

APPROVAL SHEET

(RoHS)

CUSTOMER : 海華科技股份有限公司

CUSTOMER'S PART NO. :

DESCRIPTION : METAL STAMPING ANTENNA ASSEMBLY

PART NO. : MSA-4008-25GC1-A2

DATE :

AUTHORIZED BY : Jason Chang

	FULLY APPROVED	PARTIALLY APPROVED	REJECTED
SIGN			
SUGGESTION			

美磊科技股份有限公司

MAG. LAYERS SCIENTIFIC-TECHNICS CO., LTD

No.270, Nanfeng Rd., Pingzhen Dist., Taoyuan City 324, Taiwan (R.O.C.)

TEL: +886-3-4159111 FAX: +886-3-4192255

<http://www.maglayers.com.tw>

E-mail : info@maglayers.com.tw



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Revisions

REV.	Description	Date	Prepared by	Approved by
V01	New Release	2022/12/14	Alex	Tasen

PRODUCT IDENTIFICATION

M S A - 4 0 0 8 - ### x x - A 2 - ☐ ☐

① ② ③ ④ ⑤

- ① Product Code
- ② Dimension Code
- ③ Series Type (### represents center frequency and xx represents material type)
- ④ Design Code
- ⑤ Inner Control Code



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Mechanical Specification

RoHS COMPLIANT

MECHANICAL

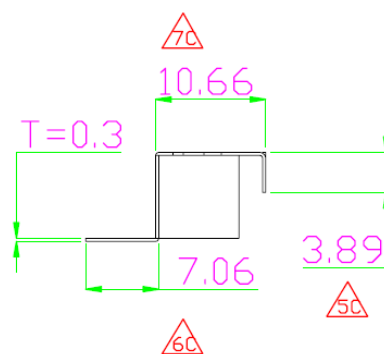
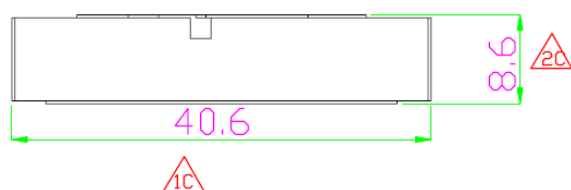
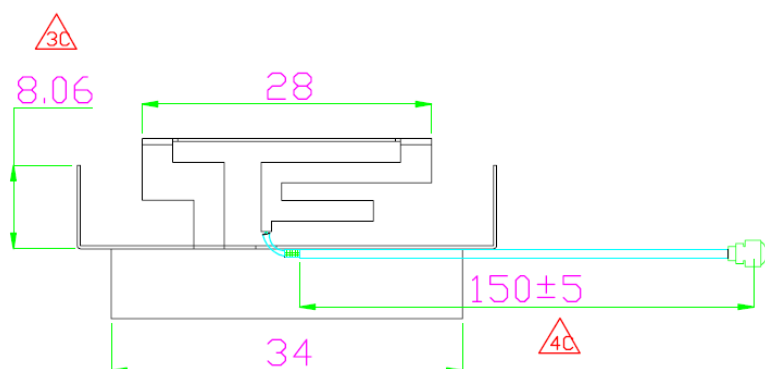
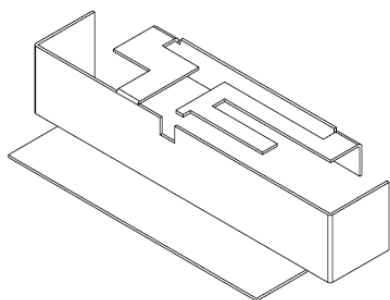
Body : SUS 430(鍍鎳) T=0.3mm

Cable : Coaxial Cable ϕ 1.13(Black)

Connector : IPEX-4 Compatible

ELECTRICAL

Frequency : 2.4/5GHz



※凡標記△C記號者, 為品管檢驗之尺寸

設計 DR. Seric 2018/08/16	核准 APPD. Frank 2018/08/16	容許公差 TOLERANCE .XXX ±0.1 .XX ±0.5 .X ±1.0 X ±3.0 ANG ±5	品名 ARTICLE MSA-4008-25GC1-A2
版本說明	REVISION NOTE		
MAGLAYERS			單位 UNIT mm
			比例 SCALE ****
			張數 SHEET 1
			版本 REV. A



