



东莞市超威电子有限公司
Chaowei Electronics CO.,LTD

规格书

客 户：
品 名：2.4/5.8G WIFI Antenna
料 号：CW-TG2458G48-113IPEX120B
客户料号：
送样日期：2023.07.25

| 客户确认 | | | 供应厂商 | |
|------|-----|-----|-----------------------|-----|
| 工程部 | 品保部 | 采购部 | 核准 | 送样人 |
| | | | 赵 2023.07.25 亚军 | 梁泳婷 |

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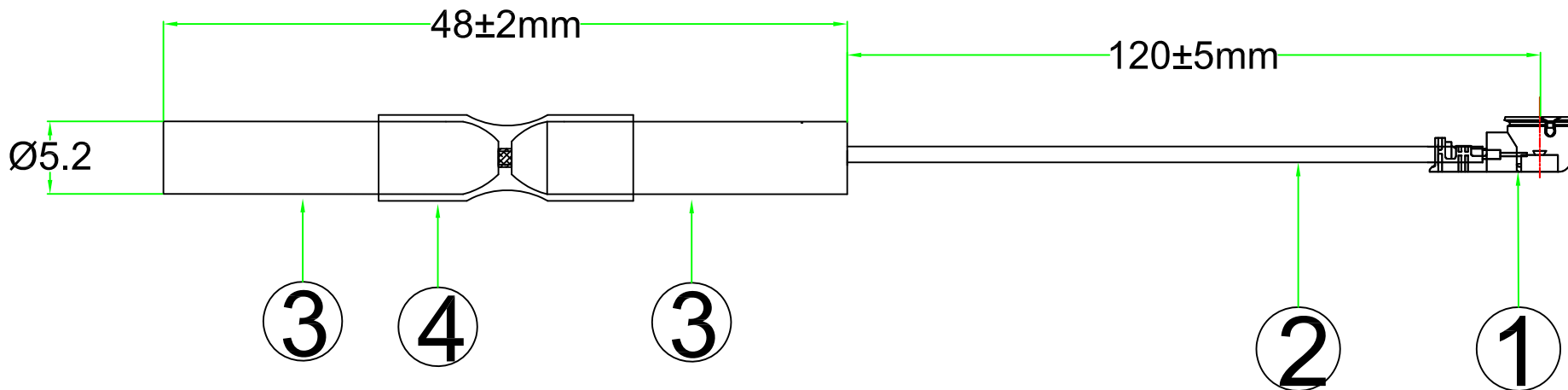
E-mail:zhaojack1@163.com

http://chaowei2000.1688.com

RoHS

Compatible

| SIGN | DATE | DESCRIPTION | APPROVER |
|------|------|-------------|----------|
| △ | | | |
| △ | | | |
| △ | | | |



东莞市超威电子有限公司

| | | | |
|------|--------------------------|--|--|
| 产品名称 | 2.4/5.8G WIFI Antenna | | |
| 产品料号 | CW-TG2458G48-113IPEX120B | | |

| | | | | |
|------|------|----|----|--|
| 缩放比例 | NONE | 单位 | MM | |
|------|------|----|----|--|

| | | | | |
|-----|-----|-----|--|------|
| 核准人 | 审核人 | 制图人 | 尺寸公差 | REV. |
| | | | x. ±1.0 x.x ±0.5 x.xx ±0.1 x° ±1° | A |

| | | | | |
|----|--------------|------------------------|-------------------|------|
| 4 | CW-RSTG-01 | Heat shrinkable casing | Ø3*L30mm | 1 |
| 3 | CW-TG24-5.2T | Copper pipe | Brass Tin plating | 2 |
| 2 | CW-XC-113-B | Coaxial Cable 1.13 | OD:1.13MM Black | 1 |
| 1 | CW-IPEX-01 | i-pex-l | CU Gold plating | 1 |
| NO | Part Number | Name | Material | Qt'y |

