



GENERAL

Network Technologies	GSM/GPRS/EDGE/HSPA and CDMA 1xRTT
Data Modes	UDP packet data and SMS
Operating Voltage	12 and 24 volt vehicle systems

GPS

Location Technology	GPS; GLONASS, and QZSS capable
Enhancement Technology	SBAS: WASS, EGNOS, MSAS
Receiver Type	56 channels
Tracking Sensitivity	-162 dBm
Acquisition Sensitivity	-148 dBm
Location Accuracy	2.0m
Location Update Rate	up to 10 Hz
Anti-jamming	
AGPS / Location assistance capable	

BATTERY PACK

Battery Capacity	5.2 amp hour
Battery Voltage	3.7 volts
Battery Technology	Lithium ion (see online technical specifications for latest details regarding battery options)

CELLULAR

Data Support	SMS/ GPRS, CDMA 1xRTT or HSPA packet data	
Operating Bands (MHz)		
GSM/GPRS	850/900/1800/1900	
CDMA/1xRTT	850/1800	
HSPA/UMTS	800(VI)/850(V)/900(VIII)/1700(IV)/1900(II)/2100(I)	
Transmitter Power		
GSM/GPRS	850/900	32.5 dBm
	1800/1900	29.3 dBm
	850	24 dBm
CDMA/1xRTT	800	24 dBm
	1900	23 dBm
HSPA/UMTS	all bands	23 dBm
HSPA data rates	5.6 Mbps upload / 7.2 Mbps download	
HSPA Fallback	EDGE/GPRS/GSM quad band EDGE MCS1-MCS9 3GPP Release 6	

DEVELOPMENT SUPPORT OPTIONS

Customized hardware and software development available on request

CERTIFICATIONS

Fully certified FCC, CE, IC, PTCRB, Applicable Carriers

COMPREHENSIVE I/O

Digital Inputs	3 (1 fixed, 2 programmable bias) 1-Wire™ Interface
Digital Outputs	3 open collector (150mA)
Analog Input	1 External ADC input
Status LED's	GPS and Cellular

ENVIRONMENTAL

Temperature	-30° to +75° C (connected to primary power) -40° to +85° C (storage)
Humidity	95%RH @ 50° C non-condensing
Shock and Vibration	U.S. Military Standards 202G and 810F, SAE J1455
EMC/EMI	SAE J1113; FCC-Part 15B; Industry Canada

ELECTICAL

Operating Voltage	9-32 VDC (start up, operating) 7-32 VDC (momentary)
Power Consumption	Typical 500uA @ 12V (deep sleep) Typical 13mA @ 12V (radio-active sleep) Typical 41mA @ 12V (SMS+UDP connection, GPS off) Typical 68mA @ 12V (continuous tracking)

PHYSICAL

Dimensions	2.15 x 4.33 x 1.59", (54 x 110 x 40.4mm)
Weight	12 oz / 340 g (with harness)

CONNECTORS, SIM ACCESS

SIM Access	Internal
Interface	12 wire captive harness

MOUNTING

Screw Mount, Magnet Mount, Tie Wrap

KEY FEATURES

- 6 months with single message cycle per day on fully charged batteries.
- 5.2 Ah lithium ion rechargeable battery pack
- IP66 sealed enclosure
- Packet data (GPRS, CDMA 1xRTT, or HSPA) and SMS-based messaging
- Internal GSM and GPS antennas
- Super sensitive GPS tracking
- Ultra-low power save mode
- 3-axis accelerometer for motion, hard backing/acceleration, and impact detection
- 3 inputs and 3 outputs
- External ADC input
- 1-Wire™ Bus interface for temp sensor(s)
- Voltage monitoring and low battery notification
- 20,000 buffered messages for data logging during coverage loss
- 32 built-in geo-fences (and 5400 vertices for polygon zones)
- OBDII ECU interface support (option)
- Serial port (TTL Level)

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