TEST REPORT

Issued: June 30, 2016

Name and Address of the Customer:	Enagic, Inc. 1-40-1, Hoshida-kita, Katano-city, Osaka 576-0017, Japan
Test Item:	Electrolysis Water System
Identification:	LeveLuk K8 / A26-00
Serial No.:	54220729BK
FCC ID:	2AEBAA2600A
IC Certification Number:	20009-A2600
Sample No.:	1
Sample Receipt Date:	April 20, 2016
Test Specification:	47 CFR Part 15 Subpart C RSS-210 Issue 8, RSS-Gen Issue 4
Period of Testing:	May 12, 2016 - May 18, 2016
Test Result:	PASS

Representative Test Personnel: K. Miyaji (2016-06-30) — K. Miyaji (EMC Dept.), iNARTE : EMC-003627-NE

Reviewed by: H. Onishi (2016-06-30) — H. Onishi (EMC Dept.), iNARTE : EMC-003318-NT

Other Aspects:

Abbreviations:

PASS	=	passed
FAIL	=	failed
N/A	=	not applicable

Note:
This Test Report should not be reproduced except in full, without the written approval of Cosmos Corporation.
The test result of this Test Report is based on the tests made for sample provided, and it is not applicable to individual product identical to the sample or similar product.
The judgment of this test report validates the test item only specified in "4. Summary of Test Results".
This test report is not things that be accredited by VLAC regarding the products and also ensured.
Therefore, this report must not be used for advocating them.

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1. Description of the Tested Sample

1.1 Product Description

Manufacturer	Enagic, Inc.
Model (referred to as the EUT)	LeveLuk K8 / A26-00
Hardware Version	2.0
Software Version	2.0
Type of the Equipment	☐ Stand-alone ☒ Combined Equipment ☐ Plug-in Radio Device ☐ Other ( )
Transmitter Type	☐ WLAN ☐ Bluetooth ( ) ☐ ZigBee ☒ RFID ☐ Other ( )
Nominal Voltage	AC 120 V
Type of Modulation	OOK
Emission Designator	1M32P1D
Antenna Type	☒ Integral Antenna ☐ Dedicated External Antenna
Operating Frequency	13.56 MHz
Type of Power Source	☒ AC Mains ☐ Dedicated AC Adaptor ☐ DC Voltage ☐ Battery
Type of Battery (if applicable)	N/A
Thermal Limitation	5℃ to 40℃

1.2 Antenna Description

Model	Gain	Antenna Type	Remarks
ENG-K8	-63.5 dBi	Small Loop Antenna	---

1.3 EUT Description

Enagic, Inc., Model LeveLuk K8 / A26-00 (referred to as the EUT in this report) is Electrolysis Water System.

[Rating]

Rated Voltage	Rated Frequency	Rated Current
AC 100-240 V	50/60 Hz	1.1-2.6 A

2. General Information

2.1 Test Methodology

All measurement subject to the present test report is carried out according to the procedures in ANSI C63.10:2013.

2.2 Test Facility

The measurement was carried out at the following facility.

Cosmos Corporation EMC Lab. Oonoki
3571-2 Oonoki, Watarai-cho, Watarai-gun, Mie-ken 516-2102, Japan

- ☒ Semi anechoic Chamber 3 m (COAC3M-01)
- ☒ Shielded Room (COSR-01)
- ☒ Measurement Room

Cosmos Corporation EMC Lab. Oonoki is accredited in accordance with the International Standard ISO/IEC 17025 by the following accreditation bodies and the test facility is registered by the following bodies.

Accreditation: A2LA Accredited Laboratory No. 2900.01
VLAC Accredited Laboratory No. VLAC-039-2
FCC Designation No. JP5182

Registration: Industry Canada Registration No. 3958B
Nemko Laboratory Authorisation. No. ELA 621

2.3 Traceability

The calibration of measurement equipment used in the test subject to the present report is designed and operated to ensure that the measurement is traceable to national standards of measurement or equivalent abroad.

3. Test Condition (Manufacturer's Specification)

3.1 Mode of Operation

Mode of operation: RFID Operating

Note:
The EUT makes communication emission with the maximum RF power by normal operation.
(Cycle: 781 ms, ON time: 221 ms)
The test of Field Strength of Fundamental Emission was performed under the following condition:

Voltage: AC 120 V ±15%

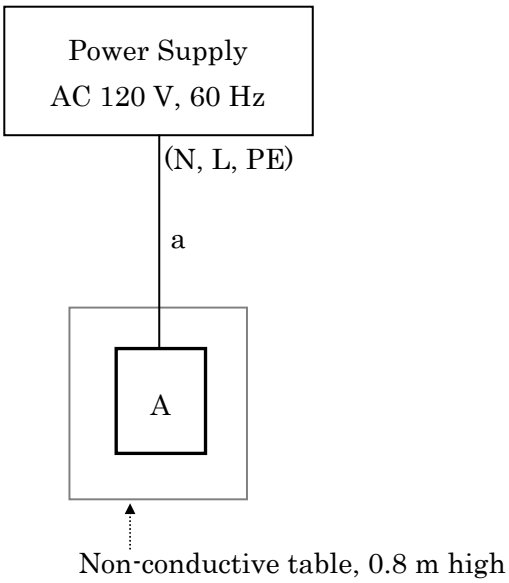
The test of Frequency Stability was performed under the following condition:

Temperature: -20℃ to +50℃
Voltage: AC 120 V ±15%

3.2 Configuration

	Instrument	Model		Cable	Length	Shield
A	EUT	LeveLuk K8 / A26-00	a	AC Power Cord	2.0 m	×

AC Power Line Conducted Emission / Transmitter Spurious Emission (Radiated) / Field Strength of Fundamental Emission

