

MESSRS:  
**INCOMP INTERNATIONAL LTD.**

SPEC NO. H500-0482

RoHS Compliant  
環保品

DATE: 2010-9-8

《NEW/AMENDED》

# APPROVAL SPECIFICATION

DESCRIPTION: RADIAL TYPE CHOKE COIL

MODEL (PART NO.) CW68NP SERIES

CUSTOMER'S PART NO. \_\_\_\_\_

AMENDED




CUSTOMER'S PART NO. \_\_\_\_\_

【FOR APPROVAL】

DATE: \_\_\_\_\_

\* THIS SPECIFICATION IS CONSTITUTED WITH \_\_\_\_\_ PAGES INCLUDING ATTACHMENTS.

## COILS ELECTRONIC CO., LTD.

Approved by	Checked by	In charge
		

CUSTOMER:

# AMENDMENT RECORD

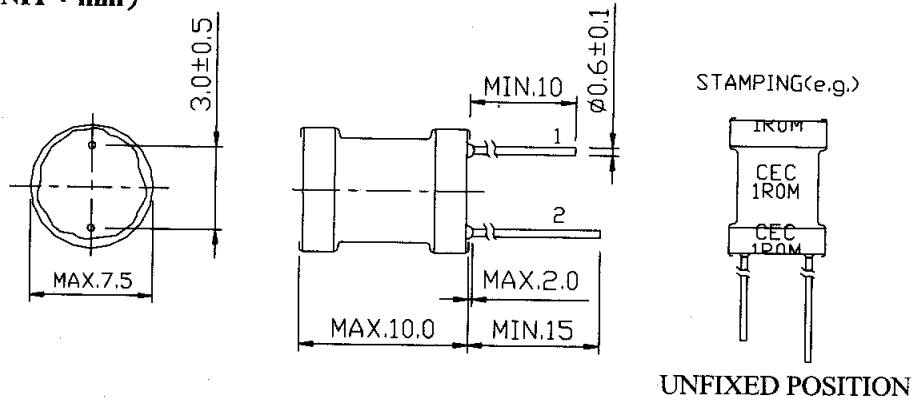
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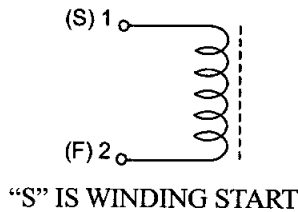
# \* SPECIFICATION \*

## 1. DIMENSION (UNIT : mm)

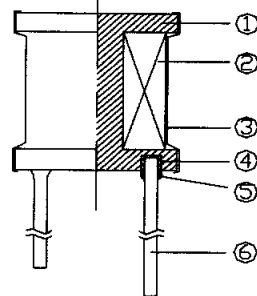


\* THE LENGTH OF THE TERMINAL PINS DOES NOT INCLUDE SOLDER TIP.  
 \* PIN PITCH TO BE MEASURED FROM THE ROOT OF TERMINAL.

## 2. CIRCUIT



## 3. CONSTRUCTION



## 4. MATERIAL LIST

No.	PARTS	MATERIAL	MANUFACTURER	COUNTRY OF ORIGIN	UL No.	UL FLAME CLASS	TEMP. CLASS
①	CORE	FERRITE CORE EL8H OR EQUIVALENT	TONICHI FERRITE PRODUCTS CO., LTD.	CHINA	NA	NA	NA
②	WIRE	POLYURETHANE ENAMELLED COPPER WIRE OR EQUIVALENT	PACIFIC-THAI ELECTRIC WIRE & CABLE CO., LTD.	THAILAND	E142108	NA	130°C
			JUNG SHING WIRE CO., LTD.	CHINA	E174837	NA	130°C
			TA YA ELECTRIC WIRE FACTORY	CHINA	E197768	NA	130°C
③	TUBE	HEAT SHRINKABLE UL TUBING OR EQUIVALENT	CHANGYUAN ELECTRONICS (SHENZHEN) CO., LTD.	CHINA	E180908	NA	125°C
④	ADHESIVE	EPOXY RESIN (EB-360) OR EQUIVALENT	JIANG SU CHANG FENG CO., LTD.	CHINA	NA	NA	NA
⑤	SOLDER	Sn99.3-Cu0.7 OR EQUIVALENT	ALPHA METALS LTD.	CHINA HONG KONG	NA	NA	NA
			YUNAN TIN CO. LTD.	CHINA	NA	NA	NA
⑥	LEAD PIN	SOLDER PLATED COPPER WIRE OR EQUIVALENT	WELL FORE SPECIAL WIRE CORPORATION	CHINA	NA	NA	NA
	PAINT	ACRYLIC EPOXY (PU#1700 WHITE) OR EQUIVALENT	DONG GUAN JINCHAOYANG COATINGS CO. LTD.	CHINA	NA	NA	NA

