



APPLICATION FOR EMC DIRECTIVE

On Behalf of

Shenzhen Greatmay Electronics Co., Ltd

Automatic Soap Dispenser

Trade Name: Greatmay

**Model: GM-S1805A, GM-S1805B, GM-S1805C, GM-TS2008, GM-TP2011,
GM-TS2010, GM-TS2012, GM-P2020, GM-TS2011, GM-TS2011A, GM-TS2011S,
GM-TP2011A, GM-TP2011S, GM-TE2011, GM-S2020**

Prepared For : **Shenzhen Greatmay Electronics Co., Ltd**
No 402, D building Of No.1 Xuezhu Road, Jihua Road, Xinxue
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TABLE OF CONTENTS

TEST REPORT DECLARATION.....	3
1. TEST RESULTS SUMMARY.....	4
2. GENERAL INFORMATION.....	5
2.2 Measurement Uncertainty.....	5
3. PRODUCT DESCRIPTION.....	6
3.1 EUT Description.....	6
3.2 Block Diagram of EUT Configuration.....	6
3.3 Operating Condition of EUT.....	6
3.4 Test Conditions.....	6
3.5 Modifications.....	6
3.6 Abbreviations.....	7
3.7 Performance Criterion.....	7
4. TEST EQUIPMENT USED.....	8
4.1 For Conducted Emission Test.....	8
4.2 For Disturbance Power Test.....	8
4.3 For Harmonic / Flicker Test.....	8
4.4 For Electrostatic Discharge Immunity Test.....	8
4.5 For RF Strength Susceptibility Test.....	8
4.6 For Electrical Fast Transient/Burst Immunity Test.....	8
4.7.For Surge Test.....	8
4.8For Injected Currents Susceptibility Test.....	9
4.9For Magnetic Field Immunity Test.....	9
4.10.For Voltage Dips and Interruptions Test.....	9
5. EMISSION TEST RESULTS.....	10
5.1 Radiated Disturbance(30MHz-1GHz).....	10
5.2 E.U.T. Operation.....	10
5.3 Measurement Data.....	10
6. IMMUNITY TEST RESULTS.....	13
7. PHOTOGRAPHS.....	14

TEST REPORT DECLARATION

Applicant : Shenzhen Greatmay Electronics Co., Ltd
Address : No 402, D building Of No.1 Xuezhu Road, Jihua Road, Xinxue Community, Bantian Street, Longgang District, Shenzhen City, Guangdong Province, China.
Trade Name : Greatmay
EUT Description : Automatic Soap Dispenser
Model Number : GM-S1805A, GM-S1805B, GM-S1805C, GM-TS2008, GM-TP2011, GM-TS2010, GM-TS2012, GM-P2020, GM-TS2011, GM-TS2011A, GM-TS2011S, GM-TP2011A, GM-TP2011S, GM-TE2011, GM-S2020

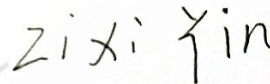
Test Standards:

EN 55014-1:2017+A11:2020
EN 55014-2:2015

The EUT described above is tested by TMC Testing Services (Shenzhen) Co., Ltd. EMC Laboratory to determine the maximum emissions from the EUT and ensure the EUT to be compliance with the immunity requirements of the EUT. TMC Testing Services (Shenzhen) Co., Ltd. EMC Laboratory is assumed full responsibility for the accuracy of the test results. Also, this report shows that the EUT technically complies with the 2014/30/EU directive and its amendment requirements.

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Prepared by :



Yi zi xi / Assistant

Reviewer :



Vivian Jiang / Supervisor

Approved & Authorized Signer :

Lemon Rao / Manager

1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

Test Items	Test Results
Radiated Disturbance (30MHz-1GHz)	PASS
Immunity	N/A

N/A: Not applicable

2. GENERAL INFORMATION

Report information

- 2.1.1 This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that TMC approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that TMC in any way guarantees the later performance of the product/equipment.
- 2.1.2 The sample/s mentioned in this report is/are supplied by Applicant, TMC therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.
- 2.1.3 Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through TMC, unless the applicant has authorized TMC in writing to do so.

2.2 Measurement Uncertainty

Available upon request.

3. PRODUCT DESCRIPTION

3.1 EUT Description

Description : Automatic Soap Dispenser
Shenzhen Greatmay Electronics Co., Ltd

Applicant : No 402, D building Of No.1 Xuezhu Road, Jihua Road,Xinxue
Community, Bantian Street, Longgang District, Shenzhen City,
Guangdong Province, China.

Manufacturer : Shenzhen Greatmay Electronics Co., Ltd
No 402, D building Of No.1 Xuezhu Road, Jihua Road,Xinxue
Community, Bantian Street, Longgang District, Shenzhen City,
Guangdong Province, China.

Model Number : GM-S1805A

3.2 Block Diagram of EUT Configuration



3.3 Operating Condition of EUT

Test mode 1: on

3.4 Test Conditions

Temperature: 23-26°C
Relative Humidity: 55-68 %

3.5 Modifications

No modification was made.

3.6 Abbreviations

AC	Alternating Current
AMN	Artificial Mains Network
DC	Direct Current
EM	ElectroMagnetic
EMC	ElectroMagnetic Compatibility
EUT	Equipment Under Test
IF	Intermediate Frequency
RF	Radio Frequency
rms	root mean square
EMI	Electromagnetic Interference
EMS	Electromagnetic Susceptibility

3.7 Performance Criterion

Criterion A: The equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer when the equipment is used as intended.

Criterion B: After the test, the equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacturer, when the equipment is used as intended.

Criterion C: Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions.

4. TEST EQUIPMENT USED

4.1 For Conducted Emission Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS30	828985/018	May. 11, 20	1 Year
2.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100006	May. 11, 20	1 Year
3.	L.I.S.N.	Rohde & Schwarz	ESH2-Z5	834549/005	May. 11, 20	1 Year
4.	Conical	Emtek	N/A	N/A	N/A	N/A
5.	Voltage Probe	Schwarzbeck	TK9416	N/A	May. 11, 20	1 Year
6.	Coaxial Switch	Anritsu	MP59B	6100214550	May. 11, 20	1 Year

4.2 For Disturbance Power Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS30	828985/018	May. 11, 20	1 Year
2.	Power Clamp	Rohde & Schwarz	MDS21	833711/025	May. 11, 20	1 Year
3.	Coaxial Switch	Anritsu	MP59B	6100214550	May. 11, 20	1 Year

4.3 For Harmonic / Flicker Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Power Frequency test system	HAEFELY	PHF555	080419-03	May. 11, 20	1 Year

4.4 For Electrostatic Discharge Immunity Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	ESD Tester	HAEFELY	PSD 1600	H708159	May. 11, 20	1 Year

4.5 For RF Strength Susceptibility Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Signal Generator	HP	8648A	3633A02081	May. 11, 20	1 Year
2.	Amplifier	A&R	500A100	17034	NCR	NCR
3.	Amplifier	A&R	100W/1000M1	17028	NCR	NCR
4.	Isotropic Field Monitor	A&R	FM2000	16829	NCR	NCR
5.	Isotropic Field Probe	A&R	FLW220100	16755	May. 11, 20	1 Year
6.	Biconic Antenna	EMCO	3108	9507-2534	NCR	NCR
7.	Log-periodic Antenna	A&R	AT1080	16812	NCR	NCR
8.	PC	N/A	486DX2	N/A	N/A	N/A

4.6 For Electrical Fast Transient/Burst Immunity Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
5.	Burst Tester	HAEFELY	PEFT 4010	080981-16	May. 11, 20	1 Year

4.7. For Surge Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
6.	Surge Tester	HAEFELY	PSURGE4.1	080107-04	May. 11, 20	1 Year

4.8 For Injected Currents Susceptibility Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
7.	Simulator	EMTEST	CWS 500C	0900-12	May. 11, 20	1 Year
8.	CDN	EMTEST	CDN-M2	510010010010	May. 11, 20	1 Year
9.	VDN	EMTEST	CDN-M3	0900-11	May. 11, 20	1 Year
10.	Injection Clamp	EMTEST	F-2031-23MM	368	May. 11, 20	1 Year
11.	Attenuator	EMTEST	ATT6	0010222a	May. 11, 20	1 Year

4.9 For Magnetic Field Immunity Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
12.	Magnetic Field Tester	HEAFELY	MAG100.1	083858-10	May. 11, 20	1 Year

4.10. For Voltage Dips and Interruptions Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
13.	Dips Tester	HEAFELY	PLINE 1610	083732-18	May. 11, 20	1 Year

5. EMISSION TEST RESULTS

5.1 Radiated Disturbance(30MHz-1GHz)

Test Requirement:	EN 55014-1:2017+A11:2020
Test Method:	CISPR 16-2-3
Frequency Range:	30MHz to 1GHz
Measurement Distance:	3m
Limit:	
30MHz-230MHz	40 dB(μ V/m) quasi-peak
230MHz-1GHz	47 dB(μ V/m) quasi-peak
Detector:	Peak for pre-scan (120kHz resolution bandwidth) 30M to 1000MHz

5.2 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 56 % RH Atmospheric Pressure: 1015 mbar

Test mode: a: On mode: Test on mode. Keep EUT working.

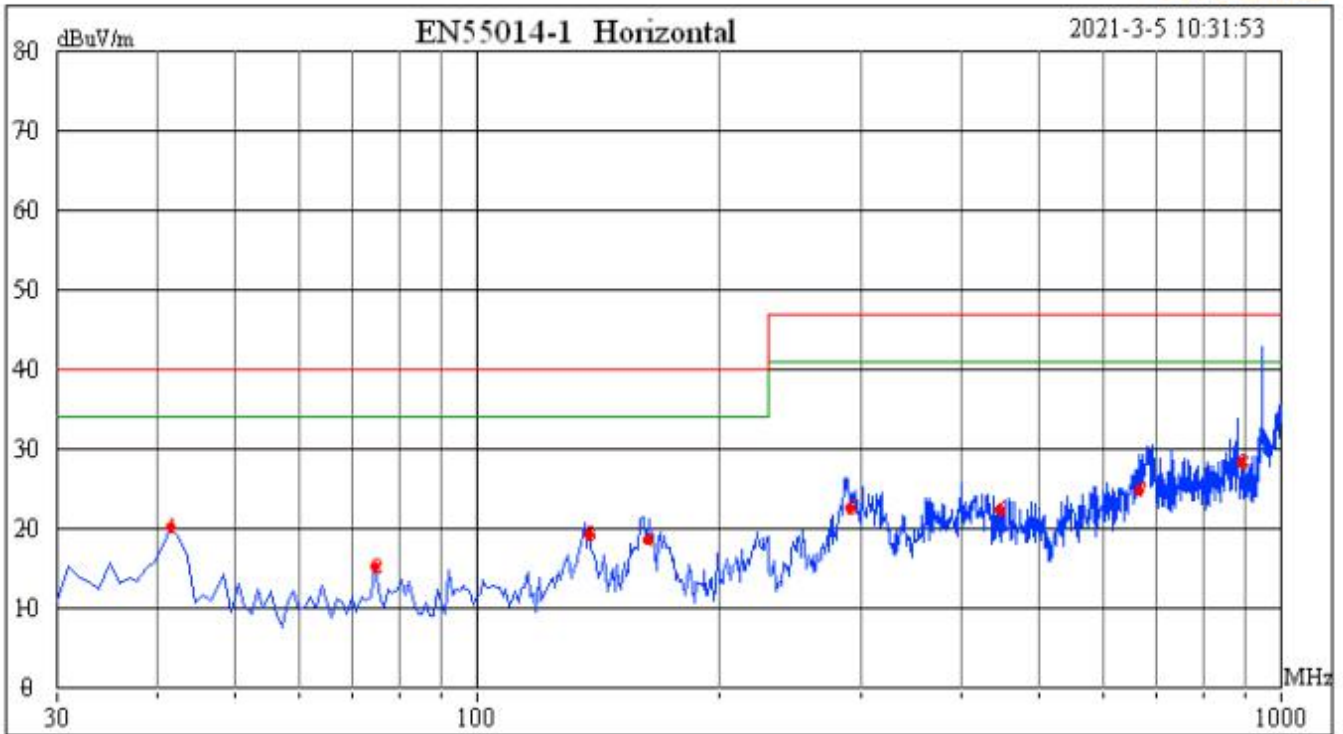
5.3 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.

Test Mode:

Engineer Name: steven

966Chamber

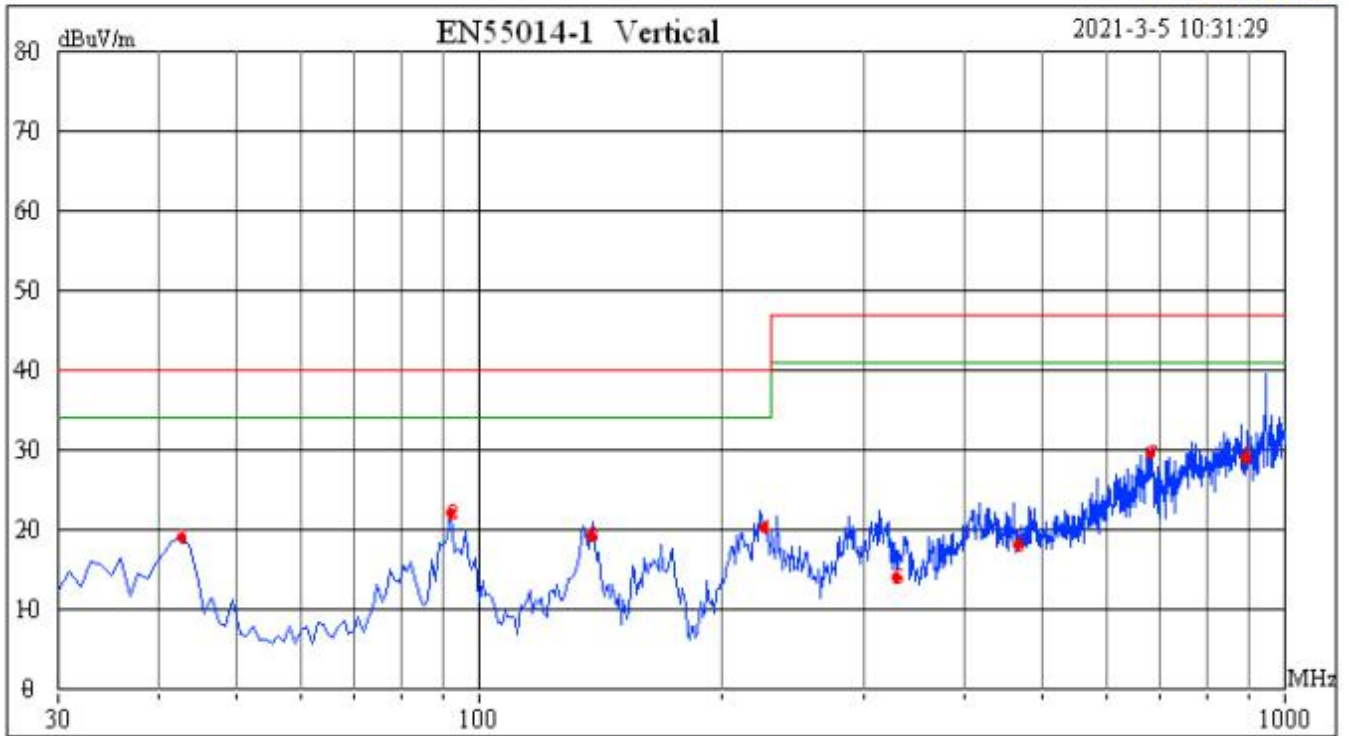


	Freq(MHz)	Level(dBuV/m)	Margin(dB)	Limit(dBuV/m)	Reading(dBuV)	Factor(dB)	Remark
1	41.6400	20.35	-19.65	40.00	10.01	10.34	
2	74.6200	15.21	-24.79	40.00	4.73	10.48	
3	137.6700	19.25	-20.75	40.00	5.44	13.81	
4	162.8900	18.57	-21.43	40.00	4.93	13.64	
5	289.9600	22.55	-24.45	47.00	2.66	19.89	
6	445.1600	22.50	-24.50	47.00	1.14	21.36	
7	664.3800	24.70	-22.30	47.00	-3.21	27.91	
8	893.3000	28.38	-18.62	47.00	-0.41	28.79	

Test Mode:

Engineer Name: steven

966Chamber



	Freq(MHz)	Level(dBuV/m)	Margin(dB)	Limit(dBuV/m)	Reading(dBuV)	Factor(dB)	Remark
1	42.6100	19.04	-20.96	40.00	7.87	11.17	
2	92.0800	22.15	-17.85	40.00	3.83	18.32	
3	137.6700	19.17	-20.83	40.00	4.95	14.22	
4	224.9700	20.14	-19.86	40.00	5.09	15.05	
5	329.7300	13.98	-33.02	47.00	-2.60	16.58	
6	464.5600	18.00	-29.00	47.00	-3.15	21.15	
7	678.9300	29.59	-17.41	47.00	2.05	27.54	
8	893.3000	29.09	-17.91	47.00	-2.70	31.79	

6. IMMUNITY TEST RESULTS

There is no need for immunity tests to be performed on this product in accordance with clause 7.2.1 of EN 55014-2 which states:

“Category I apparatus is deemed to fulfil the relevant immunity requirement without testing.”

For further details, please refer to clause 4.1 of EN 55014-2 which states:

“Category I: apparatus containing no electronic control circuitry.

Example: motor operated appliances, lighting toys, track sets without electronic control units, tools, heating appliances UV and IR radiators and apparatus containing components such as electromechanical switches and thermostats.

