

深圳市海鑫旺电子有限公司

SHENZHEN HAIXINWANG ELECTRONIC CO.,LTD

Customer

Description

2.4G Spring Antenna


ChaoWei P/N

HX-B636

Customer P/N

Date

2023. 11. 20

Customers Confirmation			Supplier	
Engineer	QC	Purchasing	Approval	Check
				Shamoer

Address: 6nd Floor, 56Building, Baotian Industry Area, Baoan District, Shenzhen
China

TEL:+86-755-27455807

FAX:+85-755-29960806

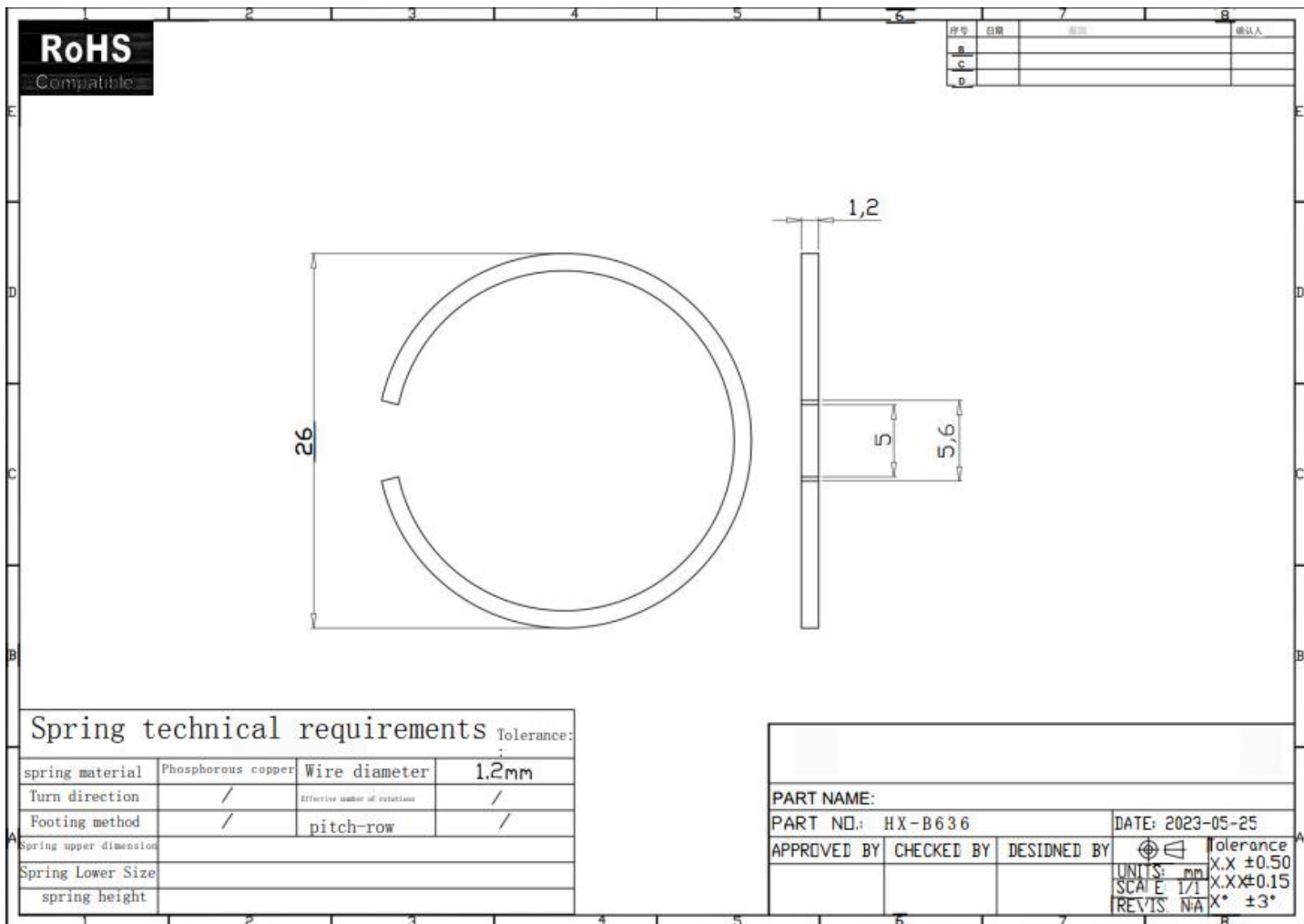
E-mail:Alisa@hxwwe.com

Http://www.hxwwe.com

Table of Contents

1. Cover-----	1
2. Table of Contents-----	2
3. Antenna Drawing-----	3
4. Specification Sheet-----	4
5.Cable Specification-----	7

antenna type: Metal Loop antenna



RoHS
Compatible

序号	日期	备注	确认人
a			
b			
c			
d			

Spring technical requirements Tolerance:

spring material	Phosphorous copper	Wire diameter	1.2mm
Turn direction	/	Effective number of rotations	/
Footing method	/	pitch-row	/
Spring upper dimension			
Spring Lower Size			
spring height			

