

AD-301N

Antenna Approval Sheet

Part Number	R3410110220
Product Number	AD-301N
Description	4.4dBi/5dBi 2.4G/5GHz Dipole RP-SMA
DOC NO	AS-1906005

Ver. 1.0

Revised History

Version	Purpose	Date	Responsible
1.0	Initial Doc	2019/06/21	Aaron

SparkLAN		Customer
Sales	PM	Approval by

Contents

1. Specification.....	3
2. Antenna Drawing	4
3. Return Loss & V.S.W.R.....	5
4. Radiation Pattern.	8

SPECIFICATION

- | | |
|-------------------------------|--|
| 1. Description | : Dual Band Antenna with
RP-SMA(M)(Black) |
| 2. Model No. | : AD-301N |
| 3. Part No. | : R3410110220 |
| 4. Antenna Profile | : 223mm (see Drawing) |
| 5. Color | : Black |
| 6. Electrical Characteristics | |
| Operating Frequency | : 2.4~2.5 / 5.15~5.35 / 5.725~5.85GHz |
| Antenna Type | : Dipole |
| Polarization Type | : Linear |
| Type of Radiation | : Toroidal |
| Peak Gain | : 4.4 dBi Typical For 2.4G
: 5.0 dBi Typical For 5G |
| Impedance | : 50 Ohm nominal |
| V.S.W.R. | : 2.0:1 Max. |
| 7. Mechanical Characteristics | |
| Action | : Swivel Type |
| Connector | : RP-SMA (M) |
| 8. Raw Material | |
| Coaxial Cable | : RG-178 |

9. Manufacturer company name: SparkLAN Communications, Inc.

10. Manufacturer company address: 55F, No. 199, Ruihu St., Neihu Dist.,

Taipei City 114067, Taiwan

TOLERANCES: (mm)	
X	±1.0
X.X	±0.5
X.XX	±0.3
ANGULAR	±5.0°

Signature
/ Stamp

DIMENSIONS

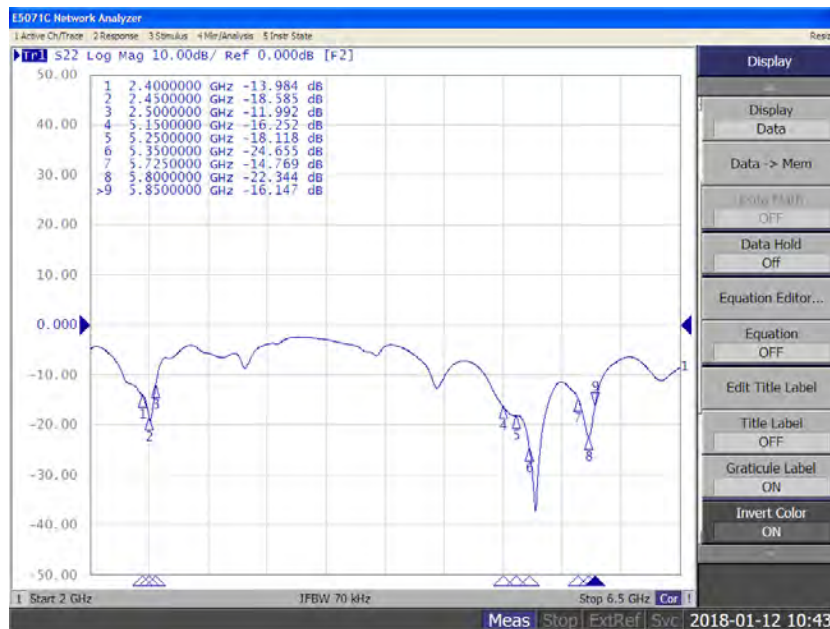
8	Housing	Housing(Black)	Black		1
7	Sponge	Sponge	Black		1
6	KAPTON	KAPTON	Yellow		1
5	PCB	PCB			1
4	Hinge-Base	Hinge-Base(Black)	Black		1
3	Hinge-Holder	Hinge-Holder(Black)	Black		1
2	SMA Body	RP-SMA(M)	Black		1
1	RG-178 Coaxial Cable	RG-178 CABLE	Orange	119	1
NO	Material	Description	Color	Dim	Qt'y

