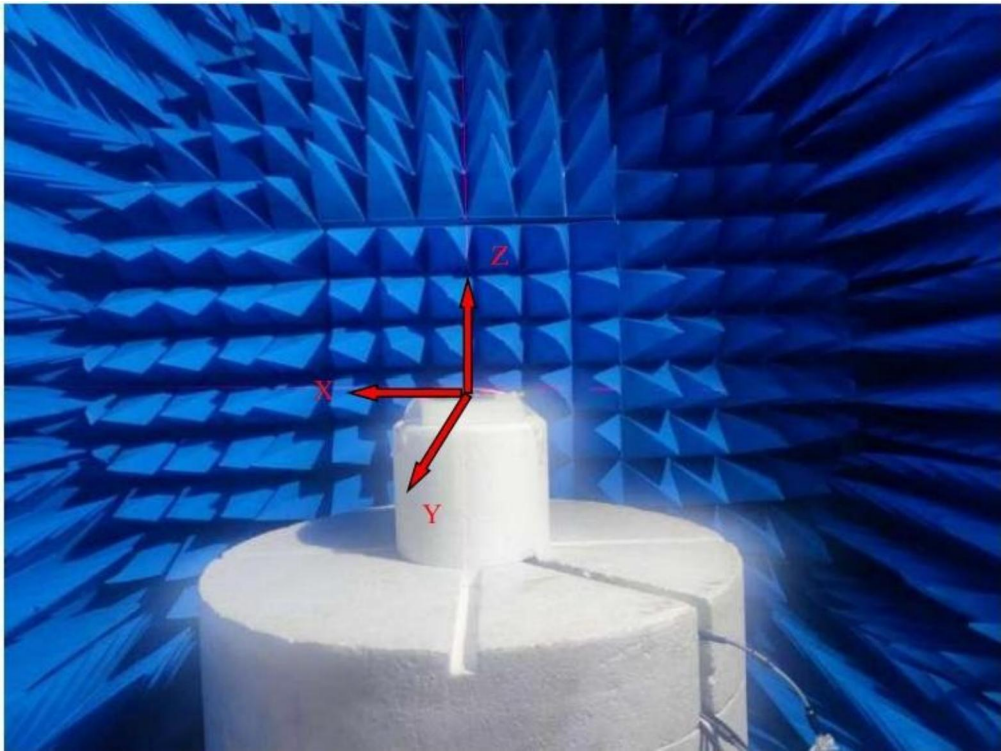


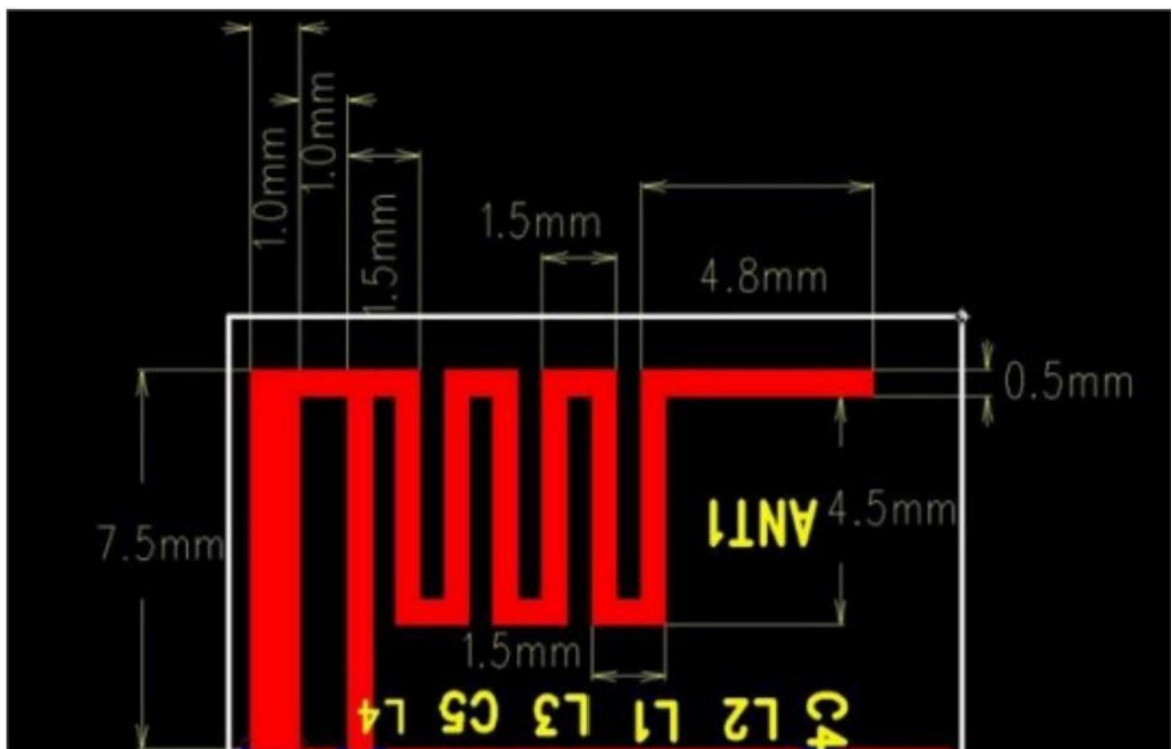
Test Report on the On-Bord PIFA Antenna for the 2.4G -2.48G Frequency Band

SPECIFICATIONS	
Frequency (MHz)	2400-2480
Peak Gain (dBi)	2.499
Average Gain(dBi)	>-4
VS WR	< 3.2
Impedance(Ω)	50 Ω
Antenna Type	Plannar Inverted F Antenna on board
Polarization	Linear
