Nano-ant Product Specification

Internal antenna

YING GUAN YG420-TP 2.4G/5.8GWIFI

APPROVED BY	SIGNATURE	DATE
Mechanical Engineer:	Zhou Yang	2021-02-23
RF Engineer:	Li Guodong	2021-02-23
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Approved By Customer (as required):		

1.0 DESCRIPTIONS AND PART NUMBER;

1.1 DESCRIPTION;

The antenna mounts to the housing of the projiector. And after that, the feed point on the prolongation of metal plate should firmly touch the contact provided on the PCB in the respective area.

1.2 PART NUMBER

Part number	Frequency Band	HH Part Number
SZ6023L		

2.0 ELECTRICAL SPECIFICATIONS;

2.1 FREQUENCY BAND

YG420-TP 2.4G/5.8GWIFI

2.2 IMPEDANCE - Nominal impedance: 50Ω
2.3 ACTIVE TEST REPORT

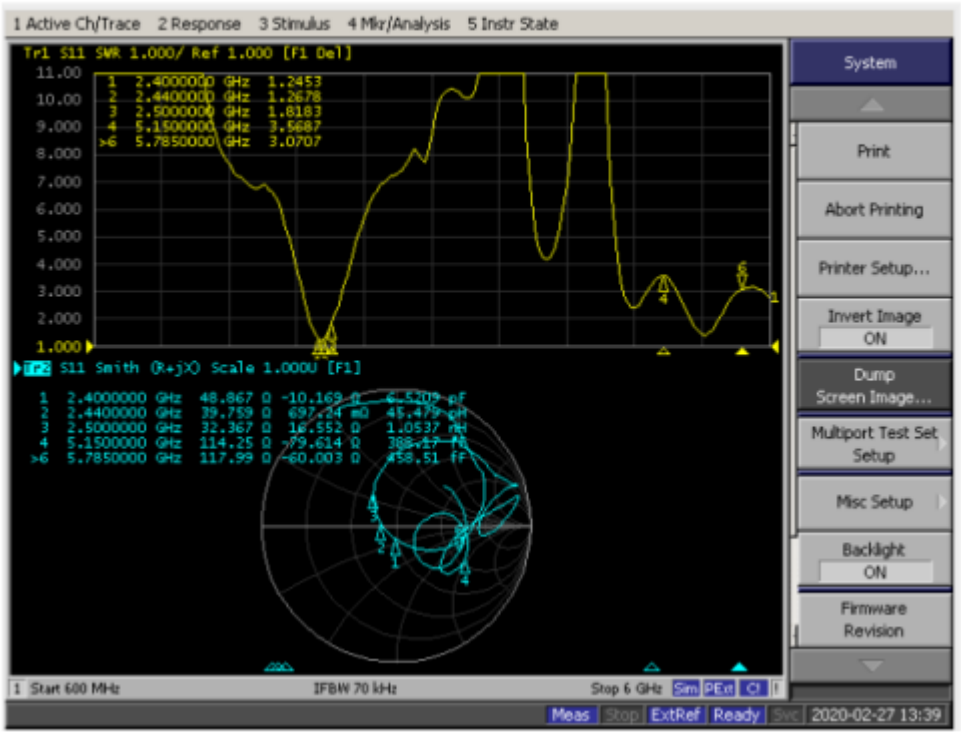
Test equipment

E5071C Network Analyzer

SG24 microwave anechoic chamber

1 . Antenna matching circuit , Matching circuit No changes

2. Antenna S11



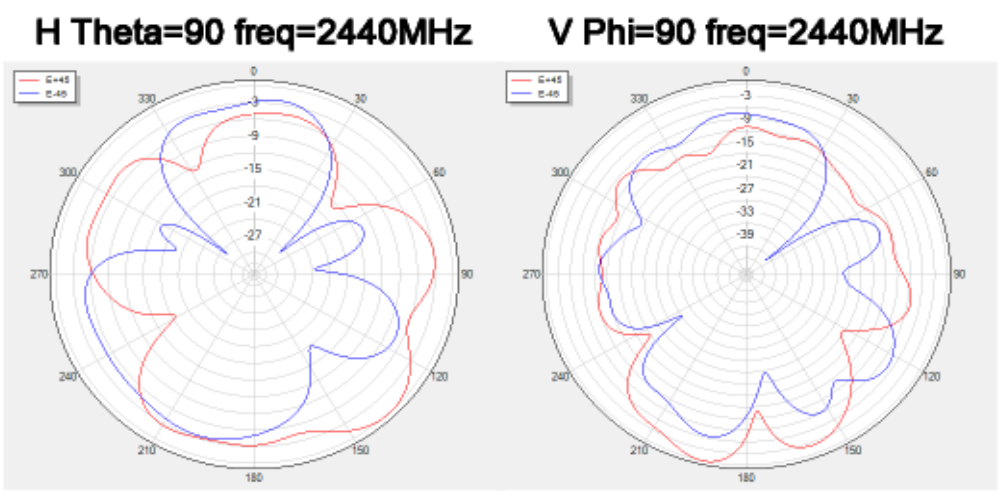
3. Passive test data Passive result

