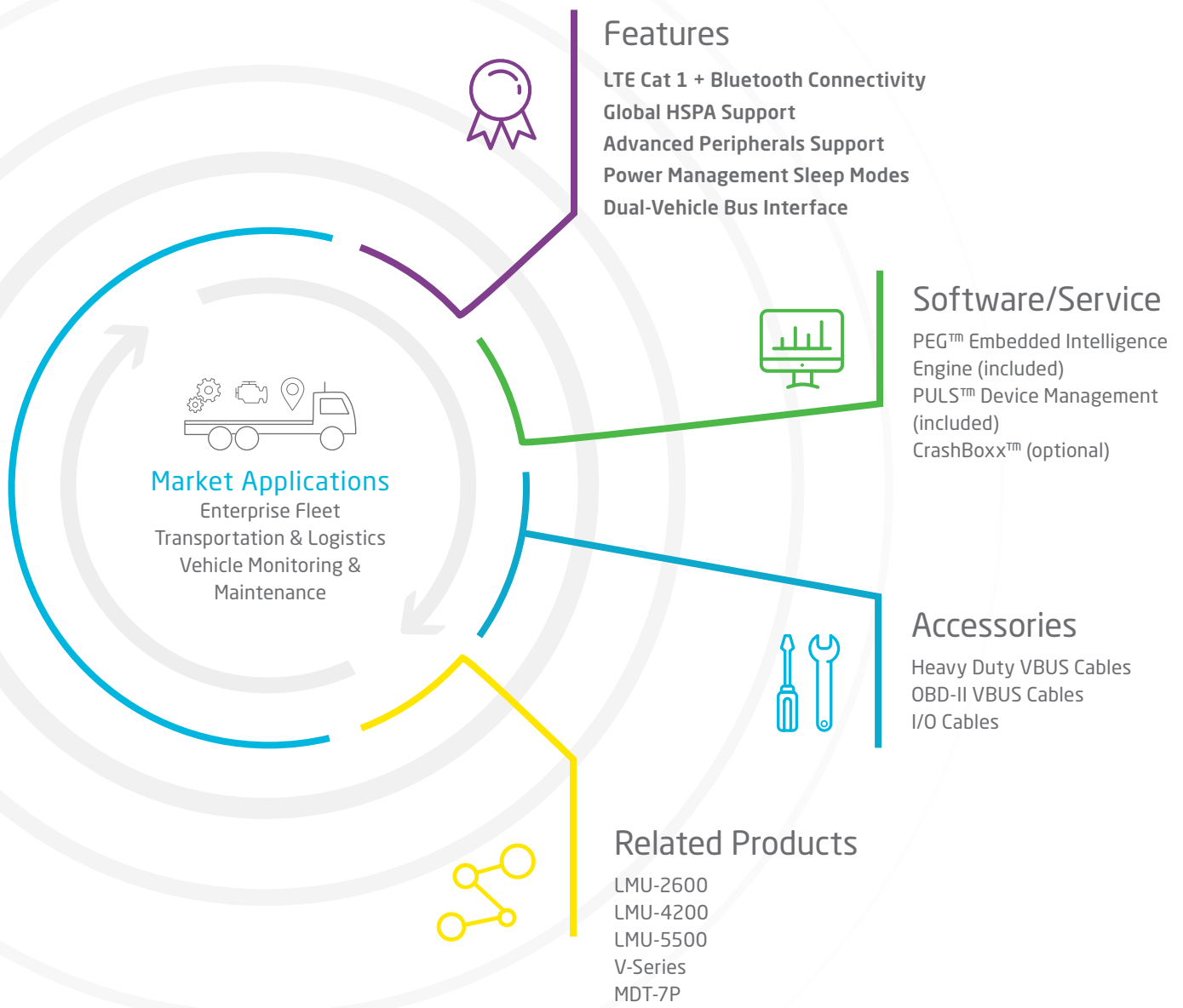


LMU-3640™



Robust Telematics Gateway Built for Dynamic Flexibility

The LMU-3640™ is a next-generation telematics gateway designed to support enterprise applications requiring a robust set of fleet features. Equipped with built-in ECU (Engine Control Unit) vehicle interface technologies for both light and heavy duty vehicles.



LMU-3640™ Technical Specifications

Cellular/Network

North American Variant I LTE Cat 1 HSPA/UMTS	1900 (B2)/AWS 1700 (B4)/850 (B5)/700 (B12) MHz 850 (V)/1900 (II) MHz
North American Variant II LTE Cat 1	AWS 1700 (B4)/700 (B13) MHz
Global Variant HSPA/UMTS GSM/GPRS	800 (VI)/850 (V)/900 (VIII)/1800 (III)/1900 (II) MHz 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	-162 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
AGPS Location assistance capable	

Comprehensive I/O

Ignition Input	1 (fixed bias)
Digital Inputs	4 (high/low bias selectable 0-30 VDC)
Digital Outputs	3 (open collector relay 150mA)
Analog Inputs	2 external ADC inputs
Accelerometer	Built in, triple-axis (driver behavior, impact detection, motion sensing, tilt detection)
1-Wire® Interface	1 (driver ID/temperature sense)
Power Output	1 switched VIN
Status LEDs	4 (GPS, cellular, VBUS, LAN)
Serial Interface	2 TTL ports
Integrated Buzzer	Programmable audible alert
External ADC Inputs	2 (reference voltage - 3.3V)

Certifications

Industry Certifications FCC, IC, PTCRB, RoHS

Device Management

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

Embedded Intelligence Engine

PEG™ Update device functionality or develop new on the edge applications

Electrical

Operating Voltage	12/24 VDC Vehicle Systems 9-30 VDC (start-up, operating) 7-32 VDC (momentary)
Power Consumption	Typical 450uA @ 12V (deep sleep) Typical 15mA @ 12V (radio-active sleep) Typical 100mA @ 12V (active tracking w/GPS and cell enabled)

Battery Pack

Battery Capacity	Up to 1000 mAh
Battery Technology	Lithium-Ion
Charging Temperature	0° to +45° C

Environmental

Temperature	-30° to +60° C (connected to primary power) -10° to +60° C (operating on internal battery) -20° to +25° C ≤ 6 months (long term storage with battery)
Humidity	95% RH @ 50° C non-condensing
Shock and Vibration	U.S. Military Standards 202G, SAEJ1455
ESD	SAE J1113-13 (4 KV Limit)

Physical/Design

Dimensions	5.7 x 2.1 x 1.3" (145 x 53 x 33 mm)
Weight	5 oz. (142 g) (w/ 1000mAh battery)

Connectors/SIM Access

Vehicle BUS I/F	16-Pin 3mm Pitch
Power, I/O	24-Pin 3mm Pitch
SIM Access	Internal (2FF SIM)

Interface Standards

Bluetooth	Classic Bluetooth v2.1+EDR and BLE v4.0
Heavy Duty Truck Data	J1939, J1708
Light Duty Vehicle Data	J1850 PWM, J1850 VPW, SW-CAN ISO 9141-2, KWP 2000, ISO 15765 CAN

Product Options

RS-232 on Aux 2
I/O wiring harness
200mAh Lithium-Ion backup battery
Wi-Fi 802.11 a/g/b/n client mode
Customized hardware and software development