1. Features

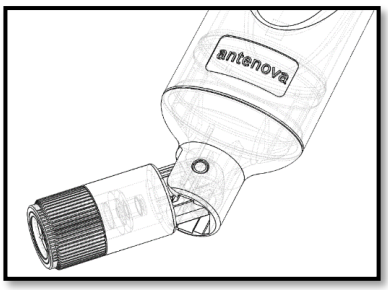
- Terminal antenna for 433MHz ISM applications
- High performance dipole design
- Available in three terminal options: swivel, fly lead and fixed 90° (IP67)

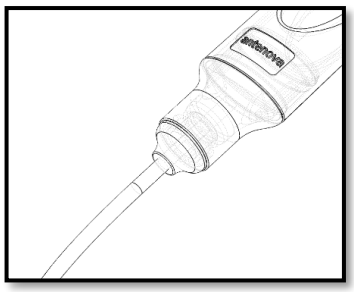
2. Description

Pacifica is constructed with an ergonomic blade design to blend well with the exterior of the device. Three versions are available including an IP67 design for outdoor applications. To aid integration, the antenna is designed to work to various GND plane sizes or in free space.

3. Applications

- Remote monitoring
- Industrial devices
- Remote tech
- Smart meters
- Medical devices
- Home automation





4. Part Number

Note. -xxx refers to options for antenna version, connector type and cable length:

Pacifica: SREI038-XXX

-XX X

Antenna Type	xx
IP67 version	IP
Swivel version	S9

Cable Length (If fly Lead)	xx
1.0 m	10
1.5 m	15
1.7 m	17
2.0 m	20

x	Connector
P	SMA Plug

*Non-Standard connectors**

x	
R	SMA Plug Reverse
J	SMA Jack
K	SMA Jack Reverse

**Please contact Antenova for details on non-standard connector types*

5. General Data

Product name	Pacifica
Part Number	SREI038-xxx
Frequency	432-434MHz
Polarization	Linear
Operating temperature	-20°C to +70°C
Impedance with matching	50 Ω
Weight	< 21g (Cable not included)
Dimensions (Antenna)	See dimensions on page 18>
Cable length (Fly lead only)	1.0m /2.0m *
Connection	SMA Plug (Standard)
Radome Material	PC

**Please contact Antenova for details of other cable lengths*

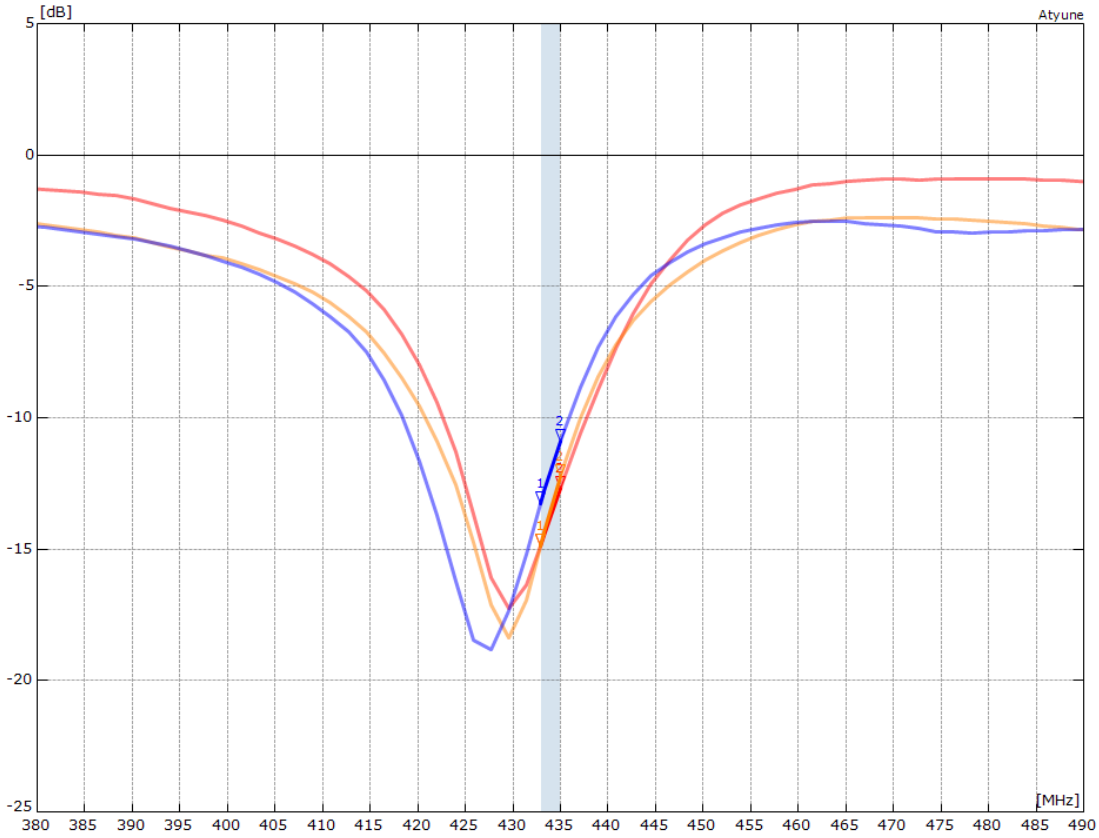
6. RF Characteristics

The RF characteristics are shown for each type.

