
Confirmation of products

Customer	REOLINK TECHNOLOGY PTE.LTD.				
Project Name	DBB2	Version	A. 1	Date	2026/6/10
Project NO.	03. 25. 01. 002	Customer NO.	53. 05. 002. 0184		
Frequency Range	868~915MHz 2400~2500MHz 5100~5800MHz	Notes	SUB 1G + WIFI 天线		
Designed By					
Approved By					
Clients’ Approval					

Designer: SHENZHEN 3GTX ANTENNA TECHNOLOGY CO.,LTD.

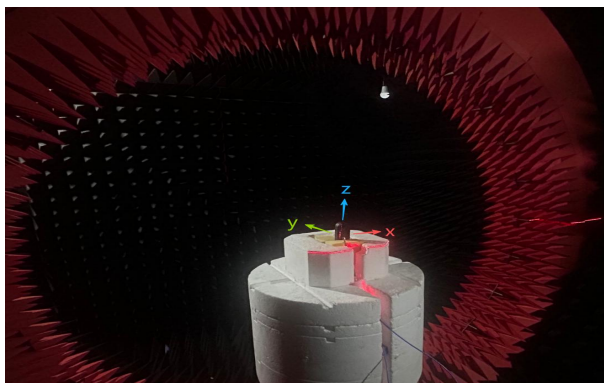
Building 1, 3 floors, Huarong Road, Dalang Street, Longhua District, Shenzhen

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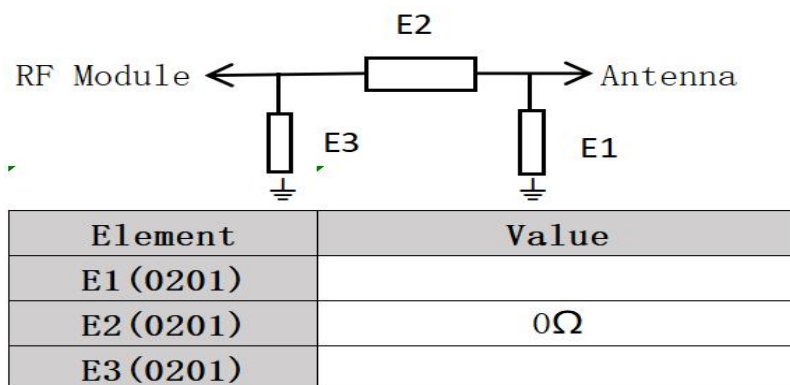
1、 Specification

This report mainly provides the testing conditions of various electric and structural performance parameters for cell phone antenna ----DBB2 Picture 1 shows the antenna designed by LR.



2 、 Matching circuit diagram

SUB 1G antenna:



3、 VSWR Testing

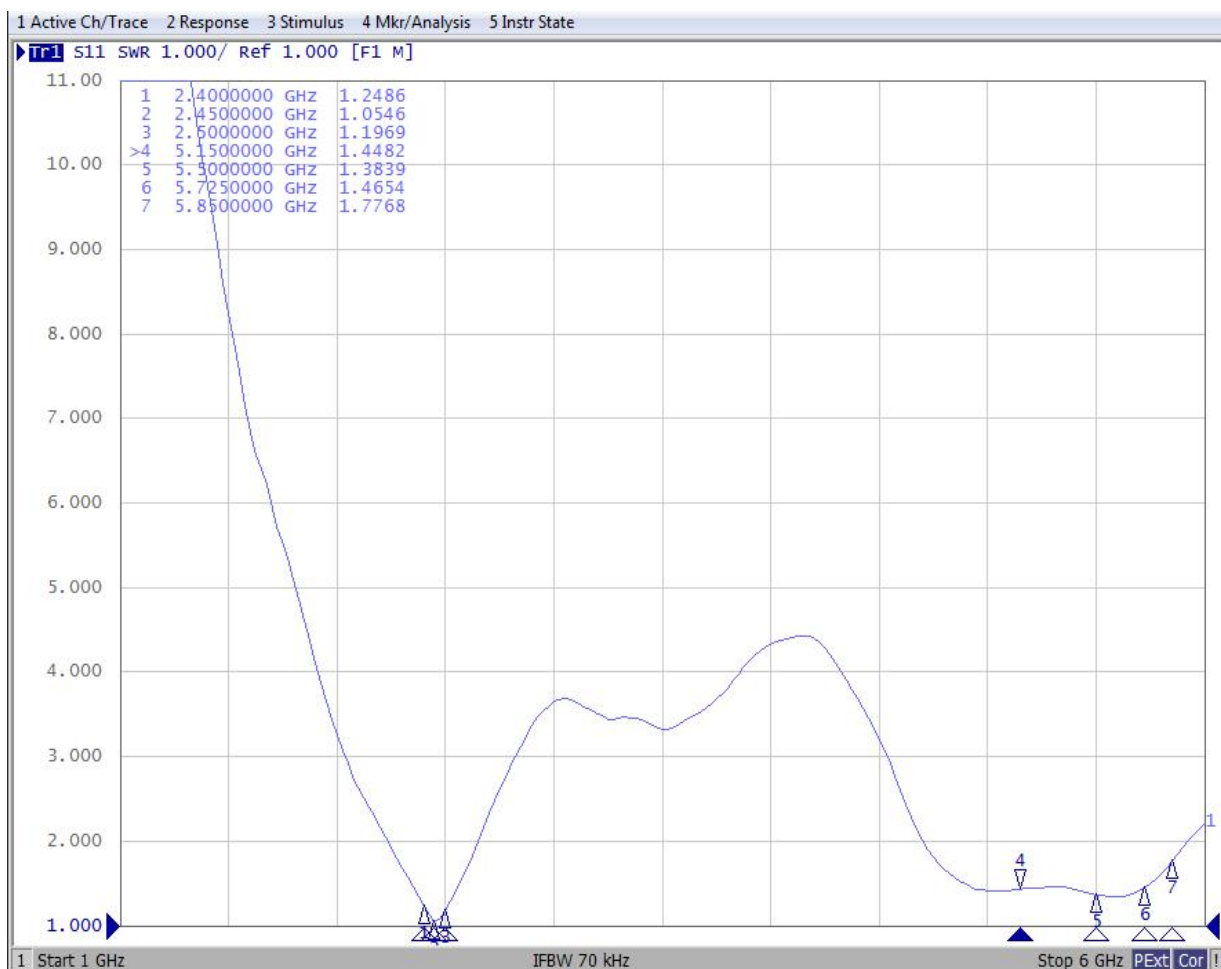
3.1 Testing connection

The **Return Loss** testing devices are connected in sequence: Agilent5071C Network Analyzer →Testing Cable → Customer-providing Devices.

3.2 VSWR

The following table expresses the vswr value of antenna's two edges of its frequency range. With regard to the relevant diagram of VSWR

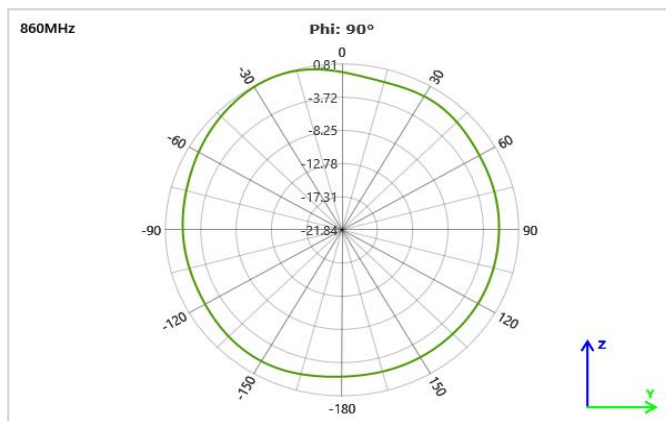
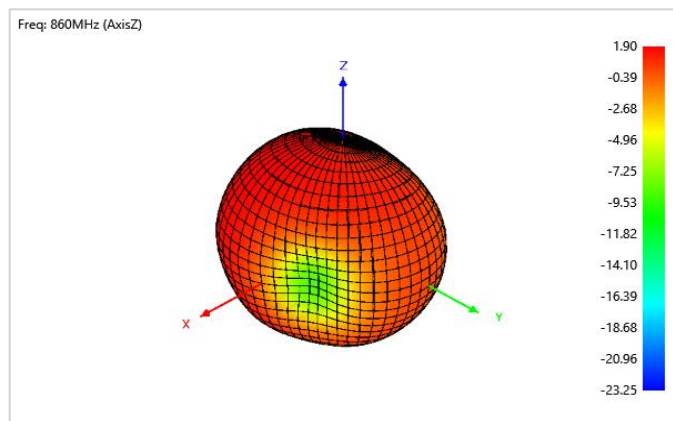
DBB2 SUB-1G VSWR		
Frequency (MHz)	868	915
VSWR	1.80	1.81



