

Test Report

FCC ID: 2ANVD-RVM740SM

Date of issue: Jul. 02, 2017

Report Number:	MTi170907E019
Sample Description:	Smart Mirror
Model(s):	RVM740SM
Applicant:	Coagent Global Limited
Address:	1/F, 94 Wellington Street, Central, Hong Kong
Date of Test:	Jun. 20, 2017 – Jul. 02, 2017

Shenzhen Microtest Co., Ltd.
<http://www.mtitest.com>

This test report is valid for the tested samples only. It cannot be reproduced except in full without prior written consent of Shenzhen Microtest Co., Ltd.

Tel: (86-755) 88850135

Fax: (86-755) 88850136

Web: <http://www.mtitest.com>

E-mail: mti@51mti.com

Address: No. 102A & 302A, East Block, Hengfang Industrial Park, Xingye Road, Xixiang, Bao'an District, Shenzhen, Guangdong, China

TEST RESULT CERTIFICATION	
Applicant's name	Coagent Global Limited
Address	1/F, 94 Wellington Street, Central, Hong Kong
Manufacture's Name	Guangdong Coagent Global S&T Co., Ltd.
Address	Room 501, 5/F(F1), NO.25-8, Section C, Xi'nan Industrial Park, Sanshui Technology Industrail Zone, Foshan City, Guangdong Province, China
Product name	Smart Mirror
Model and/or type reference	RVM740SM
Serial Model	N/A
Standards	FCC Part 15.247
Test procedure	ANSI C63.10-2013

This device described above has been tested by Shenzhen Toby Technology Co., Ltd. and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

Tested by:



Demi Mu

Jul. 02, 2017

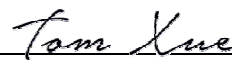
Reviewed by:



Smith Chen

Jul. 02, 2017

Approved by:



Tom Xue

Jul. 02, 2017

Table of Contents

	Page
1 . SUMMARY OF TEST RESULTS	5
1.1 TEST FACILITY	6
1.2 MEASUREMENT UNCERTAINTY	6
2 . GENERAL INFORMATION	7
2.1 GENERAL DESCRIPTION OF EUT	7
2.2 DESCRIPTION OF TEST MODES	9
2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	10
2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)	11
2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS	12
3 . EMC EMISSION TEST	13
3.1 CONDUCTED EMISSION MEASUREMENT	13
3.1.1 POWER LINE CONDUCTED EMISSION LIMITS	13
3.1.2 TEST PROCEDURE	14
3.1.3 DEVIATION FROM TEST STANDARD	14
3.1.4 TEST SETUP	14
3.1.5 EUT OPERATING CONDITIONS	14
3.1.6 TEST RESULTS	15
3.2 RADIATED EMISSION MEASUREMENT	16
3.2.1 RADIATED EMISSION LIMITS	16
3.2.2 TEST PROCEDURE	17
3.2.3 DEVIATION FROM TEST STANDARD	17
3.2.4 TEST SETUP	18
3.2.5 EUT OPERATING CONDITIONS	19
3.2.6 TEST RESULTS (BETWEEN 9KHZ – 30 MHZ)	20
3.2.7 TEST RESULTS (BETWEEN 30MHZ – 1GHZ)	21
3.2.8 TEST RESULTS (1G-25GHZ)	22
4 . POWER SPECTRAL DENSITY TEST	26
4.1 APPLIED PROCEDURES / LIMIT	26
4.1.1 TEST PROCEDURE	26
4.1.2 DEVIATION FROM STANDARD	26
4.1.3 TEST SETUP	26
4.1.4 EUT OPERATION CONDITIONS	26
4.1.5 TEST RESULTS	27
5 . 6DB EMISSION BANDWIDTH & 99% OCCUPIED BANDWIDTH	33

Table of Contents	Page
5.1 APPLIED PROCEDURES / LIMIT	33
5.1.1 TEST PROCEDURE	33
5.1.2 DEVIATION FROM STANDARD	33
5.1.3 TEST SETUP	33
5.1.4 EUT OPERATION CONDITIONS	33
5.1.5 TEST RESULTS	34
6 . PEAK OUTPUT POWER TEST	40
6.1 APPLIED PROCEDURES / LIMIT	40
6.1.1 TEST PROCEDURE	40
6.1.2 DEVIATION FROM STANDARD	40
6.1.3 TEST SETUP	40
6.1.4 EUT OPERATION CONDITIONS	40
6.1.5 TEST RESULTS	41
7 . 100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE	42
7.1 DEVIATION FROM STANDARD	42
7.2 TEST SETUP	42
7.3 EUT OPERATION CONDITIONS	42
7.4 TEST RESULTS	43
8 . ANTENNA REQUIREMENT	47
8.1 STANDARD REQUIREMENT	47
8.2 EUT ANTENNA	47

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247 (a)(2)	6dB Bandwidth	PASS	
15.247 (b)	Peak Output Power	PASS	
15.247 (c)	Radiated Spurious Emission	PASS	
15.247 (d)	Power Spectral Density	PASS	
15.205	Band Edge Emission	PASS	
15.203	Antenna Requirement	PASS	

NOTE:

(1) "N/A" denotes test is not applicable in this Test Report

1.1 TEST FACILITY

Shenzhen Toby Technology Co., Ltd.

Add.: 10/F.,A Block, Jiada R&D Bldg.,No.5 Songpingshan, Road, Science&Technology Park,
Shenzhen, 518057

FCC Registration No.:811562

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95 %** .

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 1.38\text{dB}$
2	RF power, conducted	$\pm 0.16\text{dB}$
3	Spurious emissions, conducted	$\pm 0.21\text{dB}$
4	All emissions, radiated(<1G)	$\pm 4.68\text{dB}$
5	All emissions, radiated(>1G)	$\pm 4.89\text{dB}$
6	Temperature	$\pm 0.5^{\circ}\text{C}$
7	Humidity	$\pm 2\%$

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Smart Mirror	
Trade Name	N/A	
Model Name	RVM740SM	
Serial Model	N/A	
Model Difference	N/A	
Product Description	The EUT is a Smart Mirror	
	Operation Frequency:	802.11b/g/n20:2412~2462 MHz
	Modulation Type:	11n: BPSK, QPSK, 16QAM, 64QAM with OFDM 11g: BPSK, QPSK, 16QAM, 64QAM, OFDM 11b: DQPSK, DBPSK, DSSS, CCK
	Bit Rate of Transmitter	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6Mbps 802.11n:65/52/6.5Mbps
	Number Of Channel	802.11b/g/n20:11CH
	Antenna Designation:	Please see Note 3.
	Antenna Gain (dBi)	0dBi
	DC IN	12V FROM CAR BATTERY
Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.		
Channel List	Please refer to the Note 2.	
Adapter	N/A	
Battery	N/A	
Connecting I/O Port(s)	Please refer to the User's Manual	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2 Channel List

Channel List for 802.11b/g/n(20)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

3.

Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
A	N/A	N/A	Integral antenna	/	0	Wifi Antenna

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	802.11b CH1/ CH6/ CH11
Mode 2	802.11g CH1/ CH6/ CH11
Mode 3	802.11n CH1/ CH6/ CH11
Mode 4	TX Mode

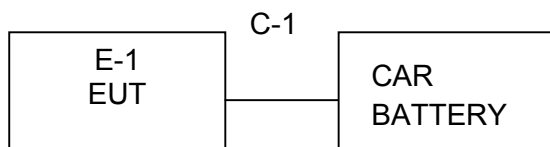
For Conducted Emission	
Final Test Mode	Description
Mode 4	TX Mode

For Radiated Emission	
Final Test Mode	Description
Mode 1	802.11b CH1/ CH6/ CH11
Mode 2	802.11g CH1/ CH6/ CH11
Mode 3	802.11n CH1/ CH6/ CH11

Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported
- (3)Dutycycle>98%

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



NOTE: FULL BATTERY IS USED DURING ALL TEST

2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Brand	Model/Type No.	Series No.	Note
E-1	Smart Mirror	N/A	RVM740SM	N/A	EUT
E-2	/	/	/	/	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	1.0m	
C-2	NO	NO	0.8m	

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

For RF conducted test:

Equipment	Manufacturer	Model	Serial No.	Calibration Due
Universal Radio Communication Tester	Rohde&schwarz	CMU200	114587	2017/11/4
Spectrum analyzer	Agilent	E4407B	MY41441082	2017/11/4
Dc Power Supply	GW	GPR-6030D	/	2017/11/4
Temperature & Humidity Chamber	GIANT FORCE	GTH-056P	GF-94454-1	2017/11/14
Broadband TRILOG Antenna	Schwarabeck	VULB9163	9163-872	2017/11/14
Horn Antenna	Schwarzbeck	BBHA 9120 D	9120D-1145	2017/11/14
Amplifier	HP	8447D	3113A06150	2017/11/4
Amplifier	Agilent	8449B	3008A02400	2018/7/4
Test Receiver	Schwarabeck	ESPI7	100314	2017/11/4
Spectrum analyzer	Agilent	E4407B	MY41441082	2017/11/4
Signal Generator	R&S	SMT 06	832080/007	2017/11/4
Broadband TRILOG Antenna	Schwarabeck	VULB9163	9163-872	2017/11/14
Horn Antenna	Schwarzbeck	BBHA 9120 D	9120D-1145	2017/11/14
Amplifier	HP	8447D	3113A06150	2017/11/4
Amplifier	Agilent	8449B	3008A02400	2018/7/4
Test Receiver	Schwarabeck	ESPI	100314	2017/11/4
Spectrum analyzer	Agilent	E4407B	MY41441082	2017/11/4
LISN	R&S	ENV216	1001131	2017/9/25
Test Cable	United Microwave	57793	1m	2017.12.05
Test Cable	United Microwave	A30A30-5006	10m	2017.12.05

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)		Standard
	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	73.00	60.00	56.00	46.00	CISPR
5.0 -30.0	73.00	60.00	60.00	50.00	CISPR

0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	60.00	50.00	FCC

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

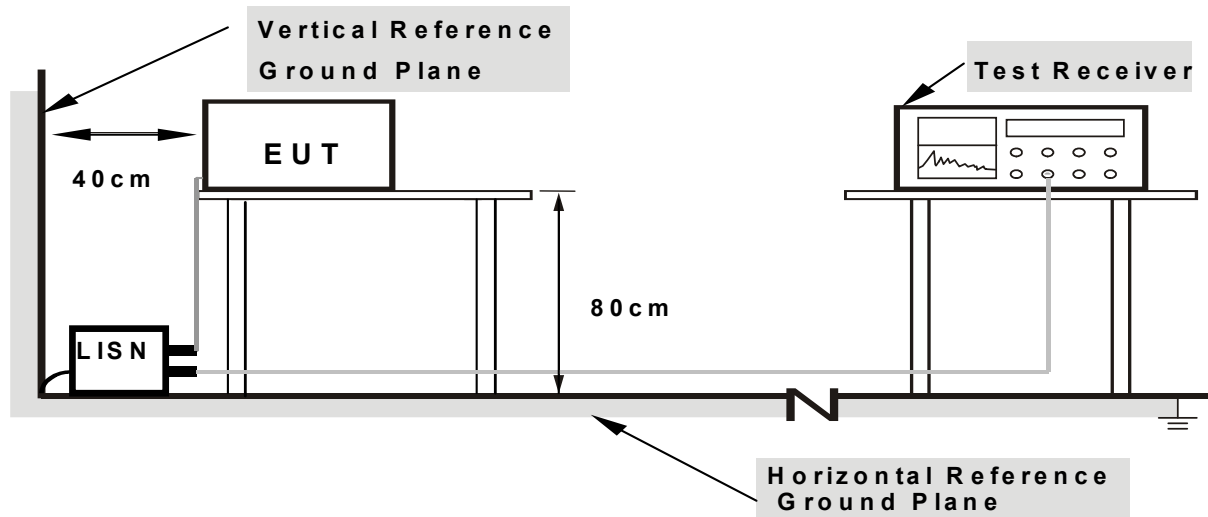
3.1.2 TEST PROCEDURE

- The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN .

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.1.6 TEST RESULTS

Not application

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, RMS detector for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

