



EMI TEST REPORT

Test Report No. : 25EE0212-HO-1

Applicant : Sony EMCS Corporation
Type of Equipment : AV Transmitter Module
Model No. : RF-T001
Test standard : FCC Part 15 Subpart C
Section 15.249: 2005
FCC ID : AK8RFT001
Test Result : Complied

1. This test report shall not be reproduced in full or partial, without the written approval of UL Apex Co., Ltd.
2. The results in this report apply only to the sample tested.
3. This equipment is in compliance with the above regulation. We hereby certify that the data contain a true representation of the EMC profile.
4. The test results in this report are traceable to the national or international standards.

Date of test:

April 27 to May 9, 2005

Tested by:

K. Adachi

Kenichi Adachi
EMC Service

Y. Yoshida

Yutaka Yoshida
EMC Service

Approved by :

H. Shimaji

Hironobu Shimaji
Group Leader of
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CONTENTS	PAGE
SECTION 1: Client information.....	3
SECTION 2: Equipment under test (E.U.T.)	3
SECTION 3: Test specification, procedures & results	4
SECTION 4: Operation of E.U.T. during testing.....	6
SECTION 5: Spurious Emission.....	7
SECTION 6: -20dB Bandwidth	7
APPENDIX 1: Photographs of test setup.....	8
Spurious Emission (Transmitter).....	8
Worst Case Position (X-axis:Horizontal / X-axis:Vertical).....	9
APPENDIX 2:Test instruments	10
APPENDIX 3: Data of EMI test	11
Radiated Emission(Transmitter/below 1GHz).....	11
Radiated Emission (Transmitter/above 1GHz)	14
-20dB Bandwidth.....	17

SECTION 1: Client information

Company Name : Sony EMCS Corporation
Address : Shinagawa INTERCITY C Tower, 2-15-3 Konan Minato-ku, Tokyo,
108-6201 Japan
Telephone Number : +81-3-5769-5650
Facsimile Number : +81-3-5769-5962
Contact Person : Kengo Nakamura

SECTION 2: Equipment under test (E.U.T.)

2.1 Identification of E.U.T.

Type of Equipment : AV Transmitter Module
Model No. : RF-T001
Serial No. : U-18 (for RF-T001)
Country of Manufacture : Japan
Receipt Date of Sample : April 8, 2005
Condition of EUT : Production model

2.2 Product Description

Model No: RF-T001(referred to as the EUT in this report) is the AV Transmitter Module.

Clock frequency in the system		8MHz, 6.5MHz, and 6MHz
Equipment Type		Transmitter
Frequency band	Lower limit	2400MHz
	Upper limit	2483.5MHz
Bandwidth		18MHz
Type of Modulation		FM
Antenna Type		Inverted-F
Antenna Gain		-1 dBi max
Mode of Operation		Simplex
Method of frequency generation		Synthesizer
ITU code		F3D
Power Supply		DC 5V from the main set
Operating voltage		DC3.3V

FCC 15.31 (e)

This EUT provides stable voltage(DC5.0V) from Host, and it is constantly converted into and provided with DC3.3V for the Operational voltage within RF Module regardless of input voltage. Therefore, this EUT complies with the requirement.

FCC Part 15.203 Antenna requirement

It is impossible for end users to replace the antenna, because the antenna is mounted inside of the EUT. Therefore, the equipment complies with the antenna requirement of Section 15.203.

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SECTION 3: Test specification, procedures & results

3.1 Test Specification

Test Specification : FCC Part15 Subpart C : 2005
Title : FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators
Section 15.249 Operation within the bands 902-928MHz, 2400-2483.5MHz, 5725-5875MHz, and 24.0-24.25GHz : 2005

3.2 Procedures and results

No.	Item	Test Procedure	Specification	Deviation	Worst margin *0)	Results
1	Conducted Emission	ANSI C63.4:2003	Section 15.207(a)	N/A	N/A *1)	N/A
2	Radiated Emission	ANSI C63.4:2003	Section 15.249	N/A	<u>Fundamental emission</u> 18.9dB 2414.0MHz, Horizontal, PK <u>Spurious emission</u> 3.0dB(39.668MHz, Vertical, QP)	Complied
3	-20dB bandwidth	ANSI C63.4:2003	Section 15.215	N/A	N/A	Complied
4	Frequency Stability	ANSI C63.4:2003	Section 15.249(b)	N/A	N/A *2)	N/A

Note: UL Apex's EMI Work Procedures No.QPM05.

