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

D-Link 530
ARY196-3277-0011-00
Only Antenna

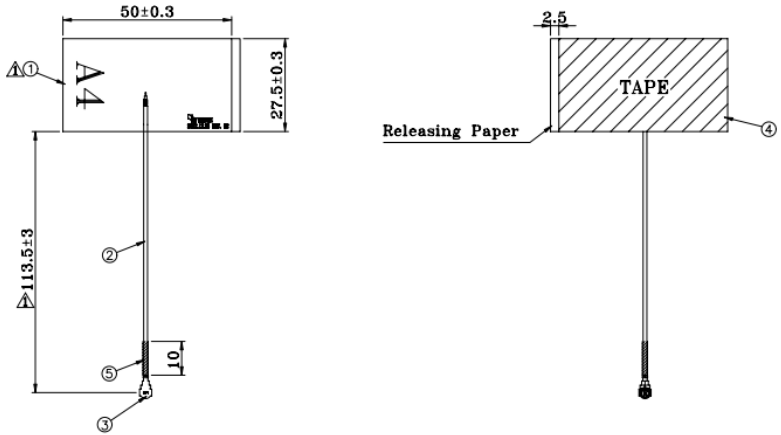
Engineer :Wade

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 PCB		LIEF



CUST NO.:

PART NO.: ARY196-3277-011-00

WIESON TECHNOLOGIES CO., LTD

TITLE: ANTENNA 4

NO.	ITEM	DESCRIPTION	QTY
⑦			
⑥			
⑤	H.S TUBE	COLOR : BLUE , L : 10mm ⚠	
④	Tape	G9000 , Size: 26.7 x 49.2mm	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: 27.5 x 50 x 0.8mm	1

DRAWN BY	LIEF(WST)	DRAWING NO.	ARY196-3277-011-00
CHECKED BY		DRAWING SIZE	A4
APPROVED BY		UNIT	mm
SORTING NO.	WSC	PAGE	1 OF 1

[ARTICLE:SR-83-32 V7]

A4

Antenna specification

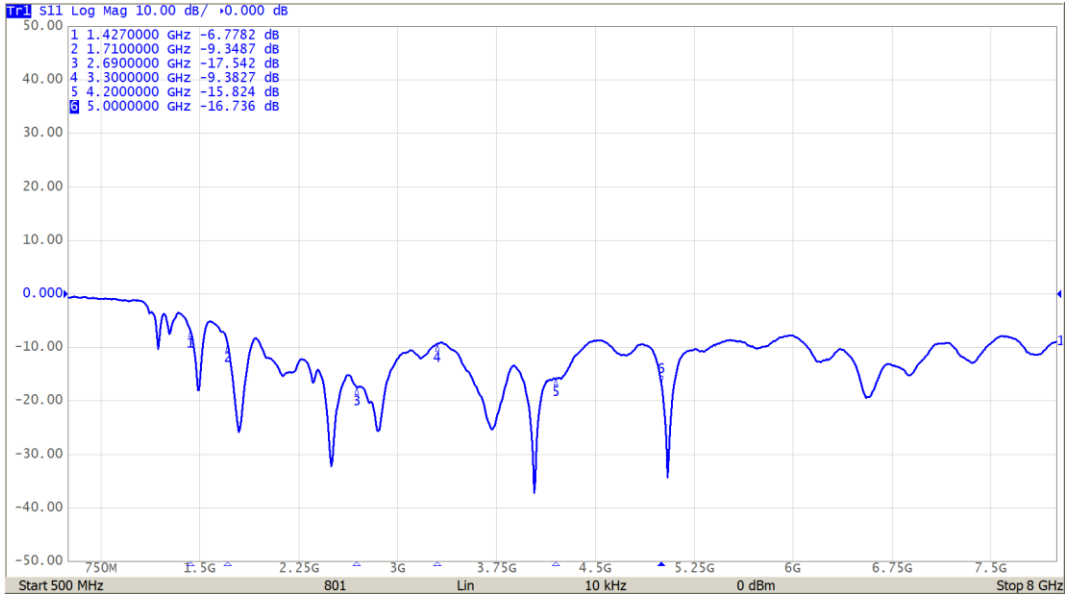
Item	Specification
Operating Frequency(GHz)	1.427-2.69
Bandwidth	1263 MHz (Min.)
Return Loss	6 dB (Min.)
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Peak Gain	6.8dBi (Max.)
Impedance	50Ω
Material	PCB
Connector	MHF I
Cable type	O.D. 1.37 L/L
Maximum Power	1W
V.S.W.R	3 : 1
Radiation	Omni directional
Efficiency	56%(Max.)
Operating Temperature	-10~60°C
Storage temp	-10~70°C

