

Antenna Test Report

Customer	优程
Project	OWS-15
Antenna Revision	A1
Product Description	地磁天线1608V1
Product No	V1.0
DATE	2025. 01. 10

Purpose

This report is to measure the performance of BT antenna for OWS-15
.The antenna operating frequency at 2.4~2.5GHz, All test data are showed as below.

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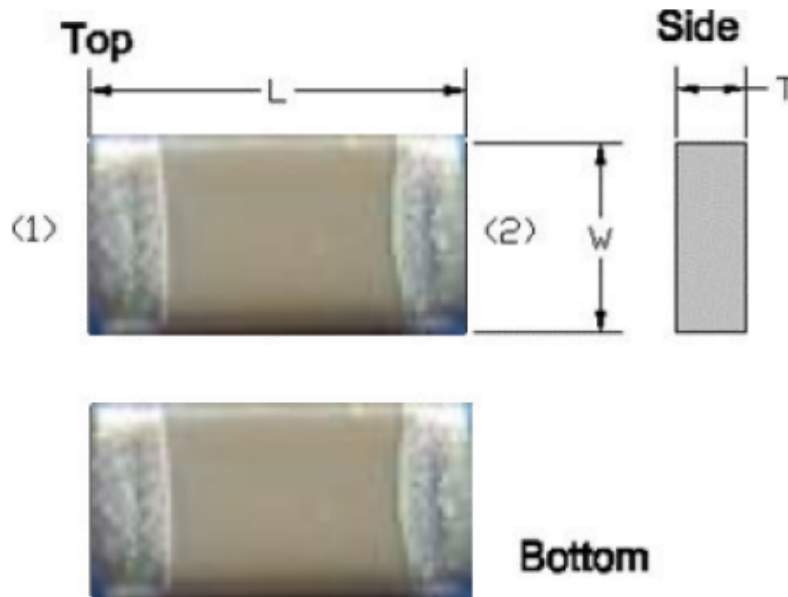
2.Test System

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	CMW500 & CMW270 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C



天线尺寸

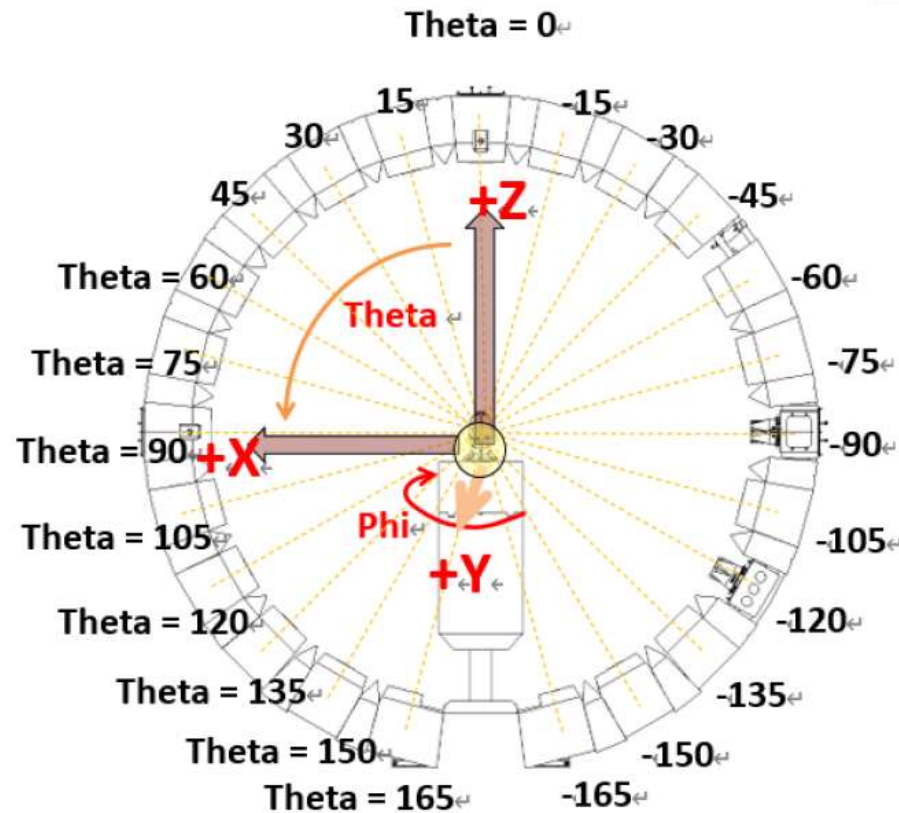
Dimension and Terminal Configuration



Dimension (mm)	
L	1.60 ± 0.10
W	0.80 ± 0.10
T	0.80 ± 0.10

Test Result

Sample status & coordinates



FS-无源S11—(BT ANT)



