

**Product Number: AN2400-150MHFIPEX**

**Product Name: 2.4GHz 鞭状蓝牙线**

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**1. Specification**

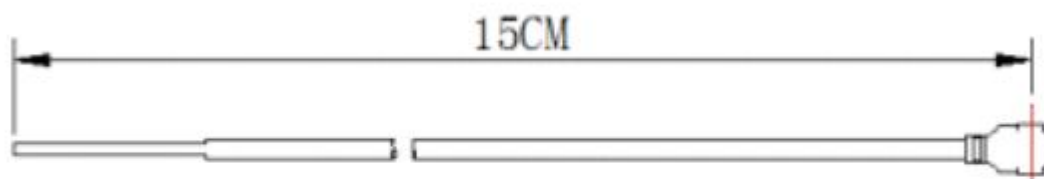
**2. Characteristics and Reliability Test**

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**1. Specification**

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| A. Electrical Characteristics            |                   |
|------------------------------------------|-------------------|
| Frequency (频率范围)                         | 2400 ~ 2500 MHz   |
| S.W.R. (驻波比)                             | $\leq 2.0$        |
| Antenna Gain (增益)                        | 1.5dBi $\pm 0.7$  |
| Polarization (极化方式)                      | Linear            |
| Impedance (阻抗)                           | 50 Ohm            |
| B. Material & Mechanical Characteristics |                   |
| Material of Radiator (辐射材质)              | Cu                |
| Cable Type (线材类型)                        | RG-113 黑色 总长150mm |
| Cable (线材直径)                             | 1.1mm             |
| Connector Type (接口)                      | 1代                |
| C. Environmental                         |                   |
| Operation Temperature                    | - 40 °C ~ + 65 °C |
| Storage Temperature                      | - 40 °C ~ + 80 °C |
| Antenna Color Storage life               | < 2 year          |

## 2. Characteristics and Reliability Test

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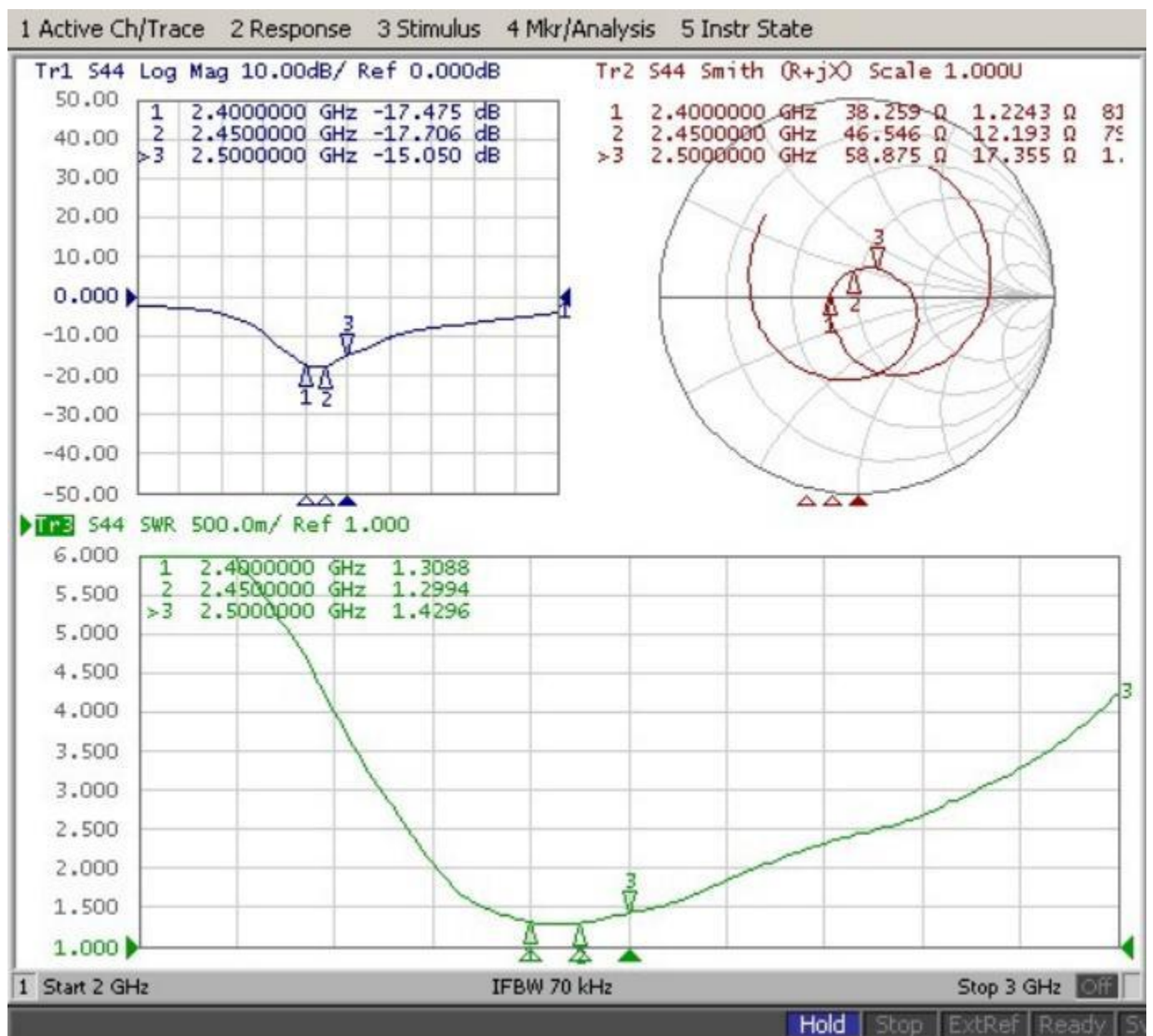
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| Test Items |                      | Test Condition and Procedure                                                                                              | Requirements                                                            |
|------------|----------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| C1         | S.W.R.               | Set DUT on Network Analyzer; make individual calibration to test                                                          | Directive DUT specification                                             |
| C2         | Antenna Gain         | Set DUT on Antenna Chamber; make individual calibration to test                                                           | Directive DUT specification                                             |
| M1         | Vibration            | GB / T2423 . 48-1997<br>Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80 to 20 Hz<br>3 directions; 2 hours for each direction | 1. No Visual Damage<br>2. Frequency Tol.<= 5%                           |
| M2         | Random Drop          | GB / T2423.8-1995<br>Height: 1.0 Meter;<br>3 directions; 1 time for each direction                                        | 1. No parts separated<br>2. Frequency Tol.<= 5%                         |
| M3         | Solderability        | GB 2423 . 28- 82<br>Solder iron: 260±5°C; Duration: 5 seconds                                                             | 1. Mounted on PCB<br>2. No Visual Damage                                |
| M4         | Terminal-Pull Test   | Holding with individual specification; force applied to axis of terminal                                                  | 1. Directive DUT specification<br>2. Frequency Tol.<= 5%                |
| M5         | Terminal-Torque Test | Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal                     | 1. Directive DUT specification<br>2. Frequency Tol.<= 5%                |
| M6         | Dimension            | Inspection of dimension, color, material, package, surface process                                                        | Directive DUT specification                                             |
| E1         | Salt Spray           | GB / T 2423 . 17- 93<br>Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%;<br>Time: 24 hours                                   | After 2 Hours Recovery<br>1. No Visual Damage<br>2. Frequency Tol.<= 5% |
| E2         | Humidity             | GB / T 2423 . 4 - 93<br>Temp: 80°C / 12 H; -40°C / 12H RH: >= 90%;<br>Time: 24 hours                                      | After 2 Hours Recovery<br>1. No Visual Damage<br>2. Frequency Tol.<= 5% |
| E3         | Thermal Shock        | GB / T 2423 . 22 - 87<br>1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes)<br>Cycles: 24                                | After 2 Hours Recovery<br>1. No Visual Damage<br>2. Frequency Tol.<= 5% |
| E4         | Life (High Temp.)    | GB /T 2423 . 2 - 89<br>Temp: 80°C; Time: 24 hours                                                                         | After 2 Hours Recovery<br>1. No Visual Damage<br>2. Frequency Tol.<= 5% |
| R1         | RoHS                 | With Reference to IEC 62321:2008 with flow chart                                                                          | Directive RoHS 2002/95/EC                                               |
| R2         | PFOS                 | With Reference to USA EPA 3540C:1996 by LC/MS                                                                             | Directive RoHS 2006/122/EC                                              |
| R3         | PFOA                 | With Reference to USA EPA 3540C:1996 by LC/MS                                                                             | Directive RoHS 2006/122/EC                                              |

