

Antenna Specification

Manufacture: HUANGJIE

Product Name: WiFi Antenna

Antenna Type: external

Test Date: 2023.02.22

Tested by: S.He

Approved by: HE XIU MING

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1.General Description

Manufacturer	DONGGUAN HUANGJIE COMMUNICATION TECHNOLOGY CO., LTD.
Address	No.3 Taihe Road, Daxiandi Industrial Zone, Quantang Village, Liaobu Town, Dongguan City
Test Location	No.3 Taihe Road, Daxiandi Industrial Zone, Quantang Village, Liaobu Town, Dongguan City
Product Name	WiFi Antenna
Product model	Directly connected external antenna
Antenna Type	External Antenna
Test Items	Gain; Efficiency; Radiation Pattern
Test Frequency	2400-2500MHz
Test Standard	/

2.Test Configurations

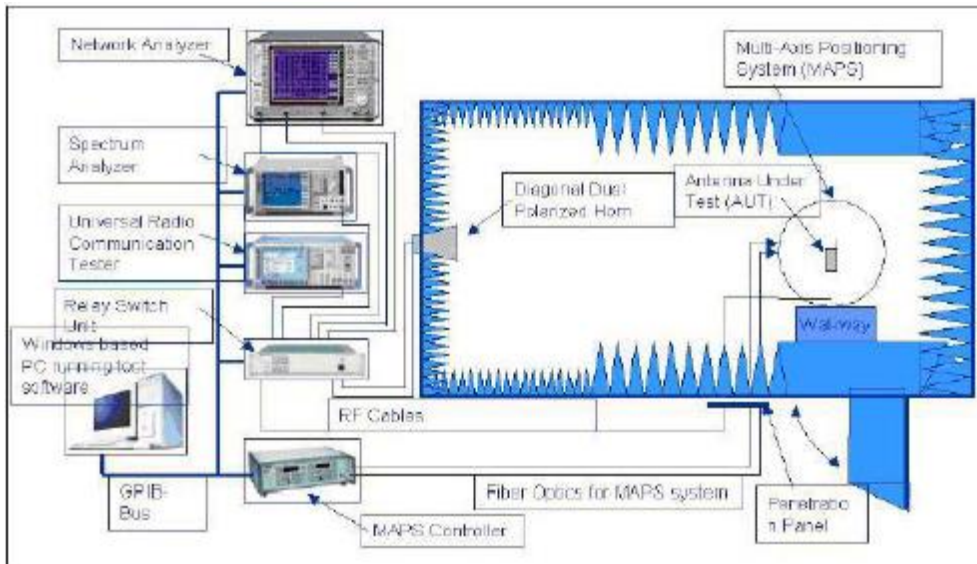
2.1 Test Environment

Temperature (°C)	25
Humidity (%RH)	60
Atmospheric Pressure (kPa)	100.5

2.2 Test Equipment

Test System	ETS
Test Instrument	darkroom

2.3 Test Principle



3.Test Results

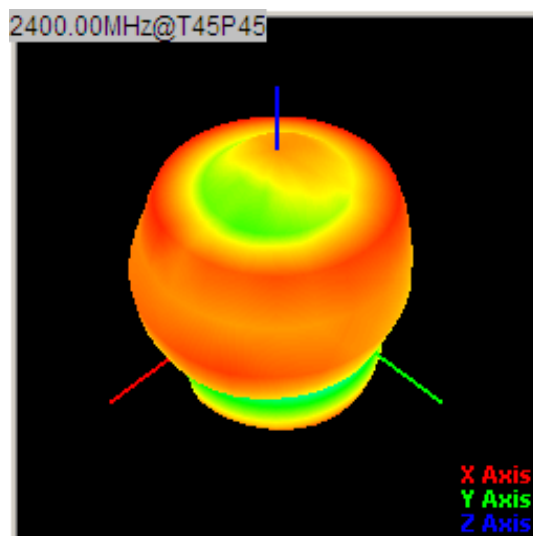
3.1 Gain and Efficiency

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
2400	3.36	56.8
2410	3.37	56.6
2420	3.13	54.4
2430	2.83	55.3
2440	2.86	59.3
2450	2.67	63.6
2460	2.32	65
2470	1.99	64.8
2480	2.62	72.8
2490	2.82	78.5
2500	2.7	78.8

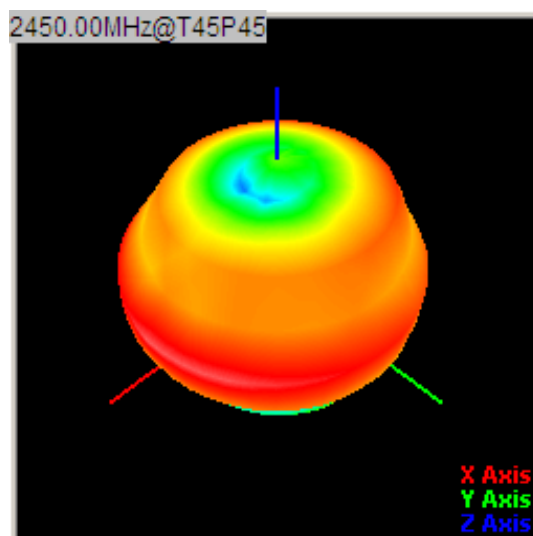
3.2 Radiation Pattern

FATUKEJI											
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-2.46	-2.47	-2.64	-2.57	-2.27	-1.96	-1.87	-1.88	-1.38	-1.05	-1.03
Peak EIRP (dBm)	3.36	3.37	3.13	2.83	2.86	2.67	2.32	1.99	2.62	2.82	2.70
Directivity (dBi)	5.82	5.84	5.78	5.39	5.13	4.64	4.19	3.87	4.00	3.88	3.73
Efficiency (dB)	-2.46	-2.47	-2.64	-2.57	-2.27	-1.96	-1.87	-1.88	-1.38	-1.05	-1.03
Efficiency (%)	56.80	56.60	54.40	55.30	59.30	63.60	65.00	64.80	72.80	78.50	78.80
Gain (dBi)	3.36	3.37	3.13	2.83	2.86	2.67	2.32	1.99	2.62	2.82	2.70
NHPRP $\pm\pi/4$ (dBm)	-4.45	-4.42	-4.54	-4.31	-3.81	-3.33	-3.09	-2.99	-2.36	-1.93	-1.83
NHPRP $\pm\pi/6$ (dBm)	-6.78	-6.55	-6.43	-5.95	-5.22	-4.58	-4.24	-4.06	-3.36	-2.89	-2.80
NHPRP $\pm\pi/8$ (dBm)	-8.34	-7.92	-7.61	-6.96	-6.08	-5.35	-4.94	-4.74	-4.04	-3.58	-3.53
Upper Hem. PRP (dBm)	-4.69	-4.56	-4.66	-4.53	-4.12	-3.70	-3.48	-3.42	-2.89	-2.58	-2.61
Lower Hem. PRP (dBm)	-6.42	-6.64	-6.95	-6.98	-6.86	-6.78	-6.96	-7.14	-6.71	-6.33	-6.19
Upper Hem. PRP (%)	33.98	34.98	34.23	35.27	38.70	42.62	44.91	45.48	51.45	55.20	54.80
Lower Hem. PRP (%)	22.82	21.66	20.18	20.07	20.61	21.00	20.12	19.32	21.32	23.27	24.02

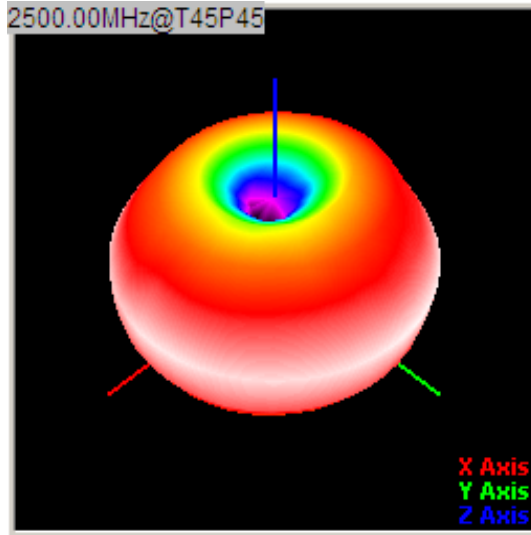
2400MHz 3D



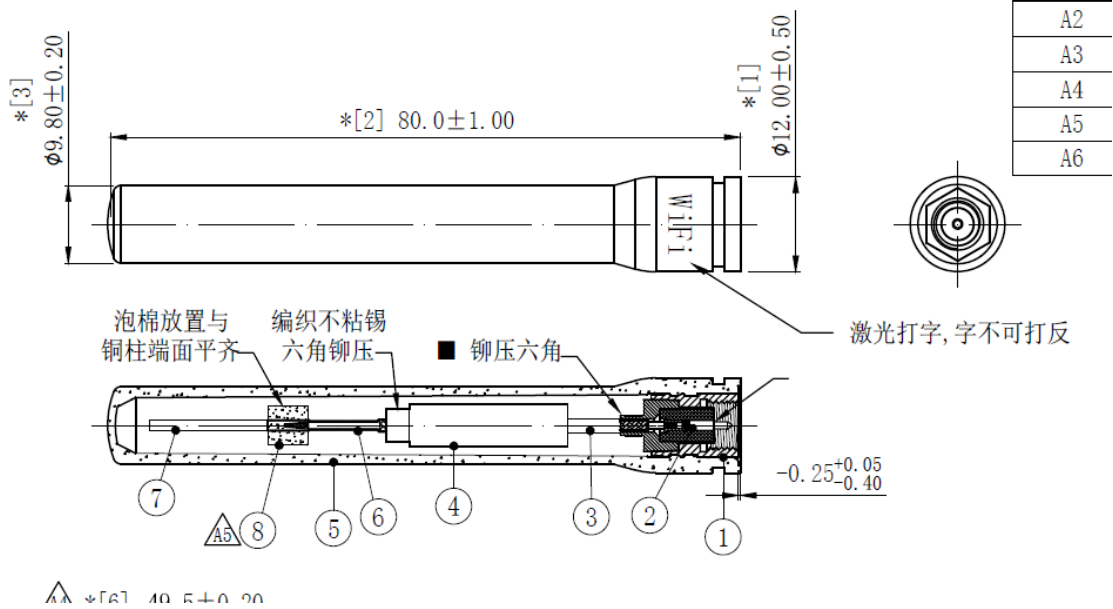
2450MHz 3D



2500MHz 3D



4. Antenna Dimensions



5. EUT Photo



6.Test Setup Photo

