

APPENDIX 2: Data of EMI test

Conducted Emission

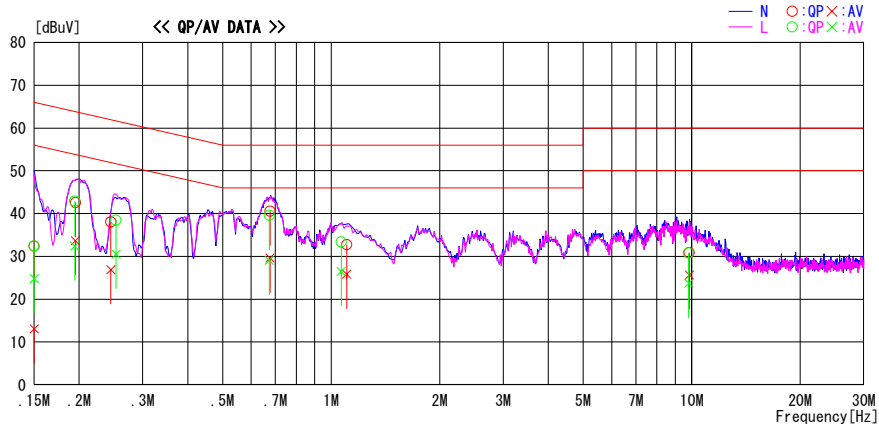
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2010/06/16

Report No. : 30CE0008-YK-01
Temp./Humi. : 24deg. C / 69%
Engineer : Katsunori Okai

Mode / Remarks : Tx 916.2204MHz

LIMIT : FCC15.207 QP
FCC15.207 AV



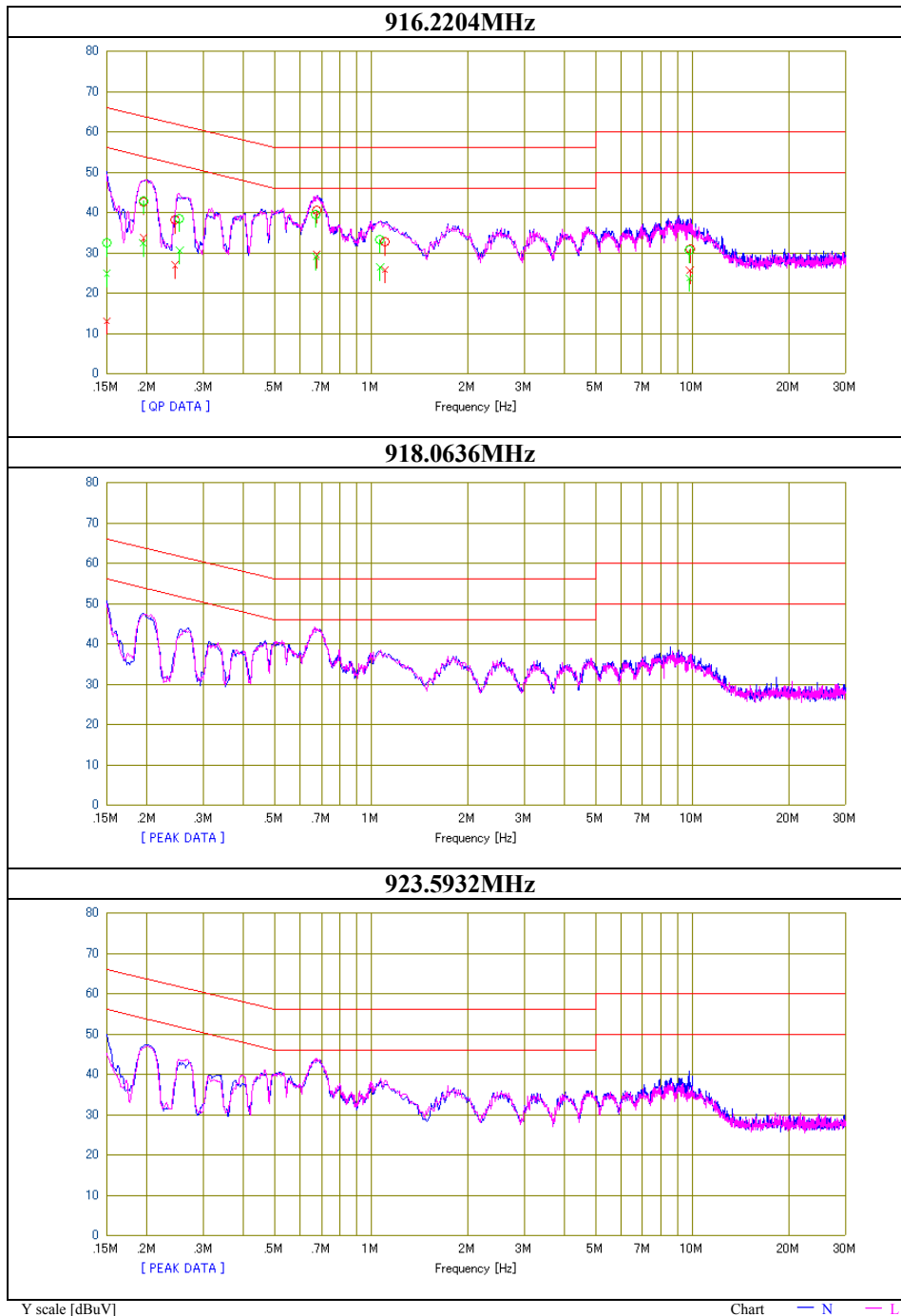
Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.15000	19.1	-0.2	13.3	32.4	13.1	66.0	56.0	33.6	42.9	N	
0.19527	29.3	20.4	13.3	42.6	33.7	63.8	53.8	21.2	20.1	N	
0.24489	24.8	13.6	13.3	38.1	26.9	61.9	51.9	23.8	25.0	N	
0.67628	27.2	16.2	13.4	40.6	29.6	56.0	46.0	15.4	16.4	N	
1.10422	19.4	12.5	13.3	32.7	25.8	56.0	46.0	23.3	20.2	N	
9.84089	16.6	11.4	14.3	30.9	25.7	60.0	50.0	29.1	24.3	N	
0.15000	19.1	11.5	13.3	32.4	24.8	66.0	56.0	33.6	31.2	L	
0.19454	29.6	19.1	13.3	42.9	32.4	63.8	53.8	20.9	21.4	L	
0.25307	25.2	17.2	13.3	38.5	30.5	61.7	51.7	23.2	21.2	L	
0.67322	26.2	15.7	13.4	39.6	29.1	56.0	46.0	16.4	16.9	L	
1.06561	20.1	13.2	13.3	33.4	26.5	56.0	46.0	22.6	19.5	L	
9.80244	16.5	9.4	14.3	30.8	23.7	60.0	50.0	29.2	26.3	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.

