements, all specifications may be subject to change without notice*