

Automatically deactivate: FCC 15.231(a)(1)

UL Japan, Inc.

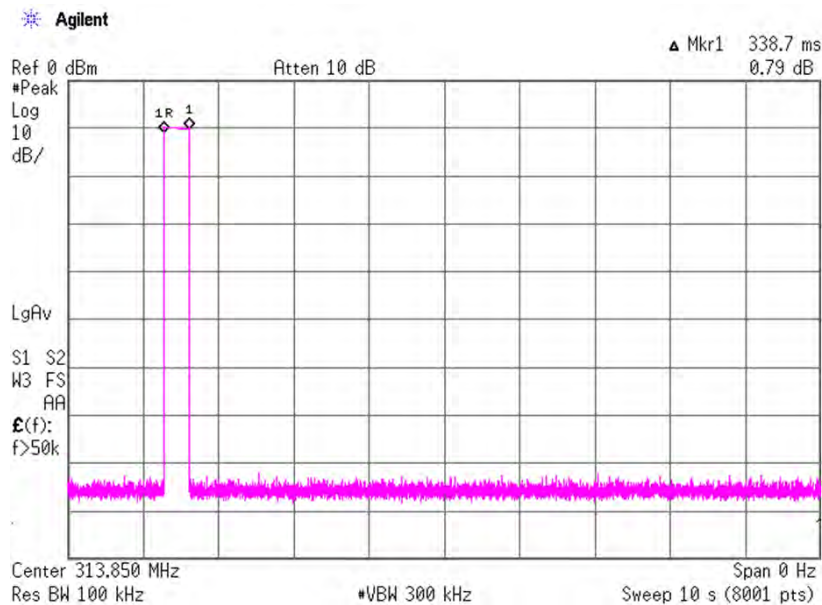
Shonan EMC Lab. No.3 Semi-Anechoic Chamber

Report No. : 32EE0044-SH-01-A-R1

Company : Honda Lock Mfg. Co., Ltd.
 Equipment : Transmitter of Keyless Entry
 Model : HLIK6-1T
 Sample No. : 1
 Power : DC 3.0V (Battery)
 Mode : Transmitting (313.85 MHz)

Regulation : FCC Part15C Section 15.231(a)(1)
 Regulation : RSS-210 A1.1.1(a)
 Test Distance : 3m
 Date : January 26, 2012
 Temperature : 21deg.C
 Humidity : 33%RH
 ENGINEER : Tatsuya Arai

Time of Transmitting [sec]	Limit [sec]	Result
0.3387	5	PASS



Radiated Emission (Electric Field Strength of Fundamental and Spurious Emission)

UL Japan, Inc.

Shonan EMC Lab. No.3 Semi-Anechoic Chamber

Report No. : 32EE0044-SH-01-A-R1

Company : Honda Lock Mfg. Co., Ltd.
 Equipment : Transmitter of Keyless Entry
 Model : HLIK6-1T
 Sample No. : 2
 Power : DC 3.0V (Battery)
 Mode : Transmitting (313.85 MHz)

Regulation : FCC Part15C Section 15.231(b), 15.209
 Regulation : RSS-210 A1.1 (Table A), A1.1.2
 Test Distance : 3m
 Date : December 28, 2011 : January 8, 2012
 Temperature : 24deg.C : 20deg.C
 Humidity : 21%RH : 25%RH
 ENGINEER : Kenichi Adachi : Tatsuya Arai

PK with Duty factor

Frequency [MHz]	Reading [dBuV]		Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]		Limit [dBuV/m]	Margin [dB]		Remark
	Hor	Ver					Hor	Ver		Hor	Ver	
313.850	90.0	87.1	14.3	8.7	31.9	-5.9	75.2	72.3	75.6	0.4	3.3	Carrier
627.700	42.0	38.9	19.4	9.9	31.9	-5.9	33.5	30.4	55.6	22.1	25.2	Outside
941.550	42.3	38.4	22.8	10.8	30.7	-5.9	39.3	35.4	55.6	16.3	20.2	Outside
1255.400	52.7	52.9	24.6	2.8	40.7	-5.9	33.5	33.7	55.6	22.1	21.9	Outside
1569.250	56.8	57.7	25.3	3.1	40.9	-5.9	38.4	39.3	53.9	15.5	14.6	Inside
1883.100	52.7	49.4	25.9	3.4	41.1	-5.9	35.0	31.7	55.6	20.6	23.9	Outside
2196.950	62.6	57.8	26.7	3.6	41.1	-5.9	45.9	41.1	55.6	9.7	14.5	Outside
2510.800	63.1	59.7	27.6	4.0	41.1	-5.9	47.7	44.3	55.6	7.9	11.3	Outside
2824.650	52.1	50.1	28.3	4.4	41.3	-5.9	37.6	35.6	53.9	16.3	18.3	Inside
3138.500	63.9	61.0	28.9	4.4	41.5	-5.9	49.8	46.9	55.6	5.8	8.7	Outside

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier) + Duty factor (Refer to Duty factor data sheet)

PK

Frequency [MHz]	Reading [dBuV]		Ant Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]		Limit [dBuV/m]	Margin [dB]		Remark Inside or Outside of Restricted Bands
	Hor	Ver					Hor	Ver		Hor	Ver	
1255.400	52.7	52.9	24.6	2.8	40.7	-	39.4	39.6	75.6	36.2	36.0	Outside
1569.250	56.8	57.7	25.3	3.1	40.9	-	44.3	45.2	73.9	29.6	28.7	Inside
1883.100	52.7	49.4	25.9	3.4	41.1	-	40.9	37.6	75.6	34.7	38.0	Outside
2196.950	62.6	57.8	26.7	3.6	41.1	-	51.8	47.0	75.6	23.8	28.6	Outside
2510.800	63.1	59.7	27.6	4.0	41.1	-	53.6	50.2	75.6	22.0	25.4	Outside
2824.650	52.1	50.1	28.3	4.4	41.3	-	43.5	41.5	73.9	30.4	32.4	Inside
3138.500	63.9	61.0	28.9	4.4	41.5	-	55.7	52.8	75.6	19.9	22.8	Outside

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter) - Gain(Amplifier)

REMARKS

Antenna Type: 30M-300MHz Biconical / 300M-1000MHz Logperiodic / 1G-5GHz Horn

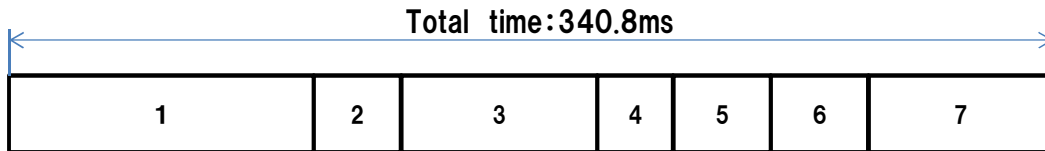
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*Below 30MHz: No noise detected signal from EUT.

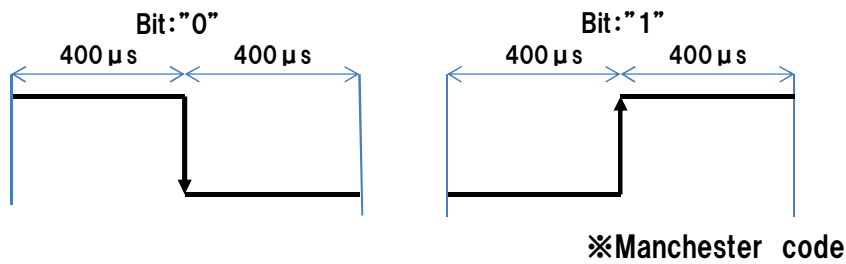
Duty Cycle (Fundamental)