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

Conducted Emission

Test place	Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No.	30CE0008-YK-01
Date	06/16/2010
Temperature/ Humidity	24 deg. C. / 69%
Engineer	Katsunori Okai
Mode	Transmitting mode



Radiated Emission (Electric Field Strength of Fundamental and Spurious Emission)

Test place Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 30CE0008-YK-01
Date 06/15/2010
Temperature/ Humidity 23 deg.C./ 67% 22 deg.C./ 60%
Engineer Katsunori Okai Hiroyuki Furutaka
(Above 1GHz) (Below 1GHz)
Mode Transmitting mode, 916.2204MHz

QP or PK

Frequency [MHz]	Detector	Reading [dBuV]		Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]		Limit dBuV/m	Margin [dB]	
		Hor	Ver					Hor	Ver		Hor	Ver
82.020	QP	46.9	39.7	7.3	7.3	28.5	-	33.0	25.8	40.0	6.9	14.2
96.870	QP	NS	39.5	10.0	7.4	28.5	-	-	28.4	43.5	-	15.1
125.310	QP	NS	33.1	14.0	7.6	28.4	-	-	26.3	43.5	-	17.2
336.001	QP	35.4	NS	15.5	9.0	28.0	-	31.9	-	46.0	14.1	-
393.226	QP	27.8	NS	17.2	9.4	28.3	-	26.1	-	46.0	19.9	-
460.025	QP	26.0	NS	17.9	9.6	28.6	-	24.9	-	46.0	21.1	-
491.534	QP	30.0	32.5	18.1	9.7	28.7	-	29.1	31.6	46.0	16.9	14.4
528.001	QP	NS	30.4	18.5	9.9	28.8	-	-	30.0	46.0	-	16.0
601.384	QP	NS	29.6	19.5	10.1	28.8	-	-	30.4	46.0	-	15.6
624.013	QP	NS	30.0	19.7	10.2	28.7	-	-	31.2	46.0	-	14.8
720.023	QP	25.5	NS	20.7	10.6	28.5	-	28.3	-	46.0	17.7	-
916.220	QP	80.6	87.5	22.6	11.3	27.9	-	86.6	93.5	93.9	7.3	0.4
1832.441	PK	55.5	57.0	26.3	3.0	32.5	-	52.3	53.8	73.9	21.6	20.1
2748.661	PK	47.6	47.9	27.3	3.4	32.3	-	46.0	46.3	73.9	27.9	27.6
3664.882	PK	43.6	44.5	28.3	3.9	31.8	-	44.0	44.9	73.9	29.9	29.0
4581.102	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
5497.322	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
6413.543	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
7329.763	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
8245.984	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
9162.204	PK	NS	NS	-	-	-	-	-	-	73.9	-	-

