Test Mode		2.11n 20 Mł 00 MHz	Hz /	Te	emp/H	um	24(°0	C)/ 33%RH
Test Item		armonic			est Da			ary 26, 2018
Polarize		/ertical			st Engi			y Chuang
Detector	Peak a	and Average	e	Te	st Volta	age	120	Vac/60Hz
110.0 dBuV/m							Limit1: Limit2:	
70								
30.0 1000.000 4900	.00 8800.00 12	700.00 16600.00	0 20500.00	24400.	00 2830	0.00 322	00.00	40000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV			mit ıV/m)	Margin (dB)	Remark
11000.000	33.60	16.06	49.6	6	74	.00	-24.34	peak
N/A								
Remark:								

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz,the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		02.11n 20 M 5500 MHz		ēmp/Hum	24(°C)/	33%RH
Test Item		Harmonic		Test Date		26, 2018
Polarize		Horizontal		st Engineer		Chuang
Detector	Peak	c and Averag	e Te	est Voltage	120Va	ac/60Hz
110.0 dBu¥/m						
					Limit1: Limit2:	_
70						
	1 X					
30.0						
1000.000 4900.0	0 8800.00 1	12700.00 16600.00	20500.00 2440	0.00 28300.00 322	DO.OO 40	000.00 M Hz
Frequency	Reading	Correct	Result	Limit	Margin	
(MHz)	(dBuV)	Factor (dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Remark
11000.000	33.02	16.06	49.08	74.00	-24.92	peak
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		302.11n 20 N <u>5580 MHz</u>	/IHz /	Temp/Hum	24(°C)/	′ 33%RH
Test Item		Harmonic		Test Date		26, 2018
Polarize		Vertical		Test Engineer		Chuang
Detector	Pea	k and Avera	ge	Test Voltage	120Va	ac/60Hz
110.0 dBu¥/m						
70		<pre>k</pre>			Linit1: Linit2:	
	\$					
30.0 1000.000 4 900.	00 8800.00	12700.00 16600.0	0 20500.00 2	4400.00 28300.00 322	200.00 40	000.00 MHz
					-	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11160.000	47.37	16.07	63.44	74.00	-10.56	peak
11160.000	34.77	16.07	50.84	54.00	-3.16	AVG
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		2.11n 20 M 580 MHz	Hz /	ſemp/Hum	24(°C)/	′ 33%RH
Test Item		larmonic		Test Date		<u>,</u> 26, 2018
Polarize		lorizontal		st Engineer		Chuang
Detector	Peak	and Averag	je T	est Voltage	120Va	ac/60Hz
110.0 dBuV/m						
					Limit1: Limit2:	_
70	ļ					
	2 2 X					
30.0 1000.000 4900.0	0 8800.00 12	2700.00 16600.00) 20500.00 2440	0.00 28300.00 3220	D0.00 40	000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11160.000	43.89	16.07	59.96	74.00	-14.04	peak
11160.000	32.98	16.07	49.05	54.00	-4.95	AVG
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	57	2.11n 20 MH <u>00 MHz</u>	Hz /	Te	emp/Hu	ım	24(°C	C)/ 33%RH
Test Item		armonic			est Da			ry 26, 2018
Polarize	۱	/ertical			t Engir			y Chuang
Detector	Peak a	and Average	e	Te	st Volta	age	120	Vac/60Hz
110.0 dBuV/m							Limit1: Limit2:	_
70								
30.0								
1000.000 4900.	00 8800.00 12	700.00 16600.00	20500.00	24400.	00 28300).00 322	DO. OO	40000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV			mit ıV/m)	Margin (dB)	Remark
11400.000	30.57	16.08	46.6	5	74	.00	-27.35	peak
N/A								
Remark:	•						•	

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		2.11n 20 MH 700 MHz	ד ^{z /}	ēmp/Hum	24(°C)/	′ 33%RH
Test Item		armonic		Test Date	January 26, 201	
Polarize		orizontal		st Engineer		Chuang
Detector	Peak	and Average		est Voltage	120Va	ac/60Hz
110.0 dBu∀/m						
					Limit1: Limit2:	_
70						
	1					
30.0						
1000.000 4900.	.00 8800.00 1.	2700.00 16600.00	20500.00 2440	D.OO 28300.OO 322	DO.OO 40	000.00 M Hz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11400.000	32.86	16.08	48.94	74.00	-25.06	peak
N/A						
emark:						

- fundamental frequency.2. For above 1GHz, the EUT peak value was under average limit, therefore the
 - Average value compliance with the average limit

		5510 MHz		Temp		24(C)/	′ 33%RH
Test Item		Harmonic		Test			26, 2018
Polarize		Vertical		Test Er			Chuang
Detector	Pea	k and Avera	ge	Test V	oltage	120Va	ac/60Hz
110.0 dBuV/m							
						Limit1: Limit2:	_
70							
70							
	1						
30.0							
1000.000 4900).00 8800.00	12700.00 16600.0	0 20500.00	24400.00 2	8300.00 322	00.00 40	000.00 MHz
						_	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resul (dBuV/		Limit dBuV/m)	Margin (dB)	Remark
11020.000	32.71	16.05	48.76	3	74.00	-25.24	peak
N/A							

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		02.11n 40 M 5510 MHz	Hz /	Temp/Hum	24(°C)/	33%RH
Test Item	ŀ	Harmonic		Test Date	January	26, 2018
Polarize	ŀ	Iorizontal		est Engineer		Chuang
Detector	Peak	and Averag	je T	est Voltage	120Va	ac/60Hz
110.0 dBuV/m						
					Limit1: Limit2:	_
70						
	1 X					
30.0 1000.000 4 900).00 8800.00 1	2700.00 16600.00) 20500.00 2440	0.00 28300.00 322	00.00 40	000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11020.000	33.82	16.05	49.87	74.00	-24.13	peak
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Item Harmonic Test Date January 26, 2013 Polarize Vertical Test Engineer Jerry Chuang Detector Peak and Average Test Voltage 120Vac/60Hz 110.0 d8uV/m Immit: Immit: Immit: Immit: Immit: Immit: Immit:	Test Mode)2.11n 40 M 550 MHz	Hz /	Гетр/Hum	24(°C)/	′ 33%RH
Detector Peak and Average Test Voltage 120Vac/60Hz 110.0 dBuV/m Limit1:	Test Item	F	larmonic		Test Date	January	26, 2018
110.0 dBuV/m Image: Contract Image: Contract 10.0 dBuV/m Image: Contract Image: Contract	Polarize						
70 1	Detector	Peak	and Averag	je T	est Voltage	120Va	ac/60Hz
1 1	110.0 dBu¥/m						
30.0 30.0 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz							_
30.0 30.0 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz							
30.0 30.0 1000.000 4900.00 8800.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz	70						
30.0 30.0 1000.000 4900.00 8800.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz		1X					
1000.000 4900.00 8800.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz							
Corroct			2700.00 16600.00	20500.00 2440	10 00 28300 00 3221	0.00 40	000 00 MHz
Correct	1000.000 4000.			20000.00 2110		50.00 10	000.00 Mile
Frequency i Reading i i Result i Limit i Margin i	Frequency (MHz)	Reading (dBuV)		Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11100.000 41.54 16.07 57.61 74.00 -16.39 peak	11100.000	41.54	16.07	57.61	74.00	-16.39	peak
11100.000 29.65 16.07 45.72 54.00 -8.28 AVG	11100.000	29.65	16.07	45.72	54.00	-8.28	AVG
N/A	N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		2.11n 40 M 550 MHz	Hz /		emp/Hu		24(°C)/ 33%RH
Test Item		larmonic			est Dat			ry 26, 2018
Polarize		lorizontal			t Engir		Jerry	/ Chuang
Detector	Peak	and Averag	e	Te	st Volta	age	120\	/ac/60Hz
110.0 dBu¥/m							Limit1: Limit2:	-
70								
30.0 1000.000 4900.0	0 8800.00 12	2700.00 16600.00) 20500.00	24400.	00 28300	.00 3220	10.00	40000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV		Lir (dBu	nit V/m)	Margin (dB)	Remark
11100.000	42.09	16.07	58.1	6	74.	.00	-15.84	peak
11100.000	31.48	16.07	47.5	5	54.	.00	-6.45	AVG
N/A								

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		2.11n 40 Mł 570 MHz	Hz /	Temp	/Hum	24(°C),	/ 33%RH
Test Item		armonic			Date		/ 26, 2018
Polarize		/ertical			ngineer		Chuang
Detector	Peaka	and Average	e	Test V	oltage	120Va	ac/60Hz
110.0 dBu¥/m						Limit1: Limit2:	-
70							
30.0 1000.000 4900		2700.00 16600.00) 20500.00	24400.00	28300.00 322	00.00 40	0000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor	Resul (dBuV/i		Limit (dBuV/m)	Margin (dB)	Remark
11320.000	38.84	(dB/m) 16.07	、 54.91		74.00	-19.09	peak
11320.000	35.32	16.07	51.39)	54.00	-2.61	AVG
N/A							

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		2.11n 40 MH 670 MHz	z/ _	ſemp/Hum	24(°C)/	′ 33%RH	
Test Item		armonic		Test Date	January 26, 2018		
Polarize		orizontal		st Engineer		Chuang	
Detector	Peak	and Average	T	est Voltage	120Va	ac/60Hz	
110.0 dBuV/m							
					Limit1: Limit2:	_	
70							
	1						
30.0							
1000.000 4900.	00 8800.00 1	2700.00 16600.00	20500.00 2440	0.00 28300.00 322	DO.OO 40	000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	
11310.000	37.04	16.07	53.11	74.00	-20.89	peak	
N/A							
emark:							

- fundamental frequency. 2 For above 1GHz the ELIT peak value was under average limit, therefore
- 2. For above 1GHz,the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Above 1G Test Data for UNII-3

Test Item Harmonic Test Date January 26, 201. Polarize Vertical Test Engineer Jerry Chuang Detector Peak and Average Test Voltage 120Vac/60Hz 118.0 dBw/m Imit Imit Imit Imit Imit Imit Imit	Test Mode	IE	EEE 802.11a 5745 MHz	a /	Te	emp/H	um	24(°C	C)/ 33%RH
Detector Peak and Average Test Voltage 120Vac/60Hz 110.0 dBuV/m Imit: Imit: <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Janua</td><td>ry 26, 201</td></t<>								Janua	ry 26, 201
110.0 dBuV/m 110.0 dBuV/m Image: state									
Image: Non-State Image: Non-State<	Detector	Pea	ak and Aver	age	Te	st Volt	age	120	Vac/60Hz
Image: Non-State Image: Non-State<	110.0 dBuV/m								
Image: Second									_
Frequency (MHz) Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remark 11490.000 44.53 16.09 60.62 74.00 -13.38 peak 11490.000 33.28 16.09 49.37 54.00 -4.63 AVG	30.0	2							
Frequency (MHz) Reading (dBuV) Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remark 11490.000 44.53 16.09 60.62 74.00 -13.38 peak 11490.000 33.28 16.09 49.37 54.00 -4.63 AVG		8800.00 I	2700.00 16600.00	J 20500.00	24400.	.00 2830	JU. UU 3221	10.00	40000.00 MHZ
11490.000 33.28 16.09 49.37 54.00 -4.63 AVG			Factor					Margin (dB)	Remark
	11490.000	44.53	16.09	60.6	2	74	4.00	-13.38	peak
N/A	11490.000	33.28	16.09	49.3	7	54	4.00	-4.63	AVG
	N/A								
	I		1	<u> </u>		1			1