Item	Specification
Operating Frequency(GHz)	3.3-4.2
Bandwidth	900 MHz (Min.)
Return Loss	9 dB (Min.)
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Peak Gain	4.9dBi (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 : 1
Radiation	Omni directional
Efficiency	66%(Max.)
Operating Temperature	-10~60°C
Storage temp	-10~70°C

Item	Specification
Operating Frequency(GHz)	4.4-5
Bandwidth	600 MHz (Min.)
Return Loss	9 dB (Min.)
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Peak Gain	4.6dBi (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 : 1
Radiation	Omni directional
Efficiency	64%(Max.)
Operating Temperature	-10~60°C
Storage temp	-10~70°C

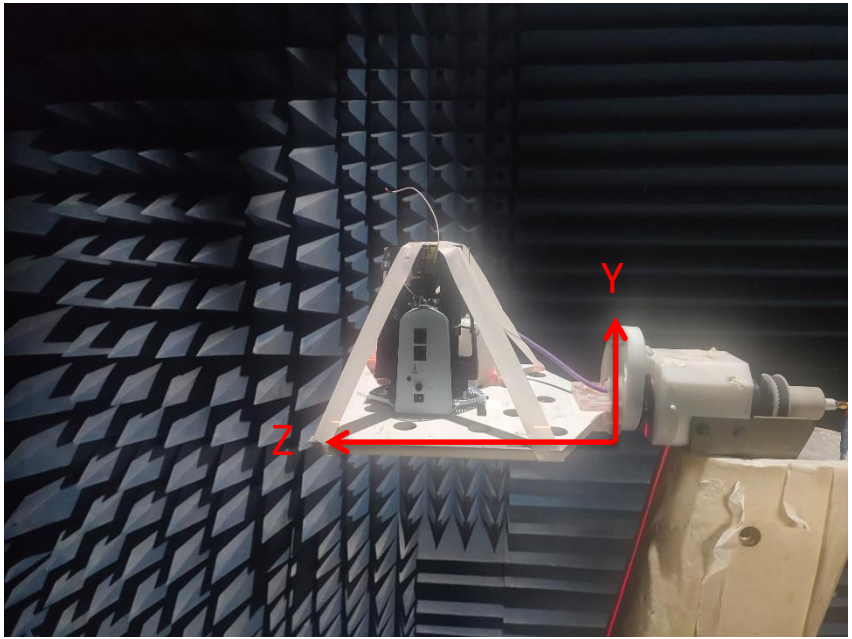
S-Parameter

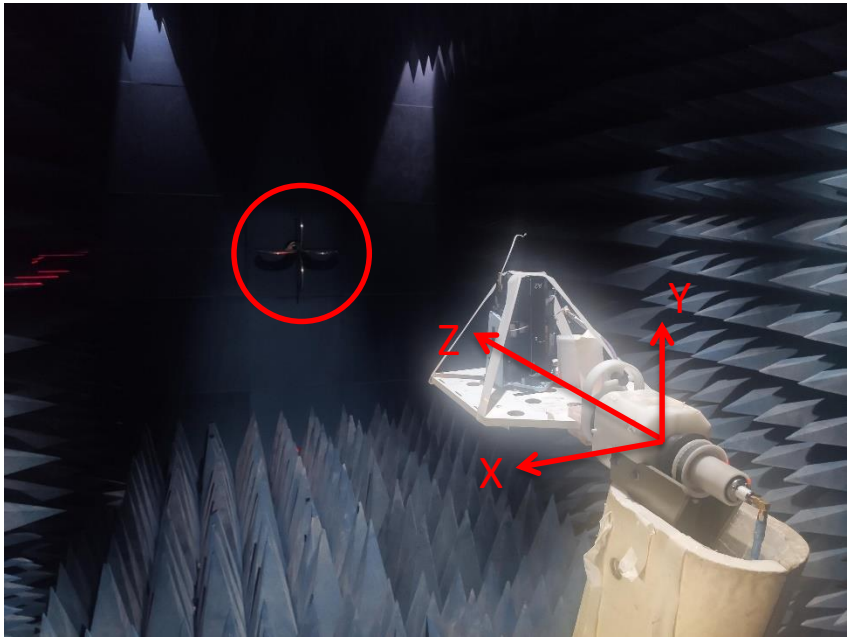
A4



Freq(MHz)	1427	1710	2690	3300	4200	5000
S11(dB)	-6.8	-9.3	-17.5	-9.4	-15.8	-16.7

chamber measurement photo





A4

3D Gain Total

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
1.427	4.2	-3.6	43
