

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

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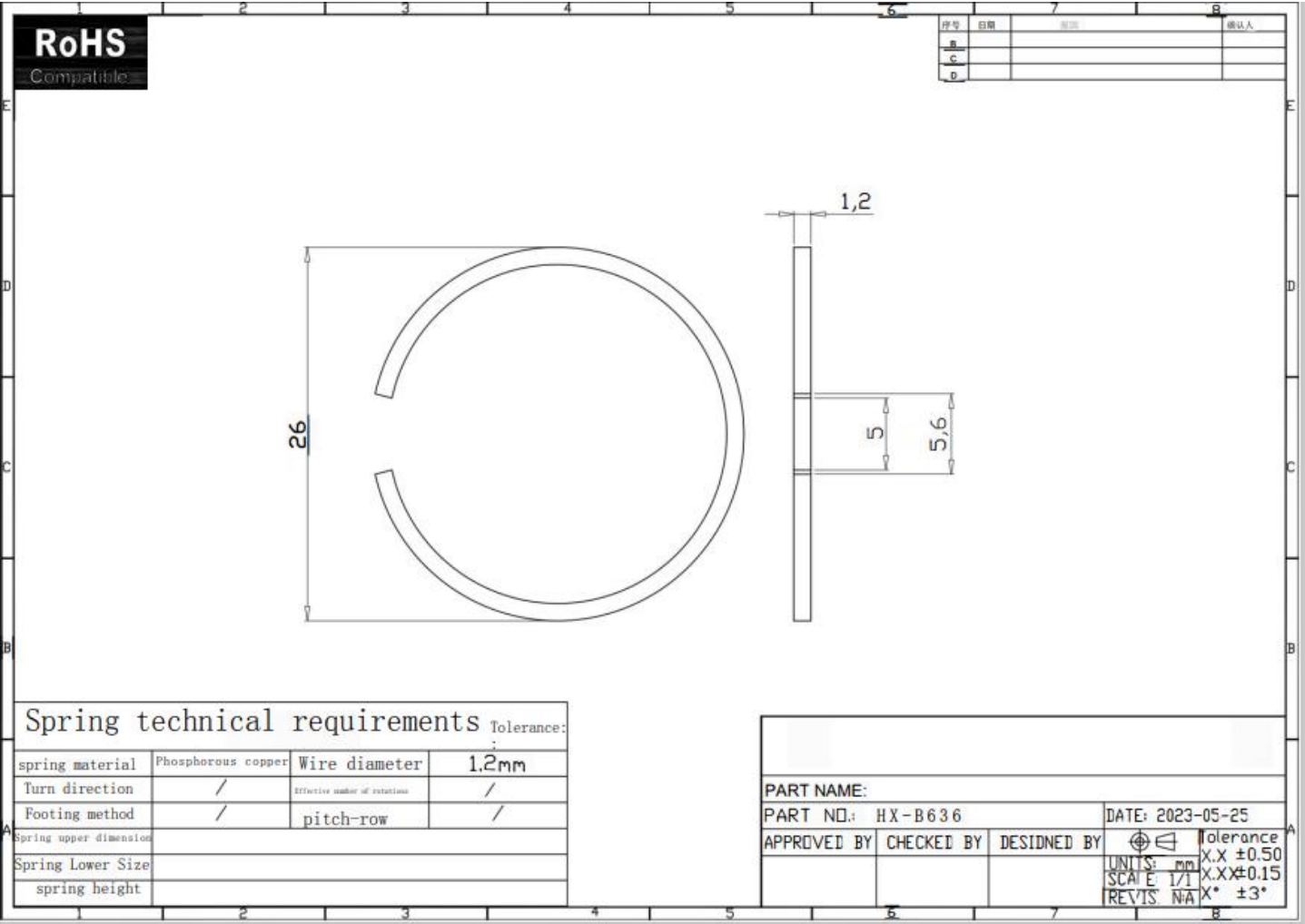
E-mail:Alisa@hxwwe.com

Http://www.hxwwe.com

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antenna type:Metal loop antenna



