LMU-900™ GPRS/CDMA/HSPA Series

FLEXIBLE, ECONOMICAL GPS TRACKING UNIT

The LMU-900 is a flexible vehicle tracking product designed for easy and reliable installation in automobiles. The LMU-900 is an ideal solution for basic fleet, automotive insurance, stolen vehicle, vehicle finance, auto rental and other vehicle tracking applications.

Competitive Price, Competitive Technology, Competitive Edge

The LMU-900 high-value tracking unit from CalAmp features a small size, superior GPS performance, 3-axis accelerometer for motion and tilt sense, ultra low sleep modes, and four Inputs/Outputs (I/O). The LMU-900 is a complete vehicle tracking and communications device incorporating next-generation, super-sensitive GPS technology on GSM/GPRS cellular networks for installation in any 12 or 24 volt mobile vehicle. Superior internal antennas for both cellular and GPS eliminate the need for wired antennas and make the LMU-900 mountable virtually anywhere in the vehicle for easy, inexpensive installations. Messages are transported across the GSM/GPRS network using enhanced SMS or UDP messaging providing a reliable communications link between the device and your application servers. The LMU-900 is designed to dramatically reduce cost, power and size while providing excellent field reliability.

Flexibility

The LMU-900 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-900 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.

Experience *The Advantage*

- Economical and flexible device
- Superior GPS & cellular quality
- Built-in or external cellular and GPS antenna for easy installation
- Built-in 3 direction motion sense and tilt alerting
- Low power sleep modes
- Over-the-air update capability for configuration and firmware
- Internal and external antenna configurations

LMU-900 Specifications

General Specifications

Communication Modes	GPRS/EDGE/HSPA and CDMA 1xRTT packet data, UDP and SMS
Location Technology	50-channel GPS
Operating Voltage	12 and 24 volt vehicle systems

GPS Specifications

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

Cellular Specifications

Data Support	SMS, GPRS, CDMA 1xRTT or HSPA packet data
GSM/GPRS Quad-Band	850/900/1800/1900 MHz
GSM/GPRS Output Power	Class 4 (2 Watts) 850/900 bands Class 1 (1 Watt) 1800/1900 bands
CDMA Dual-Band	800/1900 MHz
CDMA Output Power	800: +24dBm 1900: +24dBm
HSPA/UMTS Dual-Band	900/2100 MHz (bands VIII, I) or 850/1900 MHz (bands V, II) 3GPP release 6 5.6 Mbps upload, 7.2 Mbps download
GSM/GPRS/EDGE Fallback	850/900/1800/1900 quad-band GPRS class 12, EDGE MCS1-MCS9

Comprehensive I/O

Digital Inputs	1 fixed / 3 programmable bias
Digital Outputs	4 open collector (150 mA)
Analog Inputs	1 external ADC / 1 internal VCC input monitor
Status LEDs	GPS and cellular

Certifications

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

Environmental Specifications

Temperature	-30° to +75° C (operating) -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 Specifications

Operating Voltage	6-32 VDC
Power Consumption	2 mA @ 12V (deep sleep) 10 mA @ 12V (sleep on network) 70 mA @ 12V (active standby)

Physical Specifications

Dimensions	2.125 x 3.5 x 0.625", (54 x 89 x 16 mm)
Weight	2.6 oz, (74 g) (internal)

Connectors, SIM Access

SIM Access	Internal
Connection Type	20 pin Molex-type fused power harness

Mounting

Standard tie-wrap or adhesive
Screw mount bracket

Key Features

- GPRS/EDGE/HSPA and CDMA 1xRTT packet data, UDP and SMS
- Internal or external cellular and GPS antennas
- Super sensitive GPS (-162 dBm)
- Ultra-low power sleep mode (<1mA)
- 3-axis accelerometer for motion sense and tilt
- 4 inputs and 4 outputs
- Voltage monitoring and low battery notification
- 2,000 buffered messages
- 10 built-in geo-fences
- PEG™ exception-based rules
- 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
- External GPS and cellular antennas
- Internal GPS and cellular antennas
- External backup battery
- Serial cable

Development Support Options

- Customized hardware and software development available on request

Air Superiority™

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