

## Overview

pingStation3 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. PingStation3 provides ground, surface, or low-altitude ADS-B surveillance and is capable as a multilateration sensor for Mode S. pingStation3 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 pingStation3 may be networked together to provide a wide area low-altitude surveillance volume. Data messages options are available, including ASTERIX CAT021, JSON, and Compressed VRS format as described within the pingStation3 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™ 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



## Technical Specifications

| Specification                                                                                                                                      | Value                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| Input Voltage / Power                                                                                                                              | 44-57V / 500mW<br>Power over Ethernet |
| Size                                                                                                                                               | 7.0"x1.4"x26.5"                       |
| Weight                                                                                                                                             | 545 grams                             |
| Operating Temperature                                                                                                                              | -40°C to 65°C                         |
| Ingress Protection                                                                                                                                 | IP67                                  |
| <b>Receive</b>                                                                                                                                     |                                       |
| MTL 1090MHz Dynamic Range                                                                                                                          | -88dBm<br>-79 to 0dBm                 |
| MTL 978MHz Dynamic Range                                                                                                                           | -93dBm<br>-90 to -3dBm                |
| <b>Interfaces</b>                                                                                                                                  |                                       |
| <ul style="list-style-type: none"> <li>• ASTERIX CAT021</li> <li>• Ethernet (JSON UDP)</li> <li>• Compressed VRS (Virtual Radar Server)</li> </ul> |                                       |

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

| Parameter                | Value                              |
|--------------------------|------------------------------------|
| Standard                 | 802.3af (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

