

# Piccolo Mini Solar

**Small in size, Big in functionality, Low in price**

Suitable for tracking heavy machinery, trailers, containers, pallets and any asset type that requires low frequency GPS updates.

On average around 8 updates a day corresponding to once a day update when the asset is stopped and around every 2 hours on move. The ideal solution for portability. Latest cellular technology for IoT works anywhere in the world. CATM/NB1 with 2G fallback.

**The Piccolo Mini is available in two options:**

**The Piccolo Mini Solar (MS)** is solar powered charging a 3,000 mAh rechargeable Lithium battery at a rate equivalent to around 8 GPS pings a day when exposed to full sunlight for at minimum 8 hours / day depending on geographical location.

The solar panel, the rechargeable battery, cellular modem and the electronics are all integrated in a small IP67 waterproof enclosure about the size of a cigarette pack.

**Piccolo Mini Rechargeable (MR)** -Optionally the device is available without a solar panel powered by the 3,000 mAh lithium rechargeable battery sending up to 2,000 GPS pings when fully charged and in good GPS and cellular coverage area. Rechargeable via USB.

## KEY FEATURES

- Solar Powered
- Ruggedized IP67 Waterproof Enclosure
- Small Size
- Installs in minutes
- Portable

## THE INDUSTRY'S SMALLEST, MOST INNOVATIVE YET MOST AFFORDABLE PORTABLE SOLAR POWERED GPS ASSET TRACKING DEVICE

**Using a unique supercharge technology simultaneously charging capacitors and lithium cells**



**PICCOLO MS**  
Mini Solar



**PICCOLO MR**  
Mini Rechargeable

**DIFFERENTIATE VIA INNOVATION**

## Technical Specifications

### Connectivity

<b>Network</b>	4G CATM1/NB1 with 2G Fallback. Supported bands Cat.M1 & NB1, LTE-FDD:B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B26/B28 LTE-TDD: B39 (for Cat.M1 only) GSM850/GSM900/DCS1800/PCS1900
<b>Storage</b>	Store & Forward- Built-in flash storage for data logging when out of cellular connectivity (up to 5,000 events)
<b>Communication</b>	Highly compressed OTA, UDP communication packaged with MidLink Middleware or Direct TCP/IP communication (TCP/IP packaged with 'Plug & Play' API or DLL for quick integration into any 3 <sup>rd</sup> party software.
<b>OTA Diagnostics</b>	Via Wireless Links proprietary apps and communication software
<b>Configuration</b>	USB port for FW download and local configuration. USB port powers unit during configuration. Remote OTA configuration and FOTA available when unit is externally powered. SMS commands for configuration, available also when unit is in AT mode.
<b>GPS</b>	MTK 66 channels Accuracy <2m with direct line of site to sky
<b>SIM</b>	Nano SIM

### Enclosure

<b>Material</b>	ABS Material
<b>IP Rating</b>	IP67 waterproof enclosure
<b>Dimensions</b>	3.3" X 2.25" X 1.34" LWD (84mm x 57mm x 34mm) • Weight: 5.29 oz.(150gr) with batteries
<b>Operating Temperature</b>	-22° to 176° F (-30° to 80° C)
<b>Storage Temperature</b>	-40° to 221°F (-40° to 105°)
<b>Shock/Vibration/Mechanical</b>	Meets or exceeds EIA standard RS-316B 3G (operating), 20G (non operating) XYZ 3 directions. Meets SAE J1455

### Power

<b>Power Source</b>	3000mAh rechargeable lithium battery.
<b>Transmit Mode</b>	1.8A pulse at 3VD
<b>Standby Mode</b>	40ma at 3V
<b>Sleep Mode</b>	10uA at 3V
<b>Battery Life</b>	Up to 2000 GPS positions when powered by fully charged 3000mAh battery pack.
<b>Solar Panel</b>	Charging the equivalent of 7-12 GPS pings/day depending on seasonal and geographical location when exposed to the sun for at least 8hrs/day
<b>Charging</b>	Integrated fast charger module. Battery is charged via external off the shelf standard 12v wall charger. Charge time around 4-5 hours. Via Micro USB Cable

### Installation

<b>Magnets</b>	Optional magnets for easy installation on metal surfaces
<b>Two sided 3M Industrial Tape</b>	For a strong, permanent attachment. (tape to be ordered separately)
<b>Screws/Bolts</b>	Mount the unit to any asset with screws.

## Base Features

<b>3D Accelerometer</b>	For tilt detection, automatic security theft alarm and motion detection.
<b>AT Mode of operation</b>	preprogramed to send the GPS location every XX hours (usually once a day) when the asset is in stop position. When vibration is detected the unit wakes up automatically and sends an alarm and switches to motion mode sending GPS every XX minutes for as long as the asset is in motion mode (usually every 60 minutes)
<b>Internal Temperature Sensor</b>	Integrated internal analog temperature sensor send unit temperature with every GPS data transmission
<b>Alarms</b>	Low Battery Alarm Tamper Alarm
<b>Geofence mode of operation</b>	the unit can change the frequency of transmitting GPS when entering a pre-configured geofence to be detected at first ATMS wake up.
<b>Battery Level reporting</b>	Sends battery level with every GPS data.

