



7.7. Frequency Stability Measurement

7.7.1.Test Limit

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

7.7.2.Test Procedure Used

Frequency Stability Under Temperature Variations:

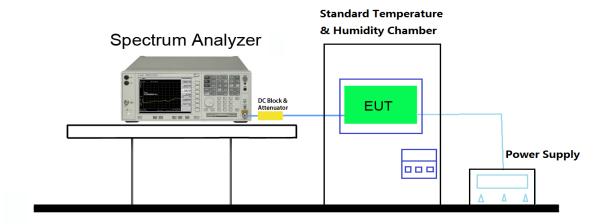
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, record the maximum frequency change.

7.7.3.Test Setup



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7.7.4.Test Result

Test Engineer	Kevin Ker	Temperature	-30 ~ 50°C
Test Time	2017/05/06	Relative Humidity	52%RH
Test Mode	5180MHz (Carrier Mode)		

Voltage	Power	Temp	Frequency Tolerance (ppm)			
(%)	(VAC)	(°C)	0 minutes	2 minutes	5 minutes	10 minutes
		- 30	5.86	6.90	-2.25	2.50
		- 20	8.37	-2.04	-3.37	5.25
		- 10	-2.11	-1.18	4.64	-1.85
		0	-2.24	2.50	-1.52	1.08
100%	120	+ 10	-4.05	0.46	-1.86	-3.91
		+ 20 (Ref)	-2.66	-2.48	-3.51	3.84
		+ 30	6.77	5.74	0.56	5.16
		+ 40	-1.10	-1.68	-3.34	5.29
		+ 50	-2.01	-5.04	4.04	-2.85
115%	138	+ 20	-6.21	-5.76	-6.13	-2.50
85%	102	+ 20	-7.99	-2.49	-7.36	-1.78

Note: Frequency Tolerance (ppm) = $\{[Measured Frequency (Hz) - Declared Frequency (Hz)] / Declared Frequency (Hz)\} *10⁶.$

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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.

CTX must not exceed the limits shown in Table per Section 13.203.									
FCC Part 15 Subpart C Paragraph 15.209									
Frequency [MHz]	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

KDB 789033 D02v01r04 - Section G

7.8.3.Test Setting

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



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 = 120 kHz
- 4. Detector = CISPR quasi-peak
- 5. Sweep time = auto couple
- 6. Trace was allowed to stabilize

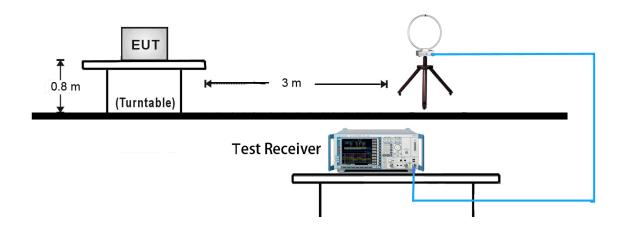
Average Field Strength Measurements

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2.RBW = 1MHz
- 3. VBW ≥ 1/T
- 4. 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

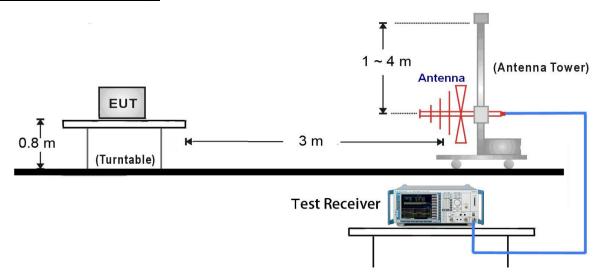
9kHz ~ 30MHz Test Setup:



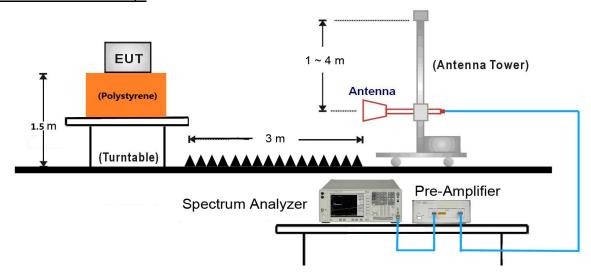




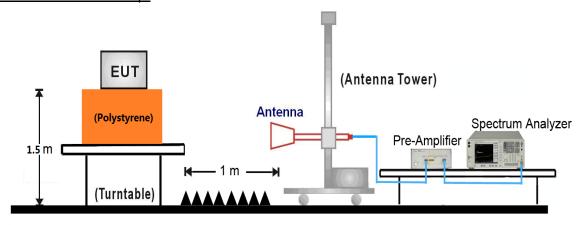
30MHz ~ 1GHz Test Setup:



1GHz ~18GHz Test Setup:



18GHz ~40GHz Test Setup:



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7.8.5.Test Result

Test Mode:	802.11a - Chain 0 + 1 + 2	Test Site:	AC1				
Test Channel:	36	Test Engineer:	Kevin Ke				
Remark:	1. Average measurement was not p	performed if peak I	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)				
	7528.0	31.6	12.8	44.5	74.0	-29.5	Peak	Horizontal
	8310.0	32.0	11.9	44.0	74.0	-30.0	Peak	Horizontal
*	10367.0	35.9	16.8	52.7	68.2	-15.5	Peak	Horizontal
*	13690.5	29.2	21.9	51.1	68.2	-17.1	Peak	Horizontal
	7502.5	32.0	12.8	44.8	74.0	-29.2	Peak	Vertical
	8157.0	32.9	12.1	45.0	74.0	-29.0	Peak	Vertical
*	10358.5	32.9	16.8	49.7	68.2	-18.5	Peak	Vertical
*	13614.0	28.3	21.8	50.1	68.2	-18.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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

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

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Test Mode:	802.11a - Chain 0 + 1 + 2	Test Site:	AC1				
Test Channel:	40	Test Engineer:	Kevin Ke				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.						
	2. Other frequency was 20dB below	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)				
	7307.0	31.8	12.3	44.2	74.0	-29.8	Peak	Horizontal
*	8820.0	30.9	14.0	44.9	68.2	-23.3	Peak	Horizontal
*	10409.5	45.9	17.0	62.8	68.2	-5.4	Peak	Horizontal
	15603.0	31.3	20.5	51.8	74.0	-22.2	Peak	Horizontal
	7375.0	31.7	12.5	44.2	74.0	-29.8	Peak	Vertical
*	8565.0	31.1	13.3	44.3	68.2	-23.9	Peak	Vertical
*	10401.0	38.0	16.9	55.0	68.2	-13.2	Peak	Vertical
	15594.5	33.8	20.5	54.3	74.0	-19.7	Peak	Vertical
	15604.2	30.8	20.5	51.2	54.0	-2.8	Average	Vertical

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

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

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Test Mode:	802.11a - Chain 0 + 1 + 2	Test Site:	AC1				
Test Channel:	48	Test Engineer:	Kevin Ke				
Remark:	1. Average measurement was not p	Average measurement was not performed if peak level lower than average					
	limit.	limit.					
	2. Other frequency was 20dB below	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)				
	7349.5	30.0	12.4	42.4	74.0	-31.6	Peak	Horizontal
*	8590.5	30.3	13.4	43.7	68.2	-24.5	Peak	Horizontal
*	10486.0	41.4	17.1	58.6	68.2	-9.6	Peak	Horizontal
	15722.0	31.7	20.5	52.2	74.0	-21.8	Peak	Horizontal
	7409.0	30.1	12.6	42.7	74.0	-31.3	Peak	Vertical
*	8837.0	30.0	14.0	44.0	68.2	-24.2	Peak	Vertical
*	10469.0	36.8	17.1	54.0	68.2	-14.3	Peak	Vertical
	15722.0	33.0	20.5	53.5	74.0	-20.5	Peak	Vertical

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

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

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Test Mode:	802.11a - Chain 0 + 1 + 2	Test Site:	AC1				
Test Channel:	52	Test Engineer:	Kevin Ke				
Remark:	1. Average measurement was not p	Average measurement was not performed if peak level lower than average					
	limit.						
	2. Other frequency was 20dB below	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)				
	7451.5	30.8	12.8	43.6	74.0	-30.4	Peak	Horizontal
*	8582.0	31.2	13.4	44.6	68.2	-23.6	Peak	Horizontal
*	10520.0	38.1	17.2	55.3	68.2	-12.9	Peak	Horizontal
	14481.0	27.4	23.1	50.5	74.0	-23.5	Peak	Horizontal
	7545.0	31.8	12.8	44.6	74.0	-29.4	Peak	Vertical
*	8675.5	30.9	13.7	44.6	68.2	-23.6	Peak	Vertical
*	10528.5	32.1	17.2	49.3	68.2	-18.9	Peak	Vertical
	11888.5	28.4	18.6	47.0	74.0	-27.0	Peak	Vertical

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

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

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Test Mode:	802.11a - Chain 0 + 1 + 2	Test Site:	AC1				
Test Channel:	60	Test Engineer:	Kevin Ke				
Remark:	1. Average measurement was not p	Average measurement was not performed if peak level lower than average					
	limit.						
	2. Other frequency was 20dB below	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)				
*	8828.5	29.6	14.0	43.6	68.2	-24.6	Peak	Horizontal
	10605.0	40.9	17.3	58.2	74.0	-15.8	Peak	Horizontal
*	13019.0	27.4	19.9	47.3	68.2	-20.9	Peak	Horizontal
	15900.5	32.0	20.4	52.4	74.0	-21.6	Peak	Horizontal
	7494.0	31.2	12.8	44.0	74.0	-30.0	Peak	Vertical
*	8641.5	30.3	13.5	43.9	68.2	-24.3	Peak	Vertical
*	10596.5	34.0	17.3	51.3	68.2	-16.9	Peak	Vertical
	15892.0	32.7	20.4	53.1	74.0	-20.9	Peak	Vertical

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

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

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Test Mode:	802.11a - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ke					
Remark:	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)				
	7434.5	31.0	12.7	43.7	74.0	-30.3	Peak	Horizontal
*	8811.5	30.0	14.0	44.0	68.2	-24.2	Peak	Horizontal
	10629.5	30.2	17.3	47.6	54.0	-6.4	Average	Horizontal
	10630.5	37.7	17.3	55.0	74.0	-19.0	Peak	Horizontal
*	14829.5	28.4	22.5	50.8	68.2	-17.4	Peak	Horizontal
	7409.0	30.7	12.6	43.4	74.0	-30.6	Peak	Vertical
*	8837.0	30.3	14.0	44.3	68.2	-23.9	Peak	Vertical
	10630.5	32.0	17.3	49.3	74.0	-24.7	Peak	Vertical
*	14540.5	27.7	23.0	50.7	68.2	-17.5	Peak	Vertical

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

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

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Test Mode:	802.11a - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	100	Test Engineer:	Kevin Ke					
Remark:	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)				
	7562.0	30.8	12.8	43.6	74.0	-30.4	Peak	Horizontal
*	8590.5	30.7	13.4	44.1	68.2	-24.1	Peak	Horizontal
	10996.0	35.0	18.5	53.5	74.0	-20.5	Peak	Horizontal
*	14540.5	28.9	23.0	51.9	68.2	-16.3	Peak	Horizontal
	7579.0	30.8	12.7	43.6	74.0	-30.4	Peak	Vertical
*	8675.5	30.3	13.7	44.0	68.2	-24.2	Peak	Vertical
	10996.0	30.8	18.5	49.3	74.0	-24.7	Peak	Vertical
*	14880.5	28.9	22.3	51.2	68.2	-17.0	Peak	Vertical

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

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

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Test Mode:	802.11a - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	116	Test Engineer:	Kevin Ke					
Remark:	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)				
	7417.5	30.0	12.6	42.7	74.0	-31.3	Peak	Horizontal
*	8777.5	30.2	13.9	44.1	68.2	-24.1	Peak	Horizontal
	11157.5	32.0	18.7	50.6	74.0	-23.4	Peak	Horizontal
*	14880.5	28.9	22.3	51.2	68.2	-17.0	Peak	Horizontal
	7706.5	31.0	12.4	43.4	74.0	-30.6	Peak	Vertical
*	8607.5	30.1	13.5	43.6	68.2	-24.6	Peak	Vertical
	11157.5	29.5	18.7	48.2	74.0	-25.9	Peak	Vertical
*	14532.0	28.4	23.0	51.3	68.2	-16.9	Peak	Vertical

