November 22nd, 2011

Rijksdienst voor het Wegverkeer
Certification and Supervision
Europaweg 205
2700 AT ZOETERMEER
The Netherlands

Subject for EC-type approval

Dear Sirs,

We hereby apply for an ECE type-approval

Concerning : the approval of vehicles/components with regard to electromagnetic compatibility

Regulation : ECE Regulation No.10.03

For the component type : Daylight 2.4

Name and address of manufacturer : Philips(China) Investment Co., Ltd.
No.9 Lane 888 Tian Lin Road, Shanghai Business Park
200233, Shanghai, China

We confirm that the above application has not been submitted to any other Member State of the European Union, nor has any Member State of the European Union granted a corresponding type approval.

Yours faithfully,

Mr. Andy Yan / Testing Engineer
Philips(China) Investment Co., Ltd.
Concerning (1):
- approval granted
- approval extended
- approval refused
- approval withdrawn
- production definitely discontinued

of a type of electrical/electronic sub-assembly (1) with regard to Regulation number 10.

Approval number: E4-10R-032195

Approval mark:

1. Make (trade name of manufacturer) : PHILIPS
2. Type and general commercial description(s) : Daylight 2.4 (LED Daytime Running Lights)
3. Means of identification of type, if marked on the vehicle/component/separate technical unit (1) : Refer to information folder page 5
3.1. Location of that marking : Affixed on the base plate (refer to information folder page 5)
4. Category of vehicle : N.A.
5. Name and address of manufacturer : Philips(China) Investment Co.,Ltd. No.9 Lane 888 Tian Lin Road, Shanghai Business Park, 200233, Shanghai, China
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 6. | In the case of components and separate technical units, location and method of affixing of the ECE approval mark:  
Affixed on the base plate, (refer to information folder page 5) |
| 7. | Address(es) of assembly plant(s):  
Mycarr Lighting Technology Co., Ltd.  
1, Lane 174, Jung Yong Rd, Chang Hwa Hsiang, Taiwan, Republic of China  
WINCHANNEL ELECTRONICS FACTORY  
No.85, Tong Gu Xia Road, Shangjiao Community, Chang’an Town, Dong Guan, Guang Dong province, China, 523878 |
| 8. | Additional information (where applicable): See Appendix |
| 9. | Technical service responsible for carrying out the tests:  
TÜV Rheinland Kraftfahrt GmbH  
Technologiezentrum Verkehrssicherheit  
Am Grauen Stein  
D-51105 Köln (Poll) |
| 10. | Date of test report: November 23, 2011 |
| 11. | Number of test report: 87-R10-539/11 |
| 12. | Remarks (if any): See Appendix |
| 13. | Place: Zoetermeer |
| 14. | Date: 29-DEC-2011 |
| 15. | Signature: |
| 16. | The index to the information package lodged with the approval authority, which may be obtained on request, is attached. |
| 17. | Reasons for extension: --- |
APPENDIX

to type-approval communication form number: E4-10R-032195, Extension number: 00

cconcerning the type-approval of an electrical/electronic sub-assembly (1) under Regulation number 10.

1. Additional information

1.1. Electrical system rated voltage : 12V pos./neg. ground (1)

1.2. This ESA can be used on any vehicle type with the following restrictions : No restriction

1.2.1. Installation conditions, if any : Connected to the battery (IGN) of the vehicle

1.3. This ESA can be used only on the following vehicle types : No restriction

1.3.1. Installation conditions, if any : Mounting in the central tunnel of the vehicle

1.4. The specific test method(s) used and the frequency ranges covered to determine immunity were :
   ISO 11452-4 3rd edition: 2005
   Bulk current injection testing method (from 20 to 200MHz)
   ISO 11452-2 2nd edition: 2004
   Free field testing method (from 200 MHz to 2000MHz)

1.5. Laboratory accredited to ISO 17025 and recognized by the Approval Authority responsible for carrying out the tests :
   TÜV Rheinland Kraftfahrt GmbH
   Technologiezentrum Verkehrssicherheit
   Am Grauen Stein
   D-51105 Köln (Poll)

2. Remarks : ---

(1) Strike out what does not apply.
<table>
<thead>
<tr>
<th>DOCUMENT</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical description</td>
<td>2-3</td>
</tr>
<tr>
<td>Daylight 2.4 Assembly drawing</td>
<td>4</td>
</tr>
<tr>
<td>Location of E-MARK and Trade mark</td>
<td>5</td>
</tr>
<tr>
<td>Daylight 2.4 PCB Layout</td>
<td>6-8</td>
</tr>
<tr>
<td>Bill of materials</td>
<td>9</td>
</tr>
</tbody>
</table>
INFORMATION DOCUMENT FOR TYPE-APPROVAL OF AN ELECTRIC/ELECTRONIC SUB-ASSEMBLY WITH RESPECT TO ELECTROMAGNETIC COMPATIBILITY ACCORDING ANNEX IIB OF ECE-R10.03