*0) The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

*1) The test is excluded since the length of DC Cable is less than 3m.

*2) The test is excluded since EUT is not the fixed and point to point operation system.

Uncertainty:

*In case of the margin below the EMC Head Office's uncertainty.

The data listed in this report meets the limits unless the uncertainty is taken into consideration.

Spurious Emission (Radiated)

The measurement uncertainty (with a 95% confidence level) for this test using Biconical antenna is $\pm 4.5\text{dB}(3\text{m})/\pm 4.7\text{dB}(10\text{m})$.

The measurement uncertainty (with a 95% confidence level) for this test using Logperiodic antenna is $\pm 5.2\text{dB}(3\text{m})/\pm 3.8\text{dB}(10\text{m})$.

The measurement uncertainty (with a 95% confidence level) for this test using Horn antenna is $\pm 6.6\text{dB}$.

Other test except Conducted Emission and Spurious Emission (Radiated)

The measurement uncertainty (with a 95% confidence level) for this test is $\pm 3.0\text{dB}$.

*These tests were performed without any deviations from test procedure except for additions or exclusions.

3.3 Addition to standards

No addition, deviation, nor exclusion has been made from standards.

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3.4 Test Location

UL Apex Co., Ltd. Head Office EMC Lab. *NVLAP Lab. code: 200572-0
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	FCC Registration Number	IC Registration Number	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Other rooms
No.1 semi-anechoic chamber	313583	IC4247	19.2 x 11.2 x 7.7m	7.0 x 6.0m	Preparation room
No.2 semi-anechoic chamber	846015	IC4247-2	7.5 x 5.8 x 5.2m	4.0 x 4.0m	-
No.3 shielded room	-	-	4.7 x 7.5 x 2.7m	4.7 x 7.5m	-
No.4 measurement room	-	-	3.1 x 5.0 x 2.7m	N/A	-

* Size of vertical conducting plane (for Conducted Emission test) : 2.0 x 2.0m for No.1 and No.2 semi-anechoic and No.3 shielded room.

3.5 Test set up, Test instruments and Data of EMI

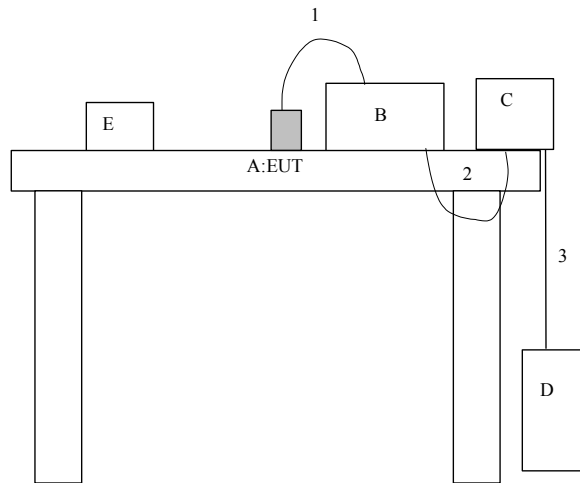
Refer to APPENDIX 1 to 3.

SECTION 4: Operation of E.U.T. during testing

4.1 Operating Modes

The mode is used : Transmitting mode
Low Channel :2414MHz
Mid Channel :2432MHz
High channel :2468MHz

4.2 Configuration and peripherals



* Cabling was taken into consideration and test data was taken under worse case conditions.

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	FCC ID
A	AV Transmitter Module	RF-T001	U-18	SONY	AK8RFT001
B	MULTI DISC PLAYER	MEX-R1	3509346	SONY	-
C	JIG	-	-	SONY	-
D	Car Battery	40B19L	A030402	YUASA	-
E	Remote Controller	-	-	SONY	-

List of cables used

No.	Name	Length (m)	Shield	Backshell Material
1	Transmitter Cable	0.5	N	Polyvinyl chloride
2	JIG Cable (DC Cable)	0.3	N	Polyvinyl chloride
3	DC Cable	0.8	N	Polyvinyl chloride

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SECTION 5: Spurious Emission

[Radiated]

Test Procedure

EUT was placed on a platform of nominal size, 1.0m by 0.5m, raised 80cm above the conducting ground plane.

The Radiated Electric Field Strength intensity has been measured in a Semi Anechoic Chamber with a ground plane and at a distance of 3m(Below 10GHz) and 1m(Upper 10GHz).

The height of the measuring varied between 1 and 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.

The measurements were performed for both vertical and horizontal antenna polarization with the Test Receiver, or the Spectrum Analyzer (in linear mode).

The test was made with the detector (RBW/VBW) in the following table.

When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold.

In any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator confirmed 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on a radiated measurement.

The result also satisfied with the general limits specified in section 15.209(a).

Frequency	Below 1GHz	Above 1GHz
Instrument used	Test Receiver	Spectrum Analyzer
Detector	QP: BW 120kHz	PK: RBW:1MHz/VBW: 1MHz
IF Bandwidth		AV: RBW:1MHz/VBW:10Hz

Test data : APPENDIX 3

Test result : Pass

- The carrier level and noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

SECTION 6: -20dB Bandwidth

Test Procedure

The bandwidth was measured with a spectrum analyzer connected to the antenna port.

Test data : APPENDIX 3

Test result : Pass

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APPENDIX 1: Photographs of test setup

Spurious Emission (Transmitter) **Front**



Rear

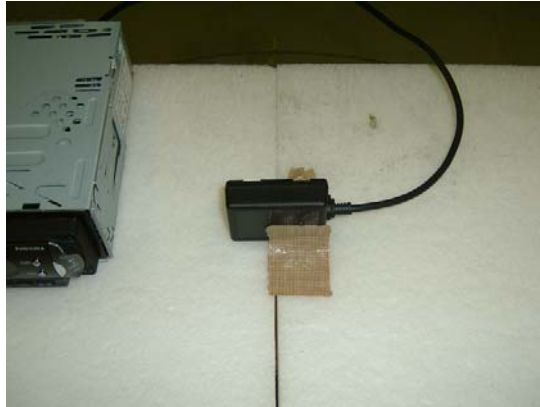


Worst Case Position (X-axis:Horizontal / X-axis:Vertical)

X-axis



Y-axis



Z-axis



APPENDIX 2:Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-01	Anechoic Chamber	TDK	Semi Anechoic Chamber 10m	RE	2004/11/13 * 12
MTR-01	Test Receiver	Rohde & Schwarz	ESI40	RE	2004/11/12 * 12
MCC-05	Microwave Cable 1G-50GHz	Storm	421-011 (90-1394-079)	RE	2005/01/05 * 12
MCC-23	Microwave Cable 1G-50GHz	Storm	421-011 (90-011-158)	RE	2004/05/01 * 12 *1) Used date: 2005/04/27 only
MPA-01	Pre Amplifier	Agilent	8449B	RE	2005/02/05 * 12
MHF-02	High Pass Filter	Tokimec	TF323DCA	RE	2004/09/18 * 12
MHA-05	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2005/01/10 * 12
MCC-26	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2004/08/26 * 12
MCC-18	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2005/02/03 * 12
MPA-05	Pre Amplifier	TSJ	TSJ 1-26.5GHz PreAmp	RE	2004/06/12 * 12
MCC-01	Coaxial Cable 0.1-3000MHz	Suhner/storm/Agilent/TSJ	-	RE	2004/12/19 * 12
MPA-04	Pre Amplifier	Agilent	8447D	RE	2005/05/24 * 12
MAT-06	Attenuator(6dB)	Weinschel Corp	2	RE	2004/12/16 * 12
MBA-01	Biconical Antenna	Schwarzbeck	BBA9106	RE	2004/10/14 * 12
MLA-01	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2004/10/14 * 12
MSA-01	Spectrum Analyzer	Advantest	R3131A	-20dB	2005/04/08 * 12
MHA-01	Horn Antenna	EMCO	3160-09	RE	2005/01/10 * 12

All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

Test Item:

RE: Radiated emission,
-20dB: -20dB Bandwidth

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APPENDIX 3: Data of EMI test

Radiated Emission(Transmitter/below 1GHz)

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/05/06 11:38:31

Applicant : SONY EMCS CORPORATION
Kind of EUT : AV Transmitter Module
Model No. : RF-T001
Serial No. : U-18

Report No. : 25EE0212-HO
Power : DC 5V
Temp./Humi. : 24deg. C / 52%
Operator : Kenichi Adachi

Mode / Remarks : Tx 2414 MHz (CH1) / EUT-max-axis (H:Z, V:Z)

LIMIT : FCC15C § 15.249(a)&(d) 3m, Tx 2400MHz to 2483.5MHz below 1GHz:QP, above 1GHz:AV
Except for the data below : adequate margin data below the limits.

