

tempmate.®-G3 PACKAGE TRACKER



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Product Overview

The tempmate.®-G3 is our **Third** generation Package Tracker.

The tempmate.®-G3 is a multi-sensor package tracker that enables you to monitor the in-transit conditions of your package in a multimodal supply chain with a **“Must Find”** requirement.



Key Customer Challenges

Location monitoring

Lost – Where is my cargo/package?

Stolen – How can I recover lost or stolen cargo/packages?

Operational monitoring

Package Status – Has my cargo been mishandled? Has it been dropped, opened, exposed to too much heat, shaken, turned end over end, exposed to moisture, etc.?

Chain of Custody – Is there any evidence of tampering or misconduct?

Lowest Total Cost of Ownership

How can I achieve the lowest total cost of ownership?

Key Features

- Location monitoring – locates in places where traditional GPS can't for the customer with the “Must Find” requirement.
- Operational monitoring – know the vital signs of your cargo.
- Safe for Aircraft (contact Sendum for approved airlines).
- NIST Traceable option.
- FDA 21 CFR Part 11 Digital Signatures option.
- Wi-Fi radio option.
- USB on-the-go.
- Integrates into leading back-office systems, in-house systems or application service providers.

Key Benefits

Track

Package location including; inside warehouses, semi-trailers, containers, rail cars, aircraft, offices, etc. (North America).

Location history, locates on demand, configurable reporting 10,000 Geo-fences (or more).

Monitor

Temperature (monitor high, low or on-going readings).

Humidity (monitor high, low or on-going readings).

Motion (dropped, impact, shaken, turned end over end, etc.).

Light (was the box opened, if so, where and when).

Pressure (monitor pressure/altitude).

Protect

Stealthy installation with built-in antenna.

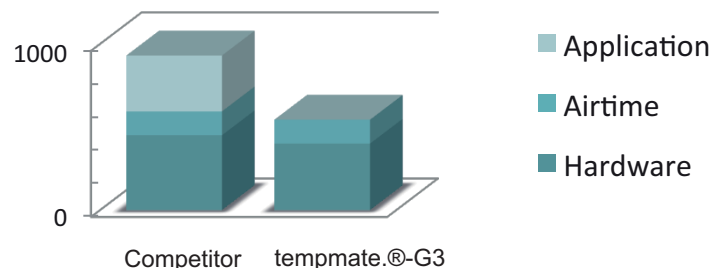
Alerts for tampers, after-hours unauthorized use or movement.

Manage

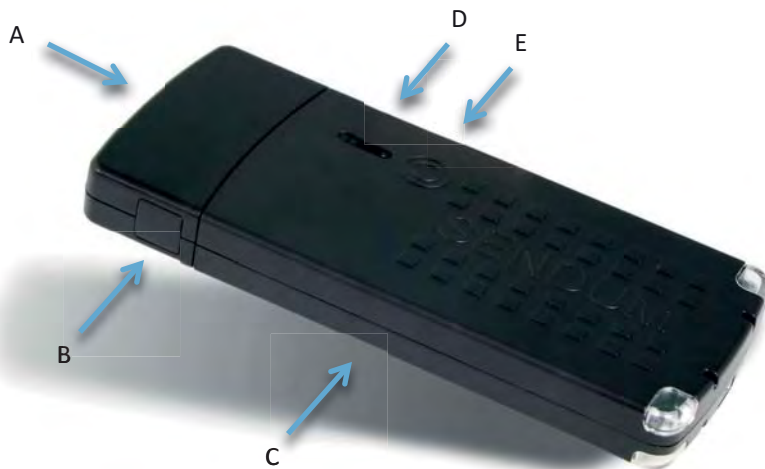
Take corrective action real time as your goods are in transit.

Integration available to many back-office software systems or from any computer with Web-access.

Total Cost of Ownership (with in-house system)



tempmate.®-G3 Layout



A) tempmate.®-G3

B) Release Buttons

C) Battery or Sensor Pack

D) 3 LEDs

- CDMA Coverage
- Battery Capacity
- Battery Charging

E) Touch Sensitive Button

F) Light Detectors

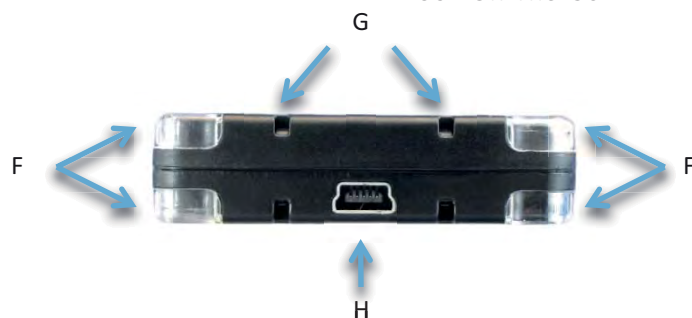
- Ambient Light Detector
- Infrared Light Detector

