APPROVAL SHEET
承　　認　　書

Customer
客戶名稱: KUK

Description:
產品描述 D-SUB High Density Solder Male Type

Part No.:
客戶編號:

Part No.:
繼德編號: 5508-XXP-01-F1

Date 日　期: Oct-24-2006
Rev. 版　次: A

經辦(Evaluted)	審核(Checked)	核準(Approval)	客戶承認(Approval)
Huali	Jeremy Liu	Mike Wu	

UL:Recognized NO. E 144392

繼德工業股份有限公司
Neltron Industrial Co., Ltd.

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China Factory
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繼德工業股份有限公司
Neltron Industrial Co., Ltd.

Bill of Approval Sheet

Product Description: D-SUB High Density Solder Male Type

Product Part NO.: 5508-XXP-01-F1 Date:Oct-24-2006

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2	Bill of Approval Sheet
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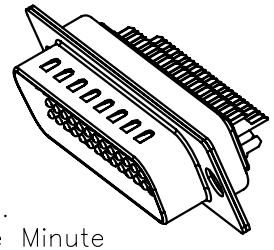
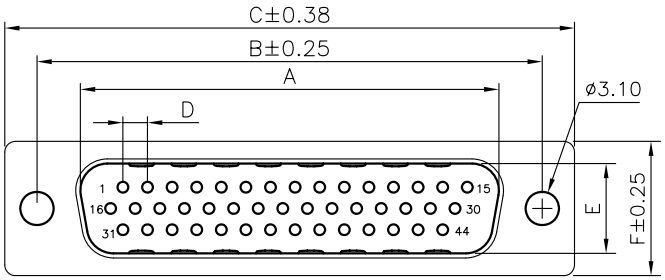
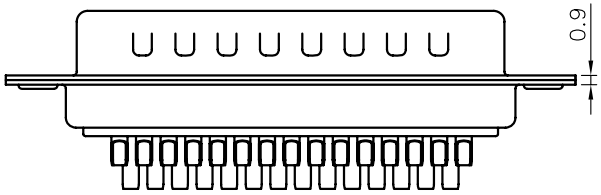
7	Plastic
8	Terminal
9	Plating
10~12	UL Card
13~17	Plastic SGS
18	Terminal SGS
19~21	Shell SGS

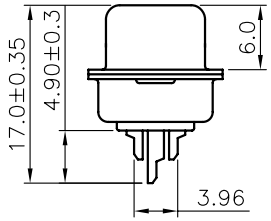


Specifications:
Current Rating:3.0A AC/DC
Voltage Rating:250V AC/DC
Contact Resistance:30m ohm. max.
Insulation Resistance: 5,000M ohm. min.
Withstanding Voltage:1,000V AC For One Minute
Operating Temperature Range:−40°C ~ +85°C
Material and Finish
Insulator:High Temp. Plastic (PBT UL94V−0)
Contact:Copper Alloy Nickel Undercoated,
Selective Gold Plated
Shell:Metal Iron With Tin plated
How To Or
5508−XXP−XX−XX−XX−F1

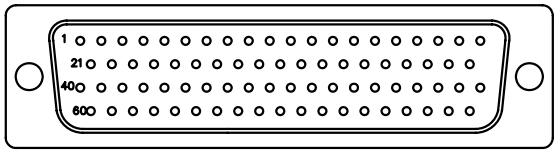
- XX: Blank:Black (Standard); WH:White ;BU:Blue
- XX: Blank:Standard type; CS:Rear Rivet; CC:Front Rivet
- XX: 01:Full Gold Plated; 02:Selective Gold Plated
- P:Male
- XXP: No.Of Positions



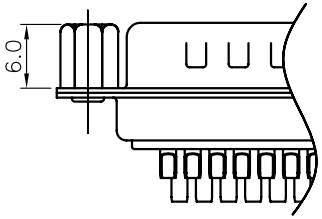




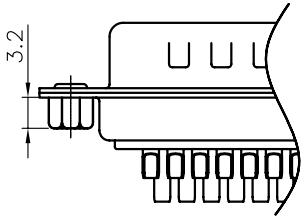
78 Position



CC Type
(Not Thru Hole)



CS Type
(Thru Hole)



Pos	A	B	C	D	E	F
15	16.92	24.99	30.81	2.29	8.36	12.55
26	25.25	33.32	39.14	2.29	8.36	12.55
44	38.96	47.04	53.04	2.29	8.36	12.55
62	55.42	63.50	69.32	2.41	8.36	12.55
78	52.86	61.10	67.10	2.41	11.11	15.40

RoHS Compliant

REV	DATE	FILE	BY
A	16−Oct−2006	(PC0052)	Mary
B			
C			
D			
E			

DRAWN: Cel king
CHECKED: Jeremy Liu
APPROVAL: Mike Wu

GENERAL TOLERANCE:
.X=±0.2
.XX=±0.15

UNIT: mm
SCALE:
SHEET: 1 / 1
PROJECTION:

繼德工業股份有限公司
Neltron Industrial Co., Ltd.

DESCRIPTION: D−SUB High Density Solder Male Type
PART NO: 5508−XXP−XX−XX−XX−F1
SIZE: A4

繼德工業股份有限公司
Neltron Industrial Co., Ltd.

PRODUCT SPECIFICATION

1.Scope

This specification covers the D-SUB High Density Solder Male Type

2.Product name and part number

Product Name	Part Number
D-SUB High Density Solder Male Type	5508-XXP-01-F1

3.Material/Finish

Name	Material	Finish	Color
Plastic	PBT (UL94V-0)		
Terminal	Copper Alloy	Gold Plated	
Shell	Metal Iron	Tin plated	
Other			

*Refer to the drawing.

3.Rating

Item	Standard	
Rated Voltage (MAX.)	250 V	AC/DC
Rated Current (MAX.)	3.0 A	
Ambient Temperature Range	-40℃~+85℃	

*1:Including terminal temperature rise.

4. Component Storage/Shelf Life Info:

Max. duration of storage: _____6_____ months

Packaging method: _____pcs/tray; _____pcs/carton

Recommended storage condition: ____25__°C (temp) & : __75___ %

RH (humidity)

Other special storage instruction:

5.Performance

5-1.Electrical Performance

Item		Test Condition	Requirement
5-1-1	Contact Resistance	Mate applicable the D-SUB High Density Solder Male Type and measure by Dry circuit,20mV MAX.10Ma.	30 mΩ Max
5-1-2	Insulation Resistance	Mate applicable the D-SUB High Density Solder Male Type and apply 1000V DC Between adjacent terminal or ground.	5000M Ω Min

5-1-3	Dielectric Strength	Mate applicable the D-SUB High Density Solder Male Type and apply 1000V AC (rms) for 1 minute between adjacent terminal or ground.	No Breakdown

5-2 Mechanical Performance

Item		Test Condition	Requirement
5-2-1	Insertion and Withdrawal Force	Insert and extract applicable the D-SUB High Density Solder Male Type at the speed rate of 100±3mm/minute	Referred to attached page
5-2-2	Terminal Retention Force	Pull the terminal at the speed Rate of 100±3mm per minute.	0.2 kgf Min

5-3,Environmental Performance and Others

Item	Test Condition	Requirement		
5-3-1	Repeated Insertion Extraction	Insert and extract applicable the D-SUB High Density Solder Male Type up to 10 cycles per minute.	Contact Resistance	30 mΩ Max
5-3-2	Temperature Rise	Carrying rated current load. (UL 498)	Temperature rise	30 ℃ MAX.
5-3-3	Vibration	Amplitude:1.5mm P-P Sweep time:10-55-10 Hz In 1 minute Duration: 2 hours in each X.Y .Z .axes	Appearance	No Damage
			Contact Resistance	30 mΩ Max
			Dis-Continuity	1 μ sec. MAX.
5-3-4	Shock	490m/S^2 (50G),3 strokes in each X, Y, Z axes. (JIS C0041/MIL-STD-202 Method 213)	Appearance	No Damage
			Dis-Continuity	1 μ sec. MAX.
5-3-5	Heat Resistance	85±2℃ 96 hours	Appearance	No Damage
			Contact Resistance	30 mΩ Max
5-3-6	Cold Resistance	-40±2℃ 96 hours	Appearance	No Damage
			Contact Resistance	30 mΩ Max
5-3-7	Humidity	Temperature: 40±2℃ Relative Humidity:90~95% Duration: 96hours	Appearance	No Damage
			Contact Resistance	30 mΩ Max
			Dielectric Strength	Must meet 5-1-3
			Insulation Resistance	5000M Ω Min
5-3-8	Temperature Cycling	5 cycles of: a)-55±3℃ 30 minutes b)+85±2℃ 30 minutes	Appearance	No Damage
			Contact Resistance	30 mΩ Max
5-3-9	Salt Spray	48±4 hours exposure to a salt	Appearance	No Damage

		spray from the 5±1% solution at 35±2℃	Contact Resistance	30 mΩ Max
5-3-10	SO_2 Gas	24 hours exposure to 50±5ppm. SO_2 Gas at 40±2℃	Contact Resistance	30 mΩ Max
5-3-11	NH_3 Gas	40 minutes exposure to NH_3 Gas evaporating from 28% Ammonia solution	Appearance	No Damage
			Contact Resistance	30 mΩ Max
5-3-12	Solder-Ability	Solder Time:5±0.5 sec. Solder Temperature:220±5℃ 1.2mm from terminal tip	Solder Wetting	95% of immersed area must show no voids, pin holes
5-3-13	Resistance To Soldering Heat	Soldering Time:5±0.5 sec. Solder Temperature:220±5℃ 1.2mm from terminal tip	Appearance	No Damage
5-3-14	Soldering Profile 5-3-14-1 Manual soldering 5-3-14-2Wave-soldering	Solder temp:400±5°C Time: 10± 3 sec Soldering temp : 220 ± 5°C Soldering time : 5 ± 0.5 s Perform visual inspection, (item1), No physical damage, Color change and tarnishing is allowed, Electrical characteristics (item2) and Mechanical characteristics (item 3) after the soldering test		*Supplier to provide measured data into the Table 1.*

CHANG CHUN PLASTICS CO LTD
7TH FL 301 SONGKIANG RD TAIPEI TW

Material Designation: **PBT-4130 (a)**

Product Description: Polybutylene Terephthalate (PBT), glass reinforced, designated "LONGLITE" furnished as pellets.

Color	Min. Thick. (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	IEC GWIT	IEC GWFI
ALL	0.74	V-0	4	0	120	120	140	-	-
	1.5	V-0	3	0	120	120	140	-	-
	3.0	V-0	2	0	120	120	140	-	-

CTI: 2 **IEC CTI:** - **HVTR:** 4 **D495:** 7 **IEC Ball Pressure** (°C): 210

Dielectric Strength (kV/mm): 28 **Volume Resistivity** (10^Xohm-cm): 14 **Dimensional Stability**(%): -
ISO Tensile Strength (MPa): - **ISO Flexural Strength** (MPa): - **ISO Heat Deflection** (°C): -
ISO Tensile Impact (kJ/m^2): - **ISO Izod Impact** (kJ/m^2): - **ISO Charpy Impact** (kJ/m^2): -

(a) Ball pressure temperature of 210 C in accordance with IEC.695.10.2 and IEC 950.5.4.10

Report Date: 9/1/1987 Underwriters Laboratories Inc®

UL94 small-scale test data does not pertain to building materials, furnishings and related contents. UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in components and parts of end-product devices and appliances, where the acceptability of the combination is determined by ULI.

