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ACA-4HSRPP-2458

Data Sheet



4" Antenna with Hinged SMA Reverse Polarity Plug for 2.4/5 GHz

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About this Data Sheet

This document provides information about the ACA-4HSRPP-2458 dual-band 2.4/5 GHz antenna.

1 Description

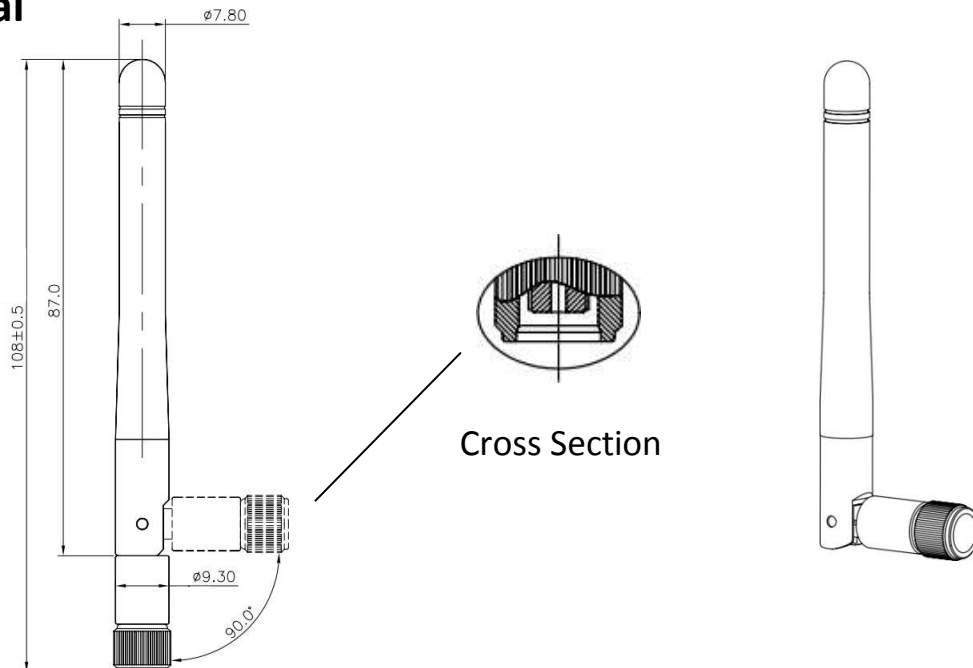
The ACA-4SSRPP-2458 is a 2.4/5 GHz antenna approximately 4” in length ideally suited for Wi-Fi communications. The antenna is hinged with an SMA Reverse Polarity Plug (RPP) connector and stands 108.0mm tall (including SMA) with a top diameter of 7.80mm and base diameter of 9.30mm. The antenna is ideal for Wi-Fi applications in the 2400-2500 MHz and 5200-5800 MHz bands of operation.

2 Specifications

Table 1. ACA-SSRPP-2458 Specifications

Parameter	Value	Tolerance	Unit
Frequency Band	2400 – 2500 5200 – 5800		MHz
Total Height (including SMA connector)	108.0	± 0.50	mm
Height (excluding SMA connector)	87.0	± 0.25	mm
Diameter (top/base)	7.80/9.30	± 0.25	mm
Connector	Hinged SMA RPP		
Antenna Cover Material	Polyurethane		
Antenna Base Material (flammability rating)	Polycarbonate (UL 94V-0)		
Color	Black		

