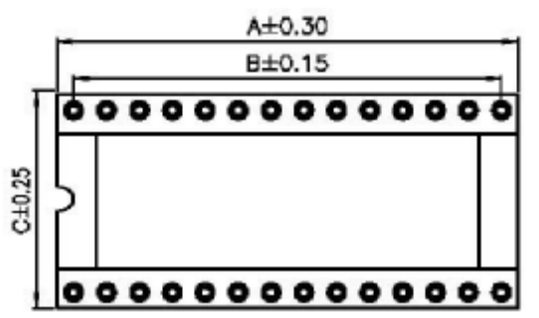
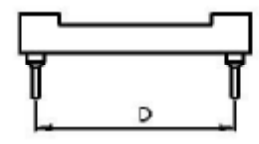
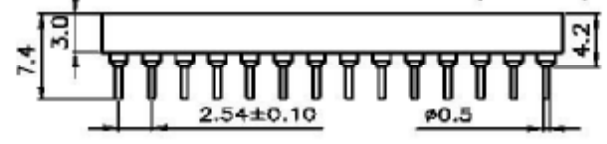
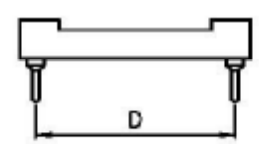
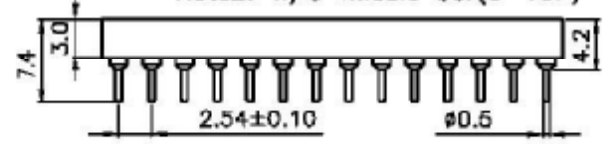


Note1: With middle bar(18-64P)

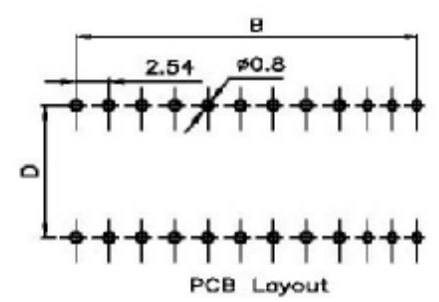


Note2: W/O middle bar(6-16P)



Circuits	DIM.A	DIM.B	DIM.C	DIM.D	Spacing
6	7.62	5.08	10.16	7.62	03
8	10.16	7.62	10.16	7.62	
14	17.78	15.24	10.16	7.62	
18	20.32	17.78	10.16	7.62	
20	25.40	22.86	10.16	7.62	
24	30.48	27.94	10.16	7.62	
28	35.56	33.02	10.16	7.62	04
22	27.94	25.40	12.70	10.16	
24	30.48	27.94	17.78	15.24	06
28	35.56	33.02	17.78	15.24	
32	40.64	38.10	17.78	15.24	
40	50.80	48.26	17.78	15.24	
42	53.34	50.80	17.78	15.24	
48	60.96	58.42	17.78	15.24	
64	81.28	78.74	26.00	22.86	09

Specifications:
 Current rating:1.0A AC/DC
 Voltage rating:100V AC/DC
 Contact resistance:10m ohm. max.
 Insulator resistance:5,000M ohm. Min.
 Withstanding voltage:600V AC for one minute
 Operating temperature range:-40°C to +105°C
 Material and Finish:
 Insulator:High Temp. Plastic(UL94V-0)
 Contact:Beryllium Copper(Becu)
 Plating:Tin Plated



RoHS Compliant

				DRAWN: AMY SHEN	GENERAL TOLERANCE: .X=±0.2 .XX=±0.15	LEAMAX ENTERPRISE CO.,LTD 易昕企業有限公司	DESCRIPTION: 2.54mm IC Socket Machine Pin	SIZE A4
				CHECKED: JAMES CHEN	UNIT: MM			
				APPROVAL: MIKE WU	SCALE:	PART NO:		
REV	DATE	FILE	BY	PROJECTION:		2121-xxE		

PRODUCT SPECIFICATION

1.Scope

This specification covers the 2.54mm IC Socket Machine Pin

2.Product name and part number

Product Name	Part Number
2.54mm IC Socket Machine Pin	2227MC-XX-XX-F1

3.Material/Finish

Name	Material	Finish	Color
Plastic	PBT (UL94V-0)		Black
Contact Terminal	Becu	Tin Plated	
Sleeve Barrel			

*Refer to the drawing.

3.Rating

Item	Standard	
Rated Voltage (MAX.)	100 V	AC/DC
Rated Current (MAX.)	1.0 A	
Ambient Temperature Range	-40°C~+105°C	

*1: Including terminal temperature rise.

