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## Overview

pingStation 2 is a dual band (978MHz and 1090MHz), networkable Automatic Dependent Surveillance – Broadcast (ADS-B) receiver with a Power-Over-Ethernet (POE) interface enclosed in an IP67 rated protective enclosure. PingStation provides ground, surface, or low-altitude ADS-B surveillance. pingStation is robust enough to be permanently mounted outdoors in harsh environmental conditions, and small enough to be used as a mobile asset for roaming operations. Installation is simple with included pole-mount bracket, and a single POE cable which provides both power and data communications.  An integrated GPS provides precision timestamping for messaging.

Multiple pingStation 2 may be networked together to provide a wide area low-altitude surveillance volume. Data messages are in JSON format as described within the pingStation 2 ICD.

## Features

- Detects ADS-B equipped aircraft on 1090MHz and 978MHz in real time.
- Internal GPS provides high resolution timestamp messaging in support of third party multilateration software.
- Based on exclusive Ping$^{TM}$ Silicon Radio
- IP67 rated environmentally protected enclosure
- Simple power and connectivity options using Power over Ethernet (POE)
- Multiple data format options
- Network multiple receivers to enable a wide area low-altitude surveillance network
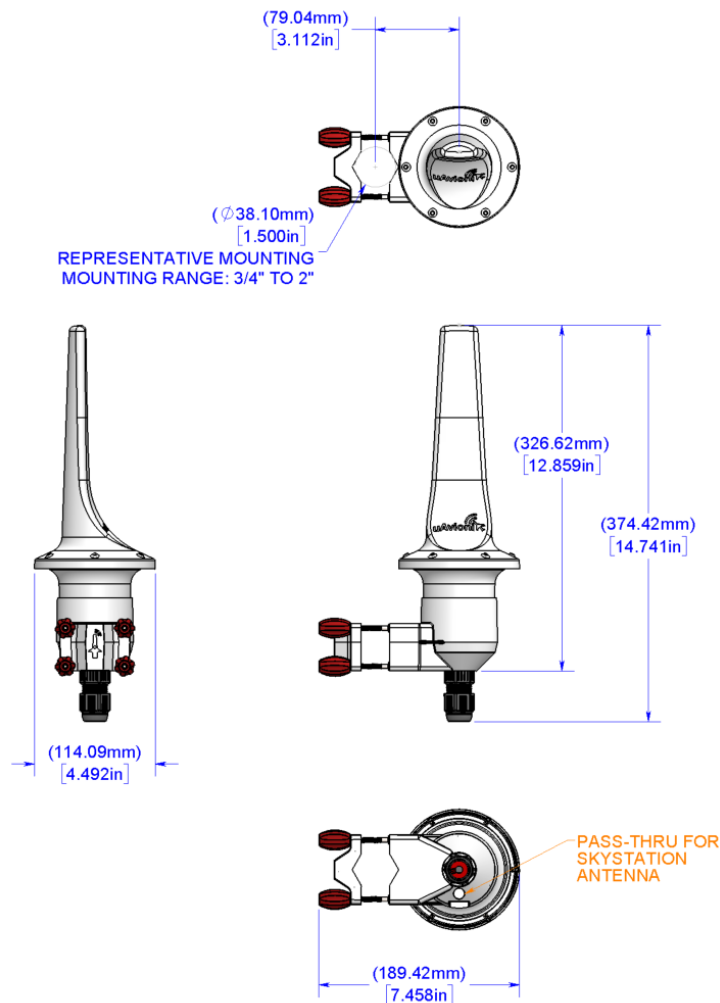- U.S. patents pending

## Technical Specifications

| Specification | Value |
|---|---|
| Input Voltage / Power | 44-57V / 500mW Power over Ethernet |
| Size | 4.5"X7.5"X14.8" |
| Weight | 435 grams |
| Operating Temperature | -40°C to 65°C |
| Ingress Protection | IP67 |
| **Receive** | |
| MTL 1090MHz Dynamic Range | -88dBm -79 to 0dBm |
| MTL 978MHz Dynamic Range | -93dBm -90 to -3dBm |
| **Interfaces** | |
| • Ethernet (JSON UDP) • Compressed VRS (Virtual Radar Server) | |

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## Data / Power Connector:  RJ-45 POE 802.3af

| Parameter | Value |
|---|---|
| Standard | 803.3af (802.3at Type1) |
| Maximum power | 15.4W |
| Voltage Range | 37 – 57V |
| Maximum Current | 350mA |
| Maximum Cable Resistance | 20Ω |
| Supported Cabling | Shielded Cat 3 and Shielded Cat 5 |
| Supported Modes | Mode A (endspan), Mode B (midspan) |
| Power Management | Power Class 0 |
| Maximum Cable Length | 100 meters |

## Mechanical Specification



(79.04mm)
[3.112in]

(⌀38.10mm)
[1.500in]
REPRESENTATIVE MOUNTING
MOUNTING RANGE: 3/4" TO 2"

(326.62mm)
[12.859in]

(374.42mm)
[14.741in]

(114.09mm)
[4.492in]

PASS-THRU FOR
SKYSTATION
ANTENNA

(189.42mm)
[7.458in]

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