# Specifications For Passive Antenna of Porject MT918

<table>
<tr><td colspan="2">Customer/Project</td><td colspan="2">MT918<br>A6 Antenna</td><td colspan="2">Frequency Band</td><td>2300-2600MHZ<br>5150-5850MHZ</td></tr>
<tr><td colspan="2">JHSCT P/N</td><td colspan="2">F-KY-31-0080-000-K0</td><td colspan="2">Version</td><td>V3.0</td></tr>
<tr><td colspan="2">Date</td><td colspan="5">2024.06.17</td></tr>
<tr><td colspan="7">SPEED</td></tr>
<tr><td rowspan="3">Checked by</td><td>RF</td><td colspan="2">SXX</td><td rowspan="2">Design<br>by</td><td>RF</td><td>LCX</td></tr>
<tr><td>ME</td><td colspan="2">WJ</td><td>ME</td><td>XYB</td></tr>
<tr><td>QC</td><td colspan="2"></td><td colspan="2">Remark</td><td></td></tr>
<tr><td colspan="7">Customer</td></tr>
<tr><td colspan="2">Date</td><td colspan="5"></td></tr>
<tr><td colspan="2" rowspan="2">Confirmed by</td><td colspan="2">RF</td><td colspan="3"></td></tr>
<tr><td colspan="2">ME</td><td colspan="3"></td></tr>
</table>

## 1. Project Overview

This document is the specifications of the MT918 with Passive antenna.

The antenna solution is to make LDS wiring on the outside of the exterior surface bracket. The installation position is shown in Figure 1 :

## 2. Antenna Specification

| | |
|---|---|
| Antenna Form | Plastic Stent+LDS |
| Working Bands | 2300-2600MHZ<br>5150-5850MHZ |
| Peak Gain | N/A |
| Efficency | > 30% |
| VSWR | <2 |
| Impedance | 500hm |
| Polarization | Linear polarization |
| A/R | N/A |
| Radiation Pattem | Omnidirectional |
| Feed Mode | Pin |
| power capacity | 33dBm |
| Size(L*W*H) | 165mm*75mm*15mm |
| Weight | N/A |
| Operating temperature | -30 °C to +80 °C |
| Storage temperature | -30 °C to +80 °C |

