

AD-512AX

Antenna Approval Sheet

Part Number	R3410A10052
Product Number	AD-512AX
Description	Dipole Antenna,2.35dBi/3.0dBi/3.02dBi 2.4G/5G/6GHz, RP-SMA(M) connector
DOC NO	AS-2303001

Ver. 0.9

Revised History

Version	Purpose	Date	Responsible
0.9	Preliminary DoC	2023/03/27	Christina

SparkLAN		Customer
Sales	PM	Approval by

Antenna Type : Dipole

Wi-Fi 6E Antenna

AD-512X

Electrical Specifications

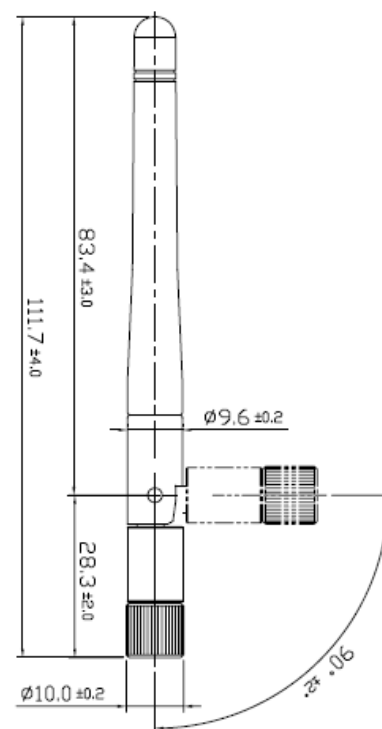
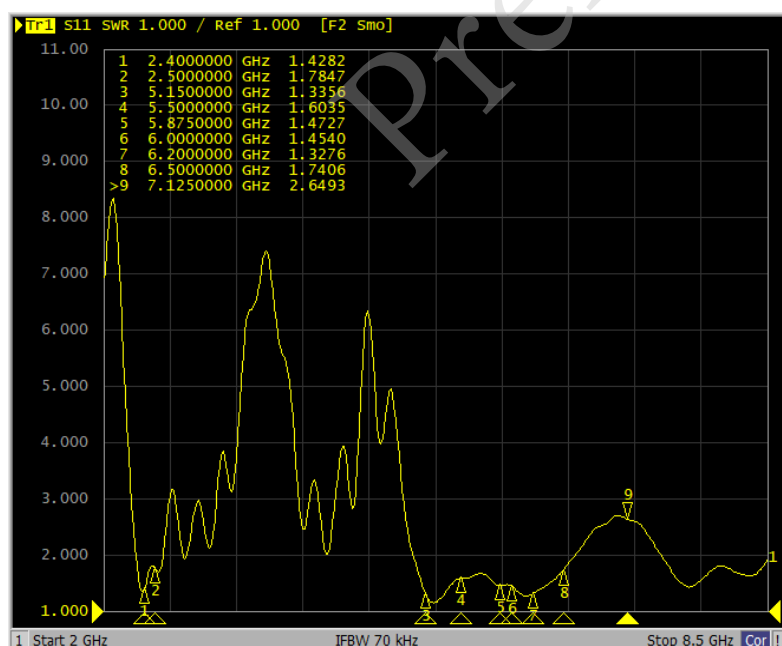
Frequency range	2400 - 2500 MHz	5150 - 5925 MHz	6000 - 7125 MHz
Peak gain	2.35 dBi	3.0 dBi	3.02 dBi
Average gain	1.25 dBi	1.6 dBi	1.87 dBi
VSWR	2.0 : 1 Max.	2.0 : 1 Max.	3.0 : 1 Max.
Polarization	Linear, vertical		
Power handling	2 W (cw)		
Impedance	50 Ω		
Connector	RP SMA PLUG		



Environmental & Mechanical Characteristics

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

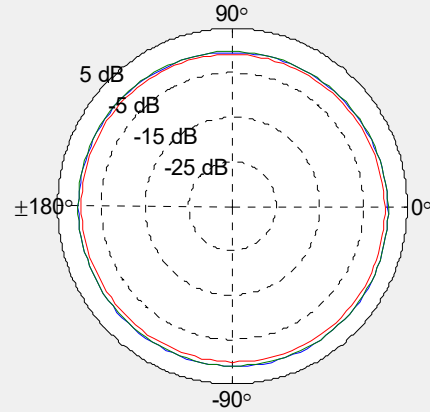
VSWR



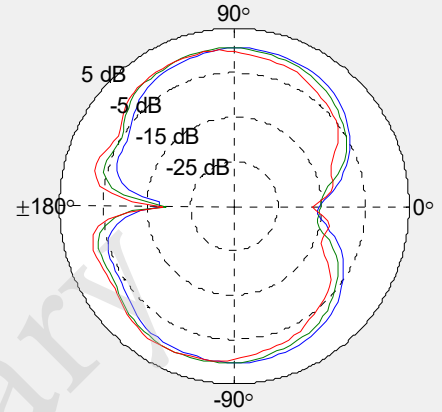
Radiation Pattern

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

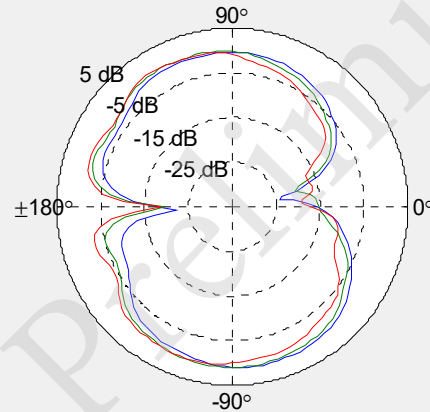
XY Plane (+X = 0°, +Y = +90°) / Elevation = 90 °



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



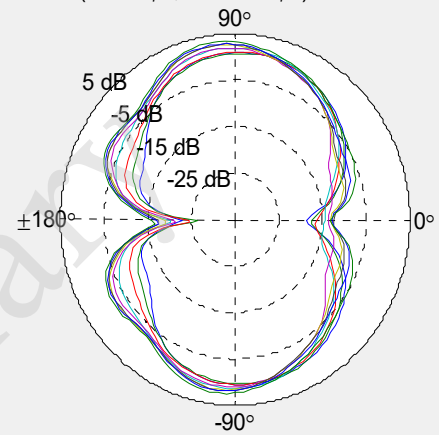
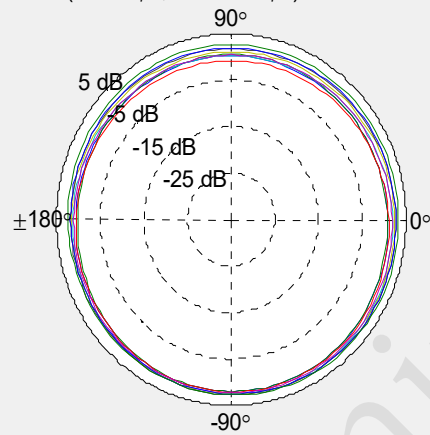
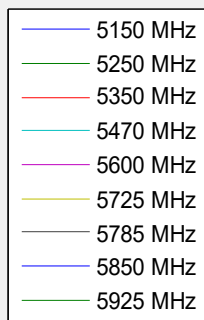
YZ Plane (+Z = 0°, +Y = +90°) / Azimuth = 90 °



