

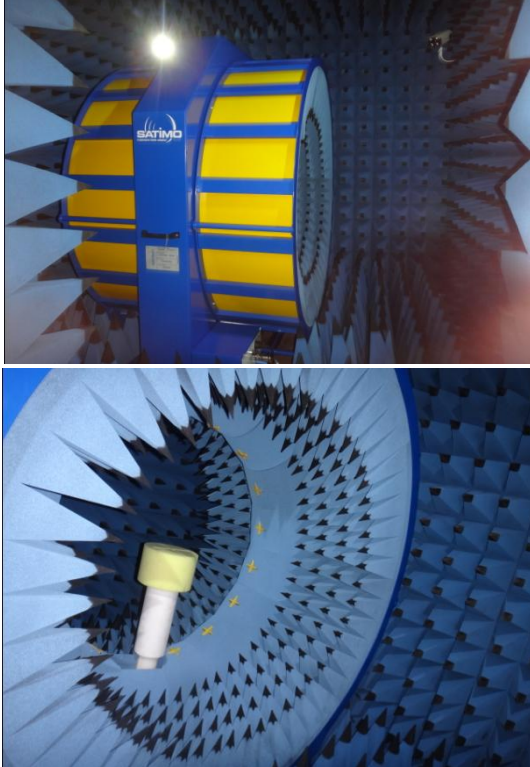
# Antenna Test Report



|              |                                          |             |          |
|--------------|------------------------------------------|-------------|----------|
| manufacturer | AFT tech Electronic Co., Ltd. (Shenzhen) | Model       | CK1      |
| Band         | WIFI:2.4G                                | MD Type     | Shrapnel |
| RF Enginner  | LIU                                      | MD Enginner | DUQIANG  |
| antenna Type | PIFA                                     | Date        | 20220620 |

# 深圳市安弗特电子有限公司

## AFT tech Electronic Co., Ltd. (Shenzhen)



原装进口法国 SATIMO 公司 StarLab 3D 实验室, 能精确快速的测试手机、平板电脑和笔记本等通信终端产品的 TRP、TIS、效率、

增益、苹果图、方向图等参数数据。

Imported from France SATIMO company StarLab 3d laboratory, can accurate、rapid test communications terminal products .such as mobile phones, PC of TRP, TIS, efficiency, gain, apple figure, directional diagram

