



ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR FCC CLASS B CERTIFICATION

Test Report No. : E053R-009

Applicant : Sitecsystem Co., Ltd.

Address : Diplomatic Center 8F, 1376-1, Seocho-Dong, Seocho-Gu, Seoul, 137-863, Korea

Manufacturer : Sitecsystem Co., Ltd.

Address : Diplomatic Center 8F, 1376-1, Seocho-Dong, Seocho-Gu, Seoul, 137-863, Korea

Type of Equipment : Portable Multimedia Player with Digital Camera

FCC ID : STBMVP100

Model Name : MVP-100

Serial number : N/A

Total page of Report : 13 pages (including this page)

Date of Incoming : February 24, 2005

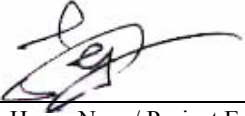
Date of Issuing : March 09, 2005

SUMMARY

The equipment complies with the regulation; **FCC CFR 47 PART 15 SUBPART B, Class B.**

This test report contains only the result of a single test of the sample supplied for the examination.

It is not a general valid assessment of the features of the respective products of the mass-production

Prepared by: 

Seung-Hyun, Nam / Project Engineer
EMC Div.
ONETECH Corp.

Reviewed by: 

Gea-Won, Lee / Chief Engineer
EMC Div.
ONETECH Corp.



CONTENTS

	Page
1. VERIFICATION OF COMPLIANCE.....	3
2. GENERAL INFORMATION.....	4
2.1 PRODUCT DESCRIPTION.....	4
2.2 MODEL DIFFERENCES.....	4
2.3 RELATED SUBMITTAL(S) / GRANT(S)	4
2.4 TEST SYSTEM DETAILS	4
2.5 TEST METHODOLOGY	5
2.6 TEST FACILITY	5
3. SYSTEM TEST CONFIGURATION.....	6
3.1 JUSTIFICATION	6
3.2 EUT EXERCISE SOFTWARE.....	6
3.3 CABLE DESCRIPTION	7
3.4 NOISE SUPPRESSION PARTS ON CABLE	7
3.5 EQUIPMENT MODIFICATIONS	7
3.6 CONFIGURATION OF TEST SYSTEM	8
4. PRELIMINARY TEST.....	8
4.1 AC POWER LINE CONDUCTED EMISSION TEST	8
4.2 RADIATED EMISSION TEST	8
5. FINAL RESULT OF MEASUREMENT	9
5.1 CONDUCTED EMISSION TEST.....	9
5.2 RADIATED EMISSION TEST	11
6. FIELD STRENGTH CALCULATION	12
7. LIST OF TEST EQUIPMENT.....	13

**1. VERIFICATION OF COMPLIANCE**

APPLICANT : Sitecsystem Co., Ltd.
ADDRESS : Diplomatic Center 8F, 1376-1, Seocho-Dong, Seocho-Gu, Seoul, 137-863, Korea
CONTACT PERSON : Mr. Song-Sup, Shin / Junior Engineer
TELEPHONE NO : +82-2-2007-8811
FCC ID : STBMVP100
MODEL NO/NAME : MVP-100
SERIAL NUMBER : N/A
DATE : March 09, 2005

DEVICE TYPE	Peripheral Device for Class B Computing Device
E.U.T. DESCRIPTION	Portable Multimedia Player with Digital Camera
THIS REPORT CONCERNS	ORIGINAL GRANT
MEASUREMENT PROCEDURES	ANSI C63.4: 2001
TYPE OF EQUIPMENT TESTED	PRE-PRODUCTION
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	CERTIFICATION
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	PART 15 SUBPART B, SECTION 15.101
MODIFICATIONS ON THE EQUIPMENT TO ACHIEVE COMPLIANCE	No
FINAL TEST WAS CONDUCTED ON	3 METER OPEN AREA TEST SITE

- This device has shown compliance with the conducted emissions limits in 15.107 adopted under FCC 02-107 (ET Docket 98-80). The device may be marketed after July 11, 2005 affected by the 15.37(j) transition provisions.
- The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

2. GENERAL INFORMATION

2.1 Product Description

The Sitecsystem Co., Ltd., Model MVP-100 (referred to as the EUT in this report) is a Portable Multimedia Player with Digital Camera. Product specification described herein was obtained from product data sheet or user's manual.

