

江元

# 样品承认书

## Parts Approval Sheet

生产厂商: 国质信网络 物料名称: WIFI 天线  
Supplier Parts Name  
型号/规格: NQI-1042H-B130X-ASM-V0 客户料号: \_\_\_\_\_  
Type/Spec Parts No.  
品 牌: NQI 样品数量: \_\_\_\_\_  
Brand Quantity  
送样日期: 2022.09.16 文件编号: \_\_\_\_\_  
Send out Date Document No.  
承认日期: \_\_\_\_\_ 版 本: V0  
Approve Date Version

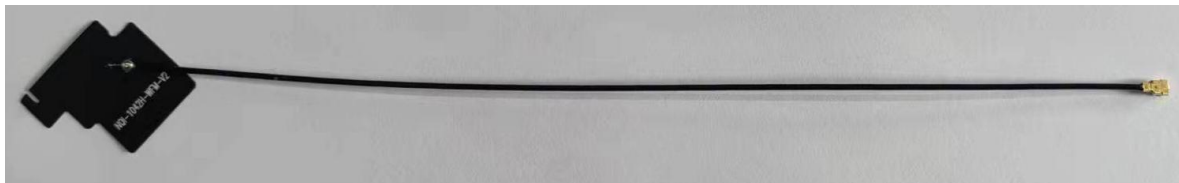
| Supplier    |             | Customer          |               |
|-------------|-------------|-------------------|---------------|
| Approved By | Prepared By | Engineering Dept. | Quality Dept. |
|             |             |                   |               |

# Contents

|                                          |            |
|------------------------------------------|------------|
| <b>1.Summary.....</b>                    | <b>3</b>   |
| <b>2.General Description.....</b>        | <b>4</b>   |
| 2.1 Components/Part revisions.....       | 4          |
| 2.2 Definitions .....                    | 4          |
| <b>3.Electrical</b>                      |            |
| <b>Performance.....</b>                  | <b>4</b>   |
| 3.1 Specification .....                  | 4          |
| 3.1.1 VSWR .....                         | 4          |
| 3.2 Set-up.....                          | 4          |
| 3.2.1 VSWR .....                         | 4          |
| 3.2.2 Matching Circuit Description ..... | 4          |
| 3.3 VSWR&R.L.(Test in freespace) .....   | 4          |
| <b>4. Plots .....</b>                    | <b>5-6</b> |
| 4.1 VSWR.....                            | 5          |
| 4.2 Return Loss.....                     | 5          |
| 4.3 Efficiency&Gain.....                 | 6          |
| <b>5. Antenna Engineer drawing .....</b> | <b>7</b>   |

## 1. Summary

This report summarizes the electrical results of the our antenna to support the project NQI-1042H-WFM-200X. The test fixture is made for further testing, which is show below:



## 2. General Description

### 2.1 Antenna Components/Part revisions

The antenna part number is T: A

### 2.2 Definitions

VSWR: Voltage Standing Wave Rate

TRP: total radiated power

TIS: total isotropic sensitivity

## 3. Electrical Performance

### 3.1 Specification

Worst allowable in band values are presented. A setup according to should be used when testing these values.

#### 3.1.1 VSWR(Test in free space)

| Freq. | 2400       | 2500       | 5150       | 5850       |
|-------|------------|------------|------------|------------|
| VSWR  | $\leq 2.5$ | $\leq 2.1$ | $\leq 2.1$ | $\leq 1.8$ |

### 3.2 Set-up

#### 3.2.1 VSWR

The S11 parameter is performed using Angilent E5071B Network Analyzer and NQI's test fixture that is using customer-providing device. We use a 30cm long ferrite de-coupling sleeve to mitigate surface currents on the outside of the testing cable.

#### 3.2.2 Matching Circuit Description

原版匹配

### 3.3 VSWR& R.L.(Test in free space)

| Freq.(MHz) | 2400 | 2500 | 5150 | 5850 |
|------------|------|------|------|------|
| VSWR       | 2    | 1.6  | 1.6  | 1.3  |
| R.L.       | -10  | -12  | -13  | -18  |

## 4. Plots

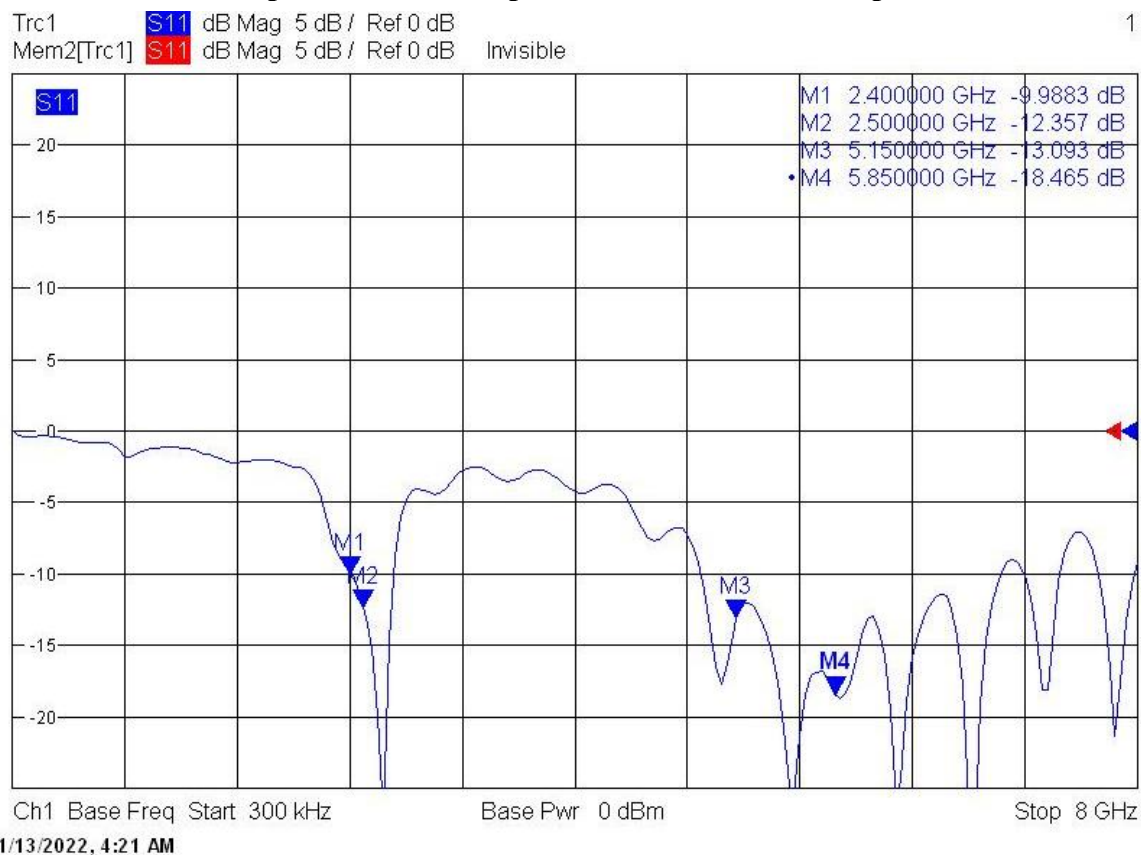
### 4.1 VSWR

VSWR parameter in sample antenna tested in free space



## 4.2 Return Loss

### S11 parameter in sample antenna tested in free space

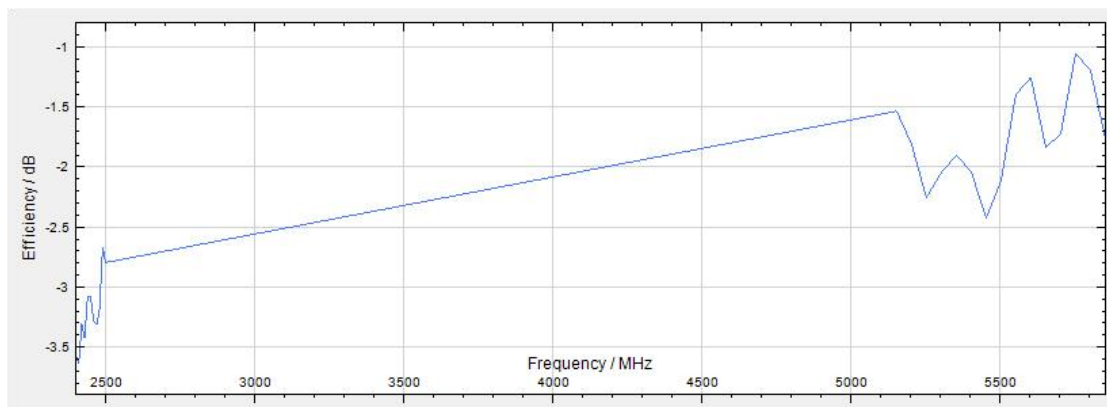


## 4.3 Efficiency&Gain

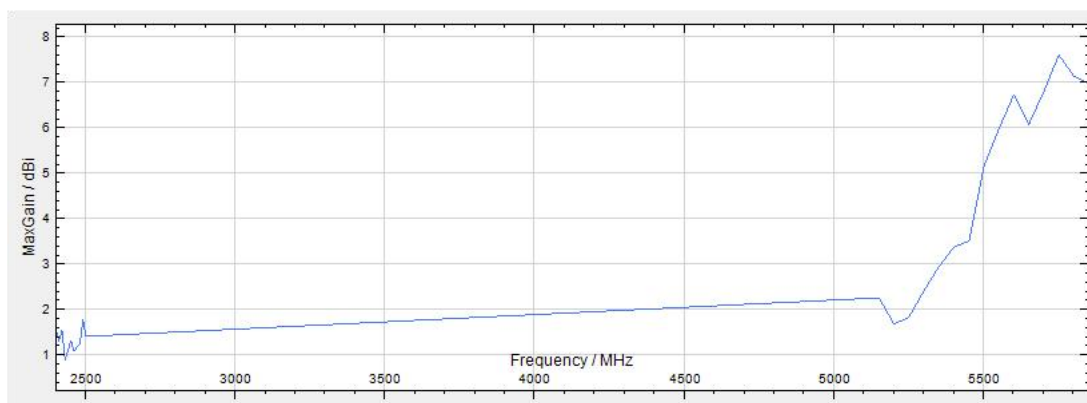
| Freq (MHz) | Effi (%) | Gain (dBi) |
|------------|----------|------------|
| 2400       | 44.06    | 1.56       |
| 2410       | 43.35    | 1.32       |
| 2420       | 46.77    | 1.56       |
| 2430       | 45.5     | 0.9        |
| 2440       | 49.32    | 1.11       |
| 2450       | 49.2     | 1.34       |
| 2460       | 46.99    | 1.09       |
| 2470       | 46.67    | 1.2        |
| 2480       | 48.08    | 1.27       |
| 2490       | 54.2     | 1.8        |
| 2500       | 52.6     | 1.42       |
| 5150       | 70.31    | 2.27       |
| 5200       | 66.07    | 1.69       |
| 5250       | 59.57    | 1.85       |

|      |       |      |
|------|-------|------|
| 5300 | 62.52 | 2.43 |
| 5350 | 64.57 | 2.96 |
| 5400 | 62.66 | 3.39 |
| 5450 | 57.28 | 3.52 |
| 5500 | 61.52 | 5.16 |
| 5550 | 72.61 | 5.99 |
| 5600 | 74.99 | 6.74 |
| 5650 | 65.61 | 6.09 |
| 5700 | 67.3  | 6.81 |
| 5750 | 78.52 | 7.62 |
| 5800 | 76.03 | 7.16 |

## Effeciency 曲线图



## Gain 曲线图



5.Antenna Engineer drawing:

