

No. NGBEC2001775303

Date: 13 May 2020

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ZHEJIANG LIANHE ELECTRONICS CO, LTD NO.8 CHUANGXIN ROAD, YUEQING BAY PORT ZONE, YUEQING CITY, ZHEJIANG

The following sample(s) was/were submitted and identified on behalf of the clients as : Terminal pin

SGS Job No. :	NP20-001599 - NB
Client Ref. Information :	See attachment
Main Substance :	BRASS NICKEL TIN 、 Phosphor bronze NICKEL TIN
Date of Sample Received :	09 May 2020
Testing Period :	09 May 2020 - 13 May 2020
Test Requested :	Selected test(s) as requested by client.
Test Method :	Please refer to next page(s).
Test Results :	Please refer to next page(s).
Conclusion :	Based on the performed tests on submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of SGS-CSTC Standards Technical Services Co., Ltd. Ningbo Branch

Viao

Iris Xiao Approved Signatory



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Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	NGB20-017753.001	Silvery metal

#### Remarks :

(1) 1 mg/kg = 0.0001%
(2) MDL = Method Detection Limit
(3) ND = Not Detected ( < MDL )</li>
(4) "-" = Not Regulated

#### RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method : With reference to IEC 62321-4:2013+A1:2017, IEC62321-5:2013 and IEC 62321-7-1:2015, analyzed by ICP-OES and UV-Vis.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	9
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))▼	-	µg/cm²	0.10	ND

#### Notes :

The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
 IEC 62321 series is equivalent to EN 62321 series

https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101::::FSP\_ORG\_ID,FSP\_LANG\_ID: 1258637,25

(2)  $\checkmark$  = a. The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 µg/cm<sup>2</sup>. The sample coating is considered to contain Cr(VI)

b. The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than 0.10  $\mu$ g/cm<sup>2</sup>). The coating is considered a non-Cr(VI) based coating

c. The result between 0.10  $\mu$ g/cm² and 0.13  $\mu$ g/cm² is considered to be inconclusive - unavoidable coating variations may influence the determination

Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.



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#### Attachment:

1.0 SH SHD NH 1.25 51021 DF14 DF13 GH ZH PH PHB PA PHSD DF11 C1251 51047 51146 FI-S PHD YHD200 SMW SMH200 SMH200-H YH200/20039WR 2.0 XH/TJC3 XA HA XHB XHD XHE XHQ EH EI/P 5264 5267 SZN SAN SCN SCND JC15 JC20 5102 5240 SMH250 SMP250 SMW250 25048HS 25045HP SM TJC8 2.54 TJC8A TJC8B TJC8H 5051/2510 543 CH10 25415 43640 43645 43020 43025 5500 5600 VH VHRR/YH396 VHR 35156 2139/3.96 90331 5195 5196 39612 FL 5557 5559 5566 5569 42474 42475 SL RV42 CL014/OTP EL YL EL QH NV 50300 50301 8981/P 5058/5.08 5197 5198 5025 L6.2 VL VLP/VLR 3191 5199 TJC2 TJC2A TJC2B STV5 YHL500 YWL500 TJC4 TJC1 SMF Cy-X201/35108 35150 35151 35224 35180 35965 1806 110 2.8 42021 42022 42002 6.3 250 35955 SA SCS 35189 35196 MX3.0 1.58 51005 51006 BH3.5 BH4.0 63080 187 4.8 51004 TJC15 D220 D230 D250 D480 D520 D280 D630 D430 D400 D450 U-T MKH F1001-T SIN-T 774 773 778 294 TU-JTK(SV) TU(SNB) TO-JTK(RV) MDD FDD TG-JT IDC AUTO CONNECTOR DJ70 DT04 DT06 UY/K1 UY2/K2 UR/K3 UR2 UB/K4 UB2A UG/K5 U1R/K8 U1B/K9 HJKT10 UDW2 314 A4203 A5001 A5002 MC100 FPC2.54 SMH SGN PHR ZHR 205 5.2 C1801 C1802 2060 SMP JC25 CH2.5 A5003 ME020 ME010 FPC/FFC B2541 1971845 1971846 2232043 2232044 2232511 1971895 1971896 JWPF SY Molex1.5

1.0 SH SHD NH 1.25 51021 DF14 DF13 GH ZH PH PHB PA PHSD DF11 C1251 51047 51146 FI-S PHD YHD200 SMW SMH200 SMH200-H YH200/20039WR DUBANG2.0 XH/TJC3 XA HA XHB XHD XHE XHQ EH EI/X4P 5264 5267 SZN SAN SCN SCND JC15 JC20 5102 5240 SMH250 SMP250 SMW250 25048HS 25045HP SM TJC8/DUBANG2.54 TJC8A/DUBANG-S TJC8B TJC8H 5051/2510 543 MEISHANGMEI CH10 25415 43640 43645 43020 43025 5500 5600 VH VHRR/YH396 VHR 35156 2139/3.96 90331 5195 5196 39612 FL 5557 5559 5566 5569 42474 42475 SL RV42 CL014/OTP EL YL SMALL-EL QH NV 50300 50301 8981/D4P 5058/5.08 5197 5198 5025 L6.2 VL VLP/VLR 3191 5199 TJC2 TJC2A TJC2B STV5 YHL500 YWL500 TJC4 TJC1 SMF Cy-X201/35108 35150 35151 35224 35180 35965 1806 110 2.8 42021 42022 42002 6.3 250 35955 SA SCS 35189 35196 MX3.0 1.58 51005 51006 BH3.5 BH4.0 63080 187 4.8 51004 TJC15 D220 D230 D250 D480 D520 D280 D630 D430 D400 D450 U-T MKH F1001-T SIN-T 774 773 778 294 TU-JTK(SV) TU(SNB) TO-JTK(RV) MDD FDD TG-JT IDC AUTO CONNECTOR DJ70 DT04 DT06 UY/K1 UY2/K2 UR/K3 UR2 UB/K4 UB2A UG/K5 U1R/K8 U1B/K9 HJKT10 UDW2 314 A4203 A5001 A5002 MC100 FPC2.54 SMH SGN PHR ZHR 205 5.2 C1801 C1802 2060 SMP JC25 CH2.5 A5003 ME020 ME010 FPC/FFC

B2541 1971845 1971846 2232043 2232044 2232511 1971895 1971896 JWPF SY Molex1.5



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## ATTACHMENTS

### Elements (IEC62321) Testing Flow Chart

1) These samples were dissolved totally by pre-conditioning method according to below flow chart.







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### ATTACHMENTS

### Hexavalent Chromium (Cr(VI)) Testing Flow Chart





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Sample photo:



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