

Shenzhen billion Mingyuan technology Co., LTD

APPROVAL SHEET

客户 Customer	鸟鸟科技	规格型号 Specs	N73S
亿铭远料号 Part Number	YMY006-N73S-020-A0 YMY006-N73S-021-A0 YMY006-N73S-022-A0 YMY006-N73S-023-A0 YMY006-N73S-024-A0	频 段 Frequency Band	LTE:B4/B38/B40/B41 G850/900/1800 W1/2/5/ WIFI/BT
颜 色 Color	黑色	版 本 Edition	REV:A0
销 售 Salesperson	陆发亮	设 计 Design	雷耀波
结 构 Structure	覃云林	确 认 Confirm	
日 期 Date	2024.3.28		

客户确认 Customer confirmation:

携手共进 共创未来

Join hands to create the future

一、Product specification

The report mainly provides the parameter test of N73S antenna performance. The N73S antenna is a 4G antenna. (As shown in Figure 1 below)

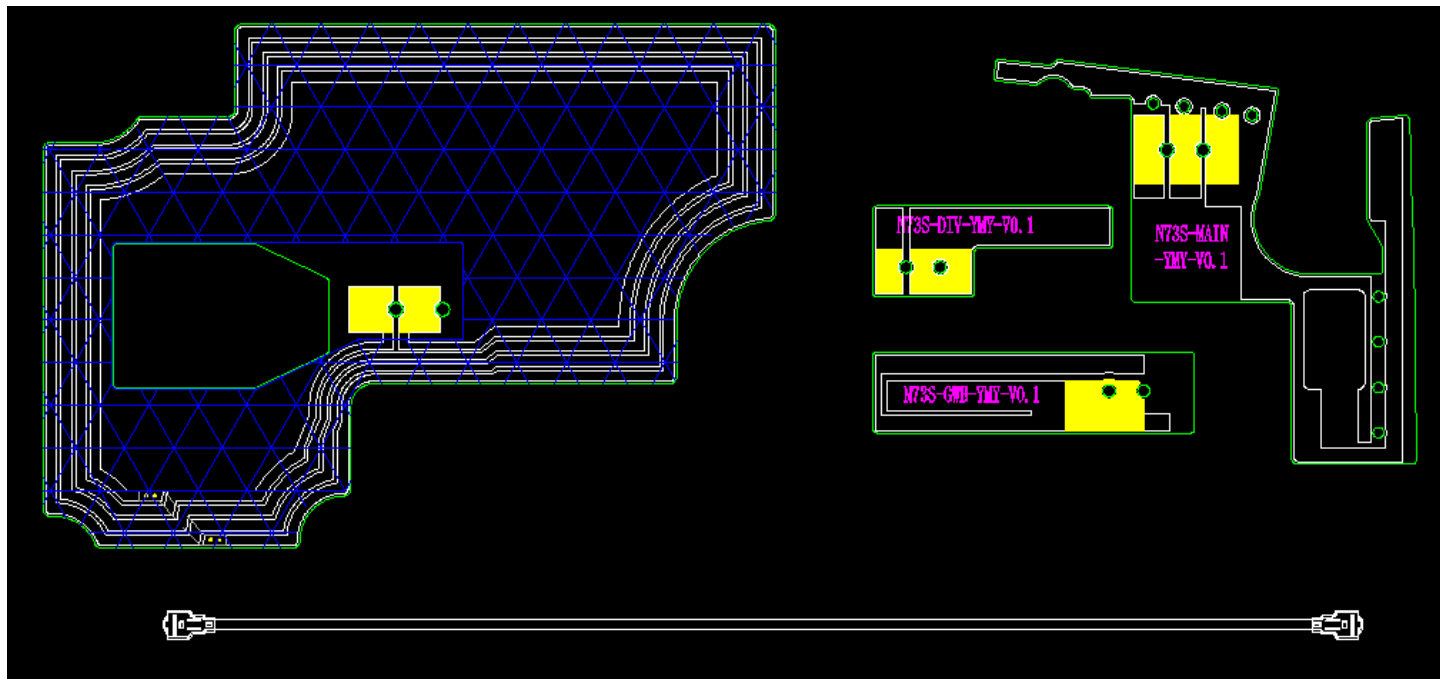


图 1 N73S 天线

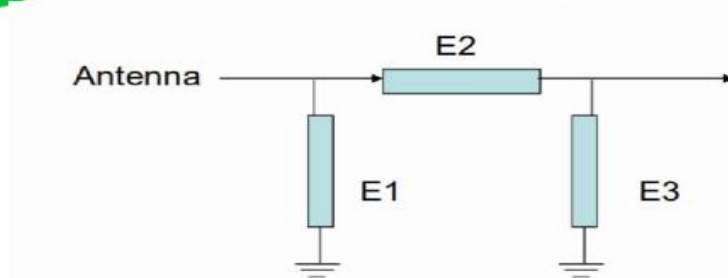
Second, electrical performance

1. Specifications and standards

The N73S antenna operates in the 2400-2500MHZ frequency band and generates resonance in this frequency band.

2. Antenna matching circuit

Antenna structure: FPC



Element	Value
E1	NC
E2	0欧姆
E3	NC

3. Parameter testing

1. Test Settings

The VSWR test device is connected in sequence as follows:

E5071B Network Analyzer → 50 ohm coaxial Cable → 110mm long copper pipe → Test fixture

Treatment of test fixtures:

From the antenna 50 ohm test point on the PCB of the phone, a hard cable is used to lead out the SMA-J connector, which is connected to the copper tube with the choke, and then connected to the other devices in turn.

2.测试

4. the setting of active test

The active test device is connected in sequence as follows:

Agilent8960→50 ohm coaxial Cable→Satimo SG16 test system → Cell phone to be tested