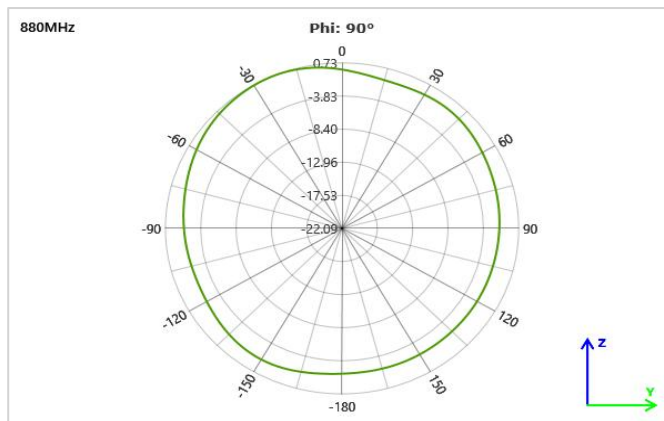
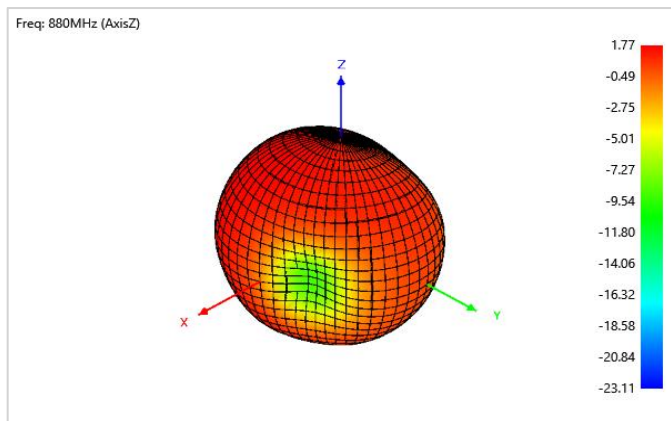
2.4+5.8G WIFI antenna VSWR

3.4Antenna 3D pattern

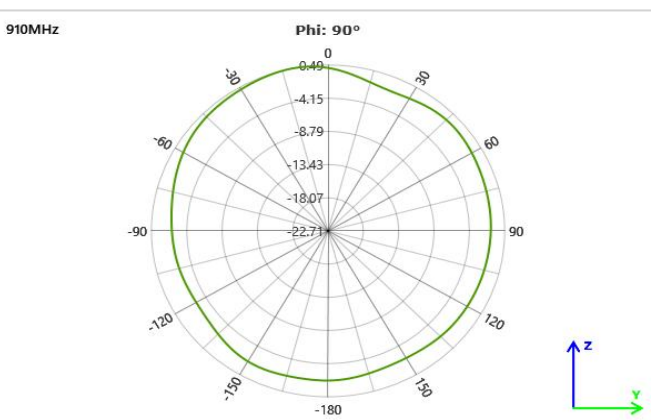
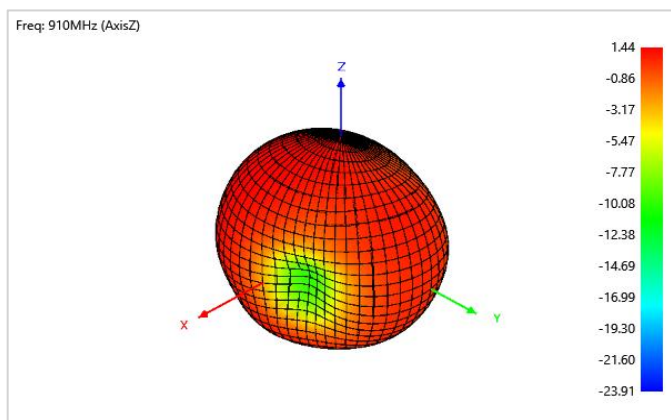
860MHz



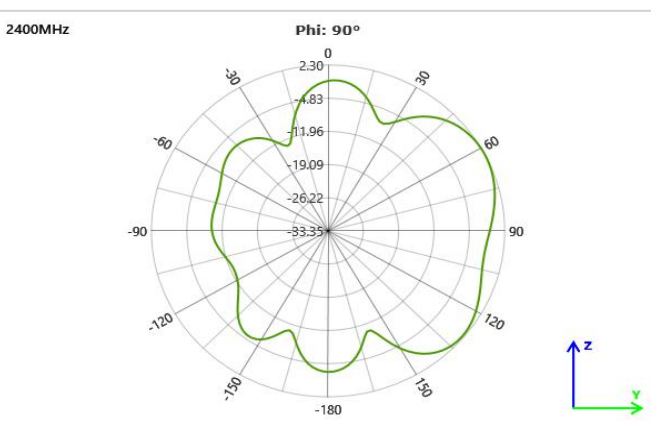
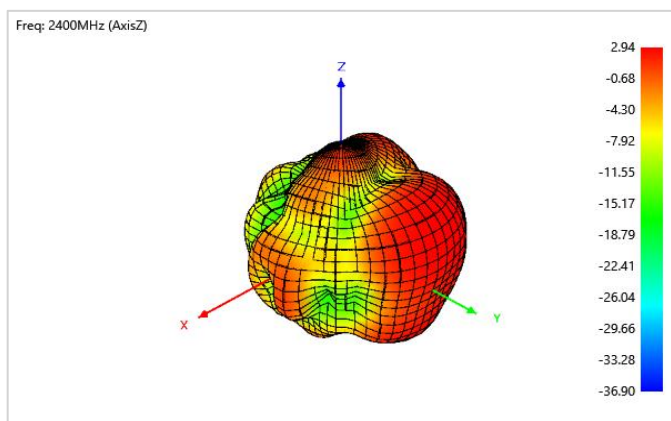
880MHz



