15F., No.237, Sec.1, Datong Rd., Xizhi Dist., New Taipei City, Taiwan

D-Link 530
ARY196-3277-012-00
Only Antenna

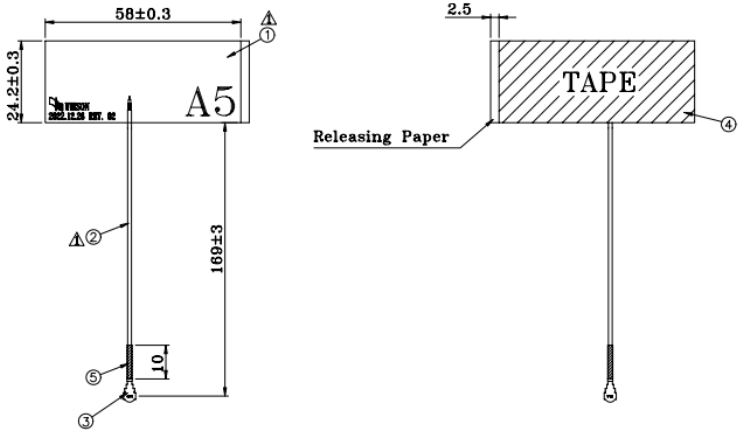
Engineer :Wade

Report date : 2023/04/13

Customer Drawing

RoHS Compliant

REV	DATE	DESCRIPTION	ECN NO.	NAME
A1	22.11.28	PROPOSAL		LIEF
A2	22.12.26	⚠Modify Design		DAVID



NO.	ITEM	DESCRIPTION	QTY
⑦			
⑥			
⑤	H.S TUBE	COLOR : GREEN , L : 10mm⚠	1
④	Tape	G9000 , Size: 57.2 x 23.4mm⚠	1
③	Connector	MHF I Plug For 1.37mm Cable , Gold Plated	1
②	Cable	1.37mm Low Loss Coaxial Cable , FEP Black Jacket	1
①	PCB	FR-4 , Size: 58 x 24.2 x 0.8mm ⚠	1

WIESON TECHNOLOGIES CO., LTD

CUST NO.:

PART NO.: ARY196-3277-012-00

TITLE: ANTENNA 5

DRAWN BY	LIEF(WST)	DRAWING NO.	ARY196-3277-012-00
CHECKED BY		DRAWING SIZE	A4
APPROVED BY		UNIT	mm
SORTING NO.	WSC	PAGE	1 OF 1

[ARTICLE:SR-83-32 V7]

A5

Antenna specification

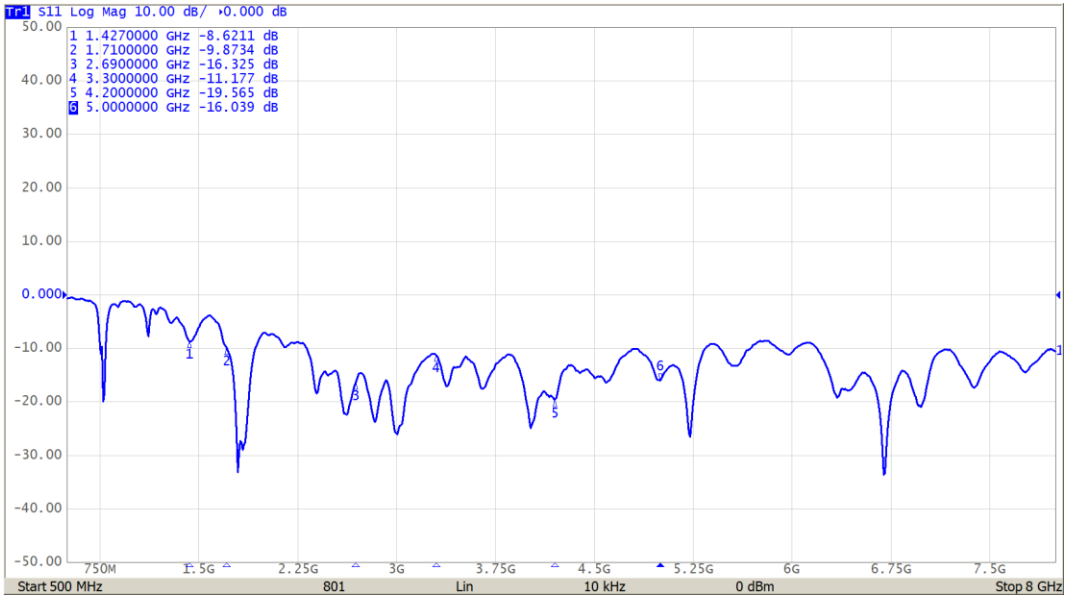
Item	Specification
Operating Frequency(GHz)	1.427-2.69
Bandwidth	1263 MHz (Min.)
Return Loss	8 dB (Min.)
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Peak Gain	4.2dBi (Max.)
Impedance	50Ω
Material	PCB
Connector	MHF I
Cable type	O.D. 1.37 L/L
Maximum Power	1W
V.S.W.R	2.3 : 1
Radiation	Omni directional
Efficiency	54%(Max.)
Operating Temperature	-10~60℃
Storage temp	-10~70℃

