

Shenzhen Sumeng Technology Co., Ltd.



COYOTE-030-PCBANT SPECIFICATION

On-Board PCB Antenna for E-STIM POWERBOX 3.0

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SHENZHEN SUMENG TECHNOLOGY CO., LTD.

Room 613, Building A, No. 43 Xinguang Road, Nanshan District, Shenzhen City

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1. General Information

1.1 Product Overview

The COYOTE-030-PCBANT is an on-board Inverted F Antenna (IFA) suitable for PCB applications, with a package size of 21.0mm × 4.4mm. It is designed for Bluetooth BLE near-field communication, with a center frequency of 2450MHz.

1.2 Scope of Application

This specification document is applicable only to the on-board antenna of the "DG-LAB E-STIM POWERBOX 3.0" device's mainboard. The performance parameters represent the characteristics of the complete host usage scenario.

1.3 Operating Environment Range

Operating temperature range: -20 to 65°C.

1.4 Storage Environment Requirements

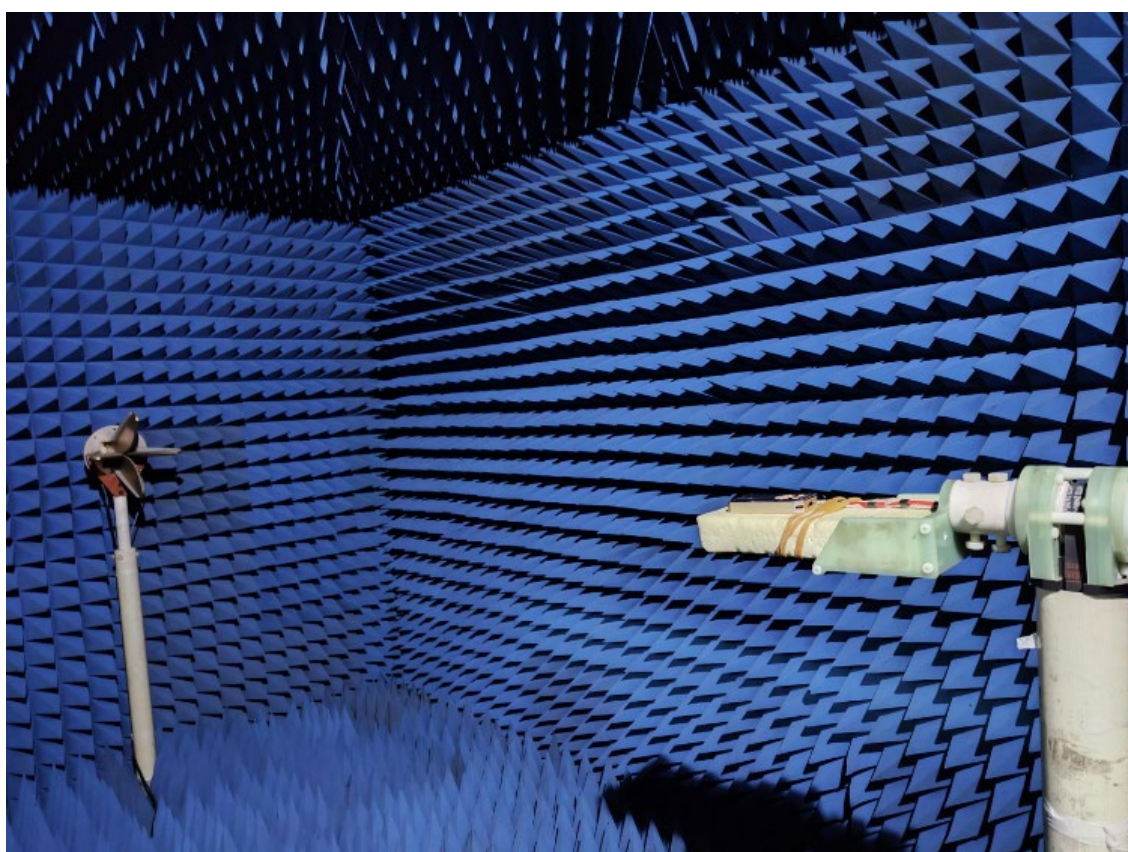
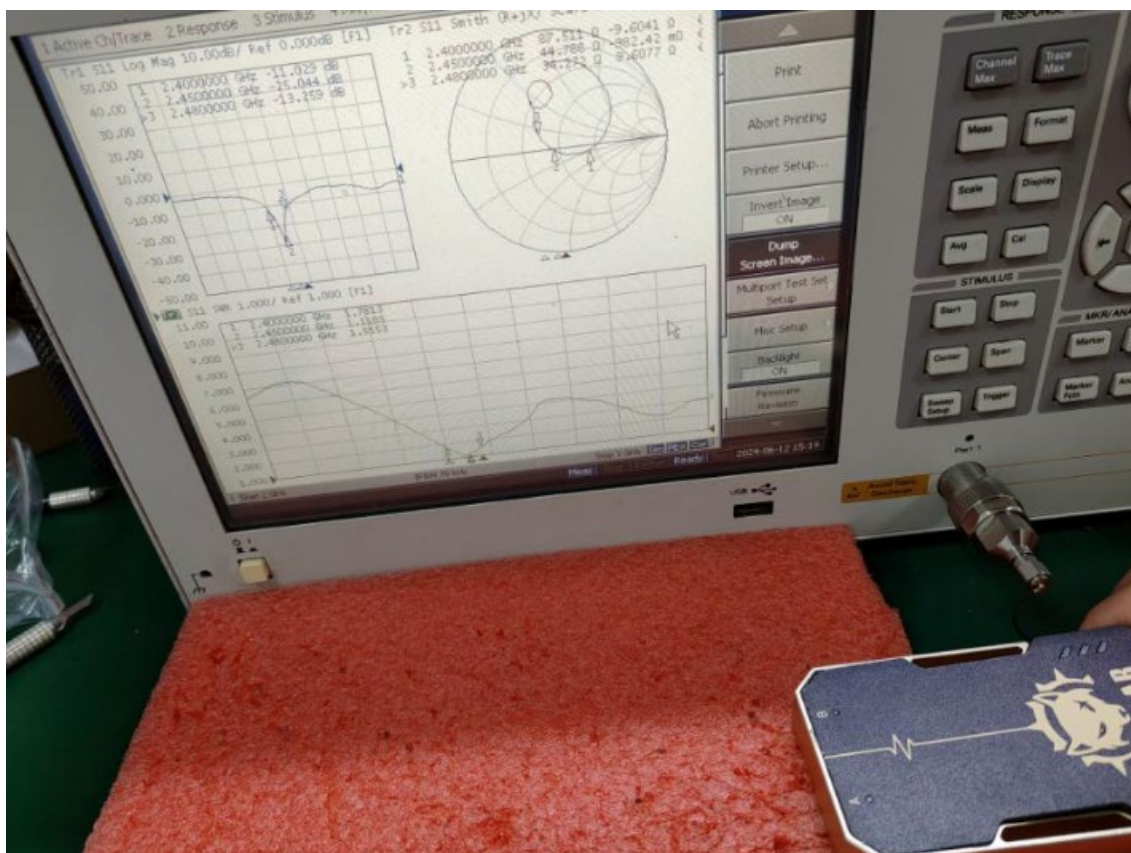
Storage temperature range: -20 to 75°C.

2. Specification Parameters

No.	ITEMS	DETAILS
1	Applicable Models	COYOTE-030
2	Frequency Band	2402MHz~2480MHz
3	VSWR	≤ 1.5
4	Antenna Gain	1.52dbi
5	Antenna Impedance	50Ω
6	Antenna Type	IFA
7	Implementation Form	On-Board PCB
8	Radiation Efficiency	40±3%



3. Test Setup



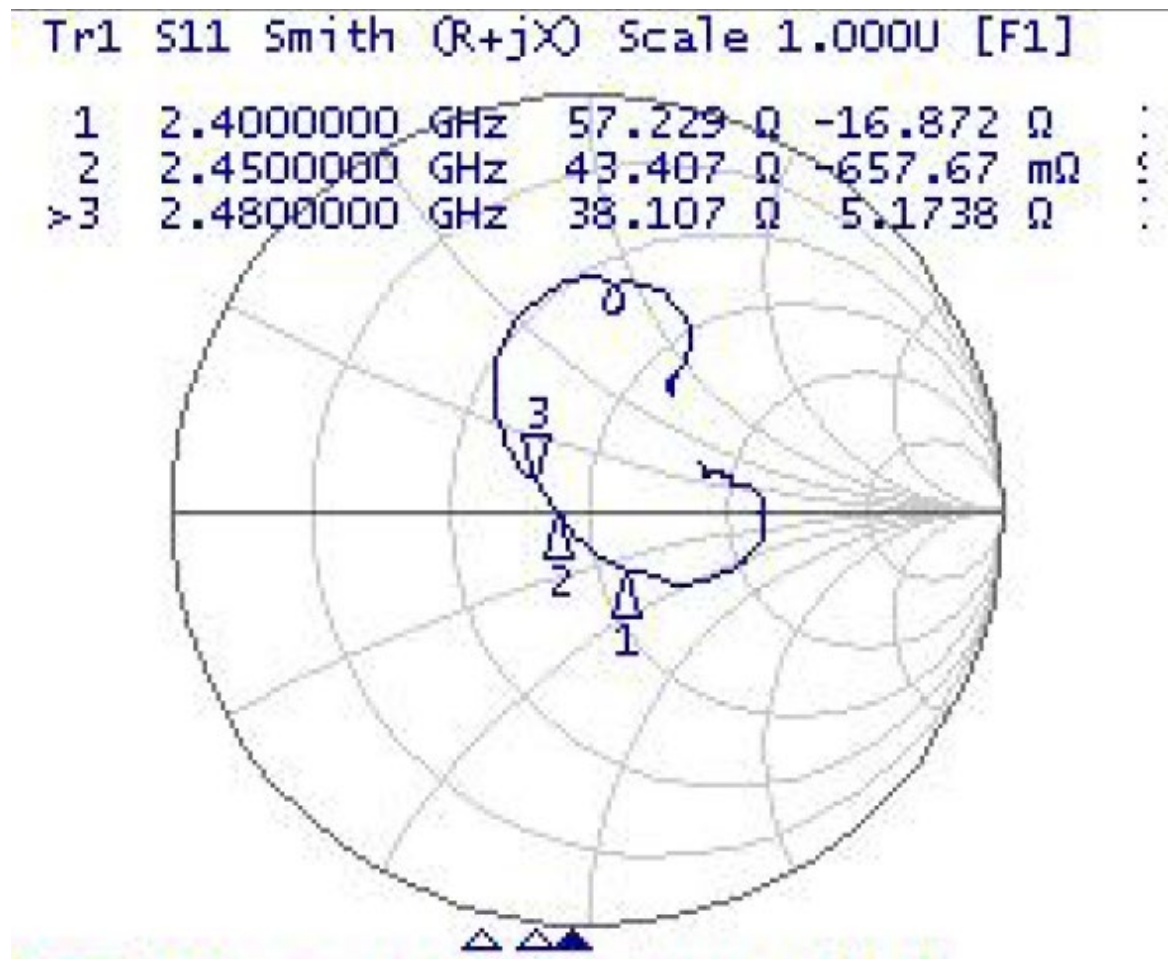
4. Antenna Characteristics

4.1 Voltage Standing Wave Ratio (VSWR)

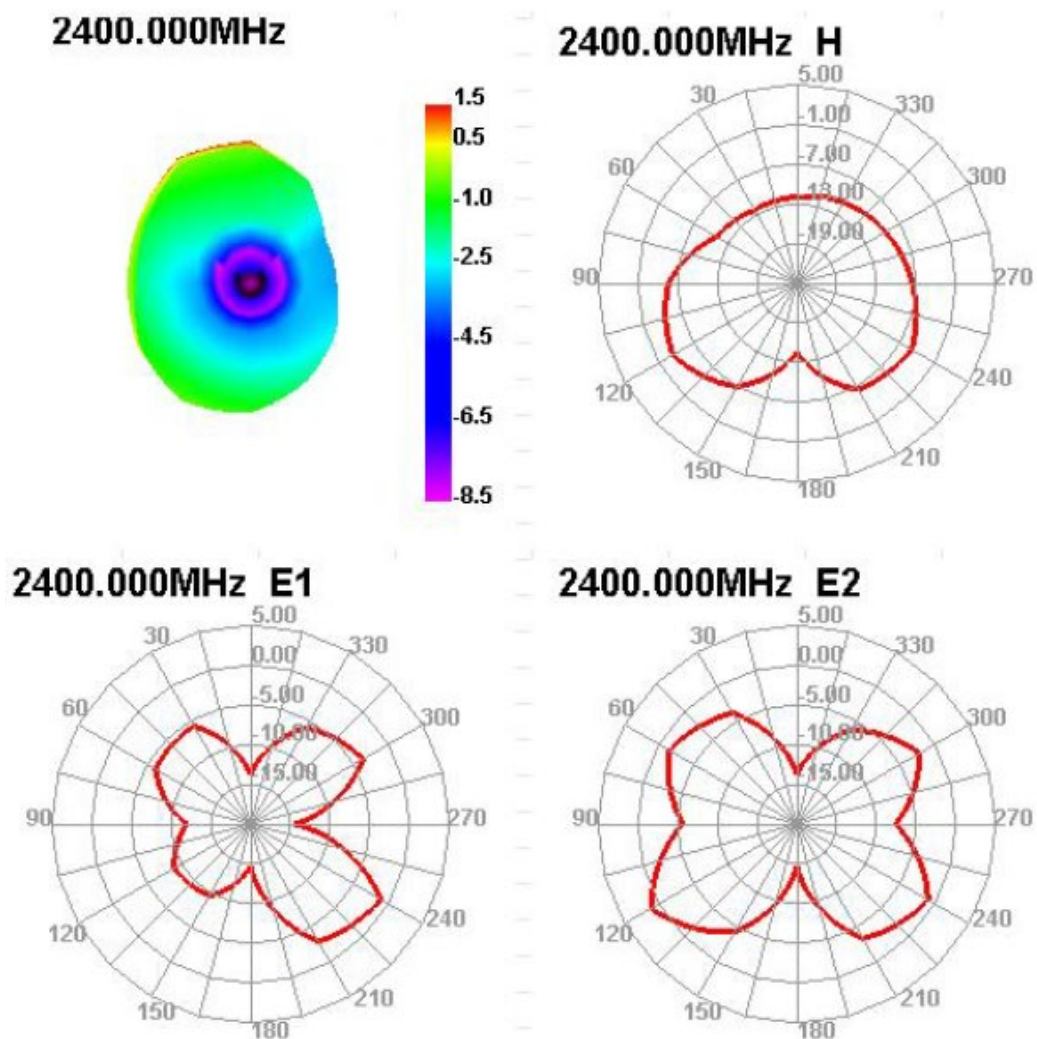


1.15(@2450MHz) ; 1.40(@2400MHz) ; 1.34(@2480MHz)

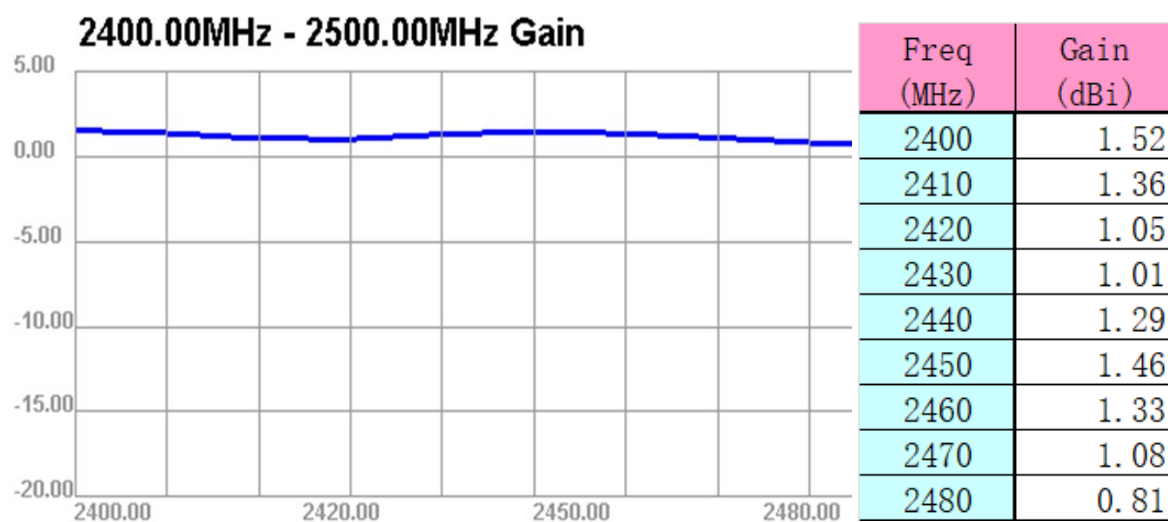
4.2 Smith chart



4.3 Radiation Pattern



4.4 Antenna Frequency-Gain Characteristics



4.5 Structural Dimensions

版本/版次		A/1		DATE	
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PCB板天线;

文件编号			
名称		WiFi 天线	
料号			
产品规格			
比例		1:1	

技术要求:		绘图		审核		核准	
1: 未注尺寸公差±0.1, 角度±5°.							
2: 表面无划伤和线痕.							
3: 注有“φ”为通孔管制尺寸.							
4: 表面处理符合DIPS、IPC4352的要求.							
5: 丝印/丝印							
日期							

金属材料			
表面处理			
制程/包材材质		/	
制程/包材颜色		/	
制程/包材表面		/	
检测方法			

深圳市塑梦科技有限公司

5. Document Revision History

Date	Version Number	Version Description
2024-09-24	0.1	Confirmation