

<SPECIFICATION>

SPEC.No. ASDIQ-SPE-105(02)
Date: Apr.12,2021

To :

CUSTOMER'S PRODUCT NAME

ASDI PRODUCT NAME:
ASUW1210IF-SERIES

RECEIPT CONFIRMATION

UNCONDITIONAL CONSENT

CONDITIONAL CONSENT

APPROVED

CHECKED

ASDI SIGNATURE

APPROVED

CHECKED

PREPARED

Xianglong Li

Liang Wang

Jiayin Cai



Xiamen ASDI Electronics Co.,Ltd.

REV.	DATE	DESCRIPTION	APPROVED	CHECKED	PREPARED
00	May.21,2018	Initial issue	Xianglong Li	Liang Wang	Jiayin Cai
01	Jul.3,2020	Modified the storage period.	Xianglong Li	Liang Wang	Jiayin Cai
02	Apr.12,2021	Modified the reliability test item bending strength test method, modified the temperature cycle to temperature impact and modified the test method. The insulation resistance test item and the temperature characteristic test item are deleted.	Xianglong Li	Liang Wang	Jiayin Cai

CAUTION WHEN HANDLING

Before use the products, please read this specification.

CAUTION FOR SAFETY USING

When use the products, be careful to mentioned below for safety using.

CAUTION

*The product should be used within 12 monthes.

Focus on the storage conditions.

Solderability may become weak if it exceeds the period.

*Do not use and store the product in condition of gas corrosion (Salt,Acid,Alkaline).

*The products must be preheated before soldering.

The operating temperature including self-generated heat must be within $-40\sim+85^{\circ}\text{C}$

*Rework by soldering iron;Please keep the mentioned conditions in this specification.

*In case of insert P.C. Board on chassis, do not add mechanical stress to the product.

*Be careful to arrange of non-magnetic field type inductors.

The error may be caused by magnetic field coupling.

*In case handle the products, please use wrist strap for ground static discharge on human body.

The product keeps away from magnet or magnetized things.

*Do not use the product beyond the mentioned conditions in this specification.

*About an application

The products listed on this specification sheet are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.

*The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property. Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below or for any other use exceeding the range or conditions set forth in this specification sheet.

- | | |
|--------------------------------|--|
| 1)Aerospace/Aviation equipment | 6)Transportation control equipment |
| 2)Military equipment | 7)Power-generation control equipment
which directly endanger human life |
| 3)Seabed equipment | 8)Atomic energy-related equipment |
| 4)Safety equipment | 9)Other applications that are not
considered general-purpose applications |
| 5)Medical equipment | |

If you intend to use the products in the following applications, please contact our sales office.

Transportation equipment (cars, electric trains, ships, etc.), Public information-processing equipment,

Electric heating apparatus / burning equipment, Disaster prevention/crime prevention equipment

When using this product in general-purpose applications, you are kindly requested to take into consideration securing protection circuit/equipment or providing backup circuits, etc., to ensure higher safety.

CUSTOMER

ASDI PART No.
ASUW1210IF-SERIES

CUSTOMER'S DWG NO.

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Listed item	Attachment&Tables	Page
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2.Manufacturing Location

China

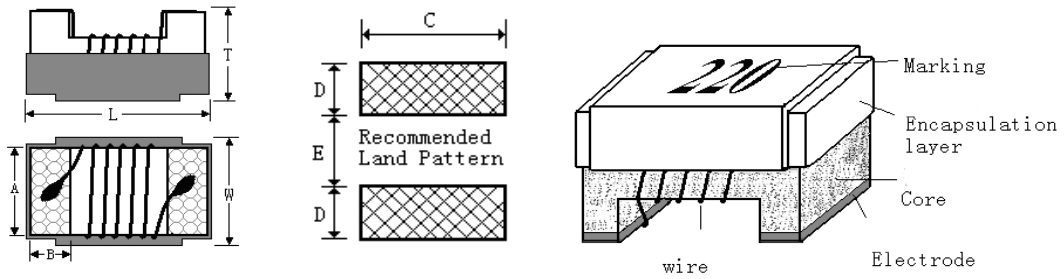
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(1)Dimension & Inner-configuration



