| RoHS Test Report | No. 201205830R | Date: Jun. 07, 2012 | Page 1 of 10 | | | | | | |
|------------------------|----------------------|---|-----------------|--|--|--|--|--|--|
| APPLICANT | No.135, Huanchen | SMART-GROUP (Dongguan Shima Electronics Co., Ltd) No.135, Huancheng Road, Mawu Village, Qiaoli Management Community, Changping Town, Dongguan city, Guangdong Province, China. | | | | | | | |
| REPORT ON THE SUBMITTE | ED SAMPLE SAID TO E | E | | | | | | | |
| SAMPLE NAME | : Room Managemer | nt Controls | | | | | | | |
| TYPE /MODEL | | DP-US, SB-6BS-US, SB-4BS BS-US, SB-6RM-Part-DN | -EU, SB-4BS-US, | | | | | | |
| MANUFACTURER | : SMART-GROUP (| Dongguan Shima Electronics | Co., Ltd) | | | | | | |
| TEST REPORT NUMBER | : 201205830R | | | | | | | | |
| SAMPLE RECEIVED DATE | : May 29, 2012 | | | | | | | | |
| TESTING PERIOD | : May 29, 2012 to Ju | ın. 07, 2012 | | | | | | | |
| ****** | ******** | ****** | ***** | | | | | | |
| TEST REQUESTED: TO CON | | JLT FOR THE SUBMITTED S | | | | | | | |
| CONCLUSION: | | | | | | | | | |
| TESTED SAMPES | <u>STANDARD</u> | | <u>RESULT</u> | | | | | | |
| SUBMITTED SAMPLE | EUROPEAN D | IRECTIVE 2011/65/EU | PASS | | | | | | |
| | RESTRICTION | I OF THE USE OF CERTAIN | HAZARDOUS | | | | | | |
| | SUBSTANCES | \$ | | | | | | | |
| | (RoHS Directiv | e) | | | | | | | |
| | | | | | | | | | |

*******FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) ***************

Signed for and on behalf of ANBOTEK COMPLIANCE LABORATORY LIMITED

Inspected by Terry Tian

Written by <u>Andy Shen</u> Approved <u>Jeff Zhu</u> Jeff Zhu / Manager

Testing method:

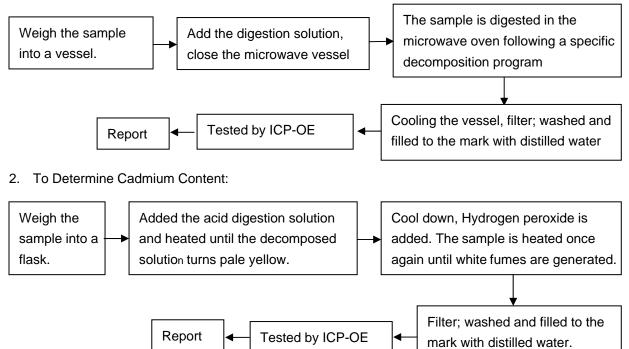
| Testing Item | Measuring method | Instrument | Report Limit |
|-------------------------------------|------------------|------------|--------------|
| Cadmium (Cd) | EN 1122B | ICP-AES | 2 mg/kg |
| Lead (Pb) | EPA 3050B | ICP-AES | 2 mg/kg |
| Mercury (Hg) | EPA 3052 | ICP-AES | 2 mg/kg |
| Chromium(VI) [Cr(VI)] | EPA 3060A | UV-VIS | 2 mg/kg |
| Polybrominated Biphenyl (PBB) | 83/264/EEC | GC/MS | 5 mg/kg |
| Polybrominated Diphenylether (PBDE) | 83/264/EEC | GC/MS | 5 mg/kg |

Method detection Limits:

| Test Item | Unit | Acceptable Limit |
|-------------------------------------|------|------------------|
| Cadmium (Cd) | ppm | 100 |
| Lead (Pb) | ppm | 1000 |
| Mercury (Hg) | ppm | 1000 |
| Chromium(VI) [Cr(VI)] | ppm | 1000 |
| Polybrominated Biphenyl (PBB) | ppm | 1000 |
| Polybrominated Diphenylether (PBDE) | ppm | 1000 |

Test flow:

1. To Determine lead Content:



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3. To Determine Mercury Content: The sample is digested in the Weigh the sample Add the digestion solution, microwave oven following a specific into a vessel. close the microwave vessel decomposition program Cooling the vessel, filter; washed and Tested by CV-AAS. Report filled to the mark with distilled water To Determine Hexavalent Chromium Content: Weigh the sample; Stir while heating the Gradually cool each Filter: washed and add the digestion samples continuously solution to room filled to the mark with solution. to 90-95°C temperature distilled water. Transfer a portion of the solution to absorption Add the diphenylcarbazide solution Report cell, measure the absorbance with UV-VIS. and adjust the pH to acidic. 5. To Determine Hexavalent Chromium Content in metals: spot-test: If the test result is positive for If the test result is negative, For a metal plate sample, Some testing steps are carried the sample, the sample is place 1-5 drops of test out to confirm that the result is considered to have a hexavalent solution on the sample chromium coating negative or positive. When ever the analyst is not certain about the spot-test result obtained, the boiling-water-extraction procedure shall be used to verify the result. 6. To Determine PBBs / PBDEs Content: Add 100mg +/- 10mg of the Add appropriate surrogate and, Add extraction to flask; extract sample into the extraction matrix spiking standards. for appropriate hours. thimbles. Collect extract, filled to the Tested by GC-MS. Report mark with solvent.

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Test Results

| Item | Unit | MDL | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> |
|--------------------------------------|------|-----|------------|------------|------------|------------|------------|
| | | | <u>1</u> | <u>2</u> | <u>3-1</u> | <u>3-2</u> | <u>4-1</u> |
| Lead Content (Pb) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Cadmium (Cd) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Mercury Content(Hg) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexavalent Chromium Content [Cr(VI)] | ppm | 2 | N.D. | Negative | N.D. | Negative | N.D. |
| Flame Retardants | | | | | | | |
| Polybrominated biphenyis (PBBs) | ppm | 5 | N.D. | N.A. | N.D. | N.A. | N.D. |
| Polybrominated Diphenylethers(PBDEs) | ppm | 5 | N.D. | N.A. | N.D. | N.A. | N.D. |

| Item | Unit | MDL | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> |
|--------------------------------------|------|-----|------------|------------|------------|------------|------------|
| | | | <u>4-2</u> | <u>5-1</u> | <u>5-2</u> | <u>6-1</u> | <u>6-2</u> |
| Lead Content (Pb) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Cadmium (Cd) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Mercury Content(Hg) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexavalent Chromium Content [Cr(VI)] | ppm | 2 | Negative | N.D. | Negative | N.D. | Negative |
| Flame Retardants | | | | | | | |
| Polybrominated biphenyis (PBBs) | ppm | 5 | N.A. | N.D. | N.A. | N.D. | N.A. |
| Polybrominated Diphenylethers(PBDEs) | ppm | 5 | N.A. | N.D. | N.A. | N.D. | N.A. |

| Item | Unit | MDL | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> |
|--------------------------------------|------|-----|------------|------------|------------|------------|------------|
| | | | <u>7-1</u> | <u>7-2</u> | <u>8-1</u> | <u>8-2</u> | <u>9-1</u> |
| Lead Content (Pb) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Cadmium (Cd) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Mercury Content(Hg) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexavalent Chromium Content [Cr(VI)] | ppm | 2 | N.D. | Negative | N.D. | Negative | N.D. |
| Flame Retardants | | | | | | | |
| Polybrominated biphenyis (PBBs) | ppm | 5 | N.D. | N.A. | N.D. | N.A. | N.D. |
| Polybrominated Diphenylethers(PBDEs) | ppm | 5 | N.D. | N.A. | N.D. | N.A. | N.D. |

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| Item | Unit | MDL | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> |
|--------------------------------------|------|-----|------------|-------------|-------------|-------------|-------------|
| | | | <u>9-2</u> | <u>10-1</u> | <u>10-2</u> | <u>10-3</u> | <u>10-4</u> |
| Lead Content (Pb) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Cadmium (Cd) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Mercury Content(Hg) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexavalent Chromium Content [Cr(VI)] | ppm | 2 | Negative | Negative | Negative | Negative | N.D. |
| Flame Retardants | | | | | | | |
| Polybrominated biphenyis (PBBs) | ppm | 5 | N.A. | N.A. | N.A. | N.A. | N.D. |
| Polybrominated Diphenylethers(PBDEs) | ppm | 5 | N.A. | N.A. | N.A. | N.A. | N.D. |

