



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 XINHENG YANG P/N: CP. 041. A00440009

产品规格 SPECIFICATIONS: 频段: 2400MHZ-2500MHZ
5150MHZ-5850MHZ

制作日期 Production date: 2023-12-13

封样版本 Sample Version: V1.0

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

生产厂商: 深圳市鑫恒阳科技有限公司

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Number	Effective date	Change record
V1.0	2023-12-13	Initial release



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一、Basic parameters

A. Electrical Characteristics	
Frequency	2400MHZ-2500MHZ 5150MHZ-5850MHZ
VSWR	< 2.5
Avg Efficiency	2.4G>60% 5G>50%
Impedance	50 ± 25 Ohm
Polarization	Linear
Peak Gain	2.4G: 5.46dBi 5G: 7.36dBi
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





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四、 Introduction to Darkroom

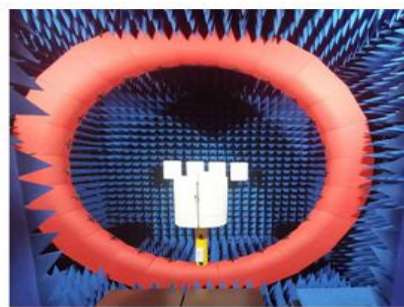
Introduction:

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.

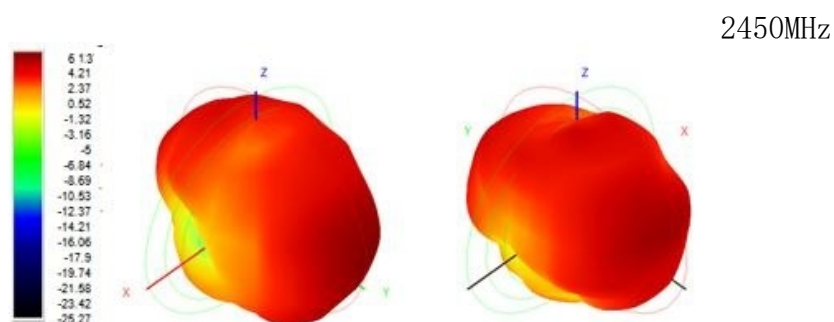
main performance :

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

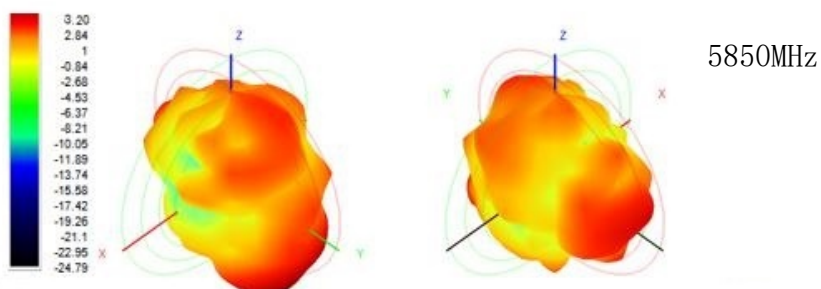
Passive field pattern diagram-2400MHZ-2500MHZ



Passive efficiency&gain

Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
2400	70.29	4.25	2455	71.57	5.18
2405	69.54	4.20	2460	71.00	5.12
2410	69.02	4.21	2465	70.64	5.13
2415	69.52	4.36	2470	70.79	5.14
2420	70.41	4.50	2475	71.01	5.08
2425	70.71	4.58	2480	71.50	5.03
2430	70.73	4.73	2485	73.39	5.10
2435	71.05	4.88	2490	75.36	5.25
2440	71.89	4.98	2495	76.17	5.39
2445	71.98	5.03	2500	77.02	5.46
2450	71.60	5.13			

Passive field pattern diagram-5150MHZ-5850MHZ



Passive efficiency&gain

Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
5150	59.97	6.03	5510	55.62	5.78
5170	56.35	5.82	5530	54.06	5.49
5190	57.16	6.19	5550	53.71	5.28
5210	60.62	6.77	5570	56.45	5.49
5230	64.65	7.15	5590	57.74	5.61
5250	69.97	7.36	5610	60.22	5.62
5270	76.51	7.29	5630	58.30	5.64
5290	73.94	6.38	5650	57.62	5.64
5310	64.91	5.27	5670	54.71	5.16
5330	58.72	5.04	5690	53.74	4.62
5350	57.00	5.17	5710	52.34	4.29
5370	54.73	5.46	5730	53.12	4.08
5390	57.73	6.05	5750	55.04	4.28
5410	63.65	6.30	5770	55.78	4.45
5430	71.46	6.46	5790	54.19	4.23
5450	71.54	6.56	5810	52.77	3.58
5470	66.21	6.40	5830	54.05	3.48
5490	60.01	6.12	5850	53.78	3.20



