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-A107EF+430		
產品料號(Product No.):	A8-A006-00541		
產品品名(Product Name)：	PCB 11a/b/g/n 1dBi/4dBi 30mmx8mm T0.8 gray OD1.13 low loss 55mm I-PEX plug		
文件編號(Approved No)：			
日期(Issued Date)：	2019 年 7 月 30 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.
新竹縣竹北市自強南路8號21F-2 Tel:03-5502626 Fax:03-5503131
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天凱科技 2019.07.30 文件發行章

業務	核准	審核	主辦員

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Specification

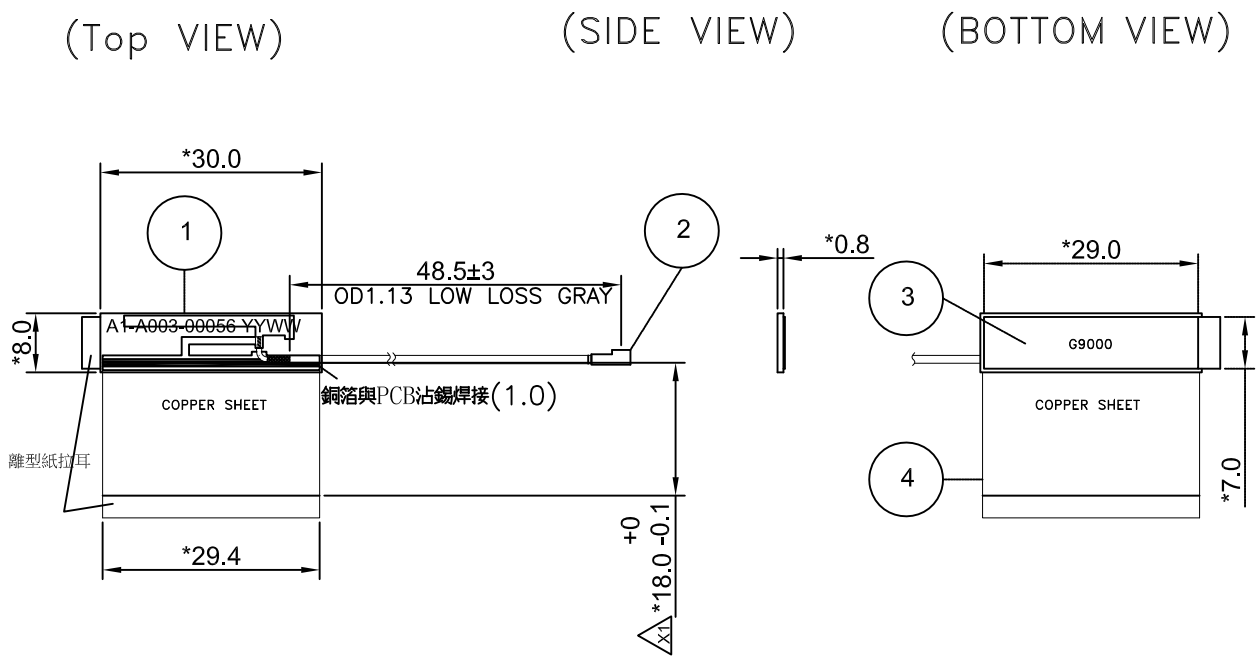
- **Electrical Properties :**

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

- **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
X1		Jane	初次發行	Gary	2019/07/30



ELECTRICAL:

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

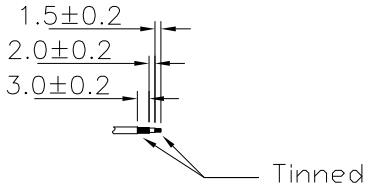
Impedance:50Ω

Peak Gain: 1dBi/4dBi

Return Loss: ≤-10dB

MECHANICAL:

Cable: D1.13 Low Loss GRAY 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 (X1)	A2-A008-000**	銅箔29.4x18mm背膠(導電膠)	X1	1
3	A2-A001-00023	29x7mm G9000 雙面背膠	A	1
2 (X1)	A0-A003-000**	RF CABLE OD1.13 Low Loss 55mm GRAY IPEX PLUG+3(編)-2(絕)-1.5(芯)	X1	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:

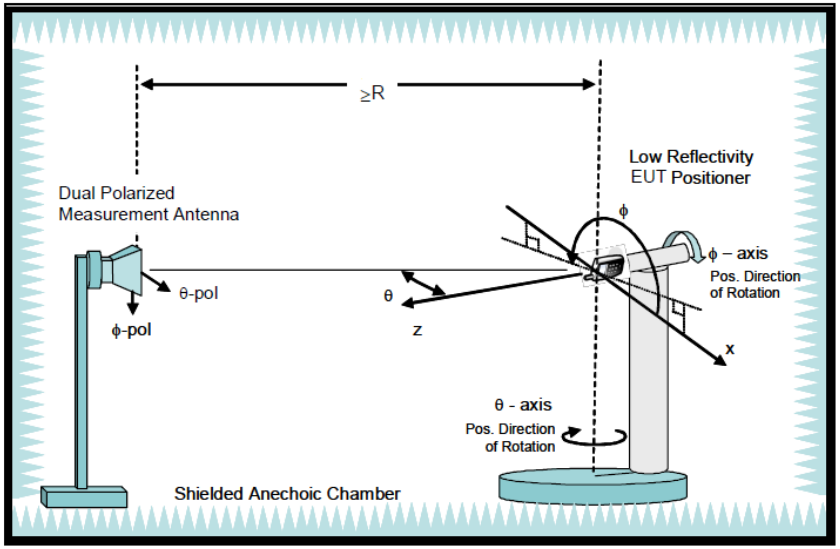
PART NAME: PCB 11a/b/g/n 1dBI/4dBI 30mmx8mm T0.8 gray OD1.13 low loss 55mm I-PEX plug

PART NO.	REV.	SHT.
A8-A006-00541	X1	1/1

Zunidata
Wi-Fi Antenna Test Report

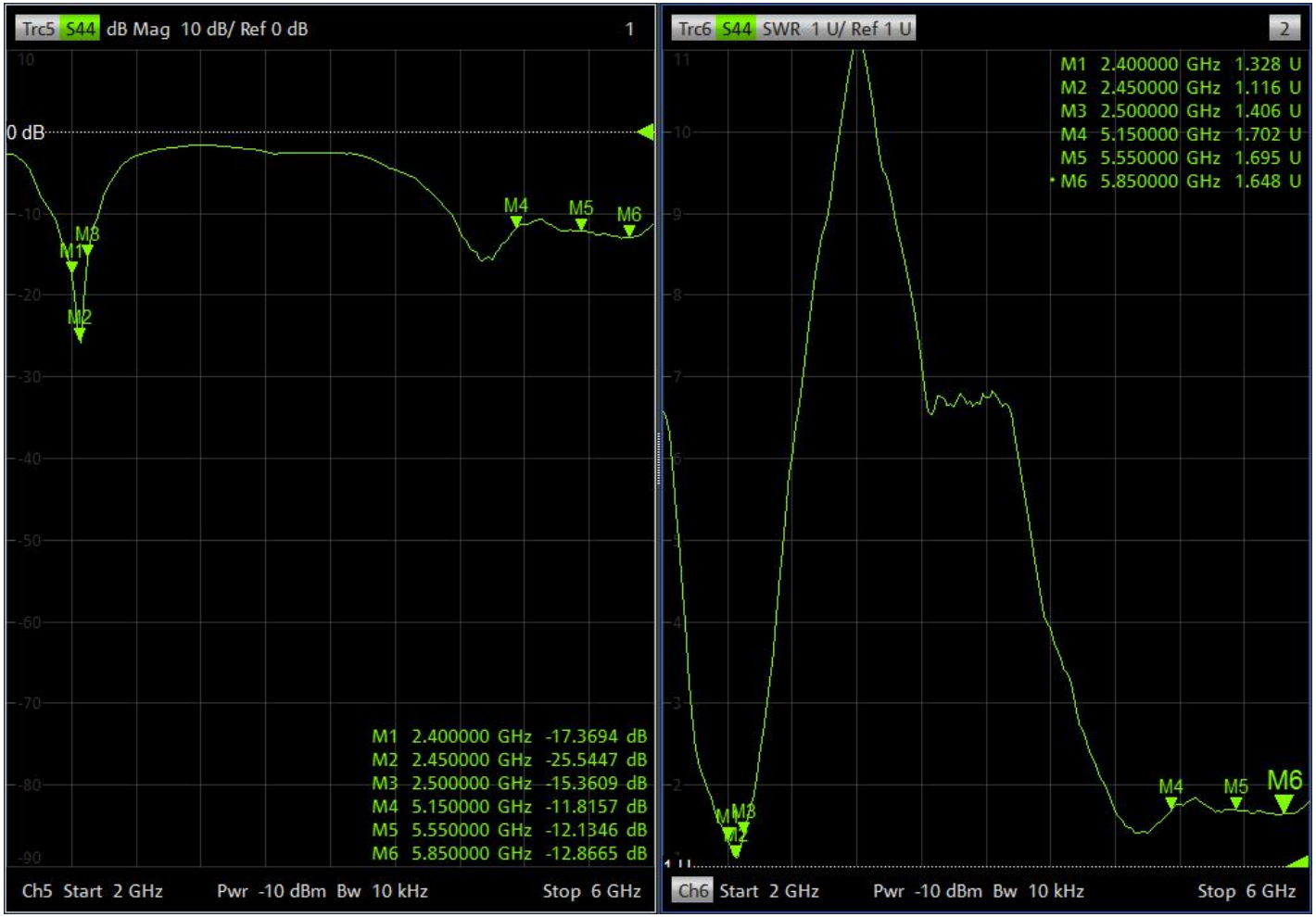
Created : 2019-07-29

Antenna Coordinate System Definition

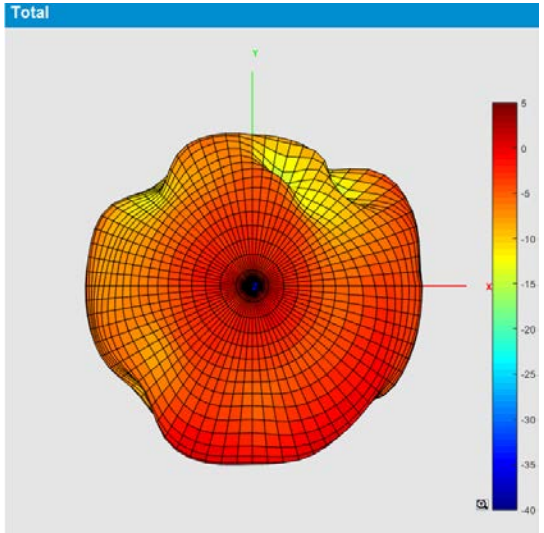


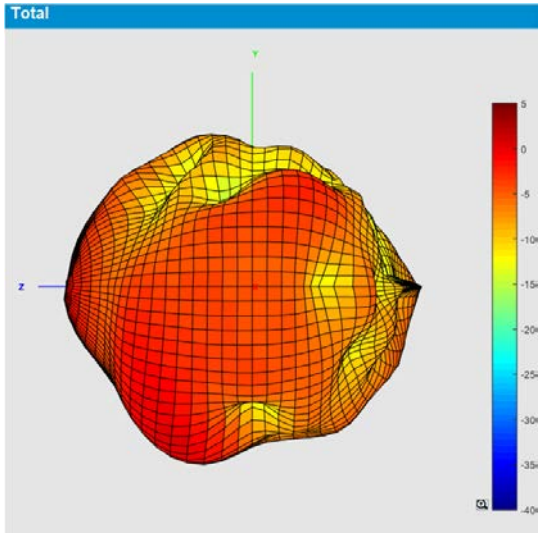
Antenna Coordinate System Definition

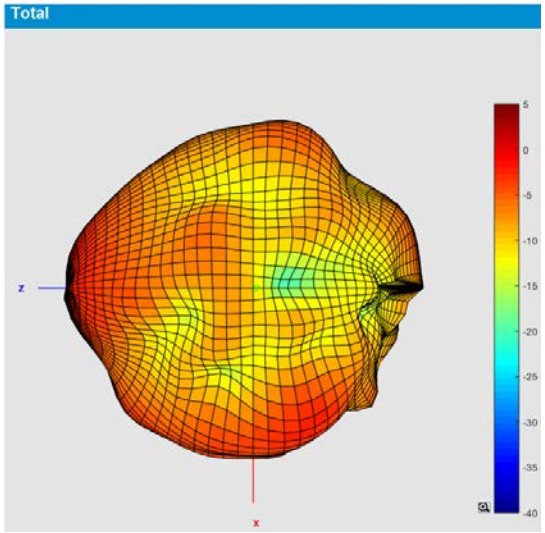
