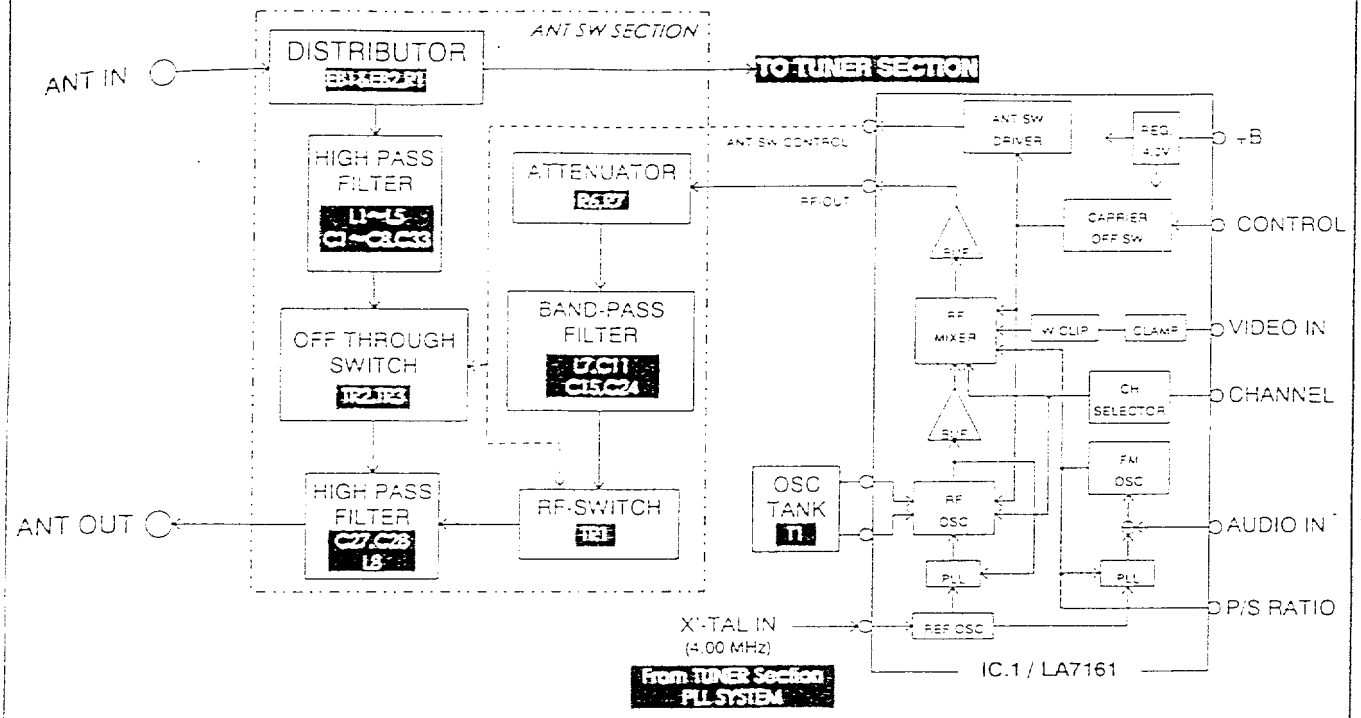
NTSC 3IN1 TUNER RF-CONVERTERPLL SYSTEM SECTION
BLOCK DIAGRAM FOR IC1(LA7161)



NTSC 3IN1 TUNER RF-CONVERTERPLL SYSTEM SECTION
SCHEMATIC FOR TMDH2-023

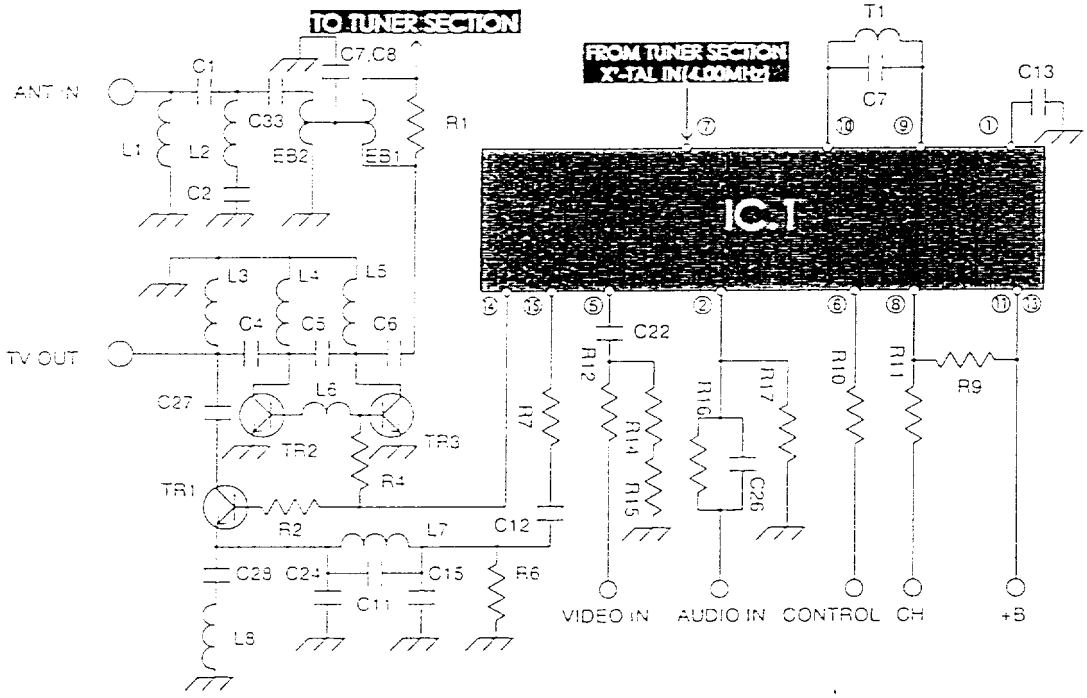
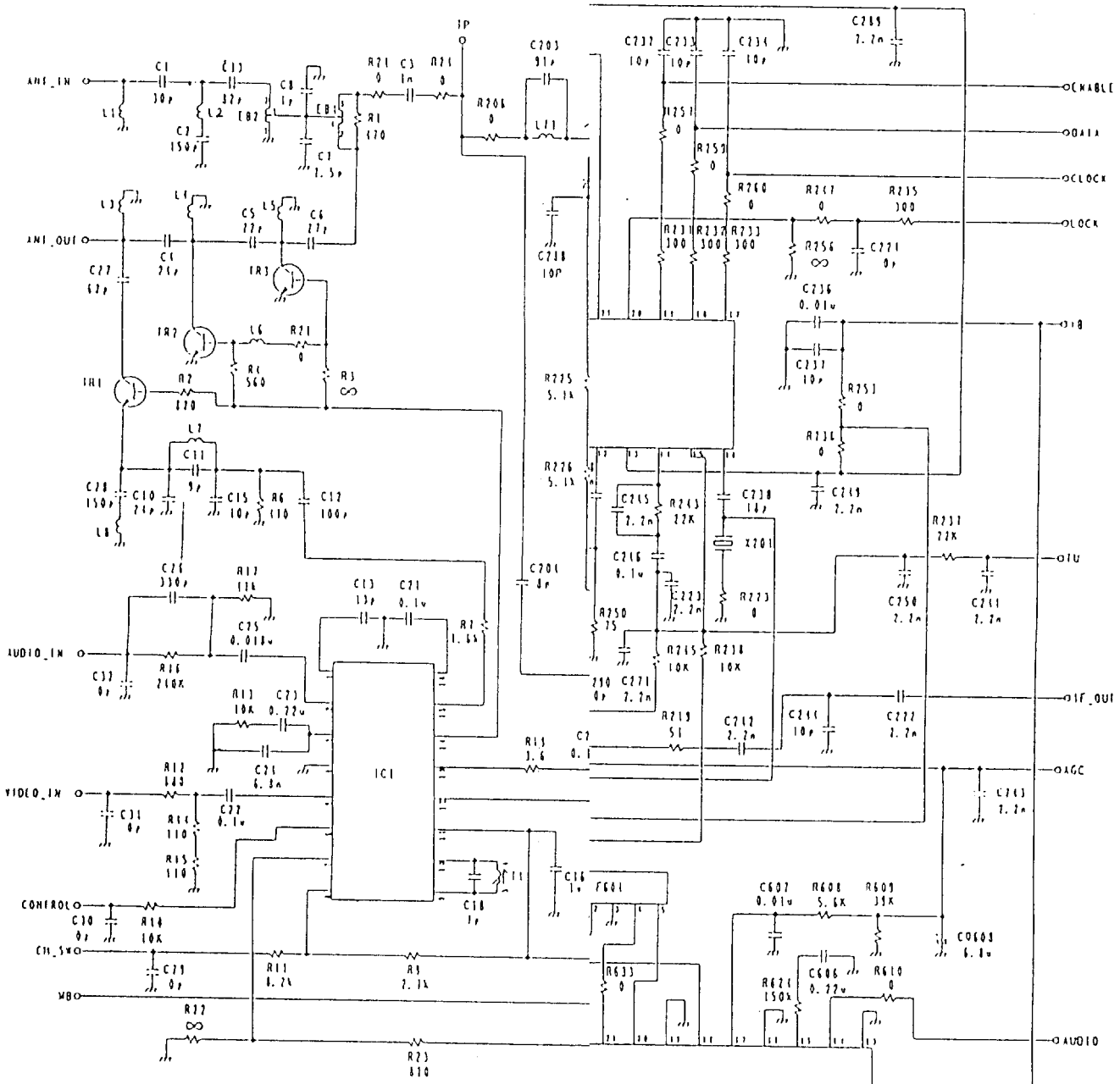


