

# GTC Centre Limited

## FCC TEST REPORT

Application No.: 10052850 (49MHz,Rx)

Rm02, 15/F Fonda Ind Bldg, 37-39 Au Pui Wan Street, Fotan Shatin, N.T., Hong Kong  
Tel: [852] 2690 0881      Fax: [852] 2690 0877

## **TABLE OF CONTENTS**

<b>Cover Sheet</b>	-----	<b>p.1</b>
<b>Table of Contents</b>	-----	<b>p.2</b>
<b>General Details</b>	-----	<b>p.3 ~ p.4</b>
<b>Summary of Test Results</b>	-----	<b>p.5</b>
<b>Radiation Emission Test</b>	-----	<b>p.6 ~ p.7</b>
<b>Conducted Emission Test</b>	-----	<b>p.8</b>
<b>Appendix A</b> <b>List of Measurement Equipment</b>	-----	<b>p.9</b>
<b>Appendix B</b> <b>Test Sample &amp; Setup (Photo)</b>	-----	<b>p.10 ~ p.14</b>

**REPORT NO.:** 10052850(RX)

**DATE:** 12 August, 2010

**APPLICANT:** DMD Holdings Ltd

**ADDRESS:** (MEZZ),shop 4,  
G/F Wah Wai Ind Ctr,  
38-40 Au Pui Wan Street,  
Fotan Shatin, N.T., Hong Kong

**DATE OF RECEIVED:** 25 June, 2010

**DATE OF TESTING:** 25 June 2010 to 15 July,2010

**DESCRIPTION OF SAMPLE:**

Product: In-Pool Speaker  
Brand Name: NIL  
Model No.: CEW 182  
FCC ID: WY3CEW182RX  
Input Voltage: DC6V (C size x 4)

**Description of EUT Operation** The Equipment Under Test (EUT) is a DMD Hodings Limited, Inpool Speaker.

**INVESTIGATION REQUESTED:** **FCC PART 15 SUBPART B**

**TEST RESULTS:** See attached sheets

**CONCLUSIONS:** The submitted product **COMPLIED** with the requirements of Federal Communications Commission [FCC] Rules and Regulations Part 15. The tests were performed in accordance with the standards described above and on page 5 in this Test report.



CS Lin, (EMC Manager)  
for Chief Executive

**General Details**

**Test Laboratory**

GTC CENTRE LTD  
EMC Laboratory  
Rm02, 15/F Fonda Ind Bldg, 37-39 Au Pui Wan Street, Fotan  
Shatin, N.T., Hong Kong

Telephone: 852 2690 0881  
Fax: 852 2690 0877

**Applicant Details**

**Applicant**

DMD Holdings Ltd  
MEZZ),shop 4,  
G/F Wah Wai Ind Ctr,  
38-40 Au Pui Wan Street,  
Fotan Shatin, N.T., Hong Kong

**Manufacturer**

DMD Holdings Ltd  
MEZZ),shop 4,  
G/F Wah Wai Ind Ctr,  
38-40 Au Pui Wan Street,  
Fotan Shatin, N.T., Hong Kong

**REPORT NO.:** 10052850(RX)

**DATE:** 12 August, 2010

**Technical Details**

**Investigations Requested**

Perform ElectroMagnetic Interference measurement in accordance with FCC 47CFR [Codes of Federal Regulations] Part 15 and ANSI C63.4:2003 for FCC Certification.

**Test Standards and Results Summary Tables**

<b>EMISSION Results Summary</b>					
Test Condition	Test Requirement	Test Method	Test Result		
			Pass	Failed	N/A
Radiated Emissions, 30MHz to 1GHz	FCC 47CFR 15.109 (Class B)	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conducted Emissions on AC, 0.15MHz to 30MHz	FCC 47CFR 15.107 (Class B)	ANSI C63.4:2003	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

