FCC ID : AK8NTM30
Model : NTM-30

JAPAN QUALITY ASSURANCE ORGANIZATION
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REVISION
JAN 15 1999

FCC ID : AK8NTM30

REPORT OF MEASUREMENTS

Date : December 21, 1998
Issue in : Tokyo, Japan

JQA APPLICATION NO.: 80-80711

Applicant	: Sony Corporation Shibaura Technology Center 7-4, Konan 1-chome, Minato-ku, Tokyo 108-0075, Japan
Manufacturer	: Sony Corporation 7-35, Kitashinagawa 6-chome, Shinagawa-ku, Tokyo 141-0001, Japan
Description of Equipment	: Nursery Monitor
FCC ID	: AK8NTM30
Trade Name	: Sony
Model No.	: NTM-30
Operating Frequency Range	: 49.830 MHz - 49.890 MHz
Power Supply	: 120 VAC 60 z
Applicable Rule	: FCC Rules & Regulations Part 15 Subpart C (June 23, 1989)
Place of Measurement	: JQA EMC Engineering Dept.
Date of Measurement	: December 10, 1998 (Completed)
Total Pages of This Report	: 16 (including this page)

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

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

1. Radiated Spurious Emission: [§15.235(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.
These measurements were repeated with the receiving antenna polarized vertically.
The internal pre-amplifier was used from 30 MHz up to 1000 MHz.
During these measurements, a fresh battery was used for the maximum radiation from the EUT.

Measurement Results:

Operating Frequency : 49.860 MHz
Distance of Measurement : 3.0 meters

Frequency (MHz)	Antenna Factor (dB)	Meter Reading Horiz. (dB/μV)	Meter Reading Vert. (dB/μV)	Field Strength at 3 m Horiz. (μV/m)	Field Strength at 3 m Vert. (μV/m)
Fundamental					
49.860	4.2	61.6	70.9	1949.8	5688.5 (Average)
49.860	4.2	61.9	71.3	2018.4	5956.6 (Peak)
Harmonics & other Frequency components					
33.240	0.4	17.7	30.4	8.0	34.7
66.480	6.9	6.7	14.4	4.8	11.6
83.100	9.1	13.1	15.1	12.9	16.2
99.720	10.9	17.2	14.4	25.4	18.4
116.340	12.4	20.6	14.4	44.7	21.9
132.960	13.8	10.1	7.2	15.7	11.2
149.580	15.0	3.2	5.1	8.1	10.1
166.200	16.1	10.2	9.6	20.7	19.3
182.820	17.1	7.0	5.7	16.0	13.8
199.440	18.0	< -5.0	< -5.0	4.5 or Less	
216.060	18.9	< -5.0	< -5.0	5.0 or Less	
232.680	19.7	< -5.0	< -5.0	5.4 or Less	
249.300	20.4	< -5.0	< -5.0	5.9 or less	
265.920	21.1	< -5.0	< -5.0	6.4 or less	
282.540	21.8	< -5.0	< -5.0	6.9 or less	
299.160	22.4	< -5.0	< -5.0	7.4 or less	
315.780	23.0	< -5.0	< -5.0	7.9 or less	
332.400	23.6	< -5.0	< -5.0	8.5 or less	
349.020	24.1	< -5.0	< -5.0	9.0 or less	
365.640	24.6	< -5.0	< -5.0	9.5 or less	

JQA

JQA APPLICATION NO.: 80-80711

FCC ID : AK8NTM30
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Frequency (MHz)	Antenna Factor (dB)	Meter Reading Horiz. (dB/uV)	Meter Reading Vert. (dB/uV)	Field Strength at 3 m Horiz. (uV/m)	Field Strength at 3 m Vert. (uV/m)
382.260	25.1	< -5.0	< -5.0	10.1 or less	
398.880	25.6	< -5.0	< -5.0	10.7 or Less	
415.500	26.0	< -5.0	< -5.0	11.2 or Less	
432.120	26.5	< -5.0	< -5.0	11.9 or less	
448.740	26.9	< -5.0	< -5.0	12.4 or less	
465.360	27.3	< -5.0	< -5.0	13.0 or less	
481.980	27.7	< -5.0	< -5.0	13.6 or less	
498.600	28.1	< -5.0	< -5.0	14.3 or less	
515.220	28.5	< -5.0	< -5.0	15.0 or less	
531.840	29.0	< -5.0	< -5.0	15.8 or less	
548.460	29.4	< -5.0	< -5.0	16.6 or less	
565.080	29.8	< -5.0	< -5.0	17.4 or less	
581.700	30.1	< -5.0	< -5.0	18.0 or less	
598.320	30.5	< -5.0	< -5.0	18.8 or less	
614.940	30.9	< -5.0	< -5.0	19.7 or less	
631.560	31.2	< -5.0	< -5.0	20.4 or Less	
648.180	31.6	< -5.0	< -5.0	21.4 or Less	
664.800	31.9	< -5.0	< -5.0	22.1 or less	
681.420	32.2	< -5.0	< -5.0	22.9 or less	
698.040	32.5	< -5.0	< -5.0	23.7 or less	
714.660	32.9	< -5.0	< -5.0	24.8 or less	
731.280	33.2	< -5.0	< -5.0	25.7 or less	
747.900	33.5	< -5.0	< -5.0	26.6 or less	
764.520	33.8	< -5.0	< -5.0	27.5 or less	
781.140	34.1	< -5.0	< -5.0	28.5 or less	
797.760	34.3	< -5.0	< -5.0	29.2 or less	
814.380	34.6	< -5.0	< -5.0	30.2 or less	
831.000	34.9	< -5.0	< -5.0	31.3 or less	
847.620	35.2	< -5.0	< -5.0	32.4 or less	
864.240	35.4	< -5.0	< -5.0	33.1 or Less	
880.860	35.7	< -5.0	< -5.0	34.3 or Less	
897.480	35.9	< -5.0	< -5.0	35.1 or less	
914.100	36.2	< -5.0	< -5.0	36.3 or less	
930.720	36.4	< -5.0	< -5.0	37.2 or less	
947.340	36.7	< -5.0	< -5.0	38.5 or less	
963.960	36.9	< -5.0	< -5.0	39.4 or less	
980.580	37.1	< -5.0	< -5.0	40.3 or less	
997.200	37.4	< -5.0	< -5.0	41.7 or less	

Note: 1. The spectrum was checked from 16.62 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 49.860 MHz

$10^{(AF+Mr)/20} = 10^{(4.2+70.9)/20} = 5688.5\ \mu V/m$

Where,

Af = Antenna Factor including the cable loss.
Mr = Meter Reading

5. Measuring Instrument Setting:

Fundamental

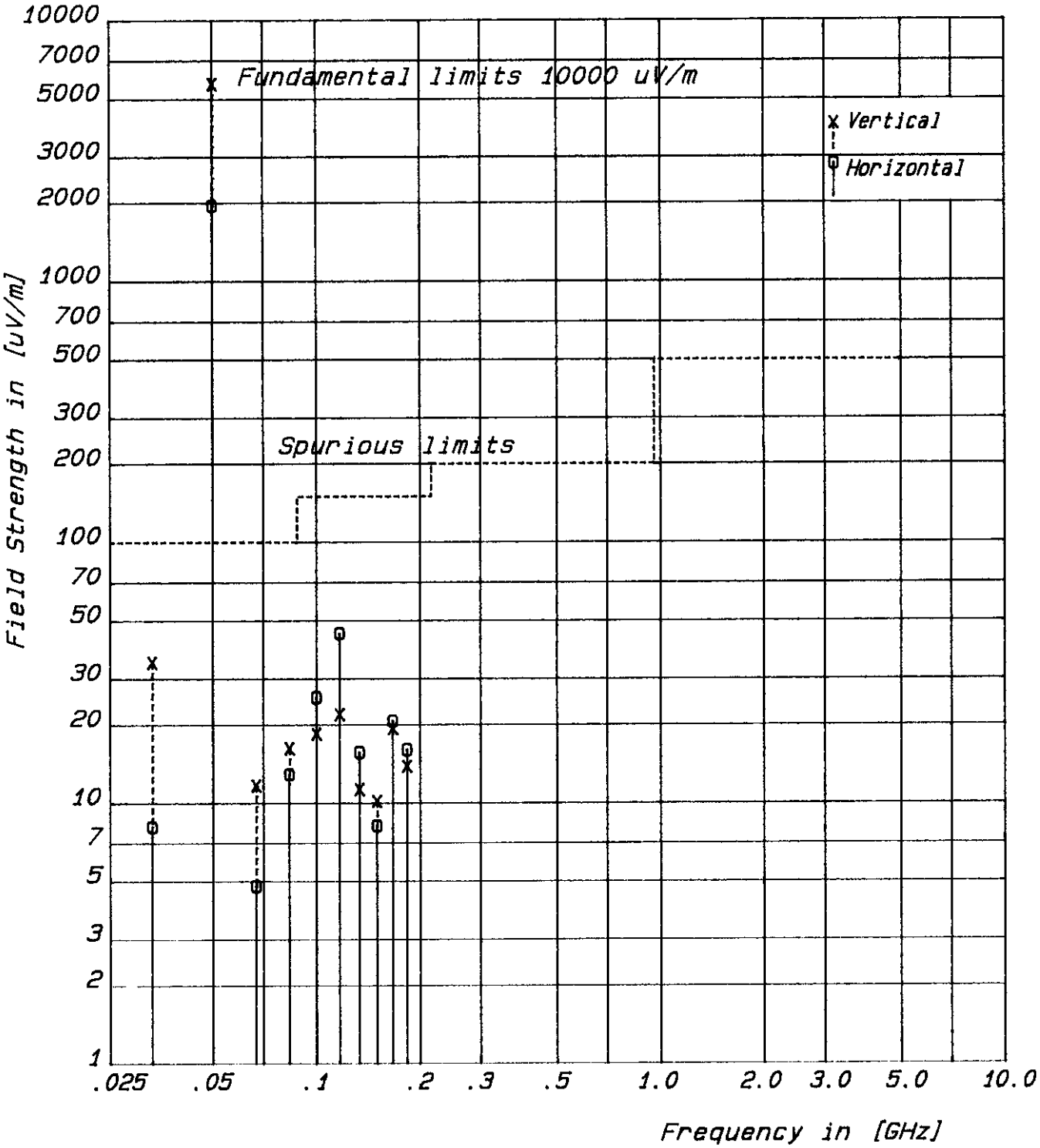
Detector function : Average / Peak
IF Bandwidth : 120 KHz

Harmonics & other frequency components

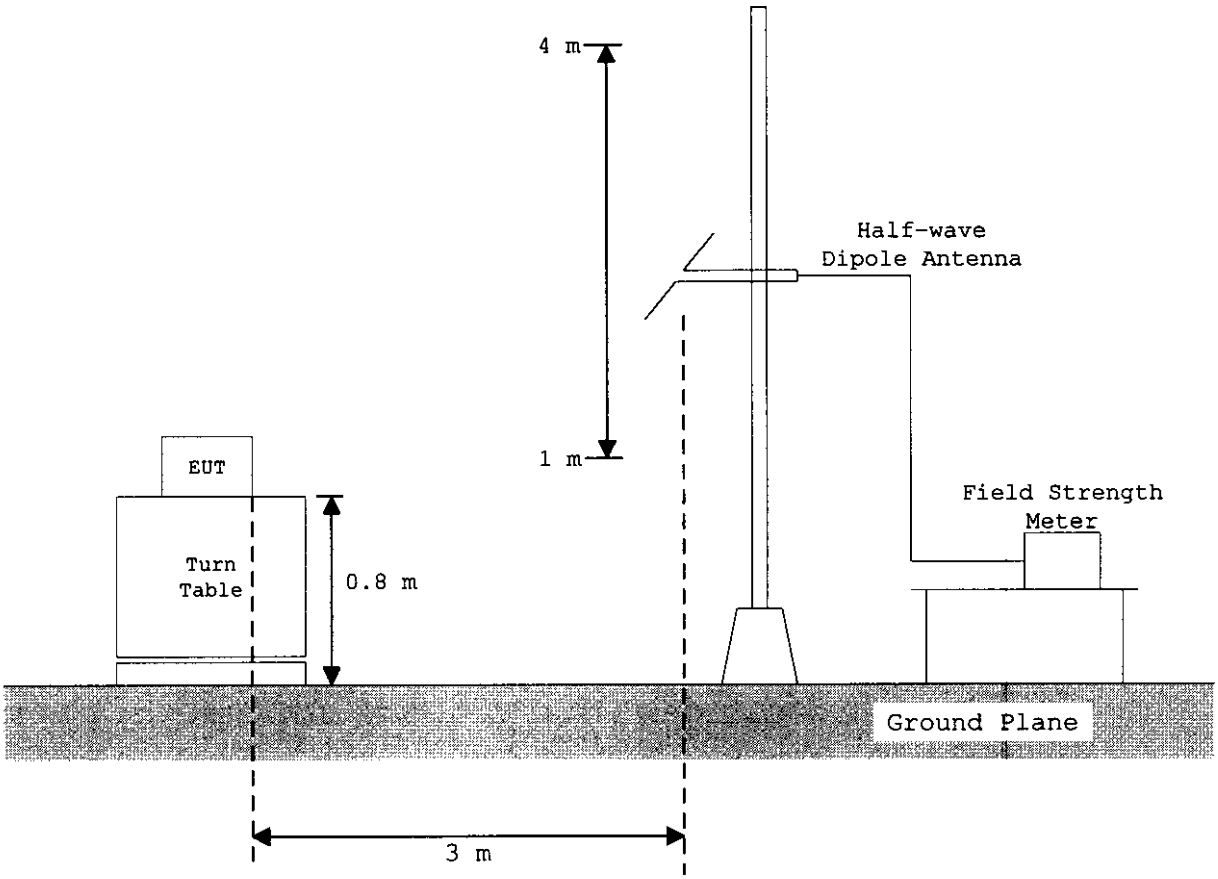
Detector function : CISPR quasi-peak
IF Bandwidth : 120 KHz

Transmitter Fundamental & Spurious Radiation

FCC ID : AK8NTM30
Operating Frequency : 49.860 MHz



MEASUREMENT SET-UP FOR RADIATED EMISSIONS

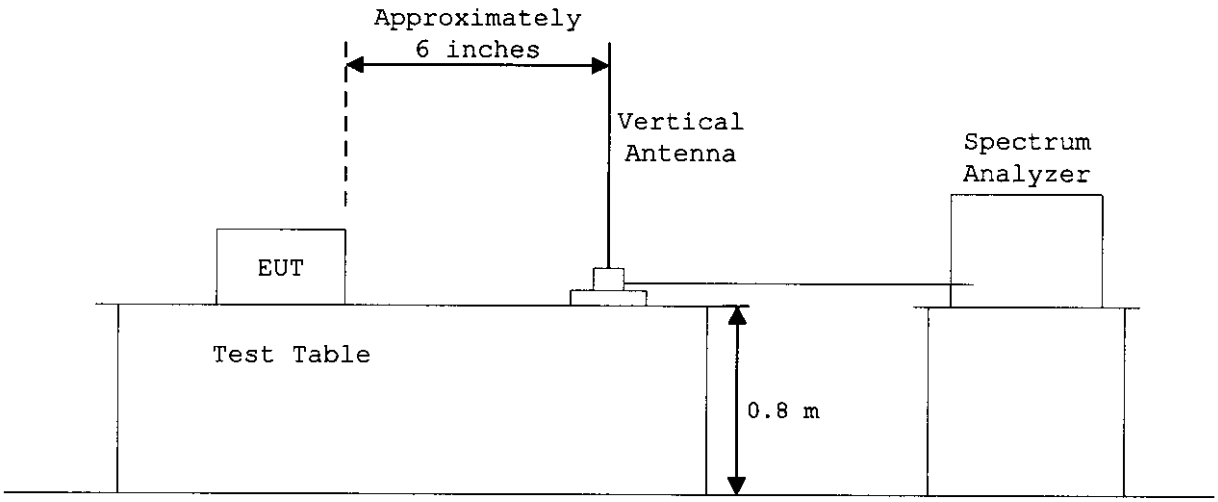


2. Emission appearing ±25 KHz frequency band centered on the carrier frequency: [§15.235(b)]

Measurement Method Employed: By using a spectrum analyzer with a vertical antenna for picking up the signal, the measurements of the emission within ±25 KHz band centered carrier frequency were made under the following transmitting modes of the EUT.

Measurements Results : Refer to the attached graphs.

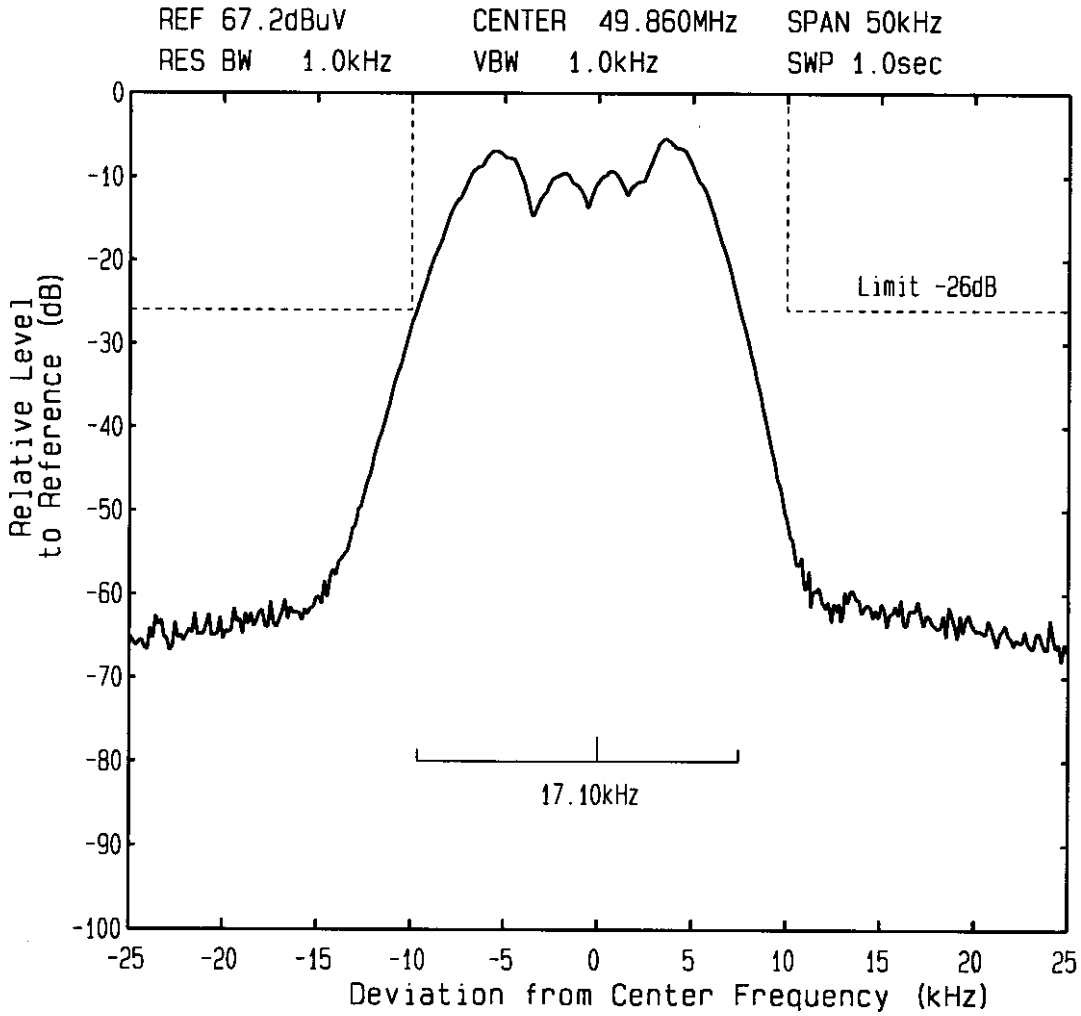
MESUREMENT SET-UP FOR BAND WIDTH



Emission Limitation

FCC ID : AK8NTM30
Model : NTM-30

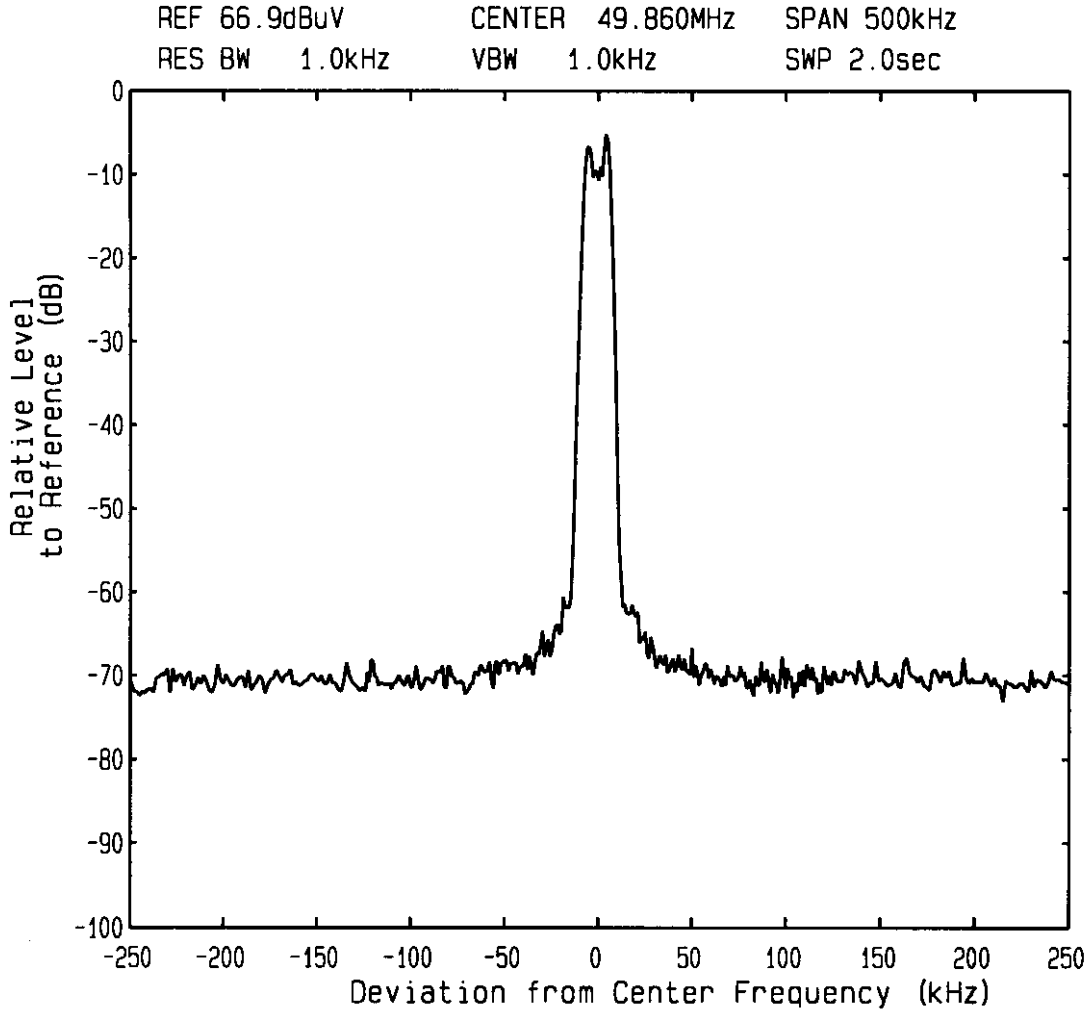
Mode of EUT : Transmit
External Signal: 1000 Hz tone (100 dBSPL)



Emission Limitation

FCC ID : AK8NTM30
Model : NTM-30

Mode of EUT : Transmit
External Signal: 1000 Hz tone (100 dBSPL)



3. Power Line Conducted Interference Voltage : [§15.207]

Frequency (MHz)	LISN Factor (dB)	Meter Reading(dB) One end & Grounded	Meter Reading(dB) Other end & Grounded	Results (dB/μV) One end & Grounded	Results (dB/μV) Other end & Grounded
0.45	0.2	< 0.0	< 0.0	< 0.2	< 0.2
0.57	0.2	< 0.0	< 0.0	< 0.2	< 0.2
0.80	0.2	< 0.0	< 0.0	< 0.2	< 0.2
1.00	0.2	< 0.0	< 0.0	< 0.2	< 0.2
2.00	0.2	< 0.0	< 0.0	< 0.2	< 0.2
3.00	0.2	< 0.0	< 0.0	< 0.2	< 0.2
5.00	0.2	< 0.0	< 0.0	< 0.2	< 0.2
7.00	0.2	< 0.0	< 0.0	< 0.2	< 0.2
10.00	0.2	< 0.0	< 0.0	< 0.2	< 0.2
12.00	0.2	< 0.0	< 0.0	< 0.2	< 0.2
14.00	0.3	< 0.0	< 0.0	< 0.3	< 0.3
16.62	0.3	36.5	38.2	36.8	38.5
20.00	0.4	< 0.0	< 0.0	< 0.4	< 0.4
23.00	0.5	< 0.0	< 0.0	< 0.5	< 0.5
25.00	0.5	< 0.0	< 0.0	< 0.5	< 0.5
30.00	0.6	< 0.0	< 0.0	< 0.5	< 0.5

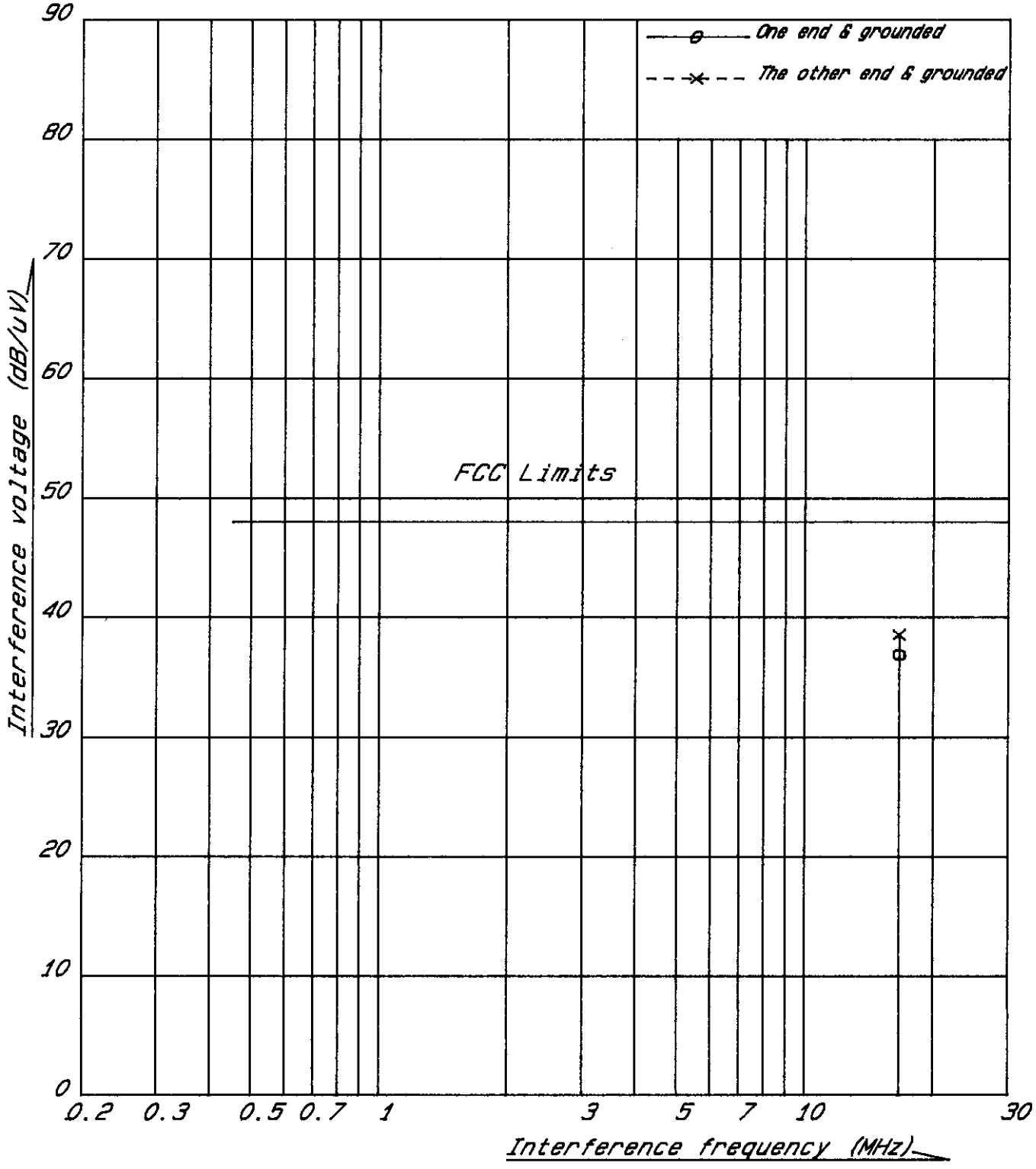
Note: 1. The symbol of "<" means "or less".

2. Sample calculation at 16.62 MHz:
LISN Factor + Meter Reading = 0.3 + 38.2 = 38.5 (dB/μV)

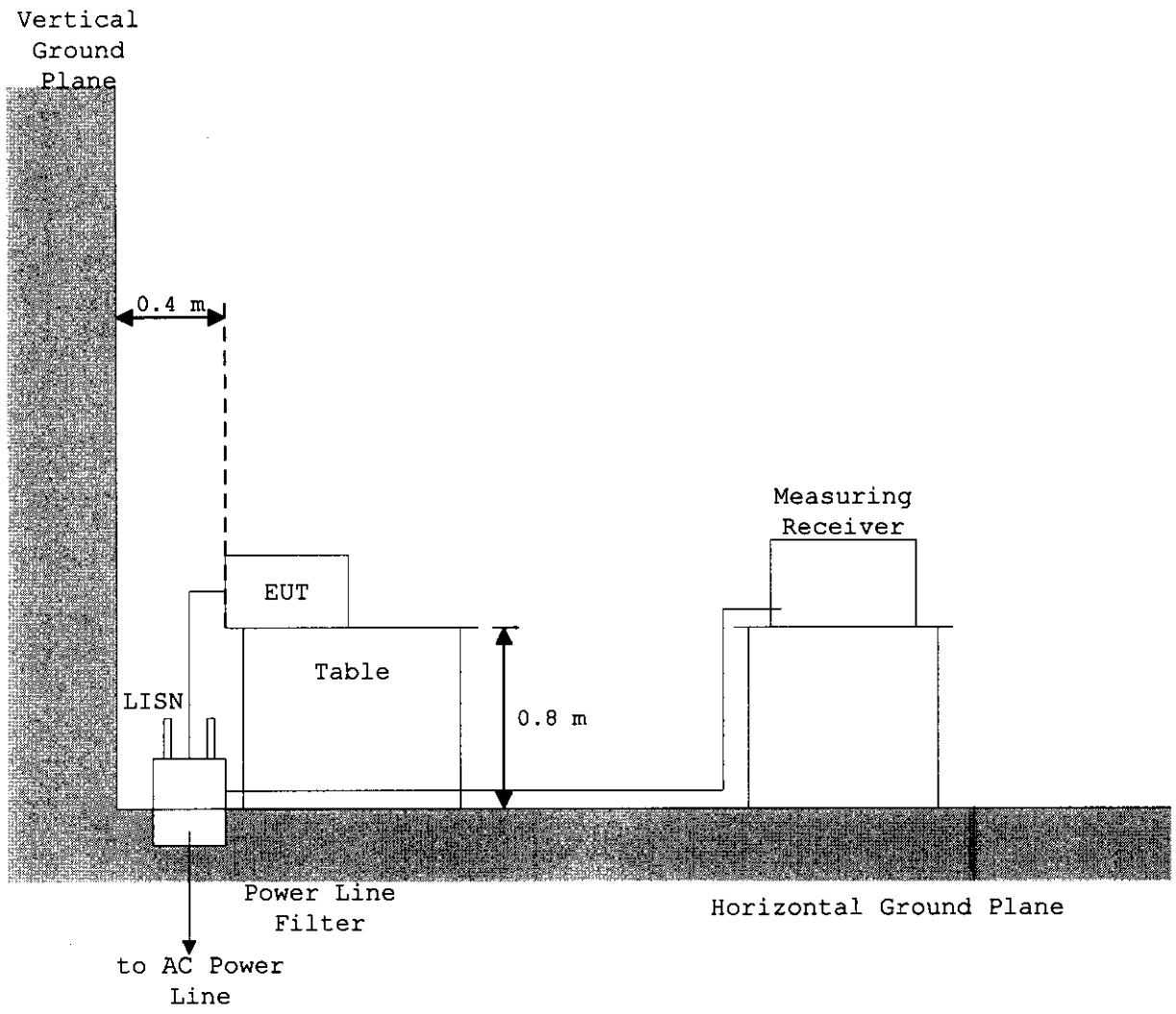
CONDUCTED RADIO NOISE MEASUREMENTS

MODEL NO.: NTM-30

FCC ID : AK8NTM30 Function of EUT : TX



MEASUREMENT SET-UP FOR LINE CONDUCTED RF VOLTAGE



LIST OF MEASUREMENT EQUIPMENT

Equipment (Model No.)	Manufacturer	Date of Cal.
1. Field Strength Meter		
ESVP	Rohde & Schwarz	May 1998
ESH3	Rohde & Schwarz	May 1998
2. Spectrum Analyzer		
8566B	Hewlett Packard Inc.	April 1998
3. Tuned Dipole Antenna		
KBA-511	Kyoritsu Electrical Works	November 1998
KBA-611	Kyoritsu Electrical Works	November 1998
4. Vertical Antenna		
91972-2	Stoddard Aircraft Radio Co., Ltd.	-
5. LISN		
KNW-407	Kyoritsu	March 1998
6. Loop Antenna		
HFH2-Z2	Rohde & Schwarz	November 1998