

# Antenna SPEC

Customer name: 易斯蒲

Customer project: EASTCOOLER

Part Number: \_\_\_\_\_

B&T P/N: 74300199

Spec. : Built-in antenna-2.4G/5.8G-grey 1.13 tin wire-first  
generation terminal-L=50mm-FPC-35×8.3mm

aled by corporation:

|             |         |          |
|-------------|---------|----------|
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表单编号: B&T-QR-EN-002      版本: B3

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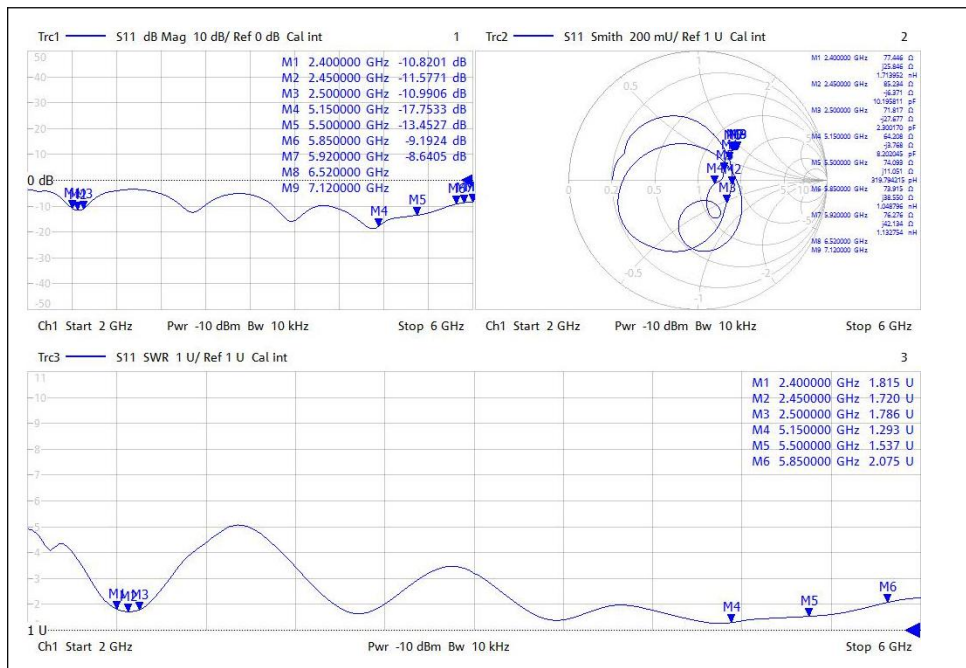
表单编号: B&T-OR-EN-002      版本: B3

#### 4、Properties &parameter

| Electrical Parameter     |                                  |
|--------------------------|----------------------------------|
| Freq Range               | 2400~2500/5150~5850MHz           |
| Characteristic Impedance | 50 $\Omega$                      |
| VSWR                     | Check the engineering seal       |
| The Max input power      | <10w                             |
| Polarization mode        | Polar linearization              |
| Radiation mode           | Omni directional                 |
| Connector style          | IPEX connector                   |
| Mechanics Properties     |                                  |
| Length                   | 50 $\pm$ 3mm                     |
| Maintain the force       | $\geq$ 1kgf                      |
| Coaxial cable            | grey1.13 silver tin wire         |
| Salt spray test          | 24H                              |
| Environment parameter    |                                  |
| Operating Temp           | -30 $^{\circ}$ C~65 $^{\circ}$ C |

## 5、Electrical Performance Test report (complete machine)

### ➤ S11



### ➤ standing wave ratio data

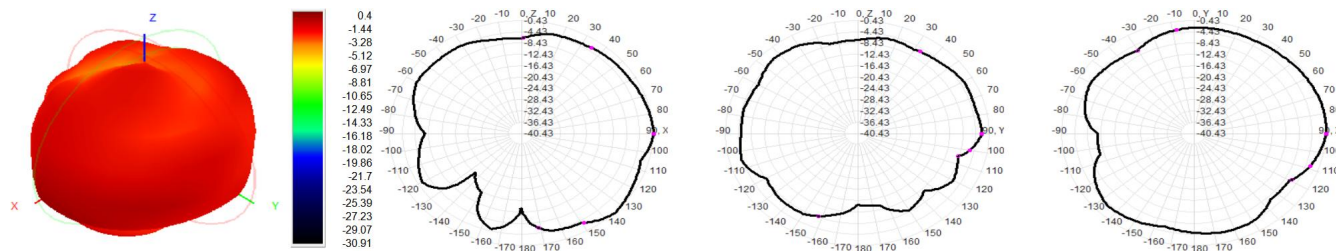
|          |         |         |         |         |         |         |
|----------|---------|---------|---------|---------|---------|---------|
| Freq/MHz | 2400MHz | 2450MHz | 2500MHz | 5150MHz | 5500MHz | 5850MHz |
| VSWR     | 1.81    | 1.72    | 1.78    | 1.29    | 1.53    | 2.07    |

