

# **SMD Antenna Specifications**

**OverAir<sup>®</sup> SMD Antenna  
series are RoHS compliant**

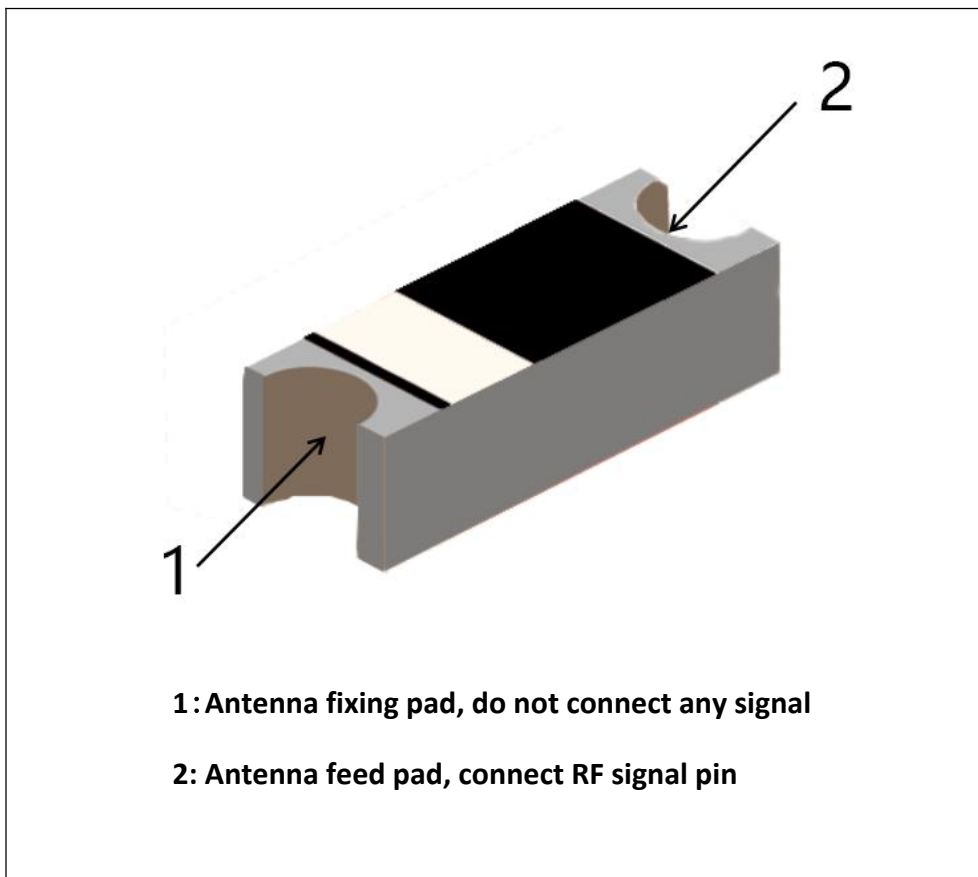
**PN: OA-C09**

**2.4 GHz ISM Band Antenna**

**Features**

1. Small size SMD patch antenna with size only 5.5 X 1.2 X 1.2 mm.
2. Low energy loss, high antenna efficiency.
3. High stability under temperature and humidity changes.

