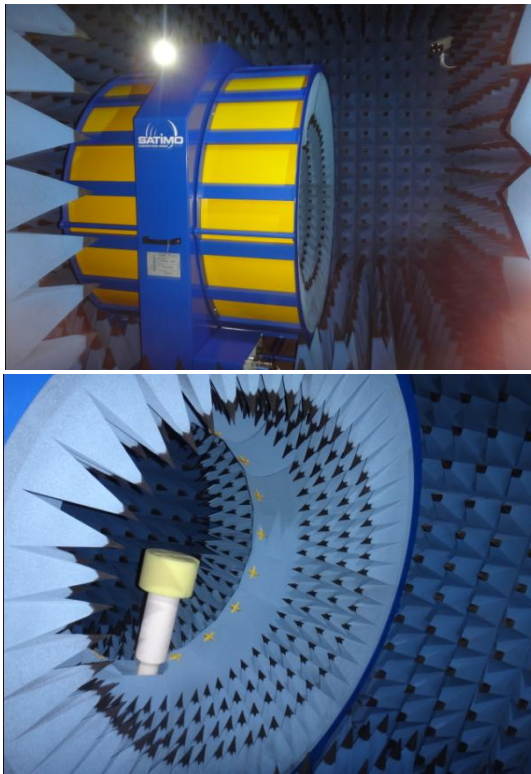


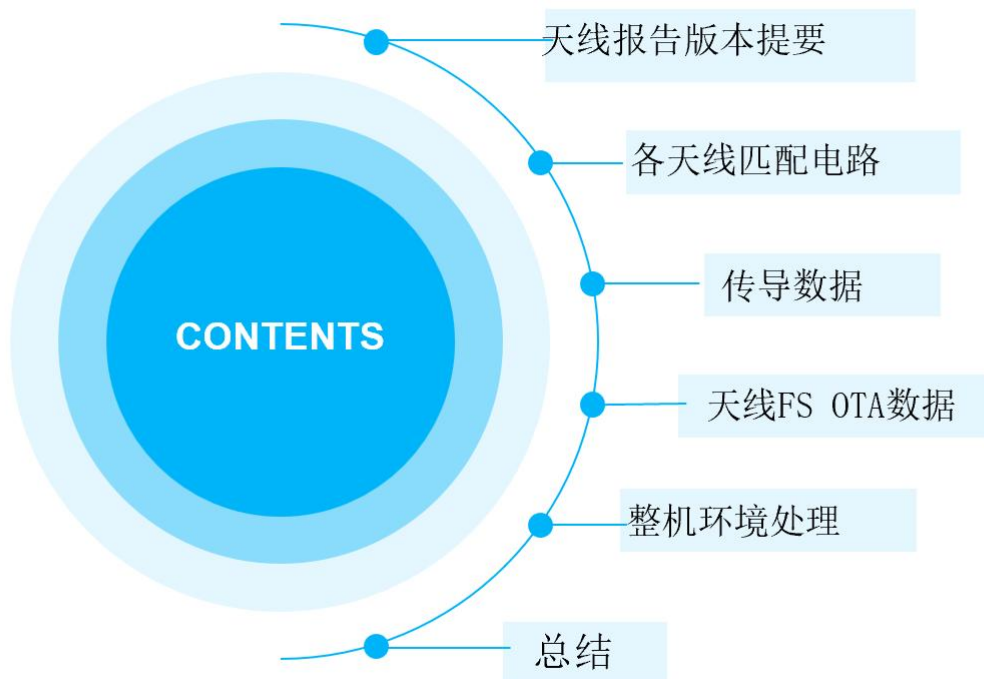
测试报告



客户名称	思特	项目名称	S1
调试频段	GSM: 2/3/5/8 WCDMA: 1/2/5/8 4G: 1/2/3/4/5/7/8/12/13/17/19/20/21/28/30/38/39/40/41/66	结构方式	FPC+LDS
射频工程师	陈工	结构工程师	杜工
天线类型	PIFA	日期	2025-08-04



原装进口法国 SATIMO 公司 StarLab 3D 实验室, 能精确快速的测试手机、平板电脑和笔记本等通信终端产品的 TRP、TIS、效率、增益、苹果图、方向图等参数数据。





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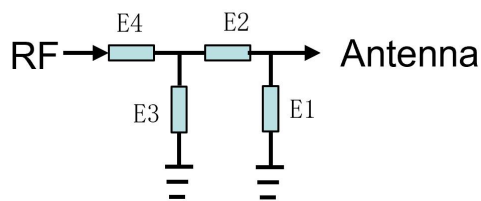
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天线报告版本提要