1 Make (trade name of the manufacturer) : PHILIPS

2 Type and general commercial description(s) : Daylight 2.4
   - commercial description(s) : LED Daytime Running Lights
   - version(s) : 4.0

3 Name and address of the manufacturer : Philips(China) Investment Co., Ltd
   No.9 Lane 888 Tian Lin Road, Shanghai Business Park,
   200233, Shanghai, China

4 In the case of components and separate technical units, location and method of affixing of the approval mark : Label on the front panel of the Control Box

5 Address(es) of assembly plant(s) : 1) Mycarr Lighting Technology Co., Ltd.
   1, Lane 174, Jung Yong Rd, Chang Hwa Hsiang,
   Taiwan, Republic of China

   2) WINCHANNEL ELECTRONICS FACTORY
   No.85, Tong Gu Xia Road, Shangjiao Community,
   Chang’an Town, Dong Guan, Guang Dong province,
   China, 523878

6 This ESA shall be approved as a : Component/STU

7 Any restrictions of use and conditions for fitting : No restriction (Manufacturer’s instructions to be followed)
Additional information

Electrical system rated voltage : DC 12V, Negative ground

This ESA can be used on any vehicle type with the following restrictions : No restriction

Installation conditions : Connected to the battery (IGN) of the vehicle

This ESA can be used on the following vehicle types : No restriction

Installation conditions : Mounting in the central tunnel of the vehicle

The specific test method(s) used and the frequency ranges covered to determine immunity were

frequency range : ---

Remark : Size: Control Box: 70.2 * 50.5 *26.9 mm
Lights x 2: 125.3 * 23.3 *30 mm

DC Functional Input Voltage Range: 9~16 VDC
Maximum Input Current: 1 A
Output Voltage: 2-30V
Output Current: 300mA+-10%

---
Front view of Control Box

Back View of Control Box

Front View of Lights

Side View of Lights

<table>
<thead>
<tr>
<th>Type</th>
<th>Daylight 2.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page</td>
<td>4 of 9</td>
</tr>
</tbody>
</table>
Location of E-MARK and Trade mark

![Diagram showing the location of E-MARK and Trade mark on a device.]
Front View of PWB of Control Box

Rear View of PWB of Control Box

Front View of PWB of Light

Rear View of PWB of Light

<table>
<thead>
<tr>
<th>Type</th>
<th>Daylight 2.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page</td>
<td>6 of 9</td>
</tr>
</tbody>
</table>
Circuit Schematic

Components Layout of PWB of Control Box

Layout of PWB of Lights
Circuit Diagram of Control Box

Circuit Diagram of Light
Bill of materials

<table>
<thead>
<tr>
<th>NO.</th>
<th>Name</th>
<th>Type</th>
<th>Specification</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>L1</td>
<td>744771147</td>
<td>47uH, 2.3A</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>L2</td>
<td>744772470</td>
<td>47uH, 2.0A</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>U1</td>
<td>ZXLD1370</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>D0,D1</td>
<td>B3100</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>D2,D7,D8</td>
<td>1N4148WS</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Z3,D3,Z5</td>
<td>bzt52c15</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Z1,Z2</td>
<td>BZT52C36</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Z4</td>
<td>SMCJ36CA</td>
<td></td>
<td>1</td>
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<tr>
<td>9</td>
<td>Q1</td>
<td>ZXMN10A25K</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Q2,Q3,Q6</td>
<td>2N7002k</td>
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<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Q5</td>
<td>FMMT491</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>D5,D6</td>
<td>BZT52C3V3</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>C1</td>
<td>GRM1885C1H1 01JA01D</td>
<td>100pF, 50V</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>C5</td>
<td>GRM319R72A1 04KA01D</td>
<td>0.1uF, 100V</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>C3,C4,C8,C12</td>
<td>GRM188R71H1 04KA93D</td>
<td>0.1uF, 50V</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>C9</td>
<td>GRM32ER72A2 25KA35L</td>
<td>2.2µF 100V X7R</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>C11</td>
<td>GRM21BR71H4 74KA88L</td>
<td>0.47µF, 50V, X7R</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>C2,C30</td>
<td></td>
<td>47µF, 63V</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>R1,R2</td>
<td></td>
<td>R30,1%, 1/2W</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>R3</td>
<td></td>
<td>24k, 1%</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>R14,R15,R16</td>
<td></td>
<td>100k, 5%</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>R5,R11,R17</td>
<td></td>
<td>47k, 5%</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>R9</td>
<td></td>
<td>100k, 1%</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>R10</td>
<td></td>
<td>30k, 1%</td>
<td>1</td>
</tr>
<tr>
<td>25</td>
<td>R12</td>
<td></td>
<td>22.5%</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>R13</td>
<td></td>
<td>100R, 5%</td>
<td>1</td>
</tr>
</tbody>
</table>
Test Report No.: 87-R10-539/11

Manufacturer: Philips(China) Investment Co., Ltd.