	432 – 435 MHz		
	Fixed (IP67)	Hinged	Fly Lead (1.0m)
			
Peak gain	-0.90dBi	-1.10dBi	-1.19dBi
Average gain	-2.60dBi	-2.90dBi	-3.00dBi
Average efficiency	>50%	>50%	>50%
Maximum return loss	<-12.0dB	<-12.0dB	<-10.70dB
Maximum VSWR	1.60:1	1.65 :1	1.80:1

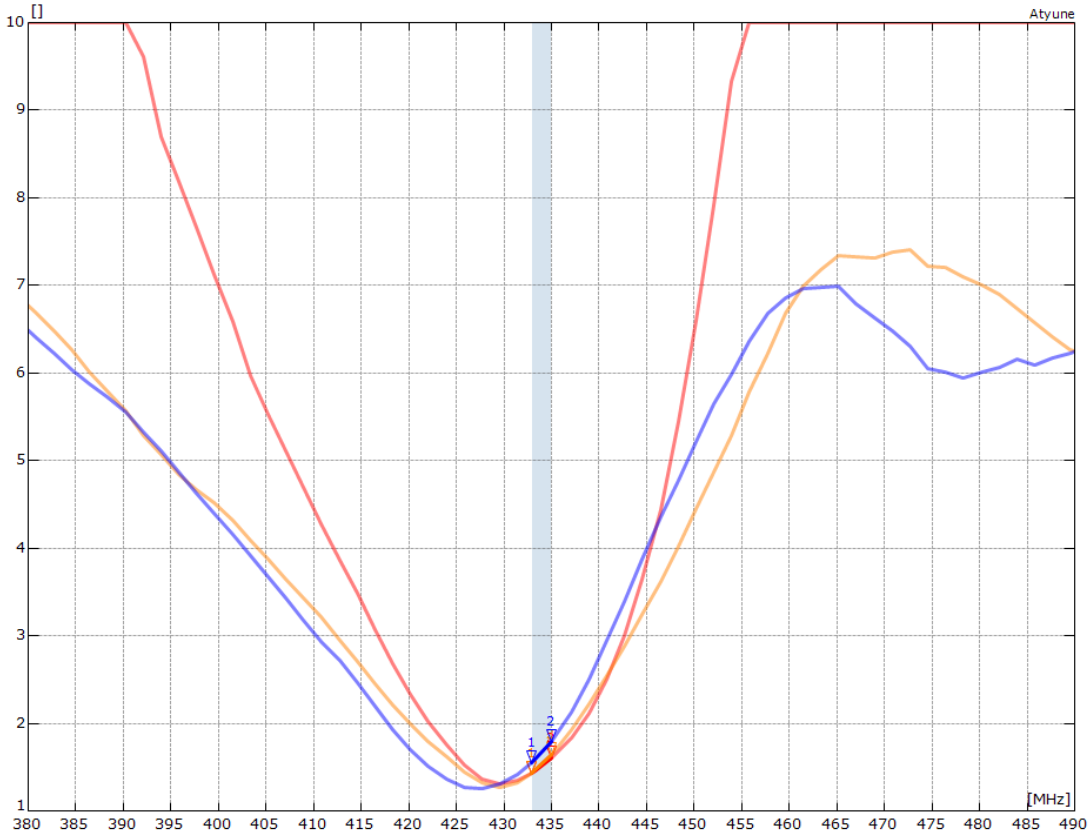
7. RF Performance

7.1 Return Loss



MARKERS: MHz dB
SREI038-Fixed.s1p - S11 1: 433 -14.86 2: 435 -12.65
SREI038 - Hinged.s1p - S11 1: 433 -14.86 2: 435 -12.21
SREI038 - Fly lead.S1P - S11 1: 433 -13.23 2: 435 -10.88

7.2 VSWR



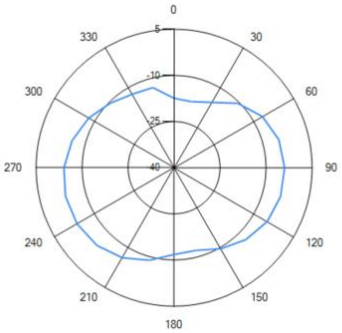
MARKERS: MHz	
SREI038-Fixed.s1p - S11	
1: 433	1.44
2: 435	1.61
SREI038 - Hinged.s1p - S11	
1: 433	1.44
2: 435	1.65
SREI038 - Fly lead.S1P - S11	
1: 433	1.56
2: 435	1.80

