

# 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	

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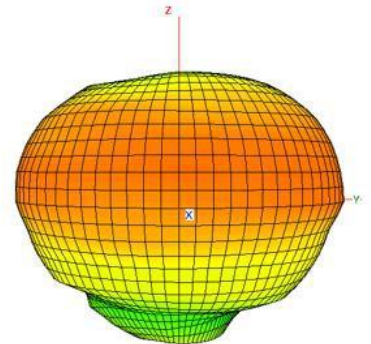
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### Features

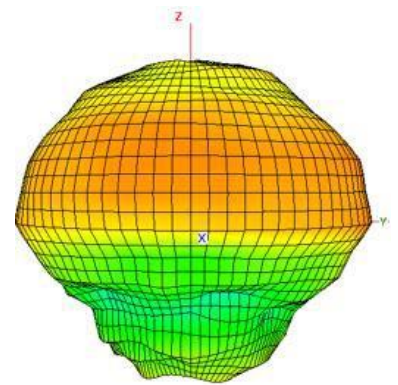
- Dual band IEEE 802.11 a/b/g/n/ac standard
- High efficiency
- Quick integration

### Specification

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

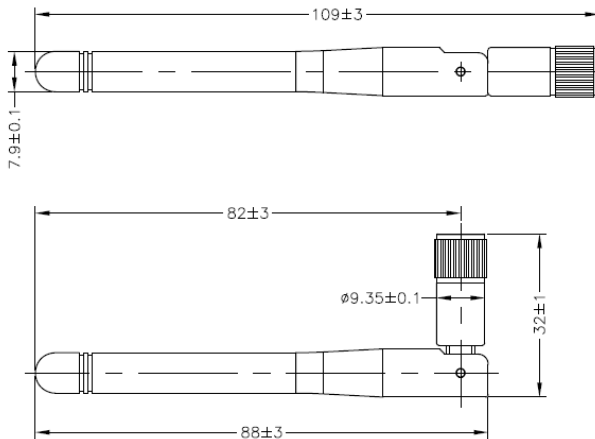


