ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR FCC CLASS B CERTIFICATION

Test Report No.	**: E04OR-057**
Applicant	**: KTV GLOBAL CORPORATION**
Address	**: 149, Gongdan 1-Dong, Gumi-City, Kyungbuk, Korea**
Manufacturer	**: KTV GLOBAL CORPORATION**
Address	**: 149, Gongdan 1-Dong, Gumi-City, Kyungbuk, Korea**
Type of Equipment	**: 20.1" LCD TV RECEIVER**
FCC ID	**: BRFLT201CB**
Model Name	**: LT201CB**
Serial number	**: N/A**
Total page of Report	**: 13 pages (including this page)**
Date of Incoming	**: June 13, 2004**
Date of Issuing	**: October 20, 2004**

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

Reviewed by:
Sung-Chel, You / Test Engineer
EMC Div.
ONETECH Corp.

Approved by:
G. W. Lee / Chief Engineer
EMC Div.
ONETECH Corp.

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-Si, Kyunggi-Do 464-860 Korea. (TEL: +82-31-765-8289, FAX: +82-31-766-2904)

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1. VERIFICATION OF COMPLIANCE

APPLICANT	: KTV GLOBAL CORPORATION
ADDRESS	: 149, Gongdan 1-Dong, Gumi-City, Kyungbuk, Korea
CONTACT PERSON	: Mr. Eui-Yeun, Kim / Team Leader
TELEPHONE NO	: +82-54-467-3550
FCC ID	: BRFLT201CB
MODEL NO/NAME	: LT201CB
SERIAL NUMBER	: N/A
DATE	: October 20, 2004

DEVICE TYPE	Peripheral Device for Class B Computing Device - Unintentional Radiator
E.U.T. DESCRIPTION	20.1" LCD TV RECEIVER
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)	FCC CFR 47 PART 15 §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.

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2. GENERAL INFORMATION

2.1 Product Description

The KTV GLOBAL CORPORATION, Model LT201CB (referred to as the EUT in this report) is a 20.1" LCD TV RECEIVER that is connected a personal computer. Product specification described herein was obtained from product data sheet or user's manual.

CHASSIS TYPE	Plastic
LIST OF EACH OSC. OR CRY. FREQ.(FREQ.>=1MHz)	12 MHz, 14.31818 MHz, 18.432 MHz and 27.0 MHz on Main Board
NUMBER OF LAYERS	Main Board : 2 Layers Control and Tuner Board : 1 Layer
USED TUNER	Model No: TCMN3080DA29A, Manufacturer: SAMSUNG
ELECTRICAL RATING	DC 12V, 60W from an AC/DC Adaptor
EXTERNAL TERMINALS	PC Video, PC Audio In, AV Out, S-Video, AV In, DVD Audio/Video, Phone Jack

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

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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
LT201CB	KTV GLOBAL CORPORATION.	BRFLT201CB	20.1" LCD TV RECEIVER (EUT)	PC
0129B1570	Li Shin International	N/A	AC/DC ADAPTER	EUT
OptiPlexGX270	DELL Computer	DoC	PC	-
SWW-23	N/A	DoC	MOUSE	PC
W9560	N/A	DoC	KEYBOARD	PC
GHV-S9990	GoldStar	N/A	VCR	EUT
DVD2000	TAEYOUNG TELSTAT	N/A	DVD	EUT
SMS-015N	Sungil Precision	N/A	Speaker	EUT

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-Myun, Kwangju-City, Kyunggi-Do 464-080 Korea. Description details of test facilities were submitted to the Commission on January 18, 2002. (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
Main Board	KTV GLOBAL CORPORATION	PLBM02	N/A
LCD	LG Philips LCD	LC201V02	N/A
Inverter	DS-Plus Inc	DS-1009WB	N/A
Control S/W	KTV GLOBAL CORPORATION	PLBC01-1	N/A
Remote Sensor Board	KTV GLOBAL CORPORATION	PLBC01-2	N/A
Turner Board	KTV GLOBAL CORPORATION	PLBT01	N/A
Power Board	Li Shin International Enterprise Corp.	CEM-1	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 test was performed about each resolution from minimum resolution to maximum resolution for getting maximum noise level and the investigated maximum resolution mode of the EUT was 1280 x 768.

