FCC TEST REPORT

REPORT NO.: RF921219H04
MODEL NO.: G-X2D11
RECEIVED: Dec. 22, 2003
TESTED: Jan. 18 to Feb. 03, 2004

APPLICANT: LOGITECH INC.

ADDRESS: 6505 Kaiser Drive Fremont, CA 94555-3615

ISSUED BY: Advance Data Technology Corporation

LAB LOCATION: No. 81-1, Lu Liao Keng, 9 Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien, Taiwan, R.O.C.

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1 CERTIFICATION

PRODUCT :	Cordless Action™ Controller for Playstation
BRAND NAME :	Logitech
MODEL NO :	G-X2D11
TEST ITEM:	Engineering Sample
APPLICANT :	LOGITECH INC.
STANDARDS :	47 CFR Part 15, Subpart C (15.249) ANSI C63.4-1992

We, **Advance Data Technology Corporation**, hereby certify that one sample of the designation has been tested in our facility from Jan. 18 to Feb. 03, 2004. The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's characteristics under the conditions herein specified.

PREPARED BY: Carol Liao , **DATE:** *Feb. 10, 2004*

(Carol Liao)

APPROVED BY: , **DATE:** *Feb. 10, 2004*

(Eric Lin, Manager)

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: 47 CFR Part 15, Subpart C			
Standard Paragraph	**Test Type**	**Result**	**Remark**
15.207	Conducted Emission Test	N/A	Power supply is 6VDC from batteries
15.249	Radiated Emission Test	PASS	Minimum passing margin is –4.40dB at 4960.00MHz
15.249	Band Edge Measurement	PASS	Meet the requirement of limit

NOTE: The information of measurement uncertainty is available upon the customer's request.

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Cordless Action™ Controller for Playstation
MODEL NO.	G-X2D11
POWER SUPPLY	3.0VDC from batteries
MODULATION TYPE	GFSK
MODULATION TECHNOLOGY	FHSS
CARRIER FREQUENCY OF EACH CHANNEL	2402MHz ~ 2480MHz
BANDWIDTH OF EACH CHANNEL	1MHz
NUMBER OF CHANNEL	79
ANTENNA TYPE	Remote: PCB strip antenna. Host: Sheet metal inverted-F antenna.
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. For more detailed feature description of the EUT, please refer to user' s manual.

3.2 DESCRIPTION OF TEST MODES

Seventy-night channels are provided to this EUT.

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
0	2402	20	2422	40	2442	60	2462
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2431	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	78	2480
19	2421	39	2441	59	2461		

NOTE:

1. Below 1 GHz, the channel 0, 39, and 78 were pre-tested in chamber. The channel 78, worst case one, was chosen for final test.
2. Above 1 GHz, the channel 0, 39, and 78 were tested individually.
3. The EUT was a wireless gamepad for handhold. The tests were performed under the following test modes for three different axes placements, and its data were recorded in this report:

Test Mode	Description
Mode 1	level
Mode 2	upright
Mode 3	flank

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Cordless Action™ Controller for Playstation. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 15, Subpart C. (15.249)
ANSI C63.4 :1992

All test items have been performed and recorded as per the above standards.

NOTES: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.4 DESCRIPTION OF SUPPORT UNITS

NA

4 TEST PROCEDURES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

NA

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

According to 15.249 the field strength of emissions from intentional radiators operated under these frequencies bands shall not exceed the following:

Fundamental Frequency (MHz)	Field Strength of Fundamental (dBuV/m)	
	Peak	Average
2400 ~ 2483.5	114	94

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
HP Spectrum Analyzer	8590L	3467U00646	Jun. 29, 2004
*ADVANTEST Spectrum Analyzer	R3271A	85060311	Jun. 16, 2004
CHASE RF Pre_Amplifier	CPA9232	1010	Feb. 22, 2004
*HP Pre_Amplifier	8449B	3008A01922	Oct. 13, 2004
*ROHDE & SCHWARZ Test Receiver	ESVS 30	841977/002	Sep. 17, 2004
*CHASE Broadband Antenna	CBL6112B	2798	Apr. 16, 2004
*Schwarzbeck Horn_Antenna	BBHA9120-D1	D123	Sep. 24, 2004
SCHWARZBECK Tunable Dipole Antenna	UHAP	897	Mar. 07, 2005
SCHWARZBECK Tunable Dipole Antenna	VHAP	880	Mar. 07, 2005
*RF Switches	MP59B	1-5161-28698	Jul. 31, 2004
*RF Cable(CHASE)	CH A9525	Cable_OB_01	Jul. 31, 2004
*Software	AS60P8	NA	NA
*CHANCE MOST Antenna Tower	AT-100	CM-A007	NA
*CHANCE MOST Turn Table	TC-008	CM-T007	NA
*CORCOM AC Filter	MRI2030	024/019	NA

Note: 1. The calibration interval of the above test instruments is 12 months (36 months for Tunable Dipole Antenna) and the calibrations are traceable to NML/ROC and NIST/USA.
2. * = These equipment are used for the final measurement.
3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The test was performed in ADT Open Site No. B.
5. The VCCI Site Registration No. is R-847.
6. The FCC Site Registration No. is 92753.
7. The CANADA Site Registration No. is IC 4284-2.

4.2.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

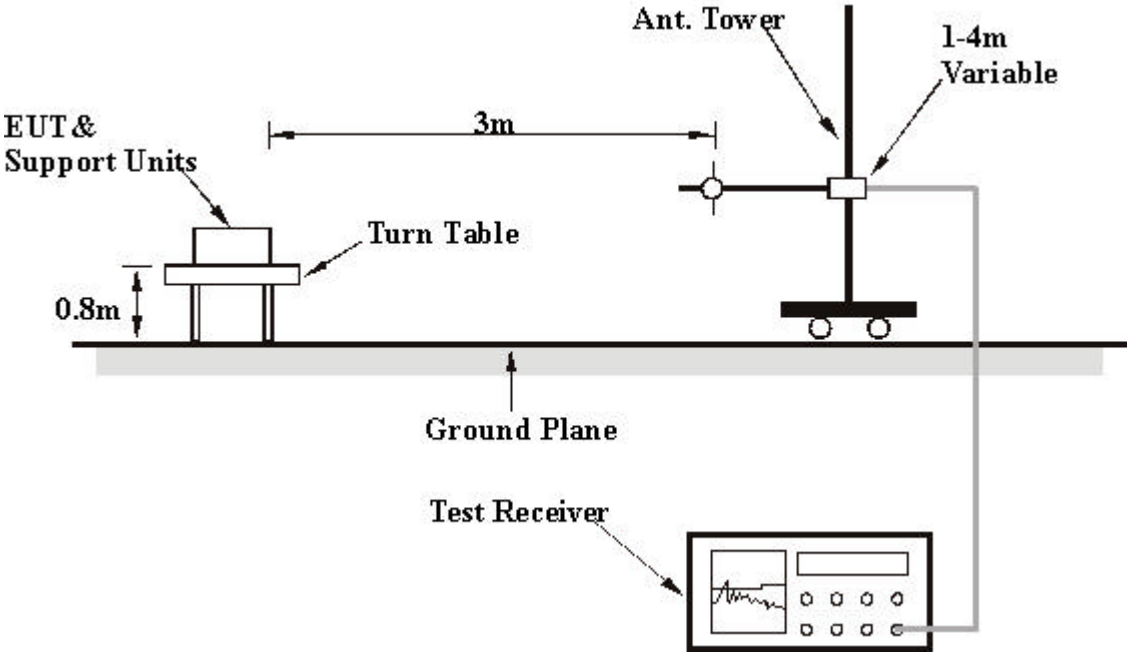
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.2.6 TEST RESULTS

EUT	Cordless Action™ Controller for Playstation	**MODEL**	G-X2D11
MODE	Channel 78	**FREQUENCY RANGE**	30 ~1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23 deg. C, 67%RH, 980 hPa	**TESTED BY**	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37.11	23.60 QP	40.00	-16.40	1.67 H	56	11.10	12.50
2	47.28	25.40 QP	40.00	-14.60	1.96 H	36	13.20	12.20
3	58.13	24.40 QP	40.00	-15.60	1.56 H	52	12.60	11.80
4	68.32	21.00 QP	40.00	-19.00	1.58 H	63	9.50	11.50
5	78.20	15.70 QP	40.00	-24.30	1.97 H	53	4.50	11.20
6	115.11	23.70 QP	43.50	-19.80	2.01 H	256	12.20	11.40
7	163.93	24.30 QP	43.50	-19.20	2.03 H	11	10.20	14.10
8	293.24	21.40 QP	46.00	-24.60	2.63 H	23	6.40	14.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37.10	25.50 QP	40.00	-14.50	1.20 V	124	13.00	12.50
2	47.28	24.90 QP	40.00	-15.10	1.24 V	230	12.70	12.20
3	58.13	28.10 QP	40.00	-11.90	1.20 V	100	16.30	11.80
4	68.31	23.70 QP	40.00	-16.30	1.39 V	23	12.20	11.50
5	79.15	27.40 QP	40.00	-12.60	1.23 V	10	16.20	11.20
6	115.11	24.30 QP	43.50	-19.20	1.02 V	237	12.90	11.40
7	163.91	26.30 QP	43.50	-17.20	4.00 V	260	12.20	14.10
8	293.24	21.90 QP	46.00	-24.10	1.36 V	69	7.00	14.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

4.2.7 TEST RESULTS (Mode 1)

EUT	Cordless Action™ Controller for Playstation	**MODEL**	G-X2D11
MODE	Channel 0	**FREQUENCY RANGE**	1000~25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	17 deg. C, 63%RH, 980 hPa	**TESTED BY**	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2344.00	65.50 PK	74.00	-8.50	1.46 H	290	35.80	29.60
1	2344.00	39.00 AV	54.00	-15.00	1.46 H	290	9.40	29.60
2	*2402.00	95.90 PK			1.11 H	278	66.00	29.90
2	*2402.00	69.40 AV			1.11 H	278	39.50	29.90
3	4804.00	62.80 PK	74.00	-11.20	1.00 H	360	26.70	36.10
3	4804.00	36.30 AV	54.00	-17.70	1.00 H	360	0.20	36.10
4	7206.00	67.00 PK	74.00	-7.00	1.28 H	56	25.30	41.60
4	7206.00	40.50 AV	54.00	-13.50	1.28 H	56	-1.10	41.60
5	9608.00	61.00 PK	74.00	-13.00	1.65 H	296	16.00	45.00
5	9608.00	34.50 AV	54.00	-19.50	1.65 H	296	-10.50	45.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2344.00	63.60 PK	74.00	-10.40	1.15 V	306	34.00	29.60
1	2344.00	37.10 AV	54.00	-16.90	1.15 V	306	7.50	29.60
2	*2402.00	92.40 PK			1.44 V	283	62.50	29.90
2	*2402.00	68.90 AV			1.44 V	283	39.00	29.90
3	4804.00	63.10 PK	74.00	-10.90	1.62 V	247	27.00	36.10
3	4804.00	36.60 AV	54.00	-17.40	1.62 V	247	0.50	36.10
4	7206.00	64.00 PK	74.00	-10.00	1.59 V	306	22.30	41.60
4	7206.00	37.50 AV	54.00	-16.50	1.59 V	306	-4.10	41.60
5	9608.00	61.50 PK	74.00	-12.50	1.72 V	9	16.50	45.00
5	9608.00	35.00 AV	54.00	-19.00	1.72 V	9	-10.00	45.00