No.	Component	Material								
1	Core	Ferrite Core: Ni-Zn ferrite								
2	Electrode	<table border="1"> <thead> <tr> <th>Type</th> <th>Layout 0</th> <th>Layout 1</th> <th>Layout 2</th> </tr> </thead> <tbody> <tr> <td>Ferrite core</td> <td>Ag</td> <td>Ni</td> <td>Sn</td> </tr> </tbody> </table>	Type	Layout 0	Layout 1	Layout 2	Ferrite core	Ag	Ni	Sn
Type	Layout 0	Layout 1	Layout 2							
Ferrite core	Ag	Ni	Sn							
3	Wire	Cu								
4	Encapsulation layer	UV Adhesive								
5	Marking	UV printing ink								

Unit: mm (inch)

Size	L (Max)	W (Max)	T (Max)	A	B	C	D	E
3225 (1210)	3.50 (0.138)	2.90 (0.114)	2.25 (0.088)	2.10 (0.083)	0.50 (0.020)	2.54 (0.100)	1.02 (0.040)	1.78 (0.070)

(2)Product Spec. Model

ASUW **1210** **IF** **1R0** **J** **S** **T**
 A B C D E F G

A: Product type: Wire Wound Inductor Series
 B: Dimensions: 1210
 C: Material: IF---Ferrite core
 D: Inductance: 1R0=1.0μH
 E: Tolerance: J---±5%
 F:Terminal: S--Tin
 G:Packaging type: Tape

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(3)Electrical Characteristics List

