

APPENDIX 2: Data of EMI test

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

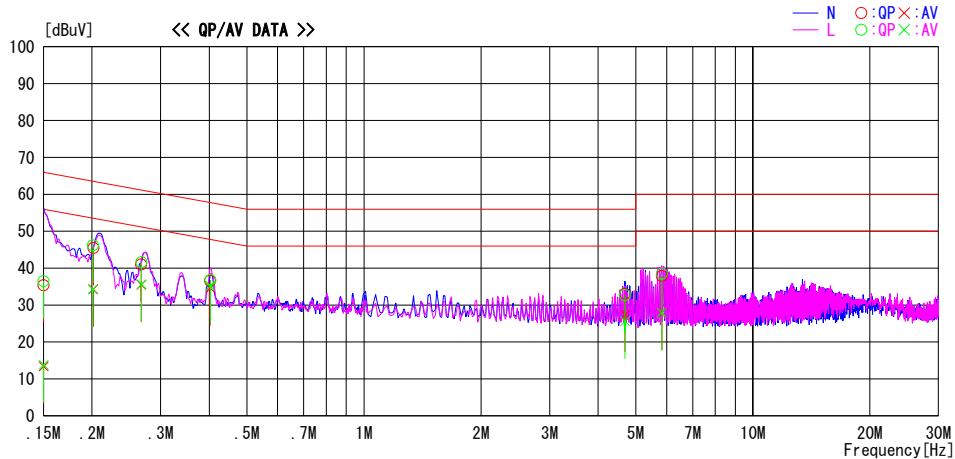
UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2010/02/21

Report No. : 30GE0004-HO-01

Temp./Humi. : 20deg.C / 33%
Engineer : Satofumi Matsuyama

Mode / Remarks : Tx, 2402MHz

LIMIT : FCC15.207 QP
FCC15.207 AV

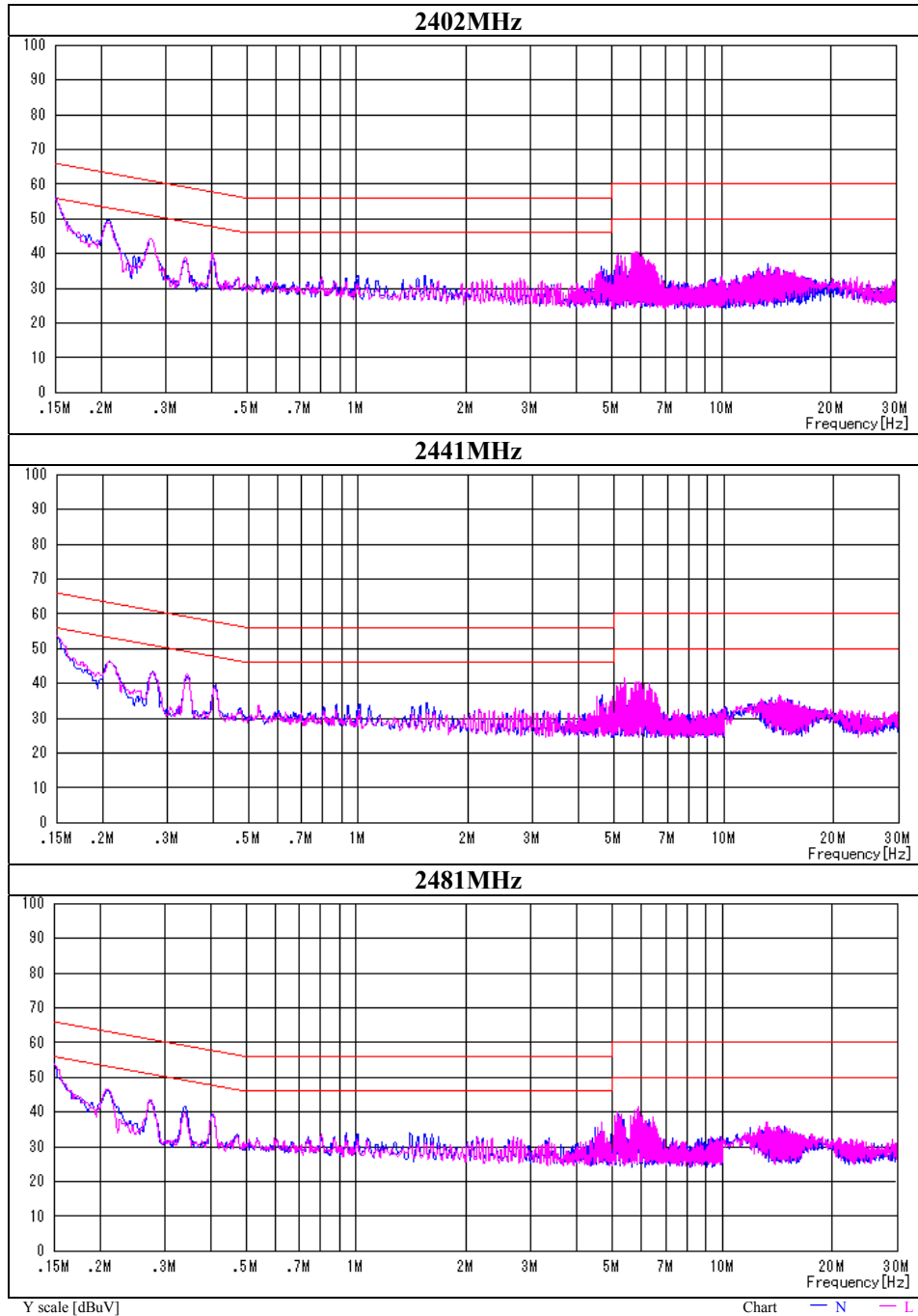


Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.15000	22.1	0.1	13.3	35.4	13.4	66.0	56.0	30.6	42.6	N	
0.15000	23.2	0.5	13.3	36.5	13.8	66.0	56.0	29.5	42.2	L	
0.20140	32.2	21.0	13.3	45.5	34.3	63.6	53.6	18.1	19.3	N	
0.20100	32.9	21.0	13.3	46.2	34.3	63.6	53.6	17.4	19.3	L	
0.26756	27.7	22.2	13.3	41.0	35.5	61.2	51.2	20.2	15.7	N	
0.26804	28.3	22.3	13.3	41.6	35.6	61.2	51.2	19.6	15.6	L	
0.40236	23.3	21.3	13.3	36.6	34.6	57.8	47.8	21.2	13.2	N	
0.40264	23.5	21.9	13.3	36.8	35.2	57.8	47.8	21.0	12.6	L	
4.69112	19.4	13.8	13.6	33.0	27.4	56.0	46.0	23.0	18.6	N	
4.69031	19.1	12.0	13.6	32.7	25.6	56.0	46.0	23.3	20.4	L	
5.83046	24.2	14.2	13.7	37.9	27.9	60.0	50.0	22.1	22.1	N	
5.82978	24.8	14.2	13.7	38.5	27.9	60.0	50.0	21.5	22.1	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

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30GE0004-HO-01
Date	02/21/2010
Temperature/ Humidity	20 deg.C./ 33%
Engineer	Satofumi Matsuyama
Mode	Tx



Conducted Emission

DATA OF CONDUCTED EMISSION TEST

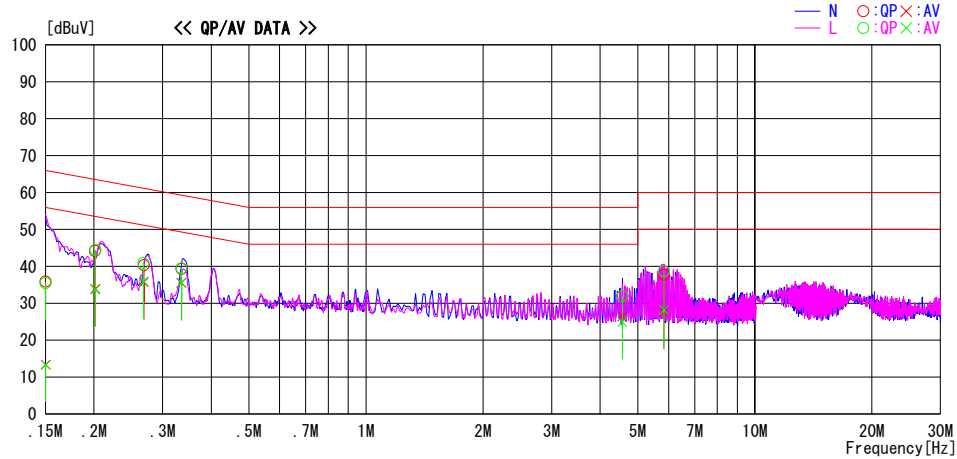
UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2010/02/21

Report No. : 30GE0004-HO-01

Temp./Humi. : 20deg. C / 33%
Engineer : Satofumi Matsuyama

Mode / Remarks : Rx, 2441MHz

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.15000	22.6	0.1	13.3	35.9	13.4	66.0	56.0	30.1	42.6	N	
0.20120	30.9	20.6	13.3	44.2	33.9	63.6	53.6	19.4	19.7	N	
0.26824	27.0	22.4	13.3	40.3	35.7	61.2	51.2	20.9	15.5	N	
0.33544	26.0	22.2	13.3	39.3	35.5	59.3	49.3	20.0	13.8	N	
4.56323	18.4	12.9	13.5	31.9	26.4	56.0	46.0	24.1	19.6	N	
5.83692	24.0	14.0	13.7	37.7	27.7	60.0	50.0	22.3	22.3	N	
0.15000	22.2	0.0	13.3	35.5	13.3	66.0	56.0	30.5	42.7	L	
0.20140	31.2	20.4	13.3	44.5	33.7	63.6	53.6	19.1	19.9	L	
0.26812	27.6	22.6	13.3	40.9	35.9	61.2	51.2	20.3	15.3	L	
0.33544	26.2	22.3	13.3	39.5	35.6	59.3	49.3	19.8	13.7	L	
4.56336	18.4	11.4	13.5	31.9	24.9	56.0	46.0	24.1	21.1	L	
5.83763	25.0	14.4	13.7	38.7	28.1	60.0	50.0	21.3	21.9	L	

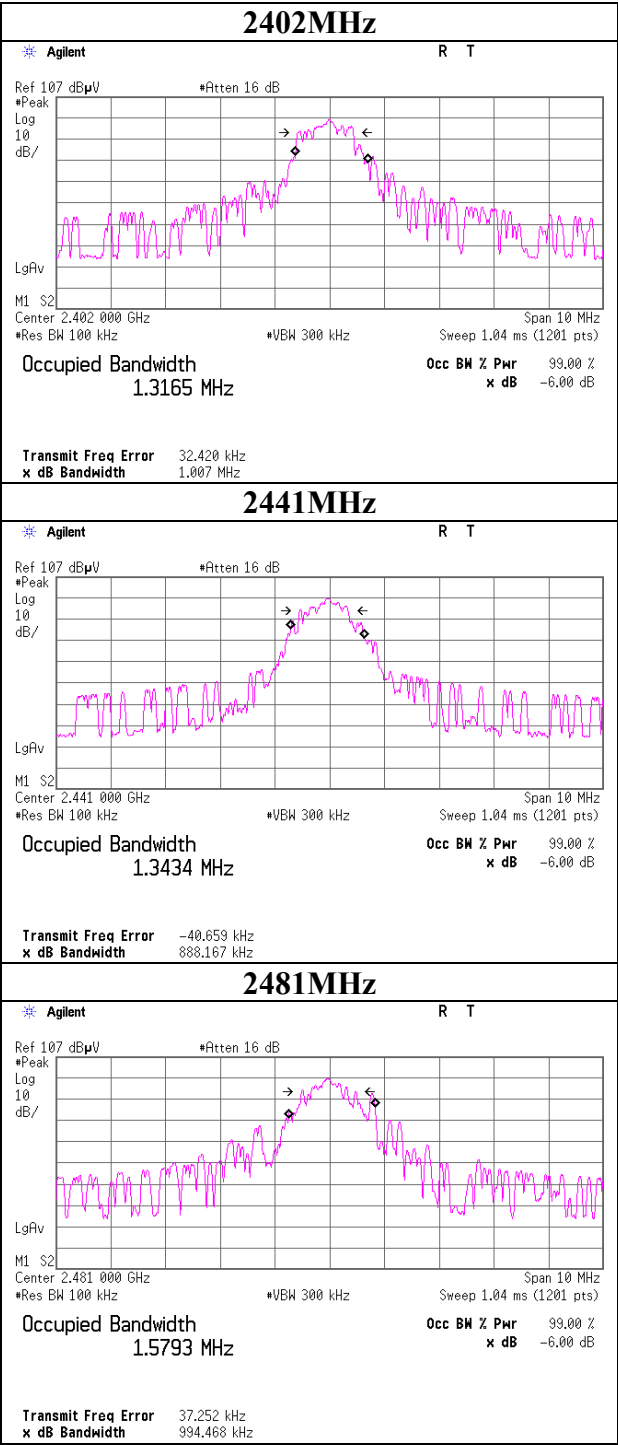
CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV] = READING [dBuV] + C.F [dB] (LISN LOSS + CABLE LOSS)
Except for the above table : adequate margin data below the limits.

6dB Bandwidth

Test place Head Office EMC Lab. No.4 Measurement Room
Report No. 30GE0004-HO-01
Date 02/21/2010
Temperature/ Humidity 20 deg.C./ 33%
Engineer Satofumi Matsuyama
Mode Tx

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
2402	1.007	>500
2441	0.888	>500
2481	0.994	>500

6dB Bandwidth



Maximum Peak Output Power

Test place	Head Office EMC Lab. No.4 Measurement Room
Report No.	30GE0004-HO-01
Date	02/21/2010
Temperature/ Humidity	20 deg.C./ 33%
Engineer	Satofumi Matsuyama
Mode	Tx

Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
				[dBm]	[mW]	[dBm]	[mW]	
2402.0	-11.15	1.50	10.02	0.37	1.09	30.00	1000	29.63
2441.0	-10.77	1.50	10.02	0.75	1.19	30.00	1000	29.25
2481.0	-10.98	1.50	10.02	0.54	1.13	30.00	1000	29.46

Sample Calculation:

Result = Reading + Cable Loss (including the cable customer supplied)+ Attenuator

