



Product Name : 2.4GHz Mouse

Model No. : N745, N747, P800 Wireless Optical Mouse

FCC ID. : O62N747

pplicant : Darfon Electronics Corp.

Address : 6, Feng-Shu Tsuen, Gueishan, Taoyuan 333, Taiwan, R.O.C.

Date of Receipt: May 22, 2005

Issued Date : July 26, 2006

Report No. : 065L132-RF-US-P03V01

The Test Results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of QuieTek Corporation. This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

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# Test Report Certification

Issued Date: July 26, 2006

Report No.: 065L132-RF-US-P03V01



Product Name : 2.4GHz Mouse

Applicant : Darfon Electronics Corp.

Address : 6, Feng-Shu Tsuen, Gueishan, Taoyuan 333, Taiwan, R.O.C.

Manufacturer : Darfon Electronics Corp.

Model No. : N745, N747, P800 Wireless Optical Mouse

Rated Voltage : AC 120V/60Hz

Working Voltage : Battery 1.5V\*2

Trade Name : Darfon for N747, BenQ for N745 and P800

Applicable Standard: FCC Part 15 Subpart C Paragraph 15.249: 2005

ANSI C63.4: 2003

Test Result : Complied

NVLAP Lab Code: 200347-0

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George Chen

George Chen

CNLA 0914

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Attachment 1: EUT Test Photographs Attachment 2: EUT Detailed Photographs



#### 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name : 2.4GHz Mouse

Trade Name : Darfon for N747, BenQ for N745 and P800

FCC ID. : O62N747

Model No. : N745, N747, P800 Wireless Optical Mouse

Frequency Range : 2404 – 2480MHz

Number of Channels : 77
Channel Separation : 1MHz
Channel Control : Manual

Type of Modulation : DSSS / GFSK

Antenna Type : Printed on the PCB

Antenna Gain : -1.46dBi

### Frequency of Each Channel

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2404 MHz	Channel 21:	2424 MHz	Channel 41:	2444 MHz	Channel 61:	2464 MHz
Channel 02:	2405 MHz	Channel 22:	2425 MHz	Channel 42:	2445 MHz	Channel 62:	2465 MHz
Channel 03:	2406 MHz	Channel 23:	2426 MHz	Channel 43:	2446 MHz	Channel 63:	2466 MHz
Channel 04:	2407 MHz	Channel 24:	2427 MHz	Channel 44:	2447 MHz	Channel 64:	2467 MHz
Channel 05:	2408 MHz	Channel 25:	2428 MHz	Channel 45:	2448 MHz	Channel 65:	2468 MHz
Channel 06:	2409 MHz	Channel 26:	2429 MHz	Channel 46:	2449 MHz	Channel 66:	2469 MHz
Channel 07:	2410 MHz	Channel 27:	2430 MHz	Channel 47:	2450 MHz	Channel 67:	2470 MHz
Channel 08:	2411 MHz	Channel 28:	2431 MHz	Channel 48:	2451 MHz	Channel 68:	2471 MHz
Channel 09:	2412 MHz	Channel 29:	2432 MHz	Channel 49:	2452 MHz	Channel 69:	2472 MHz
Channel 10:	2413 MHz	Channel 30:	2433 MHz	Channel 50:	2453 MHz	Channel 70:	2473 MHz
Channel 11:	2414 MHz	Channel 31:	2434 MHz	Channel 51:	2454 MHz	Channel 71:	2474 MHz
Channel 12:	2415 MHz	Channel 32:	2435 MHz	Channel 52:	2455 MHz	Channel 72:	2475 MHz
Channel 13:	2416 MHz	Channel 33:	2436 MHz	Channel 53:	2456 MHz	Channel 73:	2476 MHz
Channel 14:	2417 MHz	Channel 34:	2437 MHz	Channel 54:	2457 MHz	Channel 74:	2477 MHz
Channel 15:	2418 MHz	Channel 35:	2438 MHz	Channel 55:	2458 MHz	Channel 75:	2478 MHz
Channel 16:	2419 MHz	Channel 36:	2439 MHz	Channel 56:	2459 MHz	Channel 76:	2479 MHz
Channel 17:	2420 MHz	Channel 37:	2440 MHz	Channel 57:	2460 MHz	Channel 77:	2480 MHz
Channel 18:	2421 MHz	Channel 38:	2441 MHz	Channel 58:	2461 MHz		
Channel 19:	2422 MHz	Channel 39:	2442 MHz	Channel 59:	2462 MHz		
Channel 20:	2423 MHz	Channel 40:	2443 MHz	Channel 60:	2463 MHz		