4. Performance

4-1.Electrical Performance

Item		Test Condition	Requirement
4-1-1	Contact Resistance	Mate connectors the 2.54mm IC Socket Machine Pin and measure by dry circuit, 20mV MAX.10mA. (JIS C5402 5.4)	10 mΩ MAX
4-1-2	Insulation Resistance	Mate connectors the 2.54mm IC Socket Machine Pin and apply 600V DC between adjacent terminal or ground. (JIS C5402 5.2/MIL-STD-202 Method 302)	5000MΩ MIN
4-1-3	Dielectric Strength	Mate connectors the 2.54mm IC Socket Machine Pin and apply 600V AC (rms) for 1 minute between adjacent terminal or ground. (JIS C5402 5.1/MIL-STD-202 Method 301)	No Breakdown

4-2 Mechanical Performance

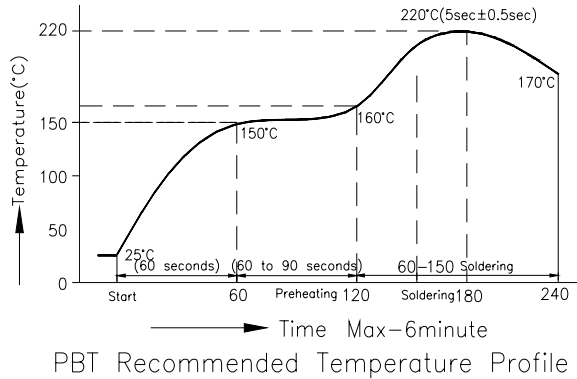
Item		Test Condition		Requirement
4-2-1	Insertion and Withdrawal Force	Insert and withdraw connectors at the speed rate of 25±3mm/minute.	Insertion Force	0.2Kgf/Pin(Max)
			Withdrawal Force	0.1Kgf/Pin(Min)

4-2-2	Terminal Retention Force	Apply axial pull out force at the speed rate of 25±3mm per minute.	0.8 kgf MIN

4-3. Environmental Performance and Others

Item	Test Condition		Requirement	
4-3-1	Repeated Insertion and Withdrawal	When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute.	Contact Resistance	10 mΩ MAX
4-3-2	Temperature Rise	Carrying rated current load. (UL 498)	Temperature rise	20 °C MAX
4-3-3	Vibration	Amplitude:1.5mm P-P Sweep time:10-55-10 Hz In 1 minute Duration: 2 hours in each of X.Y.Z axes (MIL-STD-202 Method 201)	Appearance	No Damage
			Contact Resistance	10 mΩ MAX
			Discontinuity	1μsec. MAX
4-3-4	Shock	490m/S ² (50G),3 strokes in each X, Y, Z axes. (JIS C0041/MIL-STD-202 Method 213)	Appearance	No Damage
			Contact Resistance	10 mΩ MAX
			Discontinuity	1μsec. MAX.
4-3-5	Heat Resistance	105±2°C 96 hours (JIS C0021/MIL-STD-202 Method 108)	Appearance	No Damage
			Contact Resistance	10 mΩ MAX
4-3-6	Cold Resistance	-40±3°C 96 hours (JIS C0020)	Appearance	No Damage
			Contact Resistance	10 mΩ MAX
4-3-7	Humidity	Temperature: 60±2°C Relative Humidity:90~95% Duration: 96hours (JIS C0022/MIL-STD-202 Method 103)	Appearance	No Damage
			Contact Resistance	10 mΩ MAX
			Dielectric Strength	Must meet 4-1-3
			Insulation Resistance	5000MΩ MIN
4-3-8	Temperature Cycling	5 cycles of: a)-55°C 30 minutes b)+105°C 30 minutes (JIS C0025)	Appearance	No Damage
			Contact Resistance	10 mΩ MAX
4-3-9	Salt Spray	12±4 hours exposure to a salt spray from the 5±1% solution at 35±2°C (JIS C0023/MIL-STD-202 Method 101)	Appearance	No Damage
			Contact Resistance	10 mΩ MAX
4-3-10	SO ₂ Gas	24 hours exposure to 50±5ppm. SO ₂ gas at 40±2°C	Appearance	No Damage
			Contact Resistance	10 mΩ MAX
4-3-11	NH ₃ Gas	40 minutes exposure to NH ₃ gas evaporating from 28% Ammonia solution	Appearance	No Damage
			Contact Resistance	10 mΩ MAX
4-3-12	Solder-ability	Solder Time:5±0.5 sec. Solder Temperature:220±5°C	Solder Wetting	75% of immersed area must show no voids, pin holes

4-3-13	Resistance To Soldering Heat	Soldering Time: 5 ± 0.5 sec. Solder Temperature: $220\pm 5^{\circ}\text{C}$	Appearance	No Damage
4-3-14	Soldering Profile 4-3-14-1 Manual soldering 4-3-14-2Wave Soldering	Solder temp: $400\pm 5^{\circ}\text{C}$ Time: 5 ± 0.5 sec Soldering temp : $220 \pm 5^{\circ}\text{C}$ Soldering time : 5 ± 0.5 s Preheating : $150 \pm 10^{\circ}\text{C}$ for 1 to 2 min.		Supplier to provide measured data into the Table 1.



SHINITE™ PBT

性質	METHOD	UNIT	D201	D201G15	D201G30	D202
比重	D792	---	1.31	1.39	1.52	1.40
含水率	D570	%	0.09	0.07	0.07	0.08
模收縮						
流動方向	D955	%	0,8 - 2,0	0,3 - 0,5	0,2 - 0,4	0,8 - 1,9
垂直方向			0,8 - 2,0	0,5 - 0,9	0,5 - 0,9	0,8 - 1,9
抗張強度	D638	kg/cm ²	550	1000	1250	600
伸長率	D638	%	40	4	4	8
彎曲強度	D790	kg/cm ²	850	1600	2100	900
彎曲模數	D790	kg/cm ²	25000	52000	90000	26000
衝擊強度缺口 1/8" (23°C)	D256	kg x cm/cm	4	8	10	4
洛式硬度	D785	R	118	120	120	118
熱變形溫度	D648	°C	65	205	210	70
耐燃性	UL-94	---	HB	HB	HB	V0
介電強度	D149	KV/MM	15	15	20	15
介電常數	D150	---	3	3	4	3
體積電阻	D257	Ω-CM	1.00E+16	1.00E+16	1.00E+16	1.00E+16

性質	METHOD	UNIT	D202G15	D202G20	D202G30	E202G15	E202G30
比重	D792	---	1.49	1.53	1.62	1.50	1.61
含水率	D570	%	0.07	0.07	0.07	0.07	0.07
模收縮							
流動方向	D955	%	0,3 - 0,5	0,3 - 0,5	0,2 - 0,4	0,3 - 0,5	0,2 - 0,4
垂直方向			0,5 - 0,9	0,5 - 0,9	0,5 - 0,9	0,5 - 0,9	0,5 - 0,9
抗張強度	D638	kg/cm ²	950	1100	1300	920	1300
伸長率	D638	%	4	4	4	4	3
彎曲強度	D790	kg/cm ²	1600	1750	1950	1470	2000
彎曲模數	D790	kg/cm ²	60000	70000	95000	56000	93000
衝擊強度缺口 1/8" (23°C)	D256	kg x cm/cm	6	7.5	9	5.5	8.5
洛式硬度	D785	R	120	120	120	120	120
熱變形溫度	D648	°C	200	205	210	205	210
耐燃性	UL-94	---	V0	V0	V0	V0	V0
介電強度	D149	KV/MM	20	20	20	20	20
介電常數	D150	---	3	4	4	3	4
體積電阻	D257	Ω-CM	1.00E+16	1.00E+16	1.00E+16	1.00E+16	1.00E+16

一般級	D201
玻璃纖維強化級	D201G15 D201G30
防火級	D202
玻纖強化防火級	D202G15-G30
玻璃纖維強化級E系列	E202G15-G30

C201, D201G15, D201G30, D202, D202G15-G30 UL File No. E107536 (M)

1. 以上數據僅供參考，實際數據以產品檢驗報告為準。
2. 如有任何特別需求，請洽營業人員，謝謝。



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Date: AUG 20, 2007

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

The following sample(s) was/were submitted and identified on behalf of the applicant as PBT
Client Reference: See Remark

SGS Ref No. : SZ10513594-8.3
Sample Receiving Date : AUG 14, 2007
Testing Period : AUG 14, 2007 TO AUG 20, 2007

Test Requested : In accordance with the RoHS Directive 2002/95/EC, and its amendment directives.

Test Method : With reference to IEC 62321 Ed.1 111/54/CDV
Procedures for the Determination of Levels of Regulated Substances in Electrotechnical Products
(1) Determination of Cadmium by ICP.
(2) Determination of Lead by ICP.
(3) Determination of Mercury by ICP.
(4) Determination of Hexavalent Chromium by Colorimetric Method.
(5) Determination of PBBs and PBDEs by GC-MS.

