

Report number: SZ240423YF02

Test Report

Sample name :Bluetooth ceramic built-in antenna (T-235 asset location terminal)

Model : Bluetooth ceramic built-in antenna/L8*W1*T1/99055

Test standard : GB/T 9410-2008

Release date: April 23, 2024

Version: A0

Prepared By	Reviewed By	Approved By
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Change log		
Version	Date	Reason for change

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1. Purpose of the test:

*According to customer project requirements, provide a test report that meets customer requirements, or can provide the best state antenna, for the product's electrical performance technical and test standards of Bluetooth ceramic built-in antenna, size L8*W1*T1 antenna.*

2. Sample information:

Sample name: Bluetooth ceramic built-in antenna

Model: Bluetooth ceramic built-in antenna/L8*W1*T1/99055

Material Code: 99055-/

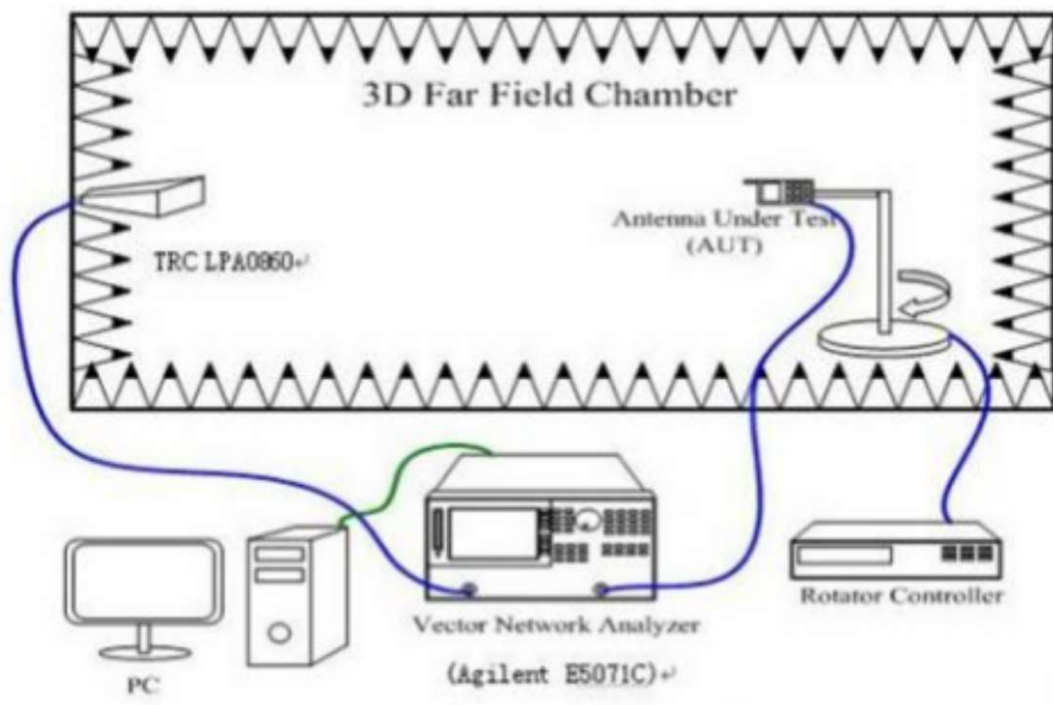
3.References

Test the main reference documnt:

Serial number	Document name	Document title
1	GB/T 9410-2008	General technical specification for mobile communication antenna