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Antenna Specification

ELECTRICAL PROPERTIES

- 1.1 Frequency Range..... 2.4~2.5GHz /4.9~5.9GHz
- 1.2 Antenna Type..... PIFA
- 1.3 Impedance..... 50 Ohm Nominal
- 1.4 Return Loss..... -10dB (Max)
- 1.5 Radiation..... Directional
- 1.6 3D Peak Gain..... 2.98dBi(2.4~2.5GHz)
5.16dBi(4.9~5.9GHz)
- 1.7 Polarization..... Linear Vertical
- 1.8 Admitted Power..... 1W

PHYSICAL PROPERTIES

- 2.1 Antenna Material..... SUS430 (鍍鎳)
- 2.2 Cable..... Coaxial Cable ϕ 1.13(Black)
- 2.3 Connector..... IPEX-4 Compatible
- 2.4 Operating Temp..... -20°C ~ +65°C
- 2.5 Storage Temp..... -30°C ~ +75°C



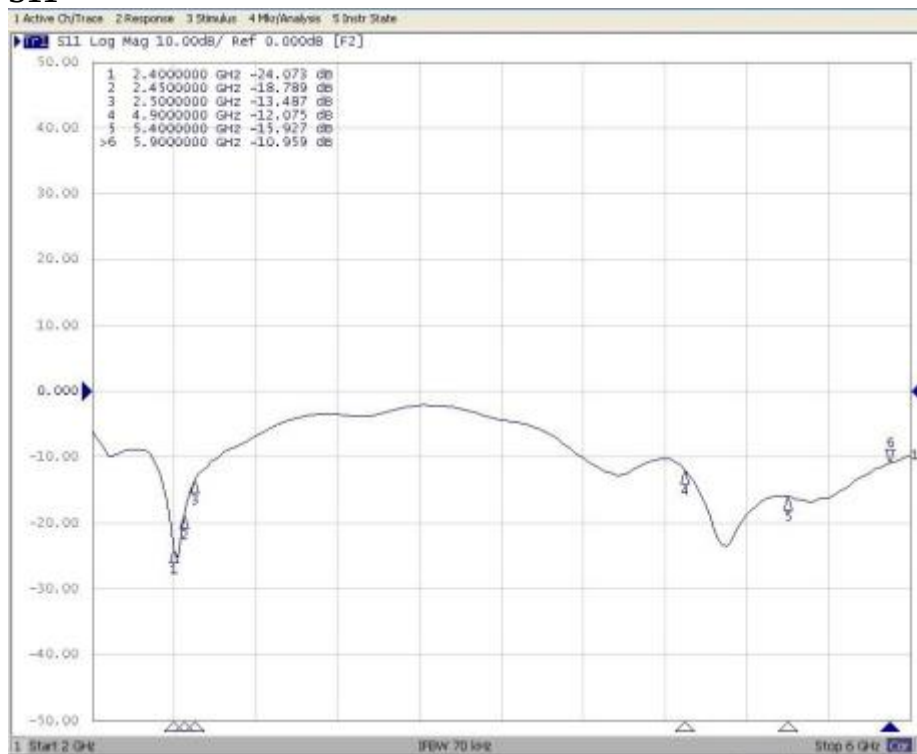
Test Report

ELECTRICAL CHARACTERISTICS

P/NO: MSA-4008-25GC1-A2

Spec: 2.4~2.5GHz / 4.9~5.9GHz

S11

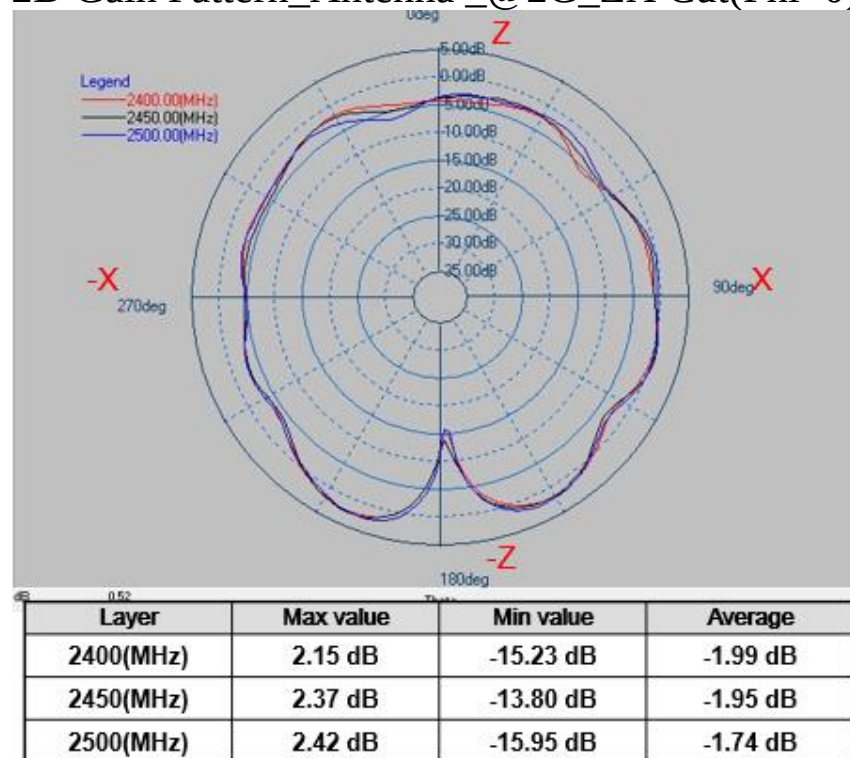


Peak Gain & Efficiency List Table

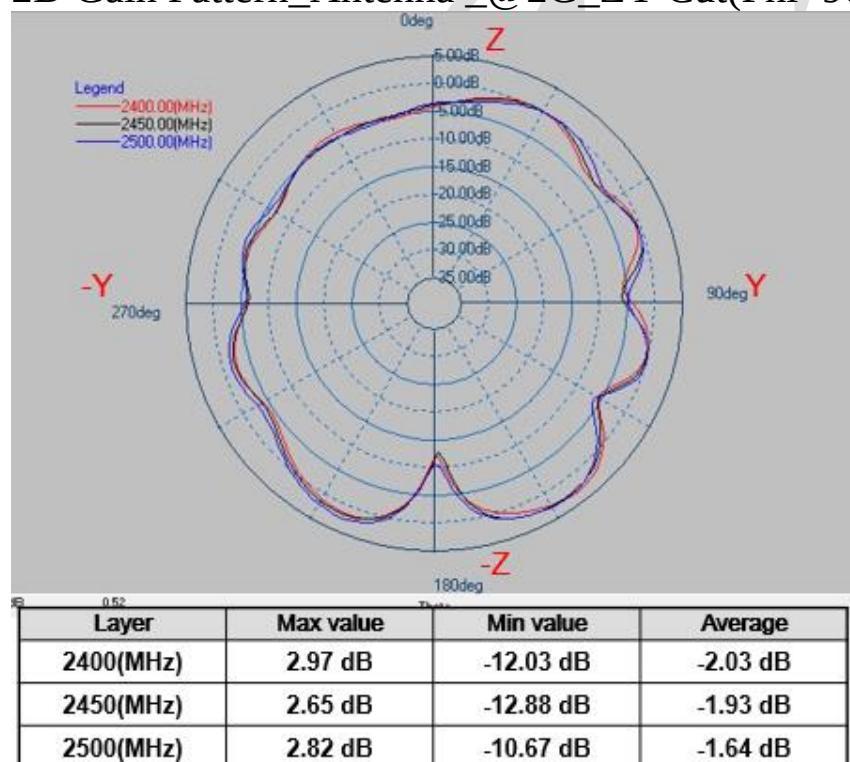
Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	60%	2.98
2450	61%	2.87
2500	66%	2.88
5150	66%	4.61
5250	61%	4.56
5350	57%	4.32
5470	65%	4.30
5500	66%	4.29
5600	73%	5.16
5725	79%	4.99
5750	77%	4.89
5785	73%	4.63
5850	67%	4.11
5925	57%	3.05



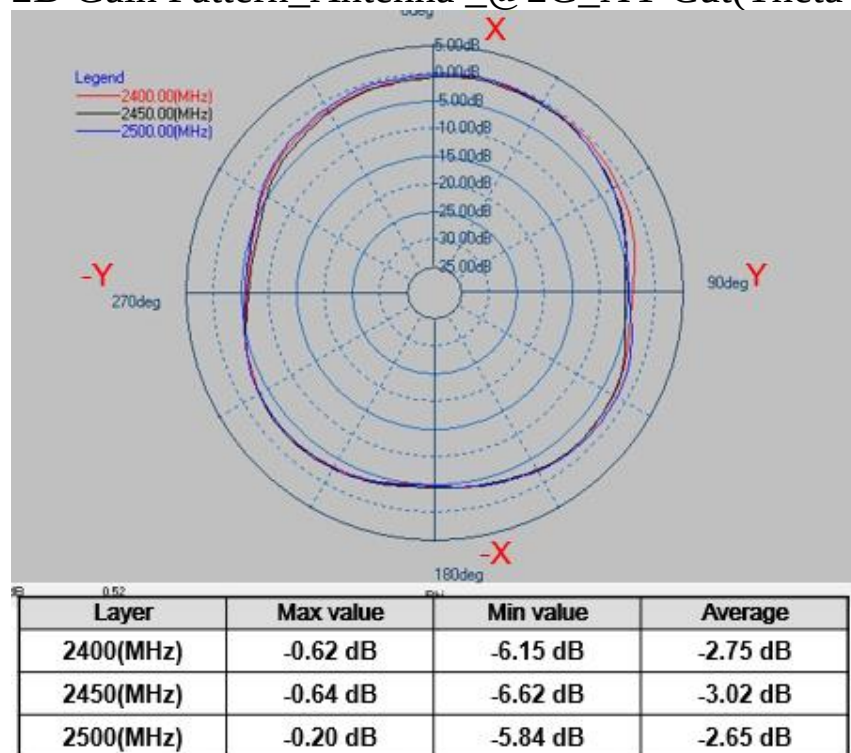
2D Gain Pattern_Antenna _@2G_ZX Cut(Phi=0)



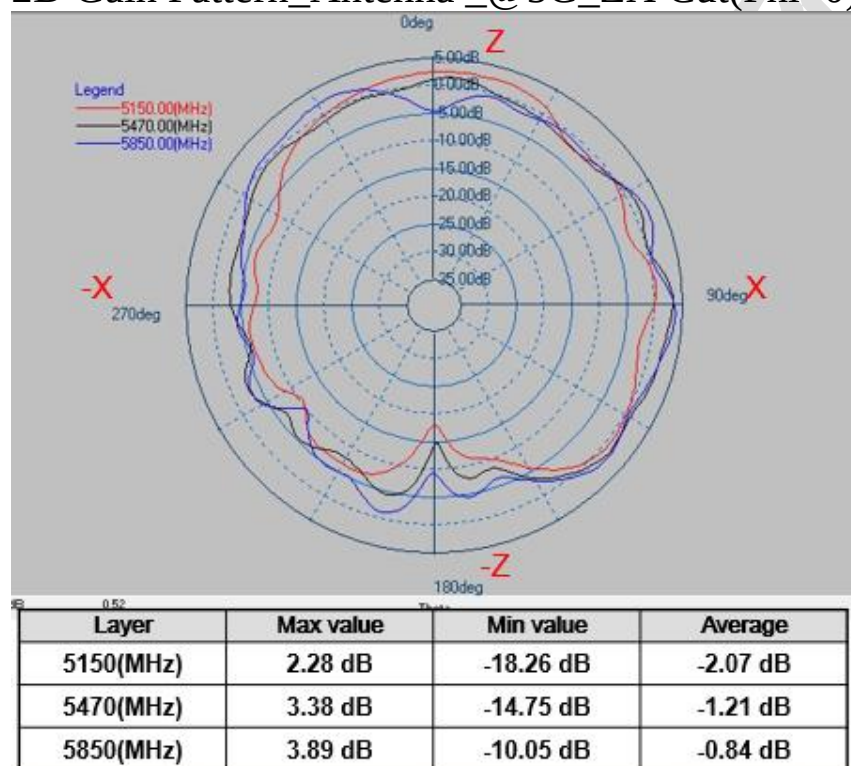
2D Gain Pattern_Antenna _@2G_ZY Cut(Phi=90)



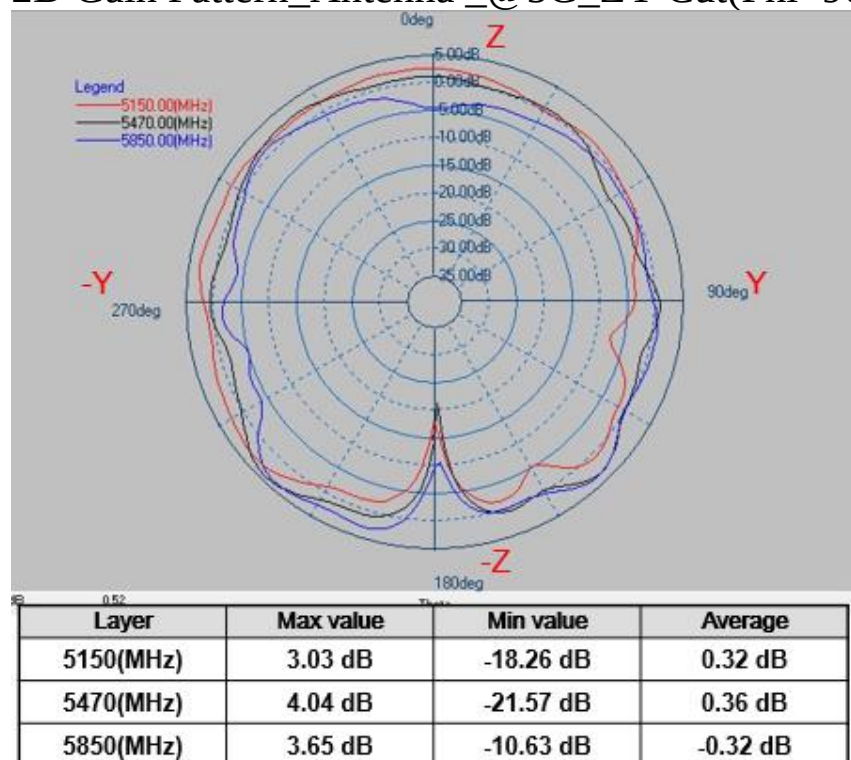
2D Gain Pattern_Antenna _@2G_XY Cut(Theta=90)



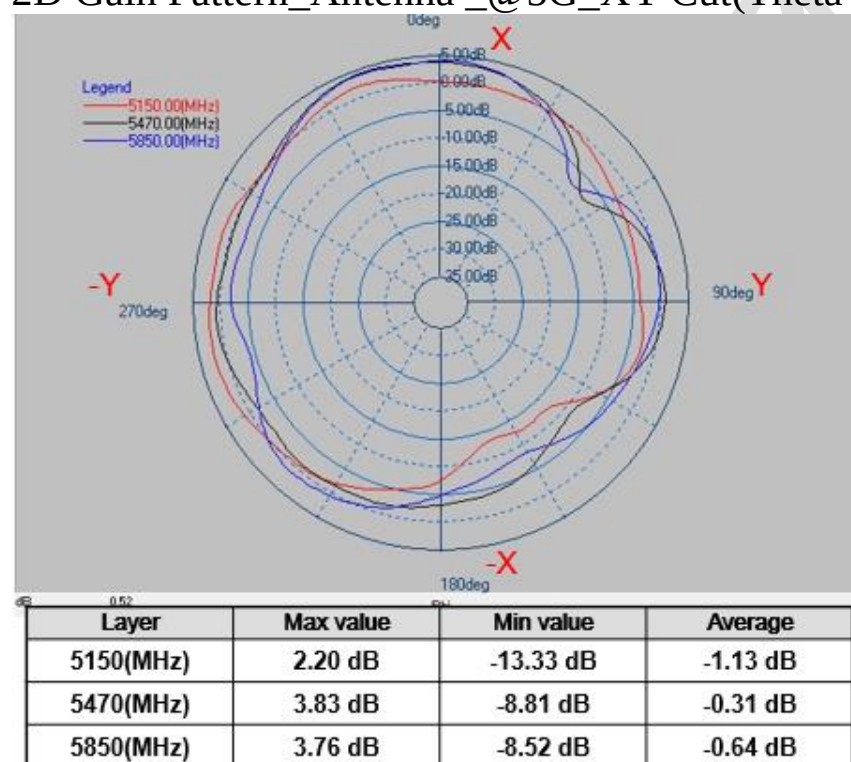
2D Gain Pattern_Antenna _@5G_ZX Cut(Phi=0)



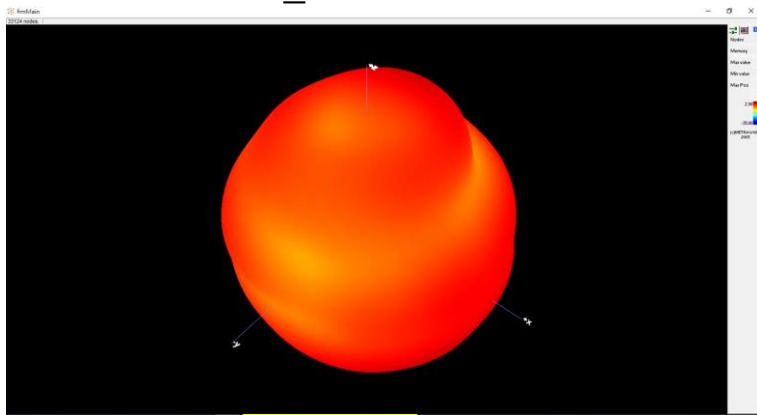
2D Gain Pattern_Antenna _@5G_ZY Cut(Phi=90)



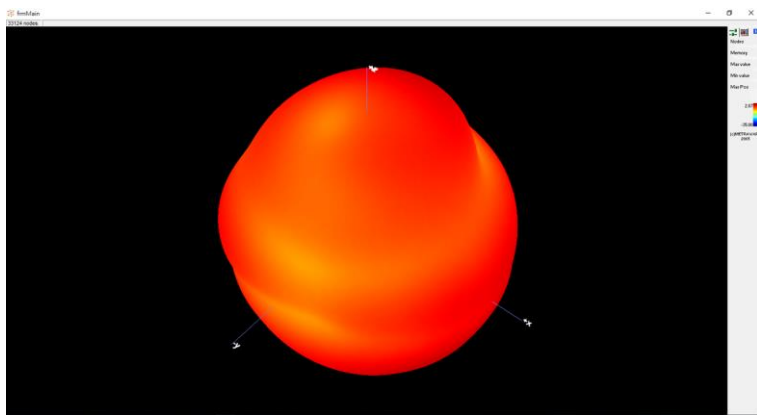
2D Gain Pattern_Antenna _@5G_XY Cut(Theta=90)



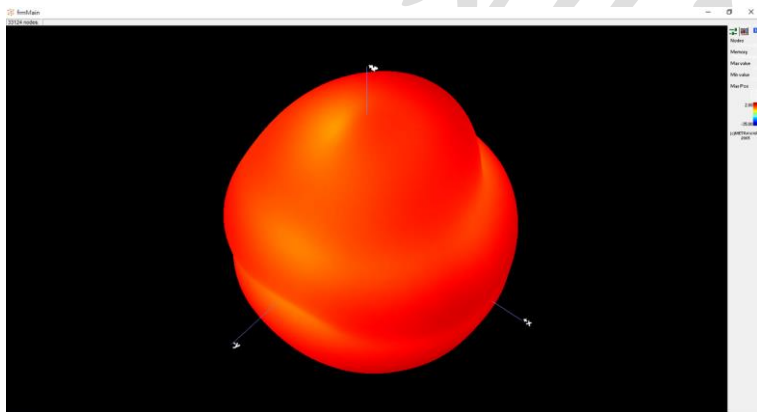
3D Gain Pattern_Antenna



Peak Gain @ 2400MHz : 2.98dBi

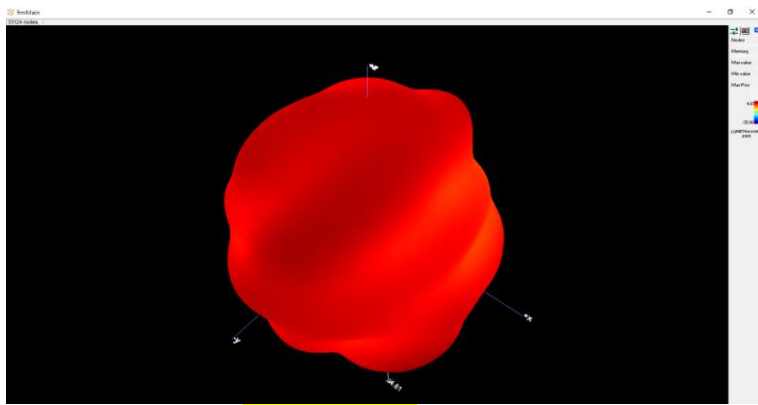


Peak Gain @ 2450MHz : 2.87dBi

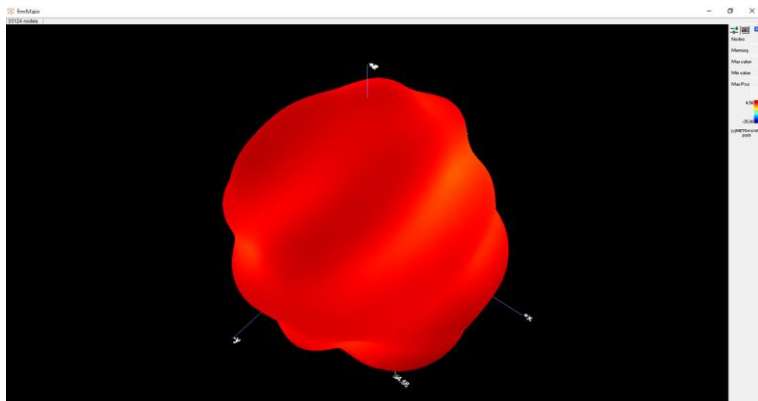


Peak Gain @ 2500MHz : 2.88dBi

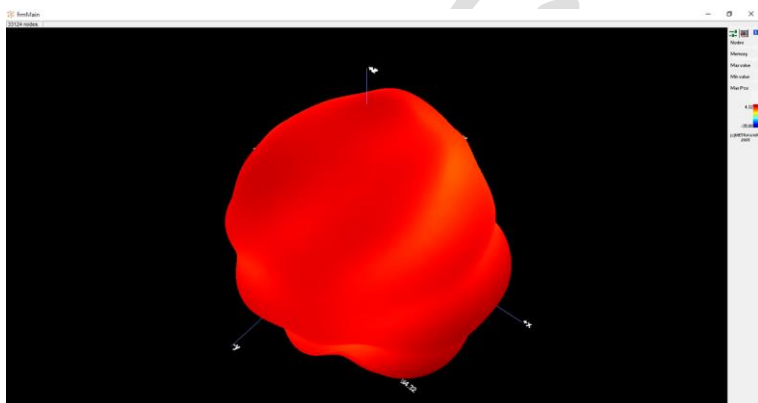




Peak Gain @ 5150MHz : 4.61dBi

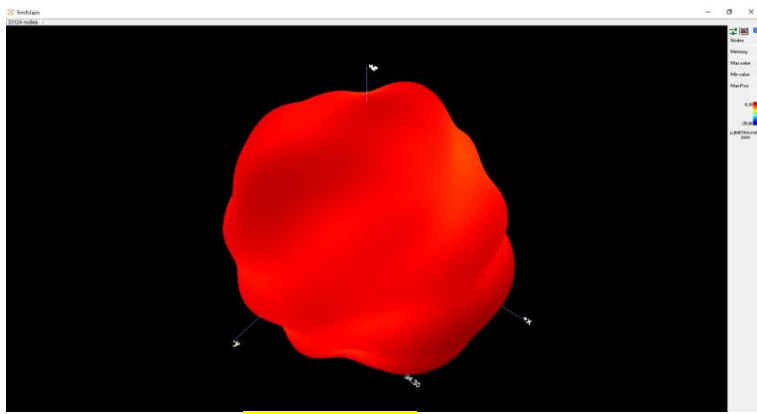