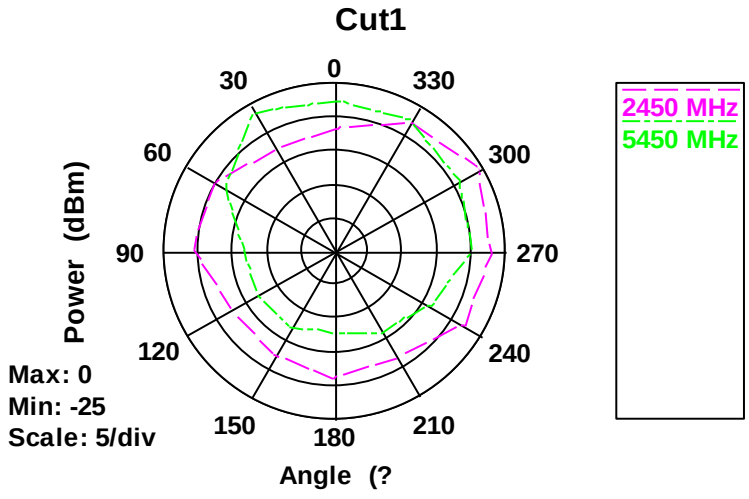
# 4 Test Results

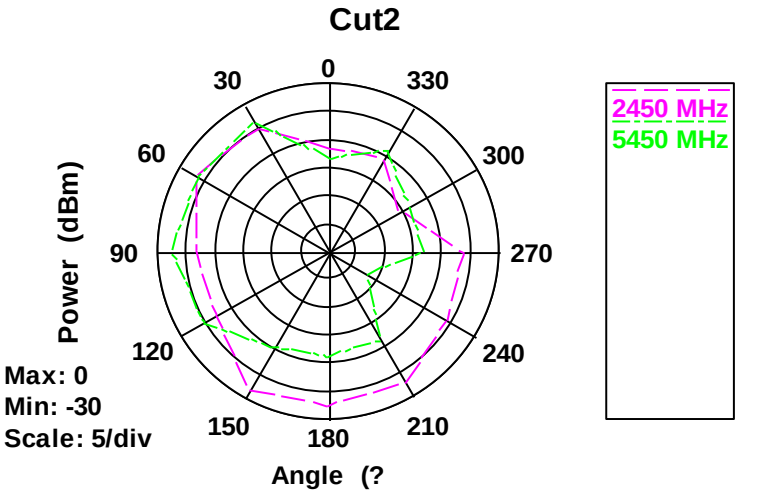
## 4.1 VSWR

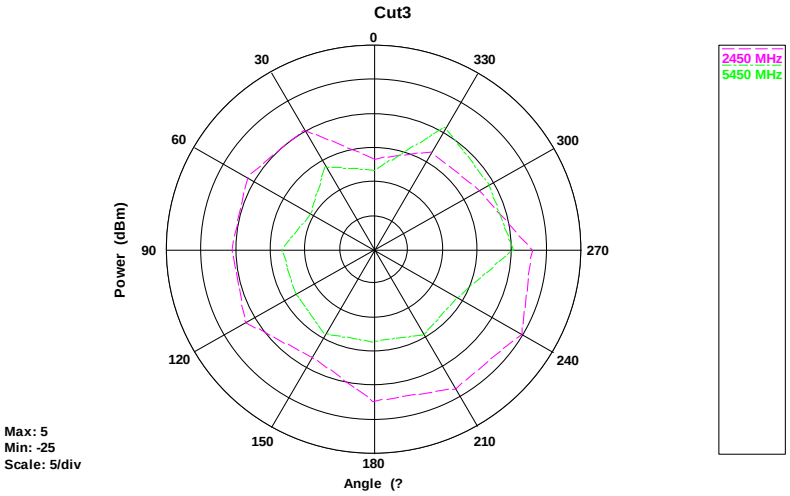
## 4.2Passive Efficency and Gain

| Frequency | Efficiency | Gain (dBi) | | | |
|---|---|---|---|---|---|
| 2300 | 17.1493 | -3.63783 | 2580 | 32.2419 | 0.109295 |
| 2310 | 17.8128 | -3.64603 | 2590 | 31.8617 | -0.213107 |
| 2320 | 19.0104 | -3.43347 | 2600 | 30.913 | -0.600396 |
| 2330 | 19.9398 | -3.20104 | 5150 | 31.7373 | 0.0502193 |
| 2340 | 21.1393 | -3.03121 | 5180 | 33.0503 | 0.0425946 |
| 2350 | 22.4936 | -2.80499 | 5210 | 33.1532 | -0.082616 |
| 2360 | 23.3748 | -2.77656 | 5240 | 32.5599 | 0.0033603 |
| 2370 | 24.5395 | -2.59816 | 5270 | 32.5686 | 0.204291 |
| 2380 | 25.4946 | -2.44862 | 5300 | 34.1492 | 0.40675 |
| 2390 | 26.392 | -2.08348 | 5330 | 33.3025 | 0.356726 |
| 2400 | 28.1624 | -1.62351 | 5360 | 32.1064 | 0.0386019 |
| 2410 | 29.8022 | -1.23109 | 5390 | 31.0622 | 0.282369 |
| 2420 | 31.3478 | -0.872719 | 5420 | 32.5798 | 0.637074 |
| 2430 | 32.4135 | -0.654218 | 5450 | 32.5042 | 0.710242 |
| 2440 | 33.7047 | -0.431495 | 5480 | 31.51 | 0.683833 |
| 2450 | 34.2952 | -0.346288 | 5510 | 28.5465 | 0.0650188 |
| 2460 | 35.2418 | -0.078814 | 5540 | 28.3181 | -0.370164 |
| 2470 | 35.0632 | 0.0835272 | 5570 | 28.1883 | -0.42888 |
| 2480 | 34.6723 | 0.255522 | 5600 | 27.6675 | -0.672952 |
| 2490 | 34.3241 | 0.404184 | 5630 | 25.9503 | -0.95055 |
| 2500 | 33.6194 | 0.522651 | 5660 | 25.2408 | -1.04433 |
| 2510 | 33.235 | 0.600517 | 5690 | 26.1959 | -1.02914 |
| 2520 | 33.2218 | 0.723837 | 5720 | 26.6448 | -1.1502 |
| 2530 | 33.2045 | 0.813722 | 5750 | 27.7675 | -0.936566 |
| 2540 | 33.2685 | 0.86697 | 5780 | 27.5825 | -1.06122 |
| 2550 | 32.8289 | 0.722066 | 5810 | 27.831 | -1.25302 |
| 2560 | 33.03 | 0.597398 | 5840 | 24.5757 | -1.6394 |
| 2570 | 32.6937 | 0.433197 | 5850 | 24.0345 | -1.57726 |

