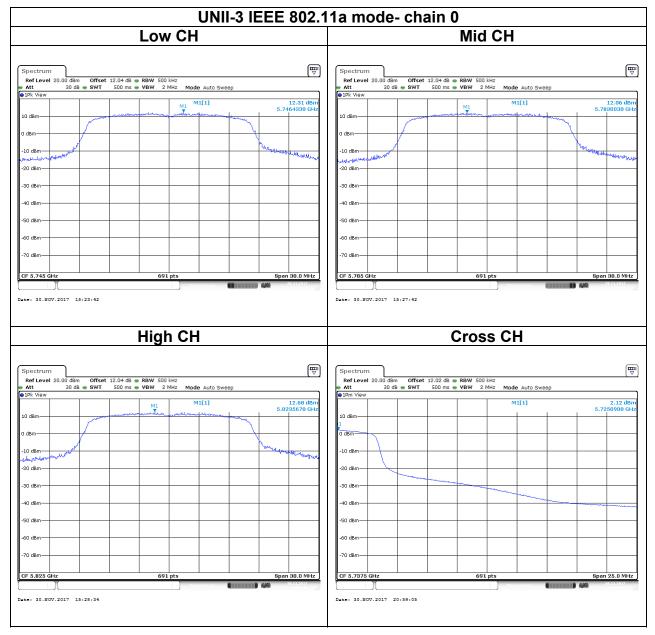
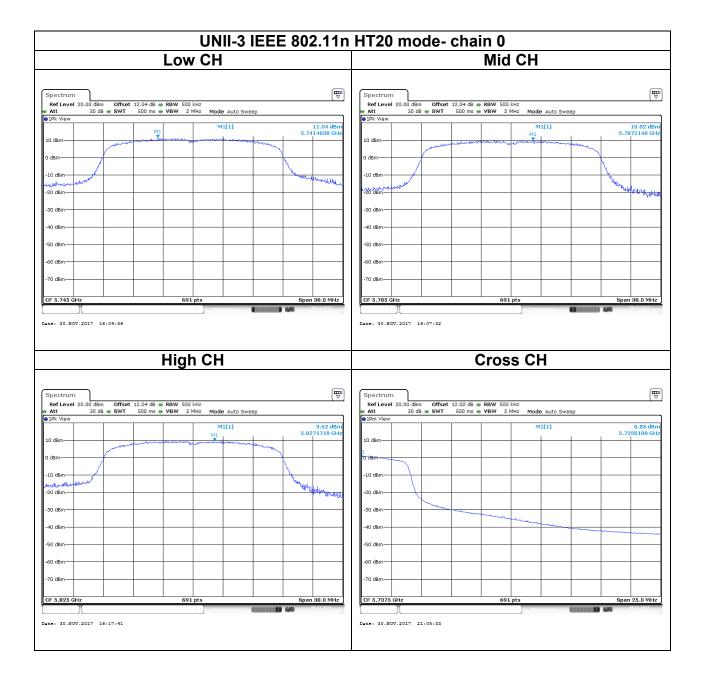
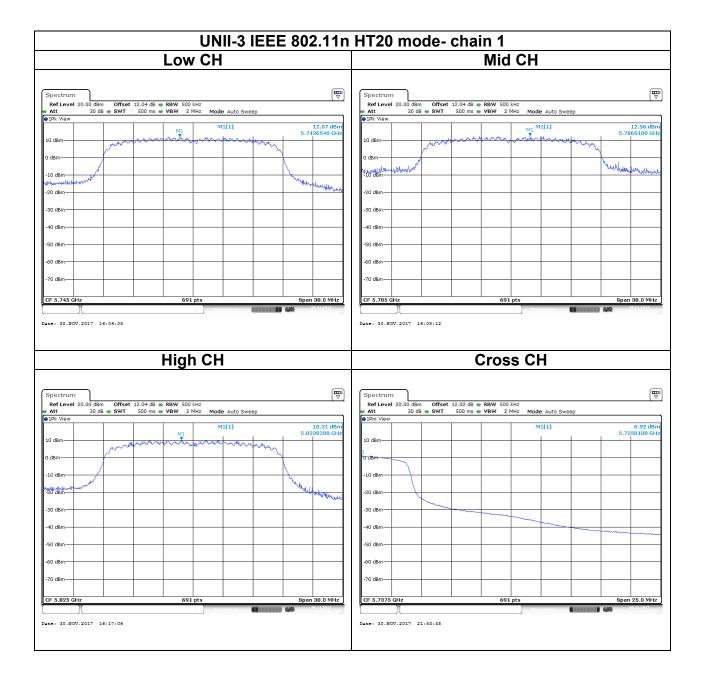


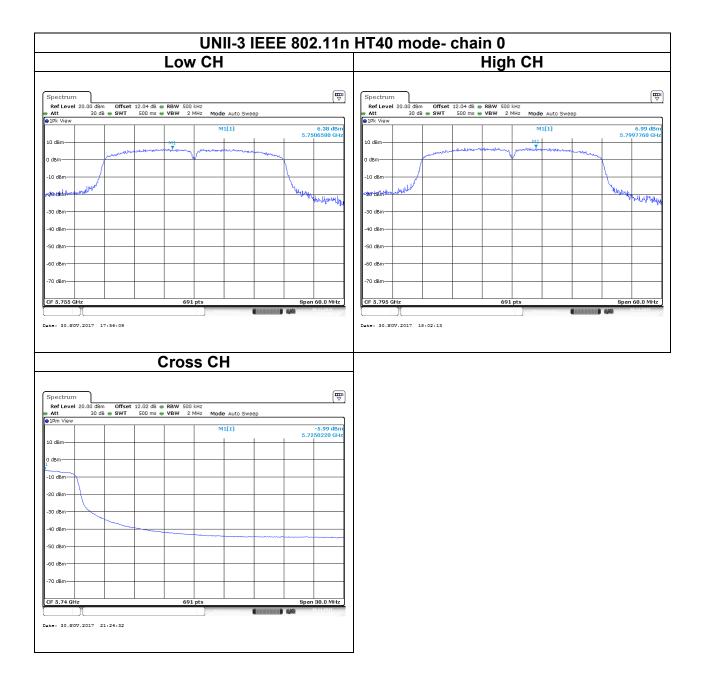
ECERCE Compliance Certification Services Inc. FCC ID: PPQ-WCBN3509ANB ISED NO: 4491A-WCBN3509ANB

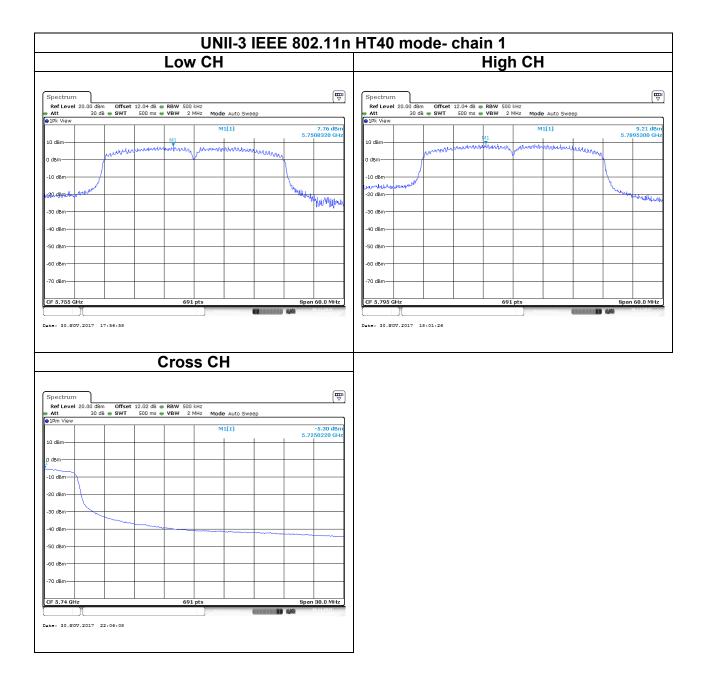
<u>Test Data</u>

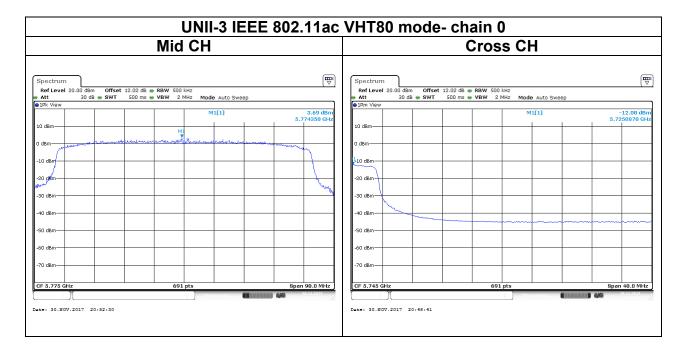


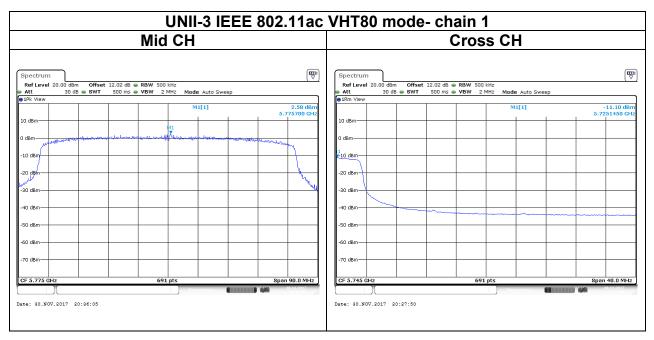












4.5 RADIATION BANDEDGE AND SPURIOUS EMISSION

4.5.1 Test Limit

FCC according to §15.407, §15.209 and §15.205,

Below 30 MHz

Frequency	Field Strength (microvolts/m)	Magnetic H-Field (microamperes/m)	Measurement Distance (metres)
9-490 kHz	2,400/F (F in kHz)	2,400/F (F in kHz)	300
490-1,705 kHz	24,000/F (F in kHz)	24,000/F (F in kHz)	30
1.705-30 MHz	30	N/A	30

Above 30 MHz

Frequency	Field Stre microvolts/m at 3 metr	
(MHz)	Transmitters	Receivers
30-88	100 (3 nW)	100 (3 nW)
88-216	150 (6.8 nW)	150 (6.8 nW)
216-960	200 (12 nW)	200 (12 nW)
Above 960	500 (75 nW)	500 (75 nW)

IC according to RSS-247 section 6.2.1(2), section 6.2.2(2), section 6.2.3(2) and section 6.2.4(2)

<u>UNII-1 :</u>

For transmitters operating in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. However, any unwanted emissions that fall into the band 5250-5350 MHz must be 26 dBc, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth, above 5.25 GHz. Otherwise, the transmission is considered as intentional and the devices shall implement dynamic frequency selection (DFS) and transmitter power control (TPC) as per the requirements for the band 5250-5350 MHz

UNII-2a and 2c :

For devices with operating frequencies in the band 5250-5350 MHz but having a channel bandwidth that overlaps the band 5150-5250 MHz, the devices' unwanted emission shall not exceed -27 dBm/MHz e.i.r.p. outside the band 5150-5350 MHz and its power shall comply with the spectral power density for operation within the band 5150-5250 MHz. The device shall be labelled "for indoor use only." Emissions outside the band 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

<u>UNII-3:</u>

All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

4.5.2 Test Procedure

Test method Refer as KDB 789033 D02 v01r04, Section G.3, G.4, G.5, and G.6,.

1. The EUT is placed on a turntable, Above 1 GHz is 1.5m and below 1 GHz is 0.8m above ground plane. The EUT Configured un accordance with ANSI C63.10, and the EUT set in a continuous mode.

2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. And EUT is set 3m away from the receiving antenna, which is scanned from 1m to 4m above the ground plane to find out the highest emissions. Measurement are made polarized in both the vertical and the horizontal positions with antenna.

3. Span shall wide enough to full capture the emission measured. The SA from 30MHz to 26.5GHz set to the low, Mid and High channels with the EUT transmit.

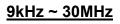
- 5. The SA setting following :
 - (1) Below 1G : RBW = 100kHz, VBW ≥ 3*RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
 - (2) Above 1G:
 - (2.1) For Peak measurement : RBW = 1MHz, VBW ≥ 3 RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
 - (2.2) For Average measurement : RBW = 1MHz, VBW

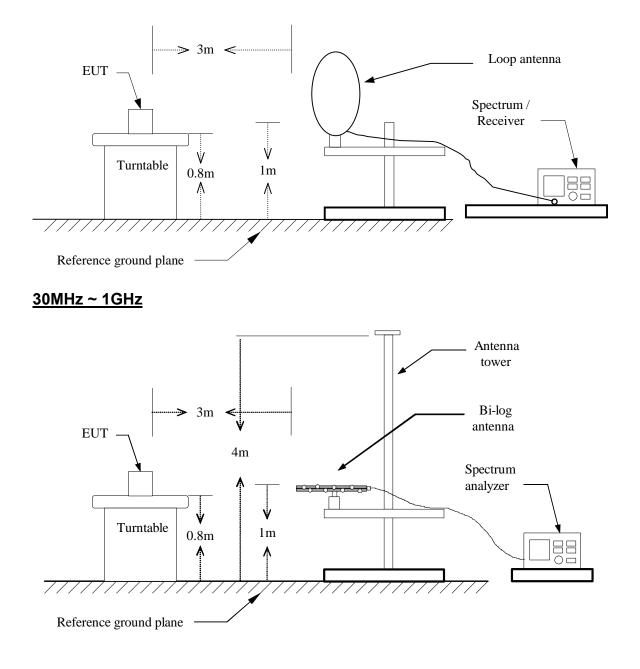
'If Duty Cycle ≥ 98%, VBW=10Hz.

[·]If Duty Cycle < 98%, VBW=1/T.