Test Results : Please refer to next page.

Conclusion : Based on the performed tests on submitted sample(s), the results **comply with** the RoHS
Directive 2002/95/EC and its subsequent amendments.

Signed for and on behalf of
SGS-CSTC Ltd.

Jiang YongPing, Terry
Sr. Engineer

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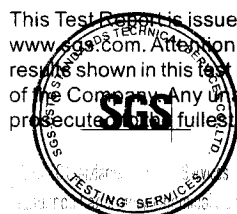
Test results by chemical method (Unit: mg/kg)

Test Item(s):	Method (refer to)	No.1	MDL	RoHS Limit
Cadmium(Cd)	(1)	N.D.	2	100
Lead (Pb)	(2)	15	2	1000
Mercury (Hg)	(3)	N.D.	2	1000
Hexavalent Chromium (CrVI) by alkaline extraction	(4)	N.D.	2	1000
Sum of PBBs		N.D.	-	1000
Monobromobiphenyl		N.D.	5	
Dibromobiphenyl		N.D.	5	
Tribromobiphenyl		N.D.	5	
Tetrabromobiphenyl		N.D.	5	
Pentabromobiphenyl		N.D.	5	
Hexabromobiphenyl		N.D.	5	
Heptabromobiphenyl		N.D.	5	
Octabromobiphenyl		N.D.	5	
Nonabromobiphenyl		N.D.	5	
Decabromobiphenyl		N.D.	5	
Sum of PBDEs (Mono to Nona)(Note 4)	(5)	N.D.	-	1000
Monobromodiphenyl ether		N.D.	5	
Dibromodiphenyl ether		N.D.	5	
Tribromodiphenyl ether		N.D.	5	
Tetrabromodiphenyl ether		N.D.	5	
Pentabromodiphenyl ether		N.D.	5	
Hexabromodiphenyl ether		N.D.	5	
Heptabromodiphenyl ether		N.D.	5	
Octabromodiphenyl ether		N.D.	5	
Nonabromodiphenyl ether		N.D.	5	
Decabromodiphenyl ether		N.D.	5	
Sum of PBDEs (Mono to Deca)		N.D.	-	-

Test Part Description:
No.1 Black plastic grains

- Note :
1. mg/kg = ppm
 2. N.D. = Not Detected (< MDL)
 3. MDL = Method Detection Limit
 4. Sum of Mono to NonaBDE & according to 2005/717/EC DecaBDE is exempt.
 5. "-" = Not regulated

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Remark:

PBT 材質:								
序號	料號	材質	序號	料號	材質	序號	料號	材質
1	1201(V)-XX-5M(-SL)-FX	PBT	36	41612-32AB(48ABC/64AB/96ABC)-XX-FX	PBT	71	5514P(S)-XXWXX-FX	PBT
2	1202S-XX-0505(-M)(-XX)-FX	PBT	37	4400-XX(SR)	PBT	72	5515P(S)-XXWXX-FX	PBT
3	1211-XX/XX-FX	PBT	38	4401-XXSR-FX	PBT	73	6801S-XX-XX-FX	PBT
4	1230S(R)-XX-FX	PBT	39	4402-XXSR-FX	PBT	74	6803S-XX-XX-FX	PBT
5	1394R(S/UR)-XX(-TC)-FX	PBT	40	4403-XX-FX	PBT	75	7002-XPXC-FX	PBT
6	1600H(HB) Series (-FX)	PBT	41	4404A(B)-XX-FX	PBT	76	7005-XPXC-FX	PBT
7	1778MC(P/S)-XX-XX(-114)-FX	PBT	42	4405-XX-FX	PBT	77	7006-XPXC-FX	PBT
8	2205XX-FX	PBT	43	4406-XX-FX	PBT	78	7007-XPXC-FX	PBT
9	6901Series -(FX)	PBT	44	4407-XX-FX	PBT	79	7008-XPXC-FX	PBT
10	2208DI(S/R)-XXG(-XXX)	PBT	45	4408-XX-FX	PBT	80	7010V-X-XPXC-FX	PBT
11	2210S(R/DI)-XXG(-XXX)	PBT	46	4410-40SR-XX-FX	PBT	81	7062-XPXC-FX	PBT
12	2211DI(S/R/U)-XXG(03T)-XXG(LP/774/954)-FX	PBT	47	4412-XX	PBT	82	7250S-XPXC-FX	PBT
13	2212(2214)TBA-XXX-XXX(Height)	PBT	48	4415-XX	PBT	83	7290-XPXC-FX	PBT

