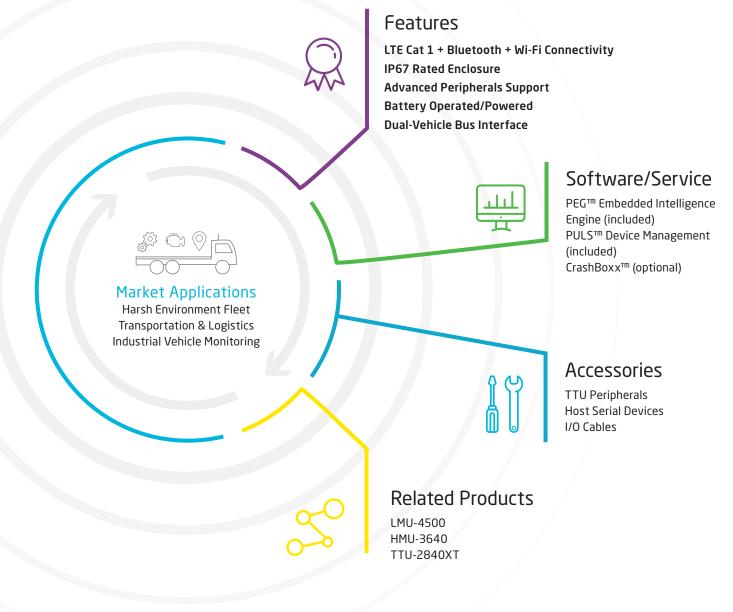
TTU-3640^m

Weatherproof Telematics Gateway Built for Rugged Environments



The TTU-3640[™] is a next-generation telematics gateway built for extreme environments. Providing enterprise applications and fleet features utilizing both cellular and peripheral connectivity (Bluetooth/Wi-Fi) combined with our leading ECU (Engine Control Unit) interface to deliver instant vehicle updates for both light and heavy duty vehicles.



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Cal/Amp[®]

CalAmp 15635 Alton Pkwy Ste 250 Irvine, CA 92618 888.3CALAMP calamp.com

TTU-3640[™] Technical Specifications

Cellular/Network

North American Variant

LTE Cat 1 HSPA/UMTS 1900 (B2)/AWS 1700 (B4)/850 (B5)/700 (B12) MHz 850 (V)/1900 (II) MHz

Data Support

SMS, UDP, TCP, CalAmp Telematics Cloud API

Satellite Location (GNSS)

Constellation Support	Hybrid GPS, GLONASS, SBAS Engine (WAAS, EGNOS, MSAS)
Channels	55 Channel
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
AGPS Location assistance capable	

Comprehensive I/O

Ignition Input	l (fixed bias)
Digital Inputs	4 (high/low bias selectable 0-30 VDC)
Digital Outputs	3 (open collector relay 150mA)
Analog Inputs	1 external ADC inputs
1-Wire [®] Interface	l (driver ID/temperature sense)
DC Power Outputs	1 switched VIN, 2 (reference voltage 3.3V)
Accelerometer	Built in, triple-axis (driver behavior, impact detection,
	motion sensing, tilt detection)
Status LEDs	4 (GPS, cellular, VBUS, LAN)
Serial Interface	2 TTL ports

Certifications

Industry Certifications

FCC, IC, PTCRB, RoHS

Device Management

PULS™ Monitor, manage, upgrade firmware, configure and troubleshoot devices remotely

Embedded Intelligence Engine

n Update device functionality or develop new on the edge applications

CALIFORNIA PROPOSITION 65



This product can expose you to chemicals including Carbon black and Nickel, which are known to the State of California to cause cancer, and including WARNING: Bisphenol A and 1,3-Butadiene, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Electrical

Operating Voltage	12/24 VDC Vehicle Systems
	9-30 VDC (start-up, operating)
	7-32 VDC (momentary)
Power Consumption	Typical 500uA @ 12V (deep sleep)
	Typical 15mA @ 12V (radio-active sleep)
	Typical 100mA @ 12V (active tracking with GPS and cell enabled)

Battery Pack

Battery Capacity	Up to 5200 mAh
Battery Technology	Lithium-Ion
Charging Temperature	0° to +45° C

Environmental

Temperature	-30° to +60° C (connected to primary power)
	-10° to +60° C (operating on internal battery)
	-20° to +25° C \leq 6 months (long term storage with battery)
Humidity	95% RH @ 50° C non-condensing
Shock and Vibration	U.S. Military Standards 202G, SAEJ1455
ESD	SAEJ1113-13 (4KV Limit)
Ingress Protection Rating	IP67

Physical/Design

Dimensions	7.1 x 3.4 x 2.2" (178.7 x 86.1 x 55.9 mm)
Weight	12 oz. (340g) (w/ 5200mAh Battery)

Connectors/SIM Access

Vehicle BUS I/F	34-Pin 2.5mm Pitch Sealed
SIM Access	Internal (2FF SIM)

Interface Standards

Bluetooth	Classic Bluetooth v2.1+EDR and BLE v4.0
Wi-Fi	802.11 a/g/b/n client mode
Heavy Duty Truck Data	J1939, J1708
Light Duty Vehicle Data	J1850 PWM, J1850 VPW, SW-CAN
	ISO 9141-2, KWP 2000, ISO 15765 CAN

Product Options

RS-232 on Aux 2

I/O wiring harness

200, 1000 mAh Lithium-Ion backup battery