**Structure**

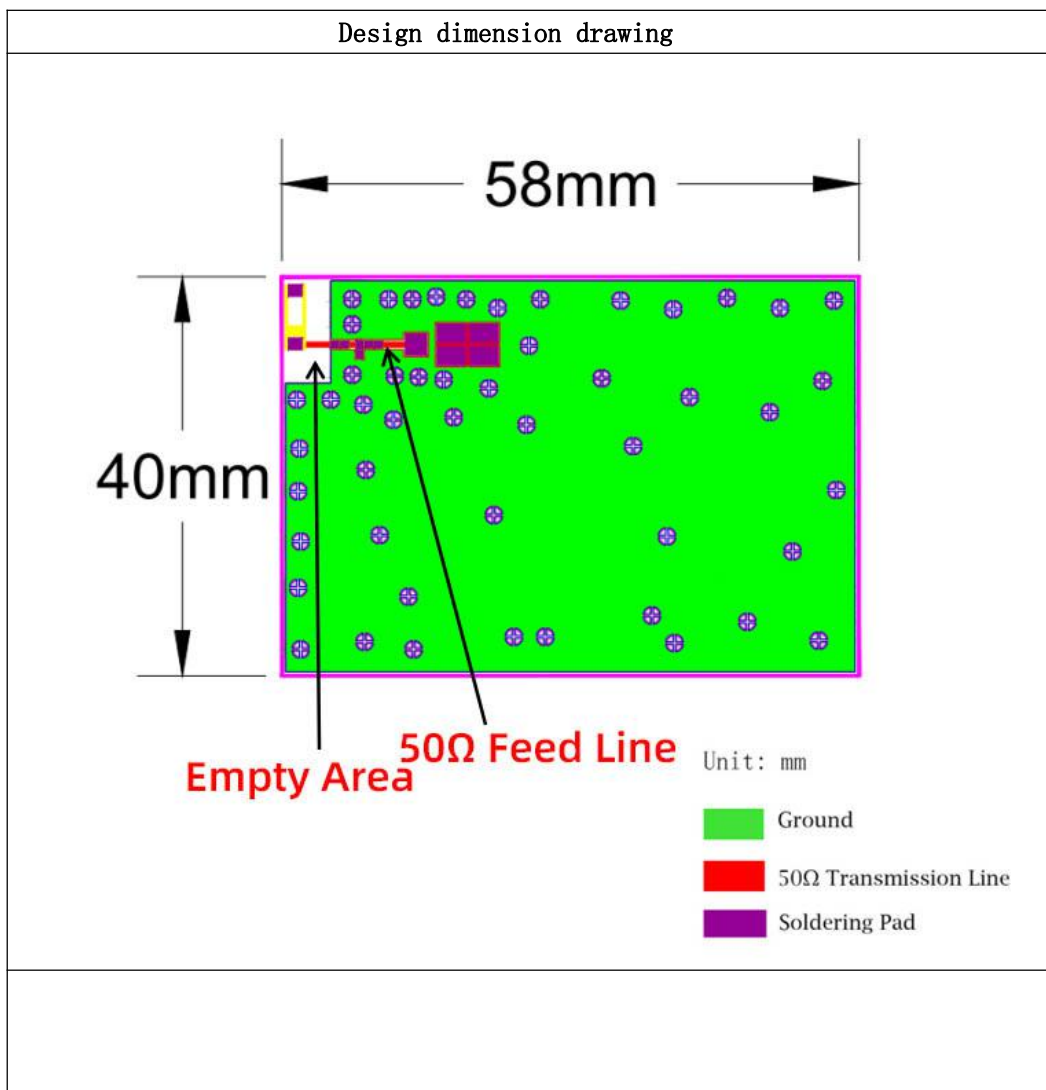


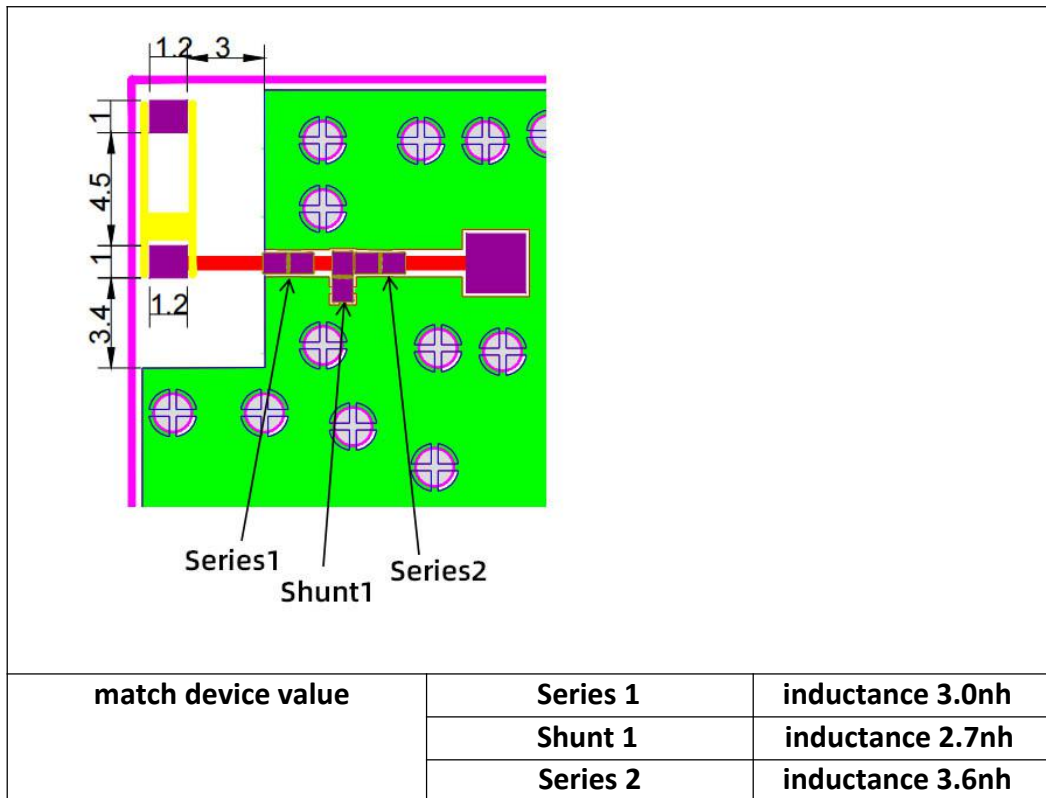
**Size**

Three View	Symbol	(mm)
	<b>L</b>	<b>5.5 ± 0.2</b>
	<b>w</b>	<b>1.2 ± 0.1</b>
	<b>T</b>	<b>1.2 ± 0.1</b>
	<b>a</b>	<b>0.4 ± 0.1</b>

