ELECTROMAGNETIC EMISSION COMPLIANCE REPORT
FOR FCC CLASS B CERTIFICATION

Test report file number : E014R-046

Applicant : MAX MEDIA INC.

Address : 327-14, Dangjung-Dong, Kunpo-City, Kyounggi-Do, 435-030, Korea

Manufacturer : MAX MEDIA INC.

Address : 327-14, Dangjung-Dong, Kunpo-City, Kyounggi-Do, 435-030, Korea

Type of Equipment : 15.1" TFT LCD MONITOR (CLASS B COMPUTING DEVICE PERIPHERAL)

FCC ID : PBF-MF151SU

Model / Type No. : MF151SU

Serial number : N/A

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

Date of Incoming : February 22, 2001

Date of issuing : April 26, 2001

SUMMARY

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

This test report contains only the results 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:
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ONETECH Corp.

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HEAD OFFICE : #505 SK APT. Factory 223-28, Sangdaewon 1 Dong, Jungwon-Gu, Seongnam-City, Kyunggi-Do, 462-121, Korea (TEL: 82-31-746-8500 FAX: 82-31-746-8700)

EMC Testing Dept : 426-1 Daessangryung-Ri, Chowol-Myun, Kwangju-Kun, Kyunggi-Do 464-860 Korea. (TEL: 82-31-765-8289 FAX: 82-31-766-2904)

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1. VERIFICATION OF COMPLIANCE

APPLICANT	: MAX MEDIA INC.
ADDRESS	: 327-14, Dangjung-Dong, Kunpo-City, Kyounggi-Do, 435-030, Korea
CONTACT PERSON	: Jeong-Hun, Kim / Engineering Manager
TELEPHONE NO	: 82-2-563-0999
FCC ID	: PBF-MF151SU
MODEL NO/NAME	: MF151SU
SERIAL NUMBER	: N/A
DATE	: April 26, 2001

DEVICE TYPE	Peripheral Device for Class B Computing Device - Unintentional Radiator
E.U.T. DESCRIPTION	15.1" TFT LCD MONITOR
THIS REPORT CONCERNS	ORIGINAL GRANT
MEASUREMENT PROCEDURES	ANSI C63.4/1992
TYPE OF EQUIPMENT TESTED	PRE-PRODUCTION
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	CERTIFICATION
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	FCC PART 15, SECTION 15.101
MODIFICATIONS ON THE EQUIPMENT TO ACHIEVE COMPLIANCE	No
FINAL TEST WAS CONDUCTED ON	3 METER OPEN AREA TEST SITE

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.

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2. GENERAL INFORMATION

2.1 Product Description

The MAX MEDIA INC., Model MF151SU (referred to as the EUT in this report) is a 15.1" TFT LCD MONITOR which is connected a computer. Product specification described herein was obtained from product data sheet or user's manual.

CHASSIS TYPE	Plastic
IMAGE DISPAY TYPE	ACTIVE MATRIX CPLOR TFT LCD
LIST OF EACH OSC. OR CRY. FREQ.(FREQ.>=1MHz)	6. 0 MHz, 14.318 MHz and 24.0 MHz
INPUT FREQUENCY	HORIZONTAL: 31~60kHz / VERTICAL: 56~75 Hz
MAX RESOLUTION	XGA 1024 x 768 @ 75Hz
NUMBER OF LAYERS	4 Layers (Main B'd), 2 Layers (Power Jack B'd, Key Control B'd)
POWER REQUIREMENT	DC12V, Max.25W from AC/DC Adapter
EXTERNAL CONNECTOR	VGA INPUT (15pin D-SUB), DC IN, 2 USB Ports and Upstream Port

Model Differences:

-. The difference(s) compared to the EUT is as follows: none

2.2 Related Submittal(s) / Grant(s)

Original submittal only

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2.3 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
MF151SU	MAX MEDIA INC.	PBF-MF151SU	15.1" TFT LCD MONITOR (EUT)	PC
F1650K	ILAN ELEC. LTD.	N/A	AC/DC ADAPTER	EUT
DCM	DELL COMPUTER	DoC	PC	-
SKR-1032	SEJIN Elec.	GJJSKR-1032B	KEYBOARD	PC
3500U	BTC	DoC	USB KEYBOARD	EUT
PCA-3100	PROCHIPS	MY8PCA-3100	USB CAMERA	EUT
OK-720	A4 TECH	DOC	MOUSE	PC
2225C	HP	DSI6XU2225	PRINTER	PC
020-0470	CARDINAL	GDE0196	MODEM	PC

2.4 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.4/1992. Radiated testing was performed at a distance of 3 meters from EUT to the antenna.

