

Antenna test Data

Antenna type: Five frequency high gain fiberglass omnidirectional antenna

Antenna model: TQJ-0809142458AG5

Test type: Sample measurement (1 pair)

Measurement date: October 14, 2022

Tested by: Test Center (3D Darkroom)

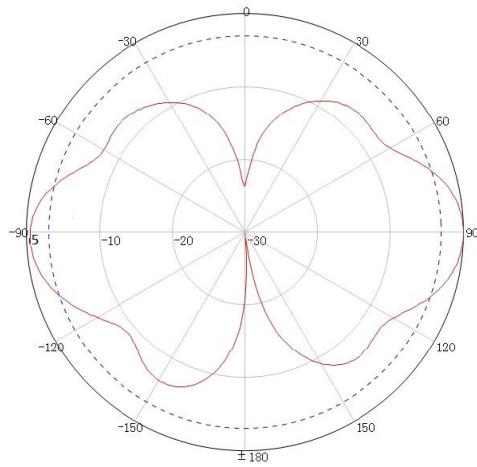
Antenna dimensions: $\phi 37.2 \times (1200 \pm 5)$

No.	Test item	Requirement	Unit	Result	
1	Frequency Range	832~862 900~930 1420~1450 2400~2500 5100~5900	MHz	832~862 900~930 1420~1450 2400~2500 5100~5900	
2	VSW	832~862@ ≤ 2 900~930@ ≤ 2 1420~1450 ≤ 2.5 2400~2500@ ≤ 2.5 5100~5900@ ≤ 3	/	832~862@ ≤ 1.6 900~930@ ≤ 1.89 1420~1450 ≤ 2.0496 2400~2500@ ≤ 1.49 5100~5900@ $\leq$ 参考	
3	Gain	5	dBi	832 MHz	4.6
				847 MHz	5.0
				862 MHz	4.89
				900MHz	4.5
				915MHz	5.0
				930MHz	4.66
				1420 MHz	4.56
				1440 MHz	4.68
				1450 MHz	4.6
				2400MHz	4.01
				2450MHz	4.63
				2500MHz	4.48
				5100MHz	4.05
				5550MHz	5.0
				5900MHz	4.54
4	Out of roundness of horizontal plane	832~862@ ± 1 900~930@ ± 1 1410~1470@ ± 1.5 2400~2500@ ± 2 5100~5900@ ± 4	dB	832 MHz	0.42
				847 MHz	0.46
				862 MHz	0.12
				900MHz	0.35
				915MHz	0.35
				930MHz	0.55
				1420 MHz	1.4
				1440 MHz	1.44

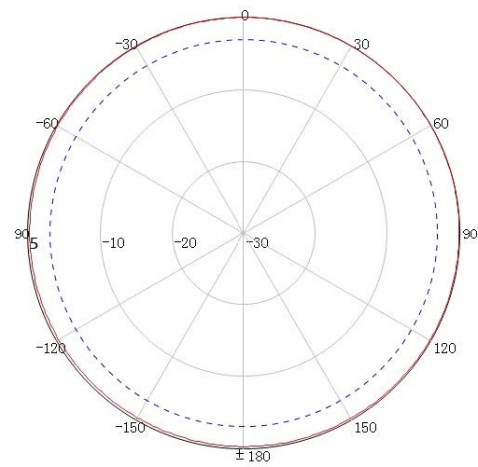
				1450 MHz	1.42
				2400MHz	1.98
				2450MHz	2
				2500MHz	1.46
				5100MHz	4（供参考）
				5550MHz	3.8（供参考）
				5900MHz	4.5（供参考）
5	H-plane beam width	360	°	832 MHz	360
				847 MHz	360
				862 MHz	360
				900MHz	360
				915MHz	360
				930MHz	360
				1420 MHz	360
				1440 MHz	360
				1450 MHz	360
				2400MHz	360
				2450MHz	360
				2500MHz	360
				5100MHz	360
				5550MHz	360
				5900MHz	360
6	E-plane beam width	38 ± 8 $25 \pm 8 @ 5100 \sim 5900$	°	832 MHz	37.04
				847 MHz	33.8
				862 MHz	35.53
				900MHz	32.3
				915MHz	35.22
				930MHz	38.24
				1420 MHz	42.62
				1440 MHz	42.93
				1450 MHz	44.24
				2400MHz	34.7
				2450MHz	34.3
				2500MHz	35.52
				5100MHz	23.77
				5550MHz	22.41
				5900MHz	20.54