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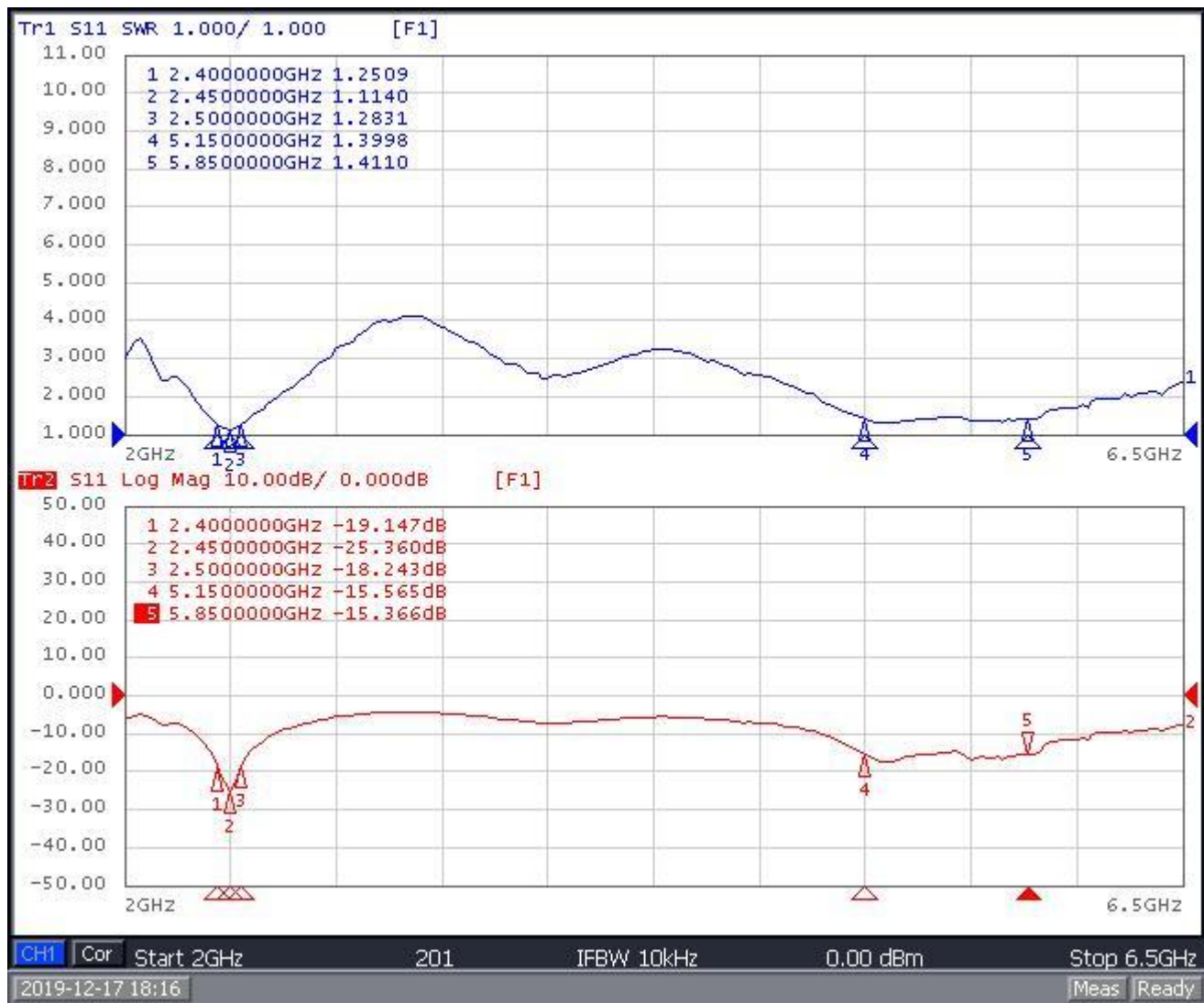
1. Reliability Testing

| 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 < ±5% |
| 3. Damp Heat | 24 hours at 60°C; 90 ~ 95% RH | After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < ±5% |
| 4. Endurance | 24 hours at 80°C | After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < ±5% |
| 5. Connector Pull Strength Test | >= 1.0 Kg | Hold 2~3S: 1. no visible damage 2. bandwidth tolerance < ±5% |

