



Antenna Approval Sheet

For

Motorized Treadmill

Project

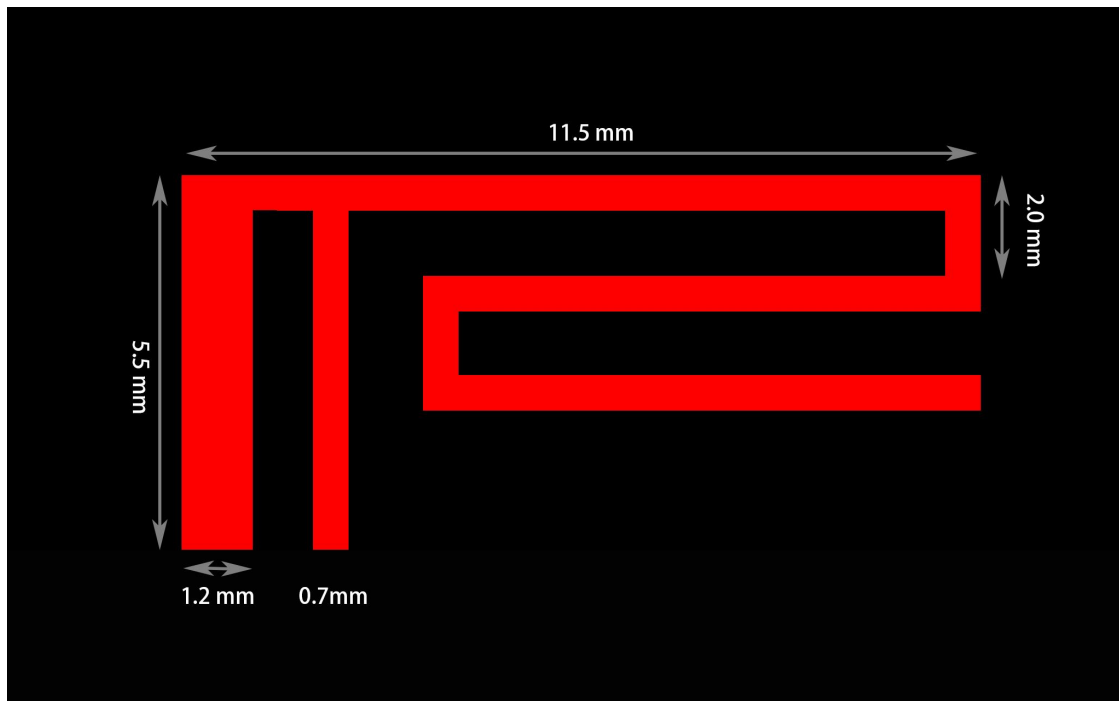
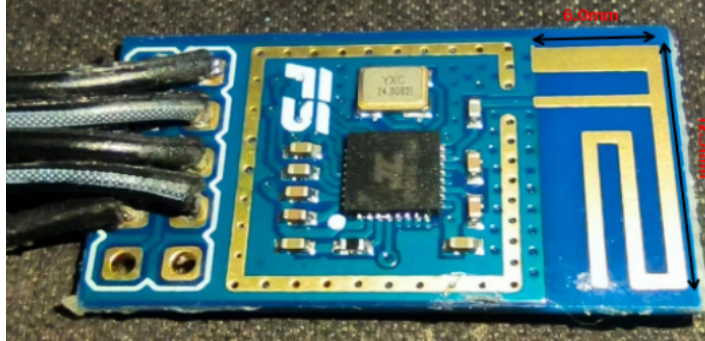
Customer	QIAN NI LIMITE	Project	Motorized Treadmill
Band	BT 2.4GHZ		
ZC PN	AC6926A		
Version	R:A	Data	2022-10-8

Issued by	
Checked By	
Confirmed By	
Cust Confirm	



1. Summary of the DUT

Motorized Treadmill Picture



2. Electrical Specification:

Antenna types	板载 2.4GHz Bluetooth antenna
Frequency	2400-2500 MHz
Impedance	50 Ω
VSWR	< 4.5
Gain	-0.67 dBi REF
Efficiency	>20 %



3. Test Condition

3.1	测试项目	测试设备和型号	备注
1.有源测试	1.TRP 2.TIS	1. 3D microwave darkroom (Satimo SG24) 2. Comprehensive test instrument(CMW500) 3. Agilent 8960 E5515C	
2.无源测试	1. Antenna Gain 2.S.W.R 3. Return Loss 4. Radiation Pattern	1. Network analyzer (R&S ZVL6) 2. Network analyzer (HP 8753D)	