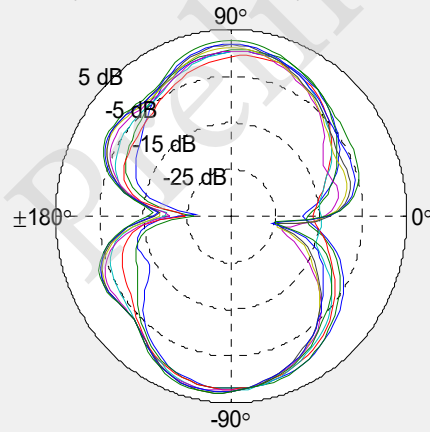
Radiation Pattern

5G Band = 4900 - 5975 MHz

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

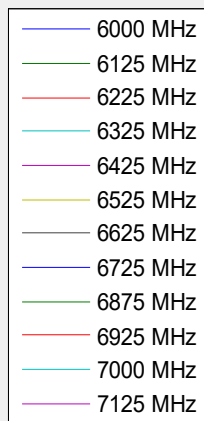


YZ Plane (+Z = 0°X, +Y = +90°X) / Azimuth = 90° X

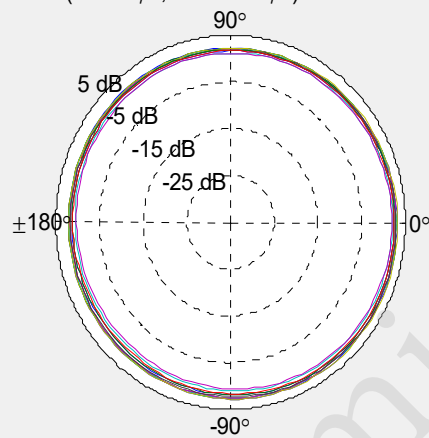


Radiation Pattern

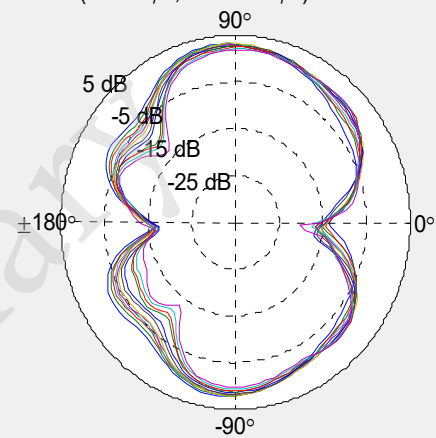
6G Band = 6000 - 8500 MHz



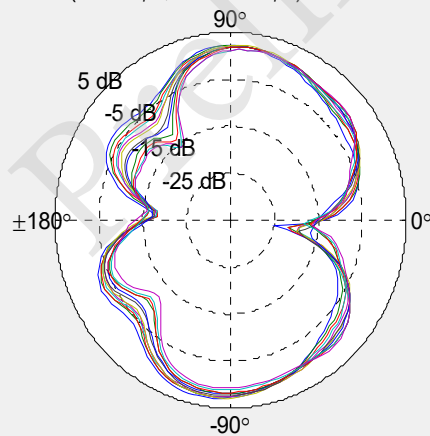
XY Plane (+X = 0°X, +Y = +90°X) / Elevation = 90°X



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



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



Gain Table

Frequency (MHz)	Efficiency	V+H Avg. Gain	V+H Peak Gain
		XY-plane	XY-plane
2400.00	77.54	1.63	2.35
2450.00	75.72	1.31	2.14
2500.00	73.59	0.82	1.76
5150.00	73.92	1.46	2.81
5250.00	75.31	1.42	2.82
5350.00	71.01	1.33	2.94
5470.00	77.30	1.60	3.00
5600.00	74.57	1.44	2.75
5725.00	75.44	1.47	2.64
5785.00	76.28	1.74	2.75
5850.00	77.29	1.73	2.63
5925.00	77.45	2.28	2.80
6000.00	78.45	2.25	2.87
6125.00	76.42	2.16	2.78
6225.00	74.59	1.99	2.64
6325.00	74.65	2.10	2.75
6425.00	75.03	1.99	2.70
6525.00	76.18	2.29	3.02
6625.00	74.17	1.88	2.69
6725.00	72.63	1.86	2.59
6875.00	70.68	1.89	2.61
6925.00	70.77	1.74	2.46
7000.00	69.84	1.24	2.04
7125.00	67.23	1.03	1.90

