ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR FCC CERTIFICATION

Test Report No.	**: E044R-054**
Applicant	**: CH-TECH INC.**
Address	**: 2Fl, #535-15, Anyang6-Dong, Manan-Ku, Anyang-City, Kyungki-Do, Korea**
Manufacturer	**: CH-TECH INC.**
Address	**: 2Fl, #535-15, Anyang6-Dong, Manan-Ku, Anyang-City, Kyungki-Do, Korea**
Type of Equipment	**: Radar Detector**
FCC ID	**: R26KF-2010**
Model Name	**: KF-2010**
Multiple Model Name	**: N/A**
Serial Number	**: N/A**
Total page of Report	**: 10 pages (including this page)**
Date of Incoming	**: April 06, 2004**
Date of Issuing	**: April 20, 2004**

SUMMARY

The equipment complies with the requirements of ***FCC CFR 47 Part 15 Subpart 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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1. VERIFICATION OF COMPLIANCE

-. APPLICANT : CH-TECH INC.
-. ADDRESS : 2Fl, #535-15, Anyang6-Dong, Manan-Ku, Anyang-City, Kyungki-Do, Korea
-. CONTACT PERSON : Mr. Sunny Kim/ Assistant Manager
-. TELEPHONE NO : +82-31-441-3592
-. FCC ID : R26KF-2010
-. MODEL NAME : KF-2010
-. SERIAL NUMBER : N/A
-. DATE : April 20, 2004

DEVICE TYPE	Radar Detector
E.U.T. DESCRIPTION	Radar Detector
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 PART 15, SECTION 15.109 (h)
MODIFICATIONS ON THE EQUIPMENT TO ACHIEVE COMPLIANCE	No
FINAL TEST WAS CONDUCTED ON	1 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.

-. This report is an application for certification of a radar detector operating pursuant to 47 CFR 15.109 as amended by ET Docket No. 01-278; FCC 02-211, published in the Federal Register Vol. 67, No. 145 on Monday July 29, 2002.
This report is designed to demonstrate the compliance of the KF-2010 with the requirements outlined in Part 15 (using the methods outlined in part 2) of 47 CFR.

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2. GENERAL INFORMATION

2.1 Product Description

The CH-TECH INC., Model KF-2010 (referred to as the EUT in this report) is a Radar Detector. 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)	4 MHz on Main Board
POWER REQUIREMENTS	DC12~14V from battery of vehicle
NUMBER OF LAYERS	2 Layers
EXTERNAL CONNECTOR	DC In

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 that were used in the tested system is: none

2.5 Test Methodology

Radiated emission testing was performed according to the procedures in ANSI C63.4: 2001. The testing was performed at a distance 1 meter. The device's performance was investigated in the range 11.7-12.2GHz. The EUT was powered by HP DC supply MN: E3643A. The integrated antenna cannot be maximized separately.

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	CH-TECH INC.	KF-2010 REV.A Main	N/A
Sub Board	CH-TECH INC.	KF-2010 Laser SUB REV.A	N/A

3.2 Operating Condition of the EUT

-. Scanning for radar

3.3 Cable Description

	Power Cord Shielded (Y/N)	I/O cable Shielded (Y/N)	Length (M)
Radar Detector (EUT)	N	N/A	1.2 (P)

* The marked "(P)" means the Power Cable and "D" means the I/O Cable.

3.4 Noise Suppression Parts on Cable

	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
Radar Detector (EUT)	N	N/A	N	N/A

3.5 Equipment Modifications

-. None

3.6 Configuration of Test System

Line Conducted Test : It is not need to test this requirement, because the power of the EUT supplies from a car battery.

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 1 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)
Not Applicable	

4.2 Radiated Emission Test

During Preliminary Test, the following operating mode was investigated

Operation Mode	The Worse operating condition (Please check one only)
Radar detect mode	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 Radiated Emission Test

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

Humidity Level : 49 % 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 –4.55 dB at 11719.2 MHz

EUT : Radar Detector Date: April 19, 2004
Operating Condition : Radar detect mode.
Frequency range : 11.7GHz – 12.2GHz
Detector : Peak Detect mode (RBW: 1MHz, VBW: 3MHz)
Distance : 1 Meter

Radiated Emissions		Ant	Correction Factors			Total	FCC	
Freq. (MHz)	Amp. (dBuV)	Pol.	Preamp (dB)	Ant. (dBuV/m)	Cable (dB)	Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
11719.2	35.57	H	23.0	38.70	7.68	58.95	63.50	-4.55
11915.0	34.44	H	23.0	38.70	6.79	56.93	63.50	-6.57
12090.8	34.50	H	23.0	38.70	7.21	57.41	63.50	-6.09

Radiated Emissions Tabulated Data

Note: All readings are noise floor.

Limit

Average: 500uV/m = 54dBuV/m @3m [15.109(a)]

(If peak measurements meet the Average limit, then Average measurements are not required.)