Item	Specification
Operating Frequency(GHz)	3.3-4.2
Bandwidth	900 MHz (Min.)
Return Loss	10 dB (Min.)
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Peak Gain	5.5dBi (Max.)
Impedance	50Ω
Material	PCB
Connector	MHF I
Cable type	O.D. 1.37 L/L
Maximum Power	1W
V.S.W.R	2 : 1
Radiation	Omni directional
Efficiency	67%(Max.)
Operating Temperature	-10~60℃
Storage temp	-10~70℃

Item	Specification
Operating Frequency(GHz)	4.4-5
Bandwidth	600 MHz (Min.)
Return Loss	10 dB (Min.)
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Peak Gain	5.2dBi (Max.)
Impedance	50Ω
Material	PCB
Connector	MHF I
Cable type	O.D. 1.37 L/L
Maximum Power	1W
V.S.W.R	2 : 1
Radiation	Omni directional
Efficiency	65%(Max.)
Operating Temperature	-10~60℃
Storage temp	-10~70℃

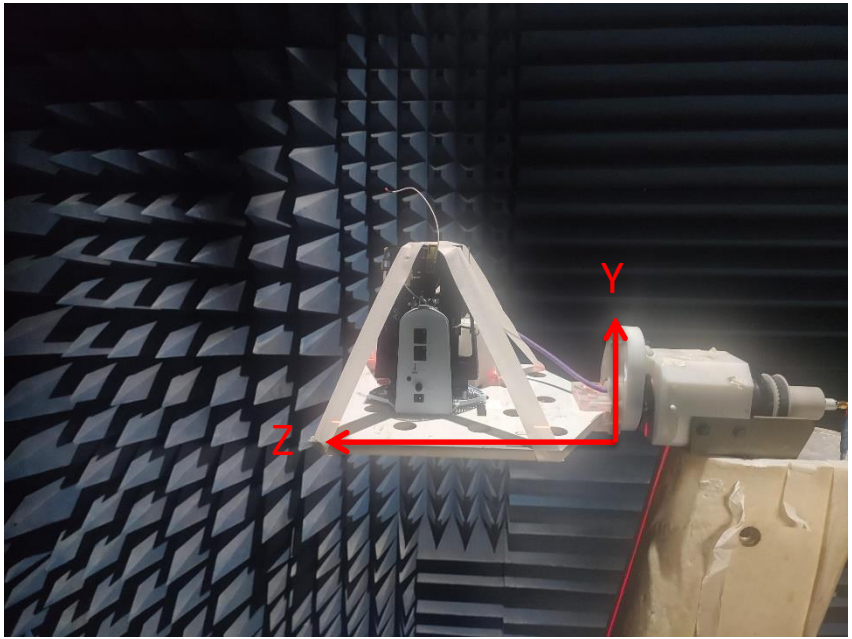
S-Parameter

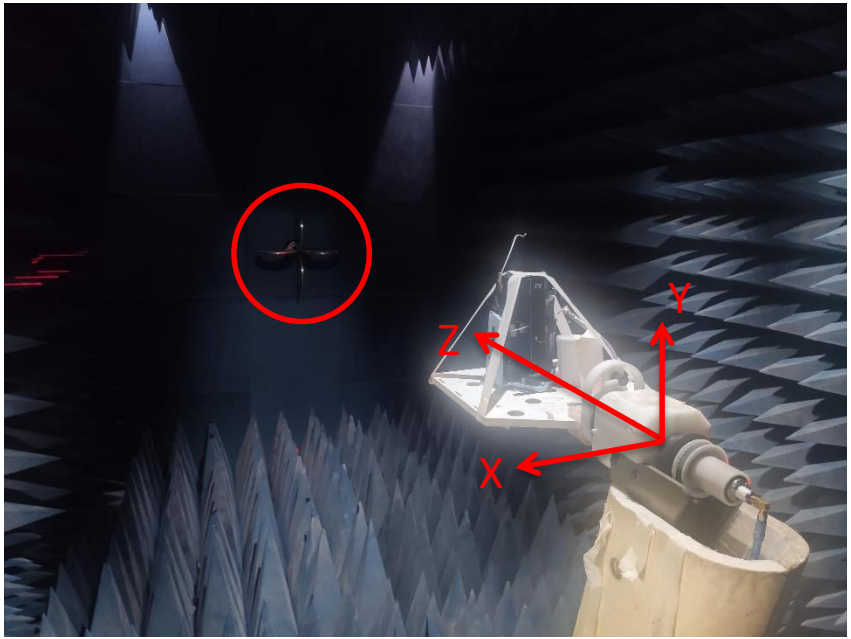
A5



Freq(MHz)	1427	1710	2690	3300	4200	5000
S11(dB)	-8.6	-9.9	-16.3	-11.1	-19.6	-16.0

chamber measurement photo





A5

3D Gain Total

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
1.427	2.3	-3.8	42
1.452	1.2	-3.5	44
1.47	1.3	-3.8	42
1.496	1.8	-3.5	45
1.517	2.0	-4.0	40
1.71	2.0	-3.8	41
1.76	1.4	-4.0	40
1.81	1.6	-3.7	42
1.88	2.0	-3.5	44
1.91	2.1	-3.8	41
1.96	1.2	-3.9	40
2.01	1.6	-4.0	40

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
2.06	1.5	-3.4	45
2.11	1.5	-3.7	42
2.17	1.6	-3.8	41
2.3	2.1	-3.6	44
2.35	1.9	-3.6	44
2.4	1.0	-3.9	41
2.45	2.4	-3.3	47
2.5	2.3	-3.6	44
2.55	4.2	-2.6	54
2.6	3.9	-3.0	51
2.65	3.8	-3.2	48
2.69	3.5	-3.5	45

A5

3D Gain Total

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
3.3	5.5	-2.7	53
3.4	4.9	-3.1	49
3.5	5.5	-2.9	52
3.6	5.0	-3.0	50
3.7	4.9	-2.9	51
3.8	5.5	-2.6	55
3.9	4.9	-2.3	59
4	4.7	-1.8	67
4.1	4.1	-2.0	63
4.2	4.6	-1.8	66
4.4	5.1	-1.9	65
4.5	4.9	-2.2	60

