



# 7.5. Conducted Band Edge and Out-of-Band Emissions

#### 7.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 30dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100 kHz bandwidth per the PSD procedure.

## 7.5.2. Test Procedure Used

KDB 558074 D01v03r05 - Section 11.2 & Section 11.3

#### 7.5.3. Test Settitng

#### 1. Reference level measurement

- (a) Set instrument center frequency to DTS channel center frequency
- (b) Set the span to  $\geq$  1.5 times the DTS bandwidth
- (c) Set the RBW = 100 kHz
- (d) Set the VBW  $\geq$  3 x RBW
- (e) Detector = peak
- (f) Sweep time = auto couple
- (g) Trace mode = max hold
- (h) Allow trace to fully stabilize

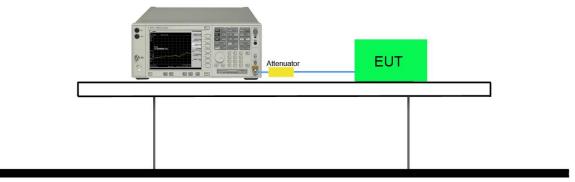
#### 2. Emission level measurement

- (a) Set the center frequency and span to encompass frequency range to be measured
- (b) RBW = 100kHz
- (c) VBW = 300kHz
- (d) Detector = Peak
- (e) Trace mode = max hold
- (f) Sweep time = auto couple
- (g) The trace was allowed to stabilize



## 7.5.4. Test Setup

# Spectrum Analyzer

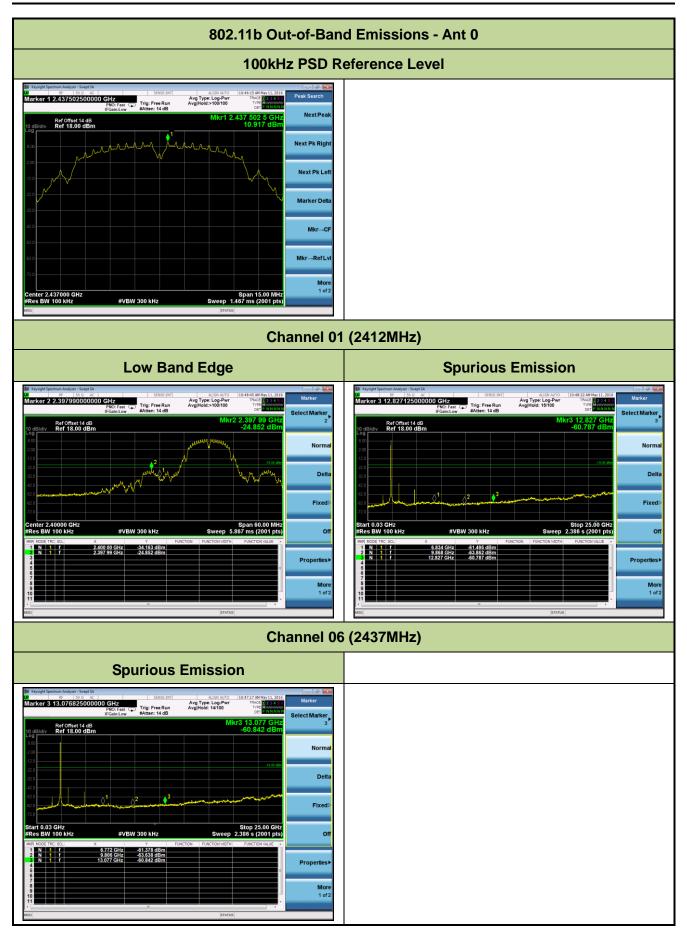




# 7.5.5. Test Result

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Limit	Result
Ant 1					
802.11b	1	01	2412	30dBc	Pass
802.11b	1	06	2437	30dBc	Pass
802.11b	1	11	2462	30dBc	Pass
802.11g	6	01	2412	30dBc	Pass
802.11g	6	06	2437	30dBc	Pass
802.11g	6	11	2462	30dBc	Pass
802.11n-HT20	6.5	01	2412	30dBc	Pass
802.11n-HT20	6.5	06	2437	30dBc	Pass
802.11n-HT20	6.5	11	2462	30dBc	Pass
802.11n-HT40	13.5	03	2422	30dBc	Pass
802.11n-HT40	13.5	06	2437	30dBc	Pass
802.11n-HT40	13.5	09	2452	30dBc	Pass
Ant 2					
802.11g	6	01	2412	30dBc	Pass
802.11g	6	06	2437	30dBc	Pass
802.11g	6	11	2462	30dBc	Pass
802.11n-HT20	6.5	01	2412	30dBc	Pass
802.11n-HT20	6.5	06	2437	30dBc	Pass
802.11n-HT20	6.5	11	2462	30dBc	Pass
802.11n-HT40	13.5	03	2422	30dBc	Pass
802.11n-HT40	13.5	06	2437	30dBc	Pass
802.11n-HT40	13.5	09	2452	30dBc	Pass
Ant 0 / Ant 0 + 1					
802.11n-HT20	13	01	2412	30dBc	Pass
802.11n-HT20	13	06	2437	30dBc	Pass
802.11n-HT20	13	11	2462	30dBc	Pass
802.11n-HT40	27	03	2422	30dBc	Pass
802.11n-HT40	27	06	2437	30dBc	Pass
802.11n-HT40	27	09	2452	30dBc	Pass

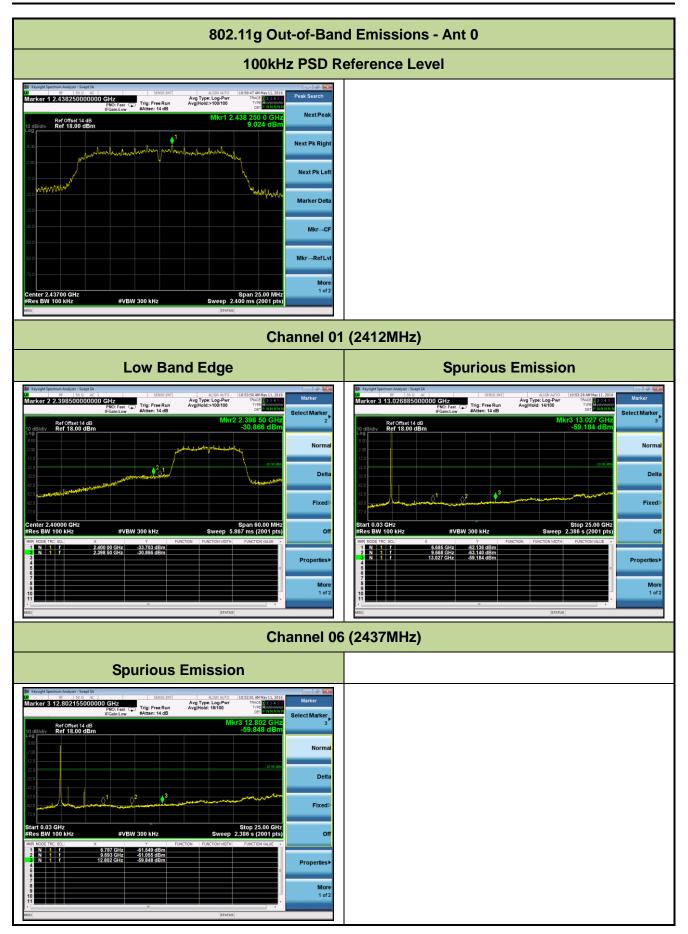






Channel 11 (2462MHz)			
High Band Edge	Spurious Emission		
BF     So AC     SENSE:INT     ALION AUTO     10.4912 (May 11, 2016)       Marker 1 2.4835000000000 GHz     FRO: Fast     Trig: Free Run     Avg Type: Log-Pwr     TRACE 12.3.8.51     M	Kerveriget Spectrom Averget See Sweet Sta arker Marker 3 13.026885000000 CH2 SWEET AVER SWEET A		
	Pixed		
Center 2,48350 GHz Span 80.00 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 7,733 ms (200 1 Pts) Bwn Mode res Sci. x y Function Functionwave -	Off     Storp 25.00 GHz       Start 0.03 GHz     \$top 25.00 GHz       Off     #Res BW 100 kHz     #VBW 300 kHz     \$weep 2.386 s (2001 pts)       MR Mode The Lac.     x     Y     Function induction for the control induction inductin induction induction inductinduction inductin inductin in		
N     1     1     2.483 50 GHz     -58.386 dBm       3     -	1     N     1     f     6535 GHz     40.587 dBm     -       operties>     N     1     f     9.843 GHz     -     -     -     Properties>       N     1     f     1.3627 GHz     -     -     -     -     Properties>       More     -<		
STATUS	M5G STATUS		

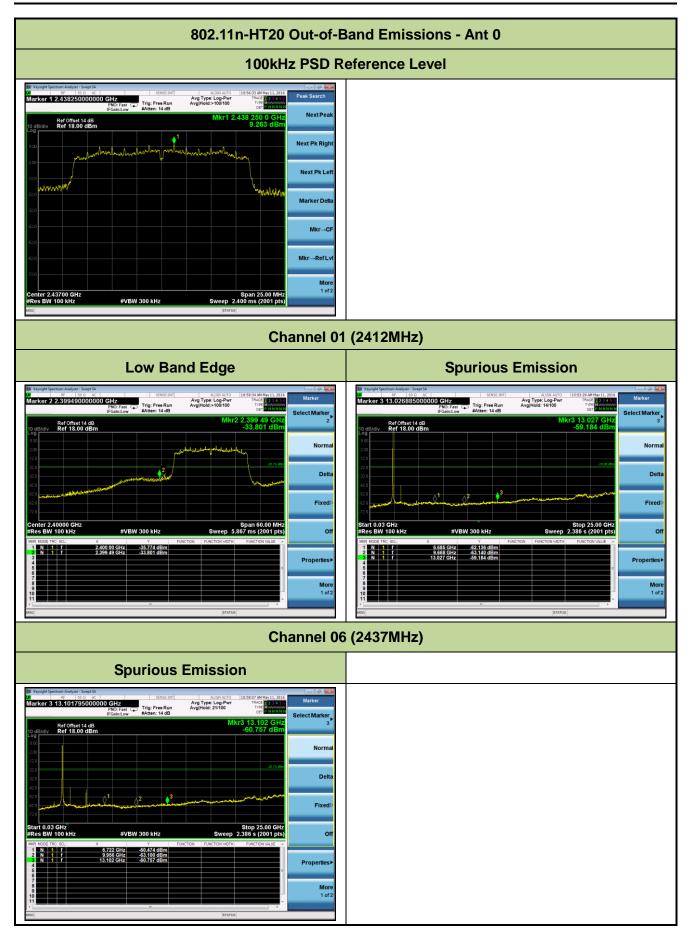






Channel 11 (2462MHz)		
High Band Edge	Spurious Emission	
Consist 14 dB Consist	Keynet Spectrum Analyzer - Swept SA. SNOE INIT ALIGN DITO LESS 17 Add test 11, 2014   Marker 3 12,2827 (25000000 CFL at TRG init Low Trig: Free Run Arg initial is 1600 Arg initial is 1000 Trig: Steat 11, 2014 Marker   Select Marker 10 dBlddv Ref Offset 14 dB Ref 046 e0 dBm Mkr3 12, 227 CFL 20 (2014) Mkr3 12, 227 CFL 20 (2014) Normal   20 Initial is 1000 Initial is 1000 Initial is 1000 Initial is 1000   20 Initial is 1000 Initial is 1000 Initial is 1000 Initial is 1000   20 Initial is 1000 Initial is 1000 Initial is 1000 Initial is 1000   20 Initial is 1000 Initial is 1000 Initial is 1000 Initial is 1000   20 Initial is 1000 Initial is 1000 Initial is 1000 Initial is 1000   20 Initial is 1000 Initial is 1000 Initial is 1000 Initial is 1000   20 Initial is 1000 Initial is 1000 Initial is 1000 Initial is 1000   20 Initial is 1000 Initial is 1000 Initial is 1000 Initial is 1000   20 Initial is 1000 Initial is 1000 Initial is 1000 Initial is 1000   20 Initial is 1000 Initial is 1000 Initial is 1000 Initial is 10000	
Center 2.48350 GHz     SVBW 300 kHz     Sveep 7.733 ms (2001 MHz)     Off       IMPL HOCK THE ISCU     X     Y     Flaction     Flacti	Start 0.03 GHz     #VBW 300 kHz     Stop 25.00 GHz     Orr       #Res BW 100 kHz     \$\$ VPW 300 kHz     \$\$ Sweep 2.386 \$ (2001 pts)     Orr       More Mode Trc: Sci.     \$\$ V     \$\$ Punction	

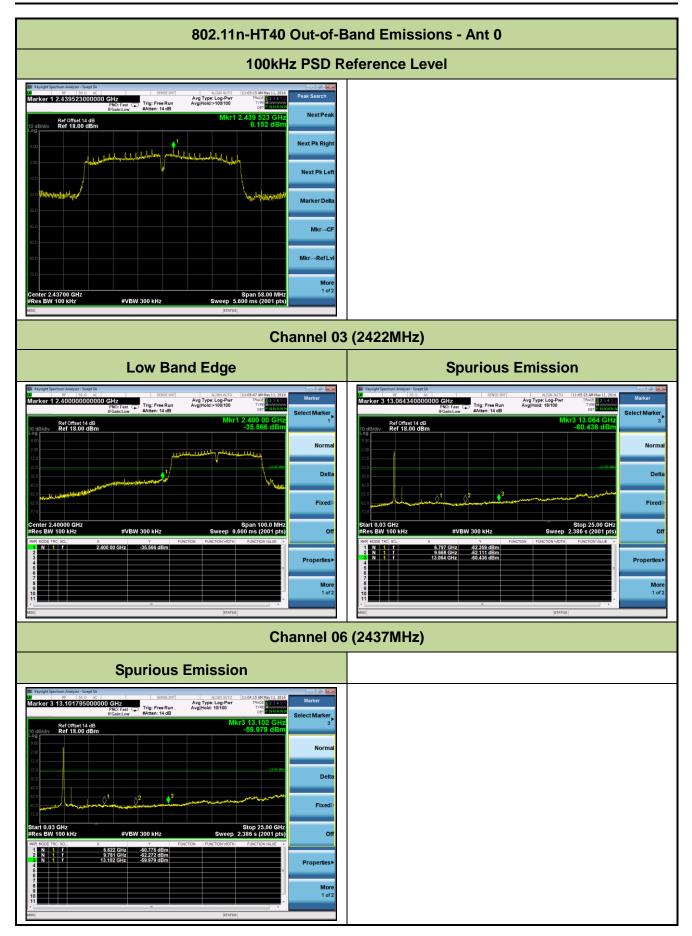






Channel 11 (2462MHz)			
High Band Edge	Spurious Emission		
Reverted Spectrum Analyzer - Swegt SA     Scotter (MT)     Augu Autro     Turn State     Scotter (MT)     Augu Autro     Turn State     Scotter (MT)     Marker     Scotter (MT) </th <th>Keyedia Spectrum Analyzer - Sneg LA     Store LA     Store LA     Store LA     Marker 3 12,989 3000000 GHz     Marker 3 12,989 3000000 GHz     Marker 3 12,989 3000000 GHz     Marker 3 12,989 GHz     Marker 3 12,989 GHz     Store LA     Marker 3 12,989 GHz     Marker 3 12,989 GHZ</th>	Keyedia Spectrum Analyzer - Sneg LA     Store LA     Store LA     Store LA     Marker 3 12,989 3000000 GHz     Marker 3 12,989 3000000 GHz     Marker 3 12,989 3000000 GHz     Marker 3 12,989 GHz     Marker 3 12,989 GHz     Store LA     Marker 3 12,989 GHz     Marker 3 12,989 GHZ		
More 1 of 2	More 1 of 2 of		

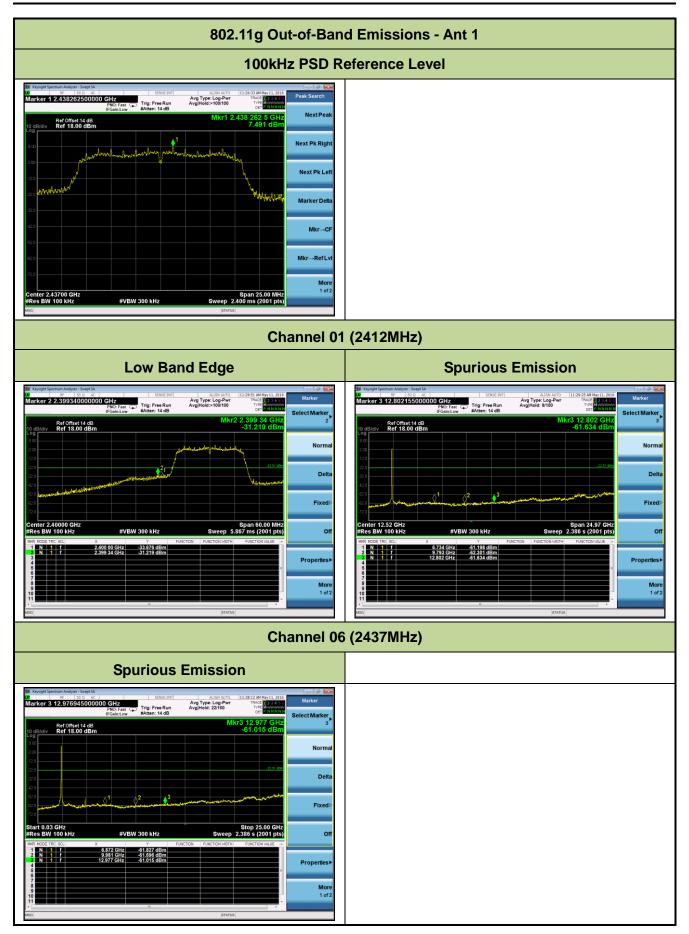






Spurious Emission
NP     Store     Store     Store     Allow Autor     11.8269.4M May 12.2016     Marker       Larkor 3 12.889550000000 GHz PRO: Fast Brickinkow     Trig: Free Run Brickinkow     Trig: Free Run AvglHold: 7/100     Trig: Free Run Comparison of the store attent: 14 dB     Marker     Science Marker Comparison of the store Comparison of the s
270 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
tart 0.03 GHz Stop 25.00 GHz #VBW 300 kHz Sweep 2.386 s (2001 pts) RR INCOE THC SCL X Y FUNCTION FUNCTION FUNCTION VALUE →
1     N     1     f     6.800 GHz     41.203 dBm       2     N     1     f     9.716 dHz     42.878 dBm       2     N     1     f     9.716 dHz     42.878 dBm       2     N     1     f     9.716 dHz     42.878 dBm       6     6     6     6     6     6       7     6     6     6     6     6       9     6     6     6     6     6       10     1     1     1.36 dBm     6     6       11     1     1     1.078 dBm     6     6
I

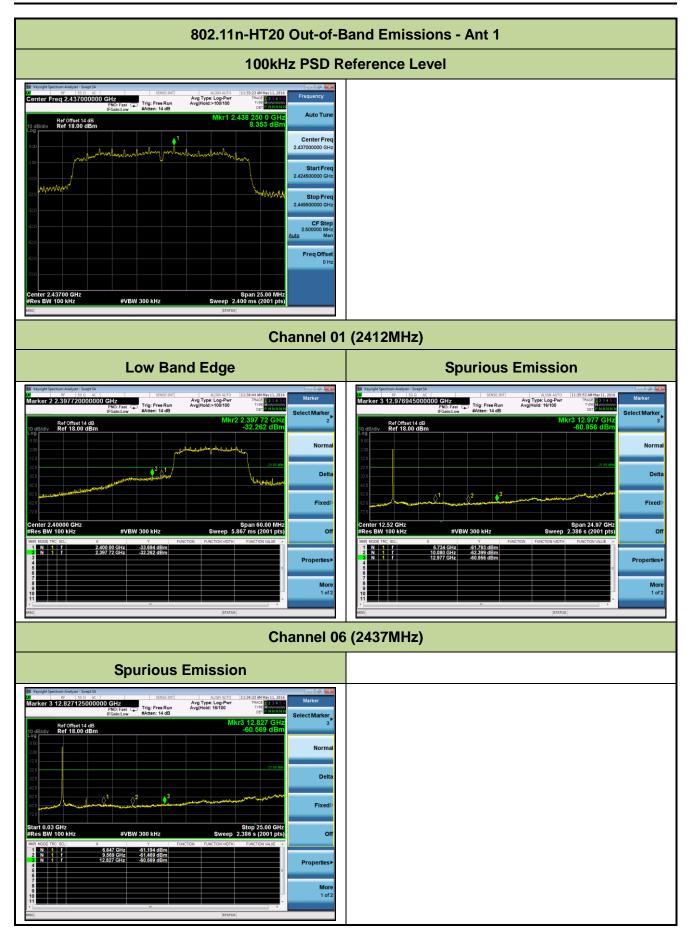






Channel 11 (2462MHz)		
High Band Edge	Spurious Emission	
Rf offset 14 dB     State     State     Marker     State	Kryopit Spectrum Audiger - Sengel SA.     Strikl SM*     Align Aufro     113/31/344 Nov 11, 2016     Align Aufro     113/31/344 Nov 11, 2016     Align Aufro     Marker     Marker     Arg Type: Log-Pwr     Arg Type: Log-Pwr     Marker     Marker     Select Marker	
Image: Normal Solution     Yes     Flactor     Flactor	Total     Start 0.03 GHz     Stop 25.00 GHz     Off       #Res BW 100 kHz     #VBW 300 kHz     Sweep 2.386 s (2001 pts)     Off       MW Note Christian     \$ 47 GHz     42 GHz     Off     Off       N N     1     f     5472 GHz     42 GHz     Function	
MSG STATUS	MSG STATUS	

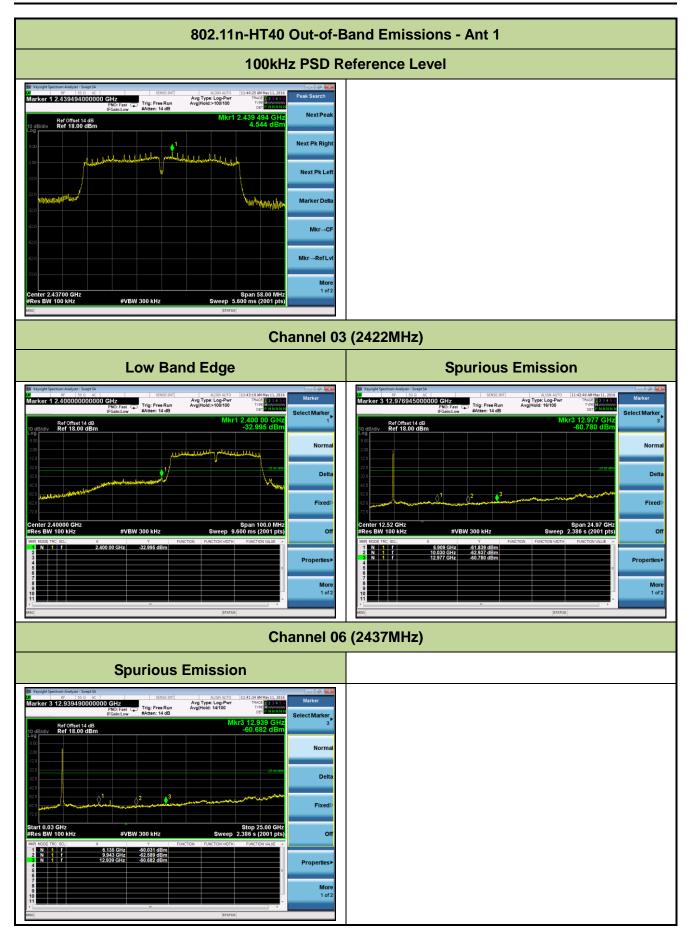






Channel 11 (2462MHz)			
High Band Edge	Spurious Emission		
Keysight Spectrum Analyzer - Swept SA. Set Set Set Set Set Set Set Set Set	Kongigit Spectrum Andjær - Smigt SA Kongigit Spectrum Andjær - Smigt Spectrum		
10 dBluiv Ref 18.00 dBm -35.810 dBm 800 300 120	10 dBidW Ref 18.00 dBm -61.114 Clsm		
220			
Zo     Center 2,43350 GHz     \$\$ VBW 300 kHz     \$\$ Span 80.00 MHz     \$\$ Span 80.00 MHz       #Res BW 100 kHz     \$\$ Weep 7.733 ms (2001 pts)     Off	Start 6.03 GHz     #VBW 300 kHz     Stop 25.00 GHz     Off       #Res BW 100 kHz     Sweep 2.386 s (2001 pts)     Off		
N     1     f     2.483.50 GHz     →38.107.dBm       3     N     f     2.485.42 GHz     →35.810 dBm     Properties>       4     -     -     -     -     -     -     -     -     -     Properties>       6     -     -     -     -     -     -     -     -     -     Properties>	1     N     1     f     5697 GHz     -40833 BBm       2     N     1     f     9988 GHz     -42423 BBm       N     1     f     13.089 GHz     -41.114 dBm     -       6     -     -     -     -     -     -     Properties >       7     - </td		
More 10 11 11 10 10 10 10 10 10 10 10 10 10	More 1 of 2		

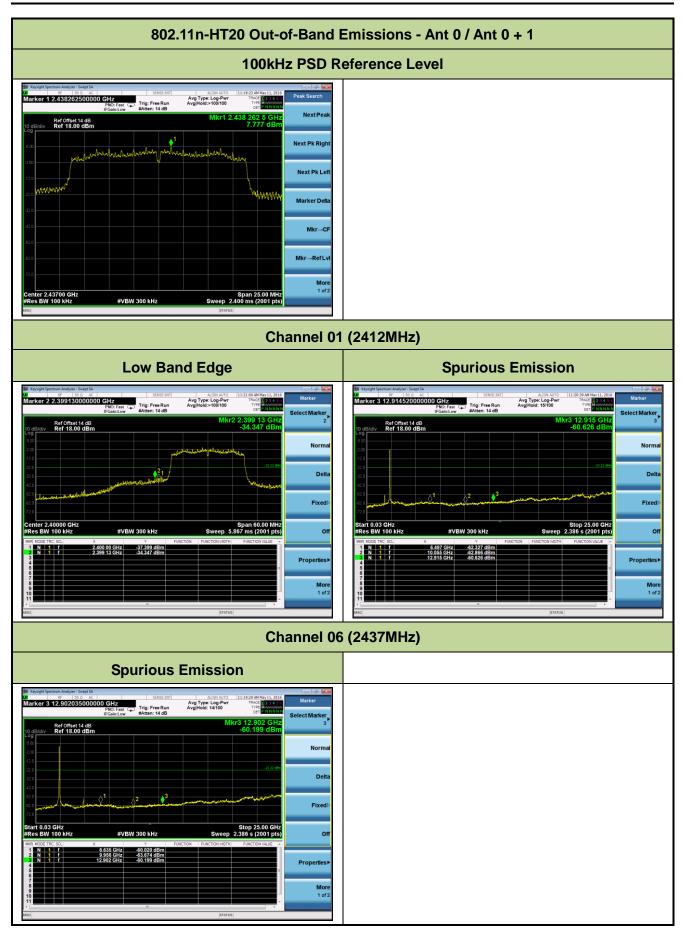






Channel 09 (2452MHz)			
High Band Edge	Spurious Emission		
Revolution     Construction     August Addition     Marker     August Addition     Marker     August Addition     Marker     Marker     August Addition     Marker     Marker     Marker     August Addition     Marker     Marker     August Addition     Marker     Marker     Marker     Marker     Marker     August Addition     Marker     Marker     Marker     Construction     Marker     Select Marker     S	Open State     State Art     State Art     Auto Auto     11492.14 Mint 1, 2016     Marker       Marker 3 12.9644600000000 GHz IF GalacLow     Trig: Free Run Autors 14 dB     Auto Auto     11492.14 Mint 1, 2016     Marker     State Trig: Free Run AvgiHoid: 9100     Trig: Free Run AvgiHoid: 9100     Marker     Select Marker Select Marker     Select Marker Select Marker     Select Marker Select Marker     Select Marker Select Marker       10 debdiw     Ref 13.00 dBm     -59.884 dBm     -59.884 dBm     Select Marker		
Center 2,48350 GHz Span 120.0 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 11.60 ms (2001 pts) Wet woot The St. x y Function   Punction work  Function water =	Start 0.03 GHz     Stop 25.00 GHz       #Res BW 100 kHz     #VBW 300 kHz     Sweep 2.386 s (2001 pts)       MR NODE THE SQL     X     Y     Function workini     Function workini		
1     N     1     f     2.483.50 GHz     -36.812 dBm     Properties       3     1     f     2.489.56 GHz     -32.506 dBm     Properties     Properties       4     -     -     -     -     -     -     Properties       7     -	1     1     f     6.2797 GHz     -4.22413 dBm     Properties       2     N     1     f     9716 GHz     -43042 dBm     Properties       3     N     1     f     12.984 GHz     -43042 dBm     Properties       6     -     -     -     -     -     Properties       7     -     -     -     -     -     -     Properties       6     -     -     -     -     -     -     -     -     Properties		
MSG STATUS	NSO STATUS		

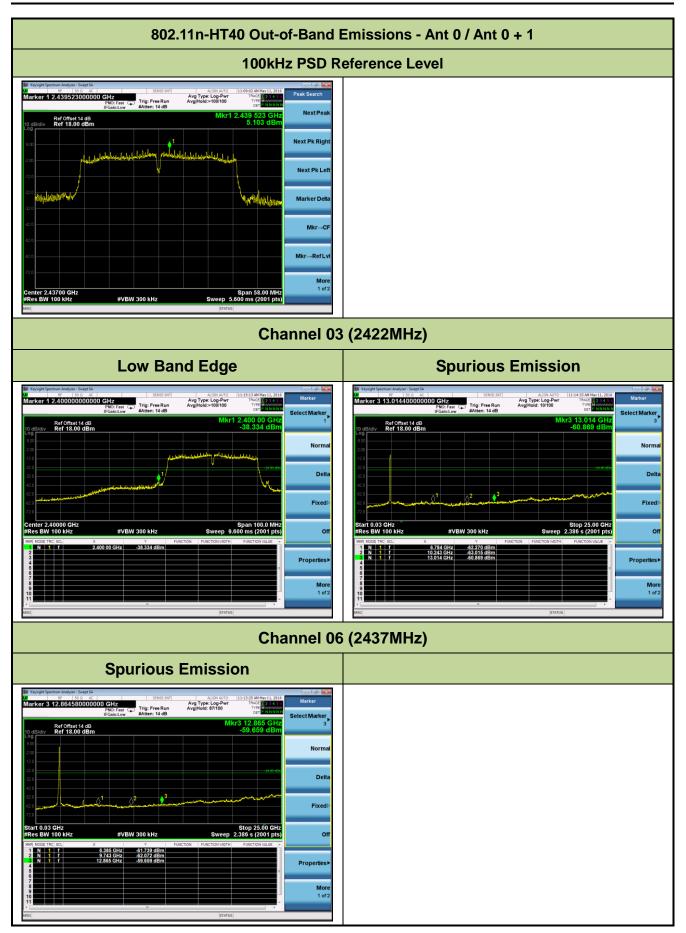






Channel 11 (2462MHz)		
High Band Edge	Spurious Emission	
It bruget spectrum Andjour Sweet 54     School MC     Aught Auffor     School MC     Marker       Marker 1 2.483460000000 GHz France     School MC     Aught Auffor     Trace Parks     Trace Parks     Marker       0 dBidly     Ref Offset 14 dB     Marker 1 2.48346 GHZ     Marker     Aught Auffor     Trace Parks     School MC     Marker       0 dBidly     Ref Offset 14 dB     Marker     Marker 4.483.46 GHZ     School MC	Keynold Spectrum Analyzer - Snegt SA     Select ST     Align Auftor     112239 AM Harp 11280     Marker       Marker 3 13.0001915000000 GHz PPOC Fast Control     Trig: Free Run Addition     Arg Type: Log-Por Arg Type: Log-P	
Image     Image <th< td=""><td>Metric SW 100 kr/z     ×VSW 300 kr/z     Sweep     Za30 5 (2001 pts)     Oil       More Tec Sk1     X     Y     Pactor     Pactor</td></th<>	Metric SW 100 kr/z     ×VSW 300 kr/z     Sweep     Za30 5 (2001 pts)     Oil       More Tec Sk1     X     Y     Pactor	







Channel 09 (2452MHz)			
High Band Edge	Spurious Emission		
Knypet Spectrum Analyzer - Swept Sa.     State Early     Aug Type - Log Pure Aug Type - Log Pure Aug Type - Log Pure Aug Type - Log Pure Pure - Log Pure Aug Type - Log Pure Pure - Log Pure - Log Pure Pure - Log Pure - Log Pure - Log Pure Pure - Log Pure - Log Pure - Log Pure Pure - Log Pure - Lo	Keydet Spectrum Andree - Senget SA. Stock ST Align Autor 11:63:24 Market 1:381   Marker 3 12:802:155:000000 GHz (PC) Tag: PCO trace Trg: Free Rum BAtter: 14:80 Ang Type: Log Per Ang Type: Log		
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## 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 [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

## 7.6.2. Test Procedure Used

KDB 558074 D01v03r05 - Section 12.2.3 (quasi-peak measurements)

KDB 558074 D01v03r05 - Section 12.2.4 (peak power measurements)

KDB 558074 D01v03r05 - Section 12.2.5 (average power measurements)

## 7.6.3. 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 = 3MHz
- 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

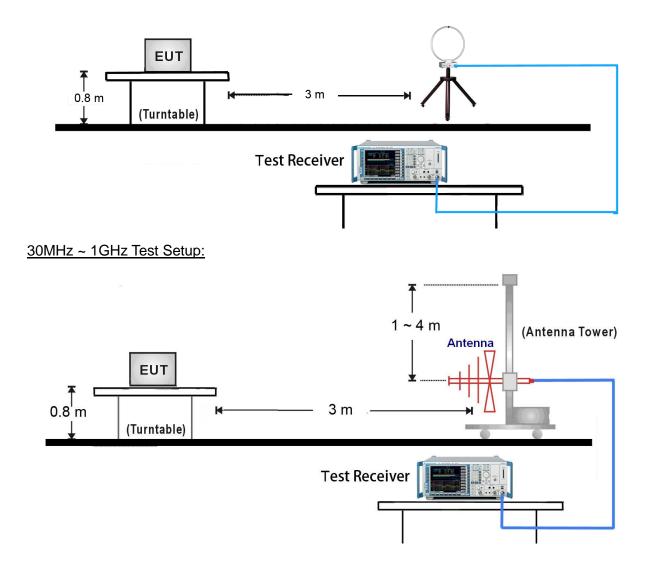
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest

- 2.RBW = 1MHz
- $3.VBW \ge 1/T$
- 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



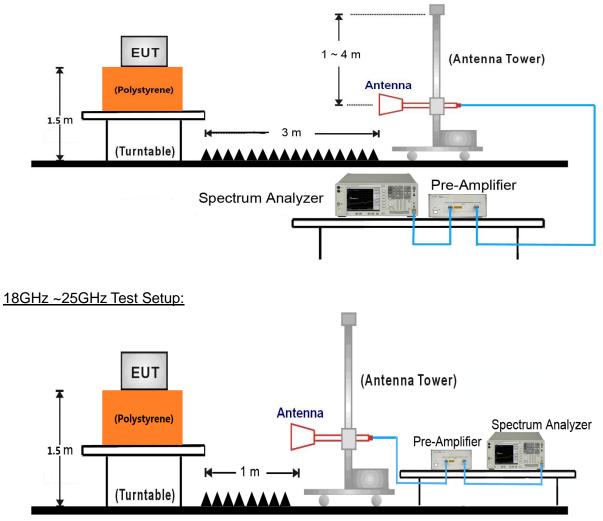
## 7.6.4. Test Setup

9kHz ~ 30MHz Test Setup:











## 7.6.5. Test Result

Test Mode:	802.11b - Ant 0	Test Site:	AC1						
Test Channel:	01	Test Engineer:	Roy Cheng						
Remark:	1. Average measurement was no	1. 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)				
	3890.0	37.2	0.2	37.4	74.0	-36.6	Peak	Horizontal
	4825.0	37.2	2.7	39.9	74.0	-34.1	Peak	Horizontal
*	6661.0	35.3	6.0	41.3	79.3	-38.0	Peak	Horizontal
*	9644.5	34.9	11.0	45.9	79.3	-33.4	Peak	Horizontal
	3805.0	37.7	-0.2	37.5	74.0	-36.5	Peak	Vertical
	4825.0	39.5	2.7	42.2	74.0	-31.8	Peak	Vertical
*	6482.5	36.1	5.9	42.0	79.3	-37.3	Peak	Vertical
*	9729.5	34.4	11.1	45.5	79.3	-33.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (109.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11b - Ant 0	Test Site:	AC1						
Test Channel:	06	Test Engineer:	Roy Cheng						
Remark:	1. Average measurement was no	1. 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)				
	4876.0	42.3	2.7	45.0	74.0	-29.0	Peak	Horizontal
	7315.5	39.3	8.0	47.3	74.0	-26.7	Peak	Horizontal
*	8743.5	35.7	9.0	44.7	78.3	-33.6	Peak	Horizontal
*	9772.0	33.9	11.4	45.3	78.3	-33.0	Peak	Horizontal
	4876.0	45.6	2.7	48.3	74.0	-25.7	Peak	Vertical
	7307.0	44.0	8.0	52.0	74.0	-22.0	Peak	Vertical
*	8624.0	35.0	8.8	43.8	78.3	-34.5	Peak	Vertical
*	9835.0	32.4	11.6	44.0	78.3	-34.3	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (108.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11b - Ant 0	Test Site:	AC1				
Test Channel:	11	Test Engineer:	Roy Cheng				
Remark:	1. Average measurement was no	ot 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)				
	4875.0	35.1	2.7	37.8	74.0	-36.2	Peak	Horizontal
	7452.0	35.2	8.1	43.3	74.0	-30.7	Peak	Horizontal
*	9284.0	33.4	10.3	43.7	77.3	-33.6	Peak	Horizontal
*	12935.0	33.7	12.1	45.8	77.3	-31.5	Peak	Horizontal
	4927.0	39.6	2.8	42.4	74.0	-31.6	Peak	Vertical
	7383.5	38.0	7.9	45.9	74.0	-28.1	Peak	Vertical
*	8754.0	33.8	9.0	42.8	77.3	-34.5	Peak	Vertical
*	12963.0	34.9	12.1	47.0	77.3	-30.3	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (107.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11g - Ant 0	Test Site:	AC1				
Test Channel:	01	Test Engineer:	Roy Cheng				
Remark:	1. Average measurement was no	ot 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)				
	4863.0	35.3	2.7	38.0	74.0	-36.0	Peak	Horizontal
	7585.0	34.7	8.2	42.9	74.0	-31.1	Peak	Horizontal
*	9254.0	34.1	10.2	44.3	78.0	-33.7	Peak	Horizontal
*	12854.0	33.6	11.9	45.5	78.0	-32.5	Peak	Horizontal
	4825.0	35.7	2.7	38.4	74.0	-35.6	Peak	Vertical
	7256.0	34.9	7.9	42.8	74.0	-31.2	Peak	Vertical
*	9636.0	36.2	11.0	47.2	78.0	-30.8	Peak	Vertical
*	12837.0	33.9	11.9	45.8	78.0	-32.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (108.0dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11g - Ant 0	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Roy Cheng					
Remark:	1. Average measurement was no	ot 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)				
	4876.0	39.4	2.7	42.1	74.0	-31.9	Peak	Horizontal
	7307.0	38.2	8.0	46.2	74.0	-27.8	Peak	Horizontal
*	8974.0	34.3	9.0	43.3	83.3	-40.0	Peak	Horizontal
*	12879.0	34.1	12.0	46.1	83.3	-37.2	Peak	Horizontal
	4876.0	42.2	2.7	44.9	74.0	-29.1	Peak	Vertical
	7315.5	42.4	8.0	50.4	74.0	-23.6	Peak	Vertical
*	9619.0	35.6	10.9	46.5	83.3	-36.8	Peak	Vertical
*	12875.0	34.5	12.0	46.5	83.3	-36.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (113.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11g - Ant 0	Test Site:	AC1				
Test Channel:	11	Test Engineer:	Roy Cheng				
Remark:	1. Average measurement was no	ot 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)				
	3907.0	37.5	0.2	37.7	74.0	-36.3	Peak	Horizontal
	4825.0	35.9	2.7	38.6	74.0	-35.4	Peak	Horizontal
*	6576.0	36.1	6.0	42.1	78.6	-36.5	Peak	Horizontal
*	9746.5	34.9	11.3	46.2	78.6	-32.4	Peak	Horizontal
	3839.0	37.4	0.0	37.4	74.0	-36.6	Peak	Vertical
	4791.0	36.6	2.7	39.3	74.0	-34.7	Peak	Vertical
*	6482.5	36.3	5.9	42.2	78.6	-36.4	Peak	Vertical
*	9636.0	33.8	11.0	44.8	78.6	-33.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (108.6dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1					
Test Channel:	01	Test Engineer:	Roy Cheng					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	3745.5	37.7	-0.4	37.3	74.0	-36.7	Peak	Horizontal
	4825.0	36.0	2.7	38.7	74.0	-35.3	Peak	Horizontal
*	6601.5	35.6	6.0	41.6	75.7	-34.1	Peak	Horizontal
*	9636.0	34.7	11.0	45.7	75.7	-30.0	Peak	Horizontal
	3762.5	37.2	-0.3	36.9	74.0	-37.1	Peak	Vertical
	4689.0	36.1	2.3	38.4	74.0	-35.6	Peak	Vertical
*	6431.5	35.4	5.6	41.0	75.7	-34.7	Peak	Vertical
*	9678.5	34.5	10.9	45.4	75.7	-30.3	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (105.7dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Roy Cheng					
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)				
	4867.5	39.2	2.7	41.9	74.0	-32.1	Peak	Horizontal
	7307.0	37.3	8.0	45.3	74.0	-28.7	Peak	Horizontal
*	8718.0	35.1	9.0	44.1	87.2	-43.1	Peak	Horizontal
*	9602.0	34.8	10.9	45.7	87.2	-41.5	Peak	Horizontal
	4876.0	39.8	2.7	42.5	74.0	-31.5	Peak	Vertical
	7315.5	38.7	8.0	46.7	74.0	-27.3	Peak	Vertical
*	8616.0	34.9	8.8	43.7	87.2	-43.5	Peak	Vertical
*	9899.5	34.1	11.6	45.7	87.2	-41.5	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (117.2dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1					
Test Channel:	11	Test Engineer:	Roy Cheng					
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	37.9	-0.2	37.7	74.0	-36.3	Peak	Horizontal
	4808.0	36.6	2.7	39.3	74.0	-34.7	Peak	Horizontal
*	6440.0	35.5	5.7	41.2	76.5	-35.3	Peak	Horizontal
*	9738.0	34.1	11.2	45.3	76.5	-31.2	Peak	Horizontal
	3813.5	36.9	-0.2	36.7	74.0	-37.3	Peak	Vertical
	4876.0	36.5	2.7	39.2	74.0	-34.8	Peak	Vertical
*	6542.0	35.6	5.9	41.5	76.5	-35.0	Peak	Vertical
*	9627.5	35.2	11.0	46.2	76.5	-30.3	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (106.5dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11n-HT40 - Ant 0	Test Site:	AC1					
Test Channel:	03	Test Engineer:	Roy Cheng					
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)				
	3822.0	36.6	-0.1	36.5	74.0	-37.5	Peak	Horizontal
	4757.0	35.9	2.6	38.5	74.0	-35.5	Peak	Horizontal
*	6678.0	36.3	5.9	42.2	74.0	-31.8	Peak	Horizontal
*	9653.0	33.9	11.0	44.9	74.0	-29.1	Peak	Horizontal
	3847.5	37.8	0.0	37.8	74.0	-36.2	Peak	Vertical
	4825.0	35.9	2.7	38.6	74.0	-35.4	Peak	Vertical
*	6610.0	35.2	6.0	41.2	74.0	-32.8	Peak	Vertical
*	9678.5	34.9	10.9	45.8	74.0	-28.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (101.5dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11n-HT40 - Ant 0	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Roy Cheng					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB bel	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)				
	3856.0	36.7	0.1	36.8	74.0	-37.2	Peak	Horizontal
	4774.0	35.8	2.6	38.4	74.0	-35.6	Peak	Horizontal
*	6593.0	35.4	6.0	41.4	79.8	-38.4	Peak	Horizontal
*	9610.5	34.5	10.9	45.4	79.8	-34.4	Peak	Horizontal
	4893.0	38.6	2.7	41.3	74.0	-32.7	Peak	Vertical
	7349.5	39.7	8.0	47.7	74.0	-26.3	Peak	Vertical
*	8905.0	34.0	9.2	43.2	79.8	-36.6	Peak	Vertical
*	9857.0	33.2	11.6	44.8	79.8	-35.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (109.8dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11n-HT40 - Ant 0	Test Site:	AC1					
Test Channel:	09	Test Engineer:	Roy Cheng					
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)				
	3847.5	36.8	0.0	36.8	74.0	-37.2	Peak	Horizontal
	4833.5	35.0	2.7	37.7	74.0	-36.3	Peak	Horizontal
*	6423.0	35.4	5.6	41.0	74.0	-33.0	Peak	Horizontal
*	9636.0	33.8	11.0	44.8	74.0	-29.2	Peak	Horizontal
	3830.5	36.9	-0.1	36.8	74.0	-37.2	Peak	Vertical
	4782.5	36.9	2.7	39.6	74.0	-34.4	Peak	Vertical
*	6482.5	35.6	5.9	41.5	74.0	-32.5	Peak	Vertical
*	9712.5	34.1	11.0	45.1	74.0	-28.9	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (102.0dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11g - Ant 1	Test Site:	AC1				
Test Channel:	01	Test Engineer:	Roy Cheng				
Remark:	1. 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)				
	3830.5	36.7	-0.1	36.6	74.0	-37.4	Peak	Horizontal
	4833.5	35.9	2.7	38.6	74.0	-35.4	Peak	Horizontal
*	6533.5	35.3	5.9	41.2	78.2	-37.0	Peak	Horizontal
*	9738.0	34.7	11.2	45.9	78.2	-32.3	Peak	Horizontal
	3873.0	36.2	0.1	36.3	74.0	-37.7	Peak	Vertical
	4825.0	36.5	2.7	39.2	74.0	-34.8	Peak	Vertical
*	6559.0	36.3	6.0	42.3	78.2	-35.9	Peak	Vertical
*	9763.5	33.7	11.4	45.1	78.2	-33.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (108.2dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11g - Ant 1	Test Site:	AC1				
Test Channel:	06	Test Engineer:	Roy Cheng				
Remark:	1. 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)				
	4867.5	35.7	2.7	38.4	74.0	-35.6	Peak	Horizontal
	7307.0	40.7	8.0	48.7	74.0	-25.3	Peak	Horizontal
*	8658.5	34.6	8.8	43.4	82.1	-38.7	Peak	Horizontal
*	9678.5	33.7	10.9	44.6	82.1	-37.5	Peak	Horizontal
	4859.0	37.3	2.7	40.0	74.0	-34.0	Peak	Vertical
	7307.0	45.6	8.0	53.6	74.0	-20.4	Peak	Vertical
*	8667.0	35.1	8.9	44.0	82.1	-38.1	Peak	Vertical
*	9899.5	34.2	11.6	45.8	82.1	-36.3	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (112.1dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11g - Ant 1	Test Site:	AC1				
Test Channel:	11	Test Engineer:	Roy Cheng				
Remark:	1. 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)				
	3847.5	37.3	0.0	37.3	74.0	-36.7	Peak	Horizontal
	4833.5	36.5	2.7	39.2	74.0	-34.8	Peak	Horizontal
*	6576.0	35.1	6.0	41.1	75.6	-34.5	Peak	Horizontal
*	9755.0	33.3	11.4	44.7	75.6	-30.9	Peak	Horizontal
	4876.0	35.8	2.7	38.5	74.0	-35.5	Peak	Vertical
	7383.5	37.6	7.9	45.5	74.0	-28.5	Peak	Vertical
*	8692.5	35.3	9.0	44.3	75.6	-31.3	Peak	Vertical
*	9865.5	33.4	11.6	45.0	75.6	-30.6	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (105.6dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1				
Test Channel:	01	Test Engineer:	Roy Cheng				
Remark:	1. 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 (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	3813.5	37.1	-0.2	36.9	74.0	-37.1	Peak	Horizontal
	4791.0	35.7	2.7	38.4	74.0	-35.6	Peak	Horizontal
*	6695.0	35.5	5.8	41.3	76.3	-35.0	Peak	Horizontal
*	9874.0	33.0	11.6	44.6	76.3	-31.7	Peak	Horizontal
	3881.5	35.4	0.1	35.5	74.0	-38.5	Peak	Vertical
	4842.0	35.7	2.7	38.4	74.0	-35.6	Peak	Vertical
*	6627.0	36.1	6.0	42.1	76.3	-34.2	Peak	Vertical
*	9644.5	34.3	11.0	45.3	76.3	-31.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (106.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)



Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1				
Test Channel:	06	Test Engineer:	Roy Cheng				
Remark:	1. 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)				
	4876.0	35.5	2.7	38.2	74.0	-35.8	Peak	Horizontal
	7324.0	41.3	8.0	49.3	74.0	-24.7	Peak	Horizontal
*	8633.0	35.5	8.8	44.3	81.1	-36.8	Peak	Horizontal
*	9882.5	33.6	11.6	45.2	81.1	-35.9	Peak	Horizontal
	4867.5	37.7	2.7	40.4	74.0	-33.6	Peak	Vertical
	7315.5	45.8	8.0	53.8	74.0	-20.2	Peak	Vertical
*	8760.5	34.4	9.0	43.4	81.1	-37.7	Peak	Vertical
*	9882.5	33.8	11.6	45.4	81.1	-35.7	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 30dBc of the fundamental emission level (111.1dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)