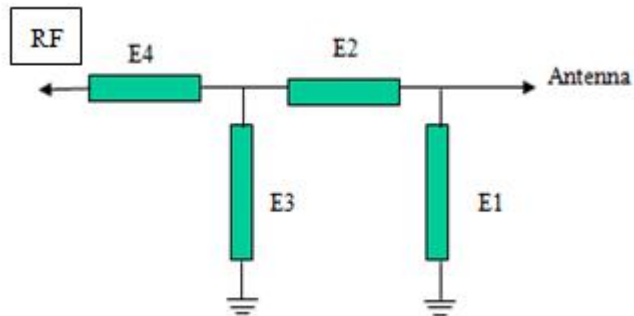
## Report version summary

| Edition | Date       | Content overview    |
|---------|------------|---------------------|
| V1      | 2022-06-20 | Antenna test report |
|         |            |                     |
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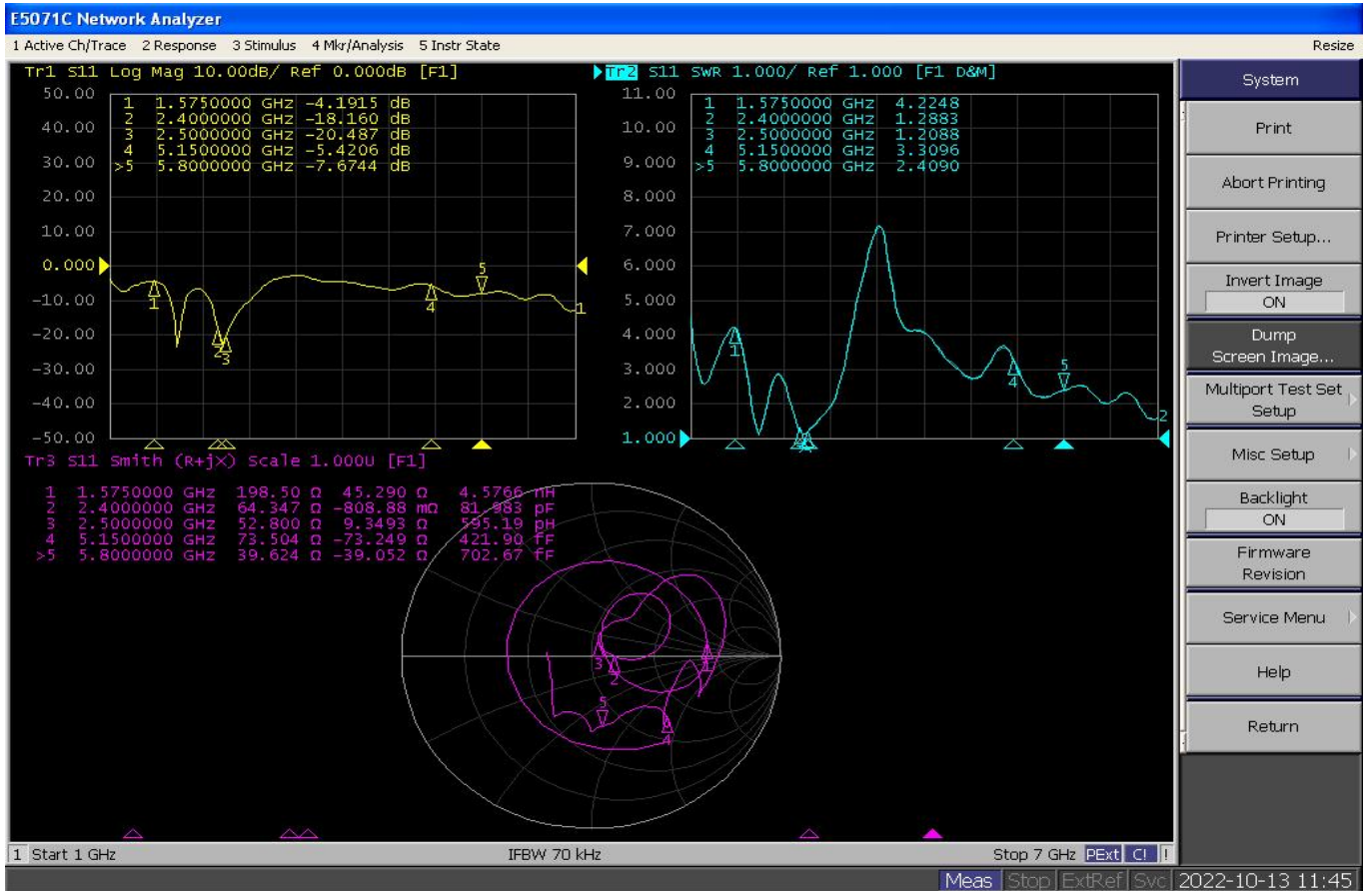
## Main antenna matching circuit

| Element | E1 | E2  | E3 | E4  |
|---------|----|-----|----|-----|
| Value   | NC | 0 欧 | NC | 0 欧 |

Our company has not made changes to the main antenna matching circuit!