G) Vents for Atmosphere

- Temperature
- Humidity
- Altimeter/Pressure

H) Mini USB Connector

- AC/DC Charger
- USB On-The-Go



tempmate.®-G3 Accessory Packs

Battery Pack vs Sensor Pack Features

Feature	tempmate.®-G3	tempmate.®-G3x
Location (Assisted, AFLT, gpsOne, Stand Alone)	✓	✓
Temperature	1°C	0.1°C
Accelerometer (Motion, Shock, Drop, Orientation)	✓	✓
Battery Fuel Gage (%)	✓	✓
RSSI (Cellular, GPS, WiFi*)	✓	✓
GPS Jamming Detector	✓	✓
Humidity		✓
Light (Ambient and Infra-red)		✓
Altimeter/Pressure		✓

tempmate.®-G3 Battery Life

- Always on – 21 Day battery life. This is based on:
 - The device is in average to good cellular coverage.
 - The device is on 24 hours a day.
 - Sensors (temperature, humidity, etc.) are polled every 30 seconds.
 - Location and status messages are transmitted every 2 hours.
 - The device is operating in non freezing temperature conditions.
- Deep Sleep – Allows for much longer battery life.

Battery Life using Deep Sleep (3,700 mAh)

Model	100%	75%	50%
1 Location Fix Per Day	7.7 Months	5 Months	3.8 Months
1 Location Fix Every 2 Days	1.2 Years	11.2 Months	7.6 Months
1 Location Fix Every 3 Days	1.8 Years	1.4 Years	11.5 Months
1 Location Fix Every 4 Days	2.5 Years	1.8 Years	1.2 Years
1 Location Fix Every 5 Days	3.1 Years	2.3 Years	1.5 Years
1 Location Fix Every 7 Days	4.4 Years	3.3 Years	2.2 Years

tempmate.®-G3 Technical Features

Radios

Wide Area Radio Module:	SSM-6055 CDMA 1XRTT (800 & 1900MHz) SM-6600 CDMA & GSM (Avail in Q4 2012)
Local Area Radio Module:	Wi-Fi 802.11 b/g/n (optional)
GPS:	Qualcomm's gpsOne (stand alone, assisted, AFLT)
Antenna:	Internal (800/1900 MHz CDMA, GPS, Wi-Fi)
Temperature Range:	-20°C to +65°C / -4°F to +149°F (active use) -40°C to +100°C / -40°F to +212°F (storage)

Battery

Battery:	3700 mAh Li-ion (providing 3 months standby*)
Battery Cycles:	300 full charge cycles
Battery Sensor:	Proprietary fuel gauge provides % full
Temperature Range:	-10°C to +60°C / -14°F to +140°F (active use) -20°C to +40°C / -4°F to +104°F (storage) 0°C to +60°C / 32°F to +140°F (charging)

Chargers

AC Charger:	Standard Mini-USB AC adapter
12V Charger:	Standard Mini-USB 12V adapter

tempmate.®-G3 Key Software Features

- Location – on demand, scheduled, based on geo-fence, etc.
- Geo-fences – on device routes, red/safe zones, landmarks, etc.
- Schedules – based on time of day, day of week, month, etc.
- Sensors – configurable recording/management of each sensor.
- Alarms – configurable on exception (too high, too low, etc.).
- Status reports – based on schedule, alarm, location, etc.
- Sleep – deep sleep, out of coverage sleep, no motion sleep.
- Wake up – on motion, on light, or by schedule.
- Static or Dynamic IP Address – lowest cost of ownership.
- USB – USB On-The-Go.

tempmate.®-G3 Specifications

Housing

Dimensions:	53 mm x 125 mm x 14 mm / 2.09" x 4.92" x 0.55"
Weight:	120 g / 4.23 Oz.
Enclosure:	Plastic
Motion Sensor:	3 Axes ±2.0 g, ±4.0 g, ±8.0 g, ±16.0 g
Temperature Sensor:	-40°C to +125°C (-40°F to +257°F)
Humidity Sensor:	0% to 100% RH
Ambient Light Sensor:	0...320,000 lux (0...30,000 lumens/ft2)
Infrared Light Sensor:	0...320,000 lux (0...30,000 lumens/ft2)
Altimeter/Pressure Sensor:	300 to 1100hPa, +9000m to -500m ASL
Radio Sensor:	RSSI for CDMA, Wi-Fi and GPS
GPS Jamming Detector:	Detects GPS Jamming Events
Connector:	Standard Mini-USB
Button:	Programmable
LED:	3 LED lights – 2 programmable LEDs
Handling Drop:	3 Ft / 1 Meter onto concrete
Humidity:	<95% non-condensing
Vibration:	Up to 500Hz random 1.25G rms

tempmate.®-G3 Designed and Built for the Package Tracking Market

tempmate.®-G3 is designed to meet the unique and demanding requirements of the logistics market. The tempmate.®-G3 helps companies improve the integrity, security and management of their cargo or packages while in transit.

Contact

Contact your tempmate.®-G3 Sales Representative at info@imec.de for more information.