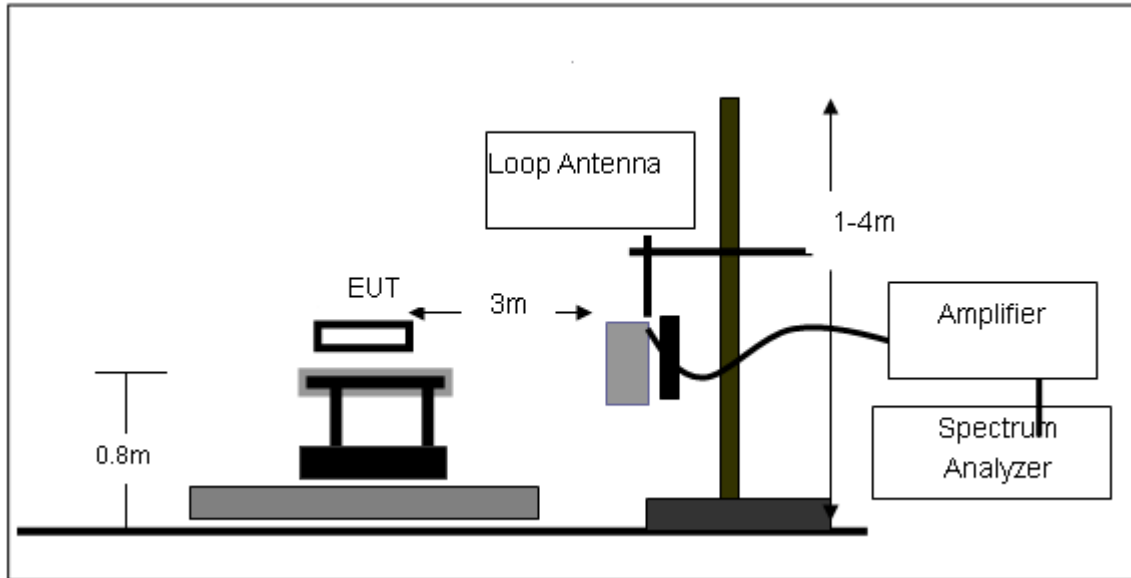
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

