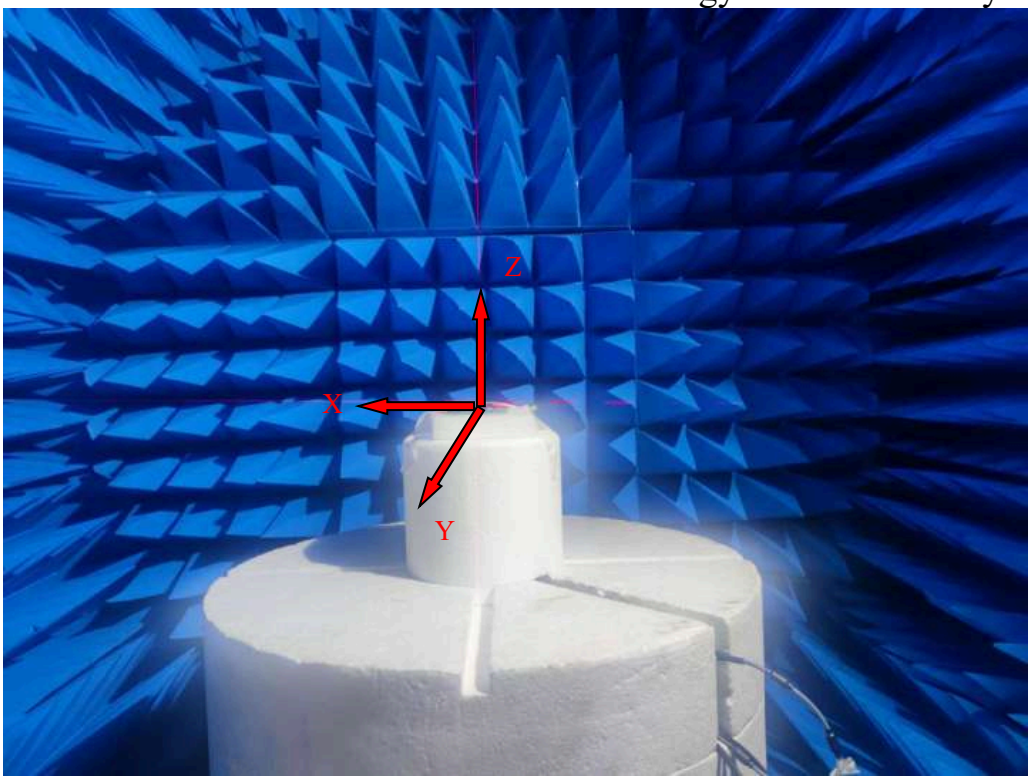
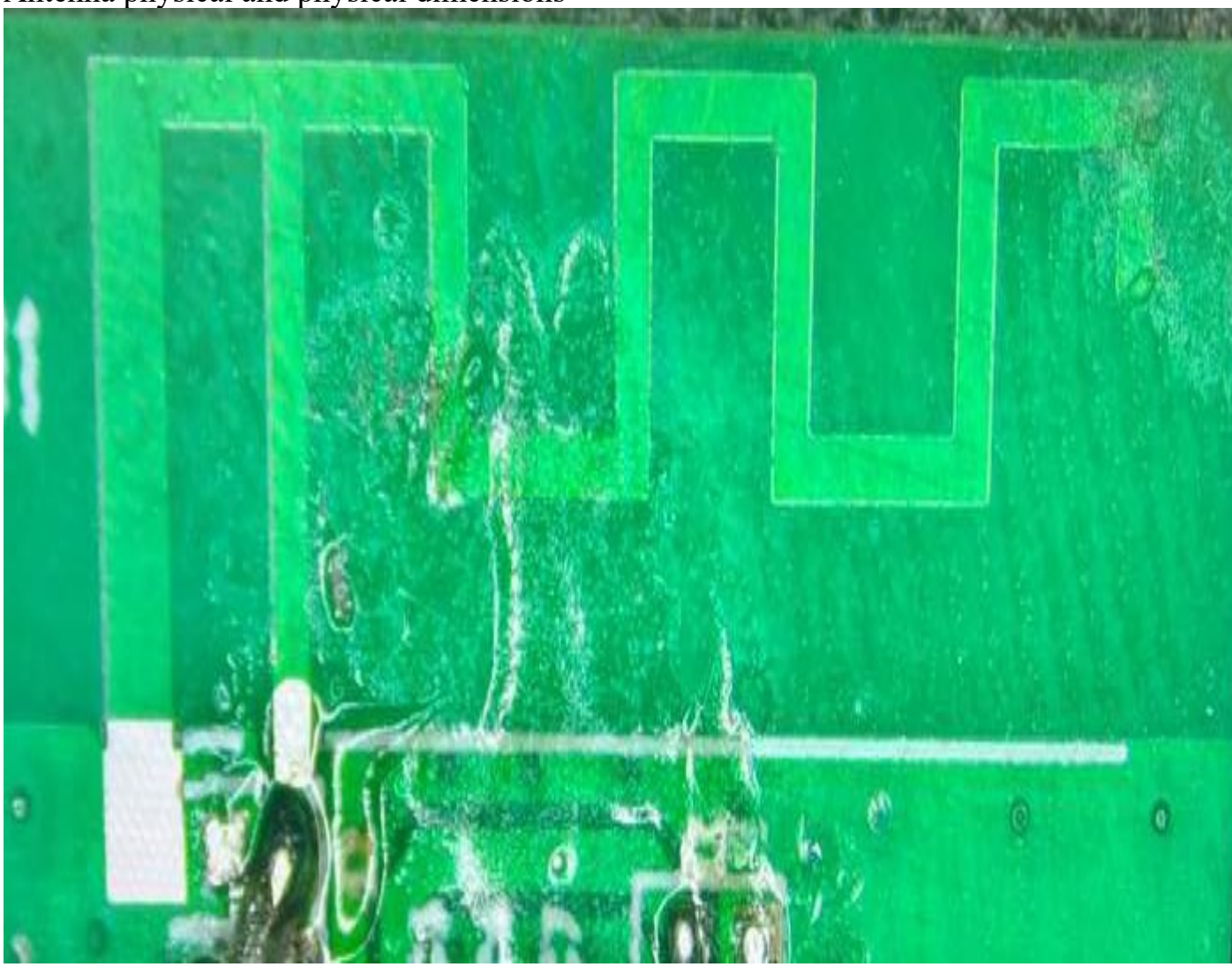
Test report of onboard PIFA antenna in 2.4G-2.48G band