Configuration	Duty Cycle (%)	T(ms)	1/T (kHz)	VBW Setting
802.11a	97%	1.4800	675.676	680Hz
802.11n HT20	95%	0.7200	1388.889	1.5KHz
802.11n HT40	87%	0.3900	2564.103	2.7KHz
802.11ac VHT80	92%	0.1200	8333.333	9.1KHz

4.5.3 Test Setup

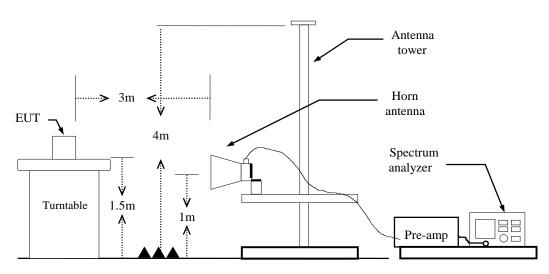




Compliance Certification Services Inc. FCC ID: PPQ-WCBN3509ANB ISED NO: 4491A-WCBN3509ANB

Report No.: T171127W01-RP2

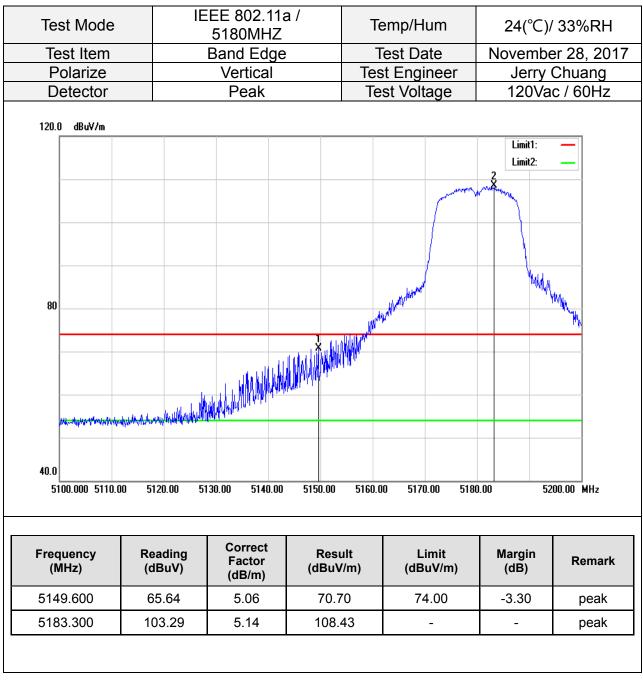
Above 1 GHz



4.5.4 Test Result

Test Data

Band Edge Test Data for UNII-1



Test Mode		IEEE 802.11 5180MHZ		Ten	nperature	24(°C)/	′ 33%RH
Test Item		Band Edge	9		est Date		er 28, 201
Polarize		Vertical		Test	Test Engineer Jerry		Chuang
Detector		Average		Tes	t Voltage	120Va	c / 60Hz
120.0 dBuV/m							
						Limit1: Limit2:	
80							
40.0 5100.000 5110.	00 5120.00	5130.00 5140.00	5150.00	5160.00	5170.00 518	0.00 52	200.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV/		Limit (dBuV/m)	Margin (dB)	Remark
5150.000	46.53	5.06	51.5	9	54.00	-2.41	AVG
5178.300	94.12	5.14	99.2	6	-	-	AVG
5178.300	94.12	5.14	99.2	6	-	-	AVG

Test Mode		IEEE 802.11a / 5240MHZ		ſemp/Hum	24(°C)/	33%RH	
Test Item		Band Edge		Test Date	Novembe		
Polarize		Vertical		st Engineer	Jerry	Chuang	
Detector		Peak	Te	est Voltage	120Vac / 60Hz		
120.0 dBuV/m							
			2		Limit1: Limit2:	_	
80							
			11/1/1				
tourist syntaxelisticities	www.townwardh.hll			"" WITH ALL AND THE	m hannar arta a	han the	
40.0							
5100.000 5130.	00 5160.00	5190.00 5220.00	5250.00 5280	.00 5310.00 534	0.00 54	00.00 MHz	
Frequency	Reading	Correct	Result	Limit	Margin		
(MHz)	(dBuV)	Factor (dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Remark	
5150.000	50.60	5.06	55.66	74.00	-18.34	peak	
5242.800	105.75	5.29	111.04	-	-	peak	
	50.11	5.63	55.74	74.00	-18.26	peak	

Test Mode	IE	EE 802.11a 5240MHZ	a /	Temp/Hum	1 24(°C	C)/ 33%RH	
Test Item		Band Edge		Test Date	Novem	November 28, 201	
Polarize		Vertical		Test Engine	er Jerry	Jerry Chuang	
Detector		Average		Test Voltag	e 120V	/ac / 60Hz	
120.0 dBuV/m							
					Limit1: Limit2:		
			2				
80							
	1				3		
40.0	¥			the second secon	¥		
5100.000 5130.0	0 5160.00 5	190.00 5220.00	5250.00	5280.00 5310.00	5340.00	5400.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/n			Remark	
5138.100	37.50	5.03	42.53	54.00) -11.47	AVG	
5242.800	95.27	5.29	100.56	; -	-	AVG	
5242.000		1	42.66	54.00) -11.34	AVG	

Test Mode		302.11n HT2 5180MHZ	20 /				C)/ 33%RH
Test Item	B	and Edge		Test Dat	е	November 28, 201	
Polarize		Vertical		Test Engineer Jerry Chua			
Detector		Peak		Test Voltage 120Vac / 60Hz			/ac / 60Hz
120.0 dBu¥/m							
					phillipping	Limit1: Limit2:	
80				a ni Un part with the			WU WILL
hyrimanhaisianna	usyaanyo muthii jaliidaa ay hada	her whether the state					
40.0 5100.000 511		130.00 5140.00	5150.00	5160.00 5170.0		0.00	5200.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resulf (dBuV/r			Margin (dB)	Remark
5149.300	66.30	5.06	71.36	74.	00	-2.64	peak
	102.07	5.14	107.21	4		_	peak

Test Mode		02.11n HT2 180MHZ	20 /	Те	mp/Hum	24(°C)	/ 33%RH
Test Item	Ba	and Edge		Te	est Date	Novembe	er 28, 2017
Polarize		Vertical		Tes	t Engineer		Chuang
Detector		Average		Tes	st Voltage	120Va	c / 60Hz
120.0 dBuV/m							
						Limit1: Limit2:	
						2	
80							
40.0							
5100.000 5110.	00 5120.00 51	130.00 5140.00	5150.00	5160.00) 5170.00 518	0.00 52	200.00 MHz
Frequency	Reading	Correct	Resu	ul t	Limit	Margin	
(MHz)	(dBuV)	Factor (dB/m)	(dBuV		(dBuV/m)	(dB)	Remark
5149.800	45.73	5.06	50.7	9	54.00	-3.21	AVG
5181.800	91.58	5.14	96.7	2	-	-	AVG

Test Mode)2.11n HT2 240MHZ	0 /	Te	emp/Hum	24(°C)/	33%RH
Test Item	Ba	nd Edge		T	est Date	November 28, 201	
Polarize	۱	/ertical		Tes	t Engineer	Jerry Chuang	
Detector		Peak		Tes	st Voltage	120Va	c / 60Hz
120.0 dBuV/m	· · · · · · · · · · · · · · · · · · ·						
			2			Limit1: Limit2:	_
			(1)				
		UND A					
80				V.			
	, , , , , , , , , , , , , , , , , , ,	I WWWWWW		WW			3
and and a second and	an addies in some op standal the				man and a star and a st	www.manageretyme.headed	MHWW AN
40.0							
5100.000 5130).00 5160.00 51	90.00 5220.00	5250.00	5280.00	0 5310.00 534	0.00 54	00.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV		Limit (dBuV/m)	Margin (dB)	Remark
5130.000	53.76	5.01	58.7	7	74.00	-15.23	peak
5242.800	103.93	5.29	109.2	22	-	-	peak
5397.000	53.90	5.68	59.5	8	74.00	-14.42	peak

Test Mode		2.11n HT2(40MHZ)/ Te	emperature	24(°C)/ 33%RH	
Test Item	Ba	nd Edge		Test Date	Novembe	er 28, 2017
Polarize		ertical	Те	st Engineer	Jerry Chuang	
Detector	A	verage	Te	est Voltage	120Va	c / 60Hz
120.0 dBu¥/m					Limit1:	
80						
40.0	+			Marine and a second	3	
5100.000 513	0.00 5160.00 5	190.00 5220.00	5250.00 5280.	.00 5310.00 534	0.00 54	00.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5134.800	42.04	5.02	47.06	54.00	-6.94	AVG
5242.200	93.75	5.29	99.04	-	-	AVG
5374.200	41.70	5.61	47.31	54.00	-6.69	AVG

Test N	Mode	IEEE 802.11n HT40 / 5190MHZ			Те	emp/Hum	. ,		
Test	Item		Ва	nd Edge			est Date	Novemb	er 28, 201
Pola	arize		\	/ertical			est Engineer Jerry Chuang		
Dete	ector			Peak		Tes	Test Voltage 120Vac / 60H		
120.0) dBuV/m							Limit1:	
								Limit2:	_
-							/ Mary may da mais	2 Mary Mador Maddamay	Wenter
80									
I							1		
		L. Ludu HA	n d Unichthairth	Almenatelation	AN AT WHICH HAVE	upilas had			
	daan babapat Milada	humatud	n de	Mwennthillinitie	ANATIVUUAAMA	synnellen			
	di, an Indonewi Miland	hannathaladh	n de de Martin de Mar La compacta de la compacta de Martin de M La compacta de la compacta de Martin de M	NWYWNNIN	MANNUM	ummhn ^{Alfr}			
40.0	1			33.00 5144		5166.0		88.00 57	210.00 MHz
40.0								88.00 57	210.00 MHz
40.0 51			2.00 51 ding			5166.0		88.00 5; Margin (dB)	210.00 MHz Remark
40.0 51 Freq (M	00.000 5111. Juency	00 5122	2.00 51 ding uV)	33.00 5144 Correct Factor	.00 5155.00 Res	5166.0 ult V/m)	0 5177.00 51 Limit	Margin	

Test Mode		2.11n HT4(90MHZ) /	Temperature			24(°C)/ 33%RH	
Test Item		nd Edge			est Date		November 28, 201	
Polarize	V	ertical		Test Engineer		er	Jerry Chuang	
Detector	A	verage		Tes	st Voltag	e	120Va	c / 60Hz
120.0 dBuV/m								
							Limit1: Limit2:	_
							2	
80								~
				and the second				
		m - Harden Maranda Marana						
40.0								
5100.000 51	11.00 5122.00 51	133.00 5144.00	5155.00	5166.00) 5177.00	5188.0	0 52	210.00 MHz
Frequency	Reading	Correct	Resu	.14	Limi		Margin	
(MHz)	(dBuV)	Factor (dB/m)	(dBuV		(dBuV/		(dB)	Remark
5149.830	45.81	5.06	50.8	57	54.00	0	-3.13	AVG
5195.480	85.95	5.18	91.1	3	-		-	AVG

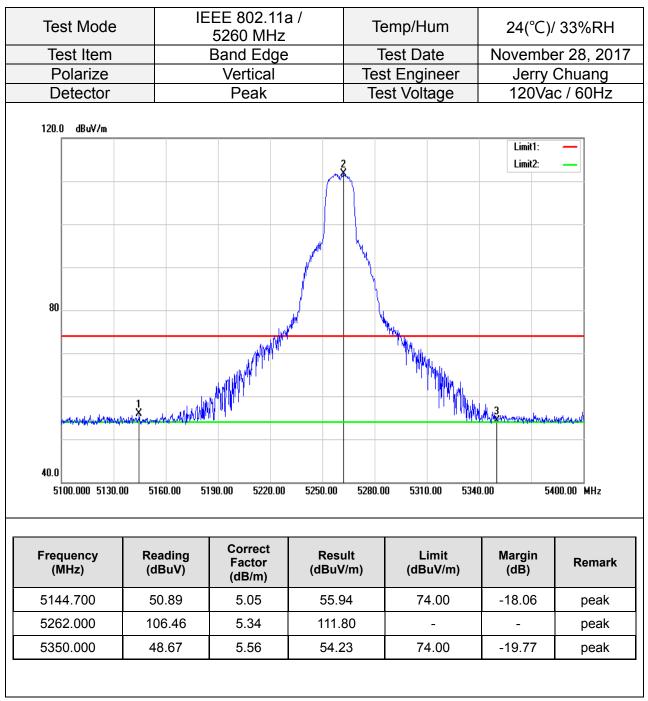
Test Mode)2.11n HT4 230MHZ	0 /	Те	mp/Hum	24(°C)/	33%RH
Test Item		nd Edge		Te	est Date	November 28, 20	
Polarize	۱	/ertical			Engineer	Jerry Chuang	
Detector		Peak		Tes	st Voltage	120Va	c / 60Hz
120.0 dBu¥/m							
			priming			Limit1: Limit2:	_
80	, <u>/</u>	M	1. M.M.	hulle with			
naa sharkane Mar-Ma	and the department				WM Marine a	3 Mariana ang ang ang ang ang ang ang ang ang	withly
40.0 5100.000 5130		90.00 5220.00	5250.00	5280.00			00.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV		Limit (dBuV/m)	Margin (dB)	Remark
5145.000	57.57	5.06	62.6	3	74.00	-11.37	peak
5224.800	102.29	5.24	107.5	53	-	-	peak
5367.000	55.07	5.60	60.6	7	74.00	-13.33	peak
5145.000 5224.800	57.57 102.29	5.06 5.24	62.6 107.5	3	74.00 -	-11.37	peak

Test Mode)2.11n HT4 230MHZ	0 /	Те	mp/Hum		24(°C)/	33%RH
Test Item		nd Edge			est Date			er 28, 2017
Polarize		/ertical			t Enginee			Chuang
Detector	A	verage		Tes	st Voltage		120Va	c / 60Hz
120.0 dBuV/m								
							Limit1: Limit2:	_
		2 X	~					
80			,					
	/			~~~				
40.0				-	and the second s			dam _{add} ,
5100.000 5130.	00 5160.00 51	90.00 5220.00	5250.00	5280.00	5310.00	5340.00	54	00.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV		Limit (dBuV/n	Ma 1) (argin dB)	Remark
5148.600	42.58	5.06	47.6	4	54.00	-6	6.36	AVG
5224.200	90.42	5.24	95.6	6	_		-	AVG
5352.900	41.85	5.56	47.4	1	54.00	-6	6.59	AVG
			.			•		

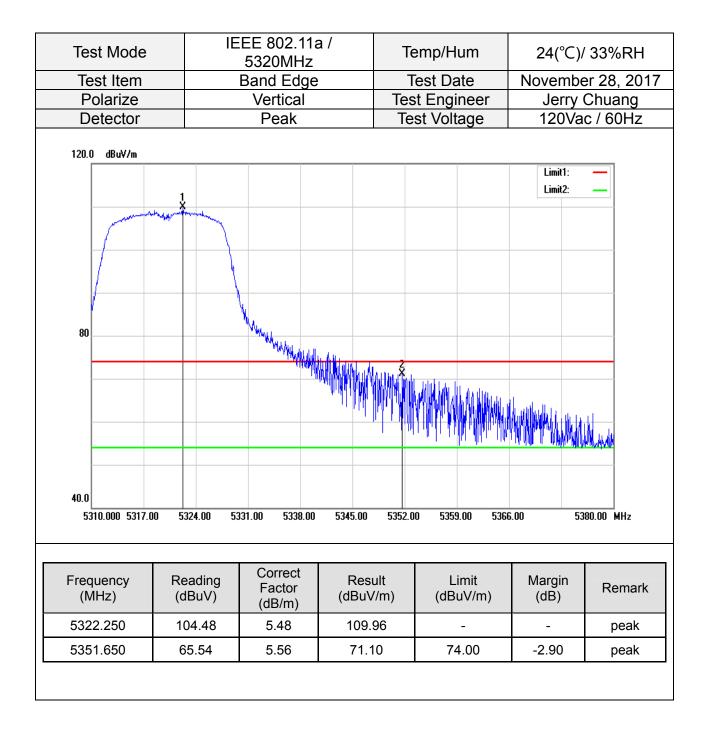
Band Edg	Z	Temp/	Hum	24(°C)/	33%RH
_0.10 _0,	ge	Test D		November 28, 2017	
Vertical		Test Eng			Chuang
Peak		Test Vo	ltage	120Va	c / 60Hz
				l imit1	
		weekser warralling of	2 mhadhallamanan	Limit2:	Horthan .
ryydroddianaddiadai	Ner Martin				
5130.00 5145.00 !	5160.00 5175.00	5190.00 52	205.00 5220	0.00 52	50.00 MHz
Reading Corre (dBuV) (dB/u	or (dBu)		Limit BuV/m)	Margin (dB)	Remark
(dBu)() Fact	or (dBu\ m)	//m) (d		Margin (dB) -9.36	Remark peak

