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Dates of Tests: Dec 11, 2018 ~ April 18, 2019
 Test Report S/N: LR500111901B
 Test Site : LTA CO., LTD.

CERTIFICATION OF COMPLIANCE

FCC ID.	2ASIGGK1500EXR
APPLICANT	Genmega, Inc.

Equipment Class	:	Part 15 – Radio Frequency Devices
Manufacturing Description	:	ATM (Automated Teller Machine)
Manufacturer	:	HANMEGA Inc.
Model name	:	Universal Kiosk EXR(GK-1500EXR)
Test Device Serial No.:	:	Identical prototype
Rule Part(s)	:	FCC Part 15 Subpart C ; ANSI C-63.10-2013
Frequency Range	:	13.56 MHz
Date of issue	:	April 18, 2019

This test report is issued under the authority of:

The test was supervised by:

JaBeom.Koo

JaBeom, Koo / Manager

HeeCheon Kwon, Test Engineer

This test result only responds to the tested sample. It is not allowed to copy this report even partly without the allowance of the test laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.



NVLAP LAB Code.: 200723-0

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1. General information

1-1 Test Performed

Company name : LTA Co., Ltd.
 Address : 243, Jubug-ri, Yangji-Myeon, Youngin-Si, Kyunggi-Do, Korea. 17159
 Web site : <http://www.ltalab.com>
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Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the “General requirements for the competents of calibration and testing laboratory”.

1-2 Accredited agencies

LTA Co., Ltd. is approved to perform EMC testing by the following agencies:

Agency	Country	Accreditation No.	Validity	Reference
NVLAP	U.S.A	200723-0	UPDATING	ECT accredited Lab.
RRA	KOREA	KR0049	-	EMC accredited Lab.
FCC	U.S.A	649054	2019-04-13	FCC CAB
VCCI	JAPAN	C-4948,	2020-09-10	VCCI registration
VCCI	JAPAN	T-2416,	2020-09-10	VCCI registration
VCCI	JAPAN	R-4483(10 m),	2020-10-15	VCCI registration
IC	CANADA	5799A-1	2019-11-07	IC filing
KOLAS	KOREA	NO.551	2021-08-20	KOLAS accredited Lab.

2. Information about test item

2-1 Client & Manufacturer

Company name : Genmega, Inc.
 Address : 30587 Huntwood Ave Hayward, CA 94544
 Tel / Fax : TEL No : (510) 344-6333

2-2 Equipment Under Test (EUT)

Model name : Universal kiosk EXR(GK-1500EXR)
 Serial number : Identical prototype
 Date of receipt : December 11, 2018
 EUT condition : Pre-production, not damaged
 Antenna type : Loop Antenna
 Frequency Range : 13.56 MHz
 Power Source : 120 VAC

2-3 Tested frequency

	LOW	MID	HIGH
Frequency (MHz)	-	13.56	-

2-4 Ancillary Equipment

Equipment	Model No.	Serial No.	Manufacturer
-	-	-	-

3. Test Report

3.1 Summary of tests

FCC Part Section(s)	Parameter	Test Condition	Status (note 1)
15.225	OCCUPIED BANDWIDTH	Radiation	C
15.209	Radiated Emission		C
15.207	Conducted Emission		C
15.225 (e)	Frequency Stability		C

The above equipment was tested by LTA Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10-2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 2 and Part 15. The test results of this report relate only to the tested sample identified in this report.

FCC 15.203 Antenna Requirement

The equipment and its antenna comply with this requirement since the antenna is built in the equipment and it cannot be replaced by end users.

3.2 EUT measurements

- 1. In order to establish the maximum radiation, firstly, there have been viewed all orthogonal adjustments of the test samples, secondly the test sample have been rotated at all adjustments around the own axis between 0° and 360°, and thirdly, the antenna polarization between horizontal and vertical had been varied.**
- 2. Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 10m open field test site. Therefore, sufficient tests were made to demonstrate that the alternative site produces results that correlated with the one of tests made in an open field site based on KDB 414788.**
- 3. The reader supports ISO 14443 Type A, B, and ISO 18098 and all tests have been carried out in the worst of them, ISO 14443 Type A.**
- 4. The test was measured in the most Worst Case Without Tag state compared to the With Tag and Without Tag states.**

3.3 Technical Characteristics Test

3.3.1 OCCUPIED BANDWIDTH

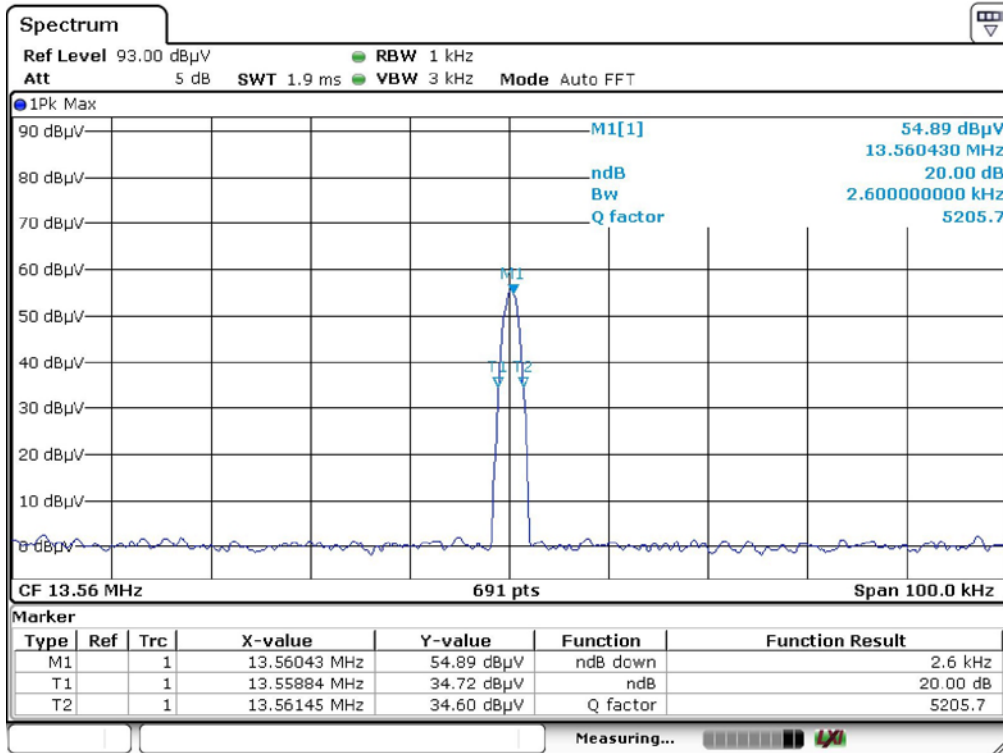
TEST PROCEDURE

Type A with highest data rate. The transmitter output is connected to the spectrum analyzer. The RBW is set to 10kHz. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

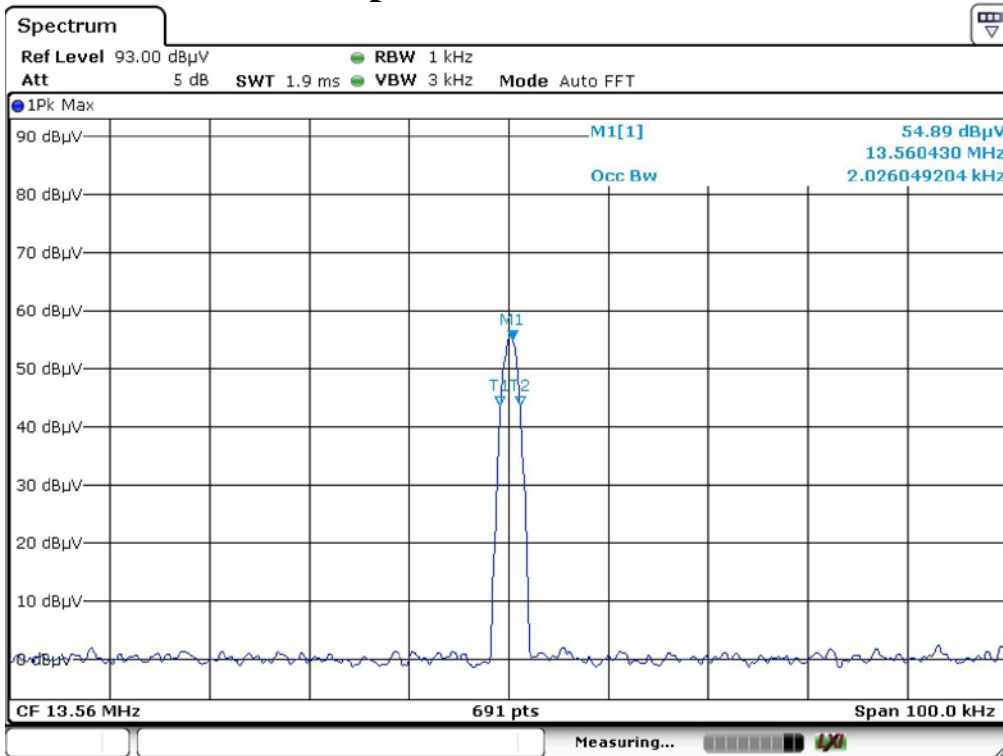
Note: Because the measured signal is CW or CW-like adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW

Measurement Data : **Complies**

20 dB Bandwidth : 2.60 kHz



99% Occupied Bandwidth : 2.02 kHz



3.3.2 RADIATED EMISSION TEST RESULTS

LIMITS AND PROCEDURE

- (a) The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/ meter at 30 meters.
- (b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
- (c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.
- (d) The field strength of any emissions appearing outside of the 13.110– 14.010 MHz and shall not exceed the general radiated emission limits in § 15.209 as follows:
- §15.209 (a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (uV/m)	Measurement distance (m)
0.009 – 0.490	2 400/F(kHz)	300
0.490 – 1.705	24 000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 – 960	200	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g. §§ 15.231 and 15.241.

§15.209 (b) In the emission table above, the tighter limit applies at the band edges.

Formula for converting the filed strength from uV/m to dBuV/m is:

$$\text{Limit (dBuV/m)} = 20 \log \text{limit (uV/m)}$$

In addition:

§15.209 (d) The emission limits shown the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emissions limits in these three bands are based on measurements employing an average detector.

§15.209 (d) The provisions in §§ 15.225, measuring emissions at distances other than the distances specified in the above table, determining the frequency range over which radiated emissions are to be measured, and limiting peak emissions apply to all devices operated under this part.

TEST PROCEDURE

ANSI C63.10, 2013

The EUT is an intentional radiator that incorporates a digital device, the highest fundamental frequency generated or used in the device is 13.56 MHz; therefore, the frequency range was investigated from 0.15 MHz to the 10th harmonic of the highest fundamental frequency, or 1000 MHz, whichever is greater.

Measurement Data : **Complies**

Figure 1. Direction of the Loop Antenna

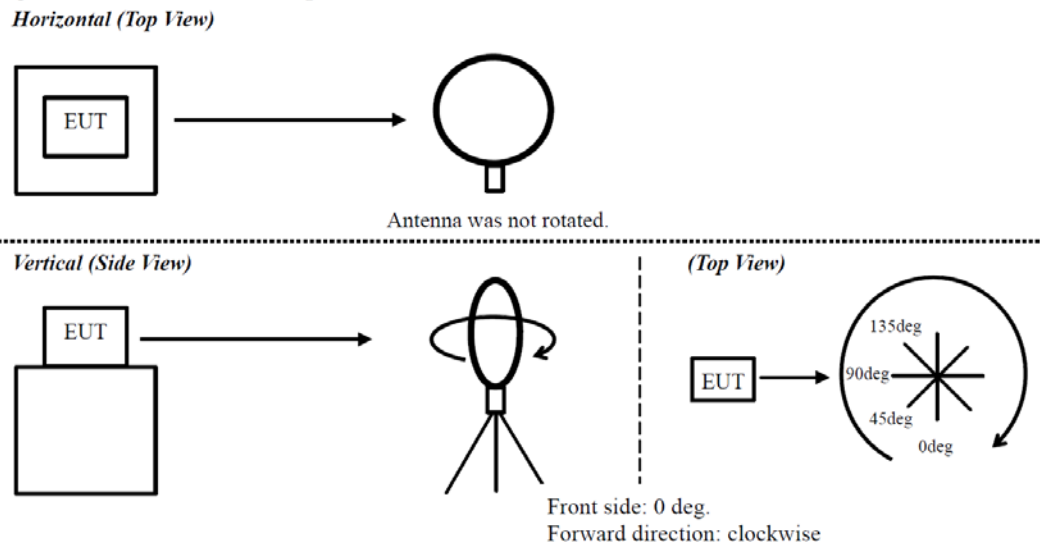
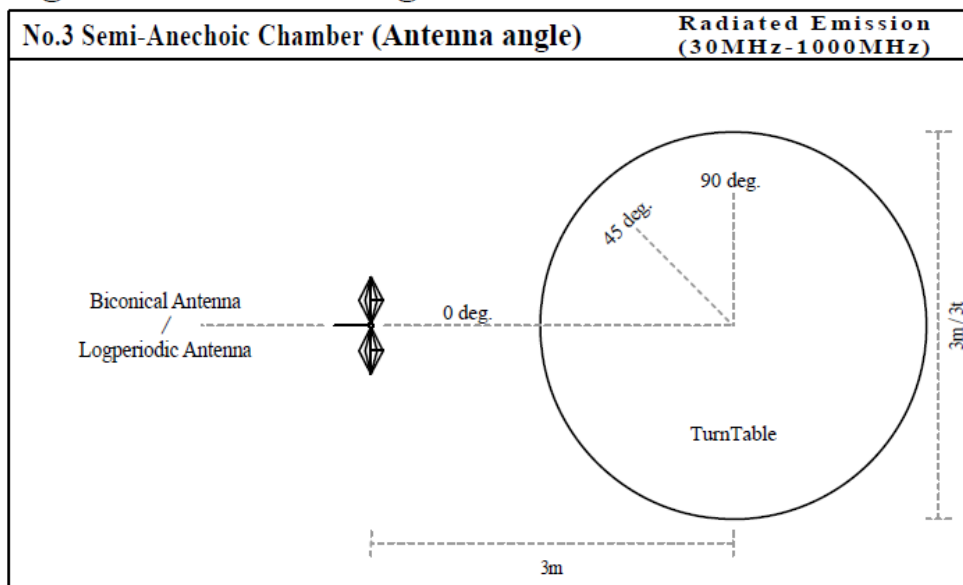