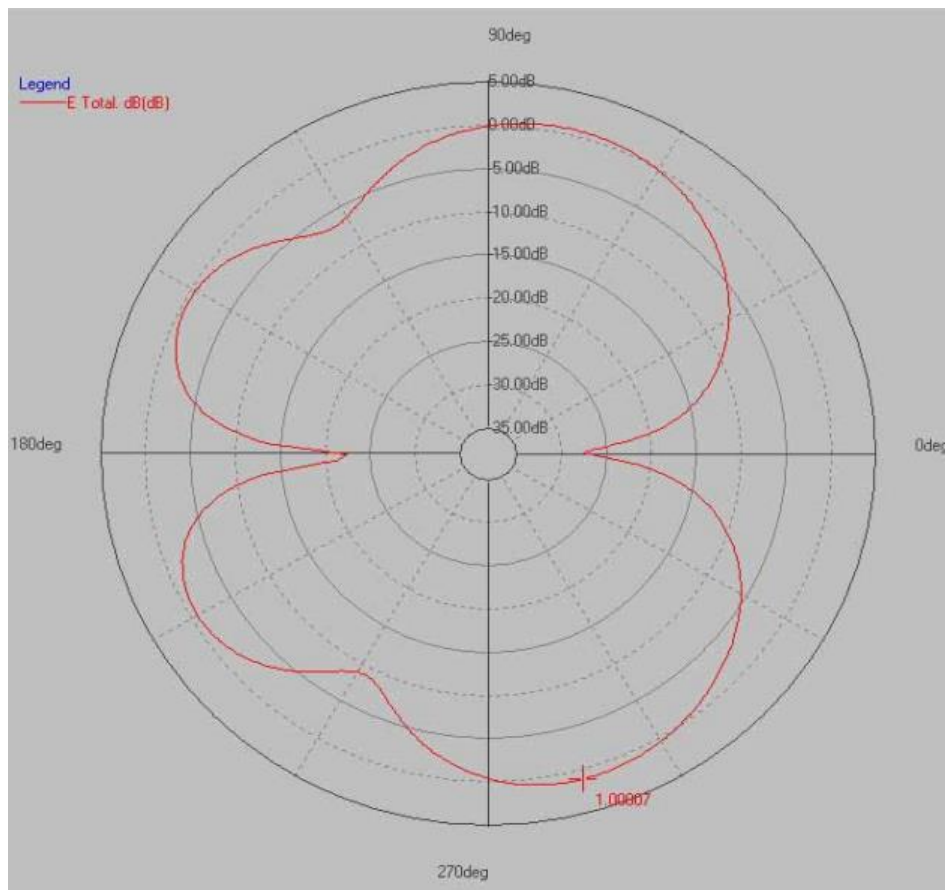
3 Mechanical



4 Radiation Pattern

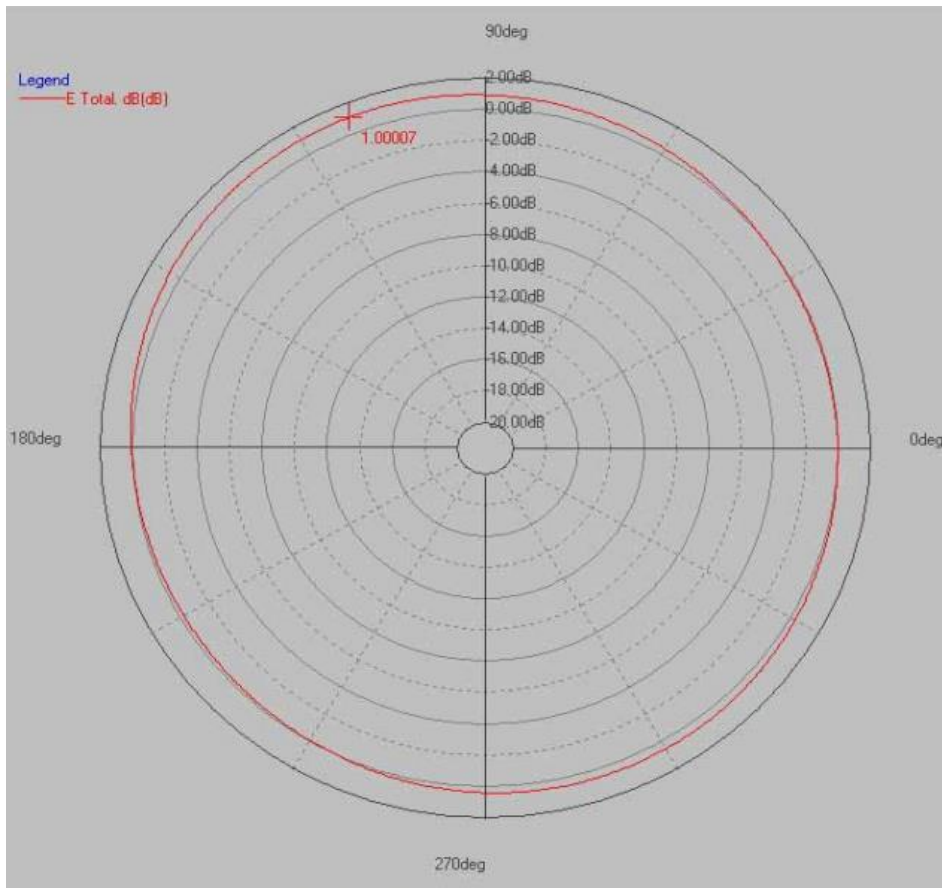
4.1 E-Plane: 2.4 GHz

Parameter	Value	Unit
Pattern Field	E-Plane	
Frequency	2450	MHz
Average Gain	-3.6	dB
Maximum Gain @ 291 degrees	1.0	dB
