

APPENDIX 2:Test Instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2006/04/10 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2006/02/23 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2005/12/16 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2005/10/10 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2005/10/14 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	RE	2006/03/04 * 12
MPA-10	Pre Amplifier	Agilent	8449B	RE	2005/09/07 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2005/08/30 * 12
MCC-16	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2006/02/02 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	RE	2004/11/25 * 24
MRENT-26	Spectrum Analyzer	Advantest	R3273	RE	2006/02/15 * 12
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE	-

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

Test Item:

RE: Radiated emission

UL Apex Co., Ltd.

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MF060b(24.05.06)

APPENDIX 3: Data of EMI test
Radiated Emission (Electric Field Strength of Fundamental and Spurious Emission)

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY : OMRON CORPORATION
EQUIPMENT : FOB
MODEL : G8D-625M-A
S/N : WK0003
POWER : DC 3.0V
Mode : Continuous Transmitting
Axis : Hor.: X-axis , Ver.: Z-axis
(fundamental) **QP DETECT**

REPORT NO : 26GE0263-HO
REGULATION : Fcc Part15 Subpart C 231(b) / 205
TEST DISTANCE : 3m
DATE : 4/11/2006
TEMPERATURE : 25 deg.C.
HUMIDITY : 52 %
ENGINEER : Norihisa Hashimoto

No.	FREQ [MHz]	T/R READING : QP		ANT Factor [dB/m]	AMP GAIN [dB]	LOSS [dB]	RESULT		Limit [dBuV/m]	MARGIN	
		HOR	VER				HOR	VER		HOR	VER
1	314.97	73.9	69.9	14.7	27.2	8.6	70.0	66.0	75.6	5.6	9.6

(below 1GHz) **QP DETECT**

No.	FREQ [MHz]	T/R READING : QP		ANT Factor [dB/m]	AMP GAIN [dB]	LOSS [dB]	RESULT		Limit [dBuV/m]	MARGIN	
		HOR	VER				HOR	VER		HOR	VER
2	629.93	28.2	27.5	19.6	28.7	9.5	28.6	27.9	46.0	17.4	18.1
3	946.11	30.3	28.7	22.3	27.7	10.5	35.4	33.8	46.0	10.6	12.2

(above 1GHz) **PK DETECT** (RBW: 1MHz, VBW: 1MHz) (Inside Restricted bands (PK))

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	LOSS [dB]	Duty Factor [dB]	RESULT		Limit [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
4	1260.15	51.3	52.8	23.5	33.4	2.6		44.0	45.5	75.6	31.6	30.1
5	1575.18	48.9	46.3	25.3	32.9	2.8		44.1	41.5	74.0	29.9	32.5
6	1890.21	48.4	47.2	29.9	32.4	3.0		48.9	47.7	75.6	26.7	27.9
7	2205.22	49.2	51.6	30.9	32.4	3.2		50.9	53.3	74.0	23.1	20.7
8	2520.14	51.4	49.3	30.5	32.4	3.5		53.0	50.9	75.6	22.6	24.7
9	2835.36	56.2	55.1	31.4	32.2	3.6		59.0	57.9	74.0	15.0	16.1
10	3150.45	48.4	47.7	31.7	32.1	3.8		51.8	51.1	75.6	23.8	24.5

AV MEASUREMENT Result = Reading (RBW: 1MHz, VBW: 1MHz) + Duty Factor

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	LOSS [dB]	Duty Factor [dB]	RESULT		Limit [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
4	1260.15	51.3	52.8	23.5	33.4	2.6	-8.7	35.3	36.8	55.6	20.3	18.8
5	1575.18	48.9	46.3	25.3	32.9	2.8	-8.7	35.4	32.8	54.0	18.6	21.2
6	1890.21	48.4	47.2	29.9	32.4	3.0	-8.7	40.2	39.0	55.6	15.4	16.6
7	2205.22	49.2	51.6	30.9	32.4	3.2	-8.7	42.2	44.6	54.0	11.8	9.4
8	2520.14	51.4	49.3	30.5	32.4	3.5	-8.7	44.3	42.2	55.6	11.3	13.4
9	2835.36	56.2	55.1	31.4	32.2	3.6	-8.7	50.3	49.2	54.0	3.7	4.8
10	3150.45	48.4	47.7	31.7	32.1	3.8	-8.7	43.1	42.4	55.6	12.5	13.2

REMARKS
ANTENNA TYPE:30-300MHz Biconical / 300-1000MHz Logperiodic / 1-3.2GHz Horn
CALCULATION RESULT=Reading + ANT Factor - Amp Gain + LOSS (Cable+ ATTN.)+Duty factor
Duty cycle Factor Measurement : The duty cycle factor = 20 log (On time[sec.] / 1 cycle time[sec.]) :-8.7dB
* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
The carrier level (or, noise levels) was (or were) measured at each position of all three axes X, Y and Z,
and the position that has the maximum noise was determined. With the position, the noise levels of all the frequencies was measured.
With the position, the noise levels of all the frequencies was measured.

