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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Model No：AD-302N

Part Number：R3410110221

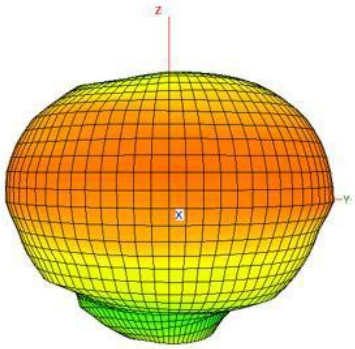
802.11 a/b/g/n/ac AP/Router external dipole antenna

Features

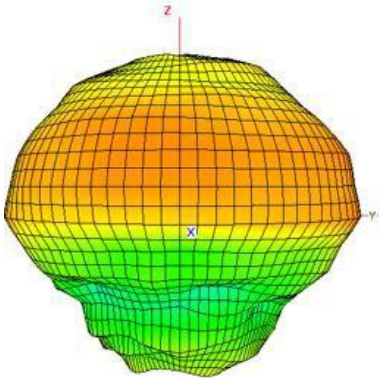
- Dual band IEEE 802.11 a/b/g/n/ac standard
- High efficiency
- Quick integration

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 Ø7.9	
Weight (g)	9.5 ±2 g	
Connector	SMA Male RP	
Polarization	Liner ; Vertical	
Operating Temp (°C)	-20°C ~ +60°C	

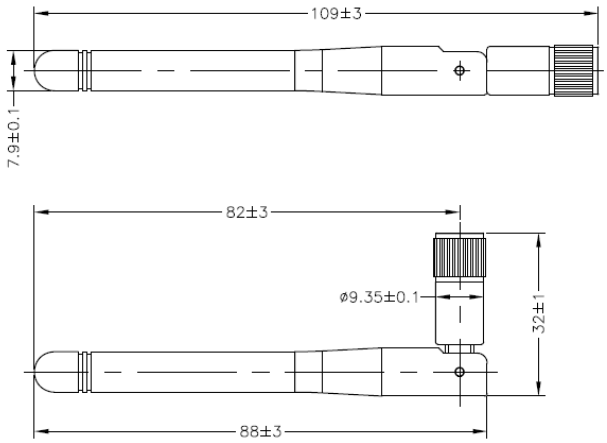


2.45GHz



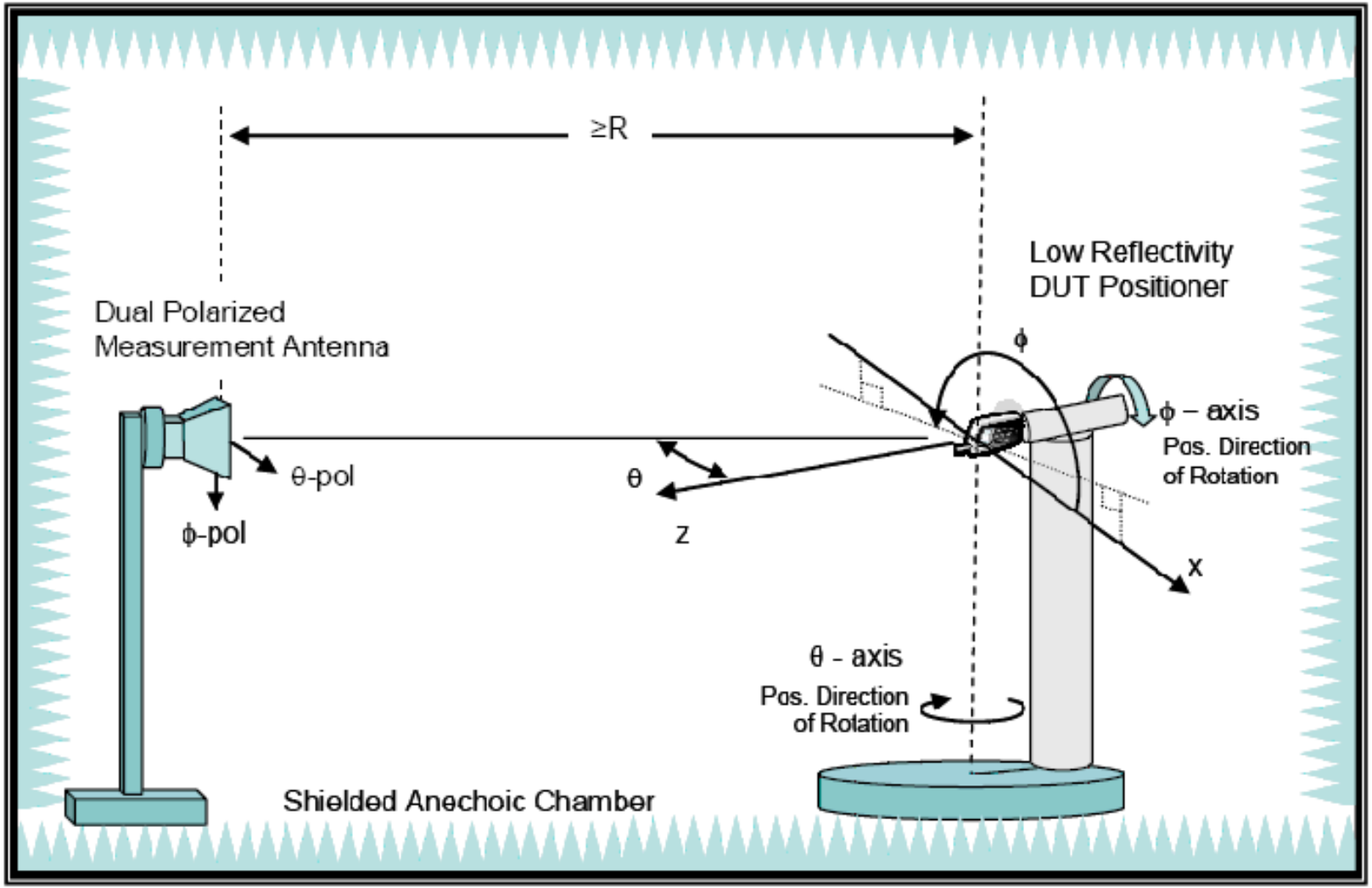
5GHz

Mechanical Dimensions

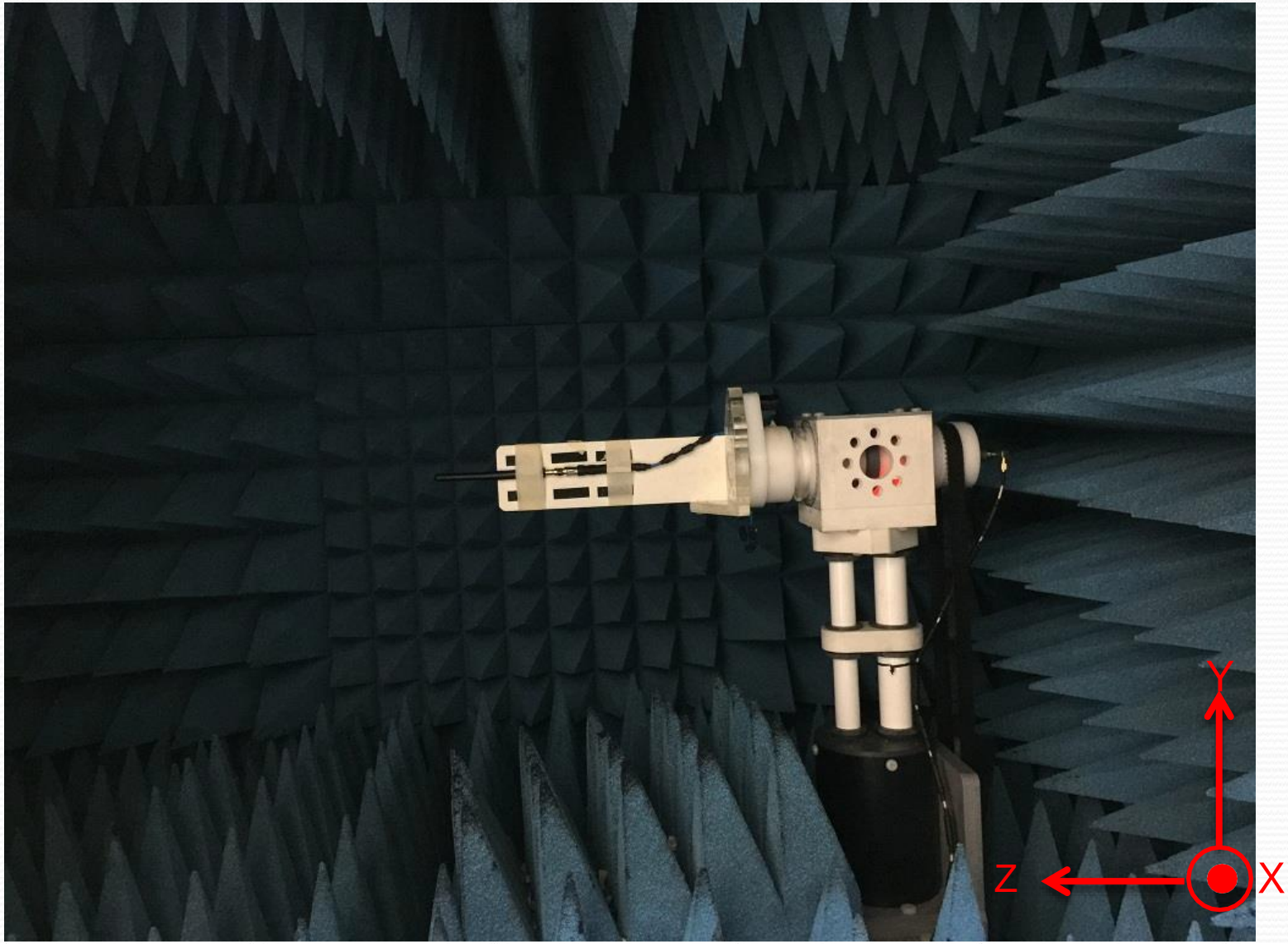


- Manufacturer company name: SparkLAN Communications, Inc.
- Manufacturer company address: 5F, No. 199, Ruihu St., Neihu Dist., Taipei City 114067, Taiwan

