



Antenna Specifications

| | | | |
|-------------------|----------------|-------------------|-----------------|
| CUSTOMER | | 杰科 | |
| CS P/N | | | |
| MATERIAL CODE | | <u>C-8</u> | |
| JS P/N | | <u>003-040-1A</u> | |
| Checked by(RF) | Checked by(ME) | Checked by(QA) | Approval led by |
| | | | |
| Customer Approval | | | |

1. General Description

This document provides the antenna specifications on electric, mechanic and reliability. The testing conditions and related pictures are also included.

1.1 Print Acceptance

Samples and Antenna Specifications are to be sent to customer. When they are approved, the approval form should be completed, signed, and sent back to JINGSONG before further mass production batches can be delivered.

1.2 Coordinate System

The coordinate system for the phone is defined as follows:

- Origin in center of gravity.
- Positive X axis is perpendicular to, and directed from, front plane.
- Positive Y axis is perpendicular to, and directed from, right side plane (as seen from front).
- Positive Z axis is perpendicular to, and directed from, top plane.

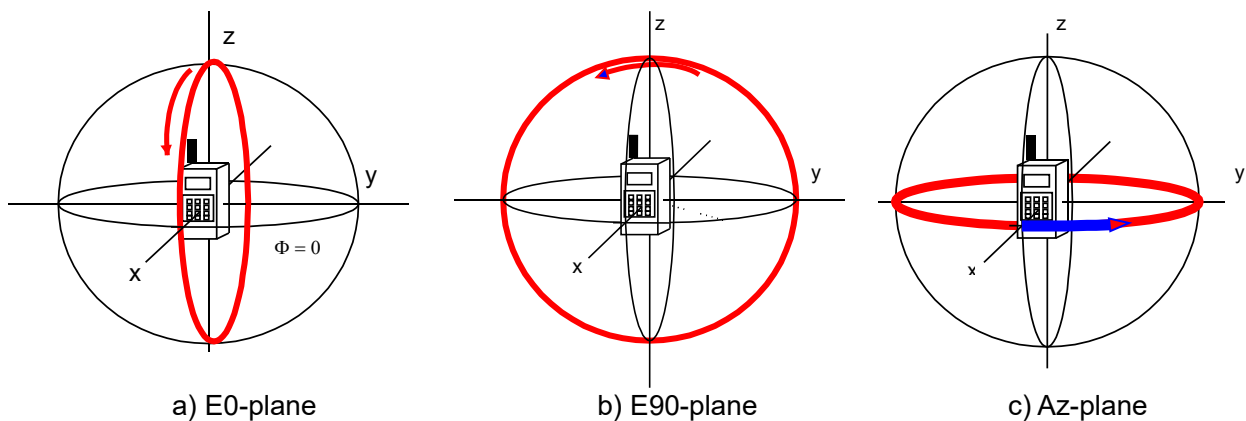


Figure 1-1 The coordinate system for the phone

2. Specifications

This report mainly provides the testing conditions of various electric and structural performance parameters for cell phone antenna --- C-8 ---. Figure 2-1 shows the antenna designed by JS & The fixturing of C-8

2-1:



2.1 Frequency Band

| Frequency Band | Tx(MHz)/Rx(MHz) |
|----------------|-----------------|
| WiFi2.4G | 2400-2500 |
| WiFi2.4G | 2400-2500 |

2.2 Impedance

2.2.1 Nominal

Nominal Impedance(including matching circuit) : 50 ohms

2.2.2 Matching Circuit

The matching circuit is as Figure 2-2.

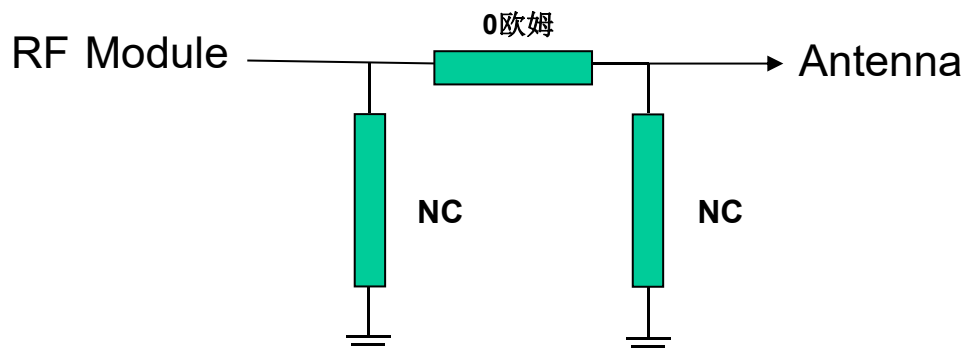


Figure 2-2: Matching circuit



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2.3 Passive Measurements

2.3.1 VSWR & Gain Specifications

| VSWR | | GAIN | |
|------------|------------|------------|------------|
| Freq. Band | SPEC | Freq. Band | SPEC |
| 2400MHz | ≤ 1.5 | 2400MHz | ≤ 1.5 |
| 2500MHz | ≤ 1.5 | 2500MHz | ≤ 1.5 |