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### Note:

- 1. The EUT is a 2.4GHz Mouse with a built-in 2.4GHz transceiver.
- 2. These tests are conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.249.
- 3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
- 4. The different of each model is shown as below:

Model Number	Trade Name	
N747	Darfon	
N745, P800 Wireless Optical Mouse	BenQ	

EMI Test Mode	Mode 1: Transmitter
Divil Test Mode	Wiode 1. Hansimitei

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# 1.2. Operation Description

The EUT is 2.4GHz Mouse. The operation frequency is 2.404GHz to 2.480GHz. Seventy-seven manually selectable channels are built in the EUT. The signals modulated by DSSS / GFSK are transmitted from the printed antenna on the PCB of the EUT to a USB dongle (receiver). DC 3V shall be provided for EUT operation.

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# 1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

	Product	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
(1)	N/A	N/A	N/A	N/A	N/A	N/A

Signal Cable Type		Signal cable Description		
A.	N/A	N/A		

# 1.4. Configuration of Tested System

EUT	
201	

### 1.5. EUT Exercise Software

- (1) Setup the EUT as shown in section 1.4.
- (2) Install the batteries of the EUT.
- (3) Press the right button two times to start continuous transmitting.
- (4) Press the left button to switch the channel.

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### 1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

Site Description: File on

Federal Communications Commission

FCC Engineering Laboratory 7435 Oakland Mills Road Columbia, MD 21046

Reference 31040/SIT1300F2

Accreditation on NVLAP NVLAP Lab Code: 200533-0

Site Name: Quietek Corporation

Site Address: No. 5-22, Ruei-Shu Valley, Ruei-Ping Tsuen,

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E-Mail: <a href="mailto:service@quietek.com">service@quietek.com</a>







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### 2. Conducted Emission

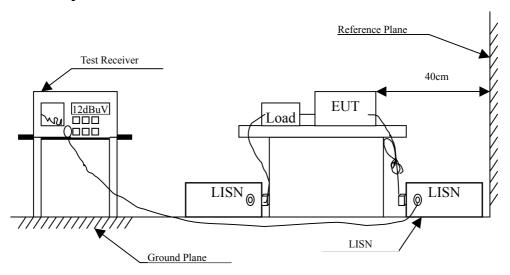
### 2.1. Test Equipment

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2006	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2006	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2006	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2006	
5	No.4 Shielded Room	m		N/A	

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

## 2.2. Test Setup



### 2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBuV) Limit						
Frequency	Limits					
MHz	QP	AV				
0.15 - 0.50	66-56	56-46				
0.50-5.0	56	46				
5.0 - 30	60	50				

Remarks: In the above table, the tighter limit applies at the band edges.

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#### 2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

### 2.5. Uncertainty

 $\pm 2.26 \, dB$ 

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# 2.6. Test Result of Conducted Emission

The EUT is powered by batteries. This test item is not performed.

