

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 3.08dBi

型号
Model No

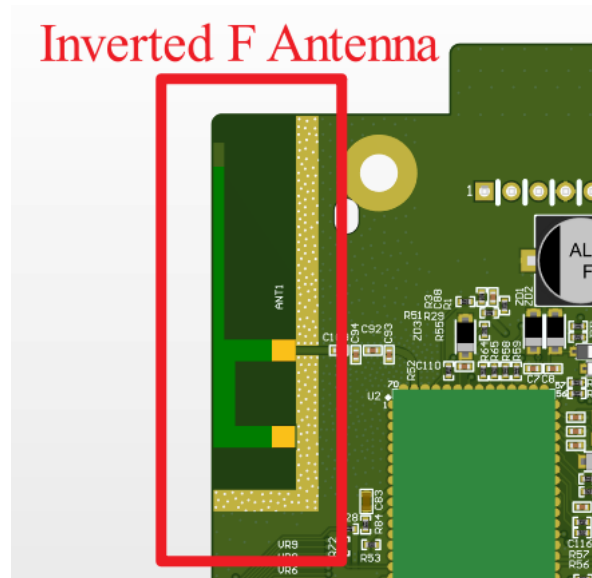
Inverted F Antenna

日 期
DATE

2026-01-07

制 作 MAKE	审 核 CHECK	批 准 APPROVAL

I Antenna Picture



II Electrical Characteristics

No.	ITEM	SPEC
1	Frequency Range	2400MHz ~2483.5MHz
2	Impedance	50 Ω
3	Return Loss	<-10dB
4	Efficiency	40%~48%
5	Peak gain	1.95 dBi ~3.08 dBi
6	Radiation	Omni-directional
7	Polarization	Linear
8	Type	Printed antenna

III Test Method

3.1 Chamber

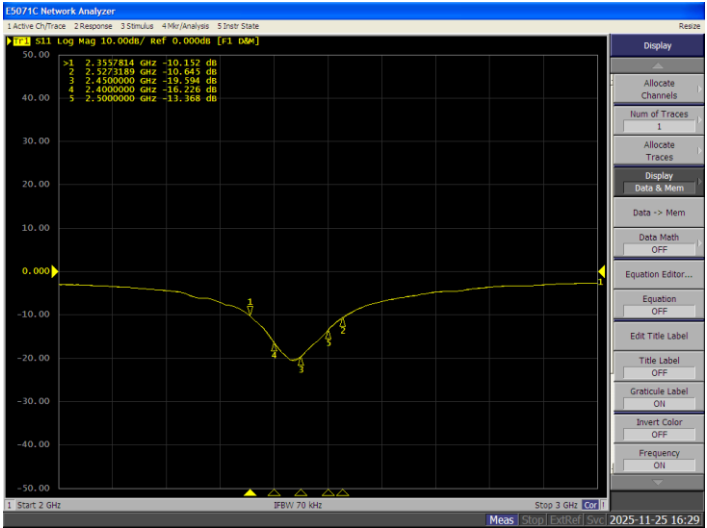
3.2 Test Instrument

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



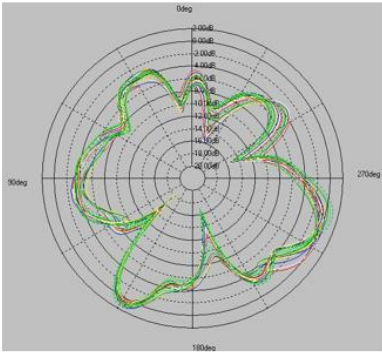
S Parameter

Frequency (MHz)	Return Loss(dB)
2400	-16.22
2450	-19.59
2500	-13.36

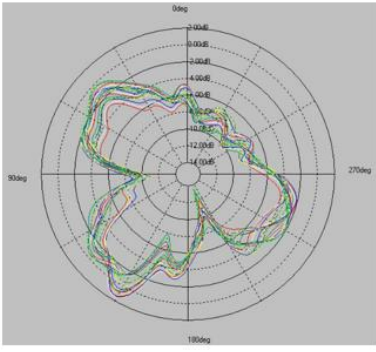
4.2 Efficiency and Gain

Frequency(MHz)	Antenna efficiency(%)	Antenna gain(dBi)
2400	40.58	3.03
2405	40.99	3.08
2410	40.68	2.62
2415	40.23	2.31
2420	40.78	2.07
2425	41.47	1.99
2430	44.51	2.31
2435	46.28	2.38
2440	45.9	2.42
2445	47.39	2.51
2450	44.98	2.24
2455	43.37	2.23
2460	41.39	1.95
2465	40.35	1.98
2470	40.56	2.06
2475	40.58	2.1
2480	40.79	2.38
2485	40.19	2.34

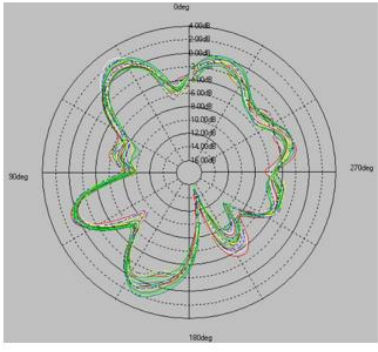
4.3 Radiation pattern



Phi=0° (XOZ)



Phi=90° (YOZ)



Theta=90° (XOY)

4.4 Active Testing

channel	TRP@DH5	TIS@DH5
0(2402 MHz)	10.76	-90.62
39(2441 MHz)	11.6	-91.92
78(2480 MHz)	10.93	-91.87