TEST REPORT

Part 15 Subpart C 15.225

Equipment under test	EV Guest Tag
Model name	J1801
FCC ID	WDC-J1801
Applicant	JTECH an HME Company
Manufacturer	Lee Technology Korea Co., Ltd.
Date of test(s)	2018.02.12 ~ 2018.02.22, 02.28
Date of issue	2018.02.28

Issued to
JTECH an HME Company
1400 Northbrook Parkway Suite #320
Suwanee, GA USA
Tel: +1-678-280-2707 / Fax: +1-700-682-3459

Issued by
KES Co., Ltd.
3701, 40, Simin-daero 365beon-gil, Dongan-gu, Anyang-si,
Gyeonggi-do, 14057, Korea
473-21, Gayeo-ro, Yeoju-si, Gyeonggi-do, Korea
Tel: +82-31-425-6200 / Fax: +82-31-424-0450

Test and report completed by :	**Report approval by :**
Kwon-se Kim Test engineer	Hyeon-Su, Jang Technical manager

Revision history

Revision	Date of issue	Test report No.	Description
-	2018.02.24	KES-RF-18T0024	Initial
R1	2018.02.28	KES-RF-18T0024-R1	Retest a 20㏈ bandwidth

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1. General information

Applicant:	JTECH an HME Company
Applicant address:	1400 Northbrook Parkway Suite #320 Suwanee, GA USA
Test site:	KES Co., Ltd.
Test site address:	3701, 40, Simin-daero 365beon-gil, Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea 473-21, Gayeo-ro, Yeoju-si, Gyeonggi-do, Korea
Test Facility	FCC Accreditation Designation No.: KR0100, Registration No.: 444148
FCC rule part(s):	15.225
FCC ID:	WDC-J1801
Test device serial No.:	☒ Production ☐ Pre-production ☐ Engineering

1.1. EUT description

Equipment under test	EV Guest Tag
Frequency range	UHF : 450.0250 ㎒ ~ 469.9750 ㎒ NFC : 13.56 ㎒
Model:	J1801
Type of emission	5K93F1D
Channel separation	12.5 ㎑
Rated power	11 ㏈m
Antenna specification	Antenna type(UHF) : Helical antenna, Peak gain: -2.34㏈i Antenna type(NFC): Pattern antenna
Power source	DC 3.7 V (Internal Rechargeable Battery)

1.2. Test configuration

The **JTECH an HME Company EV Guest Tag FCC ID: WDC-J1801** was tested according to the specification of EUT, the EUT must comply with following standards

FCC Part 15
FCC Part 2
ANSI C63.10-2013

1.3. Accessory information

Equipment	Manufacturer	Model	Serial No.	Power source
AC adaptor	Zhonghan Electronics(Shenzhen)Co., Ltd.	FSP060-DIBAN2	H00000863	AC 120 V (Output : DC 12.0V/5.0A)
Tag-charger	Lee Technology Korea Co., Ltd.	Guest Paging	-	-

1.4. Software and Firmware description

The software and firmware installed in the EUT is version 1.0

1.5. Measurement results explanation example

For all conducted test items :

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Offset(㏈) = RF cable loss(㏈) + attenuator factor(㏈).
= 1.05 + 10 = 11.05 (㏈)

1.6 Measurement Uncertainty

Test Item		Uncertainty
Uncertainty for Conduction emission test		2.62 ㏈
Uncertainty for Radiation emission test (include Fundamental emission)	9㎑ - 30㎒	4.54 ㏈
	30㎒ - 1㎓	4.36 ㏈
	Above 1㎓	5.00 ㏈
Note. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.		