ASDI Part Number	Customer P/N	accuracy grade	Inductance (μ H)	Ls Test frequency (MHz)	Q Value (Min)	Q Value Test frequency (MHz)	Rdc (Ω) max	Test voltage (mV)	SRF (MHz) min	Idc (mA) max
ASUW1210IFR12 □ST		J, K	0.12	25.20	20	25.2	0.2	500	850.0	450
ASUW1210IFR27 □ST		J, K	0.27	25.20	20	25.2	0.2	500	700.0	450
ASUW1210IFR33 □ST		J, K	0.33	25.20	20	25.2	0.3	500	520.0	450
ASUW1210IFR47 □ST		J, K	0.47	25.20	20	25.2	0.3	500	480.0	450
ASUW1210IFR82 □ST		J, K	0.82	25.20	20	25.2	0.3	500	350.0	450
ASUW1210IF1R0 □ST		J, K	1.00	7.96	12	7.96	0.3	500	220.0	450
ASUW1210IF1R2 □ST		J, K	1.20	7.960	12	7.96	0.3	500	210.0	450
ASUW1210IF1R5 □ST		J, K	1.50	7.960	12	7.96	0.4	500	200.0	450
ASUW1210IF1R8 □ST		J, K	1.80	7.960	12	7.96	0.5	500	195.0	450
ASUW1210IF2R2 □ST		J, K	2.20	7.960	12	7.96	0.60	500	175.0	450
ASUW1210IF2R7 □ST		J, K	2.70	7.960	12	7.96	0.70	500	120.0	420
ASUW1210IF3R3 □ST		J, K	3.30	7.960	12	7.96	1.10	500	80.00	380
ASUW1210IF3R9 □ST		J, K	3.90	7.960	12	7.96	1.2	500	75.00	360
AUW1210IF4R3 □ST			4.30	7.960	12	7.96	1.20	500	70.00	360
ASUW1210IF4R7 □ST		J, K	4.70	7.960	12	7.96	1.3	500	60.00	350
ASUW1210IF5R6 □ST		J, K	5.60	7.960	12	7.96	2.00	500	50.00	320
ASUW1210IF6R8 □ST		J, K	6.80	7.960	12	7.96	1.50	500	35.00	310
ASUW1210IF8R2 □ST		J, K	8.20	7.960	12	7.96	1.60	500	35.00	305
ASUW1210IF100 □ST		J, K	10.00	2.520	10	2.52	1.00	500	30.00	300
ASUW1210IF120 □ST		J, K	12.00	2.520	10	2.52	1.20	500	25.00	265
ASUW1210IF130 □ST		J, K	13.00	2.520	10	2.52	1.20	500	22.00	250
ASUW1210IF150 □ST		J, K	15.00	2.520	10	2.52	2.00	500	22.00	225
ASUW1210IF180 □ST		J, K	18.00	2.520	10	2.52	2.10	500	22.00	210
ASUW1210IF200 □ST		J, K	20.00	2.520	10	2.52	2.40	500	20.00	200
ASUW1210IF220 □ST		J, K	22.00	2.520	10	2.52	2.40	500	20.00	200
ASUW1210IF270 □ST		J, K	27.00	2.520	10	2.52	2.70	500	18.00	180
ASUW1210IF330 □ST		J, K	33.00	2.520	10	2.52	2.90	500	15.00	160.0
ASUW1210IF350 □ST		J, K	35.00	2.520	10	2.52	4.20	500	16.00	145
ASUW1210IF390 □ST		J, K	39.00	2.520	10	2.52	4.70	500	16.00	150.0
ASUW1210IF470 □ST		J, K	47.00	2.520	10	2.52	5.20	500	10.00	140
ASUW1210IF560 □ST		J, K	56.00	2.520	10	2.52	5.60	500	8.00	125.0
ASUW1210IF680 □ST		J, K	68.00	2.520	10	2.52	4.70	500	5.00	110
ASUW1210IF750 □ST		J, K	75.0	2.520	10	2.52	5.50	500	5.00	100.0
ASUW1210IF820 □ST		J, K	82.00	2.520	10	2.52	5.60	500	5.00	100
ASUW1210IF880 □ST		J, K	88.0	2.520	10	2.52	6.00	500	5.00	95.0
ASUW1210IF101 □ST		J, K	100.00	0.796	8	0.796	6.80	500	5.00	95
ASUW1210IF121 □ST		J, K	120.0	0.796	8	0.796	7.90	500	4.00	85.0
ASUW1210IF151 □ST		J, K	150.00	0.796	8	0.796	9.00	500	4.00	80
ASUW1210IF161 □ST		J, K	160.0	0.796	8	0.796	9.10	500	3.00	75.0
ASUW1210IF181 □ST		J, K	180.00	0.796	8	0.796	14.50	500	3.00	70
ASUW1210IF201 □ST		J, K	200.00	0.796	8	0.796	16.50	500	2.50	65.0
ASUW1210IF221 □ST		J, K	220.0	0.796	8	0.796	16.50	500	2.60	65.0
ASUW1210IF271 □ST		K	270.00	0.796	8	0.796	18.00	500	2.50	60.0
ASUW1210IF301 □ST		K	300.0	0.796	8	0.796	20.00	500	2.40	55.0
ASUW1210IF331 □ST		K	330.00	0.796	8	0.796	19.00	500	2.30	55.0
ASUW1210IF391 □ST		K	390.0	0.796	8	0.796	21.50	500	2.20	45.0
ASUW1210IF471 □ST		K	470.00	0.796	8	0.796	22.50	500	2.00	40.0
ASUW1210IF561 □ST		K	560.0	0.796	8	0.796	28.00	500	1.50	30.0

□ Represents the nominal sensitivity accuracy level: J ($\pm 5\%$) ; K ($\pm 10\%$) .