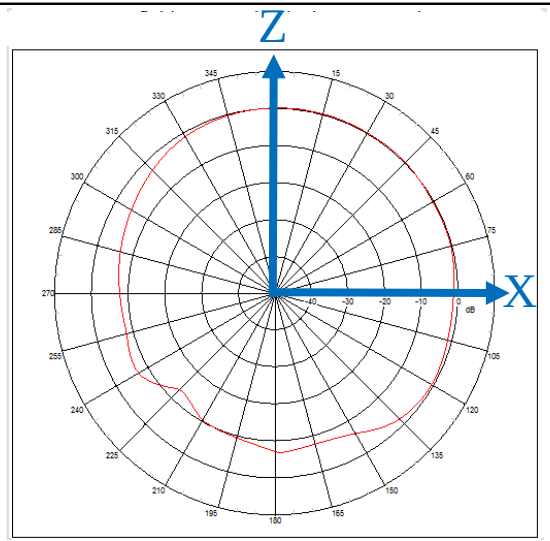
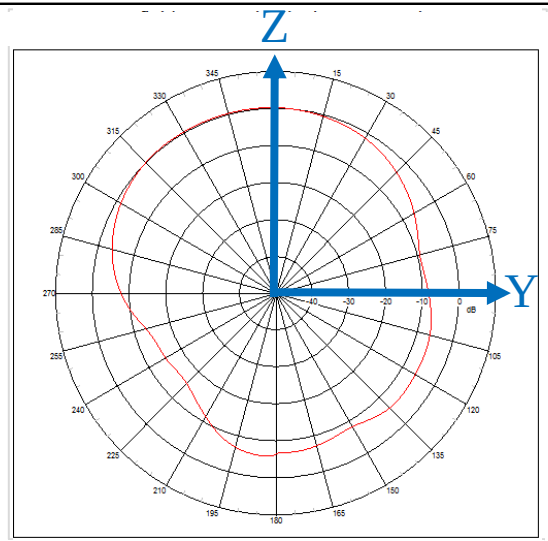
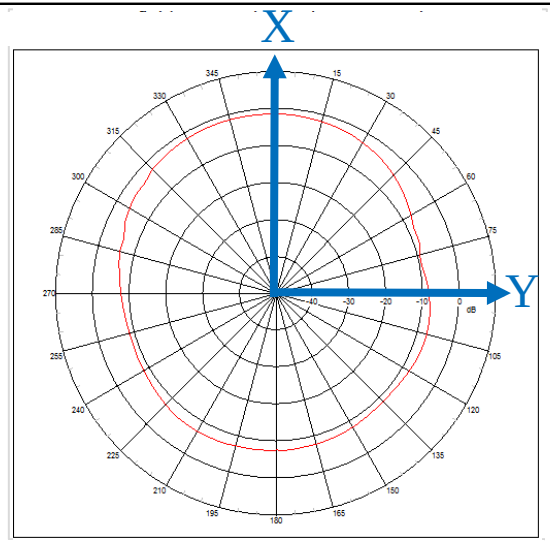
Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
4.6	5.0	-2.1	62
4.7	4.8	-2.1	61
4.8	4.2	-2.3	59
4.9	4.3	-1.9	65
5	5.2	-2.2	61

Antenna Pattern

A5

Frequency：1427MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
1.427	2.3	-3.8	42

XZ-plane	YZ-plane	XY-plane
		

Far-field amplitude limits:
Max: 10dB
min: -50dB

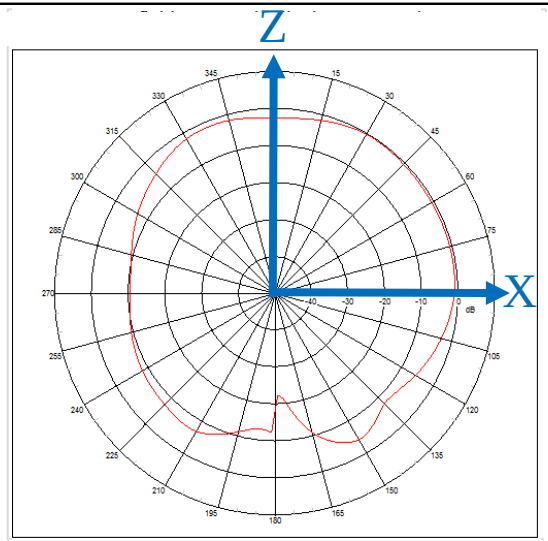
Antenna Pattern

A5

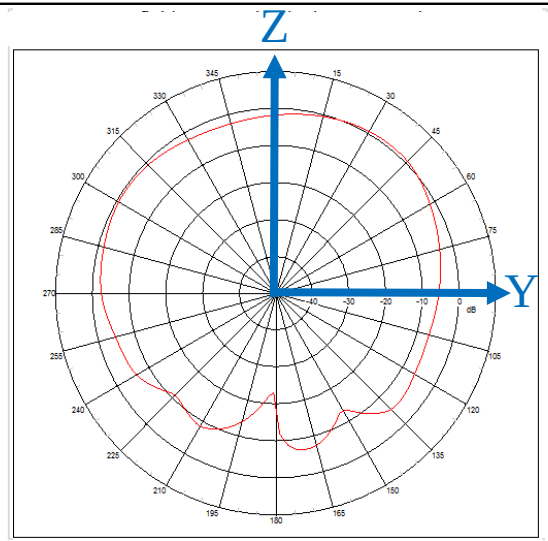
Frequency：2170MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
2.17	1.6	-3.8	41

