FCC PART 15.109
MEASUREMENT AND TEST REPORT
FOR

Cosmos Digitech (HK) Co., Ltd

Room 1703, Hip Kwan Commercial Building No.38 Pitt Road Yaomatei,

Kowloon, Hong Kong

FCC ID: WEVOT92

Report Concerns: Original Report	**Equipment Type:** Digital Photo Frame

Model:	OT92
Report No.:	STR08078029I
Test/Witness Engineer:	Lahm Peng
Test Date:	2008-07-10 to 2008-07-12
Issued Date:	2008-07-14

Prepared By:

SEM.Test Compliance Service Co., Ltd.
3/F, Jinbao Commerce Building, Xin'an Fanshen Road,
Bao'an District, Shenzhen, P.R.C.（518101）

Approved & Authorized By:

Jandy So /PSQ Manager

Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by SEM.Test Compliance Service Co., Ltd.

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Cosmos Digitech (HK) Co., Ltd

Address of applicant: Room 1703, Hip Kwan Commercial Building No.38 Pitt Road Yaomatei, Kowloon, Hong Kong

Manufacturer: HUAXING ELETRONICS FACTORY

Address of manufacturer: No.8, Gaoli Road 6, Gaoli Industrial Area, Qinghutou Tangxia Town, Dongguan City, Guangdong, China

General Description of E.U.T

Items	Description
EUT Description:	Digital Photo Frame
Trade Name:	/
Model No.:	OT92
Adding Models:	CM92(A~Z), 36972
Rate Current:	600mA
Rate Voltage:	DC 12V
Rated Power:	7.2W
Size:	32.0x24.0x3.4 cm
For more information refer to the circuit diagram form and the user's manual.	

The test data is gathered from a production sample, provided by the manufacturer. The other models listed in the report have different appearance of OT92 without circuit and electronic construction changed, declared by the manufacture.

1.2 Test Standards

The following report is prepared on behalf of the Cosmos Digitech (HK) Co., Ltd in accordance with Part 2, Subpart J, and Part 15, Subparts A and B of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart B, and section 15.107, and 15.109 rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission/immunity, should be checked to ensure compliance has been maintained.

1.3 Related Submittal(s)/Grant(s)

No Related Submittal(s).

1.4 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

The equipment under test (EUT) was configured to measure its highest possible immunity level. Test is carried with playing mode which worst case has been showed. Test setup was adapted accordingly in reference to the Operating Instructions.

1.5 Test Facility

The Laboratory has been registered and fully described in a report filed with the (**FCC**) Federal Communications Commission. The acceptance letter from the FCC is maintained in files which the Registration No.: **994117**. Measurement required was performed at laboratory of SEM.Test Compliance Service Co., Ltd. at 3/F, Jinbao Commerce Building, Xin'an Fanshen Road, Bao'an District, Shenzhen, P.R.C. (518101).

1.6 Accessories Equipment List and Details

Manufacturer	Description	Model	Serial Number
IBM	Notebook	T22	/
TP-LINK	Modem	TM-EC5658V	KT99CTQC-508
Lenovo	Printer	3110	OD65133711480

1.7 EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB Cable	0.6	Shielded	With Core
DC Power Cable	1.5	Unshielded	With Core

2. SUMMARY OF TEST RESULTS

Description of Test	Result
§15.107 (a) Conducted Emission	Compliant
§15.109(a) Radiated Emission	Compliant

3. §15.107 (a)- CONDUCTED EMISSION

3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 1.5dB.