The following figure shows the efficiency of 2.4G 5G antenna

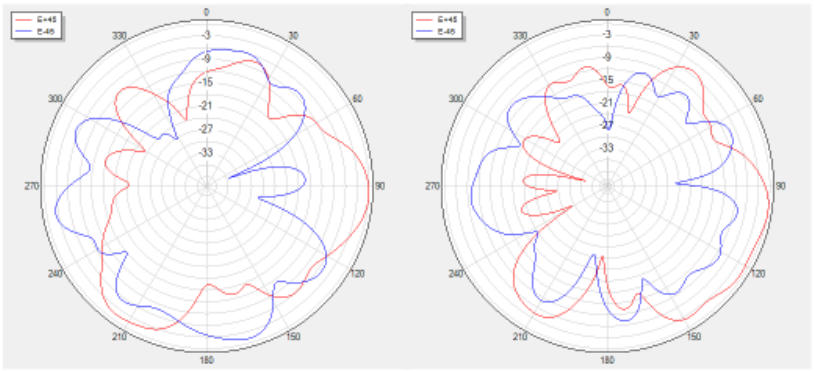
Gain&Efficiency			
frequency (Hz)	gain (dB)	efficiency (dB)	efficiency
2400M	3.5	-2.82	47.24%
2410M	3.71	-2.73	48.32%
2420M	4.1	-2.6	50%
2430M	4.28	-2.31	53.70%
2440M	4.27	-2.27	54.33%
2450M	4.67	-2.02	58.77%
2460M	4.58	-2	59.15%
2470M	4.53	-1.89	59.69%
2480M	4.73	-1.84	59.39%
2490M	4.59	-1.91	58.46%
2500M	4.38	-1.96	58.70%

Gain&Efficiency			
frequency (Hz)	gain (dB)	efficiency (dB)	efficiency
5100M	4.85	-2.14	56.06%
5135M	4.6	-2.49	51.41%
5170M	4.77	-2.31	53.77%
5205M	4.96	-2.11	56.57%
5240M	4.65	-2.42	52.26%
5275M	4.65	-2.34	53.30%
5310M	4.47	-2.38	52.84%
5345M	5.32	-1.92	59.22%
5380M	5.26	-2.3	53.90%
5415M	5.83	-2.23	54.78%
5450M	5.61	-2.5	51.28%
5485M	5.28	-2.31	53.74%
5520M	5.33	-2.31	53.74%
5555M	5.09	-2.61	49.82%
5590M	5.29	-2.49	51.36%
5625M	5.16	-2.68	49%
5660M	5.4	-2.21	55.06%
5695M	5.32	-2.33	48.51%
5730M	5.21	-2.26	54.45%
5765M	4.61	-2.53	51.87%
5800M	4.55	-2.26	55.39%

