

# SPECIFICATION FOR APPROVAL

**Product:** Connect\_PG1830CR-5.8G-2 black 1.13RF Cable+Ipx, L=105mm

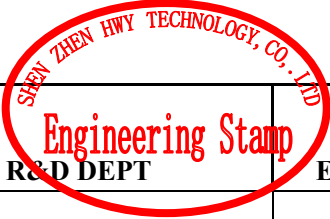
**Model:** HWY-58PCB-2B-1642

**Part Number:** 32030137

**Written By :** Xianjiang Yang

**Issued Date:** 2023.8.4

HWY:

|                                                                                                 |                   |               |
|-------------------------------------------------------------------------------------------------|-------------------|---------------|
| <br>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:

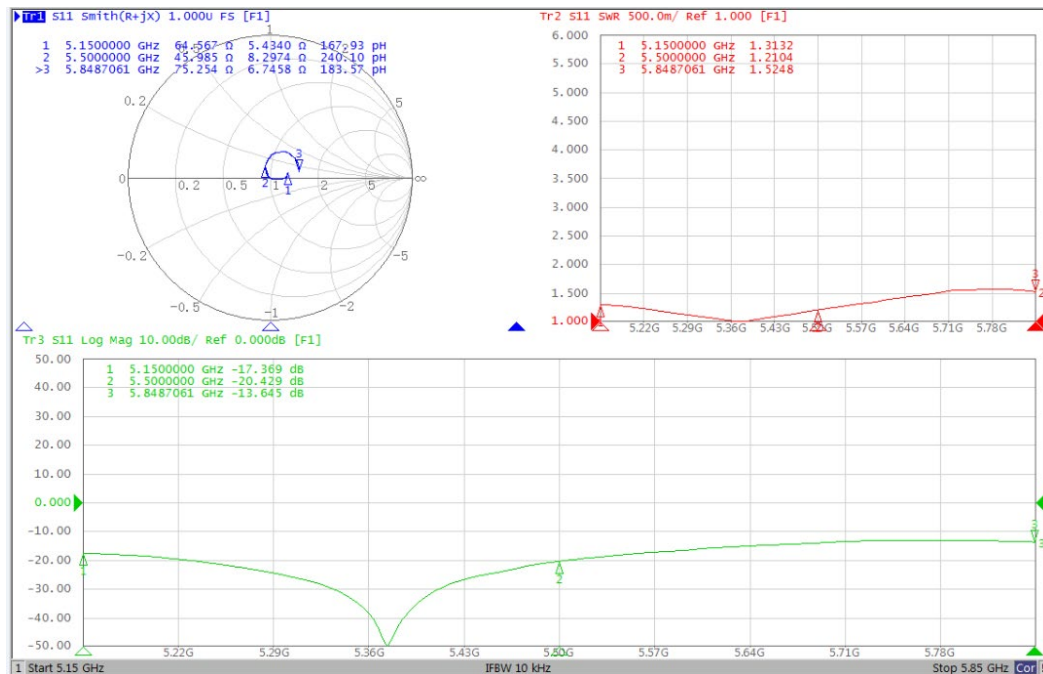
|                                   |                                 |
|-----------------------------------|---------------------------------|
| A. Electrical Characteristics     |                                 |
| Frequency                         | 5.15 ~5.85GHz                   |
| VSWR                              | $\leq 2.0$                      |
| Efficiency                        | >50%                            |
| Impedance                         | 50 Ohm                          |
| Polarization                      | Linear                          |
| Gain                              | See the test report for details |
| Radiation                         | omnidirectional                 |
| B. Mechanical parameters          |                                 |
| Cable Type                        | 1.13mm black                    |
| Connector Type                    | I-pex                           |
| Dimension                         | L=105mm                         |
| Antenna Colour                    | green                           |
| C. Operating/ Storage Temperature |                                 |
| Operation Temperature             | - 20 °C ~ + 65 °C               |
| Storage Temperature               | - 40 °C ~ + 80 °C               |

|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|---|--|---|--|---|--|---|--|---|--|-------------|--|--------------------------|--|---------|--|------|--|
| A |  | B |  | C |  | D |  | E |  | F           |  | G                        |  |         |  |      |  |
|   |  |   |  |   |  |   |  | 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 |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |
|   |  |   |  |   |  |   |  |   |  |             |  |                          |  |         |  |      |  |



