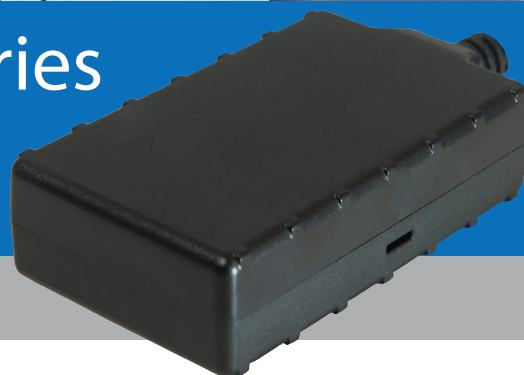# CalAmp®
CONNECTING TOMORROW TODAY

LMU-330™GPRS /HSPA Series

Economical GPS Tracking Unit

EXPERIENCE THE ADVANTAGE

- GSM/GPRS/HSPA cellular operation

- High sesitivity GPS

- 12/24V vehicle operation

- Built-in antenna, for easy installation

- Built in harness

- Power management sleep modes

- 2,000 buffered message logs

- Up to 2 inputs and 2 output

- Sealed case option

- Optional backup battery

- Optional 3-axis accelerometer for motion, tilt and impact detection

- Optional 1-Wire® interface for temperature sense and driver ID

- 10 geo-fence capability

- Over-the-air update capability for configurations and firmware

The LMU-330 is an economical, full-featured vehicle tracking product designed for covert and reliable installation in automobiles. The LMU-330 is an ideal solution for stolen vehicle, vehicle finance, auto rental and other automotive track and trace applications.

COMPETITIVE PRICE, COMPETITIVE TECHNOLOGY, COMPETITIVE EDGE

The LMU-330 high-value tracking unit from CalAmp features a small footprint superior GPS performance, an optional internal back-up battery, ultra low power sleep modes, optional 3-axis accelerometer for motion sense, and up to two Inputs/two Outputs (I/O). The LMU-330 is a complete vehicle tracking and communications device incorporating next-generation, supersensitive GPS technology on cellular networks for installation in any 12/24 volt mobile vehicle. Superior internal antennas for both cellular and GPS eliminate the need for wired antennas and make the LMU-330 mountable virtually anywhere in the vehicle for easy, inexpensive installations. Messages are transported across the cellular network using enhanced SMS or UDP messaging providing a reliable communications link between the device and your application servers. The LMU-330 is designed to dramatically reduce cost, power and size while providing excellent field reliability.

FLEXIBILITY

The LMU-330 employs CalAmp's advanced industry leading on-board alert engine, PEG™ (Programmable Event Generator) to monitor external conditions and support customer-defined exception-based rules to meet your application requirements. PEG 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. 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-330 leverages CalAmp's management and maintenance system, PULS™ (Programming, Updates, and Logistics System), for over-the-air configuration parameters, PEG rules, and firmware. This out-of-the-box hands free configuration and automatic post-installation upgrades can monitor unit health status across your customers' fleets to Identify issues before they become expensive problems.

LMU-330 SPECIFICATIONS

GENERAL

Communication Modes	Packet data and SMS
Location Technology	56 channel GPS
Operating Voltage	12 and 24 volt vehicle systems

GPS

Location Technology	GPS; GLONASS and QZSS capable
Enhancement Technology	SBAS: WAAS, EGNOS, MSAS
Tracking Sensitivity	-162 dBm
Acquisition Sensitivity	-148 dBm
Location Accuracy	2.0m
Location Update Rate	Up to 10 Hz
Anti-jamming	
AGPS / Location assistance capable	

CELLULAR

Data Support	SMS, GPRS, UDP
Cellular/PCS	FCC - Parts 22, 24; PTCRB, UL, IC
GPRS	Up to class 10
Quad-Band	850/900/1800/1900 MHz
Output Power	850 (Class 4) 2W
	900 (Class 4) 2W
	1800 (Class 1) 1W
	1900 (Class 1) 1W
EHS5 HSPA	
GSM/GPRS/EDGE	Dual band GSM 850/1900MHz
UMTS/HSPA+	Dual band UMTS 850/1900MH
HSPA data rates	5.76Mbps upload/7.2 Mbps download

COMPREHENSIVE I/O

Digital Inputs	Up to 2 fixed bias
	Optional 1-Wire® Interface
Digital Outputs	Up to 2 open collector (150mAh)
Analog Inputs	1 internal VCC monitor
Status LED's	GPS and Cellular

DEVELOPMENT SUPPORT OPTIONS

Customized hardware and software development available on request

CERTIFICATIONS

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

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 and 810F, SAE J1455
EMC/EMI	SAE J1113; FCC-Part 15B; Industry Canada
RoHS Compliant	

ELECTRICAL

Input Voltage	9-32 VDC (startup, operating)
	7-32 VDC (momentary)
Power Consumption	2mA @ 12/24VDC (deep sleep)
	10mA @ 12/24 VDC (radio-active sleep)
	20mA @ 12/24VDC (idle IP connection open)
	60mA @ 12/24 VDC (active on standby)
Back up Battery	Optional Lithium-Ion 200 mAh or 1000 mAh (See online technical specifications for latest details regarding battery options)

PHYSICAL

Dimensions	1.84" x 3.0" x 0.78" / 46.5 x 77 x 19.7mm (without harness)
Weight	3.5oz / 99g (with harness)

CONNECTORS, SIM ACCESS

SIM Access	Internal
Connection Type	Captive wire harness in 2 wire, 4 wire, and 6 wire configurations

KEY FEATURES

- GPRS and SMS-based messaging
- Sealed case option
- Internal GSM and GPS antennas
- Super sensitive GPS (-162 dBm)
- Optional internal back-up battery
- Ultra-low power sleep mode (<2mA) Optional 3-axis accelerometer for motion sense and tilt
- Up to 2 inputs and 2 outputs
- Voltage monitoring and low battery notification
- 2,000 buffered messages
- 10 built-in geo-fences
- Automatic, Over-The-Air Unit Configuration on Power-up (PULS™)
- Over-The-Air Firmware Download (PULS™)
- Web-Based Device Management (PULS™)

OPTIONAL FEATURES/FUNCTIONS

- Starter interrupt harness
- OBDII easy install harness

MOUNTING

Standard tie-wrap or adhesive