REMARKS:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Cordless Action™ Controller for Playstation	**MODEL**	G-X2D11
MODE	Channel 39	**FREQUENCY RANGE**	1000~25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	17 deg. C, 63%RH, 980 hPa	**TESTED BY**	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2344.00	65.50 PK	74.00	-8.50	1.48 H	275	35.80	29.60
1	2344.00	39.00 AV	54.00	-15.00	1.48 H	275	9.40	29.60
2	*2441.00	94.80 PK			1.66 H	276	64.80	30.00
2	*2441.00	68.30 AV			1.66 H	276	38.30	30.00
3	4882.00	61.90 PK	74.00	-12.10	1.83 H	28	25.40	36.50
3	4882.00	35.40 AV	54.00	-18.60	1.83 H	28	-1.10	36.50
4	7323.00	67.50 PK	74.00	-6.50	1.40 H	292	25.70	41.80
4	7323.00	40.70 AV	54.00	-13.30	1.40 H	292	-1.10	41.80
5	9763.00	60.90 PK	74.00	-13.10	1.36 H	87	16.40	44.60
5	9763.00	34.40 AV	54.00	-19.60	1.36 H	87	-10.20	44.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2344.00	59.60 PK	74.00	-14.40	1.87 V	69	30.00	29.60
1	2344.00	33.10 AV	54.00	-20.90	1.87 V	69	3.50	29.60
2	*2441.00	93.50 PK			1.67 V	287	63.50	30.00
2	*2441.00	67.00 AV			1.67 V	287	37.00	30.00
3	4882.00	64.00 PK	74.00	-10.00	1.00 V	360	27.50	36.50
3	4882.00	37.50 AV	54.00	-16.50	1.00 V	360	1.00	36.50
4	7323.00	59.10 PK	74.00	-14.90	1.06 V	15	17.40	41.80
4	7323.00	32.60 AV	54.00	-21.40	1.06 V	15	-9.20	41.80
5	9763.00	58.30 PK	74.00	-15.70	1.80 V	268	13.70	44.60
5	9763.00	31.80 AV	54.00	-22.20	1.80 V	268	-12.80	44.60

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Cordless Action™ Controller for Playstation	**MODEL**	G-X2D11
MODE	Channel 78	**FREQUENCY RANGE**	1000~25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	17 deg. C, 63%RH, 980 hPa	**TESTED BY**	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	93.00 PK			1.68 H	301	62.90	30.10
1	*2480.00	66.50 AV			1.68 H	301	36.40	30.10
2	2511.00	60.60 PK	74.00	-13.40	1.09 H	280	30.30	30.20
2	2511.00	34.10 AV	54.00	-19.90	1.09 H	280	3.90	30.20
3	2576.00	57.50 PK	74.00	-16.50	1.75 H	267	27.10	30.40
3	2576.00	31.00 AV	54.00	-23.00	1.75 H	267	0.60	30.40
4	4960.00	60.00 PK	74.00	-14.00	1.73 H	300	23.10	36.80
4	4960.00	33.50 AV	54.00	-20.50	1.73 H	300	-3.30	36.80
5	7440.00	63.20 PK	74.00	-10.80	1.45 H	258	21.30	41.90
5	7440.00	36.70 AV	54.00	-17.30	1.45 H	258	-5.20	41.90
6	9920.00	57.30 PK	74.00	-16.70	1.34 H	80	13.20	44.20
6	9920.00	30.80 AV	54.00	-23.20	1.34 H	80	-13.40	44.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	90.10 PK			2.22 V	291	60.00	30.10
1	*2480.00	63.60 AV			2.22 V	291	33.50	30.10
2	2511.00	55.70 PK	74.00	-18.30	1.17 V	23	25.50	30.20
2	2511.00	29.20 AV	54.00	-24.80	1.17 V	23	-1.00	30.20
3	2576.00	54.00 PK	74.00	-20.00	1.41 V	233	23.60	30.40
3	2576.00	33.70 AV	54.00	-20.30	1.41 V	233	3.30	30.40
4	4960.00	61.60 PK	74.00	-12.40	1.81 V	352	24.80	36.80
4	4960.00	35.10 AV	54.00	-18.90	1.81 V	352	-1.70	36.80
5	7440.00	56.70 PK	74.00	-17.30	1.16 V	79	14.80	41.90
5	7440.00	30.20 AV	54.00	-23.80	1.16 V	79	-11.70	41.90
6	9920.00	55.00 PK	74.00	-19.00	1.09 V	219	10.80	44.20
6	9920.00	28.50 AV	54.00	-25.50	1.09 V	219	-15.70	44.20

REMARKS:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

4.2.8 TEST RESULTS (Mode 2)

EUT	Cordless Action™ Controller for Playstation	**MODEL**	G-X2D11
MODE	Channel 0	**FREQUENCY RANGE**	1000~25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	17 deg. C, 63%RH, 980 hPa	**TESTED BY**	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2344.00	61.80 PK	74.00	-12.20	1.21 H	360	32.20	29.60
1	2344.00	35.30 AV	54.00	-18.70	1.21 H	360	5.70	29.60
2	*2402.00	97.00 PK			1.37 H	202	67.10	29.90
2	*2402.00	70.50 AV			1.37 H	202	40.60	29.90
3	4804.00	68.10 PK	74.00	-5.90	1.34 H	220	32.00	36.10
3	4804.00	41.60 AV	54.00	-12.40	1.34 H	220	5.50	36.10
4	7206.00	65.50 PK	74.00	-8.50	1.66 H	142	23.80	41.60
4	7206.00	39.00 AV	54.00	-15.00	1.66 H	142	-2.60	41.60
5	9608.00	62.90 PK	74.00	-11.10	1.16 H	1	17.90	45.00
5	9608.00	36.40 AV	54.00	-17.60	1.16 H	1	-8.60	45.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2343.00	63.60 PK	74.00	-10.40	1.29 V	260	34.00	29.60
1	2343.00	36.80 AV	54.00	-17.20	1.29 V	260	7.20	29.60
2	*2402.00	100.20 PK			1.28 V	291	70.30	29.90
2	*2402.00	73.70 AV			1.28 V	291	43.80	29.90
3	4804.00	67.10 PK	74.00	-6.90	1.34 V	217	31.00	36.10
3	4804.00	40.60 AV	54.00	-13.40	1.34 V	217	4.50	36.10
4	7206.00	68.00 PK	74.00	-6.00	1.37 V	213	26.30	41.60
4	7206.00	41.50 AV	54.00	-12.50	1.37 V	213	-0.10	41.60
5	9608.00	62.40 PK	74.00	-11.60	1.24 V	62	17.40	45.00
5	9608.00	35.90 AV	54.00	-18.10	1.24 V	62	-9.10	45.00