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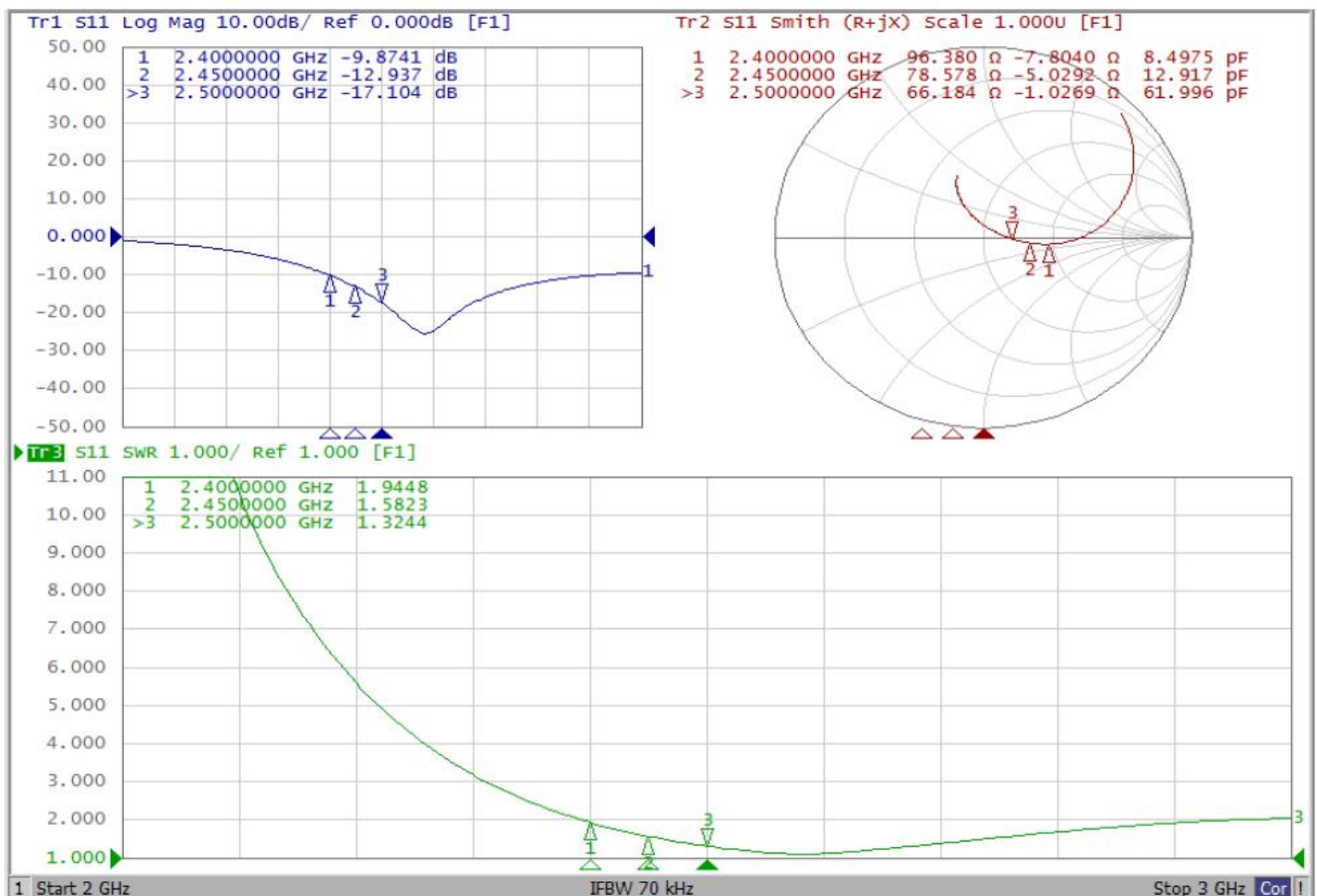
1. Reliability Testing

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 < $\pm 5\%$
3. Damp Heat	24 hours at 60°C; 90 ~ 95% RH	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$
4. Endurance	24 hours at 80°C	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$
5. Connector Pull Strength Test	≥ 1.0 Kg	Hold 2~3S: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$