Diagram of IC1
RF converter / Switch
QAU0115-X

HR - VP6740



NOTES

1. UNLESS OTHERWISE SPECIFIE
   ALL RESISTORS ARE IN OHM(
   CAPACITORS ARE IN FARAD;
   INDUCTORS ARE IN HENRY

2. SEMICONDUCTORS ARE AS FOL

TR1, 2, 3 : 2SC4713K, 2SC4680
TR201 : DB305C, 3SK254, 3SK29
TR202 : 3SK318, 3SK255, 3SK29
TR601 : 2SA1576

VD201~205, 212 : HVC306
VD206~209 : HVC306
VD210, 211, 213 : HVC202B
D1, 2 : HSC277
D201~206 : HSC277

IC1 LA7161NM
IC201 ALP032
IC601 : ALP027

F601 : F072ESM
F602 : TPS4 SMD

Name	RF converter / Switch

[REPORT OF MEASUREMENTS ON TV INTERFACE DEVICE]

Date : April 27, 1999
Issued at : Kanagawa Japan

REPORT No. : JYT99008

1. Applicant	:	Victor Company of Japan, Ltd. 12, 3-chome, Moriya-cho, Kanagawa-ku, Yokohama, Kanagawa 221-8528, JAPAN
2. Description of the Equipment Under Test (EUT)	:	Videocassette Recorder
2.1 FCC ID	:	ASIP9K045
2.2 Tuner/RF conv.type	:	QAU0115-x
2.3 Brand (Trade Name)	:	JVC
2.4 Model No.	:	HR-VP674U
2.5 Serial No.	:	ES200026 with QAU0115-x
2.6 Designes for RF Output Channels	:	Channel #3 and Channel #4
2.7 Number of RF Output Terminals	:	1 (F-type Connector)
2.8 RF Output Impedance	:	75 ohms (Unbalanced)
2.9 Power Supply	:	AC 120 V, 60Hz
2.10 Date of Manufacturer	:	April, 1999
3. The Highest Frequency generated in the EUT	:	71.75MHz
4. External Connectors	:	·A/V Input/Output ports, RCA type ·Cable box port. 3.5ϕmini jack type ·Pause control port, 3.5ϕmini jack type
5. Connected Accessories for the EUT	:	·Coaxial Cable with F-Type plug ·Audio/Video Cables with RCA Plugs ·Cable box controller with mini plug ·Pause control cable with mini plug
6. Measuring Method	:	FCC Rules and Regulations Part 15(B)
7. Measurement Procedure	:	ANSI C63.4-1992
8. Date of Measurement	:	Apr 20, 1999
9. Place of Measurement	:	Victor Company of Japan Ltd. JVC YOKOHAMA TEST SITE
10. Measurement Results	:	The results obtained from the measuring of the above-mentioned device are as shown in the attached sheets.

Victor Company of Japan Ltd.

T. Wakabayashi

T. Wakabayashi, General Manager
Engineering Support Center
Engineering Department
Video Division

Section.15.107
POWER LINE CONDUCTED INTERFERENCE VOLTAGE MEAUSREMENT

Video source connected to the EUT Internal(Recorded Tape) 'PLAY Mode'

RF Output Channels : #3 and #4

Frequency of the emission [MHz]	Meter reading [dBuV] Va	Vb	LISN factor [dB]	Limits [dBuV]	Radio noise voltage [dBuV] Va	Vb
0.45	38.4	38.1	0.6	48.0	39.0	38.7
0.75	28.6	29.0	0.8	48.0	29.4	29.7
1.52	18.4	15.8	0.8	48.0	19.2	16.6
2.53	23.9	19.9	0.7	48.0	24.6	20.6
2.86	23.8	23.3	0.7	48.0	24.5	24.0
11.48	20.0	20.3	0.5	48.0	20.5	20.8
18.29	19.8	20.6	0.6	48.0	20.4	21.2
29.03	22.9	24.9	1.0	48.0	23.9	25.9

NOTES: 1) Sample calculation at 0.45 MHz (Va) :
38.4 (dBuV) + 0.6 (dB) = 39.0 (dBuV/m)
LISN factor [dB] = 0.6 [dB]
Limits :250[uV] = 20 log (250 [uV]) = 48 [dBuV]

2) The spectrum was checked from 0.45 at 30 MHz and all emissions not listed above were found to be more than 20 dB below the limits specified the commissions.

3) The symbol of '<' means 'or less'

4) Va : One-end & Grounded . Vb : The other-end & grounded

Section.15.107

Results of Conducted Power Line Measurements.

Measurement Method : FCC Rules and Regulations Part 15(B)

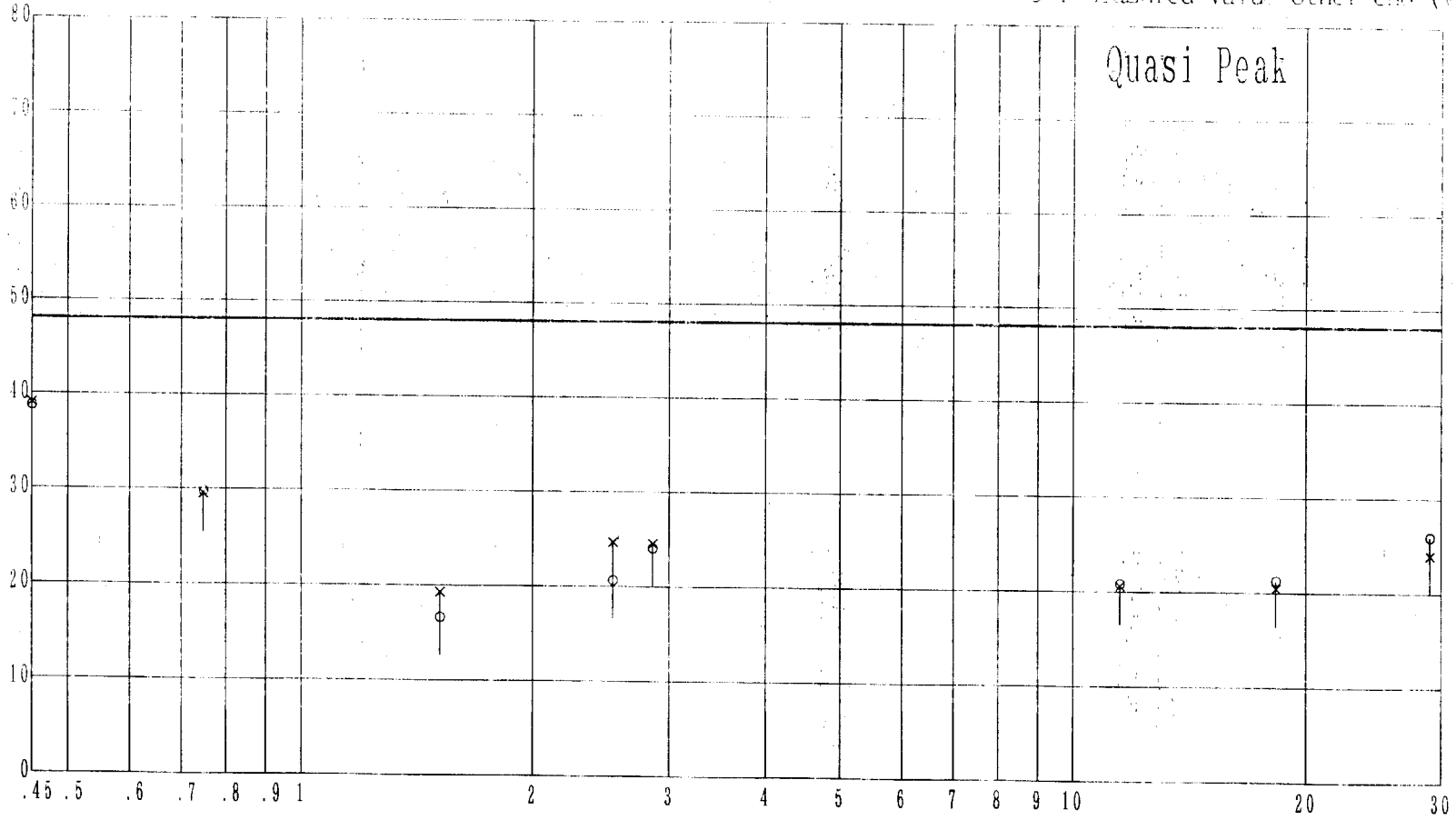
EUT : Videocassette Recorder
Model No. : HR-VP674U
Serial No. : ES200026 with QAU0113-x

