Indoor Ceiling Mount Anchor

The Ceiling Mount Anchor is a full-function ultra-wideband (UWB) anchor designed to be deployed indoors. It is the basic element of the infrastructure network for Redpoint's UWB real-time location system (RTLS) solution. The anchors form a dynamic mesh network that locates and tracks UWB tag devices, such as the Redpoint asset tag and badge tag.

When used with Redpoint's standard UWB tags, the anchor provides typical accuracy of 20cm (about 8") in two dimensions over its coverage area. The Ceiling Mount Anchor provides UWB coverage over a typical, line-of-site radius of 50m (170').

The anchor can be connected to a Power-over-Ethernet (PoE) switch to receive power and provide data connectivity directly to the server. It can also be used without a switch, working stand-alone as part of the larger network. Additionally, all firmware is upgradeable over the wired network or over-the-air when connected to a UWB mesh network.

The ICM anchor is easily mounted to a ceiling with screws or to an I-beam with a clamp.

Redpoint provides a
total RTLS solution.

The placement of Redpoint Ceiling Mount Anchor is the starting point to build your real-time location system. Contact Redpoint about the other products we offer to complete your RTLS solution.

ICM Anchor Features

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

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

Power-over-Ethernet
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 for upgrading and configuration.

Easy to Install
Easy installation with two options to mount this product using an I-beam clamp or the mounting plate (provided) to screw directly into your ceiling.

Redpoint ICM Anchor

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System

Parameter	Value
Operation Modes	Tracking, navigation, hybrid
Typical Accuracy	20cm
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	3.2 - 6.4 GHz
Channel Bandwidth	500 MHz
Peak data rate	850 kbps

Ethernet

Parameter	Value
Data	Auto-detect 10/100Mbps
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	Ø140.0 x 67.0 (mm)
Temperature	-20°C to 70°C
IP Rating	None. Indoor use only.

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DC Characteristics

Parameter	Value
Voltage	Min: 6V Max: 60V
Current	40 mA @ 48V

Ordering information

The ICM Anchor may be ordered directly through Redpoint. Please place a request using part number *9101-0701*.