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14	2212111-XXG-XX-FX	PBT	49	4501-XXSR-FX	PBT	84	7666-2-6PXC-FX	PBT
15	2212S(BR/CS/DS/TB)-XXG(SG)-XX(86/66/36/57/85)-FX	PBT	50	5075AR(ARP/AR RP/AS/AUR)-08B(12C/16D)-XX	PBT	85	7731-8824-XXX-FX	PBT
16	2213DI(S/R)-XXG-XX(774/954)-FX	PBT	51	5075BR(BRP/BS)-04-XX	PBT	86	7801R-XX-70-FX	PBT
17	2214113-XXG-XX-FX	PBT	52	5501 Sseries -(FX)	PBT	87	7803R-XX-70-FX	PBT
18	2214BR(CS/DS/R/S/T B)-XXG(SG)-XX(86/66/85/36/57)-FX	PBT	53	5502 Series -(FX)	PBT	88	7810-XPXC-FX	PBT
19	2215S(R)-XXG-FX	PBT	54	5503 Series -(FX)	PBT	89	7907-X-XPXC-FX	PBT
20	2216S(R)-XXG-XX	PBT	55	5504F1 Series -(FX)	PBT	90	7908-X-XPXC-FX	PBT
21	2223S(R)-XX-FX	PBT	56	5504F1(FX) Series -(FX)	PBT	91	7950-XPXC-FX	PBT
22	2225ME(R/S)-XX(-XX)-FX	PBT	57	5504F1C Series -(FX)	PBT	92	95001-X-XPXC-FX	PBT
23	2227(P)-XX-XX-FX	PBT	58	5504F2 Series -(FX)	PBT	93	AY222-AY224	PBT
24	2228P-XXG-FX	PBT	59	5506 Series -(FX)	PBT	94	81XS(R/SMAP/XX)-XXX-(FX)	PBT
25	2228XG-FX	PBT	60	5508 Series -(FX)	PBT	95	921XS(R/SM/P/XX)-XXX-(FX)	PBT
26	2233S(R)-XXG-FX	PBT	61	5509 Series -(FX)	PBT	96	376XS(R/SM/P/XX)-XX-(FX)	PBT
27	2234S-XXG-FX	PBT	62	5510 Series -(FX)	PBT	97	121XS(R/SM/P/XX)-XX-(FX)	PBT
28	2316S(R)-XXG-FX	PBT	63	5510C Series -(FX)	PBT	98	201XS(R/SM/P/XX)-XXX-(FX)	PBT
29	2323S(R)-XX-FX	PBT	64	FO-X-00(02/04)-XX-FX	PBT	99	702XS(R/SM/P/XX)-XXX-XX-(FX)	PBT
30	2324S(R)-XX-FX	PBT	65	5511-HD15F-3PJ-FX	PBT	100	451XS(R/SM/P/XX)-XXX-XX-(FX)	PBT

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320M 1545659



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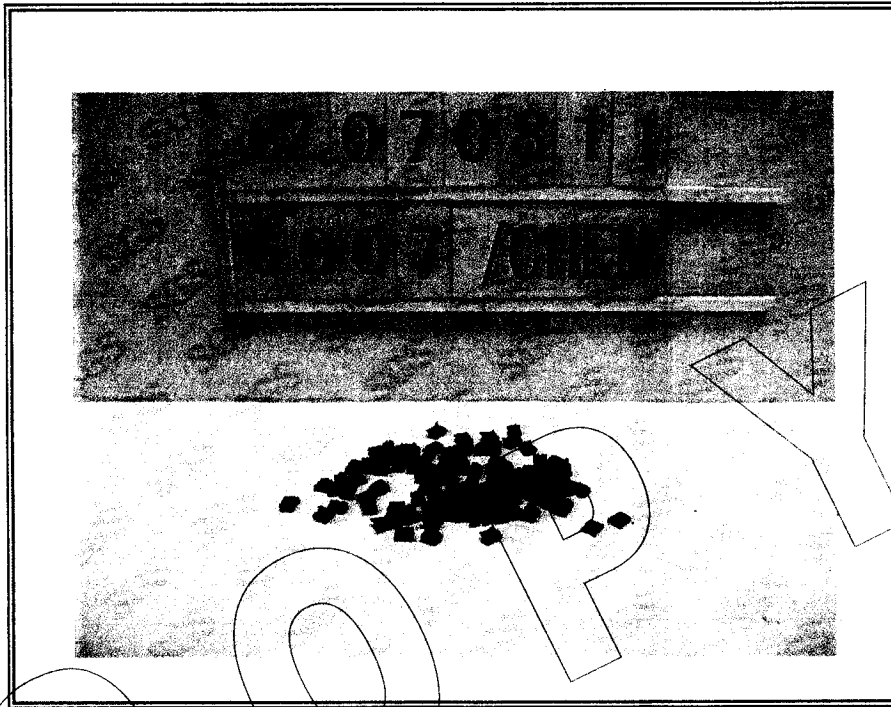
31	2325-XX-XX-FX	PBT	66	5511HD15FMD6S X2-FX	PBT	101	511XS(R/SM/P/XX)- XXX-XX-(FX)	PBT
32	5511-25S-09PHD15S- FX	PBT	67	5511-XXM/XXM- XX-XX-FX	PBT	102	681XS(R/SM/P/XX)- XXX-XX-(FX)	PBT
33	2392(R1)-2100-FX	PBT	68	5512 Series -(FX)	PBT	103	TAE-06-30	PBT
34	2425-XX-XX-FX	PBT	69	5513P(S)-XXWXX -FX	PBT			
35	3750A(C/G/H/S/R)-XX	PBT	70	5504F3Series- (FX)	PBT			

