



Antenna Specification

Antenna Manufacturer Company Name: Wieson Technologies Co., LTD.

Antenna Manufacturer Company Address: 15F, No.237, Sec.1, Datong Rd., Xizhi Dist., New Taipei City 221006, Taiwan

Antenna Model: ARY196-0232-038-00

Antenna Type: PCB antenna

RoHS Compliant

REV	DATE	DESCRIPTION	ECN NO.	NAME
A1	24.05.31	PROPOSAL		DAVID
A2	24.06.04	⚠️ DELETE ACETATE TAPE		DAVID

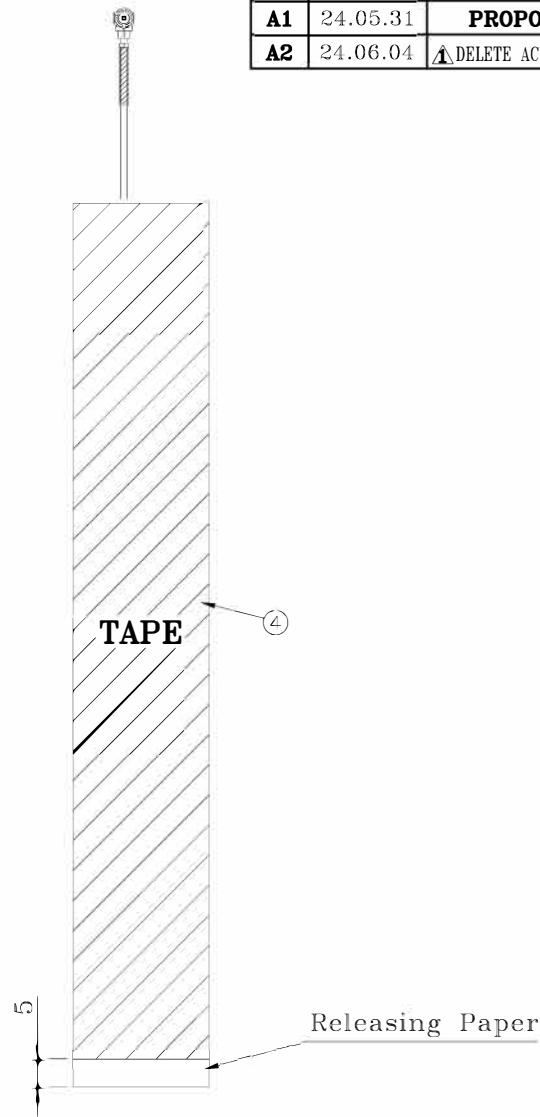
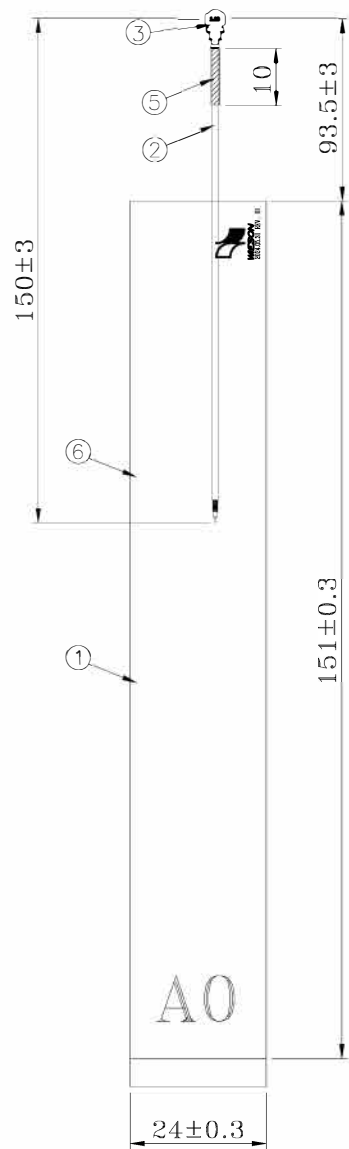
A

B

C

D

E



CUST NO.: 11320Y20ZQ00304A1
PART NO.: ARY196-0232-038-00

WIESON TECHNOLOGIES CO., LTD
WIESON

TITLE: ANTENNA 0			
DRAWN BY	DAVID(WST)	DRAWING NO.	ARY196-0232-038-00
CHECKED BY		DRAWING SIZE	A4
APPROVED BY		UNIT	mm
SORTING NO.	WSC	PAGE	1 OF 1

NO.	ITEM	DESCRIPTION	QTY
⑤	H.S TUBE	COLOR : WHITE , L : 10mm	1
④	TAPE	G9000 , SIZE: 150.2 X 23.2MM	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: 151 x 24 x 0.8mm SOLDER MASK COLOR :GREEN	1



