



FCC CFR47 PART 95 REQUIREMENT

**CLASS II PERMISSIVE CHANGE
CERTIFICATION REPORT**

FOR

TRANSMITTER FOR MEDICAL

MODEL: ZM-940PA

FCC ID: B6BZM-940PA

REPORT NUMBER: 06J10122-1

ISSUE DATE: MARCH 17, 2006

Prepared for

**NIHON KOHDEN CORPORATION
1-31-4, NISHIOCHIAI SHINJUKU-KU
TOKYO 161-8560, JAPAN**

Prepared by

**COMPLIANCE CERTIFICATION SERVICES
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NVLAP[®]

LAB CODE:200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
A	3/17/06	Initial Issue	Thu

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: NIHON KOHDEN CORPORATION
1-31-4, NISHIOCHIAI SHINJUKU-KU
TOKYO 161-8560, JAPAN

EUT DESCRIPTION: TRANSMITTER FOR MEDICAL

MODEL: ZM-940PA

SERIAL NUMBER: 92002

DATE TESTED: MARCH 13 - 14, 2006

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 95 SUBPART H	NO NON-COMPLIANCE NOTED

Compliance Certification Services, Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification Services will constitute fraud and shall nullify the document. No part of this report may be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any government agency.

Approved & Released For CCS By:

Tested By:



THU CHAN	ALVIN ILARINA
EMC SUPERVISOR	EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES	COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA/EIA 603C (2004), ANSI C63.4-2003, FCC CFR 47 Part 2, FCC CFR 47 Part 15 and FCC CFR 47 Part 95.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 561F Monterey Road, Morgan Hill, California, USA. The sites are constructed in conformance with the requirements of ANSI C63.4, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsemc.com>.

4. CALIBRATION AND UNCERTAINTY

4.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Radiated Emission, 30 to 200 MHz	+/- 3.3 dB
Radiated Emission, 200 to 1000 MHz	+4.5 / -2.9 dB
Radiated Emission, 1000 to 2000 MHz	+4.5 / -2.9 dB
Power Line Conducted Emission	+/- 2.9 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1 DESCRIPTION OF EUT

a). Type of EUT:	WMTS TRANSMITTER
b). Brand Name:	NIHON KOHDEN
c). Model No:	ZM-940PA
d). FCC ID:	B6BZM-940PA
e). Power Supply:	4.5 VDC (3 x AA)
f). Number of Channels:	239 Channels
g). Frequency Range:	608.025 ~ 613.9750 MHz.
h). RF Conducted Output Power:	1 mW
i). Channel Spacing:	50 KHz (25 KHz when interleave)
j). Type of Modulation:	F1D
k). Antenna Type:	INTERNAL (HELICAL MONOPOLE)
l). Antenna Gain:	0 dBi

5.2 CLASS II CHANGE DESCRIPTION

The major change field under this EUT is:

<u>Original Filing</u>	<u>Class II Permissive Change</u>
R011 (200Ohm)	L011 (27nH)
R013 (806Ohm)	not mounted
R014 (806Ohm)	not mounted
C001 (not mounted)	C001 (3pF)

5.3 MAXIMUM OUTPUT POWER

The transmitter has same maximum peak conducted output power as previous project.

5.4 SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was Channel Writer Application rev. 1.0.1.0.

The EUT driver software installed in the host support equipment during testing was QI901PK, rev. 02_01.

The test utility software used during testing was Channel.exe.

5.5 WORST-CASE CONFIGURATION AND MODE

The worst-case channel is determined as the channel with the highest output power.

6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Name of Equipment	Manufacturer	Model No.	Serial No.	Due Date
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	2238	4/22/2006
Preamplifier, 1 ~ 26 GHz	Agilent / HP	8449B	3008A00931	6/24/2006
Spectrum Analyzer, 26.5 GHz	Agilent / HP	8593EM	3710A00205	7/26/2006
EMI Receiver, 9 kHz ~ 2.9 GHz	Agilent / HP	8542E	3942A00286	2/4/2007
RF Filter Section	Agilent / HP	85420E	3705A00256	2/4/2007
Antenna, Bilog 30 MHz ~ 2 Ghz	Sunol Sciences	JB1	A121003	9/3/2006
EMI Test Receiver	R & S	ESIB40	100192	5/9/2006

7. SETUP OF EQUIPMENT UNDER TEST

SUPPORT EQUIPMENT

N/A

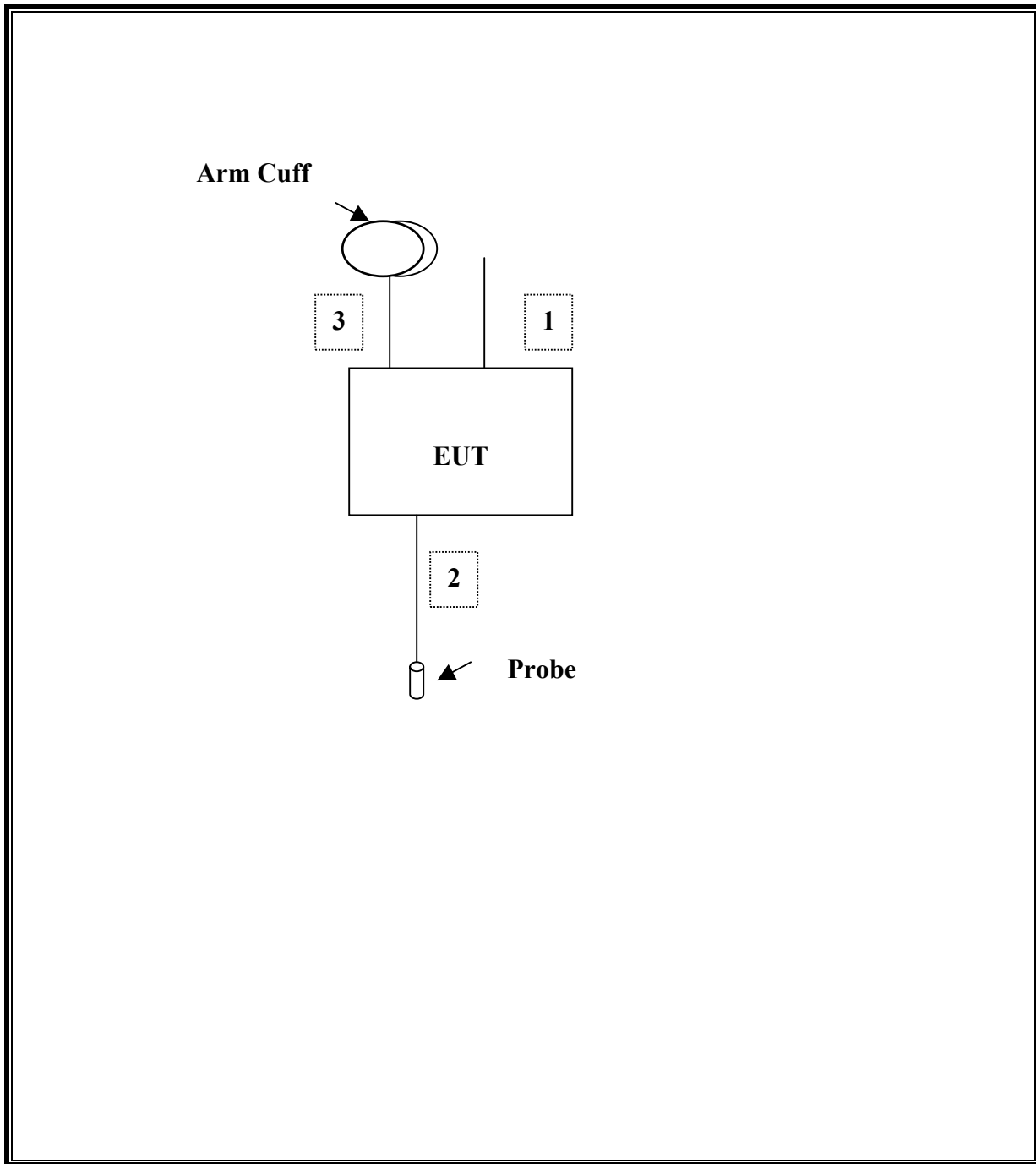
I/O CABLES

TEST I / O CABLES								
Cable No	I/O Port	# of I/O Port	Connector Type	Type of Cable	Cable Length	Data Traffic	Bundled	Remark
1	ECG	1	ECG	Un-shielded	.7m	Yes	No	N/A
2	SpO2	1	SpO2	Un-shielded	.7m	Yes	No	Probe
3	NIBP	1	NIBP socket	Rubber	.3m	No	No	Connect to Arm Cuff

TEST SETUP

The EUT was installed with three 1.5 VDC batteries (periodically changed to ensure 4.5 VDC output). The EUT was tested in the X, Y, and Z positions, X was found to be worst case. During the testing process the EUT was put in continuous transmit mode.

SETUP DIAGRAM FOR TEST



8. FIELD STRENGTH AND UNDESIRE EMISSIONS MEASUREMENT

PROVISIONS APPLICABLE

According to CFR 47 section 95.1115 (a) & (b).

LIMIT

(a) FUNDAMENTAL

FREQUENCY (MHz)	LIMIT (dBuV/m)
608-614	106 QUASI-PEAK

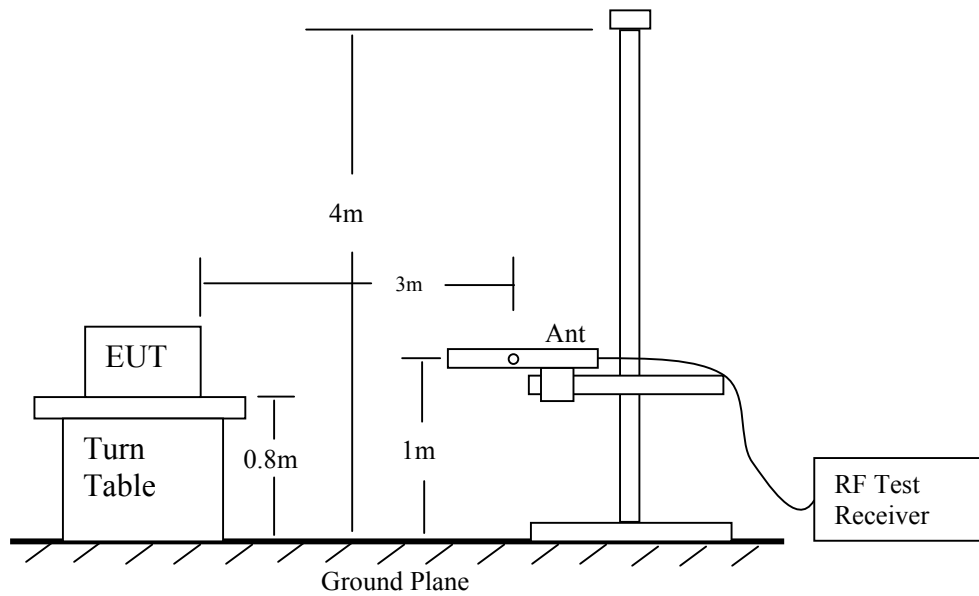
(b) SPURIOUS

FREQUENCY (MHz)	LIMIT (dBuV/m)
30-960	46 QUASI-PEAK
>960	54 AVERAGE

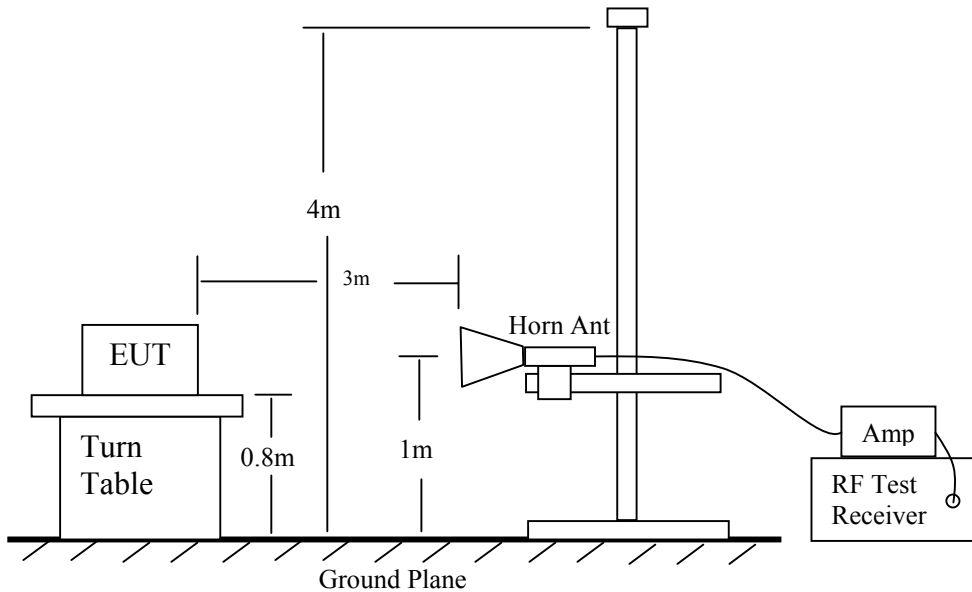
TEST PROCEDURE

- 1). On a test site, the EUT shall be placed on a turntable, and in the position closest to the normal use as declared by the user.
- 2). The test antenna shall be oriented initially for vertical and horizontal polarization located 3m from the EUT to correspond to the frequency of the transmitter.
- 3). The output of the test antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
- 4). The transmitter shall be placed 0.80 meter above the ground plane, the X, Y, and Z positions shall be tested and the worst case reported. The transmitter shall be switched on with typical modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- 5). The test antenna shall be raised and lowered through the specified range of height until a maximum signal level is detected by the measuring receiver.
- 6). The transmitter shall than be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.

- 7). The test antenna shall be raised and lowered again through the specified range of height until a maximum signal level is detected by the measuring receiver.
- 8). The maximum signal level detected by the measuring receiver shall be noted.



Radiated Emission Measurement 30 to 1000 MHz



Radiated Emission Above 1000 MHz

RESULT:

No non-compliance noted:

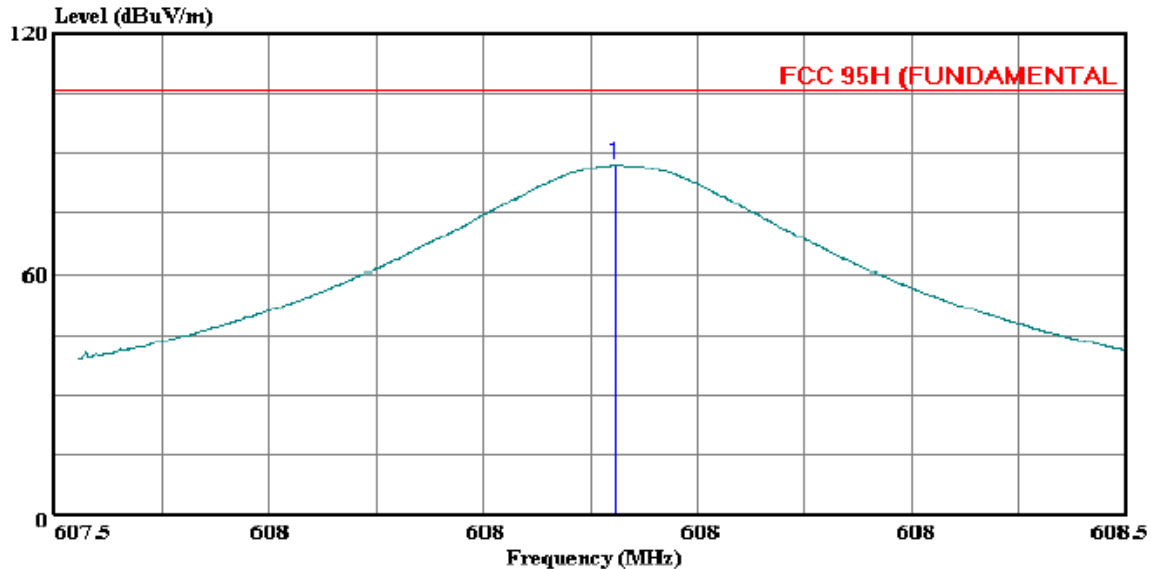
95.1115 (a)

LOW CHANNEL (VERTICAL)



561F Monterey Road
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Tel: (408) 463-0888
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Data#: 23 File#: Tx 30-1000MHz 2.EMI Date: 03-14-2006 Time: 20:26:16



(Audix ATC)

Trace: 22

Ref Trace:

Condition: FCC 95H (FUNDAMENTAL VERTICAL)
Test Operator : Alvin Ilarina
Project # : 06J10122
Company : Nihon Kohden
EUT : Transmitter for Medical
Model No : ZM-940PA
Serial Number : 92002
Configuration : EUT w/ECG, SPO2, Arm Cuff
Mode of operation: TX Low X
Target of Test : FCC Part 95H

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	Freq	Read	Level	Limit	Over	
	MHz	Level	Factor	Line	Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1	608.023	65.42	21.63	87.05	106.00	-18.95 Peak

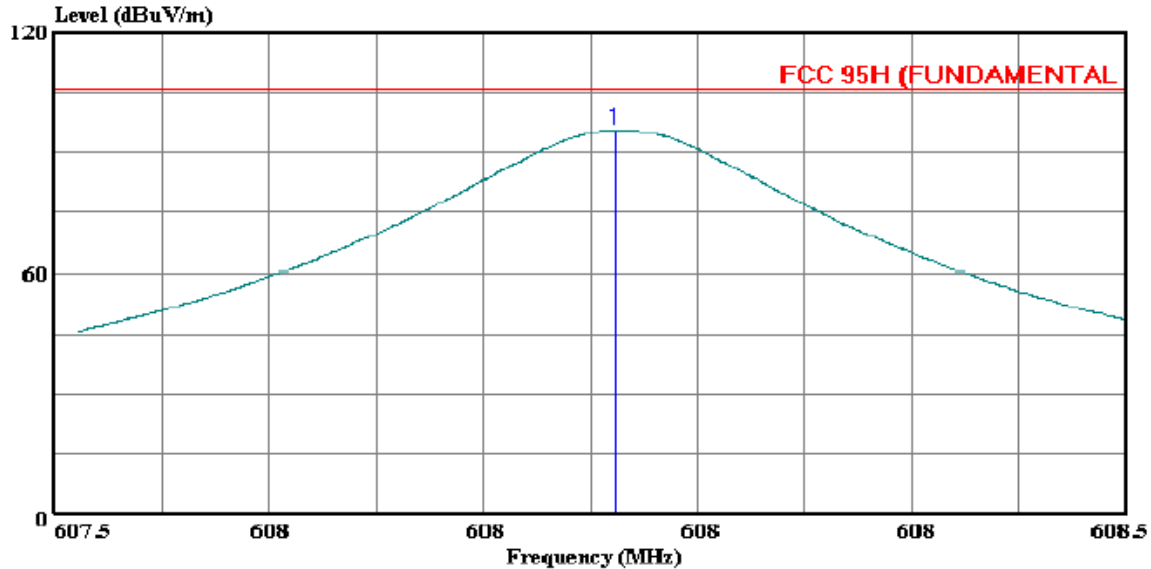
95.1115 (a)

LOW CHANNEL (HORIZONTAL)



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Data#: 21 File#: Tx 30-1000MHz 2.EMI Date: 03-14-2006 Time: 20:23:07



(Audix ATC)

Trace: 20

Ref Trace:

Condition: FCC 95H (FUNDAMENTAL HORIZONTAL)
Test Operator : Alvin Ilarina
Project # : 06J10122
Company : Nihon Kohden
EUT : Transmitter for Medical
Model No : ZM-940PA
Serial Number : 92002
Configuration : EUT w/ECG, SPO2, Arm Cuff
Mode of operation: TX Hi X
Target of Test : FCC Part 95H

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	Freq	Read		Limit	Over	
	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1	608.023	74.00	21.63	95.63	106.00	-10.37 Peak

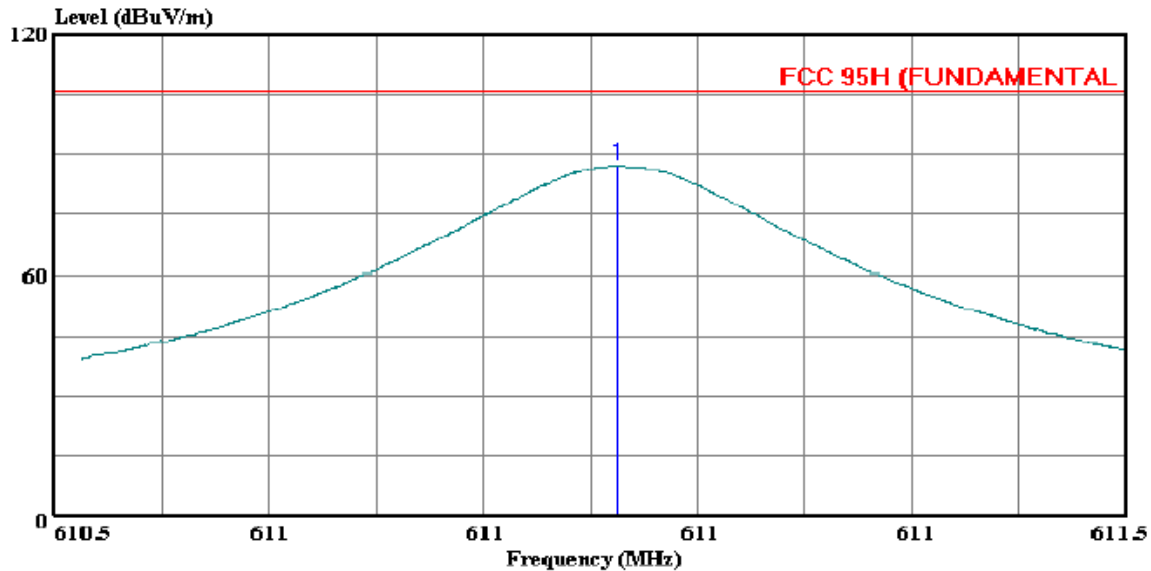
95.1115 (a)

MIDDLE CHANNEL (VERTICAL)



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Data#: 11 File#: Tx 30-1000MHz 2.EMI Date: 03-14-2006 Time: 19:48:06



(Auxil ATC)

Trace: 10

Ref Trace:

Condition: FCC 95H (FUNDAMENTAL VERTICAL)
Test Operator : Alvin Ilarina
Project # : 06J10122
Company : Nihon Kohden
EUT : Transmitter for Medical
Model No : ZM-940PA
Serial Number : 92002
Configuration : EUT w/ECG, SPO2, Arm Cuff
Mode of operation: TX Mid X
Target of Test : FCC Part 95H

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		Read		Limit	Over	
	Freq	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1	611.025	65.47	21.67	87.14	106.00	-18.86 Peak

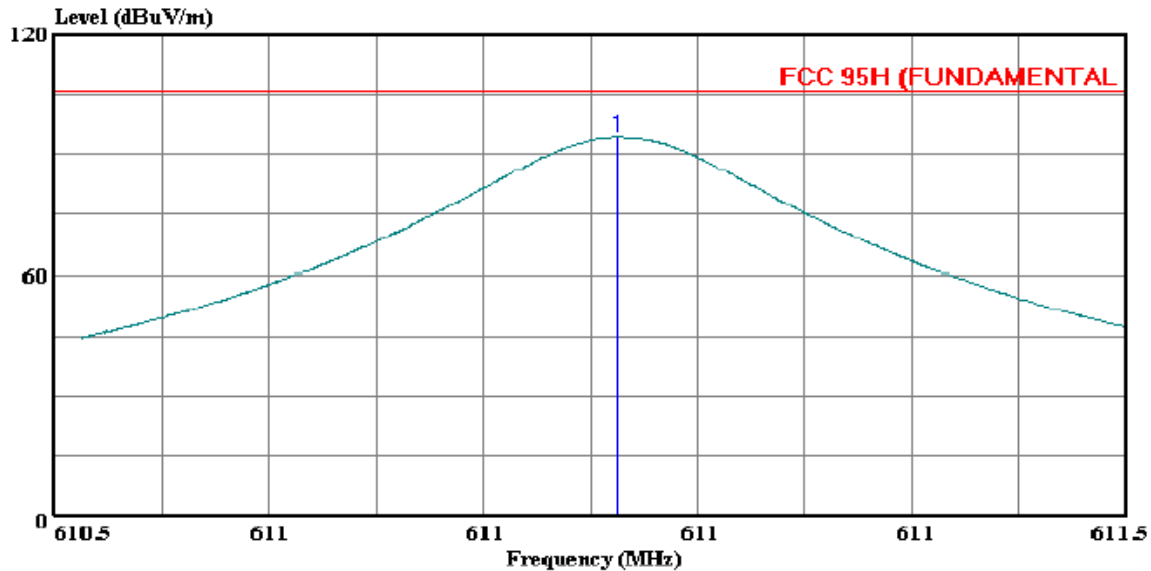
95.1115 (a)

MIDDLE CHANNEL (HORIZONTAL)



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Data#: 13 File#: Tx 30-1000MHz 2.EMI Date: 03-14-2006 Time: 19:51:34



(Audix ATC)

Trace: 12

Ref Trace:

Condition: FCC 95H (FUNDAMENTAL HORIZONTAL)
Test Operator : Alvin Ilarina
Project # : 06J10122
Company : Nihon Kohden
EUT : Transmitter for Medical
Model No : ZM-940PA
Serial Number : 92002
Configuration : EUT w/ECG, SPO2, Arm Cuff
Mode of operation: TX Mid X
Target of Test : FCC Part 95H

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		Read		Limit	Over	
	Freq	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1	611.025	72.48	21.67	94.15	106.00	-11.85 Peak

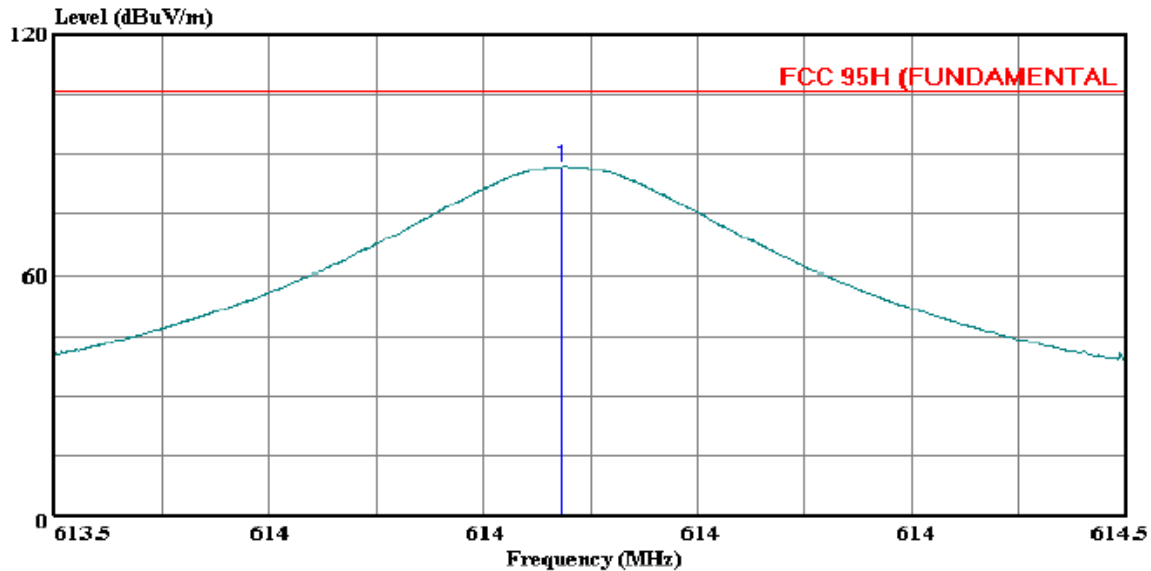
95.1115 (a)

HIGH CHANNEL (VERTICAL)



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Data#: 25 File#: Tx 30-1000MHz 2.EMI Date: 03-14-2006 Time: 20:35:53



(Audix ATC)

Trace: 24

Ref Trace:

Condition: FCC 95H (FUNDAMENTAL VERTICAL)
Test Operator : Alvin Ilarina
Project # : 06J10122
Company : Nihon Kohden
EUT : Transmitter for Medical
Model No : ZM-940PA
Serial Number : 92002
Configuration : EUT w/ECG, SPO2, Arm Cuff
Mode of operation: TX Hi X
Target of Test : FCC Part 95H

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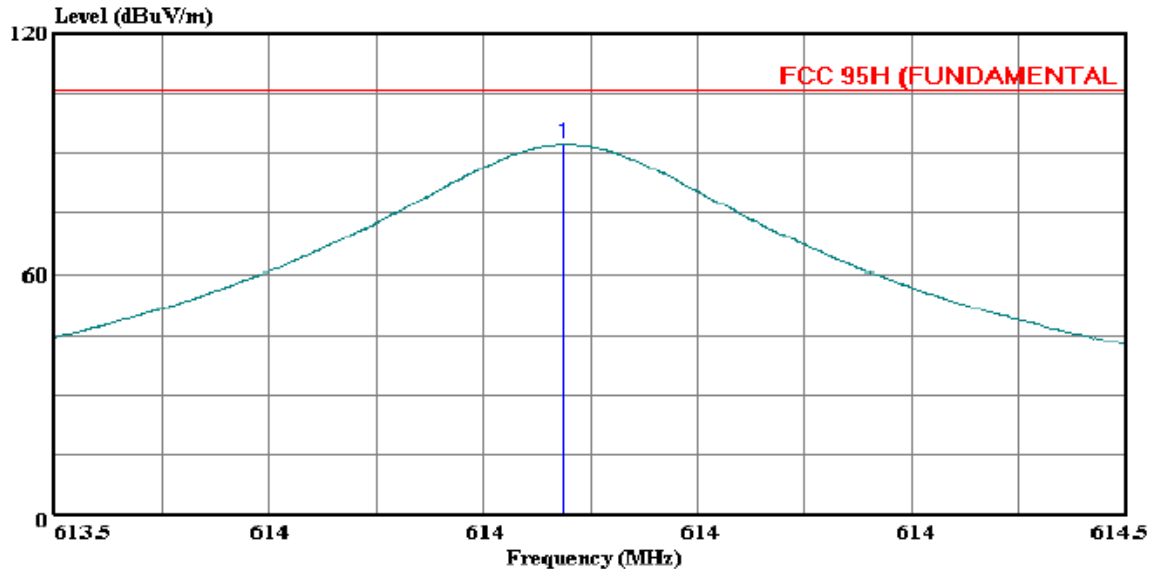
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	MHz	Level	Factor	Level	Line	Limit Remark
		dBuV	dB	dBuV/m	dBuV/m	dB
1	613.973	65.28	21.72	87.00	106.00	-19.00 Peak

95.1115 (a) HIGH CHANNEL (HORIZONTAL)



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Data#: 27 File#: Tx 30-1000MHz 2.EMI Date: 03-14-2006 Time: 20:38:37



(Auxiliary ATC)

Trace: 26

Ref Trace:

Condition: FCC 95H (FUNDAMENTAL HORIZONTAL)
Test Operator : Alvin Ilarina
Project # : 06J10122
Company : Nihon Kohden
EUT : Transmitter for Medical
Model No : ZM-940PA
Serial Number : 92002
Configuration : EUT w/ECG, SPO2, Arm Cuff
Mode of operation: TX Hi X
Target of Test : FCC Part 95H

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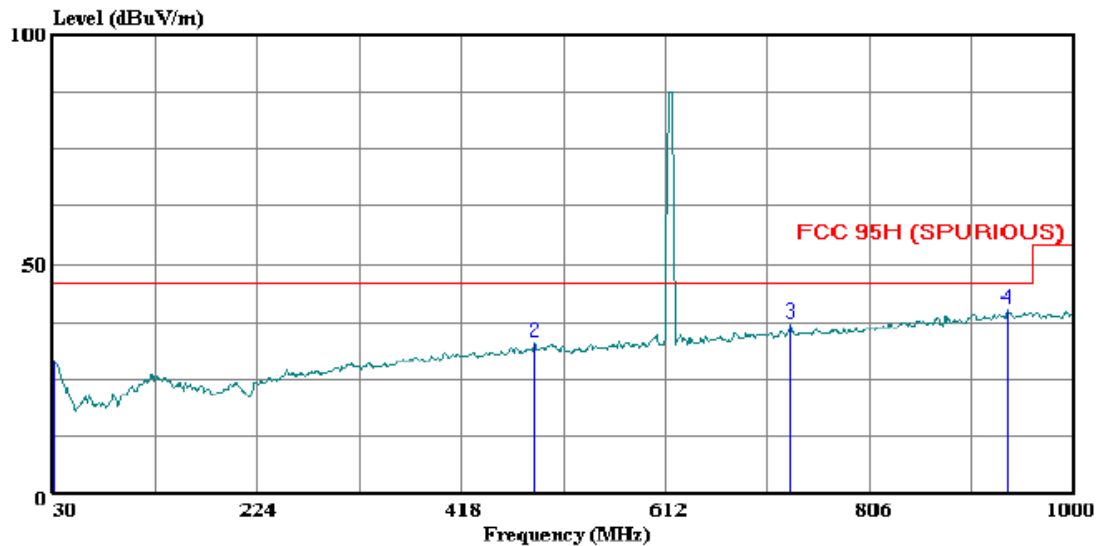
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	MHz	Level	Factor	Line	Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1	613.976	70.41	21.72	92.13	106.00	-13.87 Peak

95.1115 (b) LOW CHANNEL (VERTICAL UNDER 1 GHz)



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Data#: 29 File#: Tx 30-1000MHz 2.EMI Date: 03-14-2006 Time: 20:48:05



(Audix ATC)

Trace: 28

Ref Trace:

Condition: FCC 95H (SPURIOUS) VERTICAL
Test Operator : Alvin Ilarina
Project # : 06J10122
Company : Nihon Kohden
EUT : Transmitter for Medical
Model No : ZM-940PA
Serial Number : 92002
Configuration : EUT w/ECG, SPO2, Arm Cuff
Mode of operation: TX Low X
Target of Test : FCC Part 95H

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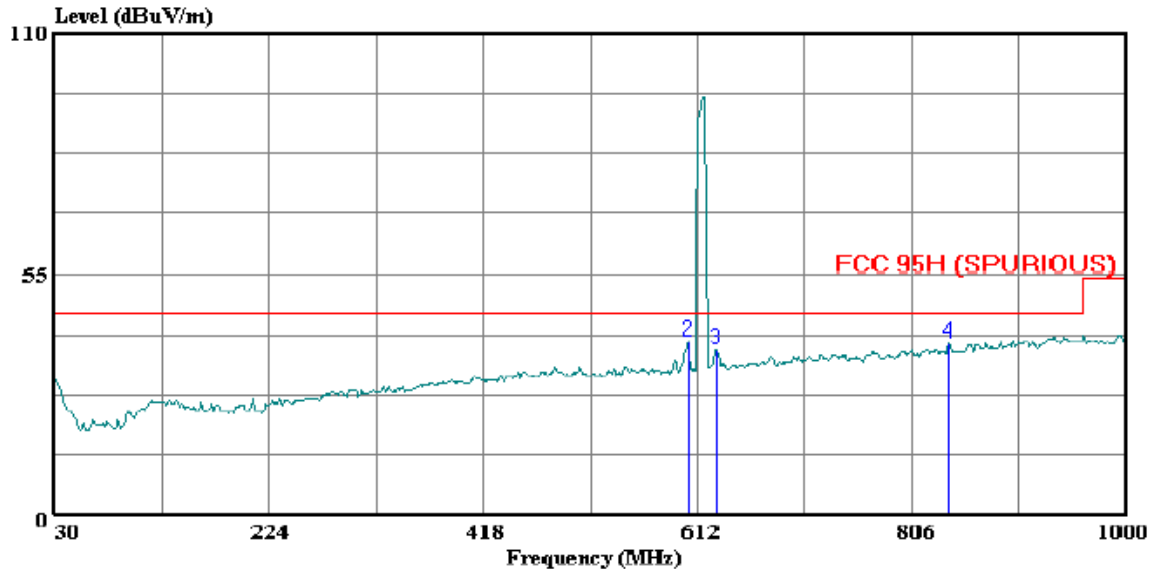
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	MHz	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1	30.970	8.75	20.45	29.20	46.00	-16.80 Peak
2	487.840	13.01	20.00	33.01	46.00	-12.99 Peak
3	730.340	13.32	23.57	36.89	46.00	-9.11 Peak
4	935.980	13.72	26.33	40.05	46.00	-5.95 Peak

95.1115 (b) LOW CHANNEL (HORIZONTAL UNDER 1GHz)



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Data#: 31 File#: Tx 30-1000MHz 2.EMI Date: 03-14-2006 Time: 20:51:49



(Audix ATC)

Trace: 30

Ref Trace:

Condition: FCC 95H (SPURIOUS) HORIZONTAL
Test Operator : Alvin Ilarina
Project # : 06J10122
Company : Nihon Kohden
EUT : Transmitter for Medical
Model No : ZM-940PA
Serial Number : 92002
Configuration : EUT w/ECG, SPO2, Arm Cuff
Mode of operation: TX Low X
Target of Test : FCC Part 95H

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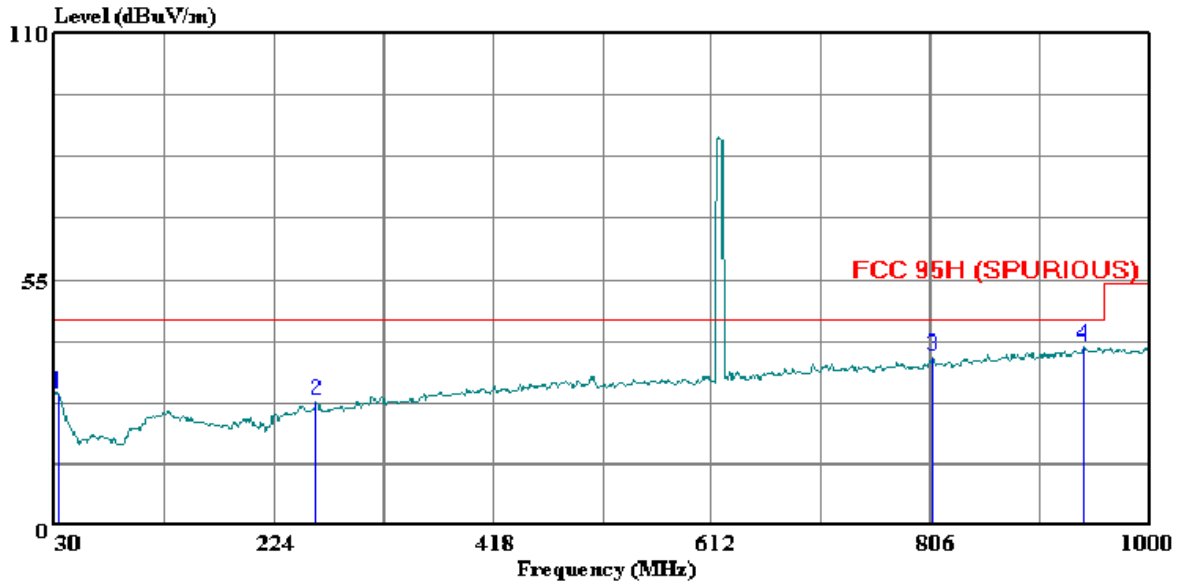
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	MHz	Level	Factor	Level	Line
		dBuV	dB	dBuV/m	dBuV/m
					dB
1	30.000	10.80	20.45	31.25	46.00
2	604.240	18.19	21.58	39.77	46.00
3	629.460	15.65	22.00	37.65	46.00
4	838.980	14.23	25.10	39.33	46.00

95.1115 (b) MID CHANNEL (VERTICAL UNDER 1 GHz)



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Data#: 34 File#: Tx 30-1000MHz_2.EMI Date: 03-15-2006 Time: 17:05:16



(Audix ATC)

Trace: 33

Ref Trace:

Condition: FCC 95H (SPURIOUS) VERTICAL
Test Operator : Alvin Ilarina
Project # : 06J10122
Company : Nihon Kohden
EUT : Transmitter for Medical
Model No : ZM-940PA
Serial Number : 92002
Configuration : EUT w/ECG, SPO2, Arm Cuff
Mode of operation: TX Mid X
Target of Test : FCC Part 95H

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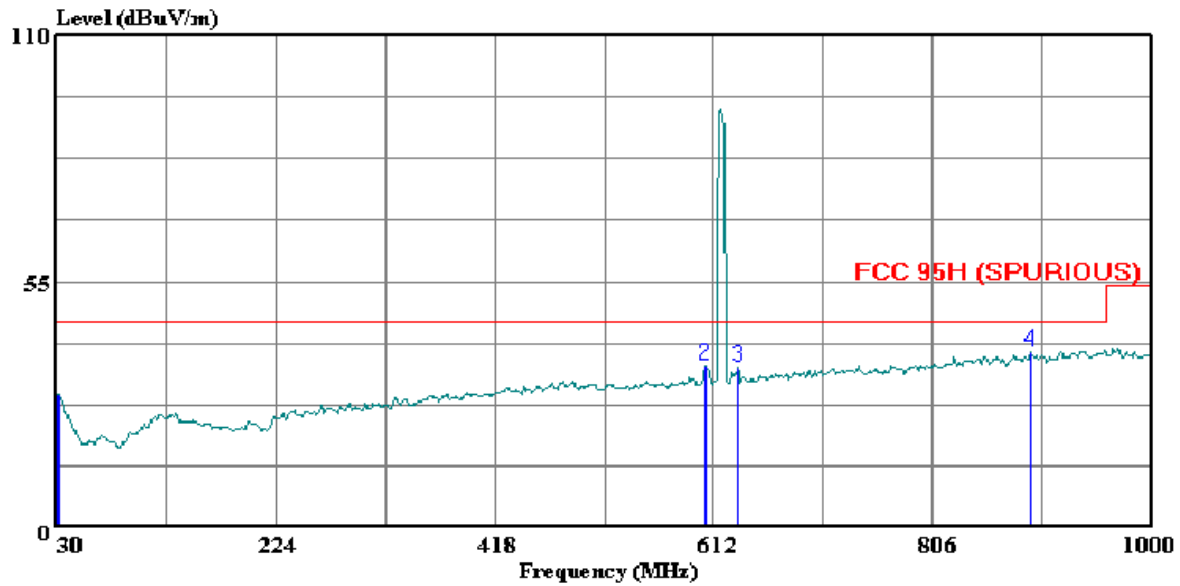
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	MHz	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1	32.910	9.41	19.94	29.35	46.00	-16.65 Peak
2	261.830	13.61	14.35	27.96	46.00	-18.05 Peak
3	807.940	13.19	24.69	37.88	46.00	-8.12 Peak
4	940.830	13.51	26.44	39.95	46.00	-6.05 Peak

95.1115 (b) MID CHANNEL (HORIZONTAL UNDER 1GHz)



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(Audix ATC)

Trace: 35

Ref Trace:

Condition: FCC 95H (SPURIOUS) HORIZONTAL
Test Operator : Alvin Ilarina
Project # : 06J10122
Company : Nihon Kohden
EUT : Transmitter for Medical
Model No : ZM-940PA
Serial Number : 92002
Configuration : EUT w/ECG, SPO2, Arm Cuff
Mode of operation: TX Mid X
Target of Test : FCC Part 95H

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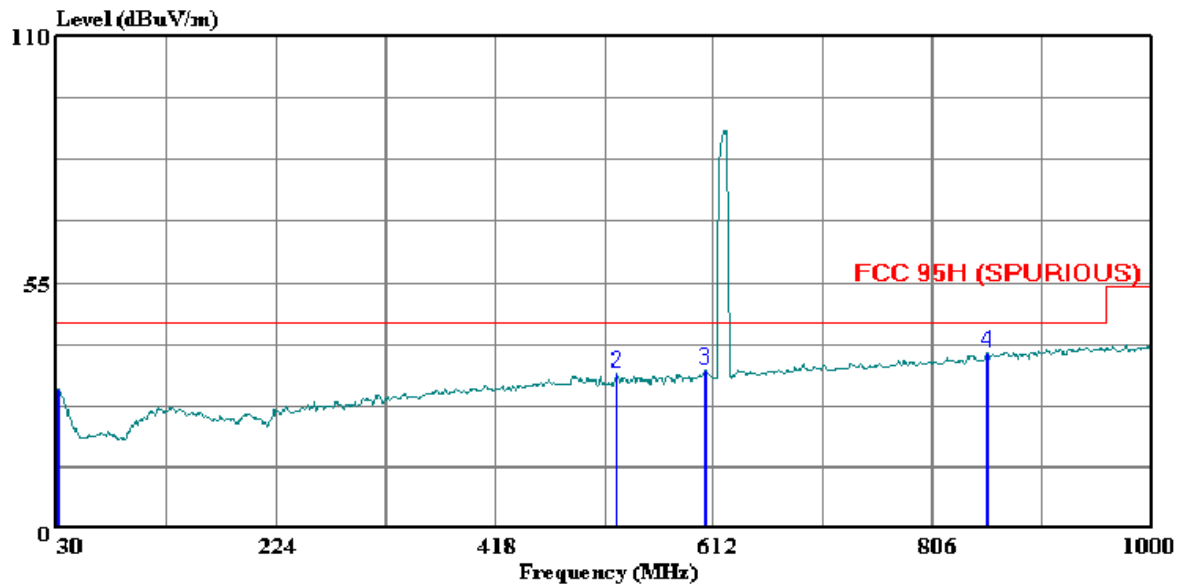
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	MHz	Level	Factor	Line	Limit	Remark
	MHz	dBuV	dB	dBuV/m	dB	
1	30.970	9.23	20.45	29.68	46.00	-16.32 Peak
2	604.240	14.41	21.58	35.99	46.00	-10.01 Peak
3	633.340	13.88	22.05	35.93	46.00	-10.07 Peak
4	892.330	13.31	25.88	39.19	46.00	-6.81 Peak

95.1115 (b) HIGH CHANNEL (VERTICAL UNDER 1 GHz)



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Data#: 40 File#: Tx 30-1000MHz_2.EMI Date: 03-15-2006 Time: 17:14:03



(Audix ATC)

Trace: 39

Ref Trace:

Condition: FCC 95H (SPURIOUS) VERTICAL
Test Operator : Alvin Ilarina
Project # : 06J10122
Company : Nihon Kohden
EUT : Transmitter for Medical
Model No : ZM-940PA
Serial Number : 92002
Configuration : EUT w/ECG, SPO2, Arm Cuff
Mode of operation: TX Hi X
Target of Test : FCC Part 95H

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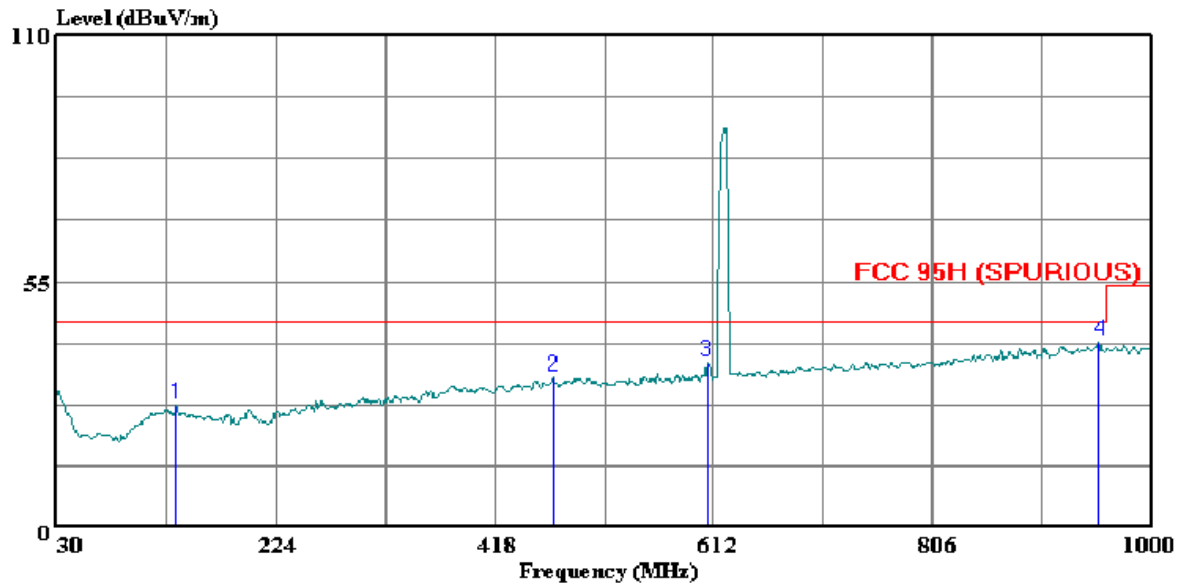
	Freq	Read	Factor	Level	Limit	Over	
	MHz	Level		Level	Line	Limit	Remark
		dBuV	dB	dBuV/m	dBuV/m	dB	
1	30.970	10.72	20.45	31.17	46.00	-14.83	Peak
2	526.640	13.86	20.63	34.49	46.00	-11.51	Peak
3	604.240	13.69	21.58	35.27	46.00	-10.73	Peak
4	853.530	13.80	25.30	39.10	46.00	-6.90	Peak

95.1115 (b) HIGH CHANNEL (HORIZONTAL UNDER 1GHz)



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Data#: 38 File#: Tx 30-1000MHz_2.EMI Date: 03-15-2006 Time: 17:12:24



(Audix ATC)

Trace: 37

Ref Trace:

Condition: FCC 95H (SPURIOUS) HORIZONTAL
Test Operator : Alvin Ilarina
Project # : 06J10122
Company : Nihon Kohden
EUT : Transmitter for Medical
Model No : ZM-940PA
Serial Number : 92002
Configuration : EUT w/ECG, SPO2, Arm Cuff
Mode of operation: TX Hi X
Target of Test : FCC Part 95H

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	Freq	Read		Limit	Over	
	MHz	Level	Factor	Line	Limit	Remark
	MHz	dBuV	dB	dBuV/m	dB	
1	135.730	12.56	14.96	27.52	46.00	-18.48 Peak
2	470.380	13.89	19.65	33.54	46.00	-12.46 Peak
3	606.180	15.29	21.63	36.92	46.00	-9.08 Peak
4	953.440	14.85	26.50	41.35	46.00	-4.65 Peak

95.1115 (b) LOW CHANNEL (VERTICAL & HORIZONTAL ABOVE 1GHz)

High Frequency Measurement																	
Compliance Certification Services																	
Test Engineer: Alvin Ilarina																	
Project #: 06J10122																	
Company: Nihon Kohden																	
EUT Description: Transmitter for Medical																	
EUT M/N: B6BZM-940PA																	
EUT S/N: 92002																	
Test Target: FCC Part 95H																	
Mode Of Operation: TX Low X																	
Average Power Meter: Low = xx dBm, Mid = xx dBm, High = xx dBm																	
Test Equipment:																	
Horn 1-18GHz				Pre-amplifier 1-26GHz				Pre-amplifier 26-40GHz				Horn > 18GHz					
T60; S/N: 2238 @3m				T144 Miteq 3008A00931													
Hi Frequency Cables																	
2 foot cable				3 foot cable				12 foot cable				HPF		Reject Filter		Peak Measurements RBW=VBW=1MHz	
Chin 177079003								Gordon 203134001								Average Measurements RBW=1MHz ; VBW=10Hz	
f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filtr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)		
1.216	3.0	40.9	40.9	24.9	1.9	-39.2	0.0	0.0	28.5	28.5	74	54	-45.5	-25.5	V		
1.824	3.0	41.8	41.8	27.3	2.1	-38.3	0.0	0.0	32.9	32.9	74	54	-41.1	-21.1	V		
2.432	3.0	42.0	42.0	28.4	2.4	-37.5	0.0	0.0	35.3	35.3	74	54	-38.7	-18.7	V		
3.040	3.0	44.5	44.5	30.2	2.6	-37.3	0.0	0.0	40.0	40.0	74	54	-34.0	-14.0	V		
1.221	3.0	39.8	39.8	24.9	1.9	-39.2	0.0	0.0	27.4	27.4	74	54	-46.6	-26.6	H		
1.824	3.0	36.5	36.5	27.3	2.1	-38.3	0.0	0.0	27.6	27.6	74	54	-46.4	-26.4	H		
2.432	3.0	36.8	36.8	28.4	2.4	-37.5	0.0	0.0	30.1	30.1	74	54	-43.9	-23.9	H		
3.040	3.0	43.9	43.9	30.2	2.6	-37.3	0.0	0.0	39.3	39.3	74	54	-34.7	-14.7	H		
f	Measurement Frequency					Amp	Preamp Gain					Avg Lim	Average Field Strength Limit				
Dist	Distance to Antenna					D Corr	Distance Correct to 3 meters					Pk Lim	Peak Field Strength Limit				
Read	Analyzer Reading					Avg	Average Field Strength @ 3 m					Avg Mar	Margin vs. Average Limit				
AF	Antenna Factor					Peak	Calculated Peak Field Strength					Pk Mar	Margin vs. Peak Limit				
CL	Cable Loss					HPF	High Pass Filter										

High Frequency Measurement

Compliance Certification Services

Test Engineer: Alvin Ilarina
Project #: 06J10122
Company: Nihon Kohden
EUT Description: Transmitter for Medical
EUT M/N: B6BZM-940PA
EUT S/N: 92002
Test Target: FCC Part 95H
Mode Of Operation: TX Mid X
Average Power Meter: Low = xx dBm, Mid = xx dBm, High = xx dBm

Test Equipment:

Horn 1-18GHz

T60; S/N: 2238 @3m

Pre-amplifier 1-26GHz

T144 Miteq 3008A00931

Pre-amplifier 26-40GHz

Horn > 18GHz

Hi Frequency Cables

2 foot cable

Chin 177079003

3 foot cable

12 foot cable

Gordon 203134001

HPF

Reject Filter

Peak Measurements

RBW=VBW=1MHz

Average Measurements

RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fitr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
1.222	3.0	40.7	40.7	24.9	1.9	-39.2	0.0	0.0	28.4	28.4	74	54	-45.6	-25.6	V
1.833	3.0	41.3	41.3	27.3	2.1	-38.3	0.0	0.0	32.4	32.4	74	54	-41.6	-21.6	V
2.444	3.0	42.5	42.5	28.5	2.4	-37.5	0.0	0.0	35.8	35.8	74	54	-38.2	-18.2	V
3.055	3.0	44.1	44.1	30.3	2.6	-37.3	0.0	0.0	39.6	39.6	74	54	-34.4	-14.4	V
1.222	3.0	41.1	41.1	24.9	1.9	-39.2	0.0	0.0	28.8	28.8	74	54	-45.2	-25.2	H
1.833	3.0	37.4	37.4	27.3	2.1	-38.3	0.0	0.0	28.5	28.5	74	54	-45.5	-25.5	H
2.444	3.0	35.9	35.9	28.5	2.4	-37.5	0.0	0.0	29.2	29.2	74	54	-44.8	-24.8	H
3.055	3.0	43.7	43.7	30.3	2.6	-37.3	0.0	0.0	39.2	39.2	74	54	-34.8	-14.8	H

f

Measurement Frequency

Dist

Distance to Antenna

Read

Analyzer Reading

AF

Antenna Factor

CL

Cable Loss

Amp

Preamp Gain

D Corr

Distance Correct to 3 meters

Avg

Average Field Strength @ 3 m

Peak

Calculated Peak Field Strength

HPF

High Pass Filter

Avg Lim

Average Field Strength Limit

Pk Lim

Peak Field Strength Limit

Avg Mar

Margin vs. Average Limit

Pk Mar

Margin vs. Peak Limit

High Frequency Measurement

Compliance Certification Services

Test Engineer: Alvin Ilarina
Project #: 06J10122
Company: Nihon Kohden
EUT Description: Transmitter for Medical
EUT M/N: B6BZM-940PA
EUT S/N: 92002
Test Target: FCC Part 95H
Mode Of Operation: TX Hi X
Average Power Meter: Low = xx dBm, Mid = xx dBm, High = xx dBm

Test Equipment:

Horn 1-18GHz	Pre-amplifier 1-26GHz	Pre-amplifier 26-40GHz	Horn > 18GHz
T60; S/N: 2238 @3m ▾	T144 Miteq 3008A00931 ▾		

Hi Frequency Cables

2 foot cable	3 foot cable	12 foot cable	HPF	Reject Filter	<u>Peak Measurements</u> RBW=VBW=1MHz <u>Average Measurements</u> RBW=1MHz ; VBW=10Hz
Chin 177079003 ▾		Gordon 203134001 ▾			

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fldr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
1.228	3.0	40.1	40.1	25.0	1.9	-39.2	0.0	0.0	27.8	27.8	74	54	-46.2	-26.2	V
1.842	3.0	40.9	40.9	27.3	2.1	-38.3	0.0	0.0	32.1	32.1	74	54	-41.9	-21.9	V
2.456	3.0	42.6	42.6	28.5	2.4	-37.5	0.0	0.0	36.0	36.0	74	54	-38.0	-18.0	V
3.070	3.0	45.1	45.1	30.3	2.6	-37.3	0.0	0.0	40.7	40.7	74	54	-33.3	-13.3	V
1.228	3.0	39.5	39.5	25.0	1.9	-39.2	0.0	0.0	27.2	27.2	74	54	-46.8	-26.8	H
1.842	3.0	37.1	37.1	27.3	2.1	-38.3	0.0	0.0	28.3	28.3	74	54	-45.7	-25.7	H
2.456	3.0	36.5	36.5	28.5	2.4	-37.5	0.0	0.0	29.9	29.9	74	54	-44.1	-24.1	H
3.070	3.0	43.1	43.1	30.3	2.6	-37.3	0.0	0.0	38.7	38.7	74	54	-35.3	-15.3	H

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

9. EMISSION BANDWIDTH

PROVISIONS APPLICABLE

According to CFR 47 section 2.1049

LIMIT

The 26dB bandwidth shall be less than 20 KHz (F1D).

TEST PROCEDURE

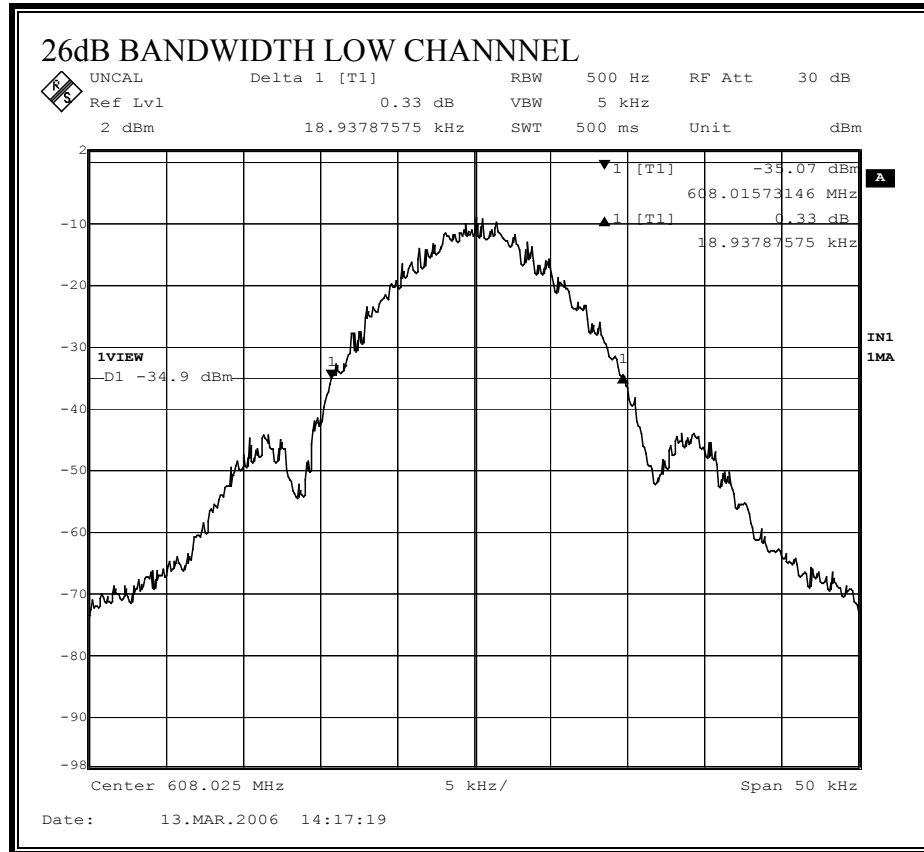
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 26dB bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 26dB bandwidth function is utilized.

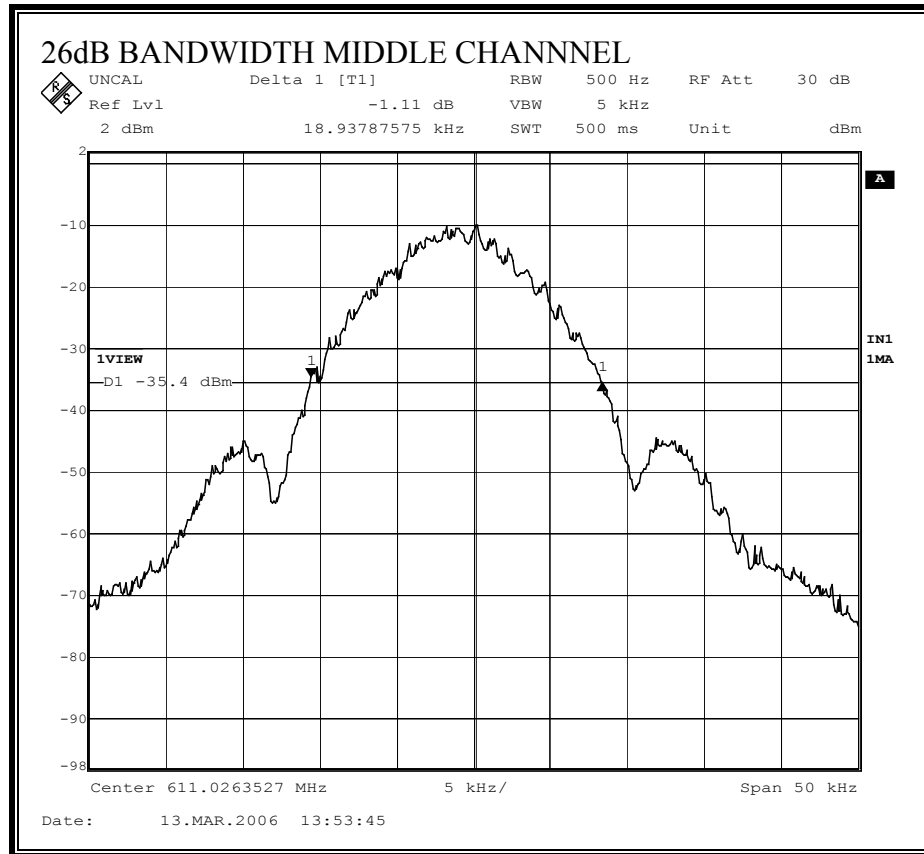


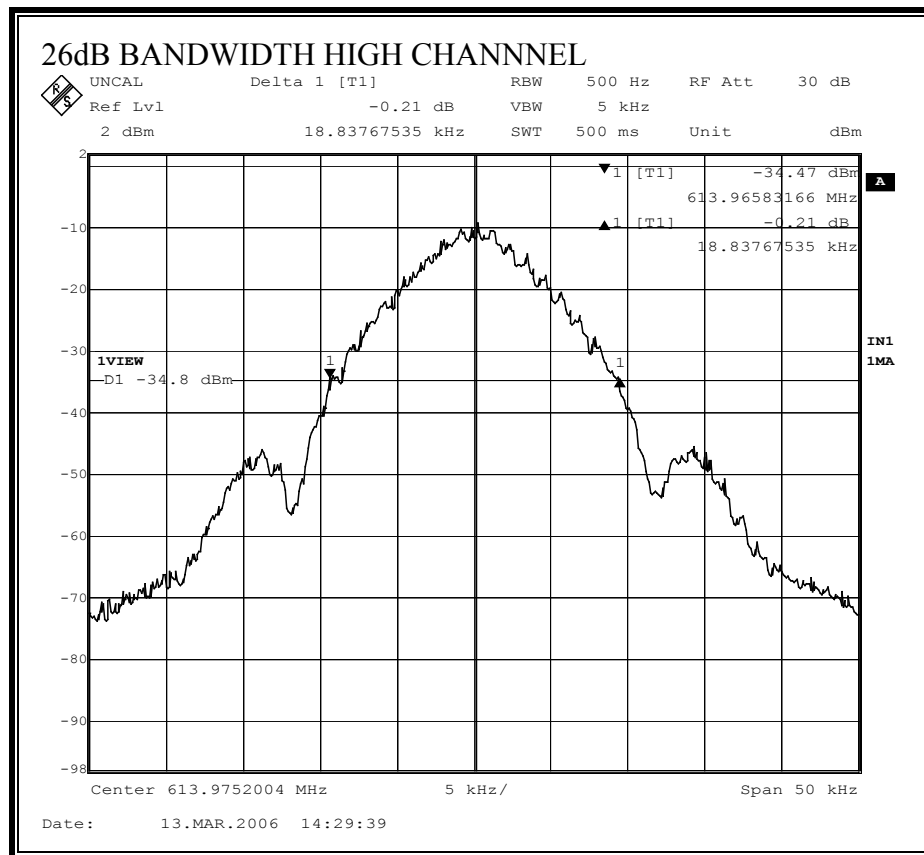
RESULTS

No non-compliance noted:

CHANNEL	FREQUENCY (MHz)	26 dB BANDWIDTH (KHz)
LOW	608.02	18.9
MIDDLE	611.02	18.9
HIGH	613.96	18.8







10. SPURIOUS EMISSIONS AT ANTENNA TERMINAL

PROVISIONS APPLICABLE

According to CFR47 section 2.1051

LIMIT

All the conducted emission spurious level shall be at least -20dBc below the band that contains the highest level of desired power.

TEST PROCEDURE

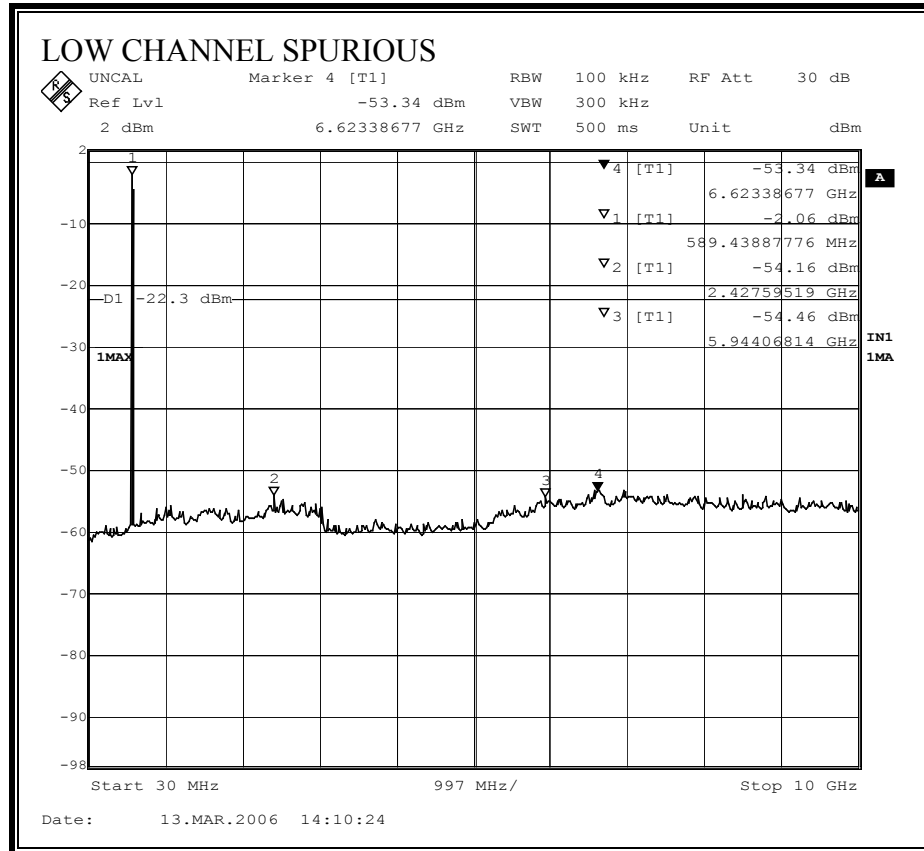
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz. The VBW is set to 300 kHz.

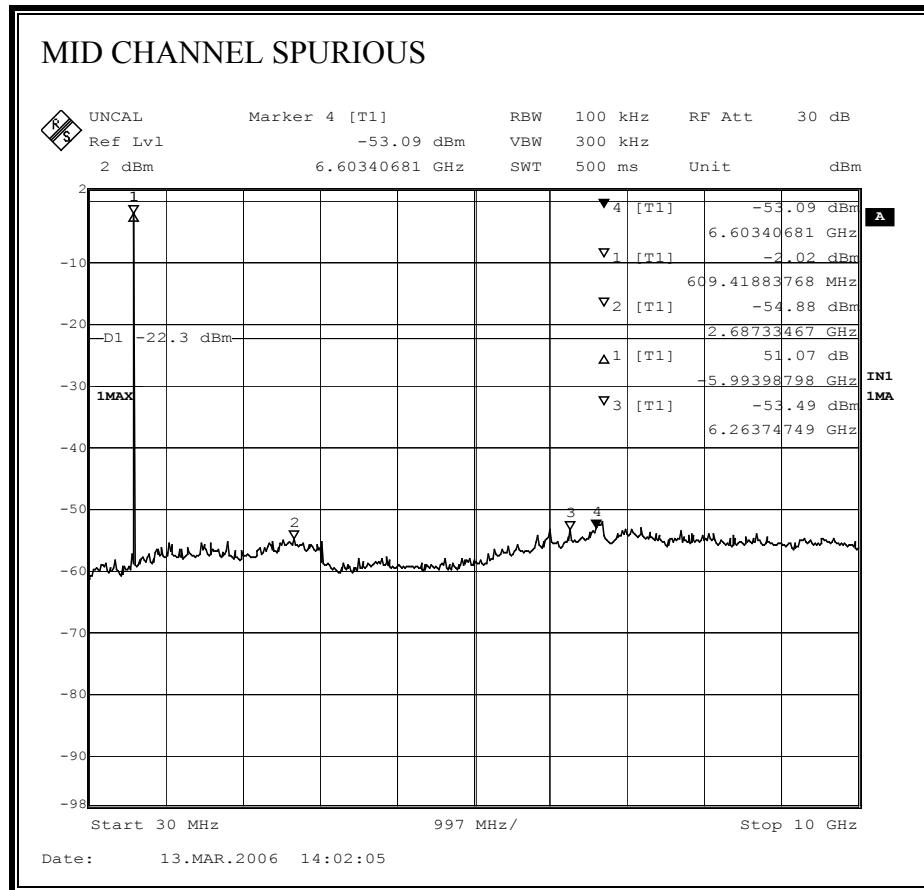
The spectrum from 30 MHz to 10 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

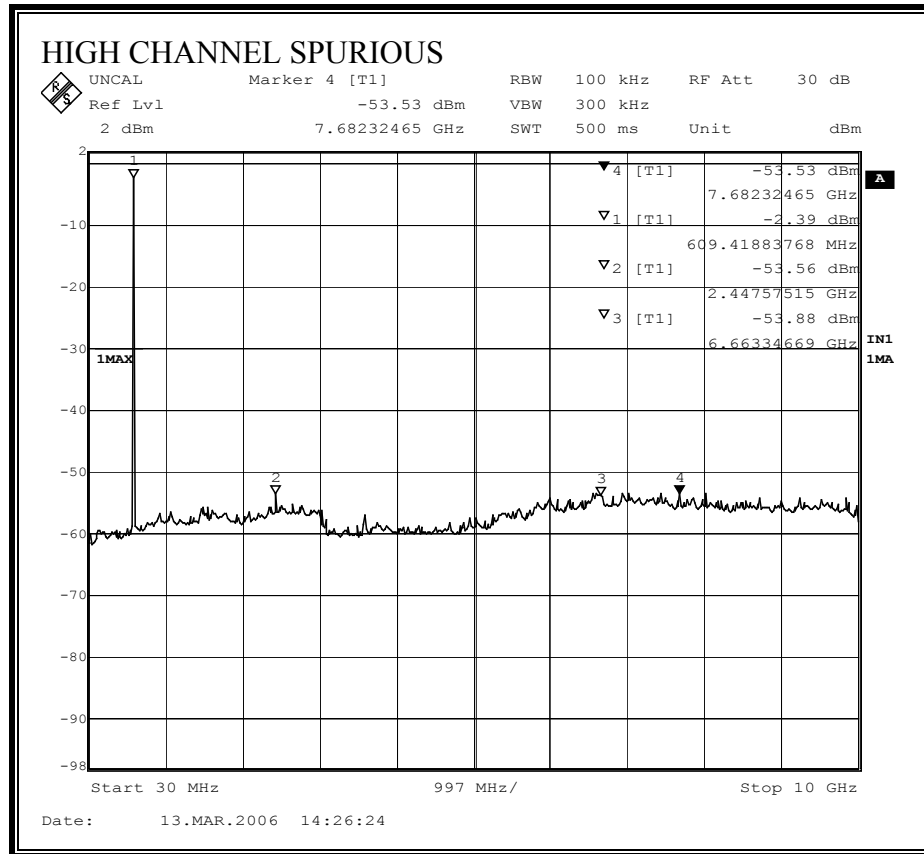


RESULTS

No non-compliance noted:

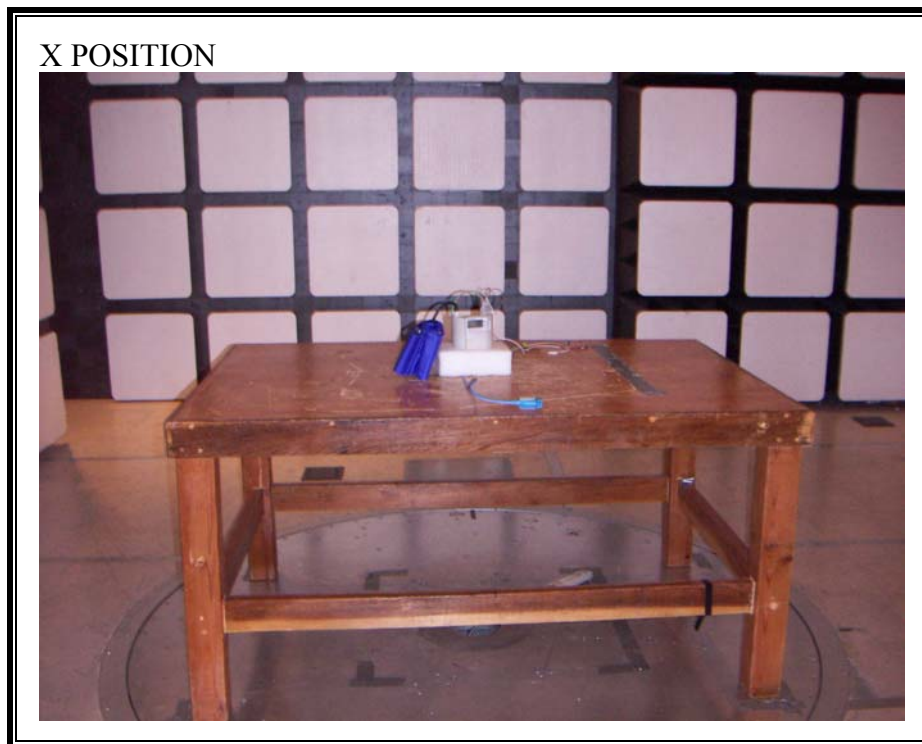






11. SETUP PHOTOS

RADIATED RF MEASUREMENT SETUP



Y POSITION

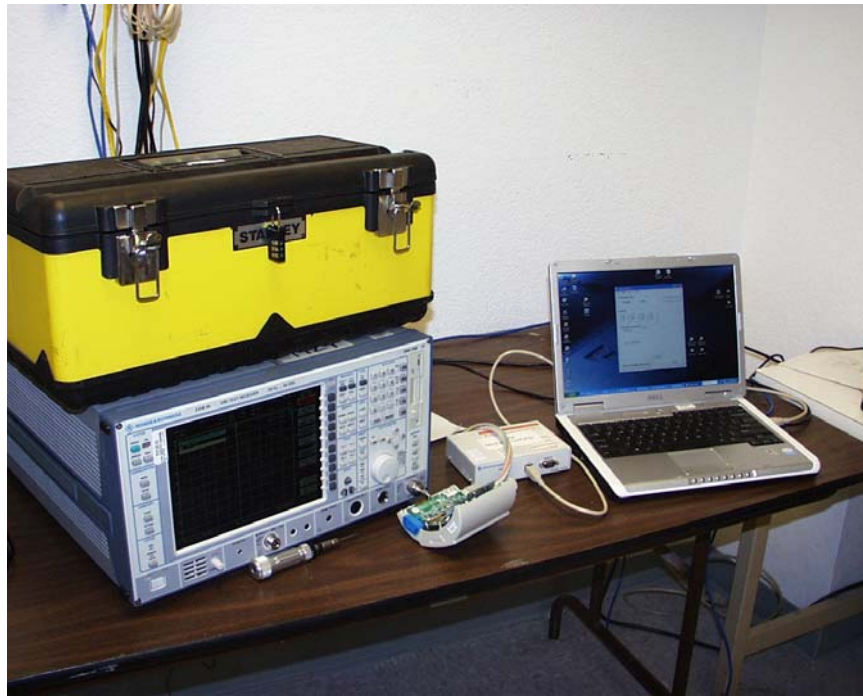


Z POSITION



ANTENNA PORT CONDUCTED RF MEASUREMENT SETUP

ANTENNA PORT CONDUCTED PHOTO



END OF REPORT