antenova

DATASHEET

Rabo

SREL062 • Terminal®



Features

- Terminal antenna for 5G/4G/3G/2G applications
- LTE, HSPA+, WCDMA, CDMA, GSM, GPRS, DCS1800, PCS1900
- LTE bands: 1-21; 23-30; 33-41, 71
- 617-960MHz, 1427-1660MHz, 1710-2170MHz, 2300-2400MHz,2500-2690MHz, 3200-3800MHz
- High performance dipole design
- Available in two terminal options: swivel and fixed 90° (IP67)
-

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1. Description

Rabo is constructed with an ergonomic blade design to blend well to the outside of a device. Two versions are available, an IP67 design for outdoor applications and a hinged swivel mounted version. The antenna is designed to work with various GND plane sizes or in free space for ease of integration.

2. Applications

- Routers
- Industrial devices
- Remote devices
- ISM

3. General data

Frequency	617-960MHz 1420-1660MHz 1710-2170MHz 2300-2400MHz 2500-2690MHz 3200-3800MHz
Polarization	Linear
Operating temperature	-20°C to +70°C
Impedance with matching	50 Ω
Weight	<21g
Antenna type	External Antenna
Dimensions	9.0 x 5.8 x 1.7 (mm)
Connection	SMA Plug (Standard)

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4. Part number

SREL062-xxx





Antenna type	XX
IP67 version	IP
Swivel version	S9

Connector	X
SMA Plug	P

Non-standard connector types	X
SMA Plug	R
SMA Jack	J
SMA Jack Reverse	K

5. RF characteristics

617–960 MHz	Fixed (IP67) 	Hinged 
Peak gain	0.69dBi	0.41dBi
Average gain (Linear)	-3.42dBi	-3.55dBi
Average efficiency	>45%	>45%
Maximum return loss	<-8.77dB	<-5.56dB
Maximum VSWR	2.20:1	2.30:1

1420-1660 MHz	Fixed (IP67)	Hinged
Peak gain	2.14dBi	2.42dBi
Average gain (Linear)	-2.09dBi	-1.88dBi
Average efficiency	>60%	>65%
Maximum return loss	<-9.36dB	<-5.56dB
Maximum VSWR	2.10:1	2.20:1

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1710–2170 MHz	Fixed (IP67)	Hinged
Peak gain	2.73dBi	2.51dBi
Average gain (Linear)	-2.27dBi	-2.17dBi
Average efficiency	>60%	>60%
Maximum return loss	<-8.99dB	<-5.56dB
Maximum VSWR	2.15:1	2.20:1

2300-2400 MHz	Fixed (IP67)	Hinged
Peak gain	4.14dBi	3.87dBi
Average gain (Linear)	-1.52dBi	-1.43dBi
Average efficiency	>70%	>70%
Maximum return loss	<-17.99dB	<-5.56dB
Maximum VSWR	1.30:1	1.55:1

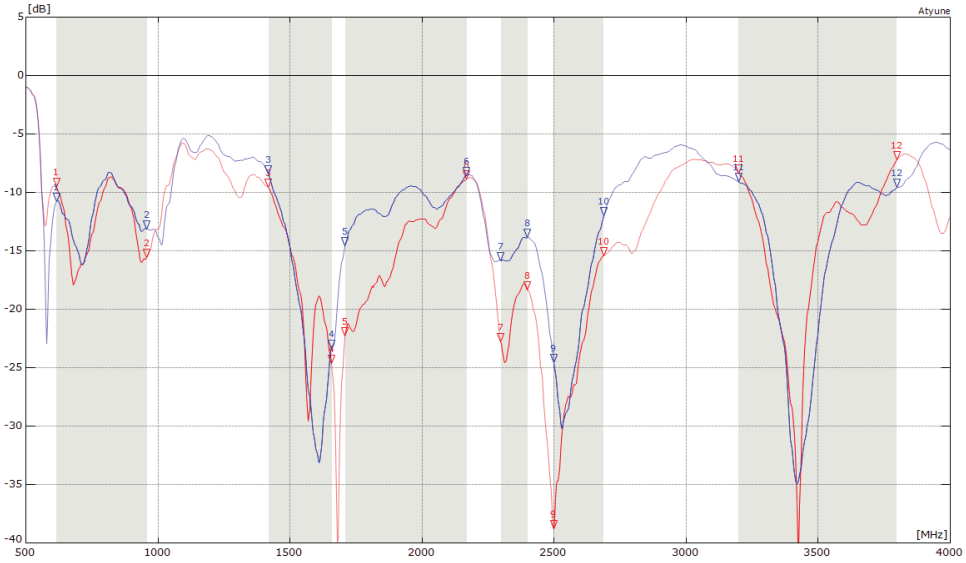
2500-2690 MHz	Fixed (IP67)	Hinged
Peak gain	4.89dBi	5.00dBi
Average gain (Linear)	-0.79dBi	-0.93dBi
Average efficiency	>80%	>80%
Maximum return loss	<-15.61dB	<-5.56dB
Maximum VSWR	1.45:1	1.65:1

