

AD-513AX

Antenna Approval Sheet

Part Number	R3410A14056
Product Number	AD-513AX
Description	Dipole Antenna,3.11dBi/4.53dBi 2.4G/5G~6GHz, I-PEX/MHF4 connector L:150mm
DOC NO	AS-2402002

Ver. 0.9

Revised History

Version	Purpose	Date	Responsible
0.9	Preliminary DoC	2024/02/22	Christina

SparkLAN		Customer
Sales	PM	Approval by

Antenna type : Dipole

AD-513AX



Electrical Specifications

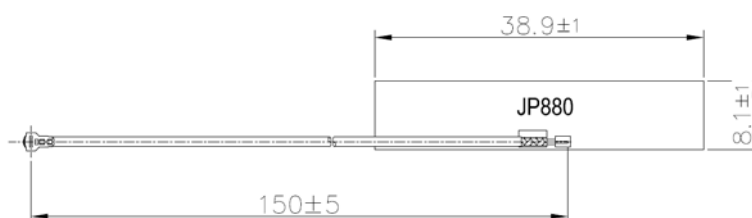
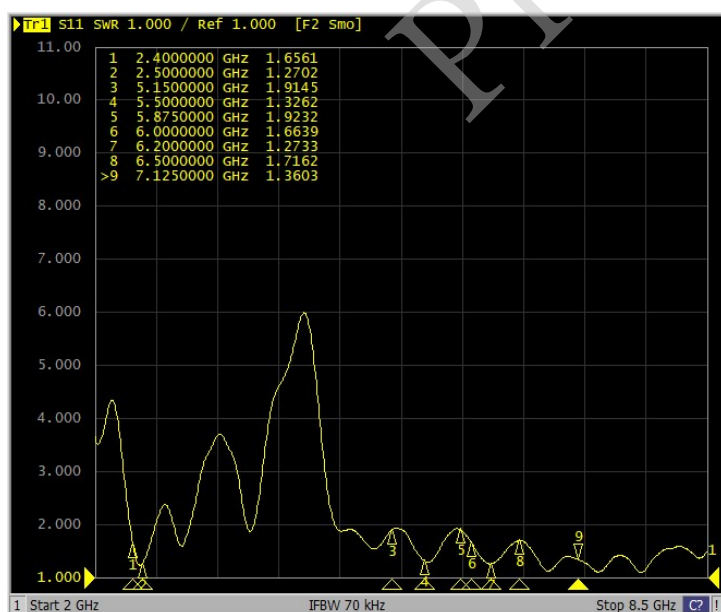
Frequency range	2400 - 2500 MHz	5150 - 5350 MHz	5470 - 5850 MHz	5895 - 7125 MHz
Peak Gain	3.11 dBi	2.97 dBi	4.46 dBi	4.53 dBi
Average gain	-1.74 dBi	-2.92 dBi	-3.4 dBi	-3.77 dBi
VSWR	2.0 : 1 Max.	2.5 : 1 Max.	2.5 : 1 Max.	2.5 : 1 Max.
Impedance	50 Ω			
Dimensions	38.9 x 8.1 mm			
Antenna Material	FR4			
Connector	I-PEX MHF4			
Cable	$\varnothing$ 1.13 / 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

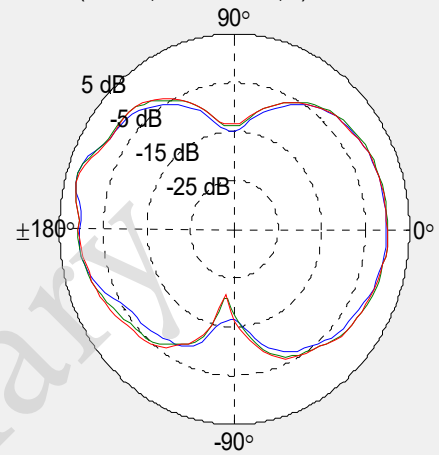
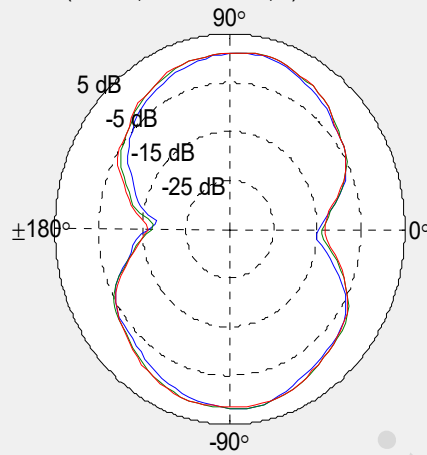
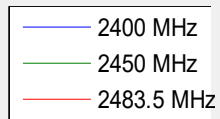


Antenna Pattern

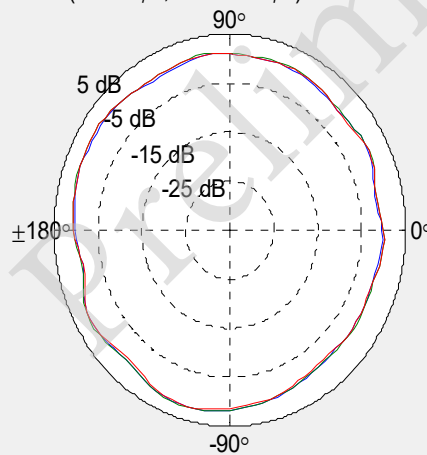
2G Band = 2400 - 2500 MHz % 2G BAND

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

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

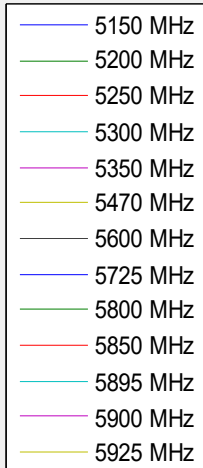


YZ Plane (+Z = 0°X, +Y = +90°X) / Azimuth = 90°X

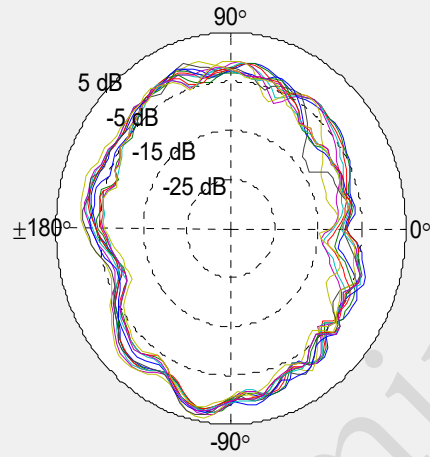


Antenna Pattern

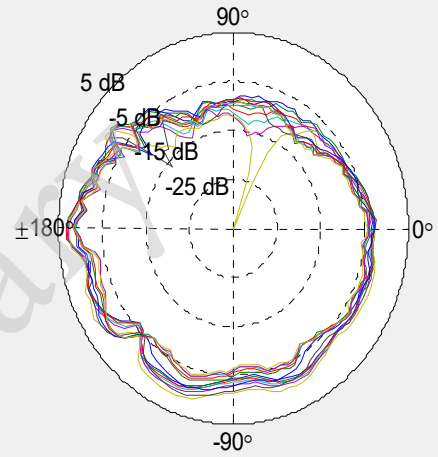
5G Band = 4900 - 5975 MHz



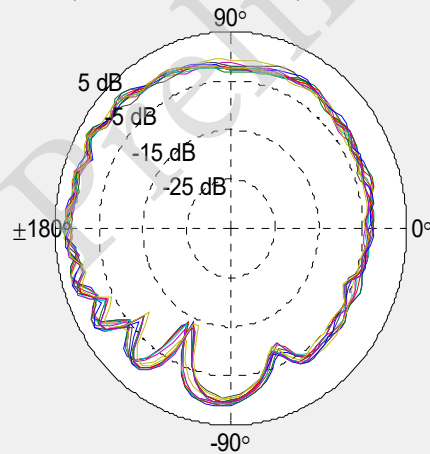
XY Plane (+X = 0°X, +Y = +90°X) / Elevation = 90°X



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



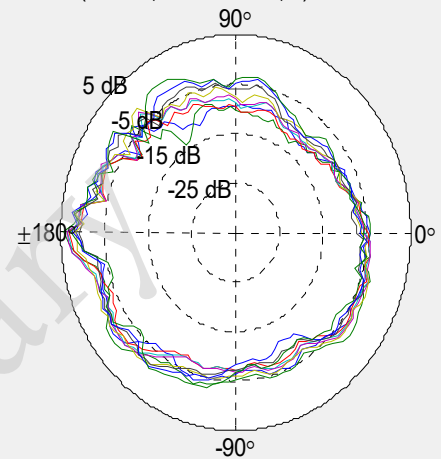
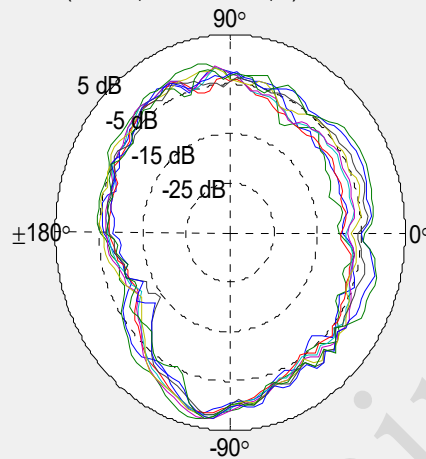
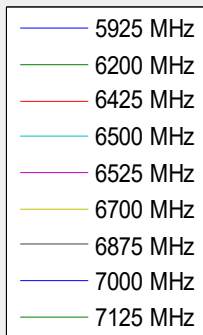
YZ Plane (+Z = 0°X, +Y = +90°X) / Azimuth = 90°X



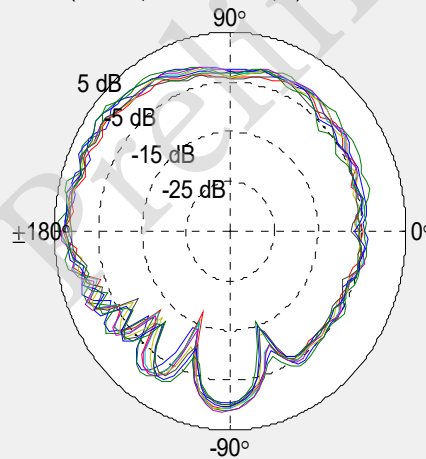
Antenna Pattern

6G Band-2 = 5925 - 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)	3D		
	Efficiency	Avg. Gain	Peak Gain
2400.00	65.01	-1.87	3.06
2450.00	68.33	-1.65	3.11
2483.50	67.68	-1.70	3.08
5150.00	53.31	-2.73	2.84
5200.00	53.49	-2.72	2.97
5250.00	49.70	-3.04	2.78
5300.00	48.94	-3.10	2.89
5350.00	49.78	-3.03	2.96
5470.00	53.21	-2.74	4.46
5600.00	46.80	-3.30	4.01
5725.00	45.68	-3.40	4.02
5800.00	41.47	-3.82	3.86
5850.00	42.14	-3.75	4.07
5895.00	41.21	-3.85	4.04
5900.00	41.06	-3.87	4.13
5925.00	40.54	-3.92	3.85
6200.00	44.07	-3.56	4.53
6425.00	39.98	-3.98	4.01
6500.00	41.65	-3.80	4.06
6525.00	44.24	-3.54	4.04
6700.00	45.53	-3.42	3.90
6875.00	41.42	-3.83	3.95
7000.00	41.35	-3.84	3.97
7125.00	41.22	-3.85	3.93