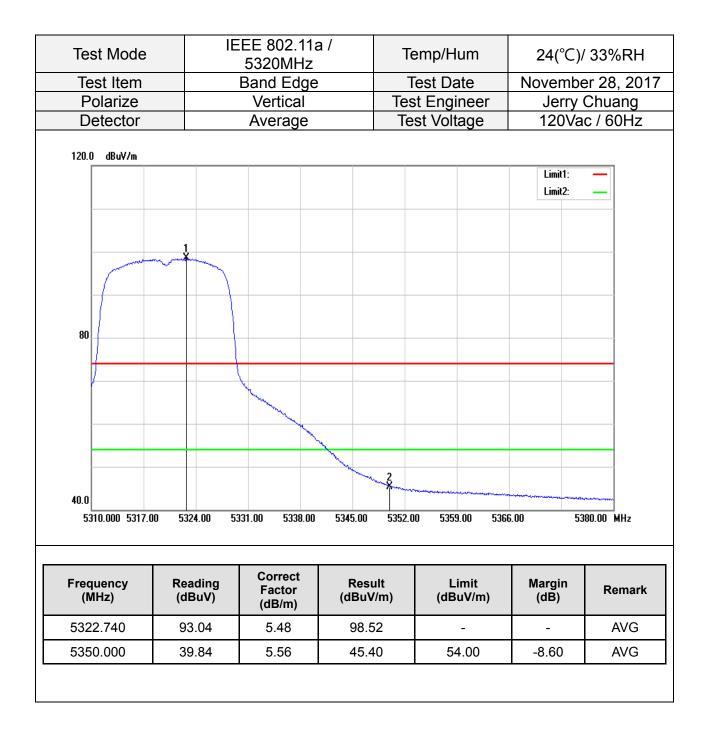
Test Item Polarize Detector	è		Don	· _ ·				24(°C)/ 33%RH		
Detector				d Edge			est Date	November 28, 2017		
			Ve	ertical			Engineer	Jerry Chuang		
120.0_ dBu	r		Av	erage		Tes	t Voltage	120Va	c / 60Hz	
	uV/m									
								Limit1: Limit2:	_	
80					(MANNA	2 Any A	Many Marine	mymm	Mary	
		where we want	the second s	Mannam	MA					
40.0										
5100.000	0 5115.00	5130.00	5145	5.00 5160.00	0 5175.00	5190.00	5205.00 522	0.00 52	50.00 MHz	
Frequenc (MHz)	су	Readin (dBuV	g)	Correct Factor (dB/m)	Resi (dBuV		Limit (dBuV/m)	Margin (dB)	Remark	
5134.65	0	46.38		5.02	51.4	0	54.00	-2.60	AVG	
5183.70	0	83.73		5.14	88.8	37	-	-	AVG	

Band Edge Test Data for UNII-2a



Test Mode	IE	EEE 802.11a 5260MHz	a /	Temp/	Hum	24(°C)/	33%RH
Test Item		Band Edge		Test [Novembe	er 28, 2017
Polarize		Vertical		Test En		Jerry	Chuang
Detector		Average		Test Vo	oltage	120Va	c / 60Hz
120.0 dBuV/m							
						Limit1: Limit2:	_
			2				
80							
40.0	1					3	
5100.000 5130.0	0 5160.00 5	190.00 5220.00	5250.00	5280.00 5	310.00 5340	D.OO 54	00.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/n		Limit IBuV/m)	Margin (dB)	Remark
5136.000	36.92	5.03	41.95		54.00	-12.05	AVG
5259 400	95.45	5.34	100.79)	-	-	AVG
5258.400					54.00	-11.53	





Test Mode		302.11n HT2 5260MHz	20 /	Temp/Hum	24(°C)/	/ 33%RH
Test Item	B	and Edge		Test Date	Novembe	er 28, 2017
Polarize		Vertical		Test Engineer		Chuang
Detector		Peak		Test Voltage	120Va	c / 60Hz
120.0 dBuV/m					Limit1:]
80	haterentering over the section of th					3
40.0	30.00 5160.00 5	190.00 5220.00	5250.00 5.	280.00 5310.00 53	140.00 54	100.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
	54.63	4.97	59.60	74.00	-14.40	peak
5114.100	07.00					
	104.05	5.34	109.39	-	-	peak

Test Mode		02.11n HT2 260MHz	20 /	Te	emp/Hu	m	24(°C)	/ 33%RH
Test Item	Ba	and Edge		Т	est Dat	е	Novemb	er 28, 2017
Polarize		Vertical		Tes	t Engin	eer		Chuang
Detector	l l		Test Voltage				c / 60Hz	
120.0 dBu∀/m							Limit1:	
80			2					
40.0		No				lannan da	3	hed.ori%
5100.000 5130.0	0 5160.00 51	90.00 5220.00	5250.00	5280.0	0 5310.0	0 5340	.00 54	100.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resi (dBuV		Lin (dBu\		Margin (dB)	Remark
5130.300	41.38	5.01	46.3	39	54.	00	-7.61	AVG
5258.400	92.63	5.34	97.9	97	-		-	AVG
5356.800	41.32	5.57	46.8	39	54.	00	-7.11	AVG

Test Mode)2.11n HT2 320MHz	0 /	Те	mp/Hum	24(°C)	/ 33%RH
Test Item	Ва	nd Edge		Te	est Date	Novemb	er 28, 2017
Polarize		/ertical		Tes	t Engineer	Jerry	Chuang
Detector		Peak		Tes	st Voltage	120Va	c / 60Hz
120.0 dBu∀/m							
80				2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			
40.0							
5310.000 5317	.00 5324.00 53	31.00 5338.00	5345.00	5352.00) 5359.00 53	66.00 53	380.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV		Limit (dBuV/m)	Margin (dB)	Remark
5321.760	102.19	5.48	107.6	67	-	-	peak
5353.260	64.73	5.56	70.2	9	74.00	-3.71	peak
5353.260	64.73	5.56	70.2	9	74.00	-3.71	peak

Test Mode		2.11n HT2(20MHz)/	Ter	nperature	24(°C)	′ 33%RH
Test Item		nd Edge			est Date	Novembe	er 28, 2017
Polarize	V	ertical			t Engineer	Jerry	Chuang
Detector	Av	/erage		Tes	st Voltage	120Va	c / 60Hz
120.0 dBu¥/m							
						Limit1: Limit2:	_
80							
			****	2			
				man,			
40.0							
5310.000 5317	.00 5324.00 53	31.00 5338.00	5345.00	5352.00) 5359.00 5	366.00 53	80.00 MHz
-	D	Correct	-				
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Resı (dBuV		Limit (dBuV/m)	Margin (dB)	Remark
5322.670	91.43	5.48	96.9	1	-	-	AVG
5350.460	43.85	5.56	49.4	1	54.00	-4.59	AVG

Test Mode)2.11n HT4 270MHz	0 /	Temp/Hum	24(°C)/	33%RH
Test Item	Ba	nd Edge		Test Date	November 28, 201	
Polarize	\	/ertical	Т	est Engineer	Jerry Chuang	
Detector		Peak	-	Test Voltage	120Va	c / 60Hz
120.0 dBu∀/m						
			2		Limit1: Limit2:	_
			and the second sec			
80			W. W. W. W.	h h h h h h h h h h h h h h h h h h h		
	aria	Here Many Hardward Way		Marin Wand	N" WI MIN WANNAW	Nedrakie
(frankistrantenderine	W/W,20X,Avr/W/May-say					
40.0						
5100.000 5130.0	00 5160.00 51	90.00 5220.00	5250.00 528	80.00 5310.00 534	0.00 54	00.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5112.000	56.09	4.97	61.06	74.00	-12.94	peak
	103.60	5.35	108.95	-	-	peak
5266.500	1 1					

Test Mode	IEEE 802.11r	HT40 / 52 ⁻	70MHz	Ter	mperature	24(°0	24(°C)/ 33%RH	
Test Item	Bar	nd Edge		Т	est Date	Novem	November 28, 2017	
Polarize		ertical		Tes	t Engineer		ry Chuang	
Detector	Av	/erage			st Voltage		Vac / 60Hz	
120.0 dBu¥/m						Limit1		
						Limit2		
				2				
80								
		1	- And -					
						3		
40.0	en en angener an har an					and the second second	Anna 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1	
5100.000 513	30.00 5160.00 51	90.00 5220.00	5250.00	5280.0	0 5310.00 53	340.00	5400.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV		Limit (dBuV/m)	Margin (dB)	Remark	
5122.500	41.93	4.99	46.9	2	54.00	-7.08	AVG	
5275.500	90.82	5.38	96.2	0	-	-	AVG	
5352.600	42.12	5.56	47.6	8	54.00	-6.32	AVG	

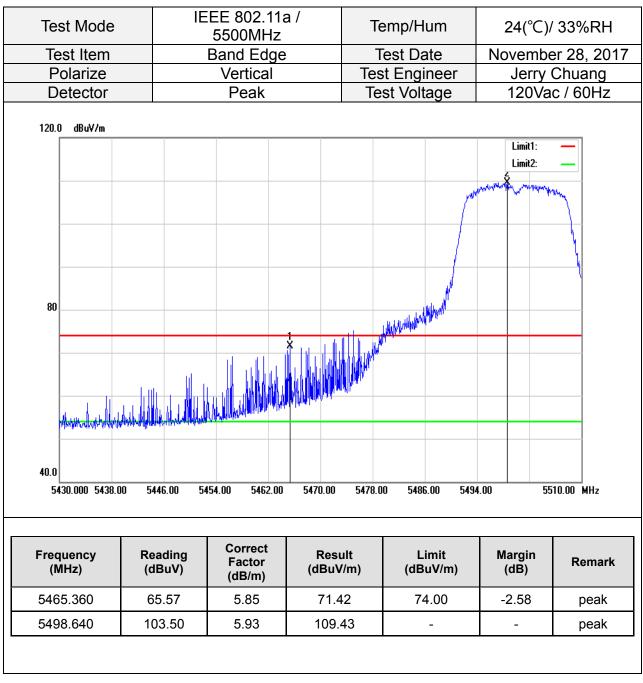
Test Mode		IEEE 802.11n HT40 / 5310MHz				um	24(°C)/ 33%RH
Test Item	Bar	nd Edge		T	est Da	ate	Novemb	per 28, 2017
Polarize	V	ertical		Test Engineer			Jerry Chuang	
Detector		Peak		Test Voltage			120V	ac / 60Hz
120.0 dBu∀/m		1						
							Limit1: Limit2:	
	monunder proven	1 minut						
	η							
80								
			- When	Malandah	L II 2 .			
						mph/Million	MAN MANNAM	stim Report
40.0 5290.000 5299	.00 5308.00 531	7.00 5326.00	5335.00	5344.0	0 5353	3.00 5362	.00	5380.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV			imit uV/m)	Margin (dB)	Remark
5321.860	98.28	5.48	103.	76		-	-	peak
5351.200	64.91	5.56	70.4	.7	74	4.00	-3.53	peak

Test Mode		IEEE 802.11n HT40 / 5310MHz				ure	24(°C)/	/ 33%RH
Test Item	Ba	nd Edge		Test Date			November 28, 201	
Polarize	N	/ertical		Test Engineer			Jerry	Chuang
Detector	A	verage		Test Voltage			120Va	c / 60Hz
120.0 dBu∀/m		-						
							Limit1: Limit2:	_
	manana porta	1						
80	V							
			- Andrew	wanner	2			
						low-al-		
40.0								
5290.000 5299.	00 5308.00 53	17.00 5326.00	5335.00	5344.00) 5353.	.00 5362	2.00 53	380.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV			mit ıV/m)	Margin (dB)	Remark
5316.100	86.46	5.48	91.9	4		-	-	AVG
5350.750	44.85	5.56	50.4	·1	54	.00	-3.59	AVG

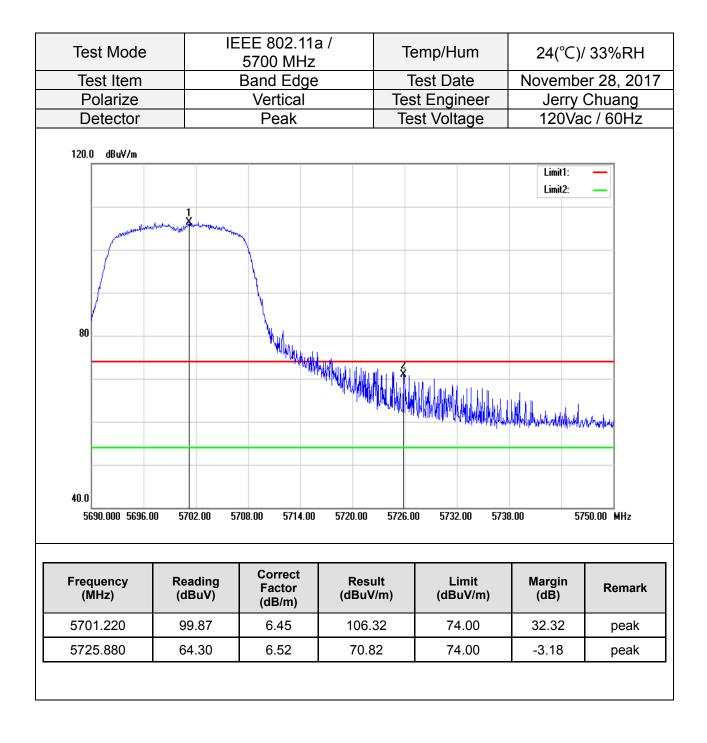
Test Item Band Edge Test Date November 28, Polarize Vertical Test Engineer Jerry Chuai Detector Peak Test Voltage 120Vac / 60 120.0 dBuV/m Imit: Imit: Imit: 1 Imit: Imit: Imit: Imit: 10 Imit: Imit: <	ang
Detector Peak Test Voltage 120Vac / 60 120.0 dBuV/m Limit1:	
120.0 dBuV/m	0Hz
1 1 1 1	
80	
40.0 5250.000 5265.00 5280.00 5295.00 5310.00 5325.00 5340.00 5355.00 5370.00 5400.00 Mi	MHz
Frequency (MHz) Reading (dBuV) Correct Factor (dBuV/m) (dBuV/m) Margin (dB) Rer	emark
5290.950 94.08 5.41 99.49 pe	beak
5354.250 59.97 5.56 65.53 74.00 -8.47 pe	

Test M	/lode		IEEE 802.11ac VHT80 / 5290MHz			nperature	24(°C)/ 33%R	
Test I	ltem	Ba	nd Edge		Te	est Date	November 28, 20	
Pola		\	/ertical			Engineer	Jerry	Chuang
Dete	ctor	A	verage		Tes	t Voltage	120Va	c / 60Hz
120.0) dBuV/m						Limit1:	
80	Mount	m m m m m m m m m m m m m m m m m m m	n mm mun v	Millionany				
40.0					warmen of the states	mannan	where and the place	have a start
	250.000 526	5.00 5280.00 5	295.00 5310.00) 5325.00	5340.0	0 5355.00 53	70.00 5	400.00 MHz
	uency Hz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV		Limit (dBuV/m)	Margin (dB)	Remark
5255	5.250	83.14	5.32	88.4	6	-	-	AVG
5359	9.050	45.90	5.59	51.4	9	54.00	-2.51	AVG
(M 5255	Hz) 5.250	(dBuV) 83.14	Factor (dB/m) 5.32	(dBuV) 88.4	/ m) 6	(dBuV/m) -	(dB) -	AVG

Band Edge Test Data for UNII-2c



rest	Mode	IE	EE 802.11a 5500MHz	a /	Temperature		24(°C)/	′ 33%RH
	Item		Band Edge	;	Test Date		Novembe	er 28, 2017
	arize		Vertical			Engineer	Jerry	Chuang
Dete	ector		Average		Tes	t Voltage	120Va	c / 60Hz
120.0 0	dBuV/m							
							Limit1: Limit2: 2	
80								
40.0								
5430.0	000 5438.00	5446.00 54	54.00 5462.00	5470.00	5478.00	5486.00 5494	.00 55	10.00 MHz
Freque (MHz	ncy z)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV		Limit (dBuV/m)	Margin (dB)	Remark
5470.0	000	42.79	5.85	48.6	4	54.00	-5.36	AVG
	340	93.19	5.93	99.1	2	_	_	AVG



Test Mode		EEE 802.11a 5700 MHz	IE	emperature		33%RH
Test Item		Band Edge		Test Date	November 28, 20	
Polarize		Vertical		st Engineer		Chuang
Detector		Average	T	est Voltage	120Va	c / 60Hz
120.0 dBuV/m						
					Limit1: Limit2:	
80						
			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
40.0 5690.000 5696.0	00 5702.00 !	5708.00 5714.00	5720.00 5726	.00 5732.00 573	8.00 57	50.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5701.160	90.11	6.45	96.56	-	-	AVG
	+	6.52	51.10	54.00	-2.90	AVG

Те	est Mode		IEEE 802.11a / 5720 MHz			Temp/Hum			24(°C).	/ 33%RH
Te	est Item		E	Band Edg	е	Test Date			November 28, 20	
Р	Polarize			Vertical			t Enginee		Jerry	Chuang
D	Detector			Peak		Test Voltage			120Va	ic / 60Hz
130.0	.0 dBuV/m			1						
									Limit1: Limit2:	_
							2			
85	j					d a construction of the co				
	1	elondonal di nobili		addiddanayadas.Mada.Ha	mundementable	MMM	\/	Waluat	andadmananananananananananananananananan	kengggan kultuk
40.0										
54	430.000 5474.0	0 551	8.00 556	62.00 5606.0	0 5650.00	5694.00	5738.00	5782	.00 58	370.00 MHz
	quency MHz)		ding BuV)	Correct Factor (dB/m)	Res (dBu\		Limit (dBuV/n	n)	Margin (dB)	Remark
(N					50 (	24	74.00		-14.69	peak
•	35.280	53	.54	5.77	59.3		74.00			P
543	35.280 17.760		.54 2.88	5.77 6.50	109.		-		-	peak

Test Mode	IE	EE 802.11a 5700 MHz	a / Te	emperature	24(°C)/ 33%RH	
Test Item		Band Edge	-	Test Date	November 28, 20	
Polarize		Vertical		st Engineer		Chuang
Detector		Average	Te	est Voltage	120Va	c / 60Hz
130.0 dBu¥/m						
					Limit1: Limit2:	
				2		
85						
				/   \		
				/		
						3
		<u></u>				Ť
40.0	0 5510.00 51	F00.00 F000.00		00 5700 00 570	2.00 50	
5430.000 5474.0	0 5518.00 55	562.00 5606.00	5650.00 5694.	00 5738.00 578.	2.00 58	70.00 MHz
Frequency	Reading	Correct Factor	Result	Limit	Margin	Remark
(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
5456.840	41.14	5.82	46.96	54.00	-7.04	AVG
5718.640	91.44	6.50	97.94	-	-	AVG
5858.560	42.20	6.87	49.07	54.00	-4.93	AVG

Test Mode		302.11n HT2 5500MHz	20 /	Те	mp/Hum	24(°C)/ 33%RI	
Test Item	В	and Edge		Test Date		November 28, 20	
Polarize		Vertical			t Engineer		Chuang
Detector		Peak		Tes	st Voltage	120Va	c / 60Hz
120.0 dBu∀/m		1					
						Limit1: Limit2:	_
					Nat	and the second of the second	burny
80					11		
00					d LAN		
				<b>WWWWWWW</b>	N. ^{M.} ANANA MANA		
	treenen werken werke	MUNIMANAN	NAMA	nt hill hill			
	trade the second start of	MUMMMMM		white the test of test			
		454.00 5462.00	5470.00	5478.00	) 5486.00 5494	I.00 55	510.00 MHz
40.0				5478.00	) 5486.00 5494	4.00 55	510.00 MHz
40.0				lt	) 5486.00 5494 Limit (dBuV/m)	8.00 55	510.00 MHz Remark
40.0 5430.000 5434	.00 5446.00 5 Reading	454.00 5462.00 Correct Factor	5470.00 Resu	lt /m)	Limit	Margin	

Test Mode		IEEE 802.11n HT20 / 5500MHz				ıre	24(°C)/ 33%Rł	
Test Item	В	and Edge		Test Date			November 28, 20	
Polarize		Vertical		Test Engineer			Jerry	[,] Chuang
Detector		Average		Test Voltage			120V	ac / 60Hz
120.0 dBuV/m								
							Limit1: Limit2:	
							2	~
80								
40.0 5430.000 5438	.00 5446.00 5	454.00 5462.00	5470.00	5478.00	) 5486.0	0 5494	k.00 !	5510.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV		Lim (dBu\		Margin (dB)	Remark
5469.120	42.65	5.85	48.5	50	54.0	00	-5.50	AVG
5498.560	89.80	5.93	95.7	'3	-		-	AVG

Test Mode		IEEE 802.11n HT20 / 5700 MHz				um	•	)/ 33%RH
Test Item	Ba	nd Edge		Test Date			Novemb	er 28, 2017
Polarize	V	/ertical		Test Engineer				Chuang
Detector		Peak		Те	st Volt	age	120Va	ac / 60Hz
120.0 dBu∀/m								
	1						Limit1: Limit2:	_
	and hard and an and a star and a st							
80		- Nut.						
		WHALLAN						
			WATHING & MARKEN			WWWWWWWWW	Molifantentelase	www.
40.0								
40.0 5690.000 5696	.00 5702.00 57	08.00 5714.00	5720.00	5726.0	0 5732	2.00 5738	3.00 !	5750.00 MHz
		Correct						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Resı (dBuV			imit uV/m)	Margin (dB)	Remark
5701.220	99.87	6.45	106.3	32		-	-	peak
5725.880	64.30	6.52	70.8	2	74	1.00	-3.18	peak
					74	4.00		

Test Mode		2.11n HT20 )0 MHz	) /	Ter	nperature	24(°C)/	33%RH
Test Item	Ban	d Edge		Te	est Date	Novembe	er 28, 2017
Polarize	Ve	ertical			t Engineer	Jerry	Chuang
Detector	Av	rerage		Tes	st Voltage	120Va	c / 60Hz
120.0 dBu∀/m							
						Limit1: Limit2:	_
	1						
	- Annon						
80							
/							
		- And	~~~~~				
				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		+	
40.0							
5690.000 5696	.00 5702.00 57	08.00 5714.00	5720.00	5726.00) 5732.00 573	8.00 57	50.00 MHz
_		Correct	_				
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Resu (dBuV/		Limit (dBuV/m)	Margin (dB)	Remark
5701.160	90.11	6.45	96.5	6	-	-	AVG
5725.000	44.58	6.52	51.1	0	54.00	-2.90	AVG

Test Mode	IEEE 802.11n HT20 / 5720 MHz Band Edge)/ т	ēmp/Hum	24(°C)/	' 33%RH
Test Item	Ba	and Edge	-	Test Date	Novembe	er 28, 2017
Polarize	١	Vertical	Te	st Engineer	Jerry	Chuang
Detector		Peak	Te	est Voltage	120Va	c / 60Hz
130.0 dBu¥/m						
				2	Limit1: Limit2:	
85						
1 หมายสาวารสมุรรษทร	forboogland and a forboogland and a	handhidhson o an Anger had a th	undern wederken Mark	- Willie	landusine namanalan	ugu shaha
40.0						
5430.000 5474.	00 5518.00 55	562.00 5606.00	5650.00 5694.	00 5738.00 578.	2.00 58	70.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5435.280	53.54	5.77	59.31	74.00	-14.69	peak
	102.00	6.50	109.38	-	-	peak
5717.760	102.88	0.00				

Test Mode		2.11n HT20 20 MHz) / Te	mperature	24(°C)/	33%RH
Test Item	Ba	nd Edge		Fest Date	Novembe	er 28, 2017
Polarize	\vee	/ertical		st Engineer	Jerry	Chuang
Detector	A	verage	Te	st Voltage	120Va	c / 60Hz
130.0 dBuV/m						
					Limit1: Limit2:	_
				2		
85						
				$\langle + \rangle$		
1						3
40.0						
5430.000 547	4.00 5518.00 5	562.00 5606.00	5650.00 5694.0	00 5738.00 578.	2.00 58	70.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5456.840	41.14	5.82	46.96	54.00	-7.04	AVG
5718.640	91.44	6.50	97.94	-	-	AVG
5858.560	42.20	6.87	49.07	54.00	-4.93	AVG



Report No.: T171127W01-RP2

Test N	Mode	IEEE 802.11n HT40 / 5510 MHz Band Edge			Te	emp/Hum	•		/ 33%RH	
Test	Item					٦	Fest Date		Novemb	er 28, 201
Pola	arize			rtical		Tes	st Enginee	r		Chuang
Dete	ector		Pe	eak			est Voltage			ac / 60Hz
120.1	0 dBuV/m								Limit1: Limit2:	_
								2	Juill WWW.weekymeen	Mittany
80						JA N				- Y
		www.	NWW ANN	When	Window Allen and Allen	MANAMAN				
40.0						0 5490.	.00 5500.00	5510	0.00 5	5530.00 MHz
40.0 1 ^{5/} Freq	velkturefindeellerer		0 5460. Ig		00 5480.0	0 5490. sult	.00 5500.00 Limit (dBuV/m		0.00 5 Margin (dB)	5530.00 MHz
40.0 1 ^{5/} Freq (M	v+l.J.,.vq/ndv1l/\/v i430.000 5440	0.00 5450.00 Readin	0 5460. Ng ()	.00 5470. Correct Factor	00 5480.0 Re: (dBu	sult	Limit		Margin	

Test Mode		2.11n HT40 0 MHz)/	Ter	nperature	24(°C)	/ 33%RH
Test Item		d Edge			est Date		er 28, 2017
Polarize	Ve	ertical			t Engineer	Jerry	Chuang
Detector	Av	rerage		Tes	st Voltage	120Va	ac / 60Hz
120.0 dBu∀/m						Limit1:	
						Limit2:	
				(and a start of the second s	a free free free free free free free fre	m l
80							
			and the second				
40.0	0.00 5450.00 541	60.00 5470.00	5480.00	5490.00	0 5500.00 5	510.00 5	530.00 MHz
				0100.00			
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV/		Limit (dBuV/m)	Margin (dB)	Remark
5469.500	45.73	5.85	51.5	8	54.00	-2.42	AVG
5507.400	85.94	5.95	91.8	9	-	-	AVG

Test Mode)2.11n HT4 570 MHz	0 /	Tem	np/Hum	24(°C)/	33%RH
Test Item	Ba	nd Edge		Tes	st Date	Novembe	er 28, 2017
Polarize	١	/ertical		Test I	Engineer	Jerry	Chuang
Detector		Peak		Test	Voltage	120Va	c / 60Hz
120.0 dBu∀/m						Limit1:	
		1				Limit2:	_
	when an working your of the second						
80			Mundel Market and	W . 4			
			I Ikadilih	nimiyyyi	nter and the second	z Hulippilitetetetetetetetetetetetetetetetetetet	www.
40.0 5650.000 5660.	.00 5670.00 56	80.00 5690.00	5700.00	5710.00	5720.00 573	0.00 57	50.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV/		Limit (dBuV/m)	Margin (dB)	Remark
		6.40	104.0)8	_	-	peak
5681.900	97.68	0.40	10110	-			

Test Mode)2.11n HT4 70 MHz	0 /	Ter	nperatu	re	24(°C))/ 33%RH
Test Item	Ba	nd Edge		T	est Date	;	Novemb	er 28, 2017
Polarize	N	/ertical		Tes	t Engine	er	Jerry	Chuang
Detector	A	verage		Tes	st Voltag	je	120Va	ac / 60Hz
120.0 dBu∀/m								
							Limit1: Limit2:	_
80								
			Non and a state of the state of	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	man mener	2	nth hangdat na ball the said anget na an	
40.0 5650.000 5660	.00 5670.00 56	80.00 5690.00	5700.00	5710.0	D 5720.00	5730).00 5	i750.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV		Limi (dBuV/		Margin (dB)	Remark
5663.100	86.94	6.37	93.3	1	-		-	AVG
5729.100	43.52	6.53	50.0	5	54.0	0	-3.95	AVG
	<u> </u>							·



Report No.: T171127W01-RP2

Test Mode		02.11n HT4 10 MHz	07	Tei	mp/Hum	24(°C)/	/ 33%RH
Test Item		ind Edge		Te	est Date	Novembe	er 28, 201
Polarize		/ertical		Test	Engineer	Jerry	Chuang
Detector		Peak		Tes	t Voltage	120Va	c / 60Hz
130.0 dBu∀/m						Limit1:	_
					2	Limit2:	
85		and the second s		- Mary			
		Anthone of the second	MANNA		Multi-	MM Marine Marine	enalisti fasereek
1 Kalifaridan water ya	anthe deer water when the proved-	where and Addition of the second					
40.0	4 00 5518 00 5			5694 00			
		562.00 5606.00	5650.00	5694.00			370.00 MHz
40.0				ılt			
40.0 5430.000 547 Frequency	4.00 5518.00 55	562.00 5606.00 Correct Factor	5650.00 Resu	ılt '/m)	5738.00 57	82.00 58 Margin	370.00 MHz
40.0 5430.000 547 Frequency (MHz)	4.00 5518.00 55 Reading (dBuV)	562.00 5606.00 Correct Factor (dB/m)	5650.00 Resu (dBuV	ılt /m) ;2	5738.00 57 Limit (dBuV/m)	82.00 58 Margin (dB)	370.00 MHz Remark

Test Mode		02.11n HT4 710 MHz	0 / Te	emperature	24(°C)/	/ 33%RH
Test Item	Ba	and Edge		Test Date	Novembe	er 28, 2017
Polarize	<u> </u>	Vertical		st Engineer		Chuang
Detector	Α	verage	T	est Voltage	120Va	c / 60Hz
130.0 dBuV/m						
					Limit1: Limit2:	_
			(Å		
85						
40.0	an an taga ang tagang taga					3
5430.000 5474.1	DO 5518.00 55	562.00 5606.00	5650.00 5694	.00 5738.00 578	2.00 58	70.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5434.840	41.34	5.56	46.90	54.00	-7.10	AVG
5703.240	90.61	6.12	96.73	-	-	AVG
	42.89	6.77	49.66	54.00	-4.34	AVG

Test Mod	de		2.11ac VHT8 30 MHz	307	Temp/Hu	Im	24(°C)/	/ 33%RH
Test Iter			nd Edge		Test Dat			4, 2017
Polarize	e		/ertical		Test Engin		Jerry	Chuang
Detecto	or		Peak		Test Volta	ige	120Va	c / 60Hz
120.0 d	dBu∀/m					2	Limit1: Limit2:	
				phone phone	handhan yadaar bay	a Normalinari	terror the second s	www.
80	1	Mushman	WW rough date from the					
40.0	000 5444	.00 5458.00 54	472.00 5486.00	5500.00	5514.00 5528.	00 554	2.00 55	570.00 MHz
40.0	000 5444 ncy			5500.00 Result (dBuV/r	t Lin	nit	2.00 5: Margin (dB)	570.00 MHz Remark
40.0 1 5430.0 Frequen	000 5444 ncy	.00 5458.00 5458.00 5458.00 5458.00 5458.00 5458.00 5458.00 5458.00 5458.00 5458.00 5458.00 5458.00 5458.00 54	472.00 5486.00 Correct Factor	Resul	t Lin n) (dBu	nit V/m)	Margin	