WIESON TECHNOLOGIES CO.,LTD

BILL OF MATERIAL

Cust.	永洋	TITLE	RF ANTENNA				
Cust.P/N		WIESON P/N	ARY196-0232-038-00				
NO.	DESCRIPTION	SUPPLIER	SUPPLIER PART NO.	UL NO.	AVL	QUANTITY	REMARK
1	FR-4 , Size: 151 x 24 x 0.8mm	/	PCB	/		1PCS	
2	1.37mm Low Loss Coaxial Cable , FEP Black Jacket	/	/CABLE	/		MM	
3	MHF I Plug For 1.37mm Cable , Gold Plated	/	Connector/	/		1PCS	
4	G9000 , Size: 150.2 x 23.2mm	/	TAPE/			1PCS	
5	COLOR : WHITE , L : 10mm		H.S TUBE			1PCS	
6							
7							
8							

APPROVED BY: ROX

CHECKD BY: JOSN

DESIGNED BY: REASON

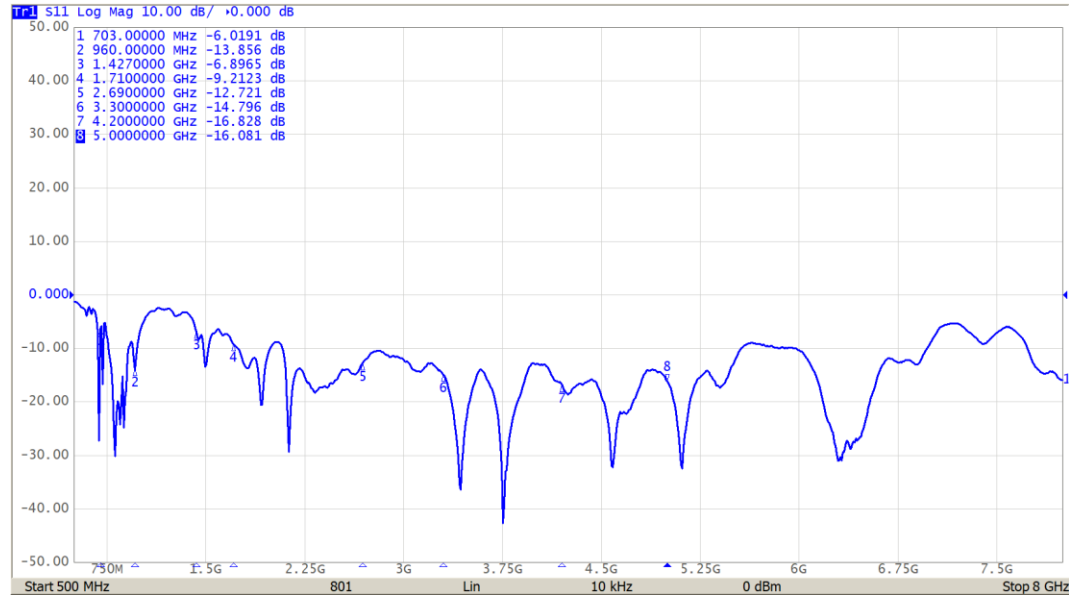
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Antenna specification

Item	Specification	Item	Specification	Item	Specification
Operating Frequency(GHz)	0.703-0.96	Operating Frequency(GHz)	1.427-2.69	Operating Frequency(GHz)	3.3-4.2
Bandwidth	257 MHz (Min.)	Bandwidth	1263 MHz (Min.)	Bandwidth	900 MHz (Min.)
Return Loss	6 dB (Min.)	Return Loss	6 dB (Min.)	Return Loss	10 dB (Min.)
Polarization	Linear	Polarization	Linear	Polarization	Linear
Azimuth Bandwidth	Omni-directional	Azimuth Bandwidth	Omni-directional	Azimuth Bandwidth	Omni-directional
Impedance	50Ω	Impedance	50Ω	Impedance	50Ω
Material	PCB	Material	PCB	Material	PCB
Connector	MHF I	Connector	MHF I	Connector	MHF I
Cable type	O.D. 1.37 L/L	Cable type	O.D. 1.37 L/L	Cable type	O.D. 1.37 L/L
Maximum Power	1W	Maximum Power	1W	Maximum Power	1W
V.S.W.R	3 : 1	V.S.W.R	3 : 1	V.S.W.R	2 : 1
Radiation	Omni directional	Radiation	Omni directional	Radiation	Omni directional
Efficiency	49%(Max.)	Efficiency	54%(Max.)	Efficiency	67%(Max.)
Operating Temperature	-10~60°C	Operating Temperature	-10~60°C	Operating Temperature	-10~60°C
Storage temp	-10~70°C	Storage temp	-10~70°C	Storage temp	-10~70°C

S-Parameter

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Freq(MHz)	703	960	1427	1710	2690	3300	4200	5000
S11(dB)	-6.0	-13.9	-6.9	-9.2	-12.7	-14.8	-16.8	-16.1

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3D Gain Total

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
0.703	1.5	-3.1	49
0.74	2.2	-4.0	40
0.78	1.9	-3.2	48
0.84	1.7	-3.8	41
0.88	1.3	-3.9	41
0.894	1.5	-3.5	45
0.92	1.7	-3.9	41
0.96	1.5	-3.7	43
1.427	2.1	-4.0	40
1.452	2.2	-3.5	45
1.47	2.0	-4.0	40
1.496	2.6	-3.5	44

