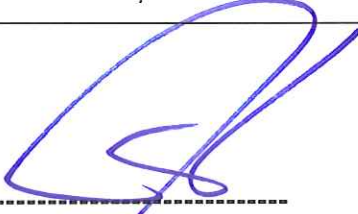



FCC TEST REPORT

Reference No. : G-45-2010-00948
Applicant : Omron Automotive Electronics Korea Co., Ltd.
Equipment Under Test (EUT) :
 Product Name : RF Keyless Entry System (Receiver)
 Model Name : OKA-360R
Applied Standards : FCC Part 15 : 2009, Subpart B, Class B
 RSS-GEN Issue 2 : 2007
 RSS-210 Issue 7:2007
 ANSI C63.4 : 2003
 CISPR 22 : 2006
Date of Receipt : April 05, 2010
Date of Test : April 26, 2010
Date of Issue : May 25, 2010
Test Results : Complied

Tested by	:		 ----- John Oh
Reviewed by	:		 ----- Forest Lee

Note : Add the FCC ID number.

Remarks :

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or Testing done by SGS International Electrical Approvals in connection with distribution or use of the product described in this report must be approved by SGS international Electrical Approvals in writing.

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1. General Information

1.1 Client Information

Applicant : Omron Automotive Electronics Korea Co., Ltd.
 Address of Applicant : Ace Techno 10-cha 701, 470-5, Gasan-dong,
 Geumcheon-gu, Seoul, 153-789, Korea
 Manufacturer : Omron Automotive Electronics Korea Co., Ltd.
 Address of Manufacturer : 492, Gayul-ri, Bogae-myeon, Anseong-city, Gyeonggi-do,
 456-871, Korea

1.2 Test Laboratory

Name and Address : SGS Testing Korea Co., Ltd.
 18-34, Sanbon-dong, Gunpo, Gyeonggi-do, Korea
 435-041

1.3 General Information of E.U.T.

Product Name : RF Keyless Entry System (Receiver)
 Model Name : OKA-360R
 Serial No. : N/A
 Power Supply : Input DC 12V
 Operating Frequency : 313.85 MHz
 FCC ID : OSLOKA-360R

1.4 Operating Modes and Conditions

Operating mode	Operating condition
RX Mode	RX Mode

1.5 Peripheral Equipments

Description	Model	Serial No.	Manufacturer
Code Checker	N/A	N/A	N/A
RF Keyless Entry System (Transmitter)	OKA-360T	N/A	Omron Automotive Electronics Korea Co., Ltd.

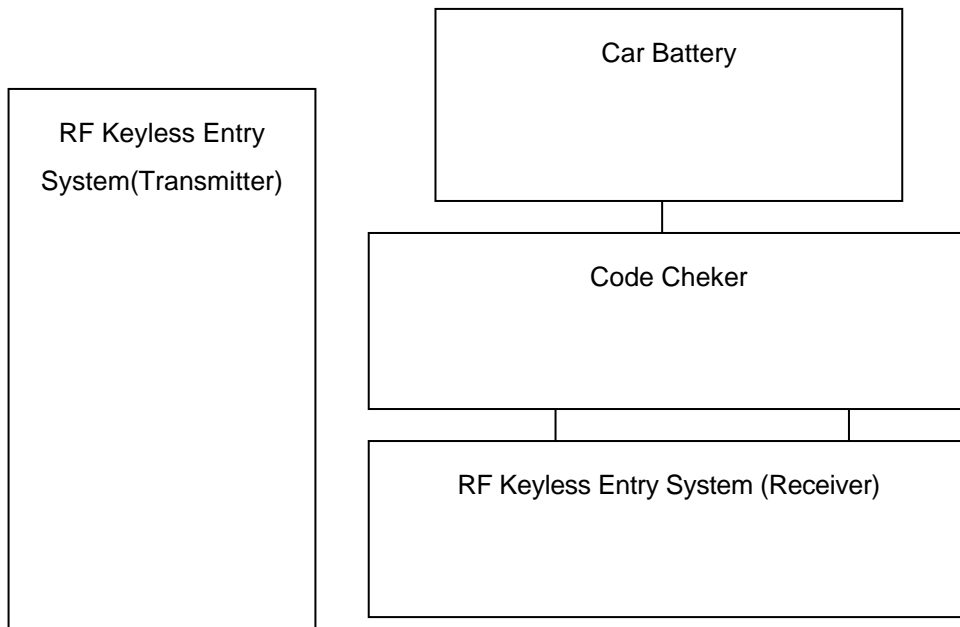
1.6 Cable List

Start		END		Cable Spec.	
Name	I/O Port	Name	I/O Port	Length	Shield
RF Keyless Entry System (Receiver)	DC IN	Code Checker	-	0.1	Unshielded
	I/O	Code Checker	-	0.1	Unshielded
Code Checker	-	RF Keyless Entry System (Receiver)	DC IN	0.1	Unshielded
	-	RF Keyless Entry System (Receiver)	I/O	0.1	Unshielded
	DC IN	Car Battery	-	0.5	Unshielded