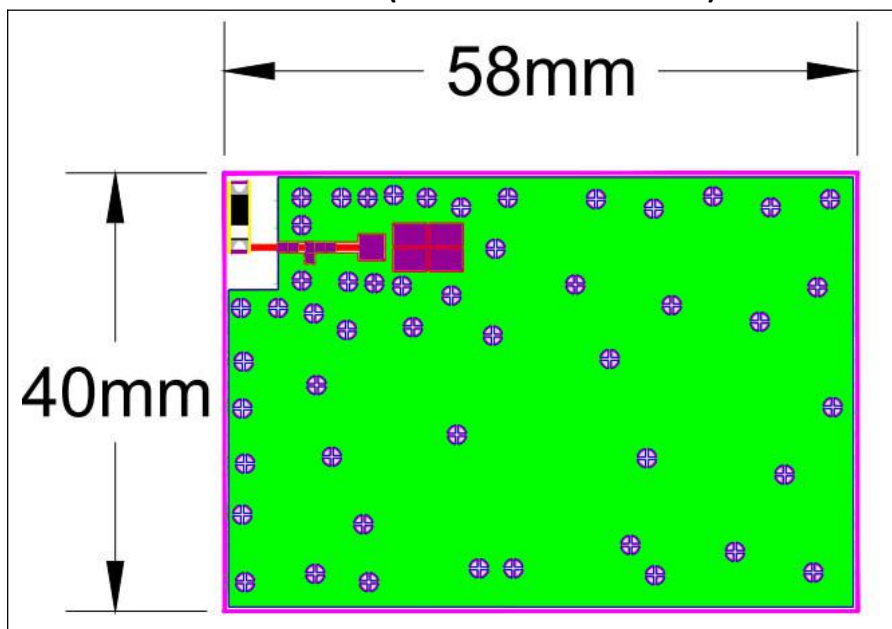
Electrical Characteristics

OA-C09	Specification
Working Frequency	2450 ± 50MHz
Initial frequency band(GHz)	3.0GHz
Band Width	>100MHz
Impedance	50 Ω
Gain(dBi)	4 (peak)
VSWR	<2
Operation Temperature	-40°C~+95°C
Power Capacity	3W

