承認書

SPECIFICATION FOR APPROVAL

■樣品承認□新品承認□規格/材質變更承認

客戶名稱(Customer):	東荃科技股份有限公司		
客戶料號(Customer P/N):	5060-A107EB+430		
產品料號(Product No.):	A8-A006-00509		
產品品名(Product Name)：	PCB 11a/b/g/n 2dBi/5.5dBi 30mmx8mm T0.8 black OD1.13 low loss 55mm I-PEX plug		
文件編號(Approved No)：			
日期(Issued Date)：	2018 年 10 月 25 日		
客戶承認簽章 Customer Approval Signature	In Charge	Checked	Approval

天凱科技 2018.10.29 文件發行章

TSKY 天凱科技股份有限公司 TSKY CO., LTD.
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業務	核准	審核	主辦員

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Specification

- **Electrical Properties :**

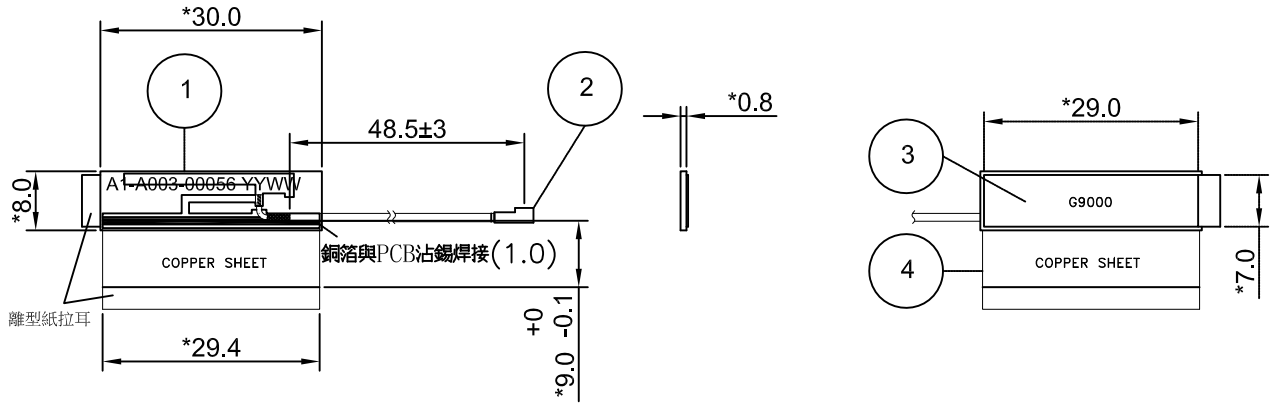
1. Frequency : 2400MHz-2500MHz / 5150MHz-5850MHz
2. Impedance : 50Ω
3. Return Loss : ≦ -10dB
4. Peak Gain : 2dBi / 5.5dBi

- **Physical Properties :**

1. Material : FR-4 T=0.8mm
2. Cable : OD1.13 Low Loss
3. Connector : I-PEX

REV	ECN NO.	DRAWING	DESCRIPTION	APPROVED	DATE
A		Jane	初次發行	Gary	2018/10/24

(Top VIEW) (SIDE VIEW) (BOTTOM VIEW)



ELECTRICAL:

Frequency:2400MHz~2500MHz/5150MHz~5850MHz

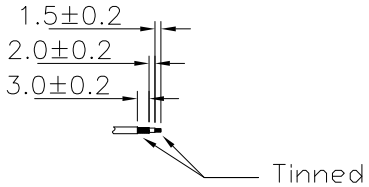
Impedance:50Ω

Peak Gain: 2dBi/5.5dBi

Return Loss: ≤-10dB

MECHANICAL:

Cable: D1.13 Low Loss BLACK L=55mm



天凱科技
2018.10.25
圖面發行章

NOTE:

1.文字顏色為白色

2.*為重點量測尺寸

3.I-PEX 方向請按照圖面所示

NO.	PART NO.	DESCRIPTION	REV.	Q' TY
4	A2-A008-00006	銅箔29.4x9mm背膠(導電膠)	A	1
3	A2-A001-00023	29x7mm G9000 雙面背膠	A	1
2	A0-A003-00048	RF CABLE OD1.13 Low Loss 55mm BLACK IPEX PLUG+3(編)-2(絕)-1.5(芯)	A	1
1	A1-A003-00056	PCB ANT FR-4 L30 W8 T0.8mm 單面化鎳雙面黑漆 FOR A8-A006-00509	A	1

TOLERANCE UNLESS OTHERWISE SPECIFIED

DIMENSION		ANGLES	
.X±	0.2	X.°±	0.5
.XX±	0.1		
.XXX±	0.05		

TSKY CO., LTD.

CONFIDENTIAL | FINISH: | SIZE: A4 | UNIT: mm | SCALE: 1:1

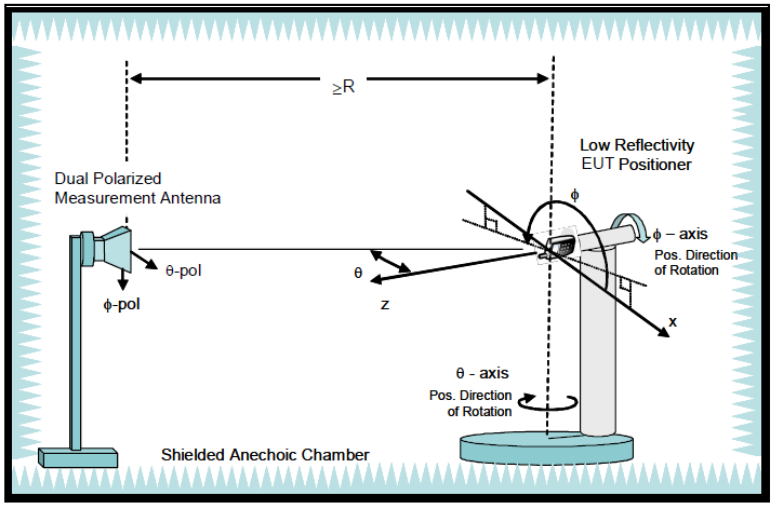
DRAWING	DESIGNED	CONCURRED	APPROVED
Jane			Gary

INITIAL MODEL:

PART NAME: PCB 11a/b/g/n 2dBI/5.5dBI 30mmx8mm T0.8 black OD1.13 low loss 55mm I-PEX plug

