APPENDIX 2: Data of EMI test

Conducted Emission
(Power Supply: SONY)

DATA OF CONDUCTED EMISSION TEST

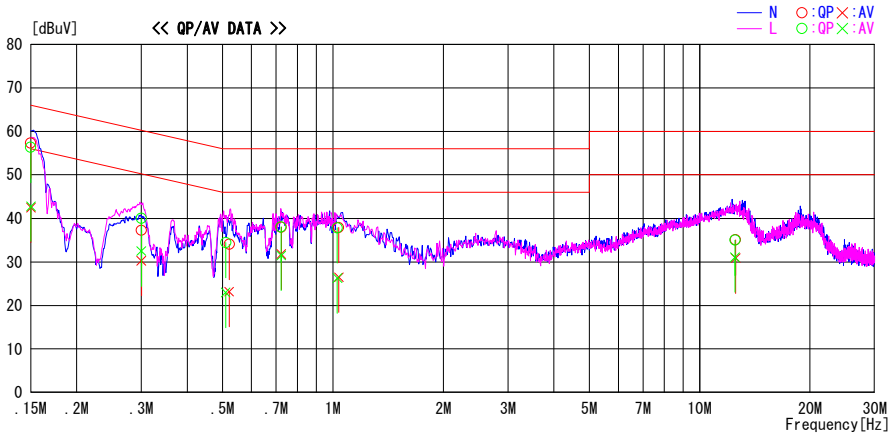
UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2011/03/19

Report No. : 31HE0085-HO-01

Temp./Humi. : 22deg.C / 33% RH
Engineer : Satofumi Matsuyama

Mode / Remarks : WLAN 11b Tx, 2412MHz, 11Mbps, Antenna 0

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.15000	44.2	29.4	13.1	57.3	42.5	66.0	56.0	8.7	13.5	N	
0.15000	43.2	29.7	13.1	56.3	42.8	66.0	56.0	9.7	13.2	L	
0.30030	24.0	17.0	13.3	37.3	30.3	60.2	50.2	22.9	19.9	N	
0.30030	26.7	19.2	13.3	40.0	32.5	60.2	50.2	20.2	17.7	L	
0.52161	20.7	9.9	13.3	34.0	23.2	56.0	46.0	22.0	22.8	N	
0.51022	21.1	9.7	13.3	34.4	23.0	56.0	46.0	21.6	23.0	L	
0.72232	24.8	18.2	13.3	38.1	31.5	56.0	46.0	17.9	14.5	L	
0.72275	24.7	18.5	13.3	38.0	31.8	56.0	46.0	18.0	14.2	N	
1.03723	24.6	13.2	13.3	37.9	26.5	56.0	46.0	18.1	19.5	N	
1.02754	24.5	13.0	13.3	37.8	26.3	56.0	46.0	18.2	19.7	L	
12.52885	21.0	16.8	14.1	35.1	30.9	60.0	50.0	24.9	19.1	N	
12.48870	20.9	17.0	14.1	35.0	31.1	60.0	50.0	25.0	18.9	L	

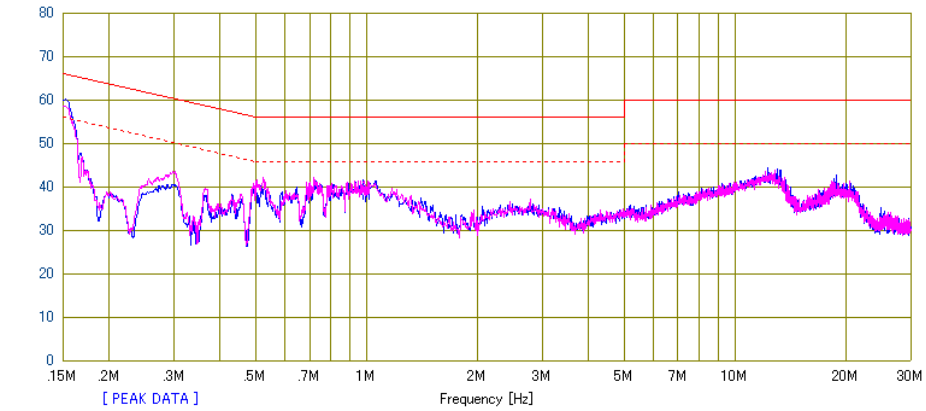
CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

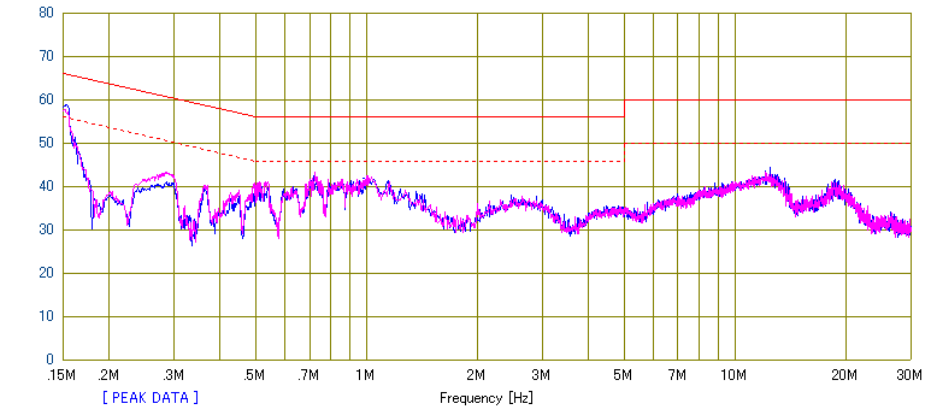
(Power Supply: SONY)

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber
Report No.	31HE0085-HO-01
Date	03/19/2011
Temperature/ Humidity	22 deg.C / 33% RH
Engineer	Satofumi Matsuyama
Mode	11b Tx, Antenna 0

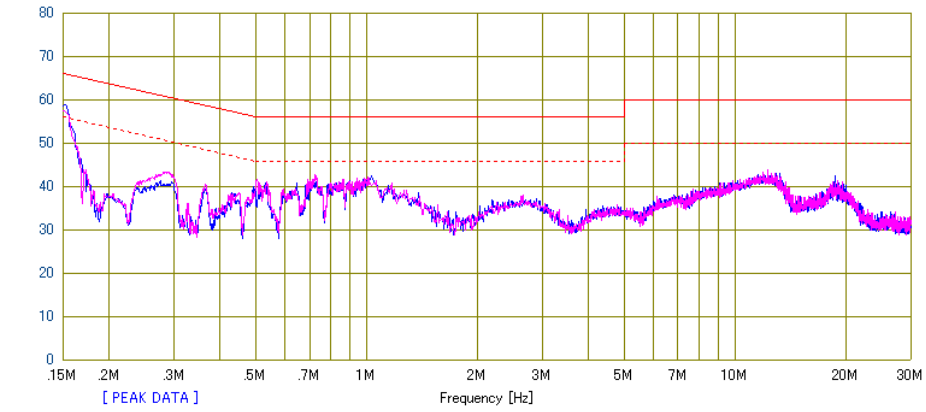
2412MHz



2437MHz



2462MHz



Y scale [dBuV] Chart — N — L

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Conducted Emission
(Power Supply: SONY)

DATA OF CONDUCTED EMISSION TEST

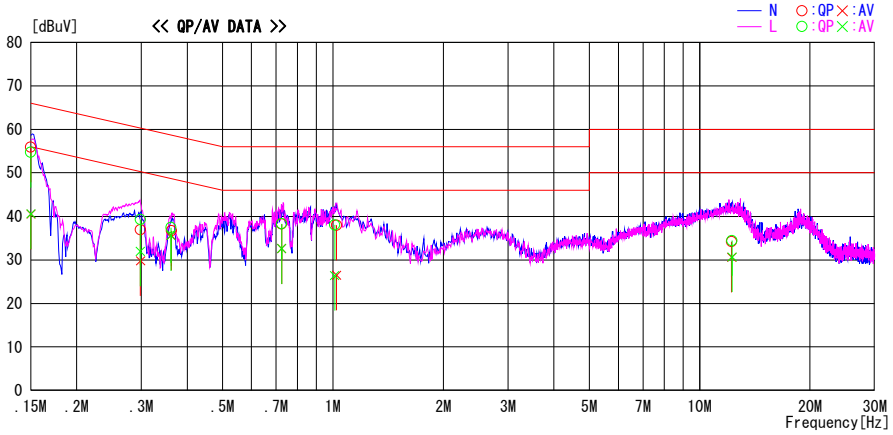
UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2011/03/19

Report No. : 31HE0085-HO-01

Temp./Humi. : 22deg.C / 33% RH
Engineer : Satofumi Matsuyama

Mode / Remarks : WLAN 11b Tx, 2412MHz, 11Mbps, Antenna 1

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.15000	42.8	27.4	13.1	55.9	40.5	66.0	56.0	10.1	15.5	N	
0.29864	23.6	16.5	13.3	36.9	29.8	60.3	50.3	23.4	20.5	N	
0.36213	23.4	22.4	13.3	36.7	35.7	58.7	48.7	22.0	13.0	N	
0.72469	24.9	19.3	13.3	38.2	32.6	56.0	46.0	17.8	13.4	N	
1.02285	24.7	13.2	13.3	38.0	26.5	56.0	46.0	18.0	19.5	N	
12.22384	20.1	16.5	14.1	34.2	30.6	60.0	50.0	25.8	19.4	N	
0.15000	41.6	27.5	13.1	54.7	40.6	66.0	56.0	11.3	15.4	L	
0.29838	26.0	18.7	13.3	39.3	32.0	60.3	50.3	21.0	18.3	L	
0.36148	24.1	22.3	13.3	37.4	35.6	58.7	48.7	21.3	13.1	L	
0.72437	25.0	19.3	13.3	38.3	32.6	56.0	46.0	17.7	13.4	L	
1.01143	24.8	13.1	13.3	38.1	26.4	56.0	46.0	17.9	19.6	L	
12.24764	20.3	16.6	14.1	34.4	30.7	60.0	50.0	25.6	19.3	L	

CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

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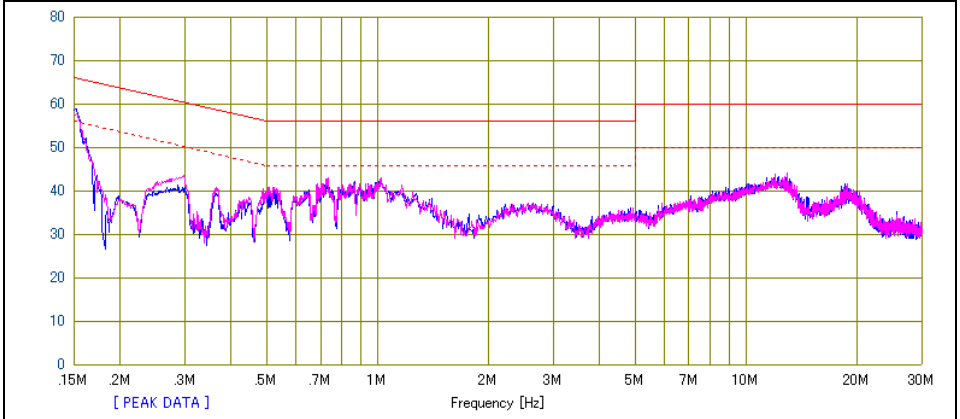
Conducted Emission

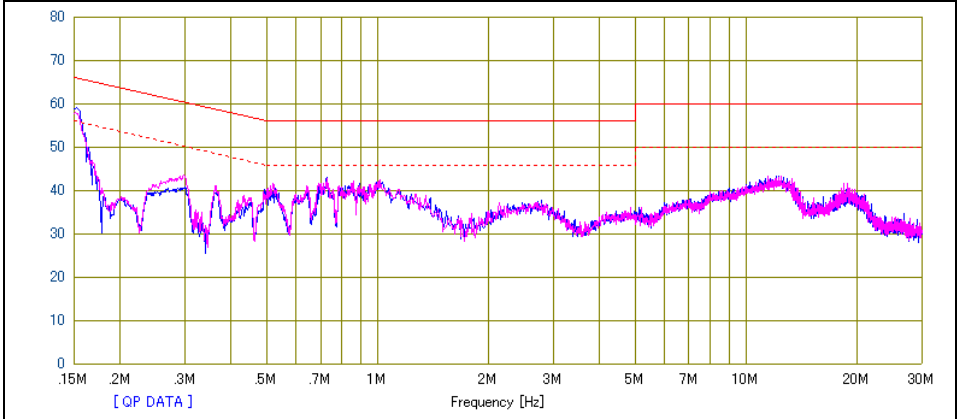
(Power Supply: SONY)

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber
Report No.	31HE0085-HO-01
Date	03/19/2011
Temperature/ Humidity	22 deg.C / 33% RH
Engineer	Satofumi Matsuyama
Mode	11b Tx, Antenna 1

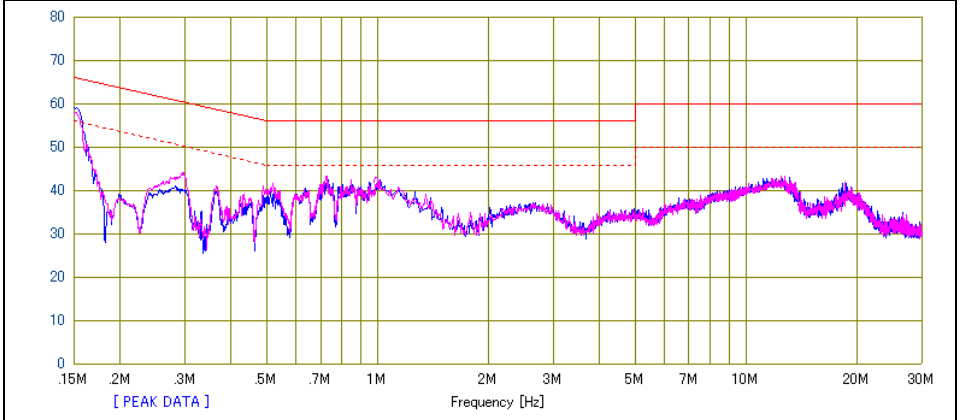
2412MHz



2437MHz



2462MHz



Y scale [dBuV] Chart — N — L

Conducted Emission
(Power Supply: SONY)

DATA OF CONDUCTED EMISSION TEST

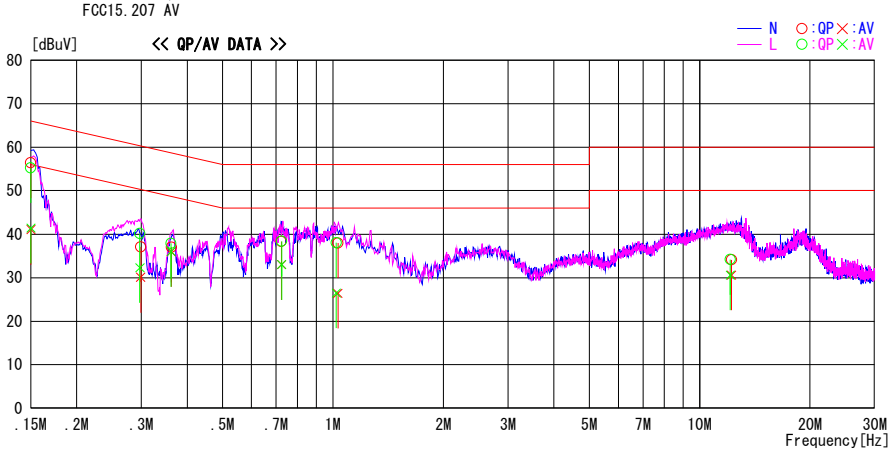
UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2011/03/19

Report No. : 31HE0085-HO-01

Temp./Humi. : 22deg.C / 33% RH
Engineer : Satofumi Matsuyama

Mode / Remarks : WLAN 11g Tx, 2412MHz, 24Mbps, Antenna 0

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.15000	43.3	28.0	13.1	56.4	41.1	66.0	56.0	9.6	14.9	N	
0.29905	23.8	16.8	13.3	37.1	30.1	60.3	50.3	23.2	20.2	N	
0.36213	23.7	22.7	13.3	37.0	36.0	58.7	48.7	21.7	12.7	N	
0.72392	25.0	19.7	13.3	38.3	33.0	56.0	46.0	17.7	13.0	N	
1.03162	24.7	13.1	13.3	38.0	26.4	56.0	46.0	18.0	19.6	N	
12.21314	20.0	16.5	14.1	34.1	30.6	60.0	50.0	25.9	19.4	N	
0.15000	42.2	28.3	13.1	55.3	41.4	66.0	56.0	10.7	14.6	L	
0.29729	26.9	19.0	13.3	40.2	32.3	60.3	50.3	20.1	18.0	L	
0.36177	24.6	22.7	13.3	37.9	36.0	58.7	48.7	20.8	12.7	L	
0.72442	25.1	19.7	13.3	38.4	33.0	56.0	46.0	17.6	13.0	L	
1.02082	24.8	13.2	13.3	38.1	26.5	56.0	46.0	17.9	19.5	L	
12.11316	20.1	16.5	14.1	34.2	30.6	60.0	50.0	25.8	19.4	L	

CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

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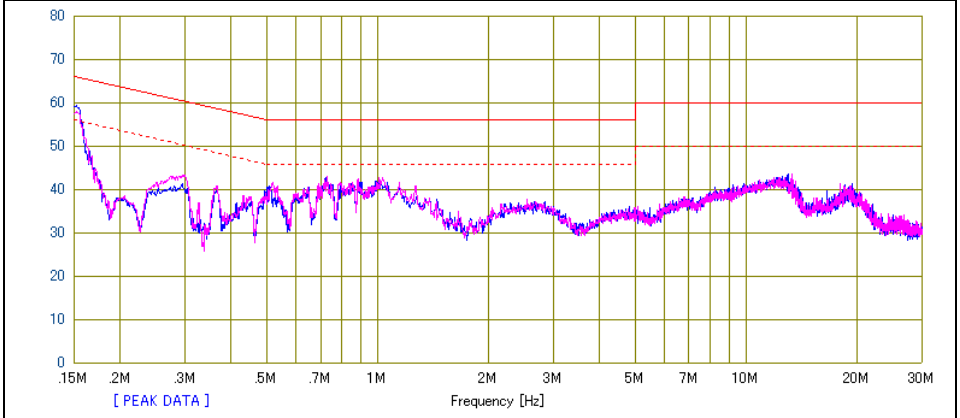
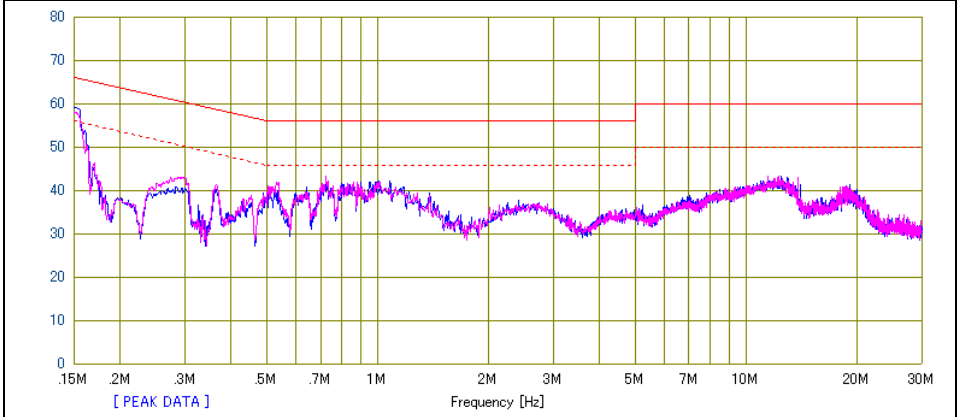
Conducted Emission
(Power Supply: SONY)

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber
Report No.	31HE0085-HO-01
Date	03/19/2011
Temperature/ Humidity	22 deg.C / 33% RH
Engineer	Satofumi Matsuyama
Mode	11g Tx, Antenna 0

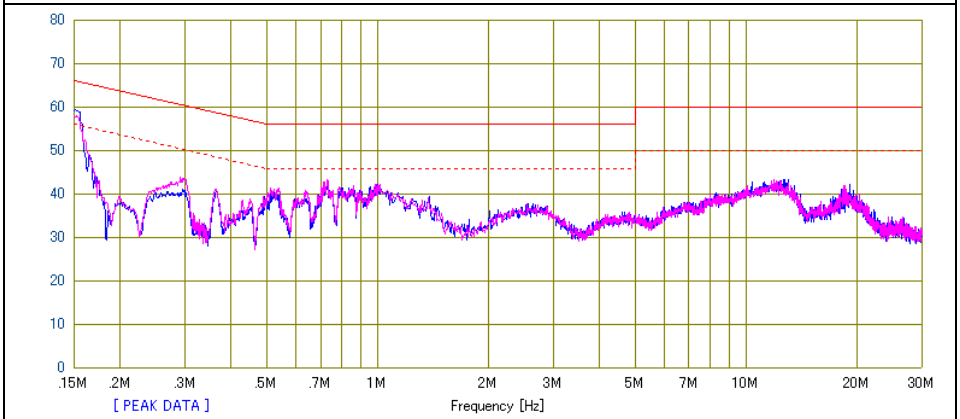
2412MHz



2437MHz



2462MHz



Y scale [dBuV] Chart — N — L

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Conducted Emission
(Power Supply: SONY)

DATA OF CONDUCTED EMISSION TEST

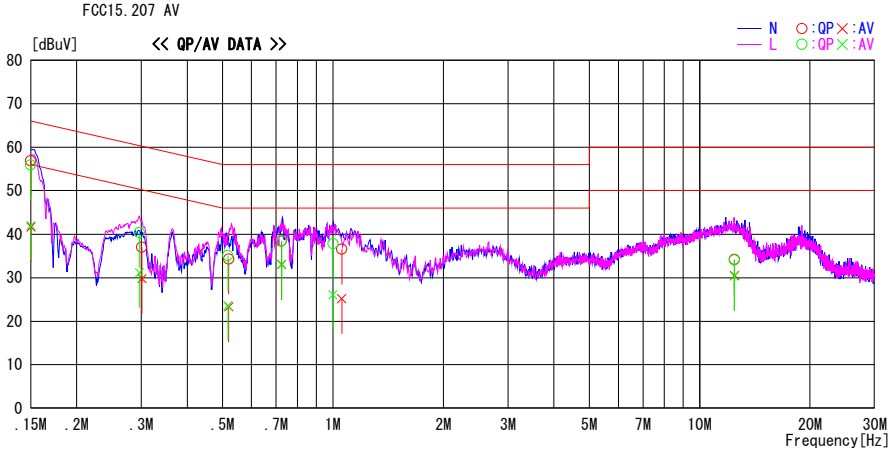
UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2011/03/19

Report No. : 31HE0085-HO-01

Temp./Humi. : 22deg.C / 33% RH
Engineer : Satofumi Matsuyama

Mode / Remarks : WLAN 11g Tx, 2412MHz, 24Mbps, Antenna 1

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.15000	43.8	28.6	13.1	56.9	41.7	66.0	56.0	9.1	14.3	N	
0.30130	23.7	16.5	13.3	37.0	29.8	60.2	50.2	23.2	20.4	N	
0.51963	21.0	10.0	13.3	34.3	23.3	56.0	46.0	21.7	22.7	N	
0.72399	25.1	19.7	13.3	38.4	33.0	56.0	46.0	17.6	13.0	N	
1.05680	23.2	11.9	13.3	36.5	25.2	56.0	46.0	19.5	20.8	N	
12.44124	20.1	16.4	14.1	34.2	30.5	60.0	50.0	25.8	19.5	N	
0.15000	42.8	28.9	13.1	55.9	42.0	66.0	56.0	10.1	14.0	L	
0.29688	27.1	17.9	13.3	40.4	31.2	60.3	50.3	19.9	19.1	L	
0.51683	21.8	10.3	13.3	35.1	23.6	56.0	46.0	20.9	22.4	L	
0.72443	25.2	19.8	13.3	38.5	33.1	56.0	46.0	17.5	12.9	L	
0.99965	24.5	12.8	13.3	37.8	26.1	56.0	46.0	18.2	19.9	L	
12.42316	19.9	16.3	14.1	34.0	30.4	60.0	50.0	26.0	19.6	L	

CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

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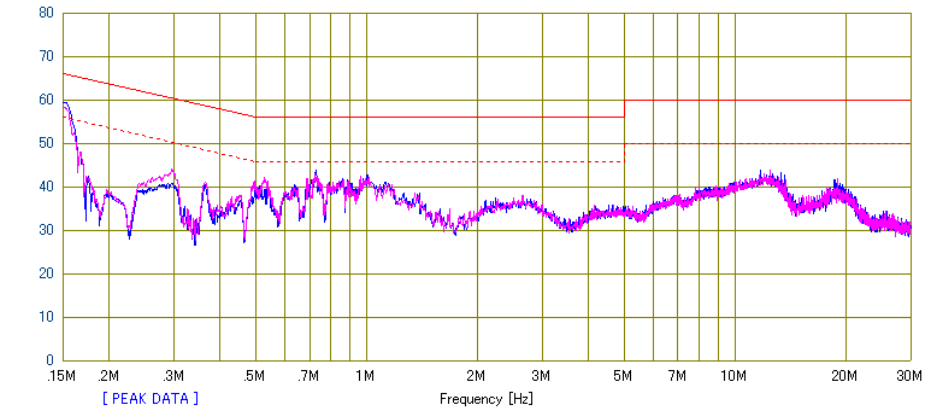
Telephone : +81 596 24 8116
Facsimile : +81 596 24 8124

Conducted Emission

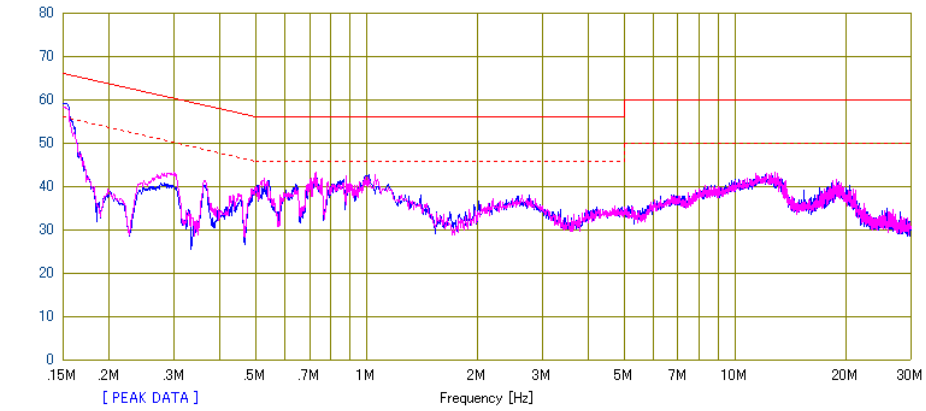
(Power Supply: SONY)

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber
Report No.	31HE0085-HO-01
Date	03/19/2011
Temperature/ Humidity	22 deg.C / 33% RH
Engineer	Satofumi Matsuyama
Mode	11g Tx, Antenna 1

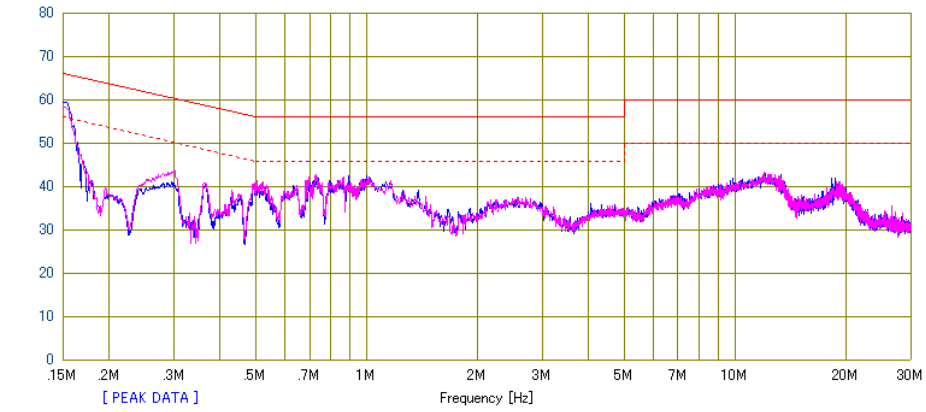
2412MHz



2437MHz



2462MHz



Y scale [dBuV] Chart — N — L

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Conducted Emission
(Power Supply: DELTA)

DATA OF CONDUCTED EMISSION TEST

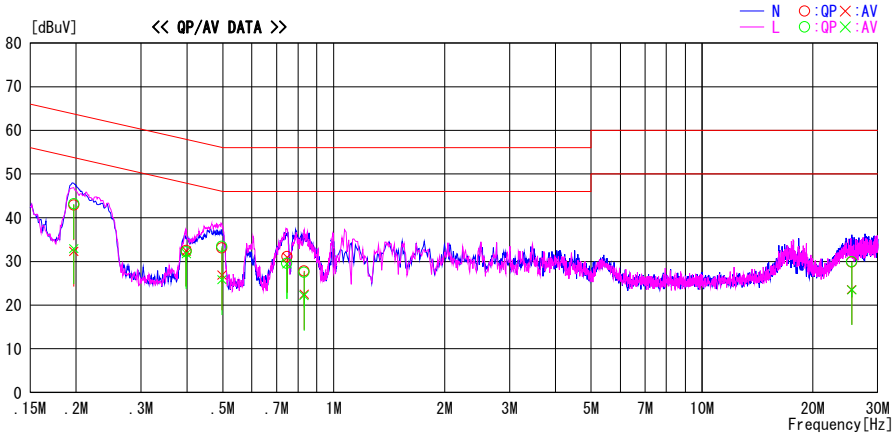
UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2011/03/21