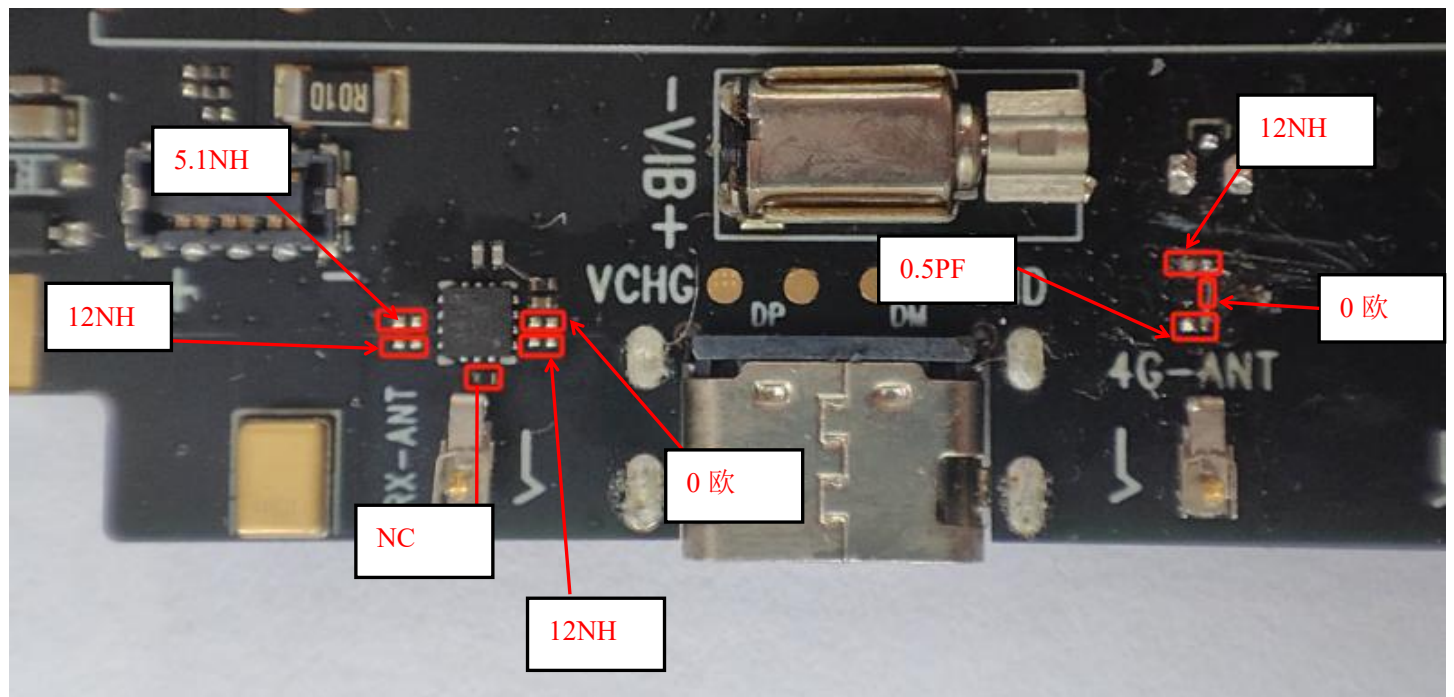
版本	日期	内容概况
V1.0	2024-09-21	调试天线测试报告
V2.0	2024-10-11	调试天线测试报告
V3.0	2024-12-02	天线测试报告
V4.0	2024-12-10	天线测试报告
V5.0	2024-12-28	样品优化天线测试报告
V6.0	2025-03-18	天线测试报告
V7.0	2025-05-26	模样天线测试报告
V8.0	2025-08-04	量产机天线测试报告

主天线匹配电路----- 已做变更

Element	E1	E2	E3	E4
Value	0.5PF	0 欧	12NH	

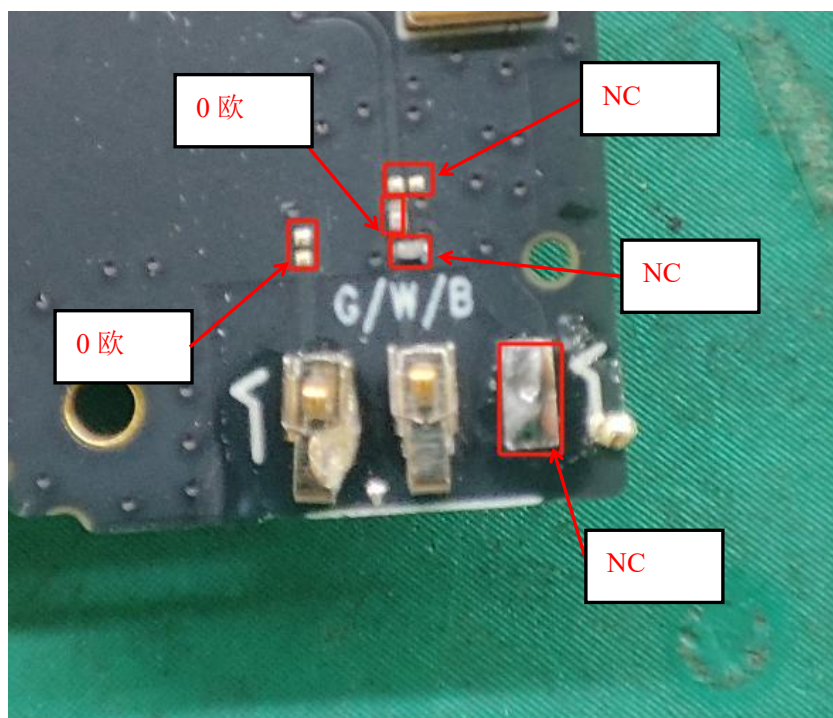
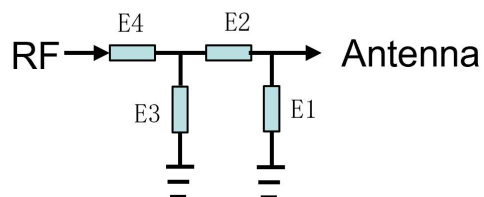


Elemnet	Value	Band
RF1	0 欧	GSM900/1900 W900/1900 LTE:B2/7/8/21/38/39/41
RF2	5.1NH	GSM850/1800 W850 LTE:B3/4/5/19/20/30/40/66
RF3	12NH	W2100 LTE:B1/13
RF4	12NH	LTE:B12/17/28