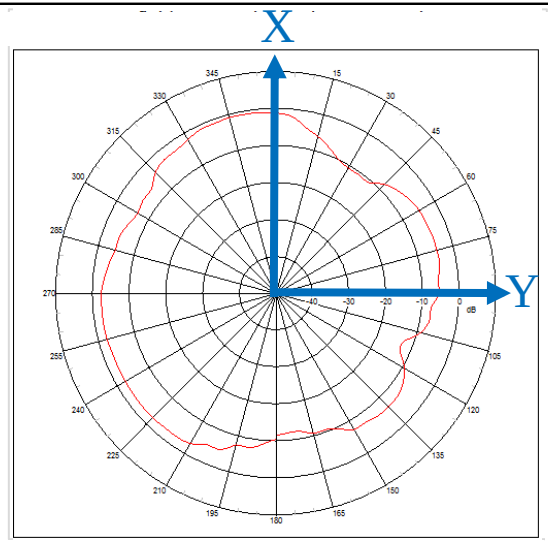
XZ-plane



YZ-plane



XY-plane



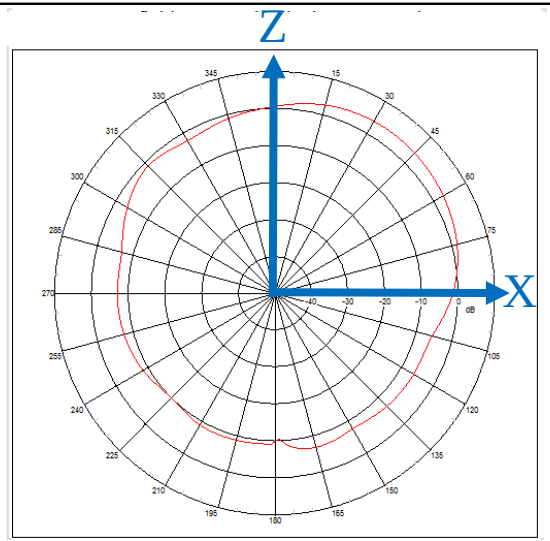
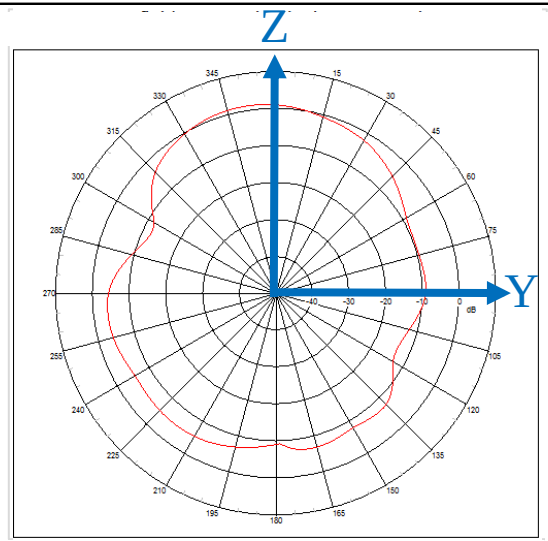
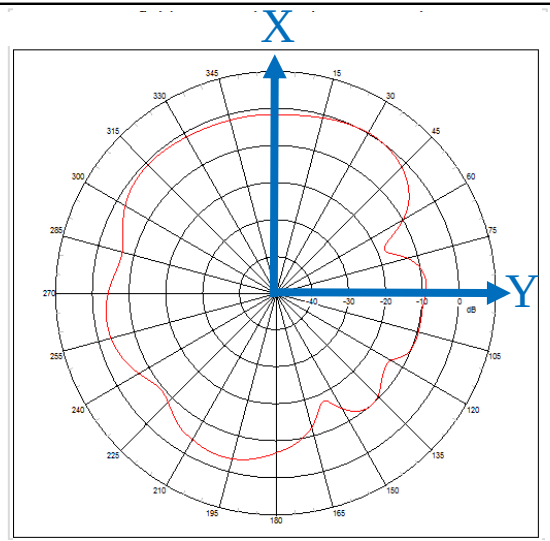
Far-field amplitude limits:
Max: 10dB
min: -50dB

Antenna Pattern

A5

Frequency：2690MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
2.69	3.5	-3.5	45

