

环保: ROHS2.0/REACH  
版本: A/0

# 承认书

## SPECIFICATION FOR APPROVAL

客户名称  
**Customer:** 佳禾智能科技股份有限公司Cosonic Intelligent Technologies Co., Ltd.  
品名  
**Product:** Antenna-R  
客户料号  
**Part No.:** 310500218702C00

客户（业务）确认回复:  
Customer (Business) Approval Status:

签 核:  
Signature:

合格  
PASSED

拒收  
REJECTED

## 产品资料 PRODUCT INFORMATION

产品名称  
**Product:** FPC Antenna  
产品型号  
**Part No.:** CE-2187B  
样品编号  
**Samples No.:**  
图纸编号  
**Drawing No.:**  
日期  
**Date:** 2024.7.26

| 承 办<br>Prepared By | 校 对<br>Proofed By | 审 核<br>Checked By |
|--------------------|-------------------|-------------------|
|                    |                   |                   |
| DATE:              | DATE:             | DATE:             |

创新INNOVATION 信赖RELIABILITY 满意SATISFACTION



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## 1. overview

### 1.1 Scope

CE-2187B Product antenna technical requirements and material requirements specification.

CE-2187B Antenna selection, testing and acceptance.

### 1.2 Project basic information

|             |                    |
|-------------|--------------------|
| Type :      | <b>FPC Antenna</b> |
| Frequency : | BT: 2402-2484MHz   |
| Material :  | LDS                |

## 2. Technical specification requirement

### 2.1 Test items and equipment introduction

| List        | Items    | Equipment                         |
|-------------|----------|-----------------------------------|
| Active test | TRP, TIS | Comprehensive tester, OTA chamber |

### 2.2 Active report

#### 2.2.1 test specification

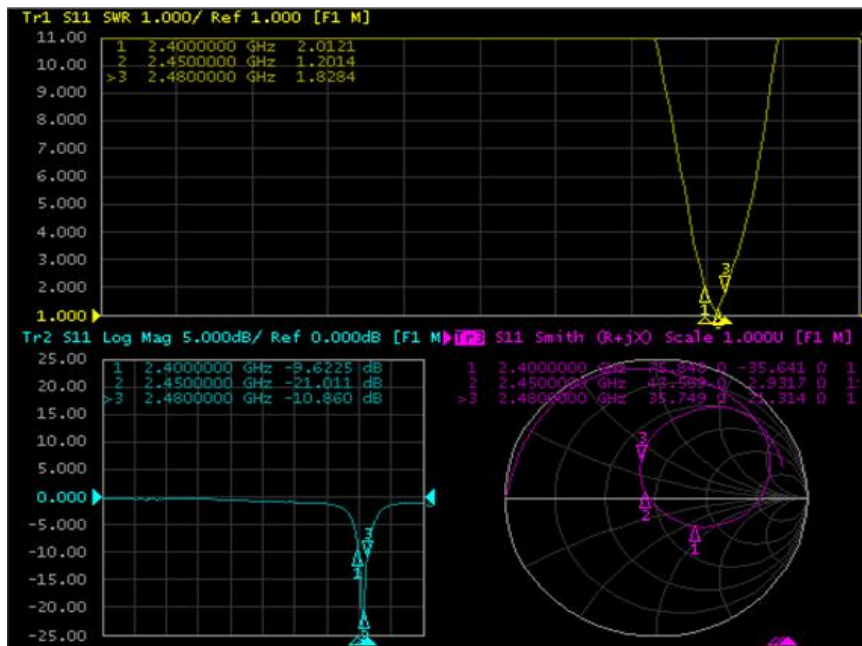
Test tools: Agilent8960 integrated measuring instrument, R&SCMW500, all-wave far-field ETS darkroom, high-precision positioning system and its controller and computer with automatic test program

Test environment: Temperature  $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$ , humidity  $50\% \pm 15\%$

Test method: The DUT is fixed in the center position of the turntable with the H-plane, and the center position of the horn antenna is on the same horizontal line.

The positioning system enables the DUT to rotate throughout the spherical surface to meet the high accuracy of three-dimensional positioning. Each RF instrument, turntable controller and PC with automatic test software communicate through GPIB interface