1.7. Test frequency/Channel operation

Ch.	Frequency (㎒)
01	13.56

2. Summary of tests

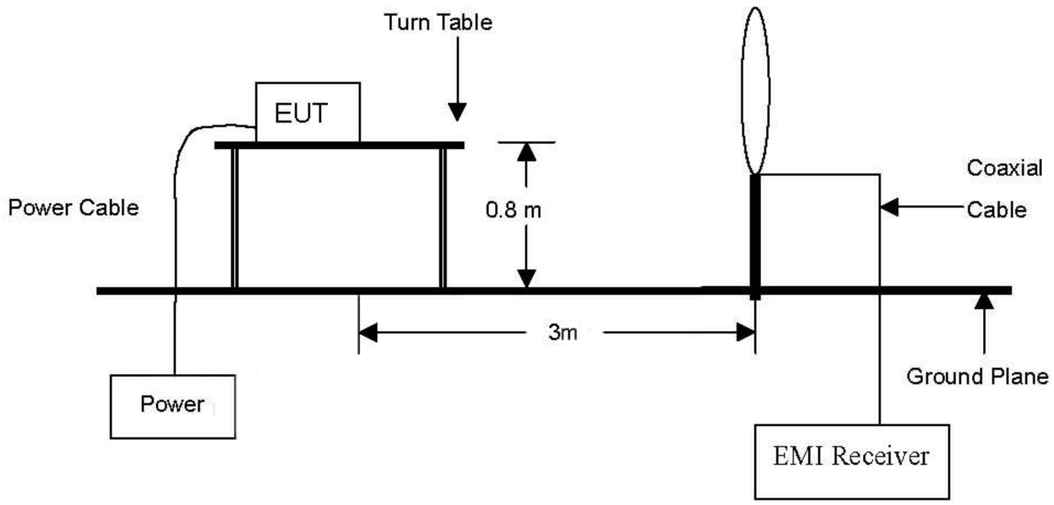
Section in FCC Part 15 & 2	Parameter	Test results
15.225(a)	The field strength of fundamental	Pass
15.225(b)(c)	The field strength of spurious emission(In-band)	Pass
15.225(d) 15.209	The field strength of spurious emission(Out-band)	Pass
15.225(e)	Frequency stability	Pass
2.1049	20 ㏈ bandwidth	Pass
15.207(a)	AC power line conducted emissions	Pass

3. Test results

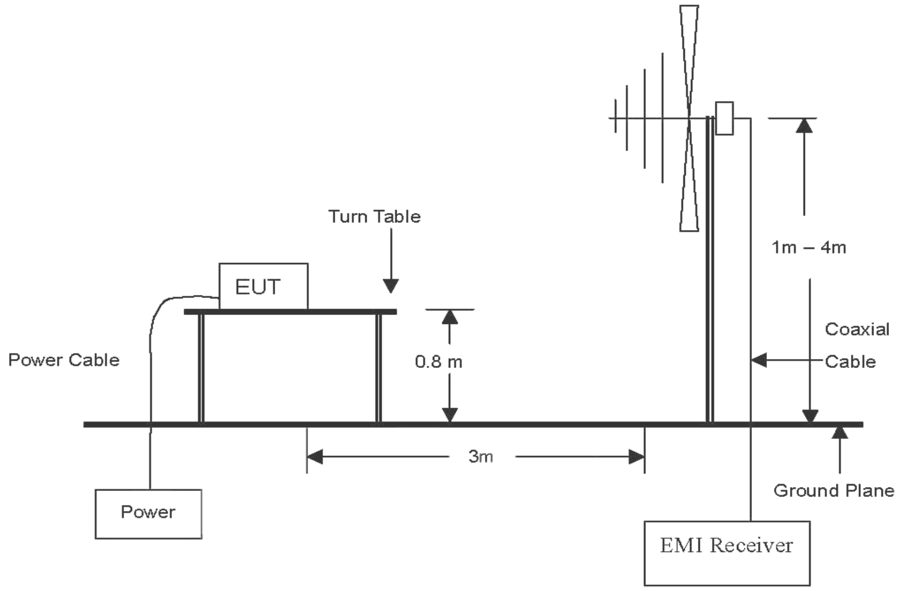
3.1. Radiated spurious emissions

Test setup

The diagram below shows the test setup that is utilized to make the measurements for emission from 9 ㎑ to 30 ㎒ Emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission from 30 ㎒ to 1 ㎓ emissions.



Test procedure

[9 ㎑ to 30 ㎒]

The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. Then antenna is a loop antenna is fixed at one meter above the ground to determine the maximum value of the field strength. Both parallel and perpendicular of the antenna are set to make the measurement. For each suspected emission, the EUT was arranged to its worst case and then the table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Quasi-peak function and specified bandwidth with maximum hold mode.

The spectrum analyzer is set to:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer 200 ㎐ for Quasi-peak detection (QP) at frequency below 9 ㎑~ 150 ㎑.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer 9 ㎑ for Quasi-peak detection (QP) at frequency below 150 ㎑~ 30 ㎒.

[30 ㎒ to 1 ㎓]

The height of the measuring antenna was varied between 1 to 4 m and the table was rotated a full revolution in order to obtain maximum values of the electric field intensity.
The measurement was made in both the vertical and horizontal polarization, and the maximum value is presented in the report.

The spectrum analyzer is set to:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 ㎑ for Peak detection (PK) or Quasi-peak detection (QP) at frequency below 1 ㎓.

Note.

According to exploratory test no any obvious emission were detected from 9 ㎑ to 30 ㎒.
Although these test were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

Limit

According to 15.209(a), for an intentional radiator devices, the general required of field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values：

Frequency (㎒)	Distance (Meters)	Radiated (㎶/m)
0.009 ~ 0.490	300	2400/F(㎑)
0.490 ~ 1.705	30	24000/F(㎑)
1.705 ~ 30.0	30	30
30 ~ 88	3	100**
88 ~ 216	3	150**
216 ~ 960	3	200**
Above 960	3	500

**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 ㎒, 76 ~ 88 ㎒, 174 ~ 216 ㎒ or 470 ~ 806 ㎒. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

In the section 15.225:

(a) The field strength of any emissions within the band 13.553 ~ 13.567 ㎒ shall not exceed 15,848 microvolts/meter (= 84 dB㎶/m) at 30 meters.

(b) Within the bands 13.410 ~ 13.553 ㎒ and 13.567 ~ 13.710 ㎒, the field strength of any emissions shall not exceed 334 microvolts/meter (=50.5 dB㎶/m) at 30 meters.

(c) Within the bands 13.110 ~ 13.410 ㎒ and 13.710 ~ 14.010 ㎒ the field strength of any emissions shall not exceed 106 microvolts/meter (=40.5 dB㎶/m) at 30 meters.

(d) The field strength of any emissions appearing outside of the 13.110 ~ 14.010 ㎒ band shall not exceed the general radiated emission limits in § 15.209.

Test results for fundamental

Operating frequency: 13.560 ㎒

Distance of measurement: 3 meter

Radiated emissions		Ant.	Total factors		Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Pol.	Correction factor (dB/m)	Distance factor (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
13.560	46.50	H	20.30	40	26.80	84.00	57.20
13.560	41.70	V	20.30	40	22.00	84.00	62.00

Test results for in-band & out-band(9 ㎑ to 30 ㎒)

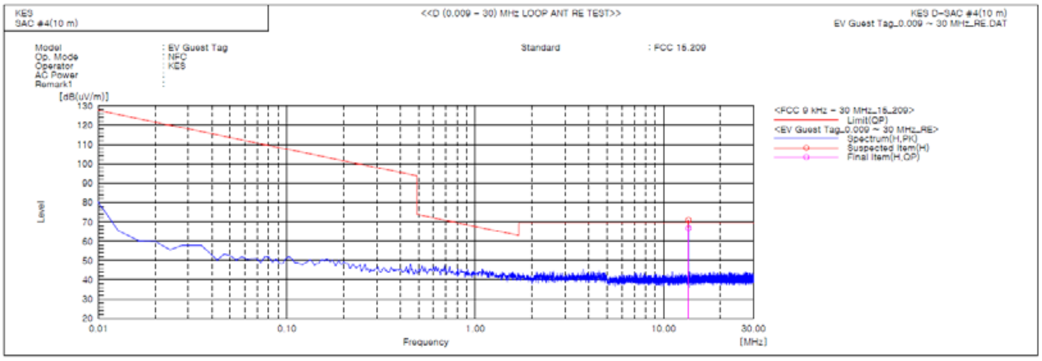
Radiated emissions		Ant.	Total factors		Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Pol.	Correction factor (dB/m)	Distance factor (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
12.197	10.87	H	20.87	40	-8.26	29.54	37.80
13.315	10.60	H	20.83	40	-8.57	40.50	49.07
13.551	20.35	H	20.86	40	1.21	50.50	49.29
13.567	20.64	H	20.86	40	1.50	50.50	49.00
13.923	10.17	H	20.89	40	-8.64	40.50	49.14
14.114	9.99	H	20.91	40	-9.10	29.54	38.64
12.943	10.57	V	20.81	40	-8.62	29.54	38.16
13.369	10.35	V	20.84	40	-8.81	40.50	49.31
13.551	16.04	V	20.86	40	-3.10	50.50	53.60
13.567	15.68	V	20.86	40	-3.46	50.50	53.96
13.805	9.74	V	20.88	40	-9.38	40.50	49.88
14.155	10.28	V	20.92	40	-8.80	29.54	38.34

Note.

1. All measurements were performed using a loop antenna. The antenna was positioned in three orthogonal positions (X front, Y side, Z top) and the position with the highest emission level was recorded.
2. The EUT was positioned in three orthogonal planes to determine the orientation resulting in the worst case emissions.
3. Measurements were performed at 3m and the data was extrapolated to the specified measurement distance of 30m using the square of an inverse linear distance extrapolation factor (40 ㏈/decade) as specified in §15.31(f)(2). Extrapolation Factor = 20 log10(30/3)^2 = 40 ㏈.
4. The spectrum was investigated from 9 ㎑ up to 30 ㎒ using the loop antenna. Only the emissions shown in the table above were found to be significant.
5. All measurements were recorded using a spectrum analyzer employing a quasi-peak detector.
6. Actual = Reading + Correction factors(Ant. factor + Cable loss) - Distance factor
7. Margin [dB] = Limit [dB㎶//m] - Field Strength Level [dB㎶//m]

Test results (9 ㎑ to 30 ㎒)

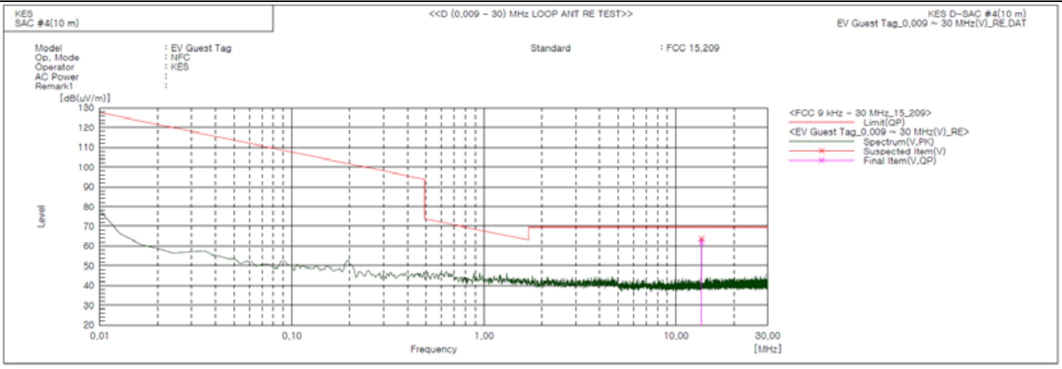
Horizontal // Fundamental



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	13.561	H	46.5	20.3	66.8	69.5	2.7	100.0	130.0	

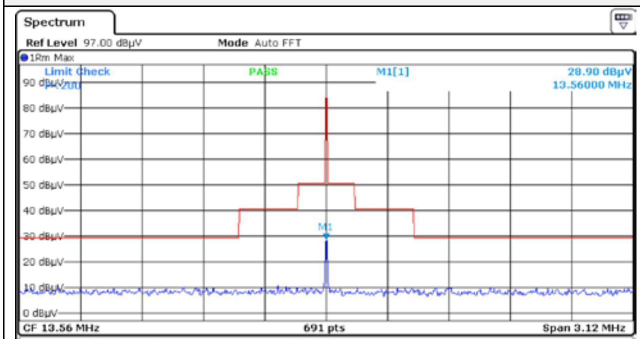
Vertical // Fundamental



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	13.561	V	41.7	20.3	62.0	69.5	7.5	100.0	124.0	

Horizontal // in-band & out-band

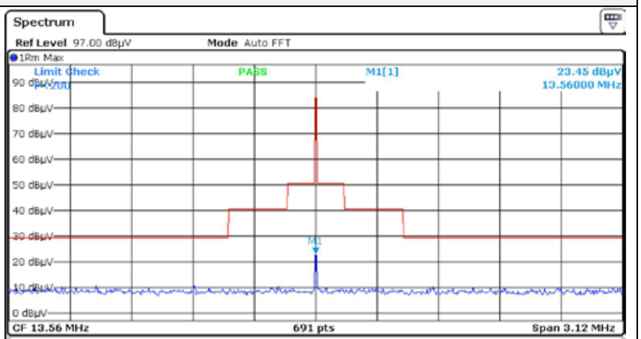


Spectrum Emission Mask   Standard: FCC 15.225_2015
Peak Power 28.90 dBµV   RBW 10.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-1.560 MHz	-443.000 kHz	10.000 kHz	12.19672 MHz	10.87 dBµV	-18.03 dB	-18.63 dB
-443.000 kHz	-143.000 kHz	10.000 kHz	13.31473 MHz	10.60 dBµV	-18.30 dB	-29.90 dB
-143.000 kHz	-7.000 kHz	10.000 kHz	13.55073 MHz	20.35 dBµV	-8.56 dB	-30.15 dB
7.000 kHz	143.000 kHz	10.000 kHz	13.56700 MHz	20.64 dBµV	-8.26 dB	-29.86 dB
143.000 kHz	443.000 kHz	10.000 kHz	13.92345 MHz	10.17 dBµV	-18.73 dB	-30.33 dB
443.000 kHz	1.560 MHz	10.000 kHz	14.11380 MHz	9.99 dBµV	-18.91 dB	-19.51 dB

Measuring...

Vertical // in-band & out-band



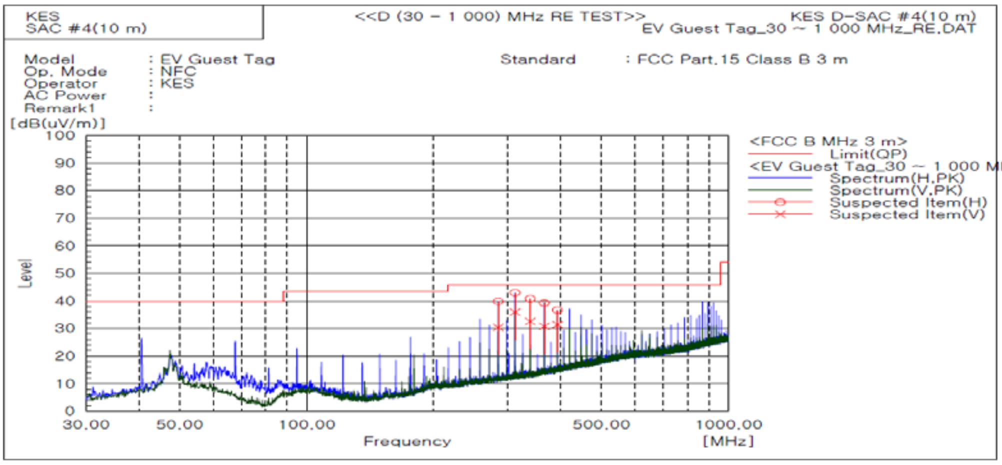
Spectrum Emission Mask   Standard: FCC 15.225_2015
Peak Power 23.45 dBµV   RBW 10.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-1.560 MHz	-443.000 kHz	10.000 kHz	12.94289 MHz	10.57 dBµV	-12.87 dB	-18.93 dB
-443.000 kHz	-143.000 kHz	10.000 kHz	13.36927 MHz	10.35 dBµV	-13.10 dB	-30.15 dB
-143.000 kHz	-7.000 kHz	10.000 kHz	13.55073 MHz	16.04 dBµV	-7.41 dB	-34.46 dB
7.000 kHz	143.000 kHz	10.000 kHz	13.56700 MHz	15.68 dBµV	-7.76 dB	-34.82 dB
143.000 kHz	443.000 kHz	10.000 kHz	13.80527 MHz	9.74 dBµV	-13.71 dB	-30.76 dB
443.000 kHz	1.560 MHz	10.000 kHz	14.15450 MHz	10.28 dBµV	-13.17 dB	-19.22 dB

Measuring...

Test results (Below 1 000 ㎒)

Horizontal // Vertical



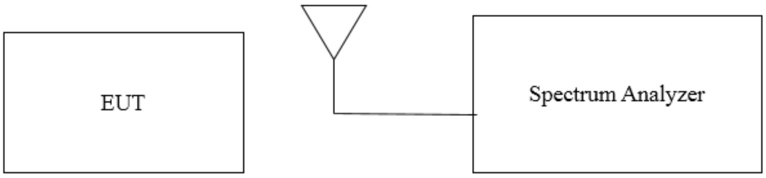
No.	Frequency [MHz]	(P)	Reading [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Remark
1	284.746	H	65.7	-25.9	39.8	46.0	6.2	
2	311.906	H	68.1	-25.1	43.0	46.0	3.0	
3	338.945	H	65.2	-24.3	40.9	46.0	5.1	
4	366.105	H	62.6	-23.3	39.3	46.0	6.7	
5	393.265	H	59.0	-22.3	36.7	46.0	9.3	
6	284.746	V	56.3	-25.9	30.4	46.0	15.6	
7	311.906	V	61.1	-25.1	36.0	46.0	10.0	
8	338.945	V	56.9	-24.3	32.6	46.0	13.4	
9	366.105	V	54.1	-23.3	30.8	46.0	15.2	
10	393.265	V	53.8	-22.3	31.5	46.0	14.5	

Note.

1. All measurements were recorded using a spectrum analyzer employing a quasi-peak detector for emissions below 960 ㎒.
2. Both Vertical and Horizontal polarities of the receive antenna were evaluated with the worst case emissions being reported. Below 30 ㎒ the loop antenna was positioned in 3 orthogonal planes (X front, Y side, Z top) to determine the orientation resulting in the worst case emissions.
3. The EUT was positioned in three orthogonal planes to determine the orientation resulting in the worst case emissions.
4. The spectrum is measured from 9 ㎑ to the 10th harmonic and the worst-case emissions are reported.
5. No spurious emissions levels were found to be greater than the level of the fundamental.

3.2 20 ㏈ bandwidth

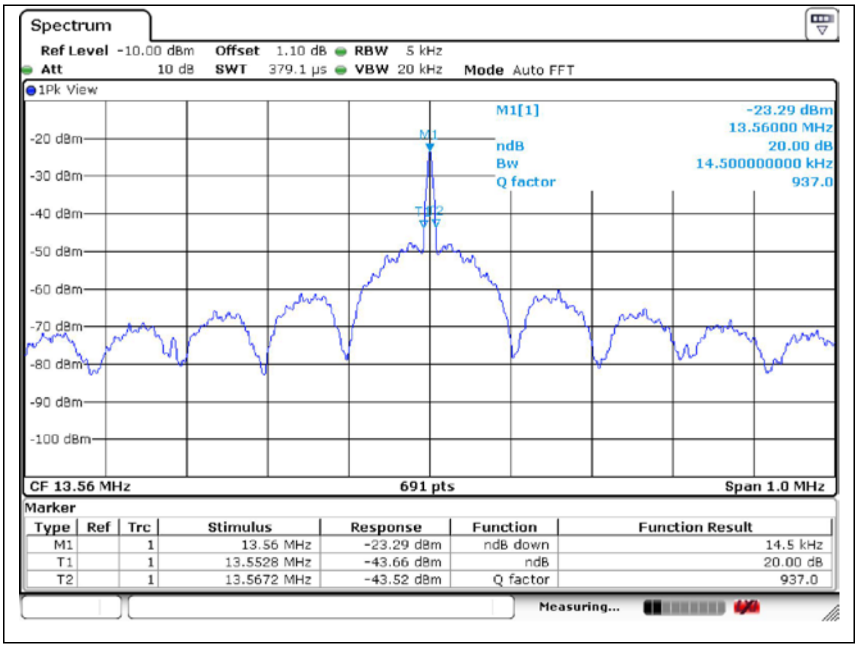
Test setup



Test procedure

ANSI C63.10-2013 – Section 6.9.2

1. Spectrum analyzer frequency is set to the nominal EUT channel center frequency.
2. RBW = 1~5% OBW
3. VBW ≥ 3 x RBW
4. Reference level set to keep signal from exceeding maximum input mixer for linear operation.
5. Detector = Peak
6. Trace mode = Max hold
7. Sweep = Auto couple
8. The trace was allowed to stabilize
9. Using the marker-delta function, determine the “-20 ㏈ down amplitude” using [(highest in band spectral density) – 20 ㏈]
10. Set a marker at the lowest frequency of the envelope of the spectral density, such that the marker is at or slightly below the “-20 ㏈ down amplitude” determined in Step 9.
11. Reset Marker-delta function and move the marker to other side of the emission until the delta marker amplitude is the same level as reference amplitude. The marker delta frequency reading at this point is the specified emission bandwidth.



Note.

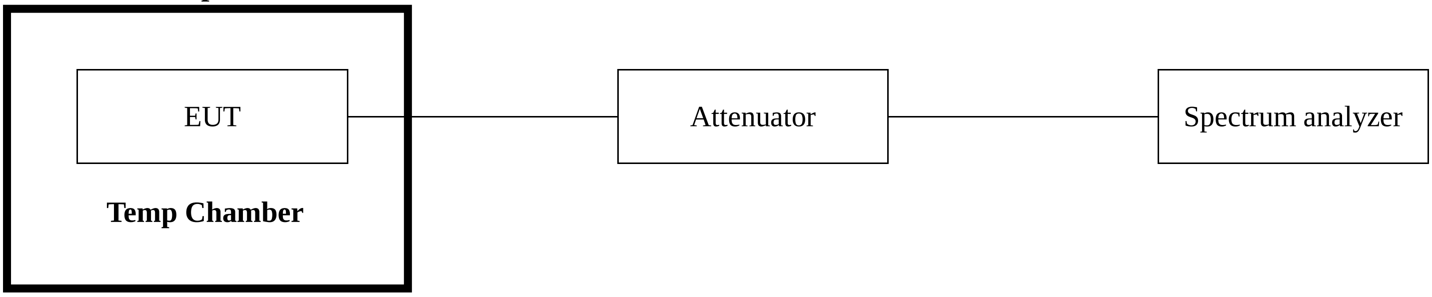
Because the measured signal is CW/CW-like, adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