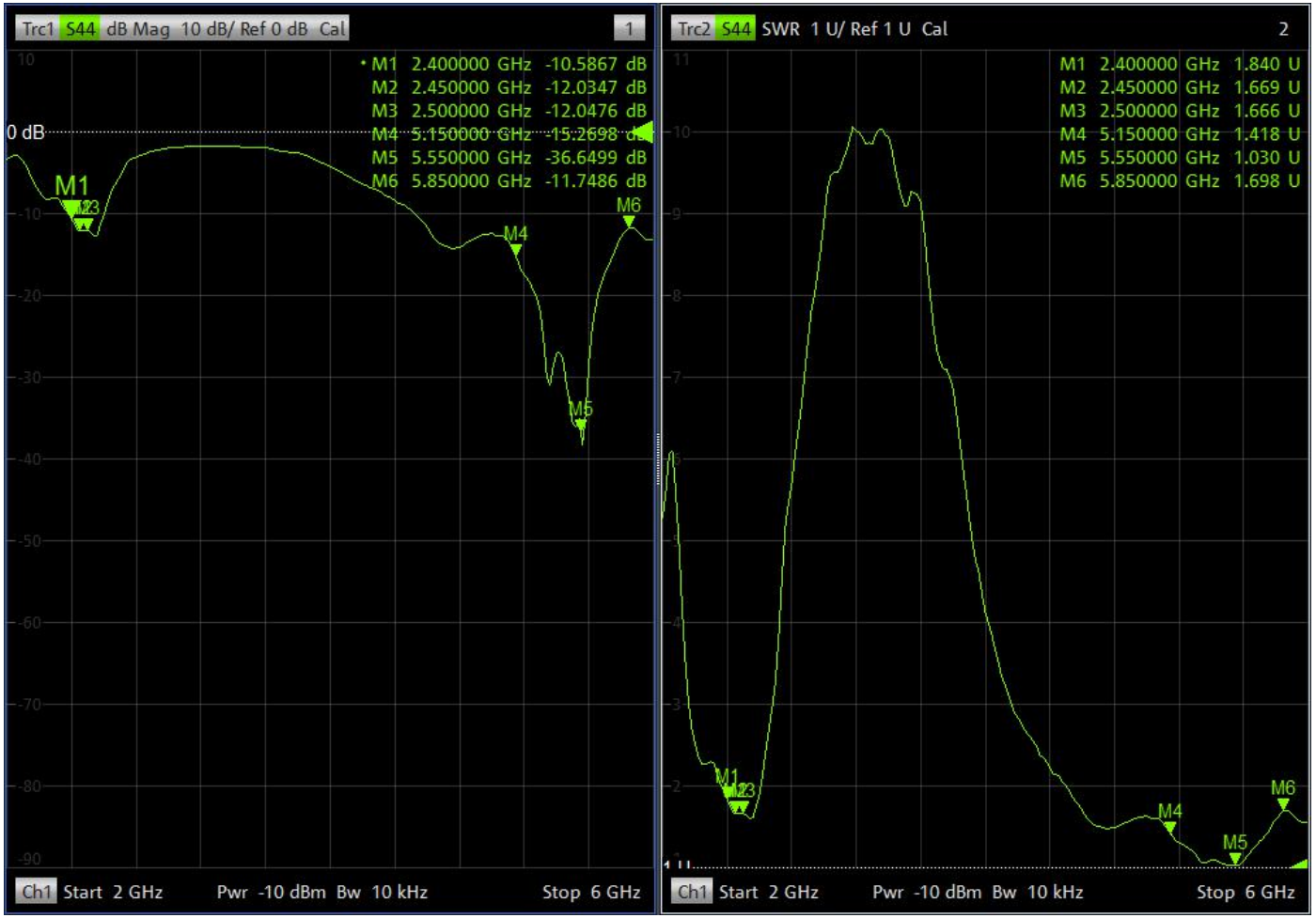
PART NO. A8-A006-00509 | REV. A | SHT. 1/1