PART NAME:			DATE: 2023-05-25		
PART NO.: HX-B636					
APPROVED BY	CHECKED BY	DESIGNED BY		Tolerance	
				UNITS: mm	X.X ±0.50
				SCALE: 1/1	X.XX ±0.15
			REVIS: N/A	X° ±3°	

Index:

- 1. Reliability Testing**
- 2. Specification**
- 3. S Parameter Test Data**
- 4. Antenna Radiation Pattern**



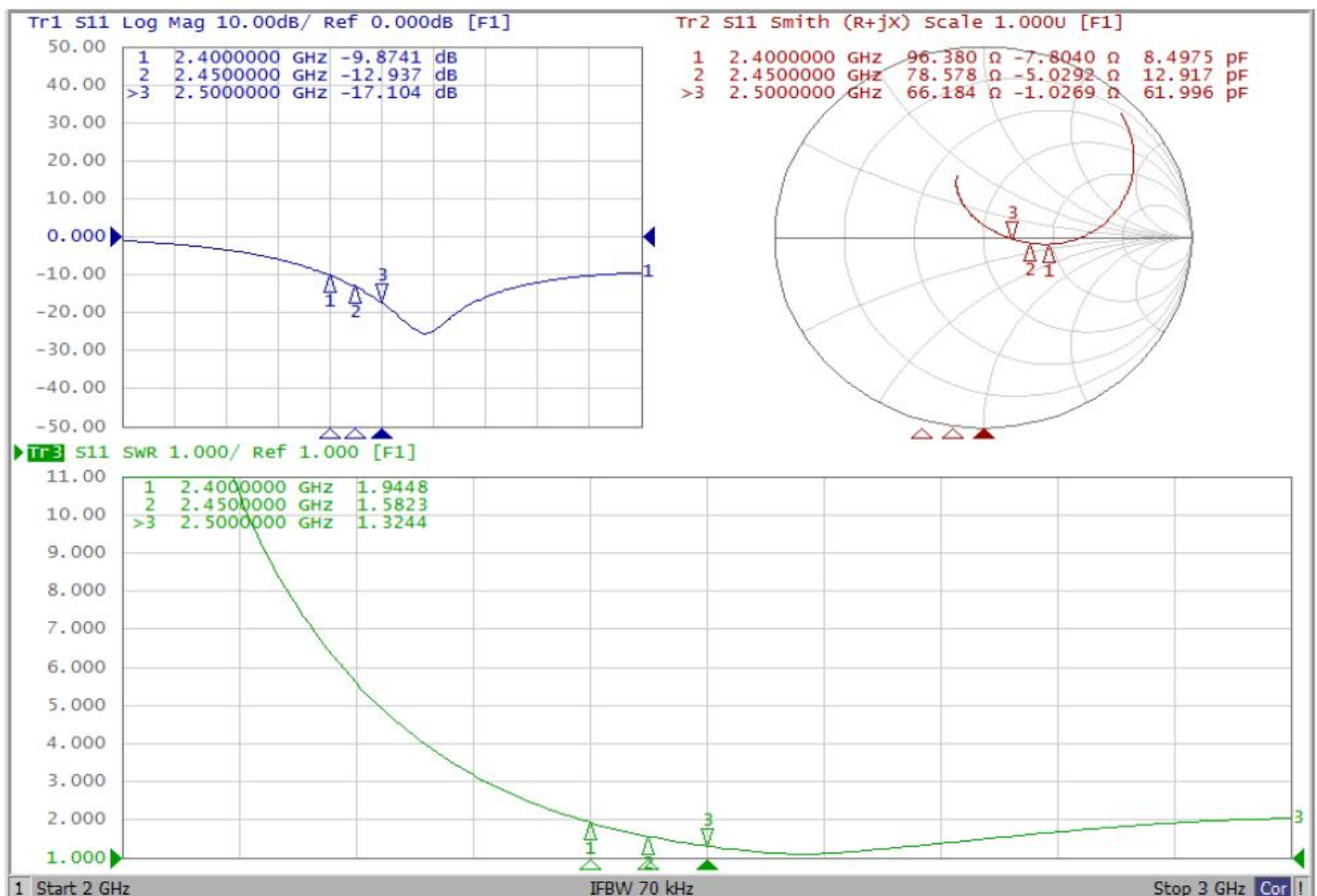
1. Reliability Testing

Test Item	Procedure	Requirement
1. Visual inspection and Dimension Check	Applicable methods using x5 magnification	follow specification
2. Rapid Changing of Temperature	-40°C (30minutes) to 80°C (30minutes); 24 cycles	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < ±5%
3. Damp Heat	24 hours at 60°C; 90 ~ 95% RH	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < ±5%