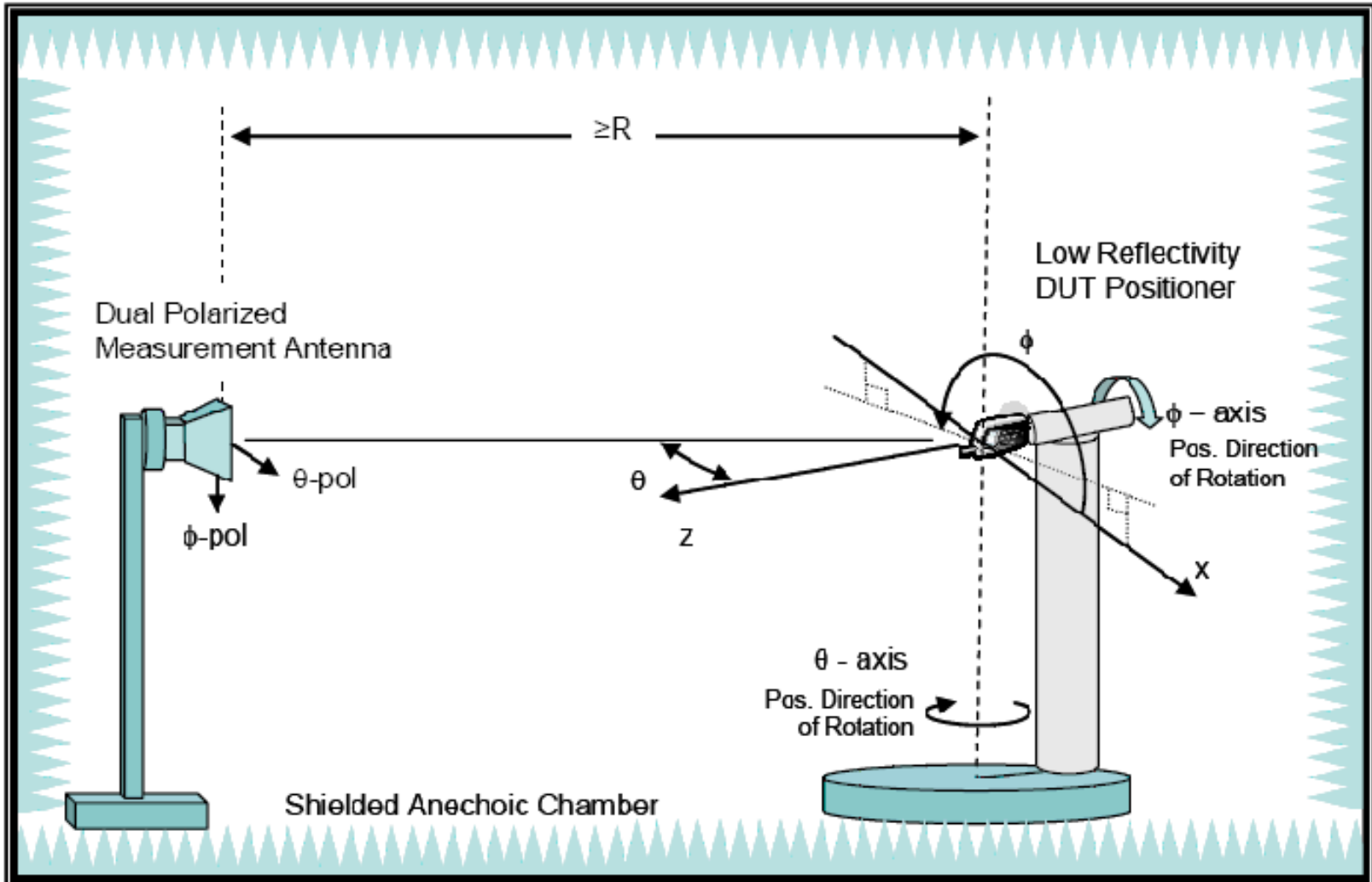
**2.45GHz**



**5GHz**

### Mechanical Dimensions



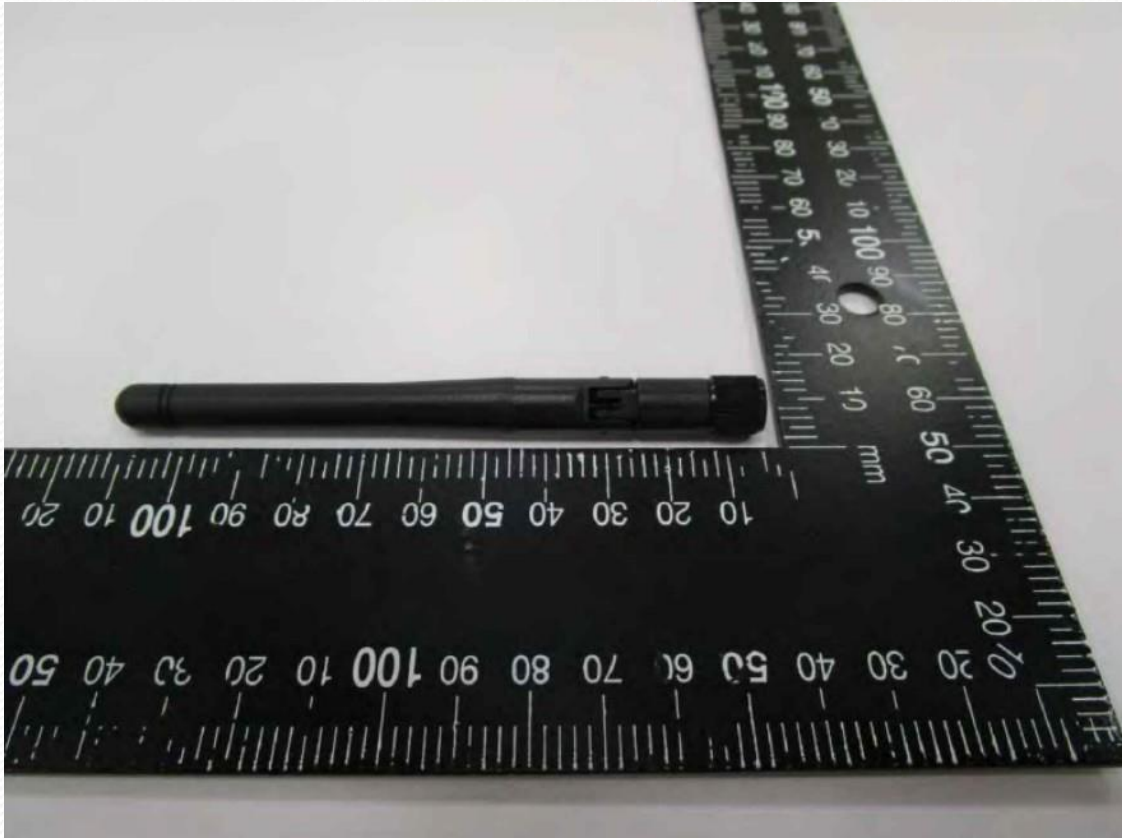


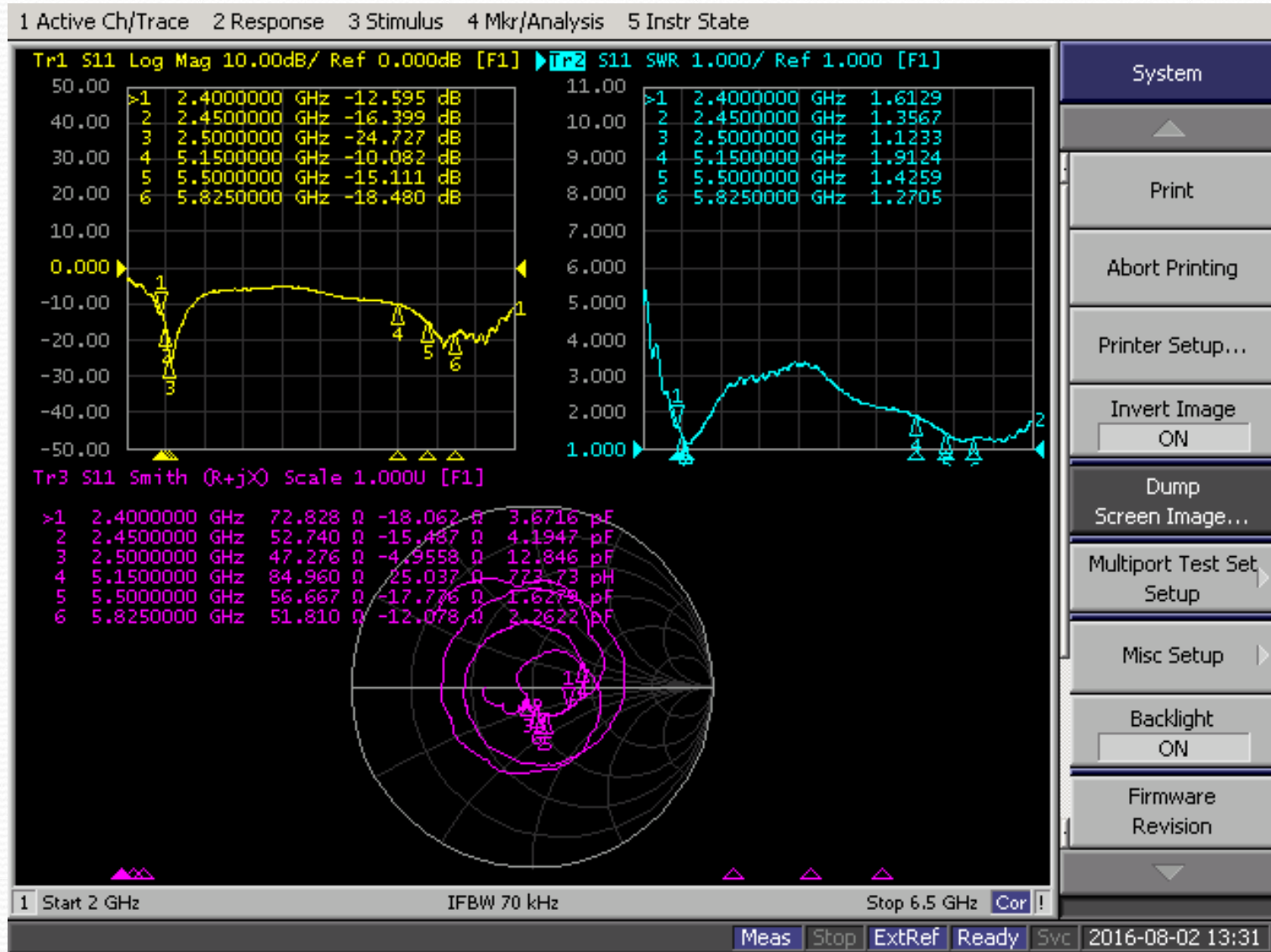
# Antenna under testing





# Antenna Placement



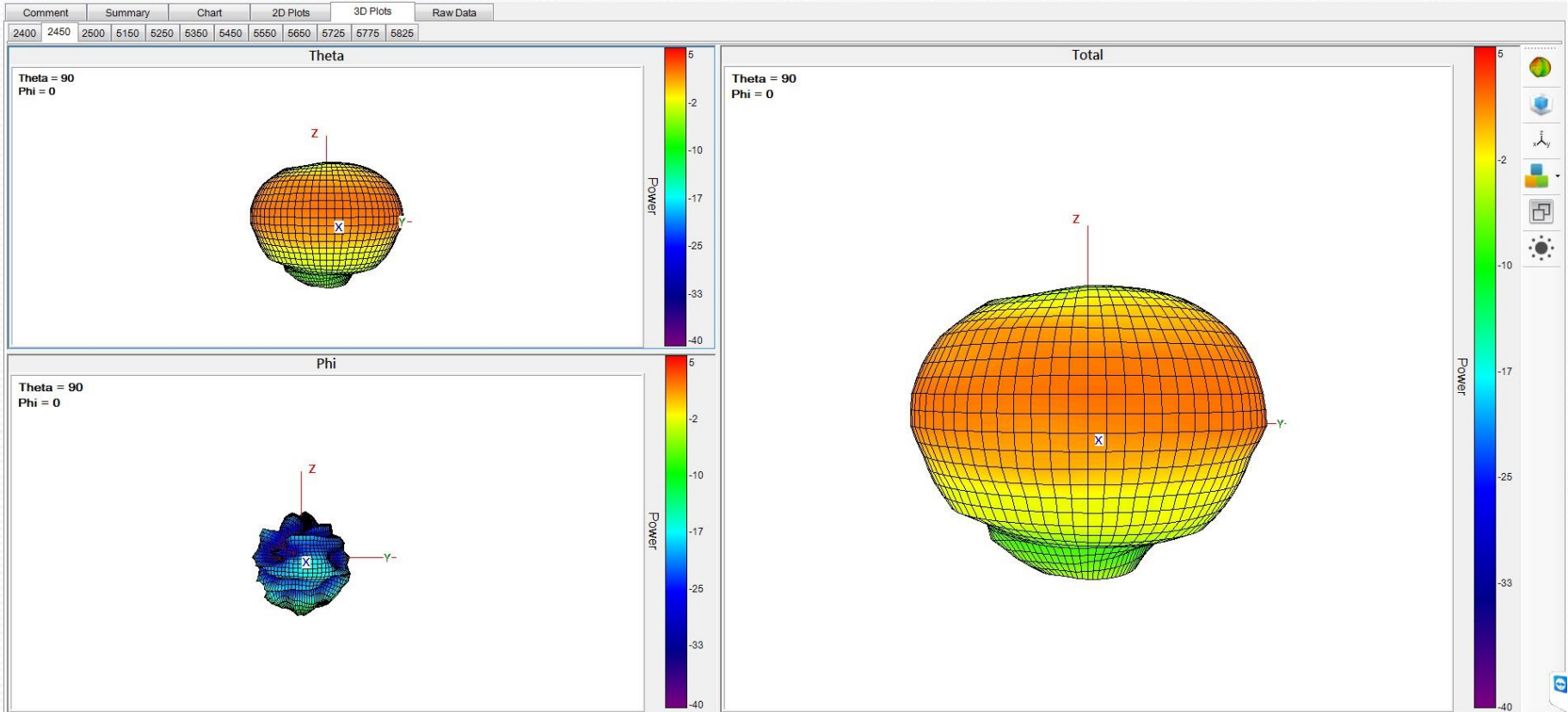


# Gain Table

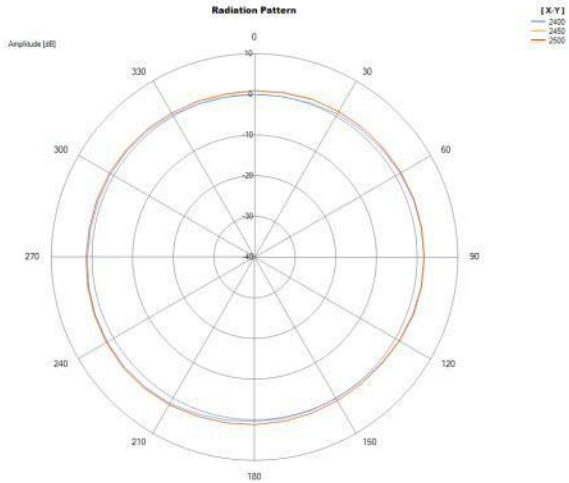
Ant												
Frequency (MHz)	2400	2450	2500	5150	5250	5350	5450	5550	5650	5725	5775	5895
Efficiency (dB)	-1.66	-1.24	-1.22	-1.86	-1.52	-1.51	-1.63	-2.13	-2.14	-2.08	-2.17	-2.19
Peak Gain (dBi)	2.89	3.14	2.95	2.5	2.74	2.67	2.87	2.73	2.56	2.35	2.27	1.63
Efficiency (%)	68.24	75.09	75.56	65.16	70.48	70.68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