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier)

PK with Duty factor

Frequency [MHz]	Detector	Reading [dBuV]		Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]		Limit dBuV/m	Margin [dB]	
		Hor	Ver					Hor	Ver		Hor	Ver
1832.441	PK	55.5	57.0	26.3	3.0	32.5	-2.8	49.5	51.0	53.9	4.4	2.9
2748.661	PK	47.6	47.9	27.3	3.4	32.3	-2.8	43.2	43.5	53.9	10.7	10.4
3664.882	PK	43.6	44.5	28.3	3.9	31.8	-2.8	41.2	42.1	53.9	12.7	11.8
4581.102	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
5497.322	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
6413.543	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
7329.763	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
8245.984	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
9162.204	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier) + Duty factor (Refer to Duty factor data sheet)

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

*NS: No Signal

- * The test above 1GHz was performed with PK detect. Average emission measurements were calculated with PK detect and Duty cycle factor.
- * Duty Factor was calculated with the assumption of the worst condition in 100msec.
- * The noise measured with PK detect was pulse emission.

Radiated Emission (Electric Field Strength of Fundamental and Spurious Emission)

Test place Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 30CE0008-YK-01
Date 06/15/2010
Temperature/ Humidity 23 deg. C. / 67%
Engineer Katsunori Okai

Mode Transmitting mode, 916.2204MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1497.301	PK	47.1	25.4	2.9	33.0	42.4	73.9	31.5	
Hori	1497.301	AV	34.1	25.4	2.9	33.0	29.4	53.9	24.5	
Vert	1497.301	PK	49.5	25.4	2.9	33.0	44.8	73.9	29.1	
Vert	1497.301	AV	40.8	25.4	2.9	33.0	36.1	53.9	17.8	

Result = Reading + Ant Factor + Loss (Cable+Attenuator) - Gain(Amplifier)

* Non-Pulse emission: Average Detector (RBW: 1MHz, VBW: 10Hz)

Radiated Emission (Electric Field Strength of Fundamental and Spurious Emission)

Test place Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 30CE0008-YK-01
Date 06/15/2010
Temperature/ Humidity 23 deg.C./ 67% 22 deg.C./ 60%
Engineer Katsunori Okai Hiroyuki Furutaka
(Above 1GHz) (Below 1GHz)
Mode Transmitting mode, 918.0636MHz

QP or PK

Frequency [MHz]	Detector	Reading [dBuV]		Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]		Limit [dBuV/m]	Margin [dB]	
		Hor	Ver					Hor	Ver		Hor	Ver
81.760	QP	NS	39.1	7.3	7.3	28.5	-	-	25.2	40.0	-	14.8
84.240	QP	47.4	NS	7.8	7.3	28.5	-	34.0	-	40.0	6.0	-
97.670	QP	NS	40.4	10.1	7.4	28.5	-	-	29.4	43.5	-	14.1
125.030	QP	NS	33.8	14.0	7.6	28.4	-	-	27.0	43.5	-	16.5
336.008	QP	33.8	NS	15.5	9.0	28.0	-	30.3	-	46.0	15.7	-
440.016	QP	28.7	NS	17.7	9.5	28.5	-	27.4	-	46.0	18.6	-
460.019	QP	26.5	NS	17.9	9.6	28.6	-	25.4	-	46.0	20.6	-
491.534	QP	30.3	32.4	18.1	9.7	28.7	-	29.4	31.5	46.0	16.6	14.5
528.012	QP	NS	31.6	18.5	9.9	28.8	-	-	31.2	46.0	-	14.8
601.386	QP	NS	29.5	19.5	10.1	28.8	-	-	30.3	46.0	-	15.7
624.015	QP	NS	29.8	19.7	10.2	28.7	-	-	31.0	46.0	-	15.0
720.019	QP	26.0	NS	20.7	10.6	28.5	-	28.8	-	46.0	17.2	-
918.064	QP	81.0	87.4	22.6	11.3	27.9	-	87.0	93.4	93.9	6.9	0.5
1836.127	PK	54.9	57.1	26.3	3.0	32.5	-	51.7	53.9	73.9	22.2	20.0
2754.191	PK	48.1	47.2	27.3	3.4	32.3	-	46.5	45.6	73.9	27.4	28.3
3672.254	PK	42.9	44.8	28.3	3.9	31.8	-	43.3	45.2	73.9	30.6	28.7
4590.318	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
5508.382	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
6426.445	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
7344.509	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
8262.572	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
9180.636	PK	NS	NS	-	-	-	-	-	-	73.9	-	-