Radiated Spurious Emission

Test place : Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. : 30GE0004-HO-01
Date : 02/19/2010 02/19/2010
Temperature/ Humidity : 20 deg.C./ 30% 20 deg.C./ 30%
Engineer : Norihisa Hashimoto Katsunori Okai
(below 1GHz) (Above 1GHz)
Mode : Tx, 2402MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	65.069	QP	31.8	7.2	7.5	32.2	14.3	40.0	25.7	
Hori	71.589	QP	28.9	6.5	7.6	32.1	10.9	40.0	29.1	
Hori	100.222	QP	25.4	10.2	8.0	32.1	11.5	43.5	32.0	
Hori	729.003	QP	27.0	22.5	12.2	31.9	29.8	46.0	16.2	
Hori	2390.000	PK	61.7	26.7	2.9	32.7	58.6	73.9	15.3	
Hori	2400.000	PK	79.1	26.7	2.9	32.7	76.0	-	-	See 20dBc Data Sheet
Hori	4804.000	PK	47.9	30.8	5.3	31.9	52.1	73.9	21.8	
Hori	7206.000	PK	47.7	35.9	5.7	32.6	56.7	73.9	17.2	
Hori	9608.000	PK	43.5	37.9	6.8	33.4	54.8	73.9	19.1	
Hori	24020.000	PK	46.6	38.1	-1.2	32.5	51.0	73.9	22.9	
Hori	2390.000	AV	30.1	26.7	2.9	32.7	27.0	53.9	26.9	
Hori	2400.000	AV	31.3	26.7	2.9	32.7	28.2	-	-	See 20dBc Data Sheet
Hori	4804.000	AV	29.4	30.8	5.3	31.9	33.6	53.9	20.3	
Hori	7206.000	AV	30.2	35.9	5.7	32.6	39.2	53.9	14.7	
Hori	9608.000	AV	30.1	37.9	6.8	33.4	41.4	53.9	12.5	
Hori	24020.000	AV	34.2	38.1	-1.2	32.5	38.6	53.9	15.3	
Vert	65.065	QP	53.2	7.2	7.5	32.2	35.7	40.0	4.3	
Vert	71.595	QP	50.3	6.5	7.6	32.1	32.3	40.0	7.7	
Vert	99.814	QP	48.0	10.1	8.0	32.1	34.0	43.5	9.5	
Vert	729.004	QP	29.4	22.5	12.2	31.9	32.2	46.0	13.8	
Vert	2390.000	PK	59.7	26.7	2.9	32.7	56.6	73.9	17.3	
Vert	2400.000	PK	75.5	26.7	2.9	32.7	72.4	-	-	See 20dBc Data Sheet
Vert	4804.000	PK	47.6	30.8	5.3	31.9	51.8	73.9	22.1	
Vert	7206.000	PK	48.5	35.9	5.7	32.6	57.5	73.9	16.4	
Vert	9608.000	PK	43.3	37.9	6.8	33.4	54.6	73.9	19.3	
Vert	24020.000	PK	45.9	38.1	-1.2	32.5	50.3	73.9	23.6	
Vert	2390.000	AV	30.0	26.7	2.9	32.7	26.9	53.9	27.0	
Vert	2400.000	AV	30.9	26.7	2.9	32.7	27.8	-	-	See 20dBc Data Sheet
Vert	4804.000	AV	29.0	30.8	5.3	31.9	33.2	53.9	20.7	
Vert	7206.000	AV	30.5	35.9	5.7	32.6	39.5	53.9	14.4	
Vert	9608.000	AV	30.1	37.9	6.8	33.4	41.4	53.9	12.5	
Vert	24020.000	AV	34.2	38.1	-1.2	32.5	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 4th harmonic and over were 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

Test place : Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. : 30GE0004-HO-01
Date : 02/19/2010
Temperature/ Humidity : 20 deg.C./ 30%
Engineer : Katsunori Okai
(Above 1GHz)
Mode : Tx, 2402MHz

20dBc Data Sheet

Polarity	Frequency	Detector	Reading	Ant Factor	Loss	Gain	Result	Limit	Margin	Remark
	[MHz]		[dBuV]	[dB/m]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
Hori	2402.000	PK	98.6	26.7	2.9	32.7	95.5	-	-	Carrier
Hori	2400.000	PK	64.6	26.7	2.9	32.7	61.5	75.5	14.0	
Vert	2402.000	PK	97.8	26.7	2.9	32.7	94.7	-	-	Carrier
Vert	2400.000	PK	62.1	26.7	2.9	32.7	59.0	74.7	15.7	

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

Radiated Spurious Emission

Test place : Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. : 30GE0004-HO-01
Date : 02/19/2010 02/19/2010
Temperature/ Humidity : 20 deg.C./ 30% 20 deg.C./ 30%
Engineer : Norihisa Hashimoto Katsunori Okai
(below 1GHz) (Above 1GHz)
Mode : Tx, 2441MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	64.830	QP	31.9	7.2	7.5	32.2	14.4	40.0	25.6	
Hori	71.310	QP	29.1	6.5	7.6	32.1	11.1	40.0	28.9	
Hori	100.470	QP	26.1	10.2	8.0	32.1	12.2	43.5	31.3	
Hori	729.108	QP	27.5	22.5	12.2	31.9	30.3	46.0	15.7	
Hori	4882.000	PK	46.5	31.1	5.3	31.9	51.0	73.9	22.9	
Hori	7323.000	PK	49.1	36.1	5.7	32.6	58.3	73.9	15.6	
Hori	9764.000	PK	42.2	38.1	6.9	33.4	53.8	73.9	20.1	
Hori	24410.000	PK	47.2	38.3	-1.1	32.3	52.1	73.9	21.8	
Hori	4882.000	AV	29.2	31.1	5.3	31.9	33.7	53.9	20.2	
Hori	7323.000	AV	30.4	36.1	5.7	32.6	39.6	53.9	14.3	
Hori	9764.000	AV	29.6	38.1	6.9	33.4	41.2	53.9	12.7	
Hori	24410.000	AV	35.2	38.3	-1.1	32.3	40.1	53.9	13.8	
Vert	64.831	QP	52.9	7.2	7.5	32.2	35.4	40.0	4.6	
Vert	71.595	QP	50.5	6.5	7.6	32.1	32.5	40.0	7.5	
Vert	99.814	QP	47.9	10.1	8.0	32.1	33.9	43.5	9.6	
Vert	729.003	QP	29.6	22.5	12.2	31.9	32.4	46.0	13.6	
Vert	4882.000	PK	44.1	31.1	5.3	31.9	48.6	73.9	25.3	
Vert	7323.000	PK	47.4	36.1	5.7	32.6	56.6	73.9	17.3	
Vert	9764.000	PK	43.1	38.1	6.9	33.4	54.7	73.9	19.2	
Vert	24410.000	PK	46.8	38.3	-1.1	32.3	51.7	73.9	22.2	
Vert	4882.000	AV	28.9	31.1	5.3	31.9	33.4	53.9	20.5	
Vert	7323.000	AV	30.4	36.1	5.7	32.6	39.6	53.9	14.3	
Vert	9764.000	AV	29.7	38.1	6.9	33.4	41.3	53.9	12.6	
Vert	24410.000	AV	35.2	38.3	-1.1	32.3	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 4th harmonic and over were 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