### ➤ antenna darkroom test data

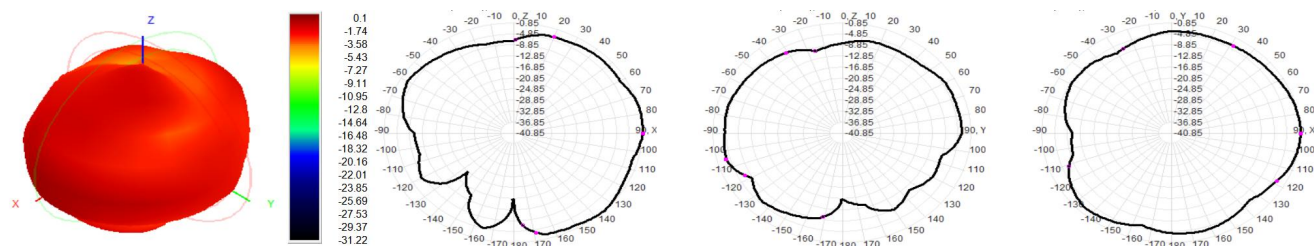
| Frequency (MHz) | Efficiency (dBi) | Gain (dBi) | Efficiency (%) |
|-----------------|------------------|------------|----------------|
| 2400.0          | -4.68            | 0.40       | 34.02          |
| 2410.0          | -4.79            | 0.12       | 33.18          |
| 2420.0          | -4.62            | 0.27       | 34.47          |
| 2430.0          | -4.77            | 0.23       | 33.36          |
| 2440.0          | -4.87            | 0.09       | 32.58          |
| 2450.0          | -4.78            | 0.10       | 33.26          |
| 2460.0          | -4.86            | -0.04      | 32.70          |
| 2470.0          | -4.88            | -0.16      | 32.52          |
| 2480.0          | -4.85            | -0.16      | 32.70          |
| 2490.0          | -4.64            | 0.02       | 34.38          |
| 2500.0          | -4.65            | 0.02       | 34.28          |
| 5150.0          | -2.94            | 2.12       | 50.82          |
| 5200.0          | -2.77            | 1.99       | 52.79          |
| 5250.0          | -3.26            | 0.34       | 47.16          |
| 5300.0          | -2.99            | 2.40       | 50.25          |
| 5350.0          | -2.83            | 2.72       | 52.16          |
| 5400.0          | -3.74            | 1.74       | 42.22          |
| 5450.0          | -3.43            | 2.15       | 45.40          |
| 5500.0          | -2.11            | 4.23       | 61.52          |
| 5550.0          | -3.42            | 2.50       | 45.49          |
| 5600.0          | -3.33            | 3.29       | 46.46          |
| 5650.0          | -2.35            | 4.20       | 58.27          |
| 5700.0          | -2.76            | 3.24       | 53.00          |
| 5750.0          | -2.84            | 2.83       | 51.97          |
| 5800.0          | -3.24            | 2.34       | 47.47          |
| 5850.0          | -2.07            | 5.27       | 62.07          |

