R-9W V2 WATERPROOF VEHICLE TRACKING UNIT

Features
- Built in motion switch (activated by G-Force)
- Detect external power loss
- Multi-task allows saving/reading GPS and GSM data at the same time
- Smart tracking with distance and angle tracking
- Accurate distance measurement using GPS data
- Upload firmware or configuration to multiple units over the air
- Vehicle immobilizer via phone or browser
- Analog input for temp/fuel monitoring
- I-BUTTON connection option
- IP-67 waterproof standard
- Custom ACK mechanism between device and server
- Support FTP

Specifications

MECHANICAL & ENVIRONMENTAL CHARACTERISTICS	
Physical Characteristics	
Unit Size (L x W x H)	175 x 105 x 43 mm (±1mm)
Weight	234.2 g (±10g)
Housing	Aluminum case with plastic end caps
Waterproof Standard	IP-67
Environmental Characteristics	
Operational Temperature	-20℃ ~ +60℃ (board temperature)
Storage Temperature	-40℃ ~ +80℃
NOTE: Battery has individual operational and storage temperature limitations!	
General Characteristics	

I/O	4 Outputs	4 negative outputs (200 mA max)
	4 Inputs	4 negative or positive inputs – active low or active high (1 can be configured as pulse counter input)
	1 Analog Input	1 analog input (0 ~ +3.3 Volt – max) with 8 bit resolution
	1 RJ45 Multi-Port	Serial RS232 port (9600 baud rate)
		Direct GPS output RS232 (9600 baud rate)
	1 Voice I/O	Voice I/O connector
	I-Button	(optional)
	Buzzer	(optional)

Electrical Characteristics	
Input Voltage	+9 ~ +36V dc, Ripple < 300 mV

Battery Characteristics		
Backup Power	Li-Ion Cell Battery – 3.7V/1000mAh	
Battery Temperature Limitations	Operation Temp.	-20℃ ~ +60℃
	Storage Temp	-20℃ ~ +35℃

GPS SPECIFICATION	
General	
Frequency	L1, 1575.42 MHz
C/A Code	1.023 MHz chip rate
Channels	20 parallel channels
Accuracy	
Position	10m, 2D RMS
	5m, 2D RMS, WAAS corrected
	<5m (50%), DGPS corrected
Velocity	0.1 m/sec
Time	1 sec synchronized to GPS time
Datum	
Default	WGS-84
Time to First Fix (TTFF)	
Cold Start	37 sec
Warm Start	34 sec
Hot Start	1.5 sec
Dynamic Conditions	
Altitude	18,000m (60,000ft.) above sea level, max
Acceleration	4G, max
Velocity	515 m/sec (1000 knots), max
Jerk	20 m/sec, max

GSM SPECIFICATION	
Frequency Bands	Quad Band : GSM 850 / GSM 900 / GSM 1800 / GSM 1900
Maximum RF Power	GSM 850 / EGSM 900 Class4 (2W)
	GSM 1800 / GSM 1900 Class1 (1W)
Receiving Sensitivity	GSM 850 / GSM 900 < -109dBm
	GSM 1800 / GSM 1900 -105dBm ~ -106dBm
SIM Interface	Standard SIM interface (3V/1.8V)
GPRS Data Transmission	GPRS Class 10
	Coding Scheme CS 1, CS 2, CS 3, CS 4
	Maximum transmission speed : 85.6 Kbit/s
	Support PBCCH
	Built-in TCP/IP protocol. Support multi-slot, ACK response, support large memory buff.
CSD Service	Support CSD data transmission up to 9600 bit/s
	Fax support : Group 3, Class 1.0
	Support USSD