Attached directional diagram:

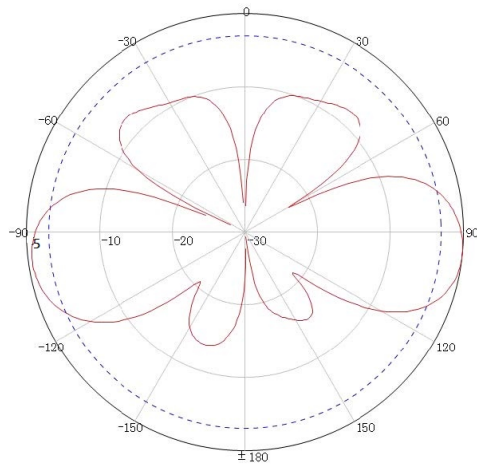
1) 840MHz :



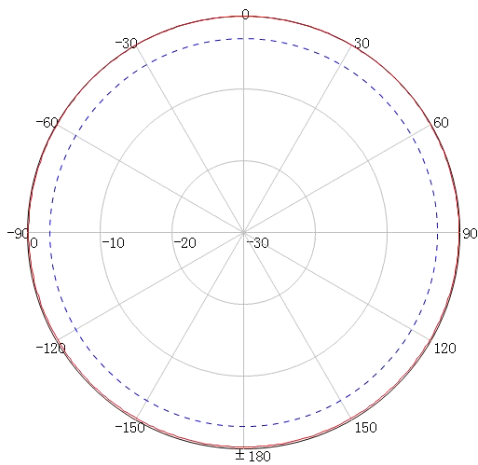
E-plane (840MHz)



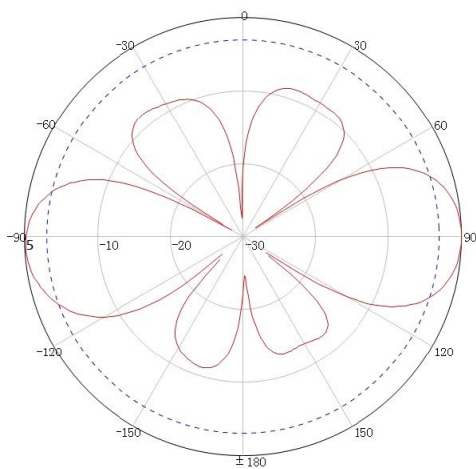
H-plane (840MHz)



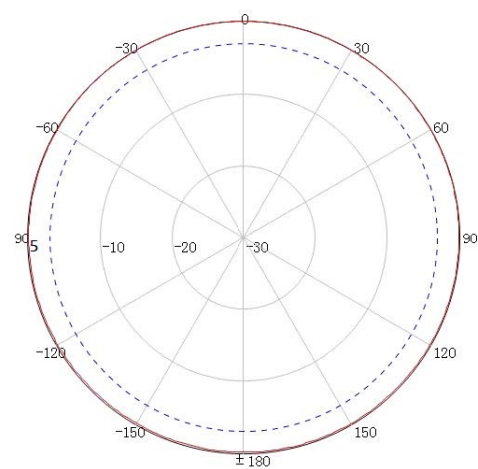
E-plane (847MHz)



H-plane (847MHz)

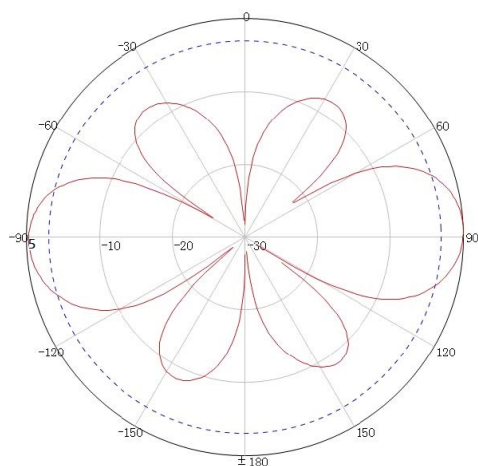


E-plane (862MHz)