2.5 Test Facility

The open area test site and conducted measurement facilities are located on at 426-1 Daessangryung-Ri, Chowol-Myun, Kwangju-Kun, Kyunggi-Do 464-080 Korea. Description details of test facilities were submitted to the Commission on January 12, 1999. (Registration Number: 92819)

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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
LCD PANEL	LG PHILIPS	LM151X2	N/A
MAIN LOGIC B'D	MAX MEDIA INC.	MF151SU	N/A
DC/AC INVERTER BOARD	MAX MEDIA INC.	LAMP	N/A
KEY CONTROL BOARD	MAX MEDIA INC.	MF151S	N/A

3.2 EUT exercise Software

The windows program used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use. This program was included into HOST. Once loaded, this program sequentially exercises each system component in turn. The sequence used is: (1) series of H characters are printed on the monitor until the screen is completely full, (2) copy series of H characters to mass storage device (if one is used), (3) print series of H characters to printer. The complete cycle is repeated continuously.
The investigated resolution mode of the EUT was at 1024 x 768 at 75Hz.

3.3 Cable Description

	Power Cord Shielded (Y/N)	I/O cable Shielded (Y/N)	Length (M)
15.1" TFT LCD MONITOR (EUT)	N	N	1.2(P), 1.5(D)
AC/DC ADAPTER	N	N	1.5(P), 1.2(D)
PC	N	-	1.5(P)
KEYBOARD	N/A	Y	1.2(D)
USB KEYBOARD	N/A	Y	1.2 (D)
CAMERA	N/A	Y	1.8(D)
MOUSE	N/A	Y	1.2(D)
MODEM	N	Y	1.5(P), 1.5(D)
PRINTER	N	Y	1.5(P), 1.5 (D)

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

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3.4 Noise Suppression Parts on Cable

	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
15.1" TFT LCD MONITOR (EUT)	Y	BOTH END	Y	BOTH END
AC/DC ADAPTER	Y	EUT END	Y	EUT END
PC	-	-	-	-
KEYBOARD	N	N/A	Y	PC END
USB KEYBOARD	N	N/A	Y	EUT END
CAMERA	N	N/A	Y	EUT END
MOUSE	N	N/A	Y	PC END
MODEM	N	N/A	Y	BOTH END
PRINTER	N	N/A	Y	BOTH END

3.5 Equipment Modifications

To achieve compliance to CLASS B levels, the following change(s) was made by ONETECH Corp. during compliance testing:

"There was no Modified items during EMI test"

3.6 Configuration of Test System

Line Conducted Test: The EUT was connected to 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 C63.4/1992 7.2.3 to determine the worse operating conditions.

Radiated Emission Test: Preliminary radiated emission test was conducted using the procedure in ANSI C63.4/1992 8.3.1.1 to determine the worse operating conditions. Final radiated emission test was conducted at 3 meters open area test site.

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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)
Resolution: 640x480	
Resolution: 800x600	
Resolution: 1024x768	X

4.2 Radiated Emission Test

During Preliminary Test, the following operating mode was investigated

Operation Mode	The Worse operating condition (Please check one only)
Resolution: 640x480	
Resolution: 800x600	
Resolution: 1024x768	X

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5. FINAL RESULT OF MEASURMENT

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 : 45 % Temperature : 18°C

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

Type of Test : CLASS B

Result : PASSED BY -3.25 dB at 2.02 MHz

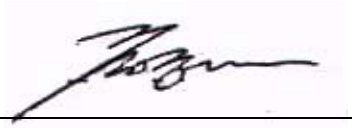
EUT : 15.1" TFT LCD MONITOR Date: April 2, 2001