XZ-plane	YZ-plane	XY-plane
		

Far-field amplitude limits:
Max: 10dB
min: -50dB

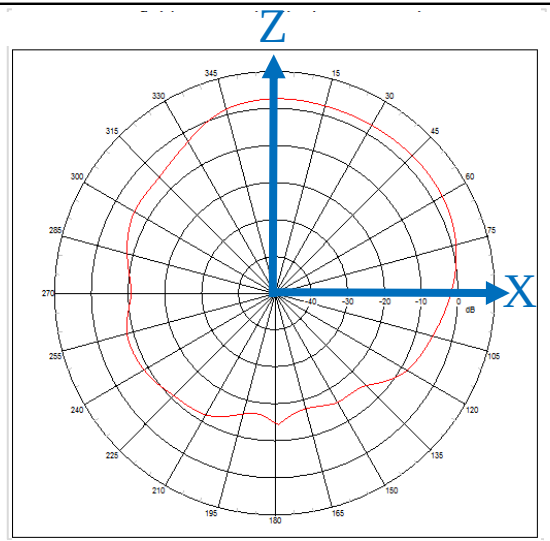
Antenna Pattern

A5

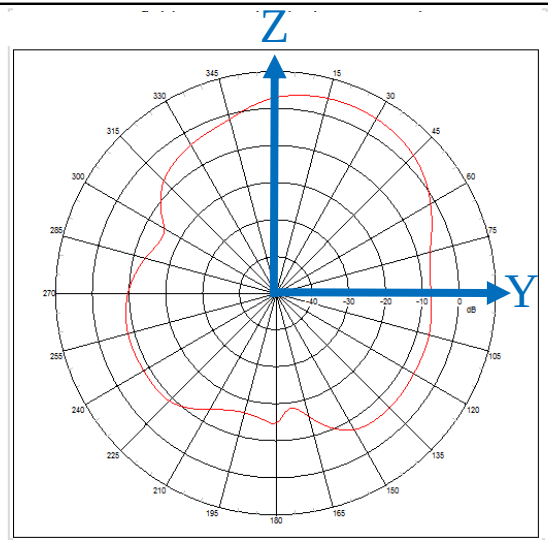
Frequency：3300MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
3.3	5.5	-2.7	53

