

Shenzhen Yuanli Digital Technology Co., Ltd

Address: Room 303, Building A, Phase II, Anhongji Science and Technology Park, Sanhe Community,
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Bluetooth Antenna Sample Acknowledgment Letter
BT Antenna Product Approval

Data: 2023-07-20

1.Antenna Introduction

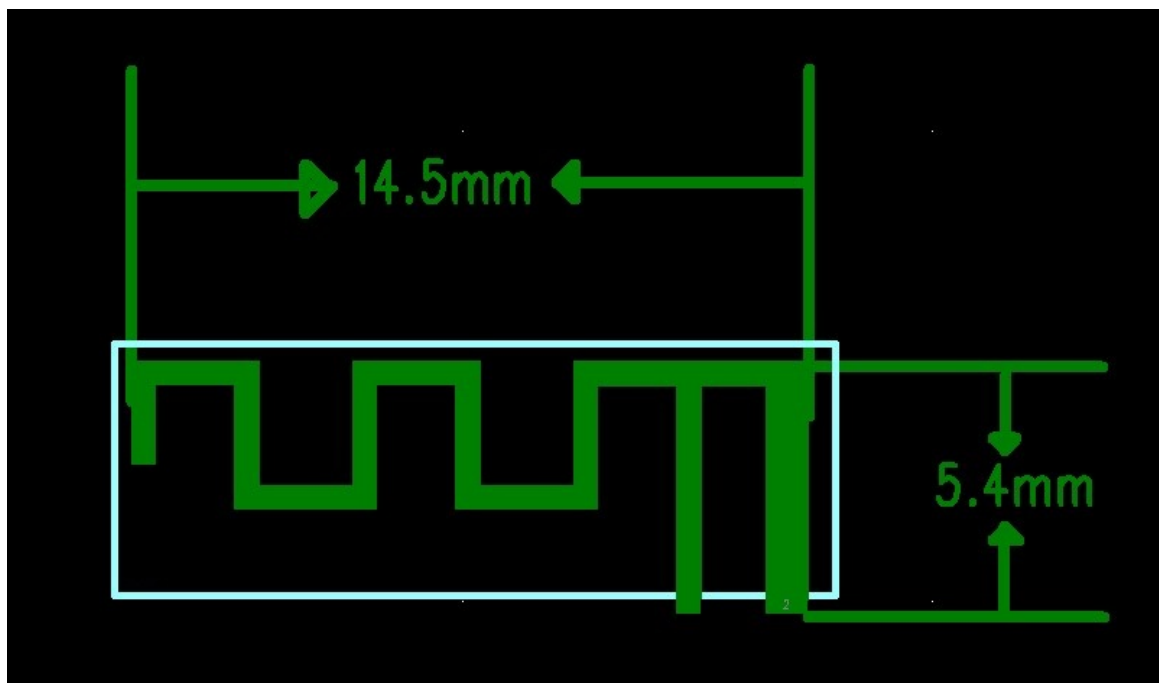
Our Bluetooth antenna is directly made on a PCB board. The antenna is made of copper poled and tin sprayed technology, with a copper foil thickness of H/HOZ and a FR-4 material thickness of 1.0mm,

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2. Antenna shape,

2.1 dimension



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2.2 Physical image:



3、 antenna parameters

The operating frequency of the Bluetooth antenna is between 2402-2480MHz, which generates resonance in this frequency band. The following table shows the main parameters of the antenna.

Bluetooth built-in antenna	
Frequency (MHz)	2402 ~ 2480 MHz
VSWR	≤ 1.92
Impedance	50 Ohm Nominal
Return Loss	-10 dB Max
Radiation	Omni-directional
Gain (Peak)	-0.347 dBi
Polarization	Linear, Vertical
Admitted Power	2W
Connector	Tin

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4、Antenna gain detection report

Spectrum Detector:	PK	Test Date :	June 8, 2020
Test By:	Andy	Temperature :	28°C
Test Result:	PASS	Humidity :	55 %
Modulation:	GFSK		

