1.0 Electrical Specifications

Parameters	Min.	Typ.	Max.	Units	Note
Frequency Range		2.4		GHz	
		5.0		GHz	
VSWR			1.5:1		
Polarization Model		Linear			
Impedance		50		Ω	
Gain		4.0		dBi	2.4 GHz
		5.2		dBi	5 GHz
Power Capability		20		W	
Operating Temperature	-40		+85	˚C	

2.0 Material Composition

This product is RoHS/RoHS II compliant.
Lead in copper alloy exemption (6c); and Lead in glass exemption (7c-I)

3.0 MSL level: Not Applicable

4.0 Mounting Type

Most RF Connectors (RP-SMA-Male Standard)

5.0 Ordering information

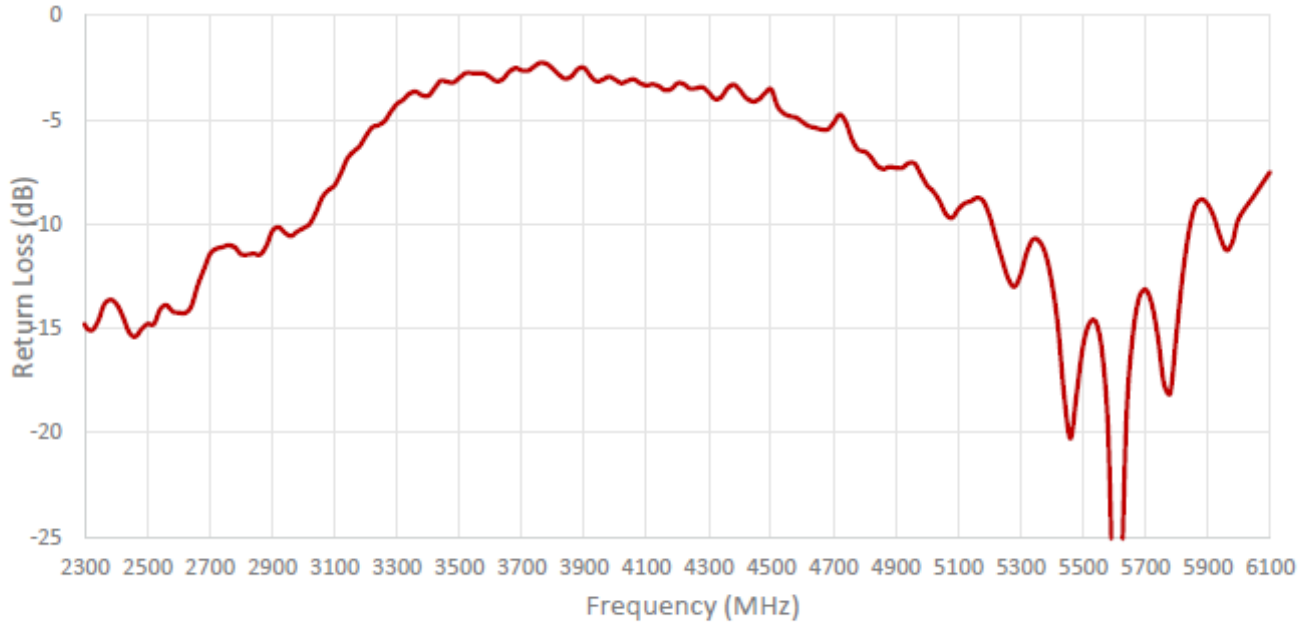
APAMBJ-135 ☐

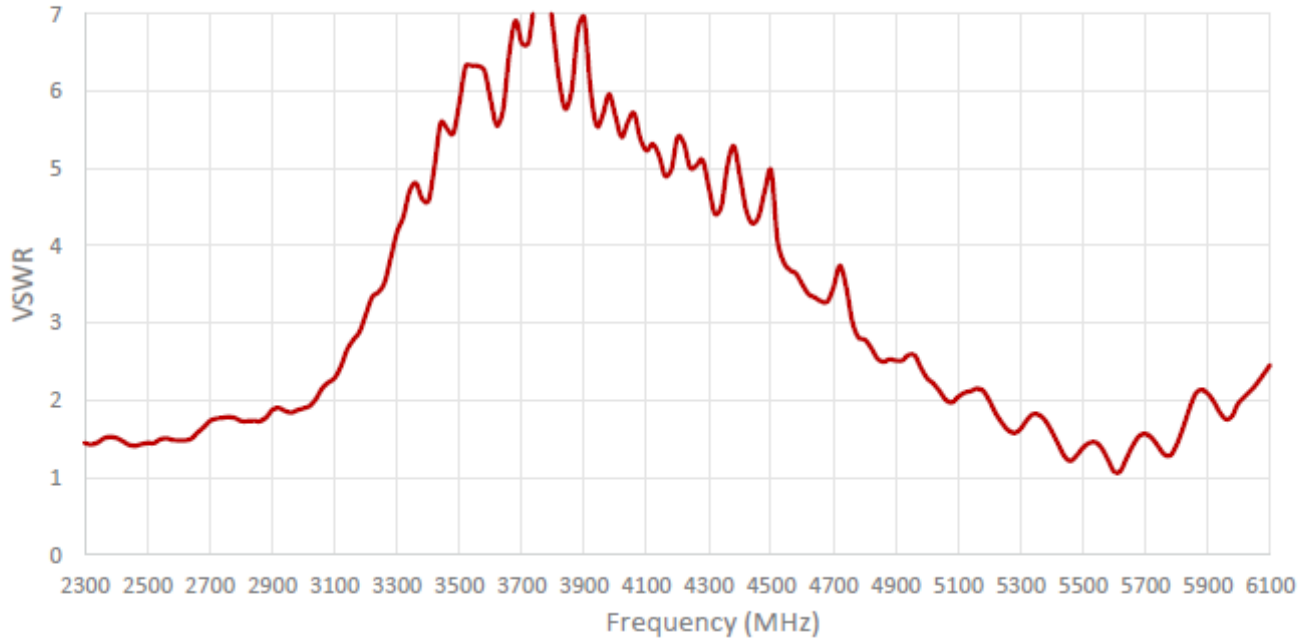
Code	Connector Type
S (Standard)	SMA_J3 (M)
A	RP-SMA (M)

Example Configuration

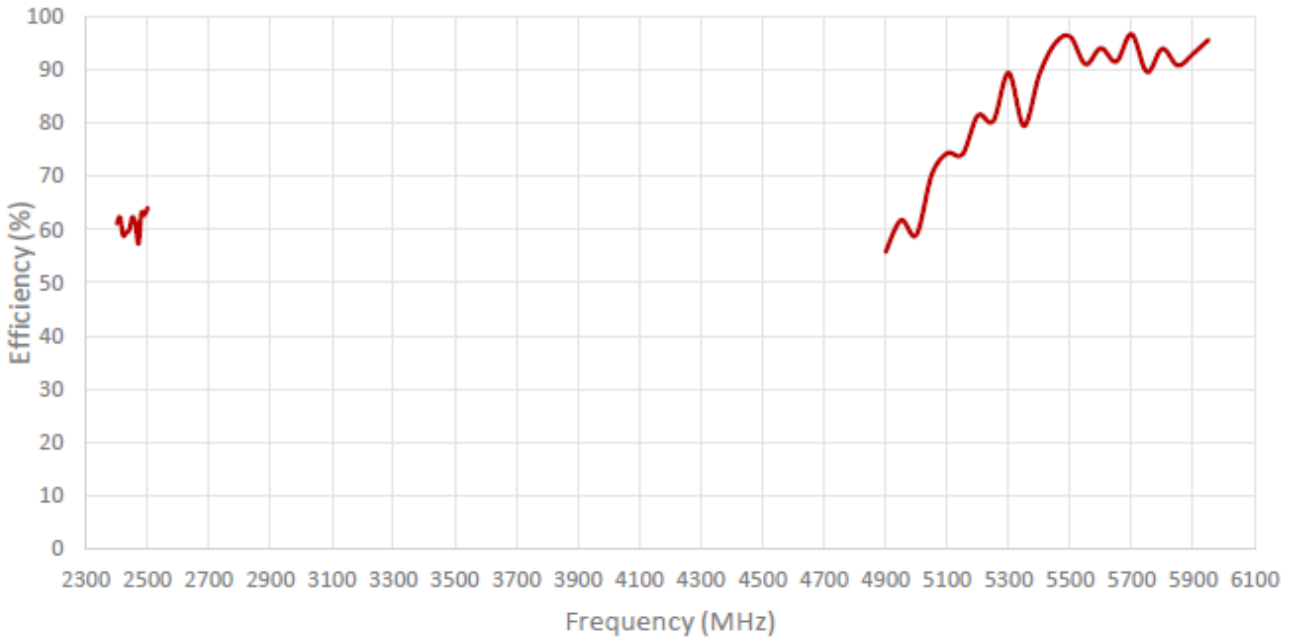
Part Number	Description	Connector Option
APAMBJ-135S	54.4 x Ø10mm Wi-Fi/Bluetooth Antenna Module with SMA_J3	SMA_J3(M)
APAMBJ-135A	56 x Ø9.5mm Wi-Fi/Bluetooth Antenna Module with RP-SMA	RP-SMA(M)