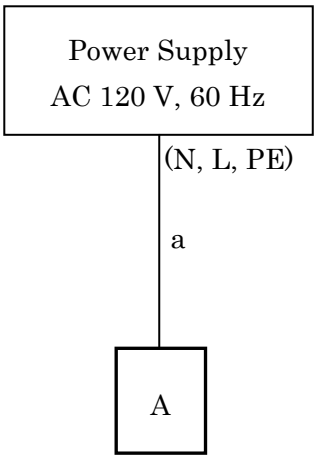


Excess cable arrangement

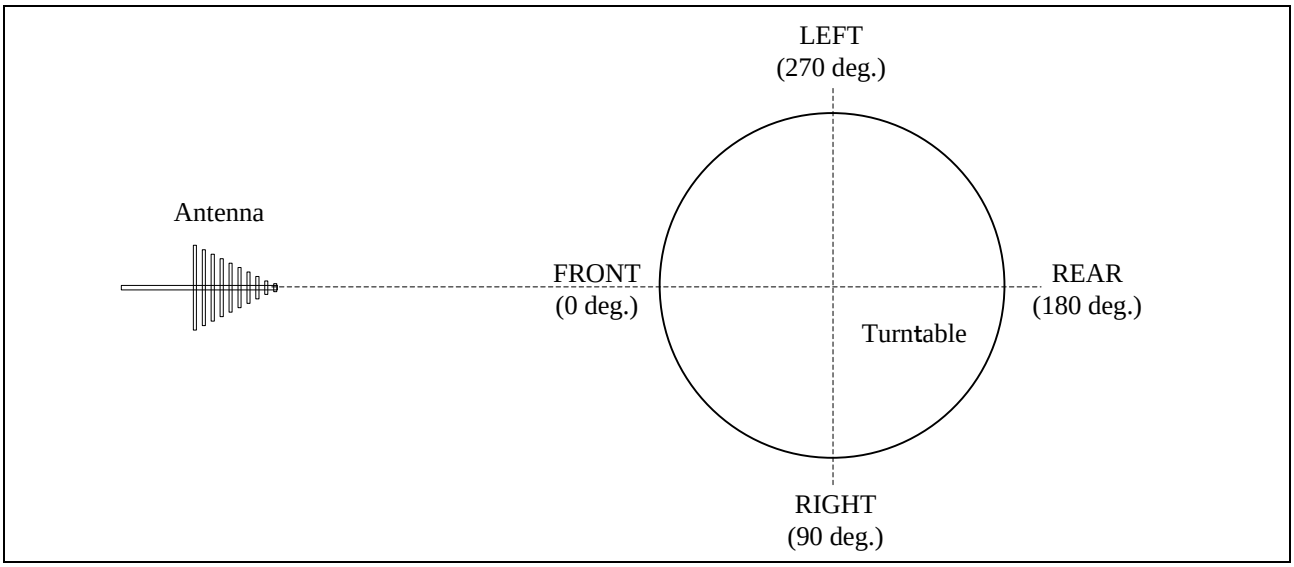
AC Power Line Conducted Emission

Symbol	Length	Position	Setting
a	0.4 m	Center	Bundle

20 dB Bandwidth / Frequency Stability / Occupied Bandwidth



3.3 EUT Angle



4. Summary of Test Results

These test results are the test results of the condition specified with "3. Test Condition".

FCC Section	IC Section	Test Item	FCC Result	IC Result
15.207	RSS-Gen 8.8	AC Power Line Conducted Emission	PASS	PASS
15.209, 15.225(d)	RSS-Gen 8.9	Transmitter Spurious Emission (Radiated)	PASS	PASS
15.215(c)	---	20 dB Bandwidth	PASS	---
15.225 (a) (b) (c) (d)	RSS-210 A2.6	Field Strength of Fundamental Emission	PASS	PASS
15.225(e)	RSS-210 A2.6	Frequency Stability	PASS	PASS
---	RSS-Gen Annex A	Occupied Bandwidth	---	PASS
---	RSS-Gen 7.1	Receiver Spurious Emission (Radiated)	---	N/A *

Note:
*: This item does not apply because this device receives some data only while the radio waves are transmitted.

5. Test Result

5.1 AC Power Line Conducted Emission (15.207, RSS-Gen 8.8)

5.1.1 Setting Remarks

The conducted disturbance voltage of AC power line in the frequency range from 150 kHz to 30 MHz was measured in accordance with ANSI C63.10:2013.
The test setup was made in accordance with ANSI C63.10:2013 in a shielded room.
The non-conductive table, 0.8 m high, was placed on the reference ground plane, and the EUT was put on the non-conductive table. The used Line Impedance Stabilizing Network (LISN) has a rated impedance of 50 Ω/50 μH as specified in CISPR16-1-2. The test receiver with Quasi Peak and Average detector is in accordance with CISPR 16-1-1.
The conducted emission level is calculated by adding Cable Attenuation Factor and Insertion Loss of LISN.
Activate the EUT System and run the software prepared for the test.

Setting Condition of Test receiver

Frequency range	Detector	RBW
150 kHz to 30 MHz	Quasi Peak	9 kHz
	Average	9 kHz

5.1.2 Limit

Frequency range	Conducted Limit [dBμV]	
	Quasi Peak	Average
150 kHz to 500 kHz	66 to 56 *	56 to 46 *
500 kHz to 5 MHz	56	46
5 MHz to 30 MHz	60	50

Note:
*: Decrease with the logarithm of the frequency.

5.1.3 Test Detail

Result: PASS

Uncertainty of measurement result	:	±2.13 dB
Date of testing	:	May 12, 2016
Room temperature	:	21℃
Relative humidity	:	61%

Sample Calculation
Result = Reading + c.f
= 44.4 + 10.3
= 54.7

Margin = Limit - Result
= 64.8 - 54.7
= 10.1

Note:
c.f (Correction Factor) = Cable Attenuation Factor + LISN Factor

5.1.3 Test Detail (Continued)

Test Data

********** Cosmos Corporation **********
<<Conducted Emission EP5/CE Ver 5.3.20>>

12 May,2016 10:36
137004E CE 01.dat

Limit : FCC 15.207
Model : LeveLuk K8 / A26-00
Serial : 54220729BK
Operater : K. Miyaji
Power : AC 120V, 60Hz
Temp., Humi. : 21 deg., 61%
Mode : RFID
Remark :
Remark :
Remark : RBW:9kHz

