SPECIFICATION FOR APPROVAL

Product: Comnect_PG1830CR-2.4G-1 gray1.13RF Cable+Ipex，L=55mm

Model: HWY-24PCB-2G-1639

Part Number: 32030141

Written By : Xianjiang Yang

Issued Date: 2023.8.4

HWY：

SHEN ZHEN HWY TECHNOLOGY, CO, .LTD Engineering Stamp

R&D DEPT	ENGINEER R&D DEPT	APPROVED
Xianjiang Yang	Shitong Tang	Youguang Zeng

Address: No.3 Xianglong Road, Changlong community, Huangjiang Town, Dongguan City, Guangdong Province

Email: zyg713@126.com/gendanyuan01@126.com

TEL: 0769-81773130 / 186 8030 6792

Change resume

Edition	Description of changes	Date of change	Production / revision	remarks
V1.0	Original version	2023.8.4	Xianjiang Yang	
V2.0	Add test reports, photos, and packaging methods	2023.8.24	Xianjiang Yang	
V3.0	Increase silk-screen content	2024.3.4	Haiming Chen	
V4.0	Modify PCB board tolerance	2024.9.12	Xianjiang Yang	

Index

1、 Cover.....1

2、 Document Change Resume.....2

3、 **Index**.....3

4、 **The basic parameters**.....4

5、 **Product Drawing**.....5

6、 **Test Equipment & Conditions**.....6

7、 **Test Report**.....7~9

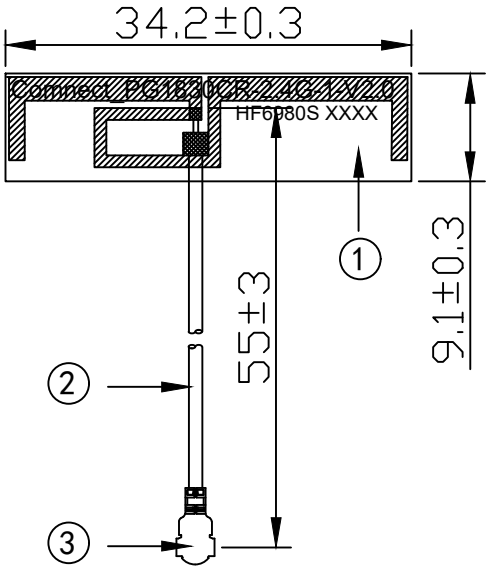
8、 **Antenna Picture**.....10

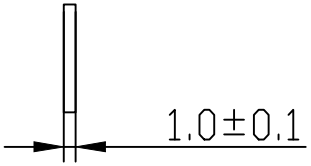
9、 **Tee Packingway**.....11

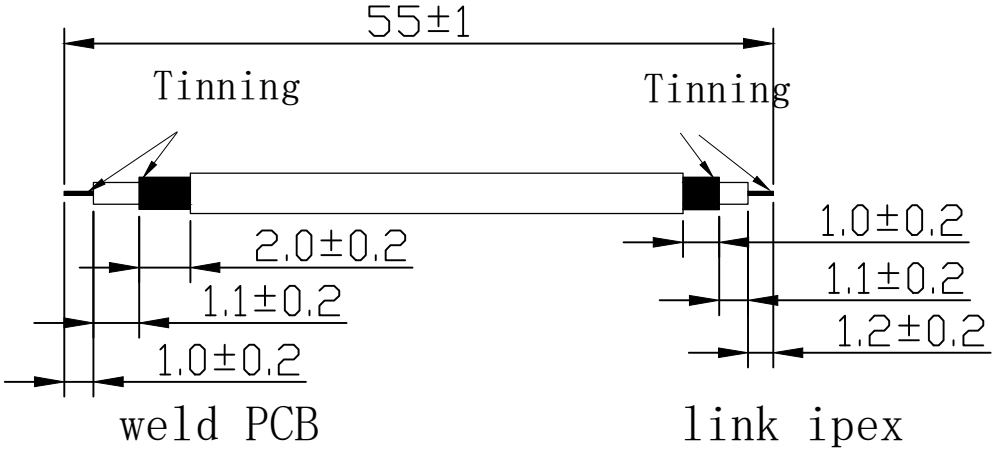
The basic parameters:

A. Electrical Characteristics	
Frequency	2.4 ~2.4835GHz
VSWR	≤2.0
Efficiency	>40%
Impedance	50 Ohm
Polarization	Linear
Gain	See the test report for details
Radiation	omnidirectional
B. Mechanical parameters	
Cable Type	1.13mm gray
Connector Type	**I-pex**
Dimension	L=55mm
Antenna Colour	green
C. Operating/ Storage Temperature	
Operation Temperature	- 20 ℃ ~ + 65 ℃
Storage Temperature	- 40 ℃ ~ + 80 ℃

V	Date	Description	ECN NO.	NAME
A	2023.8.4	Original version		Yang
B	2024.3.4	Add silk-screen printing		Chen
C	2024.9.13	Change the tolerance		Yang







Description:

1. Frequency: 2.4~2.5GHz
2. VSWR ≤2.0(Test after installation)
3. XXXX:PCB Silk-screen printing production date year and week: 23/42
4. Meet ROHS environmental protection requirements.

NO.	Item Number	Description	Num
⑤			
④			
③	Y0406000003	I-PEX,Gold-plated terminal，Connect the 1.13 coaxial cable	1
②	Z0800000402	Wire material: RF1.13 gray coaxial cable ， L = 55mm, both ends stripped and tinned.	1
①	Y0301110144	Connect_PG1830CR-2.4G-1-V2.0, FR-4,34.2*9.1*1.0mm, OSP , green solder mask.	1

SHEN ZHEN HWY TECHNOLOGY,CO,.LTD				Model:	HWY-24PCB-2G-1639		
				Name:	PG1830CR 2.4G Antenna		
Design	Yang	Date	2023.8.4	PN:	C0112000074	Unit	mm
Prfd		Date		CPN:	32010141	Ed.	A
Audit		Date			Persp	Page	1/1

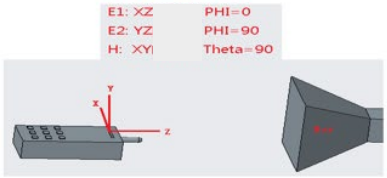
Test Equipment & Conditions

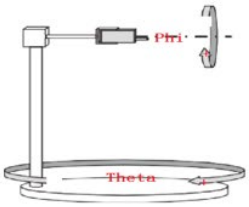
1. Network Analyzers :HP8753D

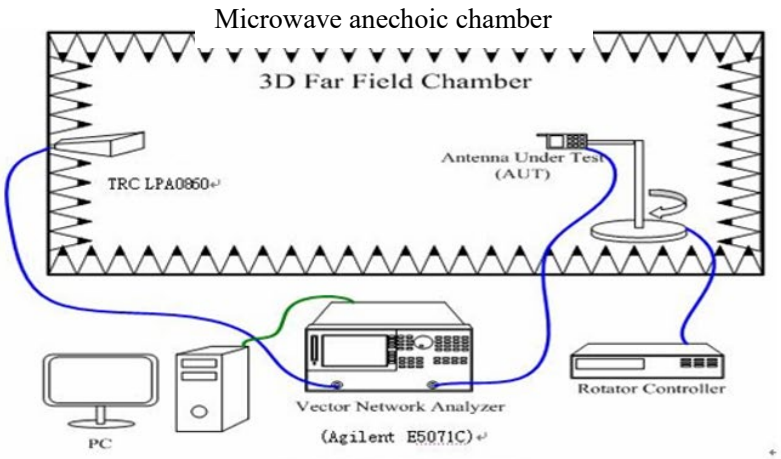
2. Communications Test Set:

3. 3D Chamber Test System:

network analyzer:HP8753D

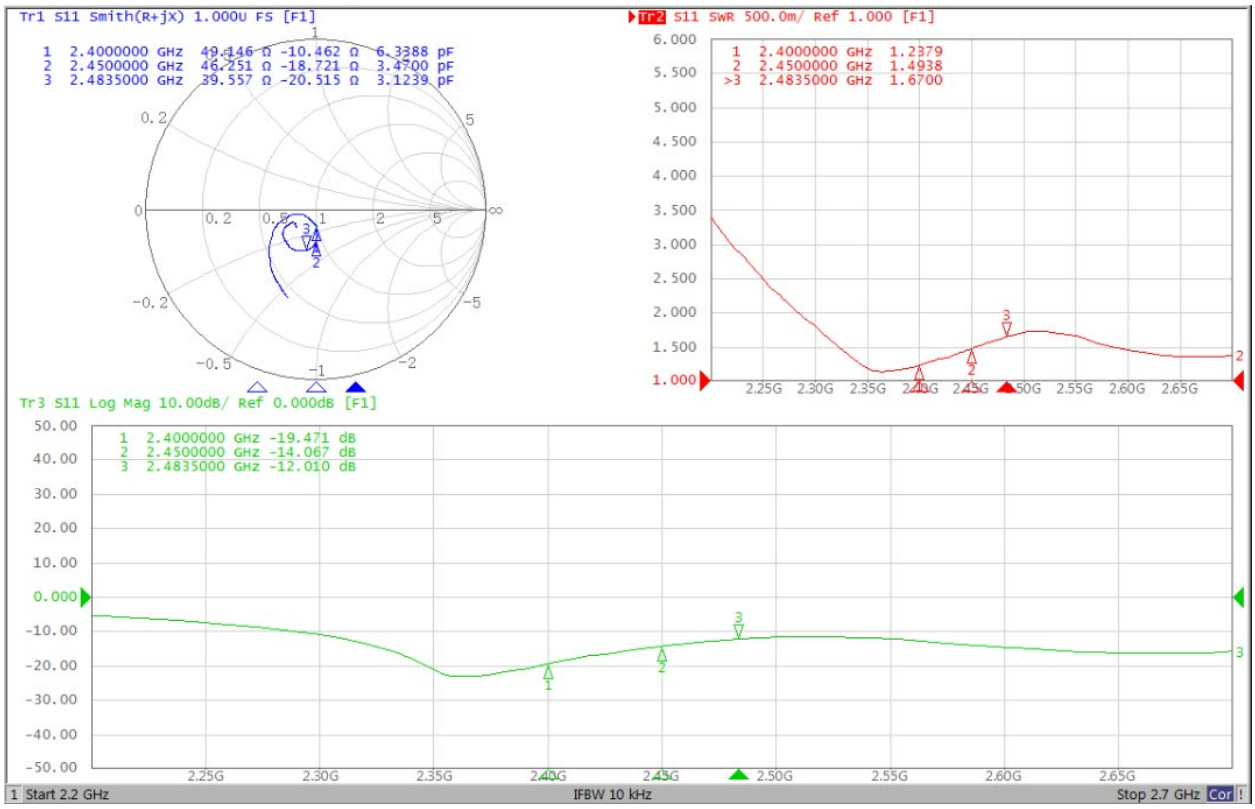






Test Data:

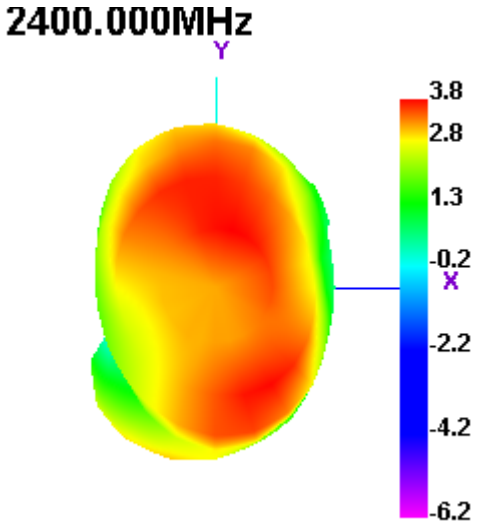
Reflection loss/ VSWR

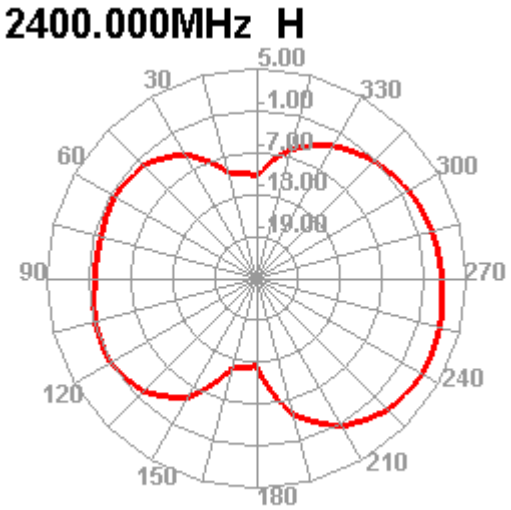


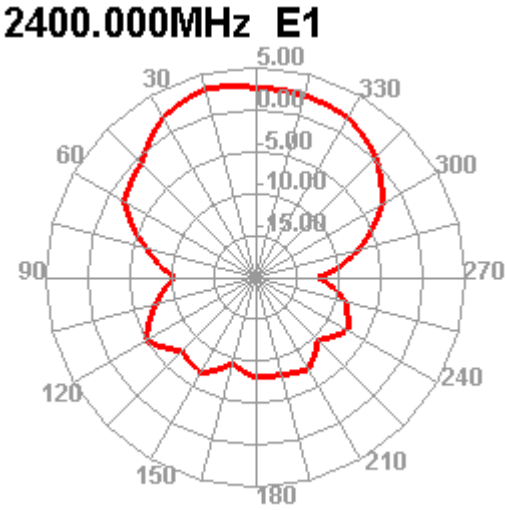
Efficency&Gain:

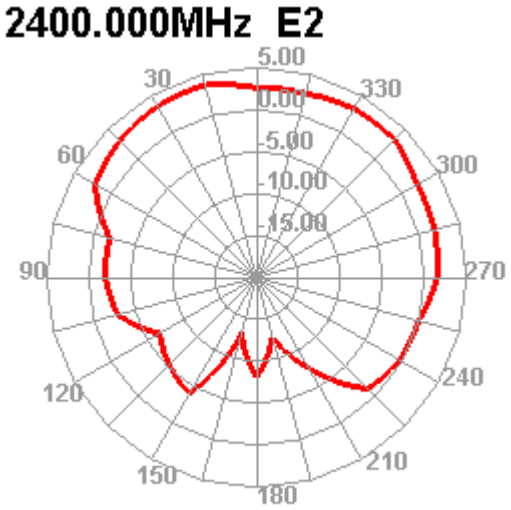
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)
2400	78.67	-1.04	3.78	1.63
2410	78.33	-1.06	3.62	1.47
2420	76.92	-1.14	3.44	1.29
2430	80.18	-0.96	3.52	1.37
2440	79.3	-1.01	3.41	1.26
2450	75.96	-1.19	3.27	1.12
2460	69.72	-1.57	2.77	0.62
2470	70.35	-1.53	2.74	0.59
2480	69.95	-1.55	2.73	0.58
2490	72.76	-1.38	2.93	0.78
2500	71.32	-1.47	2.85	0.7