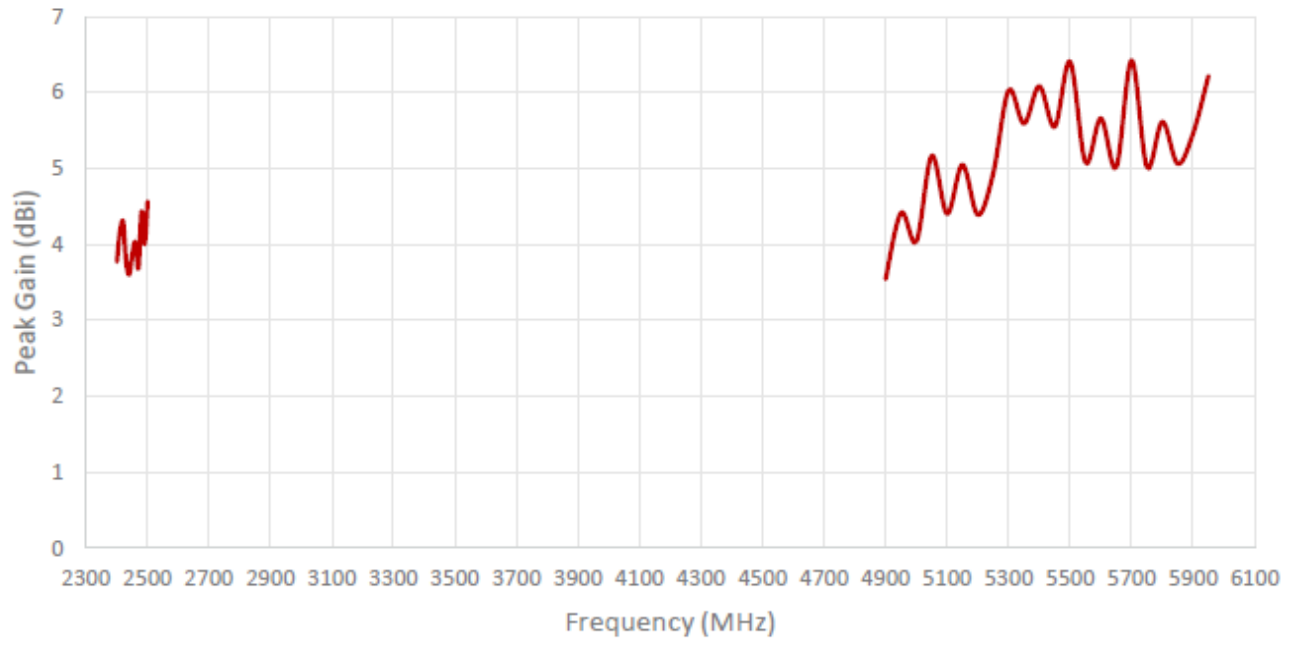
6.0 Antenna RL & VSWR



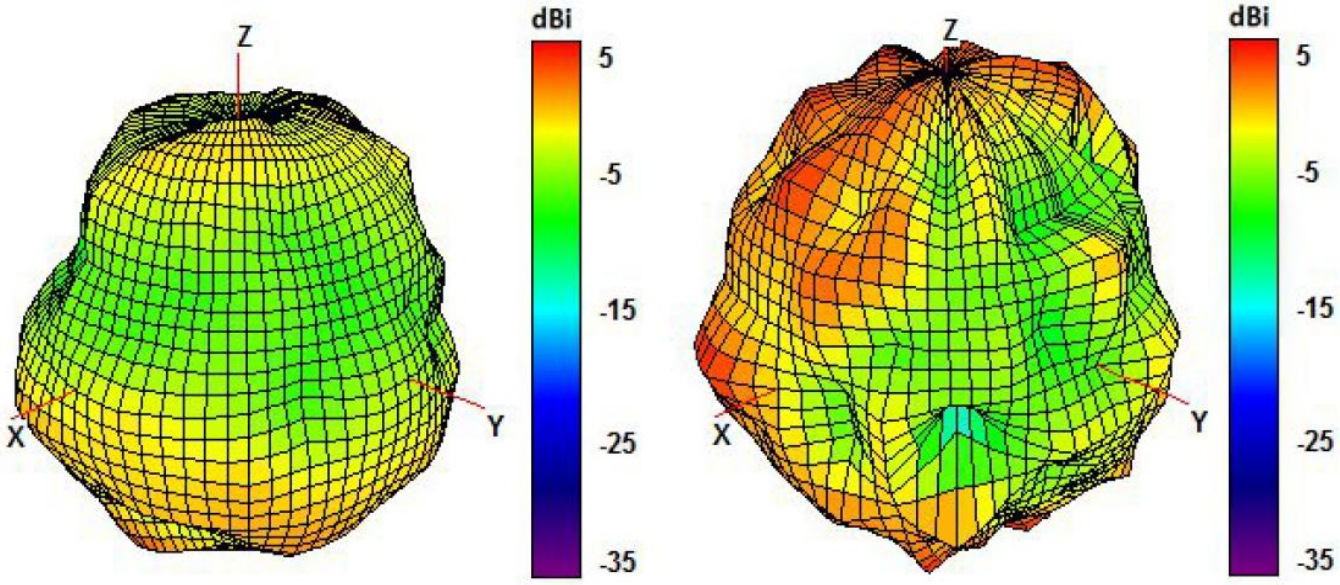


6.1 Efficiency & Peak Gain

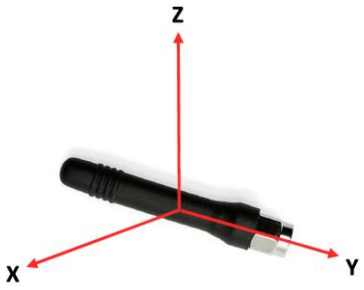




6.2 Radiation Pattern



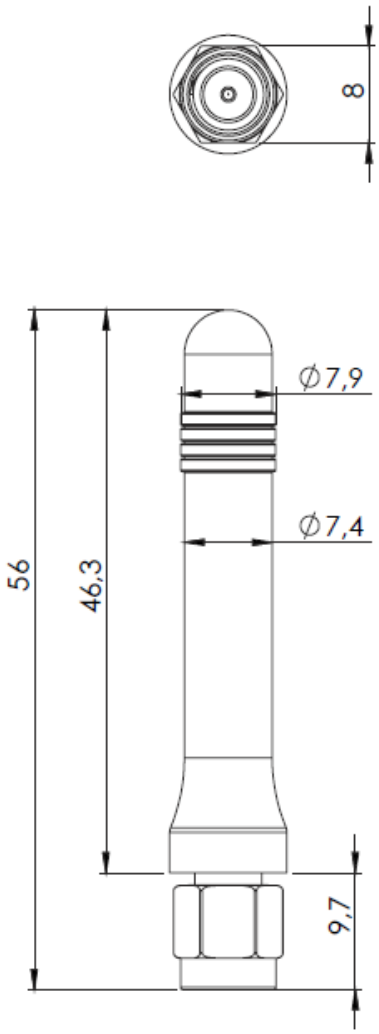
2450 and 5500 MHz Radiation pattern



Radiation pattern reference

Note: Mounted on Ground Plane of 70x35 mm
Measured in Certified CTIA 3D Anechoic Chamber

7.0 Outline Dimensions:



Unit: mm

Parameters	Description
RF Connector	RP-SMA-Male Standard
Enclosure	ABS UV Stable
Color	Black

8.0 Product Image

9.0 Reliability Test

Item	Test Condition	Remark
Humidity Test	The device is subjected to 93±2% relative humidity 40±3℃ for 48h, then dry out at 25℃±5℃ and less than 65% relative humidity for 12h. After dry out retest.	Device shall satisfy the specification in table 8.1.
High Temperature Storage	The device shall satisfy the specification in table 8.1 after leaving at 85℃ for 16h, provided it would be measured after 2h leaving in 25℃±5 ℃ and less than 65% relative humidity, retest.	Device shall satisfy the specification in table 8.1.