Dual Band

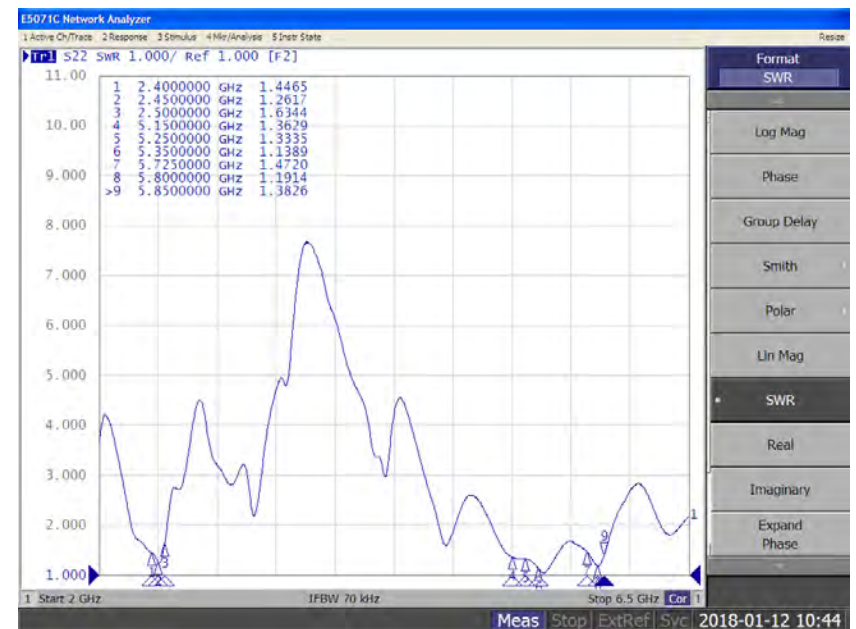
Return loss & VSWR



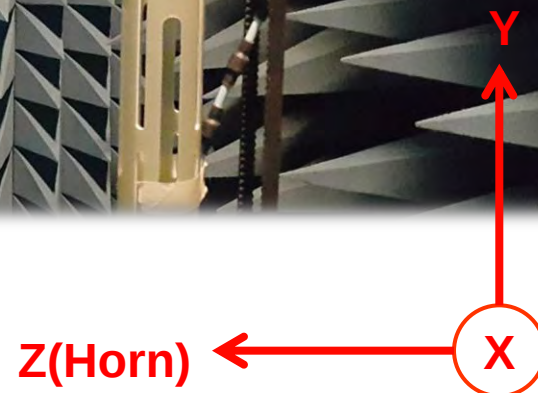
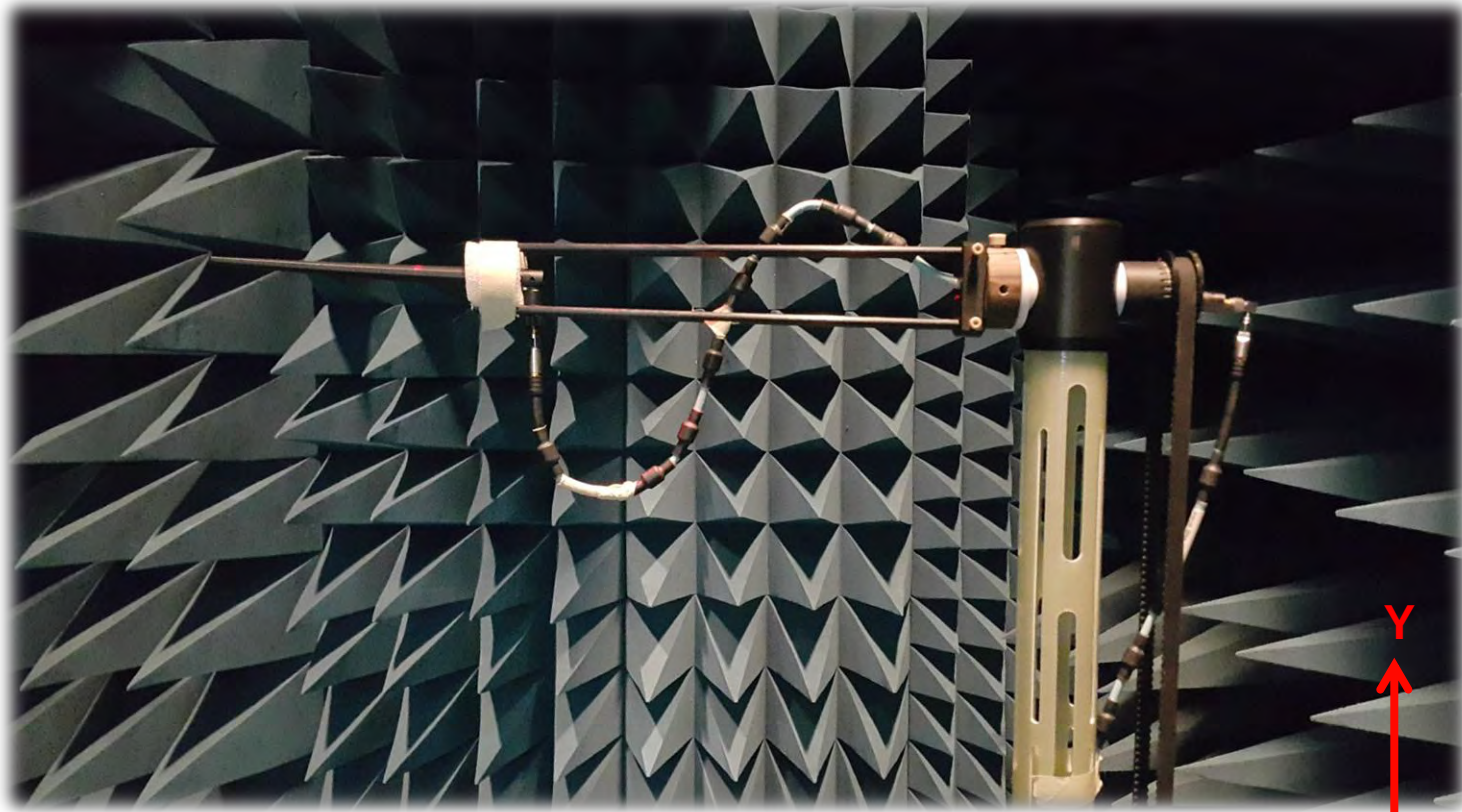
Return Loss



