

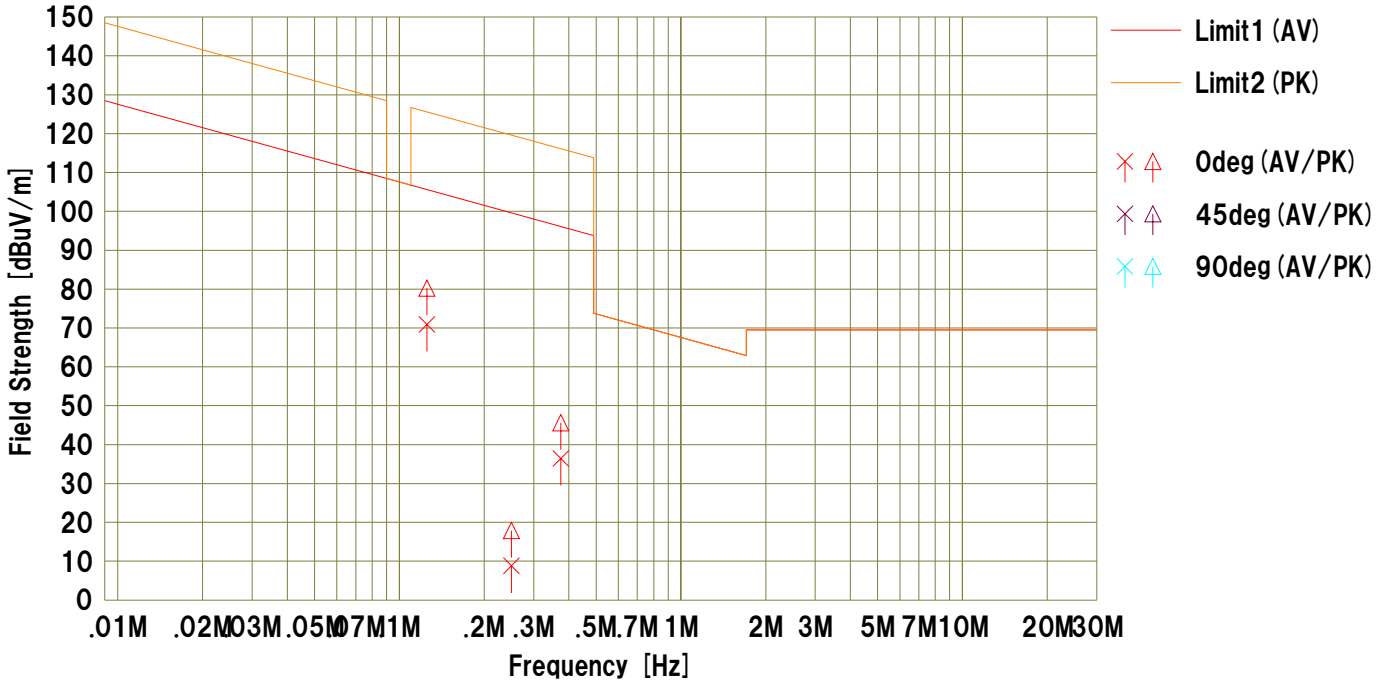
# DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.3 Semi-Anechoic Chamber  
Date : 2010/06/19

Company : Honda Lock Mfg. Co., Ltd.	Mode : Transmitting
Kind of EUT : Integrate Immobilizer System with RKE	Report No. : 30IE0136-SH-02-A
Model No. : HLIKN-1R	Power : DC12V
Serial No. : 001	Temp./Humi. : 26deg.C / 53%

Remarks : EUT:Y Loop Antenna: Odeg.