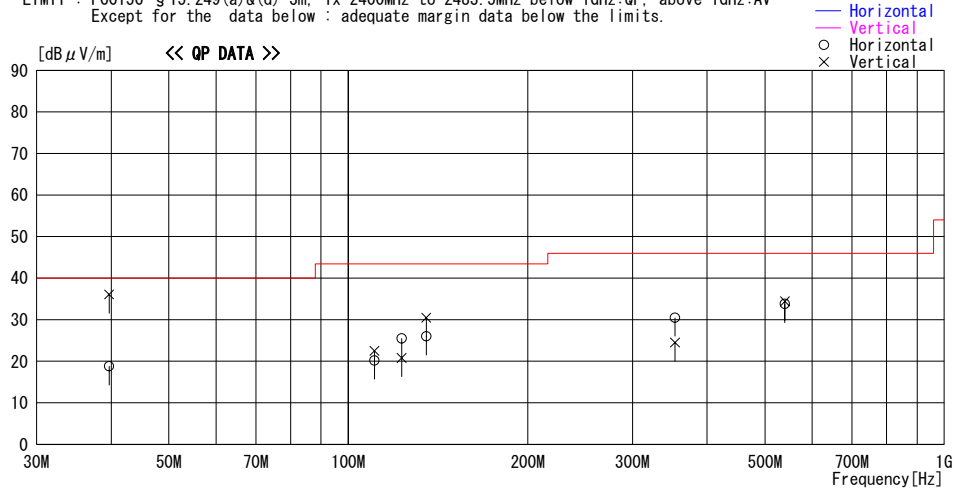


CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

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DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/05/06 14:01:24

Applicant : SONY EMCS CORPORATION
Kind of EUT : AV Transmitter Module
Model No. : RF-T001
Serial No. : U-18

Report No. : 25EE0212-HO
Power : DC 5V
Temp./Humi. : 24deg. C / 52%
Operator : Kenichi Adachi

Mode / Remarks : Tx 2432 MHz (CH2) / EUT-max-axis (H:Z, V:Z)

LIMIT : FCC15C § 15.249(a)&(d) 3m, Tx 2400MHz to 2483.5MHz below 1GHz:QP, above 1GHz:AV
Except for the data below : adequate margin data below the limits.

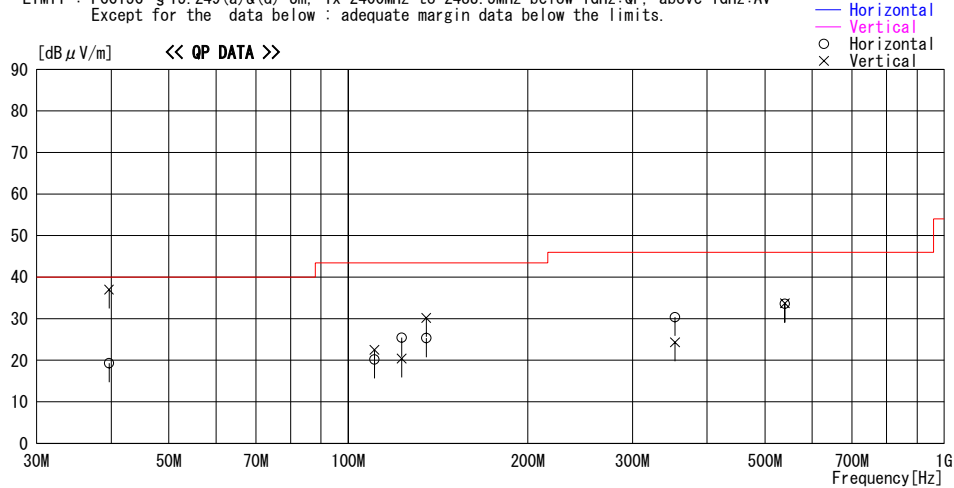


CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

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DATA OF RADIATED EMISSION TEST

