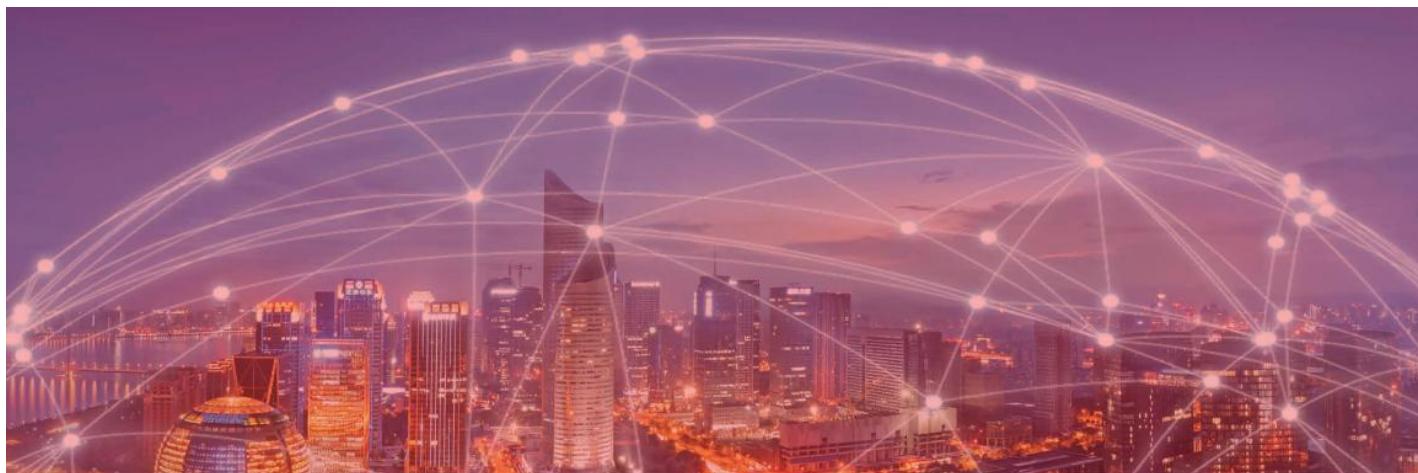


**TINYEE****Shenzhen Tianyiyuan Elec&Technology CO.,Ltd**

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Fengtang Avenue, Fuhai Street, Bao'an District, Shenzhen



<u>Customer</u>	深圳市鑫创锦科技有限公司
<u>Project</u>	--
<u>Band</u>	2400/5150/5850 MHz
TTY <u>Part number</u>	TTY-TX4515
<u>Version</u>	01
<u>RF</u>	唐工
<u>ME</u>	蒋工
<u>Date</u>	2025.03.21
<u>project Version</u>	V1.0
<u>Customer part number</u>	

WIFI Specification

1、specifications

The report mainly provides testing of various electrical performance parameters of the models of Shenzhen Xinchuangjin Technology Co., Ltd. The TYY-TX4515 antenna is a built-in WIFI antenna, which is composed of FPC+RF wires. (As shown in Figure 1 below)

The finished product features

电 性 能 指 标		Electrical Specifications	
频率范围	2400/5150/5850MHZ	Frequency Range	2400/5150/5850MHZ
电压驻波比	≤ 1.5	VSWR	≤ 1.5
最大增益	3DBI	Max GAIN	3DBI
输入阻抗	50 Ω	Input Impedance	50 Ω
机 械 指 标		Mechanical Specifications	
天线颜色	黑色	Antenna Color	BLACK
接口形式	IPEX-1	Input connector	IPEX-1
线长度	125mm	Cable length	125mm
工作温度	-40°C~+85°C	Working Temperature	-40°C~+85°C
工作湿度	20~80%	Working Humidity	20~80%