REMARK

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H500-0482

COILS ELECTRONIC CO., LTD.

## \* SPECIFICATION \*

### 5. 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 TO 35°C. RELATIVE HUMIDITY : 25% TO 85%.

AIR PRESSURE : 86kPa TO 106kPa.

IF THERE IS ANY DOUBT ABOUT THE RESULTS, MEASUREMENT SHALL BE MADE WITHIN THE FOLLOWING

LIMITS: AMBIENT TEMPERATURE: 20°C±1°C. RELATIVE HUMIDITY : 63% TO 67%. AIR PRESSURE : 86kPa TO 106kPa.

No.	ITEMS	CONDITIONS	SPECIFICATION
1	OPERATION TEMPERATURE  STORAGE TEMPERATURE		-25 ~ +85°C (INCLUDING COIL TEMPERATURE RISE) -40 ~ +85°C
2	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
3	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 MECHANICAL BREAKAGE. DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±3.0% Q: WITHIN ±20%
4	SOLDERABILITY 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.	OVER 90% OF THE SURFACE BEING IMMERSSED SHALL BE COVERED WITH NEW SOLDER. UNIFORMLY.
5	VIBRATION TEST	AMPLITUDE:1.5mm P-P FREQUENCY:10~55~10Hz (1 MINUTE PER CYCLE) DURATION:2 HOURS IN EACH OF X,Y,Z AXIS (TOTAL 6 HOURS)	DEVIATION RELATIVE TO INITIAL VALUE:
6	SHOCK TEST	PEAK ACCELERATION: 981m/s <sup>2</sup> DURATION OF PULSE:10ms SHOCK TIMES: 3 TIMES IN EACH OF X, Y, Z AXIS.(TOTAL 9 TIMES)	L: WITHIN ±1.0% Q: WITHIN ±20%
7	HUMIDITY TEST	TEMPERATURE: 40°C±2°C HUMIDITY: 90%~95% RH DURATION:96±4 HOURS.	DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±3.0% Q: WITHIN ±20%