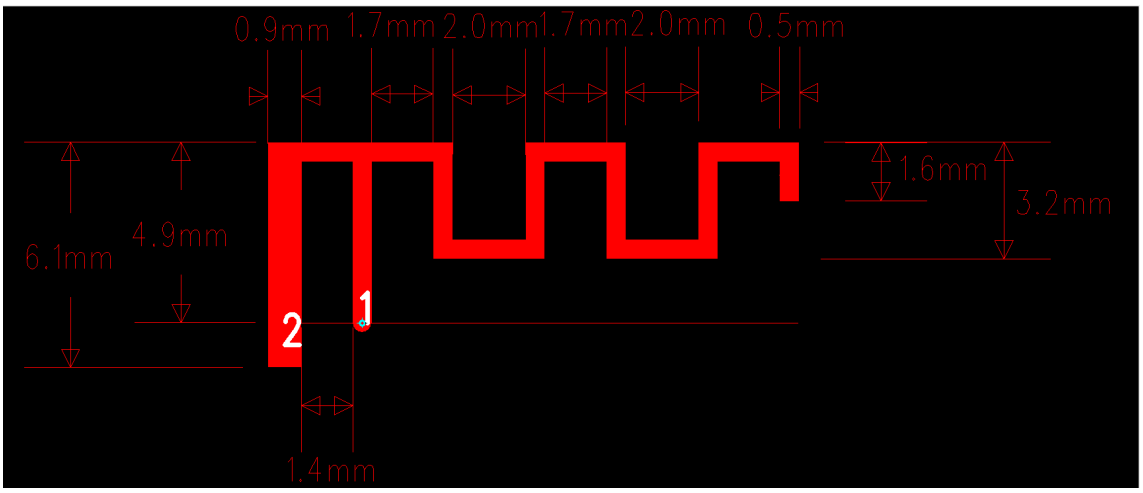
SPECIFICATIONS	
Frequency（MHz）	2400-2480
Peak Gain（dBi）	2.499
Average Gain（dBi）	＞-4
VSWR	＜3.2
Impedance（Ω）	50Ω
Antenna Type	PIAF Antenna
Polarization	Linear
Manufacturer	QUEST USA CORP
Address	495 Flatbush Ave, Brooklyn, NY 11225, USA

