



# 承認書

## SPECIFICATION FOR APPROVAL

CUSTOMER:

DESCRIPTION:

WIRE WOUND CHIP INDUCTOR

PART NO:

MWI1210UC系列

CUST. PART NO:

REV. NO.

A0

| DRAWING  |          |          |
|----------|----------|----------|
| PREPARED | CHECKED  | APPROVED |
| 邹声平      | 卢嘉良      | 曾凡强      |
| DATE:    | 2025/5/1 |          |

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



**东莞市铭易轩电子科技有限公司**

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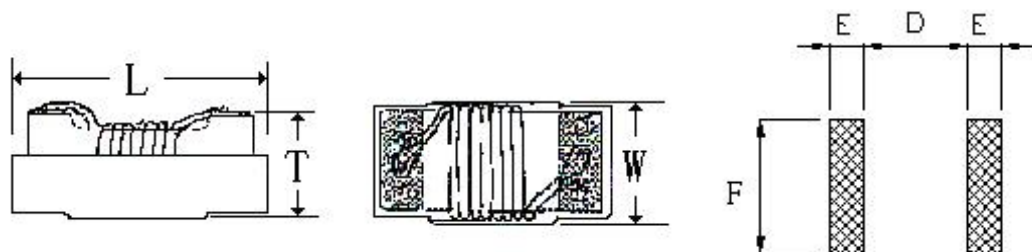


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## MODIFY RECORD 变更履历

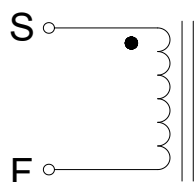
[illegible]

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**1. SHAPE & DIMENSION (UNIT:mm)**


Recommended patterns

| L        | W        | T         | E         | F         | D         |
|----------|----------|-----------|-----------|-----------|-----------|
| 3.5 Max. | 2.9 Max. | 2.25 Max. | 1.02 Typ. | 2.54 Typ. | 1.78 Typ. |

**2. SCHEMATIC**

**3. PART NUMBERING SYSTEM**

|     |      |    |     |   |   |   |   |    |
|-----|------|----|-----|---|---|---|---|----|
| MWI | 1210 | UC | 10N | J | S | T | - | HF |
| 1   | 2    | 3  | 4   | 5 | 6 | 7 |   | 8  |

- PRODUCT SYMBOL (产品代号)
- DIMENSIONS (规格尺寸)
- MATERIAL (芯片类型)
- INDUCTANCE (电感量)
- TOLERANCE (公差) : G $\pm$ 2%; J $\pm$ 5%; K $\pm$ 10%; M $\pm$ 20%
- TERMINAL (端电极材料) : G-金端头; S-锡端头;
- PACKAGING (包装方式) : T-编带盘装; B-散装
- E.P. (环保) : LF—Lead Free HF—Halogen Free FP—Red Phosphor Free

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| APPROVED | CHECKED | PREPARED |
| 曾凡强      | 卢嘉良     | 邹声平      |

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**4. ELECTRICAL CHARACTERISTICS**