Antenna Coordinate System Definition

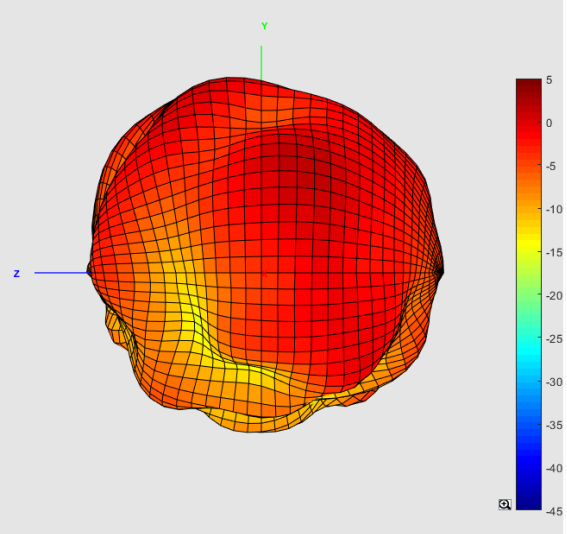
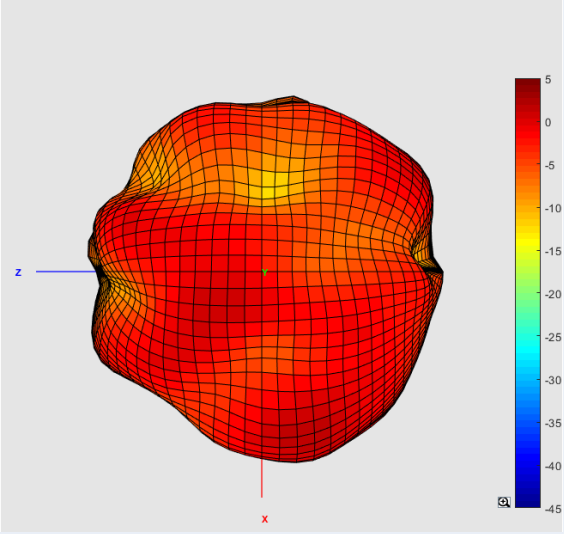
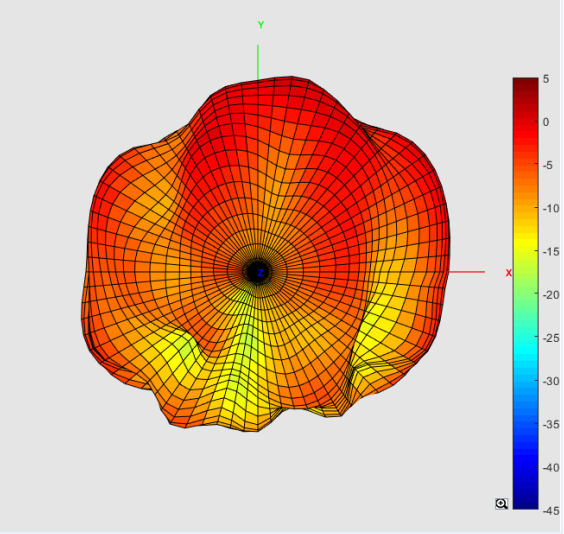


Antenna Placement

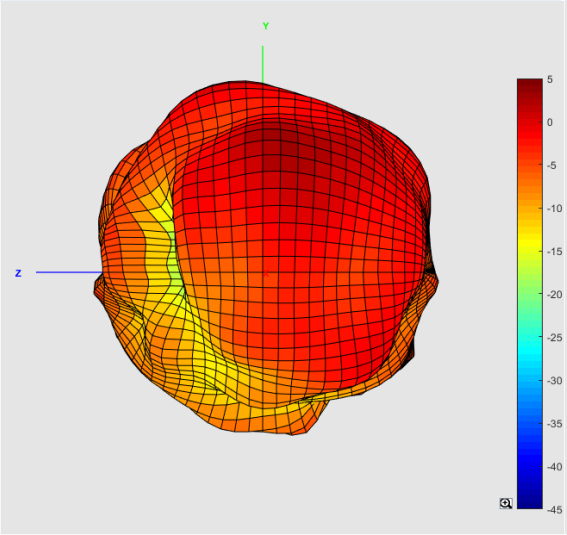
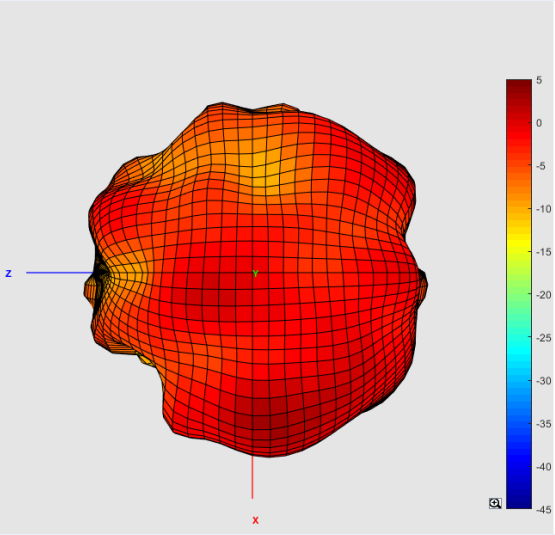
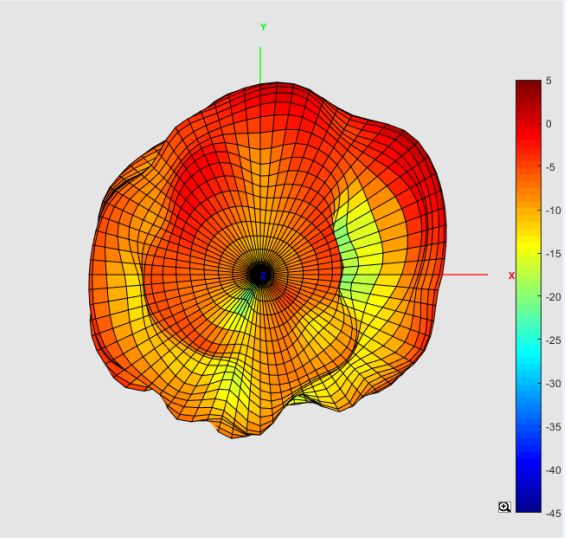
Placement 1
Return Loss and VSWR