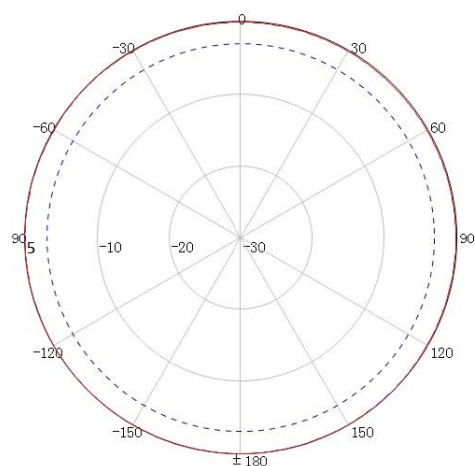


H-plane (862MHz)

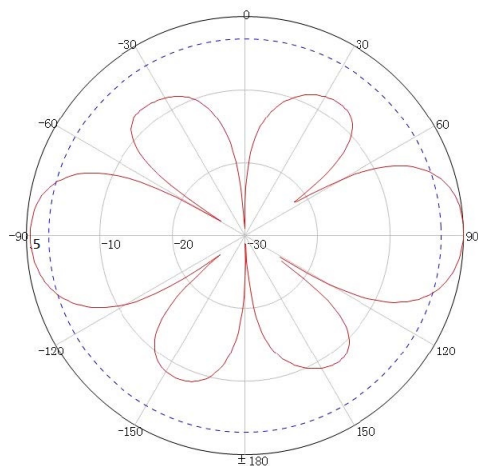
2) 900MHz :



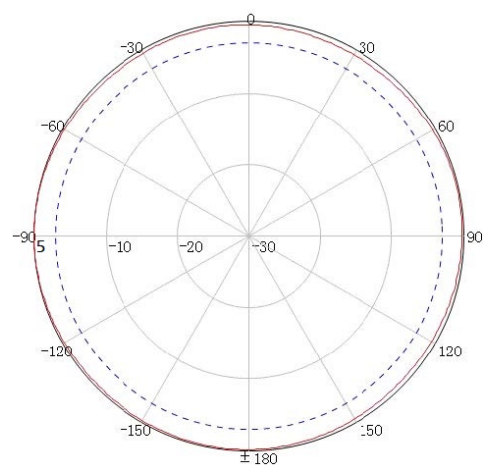
E-plane (900MHz)



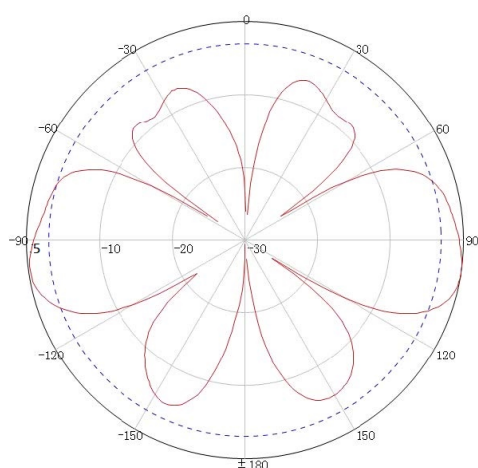
H-plane (900MHz)



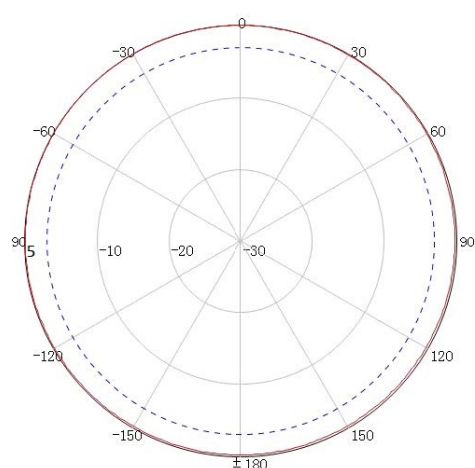
E-plane (915MHz)



H-plane (915MHz)