Figure 2. Antenna angle

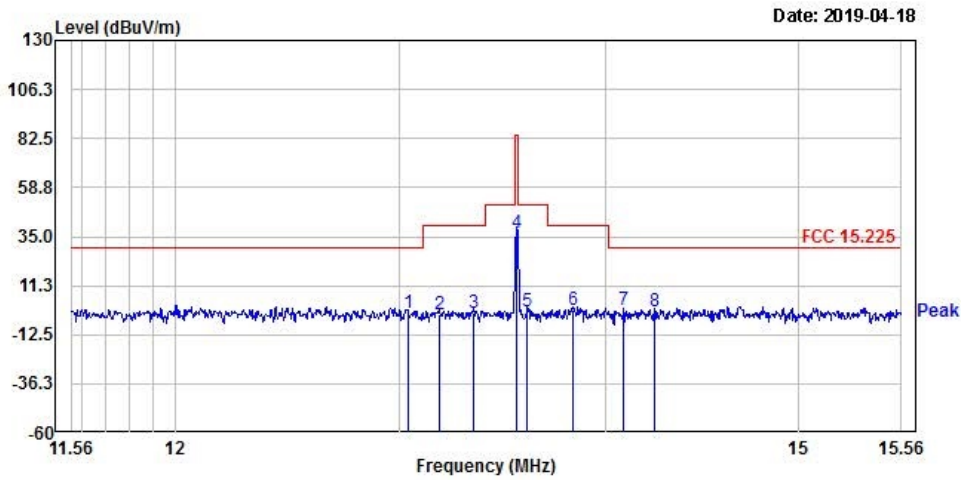


- DATA_FUNDAMENTAL
FACE ON



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EUT/Model No.: Universal kiosk EX(GK-1500EXR) Temp/Humi: 23 / 36
Test Mode : Operating mode Tested by: Kwon H C



Freq	Reading	C.F	Result	Limit	Margin	Height	Angle	Polarity
MHz	dBuV	dB	QP dBuV/m	dBuV/m	dB	cm	deg	
13.04	17.05	-19.21	-2.16	29.54	31.70	-----	-----	-----
13.19	16.37	-19.21	-2.84	40.51	43.35	-----	-----	-----
13.35	17.60	-19.20	-1.60	40.51	42.11	-----	-----	-----
13.56	55.68	-19.20	36.48	84.00	47.52	-----	-----	-----
13.61	18.35	-19.20	-0.85	50.50	51.35	-----	-----	-----
13.84	18.34	-19.19	-0.85	40.51	41.36	-----	-----	-----
14.25	18.21	-19.18	-0.97	29.54	30.51	-----	-----	-----

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

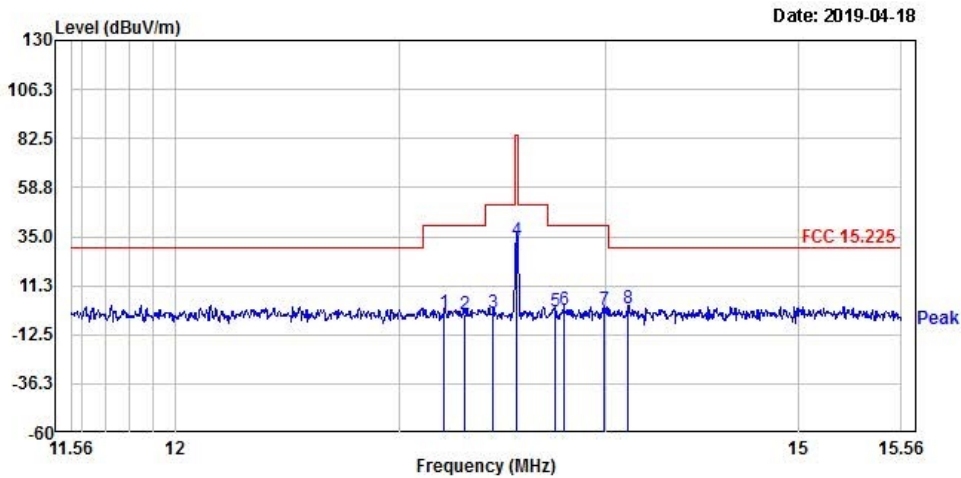
Note : Dist Corr 30 m = -40 dB

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Test Mode : Operating mode Tested by: Kwon H C



Freq	Reading	C.F	Result	Limit	Margin	Height	Angle	Polarity
MHz	dBuV	dB	QP dBuV/m	dBuV/m	dB	cm	deg	
13.21	17.22	-19.21	-1.99	40.51	42.50	-----	-----	-----
13.31	16.60	-19.20	-2.60	40.51	43.11	-----	-----	-----
13.45	17.61	-19.20	-1.59	50.50	52.09	-----	-----	-----
13.56	52.67	-19.20	33.47	84.00	50.53	-----	-----	-----
13.74	17.98	-19.19	-1.21	40.51	41.72	-----	-----	-----
13.79	18.55	-19.19	-0.64	40.51	41.15	-----	-----	-----
13.99	19.02	-19.19	-0.17	40.51	40.68	-----	-----	-----

