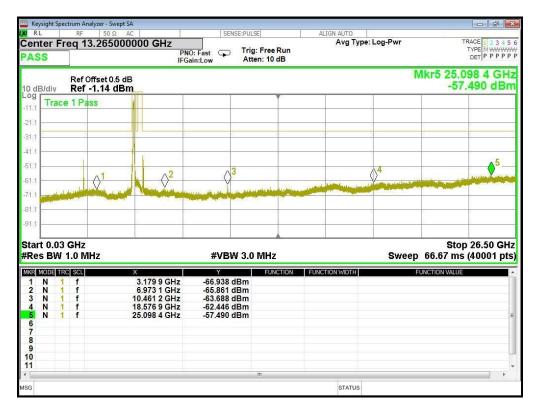


U-NII-1 802.11ac(HT40) High CH

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U-NII-1 802.11ac(HT80) Middle CH

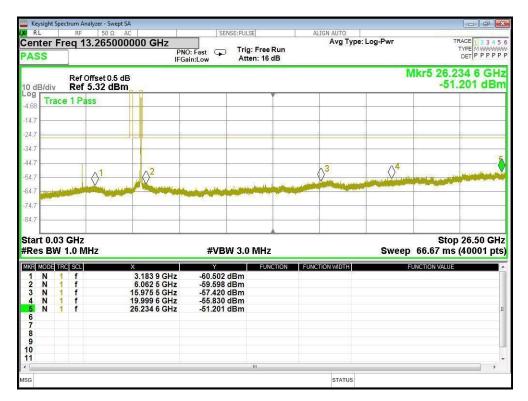




U-NII-3 802.11a Low CH



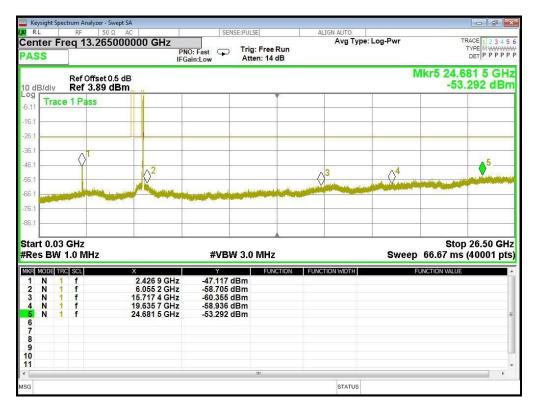
U-NII-3 802.11a Middle CH



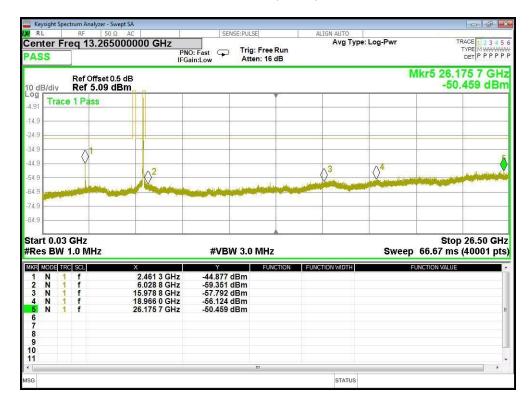
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U-NII-3 802.11a High CH



U-NII-3 802.11n(HT20) Low CH



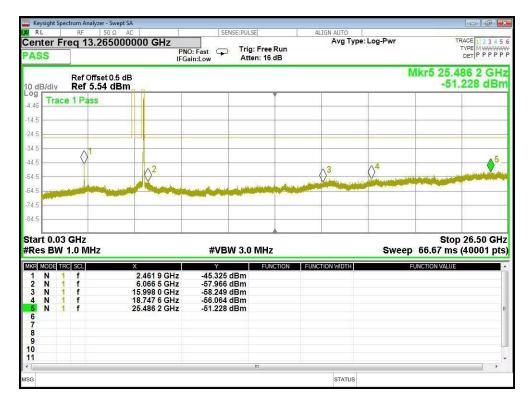


U-NII-3 802.11n(HT20) Middle CH

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	ht Spect	trum Analyzer - S						
Cente	er Fre		Ω AC 5000000 GHz	SENSE:PUL	20 12 - 2014	ALIGN AUTO Avg Typ	e: Log-Pwr	TRACE 1 2 3 4 5
PASS			PNO	D:Fast Trig ain:Low Att	: Free Run en: 16 dB			DET PPPP
10 dB/		Ref Offset (Ref 4.61					1	Mkr5 26.028 8 GH2 -50.473 dBm
-5.39	Frace	1 Pass						
-15.4								
-25.4								
35.4								
45.4		\bigcirc						X
55.4 -			\wedge^2			03	$\langle \rangle^4$	and the second sec
65.4		allowed by the state of the	Marine Marine	أأفرق ومراجع والمحرور والمراجع	and the second second	La contra de la co		
75.4 -	a contra cont							
85.4								8
Start Res		GHz I.0 MHz		#VBW 3.0	MHz		Sweep	Stop 26.50 GH 66.67 ms (40001 pts
MKR MO			X	Y	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE
1 N 2 N		f	2.461 9 GHz 6.040 7 GHz	-46.766 dBm -58.933 dBm				
3 N 4 N		f	15.771 7 GHz 18.815 8 GHz	-58.279 dBm -55.958 dBm				
5 N		f	26.028 8 GHz	-50.473 dBm				
6 7 8 9								
8								
10								
					m			
SG						STATUS		

