



LMU-4520™ Weatherproof GPRS/CDMA/HSPA Series

Heavy Duty Weatherproof Enterprise Location Messaging Unit



EXPERIENCE THE ADVANTAGE

- Heavy Duty weatherproof IP67 rated enclosure
- Built-in 3-axis accelerometer for driver behavior, motion sensing hard braking, impact detection
- Dual reporting 20,000 event buffered message logs to manage Cellular, Satellite and Wifi communications channels
- Low Power sleep modes
- 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 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 IP67 environmental rating, that make it an industry leading value proposition. The LMU-4520 expandability and flexibility lowers the cost of delivering, supporting, and growing fleet management solutions.

COMPETITIVE PRICE, 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 multitude of interfaces such as two switched power serial ports, Mobile Data Terminal (MDT) support, a comprehensive I/O system. The optional jPOD™ ECU (Engine Control Unit) interface reads and transmits heavy-duty engine condition and data such as engine temperature along with fault codes provide a real-time picture of vehicle health. In addition to cellular based communications, the LMU-4520 offers optional Satellite or WiFi technologies. This expandable architecture saves upfront costs while allowing your solutions to grow with customers' changing needs.

FLEXIBILITY

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. With PEG, your unique application will meet demanding customer requirements. This behavior can be programmed by CalAmp before shipment, at a customer's facility, or 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 customers' fleets to quickly identify issues before they become expensive problems.

LMU-4520 SPECIFICATIONS

GPS

Location Technology	50 channel GPS (with SBAS)
	SBAS:WAAS, EGNOS, MSAS, GAGAN
Location Accuracy	2.0 meter CEP (with SBAS)
Tracking Sensitivity	-162 dBm
Acquisition Sensitivity	-147 dBm
AGPS Capable	

CELLULAR

Data Support	SMS, IP Packet Data
Operating Bands:	MHz (Band)
GSM/GPRS	850/900/1800/1900
CDMA/1XRTT	850/1900
HSPA/UMTS	800(VI)/850(V)/900(VIII)/ 1700(IV)/1900(II)/2100(I)
Transmitter power:	
GSM/GPRS	850/900 32.5 dBm
	1800/1900 29.5 dBm
CDMA/1XRTT	850 24 dBm
	1900 23 dBm
HSPA/UMTS	(all bands) 23 dBm
HSPA data rates	5.6 Mbps upload / 7.2 Mbps download
HSPA Fallback	EDGE/GPRS/GSM quad band

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

ENVIRONMENTAL

Temperature	-30° to +75° C (operating) -40° to +85° C (storage)
Humidity	0 to 95% RH at 50° C non-condensing
Shock and Vibration	MIL 202G and 810F, SAE J1455
EMC/EMI	SAE J1113

About CalAmp

CalAmp Corp. (NASDAQ: CAMP) is a proven leader in providing wireless communications solutions to a broad array of vertical market applications and customers. CalAmp's extensive portfolio of intelligent communications devices, robust and scalable cloud service platform, and targeted software applications streamline otherwise complex machine-to-machine (M2M) deployments. These solutions enable customers to optimize their operations by collecting, monitoring and efficiently reporting business critical data and desired intelligence from high-value remote assets. For more information, please visit www.calamp.com.

ELECTRICAL

Operating Voltage	6-32 VDC
Power Consumption	4 mA @ 12V (deep sleep) 10 mA @ 12V (sleep on network) 70 mA @ 12V (active tracking)
Backup Battery	1000 mAH Lithium Ion Rechargeable

CONNECTORS AND SIM

Cellular Antenna	SMC
GPS Antenna	SMA
Power, GND, Ignition, ADC	34-pin JAE Weatherproof Connector
I/O Connections, Serial Ports	
Vehicle Bus Option	12-pin JAE Weatherproof Connector
Wi-Fi Option Antenna	RP-SMA
SIM Access	Internal

SERIAL INTERFACES

2 Switched Power TTL level Interaces

PHYSICAL

Dimensions	4.3 x 3.2 x 0.9" (110 x 81x 22 mm)
Weight	4 oz (113g)
Environmental	IP67 Rating

MOUNTING

Molded mounting feet

CERTIFICATIONS

Fully certified FCC, IC, CE, PTCRB, GCF, and Applicable Carriers

OPTIONAL FEATURES/FUNCTIONS

- Built-in Q9602 Iridium modem
- Built-in J1939/J1708 Vehicle Bus reader
- Built-in Wifi modem
- External Antennas (GPS, Cellular, combined GPS/Cellular)
- Serial RS232 Adapter Cable
- Connectorized I/O wiring harnesses

DEVELOPMENT SUPPORT OPTIONS

- Customized hardware and software development available on request

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All specifications are typical and subject to change without notice.