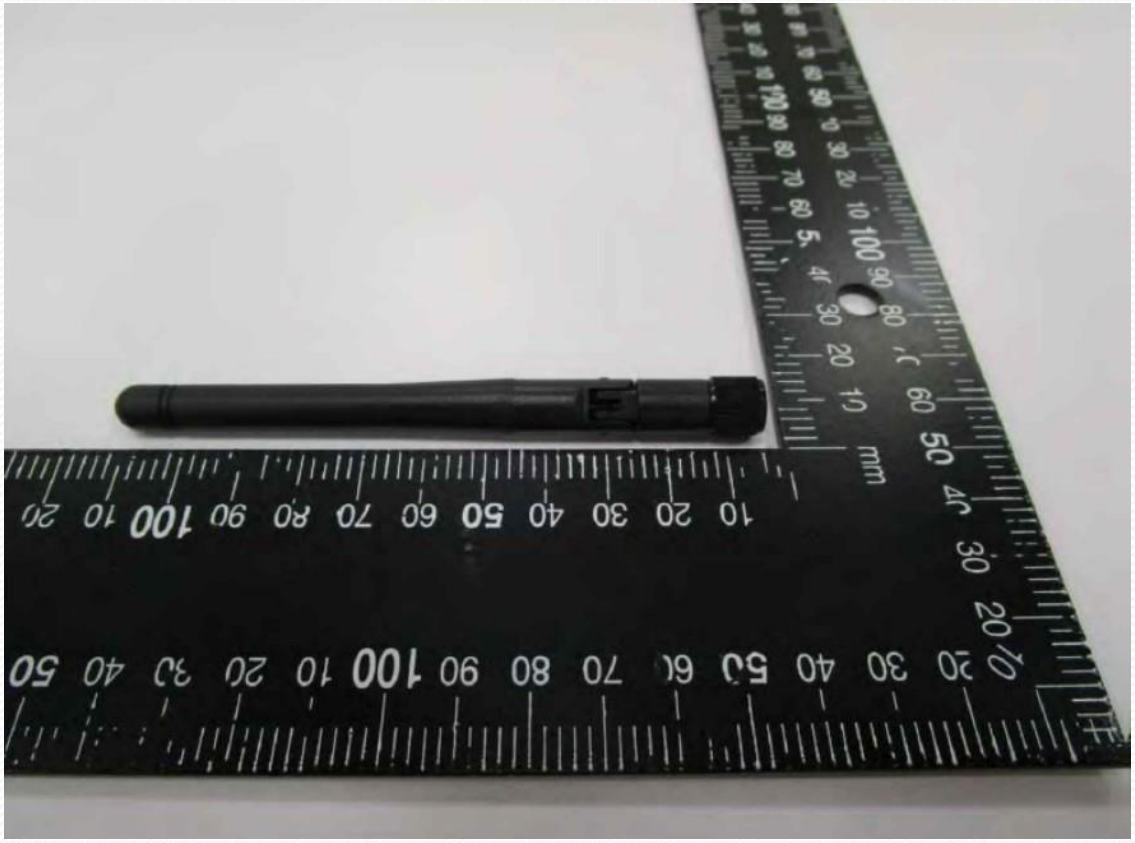
Antenna Testing System



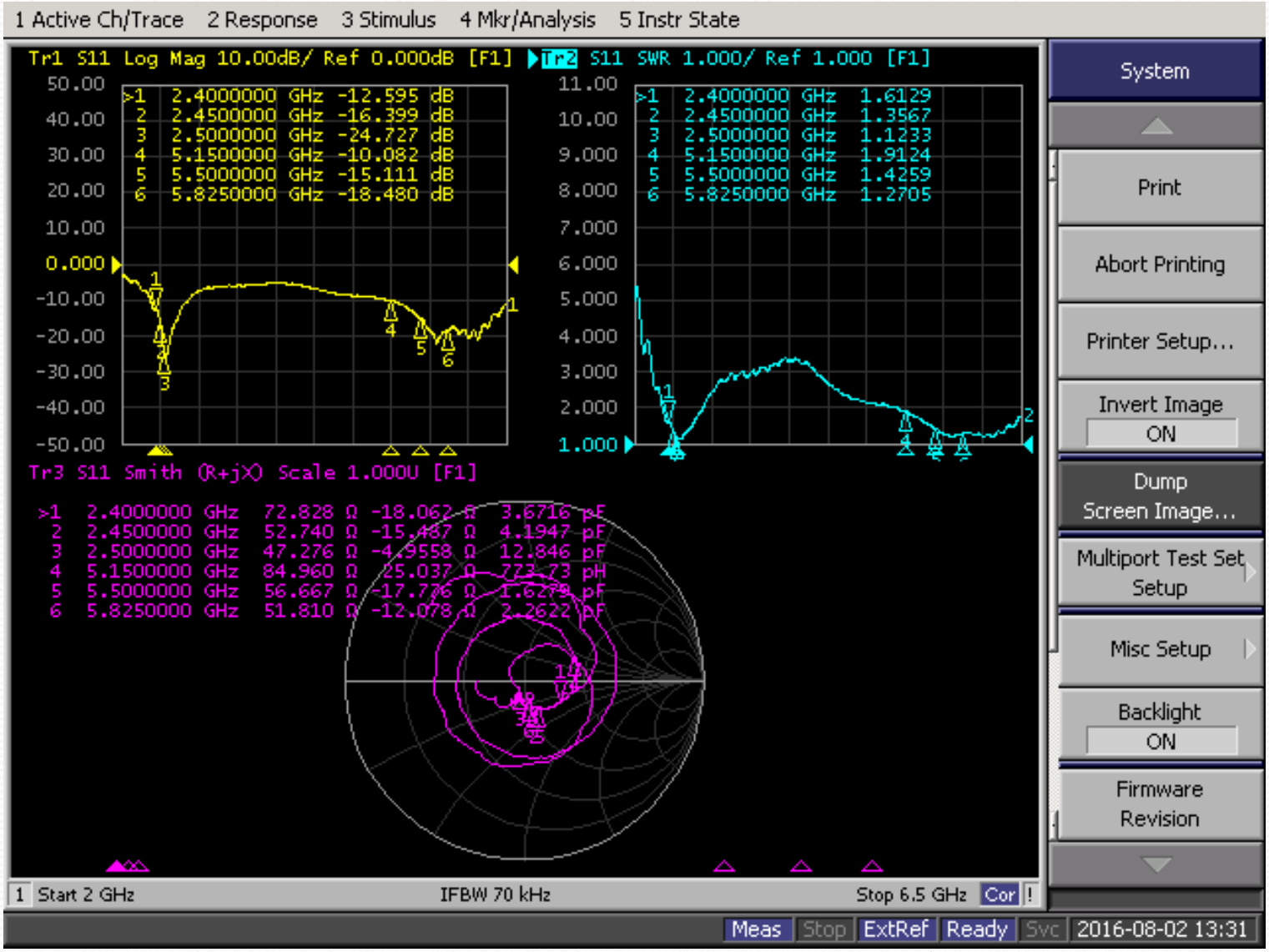
Antenna under testing



Antenna Placement



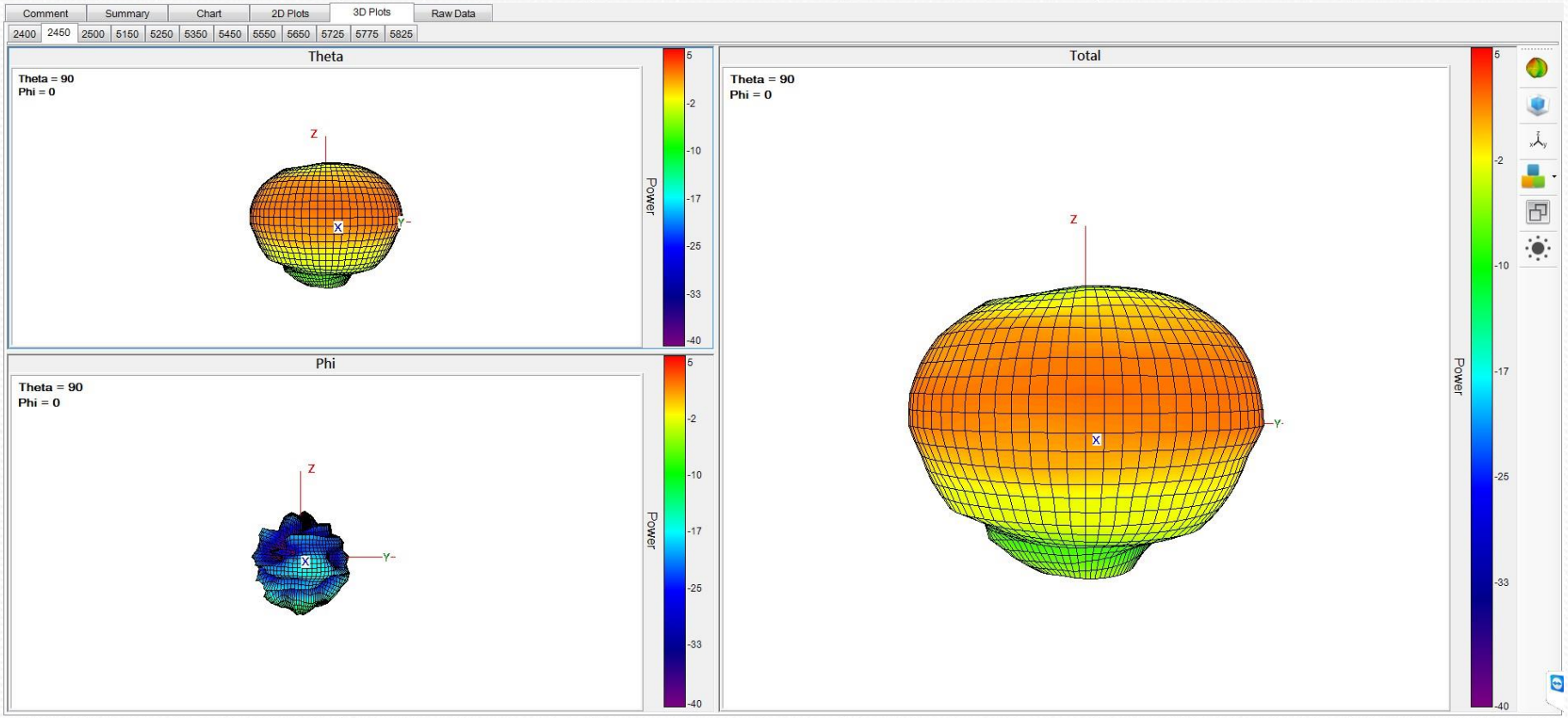
Ant S-Parameter, VSWR & Smith Chart



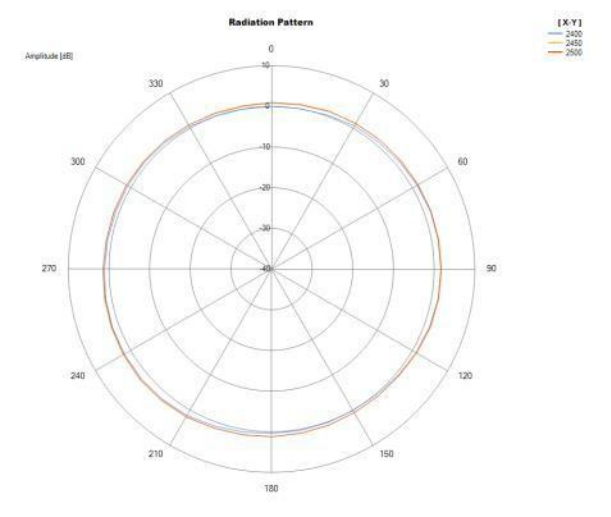
Gain Table

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

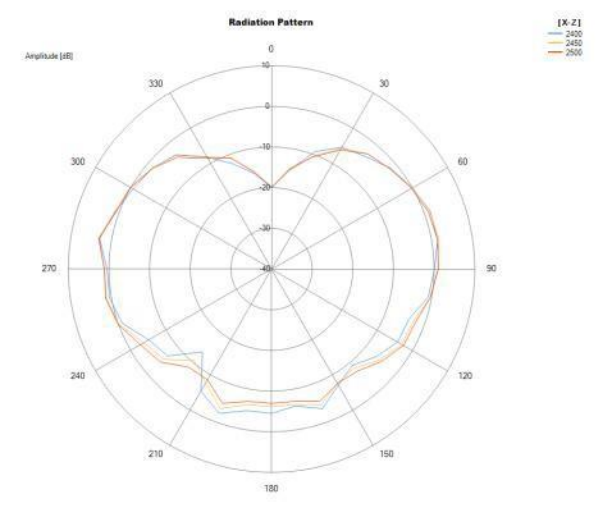
Ant 2.4G 3D Gain pattern



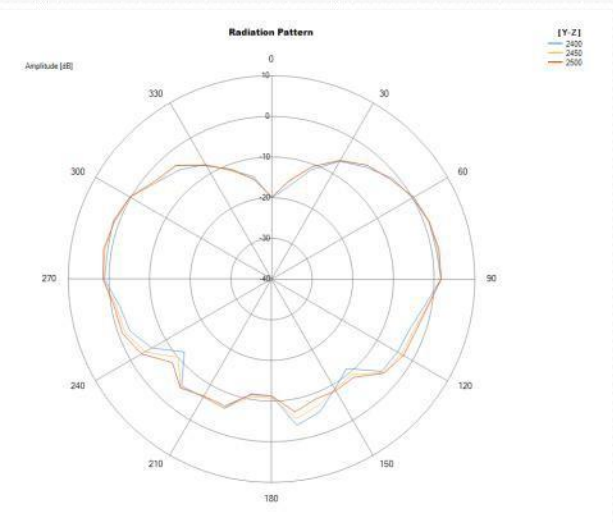
Ant 2.4G 2D Gain pattern



X-Y

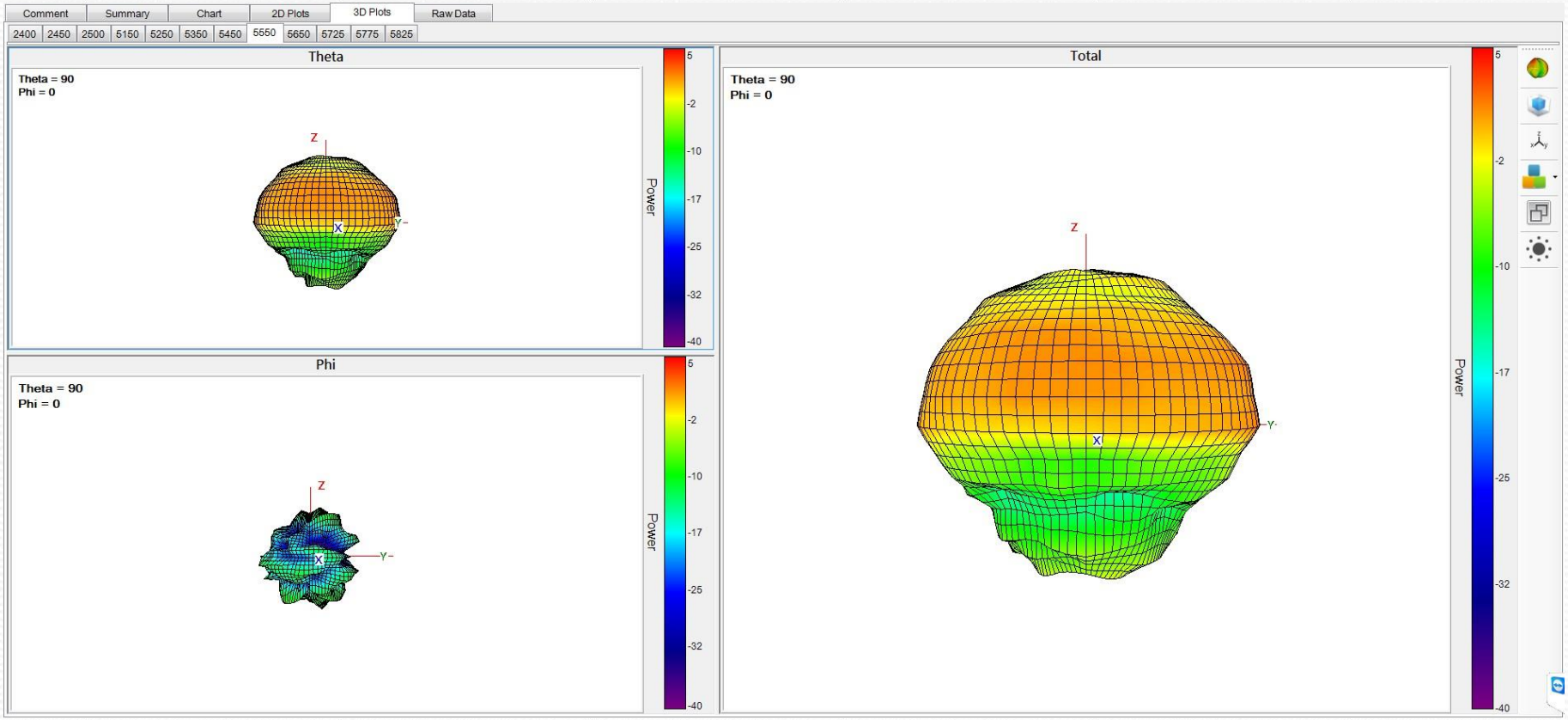


X-Z

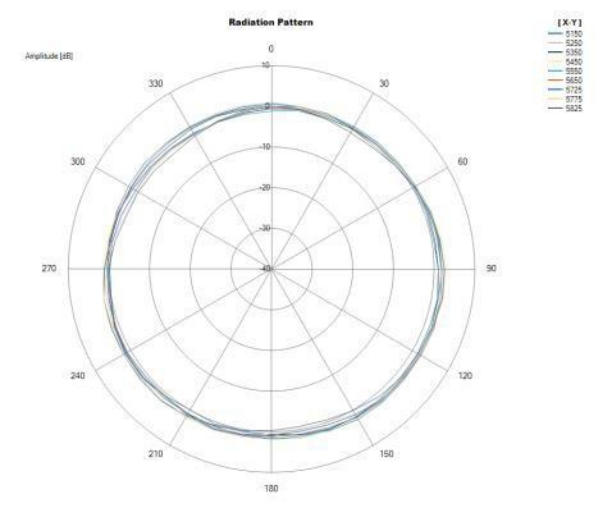


Y-Z

