



Antenna Part Specification

Project name:	Harbor
Antenna name:	GPS/BT/WIFI antenna
Antenna type:	PIFA
Version:	V1.0
Date:	2026.7.23
Manufacturer:	Shenzhen Cicent Communication Technology Co., Ltd.
Manufacturer address:	505-506 ,ABlock,Donglian Building,Chuangye 2 road,Baoan District,Shenzhen,Guangdong,P.R china



Contents

I: The report of passive data	3
II: 3D Active test report of antenna	9
III: Antenna matching circuit	10
IV: Antenna structure diagram file	11

Change record			
Compile / change date	Reason for change	Changed content	Version
2026.7.23	First edition	First edition	V1.0

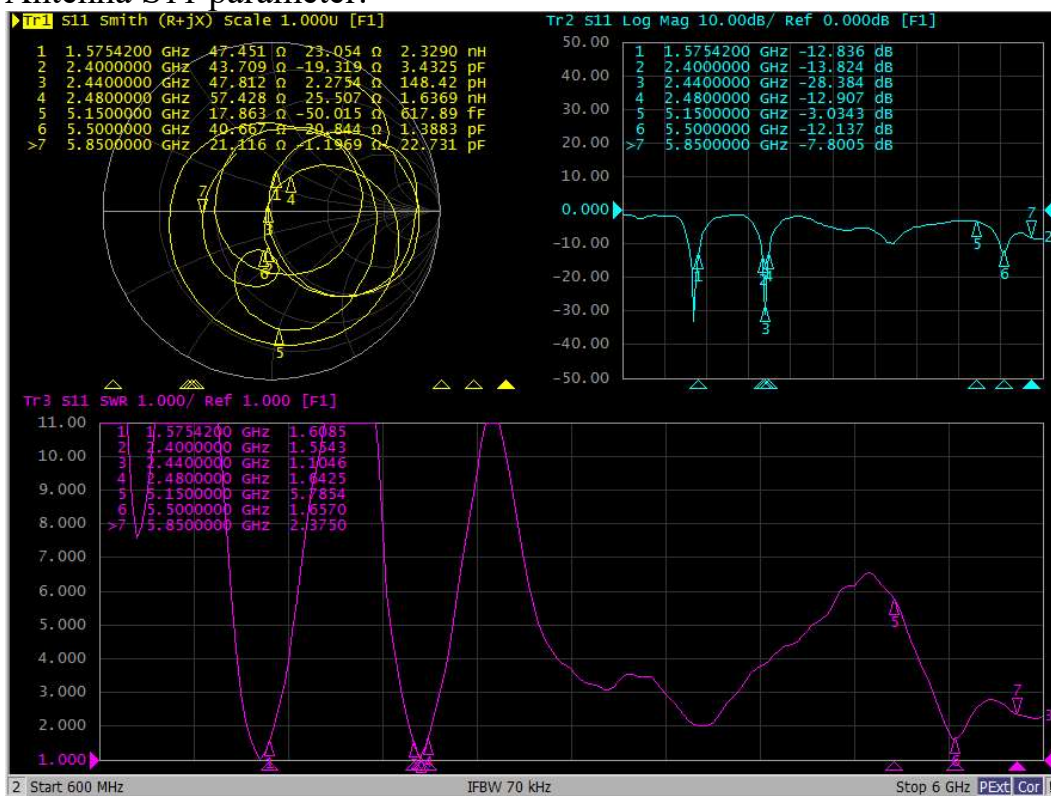


I: The report of passive data



Agilent E5071C

Antenna S11 parameter:

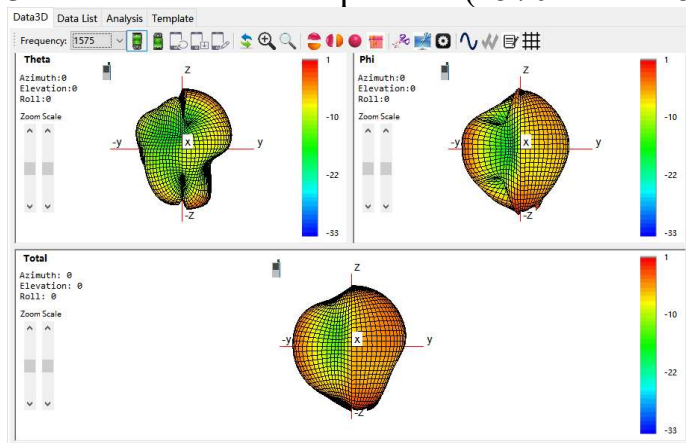




Antenna efficiency and gain:

GPS/BT/WIFI antenna passive efficiency											
Frequency (MHz)	Efficiency (dB)	Gain (dBi)	Efficiency (%)	Frequency (MHz)	Efficiency (dB)	Gain (dBi)	Efficiency (%)	Frequency (MHz)	Efficiency (dB)	Gain (dBi)	Efficiency (%)
1570	-3.23	1.73	47.54	2400	-1.93	1.36	64.14	5175	-1.96	3.81	63.62
1571	-3.26	1.69	47.20	2410	-1.94	1.18	64.02	5205	-2.04	3.78	62.59
1572	-3.28	1.66	46.99	2420	-1.99	1.05	63.31	5235	-2.20	3.62	60.22
1573	-3.31	1.61	46.67	2430	-2.14	0.92	61.09	5265	-2.36	3.36	58.11
1574	-3.33	1.58	46.48	2440	-2.36	0.68	58.13	5295	-2.41	3.09	57.35
1575	-3.35	1.54	46.21	2450	-2.53	0.53	55.90	5325	-2.40	2.95	57.55
1576	-3.39	1.50	45.84	2460	-2.77	0.30	52.89	5355	-2.67	2.62	54.12
1577	-3.41	1.46	45.60	2470	-3.12	-0.03	48.77	5385	-2.64	2.66	54.49
1578	-3.42	1.43	45.47	2480	-3.35	-0.34	46.23	5415	-2.41	2.89	57.43
1579	-3.45	1.39	45.24					5445	-2.87	2.31	51.62
1580	-3.46	1.37	45.12					5475	-2.95	2.15	50.73
								5505	-2.95	2.22	50.64
								5535	-3.08	2.19	49.22
								5565	-3.10	2.17	48.97
								5595	-2.74	2.57	53.17
								5625	-2.64	2.45	54.40
								5655	-2.59	2.37	55.07
								5685	-2.66	2.19	54.22
								5715	-2.77	1.97	52.82
								5745	-2.98	1.66	50.40
								5775	-2.79	1.77	52.64
								5805	-2.41	1.95	57.40
								5825	-2.15	2.09	60.93

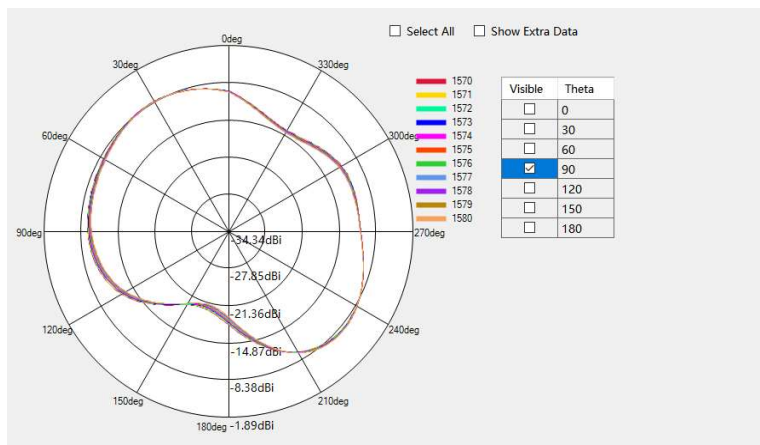
3D Antenna radiation pattern: (1570 MHz -1580MHz)