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

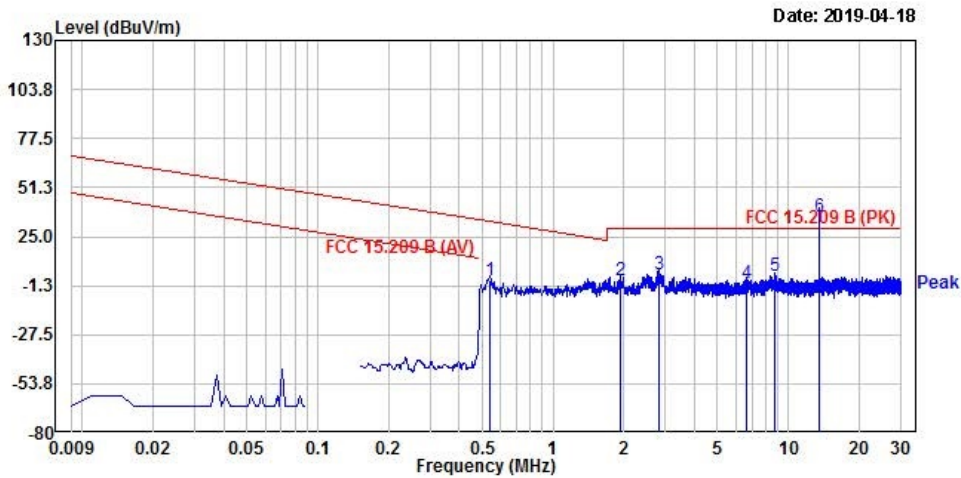
Note : Dist Corr 30 m = -40 dB

- DATA_TX SPURIOUS EMISSION Below 30
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EUT/Model No.: Universal kiosk EX(GK-1500EXR) Temp/Humi: 23 / 36
Test Mode : Operating mode Tested by: Kwon H C



Freq	Reading	C.F	Result	Limit	Margin	Height	Angle	Polarity
MHz	dBuV	dB	QP dBuV/m	dBuV/m	dB	cm	deg	
0.54	21.34	-19.98	1.36	32.93	31.57	-----	-----	vertical
1.94	20.98	-19.71	1.27	29.50	28.23	-----	-----	vertical
2.84	24.62	-19.63	4.99	29.50	24.51	-----	-----	vertical
6.67	19.63	-19.38	0.25	29.50	29.25	-----	-----	vertical
8.79	22.99	-19.32	3.67	29.50	25.83	-----	-----	vertical
13.56	54.52	-19.20	35.32	29.50	-5.82	-----	-----	vertical

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

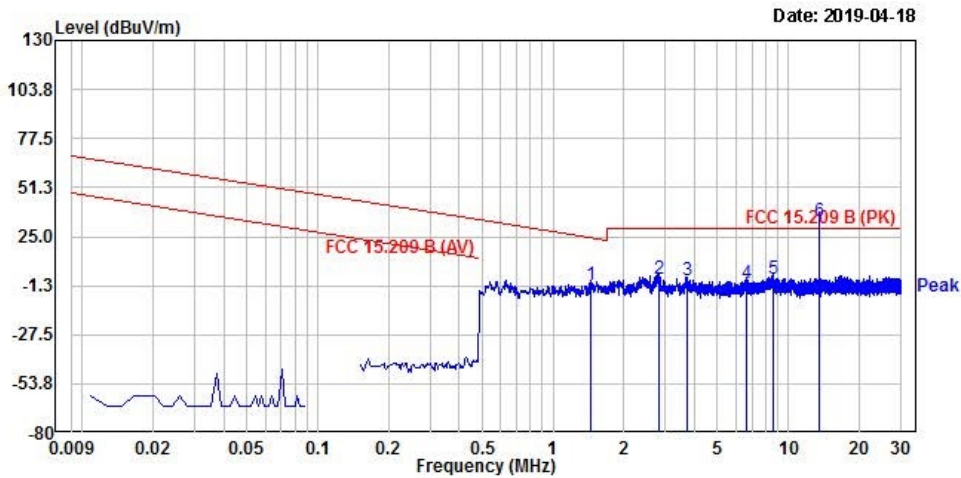
Note : Marker 6 is the fundamental Signal

- DATA_TX SPURIOUS EMISSION Below 30
FACE OFF



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Test Mode : Operating mode Tested by: Kwon H C



Freq	Reading	C.F	Result	Limit	Margin	Height	Angle	Polarity
MHz	dBuV	dB	QP dBuV/m	dBuV/m	dB	cm	deg	
1.45	18.78	-19.78	-1.00	24.35	25.35	-----	-----	Horizontal
2.81	22.36	-19.63	2.73	29.50	26.77	-----	-----	Horizontal
3.72	21.15	-19.55	1.60	29.50	27.90	-----	-----	Horizontal
6.69	19.63	-19.38	0.25	29.50	29.25	-----	-----	Horizontal
8.69	21.35	-19.32	2.03	29.50	27.47	-----	-----	Horizontal
13.56	52.43	-19.20	33.23	29.50	-3.73	-----	-----	Horizontal

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

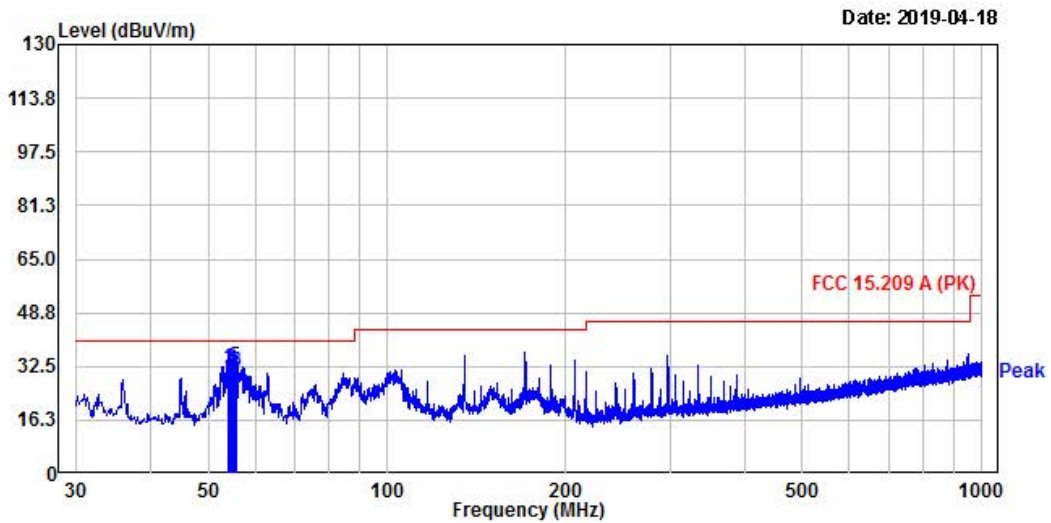
Note : Marker 6 is the fundamental Signal

- DATA_TX SPURIOUS EMISSION 30 TO 1000 MHz



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EUT/Model No.: Universal kiosk EX(GK-1500EXR) Temp/Humi: 23 / 36
 Test Mode : Operating mode Tested by: Kwon H C