3200-3800 MHz	Fixed (IP67)	Hinged
Peak gain	3.65dBi	3.89dBi
Average gain (Linear)	-1.26dBi	-1.42dBi
Average efficiency	>75%	>75%
Maximum return loss	<-7.15dB	<-5.56dB
Maximum VSWR	2.60:1	2.10:1

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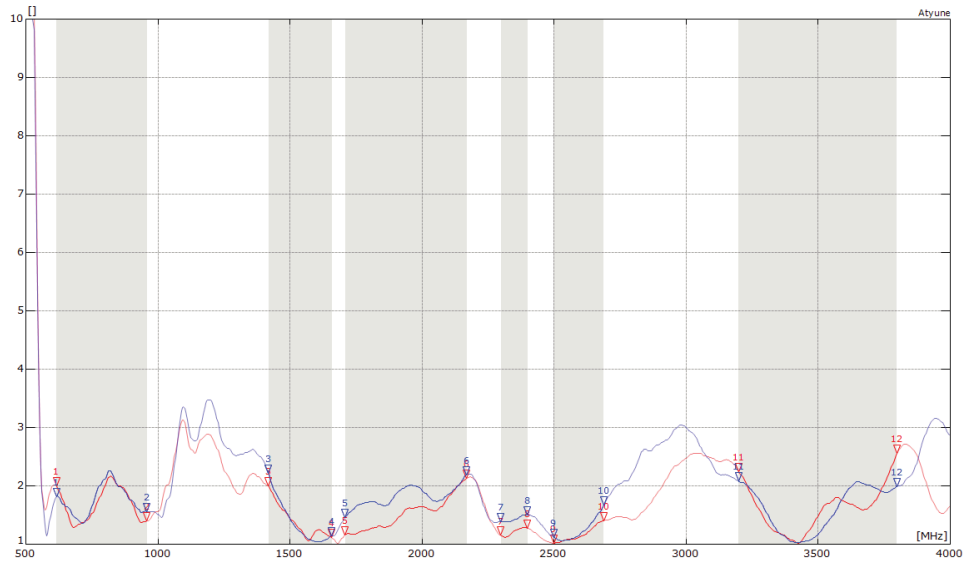
6. RF performance

6.1. Return loss



MARKERS:	MHz	dB	MHz	dB	MHz	dB	MHz	dB	MHz	dB	MHz	dB
MIXTA STRAIGHT.S1P - S11												
	1: 617	-9.46	3: 1420	-9.53	5: 1710	-22.25	7: 2300	-22.75	9: 2500	-38.72	11: 3200	-8.29
	2: 960	-15.53	4: 1660	-24.61	6: 2170	-8.84	8: 2400	-18.33	10: 2690	-15.36	12: 3800	-7.16
MIXTA SWIVEL.S1P - S11												
	1: 617	-10.72	3: 1420	-8.41	5: 1710	-14.54	7: 2300	-15.79	9: 2500	-24.51	11: 3200	-9.07
	2: 960	-13.10	4: 1660	-23.31	6: 2170	-8.52	8: 2400	-13.82	10: 2690	-11.95	12: 3800	-9.56

6.2. VSWR



MARKERS:	MHz		MHz		MHz		MHz		MHz		MHz	
MIXTA STRAIGHT.S1P - S11												
	1: 617	2.01	3: 1420	2.00	5: 1710	1.17	7: 2300	1.16	9: 2500	1.02	11: 3200	2.25
	2: 960	1.40	4: 1660	1.13	6: 2170	2.13	8: 2400	1.28	10: 2690	1.41	12: 3800	2.56
MIXTA SWIVEL.S1P - S11												
	1: 617	1.82	3: 1420	2.23	5: 1710	1.46	7: 2300	1.39	9: 2500	1.13	11: 3200	2.09
	2: 960	1.57	4: 1660	1.15	6: 2170	2.20	8: 2400	1.51	10: 2690	1.68	12: 3800	2.00

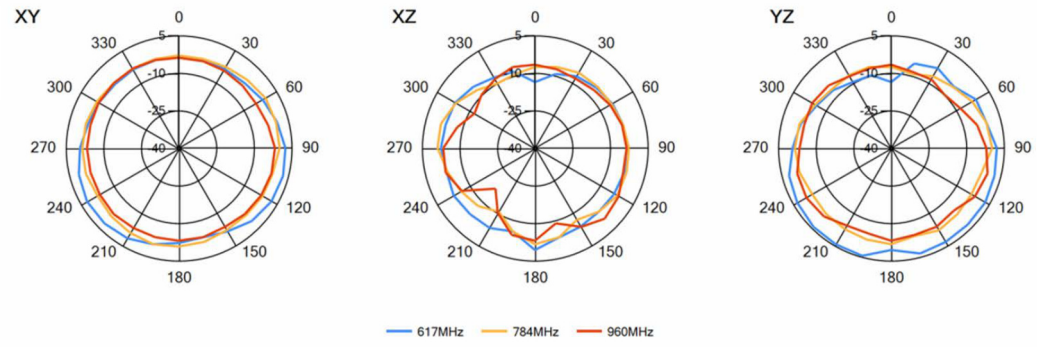
Downloaded from Arrow.com.

