

NPE3039GB Antenna Test Report

Product(s) Name:	GPON Network Terminal
Model(s):	NPE3039GB
Applicant:	SDMC
Test Date:	Sep.29.2025
Testing Laboratory:	Shenzhen Haiyun Testing Co., Ltd.

Contents

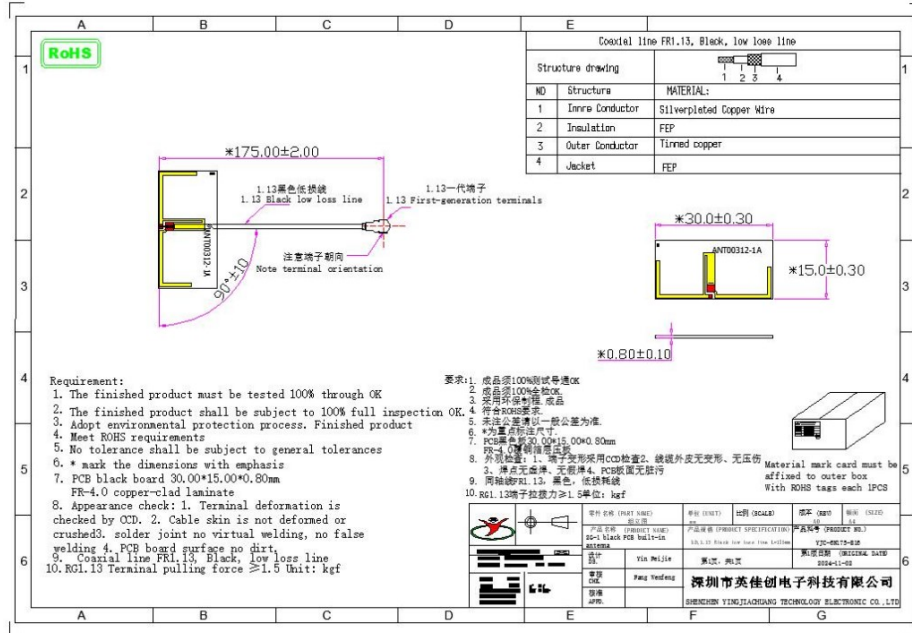
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1. Project information

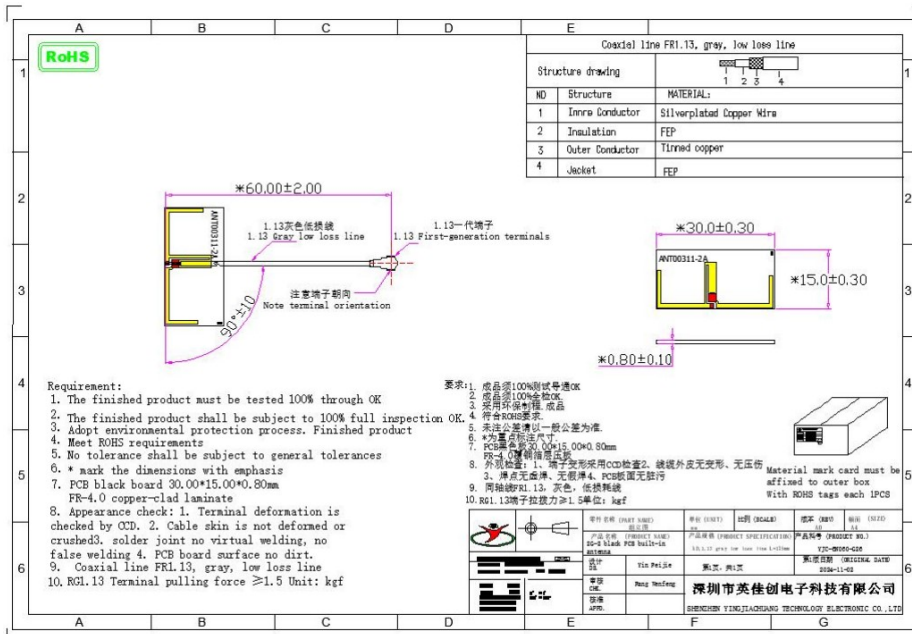
Model No.	NPE3039GB
HW Version	V1
SW Version	S13.60.48.001
Antenna type	Internal antenna
WIFI Model	MT7916AN+MT7976DN
Antenna supplier	Shenzhen YINGJIACHUANG Technology Electronic Co. LTD
wDate	2025/09/29

2. Appearance and specification

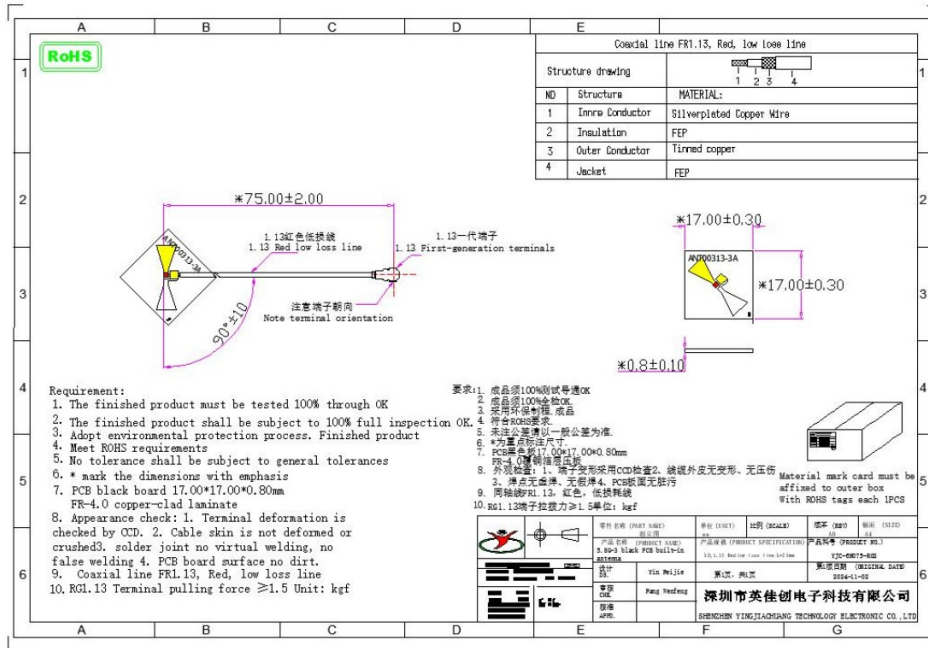
2.4G ANT1



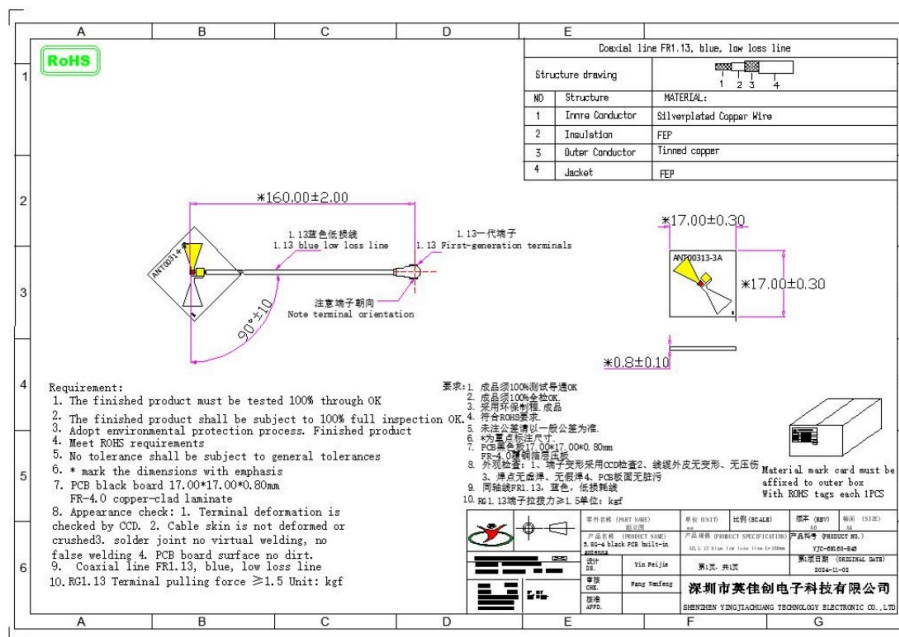
2.4G ANT2



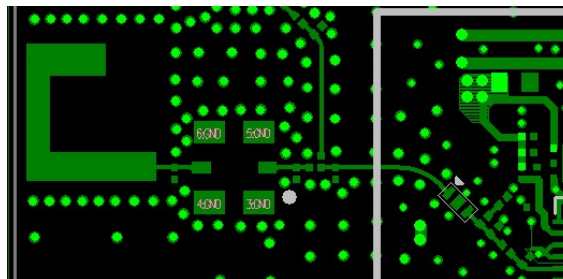
5G ANT1



5G ANT2



5G ANT3(On Board Antenna)

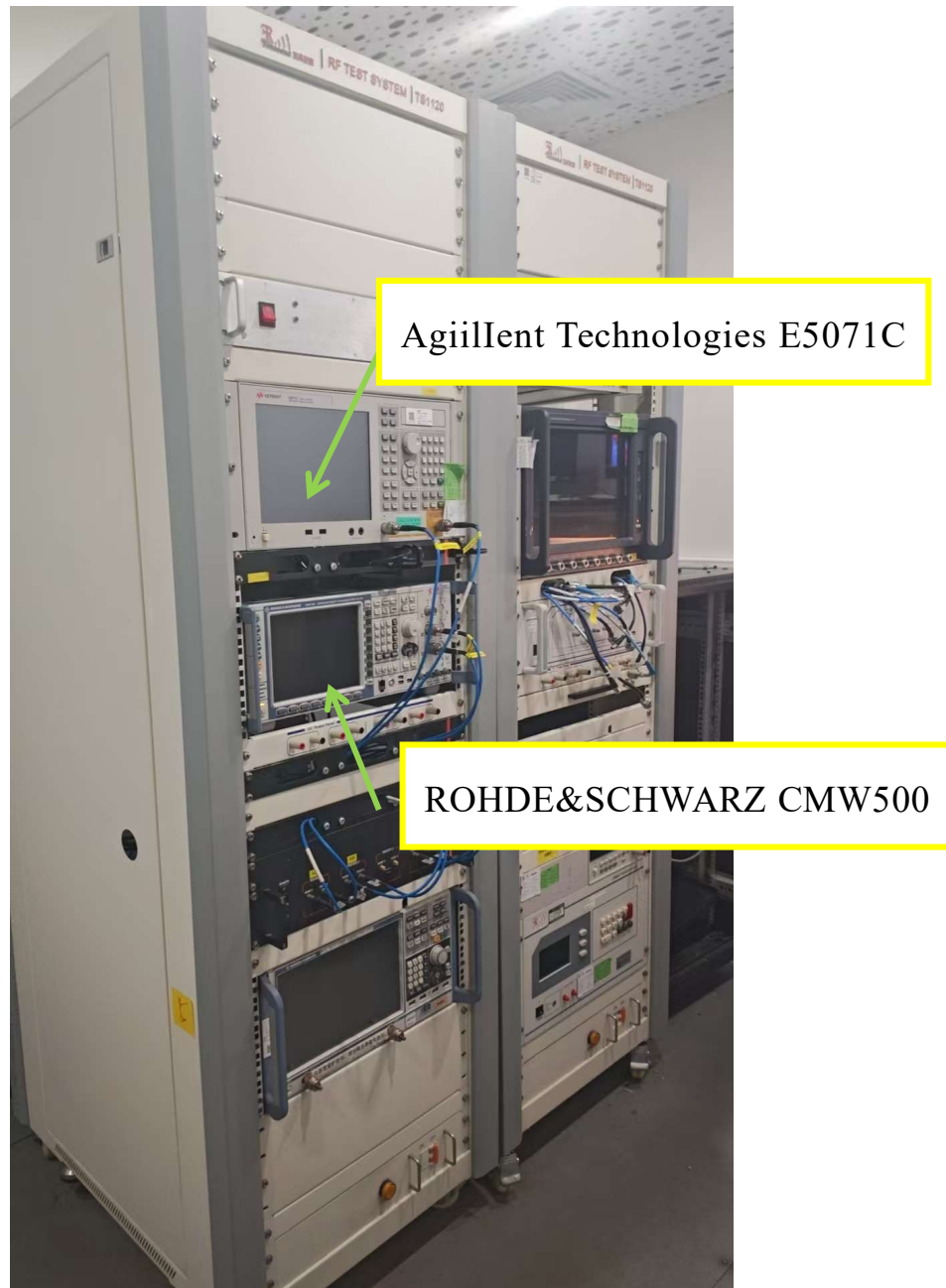


3. Performance parameter

3.1.1 Gain & Efficiency

Test tools: Microwave Anechoic Chamber + Agilent Technologies E5071C

Testing Environment: As shown in the figure

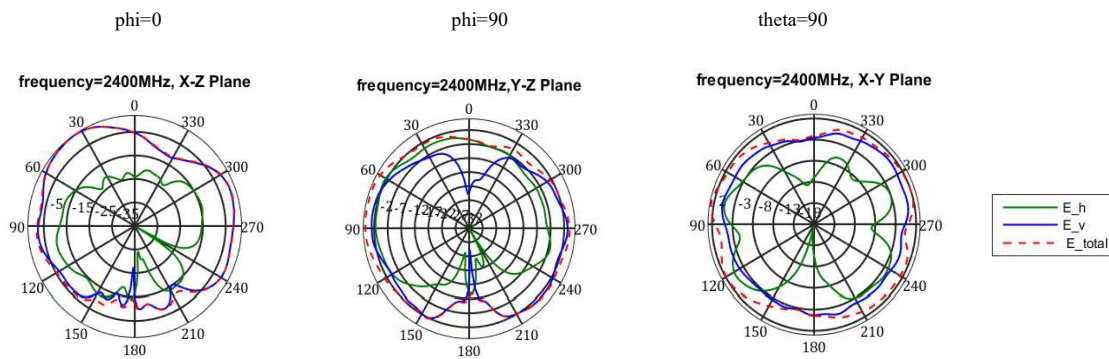


Antenna test data

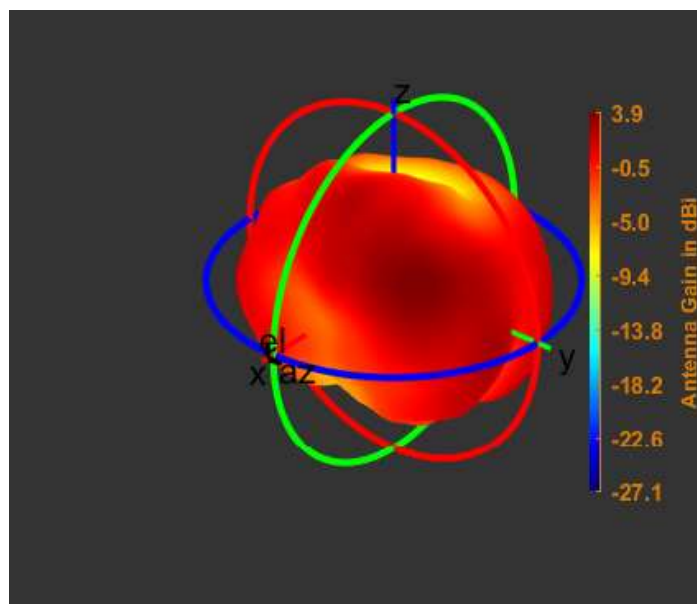
2.4GANT1		
frequency / MHz	Gain/ dBi	Efficiency / %
2400	3.9	62.0
2450	3.8	61.1
2500	3.7	64.2

2.4G ANT1 天线方向图-2.4G(Antenna direction diagram - 2.4G)

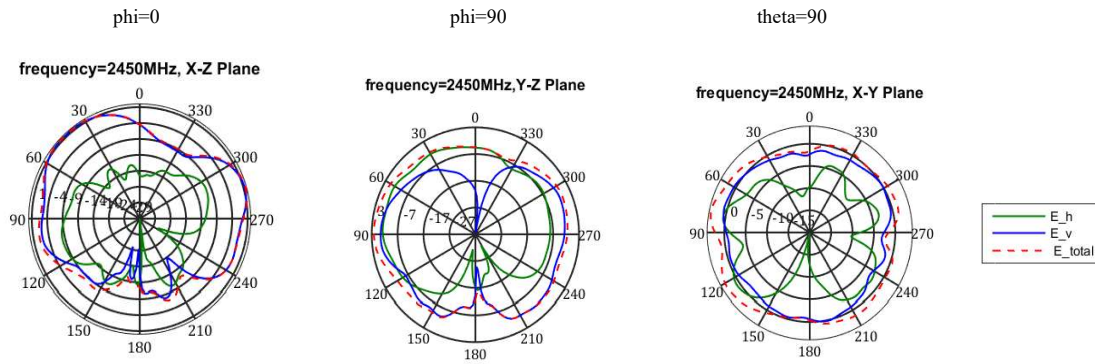
2400MHz



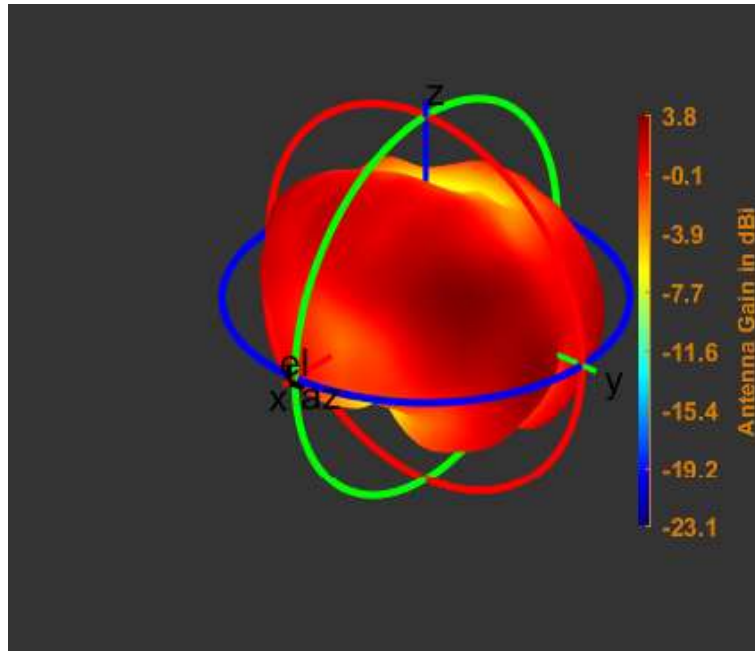
3D Pattern



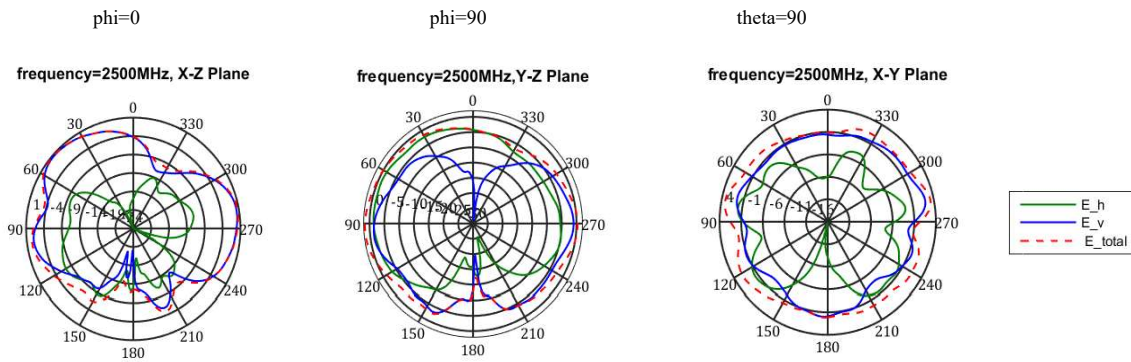
2450 MHz



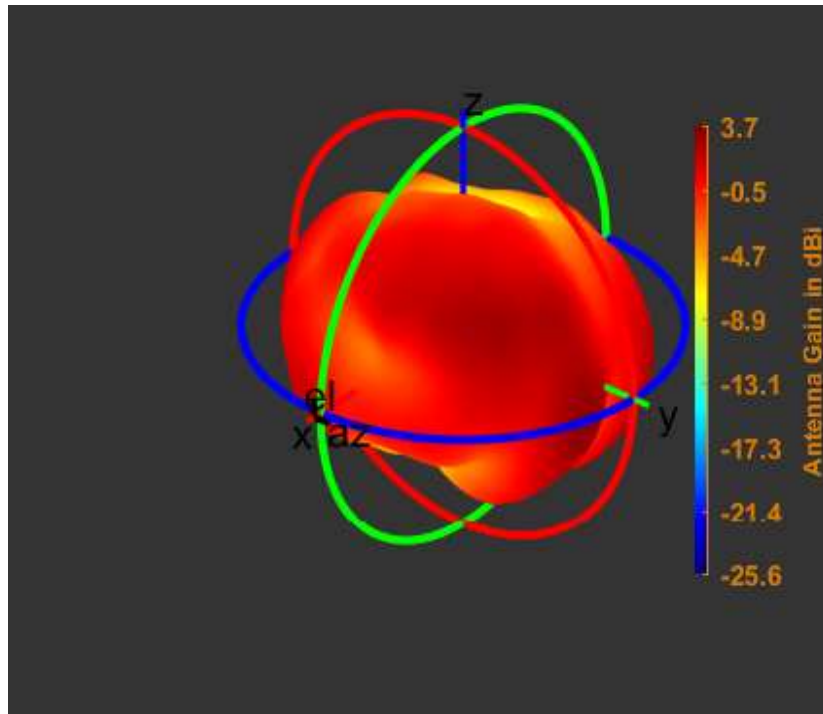
3D Pattern



2500 MHz



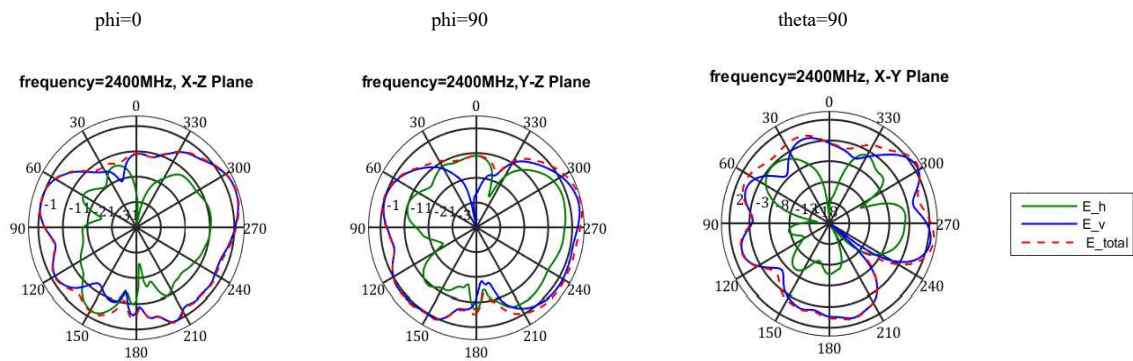
3D Pattern



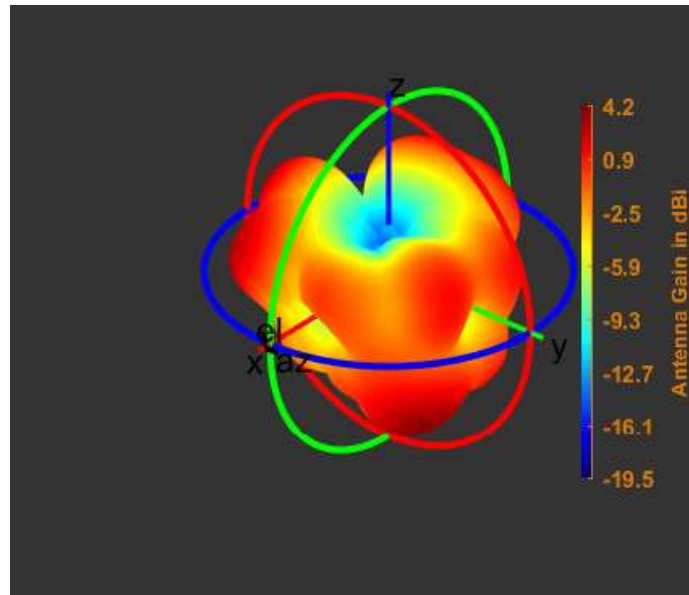
2.4G ANT2		
Frequency / MHz	Gain/ dBi	Efficiency / %
2400	4.2	66.3
2450	4.0	64.5
2500	4.4	64.2

2.4G ANT2 天线方向图-2.4G(Antenna direction diagram - 2.4G)

2400 MHz



3D Pattern



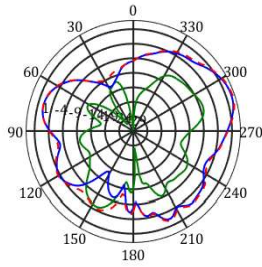
2450 MHz

phi=0

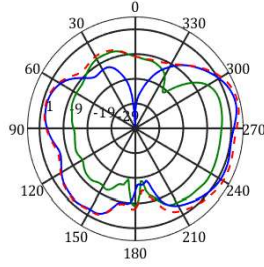
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theta=90

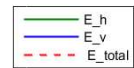
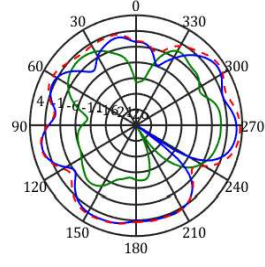
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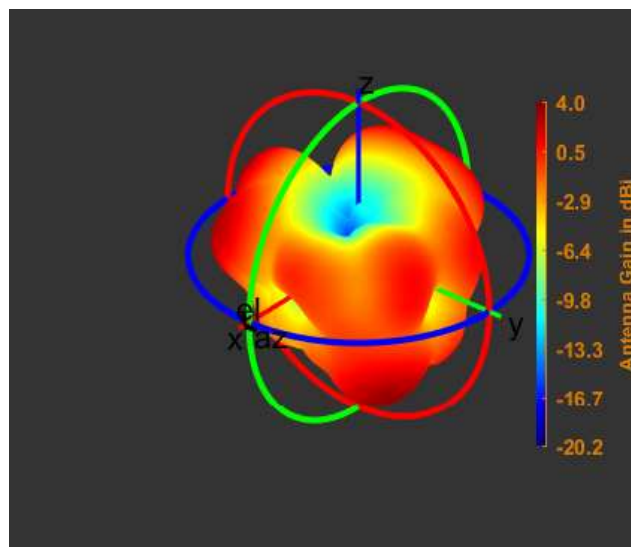
frequency=2450MHz, Y-Z Plane



frequency=2450MHz, X-Y Plane



3D Pattern



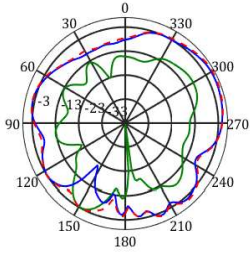
2500 MHz

phi=0

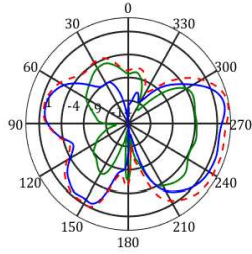
phi=90

theta=90

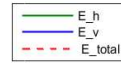
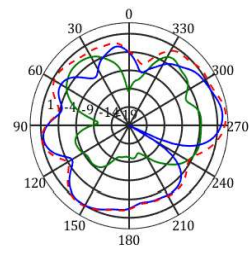
frequency=2500MHz, X-Z Plane