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### 3. Radiated Emission

# 3.1. Test Equipment

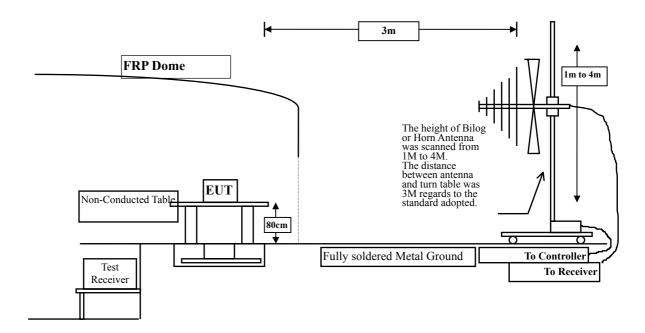
The following test equipment are used during the radiated emission test:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 1		Test Receiver	R & S	ESCS 30 / 825442/14	May, 2006
		Spectrum Analyzer	Advantest	R3261C / 71720140	May, 2006
		Pre-Amplifier	HP	8447D/3307A01812	May, 2006
		Bilog Antenna	Chase	CBL6112B / 12452	Sep., 2005
		Horn Antenna	EM	EM6917 / 103325	May, 2006
Site # 2		Test Receiver	R & S	ESCS 30 / 825442/17	May, 2006
		Spectrum Analyzer	Advantest	R3261C / 71720609	May, 2006
		Pre-Amplifier	HP	8447D/3307A01814	May, 2006
		Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2005
		Horn Antenna	EM	EM6917 / 103325	May, 2006
Site # 3	X	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2006
	X	Test Receiver	R & S	ESCS 30 / 825442/14	May, 2006
	X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2006
	X	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2006
	X	Horn Antenna	ETS	3115 / 0005-6160	July, 2006
	X	Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2006

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

2. Mark "X" test instruments are used to measure the final test results.

### 3.2. Test Setup



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#### 3.3. Limits

#### > Fundamental and Harmonics Emission Limits

FCC Part 15 Subpart B Paragraph 15.249 Limits							
Frequency	Field Strength	of Harmonics					
MHz	(mV/m @3m)	(dBuV/m @3m)	(uV/m @3m)	(dBuV/m @3m)			
902-928	50	94	500	54			
2400-2483.5	50	94	500	54			
5725-5875	50	94	500	54			

Remarks: 1. RF Voltage  $(dBuV/m) = 20 \log RF Voltage (uV/m)$ 

2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

#### **➤** General Radiated Emission Limits

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

FCC Part 15 Subpart B Paragraph 15.209 Limits						
Frequency MHz	uV/m @3m	dBuV/m@3m				
30-88	100	40				
88-216	150	43.5				
216-960	200	46				
Above 960	500	54				

Remarks: 1. RF Voltage  $(dBuV/m) = 20 \log RF Voltage (uV/m)$ 

- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

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#### 3.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated measurement.

Radiated emissions were invested over the frequency range from 30MHz to1GHz using a receiver bandwidth of 120kHz. Radiated was performed at an antenna to EUT distance of 3 meters.

The frequency range from 30MHz to 10th harminics is checked.

### 3.5. Uncertainty

- $\pm$  3.9 dB above 1GHz
- $\pm$  3.8 dB below 1GHz

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### 3.6. Test Result of Radiated Emission

Product : 2.4GHz Mouse

Test Item : Fundamental Radiated Emission

Test Site : No.3OATS

Test Mode : Mode 1: Transmitter

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Average Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
Channel 01					
2404.000	-2.210	80.196	77.986	-36.014	114.000
Channel 39					
2442.000	-2.066	86.435	84.369	-29.631	114.000
Channel 77					
2480.000	-1.909	86.455	84.545	-29.455	114.000
Average Detector					
Channel 01					
2404.000	-2.210	69.030	66.820	-27.180	94.000
Channel 39					
2442.000	-2.066	75.228	73.162	-20.838	94.000
Channel 77					
2480.000	-1.909	78.329	76.419	-17.581	94.000
Vertical					
Peak Detector:					
Channel 01				• • • • •	
2404.000	-2.210	89.362	87.152	-26.848	114.000
Channel 39	2000	0.4.220	02.272	21.720	114.000
2442.000	-2.066	94.338	92.272	-21.728	114.000
Channel 77	1 000	04.050	02.040	21.060	114.000
2480.000	-1.909	94.850	92.940	-21.060	114.000
Average Detector Channel 01					
	2 210	70 150	75.040	19.060	04.000
2404.000 Channel 39	-2.210	78.150	75.940	-18.060	94.000
2442.000	-2.066	84.609	82.543	-11.457	94.000
2442.000 Channel 77	-2.000	04.007	04.343	-11.43/	9 <del>4</del> .000
2480.000	-1.909	84.619	82.709	-11.291	94.000
Note:	-1.707	07.017	02.707	-11.271	77.000