1.452	4.4	-3.4	46
1.47	4.1	-3.8	42
1.496	4.0	-3.7	43
1.517	2.8	-4.0	40
1.71	3.7	-3.4	46
1.76	2.7	-3.4	46
1.81	3.1	-3.7	42
1.88	2.6	-4.0	40
1.91	1.7	-4.0	40
1.96	4.4	-3.6	44
2.01	4.0	-3.9	40

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
2.06	4.7	-3.0	50
2.11	4.6	-3.1	49
2.17	5.1	-2.8	52
2.3	3.2	-3.3	47
2.35	2.7	-3.3	47
2.4	5.4	-3.4	46
2.45	6.1	-2.8	53
2.5	6.5	-2.9	51
2.55	6.8	-2.5	56
2.6	6.5	-2.6	55
2.65	6.8	-2.7	54
2.69	6.6	-2.9	52

A4

3D Gain Total

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
3.3	2.8	-3.0	50
3.4	2.9	-2.9	52
3.5	3.4	-2.9	51
3.6	3.7	-2.6	55
3.7	2.9	-2.4	57
3.8	4.2	-2.5	56
3.9	4.9	-1.8	66
4	4.8	-2.1	62
4.1	4.7	-1.8	66
4.2	4.3	-2.2	61
4.4	4.6	-2.0	64
4.5	4.2	-1.9	64

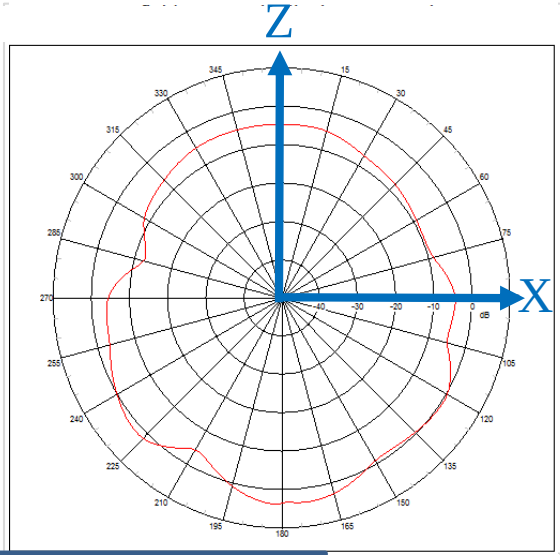
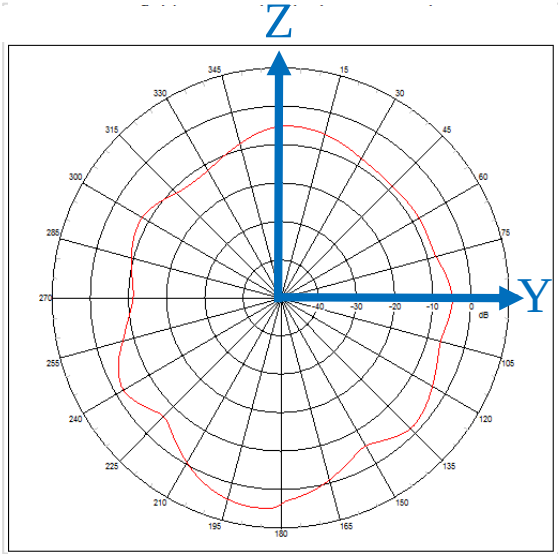
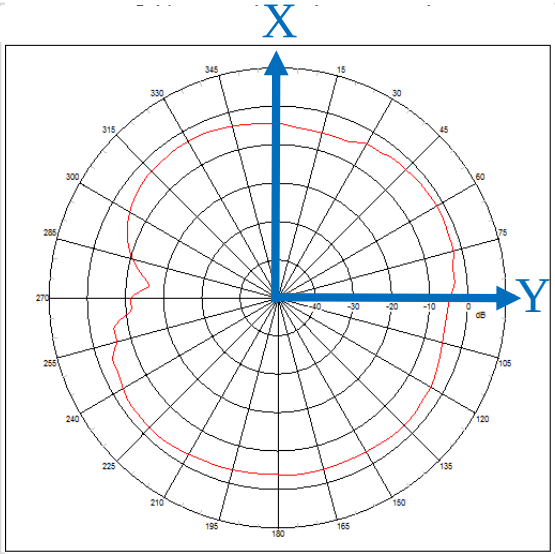
Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
4.6	4.3	-2.2	60
4.7	4.5	-2.0	63
4.8	3.8	-2.4	57
4.9	4.3	-2.3	59
5	2.9	-2.6	55