Minimum Gain @ 0 degrees	-27.7	dB



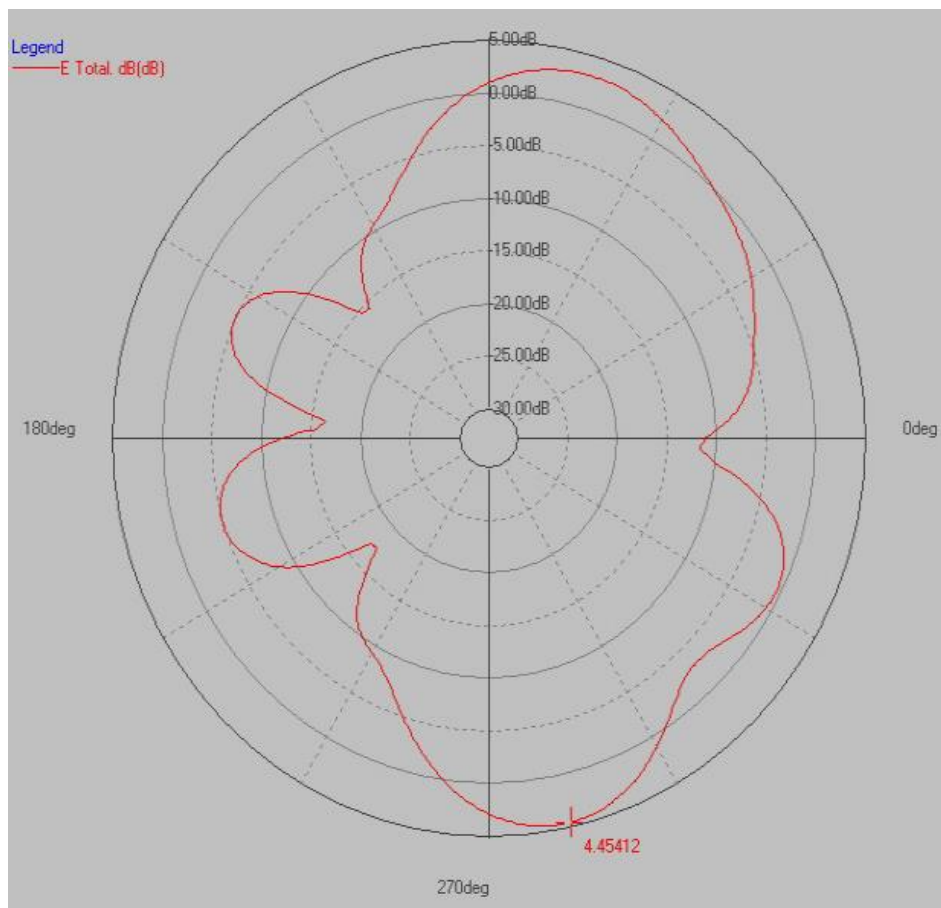
4.2 H-Plane: 2.4 GHz

Parameter	Value	Unit
Pattern Field	H-Plane	
Frequency	2450	MHz
Average Gain	0.3	dB
Maximum Gain @ 112 degrees	1.0	dB
Minimum Gain @ 212 degrees	-0.3	dB