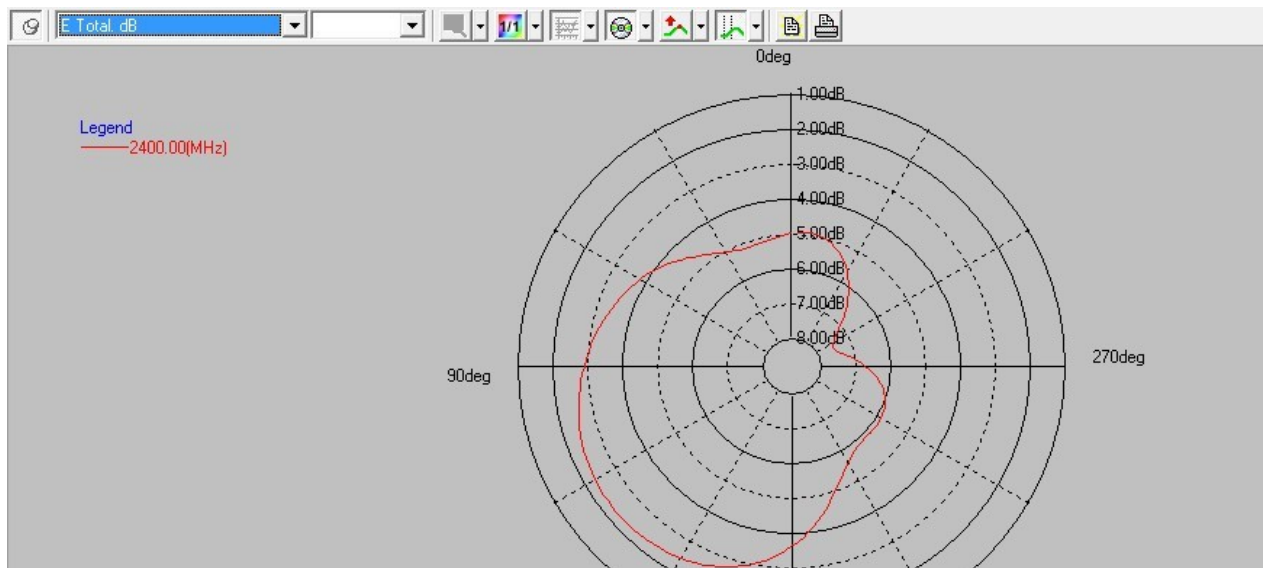
Maximum gain value

Frequency VNA (MHz)	E Total. dB (dBi)
2400MHz	-0.347483
2410MHz	-0.502625
2420MHz	-0.772879
2430MHz	-0.955555
2440MHz	-1.23072
2450MHz	-1.94066
2460MHz	-1.90725
2470MHz	-2.01968
2480MHz	-2.30721
2490MHz	-2.28333
2500MHz	-2.8728

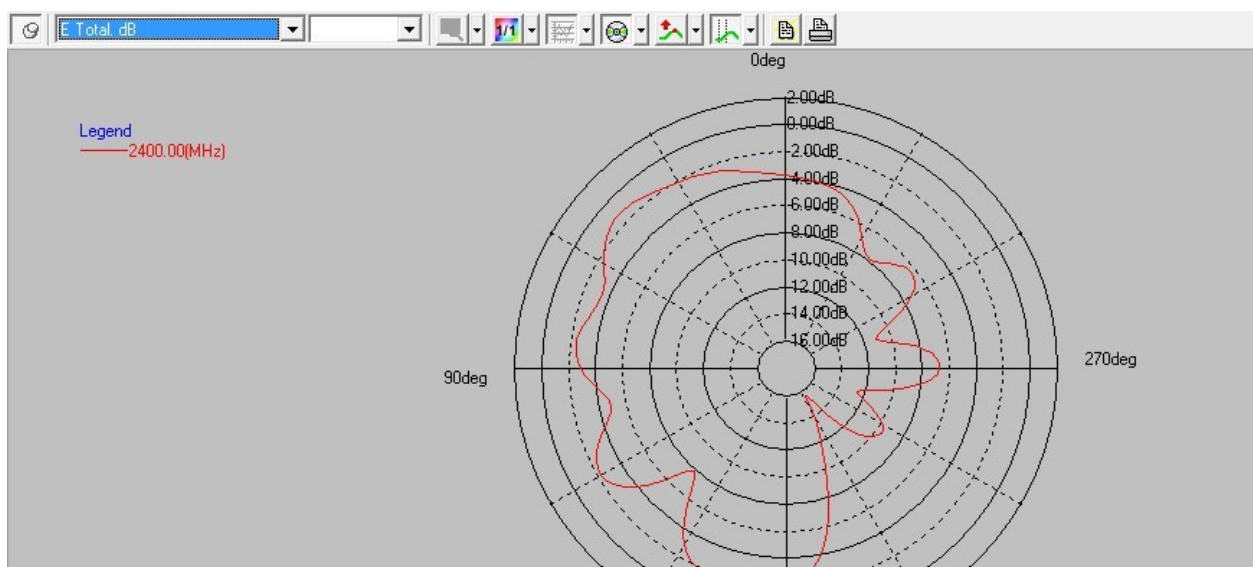
Directional pattern:

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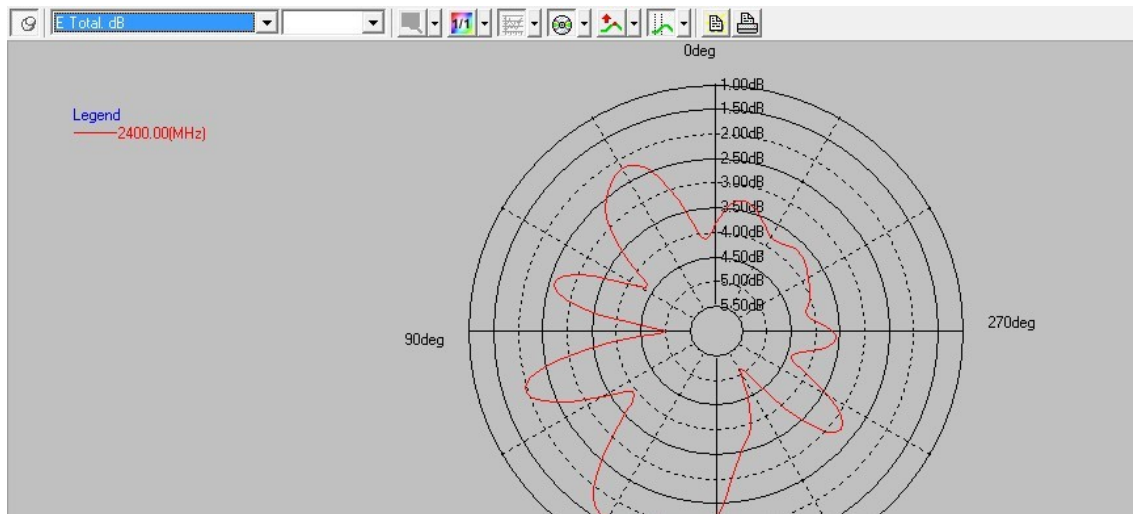
PHI 0 degree



PHI 90 degree

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THETA 90 degree

Standing wave ratio diagram:

