

# AD-506AX

## Antenna Approval Sheet

<b>Part Number</b>	R3410A14053
<b>Product Number</b>	AD-506AX
<b>Description</b>	Dipole Antenna, 2.65dBi/4.98dBi 2.4G/5G~6GHz, I-PEX/MHF1 connector L:550mm
<b>DOC NO</b>	AS-2205001

Ver. 0.9

### Revised History

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

SparkLAN		Customer
Sales	PM	Approval by

## Antenna type : Dipole

### AD-506X

#### Electrical Specifications

Frequency range	2400 -2500 MHz	5150-7125 MHz
Peak Gain	2.65 dBi	4.98dBi
Efficiency	48 %	40.19 %
VSWR	2.0 : 1 Max.	2.0: 1 Max.
Power handling	1W (cw)	
Impedance	50 Ω	
Dimensions	36.1x8.1mm	
Antenna Material	FR4	
Connector	IPEX	
Cable	Ø1.13 L:550mm	

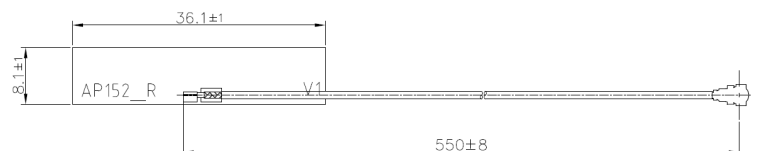
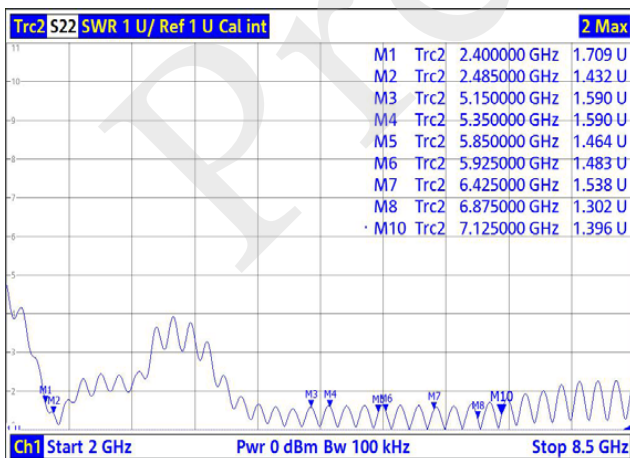
\*Antenna measured on a 2mm thick ABS plastic base