Note:

1. Emission Level = Reading Level + Correct Factor.

2. Correct Factor = Antenna Factor + Cable Loss - PreAMP.

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Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmitter (2404MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Average Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					_
Peak Detector:					
4808.000	3.746	41.046	44.792	-29.208	74.000
7212.000	10.787	43.864	54.651	-19.349	74.000
9616.000	14.858	35.214	50.072	-23.928	74.000
Average Detector					
7212.000	10.787	34.984	45.771	-8.229	54.000
Vertical					
Peak Detector:					
4808.000	3.746	43.465	47.211	-26.789	74.000
7212.000	10.787	45.284	56.071	-17.929	74.000
9616.000	14.858	38.181	53.039	-20.961	74.000
Average Detector					
7212.000	10.787	35.375	46.162	-7.838	54.000

### Note:

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. Receiver setting (Peak Detector): RBW:1MHz; VBW:1MHz; Span:100MHz •
- 3. Receiver setting (AVG Detector): RBW:1MHz; VBW:30Hz; Span:20MHz •
- 4. Emission Level = Reading Level + Correct Factor.
- 5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

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Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmitter (2442MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Average Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
4884.000	3.937	40.552	44.489	-29.511	74.000
7326.000	11.645	42.064	53.709	-20.291	74.000
9768.000	13.684	37.442	51.126	-22.874	74.000
Average Detector					
Vertical					
<b>Peak Detector:</b>					
4884.000	3.937	43.369	47.306	-26.664	74.000
7326.000	11.645	43.349	54.994	-18.976	74.000
9768.000	13.684	37.447	51.131	-22.839	74.000
Average Detector					
7326.000	11.645	33.903	45.548	-8.452	54.000

#### Note:

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. Receiver setting (Peak Detector): RBW:1MHz; VBW:1MHz; Span:100MHz •
- 3. Receiver setting (AVG Detector): RBW:1MHz; VBW:30Hz; Span:20MHz •
- 4. Emission Level = Reading Level + Correct Factor.
- 5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmitter (2480MHz)

Frequency	Correct	Reading	Measurement	Margin	Average
	Factor	Level	Level		Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4960.000	4.151	39.917	44.067	-29.933	74.000
7440.000	12.067	39.920	51.986	-22.014	74.000
9920.000	13.472	38.585	52.056	-21.934	74.000
Average Detector					
Vertical					
Peak Detector:					
4960.000	4.151	40.276	44.426	-29.574	74.000
7440.000	12.067	40.663	52.729	-21.271	74.000
9920.000	13.472	37.761	51.232	-22.768	74.000

#### **Average Detector**

\_\_

### Note:

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. Receiver setting (Peak Detector): RBW:1MHz; VBW:1MHz; Span:100MHz •
- 3. Receiver setting (AVG Detector): RBW:1MHz; VBW:30Hz; Span:20MHz •
- 4. Emission Level = Reading Level + Correct Factor.
- 5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

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Test Item : General Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmitter (2442MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
160.100	10.791	14.100	24.891	-18.609	43.500
299.900	14.115	13.200	27.315	-18.685	46.000
380.500	15.633	15.400	31.033	-14.967	46.000
620.100	20.996	8.300	29.295	-16.705	46.000
813.200	21.700	13.300	34.999	-11.001	46.000
950.100	22.799	13.800	36.599	-9.401	46.000
Vertical					
114.700	11.845	10.900	22.745	-20.755	43.500
160.100	9.854	11.100	20.954	-22.546	43.500
290.100	13.867	11.600	25.467	-20.533	46.000
381.600	16.688	16.800	33.488	-12.512	46.000
500.500	18.354	16.900	35.254	-10.746	46.000
620.100	21.525	13.900	35.425	-10.575	46.000

### Note:

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor
- 4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

