



D-Link 530

ARY196-3277-014-00

Only Antenna

2GHz (Peak Gain: 2.55dBi 、
Directional Gain:5.17dBi)

Engineer :Wade

Report date : 2023/04/13



Directional Gain

Directional Gain=

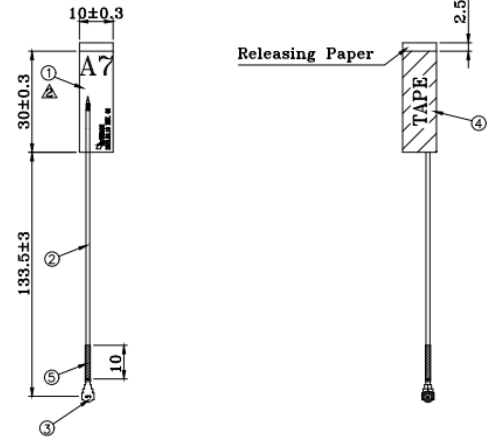
$$10 \log \left[\frac{\left(10^{\frac{G1}{20}} + 10^{\frac{G2}{20}} + \dots + 10^{\frac{Gn}{20}} \right)^2}{N_{ant}} \right] dBi$$

Category	Peak Gain(dBi)	Directional Gain (dBi)
Wi-Fi 2.4G	A6: 1.75 A7: 2.55	5.17

REV	DATE	DESCRIPTION	ECN NO.	NAME
A1	22.11.28	PROPOSAL		LIEF
A2	22.12.26	△ Modify Cable Color		DAVID
A3	23.03.10	△ Modify LAYOUT		LIEF

RoHS Compliant

A
B
C
D
E



CUST NO.:

⑦				WIESON TECHNOLOGIES CO., LTD	PART NO.:	ARY196-3277-014-00
⑥				WIESON		
⑤	H.S TUBE	COLOR : BLACK , L : 10mm△		TITLE:	ANTENNA 7	
④	Tape	G9000 , Size: 9.2 x 29.2mm△	1	DRAWN BY	LIEF(WST)	DRAWING NO. ARY196-3277-014-00
③	Connector	MHF I Plug For 1.37mm Cable , Gold Plated	1	CHECKED BY		DRAWING SIZE A4
②	Cable	1.37mm Low Loss Coaxial Cable , FEP White Jacket △	1	APPROVED BY		UNIT mm
①	PCB	FR-4 , Size: 10 x 30 x 0.8mm△	1			PAGE 1 OF 1
NO.	ITEM	DESCRIPTION	QTY	SORTING NO.	WSC	

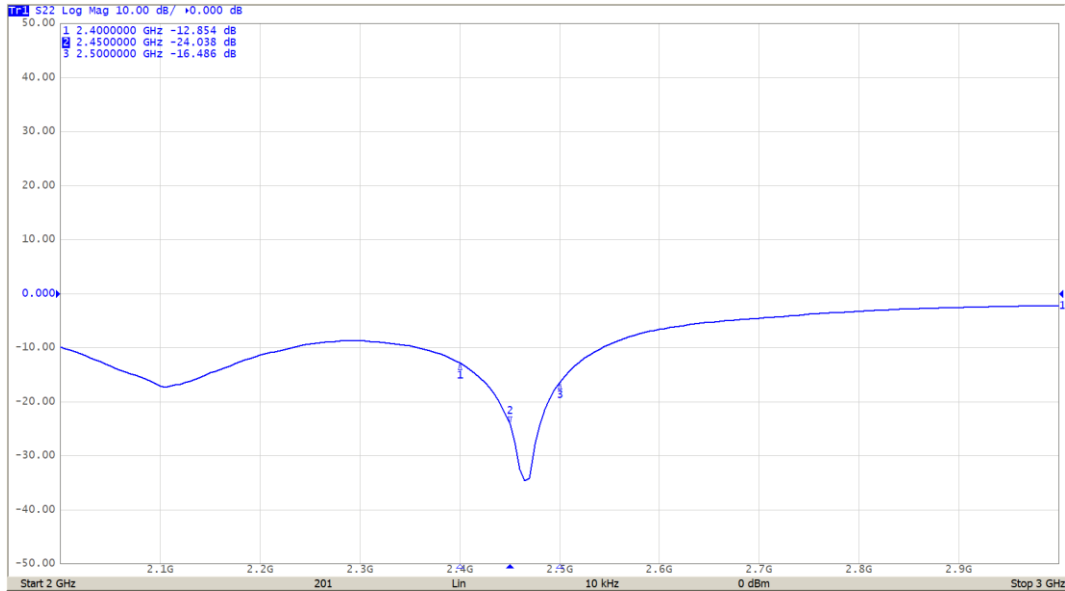
[ARTICLE:SR-83-32 V7]

Antenna specification

Item	Specification
Operating Frequency(GHz)	2.4-2.5
Bandwidth	100 MHz (Min.)
Return Loss	10dB (Min.)
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Peak Gain	2.55dBi (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	57%(Max.)
Operating Temperature	-10~60°C
Storage temp	-10~70°C