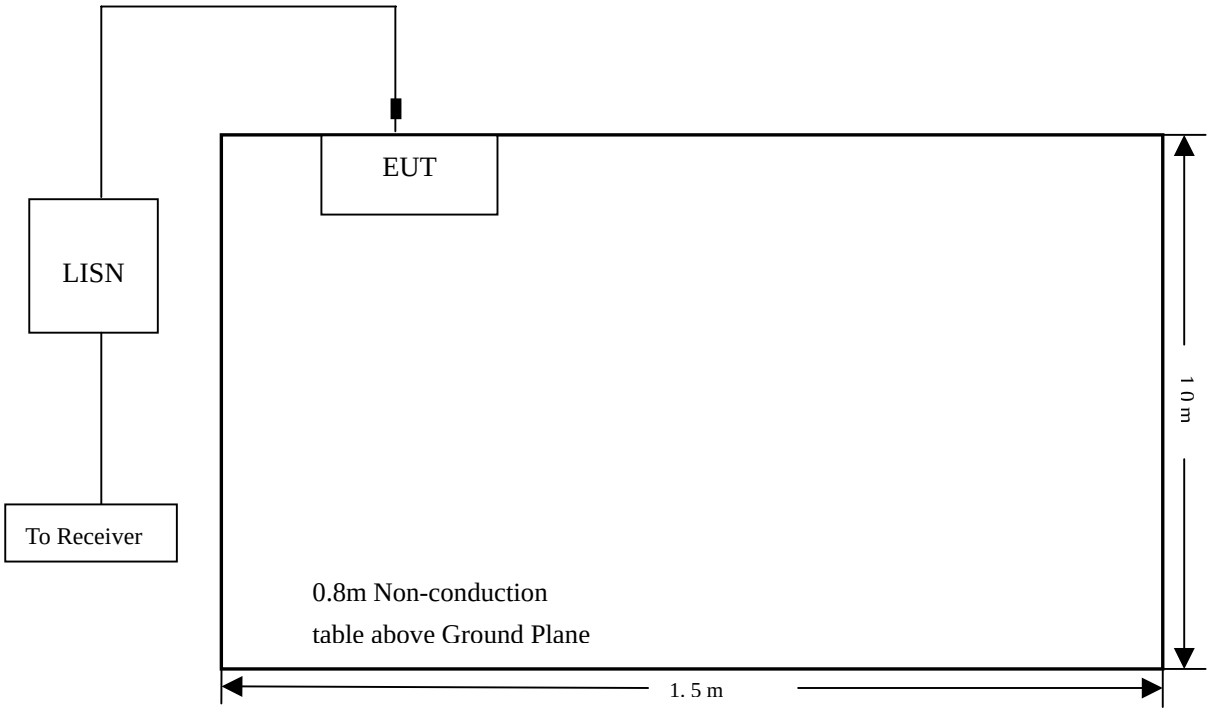
3.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESCS30	830245/009	2008-01-25	2009-01-24
AMN	Rohde & Schwarz	ESH2-Z5	100002	2008-01-25	2009-01-24
Limiter	Rohde & Schwarz	ESH3-Z2	357.8810.52	2008-01-25	2009-01-24
AMN	Rohde & Schwarz	ESH3-Z5	828304/014	2008-01-25	2009-01-24
Spectrum Analyzer	Aglient	E4402B-ESA	US41192821	2008-01-25	2009-01-24

3.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.107 Limit.
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.
The spacing between the peripherals was 10 cm.

3.4 Basic Test Setup Block Diagram



3.5 Environmental Conditions

Temperature:	25° C
Relative Humidity:	55%
ATM Pressure:	1010 mbar

3.6 Test Receiver Setup

During the conducted emission test, the test receiver was set with the following configurations:

Start Frequency ..... 150 kHz
Stop Frequency..... 30 MHz
Sweep Speed ..... Auto
IF Bandwidth..... 10 kHz
Quasi-Peak Adapter Bandwidth ..... 9 kHz
Quasi-Peak Adapter Mode ..... Normal

3.7 Summary of Test Results/Plots

According to the data in section 3.7, the EUT complied with the FCC 15B Conducted margin for a Class B device, with the *worst* margin reading of:

-5.8 dBµV at **2.354 MHz** in the **Line** mode**, Pk** detector **0.15-30MHz**

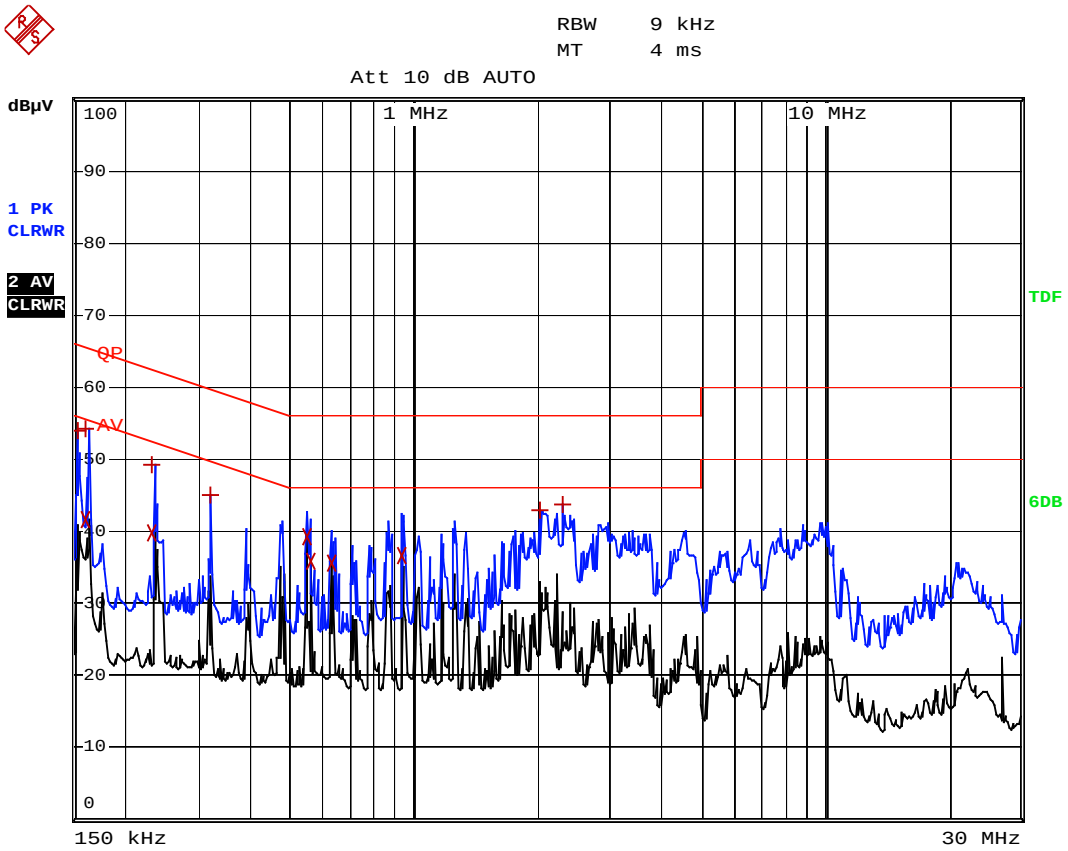
3.8 Conducted Emissions Test Data

LINE CONDUCTED EMISSIONS				FCC15 CLASS B	
Frequency	Amplitude	Detector	Phase	Limit	Margin
MHz	dBμV	QP/Ave/Pk	Line/Neutral	dBμV	dB
2.354	50.22	Pk	Line	56	-5.8
0.230	56.58	Pk	Line	62.45	-5.9
2.282	49.89	Pk	Line	56	-6.1
0.158	59.33	Pk	Line	65.57	-6.2
2.554	49.42	Pk	Line	56	-6.6
0.538	39.33	Av	Line	46	-6.7
0.550	39.13	Av	Neutral	46	-6.9
0.530	39.02	Av	Line	46	-7.0
0.926	38.30	Av	Line	46	-7.7
1.242	38.26	Av	Line	46	-7.7
0.230	44.62	Av	Line	52.45	-7.8
0.158	46.50	Av	Line	55.57	-9.1
0.938	36.62	Av	Neutral	46	-9.4
0.306	50.43	Pk	Line	60.08	-9.6
0.562	35.84	Av	Neutral	46	-10.2
0.630	35.44	Av	Neutral	46	-10.6
0.162	54.20	Pk	Neutral	65.36	-11.2
0.154	54.01	Pk	Neutral	65.78	-11.8
2.314	43.66	Pk	Neutral	56	-12.3
0.234	39.85	Av	Neutral	52.31	-12.5
0.234	49.18	Pk	Neutral	62.31	-13.1
2.030	42.81	Pk	Neutral	56	-13.2
0.162	41.67	Av	Neutral	55.36	-13.7
0.318	45.06	Pk	Neutral	59.76	-14.7

Note: The emission attenuated more than 20dB below the permissible value are not reported.

Plot of Conducted Emissions Test Data

Conducted Disturbance
EUT: Digital Photo Frame
M/N: OT92
Operating Condition: Playing
Test Specification: N
Comment: AC120V/60Hz DC12V Adapter



