

APPENDIX 2:Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MSA-03	Spectrum Analyzer	Agilent	E4448A	AT	2005/09/16 * 12
MAT-24	Attenuator(10dB)(above1GHz)	Agilent	8493C	AT	2005/06/03 * 12
MCC-05	Microwave Cable 1G-50GHz	Storm	421-011 (90- 1394-079)	AT	2005/01/05 * 12
MCC-04	Microwave Cable 1G-50GHz	Storm	421-011 (90- 1394-079)	RE	2005/01/05 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2005/08/30 * 12
MPA-01	Pre Amplifier	Agilent	8449B	RE	2005/02/05 * 12
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2005/01/10 * 12
MRENT-21	Spectrum Analyzer	Advantest	R3273	RE	2005/08/19 * 12
MHA-02	Horn Antenna	EMCO	3160-09	RE	2005/01/10 * 12
MHF-02	High Pass Filter	Tokimec	TF323DCA	RE	2005/09/27 * 12
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2005/04/11 * 12
MAEC-01	Anechoic Chamber	TDK	Semi Anechoic Chamber 10m	RE	2005/11/14 * 12
MTR-01	Test Receiver	Rohde & Schwarz	ESI40	RE	2005/11/10 * 12
MCC-01	Coaxial Cable 0.1- 3000MHZ	Suhner/storm/Agil ent/TSJ	-	RE	2005/12/18 * 12
MPA-04	Pre Amplifier	Agilent	8447D	RE	2005/05/24 * 12
MAT-06	Attenuator(6dB)	Weinschel Corp	2	RE	2005/12/16 * 12
MBA-01	Biconical Antenna	Schwarzbeck	BBA9106	RE	2005/10/10 * 12
MLA-01	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2005/10/14 * 12
MSTW-14	EMI Measurement Software	TSJ	TEPTO-DV	RE	-

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 Emissions

AT: Antenna Terminal Measurement

UL Japan, Inc.

Head Office EMC Lab.

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MF060b(18.06.07)

APPENDIX 3: Data of EMI test

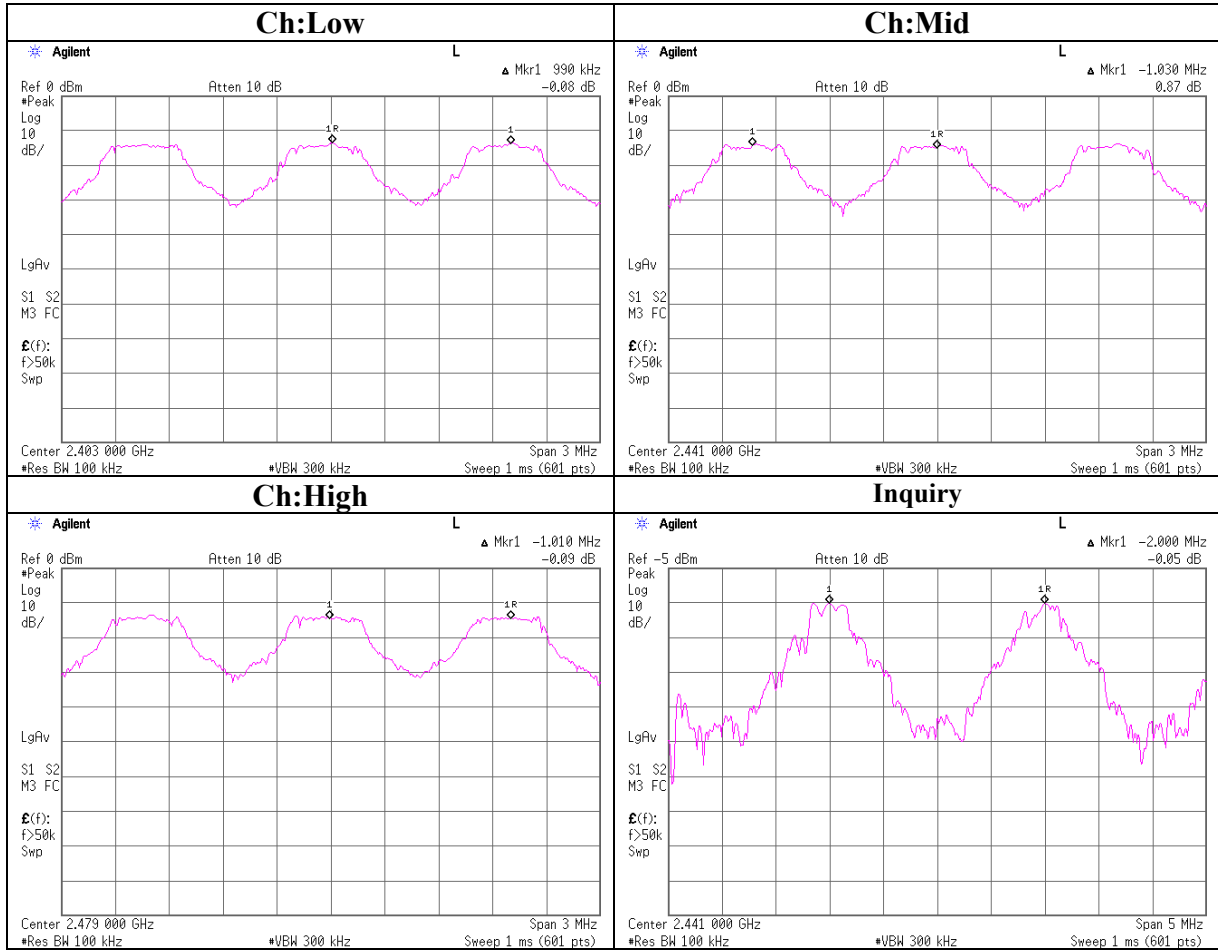
Carrier Frequency Separation

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

COMPANY : Matsushita Electric Industrial Co., Ltd. REGULATION : FCC Part15 Subpart C 15.247(a)(1)
EQUIPMENT : MAINPCB TEST DISTANCE : -
MODEL : YEP0PT30919714 DATE : 11/01/2005
S/N : 001 TEMPERATURE : 21deg.C
POWER : DC 13.2 V HUMIDITY : 40%
MODE : Tx(Hopping on)/Inquiry ENGINEER : Mitsuru Fujimura

Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	0.990	>20dB Bandwidth and 25[kHz]
Mid	2441.0	1.030	>20dB Bandwidth and 25[kHz]
High	2480.0	1.010	>20dB Bandwidth and 25[kHz]
Inquiry	2441.0	2.000	>20dB Bandwidth and 25[kHz]

Carrier Frequency Separation



Test report No. : 28CE0123-HO-A-R1
Page : 18 of 39
Issued date : October 24, 2007
Revised date : December 20, 2007
FCC ID : ACJ932CQ-EP1660

