mTracker — hardware brochure

Category: Asset Intelligence — hardware (Pillar 3)

One-line: The miniature GSM/GPS device that puts utilization and OEE inputs on the assets that don't report them today — fixed or mobile.

What it is

mTracker is a miniature GSM/GPS asset-tracking and telemetry device. It reads **equipment-level digital signals** — run / stop, cycle, output counts — and reports **OEE inputs** (production time, downtime, idle time, output quantity) along with location, over cellular, with battery backup. It is designed for **retrofit attachment** to fixed or mobile assets.

It is the **Asset Intelligence** pillar. mTracker provides the **inputs**; **EREMOS V2 computes the OEE** and the utilization analytics. For direct analog *sensor* acquisition — pressure, flow, temperature — see **mDAQ**; mTracker is asset tracking + digital-signal telemetry, not an analog DAQ.

What it does

- **Reads equipment-level signals.** Digital inputs capture run / stop, cycle, and output-count signals straight from the asset — no manual logs.
- **Tracks location + utilization.** GSM/GPS reports where an asset is and whether it's running, idle, or stopped — fixed plants or mobile fleets.
- **Geo-fence alerts.** Boundary entry/exit alerts for location and site-policy tracking.
- **Retrofit + remote.** A miniature attachment with battery backup and cellular publish — fits assets that ship without telemetry.

What it replaces

One mTracker removes from the customer BOM:

- **manual production-hour spreadsheets**;
- a separate **GPS / geo-fence tracker**;
- a **service-hours odometer** for warranty triggers;
- **asset-presence audits**.

Key specifications

Category	Value
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Connectivity	Cellular publish — 4G / LTE class (SIM / carrier / region / bands confirmed during BOM scope) — plus GPS / GNSS positioning
Inputs	Equipment-level digital inputs for run / stop, cycle, and output-count signals. Channel count, voltage / contact type, counter rate, debounce, sink / source behavior, and input protection confirmed during BOM scope.
Location	GPS / GNSS positioning + **geo-fence** entry / exit alerts
Power + battery	Battery backup for assets without continuous power. Supply range, backup-vs-primary role, charging / replacement, runtime by reporting interval, and low-power behavior confirmed during BOM scope.
Form factor	Miniature, designed for **retrofit attachment** (fixed or mobile assets)
Environmental	Operating temperature, humidity / condensation, shock / vibration (mobile assets), and UV / outdoor exposure confirmed during BOM scope
Mechanical	Dimensions, weight, enclosure material, connector / harness, and cable ingress confirmed during BOM scope

Ingress protection	IP65 / IP67-**compatible** configurations can be scoped where a site requires it; final protection level, enclosure approach, and any certification requirements confirmed during BOM scope. *(Compatibility, not a certified rating — no formal IP certification is currently claimed.)*
Mounting	Retrofit attachment; mounting method, exposure, and antenna placement confirmed during BOM scope

Connectivity, inputs, geo-fence, and form factor trace to the Elpis hardware ecosystem map and are confirmed at quoting time. Signal mapping and reporting are confirmed during BOM scope.

In the field

mTracker retrofits onto fixed or mobile assets without a redesign — mounting method, location, and antenna placement confirmed during BOM scope. Digital inputs wire to existing run / stop / cycle / output signals; signal voltage/threshold, contact type, and OEE-input mapping confirmed during BOM scope. Battery backup covers assets without continuous power. GSM / GPS / 4G cellular publishes from anywhere with cellular; it buffers locally and publishes when connectivity returns. Geo-fence entry/exit alerts are configured per deployment. Exposure, humidity, and enclosure approach are confirmed during BOM scope; IP65 / IP67-compatible configurations can be scoped where the placement (incl. mobile/outdoor assets) requires it (no certified rating claimed).

Where it fits

Equipment-level signals → **mTracker** (GSM/GPS telemetry; battery backup) → cellular → **EREMOS V2** (utilization + OEE). mTracker reports the OEE *inputs* + location; **EREMOS V2 computes the OEE** and utilization analytics. **You decide which signals route where**: the same equipment-level run-hours and utilization can feed an OEM / AMC for service-hours billing, warranty triggers, and fleet visibility across multiple sites — customer-controlled routing, your call. For direct analog *sensor* acquisition, see **mDAQ**.

Field-readiness

Built to retrofit, fixed or mobile: a miniature attachment with battery backup, designed to go onto assets that ship without telemetry — including mobile equipment in the field. Remote-ready and offline-capable — GSM / GPS / 4G publishes from anywhere with cellular, buffers locally, and publishes on reconnect, with geo-fence alerts for location and site-policy tracking.

Formal third-party certifications are not currently claimed. Certification, ingress-protection, and site-compliance requirements are handled case-by-case during BOM scope; IP65 / IP67-compatible configurations can be scoped where required, and certified/rated claims are published only when formal evidence exists for the specific product/configuration.

Next step

Bring the assets to instrument, the signals available on each, the connectivity, and where they sit (fixed or mobile) — that's what we scope a BOM against. We confirm the inputs, power, and mounting for your assets, not for a brochure.

Get hardware specifications · Request a BOM scope — contact@elpisitsolutions.com