

深圳创维数字技术有限公司

SZ SKYWORTH DIGITAL TECHNOLOGY CO.,LTD

ENGINEERING EVALUATION REPORT

(COMPONENTS)

|                                       |                                                                                                                                          |                     |                  |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|
| REPORT NO.                            | EDED2302225                                                                                                                              | DATE OF APPLICATION | 2023-02-17       |
| MODEL                                 | TEN22                                                                                                                                    | APPLICATION NO.     | NASP2023020022-1 |
| DESCRIPTIONS                          | ANTENNA WIFI 50 OHM 189mm/150mm*1.13mm IPEX1 5G/5dB Wihte RF-link 扁体 RoHS                                                                |                     |                  |
| SUPPLIER'S PART NO.                   | U00T01S069N02811                                                                                                                         |                     |                  |
| SKYWORTH'S PART NO.                   | 53XD-085500-A044                                                                                                                         |                     |                  |
| MANUFACTURER                          | Jiangxi RF Link Electronic Co., Ltd.<br>Address: Shangli Industrial Park, Chishan Town, Shangli County, Pingxiang City, Jiangxi Province |                     |                  |
| SAFETY CERTIFICATION REQUIREMENTS     | 不需要                                                                                                                                      |                     |                  |
| ENVIRONMENTAL PROTECTION REQUIREMENTS | ROHS2.0                                                                                                                                  |                     |                  |
| REMARKS:                              |                                                                                                                                          |                     |                  |
| COMMENTS:                             | IF THERE IS ANY QUALITY PROBLEM,PLEASE FOLLOW THE AGREEMENT OF BOTH                                                                      |                     |                  |
| FICTION:                              |                                                                                                                                          | APPROVAL:           |                  |
| 同敬                                    |                                                                                                                                          | 刘十培                 |                  |

Product picture



Basic specification

| Parameter attribute | Parameter name     | 要求值<br>Required value | 厂家规格值<br>Manufacturer specification value<br>(厂家必填) |
|---------------------|--------------------|-----------------------|-----------------------------------------------------|
|                     | Glue stick         | 白色 189.1mm<br>white   | 189.1mm 色号 RF006W                                   |
|                     | PCB                | FR-4                  | FR-4                                                |
|                     | feeder             | 黑色 1.13 线, 150mm      | 黑色 1.13 线, 150mm                                    |
|                     | 馈线末端<br>Feeder end | IPEX 1代               | IPEX 1代                                             |
|                     | 配件<br>attachment   | /                     | /                                                   |

PCB Gerber 图



## 产品主要技术参数

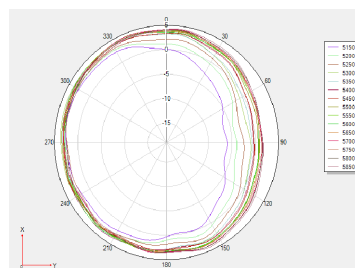
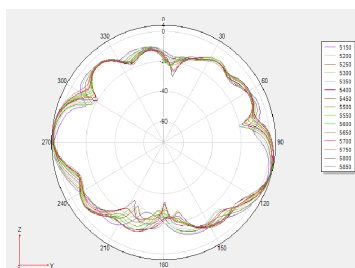
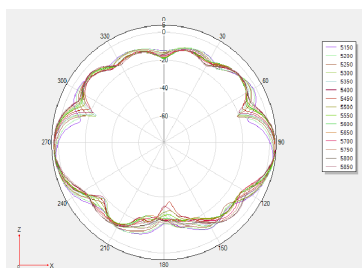
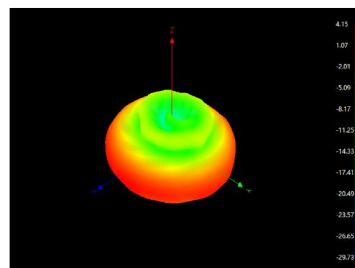
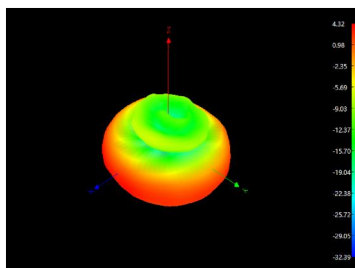
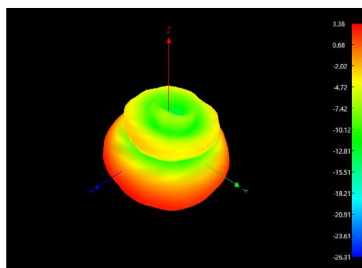
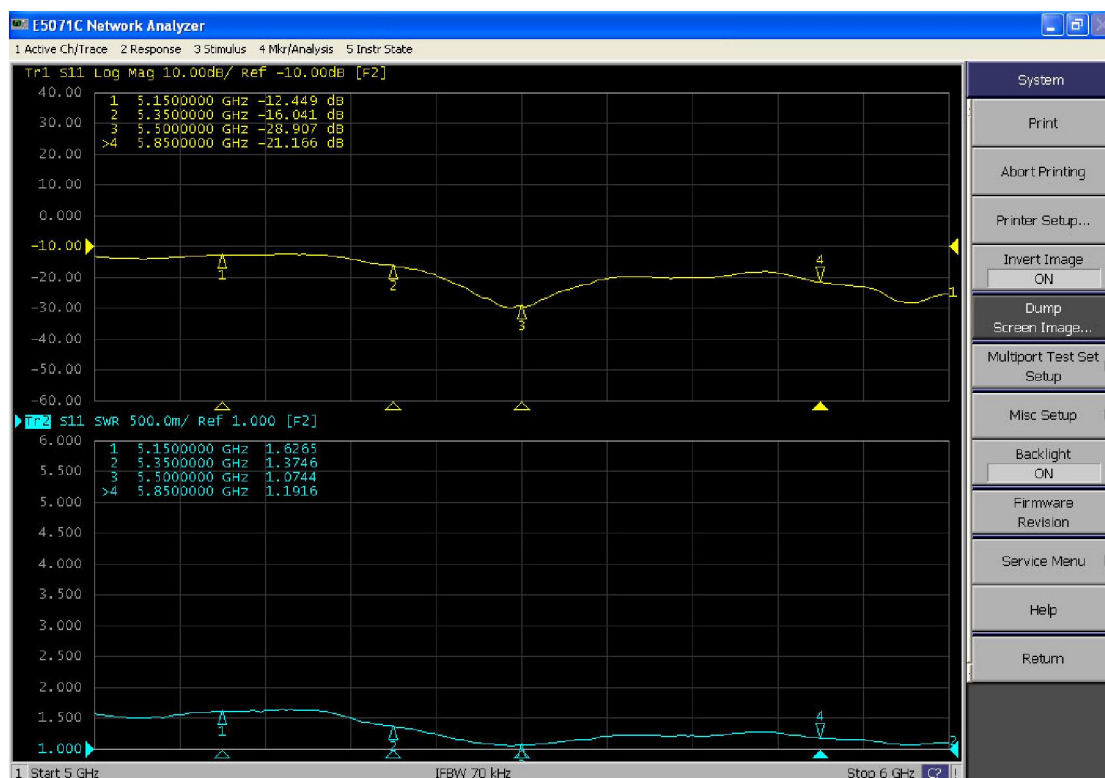
### Main technical specifications