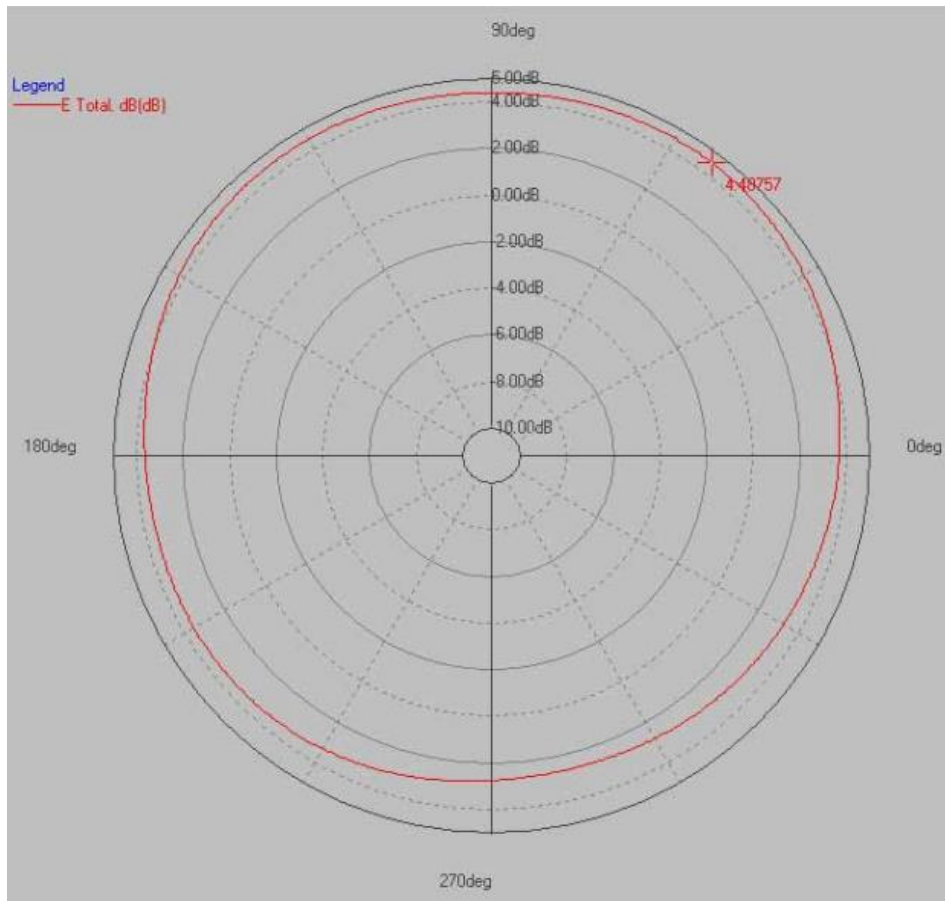
4.3 E-Plane: 5 GHz

Parameter	Value	Unit
Pattern Field	E-Plane	
Frequency	5800	MHz
Average Gain	-2.9	dB
Maximum Gain @ 283 degrees	4.5	dB
Minimum Gain @ 223 degrees	-17.5	dB

