

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
Engineering Manager:	Ri Jae-il	2021-02-23
Approved By Customer (as required):		

1.0 DESCRIPTIONS AND PART NUMBER;

1.1 DESCRIPTION;

The antenna mounts to the housing of the projector. 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

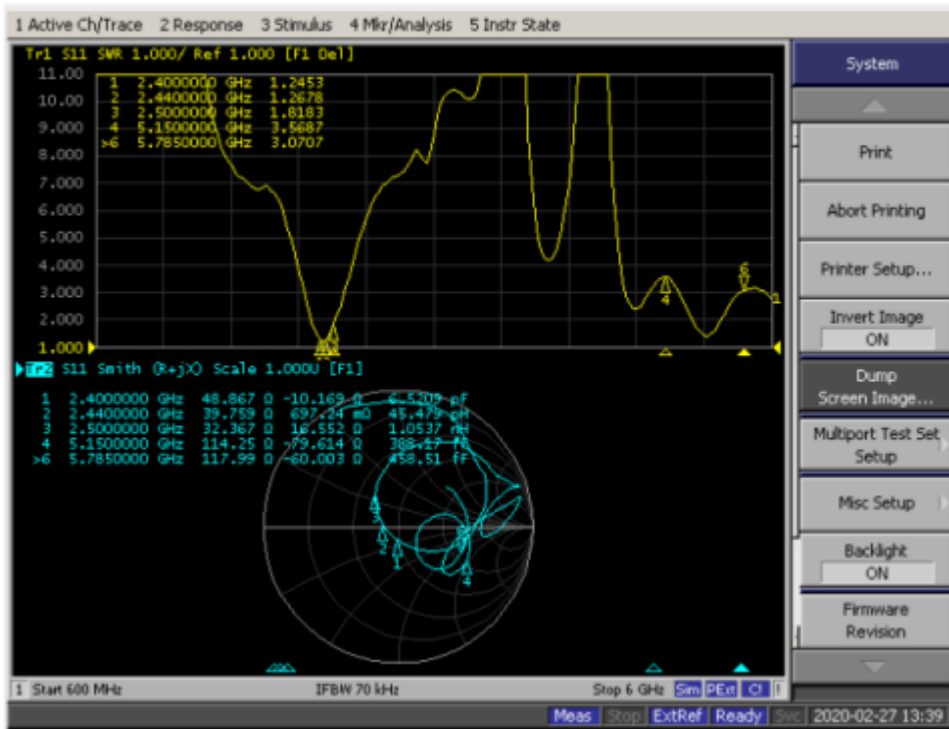


SG24 microwave anechoic chamber



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

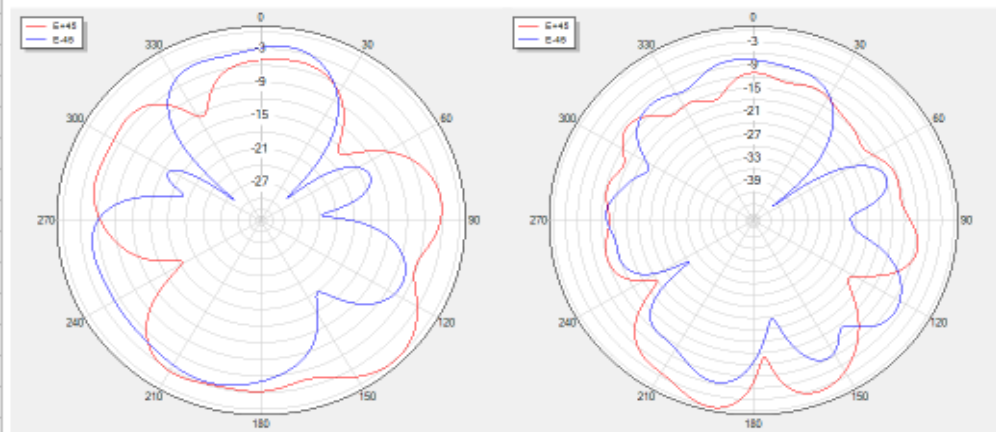
Gain&Efficiency			
frequency (Hz)	gain (dB)	efficiency (dB)	efficiency
2400M	3.5	-2.82	47.24%
2410M	3.71	-2.73	48.32%
2420M	4.1	-2.6	50%
2430M	4.28	-2.31	53.70%
2440M	4.27	-2.27	54.33%
2450M	4.67	-2.02	58.77%
2460M	4.58	-2	59.15%
2470M	4.53	-1.89	59.69%
2480M	4.73	-1.84	59.39%
2490M	4.59	-1.91	58.46%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

