



HONG KONG STANDARDS AND TESTING CENTRE
EC DECLARATION OF CONFORMITY

Reference Number: EMC1406699DOC

K-MARK INDUSTRIAL LIMITED
FLAT A, 7/F., MAI ON IND. BLDG., 17-21 KUNG YIP STREET,
KWAI CHUNG, HONG KONG

declare the product

Description: Onguard
Brand Name: Good Life, LLC
Model: UBC-DG1

complies with the requirements of the
EC Council Directive on electromagnetic compatibility 2004/108/EC

Applicable Standard(s) with amendments:

EN61000-6-3: 2007 +A1: 2011
EN61000-6-1: 2007
EN55015: 2006 +A1: 2007 +A2: 2009
EN61547: 2009

General Remarks:

This declaration is only valid when used in conjunction with the technical file(s) refers to HM168868.

This declaration applies specifically to the sample(s) investigated in the technical report mentioned above and not to the bulk.

The CE marking as shown below can be affixed on the product after preparation of necessary conformity documentation, as stipulated in Articles of the Council Directive 2004/108/EC.

Manufacturer/Importer



Test Laboratory

Signature



CHEUNG Chi, Kenneth

Authorized Signatory

ElectroMagnetic Compatibility Department

For and on behalf of

Hong Kong Standards and Testing Centre

www.stc-group.org

Date of Issue: 2014-01-09



STC Test Report

Date: 2014-01-09

Page 1 of 9

No.: HM168868

Applicant (KMA001): K-MARK INDUSTRIAL LIMITED
FLAT A, 7/F., MAI ON IND. BLDG., 17-21 KUNG YIP STREET, KWAI CHUNG, HONG KONG

Description of Sample(s): Submitted sample(s) said to be
Product: Onguard
Brand Name: Good Life, LLC
Model Number: UBC-DG1
Manufacturer: K-MARK INDUSTRIAL LIMITED
FLAT A, 7/F., MAI ON IND. BLDG.,
17-21 KUNG YIP STREET, KWAI
CHUNG, HONG KONG
Rating: 6.0Vd.c. ("AA" size battery x 4)


Date Sample(s) Received: 2013-12-27

Date Tested: 2013-12-31 to 2014-01-02

Investigation Requested: Test for compliance with EMC requirements of EN61000-6-3, EN61000-6-1, EN55015 and EN61547.

Conclusion(s): The submitted product COMPLIED with the requirements of EN61000-6-3: 2007 +A1: 2011, EN61000-6-1: 2007, EN55015: 2006 +A1: 2007 +A2: 2009 and EN61547: 2009.

Remark(s): ---


CHEUNG Chi, Kenneth
Authorized Signatory
ElectroMagnetic Compatibility Department
For and on behalf of
The Hong Kong Standards and Testing Centre Ltd.

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@hkstc.org Website: www.stc-group.org

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to the overleaf and Website.



STC Test Report

Date: 2014-01-09

Page 2 of 9

No.: HM168868

Technical Details

Investigations Requested

Perform ElectroMagnetic Interference [EMI] & ElectroMagnetic Susceptibility [EMS] tests for CE Marking

Test Standards and Results Summary Tables

Test Standards	
EN61000-6-3: 2007 +A1: 2011	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments
EN61000-6-1: 2007	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments
EN55015: 2006 +A1: 2007 +A2: 2009	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
EN61547: 2009	Equipment for general lighting purposes - EMC immunity requirements

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@hkstc.org Website: www.stc-group.org

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to the overleaf and Website.



STC Test Report

Date: 2014-01-09

Page 3 of 9

No.: HM168868

Test Standards and Results Summary Tables

EMISSION Results Summary						
Test Condition	Test Requirement	Test Method	Class / Severity	Test Result*		
				Pass	Failed	N/A
Radiated Emission, 30MHz to 1GHz	EN61000-6-3: 2007 +A1: 2011	EN55022: 2010	Class B	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
**Radiated Emission, 30MHz to 300MHz	EN55015: 2006 +A1: 2007 +A2: 2009	EN55022: 2006	Table 3b	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
**H-Field Emissions, 9kHz - 30MHz	EN55015: 2006 +A1: 2007 +A2: 2009	EN55015: 2006 +A1: 2007 +A2: 2009	Table 3a	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@hkstc.org Website: www.stc-group.org

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to the overleaf and Website.