The reading was adjusted in order to account for the actual measuring distance of 1m.

Distance factor = 20 Log (3/1)

Distance factor = 9.5dB

Tested by: Su-Yong, Lee / Test Engineer

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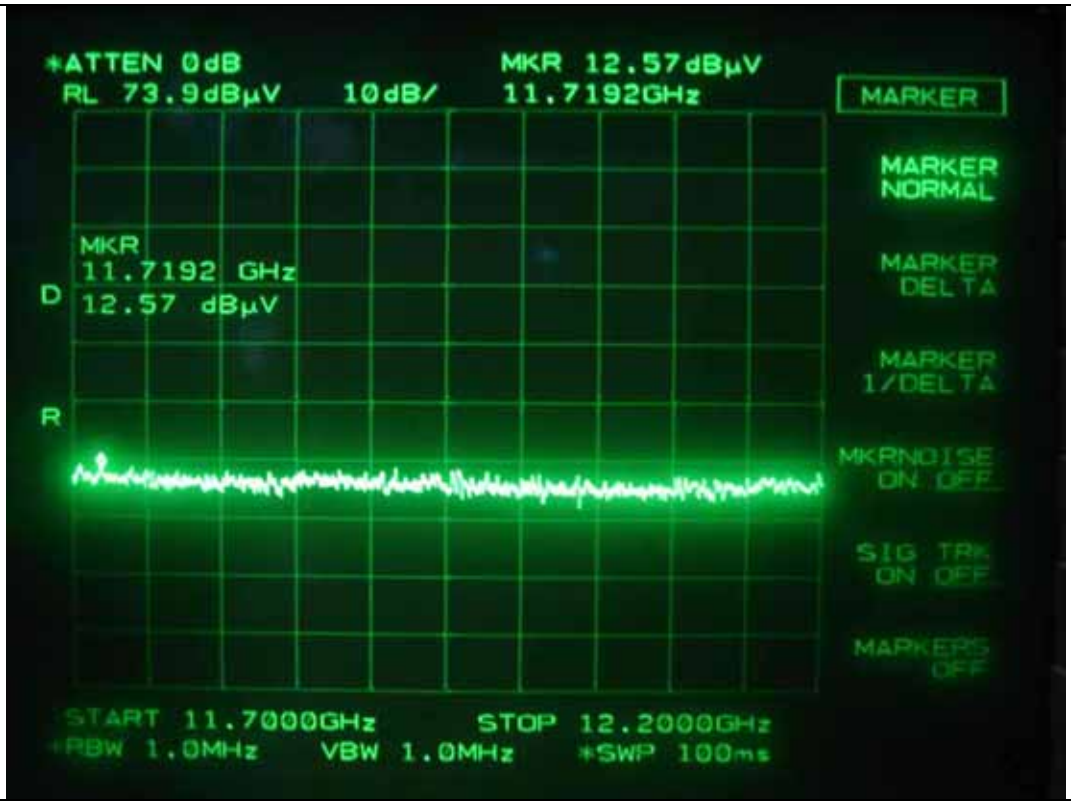
- Please refer to image data for test data



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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)
-	Preamp Factor (Gain)	(dB)
+	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	NOV/03	12MONTH	
2.	Test receiver	R/S	ESHS 10	834467/007	APR/03	12MONTH	
3.	Spectrum analyzer	HP	8564E	3650A00756	JUL/03	12MONTH	■
4.	30dB Attenuator	HP	2350A	3133	AUG/03	24MONTH	■
5.	Microwave System Preamplifer	HP	83051A	3950M00201	JUN/03	12MONTH	■
6.	Spectrum analyzer	HP	8568B	3109A05456	MAY/03	12MONTH	
7.	RF preselector	HP	85685A	3107A01264	MAY/03	12MONTH	
8.	Quasi-Peak Adapter	HP	85650A	3107A01542	MAY/03	12MONTH	
9	Horn Antenna	Schwarzbeck	BBHA9120D	BBHA9120D294	JUN/02	24MONTH	■
10.	Biconical antenna	EMCO	3104C	9109-4443	MAY/03	12MONTH	
				9109-4444	JUL/03	12MONTH	
		Schwarzbeck	VHA9103	91031852	JAN/04	12MONTH	
11.	Log Periodic antenna	EMCO	3146	9109-3213	FEB/04	12MONTH	
				9109-3214	JUL/03	12MONTH	
				9109-3217	MAY/03	12MONTH	
		Schwarzbeck	9108-A(494)	62281001	JAN/04	12MONTH	
12.	LISN	EMCO	3825/2	9109-1867	AUG/03	12MONTH	
				9109-1869	OCT/03	12MONTH	
13.	Position Controller	HD	HD100	100/788	N/A	N/A	■
14.	Turn Table	HD	DS420S	N/A	N/A	N/A	■
15.	Antenna Master	HD	HD240	N/A	N/A	N/A	■

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