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		IE	EE 802. ² 5745 MF			emp/Hu)/ 33%RH
Test Item			Harmon			est Dat			y 26, 2018
Polarize			Horizont			st Engir			' Chuang
Detector		Pea	ak and Av	rage	Te	st Volta	ige	120\	/ac/60Hz
110.0 dBuV/m									
								Limit1: Limit2:	
70									
		1							
		ſ							
		3							
		Î							
30.0 1000.000 4900.0	10 880	0.00 12	2700.00 1660	0.00 20500.00) 24400.	.00 28300	00 3220	10.00 4	40000.00 MHz
1000.000 4000.		0.00 12	100.00 1000		. 21100.	2000			
Frequency	Dee	ding	Correct	Res	14	1.5	nit	Margin	
Frequency (MHz)		iding BuV)	Factor (dB/m)	(dBu		(dBu		Margin (dB)	Remark
11480.000	43	8.52	16.10	59.	62	74	.00	-14.38	peak
11480.000	31	.53	16.10	47.	63	54	.00	-6.37	AVG
N/A									

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IE	EEE 802.11a 5745 MHz		Те	mp/Hu	um	24(°0	C)/ 33%F	RH
Test Item		Harmonic			est Da			ary 26, 20	
Polarize		Vertical			t Engii			y Chuan	
Detector	Pea	ak and Aver	age	Tes	st Volta	age	120	Vac/60H	z
110.0 dBuV/m									
							Limit1:		
							Limit2:		
70									
70									
	1 X								
	2								
	¥								
30.0									
1000.000 4900.0	00 8800.00 1	2700.00 16600.00	0 20500.00	24400.0	0 2830	D. OO 3220	0.00	40000.00 MHz	z
Freewooner	Deeding	Correct	Resu	14		mit	Manain		
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	(dBuV			ıV/m)	Margin (dB)	Rem	arł
11570.000	41.84	16.01	57.8	5	74	.00	-16.15	pea	ak
11570.000	34.33	16.01	50.3	4	54	.00	-3.66	AV	'G
N/A									
			1						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		IE	EE 802. 5745 Mi	Ηz		ſemp/H			:)/ 33%RH
Test Item			Harmon			Test Da			ry 26, 2018
Polarize			Horizon			st Engi			/ Chuang
Detector		Pea	ak and Av	/erage	T	est Volt	age	120	/ac/60Hz
110.0 dBuV/m									
								Limit1: Limit2:	
70									
30.0	00 88	00.00 12	2700.00 1660	0.00 20500.	.00 2440	0.00 2830	00.00 3220	00.00	40000.00 MHz
Frequency (MHz)		ading BuV)	Correct Factor (dB/m)	RE	esult uV/m)		imit uV/m)	Margin (dB)	Remark
11580.000	42	2.70	16.00	58	3.70	74	4.00	-15.30	peak
11580.000	3	1.82	16.00	47	7.82	54	4.00	-6.18	AVG
N/A									
				_					
	1		L	I		1		1	1

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		IE	EE 802. 5825 Mi		Te	emp/Hum	24(°C	.)/ 33%RH
Test Item			Harmon			est Date		ry 26, 2018
Polarize			Vertica			t Enginee		/ Chuang
Detector		Pea	ak and Av	/erage	Te	st Voltage	120	/ac/60Hz
110.0 dBu¥/m								
							Limit1:	-
							Limit2:	
70								
		1 X						
		2						
30.0								
1000.000 4900.0	0 880	0.00 12	2700.00 1660	0.00 20500.00) 24400.	00 28300.00	32200.00	40000.00 MHz
	P		Correct					
Frequency (MHz)		iding BuV)	Factor (dB/m)	Res (dBu		Limit (dBuV/m) Margin (dB)	Remark
11650.000	43	.49	15.93	59.	42	74.00	-14.58	peak
11650.000	33	.68	15.93	49.	61	54.00	-4.39	AVG
N/A								
	1							1

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IE	EEE 802.11a 5825 MHz		Temp/Hur			33%RH
Test Item		Harmonic		Test Date		January	
Polarize		Horizontal		Test Engine			Chuang
Detector	Pea	ak and Aver	age	Test Voltag	ge	120Va	c/60Hz
110.0 dBuV/m							
						Limit1: Limit2:	
70							
	\$						
30.0							
1000.000 4900.0	00 8800.00 1	2700.00 16600.00	0 20500.00 2	24400.00 28300.0	00 32200.00	400	000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m	Lim) (dBuV		Margin (dB)	Remark
11640.000	43.52	15.95	59.47	74.0)0	-14.53	peak
11640.000	32.70	15.95	48.65	54.0	00	-5.35	AVG
N/A							

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		02.11n 20 M 745 MHz	IHz /	Те	mp/Hum	24(°C),	/ 33%RH
Test Item	F	larmonic		Te	est Date		/ 26, 2018
Polarize		Vertical			Engineer		Chuang
Detector	Peak	and Average	ge	Tes	st Voltage	120Va	ac/60Hz
110.0 dBu∀/m							
						Limit1: Limit2:	
70							
	1 X						
	*						
30.0							
1000.000 4900.	00 8800.00 12	2700.00 16600.00) 20500.00	24400.0	0 28300.00 32	2200.00 40)000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV/		Limit (dBuV/m)	Margin (dB)	Remark
11570.000	44.44	16.01	60.45	5	74.00	-13.55	peak
11570.000	33.48	16.01	49.49	9	54.00	-4.51	AVG
N/A							