Return Loss and VSWR



3D Radiation Pattern@2400MHz







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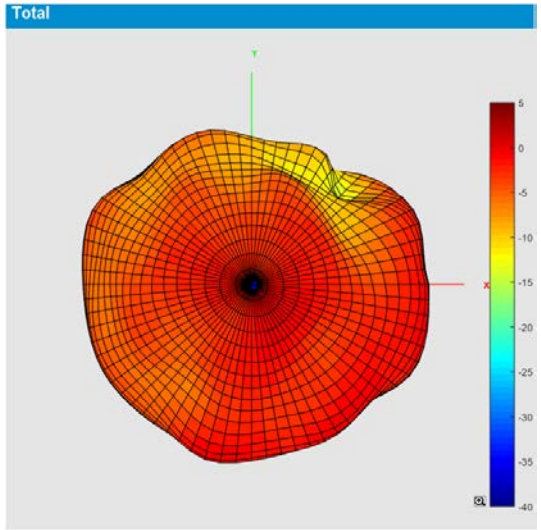
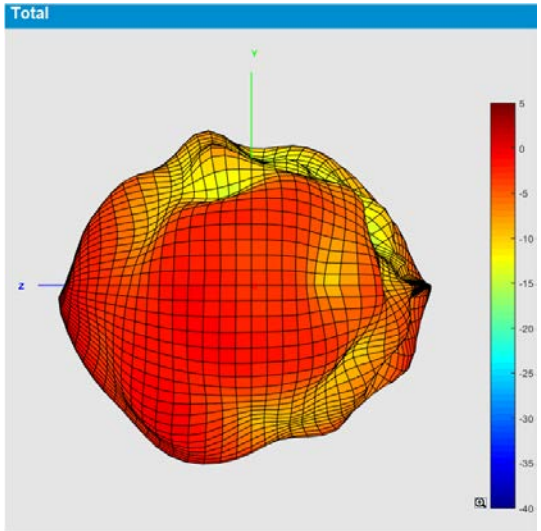
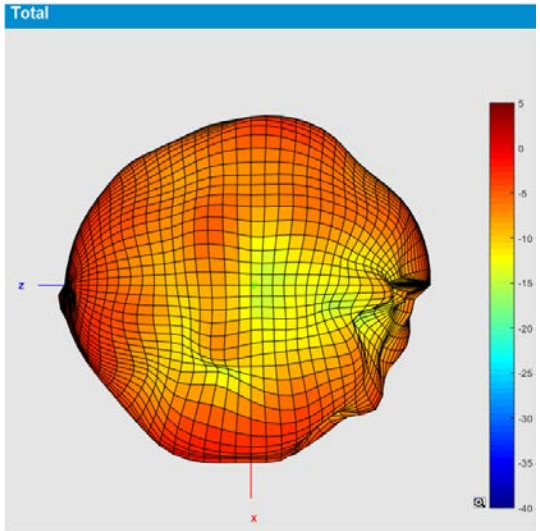
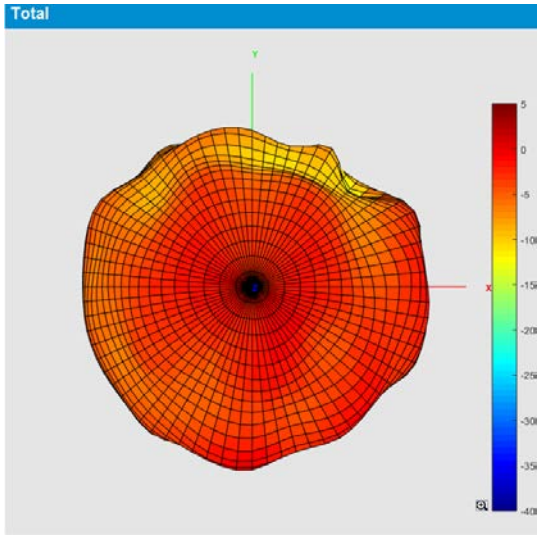
3D Radiation Pattern@2450MHz

