

Bluetooth antenna sample
BT Antenna Product Approval

Time: April 2, 2023

I. Introduction of Antenna

Our Bluetooth antenna is made directly on the PCB. The antenna is made of copper plating and tin spraying technology. The thickness of copper foil is H/HOZ, and the plate is made of FR-4 with a thickness of 1.2 mm..

二、 Antenna shape

1. Physical map:

Third, the antenna parameters

The working frequency of Bluetooth antenna is 2402-2480MHz, and resonance occurs 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	-1dB Max
Radiation	Omni-directional
Gain (Peak)	0 dBi
Polarization	Linear, Vertical
Admitted Power	2W
Connector	Tin

Fourth, the antenna gain test report

Spectrum Detector: PK Test Date : June 8, 2013

Test By: Andy Temperature : 28°C

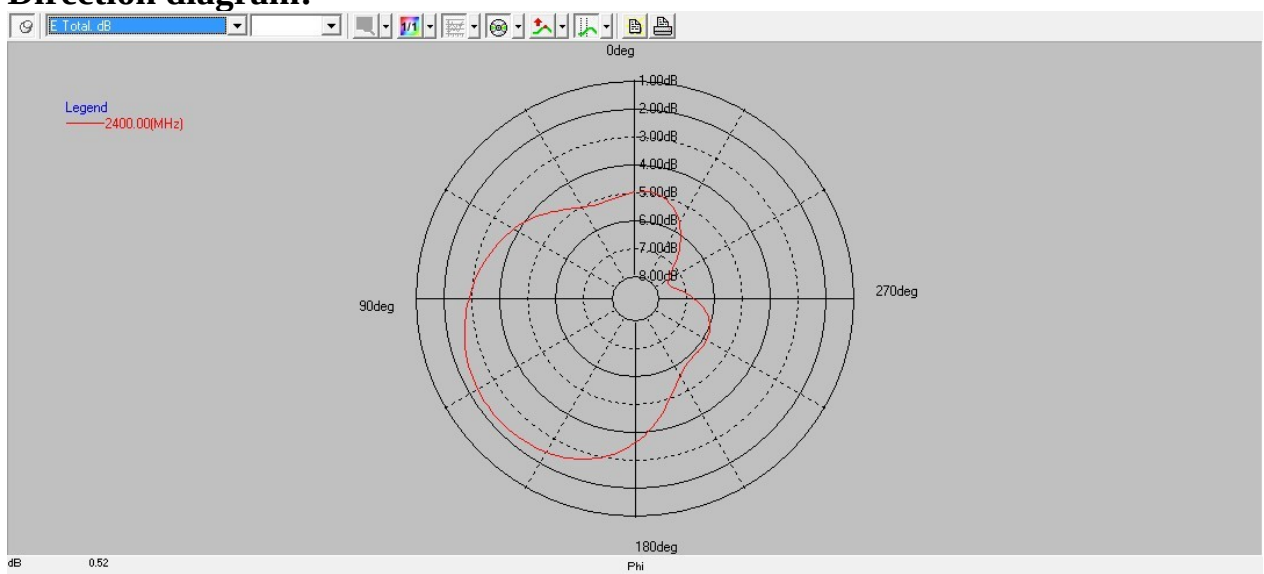
Test Result: PASS Humidity : 55 %

Modulation: GFSK

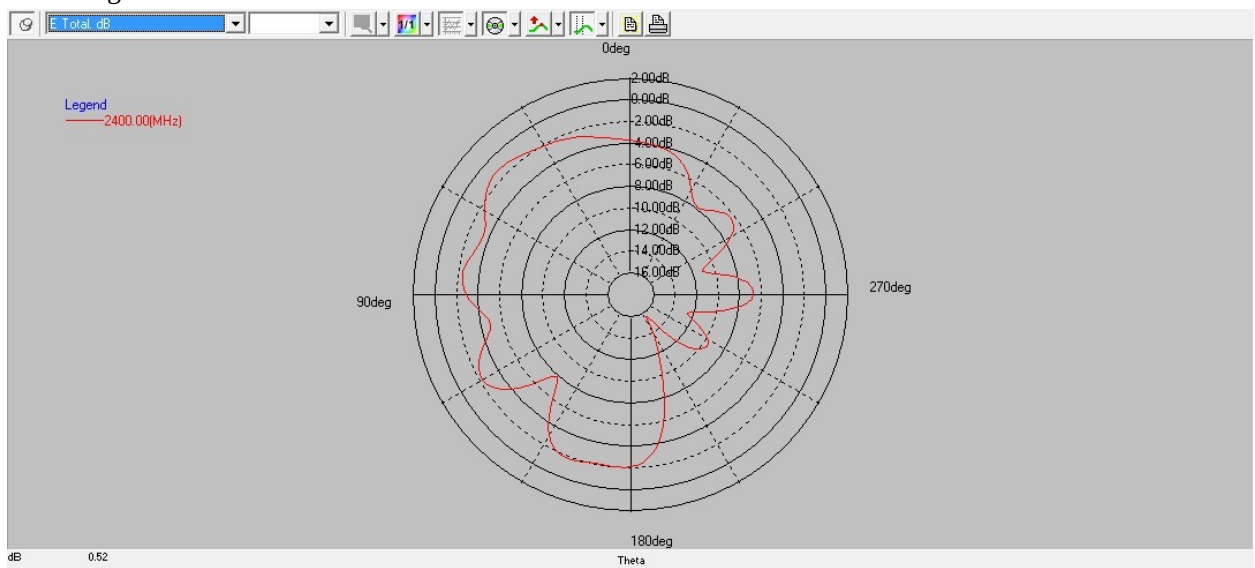
Maximum gain value

Frequency Separation Separation Limit (MHz)	VNA Read	E Total. dB(dB)
2400MHz		0
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

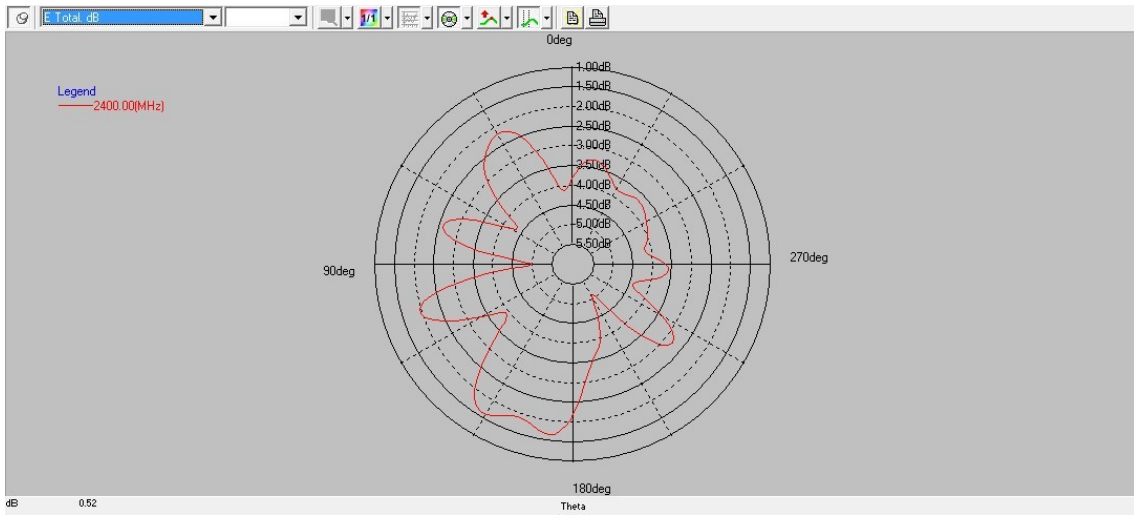
Direction diagram:



PHI 0 degrees



PHI 90 degrees



THETA 90 degrees

Standing wave ratio diagram:

