

Report No. 48.400.20.8024.00-00/04
Dated 2020-12-08

Technical Report

Client: Jiangsu Acrel Electrical Manufacturing. Co., Ltd.
No. 5, Dongmeng Road, Nanzha Street, Jiangyin, Jiangsu, P. R. China

Contact person: Han zhonghua

Test object: The submitted samples were received and described by client as:
Product: Meter
Model: ADL



Tested sample description: Refer to next page(s).

Test specification: 2011/65/EU (RoHS) Directive and 2015/863/EU (RoHS amendment) Directive
Test with reference to EN 62321-1:2013, EN 62321-2:2014, EN 62321-3-1:2014,
EN 62321-4:2014/A1:2017, EN 62321-5:2014, EN 62321-6:2015, EN 62321-7-
1:2015, EN 62321-7-2:2017 and EN 62321-8:2017.

Test result: Refer to the data listed in following pages

Conclusion: With regard to the data of tested components, the requirements of Directive 2011/65/EU (RoHS) and 2015/863/EU are **complied**.

Remarks:

1. The tested samples were identified and appointed by client.
2. The result relates only to the items tested.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368



China

Report No. 48.400.20.8024.00-00/04
Dated 2020-12-08

1. Order

- 1.1 **Date of Purchase Order,**
2020-12-04
- 1.2 **Customer's Reference**
Nil
- 1.3 **Receipt Date of Test Sample**
2020-11-09
- 1.4 **Date of Testing**
2020-11-24 – 2020-12-02
- 1.5 **Location of Testing**
TÜV SÜD Certification and Testing (China) Co., Ltd.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-21-60376368

Report No. 48.400.20.8024.00-00/04

Dated 2020-12-08



China

2. Description of the tested specimen

| Sample No. | Result | Description (Material, colour) | Photograph/Location |
|------------|--------|---|---------------------|
| 01 | Pass | Black resistance CR0603-10kΩ (±1%, 100PPM) | |
| 02 | Pass | Black resistance CR0603-10kΩ(±1%, 100PPM) | |
| 03 | Pass | Black hard IC MB85RC16 (可与 FM24CL16B-GTR互相替换使用) | |
| 04 | Pass | Silver metal pin | |
| 05 | Pass | Black hard IC TLV70033DDCR | |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

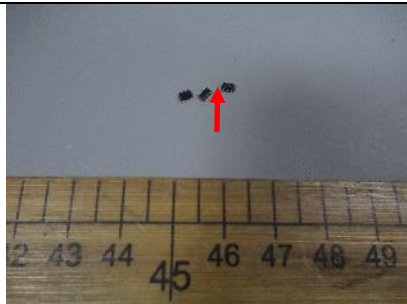




Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368

| Sample No. | Result | Description (Material, colour) | Photograph/Location |
|------------|--------|---|---|
| 06 | Pass | Silver metal pin |  |
| 07 | Pass | Black hard IC AMS431AM(BM)-SMD |  |
| 08 | Pass | Silver metal pin |  |
| 09 | Pass | Silvery metal chip electrolytic capacitor shell CD220μF/16V(±20%, 105°C)(6.3*7.7) |  |
| 10 | Pass | Silver metal pin |  |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:






Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368

| Sample No. | Result | Description (Material, colour) | Photograph/Location |
|------------|--------|--|---|
| 11 | Pass | Black hard plastic cover |  |
| 12 | Pass | Gray paper film |  |
| 13 | Pass | Black rubber cushion |  |
| 14 | Pass | Silvery metal chip electrolytic capacitor shell CD100μF/16V(±20%, 105°C)6.3*5.3 尺寸公差±0.1 |  |
| 15 | Pass | Silver metal pin |  |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:






Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368

| Sample No. | Result | Description (Material, colour) | Photograph/Location |
|------------|--------|---|---|
| 16 | Pass | Black hard plastic cover |  |
| 17 | Pass | Gray paper film |  |
| 18 | Pass | Black rubber cushion |  |
| 19 | Pass | Brown capacitor CC0603X7R1 μ F/25V(\pm 10%) |  |
| 20 | Pass | Golden diode LL4148-SMD |  |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

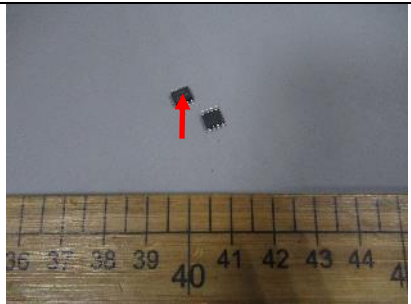
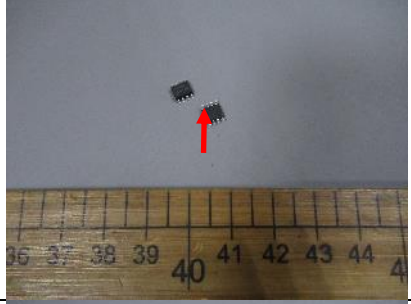
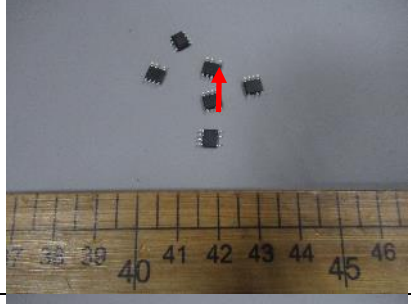
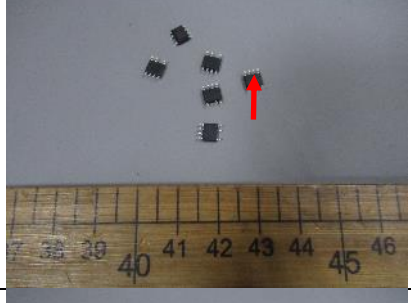
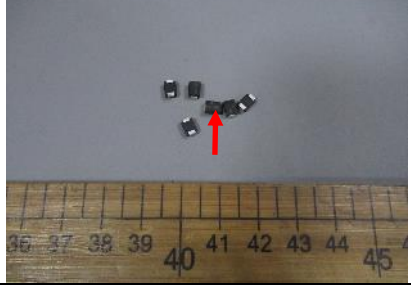
Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368

| Sample No. | Result | Description (Material, colour) | Photograph/Location |
|------------|--------|--------------------------------|---|
| 21 | Pass | black hard IC ISL3152EIBZ-T |  |
| 22 | Pass | Silver metal pin |  |
| 23 | Pass | black hard IC TNY286DG-TL SOP8 |  |
| 24 | Pass | Silver metal pin |  |
| 25 | Pass | Black diode SMBJ150A |  |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

