CalAmp®
CONNECTING TOMORROW TODAY

TTU-1220™ GPRS/CDMA/HSPA Series

6 Month Rechargeable Trailer Tracking Unit

EXPERIENCE THE ADVANTAGE

- 500 message cycles on fully charged battery pack

- 18 months with 0 messages until a final 30 min tracking session

- 6 months with single message cycle per day on fully charged battery pack

- Superior cellular and GPS quality

- IP66 sealed enclosure

- Built-in 3-axis accelerometer for motion sense and impact detection

- Built-in cellular and GPS antenna for easy installation

The TTU-1220 rechargeable battery pack trailer tracking product is designed for reliable, multi-year deployments. The TTU-1220 is an ideal solution for managing assets that are normally tethered to 12 or 24 volt systems but may still idle for extended periods.

COMPETITIVE PRICE, COMPETITIVE TECHNOLOGY, COMPETITIVE EDGE

The TTU-1220 high-value tracking unit from CalAmp features a small size, superior GPS performance, an internal 5.2 Ah battery and three Inputs/Outputs (I/O). The TTU-1220 is a complete vehicle tracking and communications device incorporating next-generation, super-sensitive GPS technology on GPRS, CDMA, and HSPA 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 th TTU-1220 mountable virtually anywhere in the vehicle for east, 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-1220 is designed to dramatically reduce cost of ownership, power and size while providing excellent field reliability.

FLEXIBILITY

The TTU-1220 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-1220 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.

TTU-1220 SPECIFICATIONS

GENERAL

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

Location Technology	GPS; GLONASS, and QZSS capable
Enhancement Technology	SBAS: WAAS, EGNOS, MSAS
Receiver Type	50 channels
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	

PHYSICAL

Dimensions	2.125" x 4.33" x 1.59", (54 x 110 x 40.4mm)
Weight	12 oz / 340 g (with harness)

CONNECTORS, SIM ACCESS

SIM Access	Internal

CELLULAR

Data Support	SMS, GPRS, CDMA, 1xRTT or HSPA packet data

Operating Bands (MHz)

GSM/GPRS	850/900/1800/1900
CDMA/1XRTT	850/1900
HSPA/UMTS	800(VI)/850(V)/900(VII)/1700(IV)/1900(II)/2100(I)

Transmitter Power

GSM/GPRS	850/900	32.5 dBm
	1800/1900	29.3 dBm
	850	24 dBm
CDMA/1XRTT	1900	23 dBm
HSPA/UMTS	(all bands)	23 dBm
HSPA data rates	5.6 Mbps upload/ 7.2 Mpbs download	
HSPA Fallback	EDGE/GPRS/GSM quad band EDGE MCS1-MCS9 3GPP Release 6	

COMPREHENSIVE I/O

Digital Inputs	3 fixed bias
Digital Outputs	3 open collector (200mA)
Status LED's	GPS and Cellular

ENVIRONMENTAL

Temperature	-30° to +85° C (connected to primary power) -30° to +70° C (connected to battery power) -40° to +60°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

Operating Voltage	9-32 VDC (startup, operating) 7-32 VDC (momentary)
Power Consumption	<1mA @ 12V (deep sleep) <16.7mA @ 12V (SMS only) <37mA @ 12V (SMS, data, and GPS) <75mA @ 12V (Continuous Transmit)
Back Up Battery	3.7 Volt Lithium-Ion 5.2AH 6 hour charge time -15° to +55° C charging temperature

MOUNTING

Screw mount bracket, Standard tie-wrap or adhesive

KEY FEATURES

- 6 months with single message cycle per day on fully charged batteries.
- 3.8 Ah lithium ion rechargeable battery pack
- IP66 sealed enclosure
- Packet data (GPRS,CDMA 1xRTT, or HSPA) and SMS-based messaging
- Internal GSM and GPS antennas
- Super sensitive GPS tracking
- Ultra-low power save mode (<2mA)
- 3-axis accelerometer for motion sense and impact detection
- 3 inputs and 3 outputs
- Voltage monitoring and low battery notification
- 2,000 buffered messages
- 4 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™)

CERTIFICATIONS

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

DEVELOPMENT SUPPORT OPTIONS

Customized hardware and software development available on request

About CalAmp

CalAmp Corp. (NASDAQ: CAMP) is a proven leader in providing wireless communications solutions to a broad array of vertical market applications and customers. CalAmp's extensive portfolio of intelligent communications devices streamline otherwise complex machine-to-machine (M2M) deployments. These solutions enable customers to optimize their operations by collecting, monitoring and efficiently reporting business critical data and desired intelligence from high-value remote assets. For more information, please visit www.calamp.com.