| Item | Unit | MDL | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> |
|--------------------------------------|------|-----|-------------|-------------|-------------|-------------|-------------|
| | | | <u>10-5</u> | <u>10-6</u> | <u>10-7</u> | <u>10-8</u> | <u>11-1</u> |
| Lead Content (Pb) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Cadmium (Cd) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Mercury Content(Hg) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexavalent Chromium Content [Cr(VI)] | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Flame Retardants | | | | | | | |
| Polybrominated biphenyis (PBBs) | ppm | 5 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Polybrominated Diphenylethers(PBDEs) | ppm | 5 | N.D. | N.D. | N.D. | N.D. | N.D. |

| Item | Unit | MDL | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> |
|--------------------------------------|------|-----|-------------|------------|------------|-------------|-------------|
| | | | <u>11-2</u> | <u>12</u> | <u>13</u> | <u>14-1</u> | <u>14-2</u> |
| Lead Content (Pb) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Cadmium (Cd) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Mercury Content(Hg) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexavalent Chromium Content [Cr(VI)] | ppm | 2 | Negative | Negative | Negative | Negative | Negative |
| Flame Retardants | | | | | | | |
| Polybrominated biphenyis (PBBs) | ppm | 5 | N.A. | N.A. | N.A. | N.A. | N.A. |
| Polybrominated Diphenylethers(PBDEs) | ppm | 5 | N.A. | N.A. | N.A. | N.A. | N.A. |

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| Item | Unit | MDL | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> |
|--------------------------------------|------|-----|-------------|-------------|-------------|-------------|-------------|
| | | | <u>14-3</u> | <u>14-4</u> | <u>14-5</u> | <u>14-6</u> | <u>14-7</u> |
| Lead Content (Pb) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Cadmium (Cd) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Mercury Content(Hg) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexavalent Chromium Content [Cr(VI)] | ppm | 2 | Negative | N.D. | Negative | N.D. | N.D. |
| Flame Retardants | | | | | | | |
| Polybrominated biphenyis (PBBs) | ppm | 5 | N.A. | N.D. | N.A. | N.D. | N.D. |
| Polybrominated Diphenylethers(PBDEs) | ppm | 5 | N.A. | N.D. | N.A. | N.D. | N.D. |

| Item | Unit | MDL | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> |
|--------------------------------------|------|-----|-------------|-------------|-------------|-------------|------------|
| | | | <u>14-8</u> | <u>15-1</u> | <u>15-2</u> | <u>15-3</u> | <u>16</u> |
| Lead Content (Pb) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Cadmium (Cd) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Mercury Content(Hg) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexavalent Chromium Content [Cr(VI)] | ppm | 2 | N.D. | Negative | N.D. | Negative | Negative |
| Flame Retardants | | | | | | | |
| Polybrominated biphenyis (PBBs) | ppm | 5 | N.D. | N.A. | N.D. | N.A. | N.A. |
| Polybrominated Diphenylethers(PBDEs) | ppm | 5 | N.D. | N.A. | N.D. | N.A. | N.A. |

| Item | Unit | MDL | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> | <u>No.</u> |
|--------------------------------------|------|-----|------------|------------|------------|------------|------------|
| | | | <u>17</u> | <u>18</u> | <u>19</u> | <u>20</u> | <u>21</u> |
| Lead Content (Pb) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Cadmium (Cd) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Mercury Content(Hg) | ppm | 2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexavalent Chromium Content [Cr(VI)] | ppm | 2 | N.D. | Negative | Negative | Negative | N.D. |
| Flame Retardants | | | | | | | |
| Polybrominated biphenyis (PBBs) | ppm | 5 | N.D. | N.A. | N.A. | N.A. | N.D. |
| Polybrominated Diphenylethers(PBDEs) | ppm | 5 | N.D. | N.A. | N.A. | N.A. | N.D. |

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| Item | Unit | MDL | <u>No.</u> | <u>No.</u> | | | |
|--------------------------------------|------|-----|------------|------------|--|--|--|
| | | | <u>22</u> | <u>23</u> | | | |
| Lead Content (Pb) | ppm | 2 | N.D. | N.D. | | | |
| Cadmium (Cd) | ppm | 2 | N.D. | N.D. | | | |
| Mercury Content(Hg) | ppm | 2 | N.D. | N.D. | | | |
| Hexavalent Chromium Content [Cr(VI)] | ppm | 2 | N.D. | N.D. | | | |
| Flame Retardants | | | | | | | |
| Polybrominated biphenyis (PBBs) | ppm | 5 | N.D. | N.D. | | | |
| Polybrominated Diphenylethers(PBDEs) | ppm | 5 | N.D. | N.D. | | | |

NOTE: (1) ppm=mg/kg.