6.3. Antenna pattern free space

6.3.1. 617 - 960 MHz

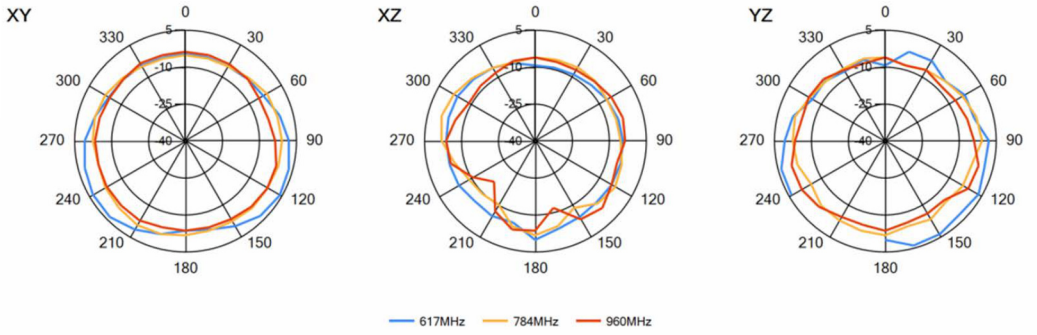
Fixed (IP67)





Hinged

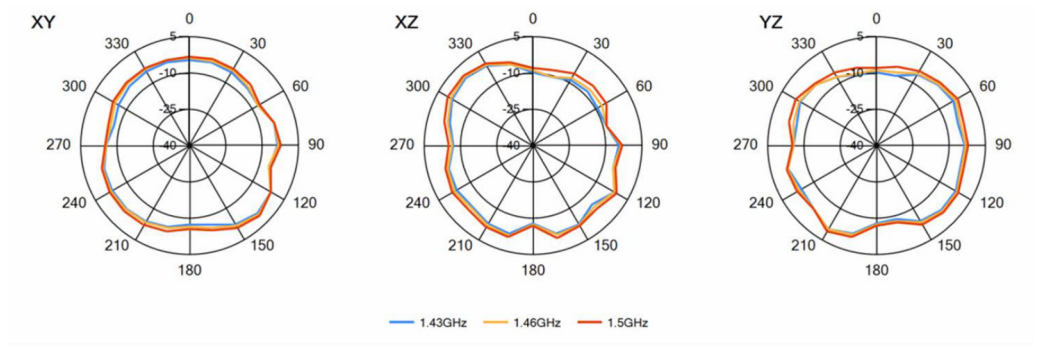




6.4.2. 1420 - 1660 MHz

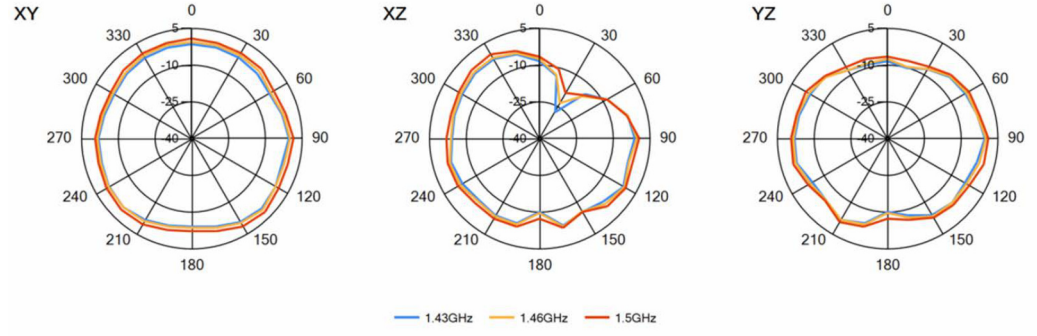
Fixed (IP67)