Test place : Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. : 30GE0004-HO-01
Date : 02/19/2010 02/19/2010
Temperature/ Humidity : 20 deg.C./ 30% 20 deg.C./ 30%
Engineer : Norihisa Hashimoto Katsunori Okai
Mode : (below 1GHz) (Above 1GHz)
Tx, 2481MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	61.441	QP	33.5	7.7	7.5	32.2	16.5	40.0	23.5	
Hori	65.068	QP	30.2	7.2	7.5	32.2	12.7	40.0	27.3	
Hori	71.587	QP	28.4	6.5	7.6	32.1	10.4	40.0	29.6	
Hori	81.110	QP	30.4	6.5	7.7	32.1	12.5	40.0	27.5	
Hori	196.609	QP	25.2	16.7	8.9	32.1	18.7	43.5	24.8	
Hori	729.003	QP	26.8	22.5	12.2	31.9	29.6	46.0	16.4	
Hori	2483.500	PK	75.5	26.9	2.9	32.7	72.6	-	-	See Marker Delta Method Sheet
Hori	4962.000	PK	46.6	31.3	5.4	31.9	51.4	73.9	22.5	
Hori	7443.000	PK	53.9	36.3	5.7	32.7	63.2	73.9	10.7	
Hori	9924.000	PK	42.6	38.3	7.1	33.5	54.5	73.9	19.4	
Hori	24810.000	PK	48.5	38.4	-1.0	32.2	53.7	73.9	20.2	
Hori	2483.500	AV	30.7	26.9	2.9	32.7	27.8	-	-	See Marker Delta Method Sheet
Hori	4962.000	AV	29.1	31.3	5.4	31.9	33.9	53.9	20.0	
Hori	7443.000	AV	31.2	36.3	5.7	32.7	40.5	53.9	13.4	
Hori	9924.000	AV	30.2	38.3	7.1	33.5	42.1	53.9	11.8	
Hori	24810.000	AV	36.3	38.4	-1.0	32.2	41.5	53.9	12.4	
Vert	61.441	QP	51.3	7.7	7.5	32.2	34.3	40.0	5.7	
Vert	65.051	QP	51.4	7.2	7.5	32.2	33.9	40.0	6.1	
Vert	71.598	QP	39.3	6.5	7.6	32.1	21.3	40.0	18.7	
Vert	81.057	QP	45.8	6.5	7.7	32.1	27.9	40.0	12.1	
Vert	196.607	QP	34.1	16.7	8.9	32.1	27.6	43.5	16.0	
Vert	729.011	QP	28.7	22.5	12.2	31.9	31.5	46.0	14.5	
Vert	2483.500	PK	77.9	26.9	2.9	32.7	75.0	-	-	See Marker Delta Method Sheet
Vert	4962.000	PK	46.1	31.3	5.4	31.9	50.9	73.9	23.0	
Vert	7443.000	PK	55.6	36.3	5.7	32.7	64.9	73.9	9.0	
Vert	9924.000	PK	42.8	38.3	7.1	33.5	54.7	73.9	19.2	
Vert	24810.000	PK	48.3	38.4	-1.0	32.2	53.5	73.9	20.4	
Vert	2483.500	AV	31.1	26.9	2.9	32.7	28.2	-	-	See Marker Delta Method Sheet
Vert	4962.000	AV	29.0	31.3	5.4	31.9	33.8	53.9	20.1	
Vert	7443.000	AV	31.5	36.3	5.7	32.7	40.8	53.9	13.1	
Vert	9924.000	AV	30.3	38.3	7.1	33.5	42.2	53.9	11.7	
Vert	24810.000	AV	36.3	38.4	-1.0	32.2	41.5	53.9	12.4	

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 4th harmonic and over were 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 (Marker Delta Method Sheet)

Test place	Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No.	30GE0004-HO-01
Date	02/19/2010
Temperature/ Humidity	20 deg.C./ 30%
Engineer	Katsunori Okai (Above 10GHz)
Mode	Tx, 2481MHz

Marker Delta Method(Test distance 3meters)

		Polarity	Hor[dBμV/m]		Ver[dBμV/m]	
		Detector	PK	AV	PK	AV
		RBW \ VBW	1MHz	11Hz	1MHz	11Hz
Step1	Fundamental(2481.0MHz)	1MHz	98.7	65.0	99.4	63.2
Step2	Fundamental(2481.0MHz)	30kHz	93.8	-	92.5	-
	Band-edge(2483.5MHz)	30kHz	43.6	-	45.4	-
	Amplitude delta*1	-	50.2	50.2	47.1	47.1
Step3	Field strength of band-edge*2	-	48.5	14.8	52.3	16.1
	Limit	-	73.9	53.9	73.9	53.9
	Margin	-	25.4	39.1	21.6	37.8

*1 Amplitude delta = Fundamental(RBW:30kHz,VBW:1MHz) - Band-edge(RBW:30kHz,VBW:1MHz)

*2Field strength of band-edge = Fundamental(RBW:1MHz) - Amplitude delta

Radiated Spurious Emission

Test place : Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. : 30GE0004-HO-01
Date : 02/19/2010 02/19/2010
Temperature/ Humidity : 20 deg.C./ 30% 20 deg.C./ 30%
Engineer : Norihisa Hashimoto Katsunori Okai
Mode : (below 1GHz) (Above 1GHz)
Rx, 2441MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	65.436	QP	29.7	7.1	7.5	32.2	12.1	40.0	27.9	
Hori	84.273	QP	27.3	7.1	7.8	32.1	10.1	40.0	29.9	
Hori	130.885	QP	25.3	13.8	8.3	32.1	15.3	43.5	28.2	
Hori	196.601	QP	29.5	16.7	8.9	32.1	23.0	43.5	20.5	
Hori	364.503	QP	37.4	17.0	10.1	32.0	32.5	46.0	13.5	
Hori	499.759	QP	28.7	19.1	11.0	32.0	26.8	46.0	19.2	
Hori	2441.000	PK	42.1	26.8	2.9	32.7	39.1	73.9	34.8	
Hori	4882.000	PK	39.4	31.1	3.9	31.9	42.5	73.9	31.4	
Hori	7323.000	PK	41.6	36.1	4.3	32.6	49.4	73.9	24.5	
Hori	9764.000	PK	41.0	38.1	5.1	33.4	50.8	73.9	23.1	
Hori	2441.000	AV	30.2	26.8	2.9	32.7	27.2	53.9	26.7	
Hori	4882.000	AV	28.4	31.1	3.9	31.9	31.5	53.9	22.4	
Hori	7323.000	AV	30.0	36.1	4.3	32.6	37.8	53.9	16.1	
Hori	9764.000	AV	29.6	38.1	5.1	33.4	39.4	53.9	14.5	
Vert	65.446	QP	51.8	7.1	7.5	32.2	34.2	40.0	5.8	
Vert	84.790	QP	49.9	7.2	7.8	32.1	32.8	40.0	7.2	
Vert	130.709	QP	0.0	13.7	8.3	32.1	-10.1	43.5	53.6	
Vert	196.600	QP	39.3	16.7	8.9	32.1	32.8	43.5	10.7	
Vert	364.502	QP	37.1	17.0	10.1	32.0	32.2	46.0	13.8	
Vert	499.504	QP	31.5	19.1	11.0	32.0	29.6	46.0	16.4	
Vert	2441.000	PK	42.2	26.8	2.9	32.7	39.2	73.9	34.7	
Vert	4882.000	PK	39.5	31.1	3.9	31.9	42.6	73.9	31.3	
Vert	7323.000	PK	41.1	36.1	4.3	32.6	48.9	73.9	25.0	
Vert	9764.000	PK	40.9	38.1	5.1	33.4	50.7	73.9	23.2	
Vert	2441.000	AV	30.2	26.8	2.9	32.7	27.2	53.9	26.7	
Vert	4882.000	AV	28.4	31.1	3.9	31.9	31.5	53.9	22.4	
Vert	7323.000	AV	29.9	36.1	4.3	32.6	37.7	53.9	16.2	
Vert	9764.000	AV	29.6	38.1	5.1	33.4	39.4	53.9	14.5	

