

东莞市千木电子科技有限公司

承认书

客 戶: _____

品 名: 2.4G 2DBi Antenna

料 號: HX-A04B

客户料号: _____

客戶確認			供應廠商	
工程部	品保部	採購部	核准	送樣人
			袁 2024/12/18 静	

CUSTOMER	
PART NO	

东莞市千木电子科技有限公司				
PART NAME: 2.4G Antenna				
PART NO. : HX-A04B.W01		DATE: 2023/12/02		
APPROVED BY	CHECKED BY	DESIGNED BY		Tolerance
		覃剑勇	UNITS: mm	X. X ± 0.50
			SCALE: 1/1	X. XX ± 0.15
			REVISION: A	X° ± 3°

Index:

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

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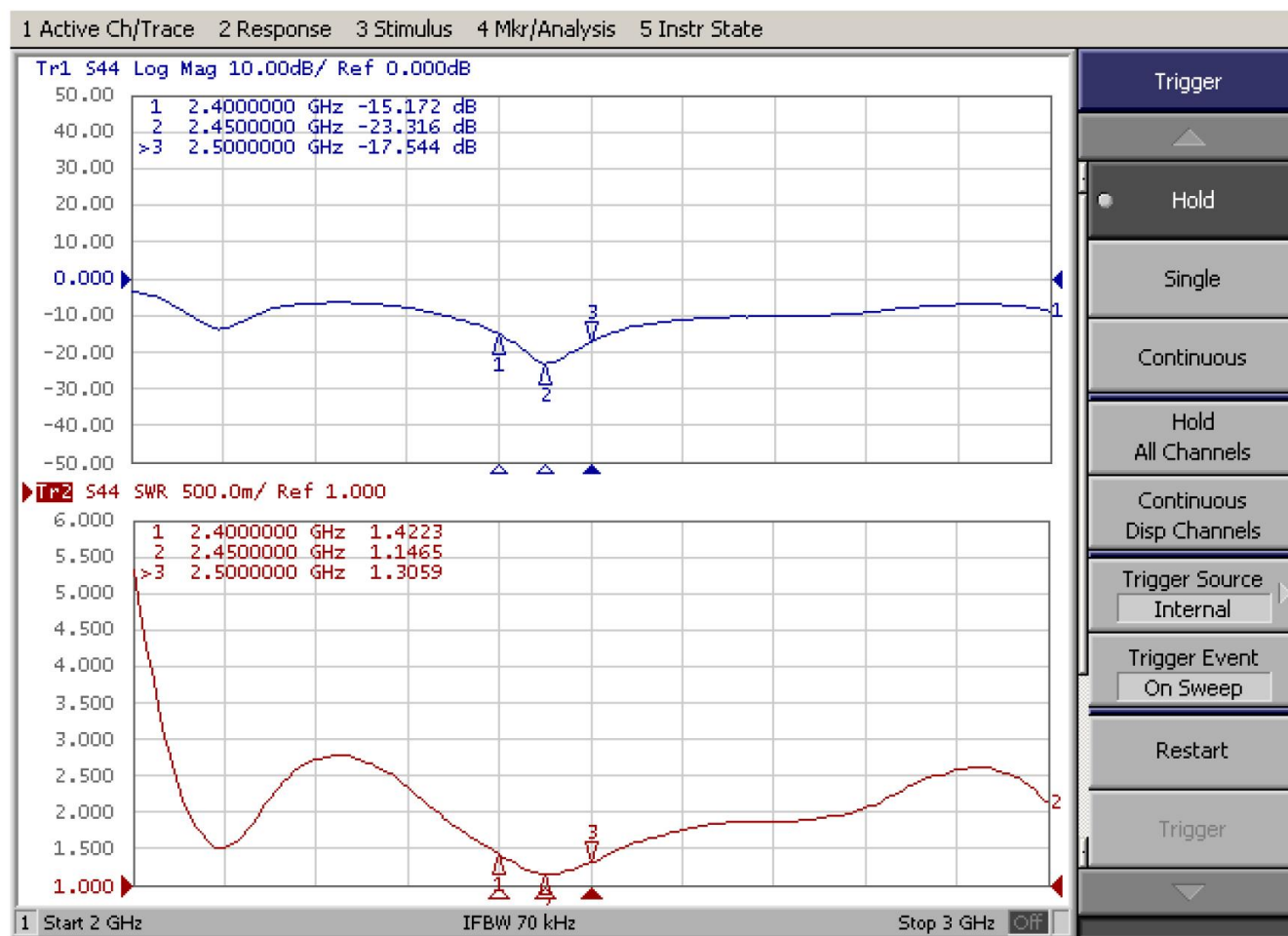
1. Reliability Testing

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 @ 2400~2500 MHz
Typical Antenna Gain	2.0dBi
Impedance	50 Ohm
B. Material	
Material of Radiator	CU
Connector Type	SMA
Material of Coaxial Cable	RG-178 mm
C. Environmental	
Operation Temperature	- 30 °C ~ + 85 °C
Storage Temperature	- 30 °C ~ + 85 °C