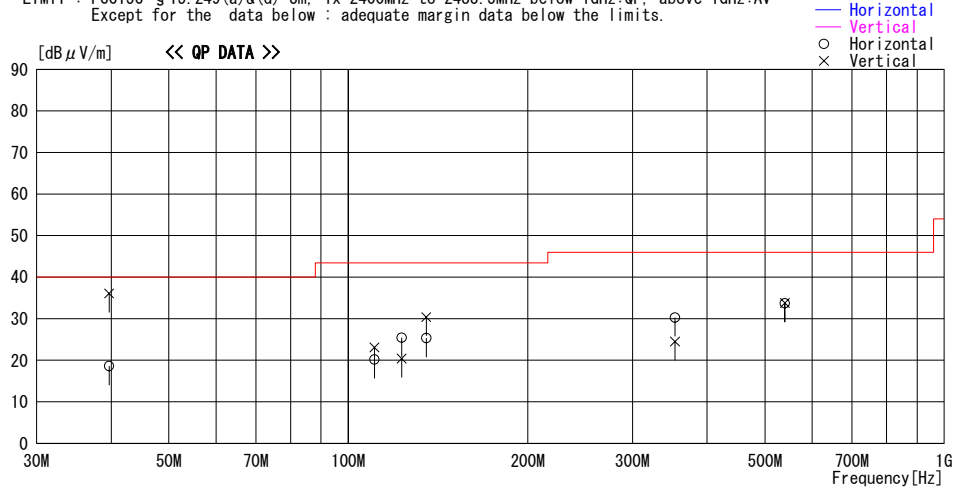
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/05/06 14:30:22

Applicant : SONY EMCS CORPORATION
Kind of EUT : AV Transmitter Module
Model No. : RF-T001
Serial No. : U-18

Report No. : 25EE0212-HO
Power : DC 5V
Temp./Humi. : 24deg. C / 52%
Operator : Kenichi Adachi

Mode / Remarks : Tx 2468 MHz (CH4) / EUT-max-axis (H:Z, V:Z)

LIMIT : FCC15C § 15.249(a)&(d) 3m, Tx 2400MHz to 2483.5MHz below 1GHz:QP, above 1GHz:AV
Except for the data below : adequate margin data below the limits.



No.	FREQ [MHz]	READING QP [dB μ V]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dB μ V/m]	LIMIT [dB μ V/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	39.690	25.1	14.1	7.2	27.8	18.6	40.0	21.4	250	155
2	110.578	27.9	11.7	8.3	27.7	20.2	43.5	23.3	183	177
3	122.869	31.5	13.2	8.3	27.6	25.4	43.5	18.1	150	183
4	135.158	30.1	14.1	8.5	27.4	25.3	43.5	18.2	232	36
5	353.268	31.0	16.4	10.4	27.5	30.3	46.0	15.7	100	243
6	539.987	31.7	19.1	11.4	28.5	33.7	46.0	12.3	153	258
----- Vertical -----										
7	39.690	42.6	14.1	7.2	27.8	36.1	40.0	3.9	100	237
8	110.578	30.8	11.7	8.3	27.7	23.1	43.5	20.4	100	272
9	122.869	26.5	13.2	8.3	27.6	20.4	43.5	23.1	269	257
10	135.158	35.2	14.1	8.5	27.4	30.4	43.5	13.1	100	240
11	353.268	25.2	16.4	10.4	27.5	24.5	46.0	21.5	225	359
12	539.987	31.8	19.1	11.4	28.5	33.8	46.0	12.2	104	63

CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

Radiated Emission (Transmitter/above 1GHz)

DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)

DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)												
							UL Apex Co., Ltd.					
							Head Office EMC Lab. No.1 Semi Anechoic Chamber					
Company		: SONY EMCS CORPORATION				REPORT NO		: 25EE0212-HO				
Equipment		: AV Transmitter Module				REGULATION		: FCC Part 15 Subpart C 15.249(a)&(d) 3m				
Model		: RF-T001				TEST DISTANCE		: 3/1m				
Sample No.		: U-18				DATE		: 04/27/2005				
Power		: DC5.0V				TEMPERATURE		: 22deg C				
Mode		: Tx 2414MHz (CH:1)				HUMIDITY		: 55%				
Remarks		: Hor : X-axis, Ver : X-axis(MAX)				ENGINEER		: Yutaka Yoshida				
PK DETECT		(RBW: 1MHz, VBW: 1MHz)										
No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER					Factor	GAIN		LOSS	Filter
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	45.6	44.8	31.0	36.4	5.5	0.0	45.7	44.9	74.0	28.3	29.1
2	2400.0	47.1	45.0	30.9	36.4	5.5	0.0	47.1	45.0	74.0	26.9	29.0
3	2414.0	95.1	89.2	30.9	36.4	5.5	0.0	95.1	89.2	114.0	18.9	24.8
4	4827.0	43.5	45.0	35.0	36.0	8.0	1.0	51.5	53.0	74.0	22.5	21.0
5	7241.0	45.3	43.4	37.6	36.0	10.2	0.2	57.3	55.4	74.0	16.7	18.6
6	9655.0	42.4	43.6	36.3	36.4	11.9	0.1	54.3	55.5	74.0	19.7	18.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12070.0	43.6	44.4	41.4	36.1	13.7	0.2	53.3	54.1	74.0	20.7	19.9
8	14480.0	43.4	44.5	41.9	34.6	15.6	0.1	56.9	58.0	74.0	17.1	16.0
9	16898.0	42.7	42.6	44.6	35.0	17.1	1.1	61.0	60.9	74.0	13.0	13.1
10	19312.0	42.2	40.5	41.6	34.1	9.1	0.0	49.3	47.6	74.0	24.7	26.4
11	21726.0	43.7	43.7	40.4	34.6	9.4	0.0	49.4	49.4	74.0	24.6	24.6
12	24140.0	43.9	43.8	41.0	35.6	11.6	0.0	51.4	51.3	74.0	22.6	22.7
AV DETECT		(RBW: 1MHz, VBW: 10Hz)										
No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER					Factor	GAIN		LOSS	Filter
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	31.8	31.7	31.0	36.4	5.5	0.0	31.9	31.8	54.0	22.1	22.2
2	2400.0	32.0	31.7	30.9	36.4	5.5	0.0	32.0	31.7	54.0	22.0	22.3
3	2414.0	90.6	84.7	30.9	36.4	5.5	0.0	90.6	84.7	94.0	3.4	9.3
4	4827.0	32.1	34.2	35.0	36.0	8.0	1.0	40.1	42.2	54.0	13.9	11.8
5	7241.0	34.2	30.7	37.6	36.0	10.2	0.2	46.2	42.7	54.0	7.8	11.3
6	9655.0	29.6	31.2	36.3	36.4	11.9	0.1	41.5	43.1	54.0	12.5	10.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12070.0	30.7	32.0	41.4	36.1	13.7	0.2	40.4	41.7	54.0	13.6	12.3
8	14480.0	29.9	31.1	41.9	34.6	15.6	0.1	43.4	44.6	54.0	10.6	9.4
9	16898.0	29.3	29.6	44.6	35.0	17.1	1.1	47.6	47.9	54.0	6.4	6.1
10	19312.0	29.3	29.4	41.6	34.1	9.1	0.0	36.4	36.5	54.0	17.6	17.5
11	21726.0	31.0	31.0	40.4	34.6	9.4	0.0	36.7	36.7	54.0	17.3	17.3
12	24140.0	31.0	31.0	41.0	35.6	11.6	0.0	38.5	38.5	54.0	15.5	15.5
Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB												
*Except for the above table : All other spurious emissions were less than 20dB for the limit.												
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.												
*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.												
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.												