2. Specification

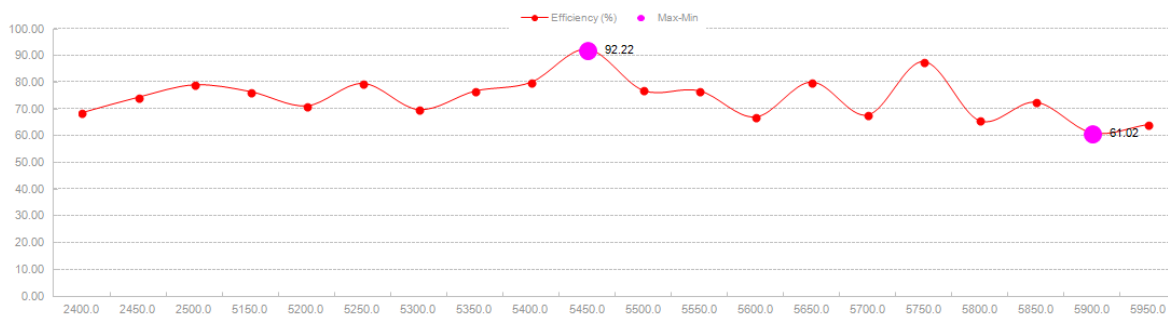
| GPS Antenna | |
|----------------------------|--|
| 4G Antenna | |
| Working Frequency | 2.4G(2400-2500MHz) 5G(5150-5850MHz) |
| VS.W.R | <2.0 |
| Gain | 4dBi |
| Polarization | Vertical |
| Impedance | 50 Ohm |
| Material of Plastic | Brass |
| Connector Type | I-PEX |

