



FCC CFR47 PART 95H REQUIREMENT

CERTIFICATION TEST REPORT

FOR

Medical Telemetry Transmitter

MODEL: ZM-941PA

FCC ID: B6BZM-941PA

REPORT NUMBER: 32CE0260-HO-B-R1

ISSUE DATE: November 14, 2011

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

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NVLAP LAB CODE: 200572-0

This laboratory is accredited by the NVLAP LAB CODE 200572-0, U.S.A. The tests reported herein have been performed in accordance with its terms of accreditation.
*As for the range of Accreditation in NVLAP, you may refer to the WEB address,
<http://www.ul.com/japan/jpn/pages/services/emc/about/mark1/index.jsp#nvlap>

Revision History

Rev.	Issue Date	Revisions	Revised By
--	11/14/11	Initial Issue	T. Hatakeda
1	11/14/11	Corrected equipment name on the relevant pages. *This report is a revised version of 32CE0260-HO-B, which is replaced with this report.	T. Hatakeda

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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: Medical Telemetry Transmitter

MODEL: ZM-941PA

SERIAL NUMBER: 00084

DATE TESTED: NOVEMBER 3 - 4, 2011

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 95 SUBPART H	Pass

UL Japan, Inc. 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 UL Japan, Inc. 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 UL Japan, Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Japan, Inc. 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 UL Japan, Inc. By: Tested By:



TAKAHIRO HATAKEDA
Leader of WiSE Japan
UL Verification Services
UL Japan, Inc.



TOMOTAKA SASAGAWA
Engineer of WiSE Japan
UL Verification Services
UL Japan, Inc.

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 4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN.

UL Japan, Inc. is accredited by NVLAP, Laboratory Code 200572-0

The full scope of accreditation can be viewed at

<http://www.ul.com/japan/jpn/pages/services/emc/about/mark1/index.jsp#nvlap>

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:

The following uncertainties have been calculated to provide a confidence level of 95% using a coverage factor $k=2$.

Test room (semi-anechoic chamber)	Radiated emission						
	(3m*)(+dB)				(1m*)(+dB)		(0.5m*)(+dB)
	9kHz -30MHz	30MHz - 300MHz	300MHz -1GHz	1GHz -10GHz	10GHz -18GHz	18GHz -26.5GHz	26.5GHz -40GHz
No.1	4.2dB	5.0dB	5.1dB	5.6dB	5.9dB	4.4dB	4.3dB
No.2	4.1dB	5.2dB	5.1dB	5.7dB	5.8dB	4.3dB	4.2dB
No.3	4.5dB	5.0dB	5.2dB	5.7dB	5.8dB	4.5dB	4.2dB
No.4	4.7dB	5.2dB	5.2dB	5.7dB	5.8dB	5.1dB	4.2dB

*3m/1m/0.5m = Measurement distance

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

- | | | |
|-----|----------------------------|---|
| a). | Type of EUT: | WMTS TRANSMITTER |
| b). | Brand Name: | NIHON KOHDEN |
| c). | Model No: | ZM-941PA |
| d). | FCC ID: | B6BZM-941PA |
| e). | Battery Type: | Three AA (R6) |
| f). | Channel Number: | 1395.0250 MHz (channel number E002) to
1399.9750 MHz (channel number E398), and
1427.0250 MHz (channel number E502) to
1431.9750 MHz (channel number E898) |
| g). | Frequency Range: | 1395.025 - 1399.975 MHz and
1427.025 – 1431.975 MHz bands |
| h). | RF Conducted Output Power: | 5mW (factory default setting) or 1mW |
| i). | Channel Spacing: | 50 kHz or 37.5 kHz(12.5 kHz when interleave) |
| j). | Modulation: | Frequency Shift Keying |
| k). | Type of Modulation: | F1D |
| l). | Occupied Bandwidth: | <20 kHz |
| m). | Antenna Type: | Helical Monopole Antenna with electric wire on the
air core with the cover |

5.2. DESCRIPTION OF CLASS II PERMISSIVE CHANGE

The major change filed under this application is changing the antenna.

5.3. MAXIMUM OUTPUT POWER

The test measurement passes within +/- 0.5dBm of the original output power.

5.4. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a Helical Monopole antenna with electric wire on the air core with the cover, with a maximum gain of 0 dBi.

5.5. SOFTWARE AND FIRMWARE

The test utility software used during testing was Channel Writer, ver.02-04.

5.6. 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 Horizontal: X-orientation and Vertical: Z-orientation as the worst-case.

5.7 DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

N/A

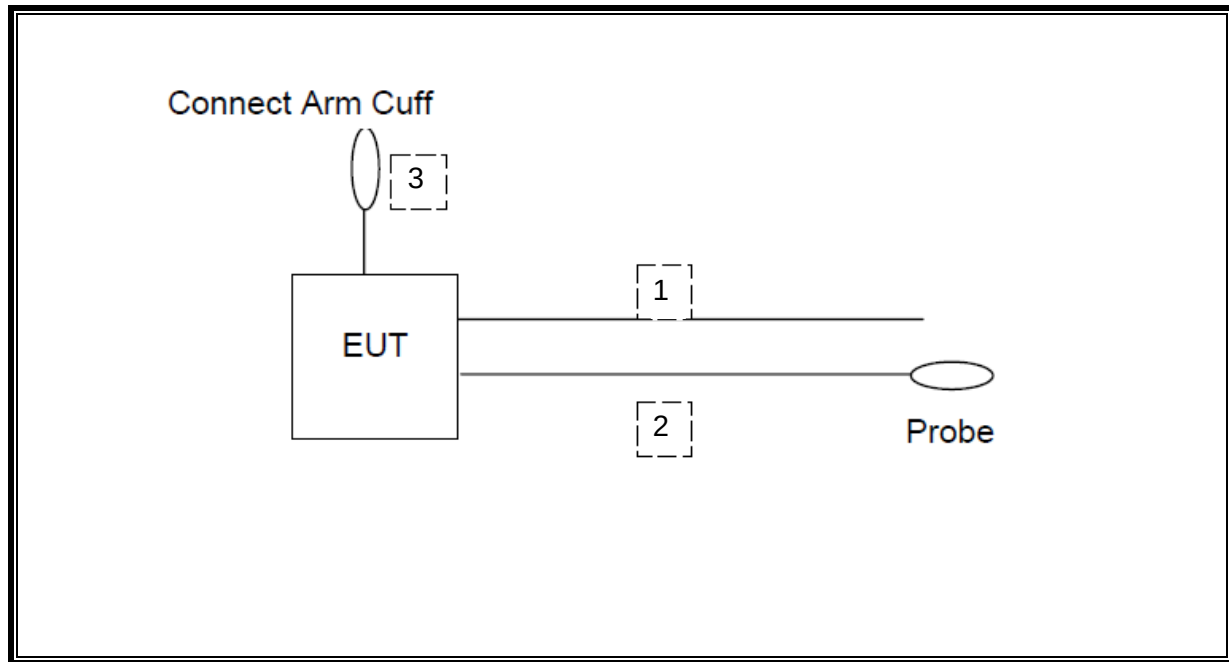
I/O CABLES

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	ECG	1	ECG	Un-shielded	0.7m	N/A
2	SpO2	1	SpO2	Un-shielded	1.6m	Probe
3	NIBP	1	NIBP socket	Rubber	0.3m	Connect Arm Cuff

TEST SETUP

During the testing process the EUT was put in continuous transmit mode.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-02	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	RE	2011/06/21 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	0003	RE	2011/02/23 * 12
MJM-14	Measure	KOMELON	KMC-36	-	RE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE	-
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	RE	2011/04/08 * 12
MHA-06	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	254	RE	2011/01/16 * 12
MCC-132	Microwave Cable	HUBER+SUHNER	SUCOFLEX104	336161/4(1m) / 340639(5m)	RE	2011/09/06 * 12
MPA-10	Pre Amplifier	Agilent	8449B	3008A02142	RE	2011/09/21 * 12
MHF-06	High Pass Filter 3.5-24GHz	TOKIMEC	TF323DCA	601	RE	2011/05/16 * 12
MBF-09	Band Pass Filter	M-City	BPF4250-01	UL0004	RE	2011/05/23 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	100300	RE	2011/04/15 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	VHA91032008	RE	2011/10/23 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	201	RE	2011/10/23 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	-	RE	2011/02/18 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	BK7970	RE	2011/11/02 * 12
MPA-09	Pre Amplifier	Agilent	8447D	2944A10845	RE	2011/09/26 * 12

The expiration date of the calibration is the end of the expired month.

All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

RE: Radiated emission

7. RADIATED EMISSION TEST RESULTS

LIMITS

§95.1115

(a) Field strength limits

(2) In the 1395–1400 MHz and 1427–1432 MHz bands, the maximum allowable field strength is 740 mV/m as measured at a distance of 3 meters, using measuring equipment with an averaging detector and a 1 MHz measurement bandwidth.

(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

7.1. FUNDAMENTAL OUTPUT POWER

Report No. : 32CE0260-HO
Test Place : Head Office EMC Lab.
Semi Anechoic Chamber: : No. 2
Date : 2011/11/03
Temperature/Humidity : 23deg.C / 56% RH
Engineer: : Takayuki Shimada
Mode: : Tx

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	1395.025	AV	72.4	25.2	1.7	0.0	99.3	117.4	18.1	
Vert	1395.025	AV	72.1	25.2	1.7	0.0	99.0	117.4	18.4	
Hori	1399.975	AV	73.7	25.2	1.7	0.0	100.6	117.4	16.8	
Vert	1399.975	AV	71.6	25.2	1.7	0.0	98.5	117.4	18.9	
Hori	1427.025	AV	73.7	25.3	1.7	0.0	100.7	117.4	16.7	
Vert	1427.025	AV	71.1	25.3	1.7	0.0	98.1	117.4	19.3	
Hori	1431.975	AV	73.1	25.3	1.7	0.0	100.1	117.4	17.3	
Vert	1431.975	AV	71.3	25.3	1.7	0.0	98.3	117.4	19.1	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier)

7.2. RADIATED EMISSIONS BELOW 960 MHz

Note 1: 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)

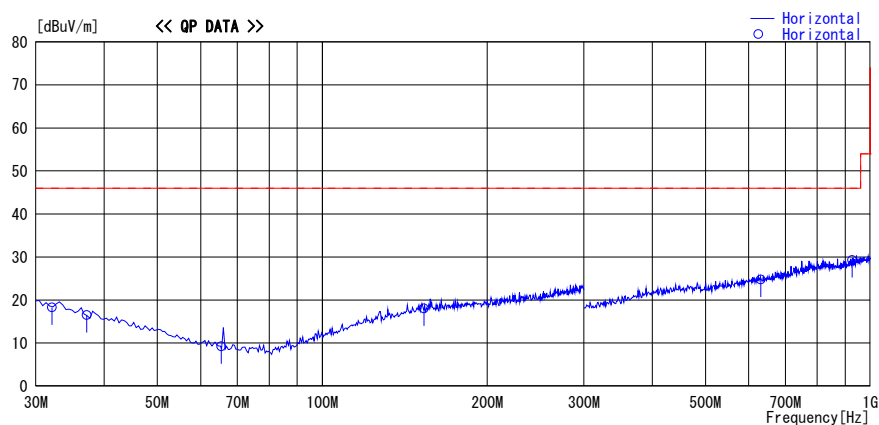
1395.025MHz

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2011/11/04

Report No. : 32CE0260-H0
Temp./Humi. : 22deg.C / 49% RH
Engineer : Tomotaka Sasagawa

Mode / Remarks : Tx 1395.025MHz



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
37.200	22.9	QP	15.3	-21.7	16.5	156	100	Hori.	46.0	29.5	
32.124	22.8	QP	17.2	-21.7	18.3	43	100	Hori.	46.0	27.7	
65.432	23.1	QP	7.4	-21.3	9.2	321	100	Hori.	46.0	36.8	
153.300	23.2	QP	15.0	-20.2	18.0	23	100	Hori.	46.0	28.0	
631.334	23.0	QP	20.1	-18.4	24.7	223	100	Hori.	46.0	21.3	
926.505	23.2	QP	22.5	-16.4	29.3	189	100	Hori.	46.0	16.7	

CHART:WITH FACTOR ANT TYPE:-30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

SPURIOUS EMISSIONS 30 TO 960 MHz (VERTICAL)

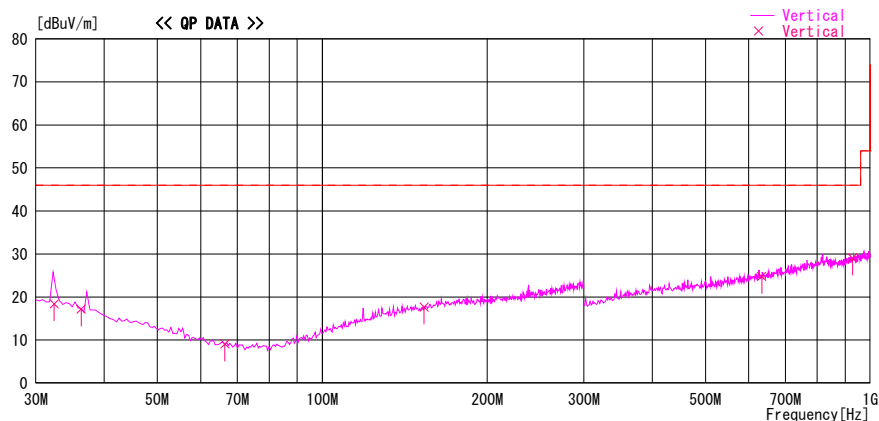
1395.025MHz

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2011/11/04

Report No. : 32CE0260-H0
Temp./Humi. : 22deg.C / 49% RH
Engineer : Tomotaka Sasagawa

Mode / Remarks : Tx 1395.025MHz



Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin	Comment
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
36.300	23.3	QP	15.6	-21.7	17.2	144	100	Vert.	46.0	28.8	
32.431	23.0	QP	17.1	-21.7	18.4	22	100	Vert.	46.0	27.6	
66.421	23.1	QP	7.3	-21.3	9.1	125	100	Vert.	46.0	36.9	
153.300	22.9	QP	15.0	-20.2	17.7	98	100	Vert.	46.0	28.3	
633.667	23.1	QP	20.1	-18.4	24.8	43	100	Vert.	46.0	21.2	
927.672	23.0	QP	22.5	-16.4	29.1	143	100	Vert.	46.0	16.9	

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

SPURIOUS EMISSIONS 30 TO 960 MHz (HORIZONTAL)

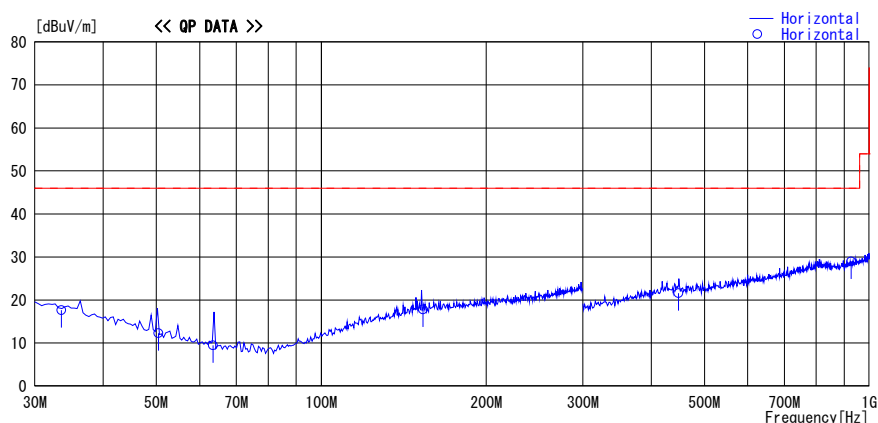
1399.975MHz

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2011/11/04

Report No. : 32CE0260-H0
Temp./Humi. : 23deg.C / 56% RH
Engineer : Tomotaka Sasagawa

Mode / Remarks : Tx 1399.975MHz



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
33.542	22.6	QP	16.7	-21.7	17.6	134	100	Hori.	46.0	28.4	
50.421	22.9	QP	11.0	-21.6	12.3	98	100	Hori.	46.0	33.7	
63.421	23.1	QP	7.8	-21.4	9.5	354	100	Hori.	46.0	36.5	
153.300	23.0	QP	15.0	-20.2	17.8	92	100	Hori.	46.0	28.2	
448.213	22.8	QP	17.8	-19.0	21.6	345	100	Hori.	46.0	24.4	
926.505	22.8	QP	22.5	-16.4	28.9	154	100	Hori.	46.0	17.1	

CHART:WITH FACTOR ANT TYPE:-30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

SPURIOUS EMISSIONS 30 TO 960 MHz (VERTICAL)

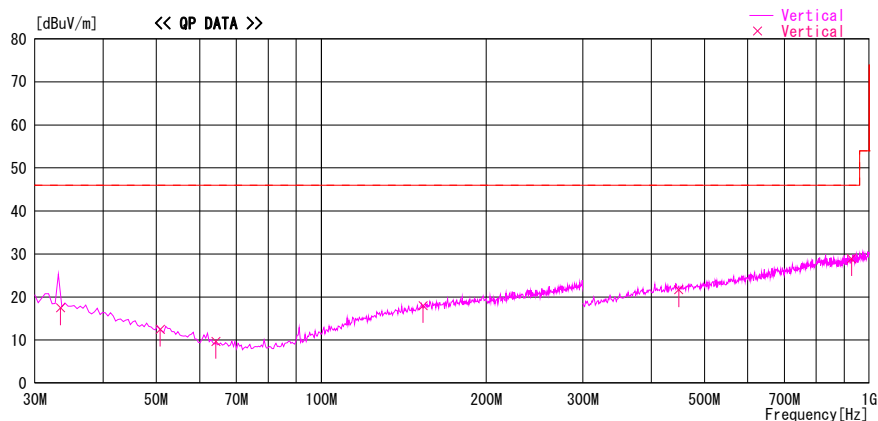
1399.975MHz

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2011/11/04

Report No. : 32CE0260-H0
Temp./Humi. : 23deg.C / 56% RH
Engineer : Tomotaka Sasagawa

Mode / Remarks : Tx 1399.975MHz



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg.]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
33.423	22.5	QP	16.7	-21.7	17.5	154	100	Vert.	46.0	28.5	
50.832	23.2	QP	10.9	-21.6	12.5	122	100	Vert.	46.0	33.5	
64.231	23.5	QP	7.6	-21.4	9.7	312	100	Vert.	46.0	36.3	
153.300	23.2	QP	15.0	-20.2	18.0	76	100	Vert.	46.0	28.0	
448.938	22.9	QP	17.8	-19.0	21.7	45	100	Vert.	46.0	24.3	
927.672	22.8	QP	22.5	-16.4	28.9	139	100	Vert.	46.0	17.1	

CHART:WITH FACTOR ANT TYPE:-30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

SPURIOUS EMISSIONS 30 TO 960 MHz (HORIZONTAL)

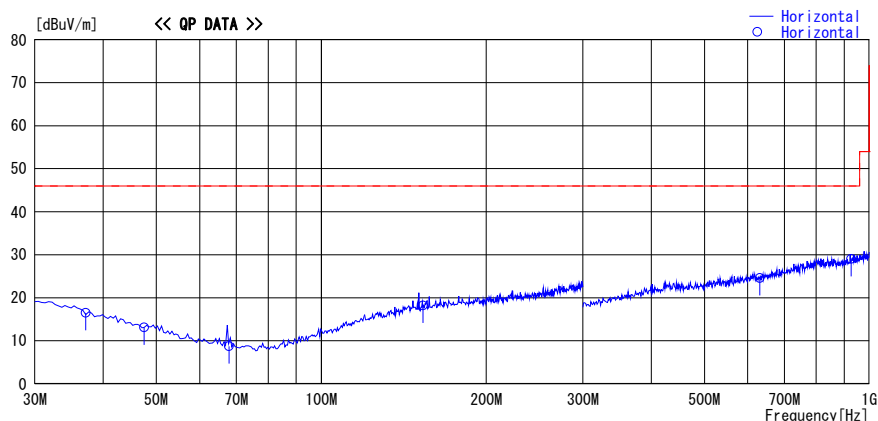
1427.025MHz

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2011/11/04

Report No. : 32CE0260-H0
Temp./Humi. : 22deg. C / 49% RH
Engineer : Tomotaka Sasagawa

Mode / Remarks : Tx 1427.025MHz



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
37.200	22.9	QP	15.3	-21.7	16.5	133	100	Hori.	46.0	29.5	
47.550	22.8	QP	11.9	-21.6	13.1	87	100	Hori.	46.0	32.9	
67.831	22.9	QP	7.1	-21.3	8.7	323	100	Hori.	46.0	37.3	
153.300	23.4	QP	15.0	-20.2	18.2	98	100	Hori.	46.0	27.8	
631.334	22.9	QP	20.1	-18.4	24.6	341	100	Hori.	46.0	21.4	
926.505	22.9	QP	22.5	-16.4	29.0	156	100	Hori.	46.0	17.0	

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz:-HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

SPURIOUS EMISSIONS 30 TO 960 MHz (VERTICAL)

1427.025MHz

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber

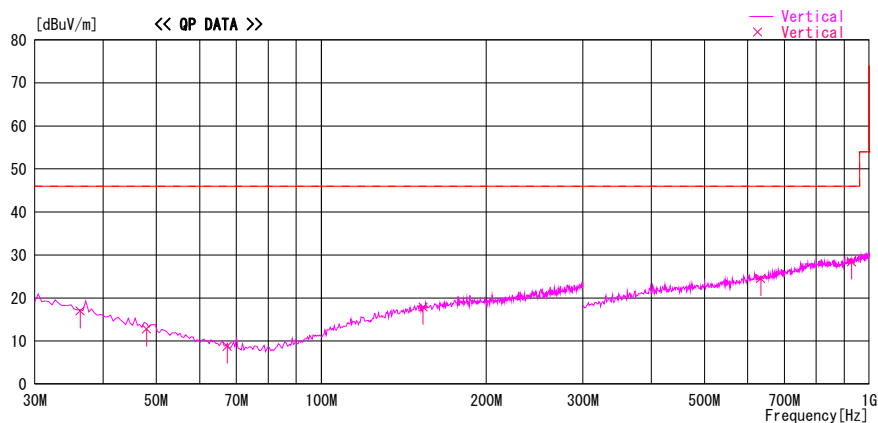
Date : 2011/11/04

Report No. : 32CE0260-H0

Temp./Humi. : 22deg.C / 49% RH

Engineer : Tomotaka Sasagawa

Mode / Remarks : Tx 1427.025MHz



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss &	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
36.300	23.1	QP	15.6	-21.7	17.0	154	100	Vert.	46.0	29.0	
48.000	22.7	QP	11.7	-21.6	12.8	25	100	Vert.	46.0	33.2	
67.321	23.0	QP	7.1	-21.3	8.8	344	100	Vert.	46.0	37.2	
153.300	23.1	QP	15.0	-20.2	17.9	18	100	Vert.	46.0	28.1	
633.667	22.8	QP	20.1	-18.4	24.5	222	100	Vert.	46.0	21.5	
927.672	22.3	QP	22.5	-16.4	28.4	122	100	Vert.	46.0	17.6	

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

SPURIOUS EMISSIONS 30 TO 960 MHz (HORIZONTAL)

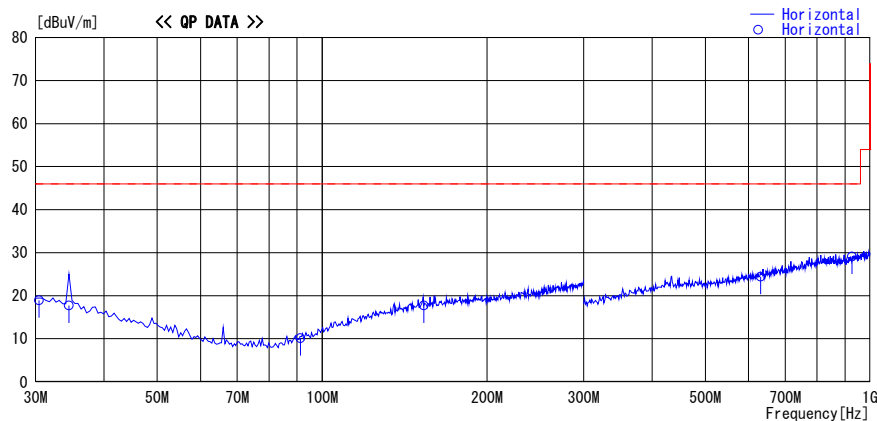
1431.975MHz

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2011/11/04

Report No. : 32CE0260-H0
Temp./Humi. : 22deg. C / 49% RH
Engineer : Tomotaka Sasagawa

Mode / Remarks : Tx 1431.975MHz



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit	Margin	Comment
			Factor [dB/m]	Gain [dB]					[dBuV/m]	[dB]	
34.512	23.1	QP	16.3	-21.7	17.7	143	100	Hori.	46.0	28.3	
30.421	22.9	QP	17.8	-21.8	18.9	78	100	Hori.	46.0	27.1	
91.321	23.2	QP	7.9	-21.0	10.1	321	100	Hori.	46.0	35.9	
153.300	22.9	QP	15.0	-20.2	17.7	92	100	Hori.	46.0	28.3	
631.334	22.7	QP	20.1	-18.4	24.4	322	100	Hori.	46.0	21.6	
926.505	23.0	QP	22.5	-16.4	29.1	153	100	Hori.	46.0	16.9	

CHART:WITH FACTOR ANT TYPE:-30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

SPURIOUS EMISSIONS 30 TO 960 MHz (VERTICAL)

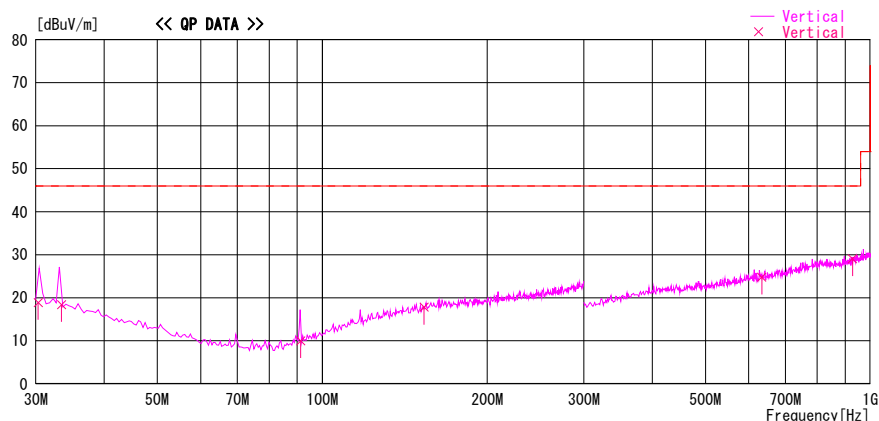
1431.975MHz

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2011/11/04

Report No. : 32CE0260-H0
Temp./Humi. : 22deg. C / 49% RH
Engineer : Tomotaka Sasagawa

Mode / Remarks : Tx 1431.975MHz



Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin	Comment
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
33.423	23.4	QP	16.7	-21.7	18.4	165	100	Vert.	46.0	27.6	
30.321	22.8	QP	17.9	-21.8	18.9	78	100	Vert.	46.0	27.1	
91.312	23.1	QP	7.9	-21.0	10.0	355	100	Vert.	46.0	36.0	
153.300	23.0	QP	15.0	-20.2	17.8	78	100	Vert.	46.0	28.2	
633.667	23.1	QP	20.1	-18.4	24.8	43	100	Vert.	46.0	21.2	
927.672	23.0	QP	22.5	-16.4	29.1	139	100	Vert.	46.0	16.9	

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

7.3. RADIATED EMISSIONS ABOVE 960 MHz

HARMONICS AND TX SPURIOUS EMISSIONS ABOVE 960 MHz 1395.025MHz

Report No. : 32CE0260-HO
Test Place : Head Office EMC Lab.
Semi Anechoic Chamber: : No. 2
Date : 2011/11/03
Temperature/Humidity : 23deg.C / 56% RH
Engineer: : Takayuki Shimada
Mode: : Tx 1395.025MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	2790.050	AV	38.8	28.0	3.1	32.0	37.9	54.0	16.1	
Hori	4185.075	AV	32.0	30.3	3.8	31.6	34.5	54.0	19.5	
Hori	5580.100	AV	29.6	32.0	4.1	31.6	34.1	54.0	19.9	
Hori	6975.125	AV	33.7	35.2	4.4	32.3	41.0	54.0	13.0	
Hori	8370.150	AV	30.3	36.6	4.9	32.9	38.9	54.0	15.1	
Hori	9765.175	AV	31.7	38.5	5.3	33.2	42.3	54.0	11.7	
Hori	11160.200	AV	34.1	39.5	-3.4	31.2	39.0	54.0	15.0	
Hori	12555.230	AV	34.2	39.3	-3.0	30.4	40.1	54.0	13.9	
Hori	13950.250	AV	34.6	40.9	-2.5	29.7	43.3	54.0	10.7	
Vert	2790.050	AV	35.5	28.0	3.1	32.0	34.6	54.0	19.4	
Vert	4185.075	AV	34.2	30.3	3.8	31.6	36.7	54.0	17.3	
Vert	5580.100	AV	29.9	32.0	4.1	31.6	34.4	54.0	19.6	
Vert	6975.125	AV	33.7	35.2	4.4	32.3	41.0	54.0	13.0	
Vert	8370.150	AV	30.3	36.6	4.9	32.9	38.9	54.0	15.1	
Vert	9765.175	AV	31.7	38.5	5.3	33.2	42.3	54.0	11.7	
Vert	11160.200	AV	34.5	39.5	-3.4	31.2	39.4	54.0	14.6	
Vert	12555.230	AV	34.3	39.3	-3.0	30.4	40.2	54.0	13.8	
Vert	13950.250	AV	34.7	40.9	-2.5	29.7	43.4	54.0	10.6	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor) - Gain(Amplifier)

HARMONICS AND TX SPURIOUS EMISSIONS ABOVE 960 MHz
1399.975MHz

Report No. : 32CE0260-HO
Test Place : Head Office EMC Lab.
Semi Anechoic Chamber: : No. 2
Date : 2011/11/03
Temperature/Humidity : 23deg.C / 56% RH
Engineer: : Takayuki Shimada
Mode: : Tx 1399.975MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	2799.950	AV	39.4	28.1	3.1	32.0	38.6	54.0	15.4	
Hori	4199.925	AV	31.4	30.3	3.8	31.6	33.9	54.0	20.1	
Hori	5599.900	AV	29.2	32.0	4.1	31.6	33.7	54.0	20.3	
Hori	6999.875	AV	33.4	35.2	4.4	32.3	40.7	54.0	13.3	
Hori	8399.850	AV	30.5	36.6	4.9	32.9	39.1	54.0	14.9	
Hori	9799.825	AV	31.8	38.6	5.3	33.2	42.5	54.0	11.5	
Hori	11199.800	AV	32.2	39.5	-3.4	31.2	37.1	54.0	16.9	
Hori	12599.780	AV	33.3	39.3	-2.9	30.4	39.3	54.0	14.7	
Hori	13999.750	AV	34.1	40.9	-2.5	29.7	42.8	54.0	11.2	
Vert	2799.950	AV	36.4	28.1	3.1	32.0	35.6	54.0	18.4	
Vert	4199.925	AV	33.5	30.3	3.8	31.6	36.0	54.0	18.0	
Vert	5599.900	AV	29.6	32.0	4.1	31.6	34.1	54.0	19.9	
Vert	6999.875	AV	34.4	35.2	4.4	32.3	41.7	54.0	12.3	
Vert	8399.850	AV	30.5	36.6	4.9	32.9	39.1	54.0	14.9	
Vert	9799.825	AV	31.8	38.6	5.3	33.2	42.5	54.0	11.5	
Vert	11199.800	AV	33.1	39.5	-3.4	31.2	38.0	54.0	16.0	
Vert	12599.780	AV	32.9	39.3	-2.9	30.4	38.9	54.0	15.1	
Vert	13999.750	AV	34.2	40.9	-2.5	29.7	42.9	54.0	11.1	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor) - Gain(Amplifier)

HARMONICS AND TX SPURIOUS EMISSIONS ABOVE 960 MHz
1427.025MHz

Report No. : 32CE0260-HO
Test Place : Head Office EMC Lab.
Semi Anechoic Chamber: : No. 2
Date : 2011/11/03
Temperature/Humidity : 23deg.C / 56% RH
Engineer: : Takayuki Shimada
Mode: : Tx 1427.025MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	2854.050	AV	41.8	28.1	3.2	32.0	41.1	54.0	12.9	
Hori	4281.075	AV	31.5	30.3	3.8	31.5	34.1	54.0	19.9	
Hori	5708.100	AV	33.0	32.2	4.2	31.6	37.8	54.0	16.2	
Hori	7135.125	AV	33.6	35.4	4.5	32.4	41.1	54.0	12.9	
Hori	8562.150	AV	31.7	36.7	4.9	33.0	40.3	54.0	13.7	
Hori	9989.175	AV	31.8	38.8	5.4	33.3	42.7	54.0	11.3	
Hori	11416.200	AV	35.2	39.2	-3.3	31.2	39.9	54.0	14.1	
Hori	12843.230	AV	33.9	39.4	-2.9	30.0	40.4	54.0	13.6	
Hori	14270.250	AV	33.2	40.8	-2.5	29.9	41.6	54.0	12.4	
Vert	2854.050	AV	40.7	28.1	3.2	32.0	40.0	54.0	14.0	
Vert	4281.075	AV	35.6	30.3	3.8	31.5	38.2	54.0	15.8	
Vert	5708.100	AV	32.7	32.2	4.2	31.6	37.5	54.0	16.5	
Vert	7135.125	AV	36.3	35.4	4.5	32.4	43.8	54.0	10.2	
Vert	8562.150	AV	32.6	36.7	4.9	33.0	41.2	54.0	12.8	
Vert	9989.175	AV	31.9	38.8	5.4	33.3	42.8	54.0	11.2	
Vert	11416.200	AV	35.0	39.2	-3.3	31.2	39.7	54.0	14.3	
Vert	12843.230	AV	34.1	39.4	-2.9	30.0	40.6	54.0	13.4	
Vert	14270.250	AV	33.5	40.8	-2.5	29.9	41.9	54.0	12.1	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor) - Gain(Amplifier)

HARMONICS AND TX SPURIOUS EMISSIONS ABOVE 960 MHz
1431.975MHz

Report No. : 32CE0260-HO
Test Place : Head Office EMC Lab.
Semi Anechoic Chamber: : No. 2
Date : 2011/11/03
Temperature/Humidity : 23deg.C / 56% RH
Engineer: : Takayuki Shimada
Mode: : Tx 1431.975MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	2863.950	AV	41.9	28.1	3.2	32.0	41.2	54.0	12.8	
Hori	4295.925	AV	31.8	30.3	3.8	31.5	34.4	54.0	19.6	
Hori	5727.900	AV	33.8	32.2	4.2	31.6	38.6	54.0	15.4	
Hori	7159.875	AV	35.3	35.4	4.5	32.4	42.8	54.0	11.2	
Hori	8591.850	AV	31.6	36.8	4.9	33.0	40.3	54.0	13.7	
Hori	10023.830	AV	39.2	38.8	-3.6	31.9	42.5	54.0	11.5	
Hori	11455.800	AV	34.4	39.2	-3.3	31.2	39.1	54.0	14.9	
Hori	12887.780	AV	35.5	39.4	-2.9	30.0	42.0	54.0	12.0	
Hori	14319.750	AV	33.6	40.8	-2.5	29.9	42.0	54.0	12.0	
Vert	2863.950	AV	41.1	28.1	3.2	32.0	40.4	54.0	13.6	
Vert	4295.925	AV	36.8	30.3	3.8	31.5	39.4	54.0	14.6	
Vert	5727.900	AV	34.2	32.2	4.2	31.6	39.0	54.0	15.0	
Vert	7159.875	AV	36.2	35.4	4.5	32.4	43.7	54.0	10.3	
Vert	8591.850	AV	32.7	36.8	4.9	33.0	41.4	54.0	12.6	
Vert	10023.830	AV	37.0	38.8	-3.6	31.9	40.3	54.0	13.7	
Vert	11455.800	AV	33.9	39.2	-3.3	31.2	38.6	54.0	15.4	
Vert	12887.780	AV	34.9	39.4	-2.9	30.0	41.4	54.0	12.6	
Vert	14319.750	AV	34.1	40.8	-2.5	29.9	42.5	54.0	11.5	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor) - Gain(Amplifier)