

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 |
| | | | |

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 :**

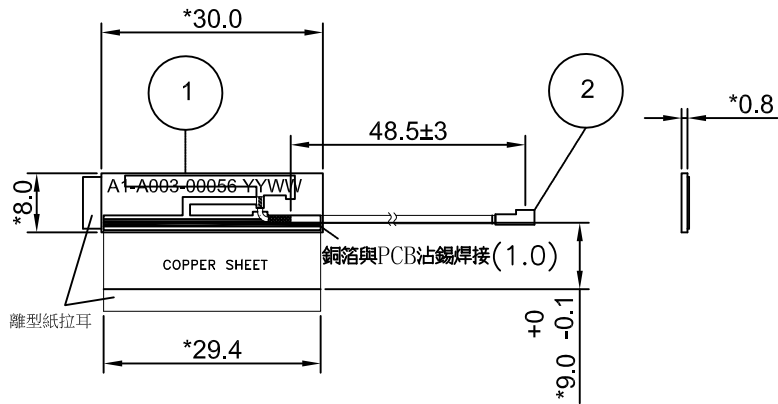
1. Frequency : 2400MHz-2500MHz / 5150MHz-5850MHz
2. Impedance : 50Ω
3. Return Loss : $\leq -10\text{dB}$
4. Peak Gain : 2dBi / 5.5dBi

- **Physical Properties :**

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

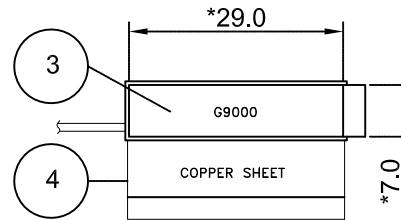
| REV | ECN NO. | DRAWING | DESCRIPTION | APPROVED | DATE |
|-----|---------|---------|-------------|----------|------------|
| A | | Jane | 初次發行 | Gary | 2018/10/24 |

(Top VIEW)



(SIDE VIEW)

(BOTTOM VIEW)

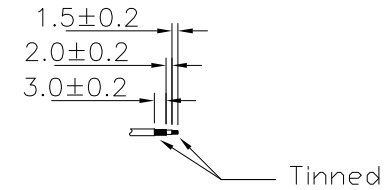


ELECTRICAL:

Frequency: 2400MHz~2500MHz/5150MHz~5850MHz
 Impedance: 50Ω
 Peak Gain: 2dBi/5.5dBi
 Return Loss: ≤ -10dB

MECHANICAL:

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



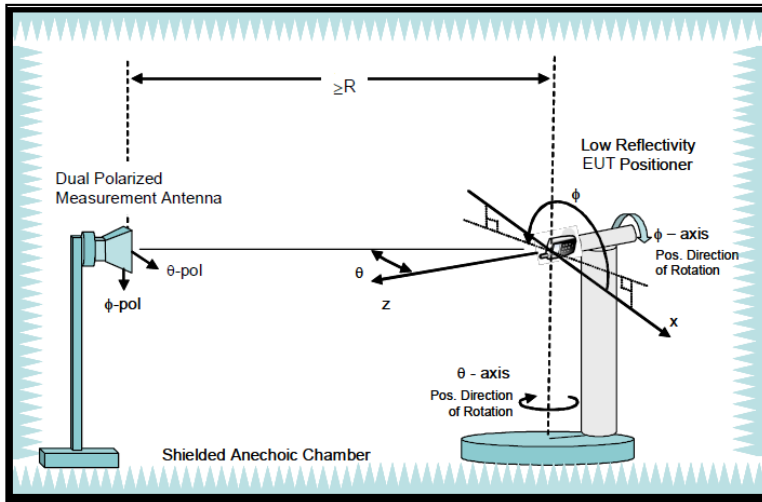
NOTE:

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 單面化鍍雙面黑漆 FOR A8-A006-00509 | A | 1 |

| TOLERANCE UNLESS OTHERWISE SPECIFIED | | | | TSKY CO., LTD. | | | | INITIAL MODEL: | | | |
|--------------------------------------|------|--------|-----|-----------------------|----------|-----------|----------|----------------|--|--------|----------|
| DIMENSION | | ANGLES | | CONFIDENTIAL | FINISH: | SIZE: | UNIT: | SCALE: | PART NAME | | |
| .X± | 0.2 | X.°± | 0.5 | ⊕ | | A4 | mm | 1:1 | PCB 11a/b/g/n 2dBi/5.5dBi 30mmx8mm T0.8 black OD1.13 low loss 55mm I-PEX plug | | |
| .XX± | 0.1 | | | DRAWING | DESIGNED | CONCURRED | APPROVED | | PART NO. | | |
| .XXX± | 0.05 | | | Jane | | | Gary | | A8-A006-00509 | REV. A | SHT. 1/1 |

Antenna Coordinate System Definition

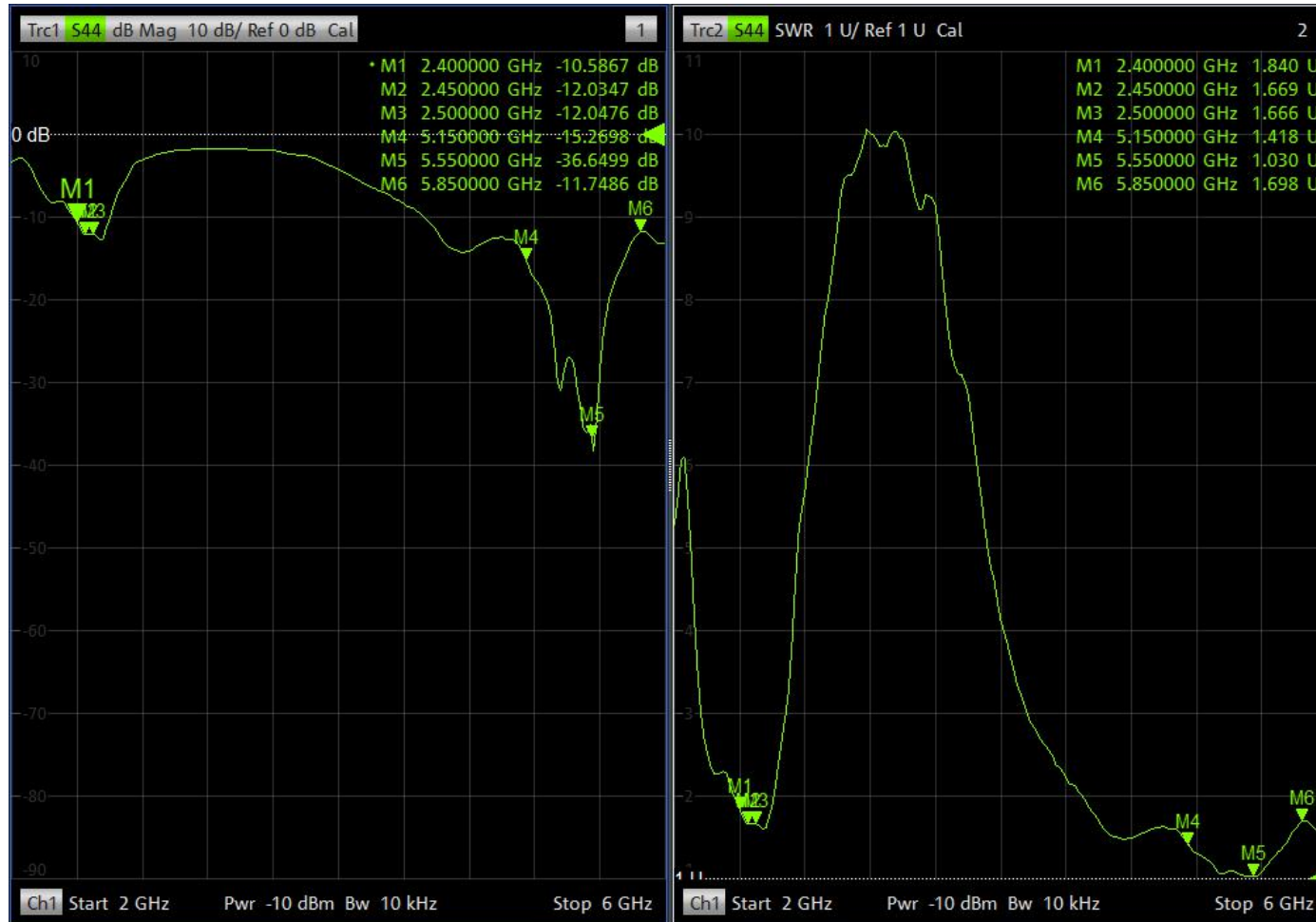


Antenna Placement



Placement 1

Return Loss and VSWR

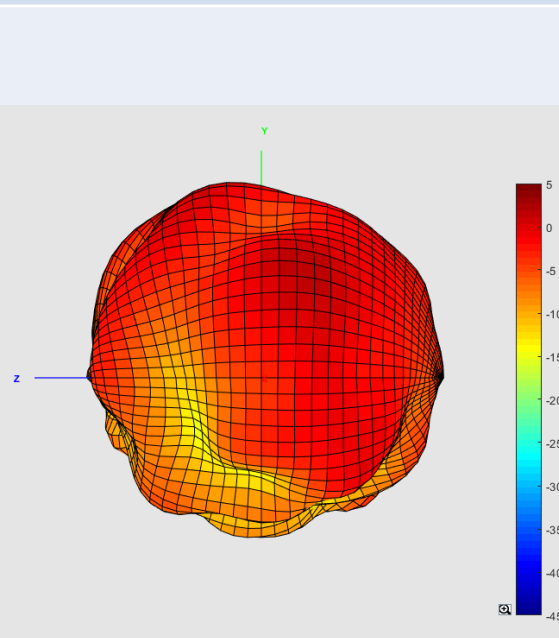


Placement 1