Antenna Pattern

A4

Frequency：1427MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
1.427	4.2	-3.6	43

XZ-plane	YZ-plane	XY-plane
		

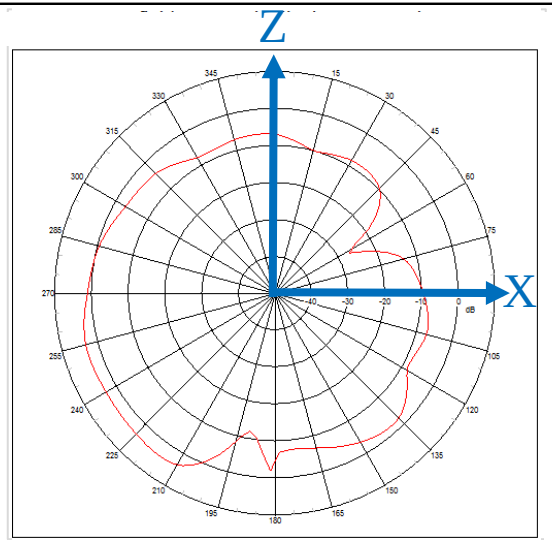
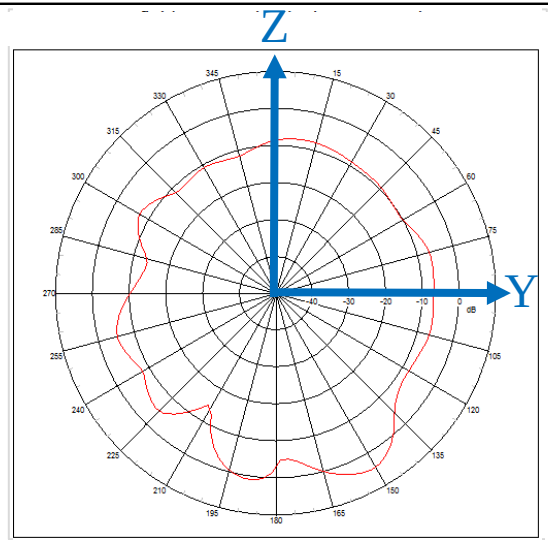
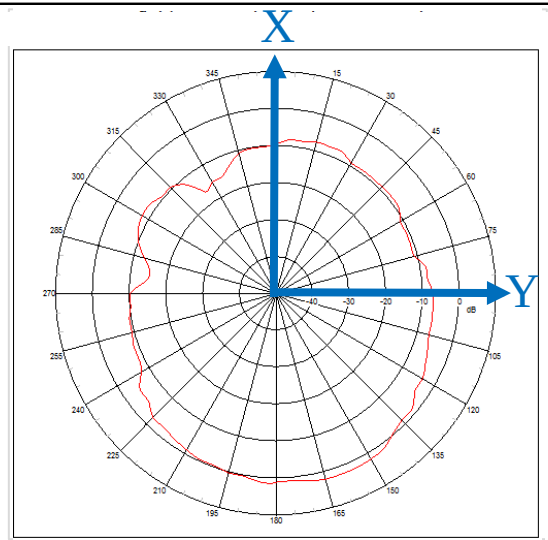
Far-field amplitude limits:
Max: 10dB
min: -50dB

