

LMU-4520™

GPRS/CDMA/HSPA/Iridium Series

Heavy Duty Weatherproof Enterprise

Location Messaging Unit



Cal/Amp®

Experience The Advantage

- GSM/GPRS, CDMA 1xRTT or HSPA configurations
- Built-in 3-axis accelerometer for driver behavior, motion sensing, hard braking, and impact detection
- Dual reporting 20,000 event buffered message logs to manage cellular, satellite or WiFi communications channels
- Low power sleep modes
- Optional Internal Iridium® satellite transceiver that provides backup global coverage outside cellular regions with LEO satellite performance advantages
- Backup battery
- 32 built-in geo-fences, plus any combination of circle or polygon zones up to 5,400 points
- Optional built-in heavy duty engine control interface
- Garmin®, MDT, and other advanced peripherals support
- Comprehensive I/O system
- Switched power serial ports

CalAmp's LMU-4520™ is a fully weatherproof 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. The LMU-4520™ offers a full set of fleet management features, comprehensive I/O system and expandable accessories, along with an IP-67 environmental rating, that makes it an industry leading value proposition. The LMU-4520™ expandability and flexibility lowers the cost of delivering, supporting, and growing fleet management solutions.

Competitive Technology, Competitive Edge

The LMU-4520™ is designed to support customers with market leading fleet management features, 16G accelerometers for measuring motion, driver behavior and impact events and a multitude of interfaces such as two switched power serial ports, Mobile Data Terminal (MDT) support, and a comprehensive I/O system. The optional jPOD™ ECU (Engine Control Unit) interface reads and transmits heavy-duty engine conditions and data such as engine temperature along with fault codes providing a real-time picture of vehicle health. In addition to cellular based communications, The LMU-4520™ offers optional Iridium® satellite or Wi-Fi technologies providing a dual mode solution for global coverage outside cellular regions. This expandable architecture saves upfront costs while allowing your solutions to grow with customers' changing needs.

Smart Vehicle Technology

The LMU-4520™ employs CalAmp's industry leading on-board alert engine, PEG™ (Programmable Event Generator). This advanced engine monitors external conditions and supports customer-defined exception-based rules to help meet the needs of your application. PEG continuously monitors the vehicle environment and responds instantaneously to pre-defined threshold conditions related to time, date, motion, location, geo-zone, input and other event combinations. PEG also provides seamless and independent reporting on cellular and satellite communication links. With PEG, your unique application will meet demanding customer requirements. This behavior can be programmed by CalAmp before shipment, at a customer's facility, over-the-air once the unit has been fielded.

Over-The-Air Serviceability

The LMU-4520™ also leverages CalAmp's industry leading over-the-air device management and maintenance system, PULS™ (Programming, Updates, and Logistics System). Configuration parameters, PEG rules, and firmware can all be updated over-the-air. PULS offers out-of-the-box hands free configuration and automatic post-installation upgrades. You can also monitor unit health status across your customer's fleets to quickly identify issues before they become expensive problems.

LMU-4520™ Specifications

General

Communication Modes	HSPA, GSM/GPRS, CDMA/1xRTT
Location Technology	56 channel GPS
Operating Voltage	12/24 VDC vehicle systems

GPS

Location Technology	GPS
Enhancement Technology	SBAS: WAAS, EGNOS, MSAS, GAGAN
Tracking Sensitivity	-162 dBm
Acquisition Sensitivity	-147 dBm
Location Accuracy	2.0m CEP
AGPS / Location assistance capable	

Cellular/Bands

Operating Bands (MHz)	
GSM/GPRS	850/900/1800/1900
CDMA/1xRTT	850/1900
HSPA/UMTS	800(VI)/850(V)/900(VIII)/ 1700(IV)/1900(III)/2100(I)
HSPA data rates	5.6 Mbps upload / 7.2 Mbps download
HSPA Fallback	EDGE/GPRS/GSM quad band
Data Support	SMS, IP Packet Data

Comprehensive I/O

Ignition Inputs	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)
A/D Inputs	4 (0-30 VDC, +/- 0.1V accuracy)
1-Wire® Interface	2 (Temperature Sense, Driver ID)
Status LEDs	2 (GPS and Cellular)

Certifications

FCC, CE, IC, PTCRB, Applicable Carriers

Electrical

Operating Voltage	7-30 VDC (momentary) 9-30 VDC (start-up, operating)
Power Consumption	7 mA @ 12V (deep sleep) 37mA @ 12V (radio-active sleep) 90mA @ 12V (continuous transmit)
Back-Up Battery	1000mAh Lithium-Ion

Environmental

Temperature*	-30° to +75° C (connected to primary power) -40° to +85° C (storage) Except Battery*
Humidity	95% R.H. @ 50° C non-condensing
Shock and Vibration	U.S. Military Standards 202G and 810F, SAE J1455
EMC/EMI	SAE J1113
IP-67 Enclosure	
RoHS Compliant	

Physical

Dimensions	4.3 x 5.9 x 1.8 (110.8 x 151.27 x 47.41 mm)
With mounting feet	4.3 x 6.8 x 1.8 (110.8 x 175.13 x 47.41 mm)
Weight	12 oz (340 g)

Connectors, SIM Access

SIM Access	Internal
Cellular Antenna	External SMA
GPS Antenna	External SMA
Power, GND, Ignition, A/D, Serial Interlaces	34-pin JAE Weatherproof Connector
Vehicle Bus Option	2 switched power TTL level Interfaces 12-pin JAE Weatherproof Connector
Wi-Fi Option Antenna	RP-SMA

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
External Antennas (GPS, cellular, combined GPS/cellular)
Serial RS232 Adapter Cable
Connectorized I/O wiring harness
Molded mounting feet
1000mAh Lithium-Ion back-up battery
Customized hardware and software development available on request

About CalAmp

CalAmp (NASDAQ: CAMP) is a telematics pioneer leading transformation in a global connected economy. We help reinvent businesses and improve lives around the globe with technology solutions that streamline complex IoT deployments and bring intelligence to the edge. Our software applications, scalable cloud services, and intelligent devices collect and assess business-critical data from mobile assets, cargo, companies, cities and people. We call this The New How, powering autonomous IoT interaction, facilitating efficient decision making, optimizing resource utilization, and improving road safety. CalAmp is headquartered in Irvine, California and has been publicly traded since 1983. Lojack is a wholly owned subsidiary of CalAmp. For more information, visit calamp.com, or LinkedIn, Twitter, YouTube or CalAmp Blog.

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