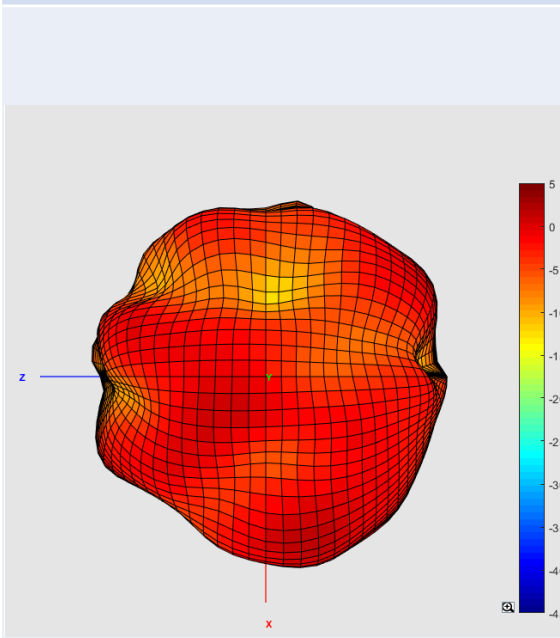
3D Radiation Pattern

2.4GHz

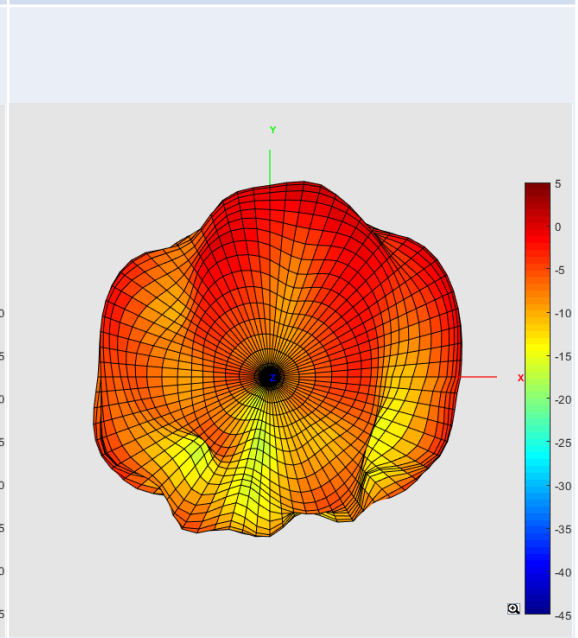
X-axis View



Y-axis View



Z-axis View



Placement 1

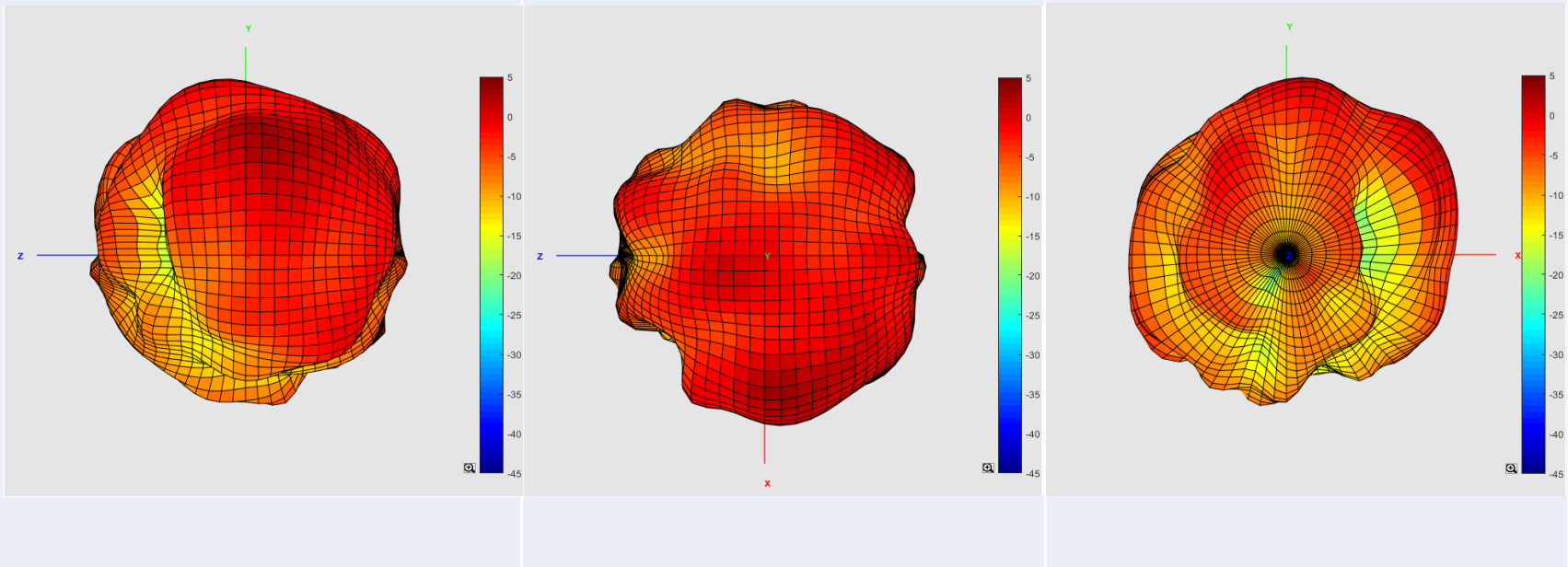
3D Radiation Pattern

2.45GHz

X-axis View

Y-axis View

Z-axis View



Placement 1

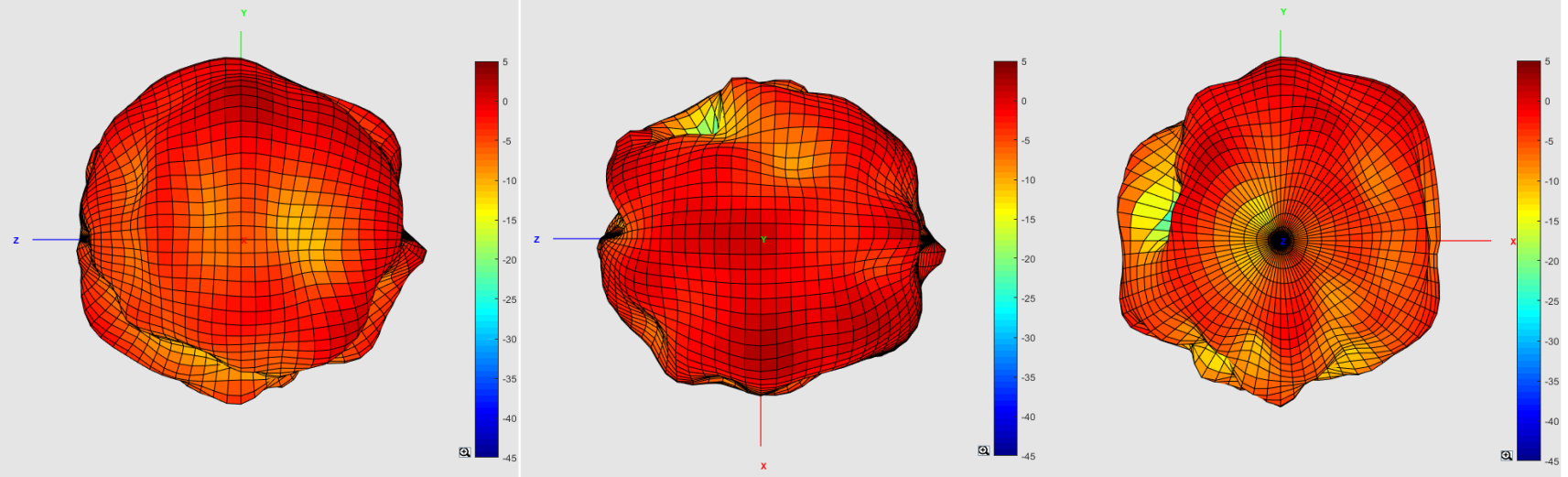