Type: Daylight 2.4

TEST REPORT

going according to ECE-Regulation

Uniform provisions concerning the approval of vehicles
with regard to electromagnetic compatibility

ECE-R10
including all amendments until

Supplement 1 to the 03 series of amendments

Previously granted

| ECE - certificate | --- |

Structure of the Test Report

Item No. | General information
---------|-------------------
1.       | Tested vehicle(s) / object(s)
2.       | Test record
3.       | List of Appendices
4.       | Statement of conformity
Appendix 0 | List of modifications
Appendix 1 | Test protocol
0. General information

0.1. Make (trade name of the manufacturer) : PHILIPS

0.2. Type : Daylight 2.4

0.3. Category of vehicle : Not applicable

0.4. Name and address of the manufacturer : Philips(China) Investment Co., Ltd.
   No.9 Lane 888 Tian Lin Road, Shanghai Business Park,
   200233, Shanghai, China

0.5. No. of the information folder - Date of issue : 09J11-00
   - Date of last change : July 21, 2011

1. Tested object(s)

1.1. Description

Object : LED Daytime Running Lights
Commercial description : LED Daytime Running Lights
Type(s) : Daylight 2.4
Variant : ---
Version : 4.0
Identification number : not applicable

1.2. Remarks : The results of the test refer exclusively to the object(s) mentioned under point 1.1. of this report.
2. Test record

2.1. Equipment for measuring and testing: The test facilities / measurement equipment used were in compliance with the test requirements.

2.1.1. Specifications for the test site: ---

2.2. Test results

Remark concerning extension: The ESA has been tested according the amendments mentioned in Appendix 0.

The actual measurement test of the ESA was not required. The test result of the previous test are still valid.

2.2.1. General requirements

2.2.2. Test results – radiated narrowband electromagnetic emissions: The requirements of the standards are met (Test data see Appendix 1)

2.2.3. Test results – radiated broadband electromagnetic emissions: The requirements of the standards are met (Test data see Appendix 1)

2.2.4. Test results – immunity to electromagnetic radiation: The requirements of the standards are met (Test data see Appendix 1)

2.2.5. Test results – conducted Emission: The requirements of the standards are met (Test data see Appendix 1)

2.2.6. Test results – immunity to conducted transients: The requirements of the standards are met (Test data see Appendix 1)

2.3. Additional information

The results of the test refer exclusively to the object(s) mentioned under point 1.1. of this report.

Test site: Bureau Veritas ADT (Shanghai) Corporation

2F, Building C, No. 1618, Yishan Road

201103 Shanghai, China

Test date: October 8, 2011 - October 11, 2011

2.4. Remarks: ---
3. List of Appendices

<table>
<thead>
<tr>
<th></th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>List of modifications</td>
</tr>
<tr>
<td>1</td>
<td>Test protocol</td>
</tr>
</tbody>
</table>

Information folder No.: 09J11-00

4. Statement of conformity

The information folder and the type described there comply with the requirements in the above mentioned regulation.

The test laboratory is accredited for the above mentioned tests by the accreditation body of the RDW, Vehicle Technology and Information Centre, as the competent Administrative Department for the Netherlands; Accreditation No: RDW-99050014-05.

The technical report comprises the pages 1 to 12 (including appendices 0 to 1) and shall not be reproduced except in full without the written approval of the test laboratory.

Cologne, November 23, 2011

ZLJ/CC

B.S.M.E. Liangjun Zhang
List of modifications

Correction of : ---

Modification of : ---

Addition of : ---

Deletion of : ---
Test protocol

Test object

Trade name: PHILIPS
Version(s): 4.0

Technical data of the tested ESA type

Electrical system rated voltage: DC 12V, negative ground
This ESA can be used on any vehicle type with the following restrictions: No restriction
Installation conditions: Connected to the battery (IGN) of the vehicle
This ESA can be used on the following vehicle types: no restrictions
Installation conditions: Mounting in the central tunnel of the vehicle
Test results

1. Radiated narrow band / broadband electromagnetic emissions:

Radiated broadband electromagnetic emissions : as shown in table 1
Radiated narrowband electromagnetic emissions : as shown in table 2
Antenna position : horizontal and vertical
Rated voltage : DC 12V

Horizontal Polarity Test Result Diagram (Broadband)
Vertical Polarity Test Result Diagram (Broadband)

Maximum broadband PK value (table 1):

