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<http://www.digitalemc.com>

**CERTIFICATE OF COMPLIANCE**  
**FCC Part 15B Certification**

Dates of Tests: Oct 28 ~ 29, 2008  
 Test Report S/N:DR50110811H  
 Test Site : DIGITAL EMC CO., LTD.

FCC ID.

**P7KDDR5300R**

APPLICANT

**Diasonic Technology Co., Ltd.**

**FCC Classification** : **Part 15 Class B Computing Device Peripheral(JBP)**  
**Device name** : **Digital Voice Recorder**  
**Manufacturer** : **Diasonic Technology Co., Ltd.**  
**#321-43, Suksu-dong, Manan-ku, Anyang-city,**  
**Kyungki-do, Korea.**  
**Model name(Brand Name)** : **DDR-5300R(DIASONIC)**  
**Test Device Serial number** : **Identical prototype**  
**FCC Rule Part(s)** : **FCC Part 15 Subpart B; ANSI C 63.4-2003**  
**Data of issue** : **November 13, 2008**

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.



NVLAP LAB CODE 200559-0

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## 1. General Informations

This report contains the result of tests performed by:

DIGITAL EMC CO., LTD.

Address : 683-3, Yubang-Dong, Yongin-Si, Kyunggi-Do, Korea. 449-080

<http://www.digitalemc.com> E-mail : [shins@digitalemc.com](mailto:shins@digitalemc.com)

Tel: +82-31-321-2664 Fax: +82-31-321-1664

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the "General requirements for the competents of calibration and testing laboratory".  
This laboratory is accredited by NVLAP for NVLAP Lab. Code : 200559-0.

Test operator: Engineer

November 13, 2008

Ki-Hun Cho



Data

Name

Signature

Report Reviewed By: Manager

November 13, 2008

Young-Kyu Shin



Data

Name

Signature

Ordering party:

Company name : Diasonic Technology Co., Ltd.  
Address : #321-43, Suksu-dong, Manan-ku,  
City/town : Anyang-city, Kyungki-do  
Country : Korea.  
Zip code : 430-040  
Date of order : June 02, 2008

## 2. Informations about test item

### DDR-5300R

#### 2.1 Equipment information

Kind of Equipment	Digital Voice Recorder
Model No.(Brand Name)	DDR-5300R(DIASONIC)
Add Model No.(Brand Name)	DDR-5300(DIASONIC)
Serial No.	None
Type of Sample Tested	Pre-Production
Rating Power Supply (Used AC/DC adapter)	Model No : KA12D045033023U Manufacture : Ktec Input : AC120V, 60Hz, 55mA Output : DC4.5V, 300mA
High Frequency	32.768Hz, 12MHz
Tested Power Supply	1 Phase 120Vac, 60Hz

#### 2.2 Ancillary Equipment

Equipment	Model No.	Serial No.	Manufacturer
PC	SAMSUNG	DM-V60	740W97AP500076L
LCD Monitor	LENOVO KOREA LCC.INC	6135-AB1	N/A
Printer	SAMSUNG	SRP-770	SRP77008060035
Keyboard	GREAT PLEASURE ELECTRONICS	GP-K1200U	N/A
Mouse	CHIC TECHNOLOGY CORP	SMOP5000WX	04015159128
Head set	LABTEC	AXIS-202	LABTEC

#### 2.3 EUT Operating mode

PC link mode(The measurement was made of the maximized by: Write/Delete the “H” pattern mode; data exchange speed; moving the cable)

#### 2.4 EMI Suppression Device(s)/Modifications

None

### 3. Test Report

#### 3.1 Summary of tests

FCC Part Section(s)	Parameter	Status (note 1)
15.109	Radiated Emission	C
15.107	Conducted Emissions	C
Note 1: C= Comply    NC=Not Comply    NT=Not Tested    NA=Not Applicable		

Note 1 The sample was tested according to the following specification:

FCC Parts 15B; ANSI C-63.4-2003

Note 2 Other portions(audio recording, audio file play and FM receiver) other than JBP portion were tested and approved according to FCC verification procedure

## 3.2 Measurement requirements

### 3.2.1 Radiated Emission

#### Procedure:

In the frequency range of 30MHz to 1GHz, the Electric Field strength was measured on a 10m Semi Anechoic Chamber with a reference ground plane and at a distance of 10m. The height of the measuring antenna was varied between 1 to 4 m and the table (height: 0.8m) was rotated a full revolution order to obtain maximum values of the electric field intensity. The measurement was made in both the vertical and horizontal polarization, and the maximum value is presented in the report. For further description of the configuration refer to the picture of the test set-up. Measurements were performed with a quasi-peak detector. The measurement were performed for 3 axis EUT positions and worst case setup position was reported.

