

AD-302N

Antenna Approval Sheet

Part Number	R3410110221
Product Number	AD-302N
Description	3dBi/2dBi 2.4G/5GHz Dipole RP-SMA
DOC NO.	AS-1809001

Ver 1.7

Revised History

Version	Purpose	Date	Editor
V1.0	Initial	09/18/2018	Aaron
V1.1	Revised Page6 Pic and Page 8 Gain table	02/15/2019	Kamoro
V1.2	Replaced Page 6 picture	08/16/2019	Kamoro
V1.3	Added Packing Info.	01/03/2020	Kamoro
V1.4	Added Packing Info.	03/19/2020	Kamoro
V1.5	Revised Packing Info.	06/05/2020	Kamoro
V1.6	Revised Specification / Frequency (Page 3)	08/28/2020	Kamoro
V1.7	Added Ant Gain in 5895 GHz (Page 3)	10/04/2022	Christina

SparkLAN		Customer
Sales	PM	Approved by
	Aaron	

Index

1. Features.....	3
2. Specification	3
3. Mechanical Dimensions	3
4. Antenna Testing System.....	4
5. Antenna under testing.....	5
6. Antenna Placement.....	6
7. ANT S-Parameter, VSWR & Smith Chart	7
8. Gain Table	8
9. Ant 2.4G 2D&3D Gain pattern.....	9
10. Ant 5G 2D&3D Gain pattern	11
11. Packing information	13



Model No : AD-302N

Part Number : R3410110221

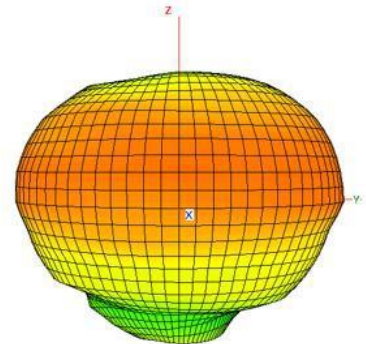
802.11 a/b/g/n/ac AP/Router external dipole antenna

Features

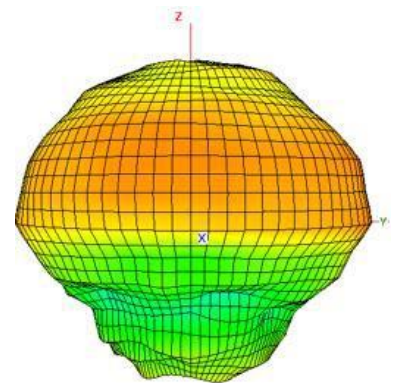
- Dual band IEEE 802.11 a/b/g/n/ac standard
- High efficiency
- Quick integration

Specification

Frequency (MHz)	2400 - 2483	5150 - 5895
Peak Gain (dBi)	3.0 ± 0.5	2.0 ± 1
VSWR	≤ 2.0	≤ 2.0
Power (Watts)	1	1
Impedance (Ohms)	50	50
Dimension (mm)	109 x \varnothing 7.9	
Weight (g)	9.5 ± 2 g	
Connector	SMA Male RP	
Polarization	Liner ; Vertical	
Operating Temp (°C)	$-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$	

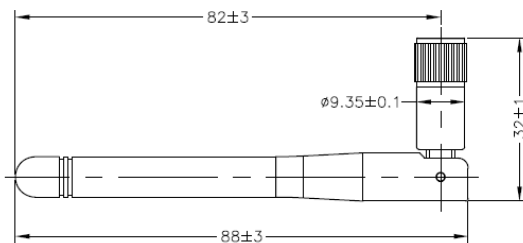
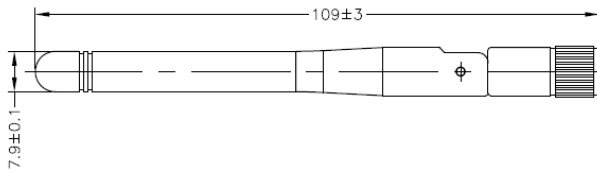