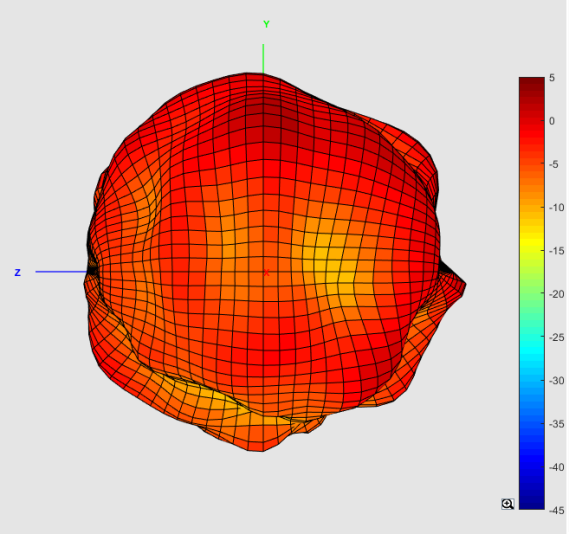
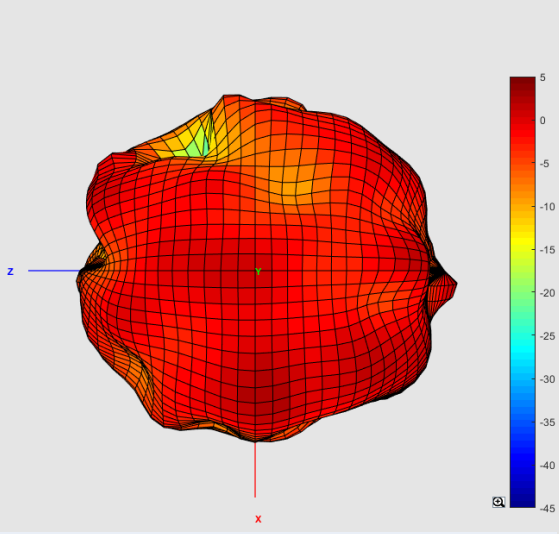
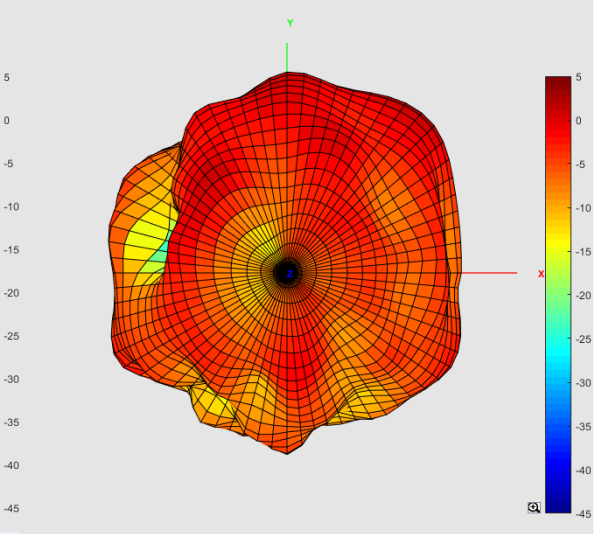
Placement 1
3D Radiation Pattern