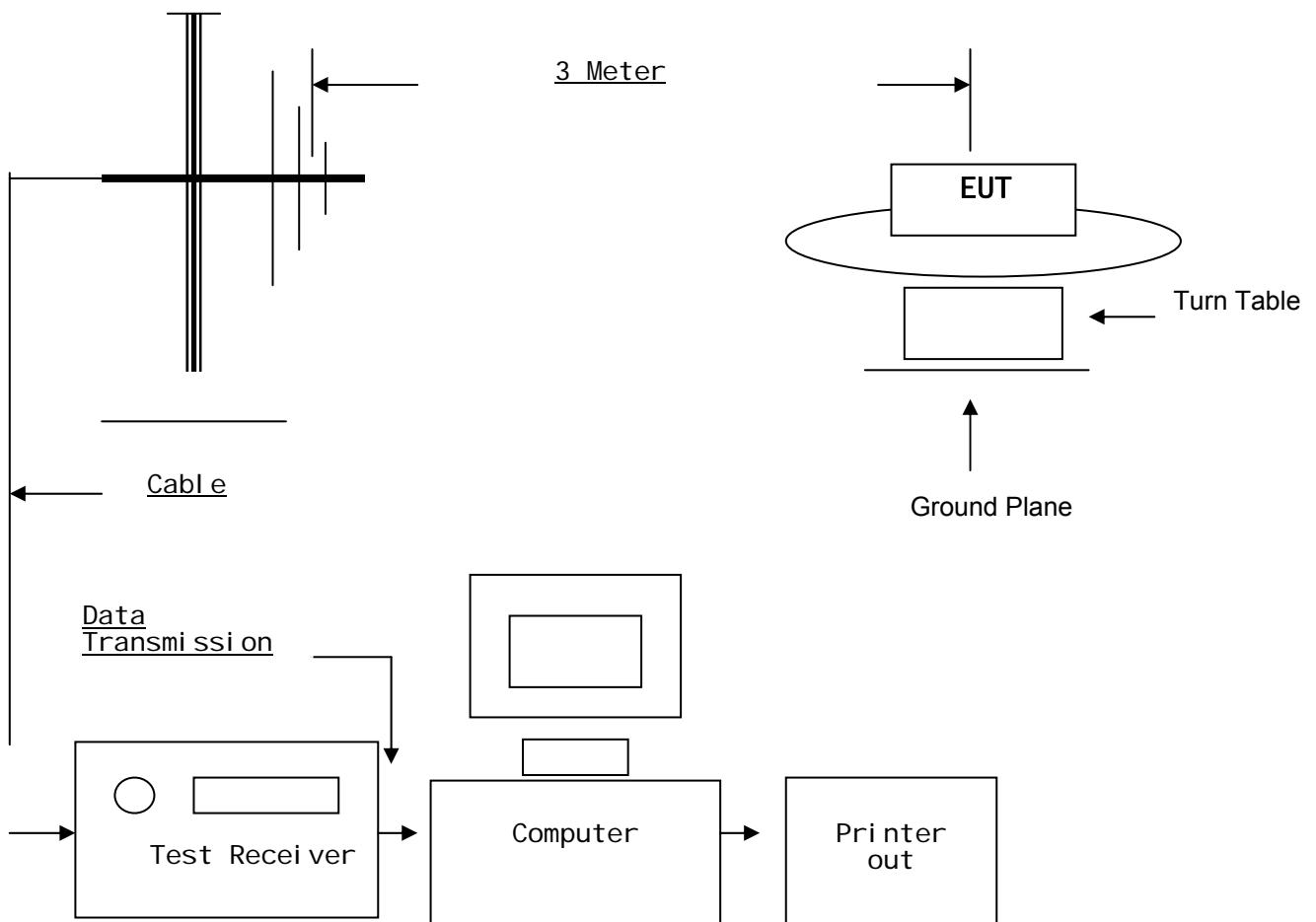
Note: N/A – Not Applicable

## Test Results

### Emission

#### Radiation Emission Measurement (30MHz to 1GHz)

##### Setup diagram:



##### Test Method:

The sample was placed 0.8m above the ground plane on the OATS\*. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X,Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

\*: OATS [Open Area Test Site] located at GTC with a metal ground plane filed with the FCC pursuant to section 2.948 of the FCC rules. With Registration Number:493655

## Radiation Emissions Measurement

**Appl. :** DMD Holdings Limited  
**Model:** CEW182  
**Operation:** RX mode  
**Tested By:** Man Yip (EMC Engineer)

**Test Requirement:** FCC 47CFR 15.109      **Level:** Class B  
**Test Method:** ANSI C63.4:2003  
**Test Date:** 2010-07-14

