



## SAMPLE & SPECIFICATION FOR APPROVAL

Customer: Point Mobile Co., Ltd

Model NO: PM95\_STD

Customer P/N: PM95\_NFC\_ANT\_HM0330-NA (E13-000288-01)

Version: V1.0

Specification Describe: PM95 NFC Antenna (FPC+ferrite)

Vendor P/N: HM0330-NA

Date: 2023-12-26

Sample and datasheet must be approved for 5 PCS .

| HUIMI Information |          |           |
|-------------------|----------|-----------|
| Approved By       | Check By | Issued By |
| WangJinhui        | SunQuan  | YiQin     |

| No Customer appointed Material |          |             |                       | Assign Part     |
|--------------------------------|----------|-------------|-----------------------|-----------------|
|                                | R&D      |             | QE                    | Sales           |
| Department                     | MD       | HW          | Quality and Eng. Dep. | Sale& Marketing |
| Checked By                     | LIXU     | Li ShengHua | LiWeiWei              | LiMin           |
| Approved By                    | LIXueQin | WangJinhui  | YeLing                | YiQin           |
| Final Judgment                 | LiLinHua | LiLinHua    | LiLinHua              | LiLinHua        |
| Remark                         |          |             |                       |                 |

## Suzhou HuiMi Communication Technology Co.,Ltd

### Antenna Approval Sheet

|              |                                        |             |    |
|--------------|----------------------------------------|-------------|----|
| Customer     | Point Mobile Co., Ltd                  |             |    |
| Customer P/N | PM95_NFC_ANT_HM0330-NA (E13-000288-01) |             |    |
| Model        | PM95_STD                               |             |    |
| P/N          | HM0330-NA                              |             |    |
| Description  | PM95-NFC ANTENNA (FPC+ferrite)         |             |    |
| Frequency    | 13.56MHz                               |             |    |
| Initial Date | 2023-12-26                             |             |    |
| Revision     | A                                      |             |    |
| Author       | RF Engineer                            | ME          |    |
|              | WangJinhui                             | SunQuan     |    |
| Tel.         | 18015467688                            | 13405120400 |    |
| Approval     | R&D                                    | PM          | QE |
|              |                                        |             |    |

#### Customer Signature



## Catalog

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## 1. Summary

This is the NFC antenna approval sheet

Working band is 13.56MHz.

## 2. Antenna Structure

FPC+ferrite

## 3. Device Conditions

PM95 Mobile phone

|                                           |            |                                                            |
|-------------------------------------------|------------|------------------------------------------------------------|
| Project Name:Pointmobile PM95_NFC antenna |            | Document:<br>Pointmobile_PM95_NFC antenna Approval Sheet_A |
| Date :2023-12-26                          | Version: A |                                                            |

## 4. Antenna Test Results

### 4.1 Antenna Photos

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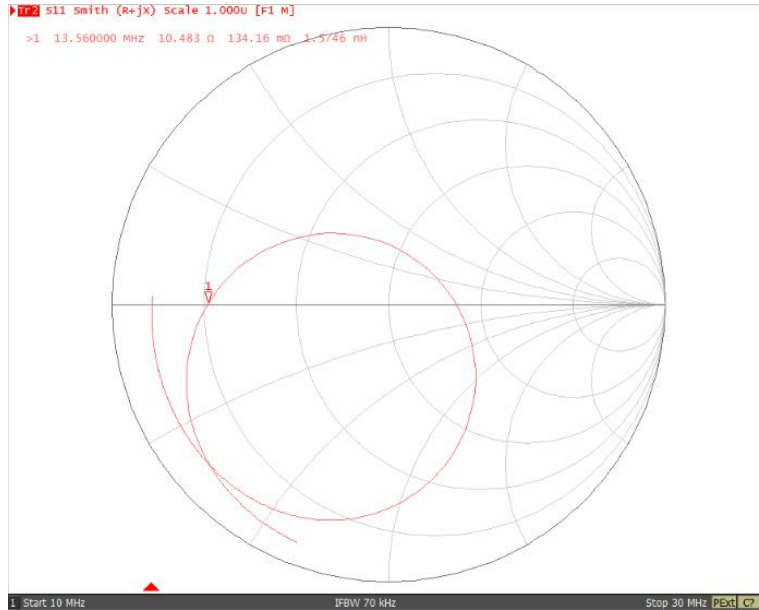
Picture 2 NFC antenna photograph

### 4.2 Matching Network

|                   | <i>Description</i> |              |
|-------------------|--------------------|--------------|
| <i>EMC Filter</i> | <i>L3601/L3602</i> | <i>77nH</i>  |
|                   | <i>C3606/C3607</i> | <i>560pF</i> |
| <i>Cs</i>         | <i>C3611/C3629</i> | <i>10pF</i>  |
|                   | <i>C3612/C3610</i> | <i>120pF</i> |
| <i>Ccdmp</i>      | <i>C3613/c3614</i> | <i>47pF</i>  |
|                   | <i>C3608/c3609</i> | <i>NC</i>    |

Picture 3 Matching network of NFC antenna

### 4.3 Return Loss(Smith)



Picture 4 NFC antenna reflection coefficients (Smith)

### 4.4 Read card distance

| Description                                           | Spec | EVT  | DVT  | MVT  | Distance |
|-------------------------------------------------------|------|------|------|------|----------|
| type 2 R/W free<br>(ISO14443-3A/Mifare Ultra light+)  | > 30 | NVNT | NVNT | NVNT | 57       |
| type 4 R/W free A<br>(ISO14443-3A/Mifare Classic)     | > 30 | NVNT | NVNT | NVNT | 30       |
| type 4 R/W free B<br>(ISO14443-3B/Type B)             | > 30 | NVNT | NVNT | NVNT | 29       |
| type 4 32k bytes R/W free<br>(ISO14443-3A/Type A)     | > 30 | NVNT | NVNT | NVNT | 34       |
| Mifare tag R/W free<br>(ISO14443-3A/Mifare Classic1K) | > 50 | NVNT | NVNT | NVNT | 42       |

## 5. Mechanical Drawings