4. Endurance	24 hours at 80°C	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < ±5%
5. Connector Pull Strength Test	>= 1.0 Kg	Hold 2~3S: 1. no visible damage 2. bandwidth tolerance < ±5%

2. Specification

A. Electrical Characteristics	
S.W.R.(Tested in PC)	$\leq 2.0 @ 2.4G$
Typical Antenna Gain	$+2 \pm 0.5$
Impedance	50 Ohm
B. Material	
Material of Radiator	CU
Connector Type	N/A
C. Environmental	
Operation Temperature	$-30\text{ }^{\circ}\text{C} \sim +85\text{ }^{\circ}\text{C}$
Storage Temperature	$-30\text{ }^{\circ}\text{C} \sim +85\text{ }^{\circ}\text{C}$

3. S.W.R. Testing Result



4. Antenna Radiation Pattern

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 8 x 4 x 4 m

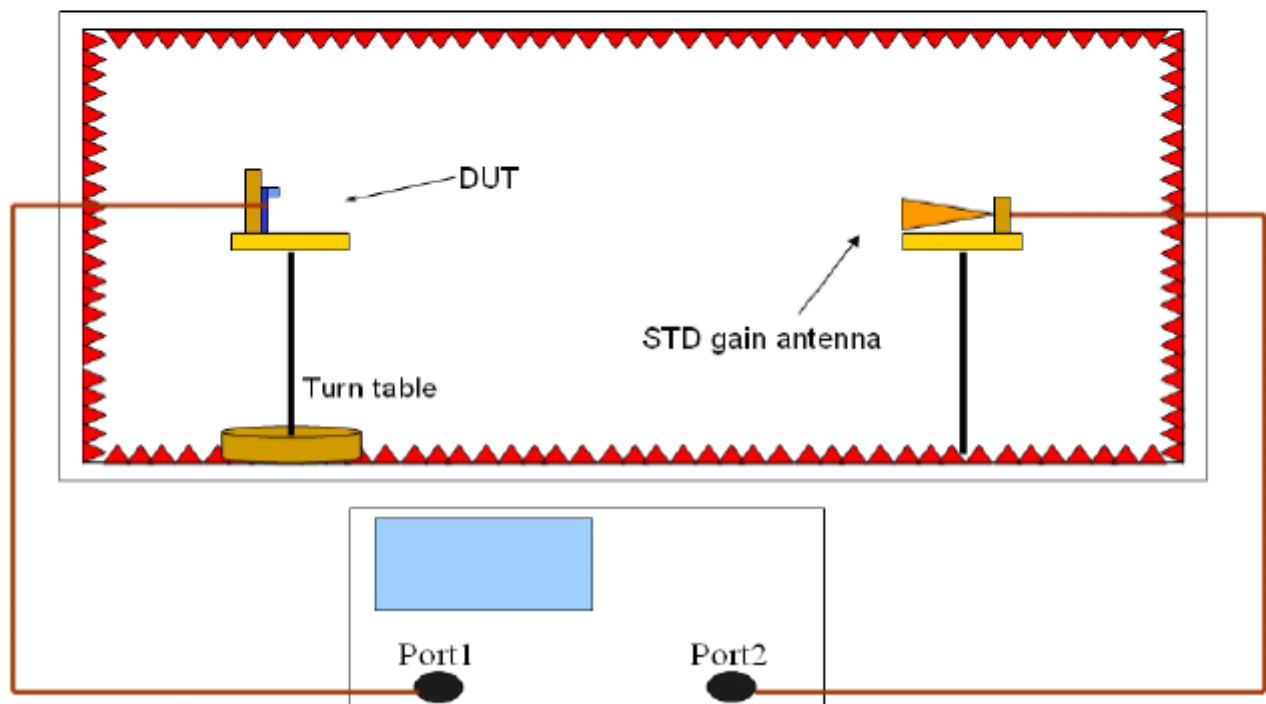
Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent 5071B