20dB Bandwidth

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

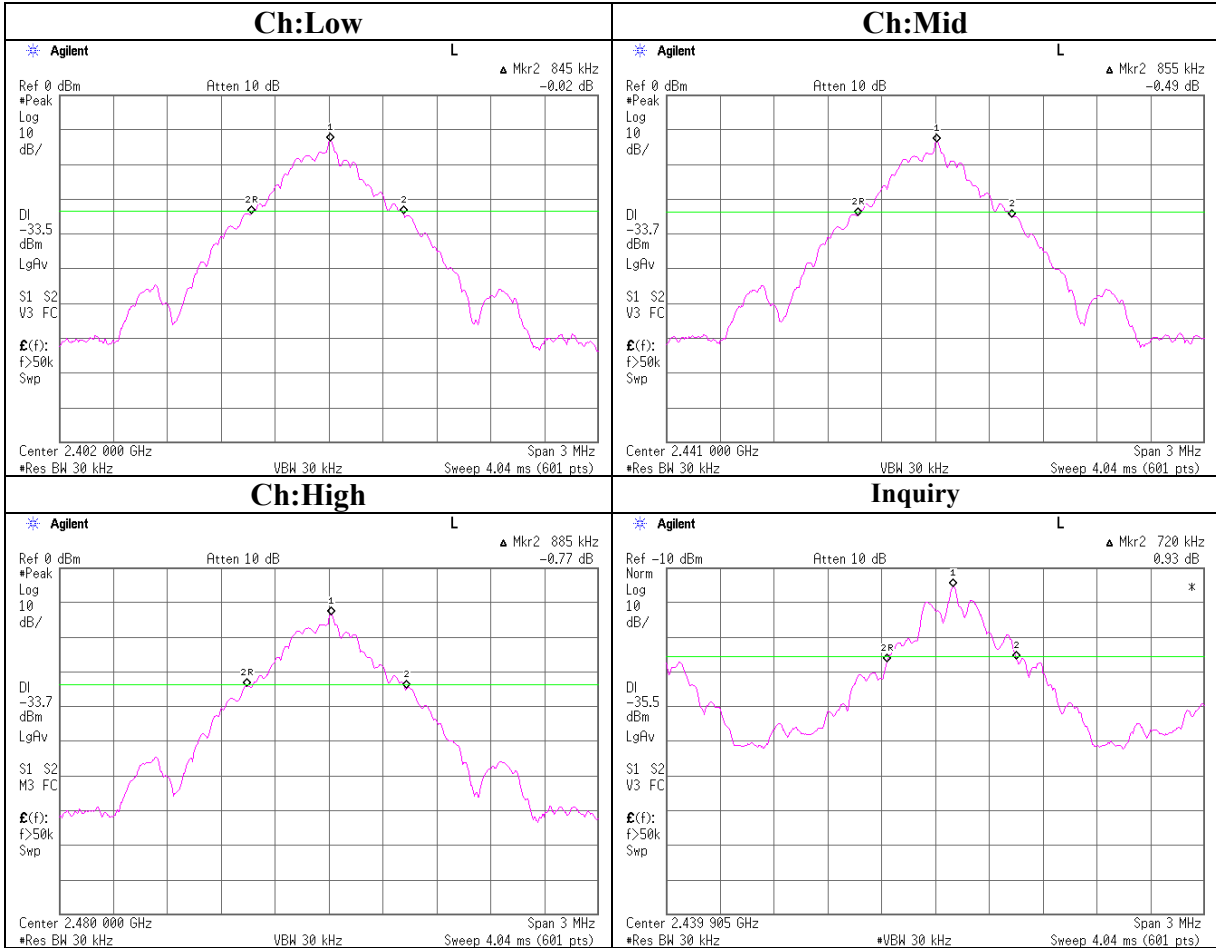
COMPANY : Matsushita Electric Industrial Co., Ltd. REGULATION : Fcc Part15 Subpart C 15.247(a)(1)
EQUIPMENT : MAINPCB TEST DISTANCE : -
MODEL : YEP0PT30919714 DATE : 11/01/2005
S/N : 001 TEMPERATURE : 21deg.C
POWER : DC 13.2 V HUMIDITY : 40%
MODE : Tx(Hopping off)/Inquiry ENGINEER : Mitsuru Fujimura

Ch	Freq. [MHz]	20dB Bandwidth [MHz]	Limit [MHz]
Low	2402.0	0.845	-
Mid	2441.0	0.855	-
High	2480.0	0.885	-
Inquiry	2441.0	0.720	-

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MF060b(18.06.07)

20dB Bandwidth



Number of Hopping Frequency

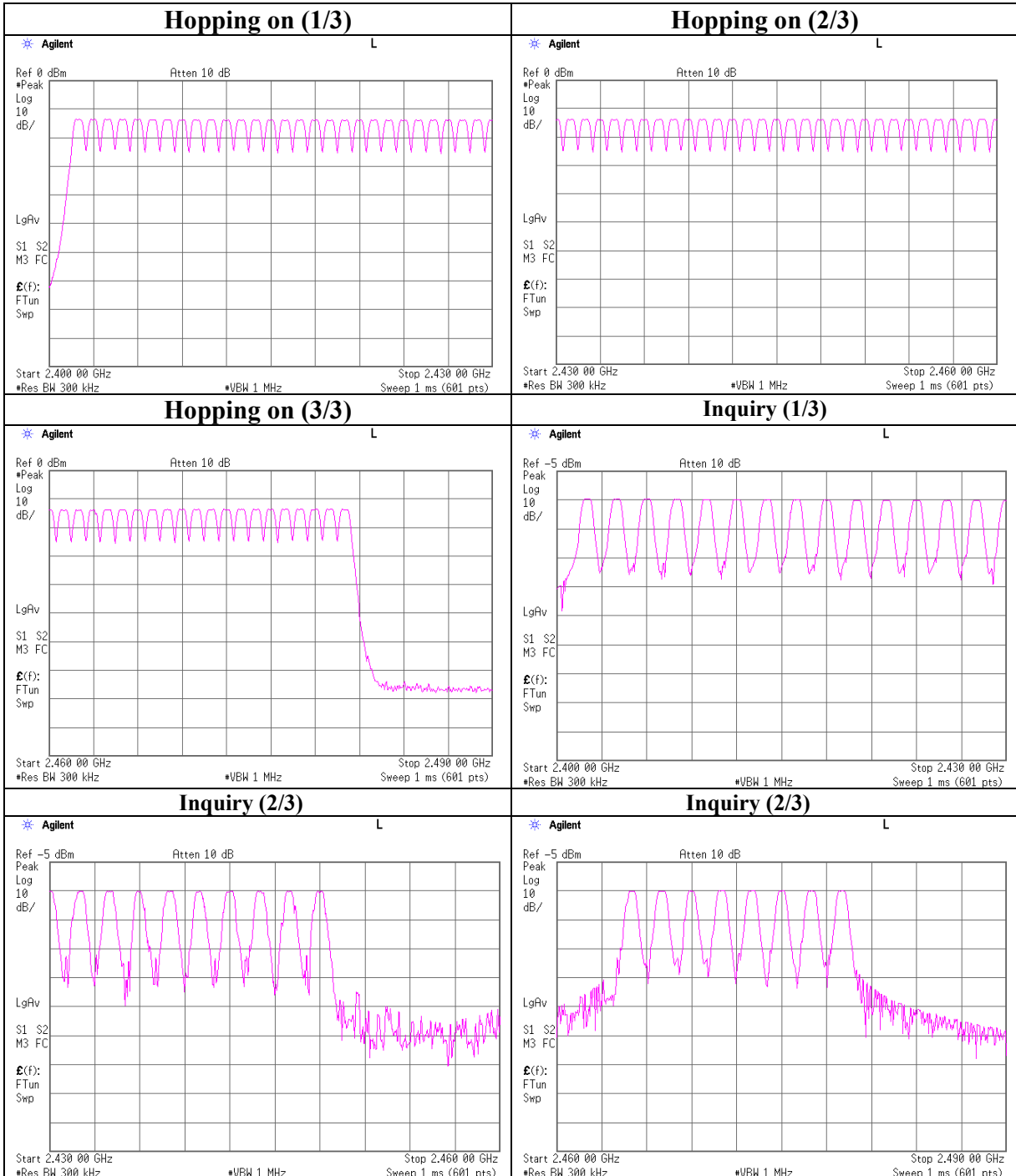
UL Japan, Inc.
Head Office EMC Lab. No.7 Shielded Room

COMPANY : Matsushita Electric Industrial Co., Ltd. REGULATION : Fcc Part15 Subpart C 15.247(a)(1)(iii)
EQUIPMENT : MAINPCB TEST DISTANCE : -
MODEL : YEP0PT30919714 DATE : 11/01/2005
S/ N : 001 TEMPERATURE : 21deg C
POWER : DC 13.2 V HUMIDITY : 40%
MODE : Tx(Hopping off)/Inquiry ENGINEER : Mitsuru Fujimura

