



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

Engineer :Wade

Report date : 2023/04/13



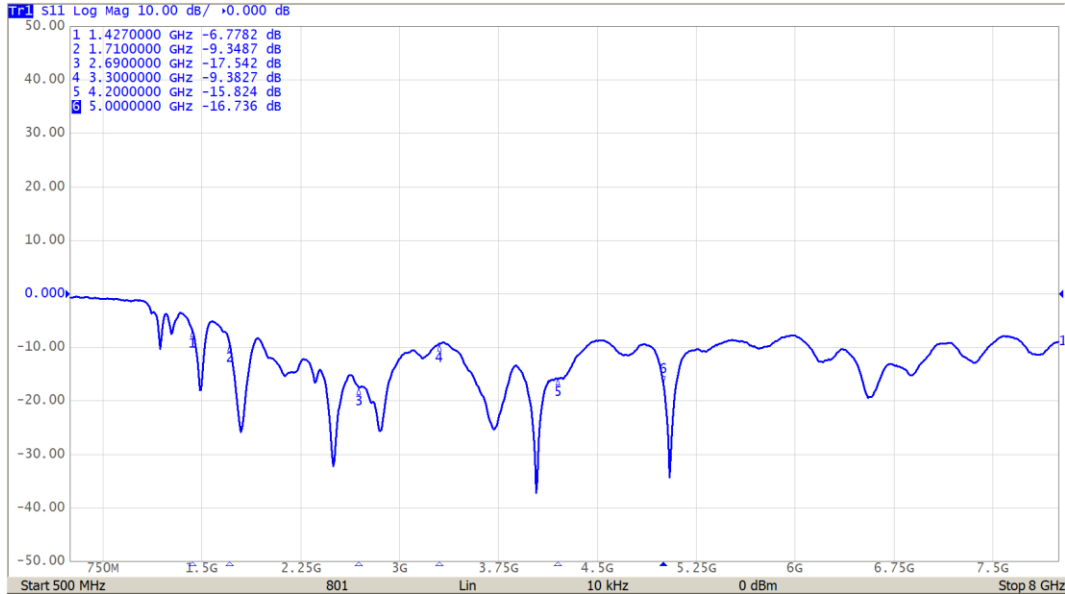
A4

Antenna specification

Item	Specification	Item	Specification	Item	Specification
Operating Frequency(GHz)	1.427-2.69	Operating Frequency(GHz)	3.3-4.2	Operating Frequency(GHz)	4.4-5
Bandwidth	1263 MHz (Min.)	Bandwidth	900 MHz (Min.)	Bandwidth	600 MHz (Min.)
Return Loss	6 dB (Min.)	Return Loss	9 dB (Min.)	Return Loss	9 dB (Min.)
Polarization	Linear	Polarization	Linear	Polarization	Linear
Azimuth Bandwidth	Omni-directional	Azimuth Bandwidth	Omni-directional	Azimuth Bandwidth	Omni-directional
Peak Gain	6.8dBi (Max.)	Peak Gain	4.9dBi (Max.)	Peak Gain	4.6dBi (Max.)
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	2.1 : 1	V.S.W.R	2.1 : 1
Radiation	Omni directional	Radiation	Omni directional	Radiation	Omni directional
Efficiency	56%(Max.)	Efficiency	66%(Max.)	Efficiency	64%(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