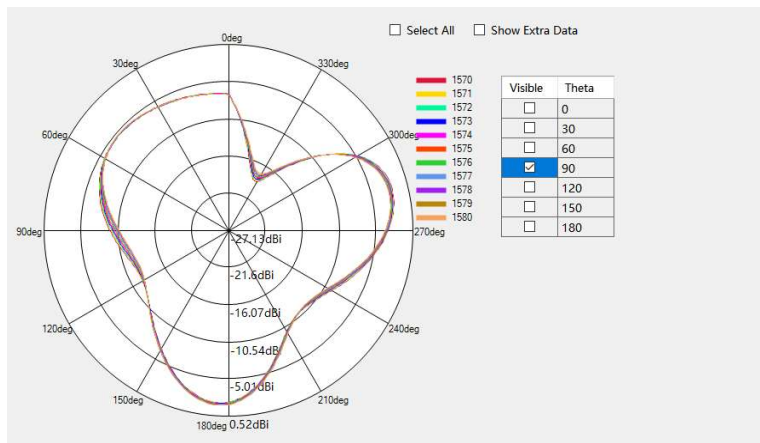


2D Antenna radiation pattern: (1570 MHz -1580MHz)

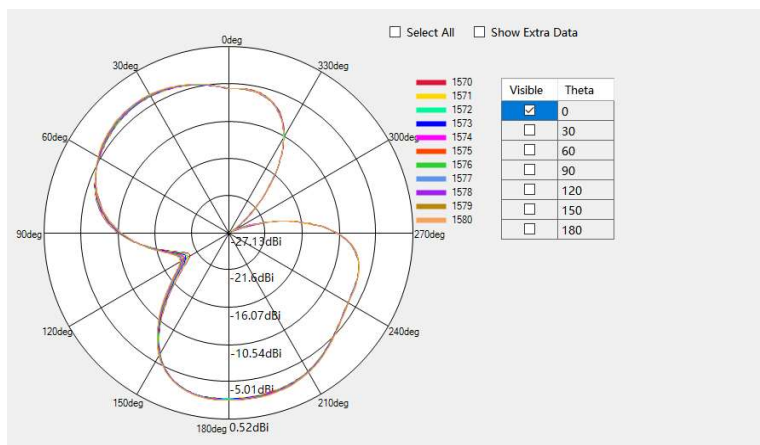
Theta = 90°



Phi=90°

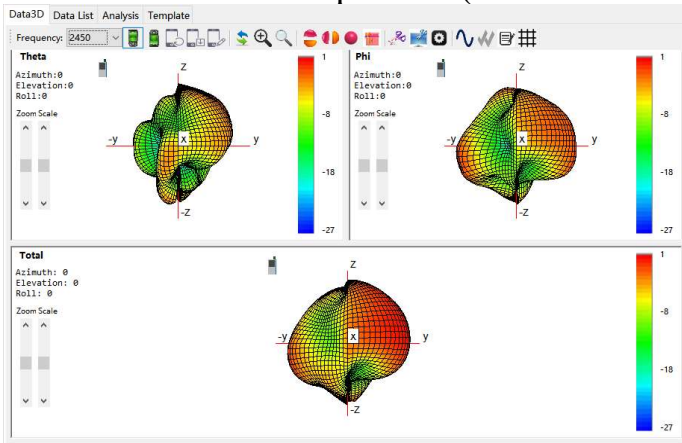