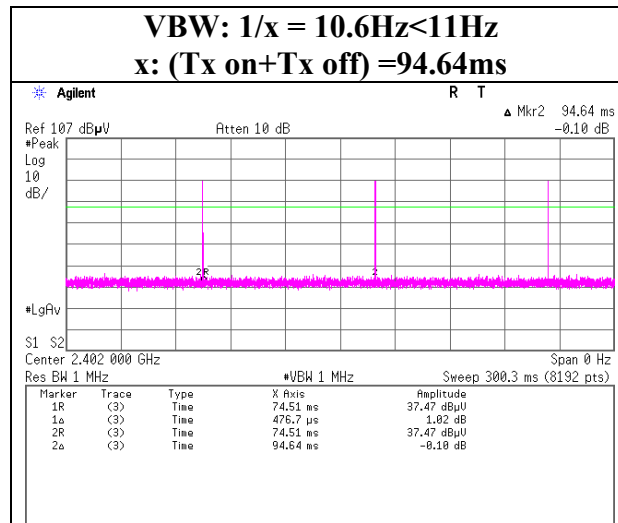
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

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

*The 4th harmonic and over was not seen so the result was its base noise level.

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

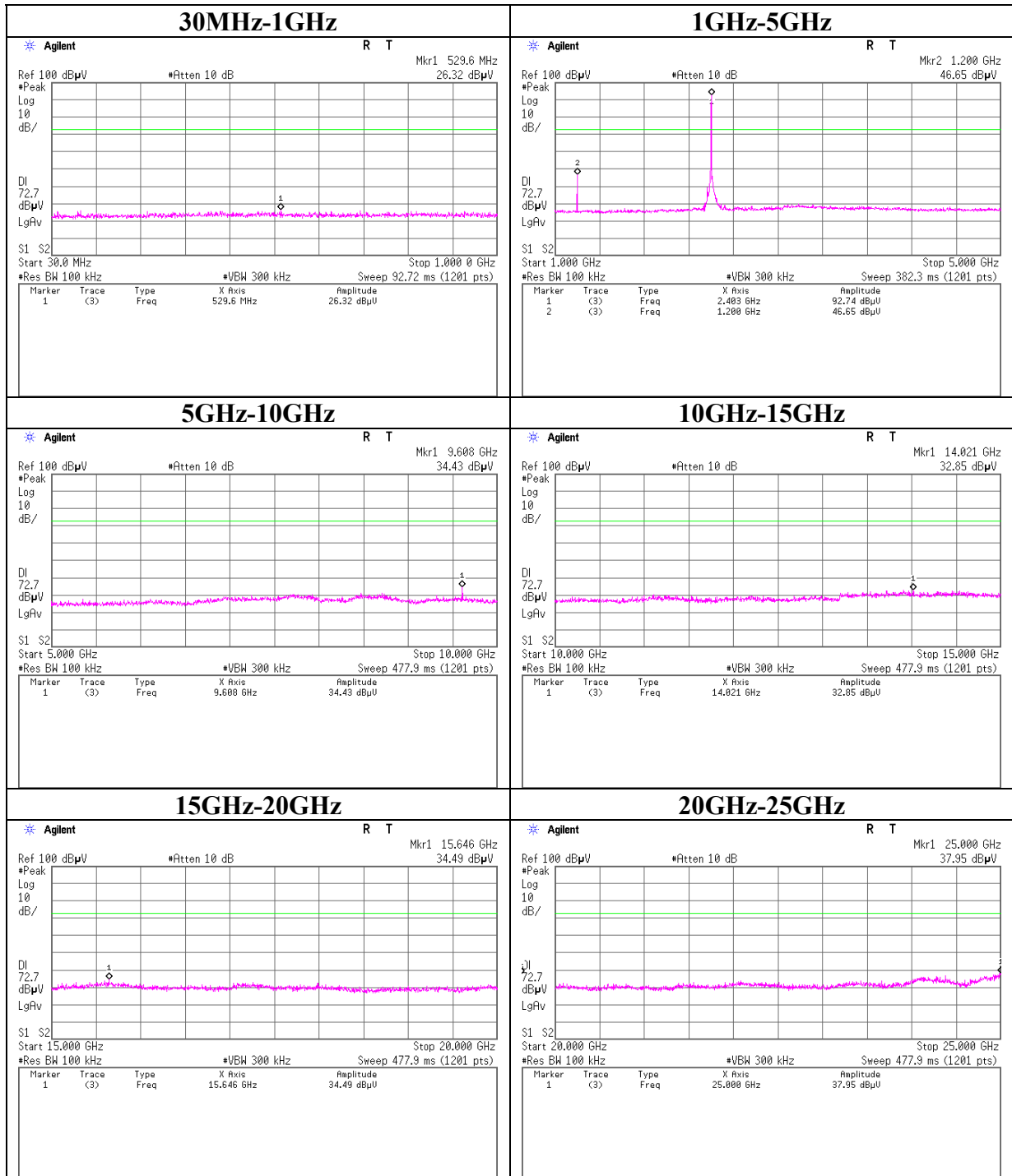
VBW (AV) Calculation



The test was performed with Burst transmission.
The above chart shows the maximum ON time and the minimum OFF time.

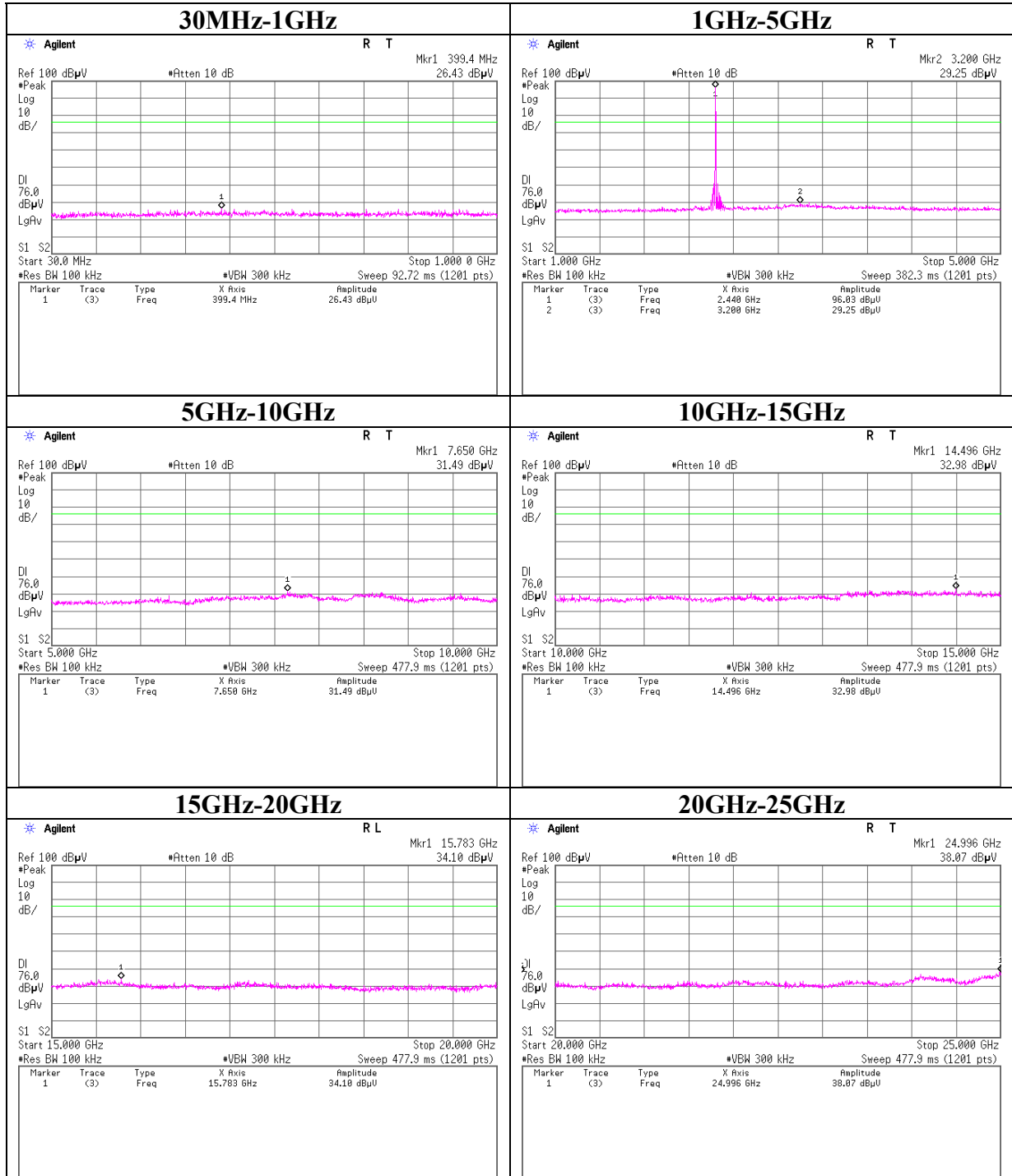
Conducted Spurious Emission

Tx 2402MHz



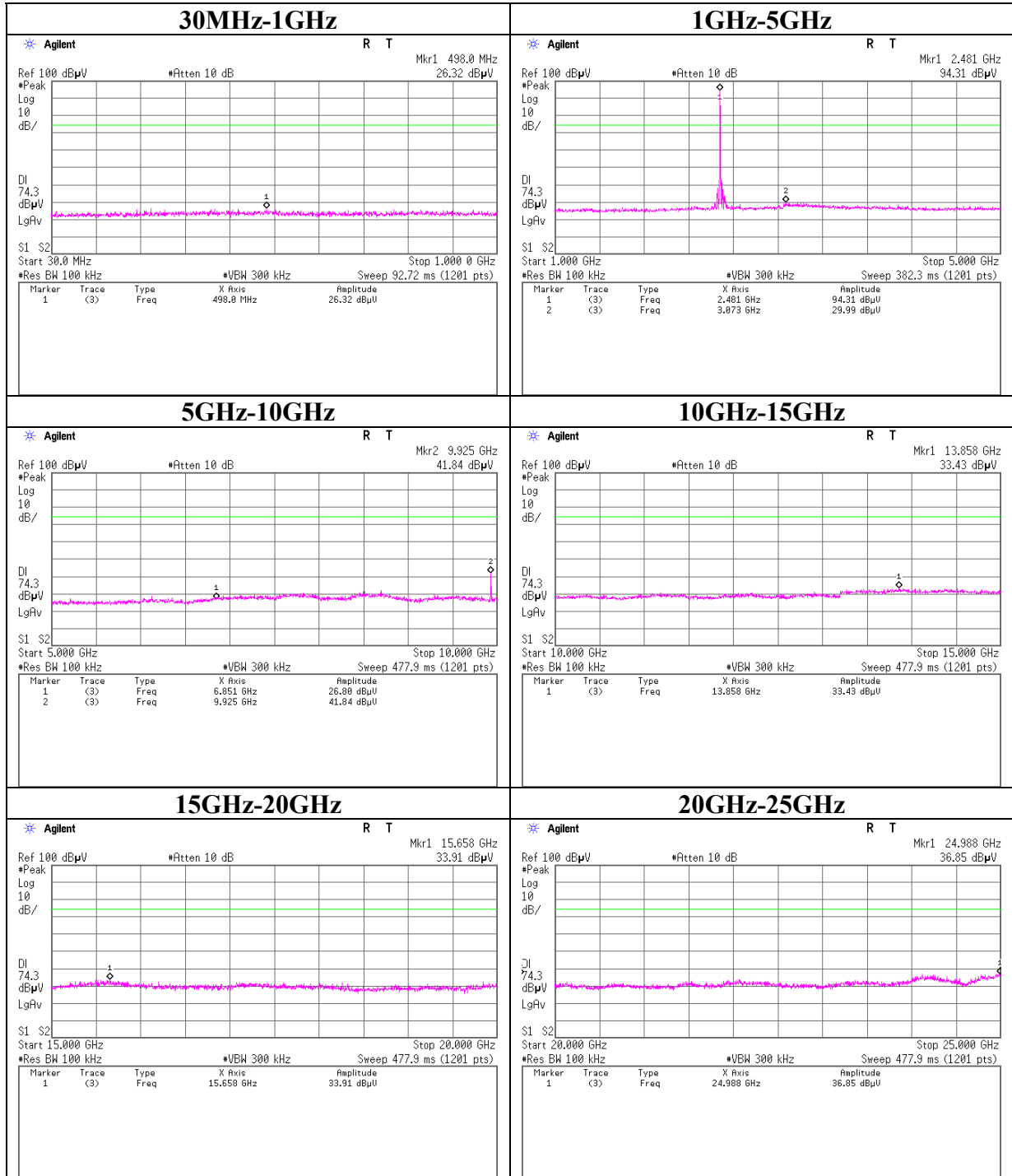
Conducted Spurious Emission

Tx 2441MHz



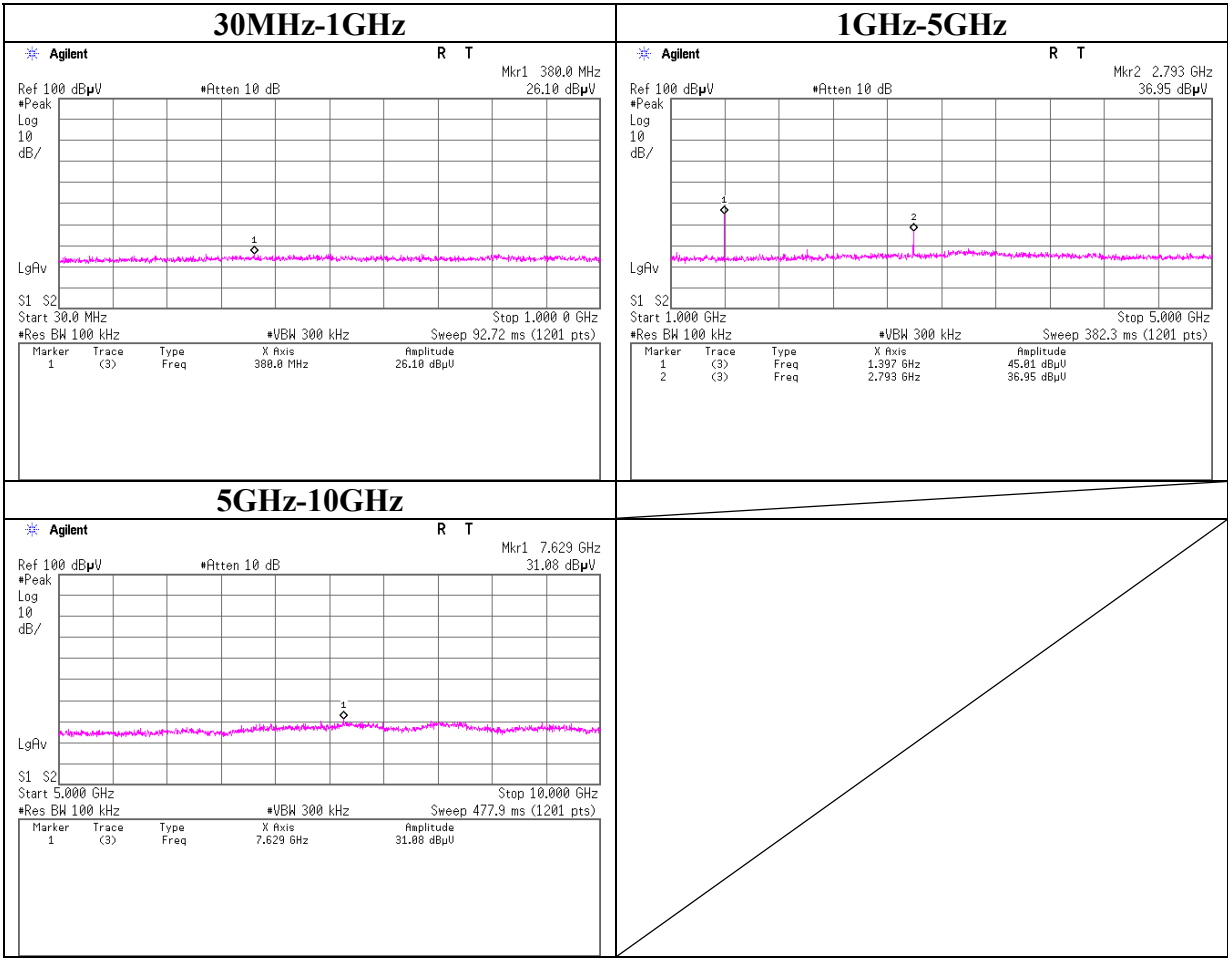
Conducted Spurious Emission

Tx 2481MHz

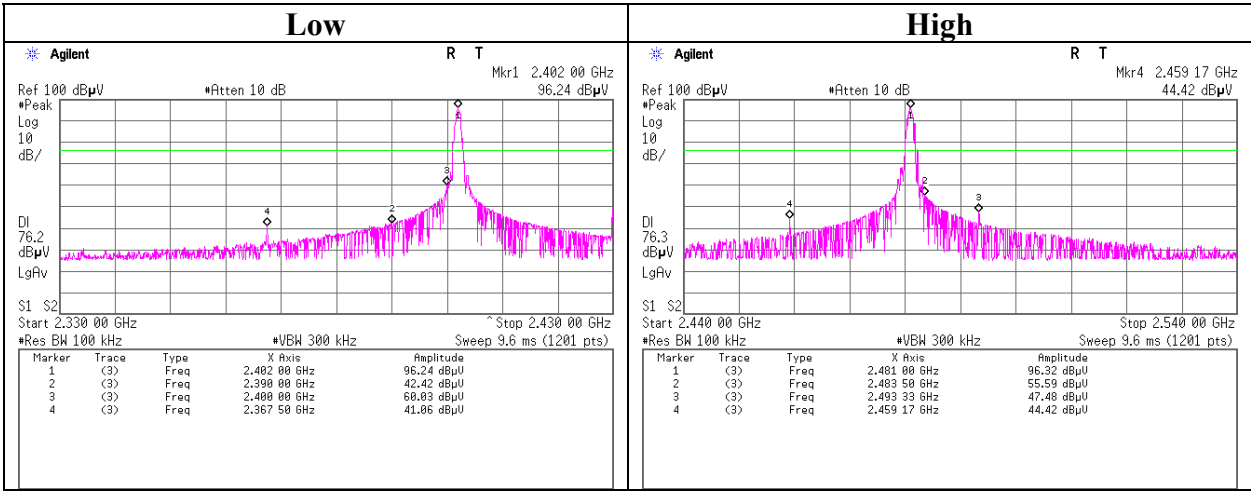