Peak Gain @ 5250MHz : 4.56dBi

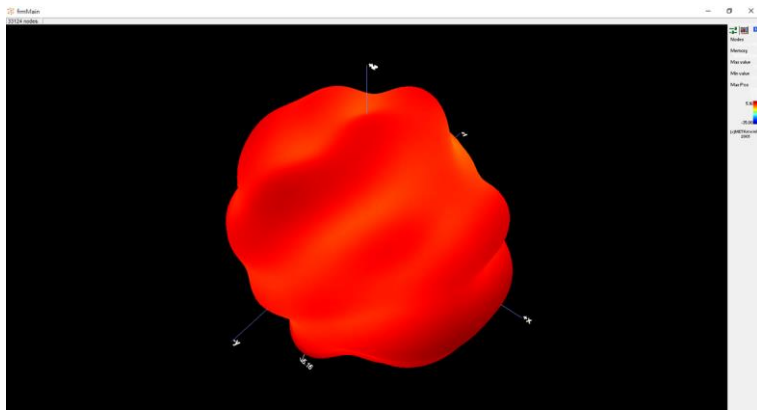


Peak Gain @ 5350MHz : 4.32dBi

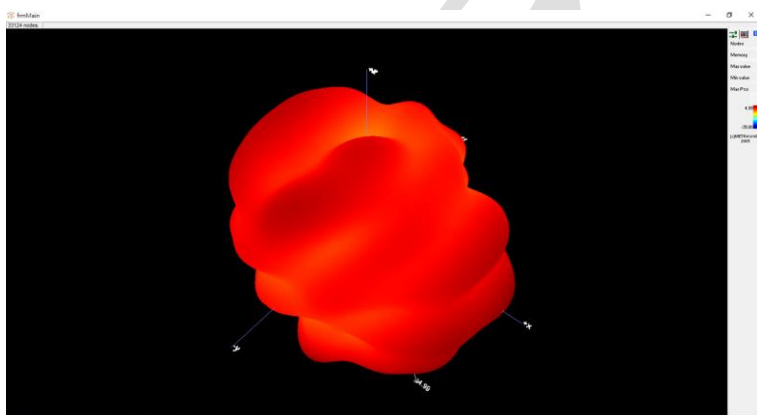




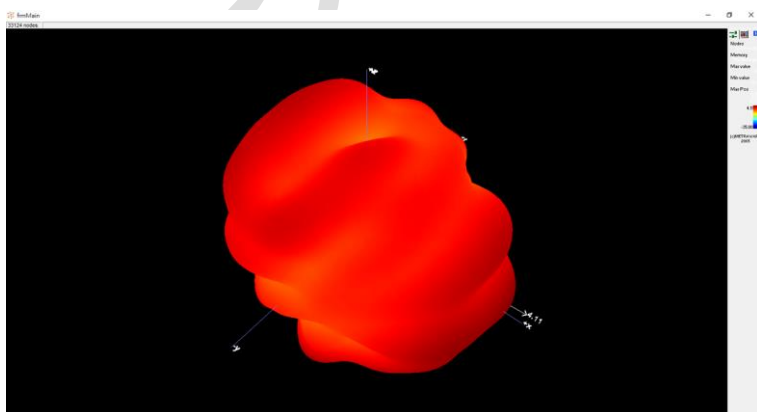
Peak Gain @ 5470MHz : 4.30dBi



Peak Gain @ 5600MHz : 5.16dBi



Peak Gain @ 5725MHz : 4.99dBi



Peak Gain @ 5850MHz : 4.11dBi



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