STC Test Report

Date: 2014-01-09

Page 4 of 9

No.: HM168868

Test Standards and Results Summary Tables

IMMUNITY Results Summary						
Test Condition	Test Requirement	Test Method	Class / Severity	Test Result		
				Pass	Failed	N/A
Electrostatic Discharge	EN61000-6-1: 2007	EN61000-4-2: 2009	Cont: ±2.0kV, ±4.0kV Air: ±2.0kV, ±4.0kV, ±8.0kV	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electrostatic Discharge	EN61547: 2009	EN61000-4-2: 2009	Cont: ±2.0kV, ±4.0kV Air: ±2.0kV, ±4.0kV, ±8.0kV	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiated Immunity, 80MHz to 1000MHz 1400MHz to 2700MHz	EN61000-6-1: 2007	EN61000-4-3: 2006 +A1: 2008	1V/m 3V/m	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiated Immunity, 80MHz to 1000MHz	EN61547: 2009	EN61000-4-3: 2006 +A1: 2008 +IS1: 2009	3 V/m	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks:

* - The compliance with the CISPR radio disturbance limits are evaluated based on one sample.

** - This product falls under clause 5.1 of EN55015. No tests are required in accordance with clause 5.1 which states:-

"No emission requirements apply to lamps other than self-ballasted lamps nor to auxiliaries incorporated in luminaires, in self-ballasted lamps or in semi-luminaires."

N/A - Not Applicable



STC Test Report

Date: 2014-01-09

Page 5 of 9

No.: HM168868

Test Results

Radiated Emissions (30MHz to 1GHz)

Test Requirement: EN61000-6-3
Test Method: EN55022
Level: Class B

Test Date(s): 2013-12-31

Mode of Operation: All modes

Test Method:

The test was performed in accordance with EN55022 at 3m test distance on a standard radiated emission test site.

Limits for Radiated Emission:

Frequency Range [MHz]	Quasi-Peak Limits [dB μ V/m]
30-230	40
230-1000	47

Results of All modes: PASS

Please refer to the following table for result details

The quasi-peak measurements were recorded as follows:-

Frequency MHz	Level @3m dB μ V/m	Limit @3m dB μ V/m	Margin dB	E-Field Polarity
48.1	10.4	40.0	29.6	Horizontal
84.8	9.7	40.0	30.3	Horizontal
212.2	12.7	40.0	27.3	Horizontal
570.2	21.9	47.0	25.1	Horizontal
798.1	25.7	47.0	21.3	Horizontal
959.6	27.8	47.0	19.2	Horizontal

Remarks:

Calculated measurement uncertainty (30MHz – 1GHz): 4.9dB

Emissions in the vertical and horizontal polarizations have been investigated and the worst-case test results are recorded in this report.

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@hkstc.org Website: www.stc-group.org

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to the overleaf and Website.



STC Test Report

Date: 2014-01-09

Page 6 of 9

No.: HM168868

Electrostatic Discharge

Test Requirement: EN61000-6-1
 Test Method: EN61000-4-2
 Severity: $\pm 2\text{kV}$, $\pm 4\text{kV}$ for Direct & Indirect Contact Discharge
 $\pm 2\text{kV}$, $\pm 4\text{kV}$, $\pm 8\text{kV}$ for Air Discharge

Performance Criterion Requirement: B

Temperature: 25.0 °C
 Humidity: 48.0 %
 Atmospheric Pressure: 102.0 kPa

Test Date(s): 2014-01-02

Mode of Operation: All modes

Test Method:

The test was performed in accordance with EN61000-4-2.

Results of All modes: PASS

Please refer to the following table for individual results.

Location	Discharge Method	Test Voltage	Individual Results	
			Pass	Failed
HCP [Horizontal Coupling Plane]	Indirect Contact	$\pm 2\text{kV}$, $\pm 4\text{kV}$	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VCP [Vertical Coupling Plane]	Indirect Contact	$\pm 2\text{kV}$, $\pm 4\text{kV}$	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Screw(s) x 5	Direct Contact	$\pm 2\text{kV}$, $\pm 4\text{kV}$	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Enclosure	Air	$\pm 2\text{kV}$, $\pm 4\text{kV}$, $\pm 8\text{kV}$	<input checked="" type="checkbox"/>	<input type="checkbox"/>

***EUT Grounding	<input type="checkbox"/> Grounded.	<input checked="" type="checkbox"/> Ungrounded
------------------	------------------------------------	--

Remarks:

***For ungrounded EUT, the charge on the EUT shall be removed prior to each applied ESD pulse

Calculated measurement uncertainty: 2.0% of tested voltage

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@hkstc.org Website: www.stc-group.org

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to the overleaf and Website.



