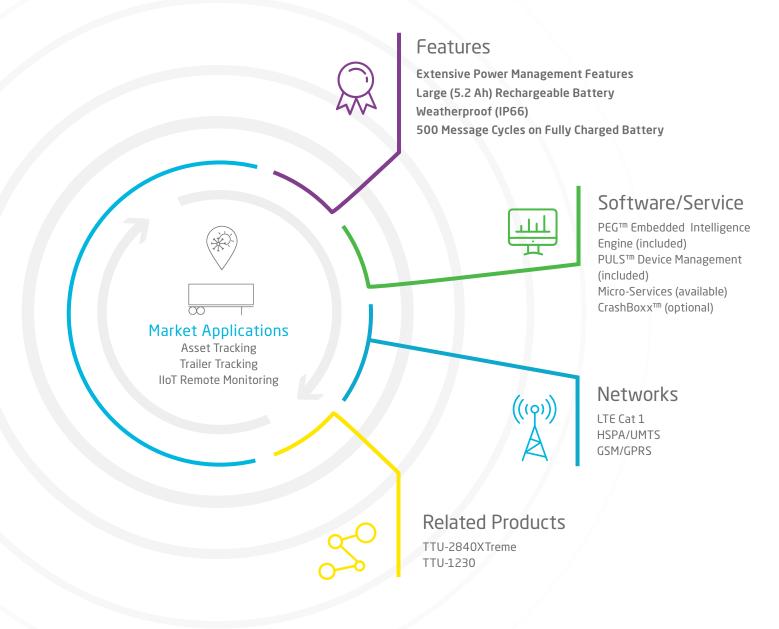
## TTU-2830™



# Versatile Asset Tracker Built for Flexibility, with Extensive I/O Capabilities and Excellent Field Performance

The TTU-2830<sup>™</sup> weatherproof, complete vehicle tracking device is designed for reliable, long-term deployments and is ideal for assets that are tethered but may sit disconnected for periods of time. Equipped with a rechargeable battery pack, PEG's powerful engine, precise GPS technology, LTE Cat 1 and expansive I/O harness enables a broad array of use cases for asset management solutions.







### TTU-2830™ Technical Specifications

#### Cellular/Network

North American Variant I

LTE Cat 1 1900 (B2)/AWS 1700 (B4)/850 (B5)/700 (B12) MHz

HSPA/UMTS 850 (V)/1900 (II) MHz

North American Variant II

LTE Cat 1 AWS 1700 (B4)/700 (B13) MHz

Global Variant I

800 (VI)/850 (V)/900 (VIII)/1800 (III)/1900 (II) MHz HSPA/UMTS

GSM/GPRS 850/900/1800/1900 MHz

Global Variant II

GSM/GPRS 850/900/1800/1900 MHz

#### Data Support

SMS, UDP Packet Data, TCP, CalAmp Telematics Cloud API

#### Satellite Location (GNSS)

Constellation Support	Hybrid GPS, GLONASS, SBAS Engine (WAAS, EGNOS, MSAS)
Channels	55 Channel
Tracking Sensitivity	-167 dBm
Acquisition Sensitivity	-156 dBm (hot start) -148 dBm (cold start)
Location Accuracy	~2.0m CEP Open Sky (SBAS 24 hours static)

Location Update Rate Up to 4 Hz

Anti-jamming

AGPS Location assistance capable

#### Comprehensive I/O

Ignition Inputs	1 fixed bias
Digital Inputs	2 (high/low bias selectable 0-30 VDC)
Digital Outputs	3 (open collector relay 150mA)
Analog Inputs	1 external ADC input
Accelerometer	Built in, triple-axis (driver behavior, impact detection,
	motion sensing, tilt detection)
Serial Interface	1 TTL port
1-Wire® Interface	1 (driver ID/temperature sense)
Status LEDs	2 (GPS and cellular)

#### Certifications

**Industry Certifications** FCC, IC, PTCRB, RoHS

#### **Electrical**

Operating Voltage 12/24 VDC Vehicle Systems

9-30 VDC (start-up, operating)

7-32 VDC (momentary)

Power Consumption Typical 400uA @ 12V (deep sleep)

Typical 15mA @ 12V (radio-active sleep)

Typical 60mA @ 12V (active tracking w/GPS and cell enabled)

#### **Battery Pack**

**Battery Capacity** Up to 5200 mAh

Battery Technology Lithium-lon

**Charging Temperature** 0° to +45° C

#### **Environmental**

Temperature -30° to +60° C (connected to primary power)

-20° to +60° C (operating on internal battery)

-20° to +25° C (storage > 3 months)

Humidity 95% RH @ 50° C non-condensing

Shock and Vibration U.S. Military Standards 202G, SAEJ1455

ESD SAE J1113-13 (4 KV Limit)

Ingress Protection Rating

#### Physical/Design

Dimensions 4.5 x 3.2 x 1.6" (114 x 80 x 39mm)

Weight 8.11 oz. (230g)

#### Connectors/SIM Access

Power, I/O 12 wire captive harness

SIM Access Internal (2FF SIM)

#### **Device Management**

Monitor, manage, upgrade firmware, configure and PULS™

troubleshoot devices remotely

#### **Embedded Intelligence Engine**

Update device functionality or develop new on the edge PEG™

applications

#### **Product Options**

Customized hardware and software development