2.4GHz		
X-axis View	Y-axis View	Z-axis View
		

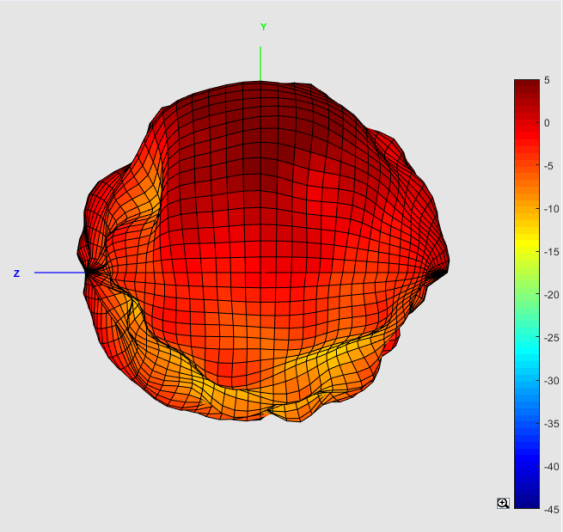
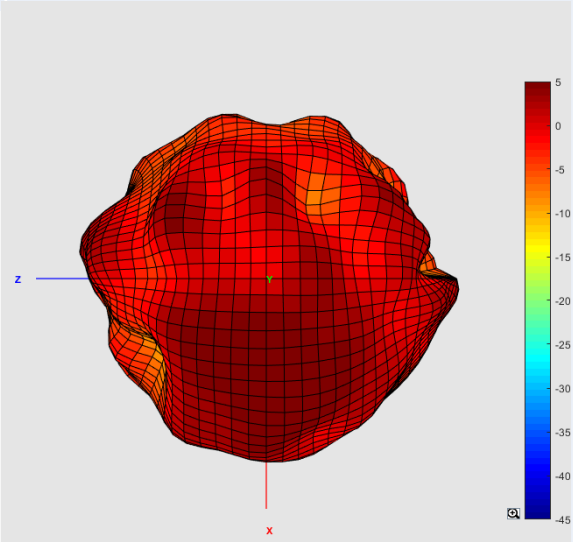
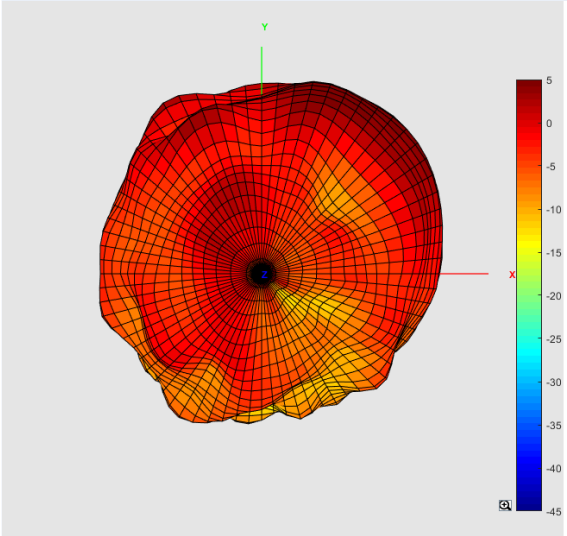
Placement 1
3D Radiation Pattern