Report No. : 31HE0085-HO-01

Temp./Humi. : 21deg.C / 32% RH
Engineer : Tomotaka Sasagawa

Mode / Remarks : WLAN 11b Tx, 2412MHz, 11Mbps, Antenna 0

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.19698	29.8	19.2	13.1	42.9	32.3	63.7	53.7	20.8	21.4	N	
0.39795	19.2	19.1	13.3	32.5	32.4	57.9	47.9	25.4	15.5	N	
0.49713	19.8	13.6	13.3	33.1	26.9	56.0	46.0	22.9	19.1	N	
0.74768	17.8	17.6	13.3	31.1	30.9	56.0	46.0	24.9	15.1	N	
0.83120	14.5	9.2	13.3	27.8	22.5	56.0	46.0	28.2	23.5	N	
25.46874	15.1	8.9	14.7	29.8	23.6	60.0	50.0	30.2	26.4	N	
0.19698	30.1	19.8	13.1	43.2	32.9	63.7	53.7	20.5	20.8	L	
0.39795	18.9	18.5	13.3	32.2	31.8	57.9	47.9	25.7	16.1	L	
0.49713	20.2	12.5	13.3	33.5	25.8	56.0	46.0	22.5	20.2	L	
0.74594	16.3	16.2	13.3	29.6	29.5	56.0	46.0	26.4	16.5	L	
0.83033	14.2	8.9	13.3	27.5	22.2	56.0	46.0	28.5	23.8	L	
25.48879	15.2	8.8	14.7	29.9	23.5	60.0	50.0	30.1	26.5	L	

CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

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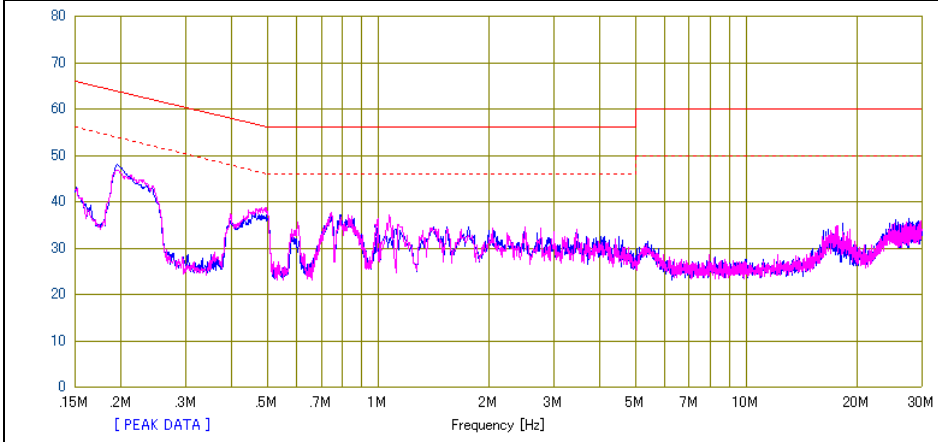
Telephone : +81 596 24 8116
Facsimile : +81 596 24 8124

Conducted Emission

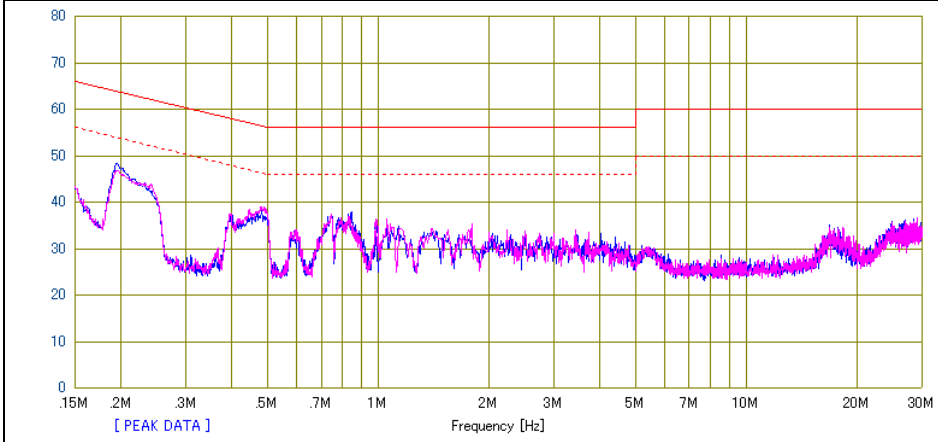
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber
Report No.	31HE0085-HO-01
Date	03/21/2011
Temperature/ Humidity	21 deg.C / 32% RH
Engineer	Tomotaka Sasagawa
Mode	11b Tx, Antenna 0

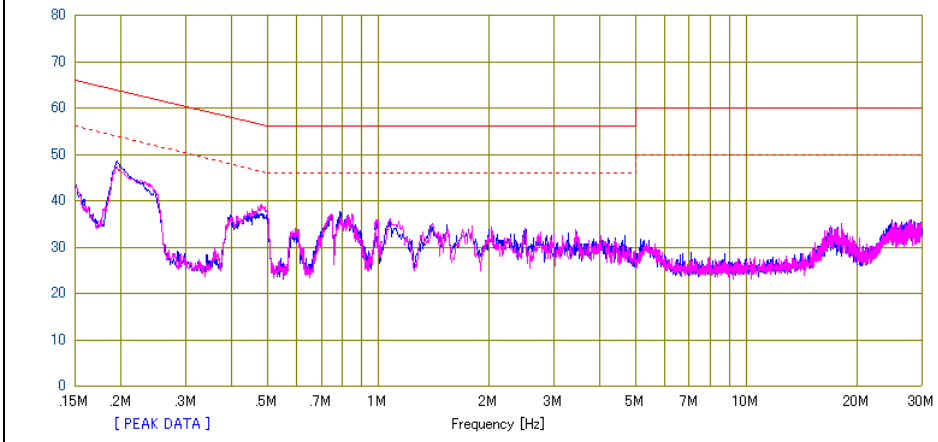
2412MHz



2437MHz



2462MHz



Y scale [dBuV] Chart — N — L

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Conducted Emission
(Power Supply: DELTA)

DATA OF CONDUCTED EMISSION TEST

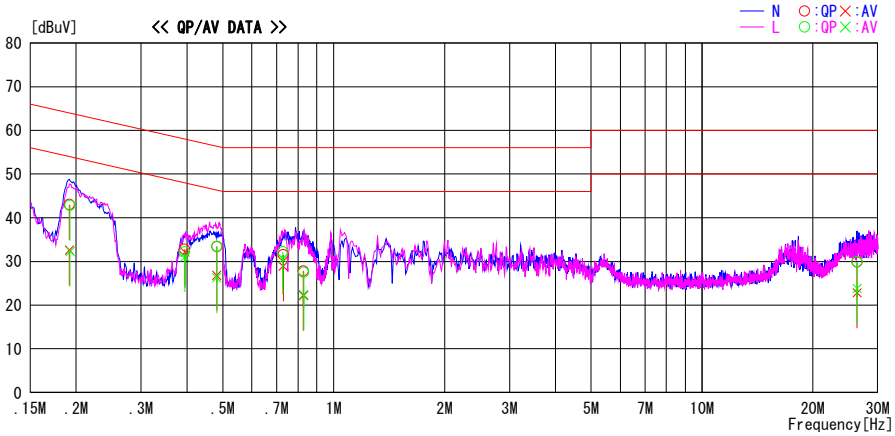
UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2011/03/21

Report No. : 31HE0085-HO-01

Temp./Humi. : 21deg.C / 32% RH
Engineer : Tomotaka Sasagawa

Mode / Remarks : WLAN 11b Tx, 2412MHz, 11Mbps, Antenna 1

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.19176	29.9	19.5	13.1	43.0	32.6	64.0	54.0	21.0	21.4	N	
0.39447	19.5	18.8	13.3	32.8	32.1	58.0	48.0	25.2	15.9	N	
0.48147	20.1	13.5	13.3	33.4	26.8	56.3	46.3	22.9	19.5	N	
0.72942	18.2	15.6	13.3	31.5	28.9	56.0	46.0	24.5	17.1	N	
0.82772	14.5	8.9	13.3	27.8	22.2	56.0	46.0	28.2	23.8	N	
26.35094	15.1	8.1	14.7	29.8	22.8	60.0	50.0	30.2	27.2	N	
0.19263	29.7	19.2	13.1	42.8	32.3	63.9	53.9	21.1	21.6	L	
0.39447	18.9	17.8	13.3	32.2	31.1	58.0	48.0	25.8	16.9	L	
0.48147	20.2	13.0	13.3	33.5	26.3	56.3	46.3	22.8	20.0	L	
0.72855	18.9	17.2	13.3	32.2	30.5	56.0	46.0	23.8	15.5	L	
0.82859	14.2	9.1	13.3	27.5	22.4	56.0	46.0	28.5	23.6	L	
26.35094	15.2	9.1	14.7	29.9	23.8	60.0	50.0	30.1	26.2	L	

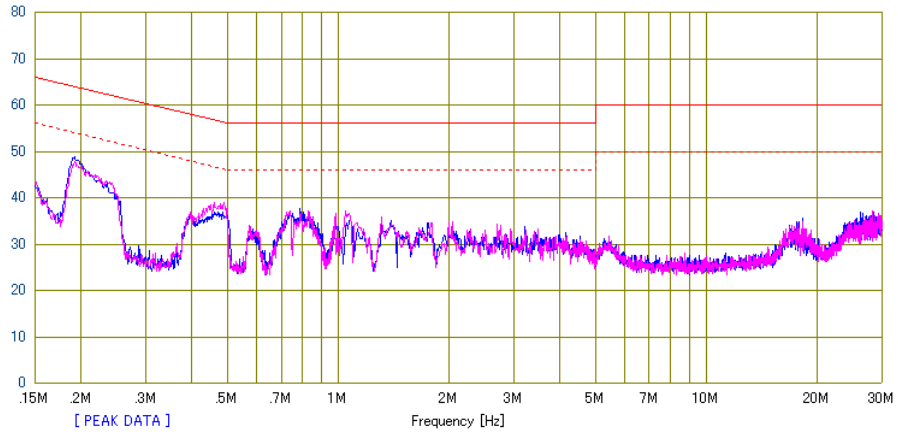
CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

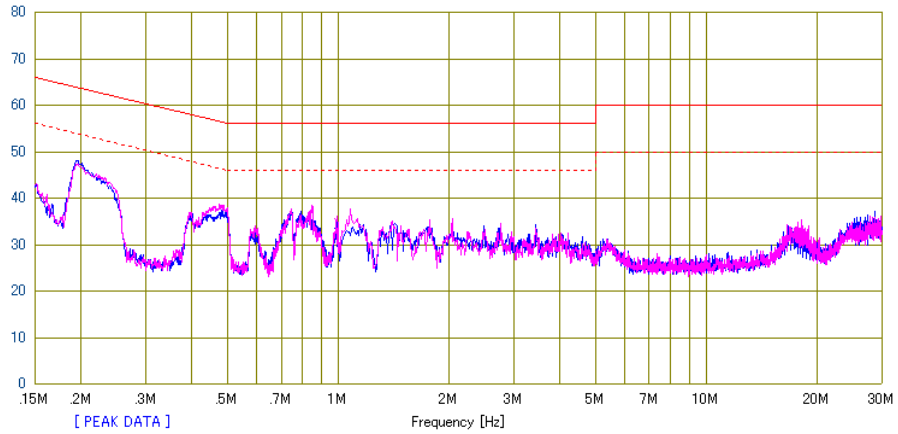
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber
Report No.	31HE0085-HO-01
Date	03/21/2011
Temperature/ Humidity	21 deg.C / 32% RH
Engineer	Tomotaka Sasagawa
Mode	11b Tx, Antenna 1

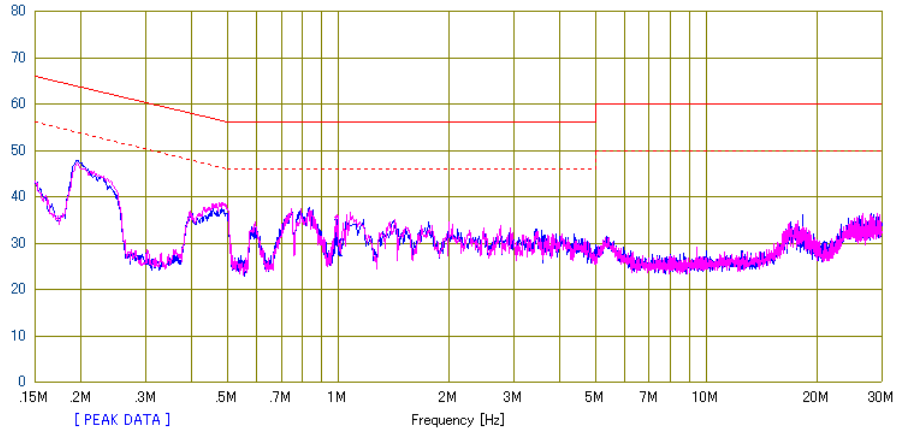
2412MHz



2437MHz



2462MHz



Y scale [dBuV] Chart — N — L

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Conducted Emission
(Power Supply: DELTA)

DATA OF CONDUCTED EMISSION TEST

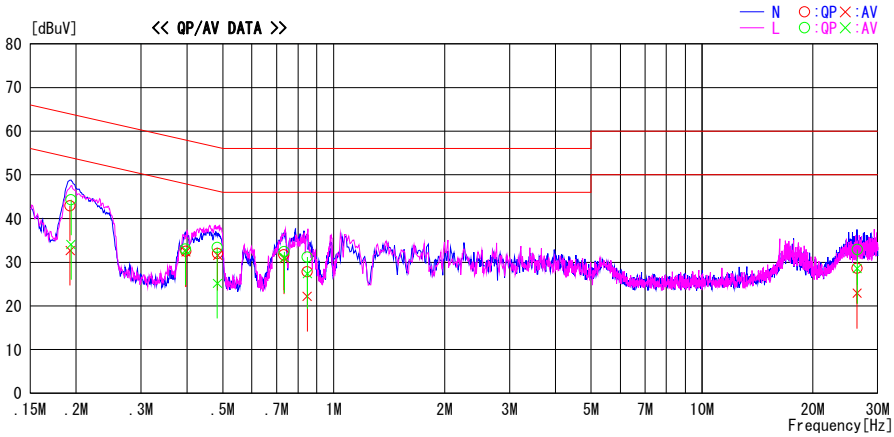
UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2011/03/21

Report No. : 31HE0085-HO-01

Temp./Humi. : 21deg.C / 32% RH
Engineer : Tomotaka Sasagawa

Mode / Remarks : WLAN 11g Tx, 2412MHz, 24Mbps, Antenna 0

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.19263	29.8	19.6	13.1	42.9	32.7	63.9	53.9	21.0	21.2	N	
0.39708	19.2	19.1	13.3	32.5	32.4	57.9	47.9	25.4	15.5	N	
0.48408	18.7	18.3	13.3	32.0	31.6	56.3	46.3	24.3	14.7	N	
0.73290	18.4	17.5	13.3	31.7	30.8	56.0	46.0	24.3	15.2	N	
0.84686	14.5	8.9	13.3	27.8	22.2	56.0	46.0	28.2	23.8	N	
26.33089	13.9	8.2	14.7	28.6	22.9	60.0	50.0	31.4	27.1	N	
0.19350	31.2	21.0	13.1	44.3	34.1	63.9	53.9	19.6	19.8	L	
0.39621	19.7	19.5	13.3	33.0	32.8	57.9	47.9	24.9	15.1	L	
0.48321	20.1	11.9	13.3	33.4	25.2	56.3	46.3	22.9	21.1	L	
0.73464	19.1	17.8	13.3	32.4	31.1	56.0	46.0	23.6	14.9	L	
0.84860	17.9	14.1	13.3	31.2	27.4	56.0	46.0	24.8	18.6	L	
26.37099	18.2	13.9	14.7	32.9	28.6	60.0	50.0	27.1	21.4	L	

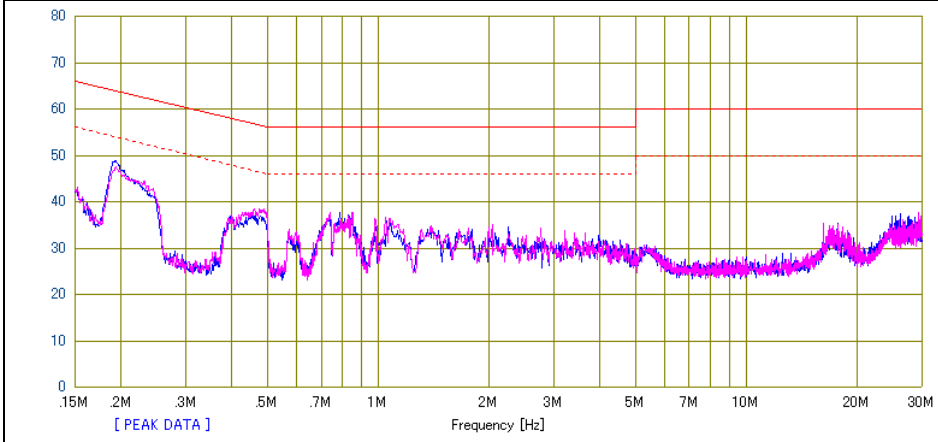
CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

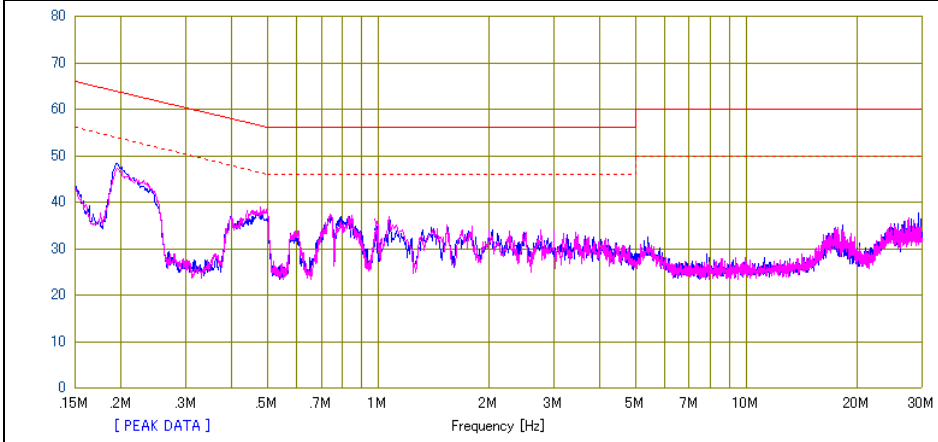
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber
Report No.	31HE0085-HO-01
Date	03/21/2011
Temperature/ Humidity	21 deg.C / 32% RH
Engineer	Tomotaka Sasagawa
Mode	11g Tx, Antenna 0

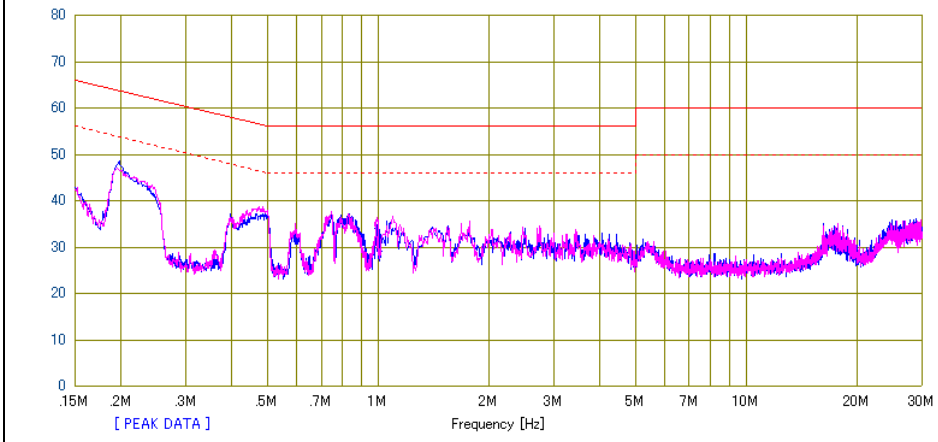
2412MHz



2437MHz



2462MHz



Y scale [dBuV] Chart — N — L

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Conducted Emission
(Power Supply: DELTA)

DATA OF CONDUCTED EMISSION TEST

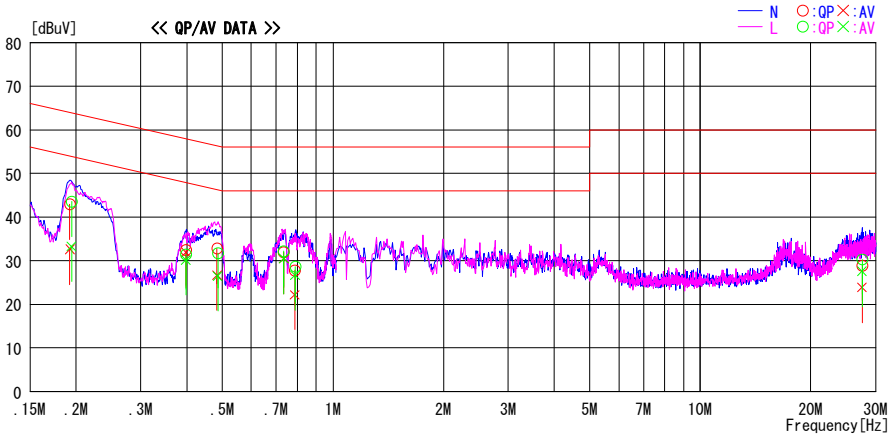
UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2011/03/21

Report No. : 31HE0085-HO-01

Temp./Humi. : 21deg.C / 32% RH
Engineer : Tomotaka Sasagawa

Mode / Remarks : WLAN 11g Tx, 2412MHz, 24Mbps, Antenna 1

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase	Comment
	QP	AV	Factor	QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.19263	29.8	19.5	13.1	42.9	32.6	63.9	53.9	21.0	21.3	N	
0.39795	19.2	18.6	13.3	32.5	31.9	57.9	47.9	25.4	16.0	N	
0.48408	19.5	13.4	13.3	32.8	26.7	56.3	46.3	23.5	19.6	N	
0.73464	18.6	17.2	13.3	31.9	30.5	56.0	46.0	24.1	15.5	N	
0.78770	14.5	8.9	13.3	27.8	22.2	56.0	46.0	28.2	23.8	N	
27.55394	14.2	9.2	14.7	28.9	23.9	60.0	50.0	31.1	26.1	N	
0.19437	30.5	20.2	13.1	43.6	33.3	63.8	53.8	20.2	20.5	L	
0.39795	18.2	16.9	13.3	31.5	30.2	57.9	47.9	26.4	17.7	L	
0.48582	18.5	13.2	13.3	31.8	26.5	56.2	46.2	24.4	19.7	L	
0.73464	18.9	17.2	13.3	32.2	30.5	56.0	46.0	23.8	15.5	L	
0.78944	15.4	13.4	13.3	28.7	26.7	56.0	46.0	27.3	19.3	L	
27.57399	15.6	12.9	14.7	30.3	27.6	60.0	50.0	29.7	22.4	L	

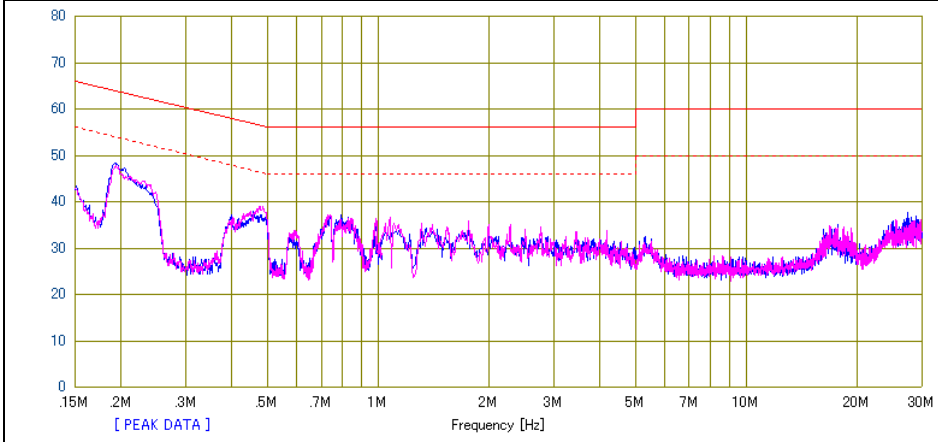
CHART:WITH FACTOR,Peak hold data. CALCULATION:RESULT[dBuV]=READING[dBuV]+C.F[dB](LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

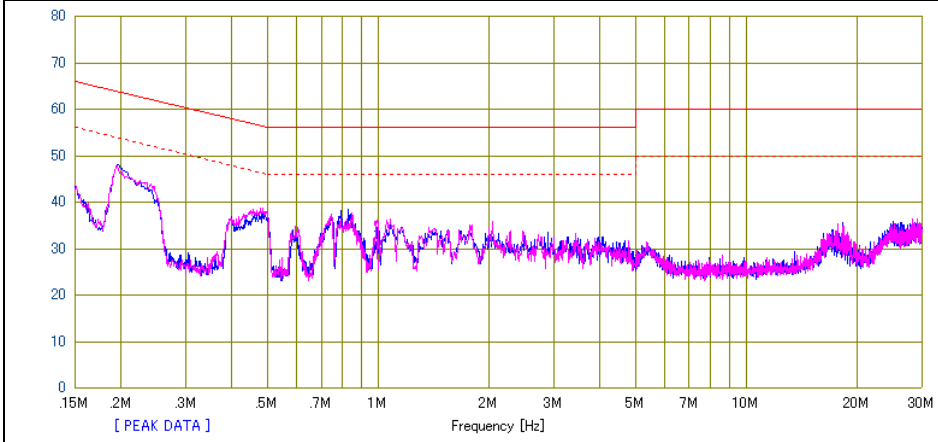
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.3 Semi Anechoic Chamber
Report No.	31HE0085-HO-01
Date	03/21/2011
Temperature/ Humidity	21 deg.C / 32% RH
Engineer	Tomotaka Sasagawa
Mode	11g Tx, Antenna 1

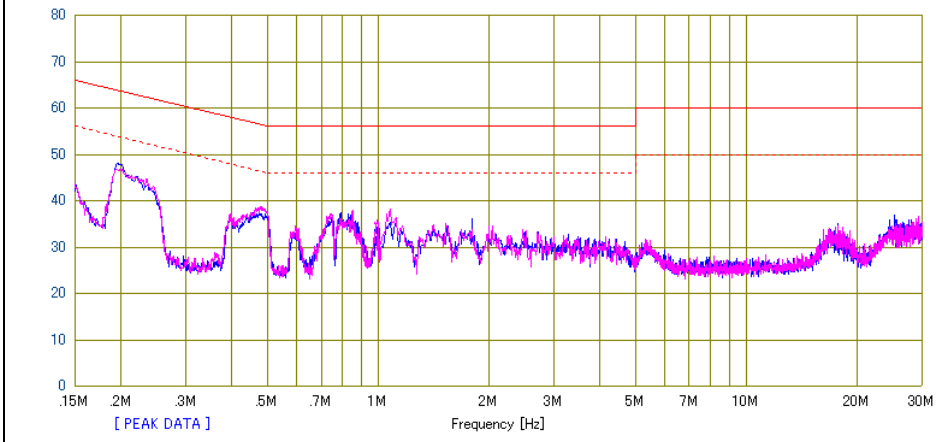
2412MHz



2437MHz



2462MHz



Y scale [dBuV] Chart — N — L

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6dB Bandwidth

Test place	Head Office EMC Lab. No.4 Measurement Room
Report No.	31HE0085-HO-01
Date	03/17/2011
Temperature/ Humidity	23 deg.C / 24% RH
Engineer	Satofumi Matsuyama
Mode	Tx

11b Antenna 0

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
2412	9.529	>500
2437	9.524	>500
2462	9.521	>500

11b Antenna 1

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
2412	9.528	>500
2437	9.529	>500
2462	9.528	>500

11g Antenna 0

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
2412	16.507	>500
2437	16.513	>500
2462	16.521	>500

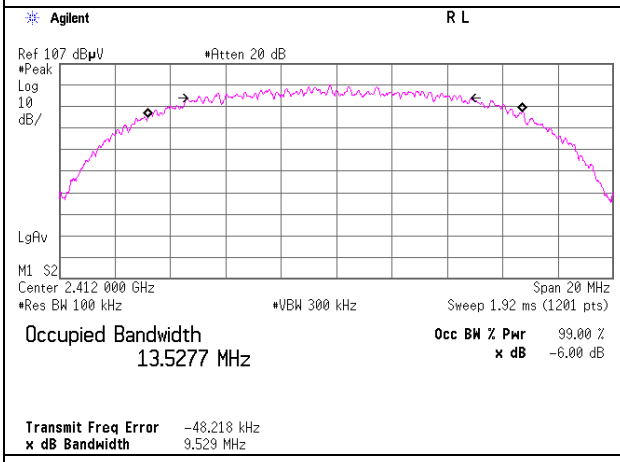
11g Antenna 1

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
2412	16.512	>500
2437	16.513	>500
2462	16.509	>500

