

# Specification for Approval

## CONTENTS

|                   |                 |                 |           |
|-------------------|-----------------|-----------------|-----------|
| Customer:         | N/A             | Vendor:         | N/A       |
| CustomerP/N:      | N/A             | HL P/N:         | N/A       |
| Productmodel:     | HSEL3_01_60F_38 | HL Device Name: | N/A       |
| Pcbantenna brand: | Fuxiang         | Approval Date:  | 2025-3-22 |

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

Revision:

| Date       | Rev | Description of Changes |
|------------|-----|------------------------|
| 2024-10-18 | A   | Initial Release        |

1、Products Electrical

PCB Antenna

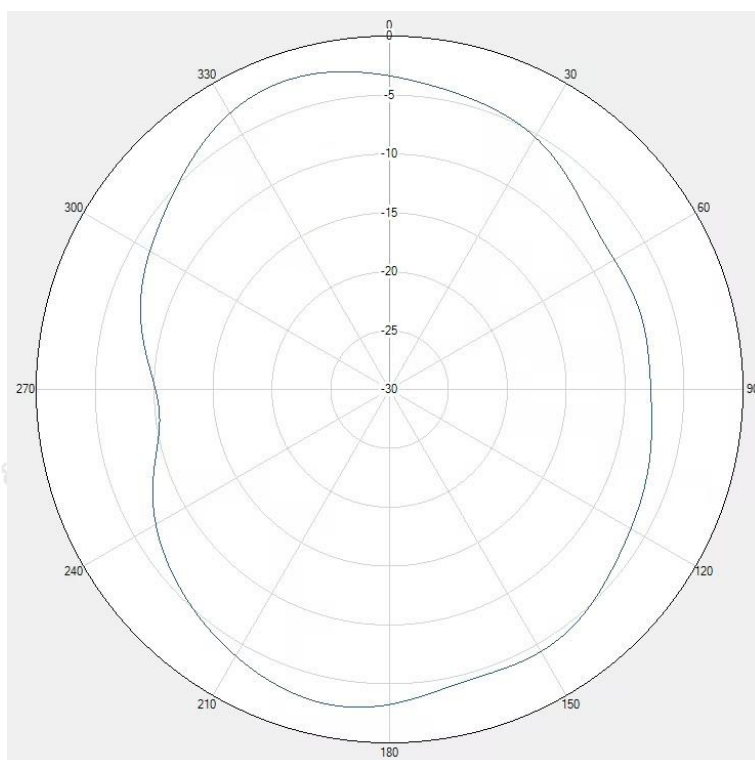
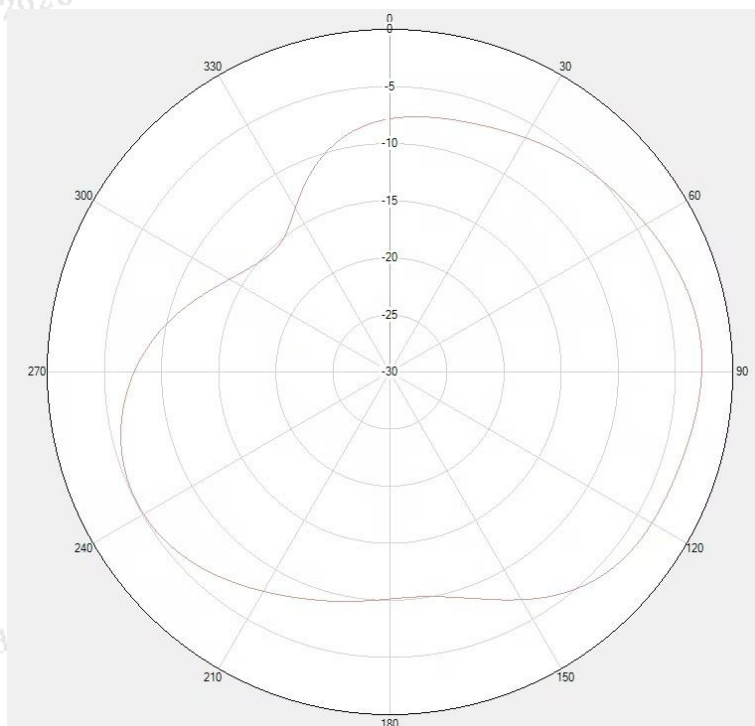
|   |                     |                 |
|---|---------------------|-----------------|
| 1 | Antenna Model       | PCB IFA Antenna |
| 2 | Frequency Range     | 2400-2500MHz    |
| 3 | VSWR (orreturnloss) | <2 (<-9.5dB)    |
| 4 | Broadband           | >100MHz         |
| 5 | Impedance           | 50 ohm          |
| 6 | Gain                | -1.6dBi         |
| 7 | Polarization        | LP              |

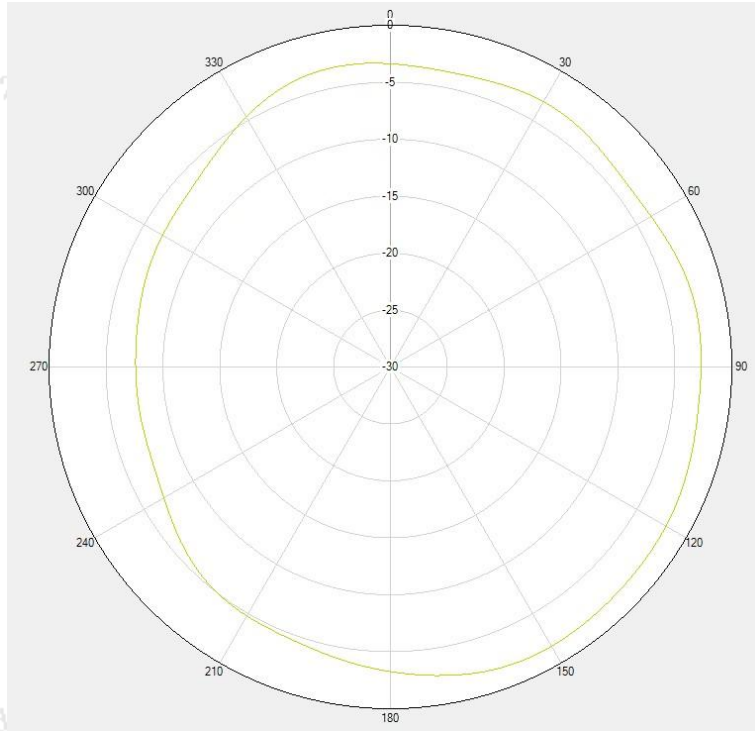
2、Antenna Test Data

## 2.1 Returnloss



## 2.2 RADIATION PATTERNS 2450MHz





**2.3 GAIN AND EFFICIENCY**

| Frequency<br>(MHz) | Efficiency<br>(%) | Gain<br>(dBi) |
|--------------------|-------------------|---------------|
| 2400               | 24.6              | -1.9          |
| 2410               | 25.0              | -1.7          |
| 2420               | 26.4              | -1.6          |
| 2430               | 28.3              | -1.6          |
| 2440               | 27.5              | -1.6          |
| 2450               | 27.8              | -1.6          |
| 2460               | 26.2              | -1.7          |
| 2470               | 25.0              | -1.7          |
| 2480               | 25.6              | -1.8          |
| 2490               | 25.5              | -2.2          |
| 2500               | 25.2              | -2.1          |

### 3、PCB ANTENNA (MM)



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