MIRION
TECHNOLOGIES

MONITORING

Orion™ Anchor

Orion Real-Time Location System Component

ORION
REAL-TIME
LOCATION SYSTEM

FEATURES

- Ultra-Wideband enabled RF communication
- PoE enabled functionalities
- IPv4 networking
- Daisy Chainable network connections for power and communications from one PoE+ port
- Available wall or ceiling mounts

RELATED PRODUCTS

- Orion Studio Software
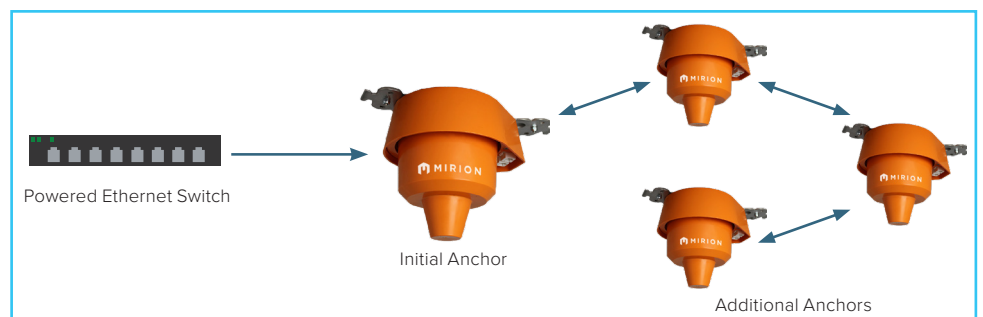- DMC 3000™ Location Telemetry (LTx) Module
- Orion RTLS Asset Tag

DESCRIPTION

The Orion Real-Time Location System supports Critical Path activities by providing postion data for compatible devices (e.g. Dosimeters and Asset Tags). Anchors are placed throughout the monitored area to capture and relay location data for visualization on a monitoring station. Installation is simple, using a daisy chain RJ45 configuration with Power Over Ethernet (PoE) connections. For temporary mounting installations, anchors have an available magnetic mount for rapid deployment and removal.

PRODUCT FUNCTION

The Orion RTLS Anchor actively communicates with integrated Orion products including DMC 3000™ LTx and Orion Asset Tags, to track the location of the dosimeter, equipment and critical assets. Anchors determine and communicate position data based on Ultra-Wideband Time of Flight and Angle of Attack reference signals. Tracked personnel and assets are presented on the Orion Studio Software for dynamic location visualization.

An initial cable runs from a powered Ethernet switch to the first Anchor. Additional Anchors connect through a Daisy Chain configuration

Powered Ethernet Switch

Initial Anchor

Additional Anchors

Orion Anchor Flowchart

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PERFORMANCE

Ultra-Wideband Location Technology

- FCC/IC Certified
- Complies with FCC Part 15.250 Subpart C
- Power Output/Range: 0.9 mW/100 m line of sight
- 6178.9 MHz to 6731.4 MHz
- Highest emission peak 6544.5 / 6644.4 MHz
- Peak Gain (dBi) 1.4

An appropriately configured Orion Anchor network, can provide a location resolution of 1 m

SPECIFICATIONS

Energy consumption
- 120 V, 60 Hz; 230 V, 50 Hz via -48 V dc PoE

Frequency
- 6.5 GHz nominal

IP rating
- IP 43 (Water Spray)

IEC rating
- IEC 60068-2-1
- IEC 60068-2-2
- IEC 60068-2-14

Weight
- 0.8 kilograms with drip cover
- 0.4 kilograms without drip cover

Environmental
- Temperature range: -10 °C to 50 °C (14 °F to 122 °F)
- Storage: -20 °C to 71 °C (-4 °F to 160 °F)
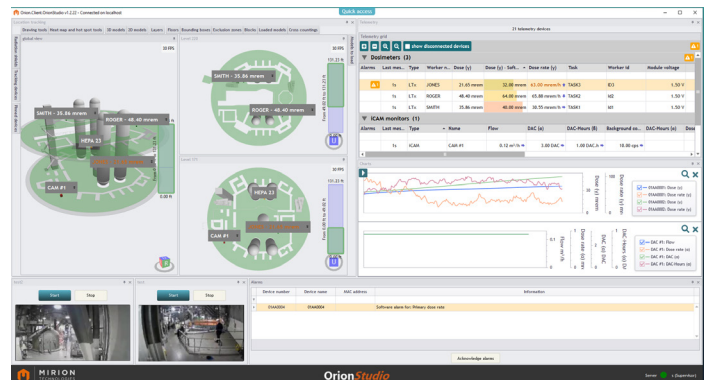- Shock, vibration and drop resistant

Regulatory
- FCC / IC Certified
- Low Power Output (< 1 mW)
- IEC 60068
- FCC Part 15 Subpart B, Class B
- RED (2014/53/UE) EN 55032:2015, Class B
- EN 62479 (2010)
- EN 62311 (2008)
- EN 62386-1 (2014)
- ROHS (2011/65/UE)
- EN 63000 (2018)

Anchor with overhead/ceiling mount with drip cover

Anchor with wall mount with drip cover

Anchor installed overhead/ceiling mount

Anchor installed wall mount

Orion Studio Software

DMC 3000 Location Telemetry (LTx) Module

Orion RTLS Asset Tag

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