The spectrum analyzer is set to:

RBW = 120 kHz ( 30MHz ~ 1 GHz)

VBW     RBW

Trace = max hold

Detector function = peak / Quasi-peak

Sweep = auto

#### Measurement Result: **Comply**

- Refer to the Next page : The worst case position(front side up as shown in the test setup) is reported.

#### Minimum Standard: LIMIT

Frequency (MHz)	Limit (dBuV/m) @ 10m
30 ~ 230	30
230~ 1000	37

## Radiated Emissions

Test mode : PC Link mode



### RADIATED EMISSION

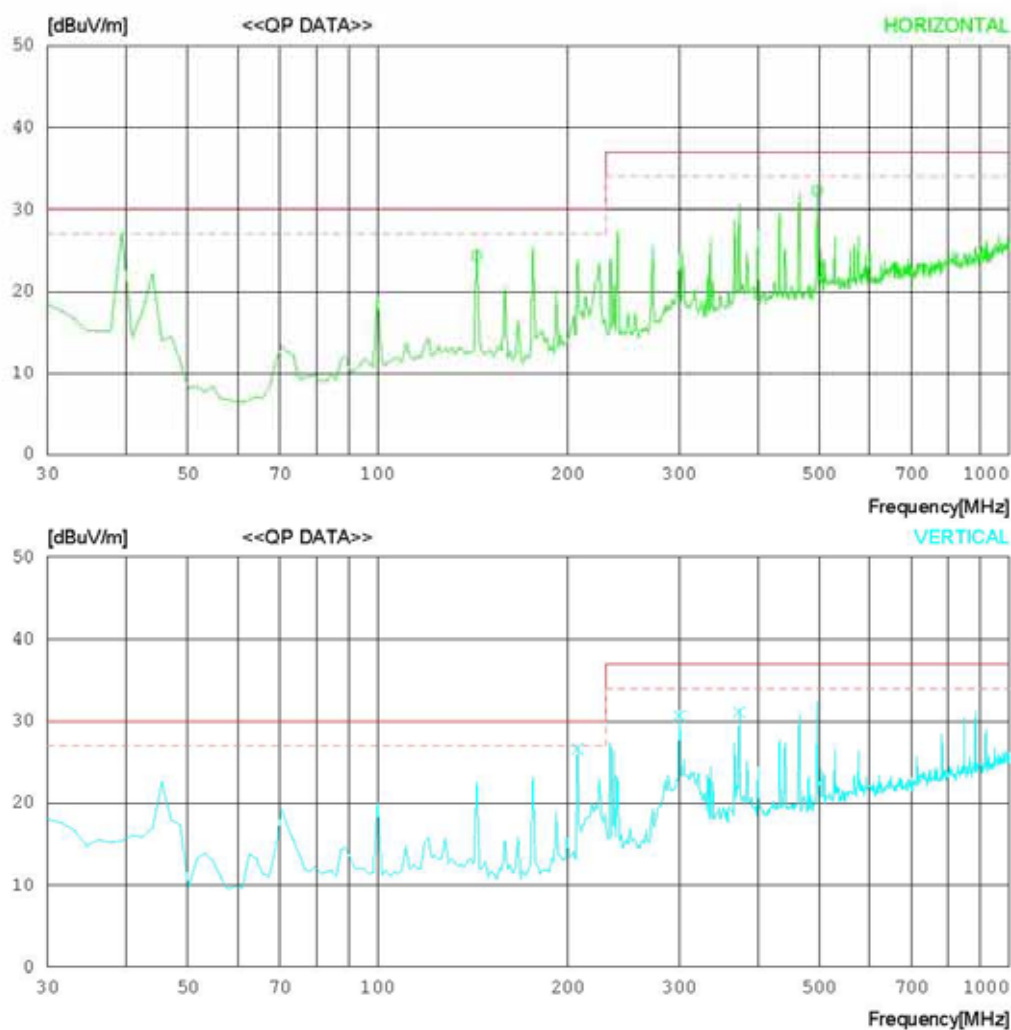
Date : 2008-10-29

Model Name : DDR-5300R  
Model No. :  
Serial No. :  
Test Condition : PC LINK

Reference No. :  
Power Supply : 120V / 50Hz  
Temp/Humi : 23°C / 55%  
Operator : K.H.CHO

