



LTE CAT 1 · DATA SHEET

LMU-4351LB™

Advanced global LTE CAT 1 telematics gateway with external antennas



DIMENSIONS

138 × 89 × 22 mm
(5.43 × 3.50 × 0.87 in)

WEIGHT

163 g
(5.7 oz)

Overview

The LMU-4351LB combines global LTE CAT 1 connectivity, Bluetooth Low Energy 5.2, and extensive I/O for advanced fleet and asset management. External antenna connections, dual CAN support, PEG2 intelligent logic, and the EdgeApp SDK enable flexible installation and customized edge applications.

Highlights



Global LTE CAT 1 connectivity with 3G and 2G fallback



External GPS and cellular antenna connections add flexibility



Bluetooth Low Energy 5.2 supports wireless peripherals



Dual CAN and dual 1-Wire interfaces support vehicle sensors



Built-in accelerometer and gyroscope capture motion events



PEG2 and EdgeApp SDK enable custom edge applications

PHYSICAL DESIGN

Dimensions	138 × 89 × 22 mm (5.43 × 3.50 × 0.87 in)
Weight	163 g (5.7 oz)

CELLULAR

LTE CAT 1 Bands	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B18, B19, B20, B25, B26, B28
3G Bands	B1, B2, B4, B5, B6, B8, B19
2G Bands	B2, B3, B5, B8

GNSS

Constellation Support	GPS, GLONASS, Galileo, BeiDou
GNSS Channels	55 Channels
Tracking Sensitivity	-161 dBm
Acquisition Sensitivity	-145 dBm (cold start) -156 dBm (hot start)
Location Accuracy	5.0m CEP-50
Location Update Rate	5 Hz
A-GPS Assistance	Yes
Anti-Jamming Detection	Yes

WIRELESS INTERFACES

Bluetooth	BLE 5.2
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VEHICLE BUS

Vehicle Connector Type	OBD-II; J1939; J1708; RP1226
Heavy-Duty Protocols	J1939, J1708
Light-Duty Protocols	J1850 PWM, J1850 VPW, SW-CAN, ISO 9141-2, KWP 2000, ISO 15765 CAN
Serial Interface	TTL

ANTENNAS & SIM

Cellular Antenna	External
GPS Antenna	External
SIM Access	External

POWER

Operating Voltage	12/24 VDC Vehicle Systems 9-32 VDC (start-up, operating) 7-35 VDC (momentary)
Power Consumption	Typical 800µA @ 12V (deep sleep) Typical 10mA @ 12V (radio-active sleep) Typical 90mA @ 12V (GPS tracking and cell enabled)
Battery Capacity	1100 mAh
Battery Technology	Lithium iron phosphate (LiFePO4)
Charging Temperature	0° to +45° C

ENVIRONMENTAL

Temperature	-40° to +75° C (connected to primary power) -20° C to +60° C (operating on internal battery) -20° to +25° C ≤ 6 months (long term storage with battery)
Humidity	≤ 85% RH @ +55 C non-condensing
Shock & Vibration	MIL-STD-202G, MIL-STD-810F, SAE J1455 (30G)
ESD	IEC 61000-4-2, 4 kV

SENSORS

Motion Sensor	3-axis accelerometer; gyroscope
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I/O

General I/O Connector	22-Pin 3mm Pitch
Power / I/O Connector	4-Pin Molex
Ignition Inputs	1 fixed bias
Digital Inputs	7 (high/low bias selectable 0-30 VDC)
Digital Outputs	5 (open collector relay driver outputs, 200mA)
Analog Inputs	5 (general purpose, 0-30VDC, +/-250mV accuracy)
Serial Interface	2 TTL (5-pin)
DC Power Outputs	1 switched VIN (1A fused), 2 switched 3.3V (200mA each), 1 switched LED driver (20mA)
1-Wire Interface	2 (1-Bit Bus)
Status LEDs	4 (GPS, cellular, BT, VBU)
Auxiliary Ports	AUX1: 5-pin Molex AUX2: 5-pin Molex AUX3: USB Micro AUX4: USB Type A Host

EDGE INTELLIGENCE

Firmware	EdgeCore
Edge Programming	PEG2 & EdgeApp SDK
Geofences	Locally stored geofence data for real-time geospatial processing Rectangle or radial zones: 21 Radial zones or vertices: 5400
Buffered Messages	Up to 20,000
Operating System	ThreadX RTOS

CLOUD / SOFTWARE SERVICES

Device Management	Manage, configure, and deploy OTA software updates to connected assets at scale
CalAmp Telematics Cloud	Stream telematics data into proprietary systems with flexible API integration
CalAmp App	Fleet and asset management software for tracking, monitoring, and managing vehicles, equipment, drivers, assets, and cargo.

CERTIFICATIONS

Certifications	FCC, CE, IC, PTCRB, RoHS, BT SIG, RCM, IEEE 1725-2011, UL 1624, UN 38.3, IEC 62133
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ACCESSORIES

Accessories	Go to CalAmp.com for full accessories.
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