REMARKS:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Cordless Action™ Controller for Playstation	**MODEL**	G-X2D11
MODE	Channel 39	**FREQUENCY RANGE**	1000~25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	17 deg. C, 63%RH, 980 hPa	**TESTED BY**	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2344.00	65.80 PK	74.00	-8.20	1.00 H	354	36.20	29.60
1	2344.00	39.30 AV	54.00	-14.70	1.00 H	354	9.70	29.60
2	*2441.00	96.00 PK			1.70 H	200	66.00	30.00
2	*2441.00	69.50 AV			1.70 H	200	39.50	30.00
3	4882.00	62.00 PK	74.00	-12.00	1.32 H	102	25.50	36.50
3	4882.00	35.50 AV	54.00	-18.50	1.32 H	102	-1.00	36.50
4	7323.00	63.80 PK	74.00	-10.20	1.44 H	216	22.00	41.80
4	7323.00	37.30 AV	54.00	-16.70	1.44 H	216	-4.50	41.80
5	9763.00	58.80 PK	74.00	-15.20	1.33 H	47	14.20	44.60
5	9763.00	32.30 AV	54.00	-21.70	1.33 H	47	-12.30	44.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2344.00	64.30 PK	74.00	-9.70	1.93 V	280	34.70	29.60
1	2344.00	37.80 AV	54.00	-16.20	1.93 V	280	8.20	29.60
2	*2441.00	98.30 PK			1.26 V	293	68.30	30.00
2	*2441.00	71.80 AV			1.26 V	293	41.80	30.00
3	4882.00	62.20 PK	74.00	-11.80	2.07 V	203	25.70	36.50
3	4882.00	35.70 AV	54.00	-18.30	2.07 V	203	-0.80	36.50
4	7323.00	64.10 PK	74.00	-9.90	2.26 V	1	22.40	41.80
4	7323.00	37.60 AV	54.00	-16.40	2.26 V	1	-4.20	41.80
5	9763.00	61.30 PK	74.00	-12.70	1.48 V	286	16.70	44.60
5	9763.00	34.80 AV	54.00	-19.20	1.48 V	286	-9.80	44.60

REMARKS:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Cordless Action™ Controller for Playstation	**MODEL**	G-X2D11
MODE	Channel 78	**FREQUENCY RANGE**	1000~25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	17 deg. C, 63%RH, 980 hPa	**TESTED BY**	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	93.60 PK			1.36 H	204	63.50	30.10
1	*2480.00	67.10 AV			1.36 H	204	37.00	30.10
2	2511.00	63.20 PK	74.00	-10.80	1.52 H	13	33.00	30.20
2	2511.00	36.70 AV	54.00	-17.30	1.52 H	13	6.50	30.20
3	2576.00	53.40 PK	74.00	-20.60	1.18 H	3	23.00	30.40
3	2576.00	33.00 AV	54.00	-21.00	1.18 H	3	2.60	30.40
4	4960.00	61.50 PK	74.00	-12.50	1.57 H	355	24.60	36.80
4	4960.00	35.00 AV	54.00	-19.00	1.57 H	355	-1.80	36.80
5	7440.00	56.40 PK	74.00	-17.60	1.89 H	24	14.50	41.90
5	7440.00	29.90 AV	54.00	-24.10	1.89 H	24	-12.00	41.90
6	9920.00	56.30 PK	74.00	-17.70	1.46 H	360	12.20	44.20
6	9920.00	29.80 AV	54.00	-24.20	1.46 H	360	-14.40	44.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	96.30 PK			1.24 V	287	66.20	30.10
1	*2480.00	69.80 AV			1.24 V	287	39.70	30.10
2	2511.00	61.70 PK	74.00	-12.30	1.46 V	13	31.50	30.20
2	2511.00	35.20 AV	54.00	-18.80	1.46 V	13	5.00	30.20
3	2575.00	59.70 PK	74.00	-14.30	1.09 V	329	29.30	30.40
3	2575.00	33.20 AV	54.00	-20.80	1.09 V	329	2.80	30.40
4	4960.00	67.80 PK	74.00	-6.20	1.35 V	153	30.90	36.80
4	4960.00	41.30 AV	54.00	-12.70	1.35 V	153	4.50	36.80
5	7440.00	61.90 PK	74.00	-12.10	1.56 V	330	20.00	41.90
5	7440.00	41.10 AV	54.00	-12.90	1.56 V	330	-0.80	41.90
6	9920.00	57.30 PK	74.00	-16.70	1.76 V	63	13.20	44.20
6	9920.00	30.80 AV	54.00	-23.20	1.76 V	63	-13.40	44.20

