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IP Rated POE Anchor - Dual Port

The IP rated PoE Anchor is a new ultra-wideband (UWB) device designed to be part of the Redpoint Positioning Real Time Locating System (RTLIS). It is designed for challenging environmental conditions and can be used in both indoor/outdoor sites. Multiple anchors are installed and configured to form a dynamic mesh UWB network that enables accurate location tracking of UWB enabled tag devices.

When used with Redpoint's tags, the anchor provides accuracy up to 20cm (about 8in) in two dimensions over its coverage area. This area is circular, having a 50m (170ft) line-of-site radius.

The product has two Ethernet ports that support a daisy chain topology. This innovative feature reduces deployment costs by permitting an anchor to power up the next anchor in line via a single Ethernet cable. Every anchor in a daisy chain can be configured as a routing bridge if required in the network layout.

The anchor can be connected to a PoE power source to receive power and provide data connectivity directly to the RTLIS server. The anchor can also be used either with or without network, Internet connectivity. It can act as a stand-alone node or be part of a larger UWB mesh network comprised of multiple anchors. Additionally, all firmware is upgradeable over the wired network or over-the-air when connected to a UWB mesh network.

The bracket can be installed on walls or threaded rods. Allowing simple and easy installation of the anchors.

Product Features

Wide Coverage

Omnidirectional coverage with 50m (170ft) range for large-scale deployments.

Power-over-Ethernet

PoE provides constant DC power as well as data connectivity when connected to a switch

Easy to update

OTA (over-the-air) updates for upgrading and configuration

Ruggedized

IP 66 rated enclosure protects the product from dust, water, blast, extreme temperature, and UV from sunlight.

Easy to Install

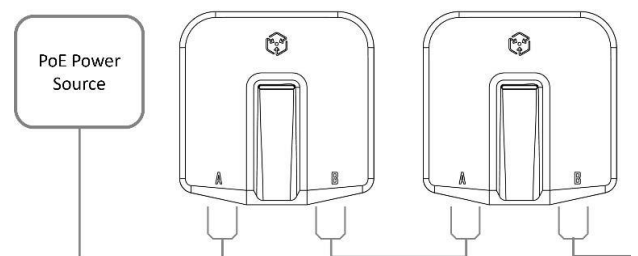
Bracket provides mounting options for both, walls and threaded rods

RGB (Red-Green-Blue) LED

The anchor has a multi-color LED that shows the state of the anchor and can show proper operation or help diagnose fault conditions.

Daisy Chain PoE

Approximately 8 anchors can be connected in the daisy-chain (see below). The anchors can be powered by passive Power-over-Ethernet (PoE) power injectors or switches in mode A or mode B.



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website at www.redpointpositioning.com

Technical Data

System	Operation Modes	Tracking, navigation, hybrid
	Typical Accuracy	Up to 20 cm (~8 in)
	Tag Update Rate	Configurable for 1, 2, or 4 Hz or motion-based
	Tag Density	Tracking mode: update-rate dependent Navigation mode: unlimited
	Network Topology	Full mesh, self-organizing, self-healing
	Network Scale	32-bit MAC address space, limited by RTLS server capacity
	Communication Range	50m line-of-sight (typical)
	Operating Frequency	3.7 – 6.4 GHz

Ethernet	Speed	Auto-detect 10/100Mbps
	PoE Mode	IEEE 802.3af/at and Passive Mode*
	Type of Connectors	M19 waterproof connector with RJ45 Socket**
	Number of Ports	Two Ports with Daisy-chain support

Mechanical & Environmental	Weight	496g
	Temperature	-20°C to 70°C
	IP Rating	IP66
	Shock and Vibration Resistance	IEC60068-2-64 Compliance

DC Characteristics	Voltage	12VDC – 57VDC
	Power Consumption	55 mA @ 48V
	Max Pass Through Current	500mA

* In PoE Passive Mode, the anchor accepts any voltage from 6v to 60v through a PoE injector or switch. There are additional restrictions on IEEE support if using daisy-chain.

**The waterproof plugs are Included in the package.

LED Indications	No Power	Off
	Downloading Configuration	Blinking Green
	Fully Operational Anchor	Solid Green
	Fully Operational Bridge	Solid Blue
	Fault Condition	Blinking Red
	Anchor Disassociated	Solid Yellow
	Ethernet Link Fault (For bridges only)	Blinking Red
	Cannot connect to Bridge (For anchors only)	Blinking Blue

Dimensions

135mm (L) x 134mm (W) x 38mm (H)
 5.3in (L) x 5.3in (W) x 1.5in (H)



Ordering information

The IP Rated POE Anchor may be ordered through an authorized Redpoint partner or your account manager. Please place a request using part number 9000-0754 for the anchor, 9200-0744 for the bracket, or 9000-0717 for the kit with the bracket.