

# BeTen – Product Brief



**BeTen (B2-MIOT-MR)** by BeWhere Inc. is part of a complete end-to-end asset tracking solution but can also be integrated via API in third-party software. Utilizing the latest in LTE-M/NB Cellular technology the **BeTen** has very low power consumption and long battery life so you can track, monitor and manage a wide variety of durable and perishable assets like never before.



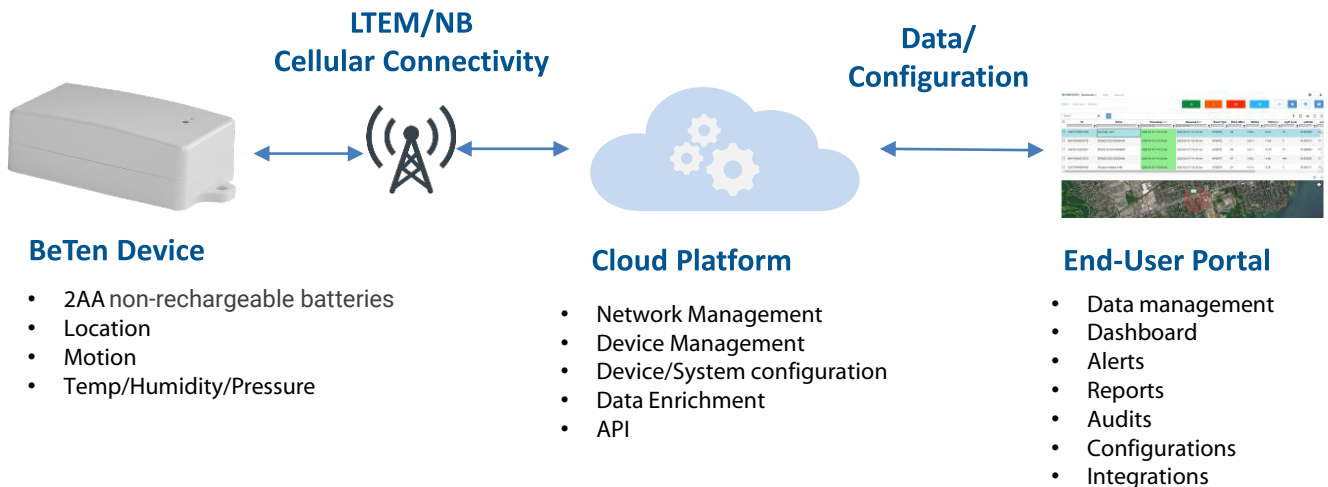
**BeWhere BeTen** is designed as a full stack solution and comes network and application ready. Increase your productivity, ROI, and visibility.

## Features

- Available on the following Radio Access Technologies: **B2-MIOT-MR** (M1 / NB1/ NB2 / 2G)
- Off-the-shelf deployment
- Real-time tracking
- Configurable alerting
- Motion tracking, triggering updates
- Geo-Location
- GNSS: GPS, BeiDou, Galileo, GLONASS and QZSS
- IP67 Rugged and dust / water-proof enclosure
- Temperature
- Humidity
- Pressure
- Light
- Accelerometer

## Benefits

- Ultra-low power platform
- Long battery life (7–8 years; depending on update rates, sensor configuration and Cellular technology available)
- Low device cost
- Low deployment cost
- No reader needed
- Full coverage (deep indoor and rural areas)
- Support for a massive number of devices



## General

Communication	LTE CAT <b>M1</b> / CAT <b>NB1/NB2</b> / <b>2G</b>
Location Technology	High accuracy Gen9 with concurrent GNSS (GPS, GLONASS, BeiDou, Galileo and QZSS).
Operating Voltage	3.5 – 3.6V
Battery	Battery Pack of 2AA (3.6 V Lithium-Ion, 5600 mAh) non-rechargeable batteries

## GPS

Receiver	Gen9 VT of Qualcomm (GPS, GLONASS, BeiDou, Galileo and QZSS).
Sensitivity	Tracking & Navigation: –157 dBm Cold start: –146 dBm Hot start: –157 dBm
Accuracy	Position accuracy <3 m CEP-50

## Cellular

Data	<b>LTE CAT M1</b> Packet Data (CoAP/UDP) / <b>CAT NB1/NB2</b> Packet Data CoAP/LwM2M/UDP
Operating Bands and Carriers	<b>Multi Region Cat M1 /NB1/NB2 /2G</b> <b>M1:</b> LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B14/B18/B19/B20/B25/B26*/B27/B28/B66/B85 <b>NB2:</b> LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26*/B28/B66/B71/B85 <b>EGPRS(2G):</b> 850/900/1800/1900MHz(Bands 2, 3, 4, 5, 8, 12, 13, 20, 26 ,28), (AT&T, Bell, T-Mobile USA, Telus, Verizon, Telstra, Orange, KPN, Telia, DT, Cosmote, TIM Brazil)
SIM	4FF (nano SIM)

## Sensor Operation Range (full accuracy)

Environmental	Temperature [ -40, +85; Absolute accuracy $\pm 0.5$ °C ] Humidity [ Absolute accuracy $\pm 3$ %RH ] Pressure [ 300...1100 hPa, Absolute accuracy $\pm 1$ hPa ]
3-Axis Accelerometer	Motion (*shock and tilt triggers use case specific)

## Certification

**Certifications:** CTIA(PTCRB/OTA), FCC/IC

**Vibration and Shock:** MIL-STD-810G

**Targets:** AT&T, Bell, T-Mobile USA, Verizon, DT, Telefonica, Vodafone, Ericsson, Orange

**Ingress Protection:** IP67

## Physical

Dimensions	(100.6 x 56.6 x 33.7) mm
Weight	0.3 lb

## Environmental Operating Range

Temp	-40 to +75C(batteries, enclosure)
Humidity	95% R.H. @ 50C non -condensing