Operating Condition : Resolution 1024X768 mode

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

Power Line Conducted Emission			**FCC CLASS B**	
Frequency (MHz)	**Amplitude (dBuV)**	**Conductor**	**Limit (dBuV)**	**Margin (dB)**
0.87	44.14	HOT	48.00	-3.86
1.17	42.31	HOT	48.00	-5.69
1.44	43.98	HOT	48.00	-4.02
1.72	43.85	HOT	48.00	-4.15
2.02	44.75	NEUTRAL	48.00	-3.25
2.30	43.47	HOT	48.00	-4.53

Line Conducted Emission Tabulated Data



Tested by: Young-Min Choi / Project Engineer

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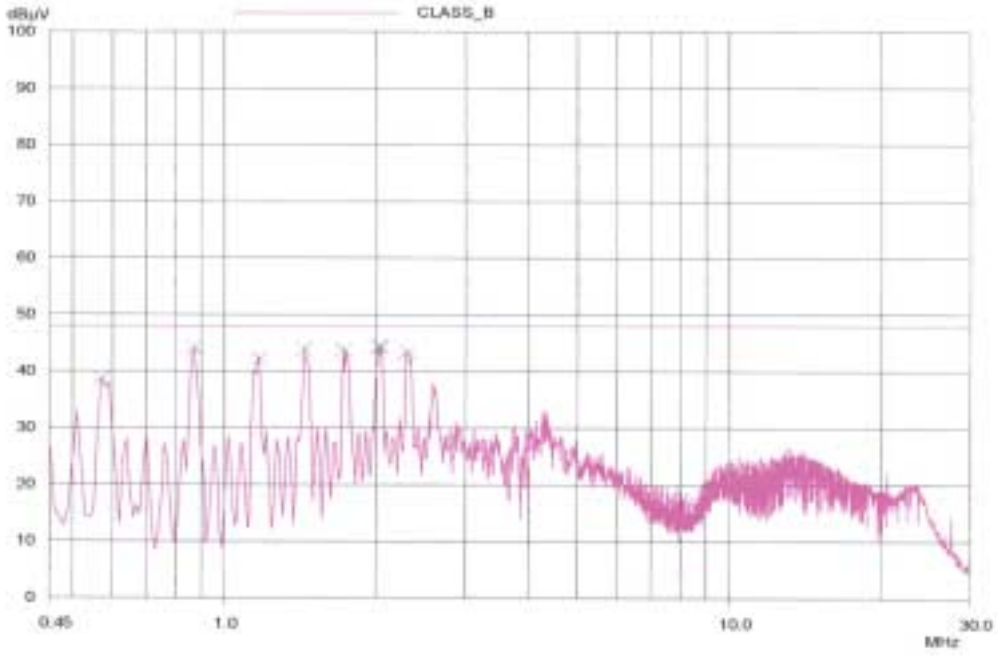
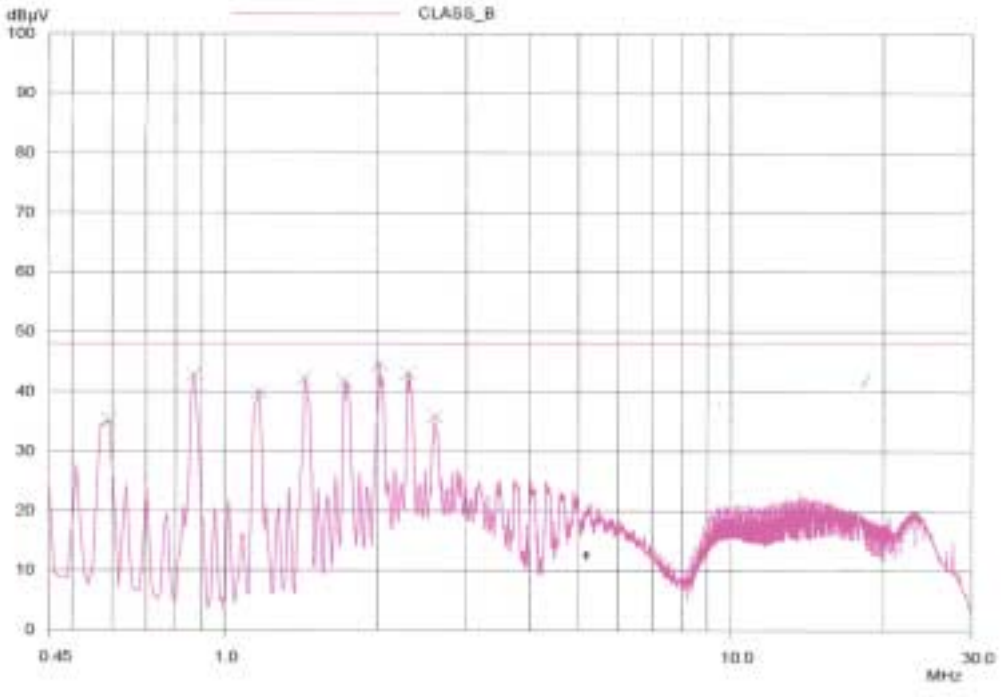


