

Appendix 2 : Data of EMI tests

This section contains the following data.

Conducted interference	: <u>A2-1 to A2-10</u>
Radiated emission	: <u>A2-11 to A2-19</u>
Antenna terminal voltage	: <u>A2-20 to A2-21</u>
RF output level / spurious emission	: <u>A2-22 to A2-36</u>
Picture sensitivity	: <u>A2-37</u>
Noise figure	: <u>A2-38</u>

DATA OF CONDUCTION

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

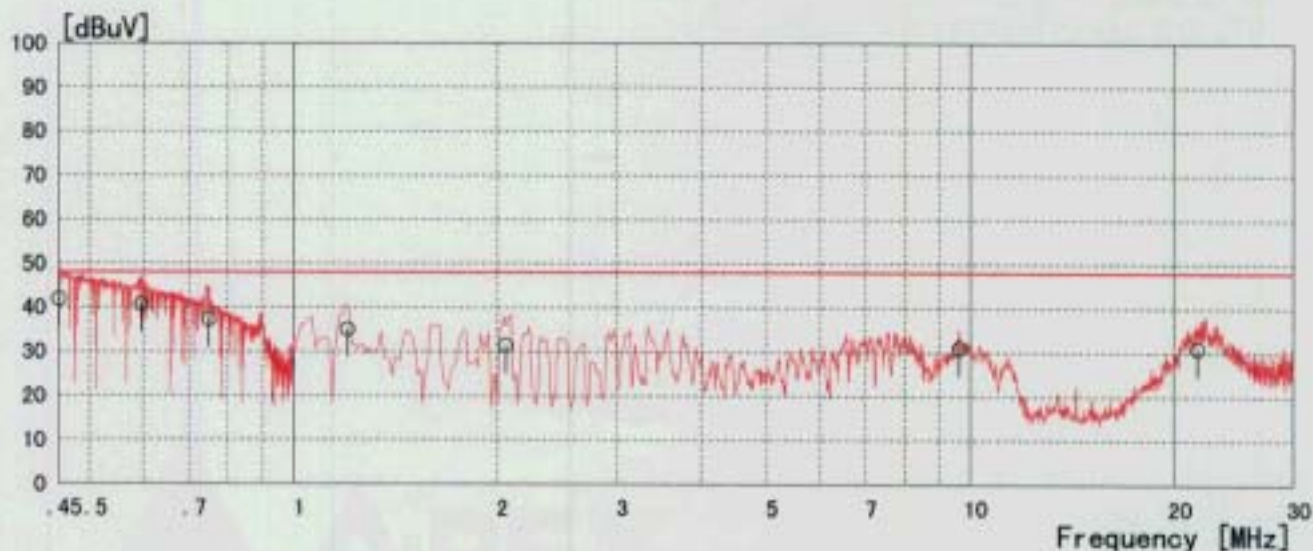
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : RECEIVE+REC
POWER : AC120V/60Hz
LINE : N
REMARKS : 0dBmV INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 04, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 1

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	0.451	41.6	----	0.4	41.9	----	48.0	----	6.1	----
2	0.597	40.4	----	0.3	40.7	----	48.0	----	7.3	----
3	0.749	37.0	----	0.3	37.3	----	48.0	----	10.7	----
4	1.201	34.8	----	0.2	35.1	----	48.0	----	12.9	----
5	2.059	31.2	----	0.3	31.4	----	48.0	----	16.6	----
6	9.640	30.4	----	0.5	30.9	----	48.0	----	17.1	----
7	21.660	30.1	----	0.9	30.9	----	48.0	----	17.1	----

RESULT=READING+CABLE LOSS+CLAMP FACTOR



DATA OF CONDUCTION

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

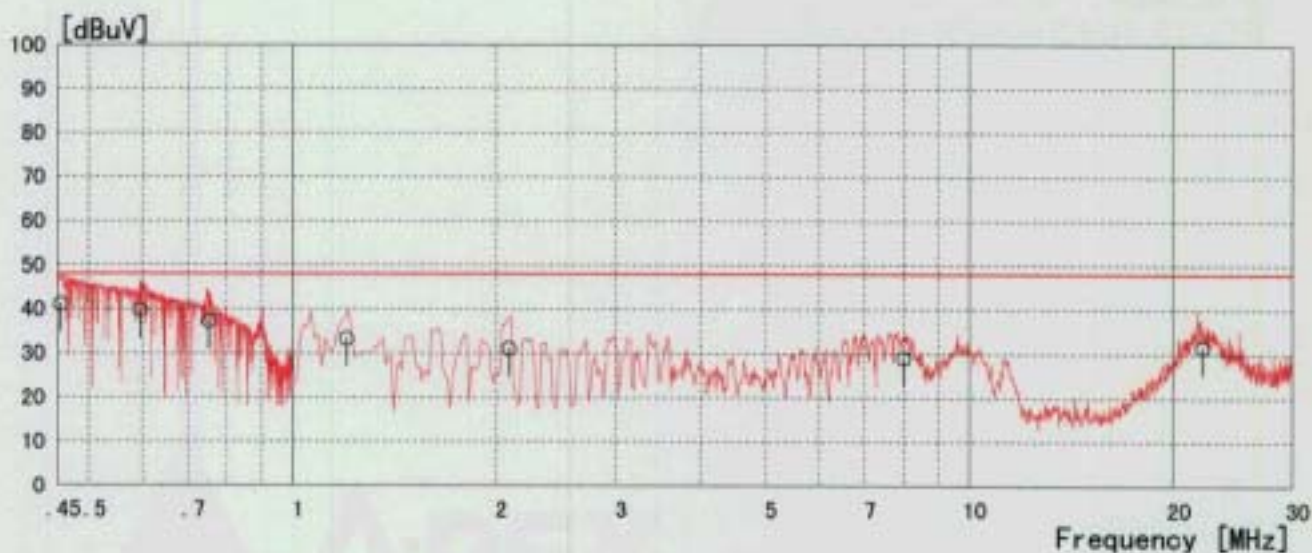
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : RECEIVE+REC
POWER : AC120V/60Hz
LINE : L
REMARKS : 0dBmV INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 04, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 2

TEST ENGINEER: HTSAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	0.455	40.7	---	0.4	41.0	---	48.0	---	7.0	---
2	0.596	39.4	---	0.3	39.7	---	48.0	---	8.3	---
3	0.752	36.9	---	0.3	37.2	---	48.0	---	10.8	---
4	1.201	33.0	---	0.2	33.3	---	48.0	---	14.7	---
5	2.090	30.8	---	0.3	31.1	---	48.0	---	16.9	---
6	8.003	28.5	---	0.5	29.0	---	48.0	---	19.0	---
7	22.100	30.7	---	0.9	31.6	---	48.0	---	16.4	---

RESULT=READING+CABLE LOSS+CLAMP FACTOR



DATA OF CONDUCTION

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

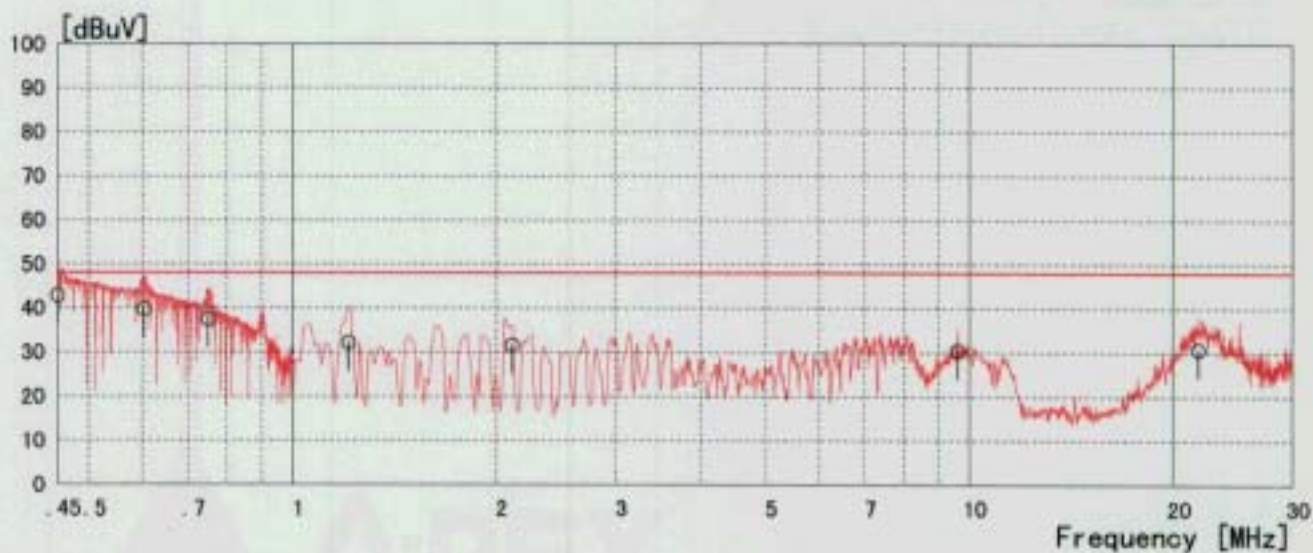
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : RECEIVE+REC
POWER : AC120V/60Hz
LINE : N
REMARKS : 25dBmV INPUT

REPORT No. : 21JED0033-KT
DATE : JUNE 04, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 4

TEST ENGINEER: HTSAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	0.450	42.5	----	0.4	42.8	----	48.0	----	5.2	----
2	0.604	39.4	----	0.3	39.7	----	48.0	----	8.3	----
3	0.751	37.2	----	0.3	37.5	----	48.0	----	10.5	----
4	1.211	31.9	----	0.2	32.2	----	48.0	----	15.8	----
5	2.111	31.3	----	0.3	31.6	----	48.0	----	16.4	----
6	9.623	29.8	----	0.5	30.3	----	48.0	----	17.7	----
7	21.800	29.8	----	0.9	30.7	----	48.0	----	17.3	----

RESULT=READING+CABLE LOSS+CLAMP FACTOR



DATA OF CONDUCTION

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

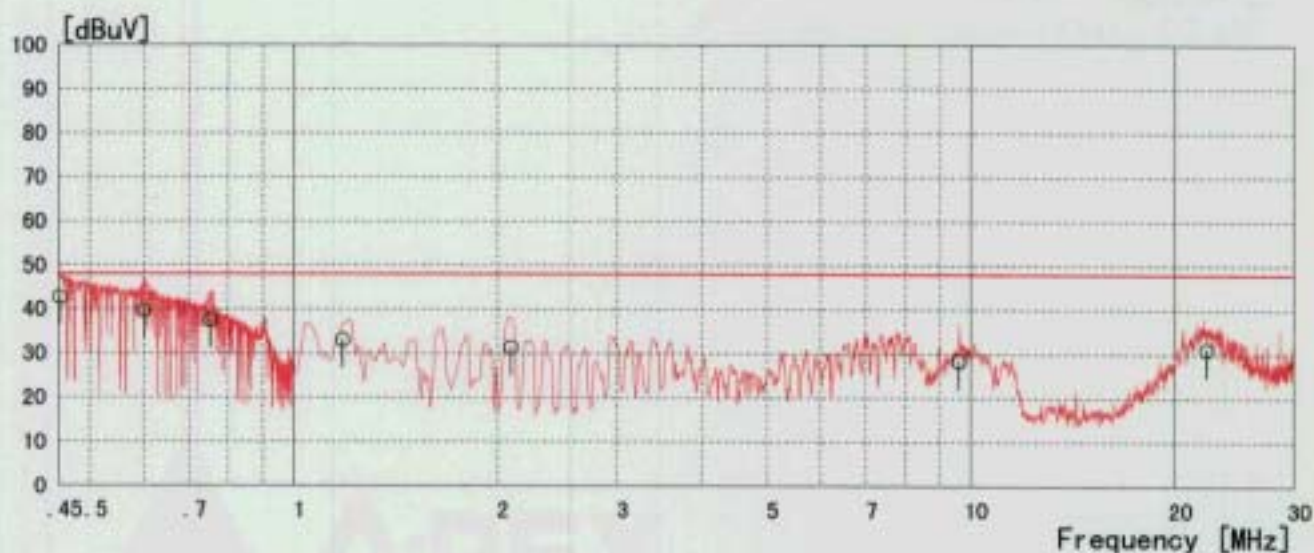
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : RECEIVE+REC
POWER : AC120V/60Hz
LINE : L
REMARKS : 25dBmV INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 04, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 3

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP [dBuV]	AV [dB]		QP [dBuV]	AV [dB]	QP [dBuV]	AV [dB]	QP [dB]	AV [dB]
1	0.451	42.3	—	0.4	42.7	—	48.0	—	5.3	—
2	0.601	39.3	—	0.3	39.6	—	48.0	—	8.4	—
3	0.752	37.2	—	0.3	37.5	—	48.0	—	10.5	—
4	1.180	32.8	—	0.2	33.0	—	48.0	—	15.0	—
5	2.094	31.0	—	0.3	31.3	—	48.0	—	16.7	—
6	9.606	27.8	—	0.5	28.3	—	48.0	—	19.7	—
7	22.310	30.1	—	0.9	31.0	—	48.0	—	17.0	—

RESULT=READING+CABLE LOSS+CLAMP FACTOR



DATA OF CONDUCTION

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

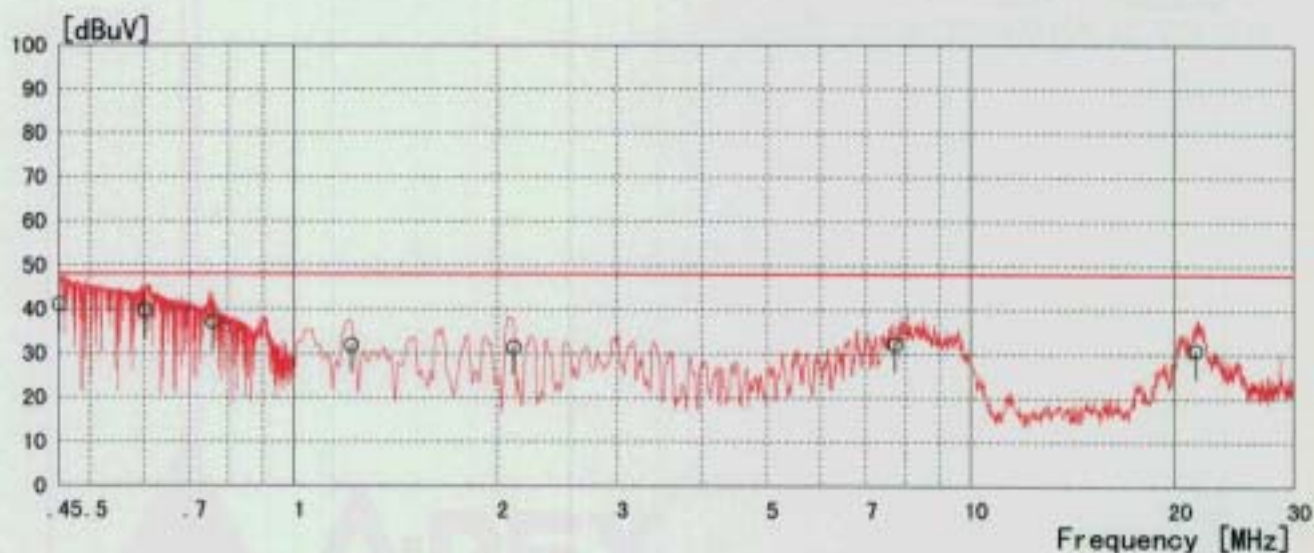
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : AV INPUT+REC
POWER : AC120V/60Hz
LINE : N
REMARKS : 1Vp-p INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 04, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 5

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]
1	0.451	40.7	—	0.4	41.1	—	48.0	—	6.9	—
2	0.604	39.3	—	0.3	39.6	—	48.0	—	8.4	—
3	0.758	36.8	—	0.3	37.1	—	48.0	—	10.9	—
4	1.217	31.7	—	0.2	31.9	—	48.0	—	16.1	—
5	2.113	31.1	—	0.3	31.4	—	48.0	—	16.6	—
6	7.737	31.7	—	0.5	32.2	—	48.0	—	15.8	—
7	21.510	30.0	—	0.9	30.9	—	48.0	—	17.1	—

RESULT=READING+CABLE LOSS+CLAMP FACTOR



DATA OF CONDUCTION

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

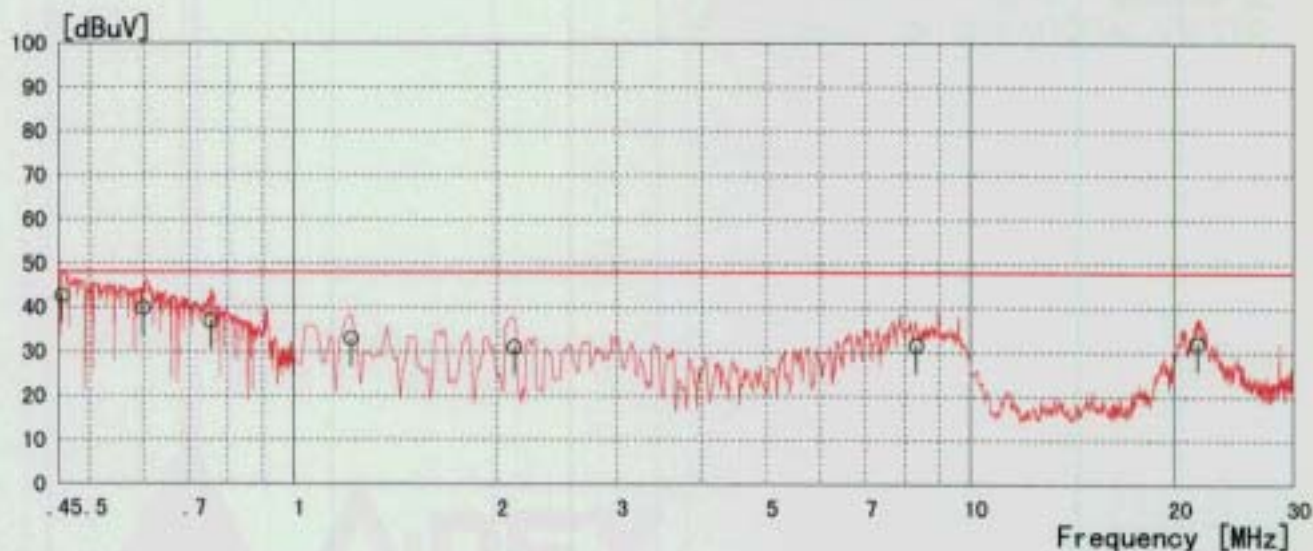
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : AV INPUT+REC
POWER : AC120V/60Hz
LINE : L
REMARKS : 1Vp-p INPUT

REPORT No. : 21JED0033-KT
DATE : JUNE 04, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 6

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	0.455	42.3	---	0.4	42.7	---	48.0	---	5.3	---
2	0.600	39.5	---	0.3	39.8	---	48.0	---	8.2	---
3	0.755	36.7	---	0.3	36.9	---	48.0	---	11.1	---
4	1.217	32.7	---	0.2	33.0	---	48.0	---	15.0	---
5	2.119	30.8	---	0.3	31.1	---	48.0	---	16.9	---
6	8.320	31.0	---	0.5	31.5	---	48.0	---	16.5	---
7	21.670	31.3	---	0.9	32.1	---	48.0	---	15.9	---

RESULT=READING+CABLE LOSS+CLAMP FACTOR



DATA OF CONDUCTION

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

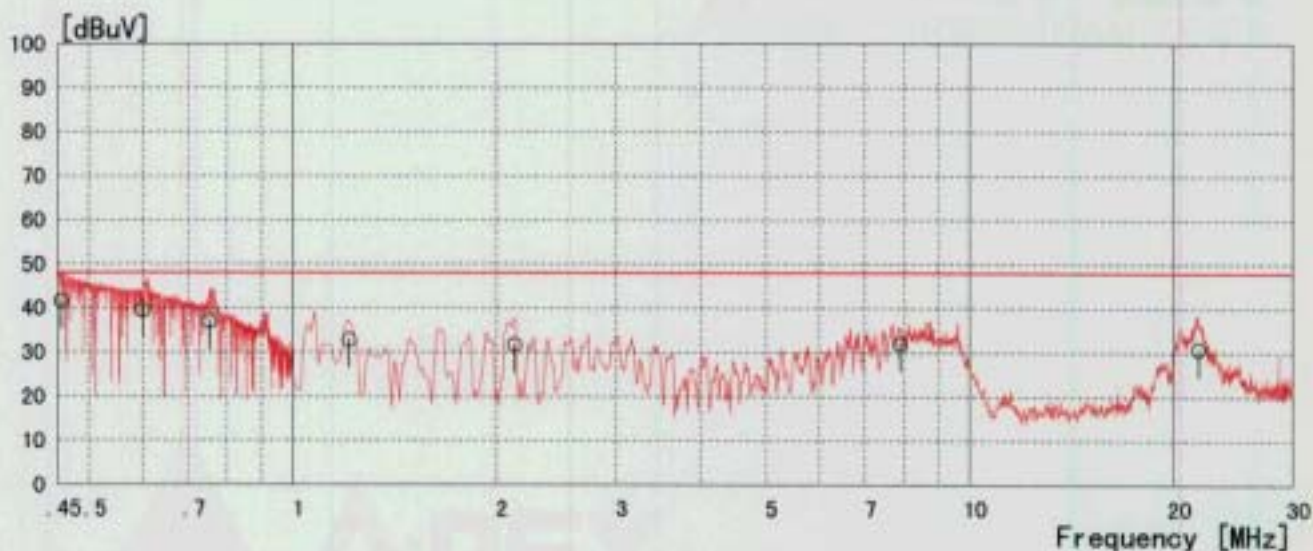
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : AV INPUT+REC
POWER : AC120V/60Hz
LINE : N
REMARKS : 5Vp-p INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 04, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 8

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]
1	0.456	41.2	---	0.4	41.5	---	48.0	---	6.5	---
2	0.601	39.1	---	0.3	39.4	---	48.0	---	8.6	---
3	0.754	36.7	---	0.3	37.0	---	48.0	---	11.0	---
4	1.211	32.6	---	0.2	32.8	---	48.0	---	15.2	---
5	2.127	31.4	---	0.3	31.7	---	48.0	---	16.3	---
6	7.904	31.4	---	0.5	31.9	---	48.0	---	16.1	---
7	21.770	29.9	---	0.9	30.8	---	48.0	---	17.2	---

RESULT=READING+CABLE LOSS+CLAMP FACTOR



DATA OF CONDUCTION

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

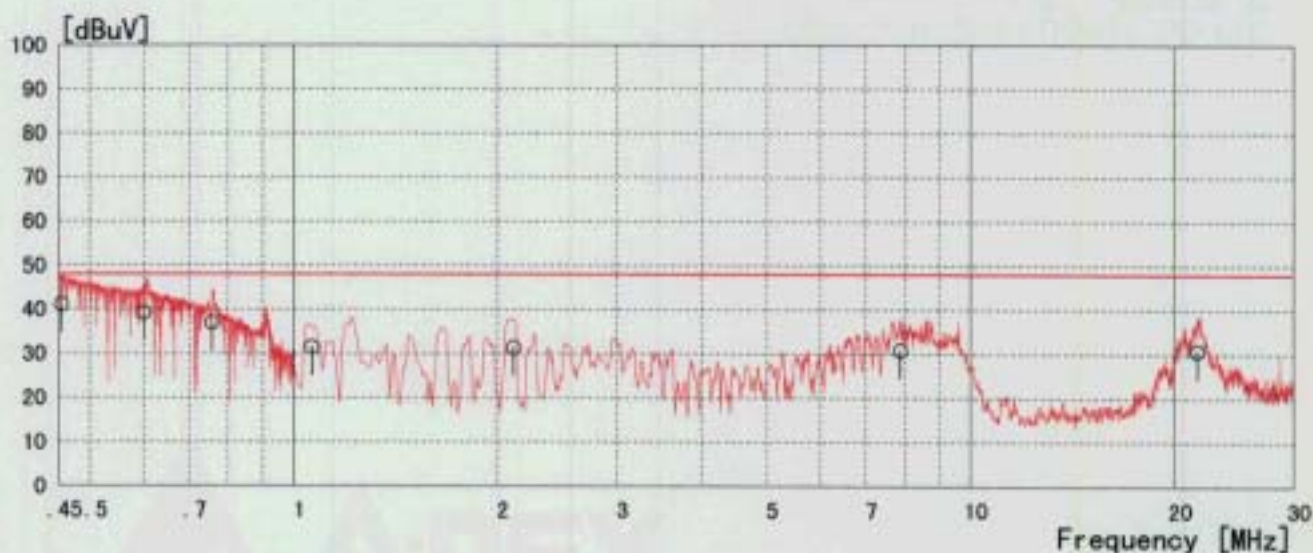
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPEMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : AV INPUT+REC
POWER : AC120V/60Hz
LINE : L
REMARKS : 5Vp-p INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 04, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 7

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	0.454	40.7	—	0.4	41.1	—	48.0	—	6.9	—
2	0.601	38.8	—	0.3	39.1	—	48.0	—	8.9	—
3	0.757	36.7	—	0.3	37.0	—	48.0	—	11.0	—
4	1.084	31.2	—	0.2	31.4	—	48.0	—	16.6	—
5	2.113	31.1	—	0.3	31.4	—	48.0	—	16.6	—
6	7.879	30.3	—	0.5	30.8	—	48.0	—	17.2	—
7	21.630	29.8	—	0.9	30.7	—	48.0	—	17.3	—

RESULT=READING+CABLE LOSS+CLAMP FACTOR



DATA OF CONDUCTIONA-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

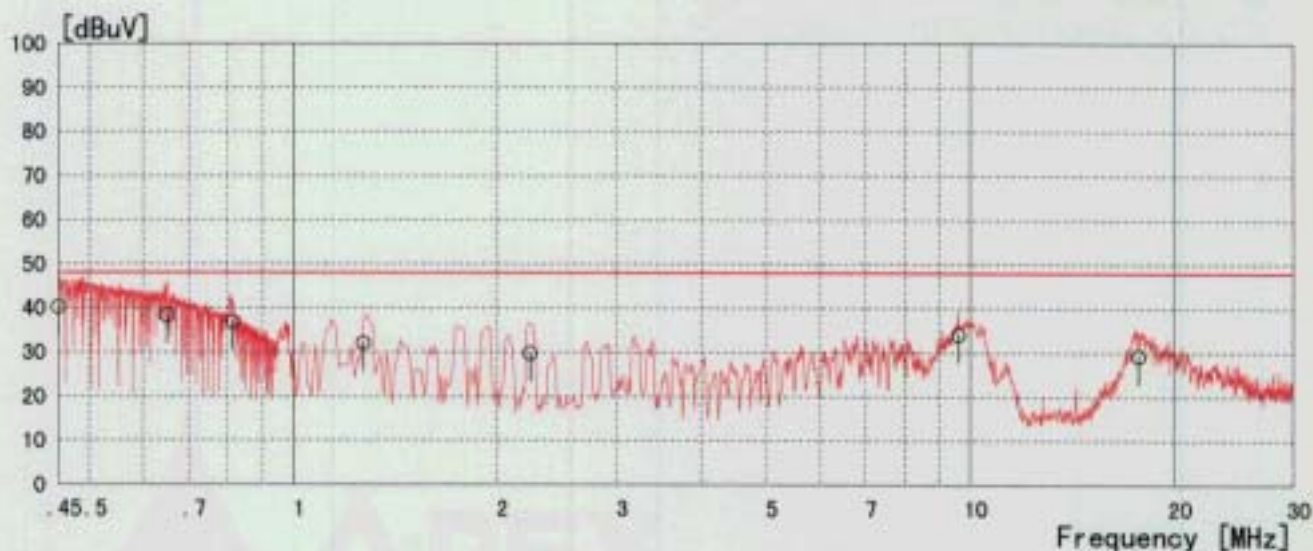
COMPANY : ORION ELECTRIC CO., LTD.
 EQUIPEMENT : VIDEO CASSETTE RECORDER
 MODEL NAME : VR0212A
 OPERATION MODE : PLAYBACK
 POWER : AC120V/60Hz
 LINE : N
 REMARKS : -

REPORT No. : 21JE0033-KT
 DATE : JUNE 04, 2001
 REGULATION : FCC PART15 SUBPART B
 TEST NO. : 9

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	0.450	39.8	---	0.4	40.1	---	48.0	---	7.9	---
2	0.651	38.1	---	0.3	38.4	---	48.0	---	9.6	---
3	0.814	36.6	---	0.3	36.9	---	48.0	---	11.1	---
4	1.269	31.8	---	0.2	32.0	---	48.0	---	16.0	---
5	2.239	29.4	---	0.3	29.7	---	48.0	---	18.3	---
6	9.611	33.4	---	0.5	34.0	---	48.0	---	14.0	---
7	17.757	28.4	---	0.8	29.2	---	48.0	---	18.8	---

RESULT=READING+CABLE LOSS+CLAMP FACTOR



DATA OF CONDUCTION

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

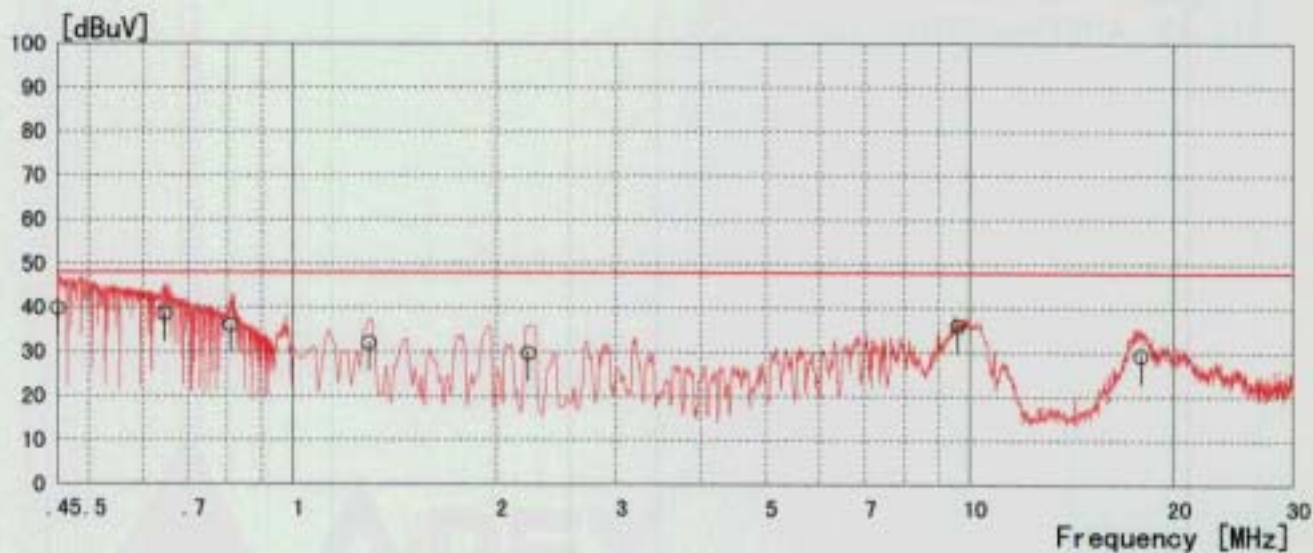
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : PLAYBACK
POWER : AC120V/60Hz
LINE : L
REMARKS : -

REPORT No. : 21JE0033-KT
DATE : JUNE 04, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 10

TEST ENGINEER: HITSUYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	0.450	39.5	---	0.4	39.9	---	48.0	---	8.1	---
2	0.646	38.3	---	0.3	38.6	---	48.0	---	9.4	---
3	0.810	35.8	---	0.3	36.1	---	48.0	---	11.9	---
4	1.297	31.8	---	0.2	32.0	---	48.0	---	16.0	---
5	2.229	29.4	---	0.3	29.7	---	48.0	---	18.3	---
6	9.609	35.5	---	0.5	36.1	---	48.0	---	11.9	---
7	17.921	28.5	---	0.8	29.3	---	48.0	---	18.7	---

RESULT=READING+CABLE LOSS+CLAMP FACTOR



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
 YOKOWA No.3 OPEN TEST SITE
 Report No. : 21JE0033-KT

Applicant : ORION ELECTRIC CO., LTD.
 Kind of Equipment : Video cassette recorder
 Model No. : VR0212A
 Serial No. :
 Power : AC120V/60Hz
 Mode : Maximum operation
 Remarks : Test channel #3
 Date : 5/28/2001
 Test Distance : 3 m
 Temperature : 21 °C
 Humidity : 45 %
 Regulation : FCC Part15B CLASS B

H. Tabata
 Engineer : Hiroya Tabata

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	61.25	BB	26.6	38.1	7.2	27.9	1.4	5.9	13.2	24.7	40.0	26.8	15.3
2.	65.75	BB	29.2	36.4	6.7	27.9	1.5	5.9	15.4	22.6	40.0	24.6	17.4
3.	122.50	BB	22.3	22.5	13.4	27.9	2.1	5.9	15.8	16.0	43.5	27.7	27.5
4.	245.00	BB	21.2	21.2	16.6	27.7	3.2	5.9	19.2	19.2	46.0	26.8	26.8

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

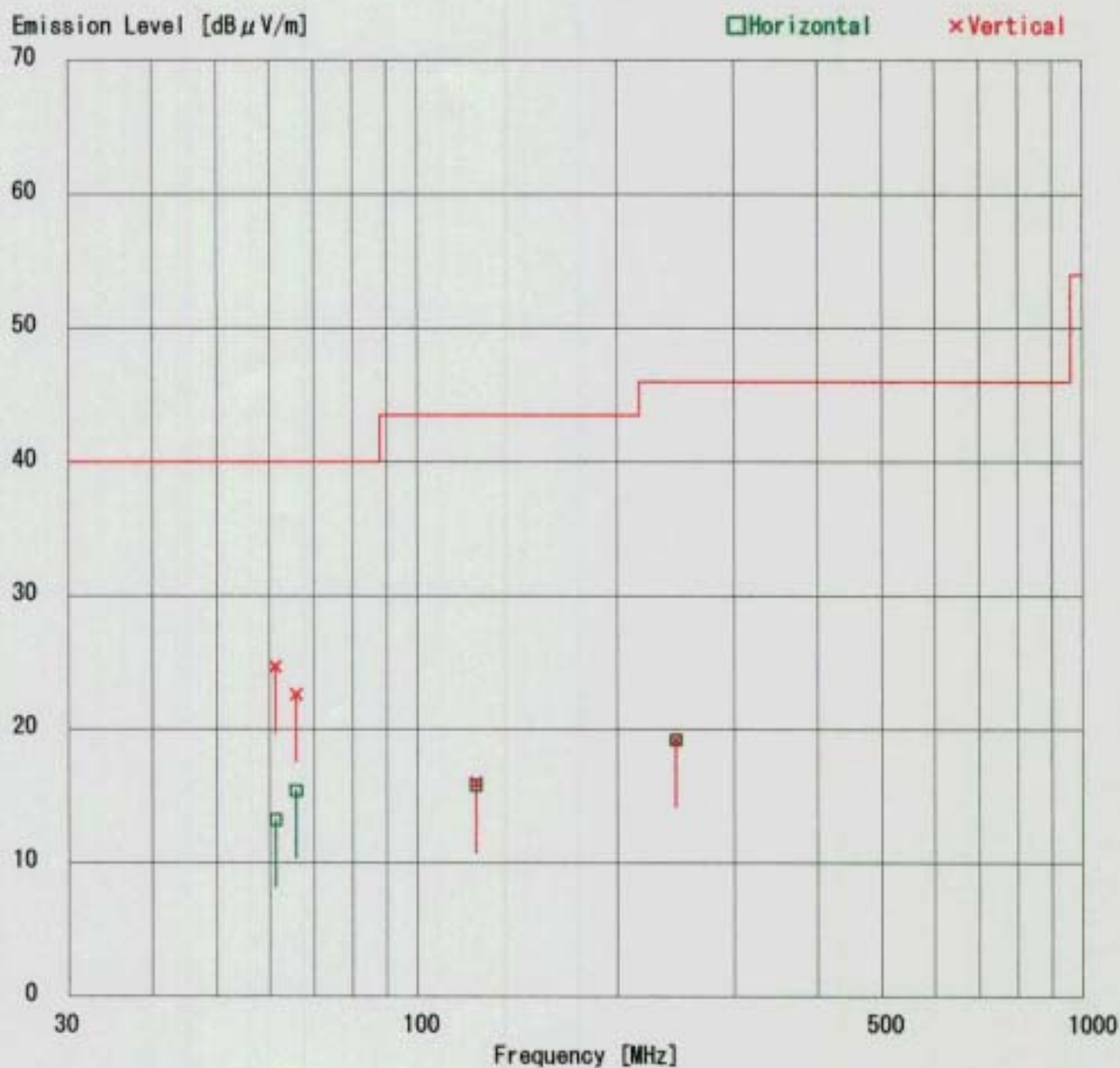
Except for the above table : adequate margin data below the limits.
 ANT.TYPE:30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.3 OPEN TEST SITE
Report No. : 21JE0033-KT

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : Video cassette recorder
Model No. : VR0212A
Serial No. :
Power : AC120V/60Hz
Mode : Maximum operation
Remarks : Test channel #3
Date : 5/28/2001
Test Distance : 3 m
Temperature : 21 °C
Humidity : 45 %
Regulation : FCC Part15B CLASS B

H. Tabata
Engineer : Hiroya Tabata



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
 YOKOWA No.3 OPEN TEST SITE
 Report No. : 21JE0033-KT

Applicant : ORION ELECTRIC CO., LTD.
 Kind of Equipment : Video cassette recorder
 Model No. : VR0212A
 Serial No. :
 Power : AC120V/60Hz
 Mode : Maximum operation
 Remarks : Test channel #4
 Date : 5/28/2001
 Test Distance : 3 m
 Temperature : 21 °C
 Humidity : 45 %
 Regulation : FCC Part15B CLASS B

H. Tabata
 Engineer : Hiroya Tabata

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]			HOR [dB]	VER [dB]
1.	67.25	BB	26.4	31.2	6.5	27.9	1.5	5.9	12.4	17.2	40.0	27.6	22.8	
2.	71.75	BB	27.9	30.6	6.1	27.9	1.6	5.9	13.6	16.3	40.0	26.4	23.7	
3.	134.50	BB	22.3	22.1	13.9	27.8	2.2	5.9	16.5	16.3	43.5	27.0	27.2	
4.	201.75	BB	21.3	21.4	16.4	27.8	2.8	5.9	18.6	18.7	43.5	24.9	24.8	

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

Except for the above table : adequate margin data below the limits.
 ANT. TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.3 OPEN TEST SITE
Report No. : 21JE0033-KT

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : Video cassette recorder
Model No. : VR0212A
Serial No. :
Power : AC120V/60Hz
Mode : Maximum operation
Remarks : Test channel #4
Date : 5/28/2001
Test Distance : 3 m
Temperature : 21 °C
Humidity : 45 %
Regulation : FCC Part15B CLASS B

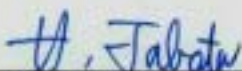
H. Tabata
Engineer : Hiroya Tabata



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.3 OPEN TEST SITE
Report No. : 21JE0033-KT

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : Video cassette recorder
Model No. : VR0212A
Serial No. :
Power : AC120V/60Hz
Mode : Maximum operation
Remarks : Other
Date : 5/28/2001
Test Distance : 3 m
Temperature : 21 °C
Humidity : 45 %
Regulation : FCC Part15B CLASS B


Engineer : Hiroya Tabata

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	57.28	BB	36.1	46.9	8.4	28.1	1.4	5.9	23.7	34.5	40.0	16.3	5.5
2.	71.59	BB	42.4	48.7	6.1	27.9	1.6	5.9	28.1	34.4	40.0	11.9	5.6
3.	85.90	BB	51.0	48.1	7.2	27.9	1.8	5.9	38.0	35.1	40.0	2.0	4.9
4.	100.00	BB	25.2	34.3	10.1	27.9	1.9	5.9	15.2	24.3	43.5	28.3	19.2
5.	157.51	BB	36.0	37.6	14.7	27.8	2.4	5.9	31.2	32.8	43.5	12.3	10.7
6.	343.67	BB	22.1	22.0	14.7	27.6	3.8	5.9	18.9	18.8	46.0	27.1	27.2

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

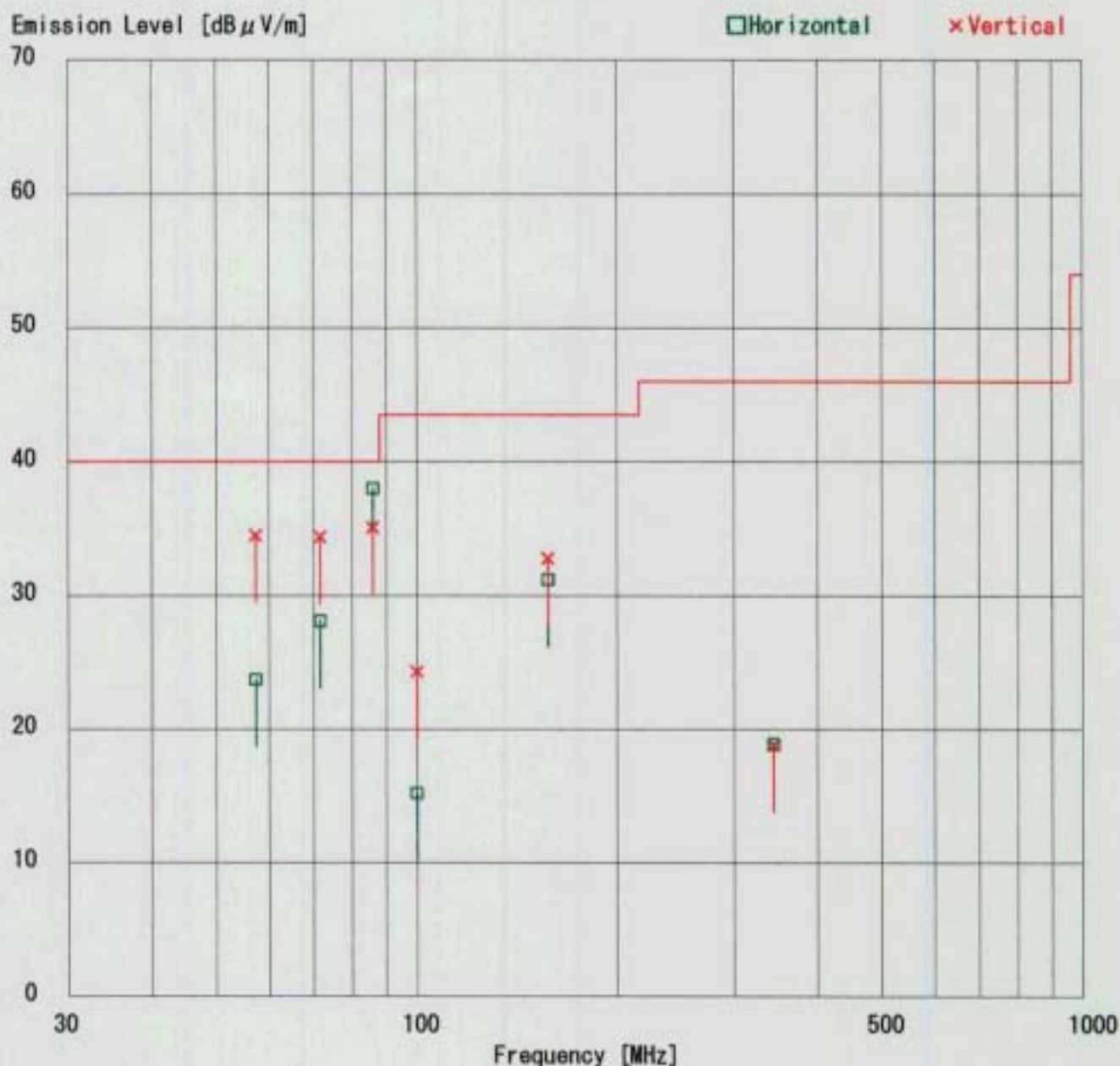
Except for the above table : adequate margin data below the limits.
ANT. TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
 YOKOWA No.3 OPEN TEST SITE
 Report No. : 21JE0033-KT

Applicant : ORION ELECTRIC CO., LTD.
 Kind of Equipment : Video cassette recorder
 Model No. : VR0212A
 Serial No. :
 Power : AC120V/60Hz
 Mode : Maximum operation
 Remarks : Other
 Date : 5/28/2001
 Test Distance : 3 m
 Temperature : 21 °C
 Humidity : 45 %
 Regulation : FCC Part15B CLASS B

H. Tabata
 Engineer : Hiroya Tabata

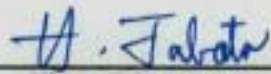


DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA NO.3 OPEN TEST SITE

COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : Video cassette recorder
MODEL No. : VR0212A
POWER : AC120V/60Hz
DESCRIPTION : TV RECEPTION MODE

REPORT No. : 21JE0033-KT
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1034-1694MHz 0dB
DATE : May 28, 2001


ENGINEER : Hiroya Tabata

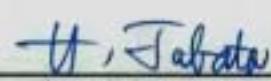
CH	FREQ [MHz]	READING HOR. VER. [dBuV]	ANT TYPE	ANT. FAC. [dB]	CABLE LOSS [dB]	AMP GAIN [dB]	RESULTS HOR. VER. [dBuV/m]	LIMIT [dBuV/m]	MARGIN HOR. VER. [dB]
VHF Fundamental									
2	101	27.2 27.5	BC	10.4	1.8	28.0	17.4 17.7	43.5	26.1 25.8
3	107	27.5 29.0	BC	11.3	1.9	28.1	18.6 20.1	43.5	24.9 23.4
4	113	32.5 37.8	BC	12.3	2.0	28.1	24.7 30.0	43.5	18.8 13.5
5	123	24.7 25.9	BC	13.6	2.1	28.1	18.3 19.5	43.5	25.2 24.0
6	129	25.1 30.2	BC	14.0	2.1	28.1	19.1 24.2	43.5	24.4 19.3
7	221	22.3 22.3	BC	16.7	3.0	27.8	20.2 20.2	46.0	25.8 25.8
8	227	22.3 22.2	BC	16.8	3.0	27.8	20.3 20.2	46.0	25.7 25.8
9	233	22.6 22.4	BC	16.8	3.1	27.8	20.7 20.5	46.0	25.3 25.5
10	239	23.6 22.1	BC	16.9	3.1	27.7	21.9 20.4	46.0	24.1 25.6
11	245	22.5 22.6	BC	17.0	3.2	27.7	21.0 21.1	46.0	25.0 24.9
12	251	29.2 32.4	BC	17.1	3.2	27.7	27.8 31.0	46.0	18.2 15.0
13	257	23.1 23.5	BC	17.4	3.2	27.8	21.9 22.3	46.0	24.1 23.7
VHF 2nd Harmonic									
2	202	22.1 22.2	BC	16.5	2.8	28.1	19.3 19.4	43.5	24.2 24.1
3	214	22.2 22.3	BC	16.6	2.9	27.9	19.8 19.9	43.5	23.7 23.6
4	226	25.1 23.3	BC	16.8	3.0	27.8	23.1 21.3	46.0	22.9 24.7
5	246	22.0 22.1	BC	17.0	3.2	27.7	20.5 20.6	46.0	25.5 25.4
6	258	23.5 26.2	BC	17.4	3.2	27.8	22.3 25.0	46.0	23.7 21.0
7	442	21.9 21.8	LP	16.3	4.5	27.9	20.8 20.7	46.0	25.2 25.3
8	454	21.3 21.4	LP	16.5	4.5	27.9	20.4 20.5	46.0	25.6 25.5
9	466	21.6 21.8	LP	16.7	4.6	27.8	21.1 21.3	46.0	24.9 24.7
10	478	21.2 21.3	LP	16.9	4.7	27.6	21.2 21.3	46.0	24.8 24.7
11	490	22.0 22.0	LP	17.1	4.8	27.7	22.2 22.2	46.0	23.8 23.8
12	502	21.5 21.8	LP	17.2	4.8	27.8	21.7 22.0	46.0	24.3 24.0
13	514	21.2 21.3	LP	17.3	4.9	27.9	21.5 21.6	46.0	24.5 24.4

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA NO.3 OPEN TEST SITE

COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : Video cassette recorder
MODEL No. : VR0212A
POWER : AC120V/60Hz
DESCRIPTION : TV RECEPTION MODE

REPORT No. : 21JE0033-KT
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1034-1694MHz 0dB
DATE : May 28, 2001


ENGINEER : Hiroya Tabata

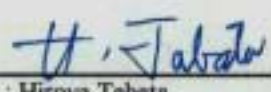
CH	FREQ	READING HOR. VER.		ANT TYPE	ANT. FAC.	CABLE LOSS	AMP GAIN	RESULTS HOR. VER.		LIMIT	MARGIN HOR. VER.	
	[MHz]	[dBuV]	[dB]					[dB]	[dBuV/m]		[dBuV/m]	[dB]
CATV Fundamental												
1	119	26.7	31.6	BC	13.2	2.1	28.2	19.8	24.7	43.5	23.7	18.8
95	137	24.4	24.6	BC	14.5	2.3	28.0	19.2	19.4	43.5	24.3	24.1
97	149	22.3	22.6	BC	14.8	2.4	27.8	17.7	18.0	43.5	25.8	25.5
99	161	22.3	22.6	BC	15.1	2.5	27.8	18.1	18.4	43.5	25.4	25.1
14	167	22.2	22.2	BC	15.4	2.5	27.7	18.4	18.4	43.5	25.1	25.1
18	191	22.3	22.1	BC	16.3	2.7	28.0	19.3	19.1	43.5	24.2	24.4
22	215	26.1	27.6	BC	16.7	2.9	27.9	23.8	25.3	43.5	19.7	18.2
23	263	23.1	23.3	BC	17.7	3.2	27.9	22.1	22.3	46.0	23.9	23.7
29	299	22.0	22.1	BC	19.6	3.5	27.9	23.2	23.3	46.0	22.8	22.7
36	341	27.5	24.1	LP	14.9	3.9	27.9	24.4	21.0	46.0	21.6	25.0
37	347	27.5	24.6	LP	15.0	4.0	27.9	24.6	21.7	46.0	21.4	24.3
65	515	21.5	22.7	LP	17.4	4.9	27.9	21.9	23.1	46.0	24.1	22.9
94	689	24.2	27.0	LP	20.2	5.7	27.2	28.9	31.7	46.0	17.1	14.3
100	695	24.9	26.5	LP	20.4	5.8	27.1	30.0	31.6	46.0	16.0	14.4
113	773	23.1	24.2	LP	20.5	6.5	27.1	29.0	30.1	46.0	17.0	15.9
125	845	25.7	24.4	LP	21.3	6.8	27.1	32.7	31.4	46.0	13.3	14.6
CATV 2nd Harmonic												
1	238	23.8	22.4	BC	16.9	3.1	27.7	22.1	20.7	46.0	23.9	25.3
95	274	22.2	22.3	BC	18.3	3.3	28.0	21.8	21.9	46.0	24.2	24.1
97	298	21.9	22.1	BC	19.6	3.5	27.9	23.1	23.3	46.0	22.9	22.7
99	322	22.4	21.8	LP	14.6	3.7	27.6	19.1	18.5	46.0	26.9	27.5
14	334	22.6	22.1	LP	14.8	3.8	27.7	19.5	19.0	46.0	26.5	27.0
18	382	21.8	21.9	LP	15.4	4.2	27.8	19.6	19.7	46.0	26.4	26.3
22	430	21.9	21.7	LP	16.2	4.4	27.8	20.7	20.5	46.0	25.3	25.5
23	526	21.3	21.4	LP	17.5	4.9	27.9	21.8	21.9	46.0	24.2	24.1
29	598	21.0	21.1	LP	18.2	5.3	27.7	22.8	22.9	46.0	23.2	23.1
36	682	20.9	20.9	LP	20.1	5.7	27.4	25.3	25.3	46.0	20.7	20.7
37	694	20.8	21.0	LP	20.4	5.8	27.1	25.9	26.1	46.0	20.1	19.9
65	1030	29.9	30.0	HO	23.7	4.4	35.4	22.6	22.7	54.0	31.4	31.3
94	1378	43.4	45.4	HO	24.8	5.1	34.9	38.4	40.4	54.0	15.6	13.6
100	1390	43.5	46.3	HO	24.8	5.1	34.9	38.5	41.3	54.0	15.5	12.7
113	1546	43.9	51.8	HO	25.4	5.4	34.7	40.0	47.9	54.0	14.0	6.1
125	1690	47.0	47.6	HO	26.2	5.7	34.6	44.3	44.9	54.0	9.7	9.1

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA NO.3 OPEN TEST SITE

COMPANY : ORION ELECTRIC CO., LTD.
 EQUIPMENT : Video cassette recorder
 MODEL No. : VR0212A
 POWER : AC120V/60Hz
 DESCRIPTION : TV RECEPTION MODE

REPORT No. : 21JE0033-KT
 REGULATION : FCC PART15 B
 TEST DISTANCE : 3m
 ATTENUATION : 101-847MHz 6dB
 1034-1694MHz 0dB
 DATE : May 28, 2001


 ENGINEER : Hiroya Tabata

CH.	FREQ	READING HOR. VER.		ANT TYPE	ANT. FAC.	CABLE LOSS	AMP GAIN	RESULTS HOR. VER.		LIMIT	MARGIN HOR. VER.	
	[MHz]	[dBuV]						[dBuV/m]			[dBuV/m]	[dB]
UHF Fundamental												
14	517	21.8	23.0	LP	17.4	4.9	27.9	22.2	23.4	46.0	23.8	22.6
19	547	22.5	24.7	LP	17.7	5.1	27.5	23.8	26.0	46.0	22.2	20.0
28	601	24.1	23.3	LP	18.2	5.3	27.7	25.9	25.1	46.0	20.1	20.9
36	649	25.1	24.0	LP	19.3	5.5	27.2	28.7	27.6	46.0	17.3	18.4
44	697	26.8	26.3	LP	20.4	5.8	27.1	31.9	31.4	46.0	14.1	14.6
53	751	26.0	25.8	LP	20.5	6.2	27.4	31.3	31.1	46.0	14.7	14.9
61	799	25.3	24.8	LP	20.5	6.5	26.9	31.4	30.9	46.0	14.6	15.1
69	847	27.4	26.2	LP	21.3	6.8	27.1	34.4	33.2	46.0	11.6	12.8
UHF 2nd Harmonic												
14	1034	33.6	31.3	HO	23.7	4.4	35.4	26.3	24.0	54.0	27.7	30.0
19	1094	35.4	32.8	HO	23.9	4.5	35.3	28.5	25.9	54.0	25.5	28.1
28	1202	37.8	33.9	HO	24.2	4.7	35.1	31.6	27.7	54.0	22.4	26.3
36	1298	39.2	36.2	HO	24.6	4.9	35.0	33.7	30.7	54.0	20.3	23.3
44	1394	42.3	43.0	HO	24.9	5.1	34.9	37.4	38.1	54.0	16.6	15.9
53	1502	43.1	48.4	HO	25.2	5.3	34.7	38.9	44.2	54.0	15.1	9.8
61	1598	43.1	53.2	HO	25.7	5.5	34.6	39.7	49.8	54.0	14.3	4.2
69	1694	48.7	49.0	HO	26.2	5.7	34.6	46.0	46.3	54.0	8.0	7.7

DATA OF ANTENNA TERMINAL TEST

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

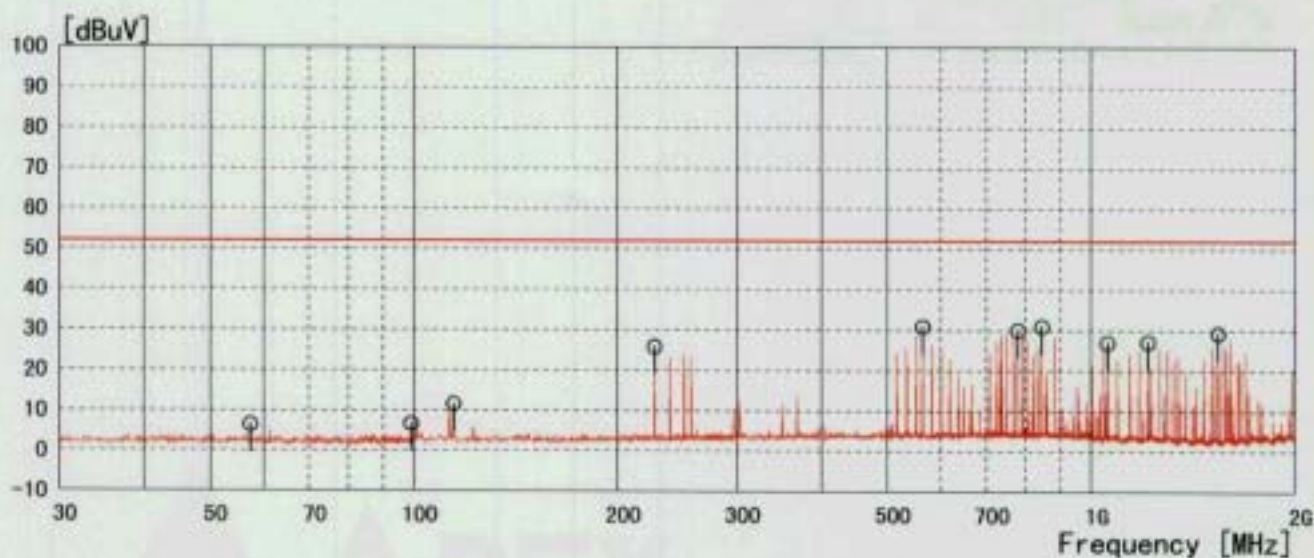
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : TUNING
PORT : ANTENNA TERMINAL
POWER : AC120V/60Hz
REMARKS : TV MODE

REPORT No. : 21JE0033-KT
DATE : JUNE 05, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 1

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	57.400	26.3	—	-19.9	6.3	—	52.0	—	45.7	—
2	99.200	26.4	—	-19.9	6.6	—	52.0	—	45.4	—
3	114.600	31.3	—	-19.8	11.5	—	52.0	—	40.5	—
4	227.100	45.3	—	-19.5	25.9	—	52.0	—	26.1	—
5	565.100	49.7	—	-18.9	30.8	—	52.0	—	21.2	—
6	781.000	48.6	—	-18.6	30.0	—	52.0	—	22.0	—
7	847.000	49.4	—	-18.5	30.8	—	52.0	—	21.2	—
8	1057.900	53.7	—	-26.8	26.9	—	52.0	—	25.1	—
9	1213.600	53.5	—	-26.5	27.0	—	52.0	—	25.0	—
10	1541.400	55.4	—	-26.2	29.2	—	52.0	—	22.8	—

RESULT=READING+CABLE LOSS+PAD LOSS-AMP. GAIN



DATA OF ANTENNA TERMINAL TEST

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

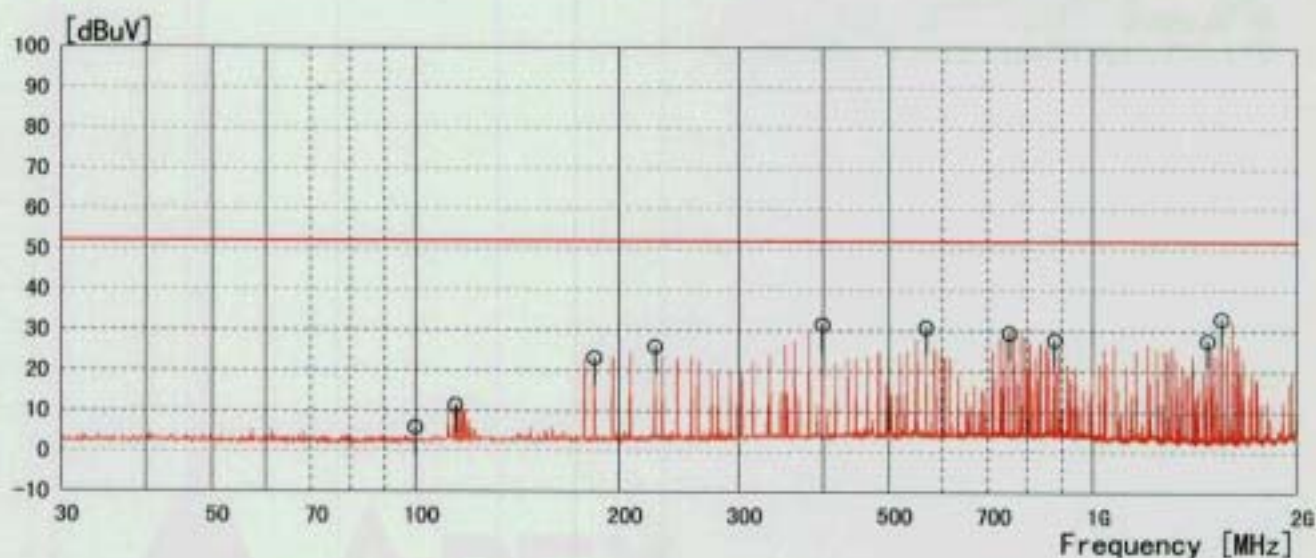
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : TUNING
PORT : ANTENNA TERMINAL
POWER : AC120V/60Hz
REMARKS : CATV MODE

REPORT No. : 21JE0033-KT
DATE : JUNE 05, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 2

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	100.000	25.7	—	-19.9	5.8	—	52.0	—	46.2	—
2	114.600	31.1	—	-19.8	11.3	—	52.0	—	40.7	—
3	183.700	42.7	—	-19.6	23.1	—	52.0	—	28.9	—
4	226.000	45.3	—	-19.5	25.9	—	52.0	—	26.1	—
5	399.400	50.6	—	-19.2	31.4	—	52.0	—	20.6	—
6	568.000	49.7	—	-18.9	30.7	—	52.0	—	21.3	—
7	753.600	48.0	—	-18.6	29.4	—	52.0	—	22.6	—
8	879.100	46.1	—	-18.5	27.6	—	52.0	—	24.4	—
9	1477.900	53.8	—	-26.3	27.5	—	52.0	—	24.5	—
10	1550.700	59.2	—	-26.2	32.9	—	52.0	—	19.1	—

RESULT=READING+CABLE LOSS+PAD LOSS-AMP. GAIN



SPURIOUS FROM RF OUTPUT TERMINAL

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

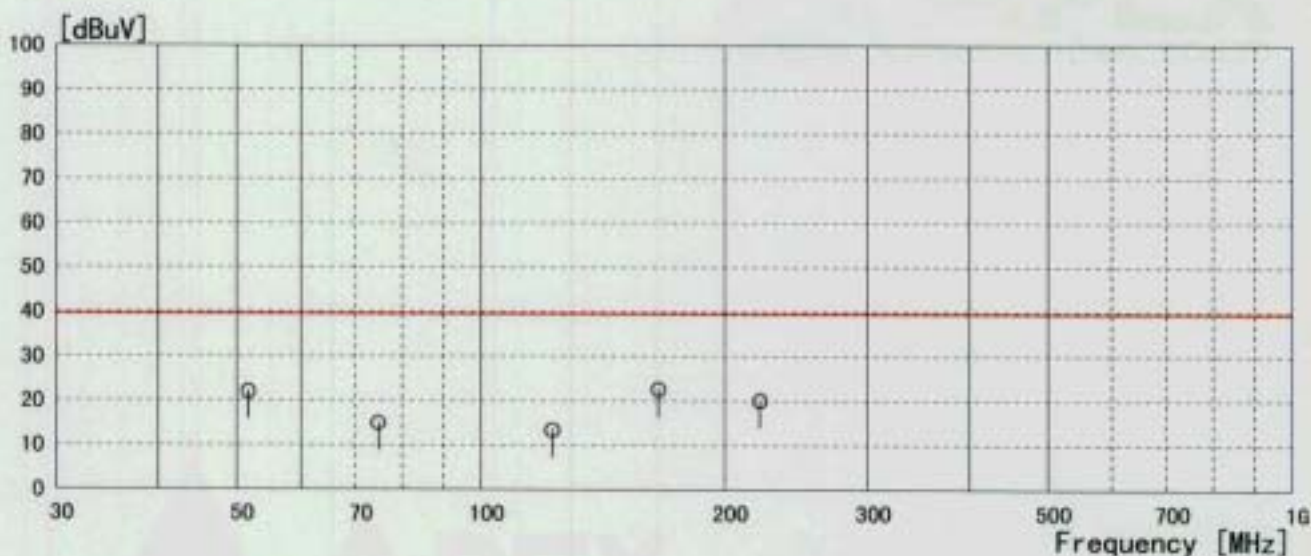
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : RECEIVE+REC (3CH OUTPUT)
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS : 0dBmV INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 05, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 1

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	51.710	42.0	—	-19.9	22.0	—	39.5	—	17.5	—
2	74.780	34.9	—	-19.9	14.9	—	39.5	—	24.6	—
3	122.620	33.2	—	-19.8	13.4	—	39.5	—	26.1	—
4	165.750	42.2	—	-19.6	22.6	—	39.5	—	16.9	—
5	221.040	39.6	—	-19.5	20.1	—	39.5	—	19.4	—

RESULT=READING+CABLE LOSS+PAD LOSS-AMP. GAIN



SPURIOUS FROM RF OUTPUT TERMINAL

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

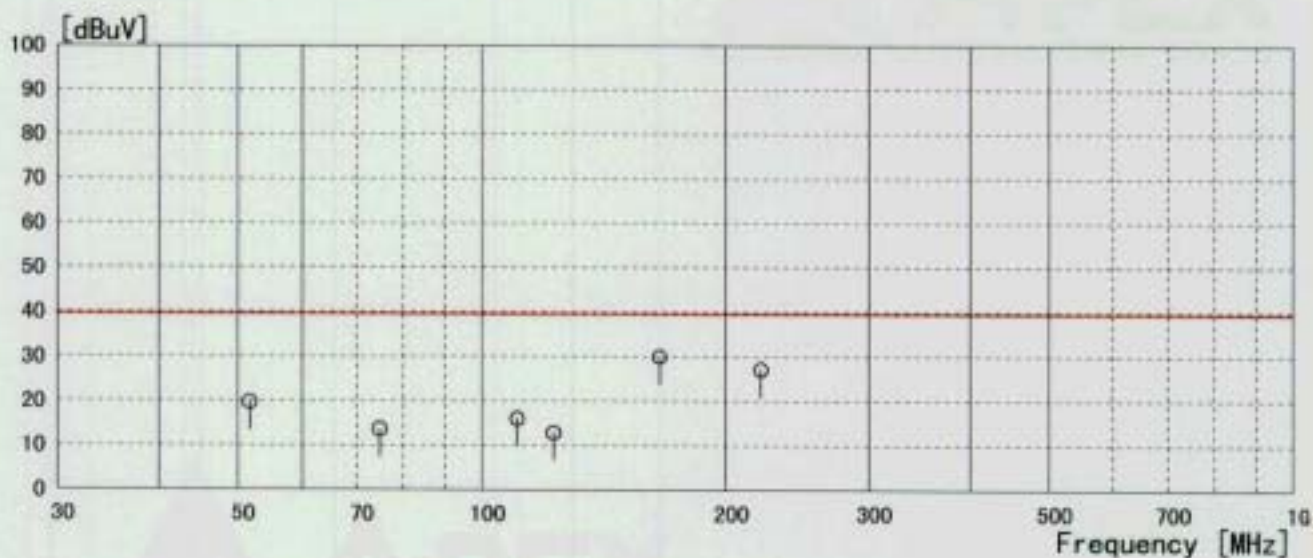
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPEMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : RECEIVE+REC (3CH OUTPUT)
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS : 25dBmV INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 05, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 2

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	51.760	39.6	—	-19.9	19.6	—	39.5	—	19.9	—
2	74.860	33.5	—	-19.9	13.6	—	39.5	—	25.9	—
3	110.590	35.8	—	-19.8	16.0	—	39.5	—	23.5	—
4	122.550	32.6	—	-19.8	12.9	—	39.5	—	26.6	—
5	165.820	49.6	—	-19.6	30.0	—	39.5	—	9.5	—
6	221.040	46.5	—	-19.5	27.0	—	39.5	—	12.5	—

RESULT=READING+CABLE LOSS+PAD LOSS-AMP. GAIN



SPURIOUS FROM RF OUTPUT TERMINAL

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

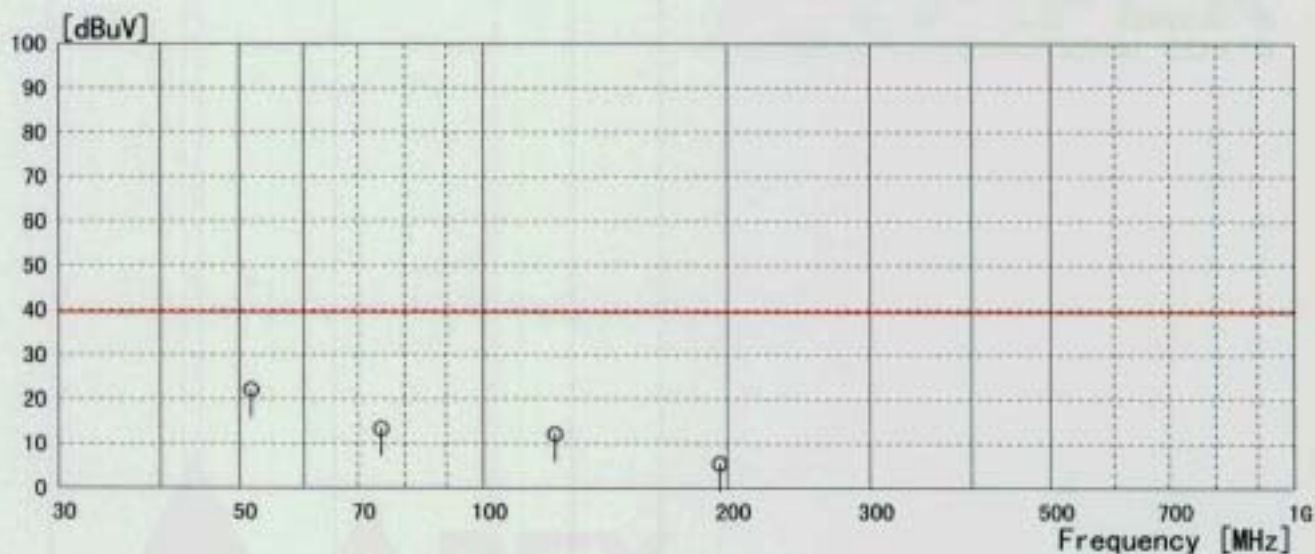
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : AV INPUT+REC (3CH OUTPUT)
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS : 1Vp-p INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 05, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 3

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	51.750	42.0	—	-19.9	22.1	—	39.5	—	17.4	—
2	74.810	33.3	—	-19.9	13.4	—	39.5	—	26.1	—
3	122.580	31.9	—	-19.8	12.2	—	39.5	—	27.3	—
4	195.710	25.0	—	-19.5	5.5	—	39.5	—	34.0	—

RESULT=READING+CABLE LOSS+PAD LOSS-AMP. GAIN



SPURIOUS FROM RF OUTPUT TERMINAL

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

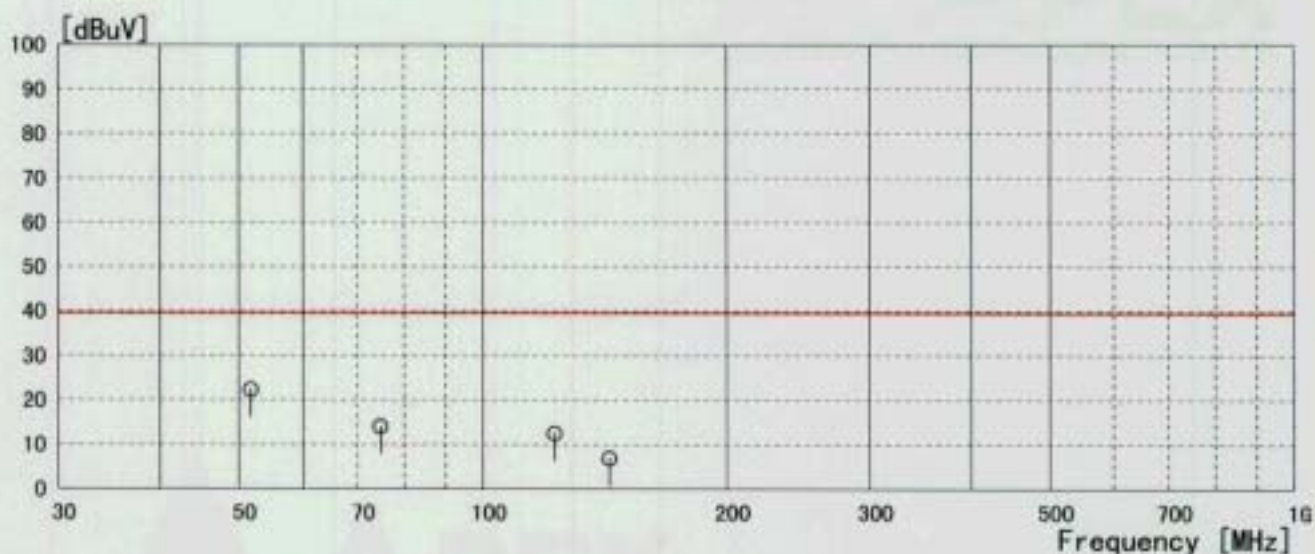
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : AV INPUT+REC (3CH OUTPUT)
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS : 5Vp-p INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 05, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 4

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	51.750	42.3	—	-19.9	22.3	—	39.5	—	17.2	—
2	74.780	34.0	—	-19.9	14.1	—	39.5	—	25.4	—
3	122.580	32.3	—	-19.8	12.5	—	39.5	—	27.0	—
4	143.260	26.5	—	-19.7	6.9	—	39.5	—	32.6	—

RESULT=READING+CABLE LOSS+PAD LOSS-AMP. GAIN



SPURIOUS FROM RF OUTPUT TERMINAL

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

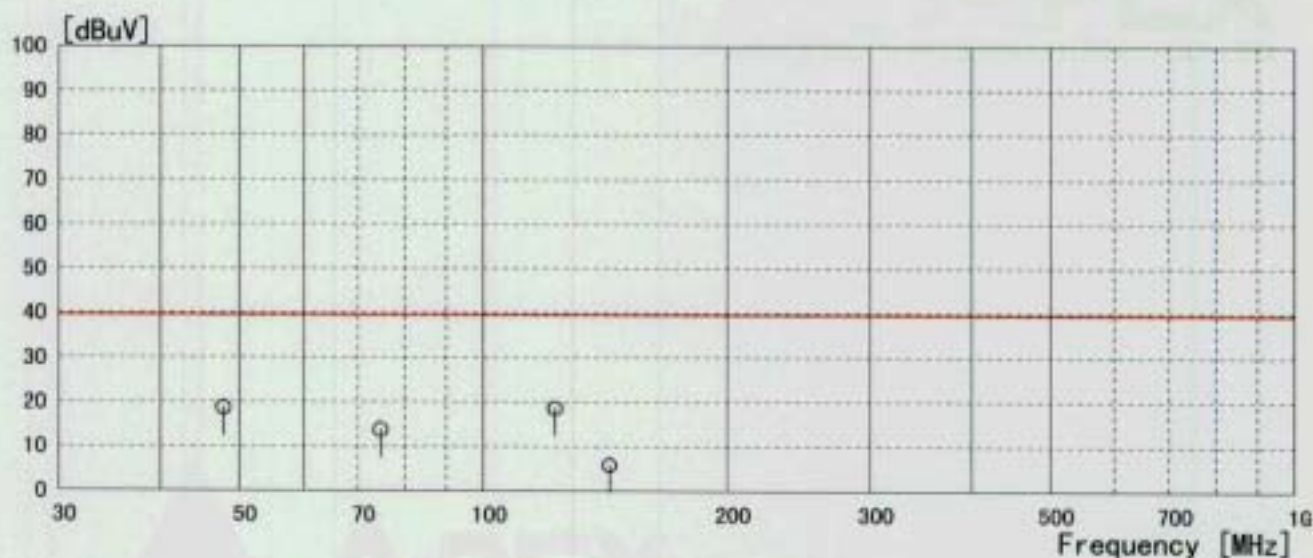
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : PLAYBACK (3CH OUTPUT)
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS : -

REPORT No. : 21JE0033-KT
DATE : JUNE 05, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 5

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	47.840	38.6	—	-20.0	18.6	—	39.5	—	20.9	—
2	74.710	33.7	—	-19.9	13.8	—	39.5	—	25.7	—
3	122.580	38.3	—	-19.8	18.6	—	39.5	—	20.9	—
4	143.170	25.5	—	-19.7	5.8	—	39.5	—	33.7	—

RESULT=READING+CABLE LOSS+PAD LOSS-AMP. GAIN



SPURIOUS FROM RF OUTPUT TERMINAL

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

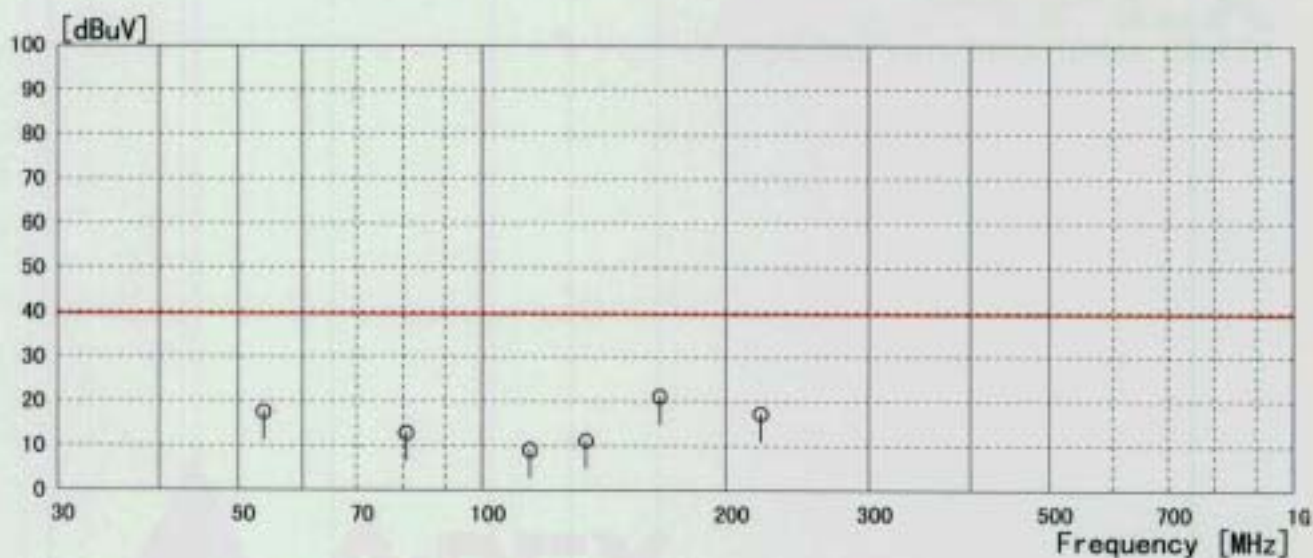
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : RECEIVE+REC (4CH OUTPUT)
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS : 0dBmV INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 05, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 6

TEST ENGINEER: HTSAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	53.860	37.5	—	-19.9	17.5	—	39.5	—	22.0	—
2	80.680	32.7	—	-19.9	12.8	—	39.5	—	26.7	—
3	114.650	28.8	—	-19.8	9.0	—	39.5	—	30.5	—
4	134.420	30.9	—	-19.7	11.2	—	39.5	—	28.3	—
5	165.810	40.7	—	-19.6	21.1	—	39.5	—	18.4	—
6	221.000	36.6	—	-19.5	17.2	—	39.5	—	22.3	—

RESULT=READING+CABLE LOSS+PAD LOSS-AMP. GAIN



SPURIOUS FROM RF OUTPUT TERMINAL

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

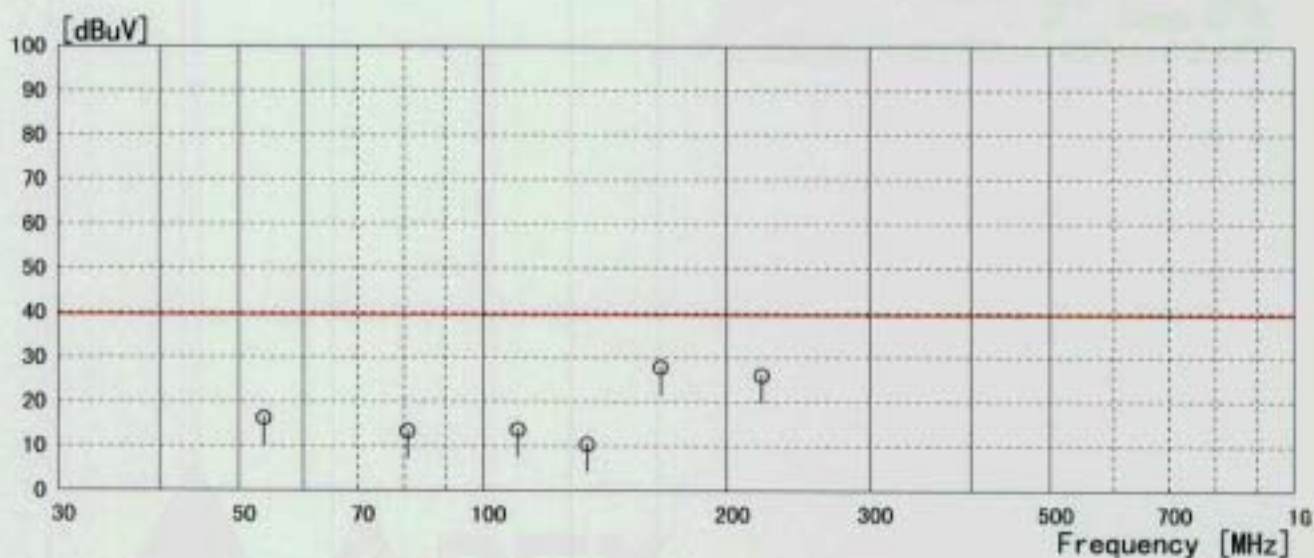
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPEMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE: RECEIVE+REC (4CH OUTPUT)
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS : 25dBmV INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 05, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 7

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	53.790	36.2	---	-19.9	16.2	---	39.5	---	23.3	---
2	80.800	33.3	---	-19.9	13.4	---	39.5	---	26.1	---
3	110.530	33.5	---	-19.8	13.7	---	39.5	---	25.8	---
4	134.500	30.1	---	-19.7	10.4	---	39.5	---	29.1	---
5	165.810	47.4	---	-19.6	27.8	---	39.5	---	11.7	---
6	221.000	45.5	---	-19.5	26.0	---	39.5	---	13.5	---

RESULT=READING+CABLE LOSS+PAD LOSS-AMP. GAIN



SPURIOUS FROM RF OUTPUT TERMINAL

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

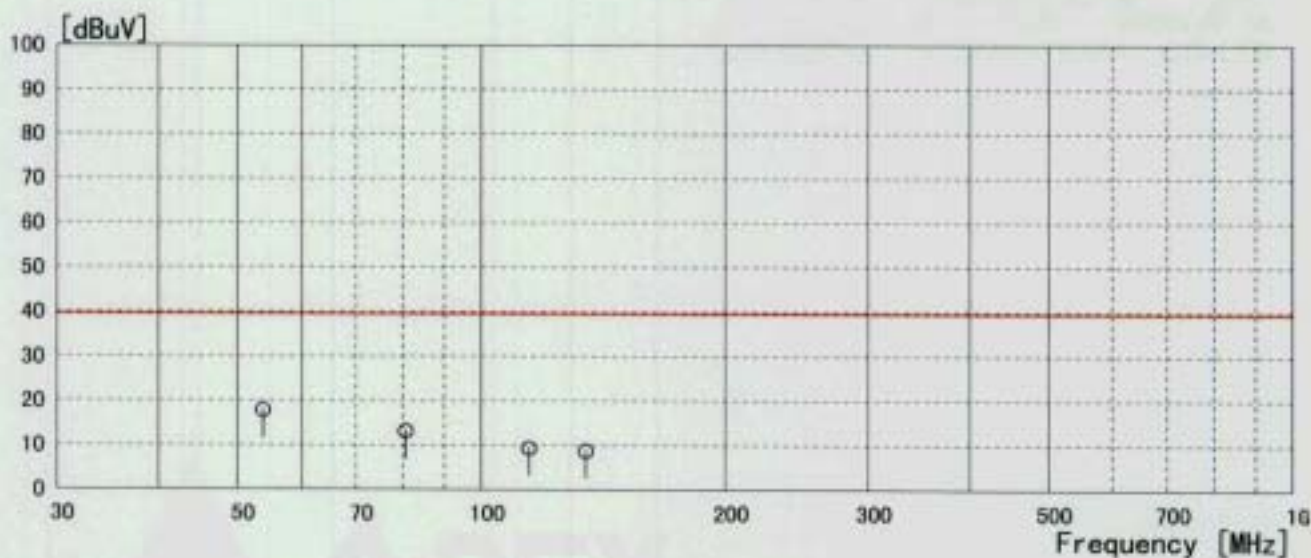
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : AV INPUT+REC (4CH OUTPUT)
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS : 1Vp-p INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 05, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 8

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	53.820	37.7	—	-19.9	17.8	—	39.5	—	21.7	—
2	80.720	33.0	—	-19.9	13.1	—	39.5	—	26.4	—
3	114.490	29.2	—	-19.8	9.4	—	39.5	—	30.1	—
4	134.510	28.4	—	-19.7	8.7	—	39.5	—	30.8	—

RESULT=READING+CABLE LOSS+PAD LOSS-AMP. GAIN



SPURIOUS FROM RF OUTPUT TERMINAL

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

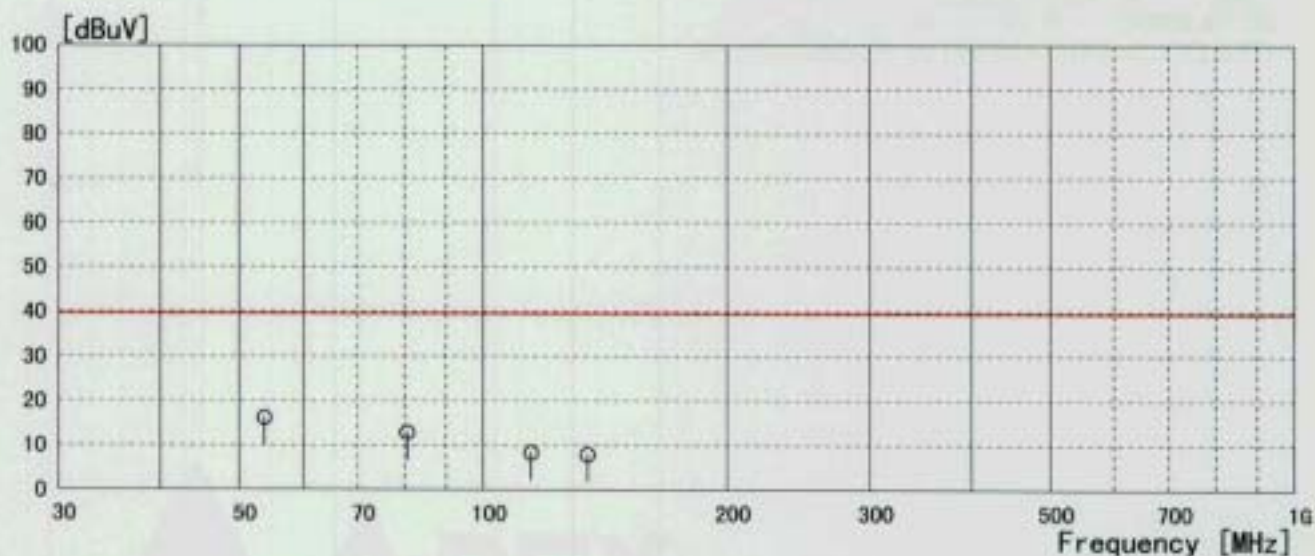
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPEMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : AV INPUT+REC (4CH OUTPUT)
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS : 5Vp-p INPUT

REPORT No. : 21JE0033-KT
DATE : JUNE 05, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 9

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	53.810	36.1	—	-19.9	16.1	—	39.5	—	23.4	—
2	80.710	32.7	—	-19.9	12.8	—	39.5	—	26.7	—
3	114.640	28.1	—	-19.8	8.3	—	39.5	—	31.2	—
4	134.580	27.6	—	-19.7	7.9	—	39.5	—	31.6	—

RESULT=READING+CABLE LOSS+PAD LOSS-AMP. GAIN



SPURIOUS FROM RF OUTPUT TERMINAL

A-PEX INTERNATIONAL CO., LTD.
KANTO OFFICE EMC LAB.

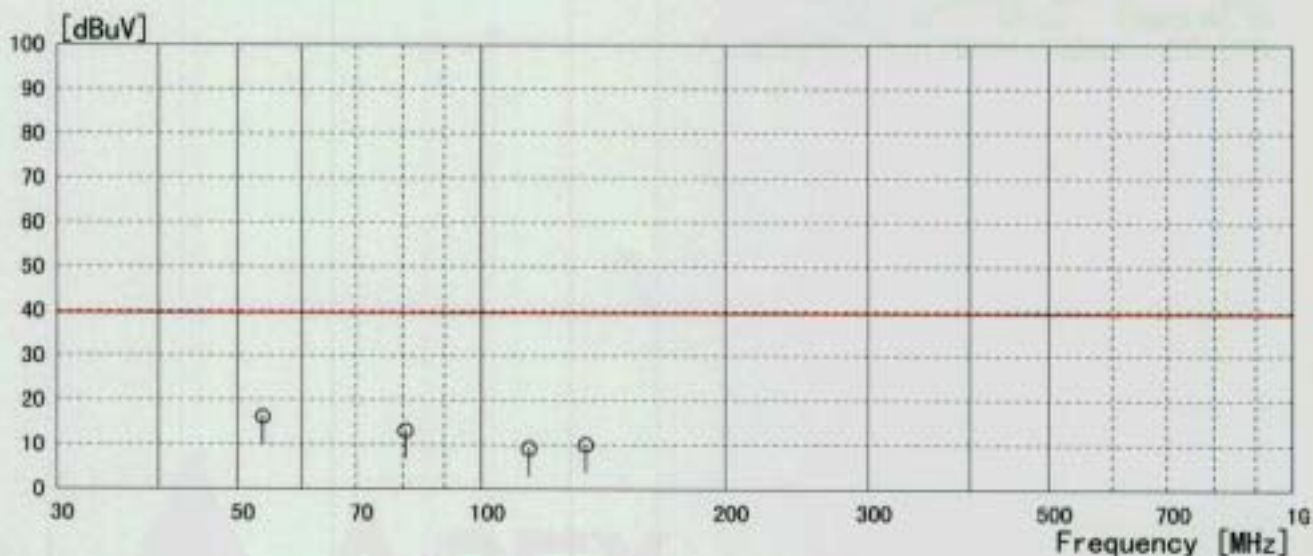
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL NAME : VR0212A
OPERATION MODE : PLAYBACK (4CH OUTPUT)
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS : -

REPORT No. : 21JE0033-KT
DATE : JUNE 05, 2001
REGULATION : FCC PART15 SUBPART B
TEST NO. : 10

TEST ENGINEER: HISAYUKI KIOKA

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	53.810	36.2	—	-19.9	16.2	—	39.5	—	23.3	—
2	80.680	33.0	—	-19.9	13.1	—	39.5	—	26.4	—
3	114.590	28.9	—	-19.8	9.1	—	39.5	—	30.4	—
4	134.560	29.7	—	-19.7	10.0	—	39.5	—	29.5	—

RESULT=READING+CABLE LOSS+PAD LOSS-AMP. GAIN





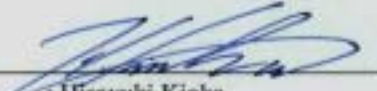
RF output level

A-PEX INTERNATIONAL CO., LTD.
Kanto office EMC Lab.

Company : ORION ELECTRIC CO.,LTD.
Equipment : Video Cassette Recorder
Model number : VR0212A
Power : AC 120 V / 60 Hz
Description : Receive + Rec. mode (0 dBmV)

Report Number : 21JE0033-KT
Regulation : FCC Part 15 Subpart B
Date : June 05, 2001

Engineer


: Hisayuki Kioka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	83.6	20.4	63.2	69.5	6.4
4	67.25	84.4	20.4	64.0	69.5	5.5

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	71.8	20.4	51.4	56.5	5.1
	65.75	70.7	20.4	50.3	56.5	6.2
4	62.75	71.3	20.4	50.9	56.5	5.6
	71.75	70.3	20.4	49.9	56.5	6.6



RF output level

A-PEX INTERNATIONAL CO., LTD.
Kanto office EMC Lab.

Company : ORION ELECTRIC CO.,LTD.
Equipment : Video Cassette Recorder
Model number : VR0212A
Power : AC 120 V / 60 Hz
Description : Receive + Rec. mode (25 dBmV)

Report Number : 21JE0033-KT
Regulation : FCC Part 15 Subpart B
Date : June 05, 2001

Engineer


Hisayuki Kioka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	83.1	20.4	62.7	69.5	6.8
4	67.25	85.1	20.4	64.7	69.5	4.8

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	71.3	20.4	50.9	56.5	5.6
	65.75	70.4	20.4	50.0	56.5	6.5
4	62.75	71.9	20.4	51.5	56.5	5.0
	71.75	70.7	20.4	50.3	56.5	6.2

RF output level

A-PEX INTERNATIONAL CO., LTD.
 Kanto office EMC Lab.

Company : ORION ELECTRIC CO.,LTD.
 Equipment : Video Cassette Recorder
 Model number : VR0212A
 Power : AC 120 V / 60 Hz
 Description : AV Input + Rec. mode (1 Vp-p)

Report Number : 21JE0033-KT
 Regulation : FCC Part 15 Subpart B
 Date : June 05, 2001

Engineer


 : Hisayuki Kioka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	85.1	20.4	64.7	69.5	4.8
4	67.25	84.5	20.4	64.1	69.5	5.4

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	72.0	20.4	51.6	56.5	4.9
	65.75	70.7	20.4	50.3	56.5	6.2
4	62.75	71.1	20.4	50.7	56.5	5.8
	71.75	70.3	20.4	49.9	56.5	6.6



RF output level

A-PEX INTERNATIONAL CO., LTD.
Kanto office EMC Lab.

Company : ORION ELECTRIC CO.,LTD.
Equipment : Video Cassette Recorder
Model number : VR0212A
Power : AC 120 V / 60 Hz
Description : AV Input + Rec. mode (5 Vp-p)

Report Number : 21JE0033-KT
Regulation : FCC Part 15 Subpart B
Date : June 05, 2001

Engineer

: Hisayuki Kioka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	84.2	20.4	63.8	69.5	5.7
4	67.25	85.1	20.4	64.7	69.5	4.8

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	71.2	20.4	50.8	56.5	5.7
	65.75	70.3	20.4	49.9	56.5	6.6
4	62.75	71.6	20.4	51.2	56.5	5.4
	71.75	70.7	20.4	50.3	56.5	6.2

RF output level

A-PEX INTERNATIONAL CO., LTD.
 Kanto office EMC Lab.

Company : ORION ELECTRIC CO.,LTD.
 Equipment : Video Cassette Recorder
 Model number : VR0212A
 Power : AC 120 V / 60 Hz
 Description : Playback mode

Report Number : 21JE0033-KT
 Regulation : FCC Part 15 Subpart B
 Date : June 05, 2001

Engineer


 Hisayuki Kioka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	84.9	20.4	64.5	69.5	5.0
4	67.25	83.1	20.4	62.7	69.5	6.9

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	71.8	20.4	51.4	56.5	5.1
	65.75	70.7	20.4	50.3	56.5	6.2
4	62.75	70.9	20.4	50.5	56.5	6.0
	71.75	70.4	20.4	50.0	56.5	6.5

Noise figure test

A-PEX INTERNATIONAL CO., LTD.
 Kanto office EMC Lab. _____

Company : ORION ELECTRIC CO.,LTD.
 Equipment : Video Cassette Recorder
 Model number : VR0212A
 Power : AC 120 V / 60 Hz
 Description : Receive mode

Report Number : 21JE0033-KT
 Regulation : FCC Part 15 Subpart B
 Date : June 06, 2001

Engineer


 : Hisayuki Kioka

Ch.	Frequency [MHz]	Meter reading [dB]	Correction factor [dB]	Noise figure [dB]	Limits [dB]	Margin [dB]
TV UHF Fundamental						
14	471.25	7.1	0.8	6.3	14.0	7.7
20	507.25	7.3	0.8	6.5	14.0	7.5
26	543.25	7.4	0.8	6.6	14.0	7.4
32	576.25	7.8	0.9	6.9	14.0	7.1
28	615.25	7.4	0.9	6.5	14.0	7.5
44	651.25	7.5	0.9	6.6	14.0	7.4
50	687.25	7.4	1.0	6.4	14.0	7.6
56	723.25	7.0	1.0	6.0	14.0	8.0
62	759.25	6.4	1.1	5.3	14.0	8.7
69	801.25	5.7	1.1	4.6	14.0	9.4