

# Solar powered. Rugged. Intelligent.

## Virtually Future Proof.

Game-changing Intransit Visibility Knowledge begins here. It tracks. It monitors. It collects data. And then tells you all you want to know.



Connected Logistics Tags are smart, self-contained, self-powered, virtually future-proof asset gateway.

Two-way, multi-function performance, wrapped in a sealed IP67 enclosure, surrounded by a 10-year service life with zero maintenance.

SMART. The Connected Logistics Tag (CLT) features advanced, memory-rich, on-board processing and two-way multi-network communications. Including highly configurable IO interfaces for a wide range of sensor based applications. Alerts thresholds. Report rates. Modes of operations. Business logic. On-board geofencing. All configurable over-the-air. All said, the CLT monitors, collects and delivers actionable information that enables businesses to optimize operational efficiencies and reduce costs.

**FUTURE PROOF.** The CLT solar-recharging power core is built to last an astonishing 7-10 years. That's a long time. And in that time, what may change about your business? Your tracking and asset knowledge requirements? The CLT smart platform is designed to expand, contract, and evolve with your business needs. Expand to additional sensoring and data collection

without replacing the original CLT. Re-define monitoring and reporting schedules and parameters to assets around the globe, over-the-air. From your central command center. Flexible. Durable. Intelligent. Adaptable. The Asset Knowledge Solution with the future built in.

SELF-CONTAINED. The CLT is encased in a virtually indestructible IP67 encasement, integrating the solar charging cells and sensor port into a single, low-profile unit. It can be easily mounted on almost any type of asset used in the world's harshest environments. And because it is intrinsically safe, it can be used in hazardous locations (HAZLOC); to track hazardous material shipments (HAZMAT); or monitor hazardous operations.

**SELF-POWERED.** Powered by a smart, solar rechargeable battery with power save modes, it's engineered for maximum life and to survive long low-sun conditions—delivering up to 10 years of data with zero maintenance. The highest standards of performance for a lower cost of ownership.



### **Robust Asset** Gateway.

The CLT leverages the 100%-reliable global coverage of the Iridium satellite network. In the LTE/GSM version, it taps the economies of next-generation cellular technology. If deployed as a hybrid, the unique dual-mode sat/cell platform ensures uninterrupted, cost-efficient connectivity and access to fixed and mobile assets anywhere.

It delivers real-time, actionable information that better enables businesses to:

- · Optimize operations through precise tracking and asset / cargo monitoring
- · Anticipate problems and respond proactively
- · Add an additional layer of asset security, and
- · Reduce costs overall

The CLT is the ideal solution for tracking and intelligently managing remote assets such as containers, heavy equipment, trailers, vehicles and vessels.

#### **FORM FACTOR**

- Enclosure: 12.4" x 3.1" x 1" (31.5 x 8.1 x 2.6 cm)
- Weight: 18.9 oz (535 g)

- Location Accuracy: <5m (50%) CEP</li>
- Cold start: (open sky) 33s
- Hot start: (open sky) <2s (typical)</li>

#### **SENSOR INTERFACES**

- · Harness Connector: 6-pin circular
- Bluetooth Low Power (BLE) Enabled
- Two Analog or Digital Wired I/O
- Serial RS485 I/O (MODBUS enabled) On/Off: Multi-function switch
- Sensor Power Capability: 7-8VDC unregulated
- External DC/DC power regulation available

#### COMMUNICATIONS

- · Satellite: Iridium Short Burst Data
  - o 1616 1626.5 MHz, Time Domain Duplex; TDMA/FDMA
- Cellular: LTE Cat-M1 NB-IoT/2G (standard)
  - 3G HPSA/2G (GSM Option)
- · Hybrid: Cellular/Satellite lowest cost routing

#### **POWER**

- Rechargeable Battery: 5200 mAh, 7.2VDC
- Battery Cycles: 100% DOD >1000 cycles
- Fielded battery life (with sun): 10+ years
- Solar Panel: Mono-crystalline silicon 6V, 1W
- External Power Input: 10-33VDC, up to 500 mA
- External power can be provided to sensors

#### **SENSOR OPTIONS**

- Temperature sensor
- Container security cable
- Magnetic door sensor
- Tank level sensors- ultrasonic and TDR
- Pressure sensors
- Oil / Water interface monitoring
- MODBUS capable / RS485
- 4-20mA, 0-5V, discrete

#### **ENVIRONMENTAL**

- Temperature (operating:) -40 C ( -40 F) to +70 C (+158 F)
- · Humidity: 100% at 50C, salt, fog per MIL STD 810
- Shock/Vibration: MIL STD 810 and SAE J1455
- Water/Dust: IP67/NEMA6, waterproof full immersion at 1m depth

#### **CERTIFICATIONS**

- FCC CFR parts 15 and 25
- Industry Canada CAN ICES-3 (A) / NMB 3 (A)
- CF Mark
- ETSI EN 301 489-1 V1.9.2 & EN 300 440-2
- UL/CSA/EN/IEC 61010-1
- ANSI/ISA 12.12.01-2000 Class I, Division 2
- CAN/CSA C22.2 No. 213 Class I, Division 2
- ATEX Zone 2 Compliant (with ATEX cage)
- PTCRB Certified (network specific)

#### **MOUNTING OPTIONS**

- Magnet mount
- VHB Tape
- · Direct Bolts/Screws
- Rugged cage
- ATEX protective cage

#### ADDITIONAL FEATURES AND ACCESSORIES

- Engine run time harness
- Tamper alert trigger switch
- Panic button
- Multi-functional interface cable
- Multi-sensor Expansion Electronics