

FCC TEST REPORT

REPORT NO.: RF971208H05

MODEL NO.: 1387

RECEIVED: Dec. 08, 2008

TESTED: Dec. 10 to 11, 2008

ISSUED: Jan. 13, 2009

APPLICANT: MICROSOFT CORPORATION

ADDRESS: ONE MICROSOFT WAY REDMOND, WA

98052-6399

ISSUED BY: Bureau Veritas Consumer Products Services

(H.K.) Ltd., Taoyuan Branch

LAB LOCATION: No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen,

Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan

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1 CERTIFICATION

PRODUCT: Microsoft® Wireless Mouse

BRAND NAME: Microsoft®

MODEL NO.: 1387

TESTED: Dec. 10 to 11, 2008

TEST SAMPLE: ENGINEERING SAMPLE

APPLICANT: MICROSOFT CORPORATION

STANDARDS: 47 CFR Part 15, Subpart C (Section 15.249),

ANSI C63.4-2003

The above equipment (Model: 1387) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY: Midol- PM , DATE: Jan. 13, 2009

(Midoli Peng, Specialist)

TECHNICAL

ACCEPTANCE: Jan. 13, 2009

Responsible for RF (Hank Chung, Deputy Manager)

(May Chen, Deputy 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	NA	Power supply is DC 1.5V from battery			
15.249	Radiated Emission Test	PASS	Minimum passing margin is –10.46dB at 960.00MHz			
15.249	Band Edge Measurement	PASS	Meet the requirement of limit			

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4:

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Radiated emissions (30MHz-1GHz)	3.94 dB
Radiated emissions (1GHz -18GHz)	2.49 dB
Radiated emissions (18GHz -40GHz)	2.70 dB



3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Microsoft® Wireless Mouse
MODEL NO.	1387
FCC ID	C3K1387
POWER SUPPLY	DC 1.5V from battery
MODULATION TYPE	GFSK
CARRIER FREQUENCY OF EACH CHANNEL	2403MHz ~ 2480MHz
NUMBER OF CHANNEL	24
ANTENNA TYPE	PIFA antenna with 1dBi antenna gain
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.



3.2 DESCRIPTION OF TEST MODES

Twenty-four channels are provided in this EUT.

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
1	2403	7	2425	13	2448	19	2470
2	2405	8	2427	14	2450	20	2472
3	2417	9	2429	15	2452	21	2474
4	2419	10	2431	16	2454	22	2476
5	2421	11	2444	17	2456	23	2478
6	2423	12	2446	18	2468	24	2480

NOTE:

- 1. Below 1 GHz, the channel 1, 11, and 24 were pre-tested in chamber. The channel 1, worst case one, was chosen for final test.
- 2. Above 1 GHz, the channel 1, 11, and 24 were tested individually.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Microsoft® Wireless Mouse. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

47 CFR Part 15, Subpart C (Section 15.249) ANSI C63.4: 2003

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



3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit.

3.5 CONFIGURATION OF SYSTEM UNDER TEST

TEST TABLE



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	Field Strength of Fundamental (dBuV/m)			
(MHz)	Peak	Average		
	114	94		
2400 ~ 2483.5	Field Strength of Ha	rmonics (dBuV/m)		
	74	54		

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 Section 15.209, whichever is the lesser attenuation.



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 DATE	CALIBRATED UNTIL
ADVANTEST Spectrum Analyzer	R3271A	85060311	July 16, 2008	July 15, 2009
HP Pre_Amplifier	8449B	3008A0192 2	Sep. 25, 2008	Sep. 24, 2009
ROHDE & SCHWARZ Test Receiver	ESCS30	100375	April 01, 2008	Mar. 31, 2009
SCHWARZBECK TRILOG Broadband Antenna	VULB 9168	138	April 30, 2008	April 29, 2009
Schwarzbeck Horn_Antenna	BBHA9120	D124	Dec. 09, 2008	Dec. 08, 2009
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA91701 53	Jan. 28, 2008	Jan. 27, 2009
RF Switches	EMH-011	08009	Oct. 07, 2008	Oct. 06, 2009
RF CABLE (Chaintek)	SF102	22054-2	Dec. 07, 2008	Dec. 06, 2009
RF Cable	8DFB	STCCAB-30 M-1GHz	Oct. 07, 2008	Oct. 06, 2009
Software	ADT_Radiated _V7.6.15.9.2	NA	NA	NA
CT Antenna Tower & Turn Table	NA	NA	NA	NA the and the

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

- 2. The horn antenna, HP preamplifier (model: 8449B) and Spectrum Analyzer (model: R3271A) are used only for the measurement of emission frequency above 1GHz if tested.

