

LPA-7-42-[X]

- Highly efficient antenna covering 698-960/1710-4200MHz
- Wall, panel or mast mount
- Ensure reliable connectivity for IOT devices

The LPA-7-42 series is a range of highly efficient omni-directional multi-band antennas for IOT devices suitable for external or internal installation.

The design of the antenna enables simple wall mounting using the supplied screws and wall plugs, adhesive pad mounting or mast mounting using the supplied cable ties. The omni-directional radiation pattern allows easy placement and flexible installation.

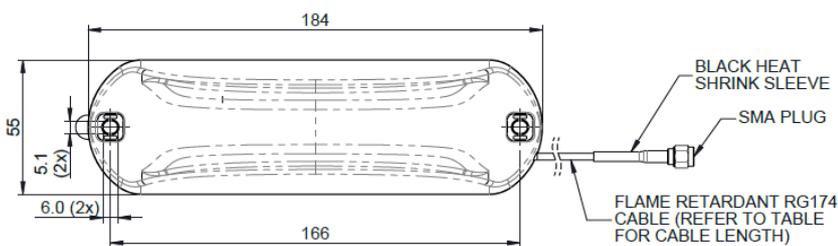
These antennas are an ideal solution for use in industrial and domestic environments with cellular modems/routers for IoT and Machine to Machine (M2M) wireless connectivity applications. The high performance of the antenna helps maximise first time connection rates and minimise revisits and communications issues after installation thereby reducing lifetime costs.

The antennas are fitted with integrated flame retardant RG174 cable and a variety of connectors. Panel mount versions (Part number LPAP-7-42-[X]) and versions fitted with low loss cable for longer cable runs (Part number LPAL-7-42-[X]) are also available.

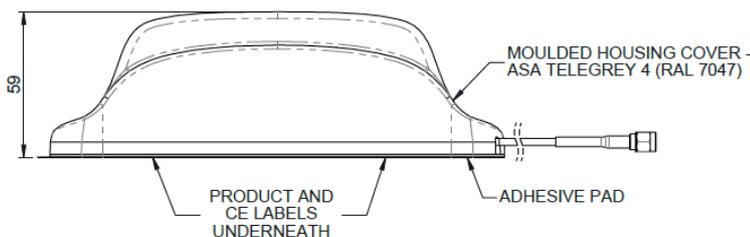
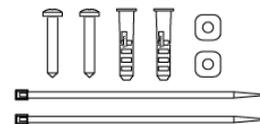


Technical Drawing

LPA-7-42-2SP Shown



SUPPLIED LOOSE PART :
 (2x) No.8 X 25mm PAN HEAD POZI SCREW
 (2x) No.8 RAWL PLUG
 (2x) SQUARE SEALING WASHER
 (2x) PLASTIC CABLE TIE



Product Data

Part No.

LPA-7-42-2SP

LPA-7-42-2RFDJ

Electrical Data

Frequency Range (MHz) 698-960 / 1710-4200

Peak Realised Gain: Isotropic+ 698-960MHz 2dBi

1710-4200 MHz 6dBi

Typical VSWR <2.5:1

Polarisation Vertical

Pattern Omni-directional

Impedance 50Ω

Max Input Power (W) 10

Mechanical Data

Length 184 (7.24")

Dimensions (mm) Width 55 (2.16")

Height 59 (2.32")

Operating Temp (°C) -40° / +85°C (-40° / 185°F)

Material ASA

Colour Telegray RAL 7047

Relative Humidity 95%

Ingress Protection IP65

Regulatory Compliance RoHS 2 (exemption 6.c applied) | REACH

Mounting Data

Fixing Wall /panel - screw / adhesive / cable tie pole mount

Mounting Screw Diameter (mm) 4 (0.16")

Cable Data

Type FR RG174 (UN ECE R118 and EN45545-2 Compliant)

Diameter (mm) 2.8 (0.1")

Length (m) 2 (6' 6") 2 (6' 6")