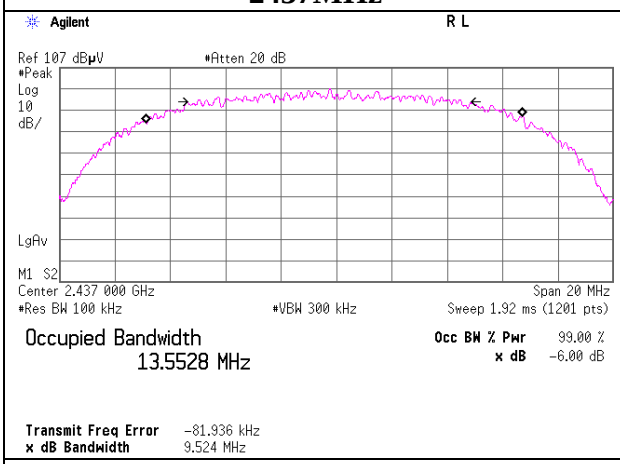
6dB Bandwidth

11b Antenna 0

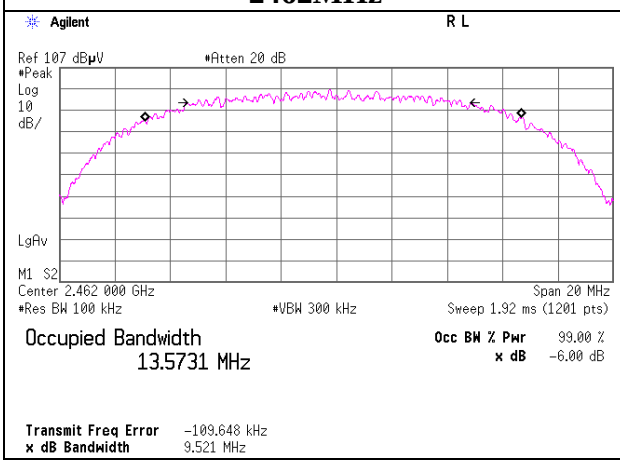
2412MHz



2437MHz

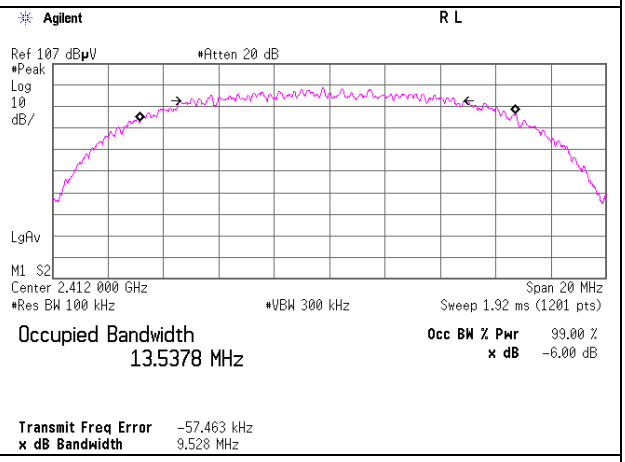


2462MHz

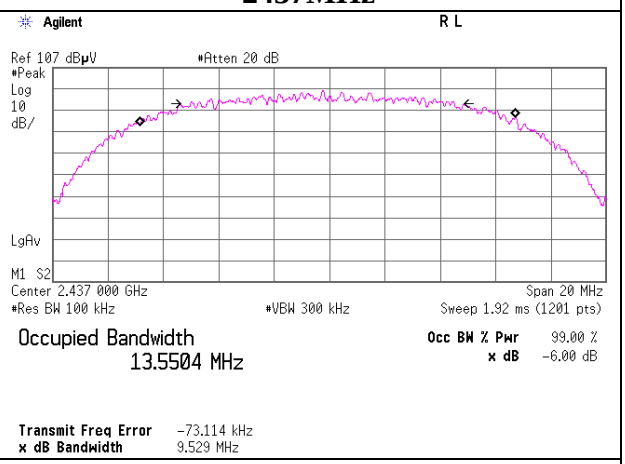


11b Antenna 1

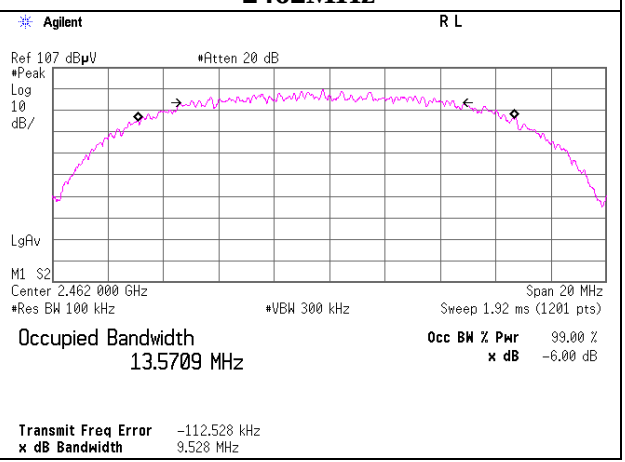
2412MHz



2437MHz



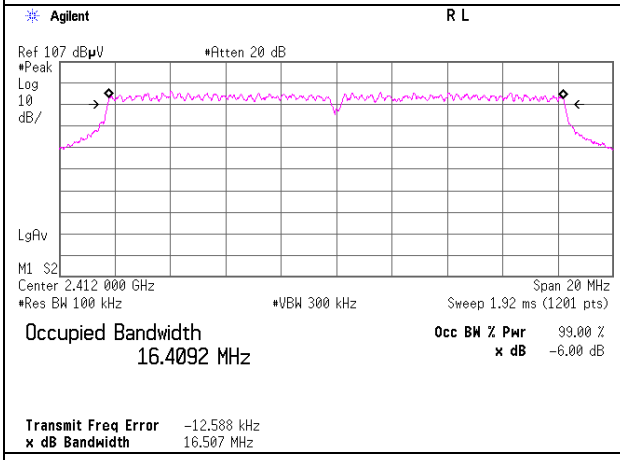
2462MHz



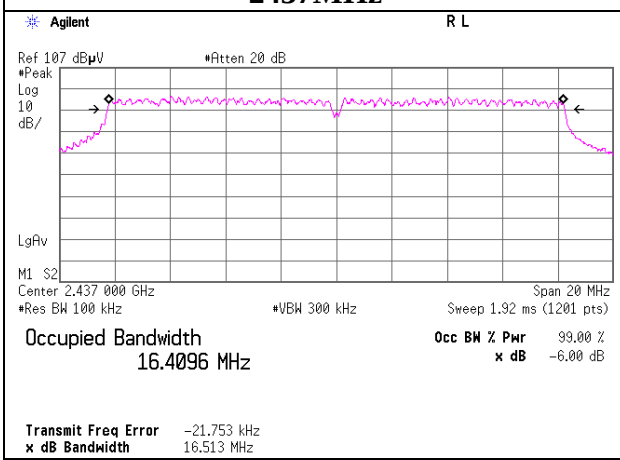
6dB Bandwidth

11g Antenna 0

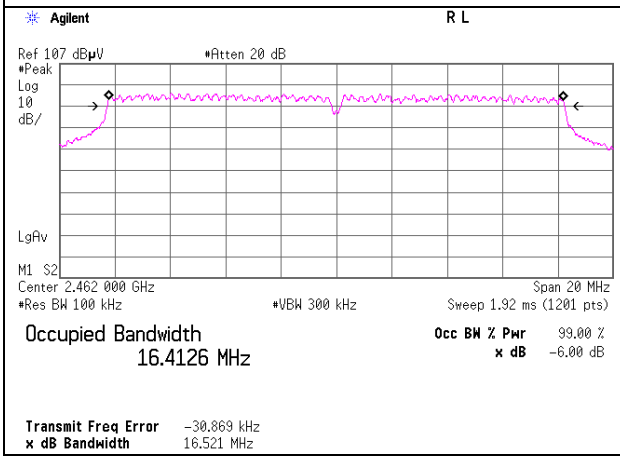
2412MHz



2437MHz

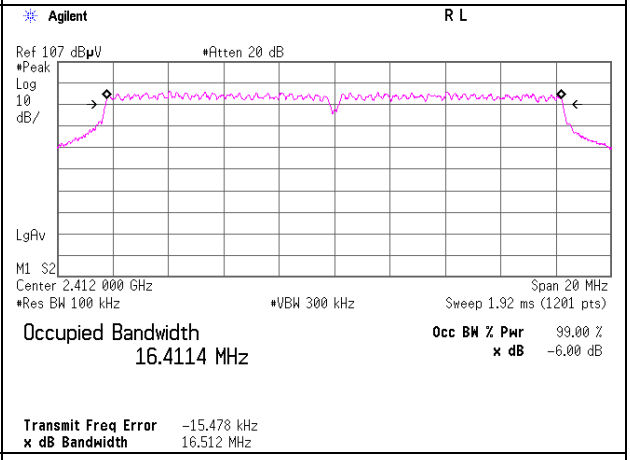


2462MHz

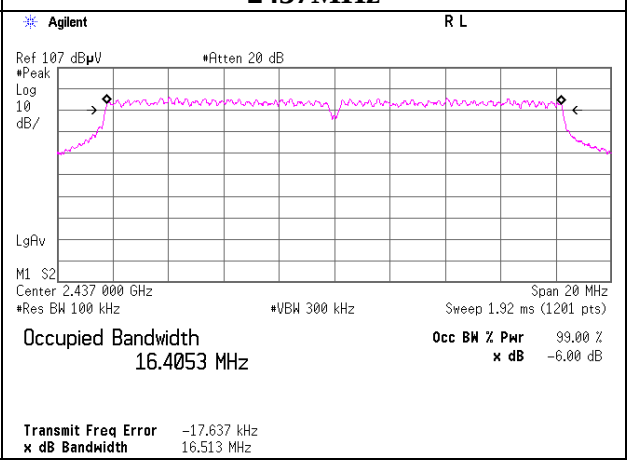


11g Antenna 1

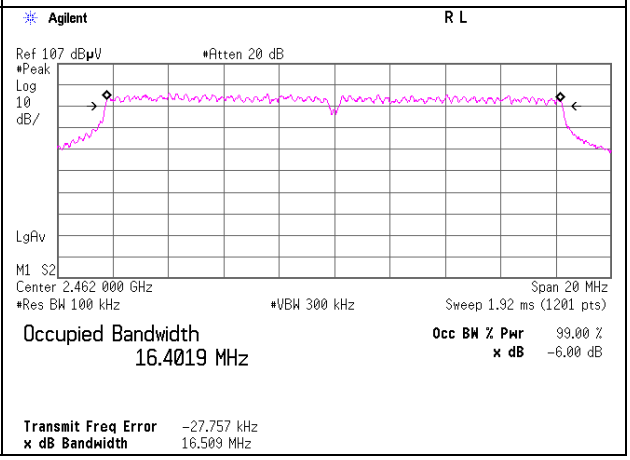
2412MHz



2437MHz



2462MHz



Maximum Peak Output Power

Test place	Head Office EMC Lab. No.4 Measurement Room
Report No.	31HE0085-HO-01
Date	03/11/2011
Temperature/ Humidity	24 deg.C / 26% RH
Engineer	Satofumi Matsuyama
Mode	11b Tx

Antenna 0

Freq.	Reading	Cable Loss	Atten.	Result		Limit		Margin
[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
2412	2.72	0.80	10.08	13.60	22.91	30.00	1000	16.40
2437	3.05	0.80	10.08	13.93	24.72	30.00	1000	16.07
2462	2.80	0.80	10.08	13.68	23.33	30.00	1000	16.32

Antenna 1

Freq.	Reading	Cable Loss	Atten.	Result		Limit		Margin
[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
2412	2.39	0.80	10.08	13.27	21.23	30.00	1000	16.73
2437	2.58	0.80	10.08	13.46	22.18	30.00	1000	16.54
2462	2.51	0.80	10.08	13.39	21.83	30.00	1000	16.61

Sample Calculation:
Result = Reading + Cable Loss (including the cable(s) customer supplied) + Attenuator

Antenna 0, 2437MHz

Rate	Reading	Remark
[Mbps]	[dBm]	
1	2.91	
2	3.04	
5.5	2.01	
11	3.05	*

Antenna 1, 2437MHz

Rate	Reading	Remark
[Mbps]	[dBm]	
1	2.46	
2	2.53	
5.5	1.47	
11	2.58	*

*: Worst Rate
All comparizon were carried out on same frequency and measurement factors.

Maximum Peak Output Power

Test place	Head Office EMC Lab. No.4 Measurement Room
Report No.	31HE0085-HO-01
Date	03/11/2011
Temperature/ Humidity	24 deg.C / 26% RH
Engineer	Satofumi Matsuyama
Mode	11g Tx

Antenna 0

Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Result [mW]	Limit [dBm]	Limit [mW]	Margin [dB]
2412	9.80	0.80	10.08	20.68	116.95	30.00	1000	9.32
2437	10.05	0.80	10.08	20.93	123.88	30.00	1000	9.07
2462	9.67	0.80	10.08	20.55	113.50	30.00	1000	9.45

Antenna 1

Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Result [mW]	Limit [dBm]	Limit [mW]	Margin [dB]
2412	9.37	0.80	10.08	20.25	105.93	30.00	1000	9.75
2437	9.75	0.80	10.08	20.63	115.61	30.00	1000	9.37
2462	9.81	0.80	10.08	20.69	117.22	30.00	1000	9.31

Sample Calculation:
Result = Reading + Cable Loss (including the cable(s) customer supplied) + Attenuator

Antenna 0, 2437MHz

Rate [Mbps]	Reading [dBm]	Remark
6	9.71	
9	9.49	
12	9.52	
18	8.89	
24	10.05	*
36	9.87	
48	9.53	
54	9.91	

Antenna 1, 2437MHz

Rate [Mbps]	Reading [dBm]	Remark
6	9.70	
9	9.51	
12	9.04	
18	8.43	
24	9.75	*
36	9.58	
48	9.14	
54	9.64	

*: Worst Rate
All comparison were carried out on same frequency and measurement factors.

Radiated Spurious Emission
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.3 and 4 Semi Anechoic Chamber		
Report No.	31HE0085-HO-01		
Date	03/13/2011	03/15/2011	03/17/2011
Temperature/ Humidity	23 deg.C / 32% RH	22 deg.C / 47% RH	20 deg.C / 24% RH
Engineer	Satofumi Matsuyama (1-10GHz)	Takumi Shimada (10-26.5GHz)	Takumi Shimada (30-1000MHz)
Mode	11b Tx 2412MHz Antenna 0		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	30.180	QP	26.3	17.9	7.0	32.1	19.1	40.0	20.9	
Hori	63.468	QP	42.5	7.8	7.5	32.0	25.8	40.0	14.2	
Hori	108.786	QP	39.7	11.6	8.1	32.0	27.4	43.5	16.1	
Hori	312.208	QP	40.1	16.0	9.7	31.9	33.9	46.0	12.1	
Hori	576.008	QP	38.2	19.8	11.3	32.1	37.2	46.0	8.8	
Hori	863.987	QP	29.4	23.7	12.7	31.5	34.3	46.0	11.7	
Hori	2390.000	PK	52.9	27.2	2.5	32.1	50.5	73.9	23.4	
Hori	2400.000	PK	59.3	27.2	2.5	32.1	56.9	73.9	17.0	
Hori	3189.172	PK	58.4	28.5	2.9	31.8	58.0	73.9	15.9	
Hori	4824.000	PK	42.7	30.9	5.2	31.4	47.4	73.9	26.5	
Hori	7236.000	PK	44.0	35.7	6.2	32.3	53.6	73.9	20.3	
Hori	9648.000	PK	44.7	37.8	7.0	33.0	56.5	73.9	17.4	
Hori	24120.000	PK	46.6	37.8	-1.4	31.6	51.4	73.9	22.5	
Hori	2390.000	AV	39.9	27.2	2.5	32.1	37.5	53.9	16.4	
Hori	2400.000	AV	46.1	27.2	2.5	32.1	43.7	53.9	10.2	
Hori	3189.172	AV	37.1	28.5	2.9	31.8	36.7	53.9	17.2	
Hori	4824.000	AV	30.4	30.9	5.2	31.4	35.1	53.9	18.8	
Hori	7236.000	AV	31.1	35.7	6.2	32.3	40.7	53.9	13.2	
Hori	9648.000	AV	31.9	37.8	7.0	33.0	43.7	53.9	10.2	
Hori	24120.000	AV	34.4	37.8	-1.4	31.6	39.2	53.9	14.7	
Vert	31.310	QP	34.7	17.5	7.0	32.1	27.1	40.0	12.9	
Vert	63.644	QP	41.0	7.8	7.5	32.0	24.3	40.0	15.7	
Vert	104.900	QP	49.0	11.0	8.0	32.0	36.0	43.5	7.5	
Vert	305.162	QP	42.9	15.8	9.7	31.9	36.5	46.0	9.5	
Vert	576.005	QP	34.7	19.8	11.3	32.1	33.7	46.0	12.3	
Vert	863.990	QP	26.2	23.7	12.7	31.5	31.1	46.0	14.9	
Vert	2390.000	PK	55.4	27.2	2.5	32.1	53.0	73.9	20.9	
Vert	2400.000	PK	58.8	27.2	2.5	32.1	56.4	73.9	17.5	
Vert	3187.884	PK	58.7	28.5	2.9	31.8	58.3	73.9	15.6	
Vert	4824.000	PK	43.4	30.9	5.2	31.4	48.1	73.9	25.8	
Vert	7236.000	PK	44.1	35.7	6.2	32.3	53.7	73.9	20.2	
Vert	9648.000	PK	44.8	37.8	7.0	33.0	56.6	73.9	17.3	
Vert	24120.000	PK	46.7	37.8	-1.4	31.6	51.5	73.9	22.4	
Vert	2390.000	AV	39.8	27.2	2.5	32.1	37.4	53.9	16.5	
Vert	2400.000	AV	45.4	27.2	2.5	32.1	43.0	53.9	10.9	
Vert	3187.884	AV	37.1	28.5	2.9	31.8	36.7	53.9	17.2	
Vert	4824.000	AV	30.4	30.9	5.2	31.4	35.1	53.9	18.8	
Vert	7236.000	AV	31.1	35.7	6.2	32.3	40.7	53.9	13.2	
Vert	9648.000	AV	31.9	37.8	7.0	33.0	43.7	53.9	10.2	
Vert	24120.000	AV	34.3	37.8	-1.4	31.6	39.1	53.9	14.8	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.3 and 4 Semi Anechoic Chamber		
Report No.	31HE0085-HO-01		
Date	03/13/2011	03/15/2011	03/17/2011
Temperature/ Humidity	23 deg.C / 32% RH	22 deg.C / 47% RH	20 deg.C / 24% RH
Engineer	Satofumi Matsuyama (1-10GHz)	Takumi Shimada (10-26.5GHz)	Takumi Shimada (30-1000MHz)
Mode	11b Tx 2437MHz Antenna 0		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	30.190	QP	26.5	17.9	7.0	32.1	19.3	40.0	20.7	
Hori	63.462	QP	42.1	7.8	7.5	32.0	25.4	40.0	14.6	
Hori	108.712	QP	39.5	11.5	8.0	32.0	27.0	43.5	16.5	
Hori	309.878	QP	39.8	15.9	9.7	31.9	33.5	46.0	12.5	
Hori	576.003	QP	38.4	19.8	11.3	32.1	37.4	46.0	8.6	
Hori	863.991	QP	29.5	23.7	12.7	31.5	34.4	46.0	11.6	
Hori	3189.186	PK	59.2	28.5	2.9	31.8	58.8	73.9	15.1	
Hori	4874.000	PK	43.3	31.0	5.1	31.4	48.0	73.9	25.9	
Hori	7311.000	PK	44.2	35.9	6.3	32.4	54.0	73.9	19.9	
Hori	9748.000	PK	44.0	38.0	7.2	33.0	56.2	73.9	17.7	
Hori	24370.000	PK	45.6	37.9	-1.3	31.4	50.8	73.9	23.1	
Hori	3189.186	AV	37.5	28.5	2.9	31.8	37.1	53.9	16.8	
Hori	4874.000	AV	30.3	31.0	5.1	31.4	35.0	53.9	18.9	
Hori	7311.000	AV	31.1	35.9	6.3	32.4	40.9	53.9	13.0	
Hori	9748.000	AV	31.1	38.0	7.2	33.0	43.3	53.9	10.6	
Hori	24370.000	AV	33.5	37.9	-1.3	31.4	38.7	53.9	15.2	
Vert	31.314	QP	34.1	17.5	7.0	32.1	26.5	40.0	13.5	
Vert	63.648	QP	41.4	7.8	7.5	32.0	24.7	40.0	15.3	
Vert	104.924	QP	49.2	11.0	8.0	32.0	36.2	43.5	7.3	
Vert	308.708	QP	43.1	15.9	9.7	31.9	36.8	46.0	9.2	
Vert	576.007	QP	34.2	19.8	11.3	32.1	33.2	46.0	12.8	
Vert	863.988	QP	26.2	23.7	12.7	31.5	31.1	46.0	14.9	
Vert	3186.811	PK	59.9	28.5	2.9	31.8	59.5	73.9	14.4	
Vert	4874.000	PK	43.3	31.0	5.1	31.4	48.0	73.9	25.9	
Vert	7311.000	PK	44.2	35.9	6.3	32.4	54.0	73.9	19.9	
Vert	9748.000	PK	45.0	38.0	7.2	33.0	57.2	73.9	16.7	
Vert	24370.000	PK	45.5	37.9	-1.3	31.4	50.7	73.9	23.2	
Vert	3186.811	AV	37.8	28.5	2.9	31.8	37.4	53.9	16.5	
Vert	4874.000	AV	30.3	31.0	5.1	31.4	35.0	53.9	18.9	
Vert	7311.000	AV	31.1	35.9	6.3	32.4	40.9	53.9	13.0	
Vert	9748.000	AV	31.1	38.0	7.2	33.0	43.3	53.9	10.6	
Vert	24370.000	AV	33.3	37.9	-1.3	31.4	38.5	53.9	15.4	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

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Radiated Spurious Emission
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.3 and 4 Semi Anechoic Chamber		
Report No.	31HE0085-HO-01		
Date	03/13/2011	03/15/2011	03/17/2011
Temperature/ Humidity	23 deg.C / 32% RH	22 deg.C / 47% RH	20 deg.C / 24% RH
Engineer	Satofumi Matsuyama (1-10GHz)	Takumi Shimada (10-26.5GHz)	Takumi Shimada (30-1000MHz)
Mode	11b Tx 2462MHz Antenna 0		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	30.130	QP	26.2	17.9	7.0	32.1	19.0	40.0	21.0	
Hori	63.473	QP	42.3	7.8	7.5	32.0	25.6	40.0	14.4	
Hori	108.683	QP	39.3	11.5	8.0	32.0	26.8	43.5	16.7	
Hori	309.452	QP	39.9	15.9	9.7	31.9	33.6	46.0	12.4	
Hori	576.001	QP	38.2	19.8	11.3	32.1	37.2	46.0	8.8	
Hori	863.987	QP	29.2	23.7	12.7	31.5	34.1	46.0	11.9	
Hori	2483.500	PK	48.8	27.2	2.6	32.1	46.5	73.9	27.4	
Hori	3189.805	PK	58.6	28.5	2.9	31.8	58.2	73.9	15.7	
Hori	4924.000	PK	43.2	31.2	5.1	31.4	48.1	73.9	25.8	
Hori	7386.000	PK	44.7	36.0	6.3	32.4	54.6	73.9	19.3	
Hori	9848.000	PK	44.4	38.1	7.2	33.0	56.7	73.9	17.2	
Hori	24620.000	PK	47.3	38.0	-1.2	31.3	52.8	73.9	21.1	
Hori	2483.500	AV	36.1	27.2	2.6	32.1	33.8	53.9	20.1	
Hori	3189.805	AV	37.3	28.5	2.9	31.8	36.9	53.9	17.0	
Hori	4924.000	AV	30.3	31.2	5.1	31.4	35.2	53.9	18.7	
Hori	7386.000	AV	31.3	36.0	6.3	32.4	41.2	53.9	12.7	
Hori	9848.000	AV	31.4	38.1	7.2	33.0	43.7	53.9	10.2	
Hori	24620.000	AV	34.5	38.0	-1.2	31.3	40.0	53.9	13.9	
Vert	31.320	QP	34.7	17.5	7.0	32.1	27.1	40.0	12.9	
Vert	63.563	QP	41.3	7.8	7.5	32.0	24.6	40.0	15.4	
Vert	105.040	QP	48.9	11.0	8.0	32.0	35.9	43.5	7.6	
Vert	304.560	QP	43.4	15.8	9.7	31.9	37.0	46.0	9.0	
Vert	576.006	QP	34.5	19.8	11.3	32.1	33.5	46.0	12.5	
Vert	863.992	QP	26.4	23.7	12.7	31.5	31.3	46.0	14.7	
Vert	2483.500	PK	49.4	27.2	2.6	32.1	47.1	73.9	26.8	
Vert	3187.423	PK	59.3	28.5	2.9	31.8	58.9	73.9	15.0	
Vert	4924.000	PK	43.8	31.2	5.1	31.4	48.7	73.9	25.2	
Vert	7386.000	PK	44.5	36.0	6.3	32.4	54.4	73.9	19.5	
Vert	9848.000	PK	44.1	38.1	7.2	33.0	56.4	73.9	17.5	
Vert	24620.000	PK	47.4	38.0	-1.2	31.3	52.9	73.9	21.0	
Vert	2483.500	AV	35.4	27.2	2.6	32.1	33.1	53.9	20.8	
Vert	3187.423	AV	37.3	28.5	2.9	31.8	36.9	53.9	17.0	
Vert	4924.000	AV	30.3	31.2	5.1	31.4	35.2	53.9	18.7	
Vert	7386.000	AV	31.3	36.0	6.3	32.4	41.2	53.9	12.7	
Vert	9848.000	AV	31.4	38.1	7.2	33.0	43.7	53.9	10.2	
Vert	24620.000	AV	34.4	38.0	-1.2	31.3	39.9	53.9	14.0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.3 and 4 Semi Anechoic Chamber		
Report No.	31HE0085-HO-01		
Date	03/13/2011	03/15/2011	03/17/2011
Temperature/ Humidity	23 deg.C / 32% RH	22 deg.C / 47% RH	20 deg.C / 24% RH
Engineer	Satofumi Matsuyama (1-10GHz)	Takumi Shimada (10-26.5GHz)	Takumi Shimada (30-1000MHz)
Mode	11g Tx 2412MHz Antenna 0		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	30.150	QP	26.3	17.9	7.0	32.1	19.1	40.0	20.9	
Hori	63.483	QP	42.1	7.8	7.5	32.0	25.4	40.0	14.6	
Hori	108.662	QP	40.0	11.5	8.0	32.0	27.5	43.5	16.0	
Hori	311.038	QP	39.9	16.0	9.7	31.9	33.7	46.0	12.3	
Hori	576.003	QP	38.6	19.8	11.3	32.1	37.6	46.0	8.4	
Hori	863.991	QP	29.1	23.7	12.7	31.5	34.0	46.0	12.0	
Hori	2390.000	PK	61.1	27.2	2.5	32.1	58.7	73.9	15.2	
Hori	2400.000	PK	83.5	27.2	2.5	32.1	81.1	-	-	See 20dBc Data Sheet
Hori	3189.172	PK	59.1	28.5	2.9	31.8	58.7	73.9	15.2	
Hori	4824.000	PK	43.2	30.9	5.2	31.4	47.9	73.9	26.0	
Hori	7236.000	PK	43.8	35.7	6.2	32.3	53.4	73.9	20.5	
Hori	9648.000	PK	44.3	37.8	7.0	33.0	56.1	73.9	17.8	
Hori	24120.000	PK	46.5	37.8	-1.4	31.6	51.3	73.9	22.6	
Hori	2390.000	AV	44.2	27.2	2.5	32.1	41.8	53.9	12.1	
Hori	2400.000	AV	56.9	27.2	2.5	32.1	54.5	-	-	See 20dBc Data Sheet
Hori	3189.172	AV	37.4	28.5	2.9	31.8	37.0	53.9	16.9	
Hori	4824.000	AV	30.5	30.9	5.2	31.4	35.2	53.9	18.7	
Hori	7236.000	AV	31.1	35.7	6.2	32.3	40.7	53.9	13.2	
Hori	9648.000	AV	31.5	37.8	7.0	33.0	43.3	53.9	10.6	
Hori	24120.000	AV	34.0	37.8	-1.4	31.6	38.8	53.9	15.1	
Vert	31.340	QP	34.6	17.5	7.0	32.1	27.0	40.0	13.0	
Vert	63.529	QP	41.1	7.8	7.5	32.0	24.4	40.0	15.6	
Vert	105.120	QP	49.2	11.1	8.0	32.0	36.3	43.5	7.2	
Vert	306.378	QP	43.1	15.9	9.7	31.9	36.8	46.0	9.2	
Vert	576.002	QP	34.2	19.8	11.3	32.1	33.2	46.0	12.8	
Vert	863.987	QP	25.9	23.7	12.7	31.5	30.8	46.0	15.2	
Vert	2390.000	PK	61.6	27.2	2.5	32.1	59.2	73.9	14.7	
Vert	2400.000	PK	82.2	27.2	2.5	32.1	79.8	-	-	See 20dBc Data Sheet
Vert	3187.499	PK	60.2	28.5	2.9	31.8	59.8	73.9	14.1	
Vert	4824.000	PK	44.1	30.9	5.2	31.4	48.8	73.9	25.1	
Vert	7236.000	PK	44.7	35.7	6.2	32.3	54.3	73.9	19.6	
Vert	9648.000	PK	44.6	37.8	7.0	33.0	56.4	73.9	17.5	
Vert	24120.000	PK	46.5	37.8	-1.4	31.6	51.3	73.9	22.6	
Vert	2390.000	AV	44.1	27.2	2.5	32.1	41.7	53.9	12.2	
Vert	2400.000	AV	55.7	27.2	2.5	32.1	53.3	-	-	See 20dBc Data Sheet
Vert	3187.499	AV	37.7	28.5	2.9	31.8	37.3	53.9	16.6	
Vert	4824.000	AV	30.5	30.9	5.2	31.4	35.2	53.9	18.7	
Vert	7236.000	AV	31.1	35.7	6.2	32.3	40.7	53.9	13.2	
Vert	9648.000	AV	31.5	37.8	7.0	33.0	43.3	53.9	10.6	
Vert	24120.000	AV	34.1	37.8	-1.4	31.6	38.9	53.9	15.0	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).
*The 10th harmonic was not seen so the result was its base noise level.
Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

