

OA-FW4007B Antenna Specification

2.4G/5G WIFI/BT band antenna



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HWJELEC

1.Product Introduction

OA-FW4007B is a flexible FPC with built-in adhesive and coaxial line that works in 2.4-2.5Ghz/5.2-5.8Ghz Antenna. The size of the FPC antenna body is 40 * 6 mm, with a thickness of only 0.3 mm (including the backing adhesive). Comes with RF0.81 coaxial line, wireLess damage, softer wire, 4cm length, IPEX first generation interface.

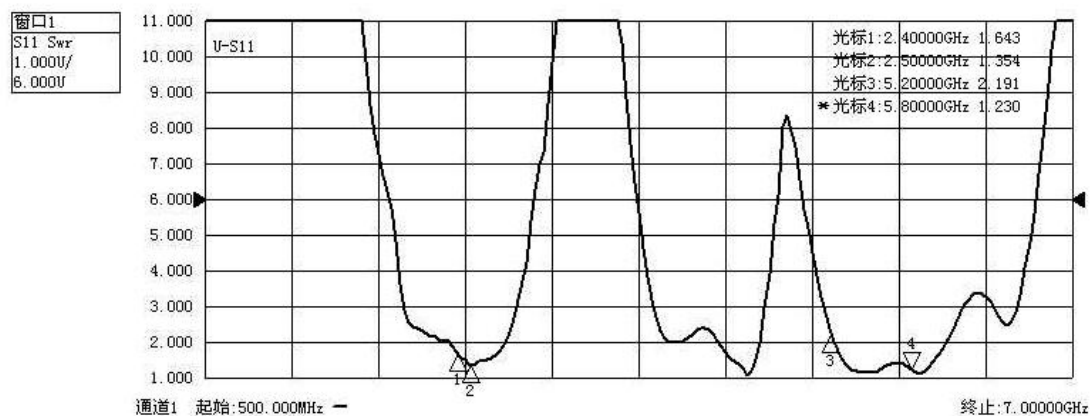
This antenna is suitable for various electronic products with built-in antennas using 2.4G/5G frequency bands (such as Bluetooth, Wi Fi, etc.) Communication equipment, etc.

2. Specifications

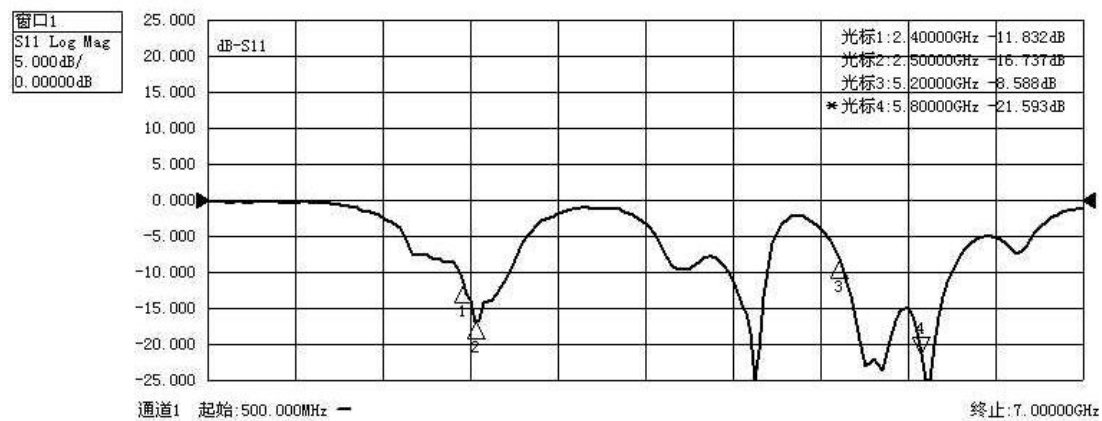
Electrical parameters	
Center Frequency	2450Mhz/5500GHz
Working Frequency Range	2400-2500Mhz/ 5200-5800Mhz
Gain(dBi)	3.9dB (2.4G) 3.3dB(5G)
Antenna efficiency	56.5% (2.4G) 70.3% (5G)
VSWR	<2
Polarization direction	vertical polarization
Radiation direction	omni directional
Impedance	50Ω
Power Capacity	5W
Other parameters	
Size	40.0*6.0*0.3mm
Thickness	0.3mm
Coaxial line length	4~10cm
Material	FPC
Coaxial line specification	RF0.81
Interface	IPEX1
Operating Temperature	-40℃~ +85℃

