

Printed Antenna Datasheet

Tested product : KSTB6200 PCB Antenna

Test Frequency : 2.4GHz to 6GHz

2022 / 11 / 07



1. Overview

1.1 Test items

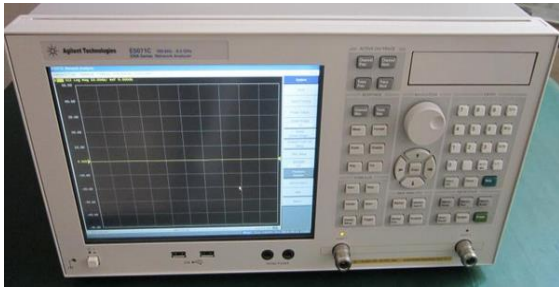
Antenna has frequency range of 2.4Hz to 6GHz,

1.2 Test standard

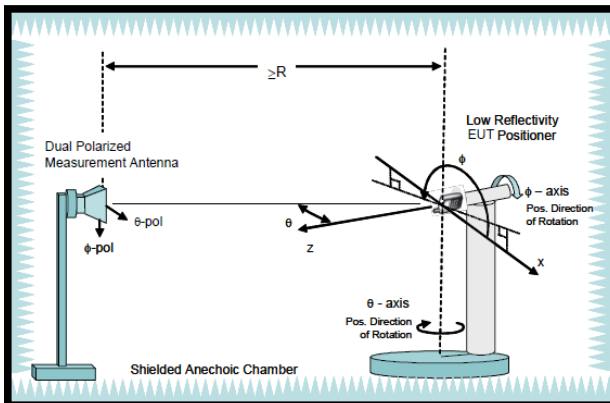
The test method for reflectivity of VSWR

1.3 Test equipment

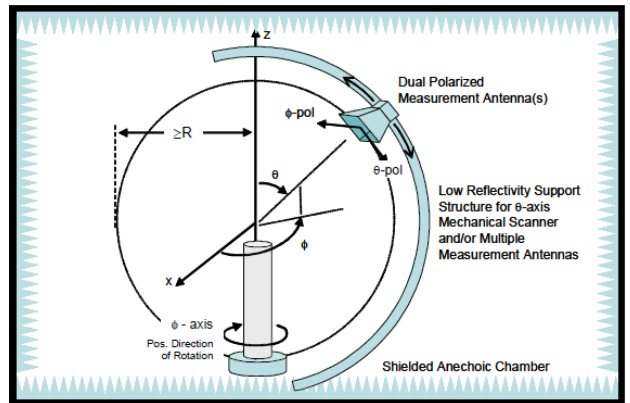
- 1) Arched Test Stand System
- 2) Vector network analyzer (Agilent E5071C) frequency domain
- 3) 2.4Hz to 6GHz Standard gain horn antennas Microwave test cable



2. Test principle and method



Combined-Axes System



Distributed-Axes System

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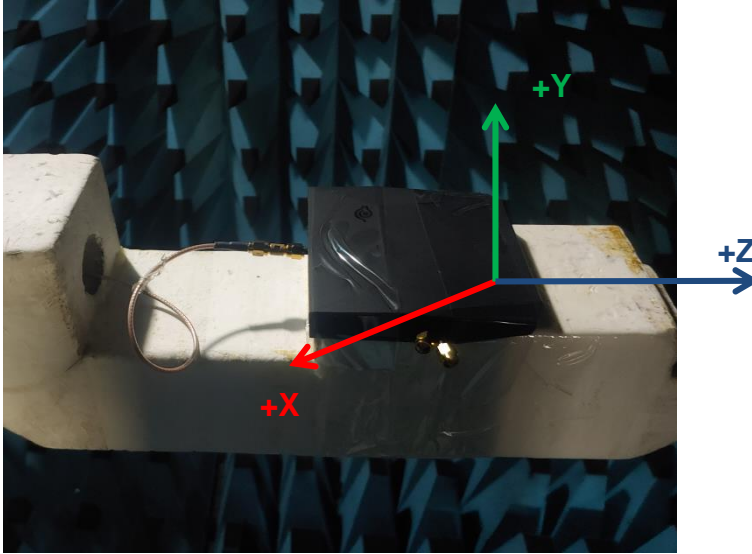
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CTIA OTA Chamber



Equipment	
Generator	Agilent E4438C

Equipment	
Radio Communication Tester	R&S CMW500

Equipment	
Network Analyzer	Agilent E5071C

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3. Antenna Features

- Dual Bands ANT
- Frequency range : 2.4GHz ~ 6GHz

4. Antenna Characteristics

2.4GHz

Parameter	Min	Typ	Max	Unit
Frequency Range	2400	2450	2500	MHz
Directivity	-	Omni	-	
Average Gain	-	-	0.12	dBi
Average Peak Gain	-	-	1.45	
V.S.W.R	-	-	3.0 : 1	Under
Impedance	-	50	-	ohm