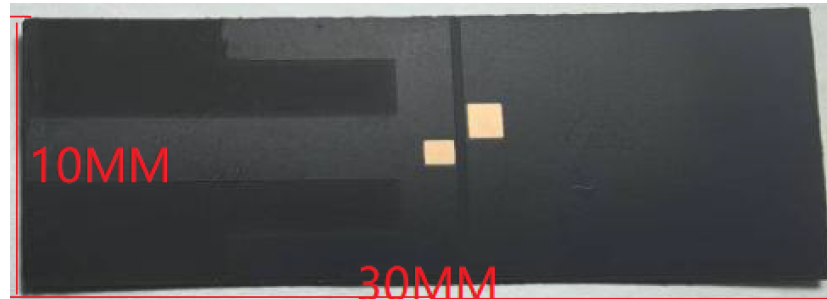


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1 TYY-TX4515



2 TYY-TX4515 WIFI 125mm

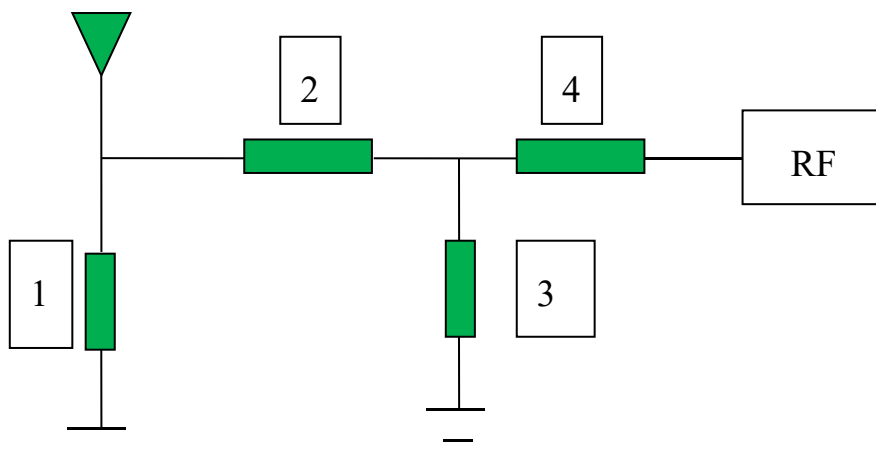


3 Assembly drawing (WIFI antenna)

Attention: First, tear off the adhesive tape behind the FPC and stick it in the middle of the recess, close to the pillar or frame and stick it flat at a right angle. Keep it away from the metal on the back of the screen and away from the speaker hardware. If the antenna is close to the metal and causes a frequency shift of the WIFI signal, stick it in the position indicated in the picture. Thank you!

2. Electrical performance

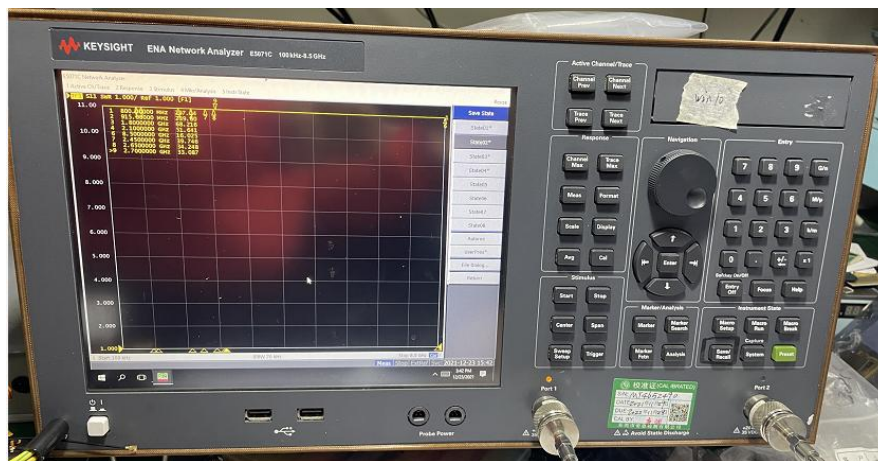
2.1 Matching circuit for WIFI antenna, the matching circuit for this project is provided by the customer