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# \* SPECIFICATION \*

## 6. ELECTRICAL CHARACTERISTICS

No.	CUST.P/N.	CEC.P/N.	STAMP	INDUCTANCE ( $\mu$ H) WITHIN	UNLOADED Q Min.	D.C.R. ( $\Omega$ ) Max.	RATED CURRENT (A) Max.		S.R.F. Ref. (MHz)
							Idc 1	Idc 2	
01			1R0M	1.0 $\pm$ 20%	15	8.6m	6.2	7.3	188
02			1R2M	1.2 $\pm$ 20%		10.0m	5.2	6.6	172
03			1R5M	1.5 $\pm$ 20%		13.2m	4.8	5.7	145
04			2R2M	2.2 $\pm$ 20%		14.7m	4.1	5.7	115
05			2R7M	2.7 $\pm$ 20%		16.5m	3.8	5.0	98
06			3R3M	3.3 $\pm$ 20%		18.5m	3.5	4.9	78
07			3R9M	3.9 $\pm$ 20%		20.0m	3.2	4.5	60
08			4R7M	4.7 $\pm$ 20%		21.7m	2.9	4.0	47
09			5R6M	5.6 $\pm$ 20%		25.0m	2.5	3.7	32
10			6R8M	6.8 $\pm$ 20%		32.2m	2.3	3.2	30
11			8R2M	8.2 $\pm$ 20%		37.7m	2.1	3.0	26
12			100K	10 $\pm$ 10%	50	40.7m	2.0	2.9	25
13			120K	12 $\pm$ 10%		46.0m	1.7	2.6	23
14			150K	15 $\pm$ 10%		53.0m	1.6	2.5	20
15			180K	18 $\pm$ 10%	40	58.2m	1.4	2.4	18
16			220K	22 $\pm$ 10%		66.7m	1.3	2.2	17
17			270K	27 $\pm$ 10%		77.0m	1.2	2.1	15
18			330K	33 $\pm$ 10%		0.10	1.0	1.8	13
19			390K	39 $\pm$ 10%	35	0.11	0.96	1.6	12
20			470K	47 $\pm$ 10%		0.14	0.88	1.4	11
21			560K	56 $\pm$ 10%		0.16	0.80	1.3	9.6
22			680K	68 $\pm$ 10%	30	0.20	0.77	1.2	8.5
23			820K	82 $\pm$ 10%		0.23	0.70	1.1	7.7
24			101K	100 $\pm$ 10%	20	0.26	0.64	1.0	7.1
25			121K	120 $\pm$ 10%		0.30	0.58	0.95	6.6
26			151K	150 $\pm$ 10%		0.38	0.53	0.90	6.0
27			181K	180 $\pm$ 10%		0.48	0.48	0.80	5.4
28			221K	220 $\pm$ 10%		0.60	0.43	0.70	4.8
29			271K	270 $\pm$ 10%		25	0.76	0.39	0.65
30			331K	330 $\pm$ 10%	0.88		0.35	0.60	3.7
31			391K	390 $\pm$ 10%	25	1.1	0.33	0.50	3.4
32			471K	470 $\pm$ 10%	20	1.2	0.30	0.46	3.2
33			561K	560 $\pm$ 10%		1.4	0.27	0.43	3.0
34			681K	680 $\pm$ 10%		1.8	0.24	0.37	2.6
35			821K	820 $\pm$ 10%		2.0	0.22	0.33	2.3
36			102K	1000 $\pm$ 10%		55	2.52	0.20	0.32

REMARK

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## \* SPECIFICATION \*

### ELECTRICAL CHARACTERISTICS

No.	CUST.P/N.	CEC.P/N.	STAMP	INDUCTANCE ( $\mu$ H) WITHIN	UNLOADED Q Min.	D.C.R. ( $\Omega$ ) Max.	RATED CURRENT Max. (A)		S.R.F. Ref. (MHz)
							Idc 1	Idc 2	
37			122K	1200 $\pm$ 10%	65	3.0	0.18	0.28	1.9
38			152K	1500 $\pm$ 10%	60	3.6	0.17	0.26	1.7
39			182K	1800 $\pm$ 10%	65	4.5	0.15	0.22	1.6
40			222K	2200 $\pm$ 10%	60	6.0	0.14	0.21	1.5
41			272K	2700 $\pm$ 10%	65	6.5	0.12	0.20	1.3
42			332K	3300 $\pm$ 10%	70	8.4	0.11	0.18	1.2
43			392K	3900 $\pm$ 10%	90	11	0.10	0.15	1.1
44			472K	4700 $\pm$ 10%	80	13	95m	0.14	1.0
45			562K	5600 $\pm$ 10%		15	85m	0.13	0.87
46			682K	6800 $\pm$ 10%		17	80m	0.12	0.82
47			822K	8200 $\pm$ 10%	85	23	70m	0.10	0.77
48			103K	10000 $\pm$ 10%		30	60m	90m	0.60
49			123K	12000 $\pm$ 10%		33	55m	80m	0.57
50			153K	15000 $\pm$ 10%		39	50m	75m	0.53
51			183K	18000 $\pm$ 10%		53	45m	65m	0.47
52			223K	22000 $\pm$ 10%		61	40m	60m	0.44
53			273K	27000 $\pm$ 10%		82	35m	55m	0.36
54			333K	33000 $\pm$ 10%		93	30m	50m	0.33
55			393K	39000 $\pm$ 10%		105	25m	45m	0.32
56			473K	47000 $\pm$ 10%		120	20m	40m	0.30

**\* TESTING INSTRUMENT**

INDUCTANCE: HP 4284A OR EQUIVALENT.

Q: HP 4285A OR EQUIVALENT.

D.C.R. : HP 34420A OR EQUIVALENT.

RATED CURRENT: HP 4284A, HP 42841A, HP E3632A, HP 34420A OR EQUIVALENT.

S.R.F. : HP 4395A OR EQUIVALENT.

\* TESTING CONDITIONS OF INDUCTANCE: 1.0 $\mu$ H ~ 8.2 $\mu$ H at 100kHz/1V, 10 $\mu$ H ~ 47000 $\mu$ H at 1kHz/1V.

\* TESTING CONDITIONS OF UNLOADED Q: 1.0 $\mu$ H ~ 8.2 $\mu$ H at 7.96MHz/1V, 10 $\mu$ H ~ 82 $\mu$ H at 2.52MHz/1V.  
100 $\mu$ H ~ 820 $\mu$ H at 796kHz/1V, 1000 $\mu$ H ~ 8200 $\mu$ H at 252kHz/1V.  
10000 $\mu$ H ~ 47000 $\mu$ H at 79.6kHz/1V.

\* Idc 1: THE CURRENT WHEN THE INDUCTANCE DECREASES TO 90% OF INITIAL VALUE. (Ta= 25 $^{\circ}$ C)

\* Idc 2: THE CURRENT WHEN THE TEMPERATURE OF COIL IS INCREASED BY 40 $^{\circ}$ C. (Ta= 25 $^{\circ}$ C)

\* THE RATED CURRENT INDICATES THE SMALLER ONE BETWEEN Idc 1 AND Idc 2.

**7. PACKAGE**

PACKAGE TO BE ACCORDING TO SPECIFICATIONS (TICK THE RELEVANT "  ")

KB-OTH125    KB-OTH601    KB-OTH803    KB-PLT243

KB-OTH126    KB-OTH602    KB-OTH804    KB-PLT244

SPECIAL FOR CUSTOMER: \_\_\_\_\_

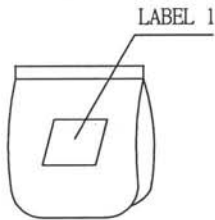
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# \* PACKAGE SPECIFICATION \*

APPLICABLE TYPE: CWR6, CW68, CW77, CW67, CW88, CW65, CWP7, CW85, CW86, CD66, CY65, PC68  
CY68, CB6A, CB66, CWE6, CW76, CW66

Dimensions (Ref.): mm

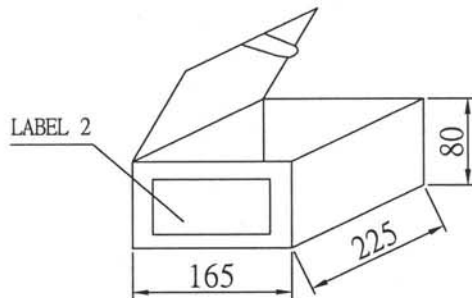
1. 200 Pcs/Unit



LABEL 1

高雅線圈製品有限公司 COILS ELECTRONIC CO., LTD. TEL. (852)23415539	
客戶	
型號	
數量	粒
<small>CEC-08000773-96 <span style="float: right;">1996.09.15</span></small>	

2. 10 Units/Box Total 2,000 Pcs

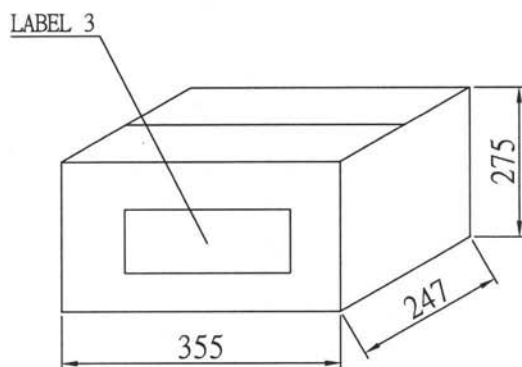


LABEL 2

CUSTOMER:	
DESCRIPTION:	
PART NO.	
LOT NO:	
QTY:	PIECES
Q.C.PASS:	

3. Carton

6 Boxes/Carton Total 12,000 Pcs



LABEL 3

客戶名稱(Customer)	
客戶訂單號(P/O No.)	
加工單編號(S/O No.)	
貨品名稱(Description)	
客戶貨品編號 (Customer Part No.)	
數量(Quantity)	
日期(Date)	

MADE: 05th. Oct., 2004		REVISION	PACKAGE SPEC.No. 1/1
APPROVAL	CHECK	DESIGN	KB-OTH126
		柯行剛	