深圳市鑫恒阳科技有限公司

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承　认　书

SPECIFICATION FOR APPROVAL

客户名称 Customer Name：　和仕佳

产品型号 Product Model：　CSC_PF01-2

客户料号 Customer P/N ：

鑫恒阳料号 XINHENGYANG P/N：　CP.041.A00440009

产品规格 SPECIFFCATIONS:　频段：2400MHZ-2500MHZ

5150MHZ-5850MHZ

制作日期 Production date:　2024-04-08

封样版本 Sample Version:　V1.0

鑫恒阳（XINHENGYANG）		
编制（FICTION）	结构（Structure）	研发（R&D）
客户（Customer）		
采　购（PUR）	品质（QC）	研发（R&D）

Manufacturer: Shenzhen Xinghengyang Technology Co., Ltd.
Address: Room 909 Kanghesheng Building, No.1 Chuangsheng Road, Shuguang Community, Xili Street, Nanshan District, Shenzhen, China

Phone：0755-83600916　E-mail ：gc@xhy-2008.com
Website ：https://www.XHY-2008.com

Number	Effective date	Change record
V1.0	2024-04-08	Initial release

一、Basic parameters

A. Electrical Characteristics	
Frequency	**2400MHZ-2500MHZ** **5150MHZ-5850MHZ**
VSWR	**< 2.5**
Avg Efficiency	**2.4G>60%　　5G>40%**
Impedance	**50 ± 25 Ohm**
Polarization	**Linear**
Peak Gain	**2.4G：3.25dBi** **5G：5.05dBi**
B. Material & Mechanical Characteristics	
Material of Radiator	**FPC　White**
Cable Type	**Φ1.13mm　L=95mm±3mm　Black**
Connector Type	一代端子
Dimension	48.30mm±0.2mm*15.85mm±0.2mm
C. Environmental	
Operation Temperature	**- 20 ˚C ~ + 60 ˚C**
Storage Temperature	**- 30 ˚C ~ + 70 ˚C**

二、Electrical specifications

Those specifications were specially defined for CSC_PF01-2 model.

三、VSWR

1 Measurement method

1.A 50Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR

2.Keeping this jig away from metal at least 20cm

2 Measure frequency points and standing wave ratio

四、 Introduction to Darkroom

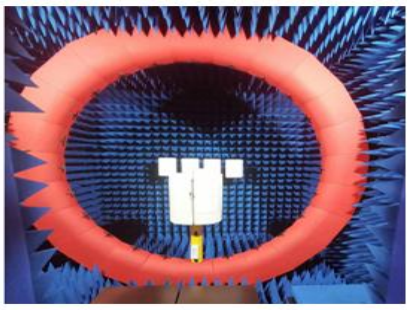
Introduction:

Microwave darkroom and no reflection chamber, absorbing short wave darkroom dark room. Microwave darkroom by electromagnetic shielding room, filtering and isolation, grounding device, the ventilation duct, indoor distribution system, monitoring system, ceiling wave material part. It is based on the wave absorbing material as the lining of the shield room, it can absorb the most of the electromagnetic energy into the six wall is a better simulation of the free space conditions.

The main working principle of microwave anechoic chamber is according to the electromagnetic wave in the medium from the low magnetic guide magnetic direction of propagation rules, absorbing materials to guide the electromagnetic wave using high permeability, through resonance, a substantial absorption of electromagnetic wave radiation energy, by coupling the electromagnetic energy into heat energy.

