

Antenna Specifications

Suzhou Top-link wireless Technologies CO., LTD.

样品规格书 Antenna Specification

客户 Customer	Honeywell	型号 Mode	EDA10A
项目名称 Project	WLAN	频段 Frequency Band	GPS L1/L5 BT 2.4G WiFi 5G WiFi
颜色 Color	NA	版本 Version	P06/P08
设计 Design	Hans	签字日期 Date	2023-04-19
审核 Check	Vincent	签字日期 Date	2023-04-19
批准 Approval	Kevin	签字日期 Date	2023-04-19
客户确认 Customer Approval		签字日期 date	
制造商地址 Manufacturer Address	中国广东省东莞市木棉工业区木棉大道 2 号 No. 2 Mumian Avenue, Mumian Industrial Zone, Dongshan Village,Qishi Town, Dongguan City		

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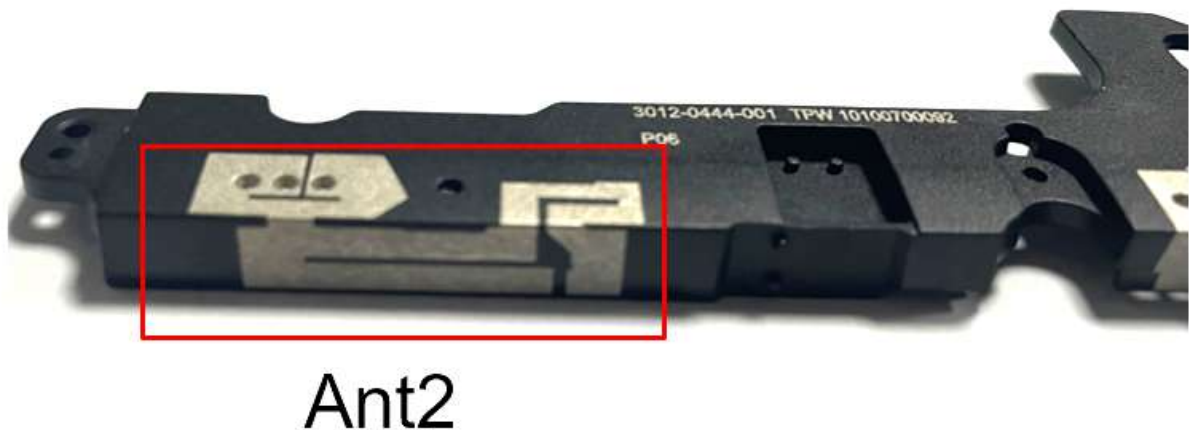
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1. 规格(General)

1.1 产品图片 (Antenna picture)

该天线产品由固定的内置天线组成，主要采用 LDS（激光直接成型）工艺制造，适用于便捷式无线通信设备（以下简称电话设备）。手机型号是 Honeywell EDA10A，标记为 ANT2 和 ANT3 的天线适用于 GPS L1/BT/2.4G WIFI/5G WIFI 频段。

This antenna product consists of a fixed internal antenna, mainly constructed as LDS, which is used in convenient wireless communication equipment (referred to as telephone). The phone model is the Honeywell EDA10A, Marked as ANT2 and ANT3 which is suitable for the GPS L1/BT/2.4G WIFI/5G WIFI band.



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1.2 产品料号 (Product Part Number)

ANT2 Honeywell PN: 3021-0444-001

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ANT2 TPW PN: TPW10100700092 P06

ANT3 Honeywell PN: 3012-0443-001

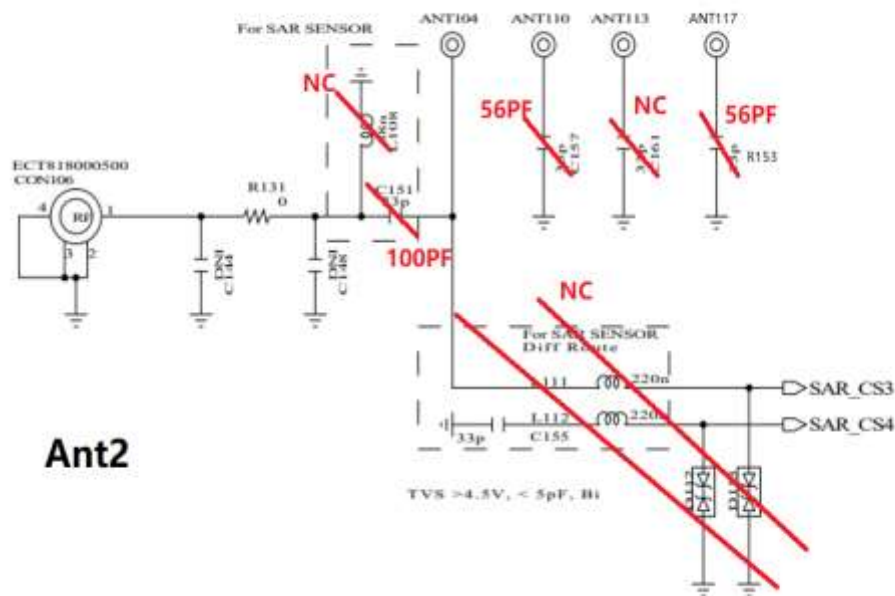
ANT3 TPW PN: TPW10100700091 P08

2. 电气性能 (Electrical Performance)

