

APPENDIX 2: Data of EMI test

Carrier Frequency Separation

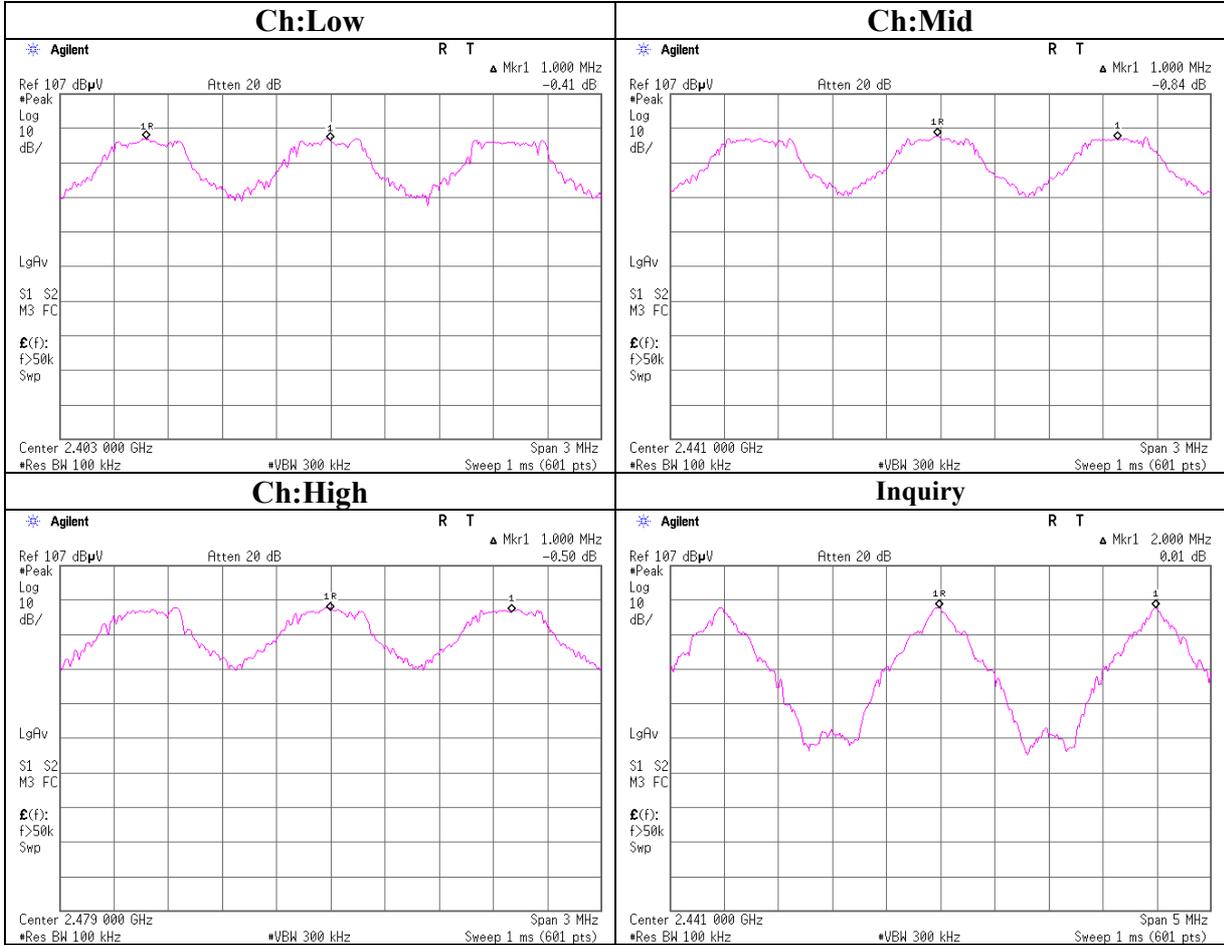
UL Japan, Inc.
Head Office EMC Lab. No.7 Shielded Room

COMPANY : Sony Corporation
EQUIPMENT : Car Radio with CD Player
MODEL : MEX-BT5100
S/N : 11
POWER : DC 12V
MODE : Tx(Hopping ON)/Inquiry

REGULATION : FCC15.247(a)(1)/RSS-210A8.1(b)
TEST DISTANCE : -
DATE : 07/17/2007
TEMPERATURE : 24deg.C
HUMIDITY : 68%
ENGINEER : Hidekazu Tanaka

Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	1.000	>two-thirds of 0.950MHz(20dB Bandwidth) or 25[kHz](whichever is greater)
Mid	2441.0	1.000	>two-thirds of 0.930MHz(20dB Bandwidth) or 25[kHz](whichever is greater)
High	2480.0	1.000	>two-thirds of 0.925MHz(20dB Bandwidth) or 25[kHz](whichever is greater)
Inquiry	2441.0	2.000	>two-thirds of 0.770MHz(20dB Bandwidth) or 25[kHz](whichever is greater)

Carrier Frequency Separation



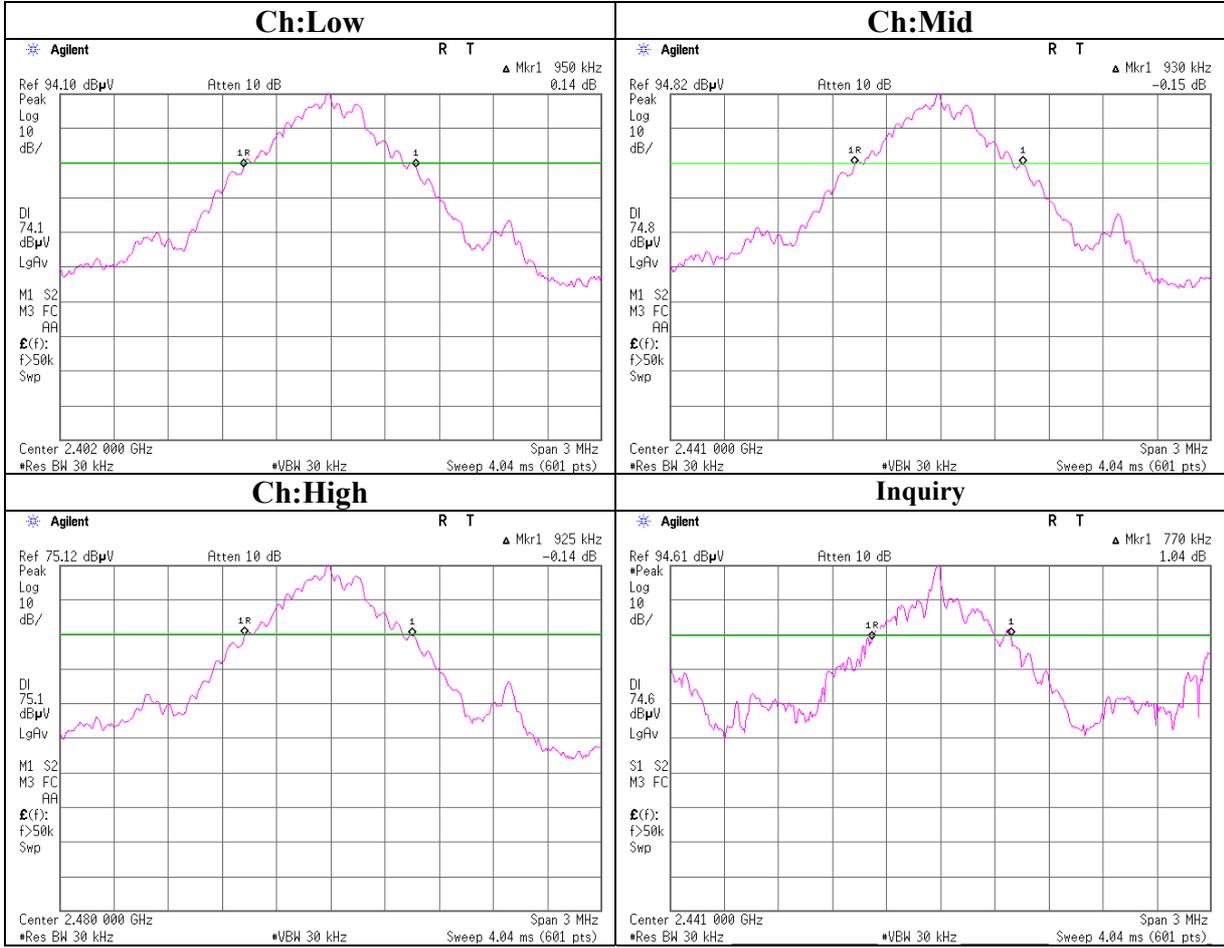
20dB Bandwidth

UL Japan, Inc.
Head Office EMC Lab. No.7 Shielded Room

COMPANY: Sony Corporation	REGULATION	: FCC15.247(a)(1)/RSS-210A8.1(a)
EQUIPME: Car Radio with CD Player	TEST DISTANCE	: -
MODEL : MEX-BT5100	DATE	: 07/17/2007
S/N : 11	TEMPERATURE	: 24deg.C
POWER : DC 12V	HUMIDITY	: 68%
MODE : Tx(Hopping Off)/Inquiry	ENGINEER	: Hidekazu Tanaka