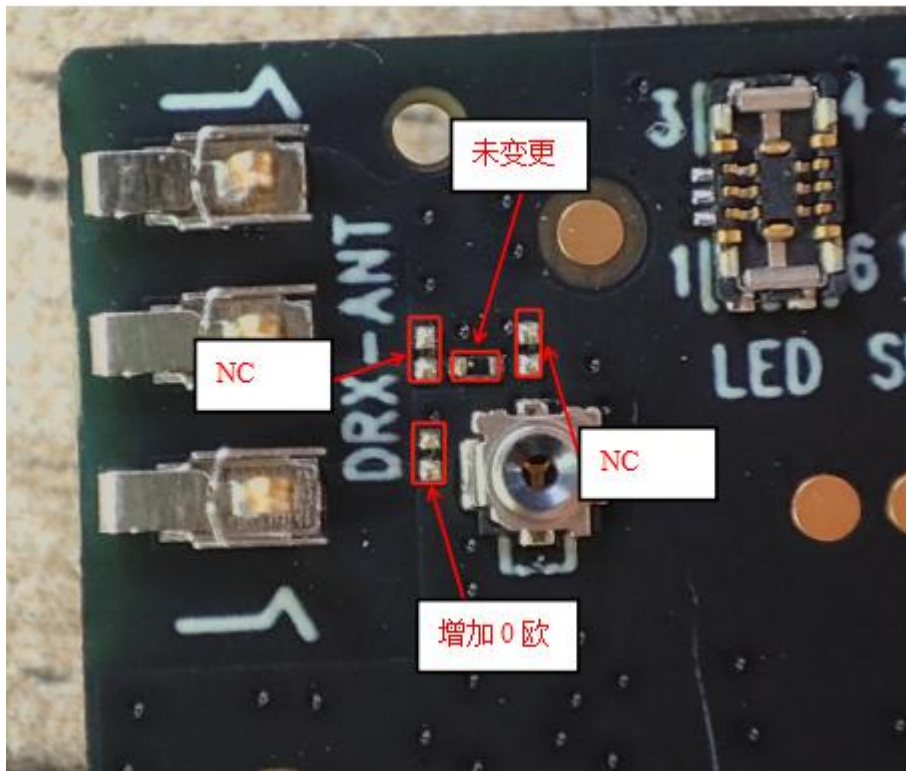
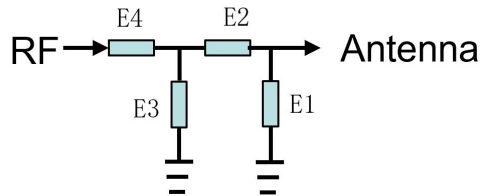
三合一天线匹配电路----- 已做变更

Element	E1	E2	E3	E4
Value	NC	0 欧	NC	



DIV 天线匹配电路----- 有做变更

Element	E1	E2	E3	E4
Value				



Free Space OTA 2# (LTE 17/28 降 2Dbm)

Band	Channel	TRP (dBm)	TIS (dBm)	Band	Channel	TRP (dBm)	TIS (dBm)
GSM900	L	28.5		DCS1800	L	24.7	
	M	28.4			M	25.9	
	H	28.4	-104.1		H	27.2	-104.6
GSM850	L	26.8		PCS1900	L	25.8	
	M	27.1			M	24.8	
	H	27.3	-104.3		H	24.5	-103.0
W850	L	19.2		W900	L	19.6	
	M	19.1			M	18.6	
	H	18.9	-104.9		H	16.9	-103.9
W1900	L	16.6		W2100	L	17.0	
	M	15.8			M	16.5	
	H	15.6	-104.0		H	16.4	-106.5
B1 (10MHz)	L	17.7		B2 (10MHz)	L	17.9	
	M	16.8			M	17.0	
	H	16.5	-90.4		H	16.2	-94.4
B3 (10MHz)	L	16.6		B4 (10MHz)	L	16.5	
	M	16.3			M	16.3	
	H	15.8	-90.4		H	16.0	-93.7
B5 (10MHz)	L	20.2		B7 (10MHz)	L	21.2	
	M	20.4			M	20.7	
	H	19.5	-94.0		H	19.4	-97.6
B8 (10MHz)	L	21.6		B12 (10MHz)	L	14.6	
	M	20.1			M	16.5	
	H	17.4	-90.3		H	16.1	-87.8
B13 (10MHz)	L	17.2		B17 (10MHz)	L	14.4	
	M	16.9			M	14.7	
	H	16.4	-90.7		H	14.8	-91.5
B19 (10MHz)	L	20.2		B20 (10MHz)	L	20.6	
	M	20.2			M	19.8	
	H	19.6	-94.0		H	19.1	-94.3
B21 (10MHz)	L	14.3		B28 (10MHz)	L	14.0	
	M	15.4			M	15.8	
	H	16.1	-92.9		H	16.4	-84.4
B30 (10MHz)	L	23.4		B66 (10MHz)	L	16.3	
	M	23.3			M	15.9	
	H	23.1	-95.6		H	15.6	-94.1
B38 (20MHz)	L	19.1		B39 (20MHz)	L	16.2	
	M	18.0			M	16.2	
	H	17.1	-90.7		H	16.0	-94.0



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B40 (20MHz)	L	22.5		B41 (20MHz)	L	19.8	
	M	22.1			M	18.6	
	H	20.0	-92.2		H	15.5	-90.1