COPY

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3207 1545660

Sample photo :



SGS authenticate the photo on original report only

*** End of Report ***

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BRUSHWELLMAN

ENGINEERED MATERIALS

Page
1 of 2

180 Passaic Avenue, Fairfield, NJ 07004
Phone: 973-227-2552 ; Fax: 973-227-2649

D-3

Ditron Inc.
81 S. Greenhaven Road
Stormville NY 12582

Material Certificate

Date
12/09/2005
Purchase order item/date
18517 / 09/02/2005
Delivery item/date shipped
80289065 900001 / 12/09/2005
Order item/date
167821 000020 / 09/02/2005
Customer nbr Customer part nbr
10228
Customer spec

Rev	Type	Comp	Class	Grade
-----	------	------	-------	-------

Our Material: 600000637 STRIP 25 1/2H .0072 x .3200 TW

Brush Wellman testing for chemical composition (by Optical Emission Spectrometry), is conducted at our Elmore, OH Laboratories. Testing of mechanical, or physical properties is conducted at Laboratories which are accredited by American Association for Laboratory Accreditation.

This material was inspected and tested for conformity as required in accordance with the noted part, specification, and revision number. The quantitative test data obtained from these tests are available for review by the buyer.

Batch 0000477482 / Quantity 4,639 LBS

Characteristic	Unit	Value	Specification Limits	
			Lower	Upper
CDA (UNS) Alloy	-	C17200		
ASTM Temper	-	TD02		

Dimensional Attributes

Gauge	-	0.00720		
Gauge Plus	-	0.00020		
Gauge Minus	-	0.00020		
Width	-	0.32000		
Width Plus	-	0.00300		
Width Minus	-	0.00300		

Mechanical/Physical Properties

Grain Count		7	7	
Grain Size	mm	0.017 0.020		
Tensile	ksi	93.0 95.1	85.0	100.0
Yield @ 0.2% Offse	ksi	85.8 88.8		
Elongation (In 4D	%	21.0 22.0	5.0	
Hardness Scale		DPH		
Hardness Value		210.0 212.0		

The material supplied with this certification has not been heat treated. The following properties were achieved in Brush Wellman's laboratory. They represent what you may expect after heat treating the material, using the time and temperatures shown.

R1 Temper	-	1/2HT		
R1 Heat Treat Time	hrs	2.00	2.00	2.00
R1 Heat Treat Temp	°F	600	600	600

BRUSHWELLMAN

ENGINEERED MATERIALS

Ditron Inc.
81 S. Greenhaven Road
Stormville NY 12582

Delivery item/date
80289065 900001 /
12/09/2005

Page
2 of 2

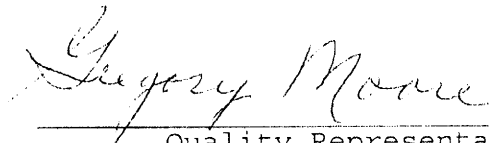
R1 Tensile	ksi	197.6 197.8	185.0	215.0
R1 Yield	ksi	178.2	160.0	
R1 Elongation	%	3.0	1.0	
R1 Hardness Scale	-	DPH		
R1 Hardness Value		398.0 401.0	79.5	

Chemistry Composition

Beryllium	%	1.91
Ni+Co	%	0.23
Ni+Co+Fe	%	0.27
Silicon	%	0.05
Aluminum	%	0.03
Lead	%	0.003
Alloy Balance	-	COPPER

Lot Identification

Heat Number	-	70534
Piece Lot/Coil No.	-	SPOOL #1



Quality Representative



Test Report

No.: GZ0706084214A/CHEM

Date: JUN 25, 2007

Page 1 of 2

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

This report is to supersede test report GZ0706084214/CHEM.