-20dB Bandwidth

Head Office EMC Lab. No.2 Semi Anechoic Chamber

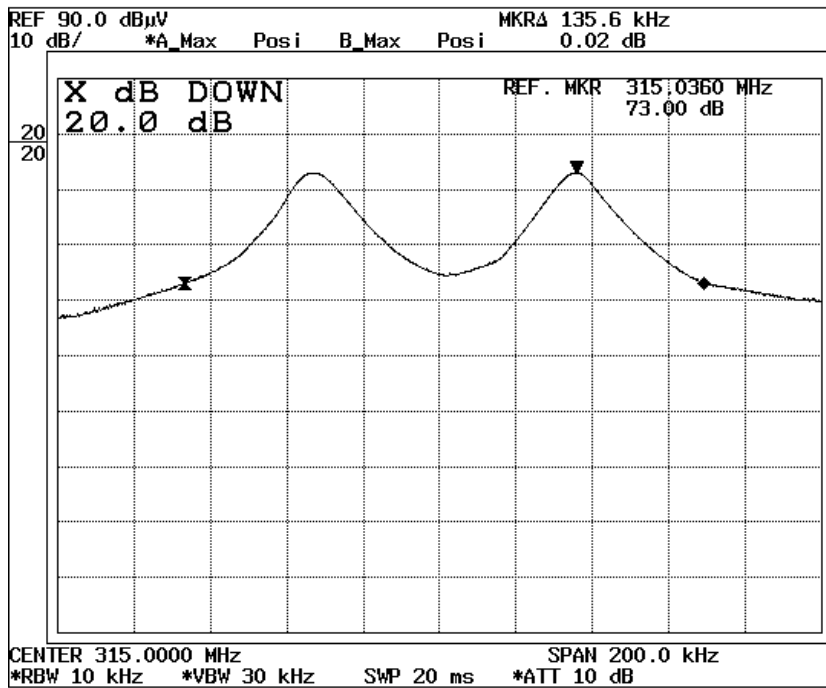
COMPANY : OMRON CORPORATION
 EQUIPMENT: FOB
 MODEL : G8D-625M-A
 S/N : WK0003
 POWER : DC 3.0V
 Mode : Transmitting

REPORT NO : 26GE0263-HO
 REGULATION : Fcc Part15 Subpart C 231(c)
 TEST DISTANCE : 3m
 DATE : 4/11/2006
 TEMPERATURE : 25 deg.C.
 HUMIDITY : 52 %

ENGINEER : Norihisa Hashimoto

Bandwidth Limit : Fundamental Frequency 315.04 MHz X 0.25% = 787.6 kHz

-20dB Bandwidth	Bandwidth Limit	Result	Margin
[kHz]	[kHz]		[kHz]
135.60	787.60	Pass	652.00



Automatically deactivate

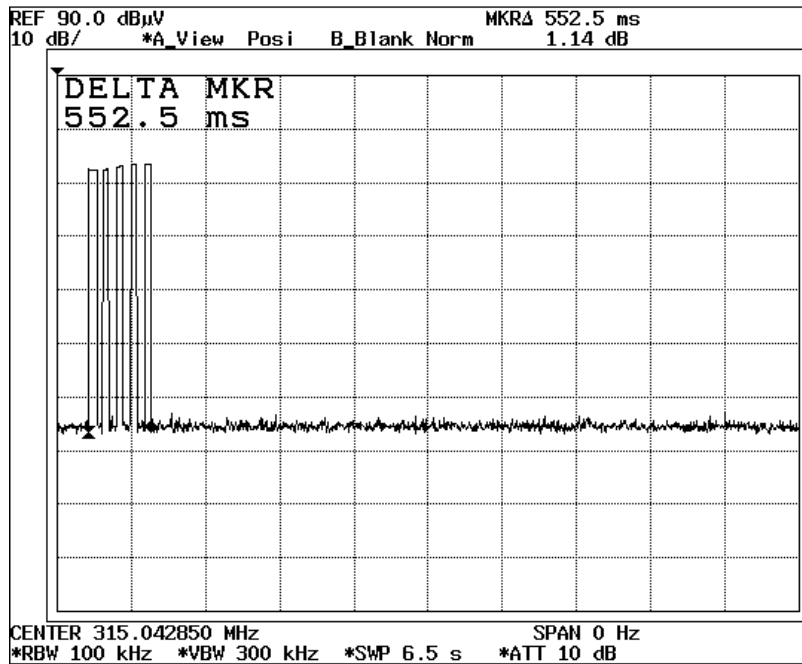
UL Apex Co., Ltd.
 Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY : OMRON CORPORATION
 EQUIPMENT : FOB
 MODEL : G8D-625M-A
 S/N : WK0003
 POWER : DC 3.0V
 Mode : Transmitting

