

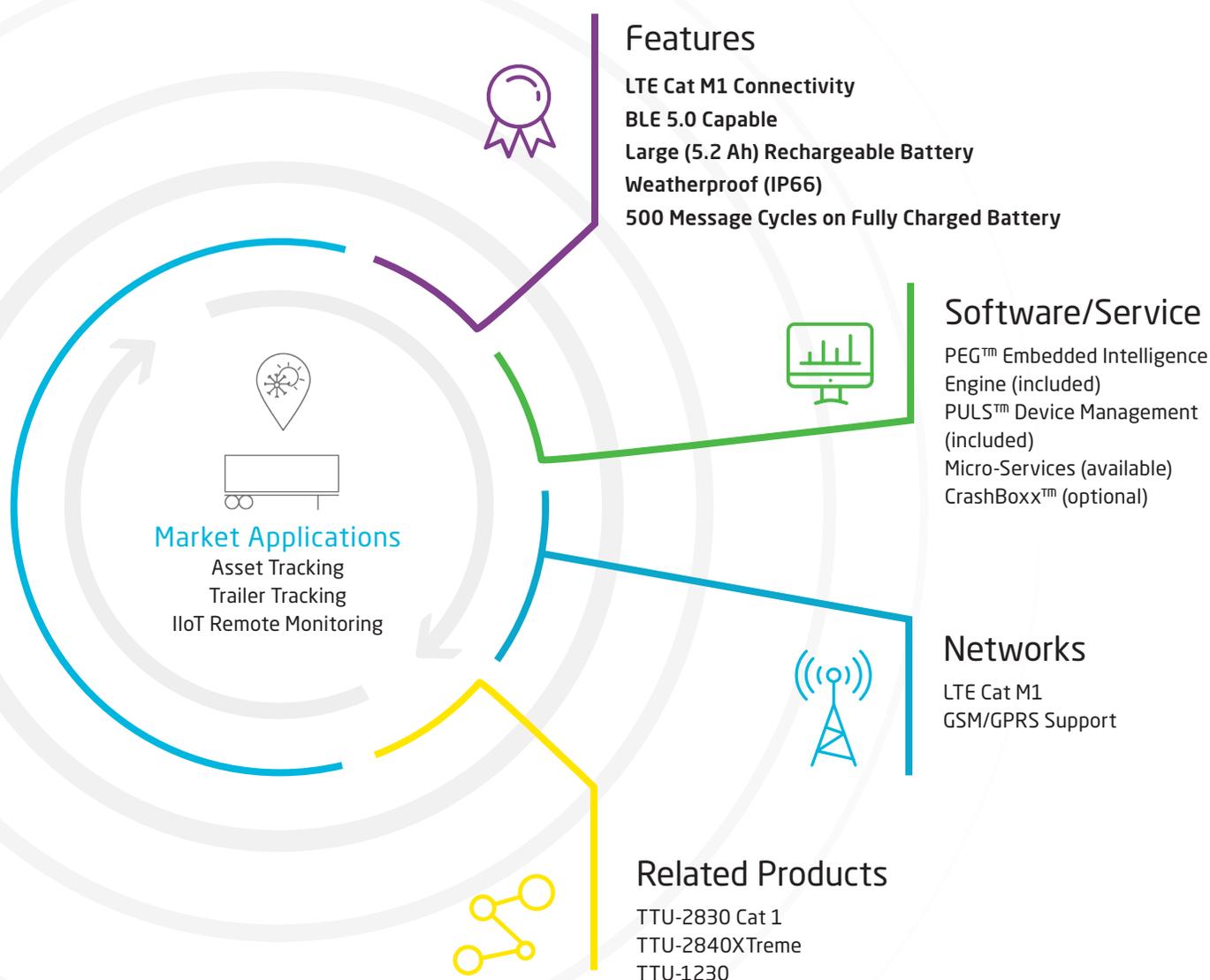
TTU-2830™

LTE Cat M1 | 12-Wire



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

The TTU-2830™ LTE Cat M1 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 LTE Cat M1 global coverage, Bluetooth Low Energy (BLE) 5.0 capability, and expansive I/O harness, the TTU-2830 is a versatile asset management solution.



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T2830MQ320DS V1-A

Cal/Amp®

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TTU-2830™ LTE Cat M1 Technical Specifications

Cellular/Network

Global Variant

LTE Cat M1	2100 (B1)/1900 (B2)/1800 (B3)AWS 1700 (B4)/850 (B5/B26)/900 (B8)/700 (B12/B13/B28)/800 (B18/B19/B20)/1900 (B39/B25) MHz
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
DC Power Output	1 switched VIN*
Serial Interface	1 TTL port
1-Wire® Interface	1 (driver ID/temperature sense)
Status LEDs	2 (GPS and cellular)
Accelerometer	Built in, triple-axis (driver behavior, impact detection, motion sensing, tilt detection)

Interface Standards

Bluetooth	Bluetooth Low Energy (BLE) 5.0 capable
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Certifications

Industry Certifications	FCC, IC, CE, PTCRB, RoHS, BT SIG, RCM
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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-Ion
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	85% RH @ 50° C non-condensing
Shock and Vibration	U.S. Military Standards 202G, SAEJ1455
ESD	IEC 61000-4-2 (4KV test)
Ingress Protection Rating	IP66

Physical/Design

Dimensions	4.5 x 3.2 x 1.6" (114 x 80 x 39mm)
Weight	20.45 oz. (580g w/harness)

Connectors/SIM Access

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

Wireless Interfaces

BLE Antenna	Internal
Cellular Antenna	Internal
GPS Antenna	Internal

Device Management

PULS™	Monitor, manage, upgrade firmware, configure and troubleshoot devices remotely
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Embedded Intelligence Engine

PEG™	Update device functionality or develop new on the edge applications
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* Selection Configurable - Output2 and switched VIN share the same wire

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WARNING:

This product can expose you to chemicals including Carbon black and Nickel, which are known to the State of California to cause cancer, and including Bisphenol A and 1,3-Butadiene, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov