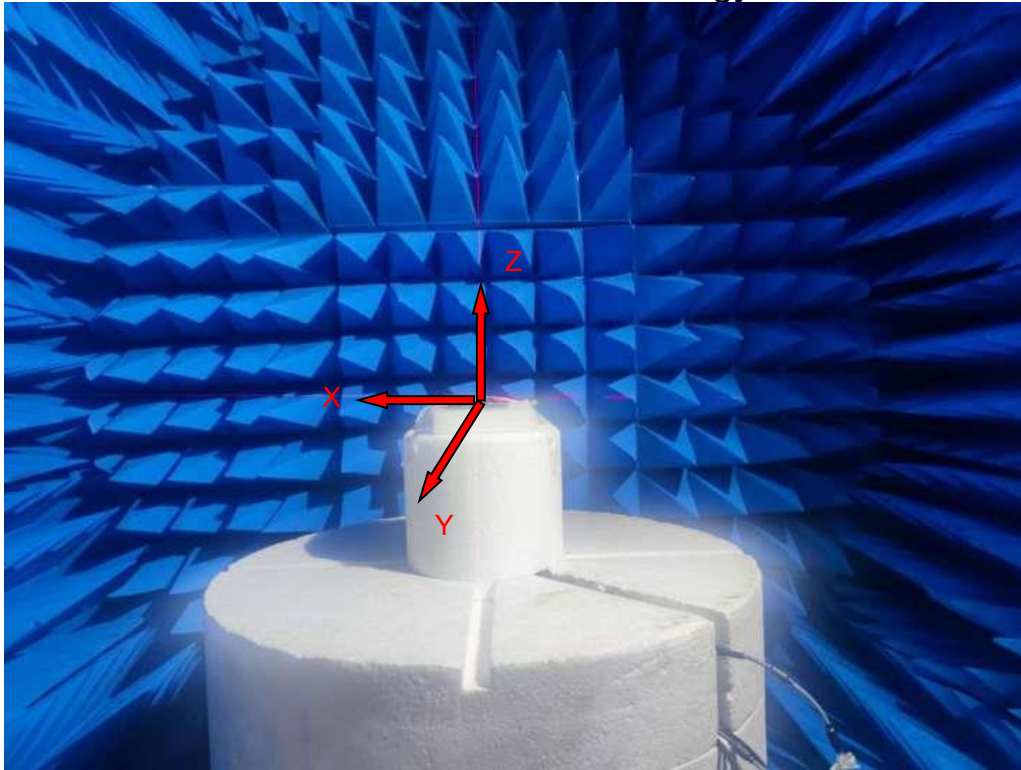


Test Report of the On-Board PIFA Antenna in the 2.4G-2.48G Band

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

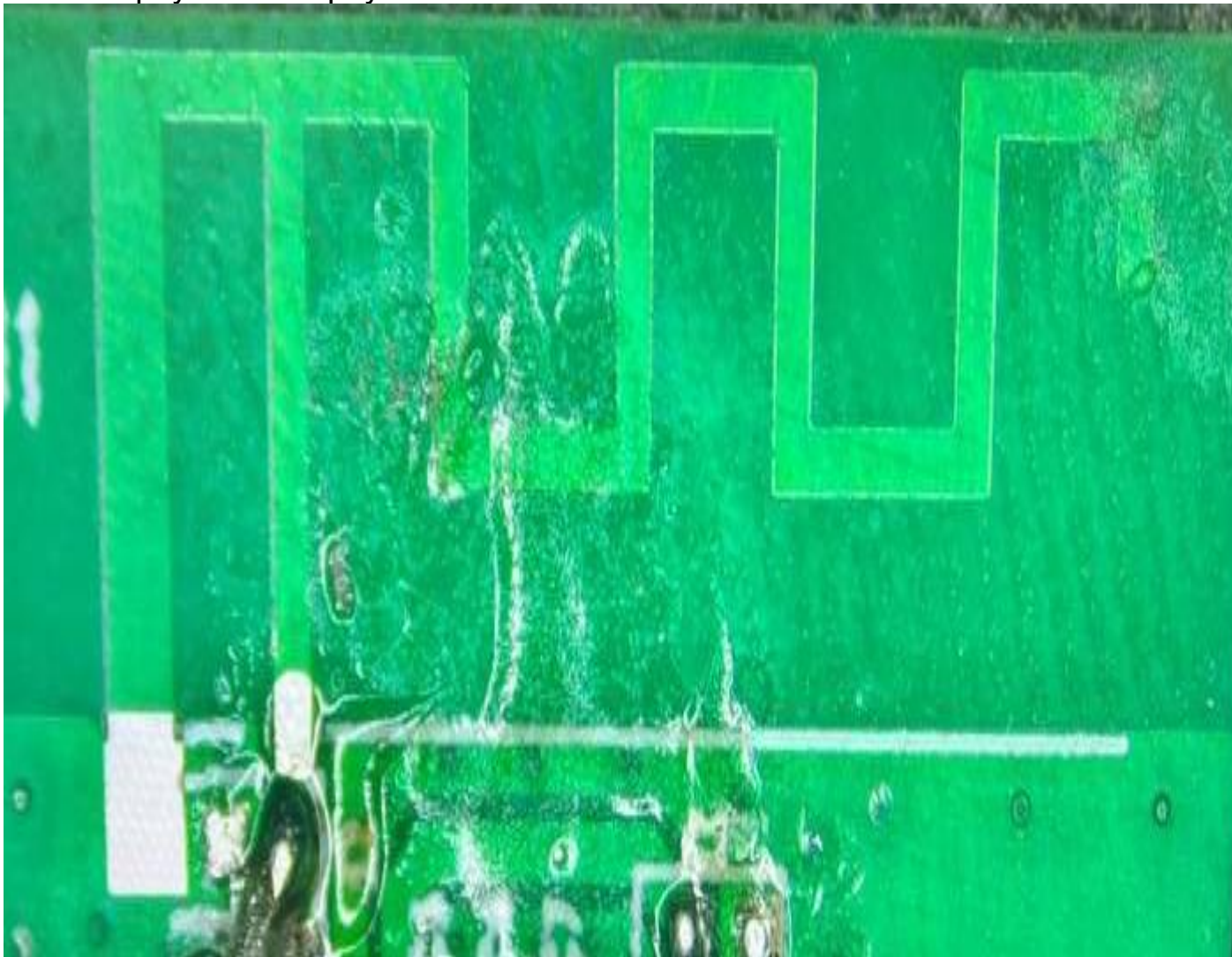
Test environment: China National Technology Darkroom Test System

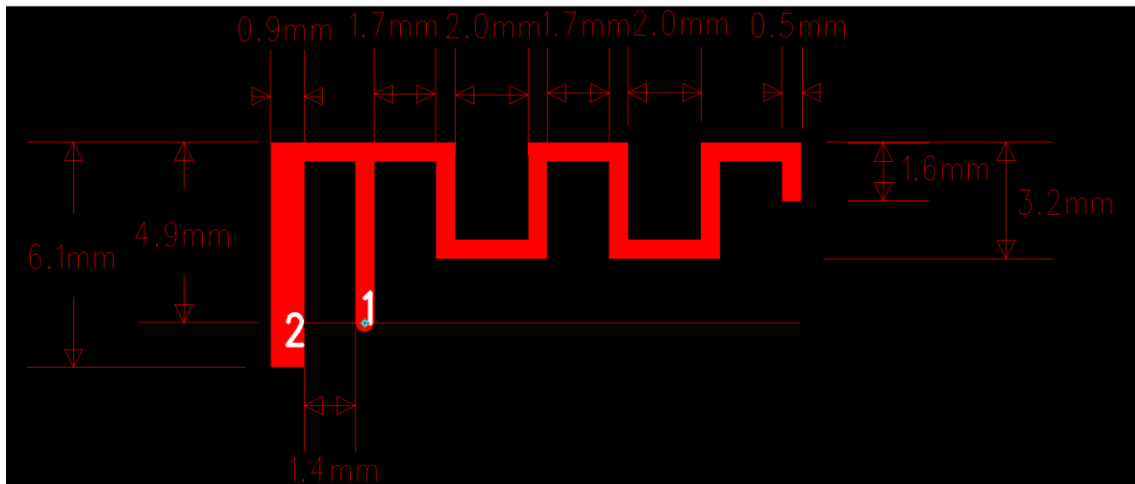


Manufacturer: Sound Companies LLC

Address: 1041 Main Ave PMB 581 De Pere, Wisconsin United States 54115

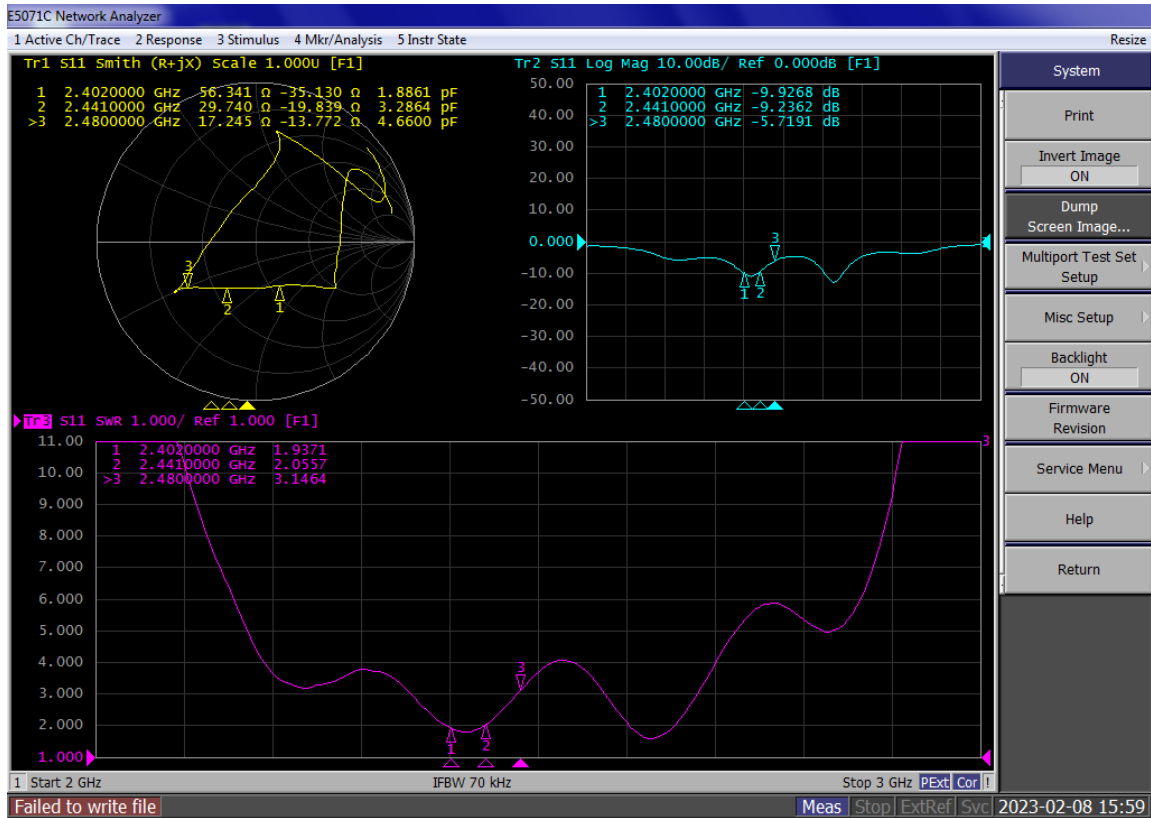
Antenna physical and physical dimensions





Antenna passive S parameters:

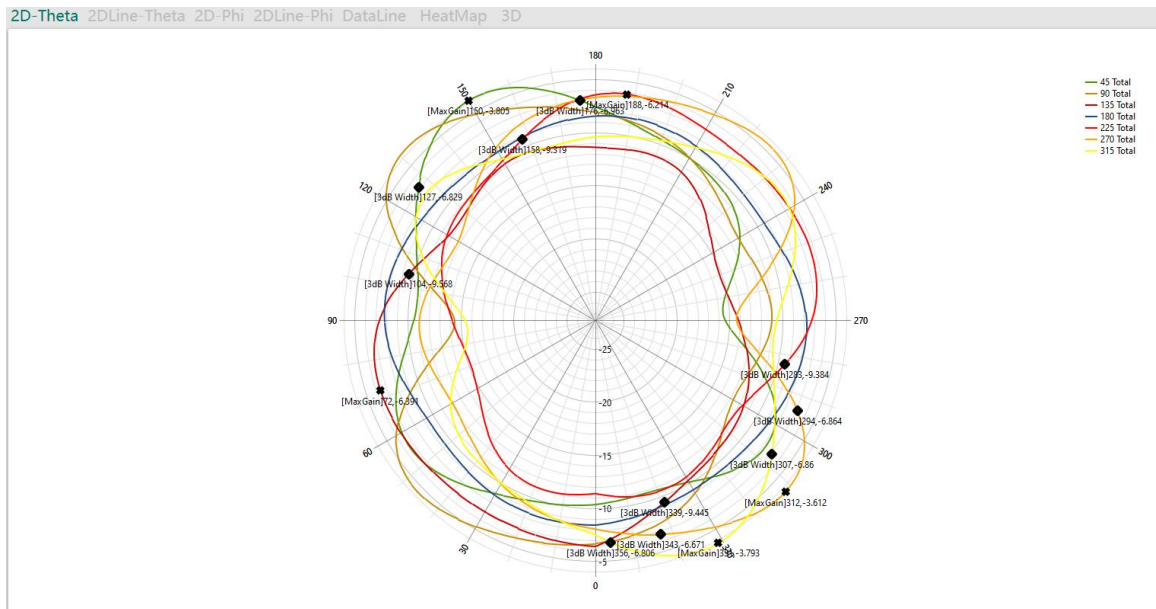
Standing Wave Ratio (VSWR), Return Loss and Smith Chart



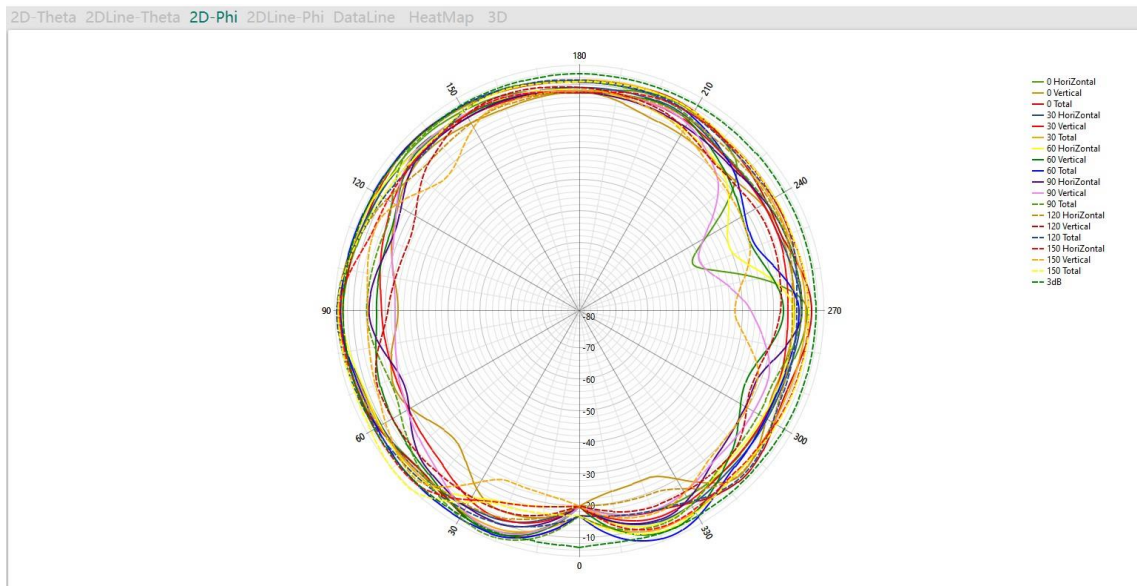
antenna efficiency and gain

Frequency(MHz)	Gain(dBi)	Efficiency(%)	AverageGain(dBi)	Efficiency(dB)
2400	1.433	59.329 percent	-2.717	-2.267
2410	0.927	51.861 percent	-3.416	-2.852
2420	0.829	52.112 percent	-3.166	-2.831
2430	0.881	49.299 percent	-3.258	-3.072
2440	1.192	50.672 percent	-3.144	-2.952
2450	1.688	53.067 percent	-2.735	-2.752
2460	2.194	59.423 percent	-2.276	-2.260
2470	2.118	56.680 percent	-2.438	-2.466
2480	2.499	61.727 percent	-2.112	-2.095
Average	1.529	54.908 percent	-2.806	-2.616
Peak	2.499	61.727 percent	-2.112	-2.095

