

TTU-2840XTreme™ LTE/GPRS/CDMA Series

Heavy Duty Tethered Trailer Tracking Unit
and Light Duty Vehicle Interface

Cal/Amp®



The TTU-2840XTreme weatherproof trailer tracking product is designed for reliable, long-term deployments. The TTU-2840XTreme's rechargeable battery pack makes it an ideal solution for managing assets that are normally tethered to 12 or 24 volt systems but may sit disconnected for periods of time.

Experience The Advantage

- LTE/GSM/GPRS, CDMA 1xRTT configurations
- 12 months with single message cycle per day on fully charged battery pack
- IP67 sealed enclosure
- High sensitivity GPS
- 3-axis precision accelerometer for driver behavior and impact detection
- 1 external ADC
- 12/24 volt operation
- 3 Inputs / 3 Outputs
- 1-Wire interface for driver ID, temperature sensors, and more
- Serial interface
- 20,000 buffered messages
- 32 geo-fences
- Over-the-air configuration and firmware updates
- Optional Wi-Fi/Bluetooth 4.0 Dual transceiver and antenna

Competitive Price, Competitive Technology, Competitive Edge

The TTU-2840XTreme high value tracking unit from CalAmp features a small size, superior GPS performance, an internal 5.3mAh battery and three Inputs/ three Outputs (I/O). The TTU-2840XTreme is a complete vehicle tracking and communications device incorporating next-generation, super-sensitive GPS technology on LTE, GPRS and CDMA 1xRTT cellular networks for installation in or on any 12 or 24 volt mobile vehicle. Superior internal antennas for both cellular and GPS eliminate the need for wired antennas and make the TTU-2840XTreme mountable virtually anywhere on 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 TTU-2840XTreme is designed for optimal size and power consumption coupled with superior performance and reliability resulting in dramatically reduced cost of ownership.

Flexibility

The TTU-2840XTreme employs CalAmp's industry leading on-board alert engine, PEG™ (Programmable Event Generator). This advanced engine monitors external conditions and supports customer-defined expectation-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 TTU-2840XTreme also 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 fleets to identify issues before they become expensive problems.

TTU-2840XTreme Specifications

General

Network Technologies	LTE/GSM/GPRS/EDGE/and CDMA 1xRTT
Data Modes	UDP packet data and SMS
Operating Voltage	12 and 24 volt vehicle systems

GPS

Location Technology	GPS; and QZSS capable
Enhancement Technology	SBAS: WAAS, EGNOS, MSAS
Receiver Type	56 channels
Tracking Sensitivity	-162 dBm
Acquisition Sensitivity	-148 dBm
Location Accuracy	2.0m CEP
Location Update Rate	up to 10 Hz
Anti-jamming	
AGPS / Location assistance capable	

Battery Pack

Battery Capacity	5.3 amp hour
Battery Voltage	3.7 volts
Battery Technology	Lithium ion
Charging Temperature	-20° to +60°C

Cellular/Bands

Operating Bands (MHz band)	
GSM/GPRS	850/900/1800/1900
CDMA/1xRTT	800/1900
LTE	700/850/AWS1700/1900 MHz

Certifications

Pending certification FCC, CE, IC, PTCRB, Applicable Carriers

Development Support Options

Customized hardware and software development available on request

Comprehensive I/O

Digital Inputs	3 (1 fixed, 2 programmable bias) 1-Wire™ Interface
Digital Outputs	3 open collector (200mA)
Analog Input	1 External ADC input
Status LED's	2 (GPS, Cellular)

Electrical

Operating Voltage	9-32 VDC (start-up, operating) 7-32 VDC (momentary)
Power Consumption	Typical 400uA @ 12V (deep sleep) Typical 10mA @ 12V (radio-active sleep) Typical 60mA @ 12V (active tracking w/GPS and cell enabled)

Environmental

Temperature	-20° to +70° 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

Physical

Dimensions	5.1 x 3.6 x 1.9", (130.52 x 91.99 x 48.97mm)
Weight	24.75oz / 703g (with harness) 11.25oz / 320g (without harness)

Connectors, SIM Access

SIM Access	Internal
Interface	12 wire connector

Key Features

- 12months with single message cycle per day on fully charged batteries
- 5.3 Ah lithium ion rechargeable battery pack
- IP67 sealed enclosure
- Packet data (GPRS,CDMA 1xRTT, and SMS-based messaging
- Internal Cellular and GPS antennas
- Super sensitive GPS tracking
- Ultra-low power save mode
- 3-axis accelerometer for motion, hard backing/acceleration, and impact detection
- 3 inputs and 3 outputs
- External ADC input
- 1-Wire™ Bus interface for temp sensor(s)
- Voltage monitoring and low battery notification
- 20,000 buffered messages for data logging during coverage loss
- 32 built-in geo-fences (and 5400 vertices for polygon zones)
- 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™)
- Serial port (TTL Level)
- Optional Bluetooth/WiFi

About CalAmp

CalAmp (NASDAQ: CAMP) is a telematics pioneer leading transformation in a global connected economy. We help reinvent businesses and improve lives around the globe with technology solutions that streamline complex IoT deployments and bring intelligence to the edge. Our software applications, scalable cloud services, and intelligent devices collect and assess business-critical data from mobile assets, cargo, companies, cities and people. We call this The New How, powering autonomous IoT interaction, facilitating efficient decision making, optimizing resource utilization, and improving road safety. CalAmp is headquartered in Irvine, California and has been publicly traded since 1983. Lojack is a wholly owned subsidiary of CalAmp. For more information, visit calamp.com, or LinkedIn, Twitter, YouTube or CalAmp Blog.

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