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
1.517	2.3	-3.7	42
1.71	1.2	-3.9	41
1.76	2.0	-3.9	41
1.81	2.5	-3.7	42
1.88	1.7	-3.6	43
1.91	2.1	-3.1	49
1.96	3.3	-3.3	47
2.01	3.3	-3.7	43
2.06	3.5	-3.3	47
2.11	2.6	-3.5	45
2.17	4.0	-2.7	54
2.3	1.0	-2.9	51

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3D Gain Total

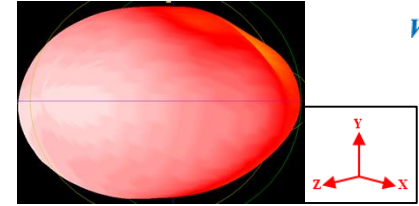
Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
2.35	0.8	-2.8	52
2.4	0.72	-3.4	46
2.45	0.1	-2.9	51
2.5	0.1	-2.7	53
2.55	0.1	-2.9	51
2.6	0.1	-2.8	52
2.65	0.1	-2.7	53
2.69	0.0	-2.7	54
3.3	1.6	-2.5	57
3.4	0.4	-2.5	56
3.5	0.9	-2.4	57
3.6	0.6	-2.3	59

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
3.7	0.5	-2.2	60
3.8	0.1	-2.2	61
3.9	0.5	-1.7	67
4	0.9	-1.9	65
4.1	2.5	-1.8	66
4.2	1.7	-1.8	65

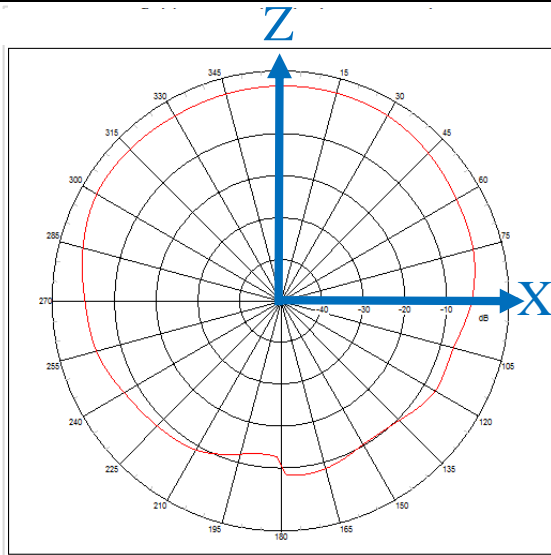
Antenna Pattern

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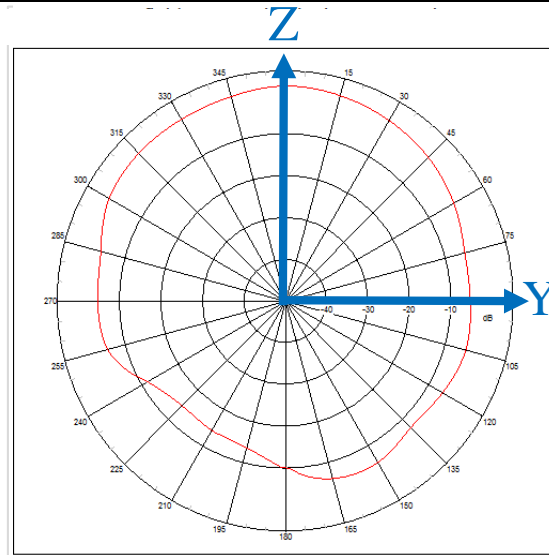
Frequency : 703MHz



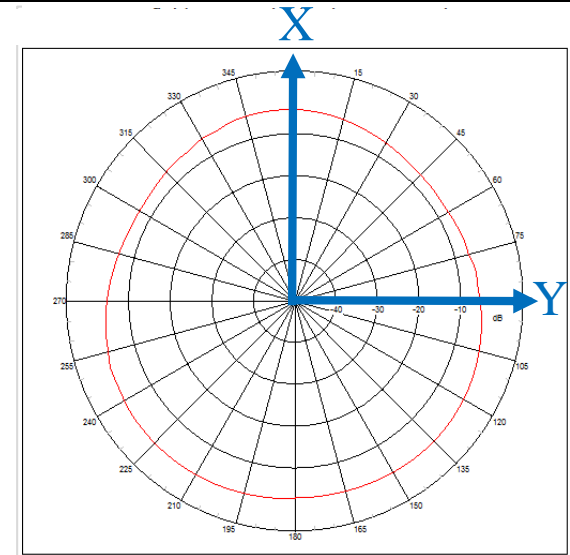
XZ-plane



YZ-plane



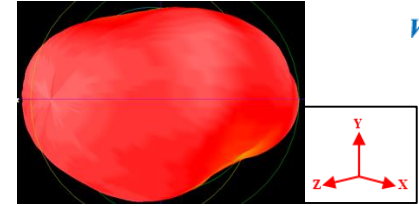
XY-plane



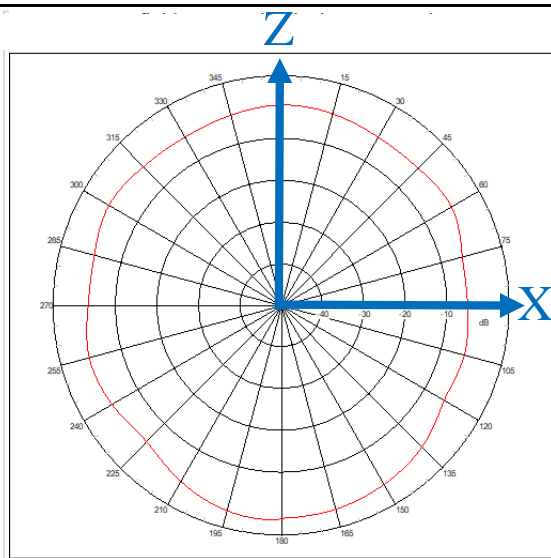
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Antenna Pattern