Antenna Pattern

A4

Frequency：2170MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
2.17	5.1	-2.8	52

XZ-plane	YZ-plane	XY-plane
		

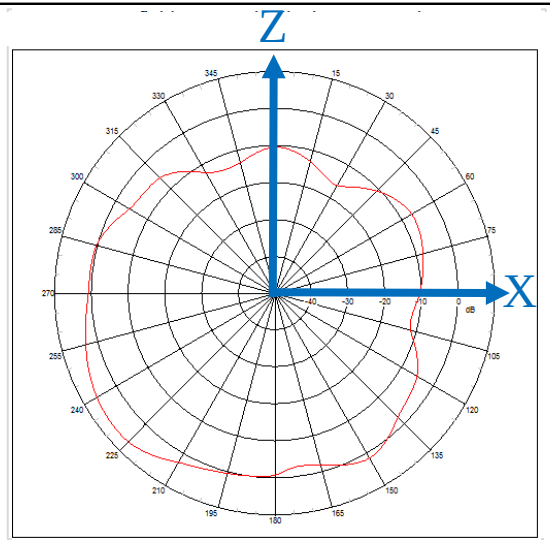
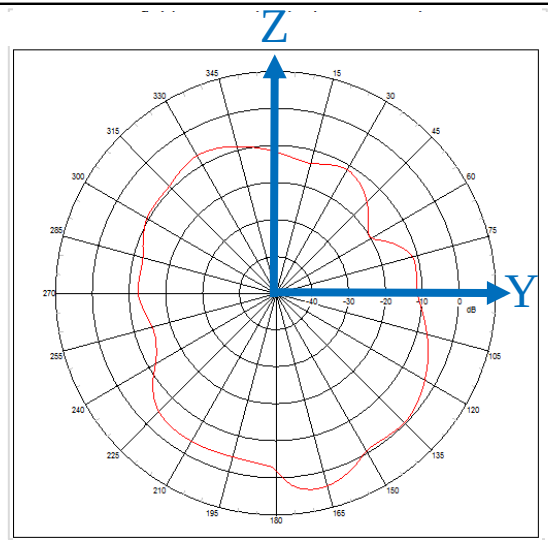
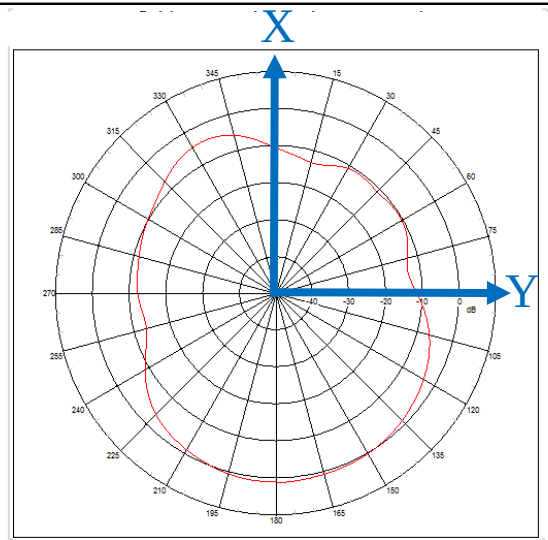
Far-field amplitude limits:
Max: 10dB
min: -50dB

Antenna Pattern

A4

Frequency：2690MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
2.69	6.6	-2.9	52