2. Specification

A. Electrical Characteristics	
S.W.R.(Tested in PC)	≤ 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 °C ~ + 85 °C
Storage Temperature	- 30 °C ~ + 85 °C

3. S.W.R. Testing Result



4. Antenna Radiation Pattern

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 8 x 4 x 4 m

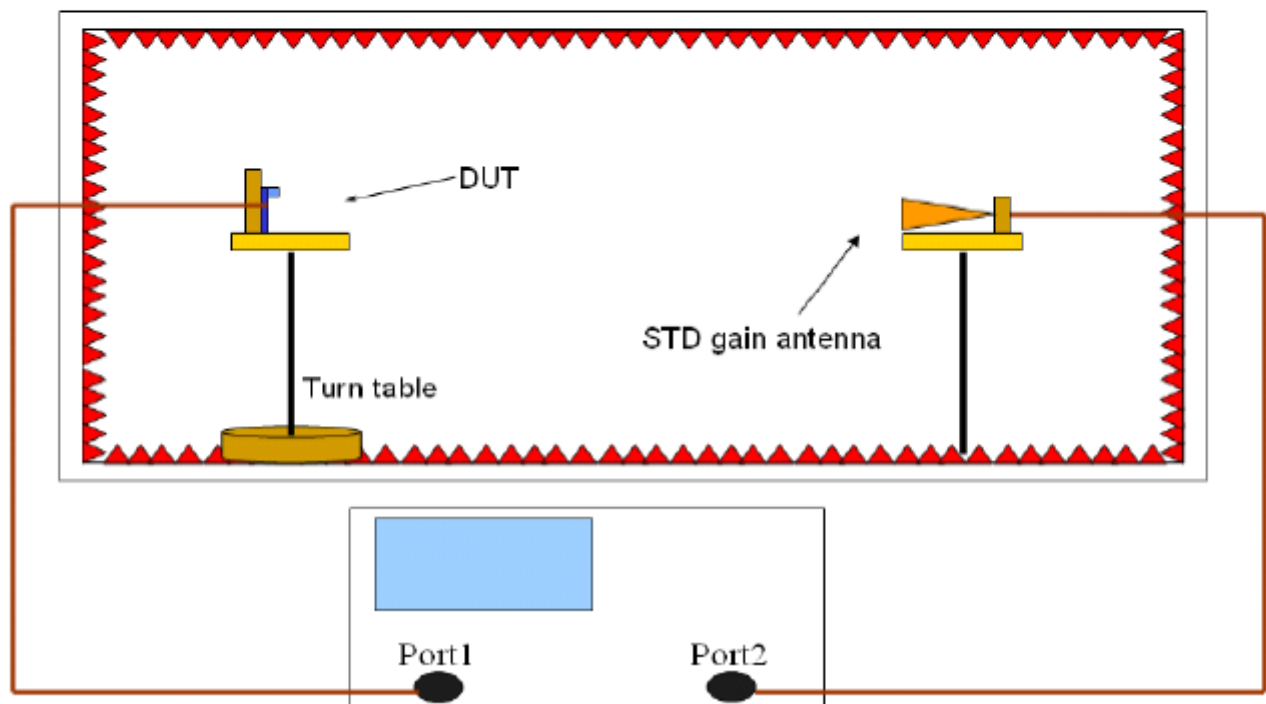
Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent 5071B