3. Antenna characteristics

VSWR



Return Loss

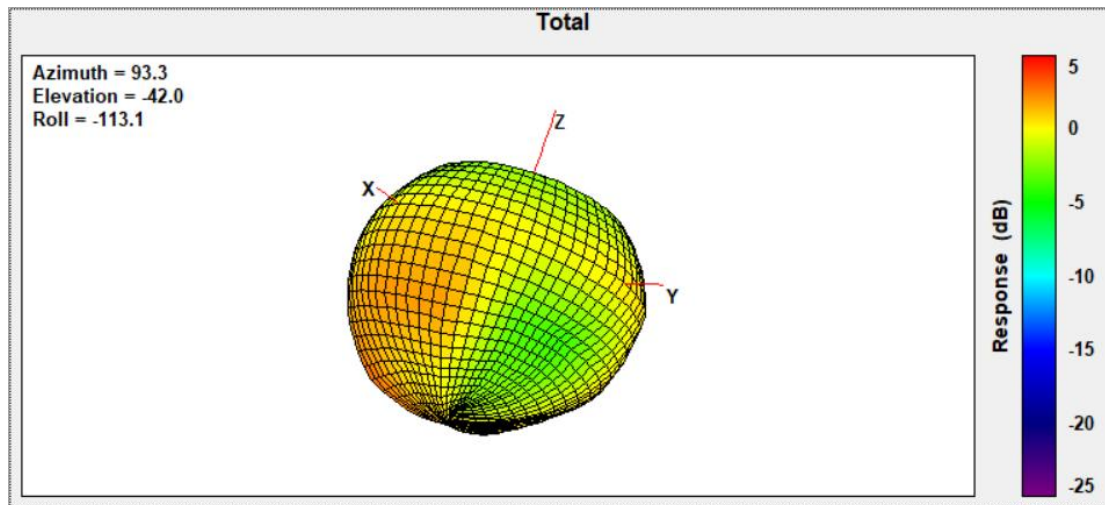


Efficiency and Gain

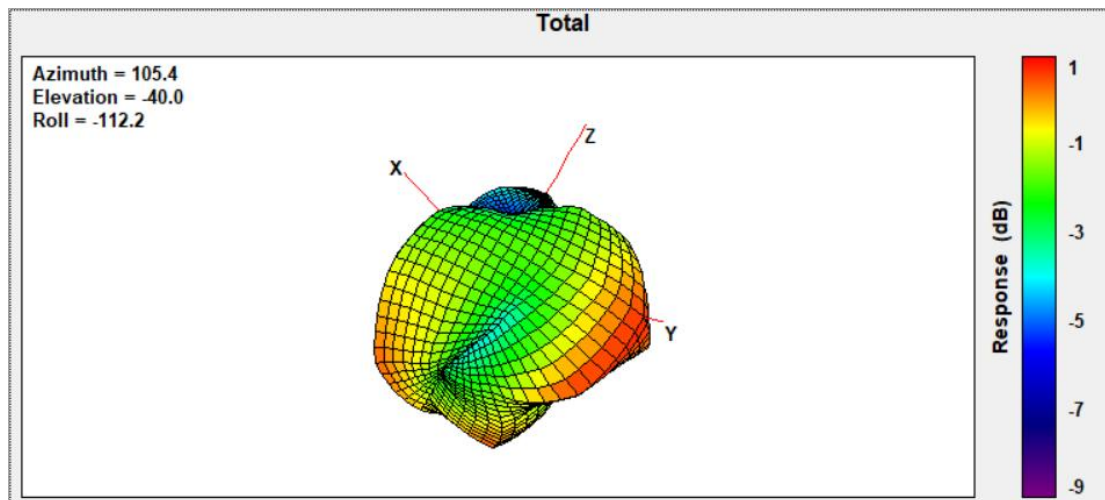
Frequency (Mhz)	Efficiency (%)	Gain (dBi)
2400	55.6	3.5
2410	56.4	3.4
2420	54.3	3.3
2430	55.2	3.5
2440	53.2	3.4
2450	57.8	3.6
2460	56.9	3.6
2470	57.4	3.6
2480	59.5	3.9
2490	58.2	3.8
2500	57.9	3.7
5200	56.8	1.6
5250	61.2	1.8
5300	62.1	1.8
5350	64.5	2.1
5400	68.9	2.4
5450	70.3	2.6
5500	73.5	2.8
5550	74.1	3.1
5600	77	3.2
5650	71.7	2.8
5700	74.8	2.9
5750	79.3	3.3
5800	80.4	3.3

RADIATION PATTERN

2.45GHz RADIATION PATTERN:



5.5GHz RADIATION PATTERN:



4. Precautions

- 1) The antenna should be attached to the surface of the insulation inside the product, please do not attach the antenna body to the surface of the metal conductor.
- 2) The distance between the antenna body and the metal conductor should be no less than 3 mm, and the larger the distance between the antenna body and the metal conductor, the better. PCB board as a conductor, it is also necessary to maintain a maximum distance from the antenna.
- 3) Do not wrap the coaxial line of the antenna around the antenna body, otherwise it may cause a decrease in antenna performance.
- 4) The impedance of the antenna may be offset due to structural differences between different products, and a π - type impedance matching device can be reserved for debugging improve. If you encounter such a situation, you can contact our company for technical support.

5. DIMENSIONS