Limit1 : FCC15.209 (a) 3m, 9-90kHz:AV, 110-490kHz:AV, other:QP  
 Limit2 : FCC15.209 (a) 3m, 9-90kHz:PK, 110-490kHz:PK, other:QP      Tested by : Tatsuya Arai



No.	Freq. [MHz]	Reading		Ant.Fac [dB/m]	Loss [dB]	Gain [dB]	Result		Limit		Margin		Antenna	Table [deg]	Comment
		<AV>	<PK>				<AV>	<PK>	<AV>	<PK>	<AV>	<PK>			
		[dBuV]	[dBuV]				[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]			
1	0.12509	76.9	86.2	20.0	5.9	31.9	70.9	80.2	105.7	125.6	34.8	45.4	Odeg	179	
2	0.25000	15.2	24.3	19.9	5.9	32.2	8.8	17.9	99.6	119.6	90.8	101.7	Odeg	180	
3	0.37500	42.9	52.1	19.8	5.9	32.2	36.4	45.6	96.1	116.1	59.7	70.5	Odeg	162	

Calculation: Result [dBuV/m] = Reading [dBuV] + Ant.Fac [dB/m] + Loss (Cable+ATT) [dB] - Gain (AMP) [dB]  
 Ant.Type=LOOP: Loop Antenna

# DATA OF RADIATED EMISSION TEST

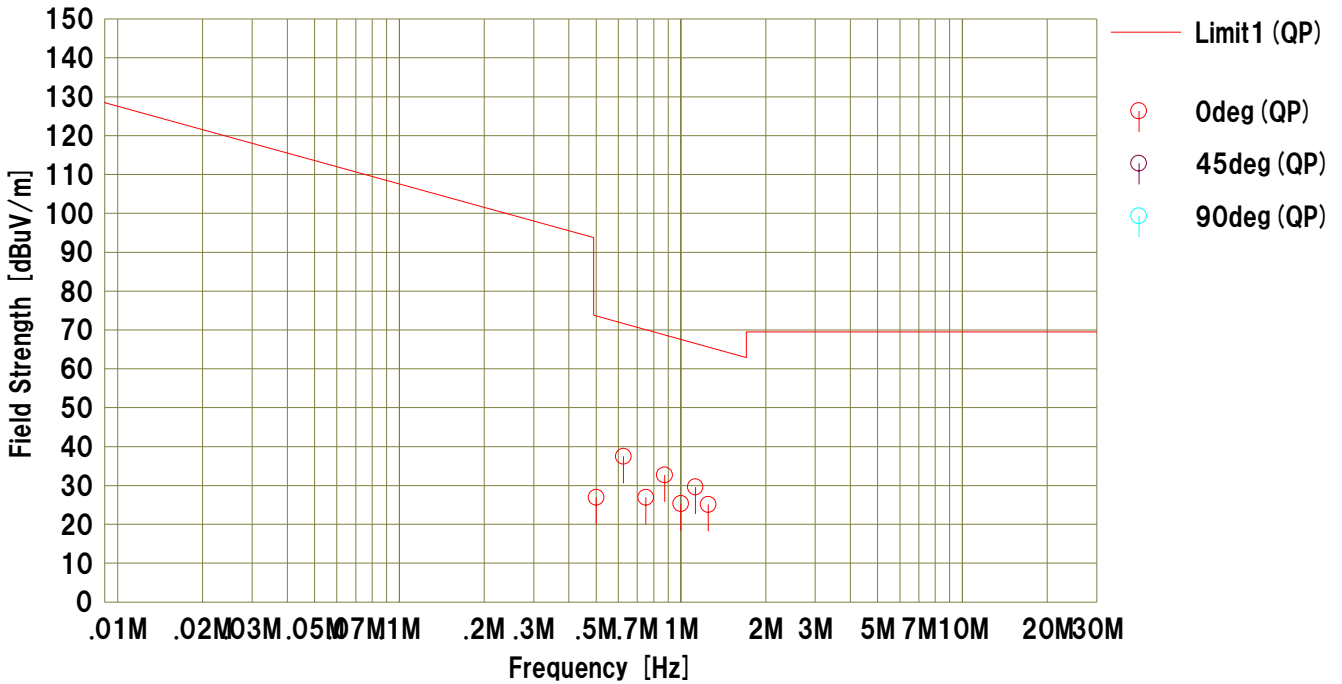
UL Japan, Inc. Shonan EMC Lab. No.3 Semi-Anechoic Chamber  
Date : 2010/06/19

