



惠州硕贝德无线科技股份有限公司

Huizhou Speed Wireless Technology Co.,Ltd

## F-NR300 WIFI2 Datasheet

|                  |                     |     |                |                               |     |
|------------------|---------------------|-----|----------------|-------------------------------|-----|
| Customer/Project | F-NR300             |     | Frequency Band | 2400-2500MHz,<br>5.15-5.85GHz |     |
| SCT P/N          | F-0Y-4X-0084-007-00 |     | Version        | S01                           |     |
| Date             | 2022.05.31          |     |                |                               |     |
| SPEED            |                     |     |                |                               |     |
| Checked by       | RF                  | 张 凯 | Designed by    | RF                            | 李 尚 |
|                  | ME                  | 徐 雷 |                | ME                            | 徐 雷 |
|                  | QC                  |     | Remark         |                               |     |
| Customer         |                     |     |                |                               |     |
| Date             |                     |     |                |                               |     |
| Confirmed by     | RF                  |     |                |                               |     |
|                  | ME                  |     |                |                               |     |
| Remark           |                     |     |                |                               |     |

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## Content

|                    |   |
|--------------------|---|
| 1 概述.....          | 3 |
| 2 天线规格.....        | 4 |
| 3 天线测试环境.....      | 5 |
| 4 天线测试结果.....      | 6 |
| 4.1 天线驻波.....      | 6 |
| 4.2 天线效率和最大增益..... | 7 |
| 5 天线结构图.....       | 8 |

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## 1 Description

F-NR300 wifi2 datasheet, PCB+Cable:

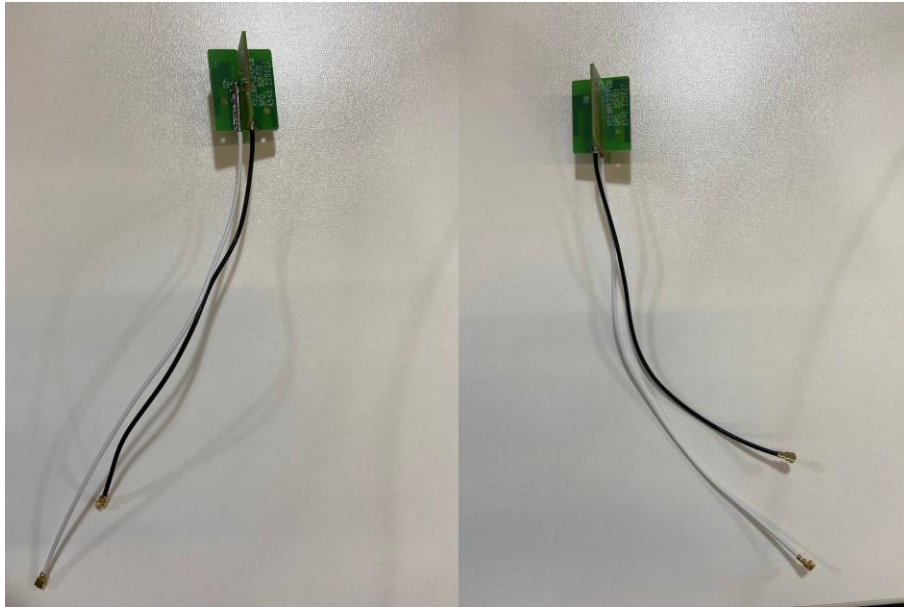


Figure 1

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## 2 Specification

|                        |  |
|------------------------|--|
| Ant type               | PCB+Cable                                  |
| Fre                    | 2400-<br>2500MHz,<br>5.15-5.85GHz          |
| Isolation              | 2400-2500MHz <-25dB<br>5.15-5.85GHz <-25dB |
| Efficient              | 2400-2500MHz>40%<br>5.15-5.85GHz>50%       |
| Return loss            | 2400-2500MHz<-10dB<br>5.15-5.85GHz<-10dB   |
| Impedence              | 50ohm                                      |
| pol                    | Lin-pol                                    |
| Radiation              | Omni-<br>directional                       |
| Working<br>temperature | -40 °C to +80<br>°C                        |
| Storage<br>temperature | -40 °C to +80<br>°C                        |

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### 3 Test environment

Test equipment: Keysight E5071C:



Fig 2 Keysight E5071C

Chamber: Satimo. 400MHz 到 6GHz。



Fig 3 Satimo Test system

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## 4 Test result

### 4.1 VSWR

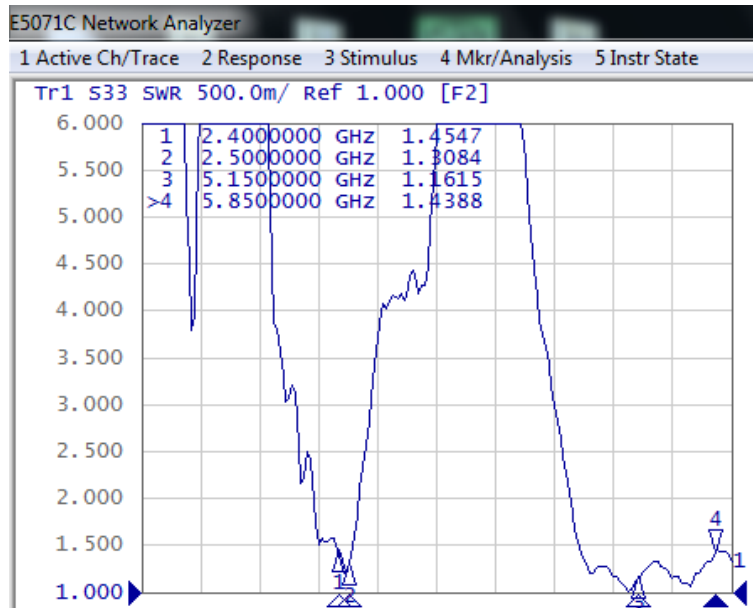


Fig 5 WIFI2-1

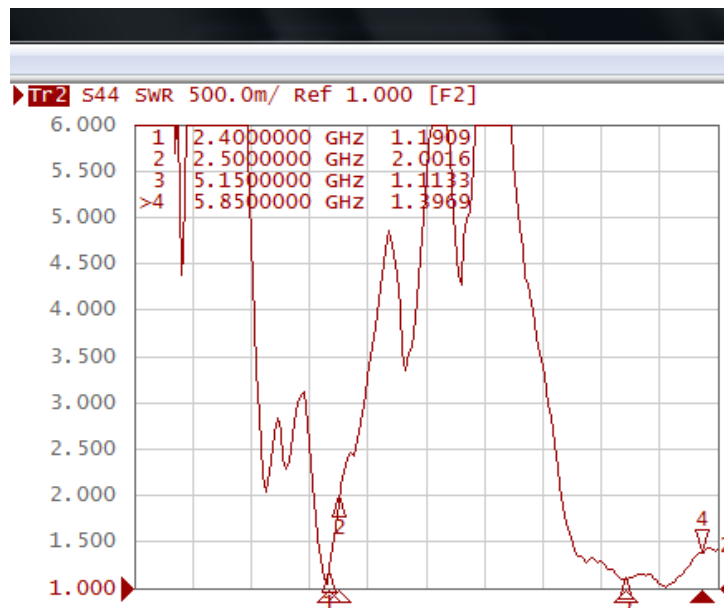


Fig 6 WIFI2-2

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#### 4.2 Ant efficiency and gain

| Frequency (MHz) | Efficiency (%) | Gain (dBi) |
|-----------------|----------------|------------|
| 2400            | 54             | 1.42       |
| 2410            | 54             | 1.73       |
| 2420            | 54             | 1.83       |
| 2430            | 55             | 1.96       |
| 2440            | 55             | 2.2        |
| 2450            | 56             | 2.47       |
| 2460            | 55             | 2.46       |
| 2470            | 56             | 2.61       |
| 2480            | 55             | 2.53       |
| 2490            | 54             | 2.39       |
| 2500            | 53             | 2.26       |
| 5150            | 60             | 2.86       |
| 5200            | 55             | 2.14       |
| 5250            | 54             | 1.72       |
| 5300            | 57             | 1.86       |
| 5350            | 55             | 1.64       |
| 5400            | 61             | 2.42       |
| 5450            | 64             | 2.79       |
| 5500            | 60             | 2.15       |
| 5550            | 65             | 2.79       |
| 5600            | 59             | 2.63       |
| 5650            | 54             | 2.69       |
| 5700            | 51             | 2.35       |
| 5750            | 50             | 1.64       |
| 5800            | 49             | 1.72       |
| 5850            | 51             | 2.38       |

Fig 7 WIFI2-1

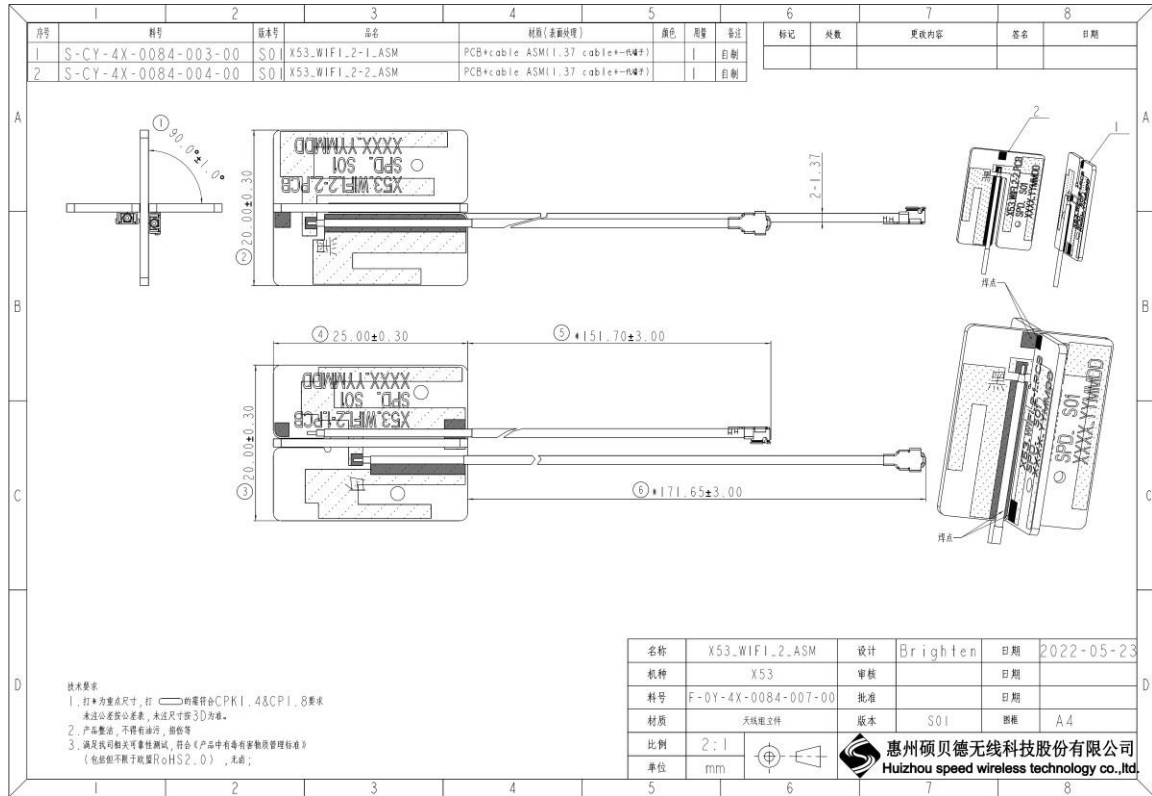
| Frequency (MHz) | Efficiency (%) | Gain (dBi) |
|-----------------|----------------|------------|
| 2400            | 55             | 1.88       |
| 2410            | 56             | 1.78       |
| 2420            | 56             | 1.58       |
| 2430            | 57             | 1.74       |
| 2440            | 58             | 1.85       |
| 2450            | 59             | 1.88       |
| 2460            | 59             | 2          |
| 2470            | 60             | 1.99       |
| 2480            | 60             | 1.87       |
| 2490            | 59             | 1.84       |
| 2500            | 59             | 1.77       |
| 5150            | 51             | 1.66       |
| 5200            | 52             | 1.89       |
| 5250            | 55             | 2.68       |
| 5300            | 60             | 3.08       |
| 5350            | 58             | 3.06       |
| 5400            | 60             | 3.06       |
| 5450            | 56             | 2.98       |
| 5500            | 52             | 3.11       |
| 5550            | 57             | 3.04       |
| 5600            | 54             | 2.77       |
| 5650            | 57             | 2.91       |
| 5700            | 63             | 2.93       |
| 5750            | 62             | 2.38       |
| 5800            | 68             | 3.05       |
| 5850            | 63             | 3.02       |

Fig 8 WIFI2-2

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## 5 Dimension



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