20dBc Data Sheet

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	2412.000	PK	96.4	27.2	2.5	32.1	94.0	-	-	Carrier
Hori	2400.000	PK	65.0	27.2	2.5	32.1	62.6	74.0	11.4	
Vert	2412.000	PK	95.9	27.2	2.5	32.1	93.5	-	-	Carrier
Vert	2400.000	PK	63.7	27.2	2.5	32.1	61.3	73.5	12.2	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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Radiated Spurious Emission
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.3 and 4 Semi Anechoic Chamber		
Report No.	31HE0085-HO-01		
Date	03/14/2011	03/15/2011	03/17/2011
Temperature/ Humidity	20 deg.C / 49% RH	22 deg.C / 47% RH	20 deg.C / 24% RH
Engineer	Yutaka Yoshida (1-10GHz)	Takumi Shimada (10-26.5GHz)	Takumi Shimada (30-1000MHz)
Mode	11g Tx 2437MHz Antenna 0		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	30.160	QP	26.5	17.9	7.0	32.1	19.3	40.0	20.7	
Hori	63.463	QP	42.8	7.8	7.5	32.0	26.1	40.0	13.9	
Hori	108.789	QP	39.5	11.6	8.1	32.0	27.2	43.5	16.3	
Hori	312.425	QP	40.0	16.0	9.7	31.9	33.8	46.0	12.2	
Hori	576.004	QP	38.9	19.8	11.3	32.1	37.9	46.0	8.1	
Hori	863.987	QP	29.3	23.7	12.7	31.5	34.2	46.0	11.8	
Hori	3186.900	PK	58.0	29.4	2.8	32.2	58.0	73.9	15.9	
Hori	4874.000	PK	40.5	31.8	5.0	31.9	45.4	73.9	28.5	
Hori	7311.000	PK	42.0	36.2	6.1	32.4	51.9	73.9	22.0	
Hori	9748.000	PK	40.9	38.1	6.8	32.9	52.9	73.9	21.0	
Hori	24370.000	PK	45.5	37.9	-1.3	31.4	50.7	73.9	23.2	
Hori	3186.900	AV	40.9	29.4	2.8	32.2	40.9	53.9	13.0	
Hori	4874.000	AV	27.5	31.8	5.0	31.9	32.4	53.9	21.5	
Hori	7311.000	AV	28.9	36.2	6.1	32.4	38.8	53.9	15.1	
Hori	9748.000	AV	28.4	38.1	6.8	32.9	40.4	53.9	13.5	
Hori	24370.000	AV	33.4	37.9	-1.3	31.4	38.6	53.9	15.3	
Vert	31.360	QP	34.6	17.5	7.0	32.1	27.0	40.0	13.0	
Vert	63.492	QP	41.2	7.8	7.5	32.0	24.5	40.0	15.5	
Vert	105.068	QP	48.9	11.1	8.0	32.0	36.0	43.5	7.5	
Vert	303.542	QP	43.5	15.8	9.7	31.9	37.1	46.0	8.9	
Vert	576.006	QP	34.5	19.8	11.3	32.1	33.5	46.0	12.5	
Vert	863.982	QP	26.0	23.7	12.7	31.5	30.9	46.0	15.1	
Vert	3186.900	PK	59.8	29.4	2.8	32.2	59.8	73.9	14.1	
Vert	4874.000	PK	40.1	31.8	5.0	31.9	45.0	73.9	28.9	
Vert	7311.000	PK	41.3	36.2	6.1	32.4	51.2	73.9	22.7	
Vert	9748.000	PK	41.1	38.1	6.8	32.9	53.1	73.9	20.8	
Vert	24370.000	PK	45.5	37.9	-1.3	31.4	50.7	73.9	23.2	
Vert	3186.900	AV	43.1	29.4	2.8	32.2	43.1	53.9	10.8	
Vert	4874.000	AV	27.5	31.8	5.0	31.9	32.4	53.9	21.5	
Vert	7311.000	AV	28.9	36.2	6.1	32.4	38.8	53.9	15.1	
Vert	9748.000	AV	28.4	38.1	6.8	32.9	40.4	53.9	13.5	
Vert	24370.000	AV	33.3	37.9	-1.3	31.4	38.5	53.9	15.4	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

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Radiated Spurious Emission
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.3 and 4 Semi Anechoic Chamber		
Report No.	31HE0085-HO-01		
Date	03/14/2011	03/15/2011	03/17/2011
Temperature/ Humidity	20 deg.C / 49% RH	22 deg.C / 47% RH	20 deg.C / 24% RH
Engineer	Yutaka Yoshida (1-10GHz)	Takumi Shimada (10-26.5GHz)	Takumi Shimada (30-1000MHz)
Mode	11g Tx 2462MHz Antenna 0		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	30.150	QP	26.5	17.9	7.0	32.1	19.3	40.0	20.7	
Hori	63.468	QP	42.8	7.8	7.5	32.0	26.1	40.0	13.9	
Hori	108.672	QP	39.5	11.5	8.0	32.0	27.0	43.5	16.5	
Hori	312.218	QP	40.3	16.0	9.7	31.9	34.1	46.0	11.9	
Hori	576.001	QP	38.7	19.8	11.3	32.1	37.7	46.0	8.3	
Hori	863.963	QP	29.4	23.7	12.7	31.5	34.3	46.0	11.7	
Hori	2483.500	PK	59.4	27.6	2.4	32.6	56.8	73.9	17.1	
Hori	3191.190	PK	57.2	29.4	2.8	32.2	57.2	73.9	16.7	
Hori	4924.000	PK	40.2	32.0	4.9	31.9	45.2	73.9	28.7	
Hori	7386.000	PK	42.5	36.2	6.1	32.4	52.4	73.9	21.5	
Hori	9848.000	PK	41.7	38.1	6.8	32.9	53.7	73.9	20.2	
Hori	24620.000	PK	47.2	38.0	-1.2	31.3	52.7	73.9	21.2	
Hori	2483.500	AV	42.4	27.6	2.4	32.6	39.8	53.9	14.1	
Hori	3191.190	AV	40.0	29.4	2.8	32.2	40.0	53.9	13.9	
Hori	4924.000	AV	29.7	32.0	4.9	31.9	34.7	53.9	19.2	
Hori	7386.000	AV	30.1	36.2	6.1	32.4	40.0	53.9	13.9	
Hori	9848.000	AV	30.3	38.1	6.8	32.9	42.3	53.9	11.6	
Hori	24620.000	AV	34.5	38.0	-1.2	31.3	40.0	53.9	13.9	
Vert	31.340	QP	34.6	17.5	7.0	32.1	27.0	40.0	13.0	
Vert	63.481	QP	41.2	7.8	7.5	32.0	24.5	40.0	15.5	
Vert	105.051	QP	48.9	11.0	8.0	32.0	35.9	43.5	7.6	
Vert	305.204	QP	43.2	15.8	9.7	31.9	36.8	46.0	9.2	
Vert	576.002	QP	34.2	19.8	11.3	32.1	33.2	46.0	12.8	
Vert	863.991	QP	25.8	23.7	12.7	31.5	30.7	46.0	15.3	
Vert	2483.500	PK	57.7	27.6	2.4	32.6	55.1	73.9	18.8	
Vert	3191.190	PK	56.2	29.4	2.8	32.2	56.2	73.9	17.7	
Vert	4924.000	PK	40.4	32.0	4.9	31.9	45.4	73.9	28.5	
Vert	7386.000	PK	41.6	36.2	6.1	32.4	51.5	73.9	22.4	
Vert	9848.000	PK	42.0	38.1	6.8	32.9	54.0	73.9	19.9	
Vert	24620.000	PK	47.3	38.0	-1.2	31.3	52.8	73.9	21.1	
Vert	2483.500	AV	42.0	27.6	2.4	32.6	39.4	53.9	14.5	
Vert	3191.190	AV	40.2	29.4	2.8	32.2	40.2	53.9	13.7	
Vert	4924.000	AV	29.7	32.0	4.9	31.9	34.7	53.9	19.2	
Vert	7386.000	AV	30.1	36.2	6.1	32.4	40.0	53.9	13.9	
Vert	9848.000	AV	30.3	38.1	6.8	32.9	42.3	53.9	11.6	
Vert	24620.000	AV	34.5	38.0	-1.2	31.3	40.0	53.9	13.9	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.3 and 4 Semi Anechoic Chamber		
Report No.	31HE0085-HO-01		
Date	03/13/2011	03/15/2011	03/17/2011
Temperature/ Humidity	23 deg.C / 32% RH	22 deg.C / 47% RH	20 deg.C / 24% RH
Engineer	Satofumi Matsuyama (1-10GHz)	Takumi Shimada (10-26.5GHz)	Takumi Shimada (30-1000MHz)
Mode	11b Tx 2412MHz Antenna 1		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	30.099	QP	27.0	17.9	7.0	32.1	19.8	40.0	20.2	
Hori	63.380	QP	42.3	7.8	7.5	32.0	25.6	40.0	14.4	
Hori	108.788	QP	39.7	11.6	8.1	32.0	27.4	43.5	16.1	
Hori	309.910	QP	40.7	15.9	9.7	31.9	34.4	46.0	11.6	
Hori	576.003	QP	35.7	19.8	11.3	32.1	34.7	46.0	11.3	
Hori	863.993	QP	28.7	23.7	12.7	31.5	33.6	46.0	12.4	
Hori	2390.000	PK	56.2	27.2	2.5	32.1	53.8	73.9	20.1	
Hori	2400.000	PK	60.9	27.2	2.5	32.1	58.5	73.9	15.4	
Hori	3188.584	PK	59.3	28.5	2.9	31.8	58.9	73.9	15.0	
Hori	4824.000	PK	43.6	30.9	5.2	31.4	48.3	73.9	25.6	
Hori	7236.000	PK	45.2	35.7	6.2	32.3	54.8	73.9	19.1	
Hori	9648.000	PK	44.1	37.8	7.0	33.0	55.9	73.9	18.0	
Hori	24120.000	PK	46.5	37.8	-1.4	31.6	51.3	73.9	22.6	
Hori	2390.000	AV	42.3	27.2	2.5	32.1	39.9	53.9	14.0	
Hori	2400.000	AV	47.7	27.2	2.5	32.1	45.3	53.9	8.6	
Hori	3188.584	AV	37.8	28.5	2.9	31.8	37.4	53.9	16.5	
Hori	4824.000	AV	31.2	30.9	5.2	31.4	35.9	53.9	18.0	
Hori	7236.000	AV	31.2	35.7	6.2	32.3	40.8	53.9	13.1	
Hori	9648.000	AV	31.7	37.8	7.0	33.0	43.5	53.9	10.4	
Hori	24120.000	AV	34.2	37.8	-1.4	31.6	39.0	53.9	14.9	
Vert	31.790	QP	36.0	17.4	7.0	32.1	28.3	40.0	11.7	
Vert	63.380	QP	38.6	7.8	7.5	32.0	21.9	40.0	18.1	
Vert	105.170	QP	48.8	11.1	8.0	32.0	35.9	43.5	7.7	
Vert	307.546	QP	42.4	15.9	9.7	31.9	36.1	46.0	9.9	
Vert	576.009	QP	35.8	19.8	11.3	32.1	34.8	46.0	11.2	
Vert	863.996	QP	26.2	23.7	12.7	31.5	31.1	46.0	14.9	
Vert	2390.000	PK	56.1	27.2	2.5	32.1	53.7	73.9	20.2	
Vert	2400.000	PK	61.6	27.2	2.5	32.1	59.2	73.9	14.7	
Vert	3192.955	PK	56.1	28.5	2.9	31.8	55.7	73.9	18.2	
Vert	4824.000	PK	43.9	30.9	5.2	31.4	48.6	73.9	25.3	
Vert	7236.000	PK	43.6	35.7	6.2	32.3	53.2	73.9	20.7	
Vert	9648.000	PK	44.4	37.8	7.0	33.0	56.2	73.9	17.7	
Vert	24120.000	PK	46.7	37.8	-1.4	31.6	51.5	73.9	22.4	
Vert	2390.000	AV	42.8	27.2	2.5	32.1	40.4	53.9	13.5	
Vert	2400.000	AV	49.0	27.2	2.5	32.1	46.6	53.9	7.3	
Vert	3192.955	AV	36.1	28.5	2.9	31.8	35.7	53.9	18.2	
Vert	4824.000	AV	31.2	30.9	5.2	31.4	35.9	53.9	18.0	
Vert	7236.000	AV	31.2	35.7	6.2	32.3	40.8	53.9	13.1	
Vert	9648.000	AV	31.7	37.8	7.0	33.0	43.5	53.9	10.4	
Vert	24120.000	AV	34.4	37.8	-1.4	31.6	39.2	53.9	14.7	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.3 and 4 Semi Anechoic Chamber		
Report No.	31HE0085-HO-01		
Date	03/13/2011	03/15/2011	03/17/2011
Temperature/ Humidity	23 deg.C / 32% RH	22 deg.C / 47% RH	20 deg.C / 24% RH
Engineer	Satofumi Matsuyama (1-10GHz)	Takumi Shimada (10-26.5GHz)	Takumi Shimada (30-1000MHz)
Mode	11b Tx 2437MHz Antenna 1		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	30.130	QP	26.9	17.9	7.0	32.1	19.7	40.0	20.3	
Hori	63.374	QP	42.2	7.8	7.5	32.0	25.5	40.0	14.5	
Hori	108.674	QP	39.9	11.5	8.0	32.0	27.4	43.5	16.1	
Hori	307.435	QP	40.4	15.9	9.7	31.9	34.1	46.0	11.9	
Hori	576.001	QP	36.3	19.8	11.3	32.1	35.3	46.0	10.7	
Hori	863.988	QP	28.9	23.7	12.7	31.5	33.8	46.0	12.2	
Hori	3191.671	PK	58.9	28.5	2.9	31.8	58.5	73.9	15.4	
Hori	4874.000	PK	43.5	31.0	5.1	31.4	48.2	73.9	25.7	
Hori	7311.000	PK	44.4	35.9	6.3	32.4	54.2	73.9	19.7	
Hori	9748.000	PK	44.2	38.0	7.2	33.0	56.4	73.9	17.5	
Hori	24370.000	PK	45.6	37.9	-1.3	31.4	50.8	73.9	23.1	
Hori	3191.671	AV	37.2	28.5	2.9	31.8	36.8	53.9	17.1	
Hori	4874.000	AV	30.8	31.0	5.1	31.4	35.5	53.9	18.4	
Hori	7311.000	AV	31.2	35.9	6.3	32.4	41.0	53.9	12.9	
Hori	9748.000	AV	31.5	38.0	7.2	33.0	43.7	53.9	10.2	
Hori	24370.000	AV	33.4	37.9	-1.3	31.4	38.6	53.9	15.3	
Vert	31.540	QP	36.1	17.5	7.0	32.1	28.5	40.0	11.5	
Vert	63.392	QP	38.7	7.8	7.5	32.0	22.0	40.0	18.0	
Vert	105.134	QP	48.5	11.1	8.0	32.0	35.6	43.5	7.9	
Vert	304.546	QP	42.3	15.8	9.7	31.9	35.9	46.0	10.1	
Vert	576.005	QP	35.2	19.8	11.3	32.1	34.2	46.0	11.8	
Vert	863.993	QP	25.5	23.7	12.7	31.5	30.4	46.0	15.6	
Vert	3191.665	PK	55.5	28.5	2.9	31.8	55.1	73.9	18.8	
Vert	4874.000	PK	43.3	31.0	5.1	31.4	48.0	73.9	25.9	
Vert	7311.000	PK	43.9	35.9	6.3	32.4	53.7	73.9	20.2	
Vert	9748.000	PK	44.9	38.0	7.2	33.0	57.1	73.9	16.8	
Vert	24370.000	PK	45.3	37.9	-1.3	31.4	50.5	73.9	23.4	
Vert	3191.665	AV	35.8	28.5	2.9	31.8	35.4	53.9	18.5	
Vert	4874.000	AV	30.8	31.0	5.1	31.4	35.5	53.9	18.4	
Vert	7311.000	AV	31.2	35.9	6.3	32.4	41.0	53.9	12.9	
Vert	9748.000	AV	31.5	38.0	7.2	33.0	43.7	53.9	10.2	
Vert	24370.000	AV	33.4	37.9	-1.3	31.4	38.6	53.9	15.3	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.3 and 4 Semi Anechoic Chamber		
Report No.	31HE0085-HO-01		
Date	03/13/2011	03/15/2011	03/17/2011
Temperature/ Humidity	23 deg.C / 32% RH	22 deg.C / 47% RH	20 deg.C / 24% RH
Engineer	Satofumi Matsuyama (1-10GHz)	Takumi Shimada (10-26.5GHz)	Takumi Shimada (30-1000MHz)
Mode	11b Tx 2462MHz Antenna 1		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	30.150	QP	26.7	17.9	7.0	32.1	19.5	40.0	20.5	
Hori	63.369	QP	42.4	7.8	7.5	32.0	25.7	40.0	14.3	
Hori	108.649	QP	40.0	11.5	8.0	32.0	27.5	43.5	16.0	
Hori	307.643	QP	40.1	15.9	9.7	31.9	33.8	46.0	12.2	
Hori	576.001	QP	36.5	19.8	11.3	32.1	35.5	46.0	10.5	
Hori	863.991	QP	29.0	23.7	12.7	31.5	33.9	46.0	12.1	
Hori	2483.500	PK	49.1	27.2	2.6	32.1	46.8	73.9	27.1	
Hori	3188.694	PK	59.0	28.5	2.9	31.8	58.6	73.9	15.3	
Hori	4924.000	PK	44.0	31.2	5.1	31.4	48.9	73.9	25.0	
Hori	7386.000	PK	43.9	36.0	6.3	32.4	53.8	73.9	20.1	
Hori	9848.000	PK	44.7	38.1	7.2	33.0	57.0	73.9	16.9	
Hori	24620.000	PK	46.9	38.0	-1.2	31.3	52.4	73.9	21.5	
Hori	2483.500	AV	36.0	27.2	2.6	32.1	33.7	53.9	20.2	
Hori	3188.694	AV	37.4	28.5	2.9	31.8	37.0	53.9	16.9	
Hori	4924.000	AV	30.3	31.2	5.1	31.4	35.2	53.9	18.7	
Hori	7386.000	AV	31.3	36.0	6.3	32.4	41.2	53.9	12.7	
Hori	9848.000	AV	31.3	38.1	7.2	33.0	43.6	53.9	10.3	
Hori	24620.000	AV	34.4	38.0	-1.2	31.3	39.9	53.9	14.0	
Vert	31.480	QP	36.0	17.5	7.0	32.1	28.4	40.0	11.6	
Vert	63.384	QP	38.5	7.8	7.5	32.0	21.8	40.0	18.2	
Vert	105.142	QP	48.7	11.1	8.0	32.0	35.8	43.5	7.7	
Vert	303.983	QP	42.2	15.8	9.7	31.9	35.8	46.0	10.2	
Vert	576.002	QP	35.3	19.8	11.3	32.1	34.3	46.0	11.7	
Vert	863.987	QP	25.7	23.7	12.7	31.5	30.6	46.0	15.4	
Vert	2483.500	PK	54.9	27.2	2.6	32.1	52.6	73.9	21.3	
Vert	3188.352	PK	56.5	28.5	2.9	31.8	56.1	73.9	17.8	
Vert	4924.000	PK	44.4	31.2	5.1	31.4	49.3	73.9	24.6	
Vert	7386.000	PK	44.6	36.0	6.3	32.4	54.5	73.9	19.4	
Vert	9848.000	PK	44.4	38.1	7.2	33.0	56.7	73.9	17.2	
Vert	24620.000	PK	47.0	38.0	-1.2	31.3	52.5	73.9	21.4	
Vert	2483.500	AV	41.5	27.2	2.6	32.1	39.2	53.9	14.7	
Vert	3188.352	AV	36.1	28.5	2.9	31.8	35.7	53.9	18.2	
Vert	4924.000	AV	30.3	31.2	5.1	31.4	35.2	53.9	18.7	
Vert	7386.000	AV	31.3	36.0	6.3	32.4	41.2	53.9	12.7	
Vert	9848.000	AV	31.3	38.1	7.2	33.0	43.6	53.9	10.3	
Vert	24620.000	AV	34.6	38.0	-1.2	31.3	40.1	53.9	13.8	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	31HE0085-HO-01		
Date	03/11/2011	03/15/2011	03/17/2011
Temperature/ Humidity	23 deg.C / 32% RH	22 deg.C / 47% RH	20 deg.C / 24% RH
Engineer	Satofumi Matsuyama (1-10GHz)	Takumi Shimada (10-26.5GHz)	Takumi Shimada (30-1000MHz)
Mode	11g Tx 2412MHz Antenna 1		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	30.130	QP	26.5	17.9	7.0	32.1	19.3	40.0	20.7	
Hori	63.354	QP	42.2	7.8	7.5	32.0	25.5	40.0	14.5	
Hori	108.651	QP	40.3	11.5	8.0	32.0	27.8	43.5	15.7	
Hori	309.453	QP	40.7	15.9	9.7	31.9	34.4	46.0	11.6	
Hori	576.004	QP	36.4	19.8	11.3	32.1	35.4	46.0	10.6	
Hori	863.974	QP	28.9	23.7	12.7	31.5	33.8	46.0	12.2	
Hori	2390.000	PK	64.4	27.2	2.5	32.1	62.0	73.9	11.9	
Hori	2400.000	PK	84.6	27.2	2.5	32.1	82.2	-	-	See 20dBc Data Sheet
Hori	3192.183	PK	59.3	28.5	2.9	31.8	58.9	73.9	15.0	
Hori	4824.000	PK	43.3	30.9	5.2	31.4	48.0	73.9	25.9	
Hori	7236.000	PK	44.0	35.7	6.2	32.3	53.6	73.9	20.3	
Hori	9648.000	PK	45.0	37.8	7.0	33.0	56.8	73.9	17.1	
Hori	24120.000	PK	46.7	37.8	-1.4	31.6	51.5	73.9	22.4	
Hori	2390.000	AV	45.0	27.2	2.5	32.1	42.6	53.9	11.3	
Hori	2400.000	AV	56.7	27.2	2.5	32.1	54.3	-	-	See 20dBc Data Sheet
Hori	3192.183	AV	37.6	28.5	2.9	31.8	37.2	53.9	16.7	
Hori	4824.000	AV	30.7	30.9	5.2	31.4	35.4	53.9	18.5	
Hori	7236.000	AV	31.2	35.7	6.2	32.3	40.8	53.9	13.1	
Hori	9648.000	AV	31.8	37.8	7.0	33.0	43.6	53.9	10.3	
Hori	24120.000	AV	33.9	37.8	-1.4	31.6	38.7	53.9	15.2	
Vert	31.370	QP	36.1	17.5	7.0	32.1	28.5	40.0	11.5	
Vert	63.375	QP	38.7	7.8	7.5	32.0	22.0	40.0	18.0	
Vert	104.983	QP	48.2	11.0	8.0	32.0	35.2	43.5	8.3	
Vert	304.539	QP	42.8	15.8	9.7	31.9	36.4	46.0	9.6	
Vert	576.009	QP	34.8	19.8	11.3	32.1	33.8	46.0	12.2	
Vert	863.958	QP	26.1	23.7	12.7	31.5	31.0	46.0	15.0	
Vert	2390.000	PK	64.5	27.2	2.5	32.1	62.1	73.9	11.8	
Vert	2400.000	PK	85.2	27.2	2.5	32.1	82.8	-	-	See 20dBc Data Sheet
Vert	3190.402	PK	55.7	28.5	2.9	31.8	55.3	73.9	18.6	
Vert	4824.000	PK	43.3	30.9	5.2	31.4	48.0	73.9	25.9	
Vert	7236.000	PK	44.6	35.7	6.2	32.3	54.2	73.9	19.7	
Vert	9648.000	PK	44.9	37.8	7.0	33.0	56.7	73.9	17.2	
Vert	24120.000	PK	46.4	37.8	-1.4	31.6	51.2	73.9	22.7	
Vert	2390.000	AV	45.2	27.2	2.5	32.1	42.8	53.9	11.1	
Vert	2400.000	AV	57.1	27.2	2.5	32.1	54.7	-	-	See 20dBc Data Sheet
Vert	3190.402	AV	35.8	28.5	2.9	31.8	35.4	53.9	18.5	
Vert	4824.000	AV	30.7	30.9	5.2	31.4	35.4	53.9	18.5	
Vert	7236.000	AV	31.2	35.7	6.2	32.3	40.8	53.9	13.1	
Vert	9648.000	AV	31.8	37.8	7.0	33.0	43.6	53.9	10.3	
Vert	24120.000	AV	33.9	37.8	-1.4	31.6	38.7	53.9	15.2	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

20dBc Data Sheet

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	2412.000	PK	98.7	27.2	2.5	32.1	96.3	-	-	Carrier
Hori	2400.000	PK	66.0	27.2	2.5	32.1	63.6	76.3	12.7	
Vert	2412.000	PK	99.8	27.2	2.5	32.1	97.4	-	-	Carrier
Vert	2400.000	PK	66.3	27.2	2.5	32.1	63.9	77.4	13.5	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

Radiated Spurious Emission
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	31HE0085-HO-01		
Date	03/11/2011	03/15/2011	03/17/2011
Temperature/ Humidity	23 deg.C / 32% RH	22 deg.C / 47% RH	20 deg.C / 24% RH
Engineer	Satofumi Matsuyama (1-10GHz)	Takumi Shimada (10-26.5GHz)	Takumi Shimada (30-1000MHz)
Mode	11g Tx 2437MHz Antenna 1		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	30.160	QP	26.3	17.9	7.0	32.1	19.1	40.0	20.9	
Hori	63.412	QP	42.0	7.8	7.5	32.0	25.3	40.0	14.7	
Hori	108.673	QP	40.2	11.5	8.0	32.0	27.7	43.5	15.8	
Hori	312.382	QP	40.3	16.0	9.7	31.9	34.1	46.0	11.9	
Hori	576.001	QP	36.6	19.8	11.3	32.1	35.6	46.0	10.4	
Hori	863.983	QP	29.1	23.7	12.7	31.5	34.0	46.0	12.0	
Hori	2394.662	PK	62.3	27.2	2.5	32.1	59.9	73.9	14.0	
Hori	3193.942	PK	59.1	28.5	2.9	31.8	58.7	73.9	15.2	
Hori	4874.000	PK	42.3	31.0	5.1	31.4	47.0	73.9	26.9	
Hori	7311.000	PK	43.8	35.9	6.3	32.4	53.6	73.9	20.3	
Hori	9748.000	PK	43.0	38.0	7.2	33.0	55.2	73.9	18.7	
Hori	24370.000	PK	45.5	37.9	-1.3	31.4	50.7	73.9	23.2	
Hori	2394.662	AV	45.9	27.2	2.5	32.1	43.5	53.9	10.4	
Hori	3193.942	AV	37.4	28.5	2.9	31.8	37.0	53.9	16.9	
Hori	4874.000	AV	29.8	31.0	5.1	31.4	34.5	53.9	19.4	
Hori	7311.000	AV	30.5	35.9	6.3	32.4	40.3	53.9	13.6	
Hori	9748.000	AV	30.7	38.0	7.2	33.0	42.9	53.9	11.0	
Hori	24370.000	AV	33.4	37.9	-1.3	31.4	38.6	53.9	15.3	
Vert	31.470	QP	36.2	17.5	7.0	32.1	28.6	40.0	11.4	
Vert	63.383	QP	38.9	7.8	7.5	32.0	22.2	40.0	17.8	
Vert	105.023	QP	48.6	11.0	8.0	32.0	35.6	43.5	7.9	
Vert	307.543	QP	42.7	15.9	9.7	31.9	36.4	46.0	9.6	
Vert	576.003	QP	34.9	19.8	11.3	32.1	33.9	46.0	12.1	
Vert	863.993	QP	25.8	23.7	12.7	31.5	30.7	46.0	15.3	
Vert	2393.958	PK	59.9	27.2	2.5	32.1	57.5	73.9	16.4	
Vert	3188.988	PK	56.6	28.5	2.9	31.8	56.2	73.9	17.7	
Vert	4874.000	PK	43.9	31.0	5.1	31.4	48.6	73.9	25.3	
Vert	7311.000	PK	43.6	35.9	6.3	32.4	53.4	73.9	20.5	
Vert	9748.000	PK	43.1	38.0	7.2	33.0	55.3	73.9	18.6	
Vert	24370.000	PK	45.4	37.9	-1.3	31.4	50.6	73.9	23.3	
Vert	2393.958	AV	45.2	27.2	2.5	32.1	42.8	53.9	11.1	
Vert	3188.988	AV	35.8	28.5	2.9	31.8	35.4	53.9	18.5	
Vert	4874.000	AV	29.8	31.0	5.1	31.4	34.5	53.9	19.4	
Vert	7311.000	AV	30.5	35.9	6.3	32.4	40.3	53.9	13.6	
Vert	9748.000	AV	30.7	38.0	7.2	33.0	42.9	53.9	11.0	
Vert	24370.000	AV	33.3	37.9	-1.3	31.4	38.5	53.9	15.4	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	31HE0085-HO-01		
Date	03/11/2011	03/15/2011	03/17/2011
Temperature/ Humidity	23 deg.C / 32% RH	22 deg.C / 47% RH	20 deg.C / 24% RH
Engineer	Satofumi Matsuyama (1-10GHz)	Takumi Shimada (10-26.5GHz)	Takumi Shimada (30-1000MHz)
Mode	11g Tx 2462MHz Antenna 1		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	30.130	QP	26.9	17.9	7.0	32.1	19.7	40.0	20.3	
Hori	63.386	QP	42.3	7.8	7.5	32.0	25.6	40.0	14.4	
Hori	108.791	QP	40.8	11.6	8.1	32.0	28.5	43.5	15.0	
Hori	312.230	QP	41.2	16.0	9.7	31.9	35.0	46.0	11.0	
Hori	576.001	QP	37.2	19.8	11.3	32.1	36.2	46.0	9.8	
Hori	863.996	QP	28.7	23.7	12.7	31.5	33.6	46.0	12.4	
Hori	2393.695	PK	58.3	27.2	2.5	32.1	55.9	73.9	18.0	
Hori	2483.500	PK	63.3	27.2	2.6	32.1	61.0	73.9	12.9	
Hori	3192.183	PK	59.0	28.5	2.9	31.8	58.6	73.9	15.3	
Hori	4924.000	PK	44.2	31.2	5.1	31.4	49.1	73.9	24.8	
Hori	7386.000	PK	45.2	36.0	6.3	32.4	55.1	73.9	18.8	
Hori	9848.000	PK	44.5	38.1	7.2	33.0	56.8	73.9	17.1	
Hori	24620.000	PK	47.2	38.0	-1.2	31.3	52.7	73.9	21.2	
Hori	2393.695	AV	43.7	27.2	2.5	32.1	41.3	53.9	12.6	
Hori	2483.500	AV	44.2	27.2	2.6	32.1	41.9	53.9	12.0	
Hori	3192.183	AV	37.5	28.5	2.9	31.8	37.1	53.9	16.8	
Hori	4924.000	AV	30.3	31.2	5.1	31.4	35.2	53.9	18.7	
Hori	7386.000	AV	31.3	36.0	6.3	32.4	41.2	53.9	12.7	
Hori	9848.000	AV	31.1	38.1	7.2	33.0	43.4	53.9	10.5	
Hori	24620.000	AV	34.3	38.0	-1.2	31.3	39.8	53.9	14.1	
Vert	31.560	QP	36.0	17.5	7.0	32.1	28.4	40.0	11.6	
Vert	63.382	QP	38.6	7.8	7.5	32.0	21.9	40.0	18.1	
Vert	105.230	QP	48.6	11.1	8.0	32.0	35.7	43.5	7.8	
Vert	304.072	QP	41.7	15.8	9.7	31.9	35.3	46.0	10.7	
Vert	576.004	QP	35.9	19.8	11.3	32.1	34.9	46.0	11.1	
Vert	863.938	QP	23.8	23.7	12.7	31.5	28.7	46.0	17.3	
Vert	2390.832	PK	58.2	27.2	2.5	32.1	55.8	73.9	18.1	
Vert	2483.500	PK	67.1	27.2	2.6	32.1	64.8	73.9	9.1	
Vert	3189.685	PK	54.9	28.5	2.9	31.8	54.5	73.9	19.4	
Vert	4924.000	PK	44.0	31.2	5.1	31.4	48.9	73.9	25.0	
Vert	7386.000	PK	45.3	36.0	6.3	32.4	55.2	73.9	18.7	
Vert	9848.000	PK	44.4	38.1	7.2	33.0	56.7	73.9	17.2	
Vert	24620.000	PK	47.3	38.0	-1.2	31.3	52.8	73.9	21.1	
Vert	2390.832	AV	45.2	27.2	2.5	32.1	42.8	53.9	11.1	
Vert	2483.500	AV	46.5	27.2	2.6	32.1	44.2	53.9	9.7	
Vert	3189.685	AV	35.4	28.5	2.9	31.8	35.0	53.9	18.9	
Vert	4924.000	AV	30.3	31.2	5.1	31.4	35.2	53.9	18.7	
Vert	7386.000	AV	31.3	36.0	6.3	32.4	41.2	53.9	12.7	
Vert	9848.000	AV	31.1	38.1	7.2	33.0	43.4	53.9	10.5	
Vert	24620.000	AV	34.7	38.0	-1.2	31.3	40.2	53.9	13.8	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