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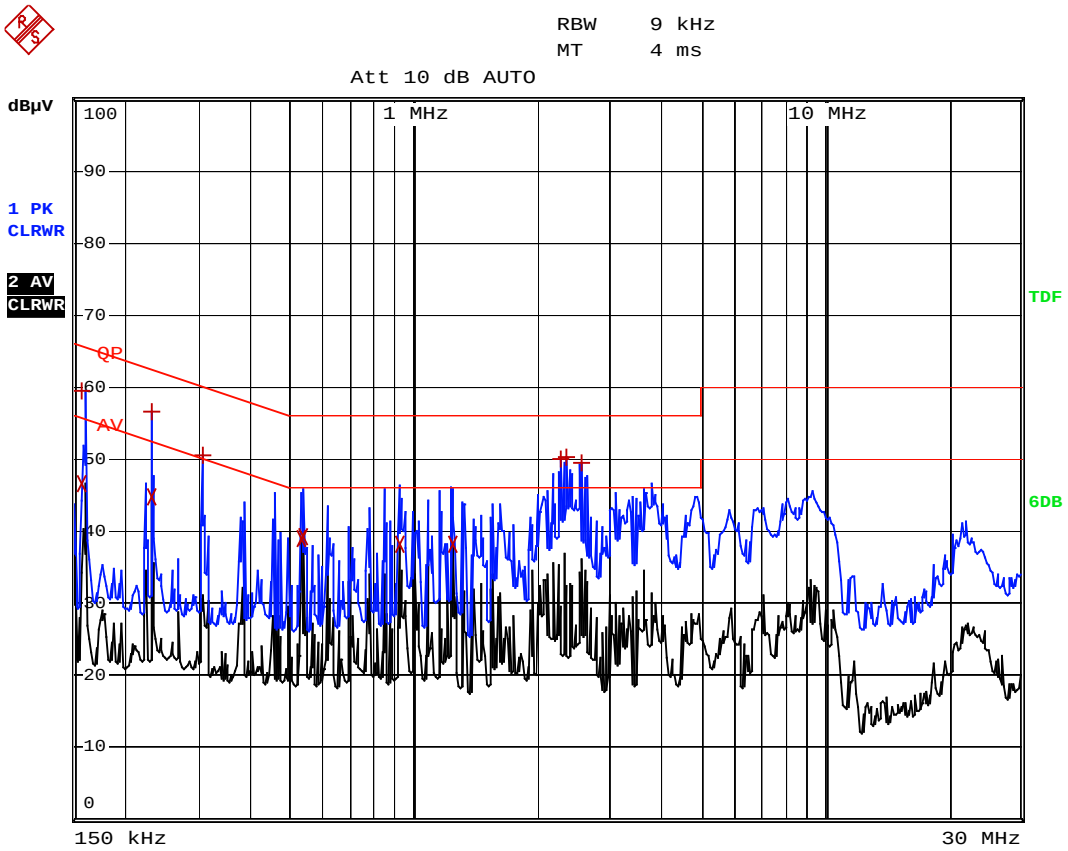
Plot of Conducted Emissions Test Data

Conducted Disturbance
EUT: Digital Photo Frame
M/N: OT92
Operating Condition: Playing
Test Specification: L
Comment: AC120V/60Hz DC12V Adapter



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4. §15.109(a)- RADIATED EMISSION

4.1 Measurement Uncertainty

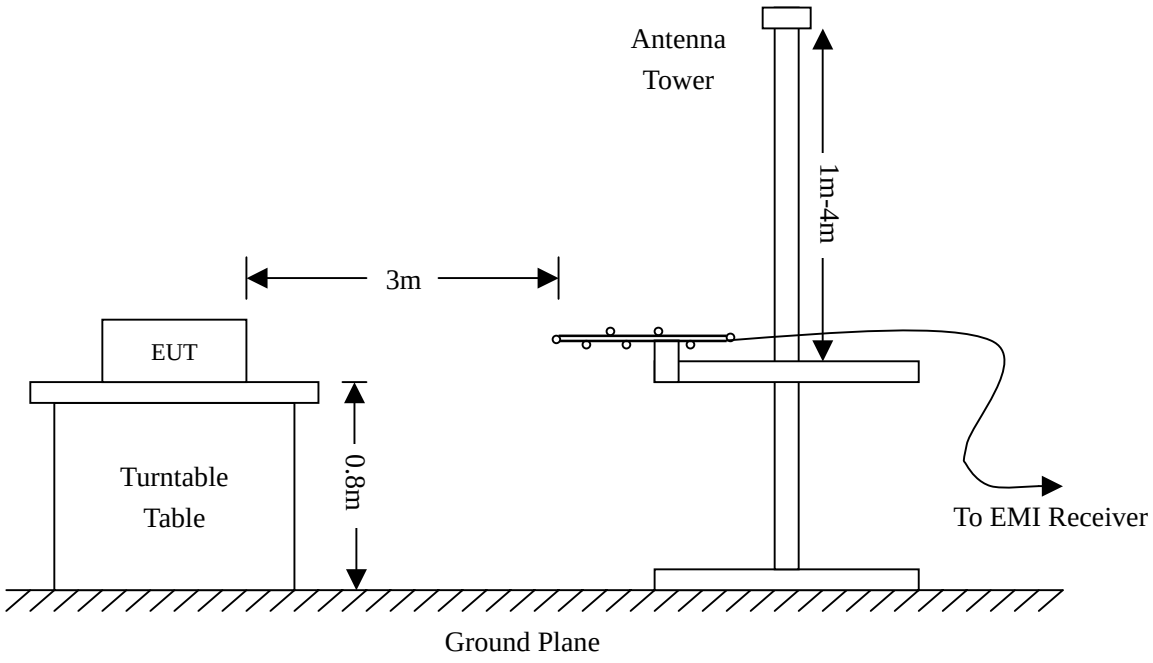
Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	ROHDE&SCHWARZ	FSEA20	DE25181	2008-01-25	2009-01-24
Positioning Controller	C&C	CC-C-1F	N/A	2008-01-25	2009-01-24
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2008-01-25	2009-01-24
Horn Antenna	SCHWARZBECK	BBHX 9120	9120-426	2008-01-25	2009-01-24
RF Switch	EM	EMSW18	SW060023	2008-01-25	2009-01-24
Amplifier	Agilent	8447F	3113A06717	2008-01-25	2009-01-24
Coaxial Cable	SCHWARZBECK	AK9513	9513-10	2008-01-25	2009-01-24
EMI Test Receiver	ROHDE&SCHWARZ	ESPI	25498514	2008-01-25	2009-01-24

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 3.0 dB.

4.2 Test Equipment List and Details

4.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.109 Limit.
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.
The spacing between the peripherals was 10 cm.



4.4 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

Corr. Ampl. = Indicated Reading – Corr. Factor

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dBμV means the emission is 6dBμV below the maximum limit for Class B. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – FCC Part 15B Limit

4.5 Environmental Conditions

Temperature:	25° C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

4.6 Summary of Test Results/Plots

According to the data in section 4.6, the EUT complied with the FCC 15 Class B standards, and had the worst margin is:

-1.90 dBμV at **433.3397 MHz** in the **Downloading** mode, **Horizontal** polarization, **30 MHz to 1 GHz, 3Meters**

-1.69 dBμV at **925.6132 MHz** in the **Playing** mode, **Horizontal** polarization, **30 MHz to 1 GHz, 3Meters**

Plot of Radiation Emissions Test Data

Radiated Disturbance

EUT: Digital Photo Frame

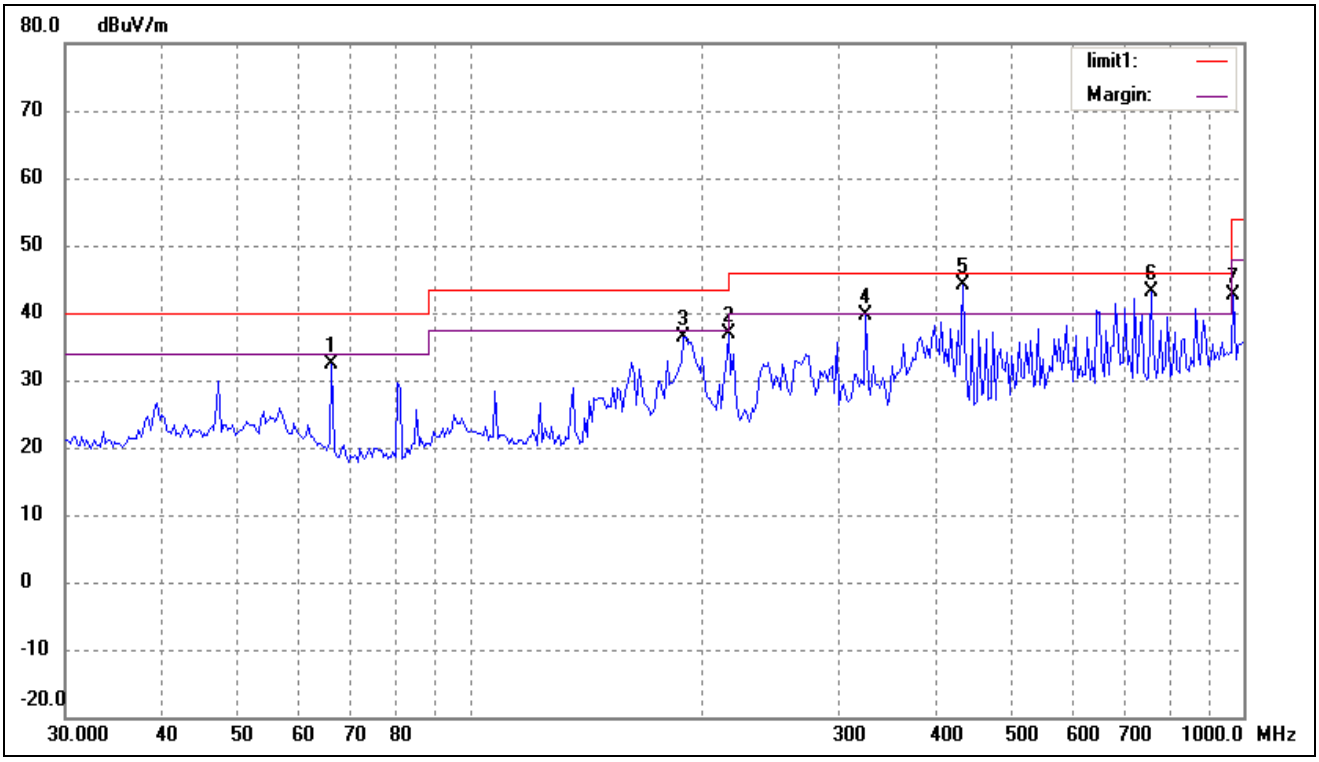
M/N: OT92

Operating Condition: Downloading

Test Specification: Horizontal & Vertical

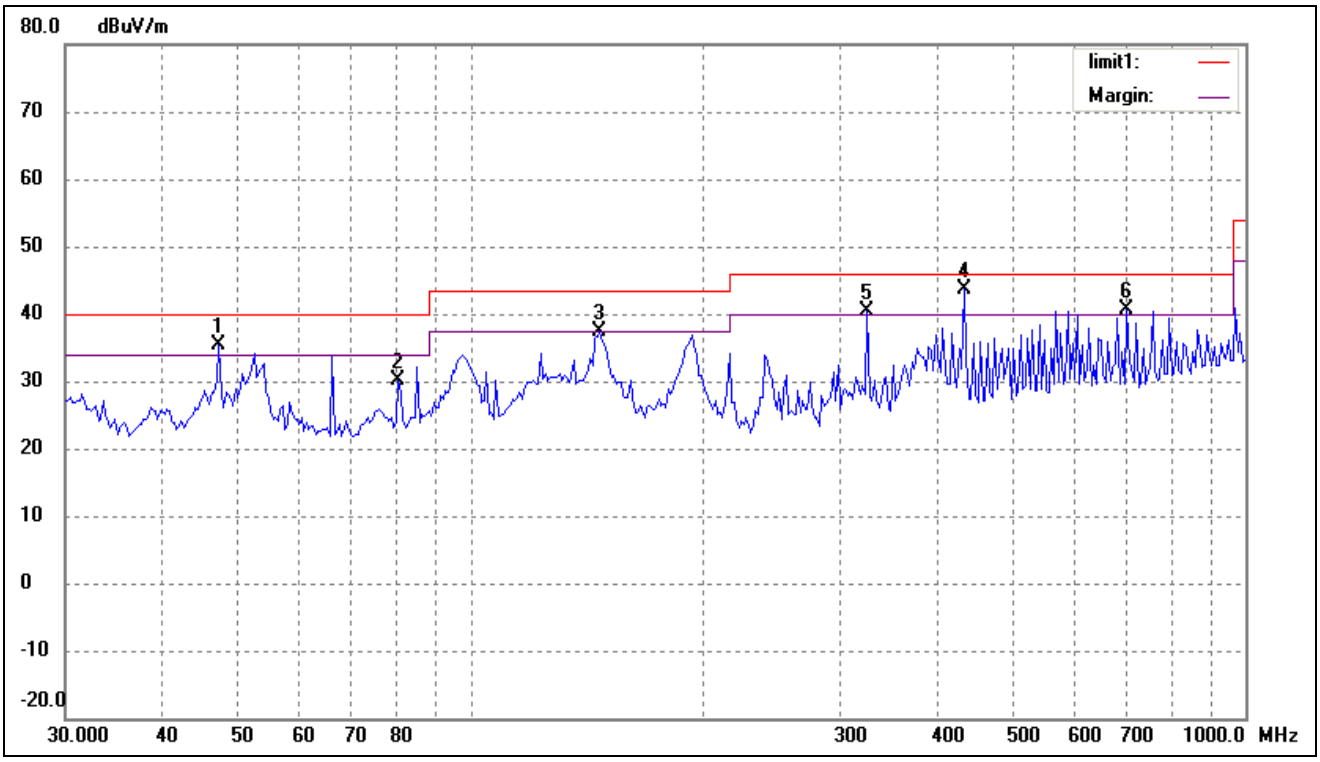
Comment: AC120V/60Hz

Horizontal:



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	66.3715	27.41	5.04	32.45	40.00	-7.55	360	100	peak
2	216.1197	29.67	7.15	36.82	46.00	-9.18	0	100	peak
3	189.1076	29.83	6.46	36.29	43.50	-7.21	0	100	peak
4	324.8645	29.54	10.09	39.63	46.00	-6.37	0	100	peak
5	433.3397	32.19	11.91	44.10	46.00	-1.90	27	100	QP
6	760.2867	27.96	15.11	43.07	46.00	-2.93	338	100	QP
7	972.2827	24.87	17.87	42.74	54.00	-11.26	0	100	peak

Vertical:



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	47.3688	27.16	8.11	35.27	40.00	-4.73	250	100	QP
2	80.8042	26.17	3.92	30.09	40.00	-9.91	0	100	peak
3	146.8392	33.34	4.04	37.38	43.50	-6.12	0	100	peak
4	433.3397	31.82	11.91	43.73	46.00	-2.27	38	140	QP
5	324.8645	30.39	10.09	40.48	46.00	-5.52	174	120	QP
6	703.7314	26.07	14.55	40.62	46.00	-5.38	360	100	QP

Plot of Radiation Emissions Test Data

Radiated Disturbance

EUT: Digital Photo Frame

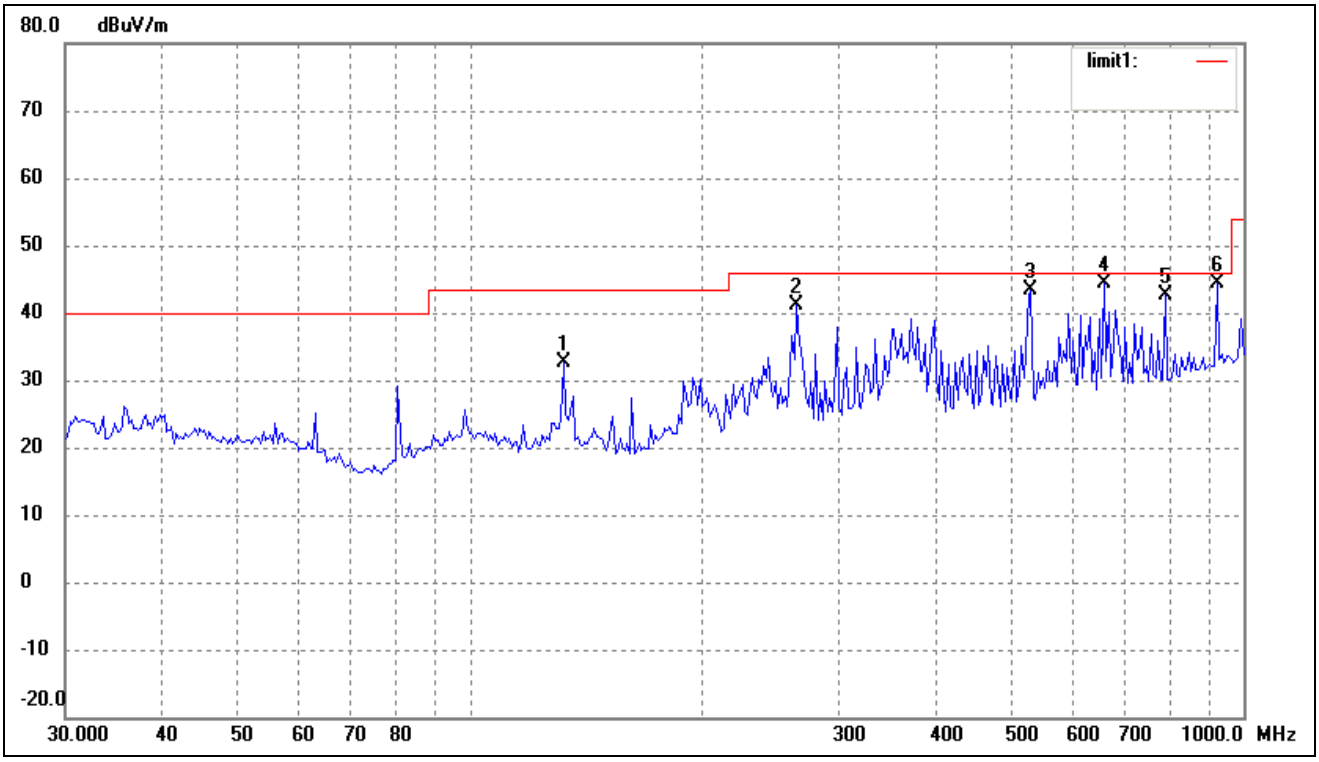
M/N: OT92

