

Sting

Rechargeable battery, compact GPS tracking device



The Sting is an ultra-compact rechargeable 2G or 3G GPS tracking device, designed for tracking non-powered assets, packages and people.

FEATURES

- Up to 6 months tracking
- Ultra compact
- Light sensor
- Temperature Sensor
- Humidity Sensor
- Rechargeable via Micro-USB cable
- Configurable Tracking

APPLICATIONS



Vehicle and
fleet tracking



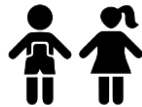
Non-powered
asset tracking



Packages



Temperature
sensitive loads



Monitoring
children



Anti-theft
device

MECHANICAL SPECIFICATIONS

Low Profile Housing	The compact housing is made of sturdy ABS plastic. It clips together for easy assembly, requiring no screws
Dimensions	L 97 x W 52 x H 18 mm
Operating Temperature	Operation: -20°C to +60°C (discharge only) Charging: 0°C to +45°C (temperature controlled)

POWER

Li-Po Pack	2500mAh 3.7V, temperature controlled charging
Charging	USB Micro 5V input, 540mA USB Cable included
Sleep Current	10µA (micro amps) with accelerometer on and other sensors off

OTHER

Flash Memory	Sufficient memory to store over 25,000 records. Normally data is sent to the server immediately but if the device is out of range there is space to ensure no data is lost. A future firmware version will allow for geo-fences to be loaded into the flash memory of the device and used for geo-fence alerting on the device.
3-axis accelerometer	The 3-axis accelerometer allows the Sting to 'sleep' in an ultra-low power state yet still wakeup when movement occurs. Future firmware versions will allow for harsh G-force detection (like assets being dropped or involved in accidents)

CONNECTIVITY

SIM Size	Micro (3FF) size cellular SIM card
2G, 3G or 4G	The Sting can be manufactured for specific markets around the world depending on their modem requirements
2G Modem	Quad Band GSM/GPRS Class 10 850 / 900 / 1800 / 1900 MHz
3G Modem – EU	850 / 900 / 2100 EMEA / APAC / Latin America
4G Cat-M1/Nb1	4G Cat-M1/NB-IoT model is planned, contact Digital Matter for further information.

GPS TRACKING

GPS and Cellular Antenna	Internal GPS and cellular antennas tuned by RF laboratories for optimal performance.
GPS/GLONASS tracking	UBLOX MAX-M8Q GPS Module Concurrent GPS and GLONASS tracking 72 channel high sensitivity receiver -167dBm industry leading tracking performance
AssistNow Offline	AssistNow Offline aiding data for extremely fast time-to-first-fix and performance in urban canyon environments
Low Noise GPS Amplifier (LNA)	GPS signals are boosted by a special low-noise amplifier (LNA). This allows operation where normal units will fail to receive GPS signal – like in a container stack!

SENSORS

Temperature/ Humidity Sensor

On PCB

Precision Relative Humidity Sensor
± 3% RH (max), 0–80% RH.
High Accuracy Temperature Sensor
±0.4 °C (max), -10 to 85 °C.

The Sting housing may need modification for responsive measurements.

Light Sensor

On PCB with a light pipe through the housing

Range
0.045 – 188,000 Lux

Configurable anti-tamper can report on light change.

Operating Temperature

-20°C to +60°C

FIRMWARE SMARTS

OTA Configuration

The Sting can be remotely configured and updated OTA (over the air). Device management is performed from Digital Matter's OEM Server device management platform.

Recovery Mode

The Sting can be remotely switched into Recovery Mode which switches the device to do live tracking and reporting – so that you can get your asset back!

Auto-APN

Auto-APN allows the Sting to analyse the SIM card and select the correct APN details from a list that is pre-loaded in the device's firmware. This means that the Sting can be shipped world-wide without requiring specialist setup for SIMs.

Text Message Setup

The Sting can also be sent text messages to setup the APN, and other details

Tamper Detection

The light sensor is designed to work as a tamper detector for high value cargo applications. If a parcel or container is opened, the Sting will detect the light change and report the tamper via an email/SMS alert.

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