7.3 Antenna Pattern Free Space

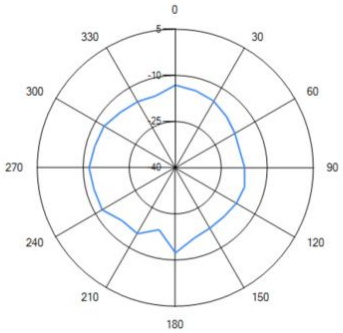
7.3.1 432 MHz – 434 MHz

Fixed (IP67)

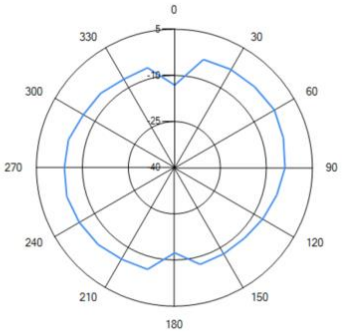
XY



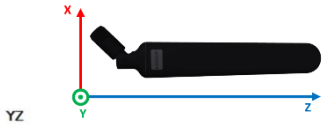
XZ



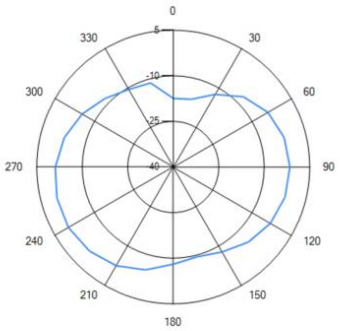
YZ



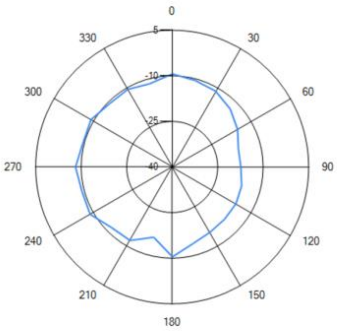
Hinged



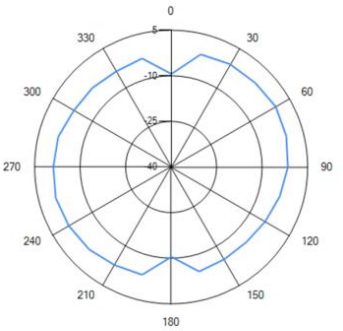
XY



XZ

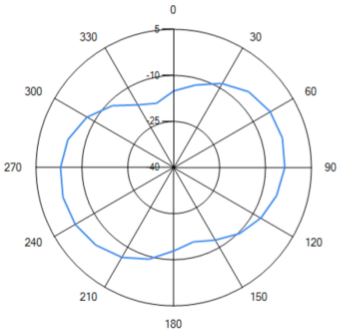


YZ

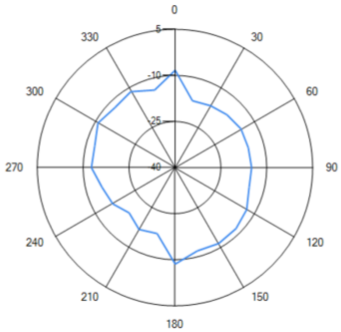


Fly Lead (1.0m)