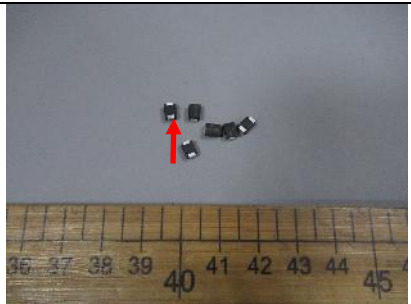

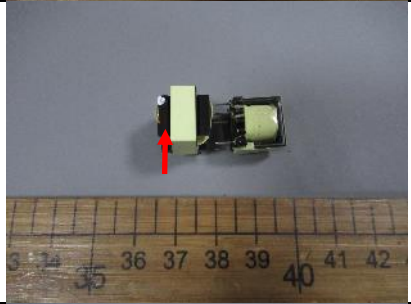

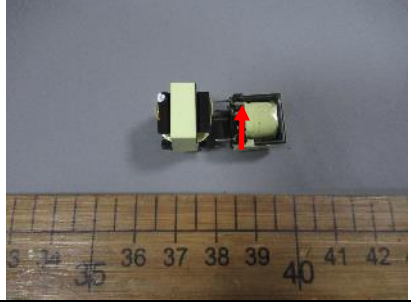
Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

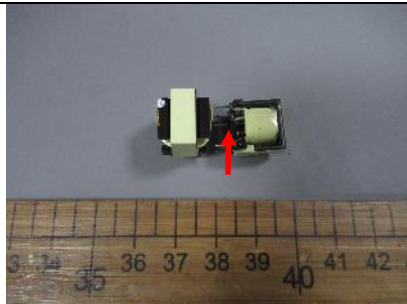




Tel.: +86-21-60376368

| Sample No. | Result | Description (Material, colour) | Photograph/Location |
|------------|--------|---|---|
| 26 | Pass | Silver metal pin |  |
| 27 | Pass | Gray capacitor CC0805X5R10µF/16V(±10%) |  |
| 28 | Pass | Black hard switching transformer shell T-EE13-220V-5V-8V-3KV-2(EE13-58-2) |  |
| 29 | Pass | Yellow soft plastic adhesive tape |  |
| 30 | Pass | Black metal magnet |  |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

| Sample No. | Result | Description (Material, colour) | Photograph/Location |
|------------|--------|--------------------------------------|---|
| 31 | Pass | Silver metal pin |  |
| 32 | Pass | Yellow soft plastic wire jacket |  |
| 33 | Pass | Transparent soft plastic wire jacket |  |
| 34 | Pass | golden metal wire |  |
| 35 | Pass | Black diode SOT-23 BAV199LT1G |  |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:





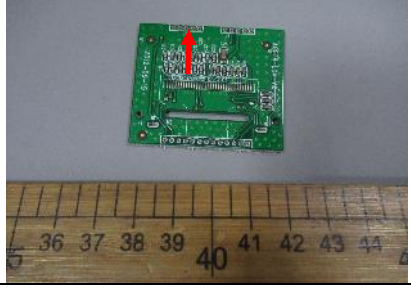
Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn


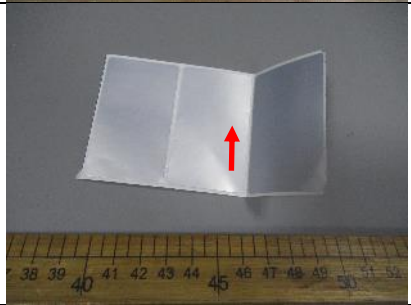

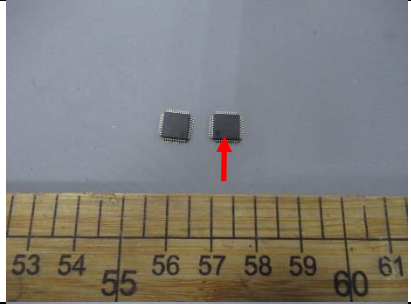
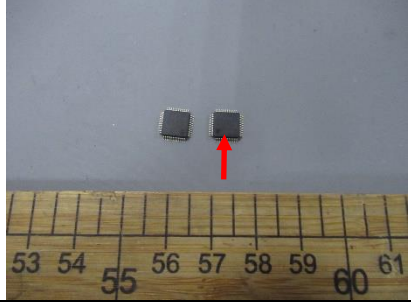
Tel.: +86-21-60376368

| Sample No. | Result | Description (Material, colour) | Photograph/Location |
|------------|--------|--|---|
| 36 | Pass | Black hard patch optocoupler LTV-816S-TA1-D (与LTV-816S-TA1-D3互为替换物料) |  |
| 37 | Pass | Silver metal pin |  |
| 38 | Pass | Black diode SO-123塑封 1N4148 |  |
| 39 | Pass | Green printed board hard PCB |  |
| 40 | Pass | Silver metal solder |  |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

| Sample No. | Result | Description (Material, colour) | Photograph/Location |
|------------|--------|---|---|
| 41 | Pass | Brown paper shell B-210X150X70-ZH-01 |  |
| 42 | Pass | Silvery soft plastic label 35*20 |  |
| 43 | Pass | Transparent soft plastic inflatable bag QT-14A142(ARCM300-J8) |  |
| 44 | Pass | Black hard IC STM32F070CBT6 |  |
| 45 | Pass | Silver metal pin |  |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