Test environment: China Science and technology darkroom test System

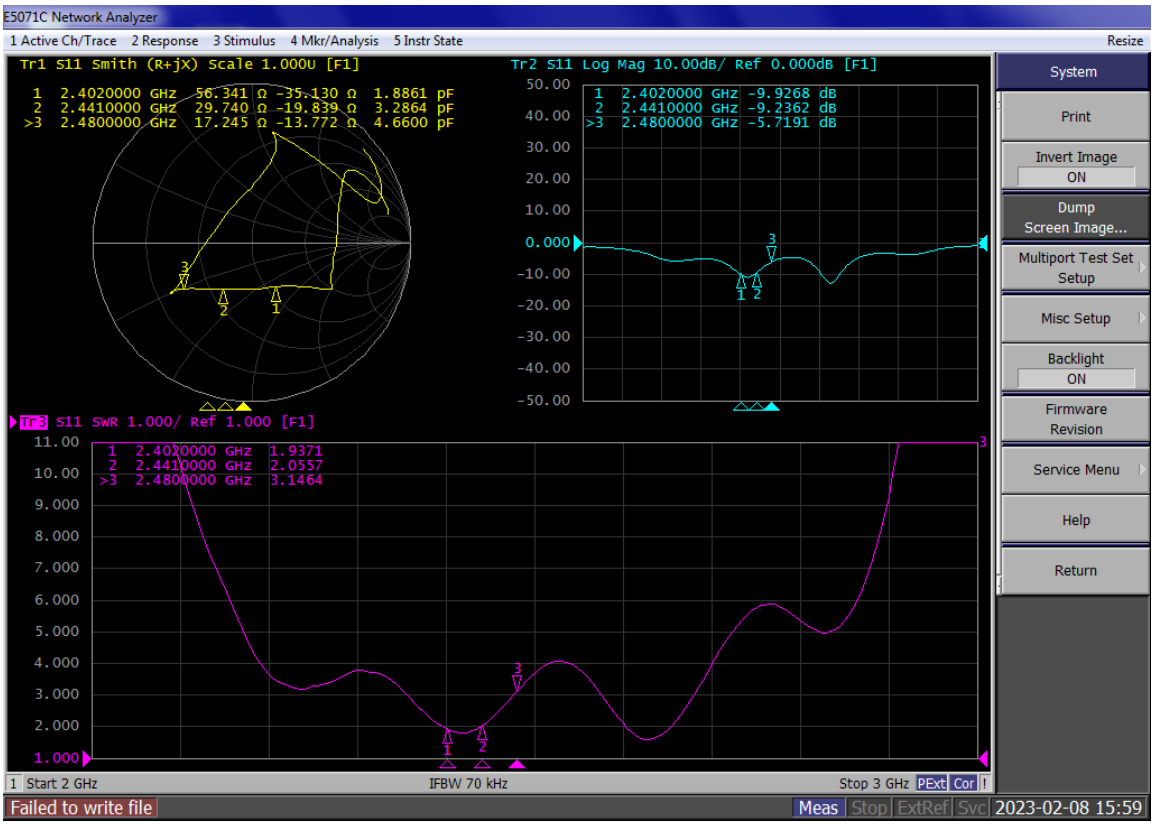


Antenna physical and physical dimensions





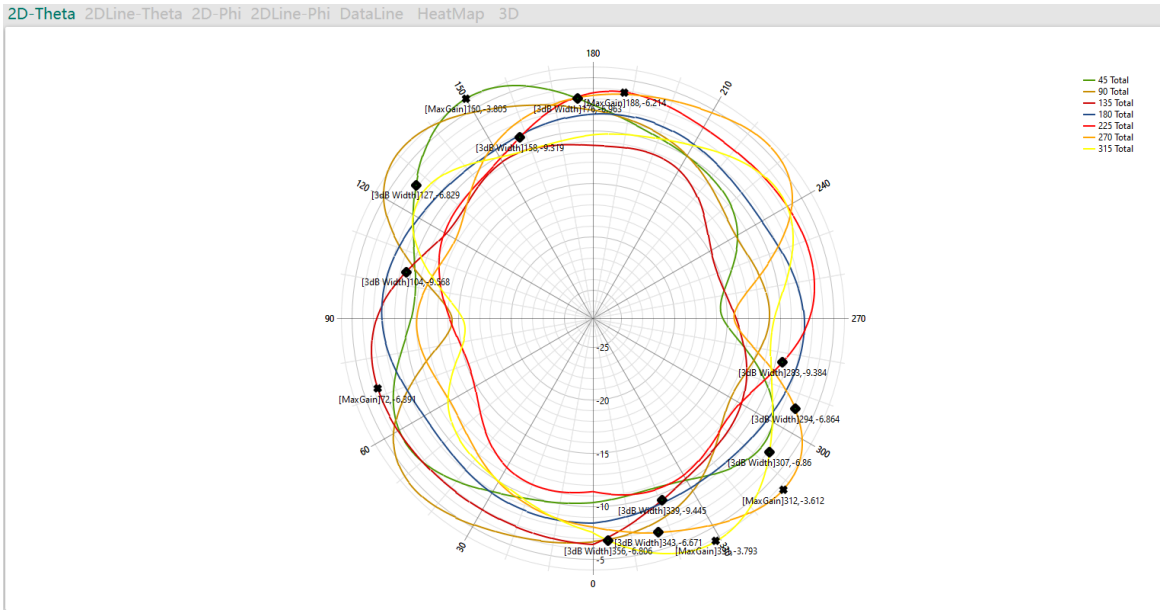
Antenna passive S-parameters:
Standing wave ratio (VSWR), Return Loss (Return Loss) and Smith's circle chart