1. Test site

AW microwave darkroom: The test frequency range is 400MHz - 6GHz, the static zone range is 40cm circle, and the reflectivity is less than -90 dB.

2. Test results

The maximum radiated power and maximum receiving sensitivity reflect the maximum radiated power and the best receiving performance of the antenna in the whole radiated space. TRP and TIS reflect the average radiated power and average receiving sensitivity of the antenna, that is, the overall receiving performance of the antenna.

	Channel	TRP (dBm)	TIS (dBm)			Channel	TRP (dBm)	TIS (dBm)			Channel	TRP (dBm)	TIS (dBm)
FDD B1	18050	15.52		GSM850	128	18.64		TDD-38	37850	13.62			
	18300	13.47			190	20.13			38000	13.19			
	18550	13.04	-89.01		251	22.32	-102.03		38150	13.75	-82.59		
FDD B3	19250	15.99		GSM900	1	26.79		TDD-39	38350	17.96			
	19900	15.75			62	25.85			38450	16.97			
	19900	16.69	-89.48		124	24.86	-96.4		38550	15.7	-87.39		
FDD B4	20000	15.99		DCS1800	512	21.08		TDD-40	38750	17.67			
	20175	15.82			698	21.92			39150	19.04			
	20350	15.74	-85.4		885	23.13	-104.01		39550	18.51	-88.55		
FDD B5	20450	7.77		DCS1900	512	24.77		TDD41		13.21			
	20525	9.13			661	24.43			40620	12.18	-81.54		
	20600	10.99	-88.04		810	21.85	-99.61			13.20			
FDD B7	20800	15.26		W1	9612								
	21100	14.8			9750								
	21400	14.3	-88.71		9888								
FDD B8	21500	18.23		W2	9262								
	21625	17.23			9400								
	21750	15.44	-81.32		9538								
FDD B12	23060	0.06		W5	4132								
	23095	0.83			4183								
	23130				4233								
FDD B20	24200	10.4		W8	2937								
	24300	13.01			3013								
	24400	14.66	-83.85		3088								