試　験　成　績　書
INSPECTION CERTIFICATE

日鉱金属加工株式会社　倉見工場
KURAMI WORKS, NIKKO METAL MANUFACTURING CO., LTD.

需要家　同聞中国
CUSTOMER
扱　先　同聞香港　有限公司
MESSRS.
製品名　C5210R-H（190-210）
PRODUCTS
寸　法　0.25 X 305　X L
SIZE
規　格
SPECIFICATION

発　行　日　2005年08月09日　　0013
DATE OF ISSUE
納品書番号　06298
DELIVERY SHEET NO.
注文番号　NK5-0803
CONTRACT NO.
オーダー番号　08
ORDER NO.

品質保証課長
MANAGER OF QUALITY
ASSURANCE SECTION
Hiroshi Watanabe

化学成分
CHEMICAL CONPOSITIONS

規格 SPECIFICATION		Zn %	Sn %	P %	Fe %	Pb %	Cu+Sn+P %	質量 MASS (KG)
製造番号	MIN		7.0	0.05			99.7	
LOT NO.	MAX	0.20	9.0	0.26	0.05	0.01		
67572		0.01	7.81	0.13	0.003	0.001	99.98	1,286.00

機械的および物理的性質
MECHANICAL AND PHYSICAL PROPERTIES

規格 SPECIFICATION		引張強さ TENSILE STRENGTH N/mm²	伸び ELONGATION %	硬さ HARDNESS HV	バネ限界値 ELASTIC LIMIT N/mm²
製造番号	MIN	590	20.0	190	390
LOT NO.	MAX	705		210	
67572		644	32.4	209	525

寸法検査 DIMENSIONAL INSPECTIONS	GOOD
外観検査 SURFACE INSPECTIONS	GOOD
備考 REMARKS.	

この製品は品質管理計画に基づき製造され、検査・試験を行ない、規格に合格したことを証明する。
WE HEREBY CERTIFY THAT THE PRODUCTS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE SPECIFICATION AND Q.C. PROGRAM.

16	Au/Ni/P-Bronze	(U")07/11 STD	d	Coll.	2	Abs.	1

MEAN TOP COAT	=	1.06u"
STD, DEVIATION	=	0.176u"
NO. OF MEAS.	=	10
MEAN INT COAT	=	54.321u"
STD, DEVIATION	=	3.454u"
NO. OF MEAS.	=	10

T meas = 10 s

LOCATE SPECIMEN		
TO MEASURE	PRESS	" GO "
Xt1=0.009	Xn=	0.079

THICKNESS MEASUREMENT

			Au		Ni
N=	1	THICKNESS=1.08u	=		52.59u"
N=	2	THICKNESS=1.01u	=		54.39u"
N=	3	THICKNESS=1.05u	=		53.54u"
N=	4	THICKNESS=1.06u	=		55.96u"
N=	5	THICKNESS=1.04u	=		53.12u"

2006/10/13

UL Online Certifications Directory

ECBT2.E144392
Connectors for Use in Data, Signal, Control and Power Applications

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Connectors for Use in Data, Signal, Control and Power Applications

See General Information for Connectors for Use in Data, Signal, Control and Power Applications

NELTRON INDUSTRIAL CO LTD E144392
2ND FL
184 CHENG-TEH RD, SEC 4
SHIH-LIN, TAIPEI 111 TAIWAN

Wire to board connectors, Cat. Nos. 1310, 1311, 5289H followed by -02 through -15; Cat. Nos. 8982H, 8980H, 8981H followed by -04; Cat. Nos. 2317RB, 2317RJ, 2317SB, 2317SJ, 2318HB, 2318HJ, 2417RJ, 2417SJ, 2418HJ followed by -02 through -15; Cat. No. 2226A followed by -01 through -40; Cat. No. 2226B followed by -02 through -80; Cat. No. 2221 followed by -06, -12; Cat. No. 2222 followed by -06; Cat. No. 2220 followed by -02 through -16; Cat. Nos. 2217R, 2217S, 2219R, 2219S followed by -02 through -15; Cat. No. 2218H followed by -01 through -15; Cat. No. 2026A followed by -01 through -40; Cat. No. 2026B followed by -02 through -80; Cat. No. 4400 followed by -44; Cat. No. 4401 followed by -10, -14, -16, -20, -24, -26, -30, -34, -40, -50, -60, -64; Cat. No. 4402 followed by -10, -14, -16, -20, -26, -34, -40, -44, -50, -60, -64; Cat. No. 4403 followed by -10, -14, -16, -20, -26, -30, -34, -40, -50, -60; Cat. No. 4404 followed by -14, -16, -18, -20; Cat. No. 4405 followed by -10, -14, -16, -20, -26; Cat. No. 4406 followed by -10, -14, -16, -20, -24, -26, -30, -34, -40, -50, -60, -64; Cat. No. 4501 followed by -20, -26, -32, -34, -40, -50, -52, -60, -68, -80, -100; Cat. No. 1200 followed by -03 through -09; Cat. No. 1005 followed by -50, -100.

