



STC (Dongguan) Company Limited
EC DECLARATION OF CONFORMITY

Reference Number: EMC-D142312DOC

Dongguan Mosaic Electronics Fty
Xing ye 3rd Road, Xiabian Industrial Park, Changan Town, Dongguan City, Guangdong Province

declare the product

Description: Personal alarm
Brand Name: N/A
Model: PA38

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

General Remarks:

This declaration is only valid when used in conjunction with the technical file(s) refers to DM117492.

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

LONG Yun Jian
Authorized Signatory
ElectroMagnetic Compatibility Department
For and on behalf of
STC (Dongguan) Company Limited

www.dgstc.org

Date of Issue: 2014-11-13



STC Test Report



Date: 2014-11-13
No.: DM117492

Page 1 of 13

Applicant: Dongguan Mosaic Electronics Fty
Xing ye 3rd Road, Xiabian Industrial Park, Changan Town,
Dongguan City, Guangdong Province

Description of Sample(s): Submitted sample(s) said to be
Product: Personal alarm
Brand Name: N/A
Model Number: PA38

Date Sample(s) Received: 2014-11-04

Date Tested: 2014-11-05 to 2014-11-11

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

Conclusion(s): The submitted product COMPLIED with the requirements of
EN61000-6-3: 2007 + A1:2011, EN61000-6-1: 2007. The
EMC tests were performed in accordance with the standards
described above and on Section 2.2 in this Test Report.

Remark(s): ---


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Authorized Signatory
ElectroMagnetic Compatibility Department
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STC Test Report

Date: 2014-11-13
No.: DM117492

Page 2 of 13

CONTENT:

Cover	Page 1 of 13
Content	Page 2 of 13
<u>1.0 General Details</u>	
1.1 Equipment Under Test [EUT] Description of Sample(s)	Page 3 of 13
1.2 Date of Order	Page 3 of 13
1.3 Submitted Sample(s)	Page 3 of 13
1.4 Test Duration	Page 3 of 13
1.5 Country of Origin	Page 3 of 13
<u>2.0 Technical Details</u>	
2.1 Investigations Requested	Page 4 of 13
2.2 Test Standards and Results Summary	Page 4-5 of 13
<u>3.0 Test Results</u>	
3.1 Emission	Page 6-8 of 13
3.2 Immunity	Page 9-13 of 13
<u>Appendix A</u>	
List of Measurement Equipment	Page A1 of A1
<u>Appendix B</u>	
Photograph(s) of Product	Page B1-B3 of B3

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STC Test Report

Date: 2014-11-13
No.: DM117492

Page 3 of 13

1.0 General Details

1.1 Equipment Under Test [EUT] Description of Sample(s)

Product:	Personal alarm
Manufacturer:	Dongguan Mosaic Electronics Fty Xing ye 3rd Road, Xiabian Industrial Park, Changan Town, Dongguan City, Guangdong Province
Brand Name:	N/A
Model Number:	PA38
Rating:	3.0Vd.c. ("AAA" size battery x2)

1.2 Date of Order

2014-11-04

1.3 Submitted Sample(s):

1 Sample

1.4 Test Duration

2014-11-05 to 2014-11-11

1.5 Country of Origin

China

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STC Test Report

Date: 2014-11-13
No.: DM117492

Page 4 of 13

2.0 Technical Details

2.1 Investigations Requested

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

2.2 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

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STC Test Report

Date: 2014-11-13
No.: DM117492

Page 5 of 13

2.2 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"/>

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: 1995	±2kV, ±4kV Cont ±2kV, ±4kV, ±8.0kV Air	<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	3V/m 1V/m	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remark:
N/A: Not Applicable

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STC Test Report

Date: 2014-11-13
No.: DM117492

Page 6 of 13

3.0 Test Results

3.1 Emission

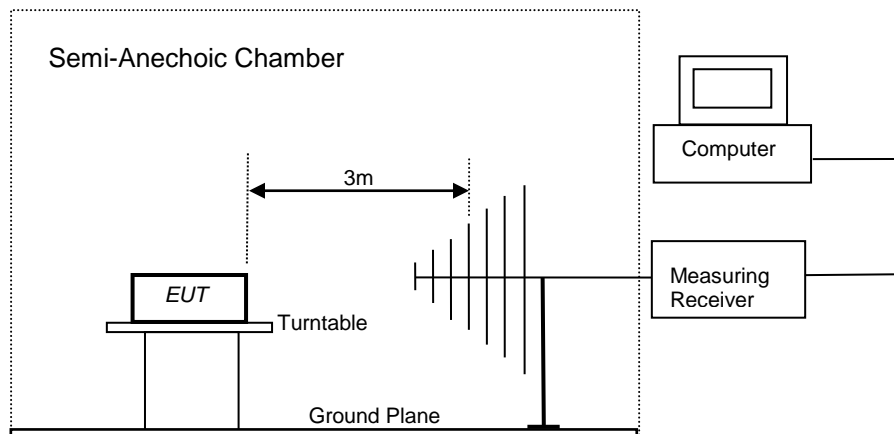
3.1.1 Radiated Emissions (30MHz to 1000MHz)

Test Requirement:	EN 61000-6-3
Test Method:	EN 55022
Level:	Class B
Test Date(s):	2014-11-05
Mode of Operation:	On mode

Test Method:

The test was performed in accordance with EN 55022 at 3m test distance on a standard emission test site, with quasi-peak measurements performed if the maximised peak measurements were less than 6dB from the corresponding Class B limit lines.

Test Setup:



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STC Test Report

Date: 2014-11-13
No.: DM117492

Page 7 of 13

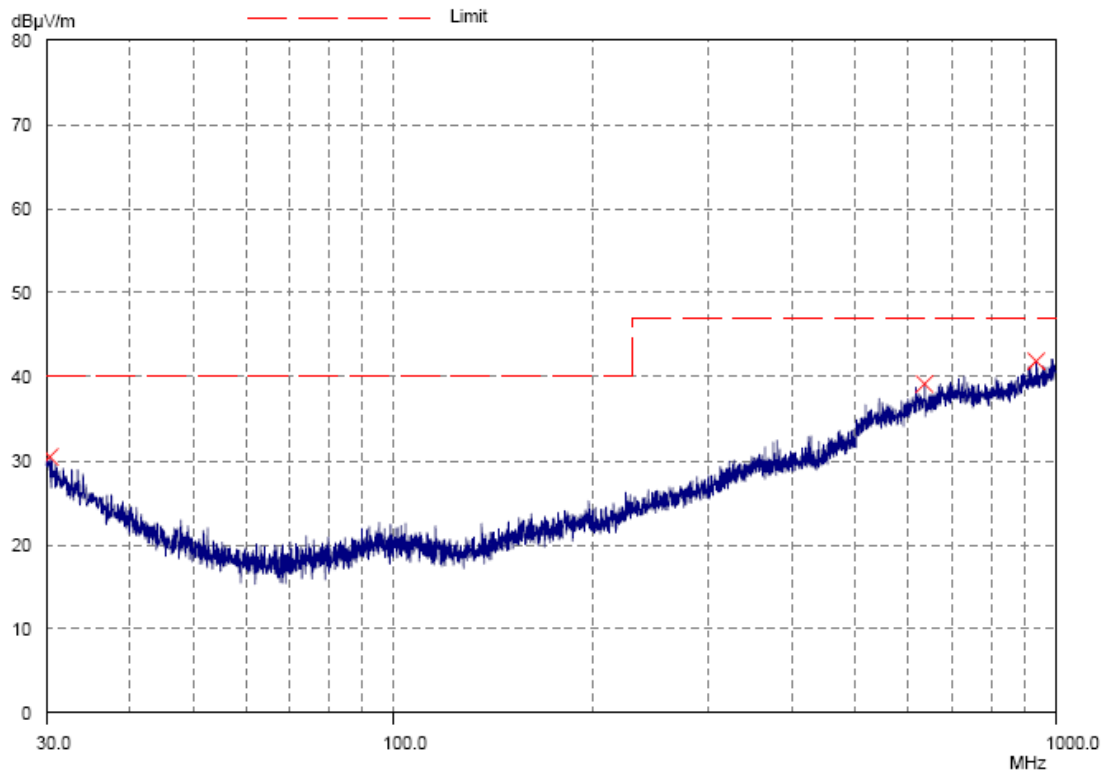
Limits for Radiated Emission:

Frequency Range [MHz]	Quasi-Peak Limits [dB μ V/m]
30-230	40.0
230-1000	47.0

Results of On mode: Pass

Please refer to the following table for result details

Horizontal



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
30.4	27.0	40.0	13.0	Horizontal
635.1	36.2	47.0	10.8	Horizontal
935.7	37.0	47.0	10.0	Horizontal

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STC Test Report

Date: 2014-11-13
No.: DM117492

Page 8 of 13

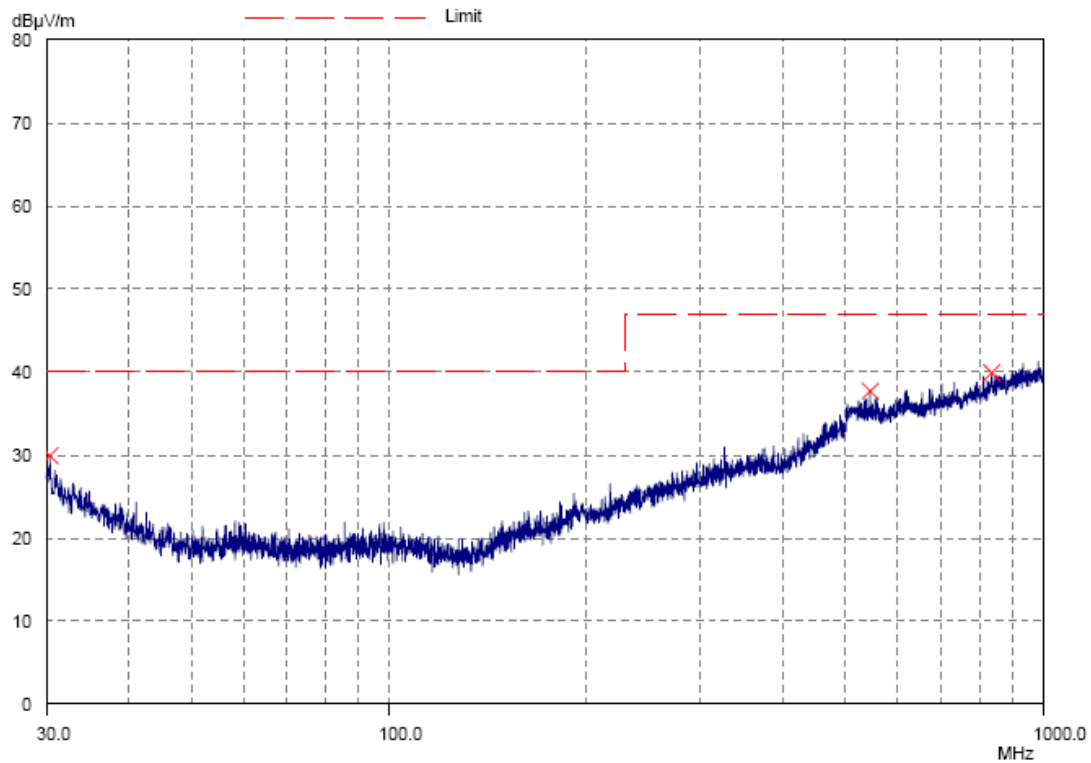
Limits for Radiated Emission:

Frequency Range [MHz]	Quasi-Peak Limits [dB μ V/m]
30-230	40.0
230-1000	47.0

Results of On mode: Pass

Please refer to the following table for result details

Vertical



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
30.4	27.6	40.0	12.4	Vertical
545.0	34.5	47.0	12.5	Vertical
835.3	36.0	47.0	11.0	Vertical

Remark:

Calculated measurement uncertainty (30MHz – 1GHz): 4.6dB

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

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STC Test Report

Date: 2014-11-13
No.: DM117492

Page 9 of 13

3.2 Immunity

3.2.1 Susceptibility Performance Criteria

A	Normal performance within the specification limits
B	Temporary degradation or loss of function or performance which is self-recoverable
C	Temporary degradation or loss of function or performance which requires operator intervention or system reset
D	Degradation or loss of function which is not recoverable due to damage of equipment (components) or software, or loss of data

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STC Test Report

Date: 2014-11-13
No.: DM117492

Page 10 of 13

3.2.2 Electrostatic Discharge

Test Requirement:	EN 61000-6-1
Test Method:	EN 61000-4-2
Severity:	±2kV, ±4kV for Direct & Indirect Contact Discharge ±2kV, ±4kV, ±8kV for Air Discharge

Performance Criterion Requirement: B

Temperature:	23 °C
Humidity:	55 %
Atmospheric Pressure:	101 kPa

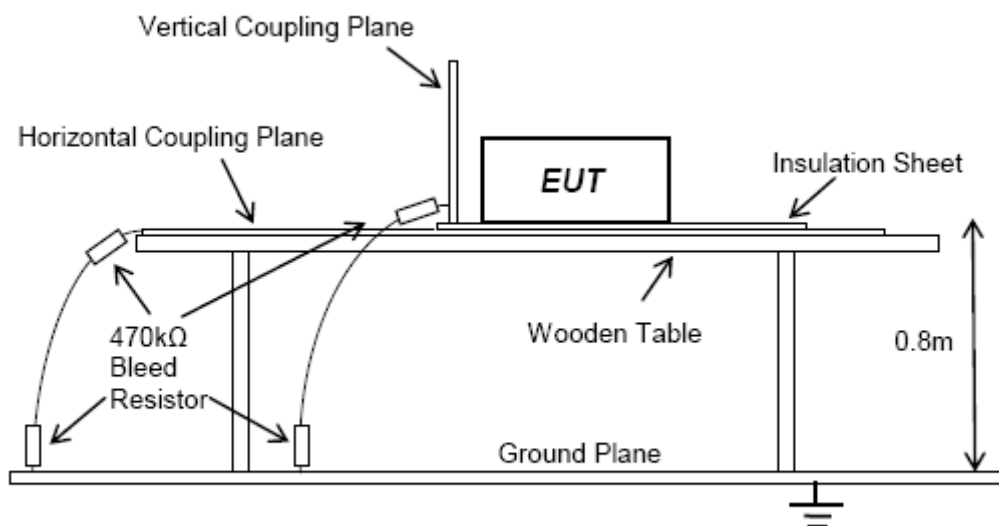
Test Date(s): 2014-11-11

Mode of Operation: On mode

Test Method:

The test was performed in accordance with EN 61000-4-2.

Test Setup:



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STC Test Report

Date: 2014-11-13
No.: DM117492

Page 11 of 13

Severity Levels for Electrostatic Discharge:

Level	Test Voltage Direct & Indirect Contact Discharge	Test Voltage Air Discharge
1	±2kV	±2kV
2	±4kV	±4kV
3	±6kV	±8kV
4	±8kV	±15kV

Results of On mode: 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"/>
Gap	Air	±2kV, ±4kV, ±8kV	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Screws	Direct Contact	±2kV, ±4kV	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

***For ungrounded EUT, the charge on the EUT shall be removed prior to each applied ESD pulse
Calculated measurement uncertainty: 7.1%

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STC Test Report

Date: 2014-11-13
No.: DM117492

Page 12 of 13

3.2.3 Radiated Immunity [80MHz to 2700MHz]

Test Requirement: EN 61000-6-1
Test Method: EN 61000-4-3
Severity: Level 1 [1V/m]
Level 2 [3V/m]
Modulation: 80% 1kHz AM

Performance Criterion Requirement: A

Temperature: 24 °C
Humidity: 55 %

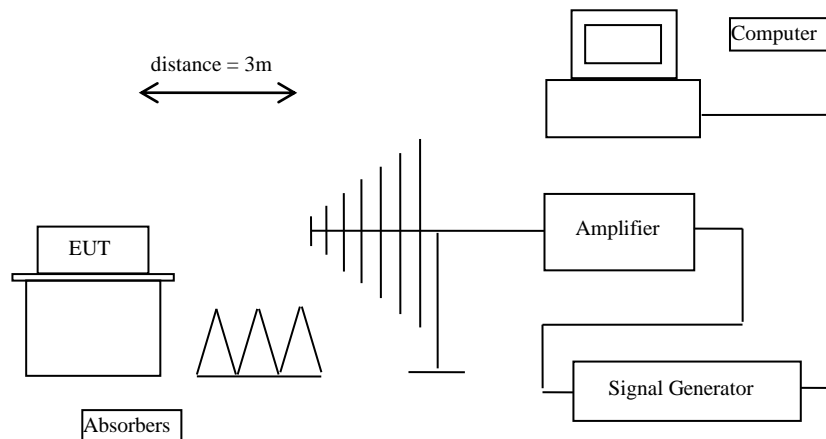
Test Date(s): 2014-11-11

Mode of Operation: On mode

Test Method:

The test was performed in accordance with EN 61000-4-3.

Test Setup:



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STC Test Report

Date: 2014-11-13
No.: DM117492

Page 13 of 13

Severity Levels for Radiated Immunity:

Level	Field Strength [V/m]
1	1
2	3
3	10

Results of On mode: Pass

Please refer to the following table for individual results.

Frequency (MHz)	Face	Polarity	Level (V/m)	Dwell Time (s)	Sweep rate (%)	Individual Results	
						Pass	Failed
80-1000 1400-2000 2000-2700	0°	Horizontal	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
1			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
80-1000 1400-2000 2000-2700	90°	Horizontal	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
1			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
80-1000 1400-2000 2000-2700	180°	Horizontal	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
1			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
80-1000 1400-2000 2000-2700	270°	Horizontal	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
1			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
80-1000 1400-2000 2000-2700	0°	Vertical	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
1			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
80-1000 1400-2000 2000-2700	90°	Vertical	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
1			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
80-1000 1400-2000 2000-2700	180°	Vertical	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
1			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
80-1000 1400-2000 2000-2700	270°	Vertical	3	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
1			<input checked="" type="checkbox"/>			<input type="checkbox"/>	
3			<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: 1.74dB

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

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STC Test Report

Date: 2014-11-13

No.: DM117492

Page A1 of A1

APPENDIX A

List of Measurement Equipment

Radiated Emission

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL
EMD022	EMI Test Receiver	ROHDE & SCHWARZ	ESCS 30	100314	2014.03.21
EMD061	Biconilog Antenna	ETS.LINDGREN	3142C	00060439	2012.11.28
EMD084	MULTI-DVICE CONTROLLER	ETS.LINDGREN	2090	00060107	N/A
EMD088	Video Contol Unit	ETS.LINDGREN	Y21953A	2601073	N/A
EMD093	Monitor	ViewSonic	VA9036	Q8X064201876	N/A
EMD102	Intelligent Frequency	Ainuo Instrument Co., Ltd	AN97005SS	79707454	N/A
EMD105	FACT-3 EMC Chamber	ETS.LINDGREN	FACT-3	3803	N/A

Electro Static Discharge

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL
EMD007	HIGH VOLTAGE OUTPUT ±30KV MAX	KIKUSUI	KES4021	LG001717	2014.01.02
EMD034	Dehumidifier	Kawasima electrical appliance Co.,Ltd	DH-820H	N/A	N/A
EMD100	Thermohygrograph	SATO KEIRYOKI MFG.CO.,LTD.	7210-00	1633581	2013.08.22
EMD109	BAROGRAPH	SATO KEIRYOKI MFG.CO.,LTD.	NSII-BQ	567719	2013.01.25

Radiated Field Immunity

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL
EMD111	Power meter	ROHDE & SCHWARZ	NRVD	102051	2014.03.21
EMD137	Signal Generator	ROHDE & SCHWARZ	SMB100A	1406600K02- 104532-DF	2014.06.10
EMD060	Biconilog Antenna	ETS.LINDGREN	3142C	00060445	2012.11.03
EMD063	Power Amplifier	BONN ELEKTRONIK	BLWA0840- 50/30D	066454B	2014.03.21
EMD064	Power Amplifier	BONN ELEKTRONIK	BLWA0810- 250/100D	066454A	2014.03.21

Remark:

N/A Not Applicable

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STC Test Report

Date: 2014-11-13

No.: DM117492

Page B1 of B3

APPENDIX B

PHOTOGRAPH (S) OF PRODUCT

Front View of The Product



Rear View of The Product



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Date: 2014-11-13

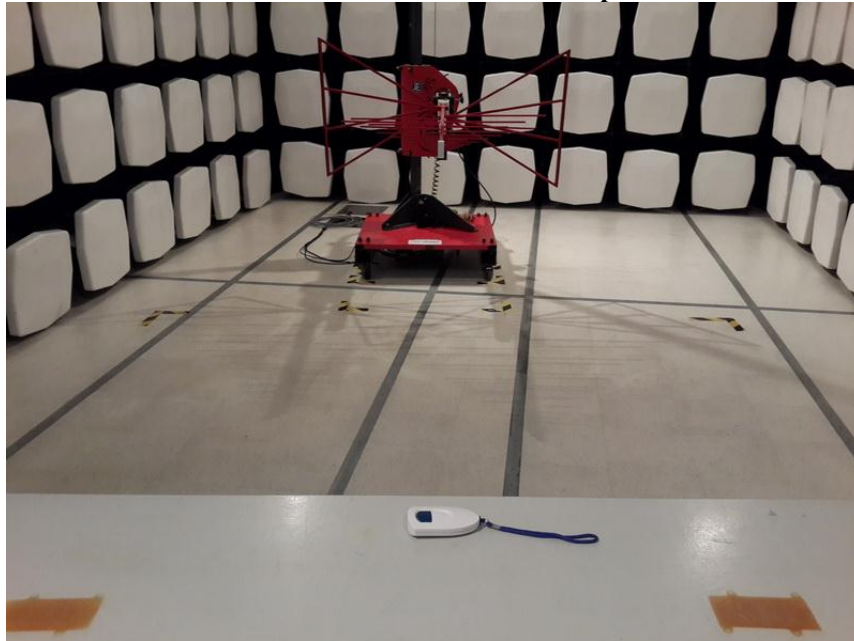
Page B2 of B3

No.: DM117492

APPENDIX B

PHOTOGRAPH (S) OF PRODUCT

Radiated Emissions Test Set Up



Electro Static Discharge Test Set Up



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STC Test Report

Date: 2014-11-13

No.: DM117492

Page B3 of B3

APPENDIX B

PHOTOGRAPH (S) OF PRODUCT

Radiated Immunity Test Set Up



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