4G ADVANCED HARDWIRED TRACKER
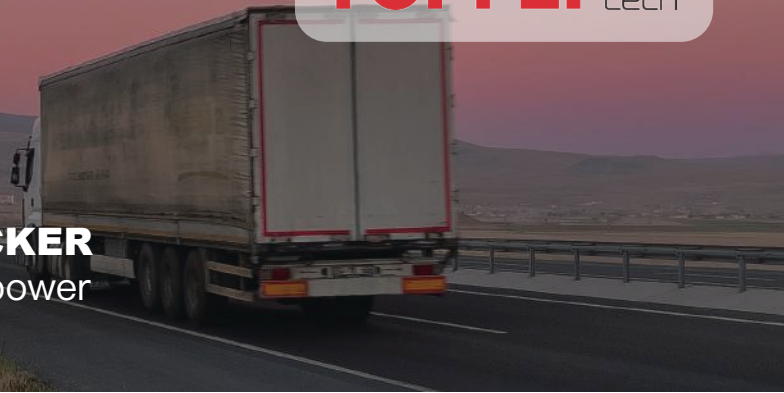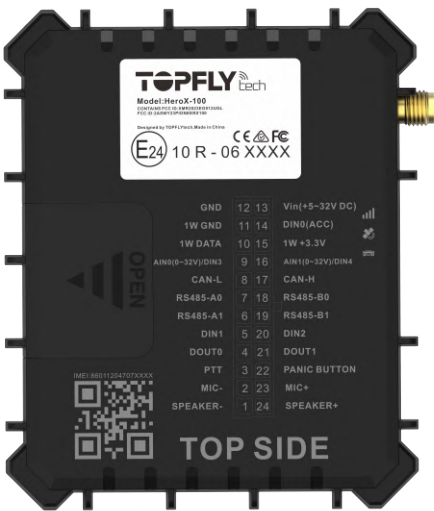Hidden installation for all objects with power

HeroX 100 4G

LTE CAT 1 + 2G with Flexible I/Os and BLE Long Range

Model:HeroX-100	
CONTAINS FCC ID:XMR201909HX20SL	
FCC ID:2A5WY2SP20080X0190	
Designed by TOPFLYtech,Made in China	CE ⚠ FC
E24 10 R - 06 XXXX	

GND	12 13	Vin(+5~32V DC)
1W GND	11 14	DIN0(ACC)
1W DATA	10 15	1W +3.3V
AIN0(0~32V)/DIN3	9 16	AIN1(0~32V)/DIN4
CAN-L	8 17	CAN-H
RS485-A0	7 18	RS485-B0
RS485-A1	6 19	RS485-B1
DIN1	5 20	DIN2
DOUT0	4 21	DOUT1
PTT	3 22	PANIC BUTTON
MIC-	2 23	MIC+
SPEAKER-	1 24	SPEAKER+

TOP SIDE

IMEI:860112047207XXXXX

🏋	80g (2.82oz)	⬜	84.5mm*69.7mm*21.8mm ("3.32 *2.74" *0.86")
🌡	5V to 32V DC	🔋	-30°C ~ +80°C (-22°F ~ 176°F)

- 1-wire
- 3 Din, 2 Ain/Din 2 Dout, 2 1-wire
- CAN reading (FMS + J1939)
- 2 x RS 485 for camera/RFID/Fuel sensor/ vehicle data reading (optional)
- Panic button
- Push-to-talk
- 2-way audio
- SD card (optional)
- External Antenna (optional)
- BLE Long Range
- Driving behavior monitoring

Certificates(planned):

ANATEL E24 CITC TDRA ⚠ CE FC NBTC

*Please reach out to us if you need any certificates in particular

PRODUCT SPECIFICATIONS

Network Specifications	
Operating Band	LTE FDD Cat 1: B1/B2/B3/B4/B5/B7/B8/B12/B13/B17/B18/B19/ B20/B25/B26/B28/B66
	LTE TDD Cat 1: B34/B38/B39/B40/B41
	GSM:850/900/1800/1900 MHz
Operating Band	LTE-FDD:Max.10Mbps (DL), Max.5Mbps (UL)
	TE-TDD:Max.8.96Mbps(DL), Max.3.1Mbps (UL)
	GPRS: Max. 85.6Kbps (DL), Max. 85.6Kbps (UL)

GNSS Specifications	
GPS Chipset	All-In-One GNSS Receiver
Parallel GNSS	GPS+Beidou+Galileo+QZSS（SBAS)
Receiver type	24 tracking / 64 acquisitions- channel GNSS receiver
Sensitivity	Acquisition: -148 dBm
	Reacquisition: -159 dBm
	Tracking: -162 dBm
Horizontal Position Accuracy	Autonomous: < 1.5 m CEP
TTFF @ -130 dBm with (without) EASY™	Cold Start: < 20s (30s)
	Warm Start: < 2 (2s)
	Hot Start: < 2s (2s)

Interfaces	
Digital Input	1 Positive Trigger Input for Ignition detection (input range 0-32V, 5≤: ignition on,≤2V ignition off, from 2V to 5V: unstable status)
	1 Negative Trigger Inputs for Panic button
	2 Positive Trigger input for other using (input range 0-32V, 5≤: ignition on,≤2V ignition off, from 2V to 5V: unstable status)
Digital Output	2 Digital Outputs for Relay Control
Analog Input	2 Analog Inputs (0~32V DC, Can be configured as a digital input)
RS485	2 RS485 Ports
1-Wire	1-wire temperature sensor and iButton driver ID(Maximum 8 channels)
Speakerphone	A push-to-talk or A Speaker and a Microphone
CAN Bus Interface	CAN, SAE1939(FMS)
microSD	Maximum Memory of Supported Card is 128 GB
Network, BLE	Internal
GNSS	Internal or External (Optional Accessory)
Indicator LED	Network and GNSS and CAN
FOTA	Yes
Temperature Sensor	1 temperature sensor
BLE 5.1	Yes
WiFi	2.4 GHz 802.11b (Rx)
Tracker Configuring	TypeC Connector

General Specifications	
Ingress Protection Rating	IP41
Dimensions	84.5mm*69.7mm*21.8mm("3.32 *2.74" *0.86")
Weight	80(2.82oz)
Battery	Li-Polymer 200 mAh/ 3.7V
Operating Voltage	5V to 32V DC
Operating Temperature	-30°C ~ +80°C (-22°F ~ 176°F)
Storage Temperature	-40°C ~ +85°C (-40°F ~ 185°F)

PRODUCT SPECIFICATIONS

Air Interface Protocol	
Transmit Protocol	TCP, UDP, MQTT, SMS
Protocol Check & Encryption Support	MD5/ AES128
BLE Accessory Support	Yes
Scheduled Timing/angle/distance Report	Report position and status at preset intervals
External Power Status Alarm	Report when external power is disconnected
Speeding Alarm	Report when speed exceed the pre-set value
Towing Alarm	From internal 3-axis acceleration
Remote Control	Remote output control
Network Signal Jamming Detection	Report network jamming
Data Roaming Control	Avoid additional data consumption
Driving Behavior Monitoring	Aggressive driving behavior detection, e.g., harsh braking and acceleration
Crash Detection	Accident data collection for reconstruction and analysis