

## 天 线 规 格 书

### Antenna specification for approval

customer name:爱笙电子

Type:

Antenna type:BT ANT

Antenna frequency band:2.4G

Antenna part:V16-3G2010-000-A

Date:2024-09-24

Version: A

承 认 签 章

Admit that signature

| 云 希 承 认<br>Confirmation Signature |  | 客 户 承 认<br>Customer Approved |  |
|-----------------------------------|--|------------------------------|--|
|                                   |  |                              |  |
| 承 办 人<br>Responsible              |  | 承 办 人<br>Responsible         |  |
| 品质 QC                             |  | 主管 Chief                     |  |
| 核准 Approve                        |  | 核准 Approve                   |  |
| 日 期 Date                          |  | 日 期 Date                     |  |

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## 一: Summary

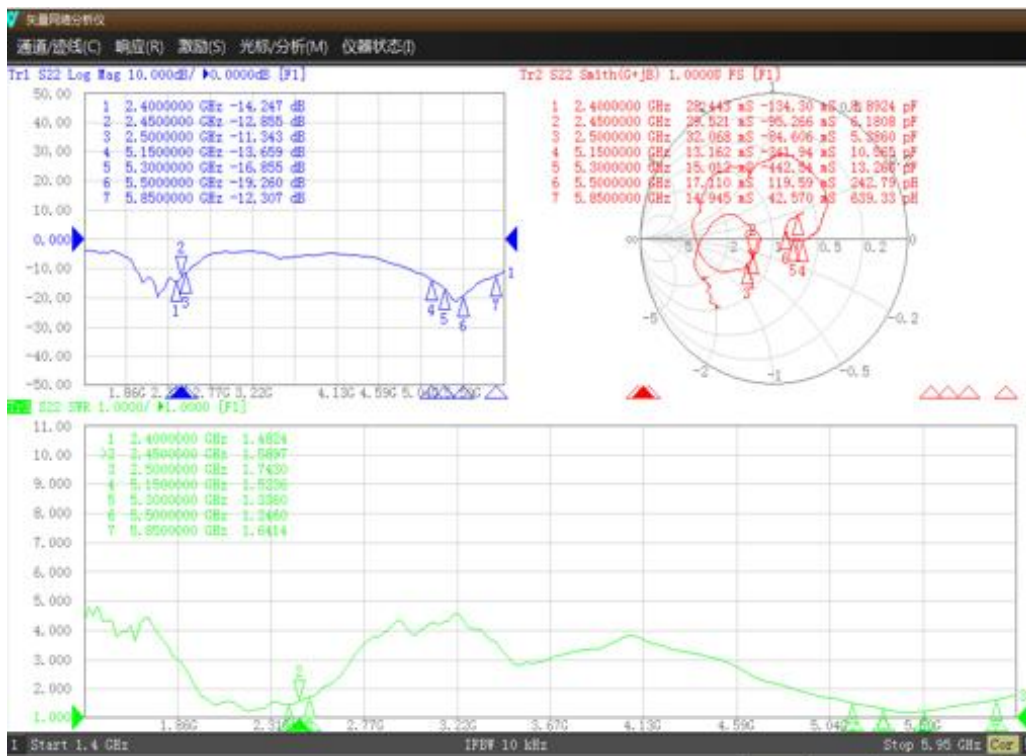
- This approval sheet supports for BT antennas project. This report is for the performance of BT antenna.
- Antenna shape size: Meet the requirement of BT antennas
- Antenna band: 2400MHz~2500MHz
- Antenna material: Antenna material meet the requirement of BT antennas
- Adhesive performance: Adhesive performance meet the requirement of BT antennas
- Antenna performance meet the spec below:

| Description            | 2.4GHz~2.5GHz             | Units |
|------------------------|---------------------------|-------|
| VSWR                   | ≤2.0                      | dB    |
| Average Antenna Gain   | ≥-4.5                     |       |
| Antenna Efficiency     | ≥40                       |       |
|                        |                           |       |
| Feed Impedance         | 50 ohms                   |       |
| Operating Temperature  | -40 to +85 deg C          |       |
| Polarization / Azimuth | Linear / Omni-directional |       |

## ● Mechanical Information

| Mechanical Dimension  |                  |
|-----------------------|------------------|
| Cable Length          | /                |
| Description           | BT antenna       |
| Material              | /                |
| Coaxial Cable         | /                |
| Environmental         |                  |
| Operation Temperature | -40 to +85 deg C |
| Storage Temperature   | -40 to +85 deg C |

