

DATA OF CONDUCTION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : TV Reception+REC
Remarks : 0dBmV
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP	AV	QP	AV				QP	AV	QP	AV	QP	AV
1.	0.4939	28.9	-	23.1	-	0.2	0.3	0.0	29.4	-	48.0	0.0	18.6	-
2.	0.6285	24.2	-	25.3	-	0.2	0.4	0.0	25.9	-	48.0	0.0	22.1	-
3.	0.8498	26.1	-	23.9	-	0.2	0.3	0.0	26.6	-	48.0	0.0	21.4	-
4.	1.7633	28.5	-	24.4	-	0.2	0.4	0.0	29.1	-	48.0	0.0	18.9	-
5.	4.6791	28.9	-	24.6	-	0.3	0.5	0.0	29.7	-	48.0	0.0	18.3	-
6.	15.1286	35.0	-	35.7	-	0.8	0.8	0.0	37.3	-	48.0	0.0	10.7	-
7.	28.6358	28.2	-	28.3	-	1.3	0.9	0.0	30.5	-	48.0	0.0	17.5	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

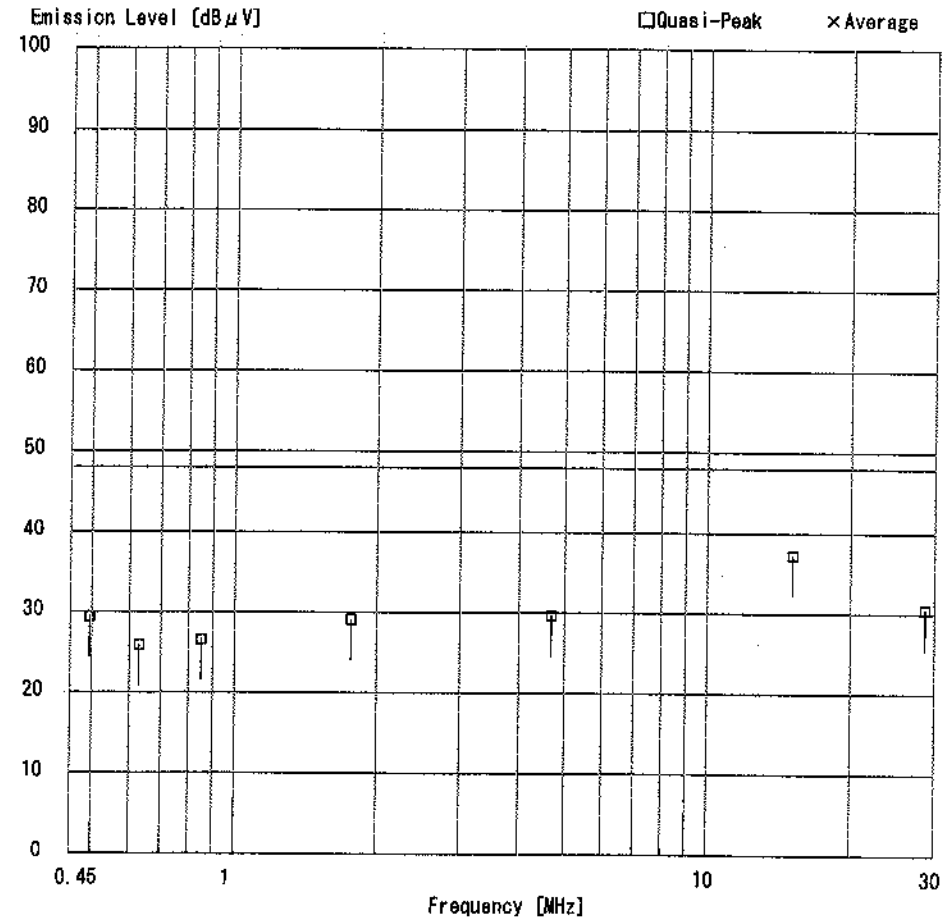
Except for the above table : adequate margin data below the limits.

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Mode : TV Reception+REC
Remarks : 0dBmV
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka

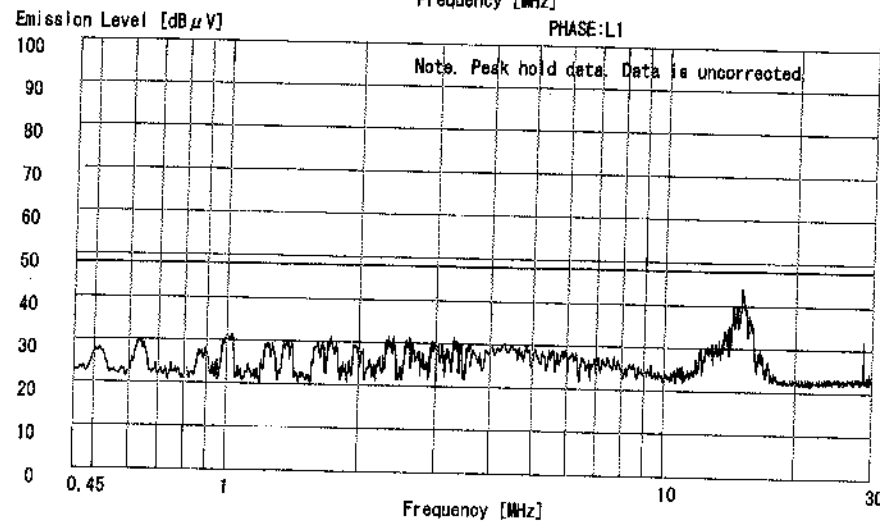
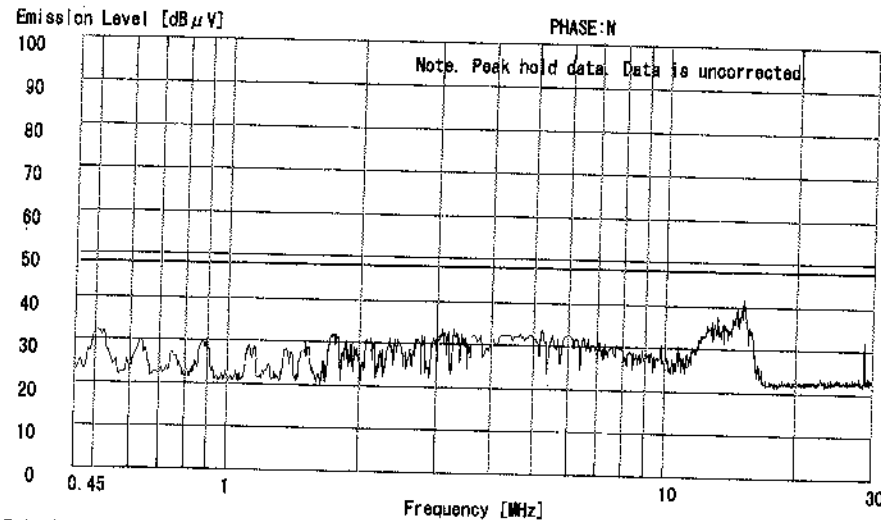


DATA OF CONDUCTION TEST CHART

A-PEX INTERNATIONAL CO., LTD.
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Report No.: 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : TV Reception+REC
Remarks : 0dBmV
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation 1 : FCC Part15B CLASS B
Regulation 2 : None

Engineer : *S. Tanaka*
Sadahiko Tanaka



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A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No.: 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : TV Reception+REC
Remarks : 25dBmV
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP	AV	QP	AV				QP	AV	QP	AV	QP	AV
		[dBμV]		[dBμV]					[dBμV]		[dBμV]		[dB]	
1.	0.4905	29.2	-	23.0	-	0.2	0.3	0.0	29.7	-	48.0	0.0	18.3	-
2.	0.6148	25.2	-	25.2	-	0.2	0.4	0.0	25.8	-	48.0	0.0	22.2	-
3.	0.8564	26.3	-	24.2	-	0.2	0.3	0.0	26.8	-	48.0	0.0	21.2	-
4.	1.7239	28.9	-	26.6	-	0.2	0.4	0.0	29.5	-	48.0	0.0	18.5	-
5.	4.8972	28.9	-	26.0	-	0.3	0.5	0.0	29.7	-	48.0	0.0	18.3	-
6.	15.1487	34.0	-	36.1	-	0.8	0.8	0.0	37.7	-	48.0	0.0	10.3	-
7.	28.6369	28.6	-	28.5	-	1.3	0.9	0.0	30.8	-	48.0	0.0	17.2	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

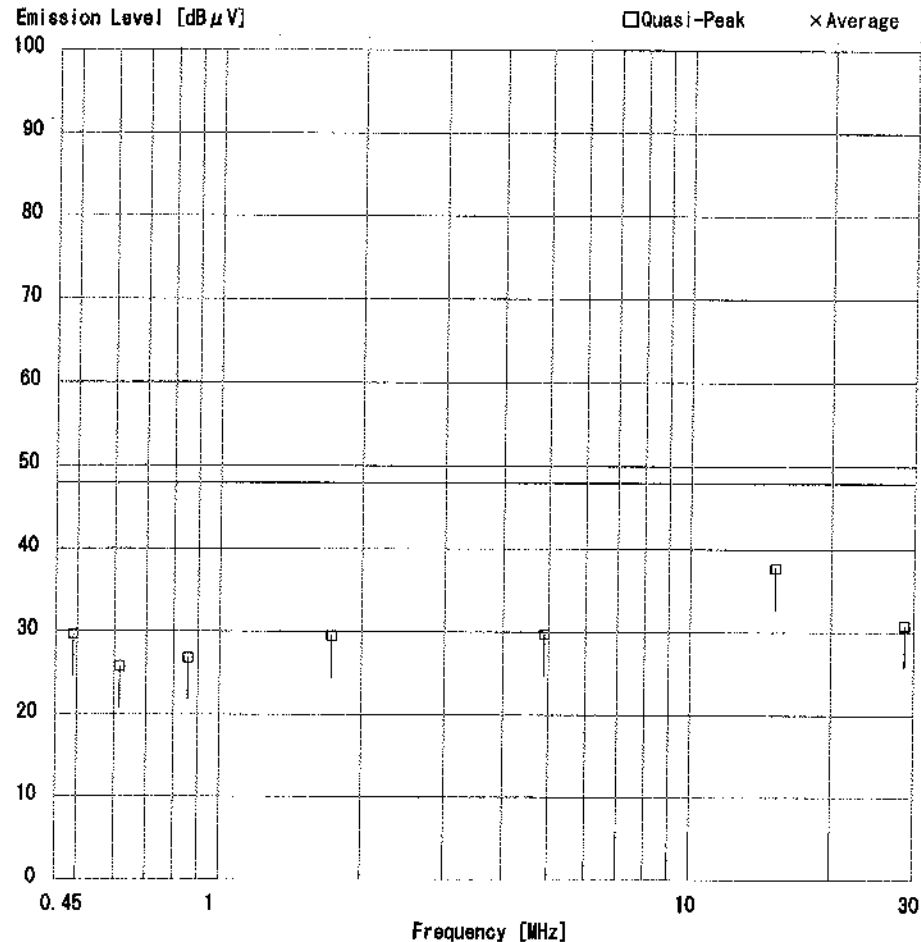
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Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : TV Reception+REC
Remarks : 25dBmV
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka

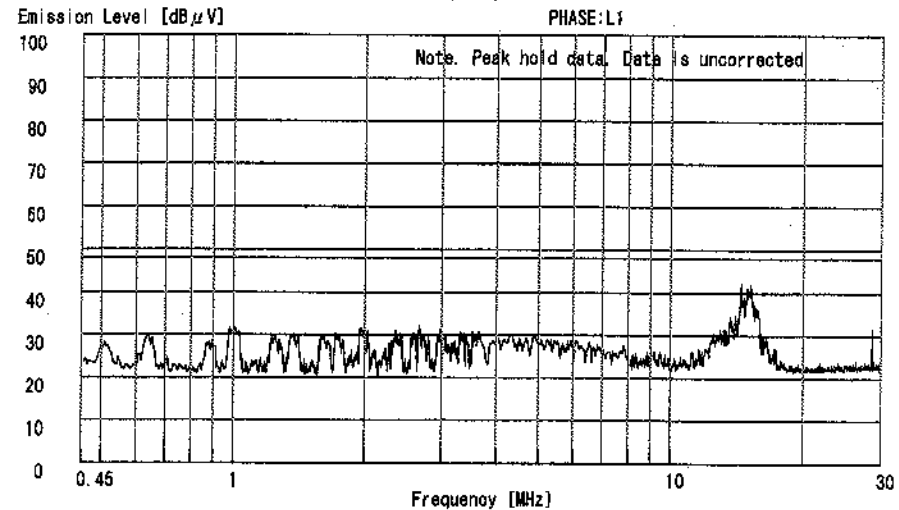
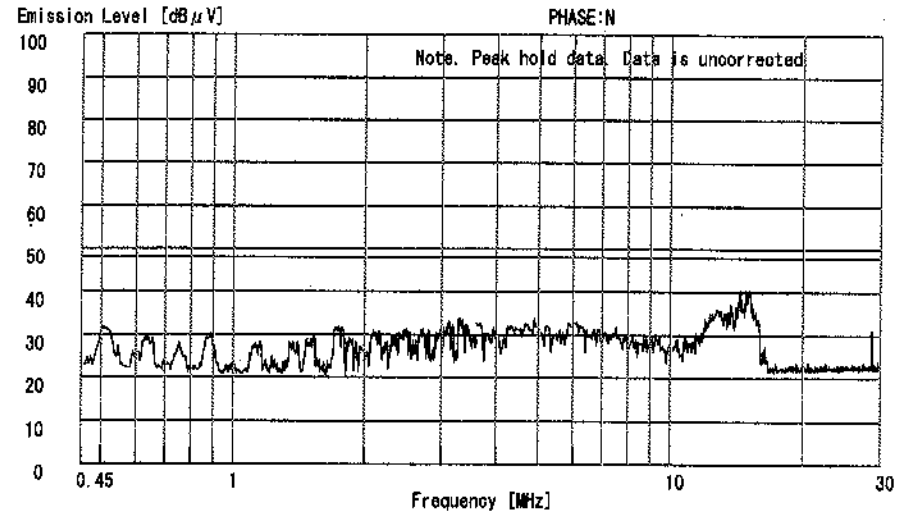


DATA OF CONDUCTION TEST CHART

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
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Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : TV Reception+REC
Remarks : 25dBmV
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation 1 : FCC Part15B CLASS B
Regulation 2 : None

Engineer : *S. Tanaka*
Sadahiko Tanaka



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YOKOWA No.2 OPEN TEST SITE
Report No.: 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : AV Input+REC
Remarks : 1V p-p
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP	AV	QP	AV				QP	AV	QP	AV	QP	AV
		[dBuV]		[dBuV]					[dBuV]		[dBuV]		[dB]	
1.	0.4926	28.8	-	21.5	-	0.2	0.3	0.0	29.3	-	48.0	0.0	18.7	-
2.	0.6203	25.3	-	25.1	-	0.2	0.4	0.0	25.9	-	48.0	0.0	22.1	-
3.	0.8599	26.8	-	24.6	-	0.2	0.3	0.0	27.3	-	48.0	0.0	20.7	-
4.	1.7221	23.2	-	28.5	-	0.2	0.4	0.0	29.1	-	48.0	0.0	18.9	-
5.	4.9638	26.6	-	26.2	-	0.3	0.5	0.0	27.4	-	48.0	0.0	20.6	-
6.	12.9663	25.8	-	21.4	-	0.7	0.7	0.0	27.2	-	48.0	0.0	20.8	-
7.	28.6372	31.9	-	31.9	-	1.3	0.9	0.0	34.1	-	48.0	0.0	13.9	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

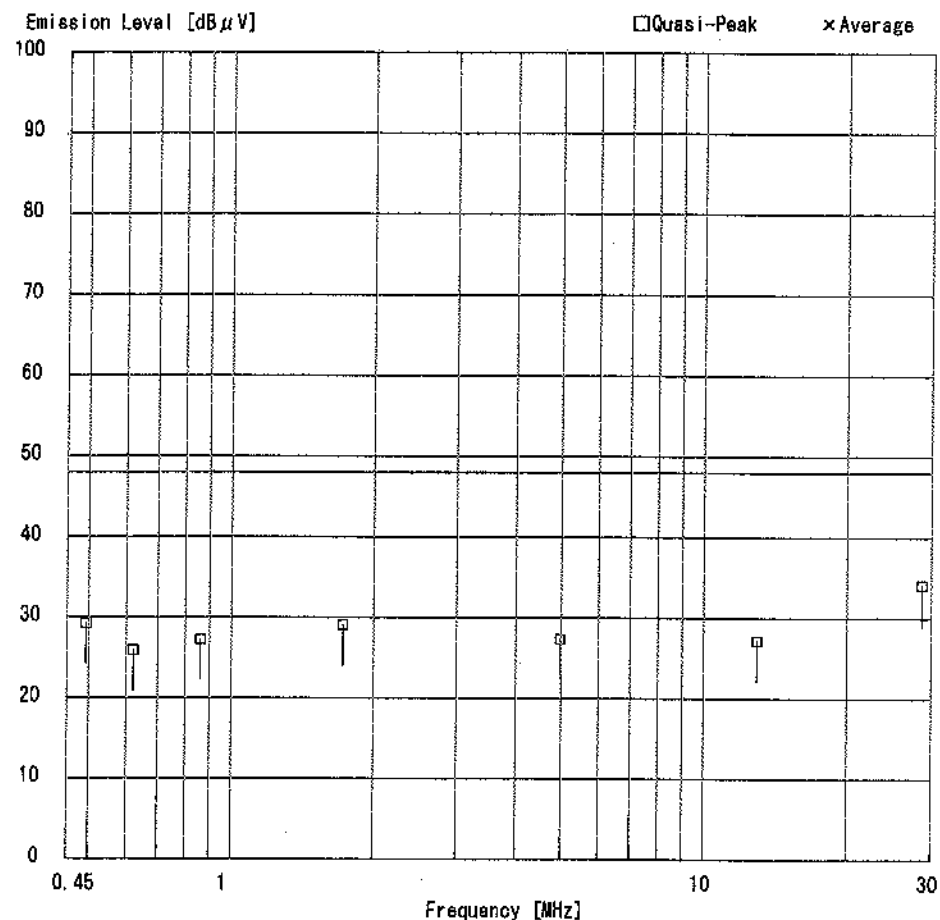
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Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : AV Input+REC
Remarks : 1V p-p
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka

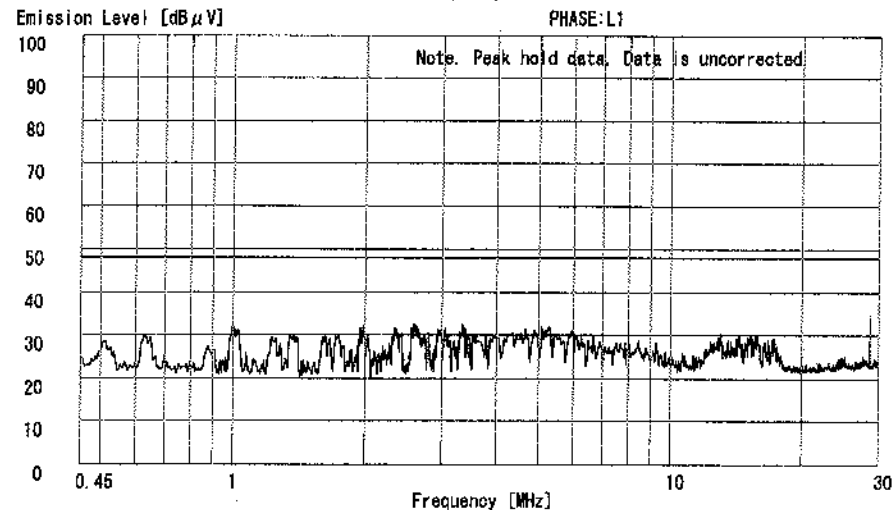
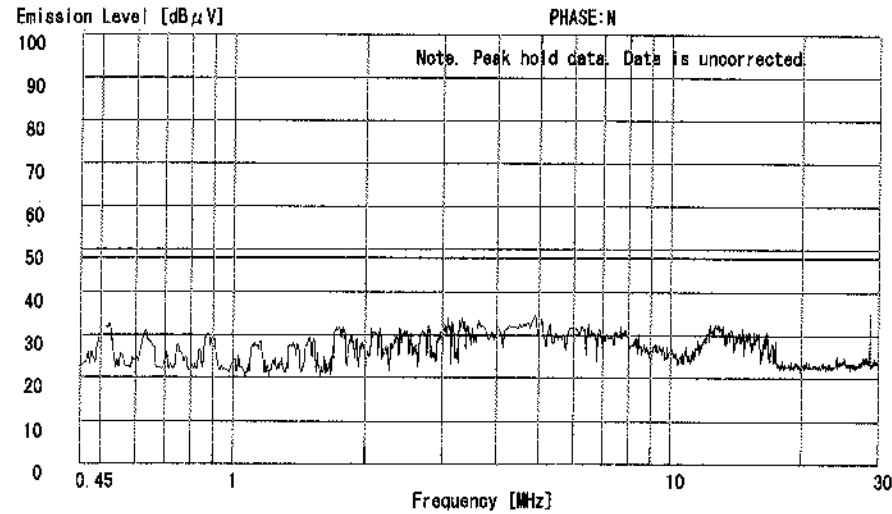


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Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : AV Input+REC
Remarks : 1V p-p
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation 1 : FCC Part15B CLASS B
Regulation 2 : None

Engineer : Sadahiko Tanaka



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Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : AV Input+REC
Remarks : 5V p-p
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation : FCC Part15B CLASS B

Engineer : Sadahiko Tanaka

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP	AV	QP	AV				QP	AV	QP	AV	QP	AV
		[dBμV]		[dBμV]					[dBμV]		[dBμV]		[dB]	
1.	0.4910	29.0	-	23.2	-	0.2	0.3	0.0	29.5	-	48.0	0.0	18.5	-
2.	0.6169	25.6	-	25.3	-	0.2	0.4	0.0	26.2	-	48.0	0.0	21.8	-
3.	0.8635	26.4	-	25.9	-	0.2	0.3	0.0	26.9	-	48.0	0.0	21.1	-
4.	2.3599	25.7	-	26.5	-	0.2	0.4	0.0	27.1	-	48.0	0.0	20.9	-
5.	5.2414	28.3	-	26.2	-	0.3	0.5	0.0	29.1	-	48.0	0.0	18.9	-
6.	15.8676	24.0	-	24.3	-	0.8	0.8	0.0	25.9	-	48.0	0.0	22.1	-
7.	28.6368	31.4	-	31.4	-	1.3	0.9	0.0	33.6	-	48.0	0.0	14.4	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

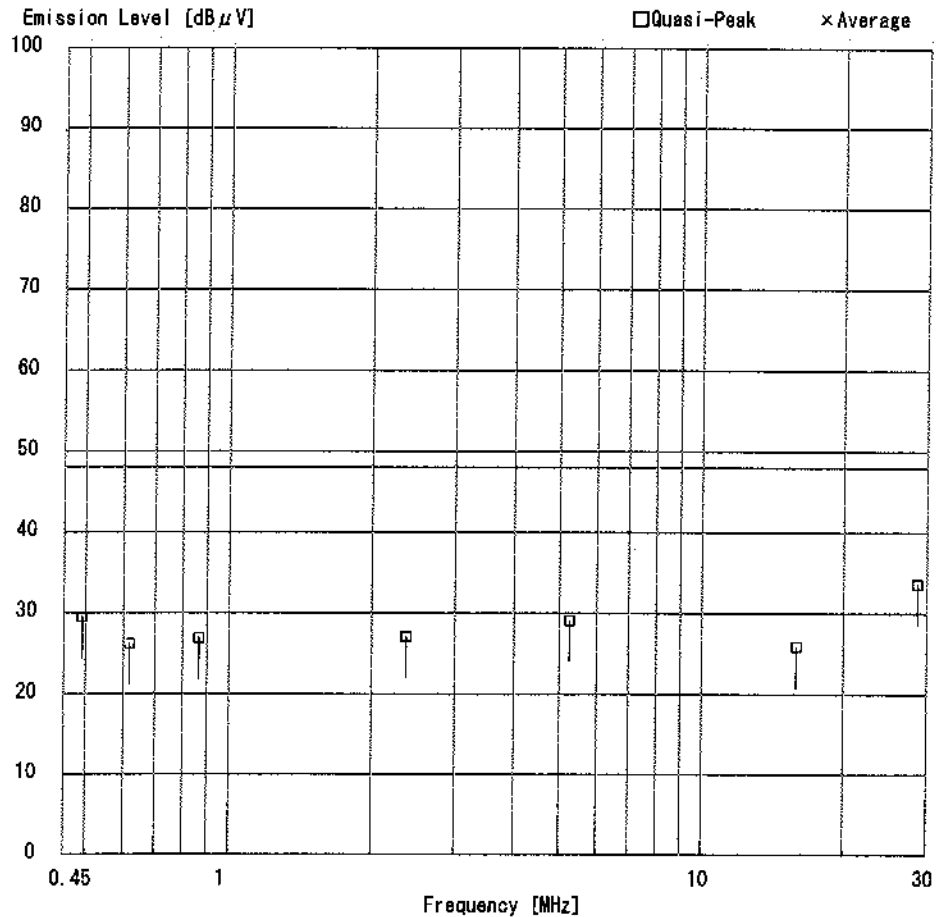
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Humidity : 43 %
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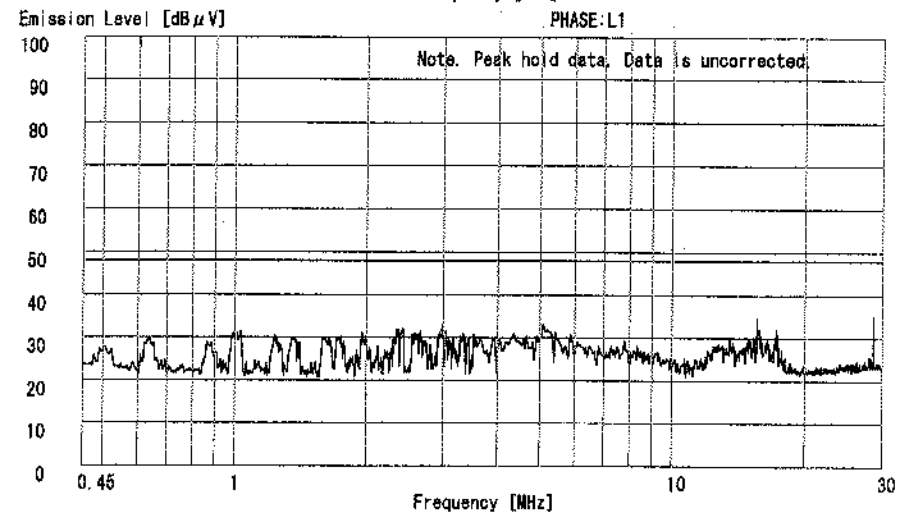
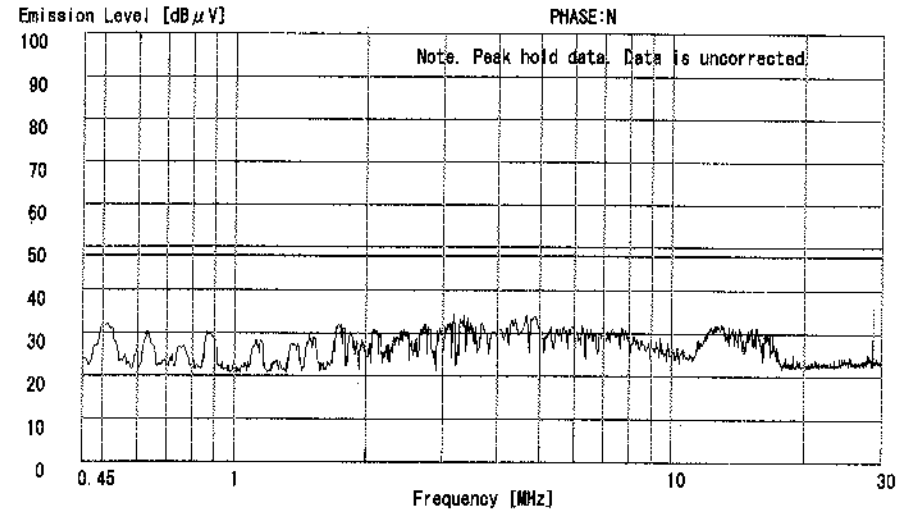


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Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : AV Input+REC
Remarks : 5V p-p
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation 1 : FCC Part15B CLASS B
Regulation 2 : None

Engineer : *S. Tanaka*
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Report No.: 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : VCR Playback
Remarks :
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP	AV	QP	AV				QP	AV	QP	AV	QP	AV
1.	0.4508	28.2	-	20.4	-	0.2	0.3	0.0	28.7	-	48.0	0.0	19.3	-
2.	0.5713	24.6	-	21.2	-	0.2	0.3	0.0	25.1	-	48.0	0.0	22.9	-
3.	0.7913	25.5	-	22.1	-	0.2	0.3	0.0	26.0	-	48.0	0.0	22.0	-
4.	1.9162	28.9	-	27.0	-	0.2	0.4	0.0	29.5	-	48.0	0.0	18.5	-
5.	5.4200	27.7	-	26.1	-	0.3	0.5	0.0	28.5	-	48.0	0.0	19.5	-
6.	12.8013	26.4	-	20.3	-	0.7	0.7	0.0	27.8	-	48.0	0.0	20.2	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

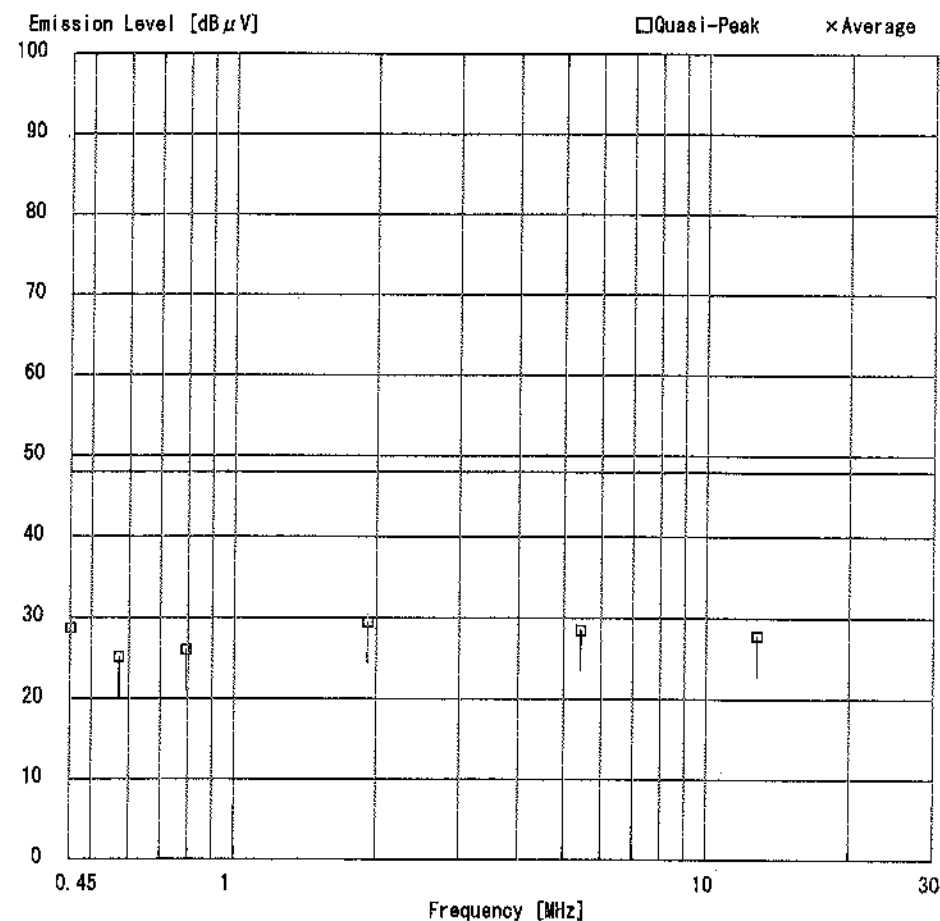
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Serial No. :
Power : AC120V/60Hz
Mode : VCR Playback
Remarks :
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
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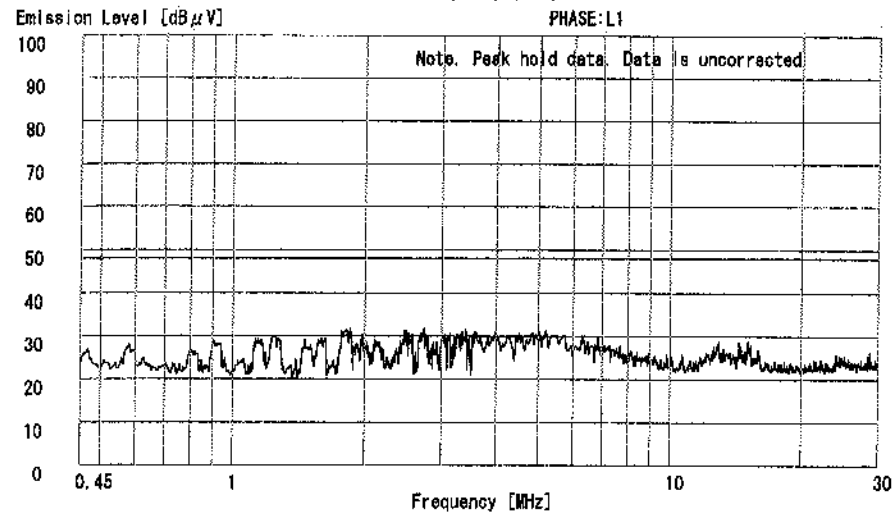
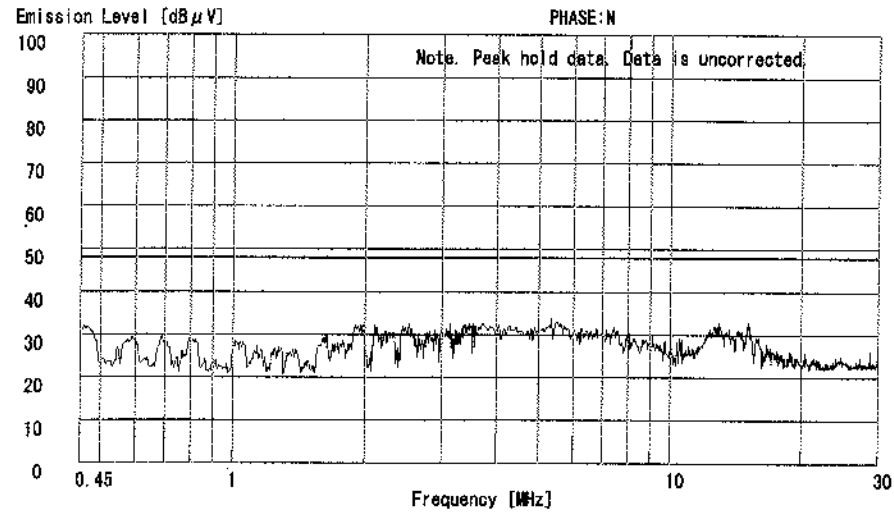


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Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : VCR Playback
Remarks :
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation 1 : FCC Part15B CLASS B
Regulation 2 : None

Engineer : Sadahiko Tanaka



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YOKOWA No.2 OPEN TEST SITE
Report No.: 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : DVD Playback
Remarks :
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation : FCC Part15B CLASS B

Engineer : Sadahiko Tanaka

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP	AV	QP	AV				QP	AV	QP	AV	QP	AV
1.	0.4529	27.2	-	21.6	-	0.2	0.3	0.0	27.7	-	48.0	0.0	20.3	-
2.	0.5575	25.1	-	21.1	-	0.2	0.3	0.0	25.6	-	48.0	0.0	22.4	-
3.	0.7725	26.3	-	24.7	-	0.2	0.3	0.0	26.8	-	48.0	0.0	21.2	-
4.	1.7838	23.6	-	27.2	-	0.2	0.4	0.0	27.8	-	48.0	0.0	20.2	-
5.	3.8701	28.6	-	25.2	-	0.3	0.4	0.0	29.3	-	48.0	0.0	18.7	-
6.	18.3754	25.3	-	24.5	-	0.9	0.8	0.0	27.0	-	48.0	0.0	21.0	-
7.	28.6346	28.6	-	28.3	-	1.3	0.9	0.0	30.8	-	48.0	0.0	17.2	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

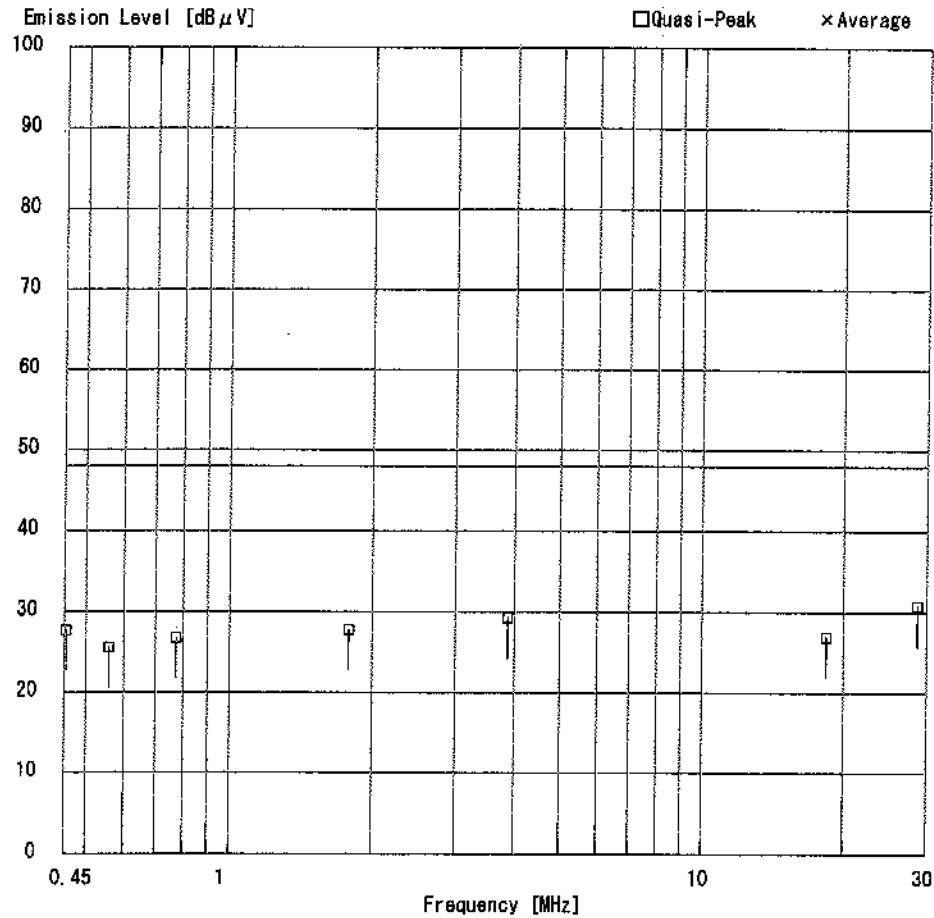
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Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : DVD Playback
Remarks :
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka

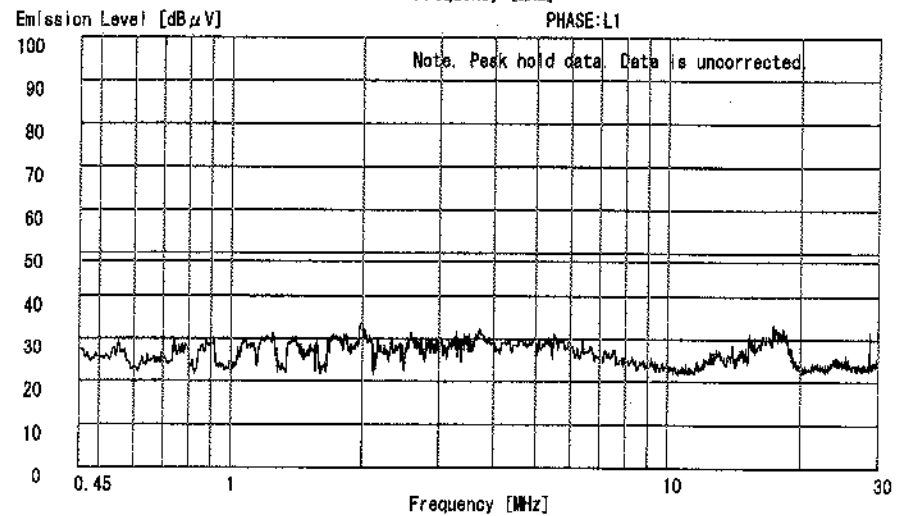
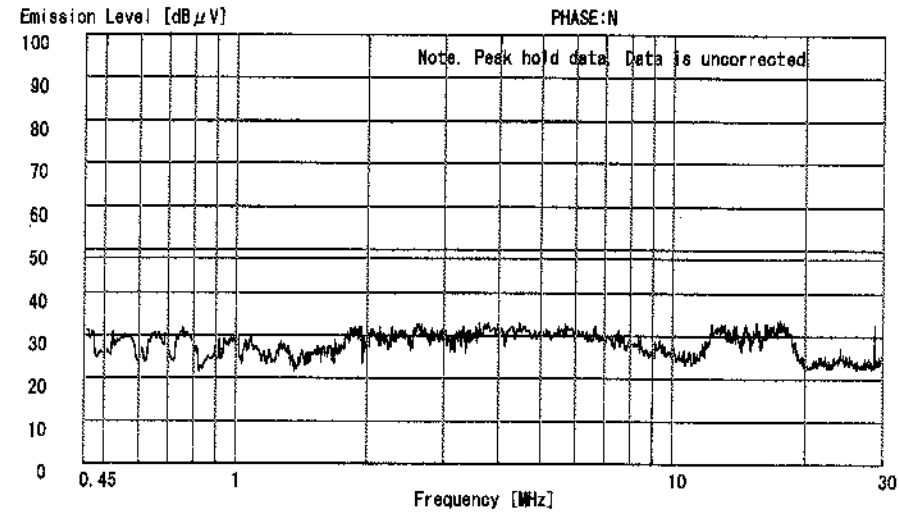


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A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : DVD Playback
Remarks :
Date : 10/31/2002
Phase : Single Phase
Temperature : 24 °C
Humidity : 43 %
Regulation 1 : FCC Part15B CLASS B
Regulation 2 : None

Engineer : *S. Tanaka*
Sadahiko Tanaka



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA NO.2 OPEN TEST SITE

COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : DVD/VCR
MODEL No. : HR-XVC20US
POWER : AC120V/60Hz
DESCRIPTION : TV RECEPTION+REC

REPORT No. : 23CE0062-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : October 30, 2002

ENGINEER : Sadahiko Tanaka

CH.	FREQ	READING		ANT TYPE	ANT. FAC.	CABLE LOSS	AMP GAIN	RESULTS		LIMIT	MARGIN	
	[MHz]	HOR.	VER.					HOR.	VER.		HOR.	VER.
		[dBuV]			[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
VHF Fundamental												
2	101	25.3	23.6	BC	10.2	2.3	29.8	14.0	12.3	43.5	29.5	31.2
3	107	26.2	26.3	BC	11.2	2.6	29.8	16.2	16.3	43.5	27.3	27.2
4	113	23.1	25.8	BC	12.3	2.6	29.9	14.1	16.8	43.5	29.4	26.7
5	123	25.8	25.1	BC	13.7	2.6	29.8	18.3	17.6	43.5	25.2	25.9
6	129	23.9	22.8	BC	14.0	2.6	29.8	16.7	15.6	43.5	26.8	27.9
7	221	23.5	22.7	BC	16.6	3.4	29.7	19.8	19.0	46.0	26.2	27.0
8	227	23.7	24.6	BC	16.7	3.4	29.7	20.1	21.0	46.0	25.9	25.0
9	233	24.1	23.1	BC	16.7	3.5	29.8	20.5	19.5	46.0	25.5	26.5
10	239	23.0	24.0	BC	16.7	3.6	29.8	19.5	20.5	46.0	26.5	25.5
11	245	22.8	22.5	BC	16.8	3.7	29.8	19.5	19.2	46.0	26.5	26.8
12	251	22.5	22.6	BC	16.9	3.8	29.8	19.4	19.5	46.0	26.6	26.5
13	257	22.8	22.9	BC	17.2	3.8	29.8	20.0	20.1	46.0	26.0	25.9
VHF 2nd Harmonic												
2	202	22.9	22.6	BC	16.5	3.3	29.7	19.0	18.7	43.5	24.5	24.8
3	214	23.4	23.8	BC	16.6	3.3	29.7	19.6	20.0	43.5	23.9	23.5
4	226	23.3	22.1	BC	16.7	3.4	29.7	19.7	18.5	46.0	26.3	27.5
5	246	22.6	22.8	BC	16.8	3.7	29.8	19.3	19.5	46.0	26.7	26.5
6	258	22.3	23.1	BC	17.3	3.8	29.8	19.6	20.4	46.0	26.4	25.6
7	442	22.1	21.5	LP	16.5	5.2	30.2	19.6	19.0	46.0	26.4	27.0
8	454	21.9	22.1	LP	16.7	5.3	30.2	19.7	19.9	46.0	26.3	26.1
9	466	21.9	22.5	LP	17.0	5.4	30.2	20.1	20.7	46.0	25.9	25.3
10	478	21.9	23.3	LP	17.3	5.4	30.2	20.4	21.8	46.0	25.6	24.2
11	490	23.4	25.4	LP	17.6	5.4	30.2	22.2	24.2	46.0	23.8	21.8
12	502	21.8	21.9	LP	17.8	5.4	30.2	20.8	20.9	46.0	25.2	25.1
13	514	21.4	22.4	LP	18.0	5.5	30.2	20.7	21.7	46.0	25.3	24.3

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA NO.2 OPEN TEST SITE

COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : DVD/VCR
MODEL No. : HR-XVC20US
POWER : AC120V/60Hz
DESCRIPTION : TV RECEPTION+REC

REPORT No. : 23CE0062-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : October 30, 2002

ENGINEER : Sadahiko Tanaka

CH.	FREQ	READING		ANT	ANT.	CABLE	AMP	RESULTS		LIMIT	MARGIN		
	[MHz]	HOR.	VER.	TYPE	FAC.	LOSS	GAIN	HOR.	VER.	[dBuV/m]	[dBuV/m]	HOR	VER
		[dBuV]			[dB]	[dB]	[dB]	[dBuV/m]				[dB]	[dB]
CATV Fundamental													
1	119	24.5	24.1	BC	13.3	2.5	29.8	16.5	16.1	43.5	27.0	27.4	
95	137	24.5	23.3	BC	14.4	2.9	29.8	18.0	16.8	43.5	25.5	26.7	
97	149	23.5	23.7	BC	14.9	3.3	29.8	17.9	18.1	43.5	25.6	25.4	
99	161	24.5	24.4	BC	15.3	2.8	29.8	18.8	18.7	43.5	24.7	24.8	
14	167	24.1	23.7	BC	15.6	2.9	29.8	18.8	18.4	43.5	24.7	25.1	
18	191	25.4	22.9	BC	16.3	3.2	29.8	21.1	18.6	43.5	22.4	24.9	
22	215	23.9	22.8	BC	16.6	3.4	29.7	20.2	19.1	43.5	23.3	24.4	
23	263	21.6	21.3	BC	17.6	3.8	29.8	19.2	18.9	46.0	26.8	27.1	
29	299	25.3	22.1	BC	19.9	4.1	29.9	25.4	22.2	46.0	20.6	23.8	
36	341	23.8	23.5	LP	14.3	4.4	30.1	18.4	18.1	46.0	27.6	27.9	
37	347	26.6	22.4	LP	14.4	4.5	30.1	21.4	17.2	46.0	24.6	28.8	
65	515	25.1	27.0	LP	18.0	5.5	30.2	24.4	26.3	46.0	21.6	19.7	
94	689	27.2	34.9	LP	21.0	6.8	30.0	31.0	38.7	46.0	15.0	7.3	
100	695	26.3	30.7	LP	21.1	6.8	30.1	30.1	34.5	46.0	15.9	11.5	
113	773	23.6	24.1	LP	21.2	7.2	29.9	28.1	28.6	46.0	17.9	17.4	
125	845	25.0	23.4	LP	21.6	7.7	29.5	30.8	29.2	46.0	15.2	16.8	
CATV 2nd Harmonic													
1	238	23.1	21.6	BC	16.7	3.6	29.8	19.6	18.1	46.0	26.4	27.9	
95	274	22.1	21.5	BC	18.3	3.9	29.8	20.5	19.9	46.0	25.5	26.1	
97	298	21.6	22.0	BC	19.9	4.1	29.9	21.7	22.1	46.0	24.3	23.9	
99	322	27.3	24.4	LP	13.9	4.3	30.0	21.5	18.6	46.0	24.5	27.4	
14	334	27.7	24.1	LP	14.2	4.4	30.1	22.2	18.6	46.0	23.8	27.4	
18	382	23.1	22.9	LP	15.1	4.8	30.2	18.8	18.6	46.0	27.2	27.4	
22	430	24.3	25.0	LP	16.2	5.1	30.2	21.4	22.1	46.0	24.6	23.9	
23	526	23.1	22.0	LP	18.1	5.6	30.1	22.7	21.6	46.0	23.3	24.4	
29	598	22.2	23.0	LP	19.1	6.1	30.1	23.3	24.1	46.0	22.7	21.9	
36	682	22.0	22.1	LP	20.8	6.7	30.0	25.5	25.6	46.0	20.5	20.4	
37	694	21.2	21.3	LP	21.1	6.8	30.1	25.0	25.1	46.0	21.0	20.9	
65	1030	34.5	37.6	HO	24.7	1.6	39.0	21.8	24.9	54.0	32.2	29.1	
94	1378	32.3	32.5	HO	26.0	2.0	38.6	21.7	21.9	54.0	32.3	32.2	
100	1390	32.7	32.8	HO	26.0	2.0	38.6	22.1	22.2	54.0	31.9	31.8	
113	1546	33.2	34.3	HO	26.8	2.1	38.5	23.6	24.7	54.0	30.4	29.3	
125	1690	33.2	35.7	HO	27.9	2.3	38.3	25.1	27.6	54.0	28.9	26.4	

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA NO.2 OPEN TEST SITE

COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : DVD/VCR
MODEL No. : HR-XVC20US
POWER : AC120V/60Hz
DESCRIPTION : TV RECEPTION+REC

REPORT No. : 23CE0062-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : October 30, 2002

ENGINEER : Sadahiko Tanaka

CH.	FREQ	READING	ANT	ANT.	CABLE	AMP	RESULTS	LIMIT	MARGIN
	[MHz]	HOR VER	TYPE	FAC.	LOSS	GAIN	HOR VER		HOR VER
		[dBuV]		[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB] [dB]
UHF Fundamental									
14	517	25.6 27.1	LP	18.0	5.6	30.1	25.1 26.6	46.0	20.9 19.4
19	547	25.3 27.3	LP	18.4	5.8	30.0	25.5 27.5	46.0	20.5 18.5
28	601	28.0 30.8	LP	19.1	6.1	30.1	29.1 31.9	46.0	16.9 14.1
36	649	31.5 31.7	LP	20.1	6.6	30.1	34.1 34.3	46.0	11.9 11.7
44	697	27.1 30.8	LP	21.1	6.8	30.1	30.9 34.6	46.0	15.1 11.4
53	751	26.6 28.7	LP	21.2	7.2	30.5	30.5 32.6	46.0	15.5 13.4
61	799	23.7 23.4	LP	21.2	7.4	29.8	28.5 28.2	46.0	17.5 17.8
69	847	24.7 23.2	LP	21.6	7.7	29.5	30.5 29.0	46.0	15.5 17.0
UHF 2nd Harmonic									
14	1034	34.6 37.7	HO	24.7	1.6	39.0	21.9 25.0	54.0	32.1 29.0
19	1094	34.0 36.1	HO	24.9	1.7	39.0	21.6 23.7	54.0	32.4 30.3
28	1202	33.1 34.3	HO	25.3	1.8	38.8	21.4 22.6	54.0	32.7 31.4
36	1298	33.2 33.2	HO	25.7	1.9	38.7	22.1 22.1	54.0	32.0 31.9
44	1394	32.7 33.3	HO	26.0	2.0	38.6	22.1 22.7	54.0	31.9 31.3
53	1502	33.4 35.3	HO	26.4	2.1	38.5	23.4 25.3	54.0	30.6 28.7
61	1598	32.4 35.3	HO	27.2	2.2	38.4	23.4 26.3	54.0	30.6 27.7
69	1694	32.4 35.4	HO	28.0	2.3	38.3	24.4 27.4	54.0	29.6 26.6

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : TV Reception+REC
Remarks : 0dBmV
Date : 10/29/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 52 %
Regulation : FCC Part15B CLASS B

Engineer : Sadahiko Tanaka

No.	FREQ.	ANT	READING	ANT	AMP	CABLE	ATTEN.	RESULT	LIMITS	MARGIN
	[MHz]	TYPE	HOR VER	FACTOR	GAIN	LOSS	[dB]	HOR VER		HOR VER
			[dB μV]	[dB/m]	[dB]	[dB]		[dB μV/m]	[dB μV/m]	[dB]
1.	108.01	BB	33.2 41.2	11.4	29.8	2.7	6.0	23.5 31.5	43.5	20.0 12.0

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

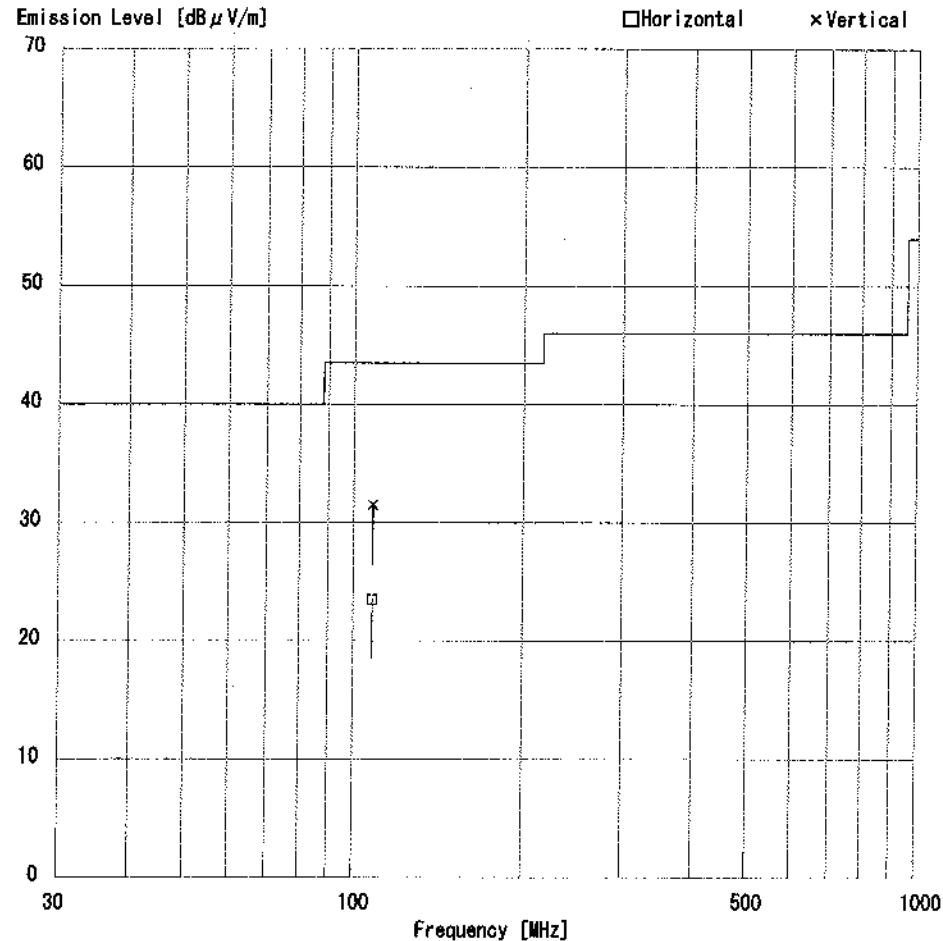
Except for the above table : adequate margin data below the limits.
ANT. TYPE:30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No.: 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : TV Reception+REC
Remarks : 0dBmV
Date : 10/29/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 52 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No.: 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : TV Reception+REC
Remarks : 25dBmV
Date : 10/29/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 52 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dBμV]	VER [dBμV]					HOR [dBμV/m]	VER [dBμV/m]	HOR [dBμV/m]	VER [dBμV/m]	HOR [dB]	VER [dB]
1.	81.00	BB	31.9	37.0	6.6	29.7	2.0	6.1	16.9	22.0	40.0	23.1	18.0	
2.	108.01	BB	33.6	42.0	11.4	29.8	2.7	6.0	23.9	32.3	43.6	19.6	11.2	
3.	136.01	BB	28.0	33.2	14.3	29.7	2.7	6.0	21.3	26.5	43.5	22.2	17.0	
4.	167.99	BB	26.6	31.1	15.6	29.9	2.9	6.0	20.2	25.7	43.5	23.3	17.8	
5.	189.03	BB	33.1	27.6	16.3	29.8	3.2	6.0	28.8	23.3	43.5	14.7	20.2	
6.	324.02	BB	35.9	28.9	14.0	30.1	4.3	6.1	30.2	23.2	46.0	16.8	22.8	

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

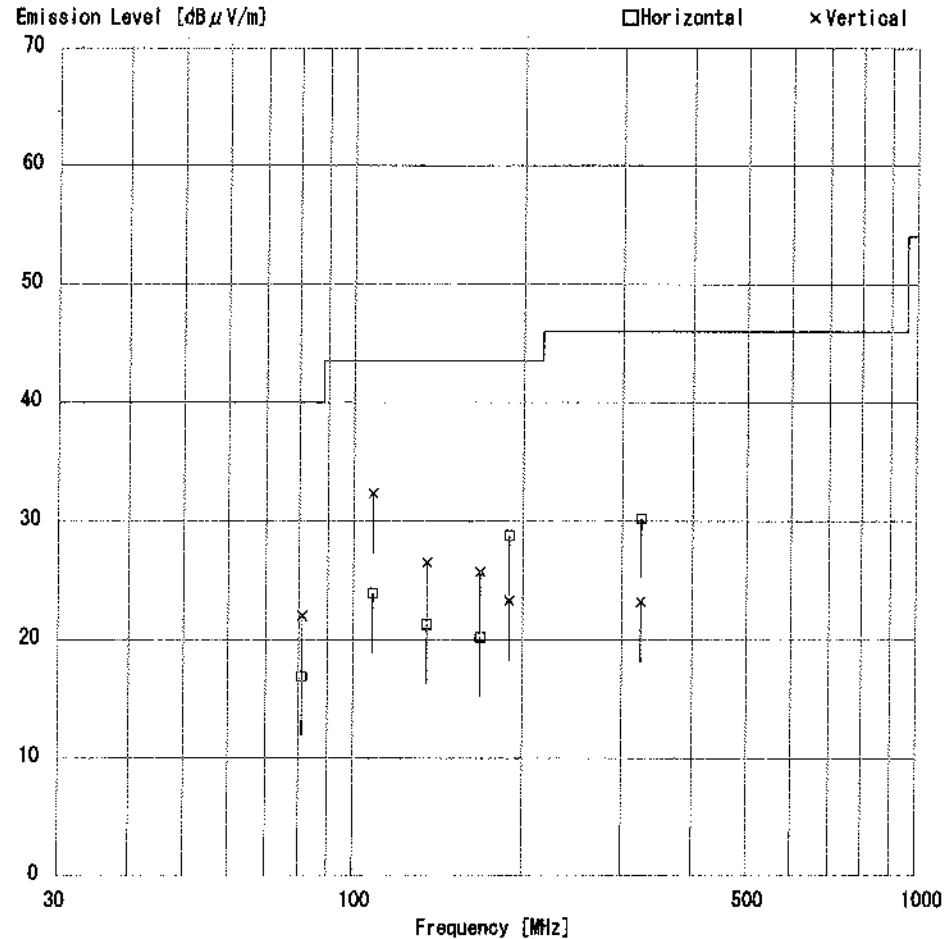
Except for the above table : adequate margin data below the limits.
ANT. TYPE:30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : TV Reception+REC
Remarks : 25dBmV
Date : 10/29/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 52 %
Regulation : FCC Part15B CLASS B

Engineer : Sadahiko Tanaka



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : AV Input+REC
Remarks : 1Vp-p
Date : 10/29/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 52 %
Regulation : FCC Part15B CLASS B

Engineer : Sadahiko Tanaka

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 μ V/m]	VER [dB μ V/m]	HOR [dB]	VER [dB]
1.	108.00	BB	37.9	40.2	11.4	29.8	2.7	6.0	28.2	30.5	43.5	15.3	13.0	

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

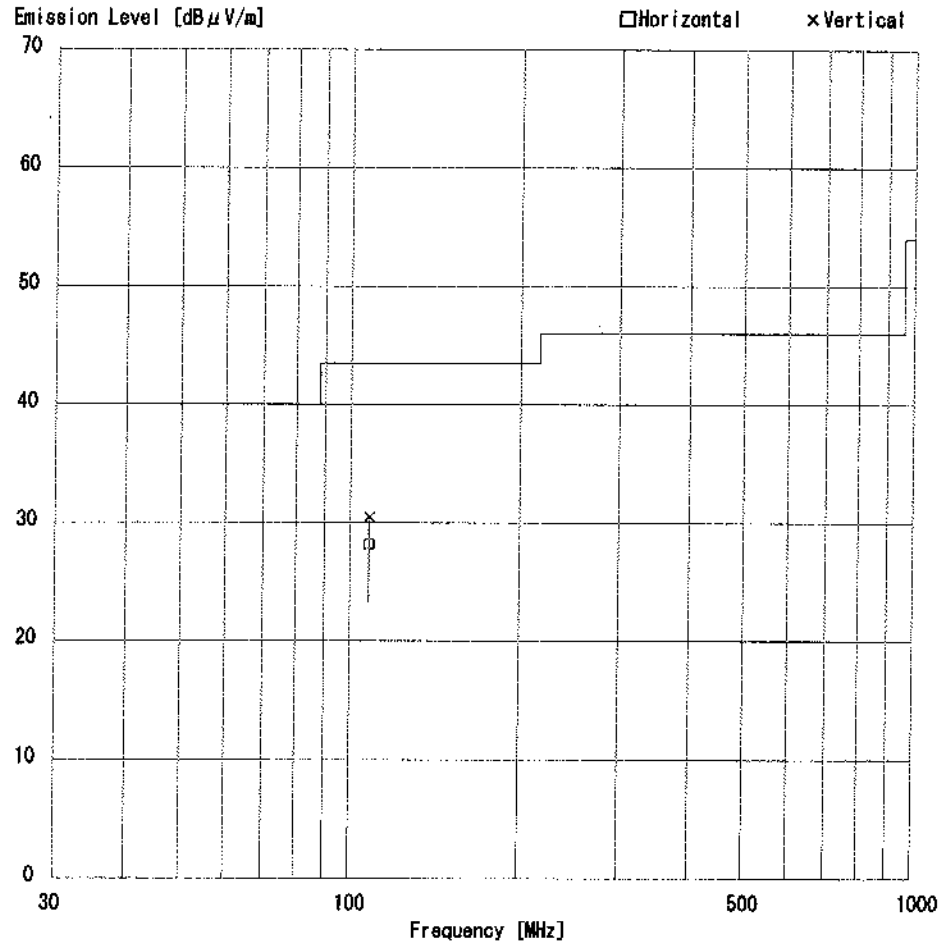
DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : AV Input+REC
Remarks : 1Vp-p
Date : 10/29/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 52 %
Regulation : FCC Part15B CLASS B

Engineer

S. Tanaka
Sadahiko Tanaka



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : AV Input+REC
Remarks : 5Vp-p
Date : 10/29/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 52 %
Regulation : FCC Part15B CLASS B

Engineer

S. Tanaka
Sadahiko Tanaka

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dBμV]	VER [dBμV]					HOR [dBμV/m]	VER [dBμV/m]	HOR [dBμV/m]	VER [dBμV/m]	HOR [dB]	VER [dB]
1.	81.02	BB	35.4	39.9	6.6	29.7	2.0	6.1	20.4	24.9	40.0	19.6	15.1	
2.	108.00	BB	38.2	40.4	11.4	29.8	2.7	6.0	28.5	30.7	43.5	15.0	12.8	
3.	135.03	BB	29.0	32.9	14.3	29.7	2.7	6.0	22.3	26.2	43.5	21.2	17.3	
4.	189.02	BB	32.6	28.7	16.3	29.8	3.2	6.0	28.3	24.4	43.5	15.2	19.1	
5.	216.01	BB	36.3	33.8	16.6	29.7	3.4	6.0	32.6	30.1	46.0	18.4	15.9	
6.	324.03	BB	33.2	32.3	14.0	30.1	4.3	6.1	27.6	26.6	46.0	18.5	19.4	

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

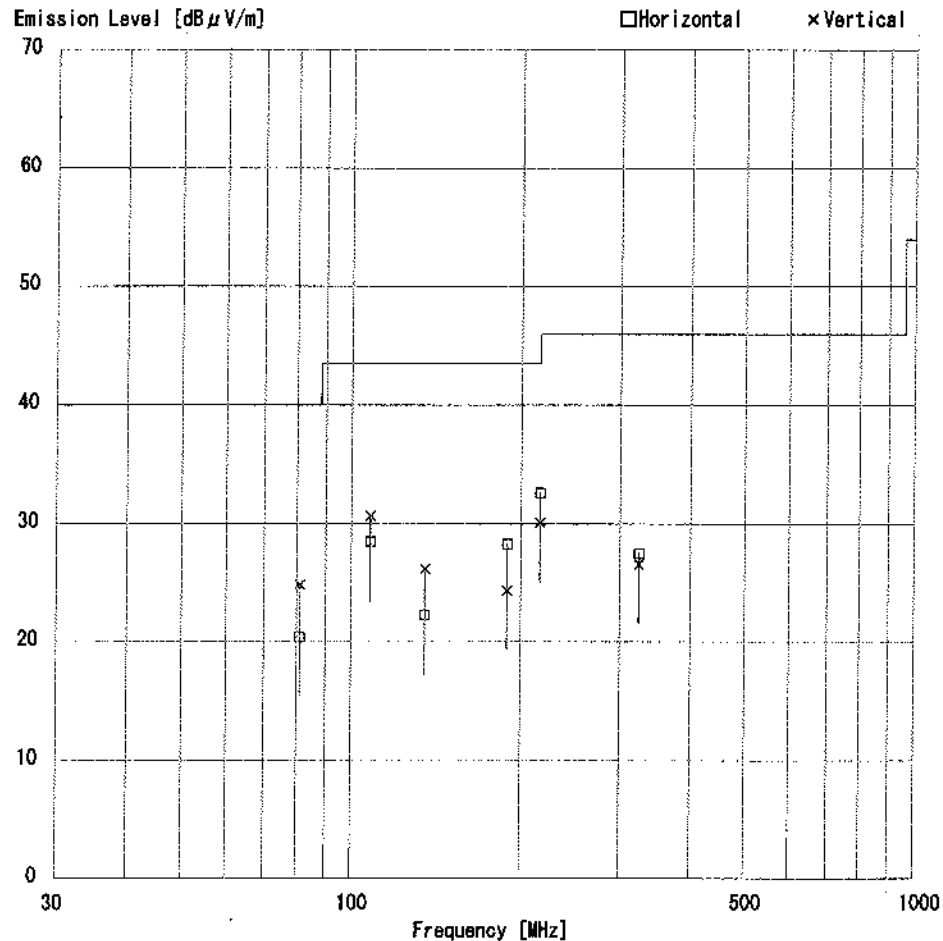
Except for the above table : adequate margin data below the limits.
ANT. TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : AV Input+REC
Remarks : 5Vp-p
Date : 10/29/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 52 %
Regulation : FCC Part15B CLASS B

Engineer : Sadahiko Tanaka



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : VCR Playback
Remarks :
Date : 10/29/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 52 %
Regulation : FCC Part15B CLASS B

Engineer : Sadahiko Tanaka

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]	[dB μ V/m]	[dB μ V/m]	HOR [dB]	VER [dB]
1.	85.93	BB	38.1	36.8	7.4	29.7	2.1	6.1	24.0	22.7	40.0	16.0	17.3	
2.	108.02	BB	37.1	38.3	11.4	29.8	2.7	6.0	27.4	28.6	43.6	16.1	14.9	
3.	135.01	BB	33.1	34.2	14.3	29.7	2.7	6.0	26.4	27.5	43.5	17.1	16.0	
4.	162.03	BB	32.3	29.4	15.4	29.8	2.8	6.0	26.7	23.8	43.5	16.8	19.7	
5.	216.01	BB	35.7	30.6	16.6	29.7	3.4	6.0	32.0	26.9	46.0	14.0	19.1	
6.	324.02	BB	33.9	29.7	14.0	30.1	4.3	6.1	28.2	24.0	46.0	17.8	22.0	

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

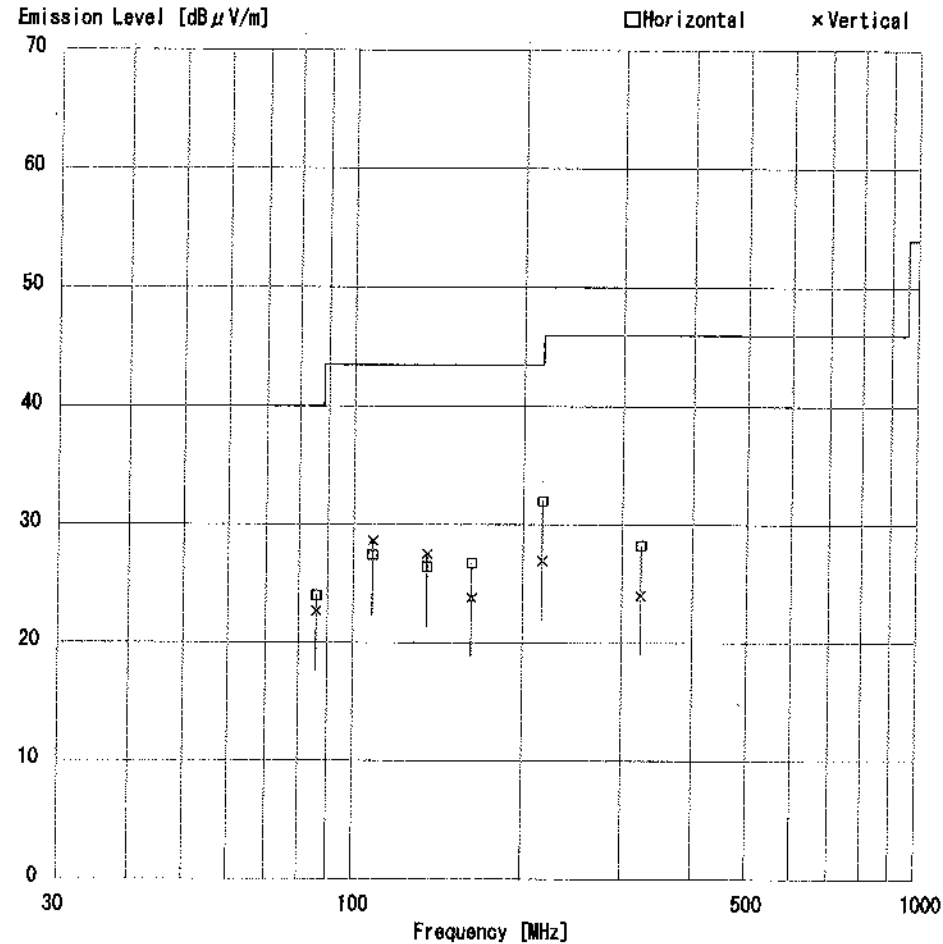
Except for the above table : adequate margin data below the limits.
ANT. TYPE:30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : VCR Playback
Remarks :
Date : 10/29/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 52 %
Regulation : FCC Part15B CLASS B

Engineer : Sadahiko Tanaka



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : DVD Playback
Remarks :
Date : 10/29/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 52 %
Regulation : FCC Part15B CLASS B

Engineer : Sadahiko Tanaka

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.	92.19	BB	42.5	41.9	8.4	29.8	2.2	6.1	29.4	28.8	43.5	14.1	14.7	
2.	135.45	BB	42.3	38.3	14.3	29.7	2.7	6.0	38.6	31.6	43.5	7.9	11.9	
3.	144.64	BB	43.9	40.1	14.8	29.8	5.1	6.0	40.0	36.2	43.5	3.5	7.3	
4.	153.56	BB	45.7	38.8	15.1	29.7	2.8	6.0	39.9	33.0	43.5	3.6	10.5	
5.	181.13	BB	38.6	28.0	16.1	29.8	3.0	6.0	33.9	23.3	43.5	9.6	20.2	
6.	198.69	BB	40.4	30.3	16.5	29.7	3.2	6.0	36.4	26.3	43.5	7.1	17.2	
7.	207.77	BB	38.5	30.8	16.5	29.7	3.3	6.0	34.6	26.9	43.5	8.9	16.6	
8.	350.23	BB	39.6	37.8	14.5	30.1	4.5	6.1	34.6	32.8	46.0	11.4	13.2	
9.	640.03	BB	30.5	37.6	18.3	30.0	5.8	6.1	30.7	37.8	46.0	15.3	8.2	
10.	1188.04	BB	40.4	50.4	25.3	35.6	1.6	0.0	31.7	41.7	54.0	22.3	12.3	
11.	1386.95	BB	49.8	53.3	26.0	35.4	1.8	0.0	42.2	45.7	54.0	11.8	8.3	
12.	1664.15	BB	38.0	42.6	27.7	35.2	2.1	0.0	32.6	37.2	54.0	21.4	16.8	

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

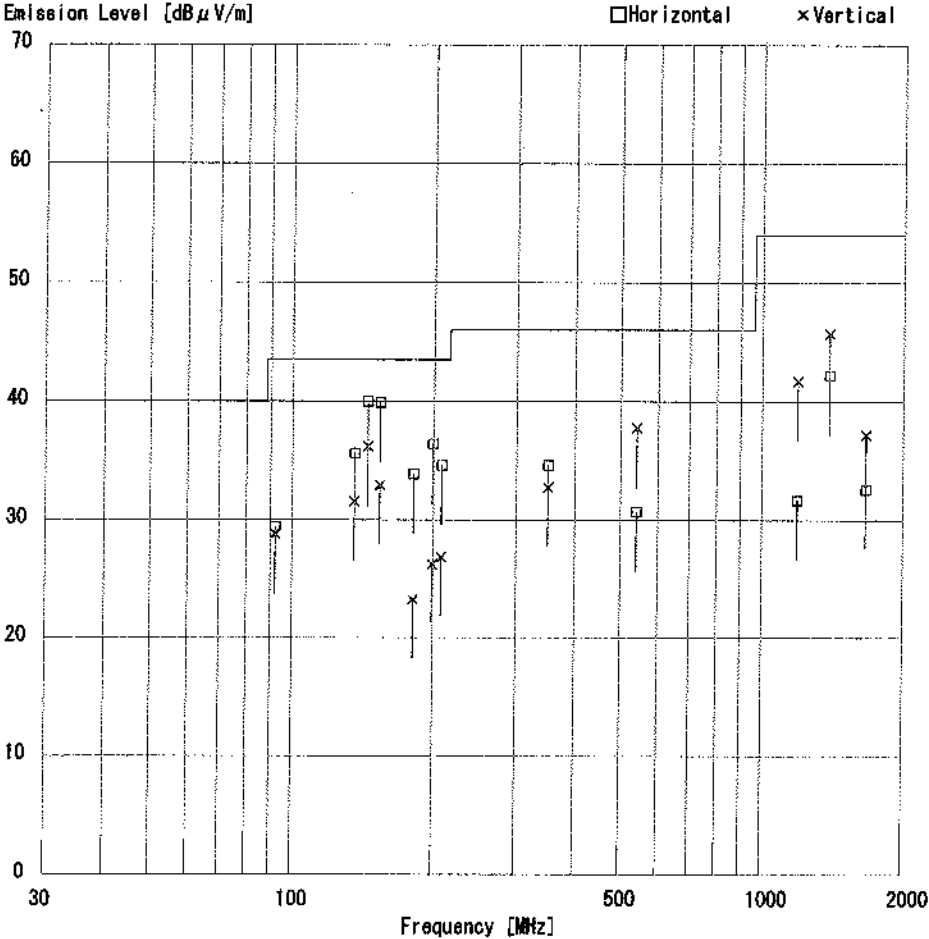
Except for the above table : adequate margin data below the limits.
ANT. TYPE:30-300MHz Biconical, 300-1000MHz Logperiodic, 1G-2GHz DRG Horn

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No.: 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : DVD Playback
Remarks :
Date : 10/29/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 52 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No.: 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : DVD Playback
Remarks : Test Channel #3
Date : 10/30/2002
Test Distance : 3 m
Temperature : 21 °C
Humidity : 55 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]	HOR [dB μV/m]	VER [dB μV/m]	HOR [dB]	VER [dB]
1.	61.25	BB	29.6	30.2	8.0	29.2	1.9	5.9	16.2	16.8	40.0	23.8	23.2	
2.	65.75	BB	38.8	33.3	7.1	29.3	1.9	6.0	24.5	19.0	40.0	15.5	21.0	
3.	122.50	BB	24.1	24.2	13.4	29.2	2.7	5.9	16.9	17.0	43.5	26.6	26.5	
4.	245.00	BB	22.1	22.3	16.8	28.9	4.0	6.0	20.0	20.2	46.0	26.0	25.8	

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

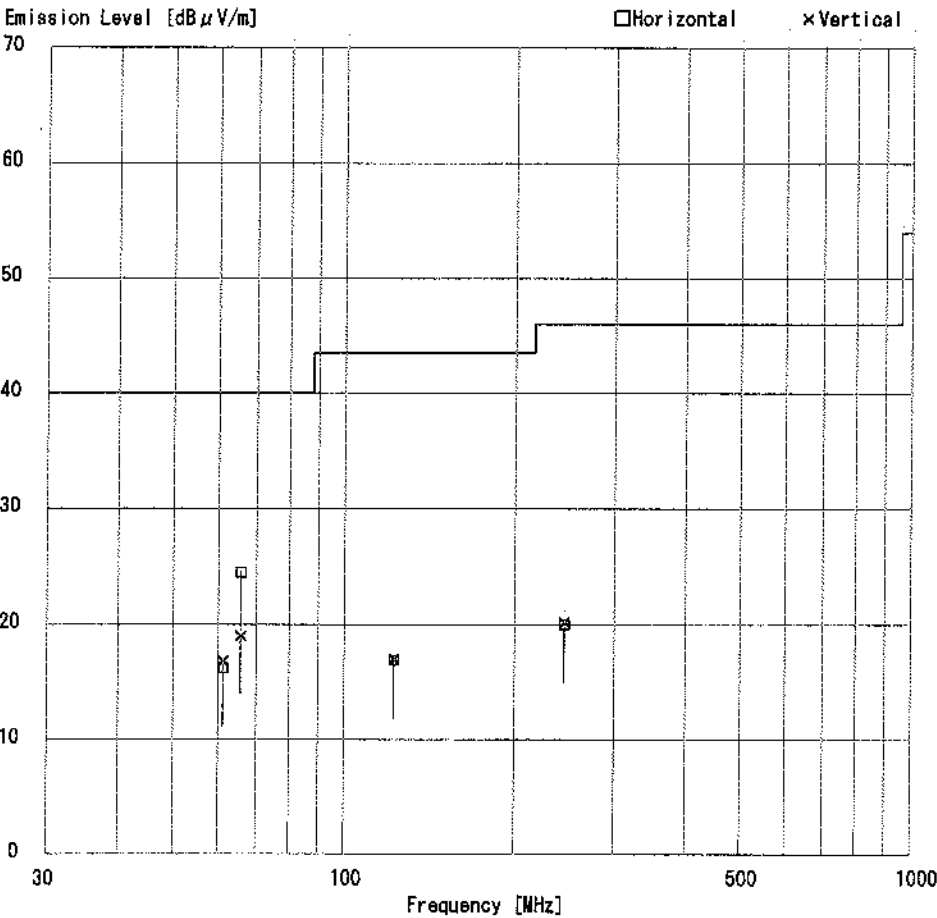
Except for the above table:adequate margin data below the limits.
ANT. TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : DVD Playback
Remarks : Test Channel #3
Date : 10/30/2002
Test Distance : 3 m
Temperature : 21 °C
Humidity : 55 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No. : 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : DVD Playback
Remarks : Test Channel #4
Date : 10/30/2002
Test Distance : 3 m
Temperature : 21 °C
Humidity : 55 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	67.25	BB	27.5	26.0	6.8	29.3	2.0	6.0	13.0	11.5	40.0	27.0	28.5
2.	71.75	BB	30.0	27.3	6.2	29.3	2.0	6.0	14.9	12.2	40.0	25.1	27.8
3.	134.50	BB	23.6	24.0	13.9	28.9	2.8	5.9	17.3	17.7	43.5	26.2	25.8
4.	201.75	BB	27.1	23.5	16.6	29.2	3.5	6.0	24.0	20.4	43.5	19.5	23.1

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

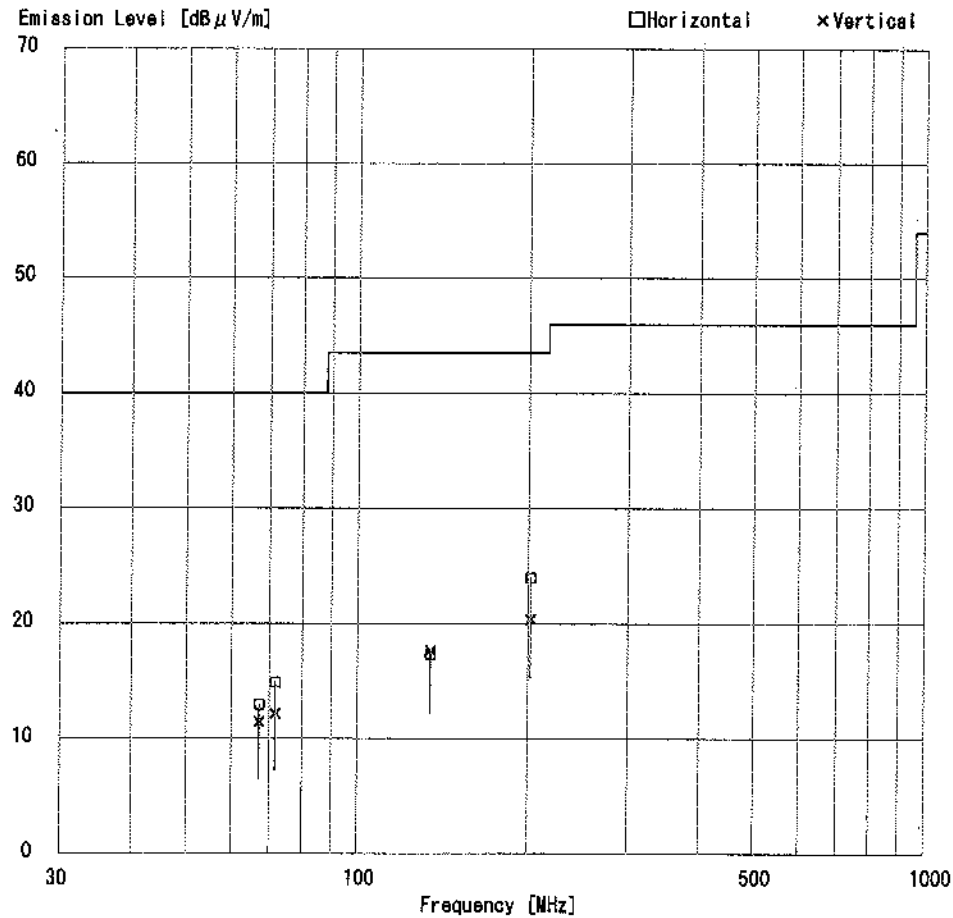
Except for the above table:adequate margin data below the limits.
ANT. TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No.: 23CE0062-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : DVD/VCR
Model No. : HR-XVC20US
Serial No. :
Power : AC120V/60Hz
Mode : DVD Playback
Remarks : Test Channel #4
Date : 10/30/2002
Test Distance : 3 m
Temperature : 21 °C
Humidity : 55 %
Regulation : FCC Part15B CLASS B

Engineer : *S. Tanaka*
Sadahiko Tanaka



DATA OF ANTENNA TERMINAL TEST

A-PEX INTERNATIONAL CO., LTD.
Date : 2002/10/30 23:52:38

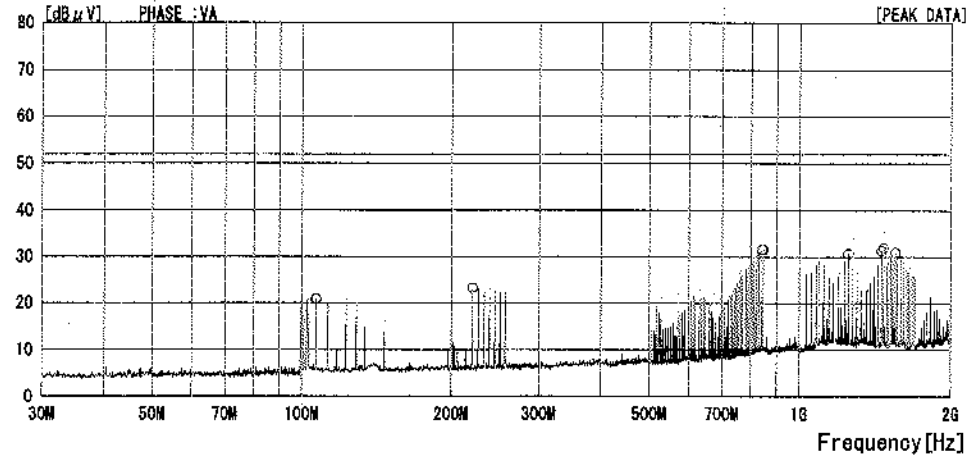
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : HR-XVC20US
OPERATION MODE : TUNING

REPORT NO : 23CE0062-YW-1
DATE : October 29, 2002
REGULATION : FCC PART15 SUBPART B
TEST ENGINEER : Sadahiko Tanaka

REMARKS : TV MODE

LIMIT : FCC 15B ANTENNA TERMINAL

S. Tanaka



NO	FREQ [MHz]	READING (PK) [dBμV]	C.F [dB]	RESULT [dBμV]	LIMIT		MARGIN		PHASE
					QP [dBμV]	AV [dBμV]	QP [dB]	AV [dB]	
1	106.85700	50.0	-29.2	20.8	52.0	---	31.2	---	VA
2	220.85899	52.2	-29.0	23.2	52.0	---	28.8	---	VA
3	841.00598	56.6	-25.1	31.5	52.0	---	20.5	---	VA
4	846.57703	56.4	-24.9	31.5	52.0	---	20.5	---	VA
5	1249.98401	60.4	-29.8	30.6	52.0	---	21.4	---	VA
6	1454.25500	60.4	-29.1	31.3	52.0	---	20.7	---	VA
7	1467.11096	61.0	-29.1	31.9	52.0	---	20.1	---	VA
8	1549.28198	59.8	-28.9	30.9	52.0	---	21.1	---	VA

DATA OF ANTENNA TERMINAL TEST

A-PEX INTERNATIONAL CO., LTD.
Date : 2002/10/30 23:55:15

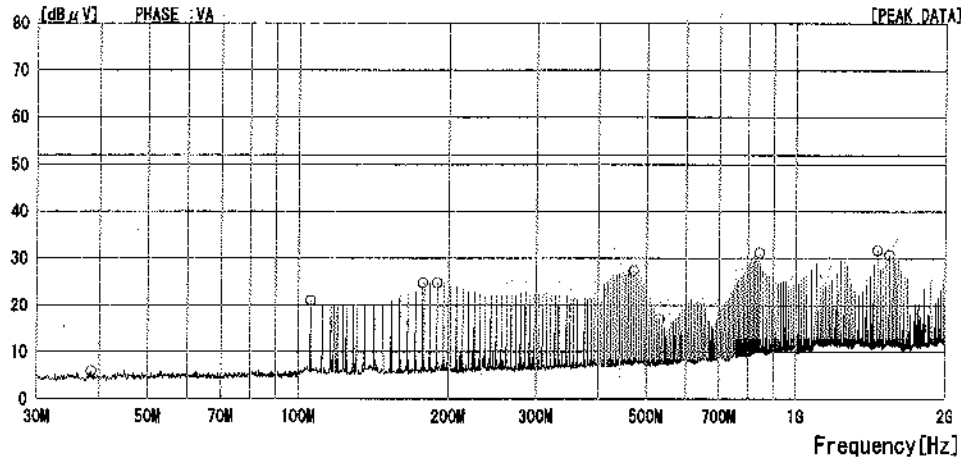


COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : HR-XVC20US
OPERATION MODE : TUNING

REPORT NO : 23CE0062-YW-1
DATE : October 29, 2002
REGULATION : FCC PART15 SUBPART B
TEST ENGINEER : Sadahiko Tanaka

REMARKS : CATV MODE
LIMIT : FCC 15B ANTENNA TERMINAL

S. Tanaka



NO	FREQ [MHz]	READING(PK) [dB μV]	C.F [dB]	RESULT [dB μV]	LIMIT QP [dB μV] AV [dB μV]	MARGIN QP [dB] AV [dB]	PHASE
1	38.60000	36.4	-30.5	5.9	52.0	46.1	VA
2	105.71400	50.0	-29.0	21.0	52.0	31.0	VA
3	177.71500	54.0	-29.2	24.8	52.0	27.2	VA
4	189.71600	53.8	-29.0	24.8	52.0	27.2	VA
5	471.43201	55.2	-27.8	27.3	52.0	24.7	VA
6	531.43298	45.0	-28.0	17.0	52.0	35.0	VA
7	843.57703	56.2	-25.1	31.1	52.0	20.9	VA
8	1459.96802	60.8	-29.1	31.7	52.0	20.3	VA
9	1543.56799	59.6	-28.9	30.7	52.0	21.3	VA

RF output level

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LAB.

Company : Orion Electric Co., Ltd.
Equipment : DVD/VCR
Model number : HR-XVC20US
Power : AC 120 V / 60 Hz
Description : TV reception+Rec mode (0 dBmV)

Report Number : 23CE0062-YW-1
Regulation : FCC Part 15 Subpart B
Date : October 28, 2002

S. Tanaka
Engineer : Sadahiko Tanaka

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	84.3	20.4	63.9	69.5	5.6

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	72.2	20.4	51.8	56.5	4.7
	65.75	71.2	20.4	50.8	56.5	5.7
4	62.75	71.2	20.4	50.8	56.5	5.7
	71.75	70.5	20.4	50.1	56.5	6.4



RF output level

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LAB.

Company : Orion Electric Co., Ltd. Report Number : 23CE0062-YW-1
Equipment : DVD/VCR Regulation : FCC Part 15 Subpart B
Model number : HR-XVC20US Date : October 28, 2002
Power : AC 120 V / 60 Hz
Description : TV reception+Rec mode (25 dBmV)

Engineer : Sadahiko Tanaka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	85.9	20.4	65.5	69.5	4.0
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	72.6	20.4	52.2	56.5	4.3
	65.75	71.3	20.4	50.9	56.5	5.6
4	62.75	71.5	20.4	51.1	56.5	5.4
	71.75	70.7	20.4	50.3	56.5	6.2



RF output level

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LAB.

Company : Orion Electric Co., Ltd. Report Number : 23CE0062-YW-1
Equipment : DVD/VCR Regulation : FCC Part 15 Subpart B
Model number : HR-XVC20US Date : October 28, 2002
Power : AC 120 V / 60 Hz
Description : AV Input+Rec mode (1Vp-p)

Engineer : Sadahiko Tanaka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	86.9	20.4	66.5	69.5	3.0
4	67.25	86.8	20.4	66.4	69.5	3.1

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	72.4	20.4	52.0	56.5	4.5
	65.75	71.5	20.4	51.1	56.5	5.4
4	62.75	72.0	20.4	51.6	56.5	4.9
	71.75	70.8	20.4	50.4	56.5	6.1



RF output level

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LAB.

Company : Orion Electric Co., Ltd. Report Number : 23CE0062-YW-1
Equipment : DVD/VCR Regulation : FCC Part 15 Subpart B
Model number : HR-XVC20US Date : October 28, 2002
Power : AC 120 V / 60 Hz
Description : AV Input+Rec mode (5Vp-p)

Engineer : S. Tanaka
: Sadahiko Tanaka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	86.9	20.4	66.5	69.5	3.0
4	67.25	86.7	20.4	66.3	69.5	3.2

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	72.8	20.4	52.4	56.5	4.1
	65.75	71.3	20.4	50.9	56.5	5.6
4	62.75	71.4	20.4	51.0	56.5	5.5
	71.75	70.3	20.4	49.9	56.5	6.6



RF output level

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LAB.

Company : Orion Electric Co., Ltd. Report Number : 23CE0062-YW-1
Equipment : DVD/VCR Regulation : FCC Part 15 Subpart B
Model number : HR-XVC20US Date : October 28, 2002
Power : AC 120 V / 60 Hz
Description : VCR Playback mode

Engineer : S. Tanaka
: Sadahiko Tanaka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	86.8	20.4	66.4	69.5	3.1
4	67.25	86.6	20.4	66.2	69.5	3.3

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	72.3	20.4	51.9	56.5	4.6
	65.75	71.1	20.4	50.7	56.5	5.8
4	62.75	71.5	20.4	51.1	56.5	5.4
	71.75	70.4	20.4	50.0	56.5	6.5



RF output level

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LAB.

Company : Orion Electric Co., Ltd.
Equipment : DVD/VCR
Model number : HR-XVC20US
Power : AC 120 V / 60 Hz
Description : DVD Playback mode

Report Number : 23CE0062-YW-1
Regulation : FCC Part 15 Subpart B
Date : October 28, 2002

Engineer : *S. Tanaka*
: Sadahiko Tanaka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	85.7	20.4	65.3	69.5	4.2
4	67.25	85.6	20.4	65.2	69.5	4.3

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	72.3	20.4	51.9	56.5	4.6
	65.75	71.2	20.4	50.8	56.5	5.7
4	62.75	71.5	20.4	51.1	56.5	5.4
	71.75	70.4	20.4	50.0	56.5	6.5

DATA OF RF SPURIOUS

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LABORATORY

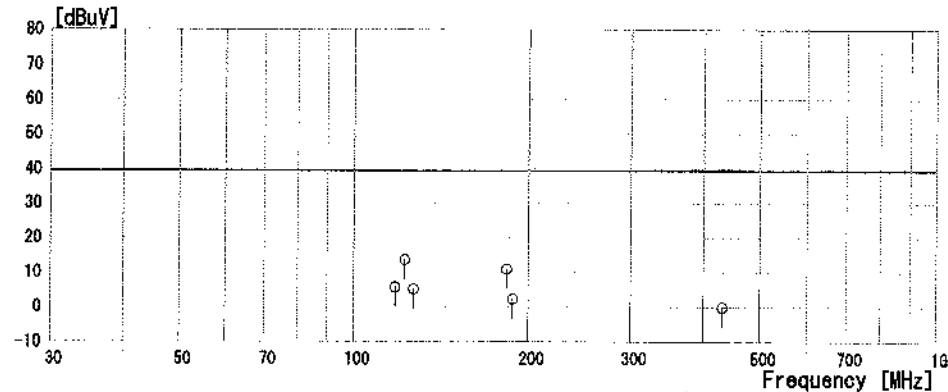
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : TV reception
PORT : RF Output Terminal
POWER : AC120V/60Hz
REMARKS 1 : 0dBmV Input
REMARKS 2 : 3CH Output

REPORT NO. : 23CE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer : *S. Tanaka*
: Sadahiko Tanaka

No.	FREQ [MHz]	READING QP [dBuV]	AV [dB]	C. FACTOR [dB]	RESULT QP [dBuV]	AV [dB]	LIMIT QP [dBuV]	AV [dB]	MARGIN QP [dB]	AV [dB]
1	118.000	27.5	---	-21.9	5.7	---	39.5	---	33.8	---
2	122.500	35.5	---	-21.9	13.7	---	39.5	---	25.8	---
3	127.000	27.0	---	-21.9	5.1	---	39.5	---	34.4	---
4	183.750	33.0	---	-22.0	10.9	---	39.5	---	28.6	---
5	188.250	24.3	---	-22.0	2.2	---	39.5	---	37.3	---
6	432.020	21.7	---	-21.8	-0.1	---	39.5	---	39.6	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF RF SPURIOUS

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LABORATORY

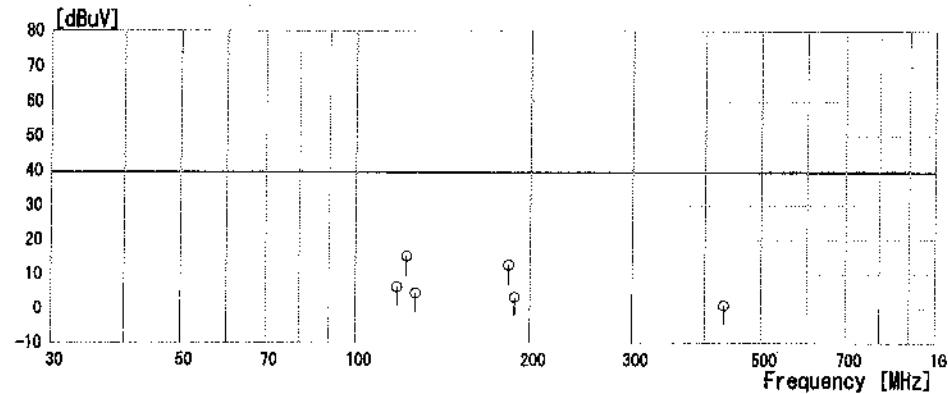
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : TV reception
PORT : RF Output Terminal
POWER : AC120V/60Hz
REMARKS 1 : 25dBmV Input
REMARKS 2 : 3CH Output

REPORT NO. : 23CE0082-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Sadahiko Tanaka

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
1	118.000	28.1	---	-21.9	6.3	---	39.5	---	33.2	---
2	122.500	37.0	---	-21.9	15.1	---	39.5	---	24.4	---
3	127.000	26.4	---	-21.9	4.5	---	39.5	---	35.0	---
4	183.750	34.6	---	-22.0	12.6	---	39.5	---	26.9	---
5	188.250	25.2	---	-22.0	3.2	---	39.5	---	36.3	---
6	432.020	22.8	---	-21.8	1.0	---	39.5	---	38.5	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF RF SPURIOUS

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LABORATORY

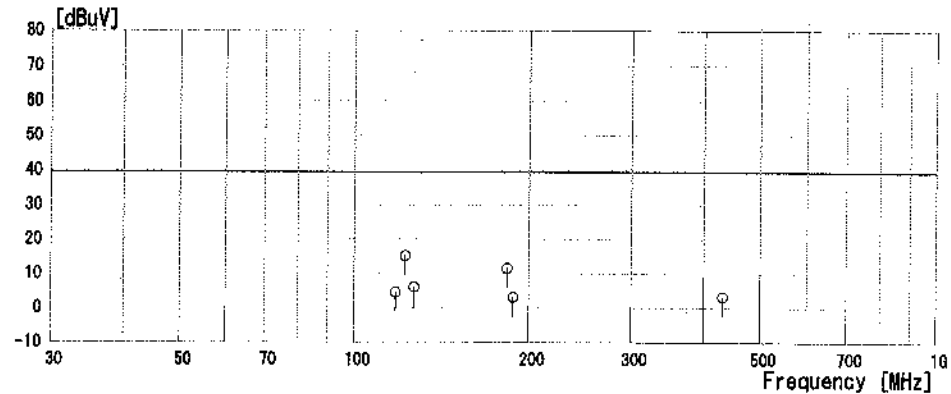
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : AV Input
PORT : RF Output Terminal
POWER : AC120V/60Hz
REMARKS 1 : 1Vp-p Input
REMARKS 2 : 3CH Output

REPORT NO. : 23CE0082-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Sadahiko Tanaka

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
1	118.000	26.4	---	-21.9	4.5	---	39.5	---	35.0	---
2	122.500	37.1	---	-21.9	15.2	---	39.5	---	24.3	---
3	127.000	28.0	---	-21.9	6.1	---	39.5	---	33.4	---
4	183.750	33.6	---	-22.0	11.6	---	39.5	---	27.9	---
5	188.250	25.2	---	-22.0	3.2	---	39.5	---	36.3	---
6	432.020	25.2	---	-21.8	3.4	---	39.5	---	36.1	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF RF SPURIOUS

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LABORATORY

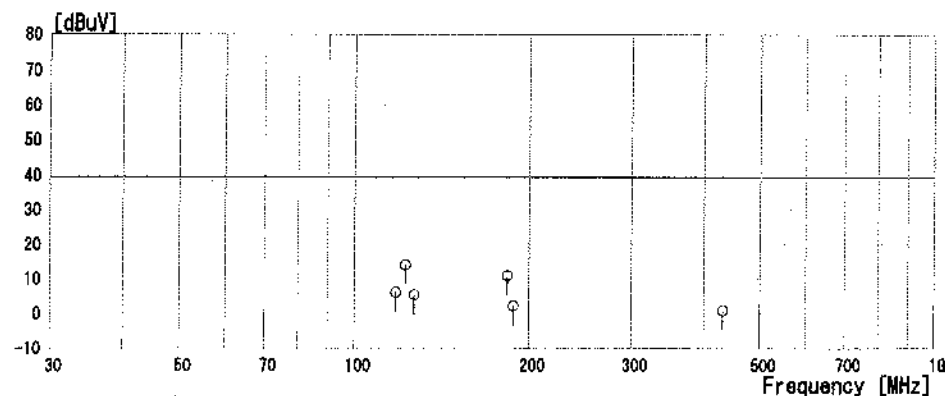
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : AV Input
PORT : RF Output Terminal
POWER : AC120V/60Hz
REMARKS 1 : 5Vp-p Input
REMARKS 2 : 3CH Output

REPORT NO. : 23CE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: *S. Tanaka*
Sadahiko Tanaka

No.	FREQ [MHz]	READING QP AV [dBuV]	C. FACTOR [dB]	RESULT QP AV [dBuV]	LIMIT QP AV [dBuV]	MARGIN QP AV [dB]
1	118.000	28.0	-21.9	6.1	39.5	33.4
2	122.500	35.9	-21.9	14.0	39.5	25.5
3	127.000	27.3	-21.9	5.4	39.5	34.1
4	183.750	33.0	-22.0	11.0	39.5	28.5
5	188.250	24.3	-22.0	2.3	39.5	37.2
6	432.020	22.8	-21.8	1.0	39.5	38.5

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF RF SPURIOUS

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LABORATORY

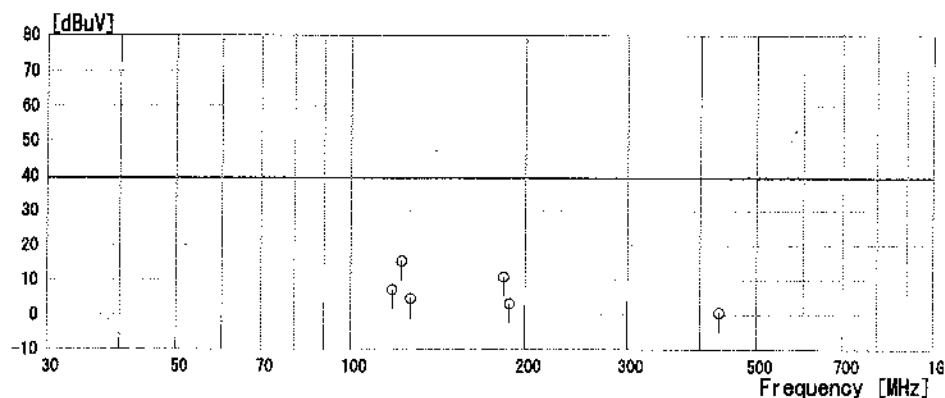
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : VCR Playback
PORT : RF Output Terminal
POWER : AC120V/60Hz
REMARKS 1 : -
REMARKS 2 : 3CH Output

REPORT NO. : 23CE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: *S. Tanaka*
Sadahiko Tanaka

No.	FREQ [MHz]	READING QP AV [dBuV]	C. FACTOR [dB]	RESULT QP AV [dBuV]	LIMIT QP AV [dBuV]	MARGIN QP AV [dB]
1	118.000	28.0	-21.9	7.2	39.5	32.3
2	122.500	37.3	-21.9	15.5	39.5	24.0
3	127.000	26.5	-21.9	4.6	39.5	34.9
4	183.750	32.9	-22.0	10.8	39.5	28.7
5	188.250	25.1	-22.0	3.1	39.5	36.4
6	432.020	22.5	-21.8	0.8	39.5	38.9

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF RF SPURIOUS

A-PEX INTERNATIONAL CO.,LTD.
YOKOWA ENG LABORATORY

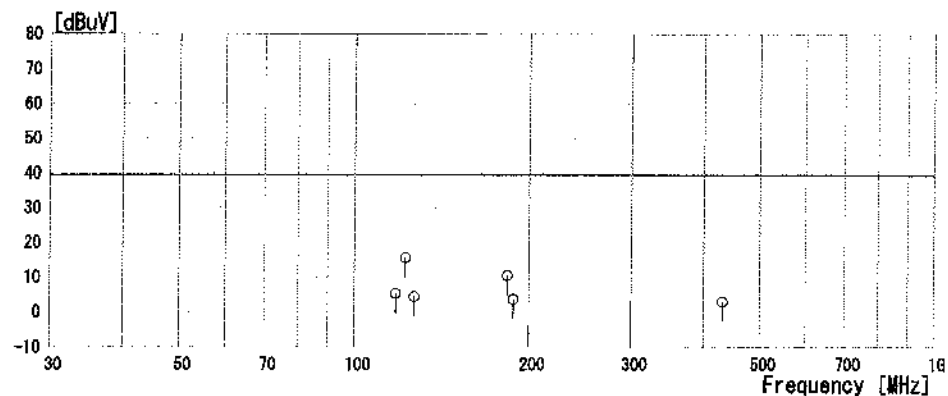
COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : DVD Playback
PORT : RF Output Terminal
POWER : AC120V/60Hz
REMARKS 1 : -
REMARKS 2 : 3CH Output

REPORT NO. : 23CE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: *S. Tanaka*
Sadahiko Tanaka

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	118.000	27.2	---	-21.9	5.3	---	39.5	---	34.2	---
2	122.500	37.5	---	-21.9	15.6	---	39.5	---	23.9	---
3	127.000	26.3	---	-21.9	4.4	---	39.5	---	35.1	---
4	183.750	32.5	---	-22.0	10.5	---	39.5	---	29.0	---
5	188.250	25.6	---	-22.0	3.6	---	39.5	---	35.9	---
6	432.020	24.8	---	-21.8	3.0	---	39.5	---	38.5	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF RF SPURIOUS

A-PEX INTERNATIONAL CO.,LTD.
YOKOWA ENG LABORATORY

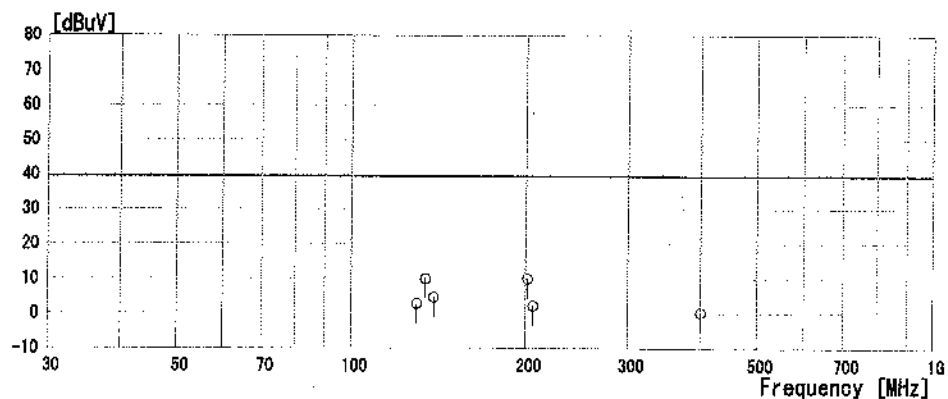
COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : TV reception
PORT : RF Output Terminal
POWER : AC120V/60Hz
REMARKS 1 : OdBmV Input
REMARKS 2 : 4CH Output

REPORT NO. : 23CE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: *S. Tanaka*
Sadahiko Tanaka

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	130.000	24.7	---	-21.9	2.8	---	39.5	---	36.7	---
2	134.500	31.8	---	-21.8	10.0	---	39.5	---	29.5	---
3	139.000	26.4	---	-21.8	4.6	---	39.5	---	34.9	---
4	201.750	31.7	---	-21.8	9.9	---	39.5	---	29.6	---
5	206.250	23.9	---	-21.8	2.1	---	39.5	---	37.4	---
6	400.600	22.5	---	-22.3	0.2	---	39.5	---	39.3	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF RF SPURIOUS

A-PEX INTERNATIONAL CO.,LTD.
YOKOHAMA EMC LABORATORY

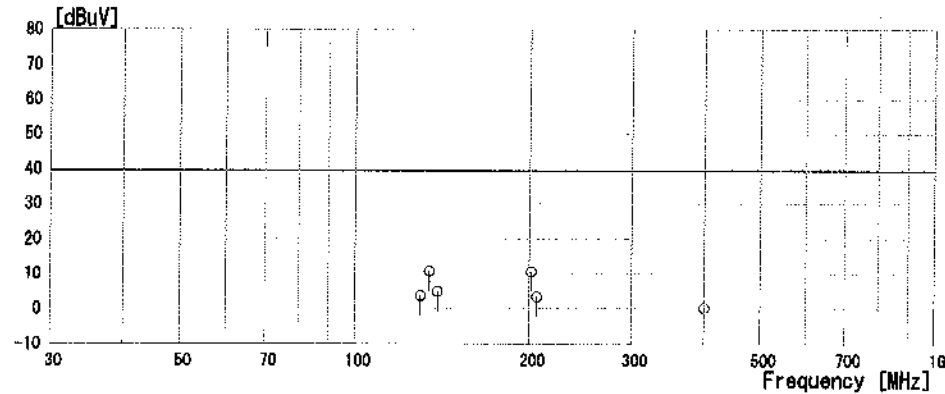
COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : TV reception
PORT : RF Output Terminal
POWER : AC120V/60Hz
REMARKS 1 : 25dBmV Input
REMARKS 2 : 4CH Output

REPORT NO. : 23GE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: *S. Tanaka*
Sadahiko Tanaka

No.	FREQ [MHz]	READING QP [dBuV]	C. FACTOR AV [dB]	RESULT QP [dBuV]	AV [dB]	LIMIT QP [dBuV]	AV [dB]	MARGIN QP [dB]	AV [dB]
1	130.000	25.4	---	-21.9	3.5	---	39.5	---	36.0
2	134.500	32.5	---	-21.8	10.7	---	39.5	---	28.8
3	139.000	26.5	---	-21.8	4.7	---	39.5	---	34.8
4	201.750	32.3	---	-21.8	10.6	---	39.5	---	28.9
5	206.250	25.0	---	-21.8	3.3	---	39.5	---	36.2
6	400.600	22.4	---	-22.3	0.2	---	39.5	---	39.3

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF RF SPURIOUS

A-PEX INTERNATIONAL CO.,LTD.
YOKOHAMA EMC LABORATORY

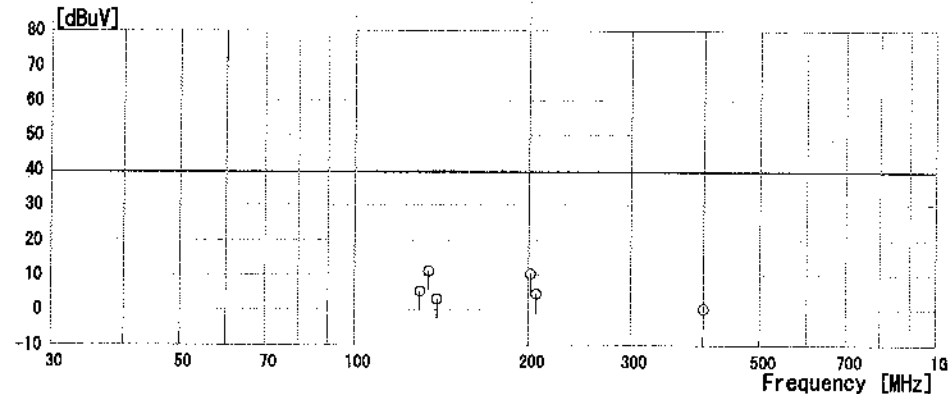
COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : AV Input
PORT : RF Output Terminal
POWER : AC120V/60Hz
REMARKS 1 : 1Vp-p Input
REMARKS 2 : 4CH Output

REPORT NO. : 23GE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: *S. Tanaka*
Sadahiko Tanaka

No.	FREQ [MHz]	READING QP [dBuV]	C. FACTOR AV [dB]	RESULT QP [dBuV]	AV [dB]	LIMIT QP [dBuV]	AV [dB]	MARGIN QP [dB]	AV [dB]
1	130.000	27.2	---	-21.9	5.3	---	39.5	---	34.2
2	134.500	33.0	---	-21.8	11.2	---	39.5	---	28.3
3	139.000	24.8	---	-21.8	3.0	---	39.5	---	36.5
4	201.750	32.1	---	-21.8	10.3	---	39.5	---	29.2
5	206.250	26.2	---	-21.8	4.4	---	39.5	---	35.1
6	400.600	22.5	---	-22.3	0.3	---	39.5	---	39.2

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF RF SPURIOUS

A-PEX INTERNATIONAL CO.,LTD.
YOKOWA EMC LABORATORY

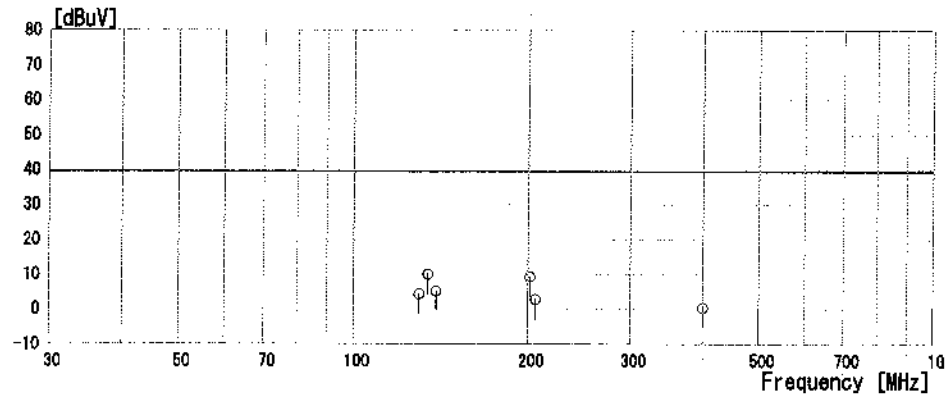
COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : AV Input
PORT : RF Output Terminal
POWER : AC120V/60Hz
REMARKS 1 : 5Vp-p Input
REMARKS 2 : 4CH Output

REPORT NO. : 23CE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Sadahiko Tanaka

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]	[dBuV]		[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]
1	130.000	26.2	---	-21.9	4.3	---	39.5	---	35.2	---
2	134.500	31.8	---	-21.8	10.0	---	39.5	---	29.5	---
3	139.000	26.9	---	-21.8	5.1	---	39.5	---	34.4	---
4	201.750	31.0	---	-21.8	9.3	---	39.5	---	30.2	---
5	206.250	24.5	---	-21.8	2.7	---	39.5	---	36.8	---
6	400.600	22.5	---	-22.3	0.3	---	39.5	---	39.2	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF RF SPURIOUS

A-PEX INTERNATIONAL CO.,LTD.
YOKOWA EMC LABORATORY

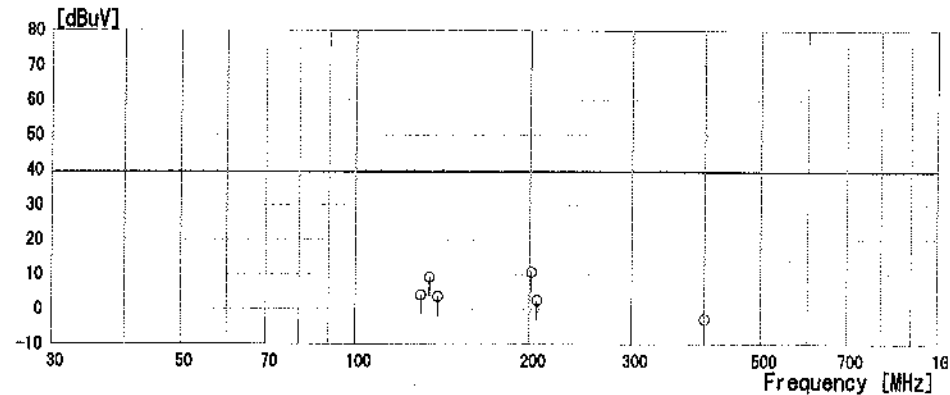
COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : VCR Playback
PORT : RF Output Terminal
POWER : AC120V/60Hz
REMARKS 1 : -
REMARKS 2 : 4CH Output

REPORT NO. : 23CE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Sadahiko Tanaka

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]	[dBuV]		[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]
1	130.000	26.0	---	-21.9	4.1	---	39.5	---	35.4	---
2	134.500	31.0	---	-21.8	9.2	---	39.5	---	30.3	---
3	139.000	25.4	---	-21.8	3.6	---	39.5	---	35.9	---
4	201.750	32.4	---	-21.8	10.6	---	39.5	---	28.9	---
5	206.250	24.3	---	-21.8	2.5	---	39.5	---	37.0	---
6	400.600	19.5	---	-22.3	-2.8	---	39.5	---	42.3	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF RF SPURIOUS

A-PEX INTERNATIONAL CO., LTD.
YOKOHAMA ENG. LABORATORY

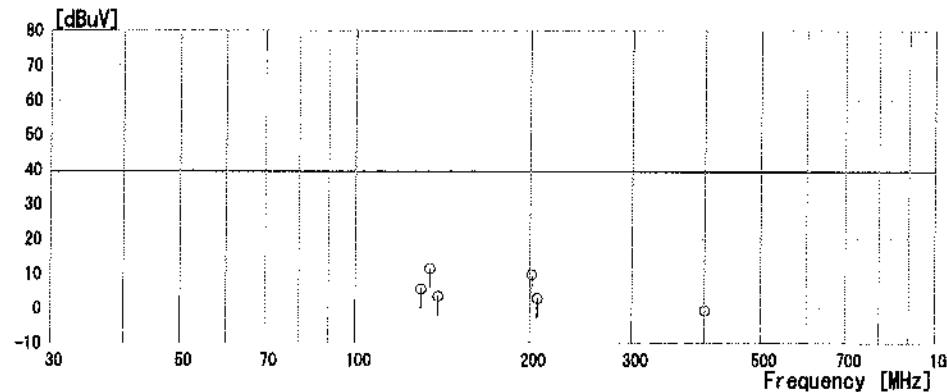
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : DVD Playback
PORT : RF Output Terminal
POWER : AC120V/60Hz
REMARKS 1 :
REMARKS 2 : 4CH Output

REPORT NO. : 23CE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Sadahiko Tanaka

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	130.000	27.5	---	-21.9	5.6	---	39.5	---	33.9	---
2	134.500	33.3	---	-21.8	11.5	---	39.5	---	28.0	---
3	139.000	25.2	---	-21.8	3.4	---	39.5	---	36.1	---
4	201.750	31.5	---	-21.8	9.7	---	39.5	---	29.8	---
5	208.250	24.5	---	-21.8	2.7	---	39.5	---	36.8	---
6	400.800	21.6	---	-22.3	-0.6	---	39.5	---	40.1	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF ANTENNA TRANSFER SWITCH

A-PEX INTERNATIONAL CO., LTD.
YOKOHAMA ENG. LABORATORY

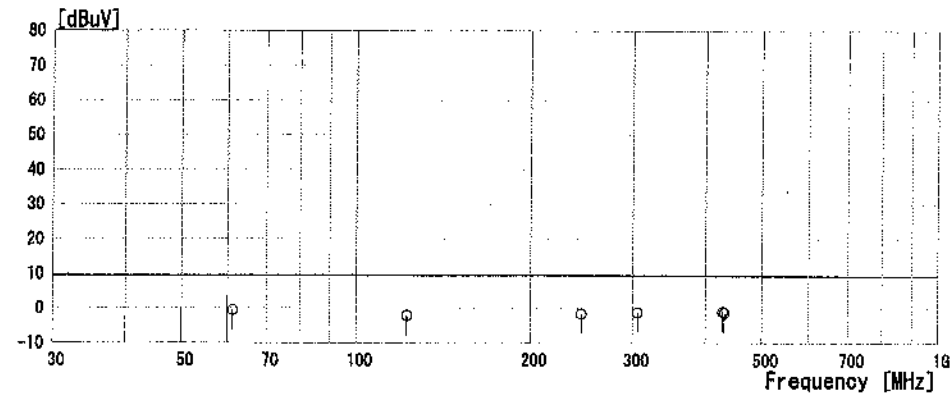
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : AV Input
PORT : RF Input Terminal
POWER : AC120V/60Hz
REMARKS 1 : 1Vp-p Input
REMARKS 2 : 3CH Output

REPORT NO. : 23CE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Sadahiko Tanaka

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	61.250	21.1	---	-21.7	-0.6	---	9.5	---	10.1	---
2	122.500	19.7	---	-21.9	-2.2	---	9.5	---	11.7	---
3	245.000	20.3	---	-22.0	-1.7	---	9.5	---	11.2	---
4	306.250	20.7	---	-22.0	-1.3	---	9.5	---	10.8	---
5	428.750	20.8	---	-21.7	-1.0	---	9.5	---	10.5	---
6	432.020	20.5	---	-21.8	-1.3	---	9.5	---	10.8	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF ANTENNA TRANSFER SWITCH

A-PEX INTERNATIONAL CO.,LTD.
YOKOHAMA ENG. LABORATORY

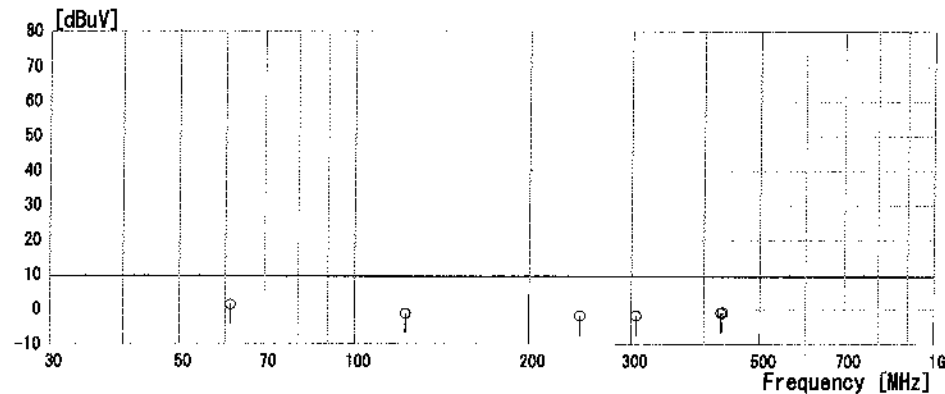
COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE: AV Input
PORT : RF Input Terminal
POWER : AC120V/60Hz
REMARKS 1 : 5Vp-p Input
REMARKS 2 : 3CH Output

REPORT NO. : 23CE0082-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Sadahiko Tanaka

No.	FREQ [MHz]	READING QP [dBuV]	AV [dB]	C. FACTOR [dB]	RESULT QP [dBuV]	AV [dB]	LIMIT QP [dBuV]	AV [dB]	MARGIN QP [dB]	AV [dB]
1	61.250	23.0	---	-21.7	1.2	---	9.5	---	8.3	---
2	122.500	20.6	---	-21.9	-1.3	---	9.5	---	10.8	---
3	245.000	20.1	---	-22.0	-1.9	---	9.5	---	11.4	---
4	306.250	20.1	---	-22.0	-1.9	---	9.5	---	11.4	---
5	428.750	20.7	---	-21.7	-1.1	---	9.5	---	10.6	---
6	432.020	20.9	---	-21.8	-0.9	---	9.5	---	10.4	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF ANTENNA TRANSFER SWITCH

A-PEX INTERNATIONAL CO.,LTD.
YOKOHAMA ENG. LABORATORY

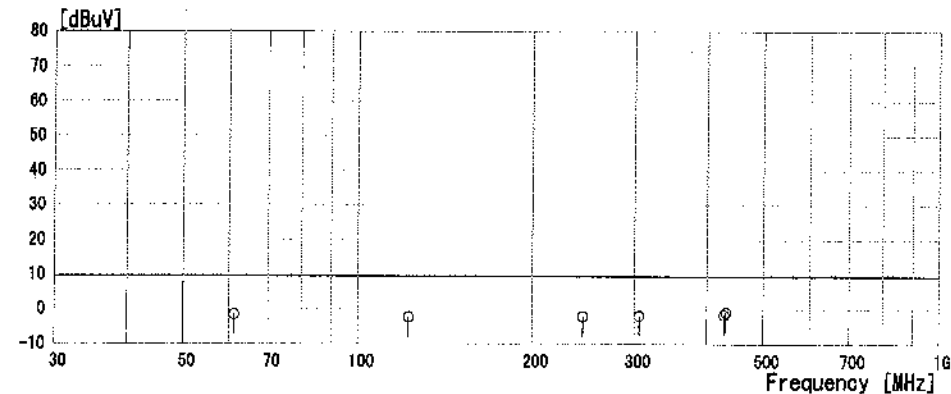
COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE: VCR Playback
PORT : RF Input Terminal
POWER : AC120V/60Hz
REMARKS 1 : -
REMARKS 2 : 3CH Output

REPORT NO. : 23CE0082-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Sadahiko Tanaka

No.	FREQ [MHz]	READING QP [dBuV]	AV [dB]	C. FACTOR [dB]	RESULT QP [dBuV]	AV [dB]	LIMIT QP [dBuV]	AV [dB]	MARGIN QP [dB]	AV [dB]
1	61.250	20.1	---	-21.7	-1.6	---	9.5	---	11.1	---
2	122.500	19.6	---	-21.9	-2.3	---	9.5	---	11.8	---
3	245.000	19.8	---	-22.0	-2.2	---	9.5	---	11.7	---
4	306.250	20.1	---	-22.0	-1.9	---	9.5	---	11.4	---
5	428.750	20.1	---	-21.7	-1.7	---	9.5	---	11.2	---
6	432.020	20.9	---	-21.8	-0.9	---	9.5	---	10.4	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF ANTENNA TRANSFER SWITCH

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LABORATORY

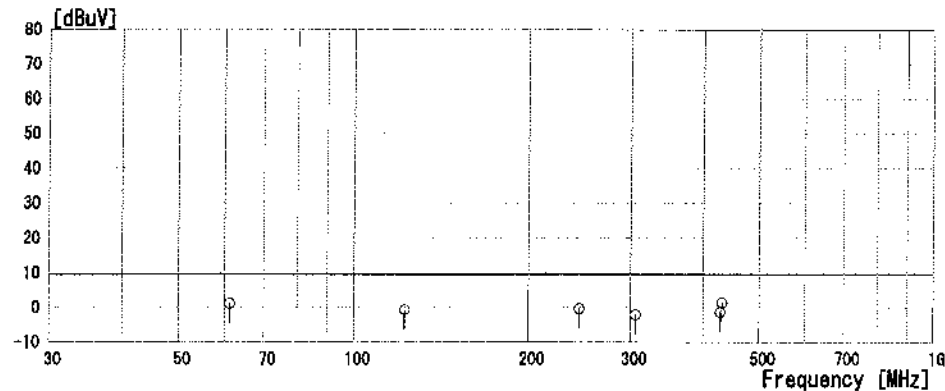
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : DVD Playback
PORT : RF Input Terminal
POWER : AC120V/60Hz
REMARKS 1 :
REMARKS 2 : 3CH Output

REPORT NO. : 23CE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Sadahiko Tanaka

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
1	61.250	22.9	---	-21.7	1.1	---	9.5	---	8.4	---
2	122.500	21.2	---	-21.9	-0.7	---	9.5	---	10.2	---
3	245.000	21.6	---	-22.0	-0.4	---	9.5	---	9.9	---
4	308.250	19.9	---	-22.0	-2.1	---	9.5	---	11.6	---
5	428.750	20.4	---	-21.7	-1.3	---	9.5	---	10.8	---
6	432.020	23.2	---	-21.8	1.4	---	9.5	---	8.1	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF ANTENNA TRANSFER SWITCH

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LABORATORY

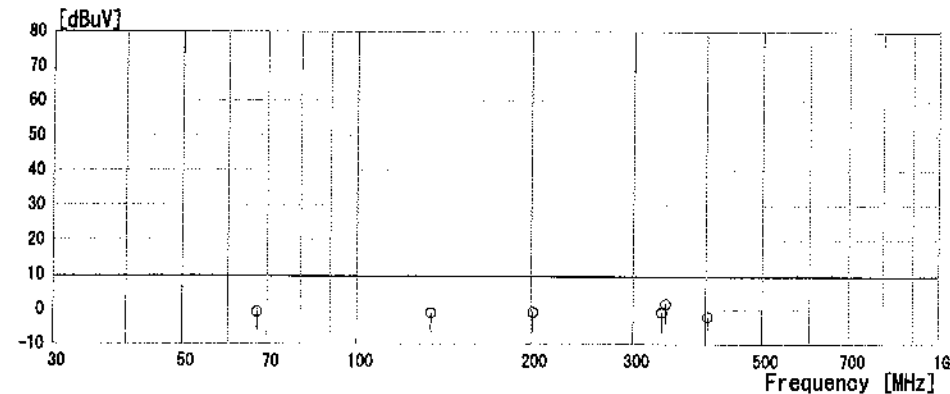
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : AV Input
PORT : RF Input Terminal
POWER : AC120V/60Hz
REMARKS 1 : 1Vp-p Input
REMARKS 2 : 4CH Output

REPORT NO. : 23CE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Sadahiko Tanaka

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
1	67.250	20.9	---	-21.7	-0.7	---	9.5	---	10.2	---
2	134.500	20.8	---	-21.8	-1.0	---	9.5	---	10.5	---
3	201.750	21.0	---	-21.8	-0.8	---	9.5	---	10.3	---
4	336.250	21.3	---	-22.1	-0.8	---	9.5	---	10.3	---
5	341.250	23.6	---	-22.1	1.6	---	9.5	---	7.9	---
6	403.500	20.1	---	-22.2	-2.1	---	9.5	---	11.6	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF ANTENNA TRANSFER SWITCH

A-PEX INTERNATIONAL CO.,LTD.
YOKOWA EMC LABORATORY

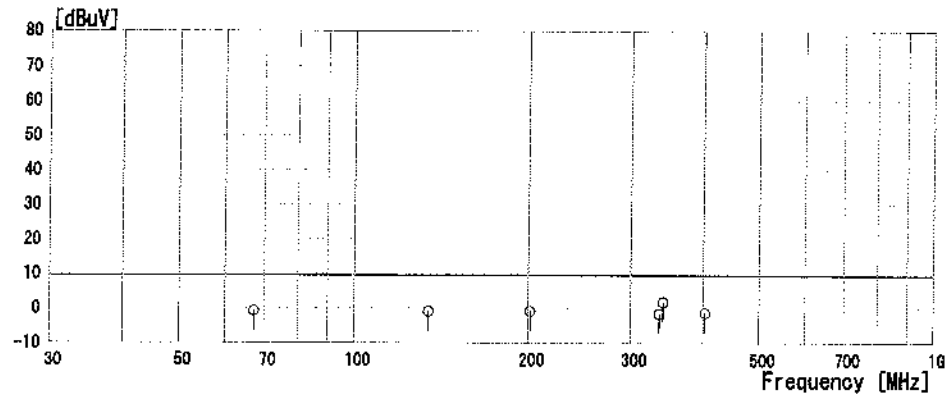
COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : AV Input
PORT : RF Input Terminal
POWER : AC120V/60Hz
REMARKS 1 : 5Vp-p Input
REMARKS 2 : 4CH Output

REPORT NO. : 23CE0082-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Sadahiko Tanaka

No.	FREQ [MHz]	READING QP [dBuV]	AV [dB]	C. FACTOR [dB]	RESULT QP [dBuV]	AV [dB]	LIMIT QP [dBuV]	AV [dB]	MARGIN QP [dB]	AV [dB]
1	67.250	20.9	---	-21.7	-0.8	---	9.5	---	10.3	---
2	134.500	20.8	---	-21.8	-1.0	---	9.5	---	10.5	---
3	201.750	20.8	---	-21.8	-0.9	---	9.5	---	10.4	---
4	336.250	20.5	---	-22.1	-1.6	---	9.5	---	11.1	---
5	341.250	23.8	---	-22.1	1.8	---	9.5	---	7.7	---
6	403.500	20.8	---	-22.2	-1.4	---	9.5	---	10.9	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF ANTENNA TRANSFER SWITCH

A-PEX INTERNATIONAL CO.,LTD.
YOKOWA EMC LABORATORY

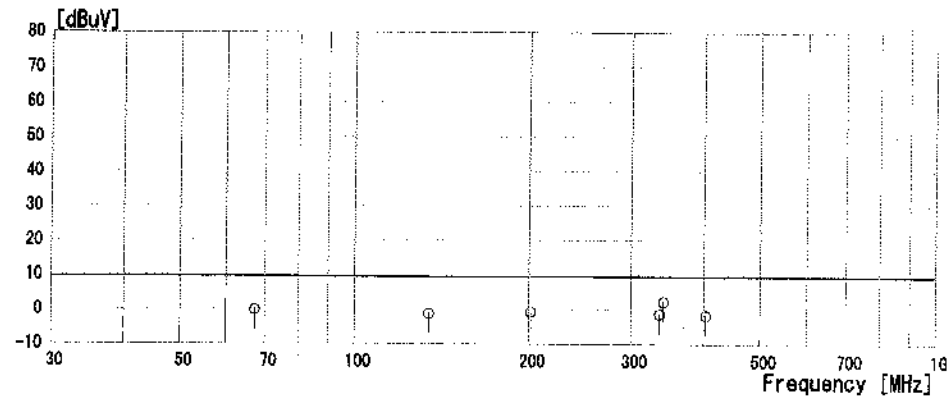
COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : VCR Playback
PORT : RF Input Terminal
POWER : AC120V/60Hz
REMARKS 1 :
REMARKS 2 : 4CH Output

REPORT NO. : 23CE0082-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Sadahiko Tanaka

No.	FREQ [MHz]	READING QP [dBuV]	AV [dB]	C. FACTOR [dB]	RESULT QP [dBuV]	AV [dB]	LIMIT QP [dBuV]	AV [dB]	MARGIN QP [dB]	AV [dB]
1	67.250	21.4	---	-21.7	-0.3	---	9.5	---	9.8	---
2	134.500	20.5	---	-21.8	-1.2	---	9.5	---	10.7	---
3	201.750	21.0	---	-21.8	-0.8	---	9.5	---	10.3	---
4	336.250	20.7	---	-22.1	-1.4	---	9.5	---	10.9	---
5	341.250	24.3	---	-22.1	2.2	---	9.5	---	7.3	---
6	403.500	20.5	---	-22.2	-1.7	---	9.5	---	11.2	---

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



DATA OF ANTENNA TRANSFER SWITCH

A-PEX INTERNATIONAL CO., LTD.
YOKOWA EMC LABORATORY

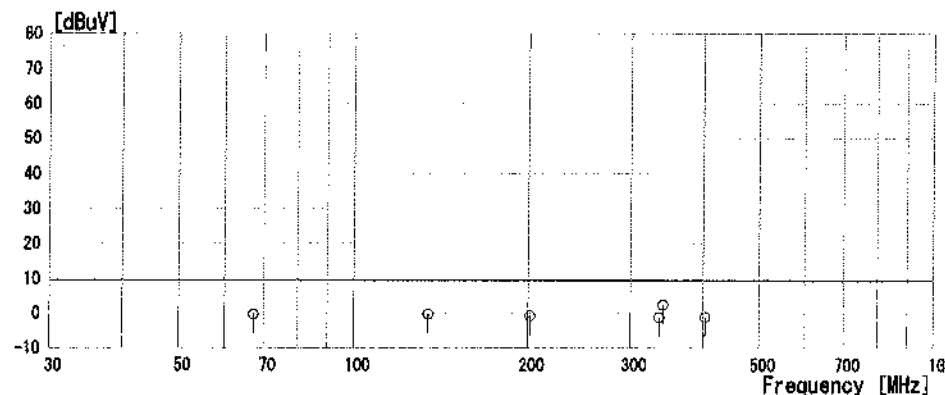
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
Model Name : HR-XVC20US
OPERATION MODE : DVD Playback
PORT : RF Input Terminal
POWER : AC120V/60Hz
REMARKS 1 :
REMARKS 2 : 4GH Output

REPORT NO. : 23CE0062-YW-1
DATE : October 28, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Sadahiko Tanaka

No.	FREQ [MHz]	READING QP [dBuV]	AV [dB]	C. FACTOR [dB]	RESULT QP [dBuV]	AV [dB]	LIMIT QP [dBuV]	AV [dB]	MARGIN QP [dB]	AV [dB]
1	67.250	21.3	----	-21.7	-0.4	----	9.5	----	9.9	----
2	134.500	21.5	----	-21.8	-0.3	----	9.5	----	9.8	----
3	201.750	21.0	----	-21.8	-0.8	----	9.5	----	10.3	----
4	336.250	20.9	----	-22.1	-1.3	----	9.5	----	10.8	----
5	341.250	24.5	----	-22.1	2.4	----	9.5	----	7.1	----
6	403.500	21.0	----	-22.2	-1.2	----	9.5	----	10.7	----

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV]
+ CABLE LOSS[dBμV] - AMPLIFIER GAIN[dBμV]



Picture sensitivity test

A-PEX INTERNATIONAL CO., LTD.
Yokowa EMC Laboratory

Company : Orion Electric Co., Ltd.
Equipment : DVD/VCR
Model number : HR-XVC20US
Power : AC 120 V / 60 Hz
Description : TV Reception mode

Report Number : 23CE0062-YW-1
Regulation : FCC Part15B Subpart B
Date : October 29, 2002

Engineer : Sadahiko Tanaka

Sensitivity				Sensitivity			
Ch.	Frequency	Sensitivity		Ch.	Frequency	Sensitivity	
[VHF]	[MHz]	[dBuV]	[uV]	[UHF]	[MHz]	[dBuV]	[uV]
2	55.25	20.0	10.0	14	471.25	20.2	10.2
3	61.25	18.2	8.1	20	507.25	21.0	11.2
4	67.25	18.0	7.9	26	543.25	21.7	12.2
5	77.25	19.4	9.3	32	579.25	22.5	13.3
6	83.25	19.6	9.5	38	615.25	23.0	14.1
7	175.25	20.1	10.1	44	651.25	23.9	15.7
8	181.25	19.5	9.4	50	687.25	25.5	18.8
9	187.25	19.8	9.8	56	723.25	24.1	16.0
10	193.25	20.5	10.6	62	759.25	23.2	14.5
11	199.25	19.5	9.4	69	801.25	20.4	10.5
12	205.25	19.7	9.7	-	-	-	-
13	211.25	20.0	10.0	-	-	-	-
Average VHF		9.5		Average UHF		13.7	
Average UHF/VHF : 20 log UHF[uV]/VHF[uV] =				3.2 dB			
[Limit : 8.0 dB]							

Noise figure test

A-PEX INTERNATIONAL CO., LTD.
Yokowa EMC Laboratory

Company : Orion Electric Co., Ltd.
Equipment : DVD/VCR
Model number : HR-XVC20US
Power : AC 120 V / 60 Hz
Description : TV reception mode

Report Number : 23CE0062-YW-1
Regulation : FCC Part 15B Subpart B
Date : October 31, 2002

Engineer : Sadahiko Tanaka

Ch.	Frequency [MHz]	Meter reading [dB]	Correction factor [dB]	Noise figure [dB]	Limits [dB]	Margin [dB]
TV VHF Fundamental						
2	55.25	5.1	0.2	4.9	14.0	9.1
3	61.25	4.4	0.2	4.2	14.0	9.8
4	67.25	3.8	0.2	3.6	14.0	10.4
5	77.25	3.8	0.2	3.6	14.0	10.4
6	83.25	3.7	0.2	3.5	14.0	10.5
7	175.25	5.5	0.2	5.3	14.0	8.7
8	181.25	5.5	0.2	5.3	14.0	8.7
9	187.25	5.7	0.2	5.5	14.0	8.5
10	193.25	5.7	0.2	5.5	14.0	8.5
11	199.25	5.5	0.2	5.3	14.0	8.7
12	205.25	5.4	0.2	5.2	14.0	8.8
13	211.25	5.4	0.2	5.2	14.0	8.8
TV UHF Fundamental						
14	471.25	6.3	0.3	6.0	14.0	8.0
20	507.25	6.9	0.3	6.6	14.0	7.4
26	543.25	7.0	0.3	6.7	14.0	7.3
32	579.25	6.9	0.3	6.6	14.0	7.4
38	615.25	6.3	0.3	6.0	14.0	8.0
44	651.25	6.7	0.3	6.4	14.0	7.6
50	687.25	6.8	0.3	6.5	14.0	7.5
56	723.25	5.6	0.4	5.2	14.0	8.8
62	759.25	5.8	0.4	5.4	14.0	8.6
69	801.25	6.1	0.4	5.7	14.0	8.3
Mid-band						
14	121.25	3.6	0.2	3.4	14.0	10.6
16	133.25	6.9	0.2	6.7	14.0	7.3
18	145.25	6.2	0.2	6.0	14.0	8.0
20	157.25	5.8	0.2	5.6	14.0	8.4
22	169.25	5.7	0.2	5.5	14.0	8.5
Super-band						
23	217.25	5.5	0.2	5.3	14.0	8.7
26	235.25	5.5	0.2	5.3	14.0	8.7
29	253.25	5.7	0.2	5.5	14.0	8.5
32	271.25	5.7	0.2	5.5	14.0	8.5
36	295.25	5.7	0.2	5.5	14.0	8.5

Test Report No : 23CE0082-YW-1

APPENDIX 3 Test Instruments

EMI test equipment

Item	Model	Manufacturer	Serial No.	Calibration	Due Date
AF-03	Pre Amplifier	Anritsu	MP848A	RE, AT	2002/04/01 * 12
AF-07	Pre Amplifier	Agilent	HP8449B	RE, AT	2001/12/21 * 12
AT-04	Attenuator	Anritsu	MP721B	RE	2002/04/04 * 12
BA-04	Biconical Antenna	Schwarzbeck	BBA9106	RE	2002/04/27 * 12
LA-05	Logperiodic Antenna	Schwarzbeck	UHALP8108-A	RE	2001/11/17 * 12
SA-08	Spectrum Analyzer	Advantest	R3272	RE, CE, AT	2002/04/11 * 12
TR-04	Test Receiver	Rohde & Schwarz	ESVS10	RE	2002/05/01 * 12
OS-10	Digital Humidity Indicator	SATO	PC-8000TRH	RE	2002/05/09 * 12
OS-16	Digital Humidity Indicator	SATO	PC-8000TRH	RE, AT, NF, PS, TS, RF	2002/05/15 * 12
CC-20RG	Yokowa No.2 open coaxial(0.01~1000MHz)	A-PEX	CC-21,CC-22,CC-23,CC-24,CC-25,CC-26,CC-27,SW-21,SW-22	RE	2002/03/30 * 12
AT-03	Attenuator	Anritsu	MP721B	RE	2002/04/04 * 12
YOATS-02	Open Test Site	JSE	3m, 10m	RE	2002/03/17 * 12
AF-02	Pre Amplifier	Anritsu	MP848A	RE	2002/04/01 * 12
LS-07	LISN	Schwarzbeck	NSLK8126	CE (EUT)	2002/11/01 * 12
BA-10	Biconical Antenna	Schwarzbeck	BBA9106	RE	2002/10/16 * 12
LA-06	Logperiodic Antenna	Schwarzbeck	UHALP8108-A	RE	2002/06/02 * 12
SA-07	Spectrum Analyzer	Advantest	R3273	RE	2001/12/05 * 12
TR-03	Test Receiver	Rohde & Schwarz	ESH530	RE	2002/05/30 * 12
TR-02	Test Receiver	Rohde & Schwarz	ESVS30	RE	2002/04/17 * 12
OS-08	Digital Humidity Indicator	SATO	PC-8000TRH	RE	2002/04/10 * 12
LS-03	LISN	Schwarzbeck	NSLK8127	RE	2002/11/01 * 12
CC-10RC	Yokowa No.1 open coaxial(0.01~1000MHz)	A-PEX	CC-11,CC-12,CC-14,CC-15,CC-16,SW-11,SW-12	RE	2002/03/31 * 12
CC-2S	Yokowa No.2 shield coaxial(0.01MHz~1000MHz)	A-PEX	CC-24,CC-25,CC-26,CC-28,CC-29,SW-21,SW-22	RE	2002/03/30 * 12
CC-C10	Microwave Cable	Storm	421-014(7m)	RE	2001/12/22 * 12
CC-C13	Microwave Cable	Suhner	SUCOFLEX	RE	2002/01/13 * 12
YOATS-01	Open Test Site	JSE	3m, 10m	RE	2002/03/17 * 12
HA-01	Horn Antenna	A.H.Systems	SAS-200/571	RE	2002/05/07 * 12
SS-05	Digitizing Oscilloscope	Sony Tektronix	2221	PS	2002/01/10 * 12
AV17-01	Pattern Generator	Leader	408NPS	RE, CE, TS, RF	2002/07/29 * 12
APNF-M01	Noise Figure Indicator	Bena	ENF-2005	NF	2002/08/26 * 24
SP-01	75Ω Coaxial Cable(TV Type)	A-PEX	75-F-N-SP	AT	2002/04/28 * 12
SP-04	50Ω Coaxial Cable(Antenna Terminal)	A-PEX	50-N-N-SP	AT	2002/04/28 * 12
SP-05	50Ω Coaxial Cable(Antenna Terminal)	A-PEX	50-N-N-SP	AT	2002/04/28 * 12
AV14-02	Matching Pad	TME	ZT-102	AT, NF, PS	2002/06/06 * 12
APSSG04	Signal Generator	Rohde & Schwarz	SMY01	PS	2002/06/07 * 12
APBPF01	Band pass filter	Erika Fiedler	BP	PS	Pre Check

All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

Test Item:

- CE: Conducted emission
- RE: Radiated emission
- AT: Antenna terminal disturbance voltage
- PS: Picture sensitivity
- NF: Noise figure
- TS: Antenna transfer switch
- RF: RF output level/ spurious emission