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode)2.11n 20 M 745 MHz	1Hz /	Ten	np/Hum	24(°C)/	′ 33%RH	
Test Item	ŀ	larmonic		Te	st Date	January 26, 201		
Polarize	F	lorizontal			Engineer		Chuang	
Detector	Peak	and Average	ge	Test	Voltage	120Va	ac/60Hz	
110.0 dBu∀/m	1							
						Limit1: Limit2:	_	
70								
	1							
	*							
30.0								
1000.000 4900	0.00 8800.00 1	2700.00 16600.00	0 20500.00	24400.00	28300.00 3220	00.00 40	000.00 M Hz	
Frequency (MHz)	Reading (dBuV)	Correct Factor	Resu (dBuV/		Limit (dBuV/m)	Margin (dB)	Remark	
11650.000	44.80	(dB/m) 15.93	60.7		74.00	-13.27	peak	
11650.000	34.92	15.93	50.8	5	54.00	-3.15	AVG	
N/A								

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IE	5)2.11n 2(785 MHz	2		emp/Hu			/ 33%RH
Test Item			larmonic	;		Test Dat			y 26, 2018
Polarize			Vertical			st Engin			Chuang
Detector		Peak	and Ave	rage	Te	est Volta	ge	120V	ac/60Hz
110.0 dBuV/m									
								Limit1: Limit2:	
70									
70									
		1 X							
		2 X							
30.0	00 000	0.00 1/	2700.00 100	00.00 2050	2 00 24400	00 20200	00 2220	0.00	
1000.000 4900	.00 880	0.00 12	2700.00 166	00.00 2050	0.00 24400).00 28300.	.00 3220)0.00 4	0000.00 MHz
F	D		Correc	t n			- 14		
Frequency (MHz)	(dE	ding BuV)	Factor (dB/m)	(dF	esult BuV/m)	Lin (dBu'		Margin (dB)	Remark
11490.000	46	.06	16.09	6	2.15	74.	00	-11.85	peak
11490.000	34	.28	16.09	5	0.37	54.	00	-3.63	AVG
N/A									
						1			1

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode)2.11n 20 M 785 MHz	1Hz/	Temp/⊦	lum	24(°C)	/ 33%RH	
Test Item	F	larmonic		Test D	ate	January 26, 201		
Polarize	F	lorizontal		Test Eng			Chuang	
Detector	Peak	and Average	je	Test Vol	tage	120V	ac/60Hz	
110.0 dBuV/m								
						Limit1: Limit2:	_	
						Lillinz.		
70								
70								
	1							
	*							
20.0								
30.0 1000.000 4 900.1	00 8800.00 1;	2700.00 16600.00	0 20500.00 2	24400.00 283	00.00 3220	00.00 4	0000.00 MHz	
1000.000 4300.	00 0000.00 1.	2700.00 10000.00) 20300.00 2	.4400.00 203	00.00 3220	90.00 4	UUUU.UU MITZ	
Frequency	Reading	Correct	Result		imit	Margin		
(MHz)	(dBuV)	Factor (dB/m)	(dBuV/m)		BuV/m)	(dB)	Remark	
11570.000	44.44	16.01	60.45	7	4.00	-13.55	peak	
11570.000	33.48	16.01	49.49	5	4.00	-4.51	AVG	
N/A								
			l				<u> </u>	

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		2.11n 20 M 325 MHz	Hz/	Temp/	Hum	24(°C)/	/ 33%RH	
Test Item	Н	armonic		Test I	Date	January 26, 201		
Polarize		/ertical		Test En			Chuang	
Detector	Peak	and Average	e	Test Vo	oltage	120Va	ac/60Hz	
110.0 dBu∀/m						Limit1:	_	
						Limit2:	_	
70								
	1 X							
	*							
30.0								
1000.000 4900	.00 8800.00 1.	2700.00 16600.00) 20500.00	24400.00 2	8300.00 322	00.00 40)000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resulf (dBuV/r		Limit IBuV/m)	Margin (dB)	Remark	
11650.000	44.80	15.93	60.73		74.00	-13.27	peak	
11650.000	34.92	15.93	50.85		54.00	-3.15	AVG	
N/A								

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		2.11n 20 M 325 MHz	Hz/	Tei	mp/Hu	ım	24(°0	C)/ 33%R	Н
Test Item		armonic			est Dat			ary 26, 20	
Polarize		orizontal			Engir			y Chuan	
Detector	Peak	and Averag	e	Tes	t Volta	age	120	Vac/60Hz	Z
110.0 dBuV/m									
							Limit1: Limit2:		
							Lillinz.		
70									
	1								
	×								
30.0									
1000.000 4900	.00 8800.00 1	2700.00 16600.00) 20500.00	24400.0	0 28300	.00 3220	0.00	40000.00 MHz	
		_	-				-	-	
Frequency	Reading	Correct	Resu	It	Lir	nit	Margin		
(MHz)	(dBuV)	Factor	(dBuV/		(dBu		(dB)	Rema	ark
11650.000	43.58	(dB/m) 15.93	59.5 ²			.00	-14.49	pea	k
11650.000	32.89	15.93	48.82			.00	-5.18	AVC	
				-	01		5.10		-
N/A									
				1					