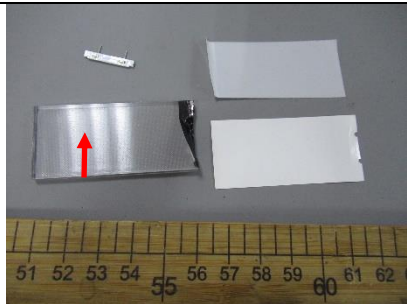
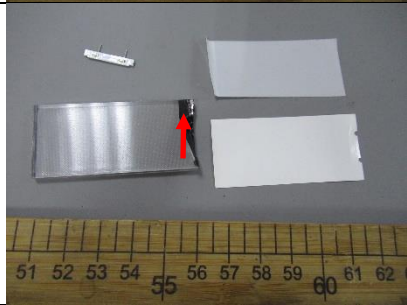
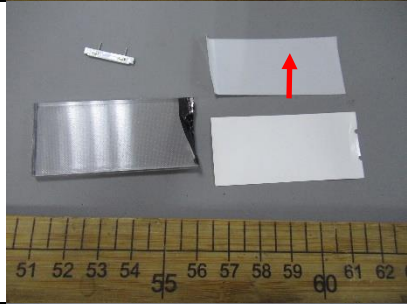
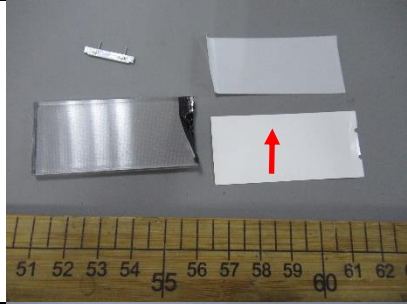
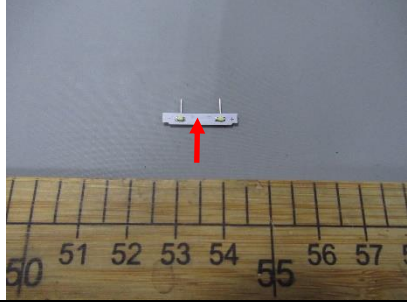
Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368

| Sample No. | Result | Description (Material, colour) | Photograph/Location |
|------------|--------|---|---|
| 46 | Pass | Transparent hard plastic plate 3.3V-W-55X25-03 PC材质 |  |
| 47 | Pass | Black soft plastic adhesive tape |  |
| 48 | Pass | Translucent soft plastic film |  |
| 49 | Pass | White soft plastic film |  |
| 50 | Pass | White hard PCB |  |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

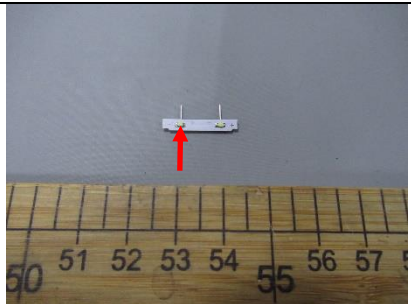
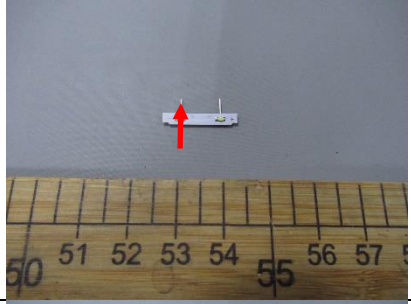

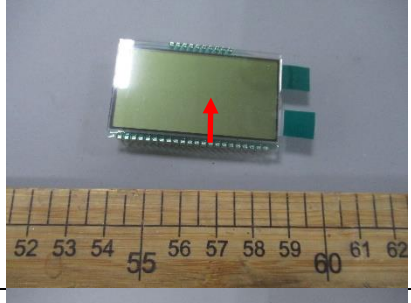
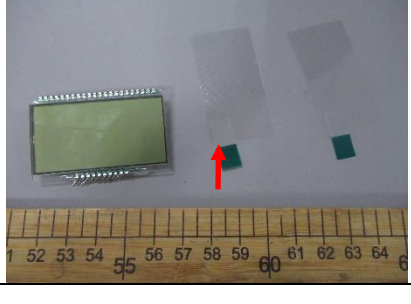
Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368

| Sample No. | Result | Description (Material, colour) | Photograph/Location |
|------------|--------|---|---|
| 51 | Pass | Yellow hard LED |  |
| 52 | Pass | Silver metal pin |  |
| 53 | Pass | Silver metal solder |  |
| 54 | Pass | Transparent glass LCD screen 3.3V-WB-50X31-V1-A (SDH-M14279-HP-5) |  |
| 55 | Pass | Transparent and blue soft plastic film |  |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

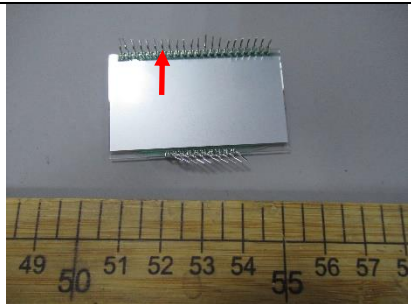
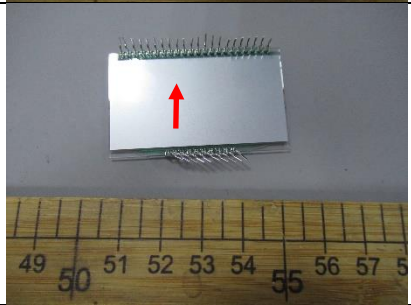
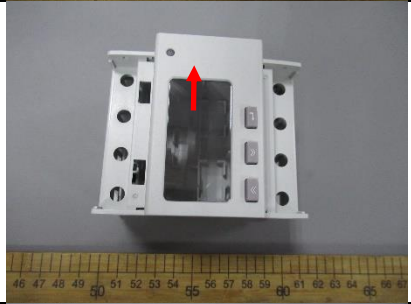

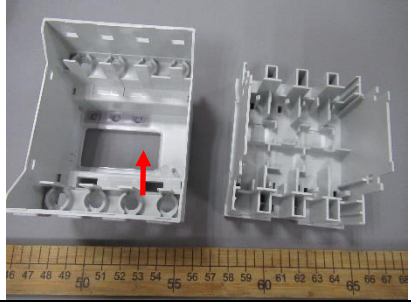
Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368

| Sample No. | Result | Description (Material, colour) | Photograph/Location |
|------------|--------|--|---|
| 56 | Pass | Silver metal pin |  |
| 57 | Pass | Gray soft film |  |
| 58 | Pass | Gray hard plastic shell KT-ADL400-S05-K-B-01 |  |
| 59 | Pass | Gray soft plastic component KT-ADL400-S05-K-Z-01 |  |
| 60 | Pass | Transparent hard plastic cover |  |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368



China

Report No. 48.400.20.8024.00-00/04
Dated 2020-12-08

3. Test Results

3.1 ED-XRF Spectrometer test for total Cadmium, Chromium, Mercury, Lead and Bromine according to EN 62321-3-1:2014

Criteria of XRF test results

Pass:

Because of the nature of the testing procedure (caused by the uncertainty of the used, XRF method), a definite pass is given only if the XRF test score is less than 60% of the respective RoHS limit.