2.45GHz



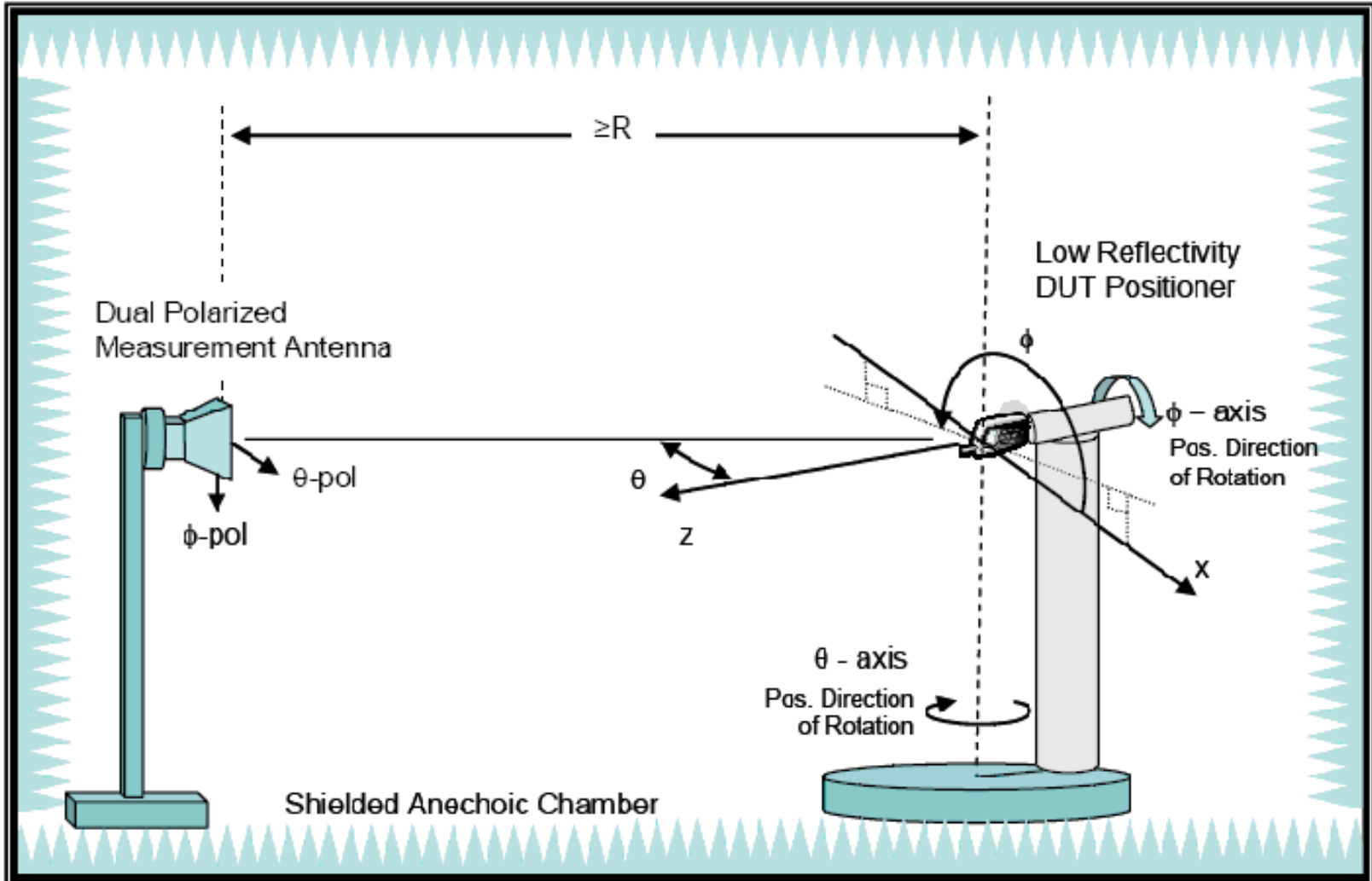
5GHz

Mechanical Dimensions



Manufacture: Lynwave Technology Ltd.

Manufacturer address: 5F., No. 655, Xuecheng Rd., Shulin Dist., New Taipei City, 238701, Taiwan

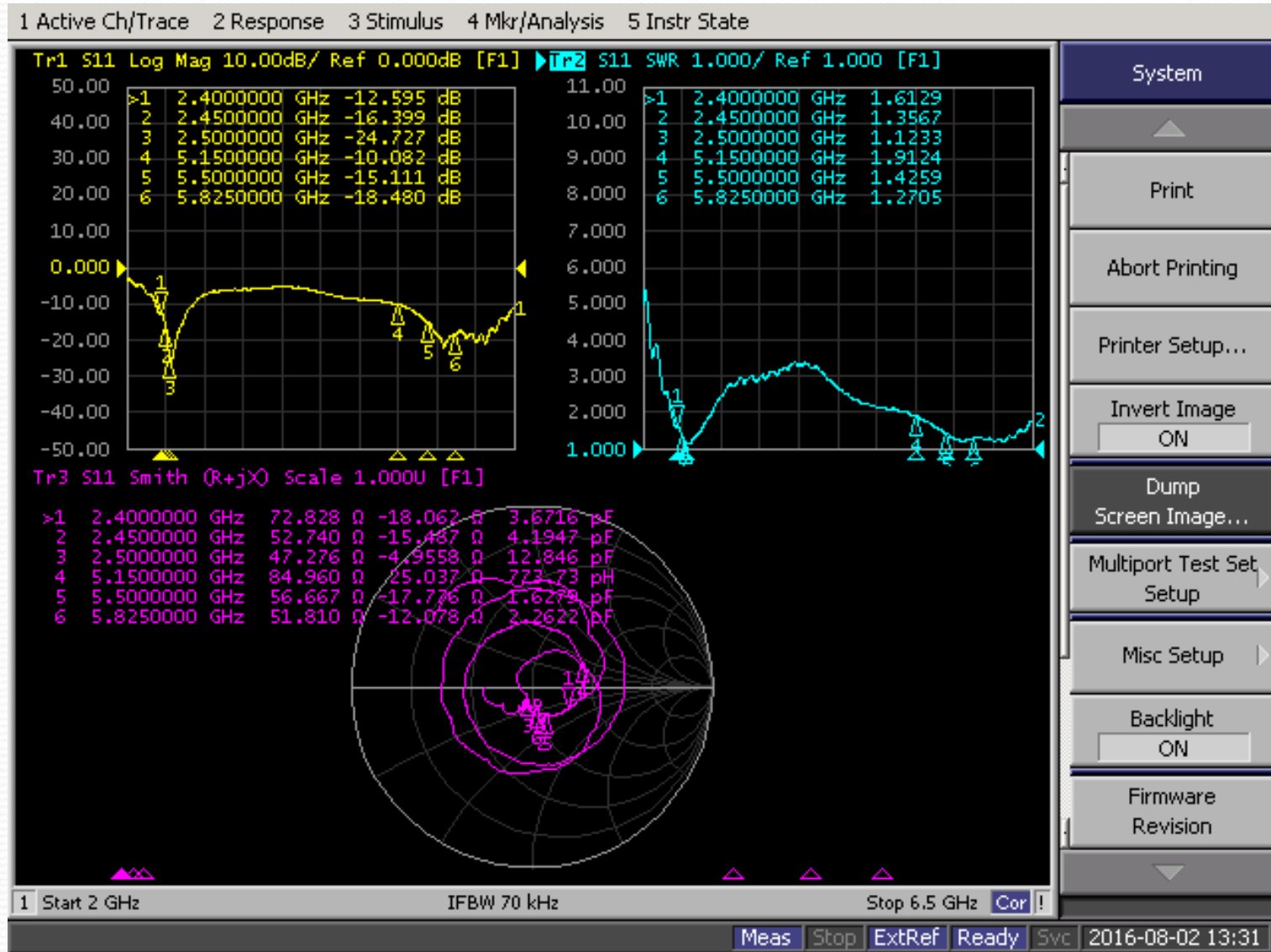


Antenna under testing



Antenna Placement

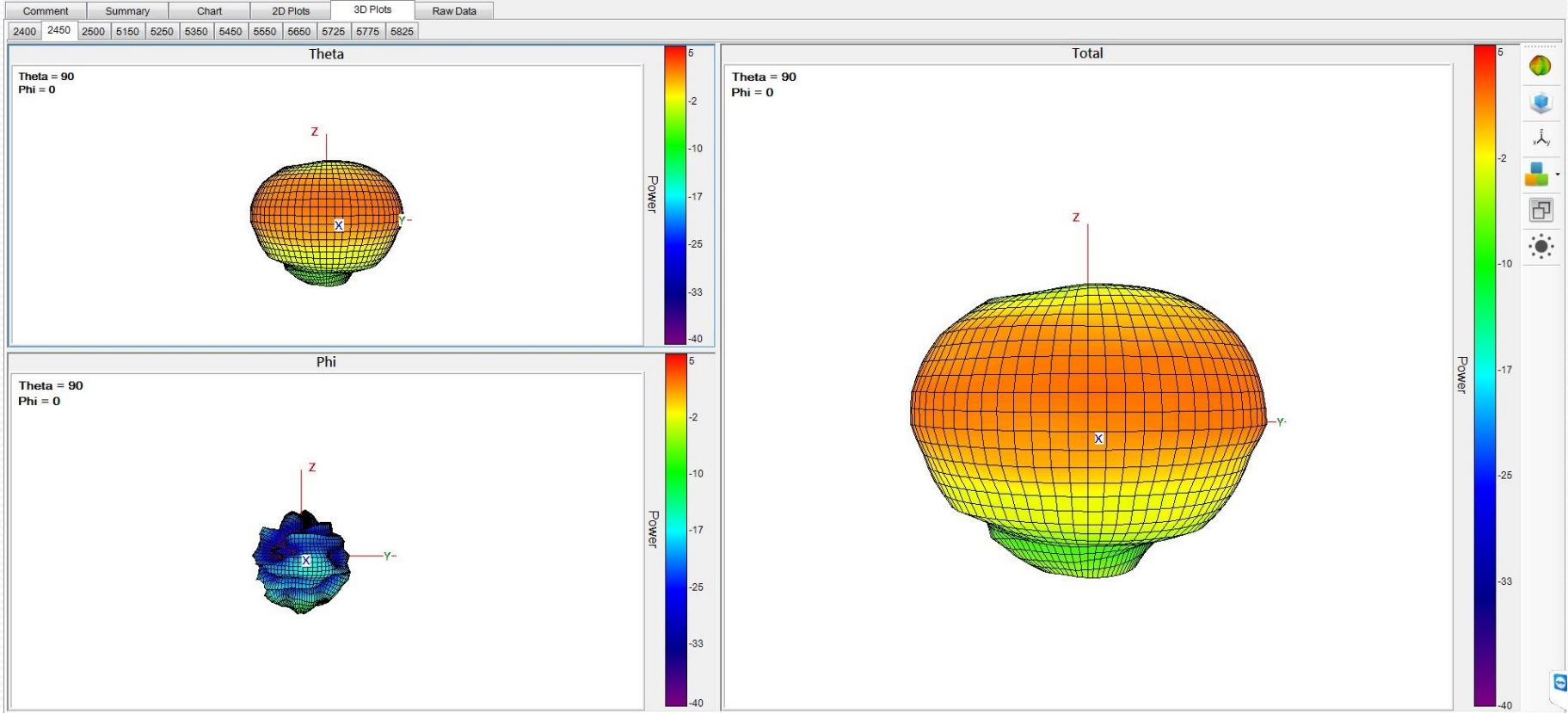




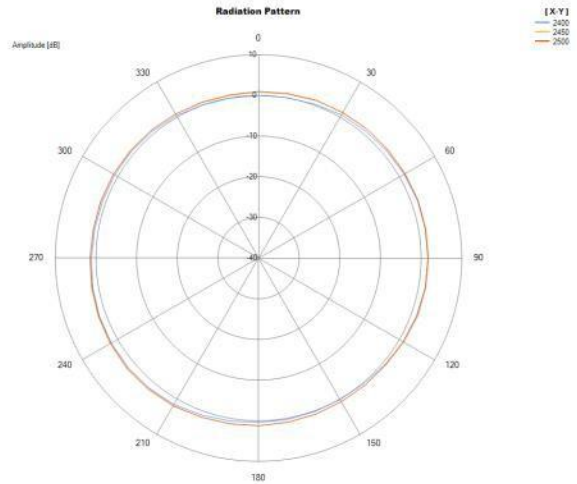
Gain Table

Ant												
Frequency (MHz)	2400	2450	2500	5150	5250	5350	5450	5550	5650	5725	5775	5895
Efficiency (dB)	-1.66	-1.24	-1.22	-1.86	-1.52	-1.51	-1.63	-2.13	-2.14	-2.08	-2.17	-2.19
Peak Gain (dBi)	2.89	3.14	2.95	2.5	2.74	2.67	2.87	2.73	2.56	2.35	2.27	1.63
Efficiency (%)	68.24	75.09	75.56	65.16	70.48	70.68	68.67	61.21	61.07	61.9	60.64	60.41

Ant 2.4G 3D Gain pattern

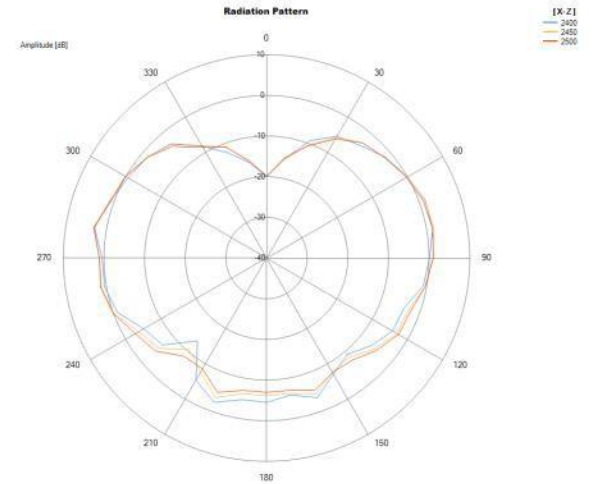


Ant 2.4G 2D Gain pattern



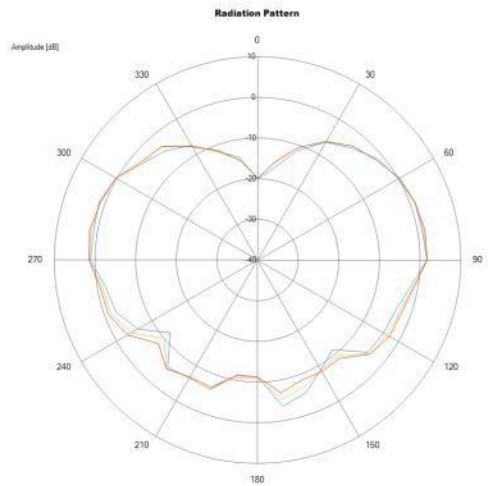
X-Y

Antenna radiation pattern analysis for the X-Y plane. The plot shows a circular radiation pattern with a maximum gain of approximately 2500 dBm. The gain is consistent across all angles, indicating omnidirectional coverage in this plane.