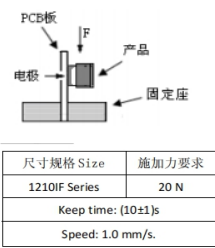
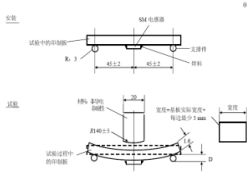
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(4)Reliability Testing Items

No.	Items	Requirements	Test Methods and Remarks								
1	Test Standard Conditions	①Unless otherwise specified, all tests and measurements shall be carried out in the following conditions. a)Temperature: 15℃~+35℃; b)Relative humidity: 25%~75%; c)Pressure: 86 kPa~106 kPa. ②Under the above conditions, the conditions for the determination of dissension shall be conducted according to the following conditions. a)Temperature: 20℃±1℃; b)Relative humidity: 63%~67%; c)pressure: 86 kPa~106 kPa.									
2	Operating Temperature Range	ASUW-IF-SERIES: -40~+85℃	/								
3	Solder ability	①No visible mechanical damage. ②Electrode surface solder coverage. ASUW-IF-SERIES: ≥80%.	Dip pads in flux and dip in solder pot(96.5Sn/3.0Ag/0.5Cu)at 245±5℃ for 5±1s.								
4	Resistance to Soldering	①No visible mechanical damage. ②Inductance shall not change more than ±5%; ③Q shall not change more than±10%.	Dip pads in flux and dip in solder pot(96.5Sn/3.0Ag/0.5Cu)at 260±5℃ for 10±1s.								
5	Vibration	①No visible mechanical damage. ②Inductance shall not change more than ±5%; ③Q shall not change more than±10%.	Inductors shall be subjected to vibration of 1.5mm amplitude frequency 10~55Hz (10Hz to 55Hz to 10Hz in a period of 1 minute) for 2h in each of three(X、Y、Z) axes.								
6	Adhesion of electrode	①The end electrode did not fall off after the test. ②No visible mechanical damage.	Weld the product on the PCB board, and apply force as shown in the diagram, direction and requirement.  <table border="1" data-bbox="1061 940 1276 1041"> <thead> <tr> <th>尺寸规格 Size</th> <th>施加力要求</th> </tr> </thead> <tbody> <tr> <td>1210IF Series</td> <td>20 N</td> </tr> <tr> <td colspan="2">Keep time: (10±1)s</td> </tr> <tr> <td colspan="2">Speed: 1.0 mm/s.</td> </tr> </tbody> </table>	尺寸规格 Size	施加力要求	1210IF Series	20 N	Keep time: (10±1)s		Speed: 1.0 mm/s.	
尺寸规格 Size	施加力要求										
1210IF Series	20 N										
Keep time: (10±1)s											
Speed: 1.0 mm/s.											
7	Low temperature resistance	①No visible mechanical damage. ②Inductance shall not change more than ±5%; ③Q shall not change more than±10%.	ASUW-IF-SERIES shall be subjected to -40±2℃ +24 for 1000-0h								
8	High temperature resistance	①No visible mechanical damage. ②Inductance shall not change more than ±5%; ③Q shall not change more than±10%.	ASUW-IF-SERIES shall be subjected to +85±5℃ for +24 1000-0h								
9	Temperature Shock	①No visible mechanical damage. ②Inductance shall not change more than ±5%; ③Q shall not change more than±10%.	ASUW-IF-SERIES: +85℃ 30minutes ↔ -40℃ 30minutes 100 Cycles.								
10	High temperature load	①No visible mechanical damage. ②Inductance shall not change more than ±5%; ③Q shall not change more than±10%.	ASUW-IF-SERIESshall be store at 85±2℃ for +24 1000 -0h with rated current applied								
11	Static Humidity	①No visible mechanical damage. ②Inductance shall not change more than ±5%; ③Q shall not change more than±10%.	Inductors shall be subjected to 90%~95%RH. at 60±2℃ for +24 1000-0h								
12	Bending strength	No visible mechanical damage.	Install the inductor on the test substrate; Apply force in the vertical direction (as shown below). The epoxy plate should bend down to (2±0.2) mm at the bending rate of (1±0.5) mm/s. Keep time (20±1) sec. 								
13	Solvent Resistance	①No visible mechanical damage. ②Inductance shall not change more than ±5%; ③Q shall not change more than±10%.	Soak in the element 23±5℃ in isopropyl alcohol solution, keep 5±0.5 min.								

