

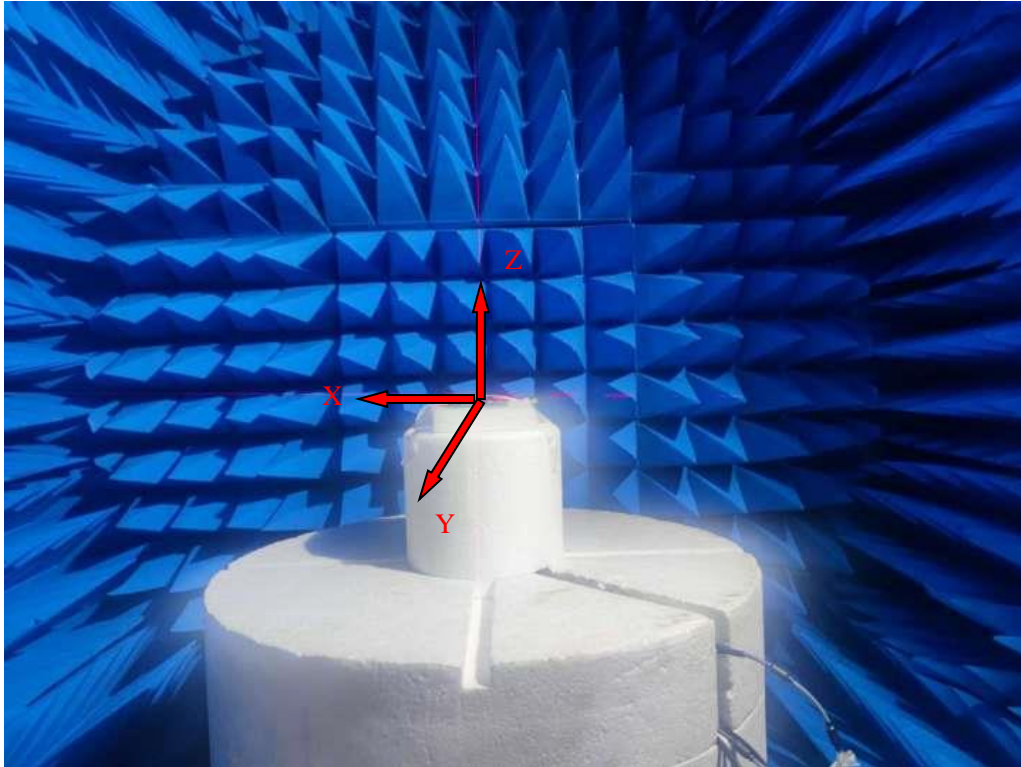
Manufacturer: Hangzhou Hengya Lighting Co., Ltd.

Address: Zhangpanqiao Village, Shushan Street Xiaoshan District, Hangzhou City Zhejiang Province 311203

Test report of onboard PIFA antenna in 2.4G-2.48G band

SPECIFICATIONS	
Frequency (MHz)	2400-2480
Peak Gain (dBi)	2.499
Average Gain (dBi)	>-4
VSWR	<3.2
Impedance (Ω)	50 Ω
Antenna Type	Plannar Inverted F Antenna on board
Polarization	Linear

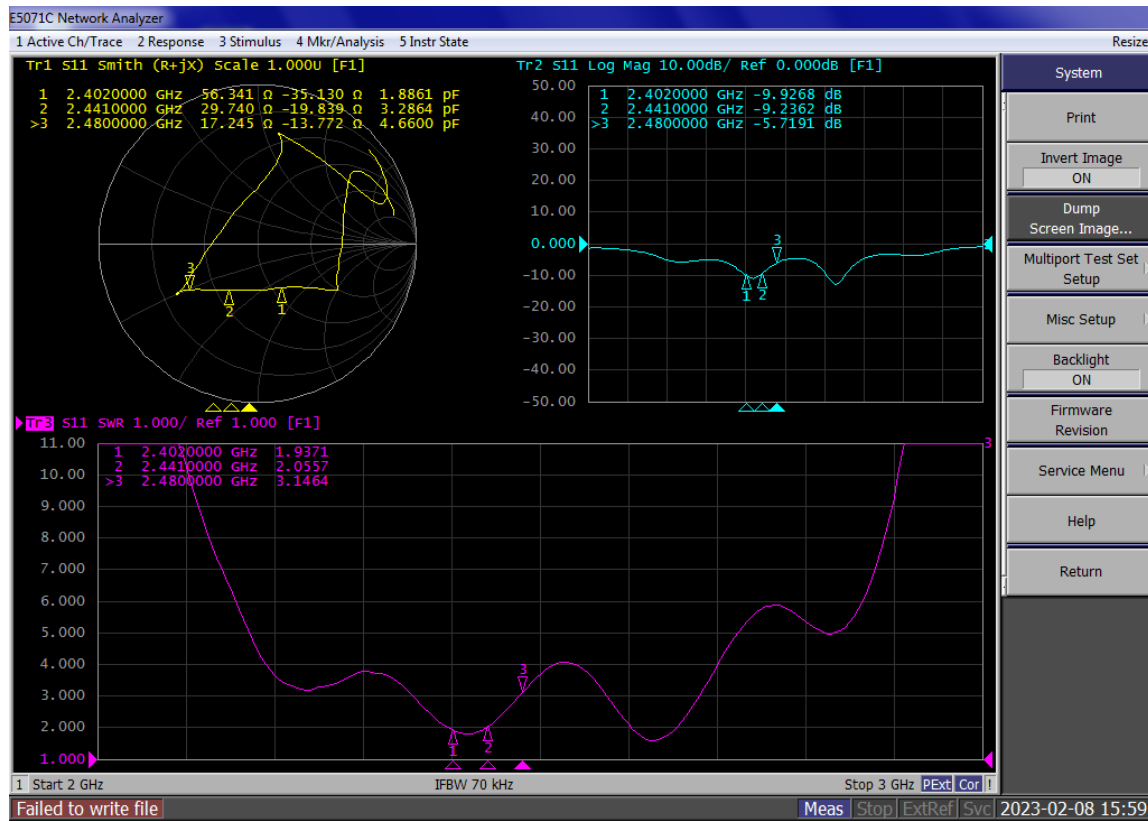
Test environment: China Science and technology darkroom test system



Antenna physical and physical dimensions



Antenna passive S-parameters:
Standing wave ratio (VSWR), Return Loss (Return Loss) and Smith's circle chart

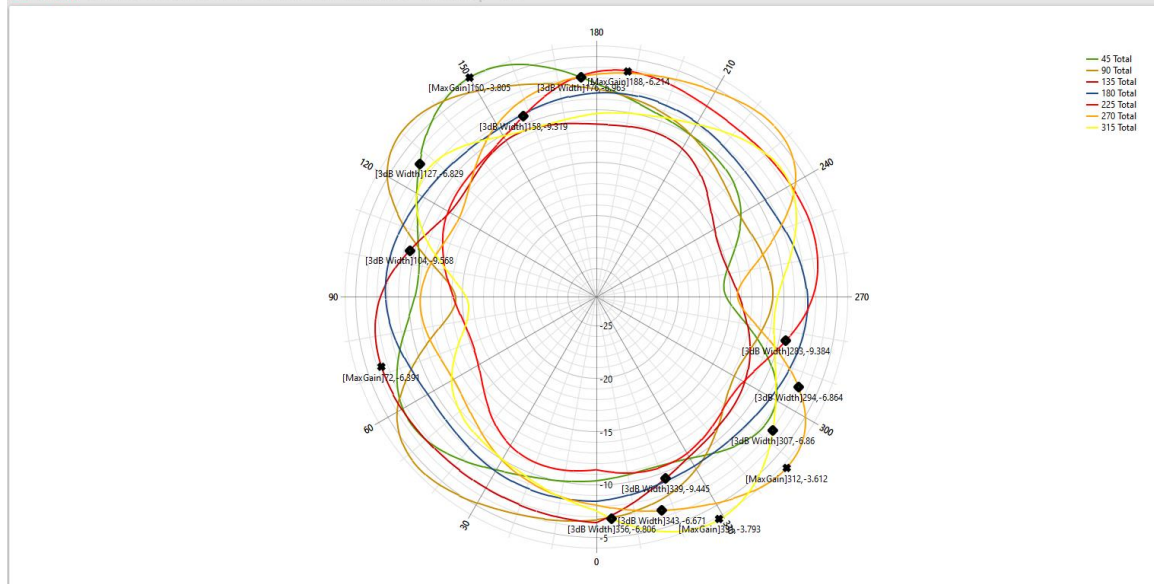


Antenna efficiency and gain

Frequency (MHz)	Gain (dBi)	Efficiency (%)	Efficiency (dB)
2400	1.433	59.329%	-2.267
2410	0.927	51.861%	-2.852
2420	0.829	52.112%	-2.831
2430	0.881	49.299%	-3.072
2440	1.192	50.672%	-2.952
2450	1.688	53.067%	-2.752
2460	2.194	59.423%	-2.260
2470	2.118	56.680%	-2.466
2480	2.499	61.727%	-2.095

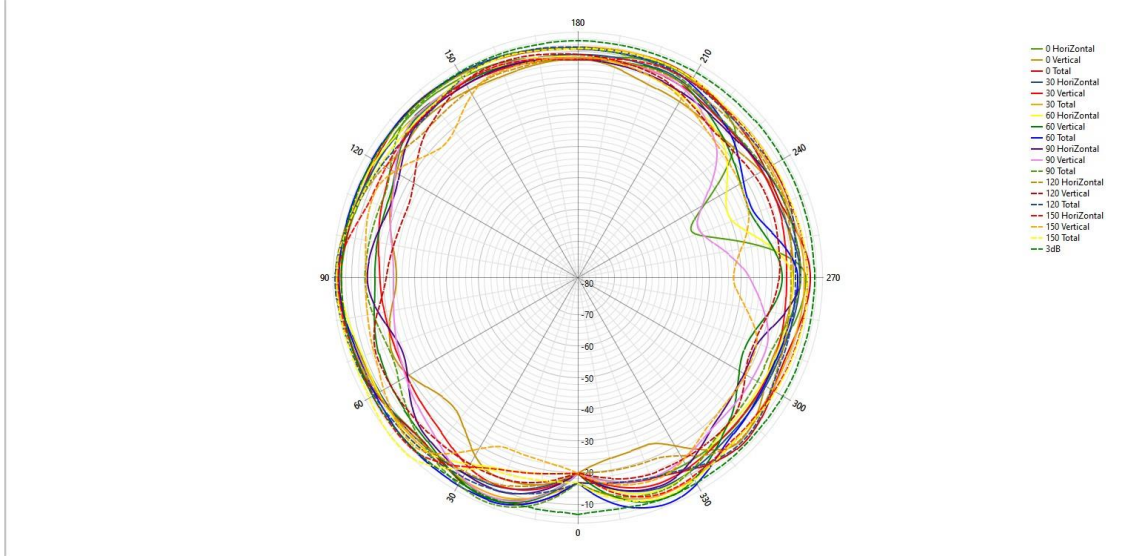
2440MHz 2D-Theta Pattern

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



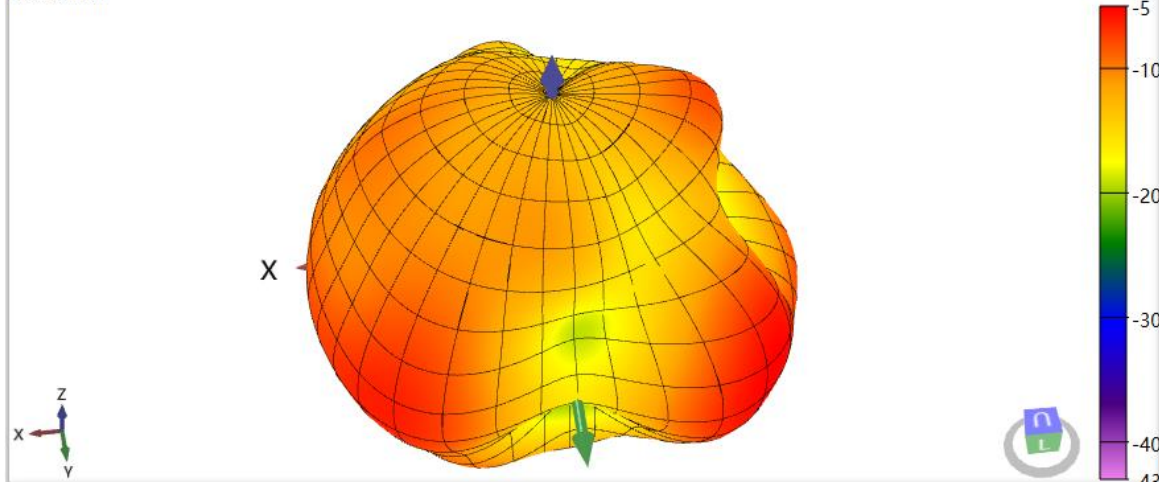
2440MHz 2D-Phi Pattern

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



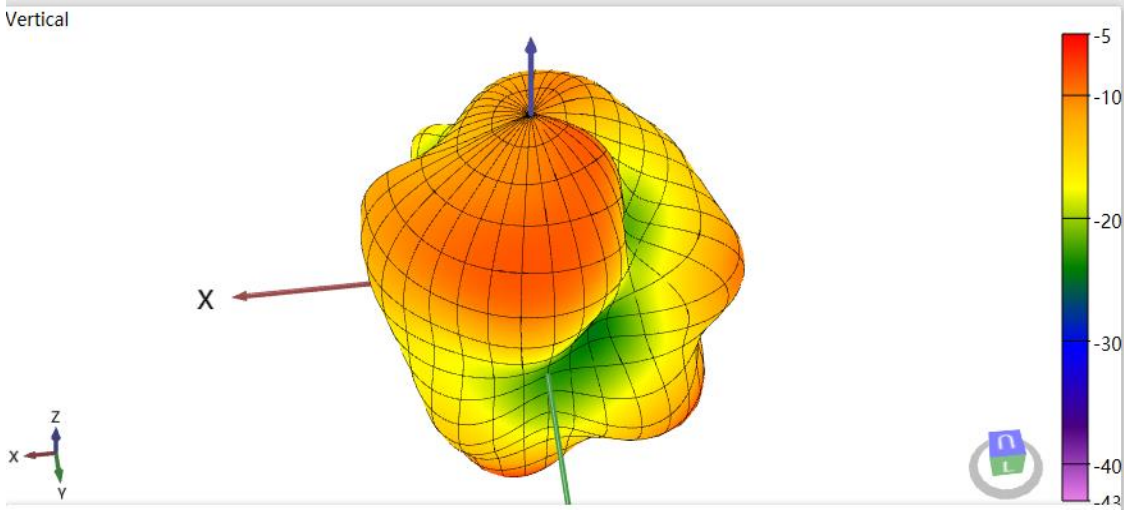
2440MHz 3D-Horizontal Pattern

Horizontal



2440MHz 3D-Vertical Pattern

Vertical



2440MHz 3D-Total Pattern

Total