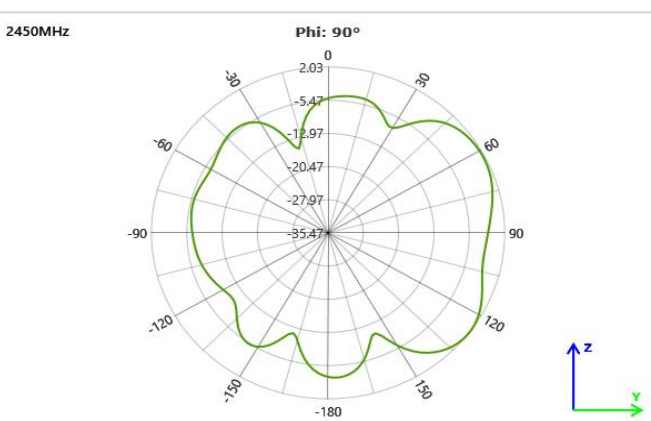
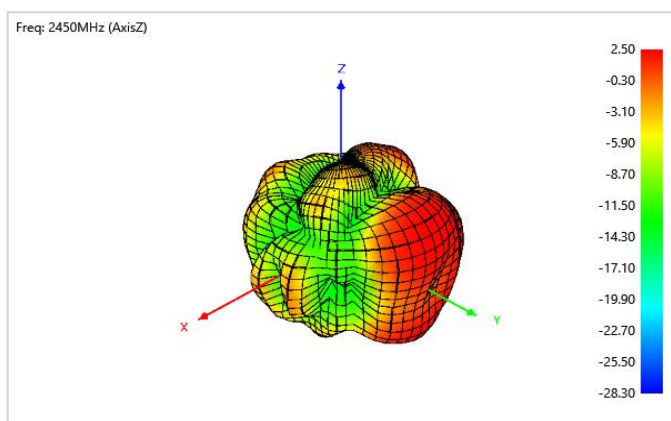
910MHz



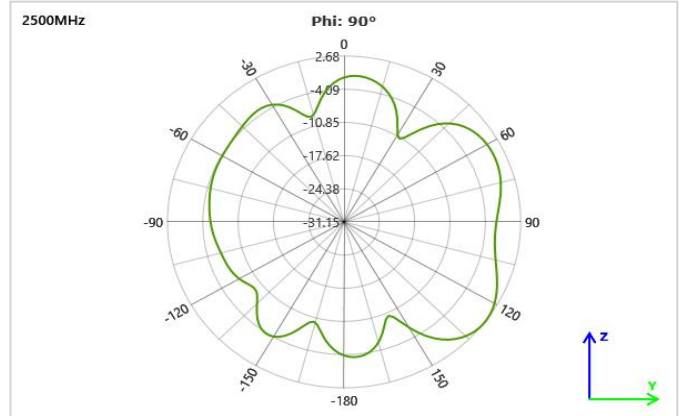
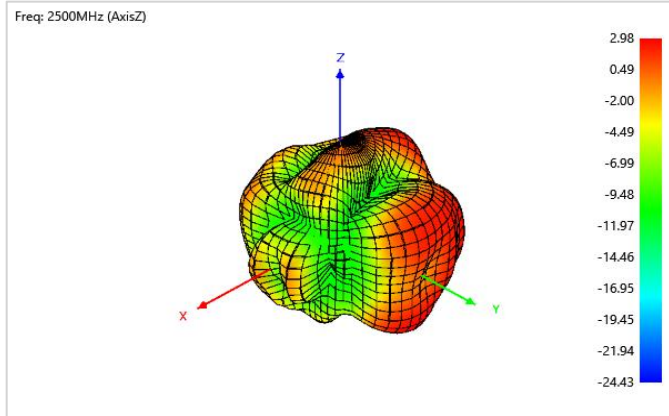
2400MHz