P.C.B connectors, Cat. No. 2162 followed by -16, -18, -20, -24; Cat. No. 2227 followed by -08, -14, -16, -18, -20, -24, -28, -40; Cat. No. 6605 followed by -72; Cat. No. 6602 followed by -30, -60; Cat. Nos. 1007, 1008 followed by -14, -20, -26, -30, -40, -50, -60, -68, -80, -100; Cat. No. 6601 followed by -20, -28, -32, -44, -52, -68, -84; Cat. No. 6603 followed by -68, -84, -85, -114, -121, -132; Cat. No. 1201 followed by -03 through -08; Cat. No. 1202 followed by -05; Cat. No. 2416S followed by -20, -26, -32, -34, -40, -50, -52, -60, -68, -80, -100; Cat. Nos. 2216R, 2216S followed by -10, -12, -14, -16, -20, -24, -26, -30, -34, -40, -50, -56, -60, -64; Cat. Nos. 2516R, 2516S followed by -20, -26, -32, -34, -40, -50, -52, -60, -68, -80, -100; Cat. Nos. 2223R, 2223S followed by -02 through -21; Cat. No. 2323S followed by -02 through -20; Cat. No. 2316S followed by -10, -14, -16, -20, -26, -30, -34, -40, -50, -60, -64; Cat. No. 2525 followed by -10, -12, -20, -30, -40, -50, -60, -80, -100, -120; Cat. No. 2314S followed by -20, -26, -32, -34, -40, -50, -52, -60, -68, -80, -100; Cat. No. 2224 followed by -02 through -15; Cat. Nos. 2211R, 2211S followed by -01 through -40.

Cat. Nos. 2213R, 2213S followed by -02 through -80; Cat. No. 2212S followed by -02 through -40; Cat. No. 2214S followed by -02 through -80; Cat. Nos. 2215R, 2215S followed by -10, -12, -16, -18, -20, -26, -30, -34, -40, -50, -60; Cat. No. 2225 followed by -36, -44, -50, -62, -80, -86, -100; Cat. No. 2207S followed by -02 through -80; Cat. Nos. 2208R, 2208S followed by -02 through -80; Cat. No. 2209S followed by -01 through -40; Cat. Nos. 2210R, 2210S followed by -01 through -40; Cat. No. 2206S followed by -01 through -30; Cat. No. 41612 followed by -32, -48, -64, -96.

Mini jumpers, Cat. Nos. 2205, 2228 followed by -02.

Wire to wire connectors, Cat. No. 8182 followed by -04; Cat. Nos. 5005, 5006 followed by -01, -02, -03, -04A, -04B, -05, -06, -09, -12, -15.

D-Sub connectors, Cat. Nos. 5514P, 5514R followed by -13; Cat. Nos. 5512P, 5512S followed by -15, -26, -44, -62; Cat. No. 5511 followed by -09, -15, -25; Cat. No. 5510 followed by -15; Cat. Nos. 5509P, 5509S followed by -15, -26, -62; Cat. Nos. 5508P, 5508S followed by -15, -26, -44, -62; Cat. Nos. 5506P, 5506S followed by -09, -15, -25, -37; Cat. Nos. 5504PF1, 5504SF1, 5504SF2, 5505F1, 5505F2, 5503S, 5503P followed by -09, -15, -25, -37; Cat. Nos. 5501P, 5501S, 5502 followed by -09, -15, -19, -23, -25, -37, -50.

Centronic connectors, Cat No. 5701 followed by -14, -24, -36; Cat. Nos. 5702, 5703, 5706 followed by -40; Cat. No. 5704 followed by -30; Cat. No. 5707 followed by -20.

Scart connectors, Cat. Nos. 1109, 1111, 1113 followed by -21; Cat. Nos. 1009, 1011, 1013 followed by -21; Cat. Nos. 1114R, 1114S followed by -21.

Connectors, Model No. 1002S followed by 30, 40, 50, 60 or 68; Model No. 1003-P-50; Model No. 1010 followed by 50 or 68, followed by P-PN; Model No. 1211 followed by 04, 06 or 08, followed by 04, 06 or 08; Model No. 1223 followed by -04 through 30, followed by 02 or 03; Model No. 1224S followed by 04 through 27; Model No. 1224SM followed by 04 through 30; Model No. 1230S followed by 04 through 15; Model No.1230R followed by 04 through 30; Model No. 1250HM followed by 02 through

