



Yusheng Communications-equipment Co.,LTD

# JX-AT-2301T Antenna test report

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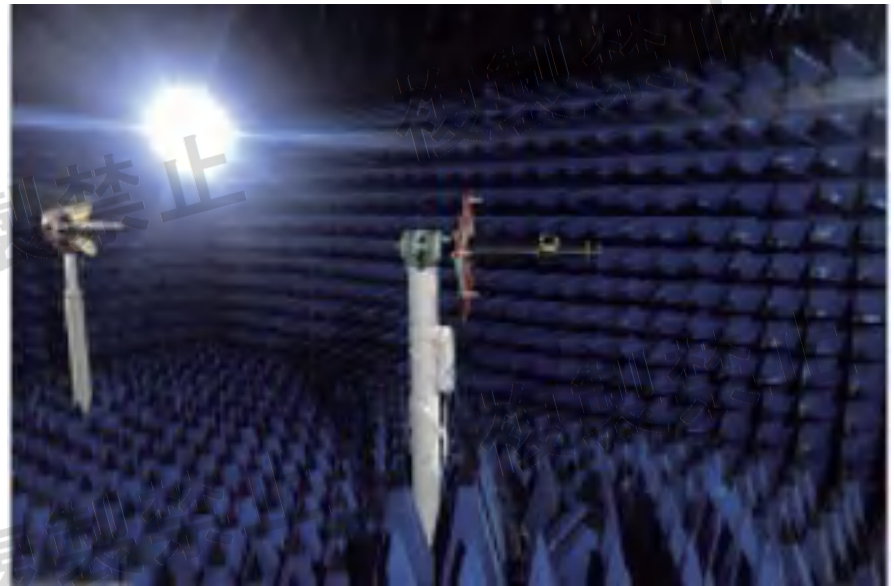




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## Project development environment

We are moving from the Internet era to the intelligent era, and the country is building a digital society and smart city. In the next 5-10 years, there is huge development potential in both the consumer electronics market and the Internet of Things market. The field of wireless communication is very diversified, in the future, Yusheng relies on the customer platform advantages of the antenna main business and its own comprehensive strength, and strives to provide customers with professional product solutions with market competitiveness.



Yusheng Communication's products cover almost all antenna applications of wireless terminal equipment, including automotive antennas, high-precision measurement and mapping antennas, UAV ground and satellite data navigation, high-precision positioning antennas, wireless transmission of medical equipment, consumer antennas (mobile phone antennas, PAD, laptop antennas), base stations/indoor distributed antennas, smart wearable antennas (smart watches, TWS headsets), security home antennas and a variety of wireless data transmission and wireless control smart device antennas.

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## Introduction to project debugging

|                           |                                             |                |          |
|---------------------------|---------------------------------------------|----------------|----------|
| Model                     | AT2301T                                     |                |          |
| Plate type                | PCBA                                        |                |          |
| Band and antenna material |                                             | Frequency band | Material |
|                           | BT                                          | 2.45GHz        | Onboard  |
| Performance requirements  | Executed according to customer requirements |                |          |



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## Outline of the report version

| Report version | Reporting time | The problem solved by the development of this antenna |
|----------------|----------------|-------------------------------------------------------|
| V0.1           | 20240320       | Preliminary commissioning report                      |



Antenna passive parameters-efficiency-1#

| Test Point ID  | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Freq. (MHz)    | 2400.0 | 2410.0 | 2420.0 | 2430.0 | 2440.0 | 2450.0 | 2460.0 | 2470.0 | 2480.0 | 2490.0 | 2500.0 |
| Gain (dBi)     | 0.13   | 0.35   | 0.49   | 0.70   | 0.91   | 1.01   | 1.06   | 0.96   | 0.87   | 0.65   | 0.42   |
| Efficiency (%) | 37.5%  | 38.1%  | 38.7%  | 39.2%  | 39.9%  | 40.4%  | 40.9%  | 40.3%  | 39.8%  | 39.1%  | 38.4%  |