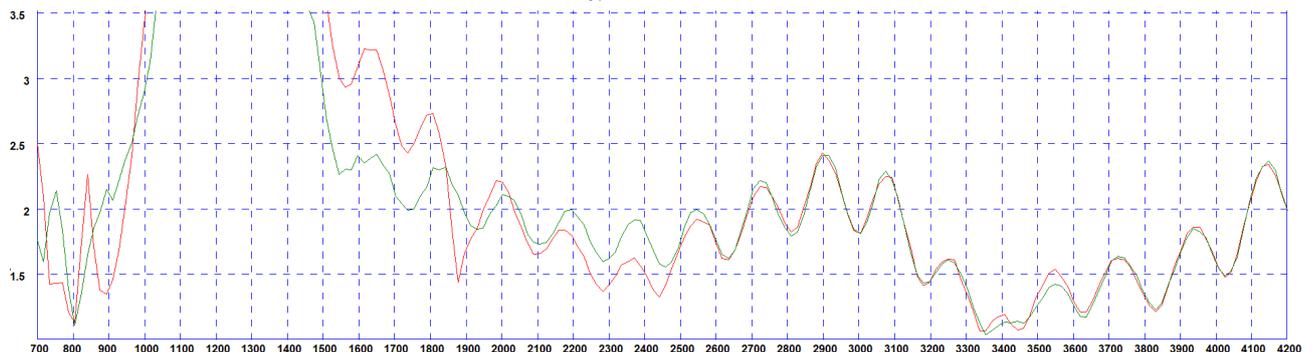
Voltage Withstand 500 V DC

Jacket Spark 2000 V RMS

Termination SMA (m) Right Angle FAKRA D Jack

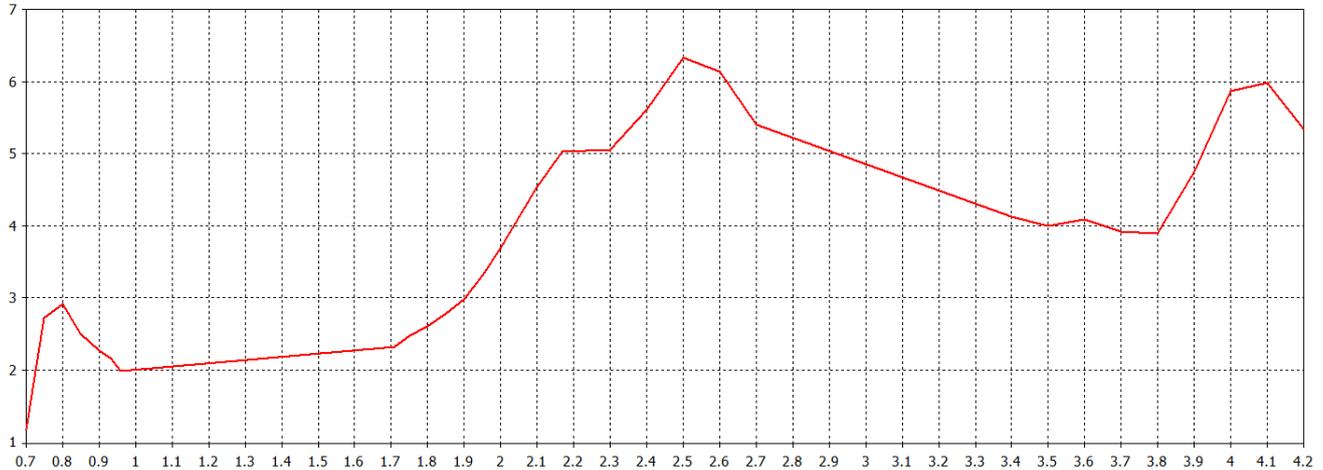
Electrical Data

Typical VSWR*



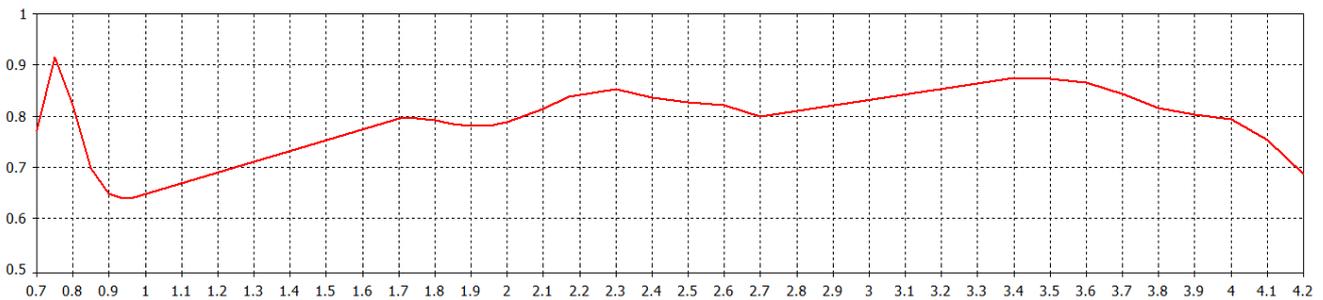
Electrical Data
Free Space

Typical Swept Peak Gain*



*Swept peak gain simulated in CST Microwave Studio in free space excluding cable loss

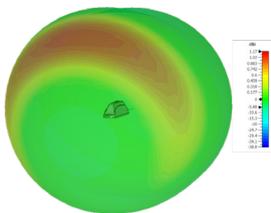
Typical Efficiency*



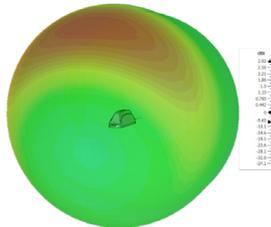
*Typical efficiency simulated in CST Microwave Studio in free space excluding cable loss