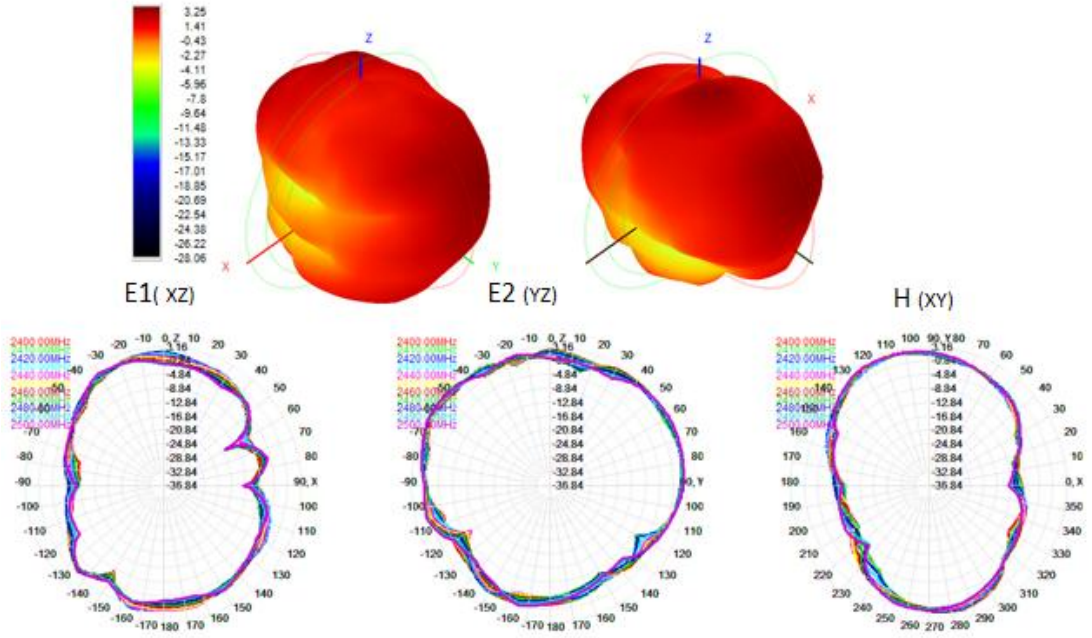
main performance ：

Frequency range:400MHz ~ 6GHz ceiling reflected wave loss materials: 400MHz ~ 6GHz is equal to or more than 15dB (microwave absorbing material by composite wave absorbing materials, namely tapered containing carbon sponge suction wave material paste in ferrite)

五、Antenna performance

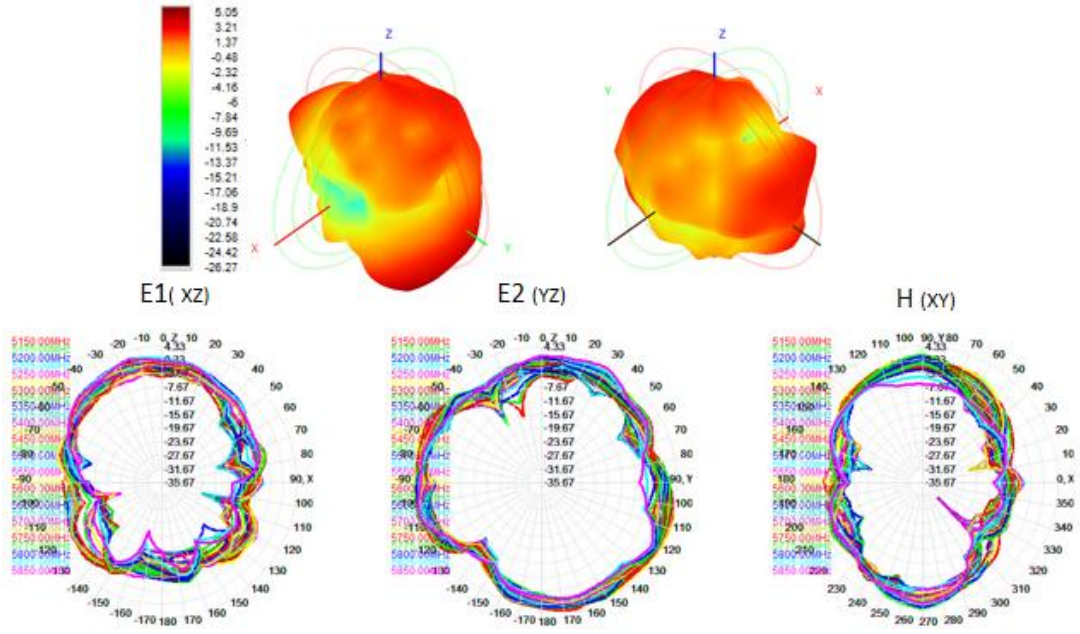
Passive field pattern diagram-2400MHZ-2500MHZ



Passive efficiency&gain

Freq (MHz)	Effi (%)	Gain (dBi)
2400	59.20	2.51
2410	59.41	2.52
2420	59.89	2.63
2430	59.66	2.42
2440	60.71	2.42
2450	60.43	2.88
2460	59.58	3.03
2470	59.28	3.00
2480	60.09	3.16
2490	60.19	3.16
2500	62.18	3.25