Ch	Freq. [MHz]	20dB Bandwidth [MHz]	Limit [MHz]
Low	2402.0	0.950	-
Mid	2441.0	0.930	-
High	2480.0	0.925	-
Inquiry	2441.0	0.770	-

20dB Bandwidth



Number of Hopping Frequency

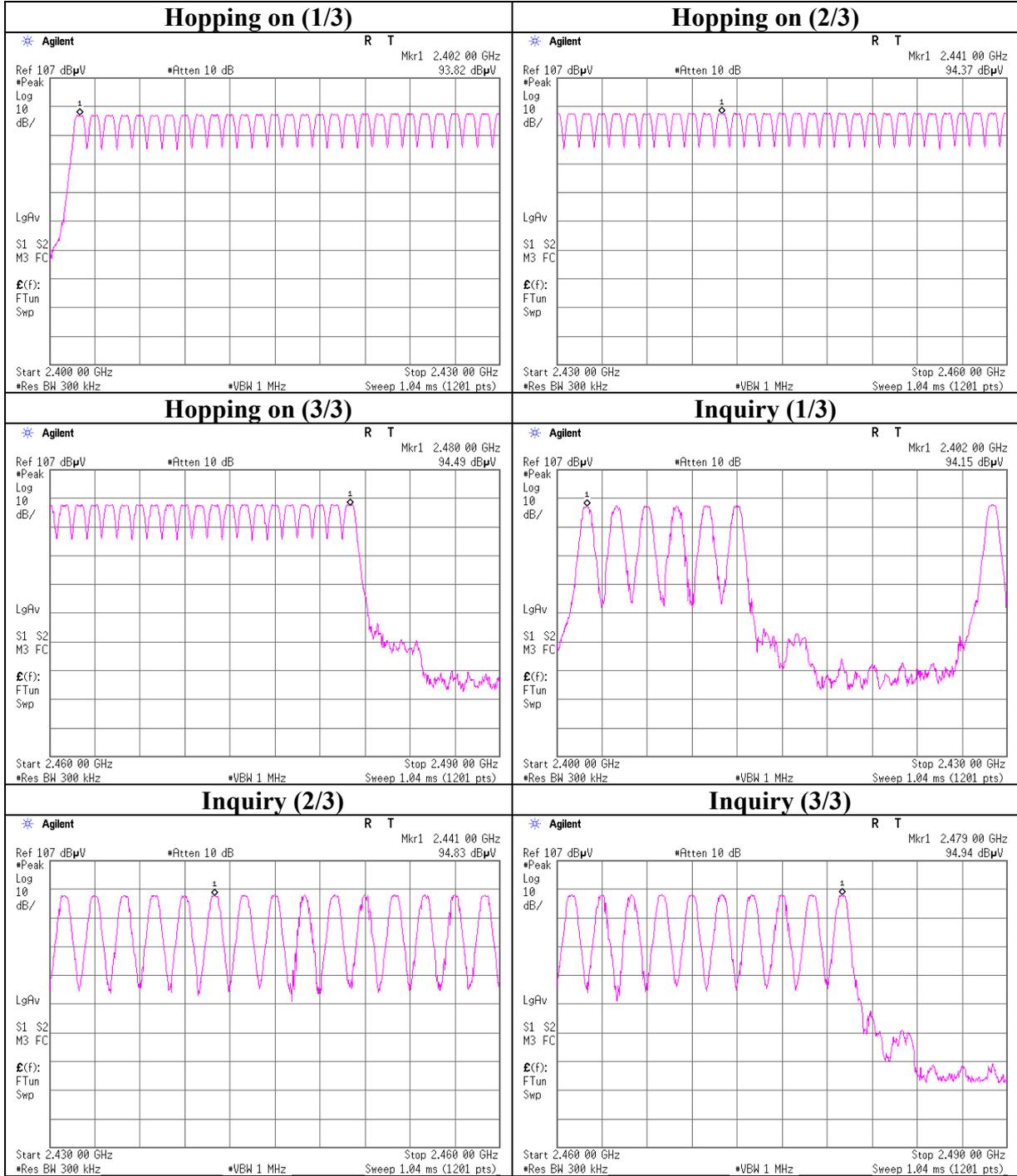
UL Japan, Inc.
Head Office EMC Lab. No.7 Shielded Room

COMPANY	: Sony Corporation	REGULATION	: FCC15.247(a)(1)(iii)/RSS-210A8.1(d)
EQUIPMENT	: Car Radio with CD Player	TEST DISTANCE	: -
MODEL	: MEX-BT5100	DATE	: 07/17/2007
S/ N	: 11	TEMPERATURE	: 24deg.C
POWER	: DC 12V	HUMIDITY	: 68%
MODE	: Tx(Hopping ON)/Inquiry	ENGINEER	: Hidekazu Tanaka

Mode	Number of channel	Limit
	[number]	[number]
Tx(Hopping on)	79	≥ 15

Mode	Number of channel	Limit
	[number]	[number]
Inquiry	32	≥ 15

Number of Hopping Frequency



Dwell time

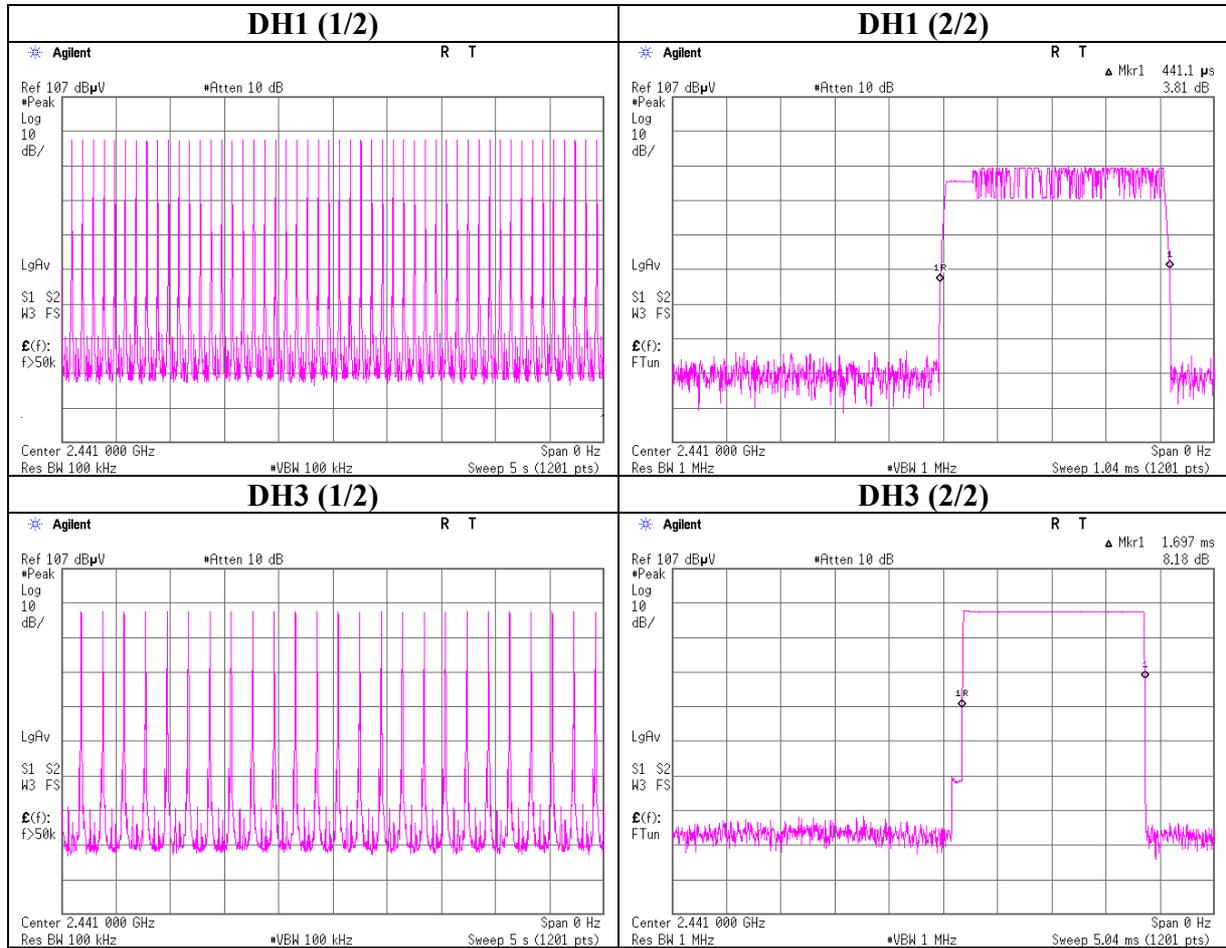
UL Japan, Inc.
Head Office EMC Lab. No.7 Shielded Room

COMPANY : Sony Corporation
EQUIPMENT : Car Radio with CD Player
MODEL : MEX-BT5100
S/ N : 11
POWER : DC 12V
MODE : Tx(Hopping ON)/Inquiry

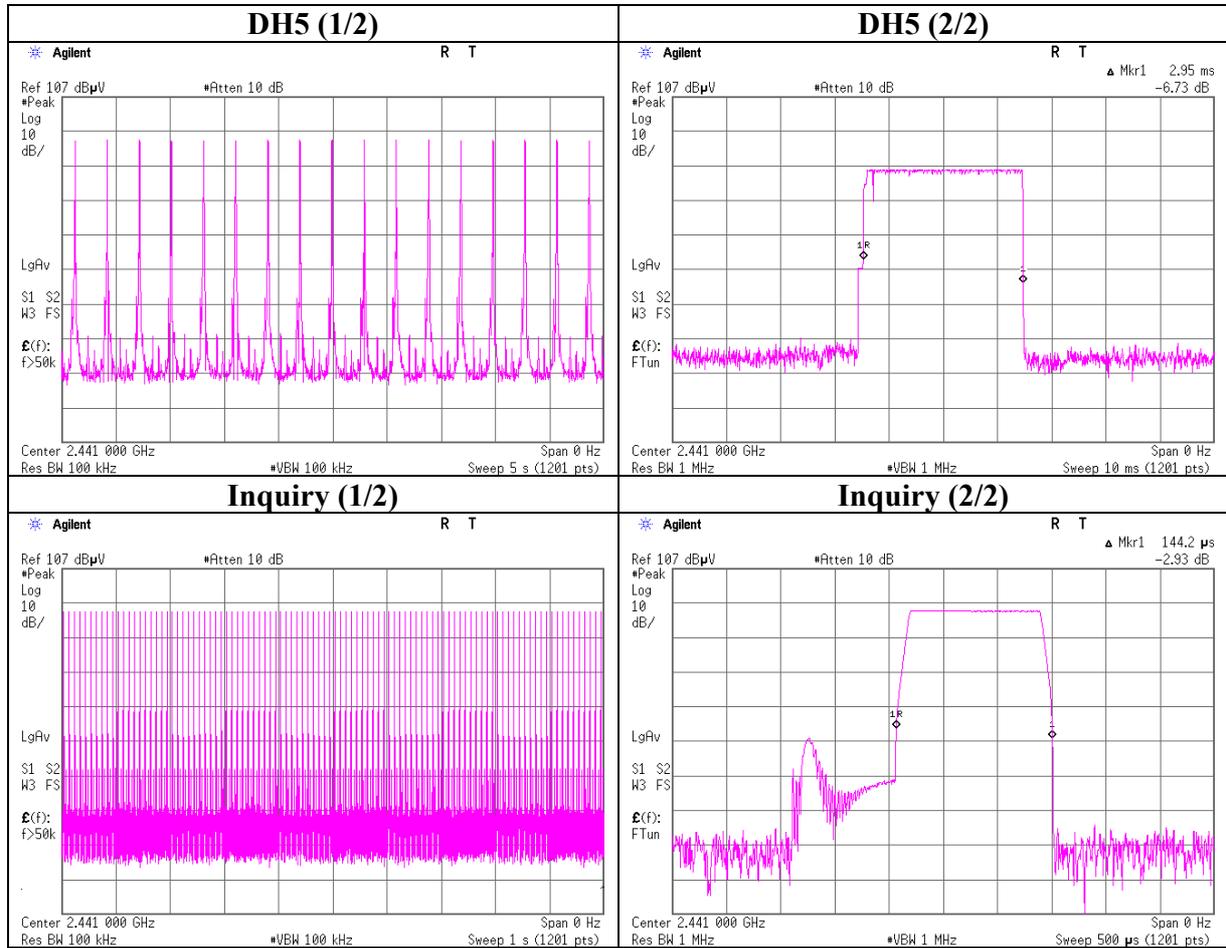
REGULATION : FCC15.247(a)(1)(iii)/RSS-210A8.1(d)
TEST DISTANCE : -
DATE : 07/17/2007
TEMPERATURE : 24deg.C
HUMIDITY : 68%
ENGINEER : Hidekazu Tanaka

Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period				Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	50 times /	5 sec. x	31.6 sec. =	316 times	0.441	139	400
DH3	25 times /	5 sec. x	31.6 sec. =	158 times	1.697	268	400
DH5	17 times /	5 sec. x	31.6 sec. =	108 times	2.950	319	400
Inquiry	100 times /	1 sec. x	12.8 sec. =	1280 times	0.144	185	400

Dwell time



Dwell time



Maximum Peak Output Power

UL Japan, Inc.
Head Office EMC Lab. No.7 Shielded Room

COMPANY : Sony Corporation
EQUIPMENT : Car Radio with CD Player
MODEL : MEX-BT5100
S/N : 11
POWER : DC 12V
MODE : Tx(Hopping Off)/Inquiry

REGULATION : FCC15.247(b)(1)/RSS-210A8.4(2)
TEST DISTANCE : -
DATE : 07/17/2007
TEMPERATURE : 24deg.C
HUMIDITY : 68%
ENGINEER : Hidekazu Tanaka

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2402.0	-13.53	1.25	10.01	-2.27	0.59	20.97	125	23.24
Mid	2441.0	-12.94	1.25	10.02	-1.67	0.68	20.97	125	22.64
High	2480.0	-12.74	1.00	10.03	-1.71	0.67	20.97	125	22.68
Inquiry	2441.0	-12.15	1.25	10.02	-0.88	0.82	20.97	125	21.85

Sample Calculation:

Result = Reading + Cable Loss + Attenuator

Radiated Spurious Emission (below 1GHz)
Tx, Ch. Low

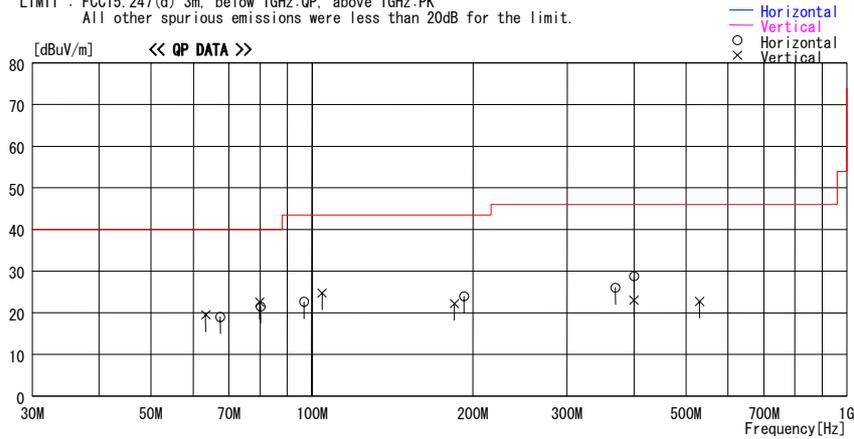
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2007/07/13

Company : Sony Corporation Report No. : 27LE0050-H0
Kind of EUT : Car Radio with CD Player Power : DC12V Car Battery
Model No. : MEX-BT5100 Temp./Humi. : 24deg.C. / 64%
Serial No. : 11 Operator : Takumi Shimada