CHASSIS TYPE	Plastic and Metal
LIST OF EACH OSC. OR CRY. FREQ.(FREQ.>=1MHz)	27 MHz, 12MHz and 6MHz
NUMBER OF LAYERS	Main Board : 8 Layers Power Board, OSD Board : 4 Layers
ELECTRICAL RATING	Input : AC100-250V, 50/60Hz, 0.5A, Output : DC 5V, 3.0A from the AC/DC Adaptor
EXTERNAL TERMINALS	Earphone Jack, AV Jack, USB mini-B Connector, USB mini-A Connector, DC Jack, Cradle Connector

2.2 Model Differences

The difference(s) compared to the EUT is as follows: None

2.3 Related Submittal(s) / Grant(s)

Original submittal only

2.4 Test System Details

The model numbers for all the equipments which were used in the tested system is:

Model	Manufacturer	FCC ID	Description	Connected to
MVP-100	Sitecsystem Co., Ltd.	N/A	Portable Multimedia Player with Digital Camera (EUT)	Notebook PC
PW118KA0500M52	Sitecsystem Co., Ltd.	N/A	AC/DC Adapter (For EUT)	EUT
PP05LC	DELL Computer Corp.	DoC	Notebook PC	-
PA-1650-05DK	LITEON Technology Corp.	N/A	AC/DC Adapter (For Notebook PC)	Notebook PC
N/A	HUMAX	N/A	Monitor	EUT
2225C	HP	DSI6XU2225	Printer	Notebook PC
020-0470	Cardinal	GDE0196	Modem	Notebook PC



2.5 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.4: 2001. Radiated testing was performed at a distance of 3 meters from EUT to the antenna.

2.6 Test Facility

The open area test site and conducted measurement facilities are located on at 426-1 Daessangryung-Ri, Chowol-Eup, Kwangju-City, Kyunggi-Do, 464-080, Korea. Description details of test facilities were submitted to the Commission on April 04, 2003. (Registration Number: 340658)



3. SYSTEM TEST CONFIGURATION

3.1 Justification

This device was configured for testing in a typical way as a normal customer is supposed to be used. During the test, the following components were installed inside of the EUT.

DEVICE TYPE	MANUFACTURER	MODEL/PART NUMBER	FCC ID
Main Board	N/A	PMP-PP	N/A
OSD Board	N/A	N/A	N/A
Power Board	N/A	N/A	N/A
Panel Board	CASIO	N/A	N/A
HDD Board	TOSIBA CORPORATION	HD1422C	N/A
Battery Board	N/A	MVP-100	N/A

3.2 EUT exercise Software

After connecting the notebook PC using USB cable, data were continuously read and written from the HDD of the notebook PC to the EUT.

The test was performed about each operation mode, read/write mode and AV display mode for getting maximum noise level, but worst emission level were recorded in this test report.

3.3 Cable Description

	Power Cord Shielded (Y/N)	I/O cable Shielded (Y/N)	Length (M)
Portable Multimedia Player with Digital Camera	N	Y	1.5(P), 1.5(D)
AC/DC Adapter (For EUT)	N	N/A	1.5(P)
Notebook PC	N	-	1.5(P)
AC/DC Adapter (For Notebook PC)	N	N/A	1.5(P)
Monitor	N	N	1.5(P), 1.5(D)
Printer	N	Y	1.5(P), 1.5(D)
Modem	N	Y	1.5(P), 1.5(D)

* The marked "(P)" means the Power Cable and "(D)" means Signal Cable.

3.4 Noise Suppression Parts on Cable

	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
Portable Multimedia Player with Digital Camera	Y	BOTH END	Y	BOTH END
AC/DC Adapter (For EUT)	Y	EUT END	Y	EUT END
Notebook PC	-	-	-	-
AC/DC Adapter (For Notebook PC)	Y	Notebook PC END	Y	Notebook PC END
Monitor	N	N/A	Y	BOTH END
Printer	N	N/A	Y	BOTH END
Modem	N	N/A	Y	BOTH END

3.5 Equipment Modifications

-. None

3.6 Configuration of Test System

Line Conducted Test: The power of the EUT was supplied by AC/DC adapter and the adapter was connected to LISN. All supporting equipments were connected to another LISN. Preliminary Power line Conducted Emission test was performed by using the procedure in ANSI C63.4: 2001 7.2.3 to determine the worse operating conditions.

Radiated Emission Test: Preliminary radiated emission test was conducted using the procedure in ANSI C63.4: 2001 8.3.1.1 to determine the worse operating conditions. Final radiated emission test was conducted at 3 meters open area test site.

