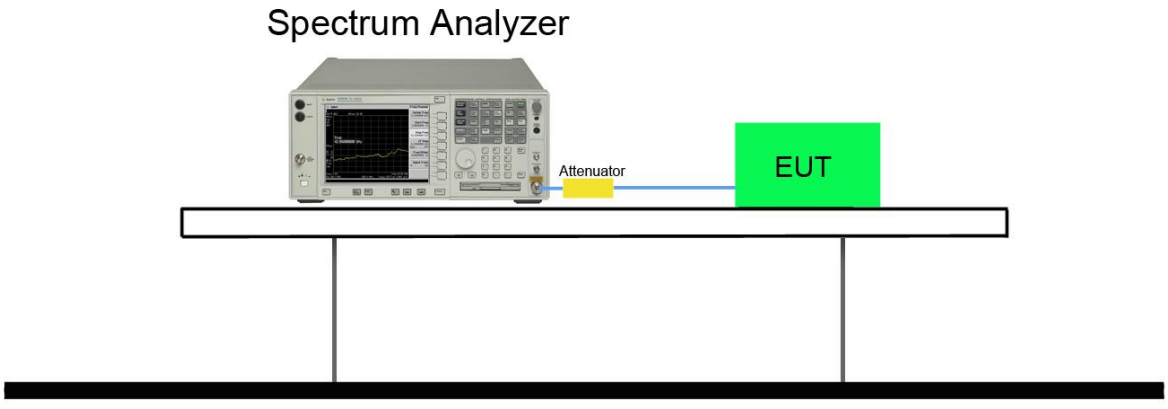
7.7.3. Test Setting

1. Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.
2. RBW = 100 KHz
3. VBW ≥ RBW
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

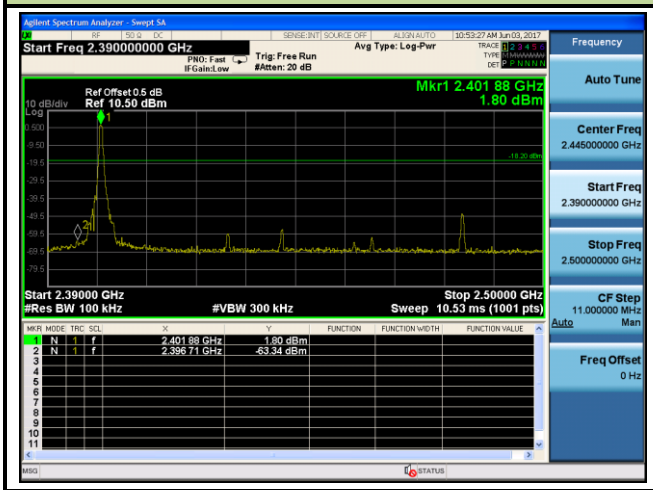
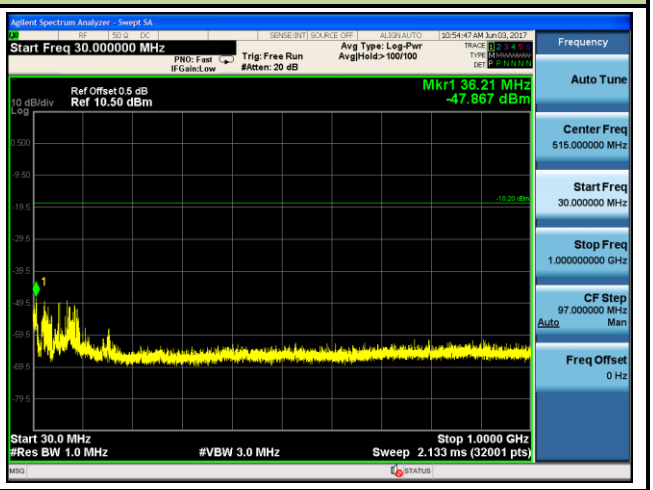
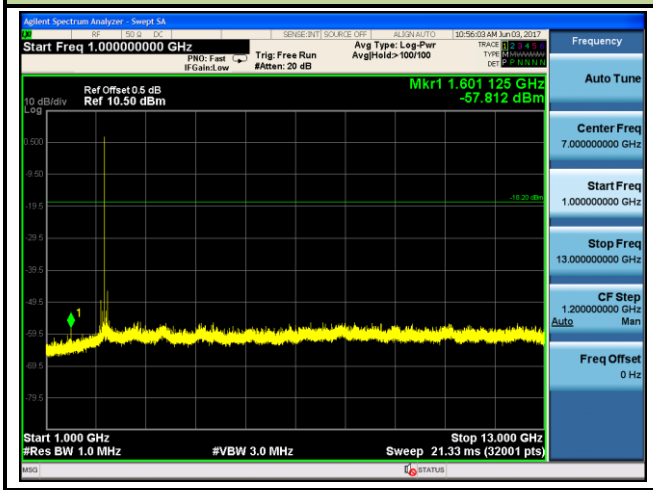
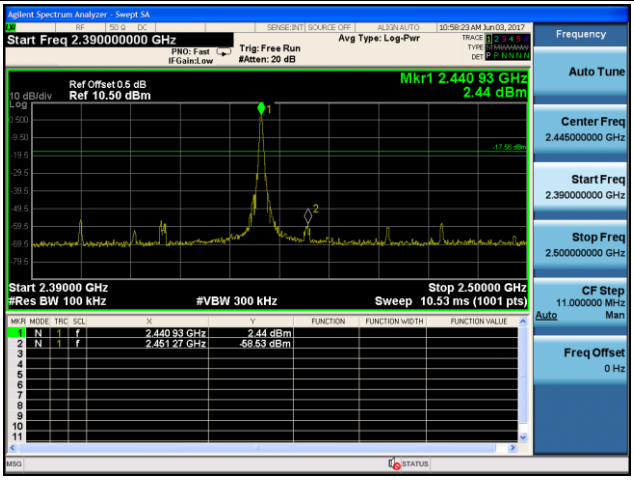
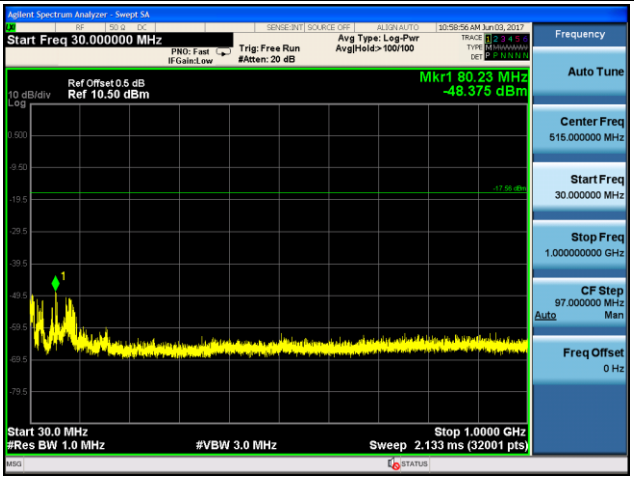
   Set the marker on the peak of any spurious emission recorded. The level displayed must comply with the limit specified in this section.

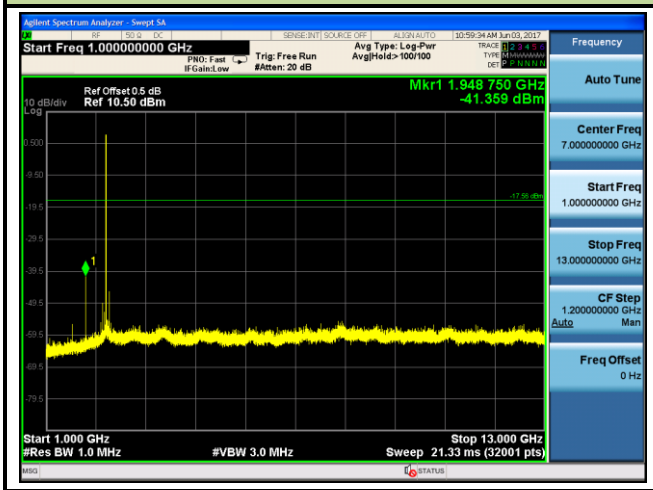
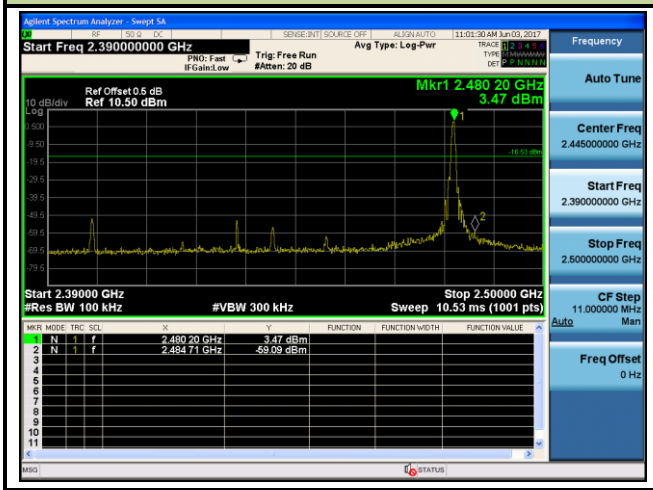
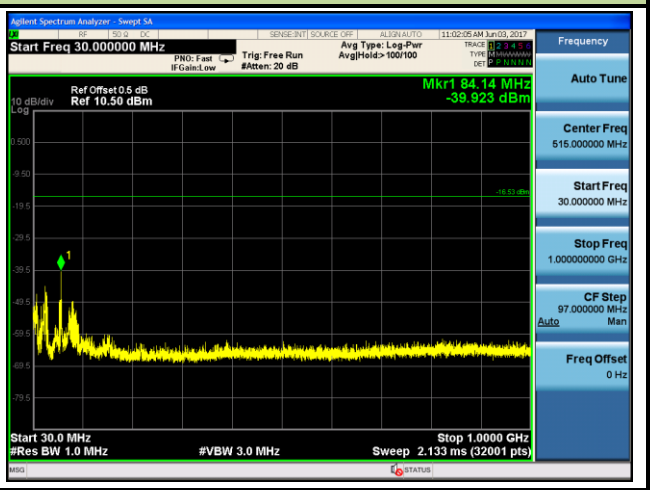
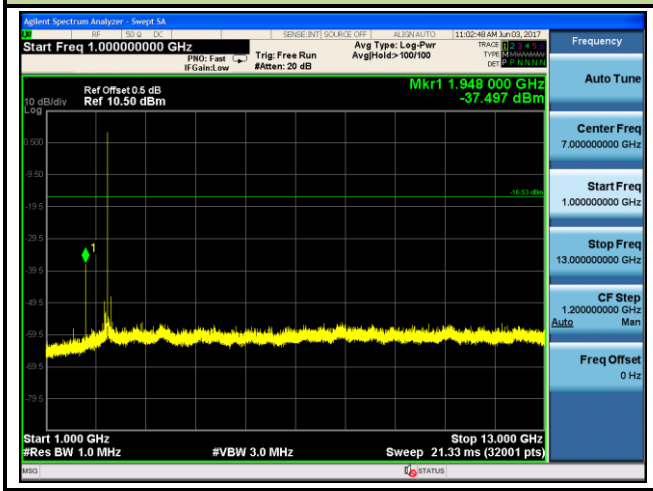
7.7.4. Test Setup

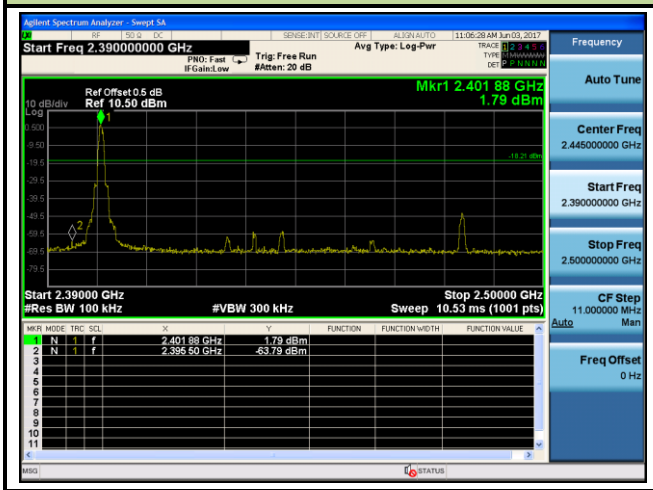
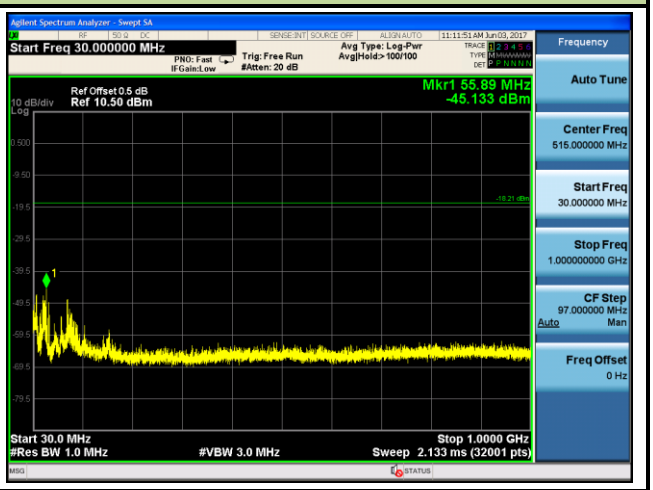
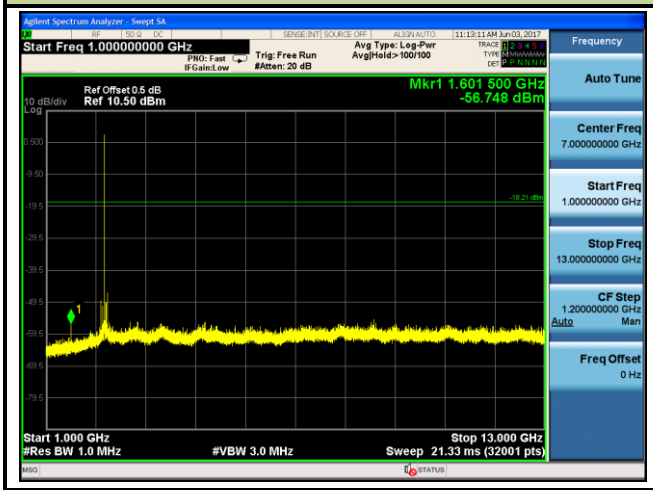
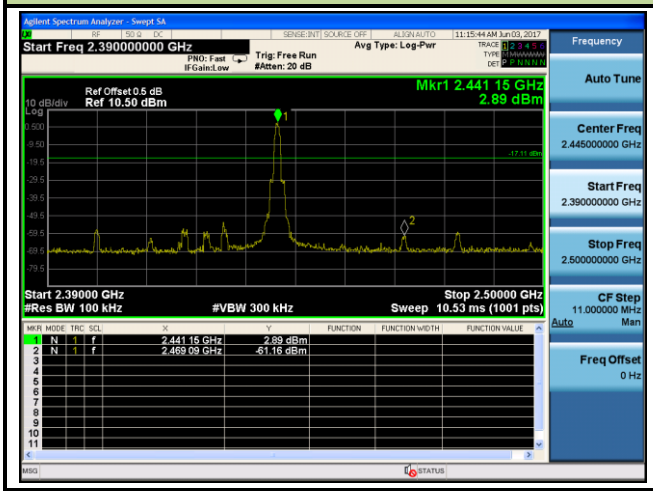


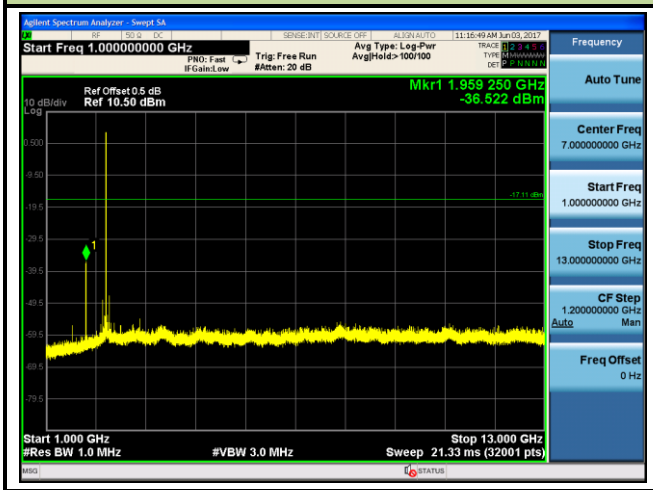
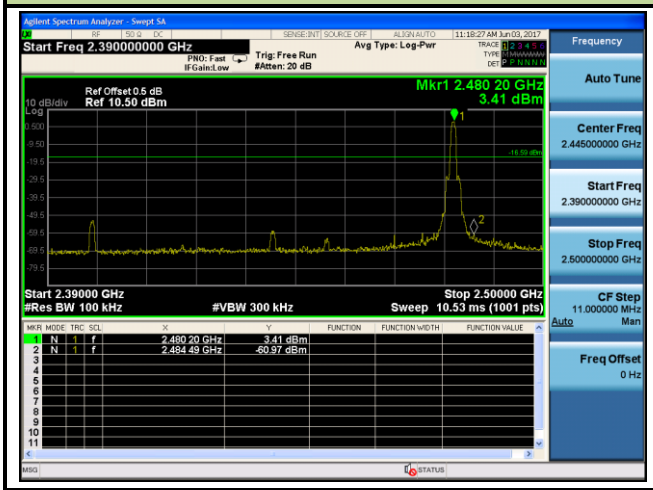
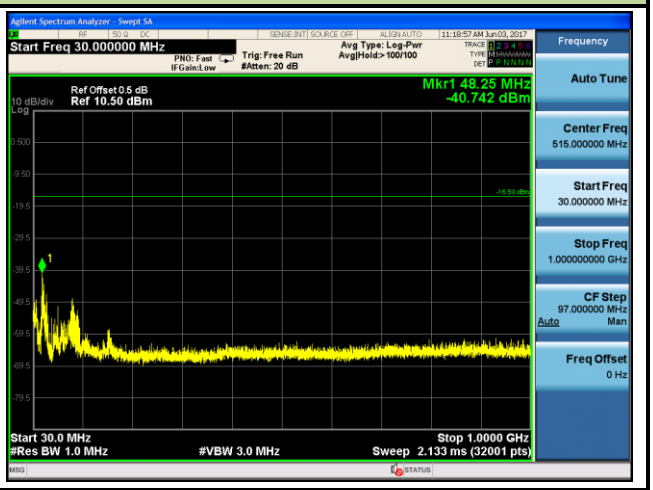
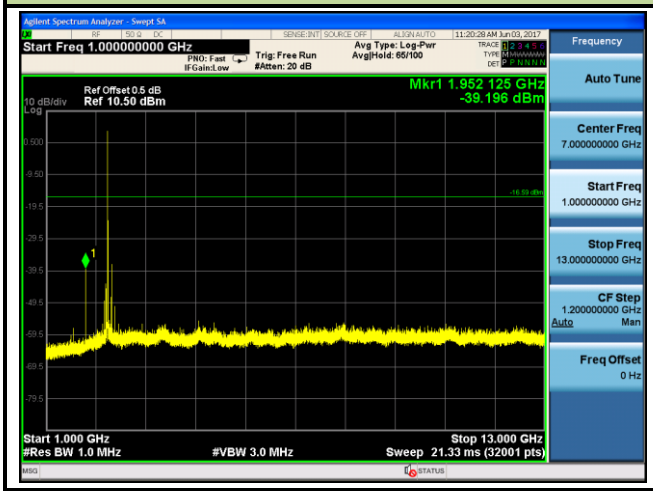
7.7.5. Test Result

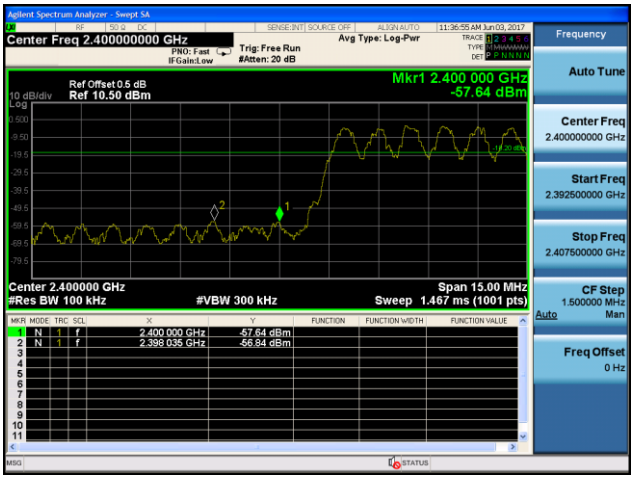
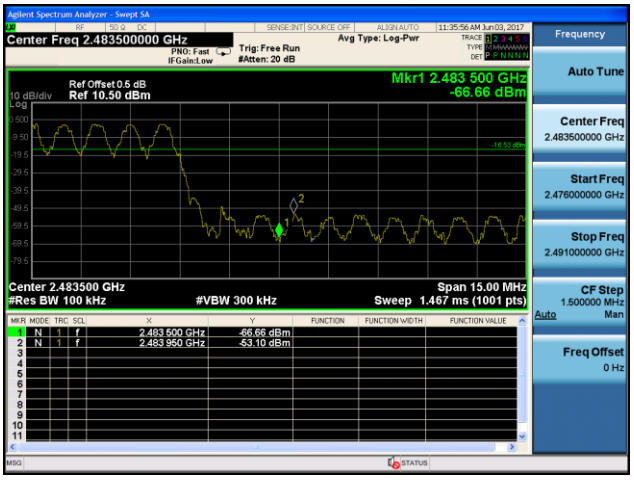
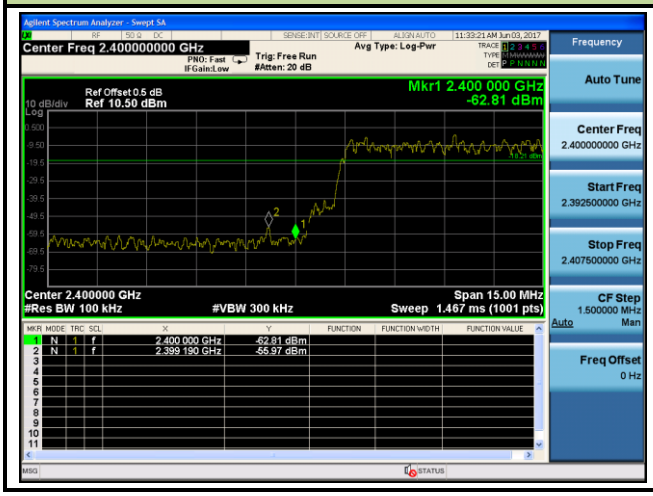
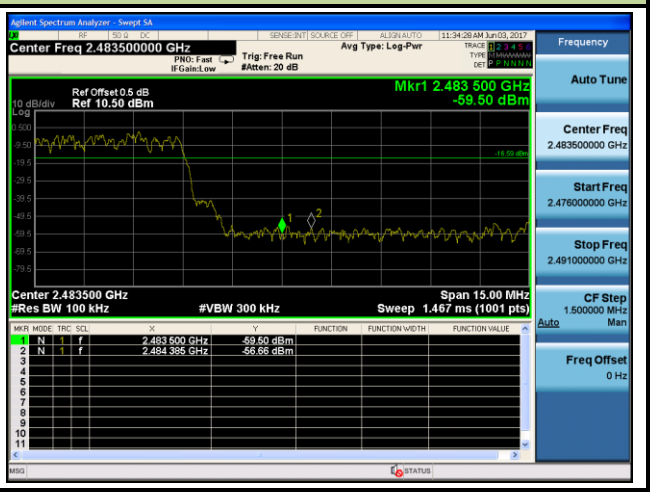
Test Mode	Channel No.	Frequency (MHz)	Limit (MHz)	Result
DH5	00	2402	20dBc	Pass
DH5	39	2441	20dBc	Pass
DH5	78	2480	20dBc	Pass
3DH5	00	2402	20dBc	Pass
3DH5	39	2441	20dBc	Pass
3DH5	78	2480	20dBc	Pass

CH00 (2402MHz) DH5(1Mbps)	CH00 (2402MHz) DH5(1Mbps)
	
CH00 (2402MHz) DH5(1Mbps)	**CH00 (2402MHz) DH5(1Mbps)**
	
CH39 (2441MHz) DH5(1Mbps)	**CH39 (2441MHz) DH5(1Mbps)**
	

CH39 (2441MHz) DH5(1Mbps)	CH39 (2441MHz) DH5(1Mbps)
	
CH78 (2480MHz) DH5(1Mbps)	**CH78 (2480MHz) DH5(1Mbps)**
	
CH78 (2480MHz) DH5(1Mbps)	**CH78 (2480MHz) DH5(1Mbps)**
	

CH00 (2402MHz) 3-DH5(3Mbps)	CH00 (2402MHz) 3-DH5(3Mbps)
	
CH00 (2402MHz) 3-DH5(3Mbps)	**CH00 (2402MHz) 3-DH5(3Mbps)**
	
CH39 (2441MHz) 3-DH5(3Mbps)	**CH39 (2441MHz) 3-DH5(3Mbps)**
	

CH39 (2441MHz) 3-DH5(3Mbps)	CH39 (2441MHz) 3-DH5(3Mbps)
	
CH78 (2480MHz) 3-DH5(3Mbps)	**CH78 (2480MHz) 3-DH5(3Mbps)**
	
CH78 (2480MHz) 3-DH5(3Mbps)	**CH78 (2480MHz) 3-DH5(3Mbps)**
	

Band Edge With Hopping On	
CH00 (2402MHz) DH5(1Mbps)	CH78 (2480MHz) DH5(1Mbps)
	
CH00 (2402MHz) 3-DH5(3Mbps)	CH78 (2480MHz) 3-DH5(3Mbps)
	

7.8. Radiated Spurious Emission Measurement

7.8.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [V/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 – 30	30	30
30 – 88	100	3
88 – 216	150	3
216 – 960	200	3
Above 960	500	3

7.8.2. Test Procedure Used

ANSI C63.10-2013 - Section 11.12.1

7.8.3. Test Setting

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in Table 1
3. VBW = 3 * RBW
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold

7. Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

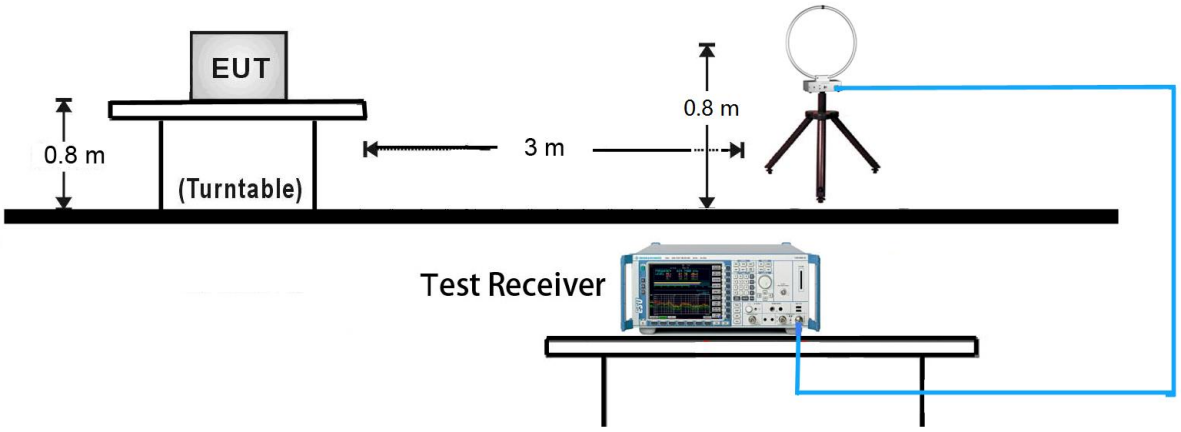
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

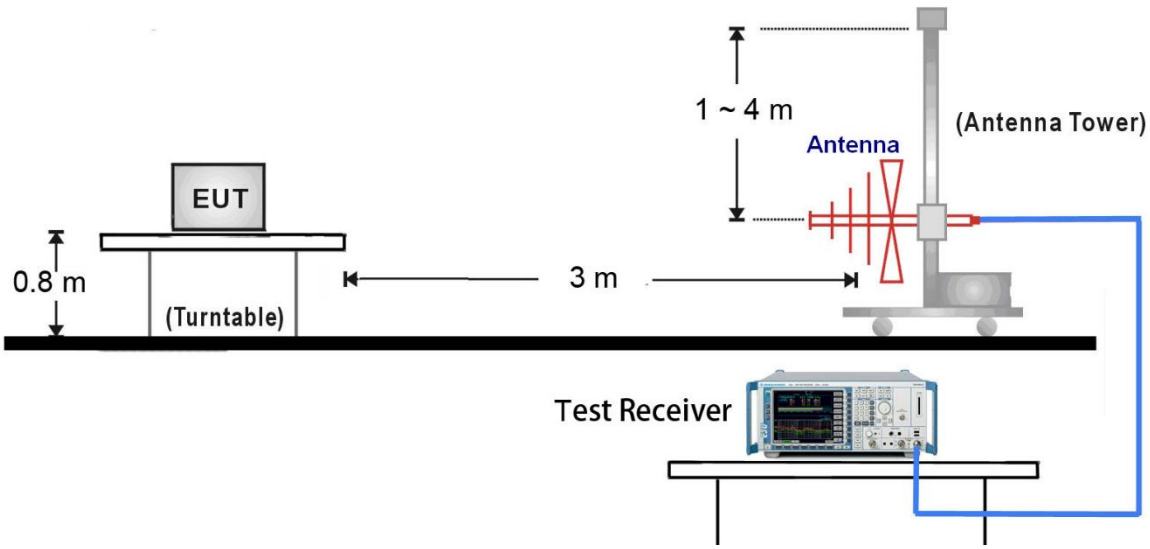
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW ≥ 1/T
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to “Voltage” regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

7.8.4. Test Setup

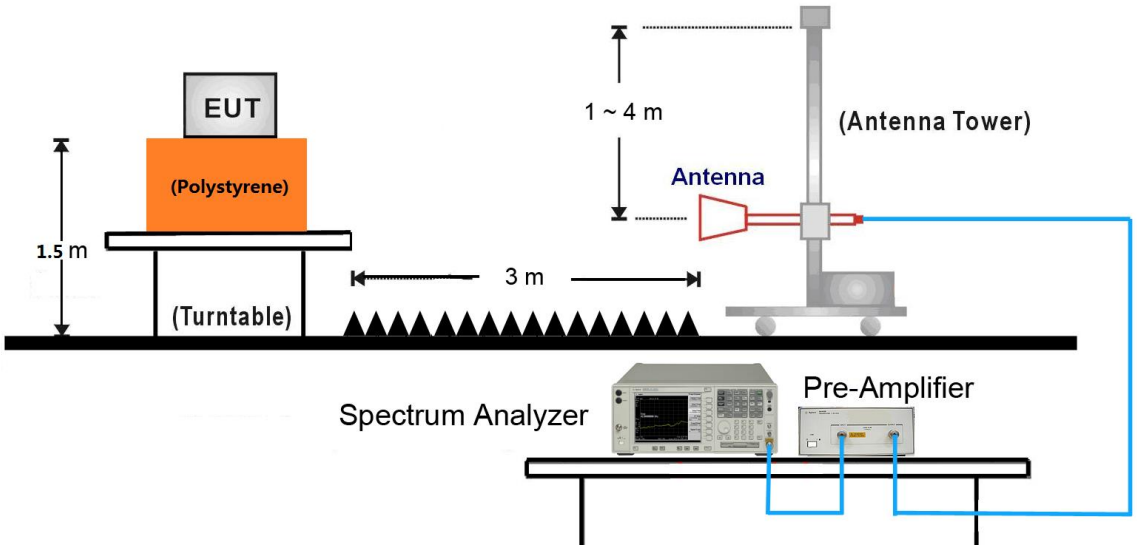
9kHz ~ 30MHz Test Setup:



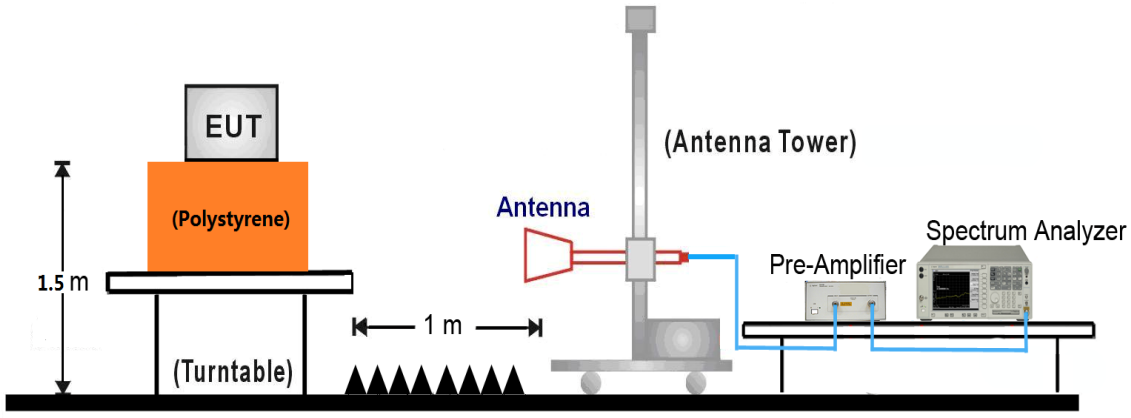
30MHz ~ 1GHz Test Setup:



1GHz ~ 18GHz Test Setup:

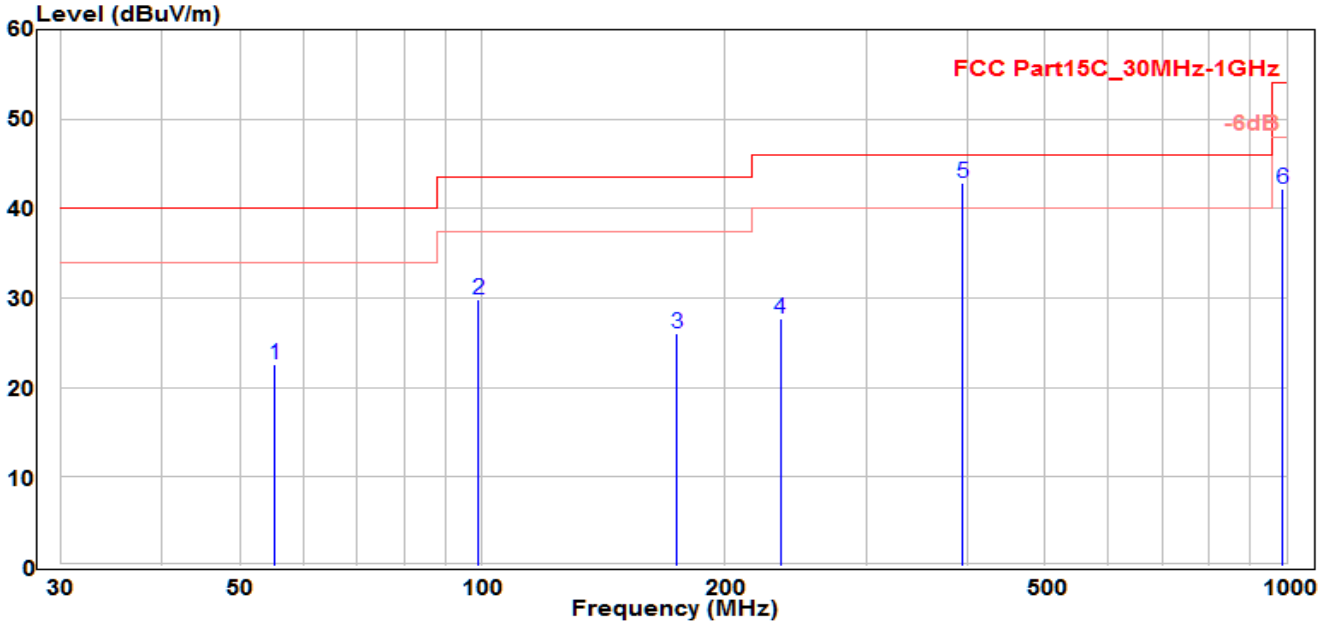


18GHz ~40GHz Test Setup:



7.8.5. Test Result

EUT	E-READER	Test Date	2017/06/03
Factor	VULB 9162 (30MHz~8GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1-DH5_CH39	Test Voltage	AC 120V/60Hz

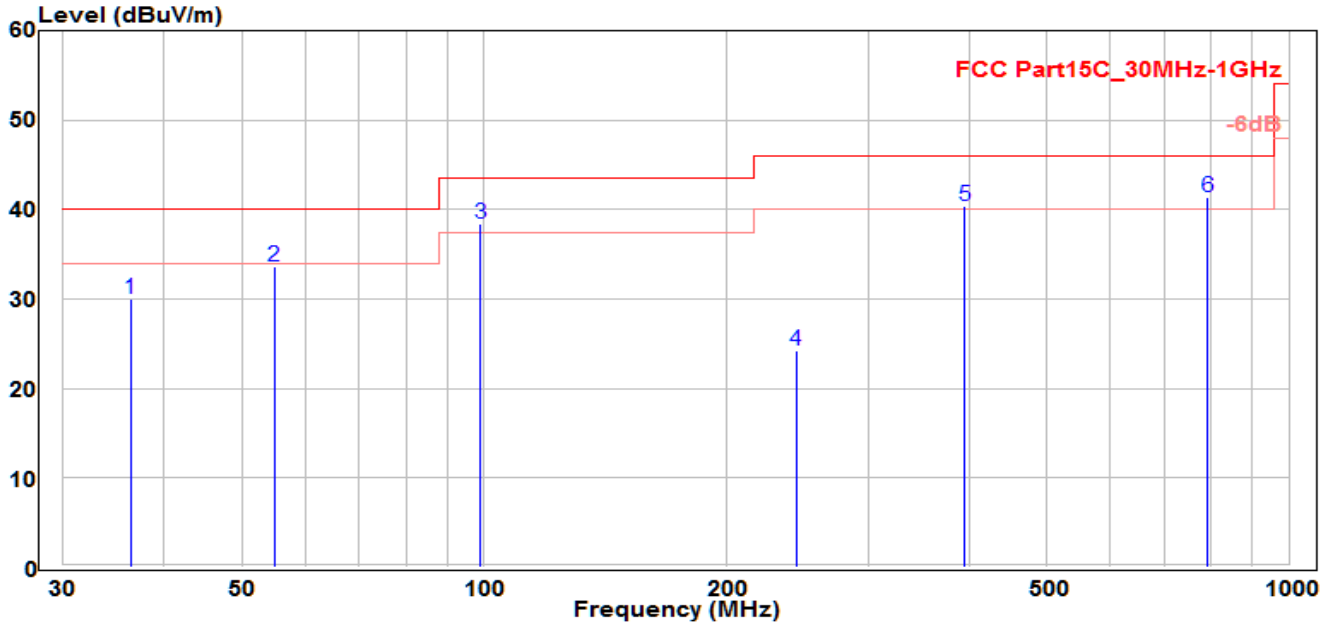


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		55.281	7.73	14.78	22.51	-17.49	40	110	150	QP
2		98.931	16.79	13.11	29.9	-13.6	43.5	150	130	QP
3		174.773	15.38	10.63	26.01	-17.49	43.5	190	360	QP
4		234.609	14.36	13.39	27.75	-18.25	46	100	400	QP
5	*	395.993	26.02	16.86	42.88	-3.12	46	120	380	QP
6		988.572	17.04	25.23	42.27	-11.73	54	110	320	QP

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。
5. Other channel/mode was also verified. The test results shown represent the worst case emissions。
6. No emission found between lowest internal used/generated frequency to 30MHz。

EUT	E-READER	Test Date	2017/06/03
Factor	VULB 9162 (30MHz~8GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1- DH5_CH39	Test Voltage	AC 120V/60Hz

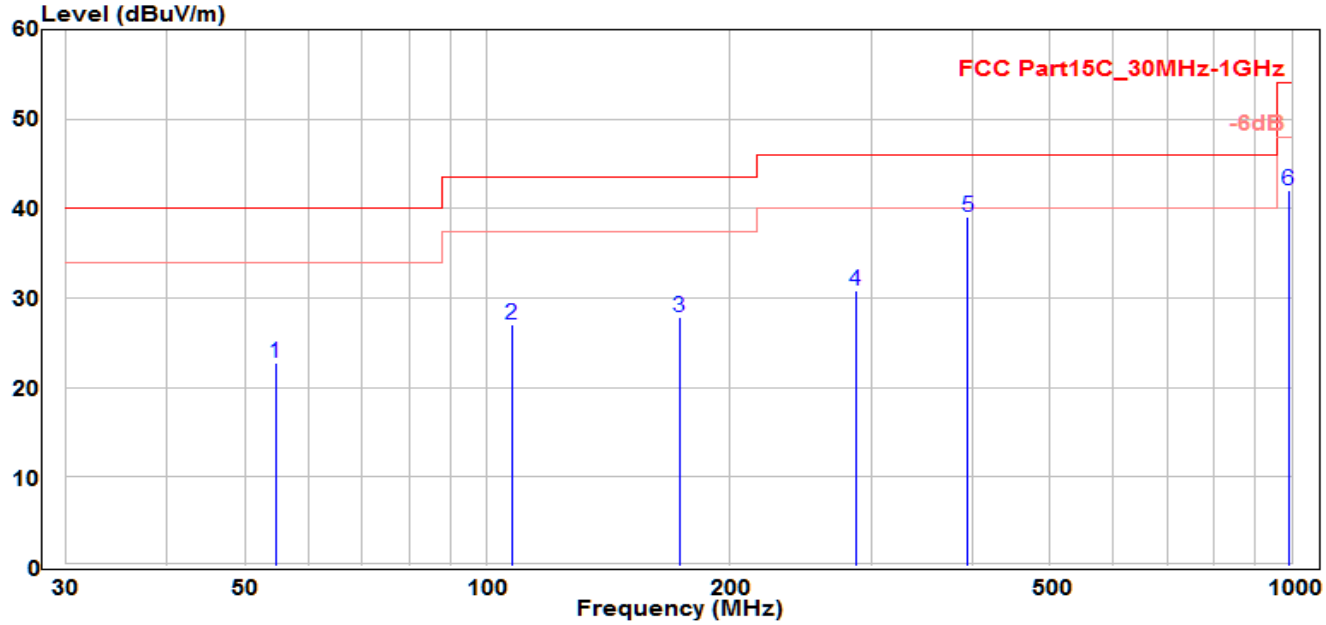


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		36.396	16.97	13	29.97	-10.03	40	100	100	QP
2		54.887	18.88	14.83	33.71	-6.29	40	110	400	QP
3		98.931	25.36	13.11	38.47	-5.03	43.5	150	300	QP
4		243.946	10.47	13.69	24.16	-21.84	46	170	80	QP
5		395.993	23.59	16.86	40.45	-5.55	46	150	340	QP
6	*	791.996	18.32	23.04	41.36	-4.64	46	165	55	QP

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。
5. Other channel/mode was also verified. The test results shown represent the worst case emissions。
6. No emission found between lowest internal used/generated frequency to 30MHz。

EUT	E-READER	Test Date	2017/06/03
Factor	VULB 9162 (30MHz~8GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3- DH5_CH39	Test Voltage	AC 120V/60Hz

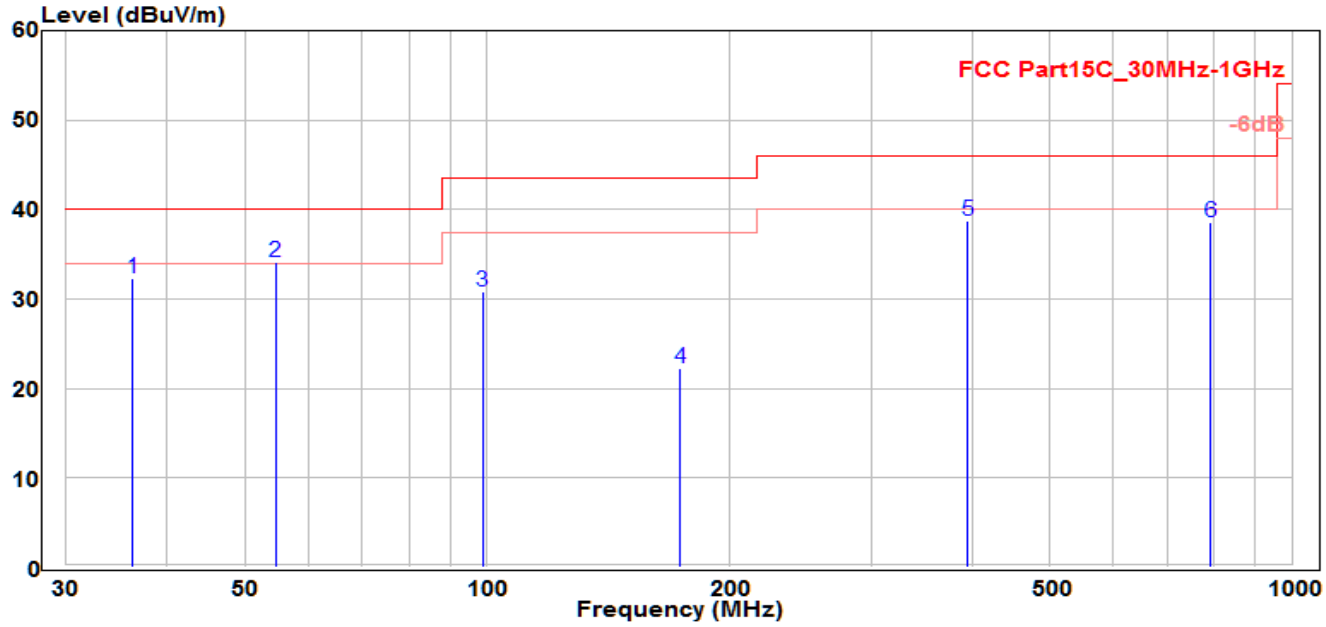


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		54.644	7.93	14.85	22.78	-17.22	40	100	400	QP
2		107.267	13.81	13.24	27.05	-16.45	43.5	120	360	QP
3		173.56	17.27	10.56	27.83	-15.67	43.5	150	380	QP
4		286.868	16.3	14.48	30.78	-15.22	46	110	150	QP
5	*	395.993	22.25	16.86	39.11	-6.89	46	140	350	QP
6		989.573	16.79	25.24	42.03	-11.97	54	175	120	QP

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。
5. Other channel/mode was also verified. The test results shown represent the worst case emissions。
6. No emission found between lowest internal used/generated frequency to 30MHz。

EUT	E-READER	Test Date	2017/06/03
Factor	VULB 9162 (30MHz~8GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3- DH5_CH39	Test Voltage	AC 120V/60Hz

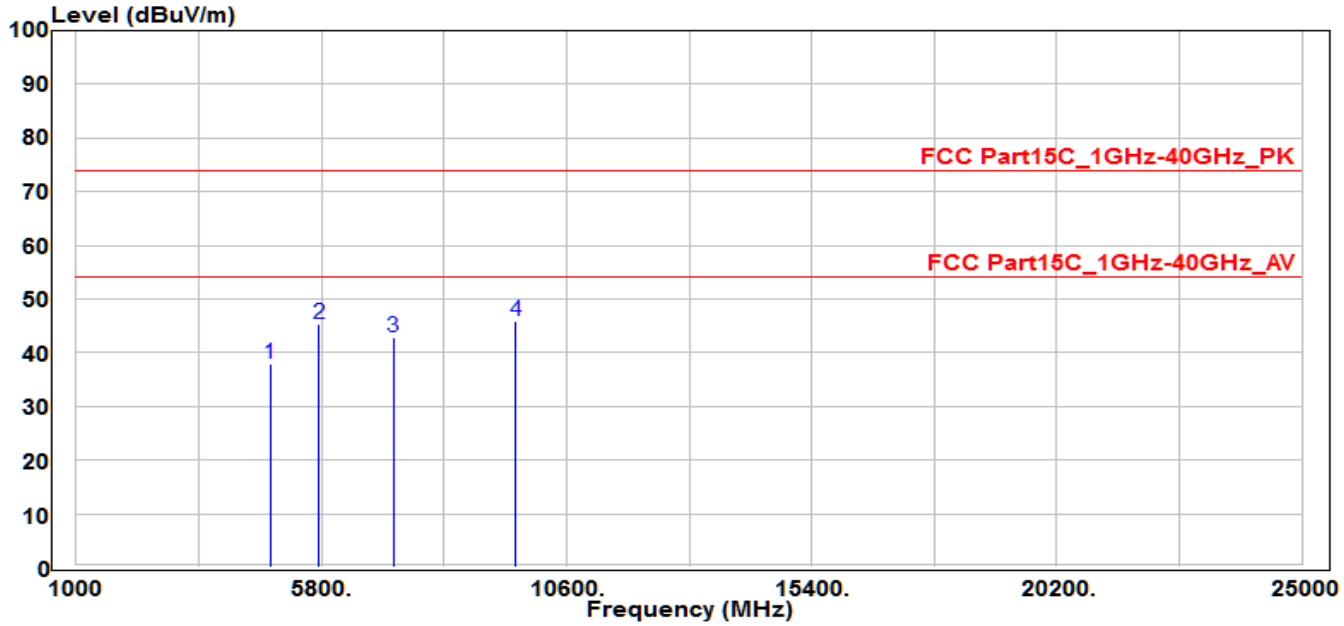


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		36.244	19.36	12.95	32.31	-7.69	40	100	400	QP
2	*	54.583	19.31	14.85	34.16	-5.84	40	120	360	QP
3		98.688	17.71	13.08	30.79	-12.71	43.5	110	-40	QP
4		173.681	11.7	10.56	22.26	-21.24	43.5	130	60	QP
5		395.993	21.9	16.86	38.76	-7.24	46	150	350	QP
6		791.996	15.61	23.04	38.65	-7.35	46	100	400	QP

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。
5. Other channel/mode was also verified. The test results shown represent the worst case emissions。
6. No emission found between lowest internal used/generated frequency to 30MHz。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1-DH5_CH00	Test Voltage	AC 120V/60Hz

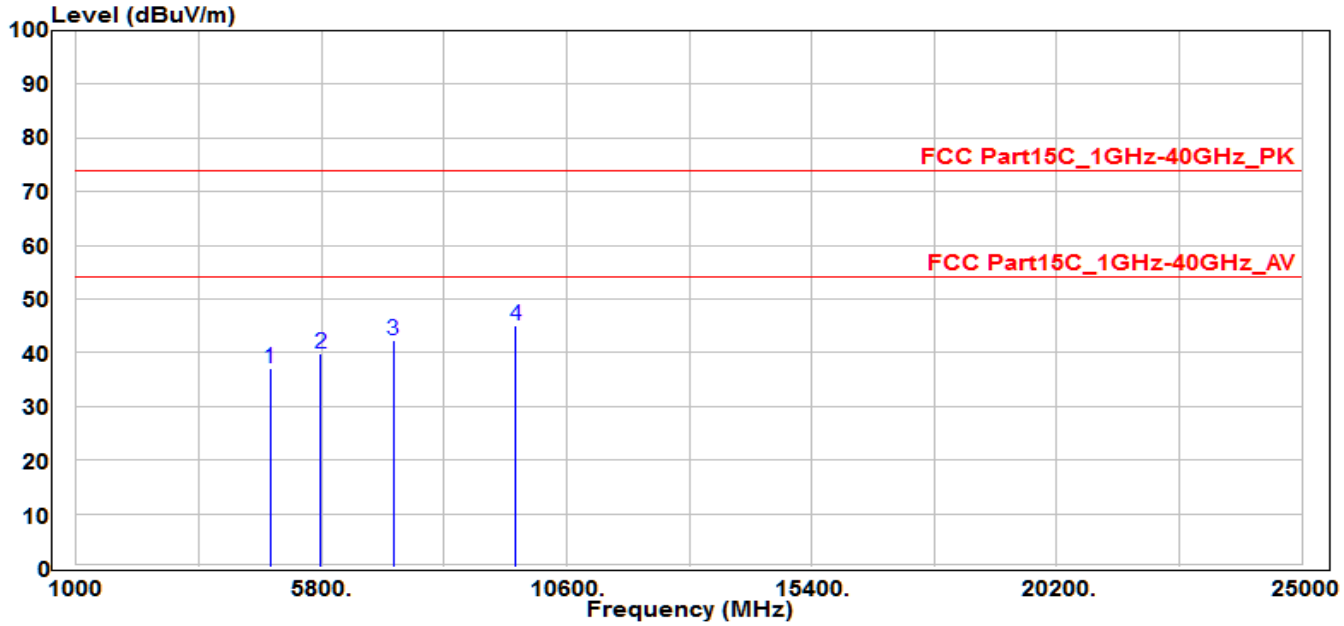


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4804	34.31	3.67	37.98	-36.02	74	100	400	Peak
2		5759.47	40.03	5.24	45.27	-28.73	74	100	400	Peak
3		7206	30.85	12.1	42.95	-31.05	74	100	400	Peak
4	8	9608	30.3	15.6	45.9	-28.1	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1- DH5_CH00	Test Voltage	AC 120V/60Hz

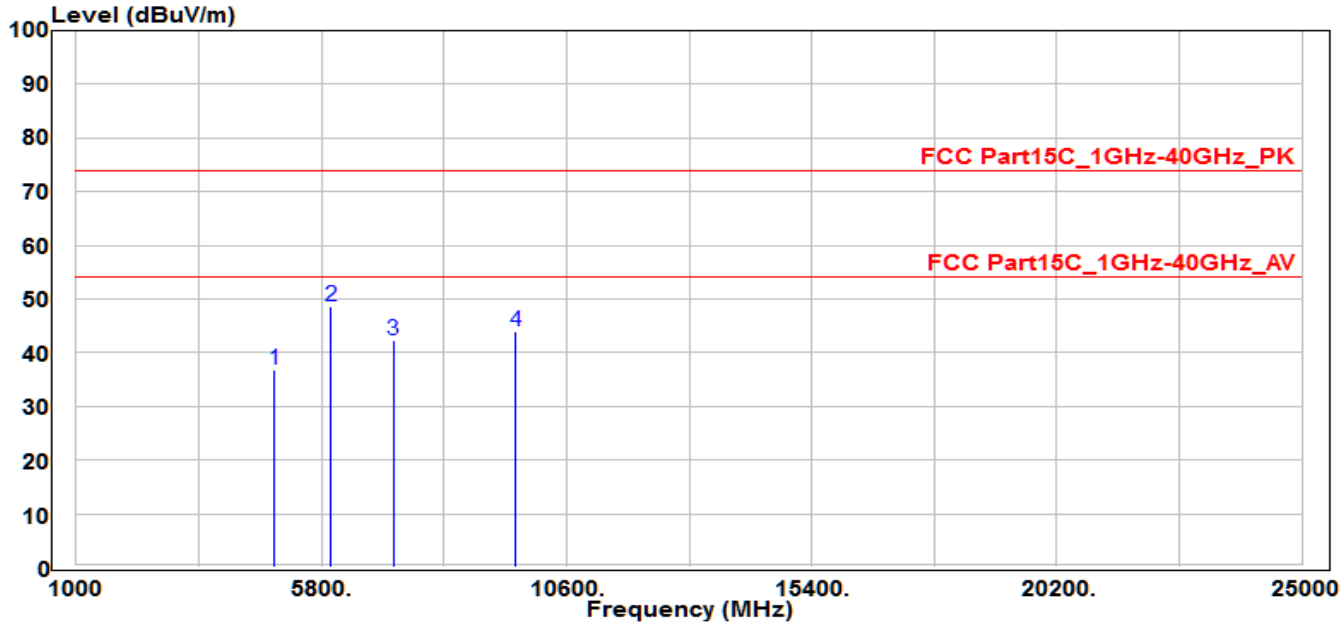


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4804	33.48	3.67	37.15	-36.85	74	100	400	Peak
2		5793.22	34.35	5.41	39.76	-34.24	74	100	400	Peak
3		7206	30.2	12.1	42.3	-31.7	74	100	400	Peak
4	*	9608	29.59	15.6	45.19	-28.81	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1- DH5_CH39	Test Voltage	AC 120V/60Hz

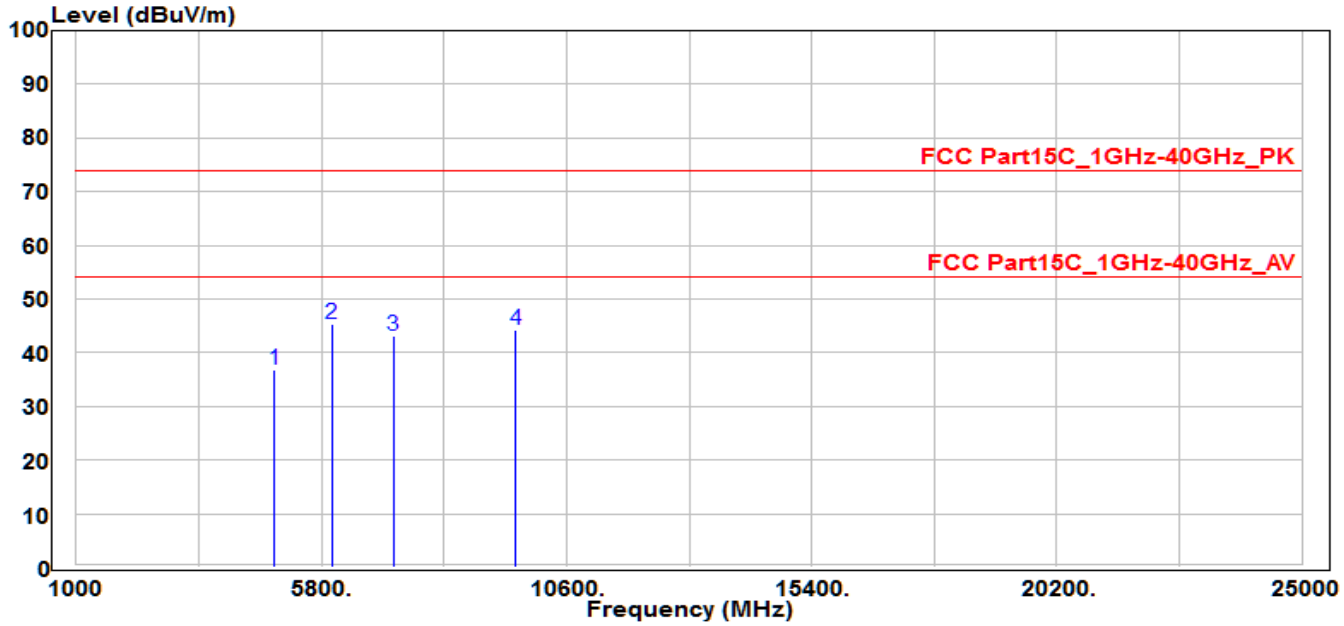


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4882	33.22	3.66	36.88	-37.12	74	100	400	Peak
2	*	5991.97	42.48	6.09	48.57	-25.43	74	100	400	Peak
3		7206	30.08	12.1	42.18	-31.82	74	100	400	Peak
4		9608	28.3	15.6	43.9	-30.1	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1- DH5_CH39	Test Voltage	AC 120V/60Hz

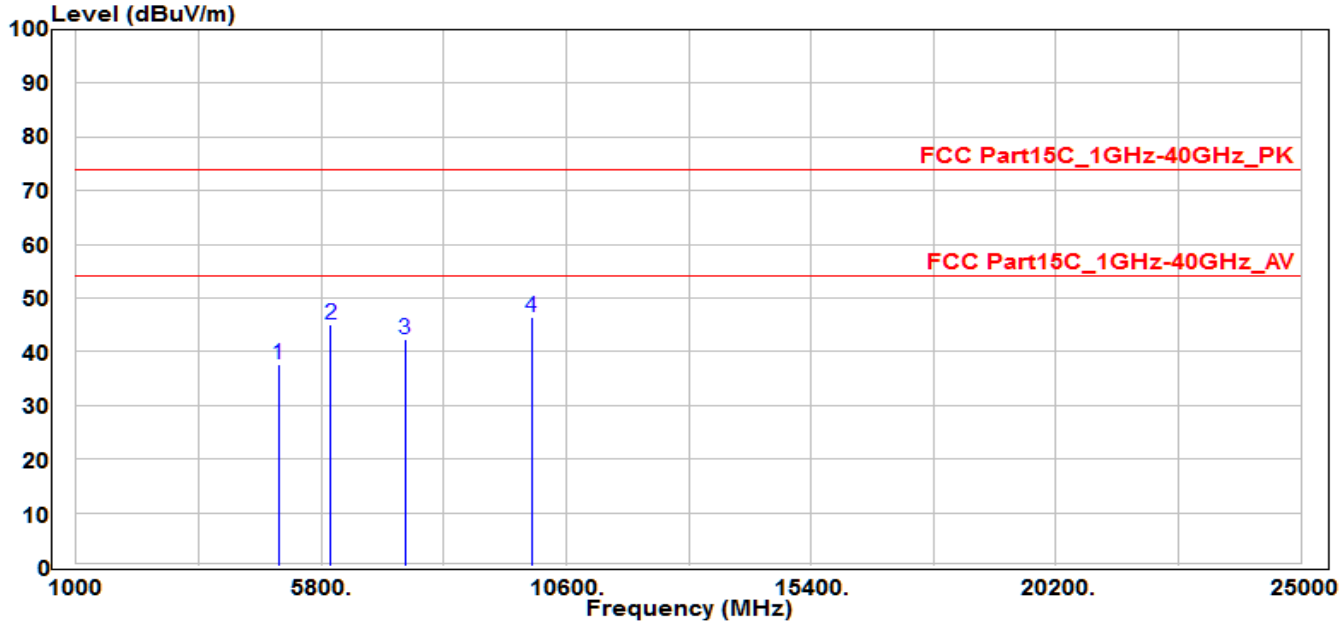


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4882	33.1	3.66	36.76	-37.24	74	100	400	Peak
2	*	5997.22	39.22	6.11	45.33	-28.67	74	100	400	Peak
3		7206	31.1	12.1	43.2	-30.8	74	100	400	Peak
4		9608	28.59	15.6	44.19	-29.81	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1- DH5_CH78	Test Voltage	AC 120V/60Hz

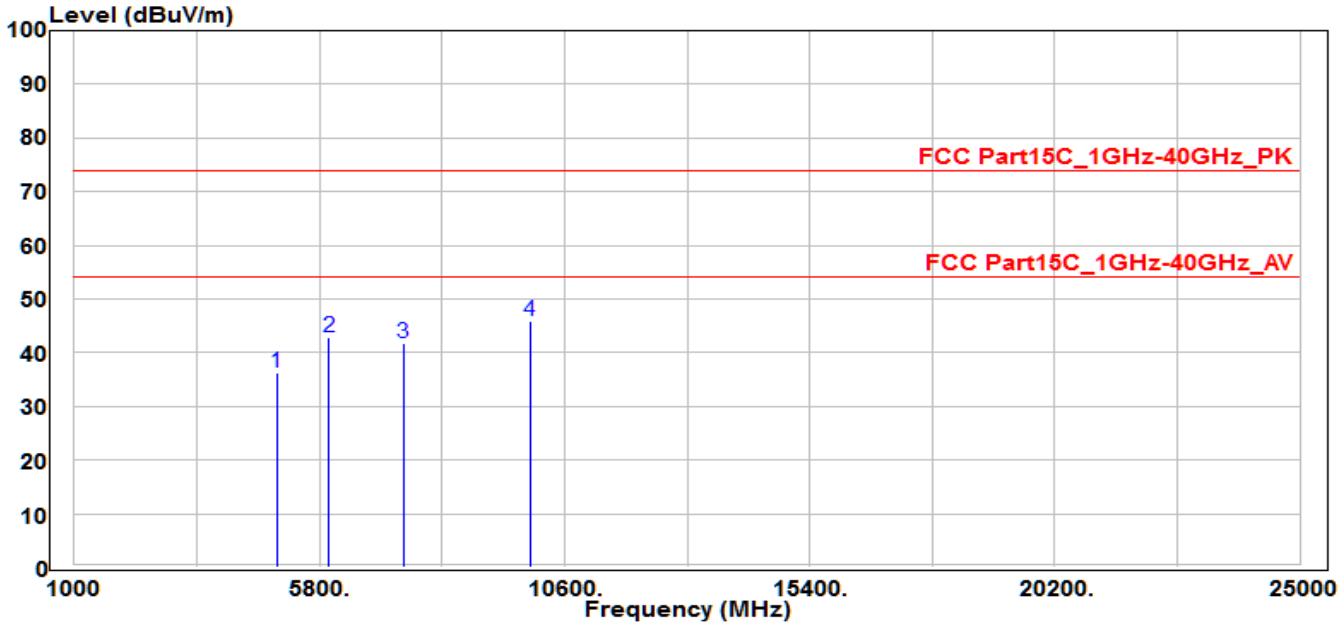


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4960	34.03	3.7	37.73	-36.27	74	100	400	Peak
2		5994.97	38.98	6.1	45.08	-28.92	74	100	400	Peak
3		7440	29.67	12.72	42.39	-31.61	74	100	400	Peak
4	*	9920	31.26	15.29	46.55	-27.45	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1- DH5_CH78	Test Voltage	AC 120V/60Hz

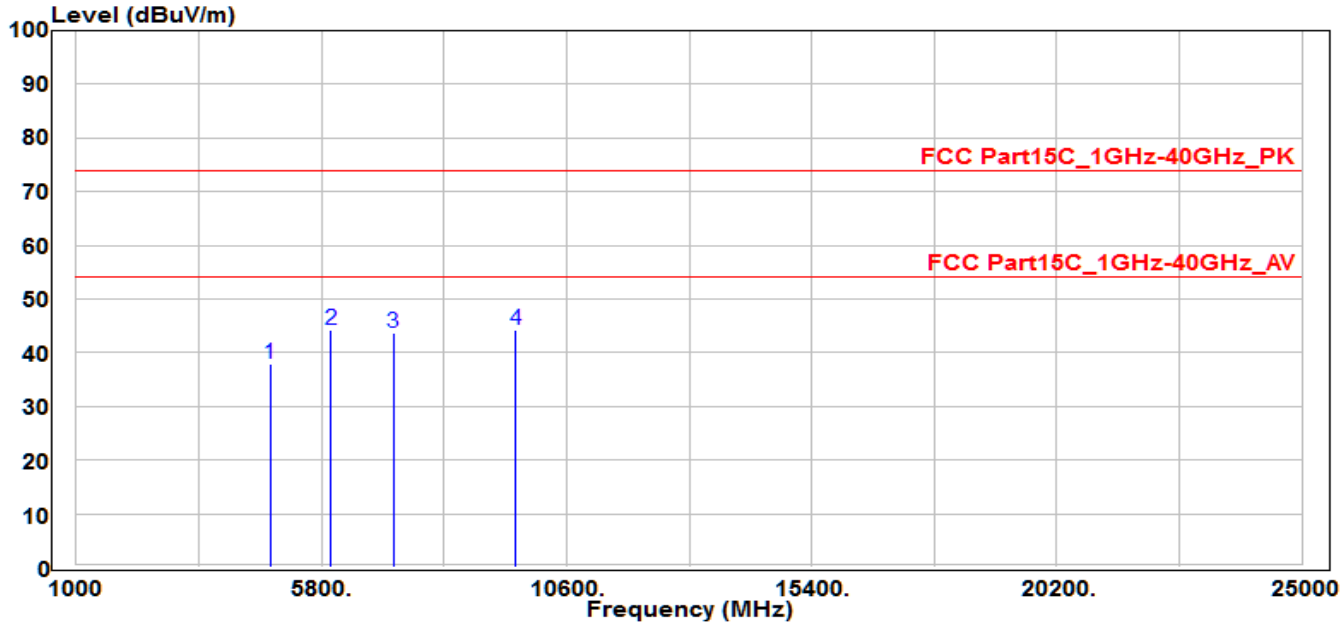


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4960	32.7	3.7	36.4	-37.6	74	100	400	Peak
2		5993.47	36.68	6.09	42.77	-31.23	74	100	400	Peak
3		7440	29.11	12.72	41.83	-32.17	74	100	400	Peak
4	*	9920	30.55	15.29	45.84	-28.16	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2- 3-DH5_CH00	Test Voltage	AC 120V/60Hz

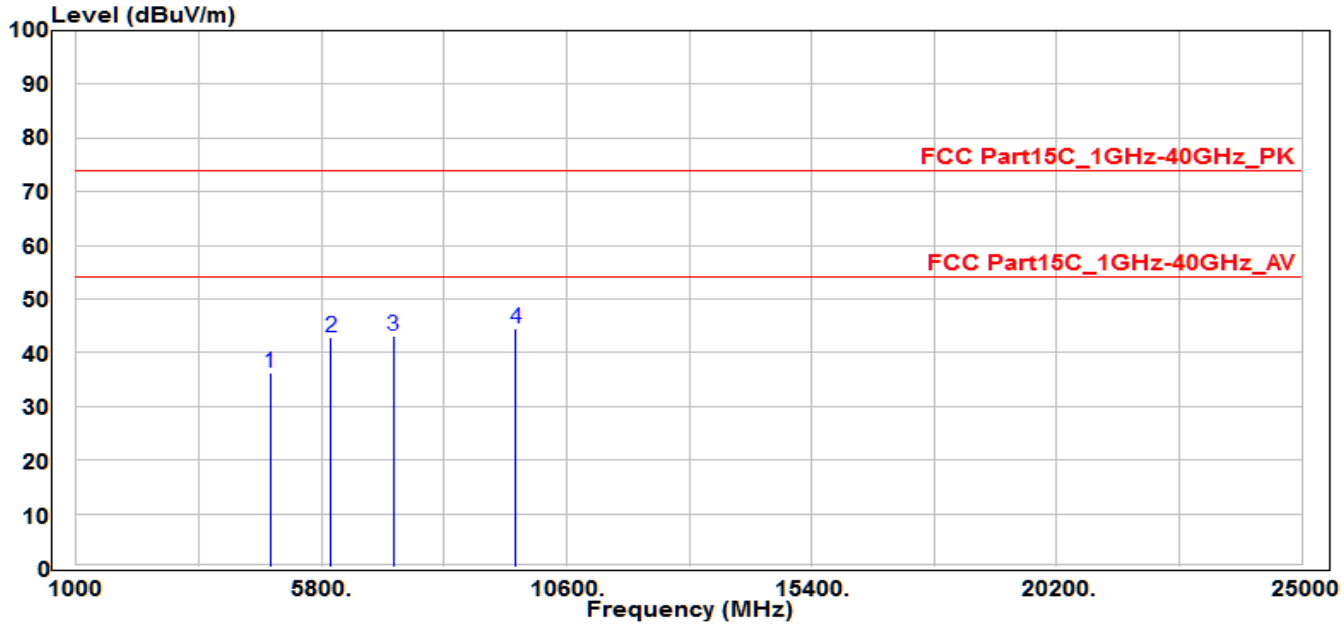


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4804	34.23	3.67	37.9	-36.1	74	100	400	Peak
2		5991.21	38.16	6.09	44.25	-29.75	74	100	400	Peak
3		7206	31.57	12.1	43.67	-30.33	74	100	400	Peak
4	*	9608	28.51	15.6	44.11	-29.89	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2- 3-DH5_CH00	Test Voltage	AC 120V/60Hz

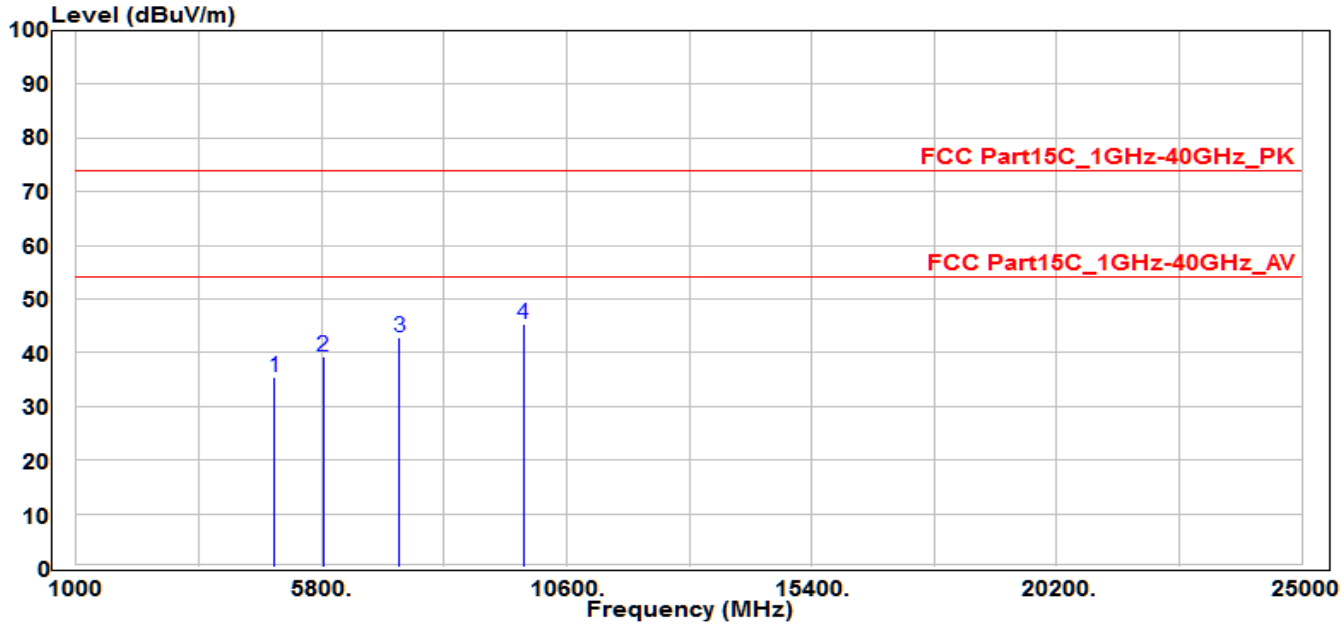


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4804	32.6	3.67	36.27	-37.73	74	100	400	Peak
2		5993.25	36.66	6.09	42.75	-31.25	74	100	400	Peak
3		7206	30.96	12.1	43.06	-30.94	74	100	400	Peak
4	*	9608	28.89	15.6	44.49	-29.51	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2- 3-DH5_CH39	Test Voltage	AC 120V/60Hz

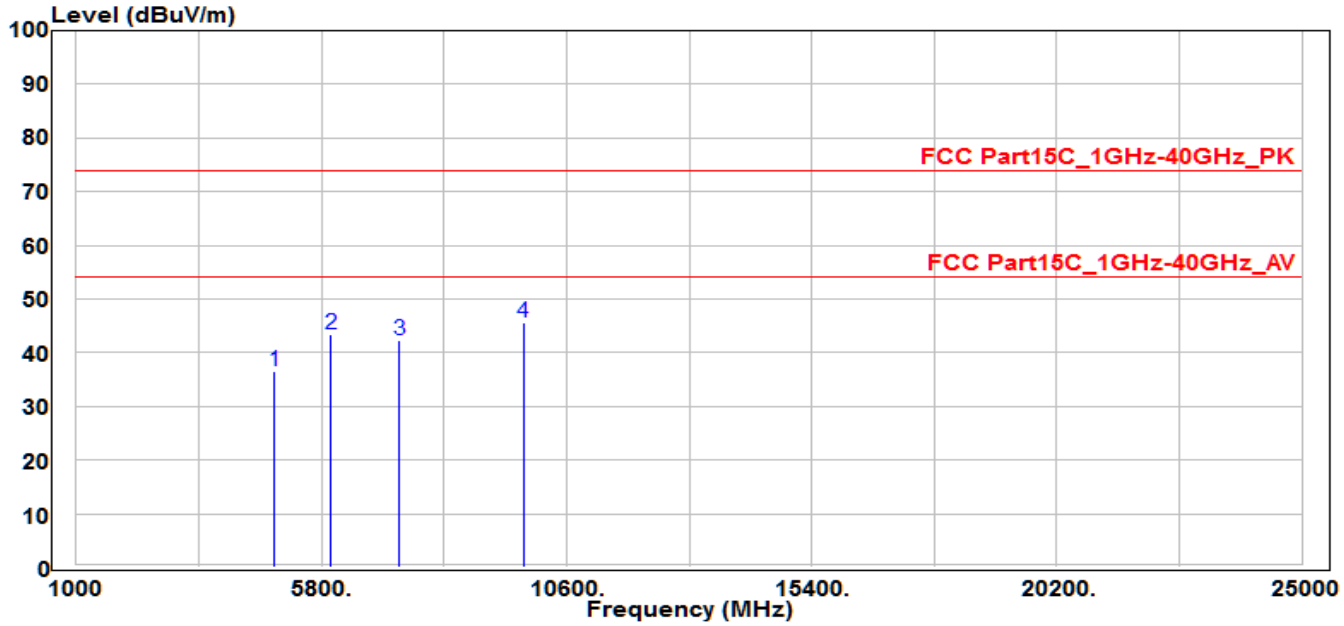


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4882	31.77	3.66	35.43	-38.57	74	100	400	Peak
2		5838.97	33.71	5.66	39.37	-34.63	74	100	400	Peak
3		7323	30.47	12.37	42.84	-31.16	74	100	400	Peak
4	*	9764	29.21	16.09	45.3	-28.7	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2- 3-DH5_CH39	Test Voltage	AC 120V/60Hz

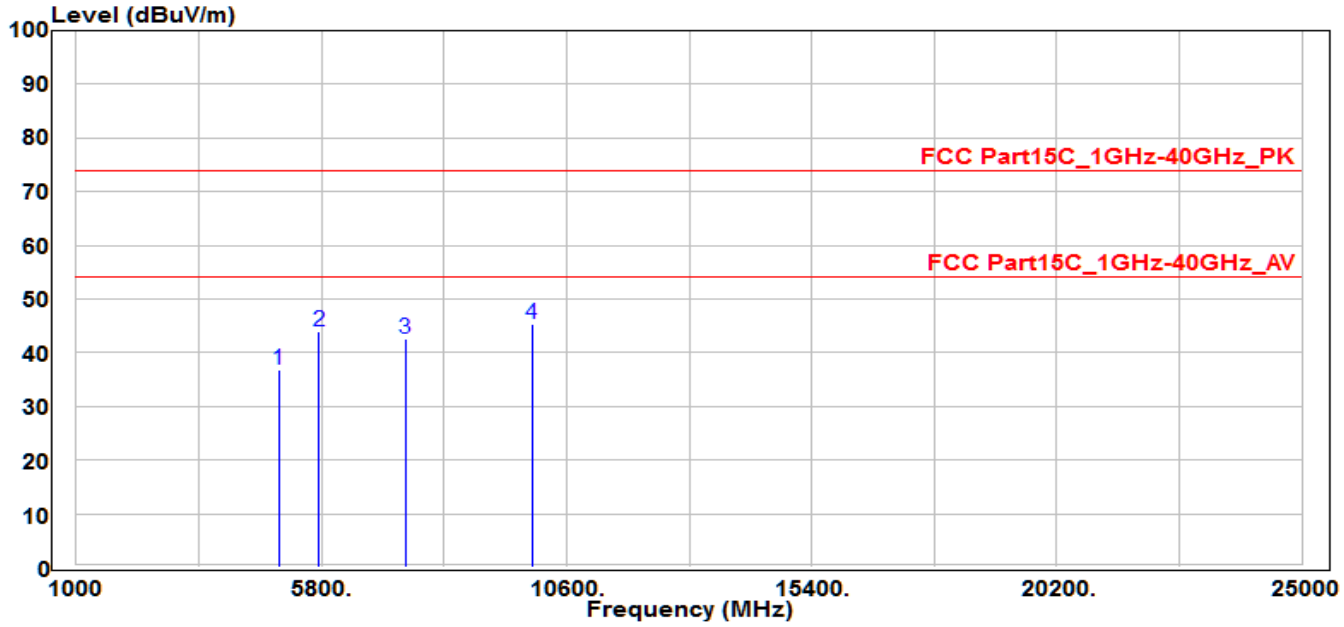


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4882	32.83	3.66	36.49	-37.51	74	100	400	Peak
2		5995.37	37.29	6.1	43.39	-30.61	74	100	400	Peak
3		7323	29.83	12.37	42.2	-31.8	74	100	400	Peak
4	*	9764	29.6	16.09	45.69	-28.31	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2- 3-DH5_CH78	Test Voltage	AC 120V/60Hz

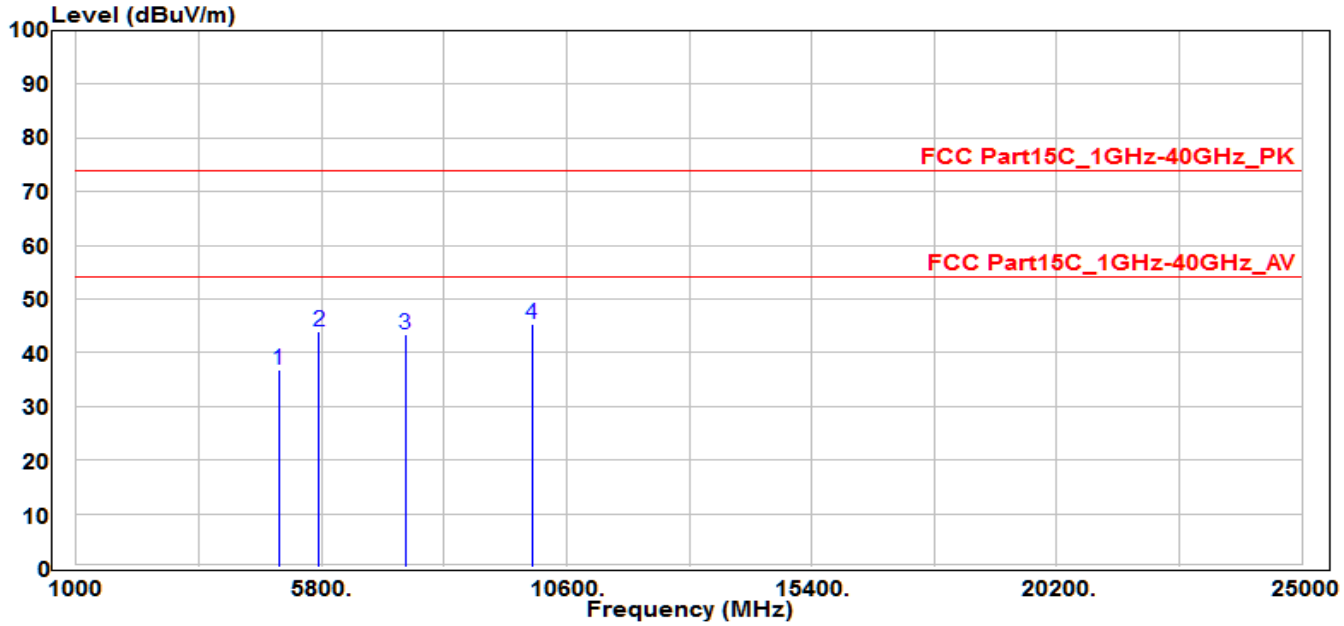


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4960	33.07	3.7	36.77	-37.23	74	100	400	Peak
2		5760.22	38.79	5.24	44.03	-29.97	74	100	400	Peak
3		7440	29.78	12.72	42.5	-31.5	74	100	400	Peak
4	*	9920	29.98	15.29	45.27	-28.73	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2- 3-DH5_CH78	Test Voltage	AC 120V/60Hz

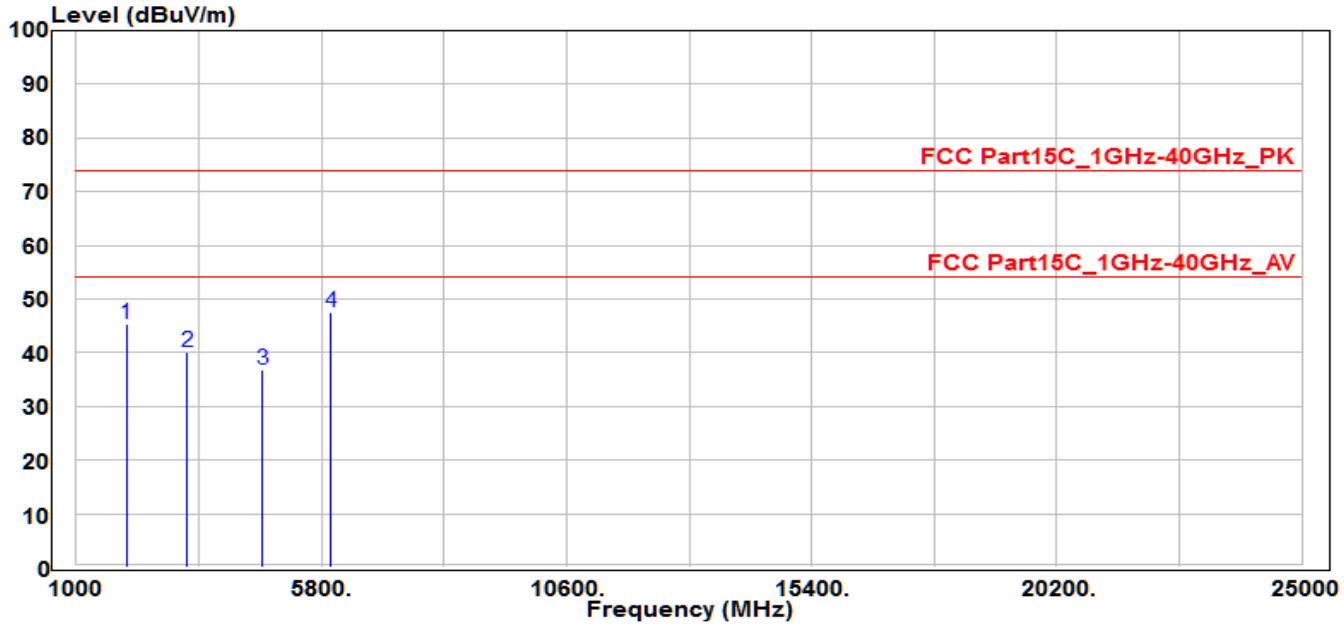


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4960	33.17	3.7	36.87	-37.13	74	100	400	Peak
2		5760.22	38.61	5.24	43.85	-30.15	74	100	400	Peak
3		7440	30.59	12.72	43.31	-30.69	74	100	400	Peak
4	*	9920	30.03	15.29	45.32	-28.68	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3- DH5_CH39	Test Voltage	AC 120V/60Hz

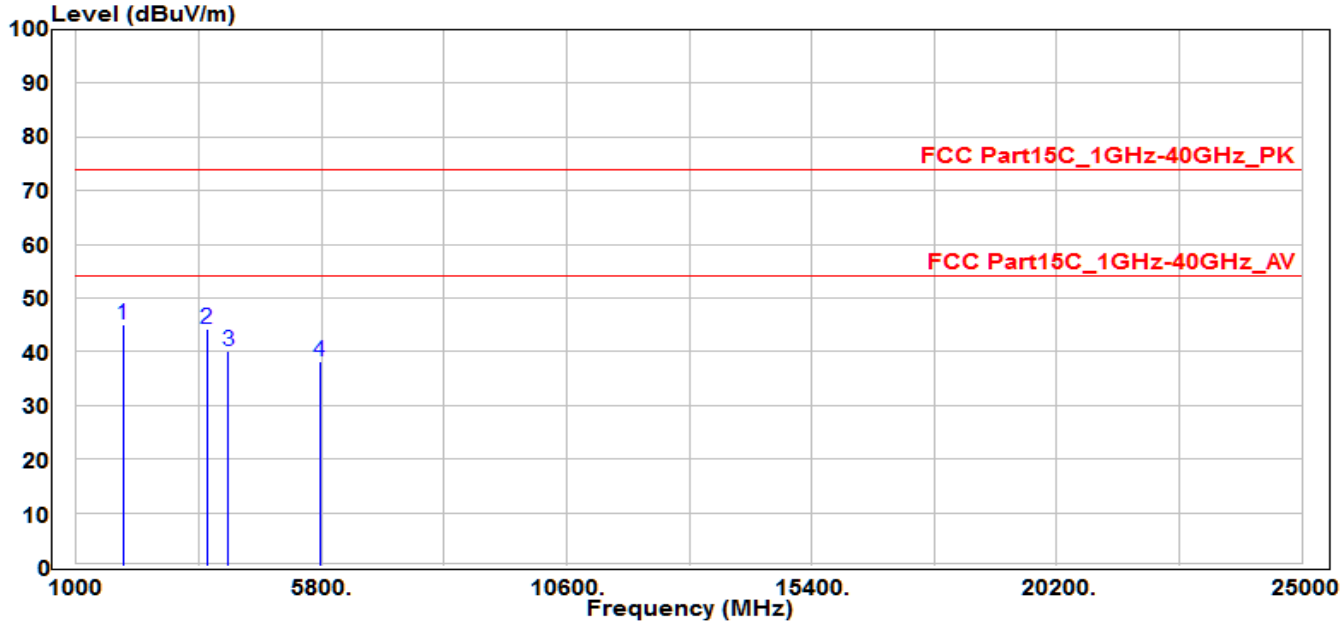


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1979.84	49.53	-4.21	45.32	-28.68	74	100	400	Peak
2		3167.81	42.16	-2.09	40.07	-33.93	74	100	400	Peak
3		4645.26	33.49	3.38	36.87	-37.13	74	100	400	Peak
4	*	5989.22	41.44	6.09	47.53	-26.47	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3-DH5_CH39	Test Voltage	AC 120V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	1920.6	49.77	-4.57	45.2	-28.8	74	100	400	Peak
2		3564.54	44.35	-0.19	44.16	-29.84	74	100	400	Peak
3		3983.03	39.73	0.37	40.1	-33.9	74	100	400	Peak
4		5773.98	32.87	5.31	38.18	-35.82	74	100	400	Peak

Note :

1. " * " means the worst value in this measurement data。
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)。
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

7.9. Radiated Restricted Band Edge Measurement

7.9.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [V/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 – 30	30	30
30 – 88	100	3
88 – 216	150	3
216 – 960	200	3
Above 960	500	3

7.9.2. Test Procedure Used

ANSI C63.10-2013 - Section 11.12.1

7.9.3. Test Setting

Peak Field Strength Measurements

8. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
9. RBW = as specified in Table 1
10. VBW = 3 * RBW
11. Detector = peak
12. Sweep time = auto couple
13. Trace mode = max hold

14. Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

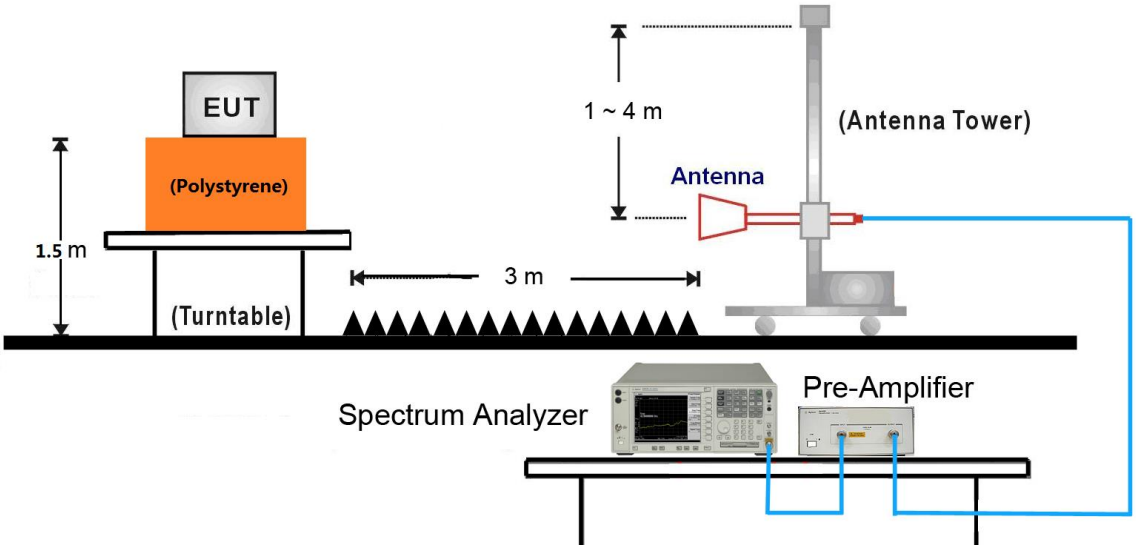
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

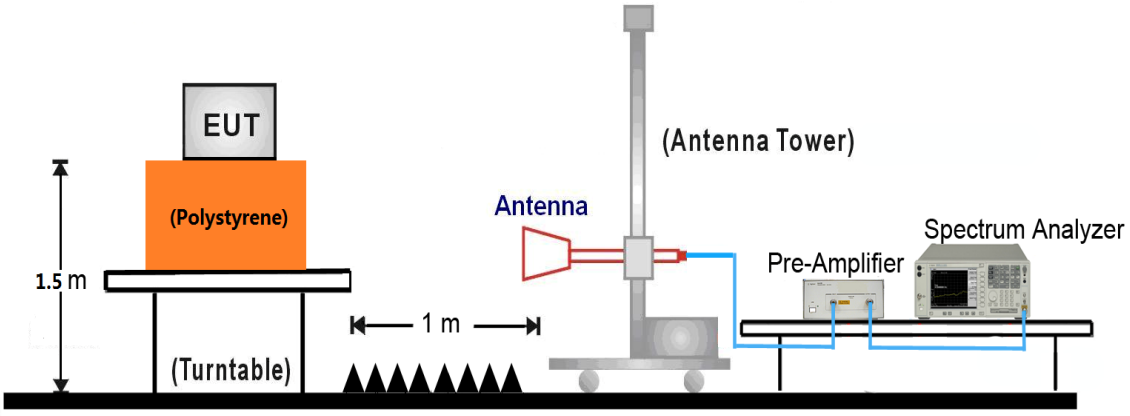
9. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
10. RBW = 1MHz
11. VBW ≥ 1/T
12. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to “Voltage” regardless of the display mode
13. Detector = Peak
14. Sweep time = auto
15. Trace mode = max hold
16. Allow max hold to run for at least 50 times (1/duty cycle) traces

7.9.4. Test Setup

1GHz ~ 18GHz Test Setup:

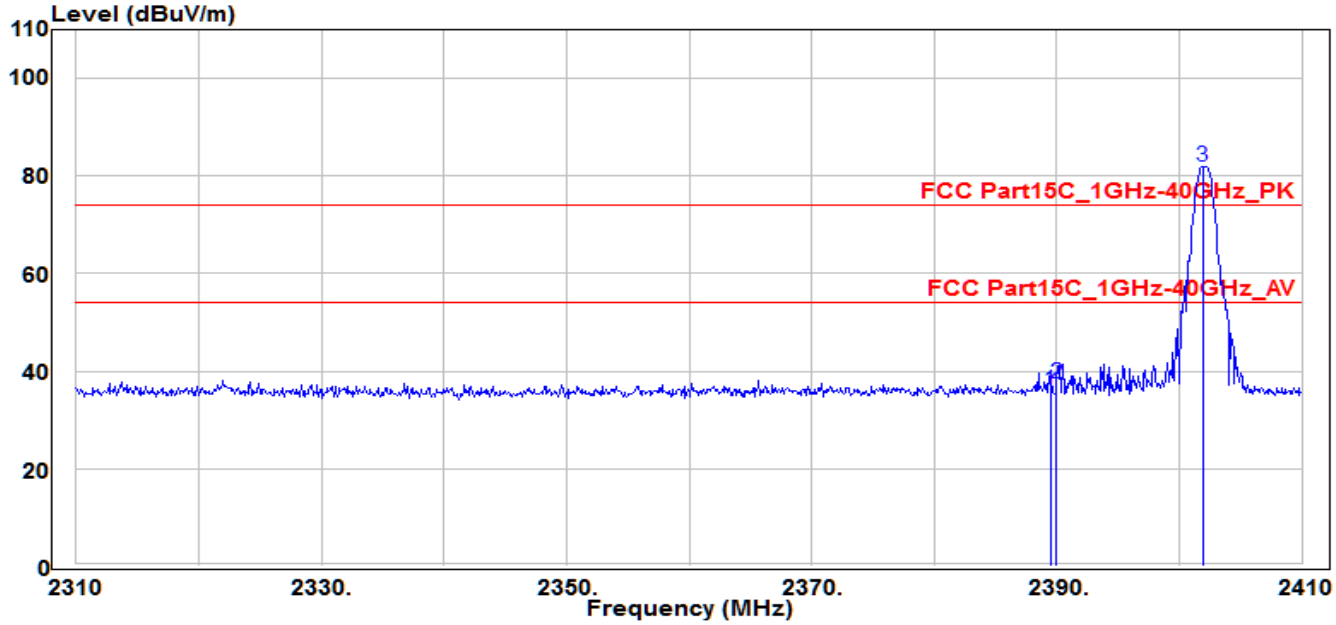


18GHz ~40GHz Test Setup:



7.9.5. Test Result

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1-DH5_CH00	Test Voltage	AC 120V/60Hz

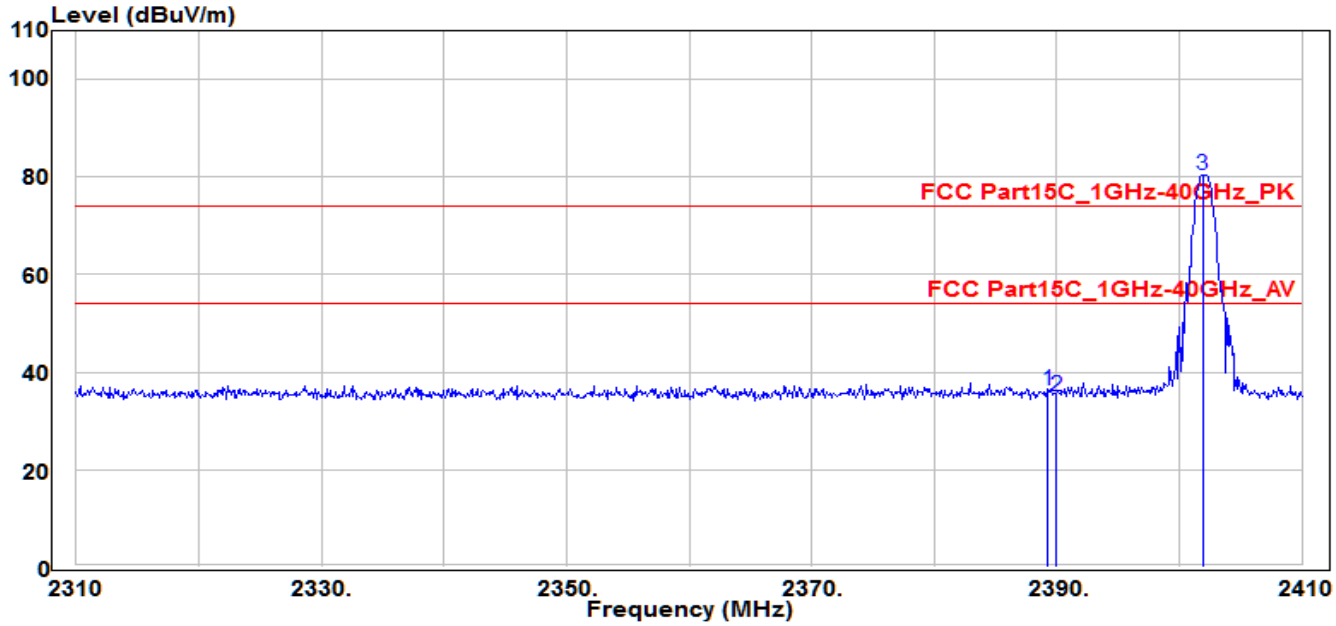


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2389.5	37.95	-1.84	36.11	-37.89	74	170	200	Peak
2	*	2390	39.39	-1.84	37.55	-36.45	74	170	200	Peak
3		2401.9	83.69	-1.88	81.81	7.81	74	170	200	Peak

Note :

1. " * " means the worst value in this measurement data。
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)。
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1- DH5_CH00	Test Voltage	AC 120V/60Hz

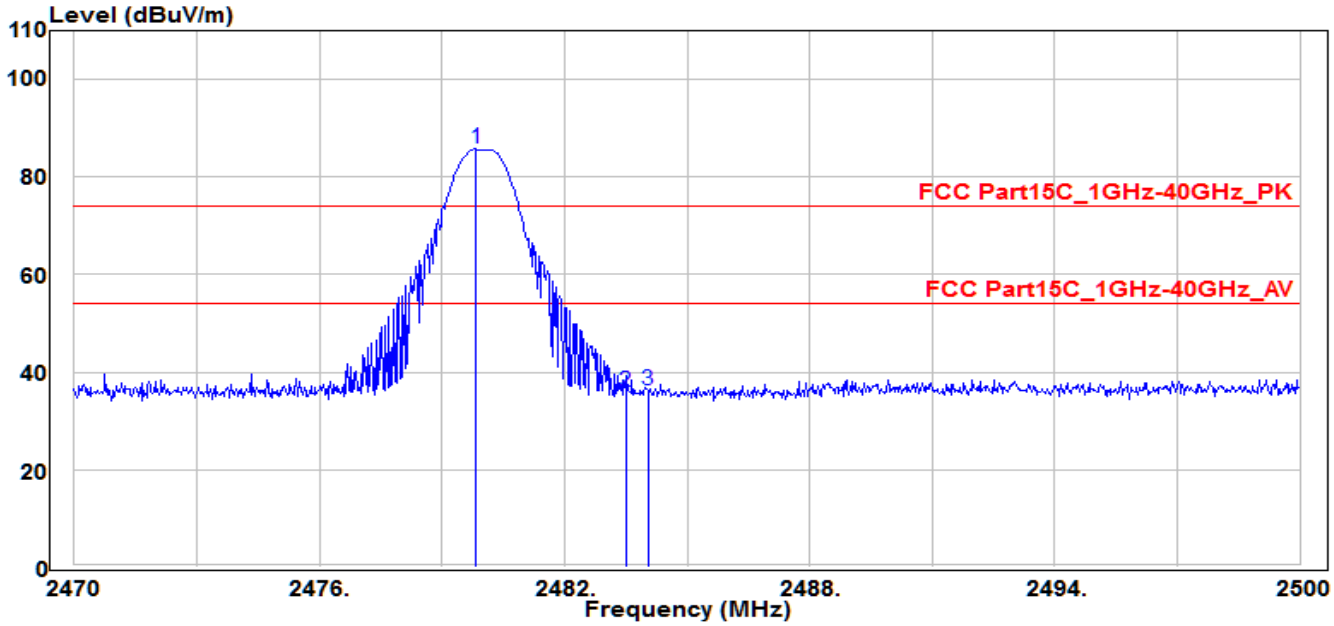


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2389.3	38	-1.84	36.16	-37.84	74	165	195	Peak
2		2390	36.78	-1.84	34.94	-39.06	74	165	195	Peak
3		2401.9	82.25	-1.88	80.37	6.37	74	165	195	Peak

Note :

1. " * " means the worst value in this measurement data。
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)。
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1- DH5_CH78	Test Voltage	AC 120V/60Hz

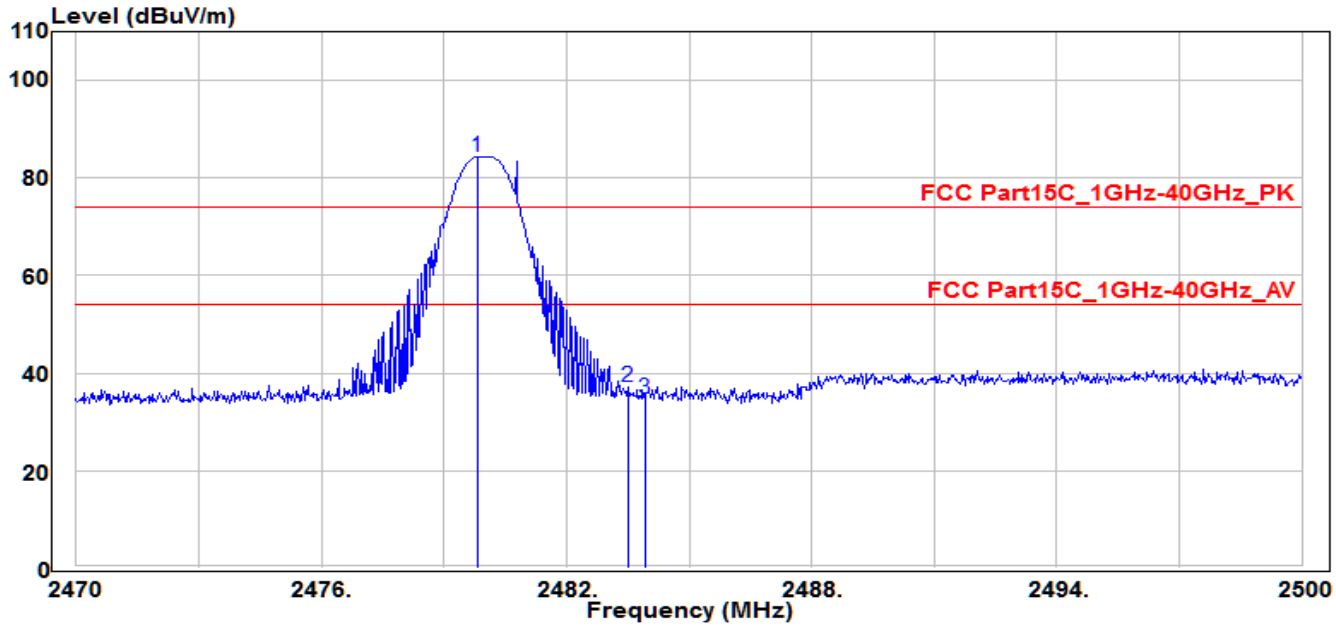


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2479.84	87.78	-2.08	85.7	11.7	74	220	310	Peak
2		2483.5	38.12	-2.08	36.04	-37.96	74	220	310	Peak
3	*	2484.04	38.21	-2.08	36.13	-37.87	74	220	310	Peak

Note :

1. " * " means the worst value in this measurement data。
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)。
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1- DH5_CH78	Test Voltage	AC 120V/60Hz

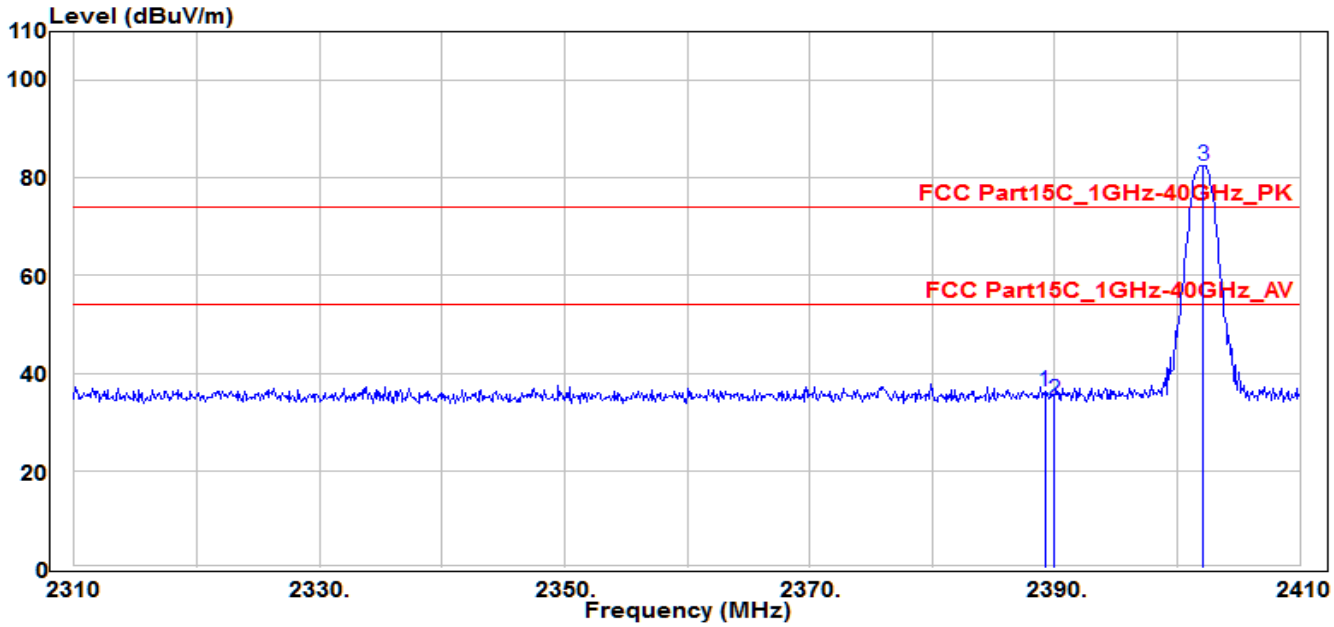


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2479.81	86.36	-2.08	84.28	10.28	74	200	315	Peak
2	*	2483.5	39.15	-2.08	37.07	-36.93	74	200	315	Peak
3		2483.92	36.87	-2.08	34.79	-39.21	74	200	315	Peak

Note :

1. " * " means the worst value in this measurement data。
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)。
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2- 3DH5_CH00	Test Voltage	AC 120V/60Hz

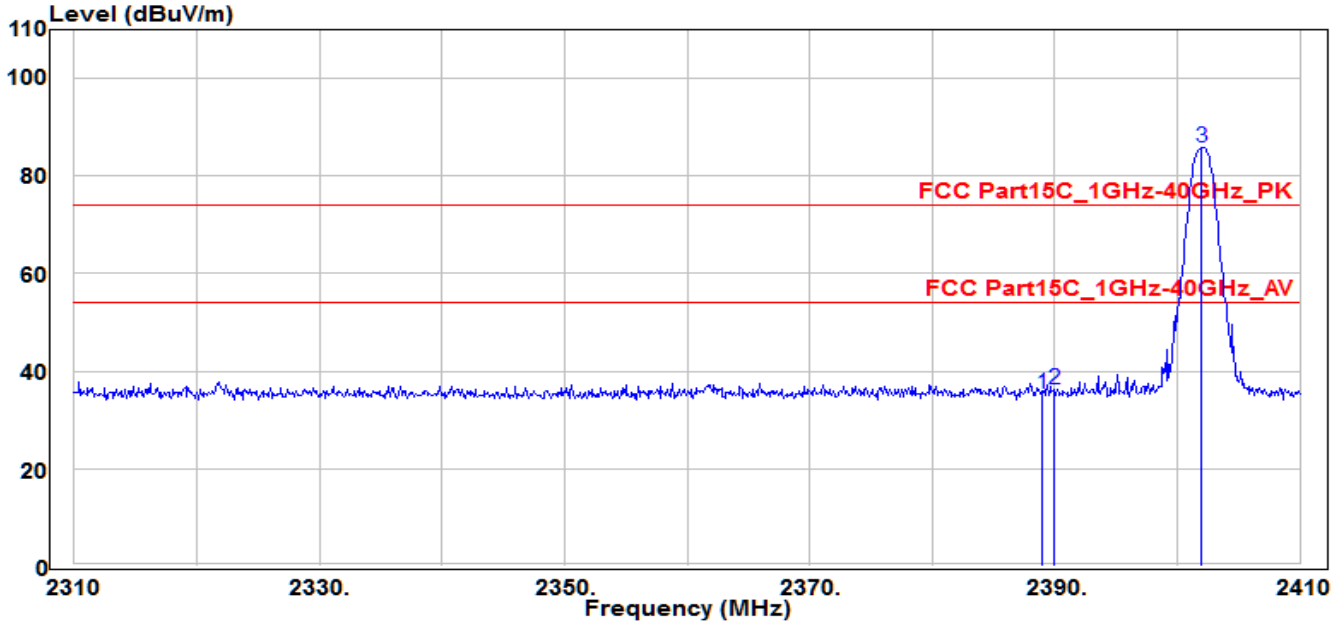


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2389.2	38.06	-1.83	36.23	-37.77	74	225	310	Peak
2		2390	36.23	-1.84	34.39	-39.61	74	225	310	Peak
3		2402.1	84.51	-1.89	82.62	8.62	74	225	310	Peak

Note :

1. " * " means the worst value in this measurement data。
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)。
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2- 3DH5_CH00	Test Voltage	AC 120V/60Hz

