

# 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_07_50M_12 | <b>HL Device Name:</b> | N/A       |
| <b>Pcb antenna brand:</b> | Fuxiang          | <b>Approval Date:</b>  | 2025-4-19 |

|                   |             |              |
|-------------------|-------------|--------------|
| Internal Approval |             |              |
| Approved By:      | Checked By: | Prepared By: |
|                   |             | Zhang Bin    |
| Customer Approval |             |              |
|                   |             |              |

Revision:

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

## 1、Products Electrical

### PCB Antenna

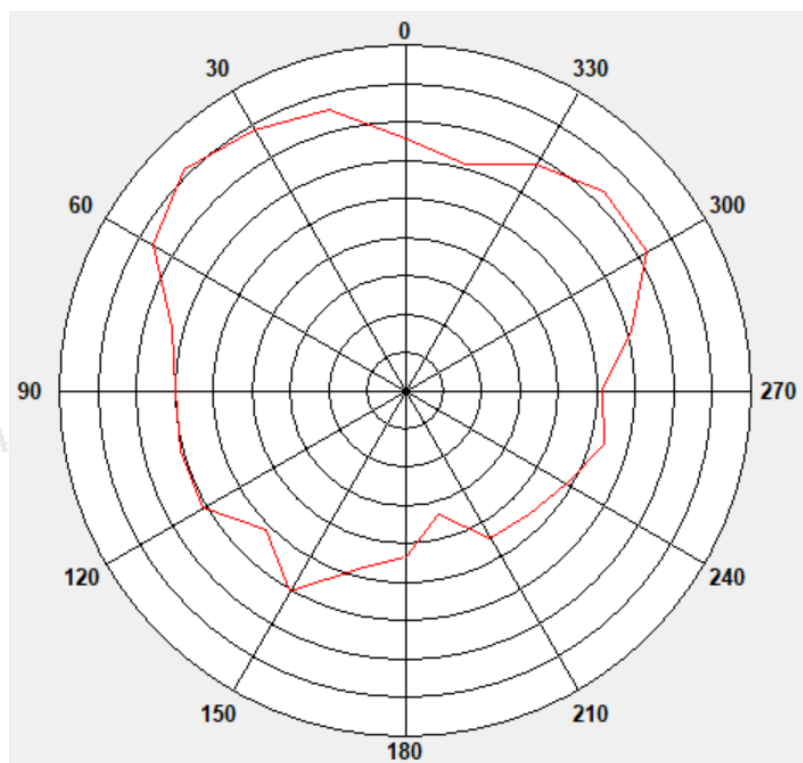
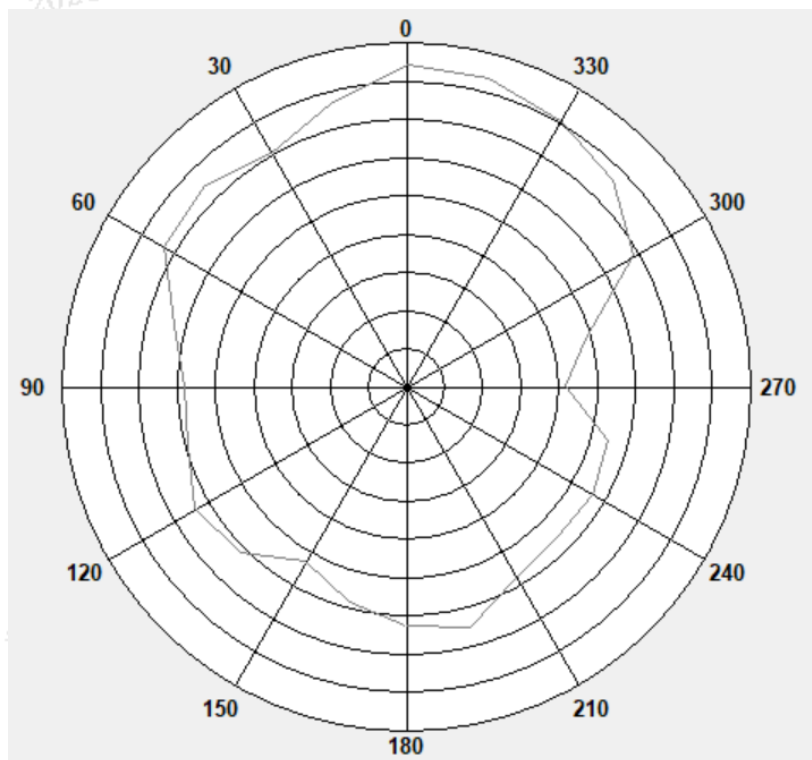
|   |                       |                 |
|---|-----------------------|-----------------|
| 1 | Antenna Model         | PCB IFA Antenna |
| 2 | Frequency Range       | 2400-2500MHz    |
| 3 | VSWR (or return loss) | <2 (<-9.5dB)    |
| 4 | Broadband             | >100MHz         |
| 5 | Impedance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