Freq	Reading	C.F	Result	Limit	Margin	Height	Angle	Polarity
MHz	dBuV	dB	QP dBuV/m	dBuV/m	dB	cm	deg	
54.01	45.37	-13.51	31.86	40.00	8.14	100	186	vertical
54.37	45.61	-13.50	32.11	40.00	7.89	100	199	vertical
54.74	43.46	-13.49	29.97	40.00	10.03	100	223	vertical
54.98	43.78	-13.49	30.29	40.00	9.71	100	199	vertical
55.34	45.77	-13.51	32.26	40.00	7.74	100	199	vertical
55.71	44.48	-13.55	30.93	40.00	9.07	100	163	vertical

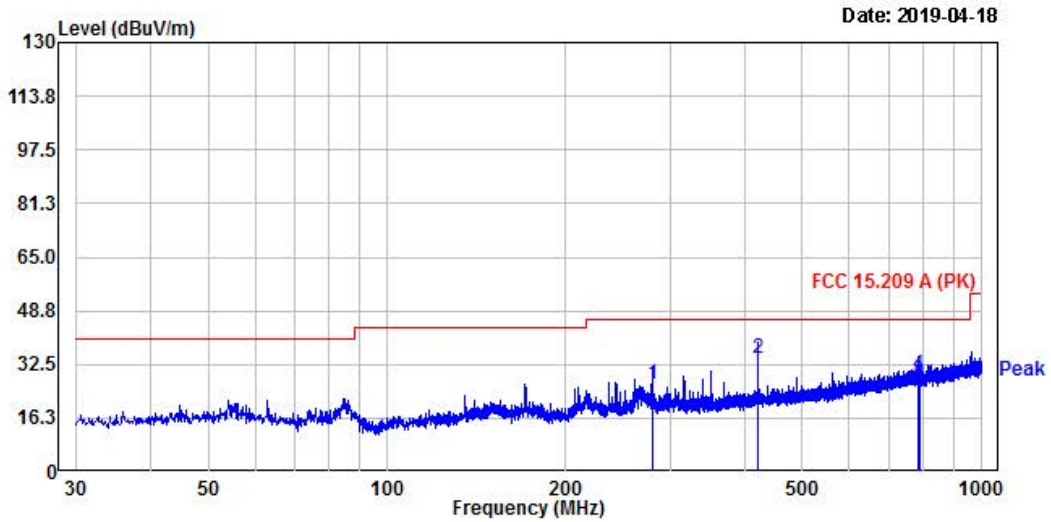
Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain



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EUT/Model No.: Universal kiosk EX(GK-1500EXR) Temp/Humi: 23 / 36

Test Mode : Operating mode Tested by: Kwon H C



Freq	Reading	C.F	Result	Limit	Margin	Height	Angle	Polarity
MHz	dBuV	dB	QP dBuV/m	dBuV/m	dB	cm	deg	
280.38	37.99	-11.60	26.39	46.02	19.63	100	234	horizontal
420.55	43.02	-8.55	34.47	46.02	11.55	100	209	horizontal
782.60	28.89	-1.60	27.29	46.02	18.73	100	83	horizontal
783.45	31.24	-1.61	29.63	46.02	16.39	100	294	horizontal
783.93	27.71	-1.62	26.09	46.02	19.93	100	294	horizontal
788.78	27.50	-1.61	25.89	46.02	20.13	100	327	horizontal

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

3.3.3 Conducted Emissions

Procedure:

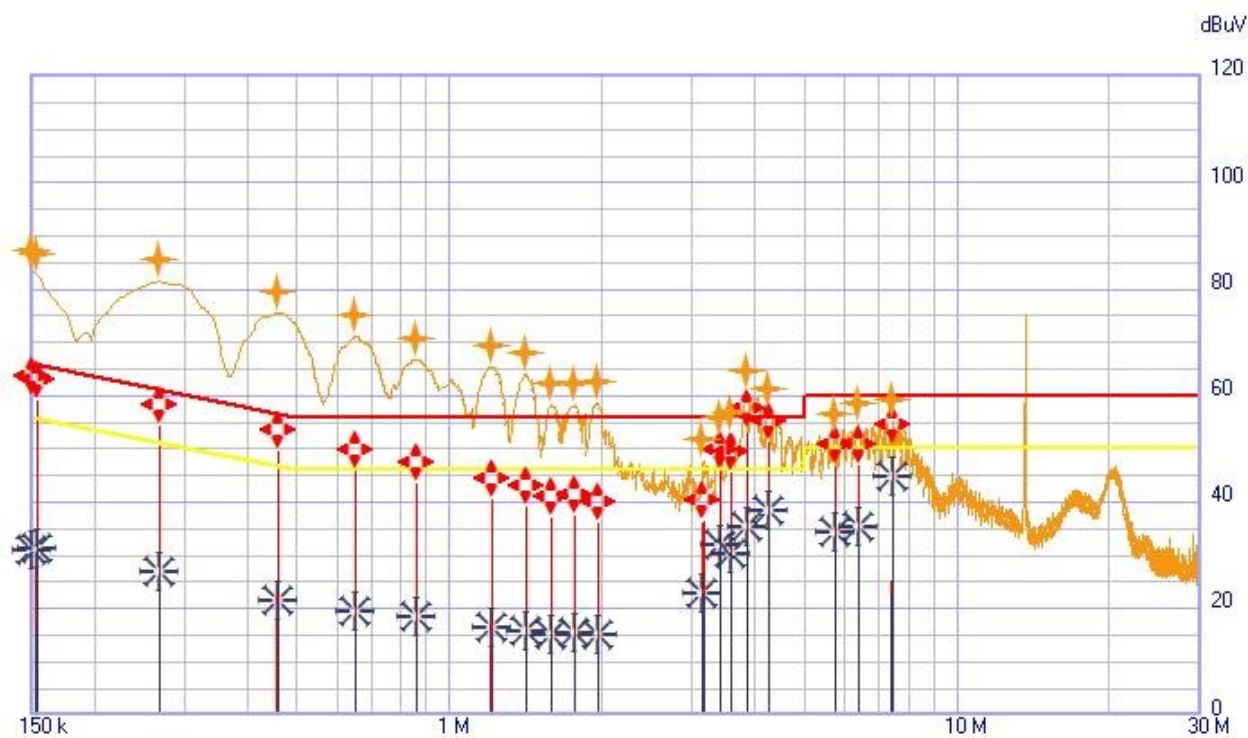
The conducted emissions are measured in the shielded room with a spectrum analyzer in peak hold. While the measurement, EUT had its hopping function disabled at the middle channels in line with Section 15.31(m). Emissions closest to the limit are measured in the quasi-peak mode (QP) with the tuned receiver using a bandwidth of 9 kHz. The emissions are maximized further by cable manipulation and Exerciser operation. The highest emissions relative to the limit are listed.