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		IEEE 802.11n 40 MHz/ 5755 MHz		Temp/Hum	24(°C)/ 33%RH	
Test Item		larmonic		Test Date	January 26, 201	
Polarize		Vertical		est Engineer		Chuang
Detector	Peak	and Averag	je T	est Voltage	120Va	ac/60Hz
110.0 dBu∀/m						
					Limit1: Limit2:	_
70						
	1 X 2					
30.0 1000.000 4900.0	0 8800.00 12	2700.00 16600.00) 20500.00 244(10.00 28300.00 3220	00.00 40	000.00 MHz
-		Correct				
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11510.000	41.25	16.08	57.33	74.00	-16.67	peak
11510.000	28.60	16.08	44.68	54.00	-9.32	AVG
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		2.11n 40 M ⁄55 MHz	Hz/	Temp/Hum		um	24(°C)/ 33%R	
Test Item	Н	armonic		Т	est Da	ate	January 26, 20'	
Polarize	H	orizontal		Tes	t Engi	neer		Chuang
Detector	Peak	and Average	e	Test Voltage		120V	ac/60Hz	
110.0 dBuV/m							Limit1:	
							Limit2:	_
70								
70								
	1 X							
	2							
	×							
30.0								
1000.000 4900.	00 8800.00 1	2700.00 16600.00) 20500.00	24400.0	00 2830	0.00 3220	0.00 4	0000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV			imit uV/m)	Margin (dB)	Remark
11510.000	40.87	16.08	56.9	5	74	4.00	-17.05	peak
11510.000	29.09	16.08	45.1	7	54	4.00	-8.83	AVG
N/A								

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		2.11n 40 M ′95 MHz	Hz/	Te	emp/H	um	24(°C)/ 33%R	
Test Item		armonic			est Da			y 26, 2018
Polarize		/ertical			st Engi			[,] Chuang
Detector	Peaka	and Averag	е	Test Voltage		120\	/ac/60Hz	
110.0 dBu∀/m							Limit1:	
							Limit2:	
70								
	1 X							
	×							
30.0 1000.000 4900.	00 8800.00 12	2700.00 16600.00) 20500.00	24400.	00 2830	0.00 3220	00.00	40000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV			imit uV/m)	Margin (dB)	Remark
11590.000	40.54	16.00	56.5	4	74	4.00	-17.46	peak
11590.000	30.87	16.00	46.8	57	54	4.00	-7.13	AVG
N/A								

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode		2.11n 40 MI '95 MHz	Hz/	Temp	o/Hum	24(°C)/ 33%RH	
Test Item		armonic			Date	January	<i>י</i> 26, 2018
Polarize		orizontal			ngineer	Jerry	Chuang
Detector	Peaka	and Average	e	Test \	/oltage	120Va	ac/60Hz
110.0 dBu¥/m							
						Limit1: Limit2:	
70							
70							
	1 X						
	2 *						
30.0							
1000.000 4900.	00 8800.00 12	2700.00 16600.00	20500.00	24400.00	28300.00 3220	DO.OO 40	1000.00 M Hz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/r		Limit (dBuV/m)	Margin (dB)	Remark
11590.000	42.06	16.00	58.06		74.00	-15.94	peak
11590.000	29.87	16.00	45.87		54.00	-8.13	AVG
N/A							

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

4.6 FREQUENCY STABILITY

4.6.1 Test Limit

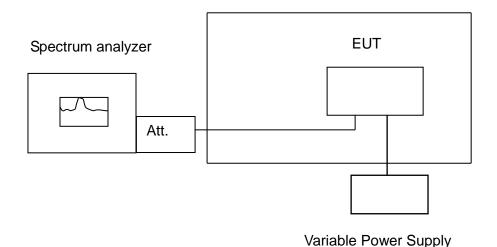
According to §15.407(g) manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the operational description.

4.6.2 Test Procedure

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 -20° C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

4.6.3 Test Setup

Temperature Chamber



4.6.4 Test Result

Tamm (00)	Valtaria ()()	Measured Frequency	51	80	(MHz)		Liı	nit		
Temp. (°C)	Voltage (V)		Time (min)		20ppm				Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
50	120	5179.91577	5179.91577	5179.91577	5179.91577	-16.2606	-16.2606	-16.2606	-16.2606	Pass
40	120	5179.92671	5179.92587	5179.92438	5179.92371	-14.1486	-14.3108	-14.5985	-14.7278	Pass
30	120	5179.93852	5179.93753	5179.93654	5179.93613	-11.8687	-12.0598	-12.2510	-12.3301	Pass
20	120	5179.94964	5179.94920	5179.94877	5179.94834	-9.7220	-9.8069	-9.8900	-9.9730	Pass
10	120	5179.95094	5179.95094	5179.95094	5179.95094	-9.4710	-9.4710	-9.4710	-9.4710	Pass
0	120	5179.93878	5179.94399	5179.94486	5179.94573	-11.8185	-10.8127	-10.6448	-10.4768	Pass
- (00)	V K 00	Measured Frequency	5180 (MHz)		(MHz)	Limit			-	
Temp. (°C)	Voltage (V)		Time (min)		20ppm				Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
20	108	5179.94964	5179.94964	5179.94964	5179.94834	-9.7220	-9.7220	-9.7220	-9.9730	Pass
20	120	5179.94964	5179.94920	5179.94877	5179.94834	-9.7220	-9.8069	-9.8900	-9.9730	Pass
20	132	5179.94834	5179.94964	5179.94964	5179.94834	-9.9730	-9.7220	-9.7220	-9.9730	Pass

Tamp (9C)		Measured Frequency	52	60	(MHz)		Lir	nit		
Temp. (°C)	Voltage (V)		Time (min)		20ppm				Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
50	120	5259.91577	5259.91534	5259.91491	5259.91470	-16.0133	-16.0951	-16.1768	-16.2167	Pass
40	120	5259.92564	5259.92468	5259.92381	5259.92274	-14.1369	-14.3194	-14.4848	-14.6882	Pass
30	120	5259.93010	5259.93231	5259.93252	5259.93256	-13.2888	-12.8688	-12.8289	-12.8213	Pass
20	120	5259.94616	5259.94573	5259.94530	5259.94860	-10.2357	-10.3175	-10.3992	-9.7719	Pass
10	120	5259.95051	5259.95007	5259.95007	5259.95007	-9.4087	-9.4924	-9.4924	-9.4924	Pass
0	120	5259.94747	5259.94790	5259.94834	5259.94834	-9.9867	-9.9049	-9.8213	-9.8213	Pass
Tamm (00)	Valtaria (A)	Measured Frequency	5260 (1		(MHz)	Limit				
Temp. (°C)	Voltage (V)		Time (min)		20ppm				Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
20	108	5259.94573	5259.94616	5259.94573	5259.94860	-10.3175	-10.2357	-10.3175	-9.7719	Pass
20	120	5259.94616	5259.94573	5259.94530	5259.94860	-10.2357	-10.3175	-10.3992	-9.7719	Pass
20	132	5259.94573	5259.94530	5259.94860	5259.94860	-10.3175	-10.3992	-9.7719	-9.7719	Pass