(2) N.D.= NOT DETECTED (<MDL)

(3) N.A.= NOT APPLICABLE

(4) Spot-test:

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

DISCLAIM: Anbotek take no responsibility for any mistakes caused by inaccurate and /or invalid information submitted by the applicant.

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Sample Appearance Description

| Item No. | Part Name | Description |
|----------|----------------------------------|---------------------------------|
| 1 | PCB | Green PCB (mixed) |
| 2 | TIN | Silvery metal |
| 3 | CHIP IC | |
| 3-1 | BODY | Black body w/ gray printing |
| 3-2 | PIN | Silvery metal pin |
| 4 | CHIP RESISTOR | |
| 4-1 | BODY | Black body w/ white printing |
| 4-2 | PIN | Silvery metal pin |
| 5 | CHIP CAPACITOR | |
| 5-1 | BODY | Brown body |
| 5-2 | PIN | Silvery metal pin |
| 6 | CHIP DIODE | |
| 6-1 | BODY | Black body |
| 6-2 | PIN | Silvery metal pin |
| 7 | CHIP DIODE | |
| 7-1 | BODY | White body |
| 7-2 | PIN | Silvery metal pin |
| 8 | HIGH-PRESSURE CERAMICS CAPACITOR | |
| 8-1 | BODY | Blue body w/ black printing |
| 8-2 | PIN | Silvery metal pin |
| 9 | Y CAPACITOR | |
| 9-1 | BODY | Blue body |
| 9-2 | PIN | Silvery metal pin |
| 10 | ELECTROLYTICAL CAPACITOR | |
| 10-1 | FOIL | Gray metal |
| 10-2 | PIN | Silvery metal pin |
| 10-3 | ALUMINIUM | Silvery metal shell |
| 10-4 | LIQUID | Flaxen liquid |
| 10-5 | PAPER | Green paper |
| 10-6 | RUBBER | Black rubber |
| 10-7 | HEAT SHRINKABLE TUBINGS | Black plastic tube |
| 10-8 | SHELL | Brown plastic |
| 11 | RESISTOR | |
| 11-1 | BODY | Gray body w/ colourful printing |

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| Item No. | Part Name | Description |
|----------|-------------------|--|
| 11-2 | PIN | Silvery metal pin |
| 12 | CHIP GLASS DIODE | Black/orange body w/ silvery metal edge |
| 13 | CHIP GLASS DIODE | Black/blue body w/ silvery metal edge |
| 14 | TRANSFORMER | |
| 14-1 | METAL WIRE | Silvery color metal |
| 14-2 | LITZ WIRE | Copper-colored metal wire w/ transparent surface |
| 14-3 | TIN BAR | Silvery metal |
| 14-4 | INSULATION PAINT | Transparent liquid |
| 14-5 | INSULATION WIRE | Mixed yellowish brown plastic jacket & golden colored metal wire |
| 14-6 | ADHESIVE TAPE | Yellow pvc adhesive tape |
| 14-7 | BRACKET | Black granule |
| 14-8 | MN-ZN CORE | Dk-grey core |
| 15 | WIRE WINDING COIL | |
| 15-1 | WIRE | Copper color metal wire |
| 15-2 | RING | Yellow body |
| 15-3 | PIN | Silvery metal pin |
| 16 | AUDION | Black body w/ silvery metal edge |
| 17 | DRIVEPIPE | Black plastic |
| 18 | BRACE SCREW | Copper color metal w/ silvery metal edge |
| 19 | CONNECTOR | Black body w/ silvery metal edge |
| 20 | FUSE | Black body w/ silvery metal edge |
| 21 | SLICE | Transparent plastic slice |
| 22 | COVER | White plastic |
| 23 | SCREW | Silvery metal screw |

***** End of Report *****

RoHS Test Report

APPENDIX A

Photograph of Sample