3.2 Matching Circuit The matching circuit was Default

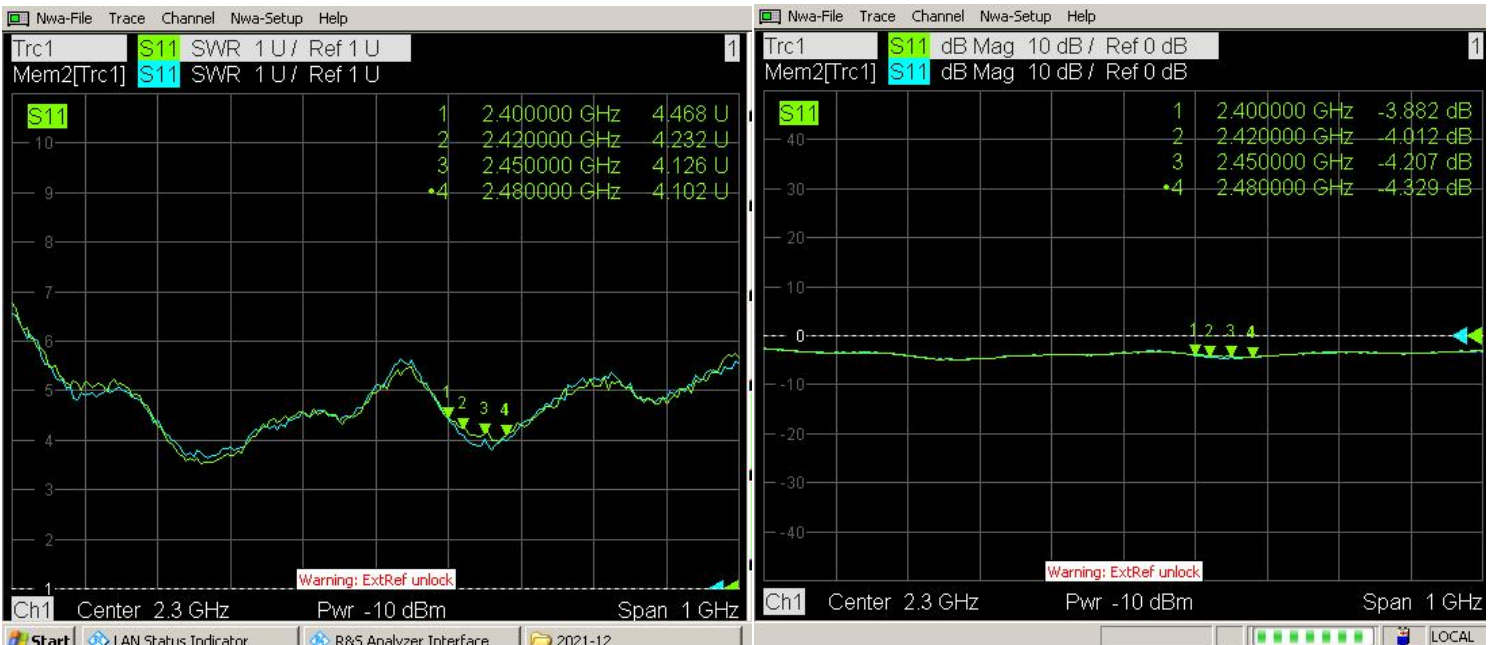
4. RF Performance

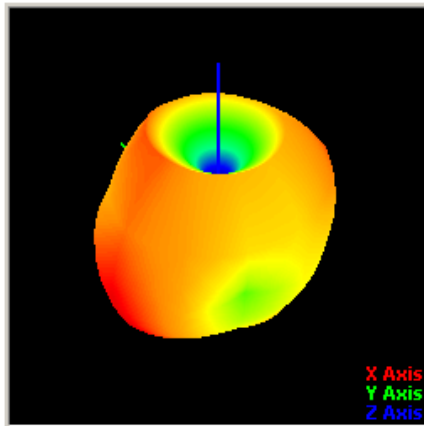
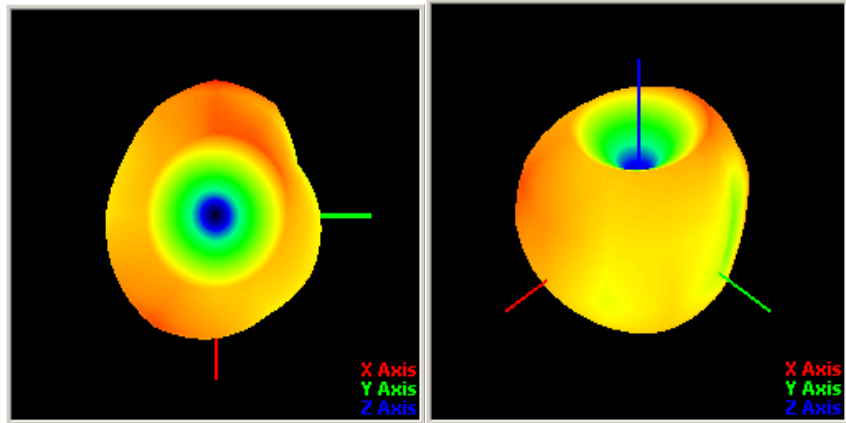
4.2 Passive parameters

Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	-1.92	-2.2	-0.96	-1.18	-1.49	-1.68	-1.14	-0.67	-2.09	-1.36	-1.43
Antenna Peak Gain	-0.67dBi										

4.3 S Parameter

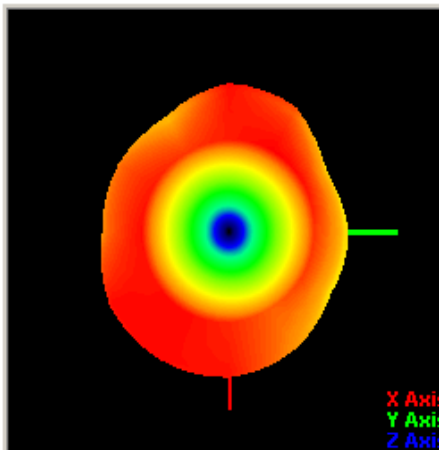
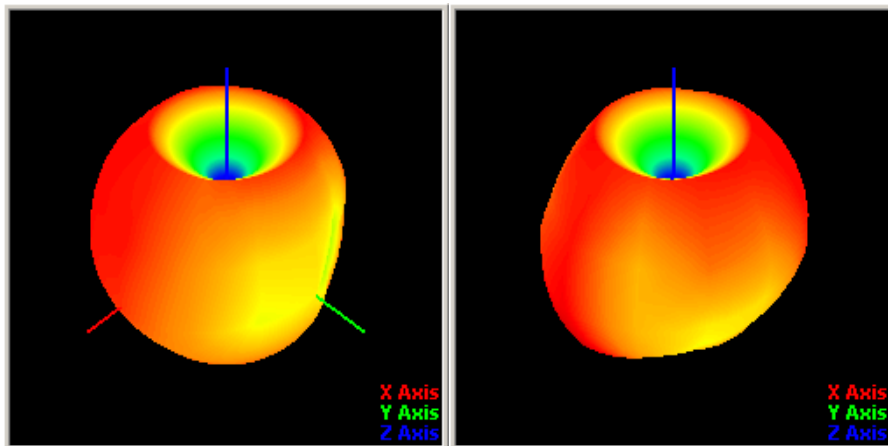
Frequency (MHz)	2400	2450	2480
Return Loss (dB)	-3.8	-4.2	-4.3
VSWR	4.46	-4.12	-4.1