4. Test the OTA passive parameters of the built-in antenna Bluetooth ceramic antenna:

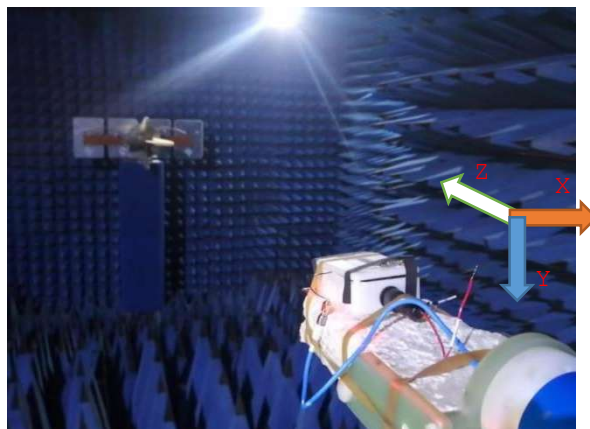
4.1 Test system connection



4.2 Test equipment

Network analyzer E5071C
Bluetooth ceramic built-in antenna
Computer
Microwave anechoic chamber

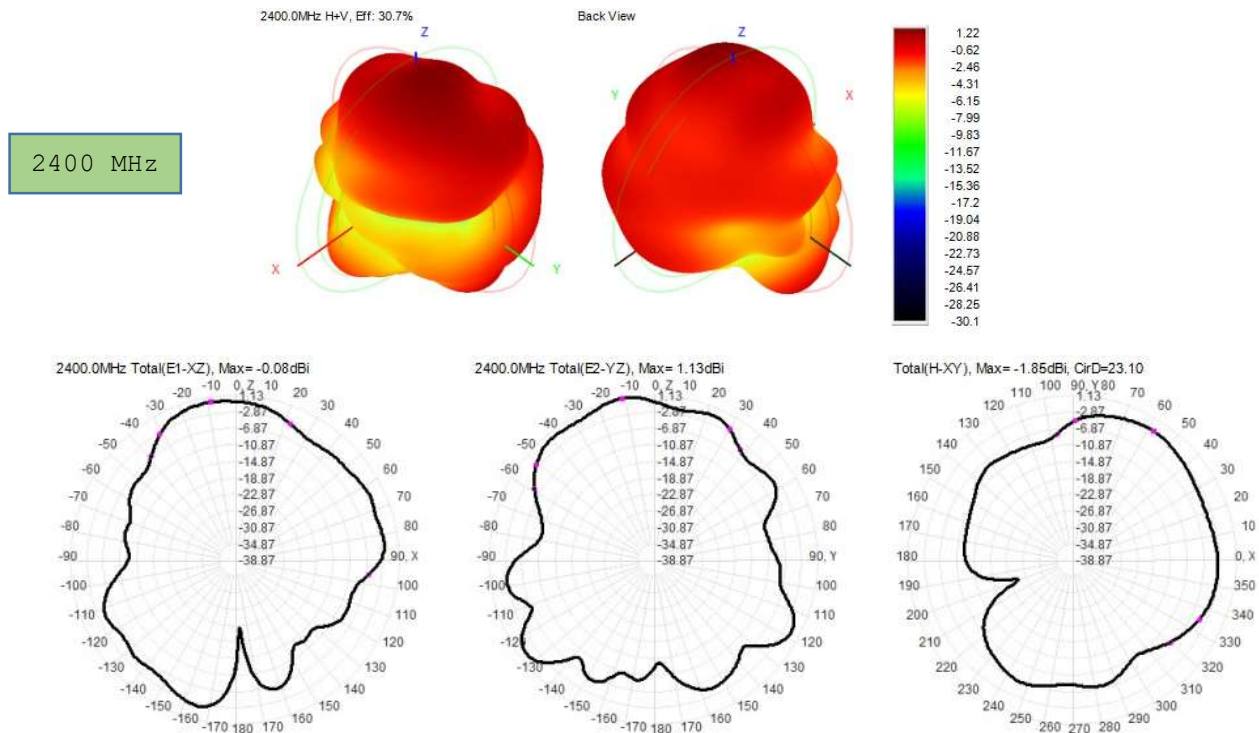
4.3 Antenna test scenario diagram



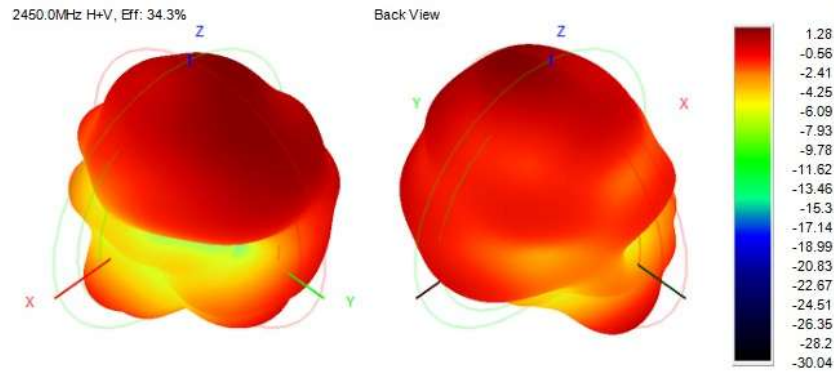
4.4 OTA passive test data :

Frequency (MHz)	Gain (dBi)	Efficiency(%)	Frequency (MHz)	Gain (dBi)	Efficiency(%)
2400	1.13	30.73	2455	1.11	33.95
2405	1.12	32.41	2460	0.97	33.51
2410	1.54	35.54	2465	0.88	32.20
2415	1.82	37.94	2470	0.71	30.94
2420	1.83	37.68	2475	0.64	30.38
2425	1.64	36.18	2480	0.79	30.94
2430	1.53	35.47	2485	1.06	32.64
2435	1.50	35.21	2490	1.38	34.20
2440	1.34	34.35	2495	1.55	34.92
2445	1.30	34.18	2500	1.38	33.62
2450	1.28	34.31			

