



JAPAN QUALITY ASSURANCE ORGANIZATION
21-25, KINUTA 1-CHOME, SETAGAYA-KU, TOKYO 157 JAPAN
PHONE (03) 3416-0111, TELEX 242-2531 JQA J FAX (03) 3416-9691

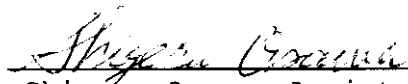
FCC ID : CVT604214A

REPORT OF MEASUREMENTS

Date : October 14, 1998
Issue in : Tokyo, Japan

JOA APPLICATION NO.: 80-80498

1. Applicant : NIKKO CO,. LTD.
1-7-14 Mizumoto, Katsushika-ku, Tokyo
125-0032, Japan
2. Manufacturer : NIKKO ELECTRONICS BHD.
PLOT 497, PRAI FREE TRADE ZONE,
PRAI INDUSTRIAL ESTATE, 13600 PRAI,
PENANG, MALAYSIA
3. Description of Equipment : Radio Controlled Toy
 - a) FCC ID : CVT604214A
 - b) Trade Name : NIKKO
 - c) Model No. : 604214A
 - d) Operating Frequency Range : 26.995 MHz - 27.255 MHz
 - e) Power Supply : Battery 9.0 VDC
4. Applicable Rule : FCC Rules & Regulations Part 15
Subpart C (June 23, 1989)
5. Place of Measurement : JQA EMC Engineering Dept.
6. Date of Measurement : October 6, 1998 (Completed)
7. Total Pages of This Report : 21 (including this page)
8. I certify that I am authorized to sign for the report and that all the statement in this report and in the exhibits hereto are true and correct to the best my knowledge and belief.


Shigeru Osawa, Assistant Manager
Testing Div.
EMC Engineering Dept.

1. Radiated Spurious Emission: [§15.227(a), (b)]

Measurement Method Employed: The field strength measurements of the equipment under test were made at the distance of 3 meters away from the device which was placed on the wooden turntable 0.8 meter in height.

The receiving antenna polarized horizontally was varied from 1 to 4 meters and the wooden turntable was rotated 360 degrees to obtain the highest reading on the field strength meter. The device was tested three orthogonal planes. These measurements were repeated with the receiving antenna polarized vertically.

The internal pre-amplifier was used from 27 MHz up to 1000 MHz.

During these measurements, a fresh battery was used for the maximum radiation from the EUT.

Measurement Results:

Operating Frequency : 27.145 MHz
Distance of Measurement : 3.0 meters

Frequency (MHz)	Antenna	Meter Reading		Field Strength at 3 m	
	Factor (dB)	Horiz. (dB/uV)	Vert. (dB/uV)	Horiz. (uV/m)	Vert. (uV/m)
Fundamental					
27.145	-1.4	55.0	66.5	478.6	1798.9 (Average)
27.145	-1.4	61.8	73.3	1047.1	3935.5 (Peak)
Harmonics & other Frequency components					
54.290	5.0	20.2	16.8	18.2	12.3
81.435	8.9	2.1	2.7	3.5	3.8
108.580	11.7	-0.4	-1.8	3.7	3.1
135.725	14.0	< -5.0	< -5.0	2.8 or less	
162.870	15.9	< -5.0	< -5.0	3.5 or less	
190.015	17.5	< -5.0	< -5.0	4.2 or less	
217.160	18.9	< -5.0	< -5.0	5.0 or less	
244.305	20.2	< -5.0	< -5.0	5.8 or less	
271.450	21.3	< -5.0	< -5.0	6.5 or less	
298.595	22.4	< -5.0	< -5.0	7.4 or less	
325.740	23.3	< -5.0	< -5.0	8.2 or less	
352.885	24.2	< -5.0	< -5.0	9.1 or less	
380.030	25.0	< -5.0	< -5.0	10.0 or less	
407.175	25.8	< -5.0	< -5.0	11.0 or less	
434.320	26.5	< -5.0	< -5.0	11.9 or less	
461.465	27.2	< -5.0	< -5.0	12.9 or less	
488.610	27.9	< -5.0	< -5.0	14.0 or less	
515.755	28.5	< -5.0	< -5.0	15.0 or less	
542.900	29.2	< -5.0	< -5.0	16.2 or less	
579.045	29.9	< -5.0	< -5.0	17.6 or less	
597.190	30.5	< -5.0	< -5.0	18.8 or less	
624.335	31.1	< -5.0	< -5.0	20.2 or less	
651.480	31.6	< -5.0	< -5.0	21.4 or less	
678.625	32.2	< -5.0	< -5.0	22.9 or less	

Frequency (MHz)	Antenna Factor (dB)	Meter Reading		Field Strength at 3 m	
		Horiz. (dB/uV)	Vert. (dB/uV)	Horiz. (uV/m)	Vert. (uV/m)
705.770	32.7	< -5.0	< -5.0	24.3 or	Less
732.915	33.2	< -5.0	< -5.0	25.7 or	Less
760.060	33.7	< -5.0	< -5.0	27.2 or	Less
787.205	34.1	< -5.0	< -5.0	28.5 or	Less
814.350	34.6	< -5.0	< -5.0	30.2 or	Less
841.495	35.0	< -5.0	< -5.0	31.6 or	Less
868.640	35.5	< -5.0	< -5.0	33.5 or	Less
895.785	35.9	< -5.0	< -5.0	35.1 or	Less
922.930	36.3	< -5.0	< -5.0	36.7 or	Less
950.075	36.7	< -5.0	< -5.0	38.5 or	Less
977.220	37.1	< -5.0	< -5.0	40.3 or	Less

Note: 1. The spectrum was checked from 27 MHz to 1000 MHz.
All emissions not listed were found to be more than 20 dB below the limits.

2. The symbol of "<" means "or less".

3. The cable loss was included in the antenna factor.

4. Sample calculation :

at 27.145 MHz

$$10(Af+Mr)/20 = 10(-1.4+66.5)/20 = 1798.9 \text{ uV/m}$$

Where,

Af = Antenna Factor including the cable loss.