WIFI OTA

Band	Channel	TRP(dBm)	TIS(dBm)	Band	Channel	TRP(dBm)	TIS(dBm)
2.4G (B 模 11M)	L	11.9	-82.5	5G (A 模 54M)	L	11.9	-73.1
	M	13.0	-83.0		M	12.7	-73.5
	H	11.5	-84.1		H	9.5	-70.2



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Free Space OTA 3# (LTE B1/17/28 降 2Dbm)

Band	Channel	TRP (dBm)	TIS (dBm)	Band	Channel	TRP (dBm)	TIS (dBm)
GSM900	L	28.9		DCS1800	L	25.8	
	M	28.9			M	26.0	
	H	28.6	-103.8		H	26.7	-104.5
GSM850	L	25.9		PCS1900	L	25.8	
	M	26.3			M	25.0	
	H	26.8	-103.6		H	24.5	-103.8
W850	L	19.2		W900	L	19.6	
	M	19.1			M	18.8	
	H	19.0	-105.9		H	17.2	-103.6
W1900	L	16.9		W2100	L	17.1	
	M	16.4			M	17.0	
	H	16.3	-105.1		H	17.1	-104.8
B1 (10MHz)	L	14.6		B2 (10MHz)	L	17.8	
	M	14.6			M	17.2	
	H	14.8	-91.0		H	16.5	-93.8
B3 (10MHz)	L	16.3		B4 (10MHz)	L	16.3	
	M	16.4			M	16.3	
	H	16.0	-90.1		H	16.3	-94.1
B5 (10MHz)	L	20.3		B7 (10MHz)	L	20.7	
	M	20.5			M	20.2	
	H	19.6	-94.2		H	18.9	-96.1
B8 (10MHz)	L	21.7		B12 (10MHz)	L	14.3	
	M	20.2			M	16.2	
	H	17.7	-90.1		H	16.2	-86.7
B13 (10MHz)	L	17.0		B17 (10MHz)	L	13.9	
	M	16.7			M	14.3	
	H	16.2	-90.0		H	14.4	-91.4
B19 (10MHz)	L	20.4		B20 (10MHz)	L	20.6	
	M	20.4			M	19.8	
	H	19.8	-93.3		H	19.1	-94.0
B21 (10MHz)	L	16.0		B28 (10MHz)	L	13.6	
	M	15.8			M	15.5	
	H	15.5	-93.8		H	16.5	-84.1
B30 (10MHz)	L	22.9		B66 (10MHz)	L	16.1	
	M	22.9			M	16.1	
	H	22.7	-96.5		H	15.8	-93.6
B38 (20MHz)	L	18.5		B39 (20MHz)	L	16.4	
	M	17.6			M	16.5	
	H	16.7	-90.1		H	16.5	-93.0



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B40 (20MHz)	L	22.3		B41 (20MHz)	L	19.1	
	M	22.2			M	18.1	
	H	21.5	-92.1		H	15.4	-90.5

(LTE B1 降 1Dbm)

B1 (10MHz)	L	16.4	
	M	15.8	
	H	15.7	-87.3

WIFI OTA

Band	Channel	TRP(dBm)	TIS(dBm)	Band	Channel	TRP(dBm)	TIS(dBm)
2.4G (B 模 11M)	L			5G (A 模 54M)	L		
	M				M		
	H				H		

Free Space OTA 4# (LTE B1/17/28 降 2Dbm)

Band	Channel	TRP (dBm)	TIS (dBm)	Band	Channel	TRP (dBm)	TIS (dBm)
GSM900	L	28.6		DCS1800	L	25.2	
	M	28.4			M	25.9	
	H	28.2	-104.0		H	26.8	-104.1
GSM850	L	26.3		PCS1900	L	25.5	
	M	26.6			M	24.6	
	H	26.9	-103.8		H	24.1	-103.1
W850	L	19.3		W900	L	19.8	
	M	19.1			M	19.1	
	H	18.9	-105.8		H	17.6	-104.1
W1900	L	17.3		W2100	L	17.0	
	M	16.7			M	16.9	
	H	16.6	-105.7		H	16.9	-104.0
B1 (10MHz)	L	15.1		B2 (10MHz)	L	17.7	
	M	14.5			M	17.0	
	H	14.5	-85.0		H	16.2	-95.5
B3 (10MHz)	L	16.5		B4 (10MHz)	L	15.6	
	M	16.2			M	15.4	
	H	15.7	-90.4		H	15.1	-93.5
B5 (10MHz)	L	19.9		B7 (10MHz)	L	20.2	
	M	20.1			M	19.8	
	H	19.2	-95.3		H	18.6	-96.6
B8 (10MHz)	L	21.4		B12 (10MHz)	L	14.7	
	M	19.9			M	16.7	
	H	17.6	-90.2		H	15.5	-86.2
B13 (10MHz)	L	16.5		B17 (10MHz)	L	14.4	
	M	16.3			M	14.7	
	H	15.8	-91.9		H	14.9	-90.8
B19 (10MHz)	L	20.1		B20 (10MHz)	L	20.6	
	M	20.0			M	19.8	
	H	19.4	-95.1		H	19.1	-93.5
B21 (10MHz)	L	15.6		B28 (10MHz)	L	14.0	
	M	15.6			M	15.8	
	H	16.3	-94.3		H	16.1	-89.6
B30 (10MHz)	L	23.5		B66 (10MHz)	L	16.2	
	M	23.5			M	16.3	
	H	23.4	-96.8		H	15.7	-93.2
B38 (20MHz)	L	18.5		B39 (20MHz)	L	16.2	
	M	17.6			M	16.4	
	H	16.7	-90.9		H	16.2	-94.5



