

ANTENNA SPECIFICATION

Project:	H50_DV
Version:	V1.0
Issued Date:	2026.07.04
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Contents

1. Revision History
2. Introduction
3. Electrical Characteristics

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2026/07/23 15:36:04
10361

1.Revision History

Rev.No	Issued Date	Description	Summary
V1.0	2026.07.04	initial release	

2. Introduction

2.1 Introduction of Product

This product is a Bluetooth antenna with Layout on PCB

3. Electrical Characteristics

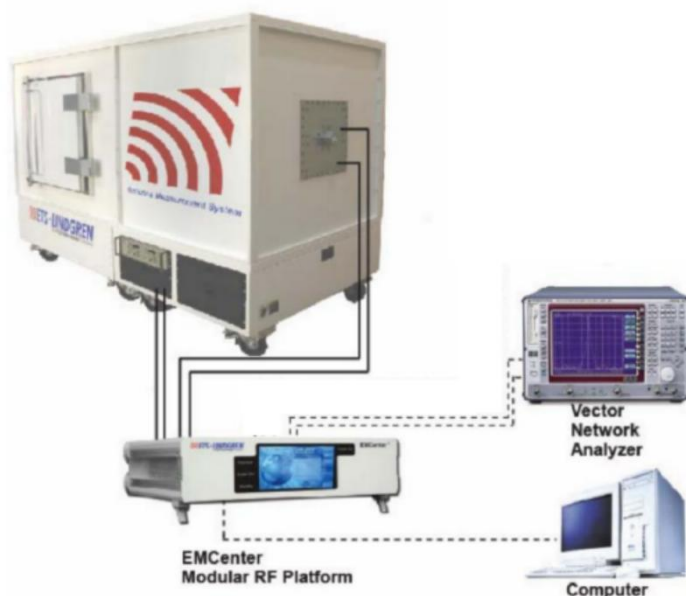
3.1 Test standard

Name	Parameter	Method	Standard no.
Antenna performance	Radiation efficiency	IEEE Standard Test Procedures for Antennas	ANSI/IEEE Std 149-2021

3.2 Test equipment:

Equipment	Manufacturer	Model No	Last Cal.	Due Date
VECTOR NETWORK ANALYZER	Agilent	E5071C	2025.10.10	2026.10.09
Antenna Measurement System	ETS-Lindgren	AMS-8050	2025.10.10	2026.10.09
	ETS-Lindgren	EMCenter Modular RF Platform	2025.10.10	2026.10.09

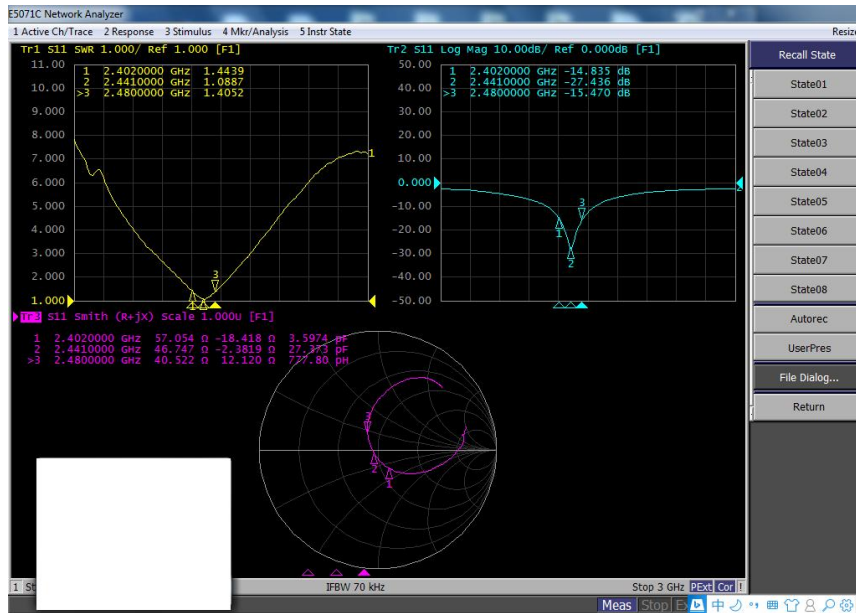
3.2 Test configuration diagram



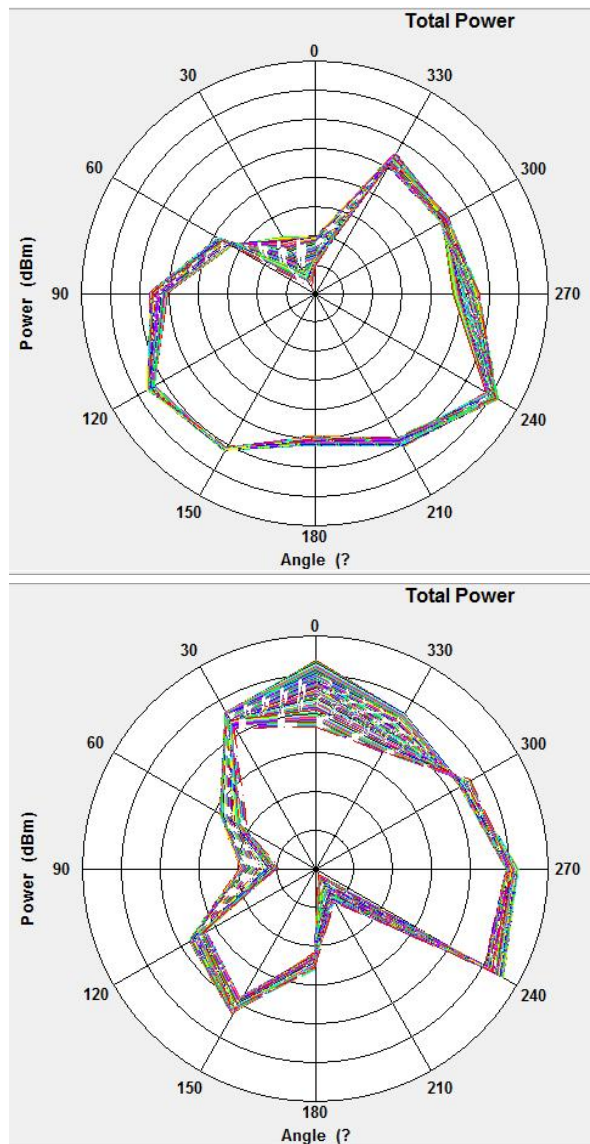
Test step flow:

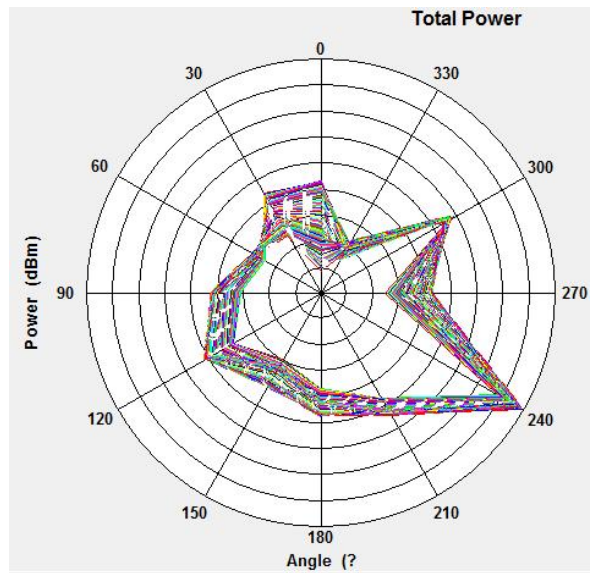
- 1) Keep the test environment at $23^{\circ}\text{C} \pm 2$, turn on the testing equipment, and let it warm up for 30 minutes.
- 2) Place the sample to be tested into the darkroom according to the test standards, and connect the test sample's RF cable to the darkroom's RF cable.
- 3) Run the test system, pull up the preset test scripts, and carry out calibration tests.
- 4) After finishing the test, export the relevant test images and test data, and save them in the corresponding folder.

3.3 Antenna S11 parameters



3.4 2D&3D Radiation Pattern :





3.5 Electrical Characteristics:

Antenna type	PCB Layout Antenna
Working Frequency Range	2450±50MHz
Impedance	50Ω
VSWR	<2
Max Efficiency(%)	49.4%@2460MHz
Max peak Gain(dBi)	1.9dBi@2460MHz
Polarization	Linear

Frequency (MHz)	Efficiency (%)	Gain (dBi)
2400	45.4	1.0
2410	46.8	1.1
2420	47.8	1.3
2430	47.9	1.5
2440	47.8	1.6
2450	48.7	1.8
2460	49.4	1.9
2470	48.3	1.8
2480	47.4	1.9