

HMU-3640LB™

Rugged LTE CAT 1 telematics gateway for heavy-duty equipment

The HMU-3640LB is engineered for heavy-duty machinery in construction, industrial, oil, mining, and agricultural applications. Its sealed IP66/IP67 design, global LTE CAT 1 connectivity, flexible wired interfaces, and edge programming deliver dependable data in demanding environments.

Cal/Amp®



DIMENSIONS

178 × 76 × 41 mm
(7.01 × 2.99 × 1.61 in)



WEIGHT

250 g
(8.8 oz)

Highlights



Global LTE CAT 1 connectivity with 3G and 2G fallback



Bluetooth Low Energy 5.2 connectivity for wireless peripherals



Modbus protocol support for industrial equipment integration



IP66- and IP67-rated sealed, MIL-STD-certified design



RS-232, RS-485, dual CAN, and multiple I/O interfaces



Built-in accelerometer and gyroscope support motion intelligence

PHYSICAL DESIGN

Dimensions 178 × 76 × 41 mm
(7.01 × 2.99 × 1.61 in)

Weight 250 g (8.8 oz)

CELLULAR

LTE CAT 1 Bands B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28, B32, B38, B39, B40, B41, B66

3G Bands B1, B2, B4, B5, B6, B8, B19

2G Bands B2, B3, B5, B8

Data Support SMS, UDP Packet Data, TCP, TLS

GNSS

Constellation Support GPS, GLONASS, SBAS (WAAS, EGNOS, MSAS)

GNSS Channels 55 Channels (with SBAS)

Tracking Sensitivity -167 dBm

Acquisition Sensitivity -156 dBm (hot start)
-148 dBm (cold start)

Location Accuracy 2.0m CEP Open Sky (SBAS 24 hours static)

Location Update Rate Up to 4 Hz

A-GPS Assistance Yes

Anti-Jamming Detection Yes

WIRELESS INTERFACES

Bluetooth BLE 5.2

VEHICLE BUS

Vehicle Connector Type J1939

Heavy-Duty Protocols J1939

ANTENNAS & SIM

SIM Access Internal (2FF SIM)

POWER

Operating Voltage 12/24 VDC Vehicle Systems
9-32 VDC (start-up, operating)
7-32 VDC (momentary)

Power Consumption Typical 300uA @ 12V (deep sleep)
Typical 20mA @ 12V (radio-active sleep)
Typical 100mA @ 12V (GPS tracking and cell enabled)

Battery Capacity 500 mAh

Battery Technology Nickel-metal hydride (NiMH)

Charging Temperature 0° to +40° C

ENVIRONMENTAL

Temperature -30° to +75° C (connected to primary power)
0° to +50° C (operating on internal battery)
-20° to +25° C ≤ 6 months (long term storage with battery)

Humidity 95% RH @ 50° C non-condensing

Shock & Vibration MIL-STD-202G, MIL-STD-810F, SAE J1455

ESD IEC 61000-4-2, 4 kV

Environmental Rating IP66 & IP67

SENSORS

Motion Sensor 3-axis accelerometer

I/O

Power / I/O Connector 12-Pin Mini-Deutsch Connector

Ignition Inputs 1 fixed bias

Digital Inputs 1 (high/low bias selectable 0-32 VDC)

Digital Outputs 1 (open collector relay 150mA)

Analog Inputs 1 (external ADC inputs, 0-32 VDC)

Status LEDs 4 (GPS, cellular, Wi-Fi/BT, CAN)

EDGE INTELLIGENCE

Firmware 32-Bit

Edge Programming PEG & EdgeApp32 SDK

Geofences Rectangle or radial zone: 21
Radial zones or vertices: 5400

Buffered Messages Up to 20,000

CLOUD / SOFTWARE SERVICES

Device Management Manage, configure, and deploy OTA software updates to connected assets at scale

CalAmp Telematics Cloud Stream telematics data into proprietary systems with flexible API integration

CalAmp App Fleet and asset management software for tracking, monitoring, and managing vehicles, equipment, drivers, assets, and cargo.

CERTIFICATIONS

Certifications FCC, CE, IC, PTCRB, RoHS

ACCESSORIES

Accessories [View accessories on CalAmp.com](#)