3D Radiation Pattern

2.5GHz

X-axis View

Y-axis View

Z-axis View

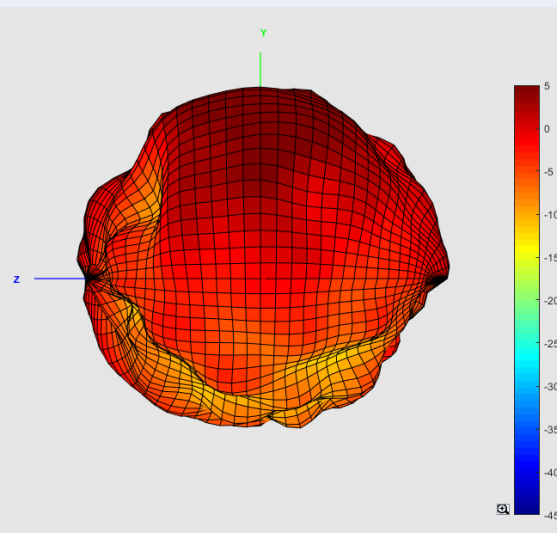


Placement 1

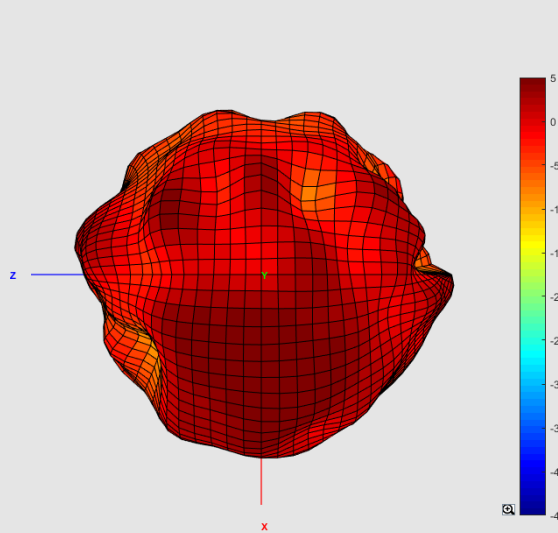
3D Radiation Pattern

5.15GHz

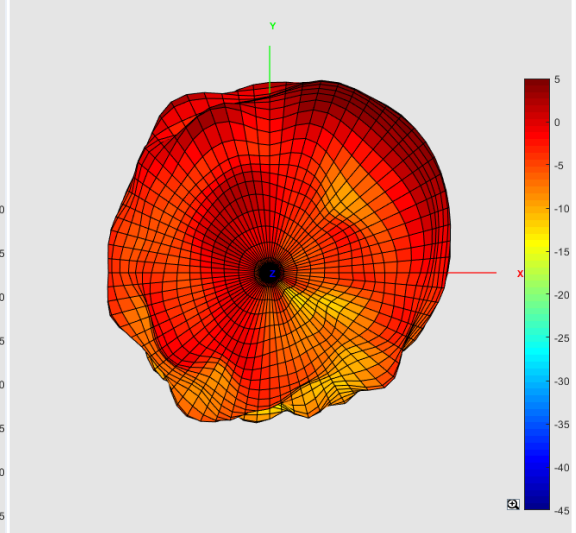
X-axis View



Y-axis View



Z-axis View

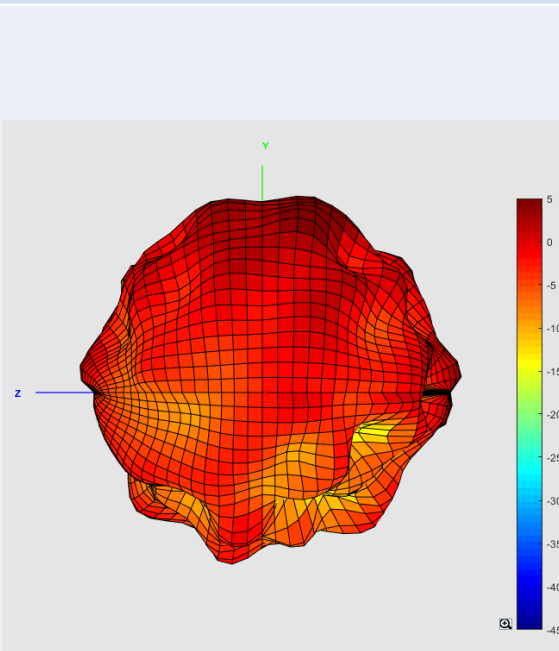