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier)

PK with Duty factor

Frequency [MHz]	Detector	Reading [dBuV]		Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]		Limit [dBuV/m]	Margin [dB]	
		Hor	Ver					Hor	Ver		Hor	Ver
1836.127	PK	54.9	57.1	26.3	3.0	32.5	-2.8	48.9	51.1	53.9	5.0	2.8
2754.191	PK	48.1	47.2	27.3	3.4	32.3	-2.8	43.7	42.8	53.9	10.2	11.1
3672.254	PK	42.9	44.8	28.3	3.9	31.8	-2.8	40.5	42.4	53.9	13.4	11.5
4590.318	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
5508.382	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
6426.445	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
7344.509	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
8262.572	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
9180.636	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier) + Duty factor (Refer to Duty factor data sheet)

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

*NS: No Signal

* The test above 1GHz was performed with PK detect. Average emission measurements were calculated with PK detect and Duty cycle factor.

* Duty Factor was calculated with the assumption of the worst condition in 100msec.

* The noise measured with PK detect was pulse emission.

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

Radiated Emission (Electric Field Strength of Fundamental and Spurious Emission)

Test place : Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. : 30CE0008-YK-01
Date : 06/15/2010
Temperature/ Humidity : 23 deg. C. / 67%
Engineer : Katsunori Okai
Mode : Transmitting mode, 918.0636MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1067.002	PK	60.1	24.2	2.0	33.7	52.6	73.9	21.3	
Hori	1497.375	PK	46.7	25.4	2.9	33.0	42.0	73.9	31.9	
Hori	1067.002	AV	39.4	24.2	2.0	33.7	31.9	53.9	22.0	
Hori	1497.375	AV	35.2	25.4	2.9	33.0	30.5	53.9	23.4	
Vert	1067.002	PK	68.2	24.2	2.0	33.7	60.7	73.9	13.2	
Vert	1497.365	PK	48.8	25.4	2.9	33.0	44.1	73.9	29.8	
Vert	1067.002	AV	40.4	24.2	2.0	33.7	32.9	53.9	21.0	
Vert	1497.365	AV	43.1	25.4	2.9	33.0	38.4	53.9	15.5	

Result = Reading + Ant Factor + Loss (Cable+Attenuator) - Gain(Amplifier)

*Non-Pulse emission: Average Detector (RBW: 1MHz, VBW: 10Hz)

Radiated Emission (Electric Field Strength of Fundamental and Spurious Emission)

Test place Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 30CE0008-YK-01
Date 06/15/2010
Temperature/ Humidity 23 deg. C. / 67% 22 deg.C./ 60%
Engineer Katsunori Okai Hiroyuki Furutaka
(Above 1GHz) (Below 1GHz)
Mode Transmitting mode, 923.5932MHz