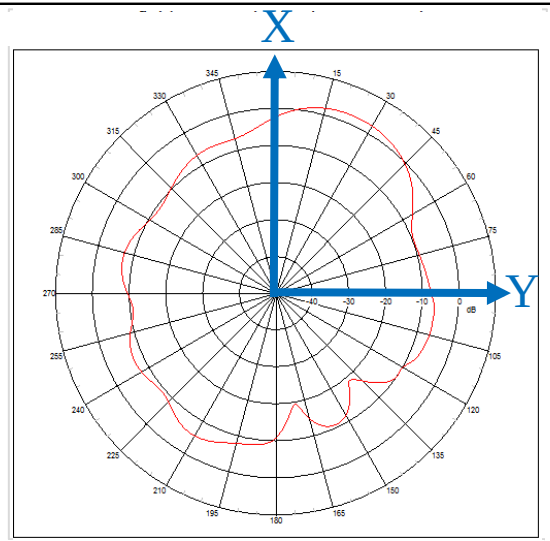
XZ-plane



YZ-plane



XY-plane



Far-field amplitude limits:
Max: 10dB
min: -50dB

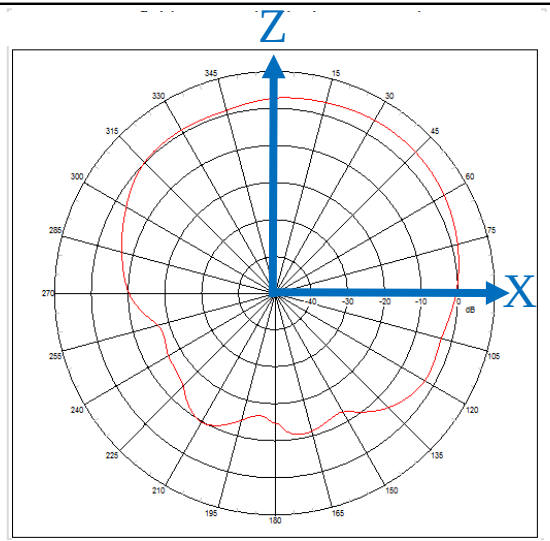
Antenna Pattern

A5

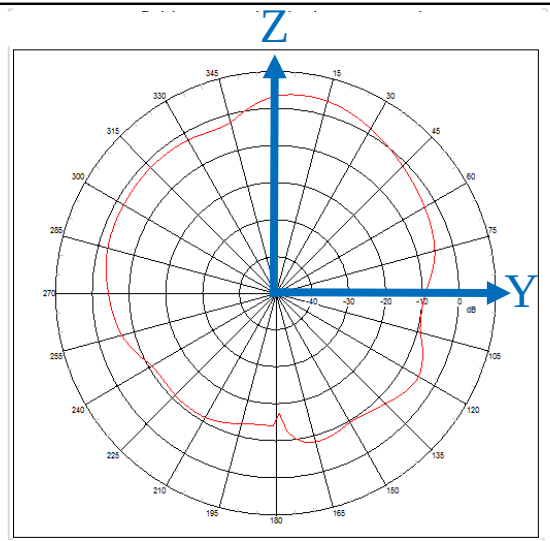
Frequency：3800MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
3.8	5.5	-2.6	55

