

# AD-507AX

## Antenna Approval Sheet

<b>Part Number</b>	R3410A14054
<b>Product Number</b>	AD-507AX
<b>Description</b>	Dipole Antenna, 2.67dBi/4.94dBi 2.4G/5G~6GHz, I-PEX/MHF1 connector L:150mm
<b>DOC NO</b>	AS-2205002

Ver. 0.9

### Revised History

Version	Purpose	Date	Responsible
0.9	Preliminary DoC	2022/05/10	Christina

<b>SparkLAN</b>		<b>Customer</b>
<b>Sales</b>	<b>PM</b>	<b>Approval by</b>

## Antenna type : Dipole

### AD-507X

#### Electrical Specifications

Frequency range	2400 -2500 MHz	5150-7125 MHz
Peak Gain	2.67 dBi	4.94 dBi
Efficiency	64.7 %	60%
VSWR	2.0 : 1 Max.	2.5 : 1 Max.
Power handling	1W (cw)	
Impedance	50 Ω	
Dimensions	36.1x8.1mm	
Antenna Material	FR4	
Connector	IPEX	
Cable	Ø1.13 L:150mm	

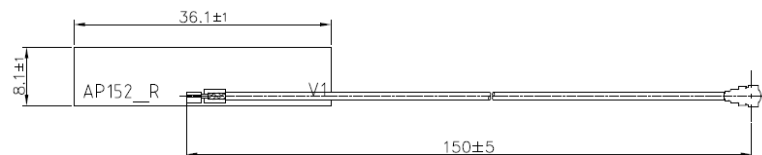
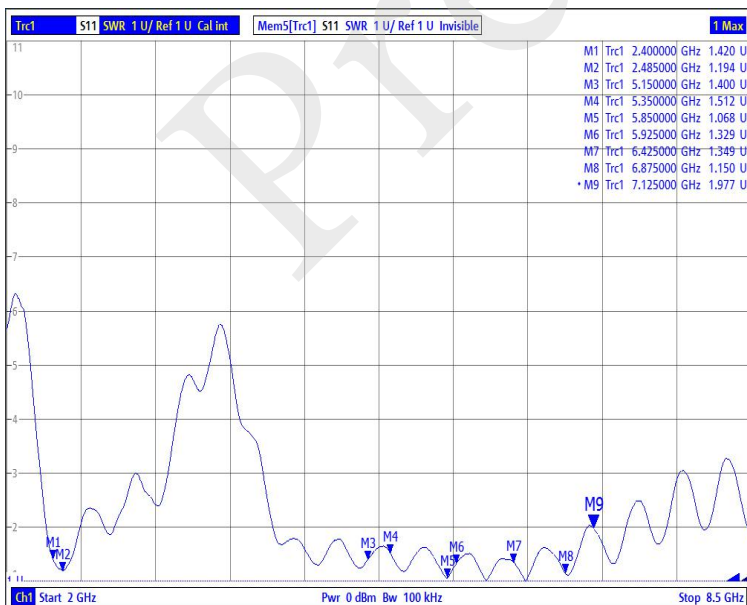
\*Antenna measured on a 2mm thick ABS plastic base