3.3. Frequency Stability

Test procedure

ANSI C63.10-2013, clause 6.8.1

Test setup



1. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.
7. While maintaining a constant temperature inside the environmental chamber, turn the EUT on and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

Limit

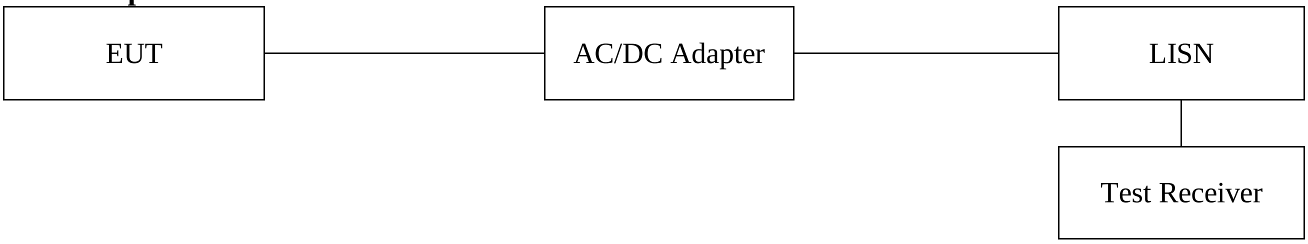
According to §15.225 (e), the frequency tolerance of the carrier signal shall be maintained within +/-0.01 % of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85 % to 115 % of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

Test results

Test voltage (%)	Test voltage (V)	Temperature (℃)	Maintaining time	Measure frequency (㎒)	Frequency deviation (㎐)	Deviation (%)
100 %	DC 3.7	-20	Startup	13.559 894	-106	-0.000 782
			2 minutes	13.559 895	-105	-0.000 774
			5 minutes	13.559 900	-100	-0.000 737
			10 minutes	13.559 911	-89	-0.000 656
100 %		-10	Startup	13.559 904	-96	-0.000 708
			2 minutes	13.559 910	-90	-0.000 664
			5 minutes	13.559 931	-69	-0.000 509
			10 minutes	13.559 937	-63	-0.000 465
100 %		0	Startup	13.559 966	-34	-0.000 251
			2 minutes	13.559 970	-30	-0.000 221
			5 minutes	13.559 988	-12	-0.000 088
			10 minutes	13.559 991	-9	-0.000 066
100 %		10	Startup	13.560 010	10	0.000 074
			2 minutes	13.560 015	15	0.000 111
			5 minutes	13.560 020	20	0.000 147
			10 minutes	13.560 022	22	0.000 162
100 %		20	Startup	13.560 024	24	0.000 177
			2 minutes	13.560 028	28	0.000 206
			5 minutes	13.560 028	28	0.000 206
			10 minutes	13.560 031	31	0.000 229
100 %		22.1	Startup	13.560 029	29	0.000 214
			2 minutes	13.560 038	38	0.000 280
			5 minutes	13.560 040	40	0.000 295
			10 minutes	13.560 049	49	0.000 361
100 %		30	Startup	13.560 042	42	0.000 310
			2 minutes	13.560 044	44	0.000 324
			5 minutes	13.560 050	50	0.000 369
			10 minutes	13.560 052	52	0.000 383
100 %		40	Startup	13.560 046	46	0.000 339
			2 minutes	13.560 051	51	0.000 376
			5 minutes	13.560 060	60	0.000 442
			10 minutes	13.560 063	63	0.000 465
100 %		50	Startup	13.560 083	83	0.000 612
			2 minutes	13.560 098	98	0.000 723
			5 minutes	13.560 103	103	0.000 760
			10 minutes	13.560 121	121	0.000 892
85 %	DC 3.15	22.1	Startup	13.560 029	29	0.000 214
			2 minutes	13.560 035	35	0.000 258
			5 minutes	13.560 039	39	0.000 288
			10 minutes	13.560 049	49	0.000 361
115 %	DC 4.26	22.1	Startup	13.560 029	29	0.000 214
			2 minutes	13.560 036	36	0.000 265
			5 minutes	13.560 040	40	0.000 295
			10 minutes	13.560 048	48	0.000 354

3.4. AC conducted emissions

Test setup



Limit

According to 15.207(a), for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 ㎑ to 30 ㎒, shall not exceed the limits in the following table, as measured using a 50uH/50 ohm line impedance stabilization network (LISN). Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequencies ranges.