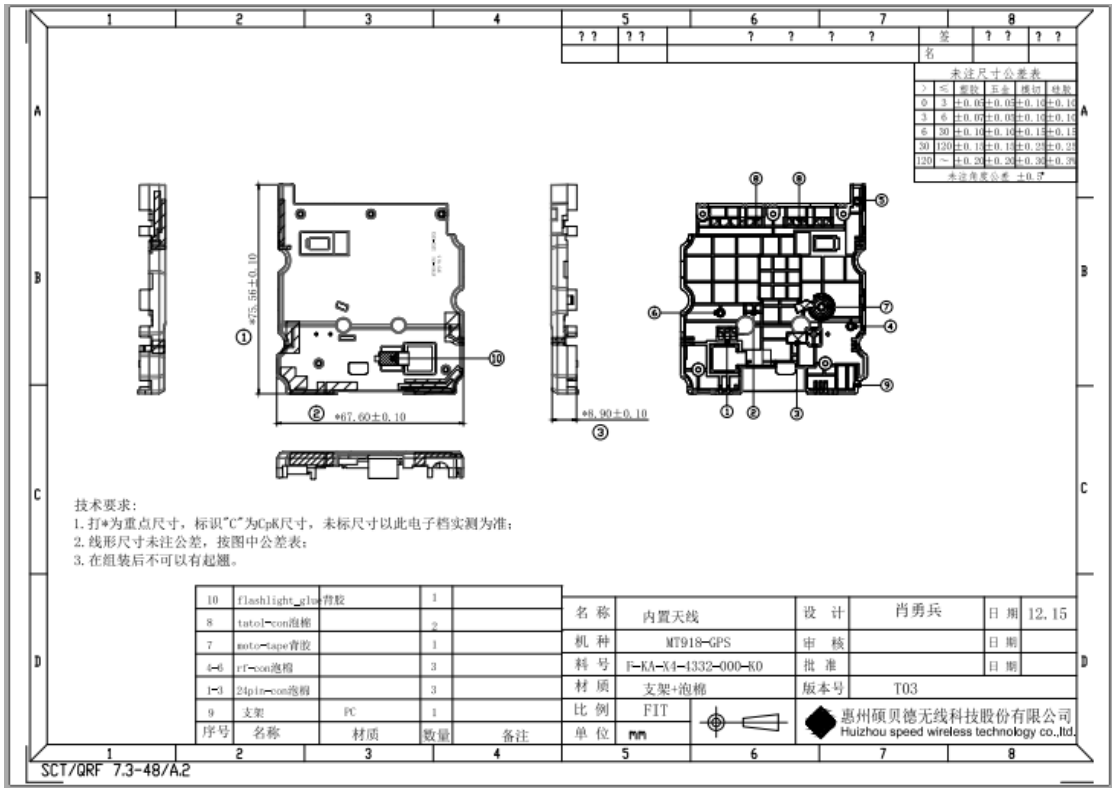
## 4.3 Antenna 2D pattern

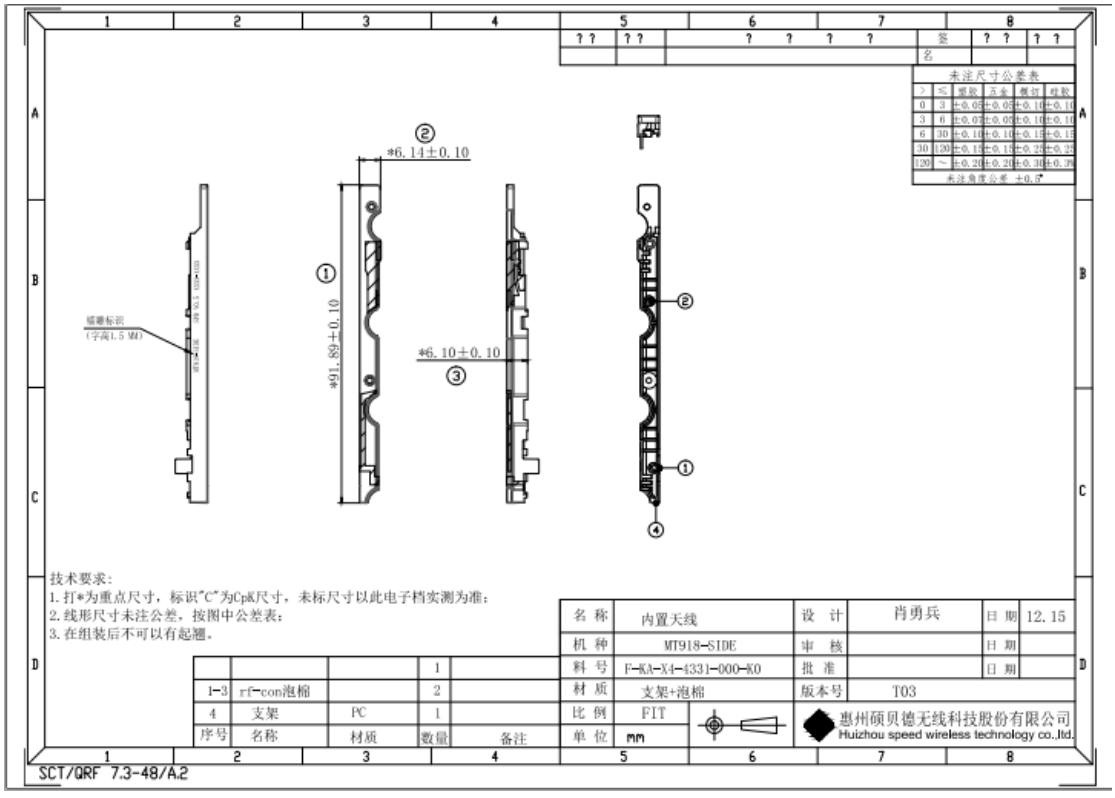


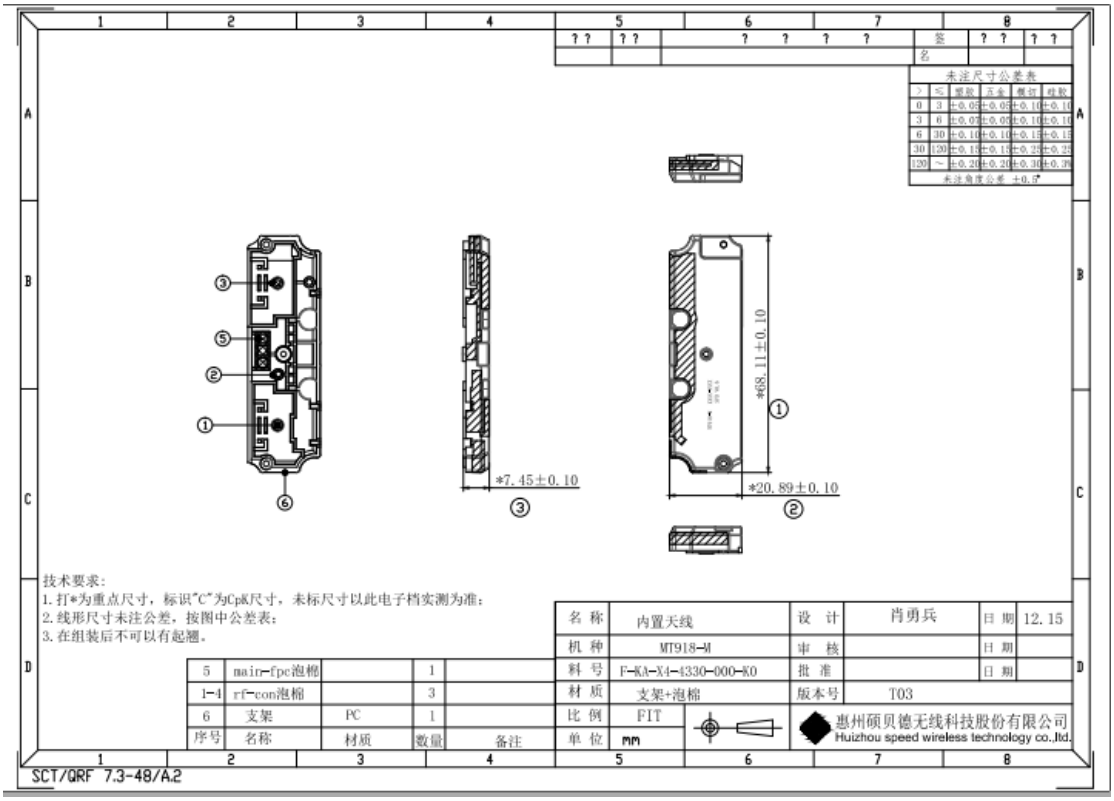

Cut2
0
30
330
60
300
90
270
120
240
150
210
180
Power (dBm)
Max: 0
Min: -30
Scale: 5/div
Angle (?
2450 MHz
5450 MHz


Cut3
0
30
330
60
300
90
270
120
240
150
210
180
Power (dBm)
Max: 5
Min: -25
Scale: 5/div
Angle (?
2450 MHz
5450 MHz

# 5 Structure Diagram




未注尺寸公差表
*8.11±0.10
*20.89±0.10
*7.45±0.10
技术要求：
1.打*为重点尺寸，标识"C"为CpK尺寸，未标尺寸以此电子档实测为准；
2.线形尺寸未注公差，按图中公差表；
3.在组装后不可以有起翘。
5 main-fpc泡棉 1
1-4 rf-con泡棉 3
6 支架 PC 1
序号 名称 材质 数量 备注
名 称 内置天线
机 种 MT918-M
料 号 F-KA-X4-4330-000-K0
材 质 支架+泡棉
比 例 FIT
单 位 mm
设 计 肖勇兵
审 核
批 准
日 期 12.15
版本号 T03
惠州硕贝德无线科技股份有限公司
Huizhou speed wireless technology co.,ltd.
SCT/QRF 7.3-48/A.2