X-Z

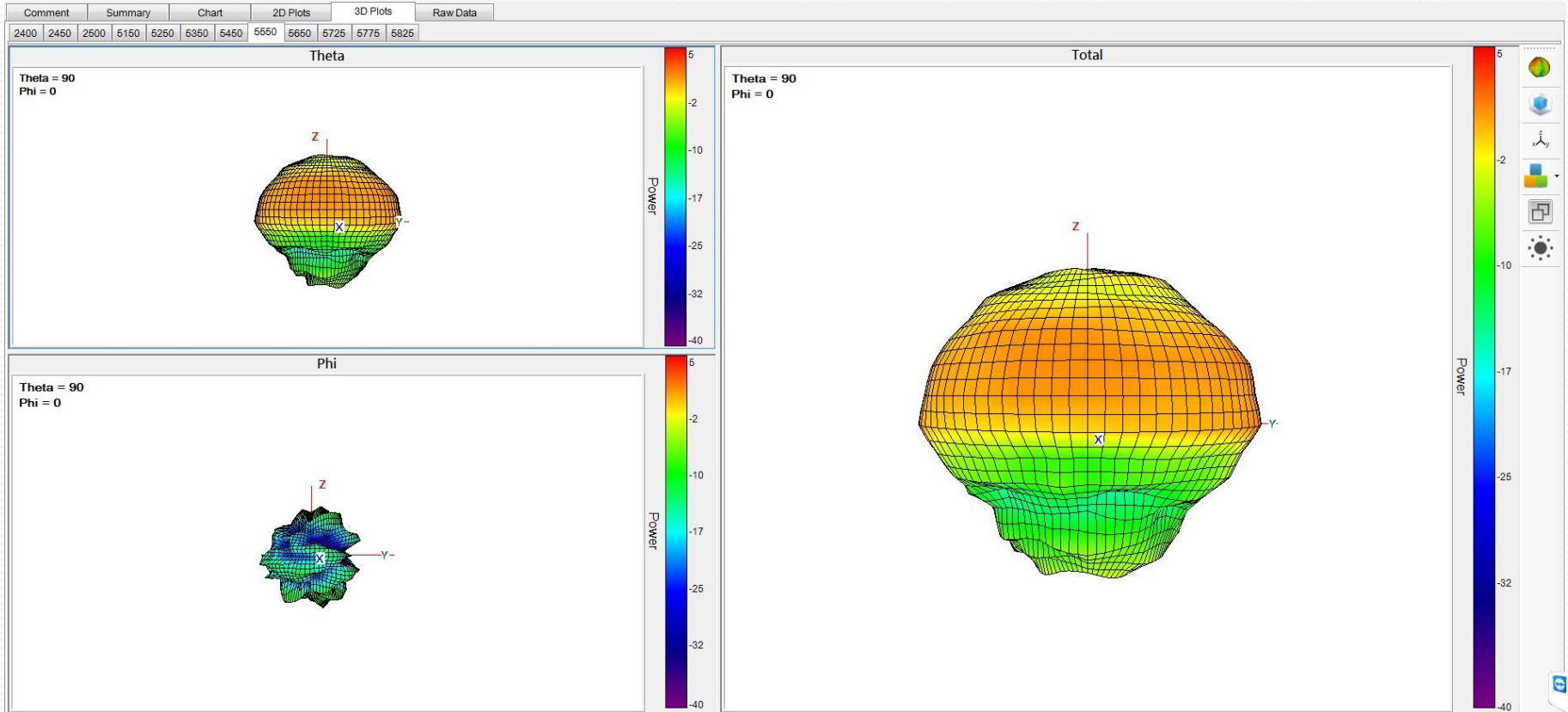
Antenna radiation pattern analysis for the X-Z plane. The plot shows a directional radiation pattern with a maximum gain of approximately 2500 dBm. The main lobe is centered at 0 degrees, and the side lobes are significantly lower in gain, indicating a focused beam in this plane.



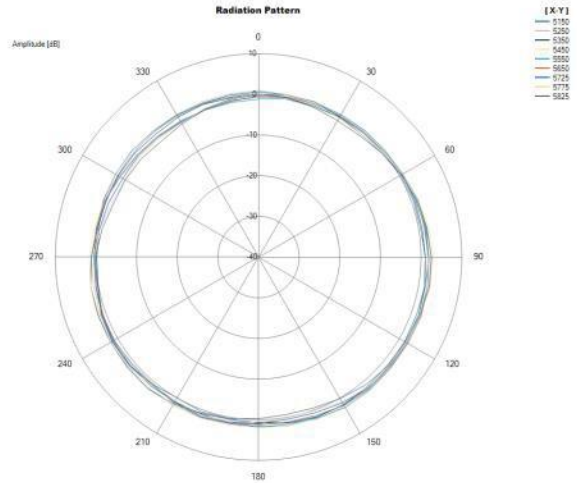
Y-Z

Antenna radiation pattern analysis for the Y-Z plane. The plot shows a directional radiation pattern with a maximum gain of approximately 2500 dBm. The main lobe is centered at 0 degrees, and the side lobes are significantly lower in gain, indicating a focused beam in this plane.