Memo :

LIMIT : CISPR Pub.22 Class B (10m)  
MARGIN: 3 dB



RADIATED EMISSION

Date : 2008-10-29

Model Name : DDR-5300R  
 Model No. :  
 Serial No. :  
 Test Condition : PC LINK

Reference No. :  
 Power Supply : 120V / 50Hz  
 Temp/Humi : 23°C / 55%  
 Operator : K.H.CHO

Memo :

LIMIT : CISPR Pub.22 Class B (10m)  
 MARGIN: 3 dB

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	143.478	34.6	10.7	1.8	22.8	24.3	30.0	5.7	312	358
2	496.344	36.1	17.2	3.4	24.4	32.3	37.0	4.7	125	358
----- Vertical -----										
3	207.212	36.5	10.9	2.2	23.0	26.6	30.0	3.4	100	358
4	300.481	37.4	14.0	2.7	23.5	30.6	37.0	6.4	154	358
5	373.541	36.5	15.6	2.9	23.9	31.1	37.0	5.9	176	358



### 3.2.2 Conducted Emission.

#### Procedure:

The conducted emissions are measured in the shielded room with a spectrum analyzer in peak hold. While the measurement, EUT had its receiving function. Emissions closest to the limit are measured in the quasi-peak mode (QP) with the tuned receiver using a bandwidth of 9 kHz. The emissions are maximized further by cable manipulation and Exerciser operation. The highest emissions relative to the limit are listed.