Antenna manufacturer	Renqiu Zhengmai Electric Appliance Co., Ltd. Xin'anzhuang Village, Liangzhao Town, Renqiu City, Hebei Province, China

Test Environment：Zhongke Guoji Darkroom Testing System



Physical antenna and its physical dimensions



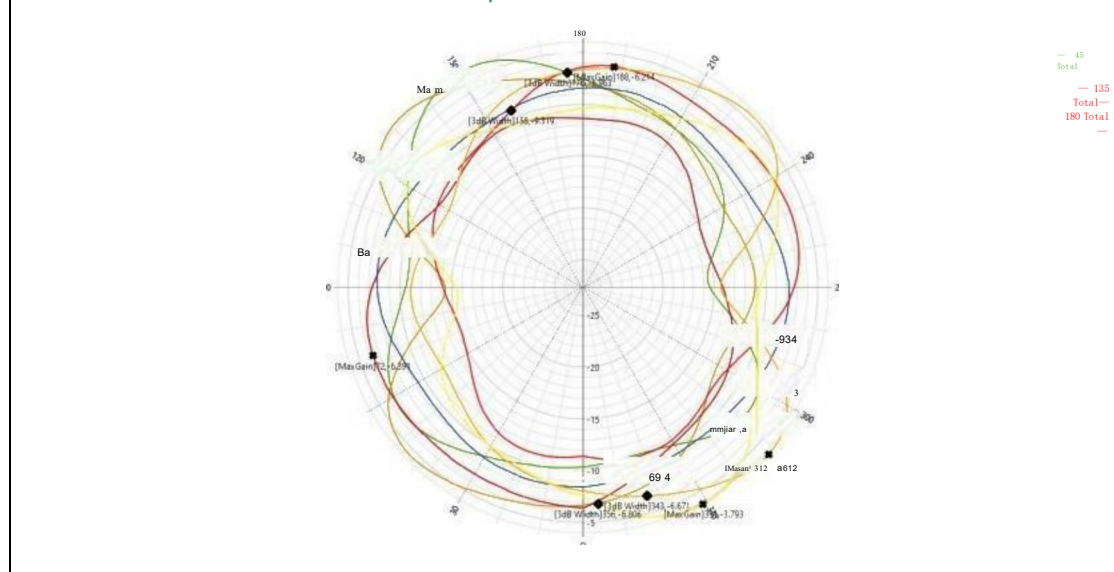
Passive antenna S-parameters: Voltage Standing Wave Ratio (VSWR), Return Loss, and Smith Chart