****

Final Result

--- L1 Phase ---

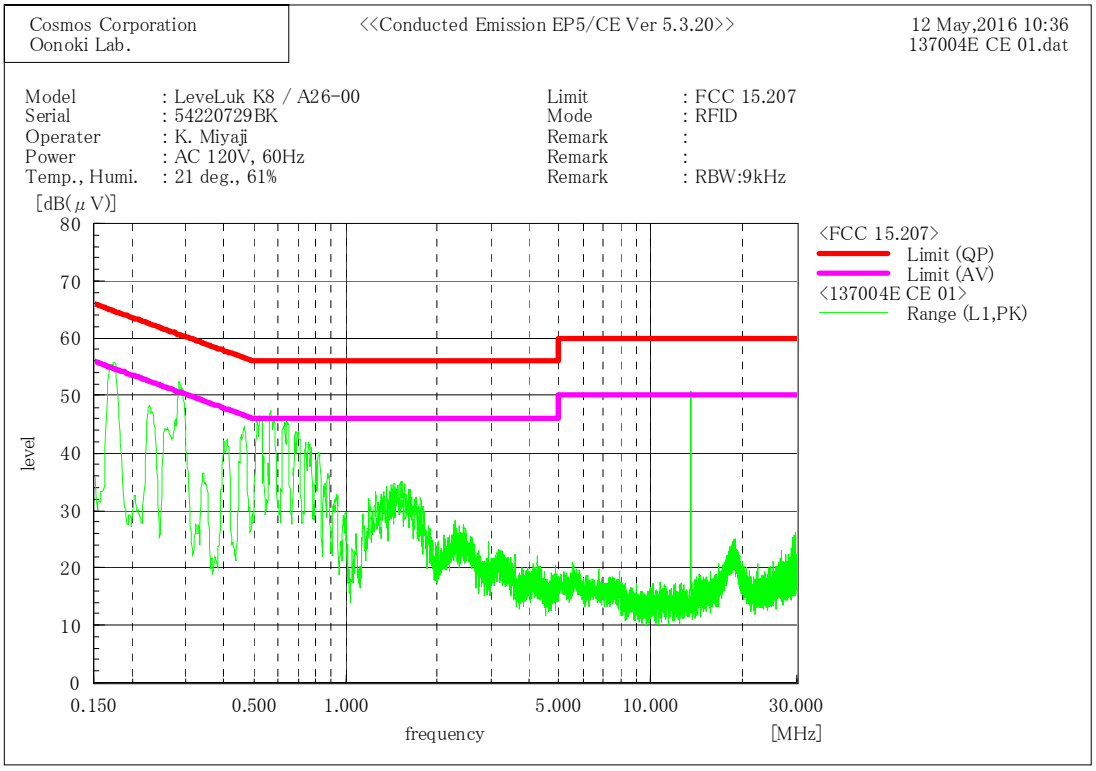
No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading AV [dB(μV)]	c.f [dB]	Result QP [dB(μV)]	Result AV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin AV [dB]
1	0.17334	44.4	43.4	10.3	54.7	53.7	64.8	54.8	10.1	1.1
2	0.28793	40.2	38.0	10.2	50.4	48.2	60.6	50.6	10.2	2.4
3	0.57942	35.3	33.9	10.1	45.4	44.0	56.0	46.0	10.6	2.0
4	1.451	21.5	17.3	10.2	31.7	27.5	56.0	46.0	24.3	18.5
5	13.55893	35.9	33.5	11.0	46.9	44.5	60.0	50.0	13.1	5.5
6	29.8578	15.2	7.2	11.4	26.6	18.6	60.0	50.0	33.4	31.4

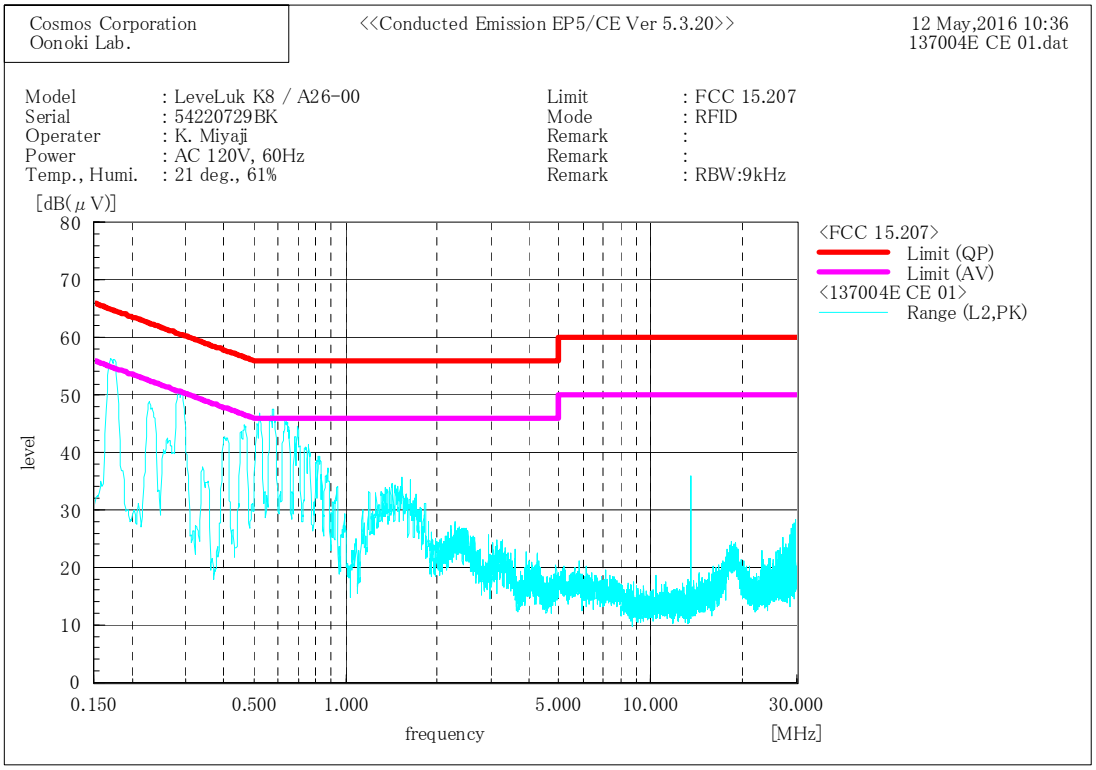
--- L2 Phase ---

No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading AV [dB(μV)]	c.f [dB]	Result QP [dB(μV)]	Result AV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin AV [dB]
1	0.17235	44.2	43.1	10.3	54.5	53.4	64.8	54.8	10.3	1.4
2	0.28789	38.9	38.1	10.2	49.1	48.3	60.6	50.6	11.5	2.3
3	0.5788	35.5	34.0	10.1	45.6	44.1	56.0	46.0	10.4	1.9
4	1.5041	22.0	17.9	10.2	32.2	28.1	56.0	46.0	23.8	17.9
5	13.55918	21.7	18.2	10.9	32.6	29.1	60.0	50.0	27.4	20.9
6	29.8583	15.3	7.2	11.5	26.8	18.7	60.0	50.0	33.2	31.3

5.1.3 Test Detail (Continued)

Test Data





5.2 Transmitter Spurious Emission (Radiated) (15.209, 15.225(d), RSS-Gen 8.9)

5.2.1 Setting Remarks

In the frequency range from 9 kHz to 1 GHz (over 10th harmonics), the electric field strength was measured in accordance with ANSI C63.10:2013.
The test setup was made in accordance with ANSI C63.10:2013 in a semi-anechoic chamber.
The non-conductive table, 0.8 m high, was placed on the turntable, and the EUT was put on the non-conductive table. The EUT was measured at 1 m to 4 m height of the antenna above 30 MHz. The turntable was fully rotated. The highest radiation from the equipment was recorded. The measurement above 30 MHz was carried out with both horizontal and vertical antenna polarization. The test receiver with Quasi Peak detector is in accordance with CISPR 16-1-1.
The measurement was carried out with the measuring distance of 3 m. Then the limit of 30 m distance below 30 MHz was converted to the limit of 3 m distance with the 40log(30 m/3 m).