Mode / Remarks : Tx 2402MHz DH5 EUT Normal position

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
63.291	35.7	QP	8.2	-24.4	19.5	173	100	Vert.	40.0	20.5	
67.334	35.8	QP	7.6	-24.4	19.0	234	360	Hori.	40.0	21.0	
79.812	39.7	QP	7.0	-24.2	22.5	226	100	Vert.	40.0	17.5	
80.143	38.7	QP	7.0	-24.2	21.5	265	283	Hori.	40.0	18.5	
96.637	36.7	QP	9.9	-24.0	22.6	73	322	Hori.	43.5	20.9	
104.523	37.5	QP	11.1	-23.9	24.7	134	100	Vert.	43.5	18.8	
184.608	28.6	QP	16.5	-22.9	22.2	153	100	Vert.	43.5	21.3	
192.513	30.2	QP	16.6	-22.9	23.9	107	166	Hori.	43.5	19.6	
369.161	30.5	QP	17.1	-21.6	26.0	142	100	Hori.	46.0	20.0	
399.998	32.7	QP	17.5	-21.4	28.8	136	100	Hori.	46.0	17.2	
400.003	26.8	QP	17.6	-21.4	23.0	174	100	Vert.	46.0	23.0	
530.661	23.7	QP	19.6	-20.6	22.7	354	100	Vert.	46.0	23.3	

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)

*The limit is rounded down to one decimal place.

*The test result is round off to one or two decimal places, so some differences might be observed.

Radiated Spurious Emission (below 1GHz)
Tx, Ch. Mid

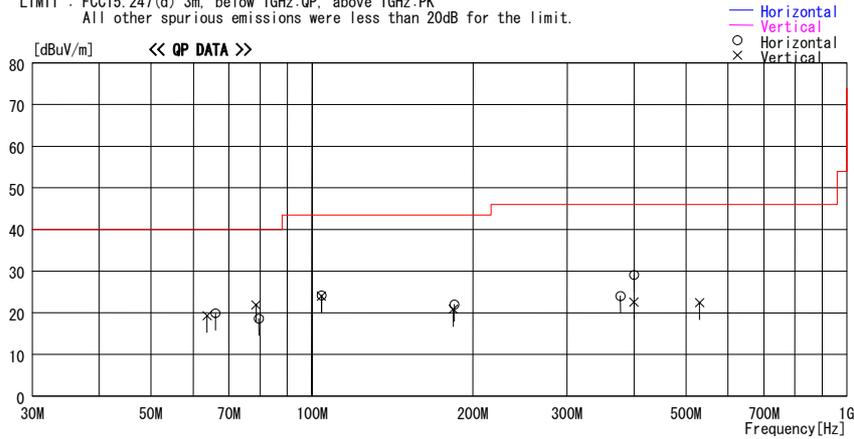
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2007/07/13

Company : Sony Corporation Report No. : 27LE0050-H0
Kind of EUT : Car Radio with CD Player Power : DC12V Car Battery
Model No. : MEX-BT5100 Temp./Humi. : 24deg.C. / 64%
Serial No. : 11 Operator : Takumi Shimada

Mode / Remarks : Tx 2441MHz DH5 EUT Normal position

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
63.651	35.5	QP	8.2	-24.4	19.3	156	100	Vert.	40.0	20.7	
65.964	36.5	QP	7.8	-24.4	19.9	219	356	Hori.	40.0	20.1	
78.626	39.1	QP	7.0	-24.2	21.9	210	100	Vert.	40.0	18.1	
79.559	35.8	QP	7.0	-24.2	18.6	239	209	Hori.	40.0	21.4	
104.249	36.8	QP	11.1	-23.9	24.0	147	100	Vert.	43.5	19.5	
104.275	37.0	QP	11.1	-23.9	24.2	77	273	Hori.	43.5	19.3	
183.761	27.2	QP	16.5	-22.9	20.8	200	100	Vert.	43.5	22.7	
184.601	28.4	QP	16.5	-22.9	22.0	276	117	Hori.	43.5	21.5	
377.514	28.4	QP	17.2	-21.6	24.0	33	100	Hori.	46.0	22.0	
400.009	32.9	QP	17.6	-21.4	29.1	137	100	Hori.	46.0	16.9	
400.011	26.4	QP	17.6	-21.4	22.6	179	100	Vert.	46.0	23.4	
530.680	23.4	QP	19.6	-20.6	22.4	32	100	Vert.	46.0	23.6	

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)

*The limit is rounded down to one decimal place.
*The test result is round off to one or two decimal places, so some differences might be observed.

Radiated Spurious Emission (below 1GHz)
Tx, Ch. High

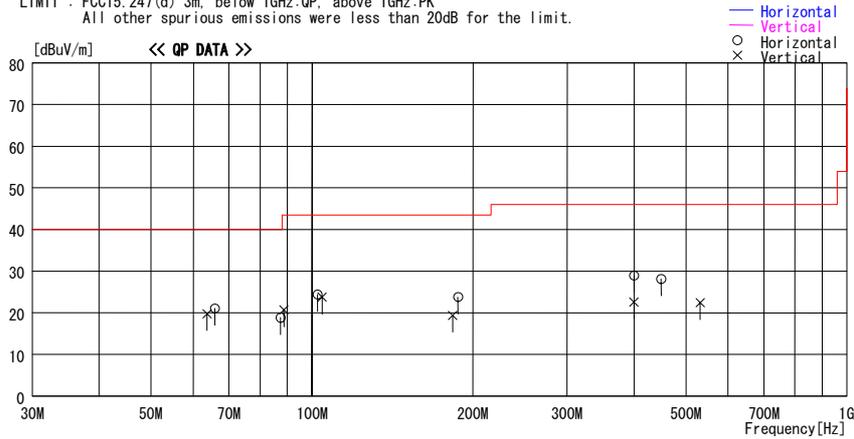
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2007/07/13

Company : Sony Corporation Report No. : 27LE0050-H0
Kind of EUT : Car Radio with CD Player Power : DC12V Car Battery
Model No. : MEX-BT5100 Temp./Humi. : 24deg.C. / 64%
Serial No. : 11 Operator : Takumi Shimada

Mode / Remarks : Tx 2480MHz DHS EUT Normal position

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
63.677	36.0	QP	8.2	-24.4	19.8	166	100	Vert.	40.0	20.2	
65.849	37.6	QP	7.8	-24.4	21.0	72	317	Hori.	40.0	19.0	
87.352	34.7	QP	8.2	-24.1	18.8	83	236	Hori.	40.0	21.2	
88.590	36.4	QP	8.4	-24.1	20.7	186	100	Vert.	43.5	22.8	
102.407	37.5	QP	10.8	-23.9	24.4	98	187	Hori.	43.5	19.1	
104.542	36.5	QP	11.1	-23.9	23.7	119	100	Vert.	43.5	19.8	
183.416	25.8	QP	16.5	-22.9	19.4	245	100	Vert.	43.5	24.1	
187.505	30.2	QP	16.5	-22.9	23.8	253	147	Hori.	43.5	19.7	
400.005	26.4	QP	17.6	-21.4	22.6	210	100	Vert.	46.0	23.4	
400.010	32.7	QP	17.6	-21.4	28.9	139	100	Hori.	46.0	17.1	
450.009	30.5	QP	18.6	-21.0	28.1	212	100	Hori.	46.0	17.9	
532.381	23.4	QP	19.6	-20.6	22.4	355	100	Vert.	46.0	23.6	

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)

*The limit is rounded down to one decimal place.

*The test result is round off to one or two decimal places, so some differences might be observed.