XZ-plane	YZ-plane	XY-plane
		

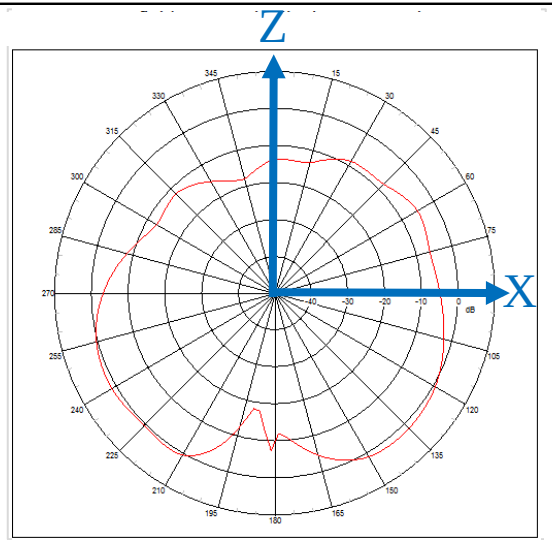
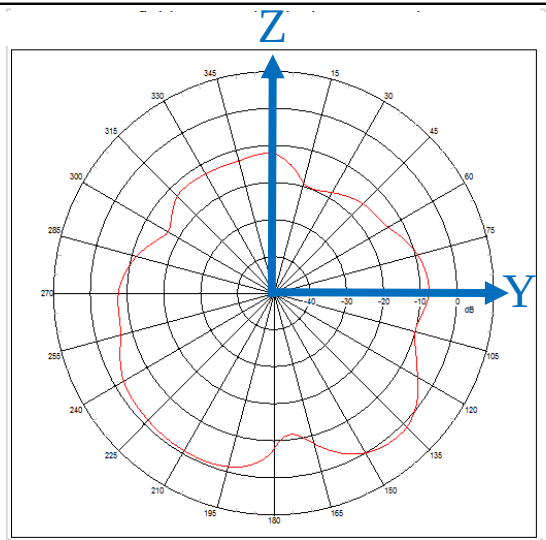
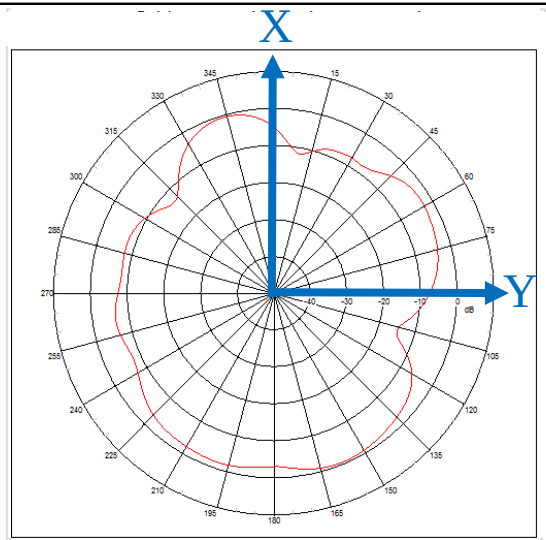
Far-field amplitude limits:
Max: 10dB
min: -50dB

Antenna Pattern

A4

Frequency：3300MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
3.3	2.8	-3.0	50