Report No. : JYI99008
Date. : Apr 20, 1999

Video source connected to the EUT
: Internal(Recorded Tape) 'PLAY Mode'

RF Output Channels : #3 and #4

—— Limit Line
x : Measured Value one end (Va)
o : Measured Value other end (Vb)



Section.15.107
POWER LINE CONDUCTED INTERFERENCE VOLTAGE MEAUSREMENT

Video source connected to the EUT External AV IN at 1Vp-p) 'REC Mode'

RF Output Channels : #3 and #4

Frequency of the emission [MHz]	Meter reading [dBuV] Va	Vb	LISN factor [dB]	Limits [dBuV]	Radio noise voltage [dBuV] Va	Vb
0.45	38.3	38.9	0.6	48.0	38.9	39.4
0.77	27.8	28.8	0.8	48.0	28.6	29.6
1.00	23.6	24.2	0.8	48.0	24.4	25.0
1.41	24.4	26.6	0.8	48.0	25.2	27.4
2.11	25.3	26.1	0.7	48.0	26.0	26.8
2.81	23.9	24.6	0.7	48.0	24.6	25.3
3.37	22.1	22.9	0.7	48.0	22.8	23.6
9.95	26.6	27.9	0.4	48.0	27.0	28.3
11.39	27.8	28.6	0.5	48.0	28.3	29.1
18.03	24.5	24.9	0.6	48.0	25.1	25.5
18.14	25.6	27.1	0.6	48.0	26.2	27.7
27.96	22.1	23.5	0.9	48.0	23.0	24.4

NOTES: 1) Sample calculation at 0.45 MHz (Va) :
38.3 (dBuV) + 0.6 (dB) = 38.9 (dBuV/m)
LISN factor [dB] = 0.6 [dB]
Limits :250[uV] = 20 log (250 [uV]) = 48 [dBuV]

2) The spectrum was checked from 0.45 at 30 MHz and all emissions not listed above were found to be more than 20 dB below the limits specified the commissions.

3) The symbol of '<' means 'or less'

4) Va : One-end & Grounded , Vb : The other-end & grounded

Section.15.107
Results of Conducted Power Line Measurements.

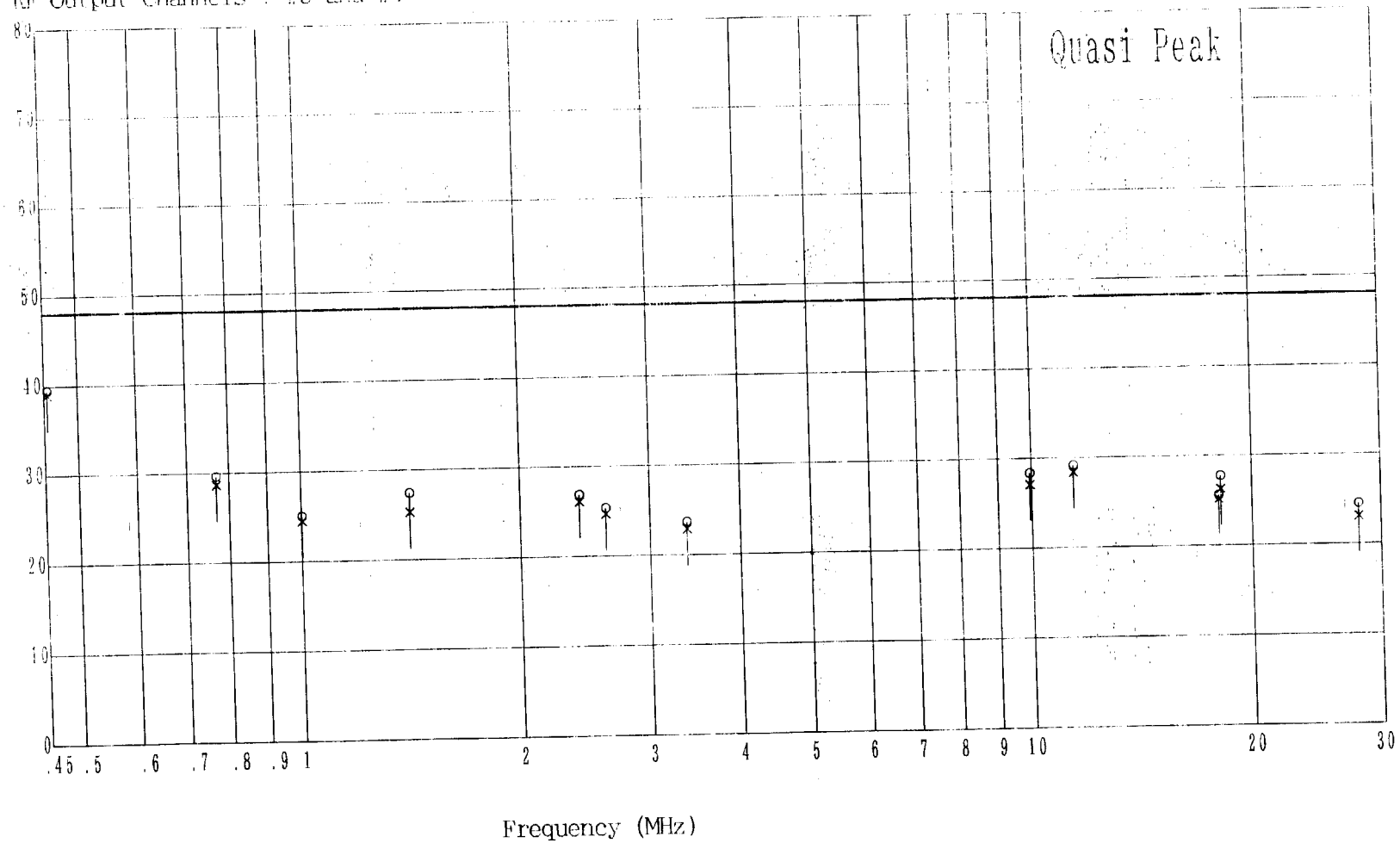
Measurement Method : FCC Rules and Regulations Part 15(B)

EUT : Videocassette Recorder
Model No. : HR-VP674U
Serial No. : ES200026 with QAU0113-x

Report No. : JYT99008
Date. : Apr 20, 1999

Video source connected to the EUT
: External(VITS at 1Vp-p) 'REC Mode'
RF Output Channels : #3 and #4

—— Limit Line
x : Measured Value one end (Va)
o : Measured Value other end (Vb)



Section.15.107
POWER LINE CONDUCTED INTERFERENCE VOLTAGE MEAUSREMENT

Video source connected to the EUT : External(VITS at 5Vp-p) 'REC Mode'

RF Output Channels : #3 and #4

Frequency of the emission [MHz]	Meter reading [dBuV] Va	Vb	LISN factor [dB]	Limits [dBuV]	Radio noise voltage [dBuV] Va	Vb
0.45	38.6	37.7	0.6	48.0	39.2	38.3
0.77	27.9	28.0	0.8	48.0	28.7	28.8
1.00	23.6	25.2	0.8	48.0	24.4	26.0
1.45	25.1	25.2	0.8	48.0	25.9	26.0
2.42	24.9	26.1	0.7	48.0	25.6	26.8
3.36	22.9	22.2	0.7	48.0	23.6	22.9
9.88	25.2	29.1	0.4	48.0	25.6	29.5
11.47	27.6	28.4	0.5	48.0	28.1	28.9
18.22	26.5	26.9	0.6	48.0	27.1	27.5
27.91	21.9	23.1	0.9	48.0	22.8	24.0

NOTES: 1) Sample calculation at 0.45 MHz (Va) :
38.6 (dBuV) + 0.6 (dB) = 39.2 (dBuV/m)
LISN factor [dB] = 0.6 [dB]
Limits :250[uV] = 20 log (250 [uV]) = 48 [dBuV]

2) The spectrum was checked from 0.45 at 30 MHz and all emissions not listed above were found to be more than 20 dB below the limits specified the commissions.

3) The symbol of '<' means 'or less'

4) Va : One-end & Grounded , Vb : The other-end & grounded

Section.15.107
Results of Conducted Power Line Measurements.

