

# 产品承认书

## SPECIFICATION FOR APPROVAL

版本: REV. A0

客户

Customer

:

客户料号

Customer's P/N

:

品名

Description

:

**AXIAL FIXED INDUCTOR**

产品型号

CENKER P/N

:

**HXL0410 Series**

图纸编号

Drawing No.

:

**SP-HXA002-S02**

产品编号

Product code.

:

出图		
DRAWING		
制表	审核	批准
Prepared By	Checked By	Approved By
王亮	龙梅	梁峰
DATE	2016-7-29	

承认
CUSTOMER APPROVAL
DATE:

厦门华信安电子科技有限公司

XIAMEN SINO FAITH ELECTRONIC TECHNOLOGY CO.,LTD

地址:厦门市翔安区翔岳路25号东北栋

Address: Xiang'an District, Xiamen Xiang Yue Road on the 25th Northeast, China



TEL: 0592-6301603 FAX: 0592-5205265

# SPECIFICATION FOR APPROVAL

**RoHS  
COMPLIANT**

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# *SPECIFICATION FOR APPROVAL*

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## **MODIFY RECORD**

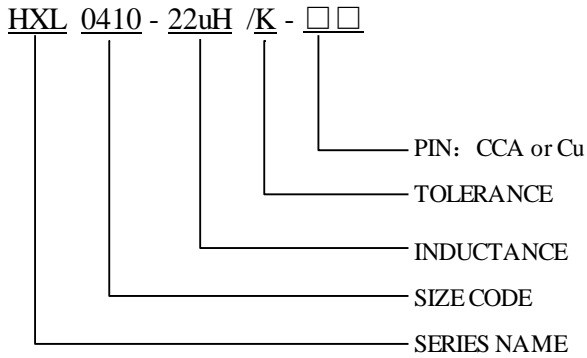
Symbol	Version	Date	Content	Prepared	Checked
	A0	2016-7-29			

# SPECIFICATION FOR APPROVAL

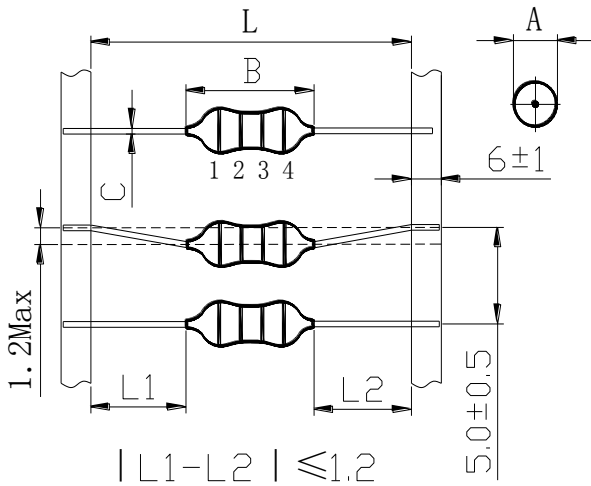
**RoHS  
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## 1. PRODUCTS IDENTIFICATION



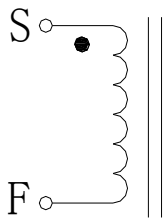
## 2. DIMENSIONS(UNIT: mm)



A	Ø4.0 Max
B	10.5 Max
C	Ø0.6±0.1
L	52.4±1.5

**\*Minimum insertion pitch: 12.5mm**

## 3. CIRCUIT



## 4. TEMPERATURE RANGE

Operating Temperature: -40°C ~ +85°C, Storage Temperature: -40°C ~ +85°C.

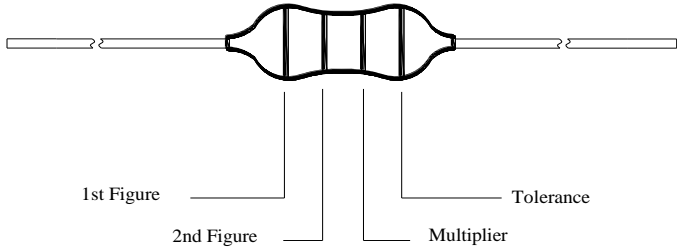
厦门华信安电子科技有限公司 XIAMEN SINO FAITH ELECTRONIC TECHNOLOGY CO.,LTD		PREPARED	CHECKED	APPROVED
 TEL: 0592-6301603 FAX: 0592-5205265 地址:厦门市翔安区翔岳路25号东北栋		王亮	龙梅	梁峰

