

ADVANCED
COMPLIANCE LABORATORY

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ELECTROMAGNETIC EMISSION COMPLIANCE REPORT of

JUNGLE BOOK PC DANCE MAT CONTROLLER

MODEL: 80002

FCC ID: PFW80002

December 28, 2000

This report concerns (check one): Original grant ☒ Class II change ☐
Equipment type: computer peripheral

Deferred grant requested per 47 CF 0.457(d)(1)(ii)? yes ☐ no ☒
If yes, defer until: _____ (date)
Company agrees to notify the Commission by _____ (date)
of the intended date of announcement of the product so that the grant can be
issued on that date.

Transition Rules Request per 15.37? yes ☐ no ☒
If no, assumed Part 15, Subpart B for unintentional radiators - the new 47 CFR
[10-1-90 Edition] provision.

Report prepared for: Qualtech Corporation (H.K.) Ltd.
Report prepared by: Advanced Compliance Lab
Report number: 0048-2K1226-01



The test result in this report IS supported and covered by the NVLAP accreditation

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1. GENERAL INFORMATION

1.1 Verification of Compliance

EUT: JUNGLE BOOK PC DANCE MAT CONTROLLER
 Model: 80002

 Applicant: QUALTECH CORPORATION (H.K.) LTD.
 Flat L, 7/F. HongKong Ind. Bldg., 26 Lee Chung
 St., Chaiwan, HK
 Contact: Catherine Ng.

 Test Type: FCC Part 15 CLASS B CERTIFICATION

 Result: PASS
 Tested by: David Tu

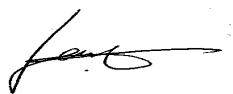
 Test Date: December 05, 2000

 Report Number: 0048-2K1201-02

The above equipment was tested by Advanced Compliance Lab for compliance with the requirement set forth in the FCC rules and regulations Part 15, subpart B. This said equipment in the configuration described in the report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

The estimated uncertainty of the test result is given as following. The method of uncertainty calculation is provided in Advanced Compliance Lab. Doc. No. 0048-01-01.

	Prob. Dist.	Uncertainty(dB)	Uncertainty(dB)	Uncertainty(dB)
		30-1000MHz	1-6.5GHz	Conducted
Combined Std. Uncertainty u_c	norm.	± 2.36	± 2.99	± 1.83



Wei Li
 Lab Manager
 Advanced Compliance Lab

Date : Dec. 28, 2000

1.2 Equipment Modifications

N/A

1.3 Product Information

System Configuration

ITEM	DESCRIPTION	FCC ID or DOC	CABLE
Product	JUNGLE BOOK PC DANCE MAT CONTROLLER		
System Model	80002	PFW80002(1)	
Housing	Plastic		
Clock/OSC Freq.	24 MHz		
Power Supply	USB Port / PC System		
NoteBook PC	Quantex/ TS30H	FCC ID: IIRTS30HT	

(1) EUT tested has been compliance for DOC.

1.4 Test Methodology

Both conducted and radiated tests were performed according to the procedures in ANSI C63.4-1992. Radiated test was performed at an antenna to EUT distance of 3 meters.

1.5 Test Facility

The open area test site and conducted measurement facility used to collect the radiated and conducted data are located at 50 Randolph Road, Somerset, New Jersey. This site has been accepted by FCC to perform measurements under Part 15 or 18 in a letter dated May 19, 1997 (Refer to: 31040/PRV 1300F2). The NVLAP Lab code for accreditation of FCC EMC Test Method is: 200101-0.

1.6 Test Equipment

Manufacture	Model	Serial No.	Description	Last Cal dd/mm/yy	Cal Due dd/mm/yy
Hewlett-Packard	HP8546A	3625A00341	EMI Receiver	15/12/99	15/12/00
Fischer Custom	LISN-2	900-4-008	Line Impedance Stabilization Networks	20/05/00	20/05/01
Fischer Custom	LISN-2	900-4-009	Line Impedance Stabilization Networks	26/04/00	26/04/01
EMCO	3104C	4396	30-200MHz Biconical Antenna	02/05/00	02/05/01
EMCO	3146	3350	200-1000MHz Log-Periodic Antenna	02/05/00	02/05/01

All Test Equipment Used are Calibrated Traceable to NIST Standards.

1.7 Statement for the Document Use

This report shall not be reproduced except in full, without the written approval of the laboratory. And this report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

2. PRODUCT LABELING

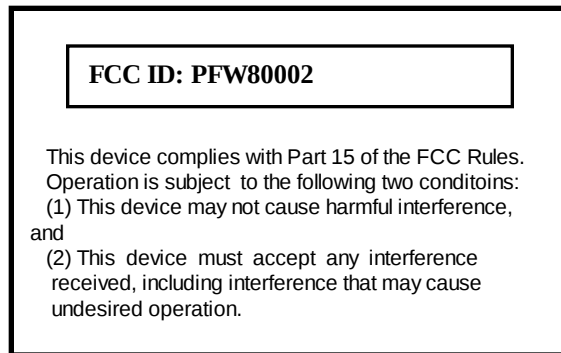


Figure 2.1 FCC DOC Label

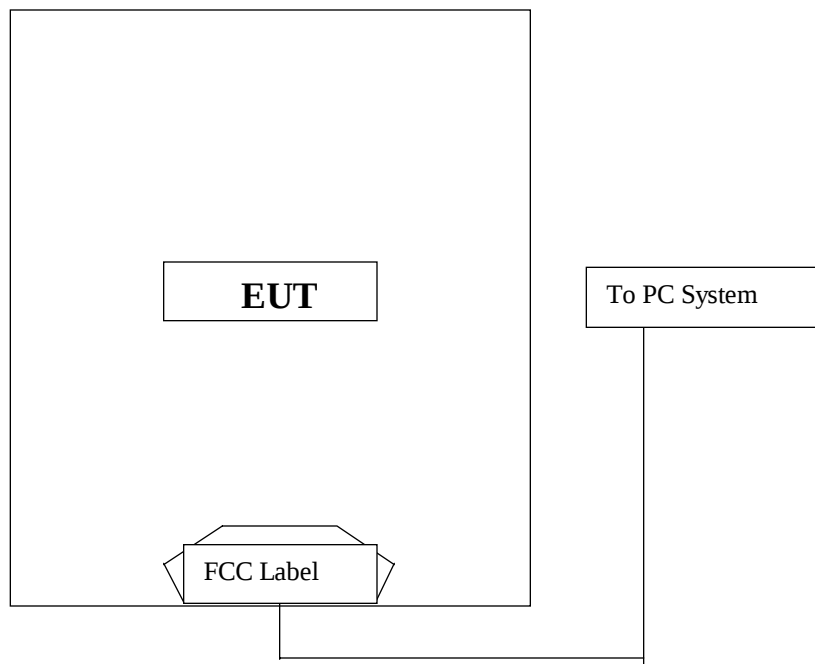


Figure 2.2 Location of Label on Back of the EUT

3. SYSTEM TEST CONFIGURATION

3.1 Justification

The system was configured for testing in a typical fashion (as a customer would normally use it). The EUT is USB interface design for PC sytem . Connected EUT to the USB port of notebook PC, enable and keep game running continuously during test.

3.2 EUT Exercise Software

The EUT exercised demo program during radiated and conducted testing. The driver was automatic searched in Window 98 and installed into PC system.

3.3 Special Accessories

N/A

3.4 Configuration of Tested System

Figure 3.1 through Figure 3.5 illustrate the typical system, which consists of EUT and notebook PC.

3.5 Deviation

N/A

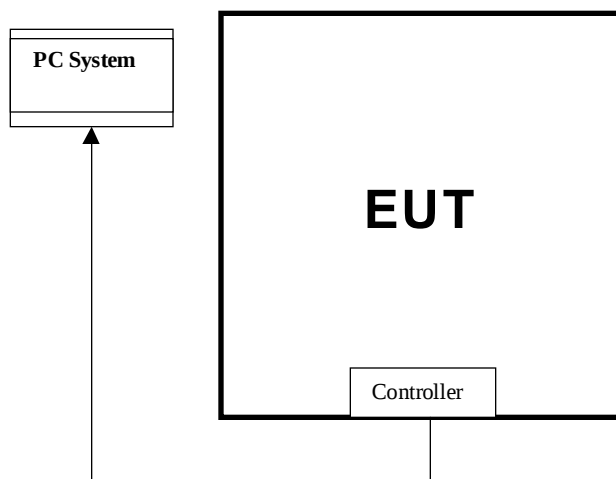


Figure 3.1 Interface Cabling Configuration of the EUT

See attachment: radfrnt.jpg

Figure 3.2 Radiated Front

See attachment: radrear.jpg

Figure 3.3 Radiated Rear

See attachment: condfront.jpg

Figure 3.4 Conducted Front

See attachment: condrear.jpg

Figure 3.5 Conducted Rear

4. SYSTEM SCHEMATIC

See attachment: schem.jpg

Figure 4.1 System Schematic

5. CONDUCTED EMISSION DATA

5.1 Test Methods and Conditions

The EUT exercise program was loaded during the conducted emission test. EMI Receiver was scanned from 450KHz to 30MHz with maximum hold mode for maximum emission. The IF Bandwidth is 9KHz. Recorded data was sent to the plotter to generate output in linear format. At the input of the spectrum analyzer, a HP transient limiter is inserted for protective purpose. This limiter has a 10 dB attenuation in the range of 450KHz to 30MHz. That factor was automatically compensated by the receiver, so the readings are the corrected readings. The reference of the plot is the FCC Class B limit 250 μ V in Figure 5.1 through Figure 5.2.

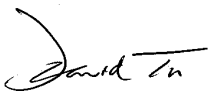
Emissions that have peak values close to the specification limit (if any) are also measured in the quasi-peak mode to determine compliance.

5.2 Test Data

Figure 5.1 through Figure 5.2 show the neutral and line conducted emissions.

The only point over class B limit in peak detector mode was tested again in quasi-peak detector mode. This point was found to be under the limit.

Test Personnel:

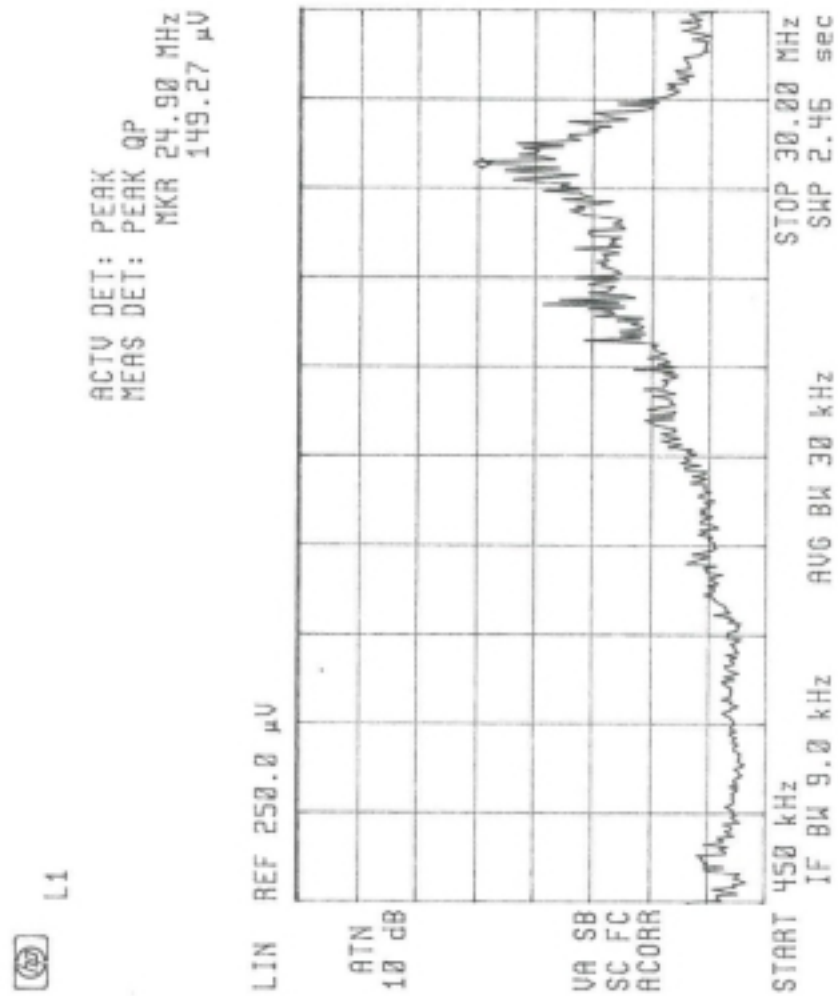
Tester Signature :  _____

Date: 12-28-2000

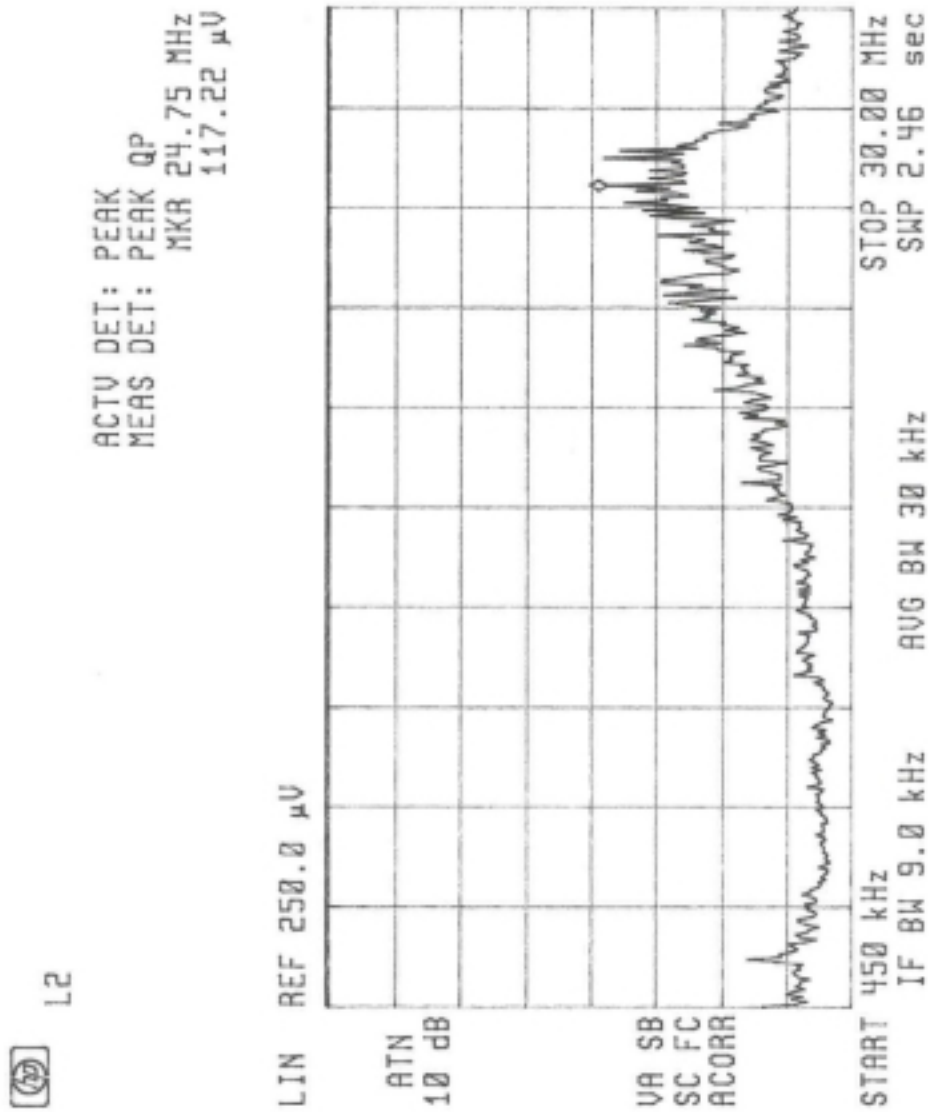
Typed/Printed Name: David Tu

80002

Figure 5.1 Neutral Conducted Emission



80002

Figure 5.2 Line Conducted
Emission

6. RADIATED EMISSION DATA

6.1 Field Strength Calculation

The Amplitude of EMI Receiver is automatically calculated by EMI Receiver using following:

$$RA = FS + AF + CF + AG$$

where RA: Amplitude of EMI Receiver before correction in dBμV

FS: Corrected Field Strength in dBμV/m

AF: Antenna Factor in dB/m (see attachment Antenna.doc)

CF: Cable Attenuation Factor in dB (see attachment Cable.doc)

AG: Built-in Preamplifier Gain in dB (Stored in receiver as part of the calibration data)

So the receiver readings are recorded without further correction.

6.2 Test Methods and Conditions

The EUT exercise program was loaded during the radiated emission test. The initial step in collecting radiated data is a EMI Receiver scan of the measurement range 30MHz - 1GHz. Significant peaks are then marked down and these signals are then measured with quasi-peak detector conform with CISPR 16.

6.3 Test Data