### 2.4G passive standing wave



# 深圳市安弗特电子有限公司

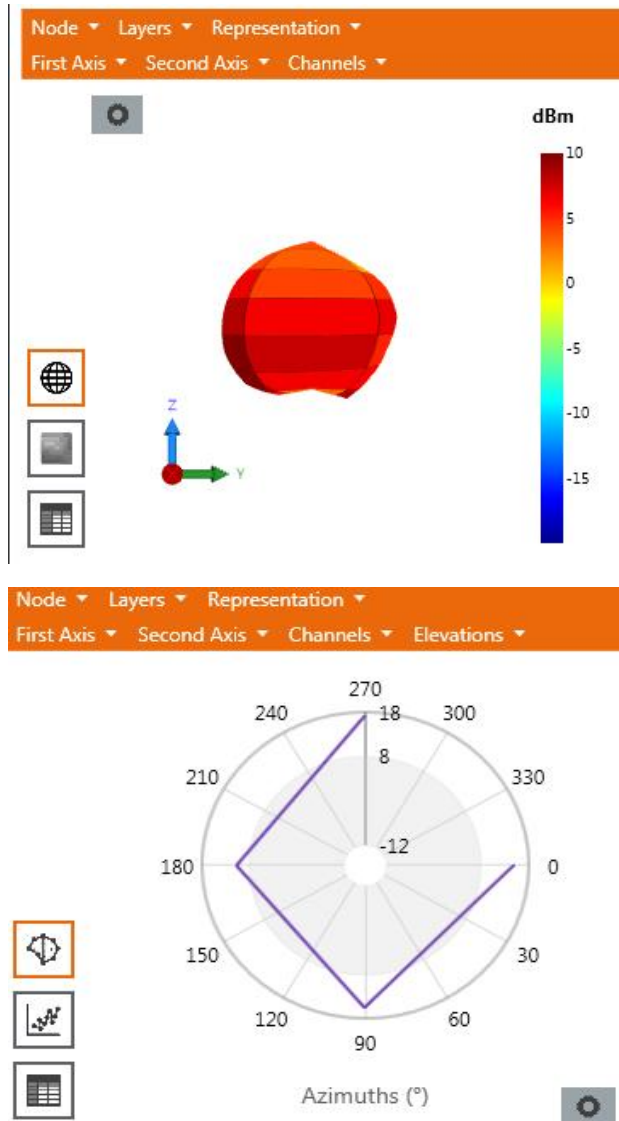
## AFT tech Electronic Co., Ltd. (Shenzhen)

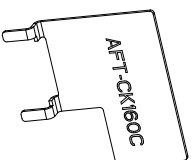
### 2.4G efficiency gain

| Passive Test For WIFI |             |              |               |               |            |            |             |             |                |                |
|-----------------------|-------------|--------------|---------------|---------------|------------|------------|-------------|-------------|----------------|----------------|
| Freq<br>(MHz)         | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) | Gain<br>(dBd) | UHS<br>(%) | DHS<br>(%) | Max<br>(dB) | Min<br>(dB) | Attenut<br>Hor | Attenut<br>Ver |
| 2300                  | 43.66       | -3.6         | 0.29          | -1.86         | 20.115     | 23.546     | 0.29        | -8.48       | 45.67          | 44.11          |
| 2310                  | 42.59       | -3.71        | 0.32          | -1.83         | 19.63      | 22.956     | 0.32        | -8.25       | 45.63          | 44.54          |
| 2320                  | 42.63       | -3.7         | 0.48          | -1.67         | 19.579     | 23.05      | 0.48        | -8.15       | 46.15          | 44.65          |
| 2330                  | 44.33       | -3.53        | 0.6           | -1.55         | 20.803     | 23.526     | 0.58        | -8.36       | 46.17          | 45.34          |
| 2340                  | 37.1        | -4.31        | -0.18         | -2.33         | 17.568     | 19.532     | -0.18       | -10.15      | 46.49          | 45.4           |
| 2350                  | 41.12       | -3.86        | 0.18          | -1.97         | 19.642     | 21.479     | 0.18        | -10.37      | 46.94          | 45.65          |
| 2360                  | 44.94       | -3.47        | 0.58          | -1.57         | 21.509     | 23.427     | 0.58        | -10.1       | 46.99          | 45.85          |
| 2370                  | 37.24       | -4.29        | -0.24         | -2.39         | 17.798     | 19.445     | -0.24       | -10.97      | 46.72          | 45.49          |
| 2380                  | 37.11       | -4.31        | -0.11         | -2.26         | 17.734     | 19.374     | -0.11       | -11.21      | 47.44          | 45.93          |
| 2390                  | 41.38       | -3.83        | 0.45          | -1.7          | 19.953     | 21.432     | 0.45        | -10.92      | 47.12          | 46.23          |
| 2400                  | 33.38       | -4.77        | -0.36         | -2.51         | 16.109     | 17.271     | -0.36       | -12.07      | 46.5           | 45.85          |
| 2410                  | 37.11       | -4.3         | 0.15          | -2            | 17.997     | 19.117     | 0.15        | -11.39      | 46.61          | 46.05          |
| 2420                  | 37.71       | -4.24        | 0.19          | -1.96         | 18.31      | 19.4       | 0.19        | -11.11      | 46.59          | 46.17          |
| 2430                  | 37.22       | -4.29        | 0.15          | -2            | 18.006     | 19.214     | 0.15        | -10.94      | 46.77          | 46.14          |
| 2440                  | 36.35       | -4.39        | 0.05          | -2.1          | 17.562     | 18.791     | 0.05        | -11         | 46.79          | 45.97          |
| 2450                  | 36.38       | -4.39        | 0.13          | -2.02         | 17.532     | 18.844     | 0.13        | -11.05      | 46.58          | 45.82          |
| 2460                  | 36.3        | -4.4         | 0.16          | -1.99         | 17.545     | 18.756     | 0.16        | -11.15      | 46.74          | 45.97          |
| 2470                  | 36.27       | -4.4         | 0.23          | -1.92         | 17.65      | 18.622     | 0.23        | -11.1       | 46.54          | 45.98          |
| 2480                  | 38.77       | -4.12        | 0.52          | -1.63         | 19.116     | 19.654     | 0.52        | -10.65      | 46.48          | 46.46          |
| 2490                  | 35.76       | -4.47        | 0.15          | -2            | 17.795     | 17.965     | 0.15        | -11.41      | 46.53          | 46.76          |
| 2500                  | 34.37       | -4.64        | 0.02          | -2.13         | 17.129     | 17.238     | 0.02        | -11.77      | 46.77          | 46.39          |