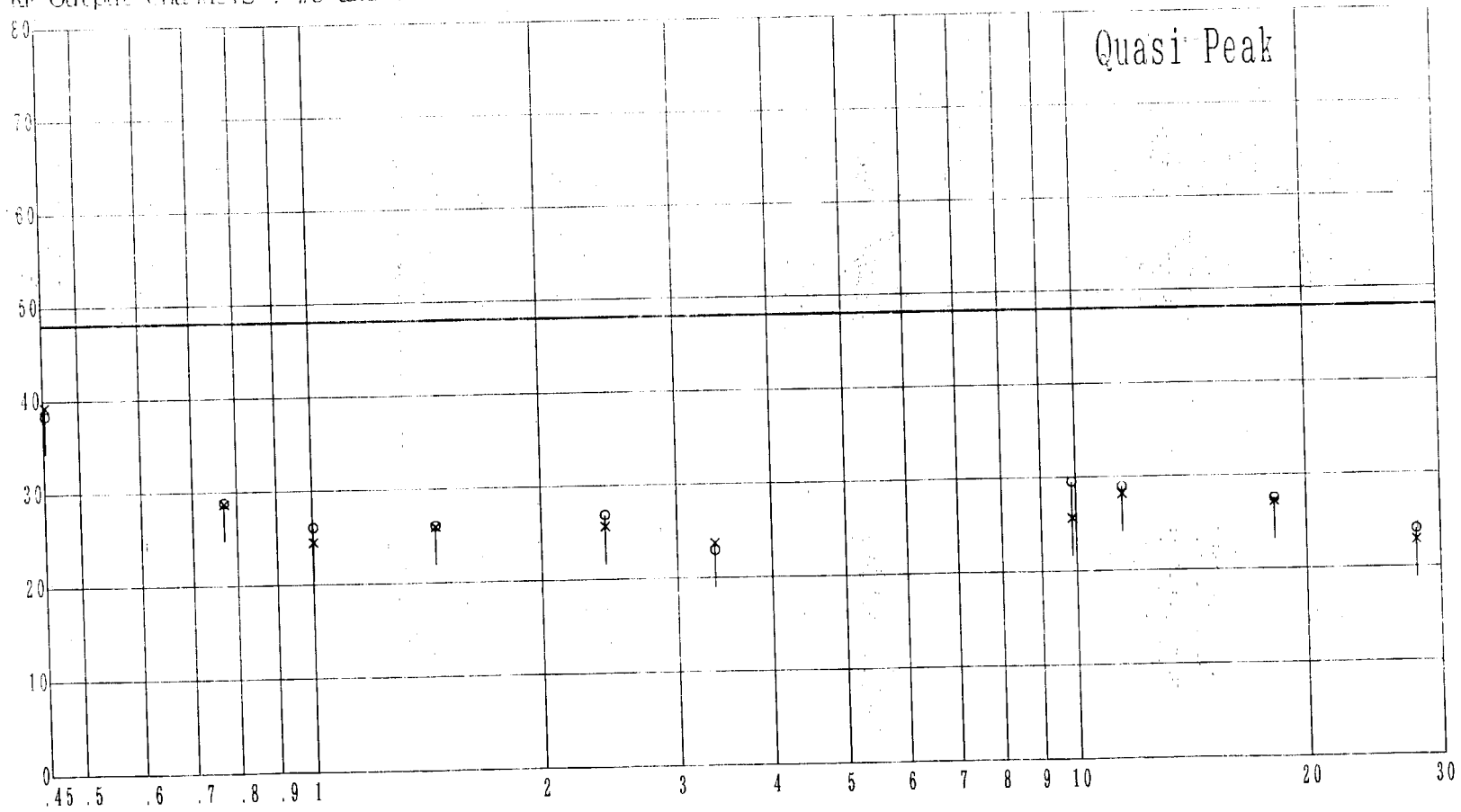
Measurement Method : FCC Rules and Regulations Part 15(B)

EUT : Videocassette Recorder
Model No. : HR-VP674U
Serial No. : ES200026 with QAU0113-x

Report No. : JYT99008
Date. : Apr 20, 1999

Video source connected to the EUT
: External(VITS at 5Vp-p) 'REC Mode'
RF Output Channels : #3 and #4

—— Limit Line
x : Measured Value one end (Va)
o : Measured Value other end (Vb)



Section.15.115 (b)(1) OUTPUT SIGNAL LEVEL

Video source connected to the EUT : Internal(Recorded Tape) 'PLAY Mode'

RF Output channel	Measured carrier freq. [MHz] Visual	Aural	Meter reading [dBuV] Visual	Aural	Matching pad loss [dB]	RF Output signal level [dB] Limits	Visual	Limits	Aural
3	61.25	65.75	56.2	40.2	6.0	69.5	64.0	56.5	48.0
4	67.25	71.75	55.8	39.6	6.0	69.5	63.6	56.5	47.4

Video source connected to the EUT : External(VITS at 1Vp-p) 'REC Mode'

RF Output channel	Measured carrier freq. [MHz] Visual	Aural	Meter reading [dBuV] Visual	Aural	Matching pad loss [dB]	RF Output signal level [dB] Limits	Visual	Limits	Aural
3	61.25	65.75	56.1	40.4	6.0	69.5	63.9	56.5	48.2
4	67.25	71.75	55.7	39.8	6.0	69.5	63.5	56.5	47.6

Video source connected to the EUT : External(VITS at 5Vp-p) 'REC Mode'

RF Output channel	Measured carrier freq. [MHz] Visual	Aural	Meter reading [dBuV] Visual	Aural	Matching pad loss [dB]	RF Output signal level [dB] Limits	Visual	Limits	Aural
3	61.25	65.75	56.2	40.4	6.0	69.5	64.0	56.5	48.2
4	67.25	71.75	55.9	39.8	6.0	69.5	63.7	56.5	47.6

NOTES: 1) Sample calculation at 61.25 MHz :
56.2 (dBuV) + 6.0 (dB) + 1.76 (dB) = 64.0 (dBuV)
(50ohm->75ohm)

2) The symbol of '<' means 'or less'

3) Spectrum Analyzer : SPAN : 10MHz SWP : 50ms
RES BW : 100kHz VBW : 300kHz

4) Impedance at the output terminal : 75 ohm (Unbalanced)

Section.15.115 (b)(2)
OUTPUT TERMINAL CONDUCTED SPURIOUS EMISSION MEASUREMENT

Video source connected to the EUT : Internal(Recorded Tape) 'PLAY Mode'

RF Output Channels : #3

Frequency of the emission [MHz]	Meter reading [dBuV]	Matching pad loss [dB]	Gain of pre amp. [dB]	Limits [dBuV]	Results [dBuV]
47.8	32.3	6.0	29.4	39.5	10.7
74.8	33.0	6.0	29.2	39.5	11.6
106.9	31.3	6.0	29.1	39.5	10.0
110.3	29.8	6.0	29.1	39.5	8.5
110.6	32.3	6.0	29.1	39.5	11.0
115.5	33.6	6.0	29.1	39.5	12.3
122.5	32.8	6.0	29.0	39.5	11.6
183.8	32.9	6.0	28.9	39.5	11.8

Video source connected to the EUT : Internal(Recorded Tape) 'PLAY Mode'

RF Output Channels : #4

Frequency of the emission [MHz]	Meter reading [dBuV]	Matching pad loss [dB]	Gain of pre amp. [dB]	Limits [dBuV]	Results [dBuV]
53.8	33.1	6.0	29.3	39.5	11.6
80.8	31.5	6.0	29.2	39.5	10.1
106.9	30.8	6.0	29.1	39.5	9.5
110.3	31.8	6.0	29.1	39.5	10.5
110.6	33.9	6.0	29.1	39.5	12.6
115.5	32.3	6.0	29.1	39.5	12.0
201.8	30.2	6.0	28.8	39.5	9.2

NOTES: 1) Sample calculation at 53.8 MHz :
33.1 (dBuV) + 6.0 (dB) - 29.3 (dB) + 1.76 (dB) = 11.6 (dBuV)
(50ohm->75ohm)

2) The spectrum was checked from 30 at 1000 MHz and all emissions not listed above were found to be more than 20 dB below the limits specified the commissions.

3) The symbol of '<' means 'or less'

4) Spectrum Analyzer : SPAN : 10MHz SWP : 50ms
RES BW : 100kHz VBW : 800kHz

5) Impedance at the output terminal : 75 ohm (Unbalanced)

Section.15.115 (b)(2)
Output Terminal Conducted Spurious Emission Measurements.

Measurement Method : FCC Rules and Regulations Part 15(B)

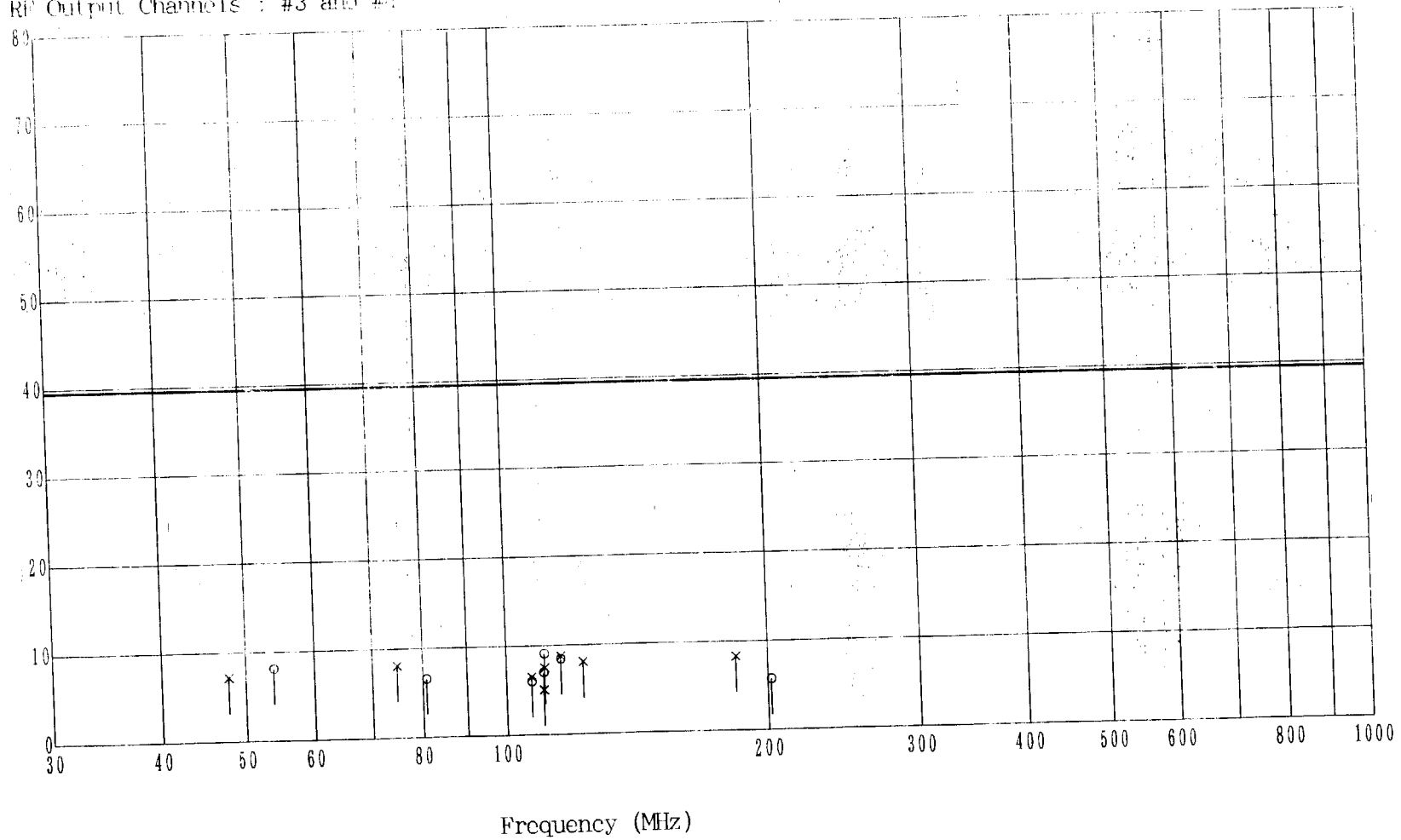
EUT : Videocassette Recorder
Model No. : HR-VP674U
Serial No. : ES200026 with QAU0113-x

Report No. : JYT99008
Date. : Apr 20, 1999

Video source connected to the EUT
: Internal(Recorded Tape) 'PLAY Mode'

RF Output Channels : #3 and #4

— Limit Line
× : Channel 3
○ : Channel 4



Section.15.115 (b)(2)
OUTPUT TERMINAL CONDUCTED SPURIOUS EMISSION MEASUREMENT

Video source connected to the EUT : External(VITS at 1Vp-p) 'REC Mode'

RF Output Channels : #3

Frequency of the emission [MHz]	Meter reading [dBuV]	Matching pad loss [dB]	Gain of pre amp. [dB]	Limits [dBuV]	Results [dBuV]
47.8	31.8	6.0	29.4	39.5	10.2
74.8	33.3	6.0	29.2	39.5	11.9
106.9	30.5	6.0	29.1	39.5	9.2
110.3	29.6	6.0	29.1	39.5	8.3
110.6	33.5	6.0	29.1	39.5	12.2
115.5	33.0	6.0	29.1	39.5	11.7
122.5	32.6	6.0	29.0	39.5	11.4
183.8	31.6	6.0	28.9	39.5	10.5

Video source connected to the EUT : External(VITS at 1Vp-p) 'REC Mode'

RF Output Channels : #4

Frequency of the emission [MHz]	Meter reading [dBuV]	Matching pad loss [dB]	Gain of pre amp. [dB]	Limits [dBuV]	Results [dBuV]
53.8	42.7	6.0	29.3	39.5	11.2
80.8	31.7	6.0	29.2	39.5	10.3
106.9	32.3	6.0	29.1	39.5	11.0
110.3	30.2	6.0	29.1	39.5	8.9
110.6	32.3	6.0	29.1	39.5	11.0
115.5	32.4	6.0	29.1	39.5	11.1
201.8	30.0	6.0	28.8	39.5	9.0

NOTES: 1) Sample calculation at 53.8 MHz :
32.7 (dBuV) + 6.0 (dB) - 29.3 (dB) + 1.76 (dB) = 11.2 (dBuV)
(50ohm->75ohm)

2) The spectrum was checked from 30 at 1000 MHz and all emissions not listed above were found to be more than 20 dB below the limits specified the commissions.

3) The symbol of '<' means 'or less'

4) Spectrum Analyzer : SPAN : 10MHz SWP : 50ms
RES BW : 100kHz VBW : 800kHz

5) Impedance at the output terminal : 75 ohm (Unbalanced)

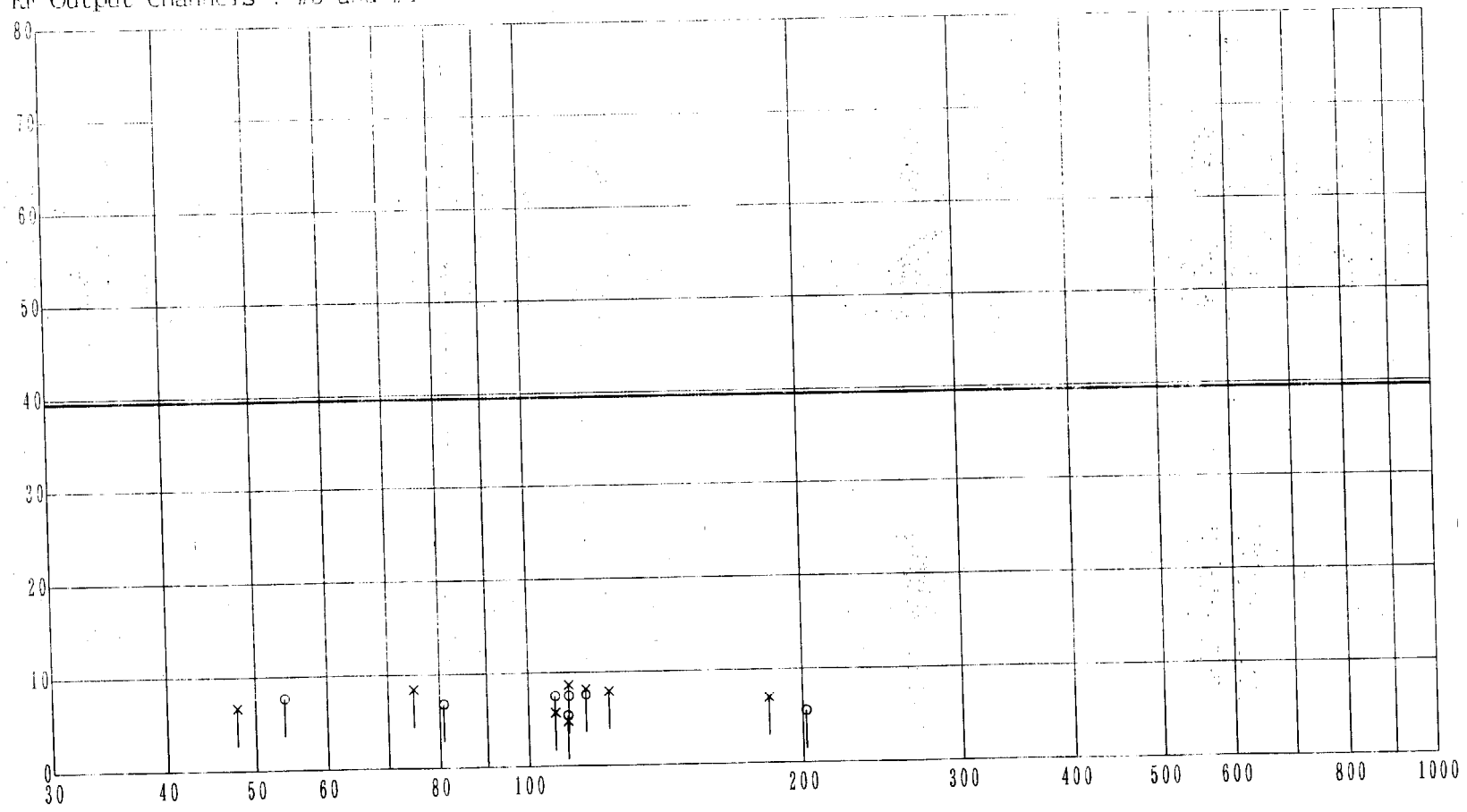
Section.15.115 (b)(2)
Output Terminal Conducted Spurious Emission Measurements.

Measurement Method : FCC Rules and Regulations Part 15(B)

EUT : Videocassette Recorder
Model No. : HR-VP674U
Serial No. : FS200026 with QAU0113-x

Report No. : JYT99008
Date. : Apr 20, 1999

Video source connected to the EUT
: External(VITS at 1Vp-p) 'REC Mode'
RF Output Channels : #3 and #4



Section.15.115 (b)(2)
OUTPUT TERMINAL CONDUCTED SPURIOUS EMISSION MEASUREMENT

Video source connected to the EUT : External(VITS at 5Vp-p) 'REC Mode'

RF Output Channels : #3

Frequency of the emission [MHz]	Meter reading [dBuV]	Matching pad loss [dB]	Gain of pre amp. [dB]	Limits [dBuV]	Results [dBuV]
47.8	32.4	6.0	29.4	39.5	10.8
74.8	32.8	6.0	29.2	39.5	11.4
106.9	31.0	6.0	29.1	39.5	9.7
110.3	31.1	6.0	29.1	39.5	9.8
110.6	33.8	6.0	29.1	39.5	12.5
115.5	33.7	6.0	29.1	39.5	12.4
122.5	33.0	6.0	29.0	39.5	11.8
183.8	31.8	6.0	28.9	39.5	10.7

Video source connected to the EUT : External(VITS at 5Vp-p) 'REC Mode'

RF Output Channels : #4

Frequency of the emission [MHz]	Meter reading [dBuV]	Matching pad loss [dB]	Gain of pre amp. [dB]	Limits [dBuV]	Results [dBuV]
53.8	32.8	6.0	29.3	39.5	11.3
80.8	32.3	6.0	29.2	39.5	10.9
106.9	30.9	6.0	29.1	39.5	9.6
110.3	30.8	6.0	29.1	39.5	9.5
110.6	33.8	6.0	29.1	39.5	12.5
115.5	33.4	6.0	29.1	39.5	12.1
201.8	30.1	6.0	28.8	39.5	9.1

NOTES: 1) Sample calculation at 53.8 MHz :
32.8 (dBuV) + 6.0 (dB) - 29.3 (dB) + 1.76 (dB) = 11.3 (dBuV)
(50ohm->75ohm)

2) The spectrum was checked from 30 at 1000 MHz and all emissions not listed above were found to be more than 20 dB below the limits specified the commissions.

3) The symbol of '<' means 'or less'

4) Spectrum Analyzer : SPAN : 10MHz SWP : 50ms
RES BW : 100kHz VBW : 800kHz

5) Impedance at the output terminal : 75 ohm (Unbalanced)

Section.15.115 (b)(2)
Output Terminal Conducted Spurious Emission Measurements.

Measurement Method : FCC Rules and Regulations Part 15(B)

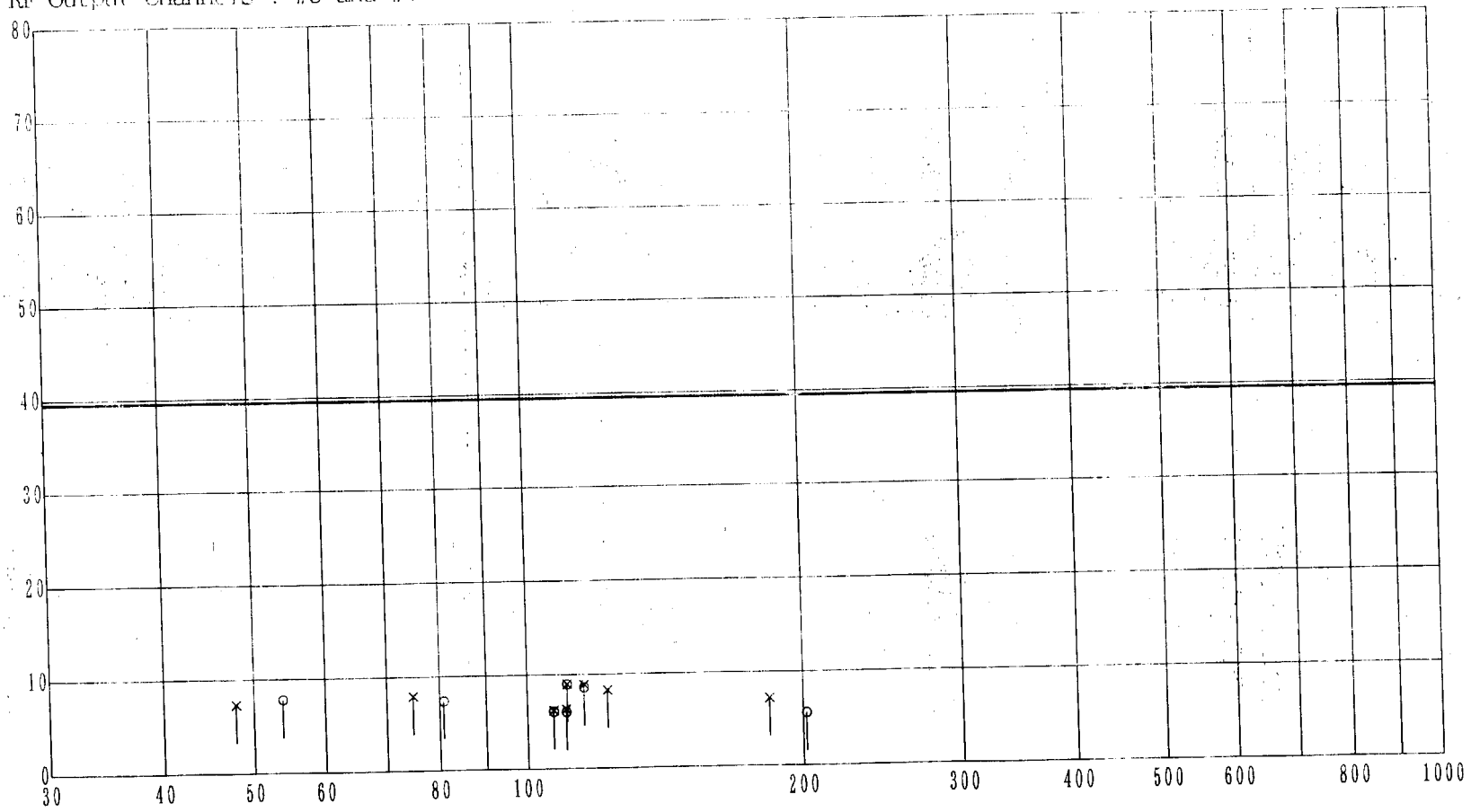
EUT : Videocassette Recorder
Model No. : HR-VP674U
Serial No. : ES200026 with QAU0113-x

Report No. : JYT99008
Date. : Apr 20, 1999

Video source connected to the EUT
: External(VITS at 5Vp-p) 'REC Mode'

RF Output Channels : #3 and #4

— Limit Line
x : Channel 3
o : Channel 4



Section.15.115 (b)(c) TRANSFER SWITCH ISOLATION MEASUREMENT

Video source connected to the EUT : Internal(Recorded Tape) 'PLAY Mode'

RF Output channel	Measured carrier freq. [MHz]	Meter reading [dBuV]	Matching pad loss [dB]	Gain of pre amp. [dB]	Limits [dBuV]	Results [dBuV]
3	61.25	21.8	6.0	29.3	9.5	0.3
4	67.25	21.2	6.0	29.3	9.5	-0.3

Video source connected to the EUT : External(VITS at 1Vp-p) 'REC Mode'

RF Output channel	Measured carrier freq. [MHz]	Meter reading [dBuV]	Matching pad loss [dB]	Gain of pre amp. [dB]	Limits [dBuV]	Results [dBuV]
3	61.25	20.7	6.0	29.3	9.5	-0.8
4	67.25	21.6	6.0	29.3	9.5	0.1

Video source connected to the EUT : External(VITS at 5Vp-p) 'REC Mode'

RF Output channel	Measured carrier freq. [MHz]	Meter reading [dBuV]	Matching pad loss [dB]	Gain of pre amp. [dB]	Limits [dBuV]	Results [dBuV]
3	61.25	21.8	6.0	29.3	9.5	0.3
4	67.25	21.5	6.0	29.3	9.5	-0.0

NOTES: 1) Sample calculation at 61.25 MHz :
21.8 (dBuV) + 6.0 (dB) - 29.3 (dB) + 1.76 (dB) = 0.3 (dBuV)
(50ohm->75ohm)

2) The symbol of '<' means 'or less'

3) Spectrum Analyzer : SPAN : 10MHz SWP : 50ms
RES BW : 100kHz VBW : 300kHz

4) Impedance at the output terminal : 75 ohm (Unbalanced)

<Radiated Emission>

Caused by the local oscillator

Channel	Freq [MHz]	Meter reading [dBuV]	Ant fact [dB]	C. fact [dB]	Matching pad [dB]	Corrected reading [dBuV/m]	Polarization	Limit [dBuV/m]
2	101	< 39.25	10.64	25.88	6.0	< 30.0	Horizontal	43.5
	202	< 37.58	16.72	24.30		< 30.0		
	303	< 41.00	16.42	22.42		< 35.0		46.0
	1010	< 45.00	25.66	25.66		< 45.0		54.0
	1616	< 45.00	24.77	24.77		< 45.0		
4	113	< 37.45	12.26	25.70	6.0	< 30.0	Horizontal	43.5
	226	< 42.05	17.01	24.06		< 35.0		46.0
	339	< 40.05	16.63	21.68		< 35.0		
	1017	< 45.00	25.60	25.60		< 45.0		54.0
	1695	< 45.00	24.33	24.33		< 45.0		
6	129	< 35.72	13.89	25.61	6.0	< 30.0	Horizontal	43.5
	258	< 35.89	17.65	23.54		< 30.0		46.0
	387	< 39.21	16.92	21.13		< 35.0		
	1032	< 45.00	25.47	25.47		< 45.0		54.0
	1677	< 45.00	24.43	24.43		< 45.0		
8	227	< 31.05	17.02	24.07	6.0	< 30.0	Horizontal	46.0
	454	< 37.06	18.13	20.19		< 35.0		
	681	< 29.40	22.98	17.38		< 35.0		
	1135	< 45.00	24.89	24.89		< 45.0		54.0
	1589	< 45.00	24.81	24.81		< 45.0		
10	239	< 30.57	17.17	23.74	6.0	< 30.0	Horizontal	46.0
	478	< 36.19	18.64	19.83		< 35.0		
	717	< 33.39	23.27	16.66		< 40.0		54.0
	1195	< 45.00	24.86	24.86		< 45.0		
	1673	< 45.00	24.45	24.45		< 45.0		
12	251	< 30.34	17.34	23.68	6.0	< 30.0	Horizontal	46.0
	502	< 35.52	19.15	19.67		< 35.0		
	753	< 32.97	23.19	16.16		< 40.0		
	1004	< 45.00	25.71	25.71		< 45.0		54.0
	1506	< 45.00	24.44	24.44		< 45.0		
14	517	< 28.94	19.53	19.46	6.0	< 35.0	Horizontal	46.0
	1034	< 45.00	25.45	25.45		< 45.0		54.0
	1551	< 45.00	24.64	24.64		< 45.0		
20	553	< 27.55	20.43	18.97	6.0	< 35.0	Horizontal	46.0
	1106	< 45.00	24.90	24.90		< 45.0		54.0
	1659	< 45.00	24.53	24.53		< 45.0		
28	601	< 25.67	21.62	18.29	6.0	< 35.0	Horizontal	46.0
	1202	< 45.00	24.86	24.86		< 45.0		54.0

C.fact = Correction factor (Pre amp. gain + Cable loss)

Corrected reading = Meter reading + Ant Fact + Matching pad 6dB - C.fact

<Radiated Emission>

Caused by the local oscillator

Channel	Freq [MHz]	Meter reading [dBuV]	Ant fact [dB]	C. fact [dB]	Matching pad [dB]	Corrected reading [dBuV/m]	Polarization	Limit [dBuV/m]
36	649	< 24.28	22.43	17.72	6.0	< 35.0	Horizontal	46.0
	1298	< 45.00	24.65	24.65		< 45.0		54.0
45	703	< 22.65	23.29	16.94	6.0	< 35.0	Horizontal	46.0
	1406	< 45.00	24.10	24.10		< 45.0		54.0
53	751	22.09	23.20	16.19	6.0	35.1	Horizontal	46.0
	1502	< 45.00	24.42	24.42		< 45.0		54.0
61	799	22.91	23.10	15.52	6.0	36.5	Vertical	46.0
	1598	< 45.00	24.85	24.85		< 45.0		54.0
65	823	22.28	23.51	15.19	6.0	36.6	Horizontal	46.0
	1646	< 45.00	24.60	24.60		< 45.0		54.0
66	829	24.29	23.62	15.11	6.0	38.8	Vertical	46.0
	1658	< 45.00	24.54	24.54		< 45.0		54.0
67	835	24.52	23.73	14.95	6.0	39.3	Horizontal	46.0
	1670	< 45.00	24.47	24.47		< 45.0		54.0
68	841	24.33	23.84	14.77	6.0	39.4	Horizontal	46.0
	1682	< 45.00	24.40	24.40		< 45.0		54.0
69	847	23.94	23.95	14.59	6.0	39.3	Horizontal	46.0
	1694	< 45.00	24.33	24.33		< 45.0		54.0

C.fact = Correction factor (Pre amp. gain + Cable loss)

Corrected reading = Meter reading + Ant Fact + Matching pad 6dB - C.fact

<Antenna power conduction for receivers>

Section 15.111(a)

Channel	Freq [MHz]	Meter reading [dBuV]	C. fact [dB]	Corrected reading [dBuV/m]	Limit [dBuV/m]
2	101	< 52.65	30.41	< 30.0	52.0
	202	< 53.46	31.22	< 30.0	
	1212	< 49.66	27.42	< 30.0	
	1414	< 54.17	26.93	< 35.0	
	1616	< 55.04	27.80	< 35.0	
4	113	< 52.99	30.75	< 30.0	52.0
	226	< 53.75	31.51	< 30.0	
	1130	< 49.67	27.43	< 30.0	
	1356	< 54.22	26.98	< 35.0	
	1695	< 54.68	27.44	< 35.0	
6	129	< 53.46	31.22	< 30.0	52.0
	258	< 54.05	31.81	< 30.0	
	387	< 54.10	31.86	< 30.0	
	1161	< 54.68	27.44	< 35.0	
	1290	< 54.43	27.19	< 35.0	
	1419	< 54.21	26.97	< 35.0	
	1677	< 54.76	27.52	< 35.0	
7	221	< 53.69	31.45	< 30.0	52.0
	442	< 54.13	31.89	< 30.0	
	884	< 50.75	28.51	< 30.0	
	1105	< 54.65	27.41	< 35.0	
	1326	< 54.32	27.08	< 35.0	
	1547	< 54.91	27.67	< 35.0	
8	227	< 53.76	31.52	< 30.0	52.0
	454	< 54.14	31.90	< 30.0	
	908	< 50.64	28.40	< 30.0	
	1135	< 54.67	27.43	< 35.0	
	1362	< 54.20	26.96	< 35.0	
	1589	< 55.07	27.83	< 35.0	
9	233	< 53.83	31.59	< 30.0	52.0
	466	< 54.16	31.92	< 30.0	
	932	< 50.56	28.32	< 30.0	
	1165	< 54.68	27.44	< 35.0	
	1398	< 54.09	26.85	< 35.0	
	1631	< 54.97	27.73	< 35.0	
10	239	< 53.90	31.66	< 30.0	52.0
	478	< 54.17	31.93	< 30.0	
	956	< 50.49	28.25	< 30.0	
	1195	< 54.70	27.46	< 35.0	
	1434	< 54.30	27.06	< 35.0	
	1673	< 54.78	27.54	< 35.0	