#### Environmental & Mechanical Characteristics

Temperature	- 10°C to +55°C
Humidity	95% @ 25°C



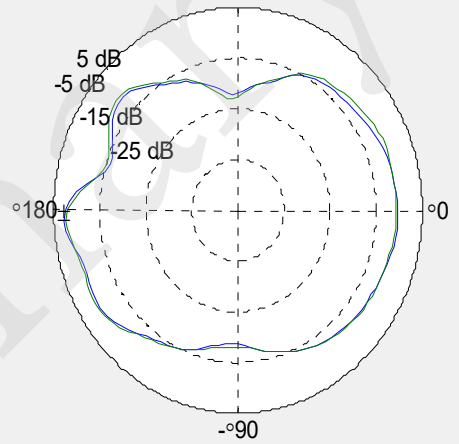
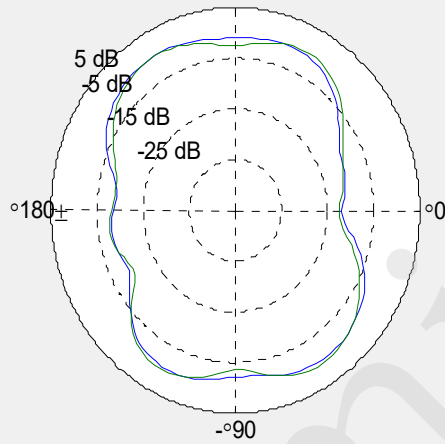
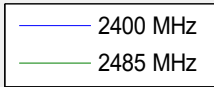
#### VSWR



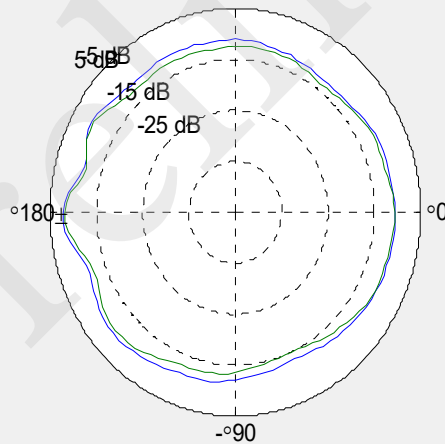
## Antenna Pattern

2G Band = 2400 - 2500 MHz % 2G BAND

XY Plane (+X = 0°X, +Y = +90°X) / Elevation = 90° X 90°    ZX Plane (+Z = 0°X, +X = +90°X) / Azimuth = 0° X 90°



YZ Plane (+Z = 0°X, +Y = +90°X) / Azimuth = 90° X 90°

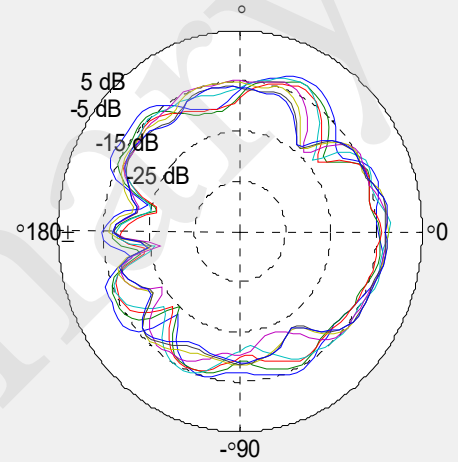
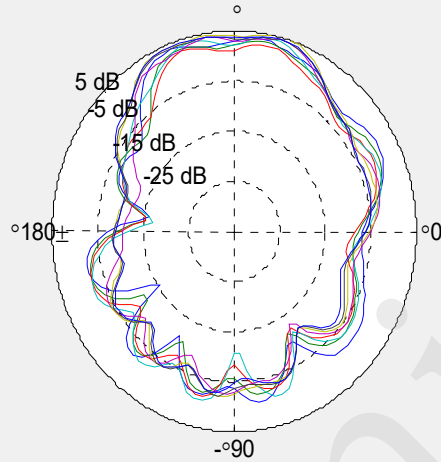
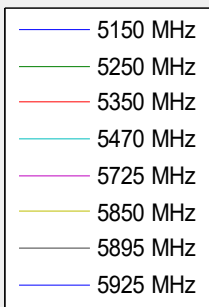


