



DZP(TXWF-FPC-3710) Antenna Datasheet

2.4/5.8GHz WiFi FPC built-in Antenna

IPEX-I Generation Interface



成都亿佰特电子科技有限公司
Chengdu Ebyte Electronic Technology Co.,Ltd.

Building B5, Mould Industrial Park, #199 XiQu Ave, Chengdu, Sichuan, China

1 Product Introduction

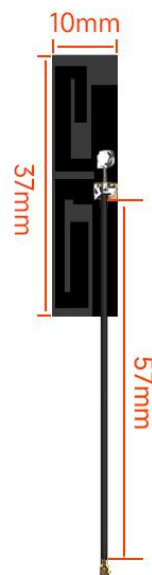
The DZP(TXWF-FPC-3710) is a 2.4/5.8GHz dual-band FPC built-in antenna with dimensions of 37 mm × 10 mm and an IPEX-1 generation interface. It is suitable for various 2.4/5.8GHz dual-band terminal devices (mobile phones, wireless network cards, routers), wireless communication modules, etc. The antenna is small in size, reliable in performance, and built into the module for stable signal installation.

2 Specifications

Electrical parameters	
Frequency range	2.4/5.8GHz
	2.4-2.5; 5.15-5.85GHz
Antenna gain	2.42 dBi
Voltage Standing Wave Ratio	≤ 2.0
polarization direction	linear polarization
Radiation direction	Omnidirectional
Input impedance	50 Ω
Power capacity	2 W
Other parameters	
Product Dimensions	37mm × 10mm
Overall weight	1g
feeder material	RF1.13
feeder length	57mm
Antenna material	FPC
Interface method	IPEX-I Generation Interface
Operating temperature	-40°C~+ 85°C
Storage temperature	-40°C~+ 85°C

