



# ACA-4HSRPP-2458

## Data Sheet



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

## Disclaimer

While the information provided in this document is believed to be accurate, it is under development and ACKme Networks reserves the right to make changes without further notice to the product described herein to improve reliability, function, or design, and makes no guarantee or warranty concerning the accuracy of said information, nor shall it be responsible for any loss or damage of whatever nature resulting from the use of, or reliance upon, such information. ACKme Networks makes no warranties of any kind, whether express, implied or arising by custom or course of trade or performance, and specifically disclaims the implied warranties of title, non-infringement, merchantability, or fitness for a particular purpose.

No part of this document may be copied, reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photographic, or otherwise, or used as the basis for manufacture or sale of any items without the prior written consent of ACKme Networks.

## Trademarks

ACKme Networks and the ACKme Networks logo are trademarks of ACKme Networks. Other trademarks in this document belong to their respective owners.

Copyright © 2014 ACKme Networks.

All rights reserved.

Document Number: ACA-4HSRPP-2458-1xx

Release Date: April 12, 2014

## Contact

Web: <http://ack.me/contact>

## 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.

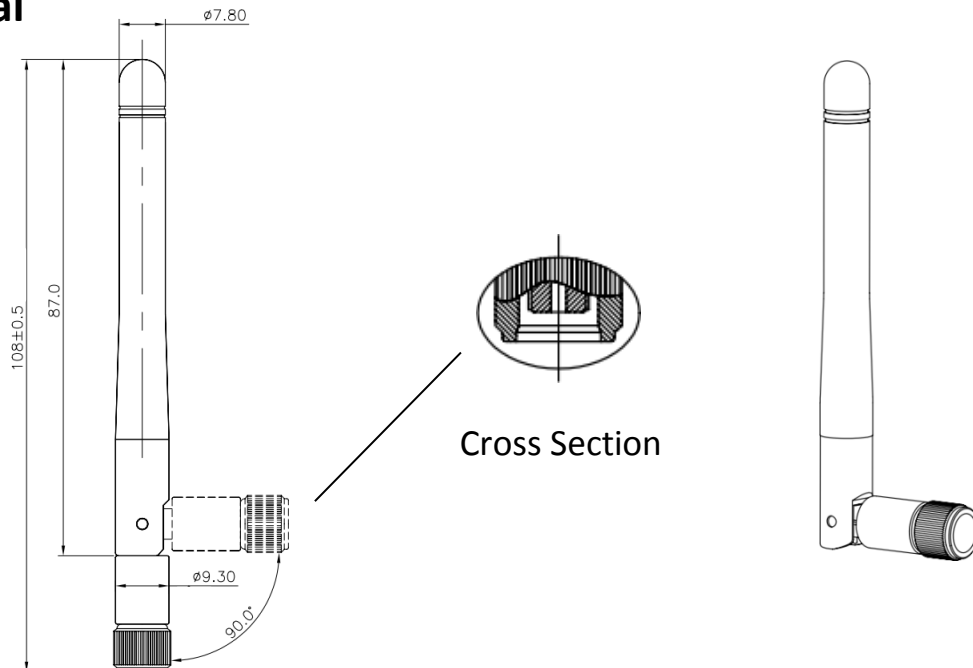
The antenna is ideal for Wi-Fi applications in the 2400-2500 MHz and 5200-5800 MHz bands of operation.