Radiated Spurious Emission (below 1GHz)
Rx, Ch. Mid

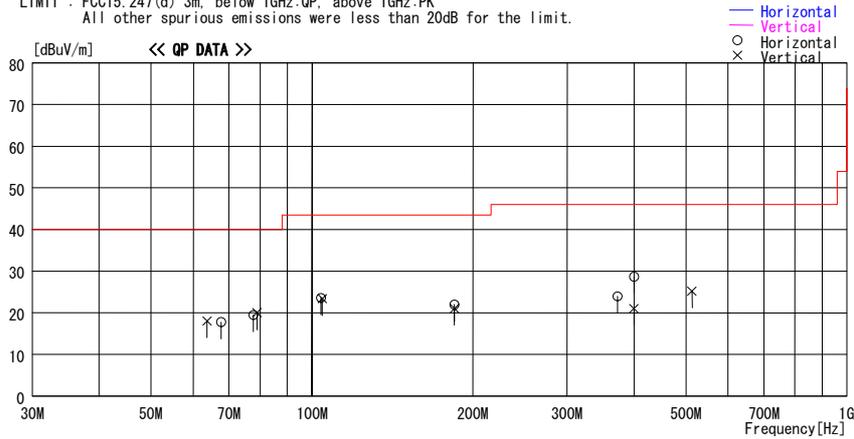
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2007/07/13

Company : Sony Corporation Report No. : 27LE0050-H0
Kind of EUT : Car Radio with CD Player Power : DC12V Car Battery
Model No. : MEX-BT5100 Temp./Humi. : 24deg.C. / 64%
Serial No. : 11 Operator : Takumi Shimada

Mode / Remarks : Rx 2441MHz DHS EUT Normal position

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
63.657	34.2	QP	8.2	-24.4	18.0	189	100	Vert.	40.0	22.0	
67.708	34.7	QP	7.5	-24.4	17.8	134	276	Hori.	40.0	22.2	
77.697	36.7	QP	7.0	-24.2	19.5	276	239	Hori.	40.0	20.5	
78.973	37.2	QP	7.0	-24.2	20.0	205	100	Vert.	40.0	20.0	
103.967	36.5	QP	11.0	-23.9	23.6	83	203	Hori.	43.5	19.9	
104.581	36.2	QP	11.1	-23.9	23.4	148	100	Vert.	43.5	20.1	
184.588	28.4	QP	16.5	-22.9	22.0	280	170	Hori.	43.5	21.5	
184.604	27.4	QP	16.5	-22.9	21.0	84	100	Vert.	43.5	22.5	
372.519	28.3	QP	17.2	-21.6	23.9	315	100	Hori.	46.0	22.1	
400.009	24.8	QP	17.6	-21.4	21.0	256	100	Vert.	46.0	25.0	
400.012	32.5	QP	17.6	-21.4	28.7	137	100	Hori.	46.0	17.3	
513.424	26.4	QP	19.5	-20.7	25.2	12	100	Vert.	46.0	20.8	

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)

*The limit is rounded down to one decimal place.

*The test result is round off to one or two decimal places, so some differences might be observed.

Radiated Spurious Emission (above 1GHz)
Tx, Ch. Low

UL Japan, Inc.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	SONY Corporation	Regulation	FCC15.247(d) / RSS-210 A8.5
Equipment	Car Radio with CD Player	Test Distance	3m / 1m
Model	MEX-BT5100	Date	7/13/2007
S/N	11	Temperature	24 deg.C.
Power	DC 12V	Humidity	64 %
Mode	Tx 2402MHz DH5	Engineer	Takumi Shimada
EUT-Position	Normal Position		

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit PK [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1602.07	43.4	44.9	25.1	33.0	2.0	0.0	37.5	39.0	73.9	36.4	34.9
2	2390.00	41.7	41.7	26.6	32.1	2.5	0.0	38.7	38.7	73.9	35.2	35.2
3*	2400.00	64.0	63.2	26.6	32.1	2.5	0.0	61.0	60.2	73.9	-	-
4	4804.00	40.8	41.2	30.8	31.2	3.4	0.0	43.8	44.2	73.9	30.1	29.7
5	7206.00	40.5	40.5	35.2	32.5	4.2	0.0	47.4	47.4	73.9	26.5	26.5
6	9608.00	40.1	41.6	37.6	32.8	5.3	0.0	50.2	51.7	73.9	23.7	22.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12010.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	14412.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	16814.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	19216.00	NS	NS	-	-	-	-	-	-	73.9	-	-
11	21618.00	NS	NS	-	-	-	-	-	-	73.9	-	-
12	24020.00	44.1	44.3	38.7	32.2	8.1	0.0	49.2	49.4	73.9	24.7	24.5

* Reference data

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit AV [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1602.07	36.2	36.8	25.1	33.0	2.0	0.0	30.3	30.9	53.9	23.6	23.0
2	2390.00	31.0	30.9	26.6	32.1	2.5	0.0	28.0	27.9	53.9	25.9	26.0
3*	2400.00	45.8	43.9	26.6	32.1	2.5	0.0	42.8	40.9	53.9	-	-
4	4804.00	30.3	30.3	30.8	31.2	3.4	0.0	33.3	33.3	53.9	20.6	20.6
5	7206.00	30.6	30.6	35.2	32.5	4.2	0.0	37.5	37.5	53.9	16.4	16.4
6	9608.00	31.0	30.6	37.6	32.8	5.3	0.0	41.1	40.7	53.9	12.8	13.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12010.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	14412.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	16814.00	NS	NS	-	-	-	-	-	-	53.9	-	-
10	19216.00	NS	NS	-	-	-	-	-	-	53.9	-	-
11	21618.00	NS	NS	-	-	-	-	-	-	53.9	-	-
12	24020.00	33.7	33.7	38.7	32.2	8.1	0.0	38.8	38.8	53.9	15.1	15.1

* Reference data

20dBc (Fundamental) 2402 MHz (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit 20dBc [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
0	2402.00	86.7	88.4	26.6	32.1	2.5	0.0	74.2	75.9	-	-	-
3	2400.00	37.6	36.4	26.6	32.1	2.5	0.0	25.1	23.9	Funda-20dB	29.1	32.0

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB

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

*The limit is rounded down to one decimal place.

*The test result is round off to one or two decimal places, so some differences might be observed.

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

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

*NS: Non Signal

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Radiated Spurious Emission (above 1GHz)
Tx, Ch. Mid

UL Japan, Inc.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	SONY Corporation	Regulation	FCC15.247(d) / RSS-210 A8.5
Equipment	Car Radio with CD Player	Test Distance	3m / 1m
Model	MEX-BT5100	Date	7/13/2007
S/N	11	Temperature	24 deg.C.
Power	DC 12V	Humidity	64 %
Mode	Tx 2441MHz DH5	Engineer	Takumi Shimada
EUT-Position	Normal Position		

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit PK [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1627.38	44.1	44.8	25.2	33.0	2.0	0.0	38.3	39.0	73.9	35.6	34.9
2	4882.00	40.1	39.3	31.0	31.2	3.4	0.0	43.3	42.5	73.9	30.6	31.4
3	7323.00	39.7	41.2	35.4	32.5	4.3	0.0	46.9	48.4	73.9	27.0	25.5
4	9764.00	40.5	39.7	37.6	32.9	5.4	0.0	50.6	49.8	73.9	23.3	24.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12205.00	NS	NS	-	-	-	-	-	-	73.9	-	-
6	14646.00	NS	NS	-	-	-	-	-	-	73.9	-	-
7	17087.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	19528.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	21969.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	24410.00	45.3	44.3	38.8	32.2	8.2	0.0	50.6	49.6	73.9	23.3	24.3

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit AV [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1627.38	37.3	36.6	25.2	33.0	2.0	0.0	31.5	30.8	53.9	22.4	23.1
2	4882.00	30.4	29.5	31.0	31.2	3.4	0.0	33.6	32.7	53.9	20.3	21.2
3	7323.00	30.2	30.2	35.4	32.5	4.3	0.0	37.4	37.4	53.9	16.5	16.5
4	9764.00	29.9	29.9	37.6	32.9	5.4	0.0	40.0	40.0	53.9	13.9	13.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12205.00	NS	NS	-	-	-	-	-	-	53.9	-	-
6	14646.00	NS	NS	-	-	-	-	-	-	53.9	-	-
7	17087.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	19528.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	21969.00	NS	NS	-	-	-	-	-	-	53.9	-	-
10	24410.00	34.5	34.5	38.8	32.2	8.2	0.0	39.8	39.8	53.9	14.1	14.1

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*The limit is rounded down to one decimal place.
*The test result is round off to one or two decimal places, so some differences might be observed.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.
*NS: Non Signal

Radiated Spurious Emission (above 1GHz)
Tx, Ch. High

UL Japan, Inc.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	SONY Corporation	Regulation	FCC15.247(d) / RSS-210 A8.5
Equipment	Car Radio with CD Player	Test Distance	3m / 1m
Model	MEX-BT5100	Date	7/13/2007
S/N	11	Temperature	24 deg.C.
Power	DC 12V	Humidity	64 %
Mode	Tx 2480MHz DH5	Engineer	Takumi Shimada
EUT-Position	Normal Position		

