

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 2.798dBi

型号
Model No

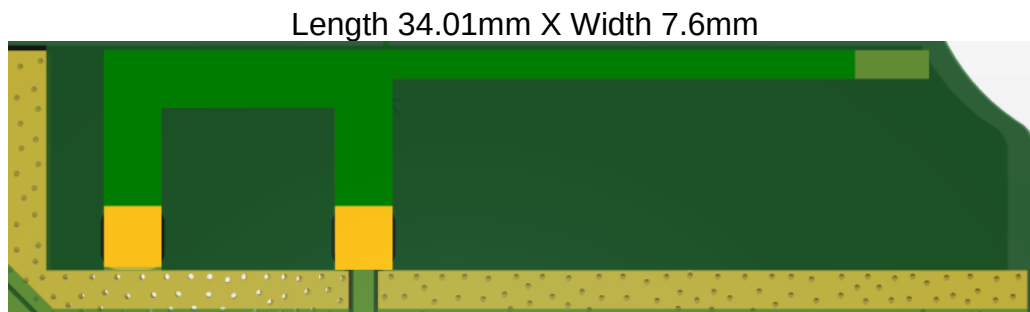
Inverted F antenna

日 期
DATE

2026-05-08

制 作 MAKE	审 核 CHECK	批 准 APPROVAL

I Antenna Picture

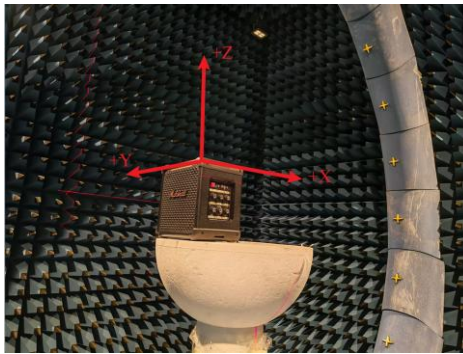


II Electrical Characteristics

No.	ITEM	SPEC
1	Frequency Range	2400 MHz ~2483.5MHz
2	Impedance	50 Ω
3	Return Loss	<-10dB
4	Efficiency	40%~50%
5	Peak gain	1.556dBi ~2.798dBi
6	Radiation	Omni-directional
7	Polarization	Linear
8	Type	Printed antenna

III Test Method

3.1 Chamber



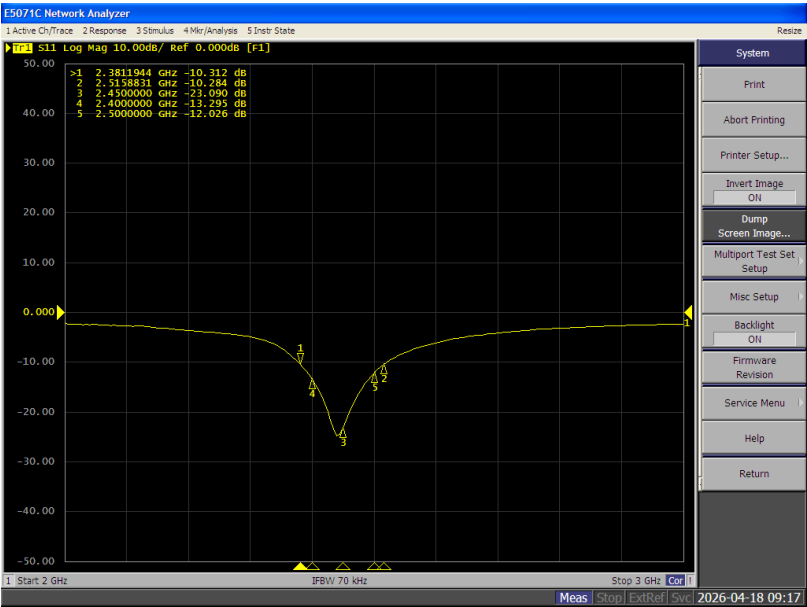
3.2 Test Instrument

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



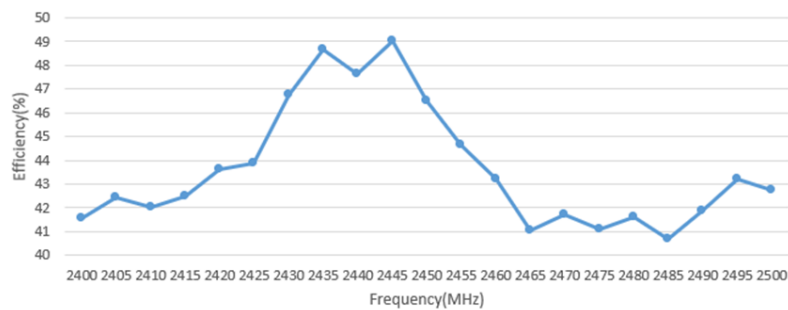
S Parameter

Frequency (MHz)	Return Loss(dB)
2400	-13.295 dB
2450	-23.09 dB
2500	-12.026 dB

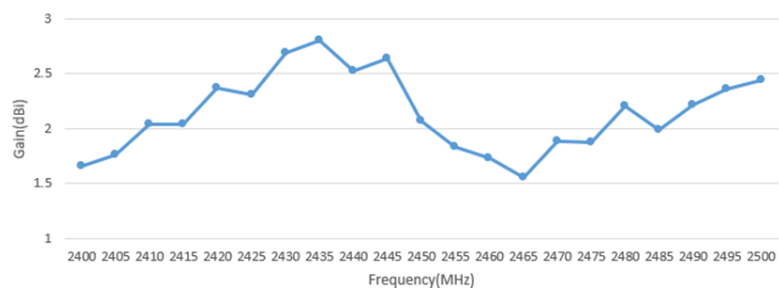
4.2 Efficiency and Gain

Frequency(MHz)	Efficiency(%)	Gain(dBi)
2400	41.578	1.659
2405	42.457	1.757
2410	42.006	2.041
2415	42.473	2.04
2420	43.64	2.365
2425	43.88	2.31
2430	46.741	2.687
2435	48.679	2.798
2440	47.63	2.527
2445	49.038	2.636
2450	46.474	2.065
2455	44.649	1.829
2460	43.204	1.725
2465	41.062	1.556
2470	41.699	1.881
2475	41.072	1.872
2480	41.593	2.205
2485	40.674	1.989
2490	41.85	2.217
2495	43.185	2.356
2500	42.746	2.443
Mean value	43.63	2.14

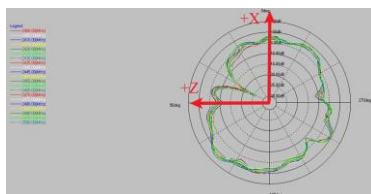
Printed antenna efficiency



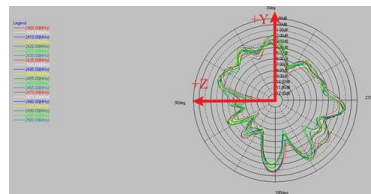
Printed antenna gain



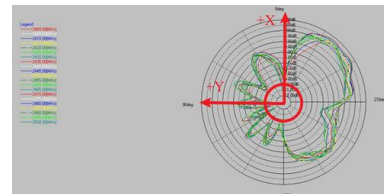
4.3 Radiation pattern



Phi=0° (XOZ)



Phi=90° (YOZ)



Theta=90° (XOY)

4.4 Active Testing

channel	TRP@DH5	TIS@DH5
0(2402 MHz)	6.45 dBm	-89.66 dBm
39(2441 MHz)	6.86 dBm	-90.3 dBm
78(2480 MHz)	6.86 dBm	-90.75 dBm