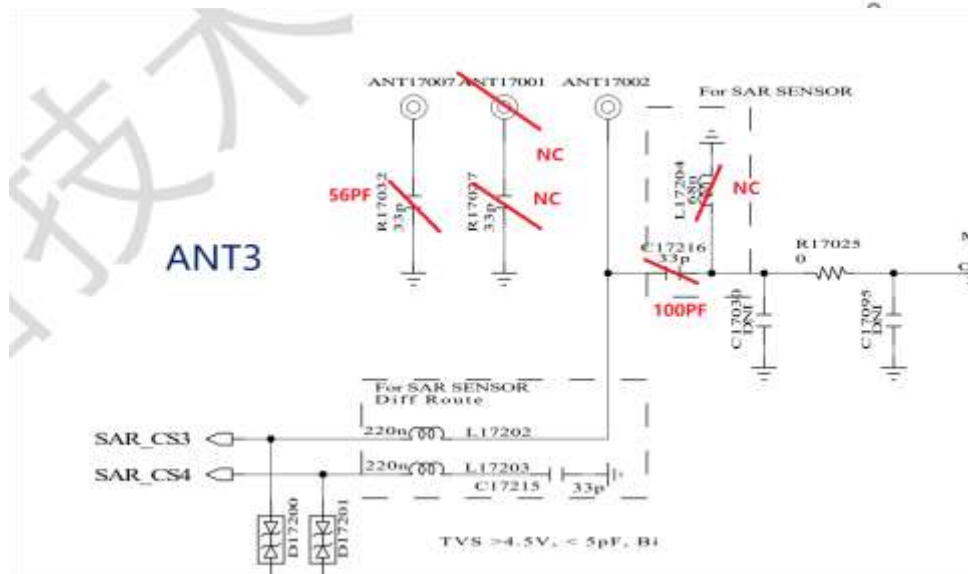
2.1 频段 (Frequency Bands)

GPS L1/BT/2.4G WiFi/5G WIFI

2.2 匹配电路 (Matching circuit)