3D Patterns
Free Space

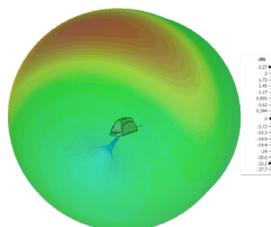
Typical 3D Plot (700 MHz)



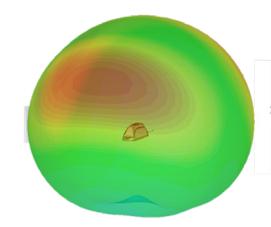
Typical 3D Plot (800 MHz)



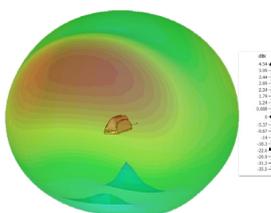
Typical 3D Plot (900 MHz)



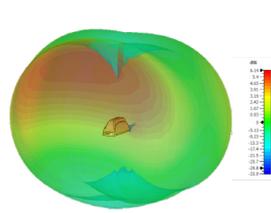
Typical 3D Plot (1800 MHz)



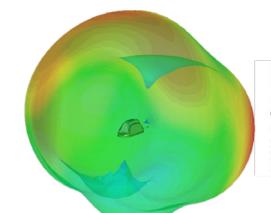
Typical 3D Plot (2000 MHz)



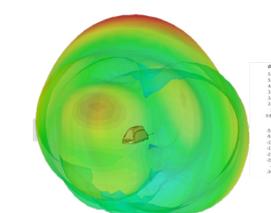
Typical 3D Plot (2600 MHz)



Typical 3D Plot (3600 MHz)

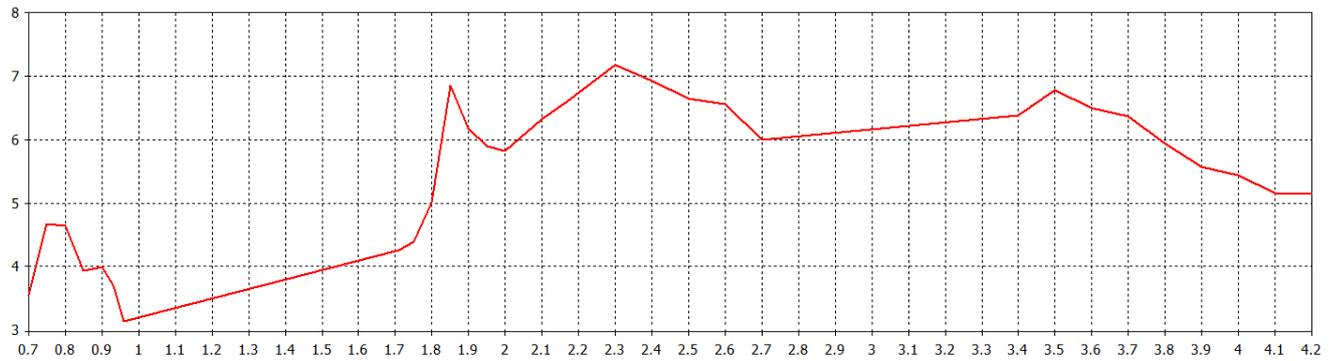


Typical 3D Plot (4000 MHz)



