TracBox

GPS Tracking and Telemetry Device

Information Sheet





Document name TracBox Info Sheet

Version v6a11

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Approved by Acea Quigg

Version History

<u>Date</u>	<u>Version</u>	<u>Author</u>	Description of Change
03/09/2016	1	Acea Quigg	TracBox v.1
05/03/2017	2	Acea Quigg	TracBox v.2
07/09/2017	3	Acea Quigg	TracBox v.3
04/10/2017	3.3	Acea Quigg	TracBox v.3.3
21/12/2017	5.4	Acea Quigg	TracBox v.5.4
05/02/2018	5.6	Acea Quigg	TracBox v.5.6
21/05/2018	5.6.1	Acea Quigg	General update
15/11/2019	v6a9	Acea Quigg	TracBox v6a9 update
29/05/29	v6a11	Acea Quigg	TracBox v6a11 update



Real-time GPS Locations

The TracBox allows tracking of all the assets on your site in real-time. TracBox has a RESTful API allowing the Integrated Management System or other 3rd party telemetry platform to poll location and sensor data.



Sensor Data

TracBox has a 4 channel 12-bit ADC capable of reading analog DC voltages up to 100v. This allows the TracBox to be interfaced with many sensors that provide linear DC output, such as:

- Flow Rates
- Pressure
- Voltage

- Temperature
- Level
- Current

Channel 0 of the ADC is hardwired to the voltage input for the TracBox.

Mounting Options

The small form factor of the TracBox allows it to be installed in spaces where traditional GPS tracking/hardware sensor devices can't be installed. TracBox is specially designed to be mounted on the common hardware DIN rail. The unit measures a tiny 70x90x60mm.

Inclusions

Standard inclusions:

- 32 channel uBlox M8N GPS receiver
- 4 ADC inputs
- 100Mb Ethernet
- DIN mountable case
- 2 pin power connector
- Input voltage support up to 60V DC
- Status LEDs for GPS PPS, 5V and 3.3v
- IMS support

Optional inclusions:

- 2 1A Relay controlled input/outputs
- LTE modem
- 1000Mb Ethernet

Support for 3rd party Integrators

TracBox has an inbuilt API that allows other systems to access TracBox data such as ADC voltages and GPS/location information.



Pricing and Extras

Units:		TracBox v6a10 and up: \$650			
1-20					
21-50		\$625			
51+		\$600			
Optional Extras:					
Gbit Ethernet	\$100 per unit	LTE modem	\$150 per unit		
Relay module	\$100 per unit				

Note: If you wish to purchase the relay upgrade and you have already purchased TracBoxes, it can be enabled in software as a license upgrade from v6a11 onwards.

Technical Specifications

Name:	TracBox v6a11	
Mounting:	DIN	
Operational Temperature:	0–60 degrees C	
Input Voltage:	9–60v DC	
Fuse:	Self-healing 750mA poly fuse	
Current Draw:	~110mA @ 24v DC (~2.5w)	
Real Time Clock:	No (GPS Time Sync)	
Enabled Interfaces from Factory:	Ethernet, GPS, 4 x ADC. All others are optional extras	
Inbuilt Firewall:	Yes	
Management IP:	192.168.137.137/24	
Onboard Storage:	16GB	
Onboard RAM:	1GB	
CPU Cores:	4	
CPU Clock Speed:	600Mhz, 1.2Ghz max.	
USB Ports:	4 (software development will be required to use)	
ADC Resolution:	12bit	
ADC Channels:	4	
Relay Channels (1A Max):	2	
GPS Chipset:	uBlox M8N	
GPS Channels:	77 search, 32 continuous	
GPS Accuracy:	2.5m, standard	
GPS Rx Sensitivity:	-167dBm tracking, -148dBm cold start	
GPS Update Rate:	1Hz	
External GPS Antenna:	SMA Female, active 3.3v	
Dimensions:	W:70mm L:90mm H:61mm	
Weight:	~200g	





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