

ANTENNA SPECIFICATION

|               |                                                                                                               |
|---------------|---------------------------------------------------------------------------------------------------------------|
| Project:      | BMS003P                                                                                                       |
| Antenna type: | PCBA antenna                                                                                                  |
| Version:      | V1.0                                                                                                          |
| Issued Date:  | 2025.11.12                                                                                                    |
| Tested by:    | Lite.Mo                                                                                                       |
| Check by:     | ZhiShun.Huang                                                                                                 |
| Manufacturer: | Sunitec Enterprise Co., LTD.                                                                                  |
| Address:      | Building C No.725 , WeiXiangTai Industrial zone,FuCheng street , LongHua district , ShenZhen,GuangDong, China |

# Contents

1. Revision History
2. Introduction
3. Electrical Characteristics

1.Revision History

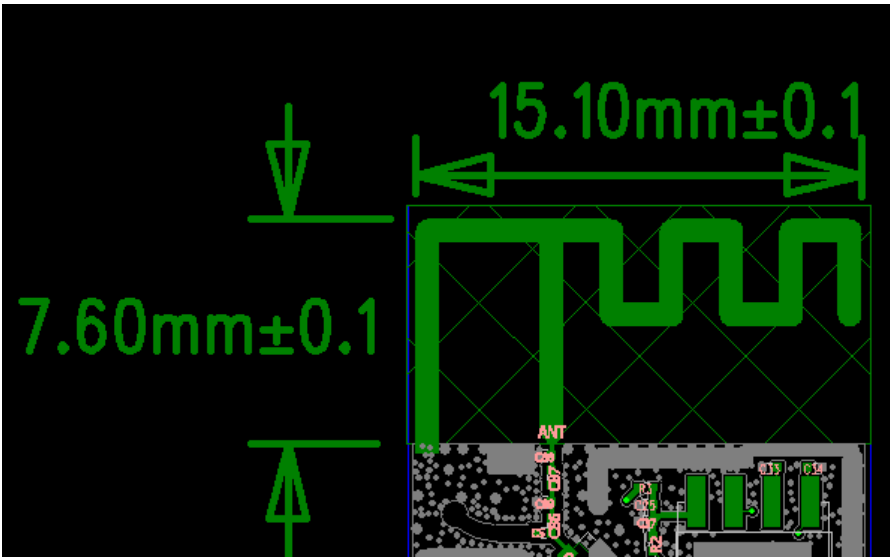
| Rev.No | Issued Date | Description     | Summary |
|--------|-------------|-----------------|---------|
| V1.0   | 2025.11.12  | initial release |         |
|        |             |                 |         |
|        |             |                 |         |

2. Introduction

2.1 Introduction of Product

This product is a Bluetooth antenna printed on a PCB

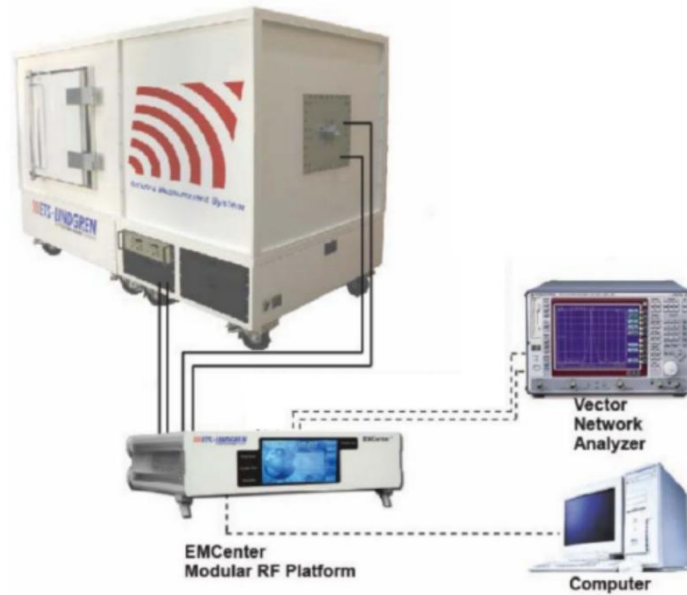
2.2 Specification and Dimension



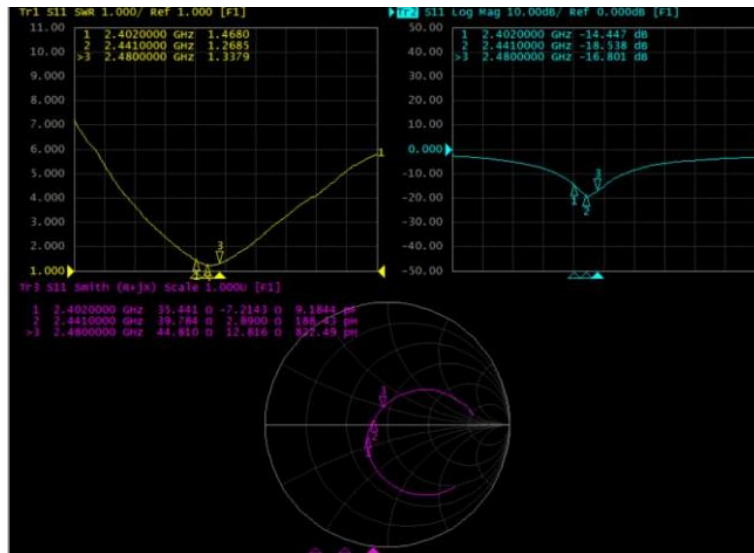
3. Electrical Characteristics

3.1 Test equipment:

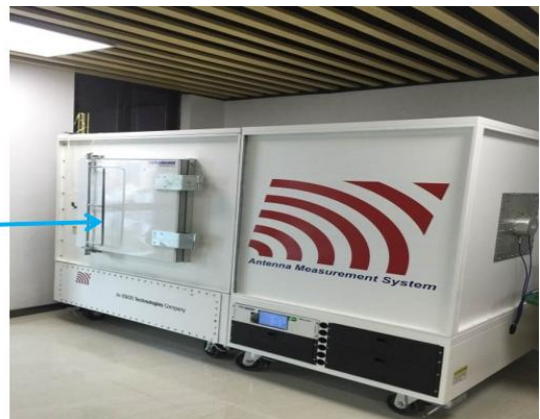
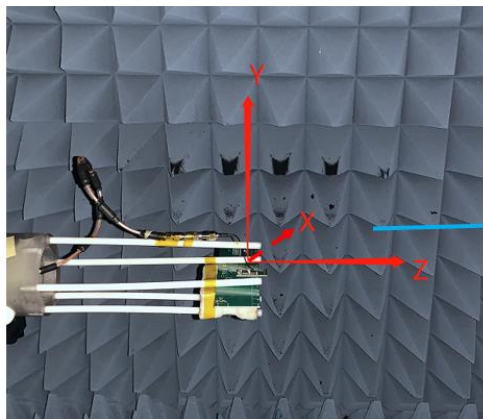
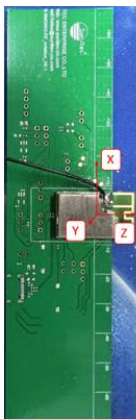
| Equipment                  | Manufacturer | Model No                     | Last Cal.  | Due Date   |
|----------------------------|--------------|------------------------------|------------|------------|
| VECTOR NETWORK ANALYZER    | Agilent      | E5071C                       | 2025.10.10 | 2026.10.09 |
| 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 Antenna S11 parameters

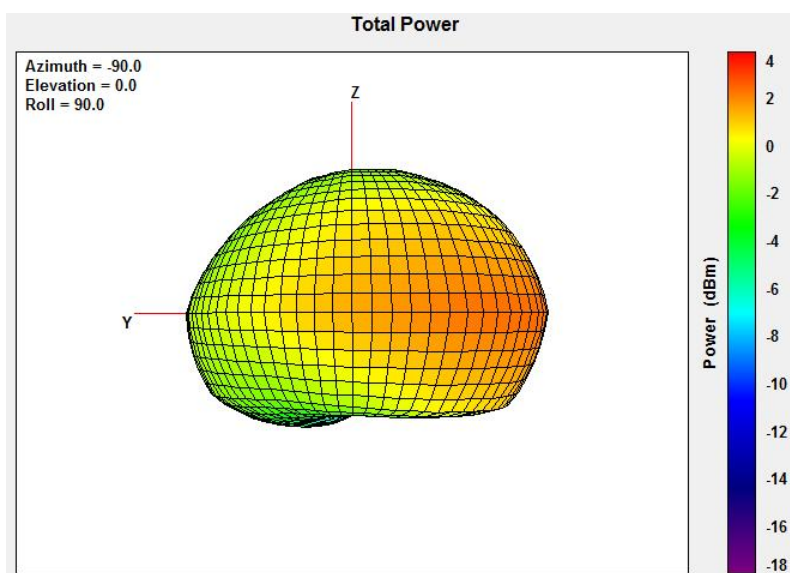


### 3.3 Antenna Test Settings:

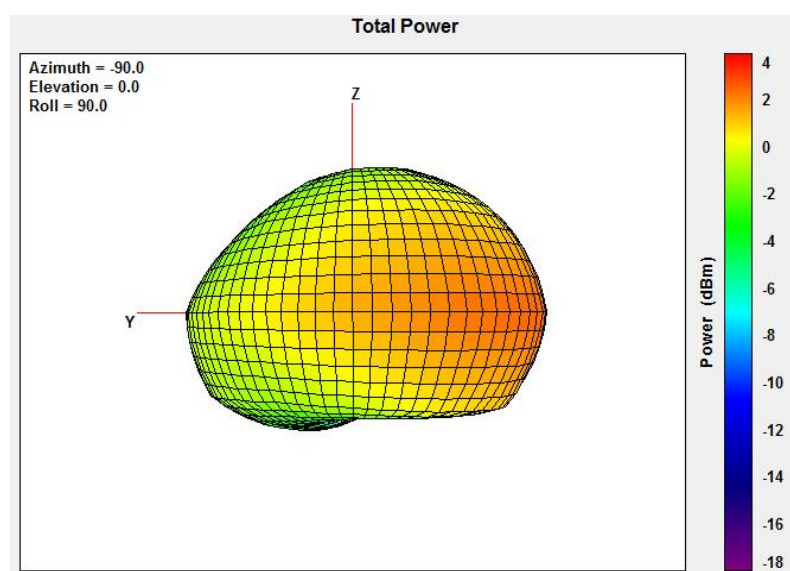


### 3.4 3D Radiation Pattern :

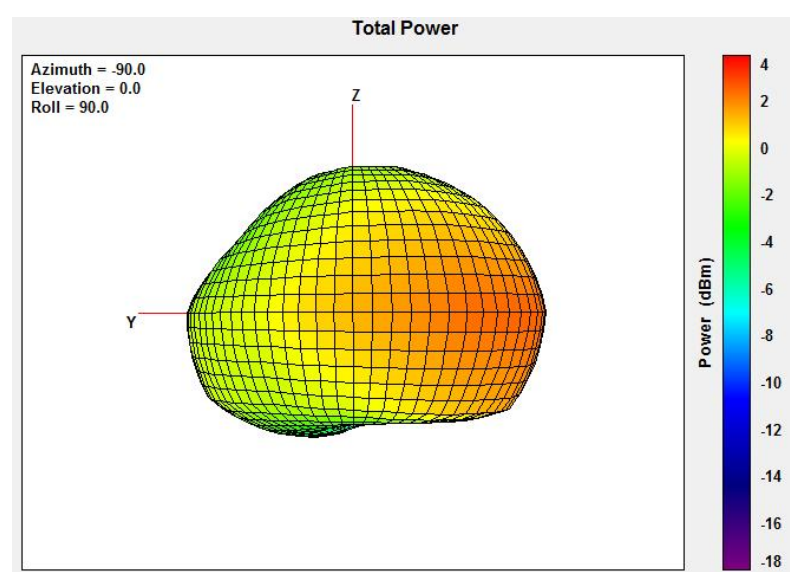
2400MHz



2440MHz

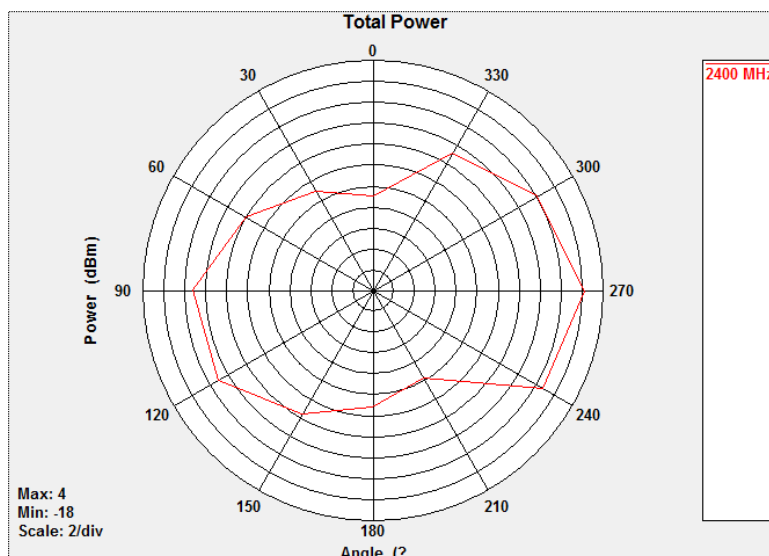


2480MHz

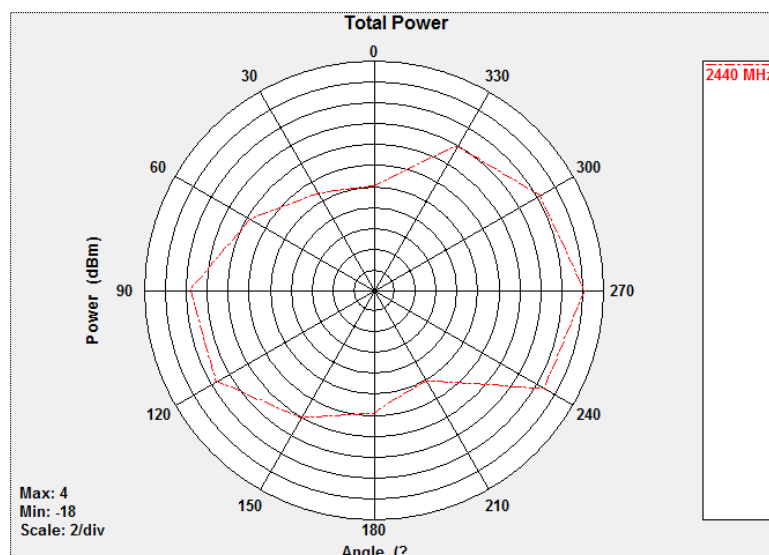


### 3.5 2D Radiation Pattern :

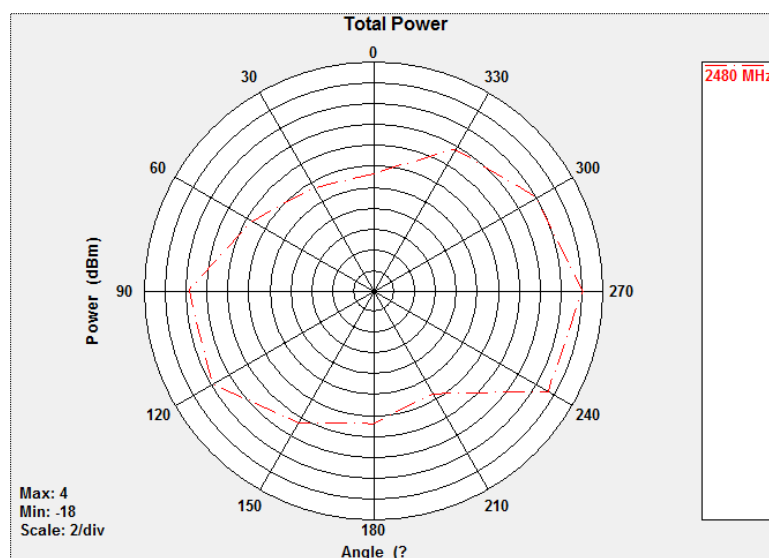
2400MHz



2440MHz



2480MHz



### 3.6 Electrical Characteristics:

| <b>Antenna Model Name</b> | <b>PCBA antenna</b> |
|---------------------------|---------------------|
| Working Frequency Range   | 2400~2480MHz        |
| Impedance                 | 50Ω                 |
| Max Efficiency(%)         | 75.38%@2460MHz      |
| Max peak Gain(dBi)        | 2.73dBi@2460MHz     |

| <b>Frequency(MHz)</b> | <b>Efficiency (%)</b> | <b>Peak Gain (dBi)</b> |
|-----------------------|-----------------------|------------------------|
| 2400                  | 71.57                 | 2.58                   |
| 2410                  | 72.39                 | 2.62                   |
| 2420                  | 72.29                 | 2.60                   |
| 2430                  | 72.50                 | 2.59                   |
| 2440                  | 73.50                 | 2.62                   |
| 2450                  | 74.58                 | 2.68                   |
| 2460                  | 75.38                 | 2.73                   |
| 2470                  | 74.63                 | 2.67                   |
| 2480                  | 75.02                 | 2.68                   |