QTM-UAR10 & QTM-UMR10

Fully Integrated Millimeter-Level Sensor for Mobile or Anchor Node Operation

ZERØKEY
SPATIAL INTELLIGENCE

QTM-UAR10 and QTM-UMR10 are fully integrated, compact, rugged devices for anchor or mobile operation. Flexible in operation, the anchor nodes can be mounted anywhere coverage is needed on a permanent or temporary basis. Mobile nodes can be used to track any asset for mm-level, 3D, real-time positioning. The nodes feature internal battery for 24-hour operation, an LED for status identification and push button to trigger events.

Hyper-Accurate, Always Available at High Data Rates

Quantum RTLS technology uses ultrasonic signals to provide unmatched mm-level position accuracy. Fusing Received Signal Strength Indicator (RSSI) and Inertial Measurement Unit (IMU) technology ensures positioning is always available and output at 20 Hz rates

Self-Calibrating

Automated calibration allows network localization to be completed rapidly with no need for survey measurements. Anchor networks can be setup quickly for both permanent and temporary installations.

Portable Wireless Operation

Each UAR10 and UMR10 is equipped with a high-speed radio and rechargeable battery capable of 24 hours of wireless operation in any mode. Positioning systems can be setup and torn down in minutes supporting rapid innovation and portable applications.

Flexible Powering Options

Units can be powered with standard USB accessories to extend battery life or provide permanent power. Mobile nodes can also be hard wired to a machine power source for external power.

Push-Button for Event Triggering and Recording

The UMR10 push-button allows users to mark their position or to start and stop external processes in custom applications.

Rugged Industrial Design

Impact-resistant design with high grade materials intended for use in demanding industrial environments.

Key Features

- 1.5mm 3D position accuracy[1]
- 20 Hz update rate
- Advanced tri-source sensor fusion with ultrasonic, RSSI and IMU integration
- Available in anchor or mobile nodes
- Battery or external USB power input
- Long-range operation (20m)
- 24-hour battery life
- Easy setup and self-calibrating
- Flexible mounting options
- Compact, rugged enclosure
- Open-API and extensible plugin interfaces for seamless integration

1. Under unobstructed conditions with view to 6 anchor nodes with ideal geometry.

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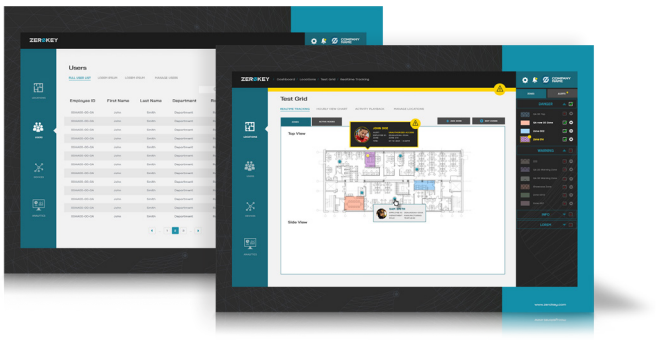
Accelerate Innovation with ZeroKey's Pilot Kit

The QTM-UAR10 and QTM-UMR10 can be ordered as part of a complete positioning system to accelerate innovation. The kit includes:

- 6 Anchor Nodes
- 2 Mobile Nodes
- 1 ZeroKey Gateway
- Mounting Hardware
- Charging Accessories

Seamless Spatial Analysis

ZeroKey's Spatial Intelligence Platform automatically organizes, identifies, and interprets spatial information in order to represent your enterprise operations in 4D. Spatial analysis becomes effortless as the complexity of understanding spatial data is eliminated. Inferences of spatial relationships become clear, allowing you to solve operational problems before they happen.



Dimensions	62.4 x 45.3 x 17.7 mm
Weight	30g
Accuracy (Ultrasonic)	1.5 mm[1]
Update Rate	20 Hz
Charge Port	Micro-USB
Battery Life	24 hours (typical)
Maximum Range	20 m
Wi-Fi Coexistence	Yes
Bluetooth Coexistence	Yes
Operating Temperature	-20 to 60°C
Operating Humidity	5 to 95% Non-condensing
Shock	200g (max)
Vibration	3g (max)
Interfaces	Status LED, push button
Mounting Options	Screw, strap, adhesive, magnet, and velcro
RF Band	2.4 GHz ISM
RF Modulation	GFSK
RF TX Power	0-8 dBm
RF RX Sensitivity	-90 to -97 dBm
RF TX Burst Duration	2.8 - 3.2 ms
Ultrasonic Frequency Band	50.0KHz +/- 0.1KHz
Ultrasonic Output	96 dB SPL (max)
Ultrasonic Duty Cycle	2.8% (min) 3.2% (max)
Certifications	FCC (US) / IC (Can) / CE (EU) / VCCI (JP) / K (KR)

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*Information Subject to Change

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