# 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		

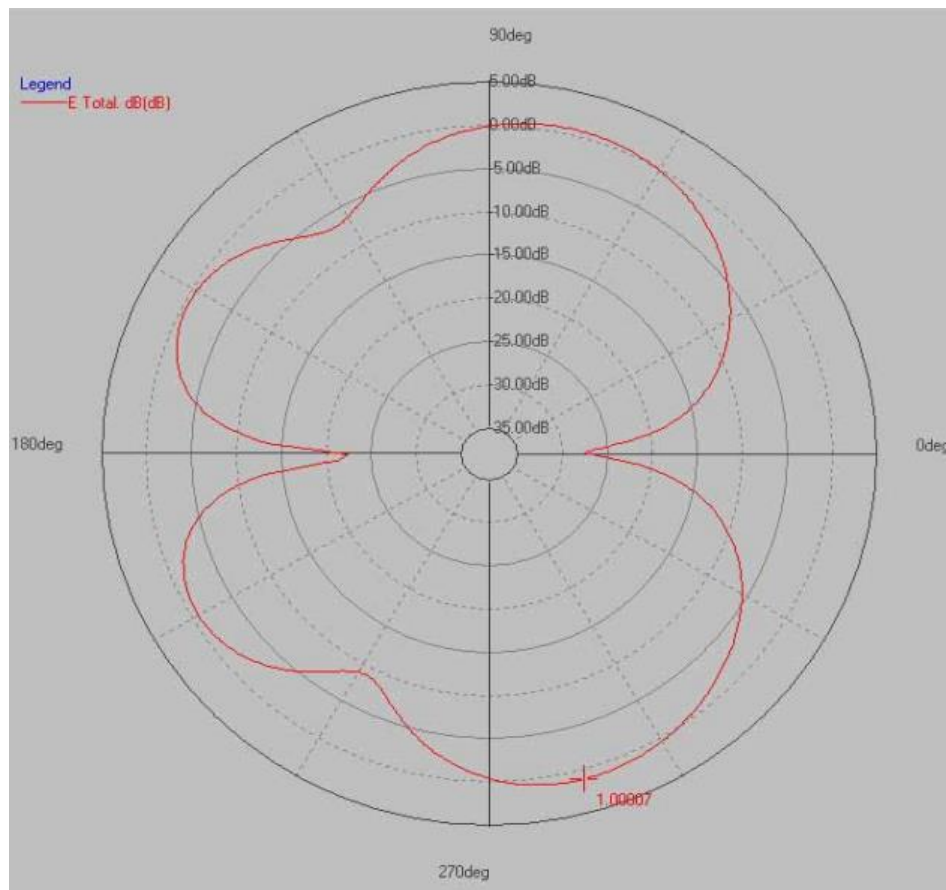
# 3 Mechanical



## 4 Radiation Pattern

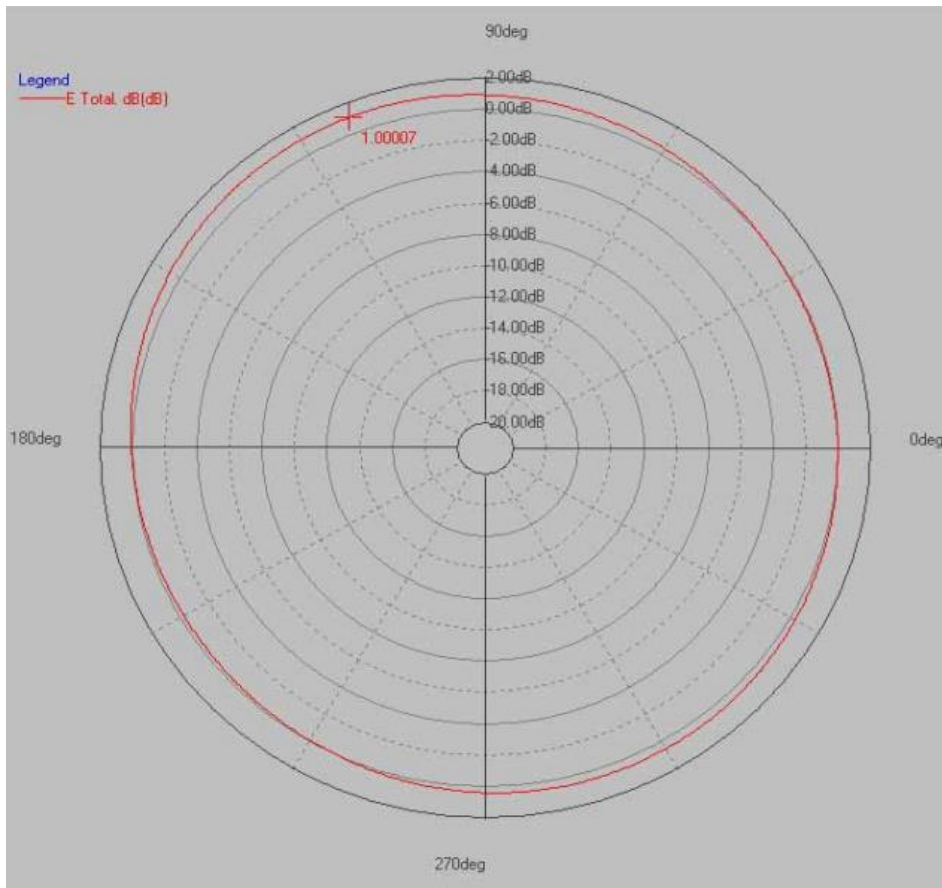
### 4.1 E-Plane: 2.4 GHz

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



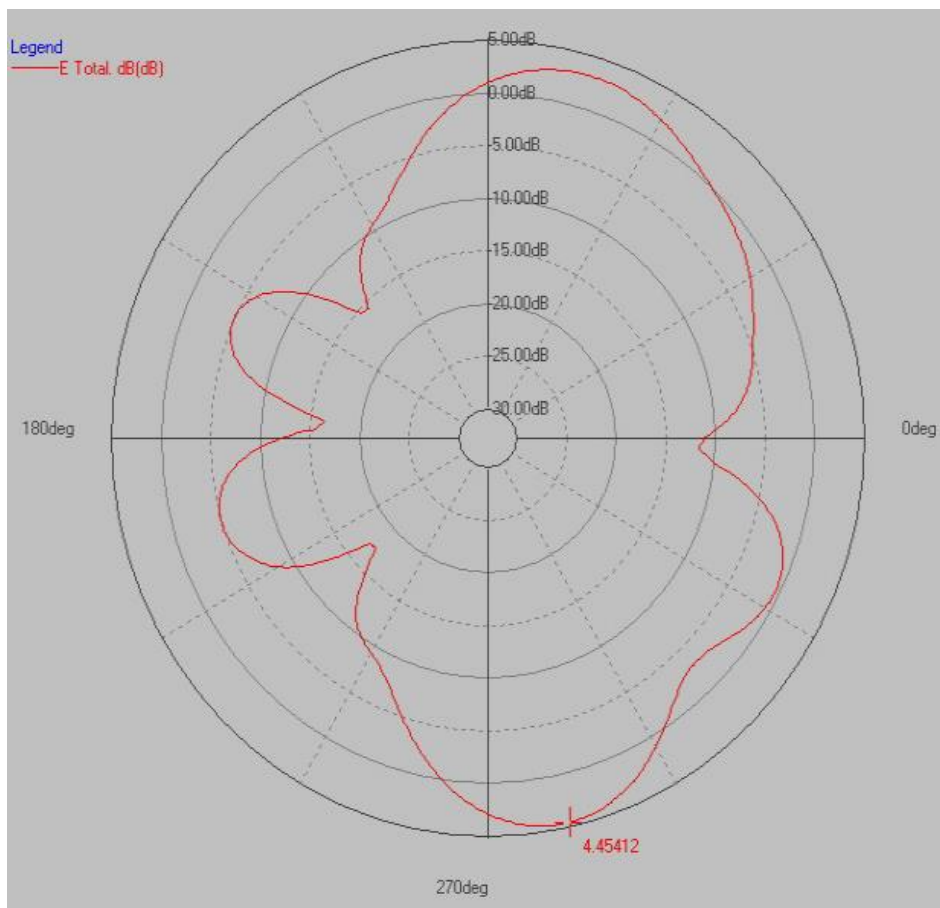
## 4.2 H-Plane: 2.4 GHz

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



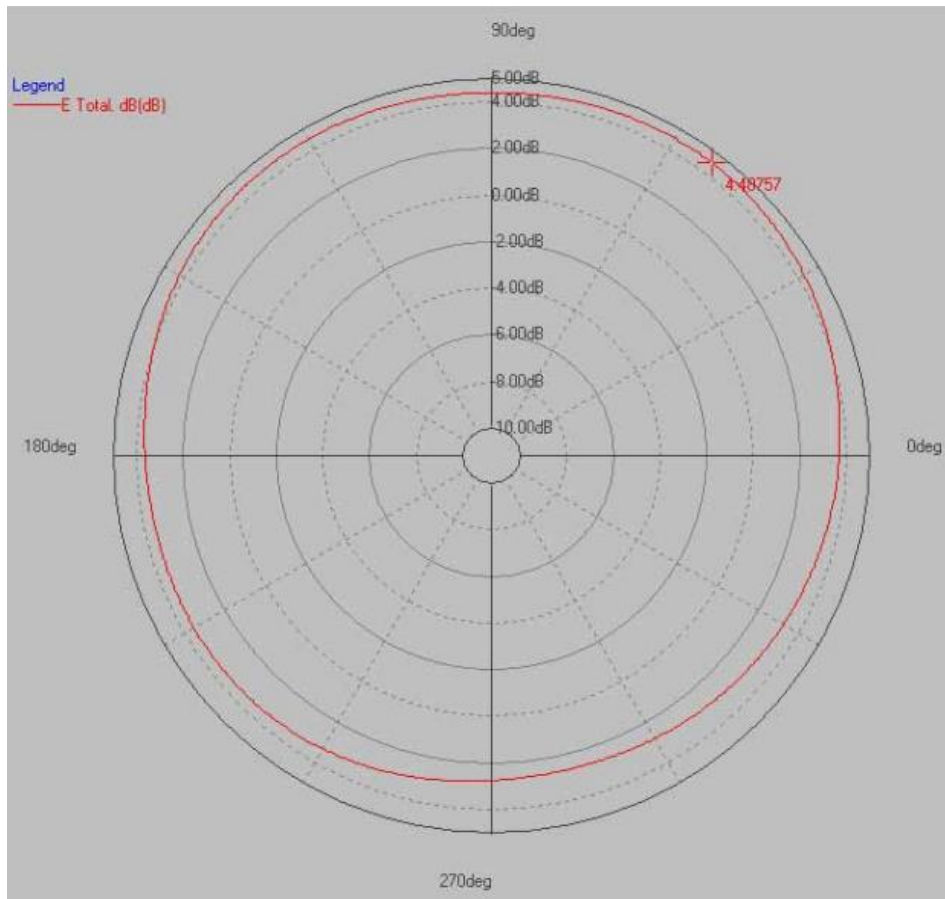