4. PRELIMINARY TEST

4.1 AC Power line Conducted Emission Test

During Preliminary Test, the following operating mode was investigated

Operation Mode	The Worse operating condition (Please check one only)
Read / write Mode	X
AV Display Mode	

4.2 Radiated Emission Test

During Preliminary Test, the following operating mode was investigated

Operation Mode	The Worse operating condition (Please check one only)
Read / write Mode	X
AV Display Mode	

5. FINAL RESULT OF MEASUREMENT

Preliminary test was done in normal operation mode. And the final measurement was selected for the maximized emission level

5.1 Conducted Emission Test

Humidity Level : 39 %

Temperature: 20 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART B, SECTION 15.107(a)

Type of Test : CLASS B

Result : PASSED BY -5.52 dB at 0.16 MHz

EUT : Portable Multimedia Player with Digital Camera

Date: February 24, 2005

Operating Condition : Data was transferred between PC and the EUT using USB.

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 9 kHz)

Frequency (MHz)	Line	Peak (dBuV)		Margin (dB)
		Emission level	Q.P Limits	
0.16	N	59.94	65.46	-5.52
0.18	N	57.91	64.72	-6.81
0.19	H	56.13	64.04	-7.91
0.20	N	59.82	63.61	-3.79
0.21	H	55.59	63.41	-7.82
2.48	H	44.66	56.00	-11.34
Frequency (MHz)	Line	Average (dBuV)		Margin (dB)
		Emission level	Limits	
0.16	N	23.45	55.46	-32.01
0.18	N	22.52	54.72	-32.20
0.19	H	23.12	54.04	-30.92
0.20	N	47.58	53.61	-6.03
0.21	H	39.78	53.41	-13.63
2.48	H	33.85	46.00	-12.15