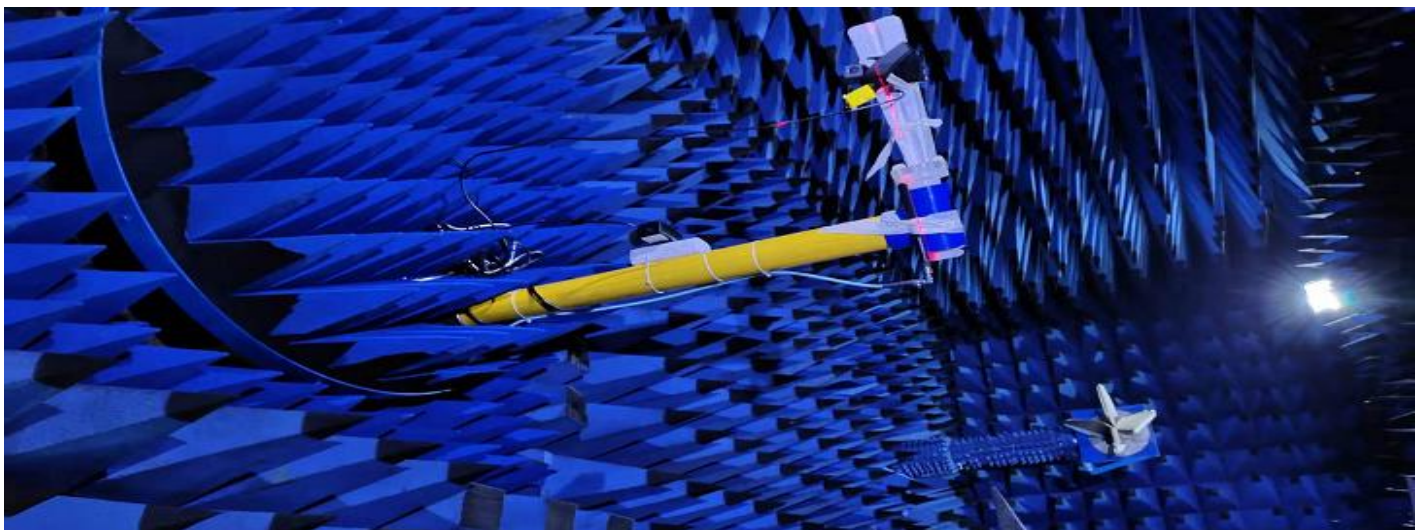
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	1	2	3	4
WIFI	NC	0 R	NC	
	50 R			