Company : Honda Lock Mfg. Co., Ltd.	Mode : Transmitting
Kind of EUT : Integrate Immobilizer System with RKE	Report No. : 30IE0136-SH-02-A
Model No. : HLIKN-1R	Power : DC12V
Serial No. : 001	Temp./Humi. : 26deg.C / 53%

Remarks : EUT:Y Loop Antenna: 0deg.

Limit1 : FCC15.209 (a) 3m, 9-90kHz:AV, 110-490kHz:AV, other:QP

Tested by : Tatsuya Arai



No.	Freq. [MHz]	Reading	Ant.Fac [dB/m]	Loss [dB]	Gain [dB]	Result	Limit	Margin	Antenna	Table	Comment
		<QP>				<QP>	<QP>	[deg]			
		[dBuV]				[dBuV/m]	[dBuV/m]	[dB]			
1	0.50000	33.4	19.8	5.9	32.2	26.9	73.6	46.7	0deg	180	
2	0.62500	44.0	19.8	5.9	32.2	37.5	71.7	34.2	0deg	174	
3	0.75000	33.4	19.8	5.9	32.2	26.9	70.1	43.2	0deg	180	
4	0.87500	39.2	19.8	5.9	32.2	32.7	68.7	36.0	0deg	177	
5	1.00000	31.8	19.8	5.9	32.2	25.3	67.6	42.3	0deg	180	
6	1.12500	36.1	19.8	5.9	32.2	29.6	66.5	36.9	0deg	172	
7	1.25000	31.6	19.8	5.9	32.2	25.1	65.6	40.5	0deg	180	

Calculation: Result [dBuV/m] = Reading [dBuV] + Ant.Fac [dB/m] + Loss (Cable+ATT) [dB] - Gain (AMP) [dB]  
Ant.Type=LOOP: Loop Antenna

# DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.3 Semi-Anechoic Chamber  
Date : 2010/06/20

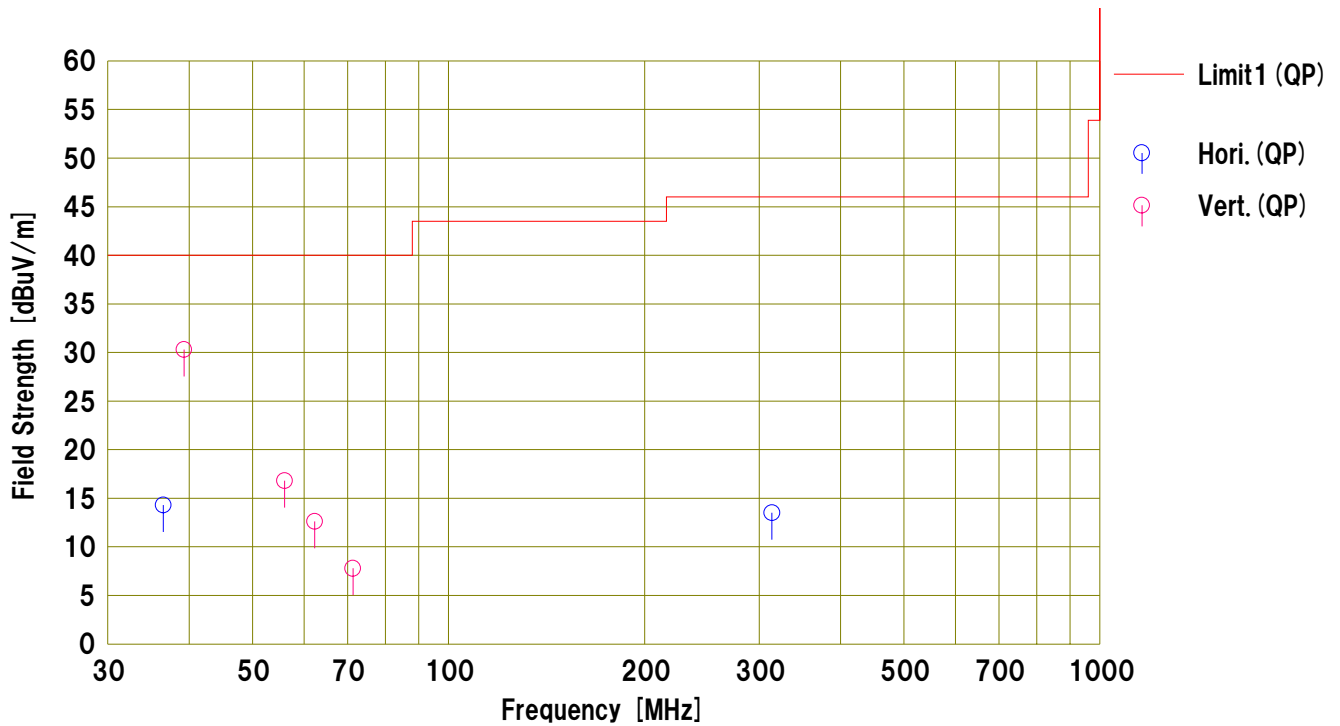
Company : Honda Lock Mfg. Co., Ltd.  
Kind of EUT : Integrate Immobilizer System with RKE  
Model No. : HLIKN-1R  
Serial No. : 001

Mode : Transmitting  
Report No. : 30IE0136-SH-02-A  
Power : DC12V  
Temp./Humi. : 26deg.C / 53%

Remarks : EUT:X

Limit1 : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK

Engineer : Tatsuya Arai



No.	Freq. [MHz]	Reading	Ant.Fac [dB/m]	Loss [dB]	Gain [dB]	Result	Limit	Margin	Pola. [H/V]	Height [cm]	Angle [deg]	Ant. Type	Comment
		<QP> [dBuV]				<QP> [dBuV/m]	<QP> [dB]						
1	36.494	23.9	15.9	6.6	32.1	14.3	40.0	25.7	Hori.	300	87	BC	
2	313.850	22.7	14.2	8.5	31.9	13.5	46.0	32.5	Hori.	100	71	LP	
3	39.258	40.8	15.0	6.6	32.1	30.3	40.0	9.7	Vert.	100	210	BC	
4	56.039	33.0	9.1	6.8	32.1	16.8	40.0	23.2	Vert.	100	213	BC	
5	62.290	30.3	7.5	6.9	32.1	12.6	40.0	27.4	Vert.	100	305	BC	
6	71.339	26.4	6.5	7.0	32.1	7.8	40.0	32.2	Vert.	100	348	BC	