WIFI测试

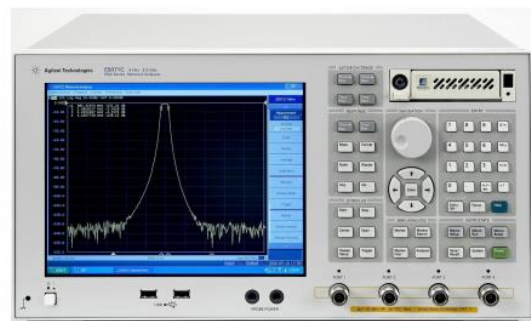
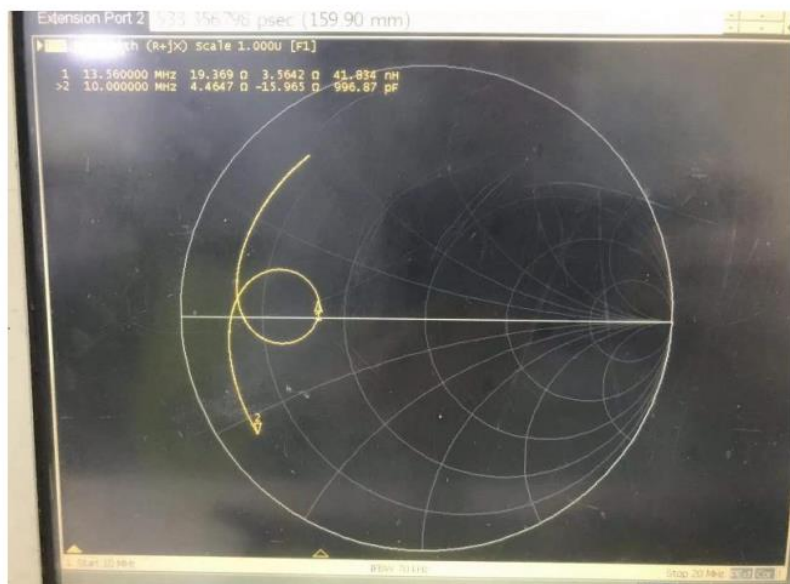
Standard	Band	Channel	Frequency	TRP	TIS
WIFI_B	B_11M	1	2412	11.94	-74.9
WIFI_B	B_11M	6	2437	12.24	-75.23
WIFI_B	B_11M	11	2462	13.42	-76.5
WIFI_A	A_54M	36	5180	7.12	-69.7
WIFI_A	A_54M	64	5320	4.53	-66.5
WIFI_A	A_54M	165	5745	3.3	-64.35

GPS measurement:



NFC Debugging:

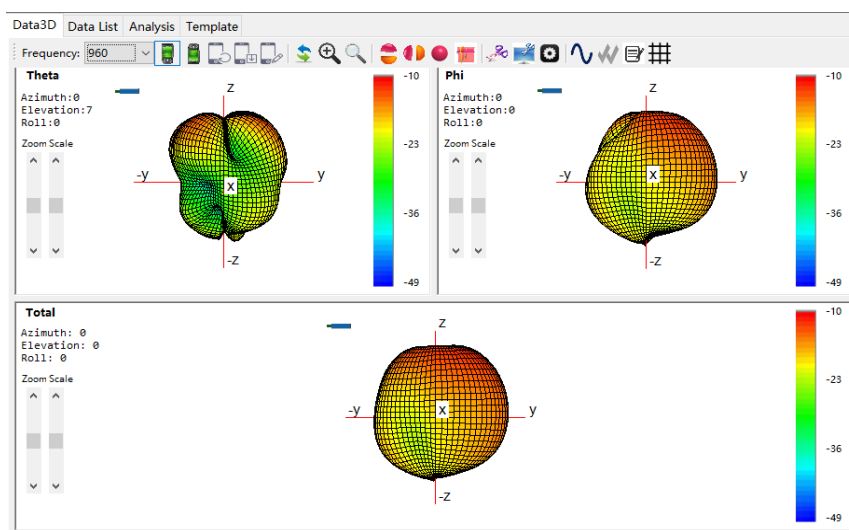
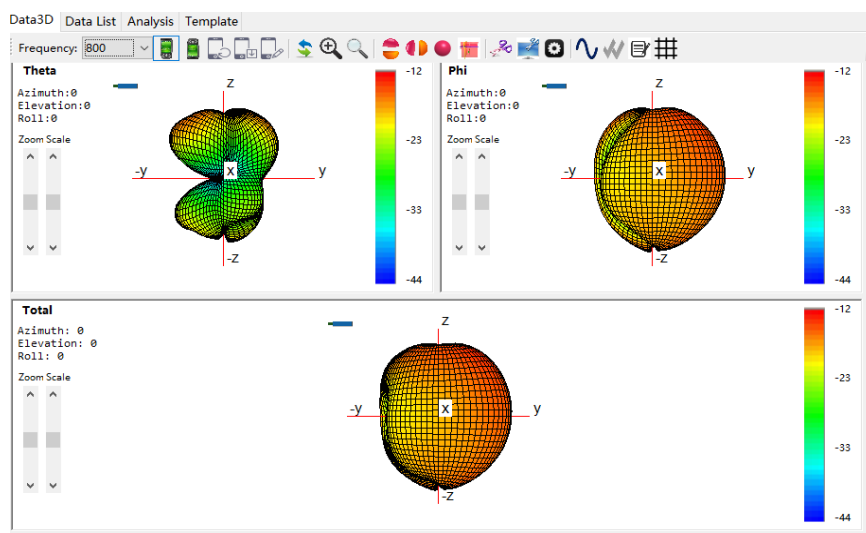
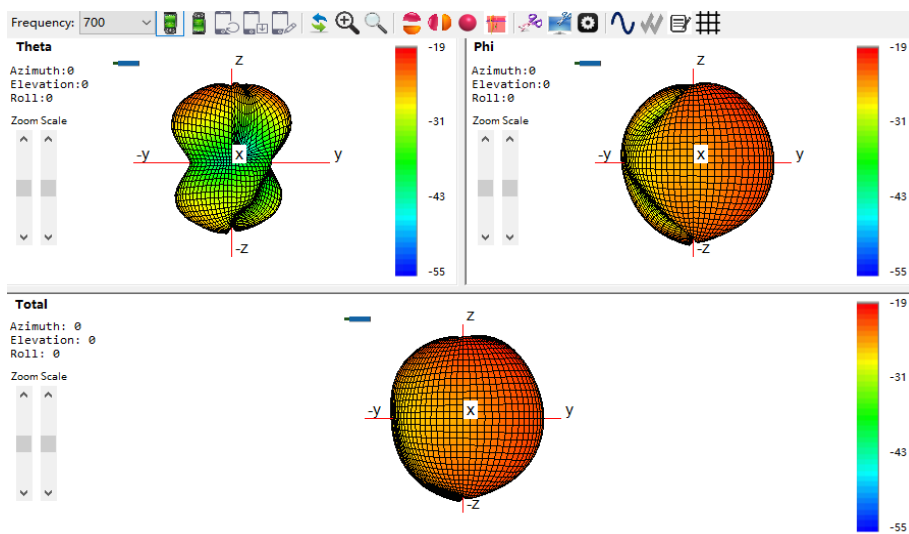
一. 无源调试及设备

