

# Installation Instructions

## LPA[L]-460-7-42 Series SW3-1077 - v1

### 1. Introduction

The LPA[L]-460-7-42 antenna series is a range of low profile, high performance SiSo IOT antennas covering 450-465/698-960/1427-4200MHz. Designed for situations where an efficient antenna covering UHF 450MHz and LTE is needed the LPA[L]-460-7-42 can be installed on conductive or non-conductive surfaces.

The LPA[L]-460-7-42 can be wall or panel mounted via an adhesive pad and/or mounting screws or mast mounted using the supplied cable ties. The LPA-460-7-42 versions of the antenna are supplied with integral flame retardant RG174 cable for short cable runs and the LPAL-460-7-42 versions are fitted with flame retardant CS29 cable for lower loss performance on longer cable runs.

### 2. Mounting requirements and selecting location

The antenna can be mounted in a horizontal or vertical orientation. If the LPA[L]-460-7-42 is mounted vertically, the antenna cable exit should be orientated facing downwards.

If mounting on a conductive panel then for optimal performance the antenna should be orientated so that it sits at the edge of the panel with the front face of the antenna (the curved short face opposite the cable exit) sitting as close to the edge of the panel as possible.

If utilising the adhesive pad it is recommended that the installation is carried out when the temperature is higher than 50°F (10°C) - the ideal temperature for the pad bonding is in the range of 70°F (21°C) to 100°F (37°C).

If using the mounting screw positions, ensure that there is adequate under panel clearance and that there are no objects or obstructions under the panel where you need to drill.

For optimal performance the antenna should, if possible, be mounted at least 300mm (1ft) away from other conductive objects on the mounting panel.

### 3. Adhesive mounting

When using the screw positions (Fig 1.), drill two pilot holes to suit No.8 (4.2mm) screws. The antenna can be used as a drilling template.

Make sure that the selected mounting surface is clean and dry. Degrease surface with 70% isopropyl alcohol (allowing time to dry) if required. Remove protective backing from supplied adhesive pad and adhere to underside of antenna, position the antenna over desired location, remove remaining protective backing and stick to panel by applying firm downward pressure.

If also using the mounting screws, ensure that the supplied sealing washers are positioned in the hole recesses before inserting the screws. Do not over-tighten the screws as this may damage the antenna housing.

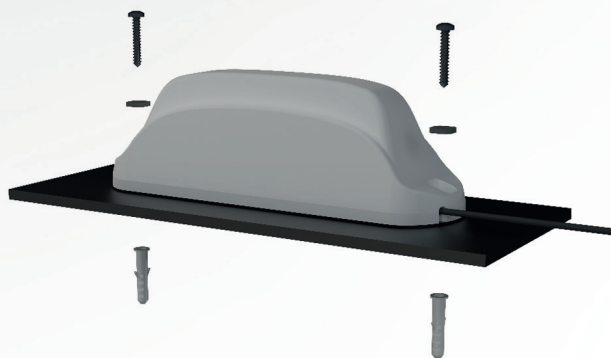


Fig 1. Installing mounting screws

## 4. Pole / mast mounting

The antenna can be mounted to poles up to 25mm (1") diameter using the supplied cable ties (Fig 2.). First feed the cable ties through the slots in the screw mounting recesses. Next position the antenna in the desired location on the pole with the cable exiting downwards, engage and pull the cable ties tight. It may be advisable to take additional measures to ensure that the antenna cannot slide down the pole.

If alternative cable ties are used to secure the antenna, then please ensure that they are made of UV resistant material.

## 5. Routing and terminating coaxial cables

Route the coaxial cable to the equipment, ensuring that the cable is secured and protected from subsequent damage during access. The cable should be routed observing the minimum bend radius of 13mm (1/2") for RG174 and (1") for CS29. If cable ties are used, they should not be overtightened, as this could distort the cable profile and affect the antenna performance.

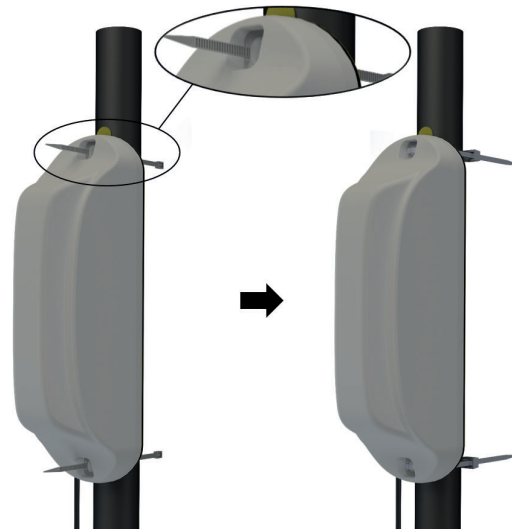


Fig 2. Pole mounting with cable ties

## 6. Commission and test

- Check the VSWR measures as per specifications on relevant datasheet.

## 7. Notices



### DO NOT

- operate the equipment in an explosive atmosphere.
- attempt to install the antennas without the proper safe equipment to access the install location.
- install the antenna in such a way that it may fall and cause injury.
- chew parts or put them in mouth, keep away from unsupervised children.



### European Waste Electronic Equipment Directive 2002/96/EC

Waste electrical products should not be disposed of with household waste. All electronic products with the WEEE logo must be collected and sent to approved operators for safe disposal or recycling. Please recycle where facilities exist. Many electrical/electronic equipment retailers facilitate "Distributor Take-Back scheme" for household WEEE. Check with your Local Authority or electronic retailers for designated collection facilities where WEEE can be disposed of for free.

**Waiver:** This document represents information compiled to the best of our present knowledge. It is not intended to be a representation or warranty of fitness of the products described for any particular purpose. This document details guidelines for general information purposes only. Always seek specialist advice when planning installations and ensure that antennas are always installed by a properly qualified installer in compliance with local laws and regulations.