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Test results (dBµV/m)</th>
<th>Reference QP Limit (dBµV/m)</th>
<th>Reference PK Limit (dBµV/m)</th>
<th>Margin to reference value (dBµV/m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>151.15</td>
<td>53.80</td>
<td>---</td>
<td>56.60</td>
<td>76.60</td>
</tr>
<tr>
<td>280.60</td>
<td>---</td>
<td>54.40</td>
<td>60.67</td>
<td>80.67</td>
</tr>
</tbody>
</table>
Horizontal Polarity Test Result Diagram (Narrow band)

E mark 2004 NB Bicon PK&AVG

E mark 2004 NB Log PK&AVG
Vertical Polarity Test Result Diagram (Narrow band)

Maximum narrowband AV value (table 2):

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Test results (dBµV/m)</th>
<th>Reference AV Limit (dBµV/m)</th>
<th>Margin to reference value (dBµV/m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>hor.</td>
<td>vert.</td>
<td></td>
</tr>
<tr>
<td>150.42</td>
<td>43.10</td>
<td>---</td>
<td>3.47</td>
</tr>
<tr>
<td>280.92</td>
<td>---</td>
<td>46.40</td>
<td>4.28</td>
</tr>
</tbody>
</table>
2. Conducted emissions


<table>
<thead>
<tr>
<th>Polarity of pulse amplitude</th>
<th>Maximum allowed value for vehicles with 12V systems</th>
<th>Measured Pulse amplitude True value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>+ 75</td>
<td>+ 23.1</td>
</tr>
<tr>
<td>Negative</td>
<td>- 100</td>
<td>- 4.3</td>
</tr>
</tbody>
</table>

3. Immunity to electromagnetic radiation

Test method: ISO 11452-4 3rd edition: 2005
- Bulk current injection testing method (from 20 to 200MHz)
- ISO 11452-2 2nd edition: 2004
  - Free field testing method (from 200 MHz to 2000MHz)

Measurement result:

<table>
<thead>
<tr>
<th>Frequency range (MHz)</th>
<th>Test level</th>
<th>Type of modulation</th>
<th>Test distance</th>
<th>Antenna position</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>20~400</td>
<td>60mA</td>
<td>/</td>
<td>150mm</td>
<td>/</td>
<td>Passed*</td>
</tr>
<tr>
<td>400~800</td>
<td>30volts/m</td>
<td>AM, 80%</td>
<td>1 m</td>
<td>Vertical</td>
<td>Passed*</td>
</tr>
<tr>
<td>800~2000</td>
<td>30volts/m</td>
<td>PM, 577µs</td>
<td>1 m</td>
<td>Vertical</td>
<td>Passed*</td>
</tr>
</tbody>
</table>

Remark:
* no degradation of performance of ‘immunity-related functions’.
4. Immunity to transient disturbances


Measurement result:

<table>
<thead>
<tr>
<th>Test pulse</th>
<th>Test level</th>
<th>Number of pulse / test time</th>
<th>Burst cycle / pulse repetition time</th>
<th>Required minimum function status*</th>
<th>Status of function true value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-75V</td>
<td>5000 pulses</td>
<td>0.5s</td>
<td>C</td>
<td>C</td>
<td>Passed</td>
</tr>
<tr>
<td>2a</td>
<td>+37V</td>
<td>5000 pulses</td>
<td>0.5s</td>
<td>B</td>
<td>A</td>
<td>Passed</td>
</tr>
<tr>
<td>2b</td>
<td>+10V</td>
<td>10 pulses</td>
<td>2s</td>
<td>C</td>
<td>C</td>
<td>Passed</td>
</tr>
<tr>
<td>3a</td>
<td>-112V</td>
<td>1 h</td>
<td>90ms</td>
<td>A</td>
<td>A</td>
<td>Passed</td>
</tr>
<tr>
<td>3b</td>
<td>+75V</td>
<td>1 h</td>
<td>90ms</td>
<td>A</td>
<td>A</td>
<td>Passed</td>
</tr>
<tr>
<td>4</td>
<td>-6V</td>
<td>1 pulse</td>
<td>2s</td>
<td>B</td>
<td>A</td>
<td>Passed</td>
</tr>
</tbody>
</table>

Remark:
* Class A: all functions of a device/system perform as designed during and after exposure to disturbance.

Class B: all functions of a device/system perform as designed during exposure. However, one or more of them can go beyond specified tolerance. All functions return automatically to within normal limits after exposure is removed. Memory functions shall remain class A.

Class C: one or more functions of a device/system do not perform as designed during exposure but return automatically to normal operation after exposure is removed.

Class D: one or more functions of a device/system do not perform as designed during exposure and do not return to normal operation until exposure is removed and the device/system is reset by simple “operator/use” action.

Class E: one or more functions of a device/system do not perform as designed during and after exposure and cannot be returned to proper operation without repairing or replacing the device/system.