Mode	Number of channel [time]	Limit [time]
Tx(Hoppng on)	79	≥ 15

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

Number of Hopping Frequency



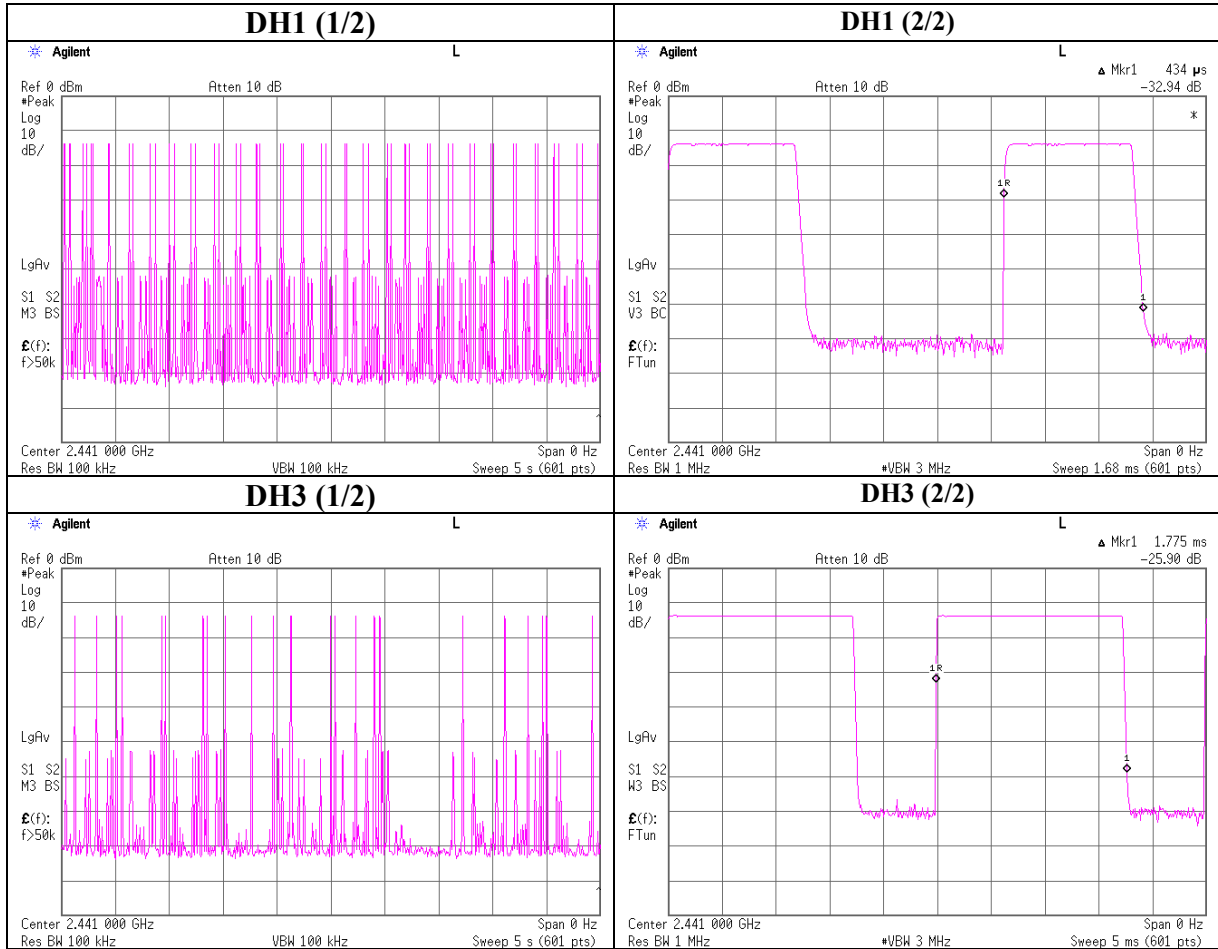
Dwell time

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

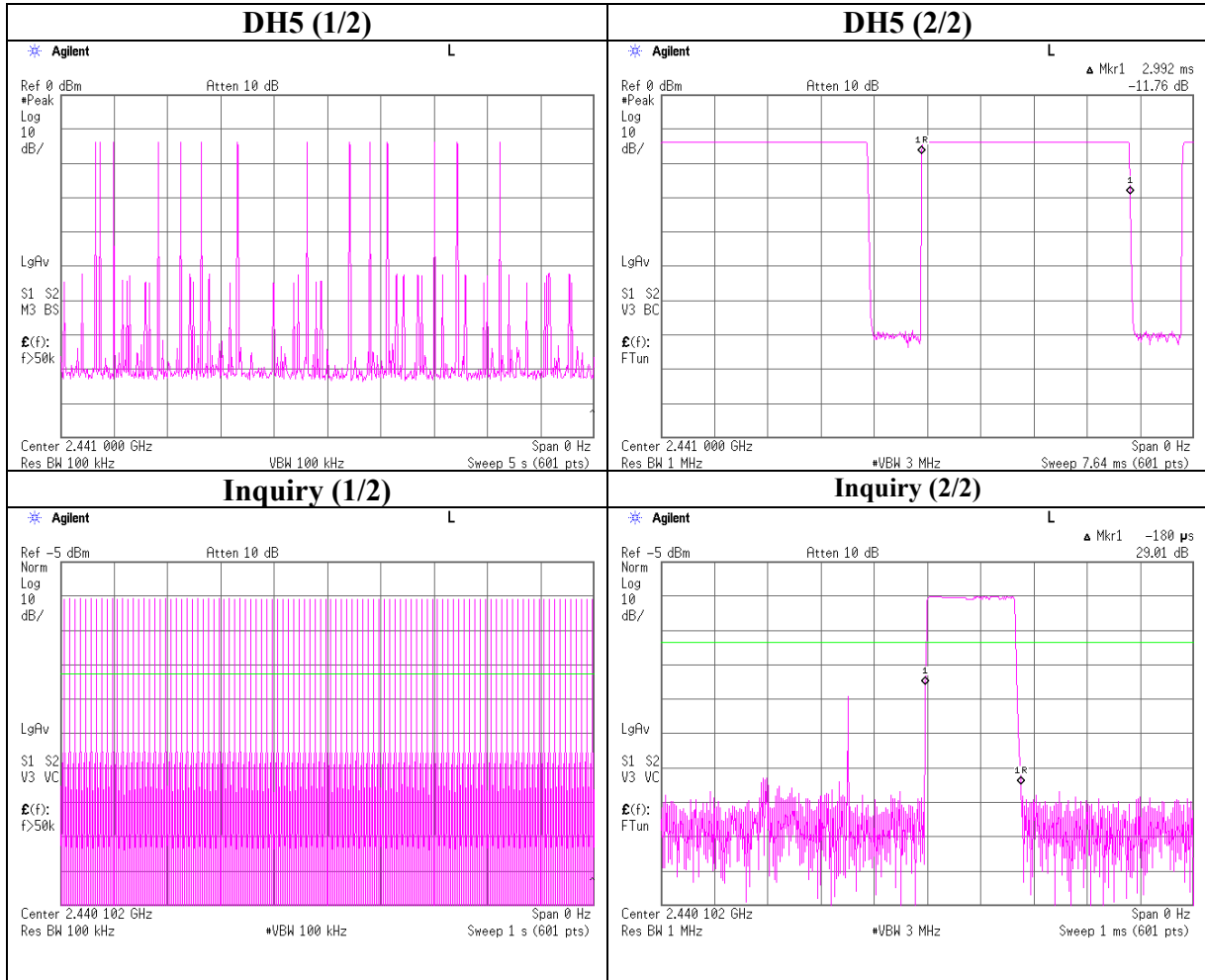
COMPANY : Matsushita Electric Industrial Co., Ltd REGULATION : Fcc Part15 Subpart C 15.247(a)(1)(iii)
EQUIPMENT : MAINPCB TEST DISTANCE : -
MODEL : YEP0PT30919714 DATE : 11/01/2005
S/N : 001 TEMPERATURE : 21deg.C
POWER : DC 13.2 V HUMIDITY : 40%
MODE : Tx(Hopping on)/Inquiry ENGINEER : Mitsuru Fujimura

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	55 times /5sec. x 31.6 = 348 times	0.434	152	400
DH3	23 times / 5sec. x 31.6 = 146 times	1.775	260	400
DH5	14 times / 5 sec. x 31.6 =89 times	2.992	267	400
Inquiry	100 times / 1sec. x 12.8 = 1280 times	0.180	231	400

Dwell time



Dwell time



Maximum Peak Output Power

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

COMPANY : Matsushita Electric Industrial Co., Ltd. REGULATION : Fcc Part15 Subpart C 15.247(b)(1)
EQUIPMENT : MAINPCB TEST DISTANCE : -
MODEL : YEPOPT30919714 DATE : 11/01/2005
S/N : 001 TEMPERATURE : 21deg.C
POWER : DC 13.2 V HUMIDITY : 40%
MODE : Tx(Hopping off)/Inquiry ENGINEER : Mitsuru Fujimura

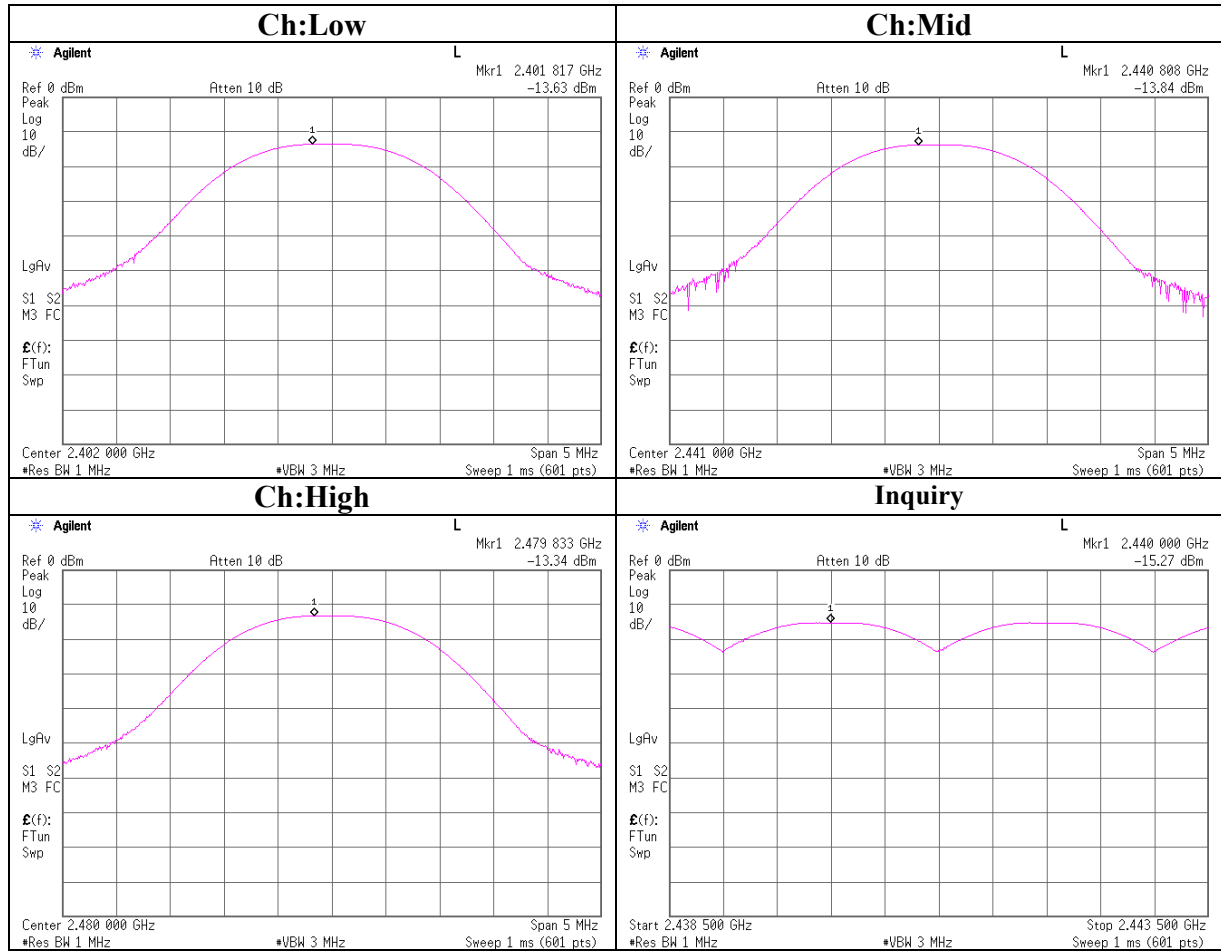
Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2402.0	-13.63	2.43	10.00	-1.20	20.96	22.16
Mid	2441.0	-13.84	2.43	10.00	-1.41	20.96	22.37
High	2480.0	-13.34	2.43	10.00	-0.91	20.96	21.87
Inquiry	2441.0	-15.27	2.43	10.00	-2.84	20.96	23.80

Sample Calculation:

Result = Reading + Cable Loss (supplied by customer)+ Attenuator

* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.

Maximum Peak Output Power



Radiated Spurious Emission (30MHz-1GHz)

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

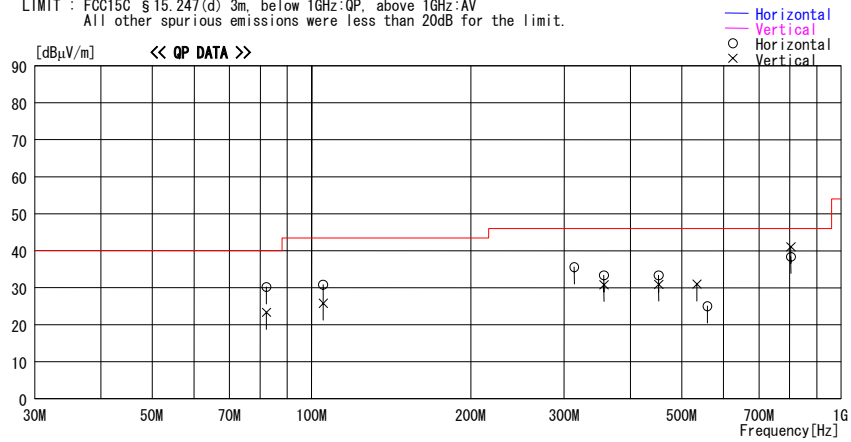
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
 Date : 2005/12/26 22:00:39

Applicant : Matsushita Electric Industrial Report No. : 28CE0123-HO
 Kind of EUT : MAINPCB Power : DC13.2V
 Model No. : YEPOPT30919714 Temp°C/Humi% : 20deg.C / 23%
 Serial No. : 001 Operator : Mitsuru Fujimura

Mode / Remarks : Tx 2402MHz MAX:Z (HOR), X (VER)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
 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]
			Factor [dB/m]	Loss& Gain [dB]						
82.212	35.8	QP	7.3	-19.8	23.3	118	287	Vert.	40.0	16.7
82.215	42.7	QP	7.3	-19.8	30.2	193	224	Hori.	40.0	9.8
105.199	38.9	QP	11.2	-19.3	30.8	200	277	Hori.	43.5	12.7
105.208	33.9	QP	11.2	-19.3	25.8	121	250	Vert.	43.5	17.7
313.337	38.0	QP	14.6	-17.0	35.6	31	100	Hori.	46.0	10.4
356.786	31.5	QP	16.3	-17.0	30.8	150	100	Vert.	46.0	15.2
356.794	34.1	QP	16.3	-17.0	33.4	290	100	Hori.	46.0	12.6
452.608	30.3	QP	17.8	-17.2	30.9	195	100	Vert.	46.0	15.1
452.611	32.8	QP	17.8	-17.2	33.4	0	100	Hori.	46.0	12.6
534.488	29.6	QP	18.3	-17.0	30.9	87	100	Vert.	46.0	15.1
559.121	23.4	QP	18.6	-17.0	25.0	188	100	Hori.	46.0	21.0
804.839	35.2	QP	21.6	-15.7	41.1	123	139	Vert.	46.0	4.9
804.845	32.5	QP	21.6	-15.7	38.4	78	100	Hori.	46.0	7.6

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

Radiated Spurious Emission (30MHz-1GHz)

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

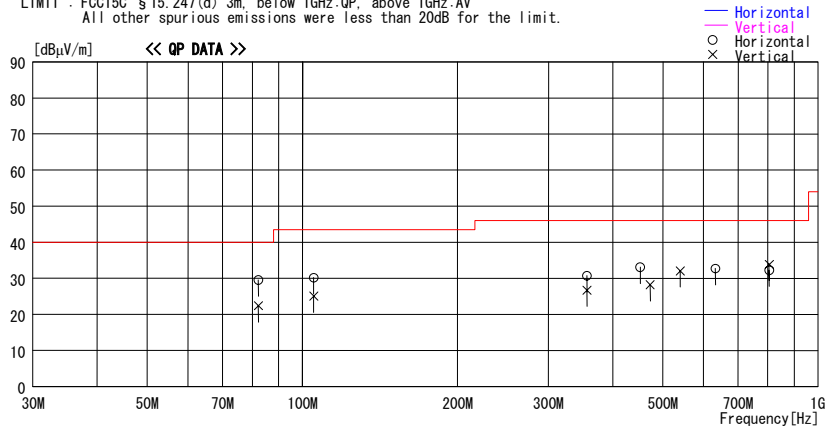
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
 Date : 2005/12/26 23:12:22

Applicant : Matsushita Electric Industrial Report No. : 28CE0123-HO
 Kind of EUT : MAINPCB Power : DC13.2V
 Model No. : YEPOPT30919714 Temp/C/Humi% : 20deg.C / 23%
 Serial No. : 001 Operator : Mitsuru Fujimura

Mode / Remarks : Tx 2441MHz MAX:Z(HOR),X(VER)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
 All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dBm]	Gain [dB]						
82.214	42.1	QP	7.3	-19.8	29.6	186	228	Hori.	40.0	10.4
82.215	34.9	QP	7.3	-19.8	22.4	276	296	Vert.	40.0	17.6
105.206	38.3	QP	11.2	-19.3	30.2	200	299	Hori.	43.5	13.3
105.199	33.2	QP	11.2	-19.3	25.1	108	292	Vert.	43.5	18.4
356.795	27.4	QP	16.3	-17.0	26.7	134	100	Vert.	46.0	19.3
356.795	31.4	QP	16.3	-17.0	30.7	359	100	Hori.	46.0	15.3
452.606	32.5	QP	17.8	-17.2	33.1	0	100	Hori.	46.0	12.9
473.099	27.5	QP	17.8	-17.1	28.2	204	171	Vert.	46.0	17.8
540.665	30.7	QP	18.4	-17.0	32.1	98	100	Vert.	46.0	13.9
632.806	29.7	QP	19.6	-16.6	32.7	117	125	Hori.	46.0	13.3
804.848	26.4	QP	21.6	-15.7	32.3	125	100	Hori.	46.0	13.7
804.858	28.0	QP	21.6	-15.7	33.9	0	139	Vert.	46.0	12.1

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

Radiated Spurious Emission
(30MHz-1GHz)

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

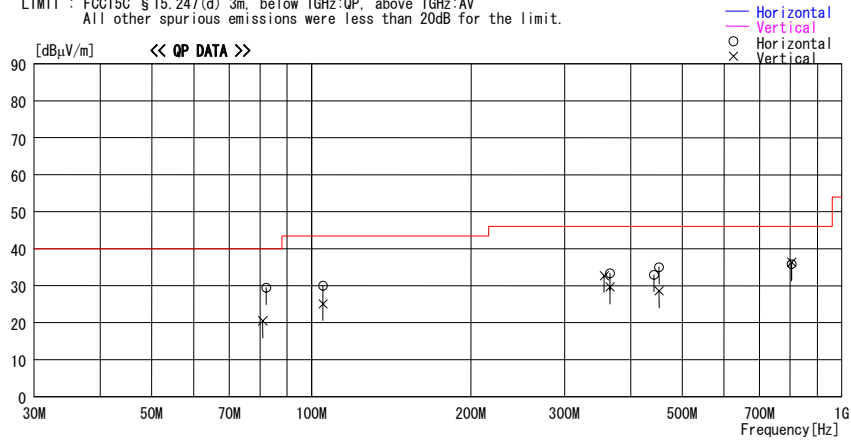
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
 Date : 2005/12/26 23:48:48

Applicant : Matsushita Electric Industrial Report No. : 28CE0123-HO
 Kind of EUT : MAINPCB Power : DC13.2V
 Model No. : YEPOPT30919714 Temp/C/Humi% : 20deg.C / 23%
 Serial No. : 001 Operator : Mitsuru Fujimura

Mode / Remarks : Tx 2480MHz MAX:Z (HOR), X (VER)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
 All other spurious emissions were less than 20dB for the limit.



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Loss&Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
81.001	33.3	QP	7.0	-19.8	20.5	314	368	Vert.	40.0	19.5
82.209	42.0	QP	7.3	-19.8	29.5	184	240	Hori.	40.0	10.5
105.202	33.2	QP	11.2	-19.3	25.1	300	302	Vert.	43.5	18.4
105.208	38.1	QP	11.2	-19.3	30.0	196	273	Hori.	43.5	13.5
356.793	33.4	QP	16.3	-17.0	32.7	279	100	Vert.	46.0	13.3
365.625	33.8	QP	16.6	-17.0	33.4	286	100	Hori.	46.0	12.6
365.628	30.1	QP	16.6	-17.0	29.7	166	134	Vert.	46.0	16.3
442.373	32.3	QP	17.7	-17.1	32.9	0	100	Hori.	46.0	13.1
452.605	34.4	QP	17.8	-17.2	35.0	331	100	Hori.	46.0	11.0
452.615	28.0	QP	17.8	-17.2	28.6	329	100	Vert.	46.0	17.4
804.865	30.5	QP	21.6	-15.7	36.4	0	100	Vert.	46.0	9.6
804.873	29.9	QP	21.6	-15.7	35.8	152	100	Hori.	46.0	10.2

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

Radiated Spurious Emission (30MHz-1GHz)

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

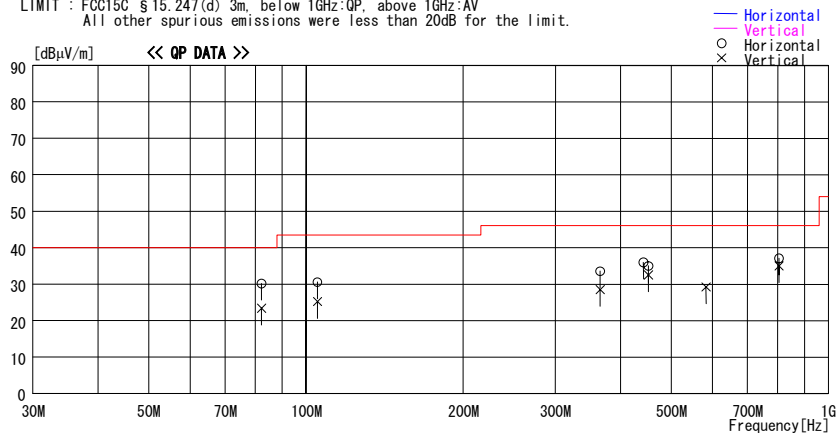
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
 Date : 2005/12/27 01:03:26

Applicant : Matsushita Electric Industrial Report No. : 28CE0123-HO
 Kind of EUT : MAINPCB Power : DC13.2V
 Model No. : YEPOPT30919714 Temp°C/Humi% : 20deg. C / 23%
 Serial No. : 001 Operator : Mitsuru Fujimura

Mode / Remarks : Rx MAX:Z(HOR), X(VER)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
 All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBµV]	DET	Antenna	Loss&	Level [dBµV/m]	Angle [Deg]	Height [cm]	Polar.	Limit	Margin
			Factor [dB]	Gain [dB]					[dBµV/m]	[dB]
82.215	42.7	QP	7.3	-19.8	30.2	205	231	Hori.	46.0	9.8
82.218	35.9	QP	7.3	-19.8	23.4	118	286	Vert.	46.0	16.6
105.210	33.3	QP	11.2	-19.3	25.2	112	289	Vert.	43.5	18.3
105.206	38.7	QP	11.2	-19.3	30.6	211	302	Hori.	43.5	12.9
365.632	34.0	QP	16.6	-17.0	33.6	288	100	Hori.	46.0	12.4
365.621	28.9	QP	16.6	-17.0	28.5	113	100	Vert.	46.0	17.5
442.366	35.4	QP	17.7	-17.1	36.0	318	100	Hori.	46.0	10.0
452.619	31.9	QP	17.8	-17.2	32.5	188	100	Vert.	46.0	13.5
452.611	34.4	QP	17.8	-17.2	35.0	333	100	Hori.	46.0	11.0
583.659	27.1	QP	18.9	-16.8	29.2	91	100	Vert.	46.0	16.8
804.834	31.2	QP	21.6	-15.7	37.1	83	100	Hori.	46.0	8.9
804.864	29.1	QP	21.6	-15.7	35.0	0	100	Vert.	46.0	11.0

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

Radiated Spurious Emission (1GHz-26GHz)

		UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Company : Matsushita Electric Industrial Co., Ltd.	REPORT NO : 28CE0123-HO	
Equipment : MAINPCB	REGULATION : FCC Part15 Subpart C 15.247(d)	
Model : YEP0PT30919714	TEST DISTANCE : 3/1m	
Sample No. : 001	DATE : 12/21/2005	
Power : DC13.2V	TEMPERATURE : 24deg.C	
Mode : Bluetooth Tx 2402MHz	HUMIDITY : 25%	
Remarks : Hor Z , Ver X-axis	ENGINEER : Mitsuru Fujimura	

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	1380.0	64.7	66.9	23.9	36.7	3.7	0.0	55.6	57.8	74.0	18.4	16.2
2	2390.0	44.1	48.6	30.5	36.4	4.6	0.0	42.8	47.3	74.0	31.2	26.7
3	4804.0	48.8	53.0	35.2	36.0	6.6	0.8	55.4	59.6	74.0	18.6	14.4
4	7206.0	42.2	37.7	37.7	36.1	8.2	0.3	52.3	47.8	74.0	21.7	26.2
5	9607.6	42.7	45.2	37.0	36.4	9.7	0.7	53.7	56.2	74.0	20.3	17.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12010.0	41.6	43.3	41.6	36.1	12.1	1.4	51.1	52.8	74.0	22.9	21.2
7	24020.0	43.9	43.8	40.4	35.5	17.6	0.0	56.9	56.8	74.0	17.1	17.2

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
		[dBuV]						[dBuV/m]		[dB]		
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1380.0	45.7	51.3	23.9	36.7	3.7	0.0	36.6	42.2	54.0	17.4	11.8
2	2390.0	36.4	35.5	30.5	36.4	4.6	0.0	35.1	34.2	54.0	18.9	19.8
3	4804.0	40.5	46.7	35.2	36.0	6.6	0.8	47.1	53.3	54.0	6.9	0.7
4	7206.0	28.9	29.1	37.7	36.1	8.2	0.3	39.0	39.2	54.0	15.0	14.8
5	9607.6	29.6	33.1	37.0	36.4	9.7	0.7	40.6	44.1	54.0	13.4	9.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12010.0	28.3	30.4	41.6	36.1	12.1	1.4	37.8	39.9	54.0	16.2	14.1
7	24020.0	31.0	30.9	40.4	35.5	17.6	0.0	44.0	43.9	54.0	10.0	10.1

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATT or Filter Loss [dB]	RESULT		Limit 20dBc [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	2402.0	104.5	104.6	30.5	36.4	4.6	0.0	103.2	103.3	-	-	-
2	2400.0	44.2	43.5	30.5	36.4	4.6	0.0	42.9	42.2	Funda-20dB	40.3	41.1

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.
*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.

**Radiated Spurious Emission
(1GHz-26GHz)**

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company	: Matsushita Electric Industrial Co., Ltd.	REPORT NO	: 28CE0123-HO
Equipment	: MAINPCB	REGULATION	: FCC Part15 Subpart C 15.247(d)
Model	: YEP0PT30919714	TEST DISTANCE	: 3/1m
Sample No.	: 001	DATE	: 12/21/2005
Power	: DC13.2V	TEMPERATURE	: 24deg.C
Mode	: Bluetooth Tx 2441MHz	HUMIDITY	: 25%
Remarks	: Hor Z, Ver X-axis	ENGINEER	: Mitsuru Fujimura

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	1140.0	70.2	65.0	23.1	36.9	3.4	0.0	59.8	54.6	74.0	14.2	19.4
2	1812.0	56.3	62.5	28.2	36.5	4.2	0.0	52.2	58.4	74.0	21.8	15.6
3	4882.0	50.0	54.5	35.6	36.0	6.6	0.8	57.0	61.5	74.0	17.0	12.5
4	7323.0	42.0	41.6	37.9	36.0	8.2	0.3	52.4	52.0	74.0	21.6	22.0
5	9764.0	43.8	46.4	36.8	36.4	9.9	0.6	54.7	57.3	74.0	19.3	16.7
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12205.0	41.6	42.6	41.6	36.0	12.1	1.2	51.0	52.0	74.0	23.0	22.0
7	24410.0	43.4	42.8	40.4	35.8	17.6	0.0	56.1	55.5	74.0	17.9	18.5

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	1140.0	53.3	54.8	23.1	36.9	3.4	0.0	42.9	44.4	54.0	11.1	9.6
2	1812.0	41.5	47.5	28.2	36.5	4.2	0.0	37.4	43.4	54.0	16.6	10.6
3	4882.0	42.3	46.5	35.6	36.0	6.6	0.8	49.3	53.5	54.0	4.7	0.5
4	7323.0	28.9	29.2	37.9	36.0	8.2	0.3	39.3	39.6	54.0	14.7	14.4
5	9764.0	31.8	36.3	36.8	36.4	9.9	0.6	42.7	47.2	54.0	11.3	6.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12205.0	28.8	30.0	41.6	36.0	12.1	1.2	38.2	39.4	54.0	15.8	14.6
7	24410.0	30.1	30.0	40.4	35.8	17.6	0.0	42.8	42.7	54.0	11.2	11.3

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.

*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.

**Radiated Spurious Emission
(1GHz-26GHz)**

Company : Matsushita Electric Industrial Co., Ltd. REPORT NO : 28CE0123-HO
Equipment : MAINPCB REGULATION : FCC Part15 Subpart C 15.247(d)
Model : YEPOPT30919714 TEST DISTANCE : 3/1m
Sample No. : 001 DATE : 12/21/2005
Power : DC13.2V TEMPERATURE : 24deg.C
Mode : Bluetooth Tx 2480MHz HUMIDITY : 25%
Remarks : Hor Z, Ver X-axis ENGINEER : Mitsuru Fujimura

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

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	1357.0	58.9	64.3	23.9	36.8	3.7	0.0	49.7	55.1	74.0	24.3	18.9
2	2483.5	57.8	57.3	30.5	36.4	4.7	0.0	56.6	56.1	74.0	17.4	17.9
3	4960.0	50.5	54.7	36.1	35.9	6.7	0.8	58.2	62.4	74.0	15.8	11.6
4	7440.0	42.1	42.2	38.1	35.9	8.3	0.3	52.9	53.0	74.0	21.1	21.0
5	9920.0	43.3	46.2	36.7	36.5	10.0	0.6	54.1	57.0	74.0	19.9	17.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12400.0	41.7	42.4	41.7	35.8	12.2	1.0	51.3	52.0	74.0	22.7	22.0
7	24800.0	43.2	43.8	40.7	35.1	17.7	0.0	57.0	57.6	74.0	17.0	16.4

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
		[dBuV]						[dBuV/m]		[dB]		
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1357.0	40.4	46.8	23.9	36.8	3.7	0.0	31.2	37.6	54.0	22.8	16.4
2	2483.5	52.5	51.5	30.5	36.4	4.7	0.0	51.3	50.3	54.0	2.7	3.7
3	4960.0	43.3	46.2	36.1	35.9	6.7	0.8	51.0	53.9	54.0	3.0	0.1
4	7440.0	28.8	28.7	38.1	35.9	8.3	0.3	39.6	39.5	54.0	14.4	14.5
5	9920.0	29.8	35.5	36.7	36.5	10.0	0.6	40.6	46.3	54.0	13.4	7.7
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12400.0	28.6	29.8	41.7	35.8	12.2	1.0	38.2	39.4	54.0	15.8	14.6
7	24800.0	29.9	30.3	40.7	35.1	17.7	0.0	43.7	44.1	54.0	10.3	9.9

*Reading calculation = Carrier(RBW:1MHz) - {Carrier(RBW:100kHz) - Bandedge(RBW:100kHz)}

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.

*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.