Operating Condition: Playing

Test Specification: Horizontal & Vertical

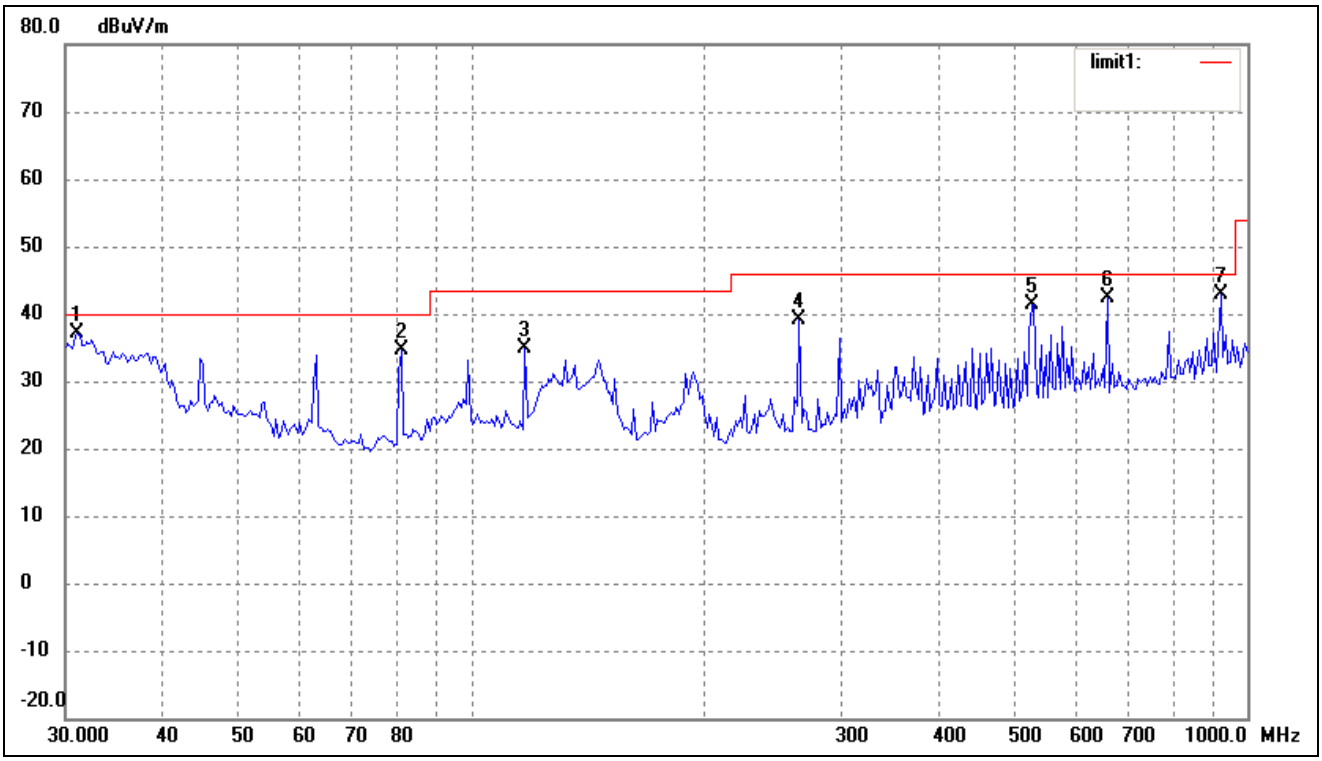
Comment:

Horizontal:



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	132.1490	28.18	4.43	32.61	43.50	-10.89	210	100	peak
2	264.9708	32.03	9.10	41.13	46.00	-4.87	12	150	QP
3	531.2910	30.31	12.96	43.27	46.00	-2.73	240	120	QP
4	660.6024	29.91	14.37	44.28	46.00	-1.72	341	100	QP
5	793.0280	27.19	15.44	42.63	46.00	-3.37	350	150	QP
6	925.6132	27.06	17.25	44.31	46.00	-1.69	0	200	QP

Vertical:



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	31.0728	30.30	6.77	37.07	40.00	-2.93	120	105	QP
2	81.3739	30.61	4.12	34.73	40.00	-5.27	36	110	QP
3	117.2687	28.42	6.39	34.81	43.50	-8.69	0	100	peak
4	264.9708	30.13	9.10	39.23	46.00	-6.77	0	100	peak
5	527.5706	28.57	12.90	41.47	46.00	-4.53	274	180	QP
6	660.6024	28.07	14.37	42.44	46.00	-3.56	355	150	QP
7	925.6132	25.74	17.25	42.99	46.00	-3.01	254	100	QP