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B40 (20MHz)	L	22.5		B41 (20MHz)	L	18.7	
	M	22.7			M	17.9	
	H	21.8	-92.2		H	15.1	-89.1

(LTE B1 降 1Dbm)

B1 (10MHz)	L	16.1	
	M	15.5	
	H	15.4	-78.4

WIFI OTA

Band	Channel	TRP(dBm)	TIS(dBm)	Band	Channel	TRP(dBm)	TIS(dBm)
2.4G (B 模 11M)	L			5G (A 模 54M)	L		
	M				M		
	H				H		



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Free Space OTA 5# (LTE B1/17/28 降 2Dbm)

Band	Channel	TRP (dBm)	TIS (dBm)	Band	Channel	TRP (dBm)	TIS (dBm)
GSM900	L	28.7		DCS1800	L	25.0	
	M	28.6			M	26.0	
	H	28.4	-104.3		H	26.7	-105.2
GSM850	L	26.1		PCS1900	L	25.8	
	M	26.4			M	24.9	
	H	26.8	-103.9		H	24.5	-103.4
W850	L	19.1		W900	L	19.5	
	M	18.8			M	18.3	
	H	18.5	-106.0		H	16.4	-103.9
W1900	L	17.2		W2100	L	16.8	
	M	16.7			M	17.0	
	H	16.8	-106.8		H	17.2	-105.3
B1 (10MHz)	L	14.7		B2 (10MHz)	L	17.7	
	M	14.6			M	17.1	
	H	14.8	-90.0		H	16.6	-94.9
B3 (10MHz)	L	16.5		B4 (10MHz)	L	16.7	
	M	16.6			M	16.7	
	H	16.0	-90.1		H	16.6	-93.7
B5 (10MHz)	L	19.9		B7 (10MHz)	L	18.6	
	M	20.0			M	18.2	
	H	19.0	-93.3		H	17.3	-96.2
B8 (10MHz)	L	21.1		B12 (10MHz)	L	14.5	
	M	19.3			M	16.5	
	H	16.5	-89.2		H	16.5	-86.8
B13 (10MHz)	L	16.6		B17 (10MHz)	L	13.9	
	M	16.4			M	14.3	
	H	15.9	-91.7		H	14.4	-91.3
B19 (10MHz)	L	20.0		B20 (10MHz)	L	20.2	
	M	19.9			M	19.3	
	H	19.2	-93.2		H	18.6	-93.1
B21 (10MHz)	L	16.6		B28 (10MHz)	L	15.1	
	M	16.0			M	15.4	
	H	15.6	-91.6		H	15.9	-86.6
B30 (10MHz)	L	22.7		B66 (10MHz)	L	16.6	
	M	22.6			M	16.6	
	H	22.4	-96.4		H	16.1	-94.4
B38 (20MHz)	L	18.3		B39 (20MHz)	L	16.6	
	M	17.4			M	16.8	
	H	15.7	-89.9		H	16.7	-94.1

B40 (20MHz)	L	22.3		B41 (20MHz)	L	18.5	
	M	21.9			M	16.9	
	H	20.5	-91.9		H	15.1	-88.4

WIFI OTA

Band	Channel	TRP(dBm)	TIS(dBm)	Band	Channel	TRP(dBm)	TIS(dBm)
2.4G (B 模 11M)	L	12.5	-83.1	5G (A 模 54M)	L	12.4	-73.4
	M	12.9	-84.2		M	13.1	-73.8
	H	12.4	-84.6		H	10.1	-71.2