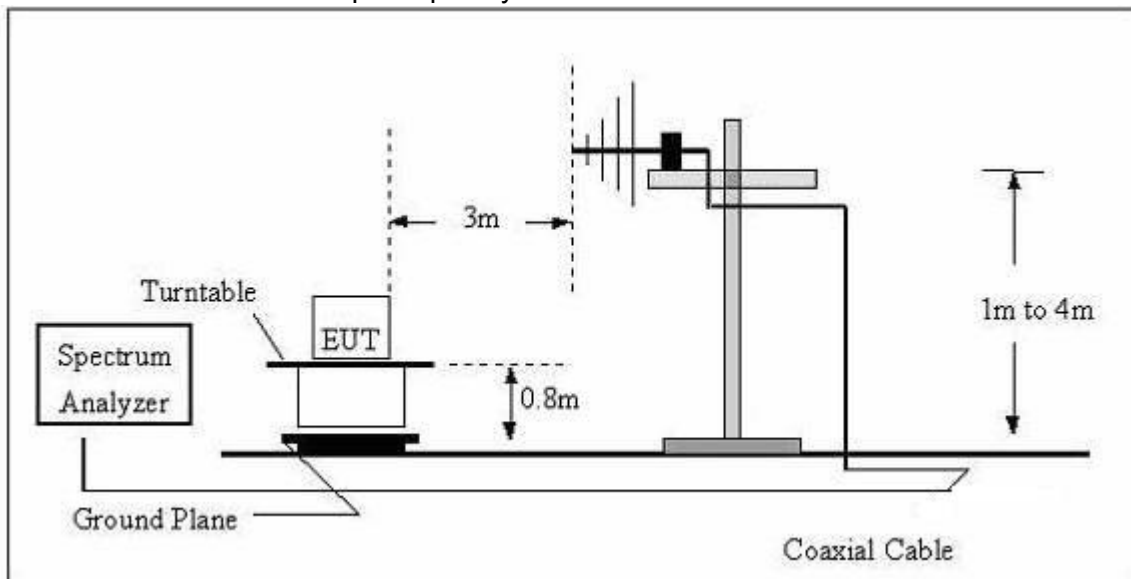
No deviation

3.2.4 TEST SETUP

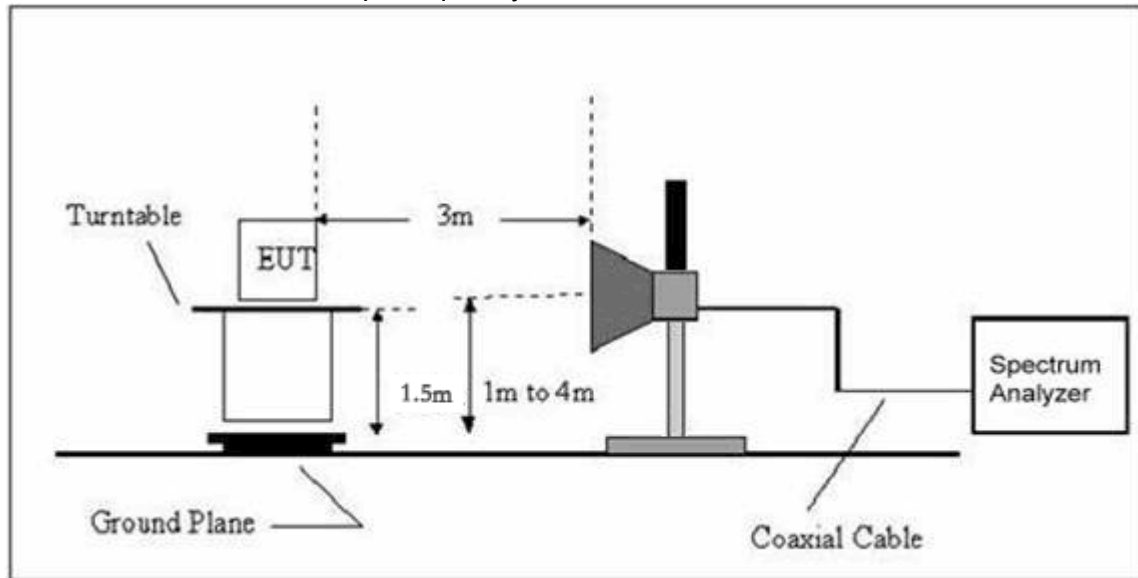
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.6 TEST RESULTS (BETWEEN 9KHZ – 30 MHZ)

EUT:	Smart Mirror	Model Name. :	RVM740SM
Temperature:	25°C	Relative Humidity :	55%
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	TX	Polarization :	--

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance/test distance})(\text{dB})$;

Limit line = specific limits(dBuv) + distance extrapolation factor.

3.2.7 TEST RESULTS (BETWEEN 30MHZ – 1GHZ)

EUT :	Smart Mirror	Model Name :	RVM740SM
Temperature :	25℃	Relative Humidity :	55%
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	TX		

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	119.8556	49.65	-16.05	33.60	43.50	-9.90	QP
V	281.0074	47.66	-11.16	36.50	46.00	-9.50	QP
V	318.8170	48.73	-10.23	38.50	46.00	-7.50	QP
V	350.4768	51.28	-9.58	41.70	46.00	-4.30	QP
V	451.1350	43.40	-8.42	40.5	46.00	-5.50	QP
V	651.9415	39.45	-4.75	34.70	46.00	-11.30	QP
H	214.5143	46.33	-13.23	33.10	43.50	-10.40	QP
H	250.3010	48.21	-12.01	36.20	46.00	-9.80	QP
H	297.2241	48.90	-10.70	38.20	46.00	-7.80	QP
H	350.4768	52.48	-9.58	42.90	46.00	-3.10	QP
H	400.4319	49.74	-8.54	41.20	46.00	-4.80	QP
H	451.1349	46.20	-7.80	38.40	46.00	-7.60	QP

Remark:

Absolute Level= Reading Level+ Factor, Margin= Absolute Level- Limit

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Factor added by measurement software automatically

3.2.8 TEST RESULTS (1G-25GHZ)

802.11b

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (2412 MHz)							
Vertical	2491.777	59.26	-12.74	46.52	74	27.48	Pk
Horizontal	2498.247	56.16	-12.64	43.52	74	30.48	Pk
Vertical	4824.184	56.26	-3.56	52.7	74	21.3	Pk
Horizontal	4824.184	56.26	-7.74	48.52	74	25.48	Pk
Vertical	1485.838	59.96	-19.65	40.31	74	33.69	Pk
Vertical	1636.784	59.65	-16.4	43.25	74	30.75	Pk
Vertical	2095.928	58.46	-13.94	44.52	74	29.48	Pk
Horizontal	1074.301	60.19	-17.46	42.73	74	31.27	Pk
Horizontal	1483.178	59.18	-14.33	44.85	74	29.15	Pk
Horizontal	1895.832	56.2	-14.84	41.36	74	32.64	Pk
Mid Channel (2437 MHz)							
Vertical	2474.777	55.97	-9.04	46.93	74	27.07	Pk
Horizontal	2474.144	56.66	-8.81	47.85	74	26.15	Pk
Vertical	4874.425	56.04	-7.51	48.53	74	25.47	Pk
Horizontal	4874.979	56.04	-9.22	46.82	74	27.18	Pk
Vertical	1433.535	63.03	-16.32	46.71	74	27.29	Pk
Vertical	1636.784	60.36	-14.95	45.41	74	28.59	Pk
Vertical	2284.166	54.1	-10.25	43.85	74	30.15	Pk
Horizontal	1280.515	59.76	-16.09	43.67	74	30.33	Pk
Horizontal	1636.784	58.59	-14.07	44.52	74	29.48	Pk
Horizontal	1892.438	58.71	-12.18	46.53	74	27.47	Pk
High Channel (2462 MHz)							
Vertical	2453.883	56.28	-12.65	43.63	74	30.37	Pk
Horizontal	2453.839	56.28	-12.46	43.82	74	30.18	Pk
Vertical	4926.325	52.79	-7.97	44.82	74	29.18	Pk
Horizontal	4926.683	52.79	-8.27	44.52	74	29.48	Pk
Vertical	1187.688	57.31	-15.58	41.73	74	32.27	Pk
Vertical	1636.784	56.12	-15.37	40.75	74	33.25	Pk
Vertical	2084.693	53.71	-10.86	42.85	74	31.15	Pk
Horizontal	1534.540	56.37	-12.51	43.86	74	30.14	Pk
Horizontal	1786.985	56.08	-14.23	41.85	74	32.15	Pk
Horizontal	1892.438	55.96	-10.09	45.87	74	28.13	Pk