REMARKS:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

4.2.9 TEST RESULTS (Mode 3)

EUT	Cordless Action™ Controller for Playstation	**MODEL**	G-X2D11
MODE	Channel 0	**FREQUENCY RANGE**	1000~25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	17 deg. C, 63%RH, 980 hPa	**TESTED BY**	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2344.00	63.50 PK	74.00	-10.50	1.92 H	10	33.80	29.60
1	2344.00	37.00 AV	54.00	-17.00	1.92 H	10	7.40	29.60
2	*2402.00	93.70 PK			1.46 H	32	63.80	29.90
2	*2402.00	67.20 AV			1.46 H	32	37.30	29.90
3	4804.00	66.30 PK	74.00	-7.70	1.50 H	211	30.20	36.10
3	4804.00	39.80 AV	54.00	-14.20	1.50 H	211	3.70	36.10
4	7206.00	64.60 PK	74.00	-9.40	1.80 H	210	23.00	41.60
4	7206.00	43.40 AV	54.00	-10.60	1.80 H	210	1.80	41.60
5	9608.00	60.70 PK	74.00	-13.30	1.32 H	210	15.70	45.00
5	9608.00	34.20 AV	54.00	-19.80	1.32 H	210	-10.80	45.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2343.00	62.10 PK	74.00	-11.90	1.64 V	208	32.50	29.60
1	2343.00	35.60 AV	54.00	-18.40	1.64 V	208	6.00	29.60
2	*2402.00	93.90 PK			1.40 V	17	64.00	29.90
2	*2402.00	67.40 AV			1.40 V	17	37.50	29.90
3	4804.00	62.80 PK	74.00	-11.20	1.13 V	142	26.70	36.10
3	4804.00	36.30 AV	54.00	-17.70	1.13 V	142	0.20	36.10
4	7206.00	63.60 PK	74.00	-10.40	1.76 V	351	22.00	41.60
4	7206.00	37.10 AV	54.00	-16.90	1.76 V	351	-4.50	41.60
5	9608.00	61.50 PK	74.00	-12.50	1.12 V	210	16.50	45.00
5	9608.00	35.00 AV	54.00	-19.00	1.12 V	210	-10.00	45.00

REMARKS:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Cordless Action™ Controller for Playstation	**MODEL**	G-X2D11
MODE	Channel 39	**FREQUENCY RANGE**	1000~25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	17 deg. C, 63%RH, 980 hPa	**TESTED BY**	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2344.00	62.10 PK	74.00	-11.90	1.93 H	358	32.50	29.60
1	2344.00	35.60 AV	54.00	-18.40	1.93 H	358	6.00	29.60
2	*2441.00	90.70 PK			1.69 H	325	60.70	30.00
2	*2441.00	64.20 AV			1.69 H	325	34.20	30.00
3	4882.00	68.70 PK	74.00	-5.30	1.51 H	220	32.20	36.50
3	4882.00	42.20 AV	54.00	-11.80	1.51 H	220	5.70	36.50
4	7323.00	63.10 PK	74.00	-10.90	1.53 H	124	21.40	41.80
4	7323.00	36.90 AV	54.00	-17.10	1.53 H	124	-4.90	41.80
5	9764.00	60.10 PK	74.00	-13.90	1.52 H	9	15.50	44.60
5	9764.00	33.60 AV	54.00	-20.40	1.52 H	9	-11.00	44.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2344.00	64.00 PK	74.00	-10.00	1.88 V	13	34.30	29.60
1	2344.00	37.50 AV	54.00	-16.50	1.88 V	13	7.90	29.60
2	*2441.00	92.80 PK			1.33 V	26	62.80	30.00
2	*2441.00	66.30 AV			1.33 V	26	36.30	30.00
3	4882.00	63.40 PK	74.00	-10.60	1.00 V	118	26.90	36.50
3	4882.00	36.90 AV	54.00	-17.10	1.00 V	118	0.40	36.50
4	7323.00	62.60 PK	74.00	-11.40	1.83 V	349	20.90	41.80
4	7323.00	36.10 AV	54.00	-17.90	1.83 V	349	-5.70	41.80
5	9764.00	59.40 PK	74.00	-14.60	1.10 V	48	14.80	44.60
5	9764.00	32.90 AV	54.00	-21.10	1.10 V	48	-11.70	44.60

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Cordless Action™ Controller for Playstation	**MODEL**	G-X2D11
MODE	Channel 78	**FREQUENCY RANGE**	1000~25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	17 deg. C, 63%RH, 980 hPa	**TESTED BY**	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	90.00 PK			1.71 H	360	59.90	30.10
1	*2480.00	63.50 AV			1.71 H	360	33.40	30.10
2	2512.00	55.40 PK	74.00	-18.60	1.67 H	17	25.20	30.20
2	2512.00	28.90 AV	54.00	-25.10	1.67 H	17	-1.30	30.20
3	2576.00	57.50 PK	74.00	-16.50	1.73 H	126	27.10	30.40
3	2576.00	31.00 AV	54.00	-23.00	1.73 H	126	0.60	30.40
4	**4960.00**	**69.60 PK**	**74.00**	**-4.40**	**1.33 H**	**236**	**32.80**	**36.80**
4	4960.00	43.10 AV	54.00	-10.90	1.33 H	236	6.30	36.80
5	7440.00	59.40 PK	74.00	-14.60	1.49 H	6	17.50	41.90
5	7440.00	32.90 AV	54.00	-21.10	1.49 H	6	-9.00	41.90
6	9920.00	58.30 PK	74.00	-15.70	1.44 H	234	14.20	44.20
6	9920.00	31.80 AV	54.00	-22.20	1.44 H	234	-12.40	44.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	91.60 PK			1.60 V	13	61.50	30.10
1	*2480.00	64.10 AV			1.60 V	13	34.00	30.10
2	2511.00	61.20 PK	74.00	-12.80	1.75 V	345	31.00	30.20
2	2511.00	34.70 AV	54.00	-19.30	1.75 V	345	4.50	30.20
3	2576.00	58.40 PK	74.00	-15.60	1.62 V	267	28.00	30.40
3	2576.00	31.90 AV	54.00	-22.10	1.62 V	267	1.50	30.40
4	4960.00	58.80 PK	74.00	-15.20	2.42 V	0	21.90	36.80
4	4960.00	32.30 AV	54.00	-21.70	2.42 V	0	-4.50	36.80
5	7440.00	58.20 PK	74.00	-15.80	1.88 V	322	16.30	41.90
5	7440.00	31.70 AV	54.00	-22.30	1.88 V	322	-10.20	41.90
6	9920.00	55.50 PK	74.00	-18.50	1.68 V	201	11.30	44.20
6	9920.00	29.00 AV	54.00	-25.00	1.68 V	201	-15.20	44.20

REMARKS:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

4.3 BAND EDGES MEASUREMENT

4.3.1 LIMITS OF BAND EDGES MEASUREMENT

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

4.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100037	May. 06, 2004

NOTE:

1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100 kHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