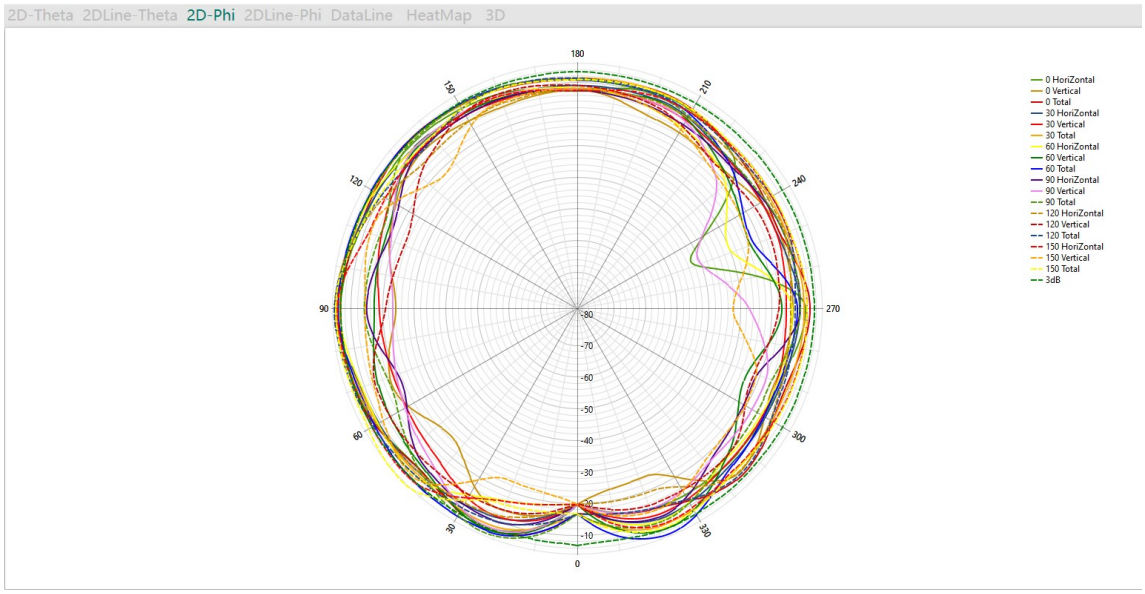
Antenna efficiency and gain

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

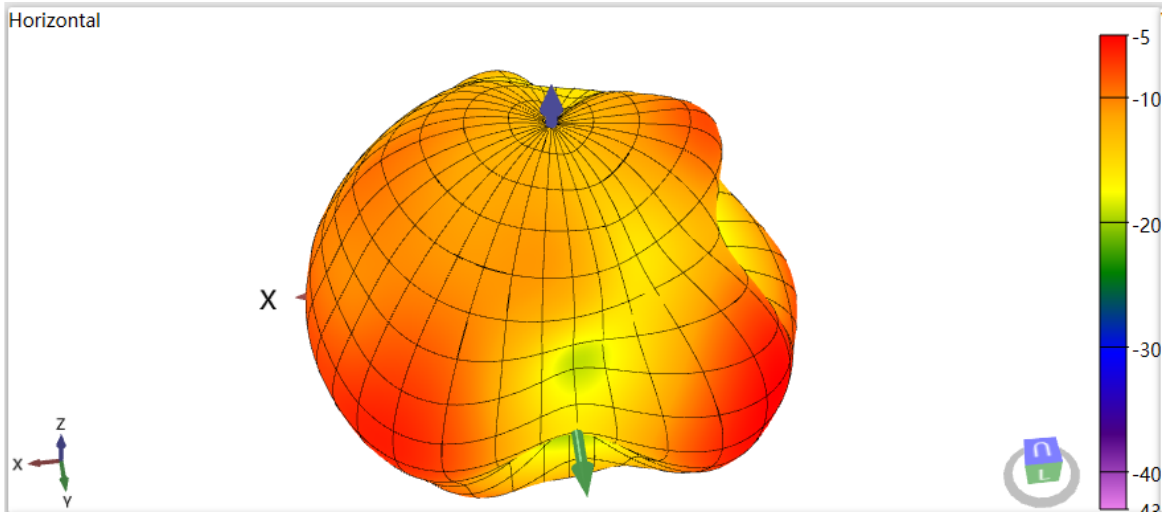
Antenna 2440MHz 2D-Theta Pattern



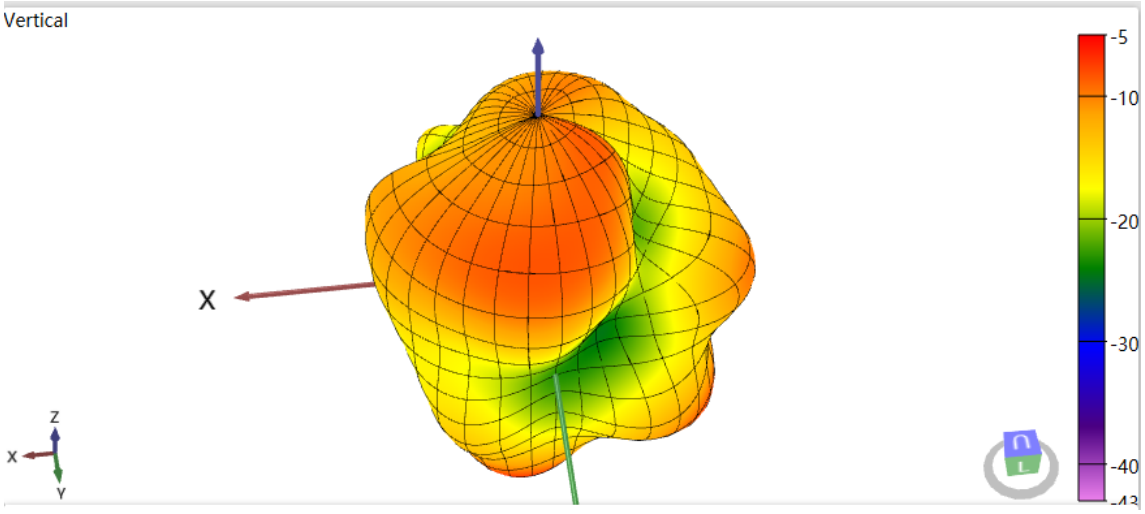
