

# CBM1000 Series Battery Powered Asset Tracking

## *Condition Based Monitoring (CBM) Device Supporting Asset Tracking Applications*

The CBM1000 is a rugged, waterproof, asset tracking device designed for tracking non-powered assets where super-long battery life is required on Cellular networks (2G or 3G and future 4G CatM1).

The CBM1010 is a rugged, waterproof, asset tracking device designed for tracking non-powered assets where super-long battery life is required on LoRaWAN networks.

The CBM1020 is a rugged, waterproof, asset tracking device designed for tracking non-powered assets where super-long battery life is required on the low cost Sigfox network.

### Features and Benefits

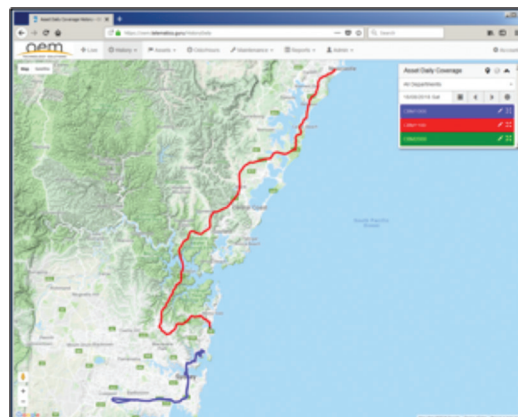
- Up to 4 years battery life with once per day logging
- Up to 1 year of battery life with detailed tracking
- No install required, simply "place 'n trace"
- IP67 water and dust proof
- Rugged, robust and low-profile
- Off-the-shelf replaceable AA Batteries
- Configure over-the-air (OTA)
- Switch from "locate" to "track" over-the-air
- Battery status and low power alert
- Unauthorised movement alert
- Integrated 3 axis accelerometer
- Temperature Monitoring
- 20K records data logging capacity

### Applications

- Remote Condition Monitoring
- Non-Powered Asset Tracking
- Vehicle and Wagon Tracking
- Yard Geo-fencing Monitoring and Alerting
- Trailers and Mobile Assets
- Run Hour and Distance Monitoring
- Anchoring and Security of Assets

### Ordering Information

- Part Numbers:
  - 040-0174 (CBM1000 Cellular)
  - 040-0175 (CBM1010 LoRaWAN)
  - 040-0176 (CBM1020 Sigfox)



## Specification

Description	CBM1000 - Cellular Battery Power Asset Tracking	CBM1010 - LoRaWAN Battery Power Asset Tracking	CBM1020 - Sigfox Battery Power Asset Tracking
Power Requirements	3 x AA-Cell Lithium (Lithium/Iron Disulfide Li/FeS2 batteries)	3 x AA-Cell Alkaline or Lithium (Lithium/Iron Disulfide Li/FeS2 batteries)	3 x AA-Cell Alkaline or Lithium (Lithium/Iron Disulfide Li/FeS2 batteries)
Sleep Current	5µA (micro-amps)		
Environmental	-20°C to +60°C For operation in extreme temperatures the device must be fitted with Lithium batteries		
Connectivity	Network 2G/3G HSDPA (future 4G LTE CatM1)	Network: LoRaWAN	Network: Sigfox (LPWAN)
	SIM: Micro (3FF) cellular SIM	Configuration: USB cable and OTA	Configuration: USB cable and OTA
	GSM Antenna: Internal cellular antenna tuned by RF laboratories to ensure optimal performance	LoRaWAN Regions: All 868MHz and 915MHz regions supported.	Sigfox Regions: RCZ1, RC72, and RC74 Sigfox Certification: Sigfox ready, Class 0 (best performance class)
Auto-APN	Analyse SIM and detect APN from pre-loaded list. Multi-APN on board for roaming	N/A	N/A
	GPS Module:	High sensitivity assisted GPS receiver, 72 channel	
	GPS/GLONASS:	Concurrent GPS/GLONASS	
	GPS Antenna with LNA:	Internal antenna. Boosted by low-noise amplifier (LNA) allows operation in "urban canyons" and container stacks	
Adaptive Tracking	Adaptive-Tracking technology enables accelerometer and GPS data to be used intelligently to work out if it is moving and send frequent updates, as well as to scale the update rate down to once per day if the asset is stationary in order to preserve battery life		
Temperature Sensor	The on board temperature sensor is accurate to +/- 5°C. (Not reported on CBM1010 and CBM1020).		
Internal Memory	Flash memory can store 20,000 records		
Recovery Mode	Switch from Daily Locate to Live Tracking over-the-air		
3D Accelerometer	The 3 axis accelerometer allows the device to "sleep" in an ultra-low power state yet still wake up when movement occurs		
Enclosure	IP67 UV Stabilised ABS/Polycarbonate		
Size	115mm (L) x 65mm (W) x 20mm (H)		
Weight	250g with batteries installed.		
Terminations	None		
Part Number	040-0174	040-0175	040-0176

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