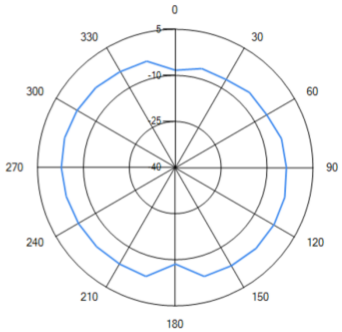
XY



XZ



YZ

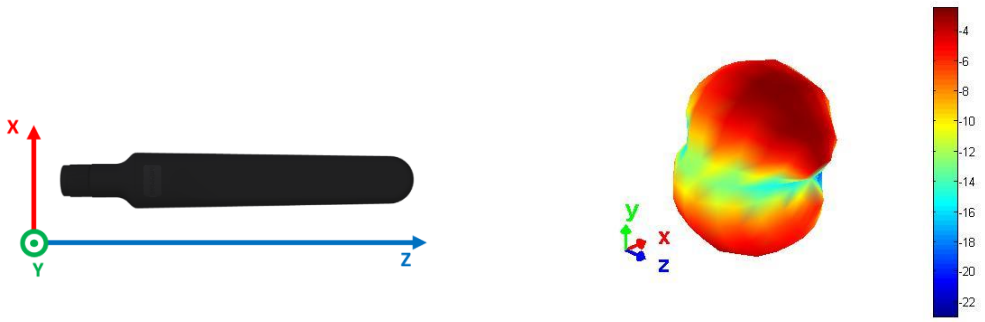


7.4 Antenna Pattern Free Space (3D)

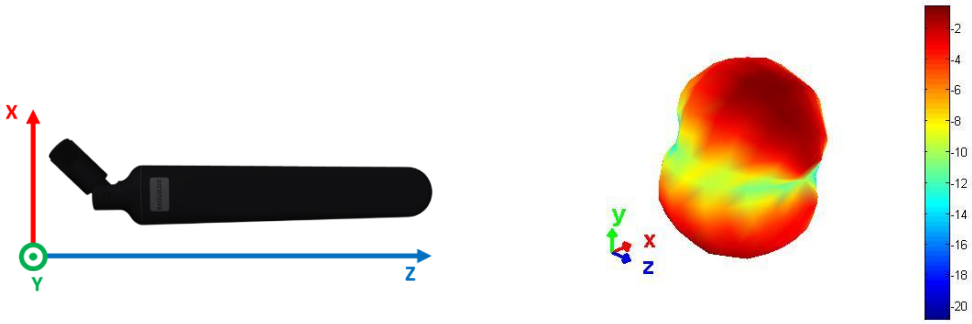
7.4.1 432 MHz – 434 MHz

3D patterns at 433MHz
Drag to rotate pattern and PCB by using Adobe Reader
(Click to Activate)

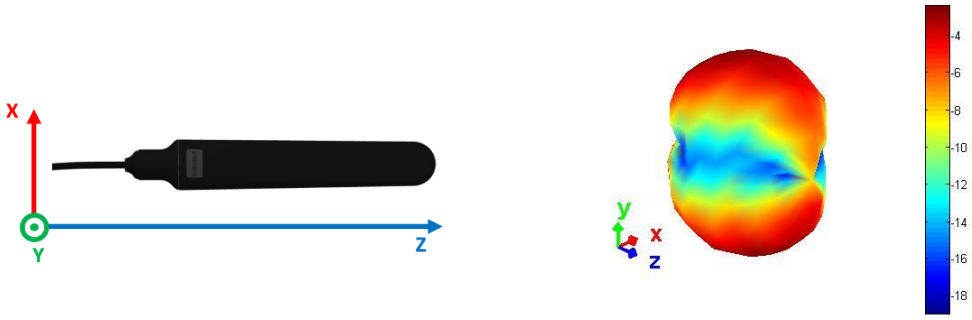
Fixed (IP67)



Hinged

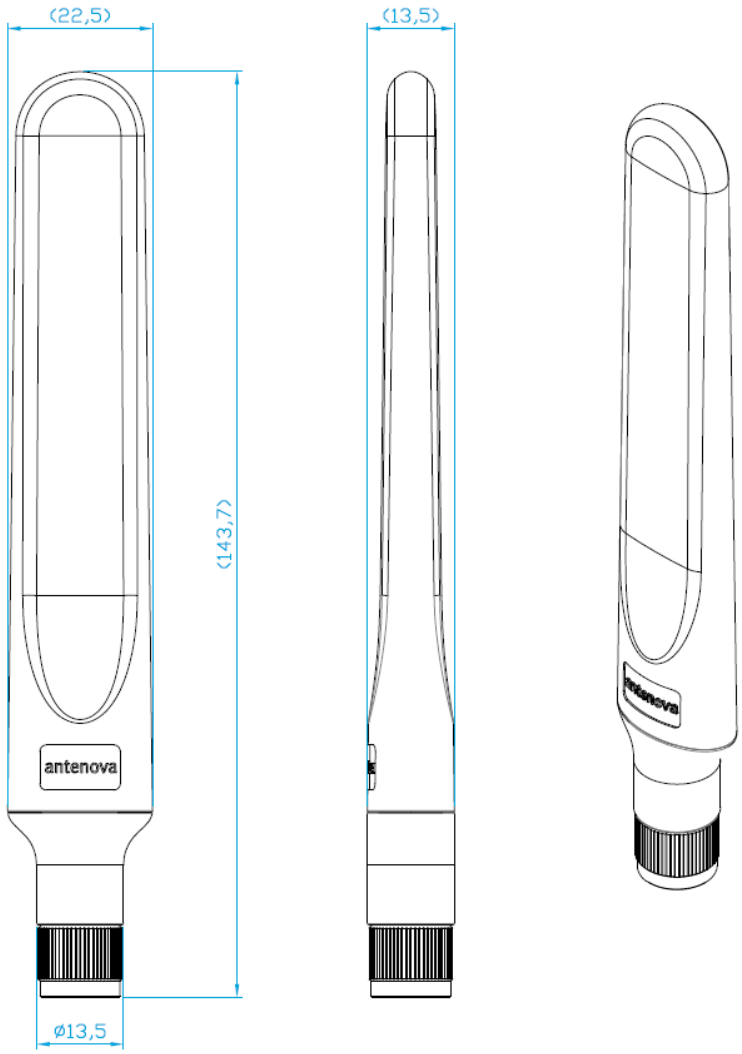


Fly Lead (1.0m)