Conducted Spurious Emission

Rx 2441MHz



Conducted Emission Band Edge compliance



Power Density

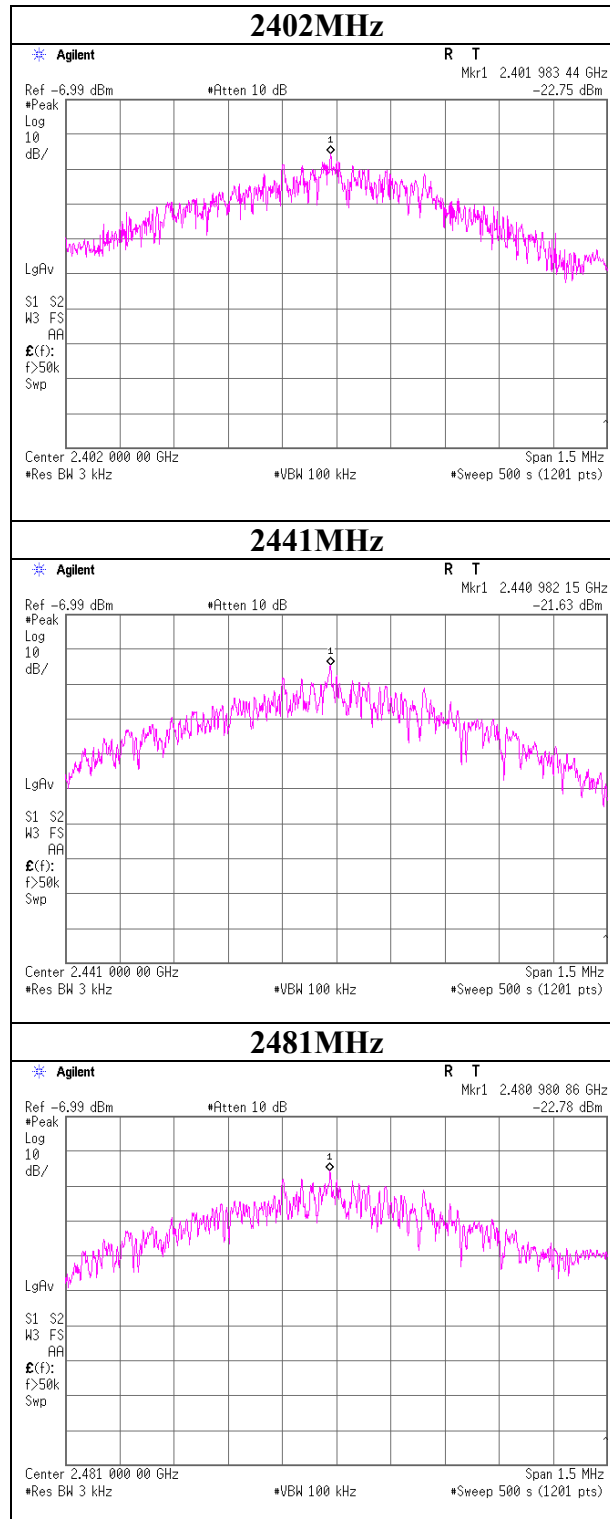
Test place Head Office EMC Lab. No.4 Measurement Room
Report No. 30GE0004-HO-01
Date 02/21/2010
Temperature/ Humidity 20 deg.C./ 33%
Engineer Satofumi Matsuyama
Mode Tx