Ant 5G 3D Gain pattern

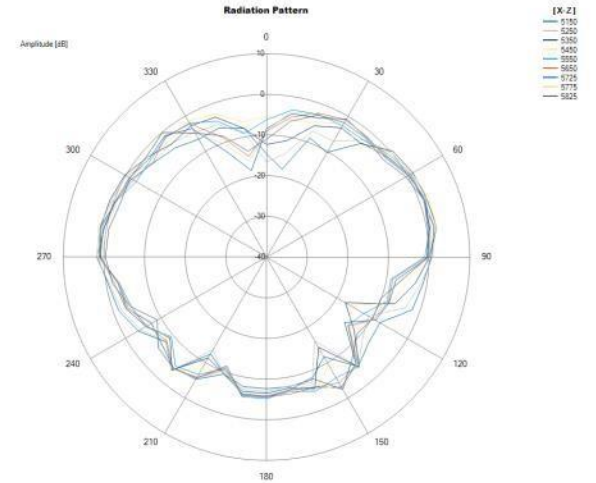


Ant 5G 2D Gain pattern

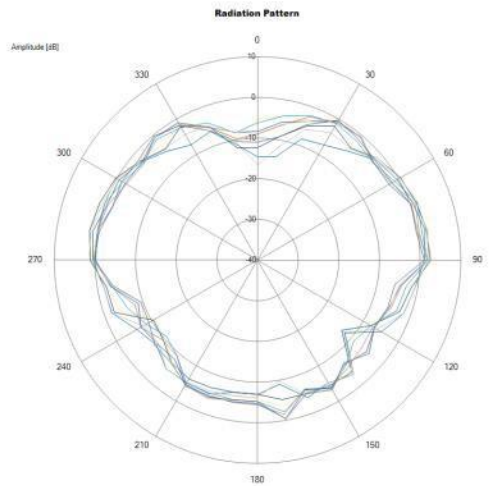


X-Y

5G NR 5.0 GHz band (5150-5850 MHz) radiation pattern. The plot shows the gain in dBi versus angle for various frequencies. The gain is generally high and consistent across the measured angles, indicating a well-designed omnidirectional antenna.



X-Z



Y-Z

包裝規範書

產品名稱	AD-302N	客戶名稱		產品名稱	
產品料號	R3410110221	客戶料號		製作日期	2020/5/27

產品包裝說明:

單個產品

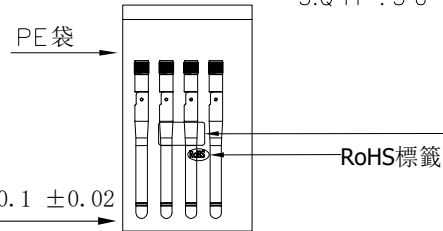


內袋包裝說明:

1. PE袋厚 0.1mm, 每PE袋裝入30pcs產品.
2. 每袋需貼1pc內袋標籤(PE袋正中間) 以及1pcRoHS標籤, RoHS標籤需粘貼在內袋標籤的正下方位置.

PE 袋單邊厚度 0.1 ± 0.02

內袋包裝



標籤說明:

1. Company : SparkLAN Communications, Inc.
2. Model Name : AD-302
3. Description : Dipole Antenna, 3dBi/2dBi 2.4G/5GHz, RP-SMA(M) connector
4. Part NO : R3410110221
5. Q'TY : 30 PCS

Company	SparkLAN Communications, Inc.
Model Name	AD-302
Description	Dipole Antenna, 3dBi/2dBi 2.4G/5GHz, RP-SMA(M) connector
Part NO	R3410110221
Q'TY	30 PCS

內袋標籤

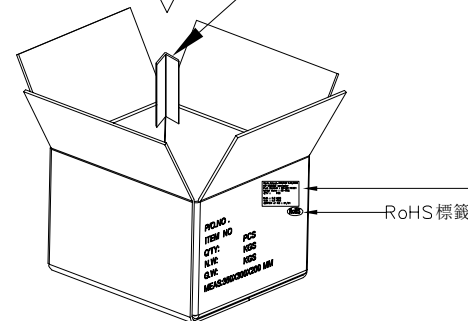
Pack full: 30pcs/ Bag



底層與頂層需放各1PCS平卡

四個角需各放1pc護角紙

外箱包裝



Dipole Antenna, 3dBi/2dBi 2.4G/5GHz, RP-SMA(M) connector	
Part Number: R3410110221	
Model No.: AD-302N	
Q'TY: 30 PCS	
N.W: 0.3 KGS	
G.W: 0.5 KGS	
CARTON of NO: 01 / 01	
Rt. No. 287, Sec. 2, Tung Hsing, Hsichu District, Taipei 11493, Taiwan	
Made in Taiwan	

外箱標籤

外箱包裝說明:

1. 紙箱底層與頂層需各放1pc平卡, 紙箱四個角需各放1pc護角紙.
2. 外箱需貼1pc外箱標籤(規格尺寸面) 右上角位置.
3. RoHS標籤需外箱標籤右下角外置.
4. 紙箱尺寸: 長350mm*寬300mm*高200mm.
5. 每箱裝34袋產品, 共計裝1020pcs產品.
6. 箱內若有空隙需用填充材填實, 避免晃動.
7. 實際包裝會依出貨數量進行調整.