

# ALink3 2.4G WiFi Antenna Specification

客户

CUSTOMER:\_\_\_\_\_

客户料号

CUSTOMER NO:\_\_\_\_\_

品 名

PART NAME:\_\_\_\_\_ ALink3 2.4G 内置板载天线

料 号

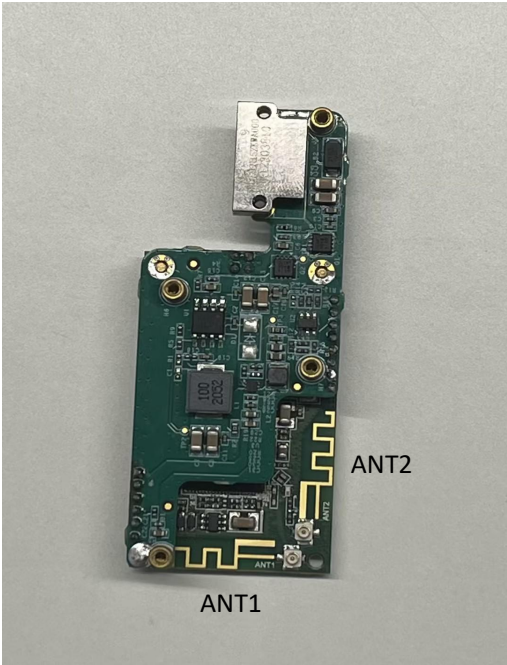
SUPPLIER NO:\_\_\_\_\_

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1. 产品规格（Product Specification）

产品照片（Product Photo）



A. 电性参数（Electrical Characteristics）

|                            |                      |
|----------------------------|----------------------|
| 频率（Frequency）              | 2400-2500MHz         |
| 电压驻波比（V.S.W.R）             | <=2.0@2400-2500MHz   |
| 返回损失（Return Loss）          | <=-10dB@2400-2500MHz |
| 天线增益（Antenna Gain）         | 1.92dBi              |
| 辐射效率（Radiation Efficiency） | 30%-40%              |
| 极化方式（Polarization）         | 线性（Linear）           |
| 阻抗（Impedance）              | 50 Ohm               |
| 天线类型（Antenna Type）         | PIFA                 |

B. 材料及机械特性（Material & Mechanical Characteristics）

|                            |    |
|----------------------------|----|
| 辐射材质（Material of Radiator） | Cu |
| 线材类型（Cable Type）           | /  |
| 接头类型（Connector Type）       | /  |
| 拉力测试（Pull Test）            | /  |

C. 环境因素（Enviromental）

|                             |  |
|-----------------------------|--|
| 工作温度（Operation Temperature） |  |
| 储存温度（Storage Temperature）   |  |

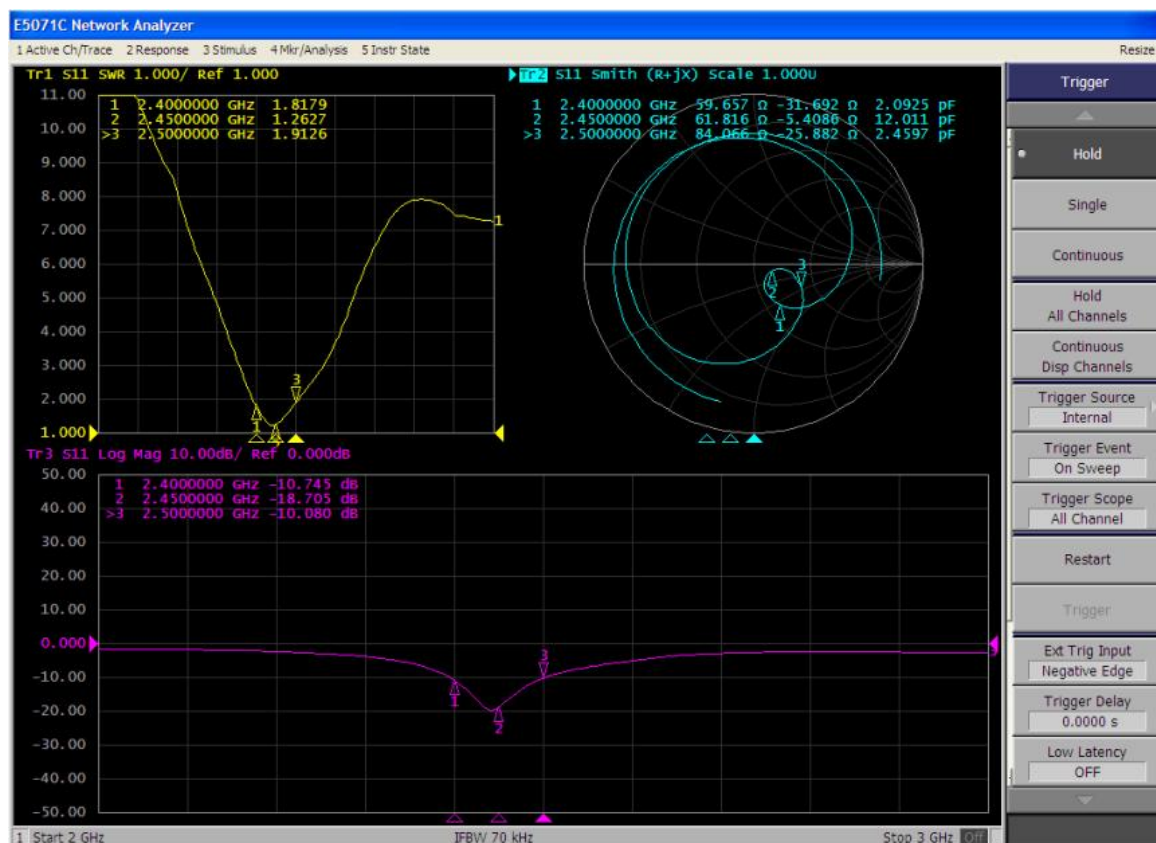
## 2. 网络参数测试数据 (S Parameter Test Data)