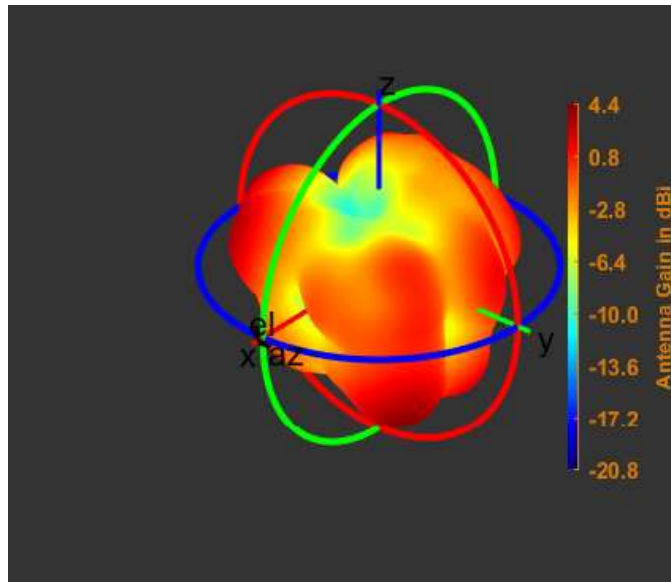
frequency=2500MHz, Y-Z Plane



frequency=2500MHz, X-Y Plane



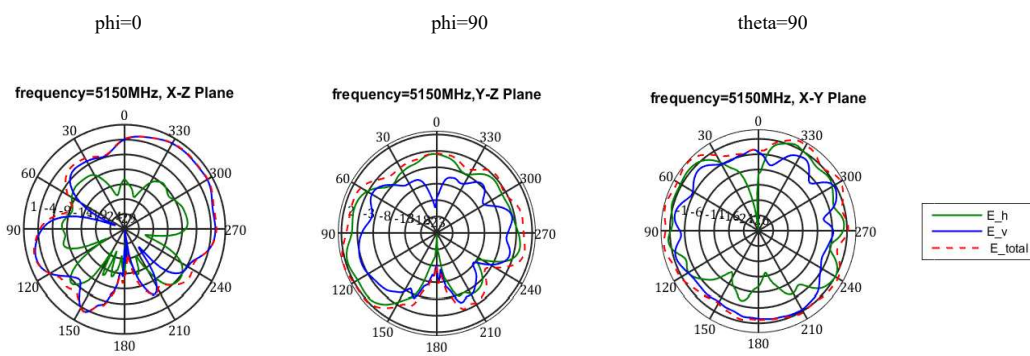
3D Pattern



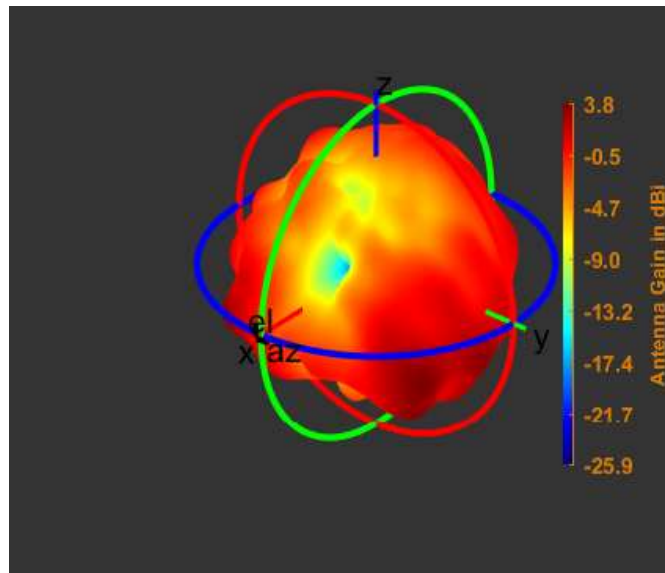
5.8GANT1		
Frequency / MHz	Gain/ dBi	Efficiency / %
5150	3.8	64.7
5350	4.0	63.2
5500	3.9	64.4
5850	3.9	64.2

5.8G ANT1 天线方向图-5.8G(Antenna direction diagram -5.8G)

