



ISO9001-2015  
Certificate No:672Q22020207194

No.T52210311961TC Date;OCT 12,2022 No.T52310270397TC Date;apr 15,2023

# 承認書

## SPECIFICATION FOR APPROVAL

客户名稱  
CUSTOMER

品名規格  
DESCRIPTION SCNF 50

客户料號  
CUS. P/N

提出日期  
DATE 2025.05.12

| 出 圖<br>RDAWING |                |                 |
|----------------|----------------|-----------------|
| 發 行<br>MADE    | 復 核<br>CHECKED | 確 認<br>APPROVED |
| 武卫锋            | 陆卯生            | 林萍              |
| 销售部：张 丽        |                |                 |

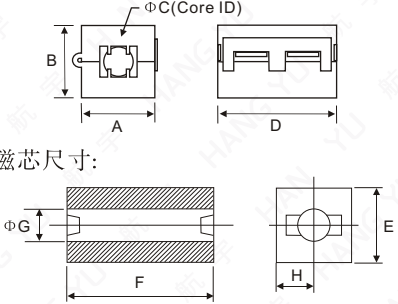
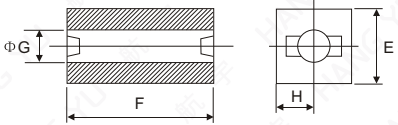
| 承 認<br>CUSTOMER APPROVE |
|-------------------------|
|                         |

# 承 認 書

## SPECIFICATION FOR APPROVAL

|                  |         |                   |            |
|------------------|---------|-------------------|------------|
| 客戶名稱<br>CUSTOMER |         | 日期<br>DATE        | 2025.05.12 |
| 規 格<br>ITEM      | SCNF 50 | 編 號<br>SERIAL NO. |            |

|                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |               |   |               |   |              |   |               |   |               |   |               |   |              |   |              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------|---|---------------|---|--------------|---|---------------|---|---------------|---|---------------|---|--------------|---|--------------|
| <p>1.1. 形狀尺寸(單位/毫米):<br/>SHAPE &amp; DIMENSION(unit/mm):<br/>外觀尺寸:</p>  <p>磁芯尺寸:</p>  <p>1.2. 實物圖:<br/>The Sample::</p>  | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">A</td><td style="width: 90%;">15.0 ± 1.0 mm</td></tr> <tr><td>B</td><td>14.0 ± 1.0 mm</td></tr> <tr><td>C</td><td>6.0 ± 1.0 mm</td></tr> <tr><td>D</td><td>23.0 ± 1.0 mm</td></tr> <tr><td>E</td><td>10.0 ± 0.5 mm</td></tr> <tr><td>F</td><td>20.0 ± 0.6 mm</td></tr> <tr><td>G</td><td>5.0 ± 0.4 mm</td></tr> <tr><td>H</td><td>5.2 ± 0.4 mm</td></tr> </table> | A | 15.0 ± 1.0 mm | B | 14.0 ± 1.0 mm | C | 6.0 ± 1.0 mm | D | 23.0 ± 1.0 mm | E | 10.0 ± 0.5 mm | F | 20.0 ± 0.6 mm | G | 5.0 ± 0.4 mm | H | 5.2 ± 0.4 mm |
| A                                                                                                                                                                                                                                                                                                                                                                           | 15.0 ± 1.0 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |               |   |               |   |              |   |               |   |               |   |               |   |              |   |              |
| B                                                                                                                                                                                                                                                                                                                                                                           | 14.0 ± 1.0 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |               |   |               |   |              |   |               |   |               |   |               |   |              |   |              |
| C                                                                                                                                                                                                                                                                                                                                                                           | 6.0 ± 1.0 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |               |   |               |   |              |   |               |   |               |   |               |   |              |   |              |
| D                                                                                                                                                                                                                                                                                                                                                                           | 23.0 ± 1.0 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |               |   |               |   |              |   |               |   |               |   |               |   |              |   |              |
| E                                                                                                                                                                                                                                                                                                                                                                           | 10.0 ± 0.5 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |               |   |               |   |              |   |               |   |               |   |               |   |              |   |              |
| F                                                                                                                                                                                                                                                                                                                                                                           | 20.0 ± 0.6 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |               |   |               |   |              |   |               |   |               |   |               |   |              |   |              |
| G                                                                                                                                                                                                                                                                                                                                                                           | 5.0 ± 0.4 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |               |   |               |   |              |   |               |   |               |   |               |   |              |   |              |
| H                                                                                                                                                                                                                                                                                                                                                                           | 5.2 ± 0.4 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |               |   |               |   |              |   |               |   |               |   |               |   |              |   |              |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |                 |              |            |                            |  |              |            |                                       |             |               |             |       |            |       |            |   |                 |   |                                    |  |  |  |                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------|--------------|------------|----------------------------|--|--------------|------------|---------------------------------------|-------------|---------------|-------------|-------|------------|-------|------------|---|-----------------|---|------------------------------------|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>2. 電氣性能檢測項目:<br/>ELECTRICAL REQUIREMENTS:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"><input type="checkbox"/> L</td> <td style="width: 20%;"></td> <td style="width: 10%;">TEST<br/>FREQ</td> <td style="width: 10%;">KHZ<br/>MHZ</td> </tr> <tr> <td><input type="checkbox"/> Q</td> <td></td> <td>TEST<br/>FREQ</td> <td>KHZ<br/>MHZ</td> </tr> <tr> <td rowspan="2"><input checked="" type="checkbox"/> Z</td> <td>Z1= 60Ω MIN</td> <td>KHZ<br/>25 MHZ</td> <td>Z2=130Ω MIN</td> </tr> <tr> <td>Z3= /</td> <td>KHZ<br/>MHZ</td> <td>Z4= /</td> </tr> <tr> <td>溫度<br/>TEMP</td> <td>℃</td> <td>濕 度<br/>HUMIDITY</td> <td>%</td> </tr> <tr> <td colspan="4">線 組<br/>WINDING Φ0.5x0.5TSx100L(mm)</td> </tr> </table> | <input type="checkbox"/> L |                 | TEST<br>FREQ | KHZ<br>MHZ | <input type="checkbox"/> Q |  | TEST<br>FREQ | KHZ<br>MHZ | <input checked="" type="checkbox"/> Z | Z1= 60Ω MIN | KHZ<br>25 MHZ | Z2=130Ω MIN | Z3= / | KHZ<br>MHZ | Z4= / | 溫度<br>TEMP | ℃ | 濕 度<br>HUMIDITY | % | 線 組<br>WINDING Φ0.5x0.5TSx100L(mm) |  |  |  | <p>測試儀器<br/>TEST INSTRUMENTS</p> <p>1. Q-METER:<br/>○HP 4342A    ○MQ-172</p> <p>2. L.C.R. METER:<br/>○HP 4284A</p> <p>3. IMPEDANCE ANALYZER:<br/>○HP 4396B    ○HP 4191A    ØE4991A<br/>ØAgilent 16194A-TESTFIXTURE</p> <p>4. L-METER:<br/>○TH 2817A</p> <p>5. DIGITAL MINI-OHM METER:<br/>○VP2941A</p> |
| <input type="checkbox"/> L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                            | TEST<br>FREQ    | KHZ<br>MHZ   |            |                            |  |              |            |                                       |             |               |             |       |            |       |            |   |                 |   |                                    |  |  |  |                                                                                                                                                                                                                                                                                                        |
| <input type="checkbox"/> Q                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                            | TEST<br>FREQ    | KHZ<br>MHZ   |            |                            |  |              |            |                                       |             |               |             |       |            |       |            |   |                 |   |                                    |  |  |  |                                                                                                                                                                                                                                                                                                        |
| <input checked="" type="checkbox"/> Z                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Z1= 60Ω MIN                | KHZ<br>25 MHZ   | Z2=130Ω MIN  |            |                            |  |              |            |                                       |             |               |             |       |            |       |            |   |                 |   |                                    |  |  |  |                                                                                                                                                                                                                                                                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Z3= /                      | KHZ<br>MHZ      | Z4= /        |            |                            |  |              |            |                                       |             |               |             |       |            |       |            |   |                 |   |                                    |  |  |  |                                                                                                                                                                                                                                                                                                        |
| 溫度<br>TEMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ℃                          | 濕 度<br>HUMIDITY | %            |            |                            |  |              |            |                                       |             |               |             |       |            |       |            |   |                 |   |                                    |  |  |  |                                                                                                                                                                                                                                                                                                        |
| 線 組<br>WINDING Φ0.5x0.5TSx100L(mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |                 |              |            |                            |  |              |            |                                       |             |               |             |       |            |       |            |   |                 |   |                                    |  |  |  |                                                                                                                                                                                                                                                                                                        |

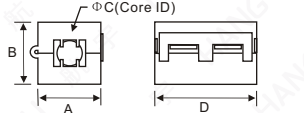
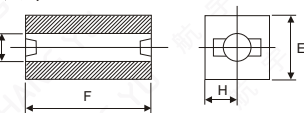
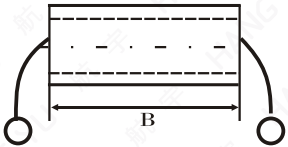
  

| <p>3. 外 觀:<br/>THE LIMIT OF BREAKAGE:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">項 目<br/>Item</th> <th style="width: 50%;">標準值<br/>Standard Value</th> </tr> <tr> <td>一處缺陷的面積<br/>Area of a breakage</td> <td>≤1mm<sup>2</sup></td> </tr> <tr> <td>總缺陷面積<br/>All area of the breakage</td> <td>≤2mm<sup>2</sup></td> </tr> <tr> <td>缺陷深度<br/>The depth of the breakage</td> <td>≤0.4mm</td> </tr> <tr> <td>毛刺長度<br/>The length of burr</td> <td>≤0.2mm</td> </tr> </table> | 項 目<br>Item           | 標準值<br>Standard Value | 一處缺陷的面積<br>Area of a breakage | ≤1mm <sup>2</sup> | 總缺陷面積<br>All area of the breakage | ≤2mm <sup>2</sup> | 缺陷深度<br>The depth of the breakage | ≤0.4mm | 毛刺長度<br>The length of burr | ≤0.2mm |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------------------|-------------------|-----------------------------------|-------------------|-----------------------------------|--------|----------------------------|--------|--|
| 項 目<br>Item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 標準值<br>Standard Value |                       |                               |                   |                                   |                   |                                   |        |                            |        |  |
| 一處缺陷的面積<br>Area of a breakage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ≤1mm <sup>2</sup>     |                       |                               |                   |                                   |                   |                                   |        |                            |        |  |
| 總缺陷面積<br>All area of the breakage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ≤2mm <sup>2</sup>     |                       |                               |                   |                                   |                   |                                   |        |                            |        |  |
| 缺陷深度<br>The depth of the breakage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ≤0.4mm                |                       |                               |                   |                                   |                   |                                   |        |                            |        |  |
| 毛刺長度<br>The length of burr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ≤0.2mm                |                       |                               |                   |                                   |                   |                                   |        |                            |        |  |

|                                                                                                                                                                                                                                                                                       |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>4. 包 裝:<br/>PACKAGING:</p> <p>內包裝採用泡塑盒，外包裝採用紙箱，每箱產品外面都蓋上合格章(包括品名、數量、批號、檢驗員)。<br/>Inner packing adopts foam plastics box, outer packing adopts carton and each carton should have a qualified chapter label outside(include the variety, quantity, batch number and inspector).</p> |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

檢驗數據  
INSPECTION DATA

|                                                 |                                  |        |                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |      |                |                  |       |                |      |                 |  |
|-------------------------------------------------|----------------------------------|--------|-------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------|----------------|------------------|-------|----------------|------|-----------------|--|
| 客戶名稱<br>CUSTOMER                                |                                  |        |                         |       | 日期<br>DATE                                                                                                                                                                                                                                                                                                                                                                                                                             | 2025.05.12 |      | 數量<br>QUANTITY | 10PCS            |       |                |      |                 |  |
| 編號<br>SERIAL NO.                                |                                  |        |                         |       | <div>形狀尺寸(單位:毫米):<br/>SHAPE &amp; DIMENSION(unit:mm):<br/>(Core diameter)<br/>外殼尺寸:</div> <div></div> <div>磁芯尺寸:</div> <div></div> <div>實物圖:<br/>The Sample::</div> <div></div> |            |      |                |                  |       |                |      |                 |  |
| 規格<br>ITEM                                      | SCNF 50                          |        |                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |      |                |                  |       |                |      |                 |  |
| 線組<br>WINDING                                   | Φ0.5x0.5TSx100L(mm)              |        |                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |      |                |                  |       |                |      |                 |  |
| 測試頻率<br>TEST FREQ                               | Z1=      KHZ<br>25 MHZ           |        | Z2=      KHZ<br>100 MHZ |       |                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |      |                |                  |       |                |      |                 |  |
|                                                 | Z3=      KHZ<br>MHZ              |        | Z4=      KHZ<br>MHZ     |       |                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |      |                |                  |       |                |      |                 |  |
| 溫度<br>TEMP                                      | ℃                                |        | 濕度<br>HUMIDITY          |       |                                                                                                                                                                                                                                                                                                                                                                                                                                        |            | %    |                |                  |       |                |      |                 |  |
| 項目<br>TEST ITEM                                 | 電氣性能<br>ELECTRIC CHARACTERISTICS |        |                         |       | 尺 寸(單位:毫米)<br>DIMENSION(unit:mm)                                                                                                                                                                                                                                                                                                                                                                                                       |            |      |                |                  |       |                |      |                 |  |
|                                                 | Z1(Ω)                            | Z2(Ω)  | Z3(Ω)                   | Z4(Ω) | A                                                                                                                                                                                                                                                                                                                                                                                                                                      | B          | C    | D              | E                | F     | G              | H    |                 |  |
|                                                 | 60                               | 130    |                         |       | 15                                                                                                                                                                                                                                                                                                                                                                                                                                     | 14         | 6    | 23             | 10.0             | 20.0  | 5.0            | 5.2  |                 |  |
| +                                               | /                                | /      |                         |       | 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.0        | 1.0  | 1.0            | 0.5              | 0.6   | 0.4            | 0.4  |                 |  |
| -                                               | 0                                | 0      |                         |       | 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.0        | 1.0  | 1.0            | 0.5              | 0.6   | 0.4            | 0.4  |                 |  |
| 1                                               | 77.9                             | 161.5  |                         |       | 15.02                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.75      | 6.12 | 23.02          | 10.03            | 20.09 | 5.02           | 5.27 |                 |  |
| 2                                               | 78.6                             | 163.1  |                         |       | 15.02                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.80      | 6.20 | 23.00          | 10.09            | 19.96 | 5.01           | 5.26 |                 |  |
| 3                                               | 78.2                             | 161.7  |                         |       | 15.03                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.84      | 6.15 | 23.05          | 10.16            | 19.95 | 5.02           | 5.25 |                 |  |
| 4                                               | 78.3                             | 161.9  |                         |       | 15.05                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.75      | 6.16 | 23.06          | 10.08            | 20.05 | 5.07           | 5.26 |                 |  |
| 5                                               | 77.6                             | 162.7  |                         |       | 15.08                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.76      | 6.13 | 23.02          | 10.07            | 20.04 | 5.02           | 5.28 |                 |  |
| 6                                               | 78.8                             | 162.6  |                         |       | 15.05                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.78      | 6.10 | 23.00          | 10.14            | 19.93 | 5.10           | 5.27 |                 |  |
| 7                                               | 78.6                             | 162.8  |                         |       | 15.01                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.83      | 6.14 | 23.07          | 10.11            | 19.97 | 5.02           | 5.27 |                 |  |
| 8                                               | 77.9                             | 161.7  |                         |       | 15.08                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.72      | 6.17 | 23.04          | 10.06            | 20.06 | 5.13           | 5.26 |                 |  |
| 9                                               | 78.4                             | 162.5  |                         |       | 15.06                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.77      | 6.23 | 23.05          | 10.12            | 20.05 | 5.02           | 5.26 |                 |  |
| 10                                              | 78.2                             | 163.2  |                         |       | 15.07                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.79      | 6.18 | 23.01          | 10.15            | 19.94 | 5.08           | 5.25 |                 |  |
| $\bar{X}$                                       | 78.42                            | 162.54 |                         |       | 15.08                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.77      | 6.15 | 23.03          | 10.10            | 20.00 | 5.04           | 5.26 |                 |  |
| Y/N                                             | Y                                | Y      |                         |       | Y                                                                                                                                                                                                                                                                                                                                                                                                                                      | Y          | Y    | Y              | Y                | Y     | Y              | Y    |                 |  |
| 測試儀器:<br>TEST INSTRUMENTS:<br><br>E4991A+16194A |                                  |        |                         |       |                                                                                                                                                                                                                                                                                                                                                     |            |      |                | 檢 驗<br>INSPECTED |       | 復 核<br>CHECKED |      | 確 認<br>APPROVED |  |
|                                                 |                                  |        |                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |      |                | 武卫锋              |       | 陆卯生            |      | 林萍              |  |

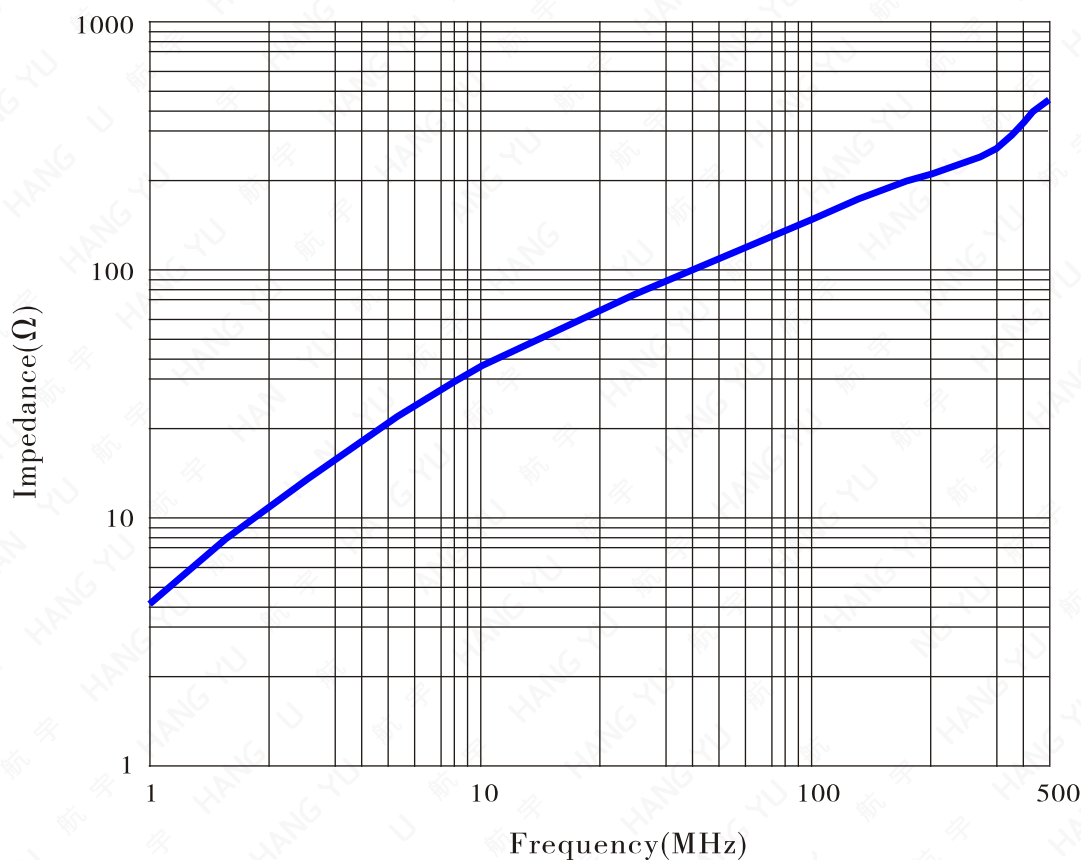
# 阻抗 - 頻率曲綫

## IMPEDANCE V.S FREQUENCY (Z-Y)

|                  |            |                  |            |
|------------------|------------|------------------|------------|
| 客戶名稱<br>CUSTOMER |            | 日期<br>DATE       | 2025.05.12 |
| 規格<br>ITEM       | F9 SCNF 50 | 編號<br>SERIAL NO. |            |

## 材質特性 MATERIAL CHARACTERISTICS

| 材料牌號<br>Mate-rial | 初始磁導率<br>Initial Permeability | 比損耗因子<br>Relative Loss Factor              | 比溫度系數<br>Relative Temperature Coefficient  | 飽和磁通密度<br>Saturation Magnetic Flux Density | 剩磁<br>Reman-ence | 矯頑力<br>Coercivity | 居里溫度<br>Curie Tempera-ture | 電阻率<br>Electrical Resistivity | 密度<br>Density          |
|-------------------|-------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|------------------|-------------------|----------------------------|-------------------------------|------------------------|
| Unit symbol       | $\mu_i$<br>±20%               | $\tan \delta / \mu_i$<br>×10 <sup>-6</sup> | $\alpha \mu_i \gamma$<br>×10 <sup>-6</sup> | Bs<br>(MT)                                 | Br<br>(MT)       | HC<br>(A/m)       | Tc<br>(℃)                  | $\rho$<br>(Ω·m)               | d<br>g/cm <sup>3</sup> |
|                   |                               | 16 (0.1MHz)                                | 5 - 10                                     | 280(1600A/m)                               | 200              | 20                | >130                       | >10 <sup>5</sup>              | 4.6                    |



測試條件：  
TESTING CONDITION:

- |                             |                     |
|-----------------------------|---------------------|
| 1. 測試儀器:                    | E4991A+16194A       |
| Testing Equipment:          |                     |
| 2. 測試頻率區間:                  | 1-500MHz            |
| Testing Frequency Range:    |                     |
| 3. 測試綫組:                    | Φ0.5x0.5TSx100L(mm) |
| Testing Coil Specification: |                     |

|               |                |                 |
|---------------|----------------|-----------------|
| 測 試<br>TESTED | 復 核<br>CHECKED | 確 認<br>APPROVED |
| 武卫锋           | 陆卯生            | 林萍              |