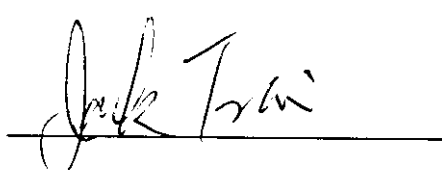
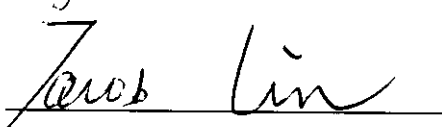


EXHIBIT B

Test Report

Report No.	S3815944
Specifications	FCC Part 15.115, Certification
Test Method	ANSI C63.4 1992
Applicant Address	UNIT F-J, 5/F., BLK 2, KWAI TAK IND. CENTER, 15-33 KWAI TAK STREET, KWAI CHUNG, N. T. HONG KONG
Applicant Items tested Model No.	STD MANUFACTURING LTD. RF MODULATOR P-067S (Sample # S38944)
Results	Compliance (As detailed within this report)
Sample received date	11/23/98 (month / day / year)
Prepared by	 project engineer
Authorized by	 Vice General Manager (Jacob Lin)
Issue date	Mar. 11, 1999 (month / day / year)
Modifications	Appendix C
Tested by	Training Research Co., Ltd.
Office at	2, Lane 194, Huan-Ho Street, Hsichih, Taipei Hsien 221, Taiwan
Open site at	No. 5-3, Lane 21, Yen Chiu Yuan Rd., Sec. 4, Taipei, Taiwan

Conditions of issue:

- (1) This test report shall not be reproduced except in full, without written approval of TRC. And the test result contained within this report only relate to the sample submitted for testing.
- (2) This report must not be used by the client to claim product endorsement by NVLAP or any agency of U.S. Government.

★ FCC ID : KYIP-067S

Contents

Chapter 1 Introduction

Description of EUT	3
Configuration of Test Setup	4
List of Support Equipment	5

Chapter 2 Conducted Emission Test

Test Condition and Setup	6
Condition Test Placement	7

Chapter 3 Radiated Emission Test

Test Condition and Setup	8
Radiated Test Placement	9

Chapter 4 Output Signal Test

Test Condition and Setup	10
Test Result of Output Signal	11

Chapter 5 Signal at Antenna Input Test 14

Appendix A :

Conduction test result	16
------------------------------	----

Appendix B :

Radiated test result	18
----------------------------	----

Appendix C :

Photograph of EUT.....	22
------------------------	----

Chapter 1 Introduction

Description of EUT :

This product is a RF modulator unit for NINTENDO playstation game console. It is connected between playstation and TV. There are two channels can be used : ch3 and ch4. The video signal frequency of ch3 is 61.50 MHz and ch4 is 67.58 MHz. The audio signal frequency of ch3 is 65.975 MHz and ch4 is 71.680 MHz. The EUT contains a major unit and a transfer switch. The specification is according to FCC part 15.115 .

Connection of EUT :

- (1) Connect the EUT's A/V cable to the A/V multiout of NINTENDO playstaion back.
- (2) Connect the TV port on the transfer switch to the antenna input of the TV with cable.
- (3) Connect the ANT port on the transfer switch to the outdoor antenna cable.

Test method :

Turn on the NINTENDO playstation and TV. Make sure the screen of TV show the picture and can play the game. The ch3 and ch4 all be tested.

(If the emission is close to the ambient, the resolution BW and view resolution will be reduced and the data will be recorded by detection of maximum hold peak mode.)

The testing configuration of test setup is shown on the next page.

List of support equipment

Conducted (Radiated) test :

NINTENDO playstation :

Model No. : NUS-001
Serial No. : NUJ12363788
Power type : AC 110V, 60 Hz
Power cord : 186 cm long , non-shielded no ferrite core.

Television : SAMSUNG

Model No. : CT-3312V
Serial No. : N/A
Power type : AC 110V/60 Hz
Power cord : 180 cm long , non-shielded no ferrite core.

Chapter 2 Conducted emission test

Test condition and setup:

All the equipment is placed and setup according to the ANSI C63.4 - 1992. The EUT is assembled on a wooden table which is 80 cm high, is placed 40 cm from the back-wall which is a vertical conducting plane. One LISN is for EUT, the other LISN is for support equipment. They are all placed on the conductive ground. The EUT's LISN connect a line switch box for selecting L1 or L2, then connect to a preamplifier and spectrum.

The spectrum scans from 450KHz to 30MHz . Conducted emission levels are detected at max. peak mode . But if the max. peak mode failed ,it will be measured by CISPR's quasi-peak detection mode .

While testing, there is the worst-emission plot printed at peak detection mode, and there are more than 6 highest emissions relative to limit recorded. The plot is kept as the original data, not included in test report.

List of test Instrument:

<u>Instrument Name</u>	<u>Model No.</u>	<u>Brand</u>	<u>Serial No.</u>	<u>Calibration Date</u>	
				<u>Last time</u>	<u>Next time</u>
Spectrum analyzer	8591EM	H P	3619A00821	10/29/98	10/29/99
LISN (EUT)	3825/2	EMCO	9411-2284	05/15/98	05/15/99
LISN (Support E.)	3825/2	EMCO	9210-2007	05/15/98	05/15/99
Preamplifier	8447F	H P	2944A03706	05/13/98	05/15/99
Line switch box	AC1-003	TRC	-----	05/15/98	05/15/99
Line selector	AC1-002	TRC	-----	05/15/98	05/15/99

The level of confidence of 95% , the uncertainty of measurement of conducted emission is ± 2.4 dB.

Test Result: Pass (Appendix A)

Chapter 3 Radiated emission test

Test condition and setup:

Pretest : Prior to the final test (OATS test), the EUT is placed in a shielded enclosure, and scan from 30MHz to 1GHz. This is done to ensure the radiation exactly emits from the EUT.

Final test: Final radiation measurements is made on a **3 - meter, open-field** test site. The EUT is placed on a nonconductive table which is 0.8 m height, the top surface is 1.0 x 1.5 meter. All the placement is according to ANSI C63.4 - 1992.

The spectrum is examined from 30 MHz to 1000 MHz measured by HP spectrum.

The EMCO whole range Antenna is used to measure frequency from 30 MHz to 1GHz. The final test is used the spectrum analyzer.

Measure more than six top marked frequencies generated from pretest by computer step by step at each frequency. The EUT is rotated 360 degrees, and antenna is raised and lowered from 1 to 4 meters to find the maximum emission levels. The antenna is used with both horizontal and vertical polarization.

Appropriated preamplifier which is made by TRC is used for improving sensitivity and precautions is taken to avoid overloading. The spectrum analyzer's 6dB bandwidth is set to 120 KHz, and the EUT is measured at quasi-peak mode.

If the emission is close to the frequency band of ambient, the data will be rechecked by the tester and the corrected data will be written in the test data sheet. If the emission is just within the ambient, the data from shield room will be taken as the final data.

List of test Instrument:

<u>Instrument Name</u>	<u>Model No.</u>	<u>Brand</u>	<u>Serial No.</u>	<u>Calibration Date</u>	
				<u>Last</u>	<u>Next</u>
Spectrum analyzer	8568B	H P	3004A18617	05/15/98	05/15/99
Quasi-peak Adapter	85650A	H P	2521A00984	05/15/98	05/15/99
RF Pre-selector	85685A	H P	2947A01011	05/15/98	05/15/99
Antenna (30M-2G Hz)	3142	EMCO	1296	06/10/98	06/10/99
Open test side (Antenna, Amplify, cable calibrated together)				05/15/98	05/15/99

The level of confidence of 95%, the uncertainty of measurement of radiated emission is ± 4.96 dB.

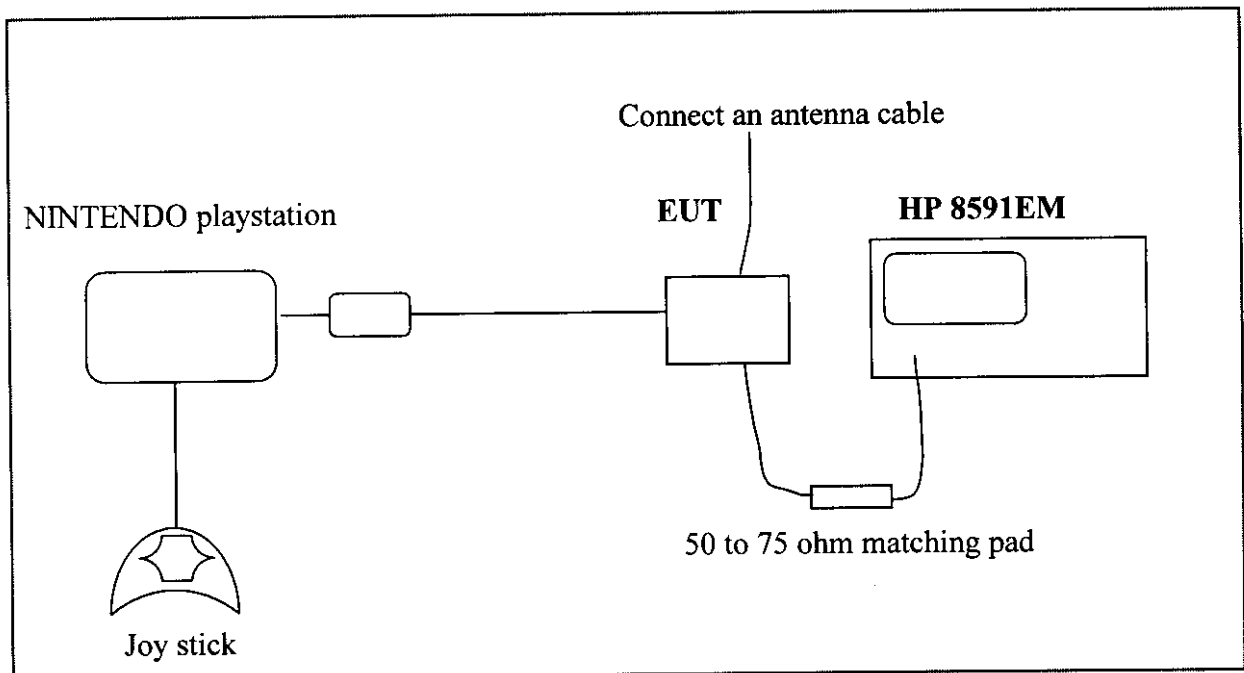
Test Result : Pass (Appendix B)

Chapter 4 Output signal test

Test condition and setup :

During test, the setup is as Chapter 1. Connect the TV port of the transfer switch to the HP spectrum analyzer 8591EM. There is a 50 to 75 ohm matching pad used here. The insertion loss of matching pad is 5.7 dB .The video, audio signal and emissions more than 4.6 MHz below or 7.4 MHz above the video carrier frequency all be tested by max peak mode.

The Configuration of Output Signal test :



The test result of output signal:

Video signal:

<i>CH</i>	<i>Frequency</i>	<i>Read Amplitude</i>	<i>Factor</i>	<i>Corrected Amplitude</i>	<i>Limit</i>	<i>Margin</i>
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB
3	61.50	57.77	5.7	63.47	70	-6.53
4	67.58	57.14	5.7	62.82	70	-7.16

Audio Signal:

<i>CH</i>	<i>Frequency</i>	<i>Read Amplitude</i>	<i>Factor</i>	<i>Corrected Amplitude</i>	<i>Limit</i>	<i>Margin</i>
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB
3	65.975	43.48	5.7	49.18	56.5	-4.43
4	71.680	43.20	5.7	48.90	56.5	-7.60

Note :