Inconclusive:

If the XRF test score is between 60% and 150% of the respective RoHS limit, further chemical test on the sample is required.

Fail:

A definite FAIL is given if the XRF test score is above 150% of the respective RoHS limit

***Explanation for RoHS limit**

Regarding Chromium and Bromine, the XRF test score shows the total Chromium and the total Bromine, but the RoHS limit of 1000 mg/kg, according to the directive 2011/65/EU, is only for Hexavalent Chromium and Brominated Flame Retardants. Therefore, if the XRF test result for the total Chromium and the total Bromine is more than 600 mg/kg and 300 mg/kg respectively, further analytical tests are necessary to find out the exact amount of Hexavalent Chromium and Brominated Flame Retardants

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-21-60376368



China

Report No. 48.400.20.8024.00-00/04

Dated 2020-12-08

| | TOTAL CADMIUM [mg/kg] | TOTAL LEAD [mg/kg] | TOTAL MERCURY [mg/kg] | TOTAL CHROMIUM [mg/kg] | TOTAL BROMINE [mg/kg] | OVERALL RESULT |
|----------------------------|--------------------------|-----------------------|--------------------------|---------------------------|--------------------------|---------------------|
| ROHS LIMIT | 100 | 1000 | 1000 | 1000 | 1000 | |
| Pass result | < 60 | < 600 | < 600 | < 600 | < 300 | |
| Inconclusive result | 60 – 150 | 600 – 1500 | 600 – 1500 | > 600 | > 300 | |
| Fail result | > 150 | > 1500 | > 1500 | - | - | |
| 01 | <30 | 643*** | <30 | 585 | <30 | Pass |
| 02 | <30 | 684*** | <30 | 584 | <30 | Pass |
| 03 | <30 | <30 | <30 | <30 | 4383 | Inconclusive |
| 04 | <30 | <30 | <30 | <30 | -- | Pass |
| 05 | <30 | <30 | <30 | <30 | <30 | Pass |
| 06 | <30 | <30 | <30 | <30 | -- | Pass |
| 07 | <30 | <30 | <30 | <30 | <30 | Pass |
| 08 | <30 | <30 | <30 | <30 | -- | Pass |
| 09 | <30 | 387 | <30 | <30 | -- | Pass |
| 10 | 55 | <30 | <30 | <30 | -- | Pass |
| 11 | <30 | <30 | <30 | <30 | <30 | Pass |
| 12 | <30 | <30 | <30 | <30 | <30 | Pass |
| 13 | <30 | <30 | <30 | <30 | <30 | Pass |
| 14 | <30 | 177 | <30 | <30 | -- | Pass |
| 15 | 58 | <30 | <30 | <30 | -- | Pass |
| 16 | <30 | <30 | <30 | <30 | <30 | Pass |
| 17 | <30 | <30 | <30 | <30 | <30 | Pass |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368



China

Report No. 48.400.20.8024.00-00/04

Dated 2020-12-08

| | TOTAL CADMIUM [mg/kg] | TOTAL LEAD [mg/kg] | TOTAL MERCURY [mg/kg] | TOTAL CHROMIUM [mg/kg] | TOTAL BROMINE [mg/kg] | OVERALL RESULT |
|--------------------------------|-----------------------------|--------------------------|-----------------------------|------------------------------|-----------------------------|-------------------|
| ROHS LIMIT | 100 | 1000 | 1000 | 1000 | 1000 | |
| Pass result | < 60 | < 600 | < 600 | < 600 | < 300 | |
| Inconclusive result | 60 – 150 | 600 – 1500 | 600 – 1500 | > 600 | > 300 | |
| Fail result | > 150 | > 1500 | > 1500 | - | - | |
| 18 | <30 | <30 | <30 | <30 | <30 | Pass |
| 19 | <30 | <30 | <30 | <30 | <30 | Pass |
| 20 | 53 | 41285*** | <30 | <30 | <30 | Pass |
| 21 | <30 | <30 | <30 | <30 | <30 | Pass |
| 22 | <30 | <30 | <30 | <30 | -- | Pass |
| 23 | <30 | <30 | <30 | <30 | <30 | Pass |
| 24 | <30 | <30 | <30 | <30 | -- | Pass |
| 25 | <30 | 195 | <30 | <30 | <30 | Pass |
| 26 | 43 | 132 | <30 | 96 | -- | Pass |
| 27 | <30 | <30 | <30 | <30 | <30 | Pass |
| 28 | <30 | <30 | <30 | <30 | 112 | Pass |
| 29 | <30 | <30 | <30 | <30 | <30 | Pass |
| 30 | <30 | <30 | <30 | 80 | -- | Pass |
| 31 | <30 | <30 | <30 | <30 | -- | Pass |
| 32 | <30 | <30 | <30 | <30 | <30 | Pass |
| 33 | <30 | <30 | <30 | <30 | <30 | Pass |
| 34 | <30 | <30 | <30 | <30 | -- | Pass |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368



China

Report No. 48.400.20.8024.00-00/04

Dated 2020-12-08

| | TOTAL CADMIUM [mg/kg] | TOTAL LEAD [mg/kg] | TOTAL MERCURY [mg/kg] | TOTAL CHROMIUM [mg/kg] | TOTAL BROMINE [mg/kg] | OVERALL RESULT |
|---------------------|--------------------------|-----------------------|--------------------------|---------------------------|--------------------------|----------------|
| ROHS LIMIT | 100 | 1000 | 1000 | 1000 | 1000 | |
| Pass result | < 60 | < 600 | < 600 | < 600 | < 300 | |
| Inconclusive result | 60 – 150 | 600 – 1500 | 600 – 1500 | > 600 | > 300 | |
| Fail result | > 150 | > 1500 | > 1500 | - | - | |
| 35 | <30 | <30 | <30 | <30 | <30 | Pass |
| 36 | <30 | <30 | <30 | <30 | 13161 | Inconclusive |
| 37 | <30 | <30 | <30 | <30 | -- | Pass |
| 38 | <30 | <30 | <30 | <30 | <30 | Pass |
| 39 | <30 | 123 | <30 | <30 | <30 | Pass |
| 40 | <30 | 79 | <30 | <30 | -- | Pass |
| 41 | <30 | <30 | <30 | <30 | <30 | Pass |
| 42 | <30 | <30 | <30 | <30 | <30 | Pass |
| 43 | <30 | <30 | <30 | <30 | <30 | Pass |
| 44 | <30 | <30 | <30 | <30 | <30 | Pass |
| 45 | <30 | <30 | <30 | <30 | -- | Pass |
| 46 | <30 | <30 | <30 | <30 | <30 | Pass |
| 47 | <30 | <30 | <30 | <30 | <30 | Pass |
| 48 | <30 | <30 | <30 | <30 | <30 | Pass |
| 49 | <30 | <30 | <30 | <30 | <30 | Pass |
| 50 | <30 | <30 | <30 | <30 | 11075 | Inconclusive |
| 51 | <30 | <30 | <30 | <30 | 430 | Inconclusive |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368



