

Antenna Sample Datasheet

customer:	Shenzhen Xinrui Core Technology Co., LTD.
entry name:	X10
Material category:	BT antenna
Antenna Type	PIFA
Antenna Material	FPC
edition:	A0
Date:	2024. 6. 11

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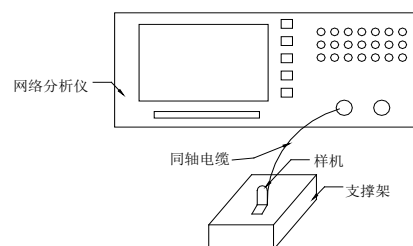
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1: Antenna test equipment

List of meters: Agilent 5071B;

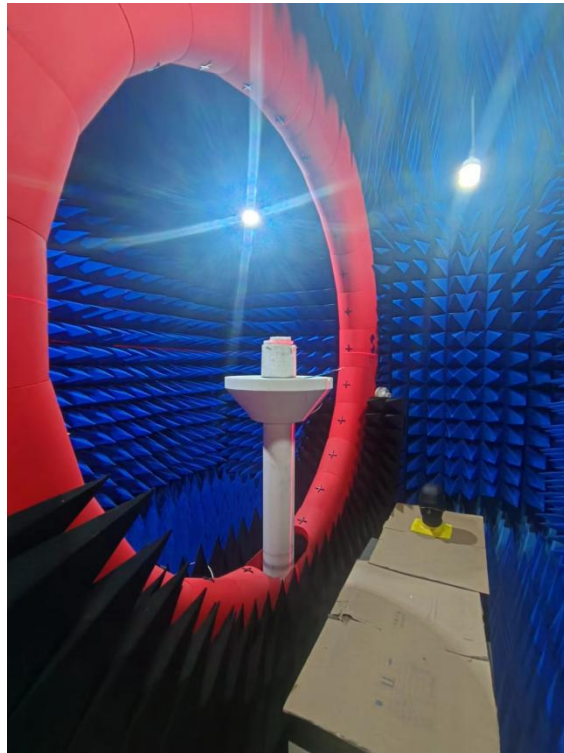


1.1 The principle diagram of the ETS anechoic chamber



Picture1. Antenna static test connection method

1.2 Pictures of the ETS anechoic chamber



Inside the ETS anechoic chamber

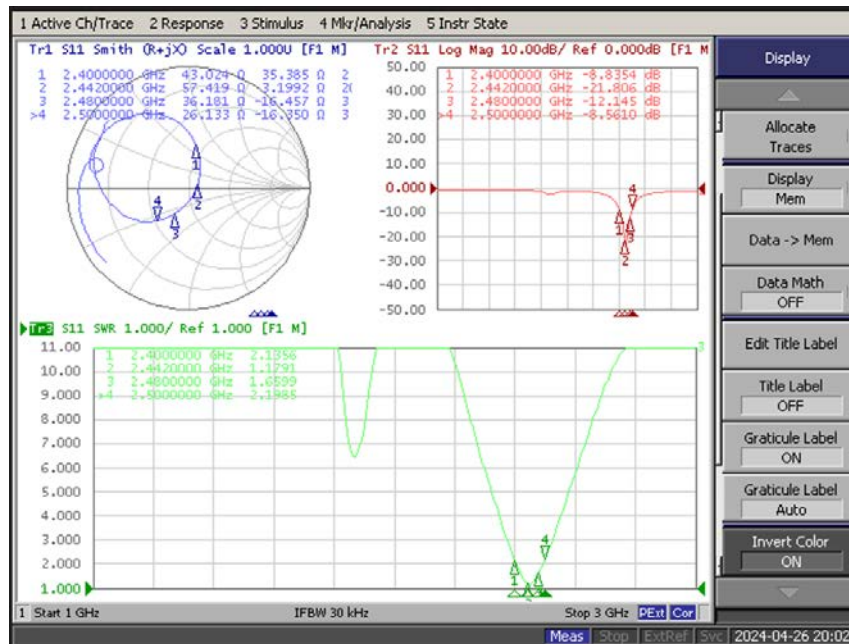


Test Machine

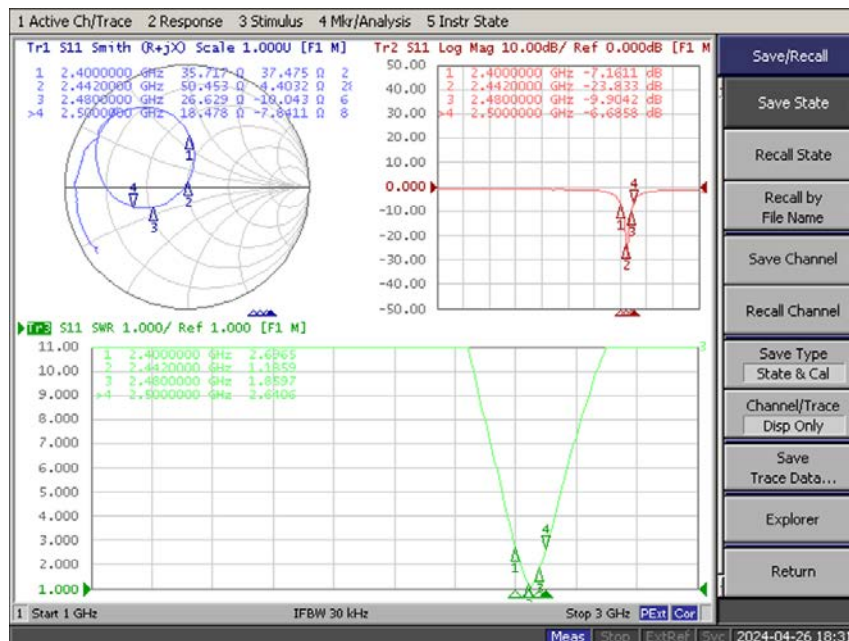
2: Passive test report

2.1: BT antenna S11 parameters

Left:



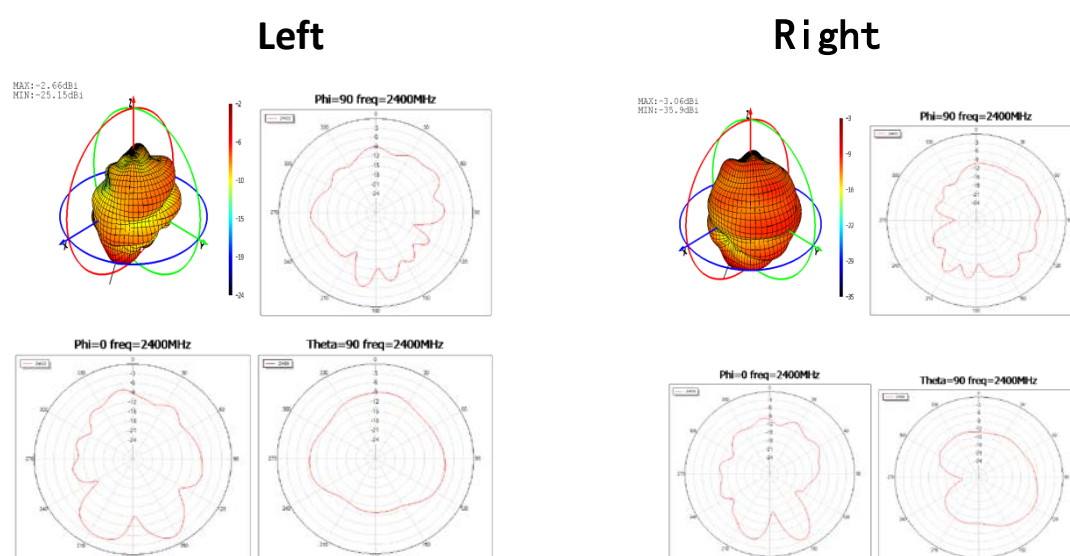
Right:



2.2: Passive efficiency of antenna

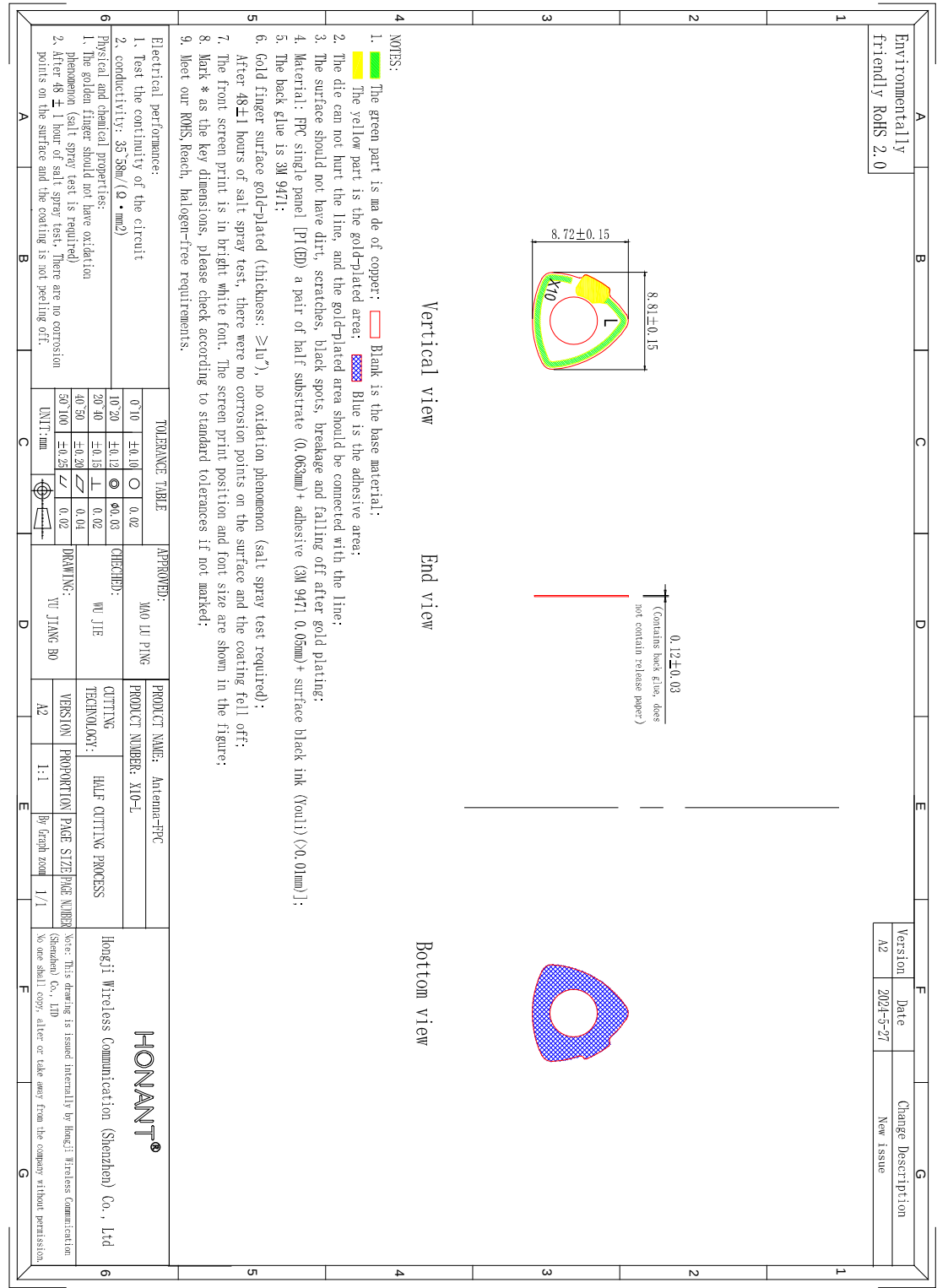
2400-2480MHz				
Freq(MHz)	Gain(dBi)	Efficiency(%)	Gain(dBi)	Efficiency(%)
	free space-Left	free space-Left	free space-Right	free space-Right
2400	-2.66	8.75	-3.06	7.15
2410	-2.35	8.98	-2.75	7.41
2420	-2.26	9.04	-2.63	7.53
2430	-2.12	8.95	-2.46	7.74
2440	-2.23	8.59	-2.54	7.46
2450	-2.33	8.76	-2.39	7.83
2460	-2.67	8.53	-2.44	8.18
2470	-2.94	8.18	-2.43	8.4
2480	-3.34	7.83	-2.59	9.21
Mean value	0.85	16.78	0.04	16.62

2.3: Passive pattern of BT antenna



3: Structural drawing

Left



Right

A		B		C		D		E		F		G	
Environmentally friendly RoHS 2.0						Version		Date		Change Description			
						A2		2024-5-27		New Issue			
1													
2													
3													
4													
5													
6													
Vertical view													
End view													
Bottom view													
NOTES:													
1. The green part is made of copper; Blank is the base material;													
2. The yellow part is the gold-plated area; Blue is the adhesive area;													
3. The die can not hurt the line, and the gold-plated area should be connected with the line;													
4. Material: FPC single panel [PI (EP) a pair of half substrate (0.063mm) + adhesive (3M 9471 0.05mm) + surface black ink (Youji) (>0.01mm)];													
5. The back glue is 3M 9471;													
6. Gold finger surface gold-plated (thickness: ≥1μ), no oxidation phenomenon (salt spray test required);													
7. After 48±1 hours of salt spray test, there were no corrosion points on the surface and font size are shown in the figure;													
8. The front screen print is in bright white font. The screen print position and font size are shown in the figure;													
9. Meet our RoHS, Reach, halogen-free requirements.													
Electrical performance:													
1. Test the continuity of the circuit													
2. conductivity: 35.5hm/(Q • mm ²)													
Physical and chemical properties:													
1. The golden finger should not have oxidation phenomenon (salt spray test is required)													
2. After 48 ± 1 hour of salt spray test, there are no corrosion points on the surface and the coating is not peeling off.													
TOLERANCE TABLE													
0.10 ±0.10 0 0.02													
10.20 ±0.12 0 0.02													
20.40 ±0.15 0 0.02													
40.50 ±0.20 0 0.04													
50.100 ±0.25 0 0.02													
UNIT:mm													
DRAWING: YU JIANG BO													
APPROVED: MAO LU PIYU													
PRODUCT NAME: Antenna-FPC													
PRODUCT NUMBER: X10-R													
CUTTING TECHNOLOGY: HALP CUTTING PROCESS													
VERSION: A2													
PROPORTION: 1:1													
PAGE SIZE: 1/1													
PAGE NUMBER: 1/1													
HONANT [®]													
Hongji Wireless Communication (Shenzhen) Co., Ltd													
Note: This drawing is issued internally by Hongji Wireless Communication (Shenzhen) Co., Ltd													
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4: Antenna diagram

Left



Right

