

Characteristics

General	
Chipset	MTK
Frequency	L1, 1575.42MHz
C/A Code	1.023 MHz
Channels	66 channels
SBAS	WAAS, EGNOS, GAGAN,MSAS Supported
Datum	WGS84(Default), Tokyo-M, Tokyo-A, User Define
CPU	ARM7EJ-S
Dimensions	
Width / Length /Height	30 x 34.1 x 8mm
Weight	50 g (with 2m standard cable and housing)
Performance Characteristics	
Position Accuracy	Without aid : 3.0m 2D-RMS
	< 3m CEP (50%) without SA (horizontal)
	DGPS (SBAS (WAAS, EGNOS, MSAS)) : 2.5m
Velocity Accuracy	Without aid : 0.1 m/s
	DGPS (SBAS (WAAS, EGNOS, MSAS)) : 0.05m/s
Acceleration Accuracy	Without aid : 0.1 m/s ²
	DGPS (SBAS (WAAS, EGNOS, MSAS)) : 0.05m/s ²
Timing Accuracy	100 ns RMS
Sensitivity	Acquisition : -148dBm (Cold Start)
	Reacquisition : -163dBm
	Tracking : -165dBm
Maximum Update Rate	Up to 10Hz(Default: 1Hz)
Acquisition (Open sky, stationary)	
Reacquisition Time	Less than 1 second
Hot start	1.0s (Typical)

Warm start	34s (Typical)
Cold start	35s (Typical)
Dynamic	
Altitude	Maximum 18,000m
Velocity	Maximum 515m/s
Acceleration	Maximum 4G
Power	
Input Voltage	DC 5V Typical
Power Consumption @ 5V	Acquisition : 26mA Typical
	Tracking : 22mA Typical
I/O	
Signal Output	RS232 and TTL level, 8 data bits, no parity, 1 stop bit
Available Baud Rates	4800/9600/38400/57600/115200 bps(Default : 9600)
Protocols	NMEA 0183 v3.01 (Default : GGA,GSA,GSV,RMC,VTG) MTK NMEA Command Network Assistance Messages
Data output Interface	
Protocol messages	9600 bps/8/N/1 (Default)
Output format	GGA(1sec),GSA(1sec),RMC(1sec),VTG(1sec), GSV(5sec) (Default)
Environment	
Operating Temperature	-45 °C to 85 °C
Storage Temperature	-50 °C to 125 °C
Operating Humidity	5% to 95% (no condensing)

Mechanic Dimension

Unit : mm