China

Report No. 48.400.20.8024.00-00/04
Dated 2020-12-08

| | TOTAL CADMIUM [mg/kg] | TOTAL LEAD [mg/kg] | TOTAL MERCURY [mg/kg] | TOTAL CHROMIUM [mg/kg] | TOTAL BROMINE [mg/kg] | OVERALL RESULT |
|---------------------|-----------------------|--------------------|-----------------------|------------------------|-----------------------|----------------|
| ROHS LIMIT | 100 | 1000 | 1000 | 1000 | 1000 | |
| Pass result | < 60 | < 600 | < 600 | < 600 | < 300 | |
| Inconclusive result | 60 – 150 | 600 – 1500 | 600 – 1500 | > 600 | > 300 | |
| Fail result | > 150 | > 1500 | > 1500 | - | - | |
| 52 | <30 | <30 | <30 | <30 | -- | Pass |
| 53 | <30 | <30 | <30 | <30 | -- | Pass |
| 54 | <30 | <30 | <30 | <30 | -- | Pass |
| 55 | <30 | <30 | <30 | <30 | <30 | Pass |
| 56 | <30 | <30 | <30 | 58 | -- | Pass |
| 57 | <30 | <30 | <30 | <30 | <30 | Pass |
| 58 | <30 | <30 | <30 | <30 | <30 | Pass |
| 59 | <30 | <30 | <30 | <30 | <30 | Pass |
| 60 | <30 | <30 | <30 | <30 | <30 | Pass |

Remark:

1. “<” means “less than”.
2. “mg/kg” denotes “milligram per kilogram”.
3. With regard to the stoichiometry of Br in PBBs and PBDEs, the lower limit for Br is set at 300 mg/kg.
4. “--” means the substance for this sample are not tested.
5. “***” means the result is exempted according to 2011/65/EU ANNEX item 7(c)-I: Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368



China

Report No. 48.400.20.8024.00-00/04
Dated 2020-12-08

6. 3.2 Wet chemical test

Main instruments used for wet chemical test

| Testing Target | Instrument | Method |
|-----------------------|------------|--|
| Lead & Cadmium | ICP-OES | EN 62321-5:2014 |
| Mercury | ICP-OES | EN 62321-4:2014/A1:2017 |
| Hexavalent Chromium | UV-Vis | EN 62321-7-1:2015 EN 62321-7-2:2017 |
| PBBs & PBDEs | GC/MS | EN62321-6:2015 |
| DEHP, BBP, DBP & DIBP | GC/MS | EN 62321-8:2017 |

Criteria of chemical test results

Pass:

A definite Pass is given If the chemical test result meets the requirements of RoHS.

Fail:

A definite Fail is given If the chemical test result exceeds the full respective RoHS limit.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368



China

Report No. 48.400.20.8024.00-00/04

Dated 2020-12-08

| Test Sample | Cadmium [mg/kg] | Lead [mg/kg] | Mercury [mg/kg] | Chromium (VI) [mg/kg] | PBBs (Sum) [mg/kg] | PBDEs (Sum) [mg/kg] | OVERALL RESULT |
|-------------|-----------------|--------------|-----------------|-----------------------|--------------------|---------------------|----------------|
| Limit | 100 | 1000 | 1000 | 1000 | 1000 | 1000 | |
| 03 | -- | -- | -- | -- | <50 | <50 | Pass |
| 36 | -- | -- | -- | -- | <50 | <50 | Pass |
| 50 | -- | -- | -- | -- | <50 | <50 | Pass |
| 51 | -- | -- | -- | -- | <50 | <50 | Pass |

Remark:

1. ND = Not detected (Detected limit of Cd :2mg/kg;Pb, Hg, and Cr(VI):5mg/kg; PBBs and PBDEs: 5mg/kg)
2. " mg/kg " denotes " milligram per kilogram ".
3. "--" means the substance for this sample are not tested.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368

Report No. 48.400.20.8024.00-00/04

Dated 2020-12-08



China

| Test Sample | DEHP [mg/kg] | DBP [mg/kg] | BBP [mg/kg] | DIBP [mg/kg] | RESULT |
|----------------|--------------|-------------|-------------|--------------|--------|
| Limit | 1000 | 1000 | 1000 | 1000 | |
| 01+02+03+05+07 | <200 | <200 | <200 | <200 | Pass |
| 11+16+19+20+21 | <200 | <200 | <200 | <200 | Pass |
| 12+13+17 | <200 | <200 | <200 | <200 | Pass |
| 18+29+32 | <200 | <200 | <200 | <200 | Pass |
| 23+25+27+28+35 | <200 | <200 | <200 | <200 | Pass |
| 33+41+42 | <200 | <200 | <200 | <200 | Pass |
| 36+38+39+44+46 | <200 | <200 | <200 | <200 | Pass |
| 43+47+48 | <200 | <200 | <200 | <200 | Pass |
| 49+55+57 | <200 | <200 | <200 | <200 | Pass |
| 50+51+58 | <200 | <200 | <200 | <200 | Pass |
| 59+60 | <200 | <200 | <200 | <200 | Pass |

Remark:

1. "<" means "less than".
2. "mg/kg" denotes "milligram per kilogram".
3. DEHP = Di-(2-ethyl-hexyl)phthalate, DBP = Di-butyl phthalate
BBP = Butyl-benzyl phthalate, DIBP = Di-iso-butyl phthalate

TÜV SÜD Certification and Testing (China) Co., Ltd.

