MEASUREMENT/TECHNICAL REPORT
FCC Part 15 Subpart C

Issued: August 7, 2008

Name and Address of the Applicant:	KYOCERAMITA Corporation 2-28,1-CHOME, TAMATSUKURI, CHUO-KU, Osaka, 540-8585 Japan
Test Item:	RFID Module
Identification:	A0330
Serial No.:	7
FCC ID:	E522H70330
Sample Receipt Date:	July 14, 2008
Test Specification:	FCC Part 15 Subpart C, 15.225
Date of Testing:	June13, July 14 and 15, 2008
Test Result:	PASS

Report Prepared by: Cosmos Corporation
2-3571 Ohnogi, Watarai-cho, Watarai-gun, Mie, Japan 516-2102
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Tested by: M. Yamanaka, Engineer — Date: August 7, 2008

Reviewed by: Y. Kawahara, Leader — Date: August 7, 2008

Notes:
1. This report should not be reproduced except in full, without the written approval of Cosmos Corporation.
2. All measurement data contained in this report may have uncertainty. A judgment for the limitation should be taken into the count.
3. The report in this report apply only to the sample tested.

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1. Description of Equipment Under Test

1.1 Product Description

Manufacturer : KYOCERAMITA Corporation
Model (referred to as the EUT) : A0330
: AC 120V
Type of Modulation : ASK
Mode of Operation : ☐ duplex ☐ 1/2 duplex ☒ simplex ☐ other
The type of the equipment : ☐ Stand-alone ☒ Combined Equipment
☐ Plug –In Card ☐ Other (Module Unit)
The type of the antenna : ☒ Integral ☐ external ☐ Other
The type of power source : ☒ AC mains ☐ Dedicated AC adapter (V)
☐ DC Voltage ☐ Battery
The type of battery (if applicable) : N/A
Type of Operation : ☐ Continuous ☐ Burst ☒ Intermittent
Stand by Mode : ☐ Available ☒ N/A
Intended functions : RFID Module Reader/Writer
The bandwidth of the IF filters : N/A
Method of Communication Link : Software to make maximum speed transmitting
The operating frequency band : 13.56 MHz
The thermal limitation : Not specified

1.2 Antenna Description

No.	Type Name	Gain	Antenna Type	Remarks
1	39221	-53 dB	Printed Loop	Originally Integrated

1.3 Accompanied Peripherals Description

No	Equipment Name	Manufacturer	Type Name	Serial Number	Remarks
1	DC Power Supply	---	---	---	AC 100～, 50/60 Hz
2	Copy machine	KYOCERA	TASK alfa 500ci	SPL8600016	AC120V, 60Hz, 12.0 A
3	Personal Computer	FUJITSU	FMV5NUBJH3	R4200405	DC19 V, 80 W
4	AC Adapter	FUJITSU	SEB100P2-19.0	Un-specified	AC 100-240 V, 50/60 Hz, 1.0 -0.4 A

2. General Information

2.1 Test Methodology

All measurement subject to the present test report is carried out according to the procedures in ANSI C63.4:2003.

2.2 Test Facility

All measurement was performed in the following facility;

Cosmos Corporation EMC Lab. Ohnogi
(2-3571 Ohaza-iwatachi, Ohnogi, Watarai-cho, Watarai-gun, Mie-ken 516-2102, Japan) The test site has been filed by FCC.

2.3 Tractability

The calibration of measurement equipment used in the test subject to the present report is designed and operated to ensure that the measurement is traceable to national standards of measurement or equivalent abroad.

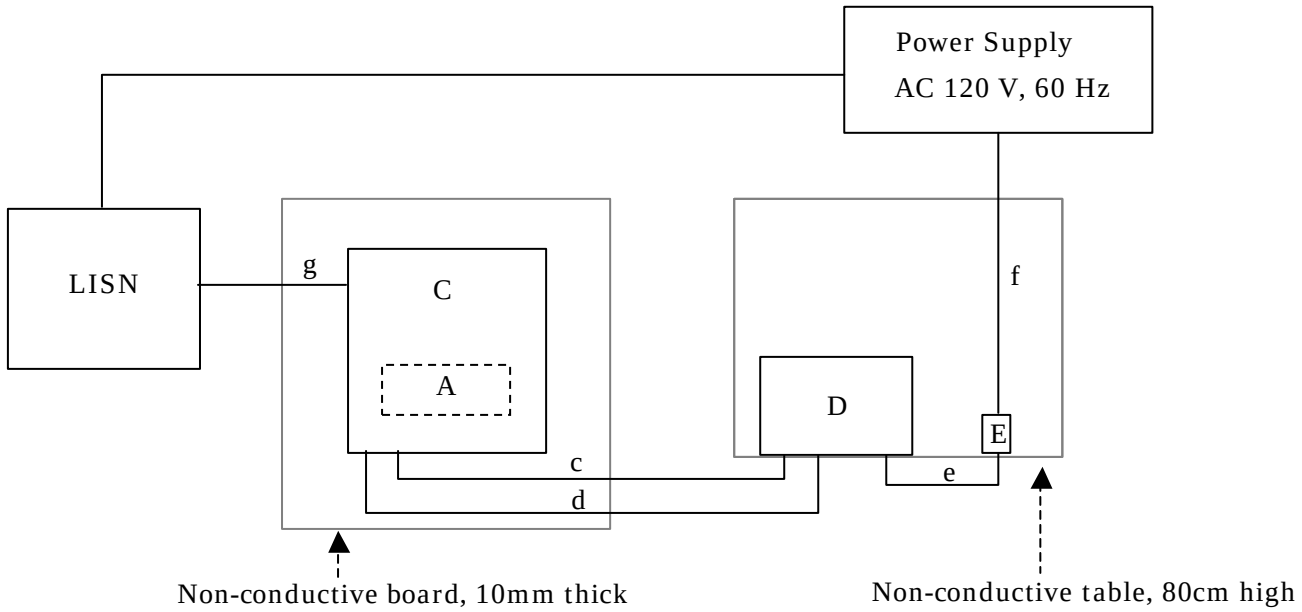
3. Summary of Test Results

No.	Requirement	RSS 210 Issue 7, RSS-Gen Issue 2 (Industry Canada)	CFR 47 Part. 15 (FCC)	Result
1	Frequency Tolerance	A2.6 – RSS 210	15.225 (e)	Pass
2	Maximum Output Power	A2.6 – RSS 210	15.225 (a)(b)(c)	Pass
3	Field Strength of Spurious Emission (Transmitter)	A2.6 – RSS 210	15.209, 15.225 (d)	Pass
4	AC Power lines Conducted Emission	7.2.2 – RSS-Gen	15.207	Pass
5	Spurious Emission (Receiver)	7.2.3 – RSS-Gen	N/A	N/A
6	Occupied Band Width(99%)	4.6.1 – RSS-Gen	N/A	N/A

4. Test Configuration

	Instrument	Model		Cable	Length	Shield
A	EUT	A0330	**a**	AC Power Cord	1.9 m	×
B	DC Power Supply	---	**b**	DC Power Cord	0.5 m	×
C	Copy machine	TASK alfa 500ci	**c**	USB Cable	1.5 m	○
D	Personal Computer	FMV5NUBJH3	**d**	LAN Cable	3.0 m	×
E	AC Adapter	SEB 100P2-19.0	**e**	DC Power Cable	1.7 m	○
			f	AC Power Cable	1.8 m	×
			g	AC Power Cable	1.8 m	×

4.1 Conducted Emission Measurement

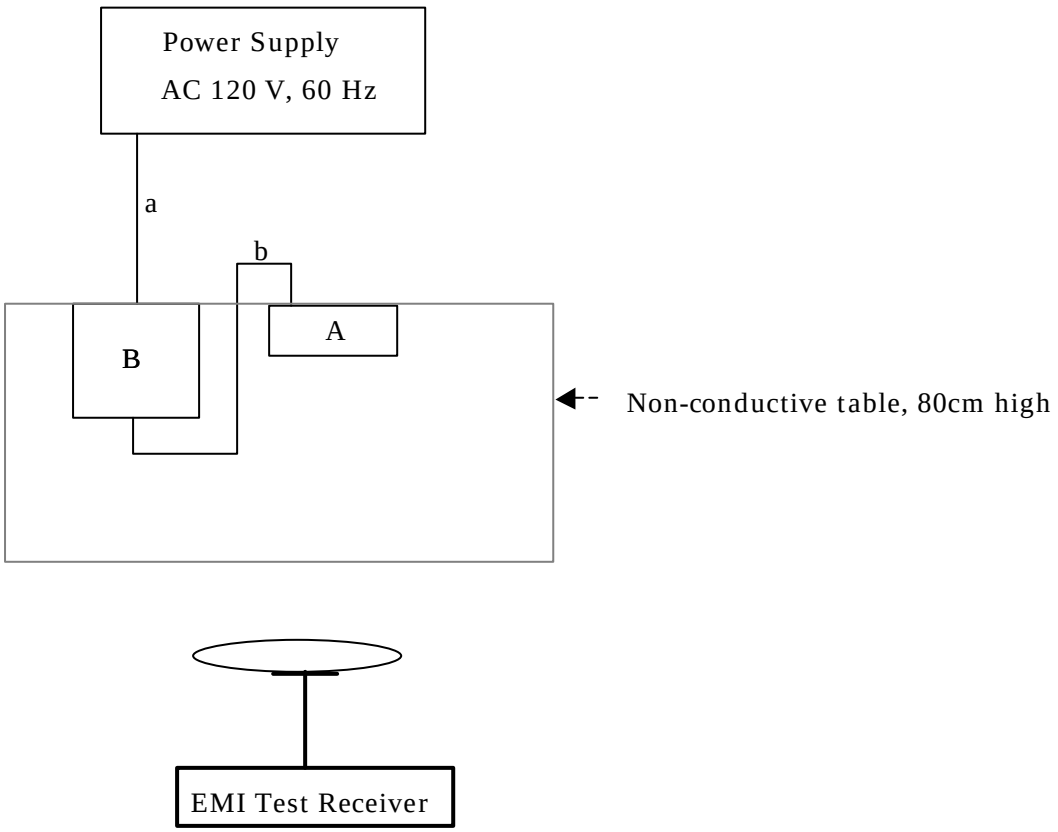


Excess cable arrangement (Conducted Emission)

Sym.	Bundle (Length / Position)	Hung
d, e	0.35 m / center	○

4. Test Configuration (Continued)

4.2 Radiated Measurement in 3m Anechoic Chamber



Antenna (Loop, Biconical and Log-periodic)

4.3 Test Mode

In all test configurations above, EUT makes communication link between the integrated RFID module and a RFID tag in a dedicated ink ribbon with the maximum RF power by a special test program.

Maximum Output Power and Frequency Tolerance measurement were performed with an external stabilized DC power supply voltage varied between 85% and 115%.

Frequency Tolerance and Maximum Output Power measurements are performed under the following condition:

Temperature: - 20℃ to +50℃
Voltage: DC 3.6 V ±15%

5. Measurement Result

5.1 15. 207 AC Power Conducted Emission

5.1.1 Setting Remarks

- Configure the EUT System in accordance with ANSI C63.4-2003.
- Non-conductive board (10mm thick) for EUT and non-conductive table (80cm high) for personal computer were used.
- Other power cord of support equipment is connected to another LISN to isolate its emission from the measured emission of EUT.
- The measuring port of LISN for support equipment was terminated by the 50O
- Activate the EUT System and run the software prepared for the test, if necessary.
- Refer to test configuration figure 4.1.

5.1.2 Minimum Standard

15. 207 (a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

5.1.3 Result

EUT complies with the requirement.

Uncertainty of measurement : ± 2.26 dB
Temperature, Humidity : 25℃ / 52%

5.1.4 Measured Data

Measured Value Table

CJ08-074389E CE FCC 15.207 TotalNoise01.CED

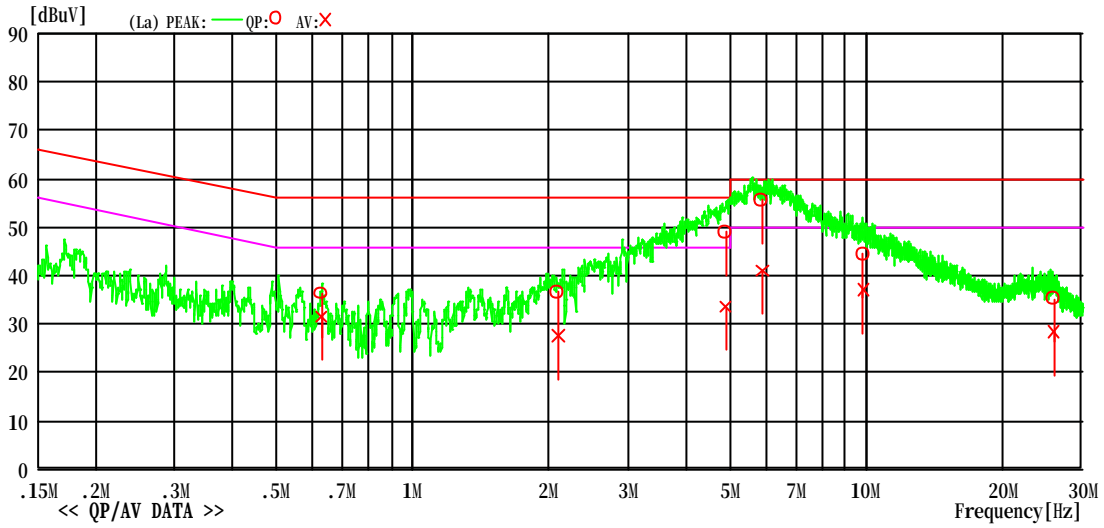
<<Conducted Emission>>

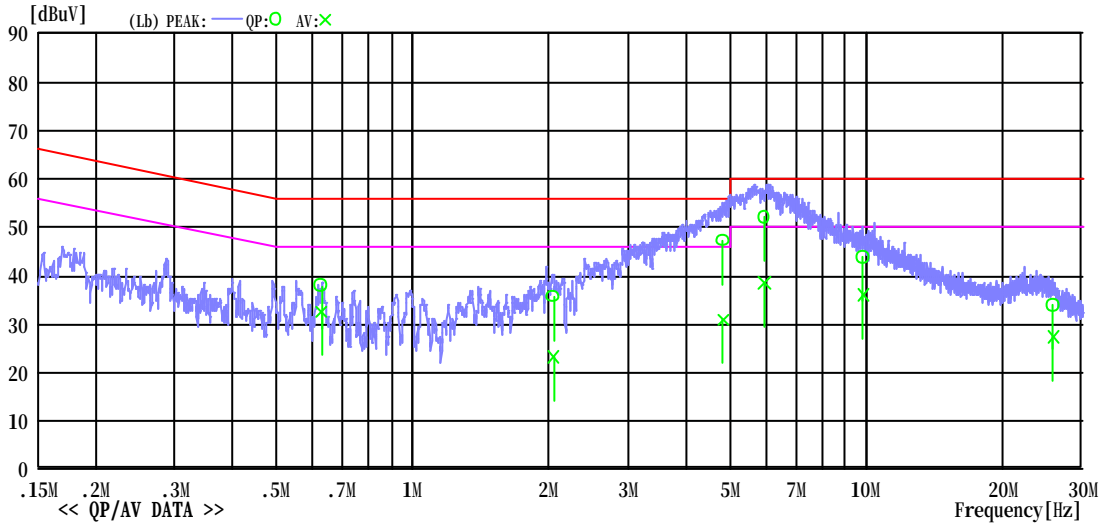
Cosmos Corporation Onoki Lab.
Date : 2008/07/15 11:51:59

Model Name	: A0330	Job No	: CJ08-074389E
Serial No.	: 7	Temp./Humi.	: 25°C/52%
Operator	: M.Yamanaka	Condition	: Operated (2ch)
Power Supply	: AC 120V,60Hz	Remark	:

Memo : RBW:9kHz(150k-30MHz)

LIMIT : FCC Part15 Sub.C 15.207 QP Limit
FCC Part15 Sub.C 15.207 AV Limit





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5.1.4 Measured Data (Continued)

Measured Value Table

CJ08-074389E CE FCC 15.207 TotalNoise01.CED

<<Conducted Emission>>

Cosmos Corporation Onoki Lab.
Date : 2008/07/15 11:51:59

Model Name : A0330
Serial No. : 7
Operator : M.Yamanaka
Power Supply : AC 120V,60Hz

Job No : CJ08-074389E
Temp./Humi. : 25°C/52%
Condition : Operated (2ch)
Remark :

Memo : RBW:9kHz(150k-30MHz)

LIMIT : FCC Part15 Sub.C 15.207 QP Limit
FCC Part15 Sub.C 15.207 AV Limit

<< QP/AV DATA >>

No	Freq.	Reading Level		C.Fac	Results		Limit		Margin		Phase	Comment
		QP	AV		QP	AV	QP	AV	QP	AV		
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	0.63121	26.3	21.6	10.0	36.3	31.6	56.0	46.0	19.7	14.4	La	
2	2.09211	26.4	17.4	10.2	36.6	27.6	56.0	46.0	19.4	18.4	La	
3	4.90531	38.3	22.9	10.6	48.9	33.5	56.0	46.0	7.1	12.5	La	
4	5.89668	45.0	30.4	10.6	55.6	41.0	60.0	50.0	4.4	9.0	La	
5	9.84858	33.6	26.4	10.8	44.4	37.2	60.0	50.0	15.6	12.8	La	
6	25.90751	23.7	17.0	11.5	35.2	28.5	60.0	50.0	24.8	21.5	La	
7	0.63061	27.8	22.5	10.0	37.8	32.5	56.0	46.0	18.2	13.5	Lb	
8	2.04762	25.4	13.1	10.2	35.6	23.3	56.0	46.0	20.4	22.7	Lb	
9	4.83376	36.7	20.5	10.5	47.2	31.0	56.0	46.0	8.8	15.0	Lb	
10	5.97424	41.4	28.0	10.6	52.0	38.6	60.0	50.0	8.0	11.4	Lb	
11	9.84918	33.0	25.4	10.7	43.7	36.1	60.0	50.0	16.3	13.9	Lb	
12	25.88466	22.4	15.8	11.5	33.9	27.3	60.0	50.0	26.1	22.7	Lb	

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5.2 15. 209 Transmitter Radiated Emissions

5.2.1 Setting Remarks

- The data lists in "5.2.4 Measured Data " list the significant emission frequencies, measured levels, correction factor (includes cable and antenna corrections), the corrected reading, plus the limit.
- In the frequency range between 9kHz to 1 GHz, the Electric Field Strength was measured in accordance with ANSI C63.4: 2003 and CISPR22: 1997.
- The test setup was made in accordance with ANSI C63.4: 2003.
- The antenna was measured at 1-4m height for 30MHz to 1GHz.
- The EUT was placed on the non-conductive table in the center of turntable. The height of this table was 0.8m.
- The measurement was carried out with both horizontal and vertical antenna polarization.
- The highest radiation from the equipment was recorded.
- Below 30MHz, a loop antenna was used at 1m height.
- By varying the configuration of the test sample and the cable routing, it was attempted to maximize the emission.
- The test receiver with Quasi Peak and Average detector is in compliance with CISPR 16-1.
- The spectrum analyzer was set-up as following;

  (Frequency range : 9kHz - 30 MHz)
  - ✓ Resolution bandwidth : 10 kHz
  - ✓ Video bandwidth : 100 kHz
  - ✓ Detector function : Peak
  - ✓ Trace Mode : Max Hold

  (Frequency range : 30 - 1000 MHz)
  - ✓ Resolution bandwidth : 100 kHz
  - ✓ Video bandwidth : 300 kHz
  - ✓ Detector function : Peak
  - ✓ Trace Mode : Max Hold

- EMI Test Receiver analyzer was set-up as following (Quasi-Peak Detector);

  - ✓ IF bandwidth : 200 Hz (9kHz - 150kHz)
  - ✓ IF bandwidth : 9 kHz (150kHz - 30MHz)
  - ✓ IF bandwidth : 120 kHz (30MHz - 1GHz)

- Refer to test configuration figure 4.2.

5.2.2 Minimum Standard

15. 225 (d) The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.

5.2.3 Result

EUT complies with the requirement.

Uncertainty of measurement result: ± 3.64 dB
Temperature, Humidity : Refer to each data table

5.2.4 Measured Data

9kHz to 30MHz (Angle1)

CJ08-074389E FCC 15.225 150k-30M TotalNoise Angle 1.MED

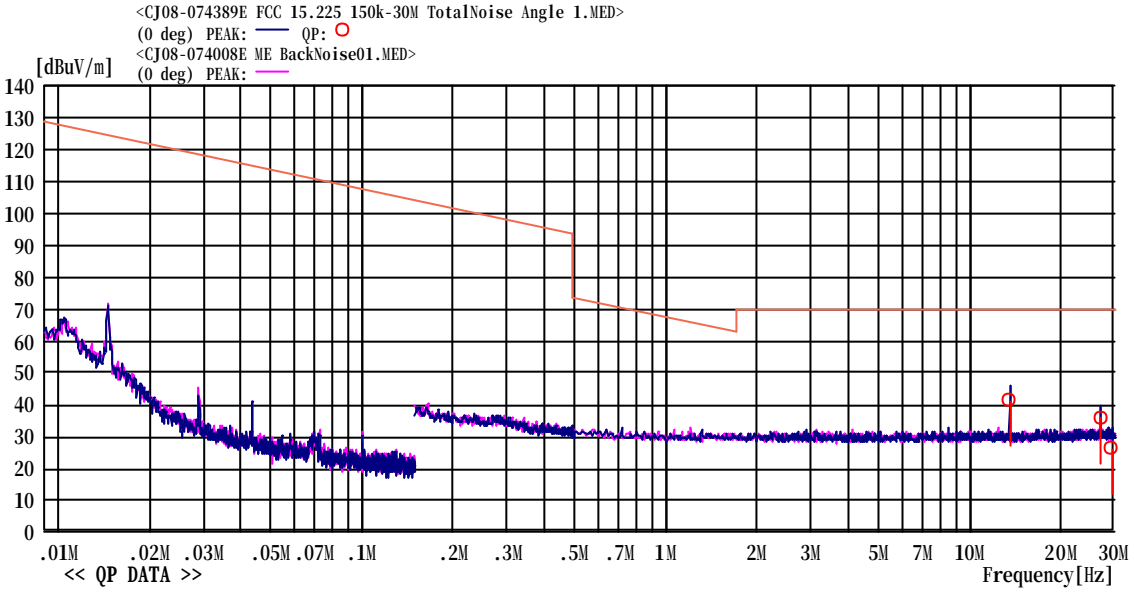
<<Electromagnetic Radiation>>

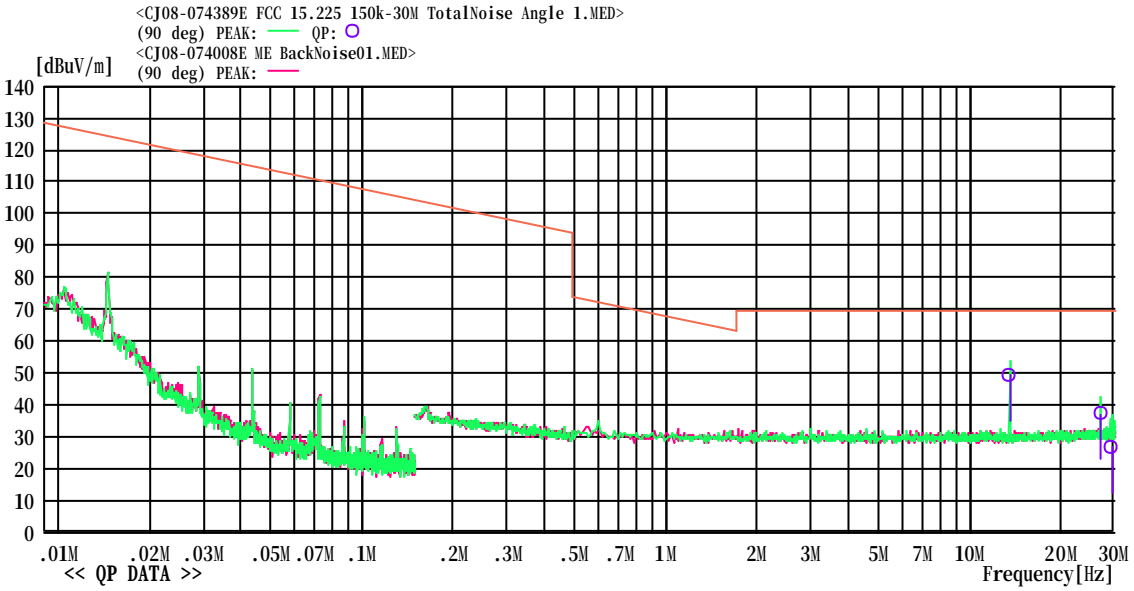
Cosmos Corporation Onoki Lab.
Date : 2008/06/13 10:35:20

Model Name	: A0330	Job No.	: CJ08-074389E
Serial No.	: 7	Temp./Humi.	: 23°C/51%
Operator	: M.Yamanaka	Condition	: Operated (2ch)
Power Supply	: AC 120 V, 60 Hz	Remark	: Angle1

Memo : RBW:200Hz(9k-150kHz),9kHz(150k-30MHz)

LIMIT : FCC Part15 SubpartC 15.209 9KHz-30MHz





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5.2.4 Measured Data (Continued)

9kHz to 30MHz (Angle 1)

CJ08-074389E FCC 15.225 150k-30M TotalNoise Angle 1.MED

<<Electromagnetic Radiation>>

Cosmos Corporation Onoki Lab.
Date : 2008/06/13 10:35:20

Model Name : A0330
Serial No. : 7
Operator : M.Yamanaka
Power Supply : AC 120 V, 60 Hz

Job No. : CJ08-074389E
Temp./Humi. : 23°C/51%
Condition : Operated (2ch)
Remark : Angle1

Memo : RBW:200Hz(9k-150kHz),9kHz(150k-30MHz)

LIMIT : FCC Part15 SubpartC 15.209 9KHz-30MHz

<< QP DATA >>

No	Freq.	Reading	Ant.Fac	Loss	Result	Limit	Margin	Antenna	Angle	Comment
	[MHz]	[dBuV]	[dB/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]		[deg]	
1	13.56094	22.0	18.4	0.8	41.2	69.5	28.3	0deg	221	Fundamental Frequency
2	27.12099	15.4	19.1	1.1	35.6	69.5	33.9	0deg	262	
3	29.54173	6.3	18.7	1.2	26.2	69.5	43.3	0deg	309	
4	13.56074	30.1	18.4	0.8	49.3	69.5	20.2	90deg	172	Fundamental Frequency
5	27.12099	17.0	19.1	1.1	37.2	69.5	32.3	90deg	220	
6	29.55676	6.8	18.7	1.2	26.7	69.5	42.8	90deg	189	

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5.2.4 Measured Data (Continued)

9kHz to 30MHz (Angle2)

CJ08-074389E FCC 15.225 150k-30M TotalNoise Angle 2.MED

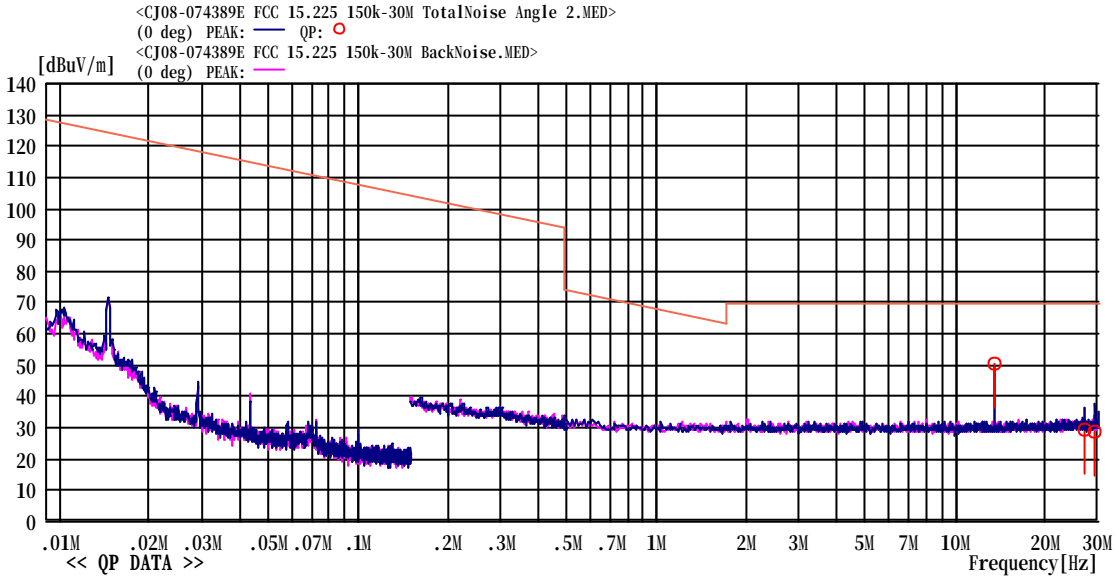
<<Electromagnetic Radiation>>

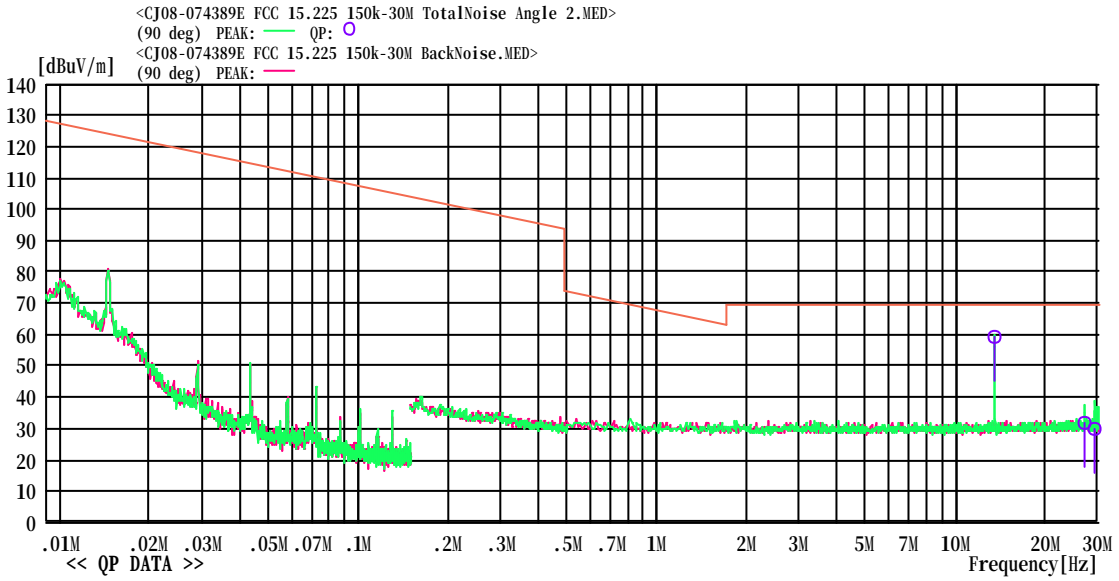
Cosmos Corporation Onoki Lab.
Date : 2008/07/14 10:45:26

Model Name	: A0330	Job No.	: CJ08-074389E
Serial No.	: 7	Temp./Humi.	: 25°C/46%
Operator	: M.Yamanaka	Condition	: Operated (2ch)
Power Supply	: AC 120 V, 60 Hz	Remark	: Angle2

Memo : RBW:200Hz(9k-150kHz),9kHz(150k-30MHz)

LIMIT : FCC Part15 SubpartC 15.209 9KHz-30MHz





-TEPTO-DV/ME Ver 1.80.0020

5.2.4 Measured Data (Continued)

9kHz to 30MHz (Angle 2)

CJ08-074389E FCC 15.225 150k-30M TotalNoise Angle 2.MED

<<Electromagnetic Radiation>>

Cosmos Corporation Onoki Lab.
Date : 2008/07/14 10:45:26

Model Name : A0330
Serial No. : 7
Operator : M.Yamanaka
Power Supply : AC 120 V, 60 Hz

Job No. : CJ08-074389E
Temp./Humi. : 25°C/46%
Condition : Operated (2ch)
Remark : Angle2

Memo : RBW:200Hz(9k-150kHz),9kHz(150k-30MHz)

LIMIT : FCC Part15 SubpartC 15.209 9KHz-30MHz

<< QP DATA >>

No	Freq. [MHz]	Reading [dBuV]	Ant.Fac [dB/m]	Loss [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Antenna	Angle [deg]	Comment
1	13.56054	31.2	18.4	0.8	50.4	69.5	19.1	0deg	218	Fundamental Frequency
2	27.12270	8.8	19.1	1.1	29.0	69.5	40.5	0deg	3	
3	29.44092	8.6	18.7	1.2	28.5	69.5	41.0	0deg	282	
4	13.56027	39.9	18.4	0.8	59.1	69.5	10.4	90deg	327	Fundamental Frequency
5	27.12124	11.3	19.1	1.1	31.5	69.5	38.0	90deg	350	
6	29.43932	9.7	18.7	1.2	29.6	69.5	39.9	90deg	359	

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5.2.4 Measured Data (Continued)

9kHz to 30MHz (Angle3)

CJ08-074389E FCC 15.225 150k-30M TotalNoise Angle 3.MED

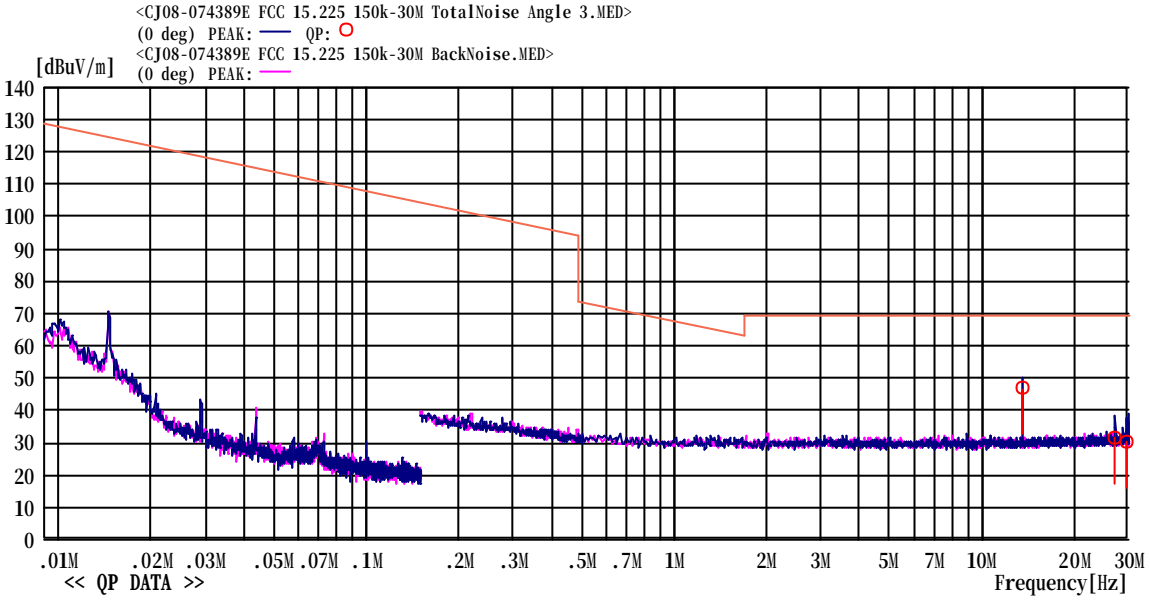
<<Electromagnetic Radiation>>

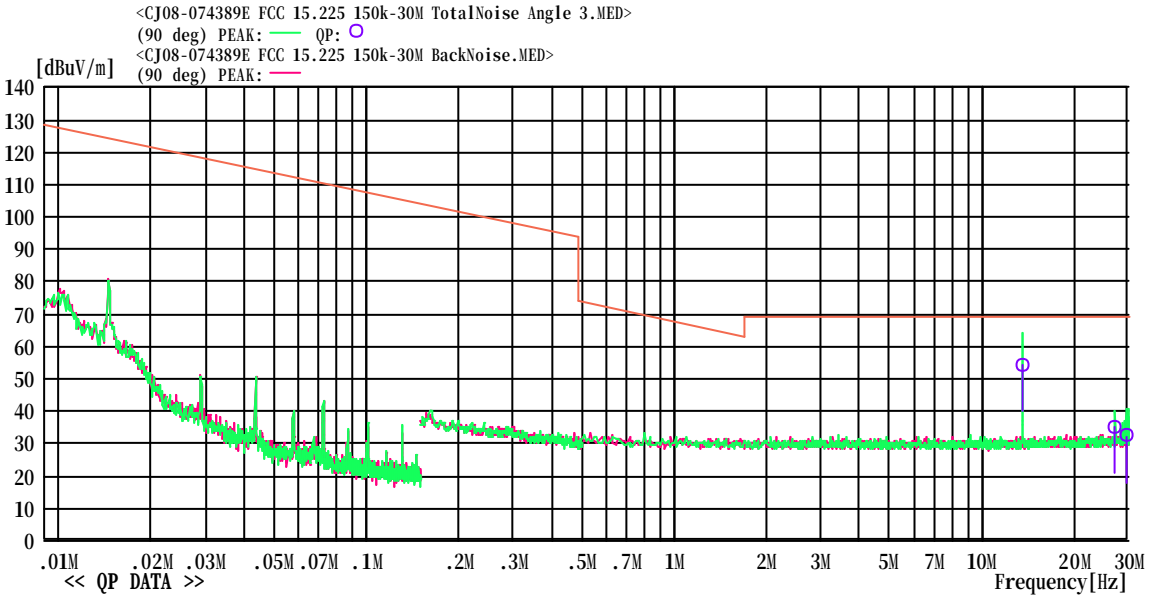
Cosmos Corporation Onoki Lab.
Date : 2008/07/14 11:21:05

Model Name	: A0330	Job No.	: CJ08-074389E
Serial No.	: 7	Temp./Humi.	: 25°C/46%
Operator	: M.Yamanaka	Condition	: Operated (2ch)
Power Supply	: AC 120 V, 60 Hz	Remark	: Angle3

Memo : RBW:200Hz(9k-150kHz),9kHz(150k-30MHz)

LIMIT : FCC Part15 SubpartC 15.209 9KHz-30MHz





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5.2.4 Measured Data (Continued)

9kHz to 30MHz (Angle 3)

CJ08-074389E FCC 15.225 150k-30M TotalNoise Angle 3.MED

<<Electromagnetic Radiation>>

Cosmos Corporation Onoki Lab.
Date : 2008/07/14 11:21:05

Model Name : A0330
Serial No. : 7
Operator : M.Yamanaka
Power Supply : AC 120 V, 60 Hz

Job No. : CJ08-074389E
Temp./Humi. : 25°C/46%
Condition : Operated (2ch)
Remark : Angle3

Memo : RBW:200Hz(9k-150kHz),9kHz(150k-30MHz)

LIMIT : FCC Part15 SubpartC 15.209 9KHz-30MHz

<< QP DATA >>

No	Freq. [MHz]	Reading [dBuV]	Ant.Fac [dB/m]	Loss [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Antenna	Angle [deg]	Comment
1	13.56084	27.6	18.4	0.8	46.8	69.5	22.7	0deg	330	Fundamental Frequency
2	27.12089	11.1	19.1	1.1	31.3	69.5	38.2	0deg	0	
3	29.64153	10.3	18.7	1.2	30.2	69.5	39.3	0deg	242	
4	13.56094	34.8	18.4	0.8	54.0	69.5	15.5	90deg	170	Fundamental Frequency
5	27.12049	15.0	19.1	1.1	35.2	69.5	34.3	90deg	186	
6	29.64193	12.2	18.7	1.2	32.1	69.5	37.4	90deg	0	

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5.2.4 Measured Data (Continued)

30MHz to 1GHz (Angle 1)

CJ08-074389E FCC 30M-1G TotalNoise Angle1.RED

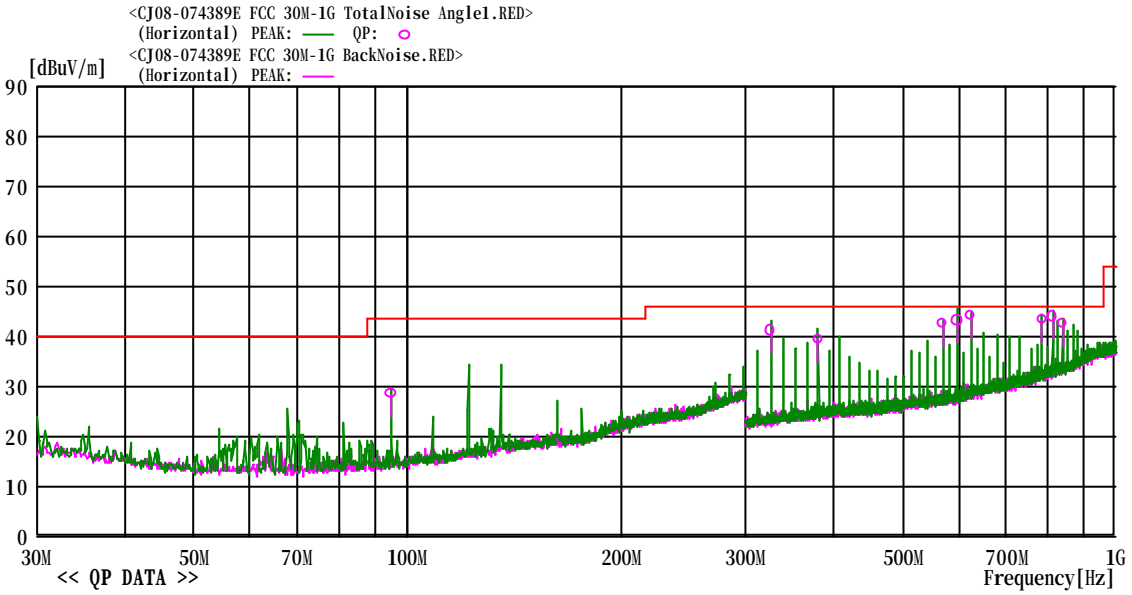
<<Radiated Emission>>

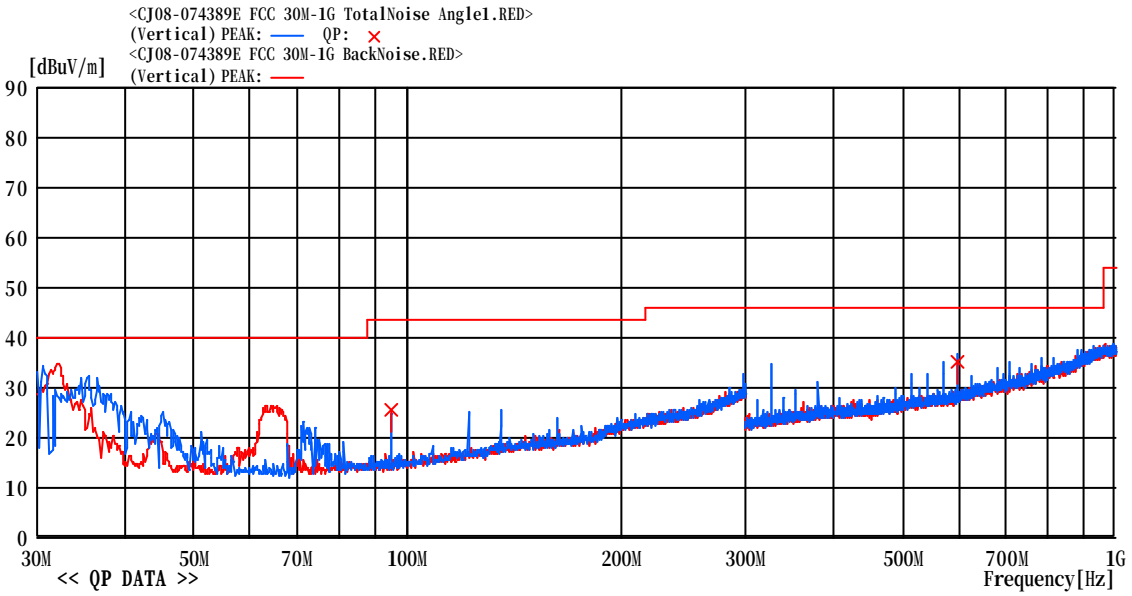
Cosmos Corporation Onoki Lab.

Model Name	: A0330	Job No	: CJ08-074389E
Serial No.	: 7	Temp./Humi.	: 25°C/46%
Operator	: M.Yamanaka	Condition	: Operated(2ch)
Power Supply	: AC 120V, 60Hz	Remark	: Angle1

Memo : RBW:100KHz (30M-1GHz)

LIMIT : Fcc15C 15_209 (3m) 30MHz-1000MHz





-TEPTO-DV/RE Ver 1.80.0020

5.2.4 Measured Data (Continued)

30MHz to 1GHz (Angle 1)

CJ08-074389E FCC 30M-1G TotalNoise Angle1.RED

<<Radiated Emission>>

Cosmos Corporation Onoki Lab.

Model Name : A0330
Serial No. : 7
Operator : M.Yamanaka
Power Supply : AC 120V, 60Hz

Job No : CJ08-074389E
Temp./Humi. : 25°C/46%
Condition : Operated(2ch)
Remark : Angle1

Memo : RBW:100KHz (30M-1GHz)

LIMIT : Fcc15C 15_209 (3m) 30MHz-1000MHz

<< QP DATA >>

No	Freq.	Reading	C.Fac	Result	Limit	Margin	Pola.	Height	Angle	Ant	Comment
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	[H/V]	[cm]	[deg]	Type	
1	94.915	42.3	-13.8	28.5	43.5	15.0	Hori.	150	73	BC	QP
2	325.446	46.9	-5.7	41.2	46.0	4.8	Hori.	150	2	LP	QP
3	379.674	44.1	-4.6	39.5	46.0	6.5	Hori.	150	0	LP	QP
4	569.524	44.8	-2.2	42.6	46.0	3.4	Hori.	157	323	LP	QP
5	596.658	45.0	-1.8	43.2	46.0	2.8	Hori.	150	23	LP	QP
6	623.772	45.4	-1.3	44.1	46.0	1.9	Hori.	139	318	LP	QP
7	786.487	42.0	1.4	43.4	46.0	2.6	Hori.	107	25	LP	QP
8	813.602	42.0	1.9	43.9	46.0	2.1	Hori.	156	26	LP	QP
9	840.737	40.1	2.5	42.6	46.0	3.4	Hori.	100	36	LP	QP
10	94.925	39.4	-13.8	25.6	43.5	17.9	Vert.	100	243	BC	QP
11	596.658	36.9	-1.8	35.1	46.0	10.9	Vert.	150	288	LP	QP

-TEPTO-DV/RE Ver 1.80.0020

5.2.4 Measured Data (Continued)

30MHz to 1GHz (Angle 2)

CJ08-074389E FCC 30M-1G TotalNoise Angle2.RED

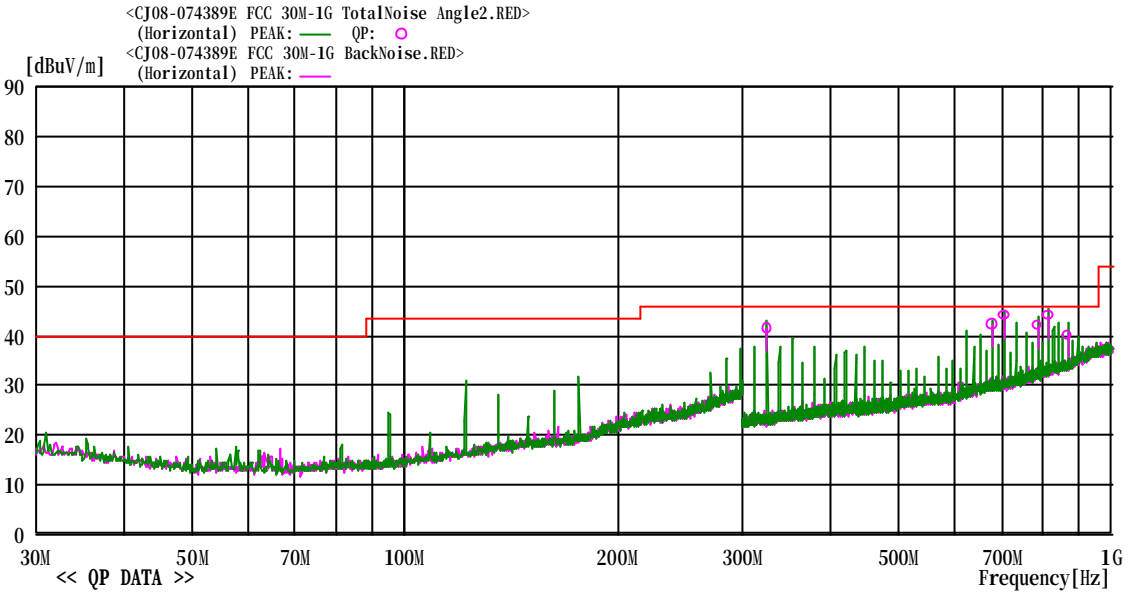
<<Radiated Emission>>

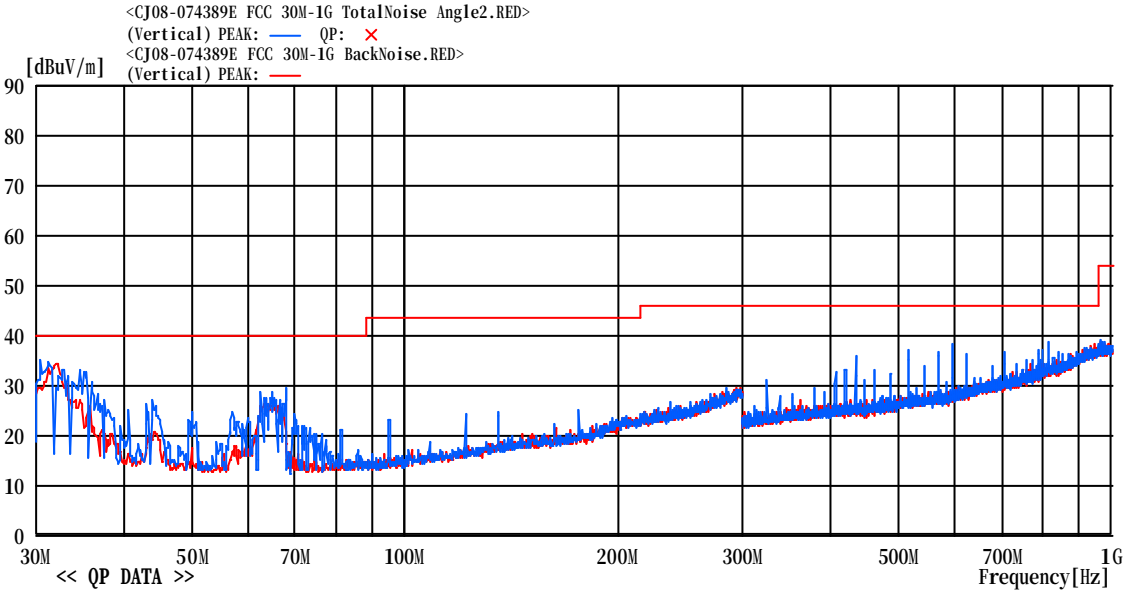
Cosmos Corporation Onoki Lab.

Model Name	: A0330	Job No	: CJ08-074389E
Serial No.	: 7	Temp./Humi.	: 25°C/44%
Operator	: M.Yamanaka	Condition	: Operated(2ch)
Power Supply	: AC 120V, 60Hz	Remark	: Angle2

Memo : RBW:100KHz (30M-1GHz)

LIMIT : Fcc15C 15_209 (3m) 30MHz-1000MHz





-TEPTO-DV/RE Ver 1.80.0020

5.2.4 Measured Data (Continued)

30MHz to 1GHz (Angle 2)

CJ08-074389E FCC 30M-1G TotalNoise Angle2.RED

<<Radiated Emission>>

Cosmos Corporation Onoki Lab.

Model Name : A0330
Serial No. : 7
Operator : M.Yamanaka
Power Supply : AC 120V, 60Hz

Job No : CJ08-074389E
Temp./Humi. : 25°C/44%
Condition : Operated(2ch)
Remark : Angle2

Memo : RBW:100KHz (30M-1GHz)

LIMIT : Fcc15C 15_209 (3m) 30MHz-1000MHz

<< QP DATA >>

No	Freq.	Reading	C.Fac	Result	Limit	Margin	Pola.	Height	Angle	Ant	Comment
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	[H/V]	[cm]	[deg]	Type	
1	325.436	47.1	-5.7	41.4	46.0	4.6	Hori.	100	358	LP	
2	678.011	42.4	-0.2	42.2	46.0	3.8	Hori.	109	193	LP	
3	705.125	43.7	0.4	44.1	46.0	1.9	Hori.	112	206	LP	
4	786.492	40.6	1.4	42.0	46.0	4.0	Hori.	100	210	LP	
5	813.602	42.0	1.9	43.9	46.0	2.1	Hori.	100	210	LP	
6	867.850	37.0	3.1	40.1	46.0	5.9	Hori.	156	216	LP	

-TEPTO-DV/RE Ver 1.80.0020

5.2.4 Measured Data (Continued)

30MHz to 1GHz (Angle 3)

CJ08-074389E FCC 30M-1G TotalNoise Angle3.RED

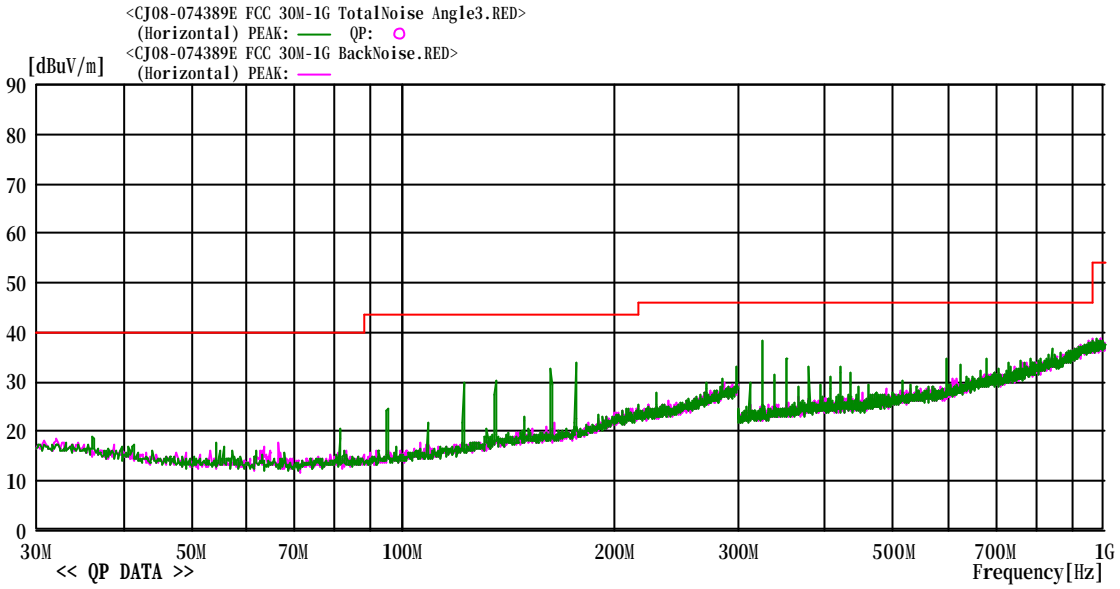
<<Radiated Emission>>

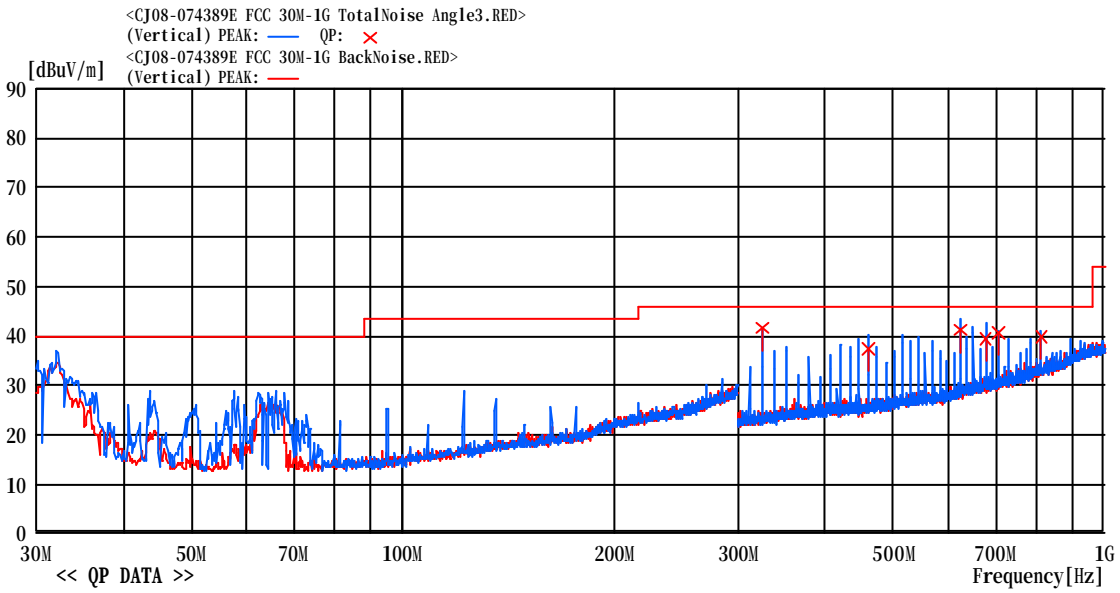
Cosmos Corporation Onoki Lab.

Model Name	: A0330	Job No	: CJ08-074389E
Serial No.	: 7	Temp./Humi.	: 25°C/44%
Operator	: M.Yamanaka	Condition	: Operated(2ch)
Power Supply	: AC 120V, 60Hz	Remark	: Angle3

Memo : RBW:100KHz (30M-1GHz)

LIMIT : Fcc15C 15_209 (3m) 30MHz-1000MHz





-TEPTO-DV/RE Ver 1.80.0020

5.2.4 Measured Data (Continued)

30MHz to 1GHz (Angle 3)

CJ08-074389E FCC 30M-1G TotalNoise Angle3.RED

<<Radiated Emission>>

Cosmos Corporation Onoki Lab.

Model Name : A0330
Serial No. : 7
Operator : M.Yamanaka
Power Supply : AC 120V, 60Hz

Job No : CJ08-074389E
Temp./Humi. : 25°C/44%
Condition : Operated(2ch)
Remark : Angle3

Memo : RBW:100KHz (30M-1GHz)

LIMIT : Fcc15C 15_209 (3m) 30MHz-1000MHz

<< QP DATA >>

No	Freq. [MHz]	Reading [dBuV]	C.Fac [dB/m]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Pola. [H/V]	Height [cm]	Angle [deg]	Ant Type	Comment
1	325.436	47.3	-5.7	41.6	46.0	4.4	Vert.	141	202	LP	
2	461.047	41.1	-3.7	37.4	46.0	8.6	Vert.	100	116	LP	
3	623.762	42.5	-1.3	41.2	46.0	4.8	Vert.	100	264	LP	
4	678.021	39.7	-0.2	39.5	46.0	6.5	Vert.	100	0	LP	
5	705.135	40.2	0.4	40.6	46.0	5.4	Vert.	134	189	LP	
6	813.612	37.9	1.9	39.8	46.0	6.2	Vert.	147	135	LP	

-TEPTO-DV/RE Ver 1.80.0020

5.3 Maximum Carrier Output Power

5.3.1 Setting Remarks

- Refer to 5.2.1
- The EUT was placed on the non-conductive table in the center of turntable.
- The highest radiation from the equipment was recorded.
- The test receiver with Quasi Peak is in compliance with CISPR 16-1.
- The measurement was carried out in a thermostatic chamber. (-20℃～+50℃)
- The spectrum analyzer was set-up as following;

✓	Frequency Span	: Appropriate to determine carrier frequency.
✓	Resolution bandwidth	: Appropriate to determine carrier frequency.
✓	Video bandwidth	: Appropriate to determine carrier frequency.
✓	Sweep	: Auto
✓	Detector function	: Peak
✓	Trace Mode	: Max Hold

- EMI Test Receiver analyzer was set-up as following (Quasi-Peak Detector);

✓	IF bandwidth	: 9 kHz

- Refer to test configuration figure 4.2.

5.3.2 Minimum Standard

15.225(a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.
(b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
(c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.

5.3.3 Result

EUT complies with the requirement.

Uncertainty of measurement result: ± 3.64 dB
Temperature, Humidity : Refer to each data table

5.3.4 Measured Data

3m distance

-20℃ (Angle 1)

Date of testing : July 15, 2008

Room temperature : 25℃

Condition: Operated (2 ch)

Relative humidity : 49%

【3.06V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	5.80	25.100	80.50	55.400
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	28.53	47.730	90.47	42.740
13.560	90	19.2	41.80	61.000	124.00	63.000
13.567	90	19.2	29.67	48.870	90.47	41.600
13.710	90	19.2	4.80	24.000	80.50	56.500
14.010	90	19.3	4.26	23.560	80.50	56.940

【3.6V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	5.56	24.860	80.50	55.640
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	30.53	49.730	90.47	40.740
13.560	90	19.2	43.95	63.150	124.00	60.850
13.567	90	19.2	31.80	51.000	90.47	39.470
13.710	90	19.2	4.26	23.460	80.50	57.040
14.010	90	19.3	4.26	23.560	80.50	56.940

【4.14V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	5.56	24.860	80.50	55.640
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	31.44	50.640	90.47	39.830
13.560	90	19.2	44.85	64.050	124.00	59.950
13.567	90	19.2	33.70	52.900	90.47	37.570
13.710	90	19.2	4.80	24.000	80.50	56.500
14.010	90	19.3	4.26	23.560	80.50	56.940

5.3.4 Measured Data (Continued)

3m distance

-20℃ (Angle 2)

Date of testing : July 15, 2008

Room temperature : 25℃

Condition: Operated (2 ch)

Relative humidity : 49%

【3.06V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	5.56	24.860	80.50	55.640
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	27.56	46.760	90.47	43.710
13.560	90	19.2	40.50	59.700	124.00	64.300
13.567	90	19.2	28.17	47.370	90.47	43.100
13.710	90	19.2	4.26	23.460	80.50	57.040
14.010	90	19.3	6.03	25.330	80.50	55.170

【3.6V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	6.69	25.990	80.50	54.510
13.410	90	19.2	4.54	23.740	80.50	56.760
13.553	90	19.2	30.20	49.400	90.47	41.070
13.560	90	19.2	43.95	63.150	124.00	60.850
13.567	90	19.2	31.80	51.000	90.47	39.470
13.710	90	19.2	4.54	23.740	80.50	56.760
14.010	90	19.3	7.30	26.600	80.50	53.900

4.14V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	5.32	24.620	80.50	55.880
13.410	90	19.2	4.54	23.740	80.50	56.760
13.553	90	19.2	30.46	49.660	90.47	40.810
13.560	90	19.2	43.80	63.000	124.00	61.000
13.567	90	19.2	31.67	50.870	90.47	39.600
13.710	90	19.2	4.54	23.740	80.50	56.760
14.010	90	19.3	5.32	24.620	80.50	55.880

5.3.4 Measured Data (Continued)

3m distance

-20℃ (Angle 3)

Date of testing : July 15, 2008

Room temperature : 25℃

Condition: Operated (2 ch)

Relative humidity : 49%

【3.06V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	6.03	25.330	80.50	55.170
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	28.08	47.280	90.47	43.190
13.560	90	19.2	41.54	60.740	124.00	63.260
13.567	90	19.2	28.85	48.050	90.47	42.420
13.710	90	19.2	4.26	23.460	80.50	57.040
14.010	90	19.3	5.80	25.100	80.50	55.400

【3.6V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	6.03	25.330	80.50	55.170
13.410	90	19.2	4.54	23.740	80.50	56.760
13.553	90	19.2	29.88	49.080	90.47	41.390
13.560	90	19.2	43.37	62.570	124.00	61.430
13.567	90	19.2	31.10	50.300	90.47	40.170
13.710	90	19.2	4.80	24.000	80.50	56.500
14.010	90	19.3	6.03	25.330	80.50	55.170

【4.14V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	5.06	24.360	80.50	56.140
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	29.37	48.570	90.47	41.900
13.560	90	19.2	42.87	62.070	124.00	61.930
13.567	90	19.2	31.39	50.590	90.47	39.880
13.710	90	19.2	4.54	23.740	80.50	56.760
14.010	90	19.3	4.54	23.840	80.50	56.660

5.3.4 Measured Data (Continued)

3m distance

25℃ (Angle1)

Date of testing : July 14, 2008

Room temperature : 26℃

Condition: Operated (2 ch)

Relative humidity : 42%

【3.06V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	5.56	24.860	80.50	55.640
13.410	90	19.2	4.54	23.740	80.50	56.760
13.553	90	19.2	28.89	48.090	90.47	42.380
13.560	90	19.2	42.15	61.350	124.00	62.650
13.567	90	19.2	29.95	49.150	90.47	41.320
13.710	90	19.2	4.54	23.740	80.50	56.760
14.010	90	19.3	4.54	23.840	80.50	56.660

【3.6V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	5.56	24.860	80.50	55.640
13.410	90	19.2	4.54	23.740	80.50	56.760
13.553	90	19.2	31.25	50.450	90.47	40.020
13.560	90	19.2	44.56	63.760	124.00	60.240
13.567	90	19.2	32.54	51.740	90.47	38.730
13.710	90	19.2	4.80	24.000	80.50	56.500
14.010	90	19.3	4.54	23.840	80.50	56.660

【4.14V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	5.80	25.100	80.50	55.400
13.410	90	19.2	4.80	24.000	80.50	56.500
13.553	90	19.2	31.70	50.900	90.47	39.570
13.560	90	19.2	45.06	64.260	124.00	59.740
13.567	90	19.2	33.14	52.340	90.47	38.130
13.710	90	19.2	4.80	24.000	80.50	56.500
14.010	90	19.3	4.26	23.560	80.50	56.940

5.3.4 Measured Data (Continued)

3m distance

25℃ (Angle2)

Date of testing : July 14, 2008

Room temperature : 26℃

Condition: Operated (2 ch)

Relative humidity : 42%

【3.06V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dBμV]	Peak Power [dBμV/m]	Limit [dBμV/m]	Margin[dB]
13.110	90	19.3	5.32	24.620	80.50	55.880
13.410	90	19.2	4.54	23.740	80.50	56.760
13.553	90	19.2	26.98	46.180	90.47	44.290
13.560	90	19.2	40.32	59.520	124.00	64.480
13.567	90	19.2	28.47	47.670	90.47	42.800
13.710	90	19.2	4.54	23.740	80.50	56.760
14.010	90	19.3	4.54	23.840	80.50	56.660

【3.6V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dBμV]	Peak Power [dBμV/m]	Limit [dBμV/m]	Margin[dB]
13.110	90	19.3	5.06	24.360	80.50	56.140
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	28.84	48.040	90.47	42.430
13.560	90	19.2	42.10	61.300	124.00	62.700
13.567	90	19.2	31.15	50.350	90.47	40.120
13.710	90	19.2	4.26	23.460	80.50	57.040
14.010	90	19.3	4.26	23.560	80.50	56.940

【4.14V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dBμV]	Peak Power [dBμV/m]	Limit [dBμV/m]	Margin[dB]
13.110	90	19.3	5.32	24.620	80.50	55.880
13.410	90	19.2	4.54	23.740	80.50	56.760
13.553	90	19.2	29.90	49.100	90.47	41.370
13.560	90	19.2	43.21	62.410	124.00	61.590
13.567	90	19.2	31.26	50.460	90.47	40.010
13.710	90	19.2	4.54	23.740	80.50	56.760
14.010	90	19.3	4.54	23.840	80.50	56.660

5.3.4 Measured Data (Continued)

3m distance

25℃ (Angle3)

Date of testing : July 14, 2008

Room temperature : 26℃

Condition: Operated (2 ch)

Relative humidity : 42%

【3.06V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dBμV]	Peak Power [dBμV/m]	Limit [dBμV/m]	Margin[dB]
13.110	90	19.3	5.56	24.860	80.50	55.640
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	26.28	45.480	90.47	44.990
13.560	90	19.2	39.39	58.590	124.00	65.410
13.567	90	19.2	27.67	46.870	90.47	43.600
13.710	90	19.2	4.80	24.000	80.50	56.500
14.010	90	19.3	4.54	23.840	80.50	56.660

【3.6V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dBμV]	Peak Power [dBμV/m]	Limit [dBμV/m]	Margin[dB]
13.110	90	19.3	5.32	24.620	80.50	55.880
13.410	90	19.2	4.54	23.740	80.50	56.760
13.553	90	19.2	27.36	46.560	90.47	43.910
13.560	90	19.2	40.64	59.840	124.00	64.160
13.567	90	19.2	29.21	48.410	90.47	42.060
13.710	90	19.2	4.54	23.740	80.50	56.760
14.010	90	19.3	4.54	23.840	80.50	56.660

【4.14V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dBμV]	Peak Power [dBμV/m]	Limit [dBμV/m]	Margin[dB]
13.110	90	19.3	5.32	24.620	80.50	55.880
13.410	90	19.2	4.54	23.740	80.50	56.760
13.553	90	19.2	28.70	47.900	90.47	42.570
13.560	90	19.2	42.04	61.240	124.00	62.760
13.567	90	19.2	31.05	50.250	90.47	40.220
13.710	90	19.2	4.54	23.740	80.50	56.760
14.010	90	19.3	4.54	23.840	80.50	56.660

5.3.4 Measured Data (Continued)

3m distance

+50℃ (Angle 1)

Date of testing : July 15, 2008

Room temperature : 25℃

Condition: Operated (2 ch)

Relative humidity : 49%

【3.06V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dBμV]	Peak Power [dBμV/m]	Limit [dBμV/m]	Margin[dB]
13.110	90	19.3	5.32	24.620	80.50	55.880
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	29.13	48.330	90.47	42.140
13.560	90	19.2	42.14	61.340	124.00	62.660
13.567	90	19.2	30.63	49.830	90.47	40.640
13.710	90	19.2	4.54	23.740	80.50	56.760
14.010	90	19.3	5.06	24.360	80.50	56.140

【3.6V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dBμV]	Peak Power [dBμV/m]	Limit [dBμV/m]	Margin[dB]
13.110	90	19.3	5.56	24.860	80.50	55.640
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	30.92	50.120	90.47	40.350
13.560	90	19.2	43.92	63.120	124.00	60.880
13.567	90	19.2	31.57	50.770	90.47	39.700
13.710	90	19.2	4.26	23.460	80.50	57.040
14.010	90	19.3	5.06	24.360	80.50	56.140

【4.14V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dBμV]	Peak Power [dBμV/m]	Limit [dBμV/m]	Margin[dB]
13.110	90	19.3	5.56	24.860	80.50	55.640
13.410	90	19.2	4.54	23.740	80.50	56.760
13.553	90	19.2	31.98	51.180	90.47	39.290
13.560	90	19.2	45.24	64.440	124.00	59.560
13.567	90	19.2	32.93	52.130	90.47	38.340
13.710	90	19.2	4.54	23.740	80.50	56.760
14.010	90	19.3	4.80	24.100	80.50	56.400

5.3.4 Measured Data (Continued)

3m distance

+50℃ (Angle 2)

Date of testing : July 15, 2008

Room temperature : 25℃

Condition: Operated (2 ch)

Relative humidity : 49%

【3.06V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	5.06	24.360	80.50	56.140
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	28.48	47.680	90.47	42.790
13.560	90	19.2	41.27	60.470	124.00	63.530
13.567	90	19.2	28.79	47.990	90.47	42.480
13.710	90	19.2	5.06	24.260	80.50	56.240
14.010	90	19.3	4.54	23.840	80.50	56.660

【3.6V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	5.06	24.360	80.50	56.140
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	30.04	49.240	90.47	41.230
13.560	90	19.2	43.03	62.230	124.00	61.770
13.567	90	19.2	31.06	50.260	90.47	40.210
13.710	90	19.2	4.54	23.740	80.50	56.760
14.010	90	19.3	4.54	23.840	80.50	56.660

【4.14V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dB μ V]	Peak Power [dB μ V/m]	Limit [dB μ V/m]	Margin[dB]
13.110	90	19.3	5.06	24.360	80.50	56.140
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	31.17	50.370	90.47	40.100
13.560	90	19.2	44.28	63.480	124.00	60.520
13.567	90	19.2	33.13	52.330	90.47	38.140
13.710	90	19.2	4.54	23.740	80.50	56.760
14.010	90	19.3	4.54	23.840	80.50	56.660

5.3.4 Measured Data (Continued)

3m distance

+50℃ (Angle 3)

Date of testing : July 15, 2008

Room temperature : 25℃

Condition: Operated (2 ch)

Relative humidity : 49%

【3.06V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dBμV]	Peak Power [dBμV/m]	Limit [dBμV/m]	Margin[dB]
13.110	90	19.3	4.54	23.840	80.50	56.660
13.410	90	19.2	3.98	23.180	80.50	57.320
13.553	90	19.2	26.96	46.160	90.47	44.310
13.560	90	19.2	39.78	58.980	124.00	65.020
13.567	90	19.2	27.32	46.520	90.47	43.950
13.710	90	19.2	4.54	23.740	80.50	56.760
14.010	90	19.3	4.26	23.560	80.50	56.940

【3.6V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dBμV]	Peak Power [dBμV/m]	Limit [dBμV/m]	Margin[dB]
13.110	90	19.3	4.54	23.840	80.50	56.660
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	28.53	47.730	90.47	42.740
13.560	90	19.2	41.50	60.700	124.00	63.300
13.567	90	19.2	29.00	48.200	90.47	42.270
13.710	90	19.2	4.26	23.460	80.50	57.040
14.010	90	19.3	4.26	23.560	80.50	56.940

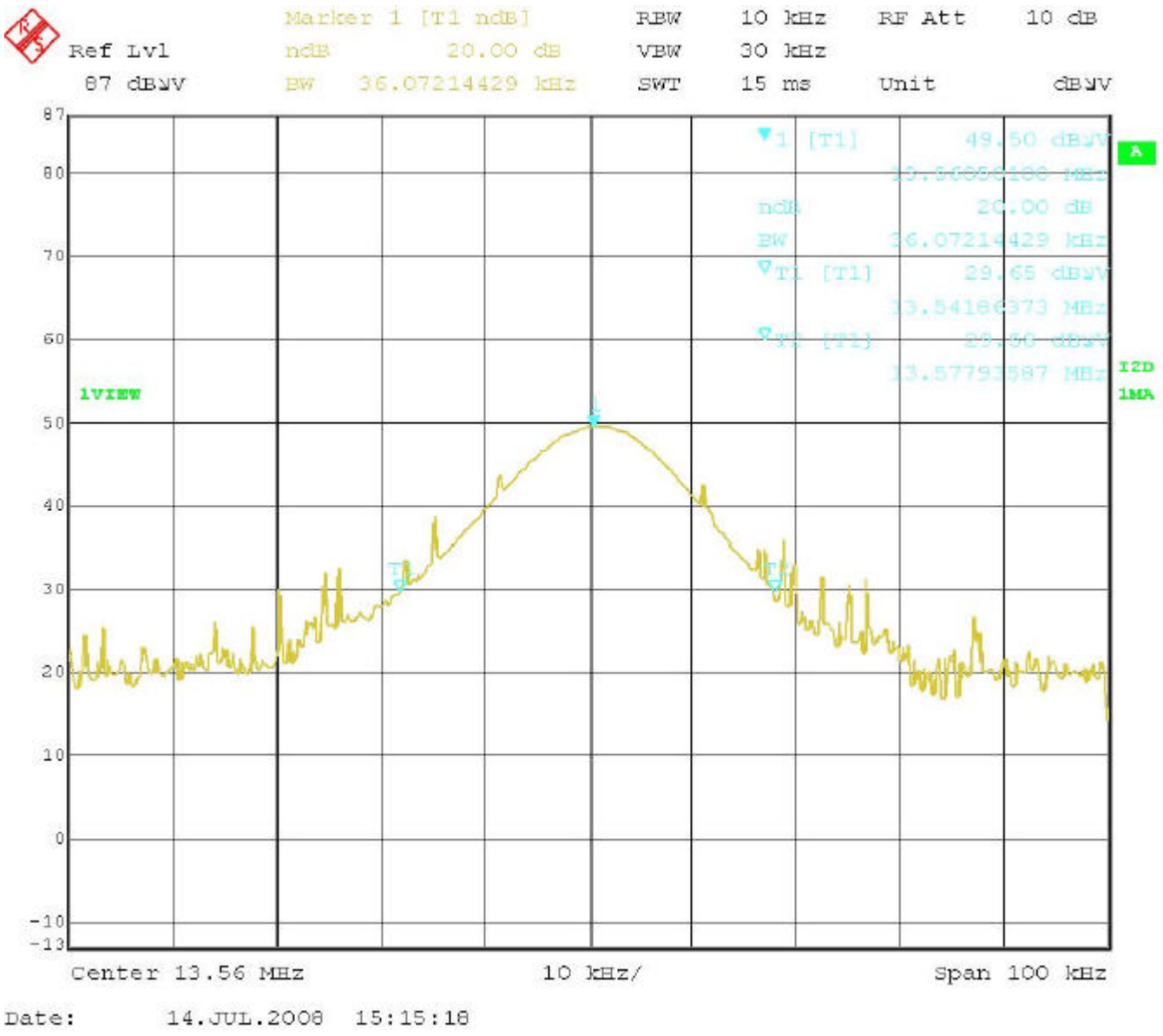
【4.14V DC】

Frequency [MHz]	Polarization [°]	Correction Factor [dB]	Reading [dBμV]	Peak Power [dBμV/m]	Limit [dBμV/m]	Margin[dB]
13.110	90	19.3	4.26	23.560	80.50	56.940
13.410	90	19.2	4.26	23.460	80.50	57.040
13.553	90	19.2	29.58	48.780	90.47	41.690
13.560	90	19.2	42.68	61.880	124.00	62.120
13.567	90	19.2	30.20	49.400	90.47	41.070
13.710	90	19.2	4.26	23.460	80.50	57.040
14.010	90	19.3	4.26	23.560	80.50	56.940

5.3.4 Measured Data (Continued)

3m distance

Carrier Spectrum (20 dB BW)



▼1 [T1]		49.50 dBuV
	13.56050100 MHz	
ndB		20.00 dB
BW	36.07214429 kHz	
▽T1 [T1]		29.65 dBuV
	13.54186373 MHz	
▽T2 [T1]		29.50 dBuV
	13.57793587 MHz	

5.4 Frequency Tolerance

5.4.1 Setting Remarks

- Refer to setting remarks 5.3.1.
- Refer to test configuration figure 4.2.
- With an environmental test chamber, EUT is exposed in extreme temperatures until its temperature is stabilized. (Approximately 30 minutes) Then EUT is on with nominal AC voltage or installed a fully charged battery or DC voltage.

5.4.2 Minimum Standard

15.225(e) The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% of the operating frequency over a temperature variation of –20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

5.4.3 Result

EUT complies with the requirement.

Uncertainty of measurement result: ± 1 Hz

5.4.4 Measured Data

Date of testing : July 14, 2008
Room temperature : 26℃
Condition: Operated (2 ch) Relative humidity : 42%

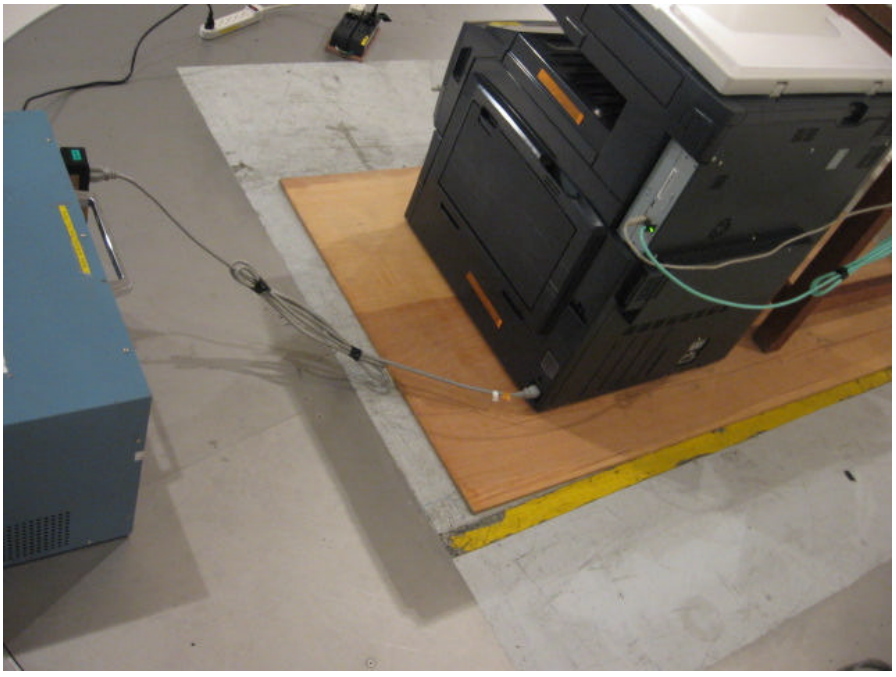
Temp [°C]	P/S [VDC]	Frequency [Hz]	Limit [±Hz]	Offset from the CF [Hz]	Limit [%]	Error[%]
Center Frequency		13,560,000				
25	3.06	13560410	1356.00	410	±0.01	0.003
25	3.60	13560350	1356.00	350	±0.01	0.003
25	4.14	13560270	1356.00	270	±0.01	0.002
-20	3.06	13560330	1356.00	330	±0.01	0.002
-20	3.60	13560280	1356.00	280	±0.01	0.002
-20	4.14	13560280	1356.00	280	±0.01	0.002
50	3.06	13560610	1356.00	610	±0.01	0.004
50	3.60	13560740	1356.00	740	±0.01	0.005
50	4.14	13560770	1356.00	770	±0.01	0.006

6. Photos

6.1 Setup Photo (Conducted Emission)

Front View

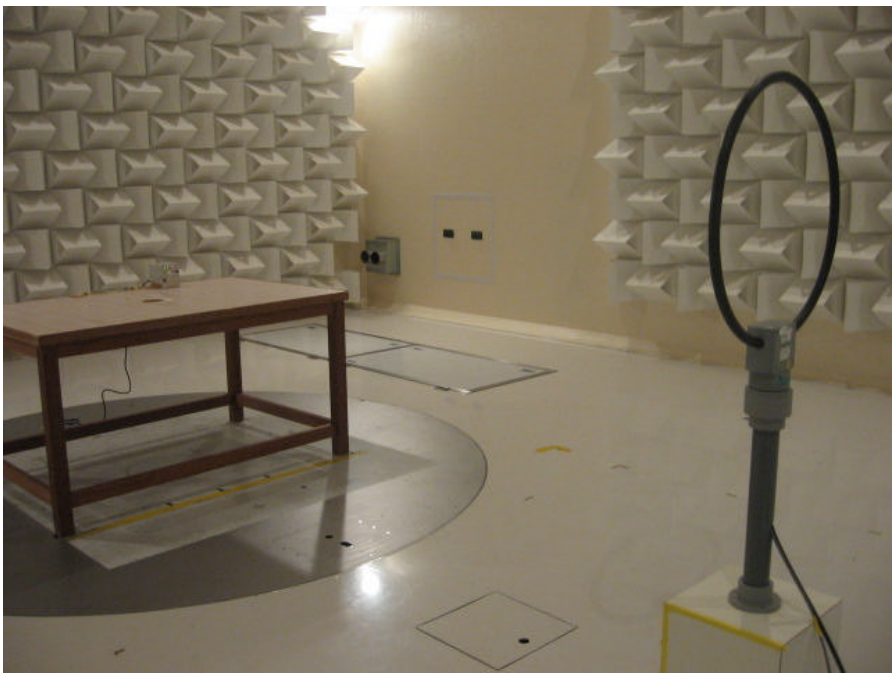
Side View



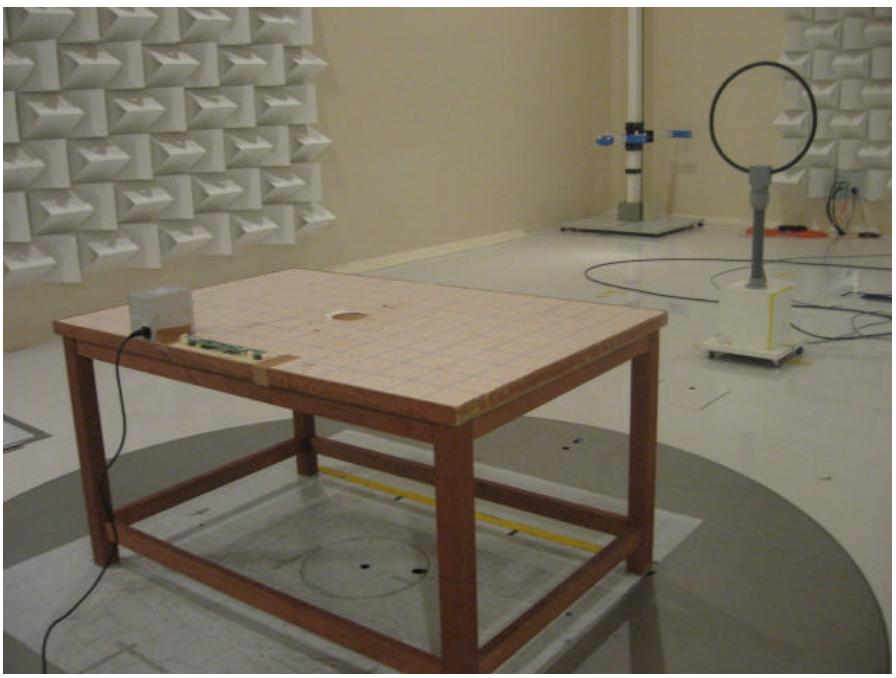
6.2 Setup Photo

(Radiated Emission, Maximum Carrier Output power, Frequency Tolerance)

Front View (9kHz - 30MHz / Angle 1)



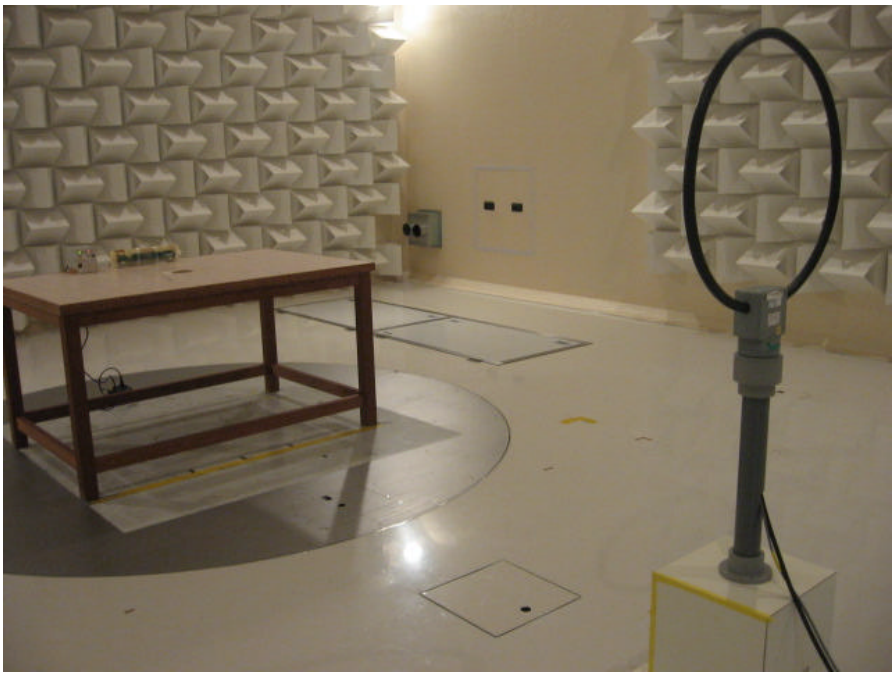
Rear View (9kHz - 30MHz / Angle 1)



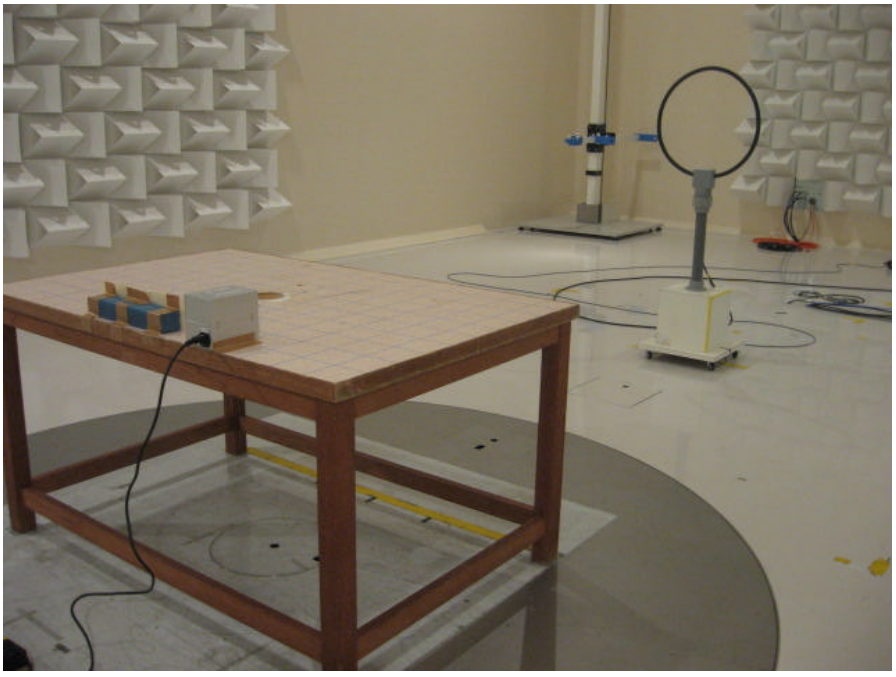
6.2 Setup Photo (Continued)

(Radiated Emission, Maximum Carrier Output power, Frequency Tolerance)

Front View (9kHz - 30MHz / Angle 2)

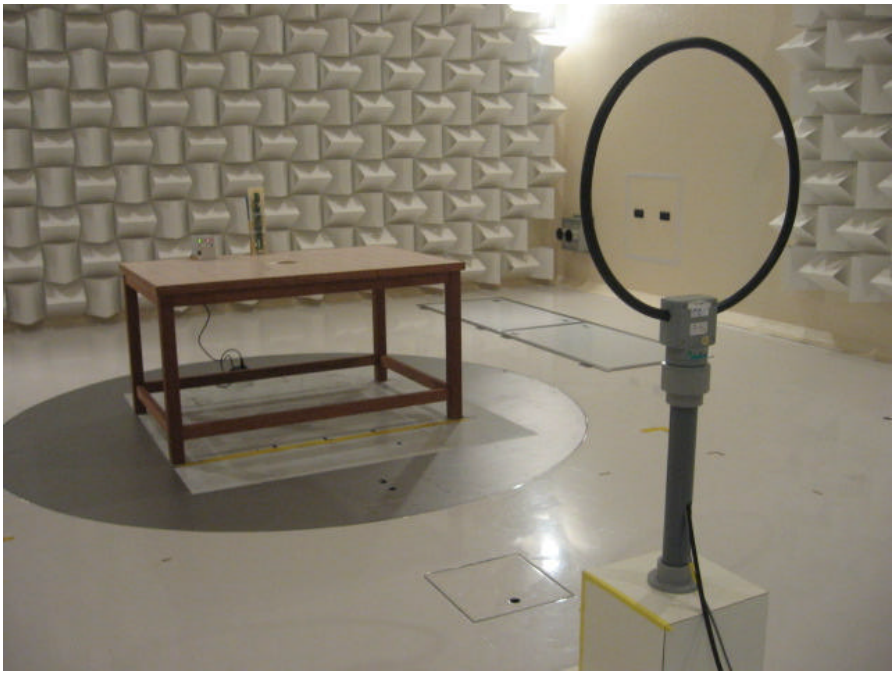


Rear View (9kHz - 30MHz / Angle 2)

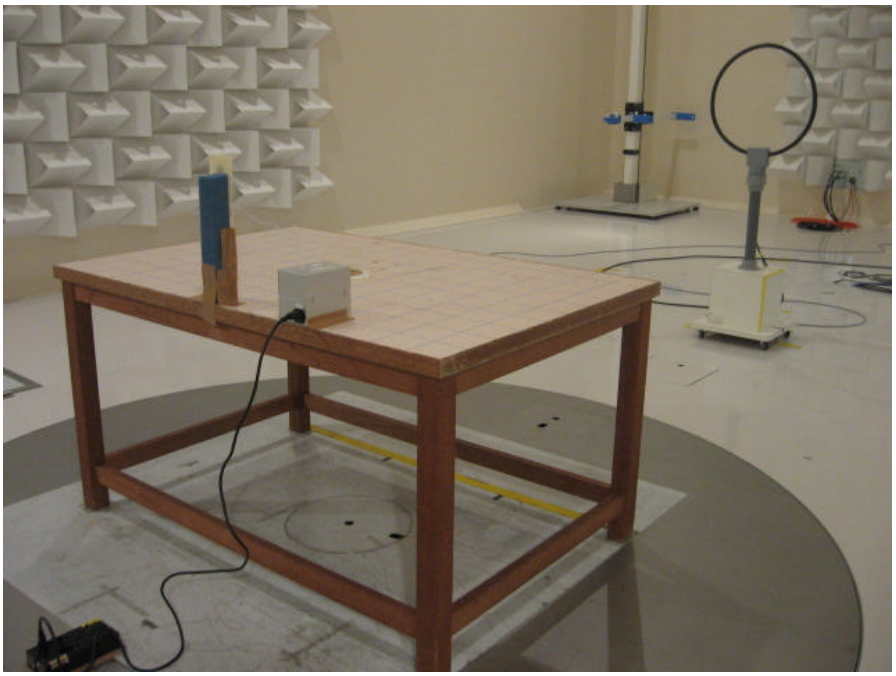


6.2 Setup Photo (Continued)
(Radiated Emission, Maximum Carrier Output power, Frequency Tolerance)

Front View (9kHz - 30MHz / Angle 3)

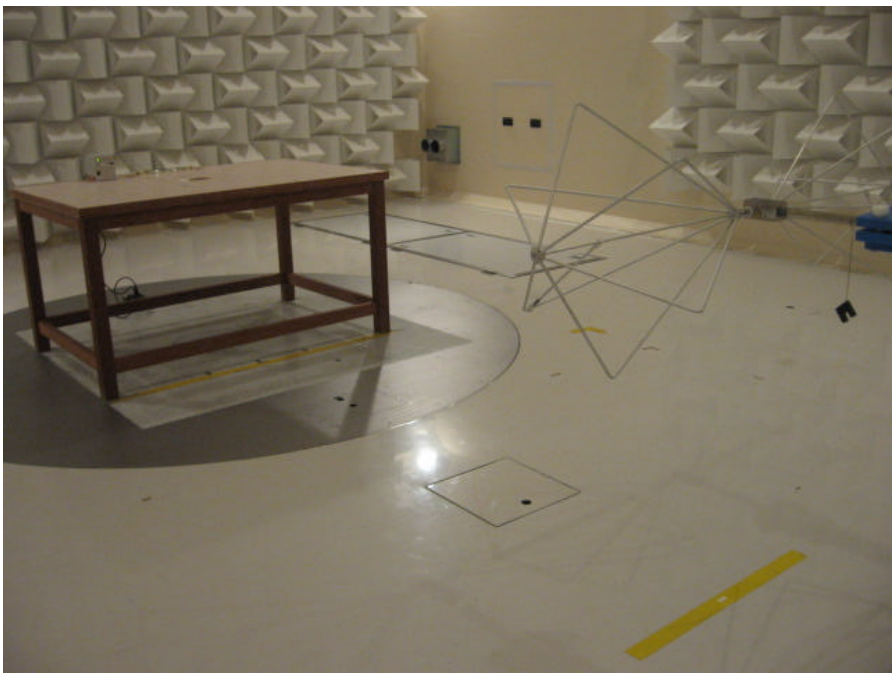


Rear View (9kHz - 30MHz / Angle 3)

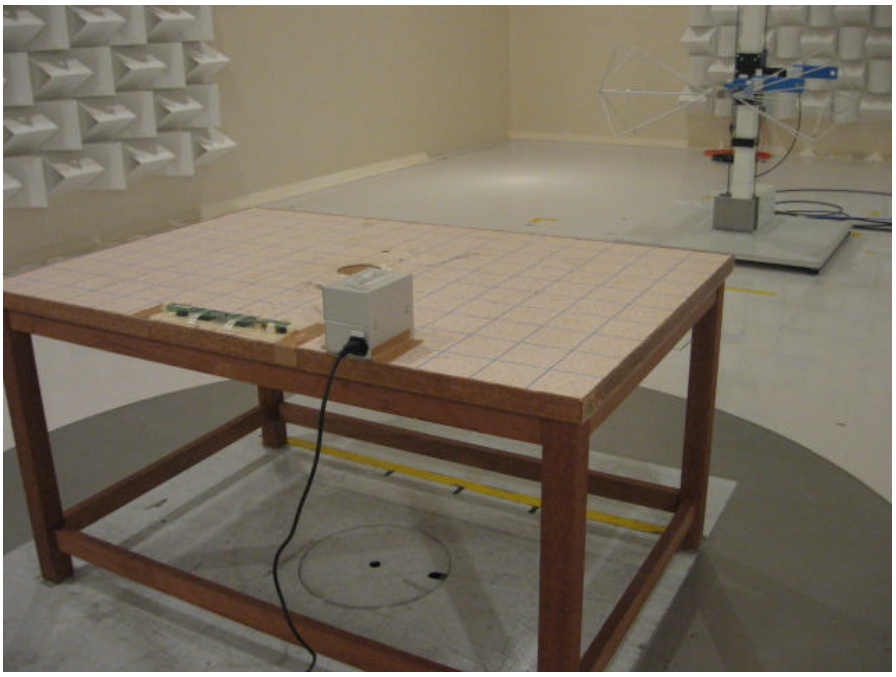


6.2 Setup Photo (Continued)
(Radiated Emission)

Front View (Above 30MHz / Angle 1)



Rear View (Above 30MHz / Angle 1)



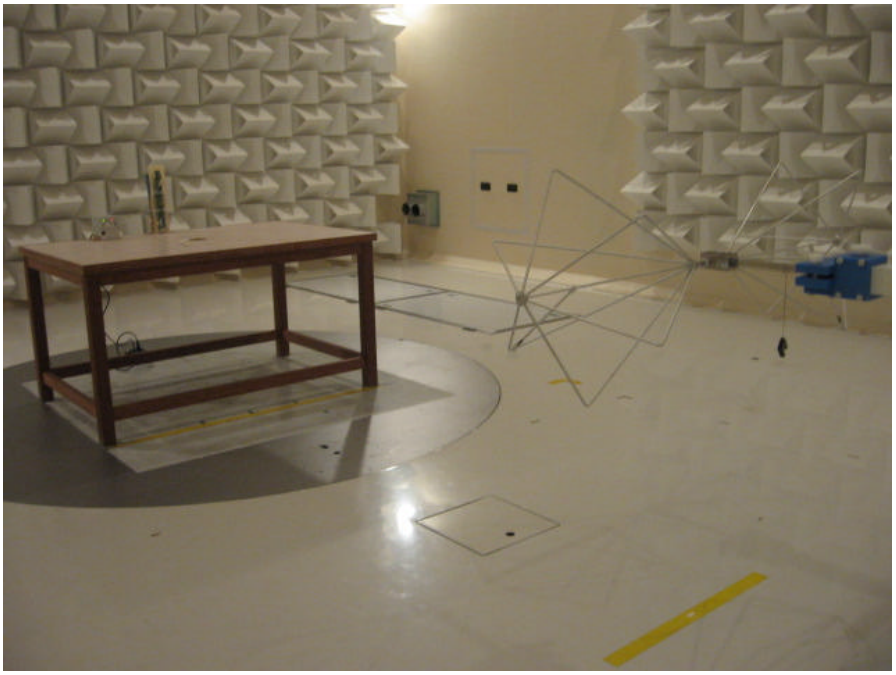
6.2 Setup Photo (Continued)
(Radiated Emission)

Front View (Above 30MHz / Angle 2)

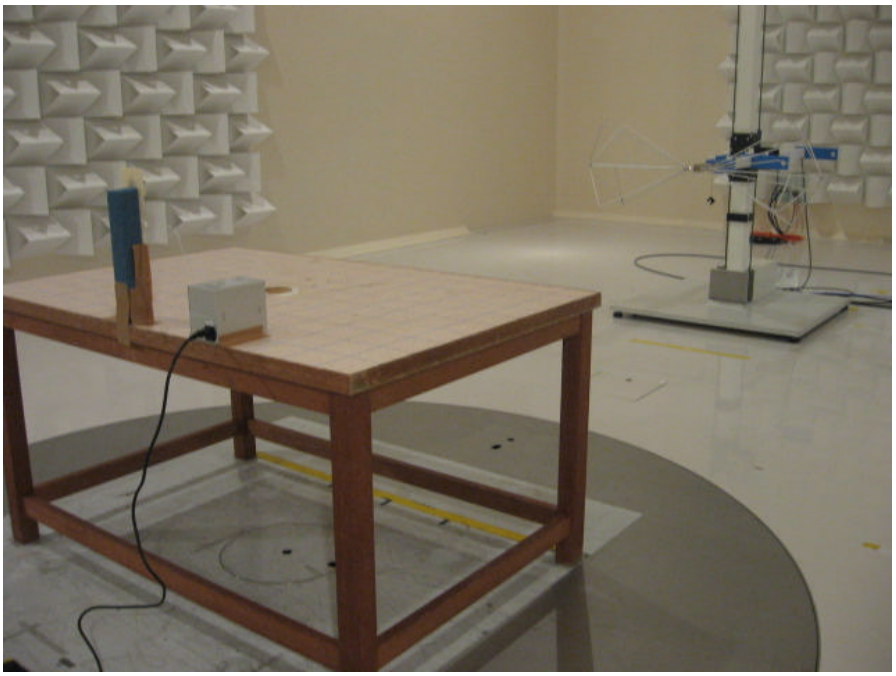
Rear View (Above 30MHz / Angle 2)

6.2 Setup Photo (Continued)
(Radiated Emission)

Front View (Above 30MHz / Angle 3)

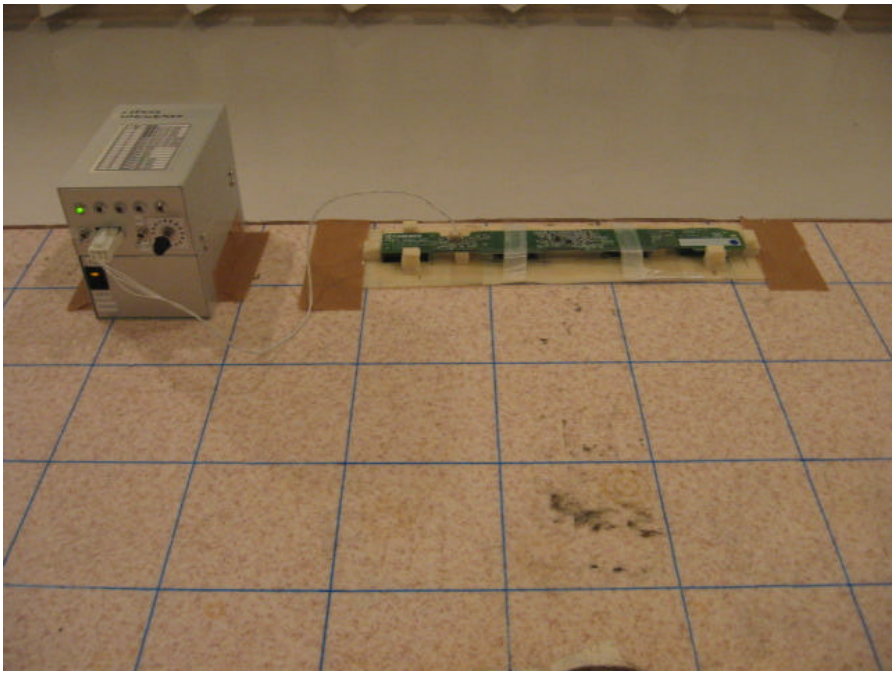


Rear View (Above 30MHz / Angle 3)

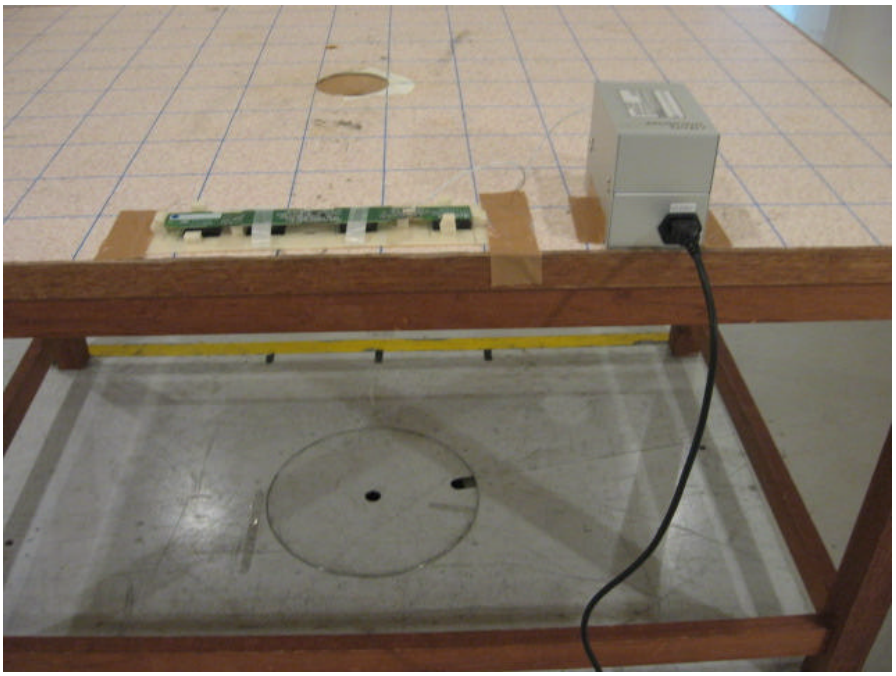


6.2 Setup Photo (Continued)

Closeup (Angle 1)

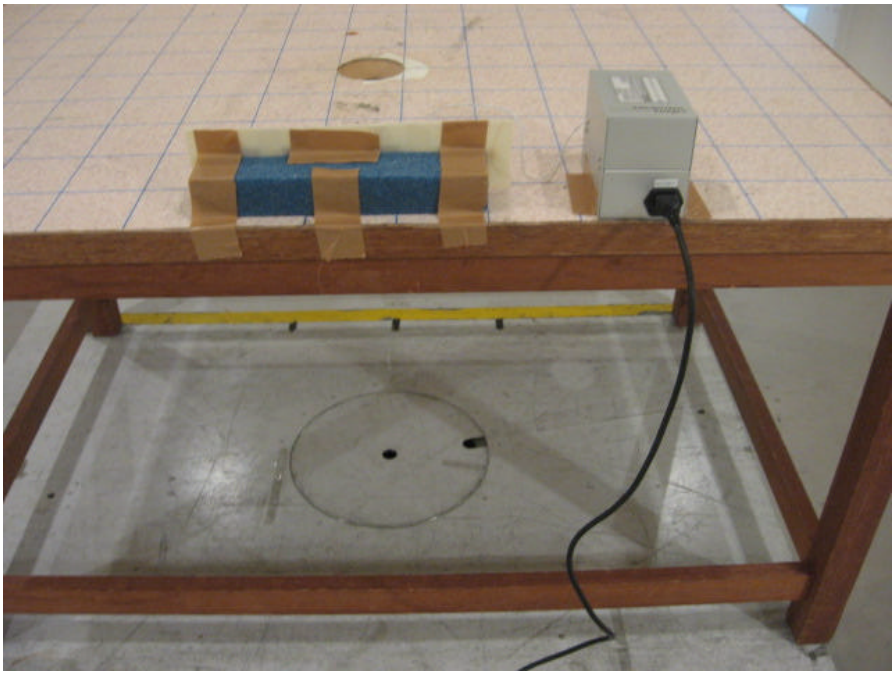


Closeup (Angle 1)

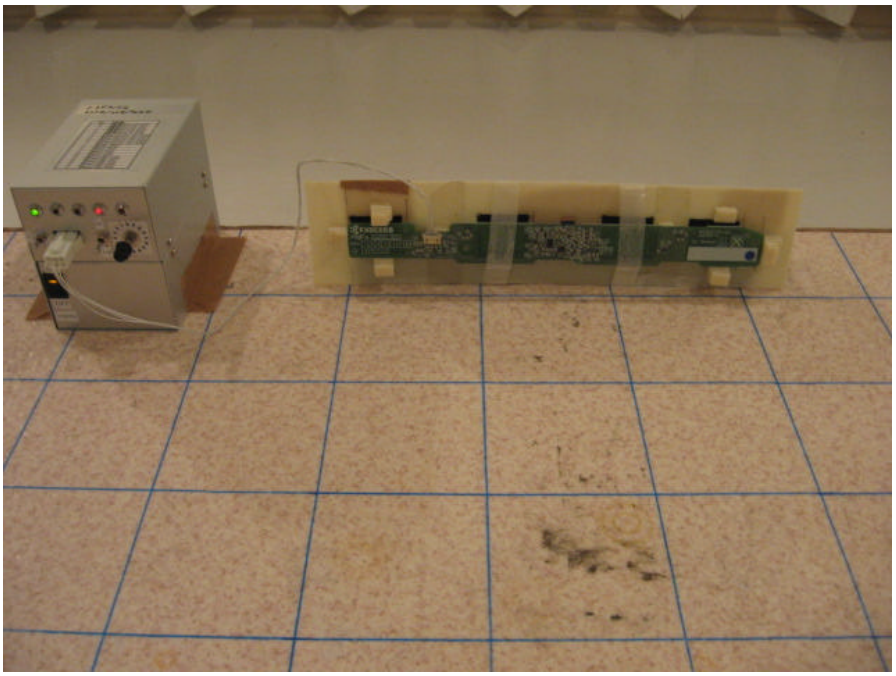


6.2 Setup Photo (Continued)

Closeup (Angle 2)

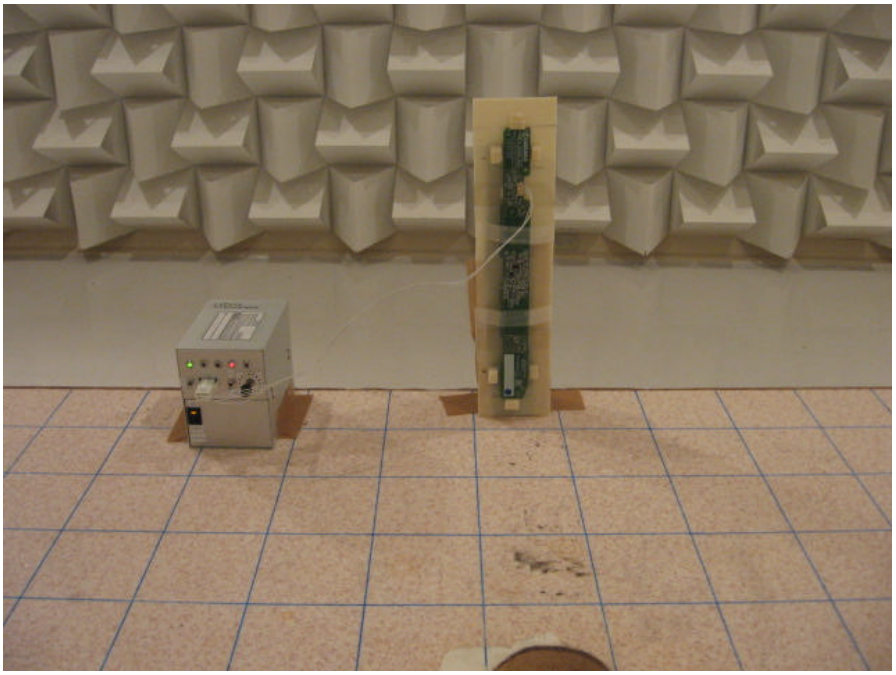


Closeup (Angle 2)

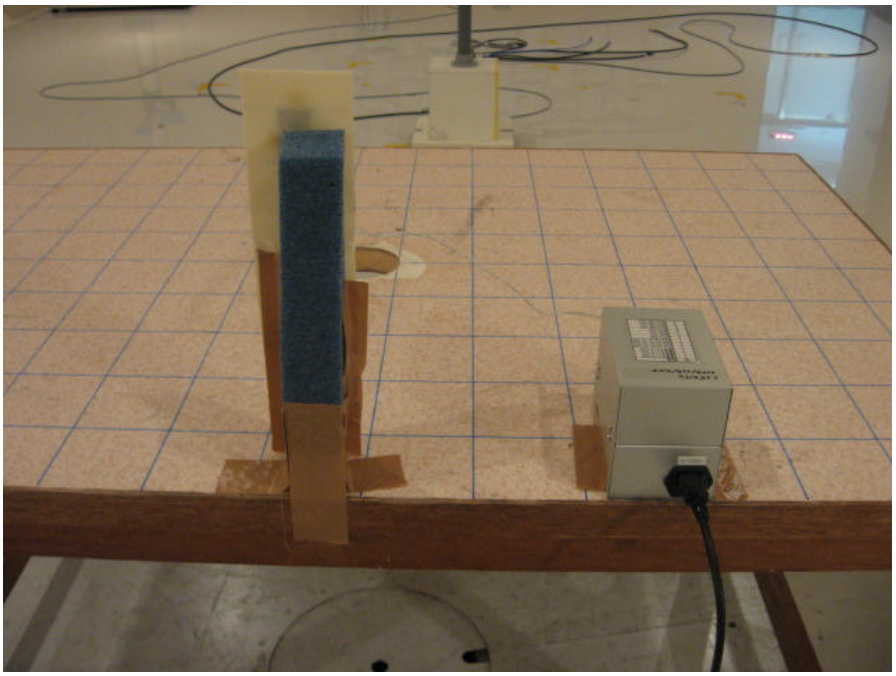


6.2 Setup Photo (Continued)

Closeup (Angle 3)



Closeup (Angle 3)



7. List of Test Measurement Instruments

7.1 Conducted Emission Measurement

Instruments	Manufacturer	Model / Type	Serial No.	Calibrated Date/Until
Spectrum Analyzer EMI Test Receiver	ROHDE & SCHWARZ	ESIB40	100211	April, 2008 April, 2009
Artificial-Mains Network (for EUT)	KYORITSU CORPORATION	KNW244C	8-1657-1	September, 2007 September, 2008
Programmable AC/DC Power Source	NF Corporation	ES18000W	425779	---

7.2 Radiated Emission, Maximum Carrier Output power, Frequency Tolerance Measurement

Instruments	Manufacturer	Model / Type	Serial No.	Calibrated Date/Until
Programmable AC/DC Power Source	NF Corporation	ES18000W	425779	---
Spectrum Analyzer EMI Test Receiver	ROHDE & SCHWARZ	ESIB40	100211	April, 2008 April, 2009
Biconical Antenna (30 to 300MHz)	SCHWARZBECK	VHBB9124(Balun) BBA9106(Elements)	311	September, 2007 September, 2008
Log.-Periodic Antenna (300 MHz to 1 GHz)	SCHWARZBECK	UHALP 9108 A	645	September, 2007 September, 2008
Loop Antenna (0.15 to 30 MHz)	ROHDE & SCHWARZ	HFH2-Z2	131	August, 2007 August, 2008
Environment Chamber	ISUZU	HPAV-48-40	0092986-01	---