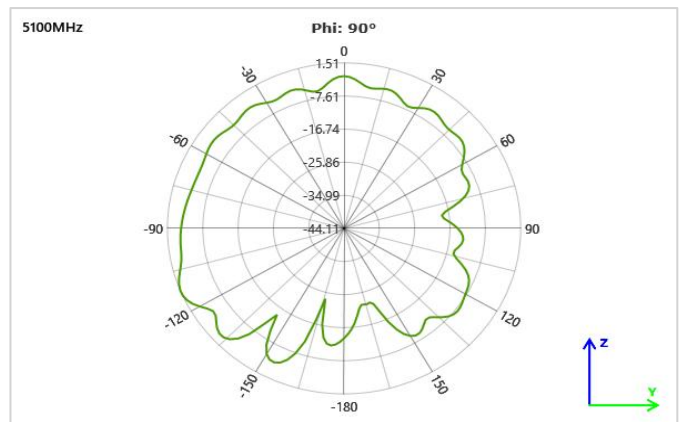
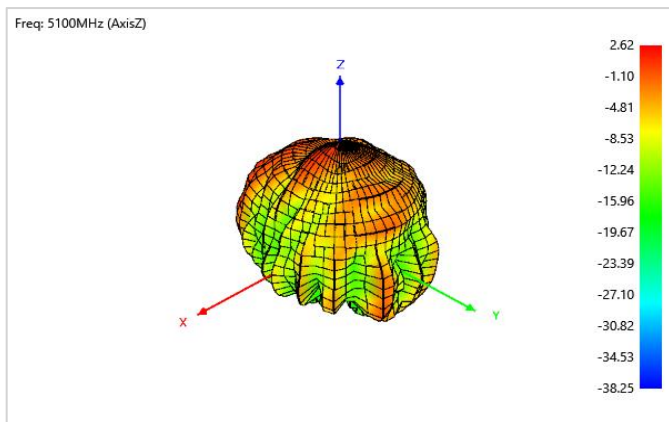
2450MHz



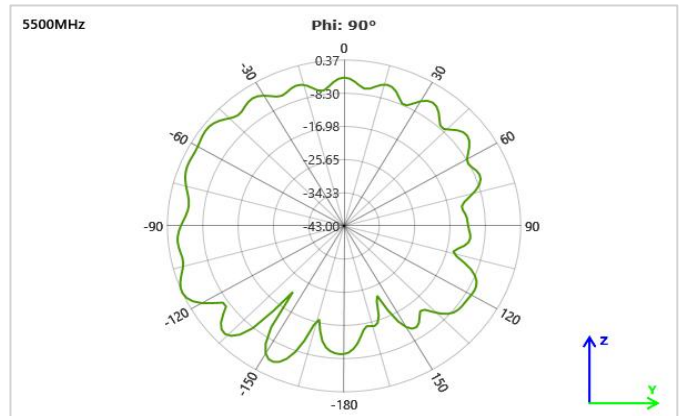
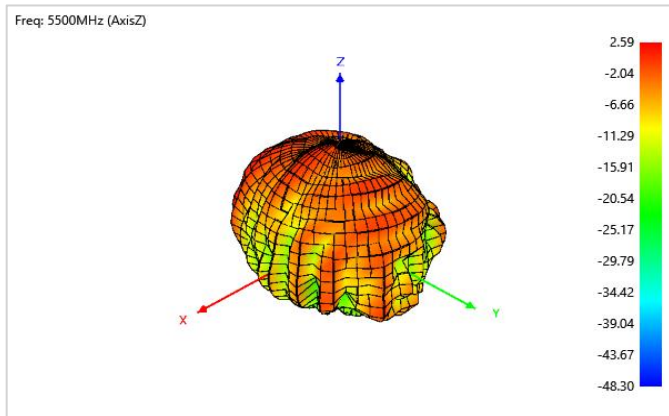
2500MHz



