



**FCC CFR47 PART 95H REQUIREMENT
CERTIFICATION TEST REPORT
FOR
MEDICAL TELEMETRY TRANSMITTER**

MODEL: ZM-540PA

FCC ID: B6BZM-540PA

REPORT NUMBER: 09J12560-1

ISSUE DATE: JUNE 16, 2009

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

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	06/19/09	Initial Issue	T. Chan

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	4
2. TEST METHODOLOGY	5
3. FACILITIES AND ACCREDITATION	5
4. CALIBRATION AND UNCERTAINTY	5
4.1. MEASURING INSTRUMENT CALIBRATION	5
4.2. SAMPLE CALCULATION	5
4.3. MEASUREMENT UNCERTAINTY	5
5. EQUIPMENT UNDER TEST	6
5.1. DESCRIPTION OF EUT	6
5.2. DESCRIPTION OF AVAILABLE ANTENNAS	6
5.3. SOFTWARE AND FIRMWARE	6
5.4. WORST-CASE CONFIGURATION AND MODE	6
5.5. DESCRIPTION OF TEST SETUP	7
6. TEST AND MEASUREMENT EQUIPMENT	10
7. ANTENNA PORT TEST RESULTS	11
7.1. 26 dB AND 99% BW	11
7.2. PEAK OUTPUT POWER	14
7.3. AVERAGE POWER	16
7.4. SPURIOUS EMISSIONS AT ANTENNA TERMINAL	17
7.5. FREQUENCY STABILITY MEASUREMENT	19
8. RADIATED EMISSION TEST RESULTS	23
8.1. FUNDAMENTAL OUTPUT POWER	24
8.2. RADIATED EMISSIONS BELOW 960 MHz	25
8.3. RADIATED EMISSIONS ABOVE 960 MHz	30
9. SETUP PHOTOS	31

1. ATTESTATION OF TEST RESULTS

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

EUT DESCRIPTION: MEDICAL TELEMETRY TRANSMITTER

MODEL: ZM-540PA

SERIAL NUMBER: 91008

DATE TESTED: JUNE 11 – 16, 2009

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 95 SUBPART H	Pass

Compliance Certification Services, Inc. (CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by CCS based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. 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 CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by CCS will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For CCS By:

Tested By:



THU CHAN
EMC MANAGER
COMPLIANCE CERTIFICATION SERVICES

TOM CHEN
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI/TIA-603-C-2004, FCC CFR 47 Part 2 and FCC CFR 47 Part 95.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

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. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamplifier Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 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-540PA |
| d). | FCC ID: | B6BZM-540PA |
| e). | Battery Type: | Three AA (R6) |
| f). | Channel Number: | 608.0250 MHz (channel number 9002) to
613.9750 MHz (channel number 9478) |
| g). | Frequency Range: | 608.025-613.975 MHz |
| h). | RF Conducted Output Power: | 1mW |
| i). | Channel Spacing: | 50kHz or 37.5kHz (12.5kHz when interleave) |
| j). | Modulation | Frequency Shift Keying |
| k). | Type of Modulation: | F1D |
| l). | Occupied Bandwidth | <20 kHz |
| m). | Antenna Type: | Internal |

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a Helical Monopole antenna, with a maximum gain of 0 dBi.

5.3. SOFTWARE AND FIRMWARE

The test utility software used during testing was Channel Writer, rev. 02-01.

5.4. WORST-CASE CONFIGURATION AND MODE

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

During emission tests the antenna orientations as X, Y, and Z were investigated to determine the worst-case. The outcome showed that Y-orientation as the worst-case.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
Laptop	Dell	PP18L	6364419229	DoC
AC/DC Adapter	Dell	LA65S0-00	CN-ODF263-71615-66C-2E21	DoC
Channel Writer	Nihon Kohden	QI-901PK	28	N/A

I/O CABLES

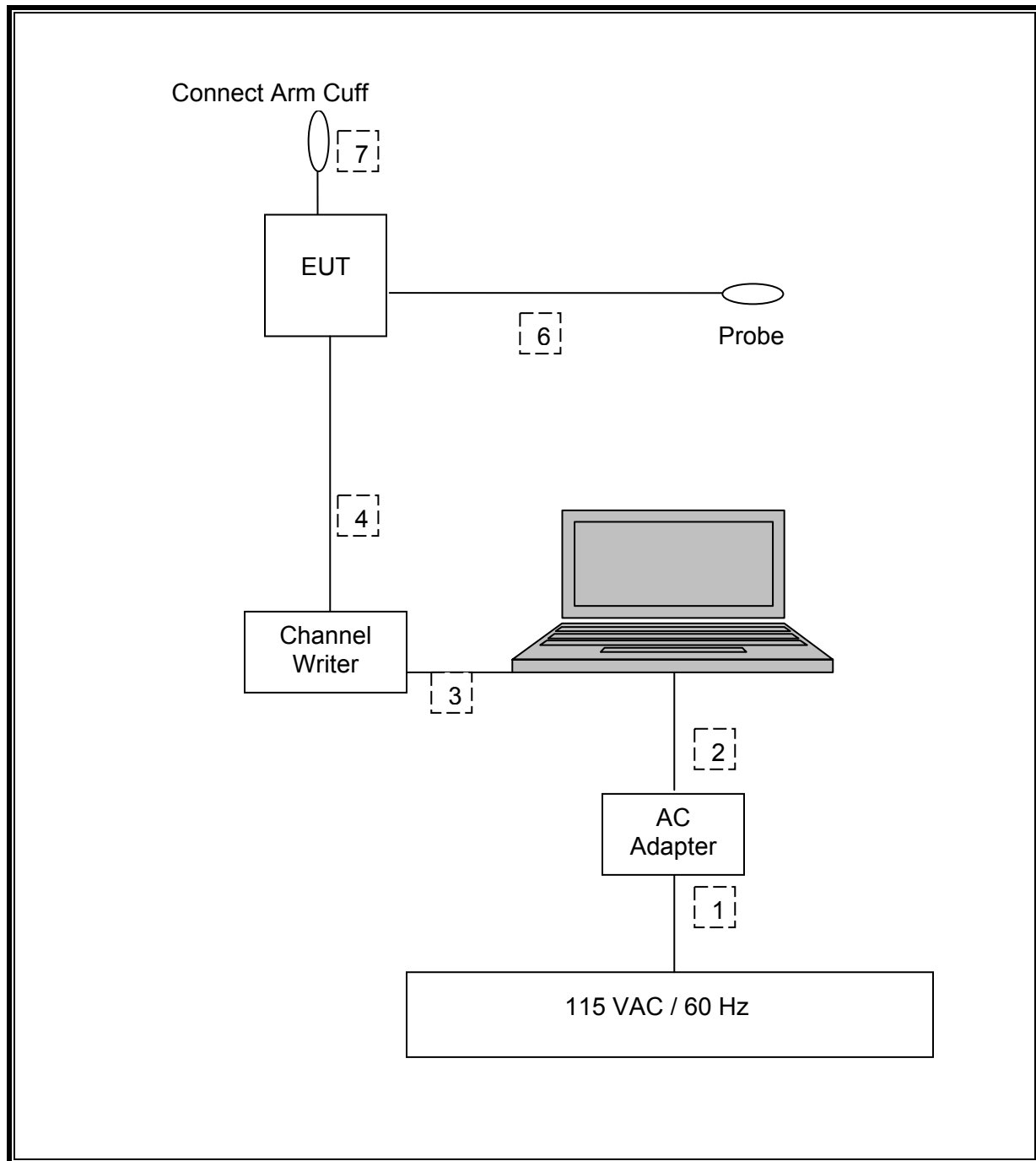
I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	AC	1	US115V	Un-shielded	1m	N/A
2	DC	1	DC	Un-shielded	1.8m	Ferrite on laptop's end
3	USB	1	USB	Shielded	2m	No
4	ECG	1	ECG	Un-shielded	0.3m	No
5	ECG	1	ECG	Un-shielded	0.7 m	N/A
6	SpO2	1	SpO2	Un-shielded	1.6 m	Probe
7	NIBP	1	NIBP socket	Rubber	0.3 m	Connect Arm Cuff

TEST SETUP

The EUT is standalone unit and just use a host laptop computer to configure the mode during the tests. Test software exercised the radio card.

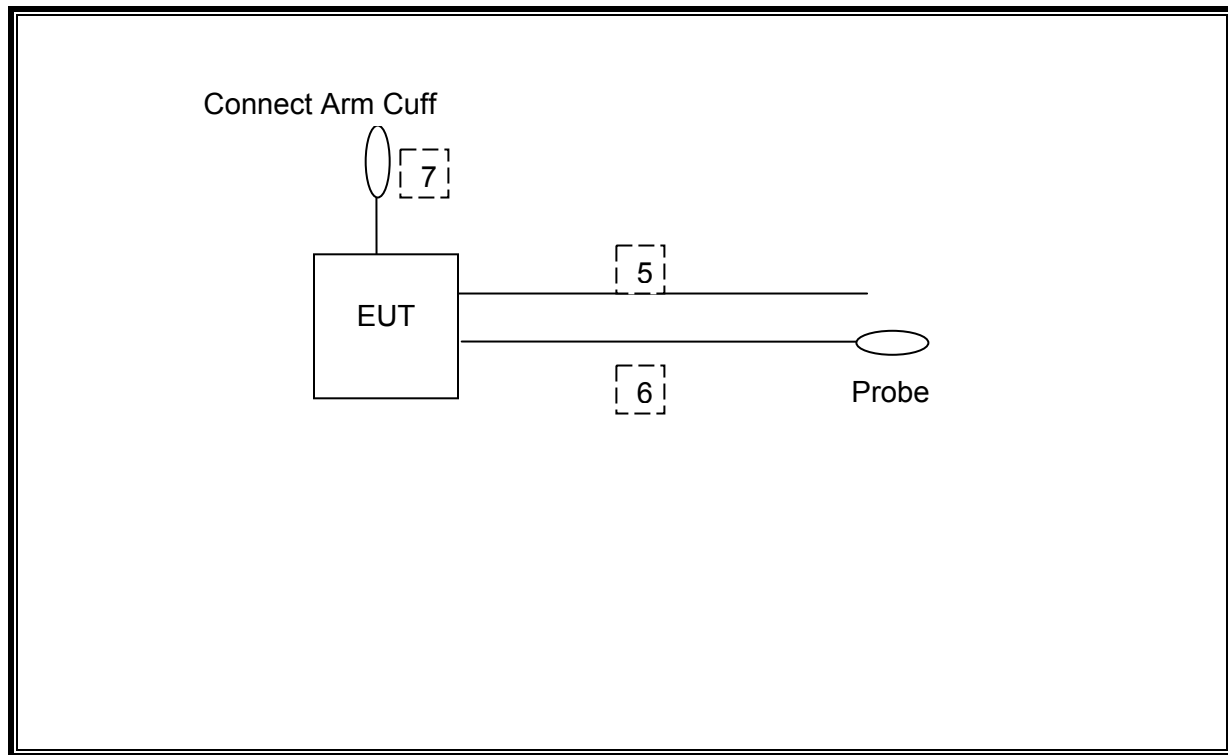
SETUP DIAGRAM FOR TESTS

RF Conducted test



SETUP DIAGRAM FOR TESTS

RF Radiated test



6. TEST AND MEASUREMENT EQUIPMENT

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

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Asset	Cal Due
Antenna, Horn, 18 GHz	EMCO	3115	C01005	01/29/10
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01016	02/07/10
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00749	12/16/09
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C00558	01/14/10
Signal Generator, 20 GHz	Agilent / HP	83732B	C00774	07/03/10
Temperature / Humidity Chamber	Thermotron	SE 600-10-10	C00930	05/13/10
DC power supply, 40 V @ 30 A	Agilent / HP	6268A	N02490	CNR

7. ANTENNA PORT TEST RESULTS

7.1. 26 dB AND 99% BW

LIMITS

§2.1049, for reporting purposes only, also the 26dB bandwidth shall be less than 20 KHz (F1D).

TEST PROCEDURE

ANSI C63.4

The transmitter output is connected to the spectrum analyzer.

26dB Bandwidth: 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.

99% Bandwidth: The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

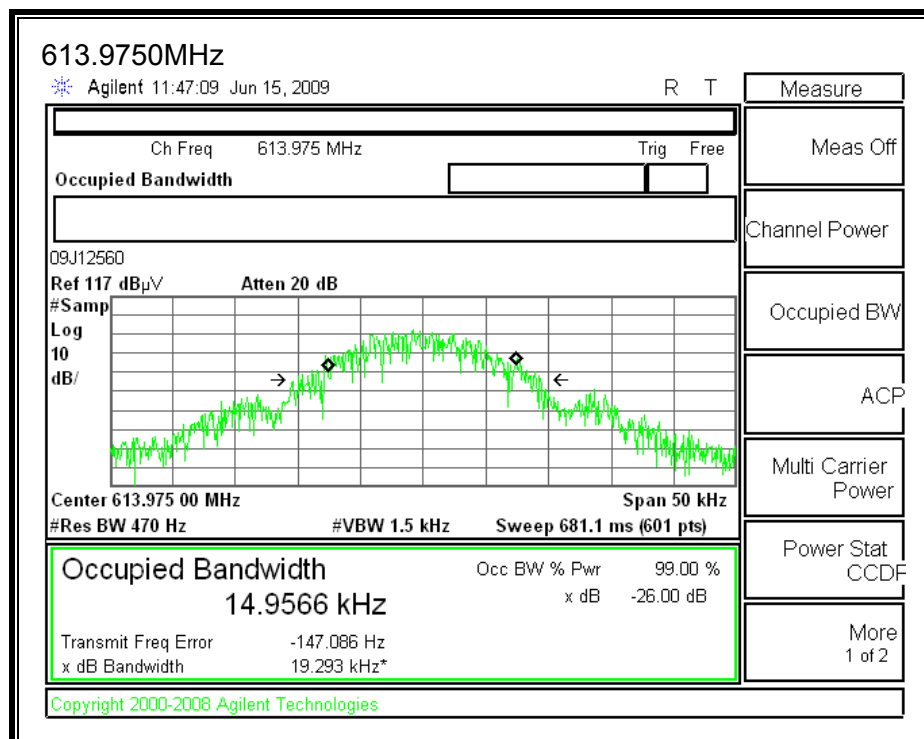
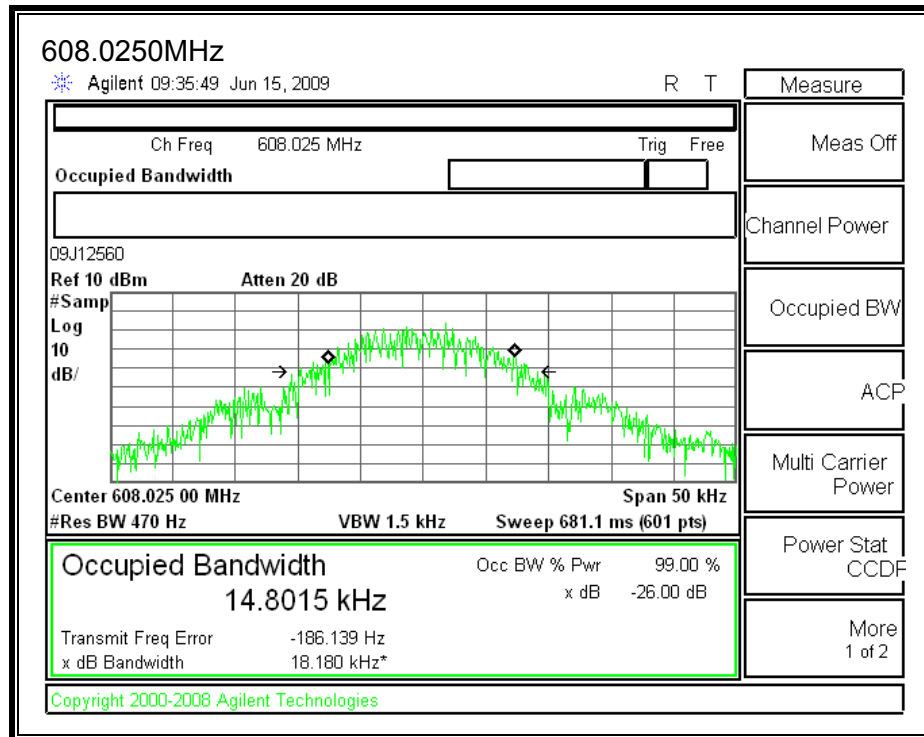
26dB Bandwidth

Channel	Frequency (MHz)	26dB Bandwidth (kHz)
9002	608.025	18.180
9478	613.975	19.293

99% Bandwidth

Channel	Frequency (MHz)	99% Bandwidth (kHz)
9002	608.025	14.802
9478	613.975	14.957

26dB and 99% BANDWIDTH



7.2. PEAK OUTPUT POWER

LIMITS

§2.1046, for reporting purposes only.

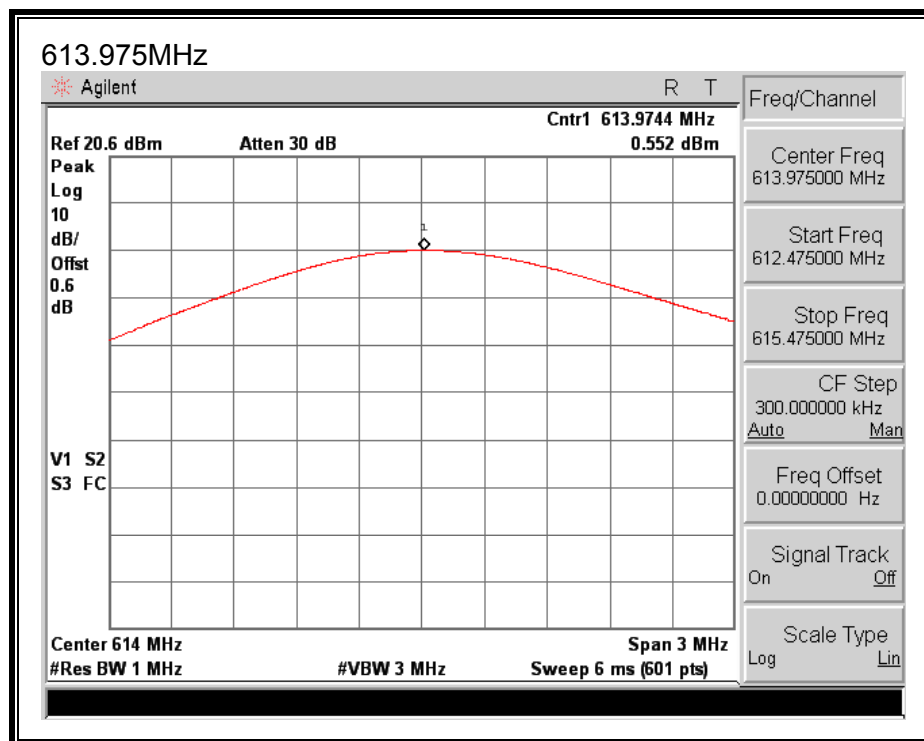
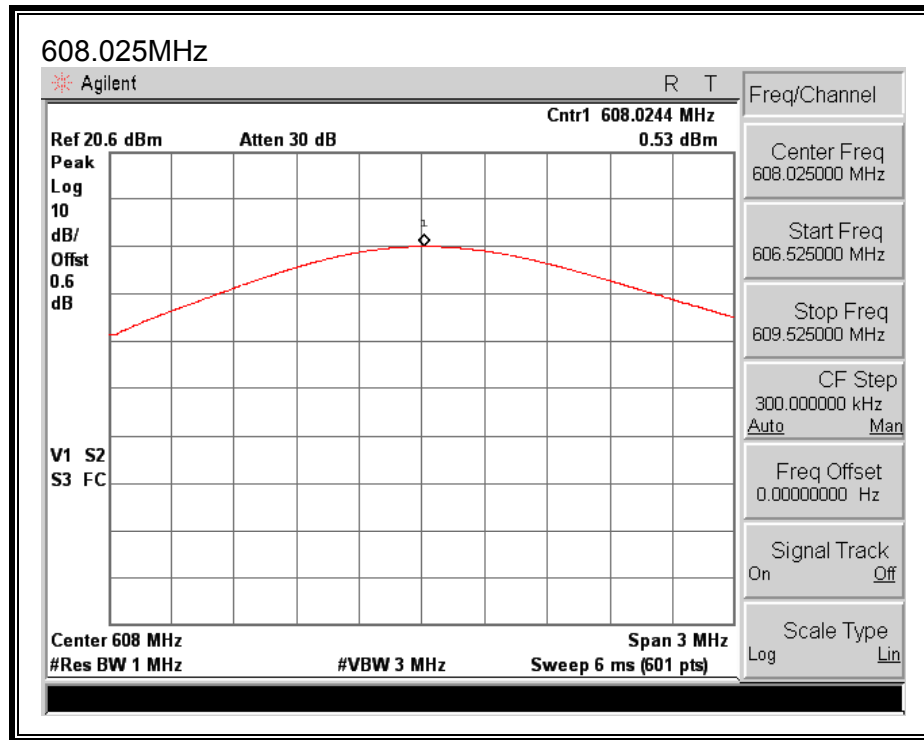
TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The RBW is set greater than the 26dB bandwidth. The VBW is set to 3 times the RBW.

RESULTS

Channel	Frequency (MHz)	Output Power (dBm)
9002	608.025	0.53
9478	613.975	0.55

OUTPUT POWER



7.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 10.2 dB (including 10dB pad & 0.20dB cable loss) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Output Power (dBm)
9002	608.025	0.03
9478	613.975	-0.16

7.4. SPURIOUS EMISSIONS AT ANTENNA TERMINAL

LIMIT

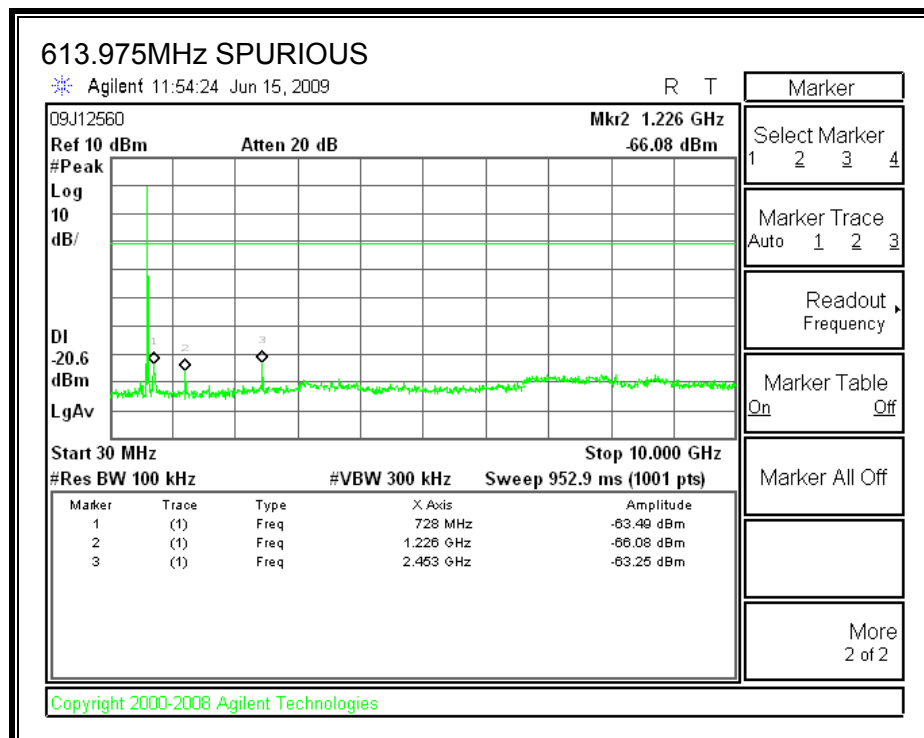
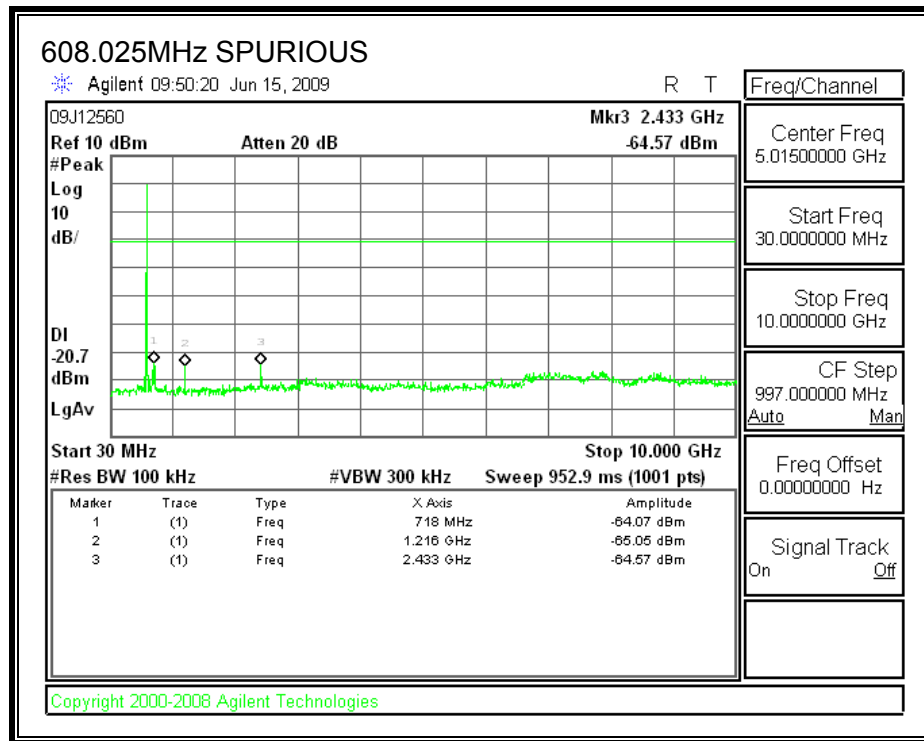
§2.1051 All the conducted emission spurious level shall be at least -20dBc below the band that contains the highest level of desired power.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The RBW=VBW=1MHz.

The spectrum from 30 MHz to 10th harmonic is investigated with the transmitter set to the lowest and highest channels.

TEST RESULTS



7.5. FREQUENCY STABILITY MEASUREMENT

LIMIT

§95.115 (e) Frequency stability.

Manufacturers of wireless medical telemetry devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all of the manufacturer's specified conditions.

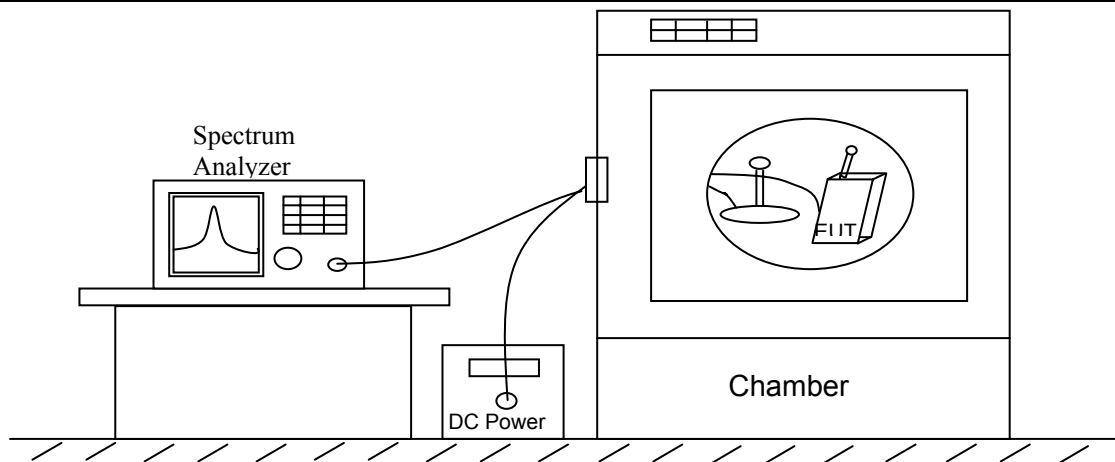
TEST PROCEDURE

Frequency stability versus environmental temperature

- 1) Set the temperature of chamber to 25°C @ low/high channel. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. While maintaining a constant temperature inside the chamber, turn the EUT on and measure the EUT operating frequency.
- 2) Set SA Resolution Bandwidth to 300 Hz and Video Resolution Bandwidth to 300 Hz and Frequency Span to 20 KHz. Record this frequency as reference frequency.
- 3) Repeat step 2 with a 10°C decreased per stage until the lowest temperature -30°C is measured, record all measured frequencies on each temperature step.
- 3) Repeat step 2 with a 10°C increased per stage until the highest temperature +50°C is measured; record all measured frequencies on each temperature step.

Frequency stability versus input voltage

- 1). Setup the configuration as shown below for frequencies measured at temperature if it is 25°C.
- 2). Set SA center frequency to the EUT radiated frequency. Set SA Resolution Bandwidth to 300 Hz and Video Resolution Bandwidth to 300 Hz and Frequency Span to 20 KHz. Record this frequency as reference frequency.
- 3). For battery operated only device, supply the EUT primary voltage at the operating end point which is specified by manufacturer and record the frequency.



Frequency stability measurement configuration

TEST RESULTS

LOW CHANNEL

20°C Reference Frequency:			608.025000	MHz
Limit: +/-	2.5	ppm =	0.001520	MHz
Power Supply		Environment	Frequency	Limit +/- (MHz)
VDC		Temperature (°C)	(MHz)	
4.80	Normal (100%)	50	608.023850	0.000192
		40	608.023820	0.000313
		30	608.023880	0.000339
		20	608.024340	0.000416
		10	608.024710	0.000424
		0	608.024940	0.000454
		-10	608.025070	0.000147
		-20	608.023930	0.000256
		-30	608.023190	0.000026
4.80	Normal		608.024340	0.000416
3.20	Low		608.023459	0.000126
3.10	End Point			

HIGH CHANNEL

20°C Reference Frequency:			613.975000		MHz
Limit: +/- 2.5 ppm =			0.001535		MHz
Power Supply		Environment	Frequency	Delta (MHz)	Limit +/- (MHz)
VDC		Temperature (°C)	(MHz)		
4.80	Normal (100%)	50	613.976040	0.000540	0.001535
		40	613.977090	0.000522	0.001535
		30	613.971830	0.000470	0.001535
		20	613.974590	0.000410	0.001535
		10	613.979110	0.000307	0.001535
		0	613.974930	0.000095	0.001535
		-10	613.972380	0.000008	0.001535
		-20	613.971150	-0.000014	0.001535
		-30	613.974820	-0.000026	0.001535
4.80	Normal		613.974590	0.000410	0.001535
3.20	Low		613.975416	0.000780	0.001535
3.10	End Point				

8. RADIATED EMISSION TEST RESULTS

LIMITS

§95.115

(a) Field strength limits

(1) In the 608–614 MHz band, the maximum allowable field strength is 200 mV/m, as measured at a distance of 3 meters, using measuring instrumentation with a CISPR quasi-peak detector.

(b) Undesired emissions.

(1) Out-of-band emissions below 960 MHz are limited to 200 microvolts/meter, as measured at a distance of 3 meters, using measuring instrumentation with a CISPR quasi-peak detector.

(2) Out-of-band emissions above 960 MHz are limited to 500 microvolts/meter as measured at a distance of 3 meters, using measuring equipment with an averaging detector and a 1 MHz measurement bandwidth.

TEST PROCEDURE

ANSI/TIA-603-C-2004

RESULTS

8.1. FUNDAMENTAL OUTPUT POWER

30-1000MHz Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Vien Tran
Date: 06/09/09
Project #: 09J12560
Company: Nihon Kohden
EUT Description: Medical Telemetry Transmitter
EUT M/N: ZM-540PA
Test Target: FCC Part 95H
Mode Oper: Tx_608.025MHz, 613.975MHz

f Measurement Frequency Amp Preamp Gain Margin Margin vs. Limit
Dist Distance to Antenna D Corr Distance Correct to 3 meters
Read Analyzer Reading Filter Filter Insert Loss
AF Antenna Factor Corr. Calculated Field Strength
CL Cable Loss Limit Field Strength Limit

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol V/H	Det. P/A/QP	Notes
608.025	3.0	98.4	18.3	2.4	29.6	0.0	0.0	89.5	106.0	-16.5	H	P	
608.025	3.0	91.9	18.3	2.4	29.6	0.0	0.0	83.0	106.0	-23.0	V	P	
613.975	3.0	98.1	18.4	2.4	29.6	0.0	0.0	89.3	106.0	-16.7	H	P	
613.975	3.0	92.2	18.4	2.4	29.6	0.0	0.0	83.4	106.0	-22.6	V	P	

Rev. 1.27.09

Note: No other emissions were detected above the system noise floor.

8.2. RADIATED EMISSIONS BELOW 960 MHz

Note 1: The measurements in this section show that Peak values are less than the Quasi-Peak limit.

Note 2: Plots in the range of 960 to 1000 MHz in this section are shown for reporting purposes only.

SPURIOUS EMISSIONS 30 TO 960 MHz (HORIZONTAL)

608.025MHz

30-1000MHz Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Vien Tran
Date: 06/09/09
Project #: 09J12560
Company: Nihon Kohden
EUT Description: Medical Telemetry Transmitter
EUT M/N: ZM-540PA
Test Target: FCC Part 95H
Mode Oper: Tx_608.025MHz

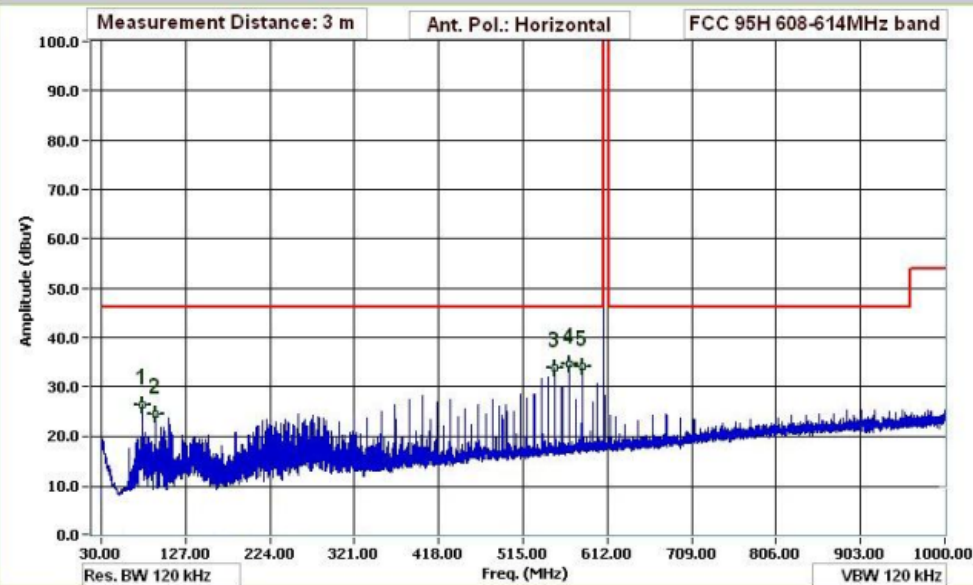
f	Measurement Frequency	Amp	Preamp Gain	Margin	Margin vs. Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		
Read	Analyzer Reading	Filter	Filter Insert Loss		
AF	Antenna Factor	Corr.	Calculated Field Strength		
CL	Cable Loss	Limit	Field Strength Limit		

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
76.802	3.0	47.9	7.8	0.8	29.6	0.0	0.0	26.9	46.0	-19.1	H	EP	
92.163	3.0	45.7	8.1	0.9	29.6	0.0	0.0	25.0	46.0	-21.0	H	EP	
552.022	3.0	44.1	17.6	2.3	29.7	0.0	0.0	34.3	46.0	-11.7	H	EP	
567.982	3.0	44.8	17.8	2.3	29.7	0.0	0.0	35.2	46.0	-10.8	H	EP	
584.063	3.0	43.9	18.0	2.3	29.6	0.0	0.0	34.6	46.0	-11.4	H	EP	

Rev. 1.27.09

Note: No other emissions were detected above the system noise floor.

Measurement Configuration



Project No.: 09J12560

SPURIOUS EMISSIONS 30 TO 960 MHz (VERTICAL)

608.025MHz

30-1000MHz Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Vien Tran
Date: 06/09/09
Project #: 09J12560
Company: Nihon Kohden
EUT Description: Medical Telemetry Transmitter
EUT M/N: ZM-540PA
Test Target: FCC Part 95H
Mode Oper: Tx_608.025MHz

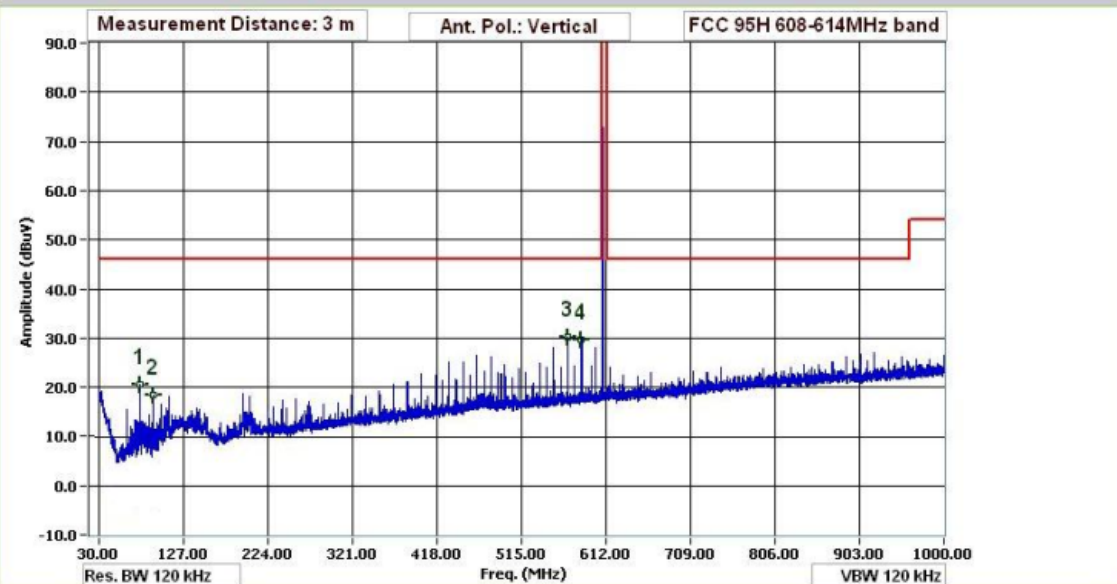
f	Measurement Frequency	Amp	Preamp Gain	Margin	Margin vs. Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		
Read	Analyzer Reading	Filter	Filter Insert Loss		
AF	Antenna Factor	Corr.	Calculated Field Strength		
CL	Cable Loss	Limit	Field Strength Limit		

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
76.802	3.0	42.0	7.8	0.8	29.6	0.0	0.0	21.0	46.0	-25.0	V	EP	
92.163	3.0	39.5	8.1	0.9	29.6	0.0	0.0	18.9	46.0	-27.1	V	EP	
567.982	3.0	40.2	17.8	2.3	29.7	0.0	0.0	30.6	46.0	-15.4	V	EP	
583.943	3.0	39.6	18.0	2.3	29.6	0.0	0.0	30.3	46.0	-15.7	V	EP	

Rev. 1.27.09

Note: No other emissions were detected above the system noise floor.

Measurement Configuration



Project No.: 09J12560

SPURIOUS EMISSIONS 30 TO 960 MHz (HORIZONTAL)

613.975MHz

30-1000MHz Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Vien Tran
Date: 06/09/09
Project #: 09J12560
Company: Nihon Kohden
EUT Description: Medical Telemetry Transmitter
EUT M/N: ZM-540PA
Test Target: FCC Part 95H
Mode Oper: Tx_613.975MHz

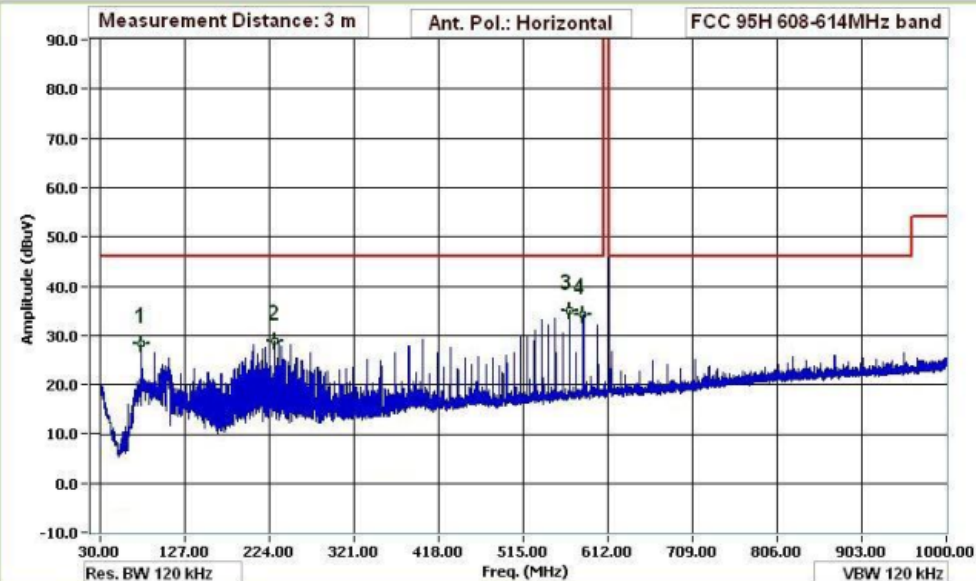
f	Measurement Frequency	Amp	Preamp Gain	Margin	Margin vs. Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		
Read	Analyzer Reading	Filter	Filter Insert Loss		
AF	Antenna Factor	Corr.	Calculated Field Strength		
CL	Cable Loss	Limit	Field Strength Limit		

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
76.802	3.0	50.0	7.8	0.8	29.6	0.0	0.0	29.0	46.0	-17.0	H	EP	
229.448	3.0	45.0	11.9	1.4	28.8	0.0	0.0	29.4	46.0	-16.6	H	EP	
567.982	3.0	45.1	17.8	2.3	29.7	0.0	0.0	35.5	46.0	-10.5	H	EP	
583.943	3.0	44.0	18.0	2.3	29.6	0.0	0.0	34.8	46.0	-11.2	H	EP	

Rev. 1.27.09

Note: No other emissions were detected above the system noise floor.

Measurement Configuration



Project No.: 09J12560

SPURIOUS EMISSIONS 30 TO 960 MHz (VERTICAL)

613.975MHz

30-1000MHz Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Vien Tran
Date: 06/09/09
Project #: 09J12560
Company: Nihon Kohden
EUT Description: Medical Telemetry Transmitter
EUT M/N: ZM-540PA
Test Target: FCC Part 95H
Mode Oper: Tx_613.975MHz

f	Measurement Frequency	Amp	Preamp Gain	Margin	Margin vs. Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		
Read	Analyzer Reading	Filter	Filter Insert Loss		
AF	Antenna Factor	Corr.	Calculated Field Strength		
CL	Cable Loss	Limit	Field Strength Limit		

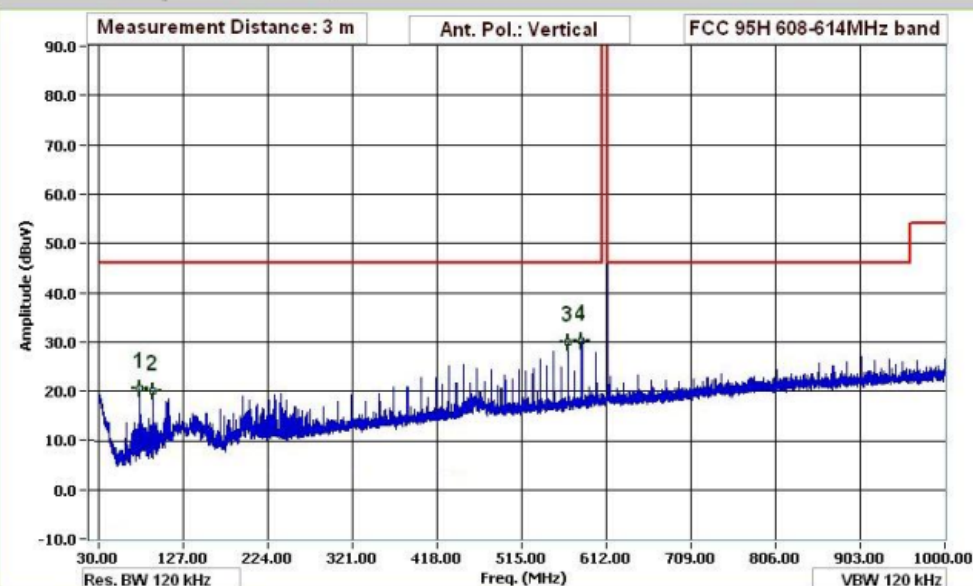
f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
76.802	3.0	42.2	7.8	0.8	29.6	0.0	0.0	21.2	46.0	-24.8	V	EP	
92.163	3.0	41.3	8.1	0.9	29.6	0.0	0.0	20.7	46.0	-25.3	V	EP	
567.982	3.0	40.0	17.8	2.3	29.7	0.0	0.0	30.4	46.0	-15.6	V	EP	
583.943	3.0	39.9	18.0	2.3	29.6	0.0	0.0	30.7	46.0	-15.3	V	EP	

Rev. 1.27.09

Note: No other emissions were detected above the system noise floor.

Measurement

Configuration



Project No.: 09J12560

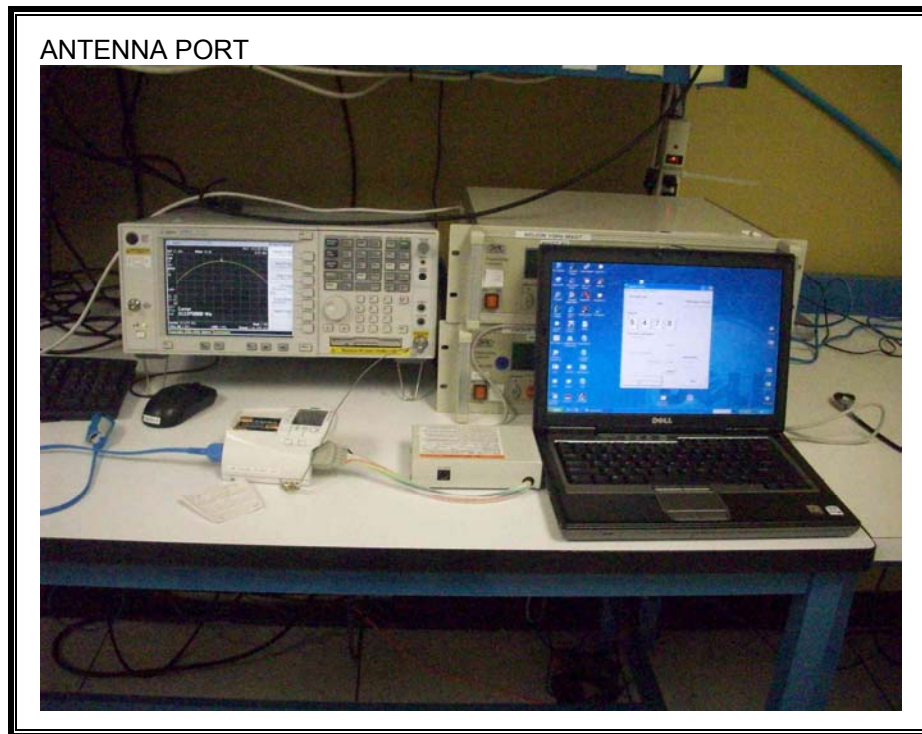
8.3. RADIATED EMISSIONS ABOVE 960 MHz

HARMONICS AND TX SPURIOUS EMISSIONS ABOVE 960 MHz

High Frequency Measurement																	
Compliance Certification Services, Fremont 5m Chamber																	
Company:		Nihon Kohden															
Project #:		09J12560															
Date:		06/15/09															
Test Engineer:		Tom Chen															
Configuration:		EUT Alone															
Mode:		Medical Telemetry Transmitter, ZM-541PA, FCC Part 95H Tx															
Test Equipment:																	
Horn 1-18GHz			Pre-amplifier 1-26GHz			Pre-amplifier 26-40GHz			Horn > 18GHz			Limit					
T59; S/N: 3245 @3m			T145 Agilent 3008A0050									FCC 15.209					
Hi Frequency Cables																	
3' cable 22807700			12' cable 22807600			20' cable 22807500			HPF			Reject Filter			Peak Measurements RBW=VBW=1MHz Average Measurements RBW=1MHz ; VBW=10Hz		
3' cable 22807700			12' cable 22807600			20' cable 22807500											
f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filt dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)		
Low CH 608.025 MHz																	
1.216	3.0	56.6	54.7	24.7	2.6	-36.0	0.0	0.0	48.0	46.1	74	54	-26.0	-7.9	V		
1.824	3.0	42.5	31.0	27.0	3.3	-35.5	0.0	0.0	37.2	25.7	74	54	-36.8	-28.3	V		
1.216	3.0	49.5	44.9	24.7	2.6	-36.0	0.0	0.0	40.9	36.2	74	54	-33.1	-17.8	H		
1.824	3.0	43.1	30.0	27.0	3.3	-35.5	0.0	0.0	37.8	24.7	74	54	-36.2	-29.3	H		
HI CH 613.975 MHz																	
1.228	3.0	49.9	45.8	24.8	2.6	-36.0	0.0	0.0	41.3	37.2	74	54	-32.7	-16.8	H		
1.842	3.0	43.1	31.0	27.0	3.3	-35.5	0.0	0.0	37.9	25.8	74	54	-36.1	-28.2	H		
1.228	3.0	52.7	49.3	24.8	2.6	-36.0	0.0	0.0	44.1	40.7	74	54	-29.9	-13.3	V		
1.842	3.0	42.9	31.3	27.0	3.3	-35.5	0.0	0.0	37.7	26.1	74	54	-36.3	-27.9	V		
Note: No other emissions were detected above the system noise floor.																	
Rev. 11.10.08																	
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. SETUP PHOTOS

ANTENNA PORT



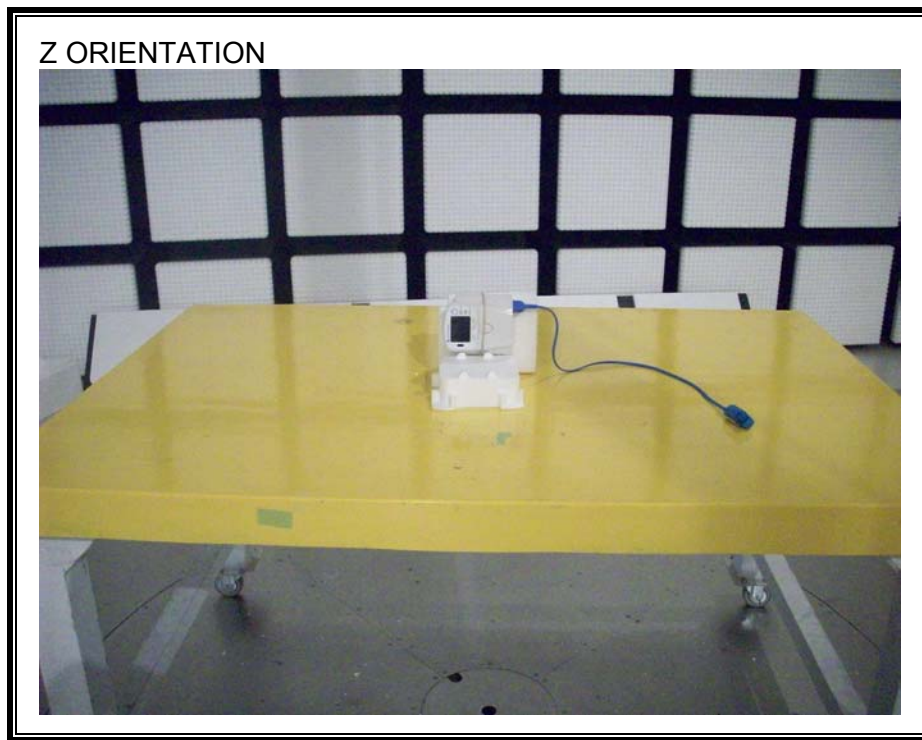
RADIATED EMISSION FOR PORTABLE CONFIGURATION

X ORIENTATION (Worst Position)



Y ORIENTATION





END OF REPORT