

AD-510AX

Antenna Approval Sheet

Part Number	R3410A10051
Product Number	AD-510AX
Description	Dipole Antenna,2.27dBi /2.88dBi / 3.52dBi /2.4G/5G/ 6GHz,RP-SMA (M) connector
DOC NO	AS-2208001

Ver. 0.92

Revised History

Version	Purpose	Date	Responsible
0.9	Preliminary DoC	2022/08/18	Christina
0.91	Revised Measurement 5150 data 2.7 to 2.88(Page 8)	2022/12/02	Christina
0.92	Add Antenna photo including antenna length/width with L type scale (Page 9)	2023/02/24	Christina

SparkLAN		Customer
Sales	PM	Approval by

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Wi-Fi /Wi-Fi 6E Triple Band Dipole antenna

SPECIFICATION

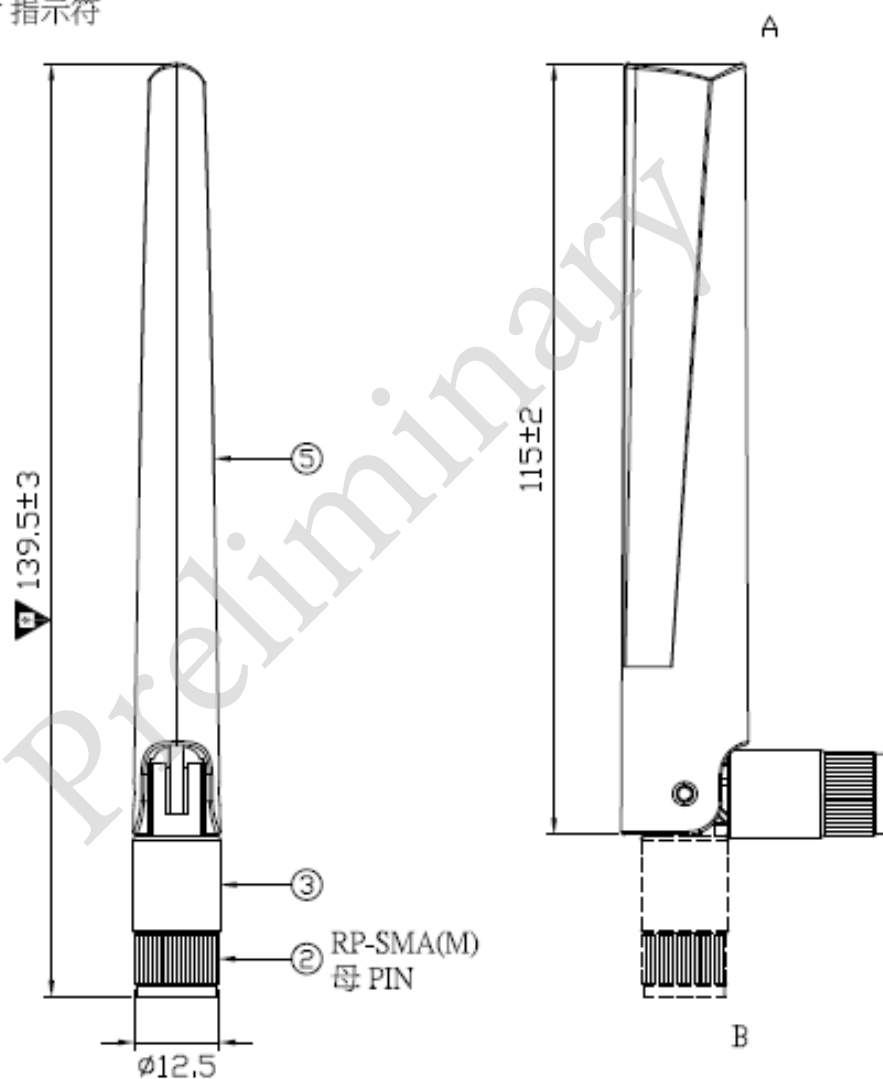
- | | |
|-------------------------------|---|
| 1. Description | : WiFi+WiFi 6E Antenna with
RP-SMA(M)(Black) |
| 2. Part No. | : AD-510AX |
| 3. Antenna Profile | : 139.5 mm length (see Drawing) |
| 4. Color | : Black |
| 5. Electrical Characteristics | |
| Operating Frequency | : 2.4~2.5 / 5.15~7.125 GHz |
| Antenna Type | : Dipole |
| Polarization Type | : Linear |
| Type of Radiation | : Toroidal |
| Peak Gain | : 3.52 dBi Typical |
| Impedance | : 50 Ohm nominal |
| V.S.W.R. | : 2.0:1 Max |
| 6. Mechanical Characteristics | |
| Swivel | : 90 degrees |
| Connector | : RP-SMA (M) |
| 7. Raw Material | |
| Coaxial Cable | : RG-178 |
| 8. Operating Temperature | : -30 ~+80 |