GPS 实测

11:14



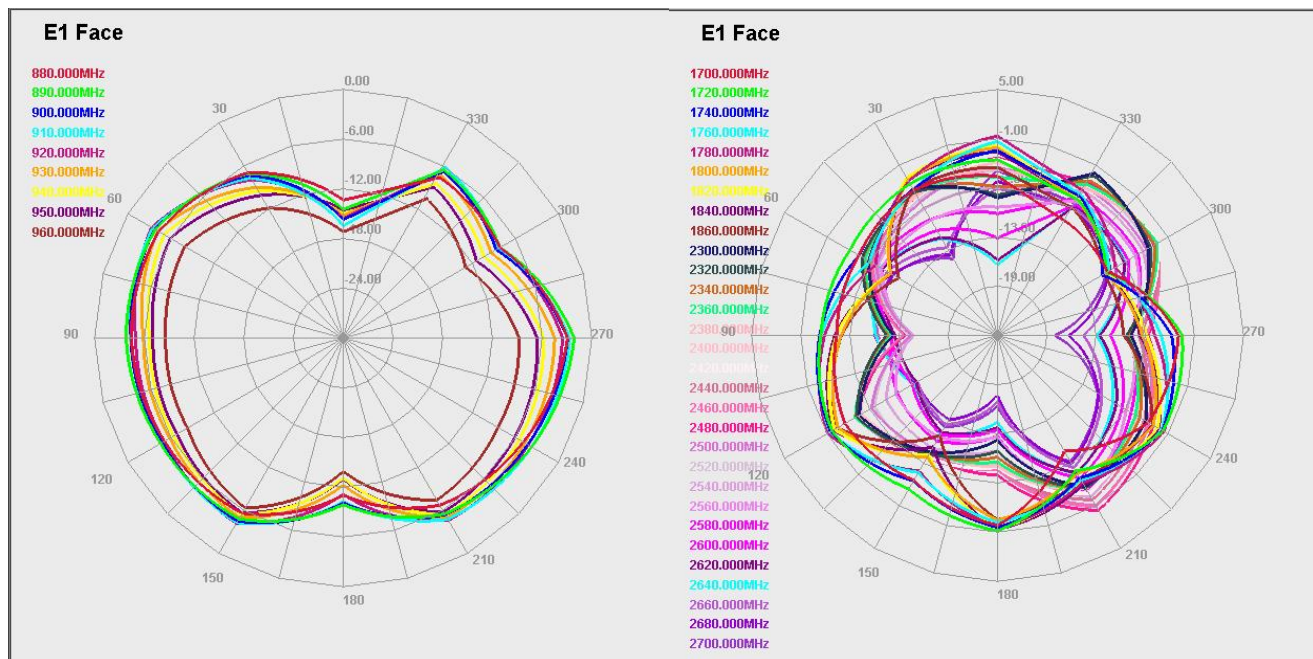
YGPS


SAT ELL ITES CNR	SAT ELL ITES LOC	INF OR MAT ION	NM EA LOG	GPS TES T	MPE STA TUS
G:GPS R:GLN B:BD E:GAL Q:QZS L:L1S I:IRNSS					
S:SBAS					
Average CNR			☒ Show in single page		
G:30.3/-/-/ R:31.8/-/-/					
B:29.1/-/-/ E:-/-/-/					
Q:31.0/-/-/ L:-/-/-/					
I:-/-/-/ S:43.0/-/-/					
ID	CNR	ID	CNR	ID	CNR
G3	27.9/-/-/	G4	0.0/-/-/	G6	35.6/-/-/
G11	41.7/-/-/	G14	25.7/-/-/	G17	26.6/-/-/
G22	33.1/-/-/	G30	31.9/-/-/	R70	0.0/-/-/
R72	0.0/-/-/	R75	27.5/-/-/	R76	36.5/-/-/
R78	0.0/-/-/	R86	33.7/-/-/	R87	29.2/-/-/
B7	24.4/-/-/	B8	26.0/-/-/	B9	28.7/-/-/
B11	33.5/-/-/	B13	28.7/-/-/	B16	28.8/-/-/
B21	15.6/-/-/				