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

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

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Test Mode:	802.11a - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	140	Test Engineer:	Kevin Ke					
Remark:	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)				
	7434.5	30.0	12.7	42.7	74.0	-31.3	Peak	Horizontal
*	8684.0	31.5	13.7	45.2	68.2	-23.0	Peak	Horizontal
	11081.0	28.9	18.6	47.5	74.0	-26.5	Peak	Horizontal
*	14838.0	28.3	22.5	50.8	68.2	-17.4	Peak	Horizontal
	7579.0	30.9	12.7	43.6	74.0	-30.4	Peak	Vertical
*	8845.5	29.7	14.0	43.8	68.2	-24.4	Peak	Vertical
	10851.5	29.3	18.1	47.4	74.0	-26.6	Peak	Vertical
*	14676.5	29.1	22.8	51.9	68.2	-16.3	Peak	Vertical

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

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

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Test Mode:	802.11a - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	149	Test Engineer:	Kevin Ke					
Remark:	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)				
	7562.0	30.9	12.8	43.7	74.0	-30.3	Peak	Horizontal
*	8905.0	29.8	14.0	43.8	68.2	-24.4	Peak	Horizontal
	11472.0	30.9	19.3	50.1	74.0	-23.9	Peak	Horizontal
*	14489.5	27.7	23.1	50.7	68.2	-17.5	Peak	Horizontal
	7528.0	30.6	12.8	43.5	74.0	-30.5	Peak	Vertical
*	8820.0	30.0	14.0	44.0	68.2	-24.2	Peak	Vertical
	11489.0	29.5	19.3	48.8	74.0	-25.2	Peak	Vertical
*	17235.0	30.6	25.5	56.1	68.2	-12.1	Peak	Vertical

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

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

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Test Mode:	802.11a - Chain 0 + 1 + 2	Test Site:	AC1
Test Channel:	157	Test Engineer:	Kevin Ke
Remark:	 Average measurement was not plimit. Other frequency was 20dB below in the report. 	·	Ç

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7502.5	30.7	12.8	43.5	74.0	-30.5	Peak	Horizontal
*	8973.0	30.2	14.1	44.2	68.2	-24.0	Peak	Horizontal
	11574.0	32.3	19.5	51.7	74.0	-22.3	Peak	Horizontal
*	17354.0	28.4	26.2	54.6	68.2	-13.6	Peak	Horizontal
	7494.0	30.7	12.8	43.6	74.0	-30.4	Peak	Vertical
*	8633.0	31.0	13.5	44.5	68.2	-23.7	Peak	Vertical
	11582.5	30.3	19.5	49.8	74.0	-24.2	Peak	Vertical
*	17362.5	30.2	26.3	56.5	68.2	-11.7	Peak	Vertical

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

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

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Test Mode:	802.11a - Chain 0 + 1 + 2	Test Site:	AC1				
Test Channel:	165	Test Engineer:	Kevin Ke				
Remark:	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)				
	7451.5	30.0	12.8	42.8	74.0	-31.2	Peak	Horizontal
*	8599.0	30.2	13.4	43.7	68.2	-24.5	Peak	Horizontal
	11642.0	29.9	19.4	49.3	74.0	-24.7	Peak	Horizontal
*	14812.5	28.2	22.5	50.7	68.2	-17.5	Peak	Horizontal
	7553.5	30.6	12.8	43.4	74.0	-30.6	Peak	Vertical
*	8905.0	30.5	14.0	44.6	68.2	-23.6	Peak	Vertical
	11650.5	30.1	19.3	49.4	74.0	-24.6	Peak	Vertical
*	17481.5	29.8	26.9	56.7	68.2	-11.5	Peak	Vertical

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

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

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Test Mode:	802.11n-HT20 - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	36	Test Engineer:	Kevin Ke					
Remark:	1. Average measurement was not p	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)				
	7400.5	29.3	12.6	41.9	74.0	-32.1	Peak	Horizontal
	9151.5	29.8	14.7	44.5	74.0	-29.5	Peak	Horizontal
*	10358.5	34.3	16.8	51.1	68.2	-17.1	Peak	Horizontal
*	14676.5	28.8	22.8	51.6	68.2	-16.6	Peak	Horizontal
	7553.5	30.3	12.8	43.1	74.0	-30.9	Peak	Vertical
	9160.0	29.2	14.7	43.9	74.0	-30.1	Peak	Vertical
*	10358.5	31.4	16.8	48.2	68.2	-20.0	Peak	Vertical
*	14778.5	28.3	22.6	50.9	68.2	-17.3	Peak	Vertical

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

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

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Test Mode:	802.11n-HT20 - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	44	Test Engineer:	Kevin Ke					
Remark:	1. Average measurement was not p	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below	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)				
	7536.5	30.5	12.8	43.4	74.0	-30.6	Peak	Horizontal
	9160.0	29.4	14.7	44.0	74.0	-30.0	Peak	Horizontal
*	10443.5	41.2	17.1	58.3	68.2	-9.9	Peak	Horizontal
*	14481.0	28.6	23.1	51.6	68.2	-16.6	Peak	Horizontal
	7511.0	30.6	12.8	43.5	74.0	-30.5	Peak	Vertical
*	8837.0	30.0	14.0	44.0	68.2	-24.2	Peak	Vertical
*	10452.0	34.3	17.1	51.4	68.2	-16.9	Peak	Vertical
	15662.5	31.6	20.4	52.0	74.0	-22.0	Peak	Vertical

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

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

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Test Mode:	802.11n-HT20 - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	48	Test Engineer:	Kevin Ke					
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)				
	7502.5	30.3	12.8	43.1	74.0	-30.9	Peak	Horizontal
*	8675.5	29.7	13.7	43.3	68.2	-24.9	Peak	Horizontal
	10477.5	37.8	17.1	54.9	74.0	-19.1	Peak	Horizontal
*	15722.0	29.6	20.5	50.0	68.2	-18.2	Peak	Horizontal
	7528.0	30.7	12.8	43.6	74.0	-30.4	Peak	Vertical
*	8854.0	29.7	14.0	43.7	68.2	-24.5	Peak	Vertical
*	10486.0	34.4	17.1	51.5	68.2	-16.7	Peak	Vertical
	15713.5	31.3	20.5	51.8	74.0	-22.2	Peak	Vertical

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

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

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Test Mode:	802.11n-HT20 - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ke					
Remark:	1. Average measurement was not p	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)				
	7519.5	30.6	12.8	43.5	74.0	-30.5	Peak	Horizontal
*	8675.5	30.0	13.7	43.7	68.2	-24.5	Peak	Horizontal
*	10520.0	34.7	17.2	51.9	68.2	-16.4	Peak	Horizontal
	15849.5	27.6	20.4	48.0	74.0	-26.0	Peak	Horizontal
	7281.5	31.2	12.3	43.5	74.0	-30.5	Peak	Vertical
*	8556.5	30.5	13.2	43.8	68.2	-24.4	Peak	Vertical
*	10520.0	30.7	17.2	47.9	68.2	-20.3	Peak	Vertical
	15603.0	28.1	20.5	48.6	74.0	-25.4	Peak	Vertical

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

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

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Test Mode:	802.11n-HT20 - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ke					
Remark:	Average measurement was not	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below	. 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)				
	7579.0	30.5	12.7	43.3	74.0	-30.7	Peak	Horizontal
*	8650.0	30.4	13.6	43.9	68.2	-24.3	Peak	Horizontal
*	10596.5	37.1	17.3	54.4	68.2	-13.8	Peak	Horizontal
	15560.5	28.1	20.6	48.6	74.0	-25.4	Peak	Horizontal
	7528.0	31.1	12.8	43.9	74.0	-30.1	Peak	Vertical
	9117.5	30.4	14.5	44.9	74.0	-29.1	Peak	Vertical
*	10596.5	30.7	17.3	48.0	68.2	-20.2	Peak	Vertical
*	14846.5	28.8	22.4	51.2	68.2	-17.0	Peak	Vertical

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

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

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Test Mode:	802.11n-HT20 - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ke					
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)				
	7468.5	30.3	12.8	43.1	74.0	-30.9	Peak	Horizontal
*	8743.5	30.2	13.9	44.1	68.2	-24.1	Peak	Horizontal
	10639.0	39.7	17.4	57.0	74.0	-17.0	Peak	Horizontal
	10639.5	30.5	17.4	47.9	54.0	-6.1	Average	Horizontal
*	14719.0	28.0	22.8	50.8	68.2	-17.4	Peak	Horizontal
	7553.5	30.8	12.8	43.6	74.0	-30.4	Peak	Vertical
*	8650.0	30.6	13.6	44.2	68.2	-24.0	Peak	Vertical
	10639.0	31.1	17.4	48.4	74.0	-25.6	Peak	Vertical
*	14914.5	28.7	22.1	50.8	68.2	-17.4	Peak	Vertical

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

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

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Test Mode:	802.11n-HT20 - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	100	Test Engineer:	Kevin Ke					
Remark:	1. Average measurement was not p	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)				
	7451.5	31.3	12.8	44.1	74.0	-29.9	Peak	Horizontal
*	8760.5	30.0	13.9	43.9	68.2	-24.3	Peak	Horizontal
	10996.0	33.7	18.5	52.1	74.0	-21.9	Peak	Horizontal
*	14863.5	28.4	22.4	50.8	68.2	-17.4	Peak	Horizontal
	7460.0	30.8	12.8	43.6	74.0	-30.4	Peak	Vertical
*	8811.5	29.8	14.0	43.8	68.2	-24.4	Peak	Vertical
	10996.0	31.6	18.5	50.1	74.0	-23.9	Peak	Vertical
*	14787.0	27.5	22.6	50.1	68.2	-18.1	Peak	Vertical

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

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

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Test Mode:	802.11n-HT20 - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	116	Test Engineer:	Kevin Ke					
Remark:	1. Average measurement was not p	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)				
	7511.0	29.8	12.8	42.7	74.0	-31.3	Peak	Horizontal
*	8820.0	29.8	14.0	43.8	68.2	-24.4	Peak	Horizontal
	11200.0	33.7	18.7	52.4	74.0	-21.6	Peak	Horizontal
*	14880.5	28.5	22.3	50.8	68.2	-17.4	Peak	Horizontal
	7502.5	30.5	12.8	43.3	74.0	-30.7	Peak	Vertical
*	8803.0	29.7	14.0	43.7	68.2	-24.5	Peak	Vertical
	11200.0	30.2	18.7	48.9	74.0	-25.1	Peak	Vertical
*	16793.0	29.6	23.7	53.2	68.2	-15.0	Peak	Vertical

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

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

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Test Mode:	802.11n-HT20 - Chain 0 + 1 + 2	Test Site:	AC1
Test Channel:	140	Test Engineer:	Kevin Ke
Remark:	 Average measurement was not plimit. Other frequency was 20dB below in the report. 	•	Ç

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
		(dBµV)		(dBµV/m)				
	7579.0	30.1	12.7	42.9	74.0	-31.1	Peak	Horizontal
*	8548.0	30.8	13.2	43.9	68.2	-24.3	Peak	Horizontal
	10868.5	29.2	18.2	47.4	74.0	-26.6	Peak	Horizontal
*	14642.5	26.9	22.9	49.8	68.2	-18.4	Peak	Horizontal
	7477.0	31.1	12.8	43.9	74.0	-30.1	Peak	Vertical
*	8514.0	30.4	12.9	43.3	68.2	-24.9	Peak	Vertical
	11047.0	29.4	18.5	48.0	74.0	-26.0	Peak	Vertical
*	14889.0	28.5	22.2	50.7	68.2	-17.5	Peak	Vertical

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

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

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Test Mode:	802.11n-HT20 - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	149	Test Engineer:	Kevin Ke					
Remark:	1. Average measurement was not p	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)				
	7536.5	30.3	12.8	43.1	74.0	-30.9	Peak	Horizontal
*	8718.0	29.6	13.8	43.5	68.2	-24.7	Peak	Horizontal
	11489.0	31.4	19.3	50.7	74.0	-23.3	Peak	Horizontal
*	14778.5	28.4	22.6	51.0	68.2	-17.2	Peak	Horizontal
	7579.0	30.9	12.7	43.6	74.0	-30.4	Peak	Vertical
*	8539.5	29.2	13.1	42.3	68.2	-25.9	Peak	Vertical
	10681.5	27.8	17.4	45.2	74.0	-28.8	Peak	Vertical
*	17235.0	30.2	25.5	55.6	68.2	-12.6	Peak	Vertical

