FCC TEST REPORT

REPORT NO. : RF940304A06
MODEL NO. : K64380
RECEIVED : March 4, 2005
TESTED : March 9, 2005
ISSUED: March 23, 2005

APPLICANT : ACCO Brands, Inc.

ADDRESS : 333 Twin Dolphin Drive, 6th Floor, Redwood Shores, CA, 94065, USA

ISSUED BY : Advance Data Technology Corporation

LAB LOCATION : No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang 244, Taipei Hsien, Taiwan, R.O.C.

ACCREDITED
No. 2177-01

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1 CERTIFICATION

PRODUCT NAME :	Pocket Mouse Ultra Wireless
BRAND NAME:	Kensington
MODEL NO. :	K64380
APPLICANT :	ACCO Brands, Inc.
TESTED :	March 9, 2005
TEST SAMPLE :	ENGINEERING SAMPLE
STANDARDS :	FCC Part 15, Subpart C (15.227) ANSI C63.4-2003

The above equipment has been tested by **Advance Data Technology Corporation**, 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 : Annie Chang , **DATE:** March 23, 2005
(Annie Chang)

TECHNICAL ACCEPTANCE : , **DATE:** March 23, 2005
Responsible for EMI (Jun Wu)

APPROVED BY : , **DATE:** March 23, 2005
(Cody Chang, Deputy Manager)

2 SUMMARY OF TEST RESULTS

After estimating all the combination of every test mode and channel, the result shown as below is the worst case.

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
STANDARD PARAGRAPH	**TEST TYPE**	**RESULT**	**REMARK**
15.207	Conducted Emission Test	NA	Power supply is 3Vdc from batteries
15.227 15.209	Radiated Emission Test	PASS	Minimum passing margin is -6.71 dB at 734.00 MHz

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:

MEASUREMENT	UNCERTAINTY
Radiated emissions	3.86 dB

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Pocket Mouse Ultra Wireless
MODEL NO	K64380
POWER SUPPLY	3Vdc from batteries for transmitter
MODULATION TYPE	FSK
CARRIER FREQUENCY OF EACH CHANNEL	27.045 MHz
BANDWIDTH OF EACH CHANNEL	NA
MAXIMUM FIELD STRENGTH	0.097 mV/m @ 3m
NUMBER OF CHANNEL	1
ANTENNA TYPE	Loop antenna
DATA CABLE	NA
I/O PORTS	NA

NOTE:

1. The EUT is a Pocket Mouse Ultra Wireless included transmitter part (wireless mouse) and receiver part.

2. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

3.2 DESCRIPTION OF TEST MODES

One channel was provided to this EUT.

Channel	Frequency
1	27.045MHz

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is the transmitter part of a Pocket Mouse Ultra Wireless. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C (15.227)
ANSI C63.4-2003

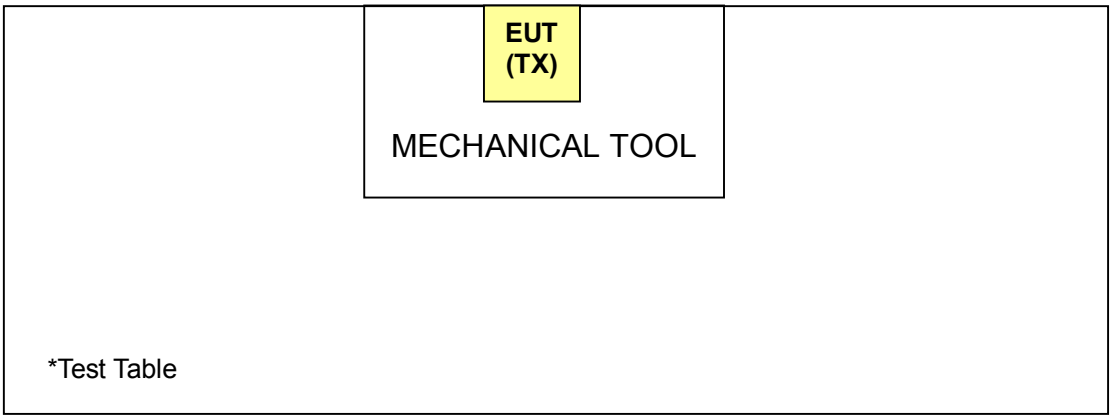
All test items have been performed and recorded as per the above standards.

3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	MECHANICAL TOOL	ADT	N/A	N/A	N/A

3.5 CONFIGURATION OF SYSTEM UNDER TEST



4 TEST PROCEDURE AND RESULT

4.1 CONDUCTED EMISSION MEASUREMENT

NA

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

According to 15.227 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
26.96~27.28	100	80

Field strength limits are at the distance of 3 meters, 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 INSTRUMENT

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
HP Preamplifier	8447D	2432A03504	Jun. 3, 2005
HP Preamplifier	8449B	3008A01924	Sep. 19, 2005
HP Preamplifier	8449B	3008A01638	Sep. 30, 2005
SCHWARZBECK Tunable Dipole Antenna	VHA 9103	NA	Oct. 29, 2005
SCHWARZBECK Tunable Dipole Antenna	UHA 9105	977	
ROHDE & SCHWARZ TEST RECEIVER	ESI7	836697/012	Nov. 05, 2005
Schwarzbeck Antenna	VULB 9168	137	Feb. 27, 2006
R&S Loop Antenna	HFH2-Z2	100070	June 6, 2005
EMCO Horn Antenna	3115	6714	Oct. 28, 2005
EMCO Horn Antenna	3115	9312-4192	Feb. 28, 2006
ADT. Turn Table	TT100	0306	NA
ADT. Tower	AT100	0306	NA
Software	ADT_Radiated_V6	NA	NA
TIMES RF cable	LL142	CABLE-CH6-01	Dec. 19, 2005

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 and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in ADT Chamber No. 6.
4. The Industry Canada Reference No. IC 3789-6.