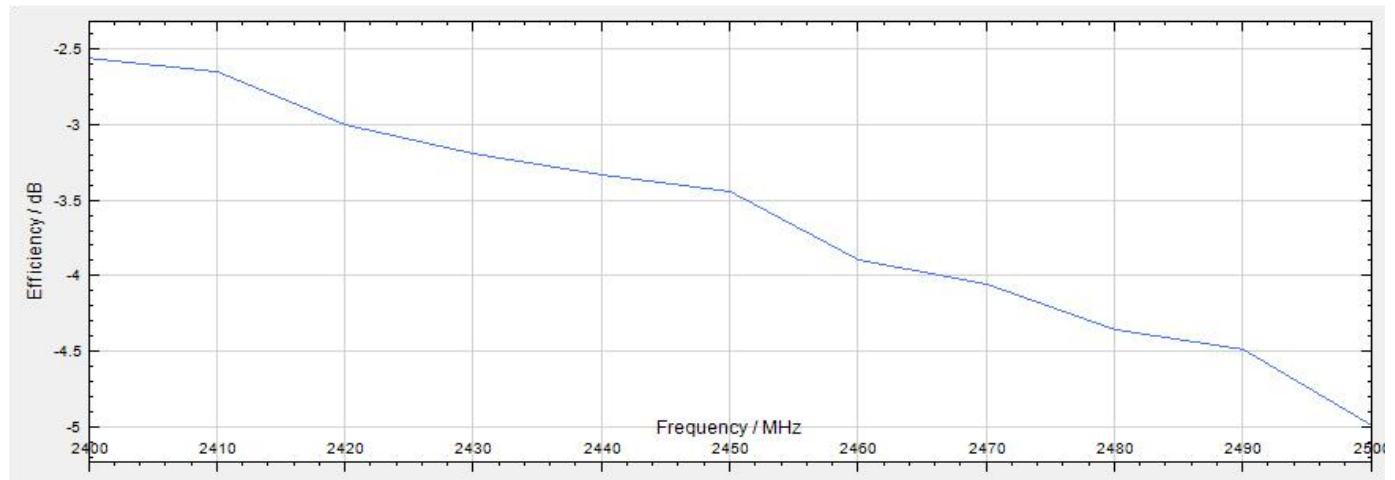
Received Antenna: 0.7 ~ 6.0 GHz for Gain Calibration