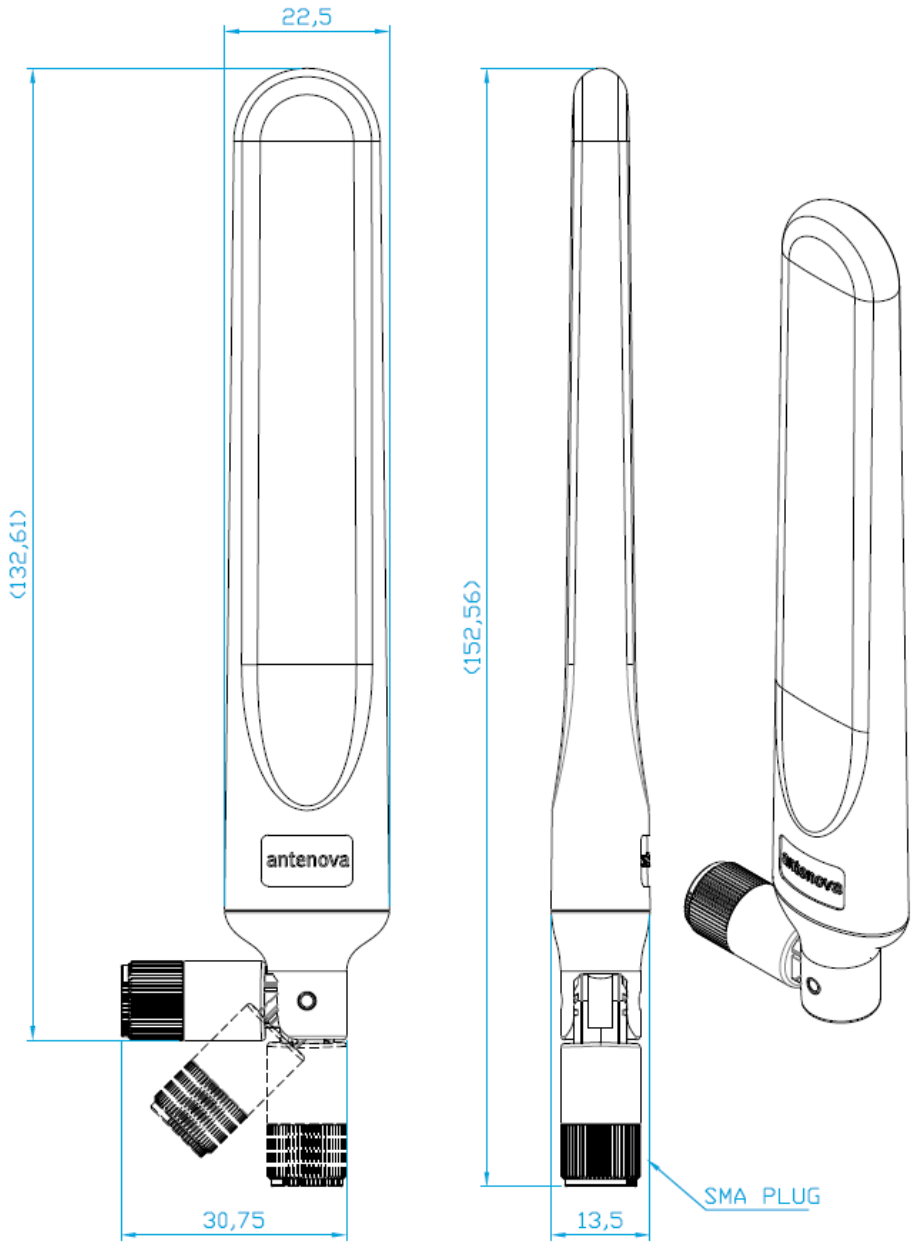
8. Antenna Dimensions

8.1 Dimensions Fixed (SREI038-IPP)



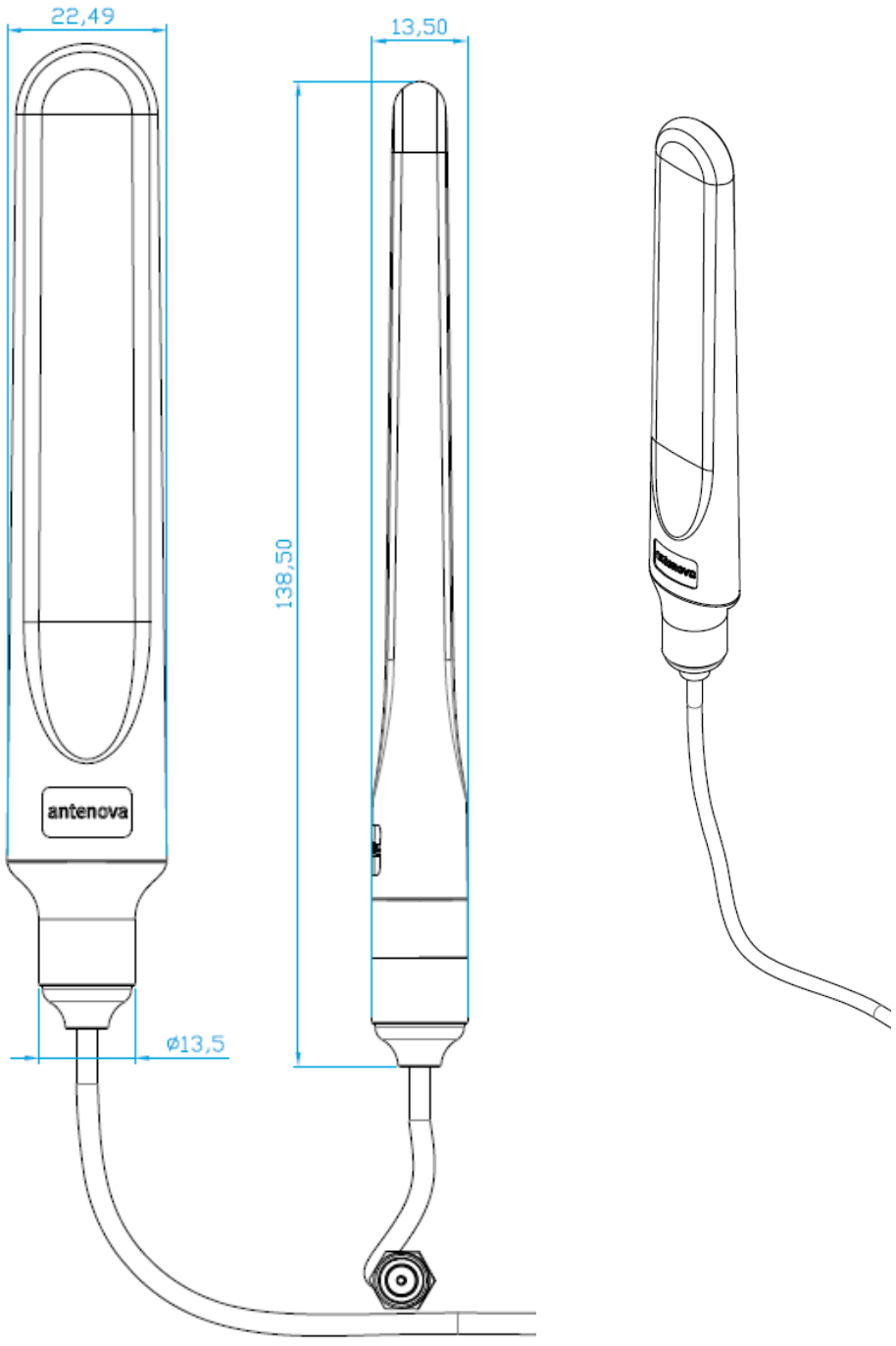
All dimensions in mm

8.2 Dimensions Hinged (SREI038-S9P)



All dimensions in mm

8.3 Dimensions Fly lead (SREI038-10P)



All dimensions in mm

9. Electrical Interface

9.1 Transmission Line

All transmission lines should be designed to have a characteristic impedance of 50Ω.

• The length of the transmission lines should be kept to a minimum.
• Any other parts of the RF system like transceivers, power amplifiers, etc, should also be designed to have an impedance of 50 Ω.