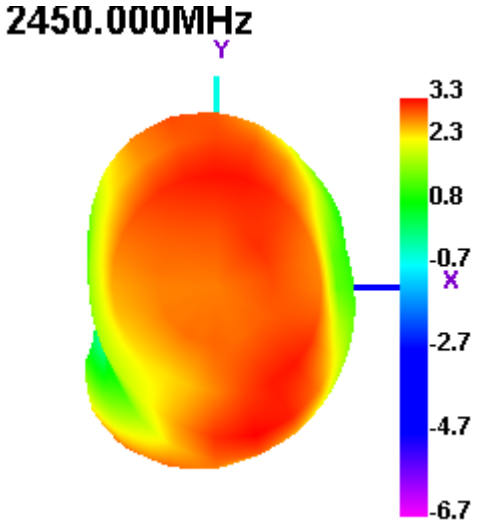
Patten

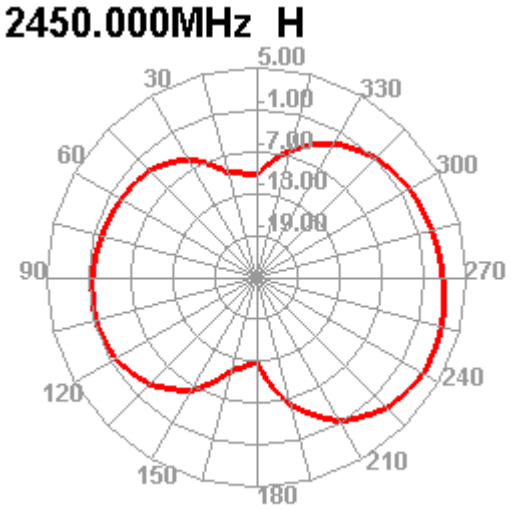

2400.000MHz
Y
X
3.8
2.8
1.3
-0.2
-2.2
-4.2
-6.2


2400.000MHz H
5.00
-1.00
-7.00
-13.00
-19.00
30
330
60
300
90
270
120
240
150
210
180

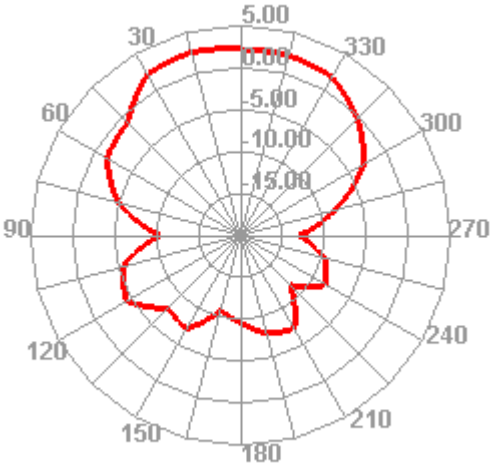

2400.000MHz E1
5.00
0.00
-5.00
-10.00
-15.00
30
330
60
300
90
270
120
240
150
210
180


2400.000MHz E2
5.00
0.00
-5.00
-10.00
-15.00
30
330
60
300
90
270
120
240
150
210
180

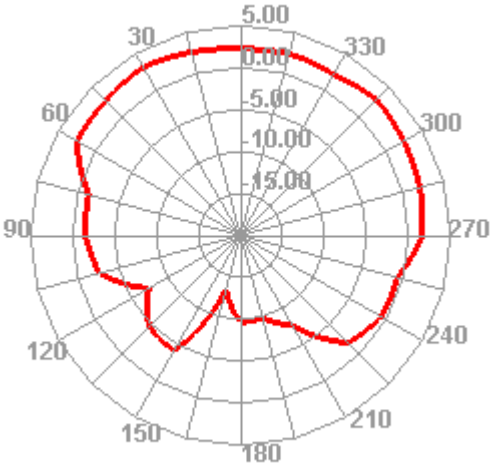

2450.000MHz
Y
X
3.3
2.3
0.8
-0.7
-2.7
-4.7
-6.7


2450.000MHz H
5.00
-1.00
-7.00
-13.00
-19.00
30
330
60
300
90
270
120
240
150
210
180