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MF060b(01.06.05)

DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)

UL Apex Co., Ltd.
Head Office EMC Lab. No.1 Semi Anechoic Chamber

Company	: SONY EMCS CORPORATION	REPORT NO	: 25EE0212-HO
Equipment	: AV Transmitter Module	REGULATION	: FCC Part 15 Subpart C 15.249(a)&(d) 3m
Model	: RF-T001	TEST DISTANCE	: 3/1m
Sample No.	: U-18	DATE	: 04/27/2005
Power	: DC5.0V	TEMPERATURE	: 22deg.C
Mode	: Tx 2432MHz (CH:2)	HUMIDITY	: 55%
Remarks	: Hor : X-axis, Ver : X-axis(MAX)	ENGINEER	: Yutaka Yoshida

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2432.0	94.7	89.0	30.9	36.4	5.6	0.0	94.8	89.1	114.0	19.2	24.9
2	4863.0	45.2	46.0	35.2	36.0	8.0	1.0	53.4	54.2	74.0	20.6	19.8
3	7295.0	47.2	44.9	37.7	36.0	10.5	0.2	59.6	57.3	74.0	14.4	16.7
4	9727.0	43.9	45.2	36.3	36.4	12.1	0.1	56.0	57.3	74.0	18.0	16.7
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12160.0	43.4	45.4	41.5	36.0	13.9	0.3	53.5	55.5	74.0	20.5	18.5
6	14592.0	44.3	43.5	42.1	35.0	15.7	0.2	57.8	57.0	74.0	16.2	17.0
7	17024.0	42.5	43.0	44.6	34.9	17.1	1.2	61.0	61.5	74.0	13.0	12.5
8	19456.0	43.0	43.0	41.5	34.3	9.2	0.0	49.9	49.9	74.0	24.1	24.1
9	21888.0	46.4	46.9	40.5	34.3	9.4	0.0	52.5	53.0	74.0	21.5	21.0
10	24320.0	44.3	45.0	41.1	35.7	11.7	0.0	51.9	52.6	74.0	22.1	21.4

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ	S/A READING		ANT Factor	AMP GAIN	CABLE LOSS	Hi-Pass Filter	RESULT		Limit AV	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2432.0	89.5	83.8	30.9	36.4	5.6	0.0	89.6	83.9	94.0	4.4	10.1
2	4863.0	34.1	34.4	35.2	36.0	8.0	1.0	42.3	42.6	54.0	11.7	11.4
3	7295.0	36.3	32.8	37.7	36.0	10.5	0.2	48.7	45.2	54.0	5.3	8.8
4	9727.0	31.4	33.0	36.3	36.4	12.1	0.1	43.5	45.1	54.0	10.5	8.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12160.0	30.6	32.1	41.5	36.0	13.9	0.3	40.7	42.2	54.0	13.3	11.8
6	14592.0	30.8	31.5	42.1	35.0	15.7	0.2	44.3	45.0	54.0	9.7	9.0
7	17024.0	29.5	29.3	44.6	34.9	17.1	1.2	48.0	47.8	54.0	6.0	6.2
8	19456.0	29.3	29.4	41.5	34.3	9.2	0.0	36.2	36.3	54.0	17.8	17.7
9	21888.0	32.6	32.5	40.5	34.3	9.4	0.0	38.7	38.6	54.0	15.3	15.4
10	24320.0	30.7	30.6	41.1	35.7	11.7	0.0	38.3	38.2	54.0	15.7	15.8

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.

*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

*Hi-Pass Filter was not used for factor 0.0dB of the above table.

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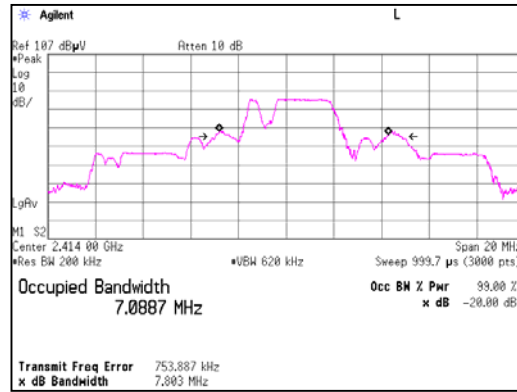
MF060b(01.06.05)

DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)