Once the material for the PCB has been chosen (PCB thickness and dielectric constant), a coplanar transmission line can easily be designed using any of the commercial software packages for transmission line design. For the chosen PCB thickness, copper thickness and substrate dielectric constant, the program will calculate the appropriate transmission line width and gaps on either side of the feed.

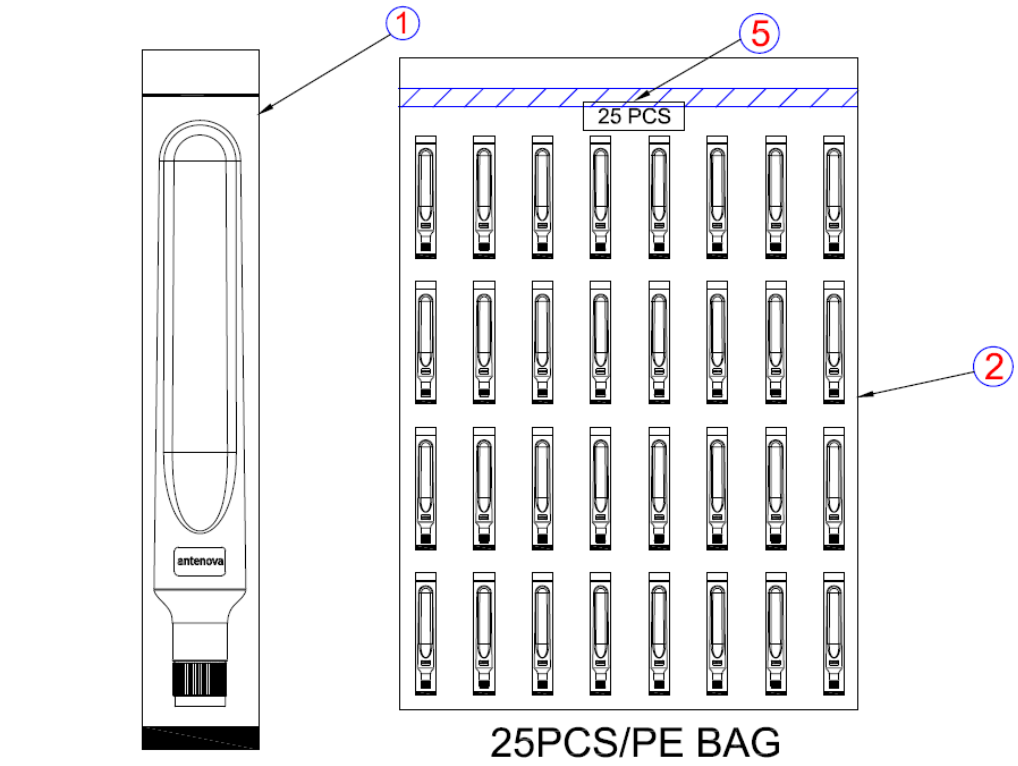
A DC blocking capacitor should be placed in line to protect the RF front end.

