

AIW-511 Specification

Brand name	Advantech
Product name	AIW-511
Advantech P/N	1751000342-01
Manufacturer Part Number	RFDPA171300SBLB825
Manufacture	INPAQCH
Manufacture Address	No. 566-1, Kao-Shi Rd., Yangmei Dist., Taoyuan City 326103, Taiwan (R.O.C)
Description	External Dipole antenna Wi-Fi 5/6/6E/7 applications Straight & 90°bent Tri-band 2.4&5&6 GHz
Version	1.1
Date	2024/05/24

INDEX		
No.	Item	Page
1	Revision History	3
2	Specification	4
3	Antenna - S Parameter Test Data	6
4	Antenna – Gain & Radiation Pattern Test Data	7
5	Mechanical Drawing	9
6	Packing Drawing	10



1. Revision History

Version	Date	Change Notification	Description
1.0	2024/3/7	Initial version	
1.1	2024/5/24	Modify the operating Temp.	Change to 0 ~ 70 °C



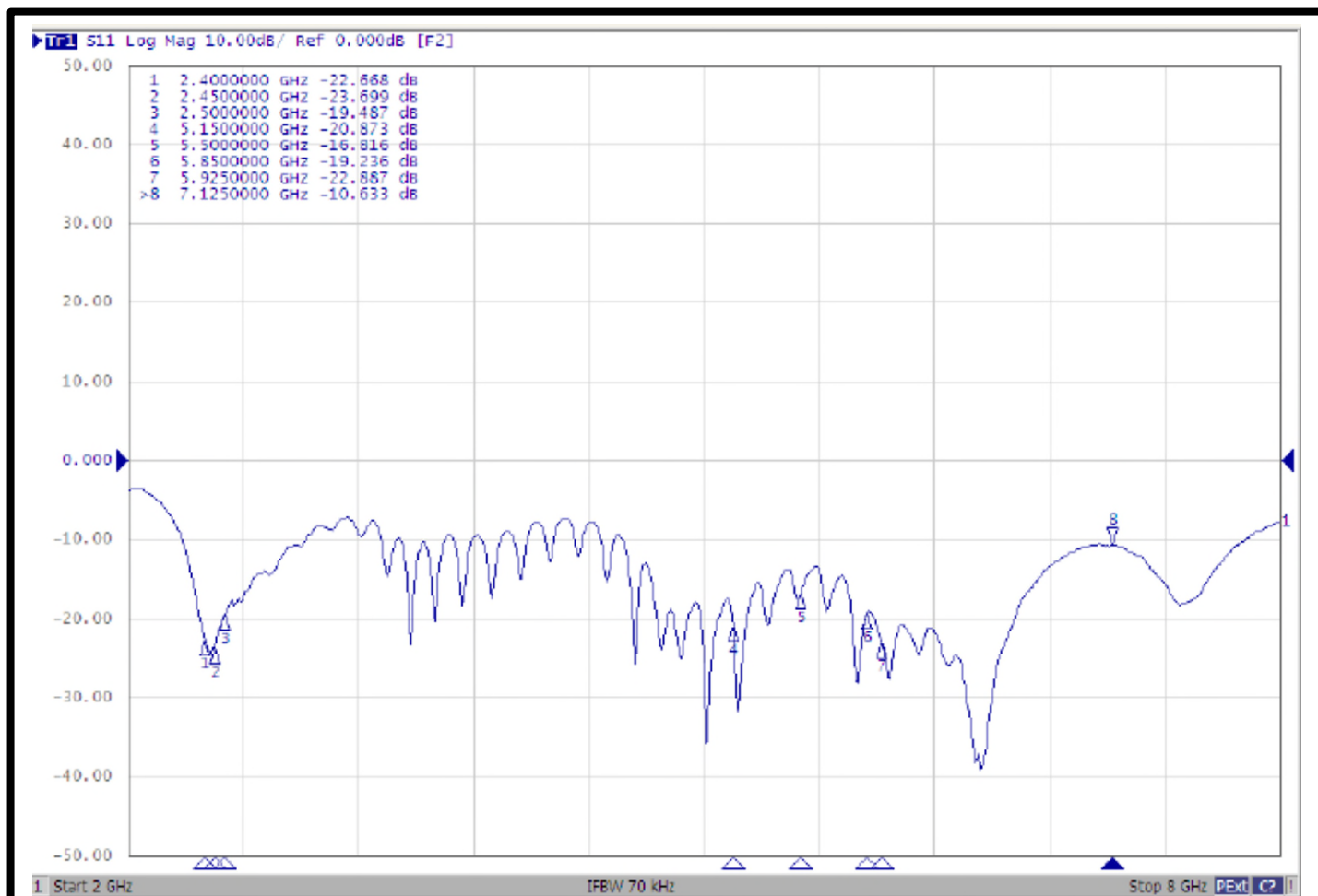
2. Specification

Sample Photo	
 Antenna Length- 196 mm Antenna Diameter- 13 mm	
Electrical Characteristics	
Frequency	2400 – 2500 MHz, 5150 – 5850 MHz, 5925 – 7125 MHz
V.S.W. R	≤ 2.0 @ 2400 – 2500 MHz ≤ 2.0 @ 5150 – 5850 MHz ≤ 2.0 @ 5925 – 7125 MHz
Peak Gain	2.28 dBi @ 2400 – 2500 MHz 2.64 dBi @ 5150 – 5850 MHz 3.28 dBi @ 5925 – 7125 MHz
Efficiency	~70 % @ 2400 – 2500 MHz 69~75 % @ 5150 – 5850 MHz 65~77 % @ 5925 – 7125 MHz
Polarization	Linear
Radiation Pattern	Omni-direction
Impedance	50 ohm
Application	Wi-Fi 6 & 6E & 7, BT, Zigbee
Antenna Type	Dipole
Material & Mechanical Characteristics	
Antenna Length	196 mm
Antenna Diameter	13 mm
Material of Radiator	TPEE

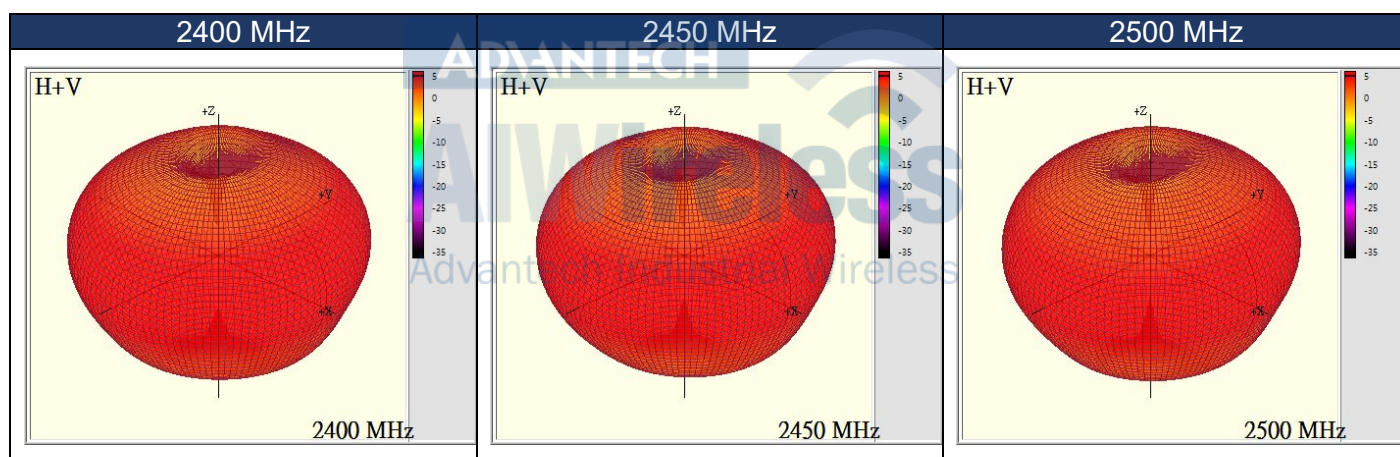
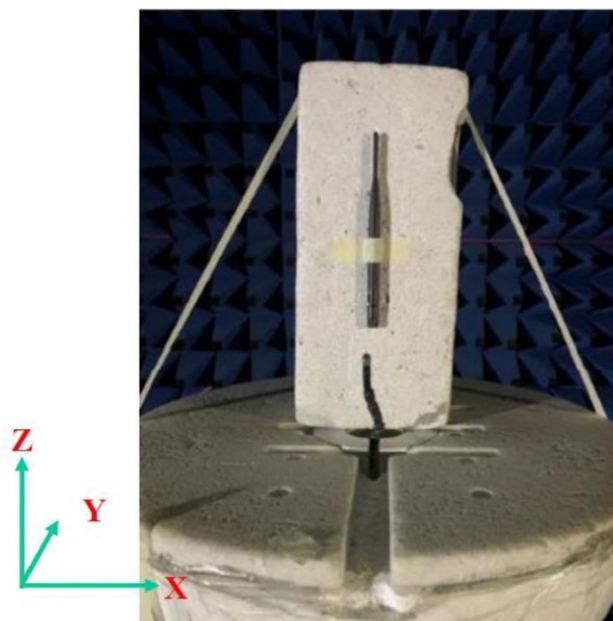
Material of Plastic	PC / PC + PBT / TPEE
Antenna housing color	Black
Cable Type	RG-178
Connector Type	RP-SMA Male
Environmental	
Operation Temperature	0 ~ 70 °C
Storage Temperature	0 ~ 70 °C
Power Handling	2 W