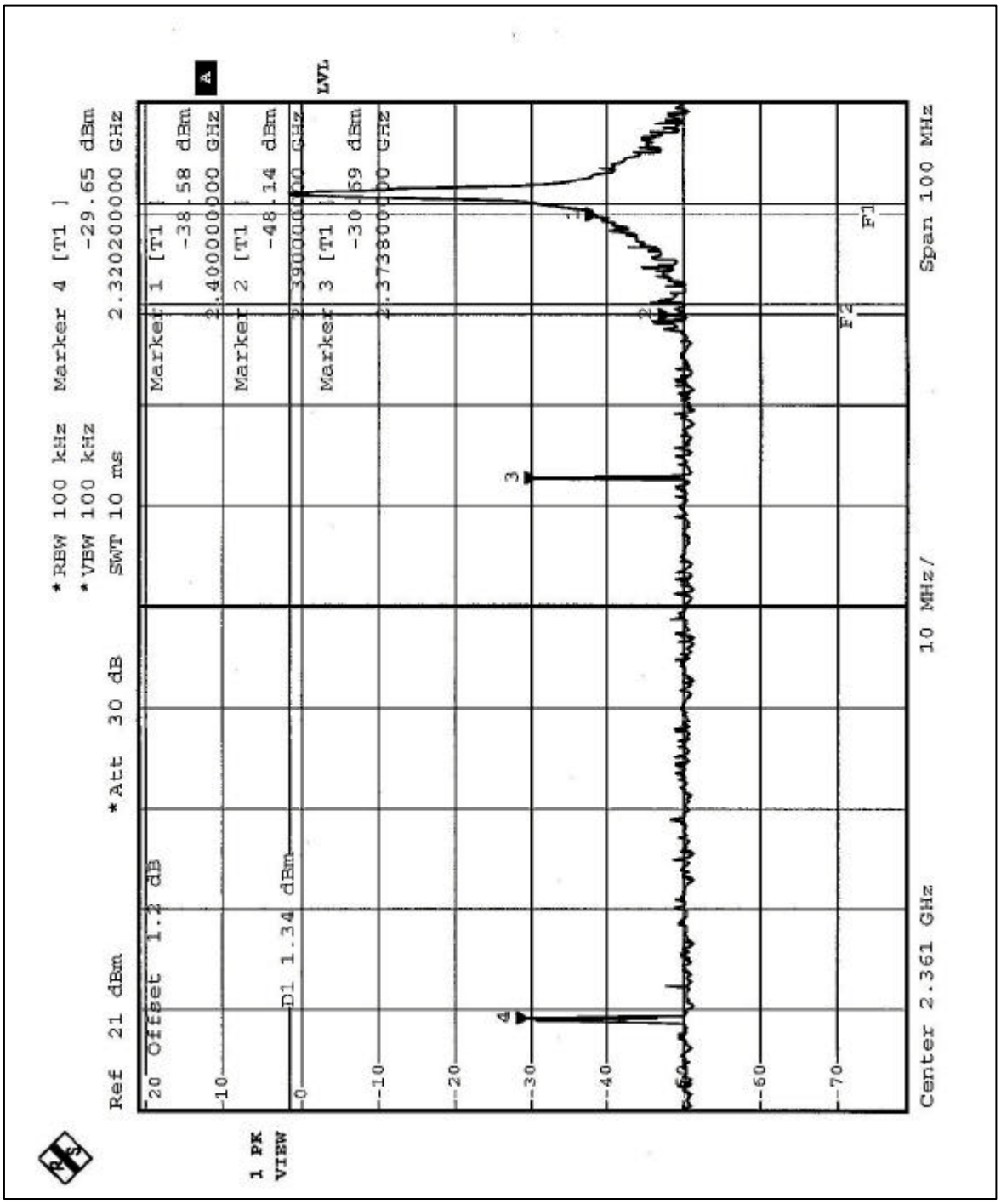
4.3.5 EUT OPERATING CONDITION

The software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel frequencies individually.