The following data lists the significant emission frequencies, polarity, corrected amplitude reading of the EMI Receiver, the Class B limit, and the difference between the corrected reading and the Class B limit. Explanation of the correction is given in section 6.1.

Test Personnel:

Tester Signature



Date : 12-28-2000

Typed/Printed Name: David Tu

Radiated Test Data

Frequency (MHz)	Polarity [H, V]	Height (m)	Azimuth (Degree)	Amplitude Reading (dBμV)	Class B 3m Limit (dBμV/m)	Difference from limit (dB)
48.0	H	2.5	230	27.7	40.0	-12.3
72.0	H	3.1	120	33.1	40.0	-6.9
120.0	H	2.2	200	31.8	43.5	-11.7
167.2	H	1.9	120	33.8	43.5	-9.7
191.1	H	1.9	045	31.9	43.5	-11.6
240.7	H	1.0	235	35.7	46.0	-10.3
272.3	H	1.0	235	37.0	46.0	-9.0
288.4	H	1.0	180	38.8	46.0	-7.2
304.5	H	1.0	180	40.0	46.0	-6.0
320.1	H	1.0	265	38.0	46.0	-8.0
48.0	V	1.0	235	30.7	40.0	-9.3
72.0	V	1.0	270	29.5	40.0	-10.5
120.0	V	1.0	000	31.2	43.5	-12.3
167.2	V	1.0	000	30.6	43.5	-12.9
240.7	V	1.3	270	31.6	46.0	-14.4
288.4	V	1.4	178	31.1	46.0	-14.9
304.5	V	1.4	000	35.8	46.0	-10.2

7. PHOTOS OF TESTED EUT

The following photos show the inside details of the EUT.

See Attachments: top.jpg, ctrfront.jpg, ctrrear.jpg, inside.jpg , pcbcomp.jpg, pcbtext.jpg ,
radfrnt.jpg, radrear.jpg, confrnt.jpg, conrear.jpg, schematic.jpg.