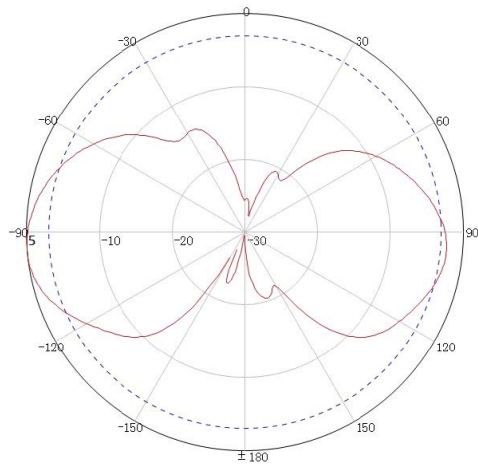


E-plane (930MHz)

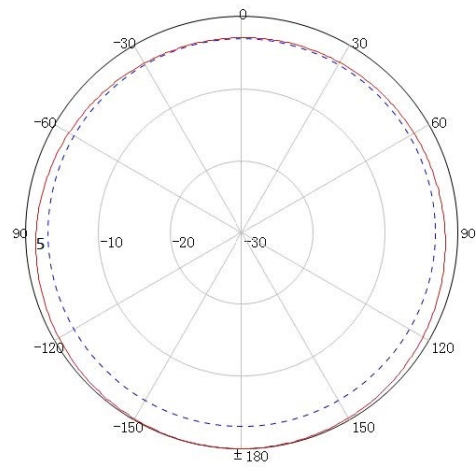


H-plane (930MHz)

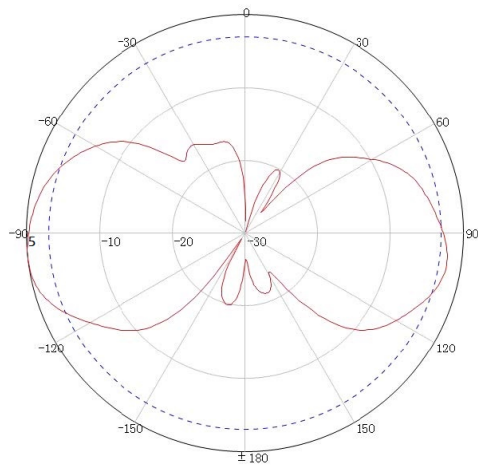
3) 1.4GHz :



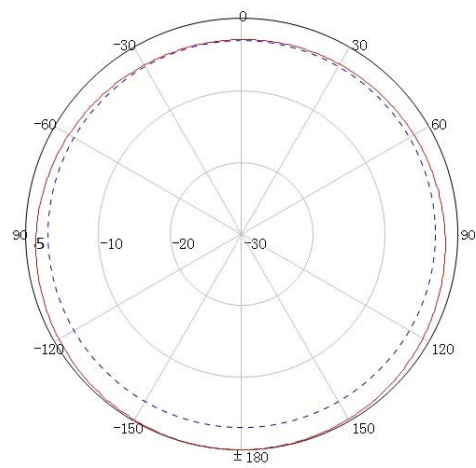
E-plane (1420MHz)



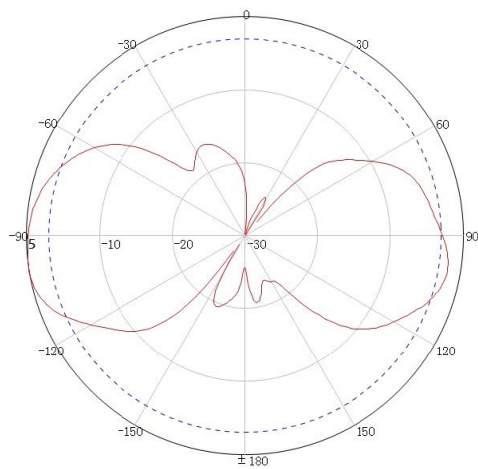
H-plane (1420MHz)



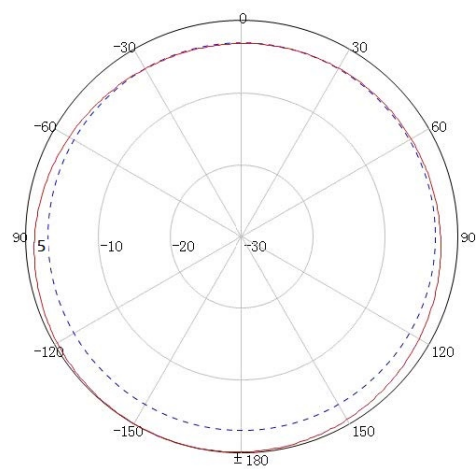
E-plane (1440MHz)