5 GHz

Parameter	Min	Typ	Max	Unit
Frequency Range	5100	5500	5900	MHz
Directivity	-	Omni	-	
Average Gain	-	-	0.1	dBi
Average Peak Gain	-	-	1.36	
V.S.W.R	-	-	3.0 : 1	Under
Impedance	-	50	-	ohm

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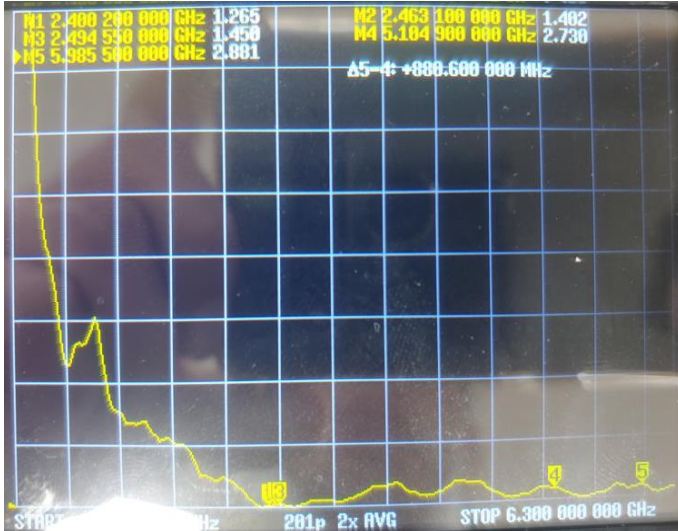
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5. VSWR

WiFi 0



Frq.(MHz)	Wi-Fi0
2400	1.26
2460	1.48
2500	1.45
5150	2.73
5850	2.88

WiFi 1



Frq.(MHz)	Wi-Fi1
2400	2.24
2460	2.52
2500	2.64
5150	1.57
5850	1.38

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6. Efficiency

Wi-Fi 0

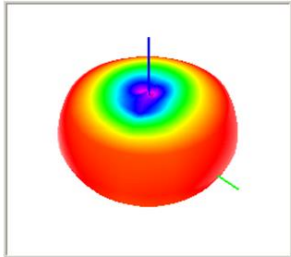
No.	Freq.[MHz]	Theta-Pol(H)						Phi-Pol(V)						PwrSum				
		Eff.[%]	Avg.[dBi]	Peak[dBi]	Theta(deg)	Phi(deg)		Eff.[%]	Avg.[dBi]	Peak[dBi]	Theta(deg)	Phi(deg)		Eff.[%]	Avg.[dBi]	Peak[dBi]	Theta(deg)	Phi(deg)
1	2400	26	-2.37	0.41	30	0		21	-3.74	0.95	0	285		47	0.01	1.36	30	345
2	2420	30	-2.24	0.79	30	0		30	-3.66	0.25	45	240		60	0.12	1.03	30	345
3	2440	24	-2.35	0.84	30	0		28	-3.82	0.03	60	240		52	-0.01	0.87	30	345
4	2460	22	-2.76	0.95	30	0		27	-4.14	0.43	60	240		49	-0.38	1.38	30	345
5	2480	20	-3.22	0.26	30	0		25	-4.43	0.31	45	240		45	-0.77	0.57	30	0
6	2500	24	-2.95	0.71	30	0		21	-4.02	0.45	45	240		45	-0.44	1.16	30	0
7	5150	20	-6.78	0.15	45	0		29	-4.74	0.64	75	60		49	-2.63	0.80	45	30
8	5250	24	-5.37	0.45	45	0		23	-3.1	0.34	60	60		47	-1.08	0.80	60	60
9	5350	23	-5.07	0.42	30	0		22	-2.83	0.60	60	75		45	-0.8	1.02	60	60
10	5500	23	-5.94	0.31	30	0		23	-3.47	0.32	90	75		46	-1.52	0.63	60	60
11	5625	27	-5.6	0.34	30	0		22	-3.12	0.49	75	75		49	-1.18	0.83	60	60
12	5725	29	-5.31	0.54	15	0		21	-2.83	0.82	75	75		50	-0.88	1.36	60	60
13	5825	22	-4.45	0.56	15	0		21	-1.95	0.58	75	75		43	-0.01	1.13	60	60