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**RoHS  
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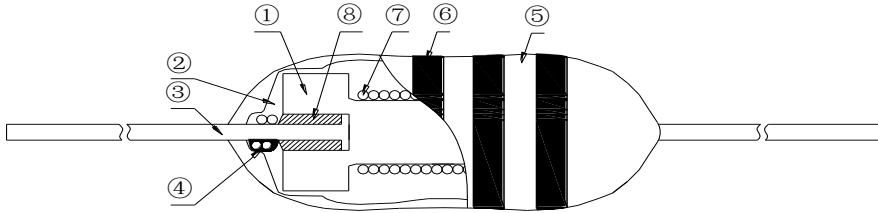
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## 5. MARKING



Color	Nominal Inductance(uH)			
	1st Figure	2nd Figure	Multiplier	Tolerance
Black	0		×1	±20%
Brown	1		×10	—
Red	2		×100	—
Orange	3		×1000	—
Yellow	4		—	—
Green	5		—	—
Blue	6		—	—
Violet	7		—	—
Gray	8		—	—
White	9		—	—
Gold	—		×0.1	±5%
Silver	—		×0.01	±10%

## 6. CONSTRUCTION



## 7. MATERIAL LIST

No.	Material	Specification	Supply's name	Remark
1	Core	Ferrite Core DR3.0*6.0	6212/6003	
2	Under-Coating Resin	BUTADIENE RESIN UV	6051/6102	
3	Pin	CCA Ø0.58mm/Ø0.64mm	6029	
		Cu Ø0.55mm	6029	
4	Solder	Sn99.3-Cu0.7	6050	
5	Over-Coating Resin	EPOXY RESIN	6051/6102	
6	Color-Coating Resin	MELAMINE RESIN	6051/6102	
7	Wire	COPPER WIRE PLATED TIN 100%	6030	UL No.:E344055
8	Glue	J-600	5163	

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## 8. ELECTRICAL REQUIREMENTS

Customer P/N	PART NO.	Inductance (uH)	Inductance Test Freq. [MHz]	Q (Min)	Q Test Freq. [MHz]	DCR [ $\Omega$ ] (Max)	SRF [MHz] (Min)	Rated Current [mA] (Max)
	HXL0410-0.27uH/M	0.27±20%	25.2	45	25.2	0.09	270	980
	HXL0410-0.33uH/M	0.33±20%	25.2	45	25.2	0.1	250	980
	HXL0410-0.39uH/M	0.39±20%	25.2	45	25.2	0.12	230	980
	HXL0410-0.47uH/M	0.47±20%	25.2	45	25.2	0.13	220	980
	HXL0410-0.56uH/M	0.56±20%	25.2	45	25.2	0.14	200	980
	HXL0410-0.68uH/M	0.68±20%	25.2	45	25.2	0.15	190	980
	HXL0410-0.82uH/M	0.82±20%	25.2	45	25.2	0.16	172	980
	HXL0410-1.0uH/K	1.0±10%	25.2	45	25.2	0.17	157	920
	HXL0410-1.2uH/K	1.2±10%	7.96	50	7.96	0.18	144	880
	HXL0410-1.5uH/K	1.5±10%	7.96	50	7.96	0.2	110	830
	HXL0410-1.8uH/K	1.8±10%	7.96	55	7.96	0.22	121	790
	HXL0410-2.2uH/K	2.2±10%	7.96	55	7.96	0.24	110	750
	HXL0410-2.7uH/K	2.7±10%	7.96	60	7.96	0.25	100	720
	HXL0410-3.3uH/K	3.3±10%	7.96	65	7.96	0.3	94	670
	HXL0410-3.9uH/K	3.9±10%	7.96	65	7.96	0.35	80	640
	HXL0410-4.7uH/K	4.7±10%	7.96	70	7.96	0.4	80	620
	HXL0410-5.6uH/K	5.6±10%	7.96	70	7.96	0.43	74	590
	HXL0410-6.8uH/K	6.8±10%	7.96	75	7.96	0.48	68	550
	HXL0410-8.2uH/K	8.2±10%	7.96	80	7.96	0.52	53	530
	HXL0410-10uH/K	10±10%	7.96	80	7.96	0.58	40	500
	HXL0410-12uH/K	12±10%	2.52	75	2.52	0.63	34	480
	HXL0410-15uH/K	15±10%	2.52	70	2.52	0.72	20	460
	HXL0410-18uH/K	18±10%	2.52	70	2.52	0.77	14	430
	HXL0410-22uH/K	22±10%	2.52	50	2.52	0.84	9.9	410
	HXL0410-27uH/K	27±10%	2.52	50	2.52	0.94	7.6	390
	HXL0410-33uH/K	33±10%	2.52	50	2.52	1.03	6.3	370
	HXL0410-39uH/K	39±10%	2.52	50	2.52	1.12	6.3	350
	HXL0410-47uH/K	47±10%	2.52	45	2.52	1.22	6.3	340
	HXL0410-56uH/K	56±10%	2.52	40	2.52	1.34	6.2	320
	HXL0410-68uH/K	68±10%	2.52	40	2.52	1.47	5.7	305
	HXL0410-82uH/K	82±10%	2.52	35	2.52	1.62	5.3	290
	HXL0410-100uH/K	100±10%	2.52	30	2.52	1.8	4.8	275