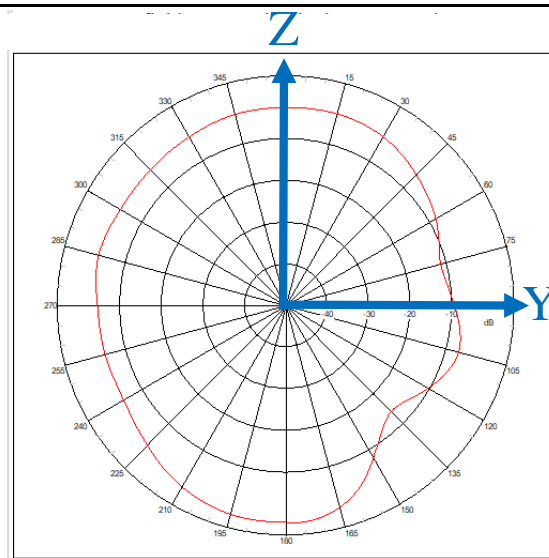
Frequency : 840MHz



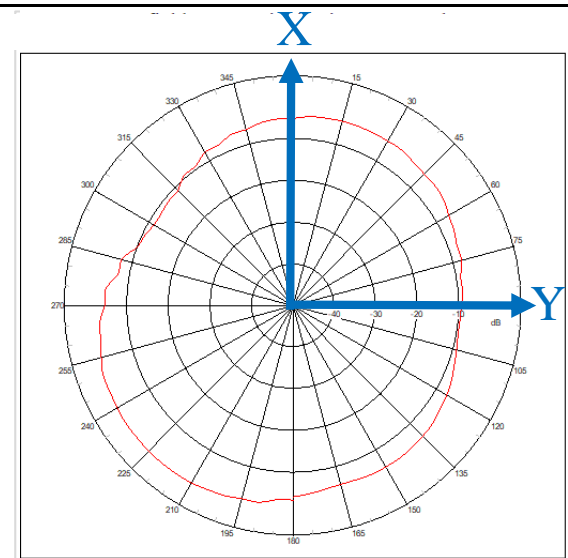
XZ-plane



YZ-plane



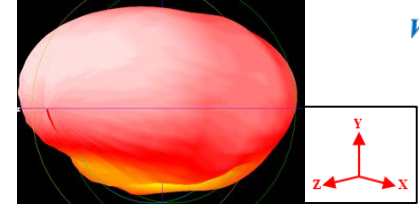
XY-plane



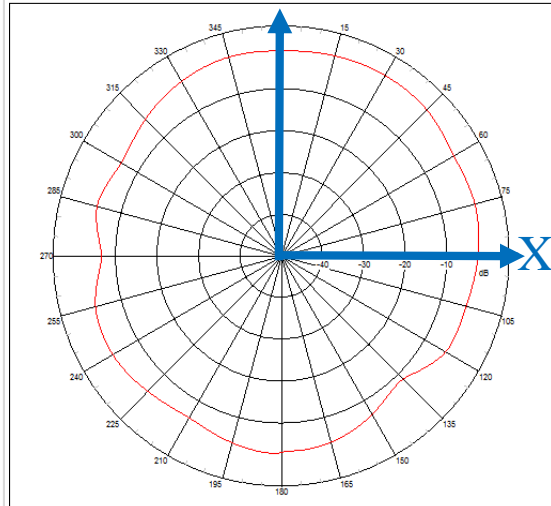
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Antenna Pattern