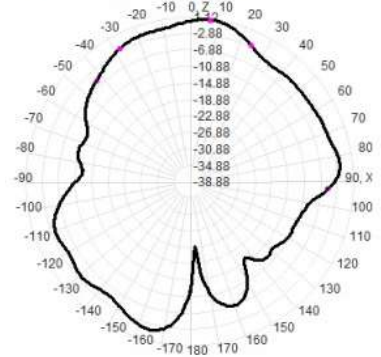
4.5 OTA direction diagram



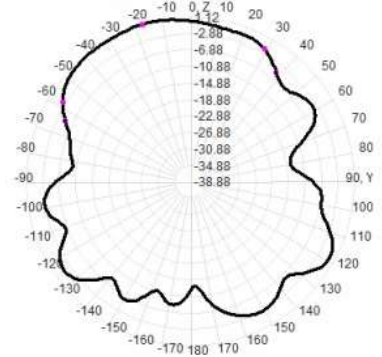
2450 MHz



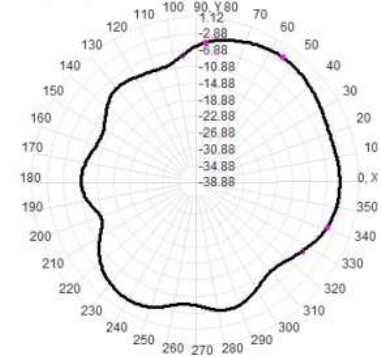
2450.0MHz Total(E1-XZ), Max= 0.72dBi



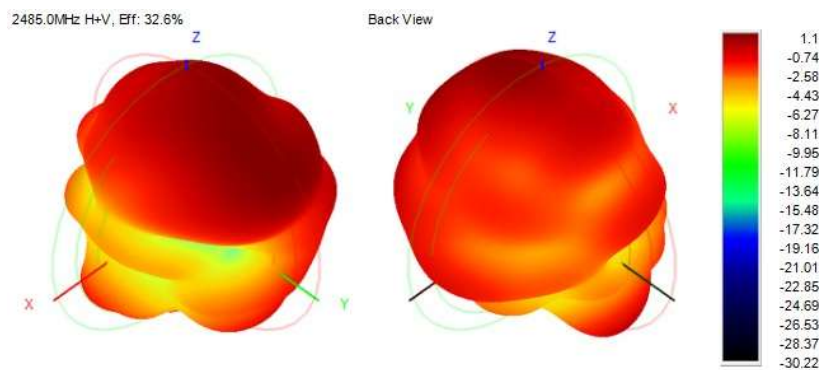
2450.0MHz Total(E2-YZ), Max= 1.12dBi



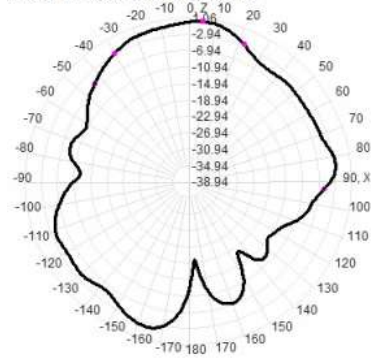