Placement 1

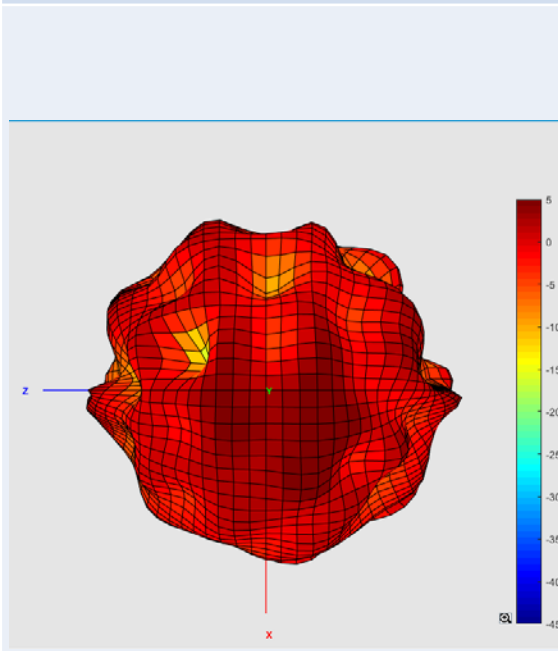
3D Radiation Pattern

5.55GHz

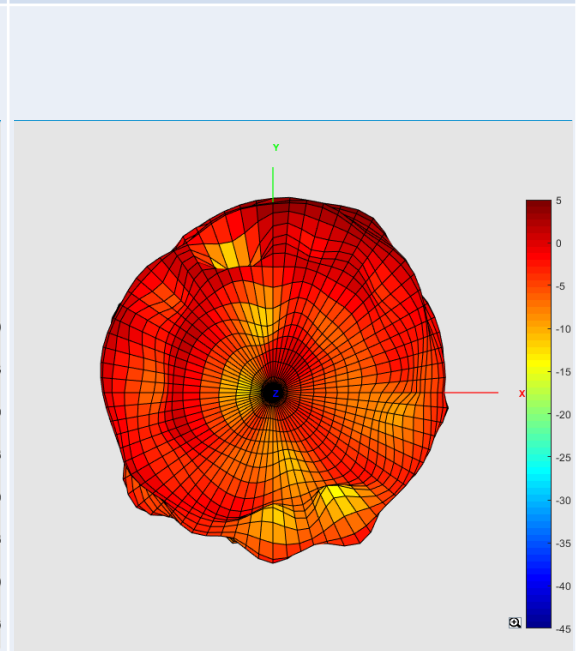
X-axis View



Y-axis View



Z-axis View



Placement 1

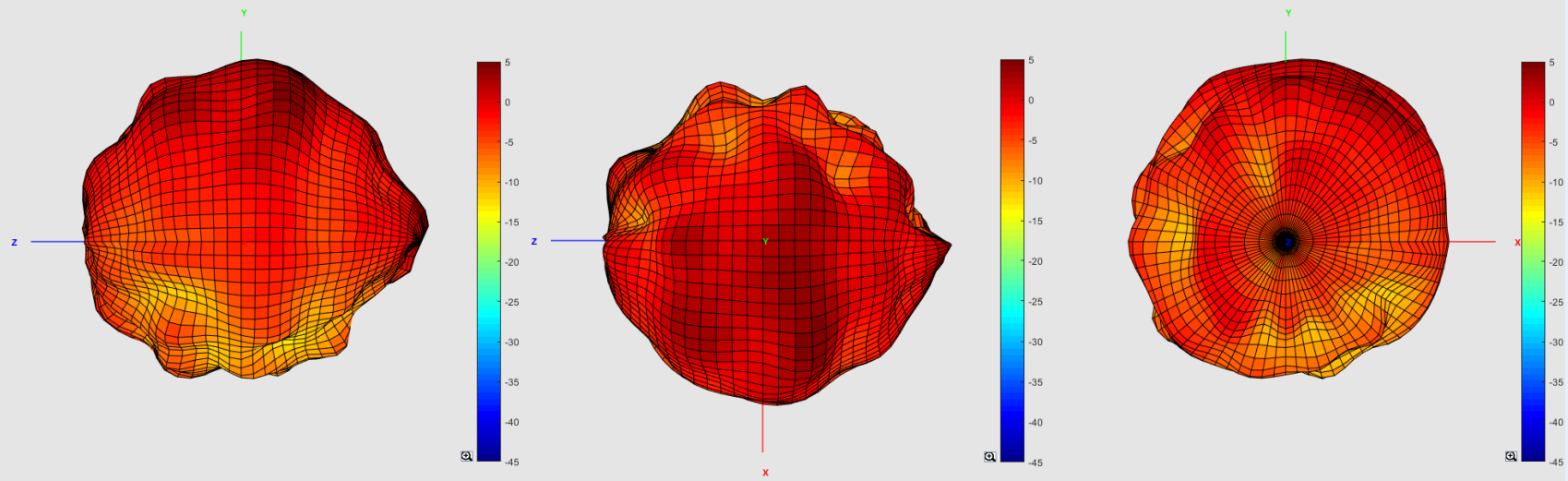
3D Radiation Pattern

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 |