Freq.	Reading	Cable Loss	Atten.	Result	Limit	Margin
[MHz]	[dBm]	[dB]	[dB]	[dBm]	[dBm]	[dB]
2401.98	-22.75	1.50	10.02	-11.23	8.00	19.23
2440.98	-21.63	1.50	10.02	-10.11	8.00	18.11
2480.98	-22.78	1.50	10.02	-11.26	8.00	19.26

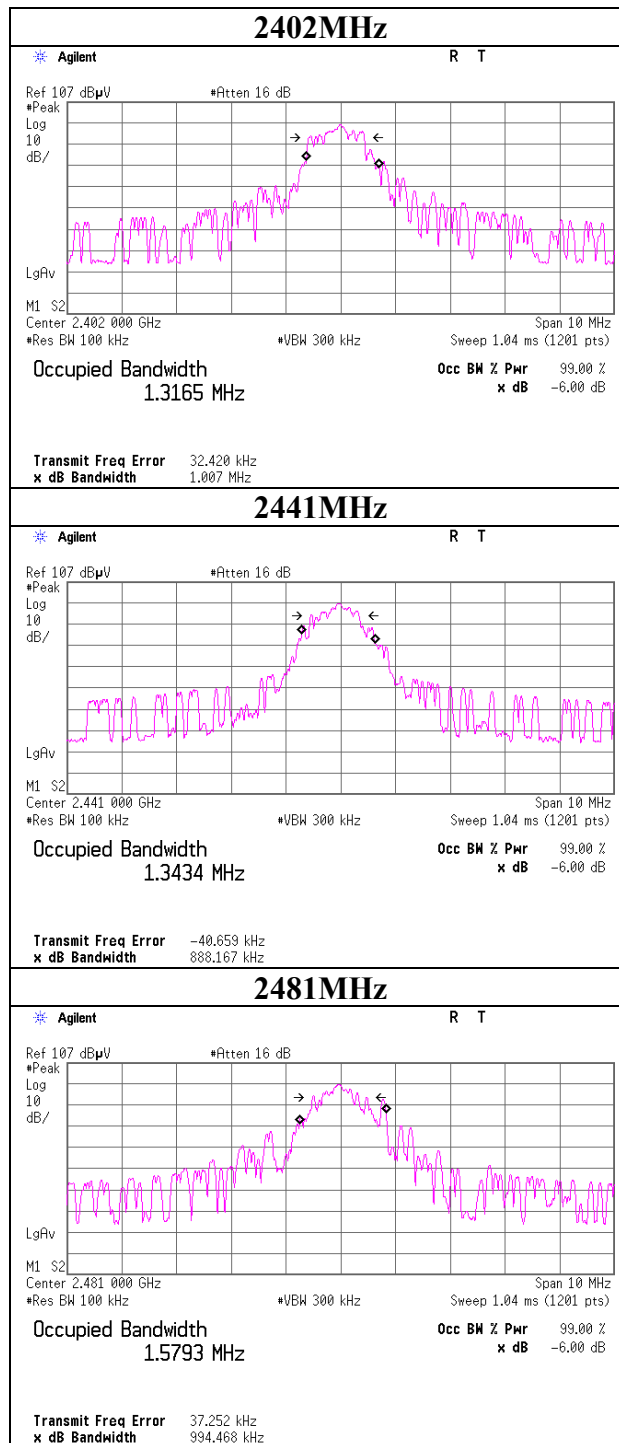
Sample Calculation:

Result = Reading + Cable Loss (including the cable customer supplied) + Attenuator

Power Density



99%Occupied Bandwidth



APPENDIX 3: Test instruments

EMI test equipment

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/CE	2010/02/02 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	-	RE/CE	2010/02/09 * 12
MJM-07	Measure	PROMART	SEN1955	-	RE/CE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE/CE	-
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	RE/CE/AT	2009/08/25 * 12
MTR-07	Test Receiver	Rohde & Schwarz	ESCI	100635	RE/CE	2009/10/23 * 12
MBA-03	Biconical Antenna	Schwarzbeck	BBA9106	VHA91032007	RE	2009/10/03 * 12
MLA-08	Logperiodic Antenna	Schwarzbeck	UKLP9140-A	N/A	RE	2010/01/23 * 12
MCC-50	Coaxial cable	UL Japan	-	-	RE	2009/03/18 * 12
MAT-51	Attenuator(6dB)	Weinschel	2	AS3557	RE	2010/01/20 * 12
MPA-13	Pre Amplifier	SONOMA INSTRUMENT	310	260833	RE	2009/03/18 * 12
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	9120D-557	RE	2009/08/10 * 12
MCC-57	Microwave Cable 1G-26.5GHz 6m	Suhner	SUCOFLEX104	246769(1m) / 292411(5m)	RE	2009/11/17 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	MY39500780	RE	2009/03/19 * 12
MHA-17	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	BBHA9170307	RE	2009/06/18 * 12
MCC-79	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	278923/4	RE	2009/12/19 * 12
MHF-20	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCC	607	RE	2009/12/19 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	8127363	CE	2010/02/04 * 12
MAT-65	Attenuator(13dB)	JFW Industries, Inc.	50FP-013H2 N	-	CE	2010/02/04 * 12
MCC-113	Coaxial cable	Fujikura/Suhner/TSJ	5D-2W(10m)/SFM141(5m)/421-010(1m)/suoform141-PE(1m)/RFM-E121(Switcher)	-/04178	CE	2009/07/01 * 12
MOS-23	Thermo-Hygrometer	Custom	CTH-201	0004	AT	2009/12/22 * 12
MAT-22	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	-	AT	2009/03/24 * 12
MPM-12	Power Meter	Anritsu	ML2495A	0825002	AT	2009/08/26 * 12
MPSE-17	Power sensor	Anritsu	MA2411B	0738285	AT	2009/08/26 * 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

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