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### 4. Band Edge

# 4.1. Test Equipment

The following test equipments are used during the band edge tests:

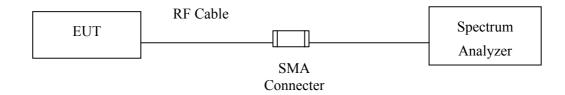
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2006
X	Test Receiver	R & S	ESCS 30 / 825442/14	May, 2006
X	Spectrum Analyzer	Advantest	R3261C / 71720140	May, 2006
X	Pre-Amplifier	HP	8447D/3307A01812	May, 2006
X	Bilog Antenna	Chase	CBL6112B / 12452	Sep., 2005
X	Horn Antenna	EM	EM6917 / 103325	May, 2006

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

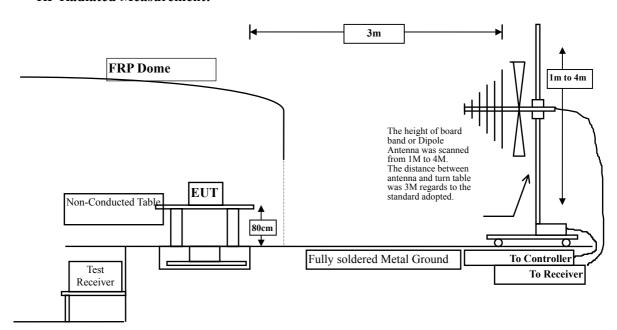
2. Mark "X" test instruments are used to measure the final test results.

### 4.2. Test Setup

#### **RF Conducted Measurement:**



#### **RF Radiated Measurement:**



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#### **4.3.** Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 50 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

#### 4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2003 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCS 30) is 120 kHz, above 1GHz are 1 MHz.

#### 4.5. Uncertainty

Conducted is  $\pm 1 \text{ MHz}$ 

Radiated is  $\pm$  3.9 dB.



# 4.6. Test Result of Band Edge

Product : 2.4GHz Mouse
Test Item : Band Edge Data
Test Site : No.3 OATS

Test Mode : Mode 1: Transmitter (2404MHz)

### **RF Radiated Measurement**

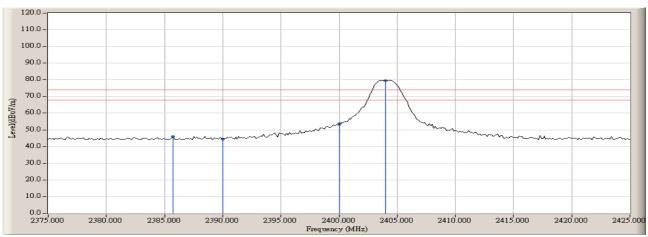
Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
01	<2400	>20	Pass

### RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chainei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Resuit
01(Peak)	2385.750	-2.271	48.130	45.859	74.00	54.00	Pass
01 (Average)		-	-		74.00	54.00	Pass

### Figure Channel 01:

#### Horizontal



Note:

RBW=1MHz, VBW=1MHz, Sweep Time=500ms



Product : 2.4GHz Mouse
Test Item : Band Edge Data
Test Site : No.3 OATS

Test Mode : Mode 1: Transmitter (2404MHz)

#### **RF Radiated Measurement**

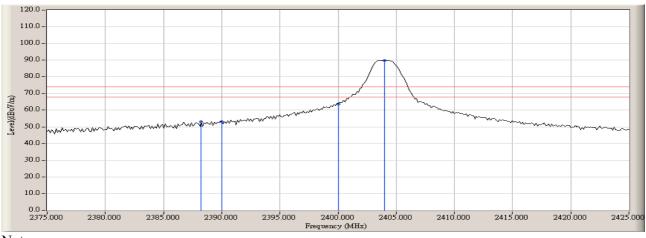
Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
01	<2400	>20	Pass

#### RF Radiated Measurement (Vertical):

		` ,				1	
Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chainer No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Resuit
01 (Peak)	2388.250	-2.262	55.285	53.022	74.00	54.00	Pass
01(Average)					74.00	54.00	Pass