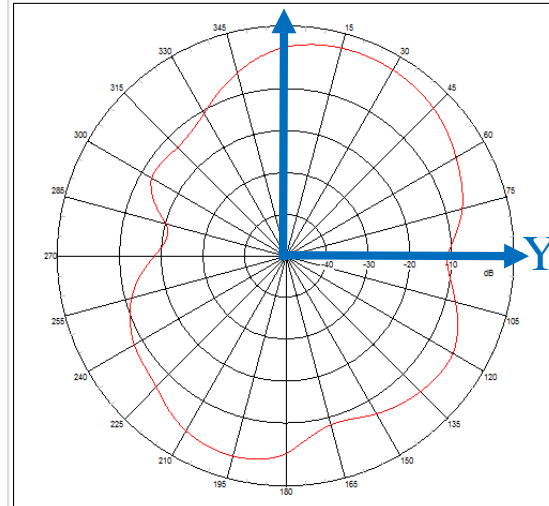
Frequency : 960MHz



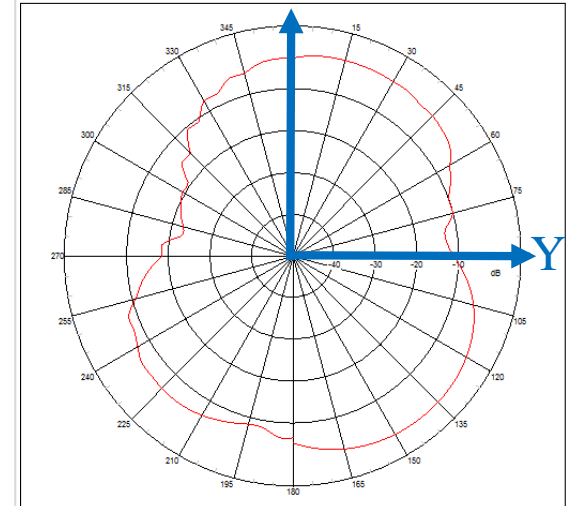
XZ-plane



YZ-plane



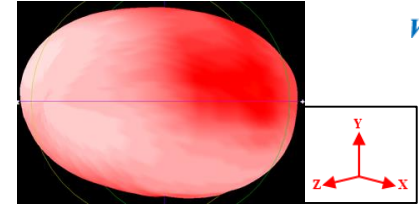
XY-plane



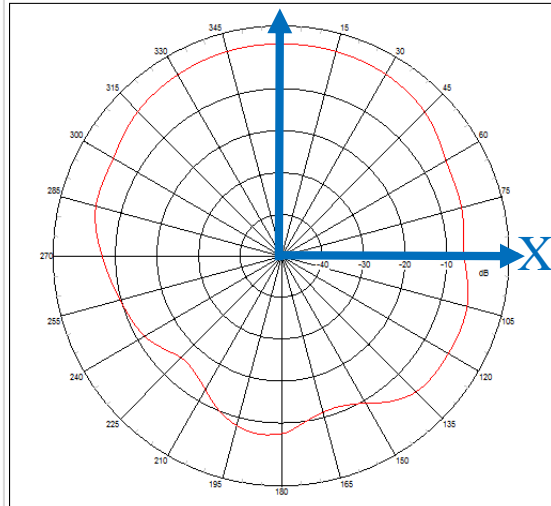
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Antenna Pattern

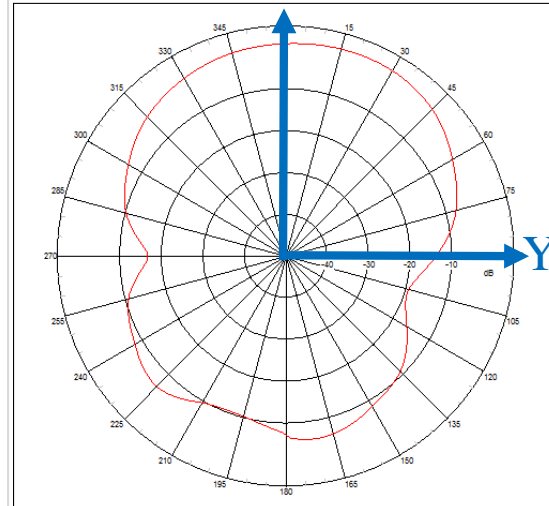
Frequency : 1427MHz



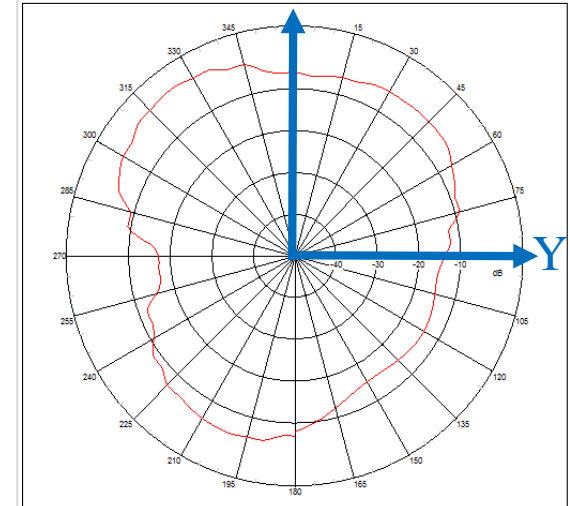
XZ-plane



YZ-plane



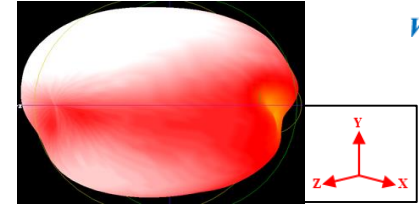
XY-plane



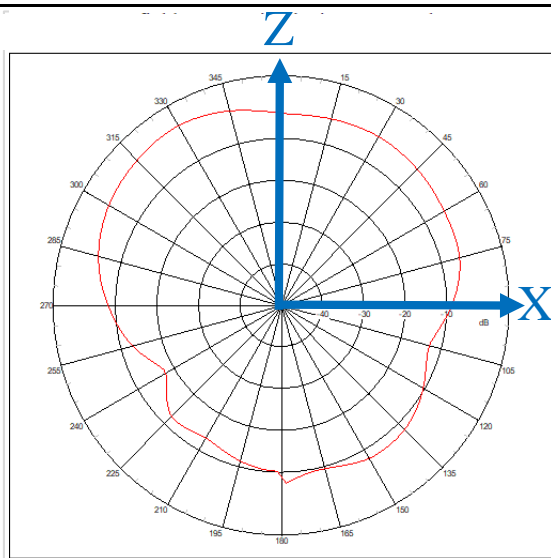
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Antenna Pattern