Ant2

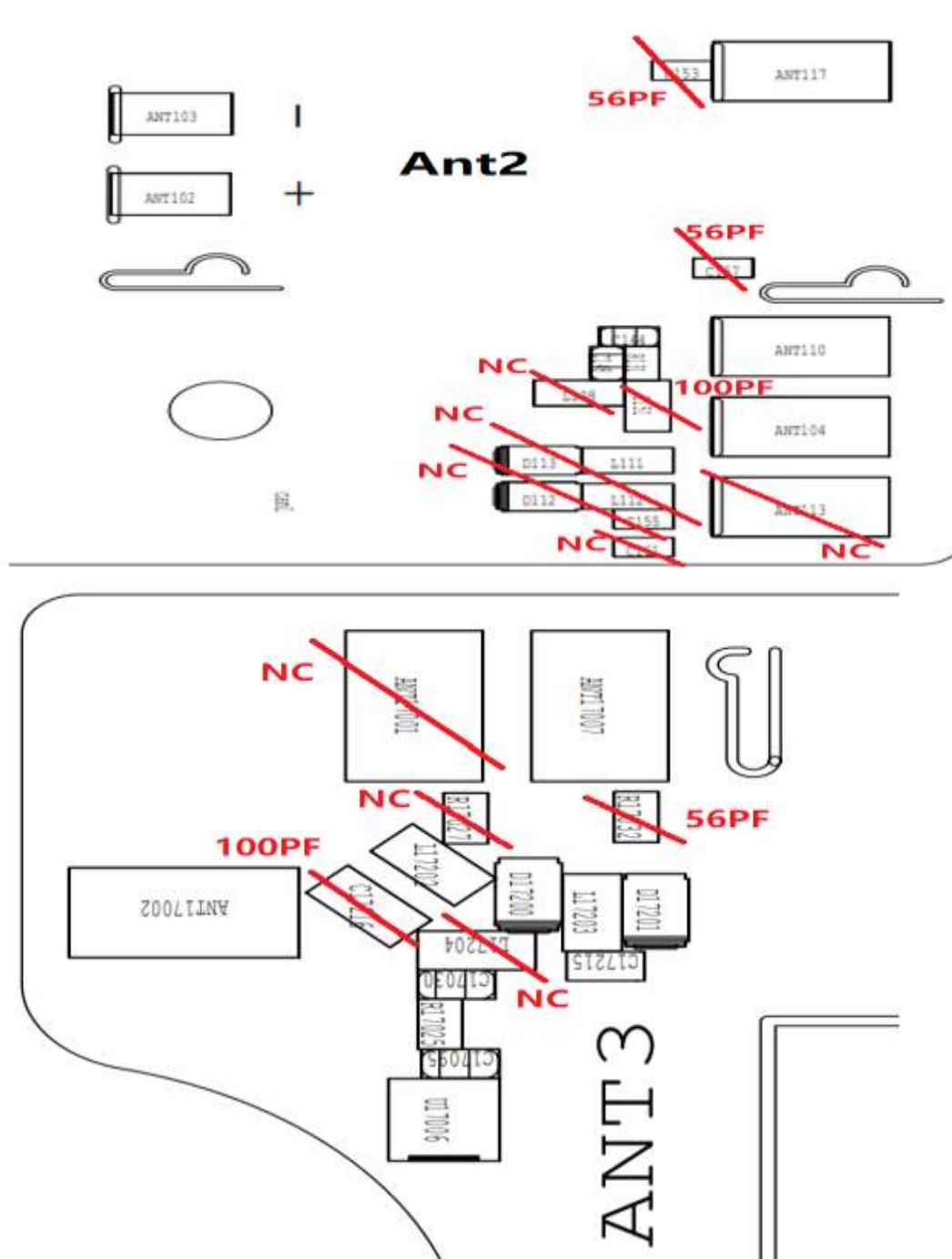


ANT3

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SMD 贴片图 (SMD Location)



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匹配电路参数 (Matching Components Value)

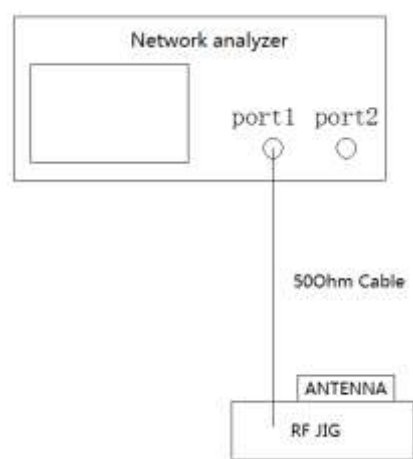
ANT2		
弹片位号 Spring Components	匹配位号 Matching Components	元件值 Value
ANT104	C151	100pF
	L108	NC
	L111	NC
	C148	NC
	R131	0Ω
	C144	NC
ANT110	C157	56pF
ANT117	R153	56pF
ANT113	C161	NC

ANT3		
弹片位号 Spring Components	匹配位号 Matching Components	元件值 Value
ANT17002	C17216	100pF
	L17204	NC
	C17030	NC
	R17025	0Ω
	C17095	NC
ANT17001	R17027	NC
ANT17007	R17032	56pF

2.3 回波损耗 (Return Loss)

2.3.1 回波损耗测量方法 (Return loss measurement method)

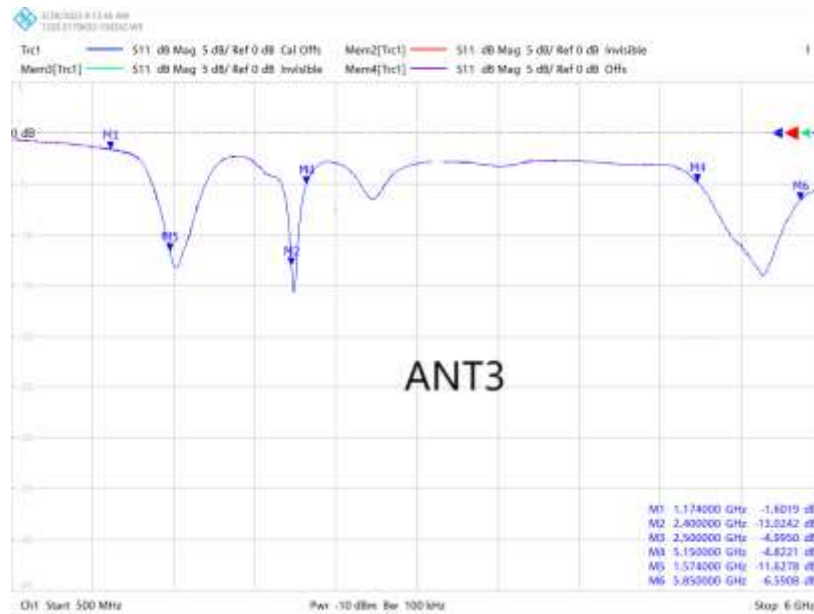
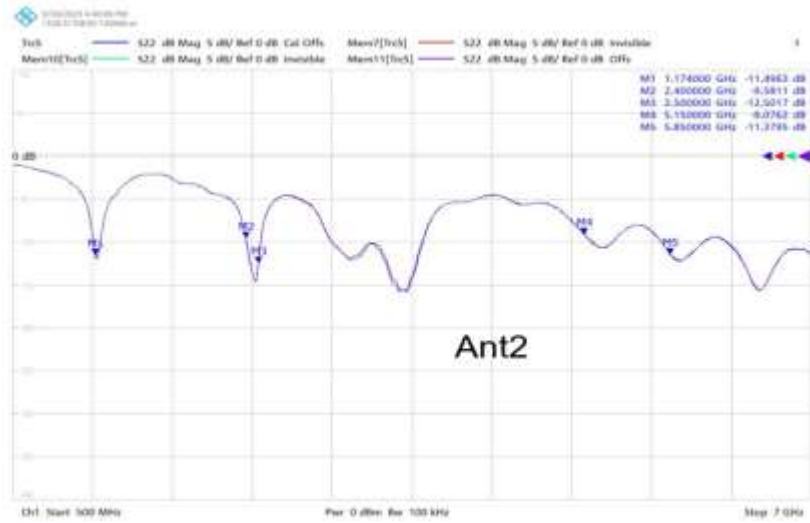
50 Ω 的同轴电缆一头连接网分的 S11，一头连接 PCB 板的 SMA 接头。
The 50Ω coaxial cable connects S11 to the network branch at one end and the SMA connector to the PCB board at the other end.