Prepared by:



Mr. Yiwei CHEN

Checked by:



Mr. Feng ZHANG

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368


Report No. 48.400.20.8024.00-00/04

Dated 2020-12-08



China

APPENDIX I: Product Model

| Product: Meter | Test model: ADL |
|---|-----------------|
|  A photograph of a white digital meter, model ADL-400, positioned on a wooden ruler. The meter has a small LCD screen in the center, several buttons below it, and a display area at the bottom. The ruler shows centimeter markings, with the meter's width spanning approximately from the 45 cm mark to the 65 cm mark. | |

Remark:

1. The report covers material testing on specified samples.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368

APPENDIX II: Official Exemption Items

Below items are quoted based on Directives of 2011/65/EU and its valid Amending Directives.

| Exemption | | Scope and dates of applicability |
|-----------|---|---|
| 1(a) | Single capped (compact) fluorescent lamps not exceeding (per burner): For general lighting purposes < 30W: 5 mg | Expires on 31 December 2011; 3.5 mg may be used per burner after 31 December 2011 Until 31 December 2012; 2.5 mg shall be used per burner after 31 December 2012 |
| 1(b) | Single capped (compact) fluorescent lamps not exceeding (per burner): For general lighting purposes ≥ 30 W and < 50 W: 5 mg | Expires on 31 December 2011; 3.5 mg may be used per burner after 31 December 2011 |
| 1(c) | Single capped (compact) fluorescent lamps not exceeding (per burner): For general lighting purposes ≥ 50 W and < 150 W: 5 mg | - |
| 1(d) | Single capped (compact) fluorescent lamps not exceeding (per burner): For general lighting purposes ≥ 150 W: 15 mg | - |
| 1(e) | Single capped (compact) fluorescent lamps not exceeding (per burner): For general lighting purposes with circular or square structural shape and tube diameter ≤ 17 mm | No limitation of use until 31 December 2011; 7 mg may be used per burner after 31 December 2011 |
| 1(f) | Single capped (compact) fluorescent lamps not exceeding (per burner): For special purposes: 5 mg | - |
| 1(g) | Mercury in single capped (compact) fluorescent lamps not exceeding (per burner): For general lighting purposes < 30 W with a lifetime equal or above 20 000 h: 3.5 mg | Expires on 31 December 2017 |
| 2(a)(1) | Double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): Tri-band phosphor with normal lifetime and a tube diameter < 9 mm (e.g. T2): 5 mg | Expires on 31 December 2011; 4 mg may be used per lamp after 31 December 2011 |
| 2(a)(2) | Double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm and ≤ 17 mm (e.g. T5): 5 mg | Expires on 31 December 2011; 3 mg may be used per lamp after 31 December 2011 |
| 2(a)(3) | Double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and ≤ 28 mm (e.g. T8): 5 mg | Expires on 31 December 2011; 3.5 mg may be used per lamp after 31 December 2011 |
| 2(a)(4) | Double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12): 5 mg | Expires on 31 December 2012; 3.5 mg may be used per lamp after 31 December 2012 |
| 2(a)(5) | Double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): Tri-band phosphor with long lifetime (≥ 25 000 h): 8 mg | Expires on 31 December 2011; 5 mg may be used per lamp after 31 December 2011 |
| 2(b)(1) | Other fluorescent lamps not exceeding (per lamp): Linear halophosphate lamps with tube > 28 mm (e.g. T10 and T12): 10 mg | Expires on 13 April 2012 |
| 2(b)(2) | Other fluorescent lamps not exceeding (per lamp): Non-linear halophosphate lamps (all diameters): 15 mg | Expires on 13 April 2016 |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368

| Exemption | | Scope and dates of applicability |
|-----------|--|--|
| 2(b)(3) | Other fluorescent lamps not exceeding (per lamp): Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9) | No limitation of use until 31 December 2011; 15 mg may be used per lamp after 31 December 2011 |
| 2(b)(4) | Other fluorescent lamps not exceeding (per lamp): Lamps for other general lighting and special purposes (e.g. induction lamps) | No limitation of use until 31 December 2011; 15 mg may be used per lamp after 31 December 2011 |
| 3(a) | Cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp): Short length (≤ 500 mm) | No limitation of use until 31 December 2011; 3.5 mg may be used per lamp after 31 December 2011 |
| 3(b) | Cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp): Medium length (> 500 mm and $\leq 1\,500$ mm) | No limitation of use until 31 December 2011; 5 mg may be used per lamp after 31 December 2011 |
| 3(c) | Cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp): Long length ($> 1\,500$ mm) | No limitation of use until 31 December 2011; 13 mg may be used per lamp after 31 December 2011 |
| 4(a) | Other low pressure discharge lamps (per lamp) | No limitation of use until 31 December 2011; 15 mg may be used per lamp after 31 December 2011 |
| 4(b)-I | High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$: $P \leq 155$ W | No limitation of use until 31 December 2011; 30 mg may be used per burner after 31 December 2011 |
| 4(b)-II | High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$: 155 W $< P \leq 405$ W | No limitation of use until 31 December 2011; 40 mg may be used per burner after 31 December 2011 |
| 4(b)-III | High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$: $P > 405$ W | No limitation of use until 31 December 2011; 40 mg may be used per burner after 31 December 2011 |
| 4(c)-I | Other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): $P \leq 155$ W | No limitation of use until 31 December 2011; 25 mg may be used per burner after 31 December 2011 |
| 4(c)-II | Other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): 155 W $< P \leq 405$ W | No limitation of use until 31 December 2011; 30 mg may be used per burner after 31 December 2011 |
| 4(c)-III | Other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): $P > 405$ W | No limitation of use until 31 December 2011; 40 mg may be used per burner after 31 December 2011 |
| 4(d) | High Pressure Mercury (vapour) lamps (HPMV) | Expires on 13 April 2015 |
| 4(e) | Metal halide lamps (MH) | - |
| 4(f) | Other discharge lamps for special purposes not specifically mentioned in this Annex | - |
| 4(g) | Hand crafted luminous discharge tubes used for signs, decorative or architectural and specialist lighting and light-artwork, where the mercury content shall be limited as follows: (a) 20 mg per electrode pair + 0.3 mg per tube length in cm, but not more than 80 mg, for outdoor applications and indoor applications exposed to temperatures below 20 °C; | Expires on 31 December 2018 |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