Company : Honda Lock Mfg. Co., Ltd.
 Equipment : Transmitter of Keyless Entry
 Model : HLIK6-1T
 Sample No. : 2
 Power : DC 3.0V (Battery)
 Mode : Transmitting (313.85 MHz)

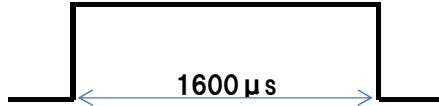
UL Japan, Inc.
 SHONAN EMC Lab.
 Report No. : 32EE0044-SH-01-A-R1
 Regulation : FCC Part15C Section 15.231(b), 15.35(c)
 Regulation : RSS-210 & RSS-Gen
 Test Distance : 3m
 Date : January 26, 2012
 Temperature : 21deg.C
 Humidity : 33%RH
 ENGINEER : Tatsuya Arai



•Data(No.1,2,3,5,6,7)



•Data(No.4)



ON time [msec]	Cycle [msec]	Duty (On time / Cycle)	Duty [dB]
50.8	100	0.51	-5.9

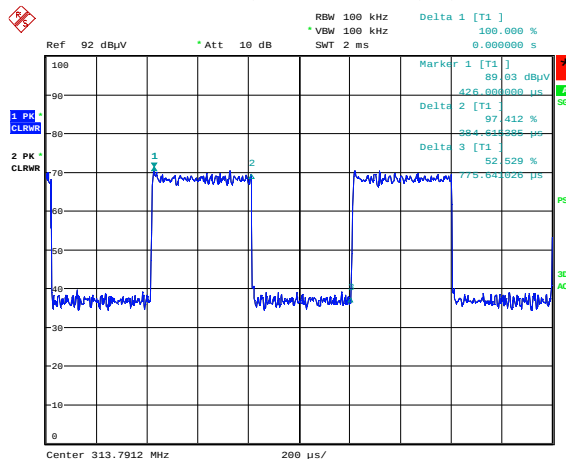
*ON time = (100ms - 1.6ms) / 2 + 1.6ms = 50.8ms

The worst case for any 100msec is a period including No.4

*Duty = 20log (On time / Cycle)

Reference data

*ON time:384.6ms, Cycle:775.6ms, Duty Cycle:0.50



20dB Bandwidth: FCC 15.231(c)

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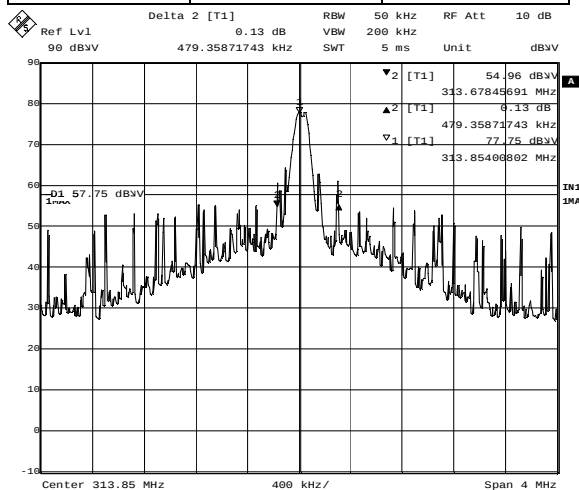
Report No. : 32EE0044-SH-01-A-R1

Company : Honda Lock Mfg. Co., Ltd.
 Equipment : Transmitter of Keyless Entry
 Model : HLIK6-1T
 Sample No. : 2
 Power : DC 3.0V (Battery)
 Mode : Transmitting (313.85 MHz)

Regulation : FCC Part15C Section 15.231(c)
 Regulation : RSS-210 A1.1.3
 Test Distance : 3m
 Date : December 28, 2011
 Temperature : 24deg.C
 Humidity : 21%RH
 ENGINEER : Kenichi Adachi