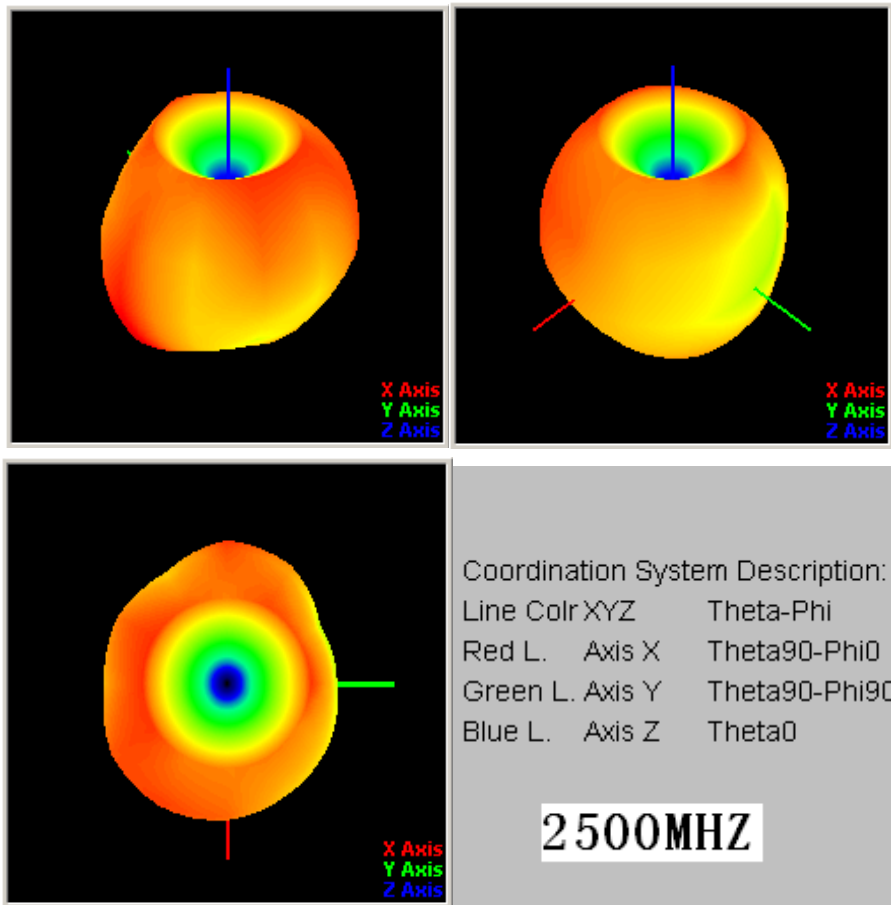
Coordination System Description:
Line Colr XYZ Theta-Phi
Red L. Axis X Theta90-Phi0
Green L. Axis Y Theta90-Phi90
Blue L. Axis Z Theta0