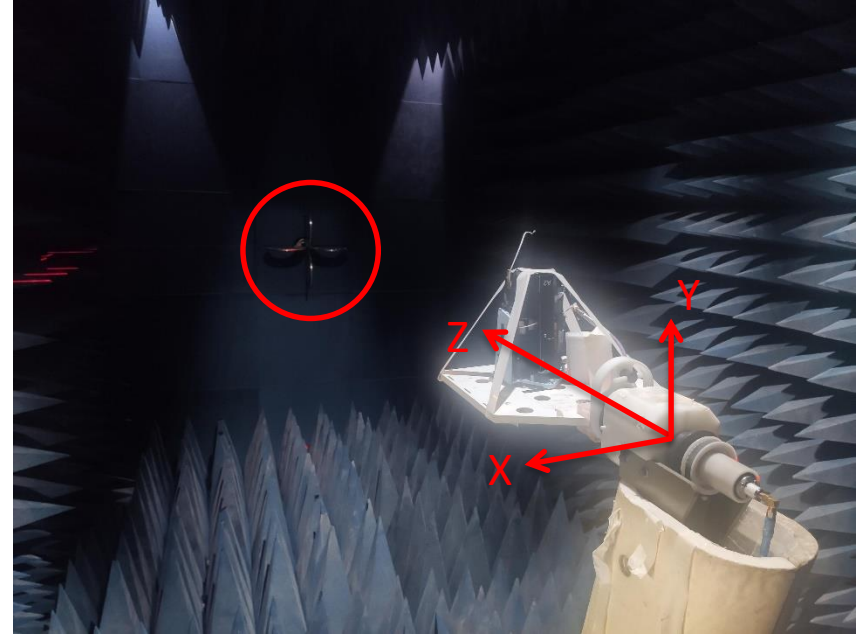
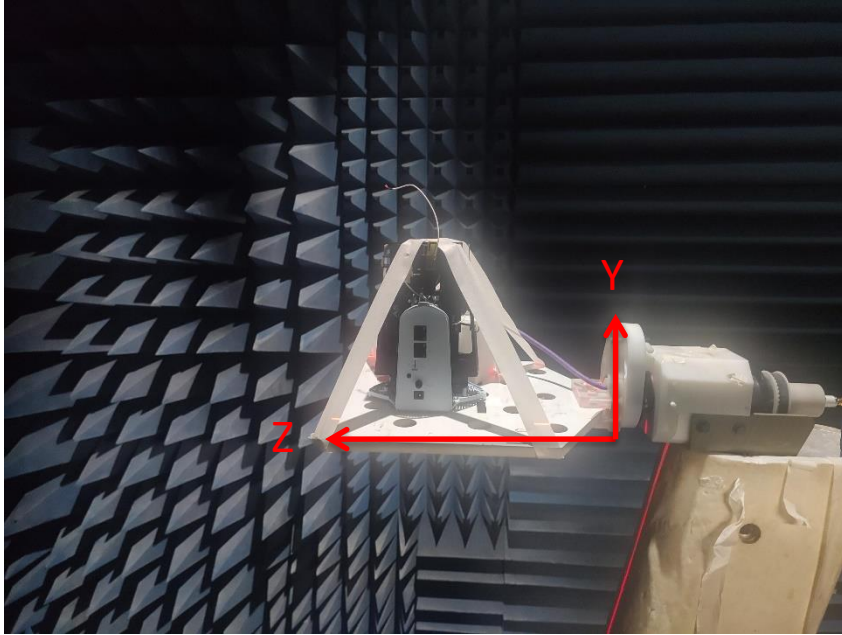
S-Parameter