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
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1653.97	45.3	44.4	25.2	32.9	2.0	0.0	39.6	38.7	73.9	34.3	35.2
2	2483.50	48.8	51.1	26.8	32.1	2.6	0.0	46.1	48.4	73.9	27.8	25.5
3	3305.86	42.8	42.5	27.9	31.7	3.0	0.0	42.0	41.7	73.9	31.9	32.2
4	4960.00	39.6	39.6	31.1	31.2	3.4	0.0	42.9	42.9	73.9	31.0	31.0
5	7440.00	40.1	40.5	35.6	32.6	4.3	0.0	47.4	47.8	73.9	26.5	26.1
6	9920.00	40.9	40.1	37.7	32.9	5.4	0.0	51.1	50.3	73.9	22.8	23.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12400.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	14880.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	17360.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	19840.00	NS	NS	-	-	-	-	-	-	73.9	-	-
11	22320.00	NS	NS	-	-	-	-	-	-	73.9	-	-
12	24800.00	44.0	44.6	38.9	32.2	8.3	0.0	49.5	50.1	73.9	24.4	23.8
AV DETECT (RBW: 1MHz, VBW: 10Hz)												
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1653.97	38.0	35.9	25.2	32.9	2.0	0.0	32.3	30.2	53.9	21.6	23.7
2	2483.50	37.6	38.8	26.8	32.1	2.6	0.0	34.9	36.1	53.9	19.0	17.8
3	3305.86	31.2	31.5	27.9	31.7	3.0	0.0	30.4	30.7	53.9	23.5	23.2
4	4960.00	29.3	29.5	31.1	31.2	3.4	0.0	32.6	32.8	53.9	21.3	21.1
5	7440.00	30.2	30.3	35.6	31.2	3.4	0.0	38.0	38.1	53.9	15.9	15.8
6	9920.00	30.2	30.3	37.7	32.9	5.4	0.0	40.4	40.5	53.9	13.5	13.4
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12400.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	14880.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	17360.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	19840.00	NS	NS	-	-	-	-	-	-	73.9	-	-
11	22320.00	NS	NS	-	-	-	-	-	-	73.9	-	-
12	24800.00	33.8	33.7	38.9	32.2	8.3	0.0	39.3	39.2	73.9	34.6	34.7

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*The limit is rounded down to one decimal place.
*The test result is round off to one or two decimal places, so some differences might be observed.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.
*NS: Non Signal

Radiated Spurious Emission (above 1GHz)
Rx, Ch. Mid

UL Japan, Inc.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	SONY Corporation	Regulation	FCC15.247(d) / RSS-210 A8.5
Equipment	Car Radio with CD Player	Test Distance	3m
Model	MEX-BT5100	Date	7/13/2007
S/N	11	Temperature	24 deg.C.
Power	DC 12V	Humidity	64 %
Mode	Rx 2441MHz DH5	Engineer	Takumi Shimada
EUT-Position	Normal Position		

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

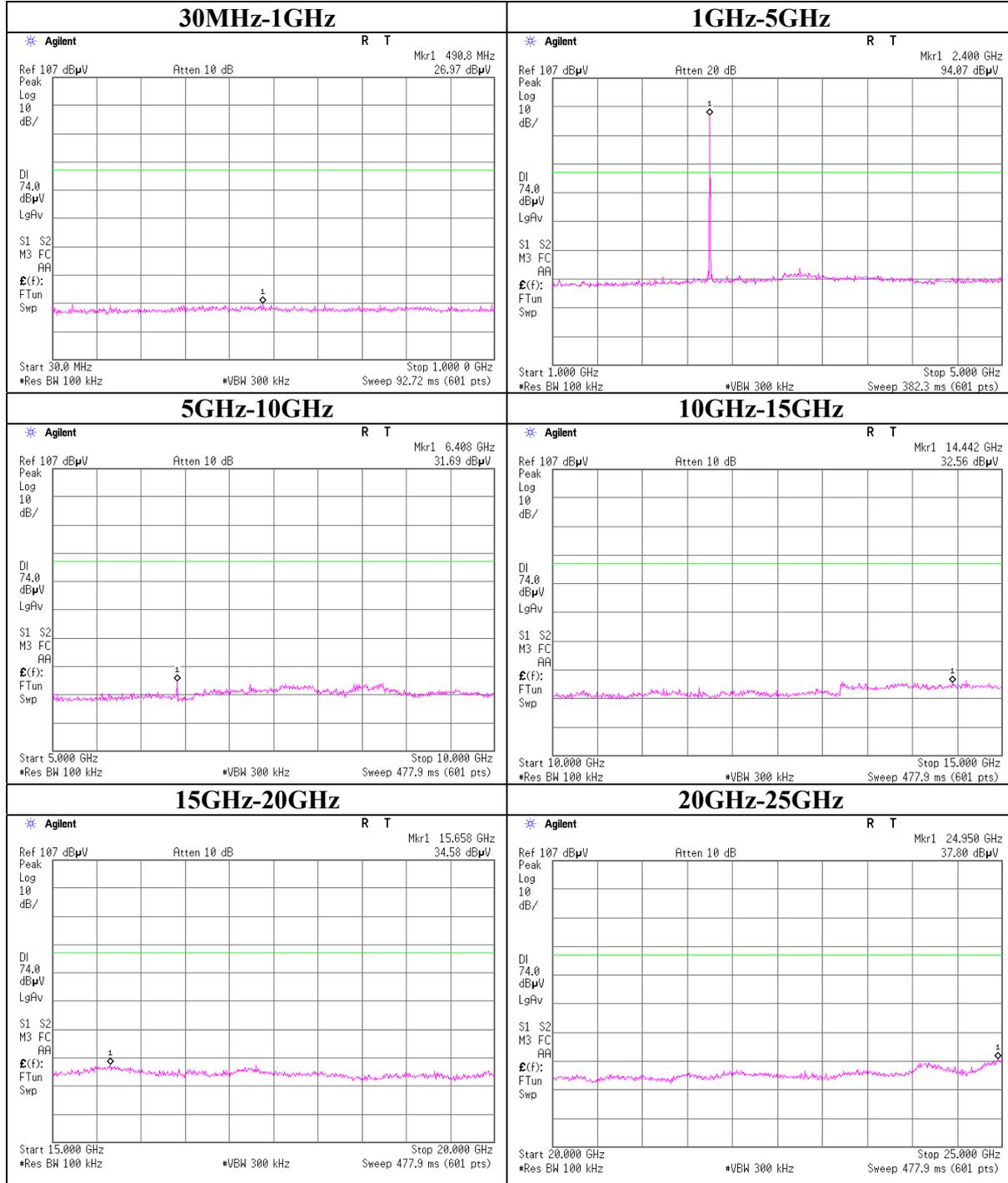
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1626.30	43.4	44.3	25.2	33.0	2.0	0.0	37.6	38.5	73.9	36.3	35.4
2	2441.00	39.5	39.0	26.7	32.1	2.5	0.0	36.6	36.1	73.9	37.3	37.8
3	3252.60	38.7	40.4	27.9	31.7	3.0	0.0	37.9	39.6	73.9	36.0	34.3