| No. | Part Number        | Inductance | Test Freq | Q         | SRF       | Rdc      | Irms      | Tolerance |
|-----|--------------------|------------|-----------|-----------|-----------|----------|-----------|-----------|
|     |                    | (nH)       | (MHz)     | Min.      | (MHz)Min. | (Ω) Max. | (mA) Max. |           |
| 1   | MWI1210UC10N□ST-HF | 10         | 100       | 40@300MHZ | 4000      | 0.08     | 1000      | J,K,M     |
| 2   | MWI1210UC12N□ST-HF | 12         | 100       | 40@300MHZ | 3200      | 0.08     | 1000      | J,K,M     |
| 3   | MWI1210UC15N□ST-HF | 15         | 100       | 40@300MHZ | 3200      | 0.20     | 1000      | J,K,M     |
| 4   | MWI1210UC18N□ST-HF | 18         | 100       | 50@300MHZ | 2800      | 0.10     | 1000      | J,K,M     |
| 5   | MWI1210UC22N□ST-HF | 22         | 100       | 50@300MHZ | 2200      | 0.10     | 1000      | J,K,M     |
| 6   | MWI1210UC27N□ST-HF | 27         | 100       | 50@300MHZ | 1800      | 0.11     | 1000      | J,K,M     |
| 7   | MWI1210UC33N□ST-HF | 33         | 100       | 55@300MHZ | 1800      | 0.11     | 1000      | J,K,M     |
| 8   | MWI1210UC39N□ST-HF | 39         | 100       | 55@300MHZ | 1500      | 0.12     | 1000      | J,K,M     |
| 9   | MWI1210UC43N□ST-HF | 43         | 100       | 55@300MHZ | 1500      | 0.12     | 1000      | J,K,M     |
| 10  | MWI1210UC47N□ST-HF | 47         | 100       | 55@300MHZ | 1500      | 0.13     | 1000      | J,K,M     |
| 11  | MWI1210UC56N□ST-HF | 56         | 100       | 55@300MHZ | 1450      | 0.14     | 1000      | J,K,M     |
| 12  | MWI1210UC68N□ST-HF | 68         | 100       | 55@300MHZ | 1200      | 0.15     | 900       | J,K,M     |
| 13  | MWI1210UC82N□ST-HF | 82         | 100       | 55@300MHZ | 1000      | 0.20     | 900       | J,K,M     |
| 14  | MWI1210UC91N□ST-HF | 91         | 100       | 60@300MHZ | 1100      | 0.20     | 1000      | J,K,M     |
| 15  | MWI1210UCR10□ST-HF | 100        | 100       | 55@300MHZ | 900       | 0.20     | 850       | G,J,K,M   |
| 16  | MWI1210UCR12□ST-HF | 120        | 100       | 60@300MHZ | 800       | 0.25     | 800       | G,J,K,M   |
| 17  | MWI1210UCR15□ST-HF | 150        | 100       | 60@300MHZ | 700       | 0.30     | 750       | G,J,K,M   |
| 18  | MWI1210UCR18□ST-HF | 180        | 50        | 60@300MHZ | 650       | 0.30     | 700       | G,J,K,M   |
| 19  | MWI1210UCR22□ST-HF | 220        | 50        | 60@300MHZ | 650       | 0.40     | 770       | G,J,K,M   |
| 20  | MWI1210UCR24□ST-HF | 240        | 50        | 40@300MHZ | 580       | 0.40     | 630       | G,J,K,M   |
| 21  | MWI1210UCR27□ST-HF | 270        | 50        | 40@300MHZ | 580       | 0.40     | 630       | G,J,K,M   |
| 22  | MWI1210UCR33□ST-HF | 330        | 50        | 45@150MHZ | 580       | 0.58     | 590       | G,J,K,M   |
| 23  | MWI1210UCR36□ST-HF | 360        | 50        | 45@150MHZ | 510       | 0.58     | 530       | G,J,K,M   |
| 24  | MWI1210UCR39□ST-HF | 390        | 50        | 45@150MHZ | 510       | 0.58     | 530       | G,J,K,M   |

□:表示产品公差

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**4. ELECTRICAL CHARACTERISTICS**

