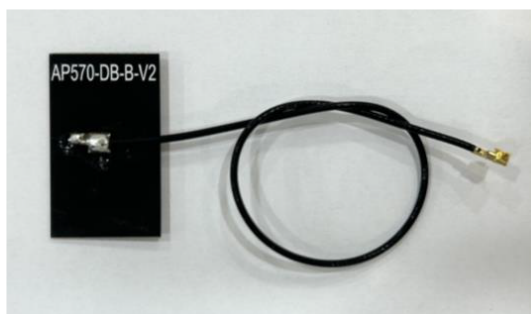


WIFI Tri-band Dipole PCB Antenna Specification



Brand name	Advantech
Advantech P/N	TBD
Manufacture P/N	RFA-27-AP570-4B-C191
Manufacture	ARISTOTLE
Manufacture Address	5F., No. 27, Xinmin St., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.)
Description	• Internal Dipole PCB antenna • Wi-Fi 5/6/6E/7 applications • Tri-band 2.4&5&6 GHz
Version	1.0
Date	2025/11/20

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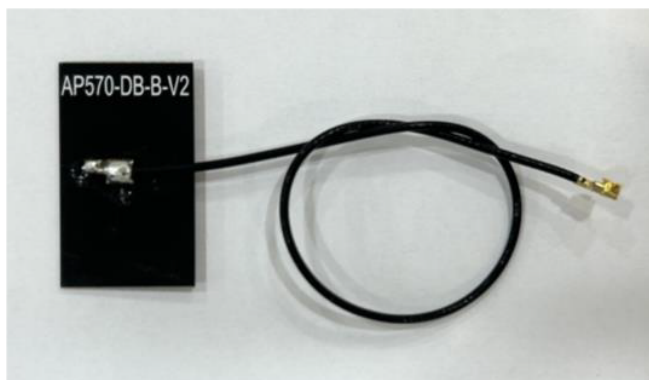
1. Revision History

Version	Date	Change Notification	Description
1.0	2025/11/20	Initial version	



2. Specification

Sample Photo



Antenna PCB Dimension- 27*16*0.8 mm³

Electrical Characteristics

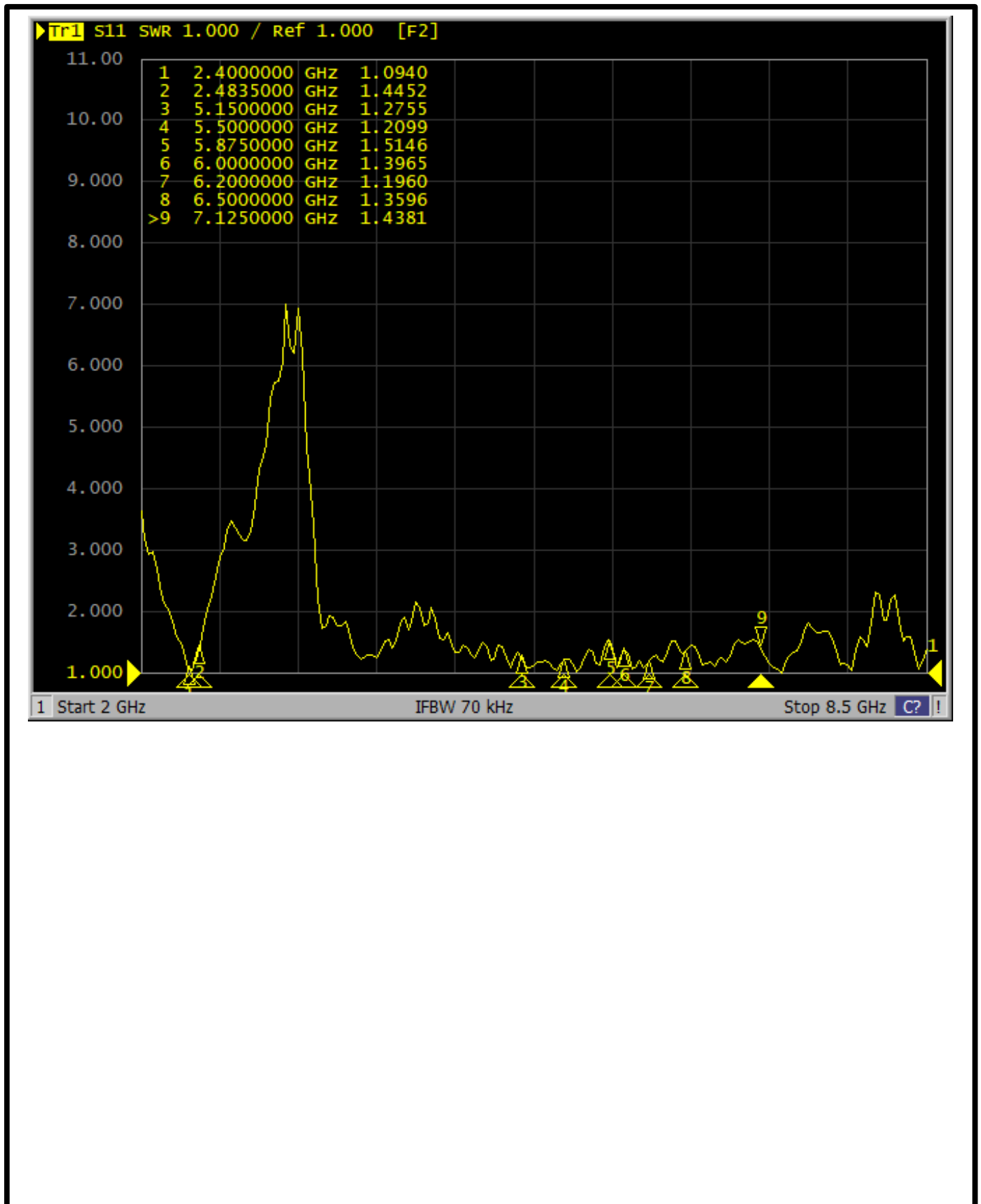
Frequency	2400 – 2500 MHz, 5150 – 5900 MHz, 5925 – 7125 MHz
V.S.W. R	<= 2.0 @ 2400 – 2500 MHz <= 2.0 @ 5150 – 5900 MHz <= 2.0 @ 5925 – 7125 MHz
Peak Gain	2.60 dBi @ 2400 – 2500 MHz 4.75 dBi @ 5150 – 5900 MHz 4.89 dBi @ 5925 – 7125 MHz
Efficiency	81 % @ 2400 – 2500 MHz 79 % @ 5150 – 5850 MHz 56 % @ 5925 – 7125 MHz
Polarization	Linear
Radiation Pattern	Omni-direction
Impedance	50 ohm
Application	WIFI5 & 6 & 6E & 7
Antenna Type	Dipole

Material & Mechanical Characteristics

Antenna Dimension	27*16*0.8 mm ³
Cable Length	Customized
Material of Radiator	Copper
Material of Substrate	FR4
Antenna Color	Black
Cable Type	O.D 1.13 mm Coaxial Cable
Connector Type	IPEX4 (MHF4L)

Environmental	
Operation & Storage Temperature	-40 ~ 85 °C
Humidity	95% @ 25 °C
Power Handling	2 W

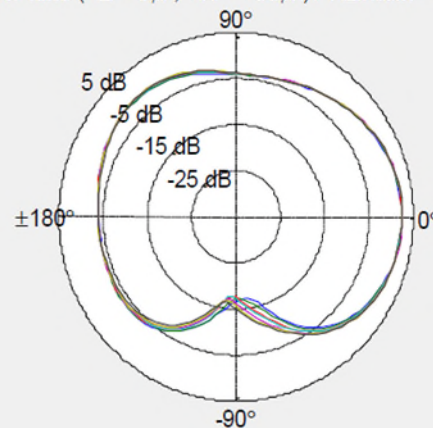
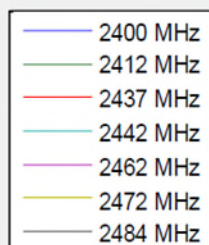
3. Antenna - S Parameter Test Data