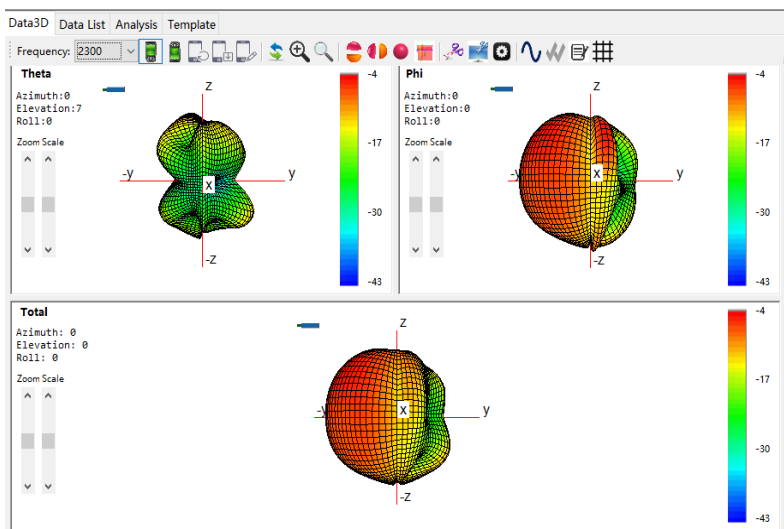
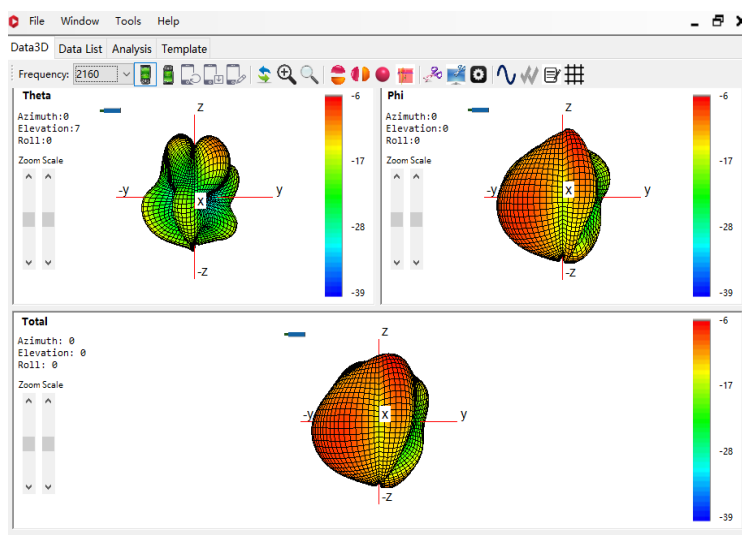
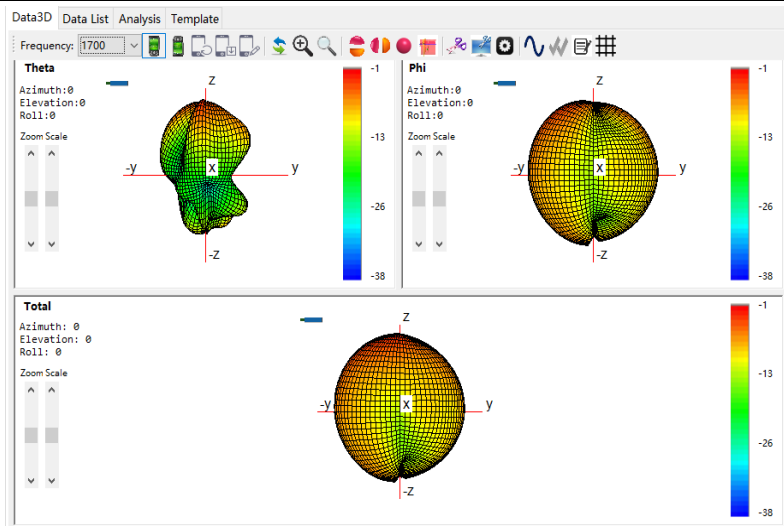