| Exemption | | Scope and dates of applicability |
|-----------|---|--|
| | (b)15 mg per electrode pair + 0.24 mg per tube length in cm, but not more than 80 mg, for all other indoor applications. | |
| 5(a) | Glass of cathode ray tubes | - |
| 5(b) | Glass of fluorescent tubes not exceeding 0.2 % by weight | - |
| 6(a) | Alloying element in steel for machining purposes and in galvanised steel containing up to 0.35 % lead by weight | Expires on: —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11. |
| 6(a)-I | Lead as an alloying element in steel for machining purposes containing up to 0,35 % lead by weight and in batch hot dip galvanised steel components containing up to 0,2 % lead by weight | Expires on 21 July 2021 for categories 1-7 and 10.' |
| 6(b) | Alloying element in aluminium containing up to 0.4 % lead by weight | Expires on: —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, —21 July 2023 for category 8 in vitro diagnostic medical devices, —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11. |
| 6(b)-I | Lead as an alloying element in aluminium containing up to 0,4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling | Expires on 21 July 2021 for categories 1-7 and 10 |
| 6(b)-II | Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight | Expires on 21 July 2021 for categories 1-7 and 10 |
| 6(c) | Copper alloy containing up to 4 % lead by weight | Expires on: —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11. |
| 7(a) | High melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead) | Applies to categories 1-7 and 10 (except applications covered by point 24 of this Annex) and expires on 21 July 2021. For categories 8 and 9 other than in vitro diagnostic medical devices and industrial |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368

| Exemption | | Scope and dates of applicability |
|-----------|--|---|
| | | <p>monitoring and control instruments expires on 21 July 2021.</p> <p>For category 8 in vitro diagnostic medical devices expires on 21 July 2023.</p> <p>For category 9 industrial monitoring and control instruments, and for category 11 expires on 21 July 2024.</p> |
| 7(b) | Solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission, and network management for telecommunications | - |
| 7(c)-I | Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound | <p>Applies to categories 1-7 and 10 (except applications covered under point 34) and expires on 21 July 2021.</p> <p>For categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments expires on 21 July 2021.</p> <p>For category 8 in vitro diagnostic medical devices expires on 21 July 2023.</p> <p>For category 9 industrial monitoring and control instruments, and for category 11 expires on 21 July 2024.</p> |
| 7(c)-II | Dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher | <p>Does not apply to applications covered by point 7(c)-I and 7(c)-IV of this Annex.</p> <p>Expires on:</p> <ul style="list-style-type: none"> —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11. |
| 7(c)-III | Dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC | Expires on 1 January 2013 and after that date may be used in spare parts for EEE placed on the market before 1 January 2013 |
| 7(c)-IV | PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors | <p>Expires on:</p> <ul style="list-style-type: none"> —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11. |
| 8(a) | Cadmium and its compounds in one shot pellet type thermal cut-offs | Expires on 1 January 2012 and after that date may be used in spare parts for EEE placed on the market before 1 January 2012 |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

| Exemption | | Scope and dates of applicability |
|-----------|---|--|
| 8(b) | Cadmium and its compounds in electrical contacts | Applies to categories 8, 9 and 11 and expires on: —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11. |
| 8(b)-I | Cadmium and its compounds in electrical contacts used in: —circuit breakers, —thermal sensing controls, —thermal motor protectors (excluding hermetic thermal motor protectors), —AC switches rated at: —6 A and more at 250 V AC and more, or —12 A and more at 125 V AC and more, —DC switches rated at 20 A and more at 18 V DC and more, and —switches for use at voltage supply frequency ≥ 200 Hz. | Applies to categories 1 to 7 and 10 and expires on 21 July 2021. |
| 9 | Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0,75 % by weight in the cooling solution | Applies to categories 8, 9 and 11 and expires on: —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, —21 July 2023 for category 8 in vitro diagnostic medical devices, —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11. |
| 9(a)-I | Up to 0,75 % hexavalent chromium by weight, used as an anticorrosion agent in the cooling solution of carbon steel cooling systems of absorption refrigerators (including minibars) designed to operate fully or partly with electrical heater, having an average utilised power input < 75 W at constant running conditions | Applies to categories 1-7 and 10 and expires on 5 March 2021. |
| 9(a)-II | Up to 0,75 % hexavalent chromium by weight, used as an anticorrosion agent in the cooling solution of carbon steel cooling systems of absorption refrigerators: —designed to operate fully or partly with electrical heater, having an average utilised power input ≥ 75 W at constant running conditions, —designed to fully operate with non-electrical heater. | Applies to categories 1-7 and 10 and expires on 21 July 2021. |
| 9(b) | Bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications | Applies to categories 8, 9 and 11; expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices, 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11, |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

| Exemption | | Scope and dates of applicability |
|-----------|---|---|
| | | 21 July 2021 for other subcategories of categories 8 and 9. |
| 9(b)-I | Bearing shells and bushes for refrigerant-containing hermetic scroll compressors with a stated electrical power input equal or below 9 kW for heating, ventilation, air conditioning and refrigeration (HVACR) applications | Applies to category 1; expires on 21 July 2019. |
| 11(a) | C-press compliant pin connector systems | May be used in spare parts for EEE placed on the market before 24 September 2010 |
| 11(b) | Other than C-press compliant pin connector systems | Expires on 1 January 2013 and after that date may be used in spare parts for EEE placed on the market before 1 January 2013 |
| 12 | Coating material for the thermal conduction module C-ring | May be used in spare parts for EEE placed on the market before 24 September 2010 |
| 13(a) | White glasses used for optical application | Applies to all categories; expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories |
| 13(b) | Filter glasses and glasses used for reflectance standards | Applies to categories 8, 9 and 11; expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for other subcategories of categories 8 and 9 |
| 13(b)-I | Ion coloured optical filter glass types | Applies to categories 1 to 7 and 10; expires on 21 July 2021 for categories 1 to 7 and 10 |
| 13(b)-II | Striking optical filter glass types; excluding applications falling under point 39 of this Annex | Applies to categories 1 to 7 and 10; expires on 21 July 2021 for categories 1 to 7 and 10 |
| 13(b)-III | Glazes used for reflectance standards | Applies to categories 1 to 7 and 10; expires on 21 July 2021 for categories 1 to 7 and 10 |
| 14 | Solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80 % and less than 85 % by weight | Expired on 1 January 2011 and after that date may be used in spare parts for EEE placed on the market before 1 January 2011 |
| 15 | Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages | Applies to categories 8, 9 and 11 and expires on: —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

