

LTE CAT M1 · DATA SHEET

LMU-3641MB™

LTE CAT M1 telematics gateway with external GPS and cellular antennas



DIMENSIONS

94 × 53 × 20 mm
(3.70 × 2.09 × 0.79 in)

WEIGHT

142 g
(5.0 oz)

Overview

The LMU-3641MB is a flexible LTE CAT M1 telematics gateway with external GPS and cellular antenna connections for installation flexibility. Extensive I/O, built-in vehicle diagnostics, a backup battery, and CalAmp edge intelligence support advanced fleet tracking, controls, and analytics.

Highlights



LTE CAT M1 connectivity with external GPS and cellular antennas



Four digital inputs and three relay-driver outputs



Two analog inputs plus TTL and RS-232 serial interfaces



Built-in triple-axis motion sensor supports event detection



Internal backup battery supports power-loss reporting



CalAmp PEG logic enables configurable edge applications

PHYSICAL DESIGN	
Dimensions	94 × 53 × 20 mm (3.70 × 2.09 × 0.79 in)
Weight	142 g (5.0 oz)
CELLULAR	
LTE CAT M1 Bands	B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B28, B39
2G Bands	B2, B3, B5, B8
Data Support	SMS, UDP Packet Data, TCP
GNSS	
Constellation Support	GPS, GLONASS, SBAS (WAAS, EGNOS, MSAS)
GNSS 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
A-GPS Assistance	Yes
WIRELESS INTERFACES	
Bluetooth	BLE 5.0
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, RS-232
ANTENNAS & SIM	
Cellular Antenna	External, SMC
GPS Antenna	External, SMA
SIM Access	Internal (2FF SIM)
POWER	
Operating Voltage	12/24 VDC Vehicle Systems 9-30 VDC (start-up, operating) 7-32 VDC (momentary)
Power Consumption	Typical 600uA @ 12V (deep sleep) Typical 15mA @ 12V (radio-active sleep) Typical 90mA @ 12V (active tracking w/GPS and cell enabled)
Power Output	1 switched VIN, 2 switched 3.3V
Battery Capacity	Up to 1000 mAh
Battery Technology	Lithium-ion (Li-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	85% RH @ 50° C non-condensing
Shock & Vibration	MIL-STD-202G
ESD	IEC 61000-4-2, 4 kV
Load Dump	SAEJ1455
SENSORS	
Motion Sensor	3-axis accelerometer
I/O	
Power / I/O Connector	24-Pin 3mm Pitch
Ignition Inputs	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
Serial Interface	2 (1 TTL, 1 RS-232)
DC Power Outputs	1 switched VIN, 2 switched 3.3V
1-Wire Interface	1 (driver ID/temperature sense)
Status LEDs	4 (GPS, cellular, VBUS, LAN)
Buzzer	Programmable audible alert
EDGE INTELLIGENCE	
Firmware	32-Bit
Edge Programming	PEG & EdgeApp32 SDK
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, IC, CE, PTCRB, RoHS, BT SIG, RCM
ACCESSORIES	
Accessories	• CBL00036: 2 meters, CABLE, 3MM PITCH 2X8 PIN MALE, J1939 TYPE 2 9 PIN • M+F Y (H+CAN+J1708+CAN2), MOUNTING KIT • CBL00033: 1 meter, 16 PIN OBD II TYPE B 24V Y CABLE, OBD MOUNTING KIT • CBL00030: 3.5 meters, CABLE, 24 PIN, AUX 1 VIN, AUX 2 SWITCHED • VIN, FUSED • CBL00029: 200 mm, CABLE, 6 PIN MALE TO 5 PIN FEMALE, SW VIN, ADAPTER • CBL00024: 2.5 meters, CABLE, 24-PIN, AUX1/2, FUSED, FLYING • LEADS • CBL00014: 305 mm, CABLE, 24-PIN DUAL ROW, M12 3-PIN • CBL00013: 305 mm, CABLE, 16-PIN DUAL ROW, M25 16-PIN • SC348: 2 meters, Fused Pwr/Gnd/Ign Cable • SC360: 2 meters, Fully Connectorized Harness • SC735: 2 meters, Breakout Cable • SC779: 2 feet, Serial Adapter Cable • SC411M: 1 meter, LMU-3640 VBU 2x8 to RP1226 (H+CAN+J1708+CAN2, power Pin1) • SC411M: 2 meters, LMU-3640 16mm Red Indicator Light to M12 3-Pin M Cable • SC612: 2.75 meters, LMU-3640 VBU 2x8 to RP1226 (H+CAN+J1708+CAN2, power Pin1) • SC709M: 2 meters, 3mm Pitch 2x8 Pin M to J1939 Type 2 9-Pin M+F Y (H+CAN+J1708+CAN2) Cable • SC723: 1 Feet, 3mm Pitch 2X8 Pin M TO DE 15 M (CAN+1708+CAN2), LIGHT DUTY, Cable • SC734M-2: 2 meters, 3mm Pitch 2x8 Pin M to J1962 Type B M+F Y (All) Cable • SC744-1: 1 meter, LMU-3640 VBU 2x8 to RP1226 (H+CAN+J1708+CAN2, power Pin14) • SC744-275: 2.75 meters, LMU-3640 VBU 2x8 to RP1226 (H+CAN+J1708+CAN2, power Pin14) • SC823: 1 Go to CalAmp.com for full accessories.