1.7 System Configurations

Description	Model	Serial No.	Manufacturer
Main Board	N/A	N/A	N/A

1.8 Test System Layout



1.9 Applicable Standards for Testing

Standards	Status	Deviation
FCC Part 15, Subpart B	Applicable	No Deviation
RSS-Gen Issue 2, RSS-210 Issue 7	Applicable	No Deviation

1.10 Summary of Test Results

Test Item	Standards	Results
Radiated Emission	FCC Part 15, Subpart B, RSS-210 Issue 7 RSS-Gen Issue 2	Complied

Note : This is powered from car battery. So, the conducted emission is not performed.

2. Test Description

2.1 Test Equipments

Equipment	Model	Manufacturer	Last Cal. Date
Preamplifier	8449B	Agilent	2010.03.31
Test Receiver	ESU26	R&S	2010.04.08
Amplifier	8447F	HP	2009.07.02
Horn Antenna	HF906	R&S	2009.10.08
Bi-Log Antenna	VULB9163	SCHWARZBECK MESS- ELEKTRONIK	2009.07.22

Note : Only the calibration period of Antennas is 2 years but the period of every equipment is 1 year.

2.2 Test Site

Radiated Emission : 3m Semi-Anechoic Chamber in Gunpo Laboratory.

2.3 Radiated Emission Test Data

The initial preliminary exploratory scans were performed using a max hold mode incorporating a Peak detector. The final test data was measured using a Quasi-Peak detector below 1GHz and a Average detector above 1GHz.

Below 1GHz

Temperature : 25.2 °C ~ 25.3 °C

Humidity : 45.0 % RH

Atmospheric Pressure : 101.0 kPa

FREQ. (MHz)	LEVEL (dB μ V)	POL (H/V)	AF (dB)	CL (dB)	Amp (dB)	F/S (dB μ V/m)	LIMIT (dB μ V/m)	MARGIN (dB)
32.50	46.30	V	11.07	0.58	28.31	29.65	40.00	10.36
56.30	44.20	H	11.68	0.76	28.21	28.43	40.00	11.57
65.20	43.50	H	9.38	0.82	28.19	25.51	40.00	14.49
74.50	45.80	V	6.64	0.87	28.16	25.15	40.00	14.85
89.60	43.20	V	10.51	0.95	28.17	26.49	43.50	17.01
100.54	40.10	H	11.86	0.99	28.06	24.89	43.50	18.61