#### Environmental & Mechanical Characteristics

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

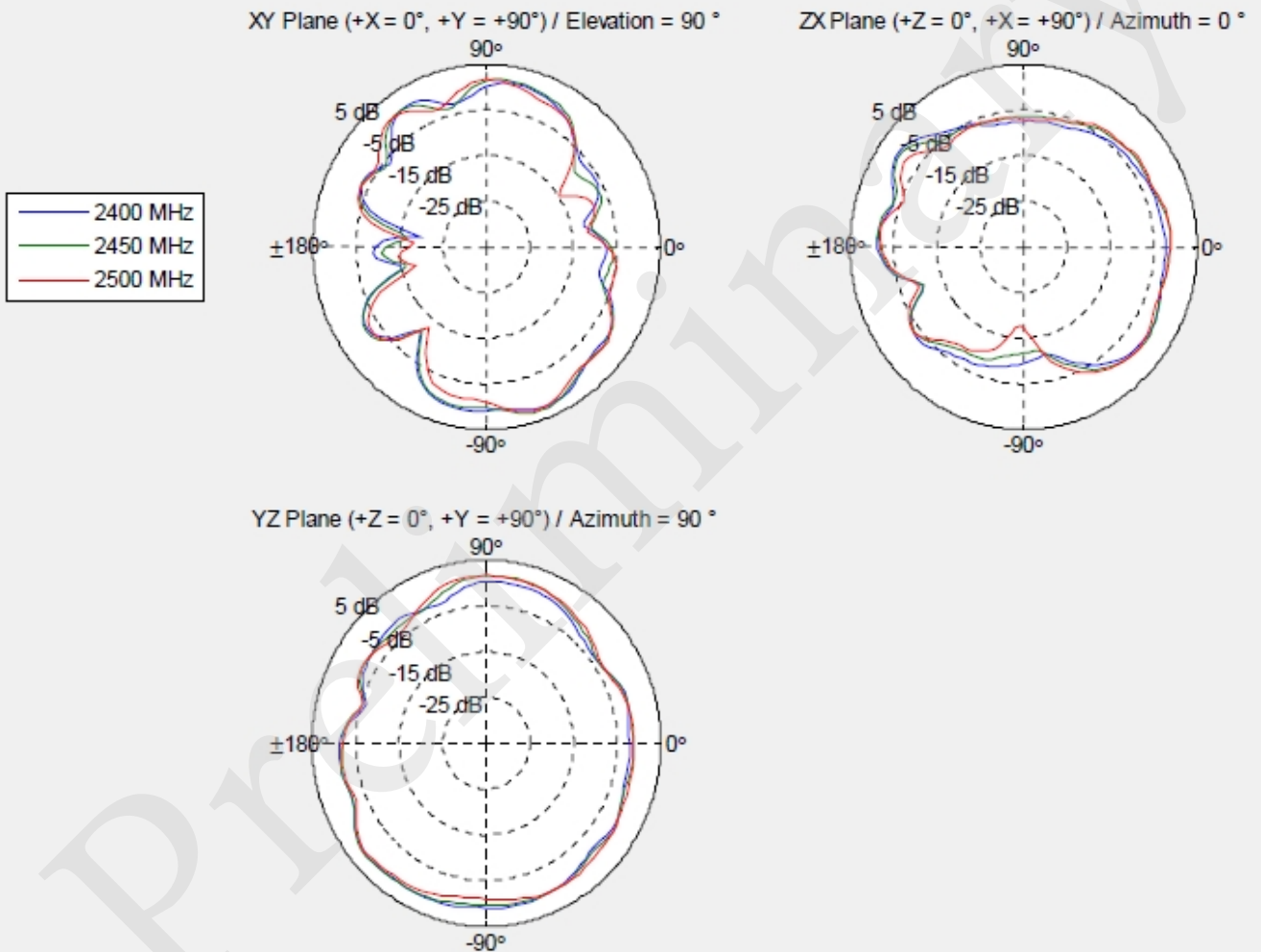


#### VSWR



## Antenna Pattern

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

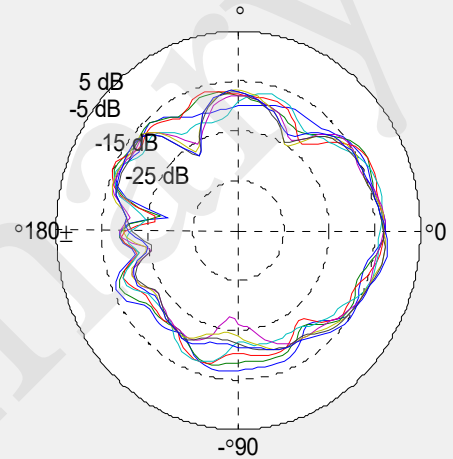
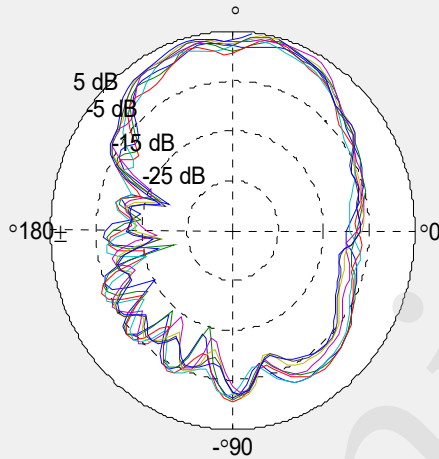