Phi=0°



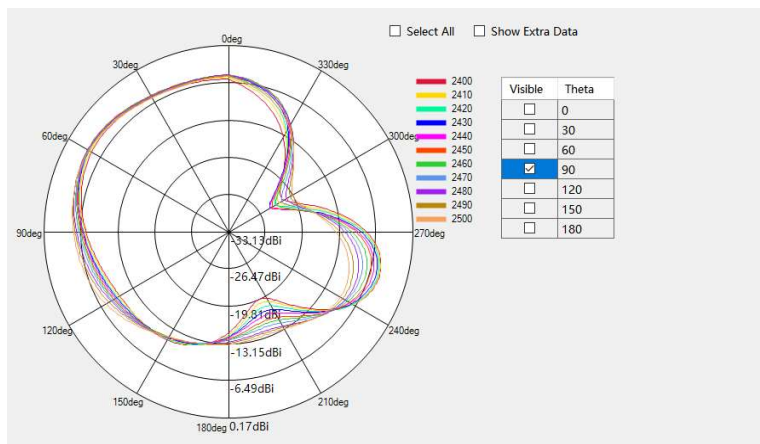


3D Antenna radiation pattern: (2400 MHz -2480MHz)

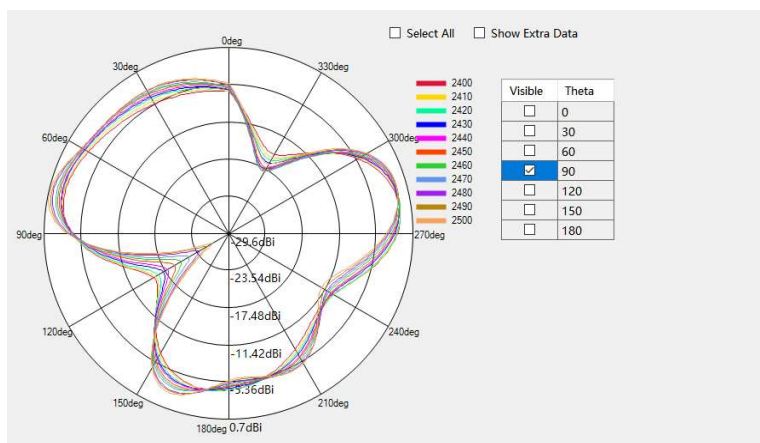


2D Antenna radiation pattern: (2400 MHz -2480MHz)

