南充新川电子科技有限公司

ThreeLayer Scientific-Technics Co.,Ltd

川磊電子科技
Threelayer Technologies, Inc.
專業電感制造商

RoHS
ROHS COMPLIANT

产 品 承 认 书

SPECIFICATION FOR APPROVAL

客户名称 *CUSTOMER NAME.*	- - - - -
产品类型 *PRODUCT TYPE*	SMD Power Inductors
客户料号 *CUSTOMER P/N*	- - - - -
川磊料号 *OURS P/N*	CLNR-4020 -SERIES
文件编号 *FILE NO.*	SP-21072148

客户承认/*CUSTOMER ACCEPTED*		
承 认 *APPROVED*	确 认 *CHECKED*	承 办 *DESIGN*
批注/*REMARK*		

批 准 *APPROVED*	确 认 *CHECKED*	作 成 *DESIGN*
程志华	陈尧	潘立

生产工厂：南充川磊电子科技有限公司
销售公司：南充新川电子科技有限公司
业务专线：0817-2111163/18681773184
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南充新川电子科技有限公司
工程
专用章

客户名称 CUSTOMER	- - - - -	客户品名 CUSTOMER P/N	- - - - -	版别 REV.	1.0
产品类型 PRODUCT TYPE	SMD Power Inductors	新川品名 OURS P/N	CLNR-4020 -SERIES	文件编号 FILE NO.	SP-21072148

修改记录/*MODIFY RECORDS*

版别 REV.	日期 DATE	修 改 内 容 MODIFY CONTENT	拟制 DRAWING	审核 CHECKED	批准 APPROVED
1.0		新版制订	潘立	陈尧	程志华

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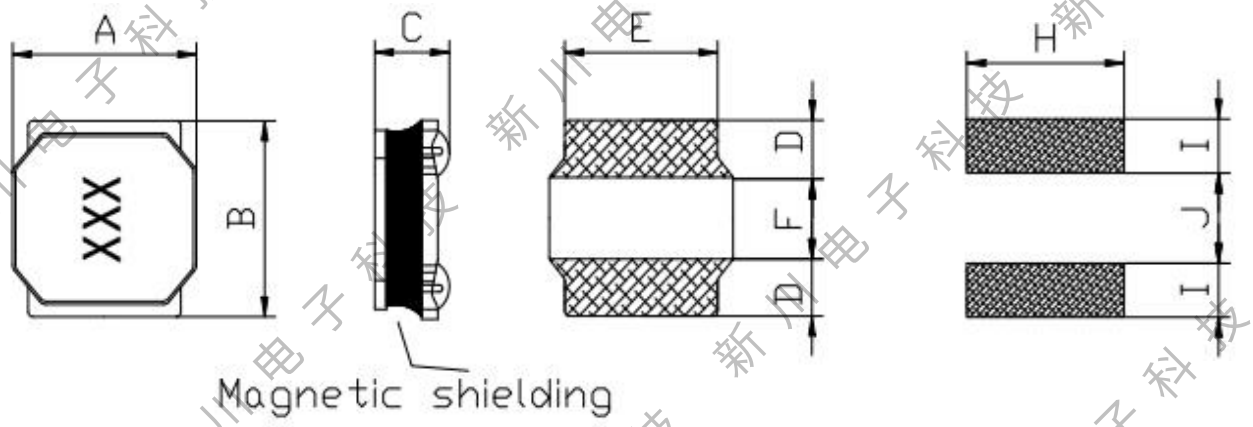
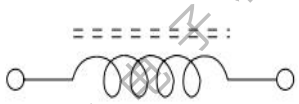
一.尺寸图/DIMENSION（单位/UNIT：mm）



Product size　　PAD Layout

ITEM	A	B	C	D	E	F	H	I	J
DIM	4.0	4.0	2.0	1.2	3.5	1.6	3.8	1.6	1.3
TOLE	±0.2	±0.2	Max	Typ	Typ	Typ	Typ	Typ	Typ

二.电路图/CIRCUIT DIAGRAM



三.注意事项/NOTE：

1.印字：黑色

四.电气特性/ELECTRICAL CHARACTERISTIC

Part Number	Inductance (uH)	Tolerance	Test Frequency(Hz)	DCR (Ω) ±30%	IDC1 (A) Max.	IDC2 (A) Max.	MARK
CLNR-4020-1R0□	1.0	N	100KHZ/1V	0.029	4.78	2.15	1R0
CLNR-4020-1R2□	1.2	N	100KHZ/1V	0.029	5.10	2.15	1R2
CLNR-4020-1R5□	1.5	N	100KHZ/1V	0.035	4.45	1.98	1R5
CLNR-4020-2R2□	2.2	N	100KHZ/1V	0.040	3.40	1.85	2R2
CLNR-4020-3R3□	3.3	M N	100KHZ/1V	0.070	3.20	1.40	3R3
CLNR-4020-4R7□	4.7	M N	100KHZ/1V	0.075	2.35	1.34	4R7
CLNR-4020-5R6□	5.6	M N	100KHZ/1V	0.090	2.20	1.22	5R6