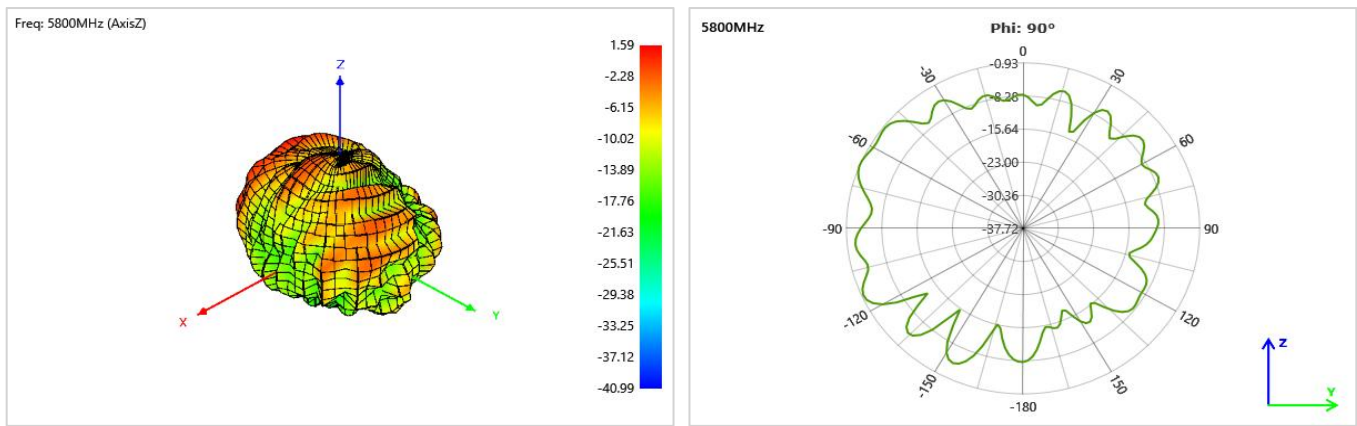
5100MHz



5500MHz



5800MHz



4、 Power、 Sensitivity Testing

4.1 Testing field

LR Microwave Anechoic Chamber : testing frequency ranges from 400MHz to 6GHz and the 40cm diameter spherical quite zone, the chamber provides less than -90dB reflectivity from 400MHz—6GHz.

4.2 Testing results

The following table indicates the testing results related to Power and Sensitivity in Microwave Anechoic Chamber, concerning the relative diagram.

4.3 Active testing.

DBB2 Sub-1G Antenna efficiency

Frequency (MHz)	Gain (dBi)	Efficiency (%)	Frequency (MHz)	Gain (dBi)	Efficiency (%)
830	1.74	60.74	885	1.59	59.54
835	1.91	62.33	890	1.64	60.53
840	1.93	62.32	895	1.58	59.58
845	1.98	62.82	900	1.57	59.00
850	1.98	62.71	905	1.41	56.83
855	2.05	63.90	910	1.44	56.41
860	1.90	62.24	915	1.45	55.31
865	1.86	61.62	920	1.43	54.33
870	1.87	61.73	925	1.54	54.52
875	1.64	58.92	930	1.43	52.40
880	1.77	61.65			

DBB2 WIFI Antenna efficiency

Frequency(MHz)	Gain(dBi)	Efficiency(%)	Frequency(MHz)	Gain(dBi)	Efficiency(%)
2300	2.84	56.36	5200	2.57	58.79
2310	2.73	56.51	5220	2.55	59.20
2320	2.60	55.23	5240	2.70	60.67
2330	2.59	54.63	5260	2.71	60.92
2340	2.57	54.38	5280	2.74	61.90
2350	2.49	53.52	5300	2.65	60.60
2360	2.47	53.57	5320	2.78	61.51
2370	2.66	54.70	5340	2.75	60.79
2380	2.71	54.48	5360	2.64	59.76
2390	2.82	54.65	5380	2.60	59.63

2400	2.94	55.73	5400	2.55	59.92
2410	2.99	56.45	5420	2.64	60.83
2420	2.93	56.44	5440	2.62	60.53
2430	2.93	56.91	5460	2.53	59.89
2440	2.72	58.32	5480	2.47	58.91
2450	2.50	59.50	5500	2.59	60.05
2460	2.46	60.51	5520	2.58	59.64
2470	2.72	61.13	5540	2.46	58.60
2480	2.84	60.79	5560	2.47	58.34
2490	2.89	59.97	5580	2.54	58.11
2500	2.98	60.23	5600	2.68	59.07
2510	3.10	61.13	5620	2.61	58.75
2520	3.13	61.60	5640	2.53	58.84
2530	3.12	62.66	5660	2.19	57.33
2540	3.10	64.10	5680	2.25	57.53
2550	3.01	65.07	5700	2.19	56.13
2560	2.92	65.35	5720	2.06	54.25
2570	2.83	65.44	5740	2.00	52.98
2580	2.87	65.70	5760	1.82	50.70
2590	2.91	65.56	5780	1.69	49.61
2600	2.89	65.46	5800	1.59	48.66
5100	2.62	60.99	5820	1.69	47.63
5120	2.61	59.84	5840	1.74	47.15
5140	2.58	59.11	5860	1.47	44.23
5160	2.54	58.18	5880	1.34	43.68
5180	2.54	58.48	5900	1.32	43.53