**Measurement Data: Comply**

#### Minimum Standard: FCC Part 15.107/CISPR 22

Frequency Range (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

#### Measurement Setup

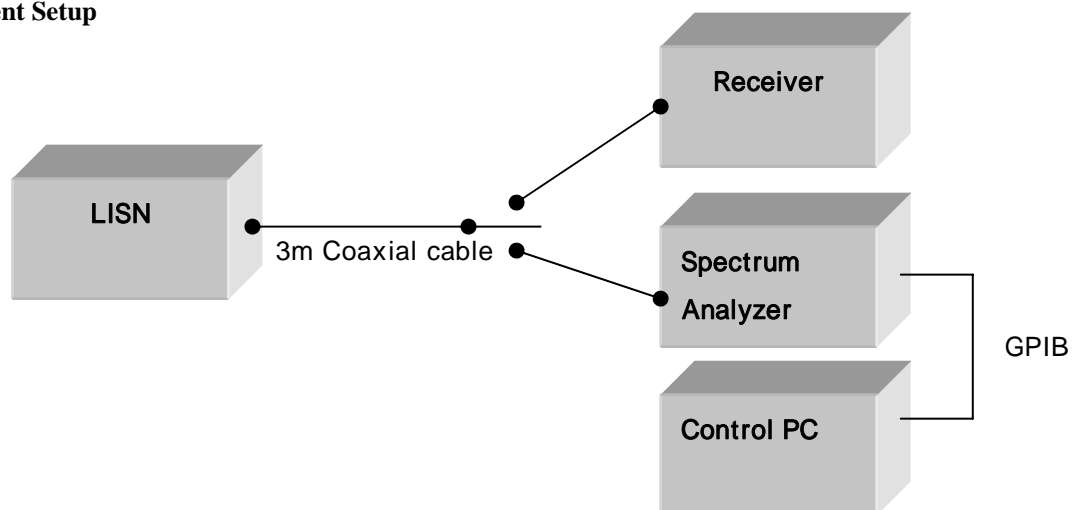
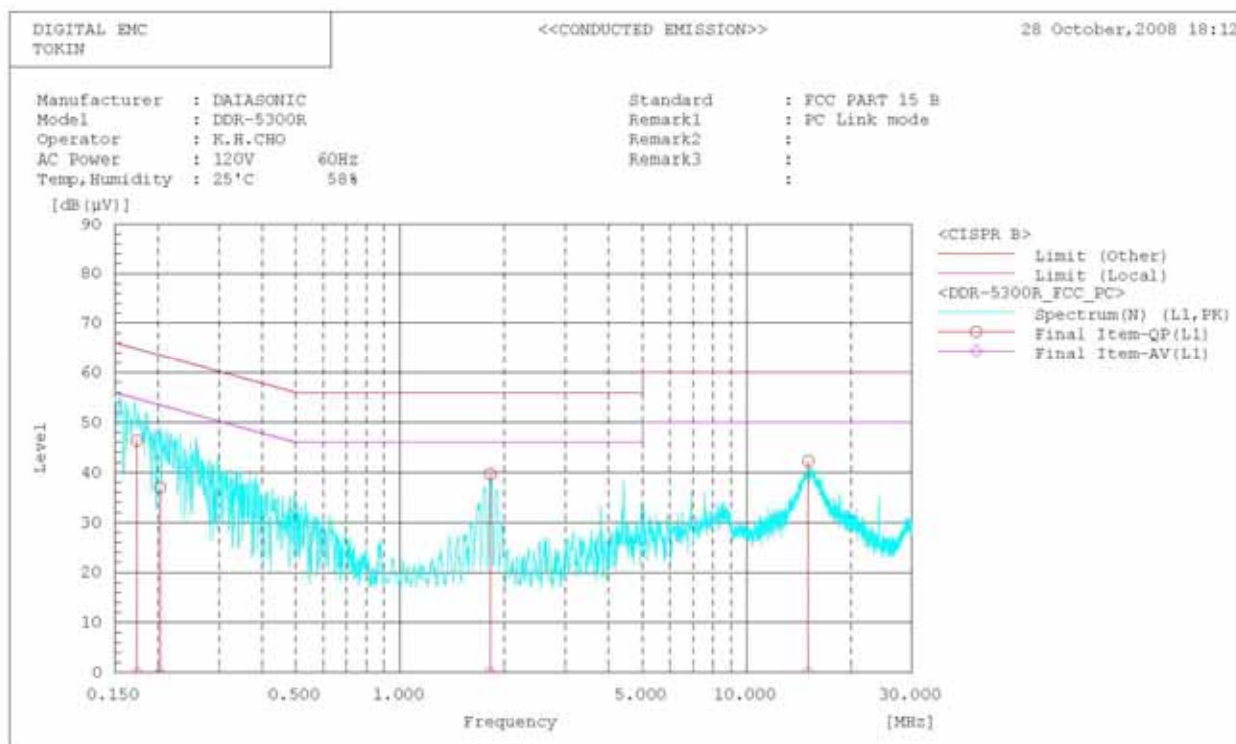
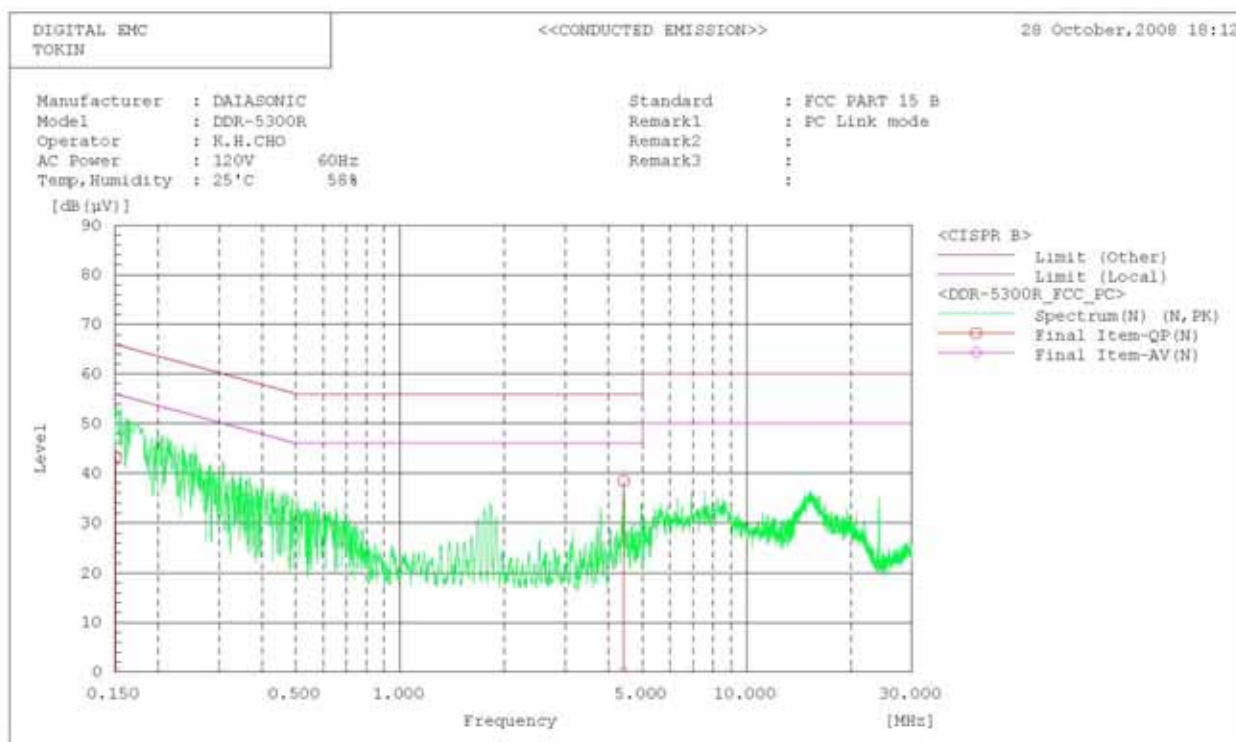