2.3.2 S11 of the Typical Sample

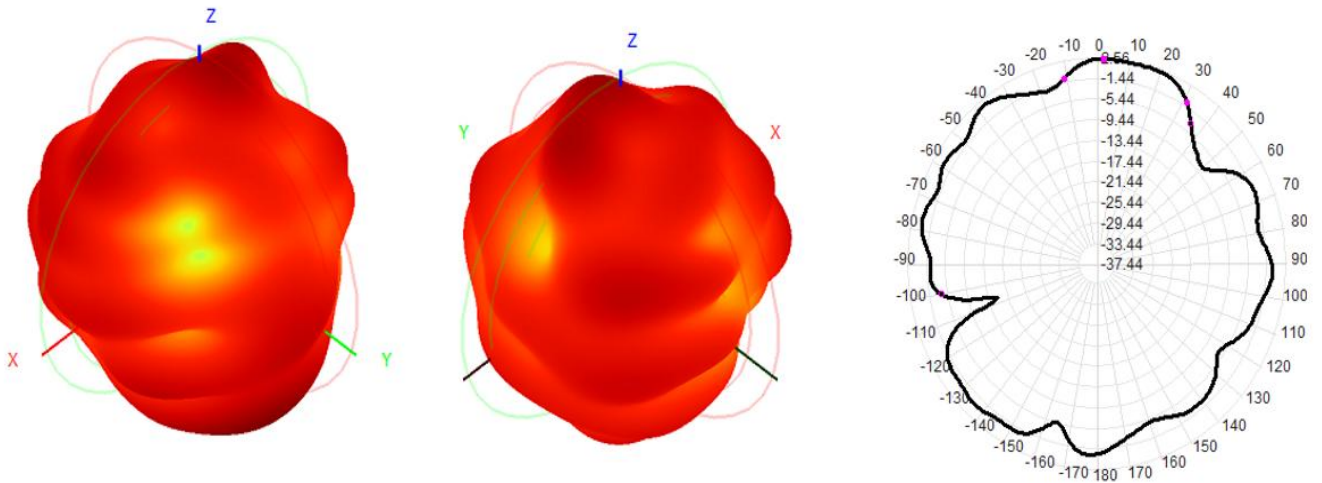
| Freq (MHz) | 2400 | 2420 | 2440 | 2460 | 2480 | 2500 |
|------------|------|------|------|------|------|------|
| R.L(dB). | 1.25 | 1.15 | 1.35 | 1.54 | 1.46 | 1.55 |
| VSWR | 1.45 | 1.43 | 1.46 | 1.47 | 1.50 | 1.50 |