### Limits for Radiated Emissions:

Frequency Range [MHz]	Quasi-Peak Limits [ $\mu$ V/m]
30-88	100
88-216	150
216-960	200
Above960	500

The emission limits shown in the above table are based on measurement employing a CISPR quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

Radiated Emissions Quasi-Peak						
Frequency MHz	Measured Level @3m dB $\mu$ V	Correction Factor dB/m	Field Strength dB $\mu$ V/m	Field Strength $\mu$ V/m	Limit @3m $\mu$ V/m	E-Field Polarity
54.4	< 18.0	10.2	< 28.2	< 257.	100	Horizontal
93.0	< 18.0	9.3	< 27.3	< 23.2	150	Horizontal
139.0	< 18.0	14.5	< 32.5	< 42.2	150	Horizontal
300.0	< 18.0	16.6	< 34.6	< 53.7	200	Horizontal
500.0	< 18.0	20.1	< 38.1	< 80.4	200	Horizontal
1000.0	< 18.0	27.8	< 45.8	< 195.0	500	Horizontal

### Remark:

Calculated measurement uncertainty : 30MHz to 1GHz  $\pm 4.1$ dB

**REPORT NO.:** 10052850(RX)

**DATE:** 12 August, 2010

## **Conducted Emission on AC (0.15MHz to 30MHz)**

**Appl. :** DMD Holdings Limited

**Model:** CEW182

**Operation:** N/A

**Tested By:** Man Yip (EMC Engineer)

**Test Requirement:** FCC 47CFR 15.107

**Level:** Class B

**Test Method:** ANSI C63.4:2003

**Test Date:** N/A

**Results:** N/A

The EUT is operated by a single source of internal battery power [located in the battery compartment], therefore power line conducted emission was deemed unnecessary.

## APPENDIX A

### LIST OF MEASUREMENT EQUIPMENT

<u>Equi. No.</u>	<u>Equipment</u>	<u>Manufacturer</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Calibration Date</u>	<u>Due Date</u>
E005	EMI Test Receiver	Rohde & Schwarz	ESVP	893417/019	09 Sep 2009	08 Sep 2010
E003	Spectrum Analyzer With Q/P	Tektronix	2712	B034039	09 Sep 2009	08 Sep 2010
E004	RF Preselector	Tektronix	2706	B010649	09 Sep 2009	08 Sep 2010
E007	EMI Test Receiver	Rohde & Schwarz	ESV	863112/007	17 Aug 2010	16 Aug 2011
E084	Spectrum Analyzer	Hewlett Packard	HP 8568B	3001A04930	07 Jul 2010	06 Jul 2011
E085	Displayer of Spectrum Analyzer	Hewlett Packard	HP 85662A	2033A01841	07 Sep 2009	06 Sep 2010
E086	Quasi-Peak Adaptor	Hewlett Packard	HP 85650A	2527A00785	07 Sep 2009	06 Sep 2010
E090	RF Signal Generator	Rohde & Schwarz	SMX	832566/005	04 Mar 2010	03 Mar 2011
E001	Antenna System	Schwarzbeck	D-6917	UHALP9107	04 Mar 2010	03 Mar 2011
E002	Antenna System	Schwarzbeck	VHA9103	VHA91031253	04 Mar 2010	03 Mar 2011
E101	Loop Antenna	EMCO	6502	9902-3269	25 Feb 2010	25 Feb 2011
E008	LISN	EMCO	3825/2	1115	20 Sep 2009	19 Sep 2011
E115	Limiter 50 Ohm DC~1800MHz	Hewlett Packard	11867A	-----	04 Mar 2010	03 Mar 2011
E100	Turntable	Chioce Way	TB1200	51112	-----	-----
E006	RF Signal Generator	Fluke	6060A	3880007	04 Mar 2010	03 Mar 2011
E092	Antenna Tripole	IT&T	UH800100	A05011	04 Mar 2010	03 Mar 2011
E098	Pre-Amplifier	Hewlett Packard	8447D	2944A09089	04 Mar 2010	03 Mar 2011
E099	Antenna Mast	Schwarzbeck	AM9014	-----	-----	-----
E113	Spectrum Analyzer	Hewlett Packard	HP8566B	2747A05483	25 Feb 2010	25 Feb 2011
E118	Display of Spectrum Analyzer	Hewlett Packard	HP85662A	2152A03271	25 Feb 2010	25 Feb 2011

