

DATA OF CONDUCTION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No. : 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VCR
Model No. : HR-A592U
Serial No. :
Power : AC120V/6Hz
Mode : TV RECEPTION+REC
Remarks : 0dBmV INPUT
Date : 10/5/2002
Phase : Single Phase
Temperature : 26 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B

Engineer : Hisayuki Kioka

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]		[dB]	[dB]	[dB]	[dBuV]		[dBuV]		[dB]	
1.	0.4500	40.9	-	41.1	-	0.2	0.3	0.0	41.6	-	48.0	0.0	6.4	-
2.	0.5000	39.1	-	38.3	-	0.2	0.3	0.0	39.6	-	48.0	0.0	8.4	-
3.	1.1525	29.3	-	27.2	-	0.2	0.4	0.0	29.9	-	48.0	0.0	18.1	-
4.	2.5185	28.0	-	23.4	-	0.2	0.4	0.0	28.6	-	48.0	0.0	19.4	-
5.	8.5797	23.2	-	27.0	-	0.5	0.6	0.0	28.1	-	48.0	0.0	19.9	-
6.	14.3167	28.0	-	27.8	-	0.7	0.7	0.0	29.4	-	48.0	0.0	18.6	-

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

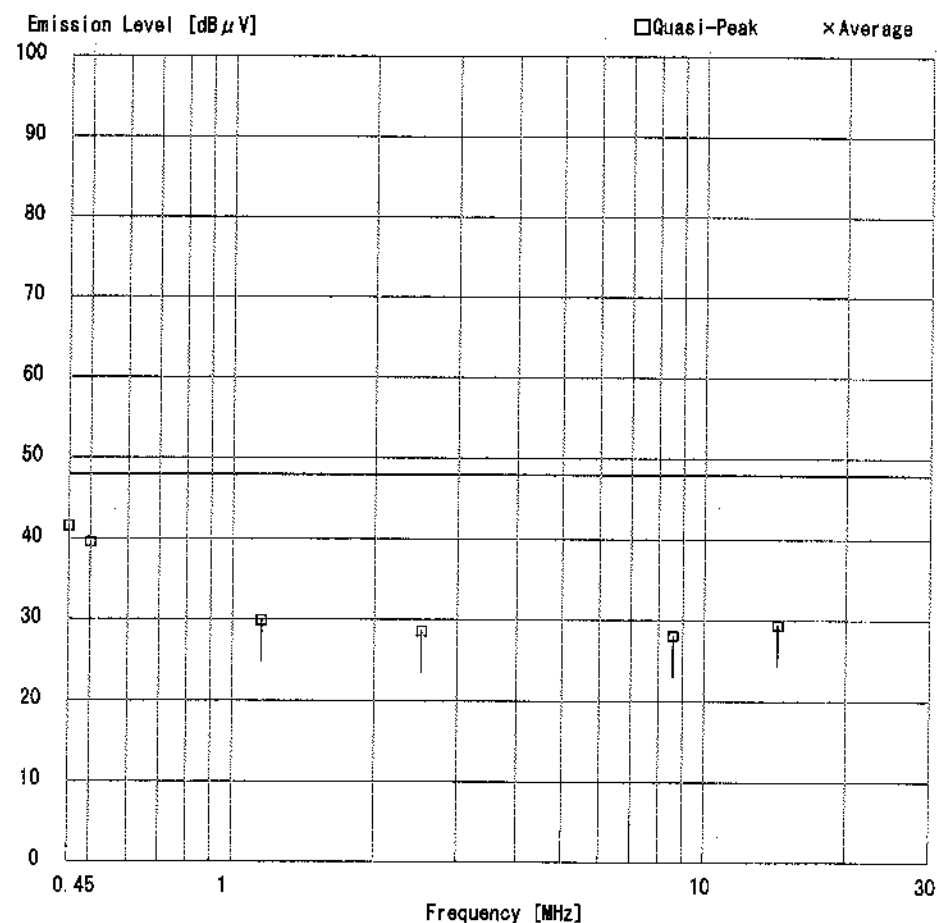
Except for the above table : adequate margin data below the limits.

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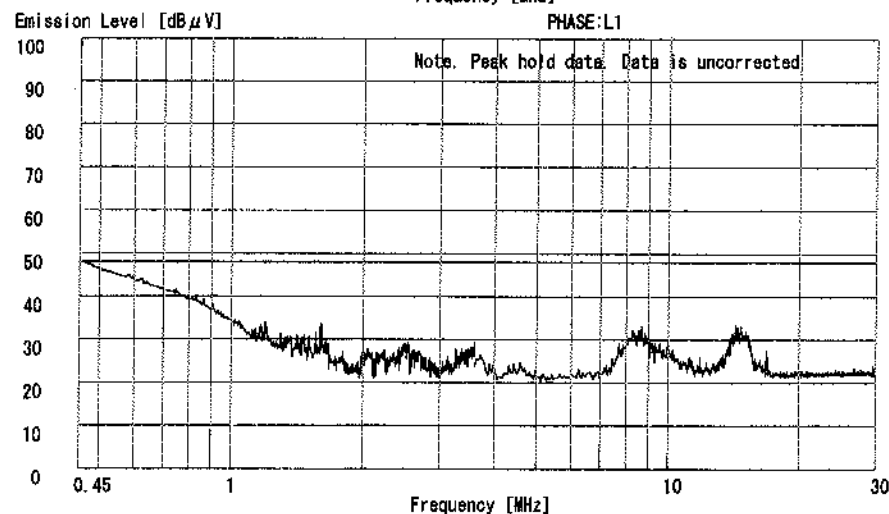
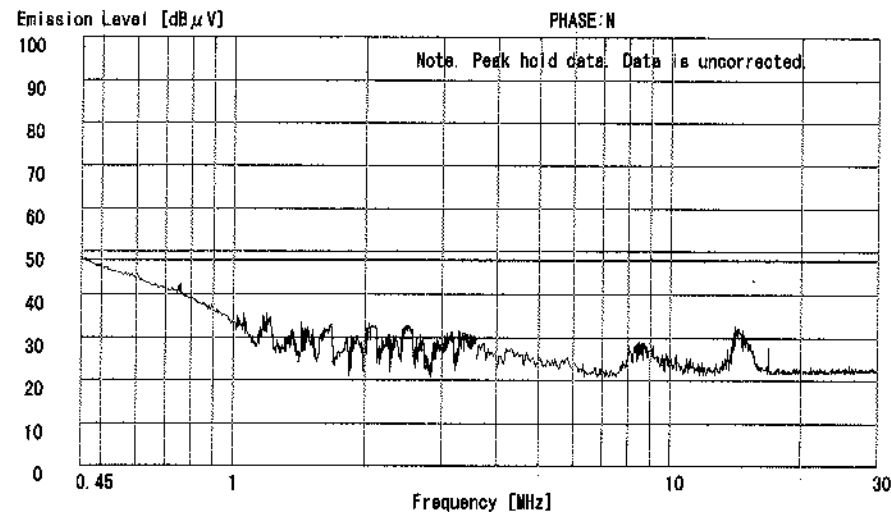


DATA OF CONDUCTION TEST CHART

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No.: 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VCR
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : TV RECEPTION+REC
Remarks : 0dBmV INPUT
Date : 10/5/2002
Phase : Single Phase
Temperature : 26 °C
Humidity : 56 %
Regulation 1 : FCC Part15B CLASS B
Regulation 2 : None

Engineer : Hisayuki Kioka



DATA OF CONDUCTION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.2 OPEN TEST SITE
Report No.: 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VCR
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : TV RECEPTION+REC
Remarks : 25dBmV INPUT
Date : 10/5/2002
Phase : Single Phase
Temperature : 26 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B

Engineer : Hisayuki Kioka

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]				QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]
1.	0.4500	40.9	-	41.1	-	0.2	0.3	0.0	41.6	-	48.0	0.0	6.4	-
2.	0.5000	39.1	-	39.3	-	0.2	0.3	0.0	39.8	-	48.0	0.0	8.2	-
3.	1.6226	29.0	-	24.0	-	0.2	0.4	0.0	29.6	-	48.0	0.0	18.4	-
4.	3.5779	24.0	-	23.5	-	0.3	0.4	0.0	24.7	-	48.0	0.0	23.3	-
5.	8.5500	22.8	-	27.0	-	0.5	0.6	0.0	28.1	-	48.0	0.0	19.9	-
6.	14.2854	25.7	-	25.0	-	0.7	0.7	0.0	27.1	-	48.0	0.0	20.9	-

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

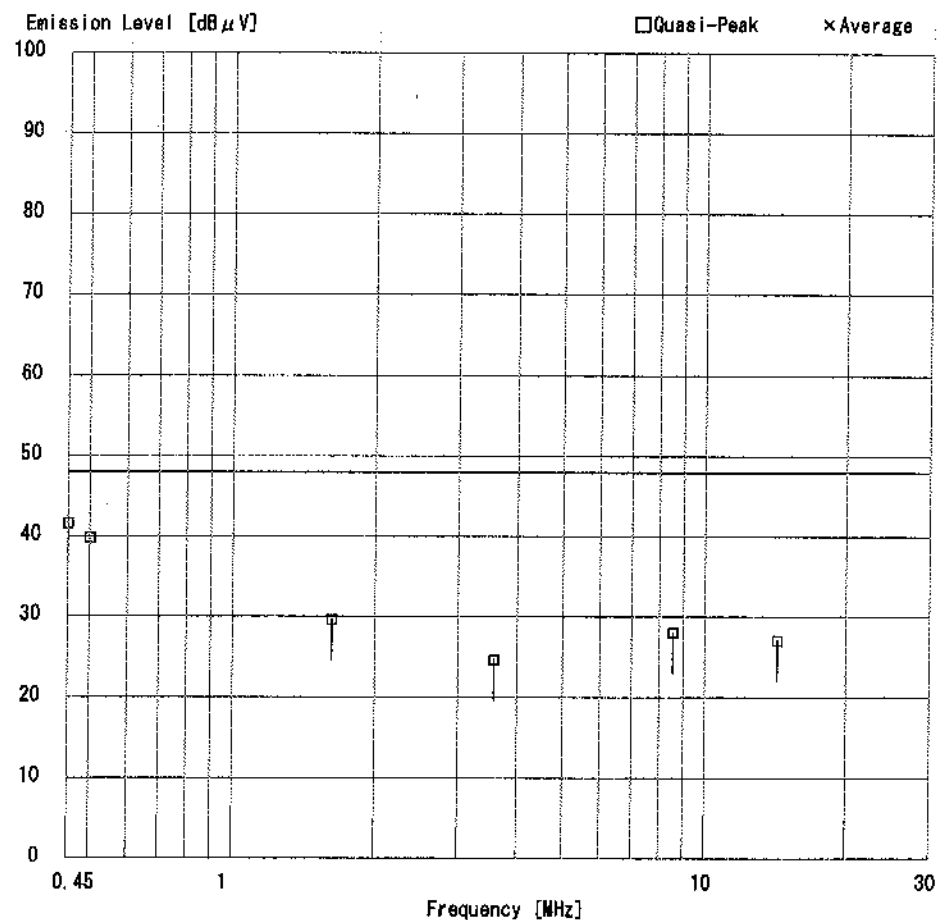
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Kind of Equipment : VCR
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : TV RECEPTION+REC
Remarks : 25dBmV INPUT
Date : 10/5/2002
Phase : Single Phase
Temperature : 26 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B

Engineer : Hisayuki Kioka

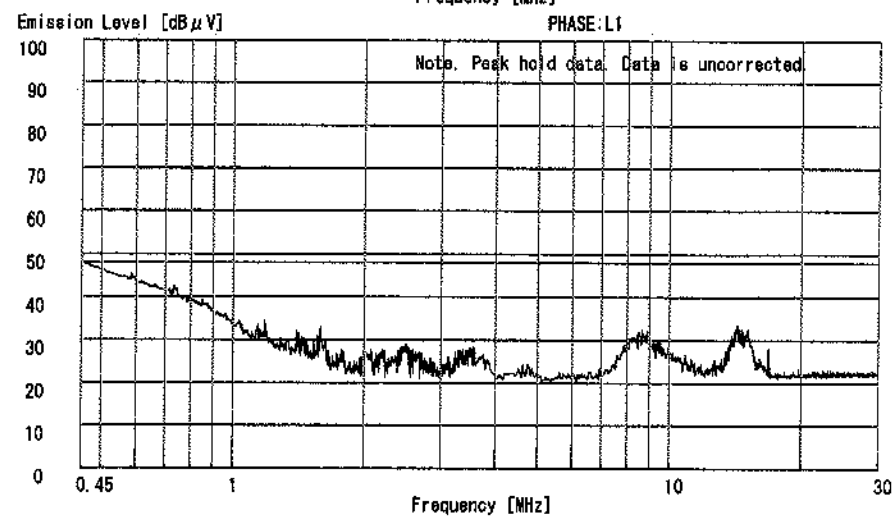
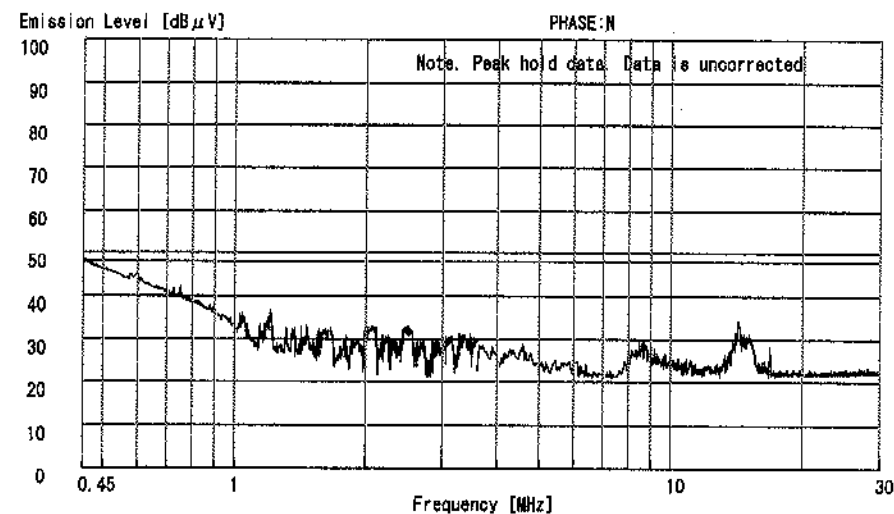


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Power : AC120V/60Hz
Mode : TV RECEPTION+REC
Remarks : 25dBmV INPUT
Date : 10/5/2002
Phase : Single Phase
Temperature : 26 °C
Humidity : 56 %
Regulation 1 : FCC Part15B CLASS B
Regulation 2 : None

Engineer : Hisayuki Kioka



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YOKOWA No.2 OPEN TEST SITE
Report No. : 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VCR
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : AV INPUT+REC
Remarks : 1Vp-p INPUT
Date : 10/5/2002
Phase : Single Phase
Temperature : 26 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B

Engineer : Hisayuki Kioka

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.	0.4500	40.9	-	41.2	-	0.2	0.3	0.0	41.7	-	48.0	0.0	6.3	-
2.	0.6000	39.1	-	39.3	-	0.2	0.3	0.0	39.8	-	48.0	0.0	8.2	-
3.	1.0000	28.9	-	28.0	-	0.2	0.4	0.0	29.5	-	48.0	0.0	18.5	-
4.	3.4765	24.1	-	22.2	-	0.3	0.4	0.0	24.8	-	48.0	0.0	23.2	-
5.	6.2952	24.5	-	23.5	-	0.4	0.5	0.0	25.4	-	48.0	0.0	22.6	-
6.	27.6180	19.6	-	19.3	-	1.3	0.9	0.0	21.8	-	48.0	0.0	26.2	-

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

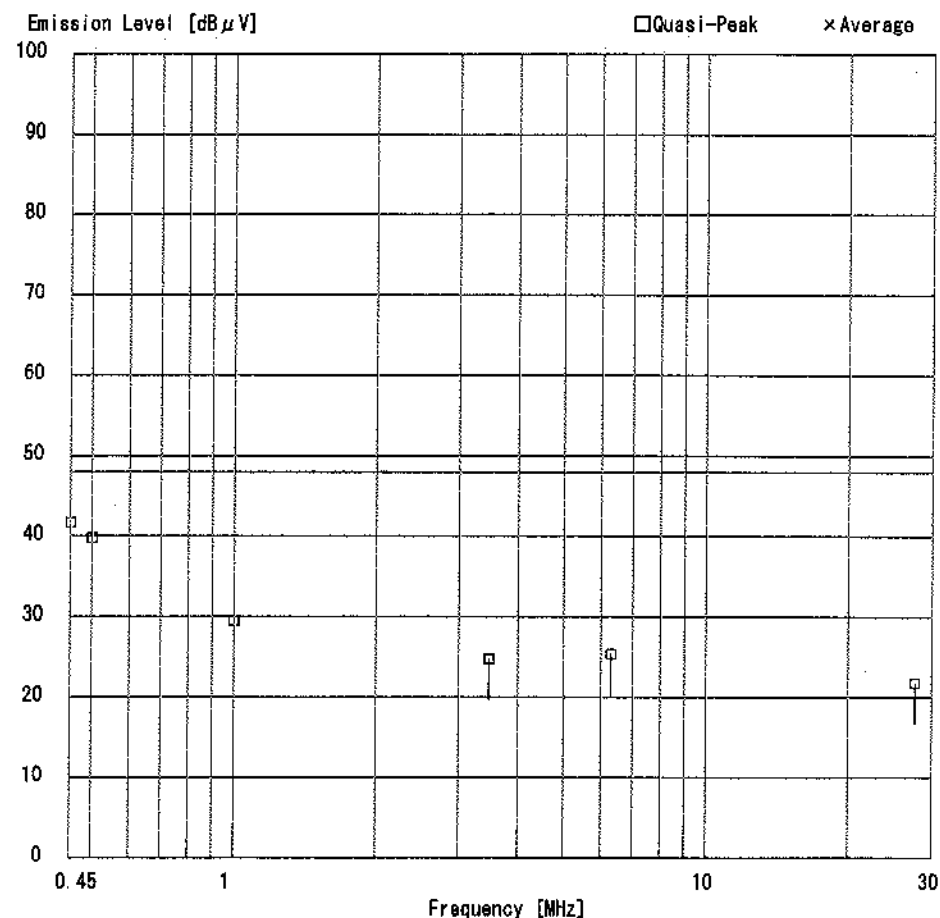
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Serial No. :
Power : AC120V/60Hz
Mode : AV INPUT+REC
Remarks : 1Vp-p INPUT
Date : 10/5/2002
Phase : Single Phase
Temperature : 26 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B

Engineer : Hisayuki Kioka

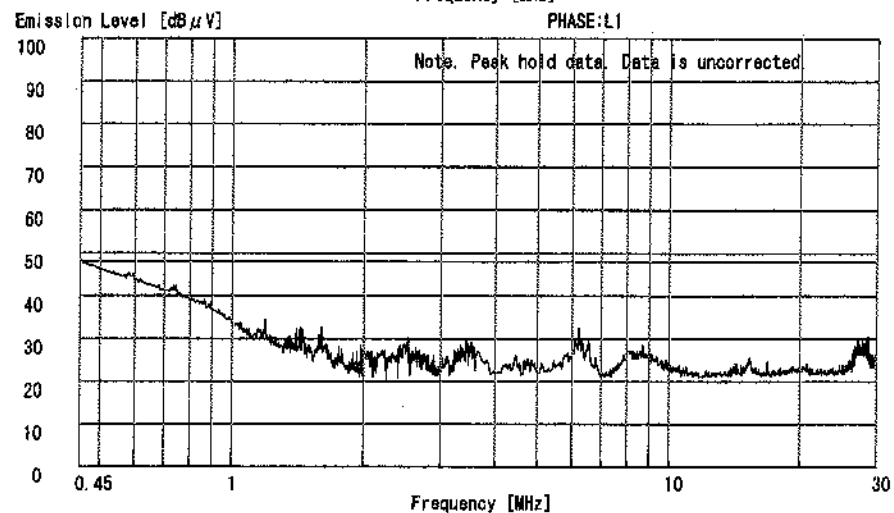
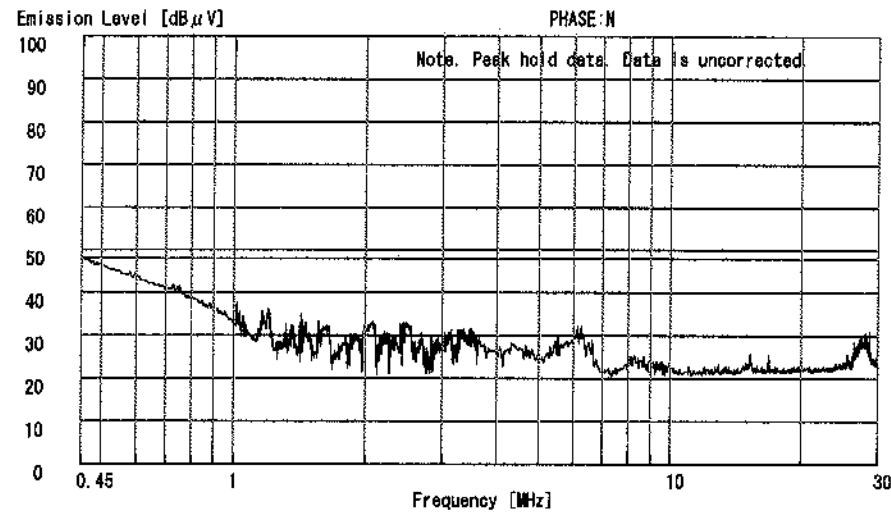


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Kind of Equipment : VCR
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : AV INPUT+REC
Remarks : 1Vp-p INPUT
Date : 10/5/2002
Phase : Single Phase
Temperature : 26 °C
Humidity : 56 %
Regulation 1 : FCC Part15B CLASS B
Regulation 2 : None

Engineer : Hisayuki Kioka



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Kind of Equipment : VCR
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : AV INPUT+REC
Remarks : 5Vp-p INPUT
Date : 10/5/2002
Phase : Single Phase
Temperature : 26 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B

Engineer : Hisayuki Kioka

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.	0.4500	40.9	-	41.1	-	0.2	0.3	0.0	41.6	-	48.0	0.0	6.4	-
2.	0.5000	39.1	-	39.3	-	0.2	0.3	0.0	39.8	-	48.0	0.0	8.2	-
3.	1.0000	28.0	-	26.3	-	0.2	0.4	0.0	28.6	-	48.0	0.0	19.4	-
4.	3.4973	24.5	-	21.4	-	0.3	0.4	0.0	25.2	-	48.0	0.0	22.8	-
5.	6.2949	25.3	-	23.8	-	0.4	0.5	0.0	26.2	-	48.0	0.0	21.8	-
6.	27.5521	20.0	-	19.5	-	1.3	0.9	0.0	22.2	-	48.0	0.0	25.8	-

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

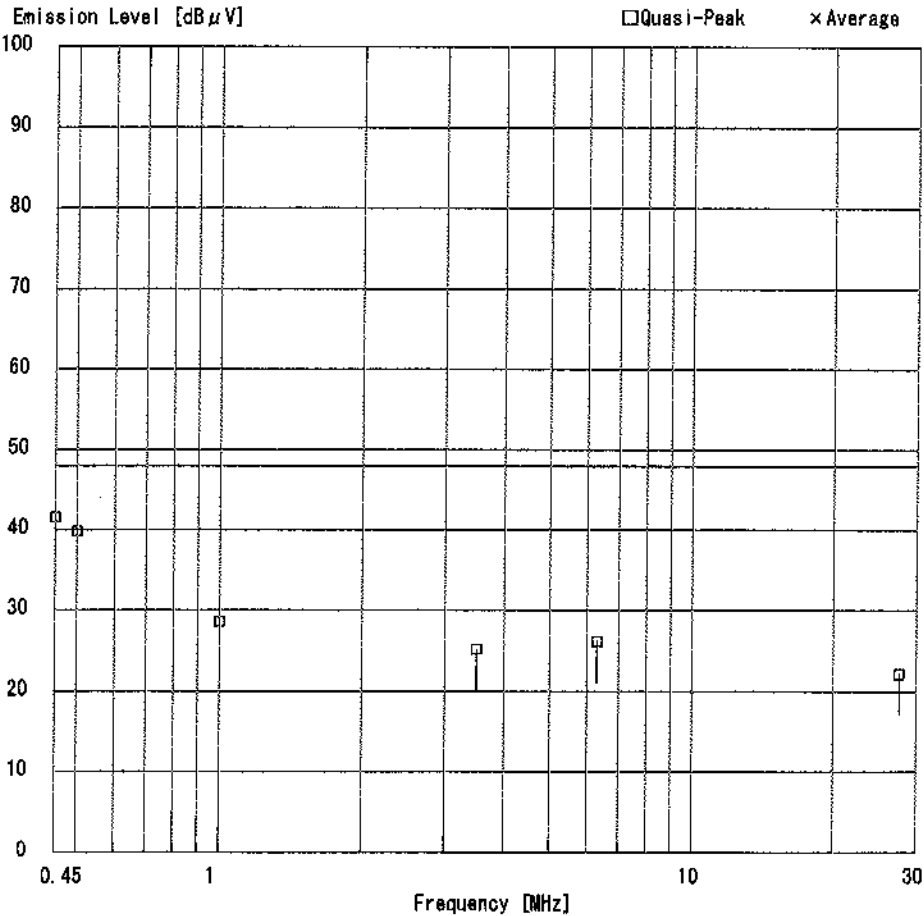
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Temperature : 26 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B

Engineer : Hisayuki Kioka

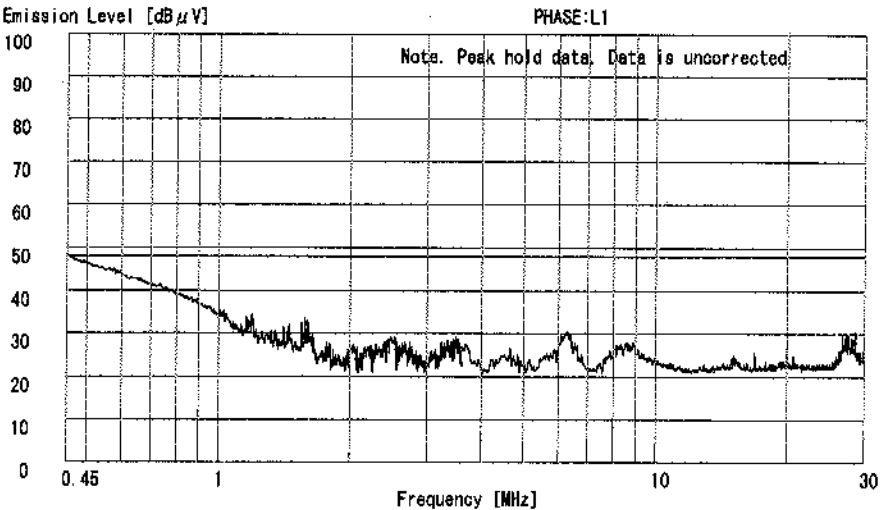
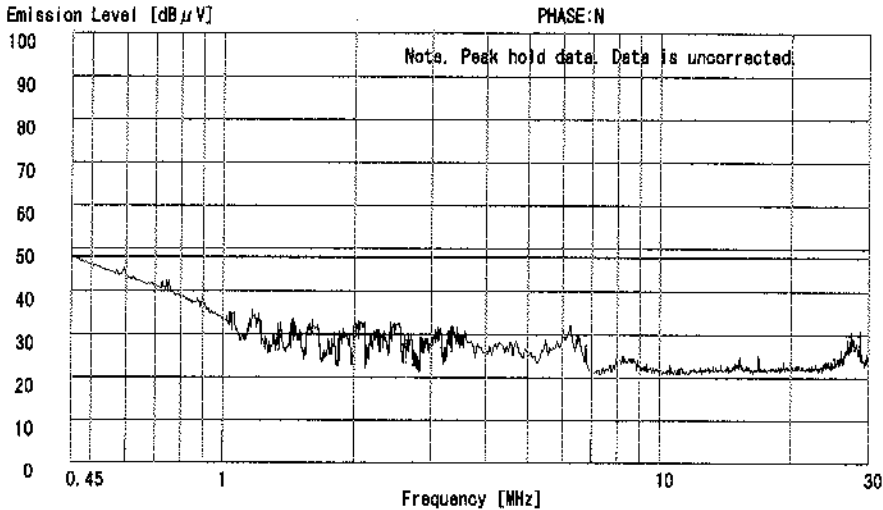


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Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : AV INPUT+REC
Remarks : 5Vp-p INPUT
Date : 10/5/2002
Phase : Single Phase
Temperature : 26 °C
Humidity : 56 %
Regulation 1 : FCC Part15B CLASS B
Regulation 2 : None

Engineer : Hisayuki Kioka



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YOKOWA No.2 OPEN TEST SITE
Report No. : 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VCR
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : PLAYBACK
Remarks :
Date : 10/5/2002
Phase : Single Phase
Temperature : 26 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B

Engineer : Hisayuki Kioka

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.	0.4500	40.9	-	41.0	-	0.2	0.3	0.0	41.5	-	48.0	0.0	6.5	-
2.	0.5000	39.1	-	39.2	-	0.2	0.3	0.0	39.7	-	48.0	0.0	8.3	-
3.	1.0000	25.4	-	26.0	-	0.2	0.4	0.0	26.6	-	48.0	0.0	21.4	-
4.	1.8348	24.3	-	22.4	-	0.2	0.4	0.0	24.9	-	48.0	0.0	23.1	-
5.	8.7703	18.3	-	20.8	-	0.5	0.6	0.0	21.9	-	48.0	0.0	26.1	-
6.	27.5376	23.0	-	23.5	-	1.3	0.9	0.0	25.7	-	48.0	0.0	22.3	-

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

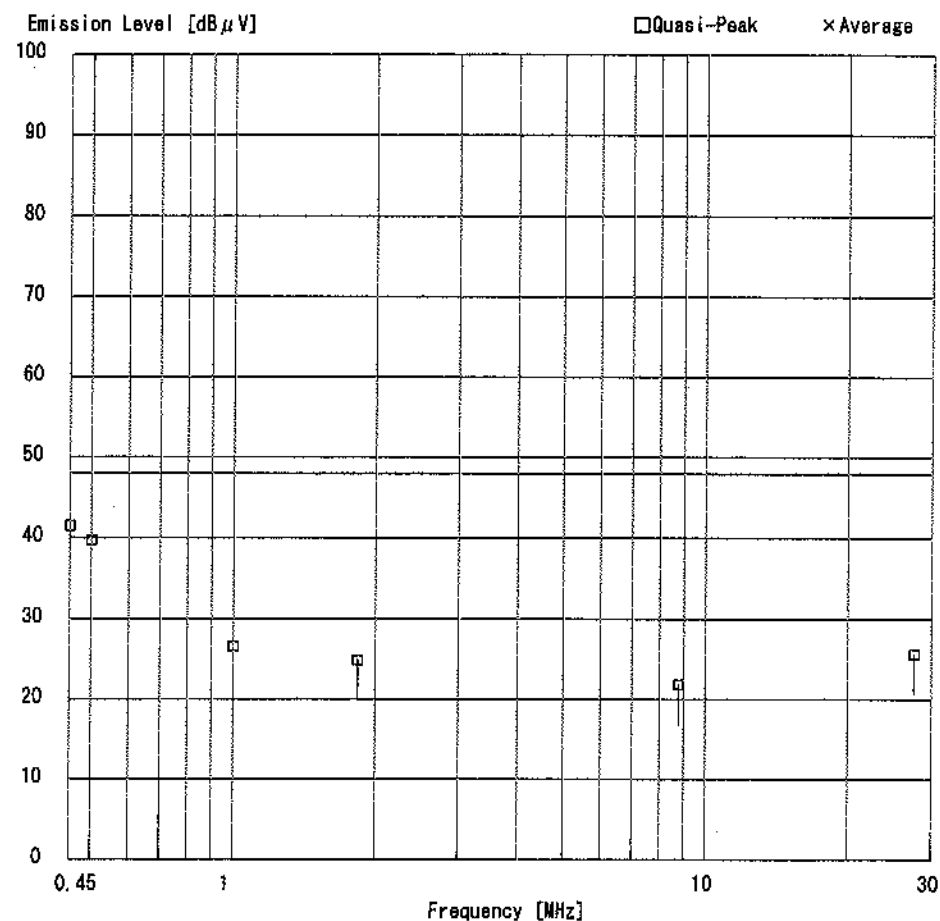
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Kind of Equipment : VCR
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : PLAYBACK
Remarks :
Date : 10/5/2002
Phase : Single Phase
Temperature : 26 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B

Engineer : Hisayuki Kioka

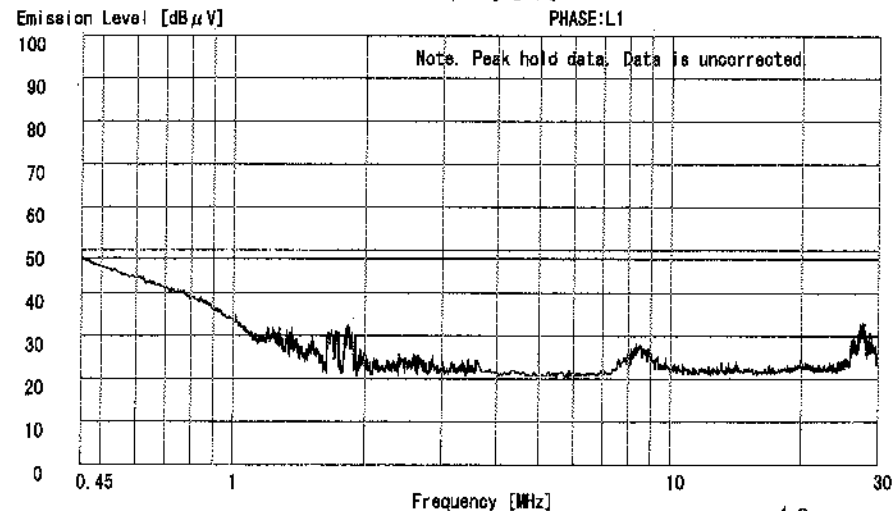
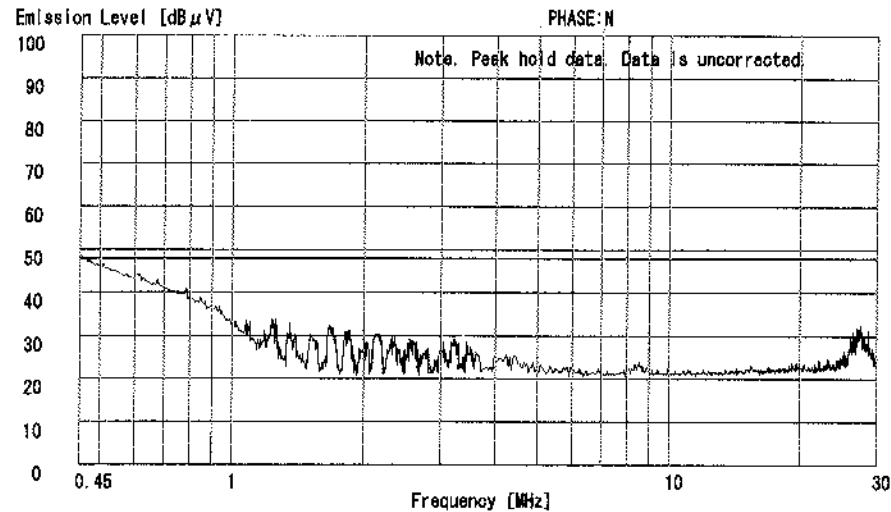


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YOKOWA No.2 OPEN TEST SITE
Report No. : 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VCR
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : PLAYBACK
Remarks :
Date : 10/5/2002
Phase : Single Phase
Temperature : 28 °C
Humidity : 56 %
Regulation 1 : FCC Part15B CLASS B
Regulation 2 : None

Engineer : Hisayuki Kioka



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DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA NO.1 OPEN TEST SITE

COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL No. : HR-A592U
POWER : AC120V/60Hz
DESCRIPTION : TV RECEPTION+REC

REPORT No. : 23BE0048-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : September 27, 2002

ENGINEER : Seigo Kakehi

CH	FREQ [MHz]	READING HOR. VER.	ANT TYPE	ANT. FAC. [dB]	CABLE LOSS [dB]	AMP GAIN [dB]	RESULTS HOR. VER.	LIMIT [dBμV/m]	MARGIN HOR. VER.
VHF Fundamental									
2	101	23.3 23.2	BC	10.4	2.4	29.0	13.1 13.0	43.5	30.4 30.5
3	107	23.7 26.2	BC	11.3	2.5	28.7	14.8 17.3	43.5	28.7 26.2
4	113	25.9 32.2	BC	12.2	2.6	29.1	17.6 23.9	43.5	25.9 19.6
5	123	25.6 31.2	BC	13.5	2.7	29.2	18.6 24.2	43.5	24.9 19.3
6	129	23.7 27.4	BC	13.8	2.8	29.1	17.2 20.9	43.5	26.3 22.6
7	221	23.7 24.2	BC	16.9	3.7	29.1	21.2 21.7	46.0	24.8 24.3
8	227	23.9 24.1	BC	17.0	3.8	29.1	21.6 21.8	46.0	24.4 24.2
9	233	23.3 23.5	BC	17.0	3.8	29.0	21.1 21.3	46.0	24.9 24.7
10	239	23.7 23.1	BC	17.1	3.9	29.0	21.7 21.1	46.0	24.3 24.9
11	245	23.7 23.1	BC	17.2	4.0	28.9	22.0 21.4	46.0	24.0 24.6
12	251	23.4 22.9	BC	17.3	4.0	28.9	21.8 21.3	46.0	24.2 24.7
13	257	23.9 23.9	BC	17.6	4.1	29.0	22.6 22.6	46.0	23.4 23.4
VHF 2nd Harmonic									
2	202	21.8 21.8	BC	16.7	3.5	29.2	18.8 18.8	43.5	24.7 24.7
3	214	21.3 21.1	BC	16.8	3.6	29.1	18.6 18.4	43.5	24.9 25.1
4	226	21.2 21.1	BC	17.0	3.8	29.1	18.9 18.8	46.0	27.1 27.2
5	246	21.3 21.3	BC	17.2	4.0	28.9	19.6 19.6	46.0	26.4 26.4
6	258	21.3 21.3	BC	17.6	4.1	29.0	20.0 20.0	46.0	26.0 26.0
7	442	22.6 25.6	LP	17.0	5.7	29.6	21.7 24.7	46.0	24.3 21.3
8	454	22.3 24.2	LP	17.2	5.8	29.4	21.9 23.8	46.0	24.1 22.2
9	466	22.0 23.9	LP	17.5	5.8	29.5	21.8 23.7	46.0	24.2 22.3
10	478	22.0 23.6	LP	17.7	5.9	29.5	22.1 23.7	46.0	23.9 22.3
11	490	28.0 24.8	LP	17.9	6.0	29.5	28.4 25.2	46.0	17.6 20.8
12	502	21.7 22.0	LP	18.1	6.1	29.5	22.4 22.7	46.0	23.6 23.3
13	514	21.6 22.0	LP	18.2	6.1	29.7	22.2 22.6	46.0	23.8 23.4

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YOKOWA NO.1 OPEN TEST SITE

COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL No. : HR-A592U
POWER : AC120V/60Hz
DESCRIPTION : TV RECEPTION+REC

REPORT No. : 23BE0048-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : September 27, 2002

ENGINEER : Seigo Kakehi

CH	FREQ	READING		ANT TYPE	ANT. FAC. [dB]	CABLE LOSS [dB]	AMP GAIN [dB]	RESULTS		LIMIT	MARGIN	
	[MHz]	HOR.	VER.					[dBuV]	HOR.		VER.	[dBuV/m]
CATV Fundamental												
1	119	26.6	33.1	BC	13.1	2.6	29.2	19.1	25.6	43.5	24.4	17.9
95	137	22.7	25.5	BC	14.2	2.9	28.6	17.2	20.0	43.5	26.3	23.5
97	149	21.8	22.8	BC	14.6	3.0	29.2	16.2	17.2	43.5	27.3	26.3
99	161	21.6	21.4	BC	15.0	3.1	29.2	16.5	16.3	43.5	27.0	27.2
14	167	21.6	21.7	BC	15.3	3.1	29.2	16.8	16.9	43.5	26.7	26.6
18	191	26.0	26.2	BC	16.4	3.4	29.1	22.7	22.9	43.5	20.8	20.6
22	215	25.9	25.5	BC	16.9	3.7	29.1	23.4	23.0	43.5	20.1	20.5
23	263	25.6	23.8	BC	17.9	4.1	29.0	24.6	22.8	46.0	21.4	23.2
29	299	26.7	23.0	BC	19.8	4.5	29.3	27.7	24.0	46.0	18.3	22.0
36	341	27.8	30.6	LP	14.7	4.9	29.4	24.0	26.8	46.0	22.0	19.2
37	347	28.2	30.9	LP	14.8	5.0	29.4	24.6	27.3	46.0	21.4	18.7
65	515	26.8	27.8	LP	18.3	6.1	29.7	27.5	28.5	46.0	18.5	17.5
94	689	25.3	26.7	LP	21.0	7.3	29.5	30.1	31.5	46.0	15.9	14.5
100	695	25.4	26.3	LP	21.1	7.4	29.5	30.4	31.3	46.0	15.6	14.7
113	773	25.9	28.1	LP	21.9	7.9	29.4	32.3	34.5	46.0	13.7	11.5
125	845	25.9	29.5	LP	22.4	8.5	29.1	33.7	37.3	46.0	12.3	8.7
CATV 2nd Harmonic												
1	238	21.3	21.2	BC	17.1	3.9	29.0	19.3	19.2	46.0	26.7	26.8
95	274	21.2	21.1	BC	18.5	4.2	29.1	20.8	20.7	46.0	25.2	25.3
97	298	21.4	21.2	BC	19.8	4.5	29.3	22.4	22.2	46.0	23.6	23.8
99	322	23.5	22.0	LP	14.2	4.6	29.3	19.0	17.5	46.0	27.0	28.5
14	334	22.7	21.8	LP	14.5	4.8	29.4	18.6	17.7	46.0	27.4	28.3
18	382	22.3	22.6	LP	15.7	5.3	29.4	19.9	20.2	46.0	26.1	25.8
22	430	21.9	25.5	LP	16.8	5.6	29.7	20.6	24.2	46.0	25.4	21.8
23	526	21.4	22.3	LP	18.4	6.2	29.8	22.2	23.1	46.0	23.8	22.9
29	598	22.0	23.0	LP	19.1	6.6	29.5	24.2	25.2	46.0	21.8	20.8
36	682	21.8	22.0	LP	20.8	7.2	29.4	26.4	26.6	46.0	19.6	19.4
37	694	21.3	21.5	LP	21.1	7.3	29.5	26.2	26.4	46.0	19.8	19.6
65	1030	45.2	46.2	HO	24.7	1.7	38.7	32.9	33.9	54.0	21.1	20.1
94	1278	38.1	37.5	HO	26.0	1.8	38.3	27.6	27.0	54.0	26.4	27.0
100	1390	37.5	36.0	HO	26.0	1.8	38.3	27.0	25.5	54.0	27.0	28.5
113	1546	36.6	36.9	HO	26.8	1.9	38.1	27.2	27.5	54.0	26.8	26.5
125	1690	36.5	38.3	HO	27.9	1.9	38.0	28.3	30.1	54.0	25.7	23.9

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA NO.1 OPEN TEST SITE

COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VIDEO CASSETTE RECORDER
MODEL No. : HR-A592U
POWER : AC120V/60Hz
DESCRIPTION : TV RECEPTION+REC

REPORT No. : 23BE0048-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : September 27, 2002

ENGINEER : Seigo Kakehi

CH.	FREQ	READING		ANT TYPE	ANT. FAC.	CABLE LOSS	AMP GAIN	RESULTS		LIMIT	MARGIN	
	[MHz]	HOR.	VER.					[dBuV]	[dBuV/m]		HOR.	VER.
UHF Fundamental												
14	517	29.5	28.8	LP	18.3	6.1	29.7	30.2	29.5	46.0	15.8	16.5
19	547	26.0	27.2	LP	18.6	6.3	29.6	27.3	28.5	46.0	18.7	17.5
28	601	28.6	31.5	LP	19.1	6.7	29.5	30.9	33.8	46.0	15.1	12.2
36	649	25.4	27.4	LP	20.1	7.0	29.4	29.1	31.1	46.0	16.9	14.9
44	697	27.4	28.2	LP	21.1	7.4	29.5	32.4	33.2	46.0	13.6	12.8
53	751	26.8	26.8	LP	21.7	7.8	29.5	32.8	32.8	46.0	13.2	13.2
61	799	29.0	26.1	LP	22.1	8.0	29.4	35.7	32.8	46.0	10.3	13.2
69	847	27.6	28.6	LP	22.4	8.5	29.1	35.4	36.4	46.0	10.6	9.6
UHF 2nd Harmonic												
14	1034	43.9	47.5	HO	24.7	1.7	38.7	31.6	35.2	54.0	22.4	18.8
19	1094	42.1	45.3	HO	24.9	1.7	38.6	30.1	33.3	54.0	23.9	20.7
28	1202	40.9	43.3	HO	25.3	1.7	38.5	29.4	31.8	54.0	24.6	22.2
36	1298	41.2	40.6	HO	25.7	1.8	38.4	30.3	29.7	54.0	23.7	24.3
44	1394	37.7	36.5	HO	26.0	1.8	38.3	27.2	26.0	54.0	26.8	28.0
53	1502	38.0	37.1	HO	26.4	1.8	38.1	28.1	27.2	54.0	25.9	26.8
61	1598	36.8	37.0	HO	27.2	1.9	38.1	27.8	28.0	54.0	26.2	26.0
69	1694	36.3	37.8	HO	28.0	1.9	38.0	28.2	29.7	54.0	25.8	24.3

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No.: 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VIDEO CASSETTE RECORDER
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : TV RECEPTION + REC.
Remarks : +25dBm INPUT
Date : 9/27/2002
Test Distance : 3 m
Temperature : 22 °C
Humidity : 68 %
Regulation : FCC Part15B CLASS B

Engineer : Saigo Kakehi

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]	[dB μV/m]	[dB μV/m]	HOR [dB]	VER [dB]
1.	59.99	BB	27.3	30.0	8.1	29.2	1.8	8.9	13.9	16.8	40.0	28.1	23.4	
2.	100.02	BB	41.1	43.8	10.2	29.2	2.4	5.9	30.4	33.1	43.5	13.1	10.4	
3.	140.00	BB	32.1	37.5	14.3	28.0	2.9	5.9	27.2	32.6	43.5	16.3	10.9	
4.	148.01	BB	27.0	29.7	14.5	29.2	3.0	6.9	21.2	23.9	43.5	22.3	19.6	
5.	157.49	BB	29.9	36.1	14.8	29.2	3.1	6.0	24.6	30.8	43.5	18.9	12.7	
6.	249.99	BB	25.9	27.4	17.2	28.9	4.0	6.0	24.2	25.7	46.0	21.8	20.3	
7.	390.01	BB	35.1	32.0	15.9	29.4	5.3	6.0	32.9	29.8	46.0	13.1	16.2	
8.	396.01	BB	29.0	31.0	16.1	29.4	5.3	6.0	27.0	29.0	46.0	19.0	17.0	

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

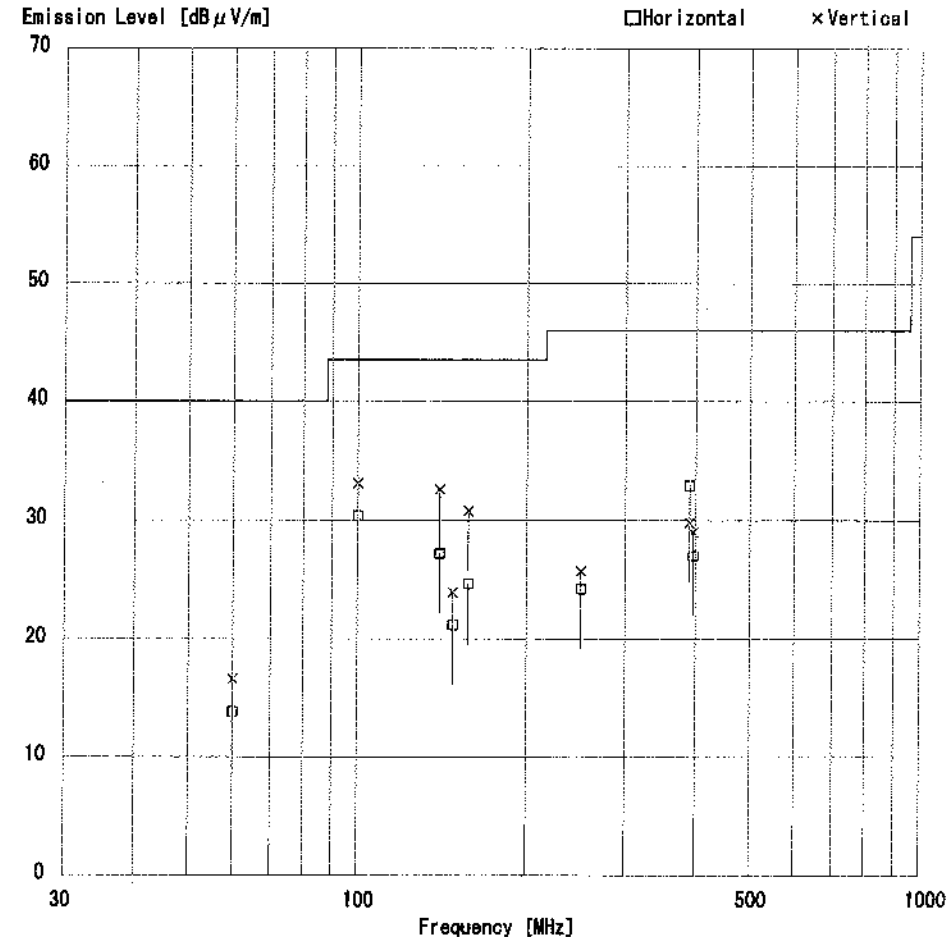
Except for the above table:adequate margin data below the limits.
ANT. TYPE:30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No.: 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VIDEO CASSETTE RECORDER
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : TV RECEPTION + REC.
Remarks : +25dBm INPUT
Date : 9/27/2002
Test Distance : 3 m
Temperature : 22 °C
Humidity : 68 %
Regulation : FCC Part15B CLASS B

Engineer : Saigo Kakehi



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No.: 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VIDEO CASSETTE RECORDER
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : AV INPUT
Remarks : 1Vp-p INPUT
Date : 9/27/2002
Test Distance : 3 m
Temperature : 22 °C
Humidity : 68 %
Regulation : FCC Part15B CLASS B


Engineer : Seigo Kakehi

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.	59.98	BB	26.8	30.1	8.1	29.2	1.8	5.9	13.4	16.7	40.0	26.6	23.3
2.	100.02	BB	35.5	40.5	10.2	29.2	2.4	5.9	24.8	29.8	43.5	18.7	13.7
3.	140.00	BB	34.7	38.5	14.3	28.0	2.9	5.9	29.8	33.6	43.5	13.7	9.9
4.	148.00	BB	32.0	32.0	14.5	29.2	3.0	5.9	26.2	26.2	43.5	17.3	17.3
5.	157.51	BB	35.1	36.0	14.8	29.2	3.1	6.0	29.8	30.7	43.5	13.7	12.8
6.	250.00	BB	25.0	27.8	17.2	28.9	4.0	6.0	23.3	26.1	46.0	22.7	19.9
7.	390.01	BB	32.9	30.7	15.9	29.4	5.3	6.0	30.7	28.5	46.0	15.3	17.5
8.	396.01	BB	27.9	29.2	16.1	29.4	5.3	6.0	25.9	27.2	46.0	20.1	18.8

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

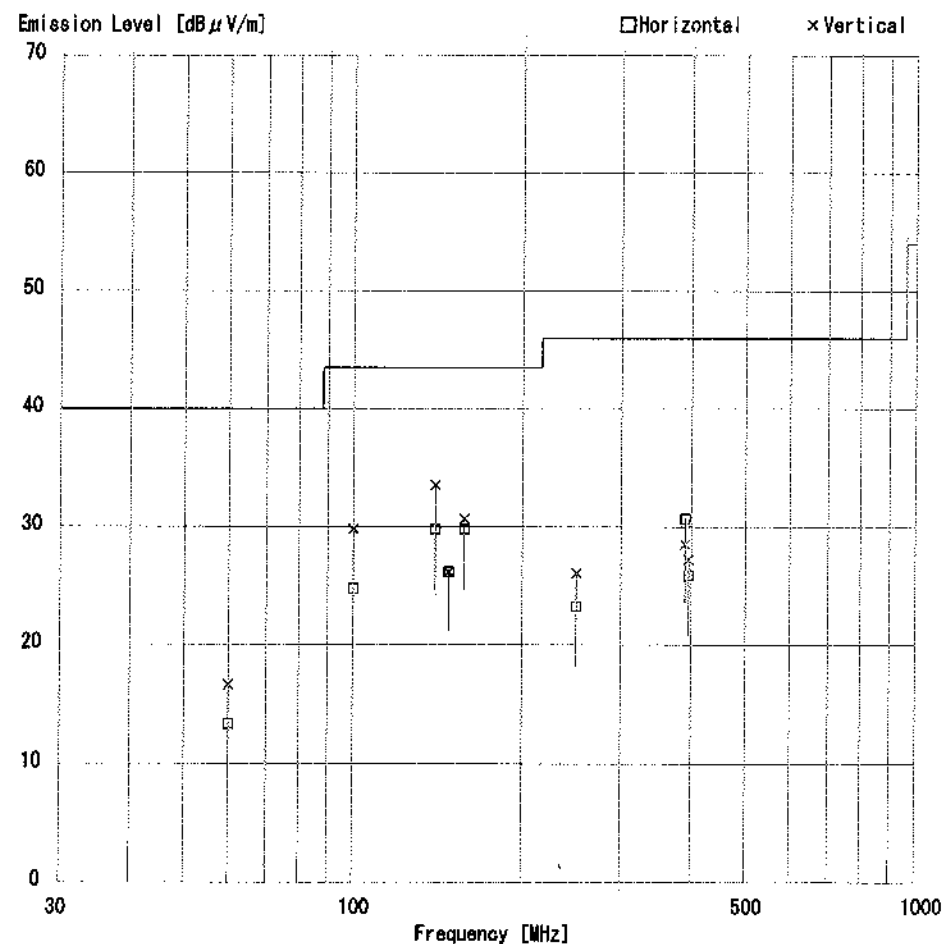
Except for the above table:adequate margin data below the limits.
ANT. TYPE:30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No.: 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VIDEO CASSETTE RECORDER
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : AV INPUT
Remarks : 1Vp-p INPUT
Date : 9/27/2002
Test Distance : 3 m
Temperature : 22 °C
Humidity : 68 %
Regulation : FCC Part15B CLASS B


Engineer : Seigo Kakehi



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No.: 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VIDEO CASSETTE RECORDER
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : VCR PLAYBACK
Remarks :
Date : 9/27/2002
Test Distance : 3 m
Temperature : 22 °C
Humidity : 68 %
Regulation : FCC Part15B CLASS B

Engineer : 
Seigo Kakehi

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.	60.00	BB	24.8	26.1	8.1	29.2	1.8	5.9	11.4	12.7	40.0	28.6	27.3
2.	100.02	BB	31.9	35.0	10.2	29.2	2.4	5.9	21.2	24.3	43.5	22.3	19.2
3.	140.01	BB	23.7	33.0	14.3	28.0	2.9	5.9	18.8	28.1	43.5	24.7	15.4
4.	148.00	BB	22.7	23.4	14.5	29.2	3.0	5.9	16.9	17.6	43.5	26.6	25.9
5.	157.51	BB	24.0	23.4	14.8	29.2	3.1	6.0	18.7	18.1	43.5	24.8	25.4
6.	250.00	BB	28.4	27.7	17.2	28.9	4.0	6.0	26.7	26.0	46.0	19.3	20.0
7.	390.01	BB	34.2	28.2	15.9	29.4	5.3	6.0	32.0	26.0	46.0	14.0	20.0
8.	396.01	BB	22.3	21.7	16.1	29.4	6.3	6.0	20.3	19.7	46.0	25.7	26.3

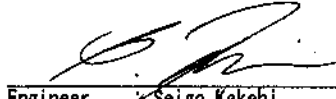
CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

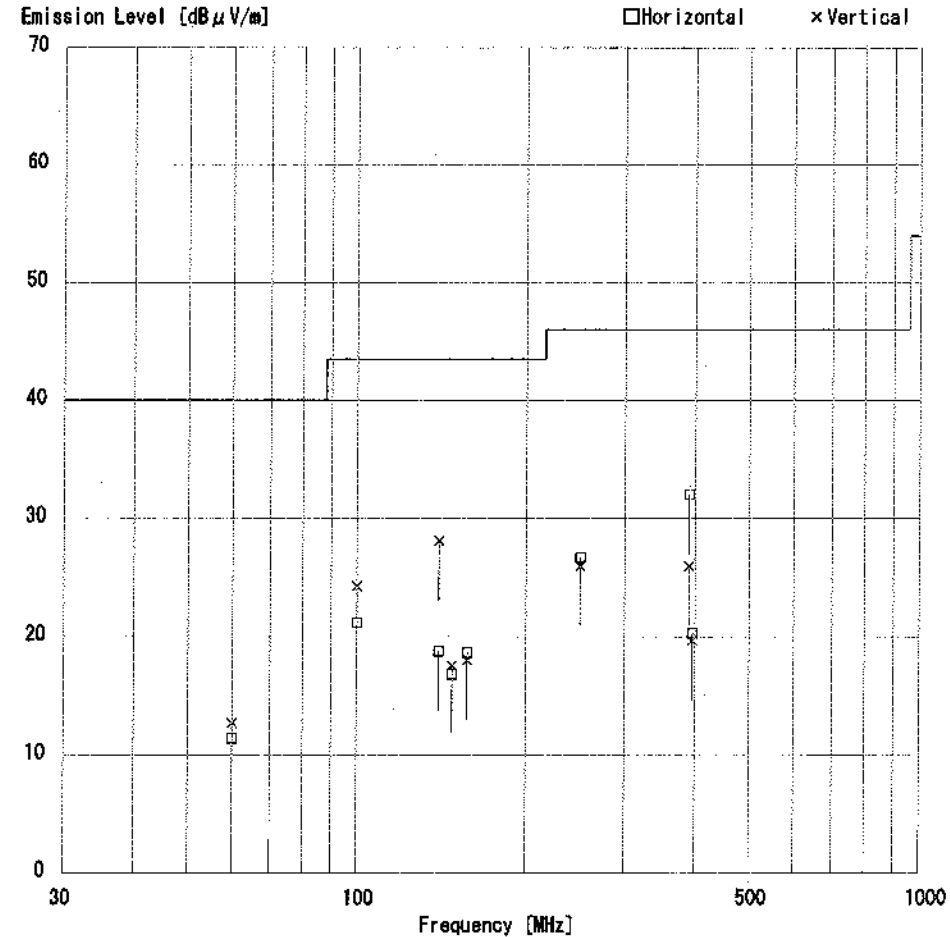
Except for the above table:adequate margin data below the limits.
ANT.TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No.: 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VIDEO CASSETTE RECORDER
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : VCR PLAYBACK
Remarks :
Date : 9/27/2002
Test Distance : 3 m
Temperature : 22 °C
Humidity : 68 %
Regulation : FCC Part15B CLASS B

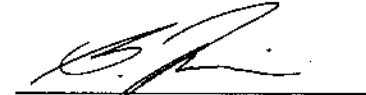
Engineer : 
Seigo Kakehi



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No. : 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VIDEO CASSETTE RECORDER
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : VCR PLAYBACK
Remarks : Test Cannel #3
Date : 9/27/2002
Test Distance : 3 m
Temperature : 22 °C
Humidity : 68 %
Regulation : FCC Part15B CLASS B


Engineer : Seigo Kakehi

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	27.7	26.8	7.9	29.2	1.9	5.9	14.2	13.3	40.0	25.8	26.7
2.	65.75	BB	26.7	35.7	7.1	29.3	1.9	6.0	12.4	21.4	40.0	27.6	18.6
3.	122.50	BB	23.6	25.7	13.4	29.2	2.7	5.9	16.4	18.5	43.5	27.1	25.0
4.	245.00	BB	21.4	21.4	17.2	28.9	4.0	6.0	19.7	19.7	46.0	26.3	26.3

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

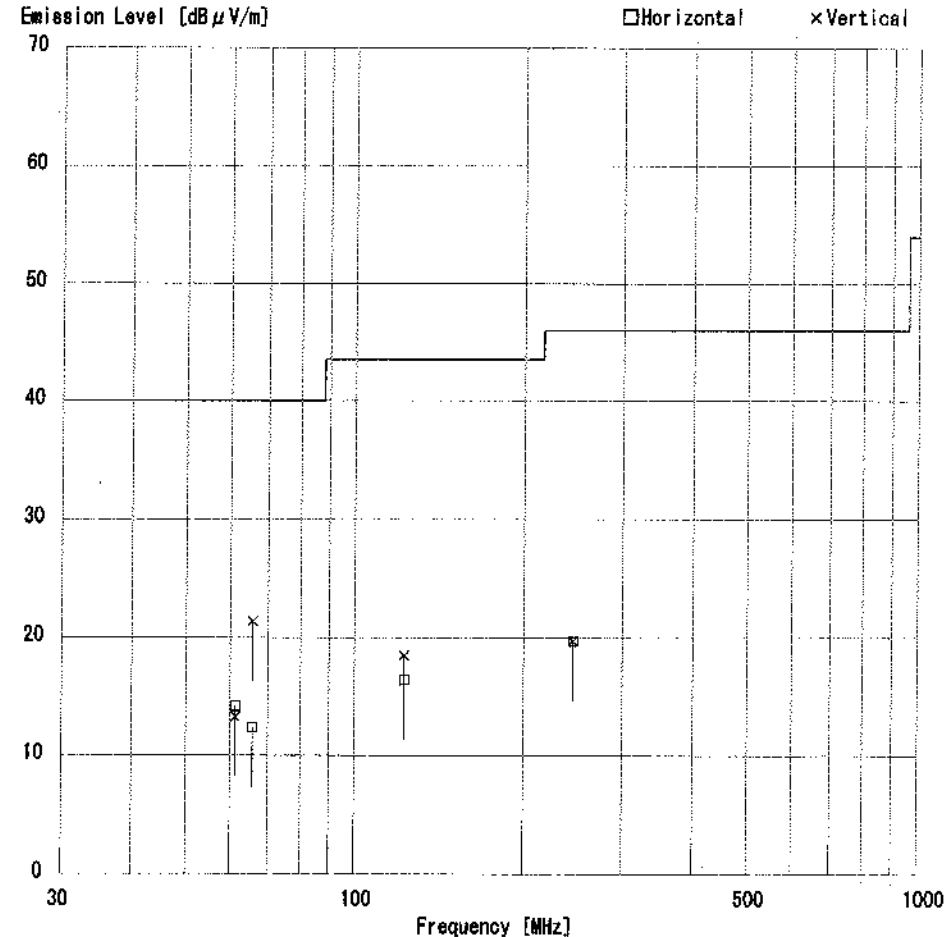
Except for the above table:adequate margin data below the limits.
ANT. TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No. : 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VIDEO CASSETTE RECORDER
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : VCR PLAYBACK
Remarks : Test Cannel #3
Date : 9/27/2002
Test Distance : 3 m
Temperature : 22 °C
Humidity : 68 %
Regulation : FCC Part15B CLASS B


Engineer : Seigo Kakehi



DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No. : 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VIDEO CASSETTE RECORDER
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : VCR PLAYBACK
Remarks : Test Channel #4
Date : 9/27/2002
Test Distance : 3 m
Temperature : 22 °C
Humidity : 68 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/μV]	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.	67.25	BB	28.3	32.0	6.9	29.3	2.0	6.0	13.9	17.6	40.0	26.1	22.4
2.	71.75	BB	28.7	28.6	6.4	29.3	2.0	6.0	13.8	13.6	40.0	26.2	26.4
3.	134.50	BB	22.2	23.2	14.0	28.9	2.8	6.9	16.0	17.0	43.5	27.6	26.6
4.	201.75	BB	21.5	22.2	16.7	29.2	3.5	6.0	18.5	19.2	43.5	25.0	24.3

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

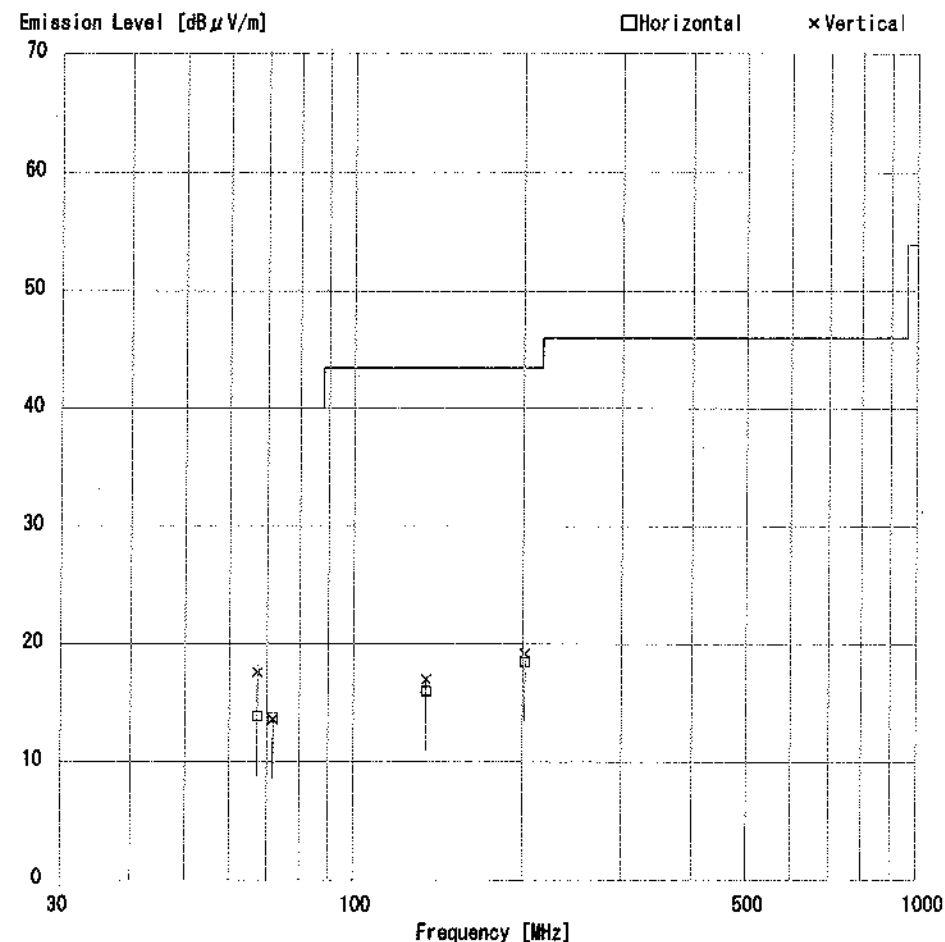
Except for the above table:adequate margin data below the limits.
ANT. TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No. : 23BE0048-YW-1

Applicant : ORION ELECTRIC CO., LTD.
Kind of Equipment : VIDEO CASSETTE RECORDER
Model No. : HR-A592U
Serial No. :
Power : AC120V/60Hz
Mode : VCR PLAYBACK
Remarks : Test Channel #4
Date : 9/27/2002
Test Distance : 3 m
Temperature : 22 °C
Humidity : 68 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi



DATA OF ANTENNA TERMINAL

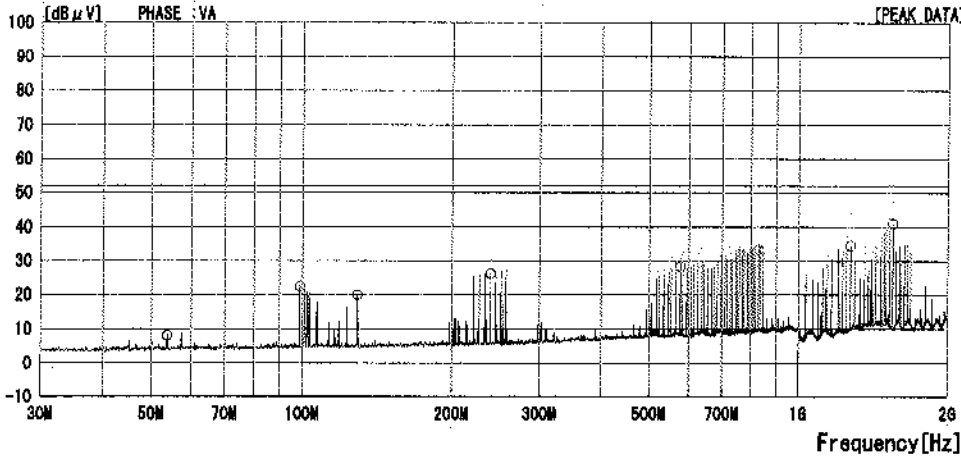
A-PEX INTERNATIONAL CO., LTD.
Date : 2002/10/07 09:17:38

COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VCR
MODEL : HR-A592U
OPERATION MODE : TUNING

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 6, 2002
REGULATION : FCC PART15 SUBPART B
TEST ENGINEER : Hisayuki Kikga

REMARKS : TV MODE

LIMIT : FCC 15B ANTENNA TERMINAL



NO	FREQ [MHz]	READING(PK) [dB μV]	C.F [dB]	RESULT [dB μV]	LIMIT		MARGIN		PHASE
					QP [dB μV]	AV [dB μV]	QP [dB]	AV [dB]	
1	53.70000	38.6	-30.6	8.0	62.0	---	44.0	---	VA
2	98.79900	52.6	-30.3	22.3	62.0	---	29.7	---	VA
3	128.86689	49.6	-29.7	19.9	62.0	---	32.1	---	VA
4	236.86000	55.6	-29.4	26.2	62.0	---	25.8	---	VA
5	576.57397	57.0	-28.7	28.3	62.0	---	23.7	---	VA
6	829.00500	60.0	-26.7	33.3	62.0	---	18.7	---	VA
7	1273.55298	65.6	-31.1	34.5	62.0	---	17.5	---	VA
8	1549.28198	70.2	-29.2	41.0	62.0	---	11.0	---	VA

CALCULATION: READING+MATCHING PAD LOSS+CABLE LOSS-AMP. GAIN

DATA OF ANTENNA TERMINAL

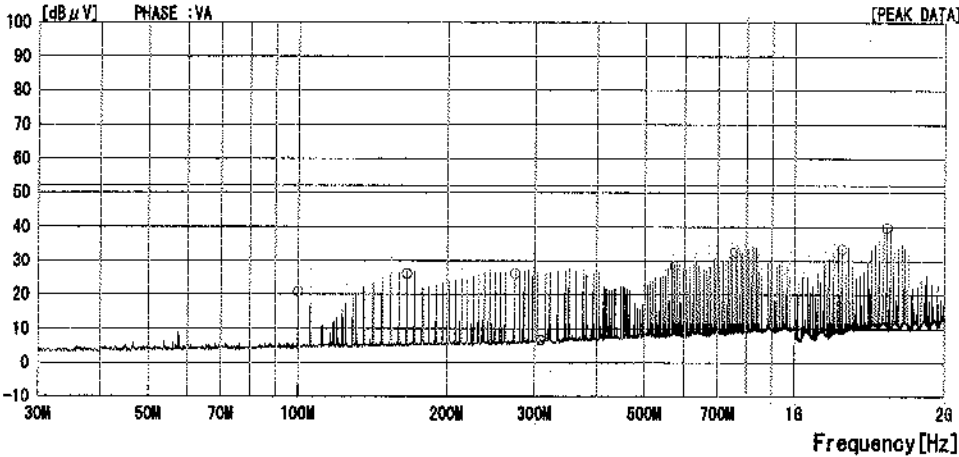
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Date : 2002/10/07 09:23:59

COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VCR
MODEL : HR-A592U
OPERATION MODE : TUNING

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 6, 2002
REGULATION : FCC PART15 SUBPART B
TEST ENGINEER : Hisayuki Kikga

REMARKS : CATV MODE

LIMIT : FCC 15B ANTENNA TERMINAL



NO	FREQ [MHz]	READING(PK) [dB μV]	C.F [dB]	RESULT [dB μV]	LIMIT		MARGIN		PHASE
					QP [dB μV]	AV [dB μV]	QP [dB]	AV [dB]	
1	99.89800	51.4	-30.6	20.8	62.0	---	31.2	---	VA
2	165.71500	55.8	-29.7	26.1	62.0	---	25.9	---	VA
3	273.71701	55.2	-29.1	26.1	62.0	---	25.9	---	VA
4	308.14301	35.0	-28.4	6.6	62.0	---	45.4	---	VA
5	573.14600	56.6	-28.2	28.4	62.0	---	23.6	---	VA
6	759.57397	59.2	-26.6	32.6	62.0	---	19.4	---	VA
7	1243.55603	65.0	-31.5	33.5	62.0	---	18.5	---	VA
8	1531.42603	69.0	-29.2	39.8	62.0	---	12.2	---	VA

CALCULATION: READING+MATCHING PAD LOSS+CABLE LOSS-AMP. GAIN



RF output level

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

Company : Orion Electric Co., Ltd. Report Number : 23BE0048-YW-1
Equipment : Video Cassette Recorder Regulation : FCC Part 15 Subpart B
Model number : HR-A592U Date : October 5, 2002
Power : AC 120 V / 60 Hz
Description : TV reception + REC. mode (0 dBmV)

Engineer : Hisayuki Kioka

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	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	72.1	20.4	51.7	56.5	4.8
	65.75	71.1	20.4	50.7	56.5	5.8
4	62.75	72.0	20.4	51.6	56.5	4.9
	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 : 23BE0048-YW-1
Equipment : Video Cassette Recorder Regulation : FCC Part 15 Subpart B
Model number : HR-A592U Date : October 5, 2002
Power : AC 120 V / 60 Hz
Description : TV reception + REC. mode (25 dBmV)

Engineer : Hisayuki Kioka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	86.1	20.4	65.7	69.5	3.8
4	67.25	87.4	20.4	67.0	69.5	2.5

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	71.6	20.4	51.2	56.5	5.3
	71.75	70.6	20.4	50.2	56.5	6.3



RF output level

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

Company : Orion Electric Co., Ltd.
Equipment : Video Cassette Recorder
Model number : HR-A592U
Power : AC 120 V / 60 Hz
Description : AV input + REC. mode (1 Vp-p)

Report Number : 23BE0048-YW-1
Regulation : FCC Part 15 Subpart B
Date : October 5, 2002

Engineer : Hisayuki Kioka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	87.5	20.4	67.1	69.5	2.4
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	72.5	20.4	52.1	56.5	4.4
	65.75	71.5	20.4	51.1	56.5	5.4
4	62.75	72.3	20.4	51.9	56.5	4.6
	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.
Equipment : Video Cassette Recorder
Model number : HR-A592U
Power : AC 120 V / 60 Hz
Description : AV input + REC. mode (5 Vp-p)

Report Number : 23BE0048-YW-1
Regulation : FCC Part 15 Subpart B
Date : October 5, 2002

Engineer : Hisayuki Kioka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	87.3	20.4	66.9	69.5	2.6
4	67.25	87.0	20.4	66.6	69.5	2.9

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	72.7	20.4	52.3	56.5	4.2
	65.75	71.3	20.4	50.9	56.5	5.6
4	62.75	72.0	20.4	51.6	56.5	4.9
	71.75	71.0	20.4	50.6	56.5	5.9



RF output level

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

Company : Orion Electric Co., Ltd.
Equipment : Video Cassette Recorder
Model number : HR-A592U
Power : AC 120 V / 60 Hz
Description : Playback mode

Report Number : 23BE0048-YW-1
Regulation : FCC Part 15 Subpart B
Date : October 5, 2002

Engineer : Hisayuki Kioka

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	87.3	20.4	66.9	69.5	2.6
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	72.5	20.4	52.1	56.5	4.4
	65.75	71.2	20.4	50.8	56.5	5.7
4	62.75	71.6	20.4	51.2	56.5	5.3
	71.75	70.5	20.4	50.1	56.5	6.4

DATA OF RF SPURIOUS

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

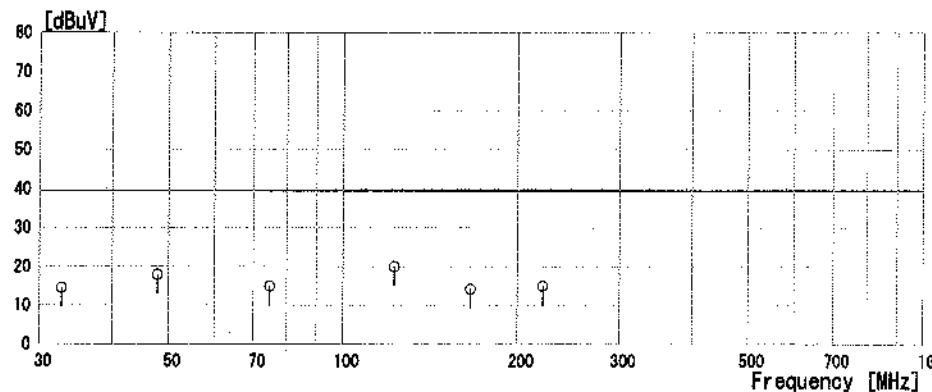
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : TV RECEPTION+REC
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 : 0dBuV INPUT
REMARKS 2 : 3CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Hisayuki Kioka

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	32.770	36.5	---	-21.9	14.6	---	39.5	---	24.9	---
2	47.890	39.7	---	-21.8	17.9	---	39.5	---	21.6	---
3	74.780	36.7	---	-21.8	14.9	---	39.5	---	24.6	---
4	122.710	41.9	---	-21.9	20.0	---	39.5	---	19.5	---
5	166.100	36.1	---	-21.9	14.2	---	39.5	---	25.3	---
6	221.300	36.8	---	-21.8	15.0	---	39.5	---	24.5	---

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



DATA OF RF SPURIOUS

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

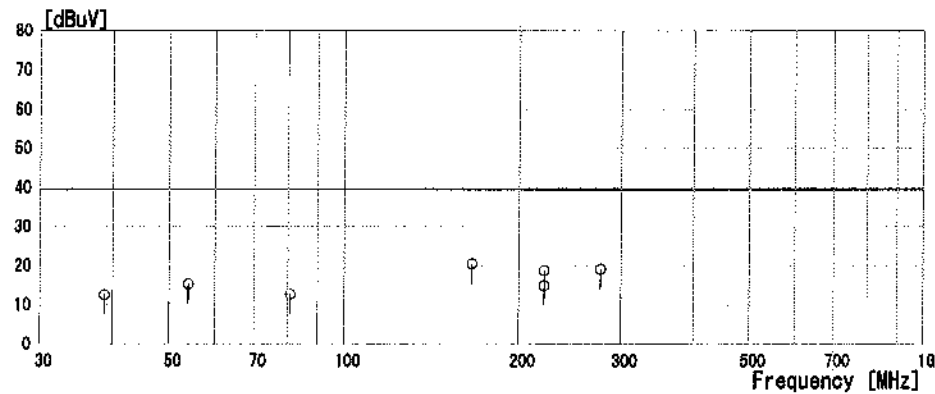
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VCR
Model Name : HR-A582U
OPERATION MODE : TV RECEPTION+REC
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 : 0dBmV INPUT
REMARKS 2 : 4CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Hisayuki Kioka

No.	FREQ [MHz]	READING QP [dBuV]	G. FACTOR [dB]	RESULT QP [dBuV]	LIMIT QP [dBuV]	MARGIN QP [dB]
1	38.740	34.4	-21.9	12.5	39.5	27.0
2	54.000	37.0	-21.7	15.3	39.5	24.2
3	80.890	34.6	-21.9	12.7	39.5	26.8
4	166.100	42.3	-21.9	20.4	39.5	19.1
5	221.300	40.6	-21.8	18.8	39.5	20.7
6	221.400	38.8	-21.8	15.0	39.5	24.5
7	276.700	41.1	-21.9	19.2	39.5	20.3

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



DATA OF RF SPURIOUS

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YOKOMA EMC LABORATORY

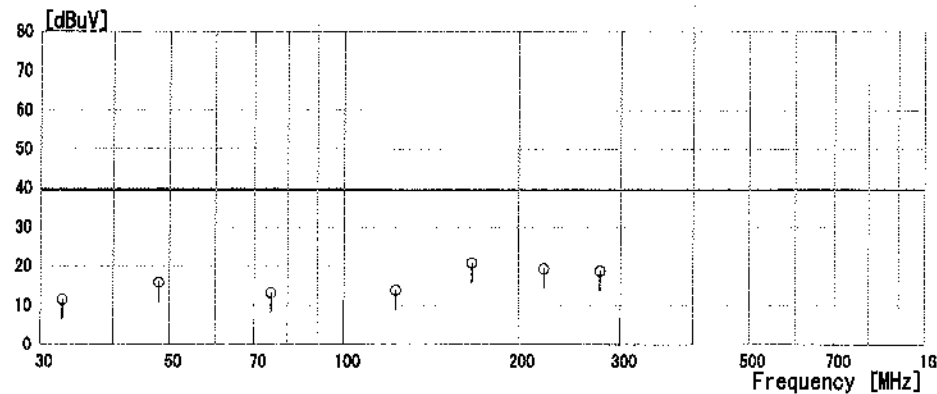
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EQUIPMENT : VCR
Model Name : HR-A582U
OPERATION MODE : TV RECEPTION+REC
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 : 25dBmV INPUT
REMARKS 2 : 3CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Hisayuki Kioka

No.	FREQ [MHz]	READING QP [dBuV]	G. FACTOR [dB]	RESULT QP [dBuV]	LIMIT QP [dBuV]	MARGIN QP [dB]
1	32.740	33.4	-21.9	11.5	39.5	28.0
2	47.840	37.7	-21.8	15.9	39.5	23.6
3	74.890	35.0	-21.8	13.2	39.5	26.3
4	123.000	35.8	-21.9	13.9	39.5	25.6
5	166.300	42.7	-21.9	20.8	39.5	18.7
6	221.300	41.2	-21.8	19.4	39.5	20.1
7	276.700	40.7	-21.9	18.8	39.5	20.7

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.
YOKOMA EMC LABORATORY

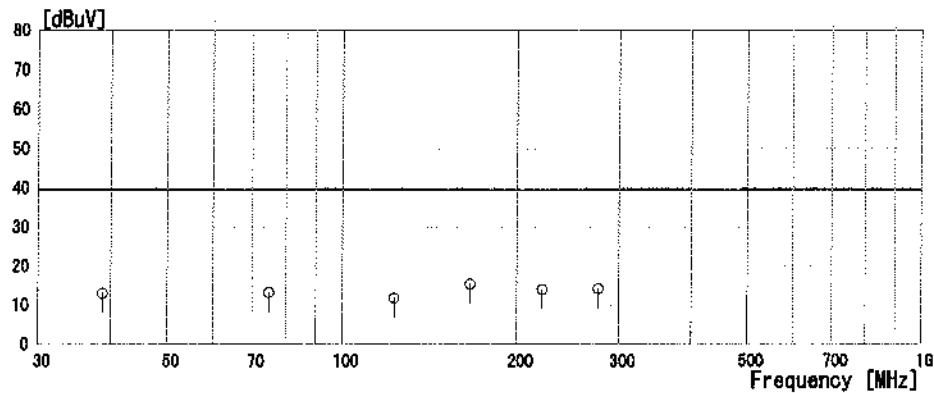
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EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : TV RECEPTION+REC
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 : 25dBmV INPUT
REMARKS 2 : 4CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 6, 2002
REGULATION : FCC PART15 SUBPART B

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	38.740	34.9	---	-21.9	13.0	---	39.5	---	26.5	---
2	74.890	35.0	---	-21.8	13.2	---	39.5	---	26.3	---
3	123.000	33.7	---	-21.9	11.8	---	39.5	---	27.7	---
4	166.300	37.3	---	-21.9	15.4	---	39.5	---	24.1	---
5	221.300	35.9	---	-21.8	14.1	---	39.5	---	25.4	---
6	276.700	36.2	---	-21.9	14.3	---	39.5	---	25.2	---

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.
YOKOMA EMC LABORATORY

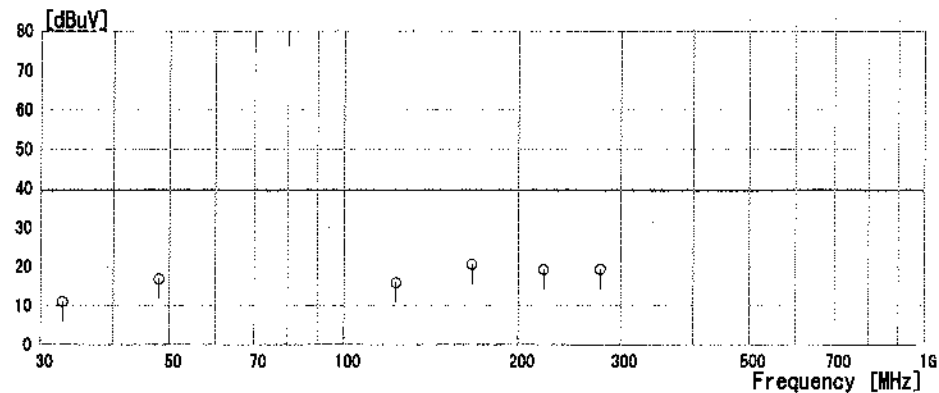
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EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : AV INPUT+REC
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 : 1Vp-p INPUT
REMARKS 2 : 3CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

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	32.740	33.0	---	-21.9	11.1	---	39.5	---	28.4	---
2	47.940	38.7	---	-21.8	16.9	---	39.5	---	22.6	---
3	123.100	37.8	---	-21.9	15.9	---	39.5	---	23.6	---
4	166.400	42.5	---	-21.9	20.6	---	39.5	---	18.9	---
5	221.300	41.1	---	-21.6	19.3	---	39.5	---	20.2	---
6	276.700	41.3	---	-21.9	19.4	---	39.5	---	20.1	---

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.
YOKOMA EMC LABORATORY

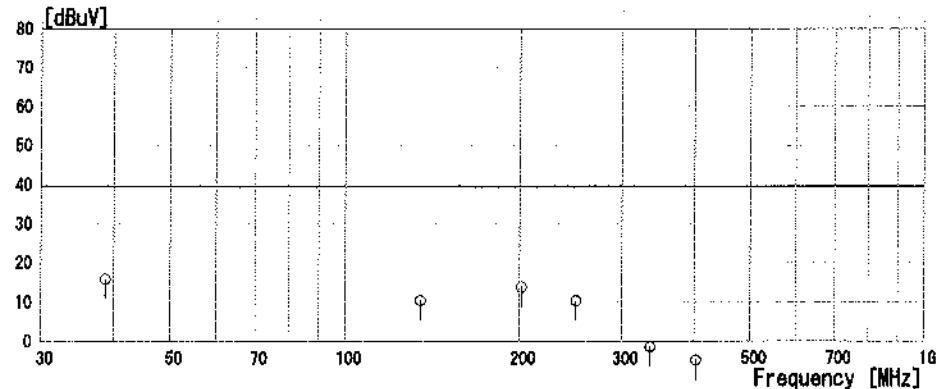
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EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : AV INPUT+REC
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 : 1Vp-p INPUT
REMARKS 2 : 4CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Hisayuki Kioka

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	38.740	37.7	---	-21.9	15.8	---	39.5	---	23.7	---
2	135.000	32.2	---	-21.8	10.4	---	39.5	---	29.1	---
3	250.400	32.4	---	-22.0	10.4	---	39.5	---	29.1	---
4	201.750	35.6	---	-21.8	13.8	---	39.5	---	25.7	---
5	336.250	20.7	---	-22.1	-1.4	---	39.5	---	40.9	---
6	403.500	17.3	---	-22.2	-4.9	---	39.5	---	44.4	---

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.
YOKOMA EMC LABORATORY

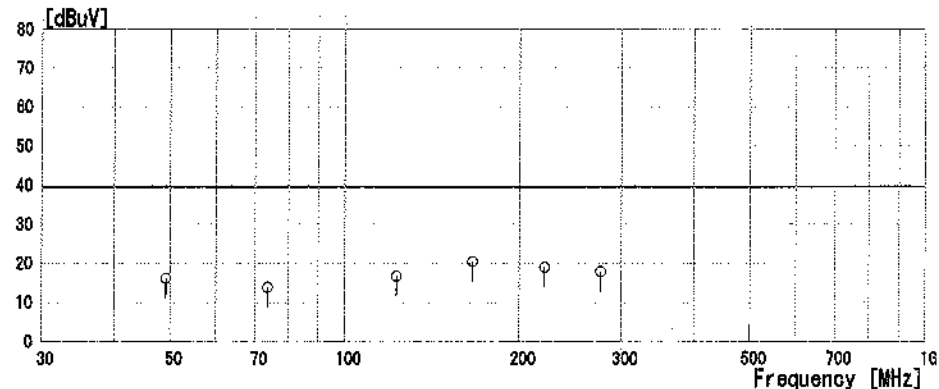
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EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : AV INPUT+REC
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 : 5Vp-p INPUT
REMARKS 2 : 3CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Hisayuki Kioka

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	49.200	37.9	---	-21.8	16.1	---	39.5	---	23.4	---
2	73.650	36.7	---	-21.8	13.9	---	39.5	---	25.6	---
3	122.900	38.6	---	-21.9	16.7	---	39.5	---	22.8	---
4	166.300	42.3	---	-21.9	20.4	---	39.5	---	19.1	---
5	221.300	40.8	---	-21.8	19.0	---	39.5	---	20.5	---
6	276.700	39.8	---	-21.8	17.9	---	39.5	---	21.6	---

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.
YOKOKA EMC LABORATORY

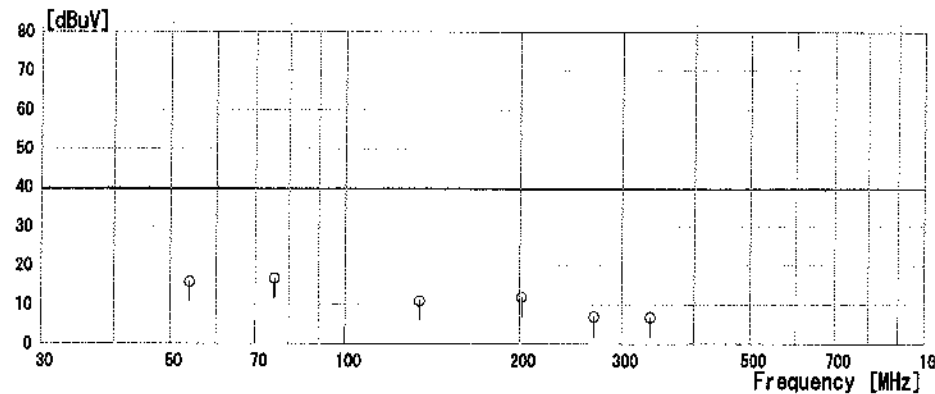
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EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : AV INPUT+REC
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 : 5Vp-p INPUT
REMARKS 2 : 4CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

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	54.000	37.5	---	-21.7	15.8	---	39.5	---	23.7	---
2	75.570	38.4	---	-21.8	16.6	---	39.5	---	22.9	---
3	134.510	32.7	---	-21.8	10.9	---	39.5	---	28.6	---
4	201.760	33.6	---	-21.8	11.8	---	39.5	---	27.7	---
5	269.000	28.9	---	-22.0	6.9	---	39.5	---	32.6	---
6	336.260	28.9	---	-22.1	6.8	---	39.5	---	32.7	---

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.
YOKOKA EMC LABORATORY

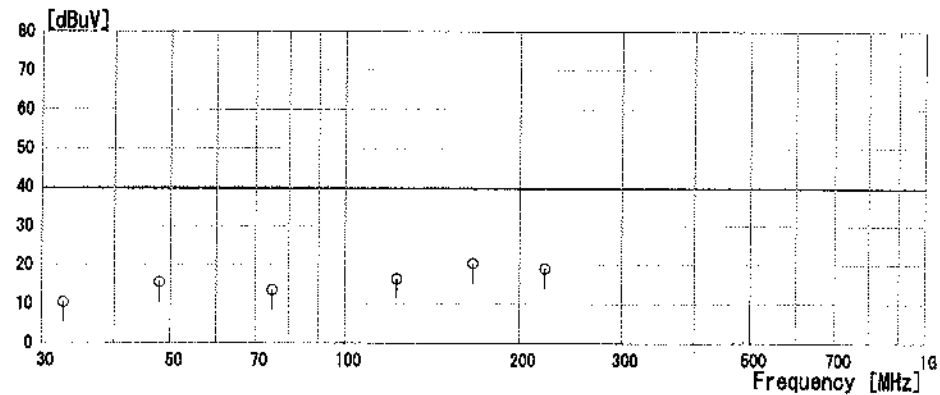
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EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : PLAYBACK
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 :
REMARKS 2 : 3CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

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	32.700	32.3	---	-21.9	10.4	---	39.5	---	29.1	---
2	47.900	37.3	---	-21.8	15.5	---	39.5	---	24.0	---
3	74.890	35.3	---	-21.8	13.5	---	39.5	---	26.0	---
4	122.900	38.3	---	-21.9	16.4	---	39.5	---	23.1	---
5	166.300	42.3	---	-21.9	20.4	---	39.5	---	19.1	---
6	221.300	40.9	---	-21.8	19.1	---	39.5	---	20.4	---

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

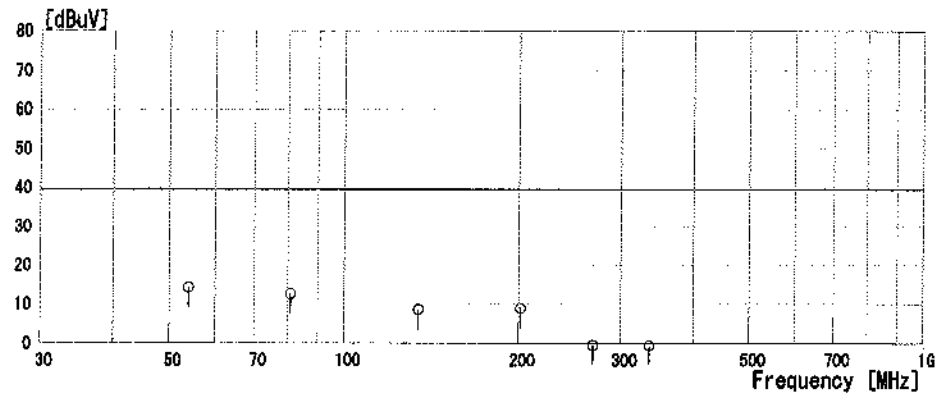
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EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : PLAYBACK
PORT : RF OUTPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 :
REMARKS 2 : 4CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

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	64.000	36.0	---	-21.7	14.3	---	39.5	---	25.2	---
2	80.890	34.5	---	-21.9	12.6	---	39.5	---	26.9	---
3	134.500	30.4	---	-21.8	8.6	---	39.5	---	30.9	---
4	201.750	30.7	---	-21.8	8.9	---	39.5	---	30.6	---
5	269.000	21.5	---	-22.0	-0.5	---	39.5	---	40.0	---
6	336.250	21.6	---	-22.1	-0.5	---	39.5	---	40.0	---

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

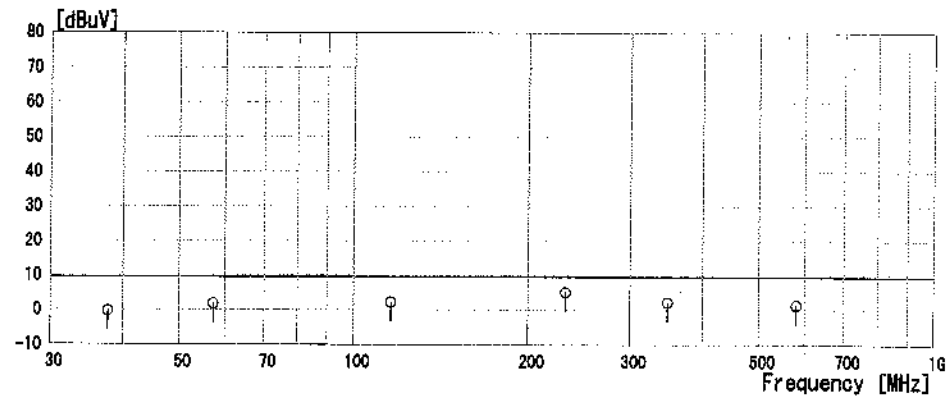
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : AV INPUT-REC
PORT : RF INPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 : 1Vp-p INPUT
REMARKS 2 : 3CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

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	37.710	21.6	---	-21.9	-0.3	---	9.5	---	9.8	---
2	57.310	23.5	---	-21.7	1.8	---	9.5	---	7.7	---
3	116.120	24.0	---	-21.8	2.2	---	9.5	---	7.3	---
4	232.250	27.0	---	-21.9	5.1	---	9.5	---	4.4	---
5	348.370	24.2	---	-22.0	2.2	---	9.5	---	7.3	---
6	680.620	23.1	---	-21.7	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

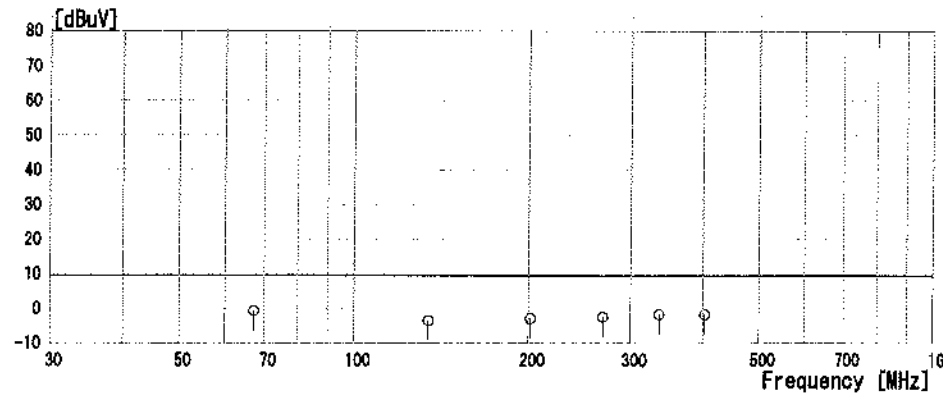
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : AV INPUT+REC
PORT : RF INPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 : 1Vp-p INPUT
REMARKS 2 : 4CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Hisayuki Kioka

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	21.0	---	-21.7	-0.7	---	9.5	---	10.2	---
2	134.500	18.9	---	-21.8	-3.5	---	9.5	---	13.0	---
3	201.750	18.9	---	-21.8	-2.9	---	9.5	---	12.4	---
4	269.080	19.5	---	-22.0	-2.5	---	9.5	---	12.0	---
5	336.250	20.4	---	-22.1	-1.7	---	9.5	---	11.2	---
6	403.250	20.4	---	-22.2	-1.8	---	9.5	---	11.3	---

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

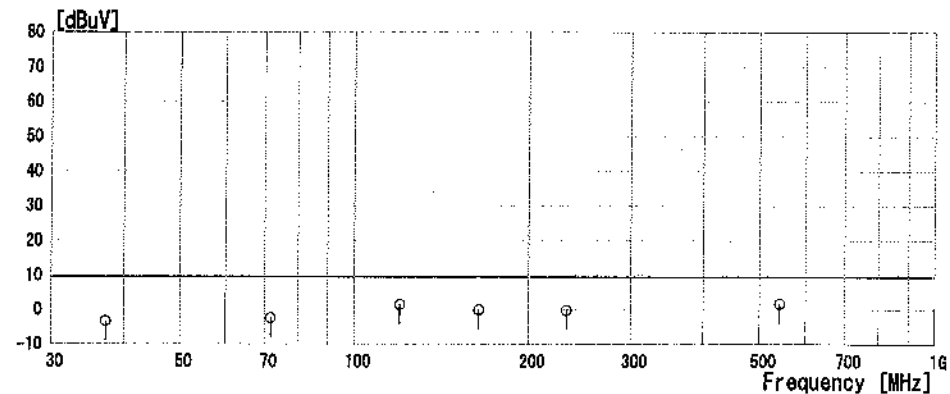
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : AV INPUT+REC
PORT : RF INPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 : 5Vp-p INPUT
REMARKS 2 : 3CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Hisayuki Kioka