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

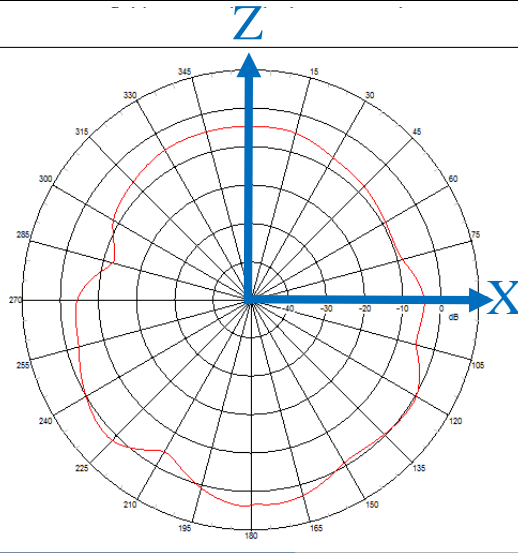
Antenna Pattern

A4

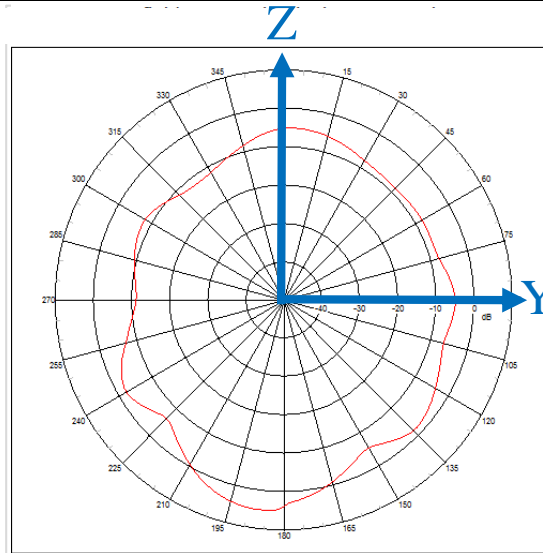
Frequency : 1427MHz

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

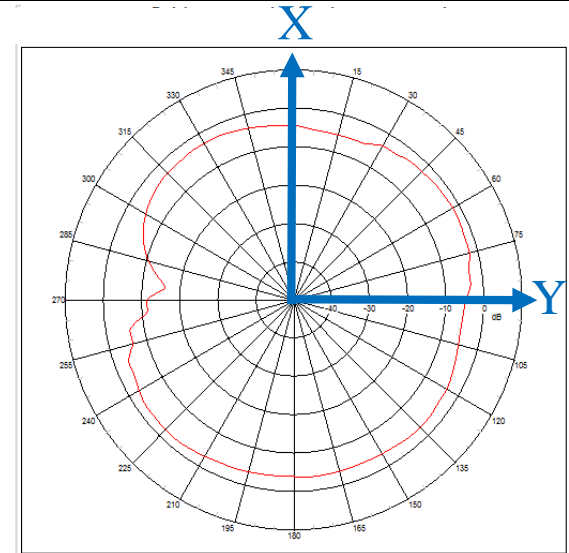
XZ-plane



YZ-plane



XY-plane



Far-field amplitude limits:

Max: 10dB

min: -50dB

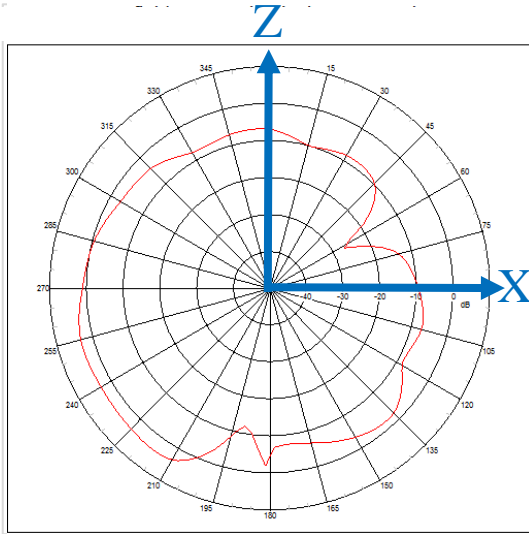
Antenna Pattern

A4

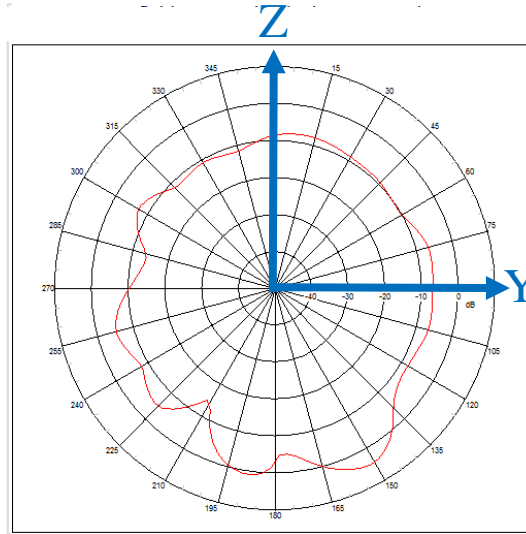
Frequency : 2170MHz

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

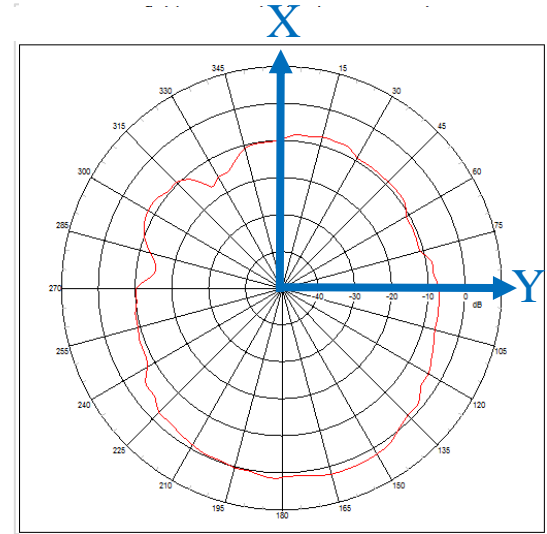
XZ-plane



YZ-plane



XY-plane



Far-field amplitude limits:

Max: 10dB

min: -50dB

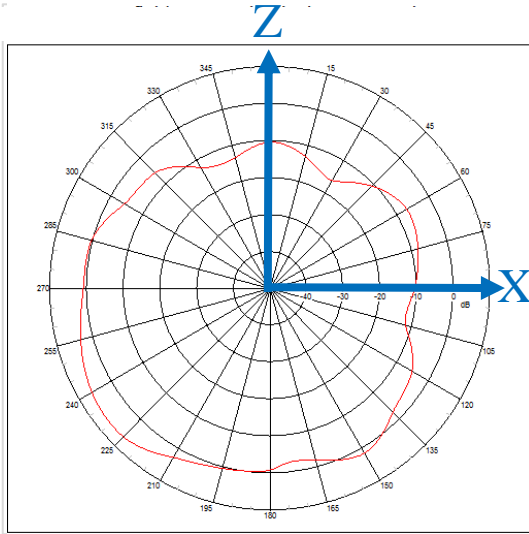
Antenna Pattern

A4

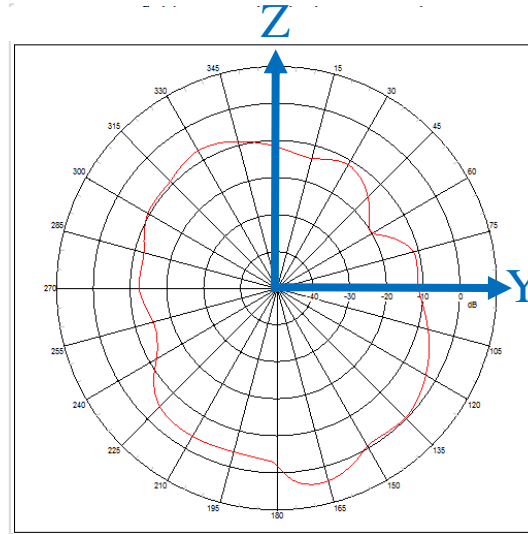
Frequency : 2690MHz

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

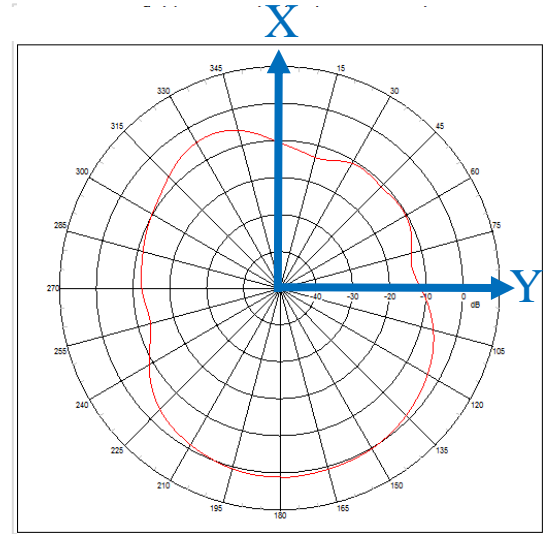
XZ-plane



YZ-plane



XY-plane



Far-field amplitude limits:

Max: 10dB

min: -50dB

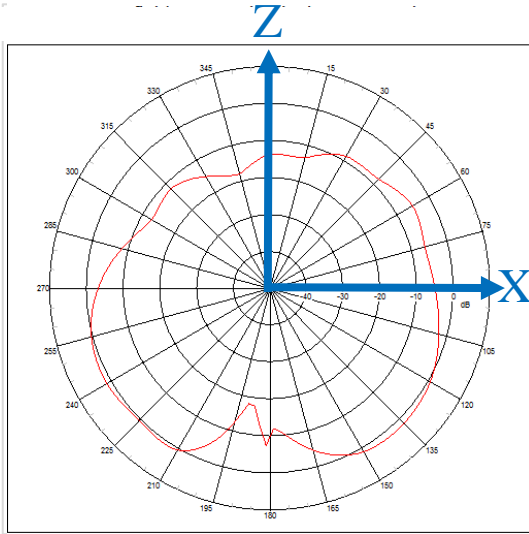
Antenna Pattern

A4

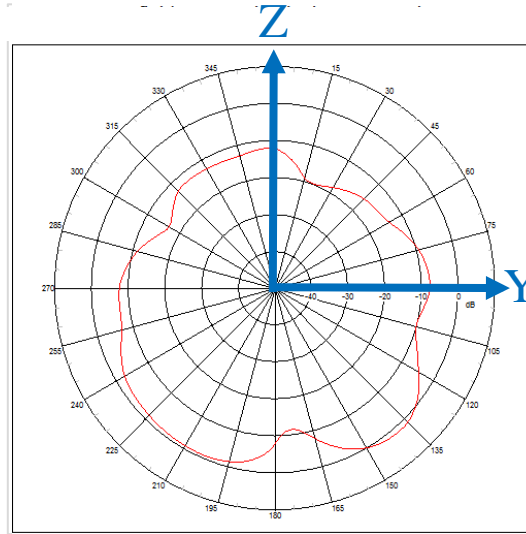
Frequency : 3300MHz

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

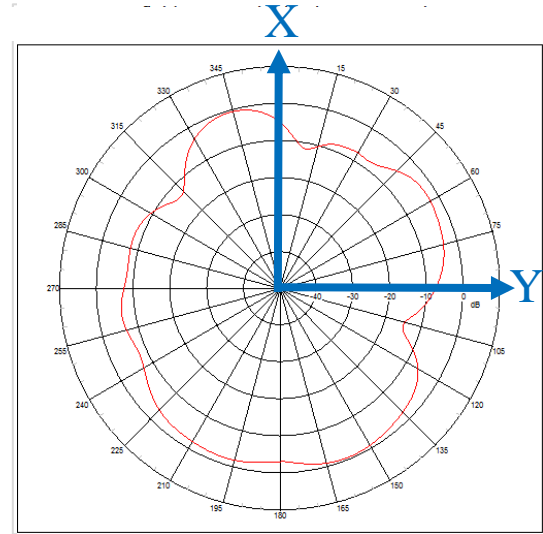
XZ-plane



YZ-plane



XY-plane



Far-field amplitude limits:

Max: 10dB

min: -50dB

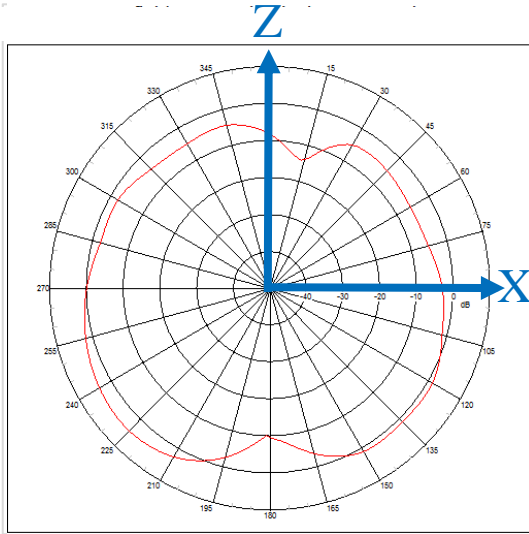
Antenna Pattern

A4

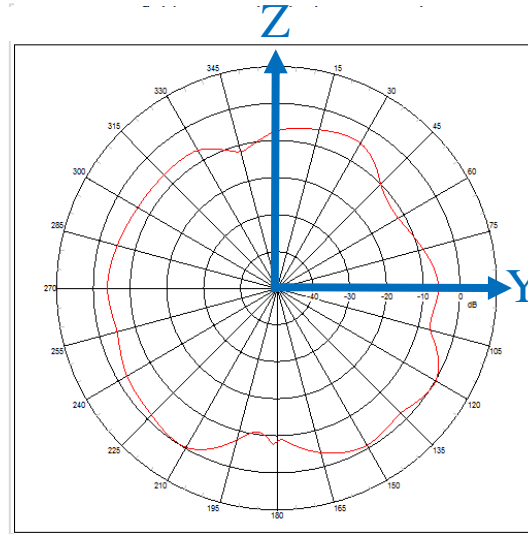
Frequency : 3800MHz

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

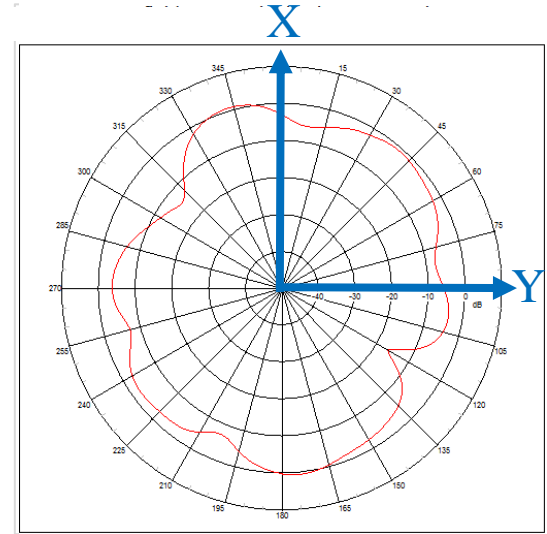
XZ-plane



YZ-plane



XY-plane



Far-field amplitude limits:

Max: 10dB

min: -50dB

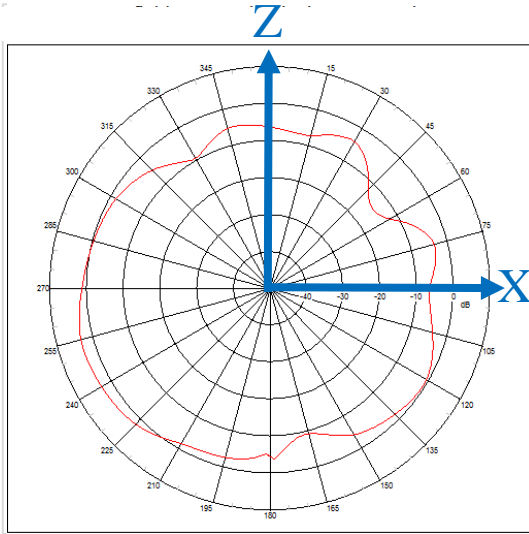
Antenna Pattern

A4

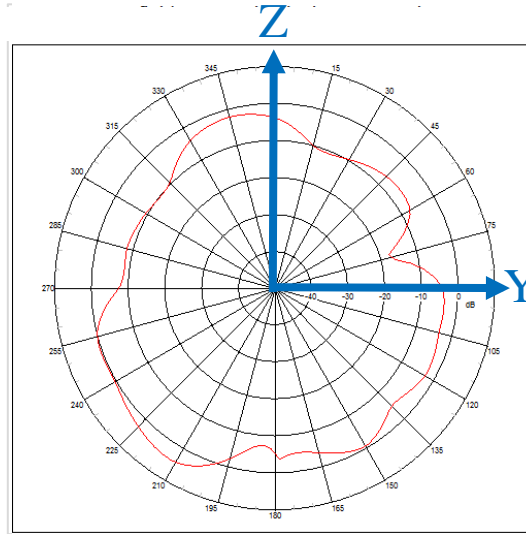
Frequency : 4700MHz

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

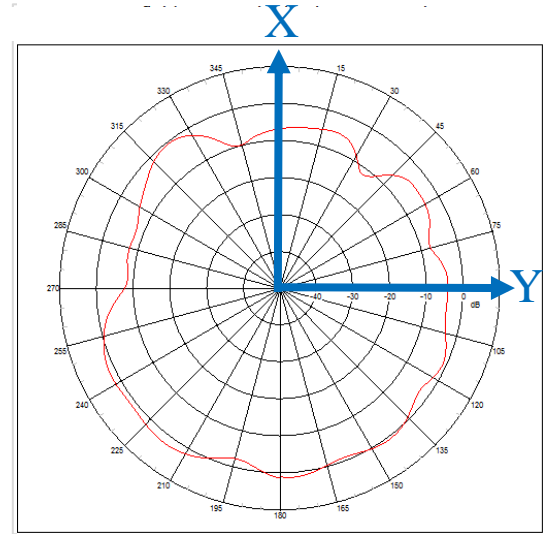
XZ-plane



YZ-plane



XY-plane



Far-field amplitude limits:

Max: 10dB

min: -50dB

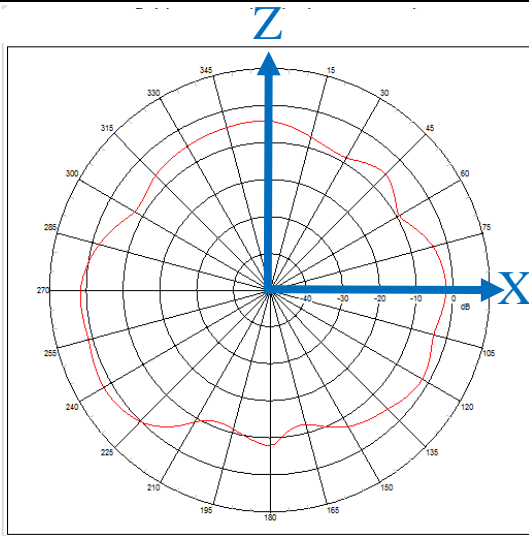
Antenna Pattern

A4

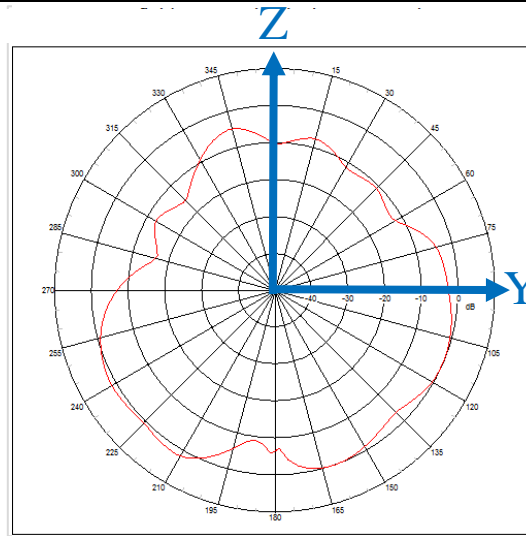
Frequency : 5000MHz

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

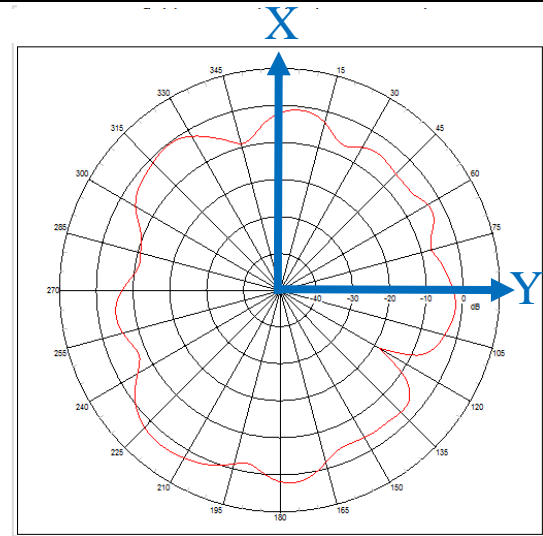
XZ-plane



YZ-plane



XY-plane



Far-field amplitude limits:

Max: 10dB

min: -50dB



創造完美連結

MAKING THE PERFECT CONNECTION

www.wieson.com