# LMU-3640<sup>TM</sup>

# **Robust Telematics Gateway Built for Dynamic Flexibility**

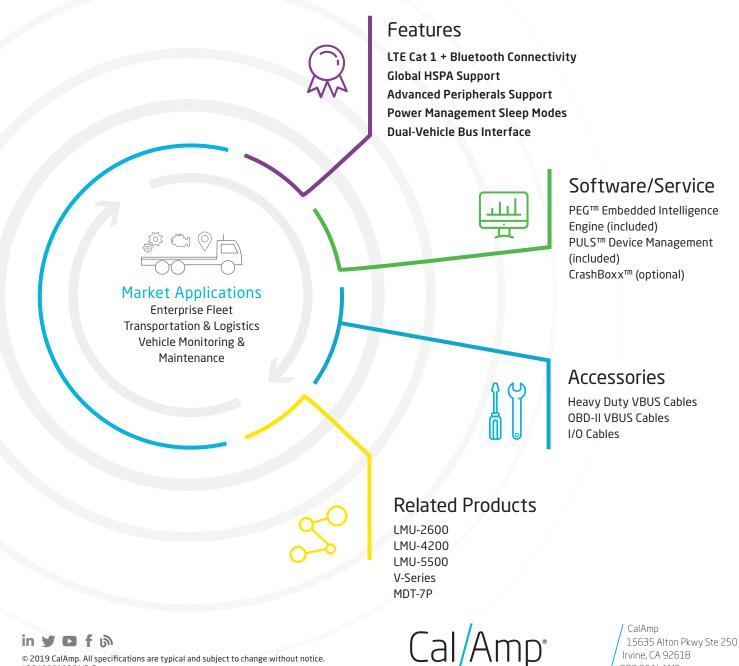


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The LMU-3640<sup>™</sup> is a next-generation telematics gateway designed to support enterprise applications requiring a robust set of fleet features. Equipped with built-in ECU (Engine Control Unit) vehicle interface technologies for both light and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



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# LMU-3640<sup>TM</sup> 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 <sup>®</sup> Interface	l (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)

FCC, IC, PTCRB, RoHS

## Certifications

Industry Certifications

# **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 (2EE 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

## **CALIFORNIA PROPOSITION 65**



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