The following sample(s) was/were submitted and identified on behalf of the applicant as Machine Pin 瓜子

SGS Ref No. : SZ10422423-2.2
Sample Receiving Date : JUN 15, 2007
Testing Period : JUN 15, 2007 TO JUN 20, 2007

Test Requested : To determine the Lead content in the submitted sample.

Test Method : With reference to IEC 62321 Ed.1 111/54/CDV
Procedures for the Determination of Levels of Regulated Substances in Electrotechnical Products
(1) Determination of Lead by ICP&AAS.

Test Results : (Unit: mg/kg)

Test Item(s):	Method (refer to)	No.1	MDL
Lead (Pb)	(1)	642	2

Test Part Description:
No.1 Golden/silvery metal

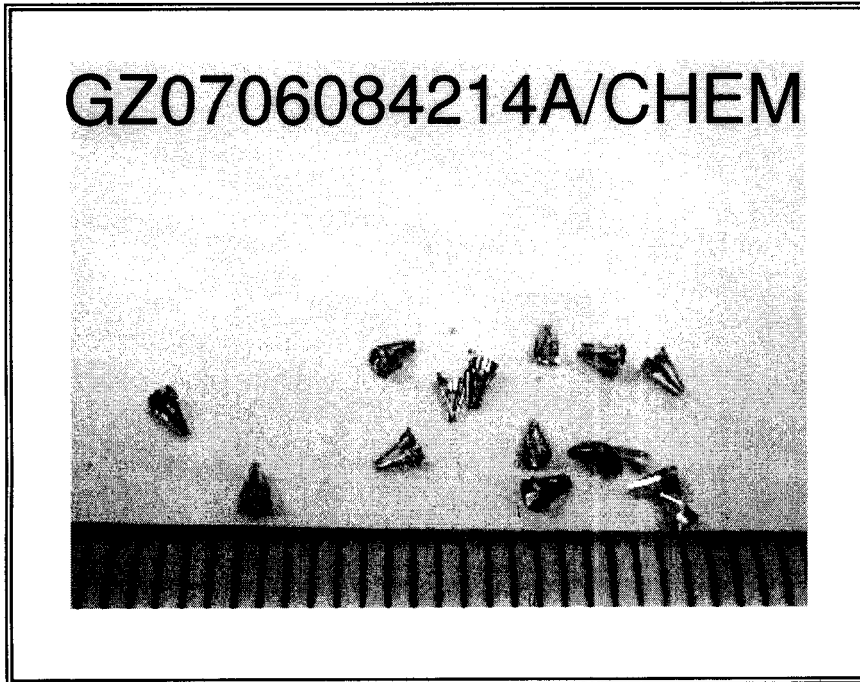
Note : 1. mg/kg = ppm
2. MDL = Method Detection Limit

Signed for and on behalf of
SGS-CSTC Ltd.

Huang Fang, Sunny
Sr. Engineer

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Sample photo :



SGS authenticate the photo on original report only

*** End of Report ***



Test Report

No.: GZ0706084213A/CHEM

Date: JUN 25, 2007

Page 1 of 3

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

This report is to supersede test report GZ0706084213/CHEM.

The following sample(s) was/were submitted and identified on behalf of the applicant as Machine Pin 外壳

SGS Ref No. : SZ10422423-2.1
Sample Receiving Date : JUN 15, 2007
Testing Period : JUN 15, 2007 TO JUN 20, 2007

Test Requested : To determine the Cadmium, Lead, Mercury & Hexavalent Chromium content in the submitted sample.

Test Method : With reference to IEC 62321 Ed.1 111/54/CDV
Procedures for the Determination of Levels of Regulated Substances in Electrotechnical Products
(1) Determination of Cadmium by ICP.
(2) Determination of Lead by ICP.
(3) Determination of Mercury by ICP.
(4) Determination of Hexavalent Chromium by Colorimetric Method.

Test Results : Please refer to next page.

Signed for and on behalf of
SGS-CSTC Ltd.