## -26dB/ 99% Occpied Bandwidth

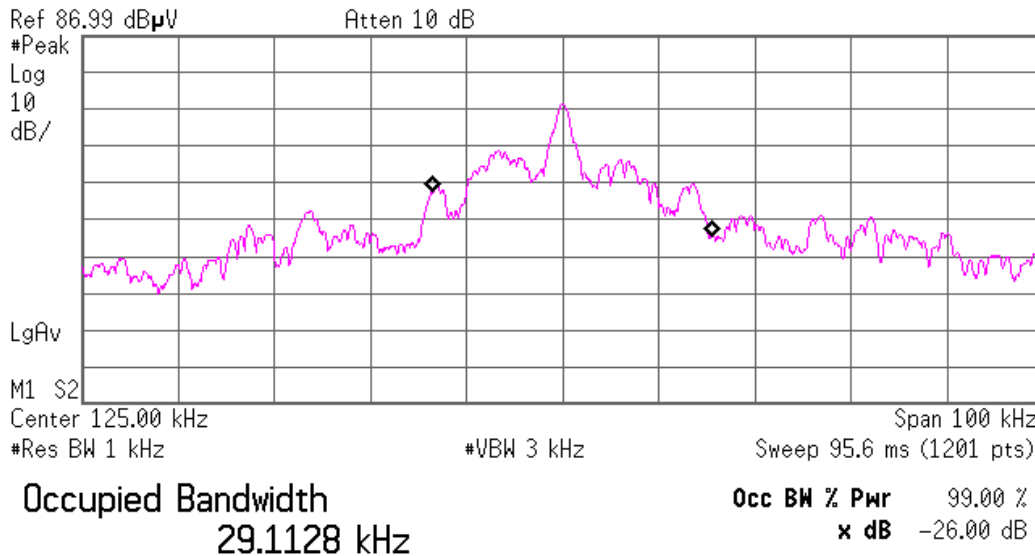
UL Japan, Inc.  
 SHONAN EMC Lab. No.5 Shielded Room  
 Report No. : 30IE0136-SH-02-A

Company : Honda Lock Mfg. Co., Ltd.	Regulation (-26dB) : ANSI C 63.4 13.1.7
Equipment : Integrate Immobilizer System with RKE	Regulation (Occpied) : RSS-Gen 4.4.1
Model : HLIKN-1R	Date : June 21, 2010
Sample No. : 001	Temperature : 22deg.C
Power : DC 12.0V	Humidity : 50%
Mode : Transmitting	

ENGINEER : Tatsuya Arai

Frequency [kHz]	-26dB Bandwidth [kHz]	99% Occpied Bandwidth [kHz]
125	28.212	29.1128

✧ Agilent



**Transmit Freq Error** 1.051 kHz  
**x dB Bandwidth** 28.212 kHz

**APPENDIX 3  
Test Instruments**

**EMI test equipment**

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
SAF-03	Pre Amplifier	SONOMA	310N	290213	RE	2010/02/06 * 12
SAT6-03	Attenuator	JFW	50HF-006N	-	RE	2010/02/06 * 12
SBA-03	Biconical Antenna	Schwarzbeck	BBA9106	91032666	RE	2010/03/22 * 12
SCC-C1/C2/C3/C4/C5/C10/SRSE-03	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906	-/0901-271(RF Selector)	RE	2010/04/02 * 12
SLA-03	Logperiodic Antenna	Schwarzbeck	UHALP9108A	UHALP 9108-A 0901	RE	2010/03/22 * 12
SOS-05	Humidity Indicator	A&D	AD-5681	4062518	RE	2010/02/09 * 12
STR-03	Test Receiver	Rohde & Schwarz	ESI40	100054/040	RE	2010/04/12 * 24
SJM-10	Measure	PROMART	SEN1935	-	RE	-
SAEC-03(NSA)	Semi-Anechoic Chamber	TDK	SAEC-03(NSA)	3	RE	2009/09/18 * 12
COTS-SEMI-1	EMI Software	TSJ	TEPTO-DV	-	RE	-
SLP-02	Loop Antenna	Rohde & Schwarz	HFH2-Z2	100218	RE	2009/10/06 * 12
SSA-03	Spectrum Analyzer	Agilent	E4448A	MY48250152	BW	2009/06/09 * 24
SSCA-01	Search coil	LANGER	RF-R 400-1	02-0634	BW	Pre Check
SOS-09	Humidity Indicator	A&D	AD-5681	4061484	BW	2010/02/17 * 12

The expiration date of the calibration is the end of the expired month .  
As for some calibrations performed after the tested dates , those test equipment have been controlled by means of an unbroken chains of calibrations .

All equipment is calibrated with traceable calibrations . Each calibration is traceable to the national or international standards .

Test Item :  
RE: Radiated emission ,  
BW: Bandwidth