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2.3.2 S11 图形 (S11 Graphic)



2.3.3 无源效率及增益 (Passive Efficiency and Gain)

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ANT2			
Frequency (MHz)	Efficiency (%)	Efficiency (dBi)	Gain (dBi)
1145	19.6	-7.1	-1.9
1150	22.0	-6.6	-1.3
1155	23.2	-6.3	-1.0
1160	23.4	-6.3	-0.9
1165	23.5	-6.3	-0.8
1170	25.2	-6.0	-0.3
1175	24.3	-6.1	-0.5
1180	26.6	-5.8	-0.2
1185	26.5	-5.8	-0.2
1190	26.9	-5.7	-0.2
1195	25.6	-5.9	-0.5
1200	26.6	-5.8	-0.3
2400	37.5	-4.3	0.8
2410	39.4	-4.0	1.0
2420	40.6	-3.9	1.2
2430	40.9	-3.9	1.2
2440	41.1	-3.9	1.4
2450	41.5	-3.8	1.5
2460	42.1	-3.8	1.6
2470	42.8	-3.7	1.7
2480	43.3	-3.6	1.8
2490	43.8	-3.6	1.8
2500	44.5	-3.5	1.8
5150	27.0	-5.7	2.0
5200	25.6	-5.9	2.2
5250	25.8	-5.9	2.2
5300	23.8	-6.2	1.6
5350	24.8	-6.1	1.6
5400	24.9	-6.0	1.7
5450	25.9	-5.9	1.9
5500	28.4	-5.5	2.3
5550	27.7	-5.6	2.1
5600	26.5	-5.8	1.7
5650	24.6	-6.1	1.2
5700	21.4	-6.7	1.0
5750	21.2	-6.7	1.6
5800	21.3	-6.7	2.0
5850	23.1	-6.4	2.5