| Exemption | | Scope and dates of applicability |
|-----------|--|--|
| | | monitoring and control instruments, and for category 11. |
| 15(a) | Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies: —a semiconductor technology node of 90 nm or larger; —a single die of 300 mm ² or larger in any semiconductor technology node; —stacked die packages with die of 300 mm ² or larger, or silicon interposers of 300 mm ² or larger. | Applies to categories 1 to 7 and 10 and expires on 21 July 2021. |
| 16 | Linear incandescent lamps with silicate coated tubes | Expires on 1 September 2013 |
| 17 | Lead halide as Radiant agent in high intensity discharge (HID) lamps used for professional reprography applications | - |
| 18(a) | Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as speciality lamps for diazoprinting reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ((Sr,Ba) ₂ MgSi ₂ O ₇ :Pb) | Expired on 1 January 2011 |
| 18(b) | Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP (BaSi ₂ O ₅ :Pb) | expires on: —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11. |
| 18(b)-I | Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi ₂ O ₅ :Pb) when used in medical phototherapy equipment | Applies to categories 5 and 8, excluding applications covered by entry 34 of Annex IV, and expires on 21 July 2021. |
| 19 | Lead with PbBiSn-Hg and PbInSn-Hg in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact energy saving lamps (ESL) | Expires on 1 June 2011 |
| 20 | Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCDs) | Expires on 1 June 2011 |
| 21 | Lead and cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses | Applies to categories 8, 9 and 11 and expires on: —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368

| Exemption | | Scope and dates of applicability |
|-----------|--|--|
| | | monitoring and control instruments, and for category 11. |
| 21(a) | Cadmium when used in colour printed glass to provide filtering functions, used as a component in lighting applications installed in displays and control panels of EEE | Applies to categories 1 to 7 and 10 except applications covered by entry 21(b) or entry 39 and expires on 21 July 2021. |
| 21(b) | Cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses | Applies to categories 1 to 7 and 10 except applications covered by entry 21(a) or 39 and expires on 21 July 2021. |
| 21(c) | Lead in printing inks for the application of enamels on other than borosilicate glasses | Applies to categories 1 to 7 and 10 and expires on 21 July 2021.' |
| 23 | Finishes of fine pitch components other than connectors with a pitch of 0.65 mm and less | May be used in spare parts for EEE placed on the market before 24 September 2010 |
| 24 | Solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors | Expires on: —21 July 2021 for categories 1-7 and 10, —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, —21 July 2023 for category 8 in vitro diagnostic medical devices, —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11. |
| 25 | Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring | - |
| 26 | Lead oxide in glass envelope of black light blue lamps | Expires on 1 June 2011 |
| 27 | Lead alloys as solder for transducers used in high-powered (designated to operate for several hours at acoustic power levels of 125 dB SPL and above) loudspeakers | Expired on 24 September 2010 |
| 29 | Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC | Expires on: —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11. |
| 30 | Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100 dB (A) and more | - |
| 31 | Soldering materials in mercury free flat fluorescent lamps (which, e.g. are used for liquid crystal displays, design or industrial lighting) | - |
| 32 | Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes | Expires on: —21 July 2021 for categories 1-7 and 10, |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

| Exemption | | Scope and dates of applicability |
|-----------|--|--|
| | | —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, —21 July 2023 for category 8 in vitro diagnostic medical devices, —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11. |
| 33 | Solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers | - |
| 34 | Cermet-based trimmer potentiometer elements | Expires on: —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11. |
| 36 | Cathode sputtering inhibitor in DC plasma displays with a content up to 30 mg per display | Expired on 1 July 2010 |
| 37 | Plating layer of high voltage diodes on the basis of a zinc borate glass body | Expires on: —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11. |
| 38 | Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide | - |
| 39(a) | Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (< 0.2 µg Cd per mm ² of display screen area) | Expires for all categories on 31 October 2019 |
| 40 | Photoresistors for analogue optocouplers applied in professional audio equipment | Expires on 31 December 2013 |
| 41 | Lead in solders and termination finishes of electrical and electronic components and finishes of printed circuit boards used in ignition modules and other electrical and electronic engine control systems, which for technical reasons must be mounted directly on or in the crankcase or cylinder of hand-held combustion engines (classes SH:1, SH:2, SH:3 of Directive 97/68/EC of the European Parliament and of the Council (*1)) | Applies to all categories and expires on: —31 March 2022 for categories 1 to 7, 10 and 11; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; --21 July 2023 for category 8 in vitro |

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.



| Exemption | | Scope and dates of applicability |
|-----------|--|--|
| | | diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments. |
| 42 | Lead in bearings and bushes of diesel or gaseous fuel powered internal combustion engines applied in non-road professional use equipment: —with engine total displacement \geq 15 litres; or —with engine total displacement < 15 litres and the engine is designed to operate in applications where the time between signal to start and full load is required to be less than 10 seconds; or regular maintenance is typically performed in a harsh and dirty outdoor environment, such as mining, construction, and agriculture applications. | Applies to category 11, excluding applications covered by entry 6(c) of this Annex. Expires on 21 July 2024.' |
| 43 | Bis(2-ethylhexyl) phthalate in rubber components in engine systems, designed for use in equipment that is not intended solely for consumer use and provided that no plasticised material comes into contact with human mucous membranes or into prolonged contact with human skin and the concentration value of bis(2-ethylhexyl) phthalate does not exceed: (a) 30 % by weight of the rubber for (i) gasket coatings; (ii) solid-rubber gaskets; or (iii) rubber components included in assemblies of at least three components using electrical, mechanical or hydraulic energy to do work, and attached to the engine. (b) 10 % by weight of the rubber for rubber-containing components not referred to in point (a). For the purposes of this entry, "prolonged contact with human skin" means continuous contact of more than 10 minutes duration or intermittent contact over a period of 30 minutes, per day. | Applies to category 11 and expires on 21 July 2024. |
| 44 | Lead in solder of sensors, actuators, and engine control units of combustion engines within the scope of Regulation (EU) 2016/1628 of the European Parliament and of the Council (*1), installed in equipment used at fixed positions while in operation which is designed for professionals, but also used by non-professional users | Applies to category 11 and expires on 21 July 2024. |

--END OF REPORT--

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given base on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

TÜV SÜD Certification and Testing (China) Co., Ltd.
10 Huaxia Road(M), Dongting, Wuxi
Jiangsu, 214100, P. R. China

Shanghai Chemical Lab
No.1999 Duhui Road
Shanghai City

Tel.: +86-510-88203737
Fax: +86-510-88203636
www.tuv-sud.cn
info@tuv-sud.cn

Tel.: +86-21-60376368