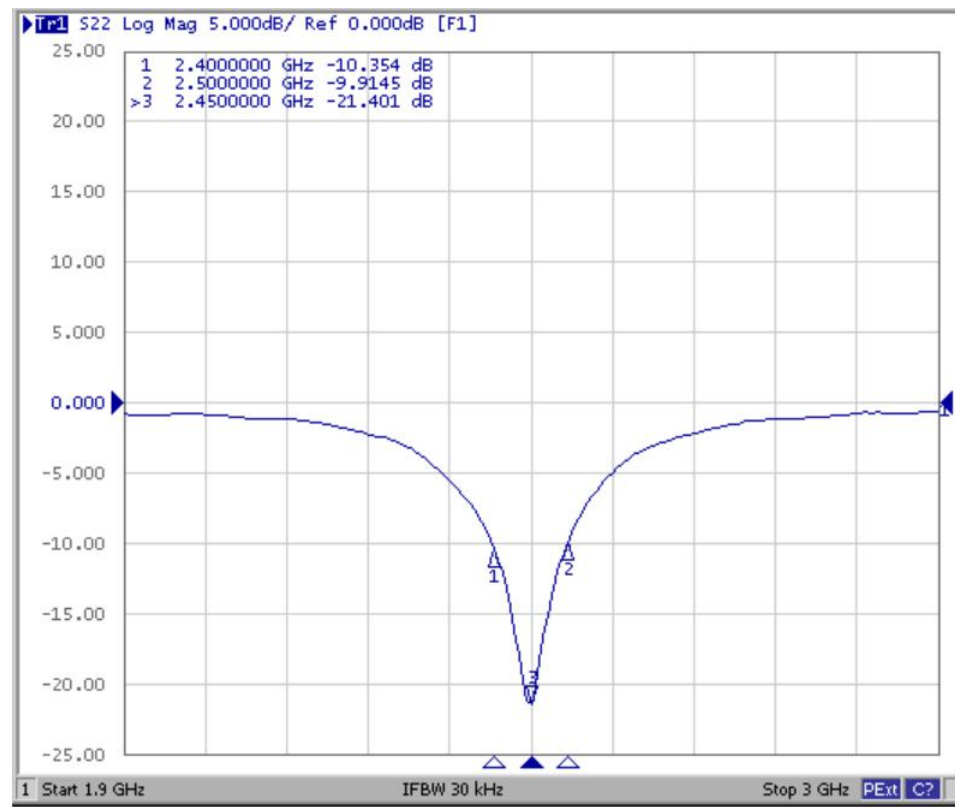




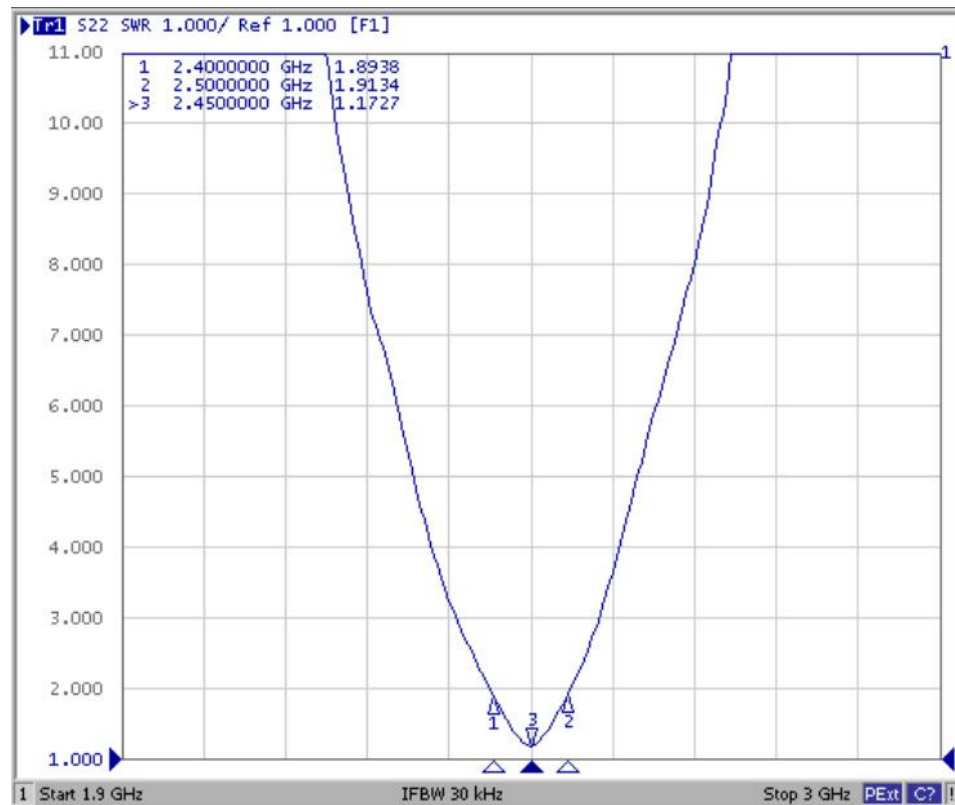
Antenna test on test board (board thickness 1.0mm)



Antenna S11 Characteristics

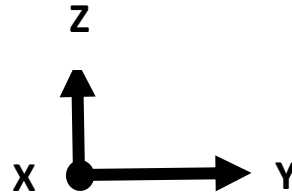
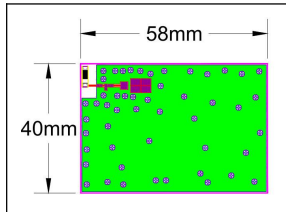


Antenna VSWR Characteristics



**Efficiency and Radiation Patterns**

Performance, radiation pattern, gain, etc. are based on the test board design. The specification characteristic test data of OA-C09 antenna is obtained based on the test PCB board size and the test direction shown in the figure below.



Gain and Efficiency	Bandwidth 2.4G-2.5GHz
Peak Gain	4dBi
Average Gain across the band	4.0dBi
Gain Range across the band	3.59dBi~4dBi
Peak Efficiency	62.5%
Average Efficiency across the band	57.5%
Efficiency Range across the band	51.3%~62.5%