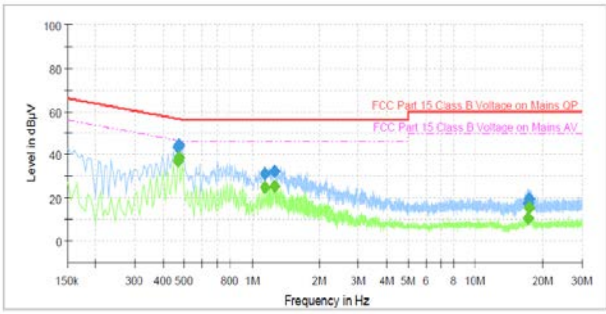
Frequency of Emission (㎒)	Conducted limit (dBμV/m)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

Note:

1. All AC line conducted spurious emission are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and the appropriate frequencies. All data rates and modes were investigated for conducted spurious emission. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section.
2. Both Cable loss and LISN factor are included in measurement level (QP Level or AV Level).

Test results

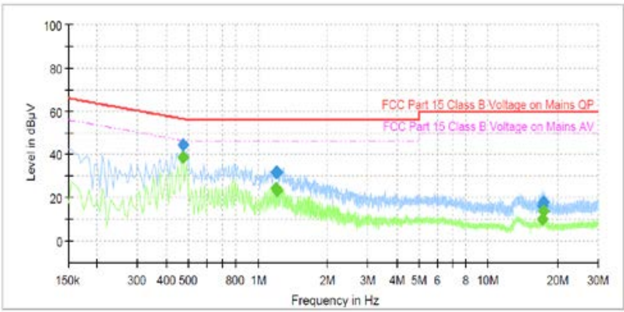
Hot Line



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.465000	---	37.01	46.60	9.59	1000.0	9.000	L1	19.6
0.465000	43.28	---	56.60	13.32	1000.0	9.000	L1	19.6
0.470000	---	38.86	46.51	7.65	1000.0	9.000	L1	19.6
0.470000	44.38	---	56.51	12.13	1000.0	9.000	L1	19.6
1.145000	---	24.86	46.00	21.14	1000.0	9.000	L1	19.9
1.145000	31.14	---	56.00	24.86	1000.0	9.000	L1	19.9
1.260000	---	25.40	46.00	20.60	1000.0	9.000	L1	19.9
1.260000	32.11	---	56.00	23.89	1000.0	9.000	L1	19.9
17.215000	---	10.87	50.00	39.13	1000.0	9.000	L1	20.2
17.215000	17.31	---	60.00	42.69	1000.0	9.000	L1	20.2
17.455000	---	15.38	50.00	34.62	1000.0	9.000	L1	20.2
17.455000	19.59	---	60.00	40.41	1000.0	9.000	L1	20.2

Neutral Line



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.470000	---	38.82	46.51	7.69	1000.0	9.000	N	19.6
0.470000	44.40	---	56.51	12.11	1000.0	9.000	N	19.6
1.190000	---	24.45	46.00	21.55	1000.0	9.000	N	19.9
1.190000	31.81	---	56.00	24.19	1000.0	9.000	N	19.9
1.215000	---	23.46	46.00	22.54	1000.0	9.000	N	19.9
1.215000	31.77	---	56.00	24.23	1000.0	9.000	N	19.9
17.185000	---	9.89	50.00	40.11	1000.0	9.000	N	20.1
17.185000	16.41	---	60.00	43.59	1000.0	9.000	N	20.1
17.445000	---	13.56	50.00	36.44	1000.0	9.000	N	20.1
17.445000	18.20	---	60.00	41.80	1000.0	9.000	N	20.1

Appendix A. Measurement equipment

Equipment	Manufacturer	Model	Serial No.	Calibration interval	Calibration due.
Spectrum Analyzer	R&S	FSV30	101389	1 year	2019.01.19
8360B Series Swept Signal Generator	HP	83630B	3844A00786	1 year	2019.01.22
Attenuator	Agilent	8493C	82506	1 year	2019.01.22
Loop Antenna	Schwarzbeck	FMZB1513	225	2 years	2019.05.10
8360B Series Swept Signal Generator	HP	83630B	3844A00786	1 year	2019.01.22
EMI Test Receiver	R&S	ESR3	101781	1 year	2018.04.27
EMI Test Receiver	R&S	ESU26	100552	1 year	2018.04.19
Temperature & Humidity Chamber	Daehan Engineering	DH-1000	DH1000060628	1 year	2019.01.19
Pulse Limiter	R&S	ESH3-Z2	101915	1 year	2018.11.27
LISN	R&S	ENV216	101787	1 year	2019.01.15
DC Power Supply	HP	6632B	MY43004130	1 year	2018.07.03

Peripheral device

Device	Manufacturer	Model No.	Serial No.
-	-	-	-