



WLT8016 Antenna Specification Sheet

Latest version V1.6

Wi-linktech Communication Technologies (Shanghai) Co.,Ltd.
Room 602, Building 3, Lane 88, Shengrong Road, Pudong New Area, Shanghai

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1. Overview

This antenna datasheet describes the RF performance of the onboard antenna of the WLT8016 module, ensuring that the VSWR is less than 2 in the 2.4 GHz ISM band when connected to a 50-ohm source, providing gain diagrams for different antenna directions, antenna efficiency, and gain values for different frequency bands.

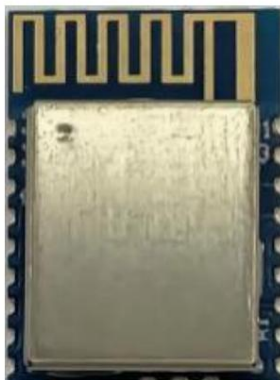
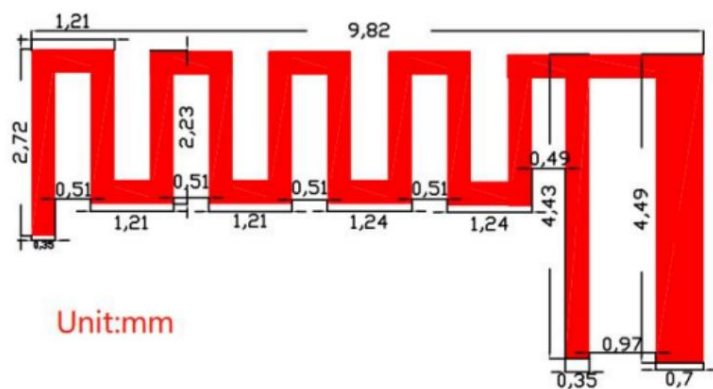


Figure 1-1: WLT8016 module

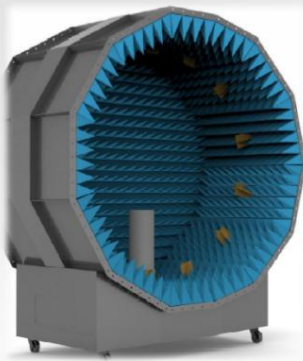


WLT8016 module antenna dimensions

Design Specifications	Typical	Units
Antenna type	PCB antenna	
working Frequency	2400-2500	MHZ
Gain (max)	-0.06	DBi
Antenna efficiency	30~50	%
VSWR	<1.8	
Radiation pattern	omnidirectional	
impedance	50	ohm
Overall dimensions	9.8*4.49	mm
Weight	No requirement	
Operatin Temp	-40-85	°C
Storing Temp	-40-85	°C

2. Testing equipment

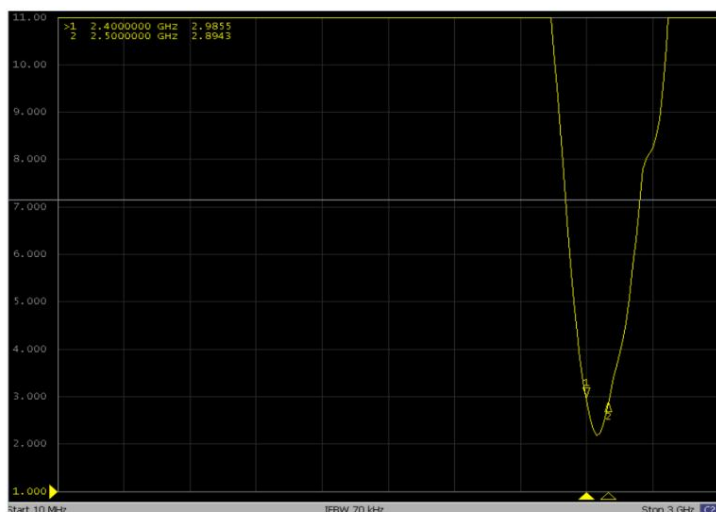
测试设备 / Equipment



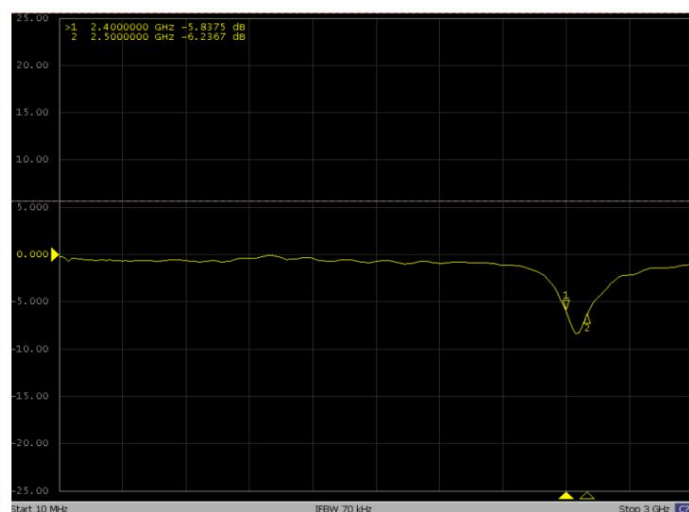
- Chamber : GTS Rayzone1800
- 网络分析仪 : Agilent E5071C
- 2G/3G综测仪 : Agilent 8960
- LTE综测仪 : Anritsu MT8820
- TD综测仪 : StarPoint SP6010
- WIFI综测仪 : Anritsu MT8860
- GPS信号源 : Agilent E4438C

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Many aspects of this presentation are protected by US, TW, CN and international patents and patent applications

3. Return loss VSWR



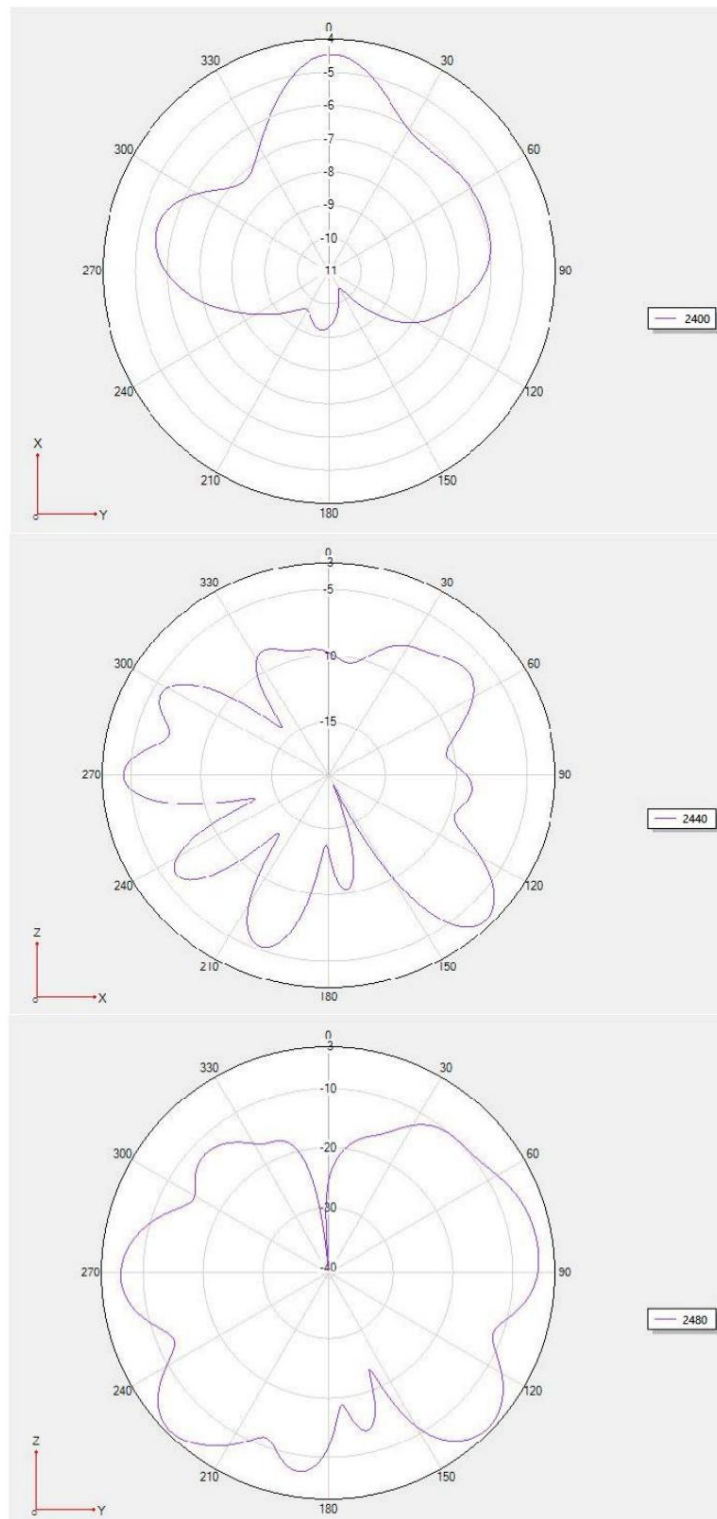
VSWR



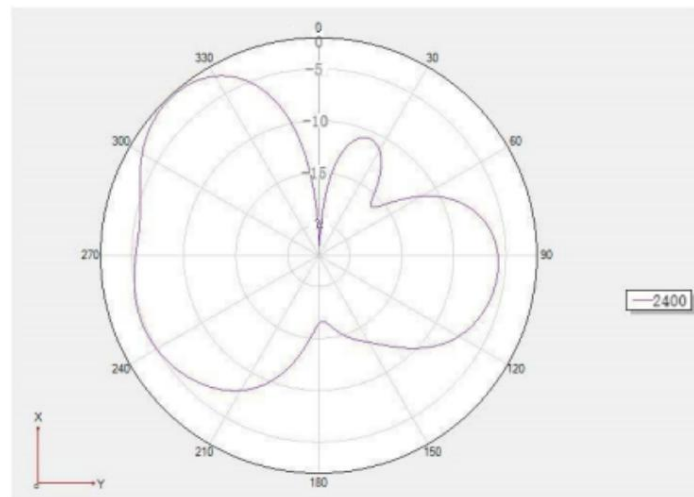
Return loss

4. Direction and Gain Plot

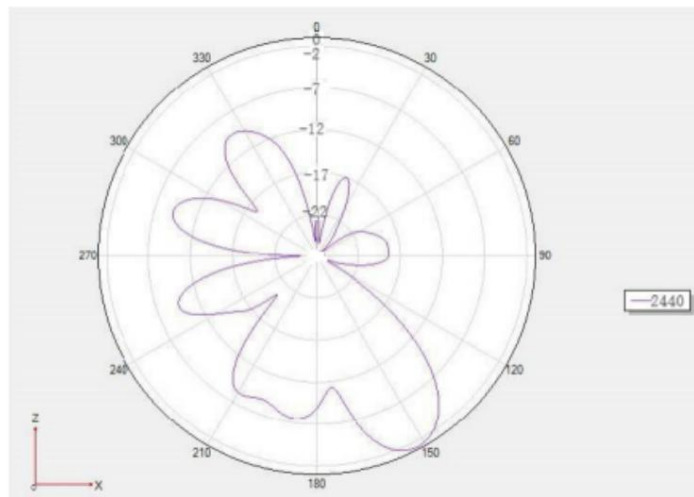
Etheta[Unit:dBi]



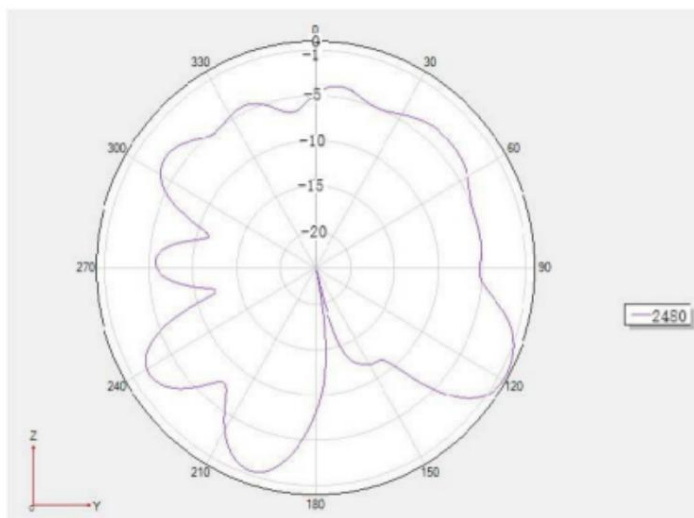
Ephi[Unit:dBi]



Gain: -1.90 dBi



Gain: -0.72 dBi



Gain: -0.06 dBi

5. Antenna Gain Table

Frequency / MHz	Efficiency / %	Gain/ dBi
2400	22.29	-1.90
2410	24.61	-1.52
2420	26.72	-1.15
2430	28.62	-0.77
2440	27.97	-0.72
2450	30.65	-0.17
2460	30.04	-0.16
2470	28.77	-0.17
2480	28.70	-0.06
2490	26.38	-0.34
2500	25.77	-0.40