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

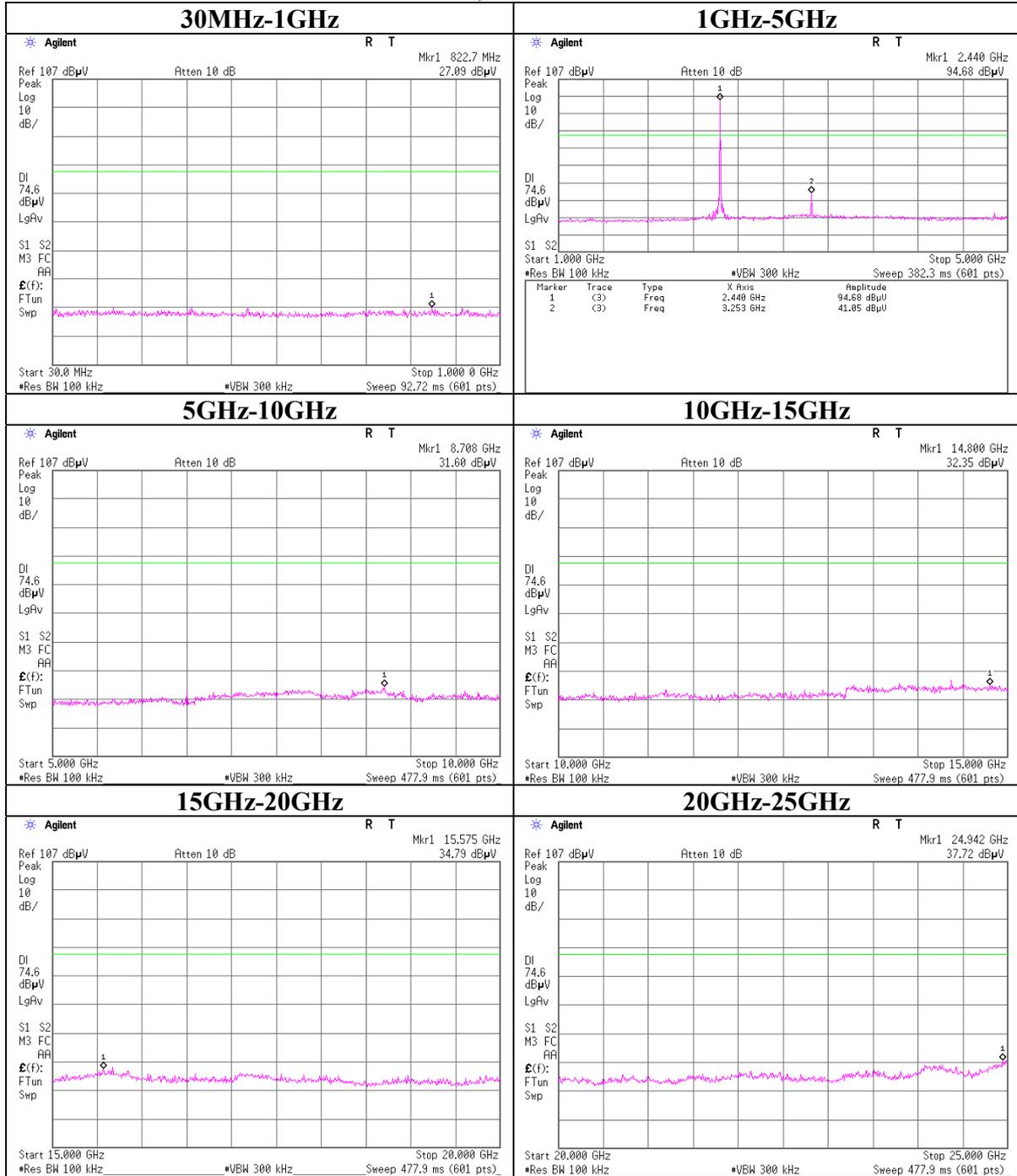
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1626.30	36.1	36.3	25.2	33.0	2.0	0.0	30.3	30.5	53.9	23.6	23.4
2	2441.00	30.5	29.6	26.7	32.1	2.5	0.0	27.6	26.7	53.9	26.3	27.2
3	3252.60	29.5	29.8	27.9	31.7	3.0	0.0	28.7	29.0	53.9	25.2	24.9

*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*The limit is rounded down to one decimal place.
*The test result is round off to one or two decimal places, so some differences might be observed.
*Hi-Pass Filter was not used for factor 0.0dB of the above table.