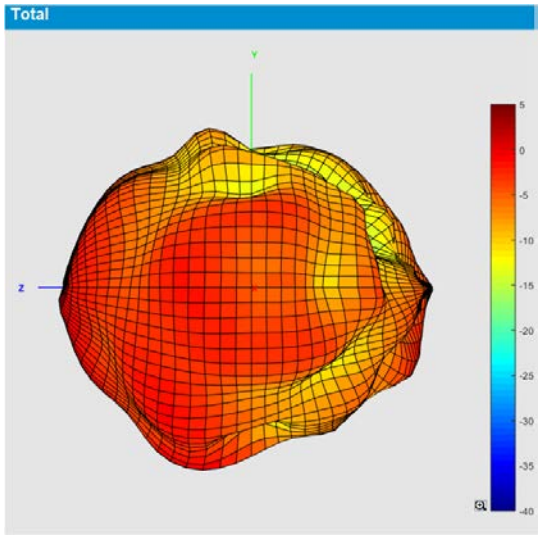


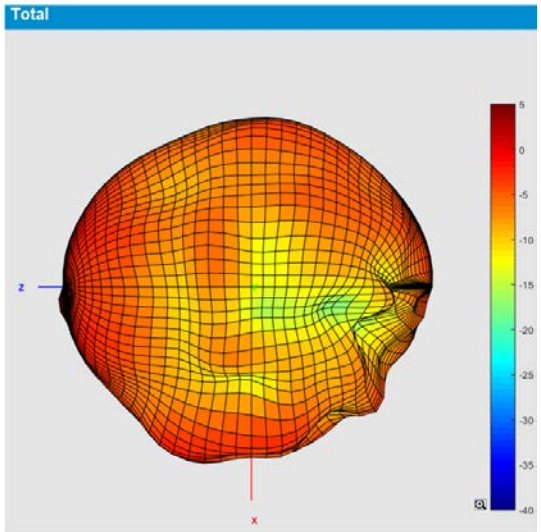




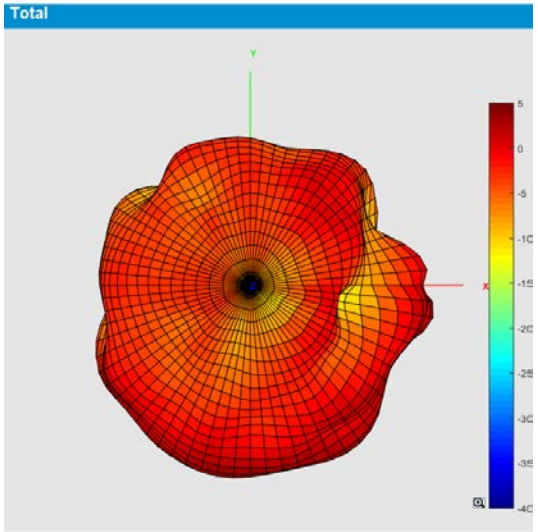
3D Radiation Pattern@2500MHz

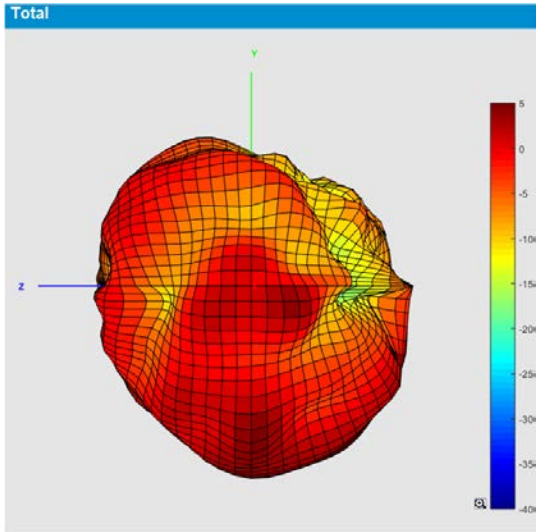


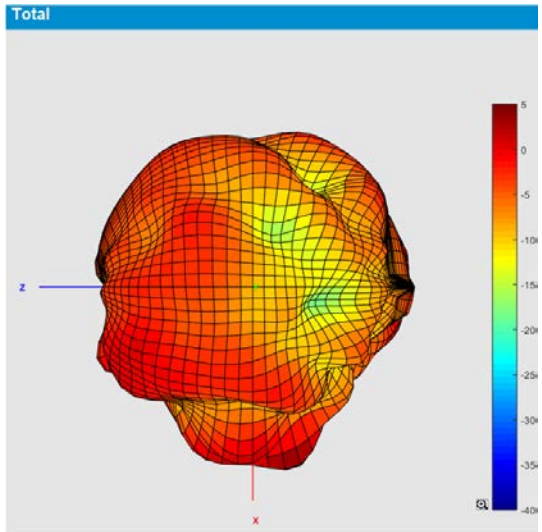




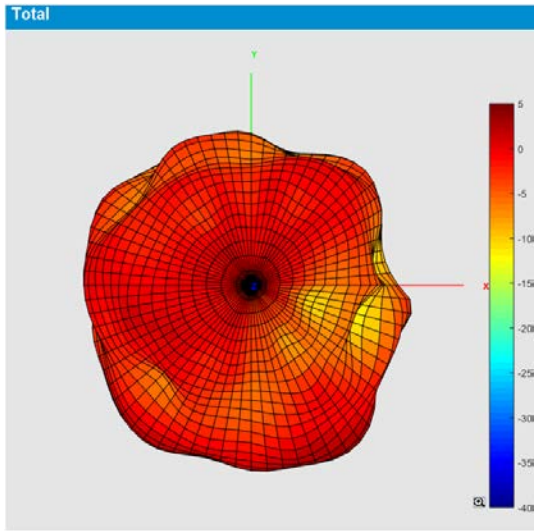
3D Radiation Pattern@5150MHz

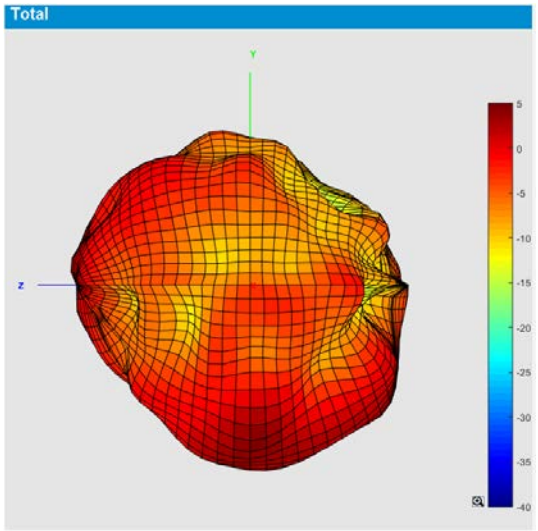


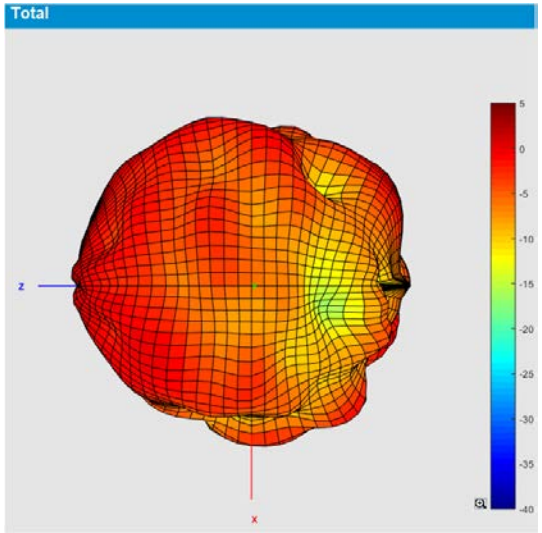




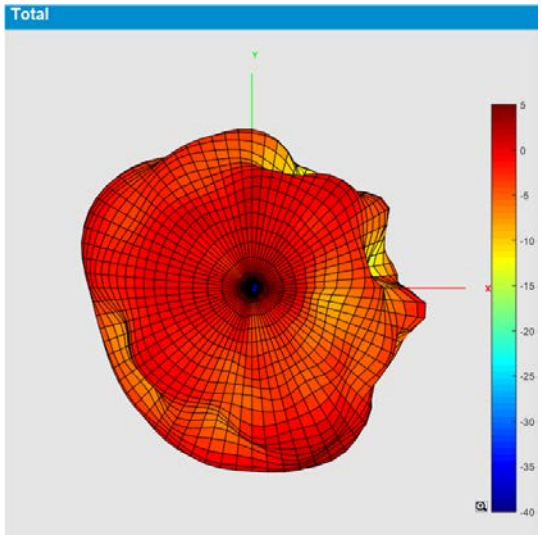
