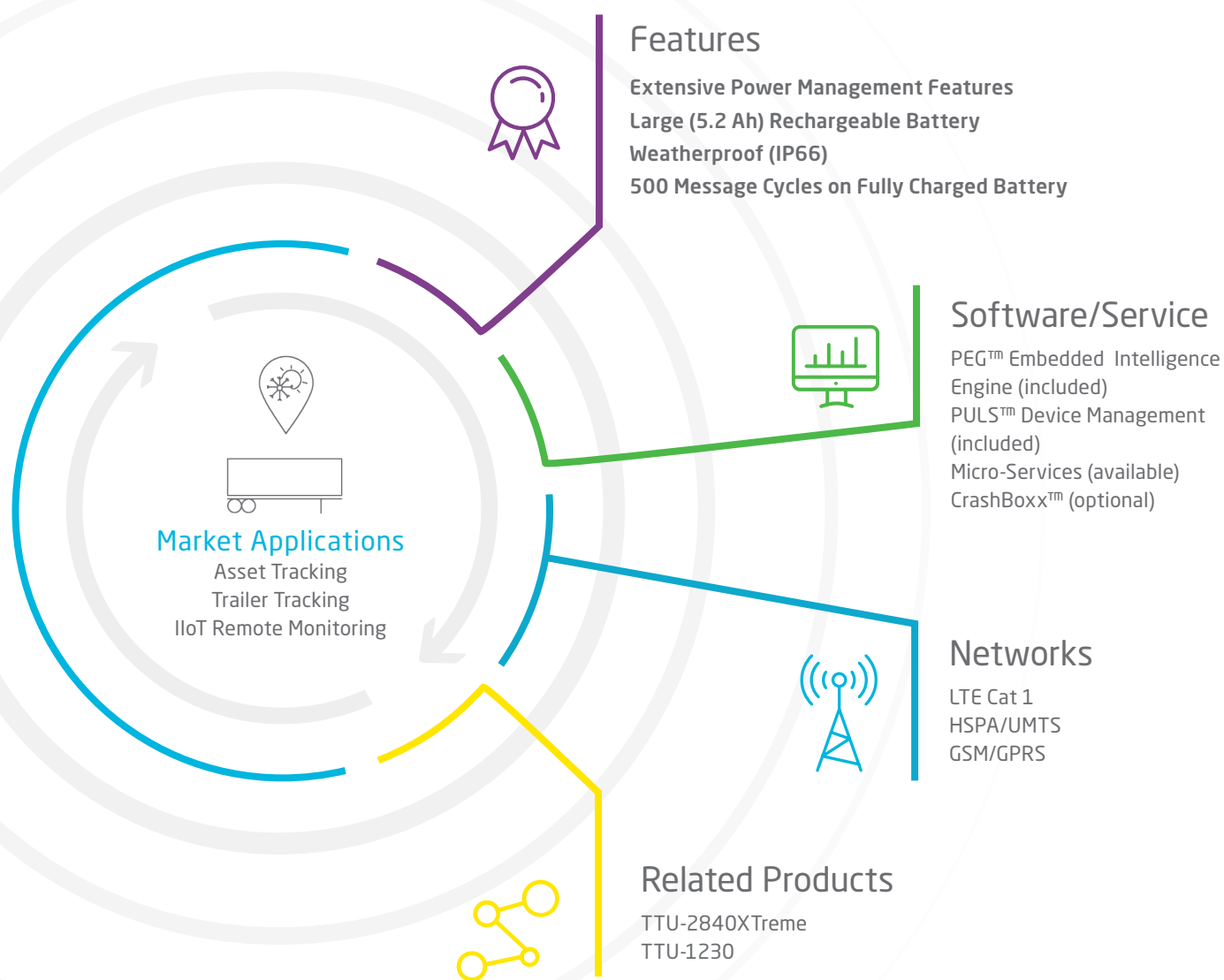


# TTU-2830™



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

The TTU-2830™ 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

<b>North American Variant I</b>	
LTE Cat 1	1900 (B2)/AWS 1700 (B4)/850 (B5)/700 (B12) MHz
HSPA/UMTS	850 (V)/1900 (II) MHz
<b>North American Variant II</b>	
LTE Cat 1	AWS 1700 (B4)/700 (B13) MHz
<b>Global Variant I</b>	
HSPA/UMTS	800 (VI)/850 (V)/900 (VIII)/1800 (III)/1900 (II) MHz
GSM/GPRS	850/900/1800/1900 MHz
<b>Global Variant II</b>	
GSM/GPRS	850/900/1800/1900 MHz

## Data Support

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

## Satellite Location (GNSS)

<b>Constellation Support</b>	Hybrid GPS, GLONASS, SBAS Engine (WAAS, EGNOS, MSAS)
<b>Channels</b>	55 Channel
<b>Tracking Sensitivity</b>	-167 dBm
<b>Acquisition Sensitivity</b>	-156 dBm (hot start) -148 dBm (cold start)
<b>Location Accuracy</b>	~2.0m CEP Open Sky (SBAS 24 hours static)
<b>Location Update Rate</b>	Up to 4 Hz
<b>Anti-jamming</b>	
<b>AGPS Location assistance capable</b>	

## Comprehensive I/O

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

## Certifications

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

## Electrical

<b>Operating Voltage</b>	12/24 VDC Vehicle Systems 9-30 VDC (start-up, operating) 7-32 VDC (momentary)
<b>Power Consumption</b>	Typical 400uA @ 12V (deep sleep) Typical 15mA @ 12V (radio-active sleep) Typical 60mA @ 12V (active tracking w/GPS and cell enabled)

## Battery Pack

<b>Battery Capacity</b>	Up to 5200 mAh
<b>Battery Technology</b>	Lithium-Ion
<b>Charging Temperature</b>	0° to +45° C

## Environmental

<b>Temperature</b>	-30° to +60° C (connected to primary power) -20° to +60° C (operating on internal battery) -20° to +25° C (storage > 3 months)
<b>Humidity</b>	95% RH @ 50° C non-condensing
<b>Shock and Vibration</b>	U.S. Military Standards 202G, SAEJ1455
<b>ESD</b>	SAE J1113-13 (4 KV Limit)
<b>Ingress Protection Rating</b>	IP66

## Physical/Design

<b>Dimensions</b>	4.5 x 3.2 x 1.6" (114 x 80 x 39mm)
<b>Weight</b>	8.11 oz. (230g)

## Connectors/SIM Access

<b>Power, I/O</b>	12 wire captive harness
<b>SIM Access</b>	Internal (2FF SIM)

## Device Management

<b>PULS™</b>	Monitor, manage, upgrade firmware, configure and troubleshoot devices remotely
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## Embedded Intelligence Engine

<b>PEG™</b>	Update device functionality or develop new on the edge applications
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## Product Options

Customized hardware and software development