### 2.2.2 Antenna passive standing wave pattern



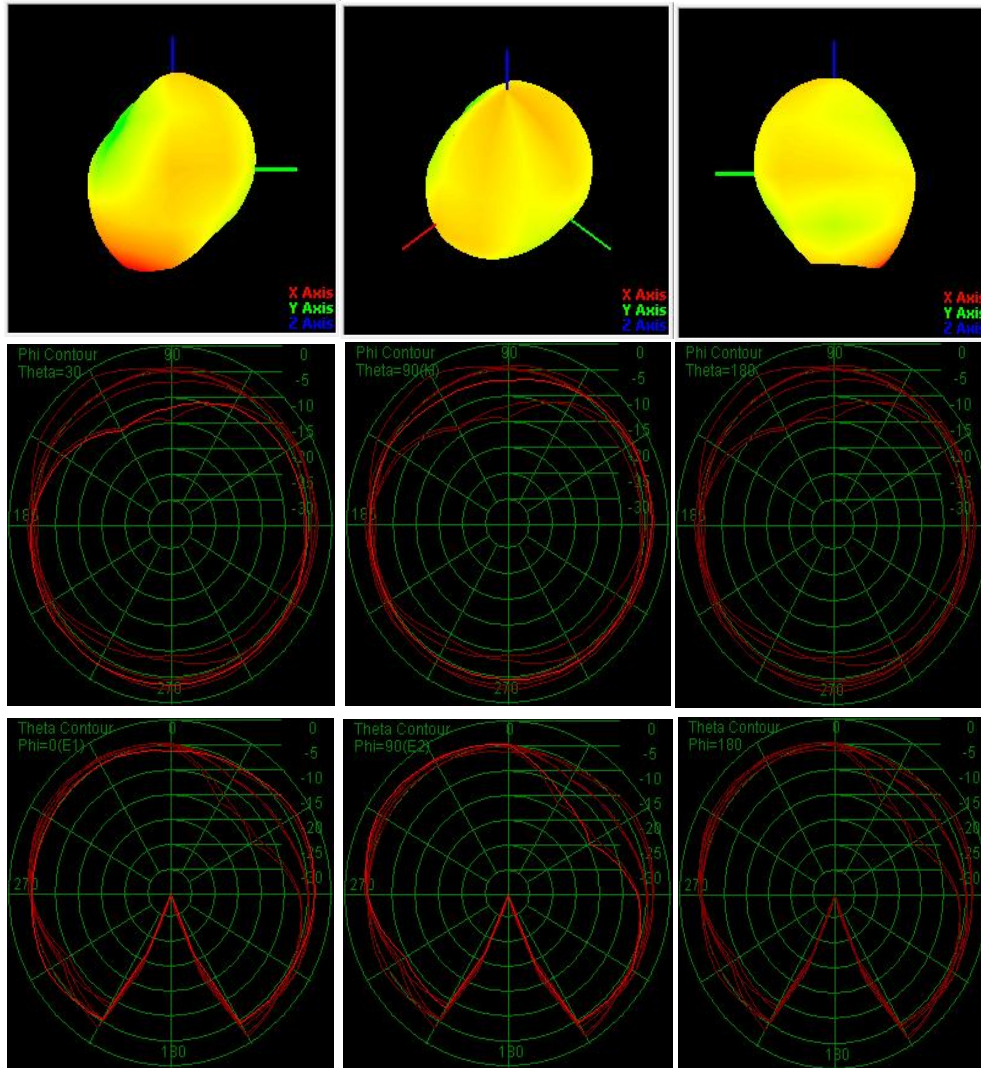
### 2.2.3 Conduction data-R

|               |    |      |     |
|---------------|----|------|-----|
| Right Earbuds | 0  | 6.71 | -92 |
|               | 39 | 7.01 | -92 |
|               | 78 | 6.46 | -92 |

### 2.2.4 Antenna efficiency parameter test

| antenna efficiency/R | Frequency Point (MHz) | efficiency% | Gain (dBi) |
|----------------------|-----------------------|-------------|------------|
|                      | 2400                  | 20.12%      | -1.71      |
|                      | 2410                  | 20.34%      | -1.68      |
|                      | 2420                  | 21.62%      | -1.35      |
|                      | 2430                  | 22.40%      | -0.22      |
|                      | 2440                  | 23.30%      | -0.37      |
|                      | 2450                  | 23.70%      | -0.42      |
|                      | 2460                  | 22.50%      | -0.29      |
|                      | 2470                  | 21.60%      | -0.20      |
|                      | 2480                  | 20.80%      | -1.27      |
|                      | 2490                  | 19.70%      | -1.54      |
|                      | 2500                  | 18.20%      | -1.62      |

## 2.2.5 Antenna passive plan Direction diagram



## 2.2.6 Antenna active parameter

| Channel No. | Free space test data/L |           | Channel No. | Head and ear test data/L |           |
|-------------|------------------------|-----------|-------------|--------------------------|-----------|
|             | TRP (dBm)              | TIS (dBm) |             | TRP (dBm)                | TIS (dBm) |
| 0           | 0.51                   | -84.73    | 0           | -2.12                    | -81.25    |
| 39          | 2.87                   | -85.66    | 39          | -2.14                    | -81.13    |
| 78          | 3.12                   | -85.08    | 78          | -3.13                    | -80.93    |

Free space

Head

## 2.2.10 Antenna test environment



### 3. structural drawings