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四.电气特性/ELECTRICAL CHARACTERISTIC

Part Number	Inductance (uH)	Tolerance	Test Frequency(Hz)	DCR (Ω) ±30%	IDC1 (A) Max.	IDC2 (A) Max.	MARK
CLNR-4020-6R8□	6.8	M N	100KHZ/1V	0.125	2.00	1.04	6R8
CLNR-4020-8R2□	8.2	M N	100KHZ/1V	0.125	1.75	1.04	8R2
CLNR-4020-100□	10	M N	100KHZ/1V	0.165	1.60	0.90	100
CLNR-4020-150□	15	M N	100KHZ/1V	0.230	1.35	0.77	150
CLNR-4020-220□	22	M N	100KHZ/1V	0.350	1.05	0.62	220
CLNR-4020-330□	33	M N	100KHZ/1V	0.550	0.85	0.49	330
CLNR-4020-470□	47	M N	100KHZ/1V	0.710	0.74	0.44	470
CLNR-4020-560□	56	M N	100KHZ/1V	0.800	0.66	0.41	560
CLNR-4020-680□	68	M N	100KHZ/1V	1.060	0.61	0.36	680
CLNR-4020-820□	82	M N	100KHZ/1V	1.170	0.50	0.34	820
CLNR-4020-101□	100	M N	100KHZ/1V	1.550	0.48	0.31	101

(1) Specify the inductance tolerance, K(±10%),M(±20%),N(±30%)

(2).IDC1:Base on temp.rise & ΔL/L0A 30% Typ

(3).IDC2:Temp.rise 40℃Typ

(4).Operating temp.:-40℃ to +125℃

(5).Storage temp.:-20℃ up to +40℃, 75% RH max.

五.材料清单/MATERIAL LIST

NO.	ITEM	DESCRIPTION
1	CORE	FERRITE
2	WIRE	P180 G1
3	ADHESIVE	NR-3614
4	TIN	107H
5	INK	BLACK

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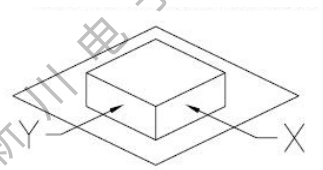
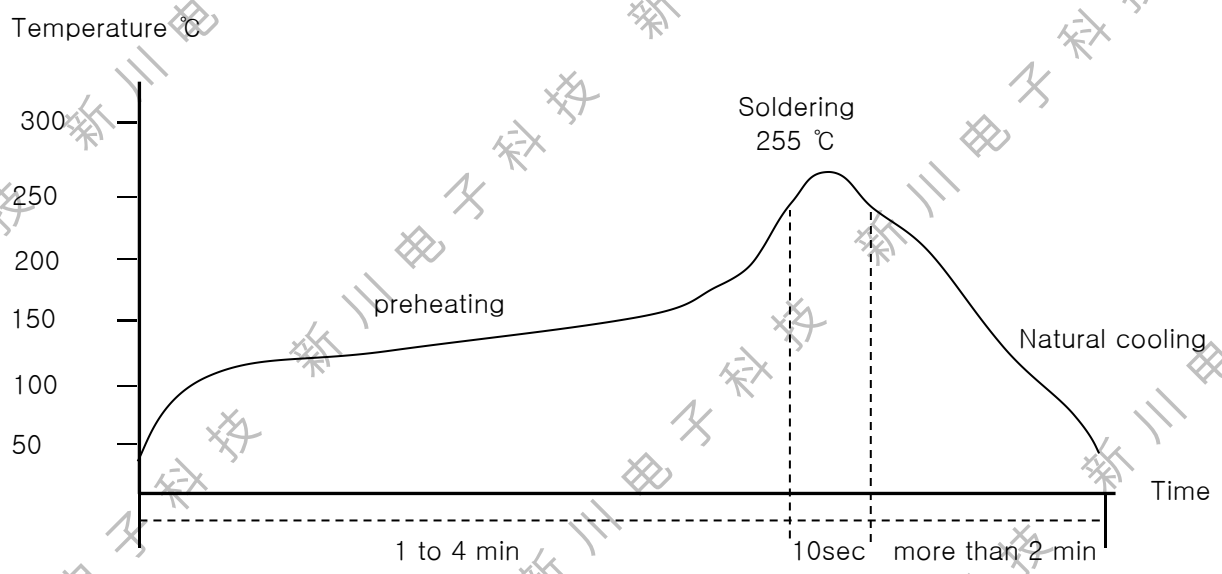
六.可靠性测试/RELIABILITY TESTING