Total(H-XY), Max= -1.91dBi, CirD=12.47



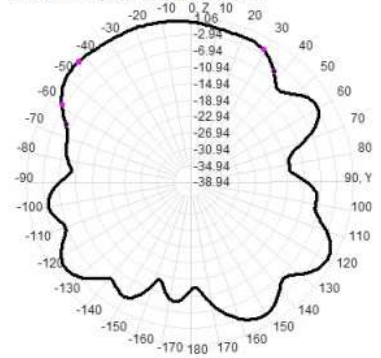
2485 MHz



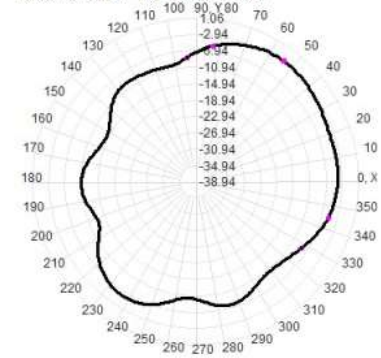
2485.0MHz Total(E1-XZ), Max= 0.28dBi

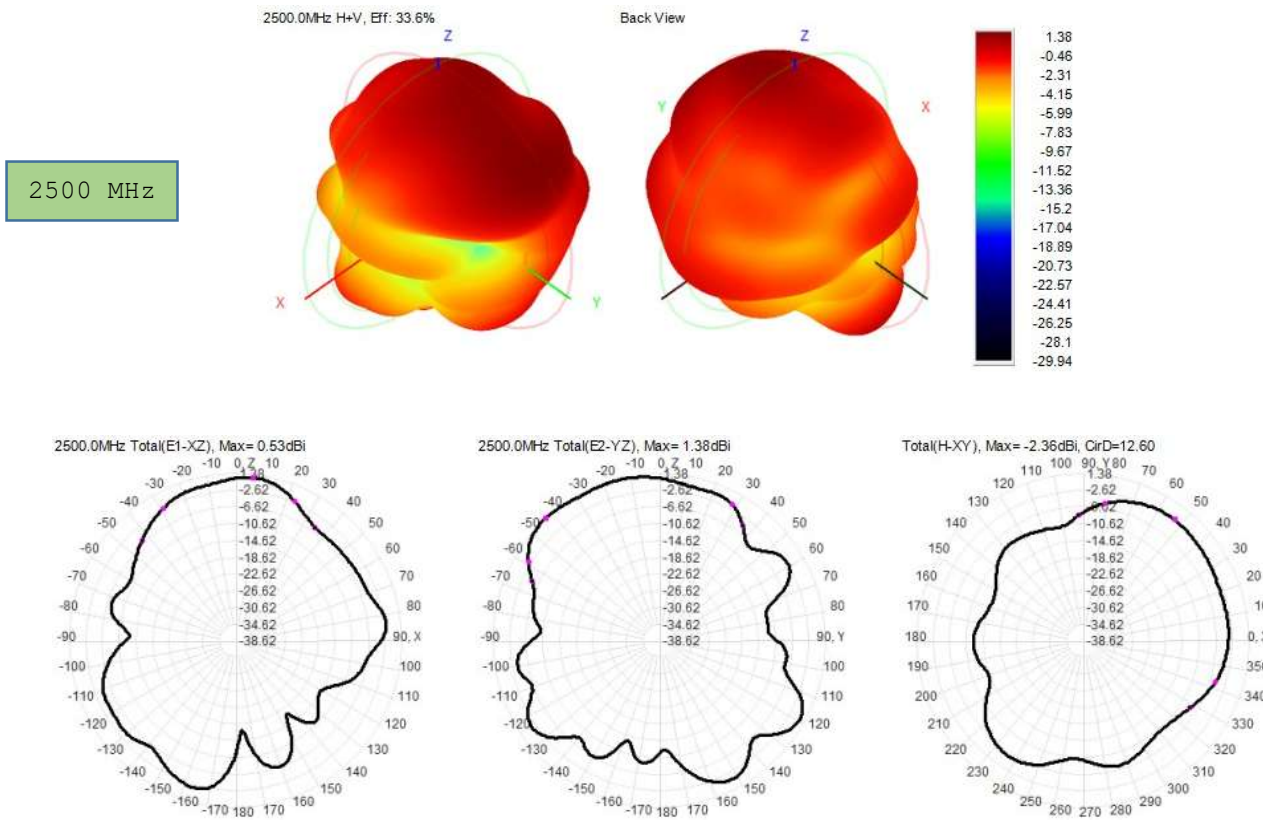


2485.0MHz Total(E2-YZ), Max= 1.06dBi

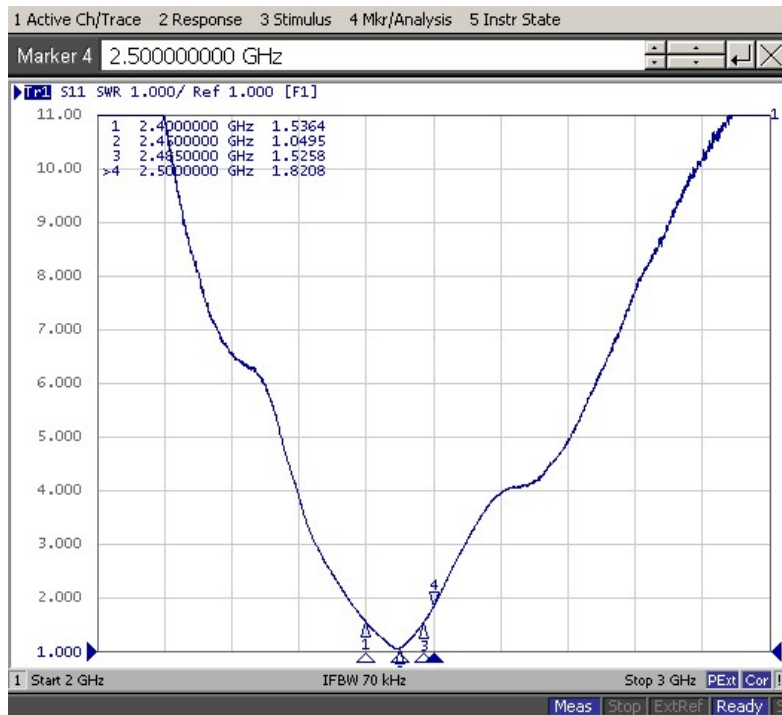


Total(H-XY), Max= -2.45dBi, CirD=12.10