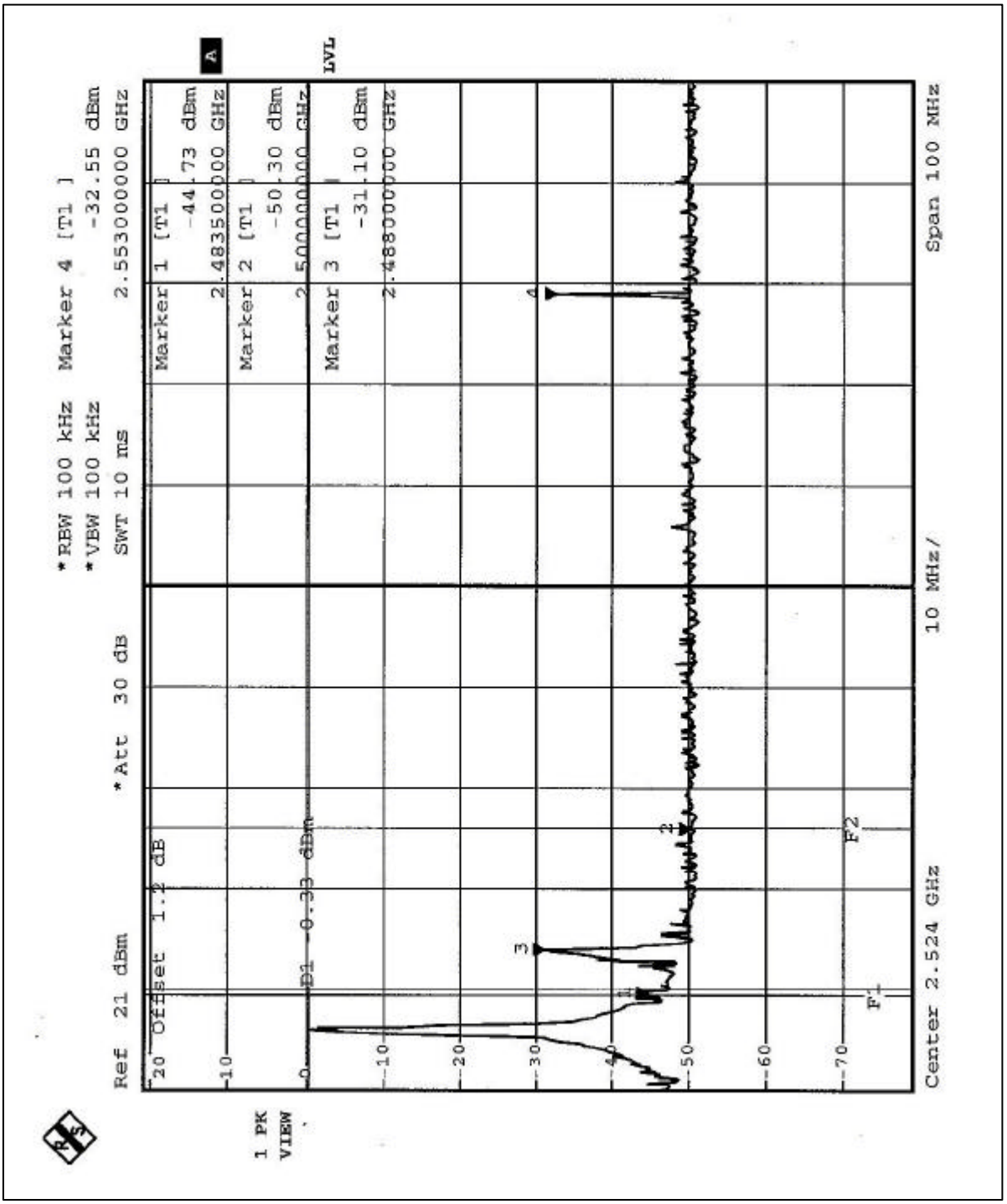
4.3.6 TEST RESULTS

Emissions radiated outside of the specified frequency bands, please refer pages form 13 to 21 for met the requirement of the general radiated emission limits in § 15.209.

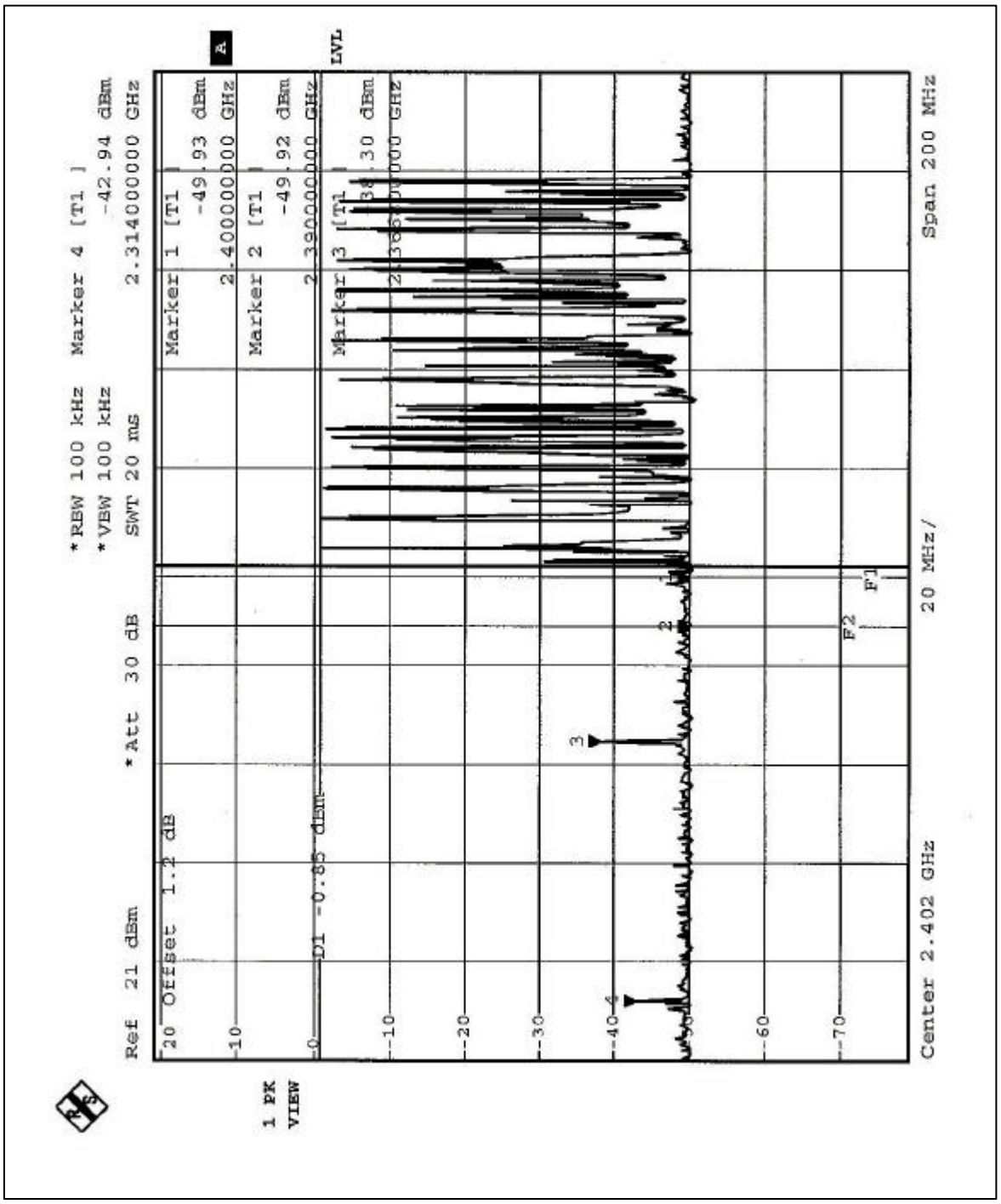
Static-CH 0


RBW 100 kHz
VBW 100 kHz
SWT 10 ms
Marker 4 [T1]
-29.65 dBm
2.320200000 GHz
Ref 21 dBm
Offset 1.2 dB
Att 30 dB
Marker 1 [T1
-38.58 dBm
2.400000000 GHz
Marker 2 [T1
-48.14 dBm
2.390000000 GHz
Marker 3 [T1
-30.69 dBm
2.373800000 GHz
D1 1.34 dBm
1 PK VIEW
Center 2.361 GHz
10 MHz/
Span 100 MHz