VSWR



Equipment Under Test(EUT)



Performance Data



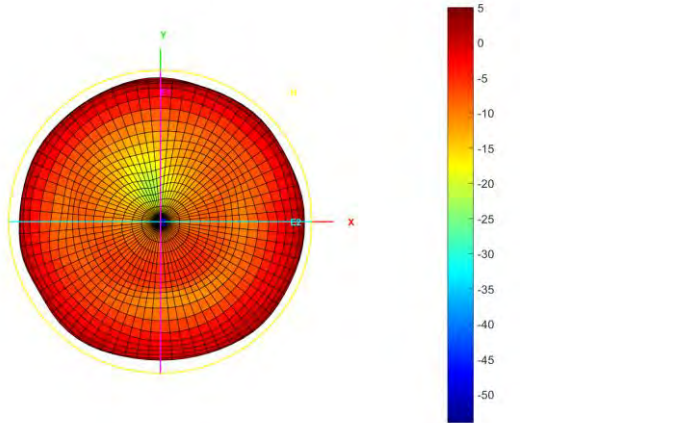
Dual Band Antenna									
Frequency (MHz)	2400	2450	2500	5150	5250	5350	5500	5750	5850
Tot. Rad. (dBi)	-1.9	-1.9	-2.4	-4.0	-3.8	-3.6	-3.3	-3.0	-2.9
Peak EIRP (dBi)	4.2	4.4	3.9	4.0	4.1	5.2	5.3	5.8	5.7
Efficiency (%)	64.9%	64.3%	57.4%	39.9%	41.7%	43.7%	46.8%	50.1%	51.3%