**REPORT NO.:** 10052850(RX)

**DATE:** 12 August, 2010

## **APPENDIX B**

Front View of the product



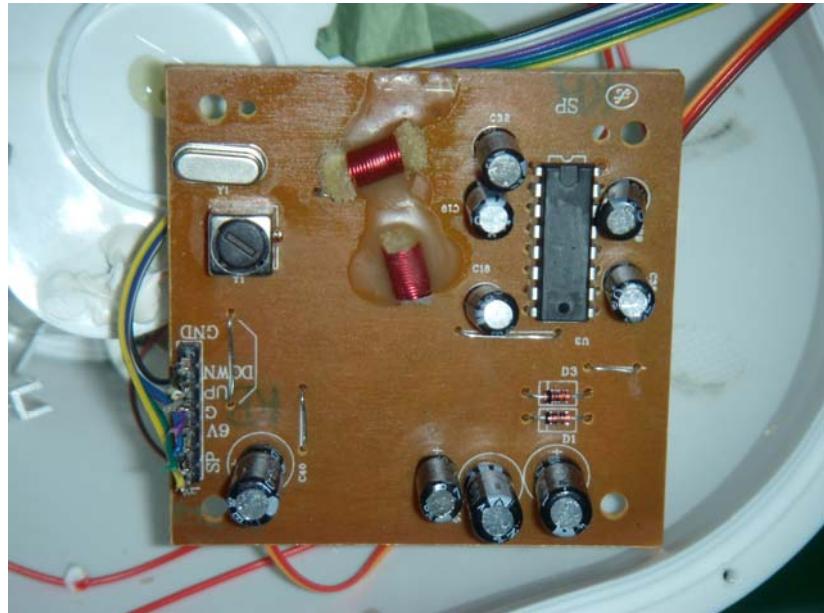
Rear View of the product



**REPORT NO.:** 10052850(RX)

**DATE:** 12 August, 2010

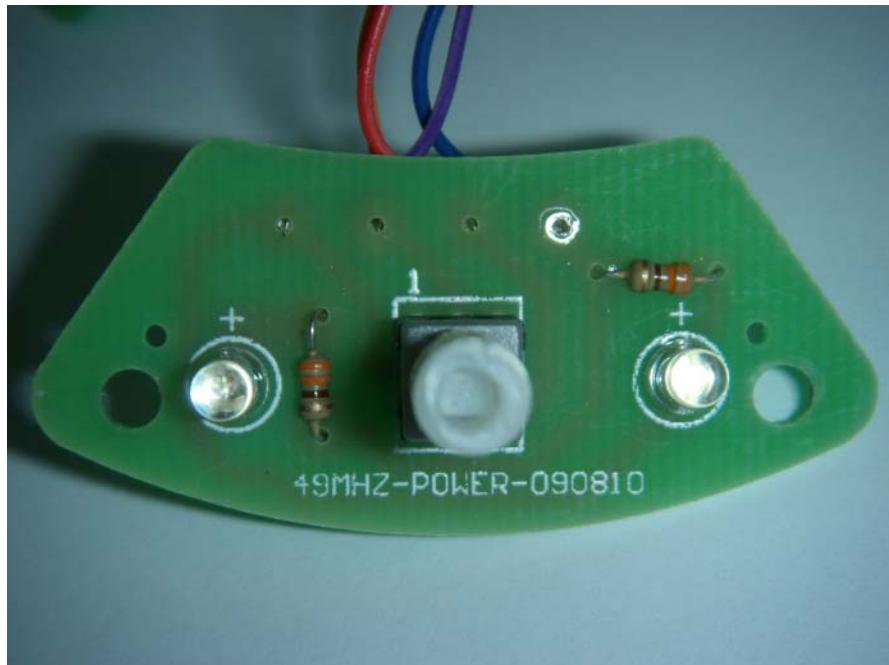
