



ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR FCC CERTIFICATION

Test report file number : E015R-041

Applicant : KEC CORP.

Address : KEC Building, 275-7, Yangjae-Dong, Seoch-Ku, Seoul, 137-130, Korea

Manufacturer : KEC CORP.

Address : 149, Gongdan1-Dong, Kumi-Shi, KyongSangBuk-Do, Korea

Type of Equipment : 10.4" LCD TV RECEIVER

FCC ID. : BRFLT104AA

Model / Type No. : LSM104

Serial number : N/A

Total page of Report : 15 pages (including this page)


Date of Incoming : May 02, 2001

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SUMMARY

The equipment complies with the regulation of *FCC CRF 47 PART 15, SUBPART C, SECTION 15.239*.

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.

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**1. VERIFICATION OF COMPLIANCE**

APPLICANT : KEC CORP.
ADDRESS : KEC Building, 275-7, Yangjae-Dong, Seoch-Ku, Seoul, 137-130, Korea
CONTACT PERSON : Mr. E. Y. Kim / Senior Engineer
TELEPHONE NO : 82-54-467-3552
FCC ID : BRFLT104AA
MODEL NO/NAME : LSM104
SERIAL NUMBER : N/A
DATE : May 21, 2001

DEVICE TYPE	Low Power Communication Device Transmitter
E.U.T. DESCRIPTION	10.4" LCD TV RECEIVER
THIS REPORT CONCERNS	ORIGINAL GRANT
MEASUREMENT PROCEDURES	Charter 13 of 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 15.239
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.



2. GENERAL INFORMATION

2.1 Product Description

The KEC CORP., Model LSM104 (referred to as the EUT in this report) is a 10.4" LCD TV RECEIVER that can transmit from 88.3 MHz to 95 MHz for audio signal of FM radio receiver. 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)		24.576MHz, 8MHz, 14.31818MHz, 7.6MHz	
POWER REQUIREMENT		DC 12V, 22W from a Car Battery	
TX FREQUENCY RANGE		88.3 MHz ~ 95 MHz in 100 kHz Steps	
TV TUNER	Type NO. / MFR	TCPN9082DA27C / SAMSUNG	
	Channel Frequency	VHF	Low Band: 2 (55.25MHz) ~ H (163.25MHz)
			High Band: I (169.25MHz) ~ W+26 (451.25MHz)
		UHF	Band: W+27 (457.25MHz) ~ 78 (855.25MHz)
NUMBER OF LAYERS		Main B'D: 4 Layers, FM Transmitter B'D: 2 Layers	
EXTERNAL CONNECTOR		ANT. Jack, AV Jack (1,2,3), AV Out Jack, SPK Jack	

Model Differences:

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

2.2 Related Submittal(s) / Grant(s)

Original submittal only

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
LSM104	KEC CORP.	BRFLT104AA	10.4" LCD TV RECEIVER(EUT)	-
GLOBAL 300L	SEBANG	N/A	BATTERY	EUT
CTV-1010XK	KEC	N/A	TV	EUT
GHV-S9990	GoldStar	DOC	VCP	EUT

2.4 Test Methodology

Both conducted and radiated testing was performed according to the procedures in chapter 13 of 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)

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 B'D	KOREA ELECTRONICS CO., LTD.	PLAM05	N/A
FM TRANSMITTER B'D	KOREA ELECTRONICS CO., LTD.	PLAZ02	N/A
LED B'D	KOREA ELECTRONICS CO., LTD.	N/A	N/A
LCD PANEL	SAMSUNG	LTN104S2-L01	N/A
INVERTER B'D	N/A	N/A	N/A

3.2 EUT exercise Software

The LCD TV Receiver with transmitter under test continuously transmitted set RF signal for the purpose of the measurements.

3.2 Cable Description

Product Name	Power Cord Shielded (Y/N)	I/O cable Shielded (Y/N)	Length (M)
10.4" LCD TV RECEIVER(EUT)	N	-	1.0 (P)
TV	N	N	1.5(P), 1.2(D)
VTR	N	N	1.5(P), 1.2(D)

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

3.4 Noise Suppression Parts on Cable

Product Name	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
10.4" LCD TV RECEIVER(EUT)	N	N/A	-	-
TV	N	N/A	Y	BOTH END
VTR	N	N/A	Y	BOTH END



3.5 Equipment Modifications

To achieve compliance to FCC part 15 rules, 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: It needs not to test this requirement, because the EUT supplies from a car battery.

Radiated Emission Test: Preliminary radiated emissions test were conducted using the procedure in ANSI C63.4/1992 8.3.1.1 and 13.1.4.1 to determine the worse operating conditions. Final radiated emission tests were conducted at 3meter open area test site.

The turntable was rotated through 360 degrees and the EUT was tested by positioned three orthogonal planes to obtain the highest reading on the field strength meter. Once maximum reading was determined, the search antenna was raised and lowered in both vertical and horizontal polarization.

Occupied Bandwidth Measurement:

This measurement is performed with the antenna located close enough to give a full-scale deflection of the modulated carrier on the spectrum analyzer. The plot is taken at 50kHz/division frequency span, 30kHz resolution bandwidth and 5dB/division logarithmic display from an 8568B spectrum analyzer.

3.7 Antenna Requirement

For intentional device, according to section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

Antenna Construction:

FM transmitter antenna of the EUT is built-in on the PCB in the EUT, no consideration of replacement by the user.