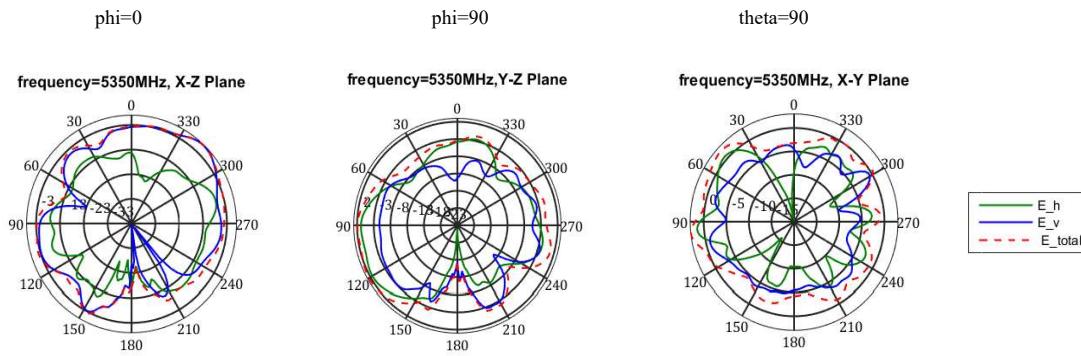
5150 MHz



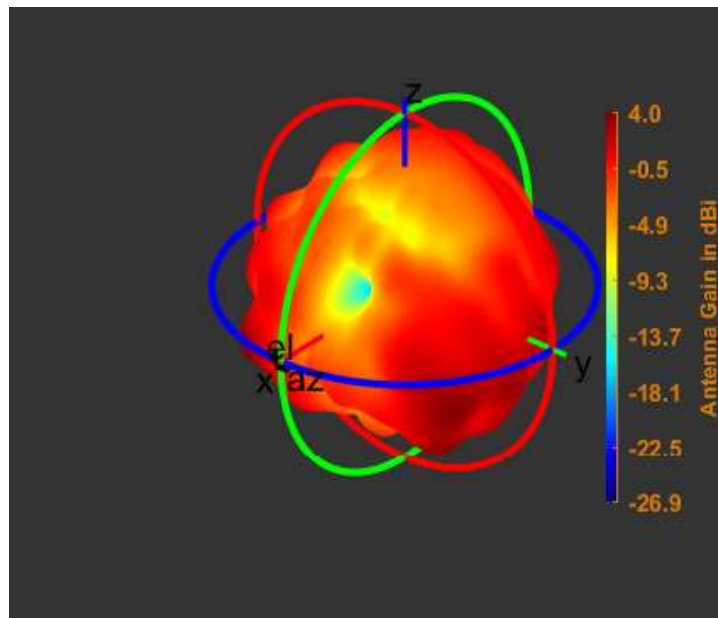
3D Pattern



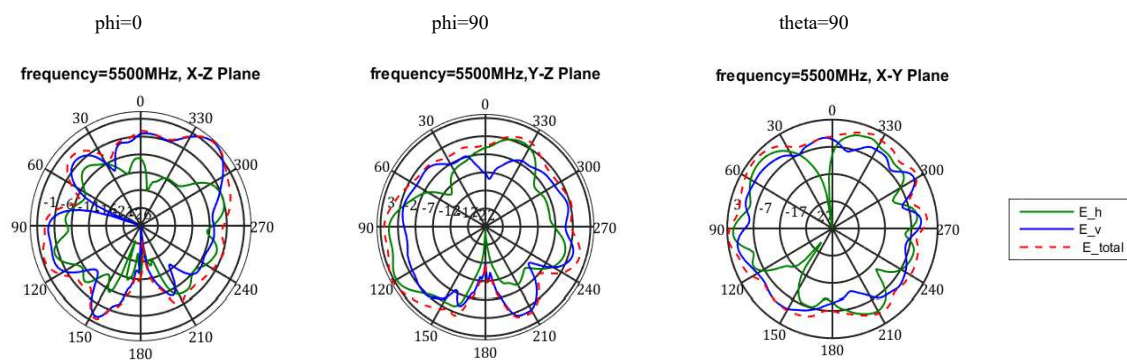
5350 MHz



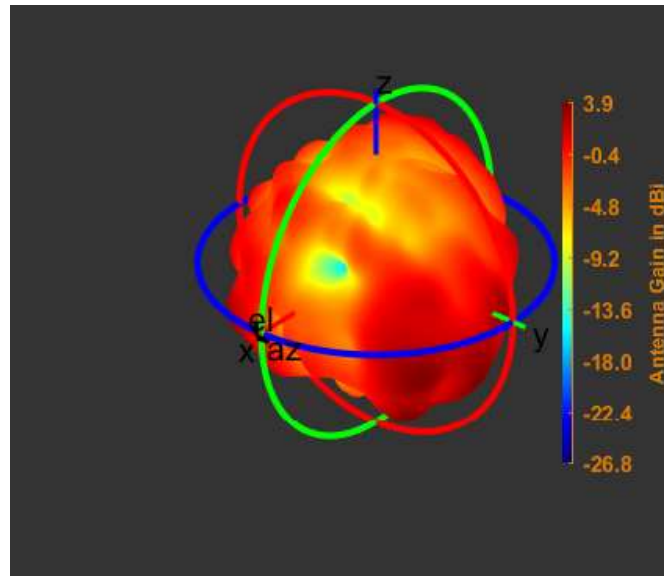
3D Pattern



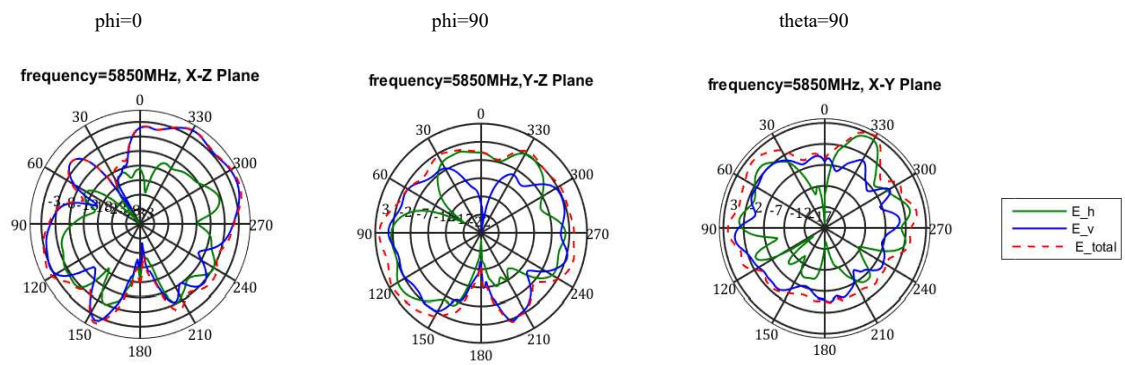
5500 MHz



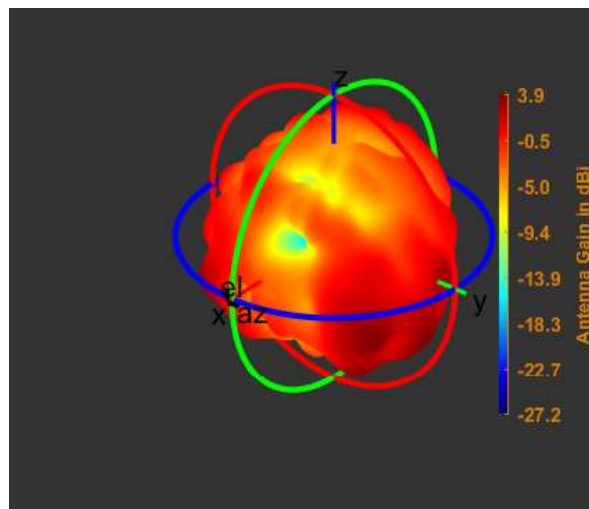
3D Pattern



5850 MHz



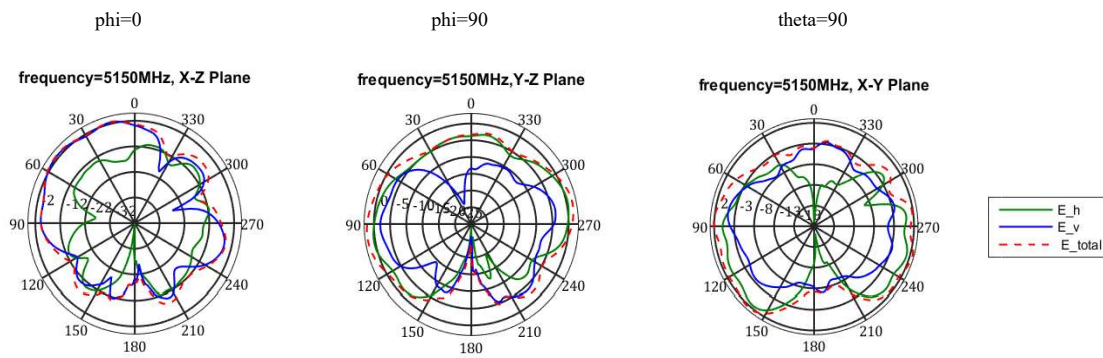
3D Pattern



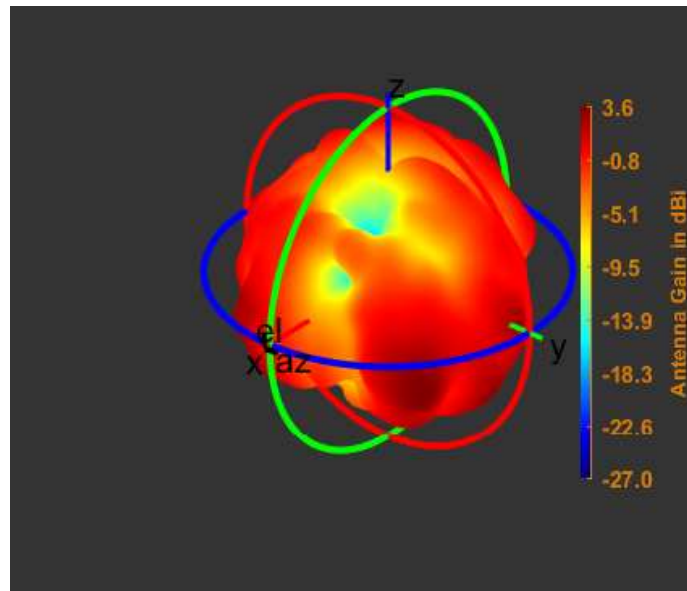
5.8GANT2		
Frequency / MHz	Gain/ dBi	Efficiency / %
5150	3.6	64.3
5350	4.0	62.4
5500	3.9	64.5
5850	3.7	63.8

5.8G ANT2 天线方向图-5.8G(Antenna direction diagram -5.8G)

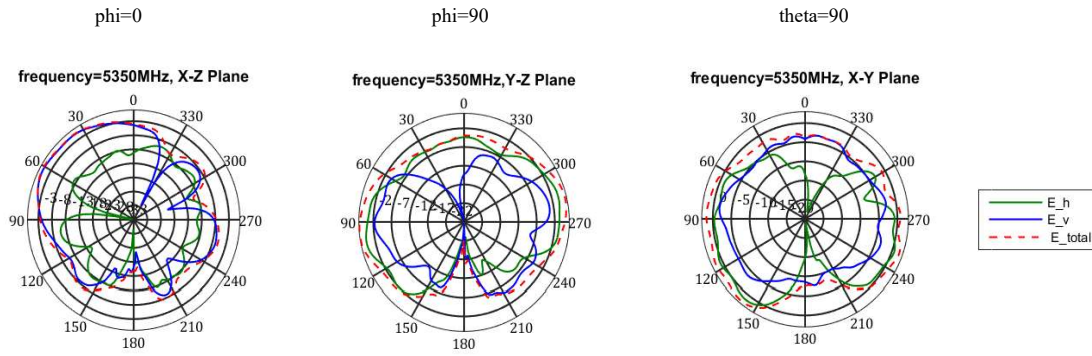
5150MHz



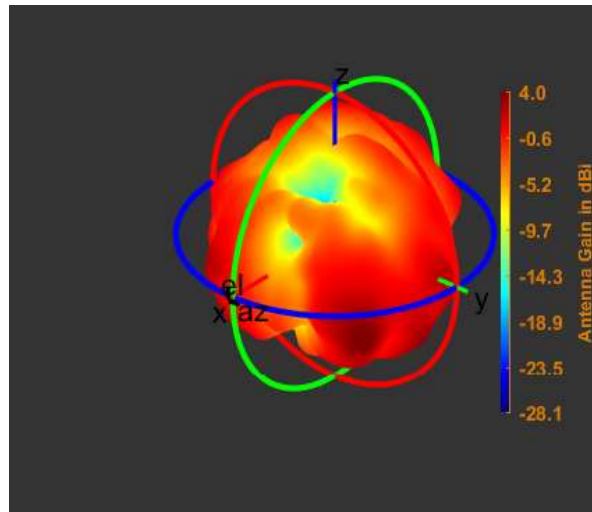
3D Pattern



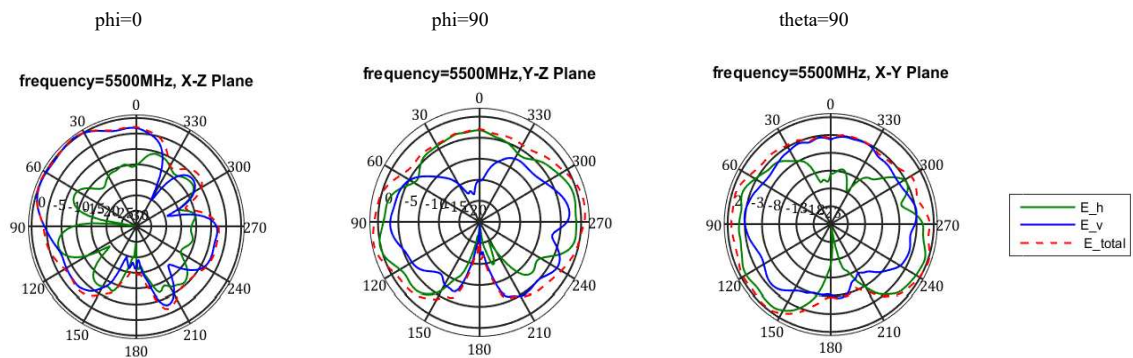
5350 MHz



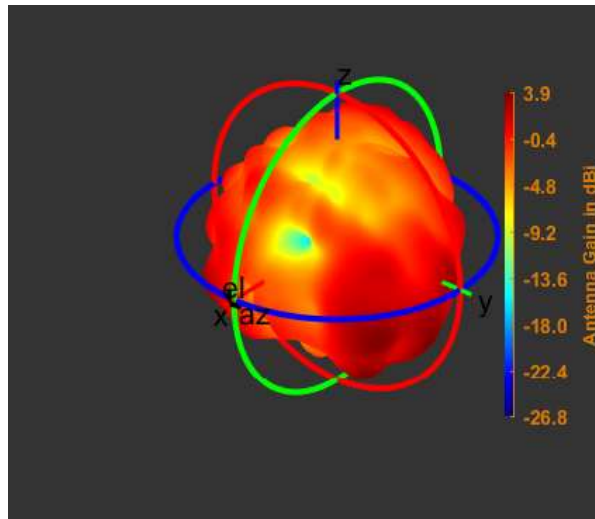
3D Pattern



5500 MHz



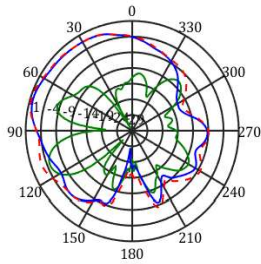
3D Pattern



5850MHz

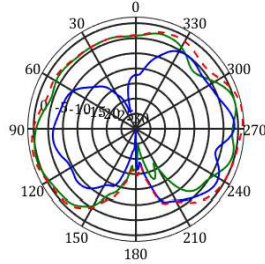
phi=0

frequency=5850MHz, X-Z Plane



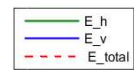
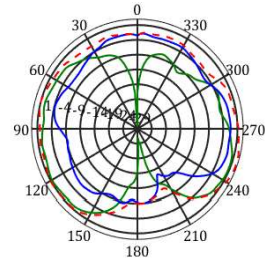
phi=90