HOT LINE



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 : 45 % Temperature : 18 °C
Limits apply to : FCC CFR 47, PART 15, SUBPART B, SECTION 15.109
Type of Test : CLASS B
Result : PASSED BY –6.76 dB at 206.72 MHz

EUT : 15.1" TFT LCD MONITOR Date: April 3, 2001
Operating Condition : Resolution 1024X768 mode
Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)
Distance : 3 Meter

Radiated Emissions		Ant	Correction Factors		Total	FCC CLASS B	
Freq. (MHz)	Amp. (dBuV)	Pol.	Ant. (dBuV/m)	Cable (dB)	Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
96.47	23.90	V	10.60	1.14	35.64	43.50	-7.86
124.03	21.80	V	13.20	1.25	36.25	43.50	-7.25
137.83	21.20	V	12.73	1.30	35.23	43.50	-8.27
144.70	20.30	V	13.01	1.33	34.64	43.50	-8.86
151.61	20.10	V	13.52	1.36	34.98	43.50	-8.52
172.00	20.00	V	15.32	1.43	36.75	43.50	-6.75
186.06	18.00	V	16.27	1.48	35.75	43.50	-7.75
206.72	23.50	V	11.64	1.60	36.74	43.50	-6.76
227.20	21.30	H	11.99	1.71	35.00	46.0	-11.00

Radiated Emissions Tabulated Data

Tested by: Young-Min Choi / Project Engineer

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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)

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7. LIST OF TEST EQUIPMENT

No.	EQUIPMENTS	MFR.	MODEL	SER. NO.	LAST CAL	DUE CAL	USE
1.	Test receiver	R/S	ESVS 10	827864/005	SEP/00	12MONTH	■
2.	Test receiver	R/S	ESHS10	834467/007	APRIL/00	12MONTH	■
3.	Spectrum analyzer	HP	8568B	3026A0226	SEP/00	12MONTH	■
4.	RF preselector	HP	85685A	3107A01264	SEP/00	12MONTH	■
5.	Quasi-Peak Adapter	HP	85650A	3107A01542	SEP/00	12MONTH	■
6.	Dipole Antenna	EMCO	3121C	9107-745	JUN/00	12MONTH	
7.	Biconical antenna	EMCO	3104C	9109-4441 9109-4443 9109-4444	MAR/00	12MONTH	■
8.	Log Periodic antenna	EMCO	3146	9109-3213 9109-3214 9109-3217	MAR/00	12MONTH	■
9.	LISN	EMCO	3825/2	9109-1867 9109-1869	FEB/00	12MONTH	■
10.	RF Amplifier	HP	8447F	3113A04554	JUN/00	N/A	
11.	Spectrum Analyzer	HP	8591A	3131A02312	APR/00	12MONTH	
12.	Computer System Hard disk drive	HP	98581C 9153C	98543A CMC762Z9153	N/A N/A	N/A N/A	■ ■
13.	Plotter	HP	7475A	30052 22986	N/A	N/A	■
14.	Position Controller	EMCO	1090	9107-1038	N/A	N/A	■
15.	Turn Table	EMCO	1080-1.21	9109-1576	N/A	N/A	■
16.	Antenna Master	EMCO	1070-1	9109-1624	N/A	N/A	■

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