Radiated Spurious Emission
(1GHz-26GHz)

UL Japan, Inc.
 Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company	: Matsushita Electric Industrial Co., Ltd.	REPORT NO	: 28CE0123-HO
Equipment	: MAINPCB	REGULATION	: FCC Part15 Subpart C 15.247(d)
Model	: YEP0PT30919714	TEST DISTANCE	: 3m
Sample No.	: 001	DATE	: 12/21/2005
Power	: DC13.2V	TEMPERATURE	: 24deg.C
Mode	: Bluetooth Rx	HUMIDITY	: 25%
Remarks	: Hor Z , Ver X-axis	ENGINEER	: Mitsuru Fujimura

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

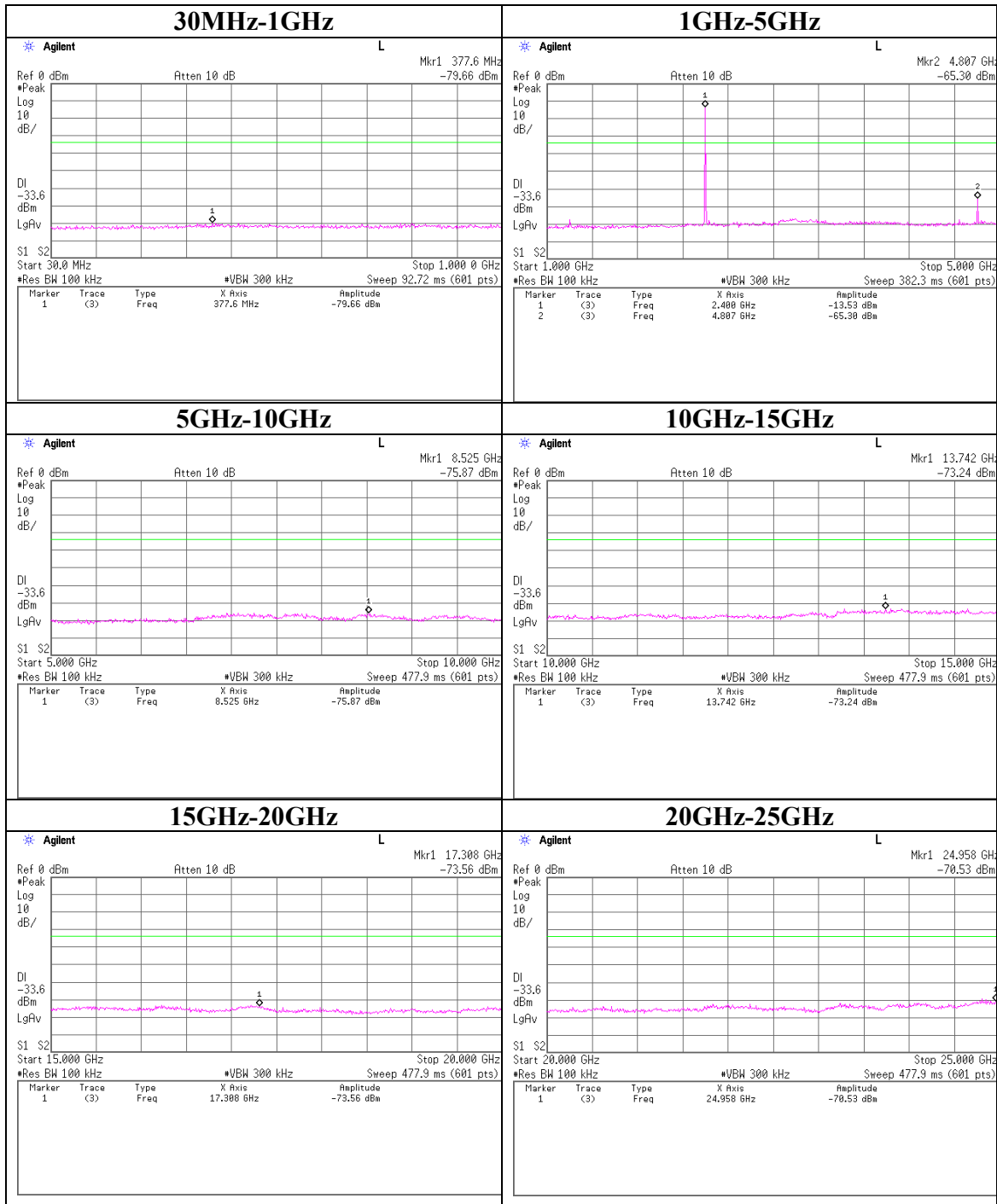
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1149.0	69.2	72.3	23.1	36.9	3.5	0.0	58.9	62.0	74.0	15.1	12.0
2	1812.0	56.2	62.6	28.2	36.5	4.2	0.0	52.1	58.5	74.0	21.9	15.5
3	2441.0	44.5	44.1	30.5	36.4	4.5	0.0	43.1	42.7	74.0	30.9	31.3
4	4882.0	42.2	42.5	35.6	36.0	6.6	0.0	48.4	48.7	74.0	25.6	25.3

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

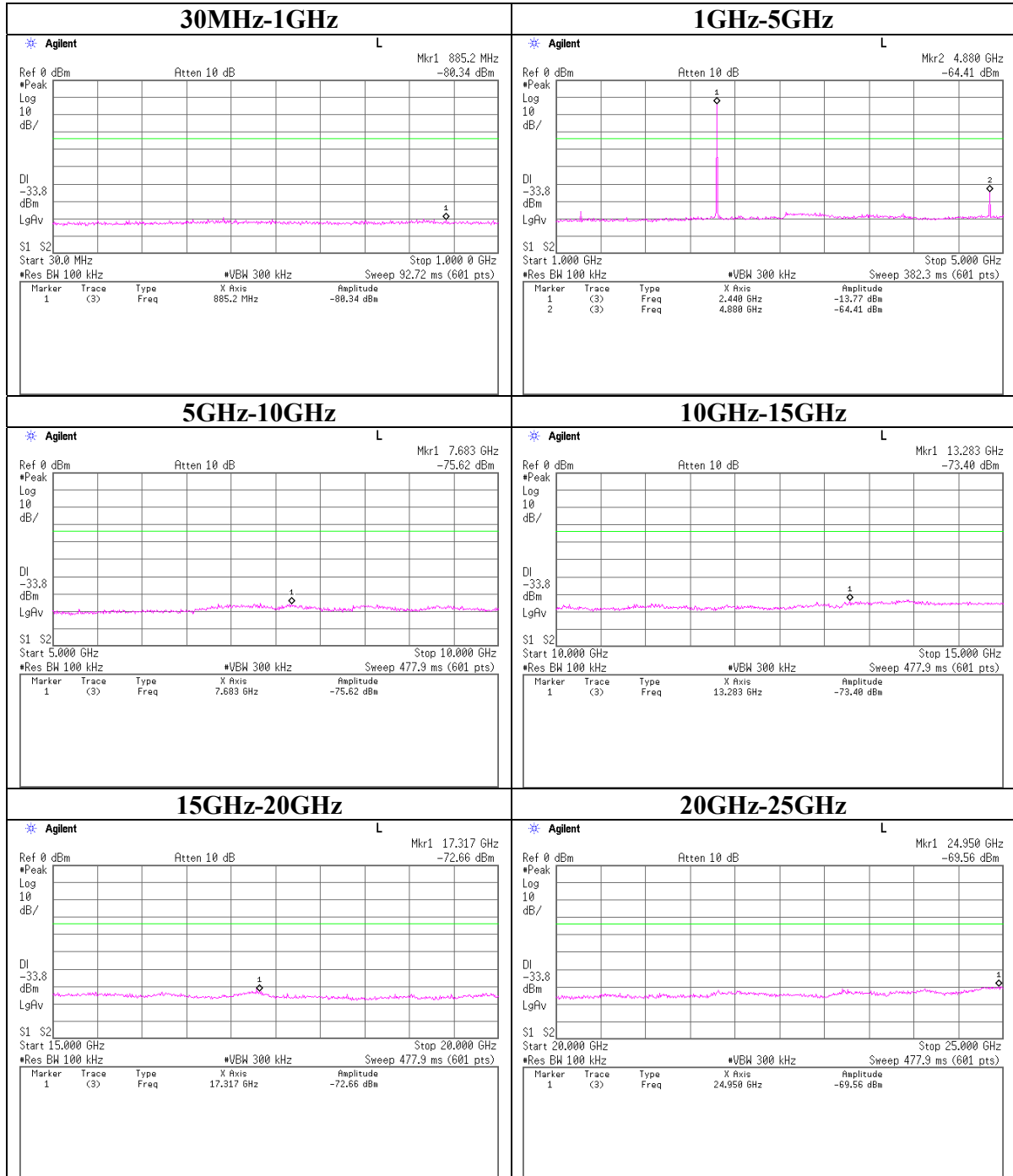
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1149.0	51.8	54.7	23.1	36.9	3.5	0.0	41.5	44.4	54.0	12.5	9.6
2	1812.0	40.4	45.4	28.2	36.5	4.2	0.0	36.3	41.3	54.0	17.7	12.7
3	2441.0	31.8	31.7	30.5	36.4	4.5	0.0	30.4	30.3	54.0	23.6	23.7
4	4882.0	29.4	29.4	35.6	36.0	6.6	0.0	35.6	35.6	54.0	18.4	18.4