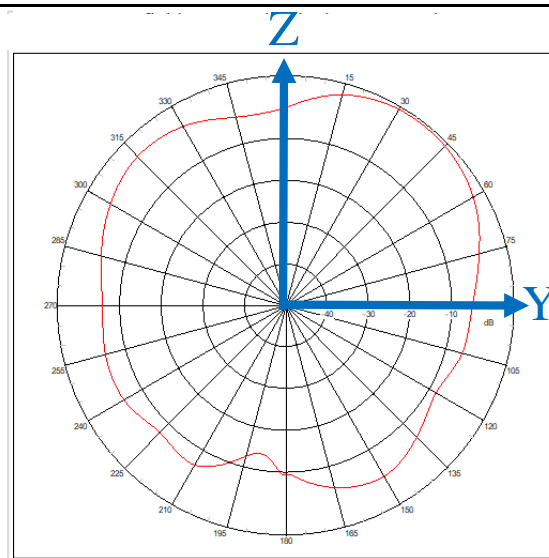
Frequency : 2170MHz



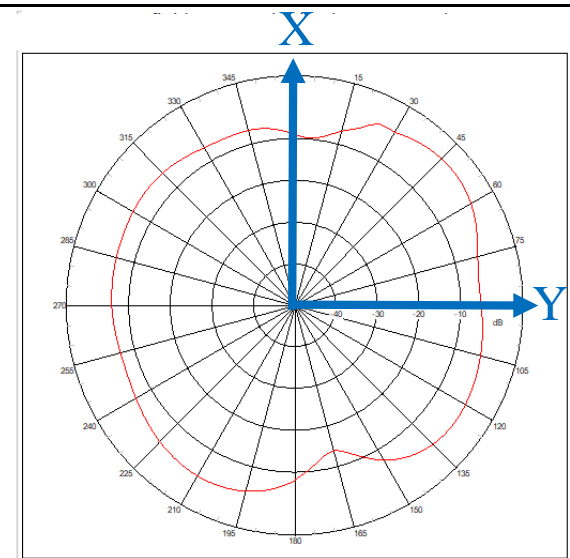
XZ-plane



YZ-plane



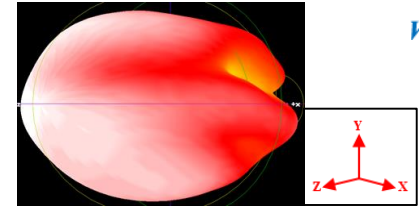
XY-plane



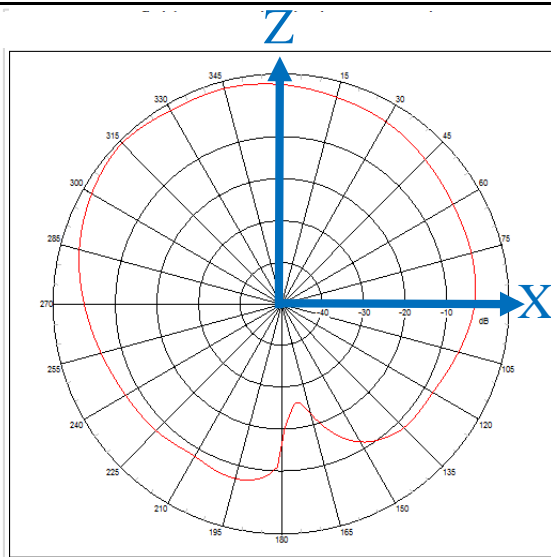
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Antenna Pattern