# ➤ antenna direction diagram

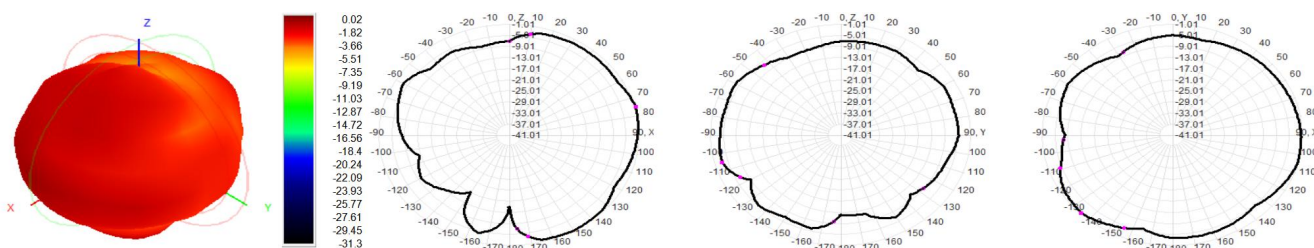
2400MHz 3D-E1-E2-H



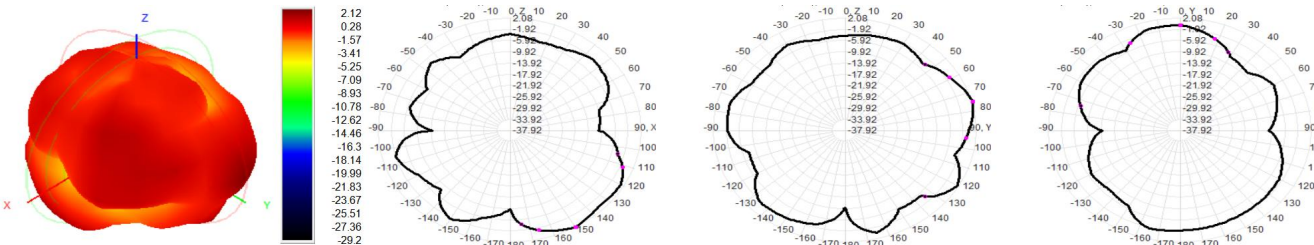
2450MHz 3D-E1-E2-H



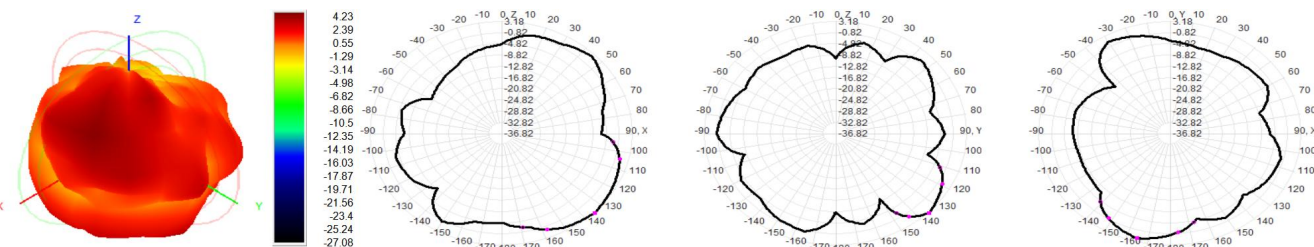
2500MHz 3D-E1-E2-H



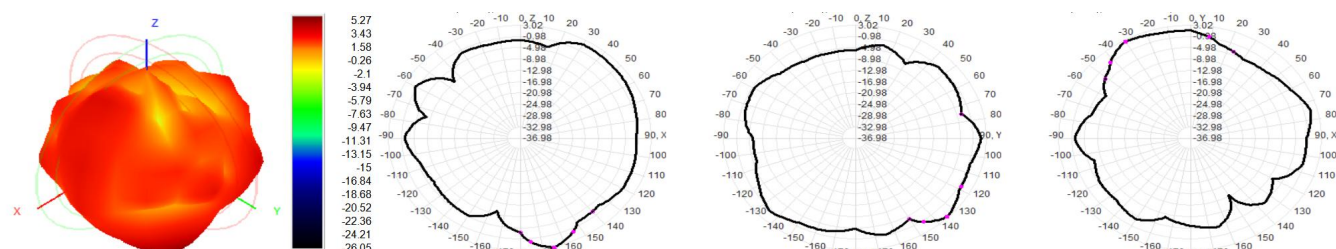
5150MHz 3D-E1-E2-H



5500MHz 3D-E1-E2-H



5850MHz 3D-E1-E2-H



## 6、List of Material Composition and Hazardous Substances

| Item | Specific<br>ation | Texture<br>of<br>material<br>l | ROHS Test Results (PPM) |    |    |      |     |      | ICP test number    | Test time  |
|------|-------------------|--------------------------------|-------------------------|----|----|------|-----|------|--------------------|------------|
|      |                   |                                | Cd                      | Pb | Hg | Cr+6 | PBB | PBDE |                    |            |
| 1    | wire              | FEP                            | ND                      | ND | ND | ND   | ND  | ND   | NGBPC24000131241   | 2024/1/16  |
|      |                   | Tinned<br>wire                 | ND                      | ND | ND | ND   | ND  | ND   | A2240376995101001  | 2024/7/1   |
| 2    | Terminal          | PBT                            | ND                      | ND | ND | ND   | ND  | ND   | A2240126395101004E | 2024/3/16  |
|      |                   | Phospho<br>r Bronze            | ND                      | 6  | ND | ND   | ND  | ND   | CANEC24000977301   | 2024/1/22  |
| 3    | FPC               | PI                             | ND                      | ND | ND | ND   | ND  | ND   | SHAEC24000428805   | 2024/1/12  |
|      |                   | Tape                           | ND                      | ND | ND | ND   | ND  | ND   | SHAEC23021627701   | 2023/12/27 |

## PACKING CRITERION

P/N: 74300199

Spec.: Built-in antenna-2.4G/5.8G-grey 1.13 tin wire-first generation terminal-L=50mm-FPC-35×8.3mm

一、contents of label(according to the customer's name, refer to the corresponding finished product label production requirements. If there is no requirement, it will follow the ordinary label requirements.)

