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# Specification for Approval

## CONTENTS

|                           |                   |                             |                                                                                                     |
|---------------------------|-------------------|-----------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Customer:</b>          | N/A               | <b>Vendor:</b>              | N/A                                                                                                 |
| <b>Customer P/N:</b>      | N/A               | <b>HL P/N:</b>              | N/A                                                                                                 |
| <b>Product model:</b>     | HSELAQ_05_83MG_61 | <b>antenna manufacturer</b> | Jiangxi Xusheng Electronics Co., Ltd<br><br>Jishui Industrial Park,<br>Ji'an City, Jiangxi Province |
| <b>Pcb antenna brand:</b> | Xusheng           | <b>Approval Date:</b>       | 2026-3-27                                                                                           |

| Internal Approval   |                    |                     |
|---------------------|--------------------|---------------------|
| <b>Approved By:</b> | <b>Checked By:</b> | <b>Prepared By:</b> |
|                     |                    | Zhang Bin           |
| Customer Approval   |                    |                     |
|                     |                    |                     |

Revision:

| Date      | Rev | Description of Changes |
|-----------|-----|------------------------|
| 2023-9-22 | A   | Initial Release        |

1、Products Electrical

PCB Antenna

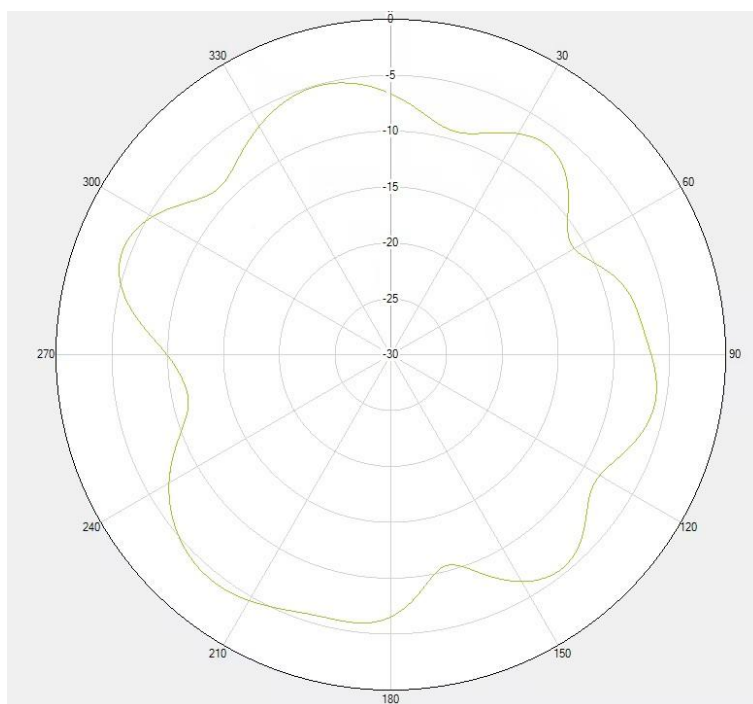
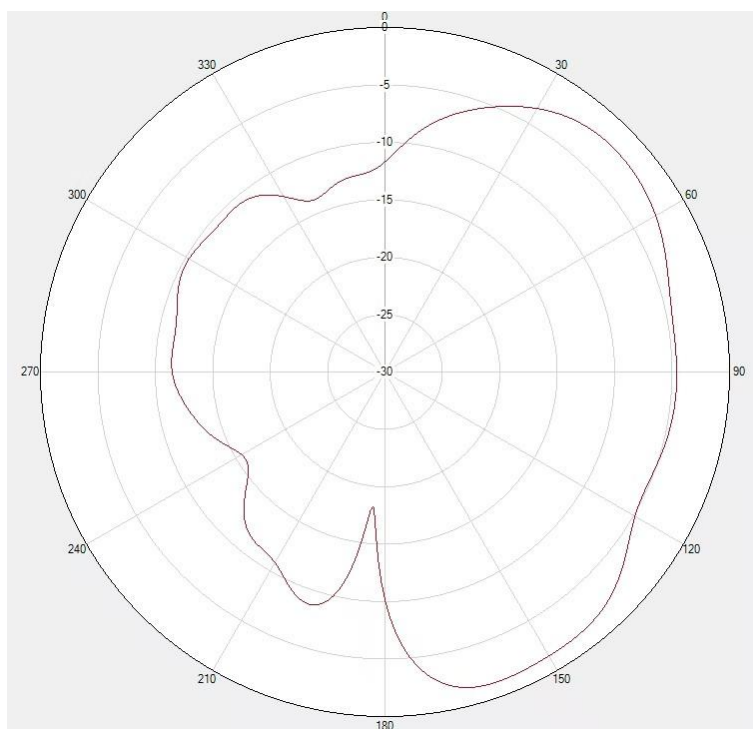
|   |                       |                 |
|---|-----------------------|-----------------|
| 1 | Antenna Model         | PCB IFA Antenna |
| 2 | Frequency Range       | 2400-2500MHz    |
| 3 | VSWR (or return loss) | <2 (<-9.5dB)    |
| 4 | Broadband             | >100MHz         |
| 5 | Impedance             | 50 ohm          |
| 6 | Gain                  | -1.1dBi         |
| 7 | Polarization          | LP              |

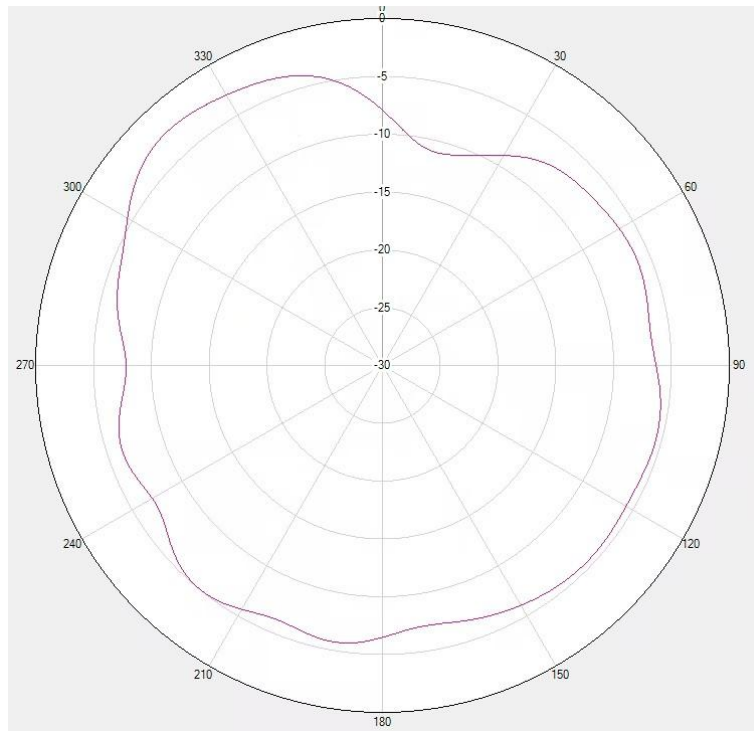
2、Antenna Test Data

2.1 VSWR



## 2.2 RADIATION PATTERNS 2450MHz





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### 2.3 GAIN AND EFFICIENCY

| Frequency<br>(MHz) | Efficiency<br>(%) | Gain<br>(dBi) |
|--------------------|-------------------|---------------|
| 2400               | 39.6              | -1.5          |
| 2410               | 40.0              | -1.4          |
| 2420               | 39.4              | -1.1          |
| 2430               | 39.3              | -1.4          |
| 2440               | 36.5              | -1.5          |
| 2450               | 37.8              | -1.7          |
| 2460               | 35.2              | -1.3          |
| 2470               | 36.0              | -1.2          |
| 2480               | 38.6              | -1.5          |
| 2490               | 39.5              | -1.3          |
| 2500               | 38.1              | -1.4          |

### 3、PCB ANTENNA (MM)