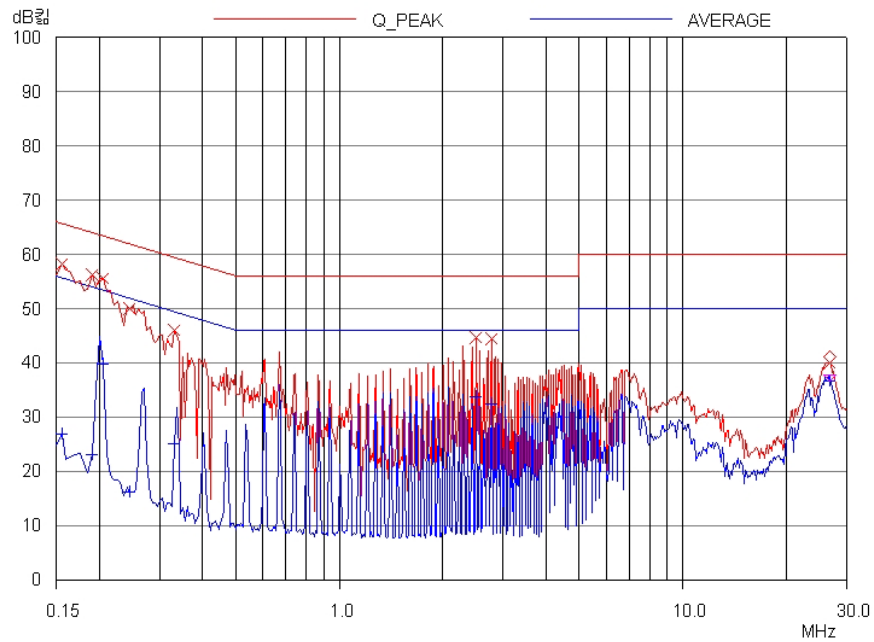
Line Conducted Emission Tabulated Data

Remark : "H": Hot Line, "N": Neutral line

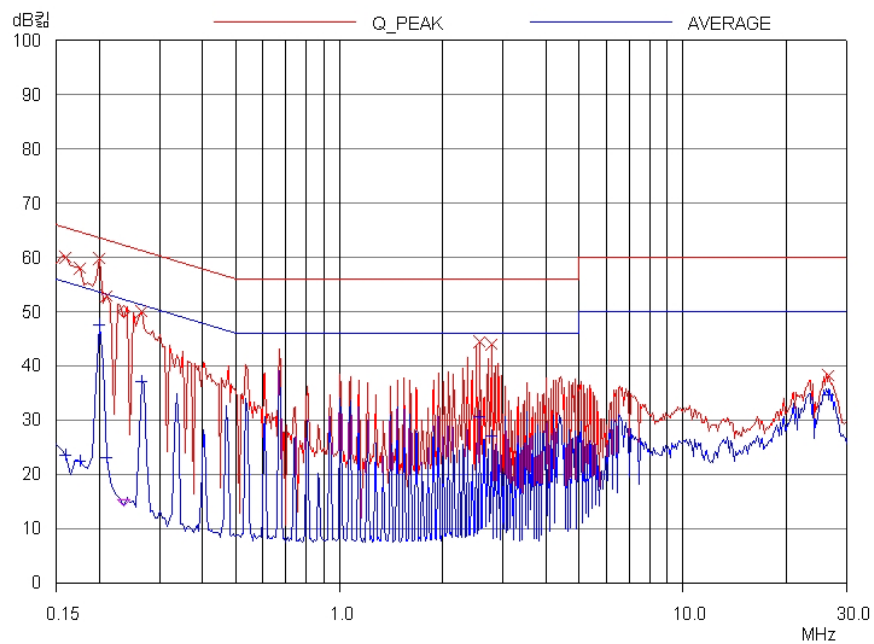
See next page for an overview sweep performed with peak and average detector.



Tested by: Hyun-Suck, Lee / Test Engineer



HOT LINE



NEUTRAL LINE

**5.2 Radiated Emission Test**

The following table shows the highest levels of radiated emission on both polarizations of horizontal and vertical.

Humidity Level : 41 % Temperature: 19 °C
 Limits apply to : FCC CFR 47, PART 15, SUBPART B, SECTION 15.109(a)
 Type of Test : CLASS B
 Result : PASSED BY -5.75dB at 642.90MHz

EUT : Portable Multimedia Player with Digital Camera Date: February 25, 2005

Operating Condition : Data was transferred between PC and the EUT using USB.

Frequency range : 30MHz – 1000MHz

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)

Distance : 3 Meter

Radiated Emission		Ant	Correction Factors		Total	FCC	
Freq. (MHz)	Amp. (dBuV)	Pol.	Ant. (dBuV/m)	Cable (dB)	Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
64.06	21.20	V	6.65	1.40	29.25	40.00	-10.75
112.50	18.70	V	11.91	1.98	32.59	43.52	-10.93
132.40	17.30	V	14.08	1.98	33.36	43.52	-10.16
148.92	16.30	H	15.01	2.08	33.39	43.52	-10.13
228.10	14.80	H	16.65	2.51	33.96	46.02	-12.06
402.80	20.40	V	15.53	3.50	39.43	46.02	-6.59
642.90	16.90	H	19.18	4.19	40.27	46.02	-5.75

Tested by: Hyun-Suck, Lee / Test Engineer



6. FIELD STRENGTH CALCULATION

Meter readings are compared to the specification limit correcting for antenna and cable losses

+ Meter reading (dBuV)

+ Cable Loss (dB)

+ Antenna Factor (Loss) (dB/meter)

= Corrected Reading (dBuV/meter)

- Specification Limit (dBuV/meter)

= dB Relative to Spec (+/- dB)



7. LIST OF TEST EQUIPMENT

No.	EQUIPMENTS	MFR.	MODEL	SER. NO.	LAST CAL	DUE CAL	USE
1.	Test receiver	R/S	ESVS10	827864/005	DEC/04	12MONTH	■
2.	Test receiver	R/S	ESHS 10	834467/007	MAY/04	12MONTH	■
3.	Spectrum analyzer	HP	8566B	3407A08547	JUL/04	12MONTH	
4.	Spectrum analyzer	HP	8568B	3109A05456	JUL/04	12MONTH	■
5.	RF preselector	HP	85685A	3107A01264	APR/04	12MONTH	■
6.	Quasi-Peak Adapter	HP	85650A	3107A01542	JUL/04	12MONTH	■
7.	TRILOG Broadband Antenna	Schwarzbeck	VULB9163	VULB9163 166	FEB/05	12MONTH	
8.	Biconical antenna	EMCO	3104C	9109-4443	MAY/04	12MONTH	
		Schwarzbeck	VHA9103	91031852	JAN/05		■
9.	Log Periodic antenna	EMCO	3146	9109-3213	FEB/05	12MONTH	
				9109-3217	MAY/04		
		Schwarzbeck	9108-A(494)	62281001	JAN/05		■
10.	LISN	EMCO	3825/2	9109-1867	JUL/04	12MONTH	■
				9109-1869	OCT/04		■
11.	Position Controller	HD GmbH	HD100	N/A	N/A	N/A	■
12.	Turn Table	HD GmbH	DS420S	N/A	N/A	N/A	■
13.	Antenna Master	HD GmbH	MA240	N/A	N/A	N/A	■