QP or PK

Frequency [MHz]	Detector	Reading [dBuV]		Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]		Limit dBuV/m	Margin [dB]	
		Hor	Ver					Hor	Ver		Hor	Ver
84.230	QP	47.3	NS	7.8	7.3	28.5	-	33.9	-	40.0	6.1	-
97.750	QP	NS	38.6	10.2	7.4	28.5	-	-	27.7	43.5	-	15.8
98.710	QP	34.9	NS	10.3	7.4	28.5	-	24.1	-	43.5	19.4	-
336.008	QP	35.2	NS	15.5	9.0	28.0	-	31.7	-	46.0	14.3	-
393.228	QP	27.5	NS	17.2	9.4	28.3	-	25.8	-	46.0	20.2	-
491.533	QP	30.3	32.1	18.1	9.7	28.7	-	29.4	31.2	46.0	16.6	14.8
520.024	QP	27.4	NS	18.4	9.8	28.8	-	26.8	-	46.0	19.2	-
528.012	QP	NS	30.5	18.5	9.9	28.8	-	-	30.1	46.0	-	15.9
589.836	QP	NS	29.4	19.4	10.1	28.8	-	-	30.1	46.0	-	15.9
624.013	QP	NS	29.7	19.7	10.2	28.7	-	-	30.9	46.0	-	15.1
720.017	QP	NS	27.6	20.7	10.6	28.5	-	-	30.4	46.0	-	15.6
923.593	QP	81.1	86.9	22.6	11.3	27.9	-	87.1	92.9	93.9	6.8	1.0
1847.186	PK	57.2	58.6	26.3	3.0	32.5	-	54.0	55.4	73.9	19.9	18.5
2770.780	PK	49.1	47.5	27.3	3.4	32.3	-	47.5	45.9	73.9	26.4	28.0
3694.373	PK	43.3	46.2	28.3	3.9	31.8	-	43.7	46.6	73.9	30.2	27.3
4617.966	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
5541.559	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
6465.152	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
7388.746	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
8312.339	PK	NS	NS	-	-	-	-	-	-	73.9	-	-
9235.932	PK	NS	NS	-	-	-	-	-	-	73.9	-	-

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier)

PK with Duty factor

Frequency [MHz]	Detector	Reading [dBuV]		Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]		Limit dBuV/m	Margin [dB]	
		Hor	Ver					Hor	Ver		Hor	Ver
1847.186	PK	57.2	58.6	26.3	3.0	32.5	-2.8	51.2	52.6	53.9	2.7	1.3
2770.780	PK	49.1	47.5	27.3	3.4	32.3	-2.8	44.7	43.1	53.9	9.2	10.8
3694.373	PK	43.3	46.2	28.3	3.9	31.8	-2.8	40.9	43.8	53.9	13.0	10.1
4617.966	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
5541.559	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
6465.152	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
7388.746	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
8312.339	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-
9235.932	PK	NS	NS	-	-	-	-2.8	-	-	53.9	-	-

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier) + Duty factor (Refer to Duty factor data sheet)

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

*NS: No Signal

* The test above 1GHz was performed with PK detect. Average emission measurements were calculated with PK detect and Duty cycle factor.

* Duty Factor was calculated with the assumption of the worst condition in 100msec.

* The noise measured with PK detect was pulse emission.

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

Radiated Emission (Electric Field Strength of Fundamental and Spurious Emission)

Test place Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 30CE0008-YK-01
Date 06/15/2010
Temperature/ Humidity 23 deg. C. / 67%
Engineer Katsunori Okai

Mode Transmitting mode, 923.5932MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1497.308	PK	47.3	25.4	2.9	33.0	42.6	73.9	31.3	
Hori	1497.308	AV	34.1	25.4	2.9	33.0	29.4	53.9	24.5	
Vert	1497.308	PK	48.1	25.4	2.9	33.0	43.4	73.9	30.5	
Vert	1497.308	AV	42.7	25.4	2.9	33.0	38.0	53.9	15.9	

Result = Reading + Ant Factor + Loss (Cable+Attenuator) - Gain(Amplifier)

* Spurious emission was Non-Pulse. Therefore, the Average value was calculated by Average Detector (RBW: 1MHz, VBW: 10Hz).