Hinged



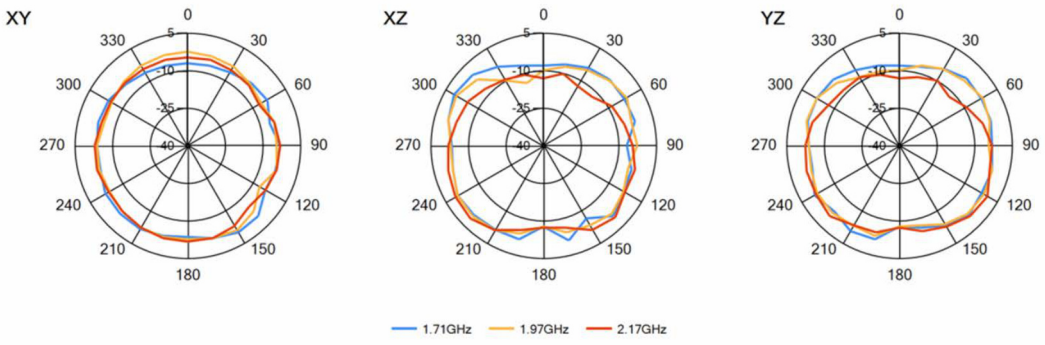


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6.3.3. 1710 - 2170 MHz

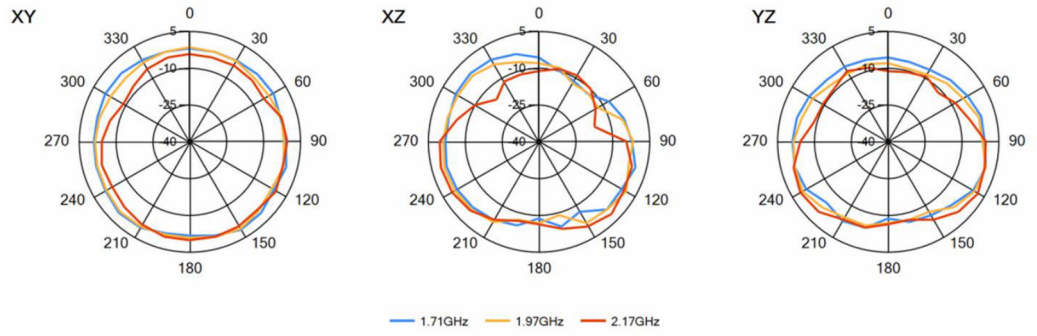
Fixed (IP67)





Hinged

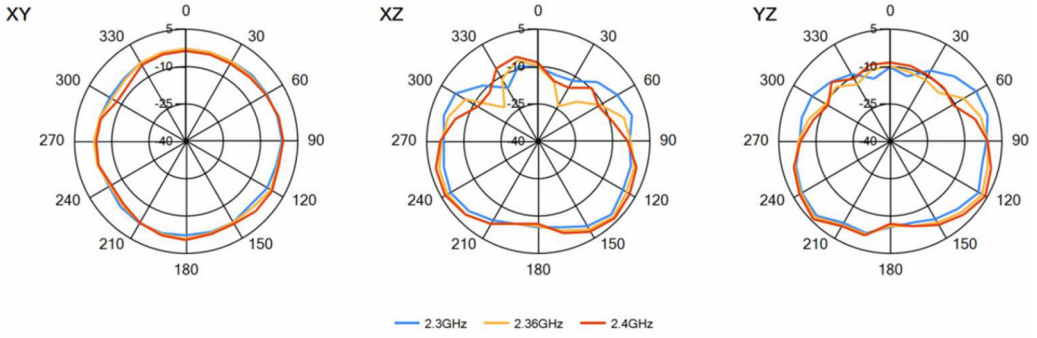




6.4.4. 2300 - 2400 MHz

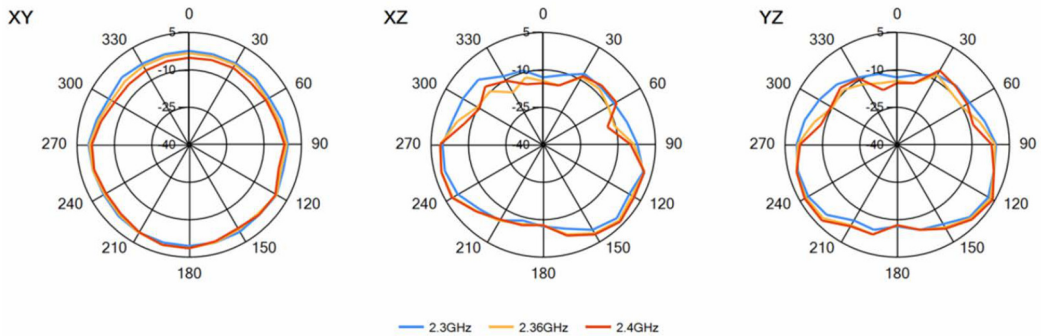
Fixed (IP67)