2.45GHz		
X-axis View	Y-axis View	Z-axis View
		

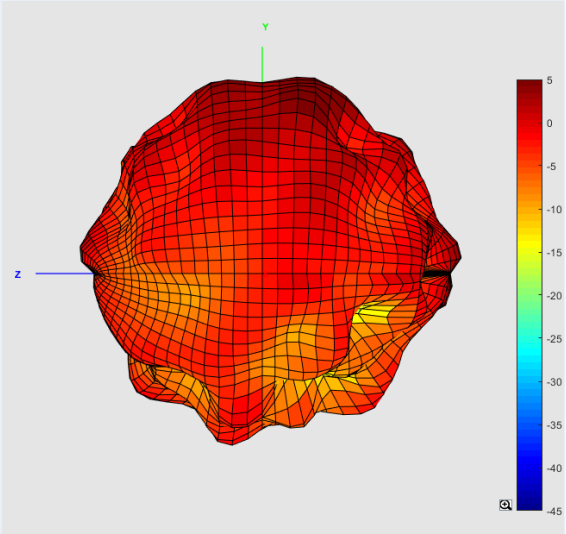
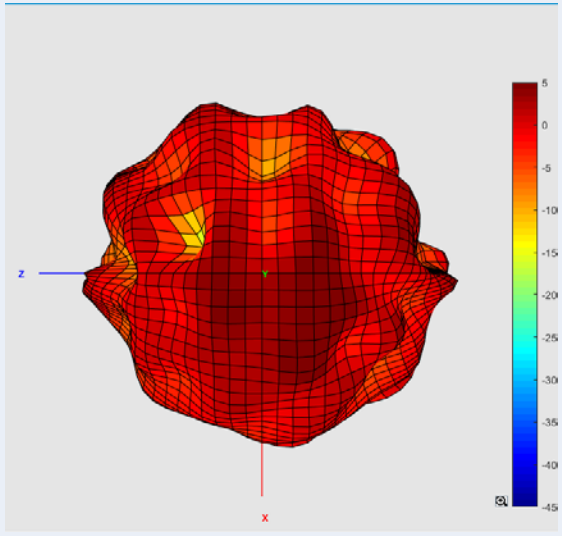
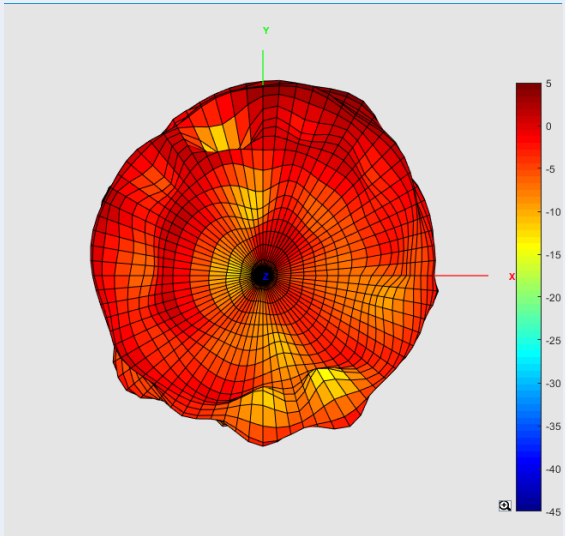
Placement 1
3D Radiation Pattern