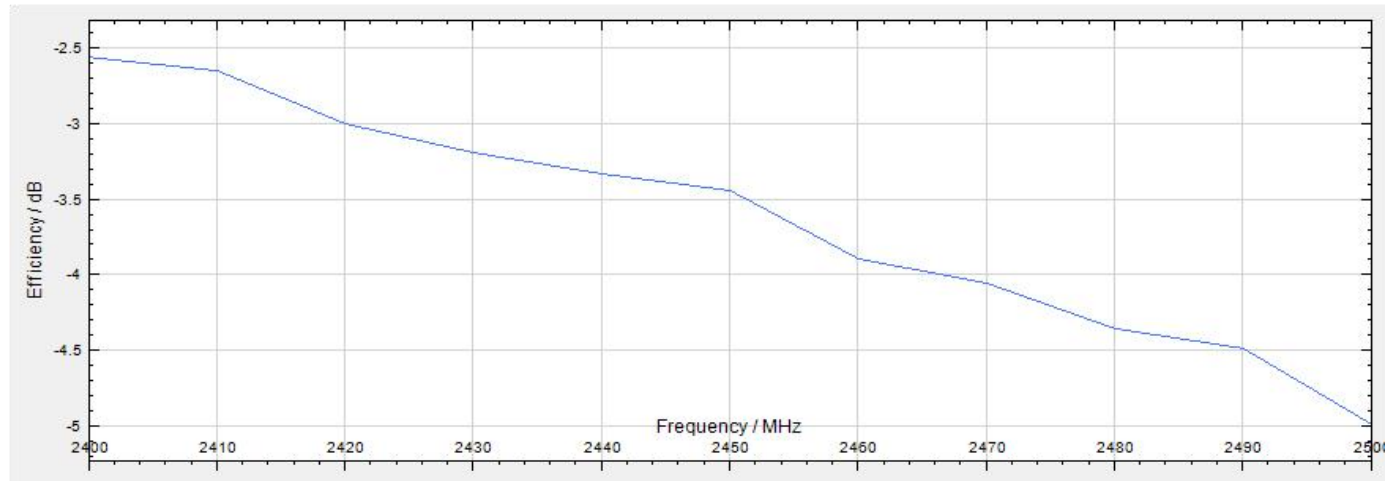
Received Antenna: 0.7 ~ 6.0 GHz for Gain Calibration

Double Ridged Horn Antenna



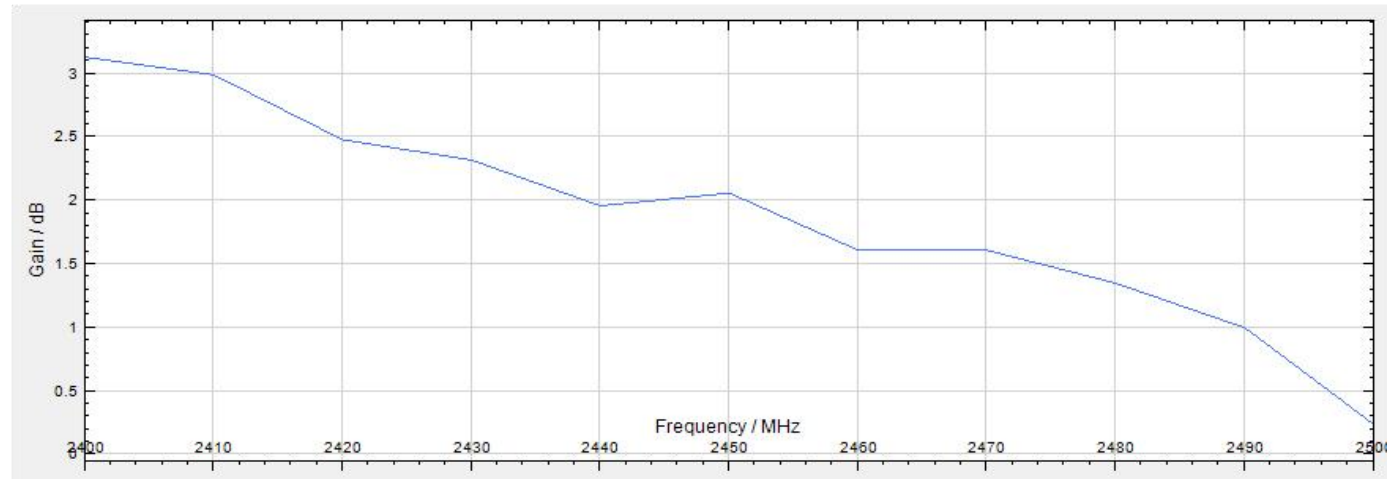
Frequency Efficiency / Efficiency / %

2400	-2.56	55.46
2410	-2.65	54.33
2420	-3	50.12
2430	-3.19	47.97
2440	-3.33	46.45
2450	-3.44	45.29
2460	-3.89	40.83
2470	-4.05	39.36
2480	-4.35	36.73
2490	-4.48	35.65
2500	-4.98	31.77