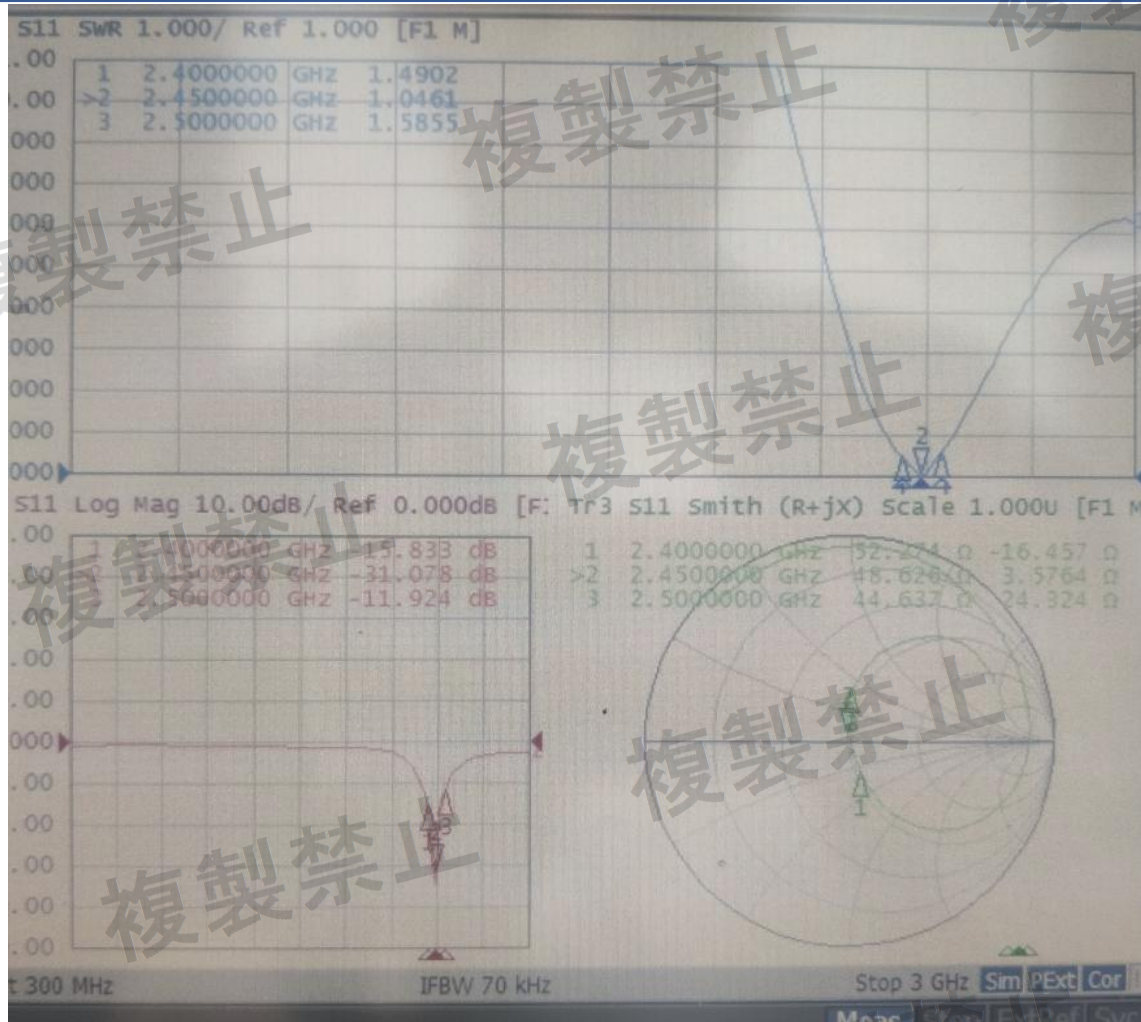
Antenna passive parameters-efficiency-2#

| Test Point ID  | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Freq. (MHz)    | 2400.0 | 2410.0 | 2420.0 | 2430.0 | 2440.0 | 2450.0 | 2460.0 | 2470.0 | 2480.0 | 2490.0 | 2500.0 |
| Gain (dBi)     | 0.17   | 0.38   | 0.52   | 0.74   | 1.02   | 1.13   | 1.04   | 0.92   | 0.53   | 0.40   | 0.33   |
| Efficiency (%) | 38.2%  | 38.8%  | 39.4%  | 39.9%  | 40.5%  | 41.0%  | 40.6%  | 40.0%  | 39.4%  | 38.9%  | 38.3%  |