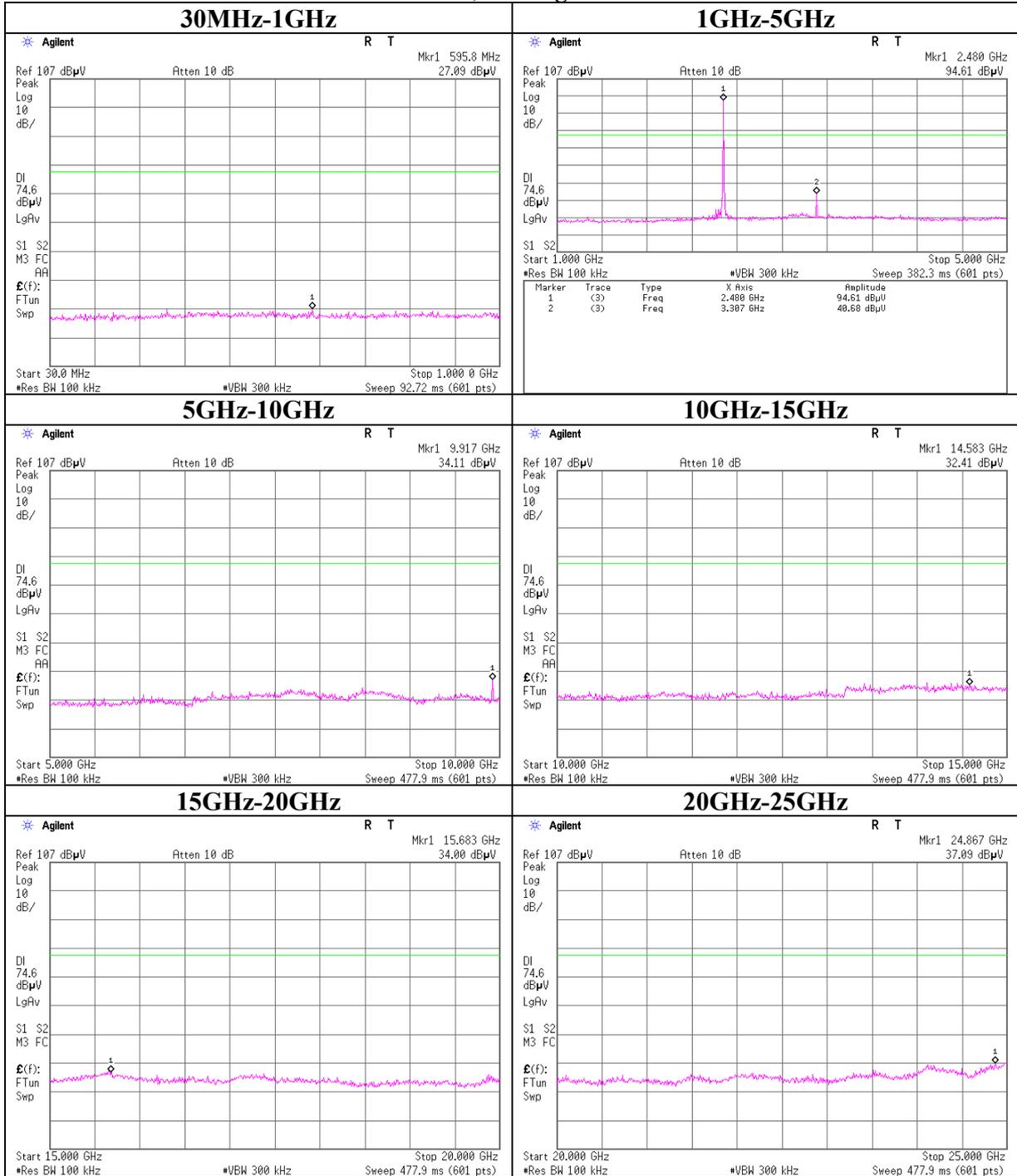
Conducted Spurious Emission
Tx, Ch:Low



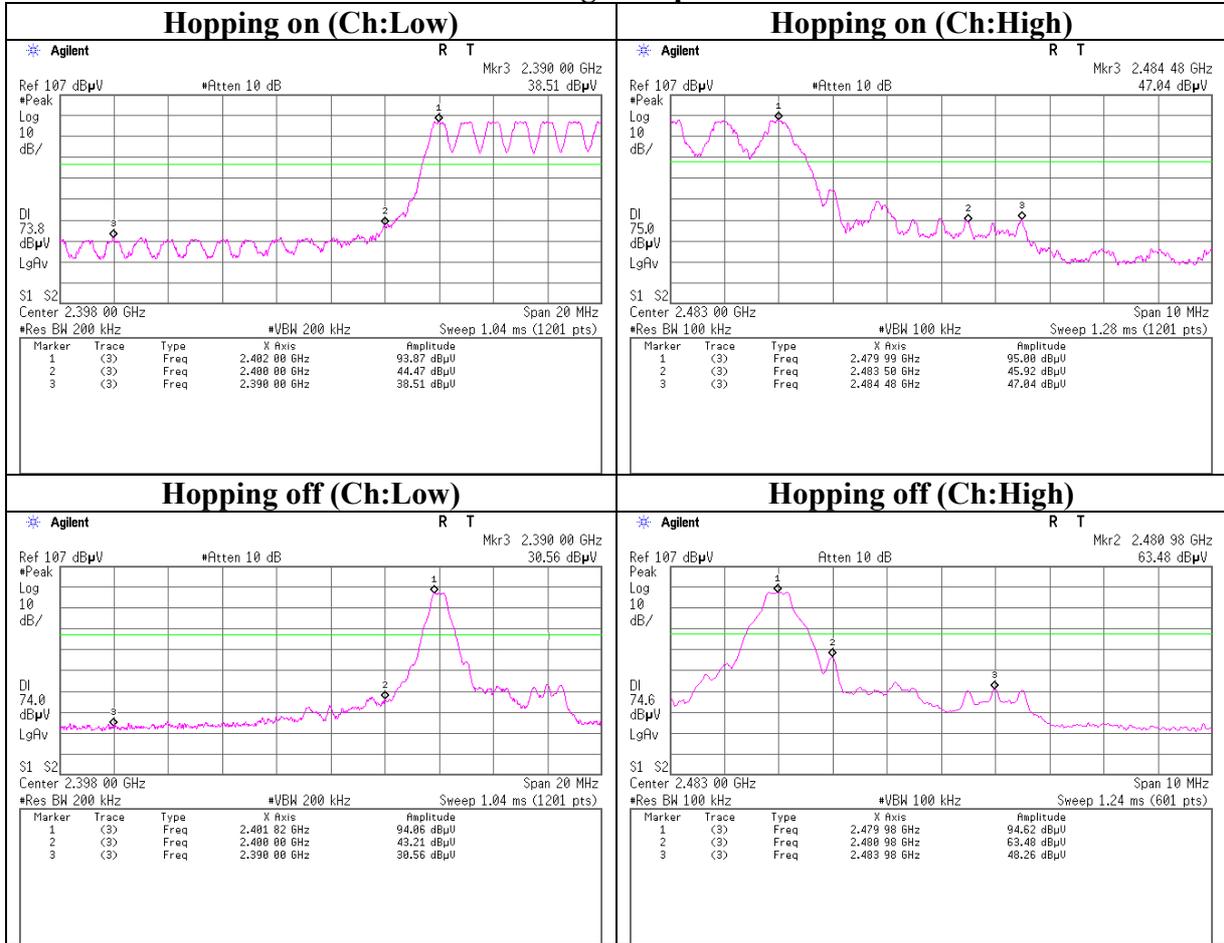
Conducted Spurious Emission
Tx, Ch:Mid



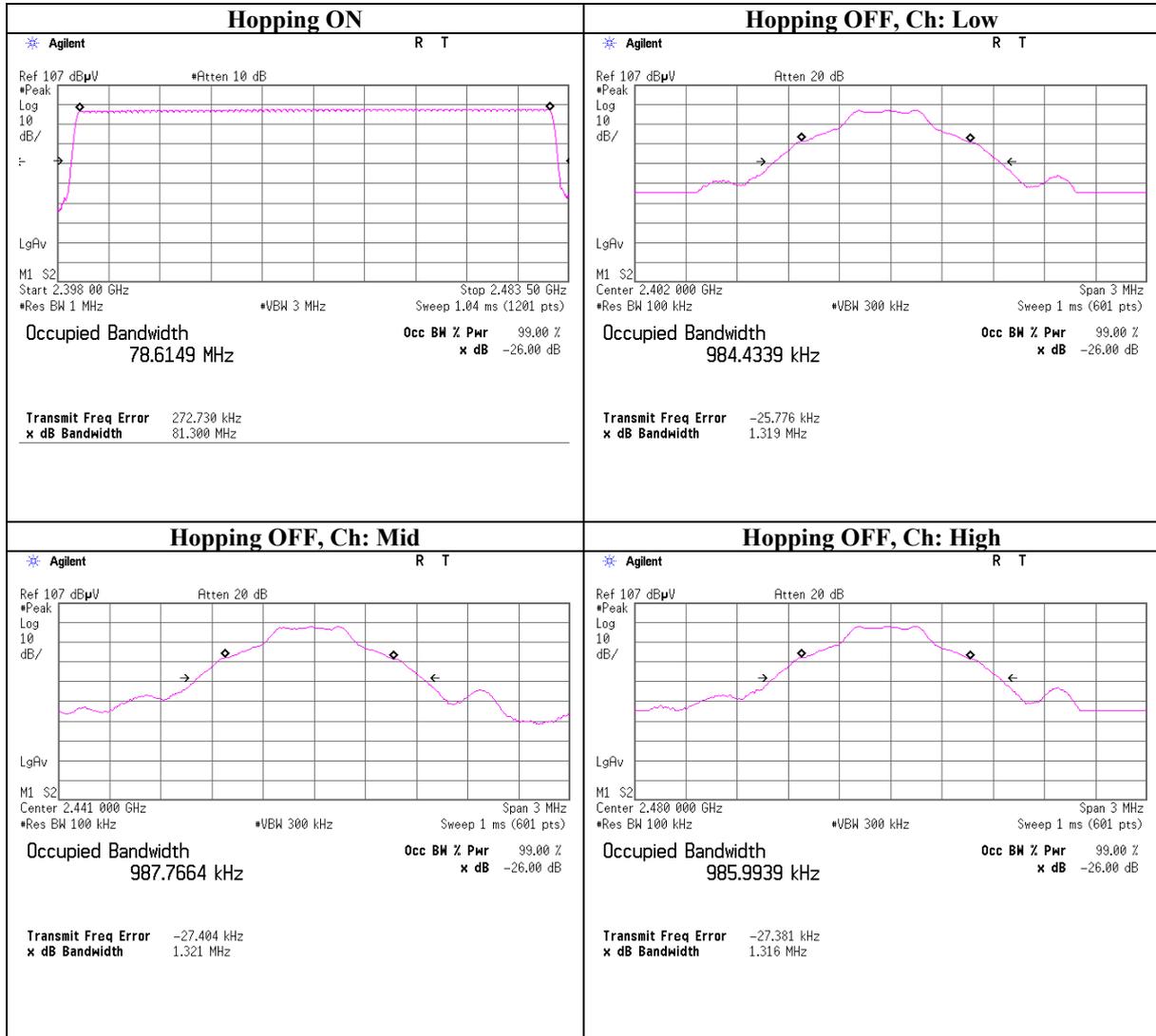
Conducted Spurious Emission
Tx, Ch:High



Conducted Spurious Emission
Band Edge compliance



99% Occupied Bandwidth



*Refer to 20dB Bandwidth for 99% Bandwidth inquiry mode

APPENDIX 3:Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-04	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2007/03/03 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	RE	2006/01/19 * 24
MBM-03	Barometer	Sunoh	SBR121	RE	2006/02/13 * 36
MJM-07	Measure	PROMART	SEN1955	RE	-
MMM-10	DIGITAL HiTESTER	Hioki	3805	RE	2007/01/12 * 12
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE	-
MLDM-04	Digital laser distance meter	BOSCH	DLE 50	RE	2007/06/21 * 36
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2006/08/17 * 12
MCC-57	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/03/30 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	RE	2007/03/12 * 12
MSA-05	Spectrum Analyzer	Advantest	R3273	RE	2007/06/01 * 12
MHA-17	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	RE	2007/04/06 * 12
MBA-05	Biconical Antenna	Schwarzbeck	BBA9106	RE	2007/01/19 * 12
MLA-08	Logperiodic Antenna	Schwarzbeck	UKLP9140-A	RE	2007/01/19 * 12
MCC-50	Coaxial cable	UL Japan	-	RE	2007/03/06 * 12
MAT-31	Attenuator(6dB)	TME	UFA-01	RE	2007/03/05 * 12
MPA-14	Pre Amplifier	SONOMA INSTRUMENT	310	RE	2007/03/12 * 12
MTR-06	Test Receiver	Rohde & Schwarz	ESCS30	RE	2006/09/12 * 12
MOS-04	Digital Humidity Indicator	N.T	NT-1800	AT	2006/11/27 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	AT	2007/06/20 * 12
MPM-09	Power Meter	Anritsu	ML2495A	AT	2006/09/20 * 12
MPSE-12	Power sensor	Anritsu	MA2411B	AT	2006/09/20 * 12
MCC-26	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	AT	2006/08/29 * 12
MAT-22	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	AT	2007/03/07 * 12
MDPS-13	DC Power Supply	Kikusui	PAK35-10A	AT	Pre Check

The expiration date of the calibration is the end of the expired month.

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

Test Item: RE: Radiated Emission

AT: Antenna Terminal Conducted test

UL Japan, Inc.

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