2.4GHz

Radiation Pattern

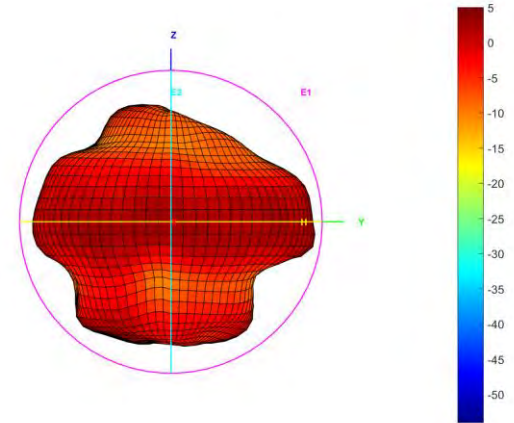
XY

Total_3D_H_2.4GHz



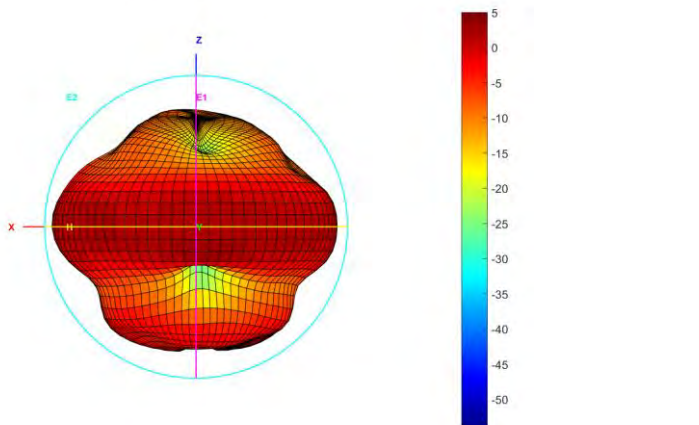
YZ

Total_3D_E2_2.4GHz



XZ

Total_3D_E1_2.4GHz



Position

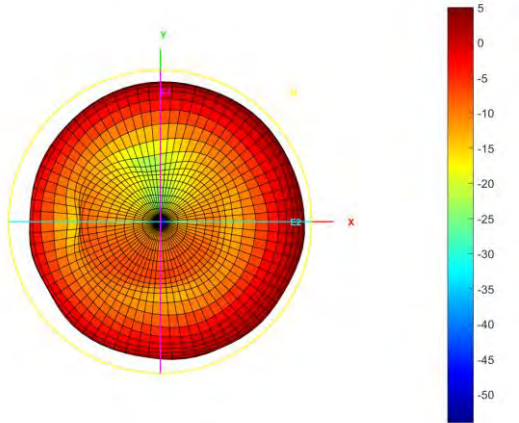


2.45GHz

Radiation Pattern

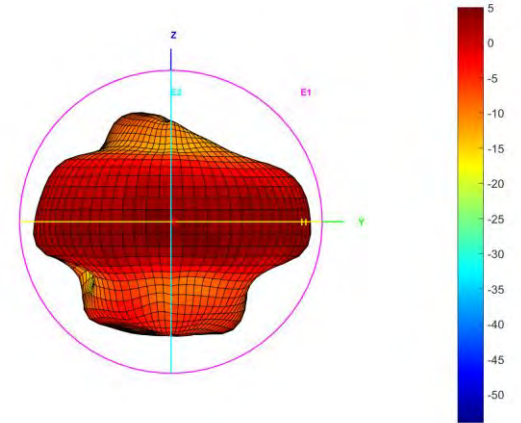
XY

Total_3D_H_2.45GHz



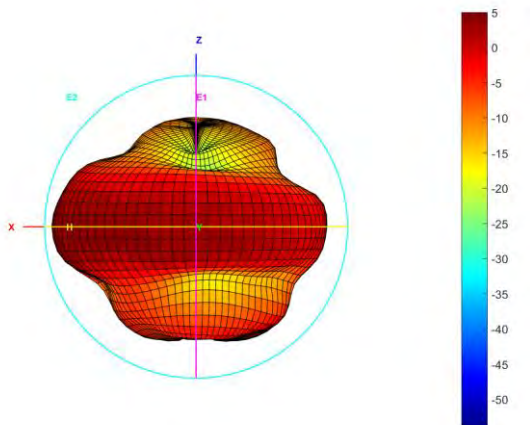
YZ

Total_3D_E2_2.45GHz



XZ

Total_3D_E1_2.45GHz



Position

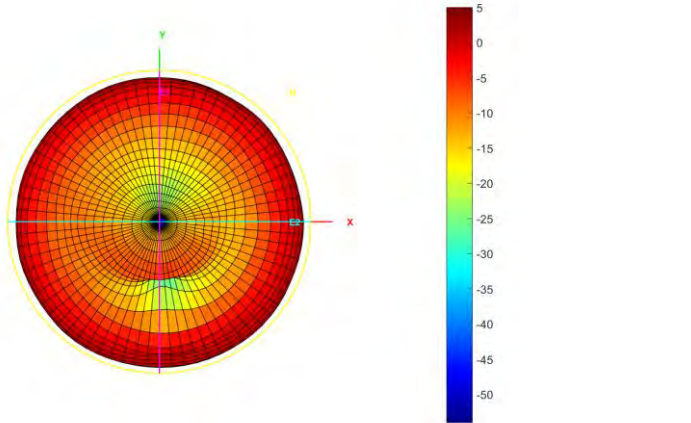