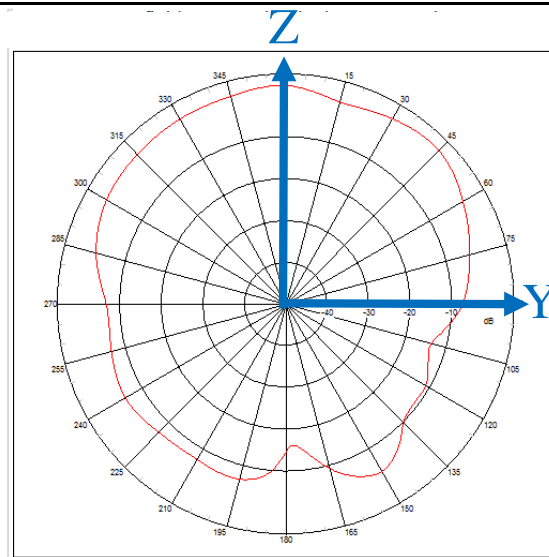
Frequency : 2690MHz



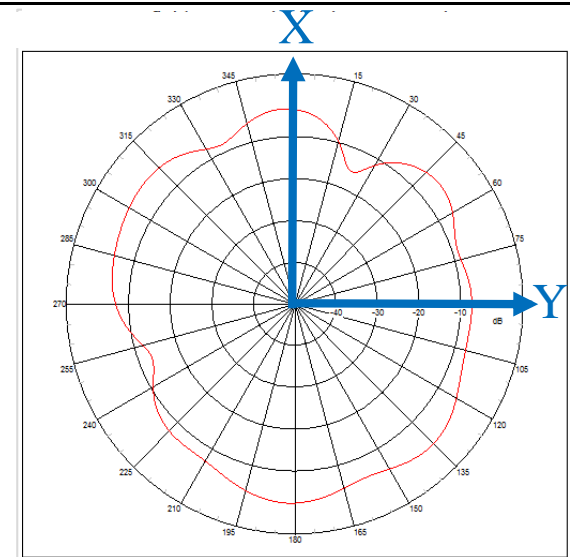
XZ-plane



YZ-plane



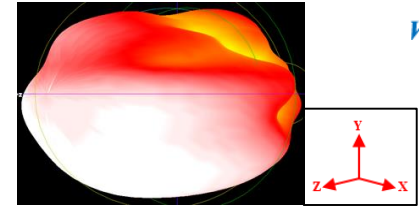
XY-plane



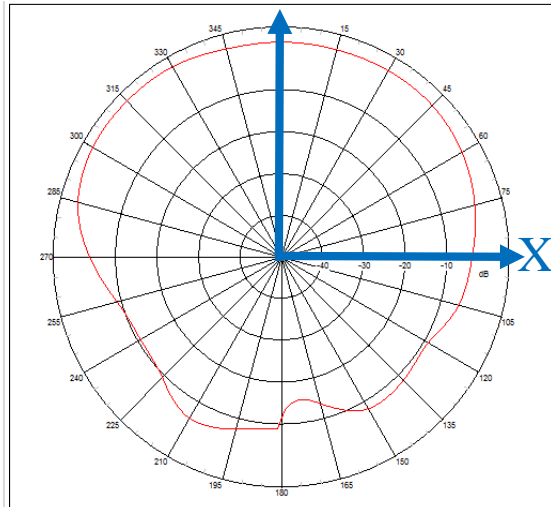
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Antenna Pattern

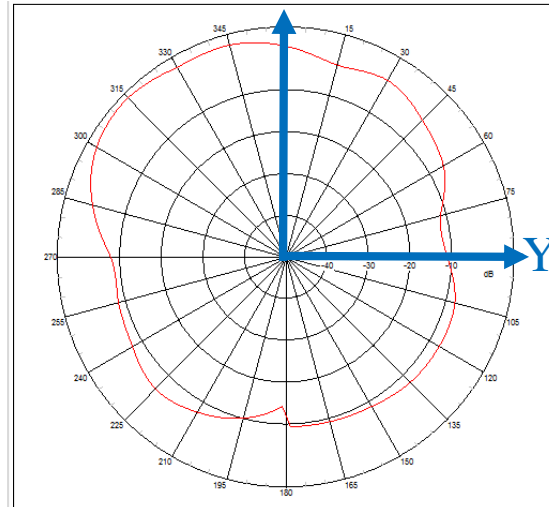
Frequency : 3300MHz



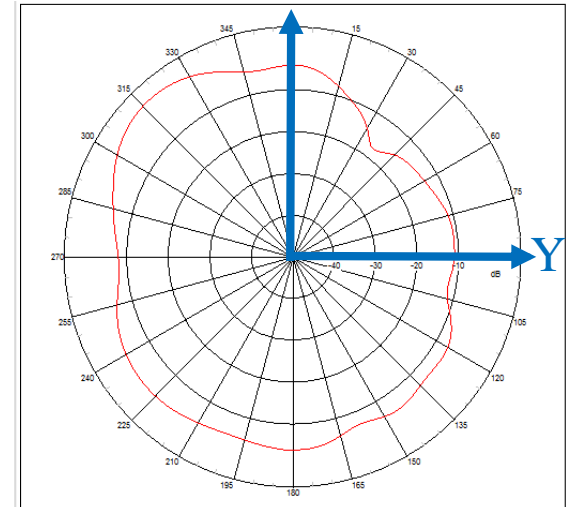
XZ-plane



YZ-plane



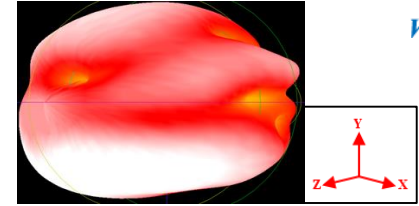
XY-plane



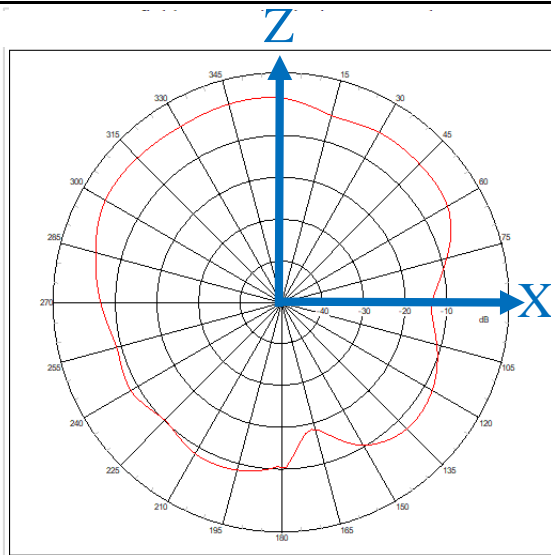
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Antenna Pattern