- 3. The test was performed in Open Site No. C.
 4. The FCC Site Registration No. is 656396.
 5. The VCCI Site Registration No. is R-1626.
 6. The CANADA Site Registration No. is IC 7450G-3.



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:

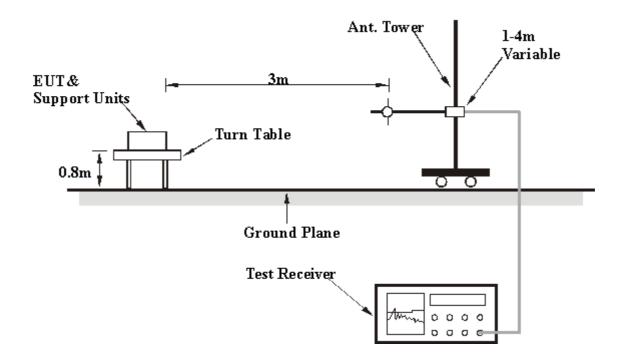
- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
- 2. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency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

Set the EUT under transmission / receiver condition continuously at specific channel frequency.



4.2.7 TEST RESULTS

MODE	Channel 1	INPUT POWER	DC 1.5V from battery
FREQUENCY RANGE	30-1000 MHz	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	20 deg. C, 60%RH, 965 hPa	TESTED BY	Rex Huang

	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	120.00	19.54 QP	43.50	-23.96	1.36 H	181	5.71	13.83
2	200.00	18.89 QP	43.50	-24.61	1.24 H	191	5.91	12.98
3	240.00	20.64 QP	46.00	-25.36	1.43 H	309	5.71	14.93
4	400.00	26.76 QP	46.00	-19.24	1.08 H	149	5.62	21.14
5	480.00	27.99 QP	46.00	-18.01	1.21 H	314	5.64	22.35
6	720.00	31.36 QP	46.00	-14.64	1.12 H	248	3.75	27.61
7	960.00	35.54 QP	46.00	-10.46	1.28 H	254	3.57	31.97

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction
No.	(MHz)	Level	(dBuV/m)	(dB)	Height	Angle	Value	Factor
	(IVIITZ)	(dBuV/m)	(ubuv/III)	(ub)	(m)	(Degree)	(dBuV)	(dB/m)
1	120.00	21.85 QP	43.50	-21.65	1.00 V	276	8.02	13.83
2	200.00	25.76 QP	43.50	-17.74	1.00 V	287	12.78	12.98
3	240.00	21.90 QP	46.00	-24.10	1.00 V	327	6.97	14.93
4	400.00	26.98 QP	46.00	-19.02	1.00 V	157	5.84	21.14
5	480.00	27.77 QP	46.00	-18.23	1.00 V	215	5.42	22.35
6	720.00	31.45 QP	46.00	-14.55	1.00 V	319	3.84	27.61
7	960.00	35.22 QP	46.00	-10.78	1.14 V	218	3.25	31.97

REMARKS:

- Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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.



MODE	Channel 1	INPUT POWER	DC 1.5V from battery	
FREQUENCY		DETECTOR	Peak (PK)	
RANGE	1000~25000MHz	FUNCTION &	Average (AV)	
RANGE		BANDWIDTH	1 MHz	
ENVIRONMENTAL	20 deg. C, 60%RH,	TESTED BY	Doy Huana	
CONDITIONS	965 hPa	IESIED BI	Rex Huang	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction		
No.	(MHz)	Level	(dBuV/m)	(dB)	Height	Angle	Value	Factor		
	(1011 12)	(dBuV/m)	(ubu v/III)	(ub)	(m)	(Degree)	(dBuV)	(dB/m)		
1	2399.00	42.35 PK	74.00	-31.65	1.26 H	172	12.13	30.22		
2	2399.00	15.79 AV	54.00	-38.21	1.26 H	172	-14.43	30.22		
3	*2403.00	84.50 PK	114.00	-29.50	1.26 H	172	54.27	30.23		
4	*2403.00	57.94 AV	94.00	-36.06	1.26 H	172	27.71	30.23		
5	4806.00	50.10 PK	74.00	-23.90	1.13 H	288	14.44	35.66		
6	4806.00	23.54 AV	54.00	-30.46	1.13 H	288	-12.12	35.66		
7	7209.00	55.20 PK	74.00	-18.80	1.18 H	256	13.58	41.62		
8	7209.00	28.64 AV	54.00	-25.36	1.18 H	256	-12.98	41.62		