Setting Condition of Test receiver

Frequency range	Detector	RBW
9 kHz to 90 kHz	Peak	200 Hz
	Average	200 Hz
90 kHz to 110 kHz	Quasi Peak	200 Hz
110 kHz to 150 kHz	Peak	200 Hz
	Average	200 Hz
150 kHz to 490 kHz	Peak	9 kHz
	Average	9 kHz
490 kHz to 30 MHz	Quasi Peak	9 kHz
30 MHz to 1 GHz	Quasi Peak	120 kHz

5.2.2 Limit

The emission limits shown in the following table are based on measurements employing a CISPR Quasi Peak detector except for the frequency bands 9 kHz to 90 kHz, 110 kHz to 490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an Average detector. The limit on Peak radio frequency emissions is 20 dB above the maximum permitted Average emission limit applicable to the equipment under test.

Frequency range	Field Strength (Distance)			
	[μV/m]		[dBμV/m]	
9 kHz to 490 kHz	2400/F (kHz) 266.6 to 4.89	(300 m)	128.5 to 93.8	(3 m)
490 kHz to 1.705 MHz	24000/F (kHz) 48.9 to 14.0	(30 m)	73.8 to 62.9	(3 m)
1.705 MHz to 30 MHz	30	(30 m)	69.5	(3 m)
30 MHz to 88 MHz	100	(3 m)	40.0	(3 m)
88 MHz to 216 MHz	150	(3 m)	43.5	(3 m)
216 MHz to 960 MHz	200	(3 m)	46.0	(3 m)
Above 960 MHz	500	(3 m)	53.9	(3 m)

5.2.3 Test Detail

Result: PASS

Uncertainty of measurement result : ±4.53 dB
Date of testing : May 16, 2016
Room temperature : 22℃
Relative humidity : 55%

Sample Calculation
Result = Reading + c.f
= 45.9 + (-8.0)
= 37.9

Margin = Limit - Result
= 43.5 - 37.9
= 5.6

Note:
c.f (Correction Factor) = Cable Attenuation Factor + Antenna Factor + Amplifier Gain

5.2.3 Test Detail (Continued)

<Below 30 MHz>
No spurious emission for RF module was found.

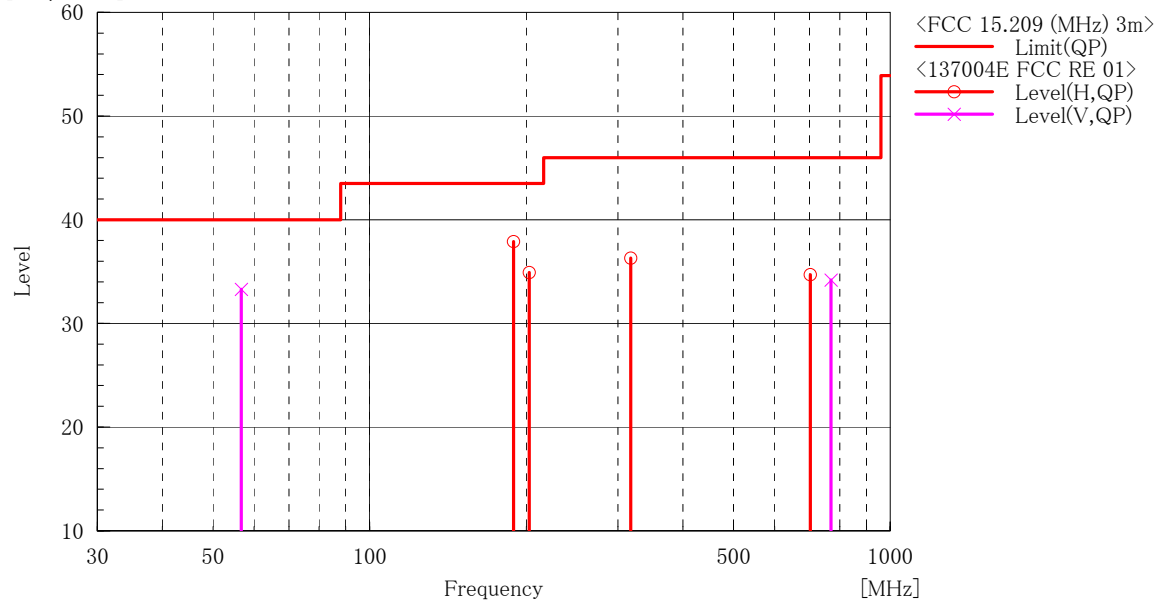
<Above 30 MHz>
Test Data

Cosmos Corporation
Oonoki Lab.

<<Radiated Emission EP5/RE Ver 5.7.1>>

16 May,2016 14:06
137004E FCC RE 01.dat

Model	: LeveLuk K8 / A26-00	Limit	: FCC 15.209 (MHz) 3m
Serial	: 54220729BK	Mode	: RFID
Operator	: K. Miyaji	Remark	:
Power	: AC 120V, 60Hz	Remark	:
Temp, Humid	: 22 deg., 55%	Remark	: RBW:120kHz



Final Result

--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	188.996	45.9	-8.0	37.9	43.5	5.6	100.0	277.0
2	202.500	42.0	-7.1	34.9	43.5	8.6	100.0	236.0
3	317.251	42.6	-6.3	36.3	46.0	9.7	100.0	15.0
4	702.000	33.8	0.9	34.7	46.0	11.3	100.0	205.0

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	56.700	47.4	-14.1	33.3	40.0	6.7	100.0	24.0
2	769.497	32.3	1.9	34.2	46.0	11.8	100.0	253.0

5.3 20 dB Bandwidth (15.215(c))

5.3.1 Setting Remarks

The both side of 20 dB down value from peak power were measured by using 20 dB bandwidth measurement function of the spectrum analyzer.
The spectrum analyzer is set as following:

・Resolution Bandwidth	: 1% to 5% of the OBW (not less than 1 kHz)
・Video Bandwidth	: greater than RBW
・Detector Mode	: Peak
・Trace Mode	: Max Hold

5.3.2 Limit

Intentional radiators must be designed to ensure that the 20 dB bandwidth of the emission is contained within the frequency band designated in the rule section under which the equipment is operated.

5.3.3 Test Detail

Result: PASS

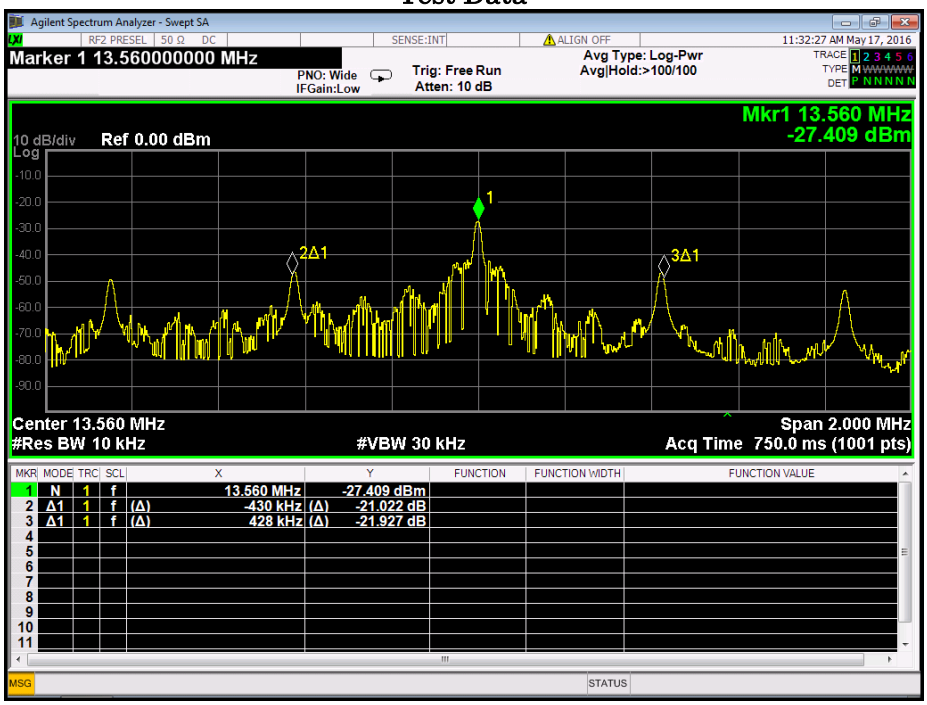
Uncertainty of measurement result	:	±0.011%
Date of testing	:	May 17, 2016
Room temperature	:	20℃
Relative humidity	:	51%

Measured Bandwidth [kHz]
858.0

	Edge of Bandwidth [MHz]	Limit [MHz]	Margin [kHz]
Lower	13.130	13.11	20
Higher	13.988	14.01	22

5.3.3 Test Detail (Continued)

Test Data



5.4 Field Strength of Fundamental Emission (15.225(a) (b) (c) (d), RSS-210 A2.6)

5.4.1 Setting Remarks

The test setup was made in accordance with ANSI C63.10:2013 in a semi-anechoic chamber. The non-conductive table, 0.8 m high, was placed on the turntable, and the EUT was put on the non-conductive table. The turntable was fully rotated. The highest radiation from the equipment was recorded. The measurement was carried out with the measuring distance of 3 m. The test receiver with Quasi Peak detector is in accordance with CISPR 16-1-1. Then the limit of 30 m distance was converted to the limit of 3 m distance with the 40log(30 m/3 m).

5.4.2 Limit

Frequency range	Field Strength (Distance)			
	[μV/m]		[dBμV/m]	
13.553 MHz to 13.567 MHz	15848	(30 m)	123.9	(3 m)
13.410 MHz to 13.553 MHz and 13.567 MHz to 13.710 MHz	334	(30 m)	90.4	(3 m)
13.110 MHz to 13.410 MHz and 13.710 MHz to 14.010 MHz	106	(30 m)	80.5	(3 m)
Outside of 13.110 MHz to 14.010 MHz	30	(30 m)	69.5	(3 m)

5.4.3 Test Detail

Result: PASS

Uncertainty of measurement result	:	±2.08 dB
Date of testing	:	May 16, 2016
Room temperature	:	22℃
Relative humidity	:	55%

Sample Calculation

Result = Reading + c.f
= 15.4 + 22.1
= 37.5

Margin = Limit - Result
= 69.5 - 37.5
= 32.0

Note:
c.f (Correction Factor) = Cable Attenuation Factor + Antenna Factor

5.4.3 Test Detail (Continued)

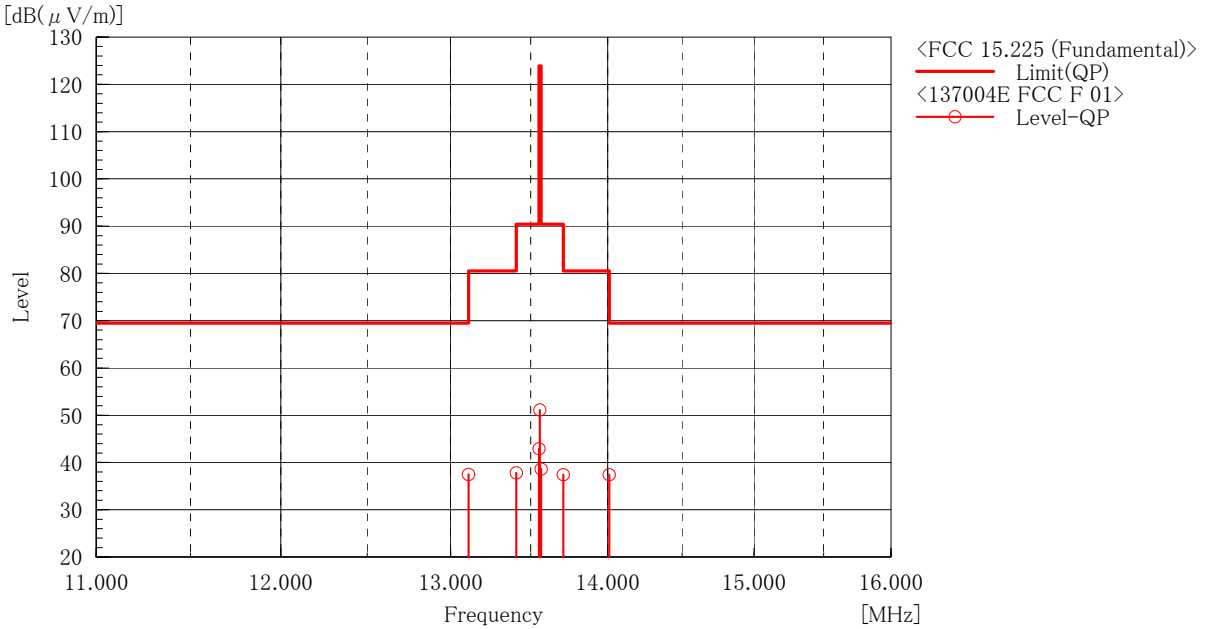
Test Data (Power Supply: AC 120 V, 60 Hz)

Cosmos Corporation
Oonoki Lab.

<<Electromagnetic Radiation Ver 5.1.40>>

16 May,2016 11:02
137004E FCC F 01.dat

Model	: LeveLuk K8 / A26-00	Limit	: FCC 15.225 (Fundamental)
Serial	: 54220729BK	Mode	: RFID
Operator	: K. Miyaji	Antenna	: 0 deg.
Power	: AC 120V, 60Hz	Remark	:
Temp, Humid	: 22 deg., 55%	Remark	: RBW:9kHz



Final Result

No.	Frequency	Reading	c.f	Result	Limit	Margin	Angle	Remark
	[MHz]	[dB(μV)]	[dB(1/m)]	[dB(μV/m)]	[dB(μV/m)]	[dB]	[°]	
1	13.110	15.4	22.1	37.5	69.5	32.0	178.0	
2	13.410	15.7	22.1	37.8	80.5	42.7	178.0	
3	13.553	20.8	22.1	42.9	90.4	47.5	178.0	
4	13.559	29.0	22.1	51.1	123.9	72.8	178.0	
5	13.567	16.5	22.1	38.6	90.4	51.8	178.0	
6	13.710	15.2	22.2	37.4	80.5	43.1	178.0	
7	14.010	15.2	22.2	37.4	69.5	32.1	178.0	

5.4.3 Test Detail (Continued)

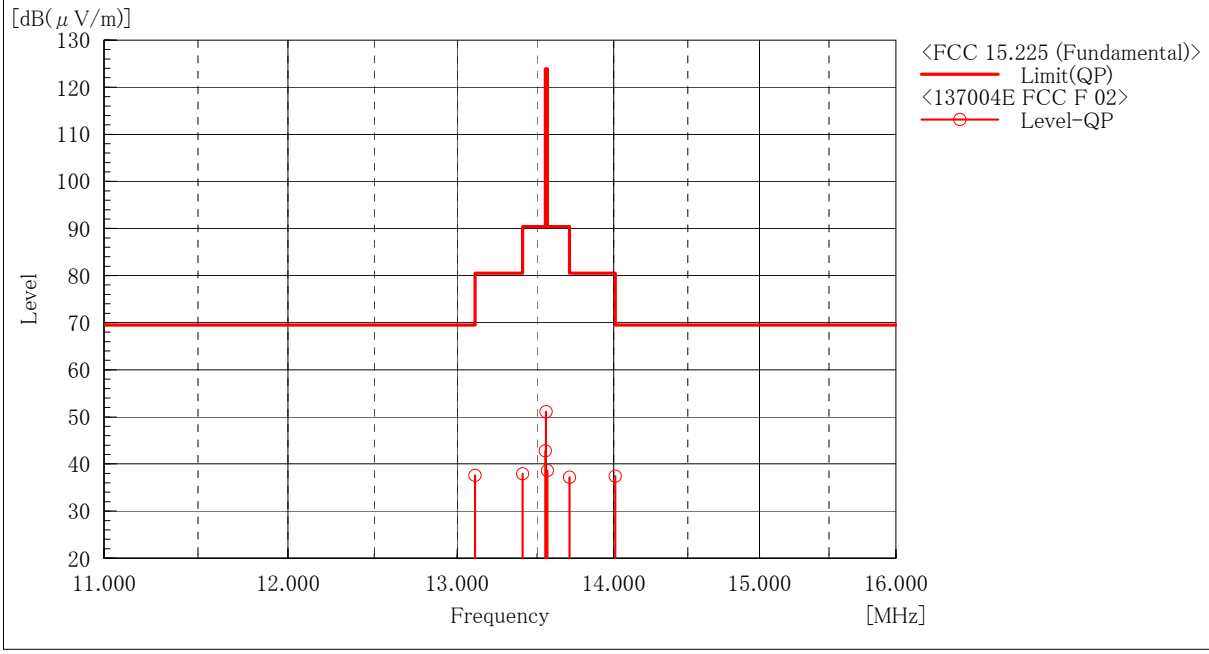
Test Data (Power Supply: AC 102 V, 60 Hz)

Cosmos Corporation
Oonoki Lab.

<<Electromagnetic Radiation Ver 5.1.40>>

16 May,2016 11:20
137004E FCC F 02.dat

Model	: LeveLuk K8 / A26-00	Limit	: FCC 15.225 (Fundamental)
Serial	: 54220729BK	Mode	: RFID
Operator	: K. Miyaji	Antenna	: 0 deg.
Power	: AC 102V, 60Hz	Remark	:
Temp, Humid	: 22 deg., 55%	Remark	: RBW:9kHz



Final Result

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Angle [°]	Remark
1	13.110	15.5	22.1	37.6	69.5	31.9	178.0	
2	13.410	15.8	22.1	37.9	80.5	42.6	178.0	
3	13.553	20.7	22.1	42.8	90.4	47.6	178.0	
4	13.559	29.0	22.1	51.1	123.9	72.8	178.0	
5	13.567	16.5	22.1	38.6	90.4	51.8	178.0	
6	13.710	15.0	22.2	37.2	80.5	43.3	178.0	
7	14.010	15.2	22.2	37.4	69.5	32.1	178.0	

