



中山市博安通通信技术有限公司

ZHONGSHAN B&T TECHNOLOGY Co., Ltd

# 零件规格承认书

Approval Specification

正式 ☒ / 条件 ☐

类型: Type: 2.4 / 5.8G 内置天线

范例 R3 代码: R3 Code: 850294981

范例图号: Part Number: TX-DM150BD113B63M

发行日期 Issued Date: 2024.04.03

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|                                           |                |                             |
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Project :Y202104090061

Date. 2024.04.03

REV: A3

## Antenna SPEC

Customer name: 广东长虹

Customer project: 长虹电视系

Part Number: 850294981

B&T P/N: AG-041533-2214

Spec.: 2.4 / 5.8G Internal antenna(shrapnel 30 × 11 × 5.2)-Black  
line 1.13-terminal, see line length 135mm

### Contact information of B&T:

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**Form no. : B&T- qr-en-002 version: B3**

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### 3、Product drawing

| REV. |  | Revise   | Date             |
|------|--|----------|------------------|
| A0   |  | 22-02-18 |                  |
| A1   |  | 23-9-20  | Update ④ 3M RP45 |

The technical requirements

1: the antenna welding part is firm, and the cable size is accurate; (Cable maintenance force  $\geq 1\text{kgf}$ ).

2: "\*" important dimensions;

3: Packaging and quality standards refer to BAT packaging specifications quality standards respectively;

4: Products must meet the requirements of ROHS;

5: The cup of terminal no orientation requirement .

| Number | Part name                | Material/technology           | Note                              |
|--------|--------------------------|-------------------------------|-----------------------------------|
| ①      | Coaxial line             | Double tin /FFP/Black         |                                   |
| ②      | shrapnel                 | SUS304 T=0.30mm               |                                   |
| ③      | Support foam tape        | EVA                           |                                   |
| ④      | Fixed foam tape          | foam/3M RP45                  |                                   |
| ⑤      | sleeve                   | Heat shrinkable sleeve        |                                   |
| ⑥      | generation 1 RF terminal | Phosphor bronze (gold-plated) | gold-plated (thickness 10 $\mu$ ) |

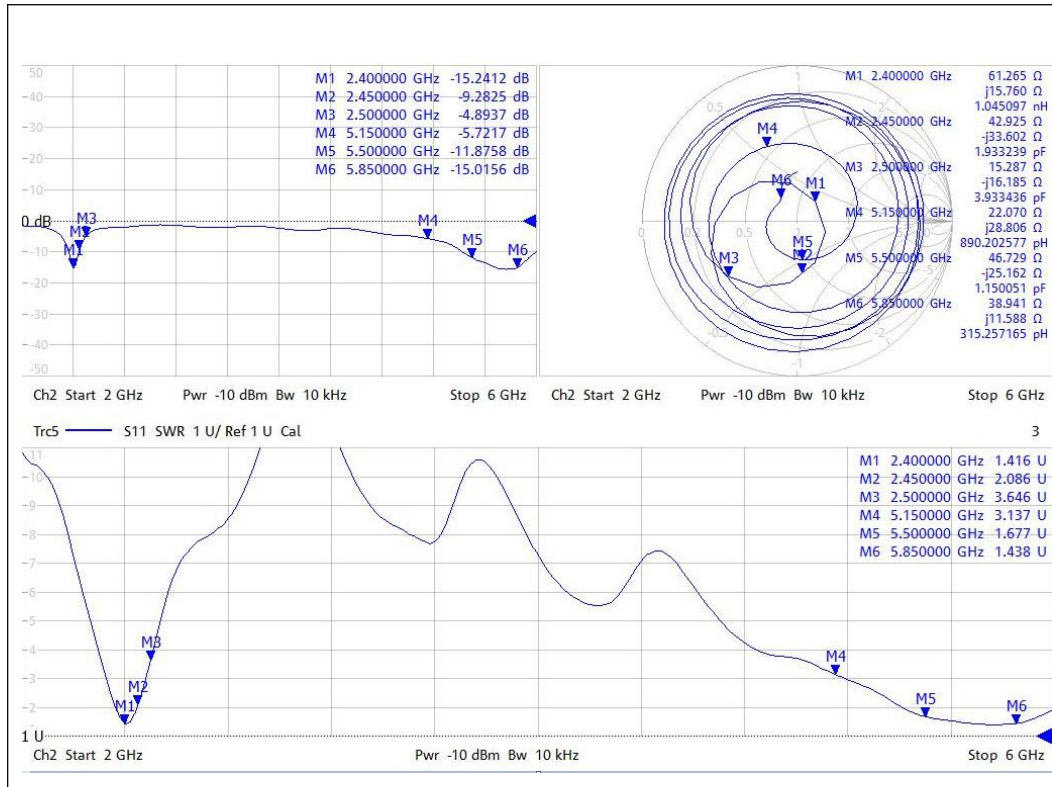
| Name                                                                                            |  | Unit                                       |                |
|-------------------------------------------------------------------------------------------------|--|--------------------------------------------|----------------|
| 2.4 / 5.86 Internal antenna(shrapnel 30×11×5.2)-Black line 1.13-terminal, see line length 135mm |  | Project No.                                | Y202104090061  |
|                                                                                                 |  | Part No.                                   | AG-041533-2214 |
|                                                                                                 |  | Weight                                     | 1 : 1          |
|                                                                                                 |  | Quantity                                   | 1 : 1          |
|                                                                                                 |  | Scale                                      | 1 : 1          |
|                                                                                                 |  | mm                                         |                |
|                                                                                                 |  | Page 1 of 1                                |                |
|                                                                                                 |  | ZHONGSHAN B&T TECHNOLOGY HOLDINGS Co.,.Ltd |                |