Standard: FCC Part 15.207(a) / EN 55022

Frequency Range	quasi-peak	Average
0.15 ~ 0.5	66 to 56 *	56 to 46 *
0.5 ~ 5	56	46
5 ~ 30	60	50

* Decreases with the logarithm of the frequency

DATA - Normal Operation



Start [MHz]	Stop [MHz]	Step	Detector	Hold Time	RBW	Min Att	Pre Amp	Pre Sel	Prompt start	Ancillary	
1	0.15	30	AUTO (2.045 kHz)	P Q C CISPR_B_QP CISPR_B_AV	1000 ms	9 kHz	10	ON	ON	...	L1

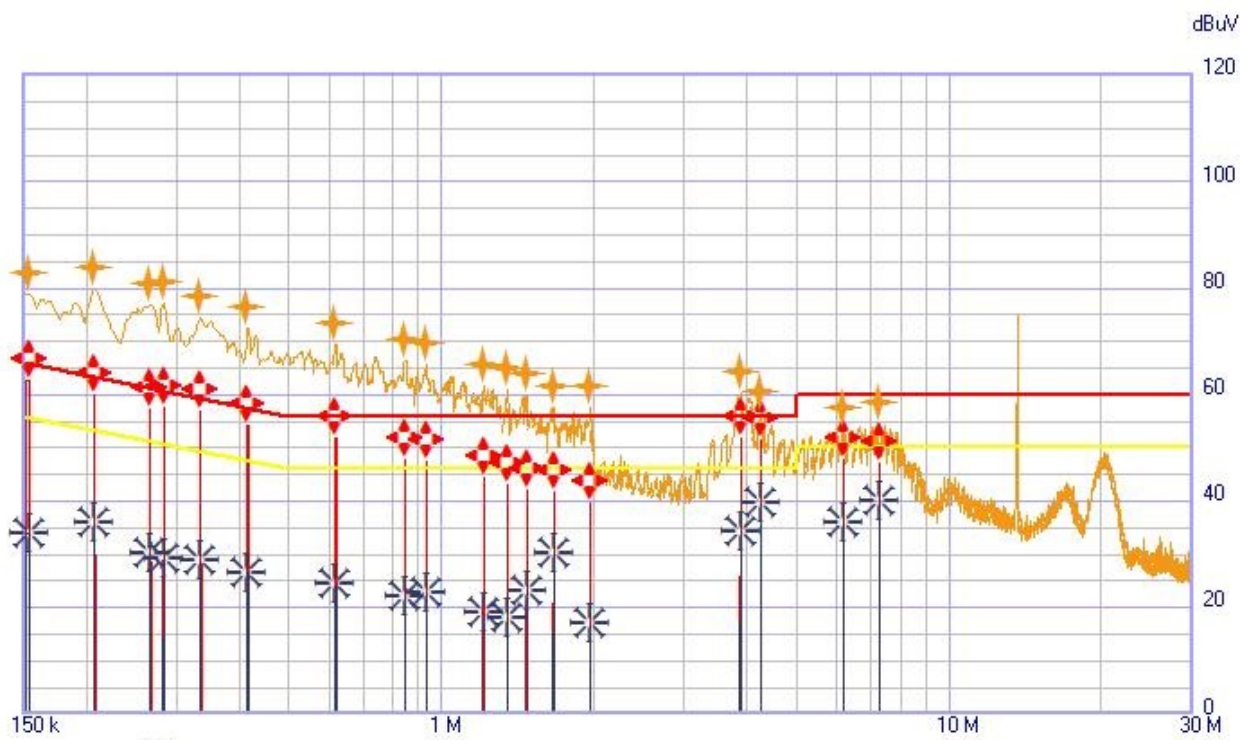
Pulse Limiter ON
Ancillary = General

Limits:
CISPR_B_QP
CISPR_B_AV

Factors: ——— Peak ———
ENV216#2_180907_L QPeak ———
CE_CL_190118 C-Avg ———

Frequency [MHz]	RD QP [dB/μV]	RD 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]
0.150	49.89	21.18	9.61	59.50	30.79	66.00	56.00	6.50	25.21
0.154	49.41	21.31	9.62	59.03	30.93	65.78	55.78	6.75	24.85
0.269	44.46	17.08	9.61	54.07	26.69	61.16	51.16	7.09	24.47
0.459	39.86	11.59	9.63	49.49	21.22	56.71	46.71	7.22	25.49
0.653	35.95	9.50	9.64	45.59	19.14	56.00	46.00	10.41	26.86
0.860	33.65	8.51	9.65	43.30	18.16	56.00	46.00	12.70	27.84
1.207	30.51	6.55	9.66	40.17	16.21	56.00	46.00	15.83	29.79
1.412	29.44	5.90	9.66	39.10	15.56	56.00	46.00	16.90	30.44
1.584	27.41	5.26	9.67	37.08	14.93	56.00	46.00	18.92	31.07

1.761	27.63	5.63	9.68	37.31	15.31	56.00	46.00	18.69	30.69
1.956	26.11	5.20	9.68	35.79	14.88	56.00	46.00	20.21	31.12
3.152	26.73	12.94	9.71	36.44	22.65	56.00	46.00	19.56	23.35
3.404	36.08	22.00	9.72	45.80	31.72	56.00	46.00	10.20	14.28
3.565	35.69	20.31	9.72	45.41	30.03	56.00	46.00	10.59	15.97
3.849	43.72	25.28	9.73	53.45	35.01	56.00	46.00	2.55	10.99
4.248	41.54	28.58	9.73	51.27	38.31	56.00	46.00	4.73	7.69
5.725	36.96	24.26	9.79	46.75	34.05	60.00	50.00	13.25	15.95
6.383	36.81	25.46	9.80	46.61	35.26	60.00	50.00	13.39	14.74
7.397	40.53	34.83	9.83	50.36	44.66	60.00	50.00	9.64	5.34



	Start [MHz]	Stop [MHz]	Step	Detector	Hold Time	RBW	Min Att	Pre Amp	Pre Sel	Prompt start	Ancillary
1	0.15	30	AUTO (2.045 kHz)	P Q C CISPR_B_QP CISPR_B_AV	1000 ms	9 kHz	10	ON	ON	---	N