4 Agilent E5071C



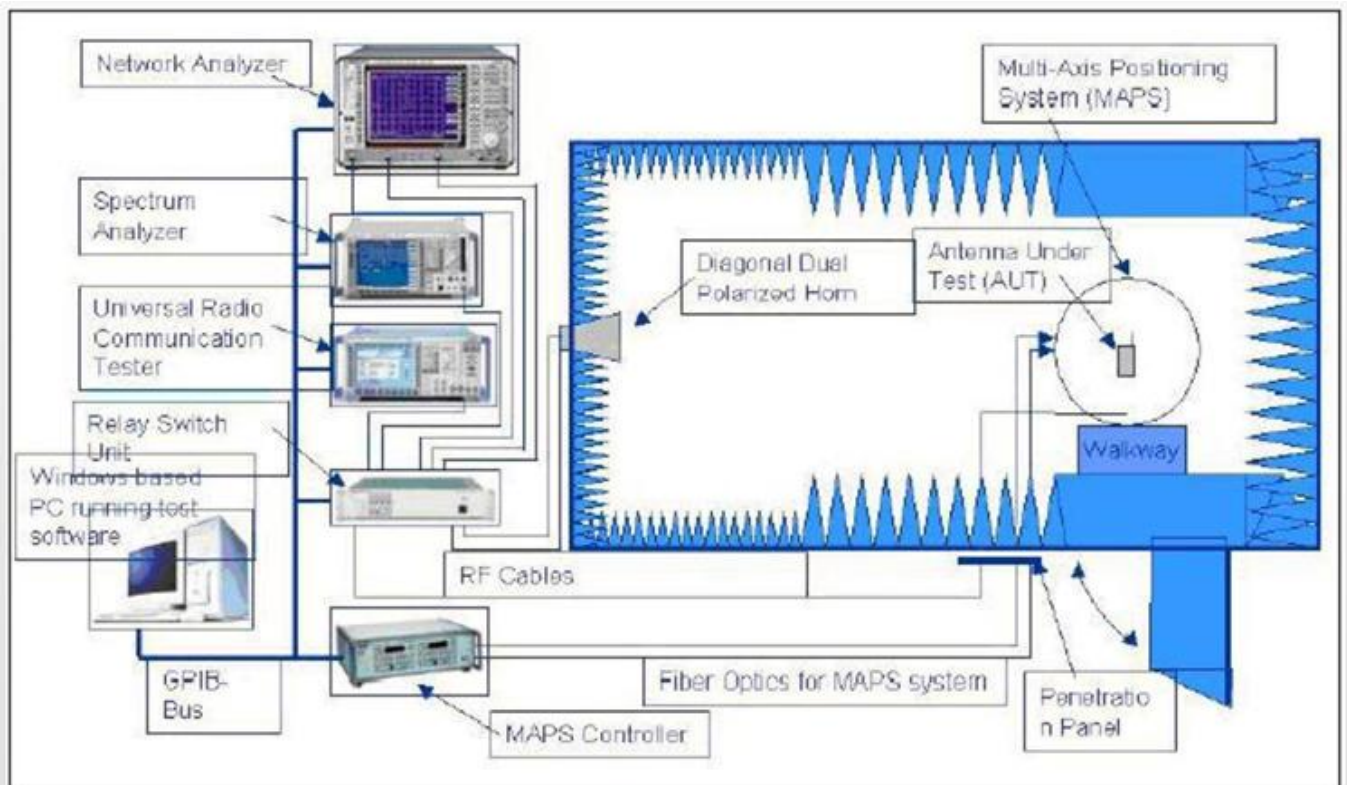
5 OTA



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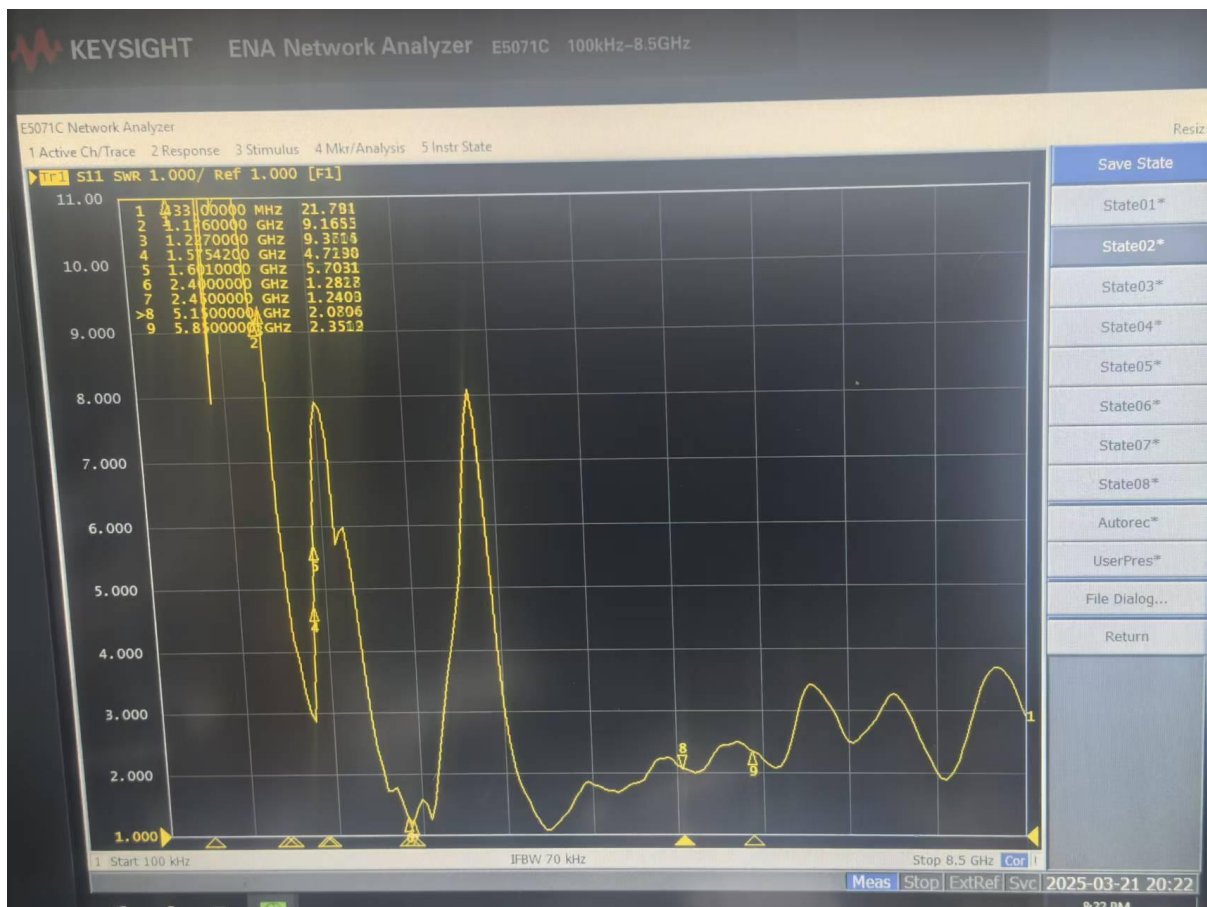