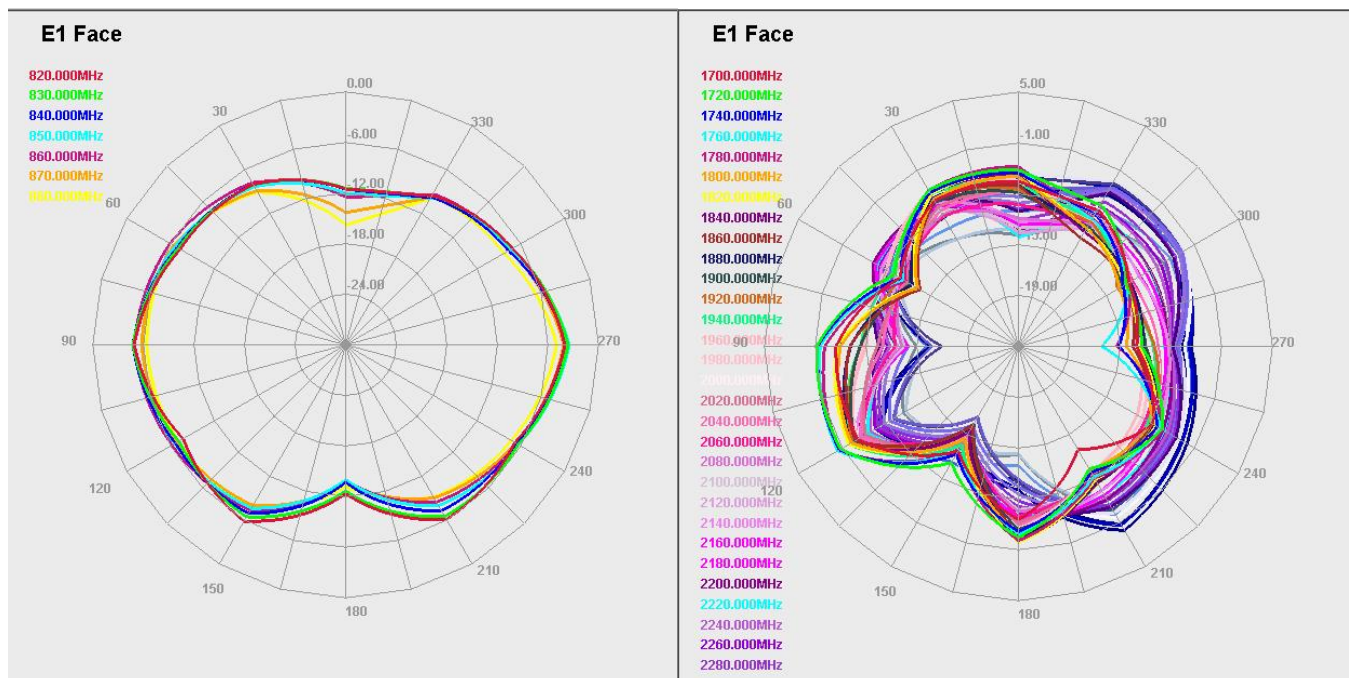
天线增益

Band	Gain	Band	Gain
GSM850	-3.74	LTE-B8	-1.52
GSM900	-1.52	LTE-B12	-4.8
DCS1800	1.21	LTE-B13	-4.77
PCS1900	0.72	LTE-B17	-4.8
WCDMA B1	-0.3	LTE-B19	-3.74
WCDMA B2	0.72	LTE-B20	-3.74
WCDMA B5	-3.74	LTE-B21	-0.98
WCDMA B8	-1.52	LTE-B28	-4.8
LTE-B1	-0.3	LTE-B30	-1.08
LTE-B2	0.72	LTE-B38	0.71
LTE-B3	1.21	LTE-B39	0.72
LTE-B4	1.21	LTE-B40	-2.16
LTE-B5	-3.74	LTE-B41	0.71
LTE-B7	0.71	LTE-B66	1.21
GPS	0.59	WIFI2.4/BT	3.8
		WIFI5.8	3.4

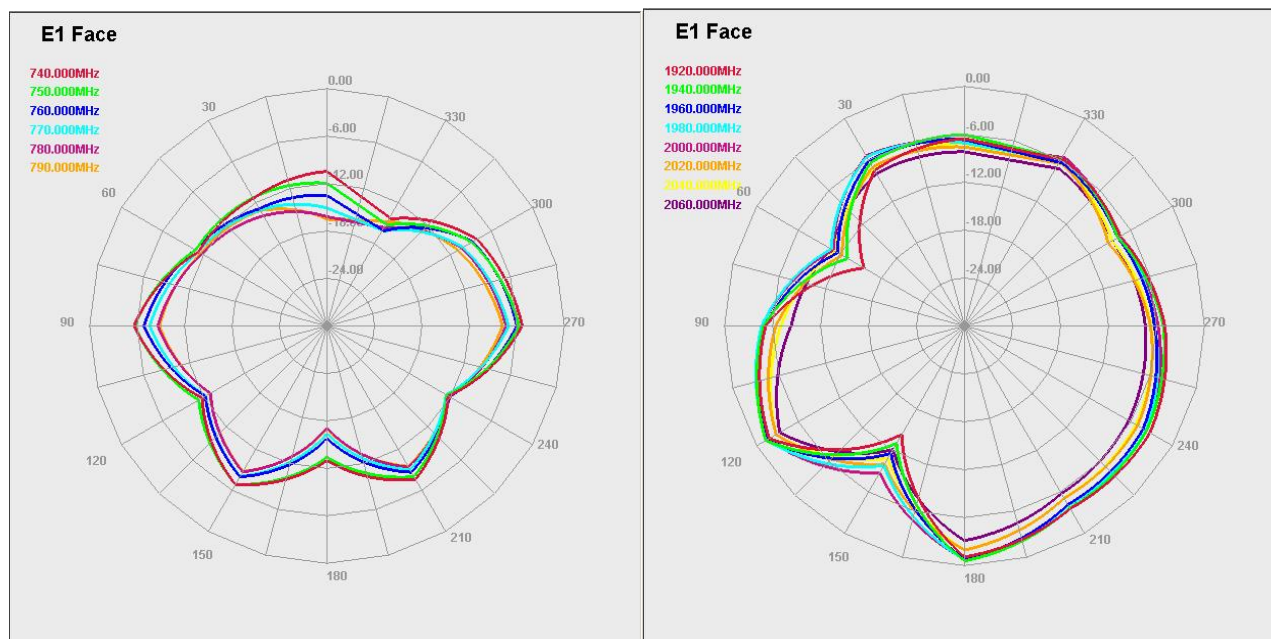
RF1(B2/7/8/21/38/39/41)



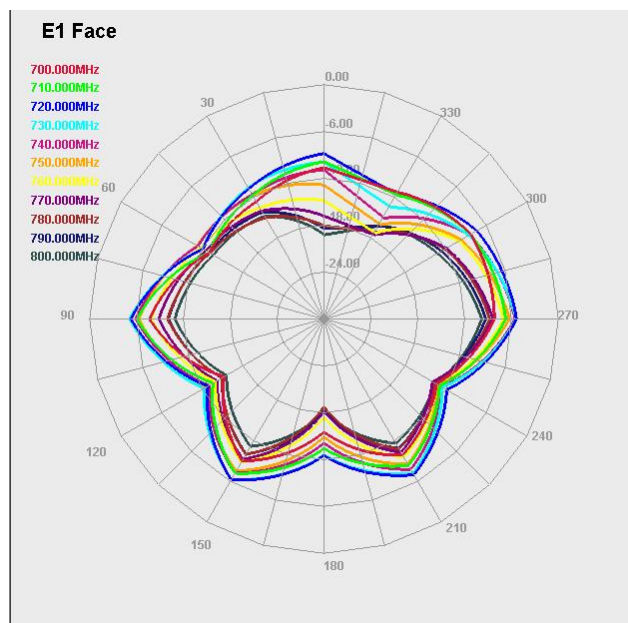
RF2(B3/4/5/19/20/30/40/66)



