



ISO9001-2008
Certificate No:02411Q20838R2M



CAREFUL環境關聯物質管控標準: Cd<5ppm; Pb<50ppm; Hg:ND; Cr6+:ND

Defer to: SONY/SS-00259 ; SAMSUNG/OQA-2049 ; MICROSOFT/H00594 ; FOXCONN/EPI12 ; HP/HX-00011-00 ...

承認書

SPECIFICATION FOR APPROVAL

| | |
|---------------------|----------------|
| 客戶名稱 CUSTOMER | |
| 品名規格 DESCRIPTION | F9 SCRC 65C |
| 客戶料號 CUS. P/N | |
| 提出日期 DATE | June.05. 2025. |
| 編號 SERIAL NO. | KF 25060537792 |

| 出圖 DRAWING | | |
|-------------------|---------------|----------------|
| 發行 MADE | 復核 CHECKED | 確認 APPROVED |
| | | |
| DATE: 2025年06月05日 | | |

| 承認 CUSTOMER APPROVE |
|------------------------|
| |

說明Note:

本承認書在客戶收到7天之內，須簽章返回，逾期視為默認。

The Specification Approval is required to be sent back to the supplier with customer's chop or signature on it within 4 days after receiving it, or we will take it as approved by customer automatically.



科峰集團

CAREFUL GROUP

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湖州科峰磁業有限公司
HuZhou Careful Magnetism Co.,Ltd.

浙江省湖州市含山工業區 313014
Hanshan Industry Zone Huzhou Zhejiang

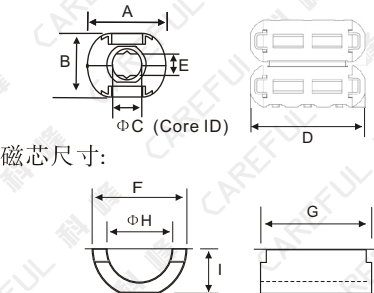
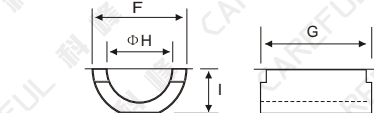

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承 認 書
SPECIFICATION FOR APPROVAL

| | | | |
|--|-------------|-------------------|----------------|
| 客戶名稱 CUSTOMER | | 日 期 DATE | 2025.06.05. |
| 規 格 ITEM | F9 SCRC 65C | 編 號 SERIAL NO. | KF 25060537792 |
| 1.1. 形狀尺寸(單位/毫米): SHAPE & DIMENSION(unit/mm): 1.2. 實物圖: The Sample:: 外殼尺寸:  磁芯尺寸:  1.2. 實物圖:  外殼材質:PA尼龍 | | A | 19.0mmREF |
| | | B | 19.5mmREF |
| | | C | 7.2mmREF |
| | | D | 52.5mmREF |
| | | E | 3.6mmREF |
| | | F | 15.2 ± 0.6mm |
| | | G | 40.8 ± 0.6mm |
| | | H | 6.5 ± 0.3mm |
| | | I | 7.3 ± 0.2mm |

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|--|---------------------|-----------------|--------------|--------------------------|--|
| 2. 電氣性能檢測項目: ELECTRICAL REQUIREMENTS: | | | | 測試儀器 TEST INSTRUMENTS | |
| □ L | | | TEST FREQ | KHZ MHZ | |
| □ Q | | | TEST FREQ | KHZ MHZ | |
| ☑ Z | Z1= 130Ω MIN | KHZ 25 MHZ | Z2=240Ω MIN | KHZ 100 MHZ | |
| | Z3= | KHZ MHZ | Z4= | KHZ MHZ | |
| 溫度 TEMP | ℃ | 濕 度 HUMIDITY | % | | |
| 線 組 WINDING | Φ0.5x0.5TSx165L(mm) | | | | |

| | |
|--|--|
| 1. Q-METER: ○HP 4342A ○MQ-172 | |
| 2. L.C.R. METER: ○HP 4284A | |
| 3. IMPEDANCE ANALYZER: ○HP 4396B ○HP 4191A ØE4991A ØAgilent 16194A-TESTFIXTURE | |
| 4. L-METER: ○TH 2817A | |
| 5. DIGITAL MINI-OHMMETER: ○VP2941A | |

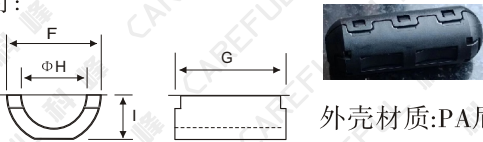



| OD (mm) | 0~5 | 5.1~10 | 10.1~15 | 15.1~20 | 20.1~25 | 25.1~30 | 30.1~35 | 35以上 |
|-------------------------------|-----|--------|---------|---------|---------|---------|---------|------|
| 缺陷面积 Defect area (mm²) | ≤1 | ≤2 | ≤3 | ≤4 | ≤5 | ≤6 | ≤7 | ≤8 |
| 缺陷个数 Number of defects (≦) | 1 | 2 | 3 | 3 | 3 | 3 | 2 | 2 |

| | | | | | | | | | |
|---------------------------------|-------------------------------|-------------------------------|---|--|-------------------|-------------------|----------------------------|-------------------------------|-------------------|
| 4.材質特性 MATERIAL CHARACTERISTICS | | | | | | | | | |
| 材料牌號 Material | 初始磁導率 Initial Permeability | 比損耗因子 Relative Loss Factor | 比溫度系數 Relative Temperature Coefficient | 飽和磁通密度 Saturation Magnetic Flux Density | 剩 磁 Reman-ence | 矯頑力 Coercivity | 居裏溫度 Curie Tempera-ture | 電阻率 Electrical Resistivity | 密度 Density |
| Unit | μ _i | Tan δ / μ _i | α μ _i γ | B _s | Br | HC | T _c | ρ | d |
| symbol | ±20% | ×10 ⁻⁶ | ×10 ⁻⁶ | (MT) | (MT) | (A/m) | (℃) | (Ω · m) | g/cm ³ |
| F9 | 850 | 16 (0.1MHz) | 5 - 10 | 280(1600A/m) | 200 | 20 | >130 | >10 ⁵ | 4.6 |

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| A | 首版First Edition | 2024-11-08 | Roslie |
| 版本Rev. | 變更內容說明Description of Change | 日期Date | 姓名Name |



檢驗數據
INSPECTION DATA

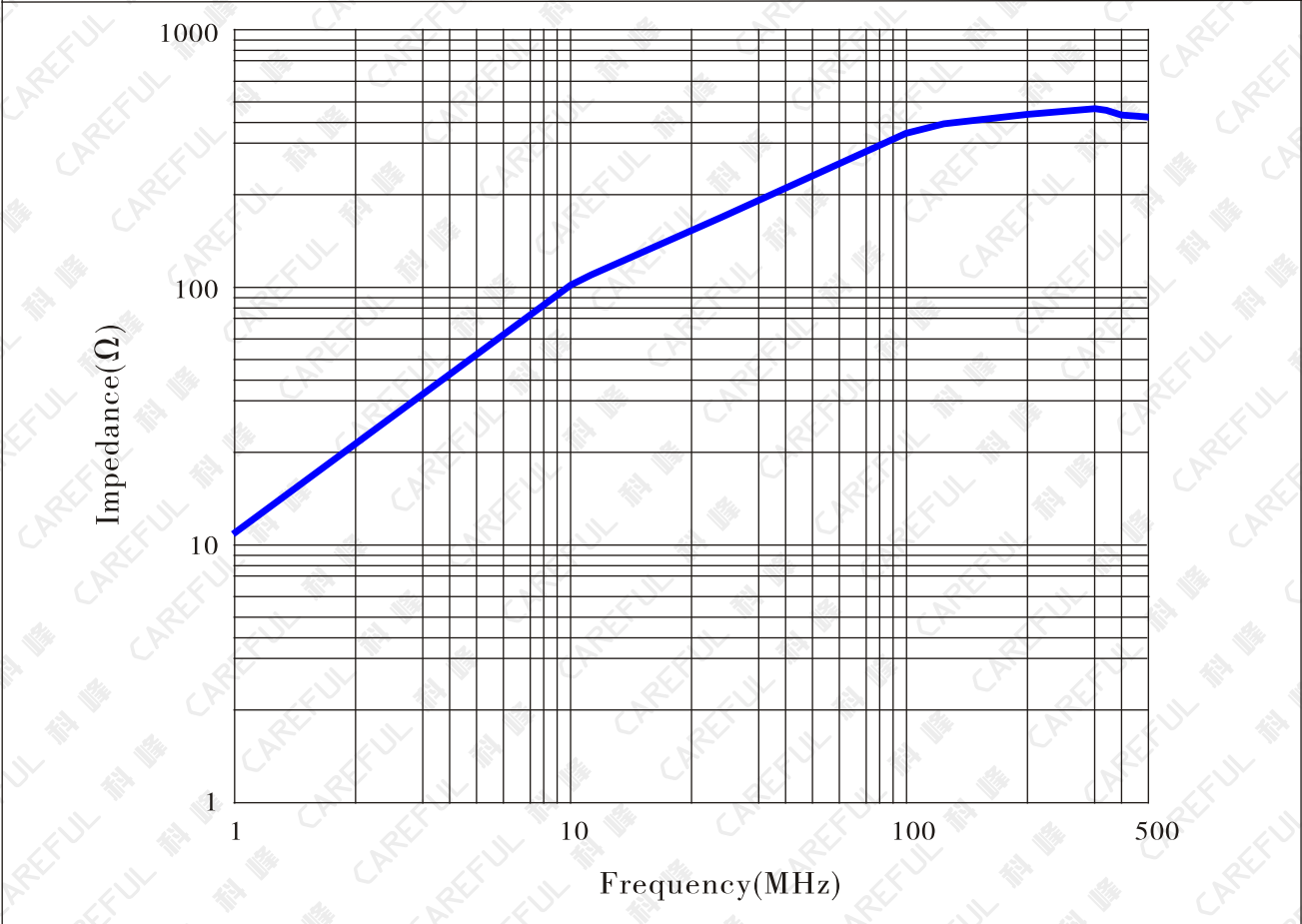
| | | | | | | | | | | | | | |
|---|----------------------------------|---|-------|---|---|-------|---|---|-------|---|------|-----------------|--|
| 客戶名稱 CUSTOMER | | 日期 DATE | | 數量 QUANTITY | | 10PCS | | | | | | | |
| 編號 SERIAL NO. | | KF 25060537792 | | 形狀尺寸(單位/毫米): SHAPE & DIMENSION(unit/mm): 實物圖: 磁芯尺寸:  | | | | | | | | | |
| 規格 ITEM | | F9 SCRC 65C | | | | | | | | | | | |
| 線組 WINDING | | Φ0.5x0.5TSx165L(mm) | | | | | | | | | | | |
| 測試頻率 TEST FREQ | | Z1= 25 KHZ Z2= 100 KHZ Z3= KHZ Z4= KHZ | | | | | | | | | | | |
| 溫度 TEMP | | ℃ | | 濕度 HUMIDITY | | % | | | | | | | |
| 項目 TEST ITEM | 電氣性能 ELECTRIC CHARACTERISTICS | | | 尺寸(單位:毫米) DIMENSION(unit:mm) | | | | | | | | | |
| | Z1(Ω) | Z2(Ω) | Z3(Ω) | A | B | C | D | E | F | G | H | I | |
| | 130 | 240 | | | | | | | 15.2 | 40.8 | 6.5 | 7.3 | |
| + | / | / | | | | | | | 0.6 | 0.6 | 0.3 | 0.2 | |
| - | 0 | 0 | | | | | | | 0.6 | 0.6 | 0.3 | 0.2 | |
| 1 | 188.5 | 347.5 | | | | | | | 15.20 | 40.28 | 6.40 | 7.35 | |
| 2 | 197.5 | 352.0 | | | | | | | 14.99 | 40.26 | 6.58 | 7.42 | |
| 3 | 194.6 | 350.1 | | | | | | | 15.10 | 40.25 | 6.55 | 7.40 | |
| 4 | 196.5 | 350.6 | | | | | | | 15.11 | 40.26 | 6.45 | 7.36 | |
| 5 | 189.5 | 348.6 | | | | | | | 15.01 | 40.32 | 6.44 | 7.38 | |
| 6 | 188.6 | 349.6 | | | | | | | 15.06 | 40.30 | 6.40 | 7.41 | |
| 7 | 190.2 | 350.1 | | | | | | | 15.24 | 40.25 | 6.50 | 7.40 | |
| 8 | 192.4 | 351.2 | | | | | | | 15.26 | 40.33 | 6.51 | 7.38 | |
| 9 | 193.5 | 352.6 | | | | | | | 15.12 | 40.35 | 6.48 | 7.39 | |
| 10 | 194.8 | 347.6 | | | | | | | 14.98 | 40.32 | 6.51 | 7.35 | |
| ̄X | 192.61 | 349.99 | | | | | | | 15.11 | 40.29 | 6.48 | 7.38 | |
| Y/N | Y | Y | | | | | | | Y | Y | Y | Y | |
| 測試儀器: TEST INSTRUMENTS: E4991A+16194A | | | |  | | | | 檢 驗 INSPECTED | | 復 核 CHECKED | | 確 認 APPROVED | |
| | | | | 汪建琴 | | | |  | |  | | | |

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| A | 首版First Edition | 2025-06-05 | Roslie |
| 版本Rev. | 變更內容說明Description of Change | 日期Date | 姓名Name |



阻抗－頻率曲綫
IMPEDANCE V.S FREQUENCY (Z-Y)

| | | | |
|------------------|--------------|------------------|----------------|
| 客戶名稱 CUSTOMER | | 日期 DATE | 2025.06.05. |
| 規格 ITEM | F9 SCRC 65C. | 編號 SERIAL NO. | KF 25060537792 |



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|---|---------------------|
| 測試條件: TESTING CONDITION: | |
| 1. 測試儀器: Testing Equipment: | E4991A+16194A |
| 2. 測試頻率區間: Testing Frequency Range: | 1-500MHz |
| 3. 測試綫組: Testing Coil Specification: | Φ0.5x0.5TSx165L(mm) |

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|---|--------------|---------------|----------------|
| <p>說明Note: 本承認書在客戶收到7天之內，須簽章返回，逾期視為默認。 The Specification Approval is required to be sent back to the supplier with customer's chop or signature on it within 4 days after receiving it, or we will take it as approved by customer automatically.</p> | 測試 TESTED | 復核 CHECKED | 確認 APPROVED |
| | 汪建琴 | 周紀君 | 沈學泉 |

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