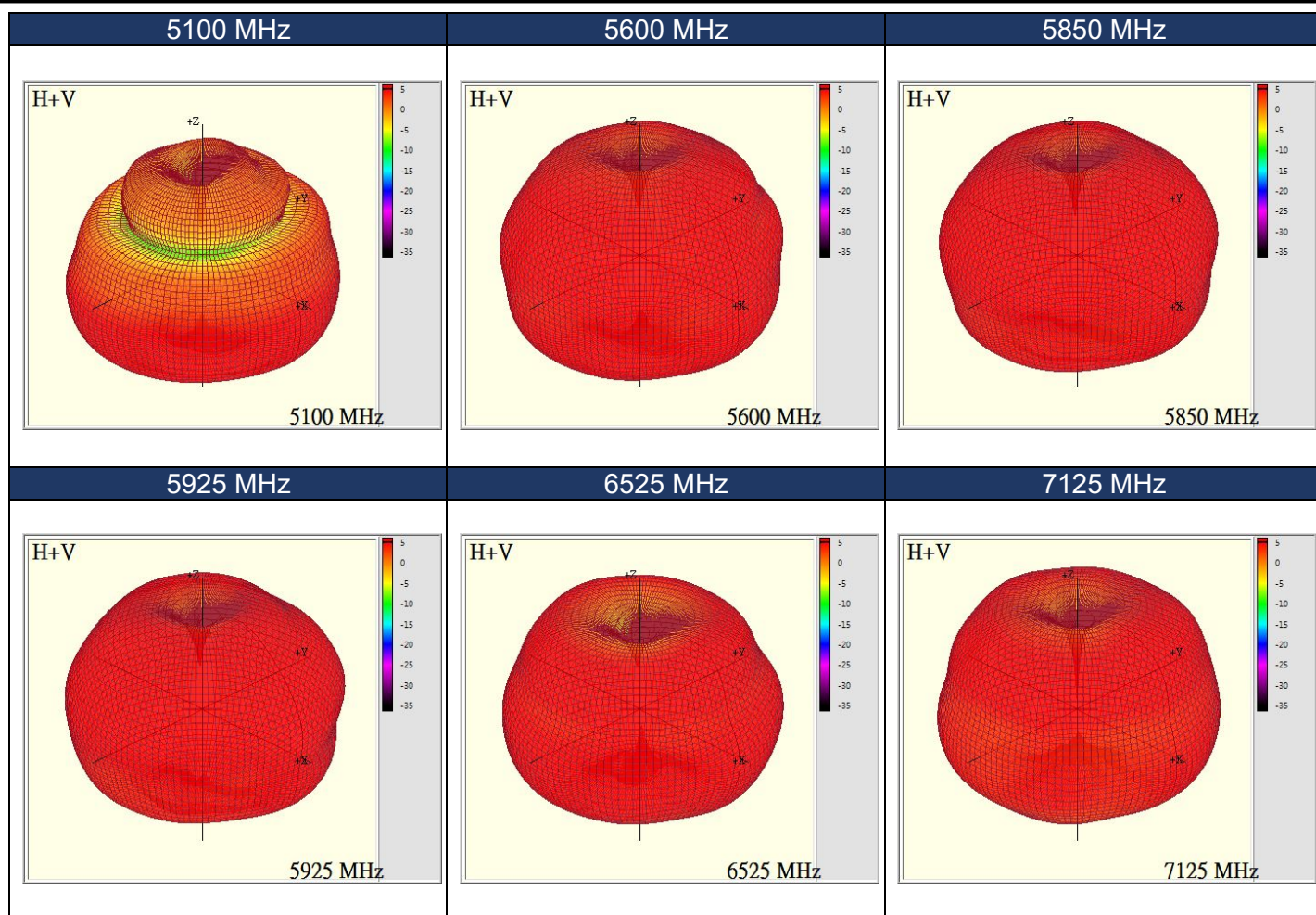
3. Antenna - S Parameter Test Data



4. Antenna – Gain & Radiation Pattern Test Data



Frequency(MHz)	2400	2450	2500
Peak Gain(dBi)	2.28	2.11	1.73
Efficiency(%)	71.26	72.47	70.59
Efficiency(dB)	-1.47	-1.40	-1.51



Frequency(MHz)	5150	5250	5350	5470	5600	5725	5785	5850	5925	6000	6125
Peak Gain(dBi)	2.16	2.31	1.80	1.79	2.28	2.64	2.55	2.39	2.90	3.28	2.63
Efficiency(%)	74.34	75.29	74.58	69.83	69.19	72.36	69.71	69.49	70.32	72.81	65.29
Efficiency(dB)	-1.29	-1.23	-1.27	-1.56	-1.60	-1.41	-1.57	-1.58	-1.53	-1.38	-1.85

Frequency(MHz)	6225	6325	6425	6525	6625	6725	6875	6925	7000	7125
Peak Gain(dBi)	2.37	2.00	1.99	2.51	1.87	2.18	1.72	1.97	2.52	2.25
Efficiency(%)	73.46	75.47	73.31	74.02	74.77	74.97	73.44	76.24	77.67	74.69
Efficiency(dB)	-1.34	-1.22	-1.35	-1.31	-1.26	-1.25	-1.34	-1.18	-1.10	-1.27

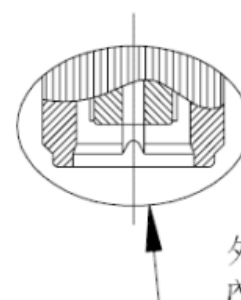
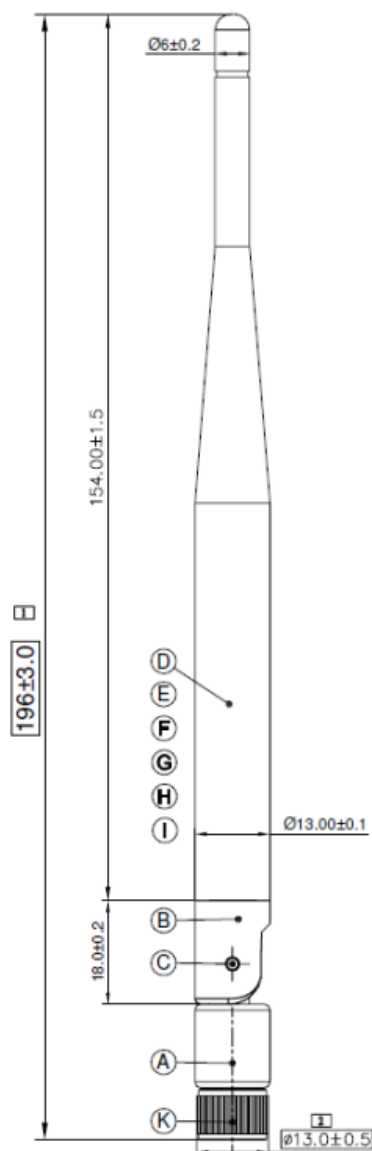
5. Mechanical Drawing

ELECTRICAL

Frequency:

2400~2500MHz

5150~7125MHz

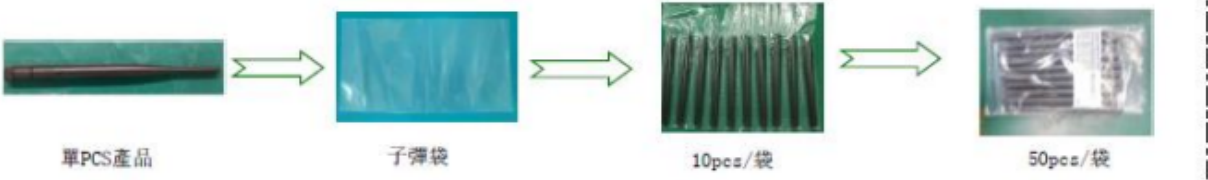


外殼POM
內牙鍍鎳

K	Connector	Reverse SMA Plug;Black		1
J	Cable	RG178 Cable);Brown		1
I	Tube	Heat Shrink Tube;Black	RFDPA1713-13內構	1
H	防異音泡棉	--	RFDPA1713-13內構	1
G	防異音泡棉	--	RFDPA1713-13內構	1
F	Down Brass	Brass;一體式	RFDPA1713-13內構	1
E	Up Brass	Brass;一體式	RFDPA1713-13內構	1
D	Antenna Cover	TPEE;Black		1
C	Rivet	POM;Black		2
B	Antenna Up Base	PC;Black		1
A	Antenna Down Base	PC+PBT;Black		1
PART NO.	DESCRIPTION		MATERIAL	Q'TY

6. Packing Drawing

產品包裝規範 PACKING CRITERION

Part Number	1751000342-01	Name	AIW-511
包裝圖 圖一  圖二  圖三  產品包裝規範: 1. 將可撕子彈中每格裝入產品，5袋分別裝入PE中，50pcs/袋，封口并粘貼製造標籤(如圖示一)。 2. 將珍珠棉放入外箱中(如圖示二) 3. 將裝好的成品(如圖示三)放入外箱中，每箱放600pcs產品，上下各放1片珍珠棉，封口并粘貼製造標，封箱需以“工”字型即6面封箱。			
核准:	何耀輝	審核:	趙文豹
制定:	程碧琴		