3. Chamber Test Data

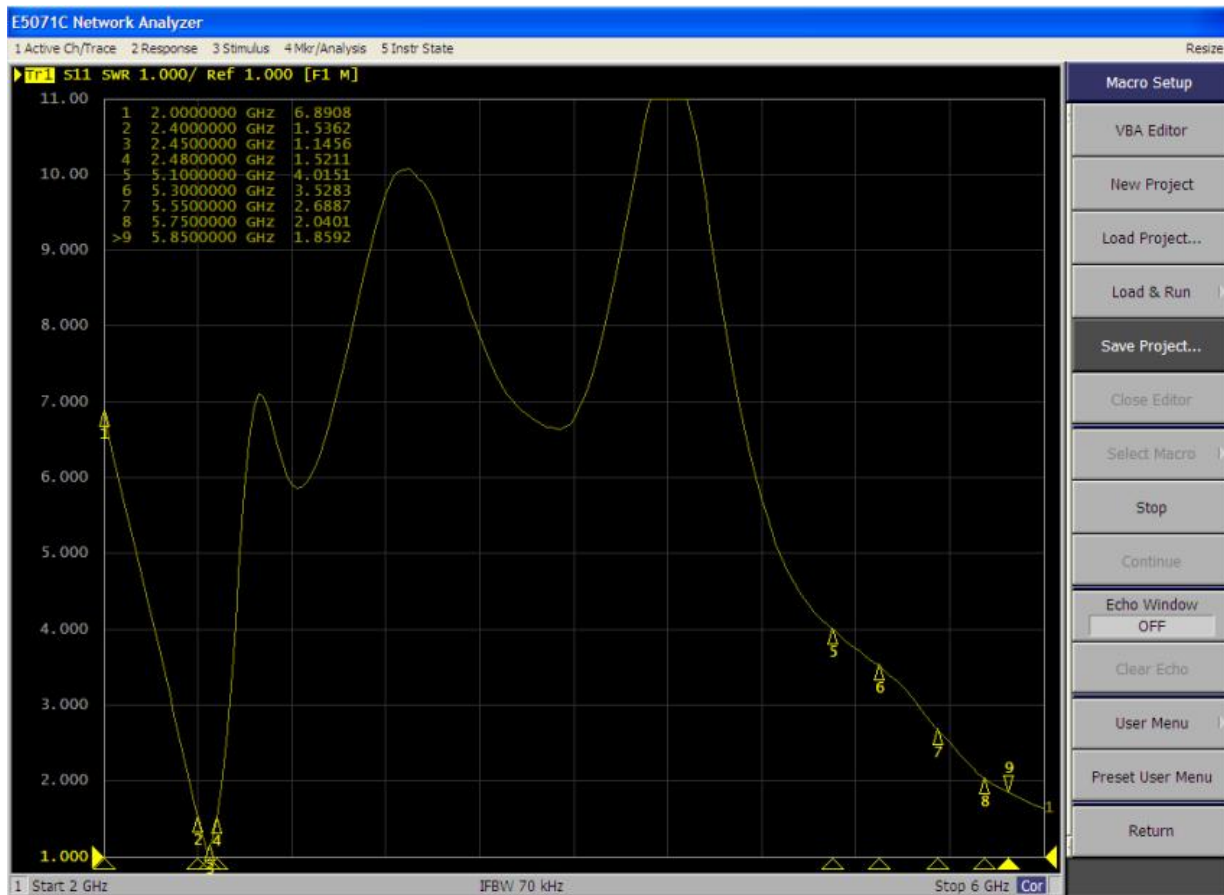
| Fre.(Mhz) | Efficiency(%) | Gain(dBi) |
|-----------|---------------|-----------|
| 2400 | 56.4 | 1.24 |
| 2410 | 58.3 | 1.22 |
| 2420 | 55.7 | 1.35 |
| 2430 | 54.6 | 1.42 |
| 2440 | 52.8 | 1.51 |
| 2450 | 55.3 | 1.62 |
| 2460 | 62.7 | 2.14 |
| 2470 | 61.3 | 2.33 |
| 2480 | 62.5 | 2.12 |

3.1 Radiation Pattern

The radiation pattern in free space is tested in chambers.

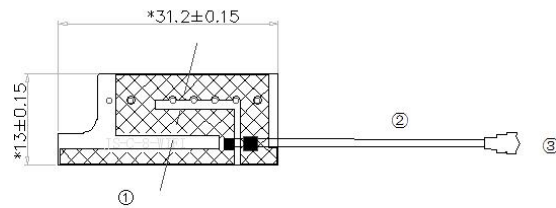


3.2 SWR:



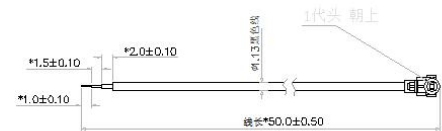
4. Mechanical Properties

4.1 Specifications Drawings



NOTE

- 1 打*为重点检测尺寸, 孔位尺寸以实配为准。
- 2 未注圆角R=0.30mm, 图中尺寸做到中间值为佳, 其它未标公差参见图框内说明。
3. 材料为电解铜+PI(半对半), 整体厚度小于0.10 MM (不包括3M胶)。
4. 表面黑色, 背面背整块 3M 300 LSE胶。
5. 十字剖面部分为铜皮线路, 绿色斜线剖面部分不布铜, 留基材, 起连接作用。
整体外形随着剖面外形轮廓走。
6. 表面不能刮伤露铜, 电镀不良, 氧化, 缺口, 压痕, 气泡, 裂纹, 毛边; 以及不允许有异物, 脏点, 偏位等现象。
7. 对照工程封样。
8. 注意端子端口方向。



| 材质说明 | |  深圳市景松科技有限公司 | | | | | | |
|------|--------------|--------------------------------------------------------------------------------------------------|------|------|------------|----|------------|----------------|
| ① | FPC天线 |  | 0.02 | 机种 | C-8 | 日期 | 2021/10/18 | |
| ② | 同轴线φ1.13(黑色) |  | 0.02 | 品名 | WiFi天线 | 设计 | | |
| ③ | IPEX接头(一代) |  | 0.03 | 料号 | 003-040-1A | 审核 | 结构 | |
| ④ | |  | 0.02 | 材质 | FPC+同轴线 | 确认 | 射频 | |
| | |  | 0.04 | 模面处理 | | 单位 | mm | 比例 FIT 版本 R: A |
| | |  | 0.02 | 外观处理 | | | | |



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5. Environmental Characteristic

| Test Item | Test description |
|---------------------|---------------------------------------------------------------------------|
| 1. Low Temperature | Temp.: -20 °C Time: 24 hours |
| 2. High Temperature | Temp.: 80°C Time: 24 hours |
| 3. Salt Fog | 5±0.1% Nad salt fog PH Value: 6.5-7.2 Temp: 35±1°C Time:24 hours |