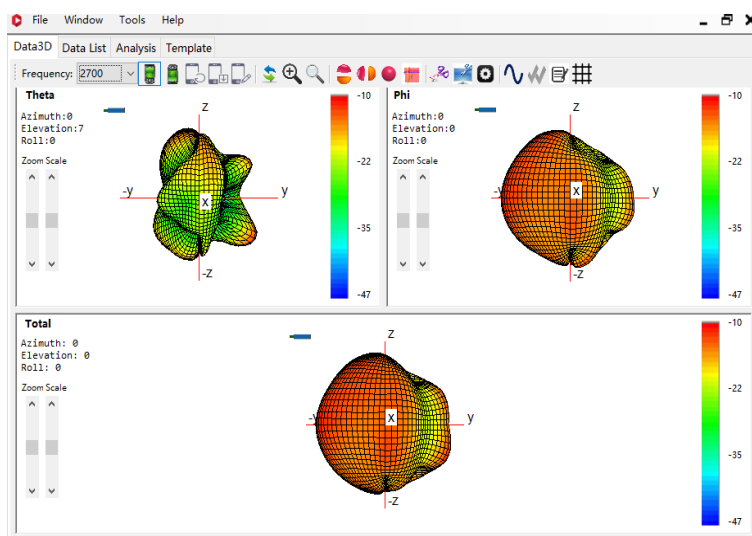
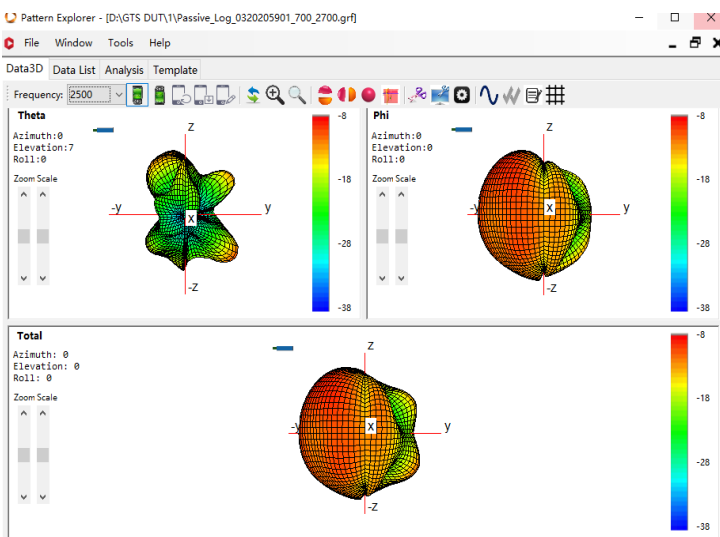
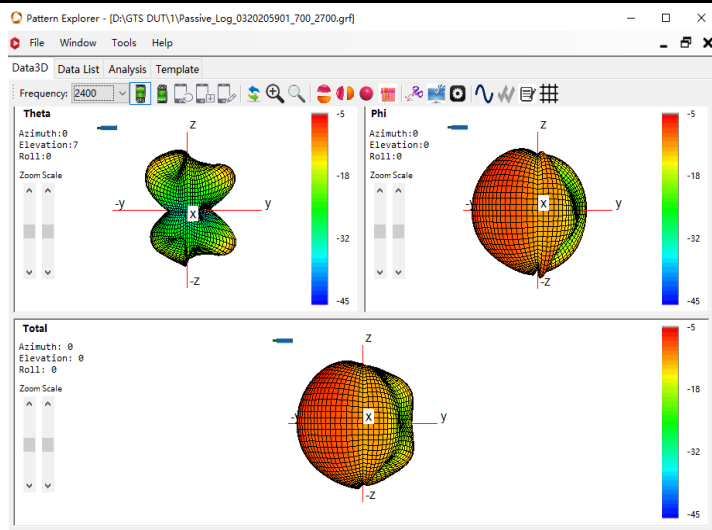
6.Antenna gain

Frequency band	Gain (dBi)
GSM850	-2.6
GSM1900	0.3
W2	0.3
W5	-2.6
LTE B4	-0.3
LTE B38	1.2
LTE B40	1.8
LTE B41	1
Bluetooth	0.6
WIFI	0.25