U-NII-3 802.11n(HT20) High CH



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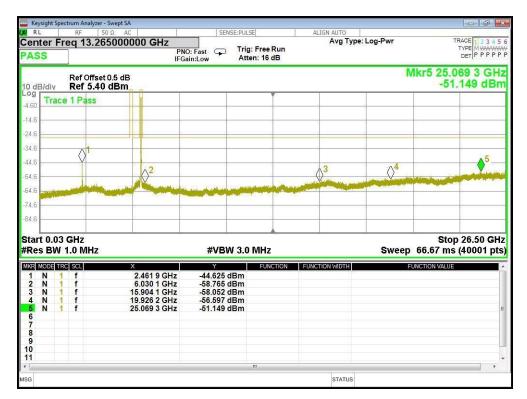


U-NII-3 802.11ac(HT20) Low CH

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	ht Spec	trum Analyzer -						
Conto	r Fr		5000000 GHz	SEN	SE:PULSE	ALIGN AUTO	e: Log-Pwr	TRACE 1 2 3 4 5
PASS		eq 13.20		PNO: Fast 😱 IFGain:Low	Trig: Free Run Atten: 16 dB			TYPE M WWWM DET P P P P P
10 dB/c	liv	Ref Offset Ref 4.81					0	Mkr5 26.456 3 GHz -50.907 dBm
-5.19	race	1 Pass						
-15.2								
-15.2		22						
-35.2								
-45.2		∧1						5
-45.2		Y	1/2		2	∆ ³	\wedge^4	
-65.2		and a low strength			and the second sec	and the second second		
-75.2					-			
-05.2								
Start (#Res I		GHz 1.0 MHz	(a)	#VBV	/ 3.0 MHz		Swee	Stop 26.50 GHz 66.67 ms (40001 pts
MKR MOI			×	Y	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE
1 N 2 N	1	f	2.459 3 GHz 6.106 2 GHz					
3 N 4 N		f	15.984 1 GHz 19.013 6 GHz	-57.471 d	IBm			
5 N		f	26.456 3 GHz					=
6 7								
8								
10								
11					m			
MSG						STATUS		

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U-NII-3 802.11ac(HT20) High CH

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	ht Spect	trum Analyz			1 mars		1		
Cente	r Fre	eq 13.2		AC DOOO GHz IF IF	PNO: Fast Gain:Low	Trig: Free Ru Atten: 16 dB		ro g Type: Log-Pwr	TRACE 1 2 3 4 TYPE M WWW DET P P P P
10 dB/d Log		Ref Offs Ref 5.8							Mkr5 25.842 9 GI -50.915 dB
-4.11	race	1 Pass							
-14.1									
-34.1		Q^{1}						<u>4</u>	
-54.1	, Luk		10 A. 10	\Diamond^2		a des	A S	<u> </u>	
-74.1								53- 19	
Start 0		GHz I.0 MHz	1		#VBV	/ 3.0 MHz		Swee	Stop 26.50 G p 66.67 ms (40001 p
MKR MOI	DE TRC	f		x 2.461 9 GHz	-45.028 c		DN FUNCTION WI	НТС	FUNCTION VALUE
2 N 3 N 4 N 5 N	1 1 1 1	f f f f		6.232 6 GHz 15.669 1 GHz 18.821 7 GHz 25.842 9 GHz	-58.491 d -58.611 d -56.185 d -50.915 d	IBm IBm			
6 7 8 9									
10 11 (m			,
MSG							ST	ATUS	

U-NII-3 802.11n(HT40) Low CH



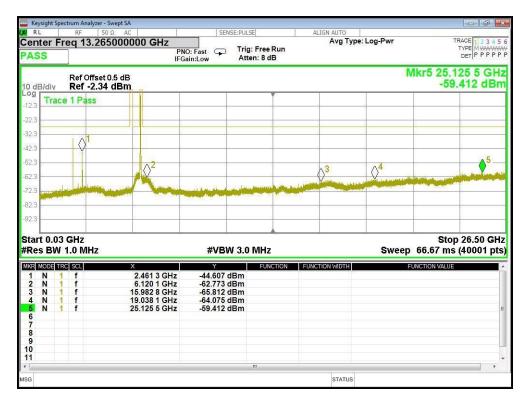


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U-NII-3 802.11ac(HT40) Low CH

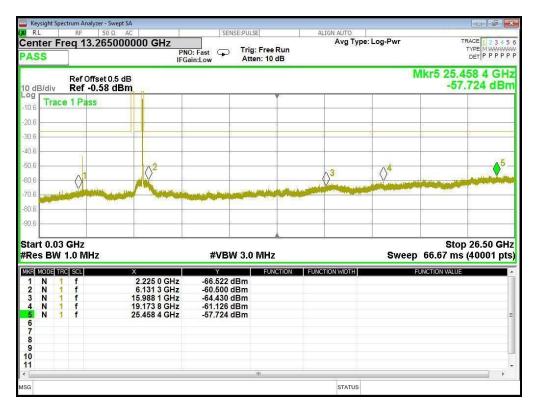


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U-NII-3 802.11ac(HT40) High CH



U-NII-3 802.11ac(HT80) Middle CH



Note:1.The emission levels of other frequencies were less than 20dB margin against the limit. 2.The antenna gain is added to compensate the test results.