Pulse Limiter ON
Ancillary = General

Limits:
CISPR_B_QP
CISPR_B_AV

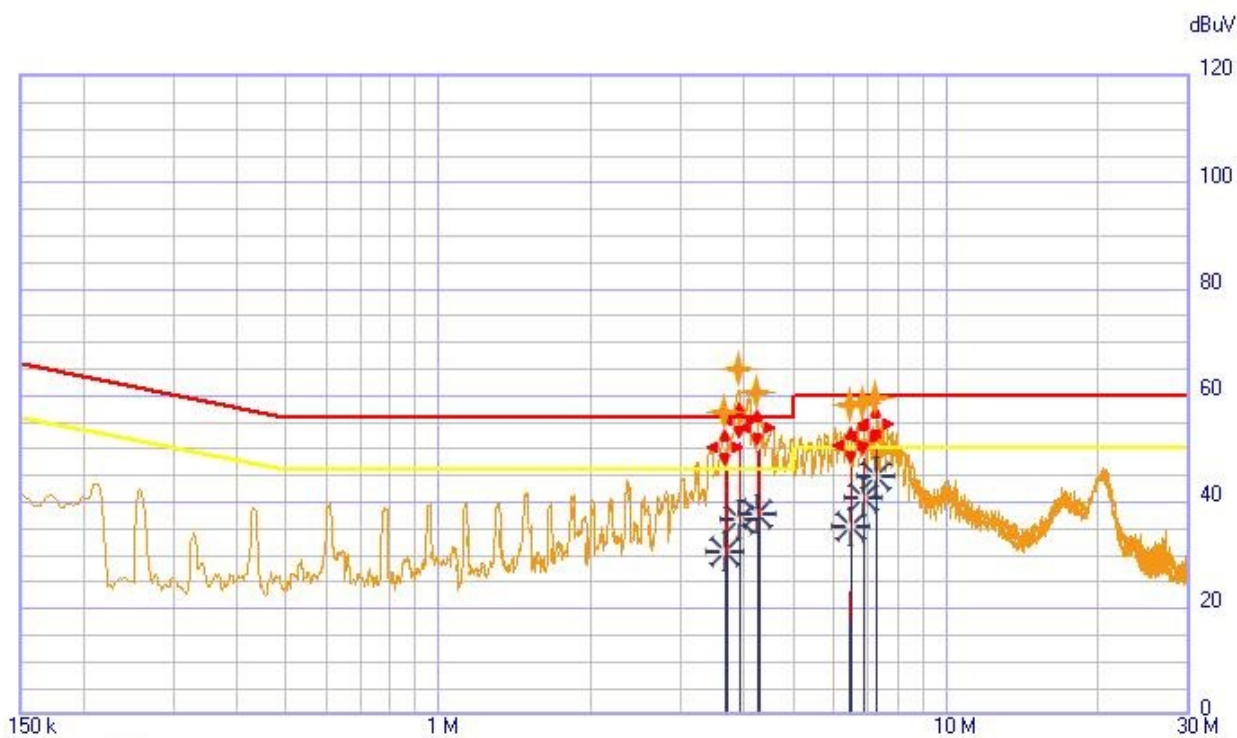
Factors: ENV216#2_180907_N
CE_CL_190118

Peak
QPeak
C-Avg

Frequency [MHz]	RD QP [dB/μV]	RD 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]
0.152	52.99	24.27	9.62	62.61	33.89	65.89	55.89	3.28	22.00
0.154	53.05	24.30	9.61	62.66	33.91	65.78	55.78	3.12	21.87
0.207	50.31	26.03	9.59	59.90	35.62	63.31	53.31	3.41	17.69
0.267	47.77	20.46	9.60	57.37	30.06	61.22	51.22	3.85	21.16
0.283	47.83	19.34	9.60	57.43	28.94	60.73	50.73	3.30	21.79
0.336	47.43	18.96	9.61	57.04	28.57	59.30	49.30	2.26	20.73
0.416	44.66	16.77	9.62	54.28	26.39	57.53	47.53	3.25	21.14
0.618	42.29	14.65	9.62	51.91	24.27	56.00	46.00	4.09	21.73
0.847	38.02	12.23	9.63	47.65	21.86	56.00	46.00	8.35	24.14
0.933	37.80	13.09	9.64	47.44	22.73	56.00	46.00	8.56	23.27

1.207	34.75	9.40	9.65	44.40	19.05	56.00	46.00	11.60	26.95
1.346	33.35	8.32	9.65	43.00	17.97	56.00	46.00	13.00	28.03
1.467	32.41	13.35	9.65	42.06	23.00	56.00	46.00	13.94	23.00
1.657	32.05	20.24	9.66	41.71	29.90	56.00	46.00	14.29	16.10
1.962	29.83	7.03	9.67	39.50	16.70	56.00	46.00	16.50	29.30
3.864	42.16	24.41	9.72	51.88	34.13	56.00	46.00	4.12	11.87
4.248	41.65	29.71	9.72	51.37	39.43	56.00	46.00	4.63	6.57
6.154	37.92	26.01	9.79	47.71	35.80	60.00	50.00	12.29	14.20
7.267	37.23	30.15	9.82	47.05	39.97	60.00	50.00	12.95	10.03

DATA - Normal Operation with antenna port terminated



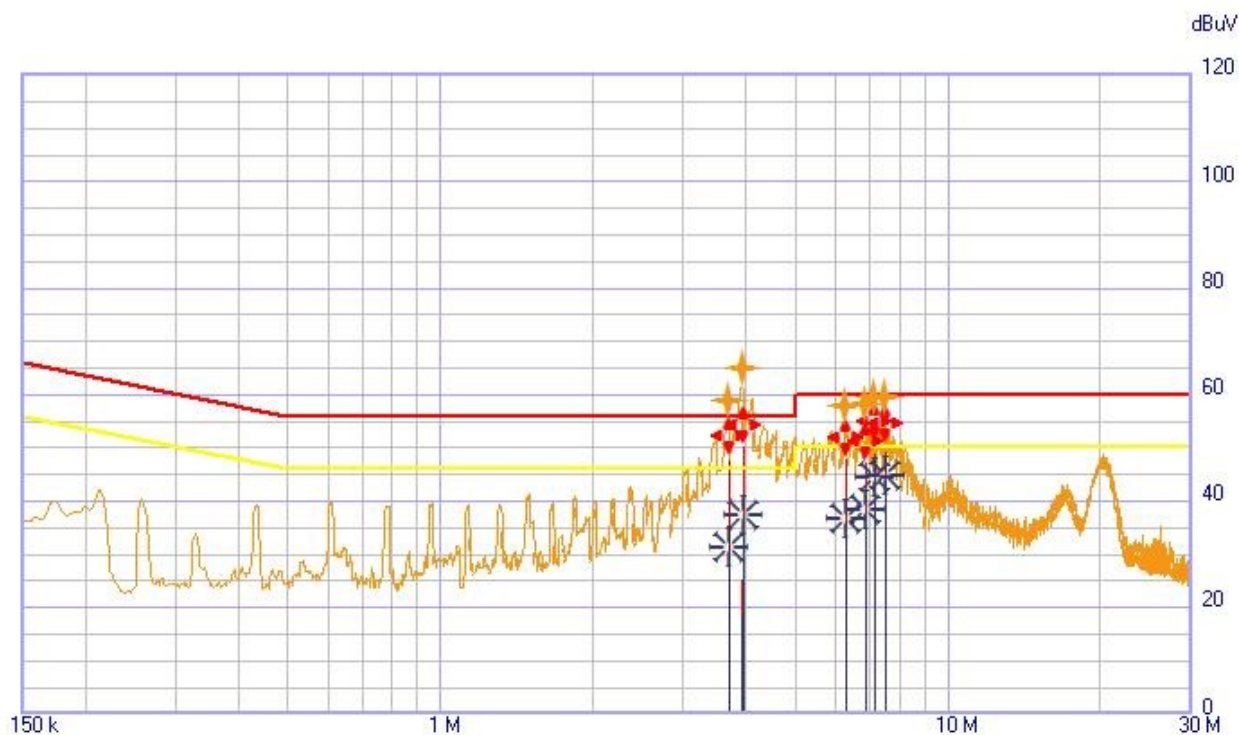
	Start [MHz]	Stop [MHz]	Step	Detector	Hold Time	RBW	Min Att	Pre Amp	Pre Sel	Prompt start	Ancillary
1	0.15	30	AUTO (2.045 kHz)	P Q C CISPR_B_QP CISPR_B_AV	1000 ms	9 kHz	10	ON	ON	...	L1