Hinged



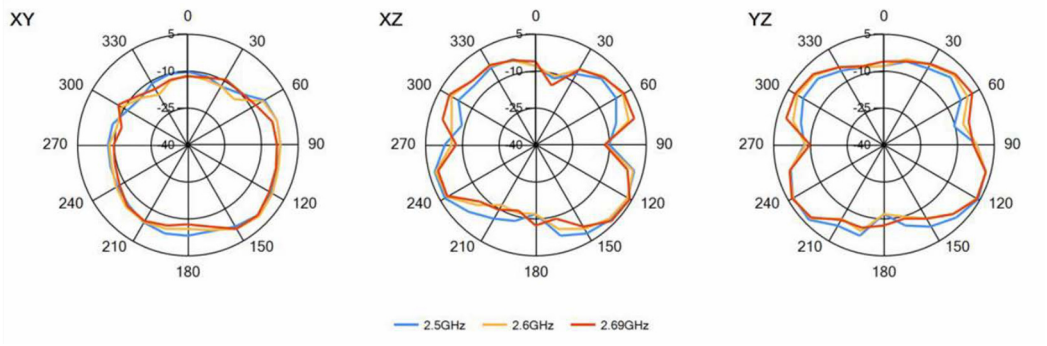


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6.3.5. 2500 - 2690 MHz

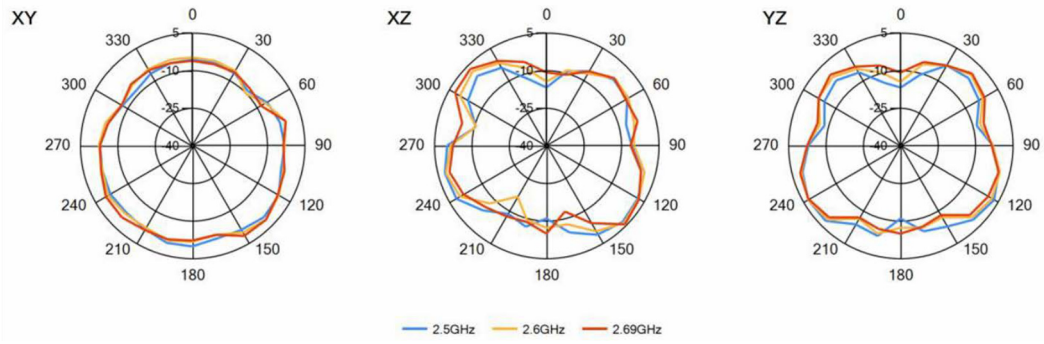
Fixed (IP67)





Hinged

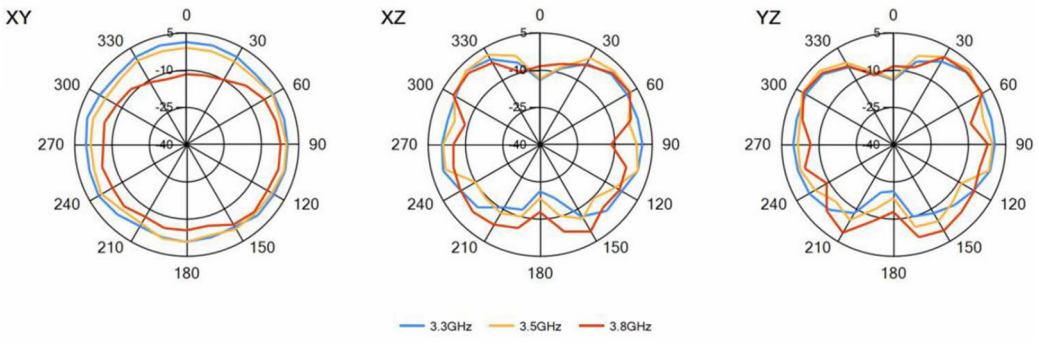




6.4.6. 3200 - 3800 MHz

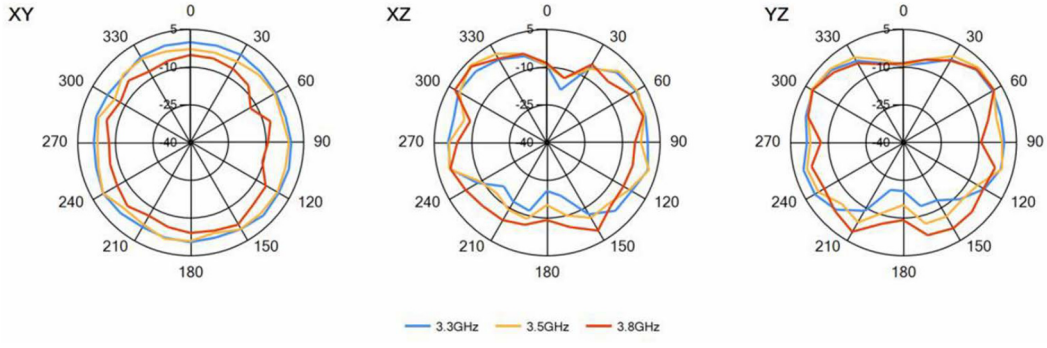
Fixed (IP67)





Hinged





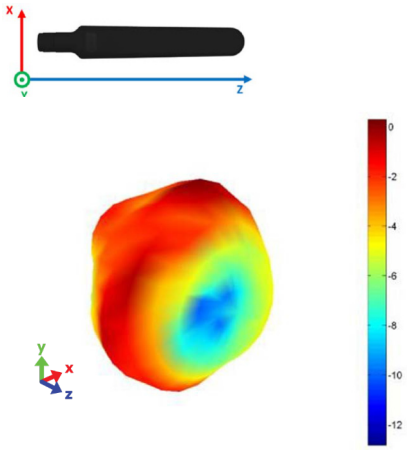
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6.4. Antenna pattern free space (3D)