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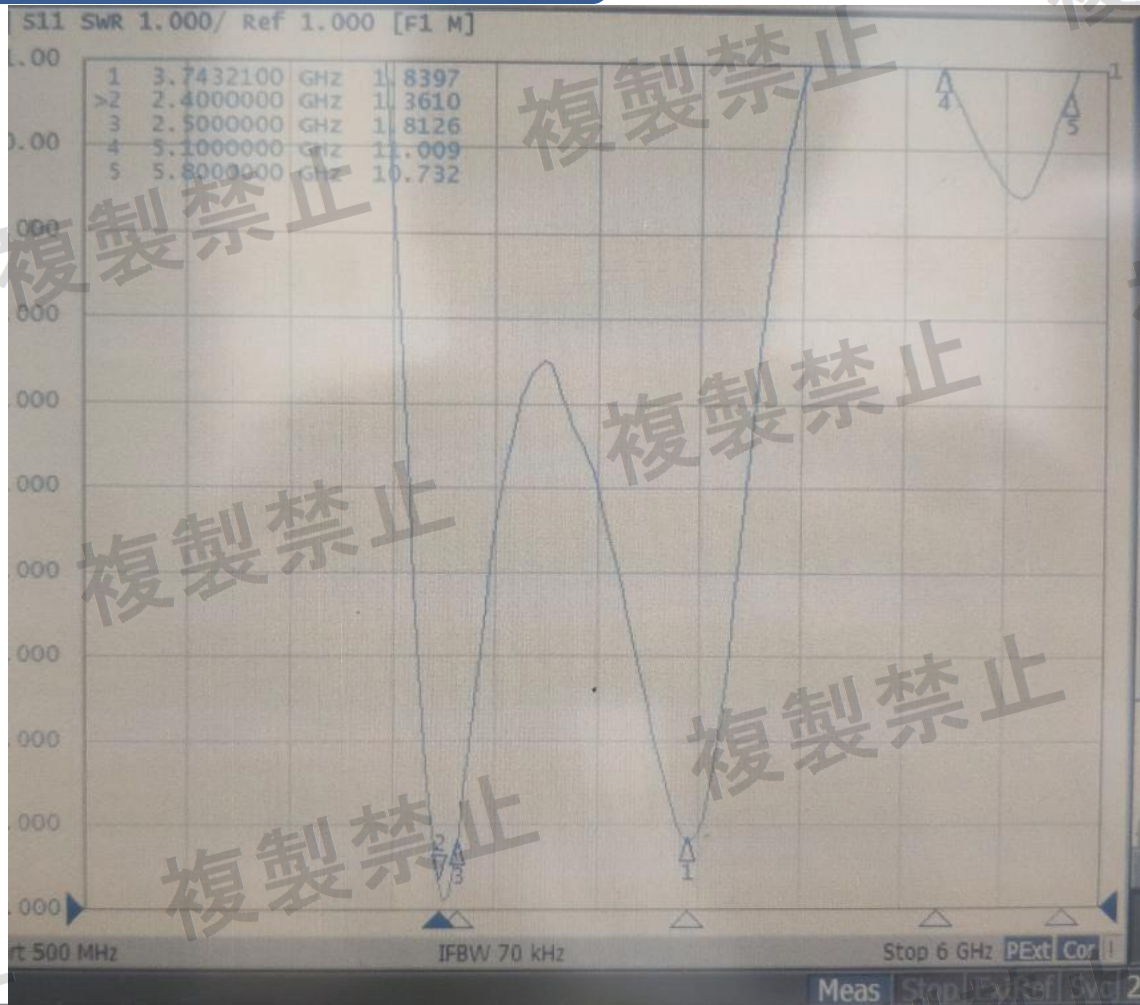
## Antenna passive parameters (Artwork LOGMAG+VSWR+SMITH)