XZ-plane	YZ-plane	XY-plane
		

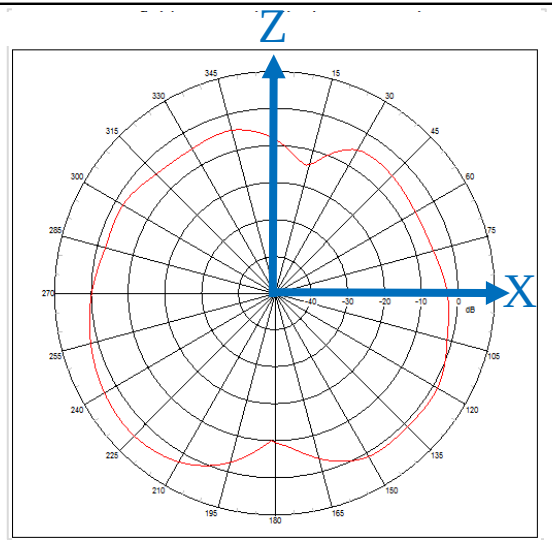
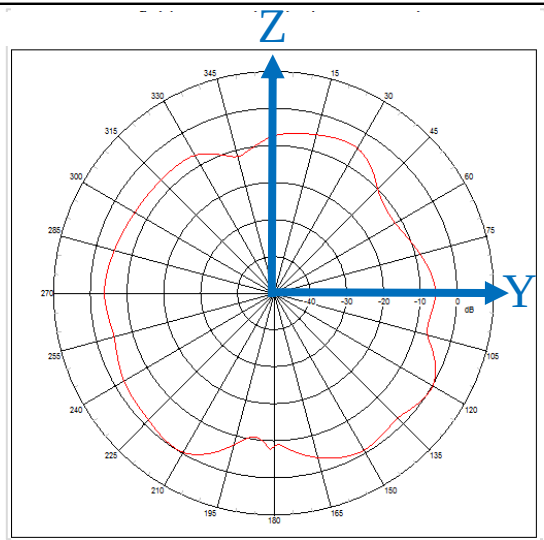
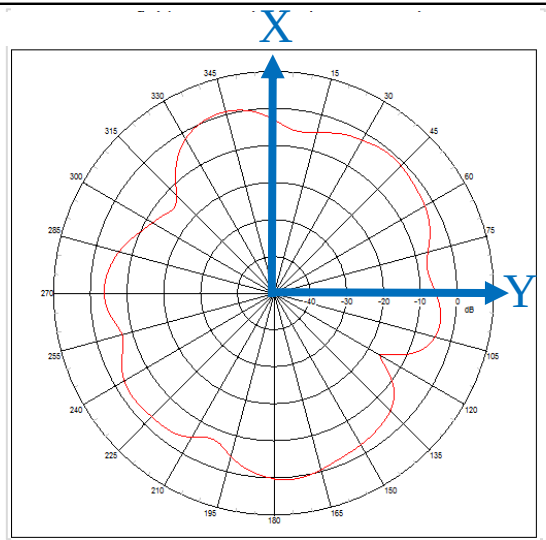
Far-field amplitude limits:
Max: 10dB
min: -50dB

Antenna Pattern

A4

Frequency：3800MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
3.8	4.2	-2.5	56

XZ-plane	YZ-plane	XY-plane
		

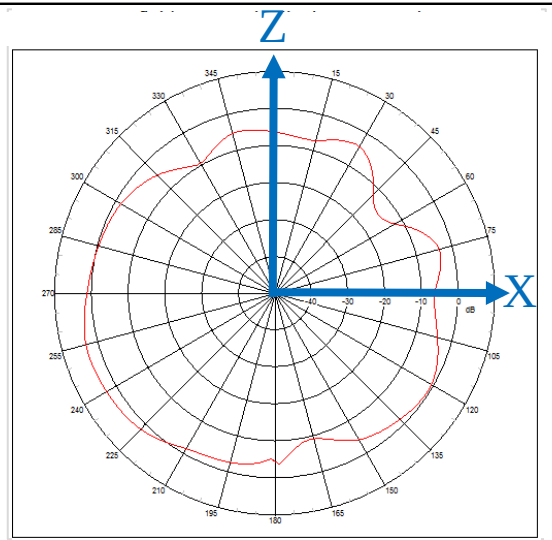
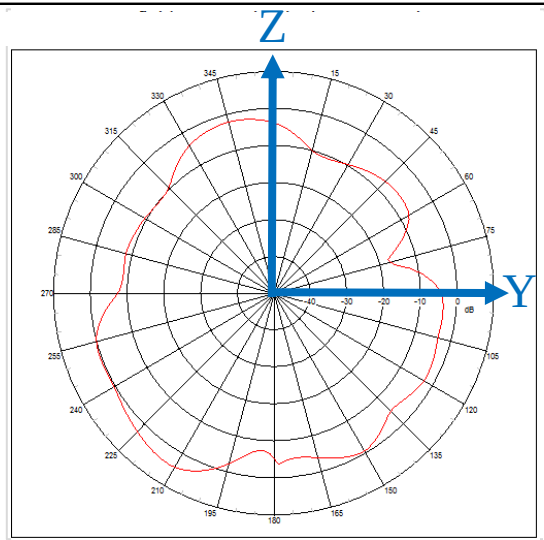
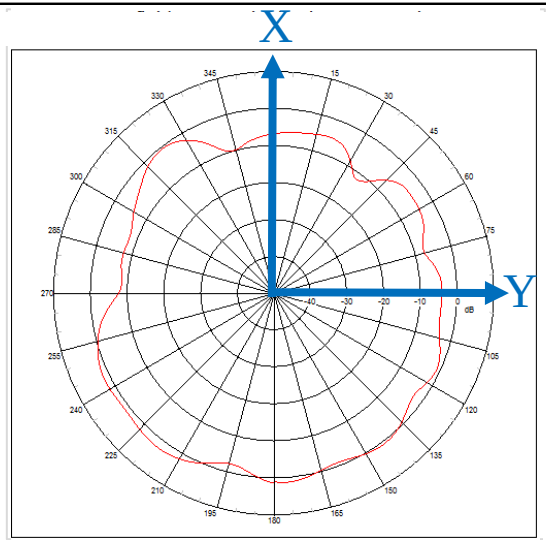
Far-field amplitude limits:
Max: 10dB
min: -50dB

