

Qualcomm® QTS112 Thin Tracker

A credit card-size, reusable thin tracker that provides the shipping industry with location visibility for tracking in outdoor and indoor environments.

Most large companies have little to no visibility of the actual whereabouts of their shipments. The Qualcomm® QTS112 Thin Tracker is purpose-built specifically for the shipping industry to offer an extremely compact and cloud-monitored tracking solution for real-time visibility of any shipment of goods in a multimodal land, sea, and air transportation environment.

The QTS112 Thin Tracker is an intelligently connected, out-of-the-box ready tracking solution with a low cost of ownership, providing an invaluable tool for businesses that ship goods.



Highlights

Thin tracker for the supply chain

- Built using proven Qualcomm® 216 Modem
- Integrated, secure eSIM allowing connectivity over LTE Cat 1bis module optimized for IoT applications
- Designed for poor-RF coverage environments



Qualcomm Aware Cloud-integrated

- Pre-integrated with Qualcomm Aware Cloud
- Qualcomm Aware service APIs for enterprise integration, location, and service management
- Intuitive web application for managing device and sensor configuration and firmware updates



Ultra-low power operation

- Highly optimized, extremely low-power operation for positioning and cellular communication
- Support for up to 500 periodic updates on a single charge



State-of-the-art positioning support

- Multi-technology positioning solution using both cellular and Wi-Fi scanning
- Periodic location reporting and geofence alerts configurable through Qualcomm Aware Cloud
- Cloud-driven configurable hierarchy of location technologies for the best location at low power
- Optional automated cloud-led deployment of location profiles based on journey requirements



Benefits of tracking shipments

- Monitor all shipments and communicate order status to customers at any point in time.
- Provide estimated delivery dates and frequent updates on an order status. Inform customers well in advance if their order is going to be delayed.
- Inform customers if an item from their shipment is going to be delivered separately and how that will impact delivery estimates.
- Reduce the number of customer complaints.



QTS112 Applications

- Package Tracking
- Logistics
- Container Shipment Tracking
- In-Transit Theft Detection Geofencing
- Supply Chains

Features

- Turnkey connectivity via eSIM supporting multi-country roaming
- Positioning via cellular scan relies on serving, neighbor cells measurements
- Uses a global collection of 60M cell sites and the Qualcomm® Terrestrial Positioning Service (TPS) with a database of 8B+ geolocated MAC addresses to provide accurate location
- Integrated Wi-Fi 2.4 GHz for Wi-Fi measurements enhances location accuracy by referencing a database of billions of geolocated beacons
- Suitable for indoors, urban canyons, and open sky
- Cellular scan-based accuracy: a few 100 meters*, Wi-Fi scan-based accuracy: a few 10s of meters*
- Low-power sensor processing
- 5 days of use or more based on cloud configurable location reporting interval
- LED to indicate charging and device status
- Multitude of power optimizations such as support for 3GPP PSM feature and optimized cellular and Wi-Fi scanning
- Cloud-configurable location and sensor parameters that offer a trade-off between performance and power

* Specified location accuracies are observed under specific set of conditions (e.g., dense urban for Wi-Fi positioning)

Related Products

This product was built using the [Qualcomm® 216 LTE IoT Modem](#), a low power IoT-optimized LTE modem featuring integrated terrestrial positioning support.

Cloud Integration

- A Qualcomm Aware Cloud agent on device allows the device to be commissioned for customer shipment journey via the cloud.
- The cloud can control power, connectivity, and device management policies through the cloud agent or dashboard.
- Location, device health data, diagnostic data, and alerts sent from device to cloud are encrypted and can be unencrypted by the cloud.
- Software can be updated remotely to add new features to the device by means of a FOTA package push from the cloud.

Specifications

Dimensions	86 mm x 56 mm x 3.5 mm
Weight	23 g
Cellular Technology	LTE Technology: Rel.14 LTE Cat 1bis
Modem	Qualcomm® 216 LTE IoT modem
Connectivity	Pre-provisioned for out-of-box connectivity
RF Bands - LTE FDD	B1/B3/B5/B7/B8/B20/B28
Location	Qualcomm® Terrestrial Positioning Service using QCX216 Cellular and Wi-Fi-based scans
Supported Sensing Algorithms	Flight mode detection, motion detection, and motion state change to support ultra-low power consumption and sleep state
Tracking Platform	Location, alerts, notifications, geofencing
Battery	200 mAh lithium-ion polymer rechargeable battery
Charging	Charging cradle. 0 to 100% in 2.5 hours
Operating Conditions	Temperature: -20° C to 60° C Humidity: 85% RH (no condensation)
LED	LED indicating device status
Certification	CE/TELEC/Korea/RoHs/WEEE/Reach
IP Rating	IP65

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