## Antenna Pattern

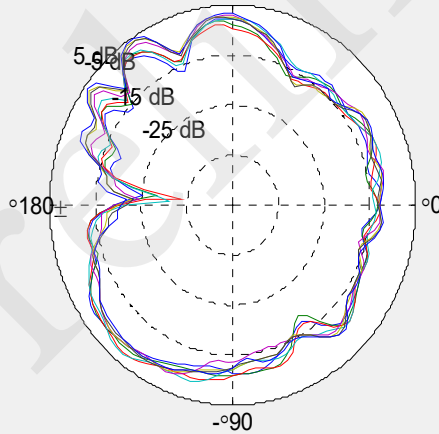
5G Band = 5100 - 5975 MHz

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

- 5150 MHz
- 5250 MHz
- 5350 MHz
- 5470 MHz
- 5725 MHz
- 5850 MHz
- 5895 MHz
- 5925 MHz



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

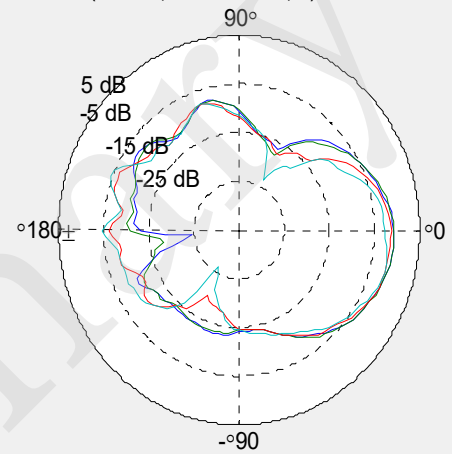
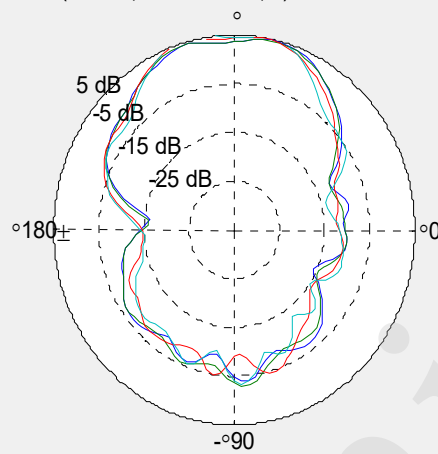
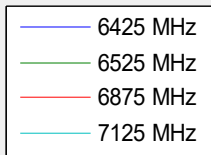


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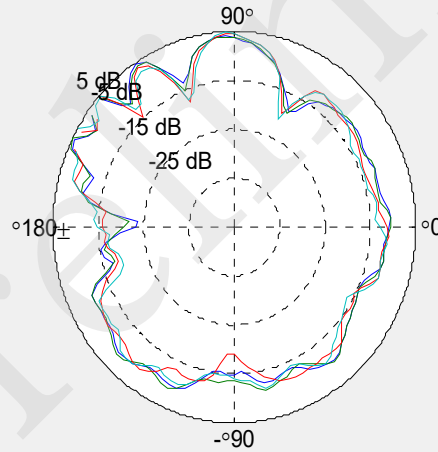
6G Band = 6000 - 8500 MHz

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

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



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



## Gain Table

Frequency (MHz)	3D		
	Efficiency	Avg. Gain	Peak Gain
2400.00	48.00	-3.19	2.57
2450.00	50.30	-2.98	2.65
2500.00	51.74	-2.86	2.57
5150.00	37.39	-4.27	3.38
5250.00	38.98	-4.09	4.35
5350.00	39.48	-4.04	4.29
5470.00	40.34	-3.94	3.83
5725.00	39.54	-4.03	4.35
5850.00	41.10	-3.86	4.81
5895.00	39.17	-4.07	4.80
5925.00	41.79	-3.79	4.98
6425.00	41.57	-3.81	4.85
6525.00	41.29	-3.84	4.71
6875.00	41.49	-3.82	4.79
7125.00	40.14	-3.96	4.82