Theta = 90°

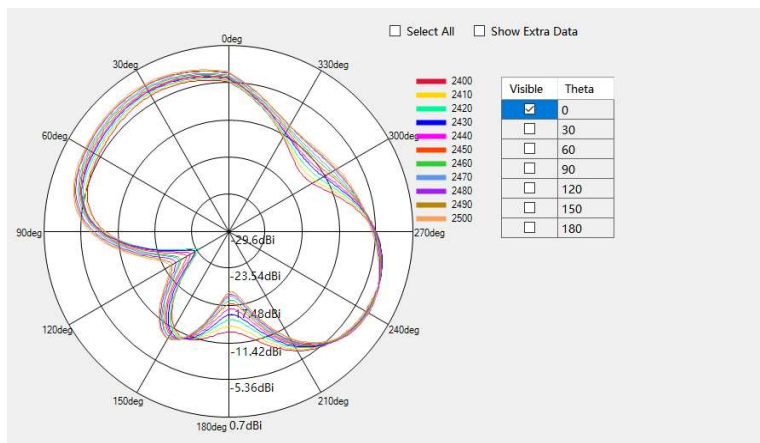


Phi=90°

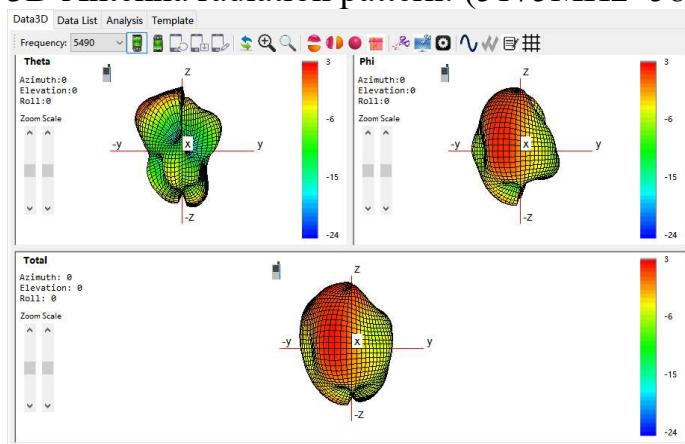




Phi=0°

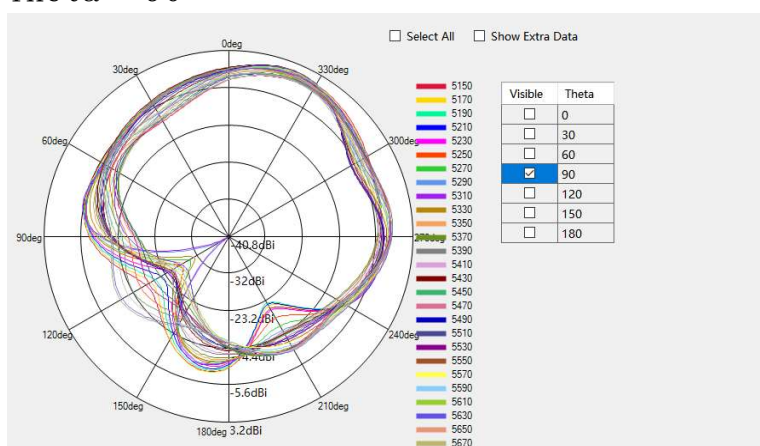


3D Antenna radiation pattern: (5175MHz -5825MHz)



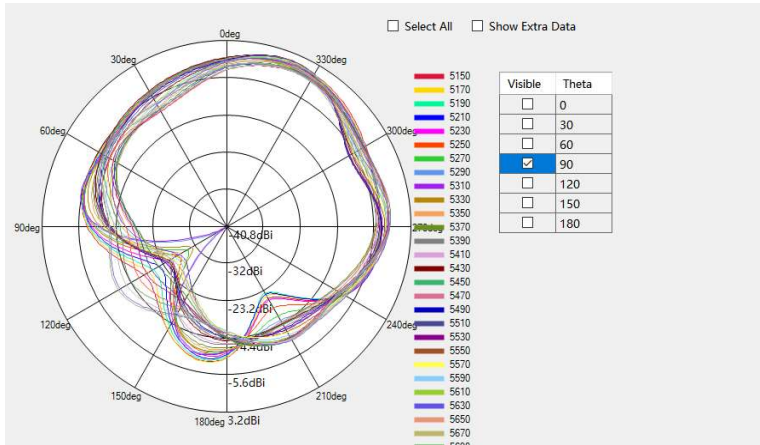
2D Antenna radiation pattern: (5175 MHz -5825MHz)

