鑫鸿诚射频
XINHONGCHENG RF

SPECIFICATION FOR APPROVAL

Customer:

Brand: Shenzhen Xin Hongcheng Intelligent Technology Co., LTD

Description: 462MHz antenna

Specification: Built-in antenna/50Ω/462MHz/1.0dBi

Date: 2023.08.22

Remark: Please return one specification or one copy of it with your chop and signature of approval and retain the others for your record. In the event of an order being placed for this part number before the chop and signed with specification (or copy) is returned and without special explanation, it will be assumed that full approval have been given.

CHECKED/DATE	AUDITOR/DATE	APPROVED/DATE

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V1.0					

Picture:

Electrical parameters:

Frequency	462MHz
Impedance	50Ω
S.W.R.	≤2.0
Antenna Gain	1.0dBi
Polarization	vertical polarization
Vertical lobe Angle（E）	28~50°
Water plane lobe Angle（H）	360°

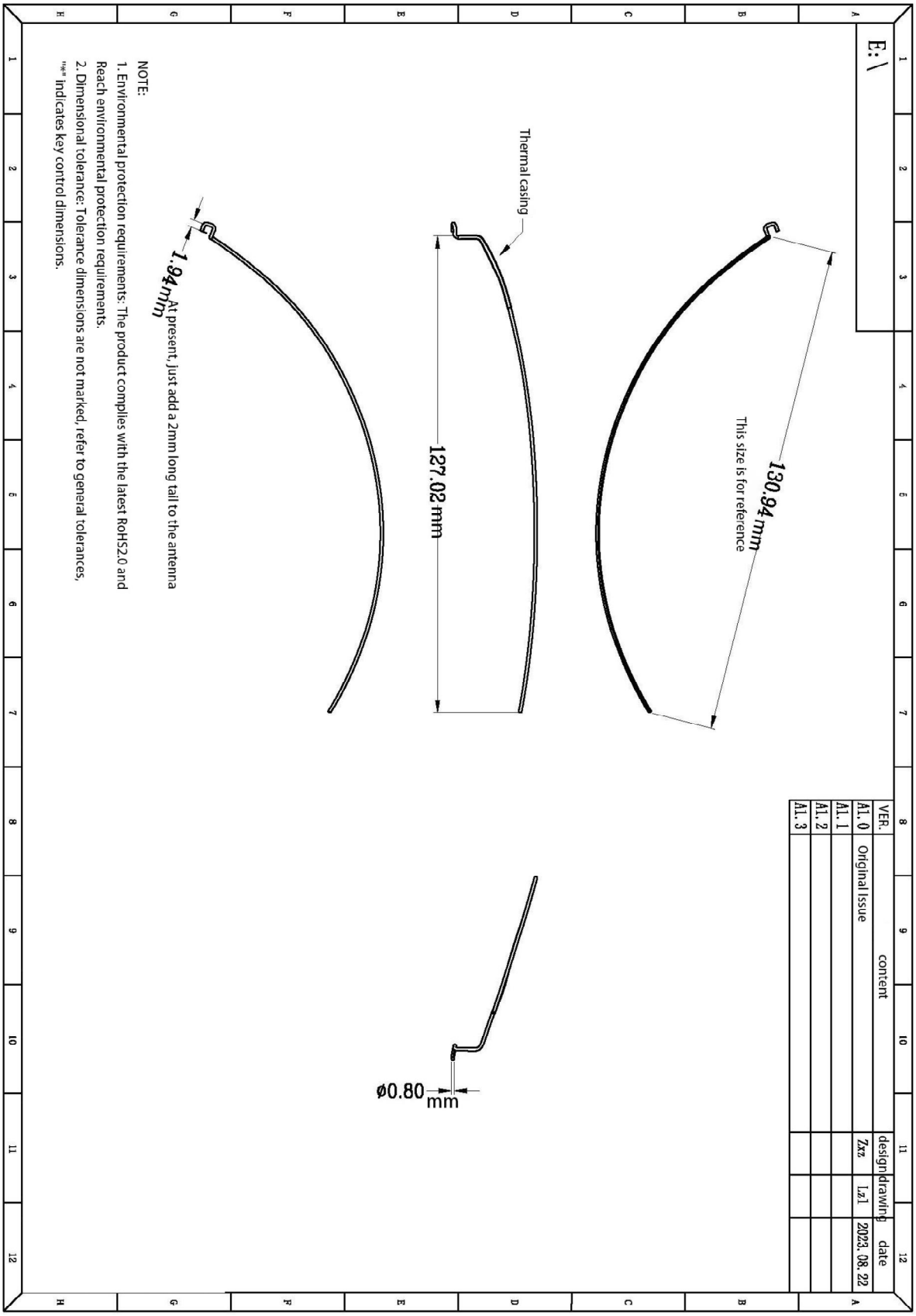
Mechanical parameters:

Material	Cu
Size	127*0.8mm
Connect Type	weld

Operating/ Storage Temperature:

Operating Temperature	-40~85℃
Storage Temperature	-40~85℃

Structural drawings：



Environmental and reliability testing:

environmental test

High and low temperature constant humidity test report						
Test project	High temperature, low temperature, constant humidity test					
Test sample name	Cu		Test date	2023.08.22		
Experimental/Testing Equipment	Constant temperature and humidity test box network analyzer		Testthe number	5PCS		
Inspection standards	1. Metal surface coating shall not fall off, crack, wrinkle and other bad; the non-metallic part shall not have discoloration, rupture, deformation and glue。 2. The electrical test meets the design requirements; the voltage ratio test is qualified。					
Test Name	test item	claim	experimental method	Actual test data	bear fruit	
					sample	judge
High Temperature Test	temperature (℃) time (h) duration (h) recoverytime (h)	+80±3 1 1 1	according to GB2423. 1-89 The method specified in Chapter 9 proceeds	+85 1.2 2.3 1	1	qualified
					2	qualified
					3	qualified
					4	qualified
					5	qualified
Low Temperature	temperature (℃) time (h) duration (h) recoverytime (h)	-40±3 1 2 1	according to GB2423. 1-89 The method specified in Chapter 8 proceeds	-40 1.2 2.4 1.1	1	qualified
					2	qualified
					3	qualified
					4	qualified
					5	qualified
Constant damp heat test	temperature (℃) relative humidity (%) duration of test runs (h) recovery time (h)	+40±2 90-95 21 1	according to GB2423. 3-39 The method specified in Chapter 5 proceeds	+42 92 22 1.1	1	qualified
					2	qualified
					3	qualified
					4	qualified
					5	qualified

Test equipment:

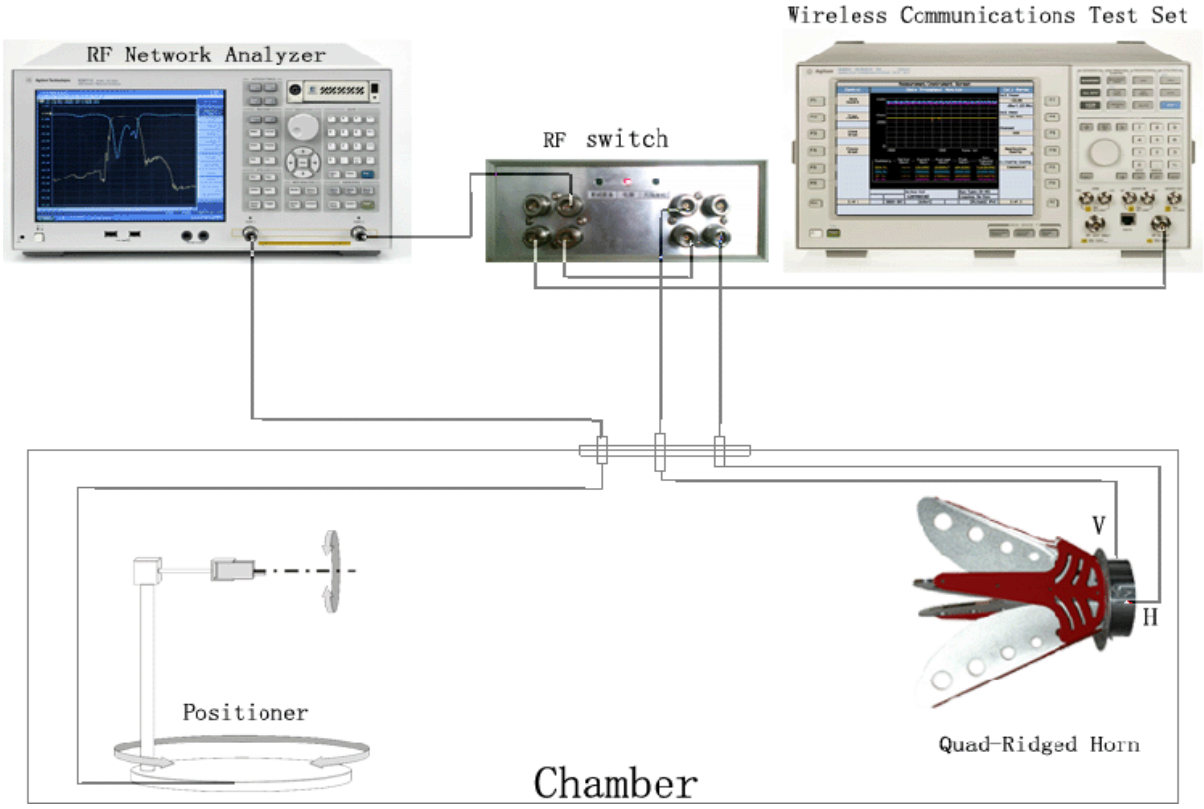
1.1 Network Analyzers)

