

The Microtron Tracker

Real time insights in your business



Highlights

- The Microtron tracker solution offers the following capabilities:
 - Microtron tracker hub: temperature, barometric pressure, sound, tampering, impact, geo fencing, movement, light, man down.
 - MultiSense: temperature, humidity (MultiSense TH), magnetic (door/window status), impact/free fall, movement, light.
- SiRFstarV™ engine supporting Hybrid GNSS.
- Communicates with backend server via cellular communication (2G networks) for remote monitoring (OTA), configuration and firmware upgrades.
- Compliance with cold chain standards and regulations – GDP for pharmaceuticals and EN12830 for transportation of perishable goods.
- A scalable solution utilizing a wireless sensor network.
- Configuration and upgrades via powerful software tools for firmware upgrades and configuration management. Cross-platform display.

Microtron Tracker Specifications

2G variant Cellular Communication (3G variant available)

GSM Modes	Quad band GSM (2G - worldwide): GSM/GPRS: 42.8[UL]/85.6[DL] Kbps, 850/900/1800/1900MHz
Power Output	Up to 2W for 850/900 bands, and up to 1W for 1800/1900 bands
SIM	Internal, full size, replaceable, remote PIN code management, option for M2M type SIM chip
Antenna	Internal, On board (PCB) penta band GSM antenna
Packet Data	TCP/IP, UDP/IP
SMS	PDU mode

GPS

Technology	CSR SiRFstarV™ engine supporting Hybrid GNSS
Sensitivity (tracking)	-165dBm
Acquisition (normal)	Cold <35Sec, Hot<1Sec, Warm <9 Sec
Internal Antenna	Internal, on board patch antenna

Wireless Sensor Network

Short range RF	2.4GHz wireless communication
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Power

Input Voltage	5VDC ±5%
Average Current Consumption	Normal: 30mA Economic: <12mA Hibernation: <1mA Shipment (Off): <50uA
Internal Battery ^[2]	Li-Ion Polymer, 3.7V, 1300mAh, rechargeable Embedded NTC for temperature controlled charging Operating Temperature: -20 (65% charge) to 60°C Protections: Temperature, over current, overcharge and over discharge

Sensors

Temperature	Typical accuracy ^[3] : 0°C to 85°C : ±0.5°C -25°C to 0°C: ±1.0°C -30°C to -25°C : ±2.0°C Resolution: 0.1°C
Light	Effective range 1+1023 lux

Environment

Temp, operation	-20°C to +60°C full performance
Temp, storage	-40°C to +85°C
Humidity	95% non-condensing
Ingress Protection	IP66
Vibration, Impact	According to standard EN 12830
Mounting without cradle	Double-sided adhesive
Mounting with cradle	3 screws or two nylon tie-wraps and/or double-sided adhesive Optional strong magnetic cradle Optional belt clip adapter

Certifications

FCC	Part 15 Subpart B, part 22/24 compliant
CE	CE EMC & R&TTE according to 89/336/EEC or 1999/5/EC CE Safety EN60950-1:2001+A11:2004
IC	Industry Canada
PTCRB	TRP, TIS, Spurious and harmonics emission
UL	UL regulation tests
IEC 60529 – IP66	IEC 60529 – IP66 regulation tests
AT&T	AT&T certified
EN12830:1999	Temperature recorders for the transport, storage and distribution of chilled, frozen, deep-frozen/quick-frozen food and ice cream. Tests performance and suitability. Designation: -20 to +30°C – T/B/1 +30 to +60°C – T/B/2
GDP	Good Distribution Practice (Europe, US)
SAR	According to IEC 62209-2, 2.5cm from the body
FAA	Comply with regulation instructions (14 CFR 91.21 and 121.306)

Dimensions and Weight

Dimensions	86.2 x 59.1 x 22.7 mm
Weight	96 gr