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Tamp (9C)		Measured Frequency	55	00	(MHz)		Liı	nit		
remp. (°C)	Voltage (V)		Time (min	min)			20ppm			
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
50	120	5499.91360	5499.91317	5499.91274	5499.91230	-15.7091	-15.7873	-15.8655	-15.9455	Pass
40	120	5499.92643	5499.92517	5499.92436	5499.92287	-13.3764	-13.6055	-13.7527	-14.0236	Pass
30	120	5499.93184	5499.93063	5499.93329	5499.93249	-12.3927	-12.6127	-12.1284	-12.2745	Pass
20	120	5499.93835	5499.93792	5499.93748	5499.93748	-11.2091	-11.2873	-11.3673	-11.3673	Pass
10	120	5499.94790	5499.94790	5499.94790	5499.94790	-9.4727	-9.4727	-9.4727	-9.4727	Pass
0	120	5499.94834	5499.94703	5499.94703	5499.94703	-9.3927	-9.6309	-9.6309	-9.6309	Pass
Tamm (0C)		Measured Frequency	55	5500		Limit				
remp. (°C)	Voltage (V)		Time (min)			20p	pm		Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
20	108	5499.93748	5499.93792	5499.93792	5499.93792	-11.3673	-11.2873	-11.2873	-11.2873	Pass
20	120	5499.93835	5499.93792	5499.93748	5499.93792	-11.2091	-11.2873	-11.3673	-11.2873	Pass
20	132	5499.93748	5499.93792	5499.93792	5499.93792	-11.3673	-11.2873	-11.2873	-11.2873	Pass

Tomp (90)		Measured Frequency	57	45	(MHz)		Lir	nit		
remp. (°C)	Voltage (V)		Time (min)				20ppm			
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
50	120	5744.91360	5744.91317	5744.91274	5744.91230	-15.0392	-15.1140	-15.1889	-15.2654	Pass
40	120	5744.92187	5744.92143	5744.92108	5744.92091	-13.5997	-13.6762	-13.7372	-13.7668	Pass
30	120	5744.93087	5744.93065	5744.93042	5744.93056	-12.0331	-12.0722	-12.1112	-12.0869	Pass
20	120	5744.93401	5744.93357	5744.93357	5744.93314	-11.4865	-11.5631	-11.5631	-11.6379	Pass
10	120	5744.94530	5744.94573	5744.94530	5744.94530	-9.5213	-9.4465	-9.5213	-9.5213	Pass
0	120	5744.94530	5744.94486	5744.94486	5744.94443	-9.5213	-9.5979	-9.5979	-9.6728	Pass
Tamm (0 C)		Measured Frequency	57	45	(MHz)	Limit				
remp. (°C)	Voltage (V)		Time (min)		20ppm				Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
20	108	5744.93314	5744.93357	5744.93357	5744.93314	-11.6379	-11.5631	-11.5631	-11.6379	Pass
20	120	5744.93401	5744.93357	5744.93357	5744.93314	-11.4865	-11.5631	-11.5631	-11.6379	Pass
20	132	5744.93314	5744.93314	5744.93314	5744.93314	-11.6379	-11.6379	-11.6379	-11.6379	Pass

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4.7 DYNAMIC FREQUENCY SELECTION

4.7.1 Test Limit

FCC according to §15.407 (h), KDB 905462 D02 "compliance measurement procedures for unlicensed-national information infrastructure devices operating in the 5250-5350 MHz and 5470-5725 MHz bands incorporating dynamic frequency selection". and KDB 905462 D03 " U-NII client devices without radar detection capability.

IC according RSS-247 section 6.3, and it harmonized with FCC Part 15 DFS rules.

The EIRP refer section 4.3 output power measurement in this report.

Table 1: Applicability of DFS requirements prior to use of a channel

D emission		Operational Mode						
Requirement	Master	Client (without radar detection)	Client(with radar detection)					
Non-Occupancy Period	Yes	Not required	Yes					
DFS Detection Threshold	Yes	Not required	Yes					
Channel Availability Check Time	Yes	Not required	Not required					
U-NII Detection Bandwidth	Yes	Not required	Yes					

Table 2: Applicability of DFS requirements during normal operation

D e université	Operational Mode				
Requirement	Master Device or Client with Radar Detection	Client Without Radar Detection			
DFS Detection Threshold	Yes	Not required			
Channel Closing Transmission Time	Yes	Yes			
Channel Move Time	Yes	Yes			
U-NII Detection Bandwidth	Yes	Not required			

Additional requirements for devices with	Master Device or Client with	Client Without Radar Detection				
multiple bandwidth mods	Radar Detection					
U-NII Detection Bandwidth and Statistical	All BW modes must be	Not required				
Performance Check	tested	Not required				
Channel Move Time and Channel Closing Test using widest BW mode Test using the widest BW						
Transmission Time available available for the						
All other tests	Any single BW mode	Not required				
Note: Frequencies selected for statistic	al performance check (Section	n 7.8.4) should include several				
frequencies within the radar detection bandwidth and frequencies near the edge of the radar						
detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the						
bonded 20 MHz cha	annels and the channel center	frequency.				

Table 3: Interference Threshold values, Master or Client incorporating In-Service

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.

Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

Table 4: DFS Response requirement values

Parameter	Value			
Non-occupancy period	Minimum 30 minutes			
Channel Availability Check Time	60 seconds			
Channel Move Time	10 seconds See Note 1.			
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.			
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.			

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials	
0	1	1428	18	See Not	e 1	
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a Test B: 15 unique PRI values randomly selected within the range of 518-3066 µsec, with a minimum increment of 1 µsec, excluding PRI values selected in Test A	$\operatorname{Roundup} \left\{ \begin{pmatrix} \frac{1}{360} \end{pmatrix} \cdot \\ \begin{pmatrix} \frac{19 \cdot 10^6}{\operatorname{PRI}_{\mu \operatorname{sec}}} \end{pmatrix} \right\}$	60%	30	
2	1-5	150-230	23-29	60%	30	
3	6-10	200-500	16-18	60%	30	
4	11-20	200-500	12-16	60%	30	
Note 1: S	Aggregate (Radar Types 1-4)80%120Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

Radar Type	Pulse Width (µsec)	Chirp Width (MHz)	.	Number of Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Number of Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

Table 6 – Long Pulse Radar Test Signal

Table 7 – Frequency Hopping Radar Test Signal

F	Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Number of Trials
	6	1	333	9	0.333	300	70%	30

4.7.2 Test Procedure

Overview Of EUT With Respect To §15.407 (H) Requirements

The firmware installed in the EUT during testing was:

Firmware Rev: 0.0.35.2_20171101.100446

The EUT operates over the 5250-5350 MHz range as a Client Device that does not have radar detection capability.

The EUT uses one transmitter connected to two 50-ohm coaxial antenna ports via a diversity switch. Only one antenna port is connected to the test system since the EUT has one antenna only.

The Slave device associated with the EUT during these tests does not have radar detection capability.

WLAN traffic is generated by streaming the video file TestFile.mp2 "6 ½ Magic Hours" from the Master to the Slave in full motion video mode using the media player with the V2.61 Codec package.

The EUT utilizes the 802.11a architecture, with a nominal channel bandwidth of 20 MHz.

The rated output power of the Master unit is < 23dBm (EIRP). Therefore the required interference threshold level is -62 dBm. After correction for antenna gain and procedural adjustments, the required conducted threshold at the antenna port is -62 + 5 = -57dBm.

The calibrated conducted DFS Detection Threshold level is set to -57 dBm. The tested level is lower than the required level hence it provides margin to the limit.

Manufacturer's Statement Regarding Uniform Channel Spreading

The end product implements an automatic channel selection feature at startup such that operation commences on channels distributed across the entire set of allowed 5GHz channels. This feature will ensure uniform spreading is achieved while avoiding non-allowed channels due to prior radar events.

TEST AND MEASUREMENT SYSTEM

System Overview

The measurement system is based on a conducted test method.

The short pulse and long pulse signal generating system utilizes the NTIA software. The Vector Signal Generator has been validated by the NTIA. The hopping signal generating system utilizes the CCS simulated hopping method and system, which has been validated by the DoD, FCC and NTIA. The software selects waveform parameters from within the bounds of the signal type on a random basis using uniform distribution.

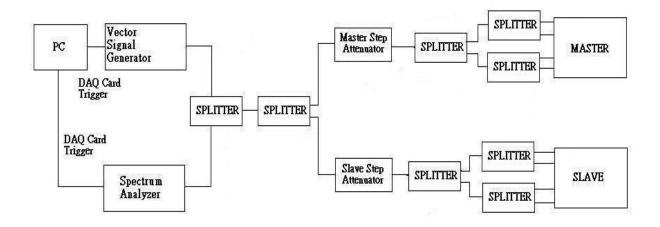
The short pulse types 2, 3 and 4, and the long pulse type 5 parameters are randomized at run-time.

The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the August 2005 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated Frequency Hopping Radar Waveform Generating Subsystem of FCC 06-96 APPENDIX. The frequency of the signal generator is incremented in 1 MHz steps from FL to FH for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

The signal monitoring equipment consists of a spectrum analyzer set to display 8001 bins on the horizontal axis. The time-domain resolution is 2 msec / bin with a 16 second sweep time, meeting the 10 second short pulse reporting criteria. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection and max hold. The time-domain resolution is 3 msec / bin with a 24 second sweep time, meeting the 22 second long pulse reporting criteria and allowing a minimum of 10 seconds after the end of the long pulse waveform.

Should multiple RF ports be utilized for the Master and/or Slave devices (for example, for diversity or MIMO implementations), 50 ohm termination would be removed from the splitter so that connection can be established between splitter and the Master and/or Slave devices.

Conducted Method System Block Diagram



System Calibration

Connect the spectrum analyzer to the test system in place of the master device. Set the signal generator to CW mode. Adjust the amplitude of the signal generator to yield a measured level of –62 dBm on the spectrum analyzer.

Without changing any of the instrument settings, reconnect the spectrum analyzer to the Common port of the Spectrum Analyzer Combiner/Divider and connect a 50 ohm load to the Master Device port of the test system.

Measure the amplitude and calculate the difference from –62 dBm. Adjust the Reference Level Offset of the spectrum analyzer to this difference. Confirm that the signal is displayed at –62 dBm. Readjust the RBW and VBW to 3 MHz, set the span to 10 MHz, and confirm that the signal is still displayed at –62 dBm.

The spectrum analyzer displays the level of the signal generator as received at the antenna ports of the Master Device. The interference detection threshold may be varied from the calibrated value of –62 dBm and the spectrum analyzer will still indicate the level as received by the Master Device.

Set the signal generator to produce a radar waveform, trigger a burst manually and measure the level on the spectrum analyzer. Readjust the amplitude of the signal generator as required so that the peak level of the waveform is at a displayed level equal to the required or desired interference detection threshold. Separate signal generator amplitude settings are determined as required for each radar type.