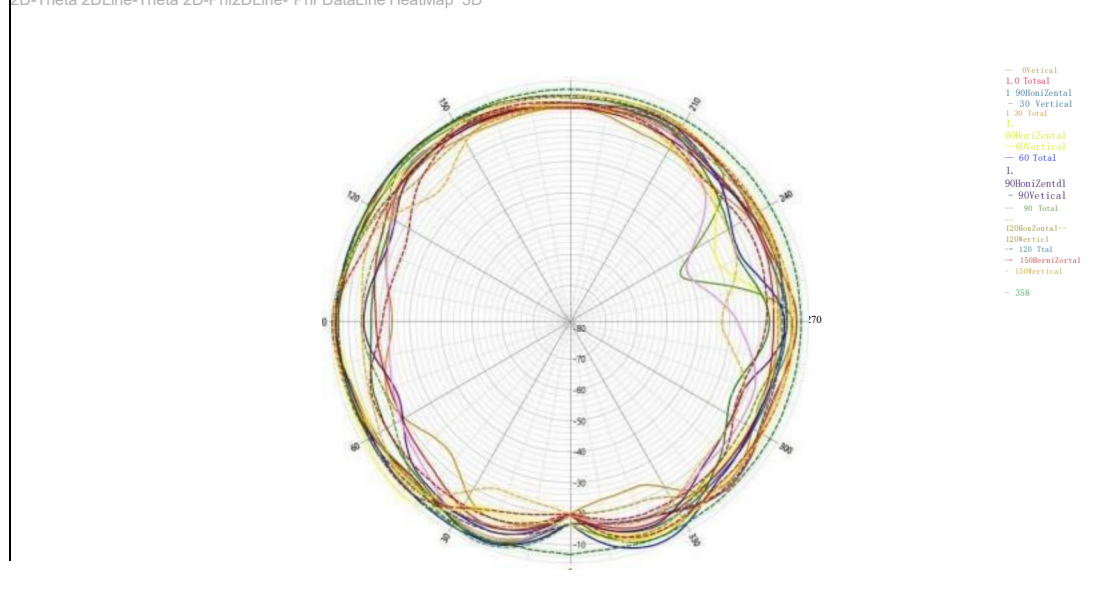
Antenna efficiency and gain

Frequency (MHz)	Gain (dBi)	Efficiency (%)	AverageGain (dBi)	Efficiency (dB)
24 00	1.433	59.329%	-2.7 17	- 2.267
24 10	0 .9 27	51.861%	- 3.416	- 2.852
2420	0 .8 29	52.112%	- 3.166	- 2.831
243 0	0 .881	49.299%	- 3 .258	-3.0 72
2440	1.192	50.672%	- 3.144	-2.952
245 0	1.6 88	53.067%	-2.735	-2.75 2
24 6 0	2.1 9 4	59.423%	- 2.2 76	- - 2.260
2470	2.1 18	56.680%	- 2.438	-2.466
248 0	2.499	61.727%	- 2.1 12	-2.095
Average	1.529	54.908%	- 2.806	-2.6 16
P eak	2.499	61.727%	-2.112	-2.095

