

# TW400



The **connection** of things.®

## Sprite™ TW400, Fleet Tracker

LTE Cat M1

### Overview

The Sprite TW400 is a robust telematic development platform, that incorporates a LTE CAT M1 modem, multi-constellation GNSS/GPS receiver, powerful processing engine, and a triple-axis accelerometer for monitoring operator driving behaviour.

### Competitive Edge

The TW400 is designed for fleet tracking applications. The TW400 puts you in the passenger seat of every vehicle. The cellular tracking device provides configurable event reporting of location, I/O, Odometer, Engine Idle times and driving behaviour.

The TW400 fleet tracking application offers our proprietary Contrails data compression algorithm which provides a superior location reporting resolution while minimizing network data usage offering you operational savings.

### Accelerate your development cycle

Our telematics devices and fleet-tracking solutions make connecting to cellular networks easy, eliminating the complexities associated with cellular design and certification. The TW400 fleet tracker provides developers accelerated time-to-market which significantly reduces development costs. The TW400 embedded asset management application is available with either the Tallymatics proprietary messaging or the ISO standard MQTT Message Queuing Telemetry Transport protocol enabling easy integration with either Amazon Web Services or Microsoft Azure IoT.



### Tallymanager Portal

Easily manage the configuration and firmware updates of all your devices with the Tallymanager Device Management Portal. The web application provides an intuitive interface for easy of configuration and management of your devices. Updates are automatically pushed to devices over the air.

Status and diagnostic information for the TW400 devices are updated periodically in the portal so you can confirm operation. A map display provides feedback on the location of your devices.

### Features

- Multi-regional LTE Cat M1
- High sensitivity GNSS (GPS/Glonass/Galileo) receiver
- 20 Pin Molex locking connector, pin for pin compatible with CapAmp devices
- Internal/External antenna options
- Out of the box support for AWS & Azure with MQTT
- Integrated RS232 for direct Peripheral connectivity
- Store and forward data integrity
- Available CANbus for OBDII direct connect

### Benefits

- Easy to install and provision
- High resolution fleet tracking to the block level
- Motion sensing, hard braking, impact detection
- Automatic over-the-air configuration and firmware downloads
- Comprehensive Management Reports
- Access to Tallymanager Device Management Portal
- Assured message delivery with up to 20K persisted messages
- Global access with carrier agnostic global SIM cards
- Proprietary lossless data compression lowers operating cost

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## Specifications

### Cellular Network

LTE module for multi-regional Cat M1/NB1  
North America.....LTE Cat M1, (Bands: 2,4,5,12 and 13)  
Micro Sim Access.....Ordered separately (3FF)  
Contact for Global regional network compatibility.

### GNSS Satellites

GNSS (3-concurrent).....72 channel support  
Acquisition Sensitivity.....-160 dBm Hot start -148 dBm Cold start  
Tracking Sensitivity.....-167 dBm  
Location Accuracy.....~ 2.5 m CEP 50%  
Location rate.....Up to 10Hz

### Antennas

Integrated GNSS antenna.....Dual feed w/ excellent multipatch rejection  
Integrated Cellular.....Multi-band w/ 100mm ground plane  
for Superior performance  
External Antennas.....Optional

### System Features

3-axis Accelerometer.....Event monitor, crash detection,  
behaviour insurance  
Status LED's.....GPS and Cellular status

### Certifications

.....PTCRB-CTIA, FCC, AT&T, CE, RoHS

### Connectors

20 Pin Molex Locking.....Compatible with CalAmp devices  
Optional external antennas.....SMA for GPS & SMC for Cellular

### Signal I/O

Ignition Input.....Active high (8V to 32V)  
4x Digital Input.....Active High (0.7V minimum Active)  
3x Digital Output.....Open collector (200mA sink)  
1x Analog Input.....(0V to 32V)  
2x Serial Ports.....2 wire RS-232 (option: 1xCAN / 1xSer)  
1-Wire (Dallas).....(ie: Driver ID or Temperature Sensor)  
3V3 DC Output.....Switched (50 mA)

### Electrical

Operating voltage.....8V to 32V  
Power Consumption.....Active nominal (60 mA)  
Standby (1 mA)

### Environmental

Temperature.....-35C to +70C  
Humidity.....95% RH non-condensing  
Shock & Vibration.....3 Axis sweep -15 min  
100 - 200 Hz log sweep 3G

### Mechanical

Dimensions.....4.625" x 2.15" x 0.87" (L/W/H)  
Weight.....110 gm

## Ordering Information:

<b>TW400 (Internal Antennas)</b>	<b>33-0400-000</b>
<b>TW400 (External antenna)</b>	<b>33-0400-010</b>
<b>TW400 (Internal w/CAN)</b>	<b>33-0400-100</b>
<b>TW400 (External w/CAN)</b>	<b>33-0400-110</b>



**TALLYMATICS®**

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Tallymatics manufactures high performance, telematics products and solutions for a wide range of applications. With support for both RF wireless and data networks, Tallymatics enables high-resolution location awareness of mobile field assets across any type of wireless network. Tallymatics is a division of Tallysman.

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