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction			
No.	(MHz)	Level	-	_	Height	Angle	Value	Factor			
	(1711 12)	(dBuV/m)	(dBuV/m) (dB)		(m)	(Degree)	(dBuV)	(dB/m)			
1	2399.00	44.15 PK	74.00	-29.85	1.00 V	199	13.93	30.22			
2	2399.00	17.59 AV	54.00	-36.41	1.00 V	199	-12.63	30.22			
3	*2403.00	86.30 PK	114.00	-27.70	1.00 V	199	56.07	30.23			
4	*2403.00	59.74 AV	94.00	-34.26	1.00 V	199	29.51	30.23			
5	4806.00	50.40 PK	74.00	-23.60	1.31 V	197	14.74	35.66			
6	4806.00	23.84 AV	54.00	-30.16	1.31 V	197	-11.82	35.66			
7	7209.00	55.00 PK	74.00	-19.00	1.37 V	287	13.38	41.62			
8	7209.00	28.44 AV	54.00	-25.56	1.37 V	287	-13.18	41.62			

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

- 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.
- 5. " * ": Fundamental frequency.
- 6. Duty cycle = 4.7%
- 7. Average value = peak reading + 20log(duty cycle).



MODE	Channel 11	INPUT POWER	DC 1.5V from battery	
EDECHENCY		DETECTOR	Peak (PK)	
FREQUENCY RANGE	1000~25000MHz	FUNCTION &	Average (AV)	
10.1102		BANDWIDTH	1 MHz	
ENVIRONMENTAL	20 deg. C, 60%RH,	TESTED BY	Rex Huang	
CONDITIONS	965 hPa	IESIED BY		

	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	*2444.00	84.50 PK	114.00	-29.50	1.28 H	169	54.12	30.38		
2	*2444.00	57.94 AV	94.00	-36.06	1.28 H	169	27.56	30.38		
3	4888.00	48.40 PK	74.00	-25.60	1.09 H	235	12.57	35.83		
4	4888.00	21.84 AV	54.00	-32.16	1.09 H	235	-13.99	35.83		
5	7332.00	53.80 PK	74.00	-20.20	1.17 H	247	11.97	41.83		
6	7332.00	27.24 AV	54.00	-26.76	1.17 H	247	-14.59	41.83		

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M									
No.	Freq. (MHz)	Emission Level	Limit	Margin	Antenna Height	Table Angle	Raw Value	Correction Factor		
	(IVITZ)	(dBuV/m)	(ubuv/III)	(dBuV/m) (dB)	(m)	(Degree)	(dBuV)	(dB/m)		
1	*2444.00	85.00 PK	114.00	-29.00	1.00 V	201	54.62	30.38		
2	*2444.00	58.44 AV	94.00	-35.56	1.00 V	201	28.06	30.38		
3	4888.00	52.40 PK	74.00	-21.60	1.35 V	254	16.57	35.83		
4	4888.00	25.84 AV	54.00	-28.16	1.35 V	254	-9.99	35.83		
5	7332.00	56.30 PK	74.00	-17.70	1.35 V	284	14.47	41.83		
6	7332.00	29.74 AV	54.00	-24.26	1.35 V	284	-12.09	41.83		

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

- 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.
- 5. " * ": Fundamental frequency.
- 6. Duty cycle = 4.7%
- 7. Average value = peak reading + 20log(duty cycle).



MODE	Channel 24	INPUT POWER	DC 1.5V from battery
FREQUENCY RANGE	1000~25000MHz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	20 deg. C, 60%RH, 965 hPa	TESTED BY	Rex Huang

	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	80.30 PK	114.00	-33.70	1.25 H	351	49.78	30.52		
2	*2480.00	53.74 AV	94.00	-40.26	1.25 H	351	23.22	30.52		
3	2483.50	35.58 PK	74.00	-38.42	1.25 H	351	5.05	30.53		
4	2483.50	9.02 AV	54.00	-44.98	1.25 H	351	-21.51	30.53		
5	4960.00	48.00 PK	74.00	-26.00	1.06 H	179	12.02	35.98		
6	4960.00	21.44 AV	54.00	-32.56	1.06 H	179	-14.54	35.98		
7	7440.00	55.80 PK	74.00	-18.20	1.37 H	340	13.78	42.02		
8	7440.00	29.24 AV	54.00	-24.76	1.37 H	340	-12.78	42.02		

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M									
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction		
No.	(MHz)	Level	(dBuV/m)	•	Height	Angle	Value	Factor		
	(IVIIIZ)	(dBuV/m)	(ubuv/III)	(dB)	(m)	(Degree)	(dBuV)	(dB/m)		
1	*2480.00	82.90 PK	114.00	-31.10	1.00 V	201	52.38	30.52		
2	*2480.00	56.34 AV	94.00	-37.66	1.00 V	201	25.82	30.52		
3	2483.50	38.18 PK	74.00	-35.82	1.00 V	201	7.65	30.53		
4	2483.50	11.62 AV	54.00	-42.38	1.00 V	201	-18.91	30.53		
5	4960.00	50.20 PK	74.00	-23.80	1.32 V	263	14.22	35.98		
6	4960.00	23.64 AV	54.00	-30.36	1.32 V	263	-12.33	35.98		
7	7440.00	57.00 PK	74.00	-17.00	1.41 V	265	14.98	42.02		
8	7440.00	30.44 AV	54.00	-23.56	1.41 V	265	-11.58	42.02		

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

- 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.
- 5. " * ": Fundamental frequency.
- 6. Duty cycle = 4.7%
- 7. Average value = peak reading + 20log(duty cycle).