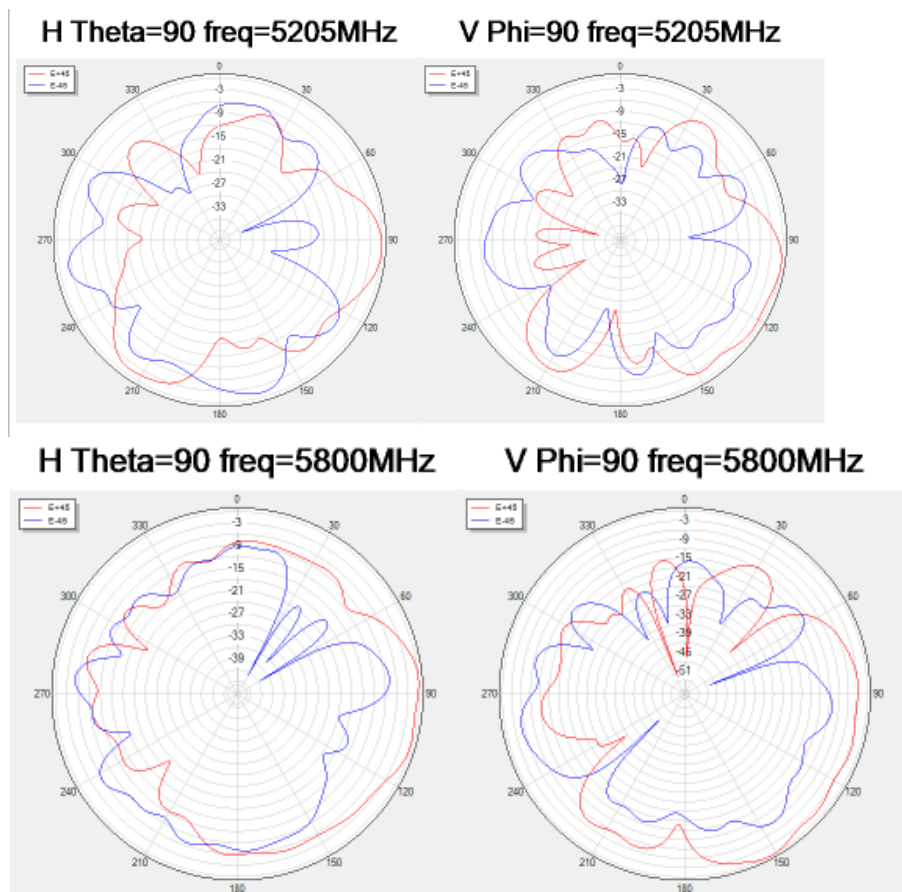
Gain&Efficiency			
frequency (Hz)	gain (dB)	efficiency (dB)	efficiency
5100M	4.85	-2.14	56.06%
5135M	4.6	-2.49	51.41%
5170M	4.77	-2.31	53.77%
5205M	4.96	-2.11	56.57%
5240M	4.65	-2.42	52.26%
5275M	4.65	-2.34	53.30%
5310M	4.47	-2.38	52.84%
5345M	5.32	-1.92	59.22%
5380M	5.26	-2.3	53.90%
5415M	5.83	-2.23	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=2440MHz

V Phi=90 freq=2440MHz





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: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

Storage Temperature Range: $-40^{\circ}\text{C} \sim +120^{\circ}\text{C}$

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: $+70^{\circ}\text{C}$ 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

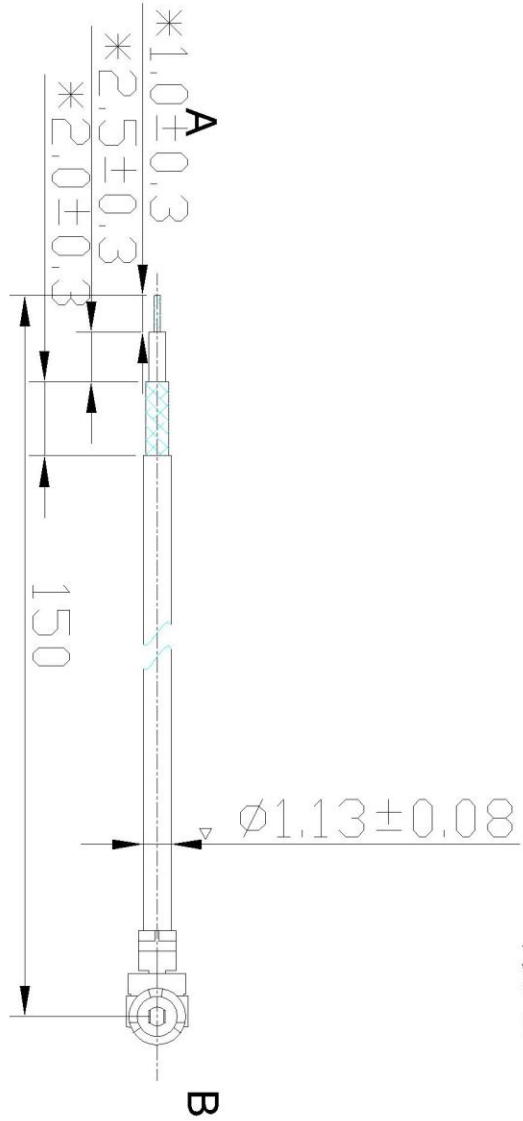
. Drawing

文件编号

单位: mm

版次 修订 日期

2019-04-25



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。

YG421灰色1.13锡锡线-端子, 未端剥线: 2-2.5-1, L=150mm

项次	名称	数量	材料	图号	料号	备注
2		1	铜			镀金
1		1	/			灰色

SIP

外观	尺寸	公差	检测方法	测试工具	备注
外径	φ1.13	±0.08	尺	尺	按外观检验规范
A端铜网长	2.0	±0.3	尺	尺	需浸锡
A端绝缘长	2.5	±0.2	尺	尺	
A端芯线长	1.0	±0.3	尺	尺	需浸锡
总长	230	±1	尺	尺	
检测内容	基准值	公差	检测方法	测试工具	备注

设计	审核	批准	重量	数量	比例	名称	客户料号
				1	4:1	WT12灰色1.13锡锡线-端子, 未端剥线: 2-2.5-1, L=150mm	

料号	项目号
	第 1 张