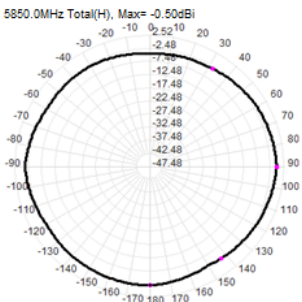
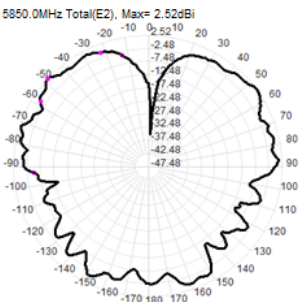
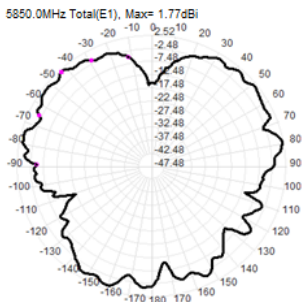
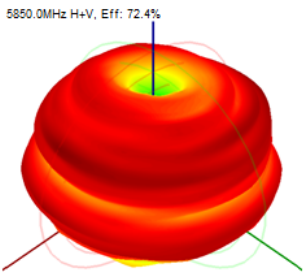
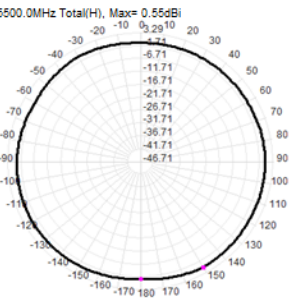
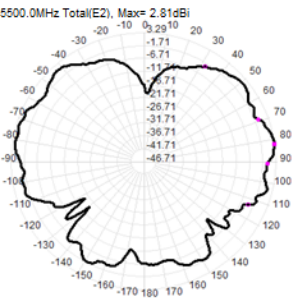
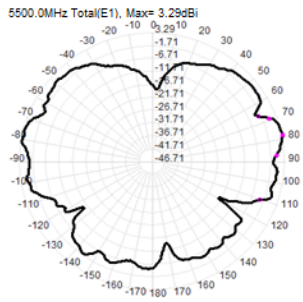
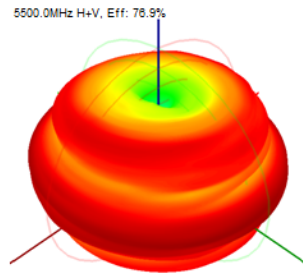
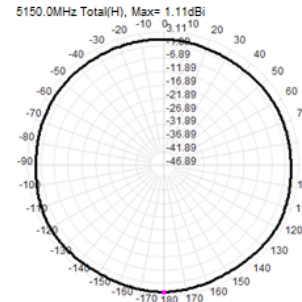
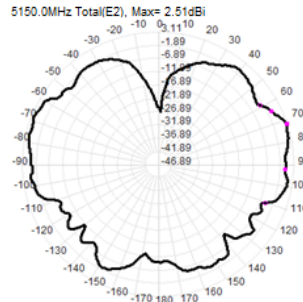
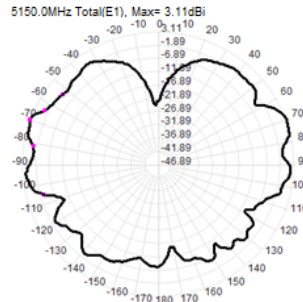
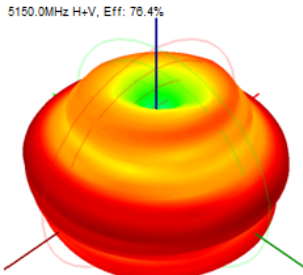
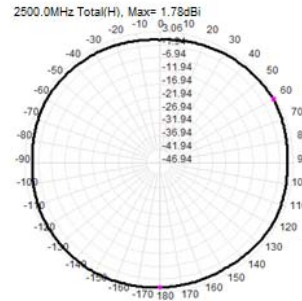
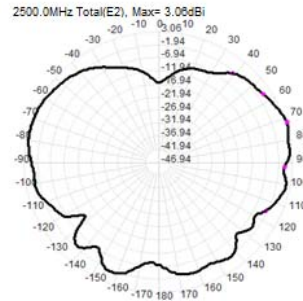
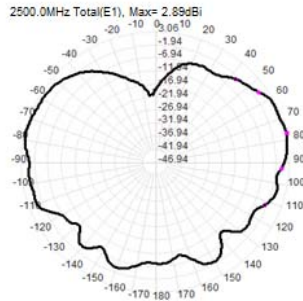
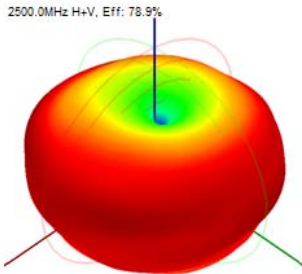
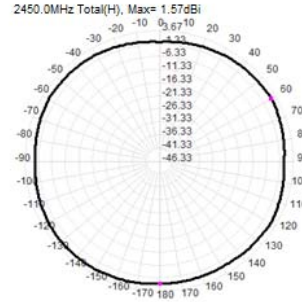
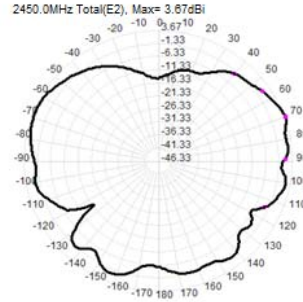
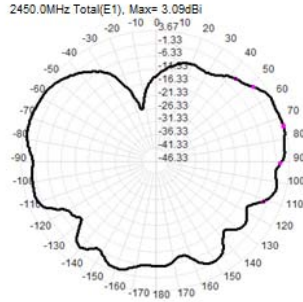
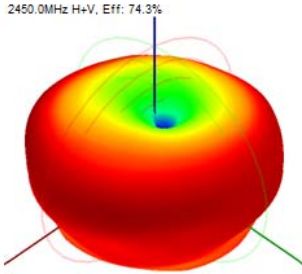
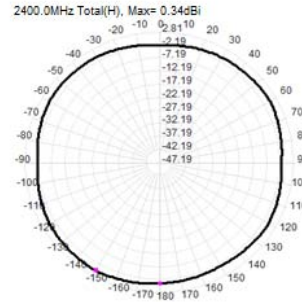
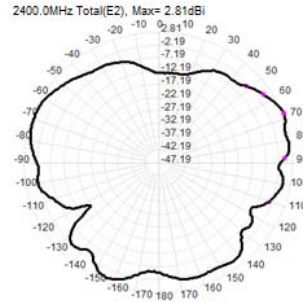
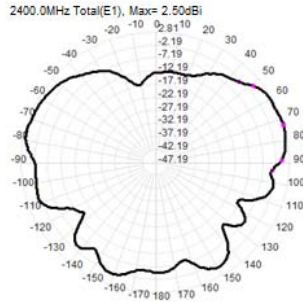
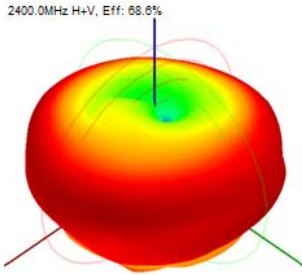
3. S.W.R. Testing Result