Antenna 2440MHz 2D-Phi Pattern



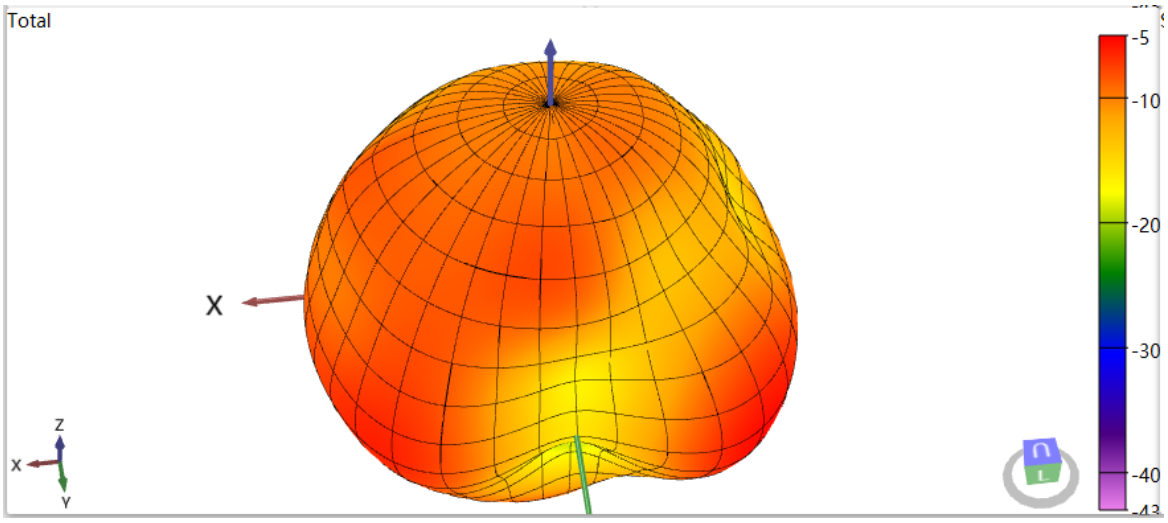
Antenna 2440MHz 3D-Horizontal Pattern



Antenna 2440MHz 3D-Vertical Pattern



2440MHz 3D-Total Pattern


Total
X
Z
x
Y
-5
-10
-20
-30
-40