

3G MICRO

3G Advanced Personal Tracking & Duress



- 📶 **Vibration Feedback Confirming Successful Button Operation**
- 📶 **Water Resistant**
- 📶 **Thumb Sized Button Allowing Easier Emergency Alert or Instant Geo-fence Setting**
- 📶 **Full Power Management**

The water resistant 3G Micro is a powerful GPS locator designed for lone worker, vehicle, pet and asset tracking applications. The thumb sized button makes this device ideal for applications requiring rapid notification of emergency alert or regular setting of geo-fences based on current location. Its built-in GPS receiver has superior sensitivity and fast time to first fix. Its 3G allows the 3G Micro's location to be monitored in real time or periodically tracked by a backend server and mobile devices. Its built-in 3-axis accelerometer allows motion detection and extends battery life through sophisticated power management algorithms. System integration is straightforward as complete documentation is provided for the full featured @Track protocol. The @Track protocol supports a wide variety of reports including emergency, geo-fence boundary crossings, low battery and scheduled GPS position.



Advantages

- Water resistant
- Triple band frequencies UMTS/HSDPA 850 (Band V)/1900 (Band II)/2100 (Band I) MHz and quad band GSM/GPRS 850/900/1800/1900 MHz
- Embedded full featured @Track protocol
- Internal u-blox chipset
- Internal WCDMA/GPS antennas
- Thumb sized button allowing easier emergency alert or instant geo-fence setting
- Internal 3-axis accelerometer for power conservation and motion detection
- Full power management, can be connected to external DC power or battery



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RF Specifications

Frequency	GSM: 850/900/1800/1900 MHz UMTS: 850/1900/2100 MHz
Transmitting Power	Class 4 (33±2 dBm) for GSM 850 and EGS M900 Class 1 (30±2 dBm) for DCS 1800 and PCS 1900 Class 3 (24+1/-3 dBm) for UMTS 850/1900/2100
GSM/GPRS	GPRS: Support GPRS multi-slot class 12 (10 by default) Coding scheme: CS-1, CS-2, CS-3 and CS-4 Maximum of four Rx time slots per frame
Transmission Data	HSDPA R5: Max 3.6 Mbps (DL) WCDMA R99: Max 384 kbps (DL)/Max 384 kbps (UL) GPRS: Max 85.6 kbps (DL)/Max 85.6 kbps (UL)
HSDPA and WCDMA Features	HSDPA data rate corresponds with 3GPP R5.3.6 Mbps on downlink WCDMA data rate corresponds with 3GPP R99/ R4.38 kbps on downlink and 384 kbps on uplink Support both 16-QAM and QPSK modulation

General Specifications

Dimensions	77.8mm*39.6mm*21.7mm
Weight	72g
Internal Battery	Li-Polymer 1700 mAh
Water Resistance	IPX5 compliant
Charging Voltage	5V DC
External Battery Voltage	3.5V to 4.2V DC
Operating Temperature	-20°C ~ +55°C

Interfaces

Digital Inputs	Two digital inputs One positive trigger for ignition detection One negative trigger input for normal use
Power Button	Power on and power off, can be disabled by the air interface protocol
Function Button With Vibration Feedback	Emergency alert or instant geo-fence
UMTS/HSDPA and GSM Antenna	Internal only
GPS Antenna	Internal only
Indicator LED	CEL, GPS and power
Mini USB Interface	For external power and configuration

Air Interface Protocol

Transmit Protocol	TCP, UDP, SMS
Scheduled Report	Report position and status according to preset time schedules
Geo-fence	Support up to 5 internal geo-fence regions
Power On/Off Report	Report when the device is powered on or off
Low Power Alarm	Alarm when battery is low
SOS/Emergency Alarm	SOS alarm when function key is pressed
Special Alarm	Special alarm based on digital input
Motion Detection	Motion alarm based on internal 3-axis accelerometer

GPS Specifications

GPS Chipset	56-channel u-blox All-In-One GPS receiver
Sensitivity	Autonomous: -147 dBm Hot start: -156 dBm Reacquisition: -160 dBm Tracking: -162 dBm
Position Accuracy (CEP)	Autonomous: < 2.5m SBAS: < 2.0m
TTFF (Open Sky)	Cold start: 27s average Warm start: 27s average Hot start: 1s average