Passive field pattern diagram-5150MHZ-5850MHZ



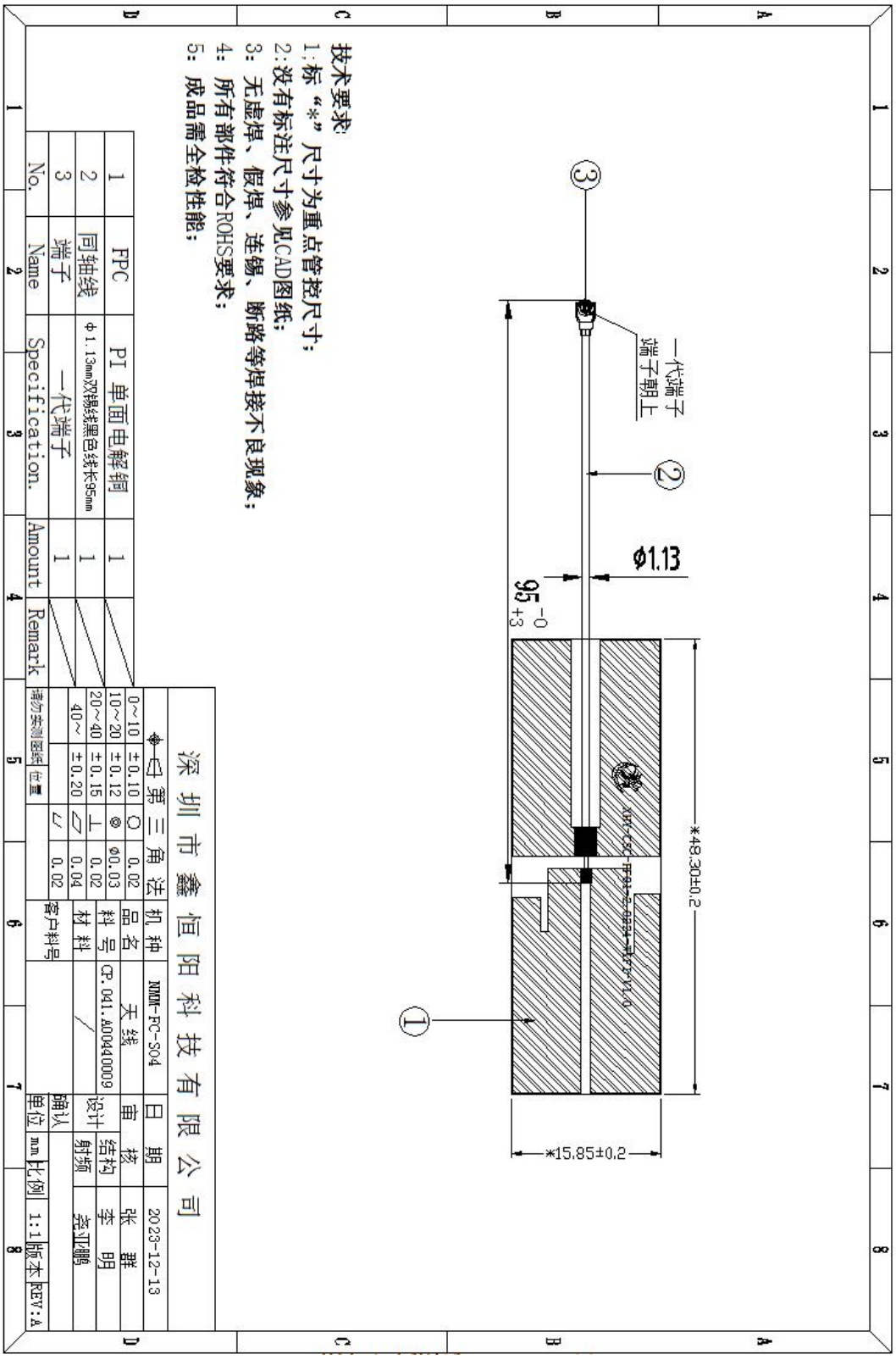
Passive efficiency&gain

Freq (MHz)	Effi(%)	Gain (dBi)	Freq (MHz)	Effi(%)	Gain (dBi)
5150	45.92	4.64	5525	42.31	4.30
5175	42.64	4.79	5550	45.10	3.91
5200	43.43	4.32	5575	48.49	4.06
5225	47.62	4.85	5600	49.75	4.42
5250	55.12	4.22	5625	47.20	3.94
5275	61.53	4.13	5650	45.20	3.93
5300	54.29	4.68	5675	44.32	3.81
5325	46.21	5.05	5700	44.68	3.38
5350	40.94	4.55	5725	45.95	3.56
5375	42.15	4.67	5750	47.95	3.63
5400	48.39	4.93	5775	48.97	3.53
5425	55.42	4.97	5800	45.29	3.32
5450	55.49	4.73	5825	43.32	2.91
5475	47.46	4.39	5850	44.60	3.09
5500	42.86	4.33			

Active data

Test Condition		Free Space	
band	Channel	TRP (dBm)	TIS (dBm)
802.11B 11Mbps	1	13.66	-83.35
	6	14.11	-84.30
	11	14.14	-84.18
802.11G 54Mbps	1	11.28	-68.67
	6	11.75	-69.66
	11	11.98	-70.93
802.11N NCS7	1	11.26	-65.59
	6	10.54	-66.70
	11	11.08	-65.84
802.11A 54Mbps	149	8.38	-67.42
	157	9.11	-69.69
	165	8.36	-70.40

六、Antenna drawing dimensions



七、ROHS

Antenna CP. 041. A00440009 meets RoHS requirements.

八、 Product packaging instructions

A. packing should meet the moistureproof, vibration, pressure and mildew proof, etc.

B. the smallest packing unit logo must have the manufacturer trademarks, product model, name, code and quantity.

C. in the attached packing list, certificate of approval, and the factory inspection report.

**********END**********