Theta = 90°

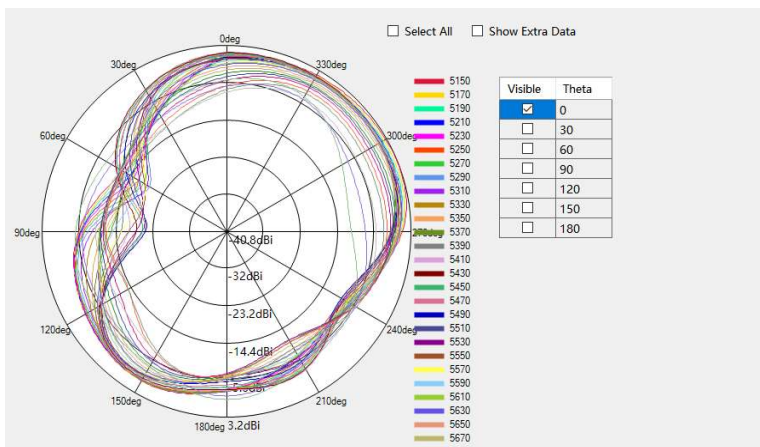




Phi=90°



Phi=0°





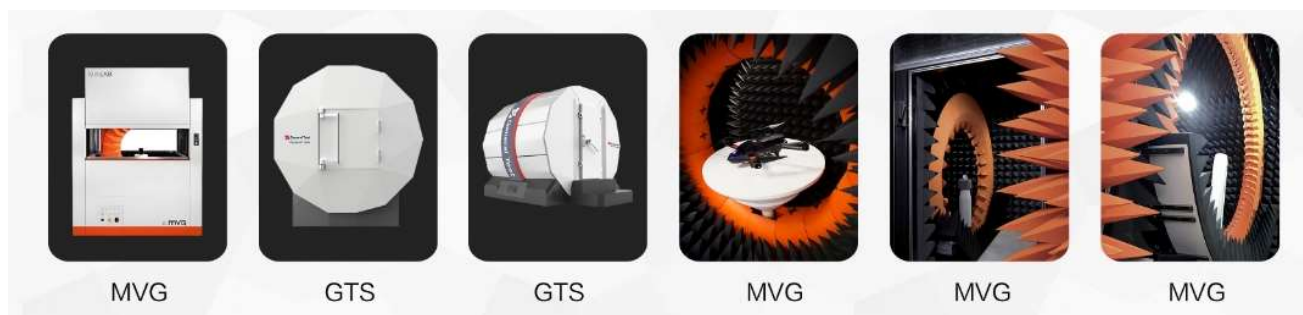
II: 3D Active test report of antenna

1#	Channel	TRP (dBm)	TIS (dBm)
B	1	15.3	
	6	14.5	
	11	14.9	-83.2
G	1	15.1	
	6	14.7	
	11	15.1	-70.6
N	1	15	
	6	14.8	
	11	15	-67

1#	CN0	TIS (dBm)
GPS	41	-143

2#	Channel	TRP (dBm)	TIS (dBm)
B	1	15.1	
	6	14.8	
	11	15.2	-83.3
G	1	15.2	
	6	14.8	
	11	15.4	-70.8
N	1	15.4	
	6	14.7	
	11	15.3	-67.2

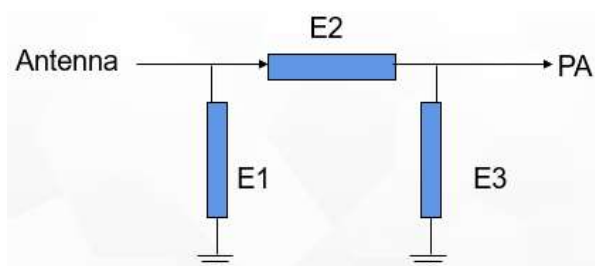
2#	CN0	TIS (dBm)
GPS	41.2	-143.2



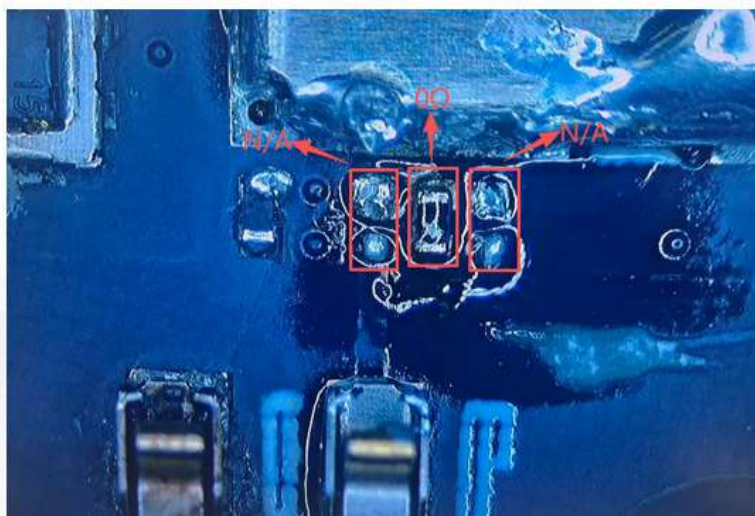
OTA Standard Chamber



III: Antenna matching circuit



Element	Value
E1	N/A
E2	0Ω
E3	N/A





IV: Antenna structure diagram file