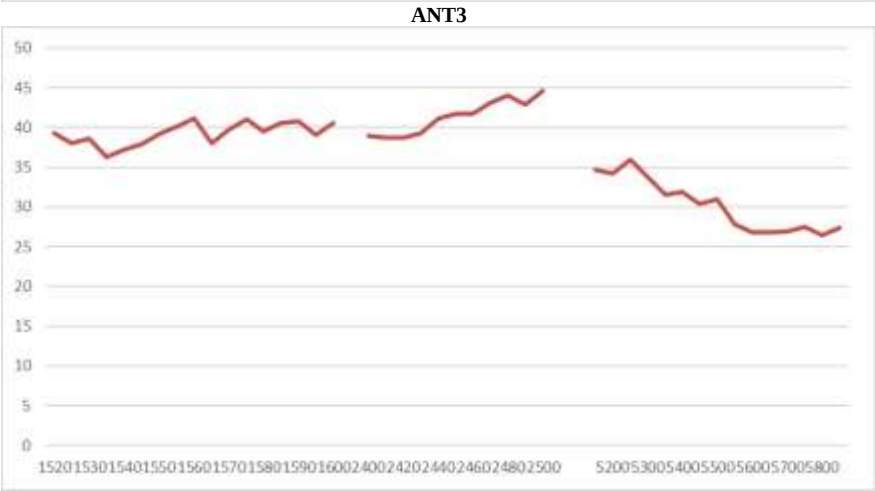
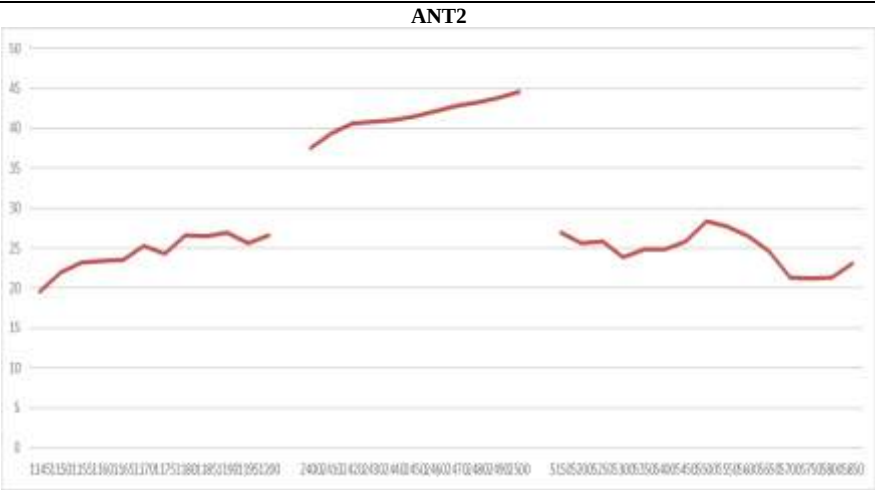
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ANT3			
Frequency (MHz)	Efficiency (%)	Efficiency (dBi)	Gain (dBi)
1520	39.3	-4.1	1.1
1525	38.0	-3.2	0.9
1530	38.6	-2.1	0.9
1535	36.3	-4.4	0.7
1540	37.2	-4.3	0.6
1545	37.9	-4.2	0.7
1550	39.2	-4.1	0.7
1555	40.1	-4.0	0.7
1560	41.1	-3.9	0.7
1565	38.0	-4.2	0.5
1570	39.8	-4.0	0.5
1575	41.0	-3.9	0.5
1580	39.5	-3.9	0.2
1585	40.6	-4.1	0.0
1590	40.8	-4.1	0.0
1595	39.1	-4.1	-0.4
1600	40.6	-3.9	-0.6
2400	39.0	-4.1	4.8
2410	38.7	-4.1	4.8
2420	38.8	-4.1	4.6
2430	39.4	-4.1	4.6
2440	41.1	-3.9	4.5
2450	41.7	-3.8	4.5
2460	41.7	-3.8	4.5
2470	43.1	-3.7	4.5
2480	44.0	-3.6	4.5
2490	42.9	-3.7	4.4
2500	44.6	-3.5	4.5
5150	34.6	-4.6	-1.8
5200	34.2	-4.7	-1.2
5250	36.0	-4.4	0.1
5300	33.7	-4.7	-0.1
5350	31.5	-5.0	-0.1
5400	31.9	-5.0	0.9
5450	30.4	-5.2	1.4
5500	31.0	-5.1	2.0
5550	27.9	-5.1	2.3
5600	26.8	-5.7	2.6
5650	26.8	-5.7	3.0
5700	26.9	-5.7	3.1
5750	27.5	-5.6	2.7
5800	26.5	-5.8	2.3
5850	27.4	-5.6	2.7