2.5GHz

Radiation Pattern

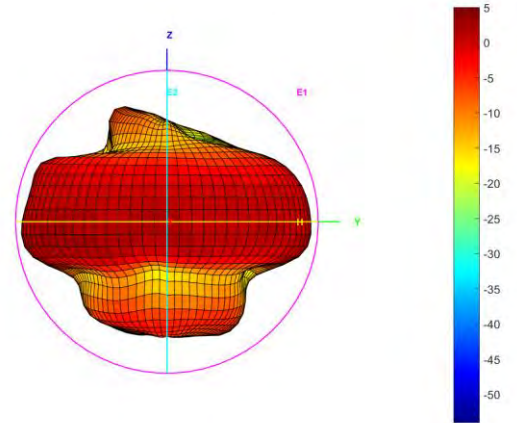
XY

Total_3D_H_2.5GHz



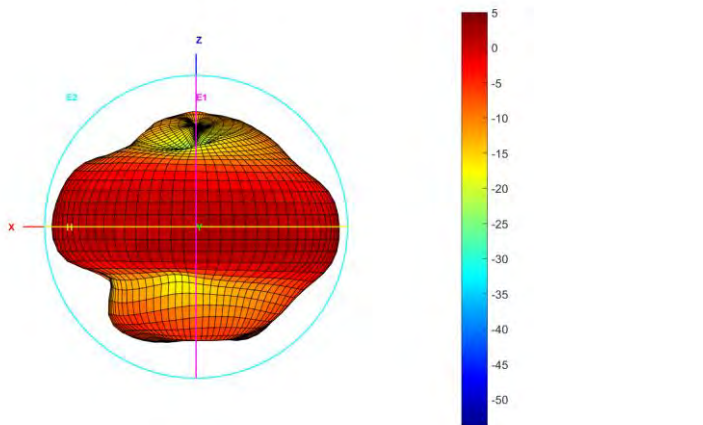
YZ

Total_3D_E2_2.5GHz



XZ

Total_3D_E1_2.5GHz



Position

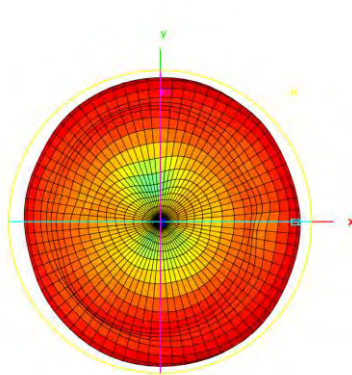


5.15GHz

Radiation Pattern

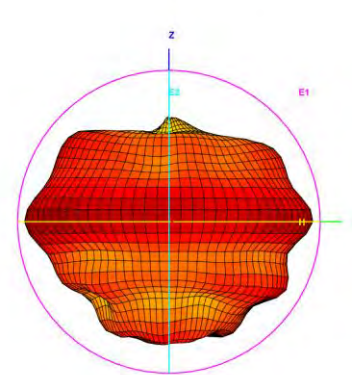
XY

Total_3D_H_5.15GHz



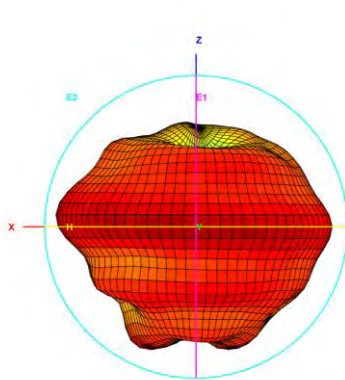
YZ

Total_3D_E2_5.15GHz



XZ

Total_3D_E1_5.15GHz



Position



Z(Horn)