| No. | Part Number        | Inductance | Test Freq | Q         | SRF       | Rdc      | Irms      | Tolerance |
|-----|--------------------|------------|-----------|-----------|-----------|----------|-----------|-----------|
|     |                    | (nH)       | (MHz)     | Min.      | (MHz)Min. | (Ω) Max. | (mA) Max. |           |
| 25  | MWII210UCR47□ST-HF | 470        | 50        | 45@150MHZ | 480       | 1.00     | 490       | G,J,K,M   |
| 26  | MWII210UCR56□ST-HF | 560        | 25        | 45@150MHZ | 420       | 1.10     | 460       | G,J,K,M   |
| 27  | MWII210UCR68□ST-HF | 680        | 25        | 45@150MHZ | 400       | 1.20     | 430       | G,J,K,M   |
| 28  | MWII210UCR82□ST-HF | 820        | 25        | 45@150MHZ | 370       | 2.00     | 400       | G,J,K,M   |
| 29  | MWII210UC1R0□ST-HF | 1000       | 25        | 45@150MHZ | 340       | 1.85     | 320       | G,J,K,M   |
| 30  | MWII210UC1R2□ST-HF | 1200       | 25        | 45@150MHZ | 220       | 2.30     | 300       | J,K,M     |
| 31  | MWII210UC1R5□ST-HF | 1500       | 7.9       | 20@50MHZ  | 160       | 2.70     | 310       | J,K,M     |
| 32  | MWII210UC1R8□ST-HF | 1800       | 7.9       | 30@50MHZ  | 160       | 3.50     | 310       | J,K,M     |
| 33  | MWII210UC2R2□ST-HF | 2200       | 7.9       | 25@50MHZ  | 130       | 2.41     | 310       | J,K,M     |
| 34  | MWII210UC2R7□ST-HF | 2700       | 7.9       | 25@50MHZ  | 110       | 3.50     | 300       | J,K,M     |
| 35  | MWII210UC3R0□ST-HF | 3000       | 7.9       | 20@25MHZ  | 110       | 3.50     | 300       | J,K,M     |
| 36  | MWII210UC3R3□ST-HF | 3300       | 7.9       | 20@25MHZ  | 60        | 3.60     | 290       | J,K,M     |
| 37  | MWII210UC3R9□ST-HF | 3900       | 7.9       | 20@25MHZ  | 60        | 4.00     | 290       | J,K,M     |
| 38  | MWII210UC4R7□ST-HF | 4700       | 7.9       | 20@25MHZ  | 60        | 5.00     | 280       | J,K,M     |
| 39  | MWII210UC5R2□ST-HF | 5200       | 7.9       | 15@25MHZ  | 50        | 6.00     | 250       | J,K,M     |
| 40  | MWII210UC5R6□ST-HF | 5600       | 7.9       | 15@25MHZ  | 50        | 6.00     | 250       | J,K,M     |
| 41  | MWII210UC6R8□ST-HF | 6800       | 7.9       | 15@7.9MHZ | 40        | 9.00     | 230       | J,K,M     |
| 42  | MWII210UC7R5□ST-HF | 7500       | 7.9       | 20@7.9MHZ | 50        | 9.50     | 170       | J,K,M     |
| 43  | MWII210UC8R2□ST-HF | 8200       | 7.9       | 20@7.9MHZ | 50        | 9.50     | 170       | J,K,M     |
| 44  | MWII210UC8R6□ST-HF | 8600       | 7.9       | 15@7.9MHZ | 40        | 9.00     | 200       | J,K,M     |

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**4. ELECTRICAL CHARACTERISTICS**

| No. | Part Number        | Inductance | Test Freq | Q         | SRF       | Rdc               | Irms      | Tolerance |
|-----|--------------------|------------|-----------|-----------|-----------|-------------------|-----------|-----------|
|     |                    | (nH)       | (MHz)     | Min       | (MHz)Min. | ( $\Omega$ ) Max. | (mA) Max. |           |
| 45  | MWI1210UC100□ST-HF | 10000      | 7.9       | 15@7.9MHZ | 30        | 10.0              | 150       | J,K,M     |

□:表示产品公差

**Test remarks**

- (1) All test data is referenced to 25 °C ambient.
- (2). Irms: DC current that causes the temperature rise ( $\Delta T \leq 40^{\circ}\text{C}$ ) from 25°C ambient.

**5. GENERAL SPECIFICATION**

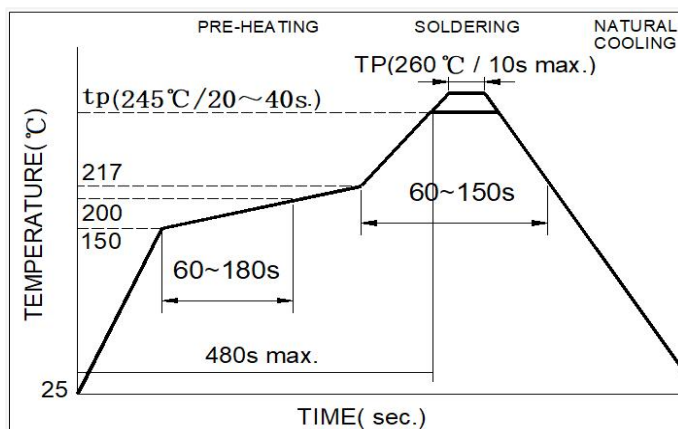
- (1). Operating temp.: -40°C ~ +125°C (Including self-generated heat).
- (2). Storage temp.: -10°C ~ +40°C R.H.:60% Max.
- (3). Moisture sensitivity level (MSL) 1
- (4). Recommended products should be used within 12 months from the date of delivery
- (5). The part temperature (ambient + temp rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

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## 6. SOLDERING CONDITIONS

**Figure 1. Re-flow Soldering (Lead Free)**



Note:

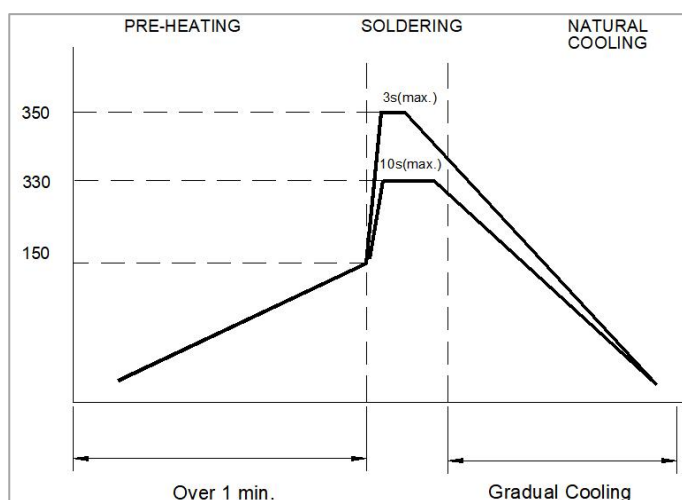
Preheat circuit and products to 150°C

260°C tip temperature (Max)

Reflow times: no more than 2 times

Solder paste thickness: the best 0.08mm is ,but max is 0.1mm

**Figure 2. Hand Soldering**



Note:

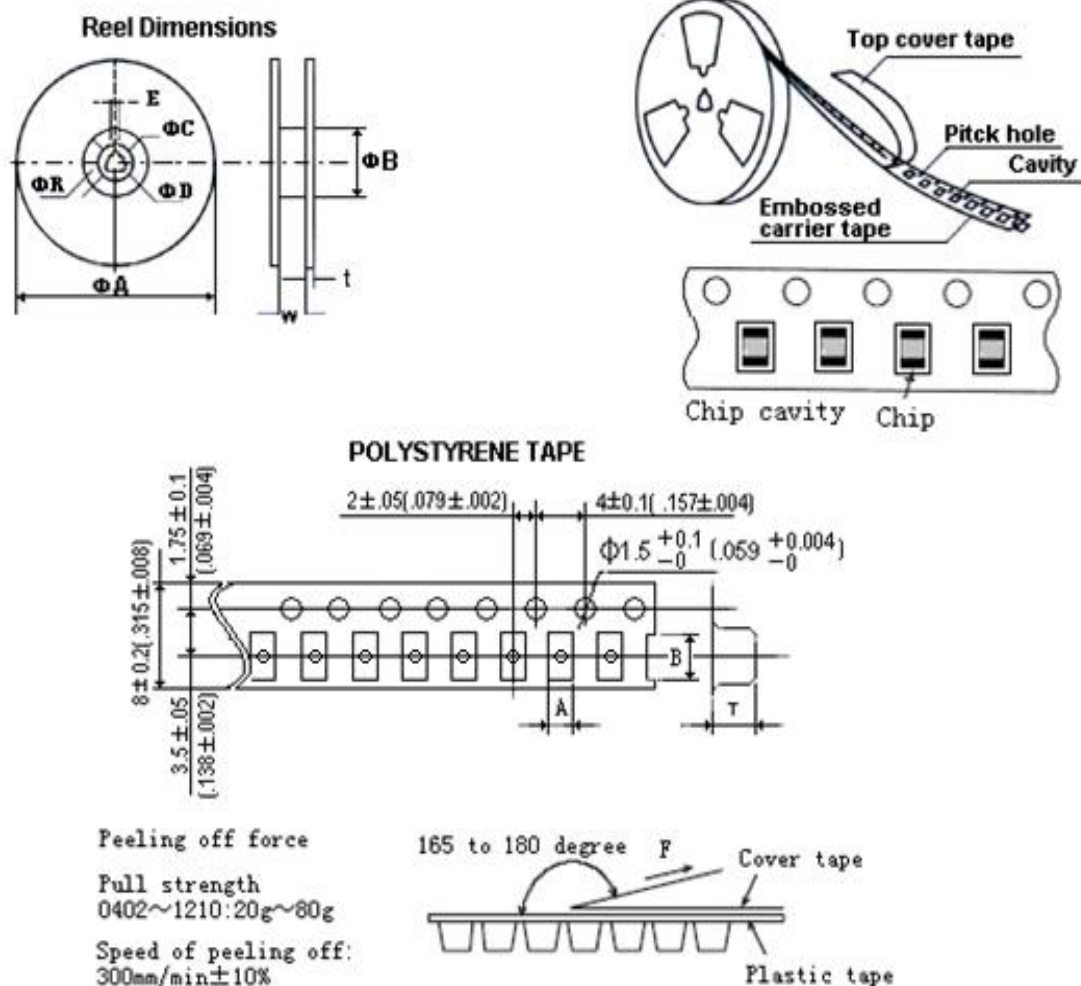
Use a 20 watt soldering iron with tip diameter of 1.0mm

Limit soldering time to 3 sec.

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## 7. PACKAGE SPECIFICATION



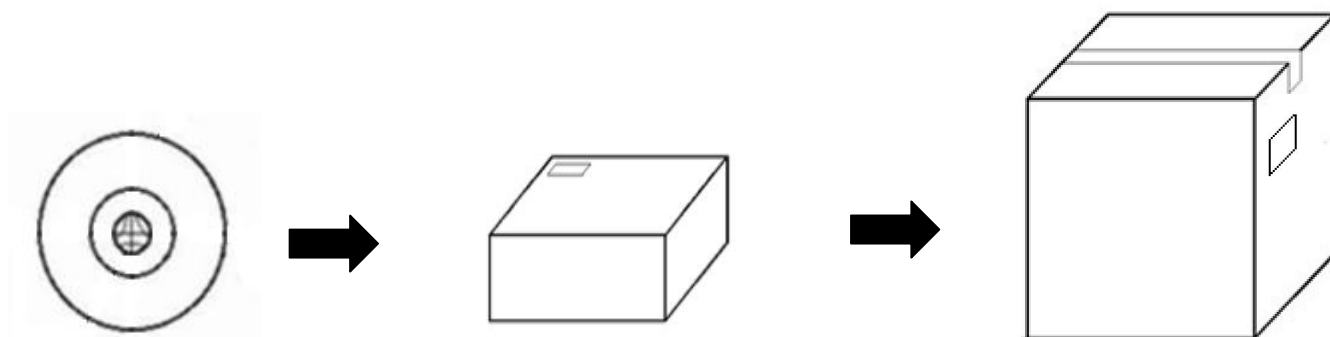
|    |      | A    | B    | T    |
|----|------|------|------|------|
| 胶带 | 1210 | 2.96 | 3.60 | 2.40 |

| Type | ΦA  | ΦB | ΦC | ΦD | E | W   | t |
|------|-----|----|----|----|---|-----|---|
| 1210 | 178 | 60 | 13 | 21 | 2 | 8.4 | 2 |

包装数量(PACKAGING QUANTITY): 2000 Pcs/盘

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**8. Package Specifications**
**■ Inside Box And Outside Carton**


|            |   |                 |   |                   |
|------------|---|-----------------|---|-------------------|
| 卷轴数量       | → | 内盒包装数量          | → | 外箱包装数量            |
| 每卷:2000PCS |   | 每盒四盘, 共8000 PCS |   | 小箱6盒, 共48000 PCS  |
|            |   |                 |   | 中箱8盒, 共64000 PCS  |
|            |   |                 |   | 大箱10盒, 共80000 PCS |

|                 |   |                    |
|-----------------|---|--------------------|
| 内盒包装尺寸          | → | 外箱包装尺寸             |
| 20.3*19.3*5.5cm |   | 小箱, 40.6*23*19.7cm |
|                 |   | 中箱, 41*22*26cm     |
|                 |   | 大箱, 41*22*33cm     |

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