PANORAMA ANTENNAS

Installation Instructions

LP[G]M[X]-24-72 Series

SW3-1032 - v2

1. Introduction

The LP[G]M[X]-24-72 antenna series is a range of antennas with 2x2, 3x3 or 4x4 MiMo function for 2.4-7.2GHz WiFi 6e. The antenna also covers certain 5G bands (including CBRS). The LG version includes an active GPS/GNSS/BEIDOU antenna with 26dB LNA gain.

The antenna does not require a conductive groundplane, so can be installed on a metal or plastic panel. Supplied with integral flame retardant CS32 cables (Compliant to UN ECE R118, EN45545-2 HL1-3) and a halogen free flame retardant radome, the antenna is suitable for many environments.

Electrical Safety Note

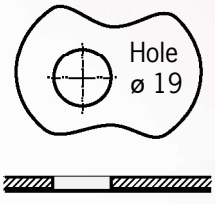
The LG version contains an active GPS antenna (part number SR8-JG26NS). Rated voltage: 3-5VDC Rated current: 20mA maximum. **The supply to this device must be provided with overcurrent protection of 1A maximum.**

2. Mounting requirements and selecting location

This antenna range can be deployed with or without a conductive ground plane.

Ensure that there is adequate under panel clearance and that there is no double skin panel or cross brace present. Measure to check for central position if applicable. For optimal performance the antenna should, if possible, be mounted at least 300mm (1ft) away from other conductive objects on the mounting panel.

3. Prepare and drill hole



Mask panel area around hole position to protect paintwork and headliner. Drill a pilot hole, and then increase to 19mm (3/4”), ensuring that drill/ cutter bit does not contact headliner. Clean area around the hole, carefully removing all swarf.

Note that if the version of the product being installed is fitted with N(f) connectors the hole size required will be 24mm (1”).

If mounting to a conductive ground plane remove paint and primer from under panel surface to ensure adequate earth contact by washer and nut. Apply some petroleum jelly or paint around the hole to prevent corrosion.

4. Fitting the antenna

The antenna is supplied with a fitted adhesive backed rubber boot with central adhesive sealing pad. A larger adhesive sealing pad for use instead of the boot is also supplied. For installations compliant to EN 45545-2 or where the boot is not wanted for aesthetic reasons and where IP69K compliant sealing is not required, the boot can be removed and the accessory adhesive pad fitted to the back of the antenna prior to installation.

If fitting the accessory adhesive pad take care not to damage the central adhesive pad which will remain in position. Remove the boot from the base of the antenna and discard. Route the cables through the central hole in the accessory sealing pad and remove the backing from the pad on the side facing the antenna base. Stick the accessory pad to the antenna using firm pressure.

Remove protective backing from underside of antenna and feed coaxial cables through panel. Position the antenna over the hole and stick to panel by applying firm downward pressure. Assemble washer & nut from underside and tighten.

IMPORTANT: Do not exceed a torque of 5Nm (3.6ft/lbs) when tightening the mounting nut.

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 never be kinked and the minimum bend radius of 25mm (1”) must be observed. If cable ties are used, they should not be overtightened, as this will distort the cable profile and could affect the antenna performance.

6. Commission and Test

- Carry out VSWR check on all feeds; this should measure <2.5:1

Check GPS cable (if applicable):

- Check the GPS cable with DC to measure high resistance.
- Connect the GPS cable to the GPS receiver and check for satellite acquisition.

7. Notices

DO NOT

• operate the transmitter when someone is within 20cm (8”) of the antenna.
• 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.