REPORT NO : 26GE0263-HO
 REGULATION : Fcc Part15 Subpart C 231(a)
 TEST DISTANCE : 3m
 DATE : 4/11/2006
 TEMPERATURE : 25 deg.C.
 HUMIDITY : 52 %

ENGINEER : Norihisa Hashimoto

Time of Transmitting [sec]	Limit [sec]	Result	Margin [sec]
0.55	5.00	Pass	4.45



99% Occupied Bandwidth

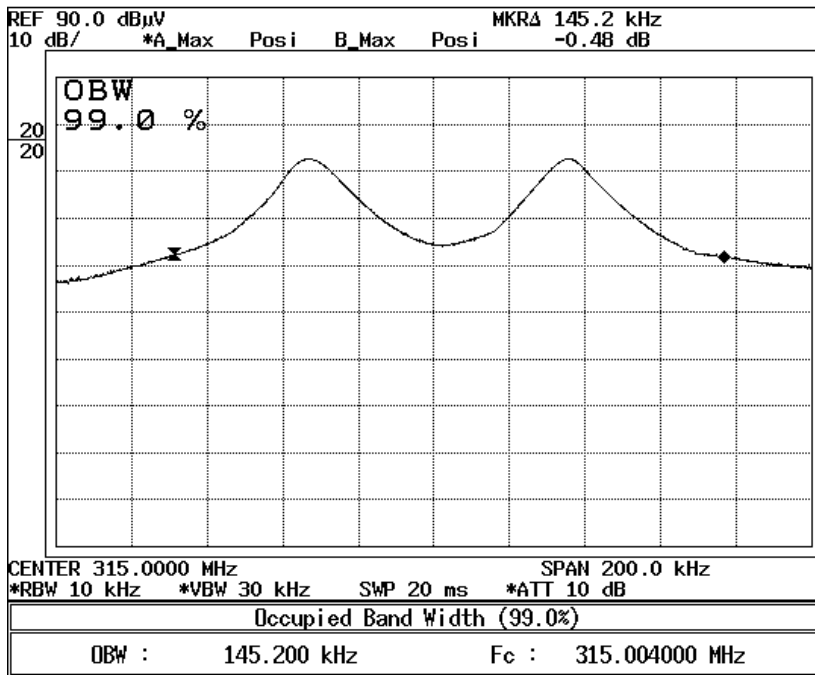
UL Apex Co., Ltd.
 Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY : OMRON CORPORATION
 EQUIPMENT : FOB
 MODEL : G8D-625M-A
 S/N : WK0003
 POWER : DC 3.0V
 Mode : Transmitting

REPORT NO : 26GE0263-HO
 REGULATION : RSS-210 A1.1.3
 TEST DISTANCE : 3m
 DATE : 4/11/2006
 TEMPERATURE : 25 deg.C.
 HUMIDITY : 52 %

ENGINEER : Norihisa Hashimoto

99% Occupied Bandwidth (RSS-210 A1.1.3)



* 99% Occupied Bandwidth : 145.20 kHz

Duty Cycle

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY : OMRON CORPORATION
EQUIPMENT : FOB
MODEL : G8D-625M-A
S/N : WK0003
POWER : DC 3.0V
Mode : Transmitting

REPORT NO : 26GE0263-HO
REGULATION : Fcc Part15 Subpart C 231(b) / 205 / 209
TEST DISTANCE : 3m
DATE : 4/11/2006
TEMPERATURE : 25 deg.C.
HUMIDITY : 52 %
ENGINEER : Norihisa Hashimoto

Time of Transmitting [ms]	1 cycle time [ms]	Duty cycle	Duty Factor [dB]
45.50	124.00	0.37	-8.71