#### 4、Properties & parameter

| Electrical Parameter     |      |                                                                            |
|--------------------------|------|----------------------------------------------------------------------------|
| Freq Range               |      | 2400~2500MHz/5150-5850MHz                                                  |
| Characteristic Impedance |      | 50 $\Omega$                                                                |
| VSWR                     |      | sample of reference project                                                |
| Max gain                 | 2.4G | 1.46dBi                                                                    |
|                          | 5.8G | 2.81dBi                                                                    |
| The Max input power      |      | <10w                                                                       |
| Polarization mode        |      | Polar linearization                                                        |
| Radiation mode           |      | Omni directional                                                           |
| Antenna Type             |      | PIFA                                                                       |
| Connector style          |      | IPEX terminal                                                              |
| Mechanics Properties     |      |                                                                            |
| Length                   |      | See line length $135 \pm 3\text{mm}$ /Bus line length $150 \pm 3\text{mm}$ |
| Maintain the force       |      | $\geq 1\text{Kgf}$                                                         |
| Coaxial cable            |      | Black 1.13 double tin wire                                                 |
| Salt spray test          |      | 24H                                                                        |
| Environment parameter    |      |                                                                            |
| Operating Temp           |      | $-30^{\circ}\text{C} \sim 65^{\circ}\text{C}$                              |

## 5、Electrical test report

### S11 Parameter



Electrical Performance Test Parameter Table

| Freq/MHz | 2400MHz | 2450MHz | 2500MHz | 5150MHz | 5550MHz | 5850MHz |
|----------|---------|---------|---------|---------|---------|---------|
| VSWR     | 1.41    | 2.08    | 3.64    | 3.13    | 1.67    | 1.43    |

### Efficiency&Gain

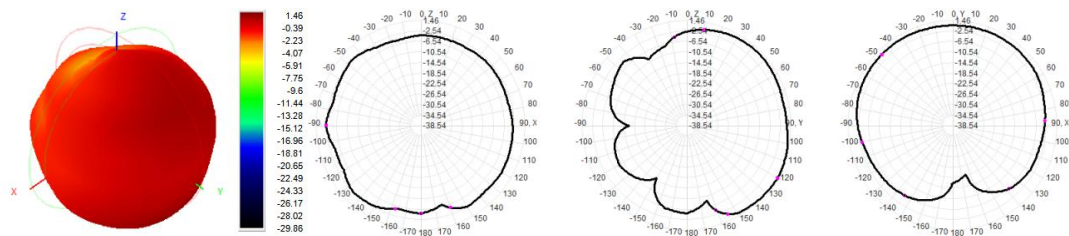
| Frequency (MHz) | Efficiency (dBi) | Gain (dBi) | Efficiency (%) |
|-----------------|------------------|------------|----------------|
| 2400.0          | -2.74            | 1.46       | 53.19          |
| 2410.0          | -2.72            | 1.26       | 53.49          |
| 2420.0          | -2.73            | 1.09       | 53.32          |
| 2430.0          | -2.82            | 0.87       | 52.19          |
| 2440.0          | -3.04            | 0.65       | 49.67          |
| 2450.0          | -3.20            | 0.44       | 47.83          |
| 2460.0          | -3.46            | 0.16       | 45.11          |
| 2470.0          | -3.69            | -0.05      | 42.80          |
| 2480.0          | -3.91            | -0.25      | 40.63          |
| 2490.0          | -4.24            | -0.56      | 37.64          |
| 2500.0          | -4.51            | -0.78      | 35.37          |

| Frequency (MHz) | Efficiency (dBi) | Gain (dBi) | Efficiency (%) |
|-----------------|------------------|------------|----------------|
| 5150.0          | -6.55            | -0.87      | 22.15          |
| 5250.0          | -5.77            | 0.20       | 26.49          |
| 5350.0          | -4.68            | 1.53       | 34.03          |
| 5450.0          | -3.73            | 2.47       | 42.36          |
| 5550.0          | -3.11            | 2.78       | 48.81          |
| 5650.0          | -3.01            | 2.64       | 50.04          |
| 5750.0          | -3.18            | 2.81       | 48.07          |
| 5850.0          | -2.95            | 2.74       | 50.72          |

## Radiation pattern

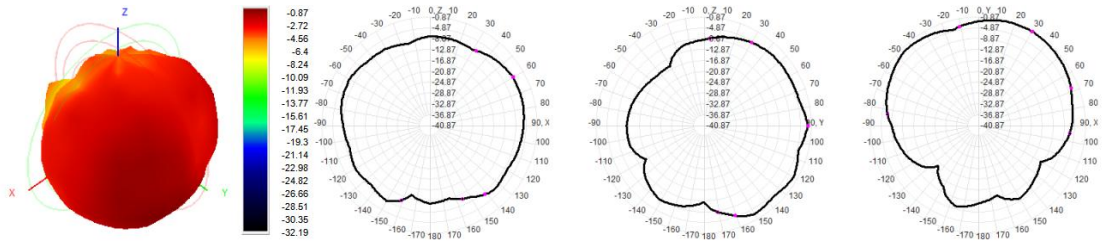
ANT-2.4G-1-2D-3D

2400MHz



# ANT-5.8G-1-2D-3D

5150MHz



## PACKING CRITERION

P/N: AG-041533-2214

Spec.: 2.4 / 5.8G Internal antenna(shrapnel  $30 \times 11 \times 5.2$ )-Black line 1.13-terminal, see line length 135mm



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Packing requirement

## 7、 Antenna photo

