



# 深圳市福祥电子有限公司

Shenzhen Fuxiang Electronics Co., LTD

No. 88, Langbei Industrial Zone Road, Tongde Community, Baolong Street, Longgang District, Shenzhen City

## Antenna specification

## 天线规格书

Model/型号: 1PL33      VER: 1.0

Prepared By/Date      于位华 /2022.11.15  
编制/日期

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Checked By/Date      吴国玺 /2022.11.15  
审核/日期

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Approved By/Date      赖胜雄/2022.11.15  
批准/日期

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Company Name

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Customer Approval

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## 1. Mode name: Wire antenna

### Technical requirements:

- There should be no damage, line damage and other phenomena.
- There should be no slit after dipping tin.
- OD:  $\text{Ø}1.3 \pm 0.1$ , Copper wire OD:  $0.15 \pm 0.01$ , 17core

## 2. PHOTO



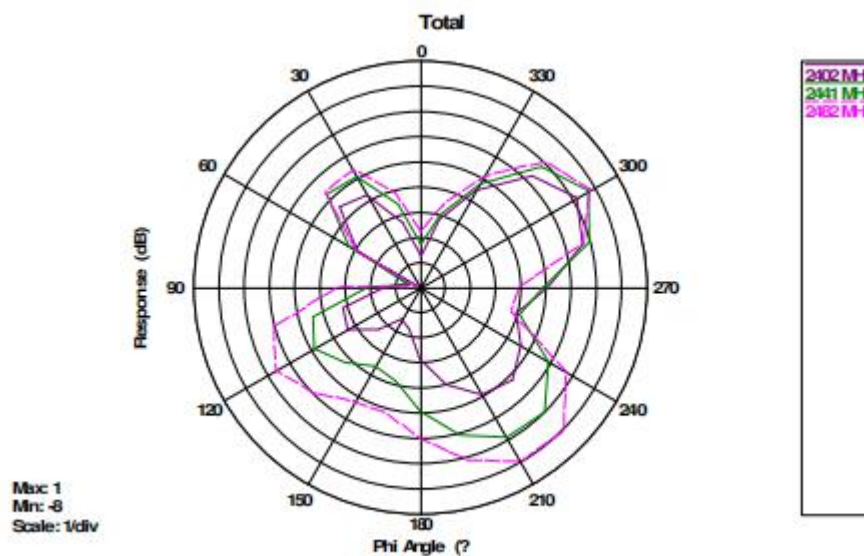
## 3. Size: Length 33mm, Diameter 1.3mm

# Antenna gain

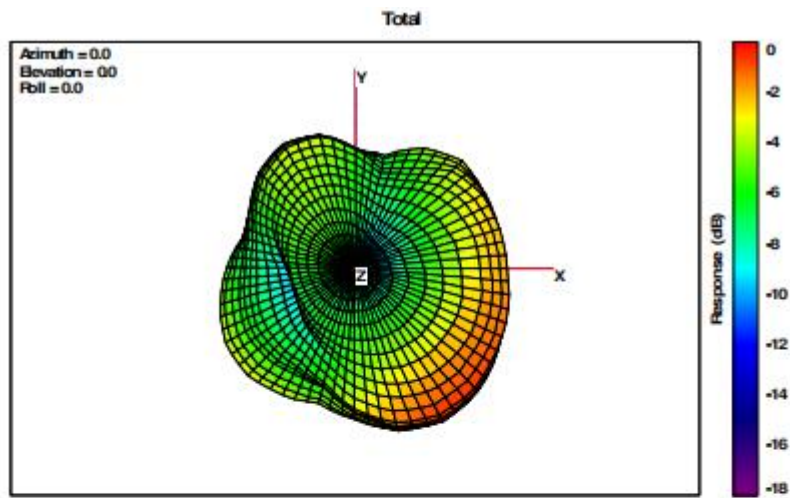
| 2.4GHz Antenna  |                 |                |            |
|-----------------|-----------------|----------------|------------|
| Frequency (MHz) | Efficiency (dB) | Efficiency (%) | Gain (dBi) |
| 2400            | -5.00           | 31.59          | -0.47      |
| 2402            | -4.98           | 31.80          | -0.45      |
| 2412            | -4.75           | 33.46          | -0.28      |
| 2420            | -4.57           | 34.94          | -0.19      |
| 2430            | -4.27           | 37.41          | 0.09       |
| 2435            | -4.17           | 38.25          | 0.09       |
| 2437            | -4.10           | 38.87          | 0.16       |
| 2440            | -3.98           | 39.97          | 0.30       |
| 2441            | -3.95           | 40.30          | 0.33       |
| 2442            | -3.92           | 40.53          | 0.34       |
| 2445            | -3.86           | 41.07          | 0.32       |
| 2450            | -3.75           | 42.13          | 0.39       |
| 2455            | -3.60           | 43.68          | 0.52       |
| 2462            | -3.46           | 45.06          | 0.50       |
| 2465            | -3.40           | 45.71          | 0.56       |
| 2472            | -3.29           | 46.84          | 0.52       |
| 2475            | -3.26           | 47.20          | 0.50       |
| 2480            | -3.17           | 48.22          | 0.58       |
| 2482            | -3.12           | 48.72          | 0.58       |
| 2485            | -3.08           | 49.25          | 0.52       |

## 4. APPENDIX A S - Parameter & Antenna Radiation Patterns

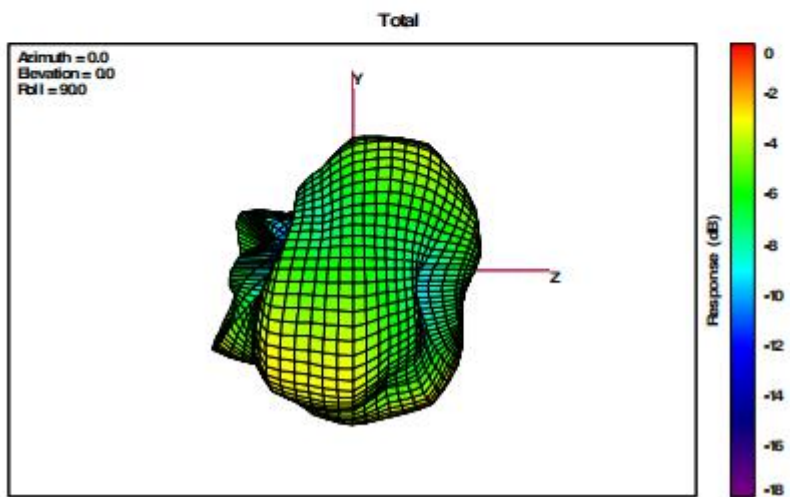
### 4.1. 2-D Antenna Pattern ( $\Theta=90^\circ$ )



## 4.2. 3-D Antenna Pattern



Front View



Side View