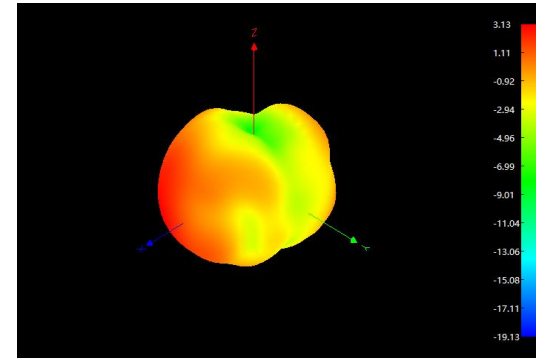
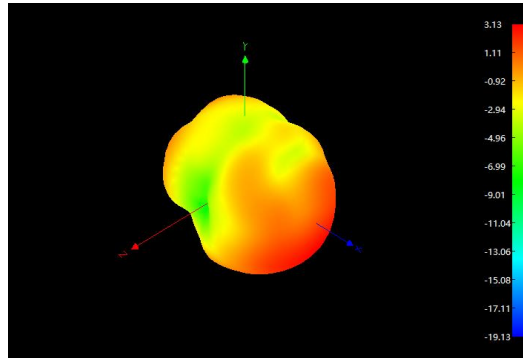
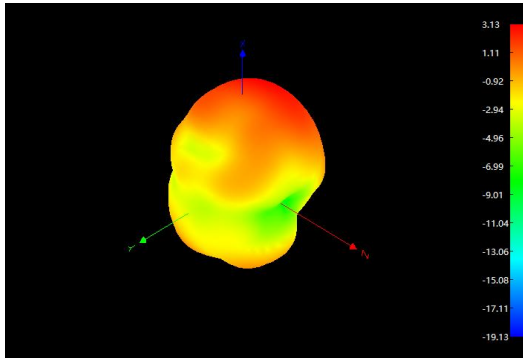


Frequency Gain/ dBi

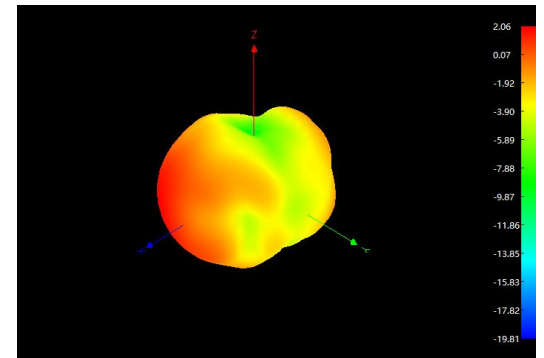
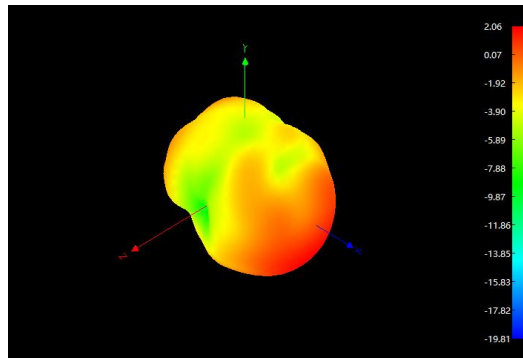
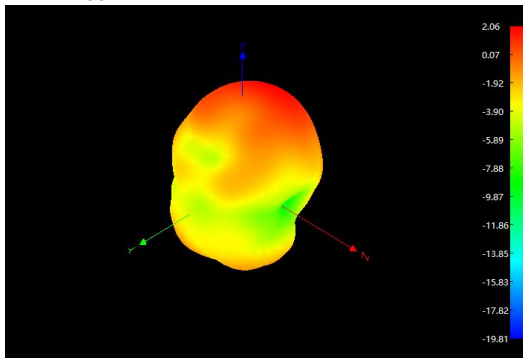
2400	3.13
2410	2.99
2420	2.48
2430	2.32
2440	1.96
2450	2.06
2460	1.61
2470	1.61
2480	1.35
2490	1
2500	0.24



2400



2450



2500