Agilent Technologies E5071B

1.2 Communications Test Set

CMW500

1.3 3D Chanber Test System



Testing Parameters

V.S.W.R&Ruturn Loss

Gain

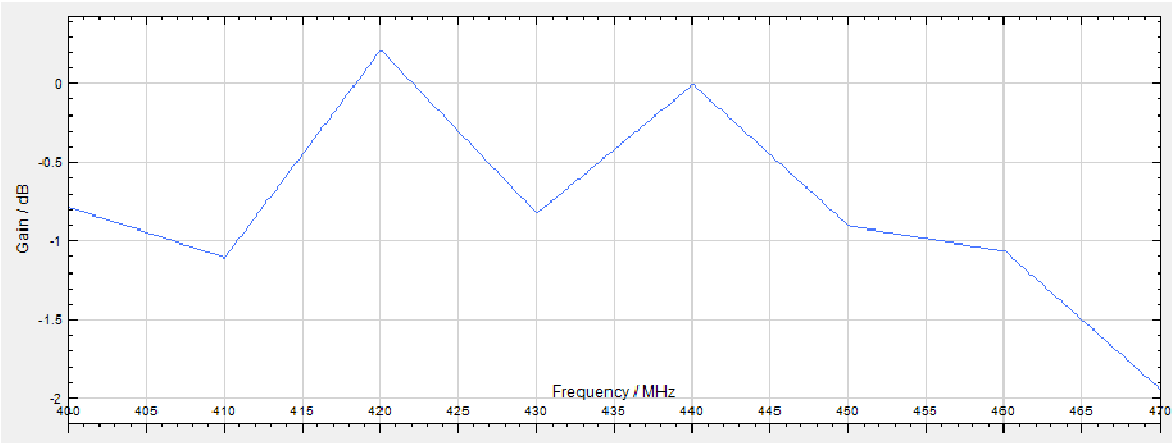
Band	天线 1	
Frequency（MHZ)	400	470
VSWR	1.80	1.56

