

承 认 书

SPECIFICATION FOR APPROVAL

迪芬尼料号
TYMPHANY PN

NA

制 造 商
MANUFACTOR

Tymphany Acoustics Technology
(Huizhou) Co., Ltd.Shenzhen Branch

制造商料号
MANUFACTOR PN

NA

品 名 规 格
DESCRIPTION

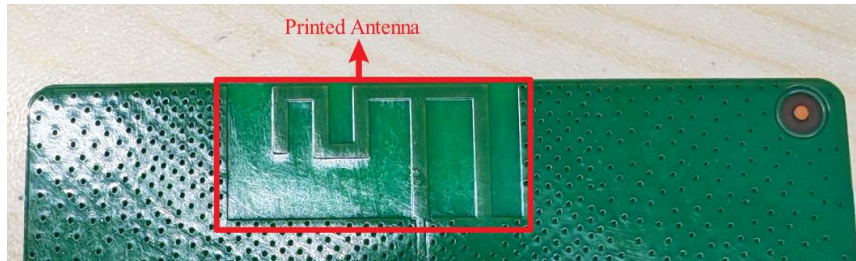
Printed Antenna,2.4G,BT,Gain 3.29dBi

日 期
DATE

2025-07-01

制 作 MAKE	审 核 CHECK	批 准 APPROVAL

I Antenna Picture



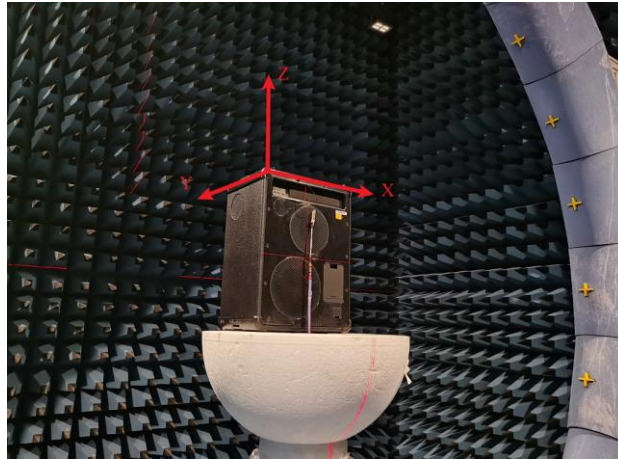
Length: 14.0mm, Width: 9.0mm

II Electrical Characteristics

No.	ITEM	SPEC
1	Frequency Range	2400 MHz ~2483.5MHz
2	Impedance	50 Ω
3	Return Loss	<-10dB
4	Efficiency	42%~48%
5	Peak gain	2.73dBi ~3.29dBi
6	Radiation	Omni-directional
7	Polarization	Linear
8	Type	Printed antenna

