Omni-Directional Antenna for WLAN Applications

ZWex-17

Data Sheet

Project：ZWex-17	Author：ZANT	File Name：
Date：2013-03-27	www.zant.com.cn	
Language：English	mail：zant@zant.com.cn	
Beijing Zhongjiaxun Antenna Technologies Co., Ltd		

1 Technical Summary

BEIJING ZHONGJIAXUN ANTENNA TECHNOLOGIES CO., LTD. , the high-tech company focusing on antenna designing and manufacturing, is made of successful management elite of IT and senior experts of inland antenna designing. The experience of R&D team on successfully novel antenna designing is more than five years. The core personnel of this team not only engaged in the national key project including 863 and 973, but also have published many papers in the international communication.

Close cooperation with Tsinghua University state Kay Labs on Microwave and Digital Communications. Many authorities on antenna theory are invited as the technical adviser of the Zant Co., and they offer rich technical support for novel practical antenna designing.

Industrialization procedure has been well established in Zant Co. , which is including antenna designing, patent applying, intelligent property protection, antenna product manufacturing and etc. The professional industrialization procedure make Zant Co. , have enough ability to provide developing and entire technical support of antenna for the costumers.

This report shows the electrical performance of the antenna provided by Zant Co. ,. Please let us know if you have any questions or comments with regard to the information presented in this report.

2 General Description

2.1 Components/Part revisions

The antenna part number is ZWex-17

2.2 Definitions

VSWR ： Voltage Standing Wave Rate

3 Mechanical Description

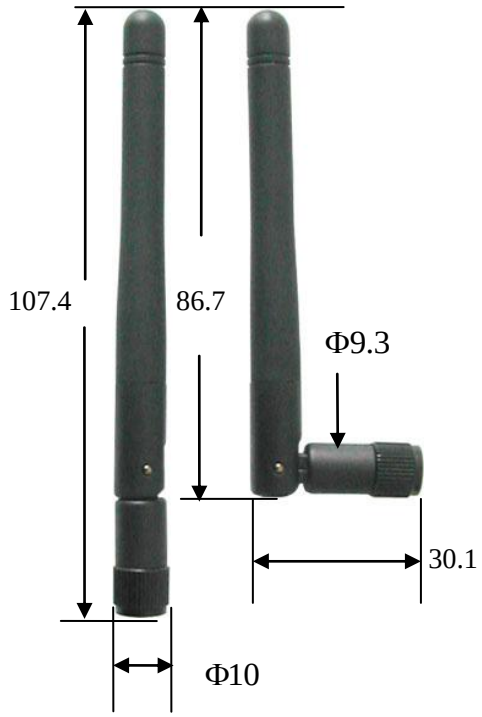


Figure 1. Appearance (mm)

Dimensions	107.4*10 mm (4.23 *0.395 in.)
Temperature	-40 ℃ to 80 ℃
Shield color	Black
Connector	SMA female

4 Electrical Performance

4.1 Specifications

Desired Performance parameters

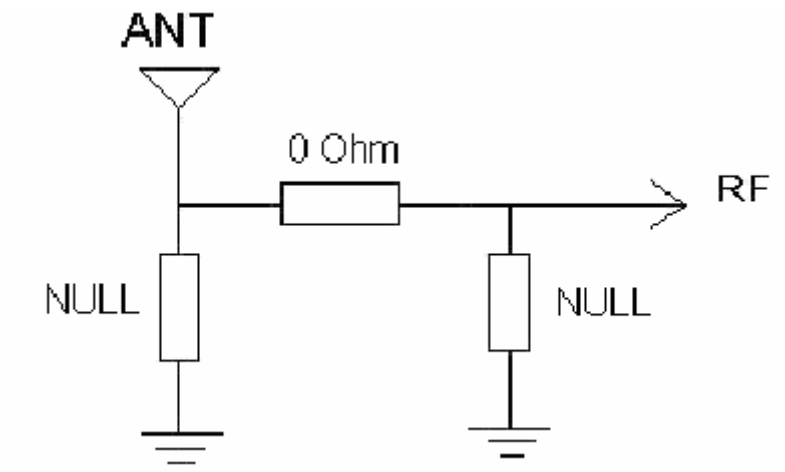
Desired Performance parameters	
Band	2.4GHz～2.5 GHz
Impedance	50
VSWR	1.5
Average Gain	2.0dBi
Peak Gain	2.25dBi
Polarization	Linear，vertical
Radiation Pattern	Omni-direction at horizontal plane
Power handling	10 W

4.2 Set-up

4.2.1 VSWR

VSWR measurements (S11) were performed using an Advantest R3767CH Network Analyzer and the previously described test fixture. The testing was performed in free space.

Matching Circuit Description



4.3 Measurement Data

Freq(GHz)	2.40	2.45	2.50
VSWR(Free Space)	1.31	1.23	1.41

4.4 Plot of VSWR

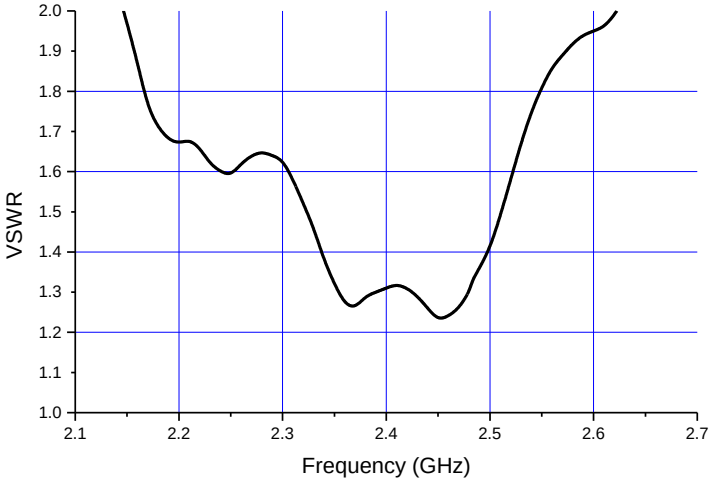
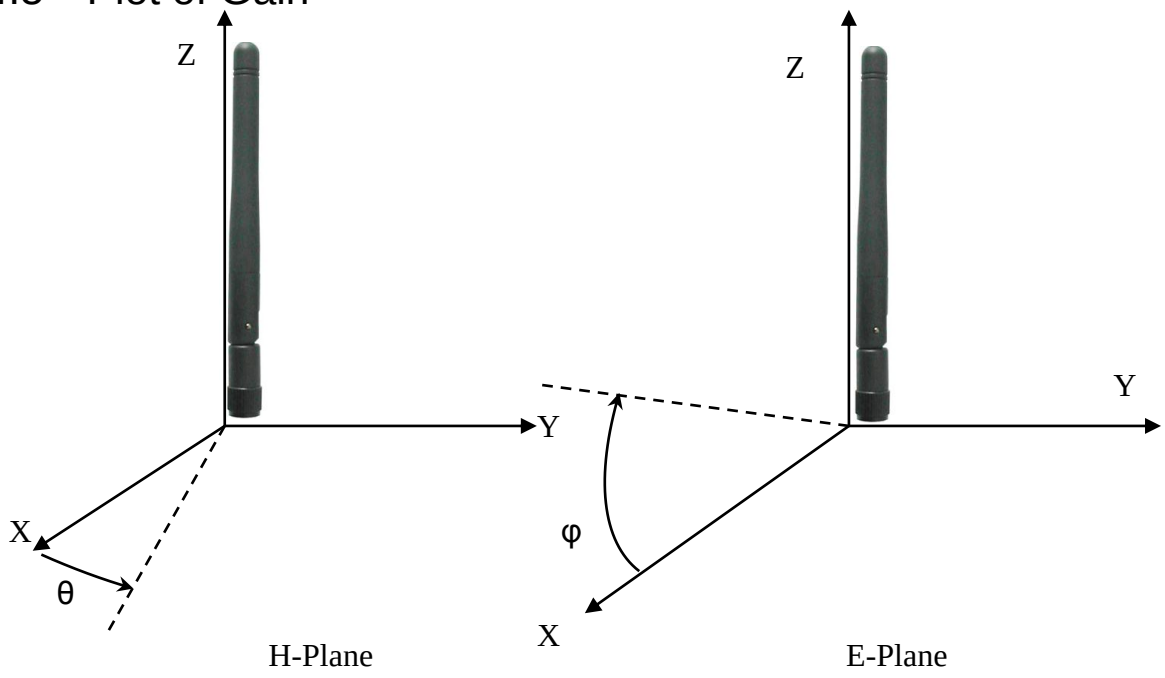
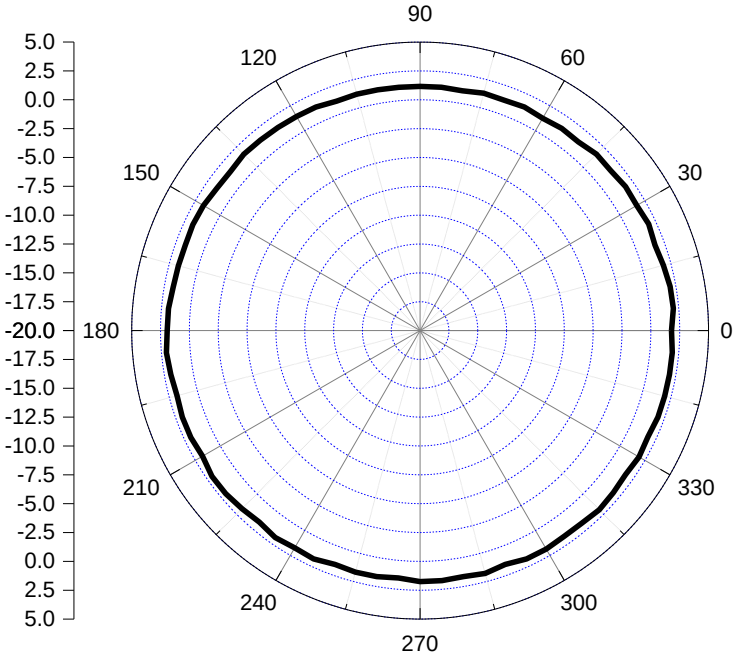


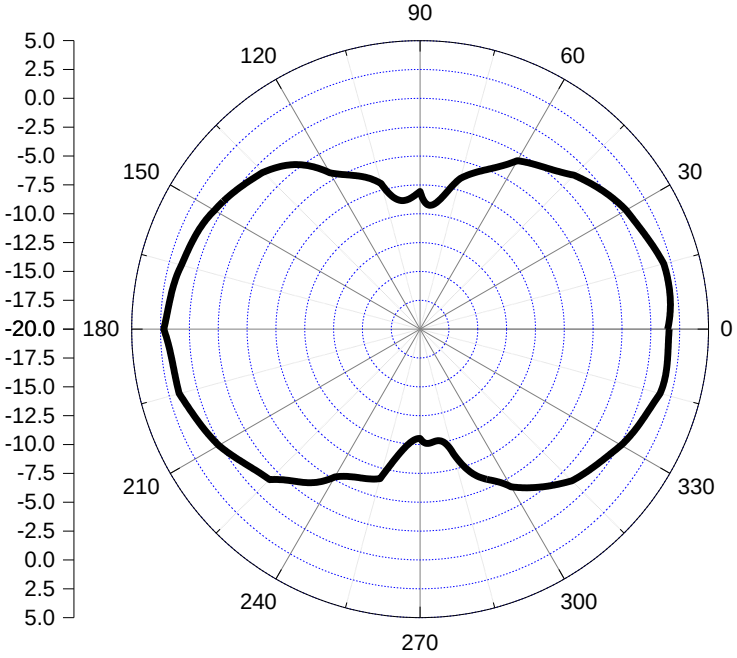
Figure 2 VSWR varying with Frequency

4.5 Plot of Gain





Radiation Pattern (H-Plane): θ @2.45GHz



Radiation Pattern (E -Plane): φ@2.45GHz