4.2.3 TEST PROCEDURE

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic chamber. 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.

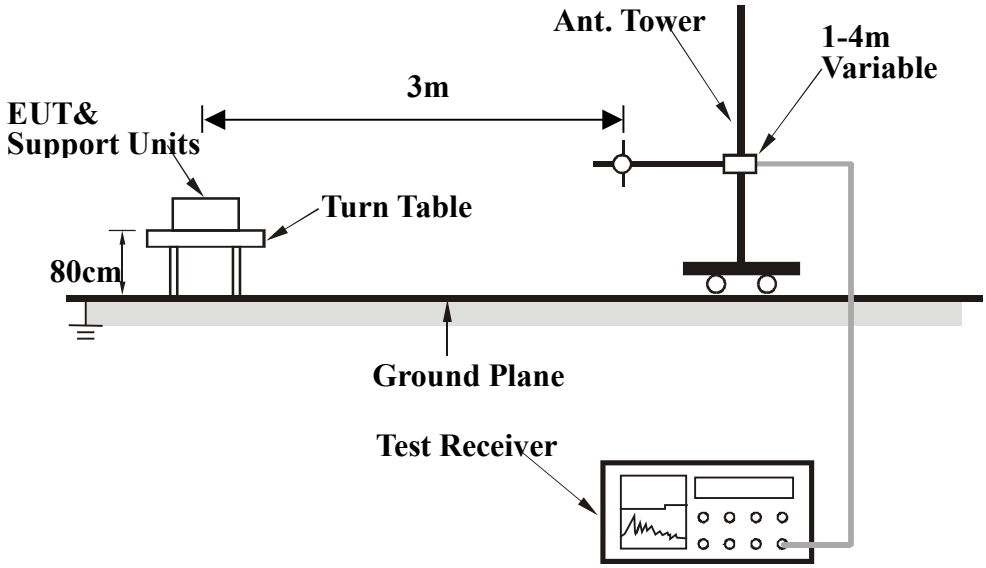
f. If the Emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the Emissions that did not have 10 dB margin would be re-tested one by one using the quasi-peak method or average method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

NOTE: 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.

4.2.4 DEVATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



For the actual test configuration, please refer to the related item in this test report - Photographs of the Test Configuration.

4.2.6 EUT OPERATING CONDITION

Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.

4.2.7 TEST RESULTS

EUT	Pocket Mouse Ultra Wireless	**MODEL NO.**	K64380
INPUT POWER	3 Vdc	**FREQUENCY RANGE**	Below 1000MHz
ENVIRONMENTAL CONDITIONS	20 deg. C, 80% RH, 1004 hPa	**DETECTOR FUNCTION**	Peak / Quasi-Peak
TESTED BY	Jamison Chan		

TEST DISTANCE 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	*27.045	42.57 PK	100.00	-57.43	1.55	181	35.17	7.40
2	*27.045	39.71 AV	80.00	-40.29	1.55	181	32.31	7.40

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. Loop antenna was used for all radiated emission below 30MHz.

EUT	Pocket Mouse Ultra Wireless	**MODEL NO.**	K64380
INPUT POWER	3 Vdc	**FREQUENCY RANGE**	Below 1000MHz
ENVIRONMENTAL CONDITIONS	20 deg. C, 80% RH, 1004 hPa	DETECTOR FUNCTION	Quasi-Peak
TESTED BY	Jamison Chan		

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	48.10	30.62 QP	40.00	-9.38	1.00 H	148	16.71	13.91
2	54.18	28.43 QP	40.00	-11.57	1.00 H	327	14.84	13.59
3	123.90	33.66 QP	43.50	-9.84	1.78 H	310	21.75	11.91
4	194.00	36.53 QP	43.50	-6.97	1.59 H	112	25.31	11.22
5	229.10	32.09 QP	46.00	-13.91	1.78 H	209	20.55	11.54
6	401.50	33.34 QP	46.00	-12.66	1.00 H	52	15.74	17.60
7	688.50	34.08 QP	46.00	-11.92	1.00 H	172	11.10	22.98
8	**734.00**	**39.29 QP**	**46.00**	**-6.71**	**1.28 H**	**215**	**15.02**	**24.27**
9	921.20	37.99 QP	46.00	-8.01	2.29 H	105	11.86	26.13

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	42.62	32.52 QP	40.00	-7.48	1.00 V	284	18.96	13.56
2	54.65	19.09 QP	40.00	-20.91	1.23 V	109	5.54	13.55
3	80.75	26.00 QP	40.00	-14.00	1.59 V	19	16.65	9.35
4	122.40	32.81 QP	43.50	-10.69	1.72 V	125	21.00	11.81
5	147.40	31.49 QP	43.50	-12.01	1.72 V	209	18.54	12.95
6	223.10	30.52 QP	46.00	-15.48	1.00 V	75	19.18	11.34
7	401.50	33.04 QP	46.00	-12.96	1.00 V	118	15.44	17.60
8	566.00	35.99 QP	46.00	-10.01	1.31 V	69	14.76	21.23

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 PHOTOGRAPHS OF THE TEST CONFIGURATION

RADIATED EMISSION TEST

6 INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., 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:

USA	FCC, NVLAP, UL, A2LA
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	CNLA, BSMI, DGT
Netherlands	Telefication
Singapore	PSB , 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
Tel: 886-2-26052180
Fax: 886-2-26052943

Hsin Chu EMC/RF Lab
Tel: 886-3-5935343
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.