H-plane (1440MHz)

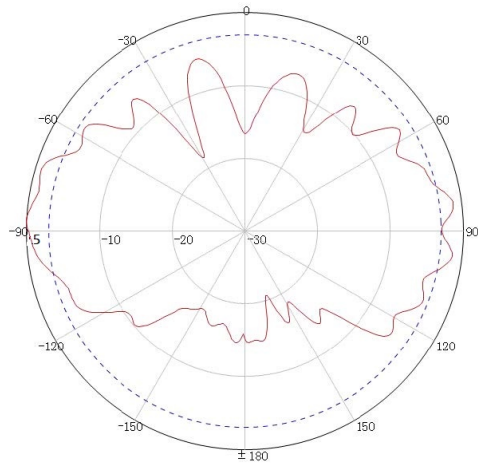


E-plane (1450MHz)

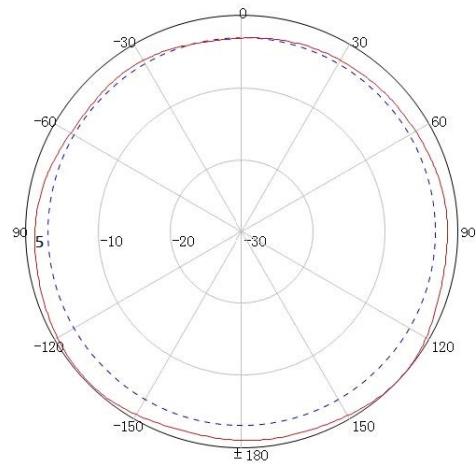


H-plane (1450MHz)

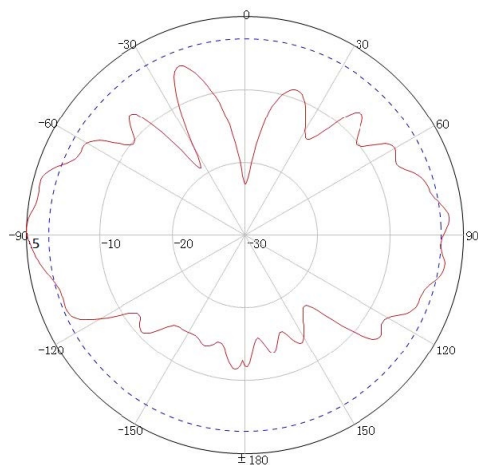
4) 2.4GHz :



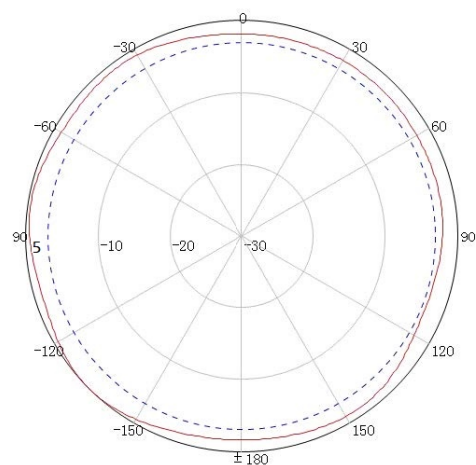
E-plane (2400MHz)



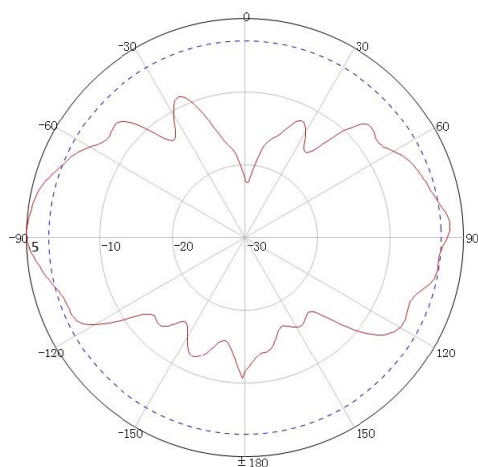
H-plane (2400MHz)