6 : OTA743 , 8960/W500/8753ES/5071C



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2.3 (VSWR)



VSWR

制式	2.4~2.5GHz		5.7~5.8GHz		
(MHz)	2450	2500	5120	5850	
VSWR	1.28	1.24	2.0	2.3	



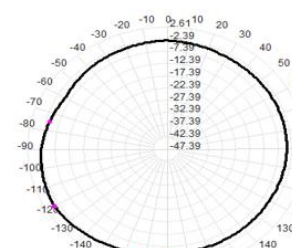
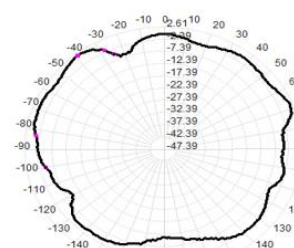
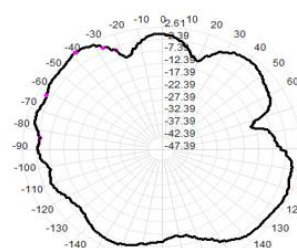
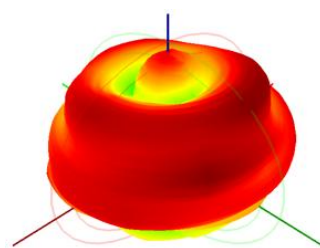
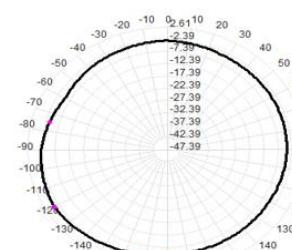
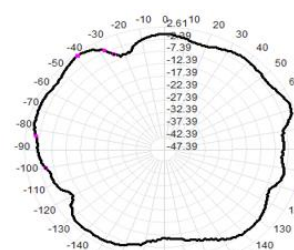
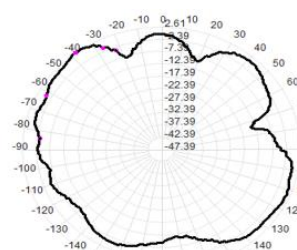
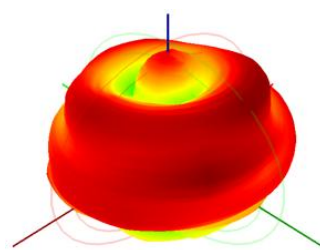
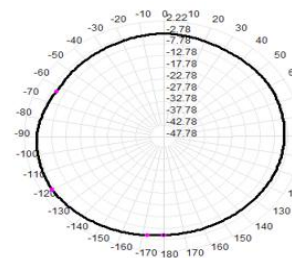
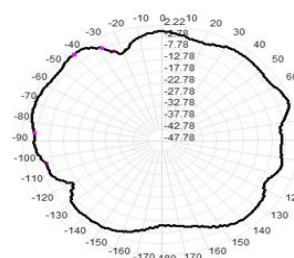
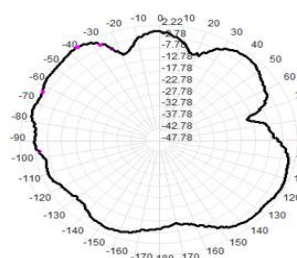
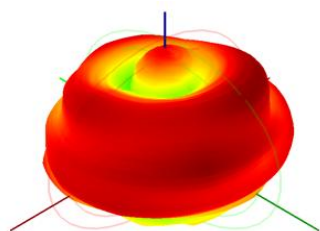
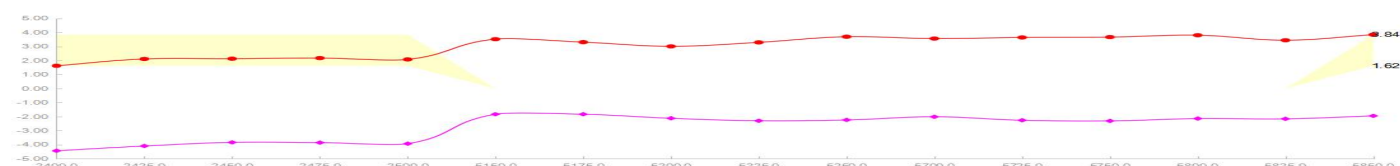
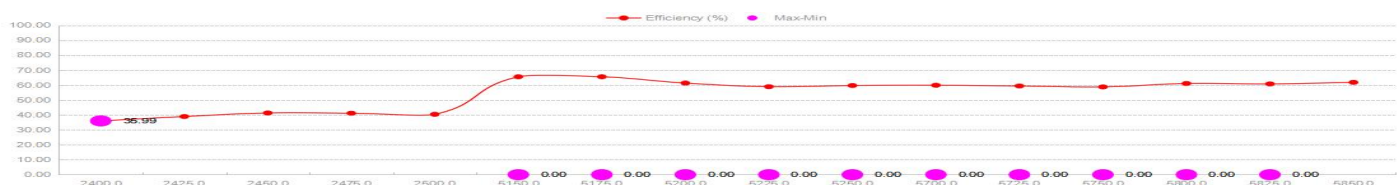
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WIFI

