



# TTU-1230 GPRS/CDMA/HSPA Series

## 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
- 3 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-1230 rechargeable battery pack trailer tracking product is designed for reliable, multi-year deployments. The TTU-1230 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-1230 high-value tracking unit from ThinAir features a small size, superior GPS performance, an internal 5.2 Ah battery and three Inputs/Outputs (I/O). The TTU-1230 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 the TTU-1230 mountable virtually anywhere in 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-1230 is designed to dramatically reduce cost of ownership, power and size while providing excellent field reliability.

### FLEXIBILITY

The TTU-1230 employs ThinAir's industry leading alert engine. This advanced engine monitors external conditions and supports customer-defined expectation-based rules to help meet the needs of your application. The alert engine 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 this engine, your unique application will meet demanding customer requirements. This behavior can be programmed by ThinAir before shipment at a customer's facility, or over-the-air once the unit has been fielded.

### OVER-THE-AIR SERVICEABILITY

Configuration parameters, alert engine rules, and firmware can all be updated over the air. The system 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-1230 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	56 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 40.4 mm)
Weight	12 oz / 340 g (with harness)

## CONNECTORS, SIM ACCESS

SIM Access	Internal
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## 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(III)/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 Mbps download
HSPA Fallback	EDGE/GPRS/GSM quad band
	EDGE MCS1-MCS9
	3GPP Release 6

## COMPREHENSIVE I/O

Digital Inputs	1 fixed bias
	2 programmable bias
Digital Outputs	3 open collector (200 mA) GPS
Status LED's	and Cellular

## About ThinAir

ThinAir Telematics, based in Houston, Texas, is the premier provider of fleet management and GPS tracking solutions for any size business. Our solutions offer real-time insight into mobile and fixed assets to reduce operational costs and improve customer service, safety, and security. Our intuitive web-based and mobile applications empower users to quickly adopt and realize rapid ROI. For more information, please visit [www.thinair.co](http://www.thinair.co)

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

## MOUNTING

Screw mount bracket, Standard tie-wrap or adhesive

## KEY FEATURES

- 3 months with single message cycle per day on fully charged batteries.
- 5.2 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
- 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™)

## CERTIFICATIONS

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

## ThinAir Telematics LLC

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All specifications are typical and subject to change without notice