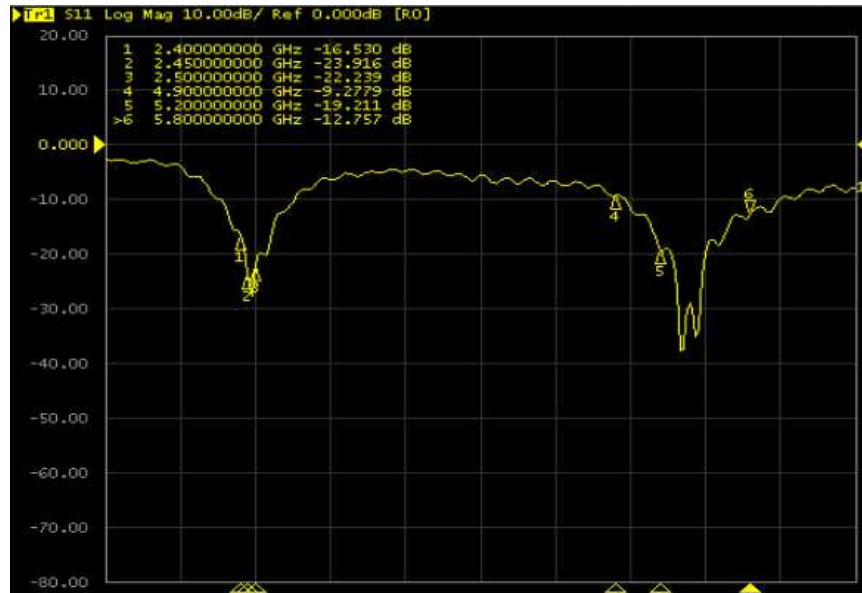


4.4 H-Plane: 5 GHz

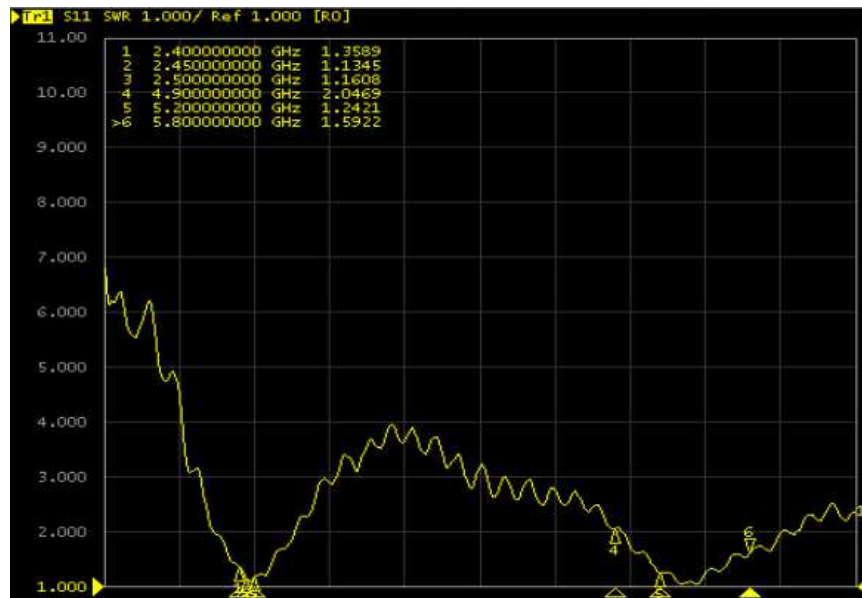
Parameter	Value	Unit
Pattern Field	H-Plane	
Frequency	5800	MHz
Average Gain	3.74	dB
Maximum Gain @ 53 degrees	4.5	dB
Minimum Gain @ 282 degrees	2.6	dB



4.5 S11 Plot



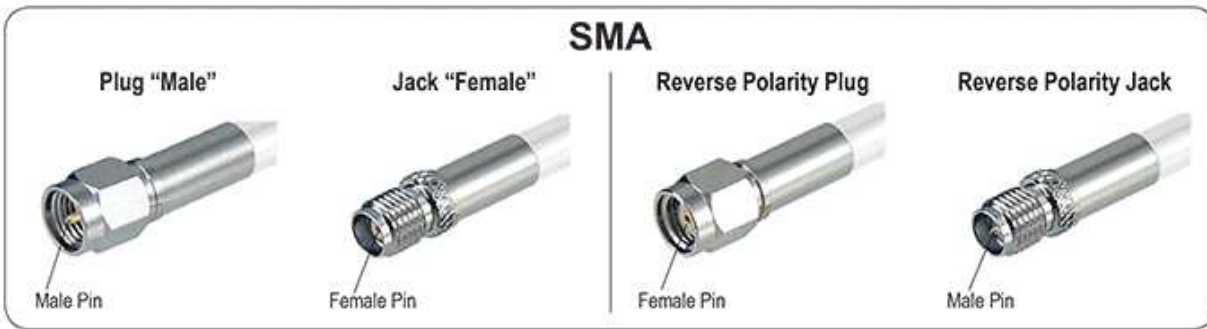
4.6 VSWR Plot



Appendix A – SMA Connector Types

To keep everyone guessing, the industry offers four different types of SMA connectors each depicted in the figure below.

The ACA-4HSRPP-2458 comes with a Hinged SMA Reverse Polarity Plug connector with a female center pin as depicted by the large arrow underneath the following picture (the hinge is **NOT** shown).



The SMA connector on the ACA-4HSRPP-2458 antenna looks like this.

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