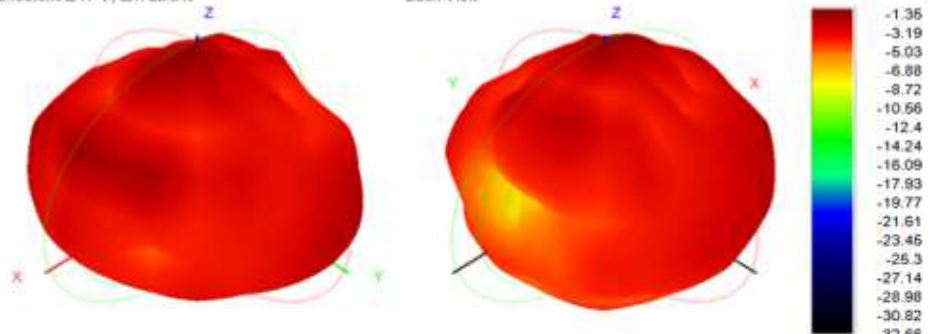


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Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-7.03	-6.96	-6.67	-6.25	-6.29	-6.43	-6.79	-7.39	-8.04	-8.39	-8.78
Gain (dBi)	-2.95	-2.95	-2.78	-1.82	-1.50	-1.35	-1.67	-2.14	-2.27	-3.25	-3.90
Efficiency (%)	19.82	20.12	21.53	23.71	23.51	22.76	20.96	18.24	15.69	14.50	13.24
Directivity (dB)	4.08	4.01	3.89	4.43	4.79	5.08	5.11	5.24	5.78	5.14	4.88
Peak Gain Position (Theta)	30.00	90.00	90.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Peak Gain Position (Phi)	105.00	105.00	105.00	0.00	0.00	15.00	15.00	105.00	90.00	105.00	90.00
Efficiency ThetaPol (%)	7.64	7.66	8.26	9.18	9.75	10.28	9.61	8.34	7.18	6.46	5.43
Efficiency PhiPol (%)	12.18	12.46	13.27	14.52	13.75	12.49	11.35	9.90	8.52	8.04	7.82
Upper Hem. Efficiency (%)	11.66	11.78	13.10	14.97	14.96	14.68	13.18	11.17	9.53	8.58	7.75
Lower Hem. Efficiency (%)	8.16	8.34	8.42	8.73	8.55	8.09	7.77	7.08	6.16	5.91	5.49

2450.0MHz H+V, Eff: 22.8%

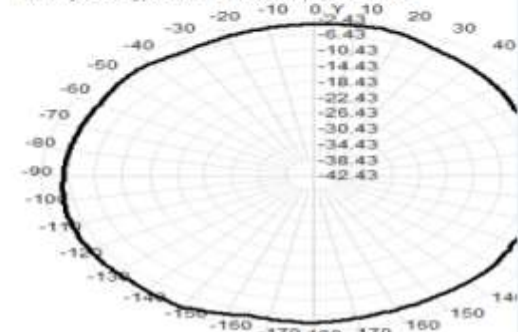
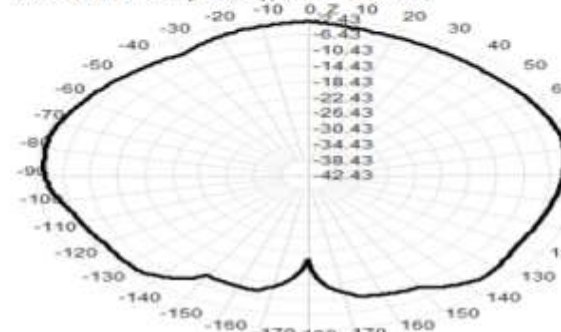
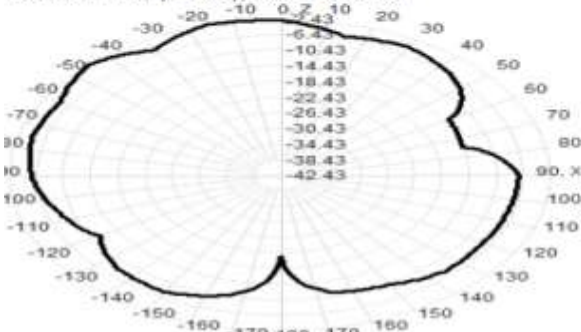
Back View



150.0MHz Total(E1-XZ), Max=-2.43dBi

2450.0MHz Total(E2-YZ), Max=-3.08dBi

Total(H-XY), Max=-3.50dBi, CirD=4.74



OTA DATA R

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	0.58	-85.23
		39	1.76	-84.25
		78	1.6	-84.14

BH DATA R

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	-3.35	-83.21
		39	-2.13	-82.11
		78	-2.28	-82.02

OTA DATA L

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	0.37	-84.40
		39	1.14	-83.85
		78	0.31	-84.35

BH DATA L

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	-3.56	-84.17
		39	-2.98	-82.64
		78	-2.88	-81.78

Thanks for your comment!

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