4. Antenna Radiation Pattern

| Frequency ID | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Frequency (MHz) | 2400.0 | 2450.0 | 2500.0 | 5150.0 | 5200.0 | 5250.0 | 5300.0 | 5350.0 | 5400.0 | 5450.0 | 5500.0 | 5550.0 | 5600.0 | 5650.0 | 5700.0 | 5750.0 | 5800.0 | 5850.0 | 5900.0 | 5950.0 |
| Efficiency (dBi) | -1.64 | -1.29 | -1.03 | -1.17 | -1.48 | -1.00 | -1.57 | -1.16 | -0.98 | -0.35 | -1.14 | -1.15 | -1.74 | -0.97 | -1.70 | -0.57 | -1.84 | -1.40 | -2.15 | -1.93 |
| Gain (dBi) | 2.81 | 3.67 | 3.06 | 3.11 | 2.43 | 3.13 | 2.93 | 2.54 | 3.29 | 3.88 | 3.34 | 2.75 | 1.99 | 3.28 | 2.46 | 3.42 | 2.26 | 2.52 | 2.20 | 3.11 |
| Efficiency (%) | 68.56 | 74.33 | 78.94 | 76.39 | 71.09 | 79.46 | 69.68 | 76.58 | 79.88 | 92.22 | 76.86 | 76.72 | 66.93 | 79.98 | 67.67 | 87.64 | 65.53 | 72.45 | 61.02 | 64.10 |
| Directivity (dB) | 4.45 | 4.96 | 4.09 | 4.27 | 3.91 | 4.13 | 4.50 | 3.70 | 4.27 | 4.23 | 4.48 | 3.90 | 3.73 | 4.25 | 4.15 | 3.99 | 4.09 | 3.92 | 4.34 | 5.04 |
| Peak Gain Position (Theta) | 112.00 | 110.00 | 108.00 | 110.00 | 110.00 | 107.00 | 108.00 | 107.00 | 104.00 | 106.00 | 101.00 | 106.00 | 106.00 | 104.00 | 105.00 | 102.00 | 102.00 | 132.00 | 22.00 | 22.00 |
| Peak Gain Position (Phi) | 90.00 | 90.00 | 90.00 | 180.00 | 180.00 | 360.00 | 180.00 | 180.00 | 360.00 | 180.00 | 30.00 | 360.00 | 300.00 | 360.00 | 300.00 | 360.00 | 360.00 | 270.00 | 150.00 | 150.00 |
| Efficiency ThetaPol (%) | 61.18 | 68.55 | 74.54 | 74.58 | 69.57 | 77.76 | 68.41 | 74.53 | 77.32 | 89.74 | 74.45 | 74.41 | 64.24 | 76.55 | 64.35 | 82.88 | 61.42 | 68.02 | 56.11 | 59.74 |
| Efficiency PhiPol (%) | 7.38 | 5.78 | 4.40 | 1.81 | 1.52 | 1.70 | 1.27 | 2.05 | 2.56 | 2.47 | 2.41 | 2.32 | 2.68 | 3.43 | 3.32 | 4.76 | 4.11 | 4.42 | 4.91 | 4.37 |
| Upper Hem. Efficiency (%) | 21.64 | 24.49 | 26.29 | 25.48 | 24.47 | 27.30 | 24.25 | 26.76 | 26.77 | 29.11 | 22.88 | 21.76 | 17.93 | 19.79 | 16.68 | 19.96 | 14.62 | 16.70 | 14.27 | 16.58 |
| Lower Hem. Efficiency (%) | 46.92 | 49.84 | 52.65 | 50.92 | 46.62 | 52.15 | 45.42 | 49.82 | 53.12 | 63.10 | 53.97 | 54.96 | 48.99 | 60.19 | 50.99 | 67.68 | 50.91 | 55.74 | 46.75 | 47.52 |
| Eff 15deg (dBi) | | | | | | | | | | | | | | | | | | | | |
| Gain 15deg (dBi) | | | | | | | | | | | | | | | | | | | | |
| Eff 15deg (%) | | | | | | | | | | | | | | | | | | | | |
| Eff 30deg (dBi) | | | | | | | | | | | | | | | | | | | | |
| Gain 30deg (dBi) | | | | | | | | | | | | | | | | | | | | |
| Eff 30deg (%) | | | | | | | | | | | | | | | | | | | | |
| Empty | | | | | | | | | | | | | | | | | | | | |





5. Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 7x3 x3 m

Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent E5071C

Received Antenna: 0.4 ~ 6.0 GHz for Gain Calibration

Double Ridged Horn Antenna