4.3 BAND EDGE EMISSION MEASUREMENT

4.3.1 LIMITS OF BAND EDGE EMISSION 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 Section 15.209, whichever is the lesser attenuation.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100037	Aug. 09, 2008	Aug. 08, 2009

NOTE:

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
- 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. Use marker-delta method to test 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

The spectrum plots are attached on the following 2 pages. It shows compliance with the requirement in part 15.249(d).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

The band edge emission plot on the following first page show 51.43dB delta between carrier maximum power and local maximum emission in restrict band (2.3999GHz). The emission of carrier strength list in the test result of channel 0 at the item 4.7 is 86.3dBuV/m, so the maximum field strength in restrict band is 86.3-51.43=34.87dBuV/m which is under 74 dBuV/m limit.

The band edge emission plot on the following second page shows 53.63dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 78 at the item 4.7 is 82.9dBuV/m, so the maximum field strength in restrict band is 82.9-53.63=29.27dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

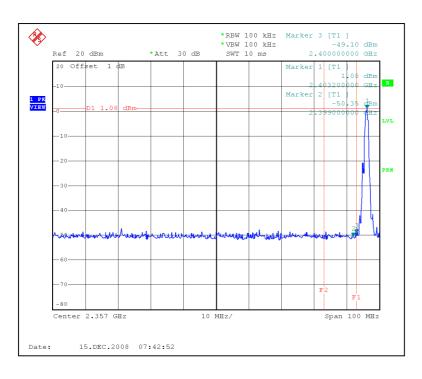
Average value = 34.87-26.52=8.35dBuV/m, which is under 54dBuV/m limit. *The duty cycle equal to: 20log(190usec/4030usec)= -26.52 dB. Average value = peak reading - 26.52.

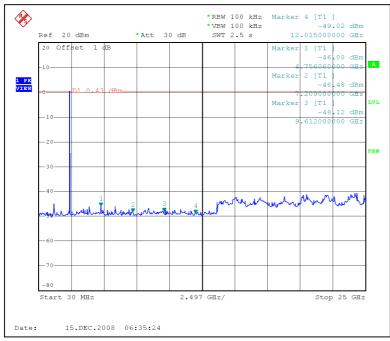
Average value = 29.27-26.52=2.75dBuV/m, which is under 54dBuV/m limit. *The duty cycle equal to: 20log(190usec/4030usec)= -26.52 dB. Average value = peak reading - 26.52.

Emissions radiated outside of the specified frequency bands, please refer pages form 14 to 16 for met the requirement of the general radiated emission limits in § 15.209.



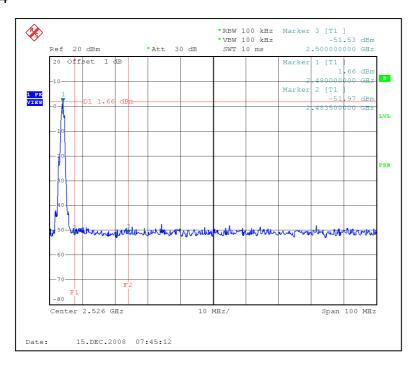
CH1

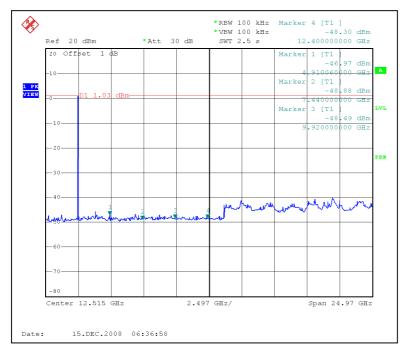






CH24







5 INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USAGermanyFCC, NVLAPTUV Rheinland

Japan VCCI Norway NEMKO

Canada INDUSTRY CANADA, CSA

R.O.C. TAF, BSMI, NCC

Netherlands Telefication

Singapore GOST-ASIA (MOU)
Russia CERTIS (MOU)

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: Hsin Chu EMC/RF Lab:

Tel: 886-2-26052180 Tel: 886-3-5935343 Fax: 886-2-26052943 Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety/Telecom Lab:

Tel: 886-3-3183232 Fax: 886-3-3185050

Email: service@adt.com.tw
Web Site: www.adt.com.tw

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



6 APPENDIX-A- MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

--- END ---