QTM-SMR10

Wearable Device for Operational Visibility, Safety and Contact Tracing

ZERØKEY
SPATIAL INTELLIGENCE

SMR10 is a millimetre-accurate personal positioning device for operational visibility, safety and contact tracing. Users are alerted through vibration and audio alarm if they enter a pre-configured danger zone or if their proximity to other devices is within a configurable minimum distance. SMR10 ensures frontline worker safety with reliable, real-time detection of unsafe situations.

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 and output at 20 Hz rates.

Real-Time Audio and Vibration Alarming

Create safer workplaces with hyper-accurate red zone geofencing and real-time personnel alerts. Users receive instantaneous alerts when unsafe behavior is detected or when geofenced areas are breached. The sensor can be used to perform contact tracing, to ensure compliance with safety rules and to protect workers during non-routine operations.

Wireless and Wearable in Industrial Environments

SMR10 is equipped with a high-speed radio and a rechargeable battery capable of 24 hours of wireless operation. The durable clip secures the sensor to any piece of clothing for maximum protection at all times.

Push-Button for Event Triggering and Recording

The SMR10 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

- Alerts users through vibration and audio alarm

- Configurable static or dynamic virtual alert zones

- Contact tracing

- 24-hour battery life

- Interoperable with all Quantum RTLS devices

- Open-API and extensible plugin interfaces for seamless integration

Operational Visibility with Infinite Resolution

The SMR10 sensor allows businesses to track and assess operational efficiency in real-time and incorporate actionable insights back into processes to optimize even the most complex workflows. Quantum RTLS technology gives customers complete operational visibility by precisely digitally twinning facility-wide operations in real-time.

Business Intelligence Through Spatial Intelligence

Quantum RTLS data is transformed into powerful insight using ZeroKey's Spatial Intelligence Platform. Captured or real-time data can be monitored, visualized, analyzed, and reported, resulting in true business intelligence through spatial intelligence. A modular plug-in interface allows an a la carte approach to targeting specific use-cases, integration platforms, and data flows.

Dimensions	45x62x18 mm
Weight	30g
Charge Port	Micro-USB
Battery Life	24 hours (typical usage)
Alert Modes	Vibration, audible alarm, LED
Proximity Alert	2m (adjustable)
Ultrasonic Range	20m Max
Accuracy (Ultrasonic)	1.5mm
Accuracy (Fall Back)	2.5m
Update Rate	20 Hz
Wi-Fi Coexistence	Yes
Bluetooth Coexistence	Yes
Operating Temperature	0°C < Tamb < + 60°C
Operating Humidity	5 to 95% Noncondensing
Ingress Rating	IP54
Interfaces	Push Button
Mounting Options	Clip on, Lanyard
RF Band	2.4 GHz
RF Mod	GFSK @ 2Mbs
TX Power	8 dBm max
RX Sensitivity	-92 dBm
TX Burst Duration	2.8-3.2 ms
Ultrasonic Frequency Band	50.0 KHz +/- 0.1kHz
US Output	96 dB SPL (max)
US Duty Cycle	2.8% (min), 3.2% (max)
Certifications	FCC (US) / IC (Can) / CE (EU) /UK (RED) /AUS-NZ / 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.

1. For a single device only   v. 122022   *Information Subject to Change