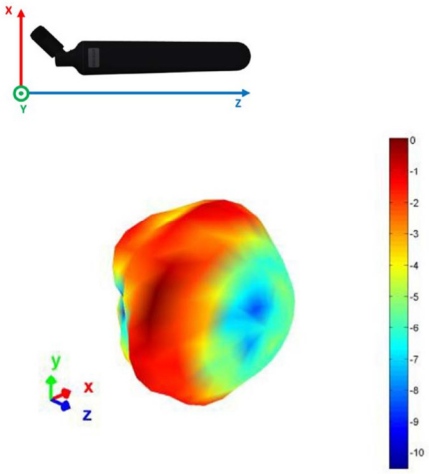
6.4.1. 617 - 960 MHz

3D patterns at 784MHz

Fixed (IP67)



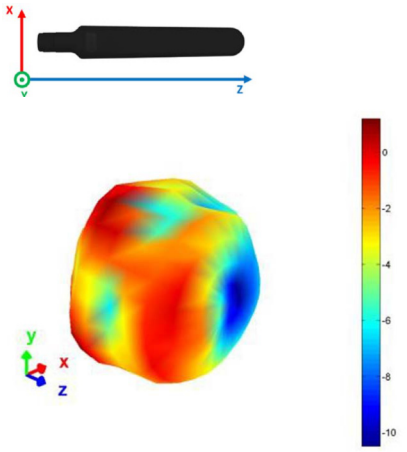
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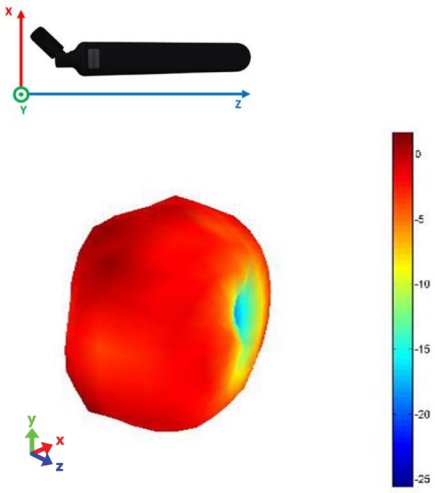
6.5.2. 1420 - 1660 MHz

3D patterns at 1460MHz

Fixed (IP67)



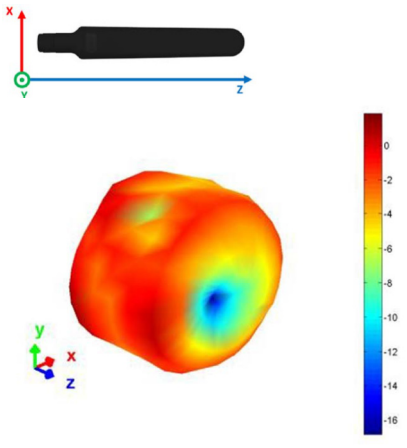
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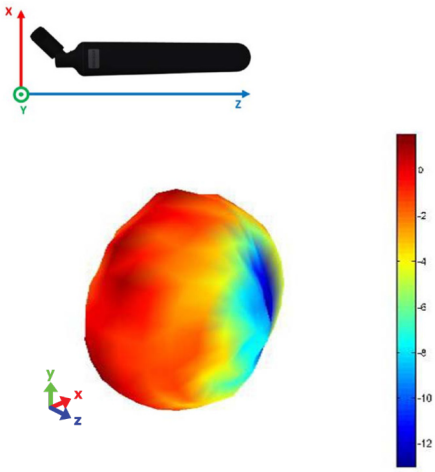
6.5.3. 1710 - 2170 MHz

3D patterns at 1970MHz

Fixed (IP67)



Hinged

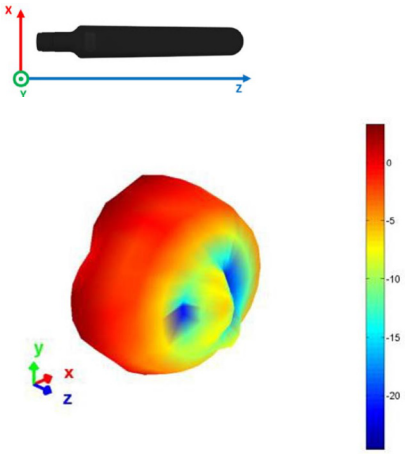


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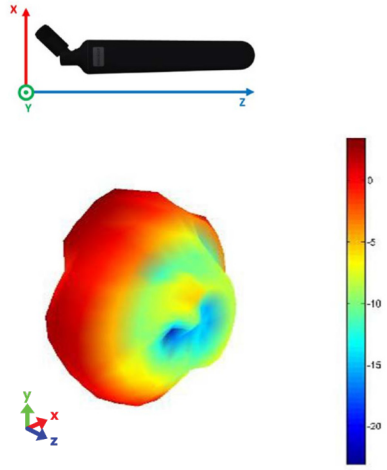
6.4.4. 2300 - 2400 MHz