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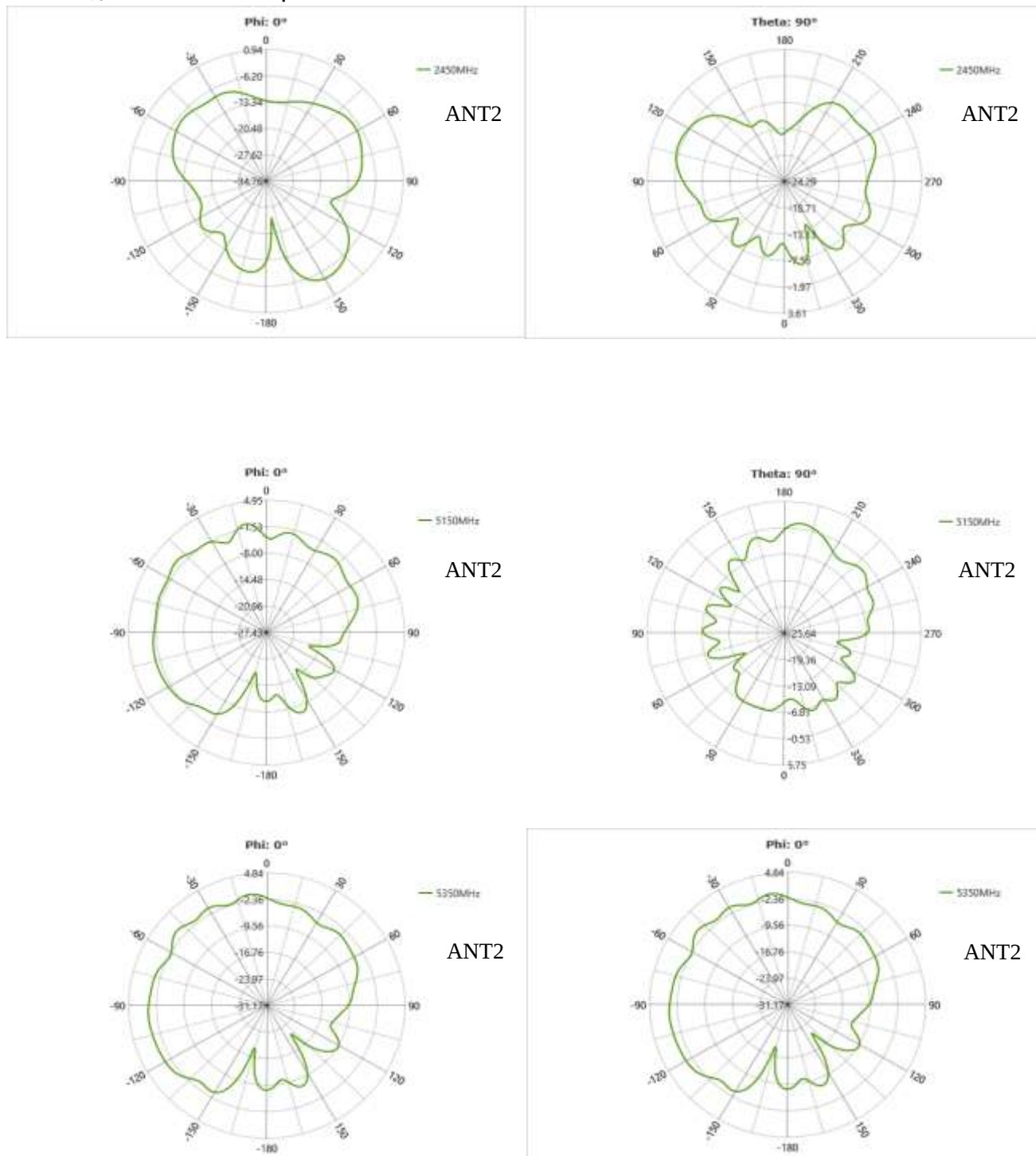
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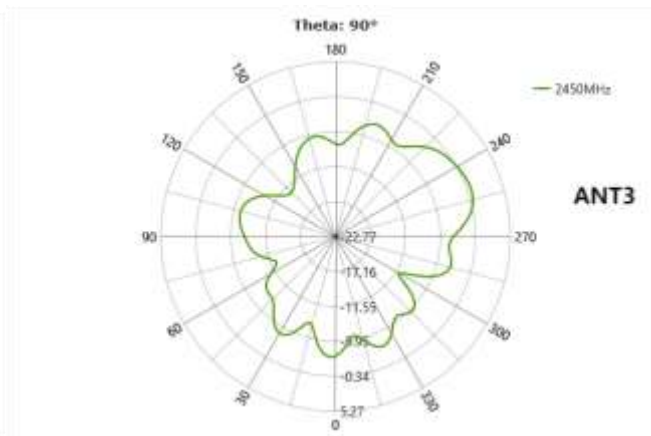
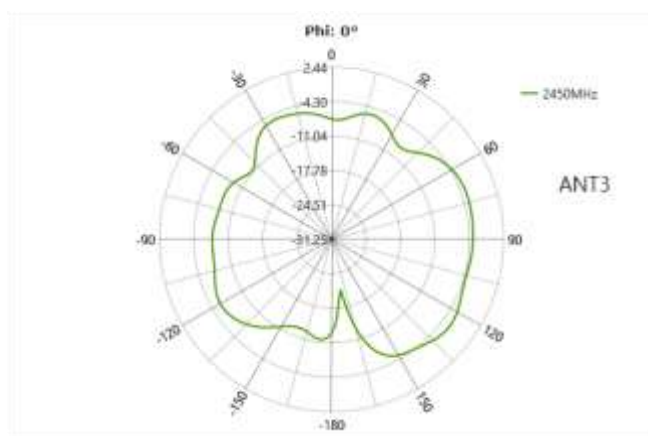