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Mechanical Dimensions

▼ 重點尺寸 指示符



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Measurement data

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S-parameter: Return loss



	DB1	SPEC.
2.400GHz	-29	-10
2.500GHz	-15	
4.400GHz	-16	
5.150GHz	-15	
5.925GHz	-13	
7.125GHz	-19	

Return Loss table

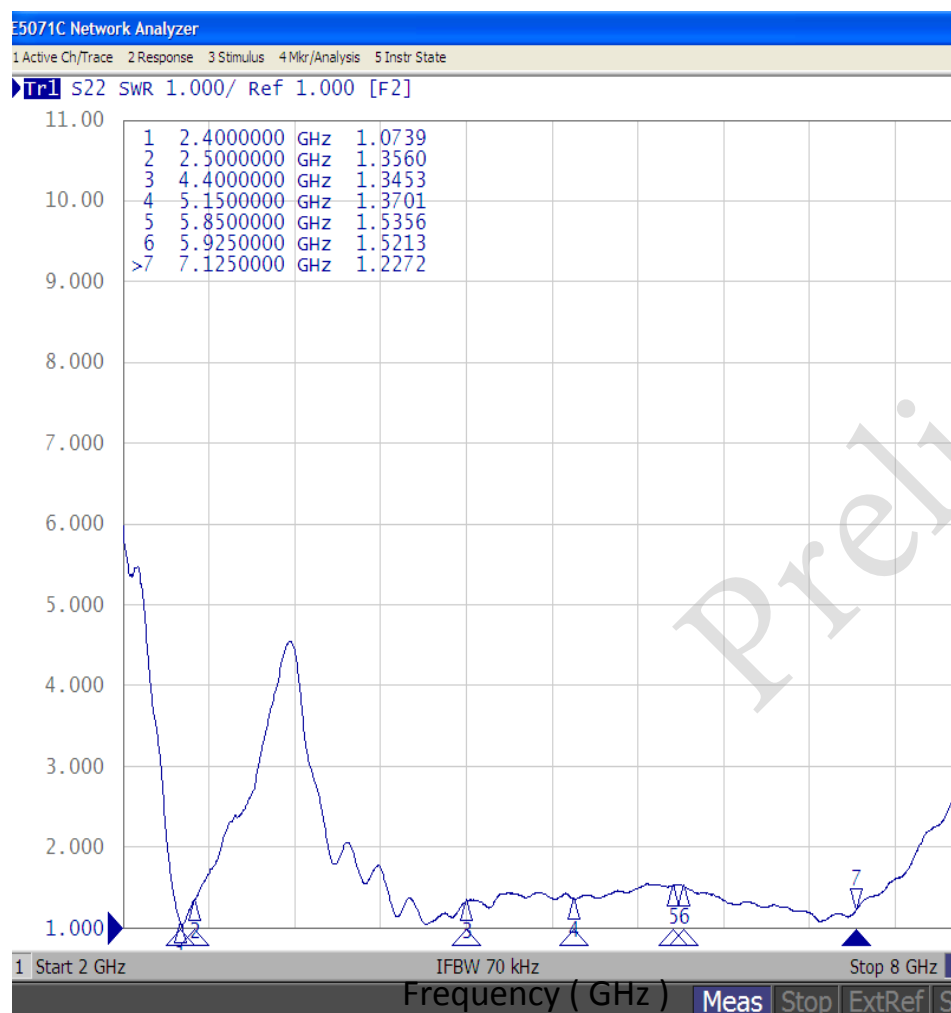
Unit: dB

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Wi-Fi /Wi-Fi 6E Triple Band Dipole antenna

Measurement data

S-parameter: VSWR



	DB1	SPEC.
2.400GHz	1.07	2以下
2.500GHz	1.3	
4.400GHz	1.34	
5.150GHz	1.37	
5.925GHz	1.52	
7.125GHz	1.22	

