



Features

- Dual processor, multi-thread system
- Fast and stable application performance
- Modular architecture and multiple watchdogs
- Up to +65 volt power surge protection
- Driver behavior and collision detection
- iButton, RFID and magnetic card reader for driver
- AGPS support to improve GPS fixing time
- Activated by motion/ignition
- Over the air (OTA) firmware/configuration upload
- Jamming, antenna cut, power lost and low battery alerts
- Tire pressure and temperature detection
- Real-time alerts with surveillance images

Specifications

Mechanical and Environmental				
Dimension (L x W x H)	117 x 77 x 35 mm (±2mm)			
Weight	240 g			
Material	Aluminum case			
Operation Temperature	-20°C ~ +60°C (board temperature)			
Storage Temperature	-40°C ~ +85°C (board temperature)			
Electrical				
Battery	Battery Cell	1000 mAh prismatic Li-lon		
	Operation Temperature	-20°C ~ +60°C		
	Storage Condition	-20°C ~ +35°C, low humidity and no corrosive gas		
	Capacity	1,000 mAh		
Power Supply Input	9 ~ 36 Vdc / 2A			
Power Consumption	Transmit	150 mAh		
	Stand-by	70 mAh		



IO Interface and Other			
	12 bit (0 ~ 36 V) analog input x 2		
Input	Active high input x2		
	Active low input x3		
1-Wire®	iButton		
	Digital thermometer (maximum 2 thermometers)		
	Immobilizer		
Output	Buzzer		
	Negative output x4 (200mA max.)		
David Control	On-board 3.3V 100 mA output		
Power Supply Output	On-board 5V 100 mA output		
RS-232	3-wire RS-232 interface x3		
SIM Slot	Full size SIM		
USB	USB 2.0 high speed compatible slave interface		
2.5 mm Audio Port	Audio jack (speaker and microphone)		
SMA Straight Jack	GPS and GSM/UMTS antennas		
3-Axes Accelerometer	±6G (default)		
Memory Backup	9 MB flash memory		
	Amber	GSM	
LED	Red	Power	
	Green	GPS	
GPS			
Receiver Type	56-channel, GPS L1 C/A, SBAS: WAAS, EGNOS, MSAS		
Acquisition	Cold starts 29 secs, aided starts 5 secs, reacquisition 1 sec		
Sensitivity	Tracking & Nav162 dBm, cold starts -148 dBm, warm starts -148 dBm		
Accuracy	Autonomous 2.5 m, SBAS 2.0 m		
Operation Limits	Altitude 50,000 m, velocity 500 m/s, dynamics ≤ 4 g		



Cellular Communication		
UMTS (WCDMA/FDD)/HSPA	800 / 850 / 900 / 1900 / 2100 MHz HSDPA Cat.8 / HSUPA Cat.6 data rates Downlink: max. 7.2 Mb/s Uplink: max. 5.76 Mb/s	
GSM	850 / 900 / 1800 / 1900 MHz	
GPRS	Class 12 data rates, CS1-CS4 - up to 85.6 kb/s	
EDGE	EDGE Class 12 data rates, MCS1-9 - up to 237 kb/s	
CSD	Up to 9.6 kb/s, V.110, non-transparent	
SMS	PDU / Text mode	
Key Features	Embedded TCP/IP, UDP/IP, HTTP/FTP protocols	
	Network jamming Detection	
	High quality voice support for hands-free operation	

Accessories -

Standard				
24 pin I/O cable				
GPS antenna				
GSM/UMTS antenna				
Optional				
JSB cable (for configuration use)				
ISO-7637 power surge protection box				
Serial camera with infrared night vision				
RFID reader				
Magnetic card reader				
Button probe				
Button tag & key fob				
Buzzer				



Fuel level sensor
Immobilizer relay
1-wire digital thermometer
Hands-free speaker and microphone
Tyre pressure sensor receiver
Tyre pressure sensor (900 kpa max, for regular vehicles, must purchase at least a pair)
Tyre pressure sensor (1300 kpa max, for trucks/buses, must purchase at least a pair)
Tyre pressure sensor signal repeater (normally used for vehicles with more than 6 tyres)

- Datasheets are updated as needed and as such, specifications are subject to change without notice.
- 2. All specifications are measured at an ambient temperature of 25°C, humidity<75%, and nominal input voltage.