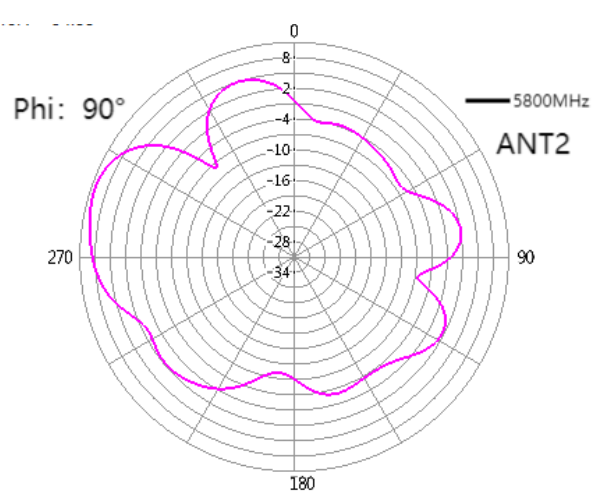
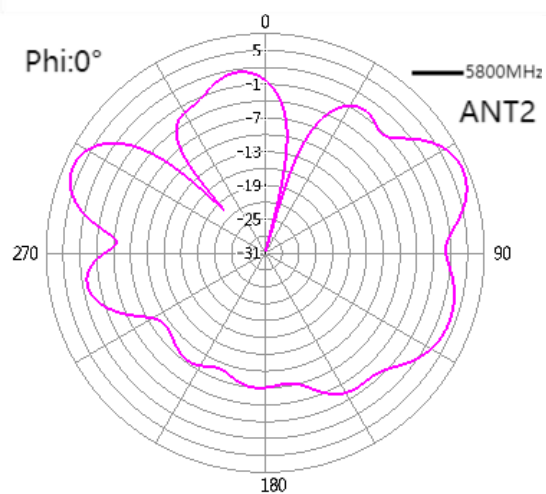
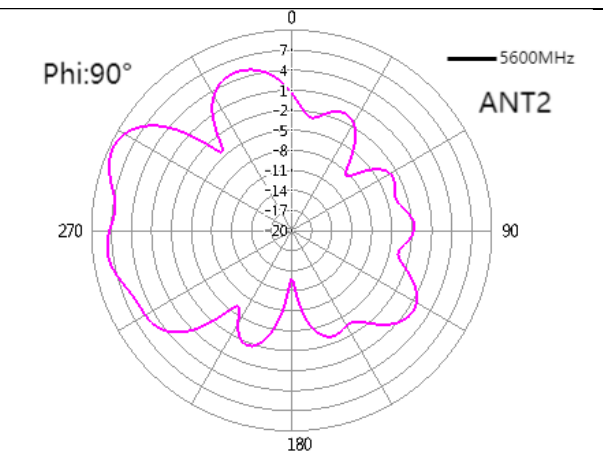
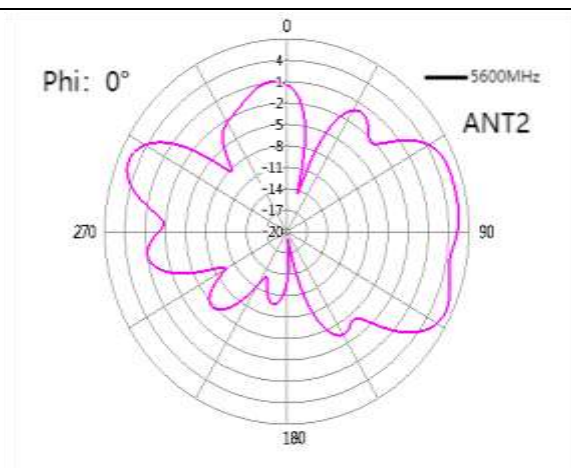
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2.3.4 天线方向图 (Antenna pattern)



