



7.6. Radiated Spurious Emission Measurement

7.6.1.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 [uV/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						

7.6.2.Test Procedure Used

ANSI C63.10-2013 Section 6.3 (General Requirements)

ANSI C63.10-2013 Section 6.4 (Standard test method below 30MHz)

ANSI C63.10-2013 Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10-2013 Section 6.6 (Standard test method above 1GHz)

ANSI C63.10-2013 Section 11.11 & 11.12

7.6.3.Test Setting

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

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Quasi-Peak Measurements below 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. Span was set greater than 1MHz
- 3. RBW = as specified in Table 1
- 4. Detector = CISPR quasi-peak
- 5. Sweep time = auto couple
- 6. Trace was allowed to stabilize

Peak Measurements above 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW; If the EUT is configured to transmit with duty cycle ≥ 98%, set VBW = 10 Hz.

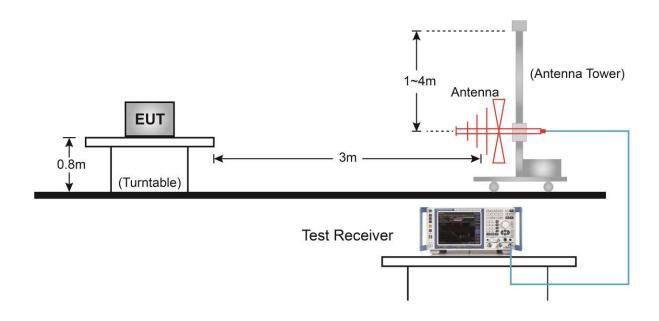
If the EUT duty cycle is < 98%, set VBW ≥ 1/T. T is the minimum transmission duration.

- 4. Detector = Peak
- 5. Sweep time = auto
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

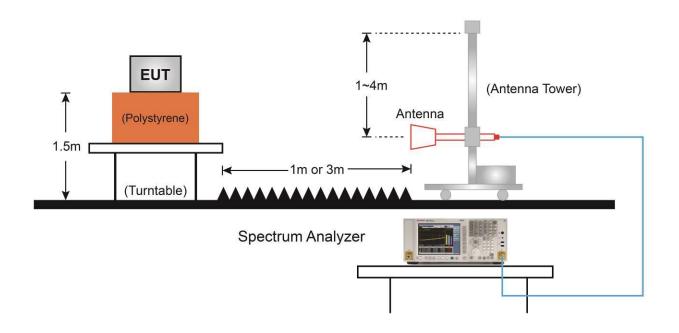


7.6.4.Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:





7.6.5.Test Result

Product	ACCESS POINT	Test Engineer	Jay Chu			
Test Site	AC1	Test Date	2020/07/17			
Test Mode:	802.11b	Test Channel:	01			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4000.5	38.5	-2.8	35.7	74.0	-38.3	Peak	Horizontal
	4825.0	36.8	-0.1	36.7	74.0	-37.3	Peak	Horizontal
*	6610.0	35.8	4.9	40.7	74.0	-33.3	Peak	Horizontal
*	8658.5	32.4	9.6	42.0	74.0	-32.0	Peak	Horizontal
	4102.5	37.4	-2.4	35.0	74.0	-39.0	Peak	Vertical
	5054.5	36.0	0.6	36.6	74.0	-37.4	Peak	Vertical
*	6168.0	35.7	2.8	38.5	74.0	-35.5	Peak	Vertical
*	8624.5	33.1	9.3	42.4	74.0	-31.6	Peak	Vertical

Note 1: "*" means test frequency didn't fall into restricted band.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu			
Test Site	AC1	Test Date	2020/07/17			
Test Mode:	802.11b	Test Channel:	06			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4017.5	38.5	-2.6	35.9	74.0	-38.1	Peak	Horizontal
	4876.0	37.3	-0.4	36.9	74.0	-37.1	Peak	Horizontal
*	6193.5	35.8	2.8	38.6	74.0	-35.4	Peak	Horizontal
*	8607.5	33.6	9.3	42.9	74.0	-31.1	Peak	Horizontal
	4026.0	38.0	-2.5	35.5	74.0	-38.5	Peak	Vertical
	4859.0	36.1	-0.4	35.7	74.0	-38.3	Peak	Vertical
*	6091.5	35.4	2.8	38.2	74.0	-35.8	Peak	Vertical
*	8862.5	31.0	9.9	40.9	74.0	-33.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu			
Test Site	AC1	Test Date	2020/07/17			
Test Mode:	802.11b	Test Channel:	11			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4034.5	38.3	-2.5	35.8	74.0	-38.2	Peak	Horizontal
	4791.0	36.0	0.2	36.2	74.0	-37.8	Peak	Horizontal
*	6253.0	35.5	3.2	38.7	74.0	-35.3	Peak	Horizontal
*	8820.0	33.3	9.8	43.1	74.0	-30.9	Peak	Horizontal
	3958.0	38.6	-3.2	35.4	74.0	-38.6	Peak	Vertical
	4646.5	36.7	-0.2	36.5	74.0	-37.5	Peak	Vertical
*	6457.0	35.7	4.2	39.9	74.0	-34.1	Peak	Vertical
*	8607.5	34.1	9.3	43.4	74.0	-30.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu			
Test Site	AC1	Test Date	2020/07/17			
Test Mode:	802.11g	Test Channel:	01			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	(1711 12)	(dBµV)	(d <i>D</i>)	(dBµV/m)	(ασμν/π)	(db)		
	4119.5	36.4	-2.2	34.2	74.0	-39.8	Peak	Horizontal
	5088.5	35.1	0.1	35.2	74.0	-38.8	Peak	Horizontal
*	6057.5	33.2	2.4	35.6	74.0	-38.4	Peak	Horizontal
*	10120.5	31.0	11.2	42.2	74.0	-31.8	Peak	Horizontal
	4179.0	35.9	-2.1	33.8	74.0	-40.2	Peak	Vertical
	4961.0	36.0	-0.2	35.8	74.0	-38.2	Peak	Vertical
*	6576.0	32.4	5.0	37.4	74.0	-36.6	Peak	Vertical
*	10086.5	32.5	11.1	43.6	74.0	-30.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu				
Test Site	AC1	Test Date	2020/07/17				
Test Mode:	802.11g	Test Channel:	06				
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average				
	limit.	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4026.0	37.6	-2.5	35.1	74.0	-38.9	Peak	Horizontal
	5054.5	36.6	0.6	37.2	74.0	-36.8	Peak	Horizontal
*	7077.5	33.6	7.7	41.3	74.0	-32.7	Peak	Horizontal
*	8675.5	35.5	9.5	45.0	74.0	-29.0	Peak	Horizontal
	4051.5	37.3	-2.6	34.7	74.0	-39.3	Peak	Vertical
	4774.0	35.9	0.0	35.9	74.0	-38.1	Peak	Vertical
*	6219.0	35.6	3.1	38.7	74.0	-35.3	Peak	Vertical
*	7927.5	34.8	8.3	43.1	74.0	-30.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu				
Test Site	AC1	Test Date	2020/07/17				
Test Mode:	802.11g	Test Channel:	11				
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average					
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
		(dBµV)		(dBµV/m)				
	3805.0	38.1	-3.2	34.9	74.0	-39.1	Peak	Horizontal
	4995.0	37.3	-0.1	37.2	74.0	-36.8	Peak	Horizontal
*	6533.5	34.9	4.5	39.4	74.0	-34.6	Peak	Horizontal
*	8667.0	34.0	9.6	43.6	74.0	-30.4	Peak	Horizontal
	4196.0	37.5	-2.0	35.5	74.0	-38.5	Peak	Vertical
	5063.0	37.5	0.6	38.1	74.0	-35.9	Peak	Vertical
*	6491.0	34.3	4.4	38.7	74.0	-35.3	Peak	Vertical
*	10392.5	33.6	12.5	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu				
Test Site	AC1	Test Date	2020/07/17				
Test Mode:	802.11n-HT20	Test Channel:	01				
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average					
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4102.5	37.6	-2.4	35.2	74.0	-38.8	Peak	Horizontal
	4927.0	37.1	0.2	37.3	74.0	-36.7	Peak	Horizontal
*	6576.0	34.8	5.0	39.8	74.0	-34.2	Peak	Horizontal
*	8735.0	32.9	9.8	42.7	74.0	-31.3	Peak	Horizontal
	4077.0	37.3	-2.7	34.6	74.0	-39.4	Peak	Vertical
	4825.0	37.0	-0.1	36.9	74.0	-37.1	Peak	Vertical
*	6856.5	35.7	5.7	41.4	74.0	-32.6	Peak	Vertical
*	8675.5	33.2	9.5	42.7	74.0	-31.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu				
Test Site	AC1	Test Date	2020/07/17				
Test Mode:	802.11n-HT20	Test Channel:	06				
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average					
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4017.5	38.0	-2.6	35.4	74.0	-38.6	Peak	Horizontal
	4646.5	36.9	-0.2	36.7	74.0	-37.3	Peak	Horizontal
*	7120.0	34.8	7.7	42.5	74.0	-31.5	Peak	Horizontal
*	8752.0	32.9	10.1	43.0	74.0	-31.0	Peak	Horizontal
	4357.5	37.2	-1.5	35.7	74.0	-38.3	Peak	Vertical
	5020.5	37.9	0.2	38.1	74.0	-35.9	Peak	Vertical
*	6244.5	36.1	3.0	39.1	74.0	-34.9	Peak	Vertical
*	8811.5	33.2	9.9	43.1	74.0	-30.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu				
Test Site	AC1	Test Date	2020/07/17				
Test Mode:	802.11n-HT20	Test Channel:	11				
Remark:	Average measurement was not	Average measurement was not performed if peak level lower than average					
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4026.0	37.5	-2.5	35.0	74.0	-39.0	Peak	Horizontal
	4935.5	37.9	0.1	38.0	74.0	-36.0	Peak	Horizontal
*	6584.5	34.5	5.1	39.6	74.0	-34.4	Peak	Horizontal
*	8692.5	32.7	9.6	42.3	74.0	-31.7	Peak	Horizontal
	4026.0	38.0	-2.5	35.5	74.0	-38.5	Peak	Vertical
	4799.5	36.7	0.2	36.9	74.0	-37.1	Peak	Vertical
*	6389.0	35.9	3.5	39.4	74.0	-34.6	Peak	Vertical
*	8616.0	34.1	9.2	43.3	74.0	-30.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu			
Test Site	AC1	Test Date	2020/07/17			
Test Mode:	802.11n-HT40	Test Channel:	03			
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average				
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4187.5	37.0	-2.0	35.0	74.0	-39.0	Peak	Horizontal
	5020.5	36.1	0.2	36.3	74.0	-37.7	Peak	Horizontal
*	6967.0	36.0	6.5	42.5	74.0	-31.5	Peak	Horizontal
*	8590.5	34.0	9.1	43.1	74.0	-30.9	Peak	Horizontal
	4298.0	37.4	-1.6	35.8	74.0	-38.2	Peak	Vertical
	4731.5	35.0	-0.3	34.7	74.0	-39.3	Peak	Vertical
*	6482.5	35.6	4.3	39.9	74.0	-34.1	Peak	Vertical
*	8760.5	33.5	10.1	43.6	74.0	-30.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu			
Test Site	AC1	Test Date	2020/07/17			
Test Mode:	802.11n-HT40	Test Channel:	06			
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average				
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4230.0	36.0	-2.2	33.8	74.0	-40.2	Peak	Horizontal
	4655.0	36.5	-0.1	36.4	74.0	-37.6	Peak	Horizontal
*	6312.5	36.1	3.2	39.3	74.0	-34.7	Peak	Horizontal
*	8658.5	32.2	9.6	41.8	74.0	-32.2	Peak	Horizontal
	3958.0	39.5	-3.2	36.3	74.0	-37.7	Peak	Vertical
	4621.0	37.3	-0.7	36.6	74.0	-37.4	Peak	Vertical
*	6746.0	36.2	5.1	41.3	74.0	-32.7	Peak	Vertical
*	8760.5	33.0	10.1	43.1	74.0	-30.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu			
Test Site	AC1	Test Date	2020/07/17			
Test Mode:	802.11n-HT40	Test Channel:	09			
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average				
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	(=)	(dBµV)	(32)	(dBµV/m)	(45,47,11)	(32)		
	4034.5	37.8	-2.5	35.3	74.0	-38.7	Peak	Horizontal
	4799.5	36.1	0.2	36.3	74.0	-37.7	Peak	Horizontal
*	5938.5	34.1	2.0	36.1	74.0	-37.9	Peak	Horizontal
*	8675.5	33.8	9.5	43.3	74.0	-30.7	Peak	Horizontal
	4026.0	38.3	-2.5	35.8	74.0	-38.2	Peak	Vertical
	5088.5	38.0	0.1	38.1	74.0	-35.9	Peak	Vertical
*	6550.5	34.5	4.5	39.0	74.0	-35.0	Peak	Vertical
*	8675.5	33.6	9.5	43.1	74.0	-30.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu			
Test Site	AC1	Test Date	2020/07/17			
Test Mode:	802.11ax-HE20	Test Channel:	01			
Remark:	Average measurement was not	Average measurement was not performed if peak level lower than average				
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	3958.0	37.7	-3.2	34.5	74.0	-39.5	Peak	Horizontal
	5054.5	36.6	0.6	37.2	74.0	-36.8	Peak	Horizontal
*	6559.0	35.1	4.5	39.6	74.0	-34.4	Peak	Horizontal
*	8616.0	34.0	9.2	43.2	74.0	-30.8	Peak	Horizontal
	4026.0	37.8	-2.5	35.3	74.0	-38.7	Peak	Vertical
	5054.5	37.7	0.6	38.3	74.0	-35.7	Peak	Vertical
*	6508.0	35.0	4.3	39.3	74.0	-34.7	Peak	Vertical
*	8667.0	33.5	9.6	43.1	74.0	-30.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu			
Test Site	AC1	Test Date	2020/07/17			
Test Mode:	802.11ax-HE20	Test Channel:	06			
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average				
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	3958.0	39.4	-3.2	36.2	74.0	-37.8	Peak	Horizontal
	5054.5	36.3	0.6	36.9	74.0	-37.1	Peak	Horizontal
*	6236.0	35.6	2.9	38.5	74.0	-35.5	Peak	Horizontal
*	8599.0	34.1	9.3	43.4	74.0	-30.6	Peak	Horizontal
	4017.5	37.4	-2.6	34.8	74.0	-39.2	Peak	Vertical
	4655.0	37.1	-0.1	37.0	74.0	-37.0	Peak	Vertical
*	6482.5	34.7	4.3	39.0	74.0	-35.0	Peak	Vertical
*	8692.5	32.3	9.6	41.9	74.0	-32.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu				
Test Site	AC1	Test Date	2020/07/17				
Test Mode:	802.11ax-HE20	Test Channel:	11				
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average					
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	,	(dBµV)	,	(dBµV/m)	, ,	,		
	4060.0	36.2	-2.6	33.6	74.0	-40.4	Peak	Horizontal
	4663.5	36.2	0.0	36.2	74.0	-37.8	Peak	Horizontal
*	6355.0	34.2	3.7	37.9	74.0	-36.1	Peak	Horizontal
*	8752.0	33.0	10.1	43.1	74.0	-30.9	Peak	Horizontal
	4085.5	38.7	-2.5	36.2	74.0	-37.8	Peak	Vertical
	5037.5	36.8	0.5	37.3	74.0	-36.7	Peak	Vertical
*	6244.5	35.0	3.0	38.0	74.0	-36.0	Peak	Vertical
*	8811.5	32.4	9.9	42.3	74.0	-31.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu			
Test Site	AC1	Test Date	2020/07/17			
Test Mode:	802.11ax-HE40	Test Channel:	03			
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average				
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
		(dBµV)	(-)	(dBµV/m)	(')			
	4017.5	39.0	-2.6	36.4	74.0	-37.6	Peak	Horizontal
	5063.0	37.2	0.6	37.8	74.0	-36.2	Peak	Horizontal
*	6253.0	35.9	3.2	39.1	74.0	-34.9	Peak	Horizontal
*	8633.0	34.3	9.4	43.7	74.0	-30.3	Peak	Horizontal
	4085.5	38.4	-2.5	35.9	74.0	-38.1	Peak	Vertical
	4646.5	36.7	-0.2	36.5	74.0	-37.5	Peak	Vertical
*	6584.5	35.5	5.1	40.6	74.0	-33.4	Peak	Vertical
*	8616.0	33.3	9.2	42.5	74.0	-31.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu			
Test Site	AC1	Test Date	2020/07/17			
Test Mode:	802.11ax-HE40	Test Channel:	06			
Remark:	Average measurement was not	Average measurement was not performed if peak level lower than average				
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4153.5	37.7	-2.0	35.7	74.0	-38.3	Peak	Horizontal
	5046.0	36.8	0.5	37.3	74.0	-36.7	Peak	Horizontal
*	6584.5	34.6	5.1	39.7	74.0	-34.3	Peak	Horizontal
*	8658.5	32.2	9.6	41.8	74.0	-32.2	Peak	Horizontal
	4366.0	37.0	-1.5	35.5	74.0	-38.5	Peak	Vertical
	5063.0	36.5	0.6	37.1	74.0	-36.9	Peak	Vertical
*	6168.0	35.6	2.8	38.4	74.0	-35.6	Peak	Vertical
*	8777.5	32.9	10.0	42.9	74.0	-31.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT	Test Engineer	Jay Chu				
Test Site	AC1	Test Date	2020/07/17				
Test Mode:	802.11ax-HE40	Test Channel:	09				
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average					
	limit.	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

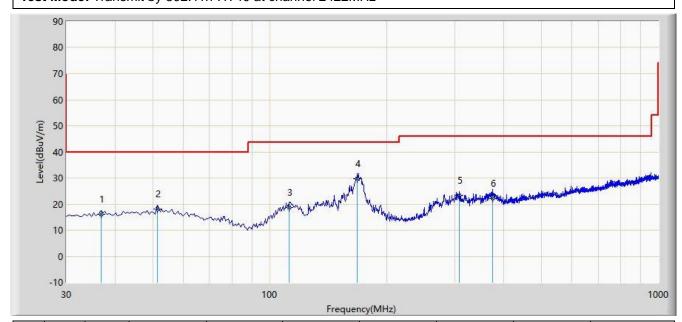
Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4026.0	37.8	-2.5	35.3	74.0	-38.7	Peak	Horizontal
	4935.5	36.4	0.1	36.5	74.0	-37.5	Peak	Horizontal
*	5955.5	36.0	2.0	38.0	74.0	-36.0	Peak	Horizontal
*	8658.5	32.2	9.6	41.8	74.0	-32.2	Peak	Horizontal
	4017.5	38.1	-2.6	35.5	74.0	-38.5	Peak	Vertical
	5063.0	36.7	0.6	37.3	74.0	-36.7	Peak	Vertical
*	6338.0	35.8	3.5	39.3	74.0	-34.7	Peak	Vertical
*	8658.5	32.3	9.6	41.9	74.0	-32.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



The Result of Radiated Emission below 1GHz:

Site: AC1	Time: 2020/08/06 - 01:40			
Limit: FCC_Part15.209_RE(3m)	Engineer: Jay Chu			
Probe: VULB 9162 (30MHz~8GHz)	Polarity: Horizontal			
EUT: ACCESS POINT	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11n-HT40 at channel 2422MHz				



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			36.790	16.067	-3.540	-23.933	40.000	19.607	QP
2			51.340	17.988	-3.450	-22.012	40.000	21.438	QP
3			112.450	18.819	0.540	-24.681	43.500	18.279	QP
4		*	168.225	29.849	13.540	-13.651	43.500	16.310	QP
5			307.420	23.223	1.521	-22.777	46.000	21.702	QP
6			374.835	22.193	-1.600	-23.807	46.000	23.793	QP

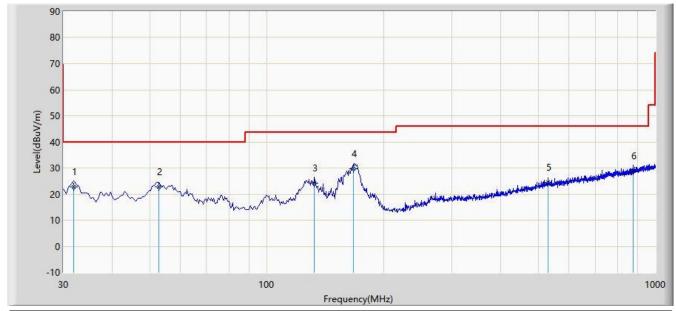
Note 1: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.



Site: AC1	Time: 2020/08/06 - 01:41			
Limit: FCC_Part15.209_RE(3m)	Engineer: Jay Chu			
Probe: VULB 9162 (30MHz~8GHz)	Polarity: Vertical			
EUT: ACCESS POINT	Power: AC 120V/60Hz			
Test Mode: Transmit by 802 11n-HT40 at channel 2422MHz				



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			31.940	22.784	4.400	-17.216	40.000	18.384	QP
2			52.795	22.757	1.540	-17.243	40.000	21.216	QP
3			132.820	24.329	8.500	-19.171	43.500	15.829	QP
4		*	167.255	29.827	13.540	-13.673	43.500	16.287	QP
5			530.520	24.352	-1.950	-21.648	46.000	26.302	QP
6			874.870	28.927	-2.450	-17.073	46.000	31.377	QP

Note 1: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

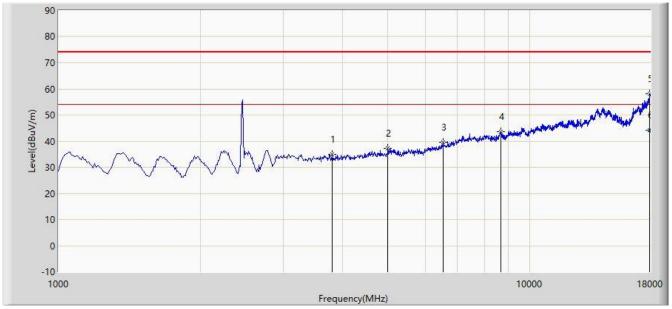
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.



The Worse Case Result Plot of Radiated Spurious Emission Above 1GHz

Site: AC1	Time: 2020/07/28 - 02:43			
Limit: FCC_Part15.209_RE(3m)	Engineer: Jay Chu			
Probe: BBHA 9120D (1GHz~18GHz)	Polarity: Horizontal			
EUT: ACCESS POINT	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11g at channel 2462MHz				



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			3805.000	34.947	38.142	-39.053	74.000	-3.195	PK
2			4995.000	37.171	37.317	-36.829	74.000	-0.146	PK
3			6533.500	39.448	34.947	-34.552	74.000	4.502	PK
4			8667.000	43.574	34.002	-30.426	74.000	9.571	PK
5			17966.000	58.231	31.618	-15.769	74.000	26.613	PK
6		*	17966.000	44.162	17.549	-9.838	54.000	26.613	AV

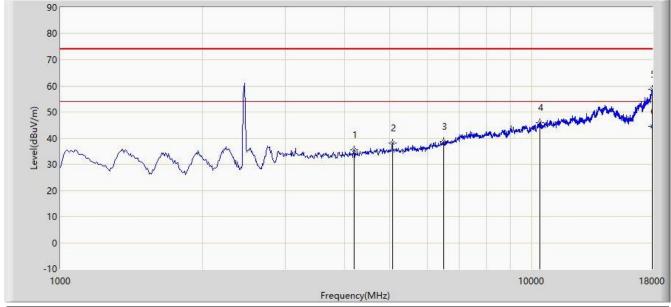
Note1: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Note2: The amplitude of radiated emissions (Frequency range around 13 to 18GHz above average limit) is same as the ambient noise, we selected the highest peak level frequency and performed average emission testing again.



Site: AC1	Time: 2020/07/28 - 02:44				
Limit: FCC_Part15.209_RE(3m)	Engineer: Jay Chu				
Probe: BBHA 9120D (1GHz~18GHz)	Polarity: Vertical				
EUT: ACCESS POINT	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11g at channel 2462MHz					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			4196.000	35.566	37.523	-38.434	74.000	-1.956	PK
2			5063.000	38.143	37.503	-35.857	74.000	0.640	PK
3			6491.000	38.647	34.251	-35.353	74.000	4.396	PK
4			10392.500	46.068	33.584	-27.932	74.000	12.483	PK
5			17974.500	58.827	32.301	-15.173	74.000	26.526	PK
6		*	17974.500	44.587	18.061	-9.413	54.000	26.526	AV

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Note2: The amplitude of radiated emissions (Frequency range around 13 to 18GHz above average limit) is same as the ambient noise, we selected the highest peak level frequency and performed average emission testing again.



7.7. Radiated Restricted Band Edge Measurement

7.7.1.Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(2)
13.36 - 13.41			

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

FCC Part 15 Subpart C Paragraph 15.209							
Frequency	Field Strength	Measured Distance					
[MHz]	[uV/m]	[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					

7.7.2.Test Procedure Used

ANSI C63.10-2013 Section 6.3 (General Requirements)

ANSI C63.10-2013 Section 6.6 (Standard test method above 1GHz)

ANSI C63.10-2013 Section 11.13

7.7.3.Test Setting

Peak Field Strength Measurements

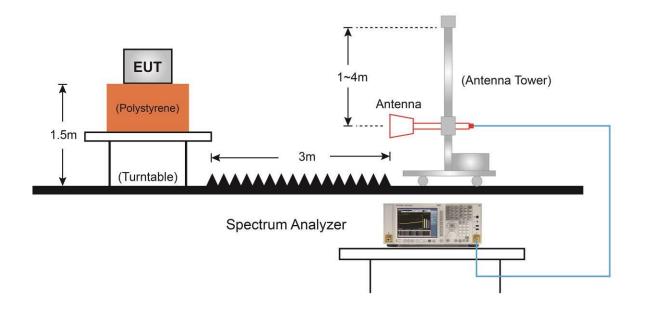
- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize



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. 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

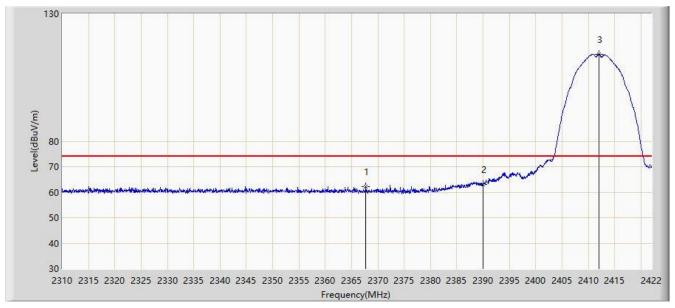
7.7.4.Test Setup





7.7.5.Test Result

Site: AC1	Time: 2020/07/13 - 16:53				
Limit: FCC_Part15.209_RSE(3m)	Engineer: Jay Chu				
Probe: BBHA 9120D (1GHz~18GHz)	Polarity: Horizontal				
EUT: ACCESS POINT	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2412MHz					

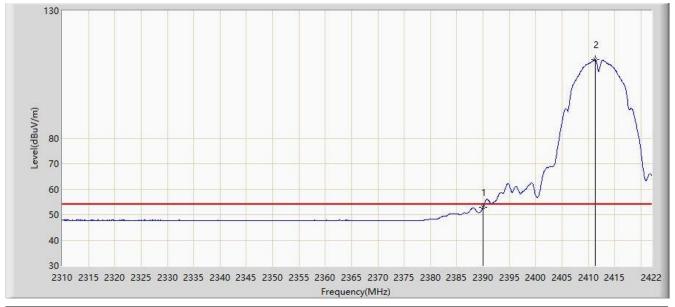


No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2367.680	62.276	30.078	-11.724	74.000	32.197	PK
2			2390.000	63.162	30.866	-10.838	74.000	32.296	PK
3		*	2412.032	114.143	81.751	N/A	N/A	32.392	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



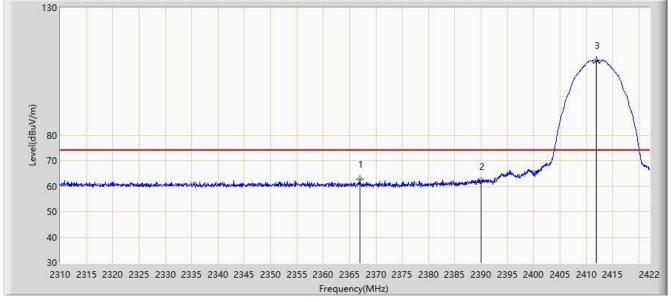
Site: AC1	Time: 2020/07/13 - 17:01				
Limit: FCC_Part15.209_RSE(3m)	Engineer: Jay Chu				
Probe: BBHA 9120D (1GHz~18GHz)	Polarity: Horizontal				
EUT: ACCESS POINT	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2412MHz					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	53.036	20.740	-0.964	54.000	32.296	AV
2	Х	*	2411.304	110.833	78.444	N/A	N/A	32.389	AV



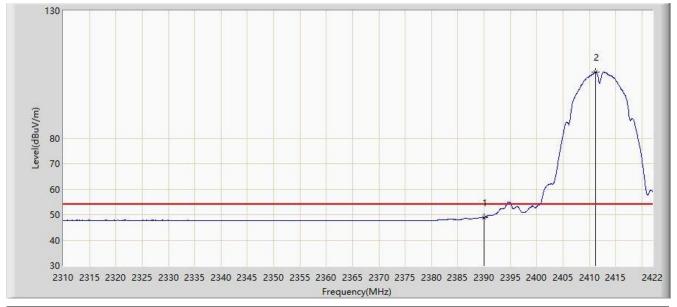
Site: AC1	Time: 2020/07/13 - 17:03				
Limit: FCC_Part15.209_RSE(3m)	Engineer: Jay Chu				
Probe: BBHA 9120D (1GHz~18GHz)	Polarity: Vertical				
EUT: ACCESS POINT	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2412MHz					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2366.952	62.690	30.495	-11.310	74.000	32.194	PK
2			2390.000	61.753	29.457	-12.247	74.000	32.296	PK
3		*	2411.864	109.380	76.988	N/A	N/A	32.392	PK



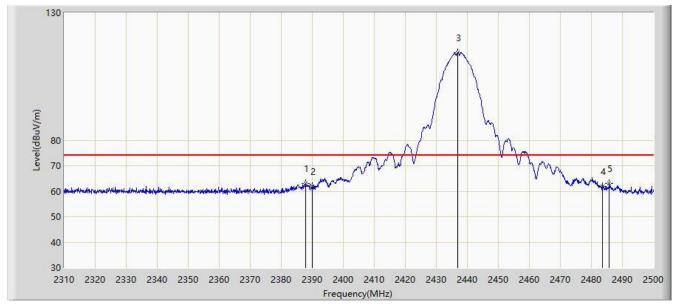
Site: AC1	Time: 2020/07/13 - 17:05				
Limit: FCC_Part15.209_RSE(3m)	Engineer: Jay Chu				
Probe: BBHA 9120D (1GHz~18GHz)	Polarity: Vertical				
EUT: ACCESS POINT	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2412MHz					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	48.886	16.590	-5.114	54.000	32.296	AV
2		*	2411.136	106.015	73.627	N/A	N/A	32.388	AV



Site: AC1	Time: 2020/07/24 - 02:08				
Limit: FCC_Part15.209_RSE(3m)	Engineer: Jay Chu				
Probe: BBHA 9120D (1GHz~18GHz)	Polarity: Horizontal				
EUT: ACCESS POINT	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2437MHz					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2387.900	62.931	30.644	-11.069	74.000	32.287	PK
2			2390.000	62.018	29.722	-11.982	74.000	32.296	PK
3		*	2436.825	114.345	81.843	N/A	N/A	32.502	PK
4			2483.500	61.938	29.230	-12.062	74.000	32.707	PK
5			2485.750	63.066	30.349	-10.934	74.000	32.717	PK



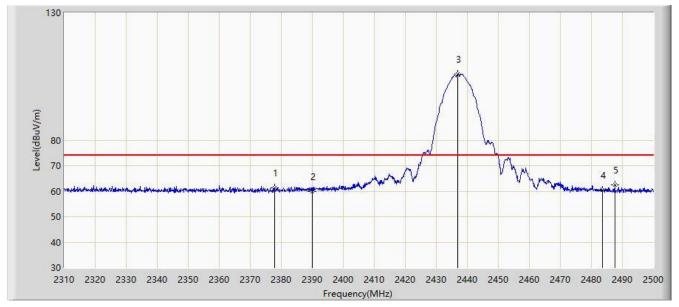
Site: AC1	Time: 2020/07/24 - 02:11				
Limit: FCC_Part15.209_RSE(3m)	Engineer: Jay Chu				
Probe: BBHA 9120D (1GHz~18GHz)	Polarity: Horizontal				
EUT: ACCESS POINT	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2437MHz					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2388.185	51.610	19.322	-2.390	54.000	32.288	AV
2			2390.000	49.552	17.256	-4.448	54.000	32.296	AV
3	Х	*	2436.160	110.932	78.433	N/A	N/A	32.500	AV
4			2483.500	49.415	16.707	-4.585	54.000	32.707	AV
5			2485.750	50.594	17.877	-3.406	54.000	32.717	AV



Site: AC1	Time: 2020/07/24 - 02:17				
Limit: FCC_Part15.209_RSE(3m)	Engineer: Jay Chu				
Probe: BBHA 9120D (1GHz~18GHz)	Polarity: Vertical				
EUT: ACCESS POINT	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2437MHz					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2377.830	61.248	29.006	-12.752	74.000	32.242	PK
2			2390.000	59.967	27.671	-14.033	74.000	32.296	PK
3		*	2436.825	105.948	73.446	N/A	N/A	32.502	PK
4			2483.500	60.302	27.594	-13.698	74.000	32.707	PK
5			2487.555	62.416	29.691	-11.584	74.000	32.725	PK