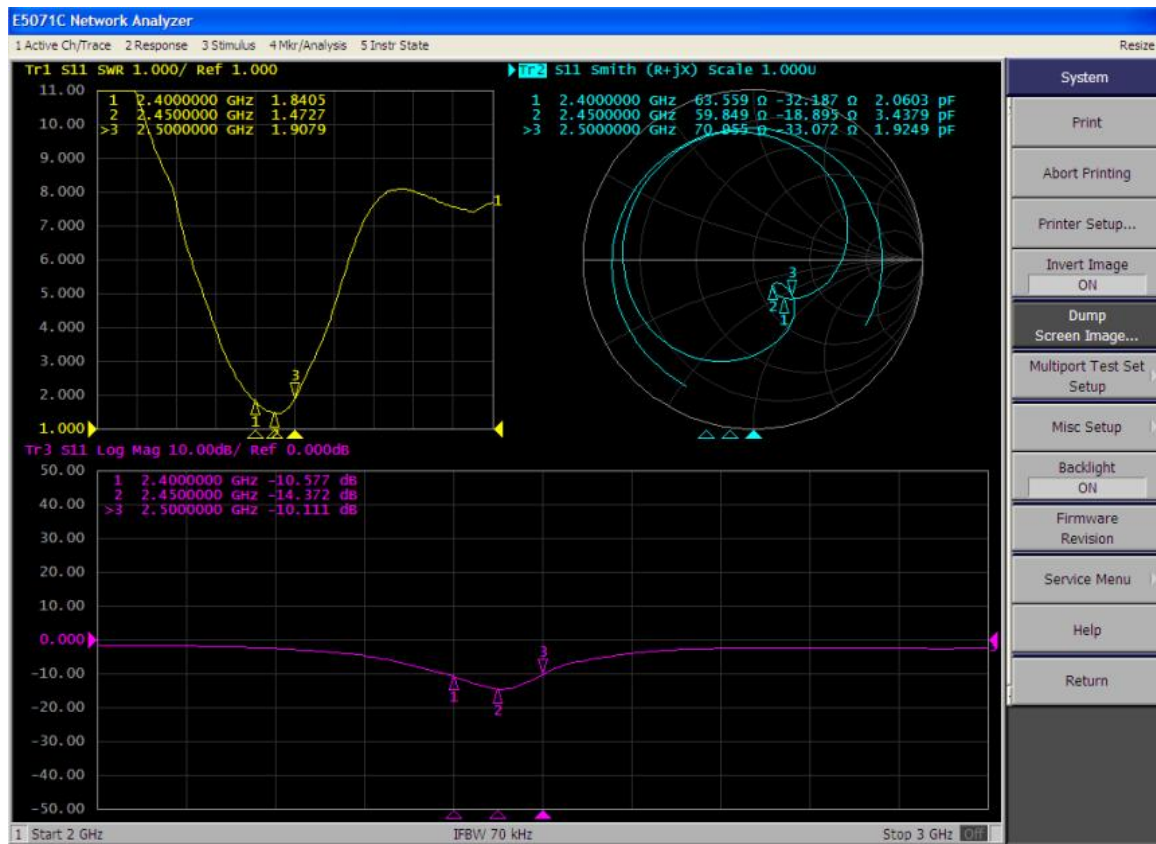
E5071C 矢量网络分析仪

测试频率范围: 30KHz-8.5GHz 测试能力: VSWR、ReturnLoss、Smith 圆图等

ANT1



## ANT2



### 3. 天线辐射场型测试 (Antenna Radiation Pattern Test)

测试设备规格 (Testing Equipment Specification) :