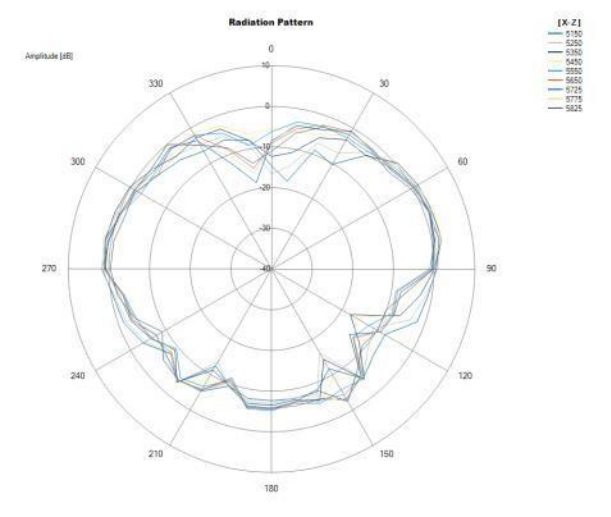
Ant 5G 3D Gain pattern



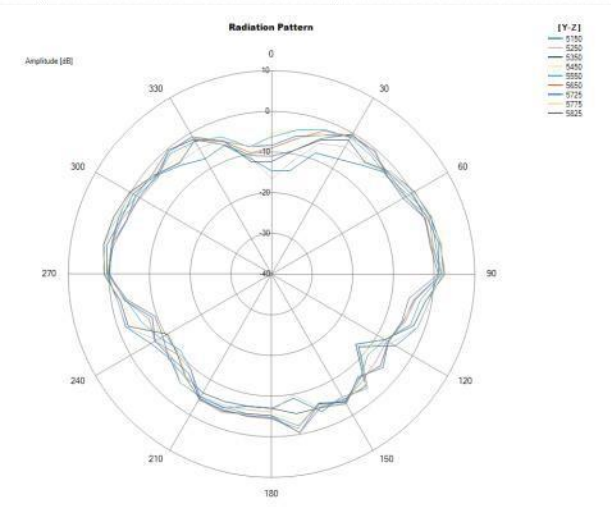
Ant 5G 2D Gain pattern



X-Y



X-Z



Y-Z