3D patterns at 2360MHz

Fixed (IP67)



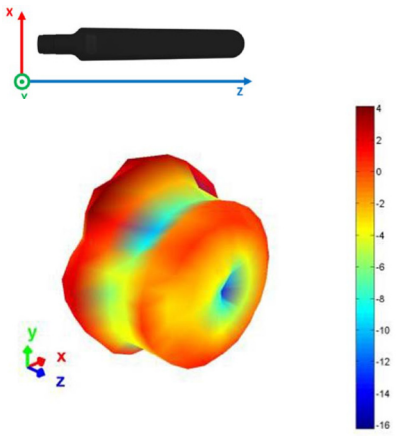
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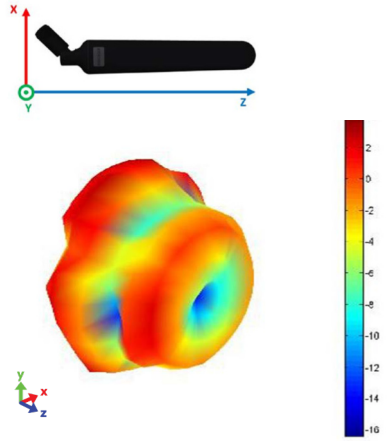
6.5.5. 2500 - 2690 MHz

3D patterns at 2600MHz

Fixed (IP67)



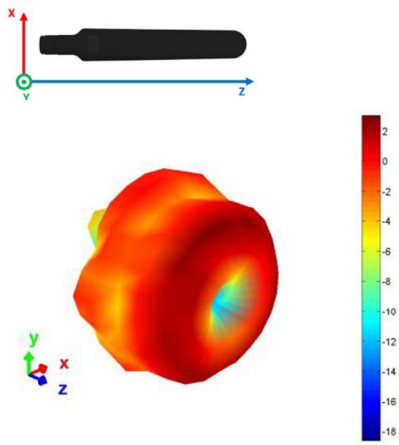
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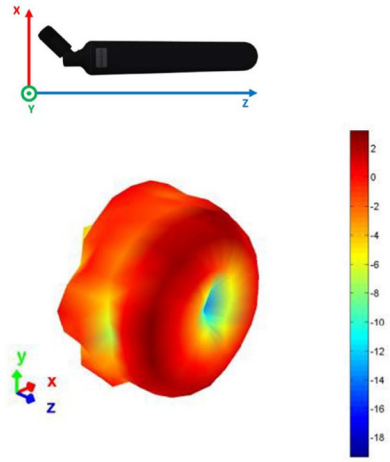
6.5.6. 3200 - 3800 MHz

3D patterns at 3500MHz

Fixed (IP67)



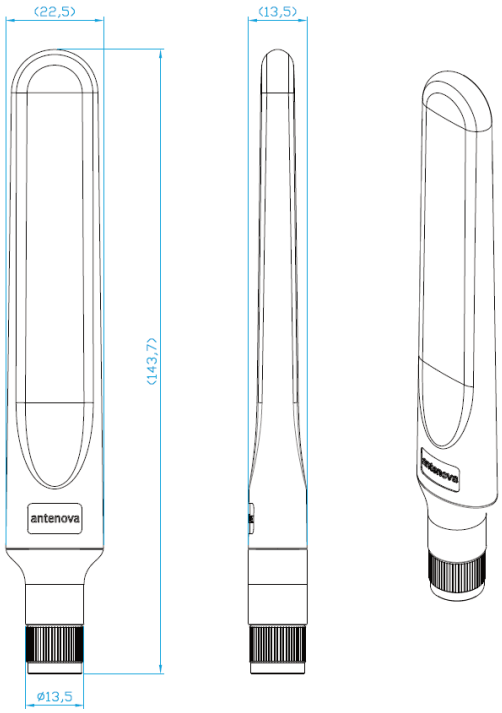
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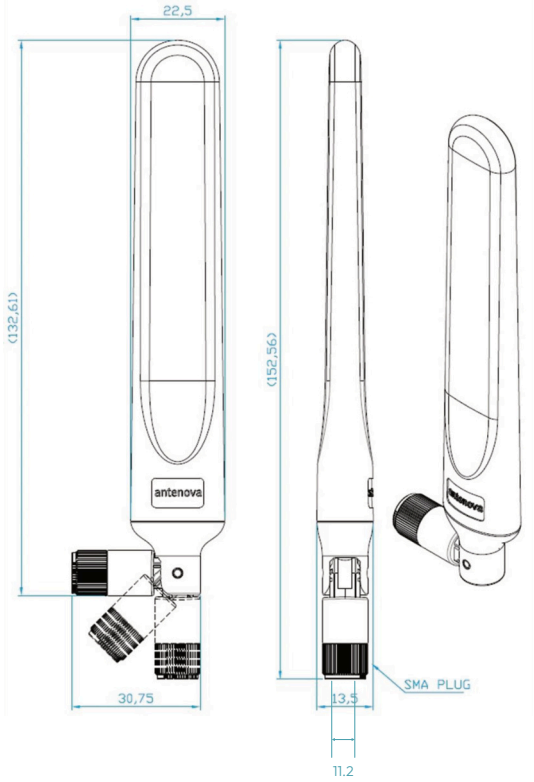
7. Antenna dimensions

Fixed (SREL062-IPP)



All dimensions in (mm)

Hinged (SREL062-S9P)



All dimensions in (mm)

Downloaded from Arrow.com.