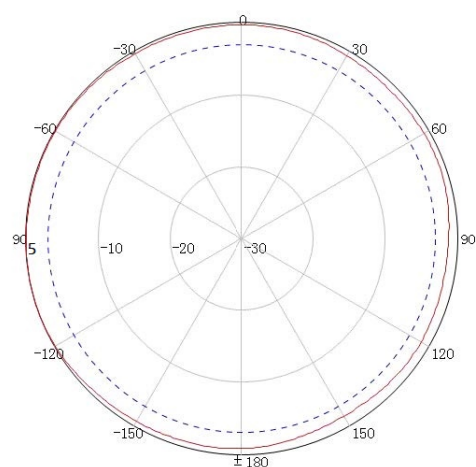
E-plane (2450MHz)



H-plane (2450MHz)

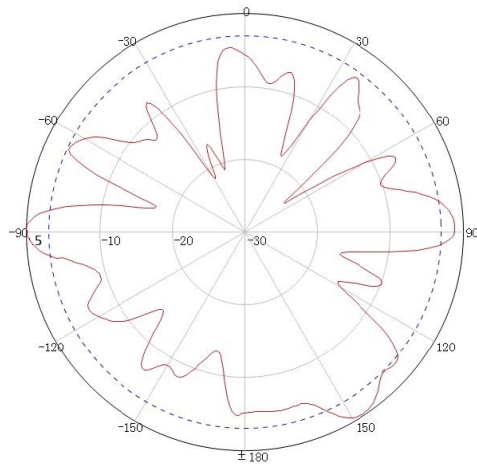


E-plane (2500MHz)

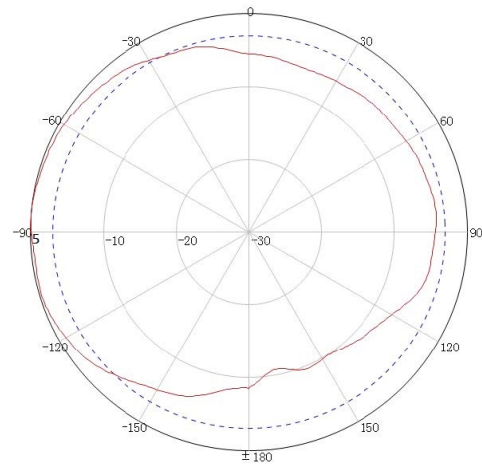


H-plane (2500MHz)

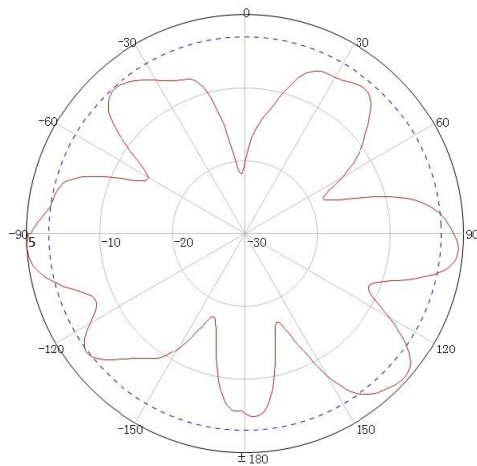
5) 5GHz :



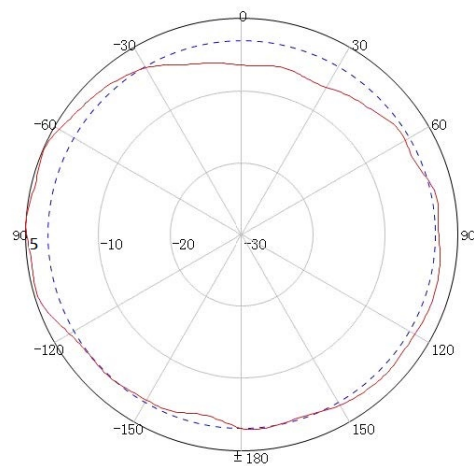
E-plane (5100MHz)



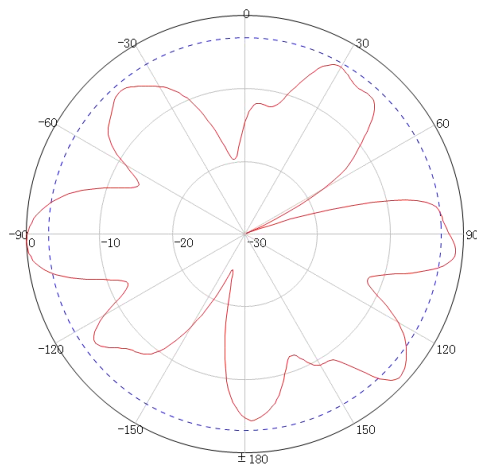
H-plane (5100MHz)



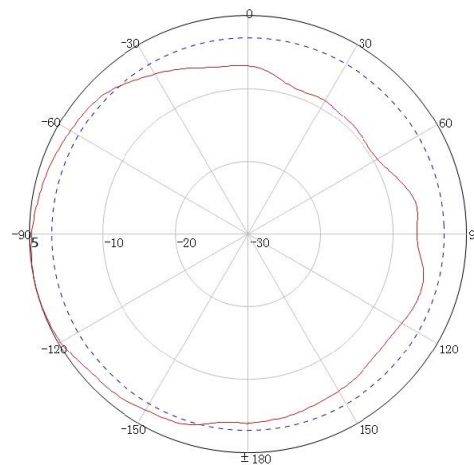
E-plane (5550MHz)



H-plane (5550MHz)

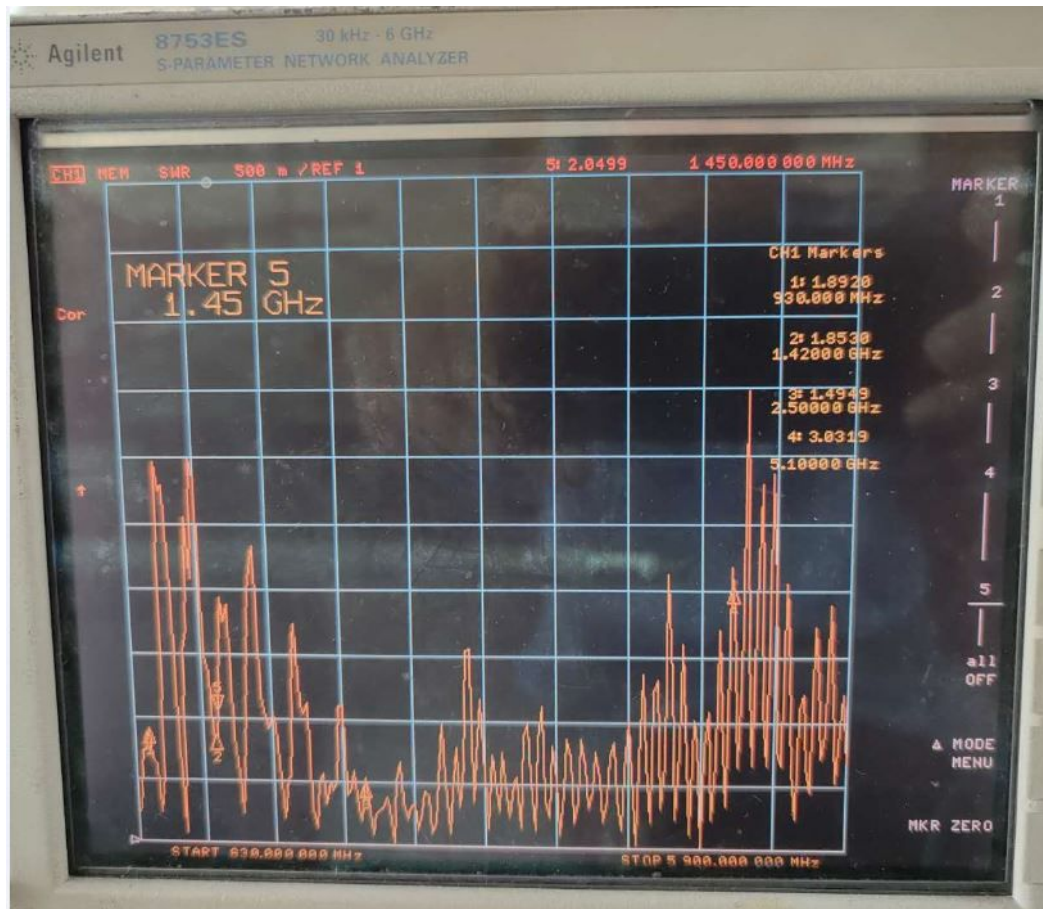


E-plane (5900MHz)



H-plane (5900MHz)

VSW





Outline Dimensional Drawing