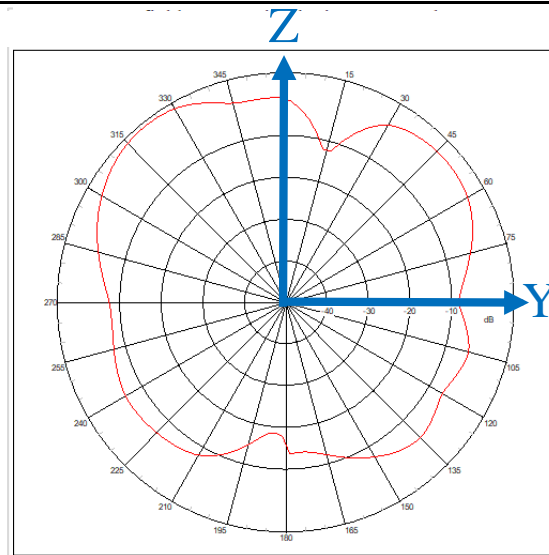
Frequency : 3800MHz



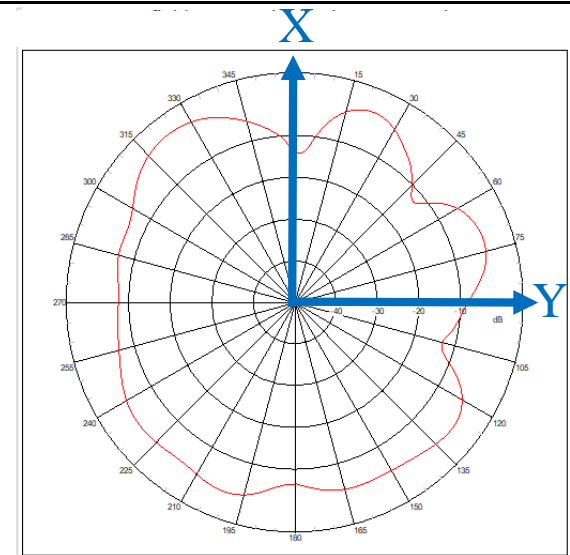
XZ-plane



YZ-plane



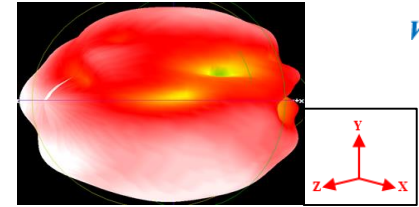
XY-plane



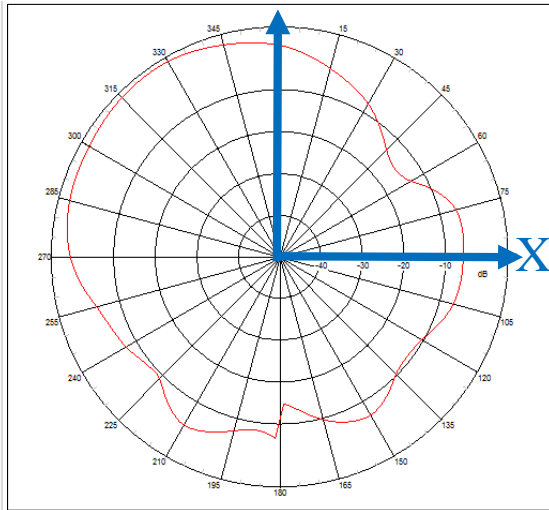
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Antenna Pattern

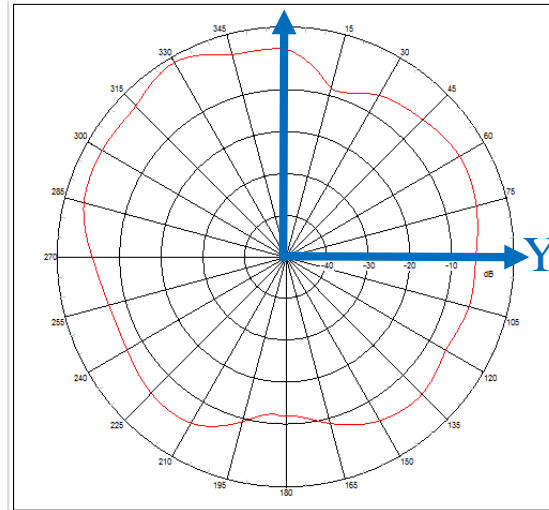
Frequency : 4200MHz



XZ-plane



YZ-plane



XY-plane