2.5GHz		
X-axis View	Y-axis View	Z-axis View
		

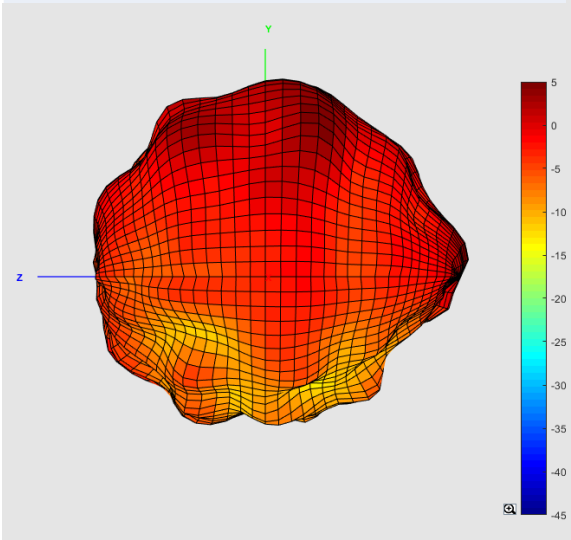
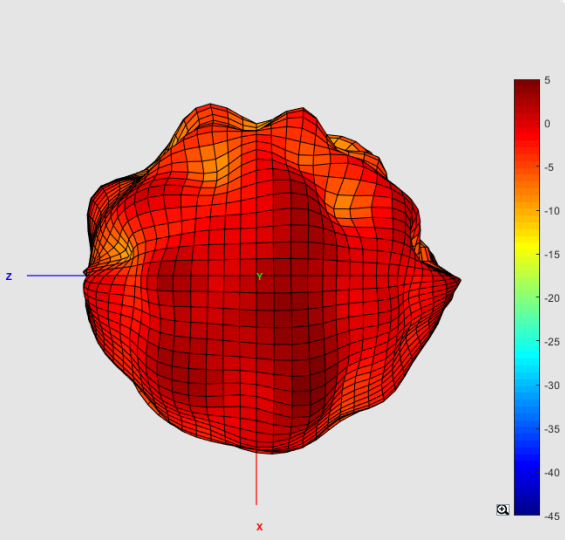
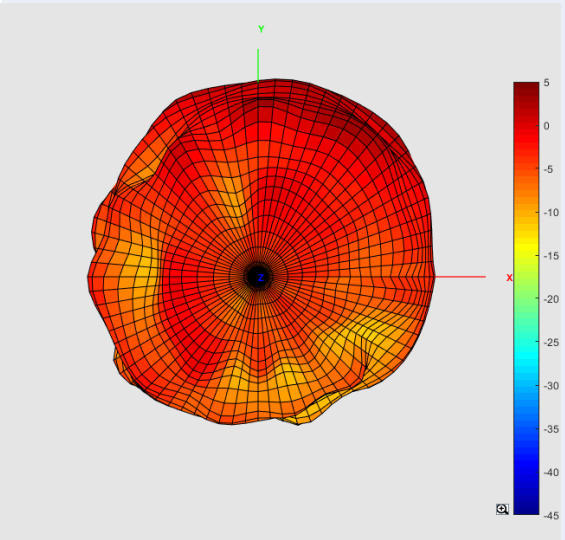
Placement 1
3D Radiation Pattern

5.15GHz		
X-axis View	Y-axis View	Z-axis View
		

Placement 1
3D Radiation Pattern

5.55GHz		
X-axis View	Y-axis View	Z-axis View
		

Placement 1
3D Radiation Pattern

5.85GHz		
X-axis View	Y-axis View	Z-axis View
		

Placement 1
Antenna Gain and Efficiency

Frequency(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Directivity(dBi)	6.11	6.29	6.57	6.59	6.42	6.77	7.06	7.17	6.83	6.42	6.03
Efficiency(dB)	-4.63	-4.9	-4.9	-4.84	-4.76	-4.55	-4.64	-4.47	-4.42	-4.43	-3.67
Efficiency(%)	34.43	32.36	32.36	32.81	33.42	35.08	34.36	35.73	36.14	36.06	42.95
Gain(dBi)	1.48	1.39	1.67	1.75	1.66	2.22	2.42	2.7	2.41	1.99	2.36

Placement 1
Antenna Gain and Efficiency

Frequency(MHz)	5150	5250	5350	5450	5550	5650	5750	5850
Directivity(dBi)	7.71	8.44	8.07	8.27	7.5	7.88	7.92	7.63
Efficiency(dB)	-1.67	-1.81	-2.5	-2.72	-1.72	-2.28	-2.37	-2.98
Efficiency(%)	68.08	65.92	56.23	53.46	67.3	59.16	57.94	50.35
Gain(dBi)	6.04	6.63	5.57	5.55	5.78	5.6	5.55	4.65