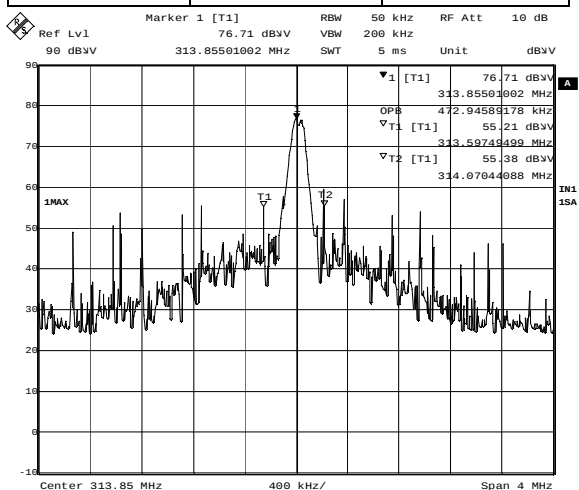
Bandwidth Limit : fundamental Frequency 313.85 X 0.25%= 784.625kHz

20dB Bandwidth [kHz]	Bandwidth Limit [kHz]	Result
479.3587174	784.625	PASS



Bandwidth Limit : fundamental Frequency 313.85 X 0.25%= 784.625kHz

99% Occupied Bandwidth [kHz]	Bandwidth Limit [kHz]	Result
472.9458918	784.625	PASS



APPENDIX 2

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	2011/02/17 * 12
SAT6-03	Attenuator	JFW	50HF-006N	-	RE	2011/02/17 * 12
SBA-03	Biconical Antenna	Schwarzbeck	BBA9106	91032666	RE	2011/10/23 * 12
SCC-C1/C2/C3/C4/C5/C10/SRSE-03	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906	-/0901-271(RF Selector)	RE	2011/04/28 * 12
SLA-03	Logperiodic Antenna	Schwarzbeck	UHALP9108A	UHALP 9108-A 0901	RE	2011/10/23 * 12
SOS-05	Humidity Indicator	A&D	AD-5681	4062518	RE	2011/02/23 * 12
STR-03	Test Receiver	Rohde & Schwarz	ES140	100054/040	RE	2011/07/28 * 12
SJM-10	Measure	PROMART	SEN1935	-	RE	-
SAEC-03(NSA)	Semi-Anechoic Chamber	TDK	SAEC-03(NSA)	3	RE	2011/09/23 * 12
COTS-SEMI-1	EMI Software	TSJ	TEPTO-DV(RE,CE,RF1,MF)	-	RE	-
SAF-06	Pre Amplifier	TOYO Corporation	TPA0118-36	1440491	RE	2011/07/19 * 12
SCC-G03	Coaxial Cable	Suhner	SUCOFLEX 104A	46499/4A	RE	2011/04/28 * 12
SCC-G23	Coaxial Cable	Suhner	SUCOFLEX 104	297342/4	RE	2011/05/27 * 12
SHA-03	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-739	RE	2011/08/28 * 12
SAF-01	Pre Amplifier	SONOMA	310N	290211	RE	2011/02/17 * 12
SAT6-07	Attenuator	JFW	50HF-006N	-	RE	2011/02/17 * 12
SCC-A2/A4/A6/A7/A8/A13/SRSE-01	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906	-/0901-269(RF Selector)	RE	2011/04/28 * 12
SLP-02	Loop Antenna	Rohde & Schwarz	HFH2-Z2	100218	RE	2011/10/19 * 12
SOS-01	Humidity Indicator	A&D	AD-5681	4062555	RE	2011/02/23 * 12
STR-01	Test Receiver	Rohde & Schwarz	ESU40	100093	RE	2011/10/22 * 12
SJM-12	Measure	PROMART	SEN1935	-	RE	-
KSA-08	Spectrum Analyzer	Agilent	E4446A	MY46180525	RE	2011/02/02 * 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 valid calibrations . Each measurement data is traceable to the national or international standards .

Test Item :

RE: Radiated emission