2400MHZ

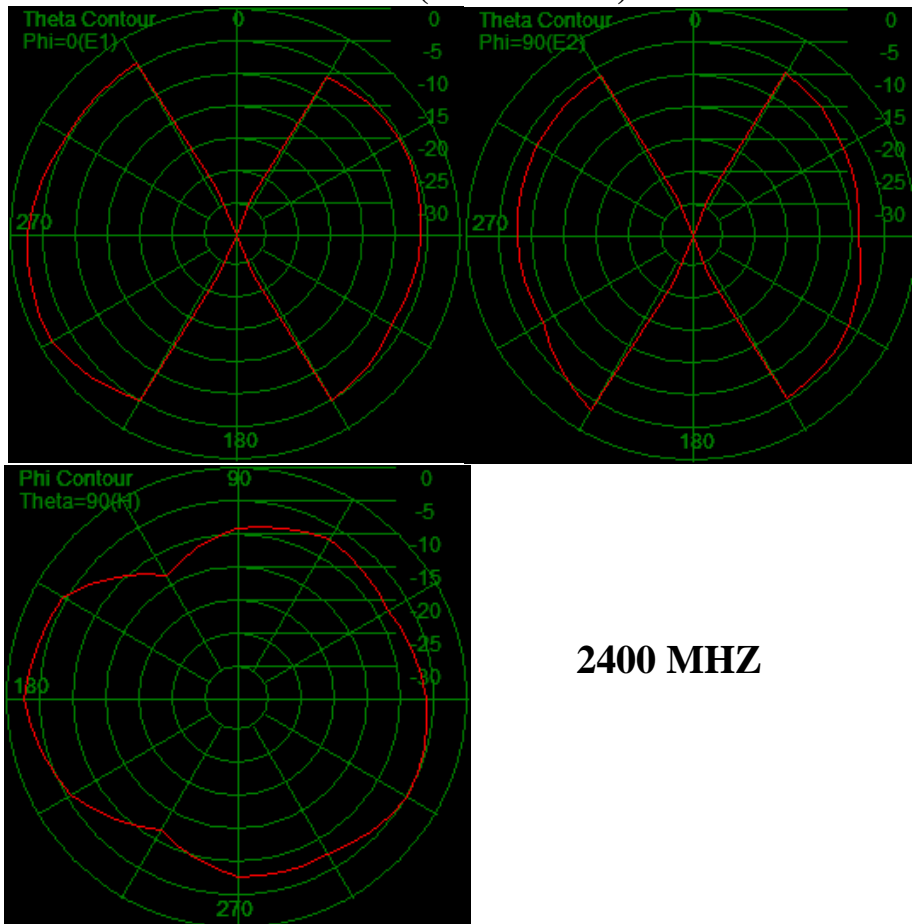


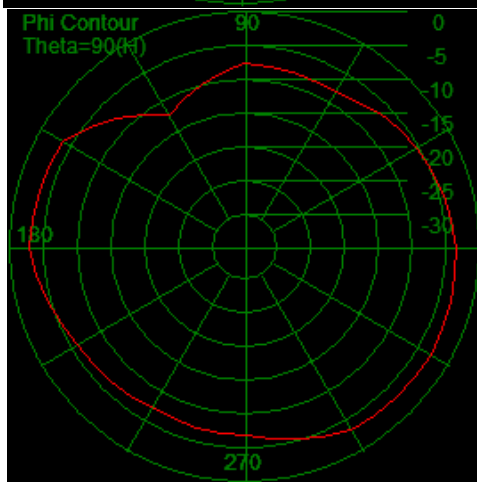
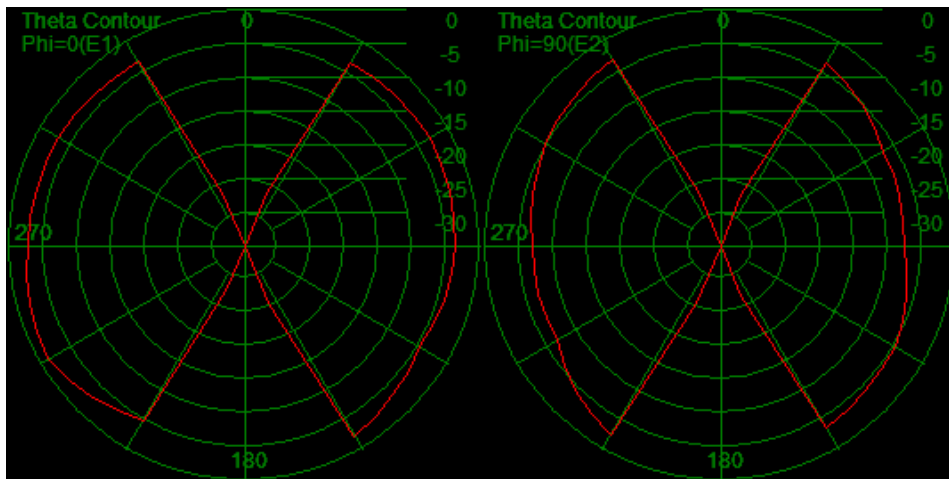
Coordination System Description:
Line Colr XYZ Theta-Phi
Red L. Axis X Theta90-Phi0
Green L. Axis Y Theta90-Phi90
Blue L. Axis Z Theta0

2470MHZ

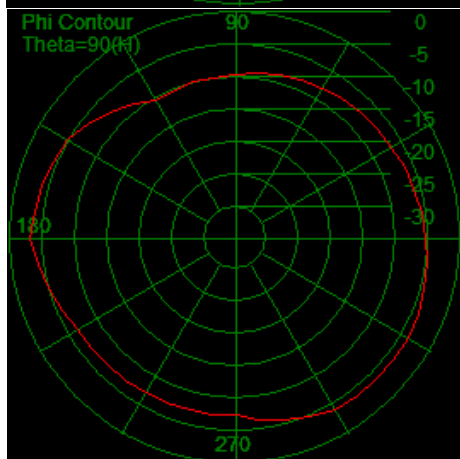
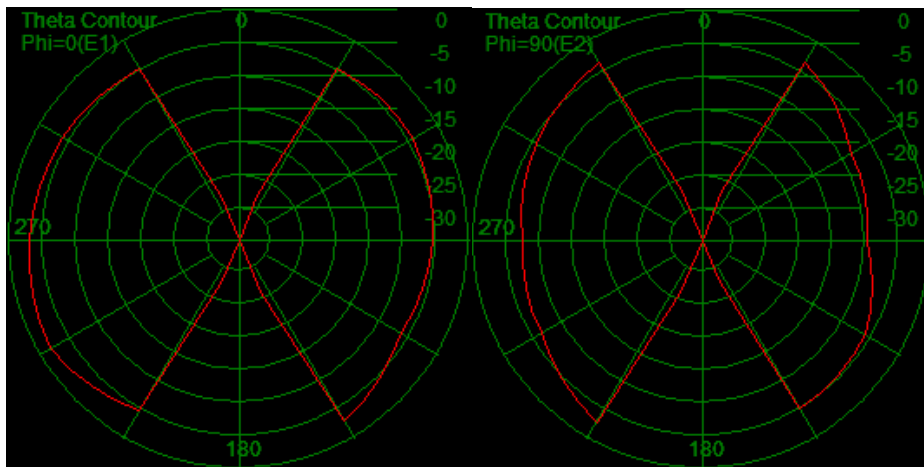


4.4.2 Antenna 2D Radiation Pattern (UNIT :dBi)





2470 MHZ



2500 MHZ