3.3 Cable Description

	Power Cord Shielded (Y/N)	I/O cable Shielded (Y/N)	Length (M)
20.1" LCD TV RECEIVER	N	Y	1.5(P), 1.5(D)
AC/DC ADAPTOR	N	N/A	1.5(P)
PC	N	-	1.5(P)
MOUSE	N/A	N	1.5(D)
KEYBOARD	N/A	N	1.5(D)
VCR	N	N	1.5(P), 1.5(D)
DVD	N	N	1.5(P), 1.5(D)
SPEAKER	N/A	N	1.5(D)

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

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3.4 Noise Suppression Parts on Cable

	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
20.1" LCD TV RECEIVER	Y	BOTH END	Y	BOTH END
AC/DC ADAPTOR	Y	EUT END	Y	EUT END
PC	-	-	-	-
MOUSE	N	N/A	Y	PC END
KEYBOARD	N	N/A	Y	PC END
VCR	N	N/A	Y	BOTH END
DVD	N	N/A	Y	BOTH END
SPEAKER	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 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.

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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: 640 x 480	-
Resolution: 1280 x 768	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: 640 x 480	-
Resolution: 1280 x 768	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 : 38% Temperature : 25□

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

Type of Test : CLASS B

Result : PASSED BY -18.50 dB at 0.37 MHz

EUT : 20.1" LCD TV RECEIVER Date: June 18, 2004

Operating Condition : Continuously displayed "H" characters on the screen of the EUT.

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

Frequency (MHz)	Line	Peak (dBuV)		Margin (dB)
		Emission level	Q.P Limits	
0.19	N	42.19	64.04	-21.85
0.37	N	39.89	58.39	-18.50
0.44	H	36.05	57.06	-21.01
0.56	N	35.61	56.00	-21.90
2.26	N	34.10	56.00	-21.90
19.26	N	37.82	60.00	-22.18
Frequency (MHz)	**Line**	**Average (dBuV)**		**Margin (dB)**
		Emission level	**Limits**	
-				
-				

Line Conducted Emission Tabulated Data

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

Average data was not measured, because Peak values were under the Average limit.

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

Tested by: In-Sub, Youn / Test Engineer

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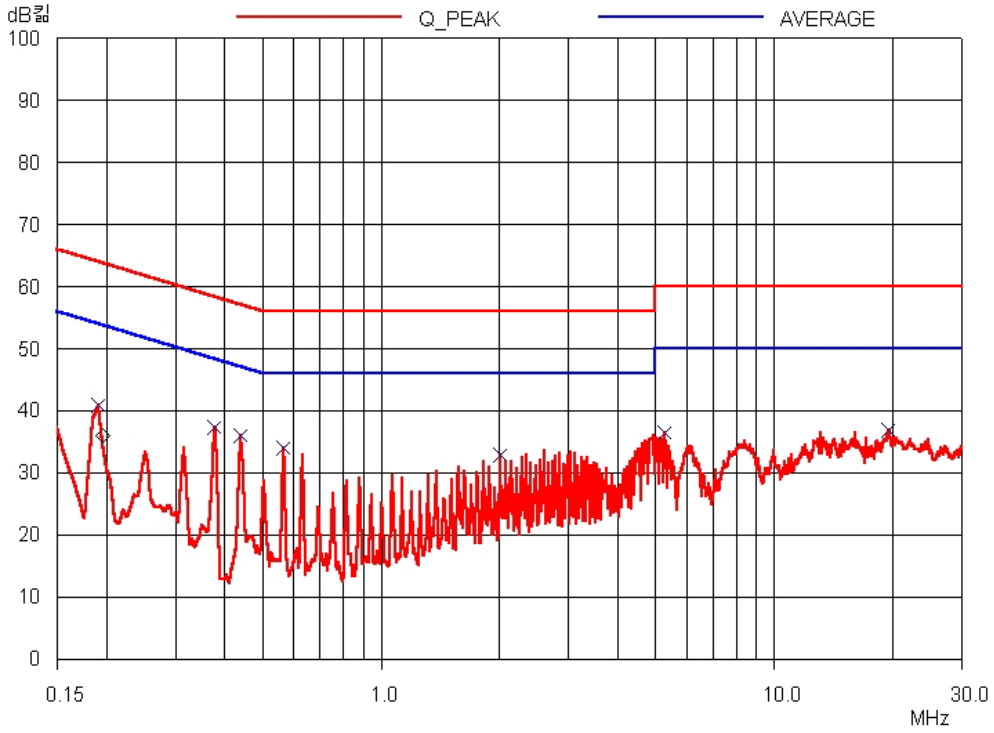
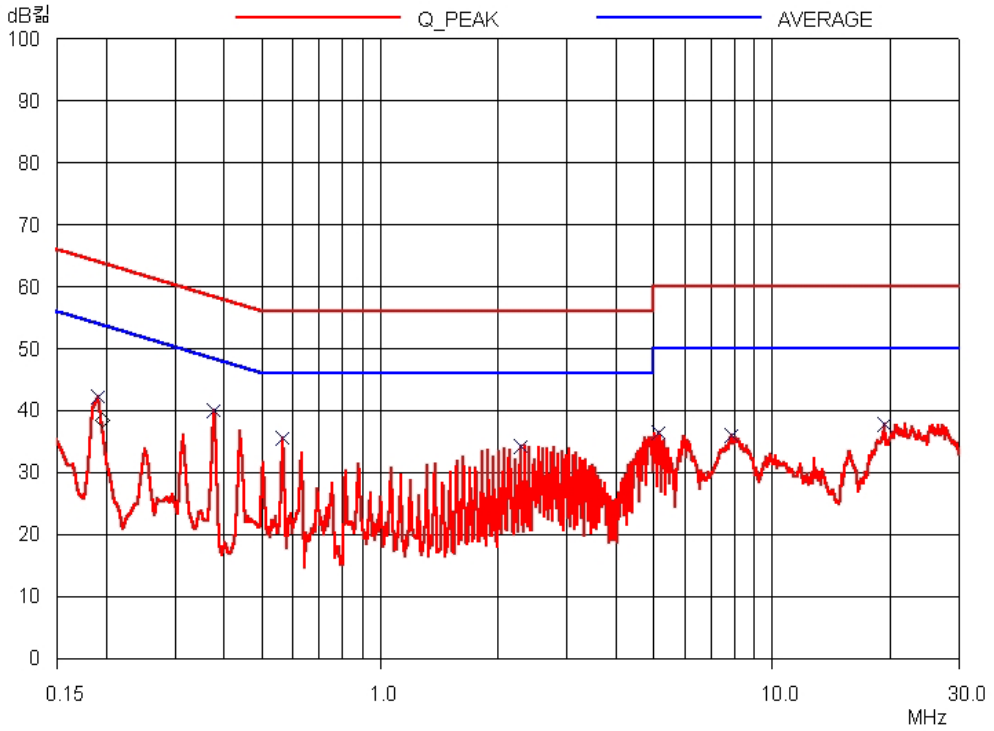