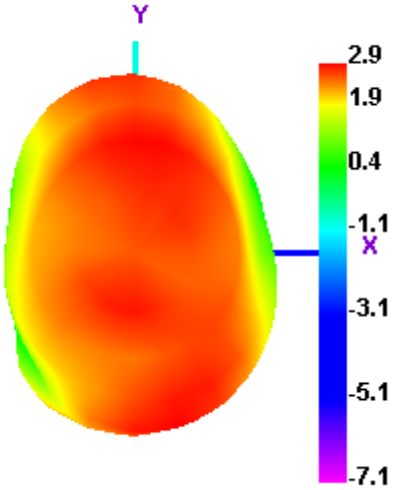
2450.000MHz E1



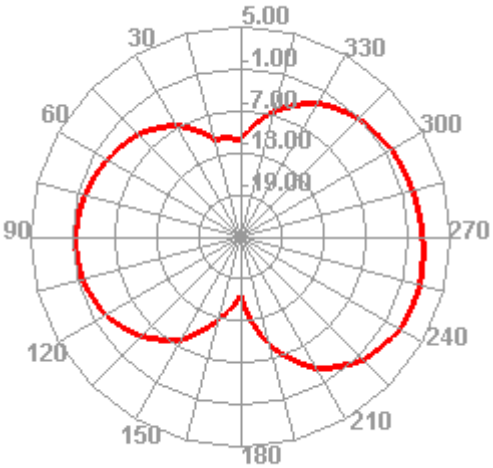
2450.000MHz E2



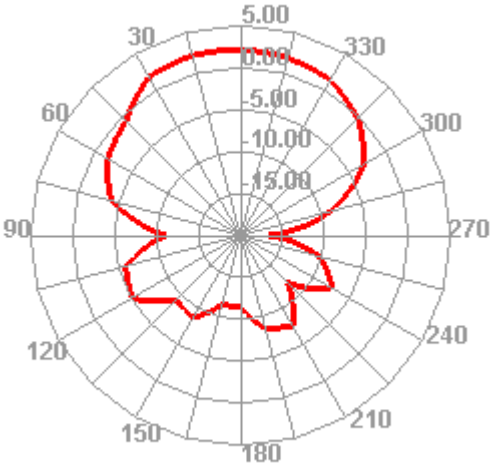
2500.000MHz



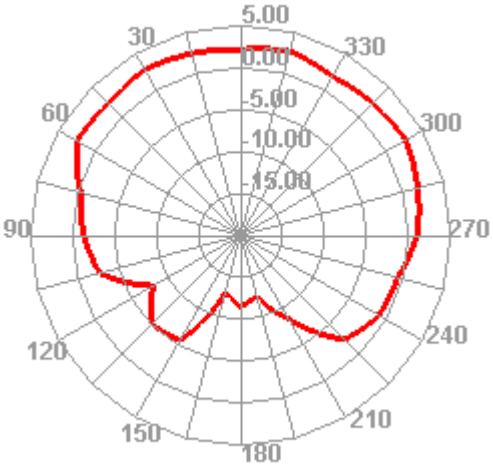
2500.000MHz H



2500.000MHz E1



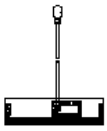
2500.000MHz E2



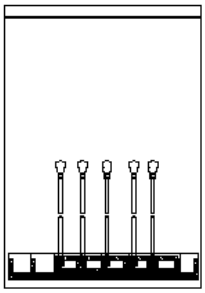
Antenna picture：

Product packaging specification

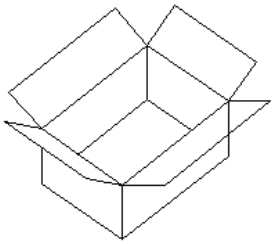
Product name:	External antenna
Description:	Except for customer special requirements
version :	V0



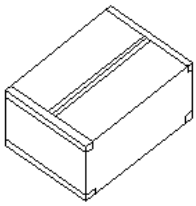
1.Antenna finished product



2. Antenna finished products are packed in PE bags. The quantity is subject to the actual situation.



3. Put the installed antenna into a cardboard box (subject to the actual quantity).



4. Seal the box and affix our company's label or a label as specified by the customer on the outside.