III Test Method

3.1 Chamber



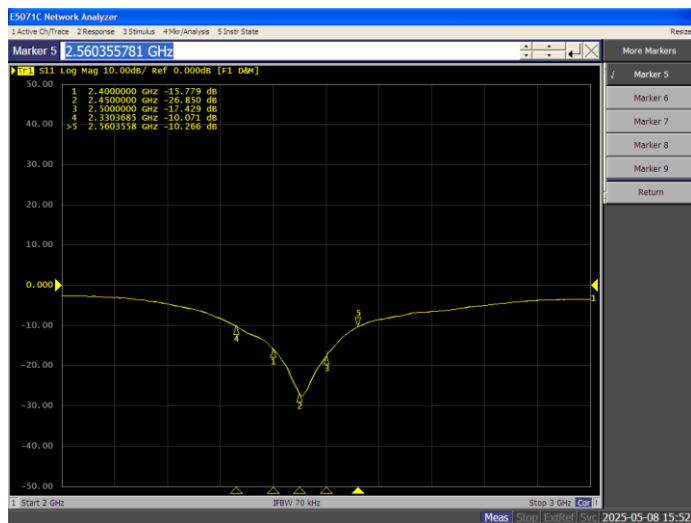
3.2 Test Instrument

E5071C and CMW270

IV Test Items

4.1 S Parameter
4.2 Efficiency and Gain
4.3 Radiation pattern
4.4 Active Testing

4.1 S Parameter

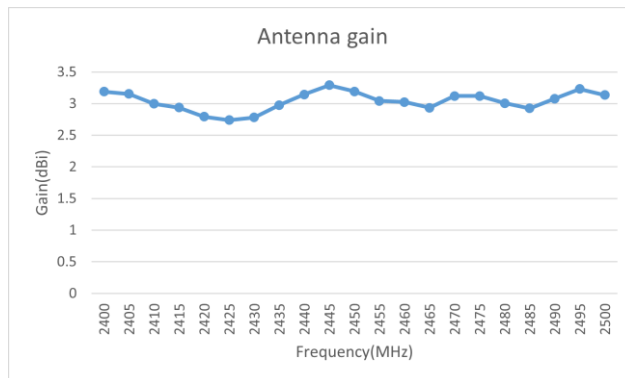
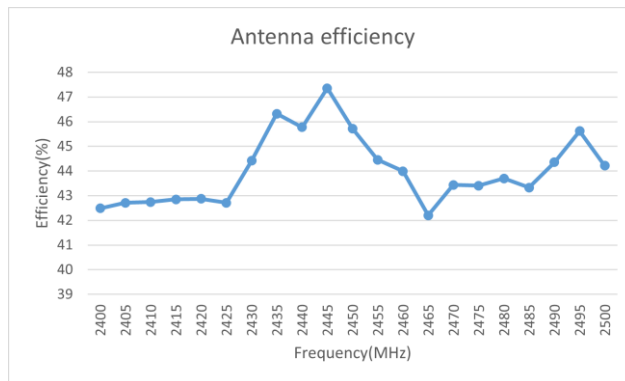


S Parameter

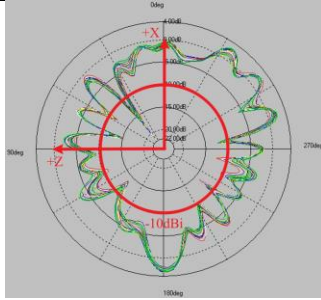
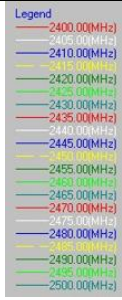
Frequency (MHz)	Return Loss(dB)
2400	-15.7
2450	-26.8
2500	-17.4

4.2 Efficiency and Gain

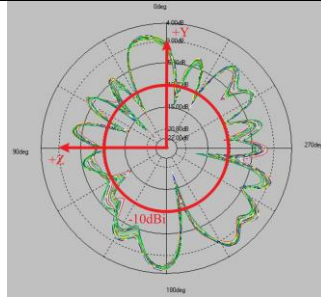
Frequency(MHz)	Efficiency(%)	Gain(dBi)
2400	42.48505884	3.188942
2405	42.71109609	3.152564
2410	42.74278944	2.999082
2415	42.85217476	2.939017
2420	42.87485413	2.793607
2425	42.7074796	2.738509
2430	44.41442342	2.781011
2435	46.31855192	2.97737
2440	45.77057327	3.146171
2445	47.35904227	3.290561
2450	45.71681783	3.191669
2455	44.45219165	3.044346
2460	43.98776219	3.025353
2465	42.20307156	2.934633
2470	43.43595819	3.119454
2475	43.4088296	3.12051
2480	43.69784801	3.008152
2485	43.32793844	2.925683
2490	44.35524904	3.078607
2495	45.62074054	3.232086
2500	44.2146166	3.136867



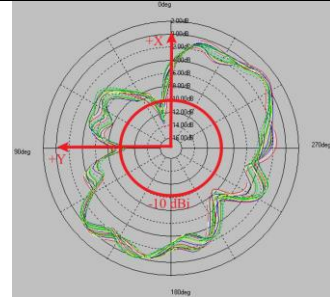
4.3 Radiation pattern



Phi=0°(XOZ)



Phi=90°(YOZ)



Theta=90°(XOY)

4.4 Active Testing

channel	TRP@2DH5	TIS@2DH5
0(2402 MHz)	5.89 dBm	-91.3 dBm
39(2441 MHz)	5.86 dBm	-91.44 dBm
78(2480 MHz)	5.35 dBm	-91.09 dBm