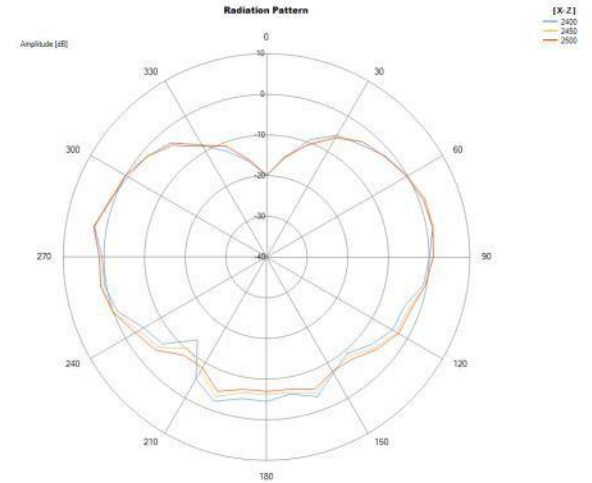
# Ant 2.4G 3D Gain pattern



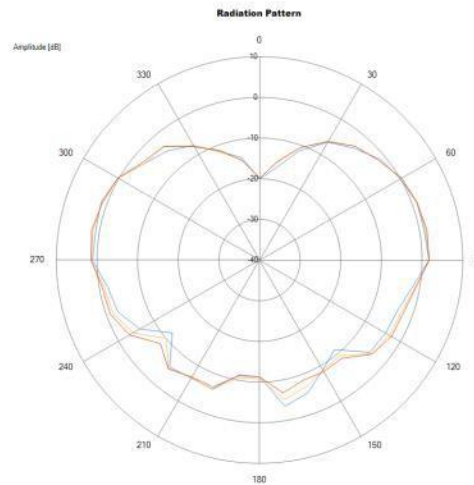
# Ant 2.4G 2D Gain pattern



**X-Y**

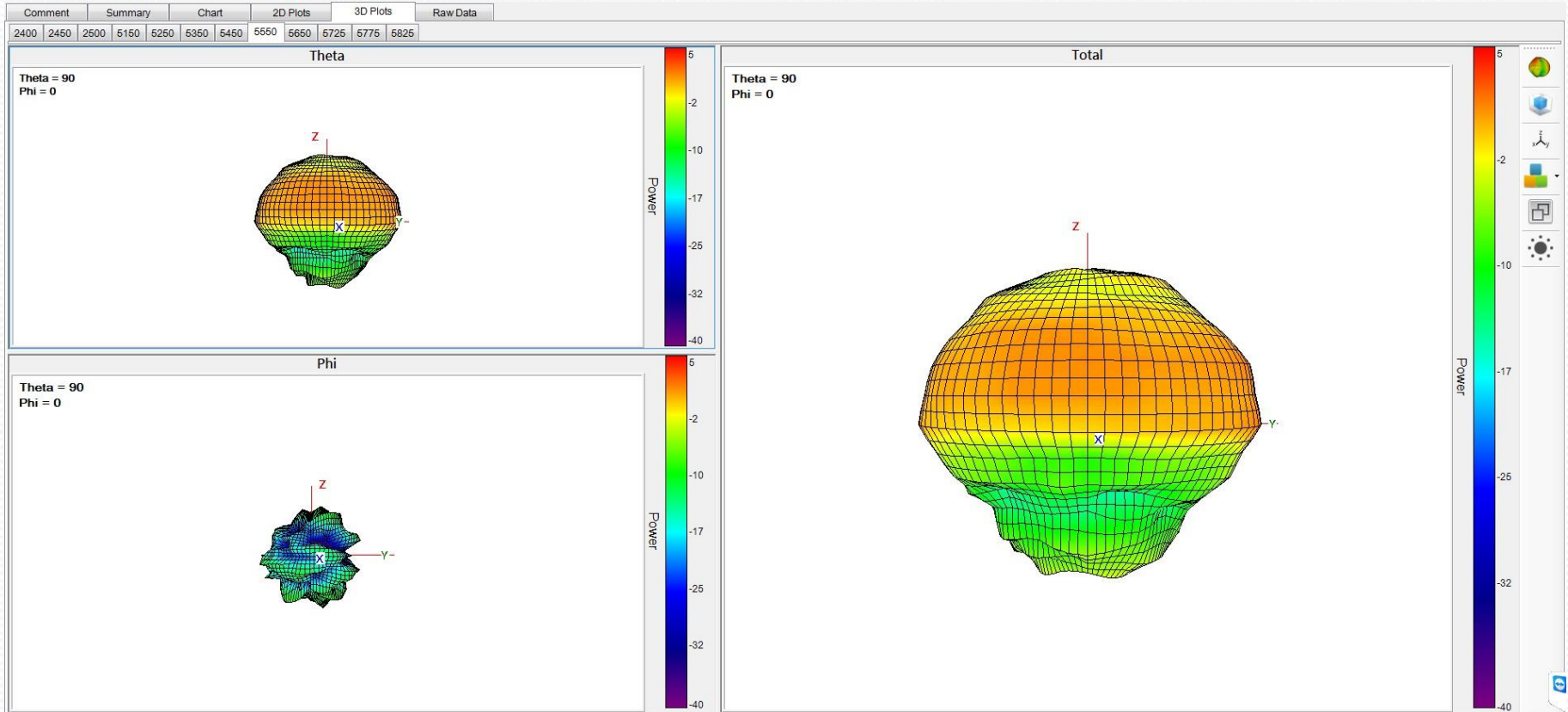


**X-Z**



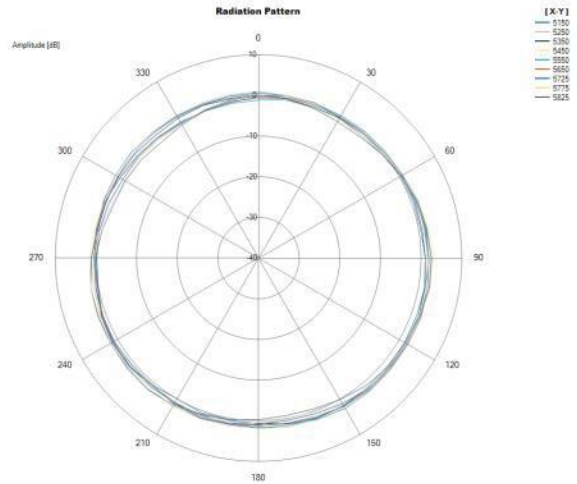
**Y-Z**

# Ant 5G 3D Gain pattern



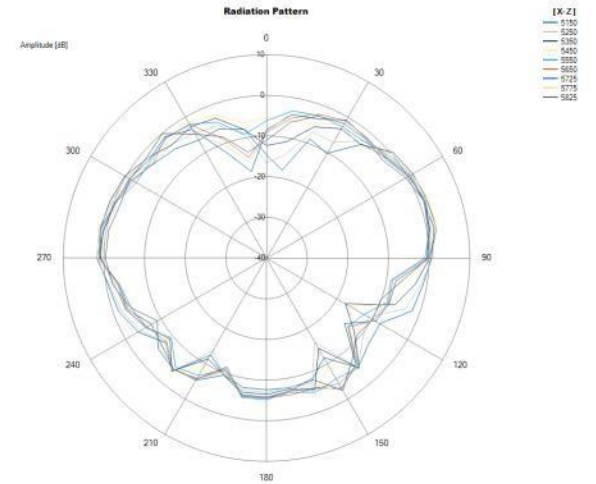


# Ant 5G 2D Gain pattern

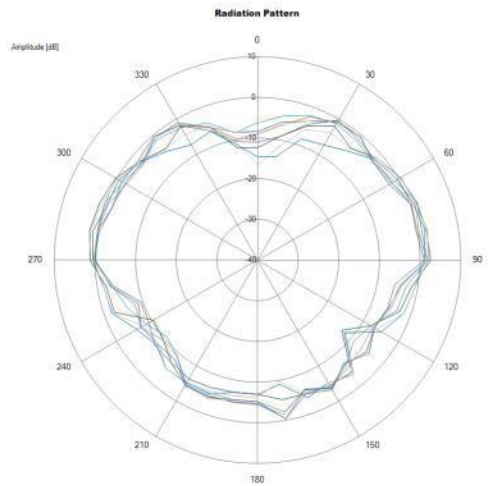


**X-Y**

Antenna radiation pattern analysis for the X-Y plane. The plot shows the gain in dB versus angle for various frequencies. The gain is consistent across all angles, indicating a well-balanced omnidirectional radiation pattern.



**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

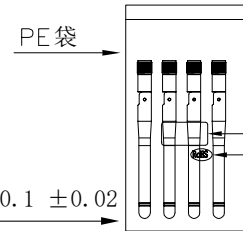


#### 內袋包裝說明:

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

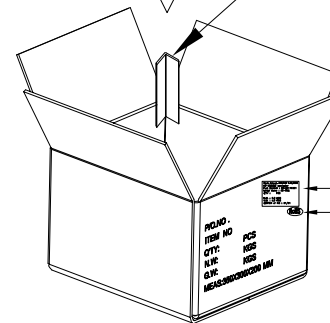
Pack full: 30pcs/ Bag



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



RoHS 標籤

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.