**Photos of EUT**  
Component Side View



**REPORT NO.:** 10052850(RX)

**DATE:** 12 August, 2010

Component Side View



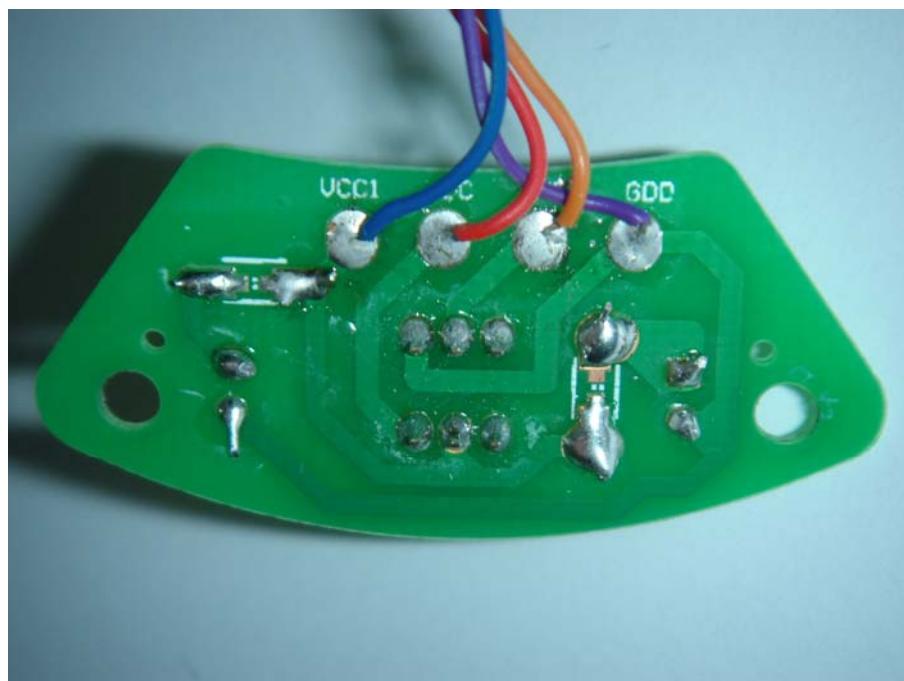
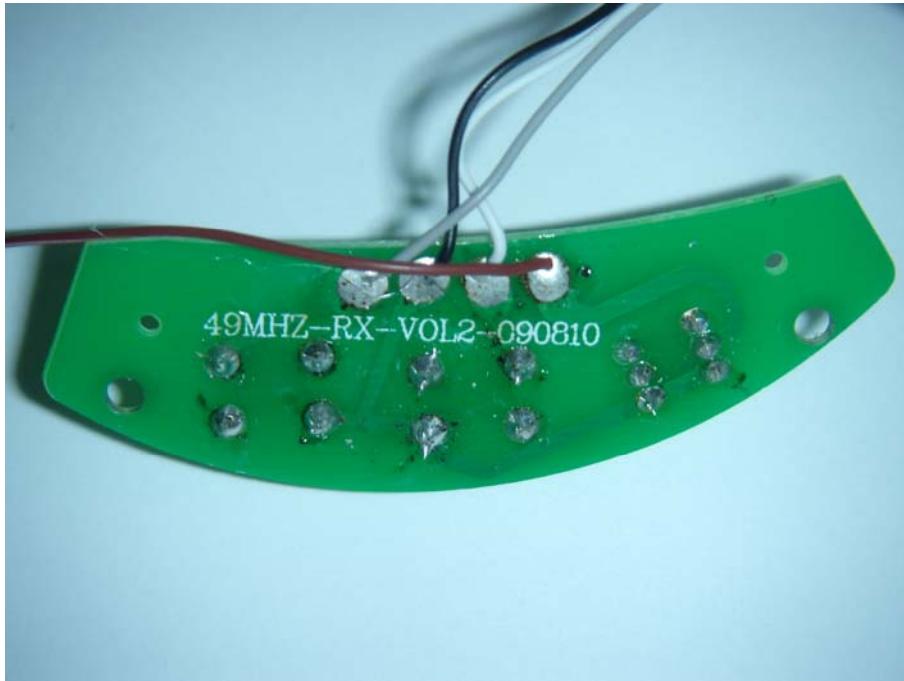
Copper Side View