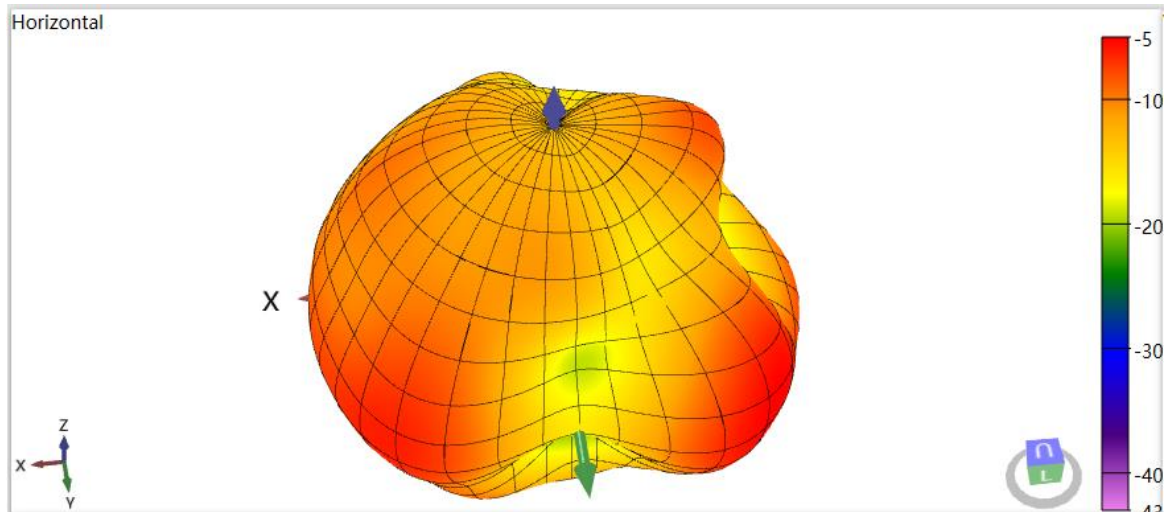
Antenna 2440MHz 2D-Theta Pattern



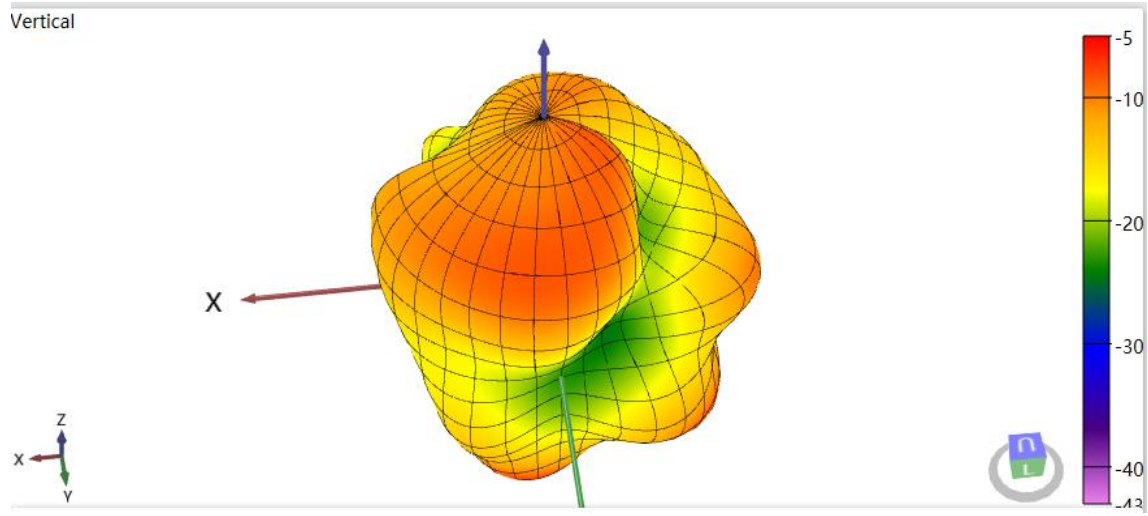
Antenna 2440MHz 2D-Phi Pattern



Antenna 2440MHz 3D-Horizontal Pattern



Antenna 2440MHz 3D-Vertical Pattern



2440MHz 3D-Total Pattern