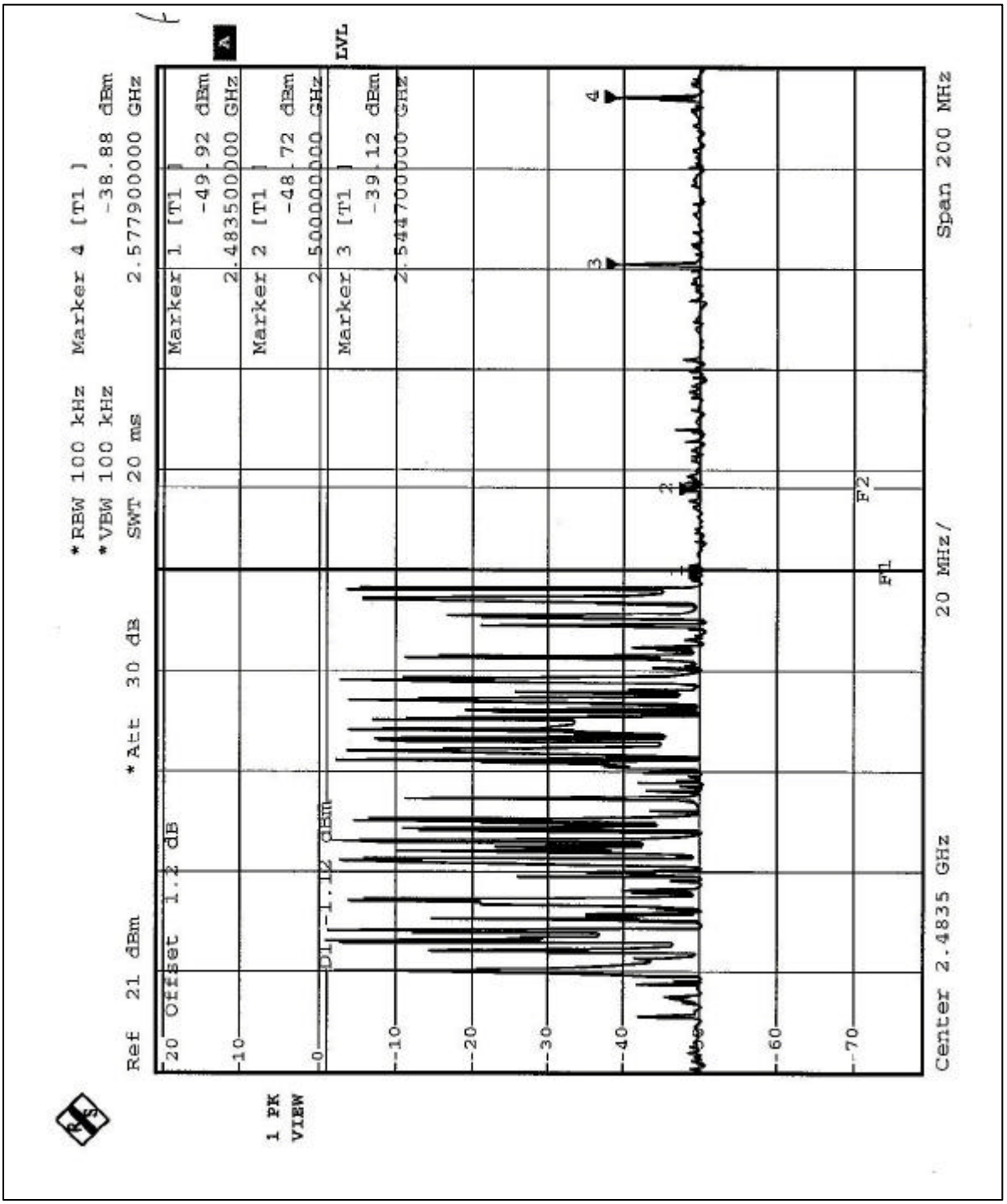
Static-CH 78


*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Marker 4 [T1]
-32.55 dBm
2.55300000 GHz
Ref 21 dBm
Offset 1.2 dB
*Att 30 dB
1 PK
VIEW
D1 -0.33 dBm
Marker 1 [T1]
-44.73 dBm
2.48350000 GHz
Marker 2 [T1]
-50.30 dBm
2.50000000 GHz
Marker 3 [T1]
-31.10 dBm
2.48800000 GHz
LVL
A
Center 2.524 GHz
10 MHz/
Span 100 MHz

Dynamic-CH 0


*RBW 100 kHz
*VBW 100 kHz
SWT 20 ms
Marker 4 [T1]
-42.94 dBm
2.314000000 GHz
Ref 21 dBm
Offset 1.2 dB
*Att 30 dB
Marker 1 [T1]
-49.93 dBm
2.400000000 GHz
Marker 2 [T1]
-49.92 dBm
2.390000000 GHz
Marker 3 [T1]
38.30 dBm
2.386000000 GHz
D1 -0.85 dBm
1 PK
VIEW
LVL
Center 2.402 GHz
20 MHz/
Span 200 MHz
F1
F2

Dynamic -CH 78



5 PHOTOGRAPHS OF THE TEST CONFIGURATION

RADIATED EMISSION TEST (Mode 1)

RADIATED EMISSION TEST (Mode 2)

RADIATED EMISSION TEST (Mode 3)

6 INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025, Guide 25 or EN 45001:

USA	FCC, NVLAP, UL
Germany	TUV Rheinland
Japan	VCCI
New Zealand	MoC
Norway	NEMKO
Canada	INDUSTRY CANADA
R.O.C.	CNLA, BSMI

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5/phtml.
If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26052943

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The address and road map of all our labs can be found in our web site also.