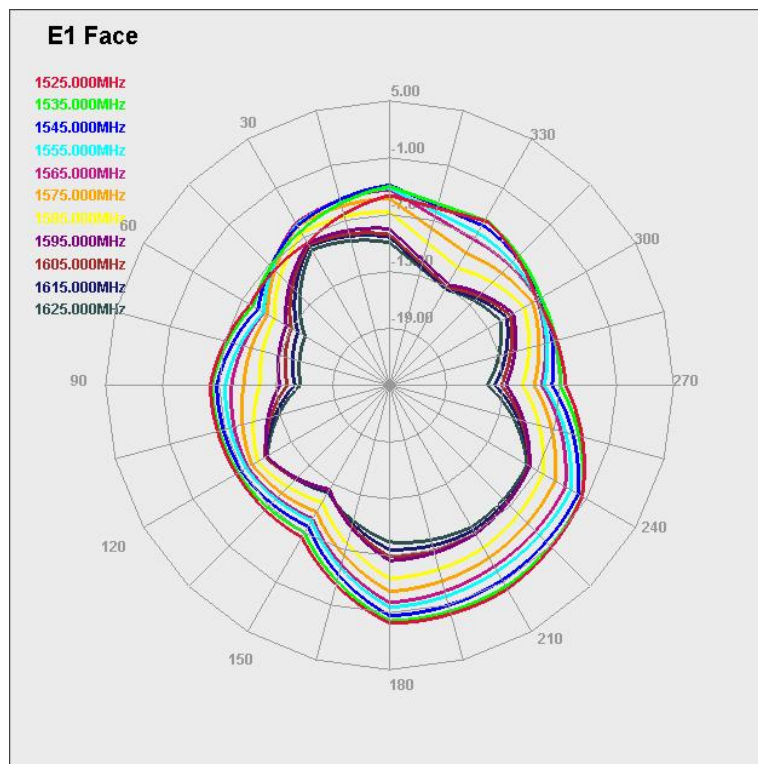
RF3(B1/13)



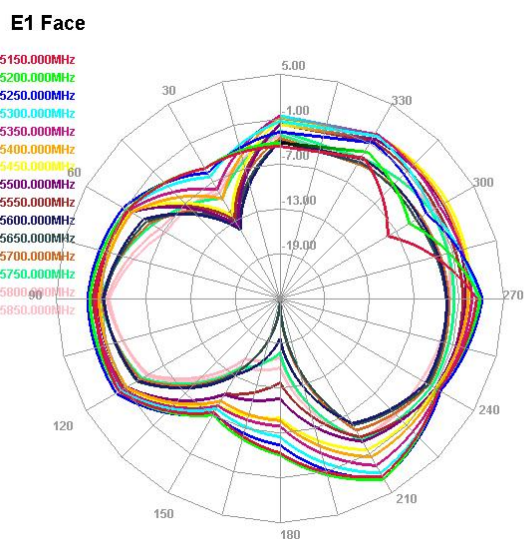
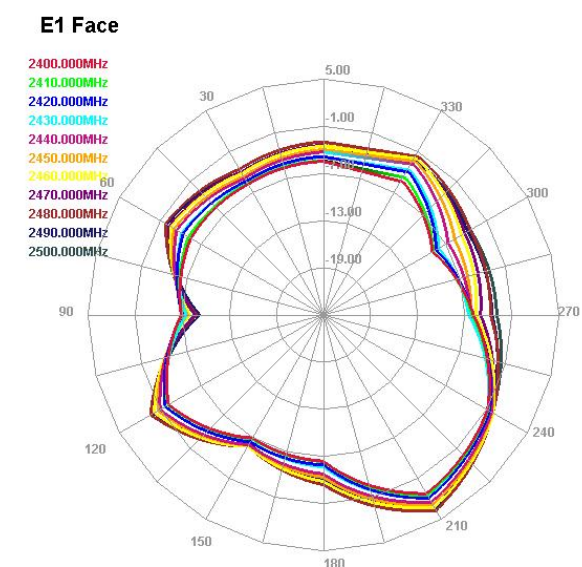
RF4(B12/17/28)



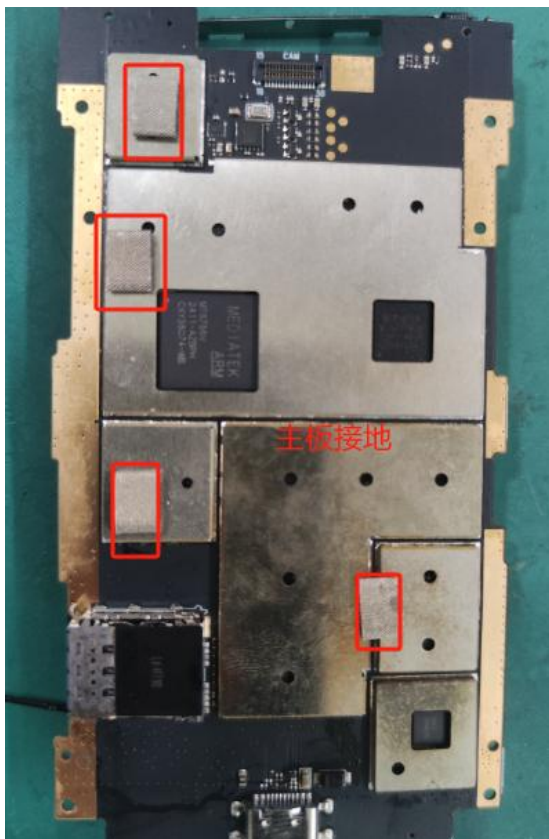
GPS



WIFI2.4/5.8



环境处理



注意事项：

- 1、 本天线只适用于调试样机，主板 PCB 或射频电路物料更改、配件（如摄像头、屏、喇叭、马达、电池、机壳工艺）等变动，都必须经过我司对整机测试验证后方可使用。
- 2、 此项目如果要进行第三方验证请将样机至少提前一个工作日给到我司复测 OK 后再送测，避免二次或多次送测耽误项目进度！