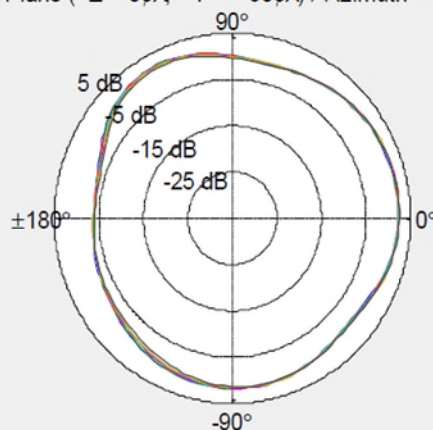
4. Antenna – Gain & Radiation Pattern Test Data

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



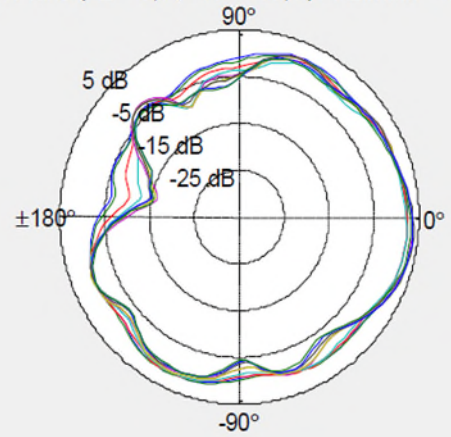
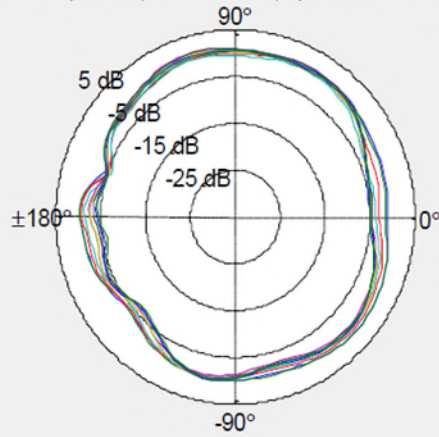
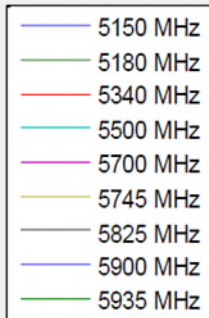
YZ Plane (+Z = 0°X, +Y = +90°X) / Azimuth = 90° X



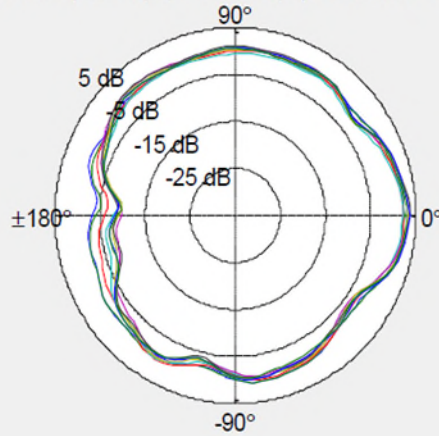
5G Band = 4900 - 5975 MHz

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

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



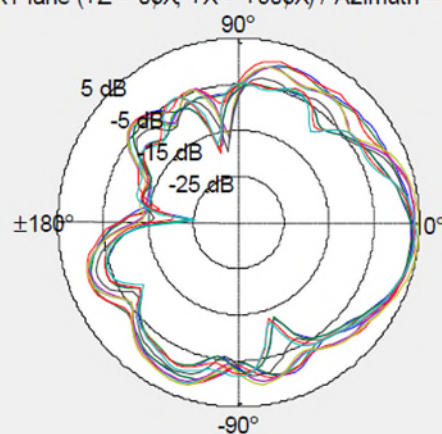
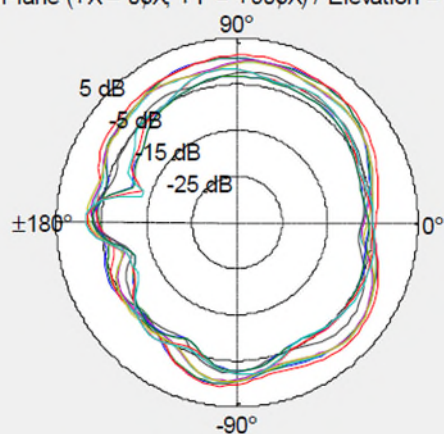
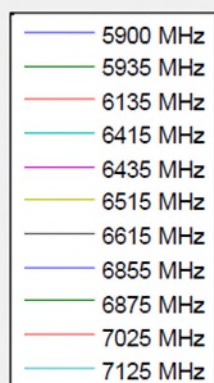
YZ Plane (+Z = 0°X, +Y = +90°X) / Azimuth = 90°X



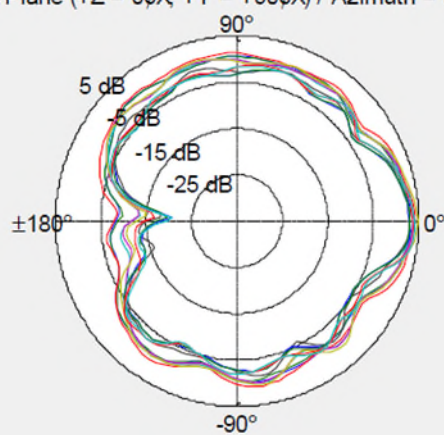
6G Band = 5900 - 8500 MHz

XY Plane ($+X = 0^\circ$, $+Y = +90^\circ$) / Elevation = 90°

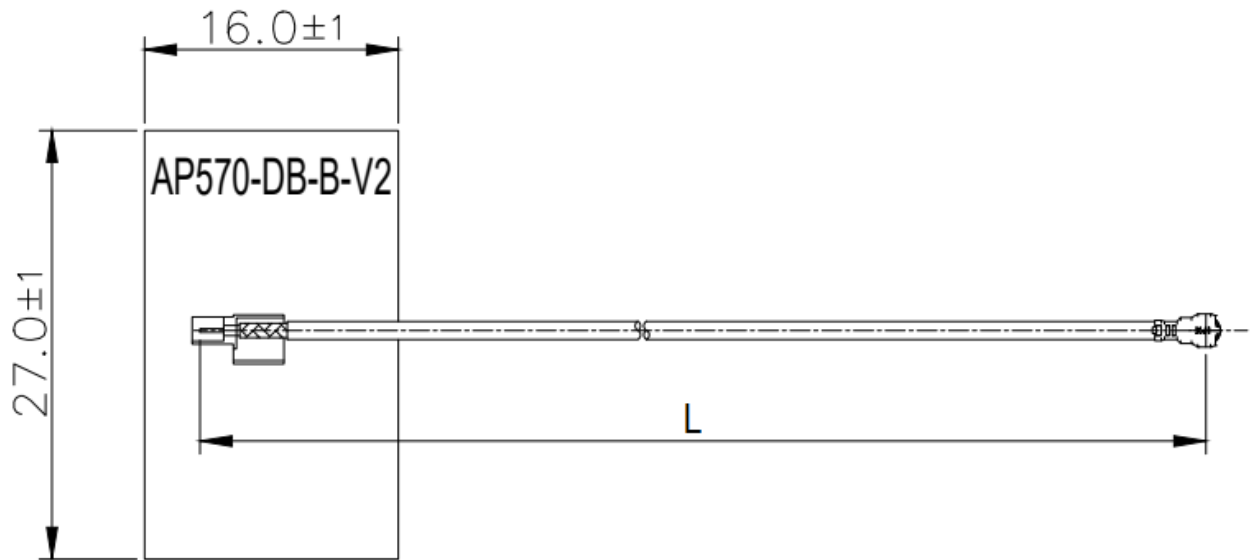
ZX Plane ($+Z = 0^\circ$, $+X = +90^\circ$) / Azimuth = 0°



YZ Plane ($+Z = 0^\circ$, $+Y = +90^\circ$) / Azimuth = 90°



5. Mechanical Drawing



6. Packing Drawing

產品包裝規範 PACKING CRITERION