Note: When there are questions concerning, test within 48 h after placing at room temperature for at least 2 h.

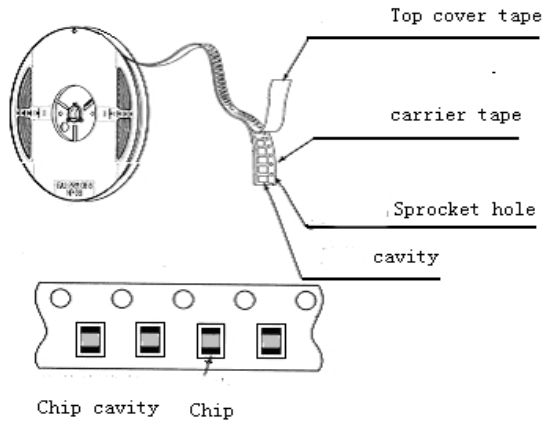
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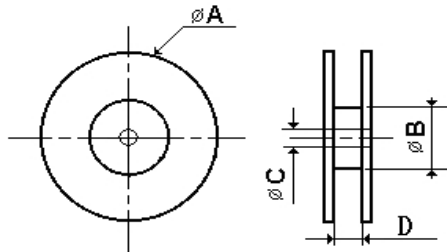
(5)Packaging

5-1,Taping drawings

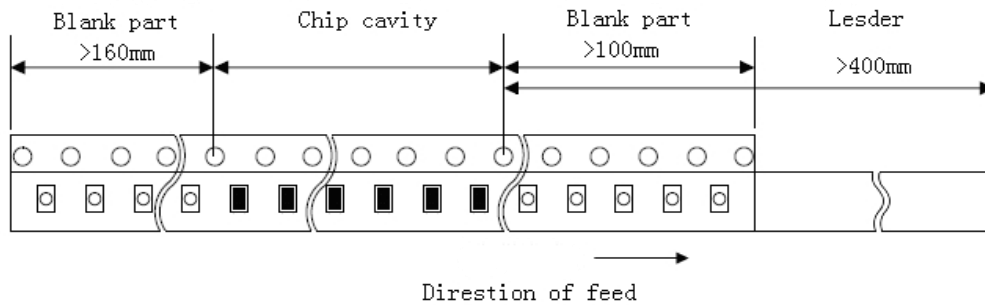


5-2,Reel dimensions (Unit: mm)

Part NO.	ΦA typ.	ΦB typ.	ΦC typ.	D typ.
1210	178	60	13	8.4



5-3,Leader and blank portion

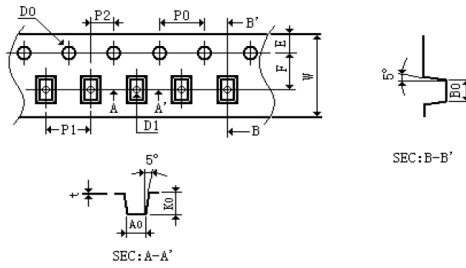


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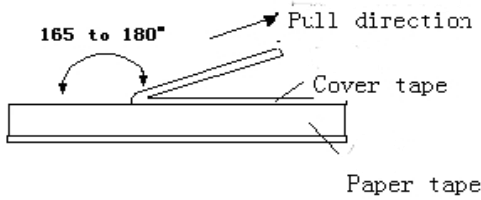
5-4, Taping dimensions (Unit: mm)

· Embossed tape



Part NO.	W	E	F	D0	D1	P0	P1	P2	P0X10	t	A0	B0	K0
1210	8.00	1.75	3.50	1.55	0.65	4.00	4.00	2.00	40.00	0.23	2.96	3.60	2.40

5-5, Peeling off force



- ① Peeling required: 1210 series : 20g~80g
- ② Test condition: Speed of peeling off : 300mm/min±10%
Angle of peeling off: 165°~180°

5-6, Packaging number (Unit: Pcs)

Size	1210	
Per Reel	2000	
Per Box	3 box	6000
	5 box	10000
Per Case	1.5 box	30000
	2 box	40000
	3 box	60000
	4 box	80000
	6 box	120000

5-7, Label stick station



(6) Recommend Soldering Conditions

6-1, Soldering Conditions

Reflow soldering is applied to this product.

