



Redpoint

See the moving world



IP Rated PoE Anchor

The IPⁱ-rated Power-over-Ethernet Anchor forms the infrastructure of Redpoint's ultra-wideband, RTLS solution. Using a custom configuration of these waterproof radio anchors, you can create a dynamic network that enables communication with any UWB device—such as the Redpoint asset tag or badge tag—located within the network.

The IP-rated PoE Anchor is a full-function UWB anchor designed to be deployed indoors in buildings without temperature or humidity regulation. It is easily mounted to a surface such as a wall or column using the provided mounting bracket. The device may be connected directly to a PoE switch to provide data connectivity as well as power, or may be used stand-alone as part of a larger network.

The anchor provides UWB coverage over a maximum radius of 50m (170'). The transmit power is configurable for installations where smaller coverage areas are desired. When used with Redpoint's standard UWB tags, the anchor provides 20cm (8") accuracy in two dimensions over its full coverage area.

All firmware can be upgraded over the air when connected to a UWB network, as well as over a wired connection.

Redpoint provides a total RTLS solution.

The IP-rated PoE Anchor is the starting point to build your real-time location system network.

IP Rated PoE Anchor Features

Accuracy

Up to 20cm (8") accuracy in two dimensions.

Range

Omnidirectional coverage with 50m (170') range for easy integration with UWB network.

Power

Power-over-Ethernet provides constant DC power as well as data connectivity when connected to a switch.

Easy to update

Over-the-air (OTA) updates provide full upgradeability and customized configuration.



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System

Parameter	Value
Operation Modes	Tracking, navigation, hybrid
Typical Accuracy	20cm
Tag Update Rate	Configurable: 1Hz, 2Hz or 4Hz
Tag Density	Tracking mode: dependent on update rate. Navigation mode: unlimited
Network Topology	Full mesh, self-organizing, self-healing
Network Scale	Each single RTLS network may support up to 65,000 anchors.
Communication Range	50m line-of-sight in typical working environment
Operating Frequency	3.5 - 6.8 GHz
Channel Bandwidth	500 MHz
Peak data rate	850 kbps

Ethernet

Parameter	Value
Data	Auto-detect 10/100Mb
PoE Mode	IEEE 802.3af/at and passive mode*

**In PoE passive mode, the anchor accepts any voltage from 6v to 60v through a PoE injector.*

Mechanical & Environmental

Parameter	Value
Anchor	126mm x 71mm x 33mm
Temperature	-20°C to 70°C
IP Rating	IP65

DC Characteristics

Parameter	Value
Voltage	Min: 6V Max: 60V
Current	110mA@6V (anchor mode); 180mA @ 6v (bridge mode)

Ordering information

The Indoor PoE Anchor may be ordered directly through Redpoint. Please place a request using part number 9000-0409.

ⁱ Ingress Protection international standard for sealing effectiveness.