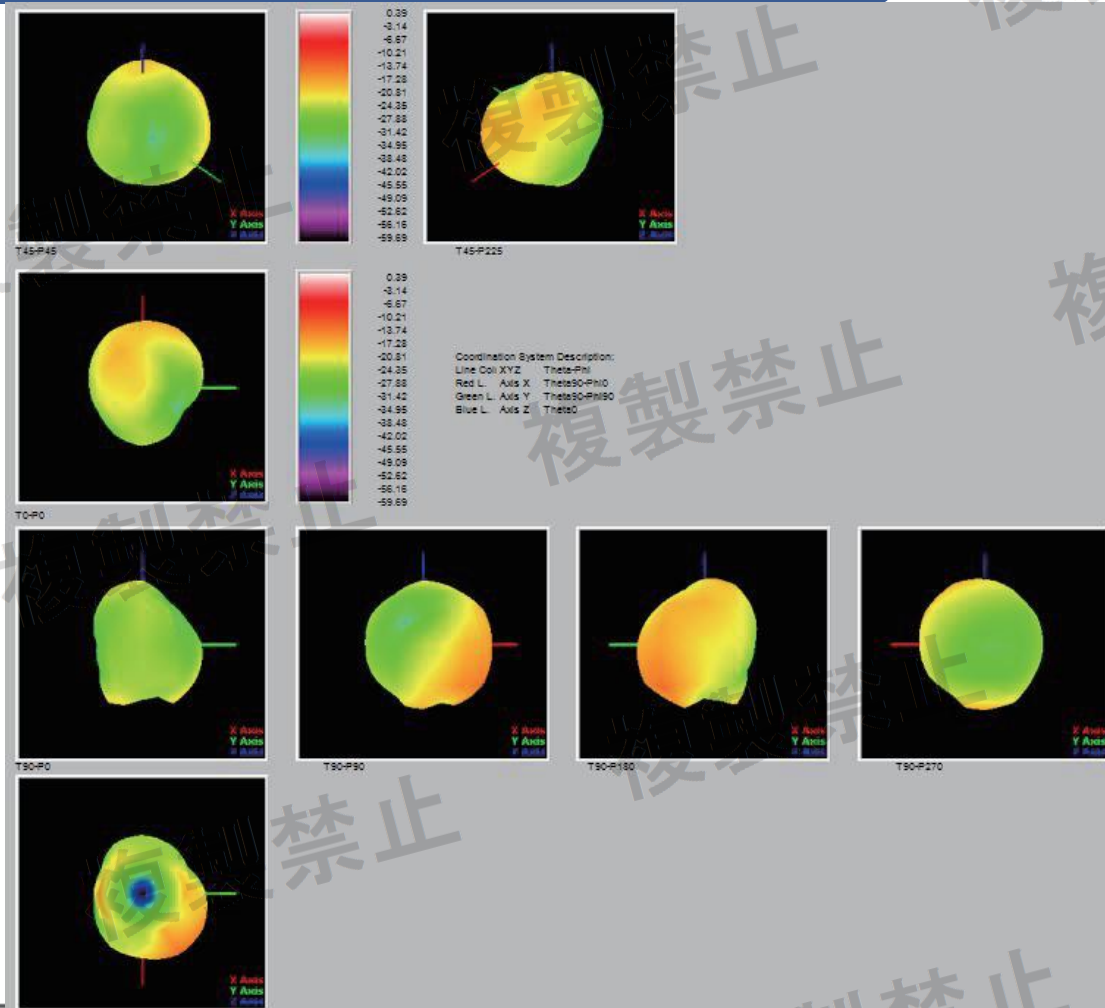


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## Antenna second harmonic (BT)



## Passive vector diagram of the antenna (BT)





*Thank you!*



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