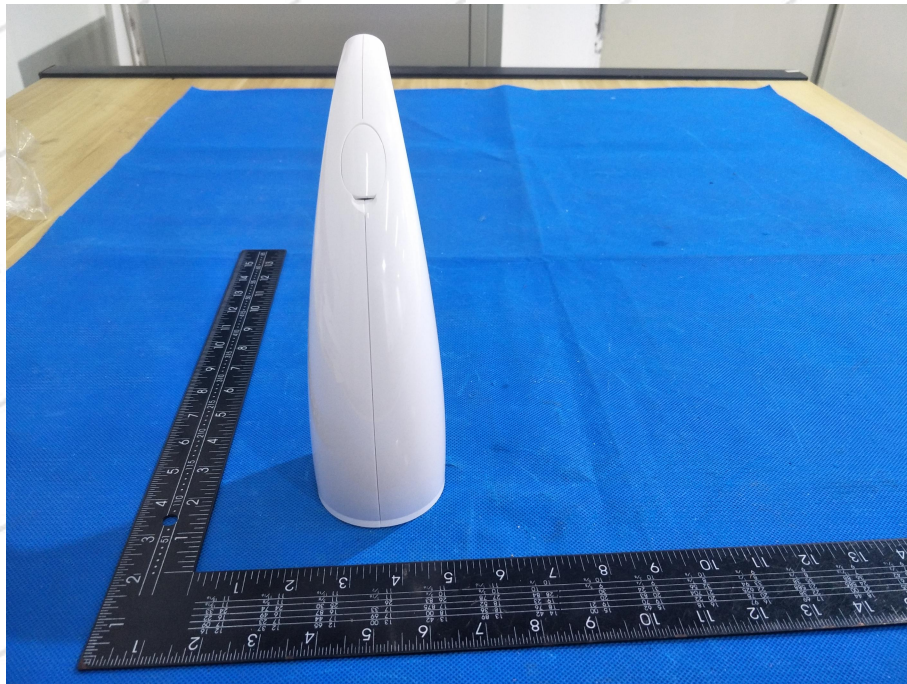
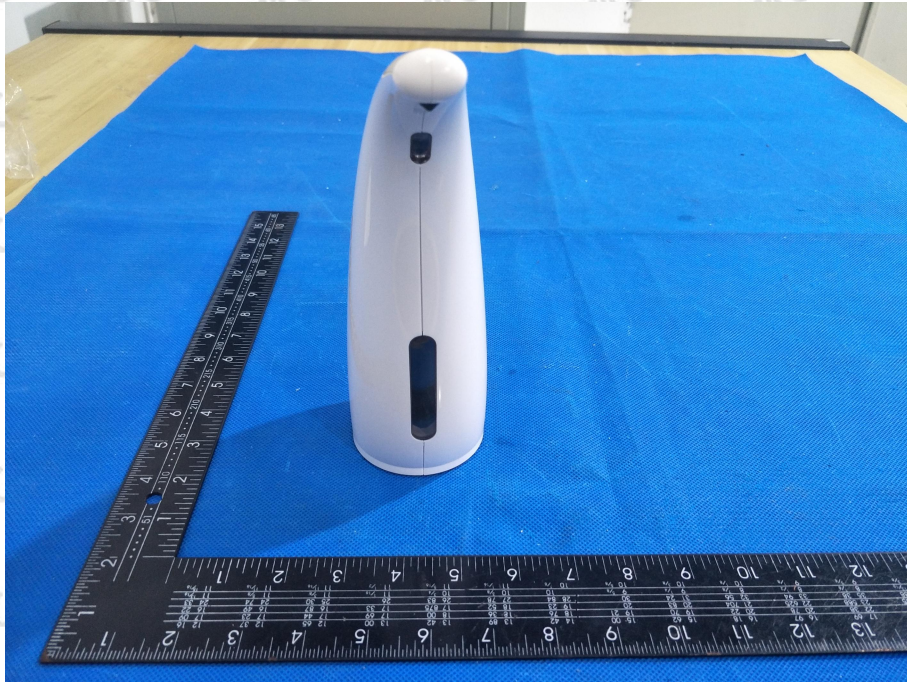
Electric circuits consisting of passive components (such as radio interference suppression capacitors or inductors, mains transformers and mains frequency rectifiers) are not considered to be electronic control circuitry.”

7. PHOTOGRAPHS

7.1 Radiated Disturbance(30MHz-1GHz) Test Setup



7.2 EUT Constructional Details





End of report