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

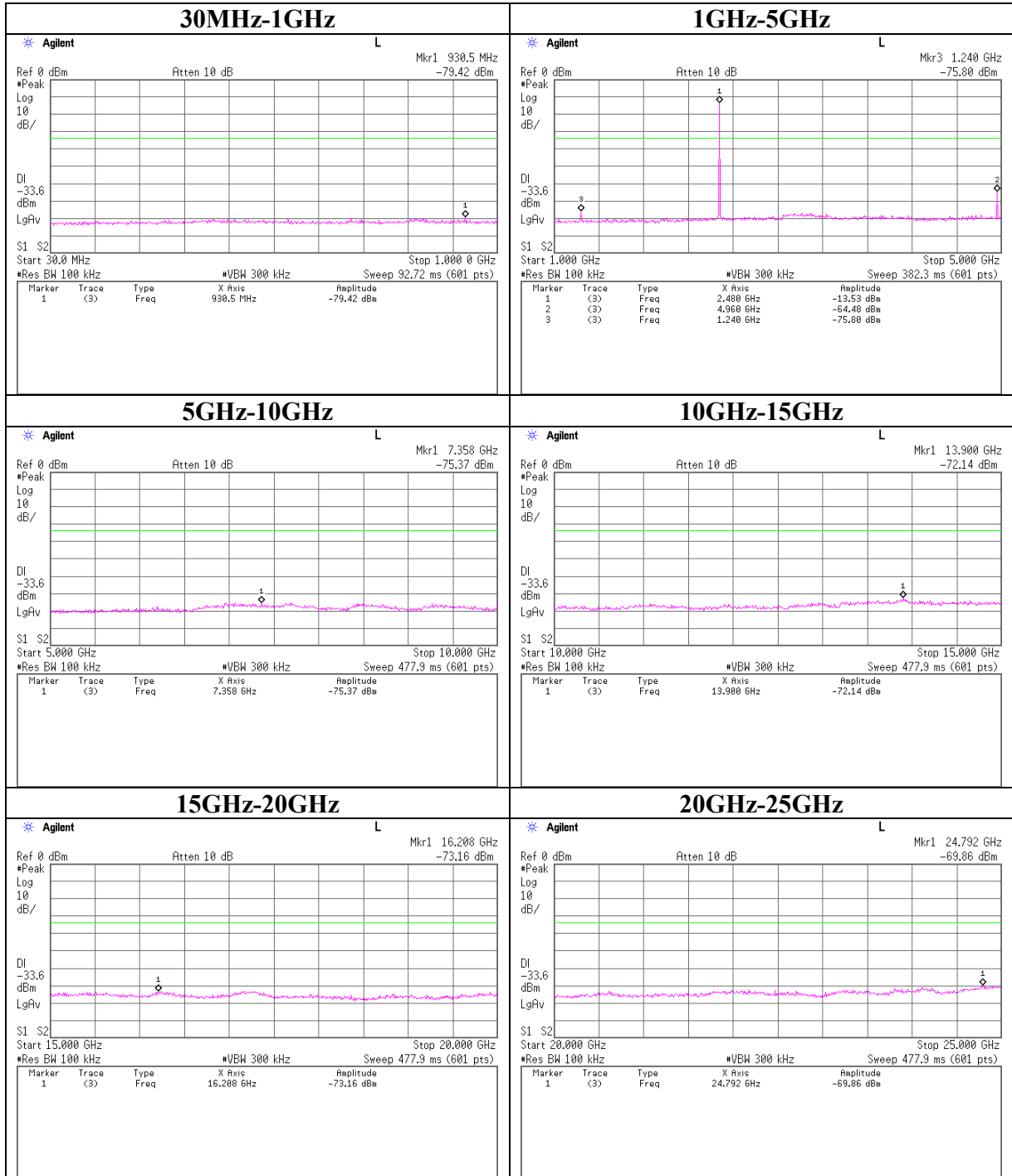
Conducted Spurious Emission
Ch:Low



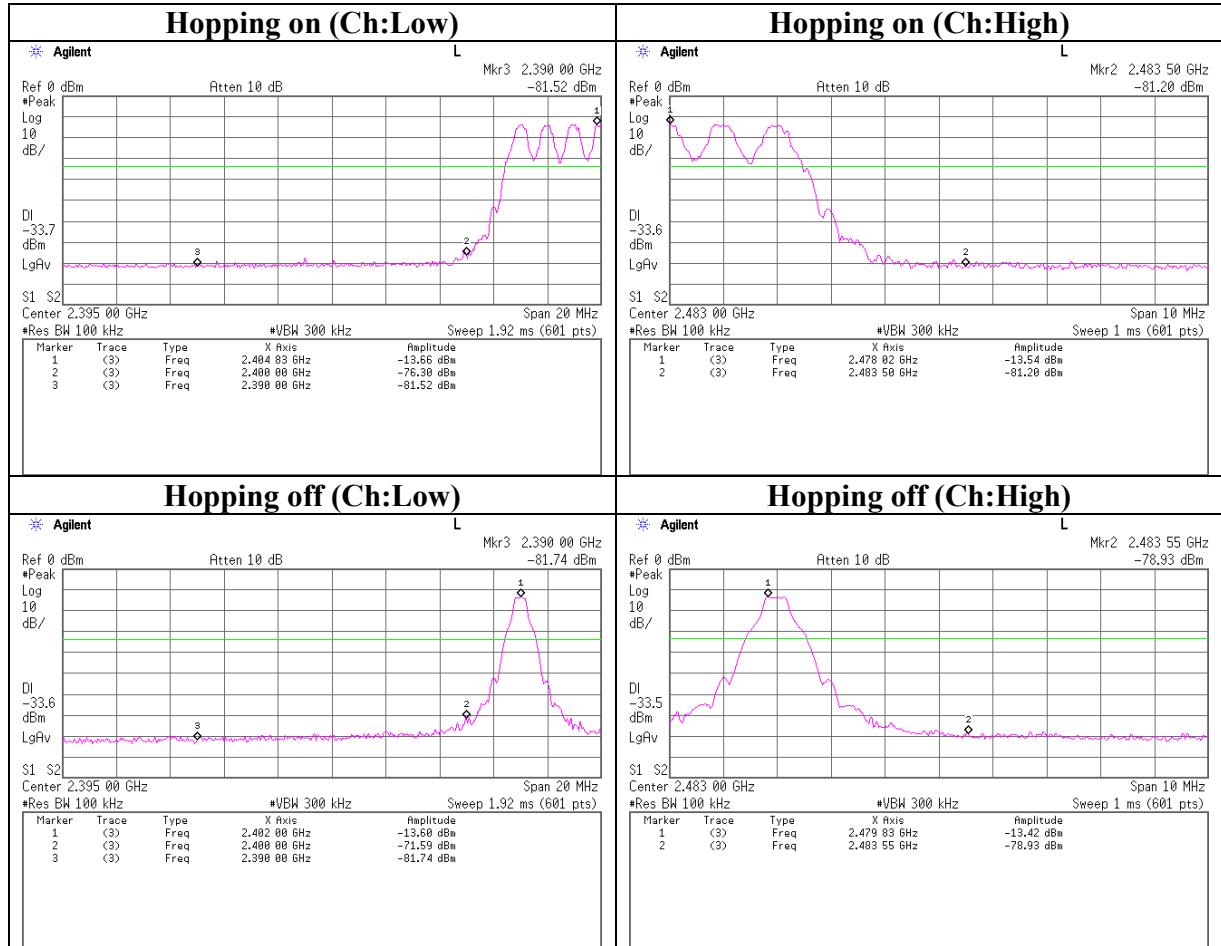
Conducted Spurious Emission
Ch:Mid



Conducted Spurious Emission
Ch:High



Conducted Spurious Emission Band Edge Compliance



99% Occupied Bandwidth