Figure 2: Measurement setup for AC Conducted Emission

# PC Link Mode / Graph



# PC Link Mode / Data

\*\*\*\*\* DIGITAL EMC \*\*\*\*\*

<<CONDUCTED EMISSION>>

28 October, 2008 18:12

Standard : FCC PART 15 B

Manufacturer : DAIRASONIC

Model : DDR-5300R

Operator : K.H.CHO

AC Power : 120V 60Hz

Temp, Humidity : 25°C 58%

Remark1 : PC Link mode

Remark2 :

Remark3 :

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Final Result

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--- N Phase ---

No.	Frequency	Reading	QP	Reading	AV	c.f	Result	QP	Result	AV	Limit	QP	Limit	Margin	QP	Margin	AV	Remark
	[MHz]	[dB(µV)]		[dB(µV)]		[dB]	[dB(µV)]		[dB(µV)]		[dB(µV)]		[dB(µV)]	[dB]		[dB]		
1	0.151	43.2		0.0		0.1	43.3		0.0		65.9		55.9	22.6		0.0		
2	4.420	38.1		0.0		0.3	38.4		0.0		56.0		46.0	17.6		0.0		

\*\*\*\*\*

--- L1 Phase ---

No.	Frequency	Reading	QP	Reading	AV	c.f	Result	QP	Result	AV	Limit	QP	Limit	Margin	QP	Margin	AV	Remark
	[MHz]	[dB(µV)]		[dB(µV)]		[dB]	[dB(µV)]		[dB(µV)]		[dB(µV)]		[dB(µV)]	[dB]		[dB]		
1	0.174	46.2		0.0		0.2	46.4		0.0		64.8		54.8	18.4		0.0		
2	0.203	36.8		0.0		0.2	37.0		0.0		63.5		53.5	26.5		0.0		
3	1.821	39.3		0.0		0.4	39.7		0.0		56.0		46.0	16.3		0.0		
4	15.050	41.5		0.0		0.8	42.3		0.0		60.0		50.0	17.7		0.0		

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APPENDIX

**TEST EQUIPMENT USED FOR TESTS**

To facilitate inclusion on each page of the test equipment used for related tests, each item of test equipment.

	Type	Manufacturer	Model	Cal.Date (dd/mm/yy)	Next Cal.Date (dd/mm/yy)	S/N
01	Spectrum Analyzer	HP	8591E	26/04/08	26/04/09	3649A05889
02	EMI TEST RECEIVER	R&S	ESU	11/01/08	11/01/09	100014
03	Artificial mains network	Kyoritsu Electrical Works	KNW-407	30/08/08	30/08/09	828739/006
04	Artificial mains network	Kyoritsu Electrical Works	KNW-242	13/10/08	13/10/09	8-654-15
05	COTROLLER	TOKIN	5905A	N/A	N/A	N/A
06	DRIVER	TOKIN	5902T2	N/A	N/A	14174
07	Amplifier (25dB)	Agilent	8447D	09/07/08	09/07/09	2443A03690
08	BILOG ANTENNA	SCHAFFNER	CBL6112B	13/06/08	13/06/09	2737