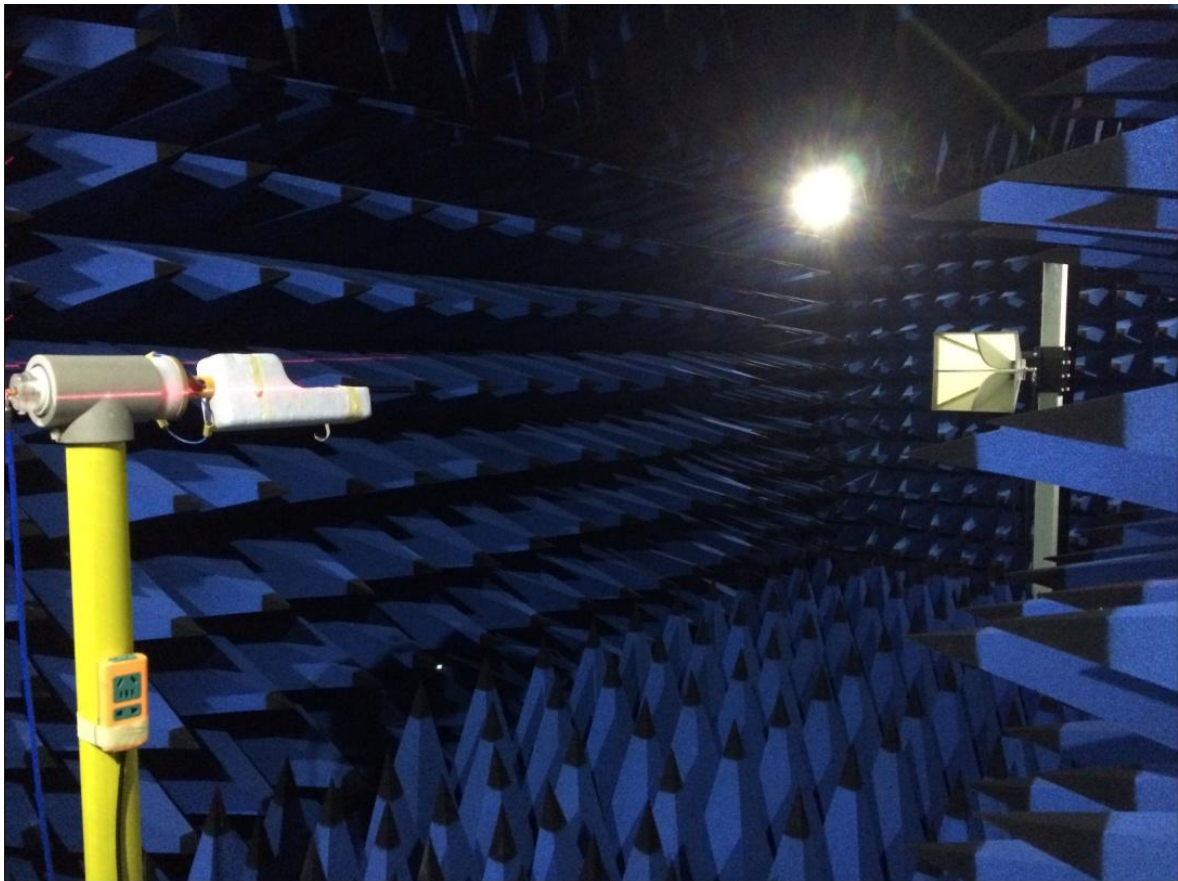
天线微波暗室尺寸 (Antenna Anechoic Chamber Dimension) :7x3x3 米

屏蔽性能 (Isolation) :>100dB@1M-10GHz

测试设备 (Test Equipment) :E5071C 矢量网络分析仪

接收天线 (Receiver Antenna) :0.7-6.0GHz 双极喇叭标准天线

(0.7-6.0GHz for Gain Calibration Double Ridged Horn Antenna)