STC Test Report

Date: 2014-01-09

Page 7 of 9

No.: HM168868

Electrostatic Discharge

Test Requirement: EN61547
Test Method: EN61000-4-2
Severity: ±2kV, ±4kV for Direct & Indirect Contact Discharge
±2kV, ±4kV, ±8kV for Air Discharge

Performance Criterion Requirement: B

Temperature: 24.0 °C
Humidity: 48.0 %
Atmospheric Pressure: 102.0 kPa

Test Date(s): 2014-01-02

Mode of Operation: On mode (with light)

Test Method:

The test was performed in accordance with EN61000-4-2.

Results of On mode (with light): PASS

Please refer to the following table for individual results.

Location	Discharge Method	Test Voltage	Individual Results	
			Pass	Failed
HCP [Horizontal Coupling Plane]	Indirect Contact	±2kV, ±4kV	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VCP [Vertical Coupling Plane]	Indirect Contact	±2kV, ±4kV	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Screw(s) x 5	Direct Contact	±2kV, ±4kV	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Enclosure	Air	±2kV, ±4kV, ±8kV	<input checked="" type="checkbox"/>	<input type="checkbox"/>

***EUT Grounding	<input type="checkbox"/> Grounded	<input checked="" type="checkbox"/> Ungrounded
------------------	-----------------------------------	--

Remark:

***For ungrounded EUT, the charge on the EUT shall be removed prior to each applied ESD pulse
Calculated measurement uncertainty: 2.0% of tested voltage

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@hkstc.org Website: www.stc-group.org

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to the overleaf and Website.



STC Test Report

Date: 2014-01-09

Page 8 of 9

No.: HM168868

Radiated Immunity (80MHz to 1000MHz, 1400MHz to 2700MHz)

Test Requirement: EN61000-6-1
 Test Method: EN61000-4-3
 Severity: Level 1 [1V/m], Level 2 [3V/m]
 Modulation: 80% 1kHz AM

Performance Criterion Requirement: A

Temperature: 25.0 °C
 Humidity: 45.0 %
 Atmospheric Pressure: 102.0 kPa

Test Date(s): 2014-01-02

Mode of Operation: All modes

Test Method:

The test was performed in accordance with EN61000-4-3.

Results of All modes: PASS

Please refer to the following table for individual results.

Frequency (MHz)	Face of EUT	E-Field Polarity	Field Strength (V/m)	Dwell Time (sec.)	Frequency Step (%)	Individual Results	
						Pass	Failed
80-1000	0°, 90°, 180°, 270°	Horizontal	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1400-2000	0°, 90°, 180°, 270°	Horizontal	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2000-2700	0°, 90°, 180°, 270°	Horizontal	1	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>

80-1000	0°, 90°, 180°, 270°	Vertical	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1400-2000	0°, 90°, 180°, 270°	Vertical	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2000-2700	0°, 90°, 180°, 270°	Vertical	1	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks:

The dwell time at each frequency is according to the standard being applied and the basic standard

Calculated measurement uncertainty: Level 2 (-0.47, +0.56) V/m, Level 1 (-0.16, +0.19) V/m

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@hkstc.org Website: www.stc-group.org

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to the overleaf and Website.



STC Test Report

Date: 2014-01-09

Page 9 of 9

No.: HM168868

Radiated Immunity [80MHz to 1000MHz]

Test Requirement: EN61547
Test Method: EN61000-4-3
Severity: Level 2 [3V/m]
Modulation: 80% 1kHz AM

Performance Criterion Requirement: A

Temperature: 25.0 °C
Humidity: 45.0 %
Atmospheric Pressure: 102.0 kPa

Test Date(s): 2014-01-02

Mode of Operation: On mode (with light)

Test Method:

The test was performed in accordance with EN61000-4-3.

Results of On mode (with light): PASS

Please refer to the following diagram for individual results.

Frequency (MHz)	Face of EUT	E-Field Polarity	Field Strength (V/m)	Dwell Time (sec.)	Frequency Step (%)	Individual Results	
						Pass	Failed
80-1000	0°, 90°, 180°, 270°	Horizontal	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
80-1000	0°, 90°, 180°, 270°	Vertical	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remark:

The dwell time at each frequency is according to the standard being applied and the basic standard
Calculated measurement uncertainty: Level 2 -0.47V/m (Negative Value), +0.56V/m (Positive Value)

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

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@hkstc.org Website: www.stc-group.org

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to the overleaf and Website.