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# Bluetooth antenna of PCB on-board specification

## V1.0

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Document Type: PCB Antenna  
Manufacturer: JOYTECH Healthcare Co., Ltd  
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## 2、Specification

Product Number: PCB Antenna

Sample Photo:



### A. Electrical Characteristics

Frequency	2400 ~ 2500 MHz
S.W.R.	$\leq 2.0$
Gain	2.02 dBi
Efficiency	~ 50%
Polarization	Linear
Impedance	50 Ohm

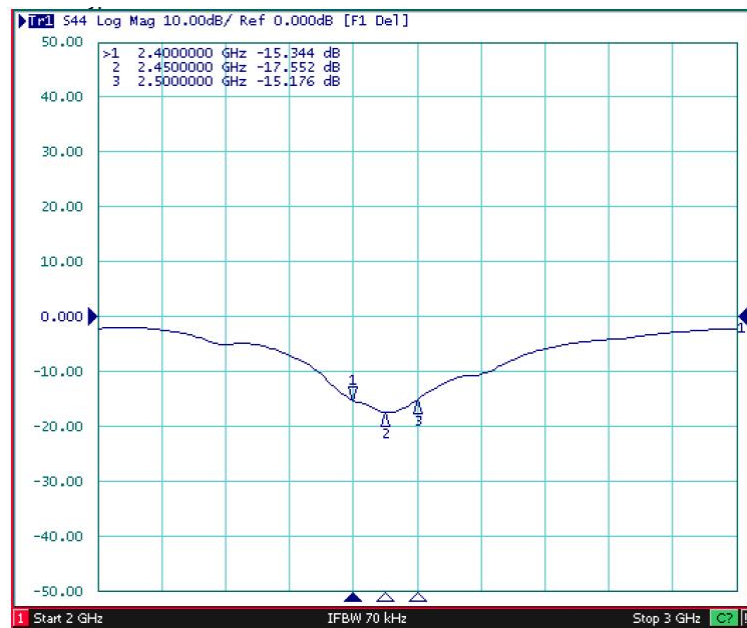
### B. Material & Mechanical Characteristics

Material of Radiator	plated copper
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### C. Environmental

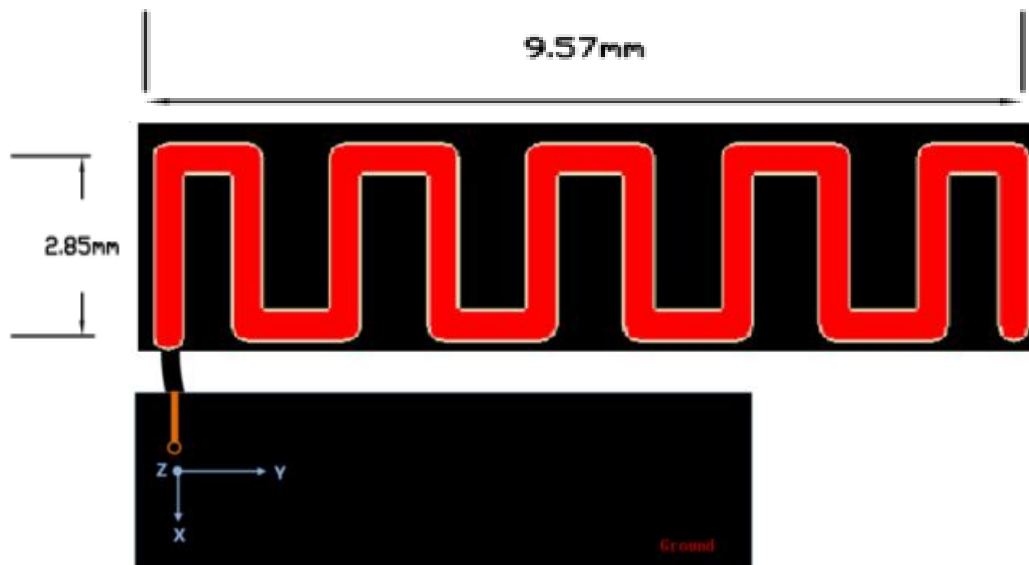
Operation Temperature	- 40°C ~ + 85°C
Storage Temperature	- 40°C ~ + 105°C

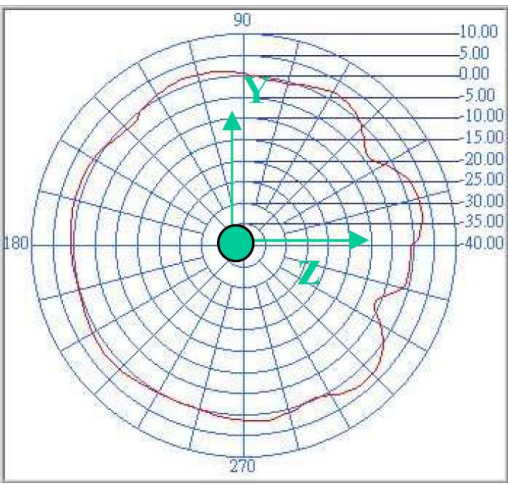
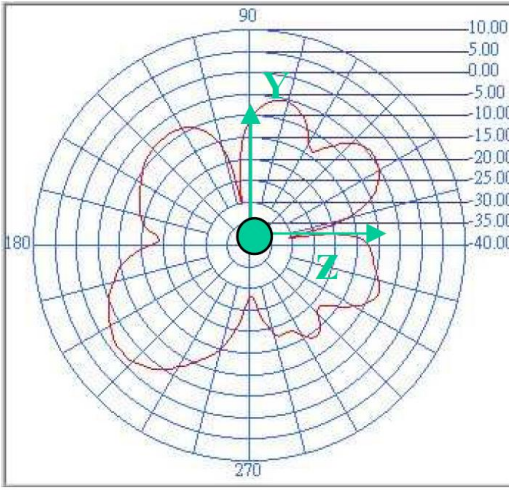
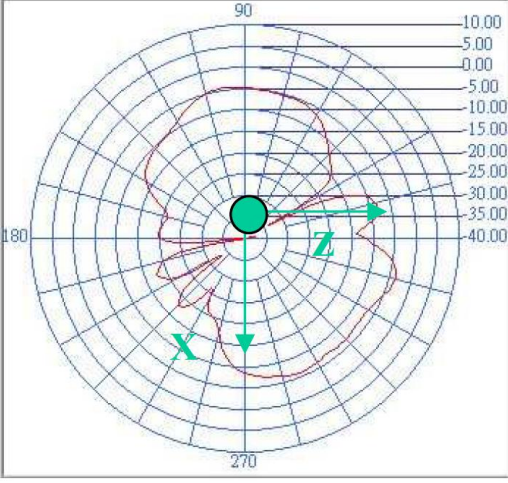
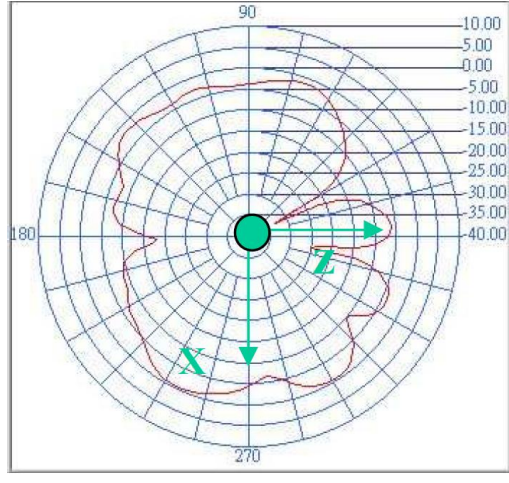
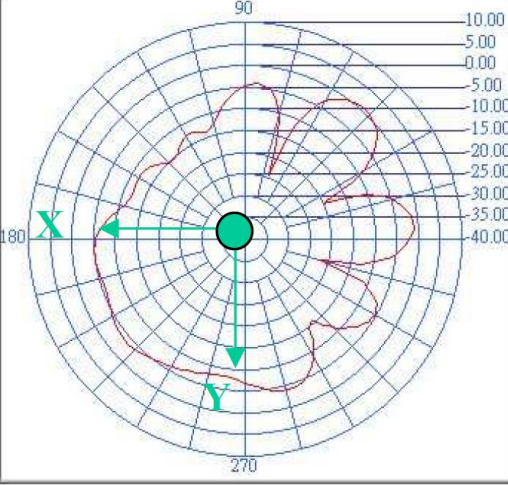
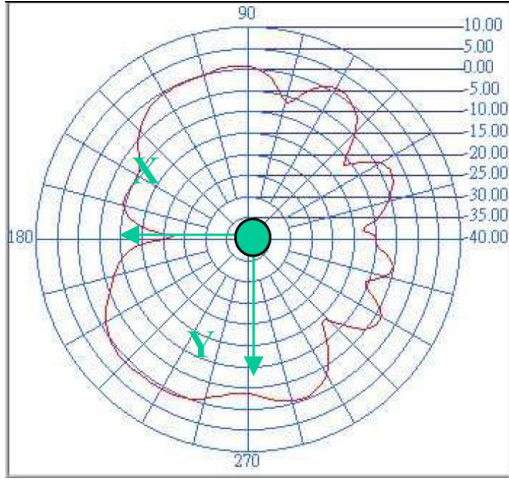
## 3、Return Loss



## 4、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 = 2.02 dBi Average Gain = 0.71 dBi	Peak Gain= -1.37 dBi Average Gain=-8.6 dBi
<b>X - Z Plane</b>  Average Gain=-2.91dBi		
	Peak Gain= -3.76 dBi Average Gain= -8.72dBi	Peak Gain= -0.25 dBi Average Gain= -4.24 dBi
<b>X - Y Plane</b>  Average Gain=-0.95 dBi		
	Peak Gain= 0.76 dBi Average Gain= -5.81dBi	Peak Gain= 1.37 dBi Average Gain= -2.67 dBi