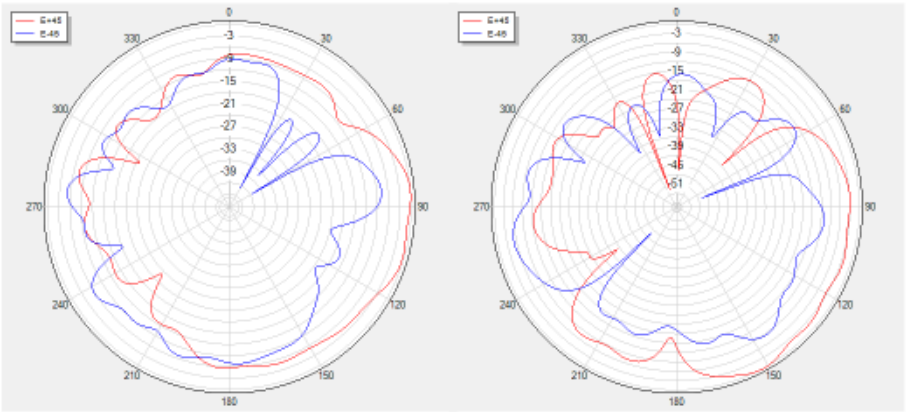
4.The following figure shows the Pattern of 2.4G 5G antenna



H Theta=90 freq=5205MHz V Phi=90 freq=5205MHz



H Theta=90 freq=5800MHz V Phi=90 freq=5800MHz



3.0 MECHANICAL SPECIFICATIONS;

3.1 MECHANICAL CONFIGURATION
The appearance of the antenna is in accordance with drawing 6023L

3.2 CONNECTOR TYPE
The connector type is an embedded type

4.0 ENVIRONMENTAL SPECIFICATIONS

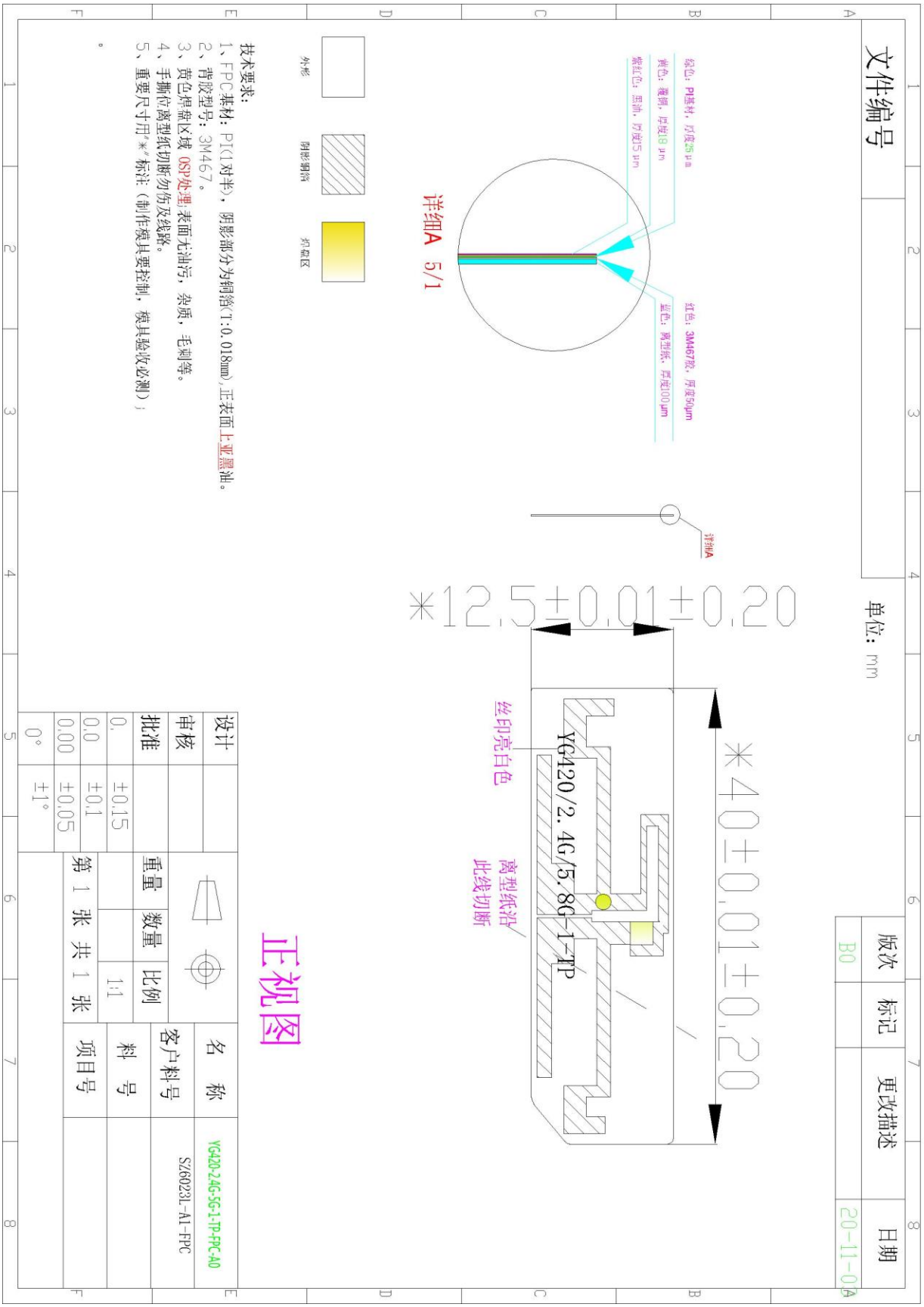
4.1 TEMPERATURE
Operating Temperature Range: -40°C～ +85°C
Storage Temperature Range: -40°C～ +120°C