Mr = Meter Reading

5. Measuring Instrument Setting:

Fundamental

Detector function : Average / Peak

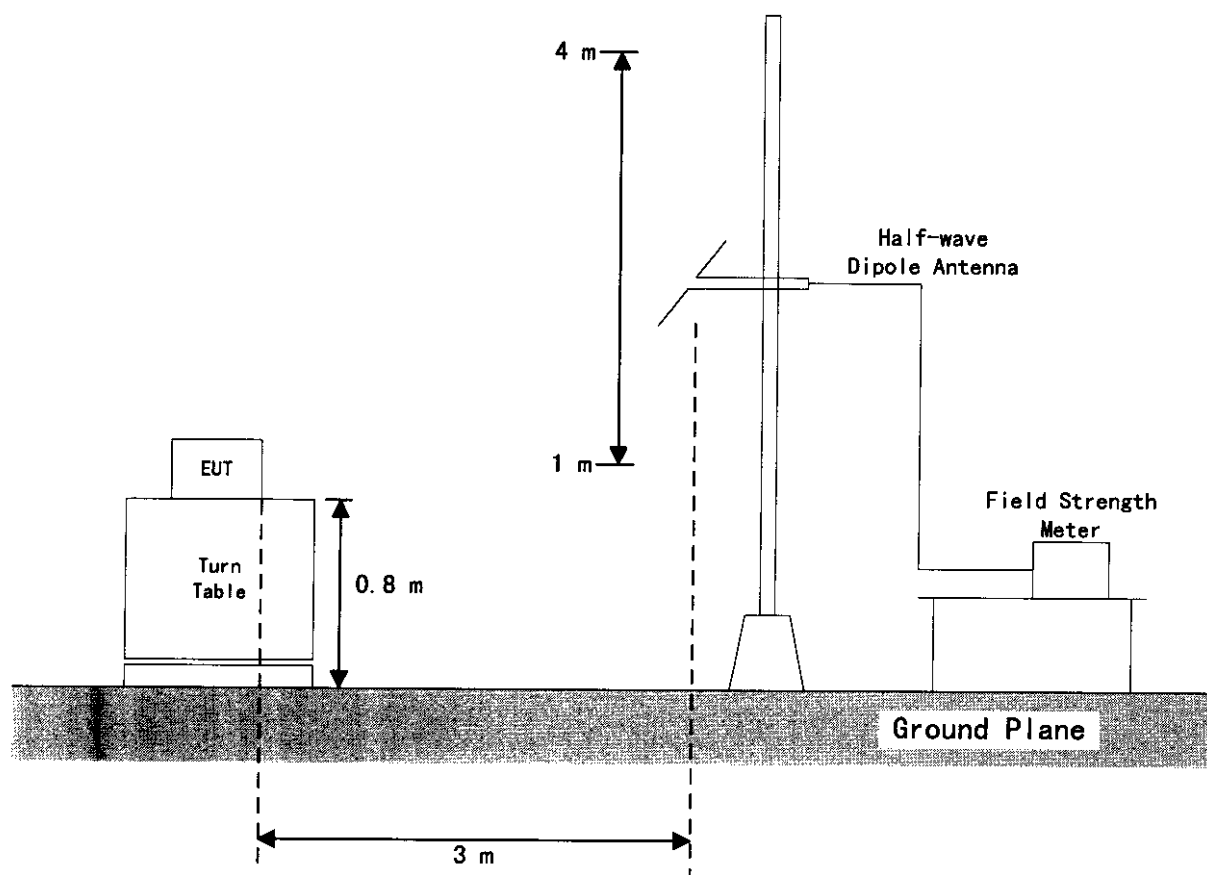
IF Bandwidth : 120 KHz

Harmonics & other frequency components

Detector function : CISPR quasi-peak

IF Bandwidth : 120 KHz

MEASUREMENT SET-UP FOR RADIATED EMISSIONS



2. Radiated Emission, Additional Provisions: [§15.215(c)]

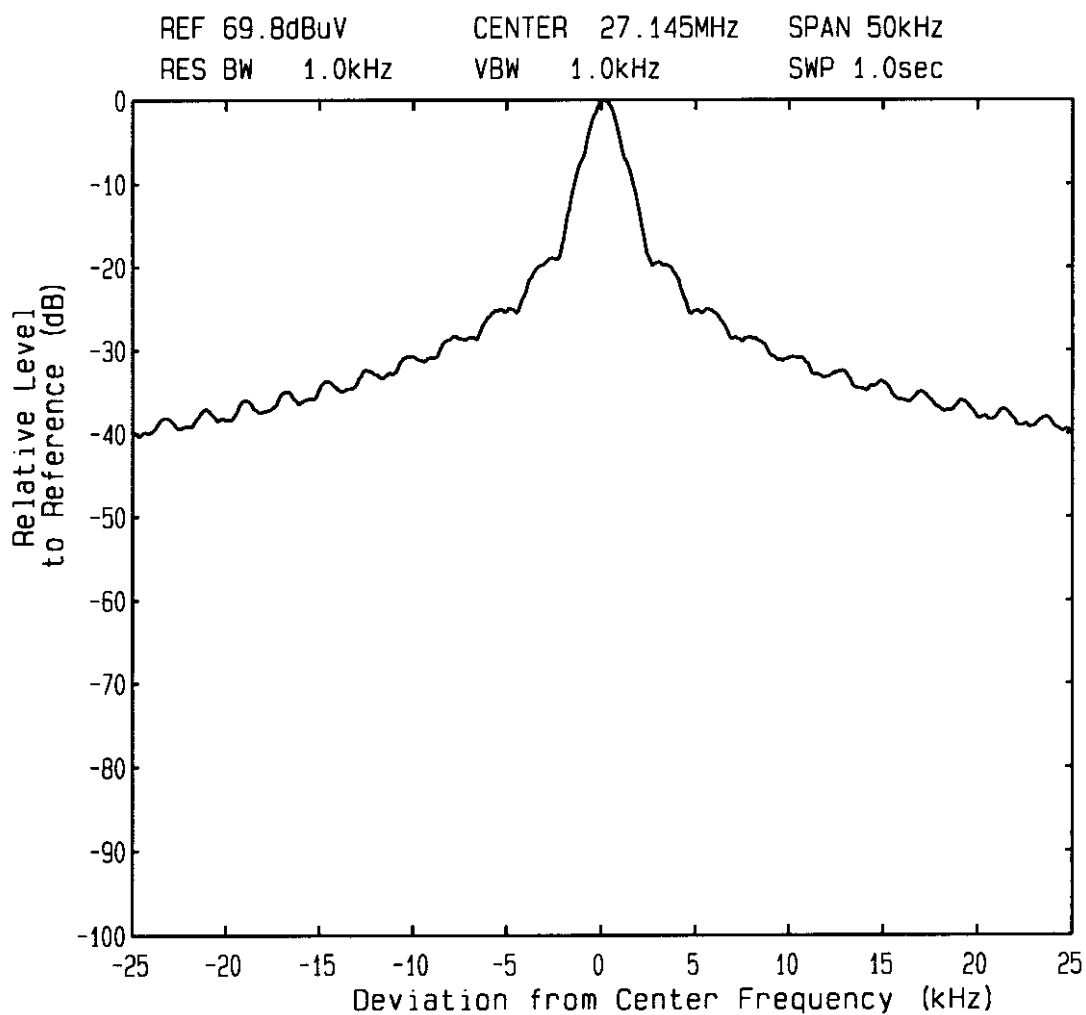
Measurement Method Employed: By using a spectrum analyzer with a vertical antenna for picking up the signal, the measurements of the fundamental frequency were made under the following transmitting modes of the EUT.

Measurements Results: This device comply with §15.215 (c) recommendation.
Refer to the attached graphs.

Emission Limitation

FCC ID : CVT604214A
Model : 604214A

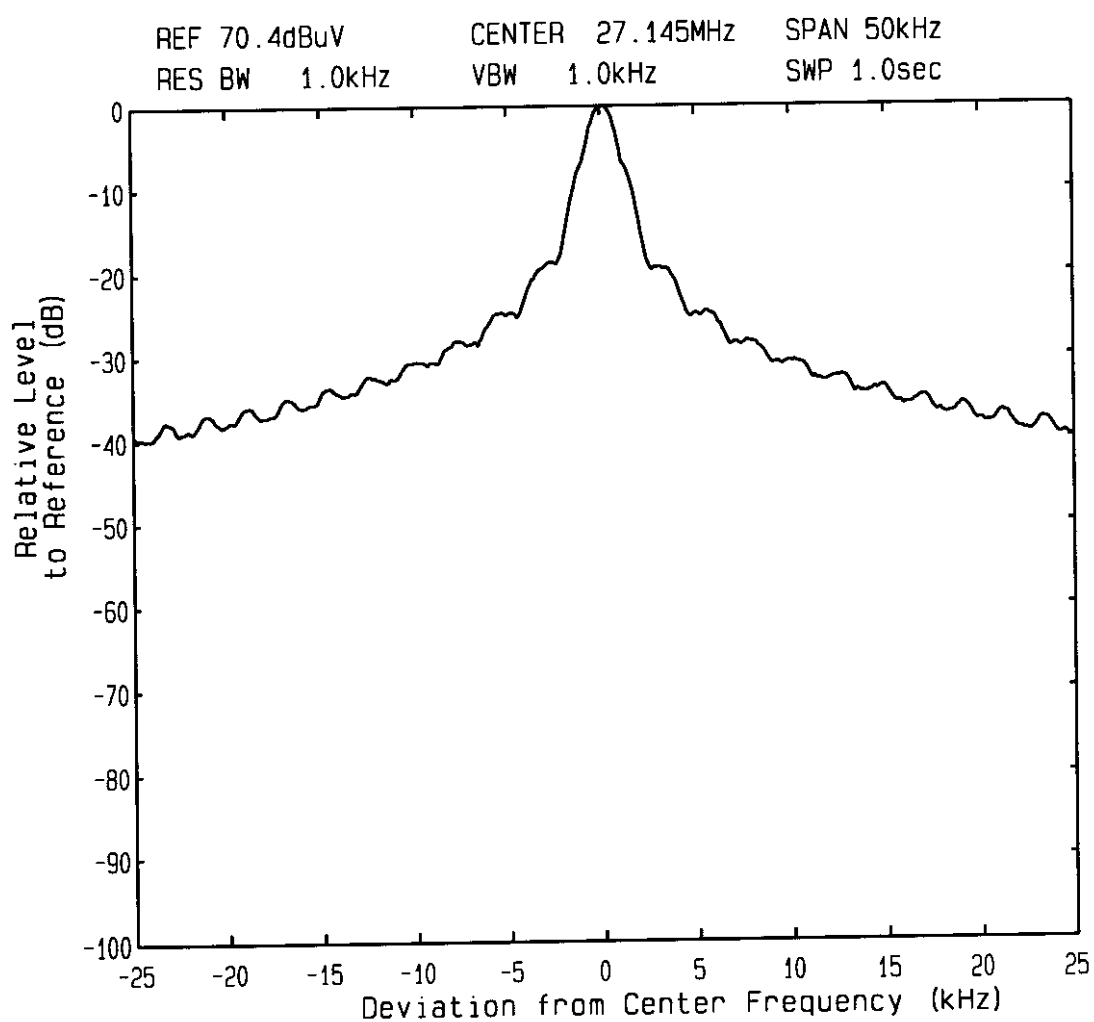
Mode of EUT : Forward (Low)



Emission Limitation

FCC ID : CVT604214A
Model : 604214A

Mode of EUT : Forward (High)

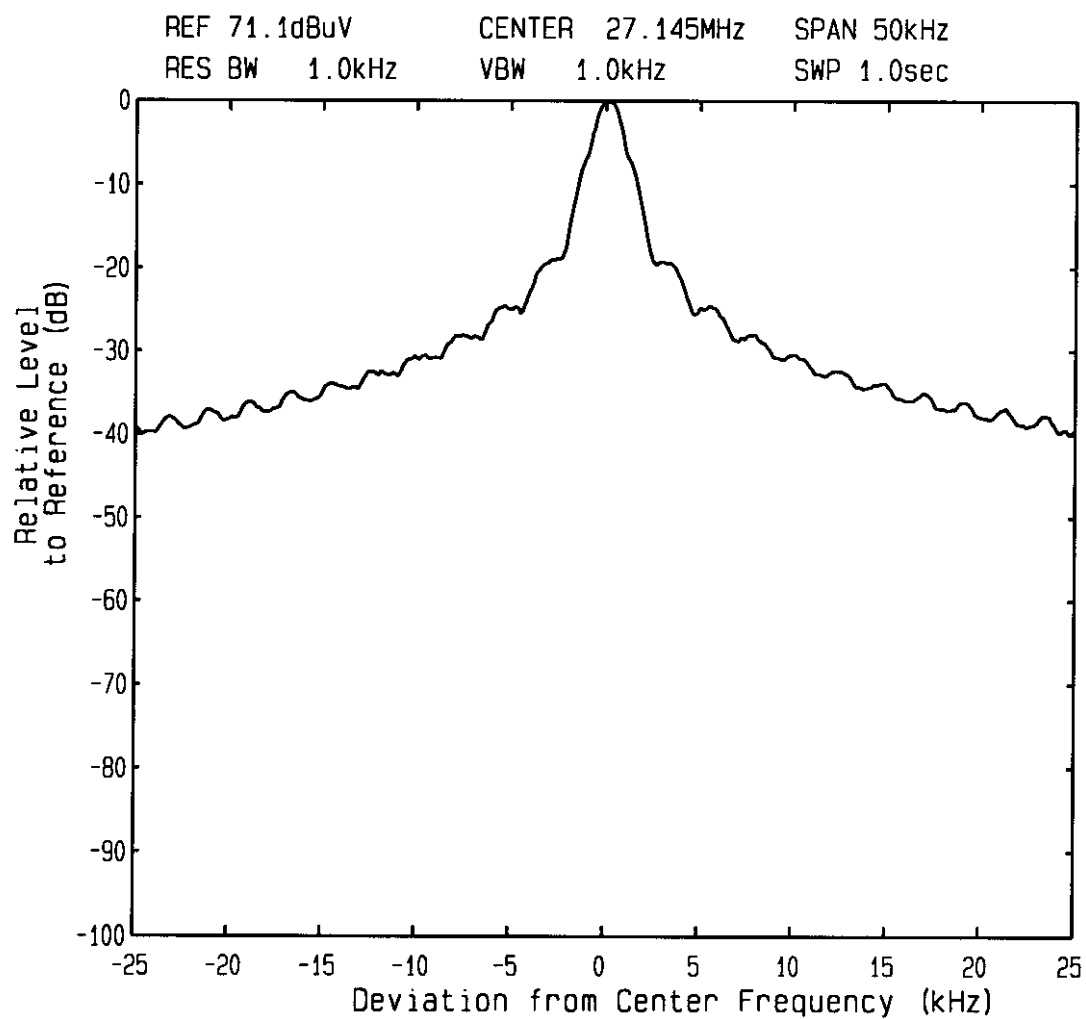


Emission Limitation

FCC ID : CVT604214A

Model : 604214A

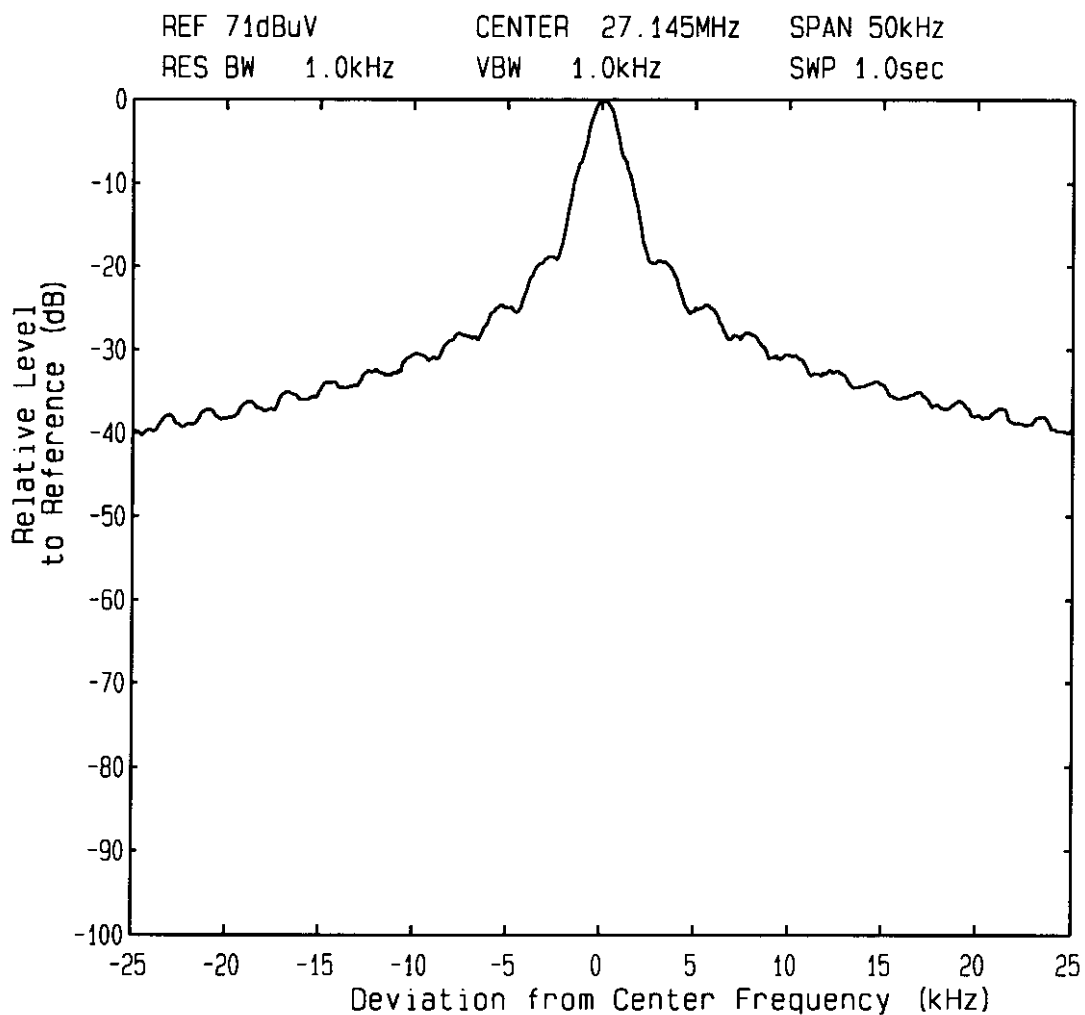
Mode of EUT : Right



Emission Limitation

FCC ID : CVT604214A
Model : 604214A

Mode of EUT : Left

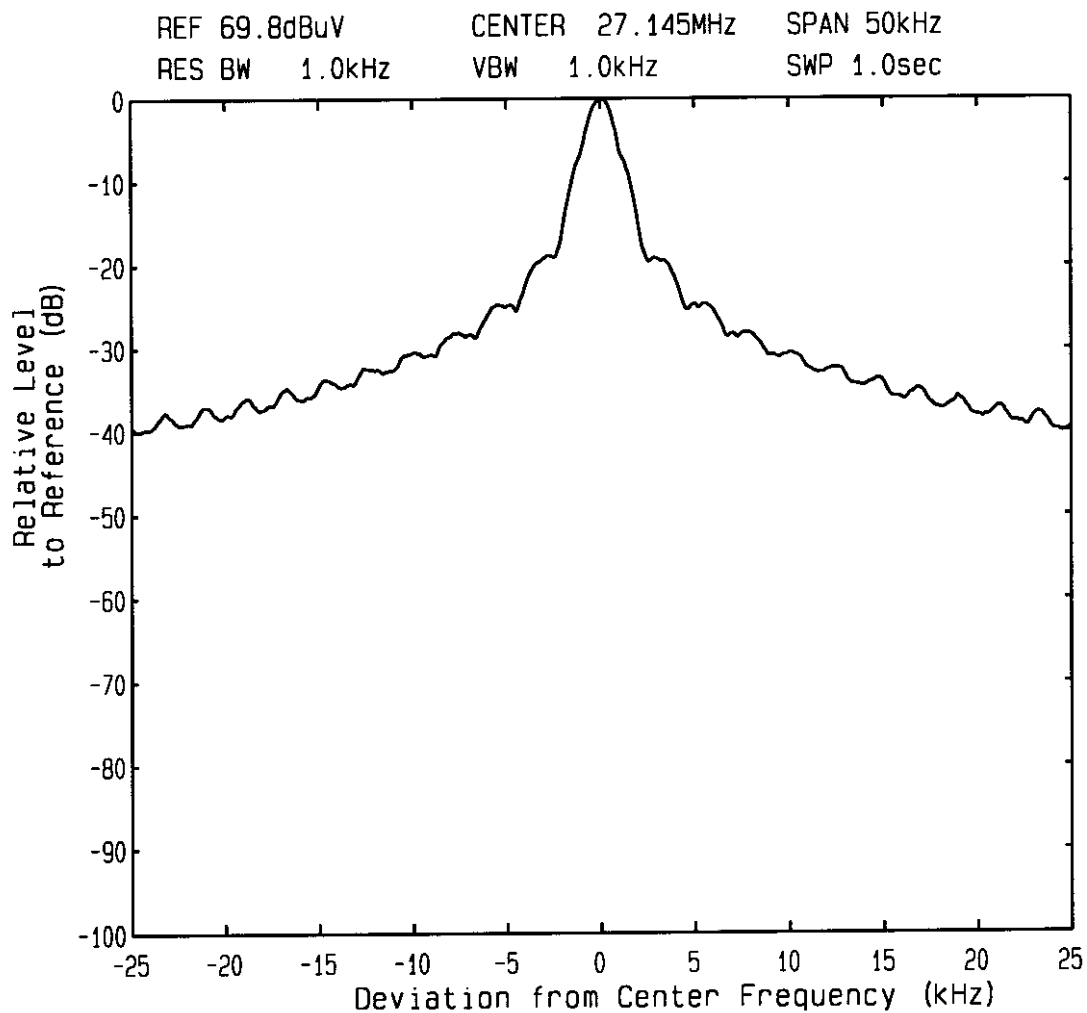


Emission Limitation

FCC ID : CVT604214A

Model : 604214A

Mode of EUT : Forward (Low) Right

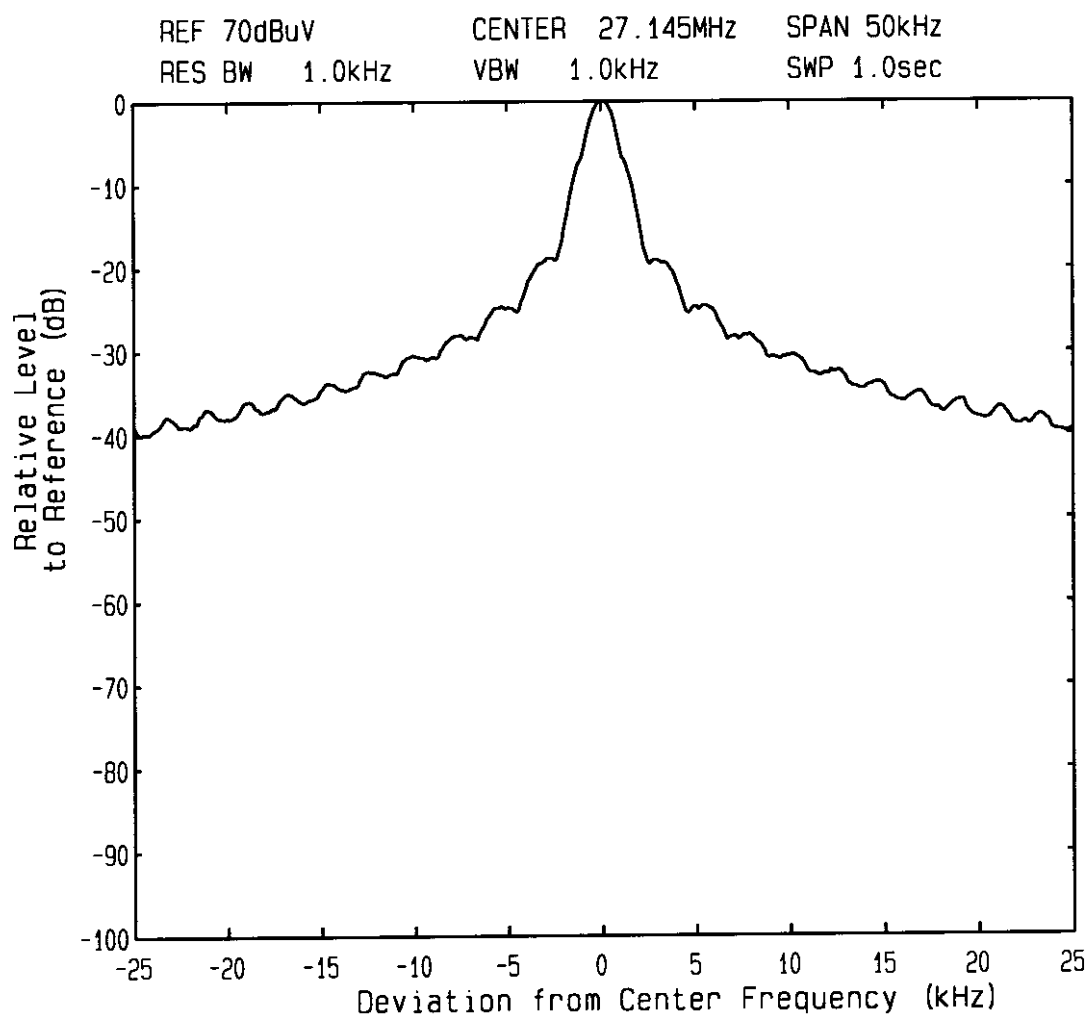


Emission Limitation

FCC ID : CVT604214A

Model : 604214A

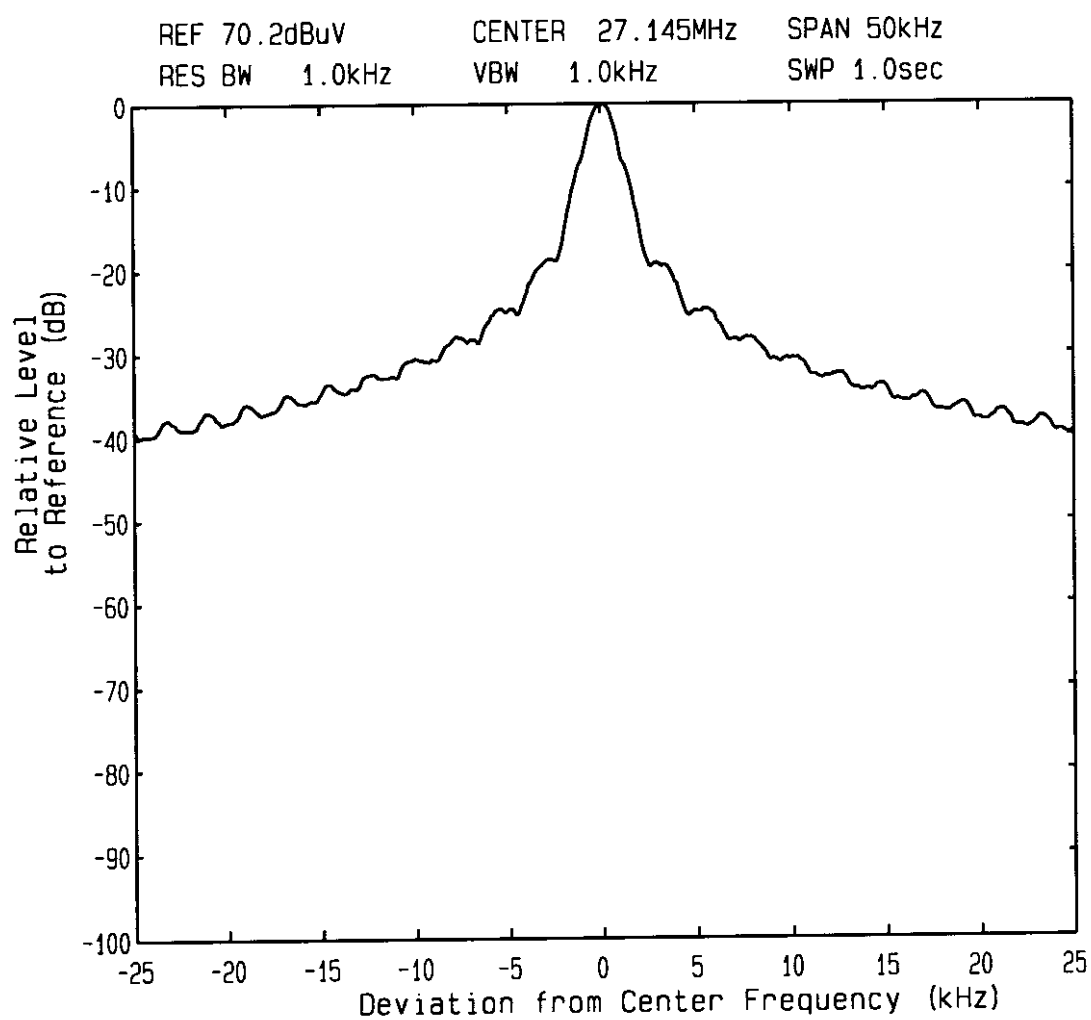
Mode of EUT : Forward (High) Right



Emission Limitation

FCC ID : CVT604214A
Model : 604214A

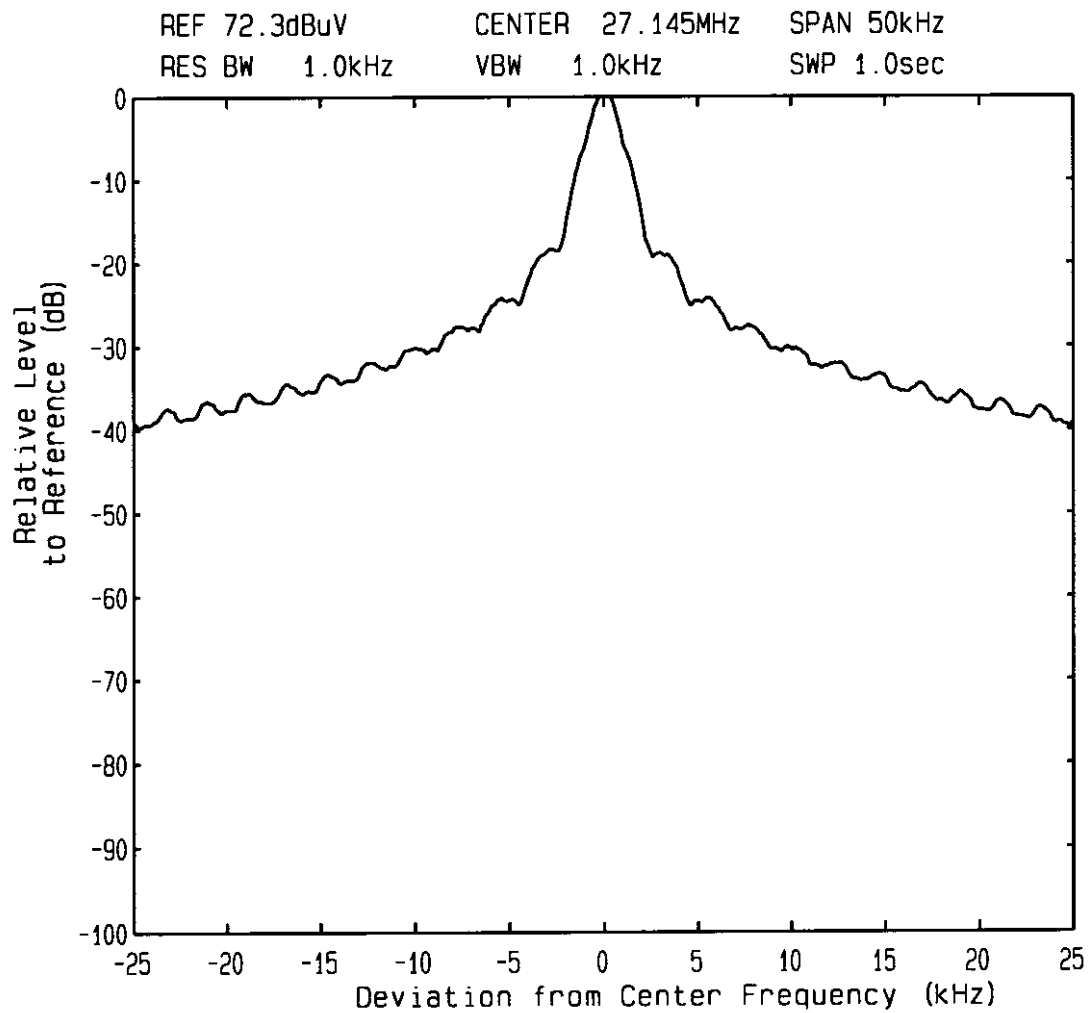
Mode of EUT : Forward (Low) Left



Emission Limitation

FCC ID : CVT604214A
Model : 604214A

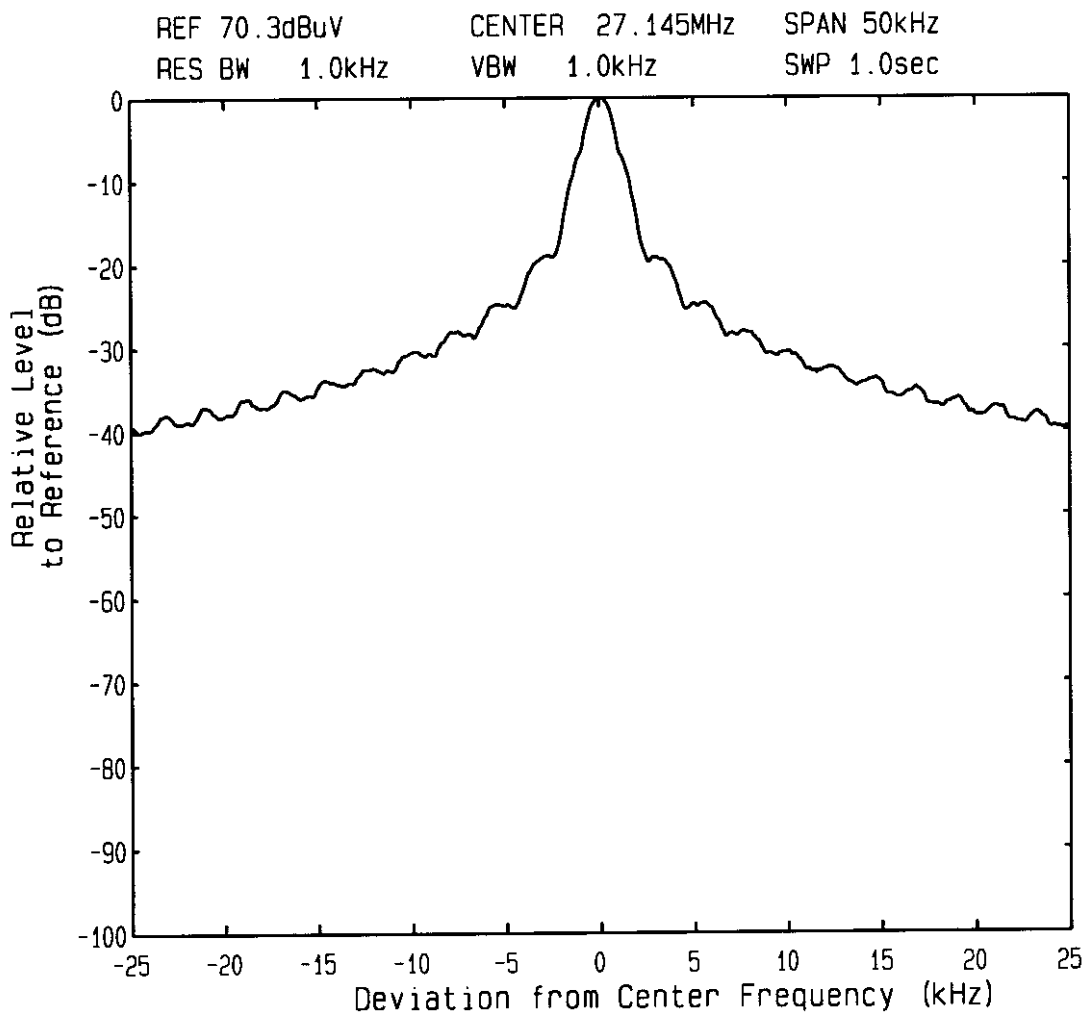
Mode of EUT : Forward (High) Left



Emission Limitation

FCC ID : CVT604214A
Model : 604214A

Mode of EUT : Reverse

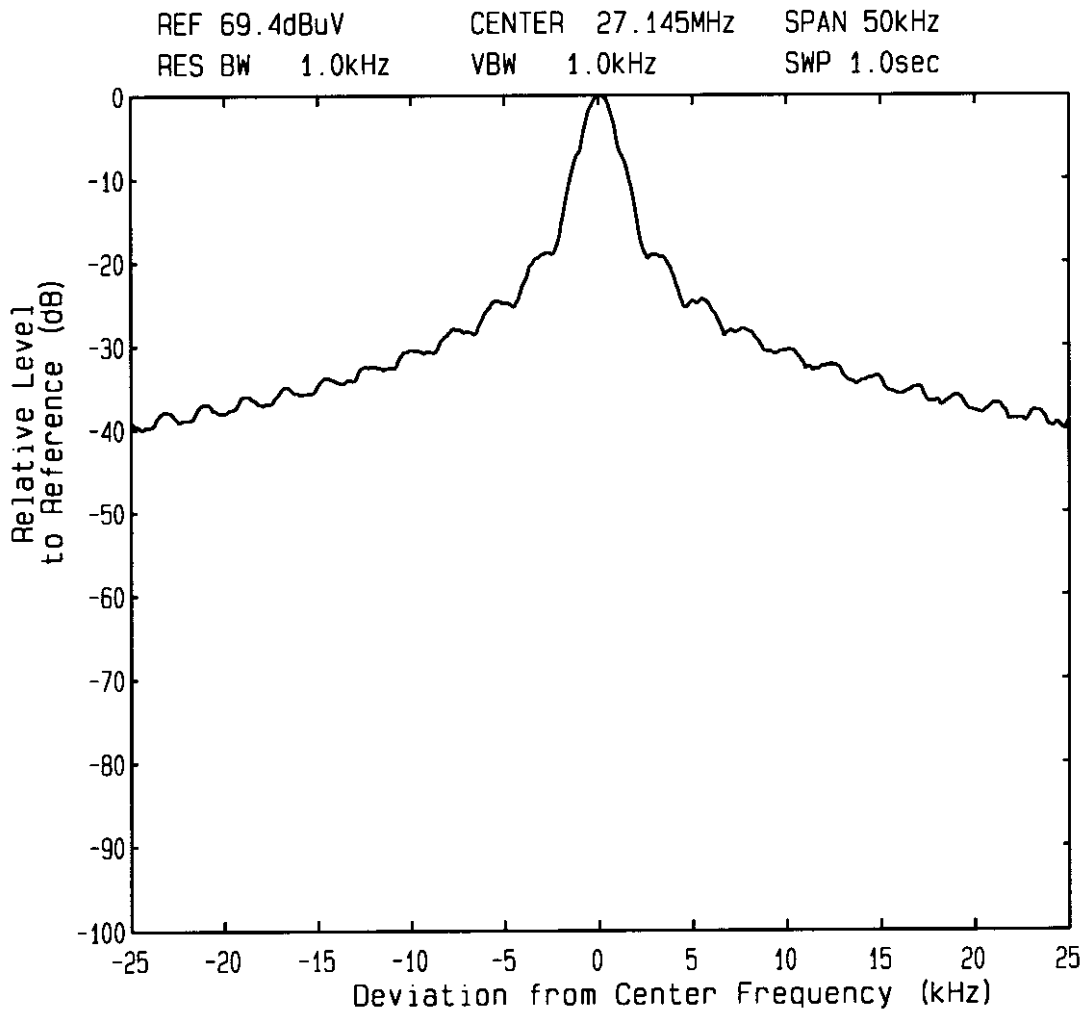


Emission Limitation

FCC ID : CVT604214A

Model : 604214A

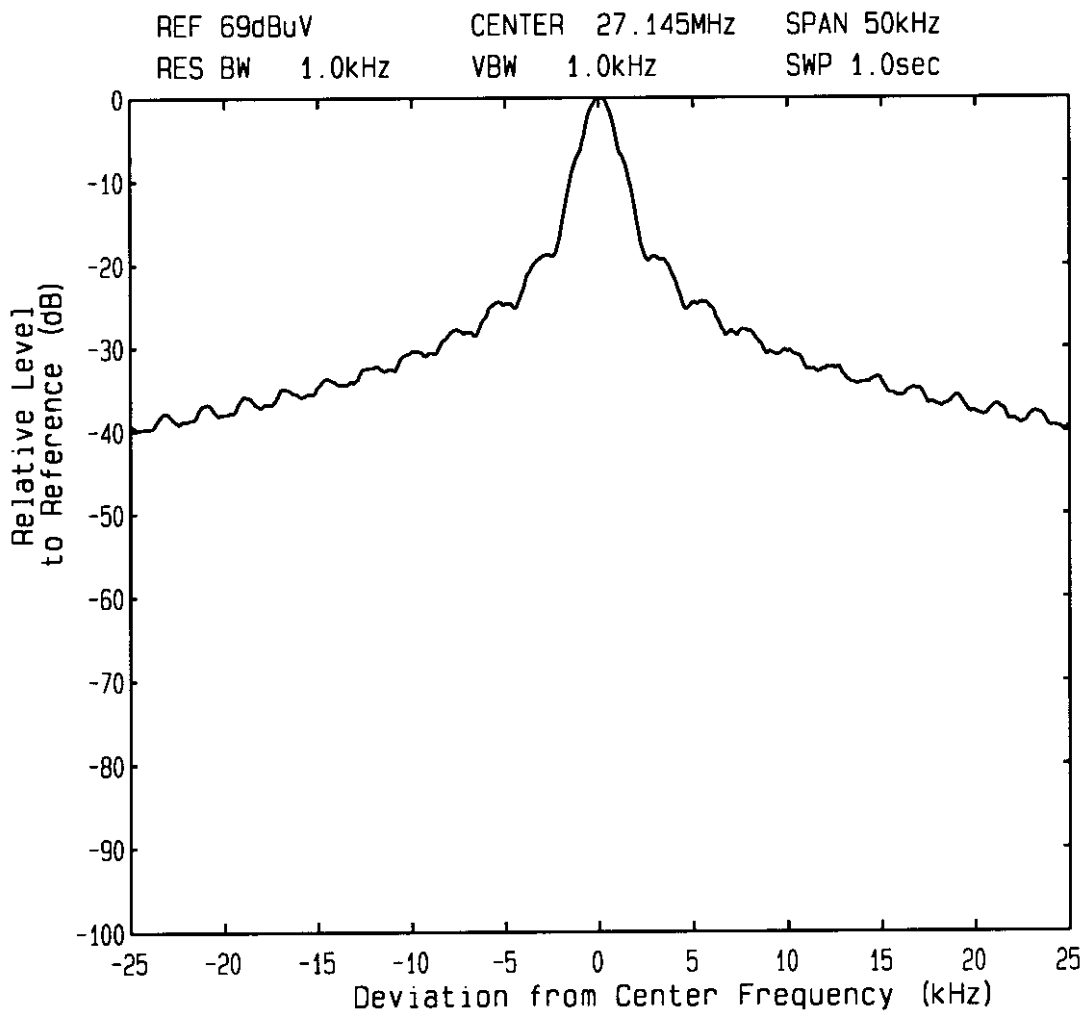
Mode of EUT : Reverse Right



Emission Limitation

FCC ID : CVT604214A
Model : 604214A

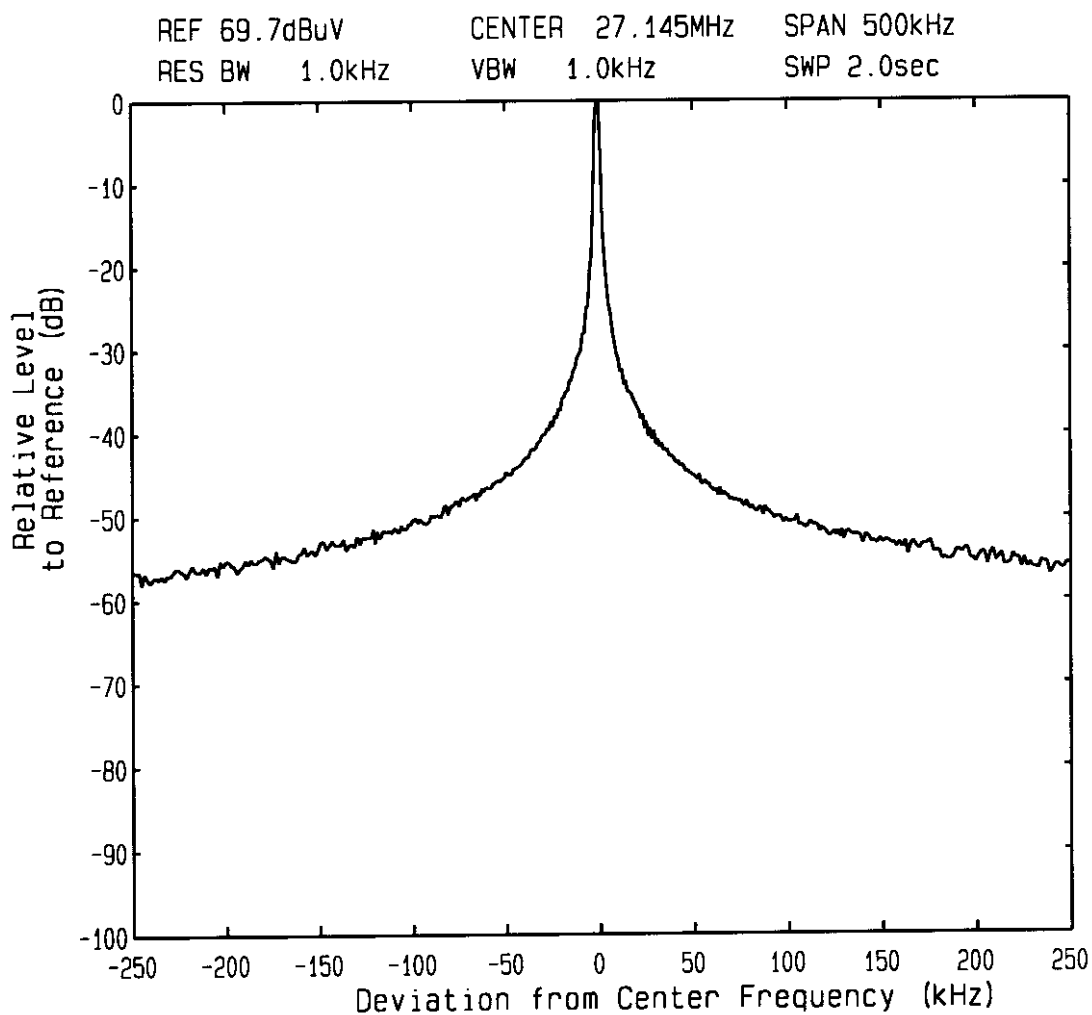
Mode of EUT : Reverse Left



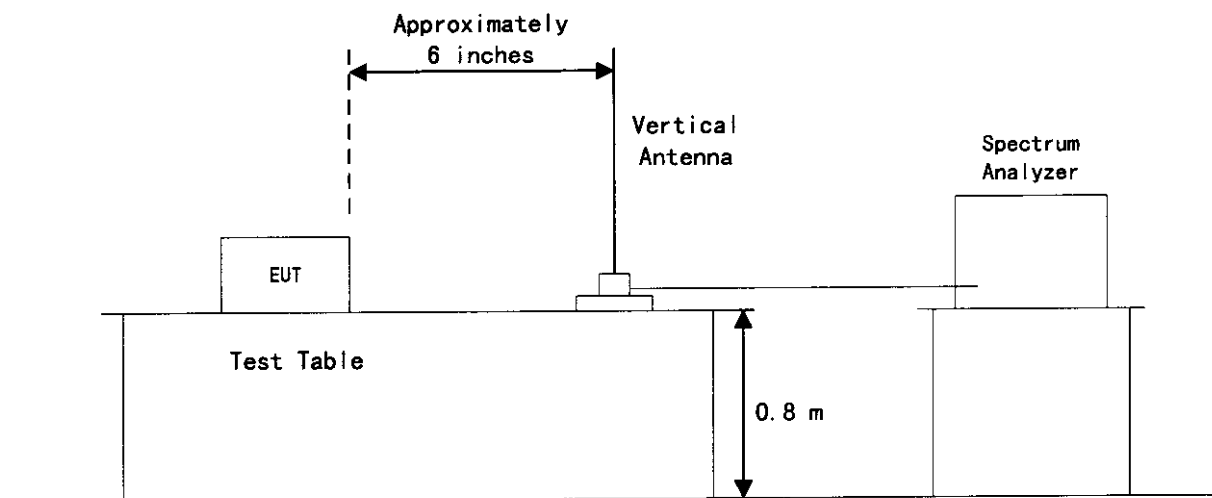
Emission Limitation

FCC ID : CVT604214A
Model : 604214A

Mode of EUT : Forward (High) Left



MESUREMENT SET-UP FOR BAND WIDTH



JQA APPLICATION NO.: 80-80498

LIST OF MEASUREMENT EQUIPMENT

<u>Equipment (Model No.)</u>	<u>Manufacturer</u>	<u>Date of Cal.</u>
1. Field Strength Meter		
ESVP	Rohde & Schwarz	May 1998
2. Spectrum Analyzer		
8566B	Hewlett Packard Inc.	April 1998
3. Tuned Dipole Antenna		
KBA-511	Kyoritsu Electrical Works	November 1997
KBA-611	Kyoritsu Electrical Works	November 1997
4. Vertical Antenna		
91972-2	Stoddard Aircraft Radio Co., Ltd.	-

Transmitter Fundamental & Spurious Radiation

FCC ID : CVT604214A

Operating Frequency : 27.145 MHz