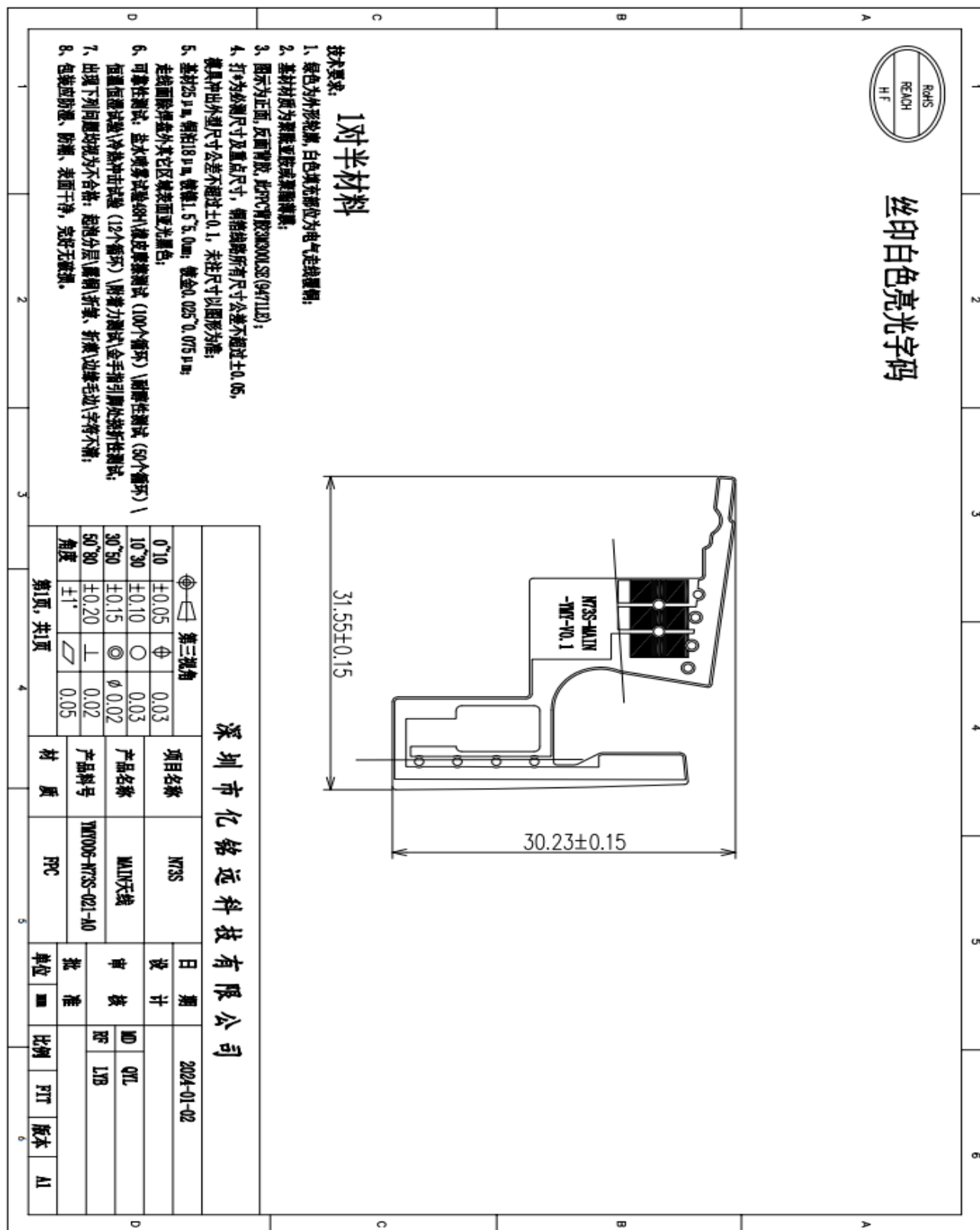
7. Directional diagram

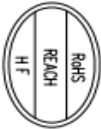




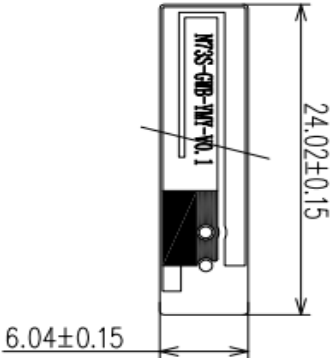


8. Structural drawing





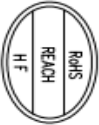
丝印白色亮光字码



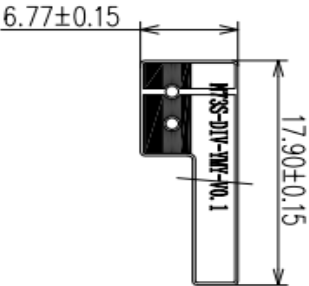
1对半材料

- 技术要求:
- 绿色为外形轮廓,白色填充部位为电气走线覆铜;
 - 基材材质为聚酰亚胺或聚酰亚胺膜;
 - 图示为正面,反面背胶,此PCB背胶300.5S(9471LE2);
 - 打*为必测尺寸及重点尺寸,铜箔线路所有尺寸公差不得超过±0.05,模具冲出外型尺寸公差不得超过±0.1,未注尺寸以图形为准;
 - 基材25 μm,铜箔18 μm,微蚀1.5 to 0um,镀金0.025 to 0.075 μm
 - 走线面除焊盘外其它区域表面无光颜色;
 - 可靠性测试:盐雾喷雾试验48h(镀皮厚度测试(100个循环)\耐腐蚀测试(50个循环)\恒湿恒湿试验\冷热冲击试验(12个循环)\附着力测试(金手指引脚处挠折性测试);
 - 出现下列问题均视为不合格:起层\分层\漏铜\折痕、折痕\边缘毛边\字符不清;
 - 包装应防潮、防漏、表面干净,完好无破损。

深圳市亿铭远科技有限公司												
第三视角				项目名称		NTSS		日期		2024-01-02		
0°10	±0.05	Φ	0.03	产品名称		设计						
10°30	±0.10	○	0.03	产品料号		审核						
30°50	±0.15	◎	φ 0.02	产品料号		RF		MD	QTL			
