



QTM-DWR10

Wearable Quantum RTLS Wristband Tracker for Hand Tracking, Process Digitization, Quality Control, and Digital Twinning.

ZEROKEY
SPATIAL INTELLIGENCE

QTM-DWR10 is a Quantum RTLS millimetre-accurate wristband positioning device that precisely digitizes hand movement during complex workflows. Low latency with high data-rates supports real-time quality control, along with operational visibility, safety and digital twinning.



Hyper-Accurate, Always Available at High Data Rates

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



Digitize Human-Centric Processes Like Never Before

Human-centric processes are digitized with nearly infinite resolution to provide the quality and spatial context to generate true insight from your data.



Real Time Quality Control Eliminates Rework and Recall

Millimetre-accuracy precisely digitizes workflows to enable real-time quality control to ensure all process steps are completed correctly and in the right sequence.



Reliable Performance In All Environments

Unlike Radio Frequency signals, ultrasonic signals are not impacted by metallic objects typical of industrial settings. Quantum RTLS delivers continuous hyper-accurate positioning in any environment.



Wireless and Wearable in Industrial Environments

QTM-DWR10 is equipped with a high-speed radio and a rechargeable battery capable of 24 hours of continuous wireless operation. Available with a watch-style wristband or optional breakaway wristband for personal safety in demanding environments.

Key Features

- Interoperable with all Quantum RTLS Devices
- 1.5mm 3D position accuracy¹
- 20 Hz update rate
- Advanced tri-source sensor fusion with ultrasonic, RSSI and IMU integration
- Long-range operation (20m)
- 24-hour battery life
- Micro-USB rechargeable
- Lightweight, rugged enclosure
- Water, oil, and sweat resistant design

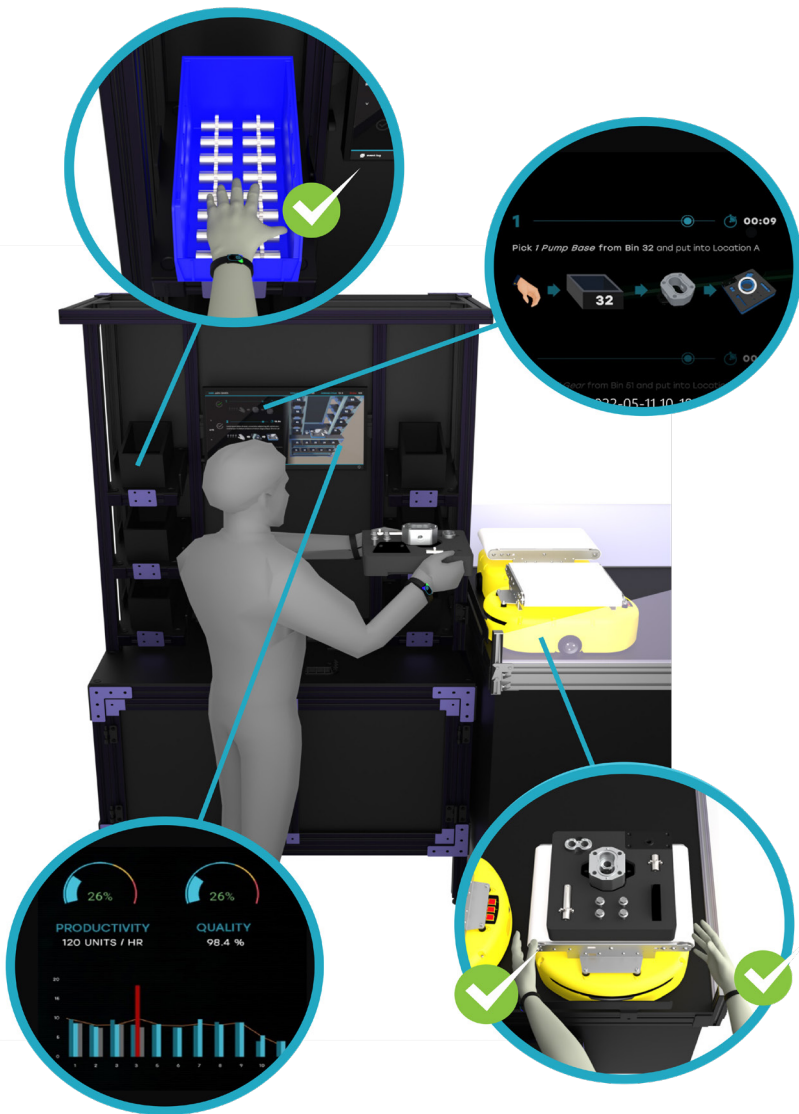




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Maximize Quality and Streamline Workflows

With high accuracy workflow digitization, tasks can be validated to ensure they are completed correctly and production targets are met, while step-by-step instructions can be displayed as users progress through their workflow. Cycle time data collection is automatic and empowers process optimization analytics, while human-to-machine interfacing can be automated.



Dimensions	37.5 x 25.5 x 13 mm (sensor)
Weight	12g (sensor)
Accuracy (Ultrasonic)	1.5 mm ¹
Update Rate	20 Hz
Battery Power	Li-ion Polymer Battery
Battery Life	16 Hr
Maximum Range	20 m
Wi-Fi Coexistence	Yes
Bluetooth Coexistence	Yes
Operating Temperature	-10° to 60°C
Operating Humidity	5 to 95% Non-condensing
Shock	200g (max)
Vibration	3g (max)
Interfaces	Status LED, push button
Mounting Options	Watch Strap, Break-away Strap
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)

† Pat. US 9/977,113, US 10/051,599, US 10/448,357, US 10/627,479, US 10/736,075, US 10/893,502, CN109073740B, KR102252251B1, US 15/339,885, US 15/982,750, US 16/031,553, US 16/560,543, US 16/820,445, US 16/919,822.

See <https://zerokey.com/patents> for a complete list of patents applicable to this product.

v. 122022 *Information Subject to Change