Test Data:

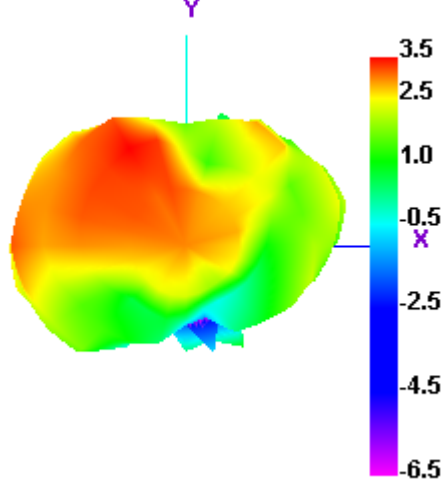
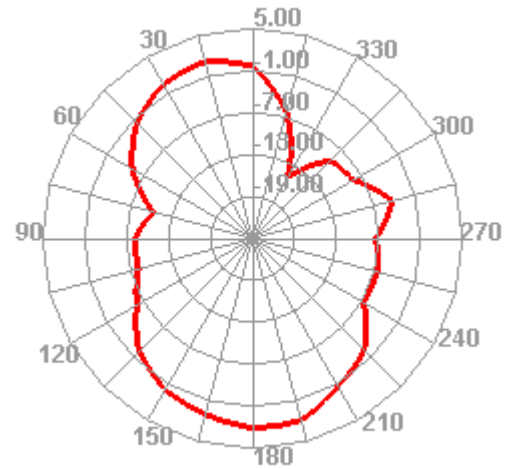
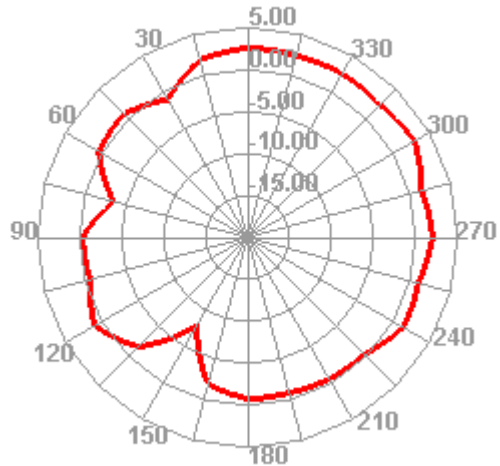
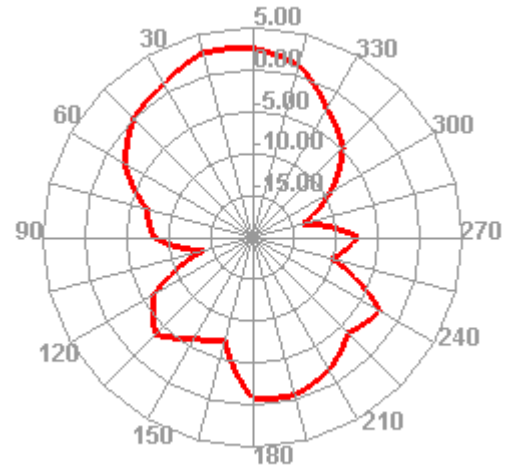
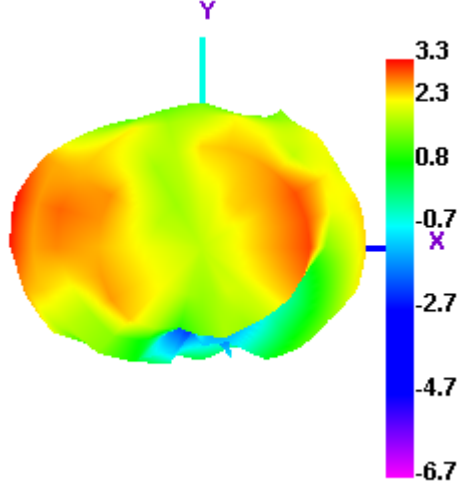
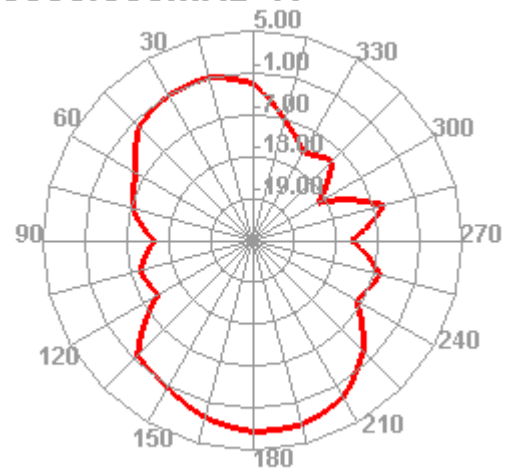
## Reflection loss/ VSWR