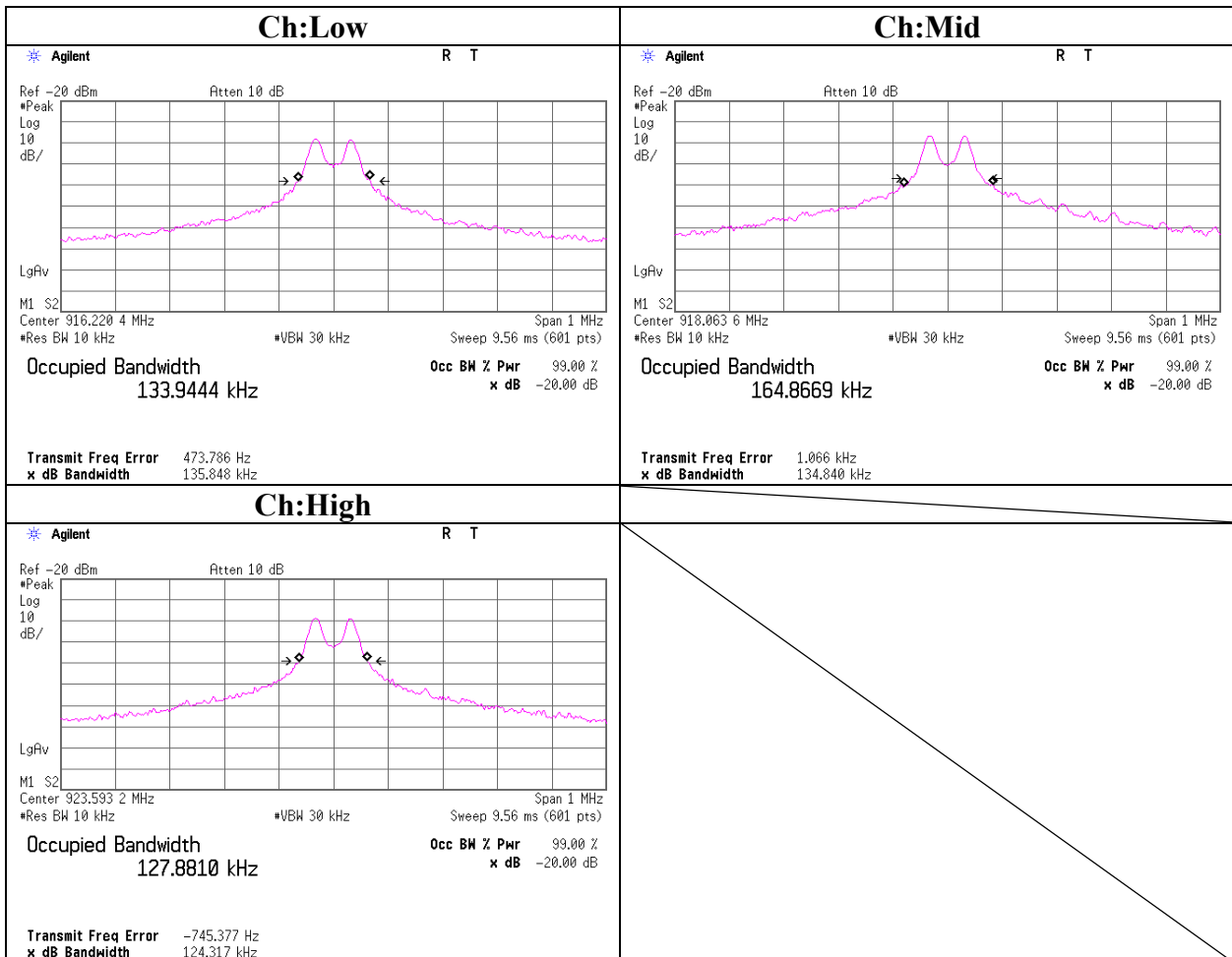
*Non-Pulse emission: Average Detector (RBW: 1MHz, VBW: 10Hz)

20dB Bandwidth

Test place	Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No.	30CE0008-YK-01
Date	06/16/2010
Temperature/ Humidity	24 deg. C. / 69%
Engineer	Katsunori Okai
Mode	Transmitting mode

Frequency [MHz]	20dB Bandwidth [kHz]	Limit [kHz]
916.2204	135.848	-
918.0636	134.840	-
923.5932	124.317	-

20dB Bandwidth



Duty Cycle

Test place	Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No.	30CE0008-YK-01-01
Date	06/15/2010
Temperature/ Humidity	23 deg. C. / 67%
Engineer	Katsunori Okai
Mode	Transmitting mode

Type	Times	ON time(One pulse) [ms]	ON time(in 10ms) [ms]	ON Time(in 100ms) [ms]
A	1	0.400	0.4	4.0000
B	1	0.292	0.2917	2.9170
C	4	0.258	1.0332	10.3320
D	9	0.192	1.7253	17.2530
E	11	0.133	1.4663	14.6630
F	28	0.083	2.3324	23.3240

*1)ON time(in 10ms) = Times * ON time(One pulse)

*2)ON time(in 100ms) = On time(in 10ms) * 100 / 10

*3)The train of pulses was exceeding 100msec, and that sampled 100msec was the worst case against the pulse train.