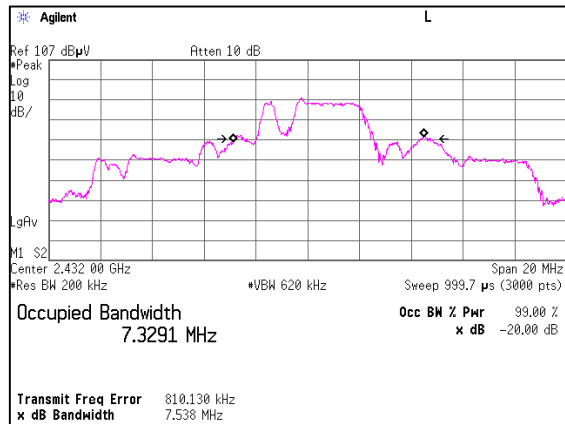
UL Apex Co., Ltd.												
Head Office EMC Lab. No.1 Semi Anechoic Chamber												
Company		: SONY EMCS CORPORATION				REPORT NO		: 25EE0212-HO				
Equipment		: AV Transmitter Module				REGULATION		: FCC Part 15 Subpart C 15.249(a)&(d) 3m				
Model		: RF-T001				TEST DISTANCE		: 3/1m				
Sample No.		: U-18				DATE		: 04/27/2005				
Power		: DC5.0V				TEMPERATURE		: 22deg.C				
Mode		: Tx 2468MHz (CH:4)				HUMIDITY		: 55%				
Remarks		: Hor : X-axis, Ver : X-axis(MAX)				ENGINEER		: Yutaka Yoshida				
PK DETECT (RBW: 1MHz, VBW: 1MHz)												
No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER					Factor	GAIN		LOSS	Filter
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2468.0	87.7	88.5	30.8	36.4	5.5	0.0	87.6	88.4	114.0	26.4	25.6
2	2483.5	44.8	45.6	30.8	36.4	5.5	0.0	44.7	45.5	74.0	29.3	28.5
3	4935.5	45.6	44.4	35.6	35.9	8.1	1.0	54.4	53.2	74.0	19.6	20.8
4	7403.3	46.6	45.5	37.9	36.0	10.5	0.2	59.2	58.1	74.0	14.8	15.9
5	9870.9	44.5	44.4	36.2	36.4	12.2	0.1	56.6	56.5	74.0	17.4	17.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12340.0	43.7	45.0	41.5	35.9	13.9	0.4	54.1	55.4	74.0	19.9	18.6
7	14808.0	42.8	42.6	42.5	35.7	15.9	0.4	56.4	56.2	74.0	17.6	17.8
8	17276.0	41.3	42.4	44.4	35.0	17.2	1.0	59.4	60.5	74.0	14.6	13.5
9	19744.0	43.0	43.4	41.2	34.6	9.4	0.0	49.5	49.9	74.0	24.5	24.1
10	22212.0	44.6	45.1	40.5	34.1	9.6	0.0	51.1	51.6	74.0	22.9	22.4
11	24680.0	45.3	44.9	41.1	35.4	11.7	0.0	53.2	52.8	74.0	20.8	21.2
AV DETECT (RBW: 1MHz, VBW: 10Hz)												
No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER					Factor	GAIN		LOSS	Filter
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2468.0	82.2	83.0	30.8	36.4	5.5	0.0	82.1	82.9	94.0	11.9	11.1
2	2483.5	31.5	31.7	30.8	36.4	5.5	0.0	31.4	31.6	54.0	22.6	22.4
3	4935.5	34.8	32.0	35.6	35.9	8.1	1.0	43.6	40.8	54.0	10.4	13.2
4	7403.3	35.5	33.0	37.9	36.0	10.5	0.2	48.1	45.6	54.0	5.9	8.4
5	9870.9	31.9	31.6	36.2	36.4	12.2	0.1	44.0	43.7	54.0	10.0	10.3
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12340.0	30.6	31.6	41.5	35.9	13.9	0.4	41.0	42.0	54.0	13.0	12.0
7	14808.0	30.2	29.7	42.5	35.7	15.9	0.4	43.8	43.3	54.0	10.2	10.7
8	17276.0	28.7	28.9	44.4	35.0	17.2	1.0	46.8	47.0	54.0	7.2	7.0
9	19744.0	29.5	29.5	41.2	34.6	9.4	0.0	36.0	36.0	54.0	18.0	18.0
10	22212.0	30.9	31.0	40.5	34.1	9.6	0.0	37.4	37.5	54.0	16.6	16.5
11	24680.0	31.0	31.0	41.1	35.4	11.7	0.0	38.9	38.9	54.0	15.1	15.1
* Reference data												
Test Distance 1.0m: Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB												
*Except for the above table : All other spurious emissions were less than 20dB for the limit.												
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.												
*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.												
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.												

-20dB Bandwidth

Low



Mid



High

