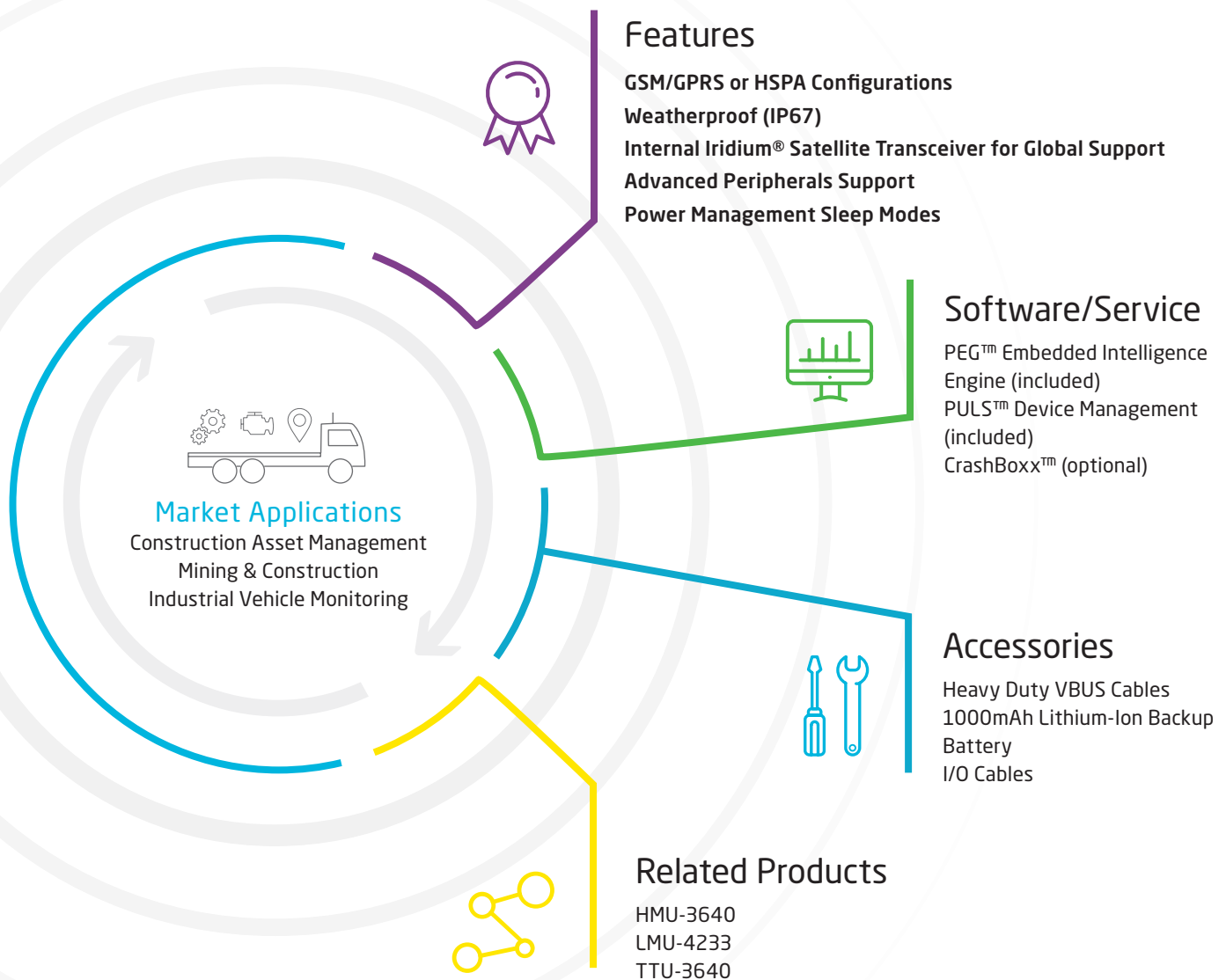


LMU-4520™



Heavy Duty Telematics Gateway Built for Enterprise Location Messaging

The LMU-4520™ is a fully weatherproof IP67 dual-mode location and messaging device for mining and construction markets that features both Iridium® satellite and cellular communications as well as connection to the vehicles ECU (Engine Control Unit) interface to deliver fleet management features, comprehensive I/O system and expandable accessories.



LMU-4520™ Technical Specifications

Cellular/Network

Global Variant	
HSPA/UMTS	900 (VIII)/800 (VI)/850 (V)/1700 (IV)/1900 (II)/2100 (I) MHz
GSM/GPRS	850/900/1800/1900 MHz

Data Support

SMS, UDP Packet Data, CalAmp Telematics Cloud API

Satellite Location (GNSS)

Constellation Support	Hybrid GPS, SBAS Engine (WAAS, EGNOS, MSAS, GAGAN)
Channels	56 Channel
Tracking Sensitivity	-162 dBm
Acquisition Sensitivity	-147 dBm
Location Accuracy	~2.0m CEP Open Sky (GPS SBAS 24 hours static)
Location Update Rate	Up to 4 Hz
AGPS Location assistance capable	

Comprehensive I/O

Ignition Input	1 (fixed low bias)
Digital Inputs	7 (selectable high/low bias, 0-30 VDC)
Digital Outputs	5 (open collector 200mA relay driver) 2 (20mA current source/LED drivers)
Analog Inputs	4 (0-30 VDC, +/- 0.1V accuracy)
Accelerometer	Built in, triple-axis (driver behavior, impact detection, motion sensing, tilt detection)
1-Wire® Interface	2 (driver ID, temperature sense)
Serial Interface	2 switched power TTL level interfaces 12-pin
Status LEDs	2 (GPS, cellular)

Certifications

Industry Certifications FCC, CE, 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

CALIFORNIA PROPOSITION 65



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

Electrical

Operating Voltage	12/24 VDC Vehicle Systems 9-30 VDC (start-up, operating) 7-30 VDC (momentary)
Power Consumption	Typical 7mA @ 12V (deep sleep) Typical 37mA @ 12V (radio-active sleep) Typical 90mA @ 12V (continuous transmit)

Battery Pack

Battery Capacity	Up to 1000 mAh
Battery Technology	Lithium-Ion

Environmental

Temperature	-30° to +75° C (connected to primary power) -40° to +85° C (storage)
Humidity	95% RH @ 50° C non-condensing
Shock and Vibration	U.S. Military Standards 202G, 810F, SAEJ1455
ESD	SAE J1113

Physical/Design

Dimensions	4.3 x 5.9 x 1.8" (110.80 x 151.27 x 47.41 mm) 4.3 x 6.8 x 1.8" (110.80 x 175.13 x 47.41 mm) (w/ mounting feet)
Weight	12 oz. (340 g) (w/ 1000mAh battery)

Connectors/SIM Access

GPS Antenna	External
Cellular Antenna	External
Wi-Fi Option Antenna	RP-SMA
Power, GND, Ignition, ADC	34-pin JAE weatherproof connector
Vehicle BUS	JAE weatherproof connector
SIM Access	Internal (2FF SIM)

Product Options

Built-in SBD9602 Iridium® transceiver
Built-in J1939/J1708 vehicle bus reader
Built-in OBD2 vehicle bus interface
Built-in Wi-Fi modem
Serial RS232 adapter cable
Connectorized I/O wiring harness
Molded mounting feet
1000mAh Lithium-Ion backup battery