10. Hazardous Material Regulation Conformance

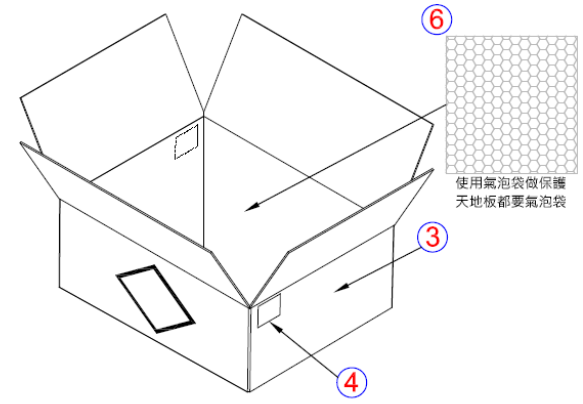
The antenna has been tested to conform to RoHS requirements. A certificate of conformance is available from Antenova's website.

11. Packaging

11.1 Fixed (SREI038-IPP)



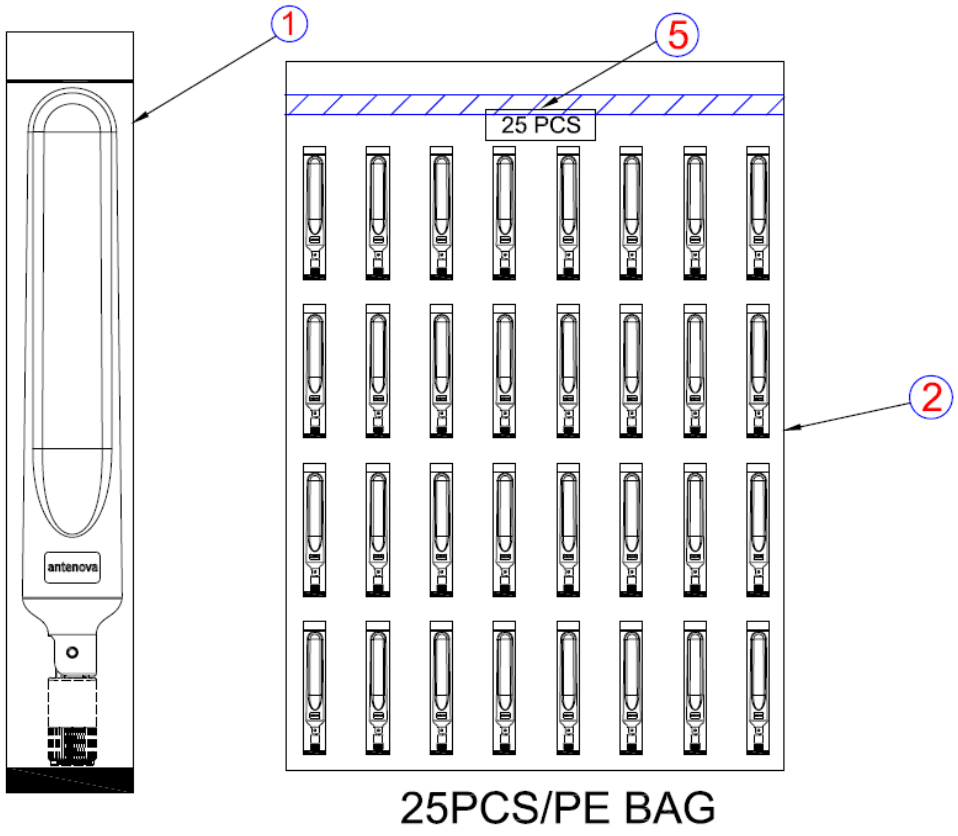
25PCS/PE BAG

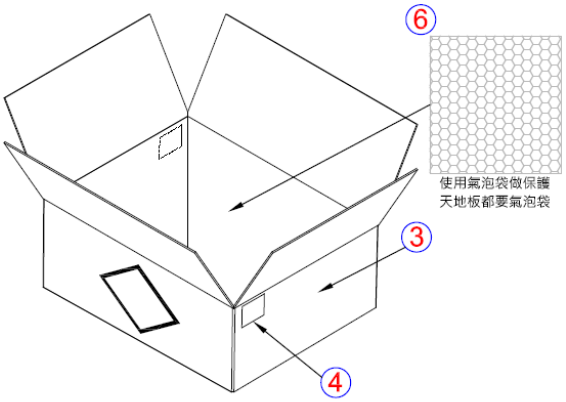


100PCS/Carton
Carton Size : 295x240x240 mm

Item	Qty	Description
1	1	PE bag, 230x40x0.07 (mm)
2	1	PE bag 33x46 (cm)
3	1	Box
4	2	Label (see page15)
5	1	Label 40x30 (mm) for bag
6	2	Protective packaging