DBB2 WIFI Active data

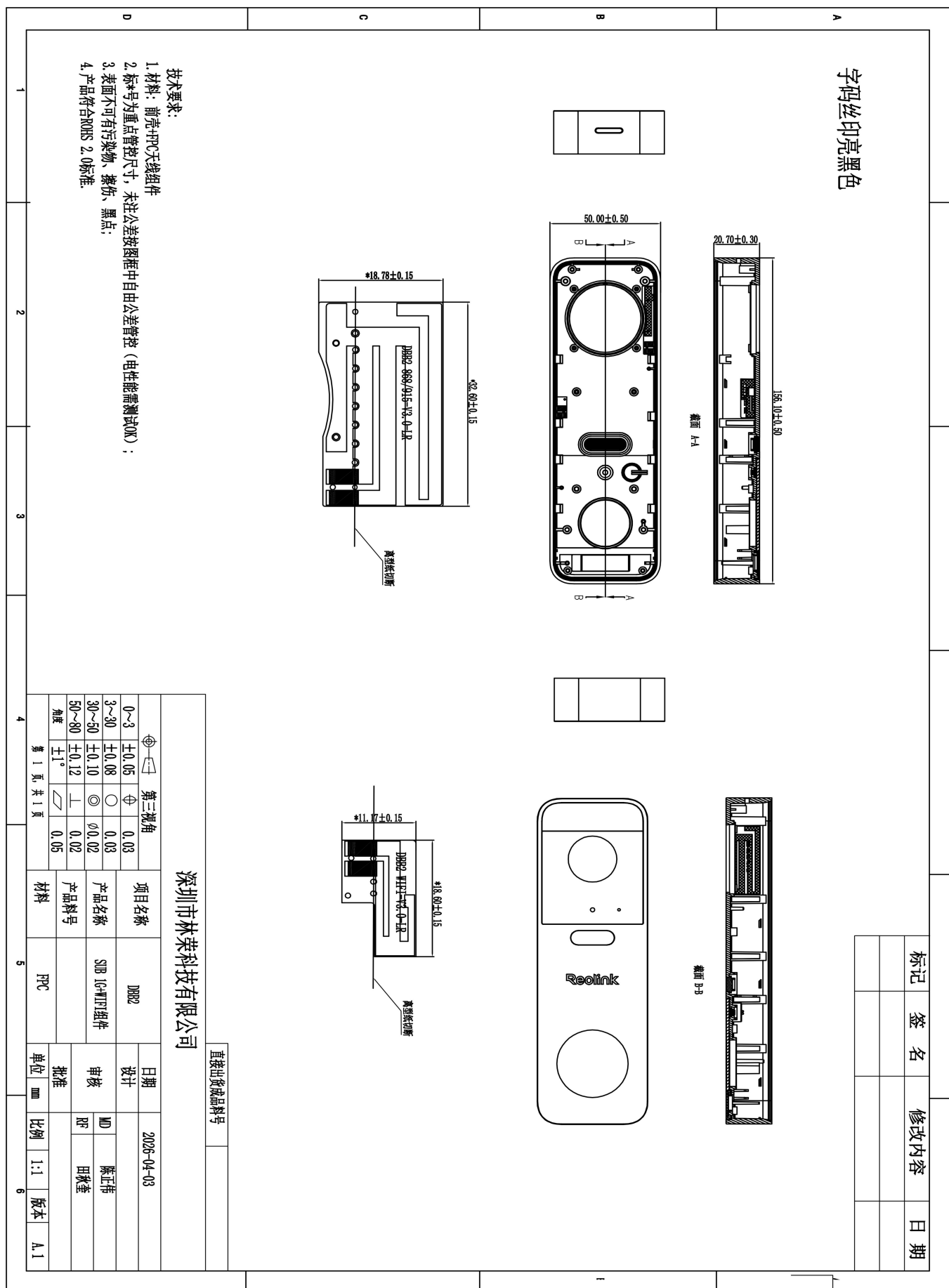
1#				2#			
	CN	TRP	TIS		CN	TRP	TIS
1M-11B	1	6.72	-92.02	1M-11B	1	6.03	-92.15
	6	6.57	-93.84		6	6.19	-93.85
	11	6.46	-94.34		11	5.87	-93.98
6M-11G	1	5.64	-87.84	6M-11G	1	4.99	-87.85
	6	5.48	-88.34		6	5.34	-88.37
	11	5.41	-89.49		11	5.38	-89.38
6.5M-11N	1	5.66	-87.52	6.5M-11N	1	5.01	-87.83
	6	5.49	-87.35		6	5.35	-87.10
	11	5.44	-87.73		11	5.40	-87.64
6M-11A	36	8.48	-90.26	6M-11A	36	12.27	-90.11
	56	10.28	-90.11		56	10.18	-90.00
	165	8.63	-89.73		165	11.69	-89.90

5、Environmental treatment

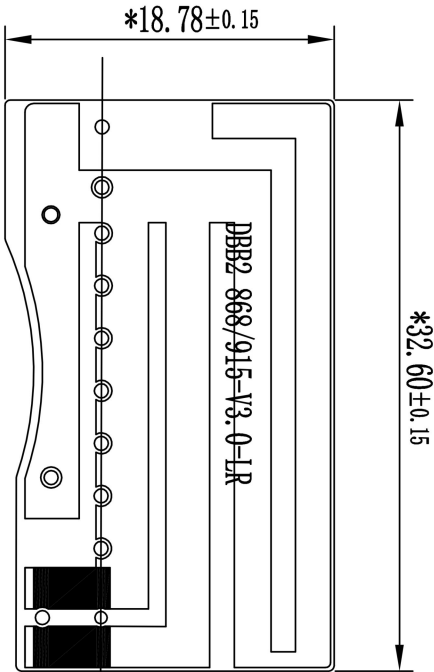
Environmental Control and Mounting Illustration for Final Assembly



6、 Mechanical Dimension Drawing



字码丝印亮黑色



技术要求:

1. 材料: PPC(单面板, 电解铜), 10.12mm ; PI 1825 黑油, 背面3M467背胶(粘性需过热冲击实验)
2. 镀金厚度 1μ 以上, 镀厚 80μ - 160μ , 不可有镀金后易断裂及脱落、导电不良、电路部分断裂等不良现象;要求能过48小时盐雾试验
3. 高低温实验条件: -40°C ~ $+80^{\circ}\text{C}$ 2个周期(一周期为24小时)
4. 标*号为重点管控尺寸, 未注公差按图框中自由公差管控;未标注尺寸以菲林片检验为准(电性能需测试OK)
5. 表面不可有污染物、擦伤、黑点;
6. 产品符合ROHS标准;
7. 整板包装出货。

深圳市林荣科技有限公司

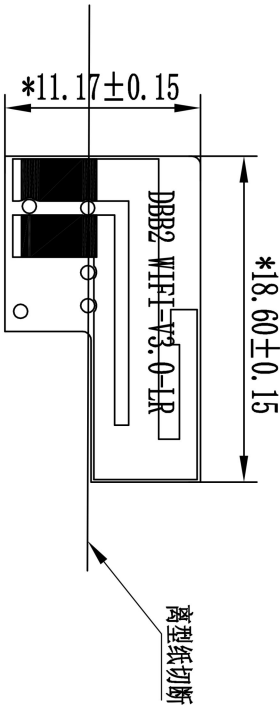
直接出货成品料号

标记	签名	修改内容	日期

第三视角				项目名称				日期			
0~3	± 0.05	ϕ	0.03	DBB2	设计	2026-04-03		MD	陈正伟		
3~30	± 0.08	ϕ	0.03	产品名称	审核			RP	田秋奎		
30~50	± 0.10	ϕ	0.02	产品料号	批准						
50~80	± 0.12	ϕ	0.02	材料	单位	mm	比例	1:1	版本	A.1	
角度	$\pm 1^{\circ}$	ϕ	0.05	PPC							

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1. 材料: PPC(单面板, 电解铜), $1 \times 0.12\text{mm}$; PI 1825 黑油, 背面3M467背胶(粘性需过热冲击实验)
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 4. 标*号为重点管控尺寸, 未注公差按图框中自由公差管控; 未标注尺寸以菲林片检验为准 (电性能需测试OK)
 5. 表面不可有污染物、擦伤、黑点;
 6. 产品符合ROHS标准;
 7. 整板包装出货。

标记	签 名	修改内容	日 期

深圳市林荣科技有限公司

直接出货成品料号

第三视角				项目名称				日期			
0~3	± 0.05	ϕ	0.03	DBB2	WHF1 天线	设计	2026-04-03	MD	陈正伟	审核	
3~30	± 0.08	ϕ	0.03	产品名称		审核		RP	田秋奎		
30~50	± 0.10	ϕ	0.02	产品料号							
50~80	± 0.12	ϕ	0.02								
角度	$\pm 1^{\circ}$	ϕ	0.05	材料	PPC	单位	mm	比例	1:1	版本	A.1

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