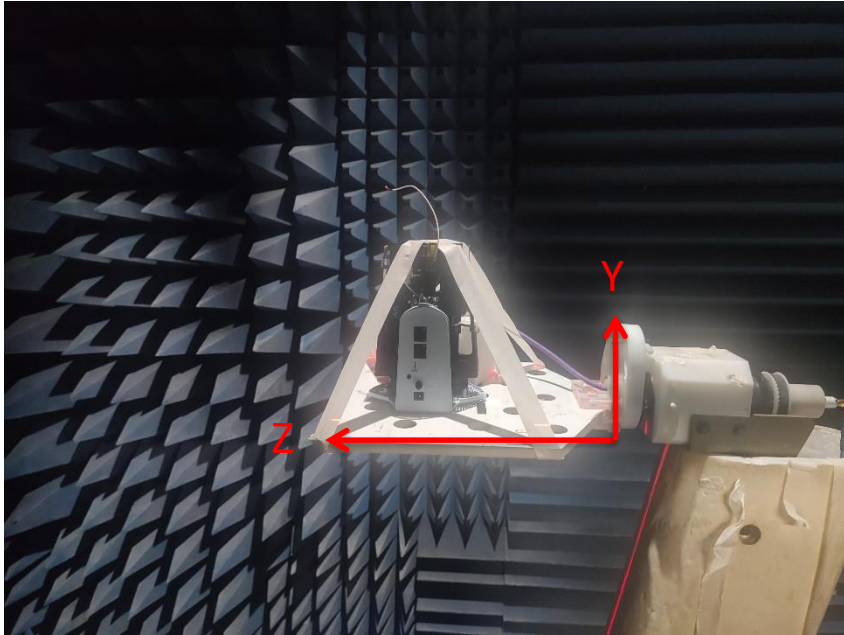
S-Parameter

A7



Freq(MHz)	2400	2450	2500
S11(dB)	-12.8	-24	-16.4

chamber measurement photo



A7

3D Gain Total



Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
2.4	1.84	-2.97	50
2.41	2.01	-2.88	52
2.42	2.22	-2.79	53
2.43	2.33	-2.71	54
2.44	2.47	-2.57	55
2.45	2.55	-2.45	57
2.46	2.44	-2.48	56
2.47	2.36	-2.5	56
2.48	1.99	-2.79	53
2.49	1.81	-2.91	51
2.5	1.73	-2.84	52

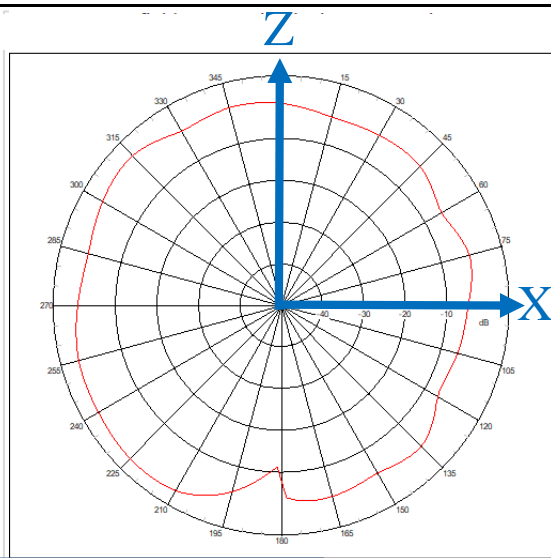
Antenna Pattern

A7

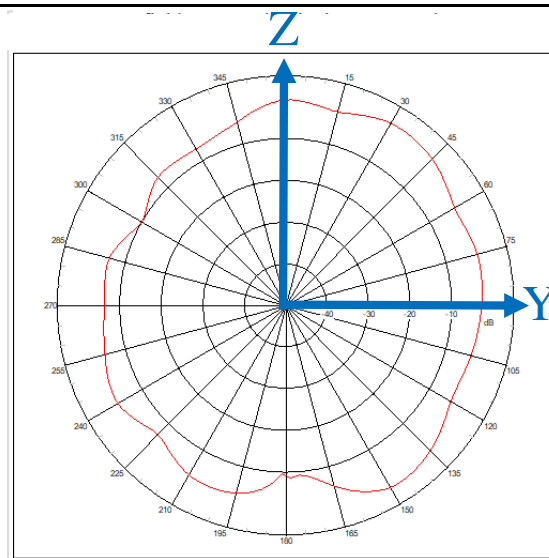
Frequency : 2450MHz

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
2.45	2.55	-2.45	57

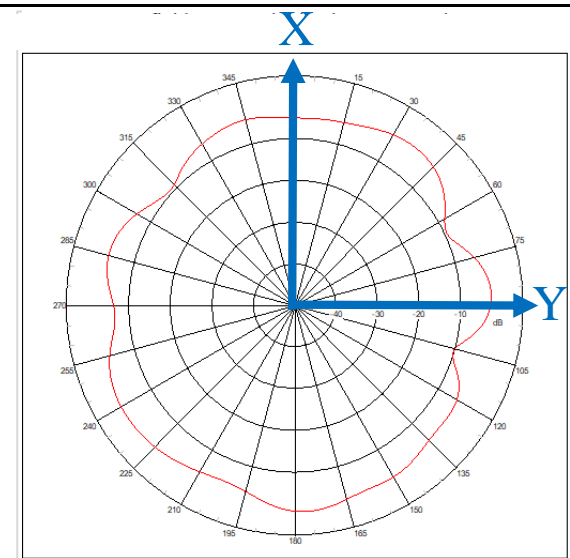
XZ-plane



YZ-plane



XY-plane



Far-field amplitude limits:

Max: 5dB

min: -50dB



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MAKING THE PERFECT CONNECTION

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