Wi-Fi 1

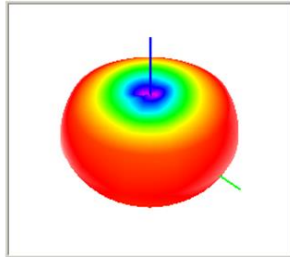
No.	Freq.[MHz]	Theta-Pol(H)						Phi-Pol(V)						PwrSum				
		Eff.[%]	Avg.[dBi]	Peak[dBi]	Theta(deg)	Phi(deg)		Eff.[%]	Avg.[dBi]	Peak[dBi]	Theta(deg)	Phi(deg)		Eff.[%]	Avg.[dBi]	Peak[dBi]	Theta(deg)	Phi(deg)
1	2400	20	-2.37	0.00	30	0		22	-3.74	0.11	0	285		42	0.01	0.11	30	345
2	2420	28	-2.24	0.80	30	0		29	-3.66	0.65	45	240		57	0.12	1.45	30	345
3	2440	28	-2.35	0.10	30	0		26	-3.82	0.31	60	240		54	-0.01	0.41	30	345
4	2460	20	-2.76	0.85	30	0		27	-4.14	0.12	60	240		47	-0.38	0.97	30	345
5	2480	21	-3.22	0.56	30	0		21	-4.43	0.15	45	240		42	-0.77	0.71	30	0
6	2500	28	-2.95	0.68	30	0		29	-4.02	0.31	45	240		57	-0.44	0.99	30	0
7	5150	20	-6.78	0.74	45	0		21	-4.74	0.11	75	60		41	-2.63	0.85	45	30
8	5250	21	-5.37	0.45	45	0		20	-3.1	0.21	60	60		41	-1.08	0.66	60	60
9	5350	23	-5.07	0.48	30	0		20	-2.83	0.13	60	75		43	-0.8	0.61	60	60
10	5500	20	-5.94	0.08	30	0		26	-3.47	0.77	90	75		46	-1.52	0.85	60	60
11	5625	24	-5.6	0.39	30	0		30	-3.12	0.77	75	75		54	-1.18	1.16	60	60
12	5725	25	-5.31	0.65	15	0		23	-2.83	0.06	75	75		48	-0.88	0.71	60	60
13	5825	29	-4.45	0.05	15	0		28	-1.95	0.62	75	75		57	-0.01	0.67	60	60

7. Radiation Pattern

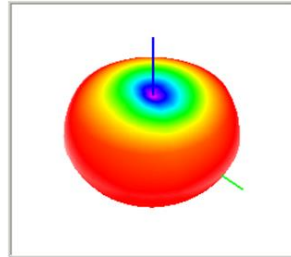
Wi-Fi 0



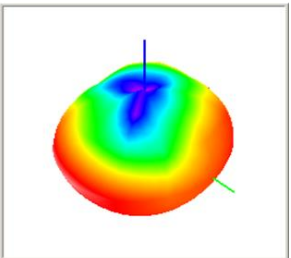
2.4GHz



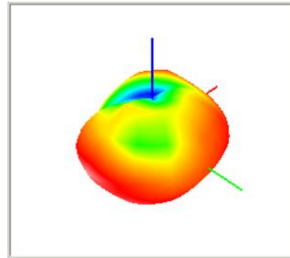
2.44GHz



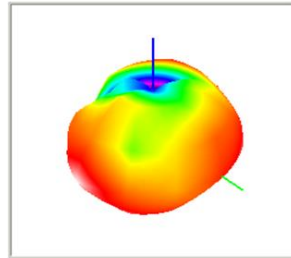
2.48GHz



5.15GHz

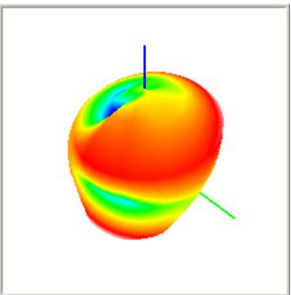


5.5GHz

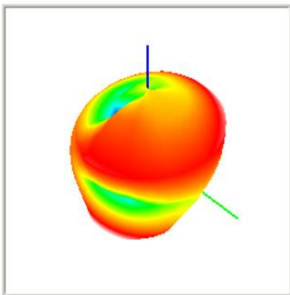


5.85GHz

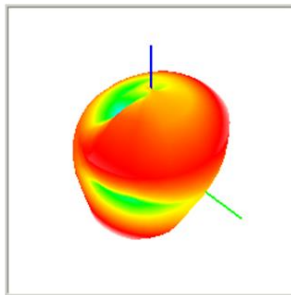
Wi-Fi 1



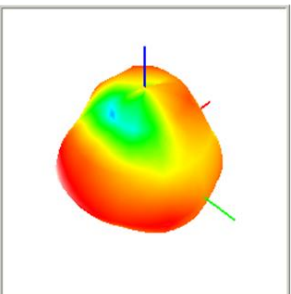
2.41GHz



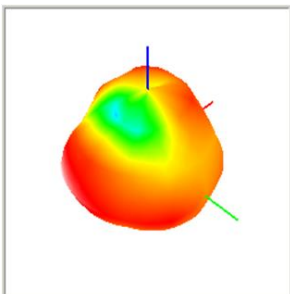
2.45GHz



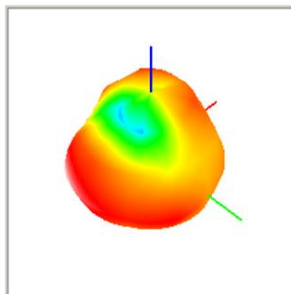
2.48GHz



5.15GHz



5.55GHz



5.85GHz

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8 Dimension