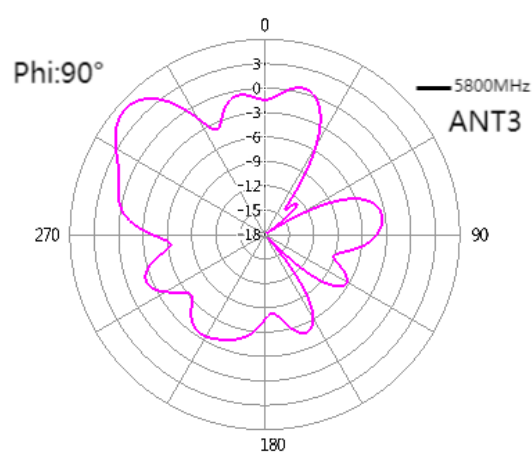
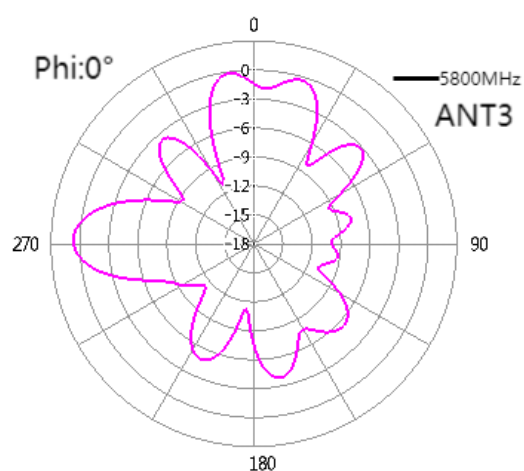
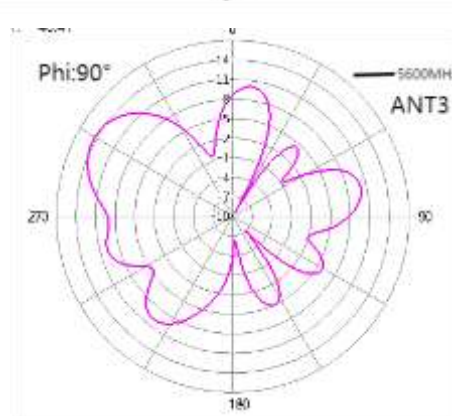
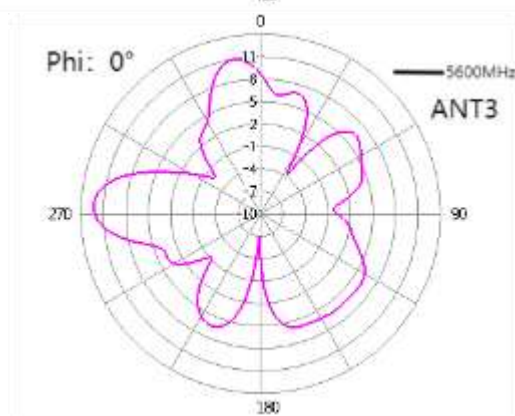
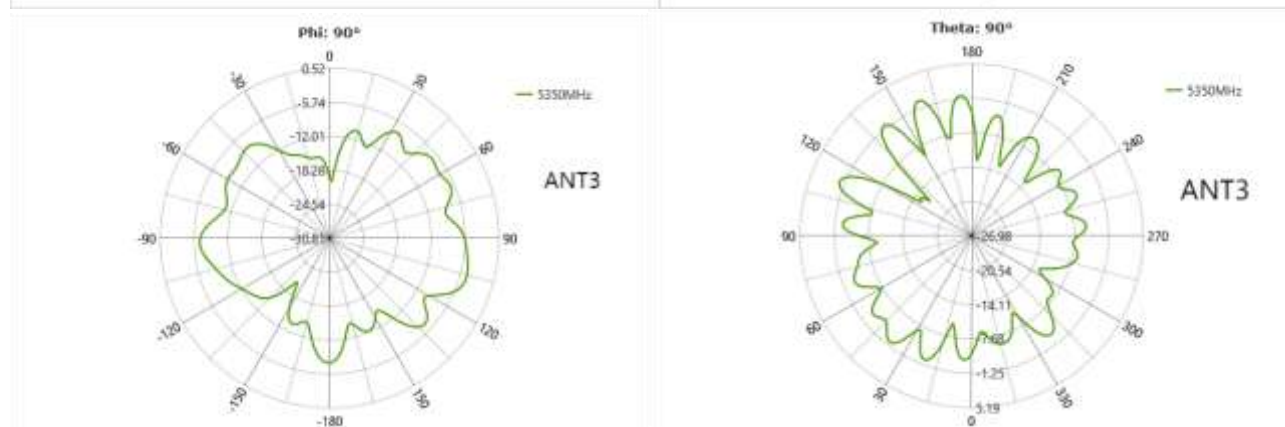
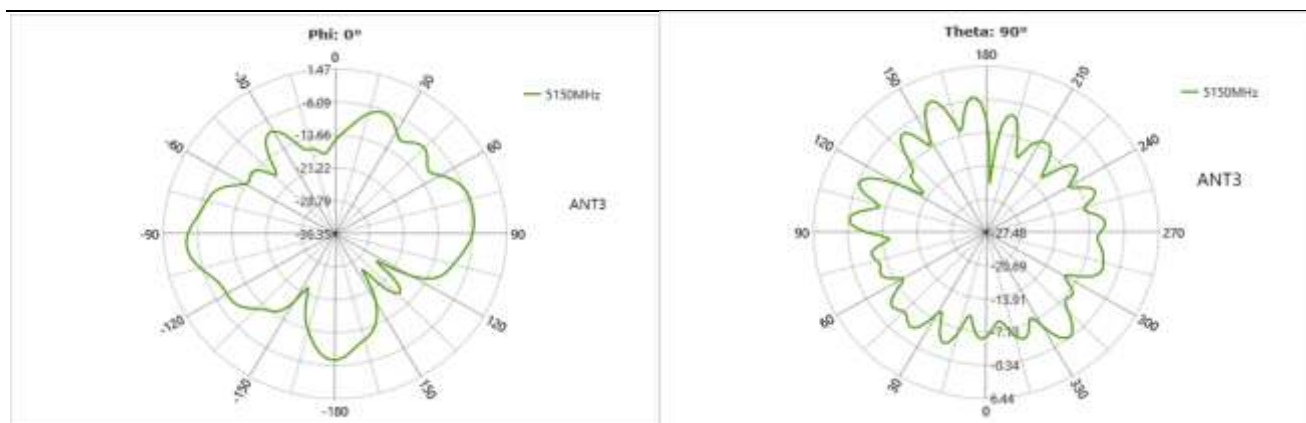
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2.3.5 有源数据(Active Date)

WLAN 5号机 IEMI (SIM1) 8624				
Mode	CH	Fre	A2传导	ANT2-SISO
				TRP
11B TRP 11M TIS 11M	1	2412	14.33	7.05
	6	2437	15.67	9.44
	11	2462	12.97	7.96
11A TRP 6M TIS 54M	36	5180	14.73	8.6
	64	5320	14.18	9.8
	149	5745	10.8	6.52
	157	5785	10.88	6.72
	165	5825	10.89	6.59

WLAN 5号机 IEMI (SIM1) 8624				
Mode	CH	Fre	A3传导	ANT3-SISO
				TRP
11B TRP 11M TIS 11M	1	2412	15.38	8.96
	6	2437	15.89	11.22
	11	2462	13.45	7.03
11A TRP 6M TIS 54M	36	5180	14.67	7.25
	64	5320	14.07	7.46
	149	5745	10.97	6.33
	157	5785	11.12	6.32
	165	5825	11.08	6.36

3. 结构性能(Mechanical Performance)

3.1 产品尺寸图(Mechanical Drawing)

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