Low Temperature Storage	The device shall satisfy the specification in table 8.1 after leaving at -40℃ for 16 h, provided it would be measured after 2h leaving in 25℃±5 ℃ and less than 65% relative humidity, retest.	Device shall satisfy the specification in table 8.1.
High Temperature Operation	Operating the device at 80℃ and 3.0Vfor 2h, retest.	Device shall satisfy the specification in table 8.1.
Low Temperature Operation	Operating the device at -40℃ and 3.0Vfor 2h, retest.	Device shall satisfy the specification in table 8.1.
Vibration	Subject the device to Sinusoidal vibration for 2h each in x, y and z axis with the amplitude of 1.5mm (max), the frequency shall be varied uniformly between the limits of 10Hz~55Hz~10Hz, retest.	Device shall satisfy the specification in table 8.1.
Free Fall	Handling the product at the 1000mm dropped 3 times with random fall surface, retest.	Device shall satisfy the specification in table 8.1. (Mechanical damage such as breaks shall not occur.)

Table 8.1

Parameters	Min.	Typ.	Max.	Units	Note
Appearance change	None				
Δf			2.55	GHz	Bluetooth
			5.1	GHz	Wi-Fi
VSWR			2:1	dB	

10.0 Packaging

Package Type	Quantity	Dimensions	Weight
Plastic bag	1 pcs/ Plastic bag	100 x 150 mm	7.2 g
Outer Box	1000 pcs/box	470 x 310 x 210 mm	10 kg