## 4. 效率及增益测试数据 (Efficiency and Gain TestData)

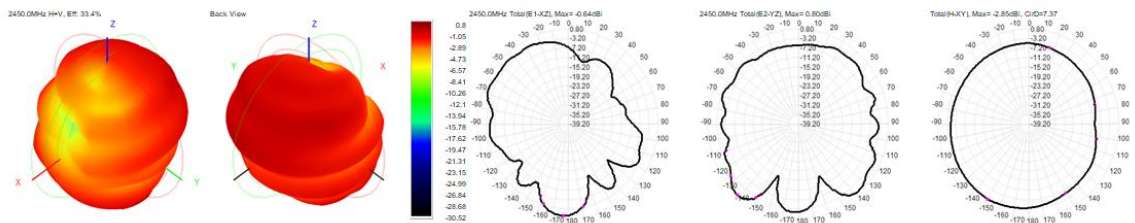
### ANT1

| Frequency ID               | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Frequency (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)                 | 0.92   | 0.93   | 0.78   | 0.54   | 0.63   | 0.80   | 0.95   | 1.07   | 1.24   | 1.47   | 1.59   |
| Efficiency (%)             | 27.44  | 29.15  | 29.70  | 30.35  | 32.03  | 33.42  | 32.98  | 31.48  | 30.24  | 29.79  | 28.81  |
| Directivity (dB)           | 6.53   | 6.28   | 6.05   | 5.72   | 5.58   | 5.56   | 5.77   | 6.09   | 6.44   | 6.73   | 6.99   |
| Peak Gain Position (Theta) | 44.00  | 44.00  | 44.00  | 44.00  | 44.00  | 42.00  | 43.00  | 43.00  | 43.00  | 41.00  | 41.00  |
| Peak Gain Position (Phi)   | 270.00 | 270.00 | 270.00 | 270.00 | 270.00 | 270.00 | 270.00 | 270.00 | 270.00 | 270.00 | 270.00 |
| Efficiency ThetaPol (%)    | 15.23  | 16.33  | 16.52  | 17.02  | 17.60  | 18.28  | 18.16  | 17.34  | 16.69  | 16.85  | 16.47  |
| Efficiency PhiPol (%)      | 12.21  | 12.82  | 13.18  | 13.32  | 14.43  | 15.14  | 14.83  | 14.14  | 13.55  | 12.94  | 12.34  |
| Upper Hem. Efficiency (%)  | 10.48  | 11.72  | 12.64  | 13.76  | 15.14  | 16.20  | 15.99  | 14.90  | 13.75  | 13.07  | 12.16  |
| Lower Hem. Efficiency (%)  | 16.96  | 17.44  | 17.07  | 16.59  | 16.89  | 17.22  | 17.00  | 16.59  | 16.48  | 16.71  | 16.66  |

### ANT2

| Frequency ID               | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Frequency (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)                 | 1.47   | 1.85   | 1.92   | 1.83   | 1.78   | 1.63   | 1.23   | 0.71   | 0.20   | 0.16   | 0.15   |
| Efficiency (%)             | 38.60  | 41.12  | 41.31  | 40.89  | 41.24  | 40.07  | 36.29  | 31.59  | 31.12  | 30.60  | 30.68  |
| Directivity (dB)           | 5.60   | 5.71   | 5.76   | 5.72   | 5.62   | 5.60   | 5.63   | 5.72   | 5.87   | 6.15   | 6.51   |
| Peak Gain Position (Theta) | 37.00  | 39.00  | 38.00  | 38.00  | 39.00  | 40.00  | 39.00  | 38.00  | 38.00  | 39.00  | 39.00  |
| Peak Gain Position (Phi)   | 0.00   | 0.00   | 0.00   | 0.00   | 30.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| Efficiency ThetaPol (%)    | 27.84  | 29.93  | 30.18  | 30.35  | 30.58  | 29.91  | 27.32  | 23.85  | 20.53  | 18.88  | 16.64  |
| Efficiency PhiPol (%)      | 10.76  | 11.18  | 11.13  | 10.54  | 10.67  | 10.16  | 8.97   | 7.75   | 6.59   | 5.72   | 4.94   |
| Upper Hem. Efficiency (%)  | 13.57  | 14.63  | 14.97  | 15.09  | 15.47  | 15.24  | 13.89  | 12.10  | 10.27  | 9.09   | 7.66   |
| Lower Hem. Efficiency (%)  | 25.03  | 26.48  | 26.34  | 25.80  | 25.77  | 24.83  | 22.40  | 19.49  | 16.86  | 15.51  | 13.91  |

### ANT1



### ANT2