Antenna Pattern

A4

Frequency：4700MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
4.7	4.5	-2.0	63

XZ-plane	YZ-plane	XY-plane
		

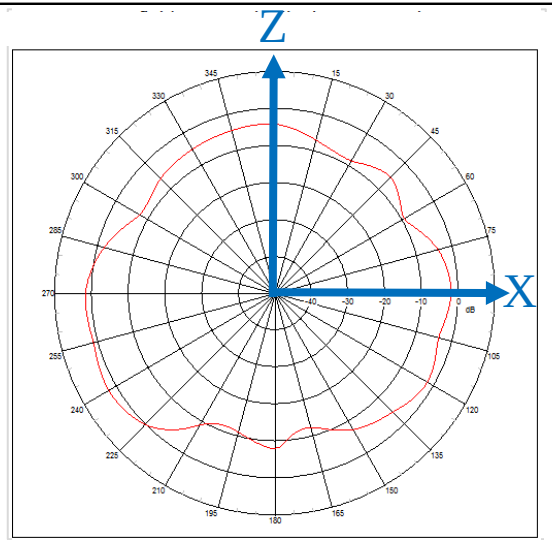
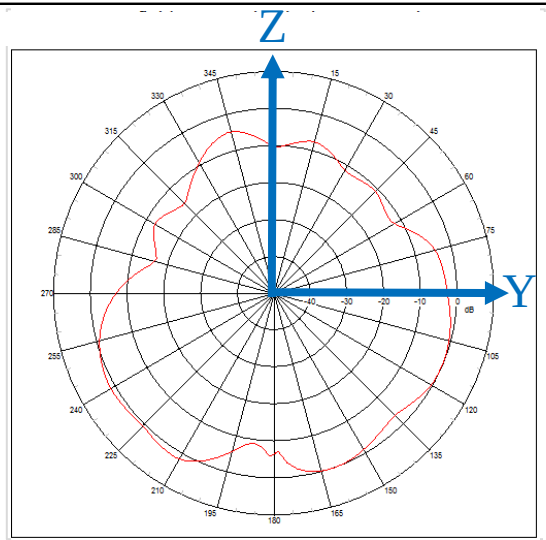
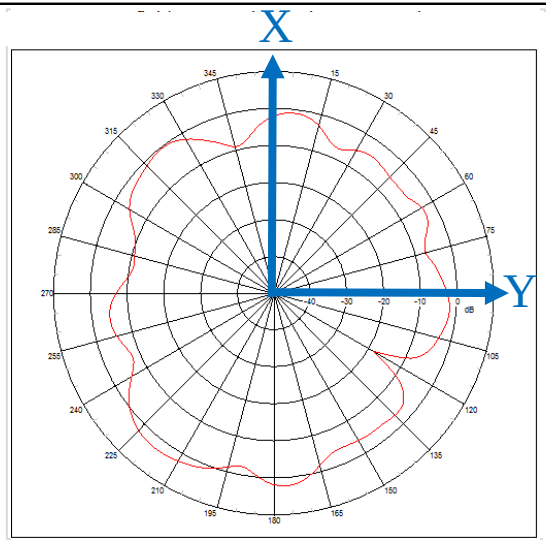
Far-field amplitude limits:
Max: 10dB
min: -50dB

Antenna Pattern

A4

Frequency：5000MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
5	2.9	-2.6	55

XZ-plane	YZ-plane	XY-plane
		

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

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