802.11g

Normal Voltage

Normal Voltage							
Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2412							
V	4824.428	54.3	-0.67	53.63	74	20.37	Pk
V	4824.428	33.9	-0.45	33.45	54	20.55	AV
H	4824.529	50.48	-2.53	47.95	74	26.05	Pk
H	4824.529	34.12	-0.58	33.54	54	20.46	AV
operation frequency:2437							
V	4873.548	54.35	1.29	55.64	74	18.36	Pk
V	4873.548	33.95	0.91	34.86	54	19.14	AV
H	4875.279	50.53	-0.72	49.81	74	24.19	Pk
H	4875.279	34.17	-0.64	33.53	54	20.47	AV
operation frequency:2462							
V	4924.358	54.41	0.2	54.61	74	19.39	pk
V	4924.358	34.01	0.84	34.85	54	19.15	AV
H	4924.591	50.59	-1.78	48.81	74	25.19	pk
H	4924.591	34.23	-1.56	32.67	54	21.33	AV
Remark:							
Absolute Level= Reading Level+ Factor, Margin= Absolute Level - Limit							

802.11n(20)

Normal Voltage

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:2412							
V	4824.428	50.59	-1.23	49.36	74	24.64	Pk
H	4824.529	53.64	-2.41	51.23	74	22.77	Pk
operation frequency:2437							
V	4873.548	50.99	-4.47	46.52	74	27.48	Pk
H	4875.279	53.28	-5.46	47.82	74	26.18	Pk
operation frequency:2462							
V	4924.358	52.05	-1.74	50.31	74	23.69	pk
H	4924.591	50.91	-1.23	49.68	74	24.32	pk
Remark:							
Absolute Level= Reading Level+ Factor, Margin= Absolute Level - Limit							

Note: The PK value is less than the AV value, AV value is not required
Factor added by measurement software automatically.

BAND EDGE(Radiated)

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
802.11b							
2390	56.47	-9.95	46.52	74	27.48	peak	Vertical
2390	57.57	-12.25	45.32	74	28.68	peak	Horizontal
2483.5	56.9	-12.03	44.87	74	29.13	peak	Vertical
2483.5	54.03	-10.18	43.85	74	30.15	peak	Horizontal
802.11g							
2390	56.87	-10.23	46.64	74	27.36	peak	Vertical
2390	57.32	-13.17	44.15	74	29.85	peak	Horizontal
2483.5	57.96	-10.14	47.82	74	26.18	peak	Vertical
2483.5	58.22	-11.84	46.38	74	27.62	peak	Horizontal
802.11n20							
2390	57.65	-9.8	47.85	74	26.15	peak	Vertical
2390	57.96	-13.68	44.28	74	29.72	peak	Horizontal
2483.5	57.68	-11.33	46.35	74	27.65	peak	Vertical
2483.5	56.11	-10.83	45.28	74	28.72	peak	Horizontal

NOTE: The PK value is less than the AV value, AV value is not required.

4. POWER SPECTRAL DENSITY TEST

4.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

4.1.1 TEST PROCEDURE

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the RBW ≥ 3 kHz.
4. Set the VBW $\geq 3 \times$ RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

4.1.2 DEVIATION FROM STANDARD

No deviation.

4.1.3 TEST SETUP



4.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.