1. The three pages of test plot follow this page is no page number.
2. Corrected Amplitude = Read Amplitude + Factor

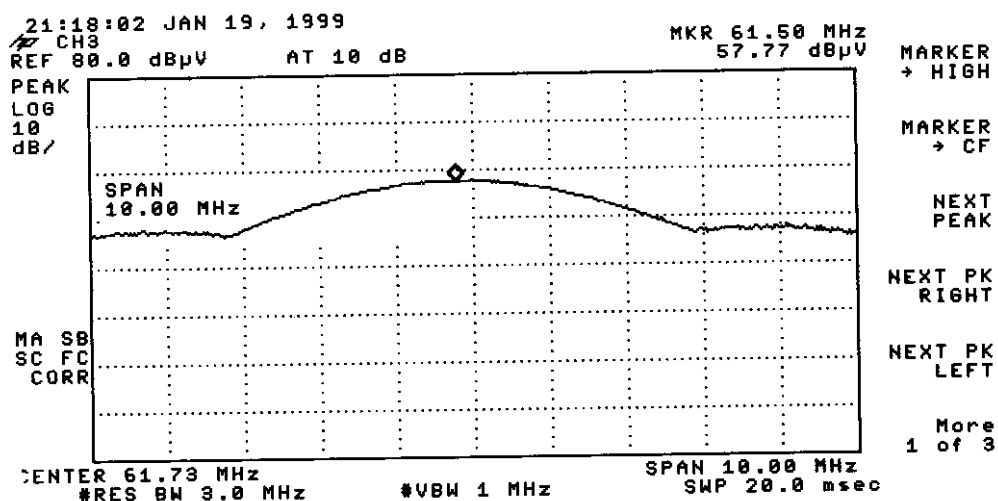
Emission more than 4.6MHz blow or 7.4MHz above the carrier frequency:

<i>CH</i>	<i>Total Amplitude</i>	<i>Limit</i>	<i>Margin</i>
	dBuV/m	dBuV/m	dB
3	34.20	39.5	-5.30
4	33.64	39.5	-5.86

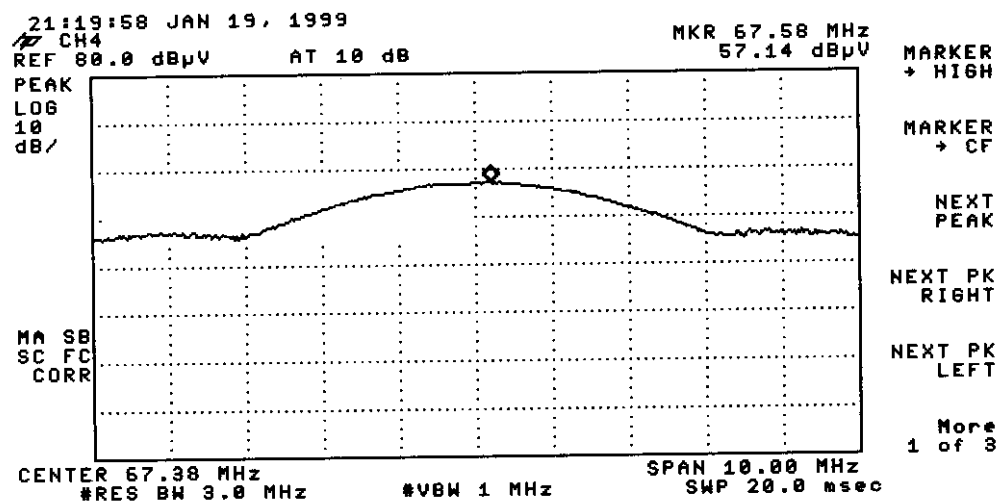
Note :

1. Total Amplitude = $20 \times \log \sqrt{(v_1^2 + v_2^2 + \dots + v_n^2)}$

Video Signal:

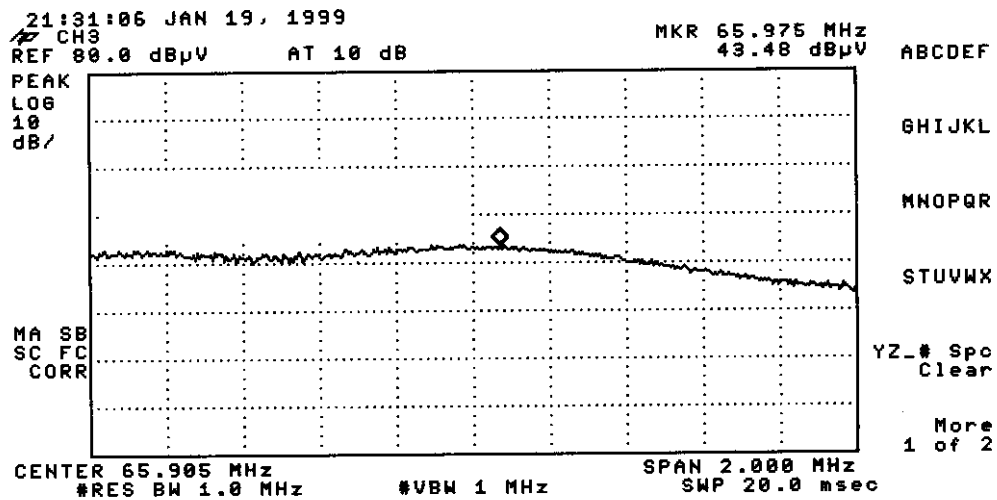


CH 3

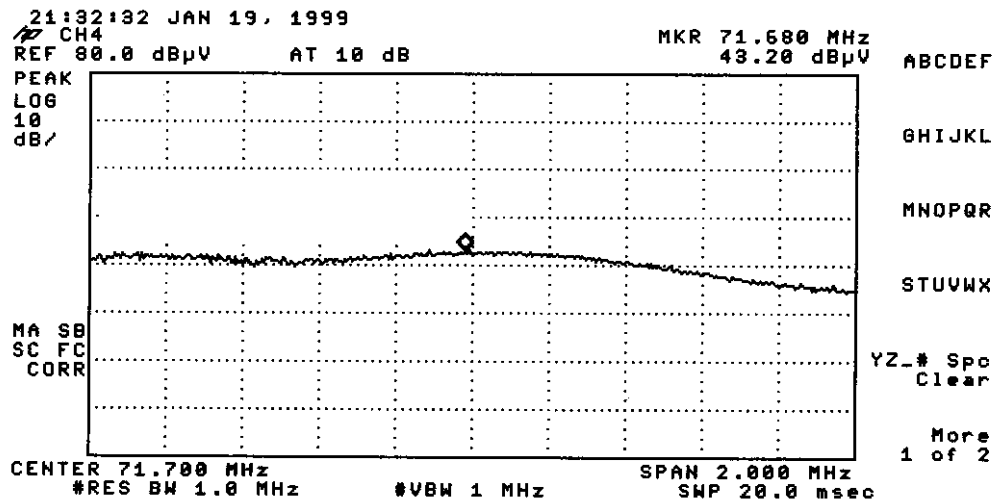


CH 4

Audio Signal:



CH 3



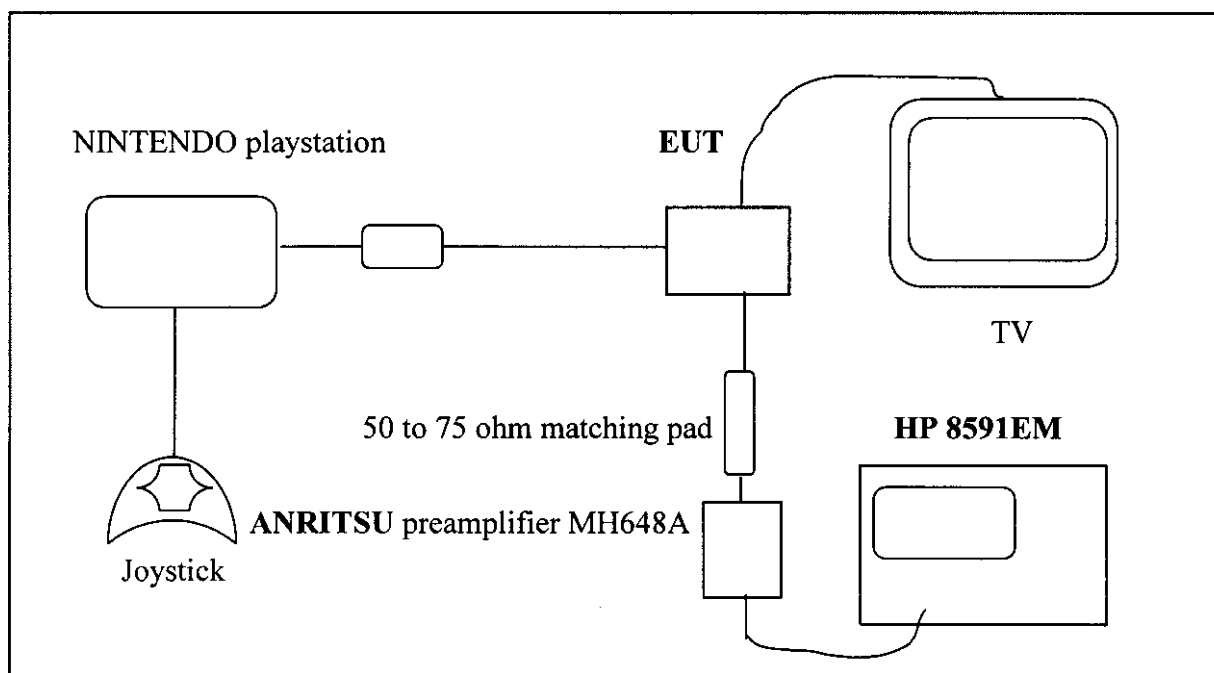
CH 4

Chapter 5 Signal at antenna input test (15.115(C)(1)(ii))

Test condition and setup :

During test, the setup is as Chapter 1. Connect the TV port of the transfer switch to a TV. The antenna port connect to the HP spectrum analyzer 8591EM. There is a 50 to 75 ohm matching pad and ANRITSU preamplifier MH648A used here. The insertion loss of matching pad is 5.7 dB. The gain of preamplifier is 30 dB.

The Configuration of Output Signal test :

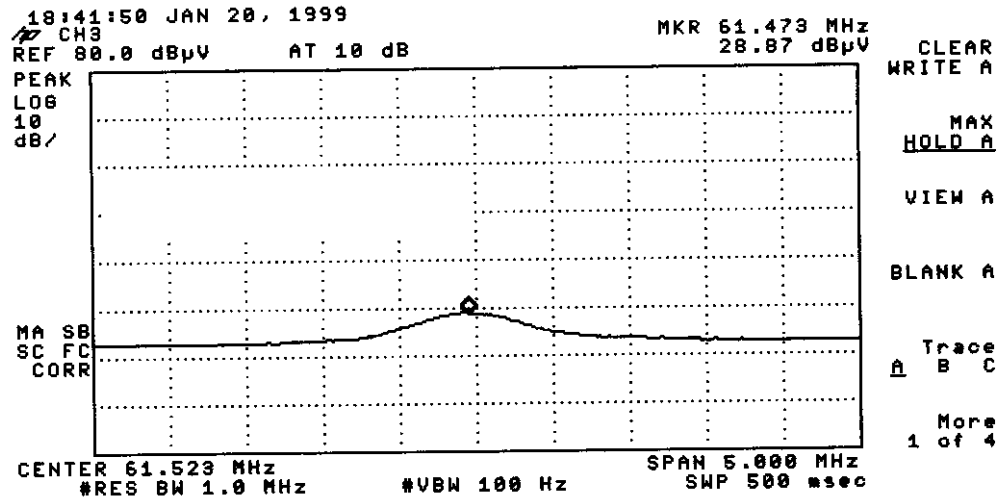


Test result:

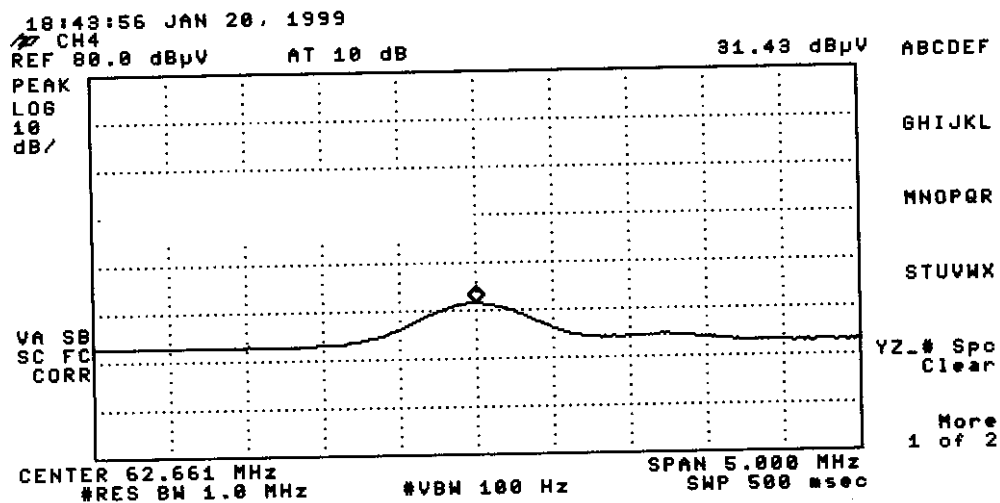
CH	Frequency	Read Amplitude	Factor	Corrected Amplitude	Limit	Margin
	MHz	dBuV	dB	dBuV	dBuV	dB
3	61.473	28.87	-24.3	4.57	9	-4.43
4	62.661	31.43	-24.3	7.13	9	-1.87

Note:

1. The test plot follow this page is no page number.
2. Factor = match pad loss - preamplifier gain
3. Corrected Amplitude = Read Amplitude + Factor



CH 3



CH 4

Appendix A

Conducted Emission Test Result : (CH3)

Testing room: Temperature : 23 ° C Humidity : 65 % RH

Line 1

<i>Frequency (KHz)</i>	<i>Amplitude (dBuV)</i>	<i>Limit (dBuV/m)</i>	<i>Margin (dB)</i>
14490.00	36.65	48.00	-11.35
15160.00	36.92	48.00	-11.08
15930.00	38.29	48.00	-9.71
17240.00	40.74	48.00	-7.26
17570.00	41.42	48.00	-6.58
17950.00	42.87	48.00	-5.13
18980.00	44.41	48.00	-3.59
19360.00	44.36	48.00	-3.64
20000.00	42.49	48.00	-5.51
20660.00	40.74	48.00	-7.26

Line 2

<i>Frequency (KHz)</i>	<i>Amplitude (dBuV)</i>	<i>Limit (dBuV/m)</i>	<i>Margin (dB)</i>
14490.00	37.57	48.00	-10.43
14950.00	38.53	48.00	-9.47
15600.00	39.69	48.00	-8.31
16480.00	41.54	48.00	-6.46
17130.00	42.24	48.00	-5.76
17570.00	43.66	48.00	-4.34
18210.00	44.75	48.00	-3.25
19240.00	46.36	48.00	-1.64
20130.00	43.32	48.00	-4.68
29800.00	39.10	48.00	-8.90

Conducted Emission Test Result : (CH4)

Line 1

<i>Frequency (KHz)</i>	<i>Amplitude (dBuV)</i>	<i>Limit (dBuV/m)</i>	<i>Margin (dB)</i>
13170.00	34.15	48.00	-13.85
13640.00	34.60	48.00	-13.40
14210.00	36.15	48.00	-11.85
16150.00	38.90	48.00	-9.10
17020.00	39.33	48.00	-8.67
18340.00	43.58	48.00	-4.42
18720.00	43.04	48.00	-4.96
19490.00	43.82	48.00	-4.18
20000.00	41.09	48.00	-6.91
22160.00	34.59	48.00	-13.41

Line 2

<i>Frequency (KHz)</i>	<i>Amplitude (dBuV)</i>	<i>Limit (dBuV/m)</i>	<i>Margin (dB)</i>
13450.00	35.92	48.00	-12.08
13830.00	36.55	48.00	-11.45
14950.00	37.57	48.00	-10.43
15380.00	39.24	48.00	-8.76
15930.00	40.45	48.00	-7.55
16690.00	42.01	48.00	-5.99
17700.00	42.57	48.00	-5.43
18340.00	45.02	48.00	-2.98
19110.00	45.64	48.00	-2.36
20510.00	43.72	48.00	-4.28

Radiated Emission Test Result : (Horizontal --- CH3)
Test Conditions:

Testing room : Temperature : 19° C Humidity : 72 % RH
Testing site : Temperature : 19° C Humidity : 80 % RH

Note:

1. Margin = Amplitude - limit, *if margin is minus means under limit.*
2. Corrected Amplitude = Reading Amplitude - Correction Factors
3. Correction factor = Antenna factor + (Cable Loss - Amplitude gain)
(For example : 30MHz correction factor = $15.5 + (-15.26) = 0.24 \text{ dB/m}$)

Radiated Emission Test Result : (Vertical --- CH3)

[illegible]

Frequency	Reading Amplitude	Ant. Height	Table	Correction Factors	Corrected Amplitude	Class B Limit	Margin
MHz	dBuV	m	degree	dB/m	dBuV/m	dBuV/m	dB

[illegible]

This test report, measurements made by TRC are traceable to the NIST.

Appendix C

1. Connected common choke (Type No.: B2-TIB4-5W, Mfg.: Crown Ferrite Enterprise Co., Ltd.) to TV connector on PCB of EUT.
2. Change C4 with 22pF.
3. Connected 100 ohm resistor to ground nearly C4
4. Remove top cover of RF modulator.

Please ref. The photograph of EUT.

Statement of Applicant:

I acknowledge that the modifications made to the EUT for compliance during testing will be incorporated into mass production units.

Mfg.: STD MANUFACTURING LTD.

By:



Signature

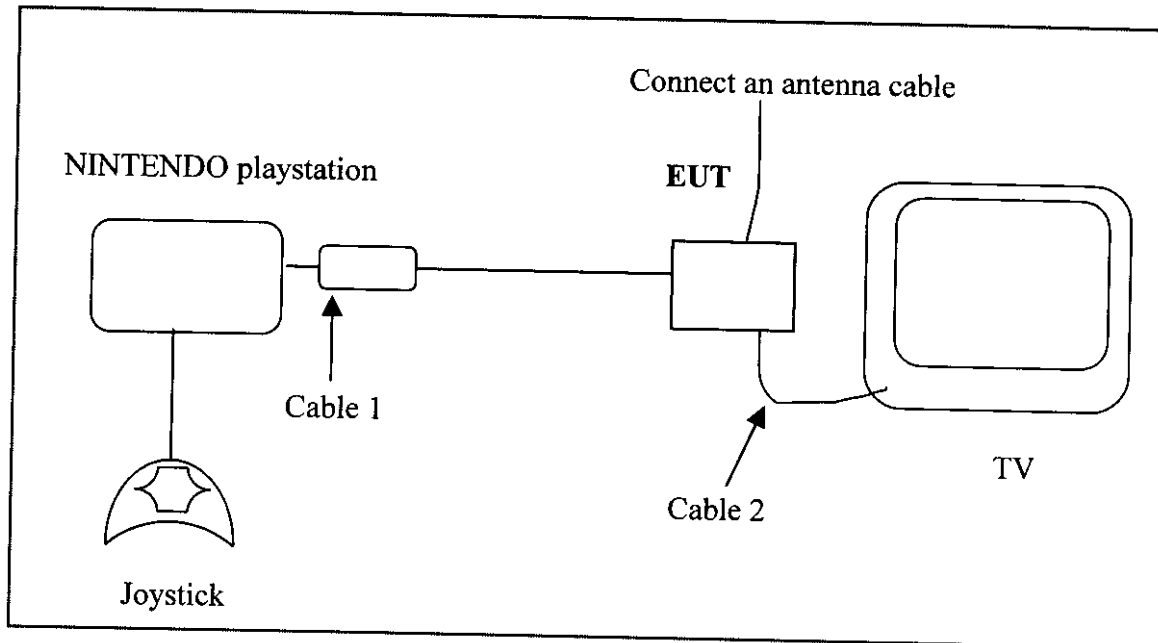
on behalf of Mr. Steven Tsui

Printed

Date: FEB. 1, 1999

Title: Vice President

Configuration of test setup



Connections :

- * Cable 1 is 185.5 cm long shielded with core which is mounted.
- * Cable 2 is 29 cm long shielded.
- * The antenna cable is 180 cm long shielded.