8. Electrical interface

8.1. Transmission line

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

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

A co-planar transmission line can be designed using an online transmission line calculator tool, see TOOL at https://www.antenova.com/

The PCB thickness, copper thickness and substrate dielectric constant are entered, then the tool calculates the transmission line width and gaps on either side of the track to give a 50 Ω impedance.

9. Hazardous material regulation conformance

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

10. Packaging

10.1. Optimal storage conditions

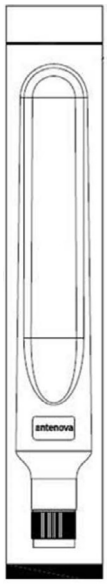
Temperature	-10°C to 40°C
Humidity	Less than 75% RH
Shelf life	18 Months
Storage place	Away from corrosive gas and direct sunlight
Packaging	Antennas should be stored in unopened sealed manufacturer's plastic packaging.
MSL level	NA

Downloaded from Arrow.com.

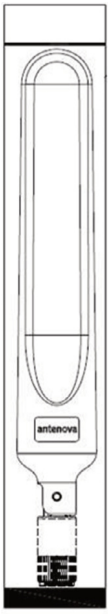
10.2. Individual packing

The antennas are supplied in individual polythene bags. Twenty five small bags are packed in one larger bag. The outer box contains fifty antennas.

Fixed (SREL062-IPP)

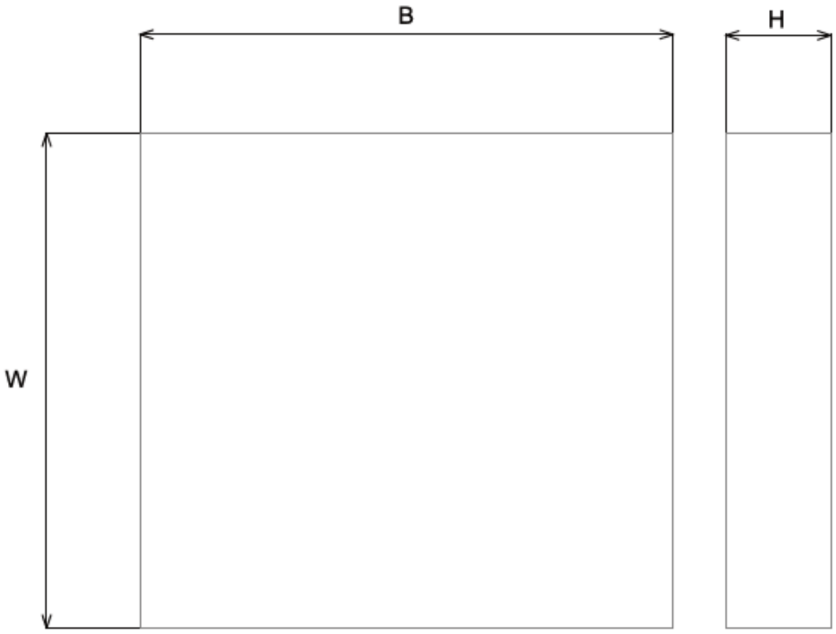


Hinged (SREL062-S9P)



Quantity
25 pcs / Bag 50pcs / box

10.3. Box dimensions



Width (W)	Breadth (B)	Height (H)
355mm	340mm	58mm

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10.4. Label information





Quality statements

Antenova's products conform to REACH and RoHS legislation. For our statements regarding these and other quality standards, please see **antenova.com**.

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Certificate No. 11070
ISO 9001

Datasheet version

2.01 release 1st July 2026

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Antenna design, integration and test resources

Product designers – the details contained in this datasheet will help you to complete your embedded antenna design. Please follow our technical advice carefully to obtain optimum antenna performance.

We aim to support our customers to create high performance wireless products. You will find a wealth of design resources, calculators and case studies to aid your design on our website.

Antenova's design laboratories are equipped with the latest antenna design tools and test chambers. We provide antenna design, test and technical integration services to help you complete your design and obtain the required certifications.

If you cannot find the antenna you require in our product range, please contact us to discuss creating a custom antenna to meet your exact requirements.

Share knowledge with RF Experts around the world

ask.antenova is a global forum for designers and engineers working with wireless technology

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Order antenna samples and evaluation boards, and read our antenna resources

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Request a volume quotation for antennas:

sales@antenova.com

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