Huang Fang, Sunny
Sr. Engineer



Test Report

No.: GZ0706084213A/CHEM

Date: JUN 25, 2007

Page 2 of 3

Test results by chemical method (Unit: mg/kg)

Test Item(s):	Method (refer to)	No.1	MDL
Cadmium(Cd)	(1)	15	2
Lead (Pb)	(2)	26450	2
Mercury (Hg)	(3)	N.D.	2
Hexavalent Chromium (CrVI) by boiling water extraction	(4)	Negative	See Note 4

Test Part Description:

No.1 Silvery metal

Note : 1. mg/kg = ppm

2. N.D. = Not Detected (< MDL)

3. MDL = Method Detection Limit

4. **Spot-test:**

Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;

(The tested sample should be further verified by boiling-water-extraction method if the spot test result cannot be confirmed.)

Boiling-water-extraction:

Negative = Absence of CrVI coating

Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.

Sample photo :



SGS authenticate the photo on original report only

*** End of Report ***

MEAN TOP COAT = 50.321u"
 STD, DEVIATION = 3.454u"
 NO. OF MEAS. = 10

MEAN TOP COAT = 100.08u"
 STD, DEVIATION = 6.363u"
 NO. OF MEAS. = 10

T meas = 10 s

LOCATE SPECIMEN
 TO MEASURE **PRESS " GO "**
 Xt1= Xn=

THICKNESS MEASUREMENT

		Tin	Ni
N=	1	THICKNESS=100.03u	= 50.51u"
N=	2	THICKNESS=100.07u	= 50.10u"
N=	3	THICKNESS=100.04u	= 50.24u"
N=	4	THICKNESS=100.05u	= 50.37u"
N=	5	THICKNESS=100.09u	= 50.15u"



Test Report

No.: SZTYR061239183/LP

Date: DEC 07, 2006

Page 1 of 2

SHENZHEN HONGJUN HARDWARE CO., LTD.
NO.3, DALANG INDUSTRY AREA,
HONGXING VILLAGE, SONGGANG TOWN,
BAOAN DISTRICT, SHEN, PBC

Report on the submitted samples said to be BRIGHT Sn PLATING

Sample Receiving Date : DEC 04, 2006
Further Information Date : DEC 06, 2006
Testing Period : DEC 06, 2006 TO DEC 07, 2006

Test Requested : 1) Determination of Lead content in the submitted samples.
2) Determination of Cadmium content in the submitted samples.
3) Determination of Mercury content in the submitted samples.
4) Determination of Hexavalent Chromium content in the submitted samples.

Test Method : 1) Acid digestion. Analysis was performed by ICP.
2) Acid digestion. Analysis was performed by ICP.
3) Acid digestion. Analysis was performed by ICP.
4) As requested by client, with reference to IEC62321, Ed.1 111/54/GDV, Sec. 9
- Colorimetric Method.

Test Results

Element	Transparent Lt. brown liquid	Detection Limit
1) Lead (Pb)	N.D.	2 ppm
2) Cadmium (Cd)	N.D.	2 ppm
3) Mercury (Hg)	N.D.	2 ppm
4) Hexavalent Chromium (Cr ⁶⁺)	N.D.	2 ppm

Note : (1) N.D. = No: detected (lower than detection limit)
(2) ppm = mg/kg

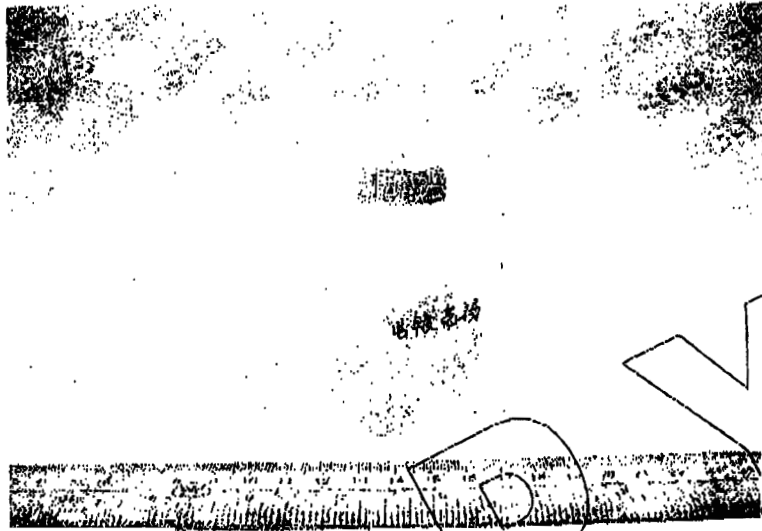
Signed for and on behalf of
SGS-CSTC Ltd.

Li Ying, Susan
Section Manager

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Sample Photo:



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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. 4181S 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 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.

NELTRON

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and catalog or model

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