5.4.3 Test Detail (Continued)

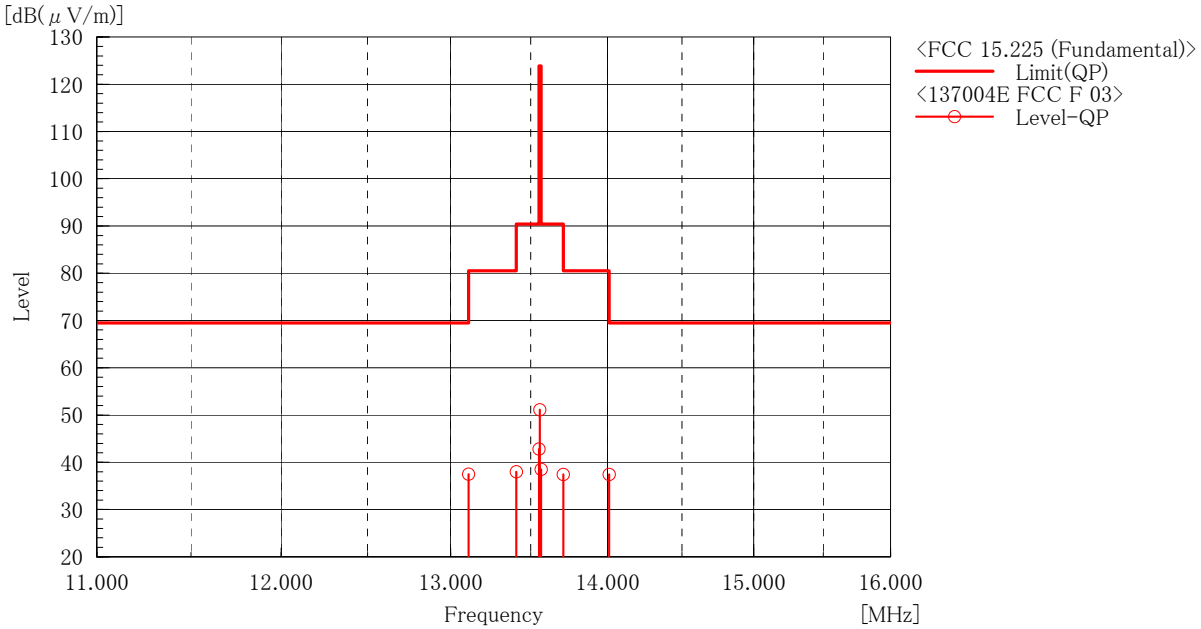
Test Data (Power Supply: AC 138 V, 60 Hz)

Cosmos Corporation
Oonoki Lab.

<<Electromagnetic Radiation Ver 5.1.40>>

16 May,2016 11:30
137004E FCC F 03.dat

Model	: LeveLuk K8 / A26-00	Limit	: FCC 15.225 (Fundamental)
Serial	: 54220729BK	Mode	: RFID
Operator	: K. Miyaji	Antenna	: 0 deg.
Power	: AC 138V, 60Hz	Remark	:
Temp, Humid	: 22 deg., 55%	Remark	: RBW:9kHz



Final Result

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Angle [°]	Remark
1	13.110	15.4	22.1	37.5	69.5	32.0	178.0	
2	13.410	15.9	22.1	38.0	80.5	42.5	178.0	
3	13.553	20.7	22.1	42.8	90.4	47.6	178.0	
4	13.559	29.0	22.1	51.1	123.9	72.8	178.0	
5	13.567	16.4	22.1	38.5	90.4	51.9	178.0	
6	13.710	15.2	22.2	37.4	80.5	43.1	178.0	
7	14.010	15.2	22.2	37.4	69.5	32.1	178.0	

5.5 Frequency Stability (15.225(e), RSS-210 A2.6)

5.5.1 Setting Remarks

The EUT was placed in an environmental test chamber, exposed in extreme temperatures until its temperature is stabilized. The measurement was carried out at every 10℃ from -20℃ to +50℃ in the most common nominal supply voltage and the measurement was carried out at ±15% of rated voltage at 20℃.

5.5.2 Limit

The frequency stability of the carrier signal shall be maintained within ±0.01% of the operating frequency.

5.5.3 Test Detail

Result: PASS

Uncertainty of measurement result	:	±0.0021 Hz
Date of testing	:	May 17 and 18, 2016
Room temperature	:	Refer to Test Data

Sample Calculation

Deviation [Hz] = Measured Frequency - Center Frequency
= 13558897 - 13560000
= -1103

Deviation [ppm] = |Deviation [Hz]| ÷ Center Frequency × 1000000
= |-1103| ÷ 13560000 × 1000000
≒ 81.3

Margin = Limit - Deviation [ppm]
= 100 - 81.3
= 18.7

5.5.3 Test Detail (Continued)

Test Data

Temp [℃]	Operation Time	Measured Frequency [Hz]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Margin [ppm]
50	Startup	13558897	-1103	81.3	100	18.7
	2 min	13558898	-1102	81.3	100	18.7
	5 min	13558898	-1102	81.3	100	18.7
	10 min	13558895	-1105	81.5	100	18.5
40	Startup	13558932	-1068	78.8	100	21.2
	2 min	13558933	-1067	78.7	100	21.3
	5 min	13558931	-1069	78.8	100	21.2
	10 min	13558930	-1070	78.9	100	21.1
30	Startup	13558932	-1068	78.8	100	21.2
	2 min	13558933	-1067	78.7	100	21.3
	5 min	13558931	-1069	78.8	100	21.2
	10 min	13558930	-1070	78.9	100	21.1
20	Startup	13558927	-1073	79.1	100	20.9
	2 min	13558931	-1069	78.8	100	21.2
	5 min	13558931	-1069	78.8	100	21.2
	10 min	13558932	-1068	78.8	100	21.2
10	Startup	13558909	-1091	80.5	100	19.5
	2 min	13558920	-1080	79.6	100	20.4
	5 min	13558923	-1077	79.4	100	20.6
	10 min	13558924	-1076	79.4	100	20.6
0	Startup	13558892	-1108	81.7	100	18.3
	2 min	13558903	-1097	80.9	100	19.1
	5 min	13558904	-1096	80.8	100	19.2
	10 min	13558904	-1096	80.8	100	19.2
-10	Startup	13558851	-1149	84.7	100	15.3
	2 min	13558873	-1127	83.1	100	16.9
	5 min	13558881	-1119	82.5	100	17.5
	10 min	13558883	-1117	82.4	100	17.6
-20	Startup	13558802	-1198	88.3	100	11.7
	2 min	13558831	-1169	86.2	100	13.8
	5 min	13558839	-1161	85.6	100	14.4
	10 min	13558842	-1158	85.4	100	14.6

5.5.3 Test Detail (Continued)

Test Data

Temp [℃]	Supply Voltage [V]	Measured Frequency [Hz]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Margin [ppm]
20	102	13558932	-1068	78.8	100	21.2
	120	13558932	-1068	78.8	100	21.2
	138	13558932	-1068	78.8	100	21.2

Test Data

Temp [℃]	Supply Voltage [V]	Measured Frequency [Hz]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Margin [ppm]
50	120	13558895	-37	2.7	100	97.3
20	120	13558932	reference value			
-20	120	13558842	-90	6.6	100	93.4
20	102	13558932	0	0.0	100	100.0
	138	13558932	0	0.0	100	100.0

5.6 Occupied Bandwidth (RSS-Gen Annex A)

5.6.1 Setting Remarks

EUT directly connects to the spectrum analyzer via calibrated coaxial cable and 10 dB attenuator. The spectrum analyzer is set-up as following;