3D Radiation Pattern@5550MHz

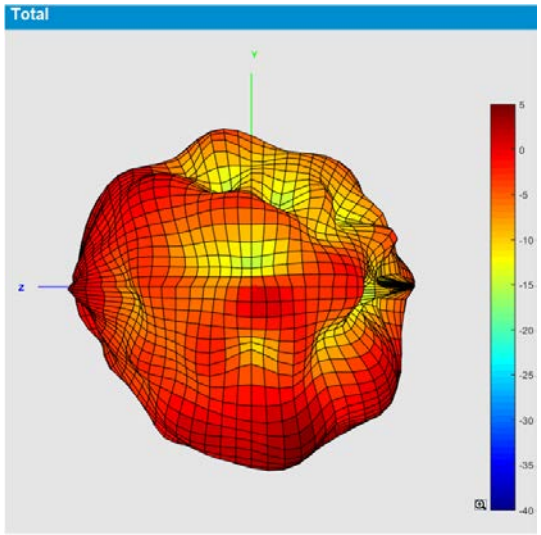


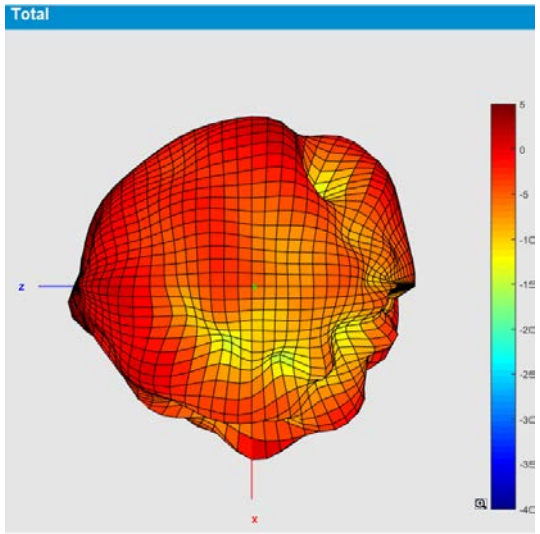




3D Radiation Pattern@5850MHz







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Antenna Gain and Efficiency

ANT1

Frequency(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Directivity (dBi)	6.12	5.89	5.64	5.42	5.05	4.76	4.58	4.57	4.56	4.51	4.44
Efficiency (dB)	-4.87	-4.65	-4.17	-4.12	-3.73	-3.93	-3.87	-3.6	-3.92	-3.95	-4.24
Efficiency (%)	32.58	34.28	38.28	38.73	42.36	40.46	41.02	43.65	40.55	40.27	37.67
Gain (dBi)	1.25	1.24	1.47	1.3	1.32	0.83	0.71	0.97	0.64	0.56	0.2

Frequency(MHz)	5150	5250	5350	5450	5550	5650	5750	5850
Directivity (dBi)	7.05	6.66	6.43	6.34	6.7	6.67	6.04	6.88
Efficiency (dB)	-2.22	-2.46	-2.2	-2.12	-2.25	-2.31	-2.44	-2.38
Efficiency (%)	59.98	56.75	60.26	61.38	59.57	58.75	57.02	57.81
Gain (dBi)	4.83	4.2	4.23	4.22	4.45	4.36	3.6	4.5