



Features

- IP67 dust tight and waterproof rating
- Heatproof casing, up to 85 °C
- AGPS support to improve GPS fixing time
- EGPRS Quad-band, LTE Cat-M1 (LTE-M)
- Built-in antennas, compact size
- Voltage surge protection up to 60 volt
- ISO-7637 power supply protection (optional)
- Activated by speed/motion/ignition
- Over the air (OTA) firmware/configuration upload
- Fast and stable application performance

Specifications

Mechanical and Environmental		
Dimension (L x W x H)	100 x 70 x 32 mm (±2 mm)	
Weight	220 g	
Material	PC-ABS thermoplastic, heat and impact resistant	
IP Rating	IP67	
Operation Temperature	-20°C ~ +60°C	
Storage Temperature	-40°C ~ +85°C	
Electrical		
Battery	Battery Cell	Prismatic Li-Ion
	Operation Temperature	-20°C ~ +60°C
	Storage Condition	-20°C ~ +35°C, low humidity and no corrosive gas
	Capacity	1000 mAh (operating time 2 hours)
Power Supply Input	Operating: +9 - + 30 V _{dc} , Surge: <60 V _{dc} (no more than 10 μs)	
Power Consumption	LTE Connected (Average)	110 mA @21dBm
		70 mA
	Sleep Mode	N/A

IO Interface and Other	
LED	Blue Flashing slowly: Searching for cellular network Flashing: Idle Flashing quickly: Transmitting data
	Amber Solid: Power on, Off: Power off
	Green Solid: Charging, Off: Charge complete Flashing: Fault conditions
Input	Active high input
	Active low input
Output	2, Immobilizer (option)
SIM Slot	Nano size SIM (push-push)
Micro USB	Debug port (RS232 interface)
Accelerometer	±16G (default)
Memory Backup	2 MB flash memory, 5000 write/erase cycles
Antenna	Built-in GNSS, GPRS and LTE-M antennas
GNSS	
Multi navigation constellation	GPS L1 C/A, GLONASS G1 C/A, BeiDou B1 C/A, Galileo E1 C/A and QZSS
Receiver channels	72 channels
Time-to-First-Fix (Autonomous)	Cold start: <32s average @ -130dBm, Warm start: < 30s average @ -130dBm, Hot start: 1s @ -130dBm
Sensitivity	Acquisition: -149 dBm, Reacquisition: -161 dBm, Tracking: -167 dBm
Accuracy	Autonomous 2.5 m CEP @ -130dBm
Operation Limits	Altitude 18,000 m, velocity 515 m/s, Acceleration 4 g
Cellular Communication	
LTE Cat M1	B1/B2/B3/B4/B5/B8/B12/B13/B14/B18/B19/B20/B25/B26/B27/B28/B66/B85, downlink: max. 588 kbps, uplink: max 1119 kbps
EGPRS	850/900/1800/1900 MHz, downlink: max. 296 kbps, uplink: max 236.8 kbps
SMS	PDU / Text mode
RF Output Power	Max. 23 dBm

RF Receiving Sensitivity	Cat M1: <-107 dBm, Quad-Band: <-106 dBm
Protocols	TCP/ UDP, PPP, SSL, TLS, HTTP, FTP, NITZ, PING, MQT

Accessories

Standard
Warranty seals
Optional
USB cable (for configuration use)
ISO-7637 voltage surge protection box (highly recommended for frequent <u>power surge risks</u> or <u>power supply noise</u>)
Immobilizer relay

NOT E:

1. 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.