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

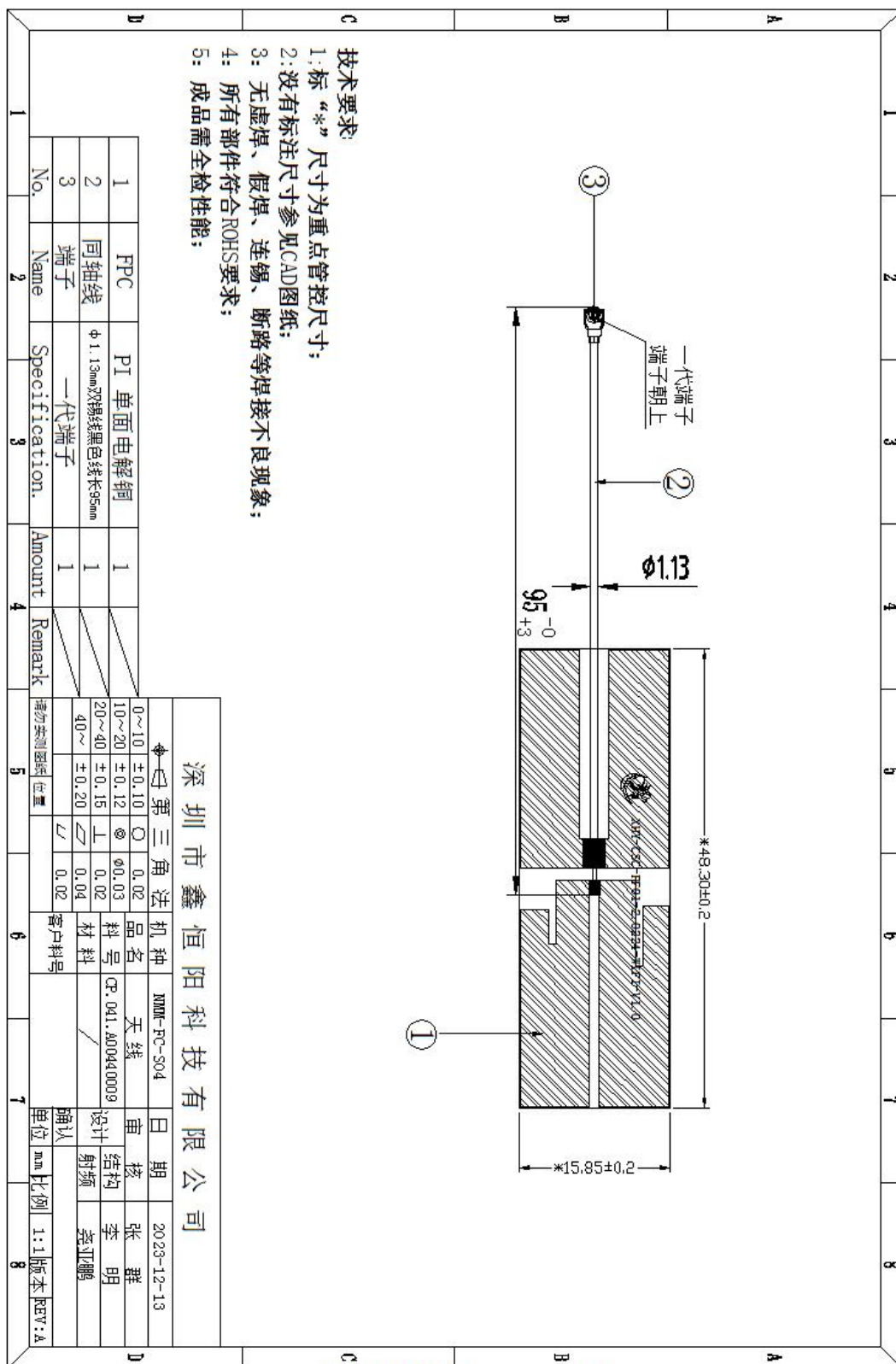
六、Machine image



七、Antenna assembly diagram



八、Antenna drawing dimensions





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九、ROHS

Antenna CP. 041. A00440009 meets RoHS requirements.

十、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*****