Pulse Limiter ON
Ancillary = General

Limits:
CISPR_B_QP
CISPR_B_AV

Factors: ——— Peak ———
ENV216#2_180907_L QPeak ———
CE_CL_190118 C-Avg ———

Frequency [MHz]	RD QP [dB/μV]	RD 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]
3.674	36.43	20.55	9.72	46.15	30.27	56.00	46.00	9.85	15.73
3.896	41.57	26.87	9.73	51.30	36.60	56.00	46.00	4.70	9.40
4.260	40.15	27.57	9.74	49.89	37.31	56.00	46.00	6.11	8.69
6.463	36.68	25.28	9.81	46.49	35.09	60.00	50.00	13.51	14.91
6.880	38.17	30.58	9.82	47.99	40.40	60.00	50.00	12.01	9.60
7.273	40.57	34.77	9.83	50.40	44.60	60.00	50.00	9.60	5.40



	Start [MHz]	Stop [MHz]	Step	Detector	Hold Time	RBW	Min Att	Pre Amp	Pre Sel	Prompt start	Ancillary
1	0.15	30	AUTO (2.045 kHz)	P Q C CISPR_B_QP CISPR_B_AV	1000 ms	9 kHz	10	ON	ON	---	N

Pulse Limiter ON
Ancillary = General

Limits:
CISPR_B_QP
CISPR_B_AV

Factors:
ENV216#2_180907_N
CE_CL_190118

Peak ———
QPeak ———
C-Avg ———

Frequency [MHz]	RD QP [dB/μV]	RD 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]
3.700	38.46	21.44	9.72	48.18	31.16	56.00	46.00	7.82	14.84
3.923	40.35	27.50	9.72	50.07	37.22	56.00	46.00	5.93	8.78
6.250	38.07	26.64	9.79	47.86	36.43	60.00	50.00	12.14	13.57
6.876	37.37	28.26	9.81	47.18	38.07	60.00	50.00	12.82	11.93
7.136	40.95	34.42	9.81	50.76	44.23	60.00	50.00	9.24	5.77
7.528	40.60	34.88	9.82	50.42	44.70	60.00	50.00	9.58	5.30

3.3.4 Frequency Tolerance

Procedure:

The temperature test was started after the temperature stabilization time of 30 minutes.

Requirement:

The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

Test method : ANSI C63.10 : 2013
 Tx Frequency : 13.56 MHz
 Result : **Complies**

Measurement Data:

OPERATING FREQUENCY: 13,560,000 Hz

Freq. Tolerance Limit: ± 0.01 %

VOLTAGE (%)	POWER (VAC)	TEMP (°C)	@2 mins FREQ (Hz)	Deviation (%)	@5 mins FREQ (Hz)	Deviation (%)	@10 mins FREQ (Hz)	Deviation (%)
100	120	-20	13,560,025	0.000184	13,560,027	0.000199	13,560,031	0.000229
100		-10	13,560,030	0.000221	13,560,031	0.000229	13,560,034	0.000251
100		0	13,560,034	0.000251	13,560,034	0.000251	13,560,036	0.000265
100		10	13,560,035	0.000258	13,560,036	0.000265	13,560,038	0.000280
100		20	13,560,039	0.000288	13,560,039	0.000288	13,560,040	0.000295
100		30	13,560,039	0.000288	13,560,040	0.000295	13,560,043	0.000317
100		40	13,560,044	0.000324	13,560,045	0.000332	13,560,047	0.000347
100		50	13,560,049	0.000361	13,560,050	0.000369	13,560,052	0.000383
85	102	20	13,560,016	0.000118	13,560,016	0.000118	13,560,018	0.000133
115	138	20	13,559,979	0.000155	13,559,978	0.000162	13,559,976	0.000177

APPENDIX A
TEST EQUIPMENT USED FOR TESTS

	Use	Description	Model No.	Serial No.	Manufacturer	Interval	Last Cal. Date
1	■	Signal Analyzer (9 kHz ~ 30 GHz)	FSV30	100757	R&S	1 year	2018-09-06
2	■	TRILOG Antenna	VULB 9160	9160-3237	SCHWARZBECK	2 year	2018-04-17
3	■	Temp.Humidity Data Logger	SK-L200TH II A	00801	SATO	1 year	2018-09-06
4	■	DC Power Supply	6674A	3637A01657	Agilent	-	-
5	■	TEMP & HUMIDITY Chamber	YJ-500	LTAS06041	JinYoung Tech	1 year	2018-09-06
6	■	Active Loop Antenna	HFH2-Z2	100504	ROHDE&SCHWARZ	2 year	2019-01-24
7	■	Signal Generator(9kHz ~ 40 GHz)	SMB100V03	255081	R&S	1 year	2019-03-19
8	■	RF Cable	SUCOFLEX	-	Huber+suhner	-	-
9	■	LISN	ENV216	101222	ROHDE&SCHWARZ	1 year	2018-09-06

	Use	Description	Model No.	Serial No.	Manufacturer	Interval	Last Cal. Date
1	■	Signal Analyzer (9 kHz ~ 30 GHz)	FSV30	100757	R&S	1 year	2018-09-06
2	■	TRILOG Antenna	VULB 9160	9160-3237	SCHWARZBECK	2 year	2018-04-17
3	■	Temp.Humidity Data Logger	SK-L200TH II A	00801	SATO	1 year	2018-09-06
4	■	DC Power Supply	6674A	3637A01657	Agilent	-	-
5	■	TEMP & HUMIDITY Chamber	YJ-500	LTAS06041	JinYoung Tech	1 year	2018-09-06
6	■	Active Loop Antenna	HFH2-Z2	100504	ROHDE&SCHWARZ	2 year	2017-02-27
7	■	Signal Generator(9kHz ~ 40 GHz)	SMB100V03	255081	R&S	1 year	2018-03-20
8	■	RF Cable	SUCOFLEX	-	Huber+suhner	-	-
9	■	LISN	ENV216	101222	ROHDE&SCHWARZ	1 year	2019-09-07