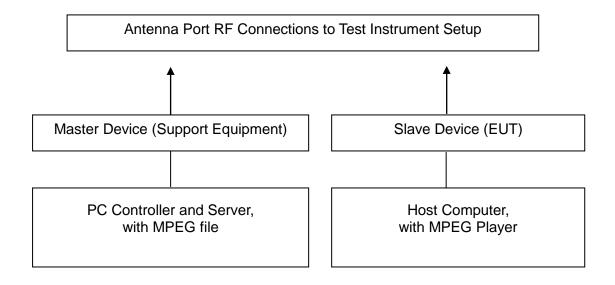
Adjustment Of Displayed Traffic Level

Establish a link between the Master and Slave, adjusting the Link Step Attenuator as needed to provide a suitable received level at the Master and Slave devices. Stream the video test file to generate WLAN traffic. Confirm that the WLAN traffic level, as displayed on the spectrum analyzer, is at lower amplitude than the radar detection threshold. Confirm that the displayed traffic is from the Master Device. For Master Device testing confirm that the displayed traffic does not include Slave Device traffic. For Slave Device testing confirm that the displayed traffic does not include Master Device traffic.

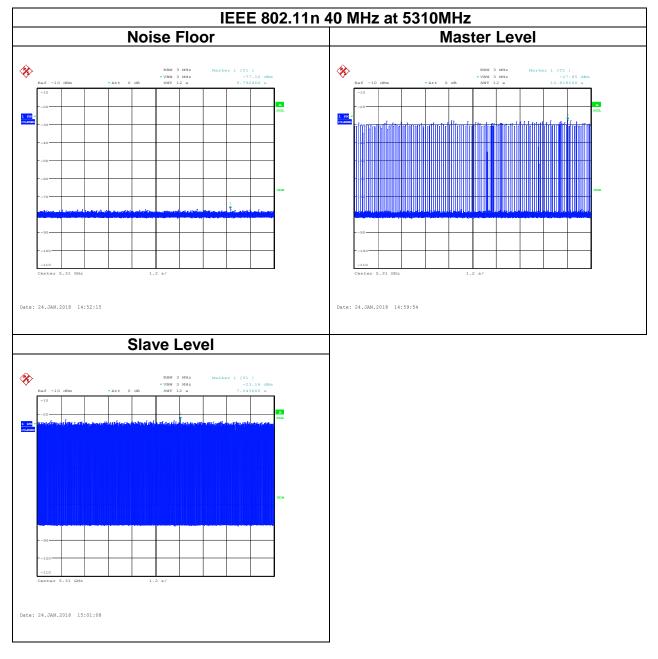
If a different setting of the Master Step Attenuator is required to meet the above conditions, perform a new System Calibration for the new Master Step Attenuator setting.

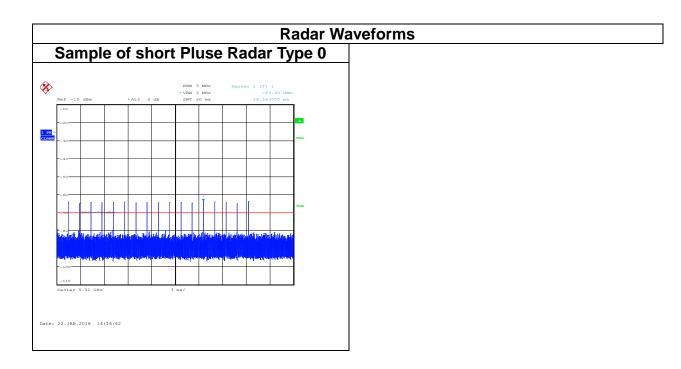


4.7.3 Test Setup



4.7.4 Test Result





TEST CHANNEL AND METHOD

All tests were performed at a channel center frequency of 5310 MHz utilizing a conducted test method.

CHANNEL MOVE TIME AND CHANNEL CLOSING TRANSMISSION TIME GENERAL REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

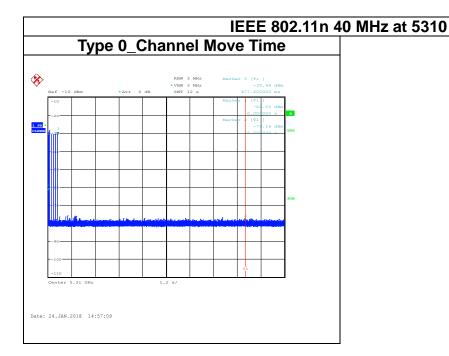
Aggregate Transmission Time =

(Number of analyzer bins showing transmission) * (dwell time per bin)

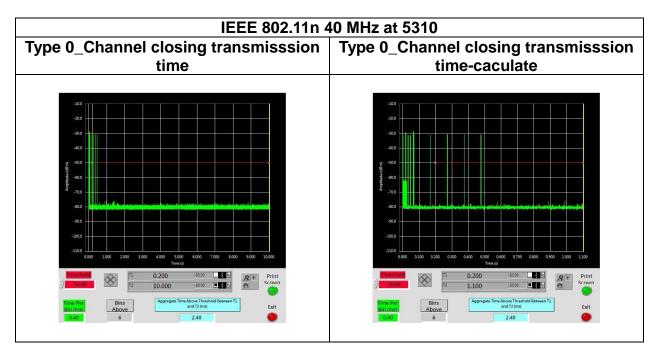
The observation period over which the aggregate time is calculated

Begins at (Reference Marker + 200 msec) and

Ends no earlier than (Reference Marker + 10 sec).



Channel Move Time	Limit
(s)	(s)
0.4776	10



Aggregate Transmission Time	Limit	Margin
(ms)	(ms)	(ms)
2.4	60	-57.6