frequency=5850MHz, Y-Z Plane

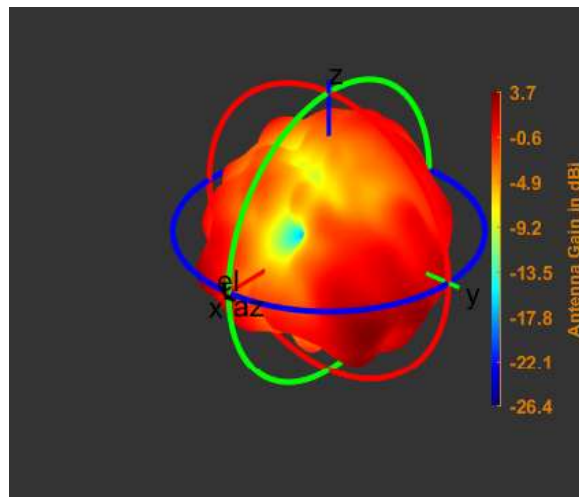


theta=90

frequency=5850MHz, X-Y Plane



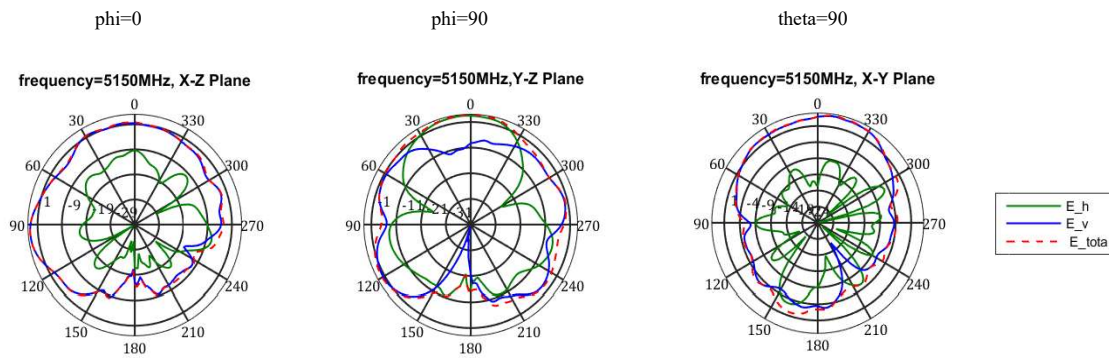
3D Pattern



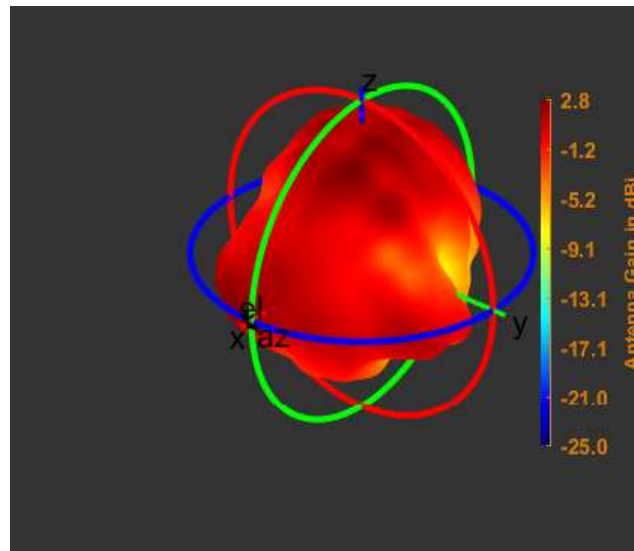
5.8GANT3		
Frequency / MHz	Gain/ dBi	Efficiency / %
5150	2.8	61.7
5350	2.6	62.5
5500	2.5	58.3
5850	2.4	60.6

5.8G ANT3天线方向图-5.8G(Antenna direction diagram -5.8G)

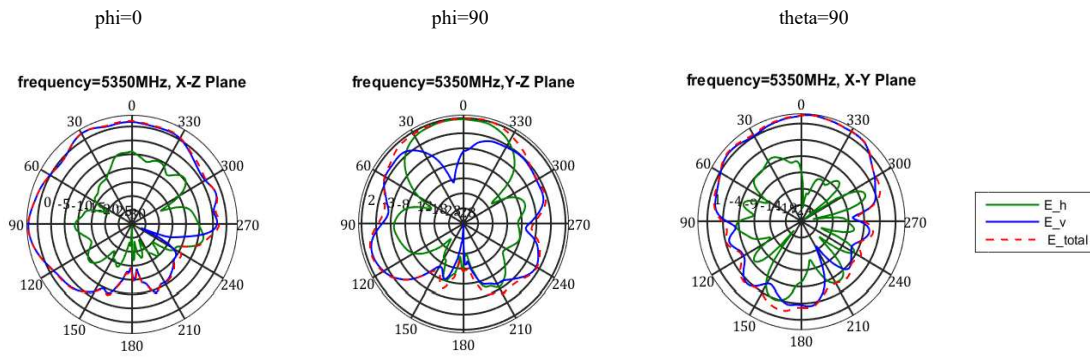
5150MHz



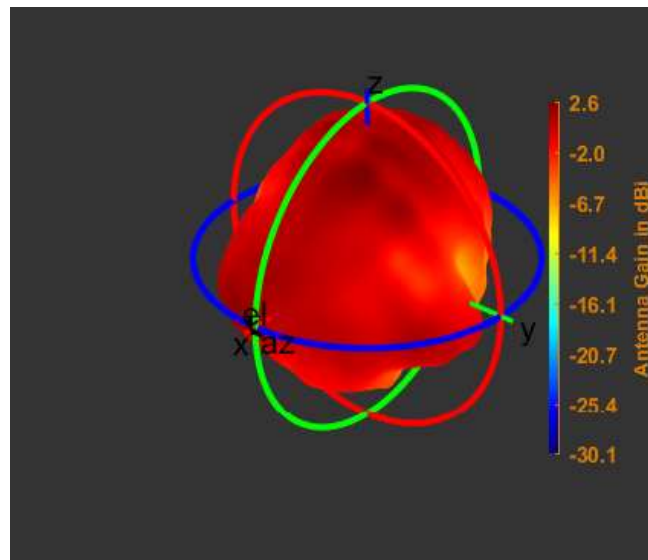
3D Pattern



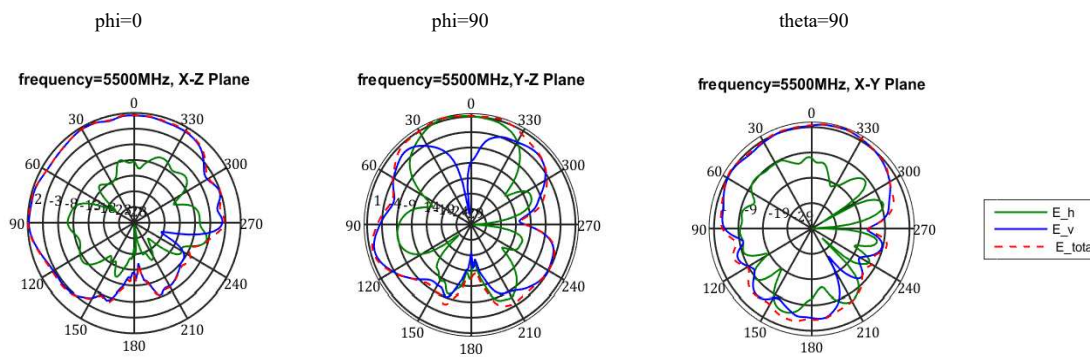
5350MHz



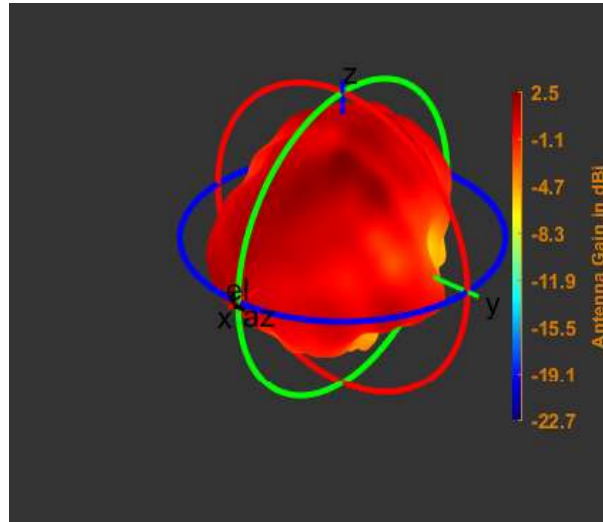
3D Pattern



5500MHz



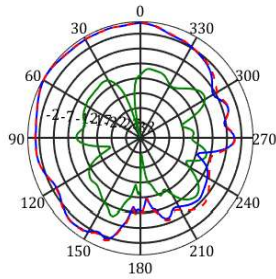
3D Pattern



5850MHz

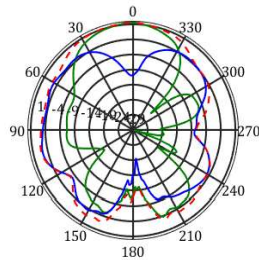
$\phi=0$

frequency=5850MHz, X-Z Plane



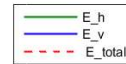
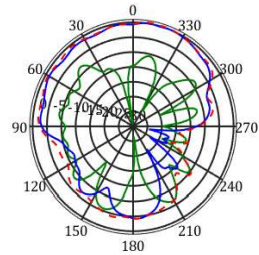
$\phi=90$

frequency=5850MHz, Y-Z Plane



$\theta=90$

frequency=5850MHz, X-Y Plane



3D Pattern