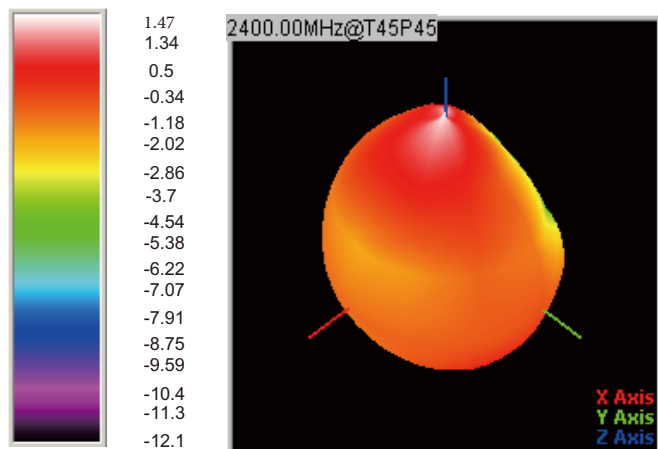
## 二: VSWR



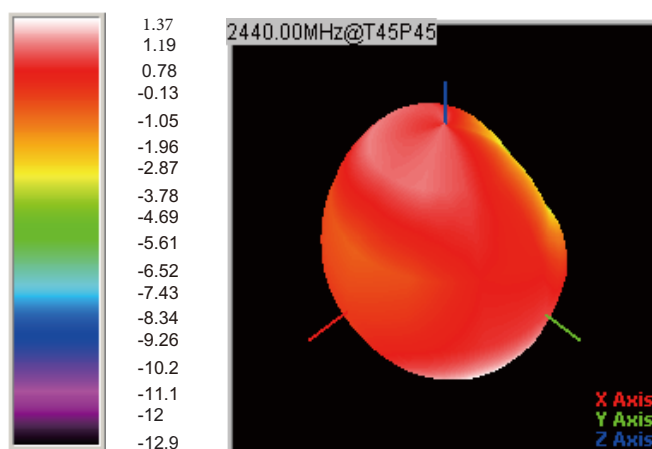
## 三: Efficiency

| Passive Test For WIFI2.4 |          |           |            |            |         |         |          |          |             |             |
|--------------------------|----------|-----------|------------|------------|---------|---------|----------|----------|-------------|-------------|
| Freq (MHz)               | Effi (%) | Effi (dB) | Gain (dBi) | Gain (dBd) | UHS (%) | DHS (%) | Max (dB) | Min (dB) | Attenut Hor | Attenut Ver |
| 2400                     | 51.12    | -2.91     | 1.47       | -0.68      | 21.333  | 29.786  | 1.47     | -9.42    | 48.17       | 48.27       |
| 2410                     | 59.59    | -2.25     | 2.14       | -0.01      | 24.773  | 34.817  | 2.14     | -8.7     | 48.82       | 48.98       |
| 2420                     | 65.16    | -1.54     | 3.17       | 1.02       | 28.782  | 41.373  | 3.17     | -8.02    | 49.21       | 49.73       |
| 2430                     | 50.73    | -2.95     | 1.78       | -0.37      | 20.786  | 29.947  | 1.78     | -9.68    | 47.85       | 48.18       |
| 2440                     | 44.72    | -3.5      | 1.37       | -0.78      | 18.321  | 26.398  | 1.37     | -10.83   | 47.45       | 47.61       |
| 2450                     | 44.21    | -3.55     | 1.24       | -0.91      | 18.196  | 26.01   | 1.24     | -11.39   | 47.52       | 47.61       |
| 2460                     | 64.86    | -1.5      | 3.33       | 1.18       | 29.174  | 41.686  | 3.33     | -9.96    | 49.2        | 49.47       |
| 2470                     | 59.6     | -2.25     | 2.34       | 0.19       | 24.612  | 34.984  | 2.34     | -11.18   | 48.51       | 48.69       |
| 2480                     | 46.95    | -3.28     | 1.25       | -0.9       | 19.383  | 27.564  | 1.25     | -12.21   | 47.62       | 47.62       |
| 2490                     | 46.65    | -3.31     | 1.04       | -1.11      | 19.203  | 27.445  | 1.04     | -11.98   | 47.76       | 47.65       |
| 2500                     | 65.07    | -1.87     | 2.59       | 0.44       | 26.491  | 38.581  | 2.59     | -9.88    | 48.93       | 48.83       |

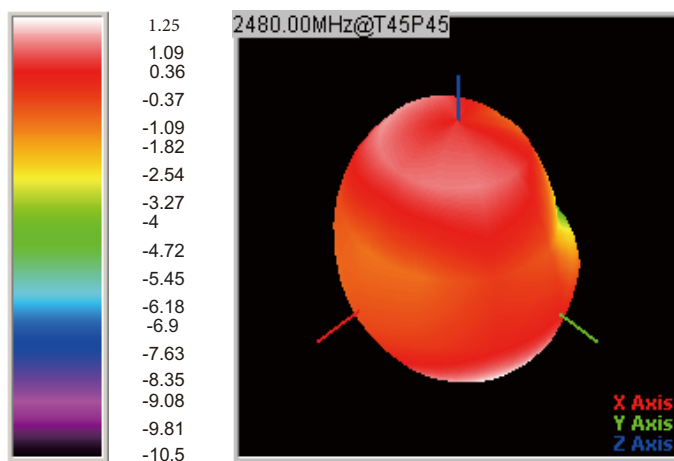
◎ 3D Gain Pattern (2400 MHz)



◎ 3D Gain Pattern (2440 MHz)



◎ 3D Gain Pattern (2480 MHz)



## 四: structural drawings