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

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

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Test Mode:	802.11n-HT20 - Chain 0 + 1 + 2	Test Site:	AC1					
Test Channel:	157	Test Engineer:	Kevin Ke					
Remark:	1. Average measurement was not p	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)				
	7485.5	30.7	12.8	43.5	74.0	-30.5	Peak	Horizontal
*	8735.0	30.5	13.9	44.3	68.2	-23.9	Peak	Horizontal
	11557.0	29.3	19.5	48.8	74.0	-25.2	Peak	Horizontal
*	14625.5	27.7	22.9	50.6	68.2	-17.6	Peak	Horizontal
	7553.5	30.4	12.8	43.2	74.0	-30.8	Peak	Vertical
*	8667.0	30.5	13.6	44.1	68.2	-24.1	Peak	Vertical
	11302.0	29.0	18.9	47.9	74.0	-26.1	Peak	Vertical
*	14795.5	27.8	22.6	50.4	68.2	-17.8	Peak	Vertical

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

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

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Test Mode:	802.11n-HT20 - Chain 0 + 1 + 2	Test Site:	AC1				
Test Channel:	165	Test Engineer:	Kevin Ke				
Remark:	Average measurement was not performed if peak level lower than						
	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)				
	7417.5	30.1	12.6	42.7	74.0	-31.3	Peak	Horizontal
*	8913.5	30.4	14.0	44.5	68.2	-23.7	Peak	Horizontal
	10919.5	30.0	18.4	48.3	74.0	-25.7	Peak	Horizontal
*	14999.5	29.0	21.8	50.8	68.2	-17.4	Peak	Horizontal
	7502.5	31.1	12.8	43.9	74.0	-30.1	Peak	Vertical
*	8913.5	29.6	14.0	43.7	68.2	-24.5	Peak	Vertical
	11650.5	29.8	19.3	49.2	74.0	-24.8	Peak	Vertical
*	17481.5	27.6	26.9	54.5	68.2	-13.7	Peak	Vertical

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

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

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Test Mode:	802.11n-HT40 - Chain 0 + 1 + 2	Test Site:	AC1				
Test Channel:	38	Test Engineer:	Kevin Ke				
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)				
	7570.5	30.5	12.8	43.3	74.0	-30.7	Peak	Horizontal
*	8573.5	31.2	13.3	44.5	68.2	-23.7	Peak	Horizontal
	11047.0	29.8	18.5	48.3	74.0	-25.7	Peak	Horizontal
*	14838.0	28.9	22.5	51.4	68.2	-16.8	Peak	Horizontal
	7570.5	31.6	12.8	44.3	74.0	-29.7	Peak	Vertical
*	8913.5	31.3	14.0	45.3	68.2	-22.9	Peak	Vertical
	11353.0	29.2	19.0	48.2	74.0	-25.8	Peak	Vertical
*	14685.0	27.2	22.8	50.0	68.2	-18.2	Peak	Vertical

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

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

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Test Mode:	802.11n-HT40 - Chain 0 + 1 + 2	Test Site:	AC1				
Test Channel:	46	Test Engineer:	Kevin Ke				
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)				
	7562.0	31.5	12.8	44.3	74.0	-29.7	Peak	Horizontal
*	8845.5	30.7	14.0	44.7	68.2	-23.5	Peak	Horizontal
	10460.5	33.3	17.1	50.4	74.0	-23.6	Peak	Horizontal
*	15679.5	29.6	20.4	50.0	68.2	-18.2	Peak	Horizontal
	7553.5	31.1	12.8	43.9	74.0	-30.1	Peak	Vertical
*	8607.5	31.2	13.5	44.7	68.2	-23.5	Peak	Vertical
*	10435.0	31.7	17.0	48.7	68.2	-19.5	Peak	Vertical
	11523.0	28.4	19.4	47.8	74.0	-26.2	Peak	Vertical

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

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

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