Channel	Freq [MHz]	Meter reading [dBuV]	C. fact [dB]	Corrected reading [dBuV/m]	Limit [dBuV/m]
11	245	< 53.97	31.73	< 30.0	52.0
	490	< 54.18	31.94	< 30.0	
	735	< 52.18	29.94	< 30.0	
	980	< 55.41	28.17	< 35.0	
	1225	< 54.63	27.39	< 35.0	
	1470	< 54.54	27.30	< 35.0	
12	251	< 54.03	31.79	< 30.0	52.0
	502	< 54.18	31.94	< 30.0	
	1004	< 50.32	28.08	< 30.0	
	1255	< 54.54	27.30	< 35.0	
	1506	< 54.76	27.52	< 35.0	
13	257	< 54.05	31.81	< 30.0	52.0
	514	< 54.14	31.90	< 30.0	
	771	< 51.66	29.42	< 30.0	
	1028	< 55.15	27.91	< 35.0	
	1542	< 54.90	27.66	< 35.0	
14	517	< 54.13	31.89	< 30.0	52.0
	1034	56.12	27.87	36.0	
	1551	< 54.93	27.69	< 35.0	
15	523	< 54.10	31.86	< 30.0	52.0
	1046	58.55	27.79	38.5	
	1569	< 55.00	27.76	< 35.0	
16	529	< 54.08	31.84	< 30.0	52.0
	1058	62.42	27.70	42.5	
	1587	< 55.06	27.82	< 35.0	
17	535	< 54.06	31.82	< 30.0	52.0
	1070	63.26	27.62	43.4	
	1605	< 55.09	27.85	< 35.0	
18	541	< 54.04	31.80	< 30.0	52.0
	1082	61.88	27.54	42.1	
	1623	< 55.01	27.77	< 35.0	
19	547	< 54.02	31.78	< 30.0	52.0
	1094	61.65	27.45	42.0	
	1641	< 54.93	27.69	< 35.0	
20	553	< 53.99	31.75	< 30.0	52.0
	1106	61.47	27.41	41.8	
	1659	< 54.84	27.60	< 35.0	
28	601	< 53.81	31.57	< 30.0	52.0
	1202	55.58	27.45	35.9	
36	649	< 53.27	31.03	< 30.0	52.0
	1298	60.00	27.17	40.6	

C.fact = Correction factor (Pre amp. gain + Cable loss)

Corrected reading = Meter reading + Matching pad 6dB - C.fact + 1.76 (50->75 ohms conversion)

<Antenna power conduction for receivers>

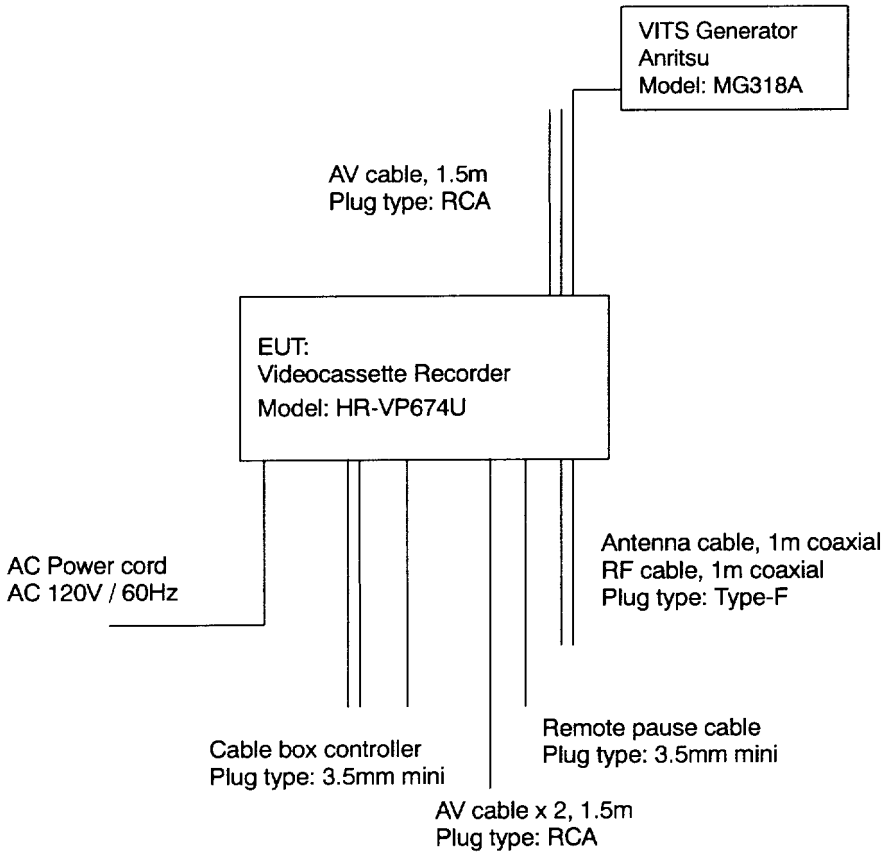
Section 15.111(a)

39	667	< 53.06	30.82	< 30.0	52.0
	1334	62.20	27.05	42.91	
40	673	< 53.00	30.76	< 30.0	52.0
	1346	62.79	27.01	43.54	
41	679	< 52.93	30.69	< 30.0	52.0
	1358	62.93	26.97	43.72	
42	685	< 52.86	30.62	< 30.0	52.0
	1370	62.72	26.94	43.54	
43	691	< 52.79	30.55	< 30.0	52.0
	1382	62.11	26.90	43.0	
45	703	< 52.65	30.41	< 30.0	52.0
	1406	62.15	26.88	43.0	
46	709	< 52.56	30.32	< 30.0	52.0
	1418	62.76	26.96	43.6	
47	715	< 52.47	30.23	< 30.0	52.0
	1430	63.00	27.04	43.7	
48	721	< 52.39	30.15	< 30.0	52.0
	1442	62.41	27.12	43.1	
53	751	< 51.95	29.71	< 30.0	52.0
	1502	56.75	27.51	37.0	
61	799	< 51.25	29.01	< 30.0	52.0
	1598	< 50.10	27.86	< 30.0	
69	847	< 50.97	28.73	< 30.0	52.0
	1694	< 49.69	27.45	< 30.0	

C.fact = Correction factor (Pre amp. gain + Cable loss)

Corrected reading = Meter reading + Matching pad 6dB - C.fact + 1.76 (50->75 ohms conversion)

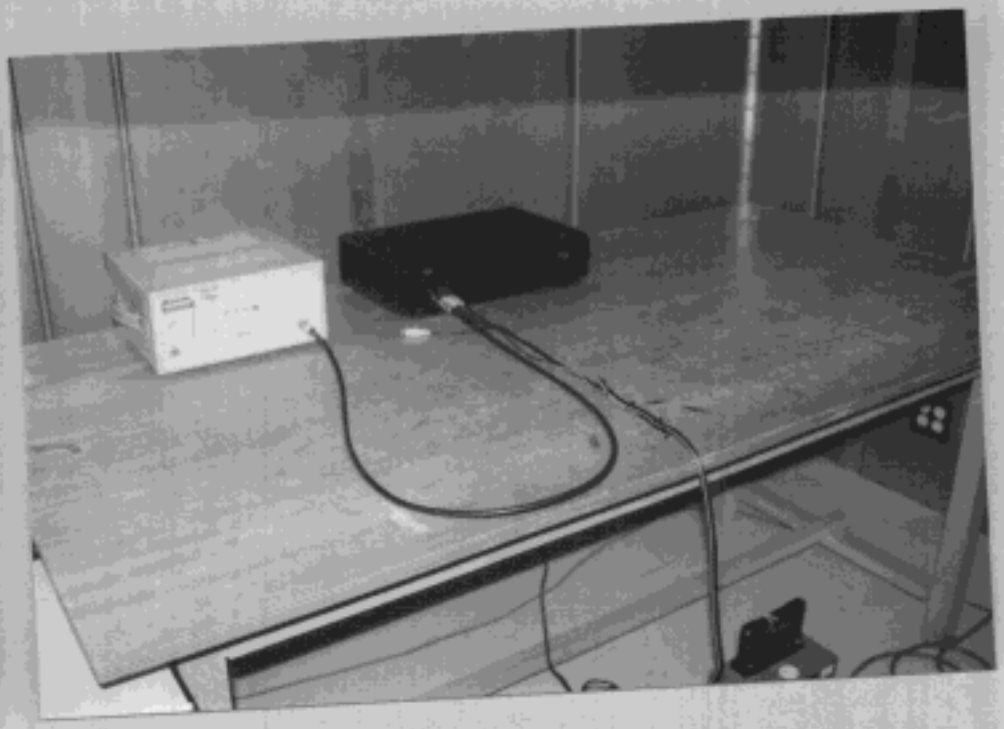
Configuration of Tested System



Test Instrumentation Used

Used	No.	Contet	Manufacturer	Type	Last cal.
x	1	EMI test receiver	R/S	ESVS10	Sep.98
x	2	EMI test receiver	R/S	ESHS30	Sep.98
	3	Spectrum analyzer	HP	8568B	Jan.99
	4	Spectrum analyzer	Anritsu	MS2601A	Jan.99
x	5	Spectrum analyzer	HP	8591A	Jan.99
x	6	Biconical antenna	Schwarzbeck	BBA9106	Apr.99
x	10	Log periodic antenna	Schwarzbeck	UHALP9107	Apr.99
	11	Log periodic antenna	Schwarzbeck	UKLP9104	Apr.99
x	12	RF pre-amplifire	EMC Japan	RFP226	Apr.99
x	13	LISN 50Ω/50uH	Kyoritsu	KNW-407	Sep.98
x	14	VITS generator	Anritsu	MG318A	Apr.98
	15				
	16				
	17				

----- Conducted measurement photos -----



----- Radiated measurement photos -----