| 主要技术指标                   |                                                | Main technical specifications |                                                |
|--------------------------|------------------------------------------------|-------------------------------|------------------------------------------------|
| 频率范围<br>(MHZ)            | 5150-5850                                      | Frequency Range<br>(MHZ)      | 5150-5850                                      |
| 中心频率<br>特性阻抗( $\Omega$ ) | $50 \pm 10$                                    | Impedance( $\Omega$ )         | $50 \pm 10$                                    |
| 增益(dBi)                  | 4.53                                           | Gain(dBi)                     | 4.53                                           |
| 反射损耗                     | $\leq -10$                                     | Return Loss(dB)               | $\leq -10$                                     |
| 输出电压<br>驻波比              | $\leq 1.92$                                    | VSWR                          | $\leq 1.92$                                    |
| 极化方式                     | 垂直极化                                           | Polarization                  | Linear, Vertical                               |
| 方向性                      | 全向性                                            | Radiation                     | Omni-directional                               |
| 连接方式                     | 端子                                             | Connector Type                | 端子                                             |
| 物理性能                     |                                                | Physical Properties           |                                                |
| 天线本体材料                   | ABS                                            | Antenna Base                  | ABS                                            |
| 工作温度                     | $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$ | Operating Temp                | $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$ |
| 保存温度                     | $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$ | Storage Temp                  | $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$ |

Electrical property

| Parameter attribute                         | Parameter name         | 要求值<br>Required value | Manufacturer specification value | Manufacturer's typical value |
|---------------------------------------------|------------------------|-----------------------|----------------------------------|------------------------------|
| Electrical property<br>(Key parameter)      | gain                   | 4.53dBi               | 4.53dBi                          | 4.53dBi                      |
|                                             | efficiency             | $\geq 70\%$           | $\geq 70\%$                      | $\geq 70\%$                  |
| Electrical property<br>(Ordinary parameter) | Frequency range        | 2400-2500MHz          | 2400-2500MHz                     | 2400-2500MHz                 |
|                                             | Characteristic impedan | 50 $\Omega$           | 50 $\Omega$                      | 50 $\Omega$                  |
|                                             | S11                    | $\leq -10\text{dB}$   | $\leq -10\text{dB}$              | $\leq -10\text{dB}$          |

# 测试报告



| Frequency / MHz | Gain/ dBi | Efficiency / % |
|-----------------|-----------|----------------|
| 5150            | 3.38      | 54.83          |
| 5200            | 3.76      | 58.61          |
| 5250            | 3.69      | 57.81          |
| 5300            | 4.29      | 59.16          |
| 5350            | 4.32      | 59.16          |
| 5400            | 4.11      | 58.48          |
| 5450            | 3.9       | 59.29          |
| 5500            | 4.48      | 61.52          |
| 5550            | 4.53      | 61.52          |
| 5600            | 4.3       | 59.98          |
| 5650            | 4.24      | 61.66          |
| 5700            | 4.5       | 62.23          |
| 5750            | 4.15      | 58.08          |
| 5800            | 4.21      | 61.8           |
| 5850            | 4.4       | 64.27          |