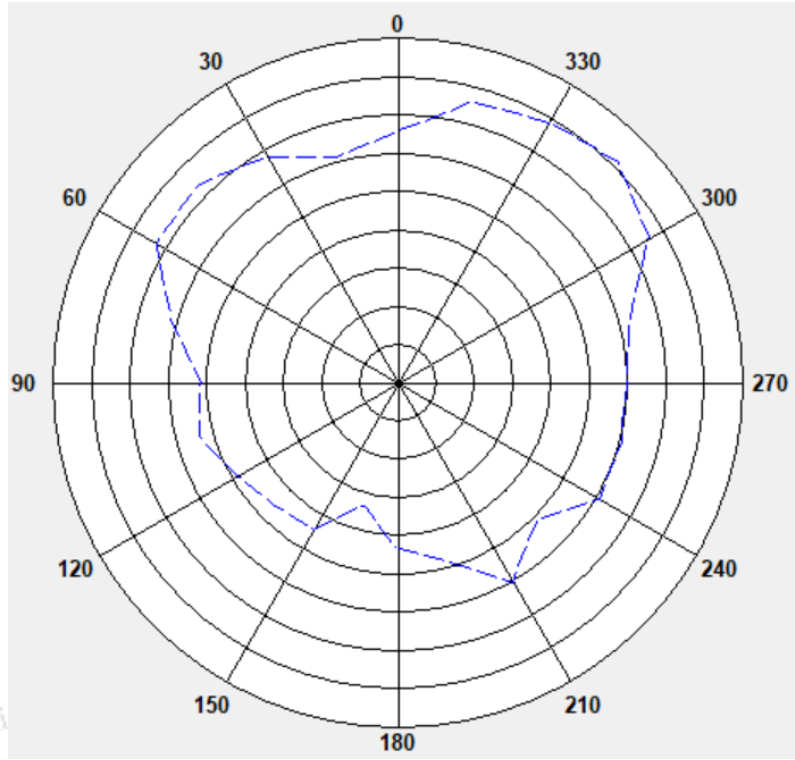
## 2、Antenna Test Data

### 2.1 VSWR



## 2.2 RADIATION PATTERNS 2450MHz





**2.3 GAIN AND EFFICIENCY**

| Frequency<br>(MHz) | Efficiency<br>(%) | Gain<br>(dBi) |
|--------------------|-------------------|---------------|
| 2400               | 42.6              | -1.2          |
| 2410               | 40.0              | -1.1          |
| 2420               | 41.4              | -1.1          |
| 2430               | 41.3              | -1.3          |
| 2440               | 41.5              | -1.1          |
| 2450               | 40.8              | -1.3          |
| 2460               | 40.2              | -1.3          |
| 2470               | 41.0              | -1.2          |
| 2480               | 41.6              | -1.3          |
| 2490               | 41.5              | -1.3          |
| 2500               | 41.2              | -1.4          |

### 3、PCB ANTENNA (MM)

