



ISO9001-2015  
Certificate No.672Q22020207194



No.T52210311961TC Date;OCT 12,2022 No.T52310270397TC Date;apr 15,2023  
TEL: 19166347631 13423947631 www.yucores.com.cn

# 承認書

## SPECIFICATION FOR APPROVAL

客户名稱  
CUSTOMER

品名規格  
DESCRIPTION T 12×6×7

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 |
| 李光赫            | 方煜镗            | 梁琼              |
| 销售部：张 丽        |                |                 |

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



深圳市航宇磁电有限公司

广东省深圳市西乡  
铁岗水库创富工业区2栋

TEL: 0755-27909535

邮箱 yucores@yucores.com.cn

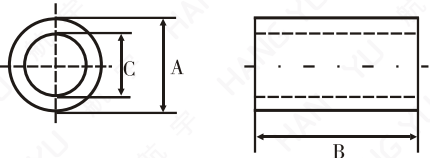
网址 :www.yucores.com.cn

TEL: 19166347631

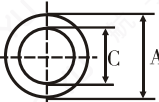
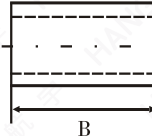
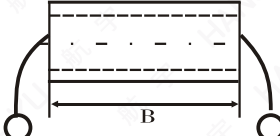
13423947631

微信 19166347631

承 認 書  
SPECIFICATION FOR APPROVAL

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                  |                                             |                                                 |                                                  |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------------|-------------------------------------------------|--------------------------------------------------|------------------------|-------------------|------------------------------------|----------------------------------|------------------------|--------------|------------|---------------------------------------|-------------|---------------|------------------------------|----------------|-----|------------|-----|------------|------------|----|-----------------|-------------------------------------|---|------------------------------------|---|---|---|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 客户名稱<br>CUSTOMER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                  | 日期<br>DATE                                  |                                                 | 2025.05.12                                       |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
| 規 格<br>ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  | T 12×6×7                                    |                                                 | 編號<br>SERIAL NO.                                 |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
| <div>1.1. 形狀尺寸(單位/毫米):<br/>SHAPE &amp; DIMENSION(unit/mm):</div> <div>1.2. 實物圖:<br/>The Sample::</div> <div></div>                                                                                                                                                                                                                                                                                                                    |                                  |                                             |                                                 | A                                                | 12 ± 0.4 mm            |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                  |                                             |                                                 | B                                                | 6 ± 0.3 mm             |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                  |                                             |                                                 | C                                                | 7 ± 0.3 mm             |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                  |                                             |                                                 | D                                                |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                  |                                             |                                                 | E                                                |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                  |                                             |                                                 | F                                                |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                  |                                             |                                                 | G                                                |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                  |                                             |                                                 | H                                                |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
| 2. 電氣性能檢測項目:<br>ELECTRICAL REQUIREMENTS:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                  |                                             |                                                 | 測試儀器<br>TEST INSTRUMENTS                         |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
| <table><tr><td><input type="checkbox"/> L</td><td></td><td>TEST<br/>FREQ</td><td>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= 15Ω MIN</td><td>KHZ<br/>25 MHZ</td><td>Z2= 55Ω MIN</td><td>KHZ<br/>100 MHZ</td></tr><tr><td>Z3=</td><td>KHZ<br/>MHZ</td><td>Z4=</td><td>KHZ<br/>MHZ</td></tr><tr><td>溫度<br/>TEMP</td><td>℃</td><td>濕 度<br/>HUMIDITY</td><td colspan="2">%</td></tr><tr><td colspan="5">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= 15Ω MIN | KHZ<br>25 MHZ | Z2= 55Ω MIN                  | KHZ<br>100 MHZ | Z3= | KHZ<br>MHZ | Z4= | KHZ<br>MHZ | 溫度<br>TEMP | ℃  | 濕 度<br>HUMIDITY | %                                   |   | 線 組<br>WINDING Φ0.5x0.5TSx100L(mm) |   |   |   |   | 1. Q-METER:<br>○ HP 4342A    ○ MQ-172<br>2. L.C.R. METER:<br>○ HP 4284A<br>3. IMPEDANCE ANALYZER:<br>○ HP 4396B    ○ HP 4191A    ØE4991A<br>Ø Agilent 16194A-TESTFIXTURE<br>4. L-METER:<br>○ TH 2817A<br>5. DIGITAL MINI-OHMMETER:<br>○ VP2941A |   |
| <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= 15Ω MIN                      | KHZ<br>25 MHZ                               | Z2= 55Ω MIN                                     | KHZ<br>100 MHZ                                   |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Z3=                              | KHZ<br>MHZ                                  | Z4=                                             | KHZ<br>MHZ                                       |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
| 溫度<br>TEMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ℃                                | 濕 度<br>HUMIDITY                             | %                                               |                                                  |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
| 線 組<br>WINDING Φ0.5x0.5TSx100L(mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                  |                                             |                                                 |                                                  |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
| 3. 外觀標準：依下表對照檢索：<br>THE LIMIT OF BREAKAGE: CHECKED BELOW:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                  |                                             |                                                 |                                                  |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
| <table><tr><td>OD<br/>(mm)</td><td>0~5</td><td>5.1~10</td><td>10.1~15</td><td>15.1~20</td><td>20.1~25</td><td>25.1~30</td><td>30.1~35</td><td>35以上</td></tr><tr><td>缺陷面积<br/>Defect area<br/>(mm²)</td><td>≦1</td><td>≦2</td><td>≦3</td><td>≦4</td><td>≦5</td><td>≦6</td><td>≦7</td><td>≦8</td></tr><tr><td>缺陷个数<br/>Number of<br/>defects<br/>(≦)</td><td>1</td><td>2</td><td>3</td><td>3</td><td>3</td><td>3</td><td>2</td><td>2</td></tr></table>                                                                                                                                                    |                                  |                                             |                                                 |                                                  |                        | OD<br>(mm)        | 0~5                                | 5.1~10                           | 10.1~15                | 15.1~20      | 20.1~25    | 25.1~30                               | 30.1~35     | 35以上          | 缺陷面积<br>Defect area<br>(mm²) | ≦1             | ≦2  | ≦3         | ≦4  | ≦5         | ≦6         | ≦7 | ≦8              | 缺陷个数<br>Number of<br>defects<br>(≦) | 1 | 2                                  | 3 | 3 | 3 | 3 | 2                                                                                                                                                                                                                                               | 2 |
| OD<br>(mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0~5                              | 5.1~10                                      | 10.1~15                                         | 15.1~20                                          | 20.1~25                | 25.1~30           | 30.1~35                            | 35以上                             |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
| 缺陷面积<br>Defect area<br>(mm²)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ≦1                               | ≦2                                          | ≦3                                              | ≦4                                               | ≦5                     | ≦6                | ≦7                                 | ≦8                               |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
| 缺陷个数<br>Number of<br>defects<br>(≦)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1                                | 2                                           | 3                                               | 3                                                | 3                      | 3                 | 2                                  | 2                                |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
| 4.材质特性 MATERIAL CHARACTERISTICS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                  |                                             |                                                 |                                                  |                        |                   |                                    |                                  |                        |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
| 材料<br>牌號<br>Mate-<br>rial                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 初始磁導率<br>Initial<br>Permeability | 比損耗因子<br>Relative<br>Loss Factor            | 比溫度系數<br>Relative<br>Temperature<br>Coefficient | 飽和磁通密度<br>Saturation<br>Magnetic Flux<br>Density | 剩 磁<br>Reman-<br>-ence | 矯頑力<br>Coercivity | 居裏溫度<br>Curie<br>Tempera-<br>-ture | 電阻率<br>Electrical<br>Resistivity | 密度<br>Density          |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
| Unit<br>symbol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | μ <sub>i</sub><br>±20%           | Tan δ / μ <sub>i</sub><br>×10 <sup>-6</sup> | α μ <sub>i</sub> γ<br>×10 <sup>-6</sup>         | B <sub>s</sub><br>(MT)                           | Br<br>(MT)             | HC<br>(A/m)       | T <sub>c</sub><br>(℃)              | ρ<br>(Ω · m)                     | d<br>g/cm <sup>3</sup> |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                  | 20 (0.1MHz)                                 | 2 - 5                                           | 260(1600A/m)                                     | 150                    | 35                | >140                               | >10 <sup>5</sup>                 | 4.6                    |              |            |                                       |             |               |                              |                |     |            |     |            |            |    |                 |                                     |   |                                    |   |   |   |   |                                                                                                                                                                                                                                                 |   |

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.                                |                                  |               |                         |       |       | 形狀尺寸(單位:毫米):<br>SHAPE & DIMENSION(unit:mm):                                         |                                  | 實物圖:<br>The Sample::<br> |                |                 |   |   |  |
| 規格<br>ITEM                                      | T 12×6×7                         |               |                         |       |       |                                                                                     |                                  |                                                                                                             |                |                 |   |   |  |
| 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<br>ITEM                              | 電氣性能<br>ELECTRIC CHARACTERISTICS |               |                         |       |       |                                                                                     | 尺 寸(單位:毫米)<br>DIMENSION(unit:mm) |                                                                                                             |                |                 |   |   |  |
|                                                 | Q                                | L(μH)<br>(MH) | Z1(Ω)                   | Z2(Ω) | Z3(Ω) | Z4(Ω)                                                                               | A                                | B                                                                                                           | C              | D               | E | F |  |
|                                                 |                                  |               | 15                      | 55    |       |                                                                                     | 12                               | 6                                                                                                           | 7              |                 |   |   |  |
| +                                               |                                  |               | /                       | /     |       |                                                                                     | 0.4                              | 0.3                                                                                                         | 0.3            |                 |   |   |  |
| -                                               |                                  |               | 0                       | 0     |       |                                                                                     | 0.4                              | 0.3                                                                                                         | 0.3            |                 |   |   |  |
| 1                                               |                                  |               | 24.6                    | 74.6  |       |                                                                                     | 12.02                            | 5.95                                                                                                        | 6.99           |                 |   |   |  |
| 2                                               |                                  |               | 24.8                    | 75.2  |       |                                                                                     | 11.96                            | 6.03                                                                                                        | 6.96           |                 |   |   |  |
| 3                                               |                                  |               | 25.4                    | 75.4  |       |                                                                                     | 12.05                            | 6.02                                                                                                        | 6.92           |                 |   |   |  |
| 4                                               |                                  |               | 25.0                    | 75.0  |       |                                                                                     | 12.03                            | 5.98                                                                                                        | 7.09           |                 |   |   |  |
| 5                                               |                                  |               | 24.0                    | 74.0  |       |                                                                                     | 12.08                            | 5.96                                                                                                        | 7.06           |                 |   |   |  |
| 6                                               |                                  |               | 25.2                    | 74.5  |       |                                                                                     | 12.00                            | 6.09                                                                                                        | 6.95           |                 |   |   |  |
| 7                                               |                                  |               | 24.5                    | 75.3  |       |                                                                                     | 12.01                            | 6.00                                                                                                        | 7.03           |                 |   |   |  |
| 8                                               |                                  |               | 25.4                    | 74.7  |       |                                                                                     | 11.96                            | 6.01                                                                                                        | 7.01           |                 |   |   |  |
| 9                                               |                                  |               | 25.6                    | 75.6  |       |                                                                                     | 11.98                            | 5.97                                                                                                        | 7.02           |                 |   |   |  |
| 10                                              |                                  |               | 24.7                    | 74.8  |       |                                                                                     | 12.04                            | 6.04                                                                                                        | 7.08           |                 |   |   |  |
| X̄                                              |                                  |               | 24.92                   | 74.91 |       |                                                                                     | 12.01                            | 6.00                                                                                                        | 7.01           |                 |   |   |  |
| Y/N                                             |                                  |               | 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 |   |   |  |
|                                                 |                                  |               |                         |       |       |                                                                                     |                                  | 李光赫                                                                                                         | 方煜镗            | 梁琮              |   |   |  |

# 阻抗 - 頻率曲綫

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