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Radiated Spurious Emission
Reference Data
(Power Supply: SONY)

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	31HE0085-HO-01		
Date	03/16/2011	03/15/2011	03/17/2011
Temperature/ Humidity	20 deg.C / 33% RH	22 deg.C / 47% RH	20 deg.C / 24% RH
Engineer	Yutaka Yoshida (1-10GHz)	Takumi Shimada (10-26.5GHz)	Yutaka Yoshida (30-1000MHz)
Mode	11b Tx 2437MHz Antenna 0		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	31.623	QP	24.6	17.4	7.0	32.1	16.9	40.0	23.1	
Hori	108.782	QP	46.8	11.6	8.1	32.0	34.5	43.5	9.0	
Hori	310.930	QP	38.2	16.0	9.7	31.9	32.0	46.0	14.0	
Hori	404.998	QP	39.9	17.6	10.4	31.9	36.0	46.0	10.0	
Hori	431.985	QP	41.1	18.1	10.5	31.9	37.8	46.0	8.2	
Hori	576.004	QP	37.6	19.8	11.3	32.1	36.6	46.0	9.4	
Hori	3191.658	PK	60.6	28.5	2.9	31.9	60.1	73.9	13.8	
Hori	4874.000	PK	43.8	31.0	5.1	31.4	48.5	73.9	25.4	
Hori	7311.000	PK	42.5	35.9	6.3	32.5	52.2	73.9	21.7	
Hori	9748.000	PK	42.9	38.0	7.2	33.2	54.9	73.9	19.0	
Hori	24370.000	PK	45.6	37.9	-1.3	31.4	50.8	73.9	23.1	
Hori	3191.658	AV	37.6	28.5	2.9	31.9	37.1	53.9	16.8	
Hori	4874.000	AV	29.4	31.0	5.1	31.4	34.1	53.9	19.8	
Hori	7311.000	AV	32.5	35.9	6.3	32.5	42.2	53.9	11.7	
Hori	9748.000	AV	29.6	38.0	7.2	33.2	41.6	53.9	12.3	
Hori	24370.000	AV	33.4	37.9	-1.3	31.4	38.6	53.9	15.3	
Vert	32.320	QP	36.6	17.2	7.0	32.1	28.7	40.0	11.3	
Vert	108.778	QP	48.1	11.6	8.0	32.0	35.7	43.5	7.8	
Vert	310.948	QP	42.4	16.0	9.7	31.9	36.2	46.0	9.8	
Vert	405.004	QP	39.5	17.6	10.4	31.9	35.6	46.0	10.4	
Vert	431.994	QP	40.5	18.1	10.5	31.9	37.2	46.0	8.8	
Vert	576.010	QP	34.0	19.8	11.3	32.1	33.0	46.0	13.0	
Vert	3191.658	PK	57.7	28.5	2.9	31.9	57.2	73.9	16.7	
Vert	4874.000	PK	41.8	31.0	5.1	31.4	46.5	73.9	27.4	
Vert	7311.000	PK	43.3	35.9	6.3	32.5	53.0	73.9	20.9	
Vert	9748.000	PK	43.6	38.0	7.2	33.2	55.6	73.9	18.3	
Vert	24370.000	PK	45.7	37.9	-1.3	31.4	50.9	73.9	23.0	
Vert	3191.658	AV	36.6	28.5	2.9	31.9	36.1	53.9	17.8	
Vert	4874.000	AV	29.4	31.0	5.1	31.4	34.1	53.9	19.8	
Vert	7311.000	AV	30.6	35.9	6.3	32.5	40.3	53.9	13.6	
Vert	9748.000	AV	29.6	38.0	7.2	33.2	41.6	53.9	12.3	
Vert	24370.000	AV	33.3	37.9	-1.3	31.4	38.5	53.9	15.4	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

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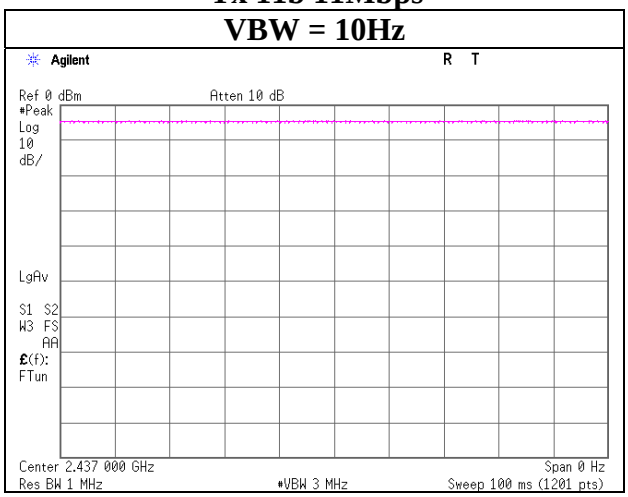
VBW (AV) Calculation

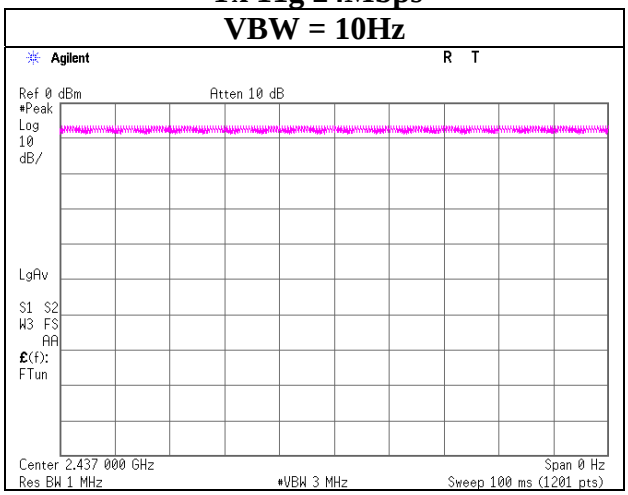
Tx 11b 11Mbps

VBW = 10Hz



Tx 11g 24Mbps

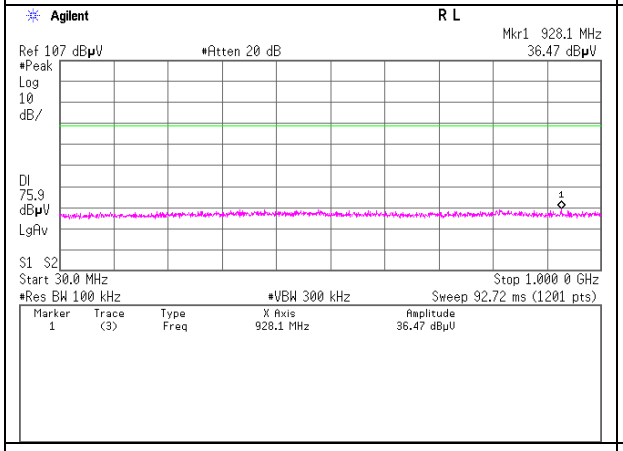
VBW = 10Hz



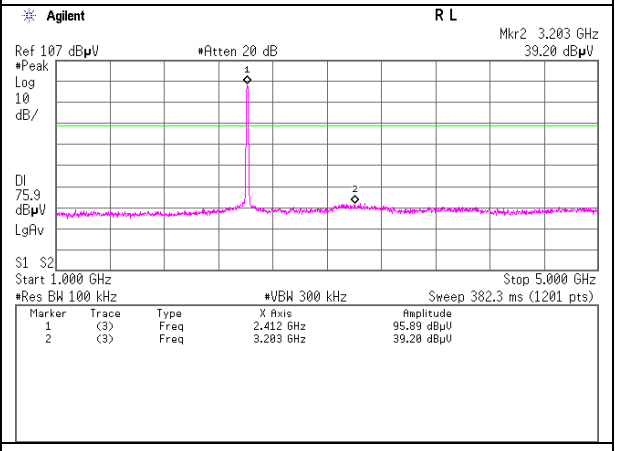
Conducted Spurious Emission

11b Tx, Antenna 0, 2412MHz

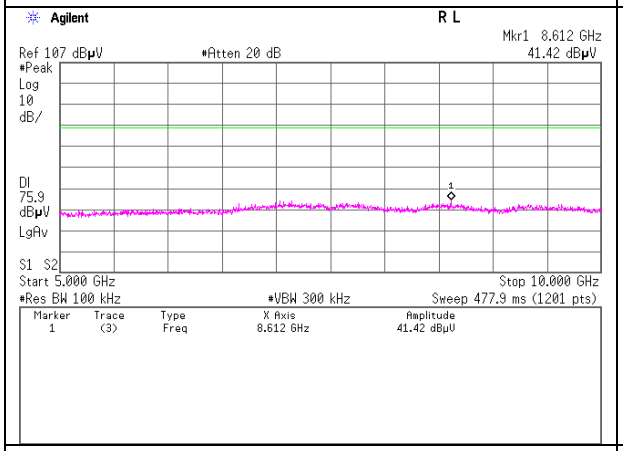
30MHz-1GHz



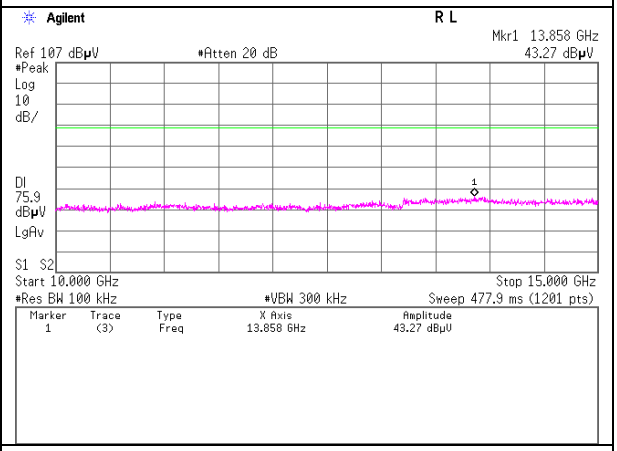
1GHz-5GHz



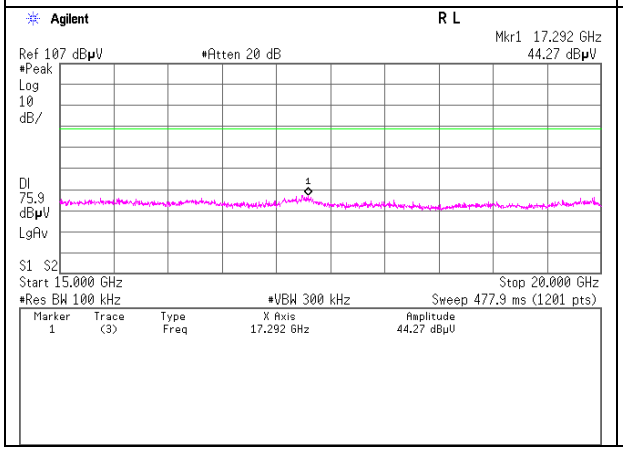
5GHz-10GHz



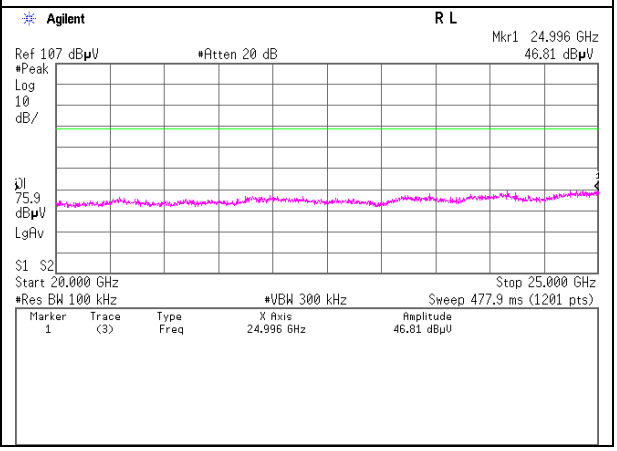
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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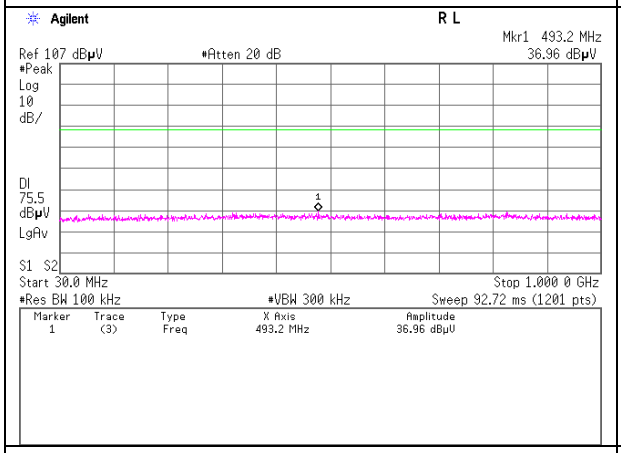
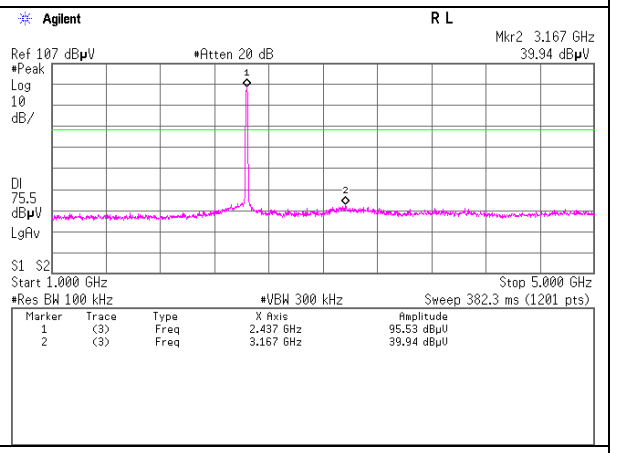
Conducted Spurious Emission

11b Tx, Antenna 0, 2437MHz

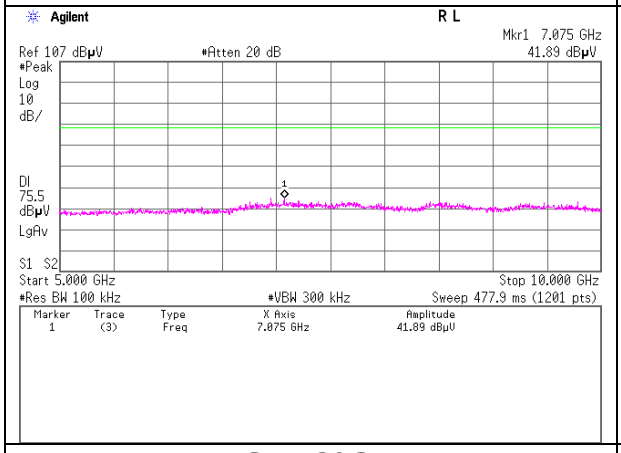
30MHz-1GHz



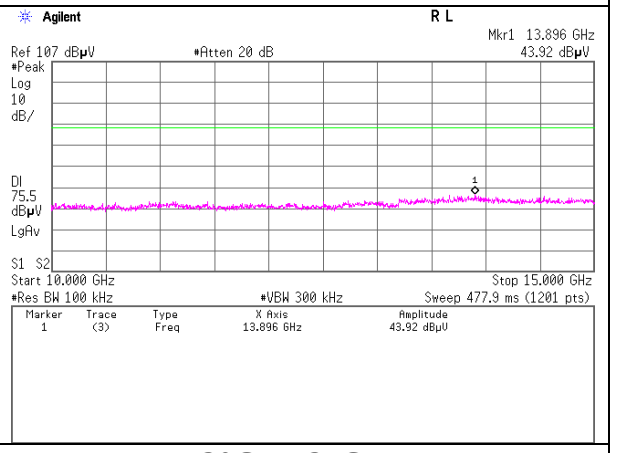
1GHz-5GHz



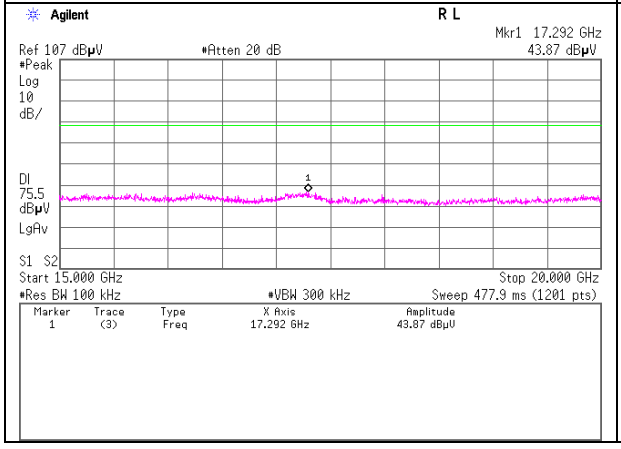
5GHz-10GHz



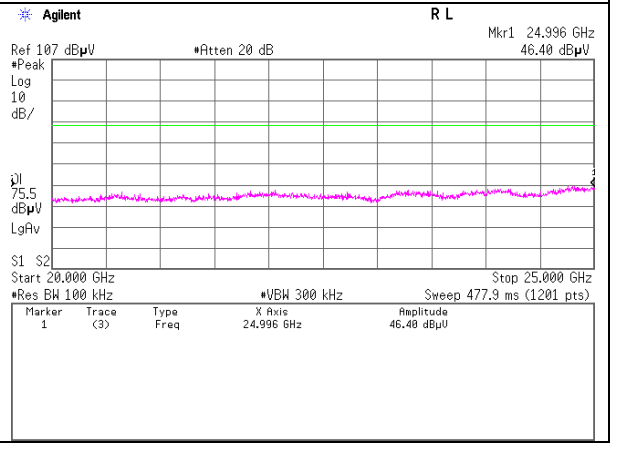
10GHz-15GHz



15GHz-20GHz



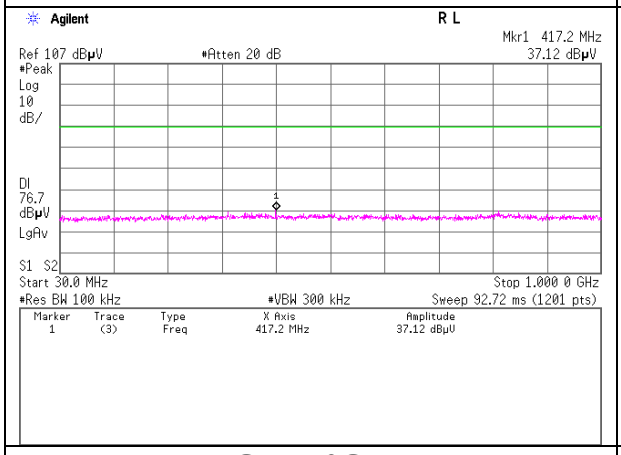
20GHz-25GHz



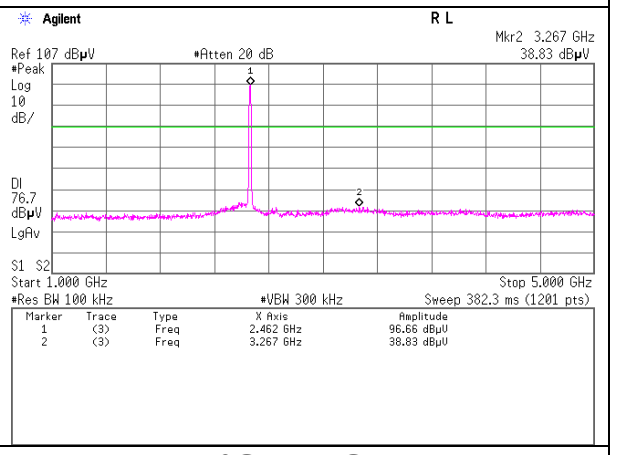
Conducted Spurious Emission

11b Tx, Antenna 0, 2462MHz

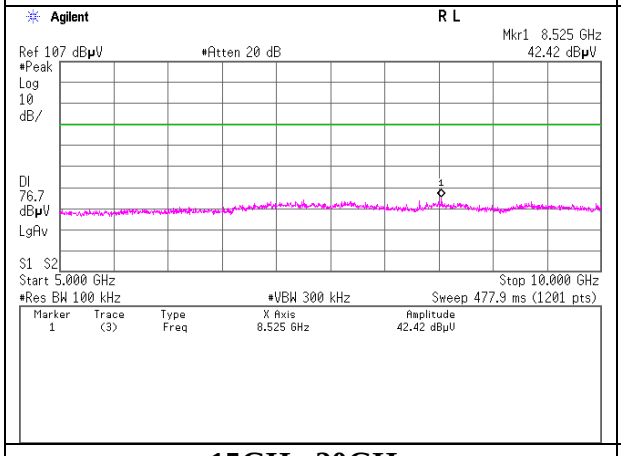
30MHz-1GHz



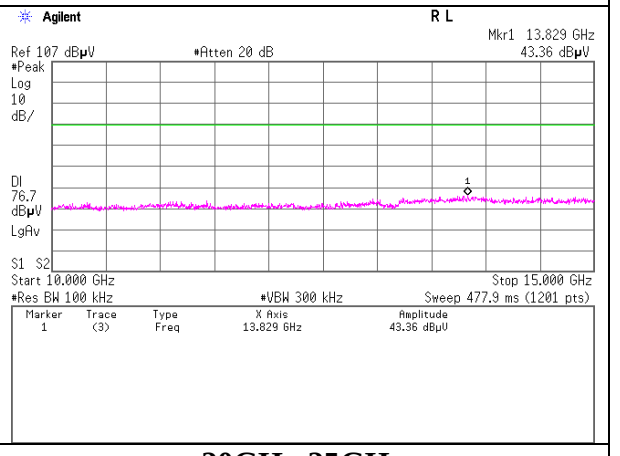
1GHz-5GHz



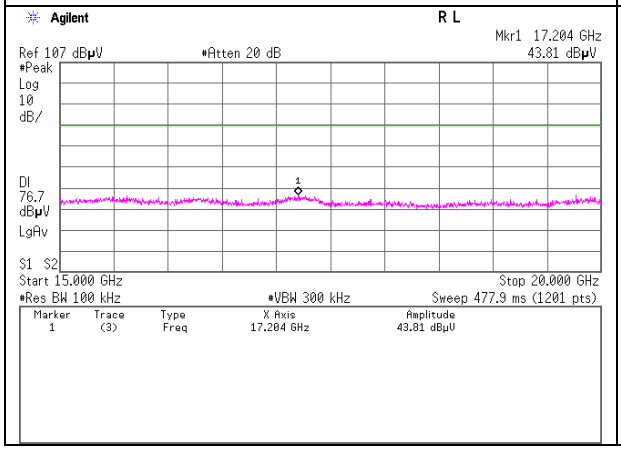
5GHz-10GHz



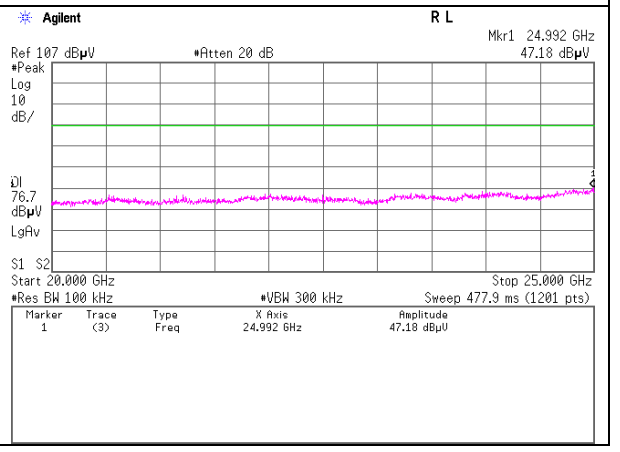
10GHz-15GHz



15GHz-20GHz



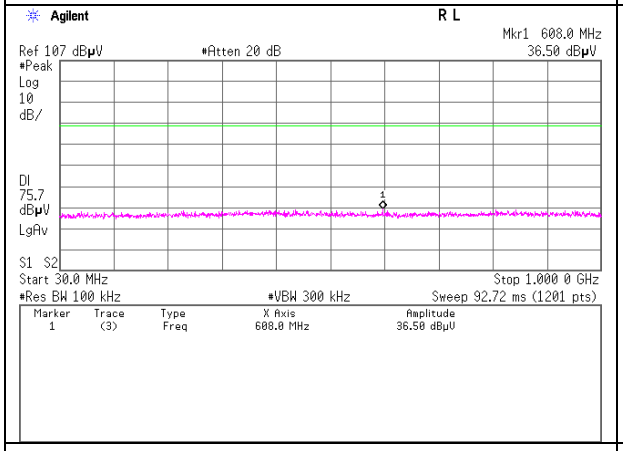
20GHz-25GHz



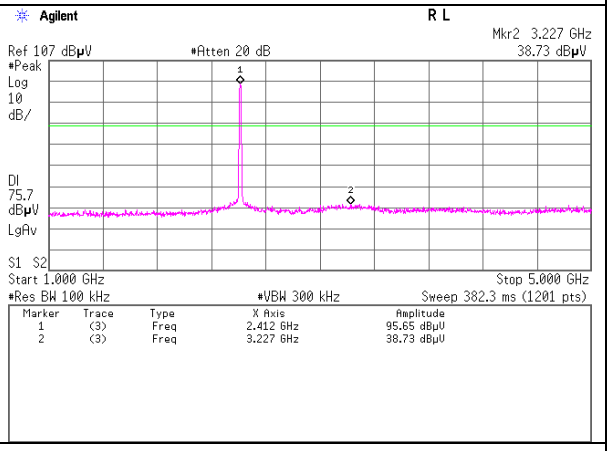
Conducted Spurious Emission

11b Tx, Antenna 1, 2412MHz

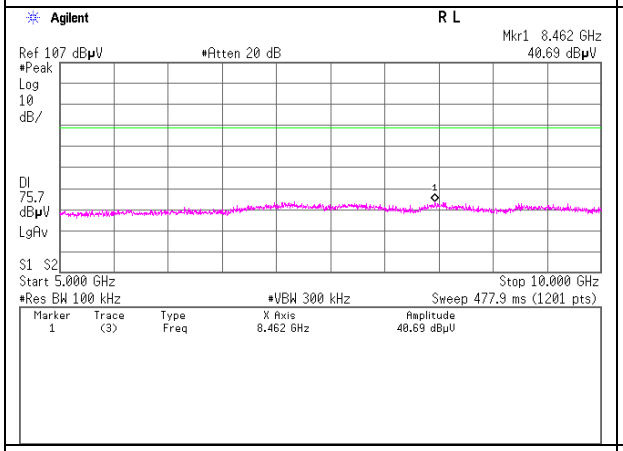
30MHz-1GHz



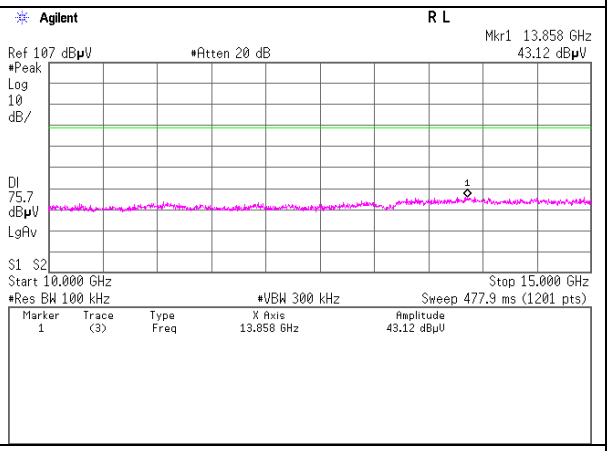
1GHz-5GHz



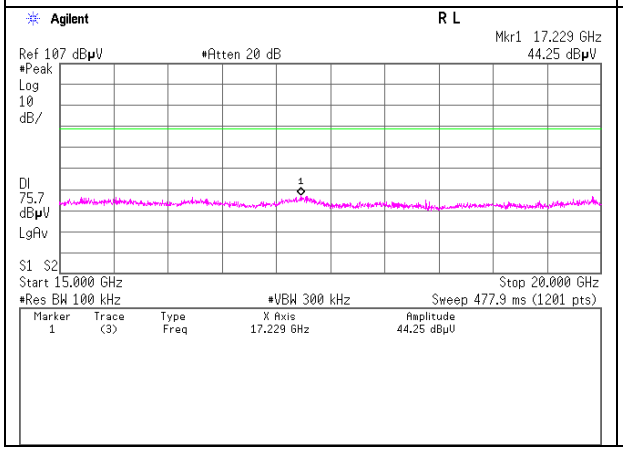
5GHz-10GHz



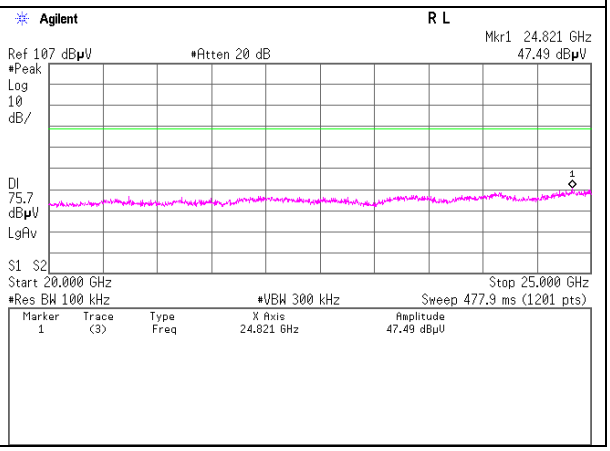
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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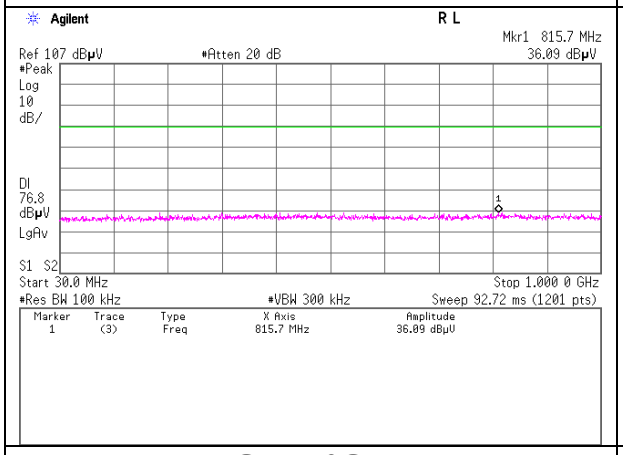
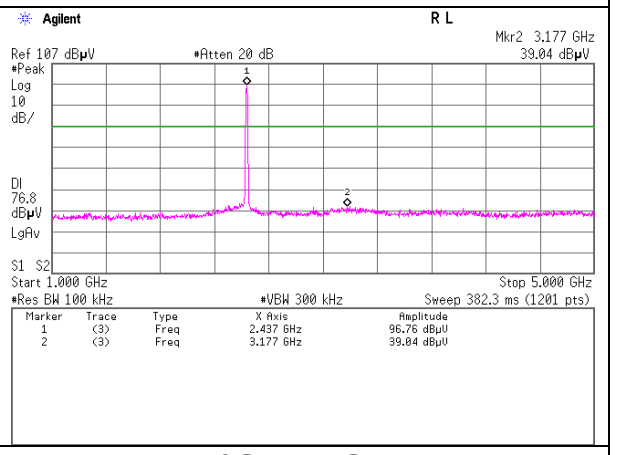
Conducted Spurious Emission