## Antenna Pattern

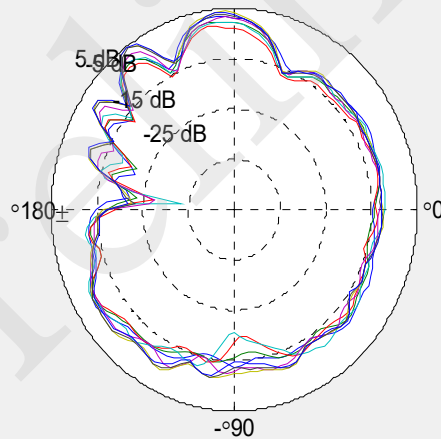
5G Band = 5100 - 5975 MHz

XY Plane (+X = 0°ϕX, +Y = +90°ϕX) / Elevation = 90°ϕX 90°

ZX Plane (+Z = 0°ϕX, +X = +90°ϕX) / Azimuth = 0°ϕX 90°



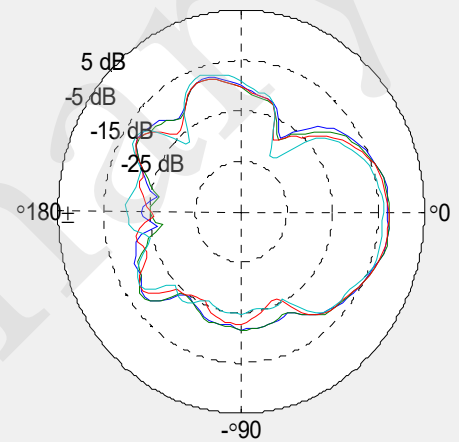
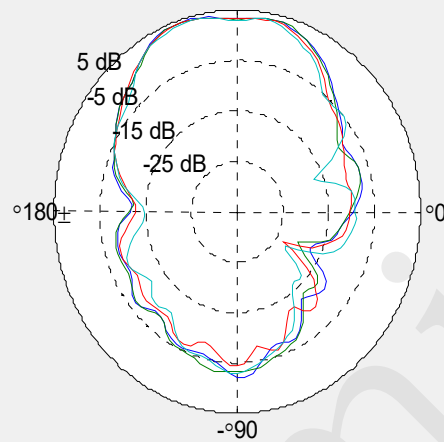
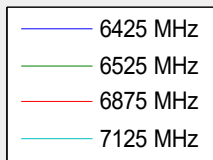
YZ Plane (+Z = 0°ϕX, +Y = +90°ϕX) / Azimuth = 90°ϕX 90°



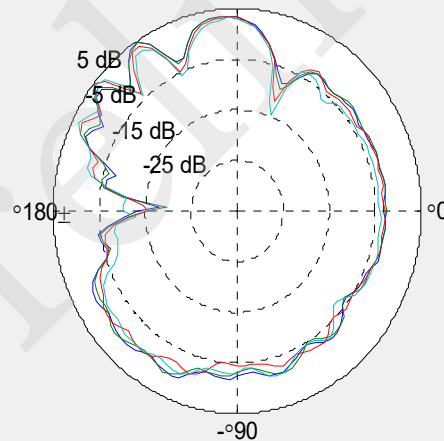
## Antenna Pattern

6G Band = 6000 - 8500 MHz

XY Plane (+X = 0°ϕ, +Y = +90°ϕ) / Elevation = 90° ϕ X 90°    ZX Plane (+Z = 0°ϕ, +X = +90°ϕ) / Azimuth = 0° ϕ X 90°



YZ Plane (+Z = 0°ϕ, +Y = +90°ϕ) / Azimuth = 90° ϕ X 90°



## Gain Table

Frequency (MHz)	3D		
	Efficiency	Avg. Gain	Peak Gain
2400.00	64.26	-1.92	2.67
2485.00	65.22	-1.86	2.58
5150.00	63.78	-1.95	4.35
5250.00	62.12	-2.07	3.83
5350.00	61.78	-2.09	3.41
5470.00	62.78	-2.02	4.53
5725.00	59.92	-2.22	4.70
5850.00	61.10	-2.14	4.87
5895.00	59.17	-2.28	4.88
5925.00	59.47	-2.26	4.91
6425.00	59.31	-2.27	4.61
6525.00	59.09	-2.29	4.85
6875.00	58.10	-2.36	4.94
7125.00	54.89	-2.61	4.92