15; Model No. 1251SM followed by 02 through 15; Model No. 1251RM followed by 02 through 15; Model No. 1251S followed by 02 through 15, followed by SMD; Model No. 1251R followed by 02 through 15, followed by SMD; Model No. 1310H followed by 02 through 15; Model No. 1394-06; Model No. 1778 followed by 16, 20, 22, 24, 28, 30, 32, 40, 42, 48, 52, 54, 56 or 64, followed by 03, 04 or 06; Model No. 1778MC followed by 16, 20, 24, 28, 30, 40, 42, 48, 52, 56 or 64, followed by 03, 04, 06 or 075; Model No. 1999P followed by 04 through 80; Model No. 1999S followed by 04 through 120, followed by A1, A2 or A3, followed by B1, B2 or B3; Model No. 2006H followed by 01, through 06; Model No. 2006S followed by 01 through 05; Model No. 2010 followed by 10 through 12, followed by H1, H2, H3 or H4; Model No. 2011-10; Model No. 2016 followed by 10, 12, 14, 16, 20, 22, 24, 26, 30, 34, 36, 40, 44, 50, 60, 64 or 68; Model No. 2018 followed by P or R, followed by 02 through 12; Model No. 2099P followed by 04 through 10; Model 2099S followed by 04 through 14; Model No. 2100P followed by 06 through 20; Model 2100S followed by 04 through 10; Model No. 2110 followed by 20, 30, 40, 50, 60, 80 or 100, followed by 34 or 44, followed by MM; Model No. 2114 followed by R, H or S, followed by 02 through 10; Model No. 2150-08; Model No. 2198S followed by 10, 24, 30, 40, 44, 50, 60, 70, 80, 90 or 100, followed by A1 or A2; Model No. 2199SA followed by 04 through 30, followed by 01 through 03; Model No. 2199SB followed by 02 through 10, followed by A1, A2 or A3, followed by B1 or B2, followed by C1 or C2; Model No. 2199R followed by 0 or 5, followed by 04 through 30, followed by A1, A2 or A3, followed by B1 or B2, followed by C1 or C2; Model No. 2200SA followed by 05 through 50, followed by A1 or A2; Model No. 2200SB followed by 10 through 50, followed by A1 or A2; Model No. 2204 followed by S or R, followed by 02 through 30; Model No. 2206SA followed by 01 through 36, followed by 46; Model No. 2206SB followed by 02 through 16, followed by 46; Model No. 2206PA followed by 01 through 36, followed by 739; Model No. 2206PB followed by 02 through 50, followed by 739; Model No. 2227MC followed by 06, 08, 10, 14, 16, 18, 20, 22, 24, 28, 32, 36, 40, 42, 48 or 64, followed by 03, 06 or 09; Model No. 2233 followed by S or R, followed by 03 through 120; Model No. 2317 followed by SEH or REH, followed by 02 through 15; Model No. 2317 followed by RM or SM, followed by 02 through 10; Model No. 2318 followed by HM or HEH, followed by 02 through 15; Model No. 2323 followed by R or S, followed by 04 through 23, followed by A or B; Model No. 1016 followed by 09 or 15; Model No. 2007H followed by 02 through 06; Model No. 2007S followed by 02 through 05; Model No. 2324S followed by 04 through 22; Model No. 2324R followed by 03 through 30; Model No. 2392-5100; Model No. 2417 followed by SB or RB, followed by 02 through 08; Model No. 2418HB followed by 02 through 15; Model No. 3750R followed by 02 through 12; Model No. 3750S followed by 02 or 03; Model No. 3920 followed by 02, 03, 04, 06, 09 or 12; Model No. 3921 followed by 02, 03, 04, 06, 09 or 12; Model No. 41815 followed by R, S or BE, followed by 02 through 10; Model No. 4407 followed by 10, 14, 16, 20, 26, 34, 40, 50, 60 or 64; Model No. 4408 followed by 10, 12, 16, 20, 24, 26, 30, 34, 40 or 44; Model Nos. 5075AS-04, 5075BR-04, 5075AR-08B, 5075AR-04; Model No. 5197H followed by 02 through 12; Model No. 5197 followed by S or R, followed by 02 through 04, may be followed by 01; Model No. 5504F3-09P; Model No. 5513S followed by 3W3, 5W1, 7W2, 8W8, 11W1 or 13W3; Model No. 5515-13W3; Model No. 5557 followed by 02, 04, 06, 08, 10, 12, 14, 16, 18 or 20; Model No. 5559 followed by 02, 04, 06, 08, 10, 12 or 14; Model No. 5566S followed by 02, 04, 06, 08, 10,12, 14, 16, 18 or 20; Model No. 5569R followed by 02, 04, 06, 08, 10, 12, 14, 16, 18 or 20, may be followed by 01; Model No. 6127 followed by S or P, followed by 02 through 31; Model No. 6604P followed by 01 through 40, followed by 9.1, 10.0, 10.6, 12.1 or 13.7; Model No. 6604S followed by 01 through 40, may be followed by WR; Model No. 6610-321; Model No. 6610P-321, 6615-168-LE; Model No. 8981 followed by SA, SM or R, followed by 04; Model No. 8982S followed by 02 through 08; Model No. SQJ followed by 24S, 26S, 28S, 28L, 32S or 40L; Model No. 4410-40.

Models 5589, 5321, 5592, 5594.

Low voltage connectors, Cat. No. 2350SM-02.

Cat. No. 225SM followed by 20, followed by 01; Cat. No. 1226 followed by 30, followed by 02 or 03; Cat. No. 1254SMB followed by 10, 20, 30 or 40; Cat. Nos. 1394S-06, 1394R-06; Cat. No. 1394SM followed by 04; Cat. No. 1394UR followed by 06; Cat. No. 1500 followed by S or R, followed by 2 through 10; Cat. No. 2000P, followed by 14G, 20G, 30G, 32G, 36G, 40G or 50G, followed by 233; Cat. No. 2001S, followed by 14G, 20G, 30G, 32G, 36G, 40G or 50G, followed by 220; Cat. No. 2212BR followed by 30, followed by G or T; Cat. No. 2212SM followed by 40G, followed by 75; Cat. No. 2214SM followed by 70G, followed by 75; Cat. No. 2214BR followed by 26, followed by G or T; Cat. No. 2214DS followed by 20, followed by 66; Cat. No. 2214TB followed by 2, 4, 6, 8, 10, 12, 14, 16, 18 or 20; Cat. No. 2214113 followed by 64G, followed by 1A, 1B, 2B, 3B, 1C, 2C, 3C or 4C; Cat. No. 2227P followed by 20G, 24G, 28 or 32G, followed by 03 or 06; Cat. No. 2228P followed by 2 through 10; Cat. No. 2234S followed by 96; Cat. No. 2316113 followed by 64G, followed by A, B or C; Cat. No. 231682-3404 followed by 001 through 006; Cat. No. 2317 followed by SD or RD, followed by 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 or 16; Cat. No. 2325 followed by 18/36, 20/40, 22/44, 28/56, 30/60, 36/72, 40/80, 43/86 or 50/100, followed by L1 or L2; Cat. No. 2392-5100; Cat. No. 2400SM followed by 02, 03 or 04, maybe followed by T1, T2 or T3; Cat. No. 2417 followed by SJ or RJ, followed by 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30 or 32, followed by PHD; Cat. No. 2425 followed by 40, 44, 56, 60, 86 or 100, followed by L1 or L2; Cat. No. 2525 followed by 200; Cat. No. 2526-242-SLOT1; Cat. No. 2710-06 followed by one alphanumeric digit; Cat. No. 4110SM followed by 07, followed by A1, A2 or A3, followed by M; Cat. No. 4120SM followed by 09; Cat. No. 4130SM followed by 10; Cat. Nos. 5075BMR-04-SM, 5075BMR-05-SM, 5075AMR1-04-SM; Cat. No. 5075BS followed by 04, followed by WH; Cat. No. 5075AUR followed by 04; Cat. Nos. 5075ARP-04, 5075ARP-04-SMD; Cat. No. 5198 followed by S or R, followed by 2 through 10; Cat. No. 6604SB followed by 40WR; Cat. No. 6801S followed by 50, followed by 70; Cat. No. 6831S followed by 40; Cat. No. 7520SL followed by 50P, followed by A, B, C or D; Cat. No. 7520 followed by 50P, followed by T1B3; Cat. Nos. ICA-501-006, ICA-501-008.