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	37.260	18.5	---	-21.9	-3.4	---	9.5	---	12.9	---
2	71.750	19.3	---	-21.7	-2.4	---	9.5	---	11.9	---
3	120.000	23.4	---	-21.9	1.5	---	9.5	---	6.0	---
4	164.350	21.8	---	-21.9	-0.1	---	9.5	---	9.6	---
5	232.730	21.7	---	-21.9	-0.2	---	9.5	---	9.7	---
6	542.000	23.9	---	-22.1	1.8	---	9.5	---	7.7	---

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

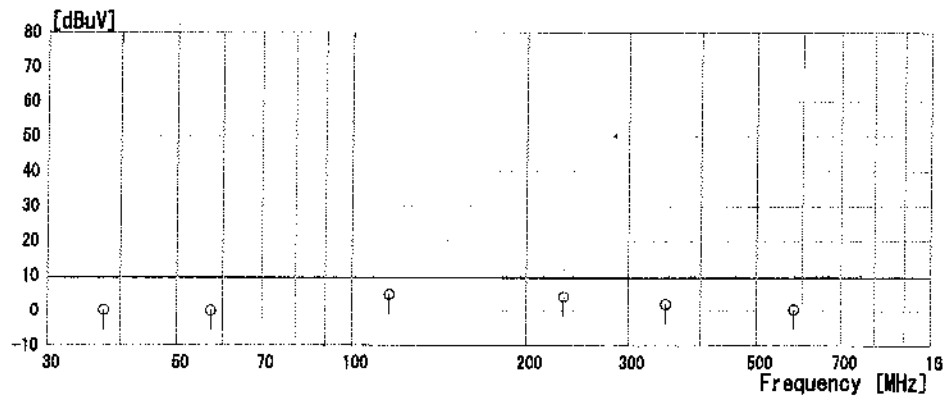
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : AV INPUT+REC
PORT : RF INPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 : 5Vp-p INPUT
REMARKS 2 : 4CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Hisayuki Kikoku

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	37.470	22.0	---	-21.9	0.1	---	9.5	---	9.4	---
2	57.270	21.7	---	-21.7	0.0	---	9.5	---	9.5	---
3	116.120	26.4	---	-21.8	4.6	---	9.5	---	4.9	---
4	232.250	26.0	---	-21.9	4.1	---	9.5	---	5.4	---
5	348.380	24.0	---	-22.0	2.0	---	9.5	---	7.5	---
6	580.620	22.1	---	-21.7	0.4	---	9.5	---	9.1	---

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

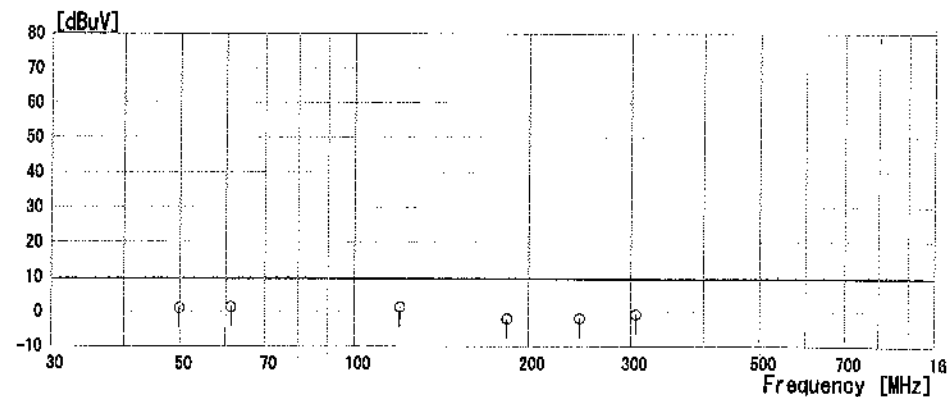
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : PLAYBACK
PORT : RF INPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 : -
REMARKS 2 : 3CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15 SUBPART B

Engineer: Hisayuki Kikoku

No.	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN	
		QP	AV		QP	AV	QP	AV	QP	AV
		[dBuV]			[dBuV]		[dBuV]		[dB]	
1	49.900	22.8	---	-21.8	1.0	---	9.5	---	8.5	---
2	61.250	23.1	---	-21.7	1.4	---	9.5	---	8.1	---
3	120.000	23.2	---	-21.9	1.3	---	9.5	---	8.2	---
4	183.750	20.0	---	-22.0	-2.0	---	9.5	---	11.5	---
5	245.000	20.1	---	-22.0	-1.9	---	9.5	---	11.4	---
6	306.250	21.3	---	-22.0	-0.7	---	9.5	---	10.2	---

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

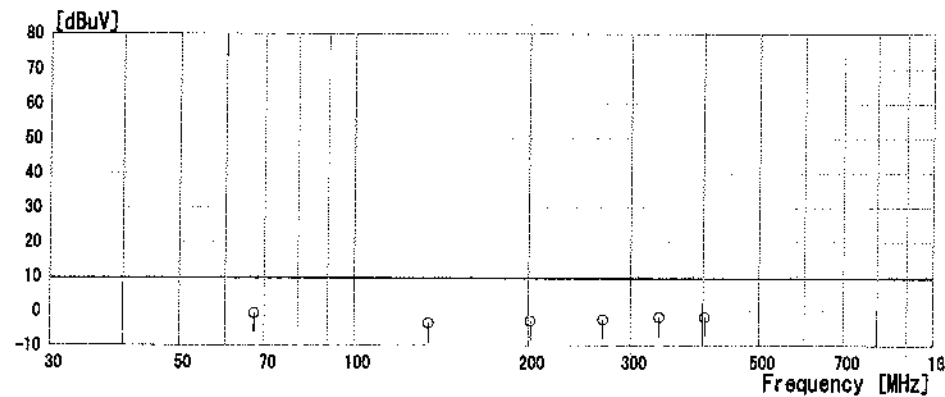
COMPANY : ORION ELECTRIC CO., LTD.
EQUIPMENT : VCR
Model Name : HR-A592U
OPERATION MODE : PLAYBACK
PORT : RF INPUT TERMINAL
POWER : AC120V/60Hz
REMARKS 1 :
REMARKS 2 : 4CH OUTPUT

REPORT NO. : 23BE0048-YW-1
DATE : OCTOBER 5, 2002
REGULATION : FCC PART15B SUBPART B

Engineer: Hisayuki Kioka

No.	FREQ [MHz]	READING QP [dBuV]	AV	C. FACTOR [dB]	RESULT QP [dBuV]	AV	LIMIT QP [dBuV]	AV	MARGIN QP [dB]	AV
1	67.250	21.0	---	-21.7	-0.7	---	9.5	---	10.2	---
2	134.500	18.3	---	-21.8	-3.5	---	9.5	---	13.0	---
3	201.750	18.9	---	-21.8	-2.9	---	9.5	---	12.4	---
4	269.080	19.5	---	-22.0	-2.5	---	9.5	---	12.0	---
5	336.250	20.4	---	-22.1	-1.7	---	9.5	---	11.2	---
6	403.250	20.4	---	-22.2	-1.8	---	9.5	---	11.3	---

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



Picture sensitivity test

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

Company : ORION ELECTRIC CO., LTD.
Equipment : Video Cassette Recorder
Model number : HR-A592U
Power : AC 120 V / 60 Hz
Description : TV RECEPTION

Report Number : 23BE0048-YW-1
Regulation : FCC Part15B Subpart B
Date : October 4, 2002

Engineer : Hisayuki Kioka

Ch.	Frequency	Sensitivity		Ch.	Frequency	Sensitivity	
[VHF]	[MHz]	[dBuV]	[uV]	[UHF]	[MHz]	[dBuV]	[uV]
2	55.25	20.0	10.0	14	471.25	20.9	11.1
3	61.25	18.6	8.5	20	507.25	21.0	11.2
4	67.25	18.1	8.0	26	543.25	20.8	11.0
5	77.25	17.9	7.9	32	579.25	21.7	12.2
6	83.25	17.6	7.6	38	615.25	21.3	11.6
7	175.25	20.4	10.5	44	651.25	21.9	12.4
8	181.25	20.0	10.0	50	687.25	23.0	14.1
9	187.25	19.5	9.4	56	723.25	21.8	12.3
10	193.25	19.6	9.5	62	759.25	21.4	11.7
11	199.25	19.5	9.4	69	801.25	21.9	12.4
12	205.25	19.4	9.3	-	-	-	-
13	211.25	19.0	8.9	-	-	-	-
Average VHF		9.1		Average UHF		12.0	
Average UHF/VHF : $20 \log \text{UHF}[\mu\text{V}]/\text{VHF}[\mu\text{V}] =$				2.4	dB		
[Limit : 8.0 dB]							

Noise figure test

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

Company : ORION ELECTRIC CO., LTD.
Equipment : Video Cassette Recorder
Model number : HR-A592U
Power : AC 120 V / 60 Hz
Description : TV RECEPTION

Report Number : 23BE0048-YW-1
Regulation : FCC Part15B Subpart B
Date : October 5, 2002

Engineer : Hisayuki Kioka

Ch.	Frequency [MHz]	Meter reading [dB]	Correction factor [dB]	Noise figure [dB]	Limits [dB]	Margin [dB]
TV VHF Fundamental						
2	55.25	5.3	0.2	5.1	14.0	8.9
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	3.1	0.2	2.9	14.0	11.1
6	83.25	3.0	0.2	2.8	14.0	11.2
7	175.25	5.5	0.2	5.3	14.0	8.7
8	181.25	5.2	0.2	5.0	14.0	9.0
9	187.25	5.0	0.2	4.8	14.0	9.2
10	193.25	4.9	0.2	4.7	14.0	9.3
11	199.25	4.8	0.2	4.6	14.0	9.4
12	205.25	4.8	0.2	4.6	14.0	9.4
13	211.25	4.6	0.2	4.4	14.0	9.6
TV UHF Fundamental						
14	471.25	6.0	0.3	5.7	14.0	8.3
20	507.25	6.4	0.3	6.1	14.0	7.9
26	543.25	6.5	0.3	6.2	14.0	7.8
32	579.25	6.6	0.3	6.3	14.0	7.7
38	615.25	6.6	0.3	6.3	14.0	7.7
44	651.25	7.0	0.3	6.7	14.0	7.3
50	687.25	7.0	0.3	6.7	14.0	7.3
56	723.25	7.0	0.4	6.6	14.0	7.4
62	759.25	7.0	0.4	6.6	14.0	7.4
69	801.25	6.5	0.4	6.1	14.0	7.9
Mid-band						
14	121.25	4.2	0.2	4.0	14.0	10.0
16	133.25	7.2	0.2	7.0	14.0	7.0
18	145.25	6.5	0.2	6.3	14.0	7.7
20	157.25	6.0	0.2	5.8	14.0	8.2
22	169.25	5.6	0.2	5.4	14.0	8.6
Super-band						
23	217.25	4.6	0.2	4.4	14.0	9.6
26	235.25	4.6	0.2	4.4	14.0	9.6
29	253.25	4.6	0.2	4.4	14.0	9.6
32	271.25	4.8	0.2	4.6	14.0	9.4
36	295.25	5.2	0.2	5.0	14.0	9.0

Test Report No : 23BE0048-YW-1

APPENDIX 3 Test Instruments

Item No.	Instrument Name	Manufacturer	Model	Calibration Date	Calibration By
AF-02	Pre Amplifier	Anritsu	MH648A	2002/04/01 * 12	RE
AF-03	Pre Amplifier	Anritsu	MH648A	2002/04/01 * 12	AT, TS, RF
AF-07	Pre Amplifier	Agilent	HP8449B	2001/12/21 * 12	RE, AT
AT-08	Attenuator	Anritsu	MP121B	2002/04/04 * 12	RE
APSS004	Signal Generator	Rohde & Schwarz	SMY01	2002/06/07 * 12	PS
BA-08	Biological Antenna	Schwarzbeck	BBA9108	2002/09/09 * 12	RE
ABP/P01	Band pass filter	Erika Fiedler	BP	2002/05/02 * 12	PS
LA-08	Logperiodic Antenna	Schwarzbeck	UHALP9108-A	2002/05/02 * 12	RE
SA-08	Spectrum Analyzer	Advantest	R3272	2002/04/11 * 12	CE, AT, TS, RF
TR-03	Test Receiver	Rohde & Schwarz	ESHS30	2002/05/30 * 12	CE
TR-02	Test Receiver	Rohde & Schwarz	ESVS30	2002/04/17 * 12	RE
OS-05	Digital Humidity Indicator	SATO	PC-8000TRH	2002/04/10 * 12	RE
OS-15	Digital Humidity Indicator	SATO	PC-8000TRH	2002/05/18 * 12	CE, AT, TS, RF, PS, NF
CC-10RC	Yokowa No.1 open coaxial(0.01-1000MHz)	A-PEX	CC-11,CC-12,C C-14,CC-15,CC -16,SW-11,SW-12	2002/03/31 * 12	RE
SA-07	Spectrum Analyzer	Advantest	R3273	2001/12/05 * 12	RE
CC-2S	Yokowa No.2 shield coaxial(0.01MHz-1000MHz)	A-PEX	CC-24,CC-25,C C-26,CC-28,CC -29,SW-21,SW-22	2002/03/30 * 12	CE
CC-08	Microwave Cable	Suhner	SUCOPLEX	2002/01/13 * 12	RE
CC-011	Microwave Cable	Storm	421-014(4mx2)	2001/12/22 * 12	RE
YOATS-01	Open Test Site	JSE	3m, 10m	2002/05/17 * 12	RE
HA-02	Horn Antenna	A.P. Systems	SAS-200/571	2002/05/07 * 12	RE
LS-03	LISN	Schwarzbeck	NSLK0127	2001/11/06 * 12	CE (EUT)
LS-07	LISN	Schwarzbeck	NSLK0126	2001/11/06 * 12	CE
APNFM01	Noise Figure Indicator	Elena	ENF-2005	2000/09/27 * 24	NF
SP-01	75Ω Coaxial Cable(TV Type)	A-PEX	75-F-N-SP	2002/04/28 * 12	AT, TS, RF
SP-03	50Ω Coaxial Cable(Antenna Terminal)	A-PEX	50-N-N-SP	2002/04/28 * 12	AT, TS, RF
SP-04	50Ω Coaxial Cable(Antenna Terminal)	A-PEX	50-N-N-SP	2002/04/28 * 12	AT, TS, RF
SP-05	50Ω Coaxial Cable(Antenna Terminal)	A-PEX	50-N-N-SP	2002/04/28 * 12	AT, TS, RF
AV14-02	Matching Pad	TME	ZT-102	2002/09/06 * 12	AT, PS, NF
SS-05	Digitizing Oscilloscope	Sony Tektronix	2221	2002/01/10 * 12	PS

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 voltage
- TS: Antenna transfer switch
- RF: RF output level/ spurious emission
- PS: Picture sensitivity
- NF: Noise figure