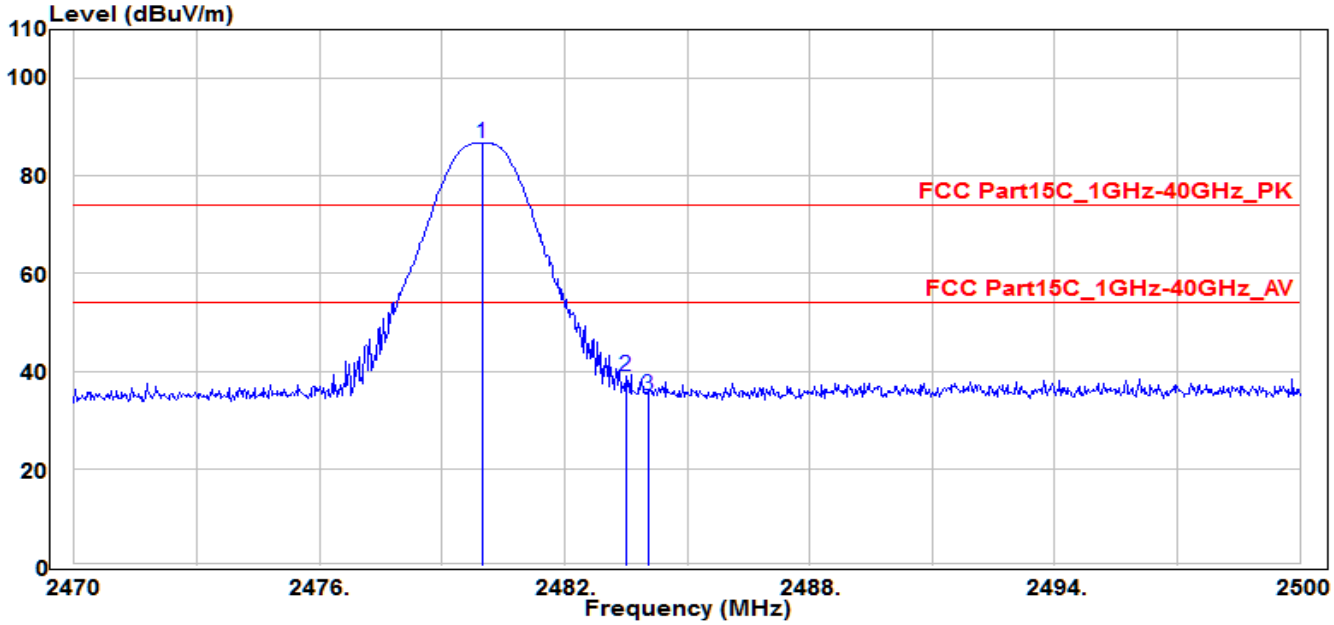


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2389	37.15	-1.83	35.32	-38.68	74	170	200	Peak
2	*	2390	38.13	-1.84	36.29	-37.71	74	170	200	Peak
3		2402	87.68	-1.88	85.8	11.8	74	170	200	Peak

Note :

1. " * " means the worst value in this measurement data。
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)。
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2- 3DH5_CH78	Test Voltage	AC 120V/60Hz

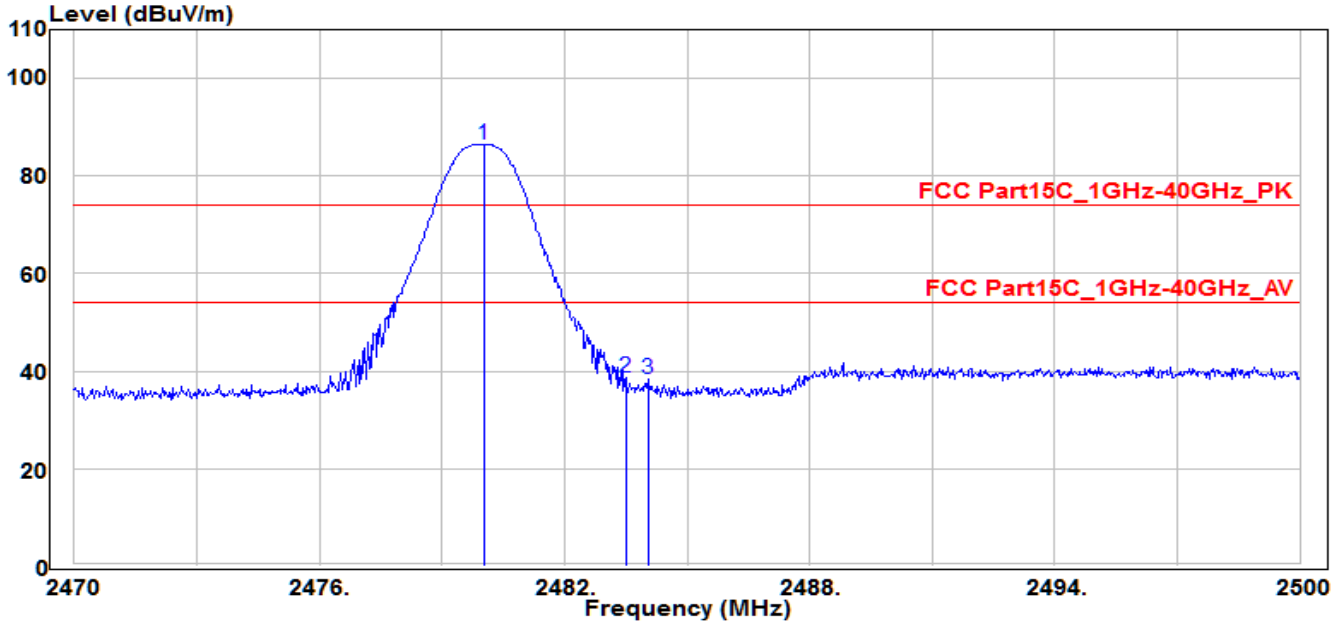


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2479.99	88.95	-2.08	86.87	12.87	74	240	305	Peak
2	*	2483.5	41.13	-2.08	39.05	-34.95	74	240	305	Peak
3		2484.04	37.21	-2.08	35.13	-38.87	74	240	305	Peak

Note :

1. " * " means the worst value in this measurement data。
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)。
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)。

EUT	E-READER	Test Date	2017/06/01
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2- 3DH5_CH78	Test Voltage	AC 120V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2480.02	88.55	-2.08	86.47	12.47	74	165	310	Peak
2	*	2483.5	40.83	-2.08	38.75	-35.25	74	165	310	Peak
3		2484.04	40.35	-2.08	38.27	-35.73	74	165	310	Peak

Note :

1. " * " means the worst value in this measurement data。
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)。
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)。

7.10. AC Conducted Emissions Measurement

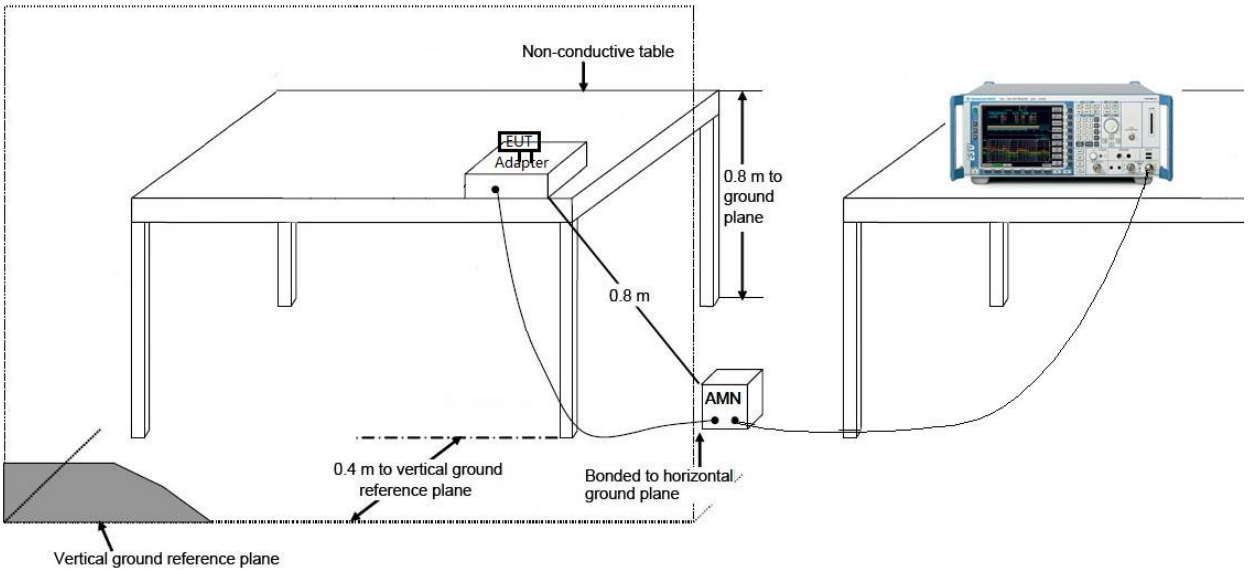
7.10.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 / RSS-Gen Limits		
Frequency (MHz)	QP (dBμV)	Average (dBμV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

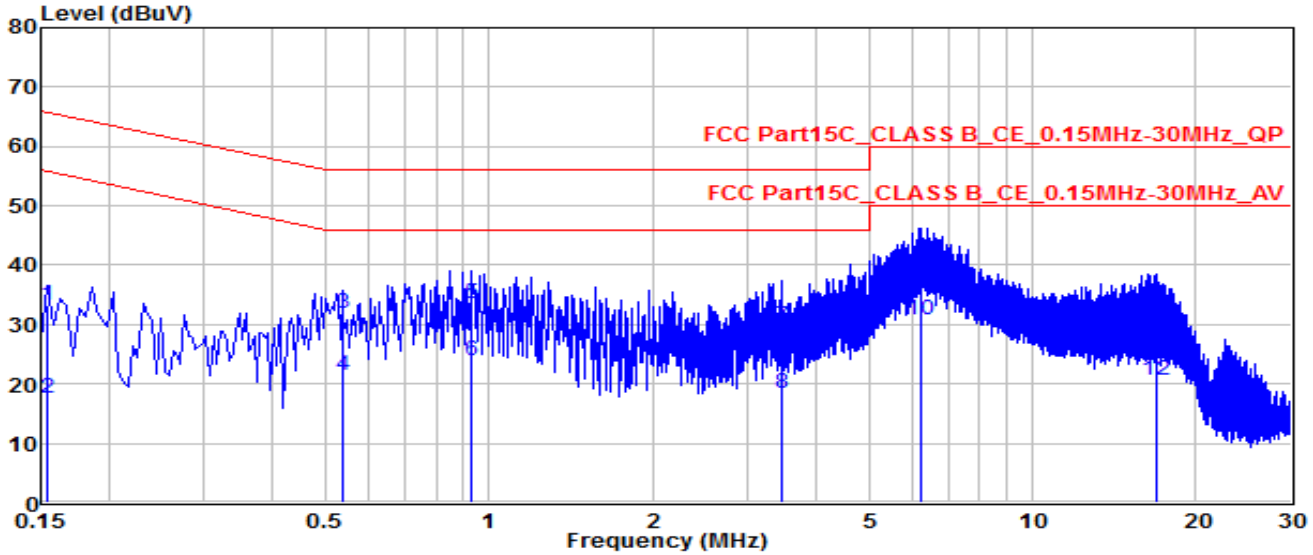
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.10.2. Test Setup



7.10.3. Test Result

EUT	E-READER	Test Date	2017/06/03
Factor	CE_ENV216-L1 (Filter ON)	Temp. / Humidity	24°C / 55%
Polarity	Line1	Site / Engineer	SR2 / Peter
Test Mode	MODE1-DH5_CH39	Test Voltage	AC120V/60Hz

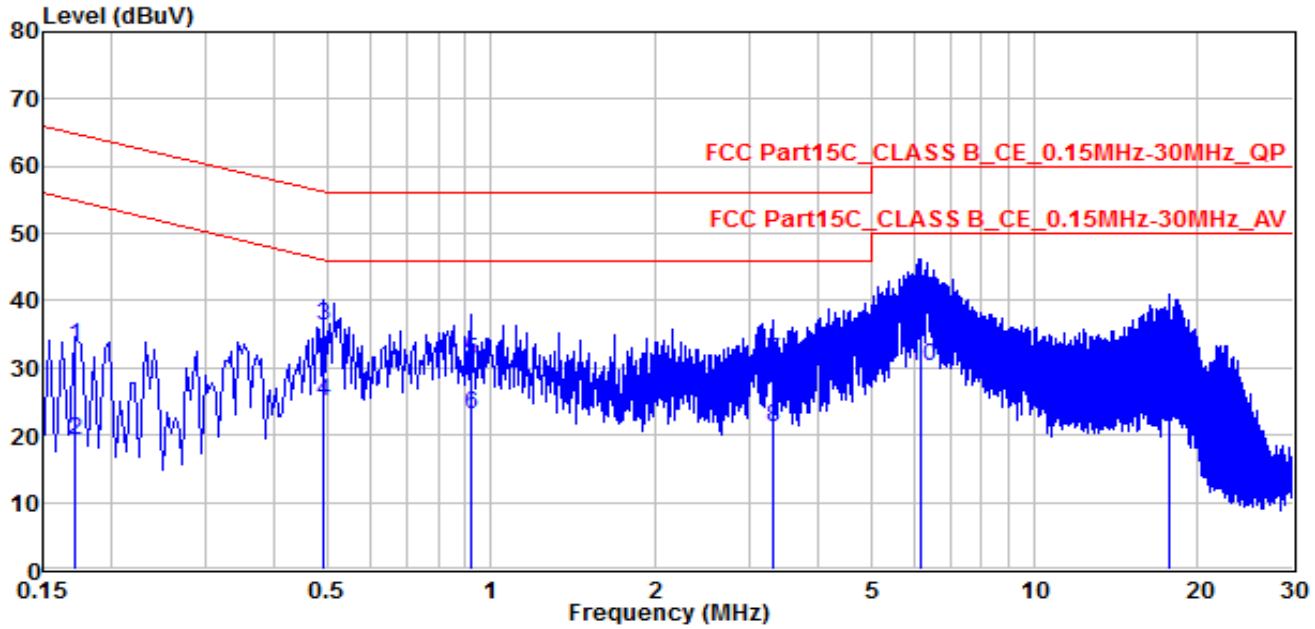


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV)	Margin (dB)	Limit (dBuV)	Remark (QP/PK/AV)
1		0.1545	23.4	9.9	33.3	-32.45	65.75	QP
2		0.1545	7.76	9.9	17.66	-38.09	55.75	Average
3		0.53696	21.72	10.07	31.79	-24.21	56	QP
4		0.53696	11.46	10.07	21.53	-24.47	46	Average
5		0.93292	23.49	9.92	33.41	-22.59	56	QP
6		0.93292	13.96	9.92	23.88	-22.12	46	Average
7		3.457	19.81	9.8	29.61	-26.39	56	QP
8		3.457	8.74	9.8	18.54	-27.46	46	Average
9	*	6.22	30.13	9.77	39.9	-20.1	60	QP
10	*	6.22	20.99	9.77	30.76	-19.24	50	Average
11		16.87	21.3	9.98	31.28	-28.72	60	QP
12		16.87	10.7	9.98	20.68	-29.32	50	Average

Note :

1. " * " means the worst value in this measurement data。
2. C.F (Correction Factor) = Factor (dB)+ Cable Loss (dB)。
3. Measurement (dBuV) = Reading(dBuV)+ C.F (Correction Factor)。
4. Other mode was also verified. The test results shown represent the worst case emissions。

EUT	E-READER	Test Date	2017/06/03
Factor	CE_ENV216-N (Filter ON)	Temp. / Humidity	24°C / 55%
Polarity	Neutral	Site / Engineer	SR2 / Peter
Test Mode	MODE1- DH5_CH39	Test Voltage	AC120V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV)	Margin (dB)	Limit (dBuV)	Remark (QP/PK/AV)
1		0.1725	23.04	10.1	33.14	-31.7	64.84	QP
2		0.1725	9.27	10.1	19.37	-35.47	54.84	Average
3		0.49197	26.11	10.12	36.23	-19.9	56.13	QP
4		0.49197	14.82	10.12	24.94	-21.19	46.13	Average
5		0.91942	21.18	9.92	31.1	-24.9	56	QP
6		0.91942	13.2	9.92	23.12	-22.88	46	Average
7		3.318	21.17	9.82	30.99	-25.01	56	QP
8		3.318	11.36	9.82	21.18	-24.82	46	Average
9	*	6.193	30.69	9.79	40.48	-19.52	60	QP
10	*	6.193	20.34	9.79	30.13	-19.87	50	Average
11		17.712	23.66	10.04	33.7	-26.3	60	QP
12		17.712	12.1	10.04	22.14	-27.86	50	Average

Note :

1. " * " means the worst value in this measurement data。
2. C.F (Correction Factor) = Factor (dB)+ Cable Loss (dB)。
3. Measurement (dBuV) = Reading(dBuV)+ C.F (Correction Factor)。
4. Other channel was also verified. The test results shown represent the worst case emissions。

8. CONCLUSION

The data collected relate only the item(s) tested and show that the **E-reader, FCC ID: XR3-KEPLER3026** is in compliance with Part 15C of the FCC Rules.