Cat. No. 1320H followed by 02 through 12; Cat. No. 5560 followed by 02, 04, 06, 08, 10, 12, 14, 16 or 18; Cat. No. 5561 followed by 02, 04, 06, 08, 10, 12, 14, 16 or 18; Cat. No. 5561S followed by 02, 04, 06, 08, 10, 12, 14, 16, 18; Cat. No. 5561S followed by 02, 04, 06, 08, 10, 12, 14, 16 or 18, followed by T, followed by SM or SM1; Cat. No. 5561R followed by 02, 04, 06, 08, 10, 12, 14, 16, 18; Cat. No. 5561R followed by 02, 04, 06, 08, 10, 12, 14, 16 or 18, followed by T, followed by SM, SM1 or SM2; Cat. No. 9200P followed by 4B, 6, 9, 12 or 15; Cat. No. 9200R followed by 4B, 6, 9, 12 or 15; Cat. No. 9635P, followed by 09, 12 or 15; Cat. No. 9635R followed by 09, 12 or 15; Cat. No. 2363P followed by 01, 02, 06, 04, 05, 06, 09, 12 or 15, followed by A, followed by 01 or blank; Cat. No. 2363R followed by 01, 02, 06, 04, 05, 06, 09, 12 or 15, followed by A, followed by 01; Cat. Nos. 2650P-08, 2650R-08.

Marking: Company name or trademark NELTRON and catalog or model designation.

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Questions? Notice of Disclaimer Page Top

SGS

Test Report

No.: GZ0608127443A/CHEM-2 Date: AUG 28, 2006 Page 1 of 5

NELTRON INDUSTRIAL CO., LTD
SCIENCE SERVICE PLAZA,HENGKE SECOND ROAD,TANGXIA TOWN,DONGGUAN CITY,GUANGDONG PROVINCE,CHINA

Report on the submitted sample said to be Connector Material PBT
Client Reference: P/N:See remark

SGS Ref No.	: SZ10034362-8.8
Sample Receiving Date	: AUG 16, 2006
Testing Period	: AUG 16, 2006 TO AUG 22, 2006

Test Requested : (1) As specified by client, to determine the Lead, Cadmium, Mercury & Hexavalent Chromium content in the submitted sample.
(2) Determination of PBBs (Polybrominated Biphenyls), PBDEs (Polybrominated Diphenylethers) of the submitted sample.

Test Method : (1) Lead content - With reference to EPA 3050B: 1996 & other acid digestion.
Cadmium content - With reference to BS EN1122: 2001 method B & other acid digestion.
Mercury content - With reference to EPA 3052: 1996 & EPA 7473: 1998 & other acid digestion.
Hexavalent Chromium content - With reference to EPA 3060A: 1996 & EPA 7196A: 1992.
Analysis was performed by Atomic Absorption Spectrometer & Inductively Coupled Plasma Atomic Emission Spectrometer (ICP-AES) & Direct Mercury analyzer & UV-VIS Spectrophotometer.
(2) With reference to EPA 3540C & EPA 3550C. Analysis was performed by GC-MS.

Results : Please refer to next page.

Signed for and on behalf of
SGS-CSTC Ltd.

Wang HongLei, Leo
Sr. Engineer

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Results :

(1)

Item	Unit	MDL	Black plastic part
Lead Content (Pb)	mg/kg	2	21
Cadmium Content (Cd)	mg/kg	2	N.D.
Mercury Content (Hg)	mg/kg	2	N.D.
Hexavalent Chromium Content [Cr(VI)]	mg/kg	2	N.D.

Note : - N.D. = Not Detected (< MDL)
- MDL = Method Detection Limit
- mg/kg = ppm

(2)

Item	Unit	MDL	Black plastic part
Flame Retardants			
Polybrominated Biphenyls (PBBs)			
Monobromobiphenyl	mg/kg	5	N.D.
Dibromobiphenyl	mg/kg	5	N.D.
Tribromobiphenyl	mg/kg	5	N.D.
Tetrabromobiphenyl	mg/kg	5	N.D.
Pentabromobiphenyl	mg/kg	5	N.D.
Hexabromobiphenyl	mg/kg	5	N.D.
Heptabromobiphenyl	mg/kg	5	N.D.
Octabromobiphenyl	mg/kg	5	N.D.
Nonabromodiphenyl	mg/kg	5	N.D.
Decabromodiphenyl	mg/kg	5	N.D.
Polybrominated Diphenylethers (PBDEs)			
Monobromodiphenyl ether	mg/kg	5	N.D.
Dibromodiphenyl ether	mg/kg	5	N.D.
Tribromodiphenyl ether	mg/kg	5	N.D.
Tetrabromodiphenyl ether	mg/kg	5	N.D.
Pentabromodiphenyl ether	mg/kg	5	N.D.
Hexabromodiphenyl ether	mg/kg	5	N.D.
Heptabromodiphenyl ether	mg/kg	5	N.D.
Octabromodiphenyl ether	mg/kg	5	N.D.
Nonabromodiphenyl ether	mg/kg	5	N.D.
Decabromodiphenyl ether	mg/kg	5	N.D.