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## 8. ELECTRICAL REQUIREMENTS

Customer P/N	PART NO.	Inductance (uH)	Inductance Test Freq. [MHz]	Q (Min)	Q Test Freq. [MHz]	DCR [ $\Omega$ ] (Max)	SRF [MHz] (Min)	Rated Current [mA] (Max)
	HXL0410-120uH/K	120±10%	0.796	70	0.796	3	3.8	185
	HXL0410-150uH/K	150±10%	0.796	70	0.796	4.2	3.5	175
	HXL0410-180uH/K	180±10%	0.796	70	0.796	4.6	3.3	165
	HXL0410-220uH/K	220±10%	0.796	70	0.796	5.1	3	155
	HXL0410-270uH/K	270±10%	0.796	65	0.796	6	2.8	145
	HXL0410-330uH/K	330±10%	0.796	65	0.796	6.4	2.6	137
	HXL0410-390uH/K	390±10%	0.796	65	0.796	7	2.4	133
	HXL0410-470uH/K	470±10%	0.796	60	0.796	7.7	2.25	126
	HXL0410-560uH/K	560±10%	0.796	60	0.796	8.5	2.1	120
	HXL0410-680uH/K	680±10%	0.796	55	0.796	9.4	1.9	113
	HXL0410-820uH/K	820±10%	0.796	55	0.796	12	1.85	105
	HXL0410-1.0mH/K	1000±10%	0.796	50	0.796	17.4	1.4	100
	HXL0410-1.2mH/K	1200±10%	0.252	50	0.252	20	1.2	90
	HXL0410-1.5mH/K	1500±10%	0.252	30	0.252	25	1	85
	HXL0410-1.8mH/K	1800±10%	0.252	30	0.252	30	0.9	80
	HXL0410-2.2mH/K	2200±10%	0.252	30	0.252	35	0.8	75
	HXL0410-2.7mH/K	2700±10%	0.252	30	0.252	40	0.7	70
	HXL0410-3.3mH/K	3300±10%	0.252	30	0.252	65	0.65	65
	HXL0410-3.9mH/K	3900±10%	0.252	30	0.252	71	0.65	50
	HXL0410-4.7mH/K	4700±10%	0.252	30	0.252	78	0.6	50
	HXL0410-5.6mH/K	5600±10%	0.252	30	0.252	100	0.56	45
	HXL0410-6.8mH/K	6800±10%	0.252	30	0.252	125	0.54	40

\*Rated Current: It is either the inductance is 10% lower than its initial value in DC saturation characteristics or temperature raise becomes  $\Delta T=40^{\circ}C$  ( $T_a=25^{\circ}C$ ), whichever is lower.