(Total)

ON time [ms]	Cycle [ms]	Duty (On time/Cycle)	Duty [dB]
72.49	100.00	0.72	-2.8

*4)Duty = $20\log_{10}(\text{ON time/Cycle})$

* The value of the theoretical worst duty condition for signal pattern in the specification is as follows.

ON time [ms]	Cycle [ms]	Duty (On time/Cycle)	Duty [dB]
70.10	100.00	0.70	-3.1

*4)Duty = $20\log_{10}(\text{ON time/Cycle})$

Duty “-2.8dB” which was the measurement value was applied since the average value was more strict for limit when it was calculated by duty factor of the measurement value.

UL Japan, Inc.

Head Office EMC Lab.

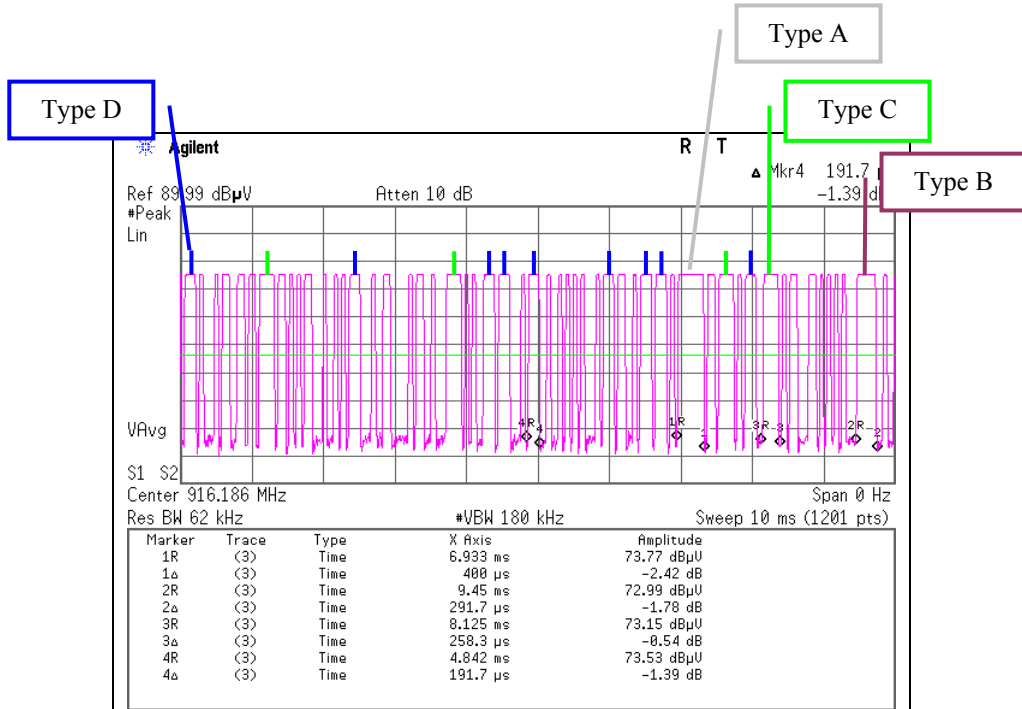
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