11.2 Hinged (SREI038-S9P)

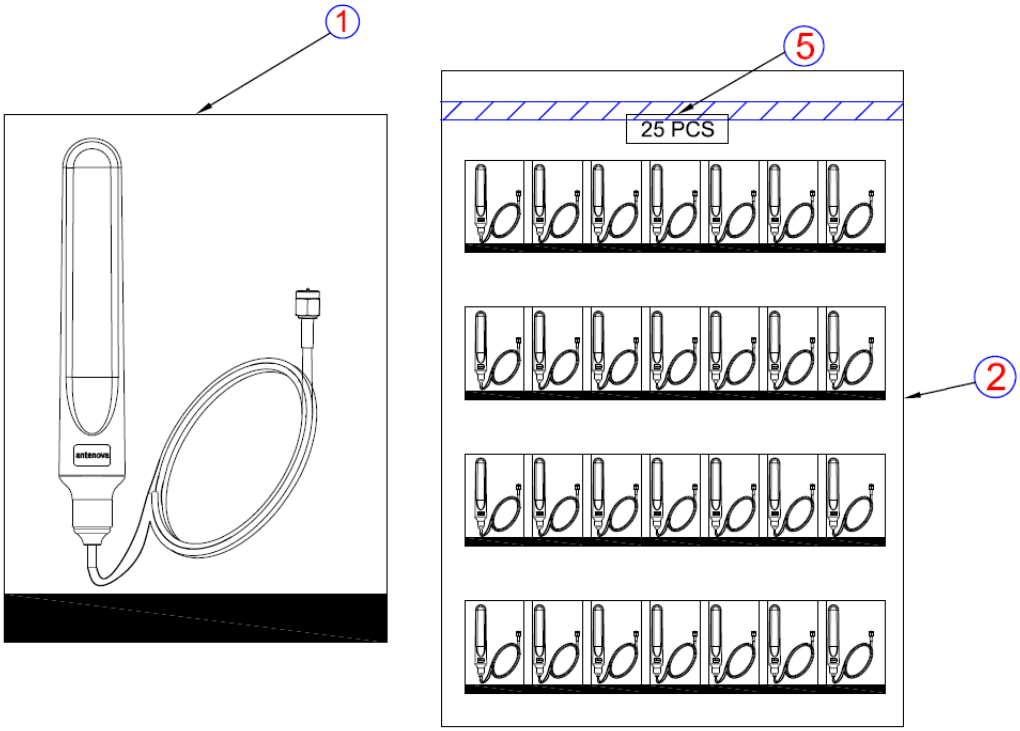




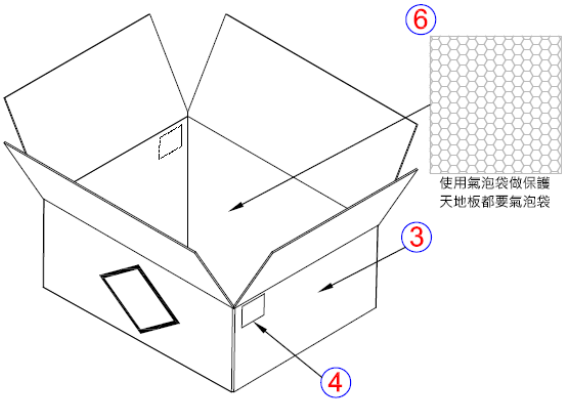
100PCS/Carton
Carton Size : 295x240x240 mm

Item	Qty	Description
1	1	PE bag, 230x40x0.07 (mm)
2	1	PE bag 33x46 (cm)
3	1	Box
4	2	Label (see page15)
5	1	Label 40x30 (mm) for bag
6	2	Protective packaging

11.3 Fly lead (SREI038-10P)



25PCS/PE BAG



100PCS/Carton
Carton Size : 295x240x240 mm

Item	Qty	Description
1	1	PE bag, 13x18 (cm)
2	1	PE bag 33x46 (cm)
3	1	Box
4	2	Label (see page15)
5	1	Label 40x30 (mm) for bag
6	2	Protective packaging

12. Optimal Storage Conditions

Temperature	-10ºC to 40ºC
Humidity	Less than 75% RH
Shelf life	18 Months
Storage place	Away from corrosive gas and direct sunlight
Packaging	Antennas should be stored in unopened sealed manufacturer's plastic packaging.

13. Label Information