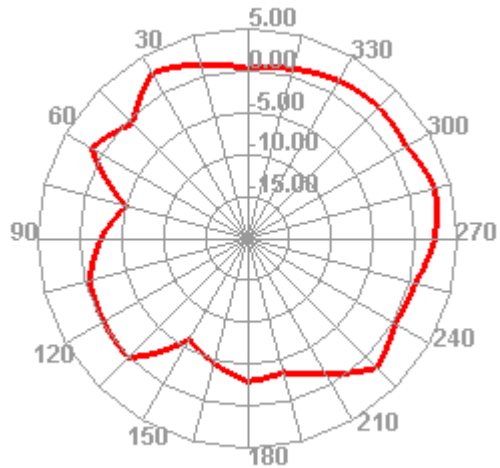
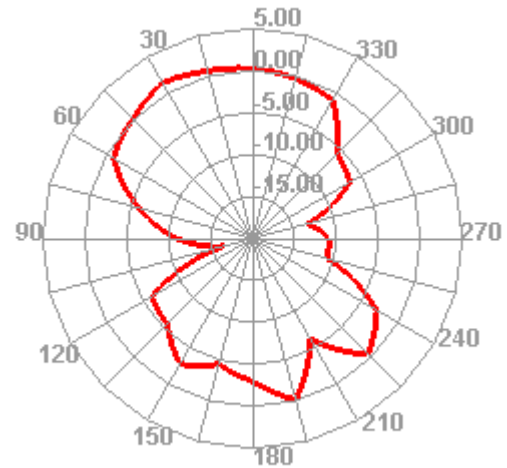
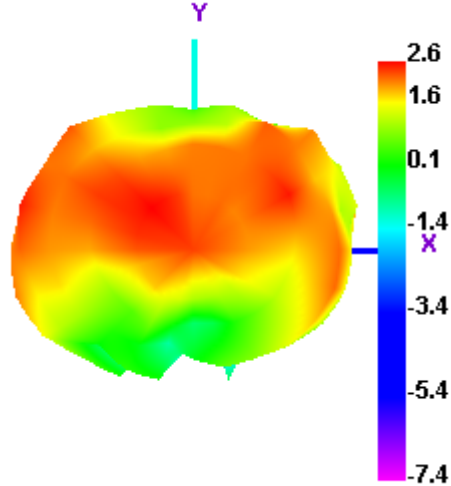
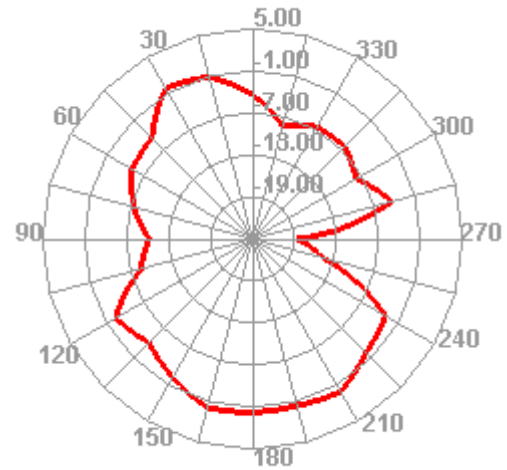
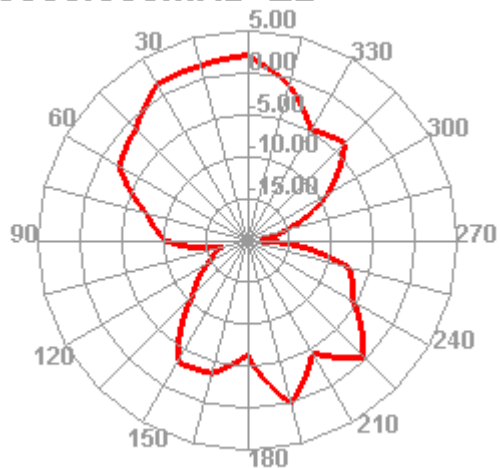
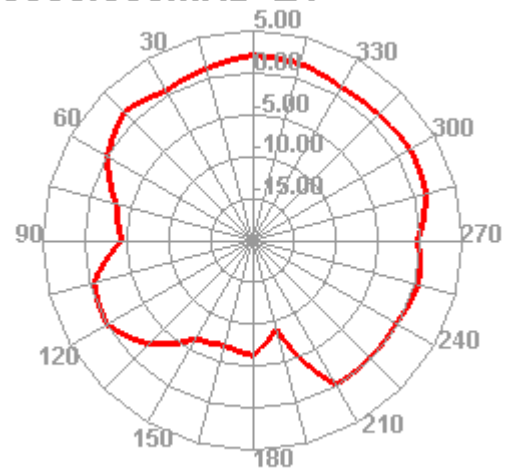