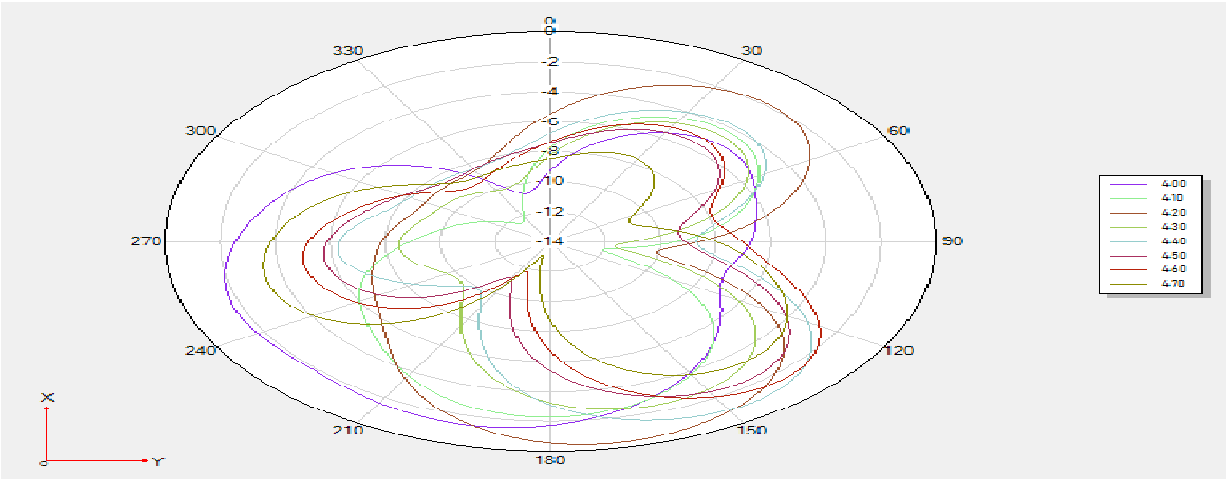
Efficiency

Frequency	Efficiency(%)		Frequency	E Total. dB(dB)
400MHz	19.59		400MHz	-0.78
410MHz	26.49		410MHz	-1.1
420MHz	29.11		420MHz	0.22
430MHz	25.23		430MHz	-0.82

440MHz	23.17		440MHz	0
450MHz	18.75		450MHz	-0.9
460MHz	19.01		460MHz	-1.06
470MHz	22.88		470MHz	-1.94

2D





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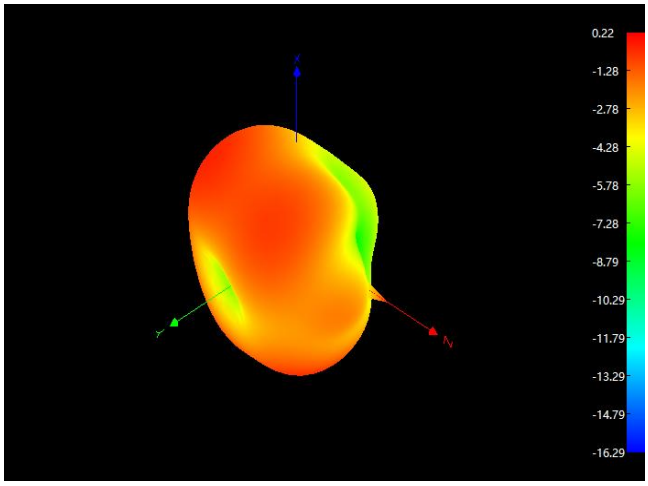
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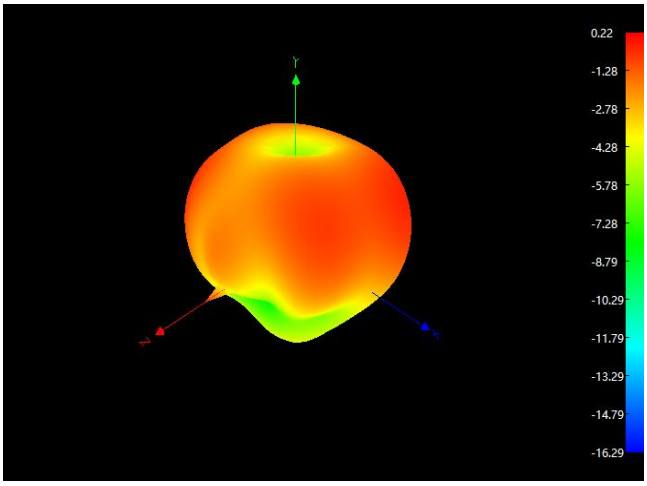
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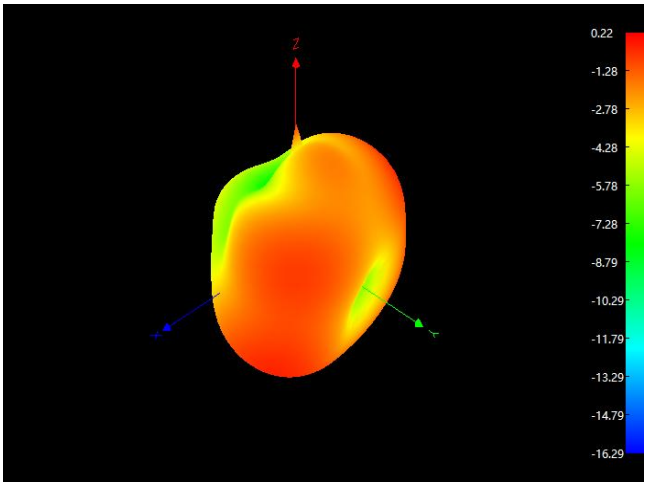
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