11b Tx, Antenna 1, 2437MHz

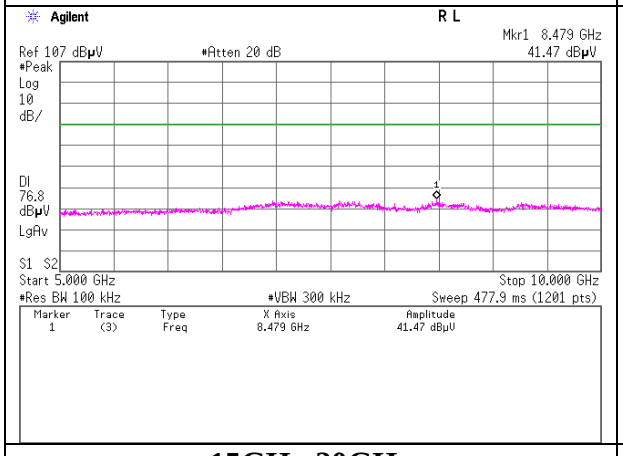
30MHz-1GHz



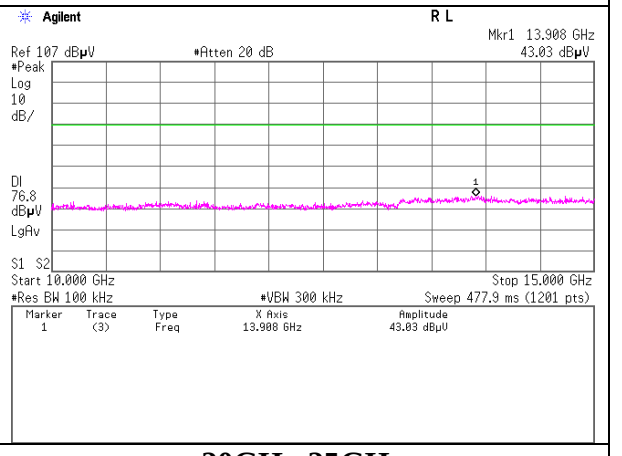
1GHz-5GHz



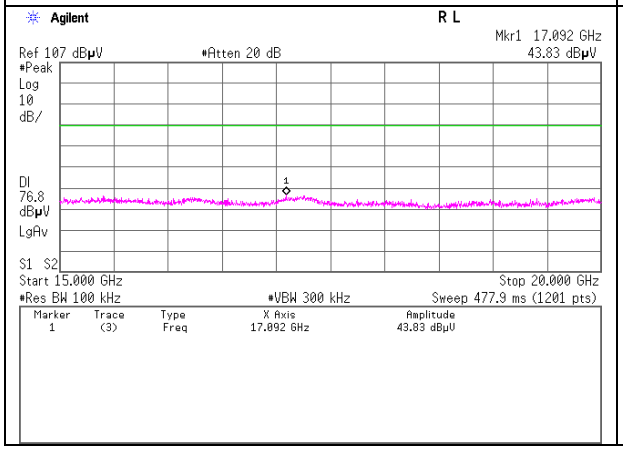
5GHz-10GHz



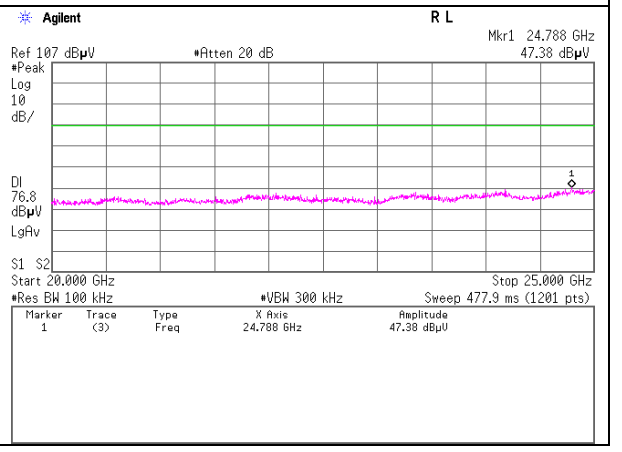
10GHz-15GHz



15GHz-20GHz



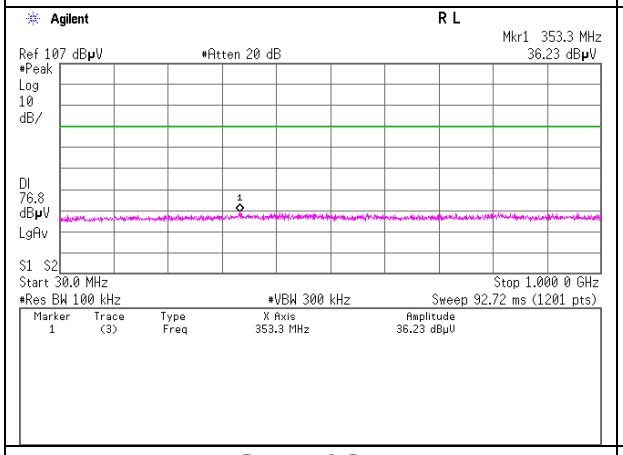
20GHz-25GHz



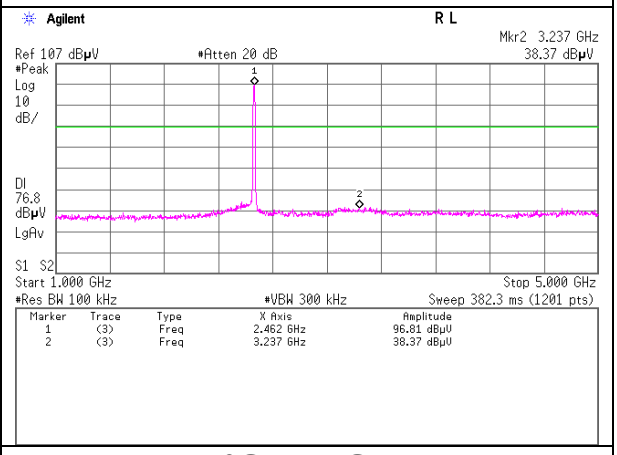
Conducted Spurious Emission

11b Tx, Antenna 1, 2462MHz

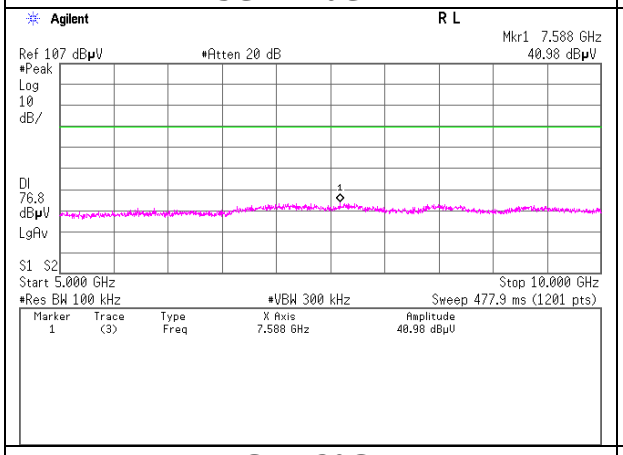
30MHz-1GHz



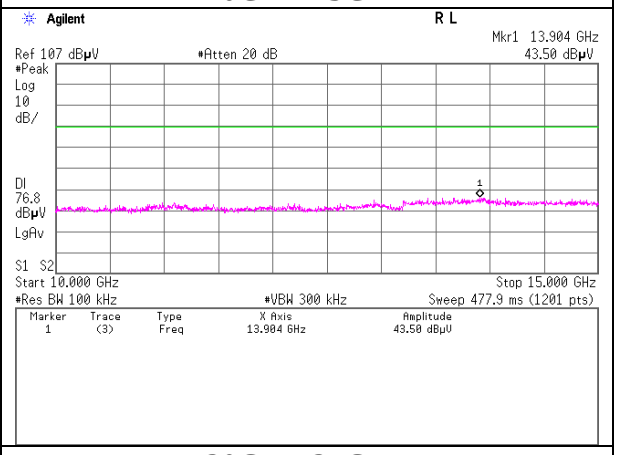
1GHz-5GHz



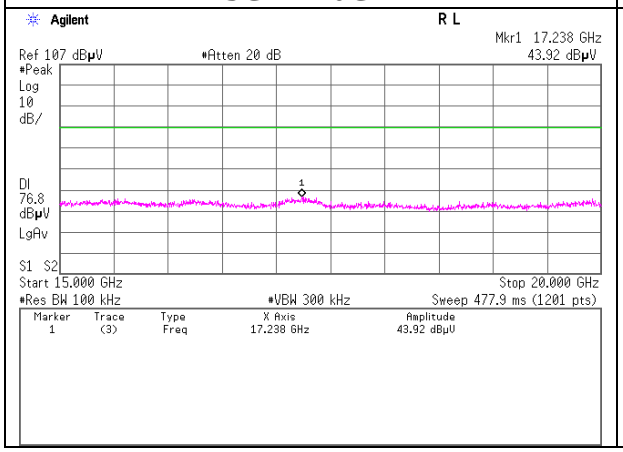
5GHz-10GHz



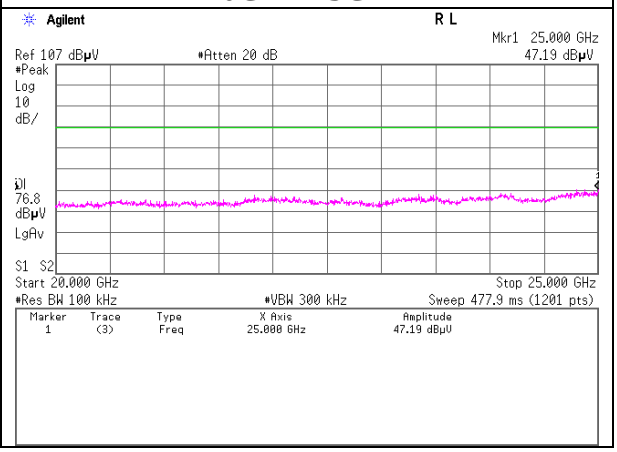
10GHz-15GHz



15GHz-20GHz



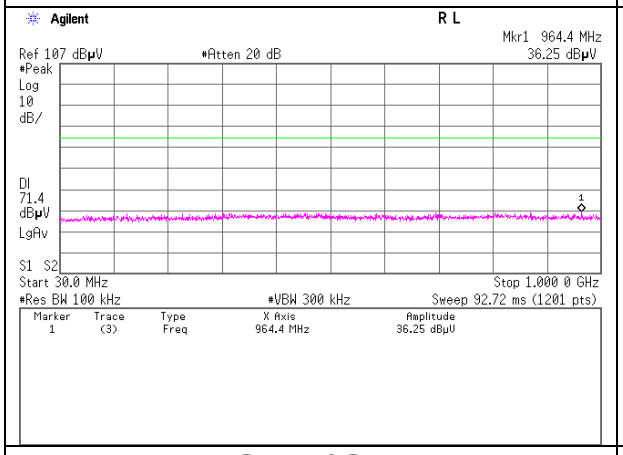
20GHz-25GHz



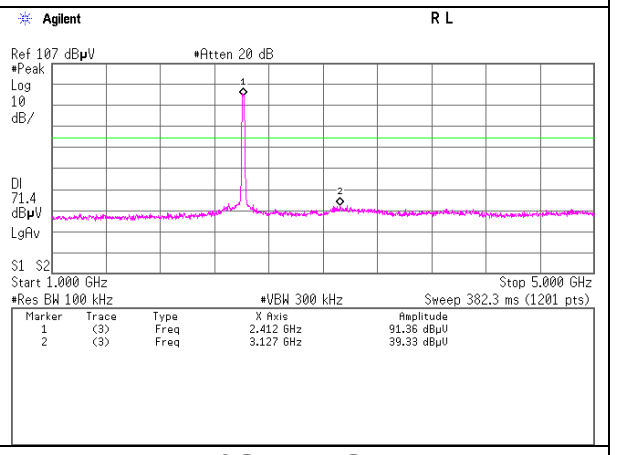
Conducted Spurious Emission

11g Tx, Antenna 0, 2412MHz

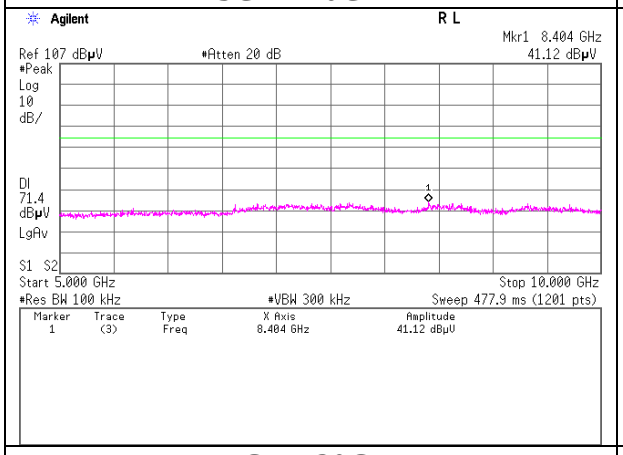
30MHz-1GHz



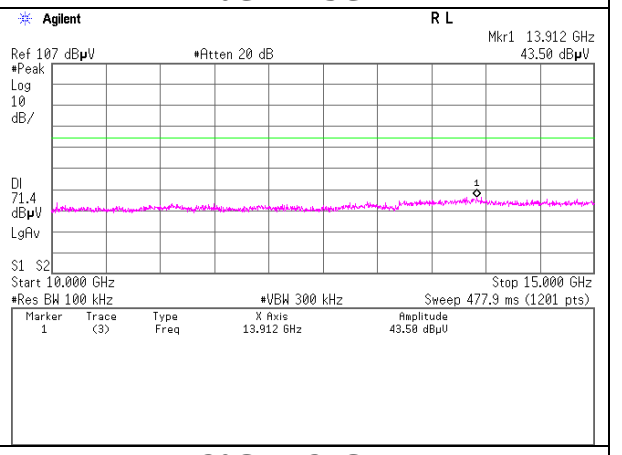
1GHz-5GHz



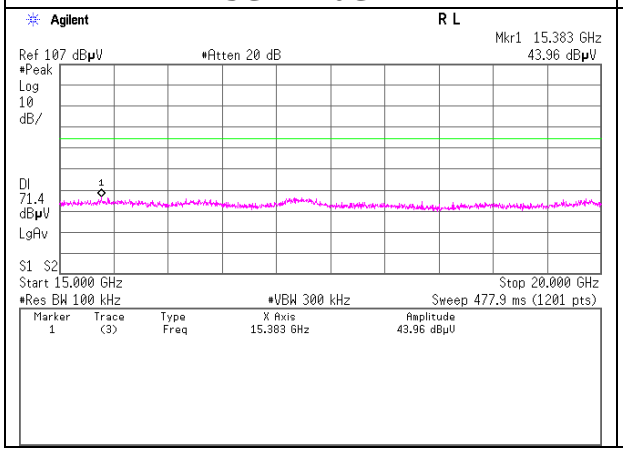
5GHz-10GHz



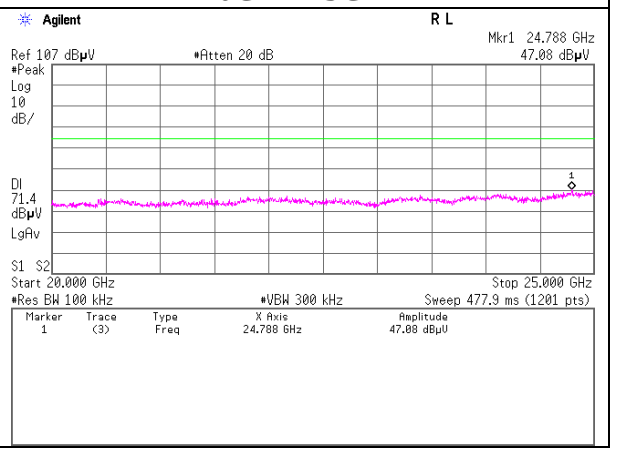
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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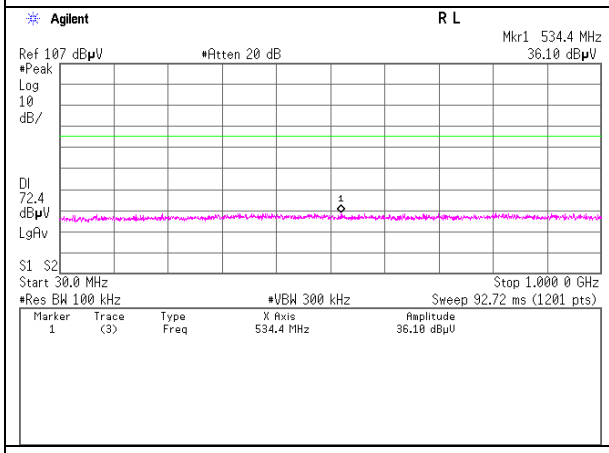
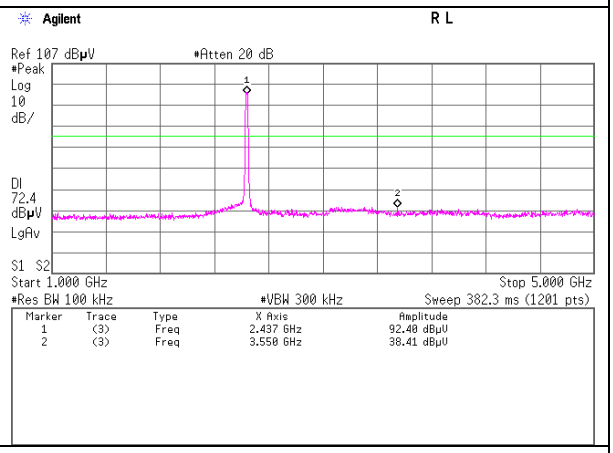
Conducted Spurious Emission

11g Tx, Antenna 0, 2437MHz

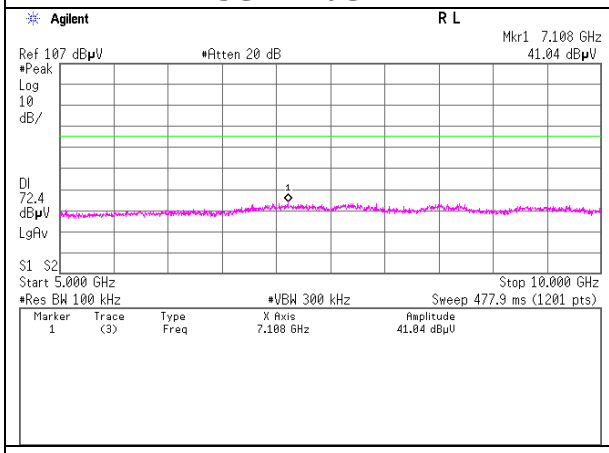
30MHz-1GHz



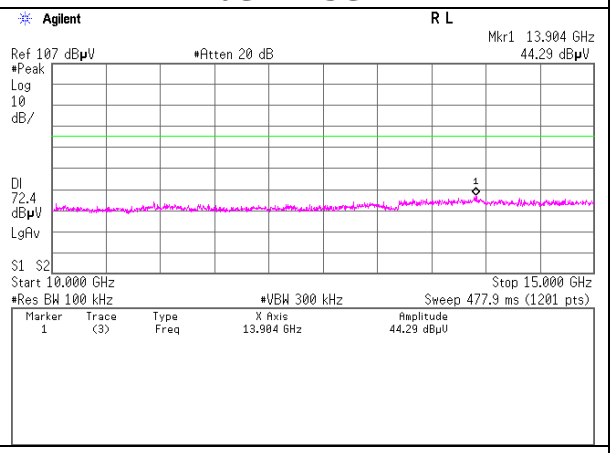
1GHz-5GHz



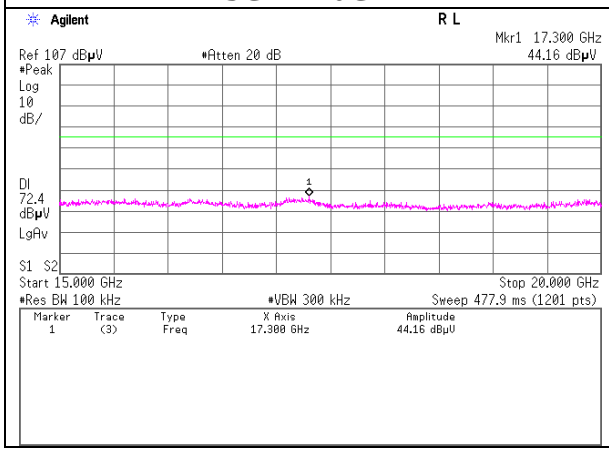
5GHz-10GHz



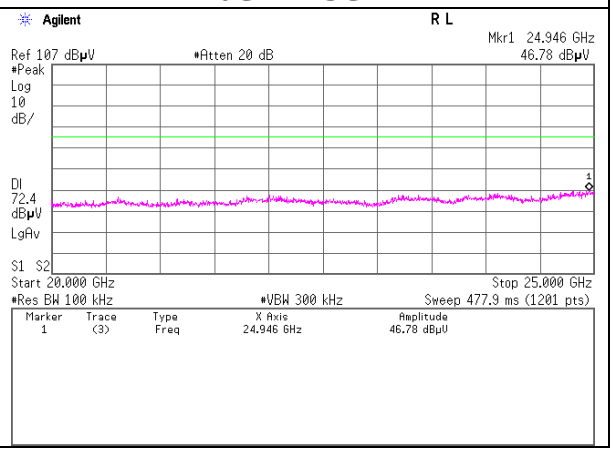
10GHz-15GHz



15GHz-20GHz



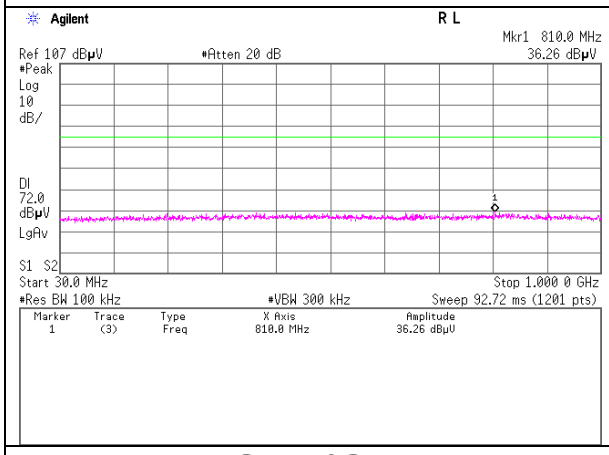
20GHz-25GHz



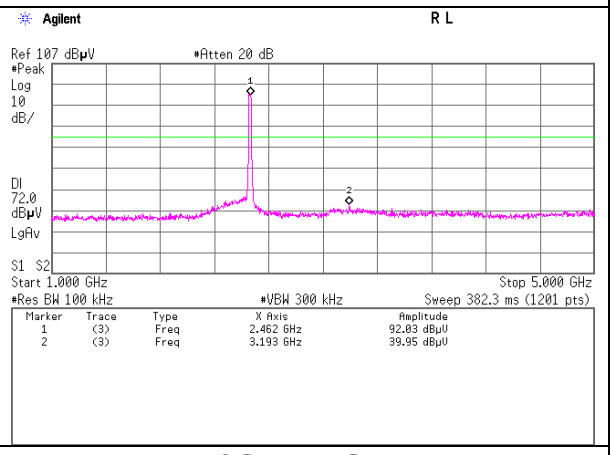
Conducted Spurious Emission

11g Tx, Antenna 0, 2462MHz

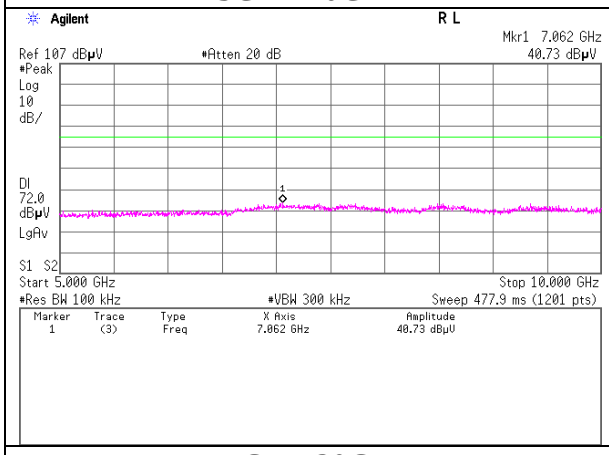
30MHz-1GHz



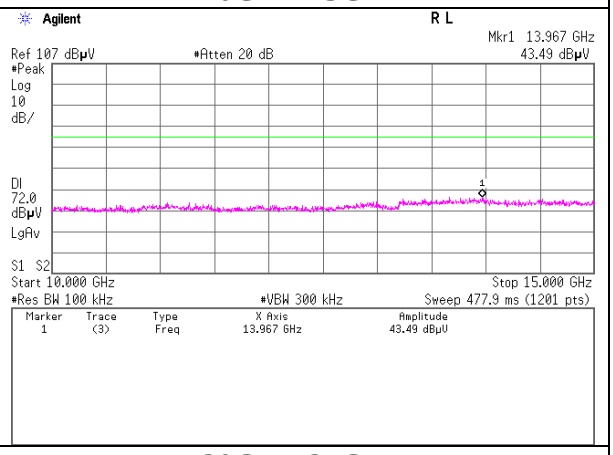
1GHz-5GHz



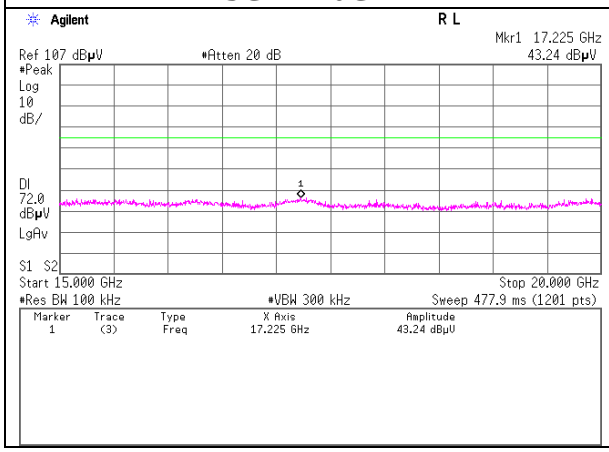
5GHz-10GHz



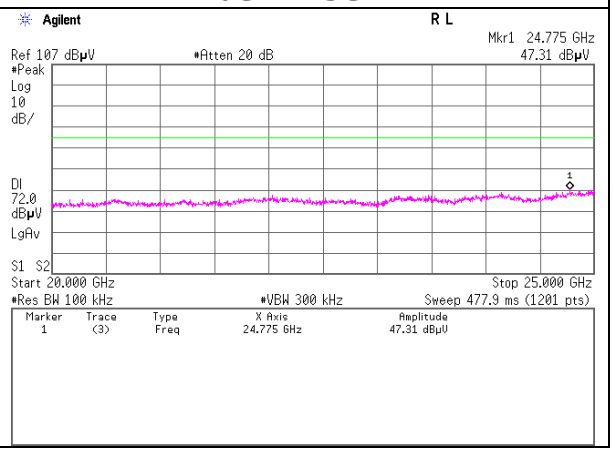
10GHz-15GHz



15GHz-20GHz



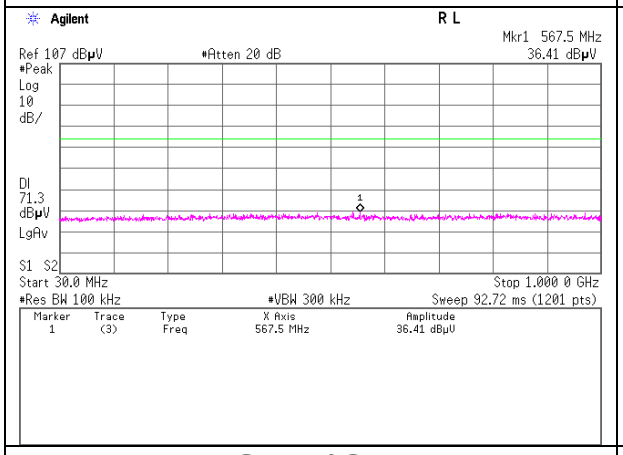
20GHz-25GHz



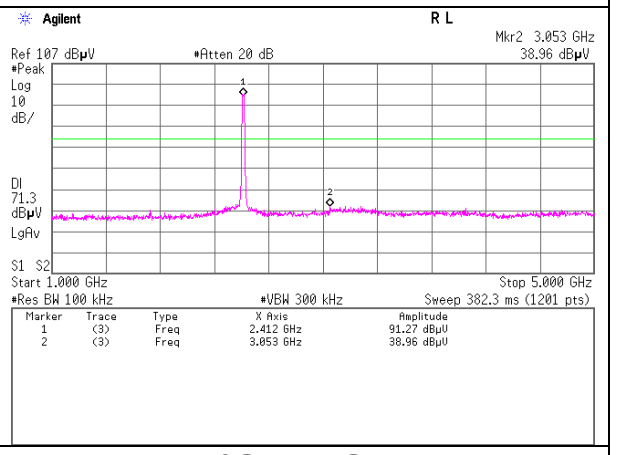
Conducted Spurious Emission

11g Tx, Antenna 1, 2412MHz

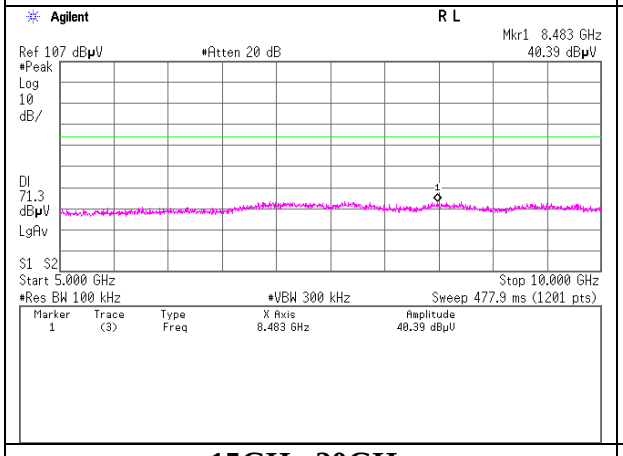
30MHz-1GHz



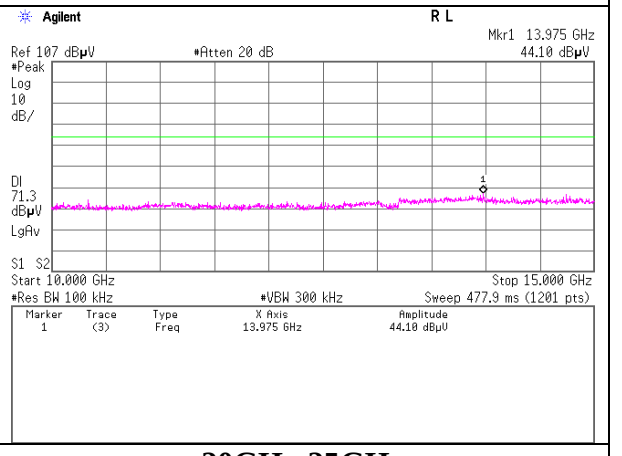
1GHz-5GHz



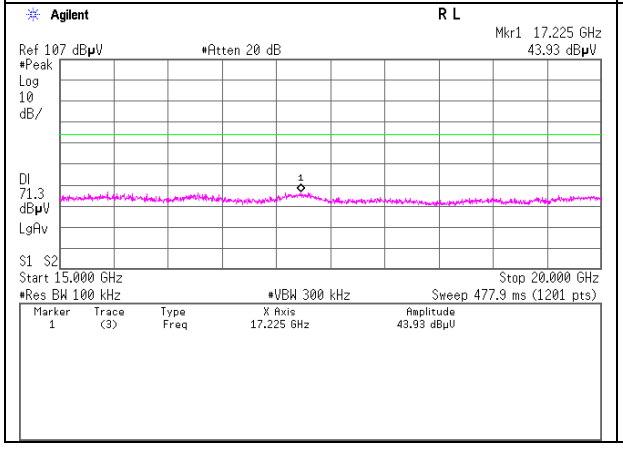
5GHz-10GHz



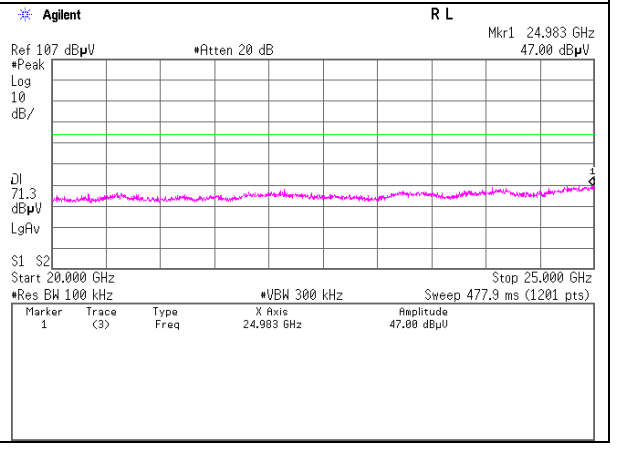
10GHz-15GHz



15GHz-20GHz



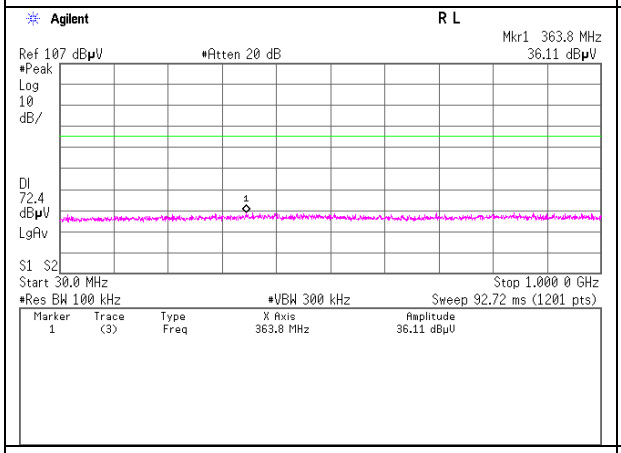
20GHz-25GHz



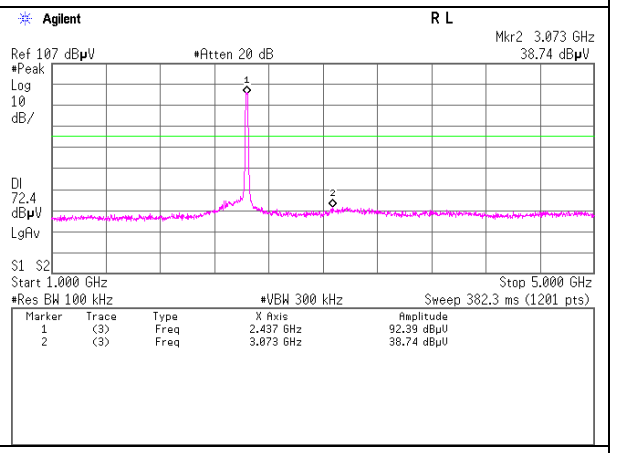
Conducted Spurious Emission

11g Tx, Antenna 1, 2437MHz

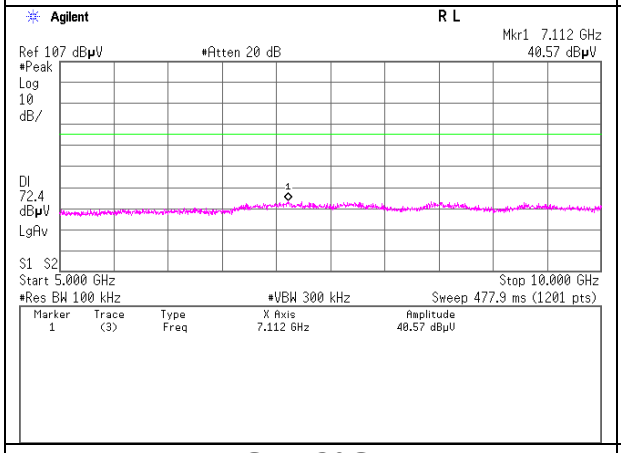
30MHz-1GHz



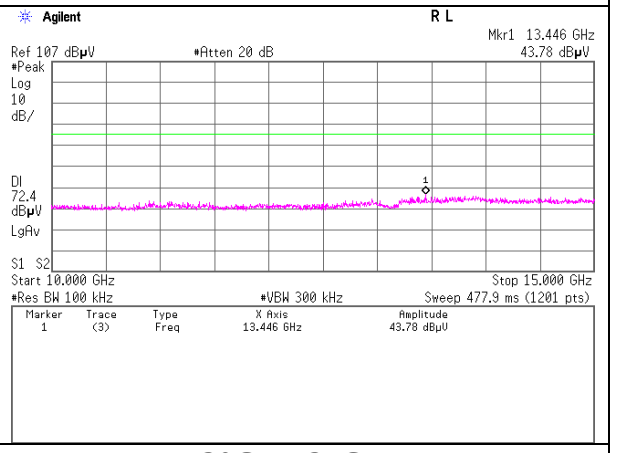
1GHz-5GHz



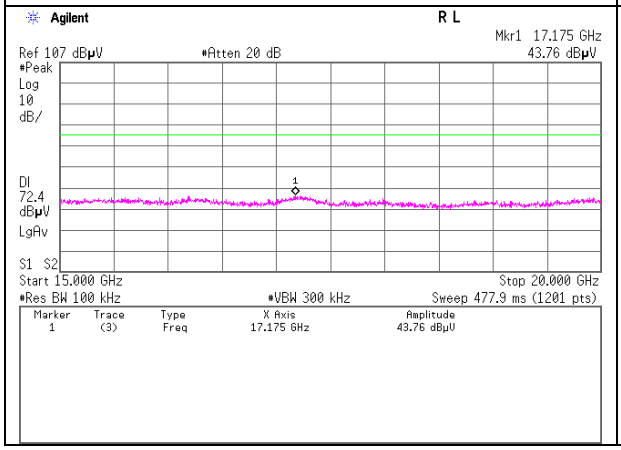
5GHz-10GHz



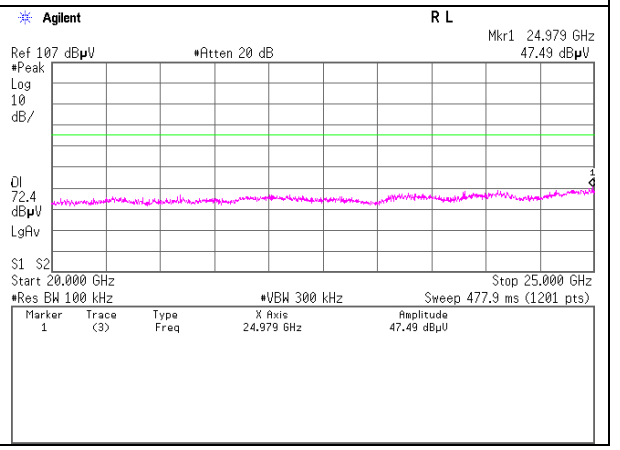
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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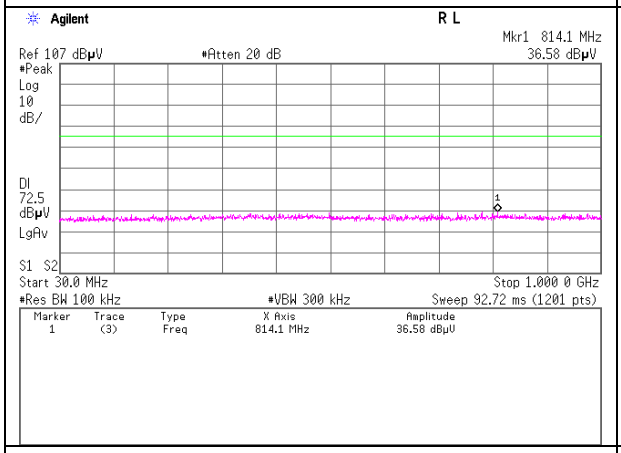
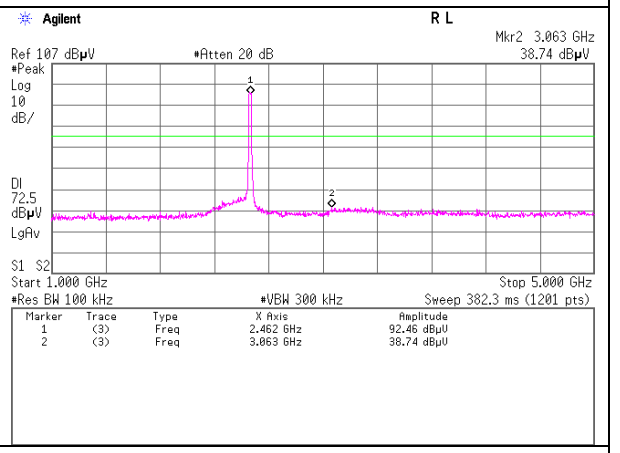
Conducted Spurious Emission

11g Tx, Antenna 1, 2462MHz

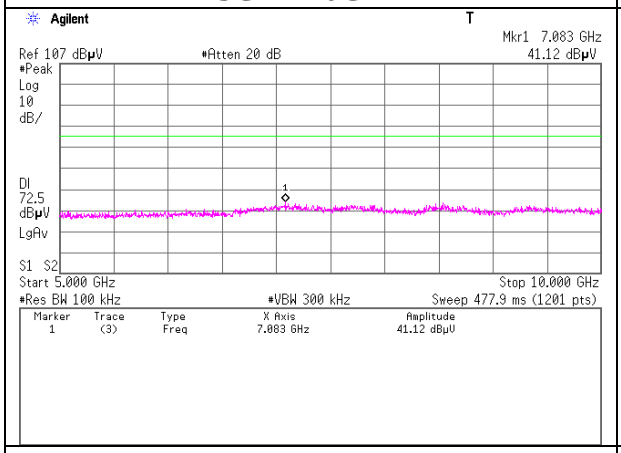
30MHz-1GHz



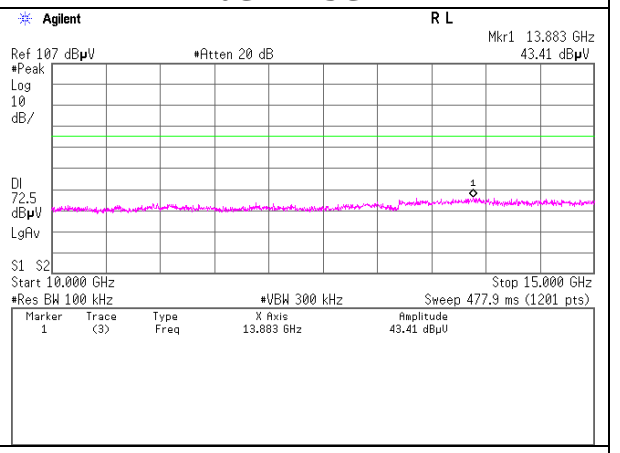
1GHz-5GHz



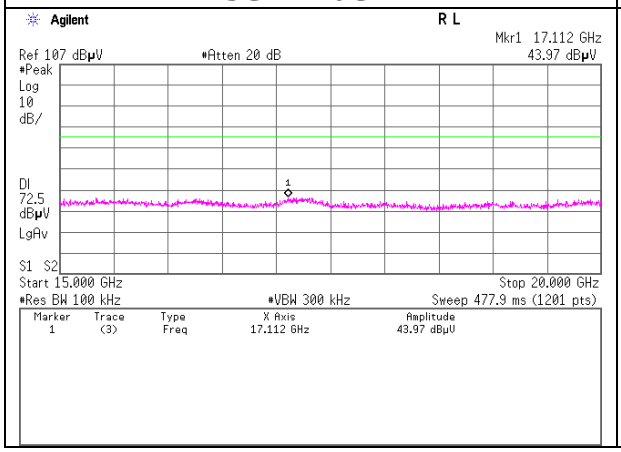
5GHz-10GHz



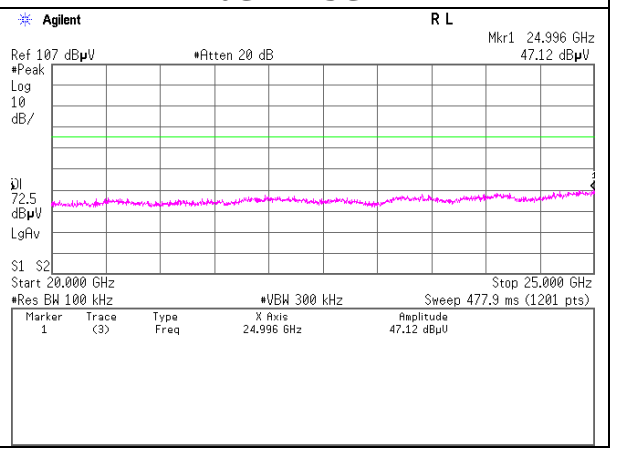
10GHz-15GHz



15GHz-20GHz



20GHz-25GHz



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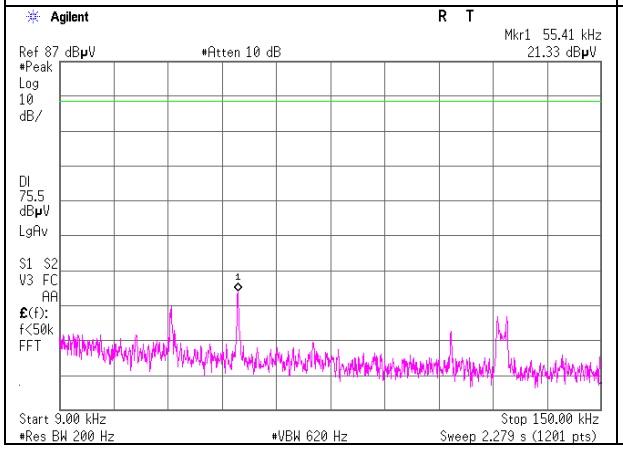
Facsimile : +81 596 24 8124

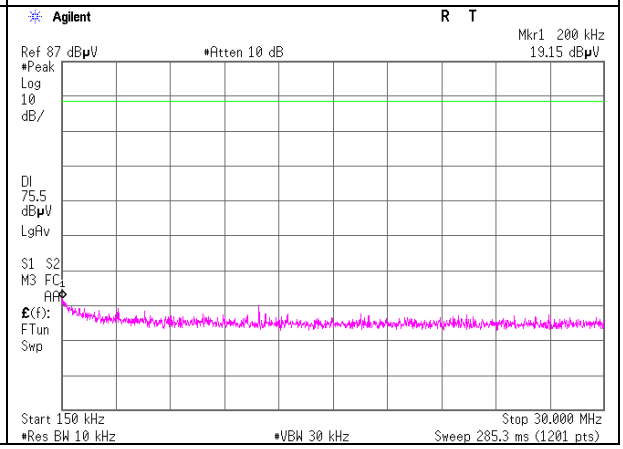
Conducted Spurious Emission(below 30MHz)

Tx 11b, Antenna 0, 2437MHz

9kHz-150kHz

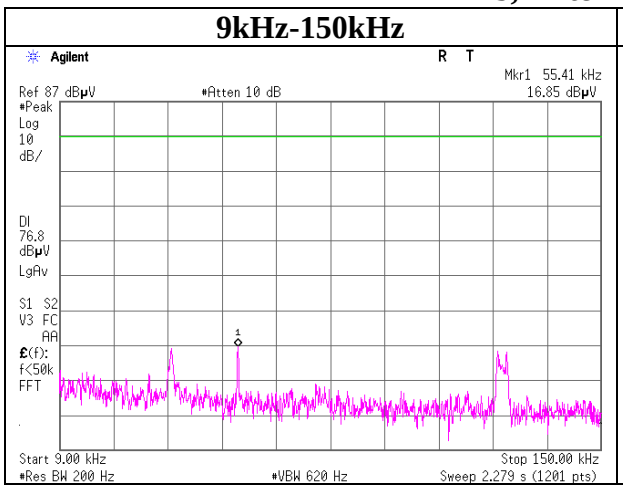


150kHz-30MHz

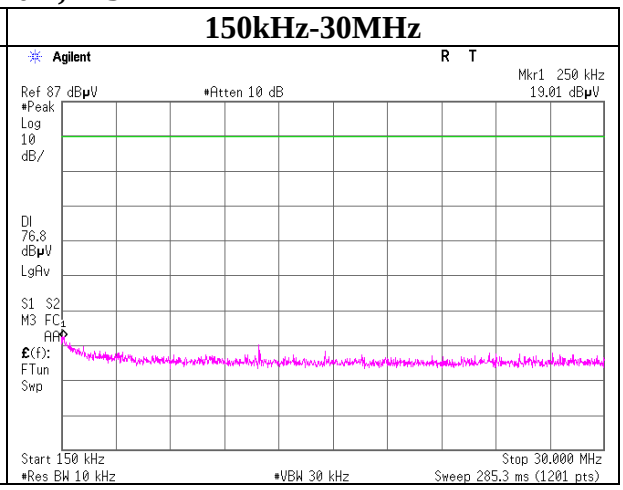


Tx 11b, Antenna 1, 2437MHz

9kHz-150kHz



150kHz-30MHz

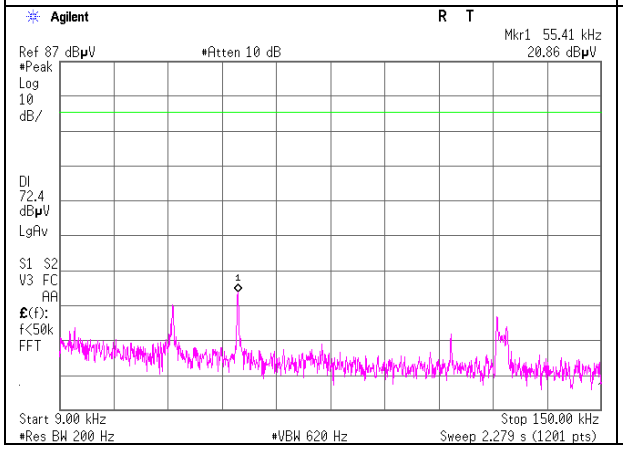


*It was confirmed that there was enough margin to the limit of FCC15.209 at Radiated Spurious emission test.

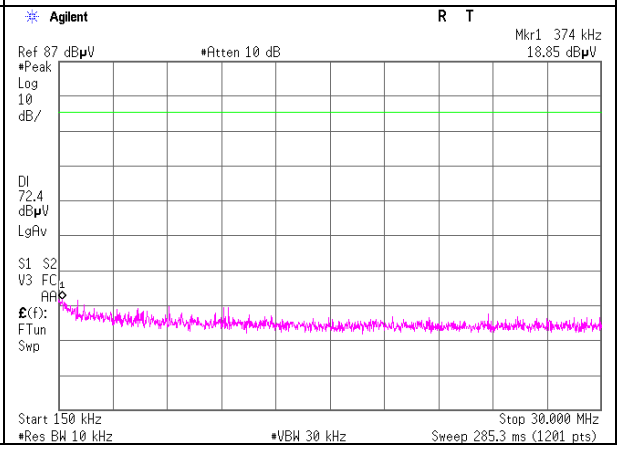
Conducted Spurious Emission(below 30MHz)

Tx 11g, Antenna 0, 2437MHz

9kHz-150kHz

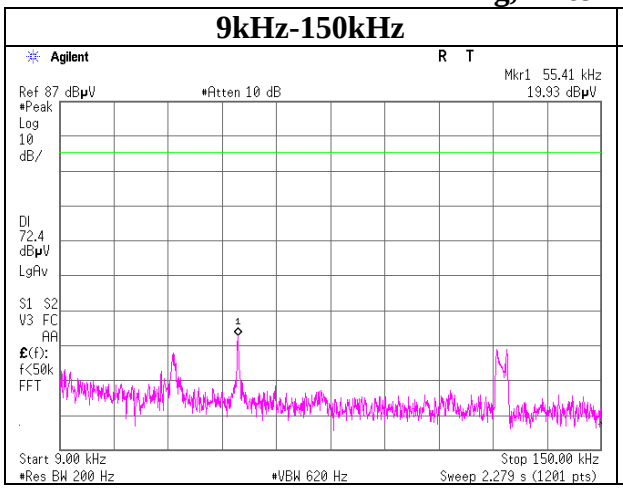


150kHz-30MHz

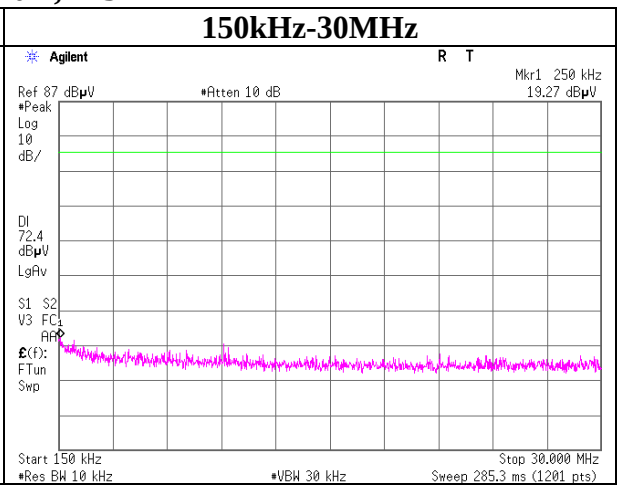


Tx 11g, Antenna 1, 2437MHz

9kHz-150kHz



150kHz-30MHz

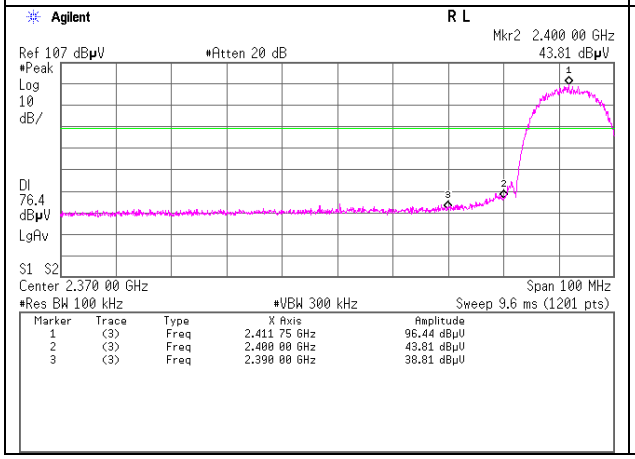


*It was confirmed that there was enough margin to the limit of FCC15.209 at Radiated Spurious emission test.