・Resolution Bandwidth	: Approx. 1% of the span
・Video Bandwidth	: 3 × RBW
・Sweep	: Auto
・Detector Mode	: RMS
・Trace Mode	: Max Hold

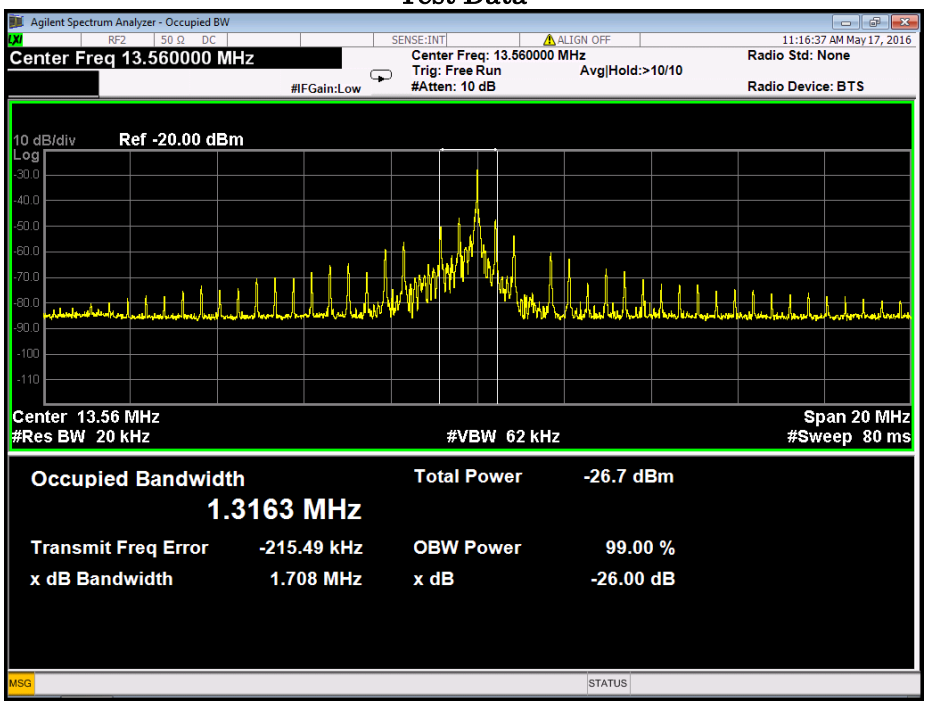
5.6.2 Test Detail

Result: PASS

Uncertainty of measurement result	:	±0.011%
Date of testing	:	May 17, 2016
Room temperature	:	20℃
Relative humidity	:	51%

5.6.2 Test Detail (Continued)

Test Data



6. List of Test and Measurement Instruments

AC Power Line Conducted Emission

Instruments	Manufacturer	Model	Serial No.	Calibrated Date/Until
EMI Test Receiver	ROHDE & SCHWARZ	ESCI	100413	2016/02/27 2017/02/26
Artificial-Mains Network /Highpass Filter /Attenuator 10 dB	Kyoritsu /Kyoritsu /TAMAGAWA	KNW-341C (F) /KFL-007 /CFA-03	8-1659-1 /8-1708-10 /---	2015/06/18 2016/06/17
Artificial-Mains Network /Highpass Filter /Attenuator 10 dB	Kyoritsu /Kyoritsu / JFW	KNW-341 F /KFL-007 / 50FP-010-H2	8S-2996-1 /8-1741-2 /---	2015/06/25 2016/06/24
RF Cable (9 kHz to 30 MHz) RF Selector	Fujikura	3D-2W	OC01	2016/04/05 2017/04/04
	SUHNER	RG223/U	OC02 OC04	
	TSJ	RFM-E221	3148	
Software	TOYO	EP5/CE (Ver.5.3.20)	---	---

Transmitter Spurious Emission (Radiated) (Below 30 MHz)
Field Strength of Fundamental Emission

Instruments	Manufacturer	Model	Serial No.	Calibrated Date/Until
EMI Test Receiver	Agilent Technologies	N9038A	MY54130015	2016/03/29 2017/03/28
Loop Antenna (9 kHz to 30 MHz)	SCHAFFNER	HLA6120	1137	2015/11/06 2016/11/05
Anechoic Chamber 3 m	JSE	COAC3M-01	---	2016/04/20 2017/04/19
RF Cable (9 kHz to 30 MHz) RF Selector	Fujikura	5D-2W	OC09	2016/04/18 2017/04/17
	SUHNER	RG223/U	OC10 OC11 OC12	
	TSJ	RFM-E121	03149	
Software	TOYO	EP5/ME (ver 5.1.40)	---	---

6. List of Test and Measurement Instruments (Continued)

Transmitter Spurious Emission (Radiated) (Above 30 MHz)

Instruments	Manufacturer	Model	Serial No.	Calibrated Date/Until
EMI Test Receiver	Agilent Technologies	N9038A	MY54130015	2016/03/29 2017/03/28
Pre-Amplifier (30 MHz to 1 GHz)	HEWLETT PACKARD	8447D OPT 010	2944A 07891	2016/04/08 2017/04/07
Biconical Antenna (30 MHz to 300 MHz)	SCHWARZBECK	VHBB9124 / BBA9106	9124-311	2015/08/31 2016/08/30
Log-Periodic Antenna (300 MHz to 1 GHz)	SCHWARZBECK	UHALP9108-A	0645	2015/08/31 2016/08/30
Anechoic Chamber 3 m	JSE	COAC3M-01	---	2015/05/07 2016/05/06
Attenuator 3 dB	JFW	50FP-003-H2	---	2016/04/06 2017/04/05
RF Cable (30 MHz to 1 GHz) RF Selector	Fujikura	8D-2W	OC14	2016/04/18 2017/04/17
	SUHNER	RG223/U	OC11	
		RG214/U	OC15 OC16	
		RG400/U	OC17	
	TSJ	RFM-E121	03149	
Software	TOYO	EP5/RE (ver 5.7.1)	---	---

20 dB Bandwidth / Frequency Stability / Occupied Bandwidth

Instruments	Manufacturer	Model	Serial No.	Calibrated Date/Until
EMI Test Receiver	Agilent Technologies	N9038A	MY54130015	2016/03/29 2017/03/28
Thermostatic Chamber	ESPEC	PU-2KP	14010409	2015/08/07 2016/08/06

7. Appendix

Refer to separated files for the following appendixes.
Appendix 1: Angle of EUT
Appendix 2: Photographs of the Test Setup
Appendix 3: Photographs of EUT