4.2 SALT SPRAY TEST
Antenna be exposed in a 35°C, 5% salt fog chamber for 24 hours then check the appearance and performance against the specifications in normal temperature.

4.3 STATIC HUMIDITY TEST
The antenna is subjected to the following test:
Temperatures: +70℃ and 90%--95%RH
Test Duration: 24 Hours
The antenna should not undergo any structural or functional change and remain within the electrical/mechanical specification.

5.0 PACKAGING
The antennas will be packed in bags, There are 100 or 200 antennas per bag. The bags are packed in corrugated fibreboard over box
. Drawing

Drawing ：


文件编号
单位：mm
版次
B0
标记
更改描述
日期
20-11-04
详细A 5/1
绿色：PI基材，厚度25μm
黄色：覆铜，厚度18 μm
棕红色：黑油，厚度5 μm
红色：3M467胶，厚度50μm
蓝色：离型纸，厚度100 μm
详细A
*12.5±0.01±0.20
*40±0.01±0.20
YG420/2.4G/5.8G-1-TP
丝印亮白色
离型纸沿此线切断
正视图
外形
附胶铜箔
焊盘区
技术要求：
1、FPC基材：PI(1对半)，阴影部分为铜箔(T:0.018mm)，正表面上亚黑油。
2、背胶型号：3M467。
3、黄色焊盘区域 OSP处理 表面无油污，杂质，毛刺等。
4、手撕位离型纸切断勿伤及线路。
5、重要尺寸用"*"标注（制作模具要控制，模具验收必测）。
设计
审核
批准
重量
数量
比例
1:1
第 1 张 共 1 张
名 称
YG420-2.4G-5G-1-TP-FPC-A0
客户料号
料 号
SZ6023L-A1-FPC
项目号
0.
±0.15
0.0
±0.1
0.00
±0.05
0°
±1°

文件编号
版次
修订
日期
2019-04-25
单位：mm
A
B
*1.0±0.3
*2.5±0.3
*2.0±0.3
150
Ø1.13±0.08
YG421灰色1.13锡锡线-端子,末端剥线：2-2.5-1，L=150mm
技术要求
1：剥线尺寸要准确，电性能符合要求。
2：电缆无破损，无色差，无污渍。
3：A端圆剥浸锡，B端接端子。
4：“*”为重点检验尺寸。
SIP
外观 按外观检验规范
外径 Ø1.13 ±0.08 C=0 尺 H 视 灰色
A端编网长 2.0 ±0.3 M 尺 需浸锡
A端绝缘长 2.5 ±0.2 M 尺
A端芯线长 1.0 ±0.3 M 尺 需浸锡
总长 230 ±1 M 尺
检测内容 基准值 公差 AQL=0.25 测试工具 备注
设计
审核
批准
0. 0.0 0.00 ±0.05 0°
重量 数量 比例
第 1 张 1 4:1
名称 WTFT2灰色1.13锡锡线-端子,末端剥线：2-2.5-1，L=150mm
客户料号
料号
项目号
2 镀金
1 铜
项次 名称 数量 材质 图号 料号 备注
1 1 / 灰色