① Flux, Solder

- Don't use highly acidic flux with halide content exceeding 0.2(wt)%(chlorine conversion value).
- Using lead-free solder (96.5Sn /3.0Ag/0.5Cu).

② Soldering conditions

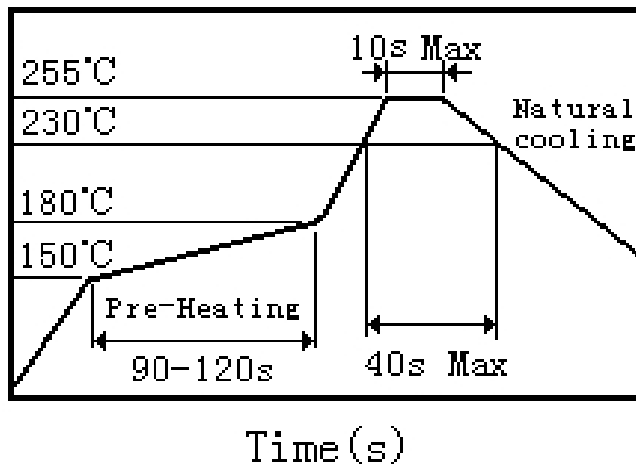
· Pre-heating should be in such a way that the temperature difference between solder and ferrite surface is limited to 150°C max. Also cooling into solvent after soldering should be in such way that the temperature difference is limited to 100°C max. Un-enough pre-heating may cause cracks on the ferrite, resulting in the deterioration of product quality.

· Products should be soldered within the following allowable range indicated by the slanted line. The excessive soldering conditions may cause the corrosion of the electrode. When soldering is repeated, allowable time is the accumulated time.

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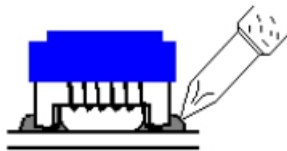
6-2,Reflow soldering profile



6-3,Iron soldering

Perform soldering at 350°C on 30W max.

Soldering Time: < 5S (Take care not to apply the tip of the soldering iron to the terminal electrodes)



(7)Cleaning

7-1,Cleaning Conditions

Cleaning temperature : 60°C max

Cleaning time: 5 minutes Max.

Ultrasonic output power: 200W max

(8)Storage Requirements

8-1,Storage period

Products which inspected inductor company over 1 year ago should be examined and used, which can be confirmed with inspection No. marked on the container. Solder ability should be checked if this period is exceeded.

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8-2,Storage conditions

(1)Products should be storage in the warehouse on the following conditions:

Temperature : -10~+40℃ Humidity: 30~70% relative humidity

(2)Don't keep products in corrosive gases such as sulfur, chlorine gas or acid,oxidization of Electrodes resulting in poor solder ability.

(3)Products should be stored on the palette for the prevention of the influence from humidity, dust and so on.

(4)Products should be stored in the warehouse without heat shock, vibration, direct sunlight and so on.

(5)Products should be stored under the airtight packaged condition.

(9)Usage Of ODS

For ODS listed below , we don't use in process.

ODS: CCl4, HCFC, etc.

(10)Notes

(1)Response to RoHS directive

Our products are RoHS compliance.

(2)This product specification guarantees the quality of our product as a single unit, Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.

(3)We can't warrant against failure caused by any use of our product that deviates from the intended use as described in this product specification.

(4)Do not touch wire with sharp objects such as tweezers to prevent wire breakage.

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单击下面可查看定价，库存，交付和生命周期等信息

[>>ASDI](#)