Operating Temperature	- 40 to +125 ℃ (Contain Heating coil)
Appearance Inspection	No external defects by visual inspection
Terminal Strength 	After soldering , between copper plaet and terminals of coils , push in two directions of X , Y with standing 10N(1.02kg) for10+/-2 sec. Terminal should not peel off. (Refer to figure at right)
Heat endurance of reflow soldering	Refer to figure
Insulating resistance	Over 100 MΩ at 100V D.C . between wire and core
Dielectric Strength	Apply at 0.5KV 3mA for 1 minute between wire and core
Temperature characteristics	Inductance coefficient (0~2,000) × 10 / ℃(- 40~ + 125 ℃)
Humidity characteristics	Inductance deviation within ± 10% , after 96 hours in 90~95% relative humidity at 40 ± 2 ℃ and 1 hours drying under normal condition

A test is made under the above mentioned condition , and it is kept for 2 hours in the normal

IR Reflow profile



Temperature and humidity . After that , no mechanical and electrical defect should be found .

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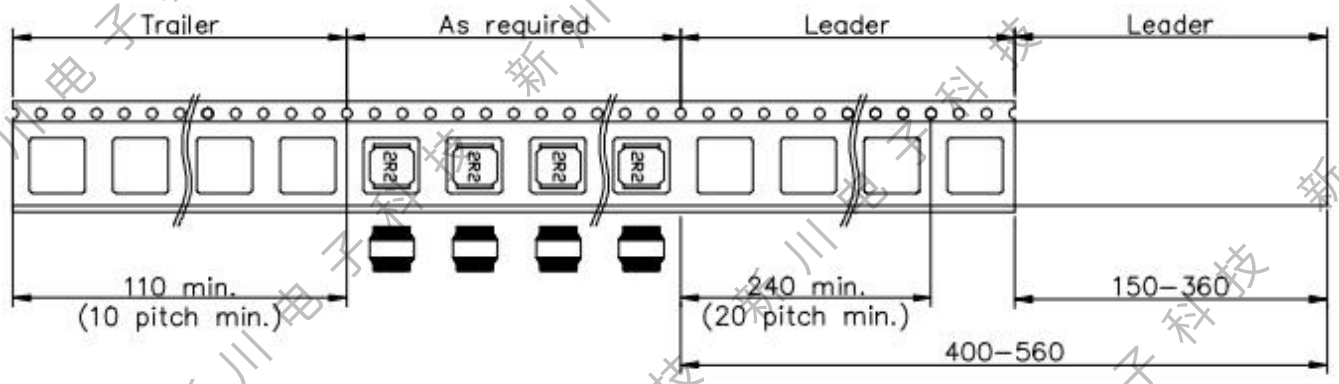
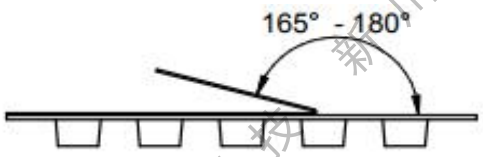
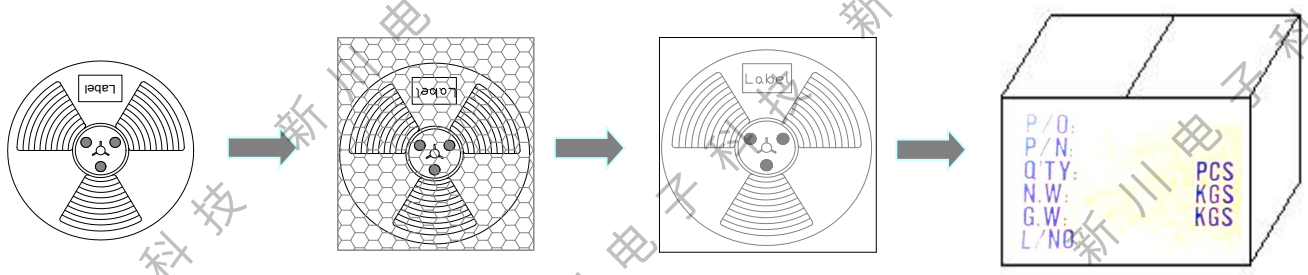
七.编带规格/TAPING SPECFICATIONS





Tape width	Distance	Pull-of force
12 mm	8 mm	10~120g

八.包装方式/PACKING LIST



轮盘：13'(直径330mm)
数量：3000PCS/盘

PE袋
数量：3000PCS/袋

内盒
数量：12000PCS/盒

外箱，数量：60000PCS/箱
不足整箱用内盒或填充物装满