

# Bluetooth antenna of PCB on-board specification

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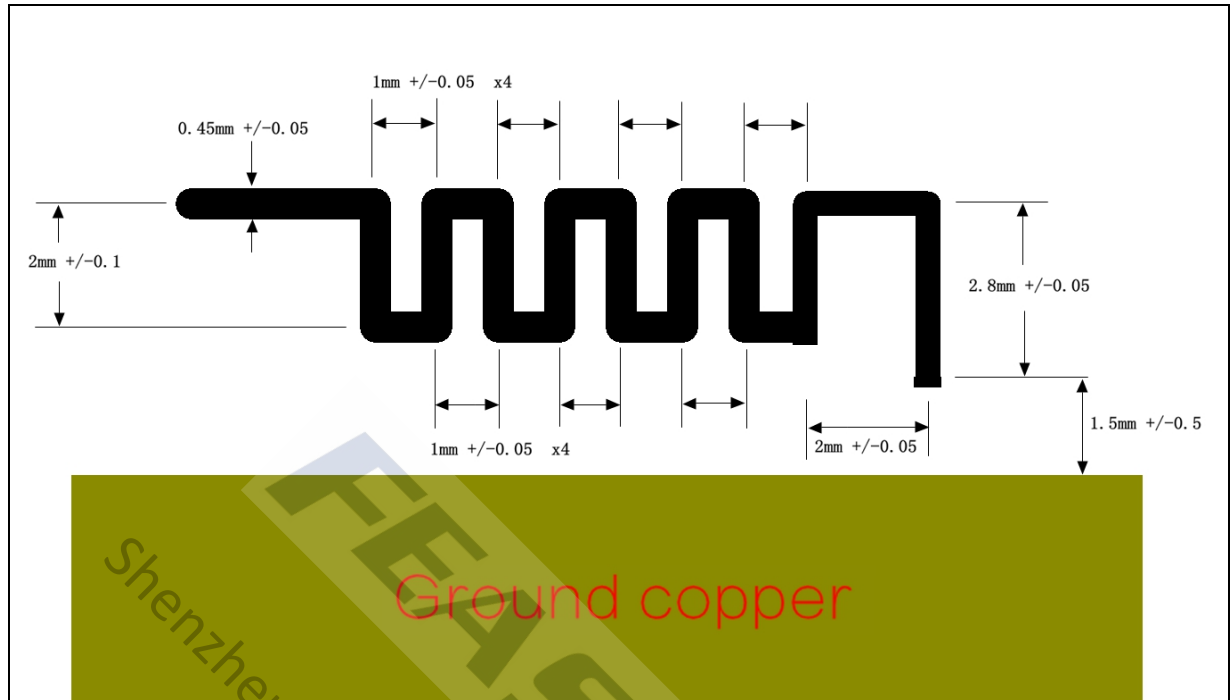
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## 2, Spec Drawing



## 3, Specification

Product Number: 2.4GHZ coil antenna

Sample Photo:



### A. Electrical Characteristics

Frequency	2400 ~ 2500 MHz
S.W.R.	$\leq 2.0$
Gain	2.0 dBi
Efficiency	~ 50%
Polarization	Linear
Impedance	50 Ohm

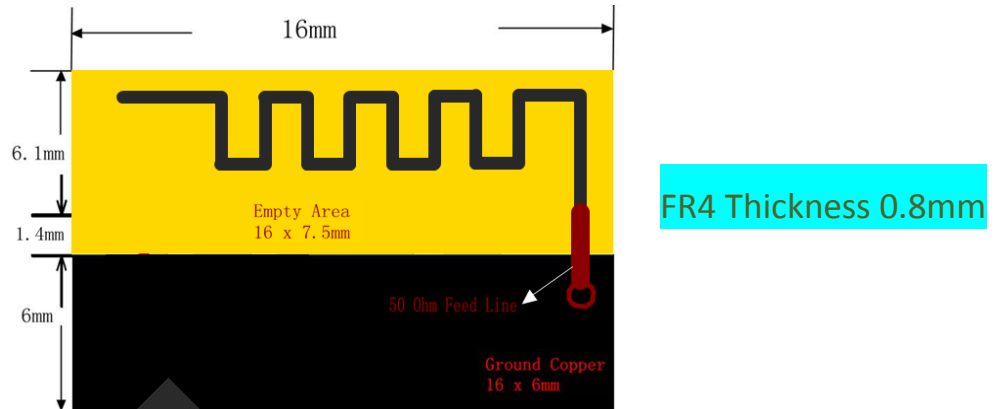
### B. Material & Mechanical Characteristics

Material of Radiator	Gold-plated copper
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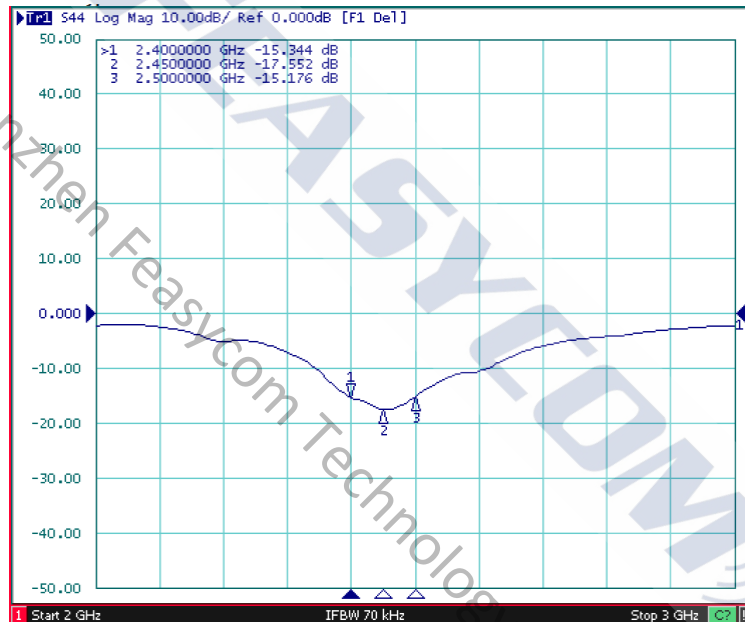
### C. Environmental

Operation Temperature	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Storage Temperature	$-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$

## 4, Antenna On Test Board



## 5, Return Loss



## 6, Radiation Pattern

Radiation Pattern and Gain were dependent on measurement board design. The specification of coil antenna was measured based on the PCB size and installation position as shown in the below figure Test Board.



	Vertical	Horizontal
<b>Y - Z Plane</b>  Average Gain=1.19 dBi		
	Peak Gain = 2dBi Average Gain = 0.75 dBi	Peak Gain= -1.33 dBi Average Gain=-8.7 dBi
<b>X - Z Plane</b>  Average Gain=-2.91dBi		
	Peak Gain= -3.71 dBi Average Gain= -8.76dBi	Peak Gain= -0.29 dBi Average Gain= -4.19dBi
<b>X - Y Plane</b>  Average Gain=-0.95 dBi		
	Peak Gain= 0.77 dBi Average Gain= -5.86dBi	Peak Gain= 1.35 dBi Average Gain= -2.62 dBi