### 4.3 E-Plane: 5 GHz

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

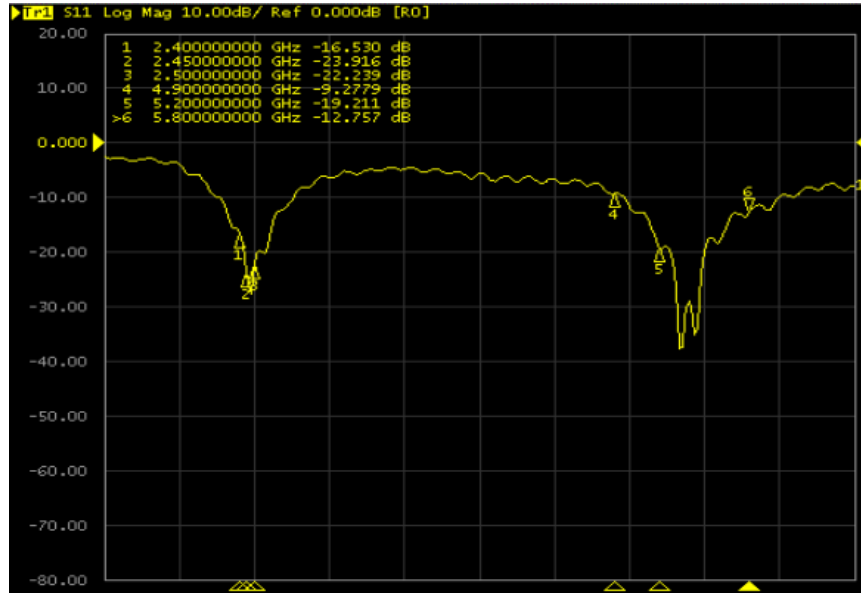


### 4.4 H-Plane: 5 GHz

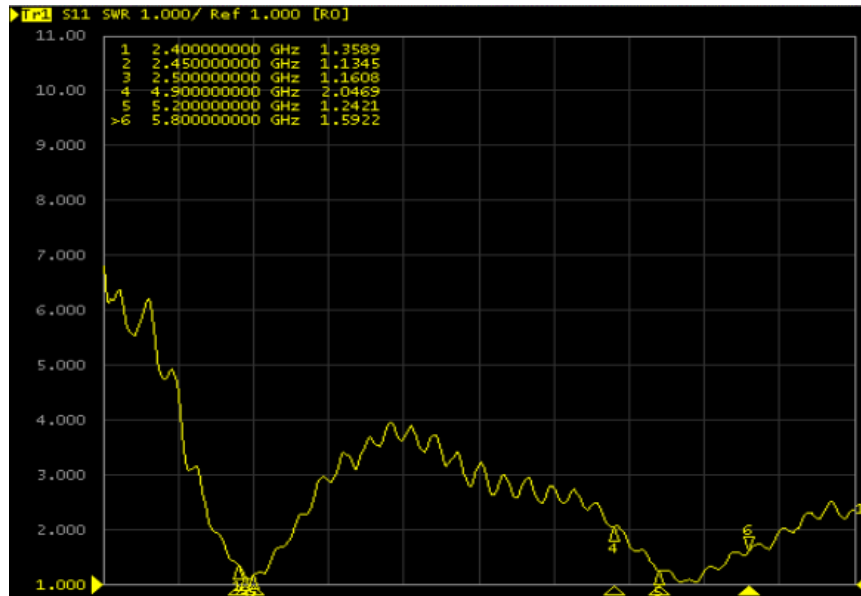
Parameter	Value	Unit
Pattern Field	H-Plane	
Frequency	5800	MHz
Average Gain	3.74	dB
Maximum Gain @ 53 degrees	4.5	dB
Minimum Gain @ 282 degrees	2.6	dB



## 4.5 S11 Plot



## 4.6 VSWR Plot

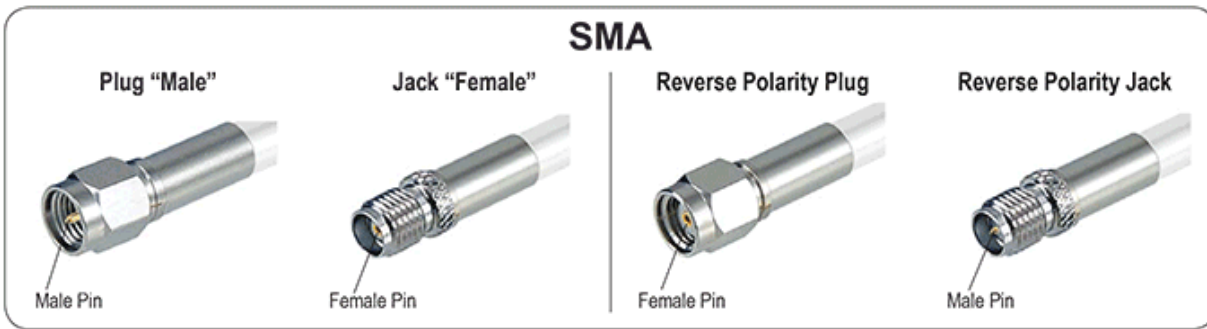




## Appendix A – SMA Connector Types

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.

ACKme reserves the right to make changes without further notice to any products or data herein to improve reliability, function, or design. Information furnished by ACKme is believed to be accurate and reliable. However, ACKme does not assume any liability arising out of the application or use of this information, nor the application or use of any product described herein, neither does it convey any license under its patent rights nor the rights of others.

---

## ACKme Networks

US Headquarters:	Australian Office:
2 North Santa Cruz Ave	Level 21, Tower 2
Suite #207	201 Sussex St
Los Gatos CA 95030	Sydney NSW 2000

© 2014 ACKme Networks. All rights reserved.

ACA-4HSRPP-2458-100R • Data Sheet  
April 12, 2014

## Contact Information

Phone: +1 (408) 402 5708  
www: <http://ack.me/contact>





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.