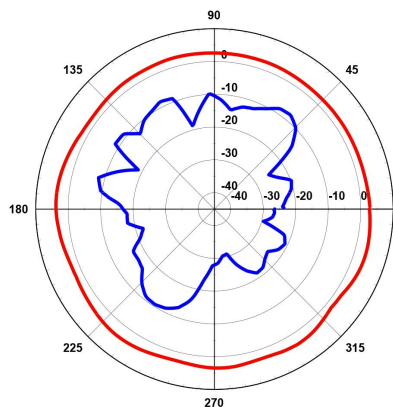
3. S.W.R. Testing Result



Electrical Performance-Radiation Pattern and Gain

H-Plane

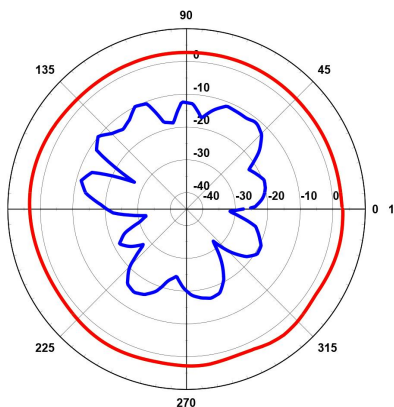
2400MHz



Ver. Pol. (max.)=	3.9
Ver. Pol. (avg.)=	2.8
Hor. Pol. (max.)=	-8.0
Hor. Pol. (avg.)=	-13.8
Tol. Gain (max.)=	3.9
Tol. Gain (avg.)=	2.8

Unit: dBi

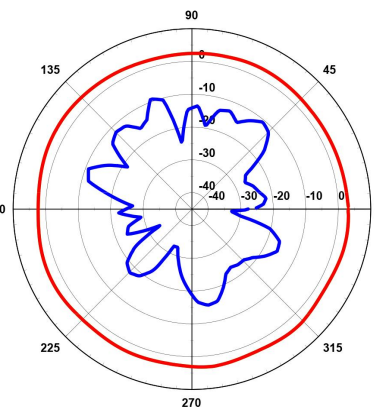
2450MHz



Ver. Pol. (max.)=	3.7
Ver. Pol. (avg.)=	2.8
Hor. Pol. (max.)=	-10.0
Hor. Pol. (avg.)=	-16.0
Tol. Gain (max.)=	3.7
Tol. Gain (avg.)=	2.8

Unit: dBi

2500MHz



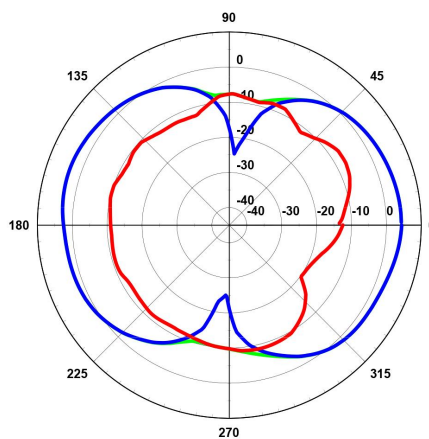
Ver. Pol. (max.)=	3.4
Ver. Pol. (avg.)=	2.8
Hor. Pol. (max.)=	-9.3
Hor. Pol. (avg.)=	-16.7
Tol. Gain (max.)=	3.4
Tol. Gain (avg.)=	2.8

Unit: dBi

Electrical Performance-Radiation Pattern and Gain

E-Plane

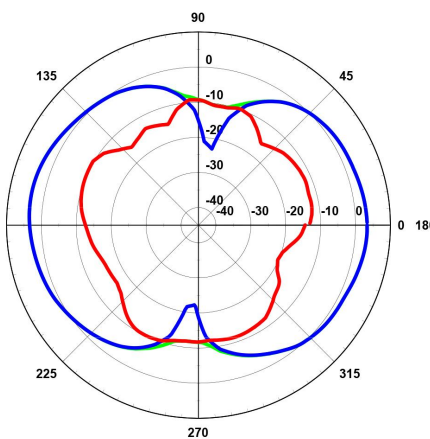
2400MHz



Ver. Pol. (max.)=	-7.2
Ver. Pol. (avg.)=	-10.6
Hor. Pol. (max.)=	4.4
Hor. Pol. (avg.)=	0.4
Tol. Gain (max.)=	4.4
Tol. Gain (avg.)=	0.5

Unit: dBi

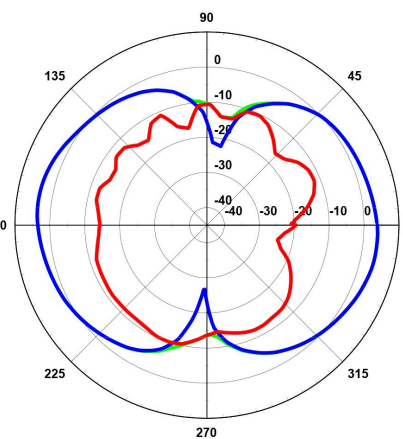
2450MHz



Ver. Pol. (max.)=	-9.3
Ver. Pol. (avg.)=	-12.4
Hor. Pol. (max.)=	3.7
Hor. Pol. (avg.)=	0.1
Tol. Gain (max.)=	3.7
Tol. Gain (avg.)=	0.1

Unit: dBi

2500MHz



Ver. Pol. (max.)=	-10.0
Ver. Pol. (avg.)=	-13.1
Hor. Pol. (max.)=	4.0
Hor. Pol. (avg.)=	0.0
Tol. Gain (max.)=	4.0
Tol. Gain (avg.)=	0.0

Unit: dBi

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