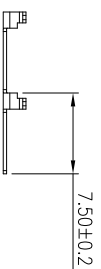
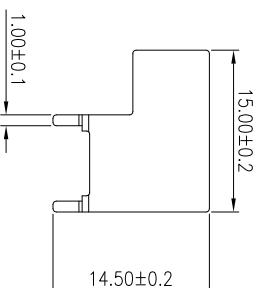
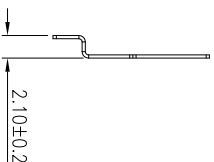
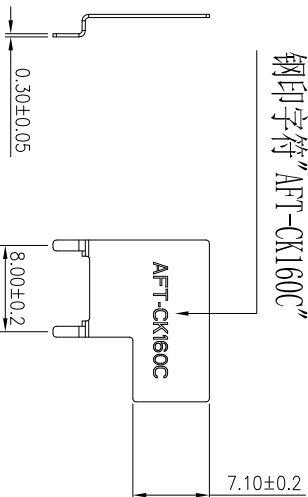
## Radiation Pattern

WIFI Antenna 3D Radiation Pattern





钢印字符“AFT-CK160C”



注:

- 1、打★号为严格控制尺寸（必测等级A）
- 打\*号为重要尺寸（制作模具要控制，模具验收必测等级B），其它尺寸为设计参考尺寸等级C；
- 2、不可有变形、翘起、毛刺、油污、刮伤等缺陷；
- 3、材质用SUS 304 T=0.3, 镀锌；
- 4、未标注尺寸按CAD电子图档1:1量取；
- 5、未标注公差按CAD电子图档公差表执行；
- 6、热熔孔位置公差为 $\pm 0.05$ 并实配；
- 7、弹片表面印字，具体内容见图，要求字体清晰可见。



司公限有子技电特子弗电勋安市磊磊深上海

| 第三角法  |       | 机种 | CK160C | 日期   | 2023-10-13 | 绘图 | 杜强 | 页码 | 1 of 1 |
|-------|-------|----|--------|------|------------|----|----|----|--------|
|       |       | 品名 | WiFi天线 | 设计   |            | 审核 |    | 核准 |        |
| 0~10  | ±0.10 | ○  | 0.02   |      |            |    |    |    |        |
| 10~20 | ±0.12 | ◎  | 0.03   |      |            |    |    |    |        |
| 20~40 | ±0.15 | ⊥  | 0.02   | 结构   |            | 杜强 |    |    |        |
| 40~   | ±0.20 | ∠  | 0.04   |      |            |    |    |    |        |
|       | ∠     |    | 0.02   | 模面处理 |            | 射频 |    |    |        |

|    |    |      |    |    |        |    |      |    |    |    |    |     |    |       |
|----|----|------|----|----|--------|----|------|----|----|----|----|-----|----|-------|
| 序号 | 日期 | 修改内容 | 版本 | 备注 | 请勿实测图纸 | 位置 | 外观处理 | 镀镍 | 单位 | mm | 比例 | 1:1 | 版本 | REV:A |
| 1  |    | 2    | 3  | 4  | 5      | 6  | 7    | 8  |    |    |    |     |    |       |