50°80	±0.20	└	0.02	材料		批准						
角度	±1°	└	0.05	PC		单位						mm
第1页, 共1页												



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1对半材料

- 技术要求:
- 颜色为外形轮廓,白色填充部位为电气走线覆铜;
 - 基材材质为聚酰亚胺或覆铜薄膜;
 - 图示为正面,反面背胶,此PCB需按300LSD(94711E);
 - 打为必须尺寸及重点尺寸,铜箔线路所有尺寸公差不得超过±0.05,模具冲出外形尺寸公差不得超过±0.1,未注尺寸以图形为准;
 - 基材25μm,铜箔18μm,镀镍1.5~3.0um,镀金0.025~0.075μm;
 - 走线面除焊盘外其它区域表面亚光黑色;
 - 可靠性测试:盐雾腐蚀试验48H(镀皮表面测试)(100个循环)\耐腐蚀性测试(50个循环)\恒湿恒湿试验\冷热冲击试验(12个循环)\附着力测试(金手指引脚处附着力测试);
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第三视角				项目名称				日期			
0~10	±0.05	Φ	0.03	N73S				2024-01-02			
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30~50	±0.15	◎	0.02	D1Y天线				审核			
50~80	±0.20	⊥	0.02	产品料号				MD QTL			
角度	±1°	∇	0.05	1W1006-F173S-023-A0				RF LTB			
第1页,共1页				材 质				单位			
				PCB				批 准			
								比例			
								FIT			
								版本			
								A1			