Frequency ID	1	2	3	4	5	7	8	9	10	11	13	14	15	16	17	18
Frequency (MHz)	2400.0	2425.0	2450.0	2475.0	2500.0	5150.0	5175.0	5200.0	5225.0	5250.0	5700.0	5725.0	5750.0	5800.0	5825.0	5850.0
Efficiency (dBi)	-4.44	-4.10	-3.84	-3.86	-3.93	-1.83	-1.83	-2.12	-2.30	-2.24	-2.01	-2.26	-2.31	-2.14	-2.16	-1.95
Gain (dBi)	1.62	2.11	2.12	2.17	2.07	3.52	3.30	3.00	3.29	3.69	3.56	3.64	3.66	3.80	3.44	3.84
Efficiency (%)	35.99	38.92	41.31	41.14	40.43	65.56	65.57	61.34	58.90	59.69	59.89	59.39	58.76	61.07	60.77	61.82
Directivity (dB)	6.06	6.20	5.96	6.03	6.01	6.35	6.14	6.13	6.59	6.93	7.01	6.90	6.97	6.94	6.60	7.03
Peak Gain Position (Theta)	135.00	135.00	135.00	150.00	150.00	45.00	45.00	60.00	90.00	60.00	30.00	60.00	30.00	30.00	30.00	30.00
Peak Gain Position (Phi)	345.00	345.00	345.00	15.00	15.00	240.00	210.00	255.00	270.00	255.00	240.00	270.00	225.00	225.00	225.00	225.00
Efficiency ThetaPol (%)	17.68	19.25	20.67	20.73	20.70	23.42	22.68	21.66	20.12	17.99	25.83	24.11	24.64	26.08	25.83	27.97
Efficiency PhiPol (%)	18.31	19.67	20.65	20.42	19.73	42.14	42.88	39.68	38.78	41.70	37.06	35.28	34.11	34.99	34.95	35.85
Upper Hem. Efficiency (%)	14.67	16.28	17.21	16.78	16.24	44.88	44.35	41.15	39.03	41.59	42.93	40.40	39.48	39.62	40.04	41.95
Lower Hem. Efficiency (%)	21.32	22.64	24.10	24.37	24.19	20.67	21.22	20.19	19.87	18.10	19.96	19.00	19.28	21.45	20.73	21.87