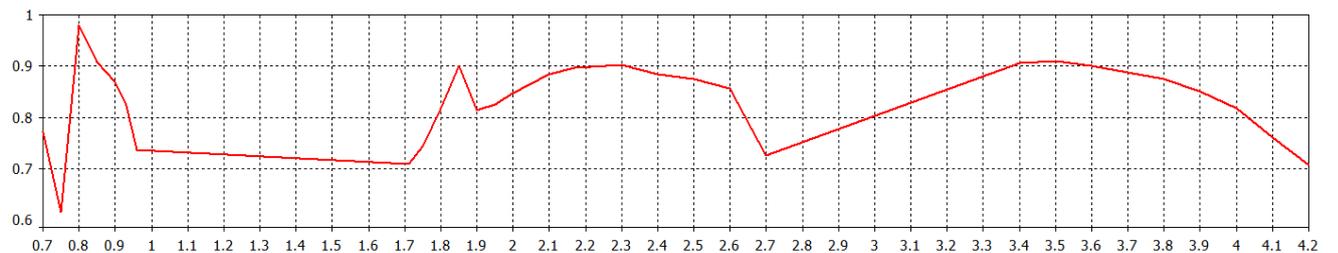
Electrical Data
Ground Plane

Typical Swept Peak Gain*



*Swept peak gain simulated in CST Microwave Studio on 400x400mm (1.3' x1.3') ground plane excluding cable loss

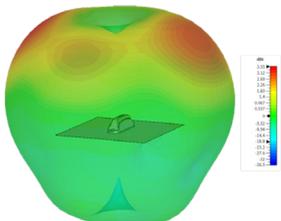
Typical Efficiency*



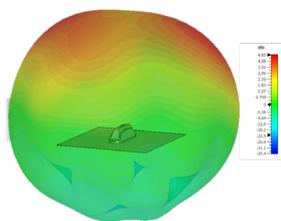
*Typical efficiency simulated in CST Microwave Studio on 400x400mm (1.3' x1.3') ground plane excluding cable loss

3D patterns
Ground Plane

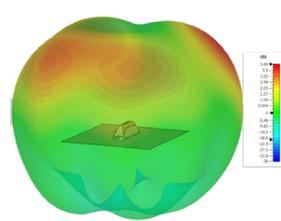
Typical 3D Plot (700 MHz)



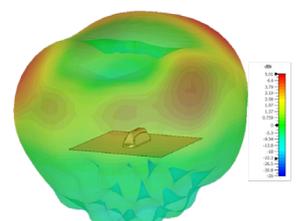
Typical 3D Plot (800 MHz)



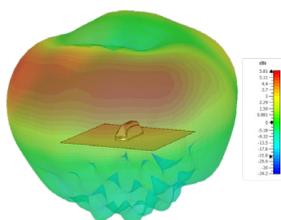
Typical 3D Plot (900 MHz)



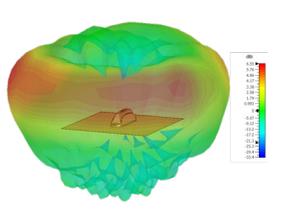
Typical 3D Plot (1800 MHz)



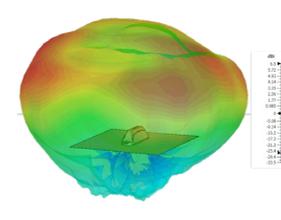
Typical 3D Plot (2000 MHz)



Typical 3D Plot (2600 MHz)



Typical 3D Plot (3600 MHz)



Typical 3D Plot (4000 MHz)

