

LMU-5000™ HSPA/EVDO Series

ENTERPRISE 3G LINUX CELLULAR BROADBAND ROUTER,
GATEWAY AND LOCATION MESSAGING UNIT

CalAmp®



Competitive Edge

CalAmp's LMU-5000 has the versatility, speed, and expandability to meet customers' ever challenging needs in fixed or mobile broadband applications. With a powerful, lower power, 400MHz ARM9 embedded processor, the LMU-5000 boasts an adaptable platform featuring: 3G broadband routing, cellular gateway functions, a Programmable Event Generation engine, built-in 3-axis g-force measurements, multiple power management sleep modes, leading GPS sensitivity tracking technologies, and multiple interfaces all brought together under a flexible Linux operating system.

Expanded Interface

The LMU-5000 comes equipped with an Ethernet 10/100 port, both host and device USB ports, RS232 serial port, switch power TTL serial port, two 1-wire busses, seven inputs and seven outputs, and four A/D inputs. The LMU-5000 also supports advanced peripherals including laptops, USB dongles, Mobile Data Terminals (MDTs), RFID tags, and more.

Flexibility

The LMU-5000 software environment also employs CalAmp's industry leading on-board alert engine, PEG™ (Programmable Event Generator). The advanced PEG engine monitors external conditions and supports customer-defined, exception-based rules. PEG continuously monitors the environment and responds instantaneously to pre-defined threshold conditions related to time, date, motion, location, geo-zone, input and other event combinations.

Over-the-Air Serviceability

The LMU-5000 also incorporates CalAmp's over-the-air device management and maintenance software, PULS™ (Programming, Update and Logistics System). Linux applications, configuration parameters, PEG™ scripts, and firmware can all be updated over-the-air. You can also monitor unit health status across your installations to quickly identify issues before they become expensive problems.

All these capabilities packed into a small size are a competitive package second to none, designed to lower the cost of delivering, supporting, and growing countless broadband applications.

Experience The Advantage

- Superior 3G cellular and GPS wireless performance
- ARM 9 400MHz low power embedded processor
- Linux 2.6 operating system
- IP router and more
- Built-in 3-axis accelerometer for driver behavior, motion and impact sensing
- Advanced peripherals support
- Comprehensive I/O system
- 10/100 Ethernet interface
- Host and client USB
- Switched power serial ports



LMU-5000 Specifications

Processor Specifications

Processor	ARM9 32bit MCU
Speed	400 MHz
Flash	128M Bytes
RAM	64M Bytes @ 133 MHz bus speed
Real Time Clock	

Operating System, Software Interfaces, Security

Operating System	E Linux 2.6
Application Interfaces	TCP/IP, UDP/IP, DHCP, HTTP, IP Router, PPP, HTTP Web server, Telnet, DHCP server, DDNS, DDNS Client, NAT, NMEA, TAIP, TSIP, GPS, TFTP, IP port forwarding
Security	VPN (SSL v2, TLS v1) SSH server, SCP, SFTP

GPS Specifications

Location Technology	50-channel GPS with SBAS, DGPS
Location Accuracy	2.0 meter CEP (with SBAS)
Tracking Sensitivity	-162 dBm
Acquisition Sensitivity	-147 dBm
Kick Start	3 sec @ -130 dBm
AGPS Capable	

Cellular Specifications

HSPA Tri-Band	850/1900/2100 MHz diversity capability Downlink up to 7.2 Mbps Uplink up to 5.76 Mbps Fallback to HSDPA/UMTS/EDGE/GPRS
EVDO Rev A Dual-Band	800/1900 MHz diversity capability Downlink up to 3.1 Mbps Uplink up to 1.8 Mbps Fallback to CDMA 1X Rev 0 and CDMA 1XRTT

Comprehensive I/O

Digital Inputs	7 high/low selectable inputs, 0-30 VDC
Digital Outputs	5 relay driver outputs (200mA) 2 low current LED outputs (20mA)
Voltage A/D input	4 +/-0.1 V accuracy and voltage range 0-30 VDC
1-Wire® Interface	2 (driver ID, temperature sense)
Ground	2
Status LEDs	Status, COMM, and GPS

Certifications

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

Physical Specifications

Dimensions	5.2 x 2.7 x 1.2", (131 x 67 x 29mm)
Weight	5.4 oz, (153 g)

Electrical Specifications

Operating Voltage	7-32 VDC (running), 9-30 VDC (starting)
Power Consumption	10 mW (deep sleep) 1 W (sleep on GPRS network) 2.4 W (active tracking)

Environmental Specifications

Temperature	-30° C to 70° C (operating) -40° C to 85° C (storage)
Humidity	95% R.H. @ 50° C non-condensing
Shock and Vibration	U.S. Military Standard 202G and 810G, SAE J1455
EMC/EMI	SAE J1113

Connectors, SIM Access

SIM Access	Slot access
Cellular	SMA main, SMA diversity
External GPS	SMA (with tamper monitoring, 3.0v)
Ethernet	10/100 Base-T RJ45
USB	Host (standard), device (mini)
Serial	DB-9 (RS232), 5-Pin Molex (switch power TTL levels)
4-Pin Molex	Power, ignition, I/O
22-Pin Molex	I/O connections

Mounting

Tie wraps or adhesive
Screw mounting bracket

Optional Features/Functions

- All necessary antennas (GPS, cellular, combined GPS/cellular)
- Serial adapter cable RS-232 8-wire (PPP, AT commands, NMEA GPS output)
- jPOD adapter
- Connectorized I/O wiring harnesses

Development Support Options

- Customized hardware and software development available on request

jPOD™ Vehicle Bus Adapter



Air Superiority™