8. Duty Cycle

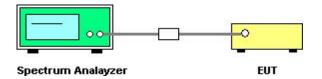
8.1 TEST REQUIREMENT

47 CFR Part 15C 15.407 and 789033 D02 General UNII Test Procedures New Rules v02r01(December 14, 2017), Section (B) ANSI C63.10: 2013

8.2 TEST PROCEDURE

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

8.3 TEST SETUP





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8.4 TEST RESULTS

	802.11a	mode					
channel	On time(ms)	Period(ms)	Duty Cycle(%)				
36	100	100	100				
52	100	100	100				
149	100	100	100				
	802.11n(HT	20) mode					
channel	On time(ms)	Period(ms)	Duty Cycle(%)				
36	100	100	100				
52	100	100	100				
149	100	100	100				
	802.11n(HT	f40) mode	÷.				
channel	On time(ms)	Period(ms)	Duty Cycle(%)				
38	100	100	100				
54	100	100	100				
151	100	100	100				
802.11ac(HT20) mode							
channel	On time(ms)	Period(ms)	Duty Cycle(%)				
36	100	100	100				
52	100	100	100				
149	100	100	100				
	802.11ac(H	T40) mode	• 				
channel	On time(ms)	Period(ms)	Duty Cycle(%)				
38	100	100	100				
54	100	100	100				
<mark>1</mark> 51	100	100	100				
	802.11ac(H	T80) mode					
channel	On time(ms)	Period(ms)	Duty Cycle(%)				
42	100	100	100				
58	100	100	100				
155	100	100	100				

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9 RADIATED EMISSION MEASUREMENT

9.1 RADIATED EMISSION LIMITS

In any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the Restricted band specified on Part15.205(a)&209(a) limit in the table and according to ANSI C63.10-2013 below has to be followed

Frequencies	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT	(0.009MHz - 1000MHz)
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For Radiated Emission

Spectrum Parameter	Setting		
Attenuation	Auto		
Detector	Peak/AV		
Start Frequency	1000 MHz(Peak/AV)		
Stop Frequency	10th carrier hamonic(Peak/AV)		
RB / VB (emission in restricted			
band)	PK=1MHz / 1MHz, AV=1 MHz /10 Hz		

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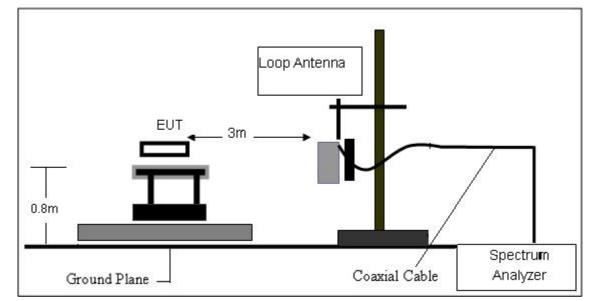
9.2 TEST PROCEDURE

- a. The measuring distance of at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz,and above 1GHz.
- b. The EUT was placed on the top of a rotating table 0.8 meters (above 1GHz is 1.5 m) above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment shall be 0.8 m(above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then QuasiPeak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos. Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

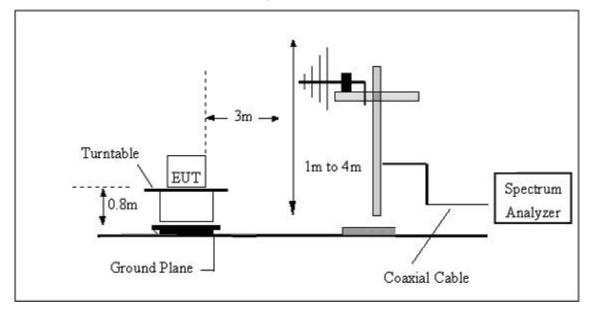


9.3 TESTSETUP

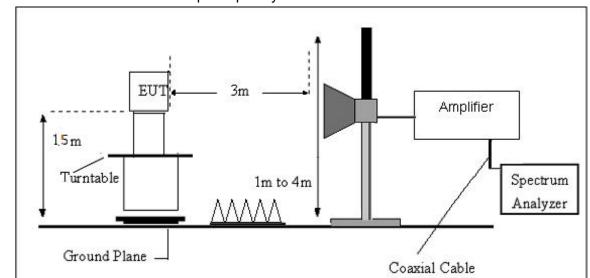


(A) Radiated Emission Test-Up Frequency Below 30MHz

(B) Radiated Emission Test-Up Frequency 30MHz~1GHz







(C) Radiated Emission Test-Up Frequency Above 1GHz

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9.4. TEST RESULTS

(9KHz-30MHz)

Note:

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The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.