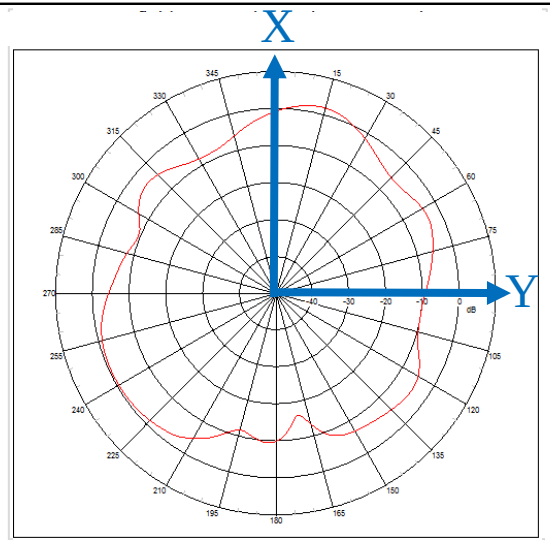
XZ-plane



YZ-plane



XY-plane



Far-field amplitude limits:
Max: 10dB
min: -50dB

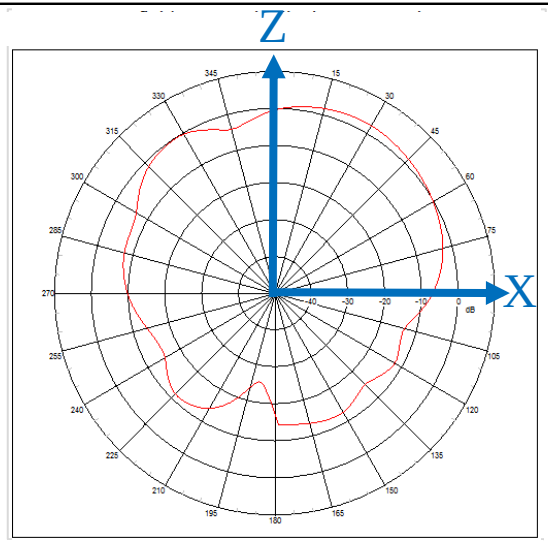
Antenna Pattern

A5

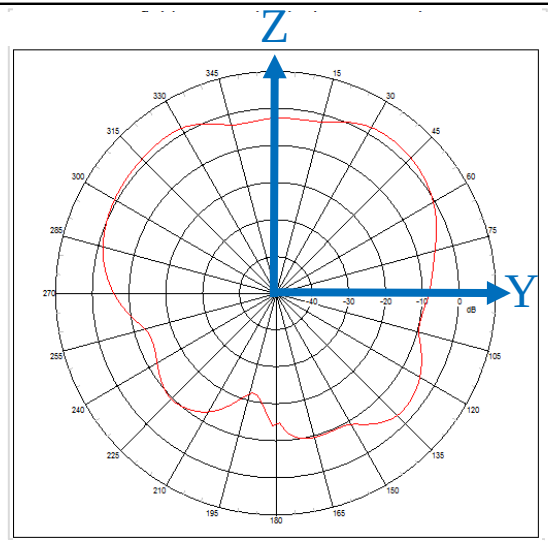
Frequency：4700MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
4.7	4.8	-2.1	61