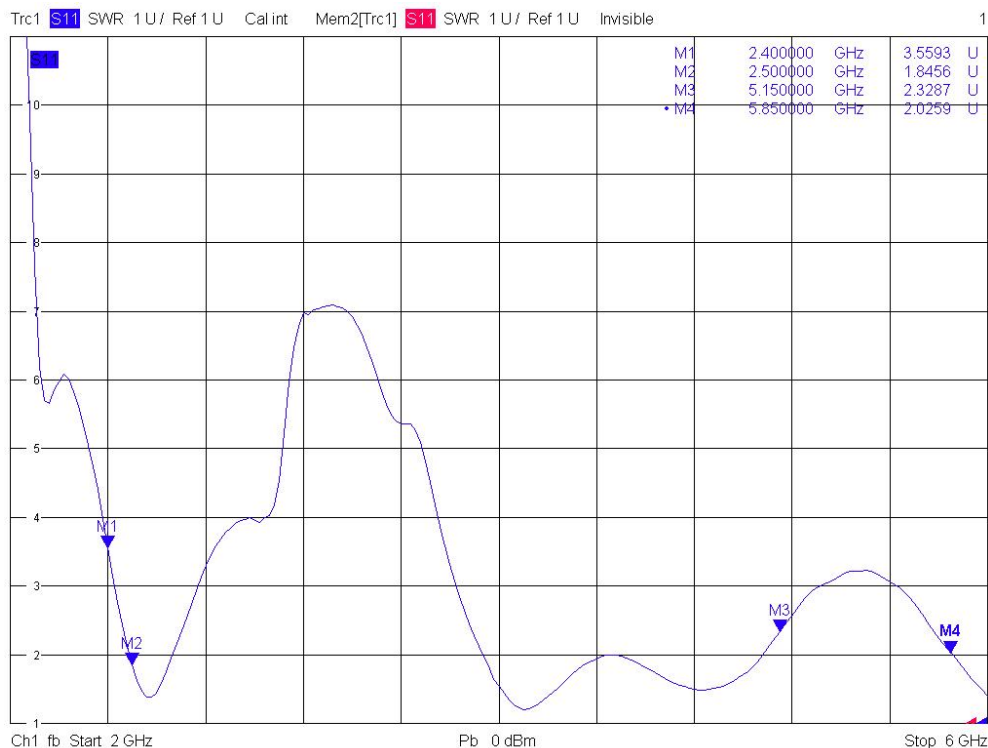


IPEX-1

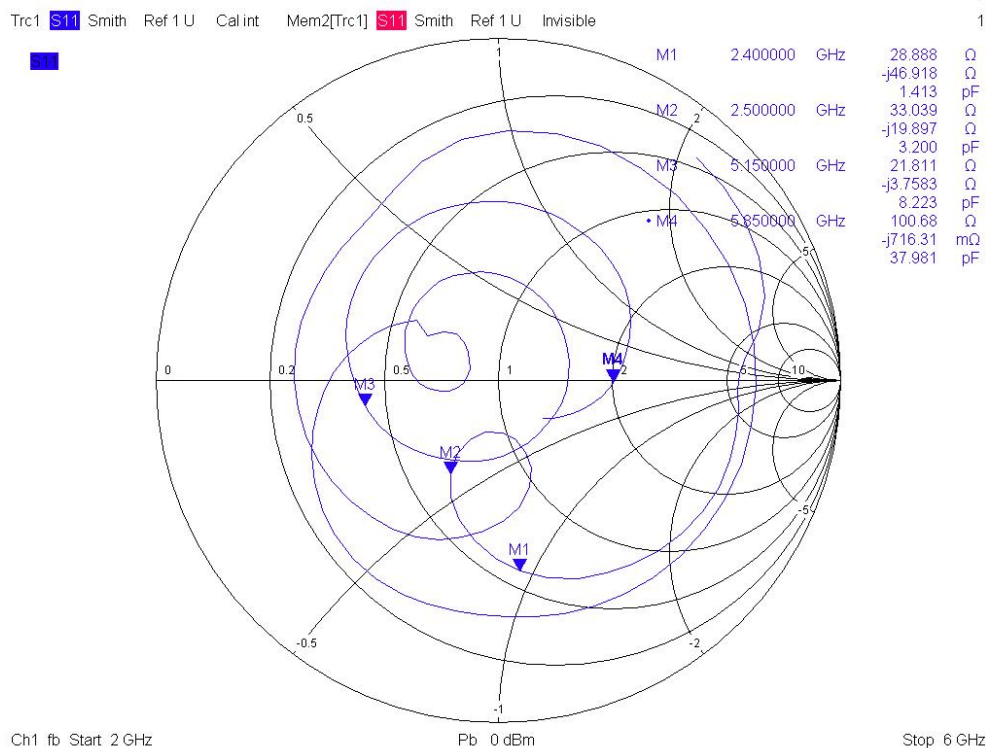


3 Antenna characteristics

Voltage Standing Wave Ratio (VSWR)



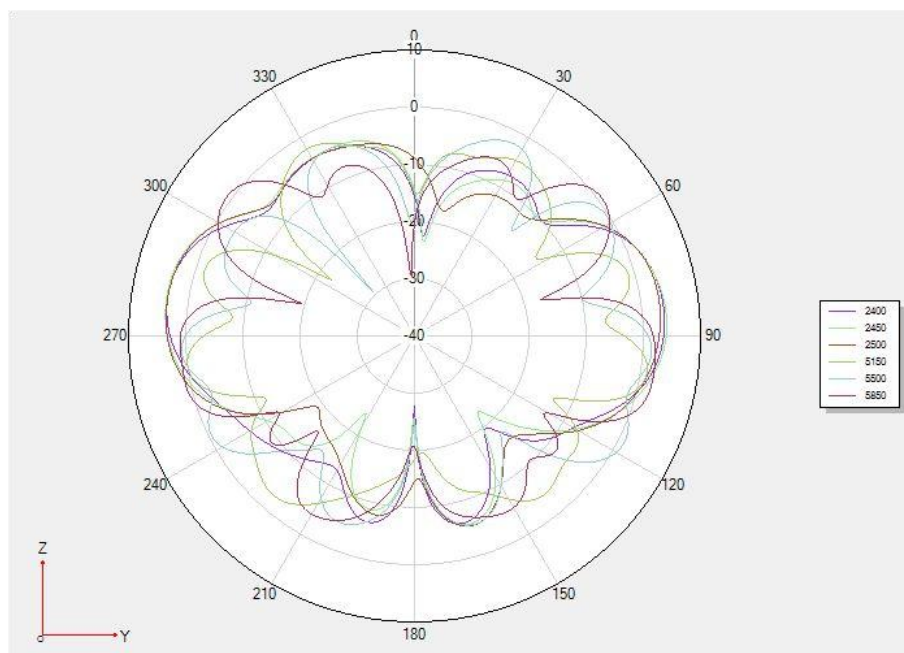
Smith chart



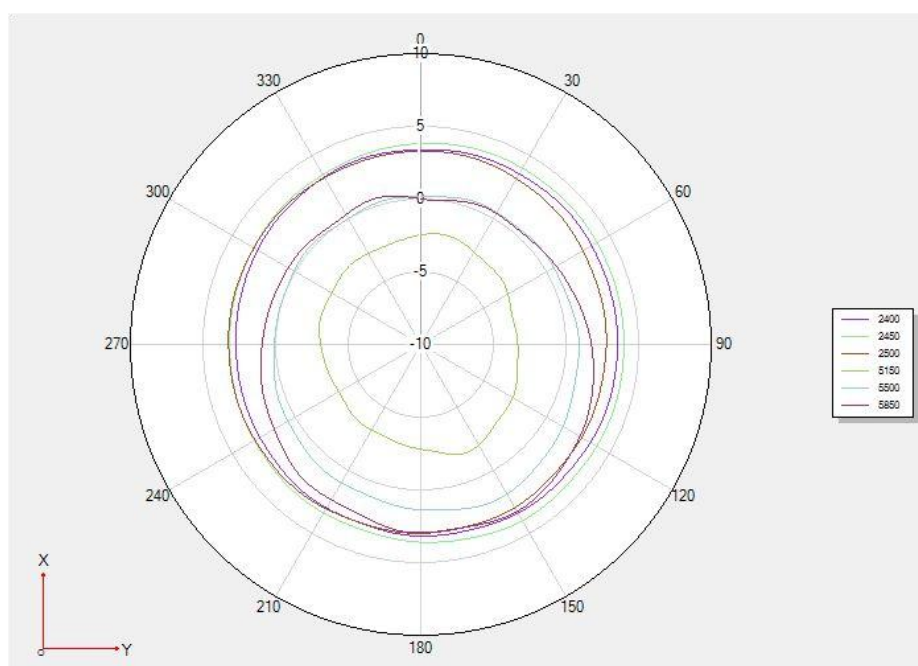
Test Parameters - Efficiency, Gain

Frequency/Mhz	Efficiency/ %	MaxGain/dBi
2400	53.95	0.42
2410	55.21	0.58
2420	55.08	0.64
2430	56.10	0.77
2440	56.62	0.81
2450	57.02	1.21
2460	58.88	1.34
2470	59.98	1.47
2480	59.16	1.49
2490	57.94	1.40
2500	59.57	1.47
AVG	57.23	1.05
5130	59.7	1.09
5160	58.23	0.8
5190	59.5	0.92
5220	58.23	0.85
5250	52.44	1.2
5280	50.54	1.43
5310	57.62	1.1
5340	51.66	1.31
5370	54.33	1.55
5400	56.1	1.34
5430	53.37	1.59
5460	52.6	1.68
5490	51.66	1.88
5520	59.8	2.01
5550	54.53	2.26
5580	56.9	2.42
5610	55.86	1.99
5640	51.47	1.56
5670	55.05	1.38
5700	50.54	1.21
5730	56.9	0.99
5760	52.47	1.06
5790	53.18	1.35
5820	50.35	1.21
5850	52.68	1.01
VAG	54.62	1.40

Test Parameters - Radiation Pattern - 2D

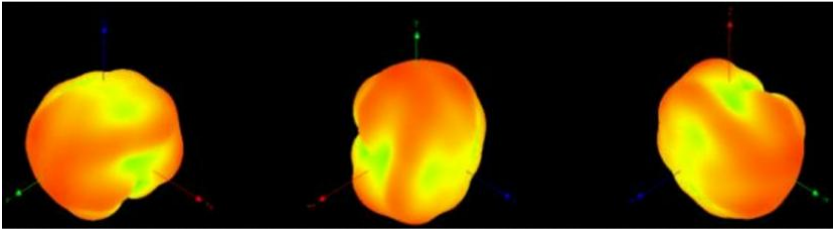
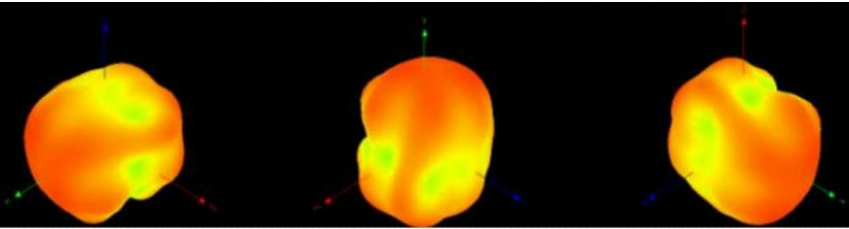
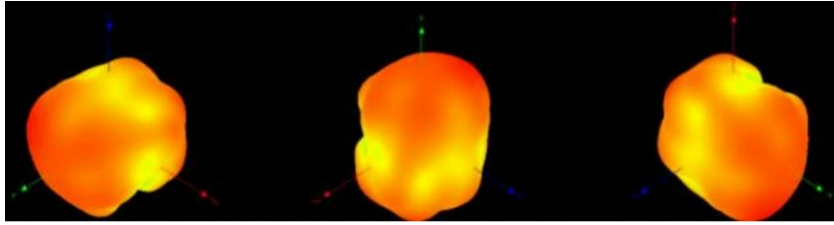
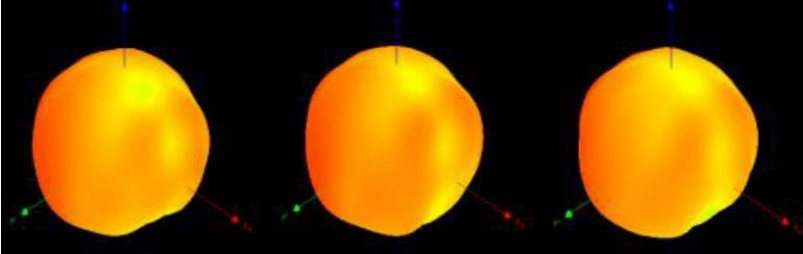
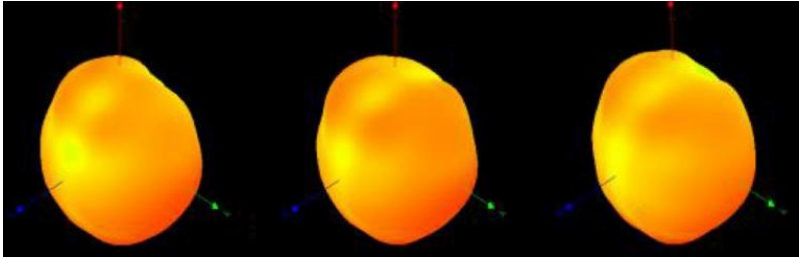


2.4G/5.8GHz Theta 90 2D Diagram



2.4G/5.8GHz Phi 90 2D Diagram

Test Parameters - Radiation Pattern - 3D

2400MHz	
2450MHz	
2500MHz	
5150MHz	
5850MHz	

4 Frequently Asked Questions

- The antenna frequency must match the frequency of the wireless device; otherwise, the communication effect will be poor.
- The lower the communication frequency and the longer the wavelength, the better the diffraction performance;
- When there are obstacles in line-of-sight communication, the communication distance will be reduced accordingly ;
- Please note the antenna's radiation direction; an incorrect antenna installation direction will result in a shorter transmission distance.
- The ground absorbs radio waves, and testing results are poor near the ground ; it is recommended to increase the altitude.
- Seawater has a strong ability to absorb radio waves, so the test results at the seaside are not good.
- If there are metal objects near the antenna or if it is placed inside a metal casing, the signal attenuation will be very severe .
- between the antenna and the communication equipment will result in poor communication performance.

About us

Technical support: support@cdebyte.com

Documents and RF Setting download link: www.cdebyte.com

Thank you for using Ebyte products! Please contact us with any questions or suggestions: info@cdebyte.com

Fax: 0086-028-64146160 ext. 821

Web: www.cdebyte.com

Address: B5, Mould Industrial Park, 199# Xiqu Ave, West High-tech Zone, Chengdu, 611731, Sichuan, China