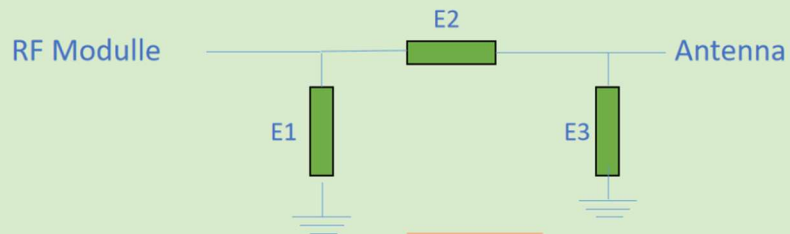


4.6 Standing wave ratio test chart

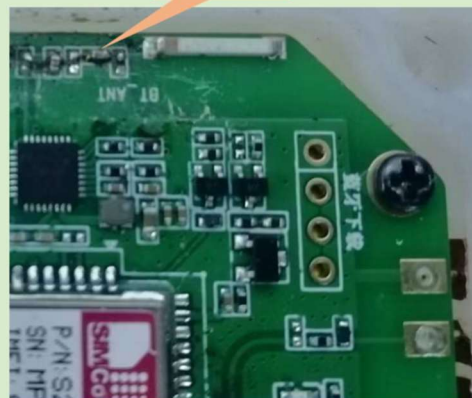


Frequency (MHz)	VSWR
2400	1.53
2450	1.04
2485	1.52
2500	1.82

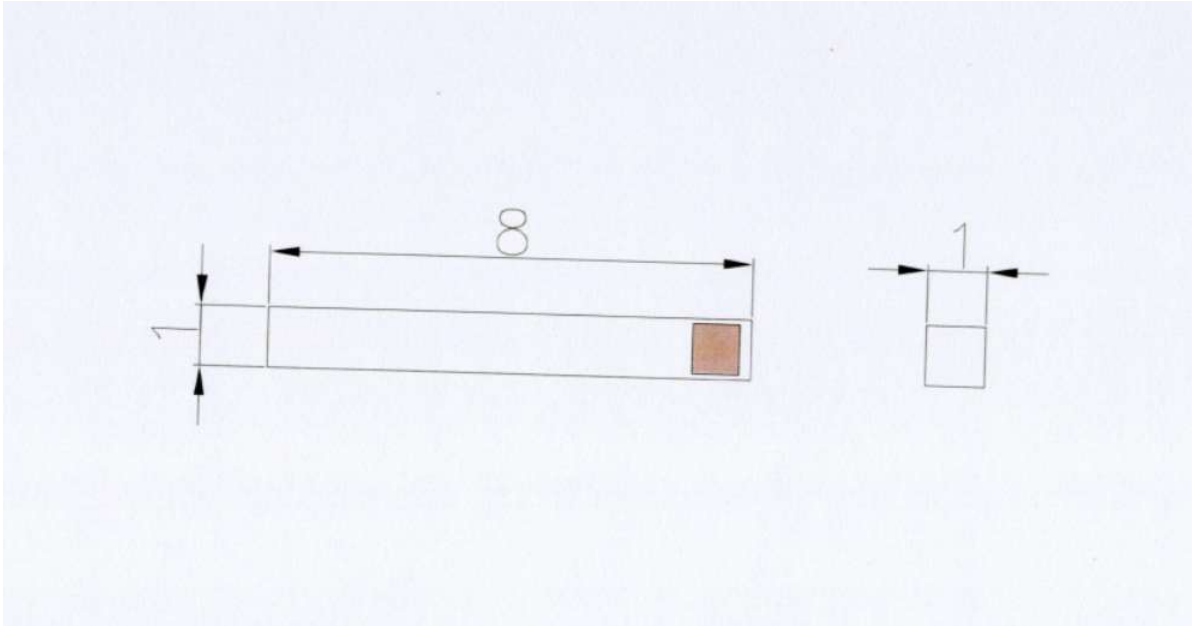
4.7 Matching circuit



Element	Value
E1	N/A
E2	1.0PF
E3	N/A



4.8 Radiation pattern



Thank you!