## Efficiency&Gain:

| Freq (MHz) | Effi (%) | Effi (dB) | Gain (dBi) | Gain (dBd) |
|------------|----------|-----------|------------|------------|
| 5150       | 75.45    | -1.22     | 3.53       | 1.38       |
| 5200       | 67.26    | -1.72     | 2.85       | 0.7        |
| 5250       | 66.11    | -1.8      | 2.6        | 0.45       |
| 5300       | 69.13    | -1.6      | 3.35       | 1.2        |
| 5350       | 76.76    | -1.15     | 3.94       | 1.79       |
| 5400       | 75.95    | -1.19     | 3.63       | 1.48       |
| 5450       | 78.1     | -1.07     | 3.43       | 1.28       |
| 5500       | 72.59    | -1.39     | 3.32       | 1.17       |
| 5550       | 73.97    | -1.31     | 3.39       | 1.24       |
| 5600       | 70.66    | -1.51     | 2.85       | 0.7        |
| 5650       | 71.71    | -1.44     | 2.95       | 0.8        |
| 5700       | 72.37    | -1.4      | 3.13       | 0.98       |
| 5750       | 72.81    | -1.38     | 3.16       | 1.01       |
| 5800       | 64.81    | -1.88     | 2.83       | 0.68       |
| 5850       | 62.47    | -2.04     | 2.62       | 0.47       |

# Patten

**5150.000MHz****5150.000MHz H****5150.000MHz E1****5150.000MHz E2****5500.000MHz****5500.000MHz H**

**5500.000MHz E1****5500.000MHz E2****5850.000MHz****5850.000MHz H****5850.000MHz E2****5850.000MHz E1**

## Antenna picture:

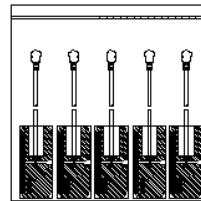


## Product packaging specification

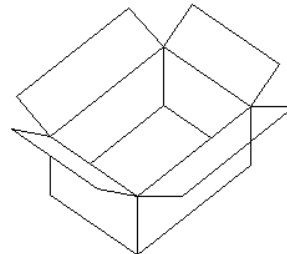
|               |                                          |
|---------------|------------------------------------------|
| Product name: | External antenna                         |
| Description:  | Except for customer special requirements |
| version :     | V0                                    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



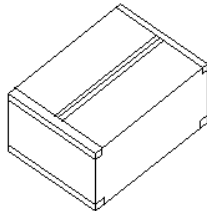
1. Antenna finished product



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.