Note : - N.D. = Not Detected (< MDL)
- MDL= Method Detection Limit
- mg/kg = ppm
- Photo appendix is included

*** End of Report ***

PBT MATERIAL:							
NO	P/N	MATERIAL	NO	P/N	MATERIAL	P/N	MATERIAL
1	1201(V)-XX-5M(-SL)-FX	PBT	31	41612-32AB(48ABC/64AB/96ABC)-XX-FX	PBT	5514P(S)-XXWXX-FX	PBT
2	1202S-XX-0505(-M)(-XX)-FX	PBT	32	4400-XX(SR)	PBT	5515P(S)-XXWXX-FX	PBT
3	1211-XX/XX-FX	PBT	33	4401-XXSR-FX	PBT	6801S-XX-XX-FX	PBT
4	1230S(R)-XX-FX	PBT	34	4402-XXSR-FX	PBT	6803S-XX-XX-FX	PBT
5	1394R(S/UR)-XX(-TC)-FX	PBT	35	4403-XX-FX	PBT	7002-XPXC-FX	PBT
6	1600H(HB) Series (-FX)	PBT	36	4404A(B)-XX-FX	PBT	7005-XPXC-FX	PBT
7	1778MC(P/S)-XX-XX(-114)-FX	PBT	37	4405-XX-FX	PBT	7006-XPXC-FX	PBT
8	2205XX-FX	PBT	38	4406-XX-FX	PBT	7007-XPXC-FX	PBT
9	6901Series -(FX)	PBT	39	4407-XX-FX	PBT	7008-XPXC-FX	PBT
10	2208DI(S/R)-XXG(-XXX)	PBT	40	4408-XX-FX	PBT	7010V-X-XPXC-FX	PBT
11	2210S(R/DI)-XXG(-XXX)	PBT	41	4410-40SR-XX-FX	PBT	7062-XPXC-FX	PBT
12	2211DI(S/R/U)-XXG(03T)-XXG(LP/774/954)-FX	PBT	42	4412-XX	PBT	7250S-XPXC-FX	PBT
13	2212(2214)TBA-XXX-XXX(Height)	PBT	43	4415-XX	PBT	7290-XPXC-FX	PBT
14	2212111-XXG-XX-FX	PBT	44	4501-XXSR-FX	PBT	7666-2-6PXC-FX	PBT
15	2212S(BR/CS/DS/TB)-XXG(SG)-XX(86/66/36/57/85)-FX	PBT	45	5075AR(ARP/ARRP/AS/AUR)-08B(12C/16D)-XX	PBT	7731-8824-XXX-FX	PBT
16	2213DI(S/R)-XXG-XX(774/954)-FX	PBT	46	5075BR(BRP/BS)-04-XX	PBT	7801R-XX-70-FX	PBT

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17	2214113-XXG-XX-FX	PBT	47	5501 Sseries -(FX)	PBT	7803R-XX-70-FX	PBT
18	2214BR(CS/DS/R/S/TB)-XXG(SG)-XX(86/66/85/36/57)-FX	PBT	48	5502 Series -(FX)	PBT	7810-XPXC-FX	PBT
19	2215S(R)-XXG-FX	PBT	49	5503 Series -(FX)	PBT	7907-X-XPXC-FX	PBT
20	2216S(R)-XXG-XX	PBT	50	5504F1 Series -(FX)	PBT	7908-X-XPXC-FX	PBT
21	2223S(R)-XX-FX	PBT	51	5504F1(FX) Series -(FX)	PBT	7950-XPXC-FX	PBT
22	2225ME(R/S)-XX(-XX)-FX	PBT	52	5504F1C Series -(FX)	PBT	95001-X-XPXC-FX	PBT
23	2227(P)-XX-XX-FX	PBT	53	5504F2 Series -(FX)	PBT	AY222-AY224	PBT
24	2228P-XXG-FX	PBT	54	5506 Series -(FX)	PBT	81XS(R/SMAP/XX)-XXX-(FX)	PBT
25	2228XG-FX	PBT	55	5508 Series -(FX)	PBT	921XS(R/SM/P/XX)-XXX-(FX)	PBT
26	2233S(R)-XXG-FX	PBT	56	5509 Series -(FX)	PBT	376XS(R/SM/P/XX)-XX-(FX)	PBT
27	2234S-XXG-FX	PBT	57	5510 Series -(FX)	PBT	121XS(R/SM/P/XX)-XX-(FX)	PBT
28	2316S(R)-XXG-FX	PBT	58	5510C Series -(FX)	PBT	201XS(R/SM/P/XX)-XXX-(FX)	PBT
29	2323S(R)-XX-FX	PBT	59	FO-X-00(02/04)-XX-FX	PBT	702XS(R/SM/P/XX)-XXX-XX-(FX)	PBT
30	2324S(R)-XX-FX	PBT	60	5511-HD15F-3PJ-FX	PBT	451XS(R/SM/P/XX)-XXX-XX-(FX)	PBT
91	2325-XX-XX-FX	PBT	96	5511-HD15FMD6SX2-FX	PBT	511XS(R/SM/P/XX)-XXX-XX-(FX)	PBT
92	5511-25S-09PHD15S-FX	PBT	97	5511-XXM/XXM-XX-XX-FX	PBT	681XS(R/SM/P/XX)-XXX-XX-(FX)	PBT

93	2392(R1)-2100-FX	PBT	98	5512 Series -(FX)	PBT	TAE-06-30	PBT
94	2425-XX-XX-FX	PBT	99	5513P(S)-XXWXX-FX	PBT		
95	3750A(C/G/H/S/R)-XX	PBT	100	5504F3Series-(FX)	PBT		

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Test Report No.: GZ0601009963/CHEM Date: FEB 06, 2006

DOHO METAL PRODUCTS (DONGGUAN) CO., LTD
XI XING JIE, XI HU GONG YE YUAN, LIN CUN, TANG XIA ZHEN, DONG GUAN SHI, GUANG DONG PROVINCE, CHINA.

Report on the submitted sample said to be C5210R

SGS Ref No. : SZ060103348RS-6 2
Sample Receiving Date : JAN 26, 2006
Testing Period : JAN 26, 2006 TO FEB 06, 2006

Test Requested : As specified by client, to determine the Lead, Cadmium, Mercury & Hexavalent Chromium content in the submitted sample.

Test Method : Lead content - With reference to EPA method 3050B: 1996 / other acid digestion
Cadmium content - With reference to BS EN1122: 2001 method B / other acid digestion
Mercury content - With reference to EPA 3052: 1996 / other acid digestion.
Hexavalent Chromium content - With reference to EPA 3060A: 1996 & EPA 7196A: 1992
Analysis was performed by Atomic Absorption Spectrometer / Inductively Coupled Plasma Atomic Emission Spectrometer (ICP-AES) / UV-VIS Spectrophotometer

Results :

Item	Unit	MDL	Coppery metal sheet
Lead Content (Pb)	ppm	2	26
Cadmium Content (Cd)	ppm	2	N.D.
Mercury Content (Hg)	ppm	2	N.D.
Hexavalent Chromium (Cr VI)	ppm	2	N.D.

Note : - N.D. = Not Detected (< MDL)
- MDL= Method Detection Limit
- ppm = mg/kg

*** End of Report ***

Signed for and on behalf of
SGS-CSTC Ltd.

Huang Fang, Sunny
Sr. Engineer

GZCM 551796

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Test Report

No.: GZ0603029135/CHEM Date: MAR 15, 2006 Page 1 of 3

HUNG YICK METAL COMPANY LIMITED
UNITS 101-108, 1/F, EAST OCEAN CENTRE, 98 GRANVILLE ROAD, TSIMSHATSUI, KOWLOON, HONG KONG

Report on the submitted sample said to be COLD ROLLED STEEL SHEET IN COIL (SPCC-SD)

SGS Ref No.	: GZ060305731EC-15.1
Supplier	: HUNG YICK METAL COMPANY LIMITED
Manufacturer	: CHINA STEEL CORPORATION
Sample Receiving Date	: MAR 13, 2006
Testing Period	: MAR 13, 2006 TO MAR 15, 2006

Test Requested : (1) As specified by client, sample 1: to determine the Lead, Cadmium & Mercury content in the submitted sample.
(2) Sample 1: Determination of PBBs (Polybrominated Biphenyls), PBDEs (Polybrominated Diphenylethers) of the submitted sample.
(3) As specified by client, sample 2: to determine the Hexavalent Chromium content in the submitted sample.

Test Method : (1) Lead content - With reference to EPA method 3050B: 1996 / other acid digestion.
Cadmium content - With reference to BS EN1122: 2001 method B / other acid digestion.
Mercury content - With reference to EPA 3052: 1996 / other acid digestion.
Analysis was performed by Atomic Absorption Spectrometer / Inductively Coupled Plasma Atomic Emission Spectrometer (ICP-AES).
(2) With reference to EPA 3540C / 3550C. Analysis was performed by GC/MS.
(3) Hexavalent Chromium content - With reference to EPA 3060A : 1996 & EPA 7196A : 1992. Analysis was performed by UV-VIS Spectrophotometer.

Results : Please refer to next page.

Signed for and on behalf of
SGS-CSTC Ltd.

Zhang Li, Amy
Sr. Engineer

HONG YICK METAL CO. LTD.

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Test Report

No.: GZ0603029135/CHEM Date: MAR 15, 2006 Page 2 of 3

Results :

(1)

Item	Unit	MDL	No.1
Lead Content (Pb)	ppm	2	4
Cadmium Content (Cd)	ppm	2	N.D.
Mercury Content (Hg)	ppm	2	N.D.

Note : - N.D. = Not Detected (< MDL)
- MDL = Method Detection Limit
- ppm = mg/kg

(2)

	No.1
Flame Retardants	
Polybrominated Biphenyls (PBBs)	
Monobromobiphenyl	N.D.
Dibromobiphenyl	N.D.
Tribromobiphenyl	N.D.
Tetrabromobiphenyl	N.D.
Pentabromobiphenyl	N.D.
Hexabromobiphenyl	N.D.
Heptabromobiphenyl	N.D.
Octabromobiphenyl	N.D.
Nonabromodiphenyl	N.D.
Decabromodiphenyl	N.D.
Polybrominated Diphenylethers (PBDEs)	
Monobromodiphenyl ether	N.D.
Dibromodiphenyl ether	N.D.
Tribromodiphenyl ether	N.D.
Tetrabromodiphenyl ether	N.D.
Pentabromodiphenyl ether	N.D.
Hexabromodiphenyl ether	N.D.
Heptabromodiphenyl ether	N.D.
Octabromodiphenyl ether	N.D.
Nonabromodiphenyl ether	N.D.
Decabromodiphenyl ether	N.D.

Note : - N.D. = Not Detected (< 5 ppm)
- ppm = mg/kg
- Results of Pb, Cd, Hg, PBBs, PBDEs refer to test report GZ0603023197/CHEM.

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Test Report No.: GZ0603029135/CHEM Date: MAR 15, 2006 Page 3 of 3

(3)

Item	Unit	MDL	No.2
Hexavalent Chromium Content [Cr(VI)]	ppm	2	N.D.

Note : - N.D. = Not Detected (< MDL)
- MDL = Method Detection Limit
- ppm = mg/kg

Specimen Description:
No.1 Silvery gray metal sheet
No.2 Silvery-gray metal sheet

*** End of Report ***

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