PRODUCT SPECIFICATION

RS232 GPS RECEIVER

NL-303P

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 (Tracking Sensitivity: -159 dBm)
- Extremely fast TTFF (Time To First Fix) at low signal level
- Superior urban canyon performance
- Build-in SuperCap to reserve system data for rapid satellite acquisition.
- Support NMEA 0183 data protocol
- Super-cohesive magnetic for mounting on the car
- Water resisted and non-slip on the bottom
- LED indicator for GPS fix or not fix

    LEDOFF: Receiver switch off
    LED ON: Position Fixed
    LED Flashing: No fixed, Signal searching

- RS232 interface with PS2 connector

System Specification

Electrical Characteristics (Receiver)	
Frequency	L1, 1575.42 MHz
C/A Code	1.023 MHz chip rate
Channels	20 channel all-in-view tracking
Sensitivity	-159 dBm

Accuracy	
Position Horizontal	10m 2D RMS (SA off)
Velocity	0.1m/sec 95% (SA off),
Time	1 micro-second synchronized to GPS time
WAAS enabled	5m 2D RMS

Datum	
Datum	WGS-84

Acquisition Rate	
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)

Protocol	
GPS Protocol	Default: NMEA 0183 (Secondary: SiRF binary)
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)

Dynamic Condition	
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

Temperature	
Operating	-40°~ 85°C
Storage	-40°~ 85°C
Humidity	Up to 95% non-condensing

Power	
Voltage	4.5V ~ 6.5V
Current	80mA typical (Continuous mode)

Physical Characteristics	
Dimension	53mm diameter , 19.2mm height
Cable Length	65"

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