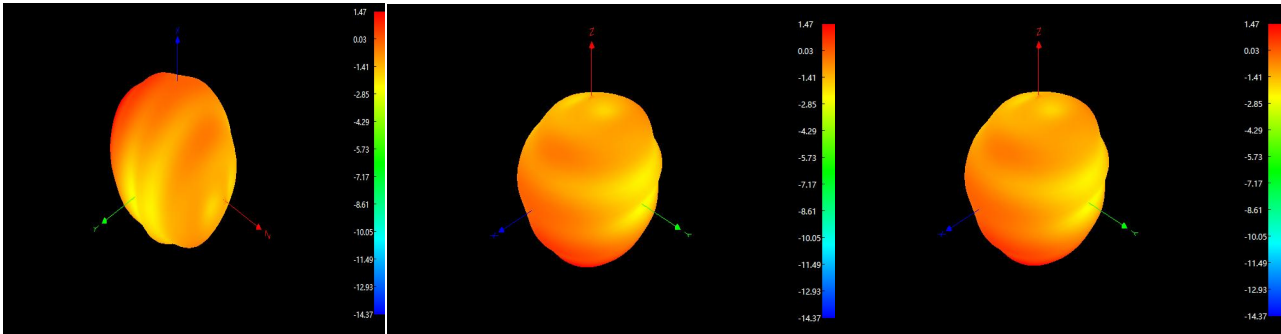
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Efficiency /效率

| Frequency/Mh | Efficiency / % |
|--------------|----------------|
| 2400         | 53.7           |
| 2410         | 51.17          |
| 2420         | 56.89          |
| 2430         | 52.24          |
| 2440         | 56.49          |
| 2450         | 56.89          |
| 2460         | 54.95          |
| 2470         | 60.53          |
| 2480         | 56.75          |
| 2490         | 61.38          |
| 2500         | 55.98          |

Gain/增益

| Frequency/MHz | MaxGain/dBi |
|---------------|-------------|
| 2400          | 2.26        |
| 2410          | 1.31        |
| 2420          | 2.54        |
| 2430          | 1.55        |
| 2440          | 2.44        |
| 2450          | 1.98        |
| 2460          | 2.15        |
| 2470          | 2.4         |
| 2480          | 1.98        |
| 2490          | 2.58        |
| 2500          | 1.52        |