### Figure Channel 01:





Note:

RBW=1MHz, VBW=1MHz, Sweep Time=500ms

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Product : 2.4GHz Mouse
Test Item : Band Edge Data
Test Site : No.3 OATS

Test Mode : Mode 1: Transmitter (2480MHz)

#### **RF Radiated Measurement**

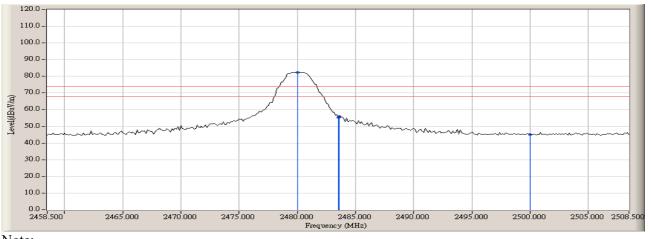
Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
77	>2483.5	>20	Pass

### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
77(Peak)	2483.625	-1.895	57.814	55.919	74.00	54.00	Pass
77(Average)	2483.625	-1.895	45.154	43.259	74.00	54.00	Pass

### Figure Channel 77:

### Horizontal (Peak)



Note:

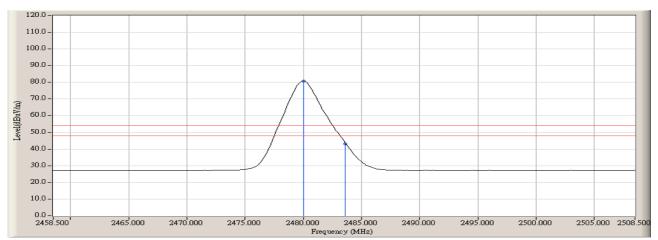
RBW=1MHz, VBW=1MHz, Sweep Time=500ms

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# Figure Channel 77:

# Horizontal (Average)



Note:

RBW=1MHz, VBW=300Hz, Sweep Time=500ms



Product : 2.4GHz Mouse
Test Item : Band Edge Data
Test Site : No.3 OATS

Test Mode : Mode 1: Transmitter 2480MHz

#### **RF Radiated Measurement**

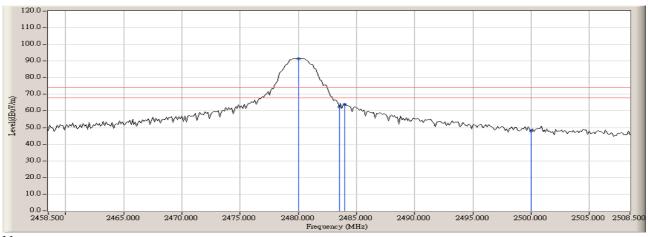
Channel No.	Frequency (MHz)	Required Limit (dBc)	Result	
77	>2483.5	>20	Pass	

#### RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
77(Peak)	2484.000	-1.893	65.938	64.044	74.00	54.00	Pass
77(Average)	2484.000	-1.893	50.994	49.100	74.00	54.00	Pass

### Figure Channel 77:

### Vertical (Peak)



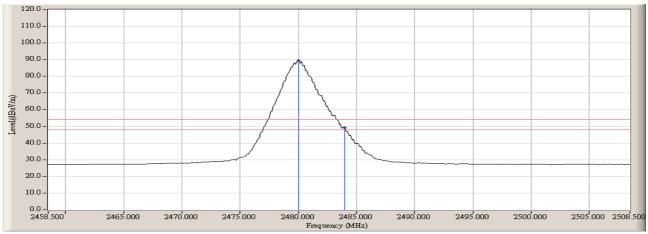
Note:

RBW=1MHz, VBW=1MHz, Sweep Time=500ms



Figure Channel 77:

## Vertical (Average)



Note:

RBW=1MHz, VBW=300Hz, Sweep Time=500ms

Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



# 5. EMI Reduction Method During Compliance Testing

No modification was made during testing.

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Attachment 1 : EUT Test Photographs

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Attachment 2 : EUT Detailed Photographs

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