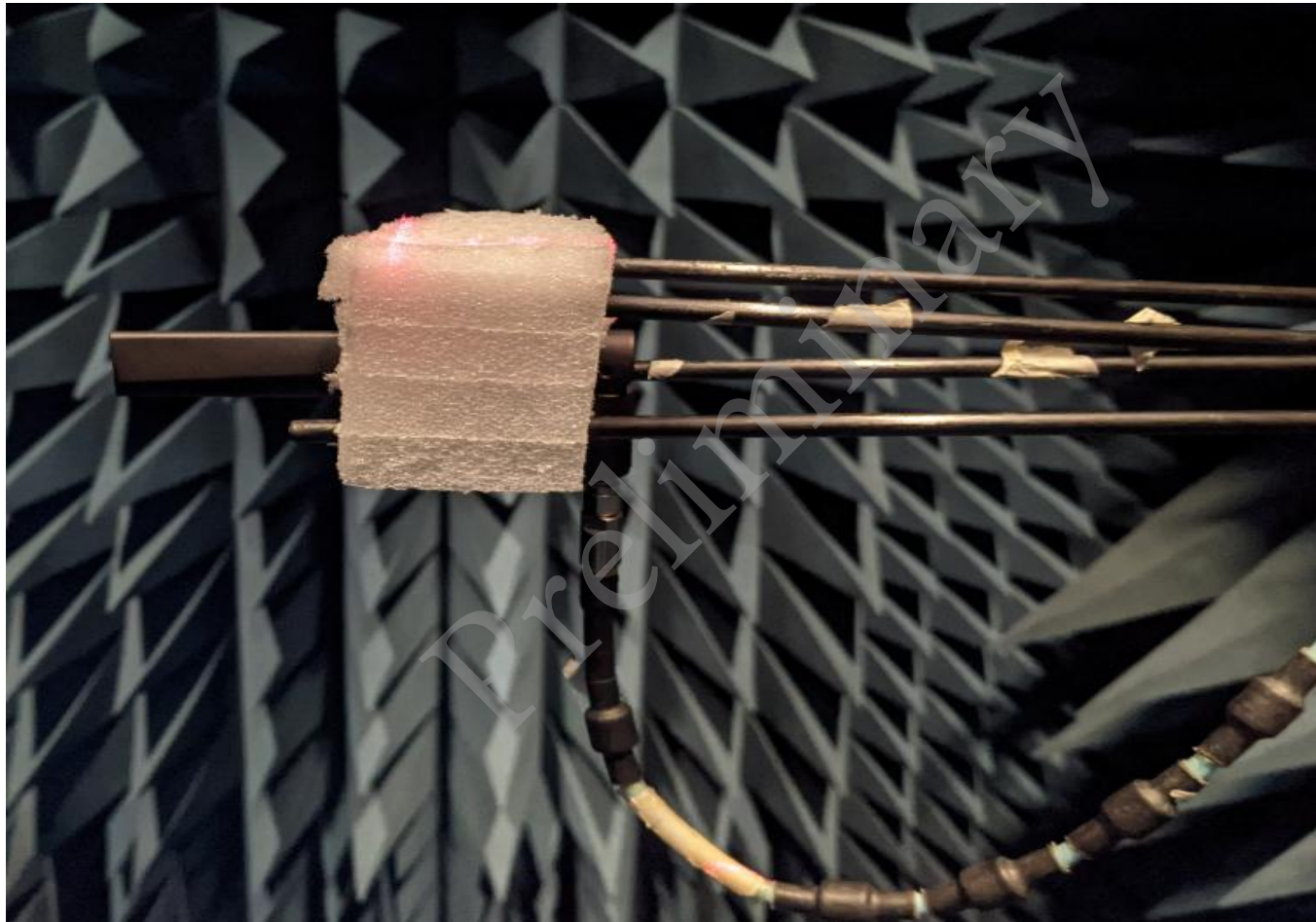
VSWR table

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Measurement data

Wi-Fi /Wi-Fi 6E Triple Band Dipole antenna

Radiation pattern - DUT orientation setting

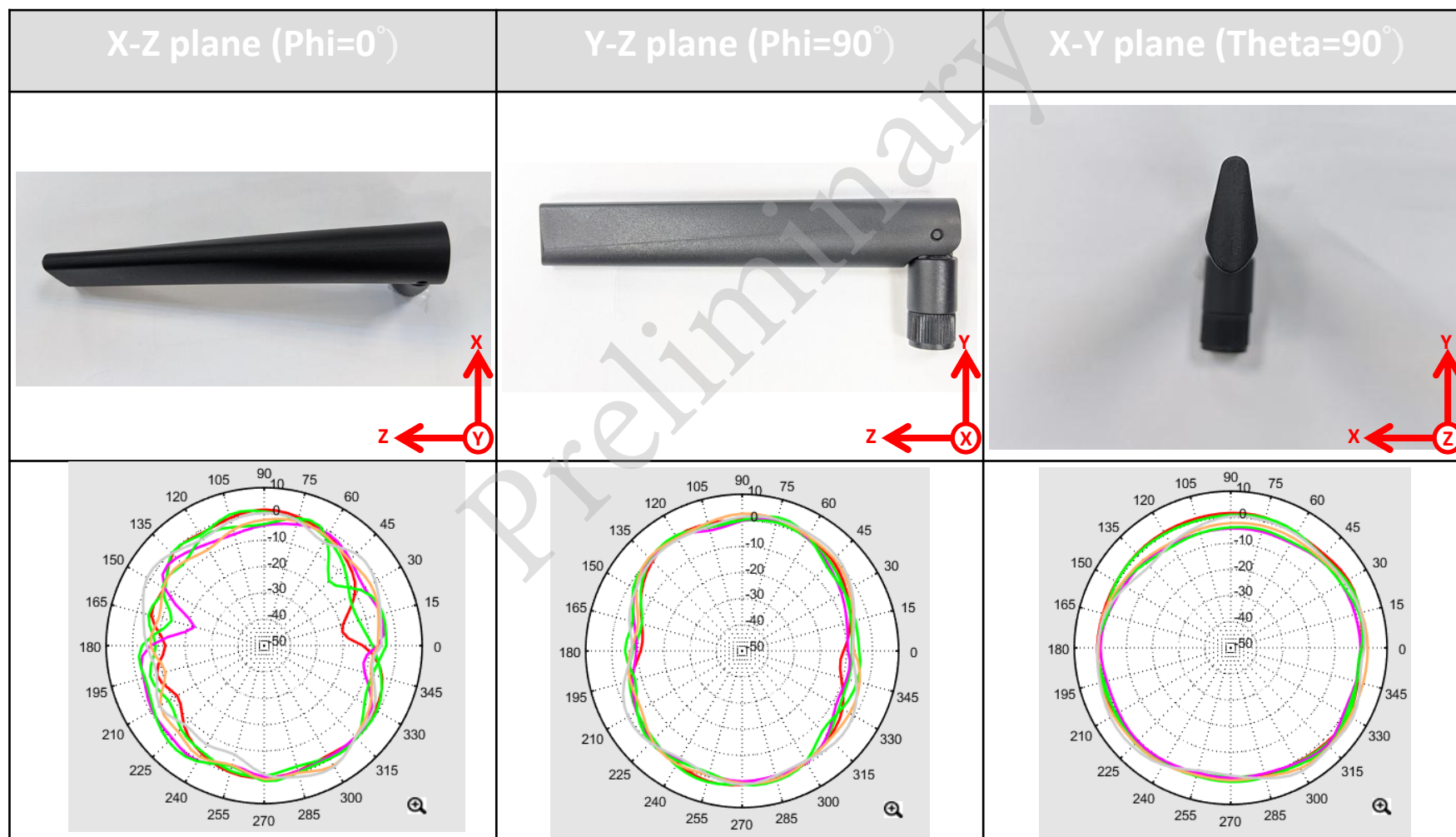


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Wi-Fi /Wi-Fi 6E Triple Band Dipole antenna

Measurement data

Radiation pattern



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Wi-Fi /Wi-Fi 6E Triple Band Dipole antenna

Measurement data

Frequency (MHz)	2400	2485	5150	5250	5350	5470	5725	5850	5895	5925	6425	6525	6875	7125
Peak Gain (dBi)	2.06	2.27	2.88	2.69	2.51	2.58	2.4	2.6	2.29	2.52	3.23	3.34	3.52	3
Avg. Gain (dBi)	-1.13	-1.01	-1.32	-1.39	-1.41	-1.57	-1.35	-1.54	-1.7	-1.52	-1.46	-1.37	-1.21	-1.27
Efficiency (%)	77.09	79.25	73.79	72.61	72.28	69.66	73.28	70.15	67.61	70.47	71.45	72.95	75.68	74.64

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