Note: • AF = Antenna Factor
 • POL H = Horizontal
 • Margin = Limit – F/S

• CL = Cable Loss
 • POL V = Vertical
 • F/S = Level + AF + CL – Amp

• F/S = Field Strength
 • Amp = Amplifier Gain

Above 1GHz

Temperature : 24.4 °C ~ 25.2 °C

Humidity : 44.0 % RH ~ 45.0 % RH

Atmospheric Pressure : 101.0 kPa ~ 101.1 kPa

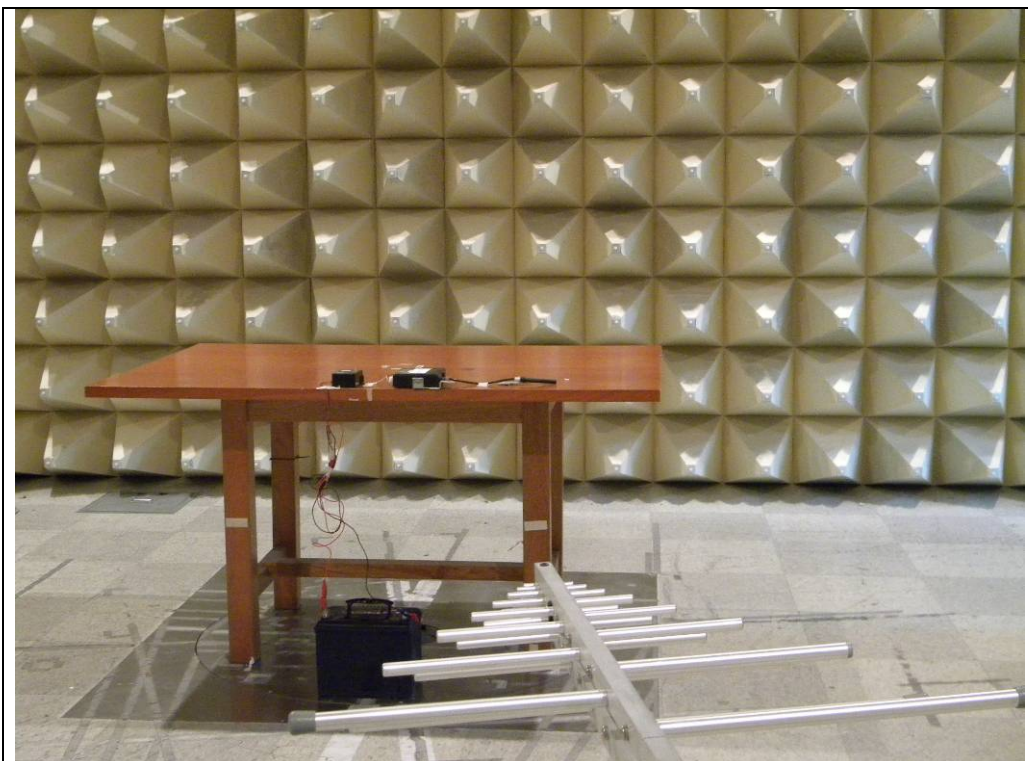
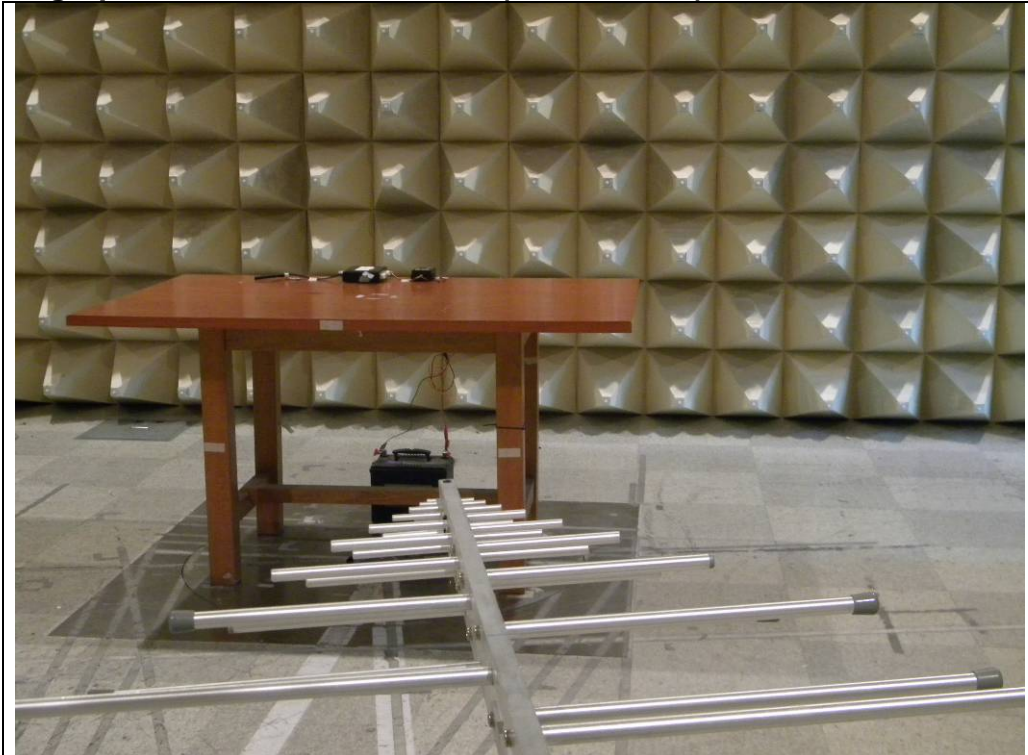
FREQ. (MHz)	LEVEL (dB μ V)	POL (H/V)	AF (dB)	CL (dB)	Amp (dB)	F/S (dB μ V/m)	LIMIT (dB μ V/m)	MARGIN (dB)
Average Detector								
1005.41	35.20	V	24.04	3.15	33.75	28.64	54.00	25.36
1141.21	34.90	V	24.85	3.32	33.98	29.08	54.00	24.92
1264.18	38.50	H	24.95	3.44	34.53	32.36	54.00	21.64
1684.54	37.10	H	26.27	3.96	34.92	32.40	54.00	21.60
2019.31	33.80	H	27.60	4.55	34.72	31.23	54.00	22.77
2161.54	36.80	H	27.75	4.61	35.14	34.01	54.00	19.99

Note : • AF = Antenna Factor • CL = Cable Loss • F/S = Field Strength
 • POL H = Horizontal • POL V = Vertical • Amp = Amplifier Gain
 • Margin = Limit – F/S • F/S = Level + AF + CL - Amp

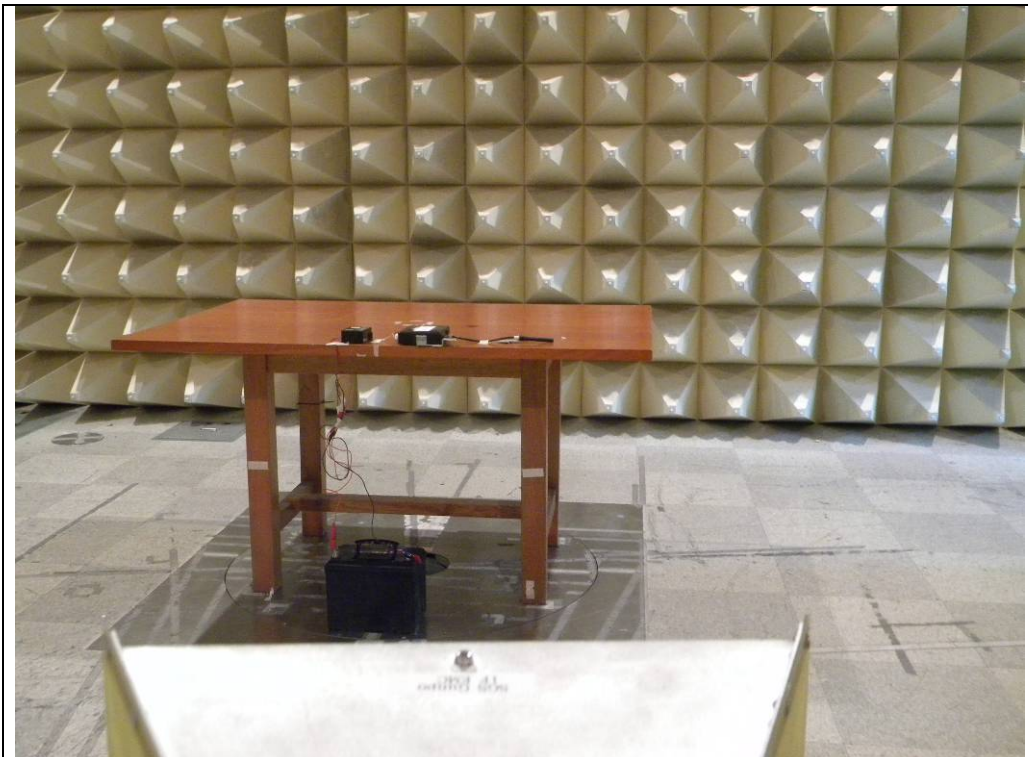
2.4 Modifications

There was no modified item during the test.

2.5 Photographs of Radiated Emission (Below 1GHz)



2.6 Photographs of Radiated Emission (Above 1GHz)



3. Photographs of EUT

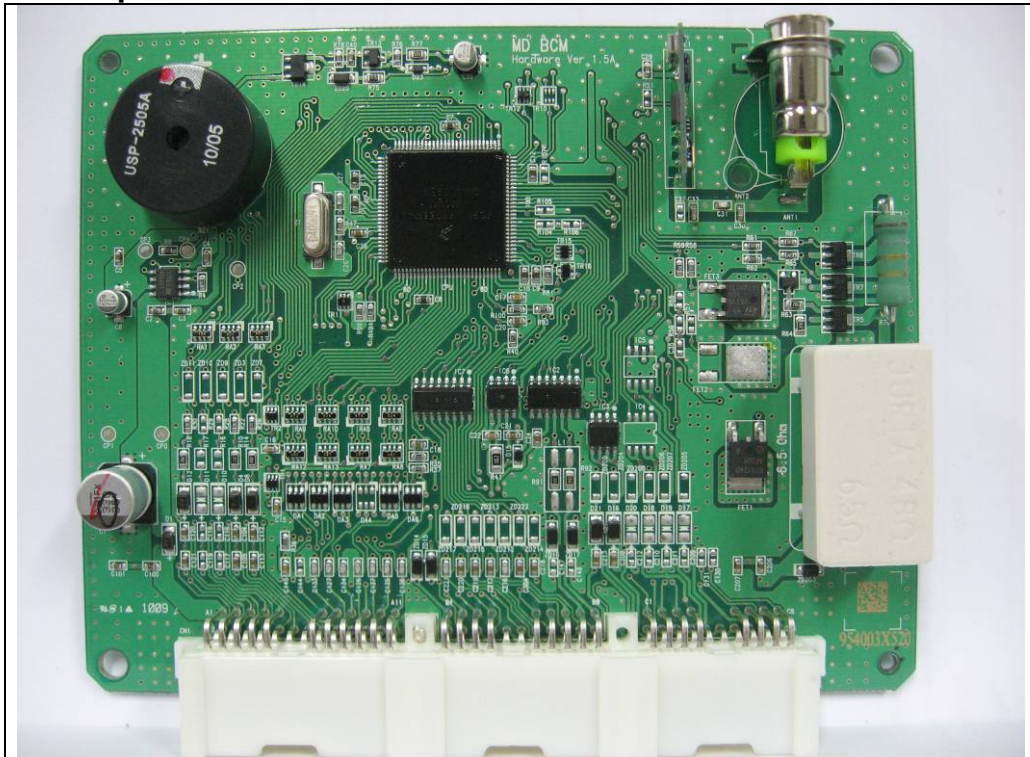
- Front View



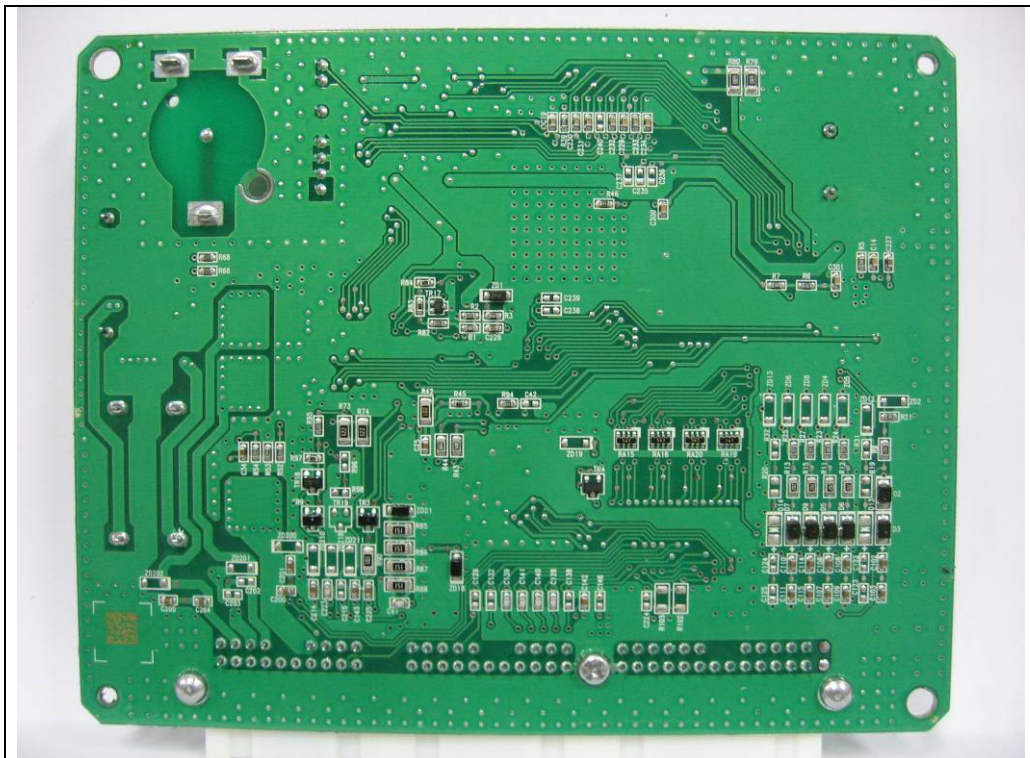
- Rear View



● Top View of Main Board



● Bottom View of Main Board



● Antenna



● Inside