HOT LINE



NEUTRAL LINE

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5.2 Radiated Emission Test

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

Humidity Level : 40 % Temperature : 22□
Limits apply to : FCC CFR 47, PART 15, SUBPART B, SECTION 15.109(a)
Type of Test : CLASS B
Result : PASSED BY –4.07 dB at 61.00 MHz

EUT : 20.1" LCD TV RECEIVER Date: September 12, 2004
Operating Condition : Continuously displayed "H" characters on the screen of the EUT.
Frequency Range : 30 MHz – 1000 MHz
Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)
Distance : 3 Meter

Radiated Emission		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)
30.96	16.10	V	18.55	0.68	35.33	40.00	-4.67
61.00	28.00	V	6.53	1.40	35.93	40.00	-4.07
66.82	28.80	V	5.56	1.44	35.80	40.00	-4.20
83.30	26.40	V	6.74	1.67	34.81	40.00	-5.19
133.68	22.30	V	13.80	1.96	38.06	43.52	-5.46
209.27	12.80	V	16.40	2.31	31.51	43.52	-12.01
337.18	18.60	H	14.25	3.01	35.86	46.02	-10.16
368.19	19.70	H	14.97	3.21	37.88	46.02	-8.14
768.39	10.40	V	22.11	4.44	36.95	46.02	-9.07
859.48	9.80	V	23.01	4.92	37.73	46.02	-8.29
906.90	8.60	V	22.85	5.21	36.66	46.02	-9.36

Radiated Emission Tabulated Data

Tested by: In-Sub, Youn / Test 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	DEC/03	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/04	12MONTH	
8.	Biconical antenna	EMCO	3104C	9109-4443	MAY/04	12MONTH	
		Schwarzbeck	VHA9103	91031852	JAN/04		■
9.	Log Periodic antenna	EMCO	3146	9109-3213	FEB/04	12MONTH	
				9109-3217	MAY/04		
		Schwarzbeck	9108-A(494)	62281001	JAN/04		■
10.	LISN	EMCO	3825/2	9109-1867	JUL/04	12MONTH	■
				9109-1869	OCT/03		■
11.	Position Controller	EMCO	1090	9107-1038	N/A	N/A	■
12.	Turn Table	EMCO	1080-1.21	9109-1576	N/A	N/A	■
13.	Antenna Master	EMCO	1070-1	9109-1624	N/A	N/A	■

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