**REPORT NO.:** 10052850(RX)

**DATE:** 12 August, 2010

Copper Side View

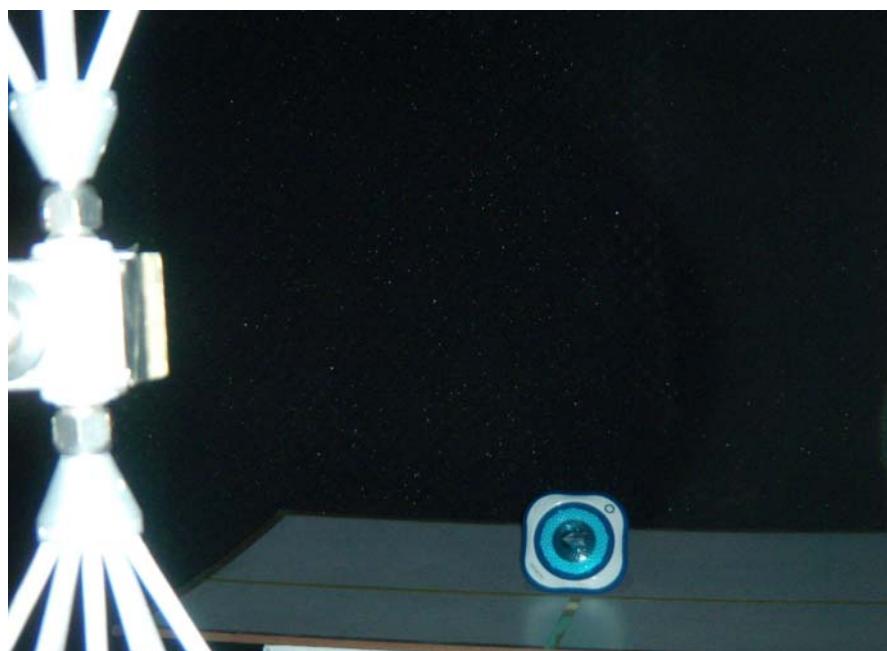
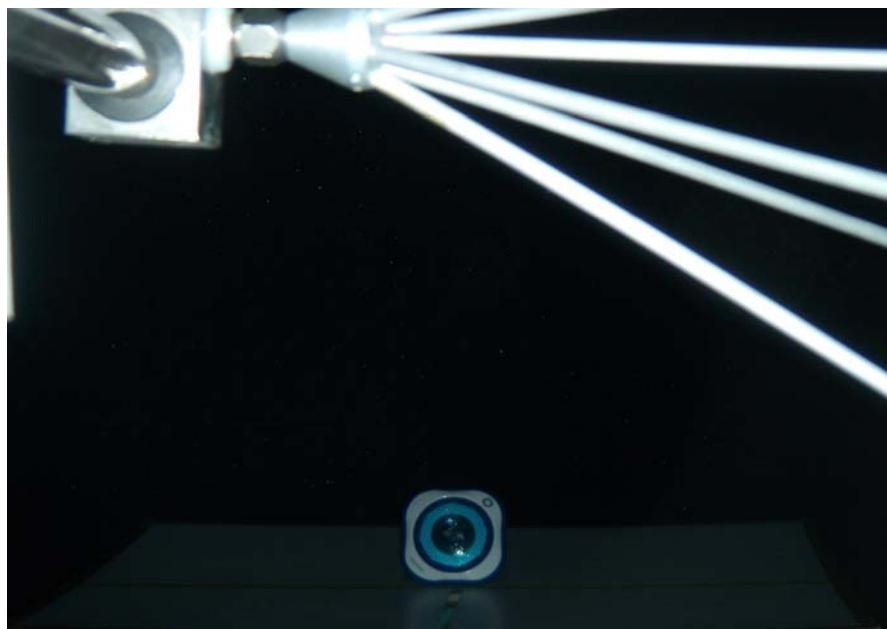


**REPORT NO.:** 10052850(RX)

**DATE:** 12 August, 2010

**Photos of EUT**

**Measurement of Radiated Emission Test Set up**



End of Document

Page 14 of 14