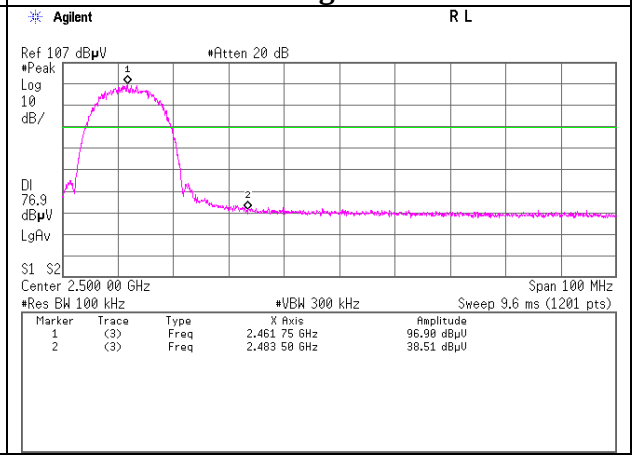
Conducted Emission Band Edge compliance

11b Tx, Antenna 0

Low

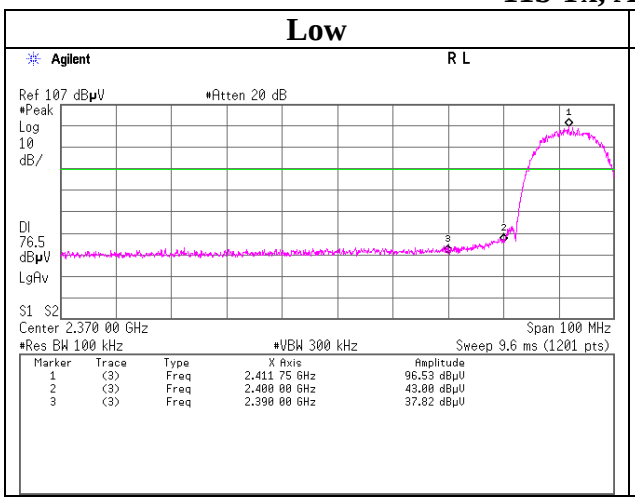


High

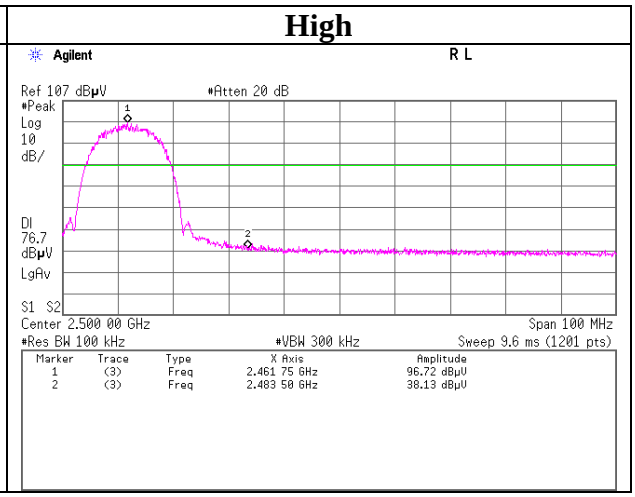


11b Tx, Antenna 1

Low



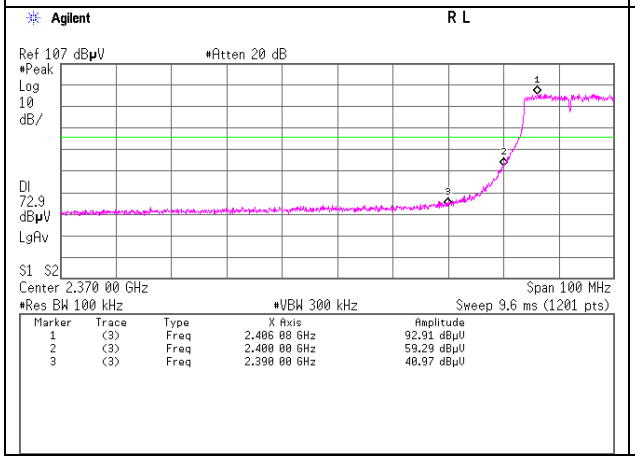
High



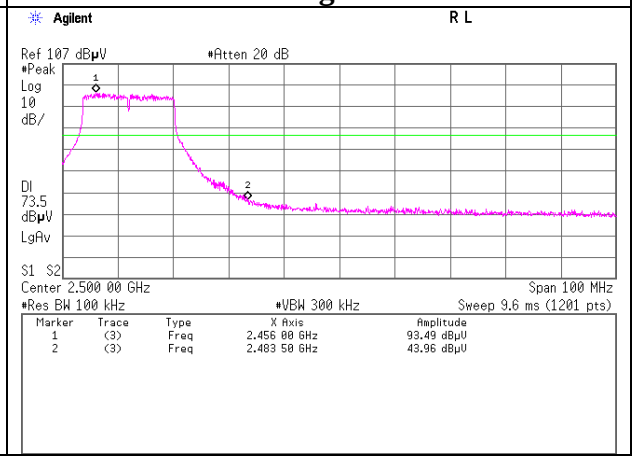
Conducted Emission Band Edge compliance

11g Tx, Antenna 0

Low

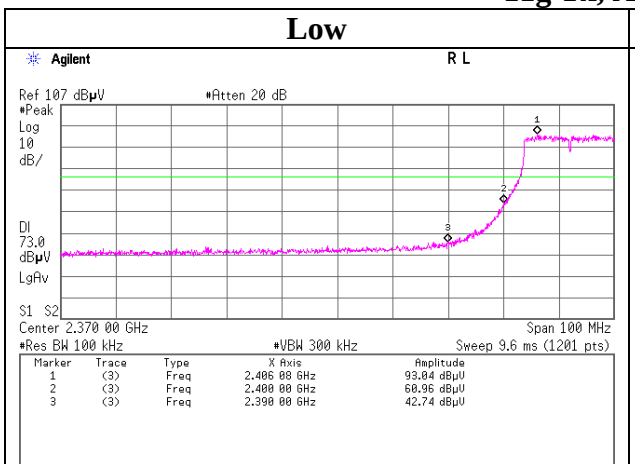


High

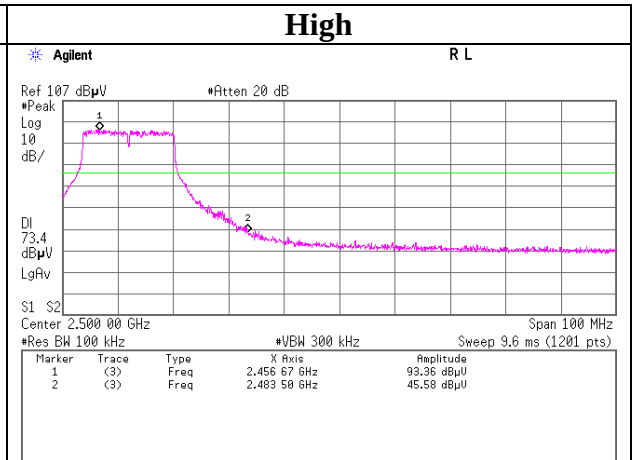


11g Tx, Antenna 1

Low



High



Power Density

Test place	Head Office EMC Lab. No.4 Measurement Room
Report No.	31HE0085-HO-01
Date	03/17/2011
Temperature/ Humidity	23 deg.C / 24% RH
Engineer	Satofumi Matsuyama
Mode	11b Tx

11b Antenna 0

Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
2412.00	-15.77	1.81	10.02	-3.94	8.00	11.94
2437.00	-15.42	1.82	10.02	-3.58	8.00	11.58
2462.00	-15.22	1.82	10.02	-3.38	8.00	11.38

11b Antenna 1

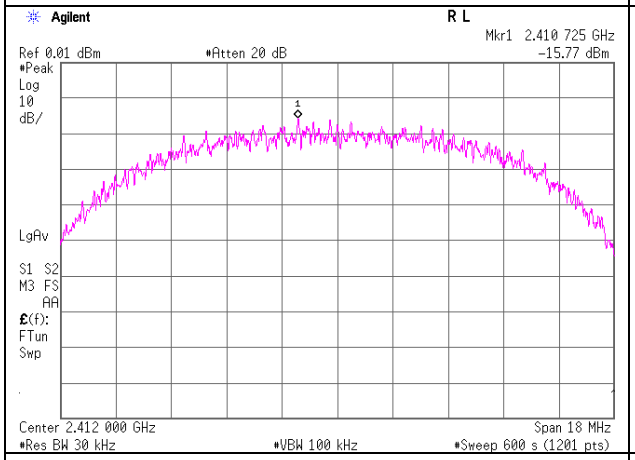
Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
2412.00	-16.25	1.81	10.02	-4.42	8.00	12.42
2437.00	-16.18	1.82	10.02	-4.34	8.00	12.34
2462.00	-15.58	1.82	10.02	-3.74	8.00	11.74

Sample Calculation:
Result = Reading + Cable Loss (including the cable(s) customer supplied) + Attenuator

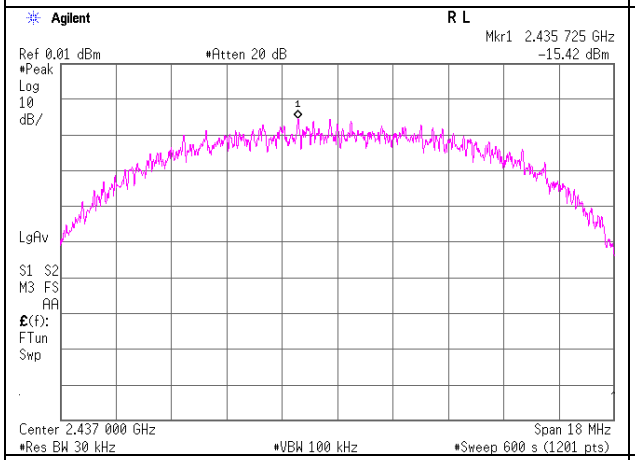
Power Density

11b Antenna 0

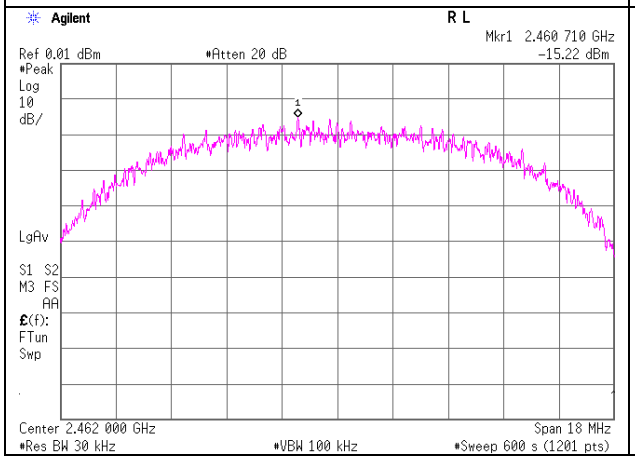
2412MHz



2437MHz

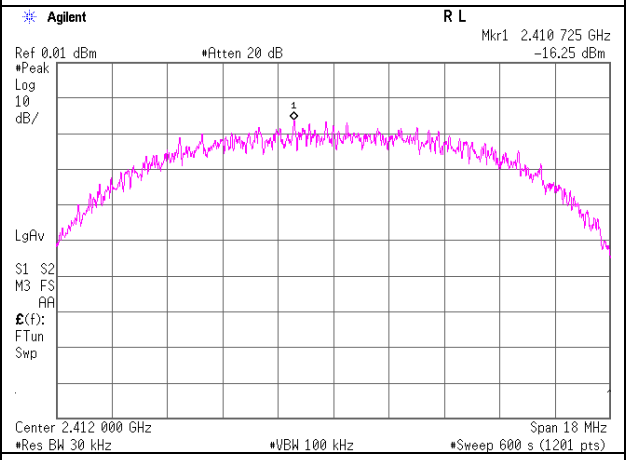


2462MHz

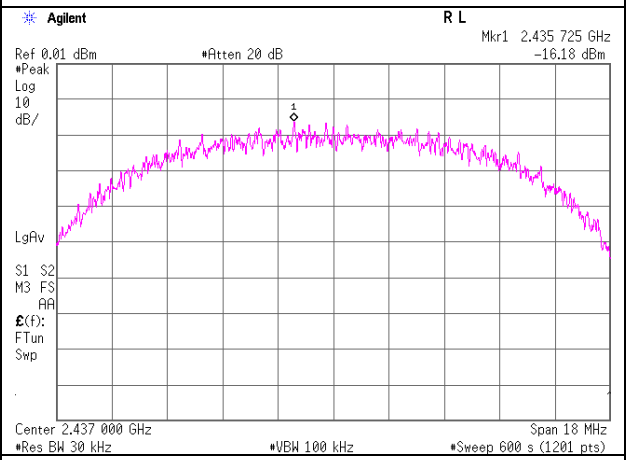


11b Antenna 1

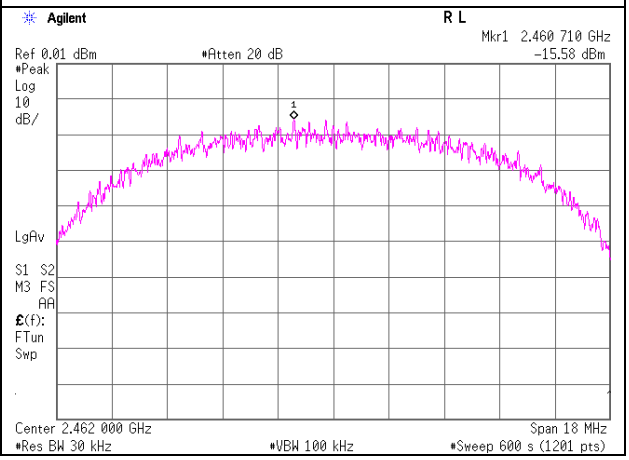
2412MHz



2437MHz



2462MHz



Power Density

Test place	Head Office EMC Lab. No.4 Measurement Room
Report No.	31HE0085-HO-01
Date	03/17/2011
Temperature/ Humidity	23 deg.C / 24% RH
Engineer	Satofumi Matsuyama
Mode	11g Tx

11g Antenna 0

Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
2412.00	-18.84	1.81	10.02	-7.01	8.00	15.01
2437.00	-18.62	1.82	10.02	-6.78	8.00	14.78
2462.00	-18.33	1.82	10.02	-6.49	8.00	14.49

11g Antenna 1

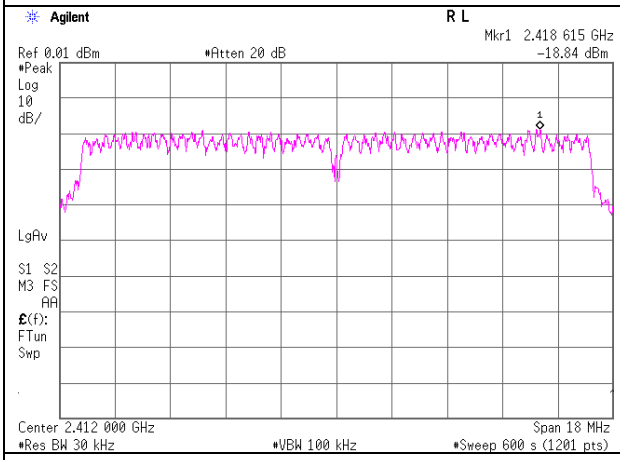
Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
2412.00	-18.81	1.81	10.02	-6.98	8.00	14.98
2437.00	-18.85	1.82	10.02	-7.01	8.00	15.01
2462.00	-18.88	1.82	10.02	-7.04	8.00	15.04

Sample Calculation:
Result = Reading + Cable Loss (including the cable(s) customer supplied) + Attenuator

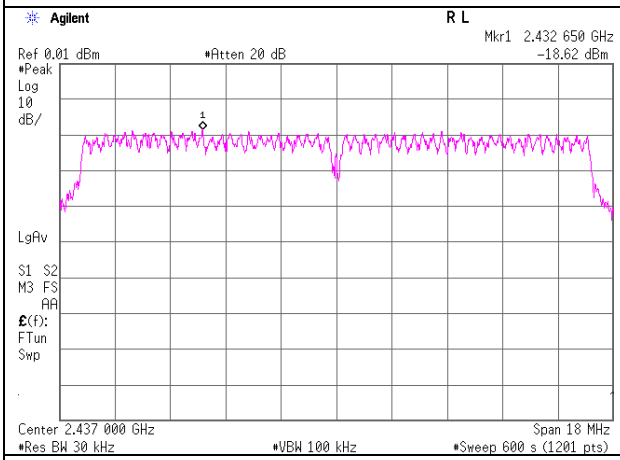
Power Density

11g Antenna 0

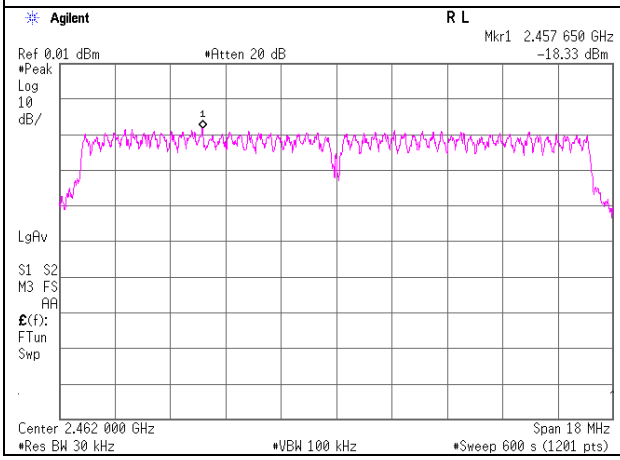
2412MHz



2437MHz

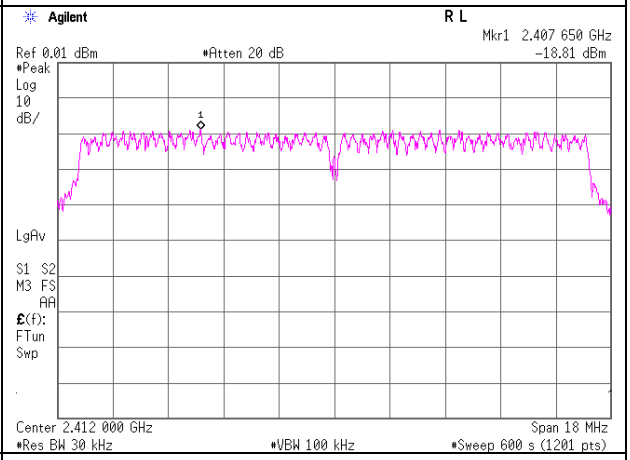


2462MHz

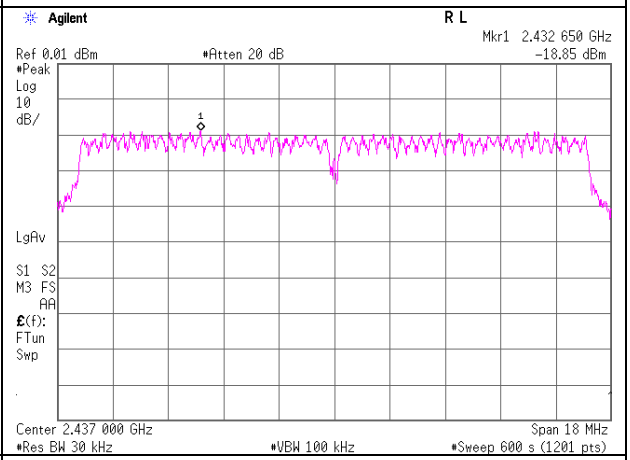


11g Antenna 1

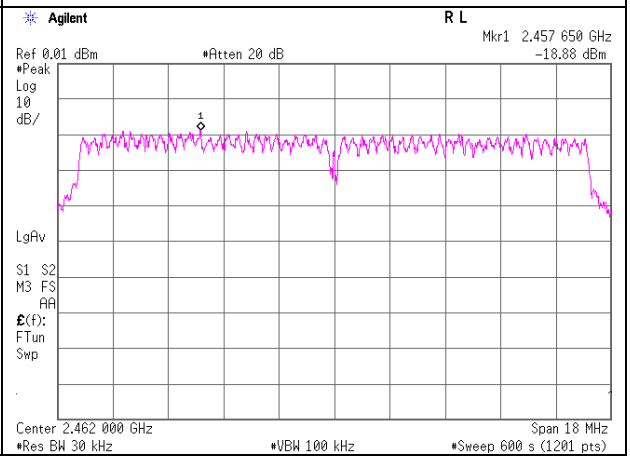
2412MHz



2437MHz



2462MHz



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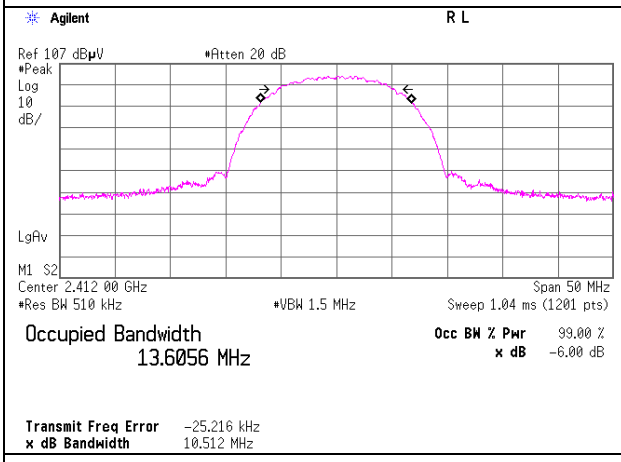
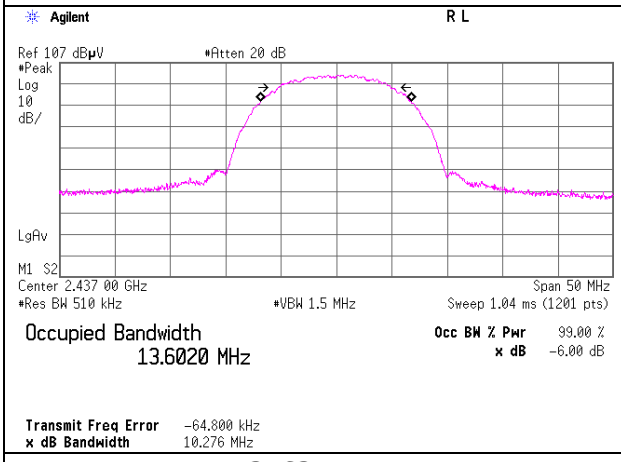
99%Occupied Bandwidth

11b Antenna 0

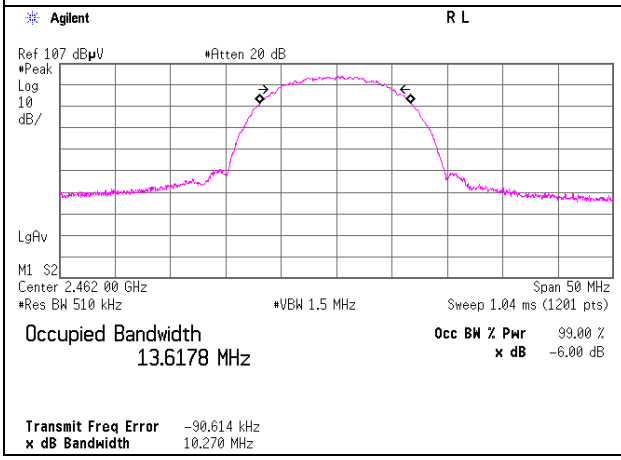
2412MHz



2437MHz

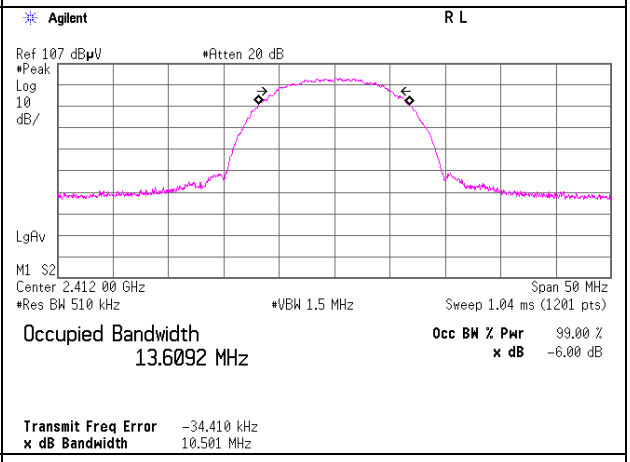


2462MHz

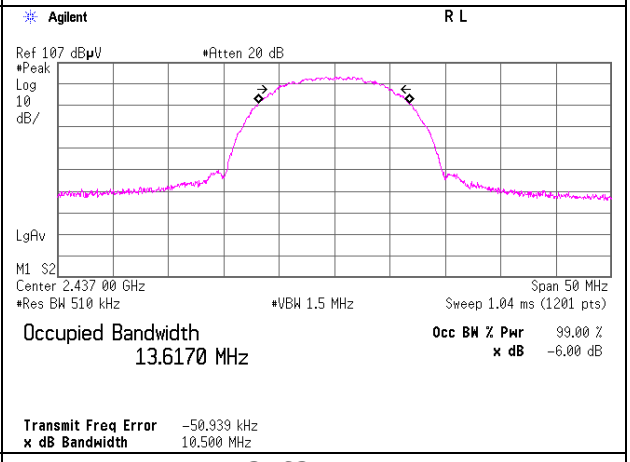


11b Antenna 1

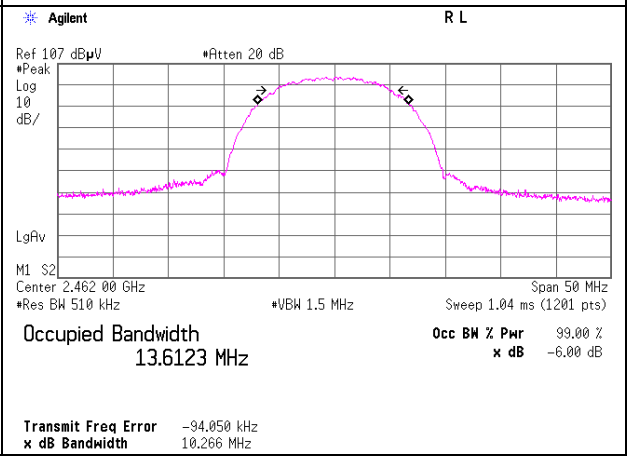
2412MHz



2437MHz



2462MHz



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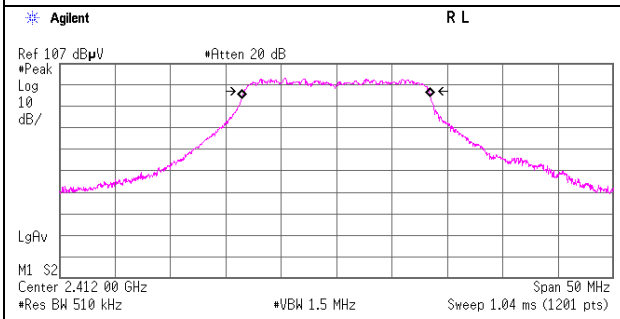
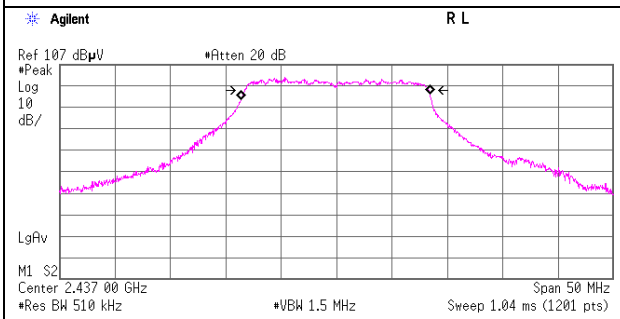
99% Occupied Bandwidth

11g Antenna 0

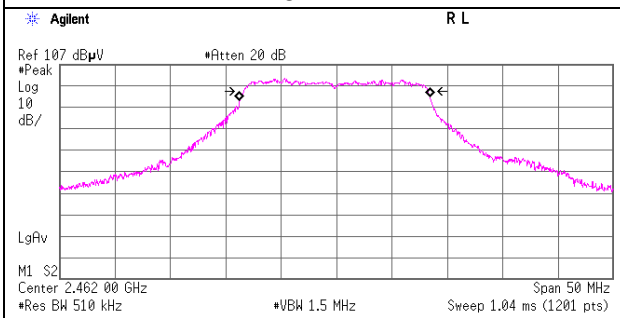
2412MHz



2437MHz

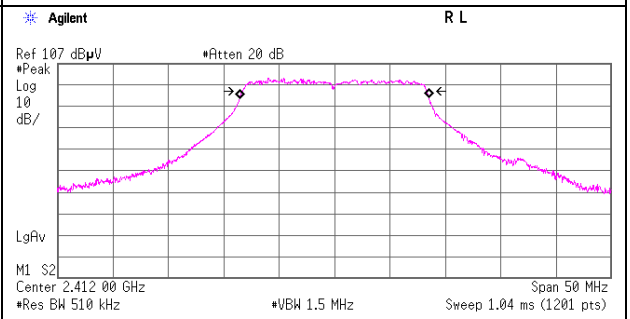


2462MHz

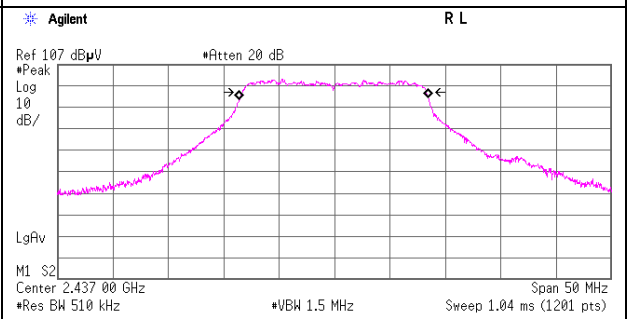


11g Antenna 1

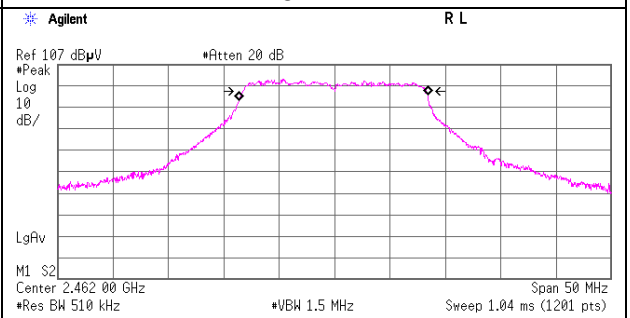
2412MHz



2437MHz



2462MHz



APPENDIX 3: Test instruments

EMI test equipment (1/2)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-04	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE	2011/03/01 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	-	RE/AT	2011/02/23 * 12
MJM-07	Measure	PROMART	SEN1955	-	RE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE	-
MSA-05	Spectrum Analyzer	Advantest	R3273	160400285	RE	2010/11/18 * 12
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	9120D-557	RE	2010/08/08 * 12
MCC-56	Microwave Cable	Suhner	SUCOFLEX104	270875/4(1m) / 284655(5m)	RE	2011/03/02 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	MY39500780	RE	2011/03/10 * 12
MHF-20	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCC	607	RE	2010/09/21 * 12
MCC-79	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	278923/4	RE	2010/12/02 * 12
MAEC-03	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE/CE	2011/02/22 * 12
MOS-13	Thermo-Hygrometer	Custom	CTH-180	-	RE/CE	2011/02/23 * 12
MJM-06	Measure	PROMART	SEN1955	-	RE/CE	-
MSA-10	Spectrum Analyzer	Agilent	E4448A	MY46180655	RE	2011/02/15 * 12
MHA-20	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	258	RE	2010/05/07 * 12
MCC-58	Microwave Cable	Suhner	SUCOFLEX104	246770(1m) / 250655(5m)	RE	2011/03/02 * 12
MPA-11	MicroWave System Amplifier	Agilent	83017A	MY39500779	RE	2011/03/10 * 12
MHF-19	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCA	602	RE	2010/09/21 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	MY44020357	AT	2010/11/30 * 12
MAT-25	Attenuator(10dB)(above1GHz)	Agilent	8493C	71642	AT	2010/06/22 * 12
MCC-66	Microwave Cable 1G-40GHz	Suhner	SUCOFLEX102	28636/2	AT	2010/04/27 * 12
MAT-23	Attenuator(10dB) 1-18GHz	Orient Microwave	BX10-0476-00	-	AT	2011/03/14 * 12
MPM-13	Power Meter	Anritsu	ML2495A	0824014	AT	2010/11/01 * 12
MPSE-18	Power sensor	Anritsu	MA2411B	0738174	AT	2010/11/01 * 12

EMI test equipment (2/2)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MHA-16	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	BBHA9170306	RE	2010/05/07 * 12
MSA-10	Spectrum Analyzer	Agilent	E4448A	MY46180655	AT	2011/02/15 * 12
MCC-116	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	290221/4	AT	2010/08/05 * 12
MSA-09	Spectrum Analyzer	Advantest	R3273	95090115	CE	2010/11/18 * 12
MTR-08	Test Receiver	Rohde & Schwarz	ESCI	100767	CE	2010/08/23 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	8127363	CE(AE)	2011/02/20 * 12
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	8127364	CE(EUT)	2011/02/22 * 12
MTA-31	Terminator	TME	CT-01	-	CE	2011/01/05 * 12
MCC-112	Coaxial cable	Fujikura/Suhner/TSJ	5D-2W(10m)/SFM141(3m)/sucoform141-PE(1m)/421-010(1.5m)/RFM-E321(Switcher)	-/00640	CE	2010/07/23 * 12
MAT-66	Attenuator(13dB)	JFW Industries, Inc.	50FP-013H2 N	-	CE	2011/02/22 * 12
MOS-24	Thermo-Hygrometer	Custom	CTH-201	0005	AT	2011/02/23 * 12
MCC-114	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	290212/4	AT	2010/08/05 * 12
MAT-22	Attenuator(10dB) 1-18GHz	Orient Microwave	BX10-0476-00	-	AT	2011/03/14 * 12
MLPA-01	Loop Antenna	Rohde & Schwarz	HFH2-Z2	100017	RE	2010/10/15 * 12

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.

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

Test Item: CE: Conducted Emission
RE: Radiated Emission
AT: Antenna Terminal Conducted test