Double Ridged Horn Antenna



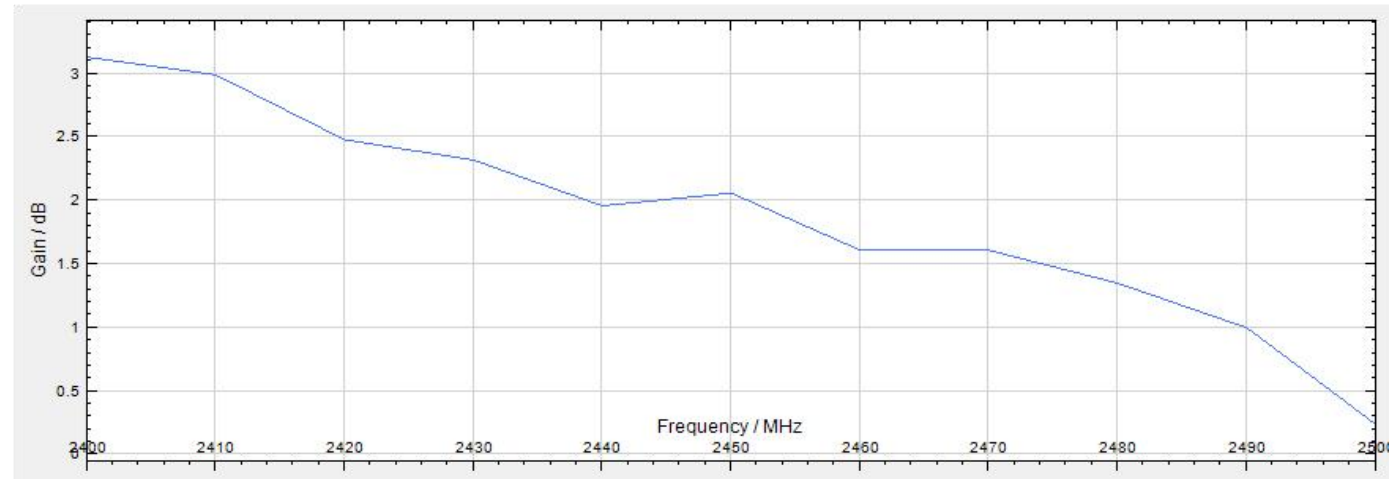
Frequency Efficiency / Efficiency / %

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

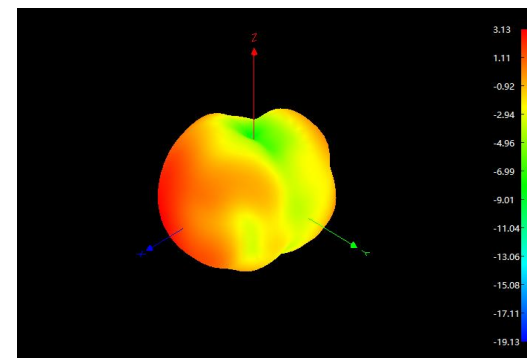
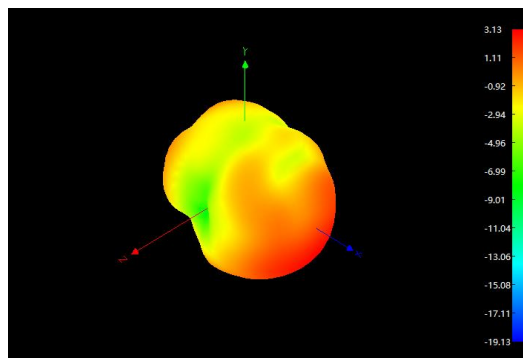
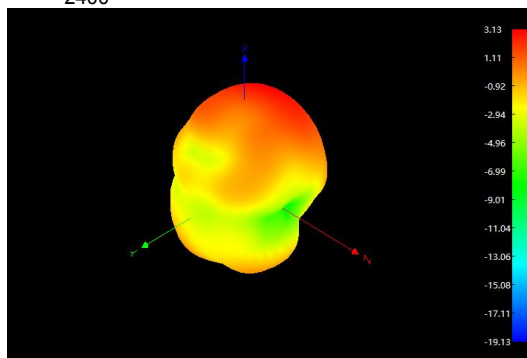


Frequency Gain/ dBi

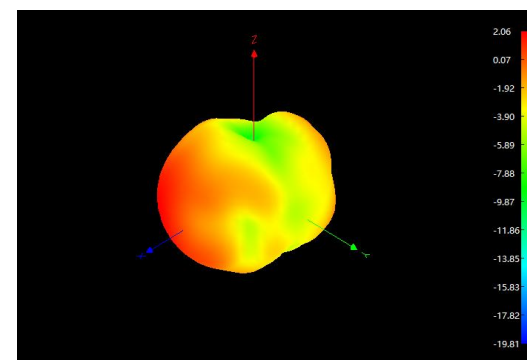
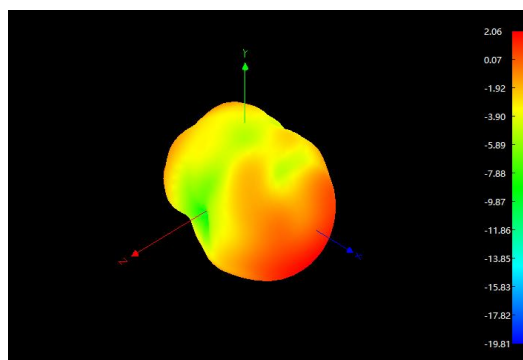
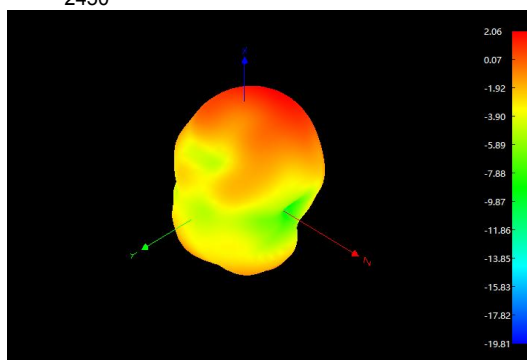
2400	3.13
2410	2.99
2420	2.48
2430	2.32
2440	1.96
2450	2.06
2460	1.61
2470	1.61
2480	1.35
2490	1
2500	0.24



2400



2450



2500