Label for PE bag/ carton, L:10cm;W:6cm

|              |                                                  |                      |          |
|--------------|--------------------------------------------------|----------------------|----------|
| buyer        | *****                                            |                      |          |
| vender       | Zhongshan B&T Communication Technology Co., Ltd. |                      |          |
|              | Sichuan B&T Communication Technology Co., Ltd.   |                      |          |
| Purchase No  | *****                                            |                      |          |
| Material No. | *****                                            |                      |          |
| Part name    | *****                                            | QC                   | **       |
| Q'ty/Unit    | *****                                            | Manufacture date     | ****.*.* |
| Trace code   | *****                                            | Running water number | *****    |

Label for PE bag/ carton, L:10cm;W:6cm

|              |                                                  |                      |          |
|--------------|--------------------------------------------------|----------------------|----------|
| buyer        | *****                                            |                      |          |
| vender       | Zhongshan B&T Communication Technology Co., Ltd. |                      |          |
|              | Sichuan B&T Communication Technology Co., Ltd.   |                      |          |
| Purchase No  | *****                                            |                      |          |
| Material No. | *****                                            |                      |          |
| Part name    | *****                                            | QC                   | **       |
| Q'ty/Unit    | *****                                            | Manufacture date     | ****.*.* |
| Trace code   | *****                                            | Running water number | *****    |

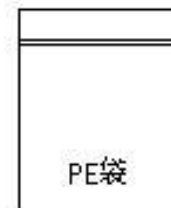
### 二、Packing requirement

Operating description:

#### 1. inner packing:

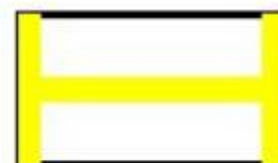
50 PCS/ small bag,

200 PCS/ big bag

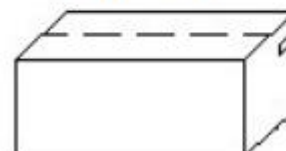


#### 2. outer packing:

Quantity according to actual packing PCS/carton



Carton



Notice:

## 8、Antenna installation diagram



## 9、Antenna test darkroom placement

| No. | Reliability test name                       | Test conditions                                                                                                                                                                                                                                                                                                      | Judgment criteria                                                                                                                                                                                                                                                                                                      |
|-----|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Constant temperature and humidity test      | <p>High temperature: 70°C,<br/>Humidity: 80%RH 24H;<br/>low temperature: -40°C 24H;<br/>total duration: 48H;</p>                                                                                                                                                                                                     | <p>Appearance requirements before and after the test: The metal surface coating should be free of peeling, cracks, wrinkles, separation, etc.</p> <p>The non-metallic parts should not change color, crack, deform, degumming or other defects.</p> <p>Electrical performance testing meets standard requirements;</p> |
| 2   | High and low temperature thermal shock test | <p>70°C for 2H, -40°C for 2H, 6 cycles, 24 hours in total;</p>                                                                                                                                                                                                                                                       | <p>Appearance requirements before and after the test: The metal surface coating should be free of peeling, cracks, wrinkles, separation, etc. The non-metallic parts should not change color, crack, deform, degumming or other defects.</p> <p>Electrical performance testing meets standard requirements.</p>        |
| 3   | Salt spray test                             | <p>concentration (5±1)%<br/>NACL solution to ensure that the pH value of the salt solution is neutral (6.5~7.2);<br/>The temperature of the pressure barrel is 47±1°C, the spray pressure is maintained at 1.00±0.1kgf/cm<sup>2</sup>, and the spray volume is 1.0~2.0ml/80cm<sup>2</sup>/h;<br/>Test time: 24H;</p> | <p>There should be no oxidation or rust on the exposed areas of the product surface;</p> <p>Oxidation/rust area after salt spray test in other areas &lt; 1.0%</p>                                                                                                                                                     |

|   |                                               |                                                                                                                                                                      |                                                                                                                                                          |
|---|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | Connector retention test                      | <p>Normal temperature and humidity;</p> <p>Test maintenance requirements: <math>\geq 1.0</math> kgf;</p>                                                             | <p>;</p> <p>There are no loose or loose terminals or cables.</p> <p>After the test, the electrical performance test meets the standard requirements.</p> |
| 5 | Connector insertion and extraction force test | <p>Normal temperature and humidity;</p> <p>The terminal and the seat are connected normally, and the insertion force/pull-out force is <math>\geq 1.0</math>kgf;</p> | <p>The terminal insertion force/extraction force meets the requirements, and the terminals have no defects such as falling off or damage.</p>            |