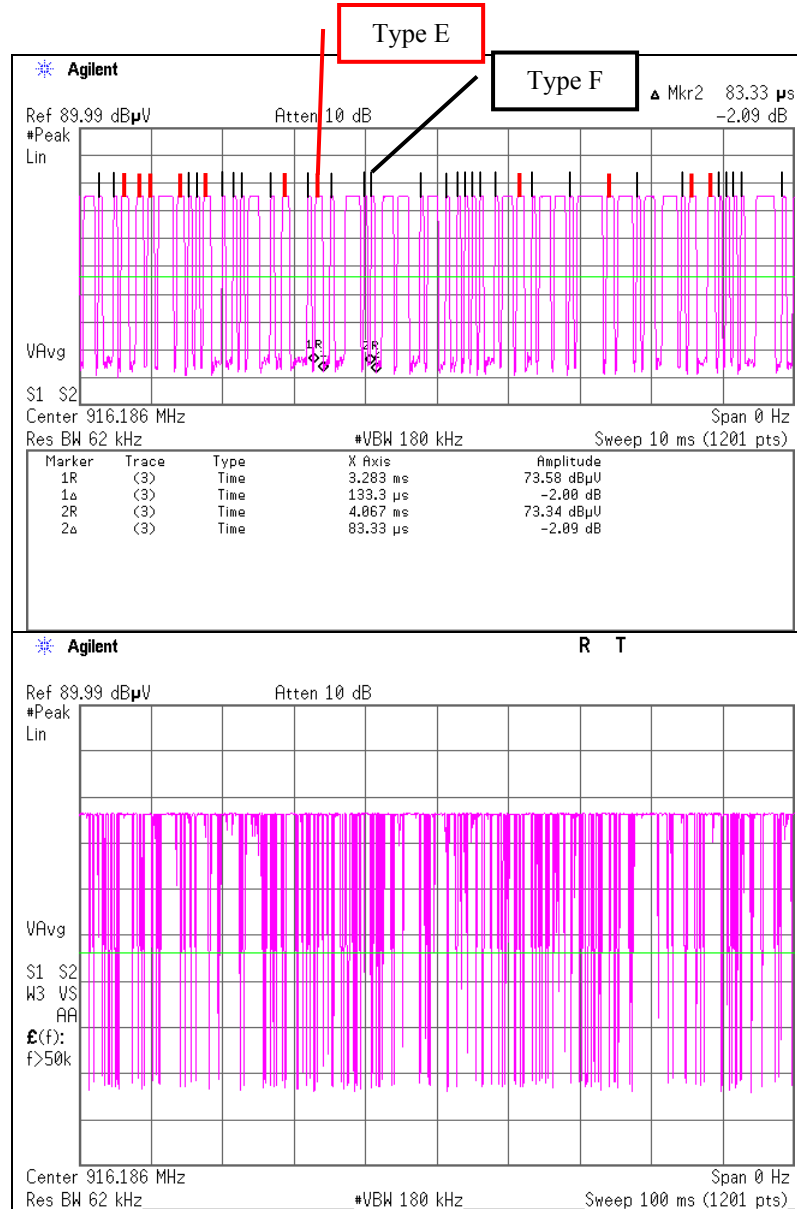
Duty Cycle

Test place	Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No.	30CE0008-YK-01
Date	06/15/2010
Temperature/ Humidity	23 deg. C. / 67%
Engineer	Katsunori Okai
Mode	Transmitting mode



Duty Cycle

Test place	Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No.	30CE0008-YK-01
Date	06/15/2010
Temperature/ Humidity	23 deg. C. / 67%
Engineer	Katsunori Okai
Mode	Transmitting mode



APPENDIX 3:Test Instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-02	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	RE/CE	2009/08/17 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	0003	RE/CE	2010/02/09 * 12
MJM-05	Measure	PROMART	SEN1955	-	RE/CE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE/CE	-
MSA-03	Spectrum Analyzer	Agilent	E4448A	MY44020357	RE/CE	2009/11/20 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	100300	RE/CE	2010/04/19 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	VHA91032008	RE	2009/10/05 * 12
MLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	174	RE	2010/01/23 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	-	RE	2010/02/22 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	BK7970	RE	2009/11/12 * 12
MPA-09	Pre Amplifier	Agilent	8447D	2944A10845	RE	2009/09/02 * 12
MHA-06	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	254	RE	2010/01/19 * 12
MCC-47	Microwave Cable	Suhner	SUCOFLEX104	295123(5m) / 287573(1m)	RE	2009/11/19 * 12
MPA-10	Pre Amplifier	Agilent	8449B	3008A02142	RE	2009/09/14 * 12
MBF-13	Band Pass Filter	M-CiTY	BPF0850-01	UL0011	RE	2009/09/11 * 12
MCC-77	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	278942/4	RE	2009/12/19 * 12
MHF-18	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCA	7002	RE	2009/12/19 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	8127363	CE(EUT)	2010/02/04 * 12
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	8127364	CE(AE)	2010/02/05 * 12
MTA-31	Terminator	TME	CT-01	-	CE	2010/01/20 * 12
MCC-13	Coaxial Cable	Fujikura	3D-2W(12m)/ 5D-2W(5m)/5D- 2W(0.8m)/ 5D-2W(1m)	-	CE	2010/02/22 * 12
MAT-65	Attenuator(13dB)	JFW Industries, Inc.	50FP-013H2 N	-	CE	2010/02/04 * 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 test

RE: Radiated emission, 20dB bandwidth, Automatically deactivate and Duty cycle tests

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124