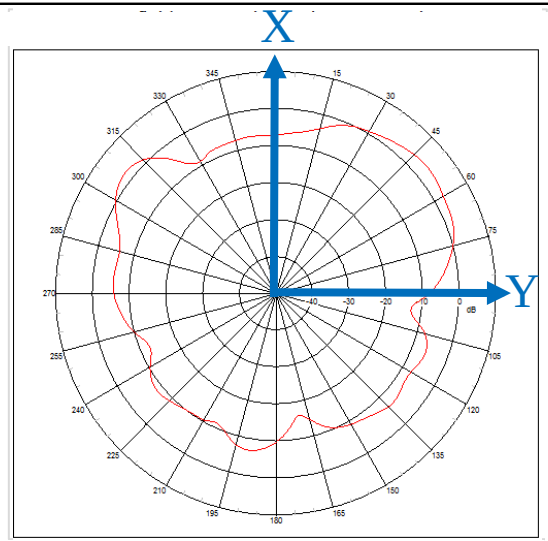
XZ-plane



YZ-plane



XY-plane



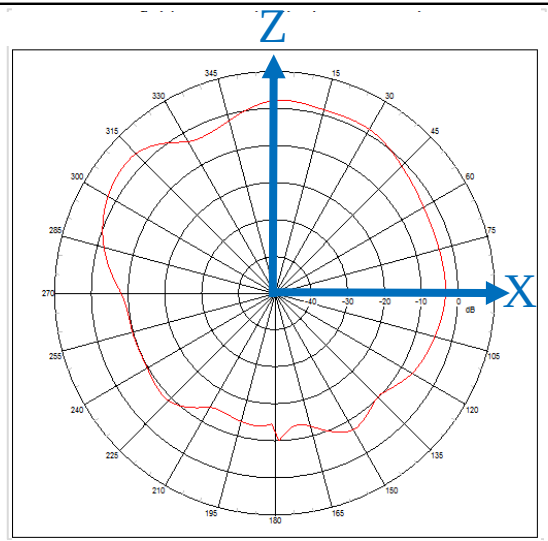
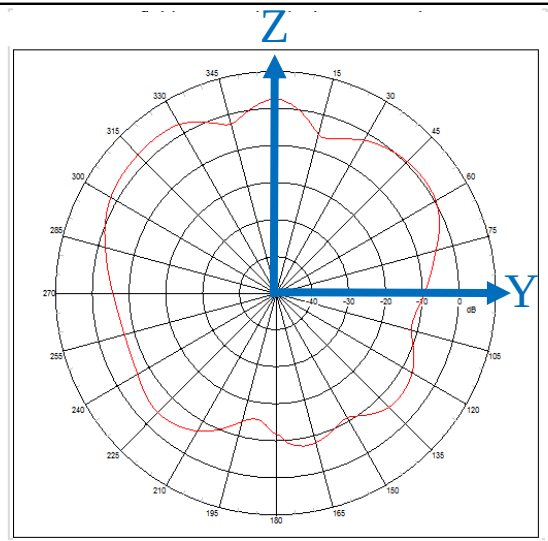
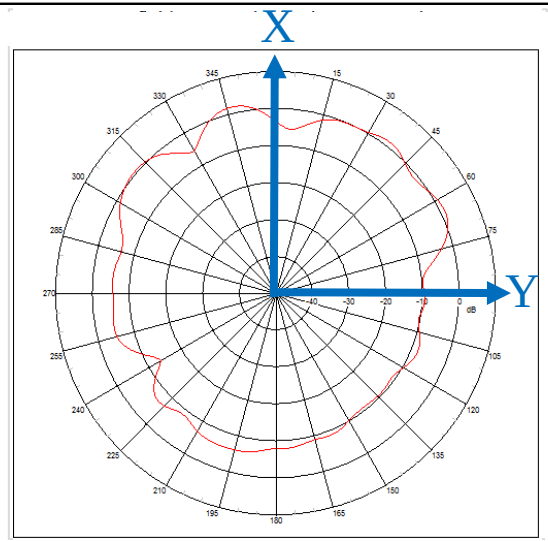
Far-field amplitude limits:
Max: 10dB
min: -50dB

Antenna Pattern

A5

Frequency：5000MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
5	5.2	-2.2	61

XZ-plane	YZ-plane	XY-plane
		

Far-field amplitude limits:
Max: 10dB
min: -50dB

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