Y

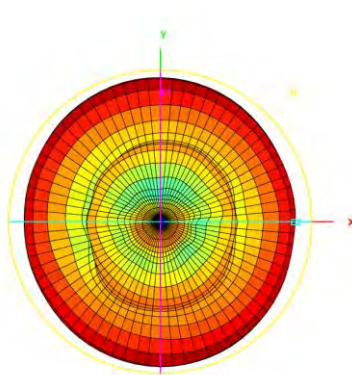
X

5.5GHz

Radiation Pattern

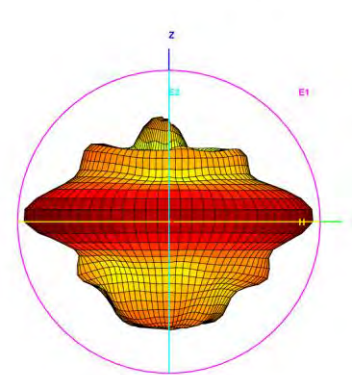
XY

Total_3D_H_5.5GHz



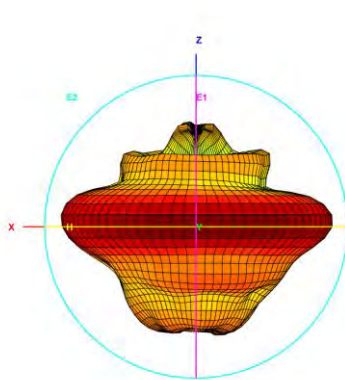
YZ

Total_3D_E2_5.5GHz



XZ

Total_3D_E1_5.5GHz



Position



Z(Horn)

Y

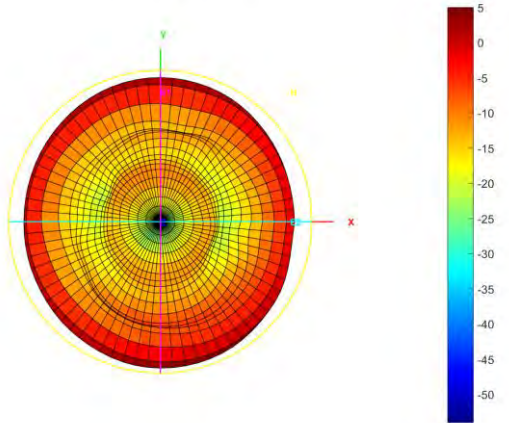
X

5.85GHz

Radiation Pattern

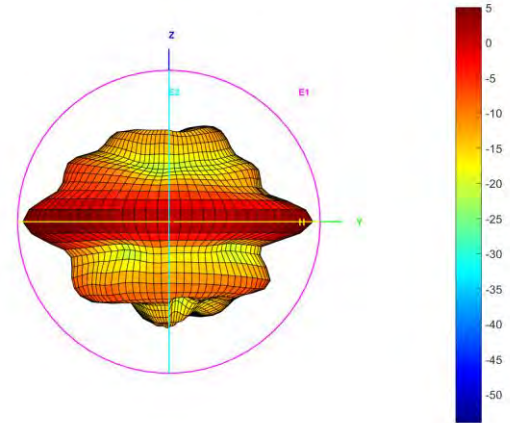
XY

Total_3D_H_5.85GHz



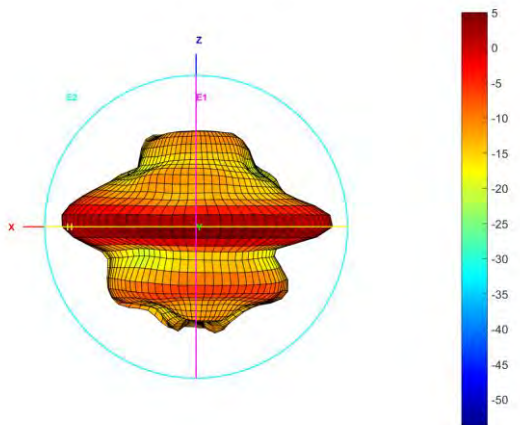
YZ

Total_3D_E2_5.85GHz



XZ

Total_3D_E1_5.85GHz



Position