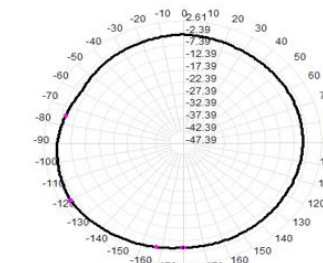
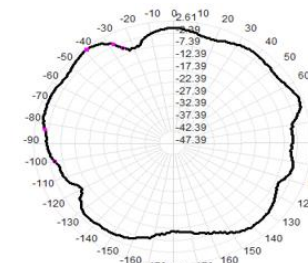
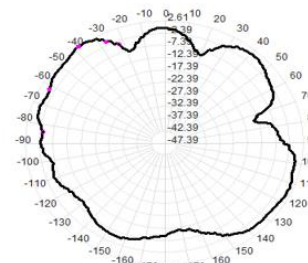
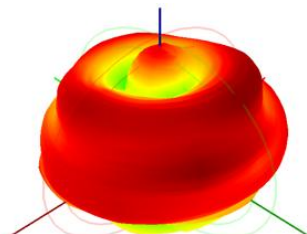
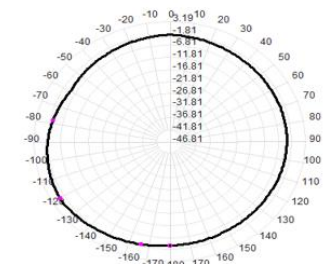
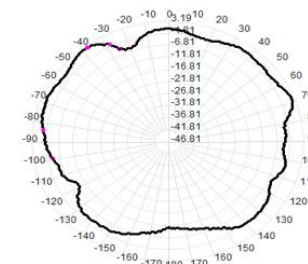
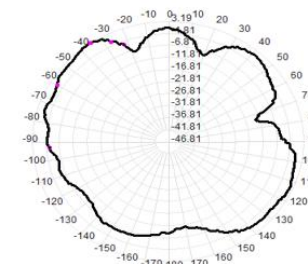
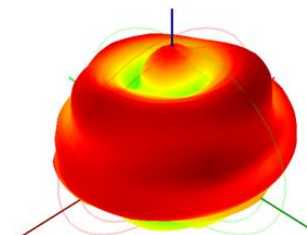
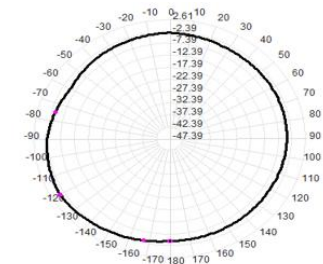
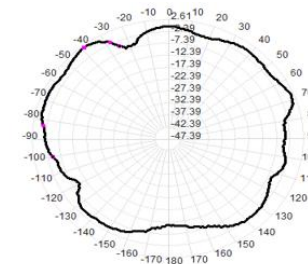
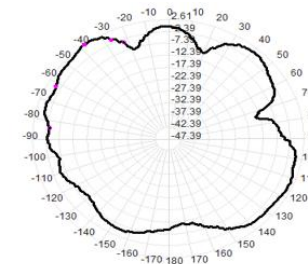
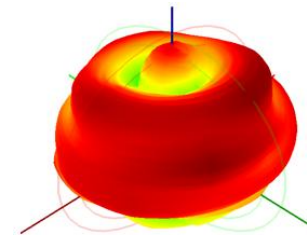
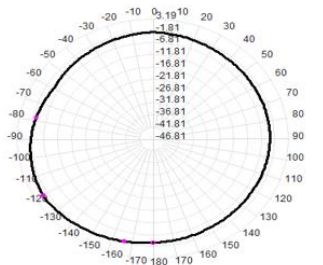
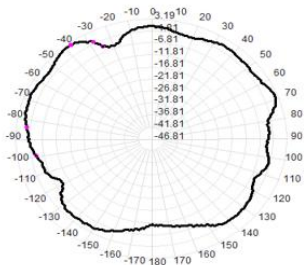
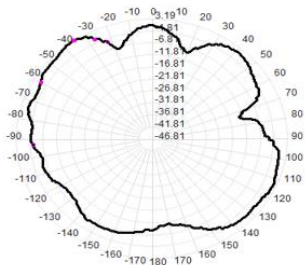
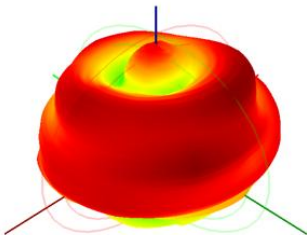
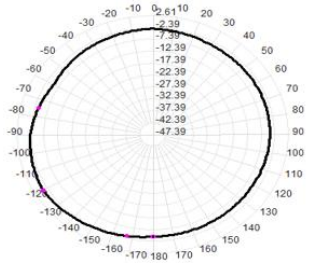
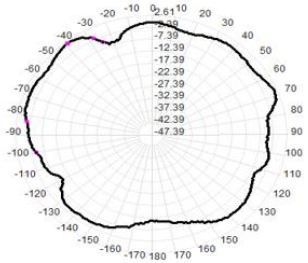
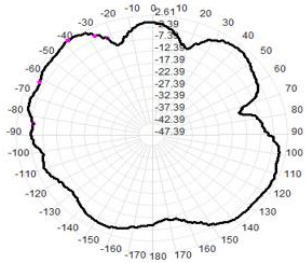
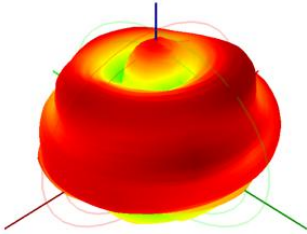


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