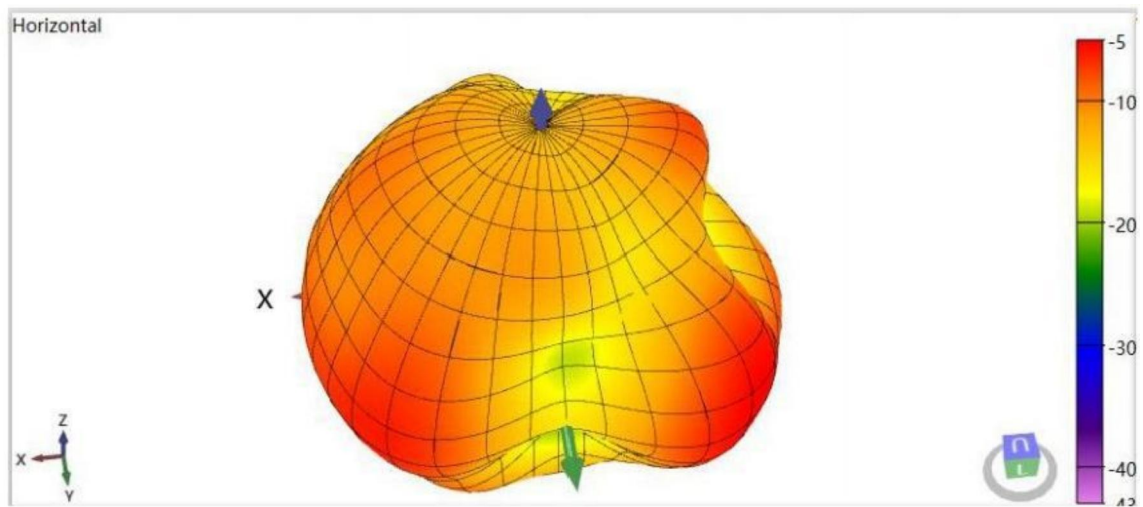
2D-Theta 2DLine-Theta 2D-Phi 2DLine-Phi DataLine He atMap 3D



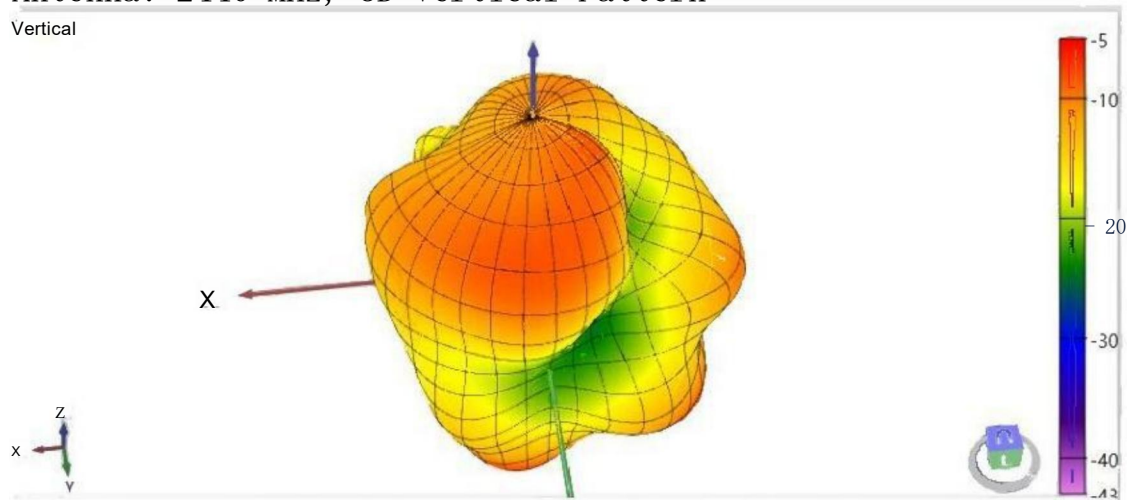
2D-Theta 2D-Line-Theta 2D-Phi 2D-Line- Phi DataLine HeatMap 3D



Antenna: 2440 MHz, 3D Horizontal Pattern



Antenna: 2440 MHz, 3D-Vertical Pattern



2440MHz 3D-Total Pattern