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## 9. TEST EQUIPMENT AND TEST CONDITION

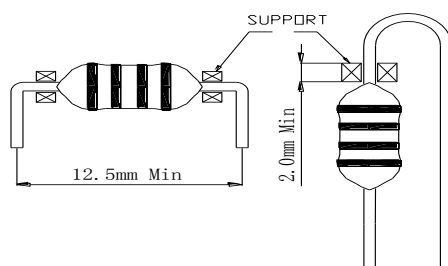
- (1) Inductance: HP 4284A/HM 9481;
- (2) Q: HP 4284A/HM 9481;
- (3) DCR: CH 502A/CH 502BC/E34420A;
- (4) SRF: HM 9461;
- (5) Rated Current: HP 4284A+HP 42841A/CD 1068+CD 1320.
- (6) Test Condition: at 25°C,75%H.

## 10. WARNING FOR LEAD WIRE FORMING

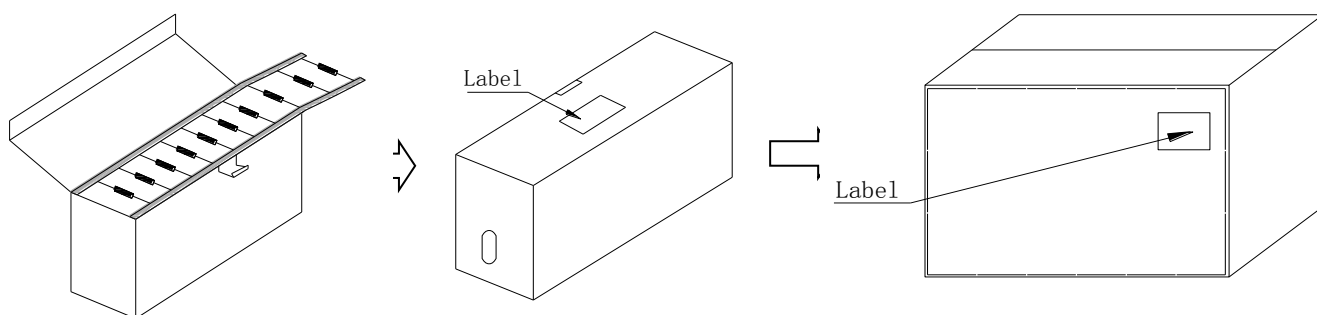
This Inductor is using drum type core and wrapping wire at the both ends of the core. An inadequate lead wire forming process may cause open circuit and/or damage the body. Please comply with the following instruction when you bend the lead wire. When you execute a lead wire forming process by yourself.

Please apply supporting jigs as below:

(Minimum insertion pitch: 12.5mm Min)



## 11. PACKING (UNIT: mm)



	Dimension	Quantity(Pcs)
Box	255*69*85	1,500
Carton	438*278*267	27,000

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## 12. RELIABILITY

\* GENERAL CHARACTERISTICS

STANDARD TESTING CONDITIONS:

UNLESS OTHERWISE SPECIFIED, THE STANDARD RANGE OF ATMOSPHERIC CONDITIONS FOR MEASUREMENTS AND TESTS ARE AS FOLLOWS: AMBIENT TEMPERATURE: 15°C ~ 35°C. RELATIVE HUMIDITY: 25% ~ 85%. AIR PRESSURE: 86kPa ~ 106kPa.

No.	Items	Test Methods	Requirements
1	Lead terminal strength	A static pulling force of 5N in a direction parallel to the lead terminals for 60±5 seconds.	No terminal breakage or loosening.
2	Resistance to soldering heat test	Fix the samples on a 1.6mm thickness PCB, then dip the sample leads into a soldering bath of 260±5°C up to the PCB for 5±1 seconds.	No significant abnormality in appearance. Deviation relative to initial value: L: Within +10%
3	Solder ability test	Immerse the terminal in flux for 5 seconds. Then dip the terminal into a soldering bath of 245±5°C for 2±0.5 seconds.	At least 90% of terminal electrode is covered by new solder.
4	Humidity test	Temperature : 40°C ±2°C Humidity : 90% ~ 95% RH Duration : 96±4 Hours	No significant abnormality in appearance. Deviation relative to initial value: L: Within ±10%
5	High temperature storage test	Temperature : 85°C ±2°C Duration : 96±4 Hours	
6	Low temperature storage test	Temperature : -25°C ±2°C Time : 96±4 Hours	
7	Thermal shock test	First -25±5°C for 30±3 minutes, last 85±5°C 30±3 minutes as 1 cycles. Go through 10 cycles.	

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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

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