Test Mode	;	IEE		.11ac VI 30 MHz	НΤ	80 /		Те	mpera	ture	24(°C)/	33%RH
Test Item				nd Edge					est Da				1, 2017
Polarize				ertical					st Engi		Je	rry C	Chuang
Detector			A۱	/erage				Te	st Volt	age	120)Vac	: / 60Hz
120.0 dBuV	'/m												
											Limi Limi		
						2	Norman Marcan		a.Mha da			Mun	
80								V	MaynandyMys				
Johnson	gar agaran	1 4	menterty	, the state and the second	mund								
40.0 5430.000	5444.00) 5458	.00 547	2.00 5480	6.00	5500.	00	5514.0	0 5521	B.OO 5542	2.00	557	0.00 MHz
Frequency (MHz)	'	Read (dB	ding uV)	Correct Factor (dB/m)	:		esult BuV/n			imit uV/m)	Margi (dB)	n	Remark
5456.320		46.	50	5.82		5	2.32		54	4.00	-1.68	3	AVG
5497.620		81.	81	5.93		8	7.74			-	-		AVG

Test Mode		2.11ac VHT 690 MHz	80 /	Te	emp/Hum		24(°C)	/ 33%RH
Test Item	Ba	nd Edge		Т	est Date		Novemb	er 28, 2017
Polarize	۱	/ertical			t Enginee			Chuang
Detector		Peak		Te	st Voltage	•	120Va	ic / 60Hz
130.0 dBuV/m								
85	enersylane of the Art Market		M		Mitter in Mitter	- 'N	Limit1: Limit2:	
palitic of the second	encertythologie and a start of the							
40.0								
5430.000 5470	5.00 5522.00 55	568.00 5614.00	5660.00	5706.0	0 5752.00	5798	.00 58	390.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV		Limit (dBuV/n	n)	Margin (dB)	Remark
5467.260	55.35	5.85	61.2	20	74.00		-12.80	peak
5689.440	99.93	6.43	106.3	36			-	peak
5842.160	56.33	6.82	63.1	5	74.00		-10.85	peak

Test Mode		2.11ac VHT 90 MHz	80 /	Ter	mperature		′ 33%RH
Test Item	Ba	nd Edge		Т	est Date	Novembe	er 28, 2017
Polarize		/ertical			t Engineer	Jerry	Chuang
Detector	A	verage		Tes	st Voltage	120Va	c / 60Hz
130.0 dBu∀/m							
85			MAN I	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	M M M M M M M M M M M M M M M M M M M	Limit1: Limit2:	
1	under the post of the post	And What			n	Munder Spran manner	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
40.0	Hander Margaretter Company						
40.0 5430.000 5476	.00 5522.00 55	68.00 5614.00	5660.00	5706.00	0 5752.00 579	8.00 58	90.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV		Limit (dBuV/m)	Margin (dB)	Remark
5465.420	43.16	5.85	49.0)1	54.00	-4.99	AVG
5661.380	87.71	6.35	94.0	6	-	-	AVG
5829.280	44.89	6.80	51.6	9	54.00	-2.31	AVG

Band Edge Test Data for UNII-3

Test Mode	Э	IE	EE 802.11a 5745 MHz		Te	emp/Hum	24(°C)	/ 33%RH
Test Item			Band Edge	;	Т	est Date	Novembe	er 28, 201
Polarize			Vertical			t Engineer		Chuang
Detector			Peak			st Voltage		ic / 60Hz
130.0 dBu¥/m							Limit1:	—
85					Lund ward	herd Marthand and		
hall-deallocal/sheeds	nnah adar dan	p-themploye	ent fantrysen ferheider stra					
40.0								
			206.00 5713.00		5727.0		41.00 57	755.00 MHz
40.0	2.00 50 Re				5727.0		41.00 57	755.00 MHz Remark
40.0 5685.000 569 Frequency	2.00 50 Re (c	699.00 57	706.00 5713.00 Correct Factor	5720.00 Resu	5727.0	0 5734.00 57 Limit	Margin	
40.0 5685.000 569 Frequency (MHz)	2.00 50 Re (c	699.00 57 eading IBuV)	706.00 5713.00 Correct Factor (dB/m)	5720.00 Resu (dBuV	5727.0	0 5734.00 57 Limit (dBuV/m)	Margin (dB)	Remark

Test Mode	IE	EE 802.11a 5745 MHz	a /	Temp/H	łum	24(°C)/ 33%RH	
Test Item		Band Edge		Test D	ate	Novemb	er 28, 201 [°]
Polarize		Vertical		Test Eng	ineer	Jerry Chuang	
Detector		Average		Test Vo	tage	120Vac / 60Hz	
130.0 dBu¥/m							
						Limit1:	_
						3	~
85							
				2			
		هير.					
40.0							
5685.000 5692.0	00 5699.00 57	706.00 5713.00	5720.00	5727.00 573	4.00 5741	1.00 5	755.00 MHz
_		Correct					
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/n		₋imit BuV/m)	Margin (dB)	Remark
5719.860	56.01	6.50	62.51	1	10.76	-48.25	AVG
5724.900	61.51	6.52	68.03	1	21.97	-53.94	AVG
5742.750	91.77	6.57	98.34		-	-	AVG

Test Mode			EE 802.11 5825 MHz		Те	emp/Hur	n	24(°C)/ 33%RH	
Test Item			Band Edge		Т	est Date	3	Novembe	er 28, 20´
Polarize			Vertical		Tes	t Engine	eer	Jerry	Chuang
Detector			Peak		Tes	st Volta	ge	120Va	c / 60Hz
130.0 dBuV/m								Limit1:	
						~			
		1							
from	and the second and second second	www.	may						
			human						
85				holadaharrodaharrodahad	Mup				
					Why Why	2	2		
					`	materianity	Mar you	1999 and and the stand of the s	hada wa Ma
									1940 B. L.
40.0 5815.000 5820.5	0 5826.	00 583	31.50 5837.00	5842.50	5848.00	D 5853.50) 5859	.00 58	370.00 MHz
Frequency (MHz)	Read (dBu		Correct Factor (dB/m)	Resı (dBuV		Lim (dBuV		Margin (dB)	Remark
		94	6.79	109.	73	-		-	peak
5828.530	102.	04							
5828.530 5850.475 5855.755	102. 71.2 68.4	26	6.85 6.86	78.1 75.2		121. 110.		-43.01 -35.30	peak peak

Test Mode	IE	EE 802.11a 5825 MHz	a /	Те	mp/Hu	ım	24(°C)/ 33%RH
Test Item		Band Edge		Te	est Da	te	November 28, 201	
Polarize		Vertical			t Engir		Jerry Chuang	
Detector		Average		Tes	st Volta	age	120Vac / 60Hz	
130.0 dBuV/m								
							Limit1:	_
		~						
85								
		- have a second						
			Martin Martin Martin	~~				
				The and the	2	2		
					and the second second	NAN TONING	and the second second	
40.0								
5815.000 5820.50	5826.00 56	331.50 5837.00	5842.50	5848.00) 5853.	50 5859	3.00 !	5870.00 MHz
		Correct						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Resu (dBuV			nit IV/m)	Margin (dB)	Remark
5826.660	90.30	6.78	97.0	8		_	-	AVG
5850.310	53.45	6.85	60.3	0	121	.49	-61.19	AVG
5854.985	49.72	6.86	56.5	8	110).83	-54.25	AVG

Test Mode			02.11n HT: 745 MHz	20 /	Te	emp/Hum	24(°C).	/ 33%RH	
Test Item		Ba	and Edge		Т	est Date	Novemb	November 28, 2017	
Polarize		,	Vertical		Tes	t Engineer		Chuang	
Detector			Peak			st Voltage		c / 60Hz	
130.0 dBuV/r	n								
					\vdash		Limit1:	_	
				_/			non and the second second	my -	
								\rightarrow	
85				1	2 Marture	manthana			
		1	while white which and a second	Woldstein Martine Contraction	n wi				
en premier vert	panelineline	Waladaharan	WHMMMMMMMM						
40.0									
5685.000 5	692.00 56	99.00 57	06.00 5713.00	5720.00	5727.0	0 5734.00 57	41.00 57	755.00 MHz	
Frequency (MHz)		ading BuV)	Correct Factor (dB/m)	Resı (dBuV		Limit (dBuV/m)	Margin (dB)	Remark	
5719.720	76	6.39	6.50	82.8	9	110.72	-27.83	peak	
5724.130	79	9.40	6.52	85.9	2	120.22	-34.30	peak	
5747.300	10	7.38	6.58	113.9	96	-	-	peak	
				-			-	-	

Test Mode		02.11n HT2 745 MHz	20 /	Те	emp/Hur	n	24(°	C)/ 33%RH		
Test Item	Ba	and Edge		Te	est Date	;	November 28, 2017			
Polarize		Vertical		Tes	t Engine	eer	Jerry Chuang			
Detector	A	verage			st Voltag		120Vac / 60Hz			
130.0 dBuV/m					ĺ		11-20			
				-			Limit	I:		
							3			
						(market and the second		ment		
85						1				
				2	and the second s					
			at when the second	X						
		and the second statement of th								
- and the second s										
40.0										
5685.000 5692.0	0 5699.00 57	06.00 5713.00	5720.00	5727.00) 5734.00	5741	.00	5755.00 MHz		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV/		Lim (dBuV		Margir (dB)	Remark		
5720.070	60.68	6.50	67.18	8	110.9	96	-43.78	B AVG		
5724.620	65.48	6.52	72.0	0	121.33		121.33		-49.33	B AVG
5746.460	94.65	6.58	101.2	3	-		-	AVG		

	nd Edge		Test Date	Novembe	
V	v			November 28, 201	
Vertical			est Engineer	Jerry Chuang	
	Peak	Т	est Voltage	120Va	c / 60Hz
				Limit1:	—
		Markan and Annu and			Awhury
5826.00 58	31.50 5837.00	5842.50 5848	.00 5853.50 5853	9.00 58	70.00 MHz
Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
104.12	6.79	110.91	-	-	peak
71.35	6.85	78.20	119.11	-40.91	peak
					-
	1 1 1 1 1 1 1 5826.00 5826.00 5826.00 5826.00 5826.00 5826.00 104.12	1 -	Image: Note of the second s	Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) 104.12 6.79 110.91 -	Number of the second

Test Mode		2.11n HT2 25 MHz	0 /	Те	emp/Hu	ım	24(°C)	/ 33%RH
Test Item	Bai	nd Edge		Т	est Da	te		er 28, 2017
Polarize	V	ertical		Tes	t Engir	neer	Jerry Chuang	
Detector	A	verage		Test Voltage			120Vac / 60Hz	
130.0 dBu∀/m								
					、		Limit1:	-
						<u></u>		
- and a second second		and the second sec						
85								
			and a fail of the second	h.				
				and a start of the	2	3		
					and the second	~×~~~	and and a second and a second	
40.0								
5815.000 5820	.50 5826.00 58	31.50 5837.00	5842.50	5848.0	0 5853.	50 5859	.00 58	B70.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV			nit IV/m)	Margin (dB)	Remark
5827.265	92.09	6.78	98.8	7			-	AVG
5850.255	54.62	6.85	61.4	7	121	.62	-60.15	AVG
5855.425	51.52	6.86	58.3	8	110	.68	-52.30	AVG

Test Mode		IEEE 802.11n HT20 / 5720 MHz			mp/Hum	24(°C)/ 33%RH	
Test Item	Ba	nd Edge		Te	est Date	Novembe	er 28, 2017
Polarize	١	/ertical		Test	Engineer	Jerry Chuang	
Detector		Peak		Tes	st Voltage	120Va	c / 60Hz
130.0 dBu¥/m							
						Limit1: Limit2:	_
85				X	/		
				- MW			
neren artestan Aner	robund brindnognavedy annound	linge delayed a second	Museuman	NM H		helmanananan	and the second s
40.0				NW M			
		62.00 5606.00	5650.00	5694.00	5738.00 578		3 X 70.00 MHz
40.0				ult	5738.00 578		
40.0 5430.000 5474. Frequency	00 5518.00 55 Reading	62.00 5606.00 Correct Factor	5650.00 Resu	ult //m)	Limit	2.00 58 Margin	170.00 MHz
40.0 5430.000 5474. Frequency (MHz)	00 5518.00 55 Reading (dBuV)	562.00 5606.00 Correct Factor (dB/m)	5650.00 Resu (dBuV	ult //m) 14	Limit (dBuV/m)	2.00 58 Margin (dB)	Remark

Test Mode)2.11n HT2 20 MHz	0 /	Tei	mp/Hun	۱	24(°C	C)/ 33%RH
Test Item		nd Edge		Te	est Date			ber 28, 2017
Polarize		/ertical			Engine		Jerry Chuang	
Detector	A	verage		Test Voltage			120Vac / 60Hz	
130.0 dBuV/m								
							Limit1: Limit2:	
					2			
					\square			
85								
				- /				
1							Ś	
40.0								
5430.000 5474.	.00 5518.00 55	62.00 5606.00	5650.00	5694.00	5738.00	5782	2.00	5870.00 MHz
		Correct						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Resu (dBuV/		Limi (dBuV/		Margin (dB)	Remark
5445.400	41.18	5.80	46.98	3	54.0	0	-7.02	AVG
5717.320	93.86	6.49	100.3	5	-		-	AVG
5834.800	42.36	6.81	49.17	7	54.0	0	-4.83	AVG

Test Mode		02.11n HT4 55 MHz	0/	Temp	/Hum	24(°C)/	/ 33%RH
Test Item	Ba	nd Edge		Test	Date	Novembe	er 28, 2017
Polarize	١	/ertical		Test Er	ngineer		Chuang
Detector		Peak		Test V	/oltage	120Va	c / 60Hz
130.0 dBu¥/m							
						Limit1:	_
		/			3		
				Mar and Markey and Mark	Mentioned from and	and an and share many	
				/			
		1 2	mennered	,			My Marine
85	اس ل	Charlen and and and and and and and and and an					· · · · · · · · · · · · · · · · · · ·
	When when the water						
Walnunder	When and when the						
40.0							
5680.000 5690.	00 5700.00 57	10.00 5720.00	5730.00	5740.00	5750.00 576	0.00 57	'80.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resulf (dBuV/r		Limit (dBuV/m)	Margin (dB)	Remark
5719.800	82.46	6.50	88.96		110.74	-21.78	peak
5722.600	82.58	6.52	89.10		116.73	-27.63	peak
5747.900	103.52	6.59	110.11		-	-	peak

Test Item Band Edge Test Date November 28, 2017 Polarize Vertical Test Engineer Jerry Chuang Detector Average Test Voltage 120Vac / 60Hz 130.0 dbuV/m Imit: Imit: Imit: 95 Imit: Imit: Imit: Imit: 95 Imit: Imit: Imit: Imit: 96 Imit: Imit: Imit: Imit: 96 Imit: Imit: Imit: Imit: 96 Imit: Imit: Imit: Imit: 97:00.00 5700.00 5710.00 5720.00 5760.00 5780.00 97:00.00 5710.00 5720.00 5740.00 5750.00 5780.00 MHz	Test Mode)2.11n HT4 55 MHz	-0/	Te	emp/Hum	24(°C)	/ 33%RH
Detector Average Test Voltage 120Vac / 60Hz 130.0 dBvV/m	Test Item	Ba	nd Edge		T	est Date	Novemb	er 28, 2017
138.0 dBvV/m 138.0 dBvV/m <td>Polarize</td> <td>\vee</td> <td>/ertical</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Polarize	\vee	/ertical					
Frequency Reading (dB/W) Correct Factor (dB/M) Result (dB/W) Limit (dB/W) Margin (dB/W) Remark Remark 5719.900 66.66 6.50 73.16 110.77 -37.61 AVG	Detector	A	verage		Te	st Voltage	120Va	ic / 60Hz
Frequency Reading Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dBuV/m) Remark AVG 5719.900 66.66 6.50 73.16 110.77 -37.61 AVG	130.0 dBuV/m							
85 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1							Limit1:	—
85 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1			/					
85 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1								
Image: Heating (MHz) Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remark 5719.900 66.66 6.50 73.16 110.77 -37.61 AVG 5723.700 67.78 6.52 74.30 119.24 -44.94 AVG					. 747	3 January Jan	and the particular	
Image: Heating (MHz) Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remark 5719.900 66.66 6.50 73.16 110.77 -37.61 AVG 5723.700 67.78 6.52 74.30 119.24 -44.94 AVG					- Contraction	V		
Image: Horizon of the second	85							
40.0 Keading Correct Result Limit Margin Remark 5680.000 5690.00 5700.00 5710.00 5720.00 5730.00 5750.00 5760.00 5780.00 MHz Frequency Reading Correct Result Limit Margin Remark 5719.900 66.66 6.50 73.16 110.77 -37.61 AVG 5723.700 67.78 6.52 74.30 119.24 -44.94 AVG			-	2	<u>ل</u> ر			har and the second
40.0 Keading Correct Result Limit Margin Remark 5680.000 5690.00 5700.00 5710.00 5720.00 5730.00 5750.00 5760.00 5780.00 MHz Frequency Reading Correct Result Limit Margin Remark 5719.900 66.66 6.50 73.16 110.77 -37.61 AVG 5723.700 67.78 6.52 74.30 119.24 -44.94 AVG		and the second states	Manage and a second					
Frequency (MHz) Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remark 5719.900 66.66 6.50 73.16 110.77 -37.61 AVG 5723.700 67.78 6.52 74.30 119.24 -44.94 AVG		and and the second s						
Frequency (MHz) Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remark 5719.900 66.66 6.50 73.16 110.77 -37.61 AVG 5723.700 67.78 6.52 74.30 119.24 -44.94 AVG	* *							
Frequency (MHz) Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remark 5719.900 66.66 6.50 73.16 110.77 -37.61 AVG 5723.700 67.78 6.52 74.30 119.24 -44.94 AVG		00 5700.00 57	10.00 5720.00	5730.00	5740.0	0 5750.00 57	60.00 57	780.00 MHz
Frequency (MHz) Reading (dBuV) Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remark 5719.900 66.66 6.50 73.16 110.77 -37.61 AVG 5723.700 67.78 6.52 74.30 119.24 -44.94 AVG								
(MHz) (dBuV) Pactor (dB/m) (dBuV/m) (dBuV/m) (dB) Remark 5719.900 66.66 6.50 73.16 110.77 -37.61 AVG 5723.700 67.78 6.52 74.30 119.24 -44.94 AVG	Frequency	Reading		Resu	ılt	Limit	Margin	Pomork
5723.700 67.78 6.52 74.30 119.24 -44.94 AVG				(dBuV	/m)	(dBuV/m)		Reliaik
	5719.900	66.66	6.50	73.1	6	110.77	-37.61	AVG
	5723.700	67.78	6.52	74.3	0	119.24	-44.94	AVG
AVG	5748.900	90.97	6.59	97.5	6	-	-	AVG

Test Mode)2.11n HT4 95 MHz	10/	Te	emp/H	um	24(°C)/ 339	%RH
Test Item	Ba	nd Edge		Т	est Da	te	Nove	mber 28	3, 2017
Polarize	N	/ertical		Tes	t Engi	neer		rry Chu	
Detector		Peak		Te	st Volta	age	120)Vac/6	60Hz
130.0 dBuV/m									1
							Limi	t1: —	
	1								
punde	www.and the second for and	montherman							ĺ
85 WWWWW			humana	mur Mun					
				· • • • • •	www.www.www.	hunders	2 3		
						MAN WAY		Munnapplythe	
40.0									
5770.000 5780.0	00 5790.00 58	00.00 5810.00	5820.00	5830.0	0 5840	.00 5850	.00	5870.00	MHz
Frequency	Reading	Correct Factor	Resu			mit	Margi		emark
(MHz)	(dBuV)	(dB/m)	(dBuV	/m)	(dBi	uV/m)	(dB)		
5788.000	101.94	6.69	108.6	63		-	-		peak
5851.000	64.87	6.85	71.7	2	119	9.92	-48.2	0	peak
5858.000	65.65	6.87	72.5	2	10	9.96	-37.4	4	peak

Test Mode)2.11n HT4 95 MHz	10/	Те	emp/Hum		24(°C)/	′ 33%RH
Test Item	Ba	nd Edge		T	est Date	Ν		er 28, 2017
Polarize	V	'ertical		Tes	t Enginee	r	Jerry	Chuang
Detector	A	verage		Tes	st Voltage	•	120Va	c / 60Hz
130.0 dBuV/m								
							Limit1:	
	- Annon mark	and the second						
85	V							
			Marrie Marrie Marriel		and a second second second second			
					and the second second	2 X	3	
							- Annal and a second	with a factor of the second
40.0								
5770.000 5780.0	00 5790.00 58	00.00 5810.00	5820.00	5830.00	0 5840.00	5850.00	58	70.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor	Resu (dBuV		Limit (dBuV/m	1)	Margin (dB)	Remark
5787.500	90.27	(dB/m) 6.69	96.9		-		-	AVG
5850.900	51.62	6.85	58.4	7	120.15	,	-61.68	AVG
5855.500	50.83	6.86	57.6	9	110.66		-52.97	AVG
5855.500	50.83	6.86	57.6	9	110.66		-52.97	AVG

Test Mode		2.11ac VHT 775 MHz	80 /	Temp/	Hum	24(°C)	/ 33%RH
Test Item		and Edge		Test D	Date	Mar 2	24, 2017
Polarize	, v	Vertical		Test En	gineer	Jerry	Chuang
Detector		Peak		Test Vo	ltage	120Va	nc / 60Hz
130.0 dBuV/m						Limit1:	—
		mummuthuit	Munumun	when hard and			
90 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					<u>.</u>		
					- Walking March	had on the second	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
50.0 5700.000 5717	7.00 5734.00 5	751.00 5768.00	5785.00	5802.00 58	319.00 583	6.00 58	870.00 MHz
	Reading	Correct	Resu	lt l	Limit	Margin	
Frequency (MHz)	(dBuV)	Factor (dB/m)	(dBuV/	-	BuV/m)	(dB)	Remark
			(dBuV / 85.7	m) (d			peak
(MHz)	(dBuV)	(dB/m)		m) (d	BuV/m)	(dB)	
(MHz) 5717.340	(dBuV) 79.26	(dB/m) 6.49	85.7	m) (d	BuV/m)	(dB) -24.31	peak
(MHz) 5717.340 5720.910	(dBuV) 79.26 77.76	(dB/m) 6.49 6.51	85.7 84.2	m) (d 5 / 7 / 2	BuV/m) 110.06 112.87	(dB) -24.31 -28.60	peak peak

Test Mode		2.11ac VHT8 775 MHz	30 / _	Temp/Hum	24(°C)/	/ 33%RH
Test Item		and Edge		Test Date	Mar 24, 2017	
Polarize		Vertical	Te	est Engineer	Jerry Chuang	
Detector	l l	Average	Т	est Voltage	120Va	c / 60Hz
130.0 dBuV/m					Limit1:	
					Linik I.	
90		*·····	Y	m		
	12 million and			human	mon the	5 2 2 2 2 2 2
50.0						
50.0 5700.000 57	17.00 5734.00	5751.00 5768.00	5785.00 5802	2.00 5819.00 583	6.00 58	370.00 MHz
	17.00 5734.00	5751.00 5768.00	5785.00 580;	2.00 5819.00 583	6.00 58	370.00 MHz
	17.00 5734.00 Reading (dBuV)	5751.00 5768.00 Correct Factor (dB/m)	5785.00 5802 Result (dBuV/m)	2.00 5819.00 583 Limit (dBuV/m)	6.00 58 Margin (dB)	Remark
5700.000 57	Reading	Correct Factor	Result	Limit	Margin	
5700.000 57 Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5700.000 57 Frequency (MHz) 5717.680	Reading (dBuV) 63.70	Correct Factor (dB/m) 6.50	Result (dBuV/m) 70.20	Limit (dBuV/m) 110.15	Margin (dB) -39.95	Remark AVG
5700.000 57 Frequency (MHz) 5717.680 5720.910	Reading (dBuV) 63.70 63.33	Correct Factor (dB/m) 6.50 6.51	Result (dBuV/m) 70.20 69.84	Limit (dBuV/m) 110.15 112.87	Margin (dB) -39.95 -43.03	Remark AVG AVG

Below 1G Test Data

Test Mode		EEE 802.11a 5180MHZ	a /	Temp	/Hum	24(°C)/ 33%RH	
Test Item		30MHz-1GH	z	Test	Date	Novemb	er 30, 201
Polarize		Horizontal		Test Er			Chuang
Detector	Pea	k and Quasi	-peak	Test V	oltage	120Va	ac / 60Hz
80.0 dBu¥/m						Limit1: Margin:	_
30 1 27.00	3		4 * 515.00	612.00	5 × × 709.00 806.		6 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resul (dBuV/r		Limit dBuV/m)	Margin (dB)	Remark
60.0700	50.43	-21.84	28.59)	40.00	-11.41	peak
95.9600	53.32	-19.65	33.67	,	43.52	-9.85	peak
236.6100	44.14	-16.34	27.80)	46.02	-18.22	peak
452.9200	32.53	-9.53	23.00)	46.02	-23.02	peak
	30.95	-4.06	26.89)	46.02	-19.13	peak
762.3500	30.95						

Test Mode		IEEE 802.11a / 5180MHZ		Temp/Hum	24(°C)/ 33%RH	
Test Item		30MHz-1GHz		Test Date		er 30, 201
Polarize		Horizontal		est Engineer		Chuang
Detector	Peak	and Quasi-p	eak	Test Voltage	120Va	c / 60Hz
80.0 dBu∀/m						
					Limit1: Margin:	_
30 4	2	4 X		5		6 X
-20						
30.000 127.00	224.00 33	21.00 418.00	515.00 612	.00 709.00 806	5.00 1 0)00.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
105.6600	49.42	-17.56	31.86	43.52	-11.66	peak
244.3700	46.98	-16.00	30.98	46.02	-15.04	peak
299.6600	40.80	-14.07	26.73	46.02	-19.29	peak
	42.29	-10.19	32.10	46.02	-13.92	peak
433.5200			22.78	46.02	-23.24	peak
433.5200 722.5800 960.2300	27.40 34.58	-4.62 -1.08	33.50	54.00	-20.50	peak

Above 1G Test Data for UNII-1

Test Mode	IE	EE 802.11a 5180MHZ	a /	Te	emp/Hum	24(°C)/ 33%RH
Test Item		Harmonic		Т	est Date	Nover	nber 30, 2017
Polarize		Horizontal		Tes	t Enginee		ry Chuang
Detector	Pea	ak and Aver	age	Te	st Voltage)Vac / 60Hz
110.0 dBuV/m							
						Linit	
70							
	1						
	X						
	2 X						
30.0							
1000.000 4900.0	0 8800.00 12	2700.00 16600.00	0 20500.00	24400.	00 28300.00	32200.00	40000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resulf (dBuV/r		Limit (dBuV/m	Margi I) (dB)	n Remark
10360.000	41.96	14.45	56.41		74.00	-17.5	9 peak

Remark:

10360.000

N/A

32.33

14.45

- 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

46.78

-7.22

54.00

AVG

Test Mode		EEE 802.11a 5180MHZ	a /	Temp/Hum	24(°C)/	24(°C)/ 33%RH		
Test Item		Harmonic		Test Date	Novembe			
Polarize		Horizontal		Test Engineer		Chuang		
Detector	Pe	ak and Aver	age	Test Voltage	120Va	c / 60Hz		
110.0 dBuV/m								
					Limit1: Limit2:	_		
70								
	1							
30.0								
1000.000 4900.0	0 8800.00 1	2700.00 16600.00	20500.00 24	400.00 28300.00 32	200.00 40	1000.00 MHz		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark		
10360.000	31.26	14.45	45.71	74.00	-28.29	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			IEEE 802.11a / 5220 MHZ		Те	Temp/Hum		24(°C)/ 33%RH	
Test Item			Horizont			lest Da			er 30, 201
Polarize			Vertica			st Engi			Chuang
Detector		Pea	k and Av	verage	Te	est Volt	age	120Va	ac / 60Hz
110.0 dBu¥/m									
								Limit1:	-
								Limit2:	
70									
		1							
		1 X							
		-2							
		ſ							
30.0									
1000.000 4900.0	0 8800.	00 12	700.00 1660	0.00 20500.00	24400	.00 2830	0.00 322	DO.OO 4	0000.00 MHz
Frequency (MHz)	Read (dBu	ing ıV)	Correct Factor (dB/m)	Res (dBu)			imit uV/m)	Margin (dB)	Remark
10440.000	41.′	16	14.71	55.8	37	74	4.00	-18.13	peak
10440.000	32.5	55	14.71	47.2	26	54	4.00	-6.74	AVG
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		EEE 802.11a 5220 MHz	a /	Temp/Hum		24(°C)/ 33%RH	
Test Item		Harmonic		Test Date		November 30, 20	
Polarize		Horizontal			t Engineer	Jerry Chuang	
Detector	Pe	ak and Aver	age	Tes	st Voltage	120Va	c / 60Hz
110.0 dBuV/m							
						Limit1: Limit2:	
70							
30.0 1000.000 4900.0	0 8800.00	12700.00 16600.00) 20500.00	24400.0	0 28300.00 322	00.00 40	000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV		Limit (dBuV/m)	Margin (dB)	Remark
10440.000	37.41	14.71	52.1	2	74.00	-21.88	peak
10440.000	30.21	14.71	44.9	2	54.00	-9.08	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		IEEE 802.11a / 5240MHZ		Те	emp/H	Temp/Hum		/ 33%RH	
Test Item			Harmon			lest Da			er 30, 201
Polarize			Vertical Peak and Average			Test Engineer			Chuang
Detector		Pea	ak and Av	erage	Te	est Volt	age	120Va	ac / 60Hz
110.0 dBuV/m									
								Limit1: Limit2:	_
70									
10									
		1 ×							
		2 X							
30.0									
1000.000 4900.0	00 88	00.00 12	2700.00 1660	0.00 20500.00	24400	.00 2830	0.00 322)0.00 4	0000.00 MHz
Frequency (MHz)	Re (d	ading BuV)	Correct Factor (dB/m)	Resi (dBu)			imit uV/m)	Margin (dB)	Remark
10480.000	40	0.25	14.84	55.0)9	74	4.00	-18.91	peak
10480.000	30	0.91	14.84	45.7	75	54	4.00	-8.25	AVG
N/A									
	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		IEEE 802.11a / 5240MHZ		Те	emp/H	Temp/Hum)/ 33%RH	
Test Item			Harmon	ic	Ţ	est Da	ate	Novemb	per 30, 201
Polarize			Horizont			t Engi			[,] Chuang
Detector		Pea	ak and Av	verage	Tes	st Volt	age	120V	ac / 60Hz
110.0 dBuV/m									
								Limit1: Limit2:	
70									
70									
		1 X							
		2 X							
30.0									
1000.000 4900.0	00 88	00.00 12	2700.00 1660	0.00 20500.00	24400.	00 2830	0.00 322	DO. OO	40000.00 MHz
								•	
Frequency (MHz)		ading BuV)	Correct Factor (dB/m)	Res (dBu\			imit uV/m)	Margin (dB)	Remark
10480.000	37	7.64	14.84	52.4	48	74	4.00	-21.52	peak
10480.000	30).84	14.84	45.	68	54	4.00	-8.32	AVG
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		02.11n HT2 180MHZ	0 /	Te	emp/H	um	24(°C)/ 33%RH
Test Item	H	armonic		Test Date		November 30, 20		
Polarize		/ertical		Test Engineer			Chuang	
Detector	Peak a	and Average	e	Te	st Volt	age	120V	ac / 60Hz
110.0 dBu¥/m							Limit1:	_
70								
30.0 1000.000 4900.	1 2 ×	2700.00 16600.00) 20500.00	24400.	00 2830	0.00 3220	D0.00	40000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV			imit uV/m)	Margin (dB)	Remark
10360.000	38.72	14.45	53.1	7	74	4.00	-20.83	peak
10360.000	31.19	14.45	45.6	4	54	1.00	-8.36	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

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test Mode		302.11n HT2 180MHZ	20/ -	ſemp/Hum	24(°C)/	33%RH
Test Item		larmonic		Test Date	Novembe	
Polarize		lorizontal		est Engineer	Jerry	Chuang
Detector	Peak	and Averag	e T	est Voltage	120Va	c / 60Hz
110.0 dBuV/m						
					Limit1: Limit2:	_
70						
	1 X					
	X					
30.0						
1000.000 4900.0	0 8800.00 12	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
10360.000	37.62	14.45	52.07	74.00	-21.93	peak
10360.000	30.79	14.45	45.24	54.00	-8.76	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

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test Mode		IEEE 802.11n HT20 / 5220MHZ		Temp/Hum	24(°C)/	′ 33%RH
Test Item	F	larmonic		Test Date	Novembe	er <u>30, 2</u> 01
Polarize		Vertical	-	Fest Engineer	Jerry	Chuang
Detector	Peak	and Averag	je	Test Voltage	120Va	c / 60Hz
110.0 dBu¥/m					Limit1: Limit2:	_
70						
1000.000 4900.0	00 8800.00 12	2700.00 16600.00) 20500.00 24	400.00 28300.00 32	200.00 40	000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
15650.000	38.29	19.00	57.29	74.00	-16.71	peak
15650.000	29.34	19.00	48.34	54.00	-5.66	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 HT2 220MHZ	20 /	Te	emp/H	um	24(°C)/ 33%RH
Test Item	FF	larmonic		Т	est Da	ate	November 30, 20	
Polarize	H	lorizontal		Test Engineer		Jerry	/ Chuang	
Detector	Peak	and Averag	e	Te	Test Voltage		120V	ac / 60Hz
110.0 dBuV/m							Limit1:	_
70								
30.0 1000.000 4900.0		2700.00 16600.00	0 20500.00	24400.	00 2830	0.00 322	00.00	40000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV/			imit uV/m)	Margin (dB)	Remark
10480.000	38.50	14.84	53.34	4	74	1.00	-20.66	peak
10480.000	30.61	14.84	45.4	5	54	4.00	-8.55	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		IEEE 802.11n HT20 / 5240MHZ		Te	emp/Hi	um	24(°C)	/ 33%RH
Test Item		armonic		Т	est Da	te	November 30, 20	
Polarize		/ertical		Test Engineer		Jerry	Chuang	
Detector	Peak a	and Average	e	Test Voltage		120Va	ac / 60Hz	
110.0 dBu∀/m							Limit1:	_
							Limit2:	
70								
	1 X 2 X							
30.0 1000.000 4900	00 8800.00 12	2700.00 16600.00	20500.00	24400.	00 2830	0.00 3220	00.00 4	0000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV/			mit ıV/m)	Margin (dB)	Remark
10480.000	37.10	14.84	51.9	4	74	.00	-22.06	peak
10480.000	30.13	14.84	44.9	7	54	.00	-9.03	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 HT2 240MHZ	0 /	Temp/Hum		/ 33%RH	
Test Item		armonic		Test Date	November 30, 20		
Polarize		orizontal		Test Engineer		Chuang	
Detector	Peaka	and Average	e	Test Voltage	120Va	c / 60Hz	
110.0 dBuV/m							
					Limit1: Limit2:	_	
70							
	1 X						
	2						
30.0							
1000.000 4900.	.00 8800.00 12	2700.00 16600.00) 20500.00 24	400.00 28300.00 32	200.00 40	1000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	
10480.000	37.10	14.84	51.94	74.00	-22.06	peak	
10480.000	30.13	14.84	44.97	54.00	-9.03	AVG	
N/A							
	1	I				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		02.11n HT4 190MHZ	10 /	Te	emp/H	um	24(°	C)/ 33%	6RH
Test Item		larmonic		Test Date			November 30, 20		
Polarize		Vertical			st Engi		Jer	ry Chua	ang
Detector	Peak	and Average	je	Test Voltage		120	Vac / 6	0Hz	
110.0 dBu∀/m							Limit1	: <u> </u>	
70									
30.0 1000.000 4900.0	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2700.00 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			imit uV/m)	Margin (dB)	¹ Re	emark
10380.000	39.84	14.50	54.3	4	74	1.00	-19.66	5 F	beak
10380.000	29.56	14.50	44.0	6	54	1.00	-9.94	/	٩VG
N/A									
emark:									

- 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 HT4 190MHZ	10 /	Te	emp/H	um	24(°C)	/ 33%RH
Test Item		larmonic		Т	est Da	ite		er 30, 201
Polarize	H	lorizontal		Test Engineer		Jerry	Chuang	
Detector	Peak	and Averag	e	Test Voltage		120Va	ac / 60Hz	
110.0 dBuV/m							Limit1: Limit2:	
70								
30.0 1000.000 4900.0	0 8800.00 12	2700.00 16600.00	0 20500.00	24400.	00 2830	0.00 3220	00.00 4	0000.00 MHz
Frequency	Reading	Correct Factor	Resu			mit	Margin	Remark
(MHz)	(dBuV)	(dB/m)	(dBuV/			uV/m)	(dB)	
10380.000	41.53	14.50	56.0			.00	-17.97	peak
10380.000	32.73	14.50	47.2	3	54	1.00	-6.77	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		IEEE 802.11n HT40 / 5230MHZ		Temp/Hum	24(°C)/ 33%RH		
Test Item		armonic		Test Date	November 30, 20		
Polarize		Vertical		est Engineer	Jerry	Chuang	
Detector	Peak	and Average	e T	est Voltage	120Va	c / 60Hz	
110.0 dBu∀/m					Limit1:		
					Limit1: Limit2:	_	
70							
	1						
	1 X						
	Ž						
30.0							
1000.000 4900).00 8800.00 1	2700.00 16600.00	20500.00 244	00.00 28300.00 322	00.00 40	000.00 MHz	
		Correct					
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	
10460.000	40.51	14.79	55.30	74.00	-18.70	peak	
10460.000	32.09	14.79	46.88	54.00	-7.12	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

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test Mode	IEEE 802.11n HT40 / 5230MHZ		0/	Гетр/Hum	24(°C)/ 33%Rł	
Test Item	H	armonic		Test Date	Novembe	er 30, 201
Polarize		orizontal		est Engineer	Jerry	Chuang
Detector	Peak a	and Average	e T	est Voltage	120Va	c / 60Hz
110.0 dBuV/m					Limit1:	_
					Limit2:	_
70						
	1	3				
	X	Î				
	2	*				
30.0 1000.000 4 900.	00 8800.00 12	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
10460.000	44.42	14.79	59.21	74.00	-14.79	peak
10460.000	34.69	14.79	49.48	54.00	-4.52	AVG
15690.000	40.69	19.12	59.81	74.00	-14.19	peak
15690.000	29.32	19.12	48.44	54.00	-5.56	AVG
13090.000						

- 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		11ac VHT80 10MHZ)/ т	ēmp/Hum	24(°C)/	33%RH	
Test Item		armonic		Test Date	November 30, 20		
Polarize		/ertical		st Engineer		Chuang	
Detector	Peak a	and Average	Te	est Voltage	120Va	c / 60Hz	
110.0 dBu¥/m							
					Limit1: Limit2:	_	
70							
	1 X						
30.0							
1000.000 4900	D.00 8800.00 1	2700.00 16600.00	20500.00 24400	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	
10420.000	34.72	14.66	49.38	74.00	-24.62	peak	
N/A							

- 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	IEE		2.11ac <u>210MH</u>		0 /		emp/H			/ 33%RH	
Test Item			armoni				Test Da		November 30, 20 ⁻		
Polarize			orizonta				st Engi			Chuang	
Detector		Peak	and Av	erage		Te	est Volt	age	120Va	ac / 60Hz	
110.0 dBuV/m	1										
									Limit1: Limit2:		
70											
		1 X									
30.0											
1000.000 49	00.00 880)0.00	12700.00	16600.00	20500.00	24400).00 283	00.00 322	00.00 4	0000.00 MHz	
Frequency (MHz)		ading BuV)	Corr Fac (dB	tor	Resi (dBuV			imit uV/m)	Margin (dB)	Remark	
10420.000	34	.25	14.	66	48.9)1	74	4.00	-25.09	peak	
N/A											
Remark:											

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-2a

Test Mode			802.11a 60 MHz	a /	Те	mp/Hum	24(°C)/	/ 33%RH
Test Item			armonic			est Date		er 30, 201
Polarize			/ertical			t Engineer		Chuang
Detector		Peak a	and Aver	age	Tes	st Voltage	120Va	c / 60Hz
110.0 dBu∀/m							Limit1: Limit2:	
70			2 2 3 3 3					
30.0 1000.000 4900.	00 8800.00	12700.0	00 16600.00	0 20500.00	24400.0	10 28300.00 32	200.00 40	000.00 MHz
Frequency	Readin		Correct	Resu	ılt	Limit	Margin	
(MHz)	(dBuV	n i i	Factor (dB/m)	(dBuV		(dBuV/m)	(dB)	Remark
10520.000	38.40)	14.97	53.3	7	74.00	-20.63	peak
15780.000	39.43	3	19.38	58.8	1	74.00	-15.19	peak
15780.000	29.44	,	19.38	48.8	2	54.00	-5.18	AVG
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

Rev.00

Test Mode	IE	EEE 802.11a 5260 MHz	/ -	ſemp/Hum	24(°C)/	33%RH
Test Item		Harmonic		Test Date	Novembe	
Polarize		Horizontal		st Engineer	Jerry	Chuang
Detector	Pe	ak and Avera	ge T	est Voltage	120Va	c / 60Hz
110.0 dBuV/m	1					
					Limit1: Limit2:	_
70						
	1					
	×					
30.0						
1000.000 4900.0	0 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
10520.000	35.83	14.97	50.80	74.00	-23.20	peak
N/A						
		<u> </u>		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 5280 N		Te	emp/Hum	24(°C)	/ 33%RH
Test Item		Harmo	onic	Т	est Date	Novemb	er 30, 20 <i>1</i>
Polarize		Vertio			st Enginee	r Jerry	Chuang
Detector		Peak and <i>i</i>	Average	Te	st Voltage	120Va	ac / 60Hz
110.0 dBuV/m						Limit1:	_
						Limit2:	_
70							
		1					
		2 X					
30.0							
1000.000 4900.0	00 8800.00	12700.00 1	6600.00 20500	.00 24400.	00 28300.00	32200.00 4	0000.00 MHz
Frequency	Readin	n Corre		esult	Limit	Margin	
(MHz)	(dBuV		or (dB	uV/m)	(dBuV/m) (dB)	Remark
10560.000	38.57	15.0	6 5	3.63	74.00	-20.37	peak
10560.000	30.54	15.0	6 4	5.60	54.00	-8.40	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		IEEE 802.11 5280 MHz		Temp/	Hum	24(°C)	/ 33%RH
Test Item		Harmonic		Test D			er 30, 201
Polarize		Horizonta		Test Eng			Chuang
Detector	P	eak and Ave	rage	Test Vo	ltage	120Va	ac / 60Hz
110.0 dBuV/m							
						Limit1: Limit2:	_
70							
	×						
30.0 1000.000 4900.0	00 8800.00	12700.00 16600.	00 20500.00	24400.00 28	300.00 322	00.00 4	0000.00 MHz
1000.000 4300.0	0000.00	12700.00 10000.	JU 20300.00	24400.00 20	500.00 522	00.00 4	0000.00 MH2
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resul (dBuV/i		Limit BuV/m)	Margin (dB)	Remark
10560.000	35.88	15.06	50.94	۱	74.00	-23.06	peak
N/A							
			_				

- fundamental frequency. 2. For above 1GHz the FUT 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

Test Mode			IEEE 802.11a / 5320 MHz Harmonic			emp/H	um	24(°C)	/ 33%RH
Test Item						est Da			er 30, 201
Polarize			Vertica			st Engi			Chuang
Detector		Pea	ik and Av	reage	Te	st Volt	age	120Va	ac / 60Hz
110.0 dBuV/m									
								Limit1: Limit2:	_
70									
		1							
		1 X							
		¥							
30.0									
1000.000 4900.	00 88	00.00 12	700.00 1660	0.00 20500.00	24400.	.00 2830	10.00 3220)0.00 4	0000.00 MHz
Frequency (MHz)	Rea (d	ading BuV)	Correct Factor (dB/m)	Res (dBu\			imit uV/m)	Margin (dB)	Remark
10640.000	4(0.28	15.23	55.8	51	74	4.00	-18.49	peak
10640.000	33	3.44	15.23	48.6	67	54	4.00	-5.33	AVG
N/A									
	1					1		L	

- 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 802.1 5320 MF		Т	emp/H	um	24(°C)	/ 33%RH
Test Item			Harmon			lest Da			er 30, 20
Polarize			Horizont			st Engi		Jerry	Chuang
Detector		Pea	ak and Av	erage	Te	est Volt	age	120Va	ac / 60Hz
110.0 dBuV/m									
								Limit1:	-
								Limit2:	
70									
		1							
		Å							
		¥							
30.0	00 00	00.00 17	700 00 1000	0.00 20500.00	24400	00 2020	0 00 222		0000.00 MU-
1000.000 4900.0	JU 88	00.00 12	2700.00 1660	0.00 20500.00	24400	.00 2830	00.00 3220	DO.OO 4	0000.00 MHz
Frequency (MHz)		ading BuV)	Correct Factor (dB/m)	Res (dBu)			imit uV/m)	Margin (dB)	Remark
10640.000	37	7.60	15.23	52.	33	74	4.00	-21.17	peak
10640.000	3'	1.75	15.23	46.9	98	54	4.00	-7.02	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 HT2 260 MHz	0 /	Te	emp/H	um	24(°C)	/ 33%RH
Test Item		armonic			est Da			er 30, 201
Polarize		/ertical			st Engi			Chuang
Detector	Peak a	and Average	е	Те	st Volt	age	120Va	ac / 60Hz
110.0 dBuV/m							Limit1:	_
							Limit2:	
70								
70								
		1 X						
		2						
30.0								
1000.000 4900.0	00 8800.00 12	2700.00 16600.00) 20500.00	24400.	00 2830	0.00 322	00.00 4	0000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV			mit uV/m)	Margin (dB)	Remark
15770.000	38.12	19.35	57.4	7	74	l.00	-16.53	peak
15770.000	29.77	19.35	49.1	2	54	l.00	-4.88	AVG
N/A								
emark:								

- 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 HT2 260 MHz	20 /	T€	emp/Hi	um	24(°C)	/ 33%RH
Test Item	F	larmonic		T	est Da	te	Novemb	er 30, 201
Polarize	F	lorizontal		Tes	st Engi	neer	Jerry	Chuang
Detector	Peak	and Average	je		st Volta			ac / 60Hz
110.0 dBu¥/m							Limit1: Limit2:	
70								
30.0 1000.000 4900.0	00 8800.00 12	2700.00 16600.00	0 20500.00	24400.	00 2830	0.00 322	00.00 4	0000.00 MHz
F	Deading	Correct	Deer	14		14	Mousin	
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Resu (dBuV			mit uV/m)	Margin (dB)	Remark
15770.000	37.48	19.35	56.8	3	74	.00	-17.17	peak
15770.000	28.28	19.35	47.6	3	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

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test Mode		02.11n HT2 280 MHz	20 /	Te	emp/H	um		C)/ 33%RH
Test Item	F	larmonic		Ţ	Test Da	ite	Novem	ber 30, 201
Polarize		Vertical		Tes	st Engi	neer	Jerr	y Chuang
Detector	Peak	and Averag	je	Те	st Volt	age	120	Vac / 60Hz
110.0 dBuV/m							Limit1 Limit2	
70								
30.0 1000.000 4900.0	0 8800.00 12	2700.00 16600.00) 20500.00	24400	.00 2830	0.00 322	200.00	40000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV			imit uV/m)	Margin (dB)	Remark
10570.000	37.68	15.09	52.7	7	74	1.00	-21.23	peak
10570.000	30.45	15.09	45.5	4	74	1.00	-28.46	peak
N/A								
emark:								

- 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 HT2 280 MHz	20 /	Те	mp/Hu	um	24(°C)/ 33%RH
Test Item	F	larmonic		Те	est Da	te	Novemb	per 30, 201
Polarize		lorizontal			t Engir		Jerry	Chuang
Detector	Peak	and Averag	e	Tes	st Volta	age	120V	ac / 60Hz
110.0 dBuV/m							Limit1:	-
70								
30.0 1000.000 4900.0	× 0 8800.00 12	2700.00 16600.00) 20500.00	24400.0	0 2830	0.00 3220	D0.00	40000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resul (dBuV/r			mit ıV/m)	Margin (dB)	Remark
10560.000	36.34	15.06	51.40		74	.00	-22.60	peak
10560.000	28.43	15.06	43.49)	54	.00	-10.51	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		02.11n HT2 820 MHz	0/	ſemp/Hum		33%RH	
Test Item	H	armonic		Test Date	November 30, 20		
Polarize	١	/ertical		st Engineer	Jerry	Chuang	
Detector	Peak a	and Average	e T	est Voltage	120Va	c / 60Hz	
110.0 dBu¥/m					Limit1: Limit2:	_	
70							
30.0 1000.000 4900.	00 8800.00 12	2700.00 16600.00	20500.00 2440	0.00 28300.00 322	00.00 40	000.00 MHz	
Frequency	Reading	Correct	Result	Limit	Margin		
(MHz)	(dBuV)	Factor (dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Remark	
10640.000	38.90	15.23	54.13	74.00	-19.87	peak	
10640.000	28.02	15.23	43.25	54.00	-10.75	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 HT20 320 MHz)/	Temp/Hum	1	24(°C)	/ 33%RH	
Test Item	Н	armonic		Test Date		November 30, 20		
Polarize	H	orizontal		est Engine			Chuang	
Detector	Peak	and Average	;	Test Voltage	е	120Va	ac / 60Hz	
110.0 dBuV/m								
						Limit1: Limit2:	_	
70								
	×							
30.0								
1000.000 4900.0	0 8800.00 12	2700.00 16600.00	20500.00 24	400.00 28300.00	32200.	00 4	0000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/		Margin (dB)	Remark	
10640.000	36.04	15.23	51.27	74.00)	-22.73	peak	
N/A								
	<u> </u>	<u> </u>			1		<u>I</u>	
emark:								

- 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 Polarize Detector	H	IEEE 802.11n HT40 / 5270 MHz Harmonic			Temp/Hum		-)/ 33%RH	
	Vertical			Т	est Da	te	November 30, 20		
Detector				Test Engineer			Jerry	/ Chuang	
	Peak	and Averag	je	Test Voltage			120V	ac / 60Hz	
110.0 dBu¥/m							Limit1: Limit2:	-	
70									
30.0 1000.000 4900.00	8800.00 12	700.00 16600.00) 20500.00	24400.	.00 2830	0.00 322	00.00	40000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor	Resu (dBuV			imit uV/m)	Margin (dB)	Remark	
10540.000	40.46	(dB/m) 15.01	55.4			1.00	-18.53	peak	
10540.000	33.05	15.01	48.0			1.00	-5.94	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	IEEE 802.11n HT40 / 5270 MHz		Те	mp/Hum	24(°C)/	′ 33%RH		
Test Item		larmonic		Test Date		November 30, 20		
Polarize		lorizontal			Engineer	Jerry	Chuang	
Detector	Peak	and Averag	ge	Tes	t Voltage	120Va	c / 60Hz	
10.0 dBuV/m								
							Limit1: Limit2:	
							Liintz.	
70								
	1 X							
	Î							
	Ť.							
0.0	0000.00	10700 00 100		00.00	24400.00 202	00.00 00000		
1000.000 4900.00	8800.00 .	12700.00 1660	00.00 205	500.00	24400.00 283	00.00 32200.	.00 4	
_		Correct	_					
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Resu (dBuV/		Limit (dBuV/m)	Margin (dB)	Remark	
10540.000	45.72	15.01	60.73	3	74.00	-13.27	peak	
10540.000	36.17	15.01	51.18	3	54.00	-2.82	AVG	
N/A								
I		I				•		

- 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 HT4 310 MHz	0 /	Te	emp/Hu	m	24(°	C)/ 33%RH	
Test Item		armonic		Т	est Dat	e	November 30, 20		
Polarize		/ertical		Test Engineer			Jer	ry Chuang	
Detector	Peak a	and Average	e	Test Voltage			120	Vac / 60Hz	
110.0 dBuV/m							Limit1 Limit2		
70									
30.0 1000.000 4900.0		700.00 16600.00 Correct		24400.			00.00	40000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Resı (dBuV		Lim (dBu\		Margin (dB)	Remark	
10620.000	43.50	15.20	58.7	0	74.0	00	-15.30	peak	
10620.000	31.30	15.20	46.5	0	54.0	00	-7.50	AVG	
N/A									
emark:	I						I		

- 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 HT4 310 MHz	0 /	Temp/Hum	24(°C)/	33%RH	
Test Item		armonic		Test Date	November 30, 20		
Polarize		orizontal		est Engineer		Chuang	
Detector	Peak	and Average	e 7	Fest Voltage	120Va	c / 60Hz	
110.0 dBu¥/m					1		
					Limit1: Limit2:	_	
70							
	1						
	2 X						
30.0							
1000.000 4900.	00 8800.00 12	2700.00 16600.00	0 20500.00 244	00.00 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	
10620.000	38.78	15.20	53.98	74.00	-20.02	peak	
10620.000	29.60	15.20	44.80	54.00	-9.20	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		02.11ac VHT8 5290 MHz	30 /	Temp	o/Hum	24(°C)/ 33%RH		
Test Item		Harmonic			Date	November 30, 201		
Polarize		Vertical		Test E		Chuang		
Detector	Pea	k and Average	e	Test \	/oltage	120Va	c / 60Hz	
110.0 dBu¥/m								
						Limit1: Limit2:	_	
70								
	1							
	>							
30.0								
1000.000 490	00.00 8800.00	12700.00 16600.00) 20500.00	24400.00	28300.00 322	DO.OO 40	000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resul (dBuV/i		Limit (dBuV/m)	Margin (dB)	Remark	
10580.000	33.59	15.10	48.69)	74.00	-25.31	peak	
N/A								
						<u> </u>		
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	IEE		2.11ac 290 M	: VHT8 Hz	0 /	Т	emp/H	um	24(°0	C)/ 33%	RH
Test Item			larmor				est Da		November 30, 20		
Polarize			orizon			Test Engineer				y Chua	
Detector		Peak	and Av	verage		Test Voltage			120\	/ac / 60)Hz
110.0dBu¥/m											
									Limit1: Limit2:		
70											
		ļ									
30.0											
1000.000 490)0.00 880	0.00	12700.00	16600.00	20500.00	24400	.00 283	00.00 322	00.00	40000.00 M	Hz
Frequency (MHz)		iding BuV)	Fa	rrect ctor B/m)	Resi (dBuV			imit uV/m)	Margin (dB)	Re	mark
10580.000	33	3.32	15	5.10	48.4	2	74	4.00	-25.58	p	eak
N/A											
Remark:											
	suring f	Francis	naiaa	f		11 4		•			

Above 1G Test Data for UNII-2c

Test Mode		IE	EE 802. ² 5500 MF		Te	emp/H	um	24(°C)	/ 33%RH	
Test Item			Harmon		Т	est Da	ate	November 30, 20		
Polarize			Vertica			est Engineer Jerry Chuang				
Detector		Pea	k and Av	erage	Те	st Volt	age	120Va	ac / 60Hz	
110.0 dBuV/m										
								Limit1: Limit2:	—	
									_	
70										
70										
		1 X								
		2								
		Î								
30.0										
1000.000 4900.0	00 880	0.00 12	700.00 1660	0.00 20500.00	24400.	.00 2830	0.00 3220	DO.OO 4	0000.00 MHz	
Frequency (MHz)		ding BuV)	Correct Factor	Res (dBu)			imit uV/m)	Margin (dB)	Remark	
11100.000		.78	(dB/m) 16.07	55.8			4.00	-18.15	peak	
11100.000		.75	16.07	48.8			4.00	-5.18	AVG	
N/A										

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

(MHZ) (dBuv) (dB/m) (dBuv/m) (dBuv/m) (dB) 11100.000 37.63 16.07 53.70 74.00 -20.30 peak	Test Mode	;		EE 802.1 5500 M⊦		Te	emp/H	um		C)/ 33%RH	
Detector Peak and Average Test Voltage 120Vac / 60Hz 110.0 dBuV/m											
110.0 dBwV/m 1100.000 37.63 16.07 53.70 74.00 -20.30 11100.000 32.25 16.07 48.32 54.00 -5.68											
Frequency (MHz) Reading (dBuV) Correct Factor (dBMV) Result (dBuV/m) Limit (dBuV/m) Margin (dBuV/m) Remark down of the	Detector		Pea	k and Av	erage	Te	st Volt	age	120\	/ac / 60Hz	
Image:	110.0 dBuV/m										
Image: Second										_	
Image: Second											
Image: Second											
Image: Second											
Image: Second	70										
30.0 30.0 30.0 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz Frequency (MHz) Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remark Remark 11100.000 37.63 16.07 53.70 74.00 -20.30 peak 11100.000 32.25 16.07 48.32 54.00 -5.68 AVG	70										
30.0 30.0 30.0 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz Frequency (MHz) Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remark Remark 11100.000 37.63 16.07 53.70 74.00 -20.30 peak 11100.000 32.25 16.07 48.32 54.00 -5.68 AVG			1								
1000.000 4900.00 8800.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz Frequency (MHz) Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remar 11100.000 37.63 16.07 53.70 74.00 -20.30 peak 11100.000 32.25 16.07 48.32 54.00 -5.68 AVG			, z								
Index Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remark 11100.000 37.63 16.07 53.70 74.00 -20.30 peak 11100.000 32.25 16.07 48.32 54.000 -5.68 AVG			Î								
1000.000 4900.00 8800.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz Frequency (MHz) Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remar 11100.000 37.63 16.07 53.70 74.00 -20.30 peak 11100.000 32.25 16.07 48.32 54.00 -5.68 AVG	20.0										
Frequency (MHz) Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remark 11100.000 37.63 16.07 53.70 74.00 -20.30 peak 11100.000 32.25 16.07 48.32 54.00 -5.68 AVG		00 88	00.00 12	700.00 1660	<u>1 00 20500 00</u>	24400	00 2830	0 00 322	NO 00	40000 00 MHz	
Frequency (MHz) Reading (dBuV) Factor (dB/m) Result (dBuV/m) Llmit (dBuV/m) Margin (dB) Remar 11100.000 37.63 16.07 53.70 74.00 -20.30 peak 11100.000 32.25 16.07 48.32 54.00 -5.68 AVG	1000.000 4300		00.00 12	100.00 1000	5.00 20300.00	24400.	2050	0.00 5220	50.00	40000.00 MHZ	
11100.000 32.25 16.07 48.32 54.00 -5.68 AVG		Re (d	ading BuV)	Factor						Remark	
	11100.000	3	7.63		53.7	70			-20.30	peak	
N/A		32	2.25	16.07	48.3	32	54	1.00	-5.68	AVG	
	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. 5580 Mł			Temp/H	um	24(°C)	/ 33%RH
Test Item			Harmon			Test Da			er 30, 20
Polarize			Vertica			est Eng			Chuang
Detector		Pea	ak and Av	verage	rage Test Voltage 120Vac / 6			ac / 60Hz	
110.0 dBuV/m									
								Limit1:	-
								Limit2:	_
70									
		1 X							
00.0									
30.0 1000.000 4900.0	NN 88	2 00.00 12	2700.00 1660)0.00 2050	0 00 244	00.00 283	D0.00 322	00.00 4	0000.00 MHz
1000.000 4300.	00 00	00.00 17	.700.00 1000	0.00 2030	0.00 244	0.00 205	00.00 JZZ	40.00	0000.00 M112
Frequency (MHz)		ading BuV)	Correct Factor (dB/m)		lesult BuV/m)		imit uV/m)	Margin (dB)	Remark
11170.000	39	9.31	16.06	5	5.37	74	4.00	-18.63	peak
11170.000	-7	7.38	16.06		8.68	54	4.00	-45.32	AVG
N/A									
	I							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			EE 802.11 5580 MHz			emp/Hu)/ 33%RH
Test Item			Harmonic			est Da			per 30, 201
Polarize			Horizonta		Test Engineer				/ Chuang
Detector		Pea	k and Ave	rage	Те	st Volta	age	120V	ac / 60Hz
110.0 dBuV/m									
70								Limit1: Limit2:	
30.0	.00 88	2	700.00 16600.0	0 20500.00	24400.	00 2830	0.00 3220	00.00	40000.00 MHz
Frequency (MHz)		ading BuV)	Correct Factor (dB/m)	Resı (dBuV			mit ıV/m)	Margin (dB)	Remark
11170.000	3	5.92	16.06	51.9	8	74	.00	-22.02	peak
11170.000		8.81	16.06	44.8			.00	-9.13	AVG
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 802.11a / 5700 MHz			Temp/Hum			24(°C)/ 33%R⊦		
Test Item			Harmon	ic	Test Date			November 30, 20		
Polarize			Vertica		Test Engineer				y Chuang	
Detector		Pea	k and Av	verage	Те	st Volt	age	120	/ac / 60Hz	
110.0 dBuV/m										
								Limit1: Limit2:		
70										
		1								
		×								
30.0										
1000.000 4900.0)0 880().00 12	700.00 1660	0.00 20500.00	24400.	00 2830	10.00 322	DO. OO	40000.00 MHz	
	_		Correct							
Frequency (MHz)	(dB	ding uV)	Factor (dB/m)	Res (dBu\			imit uV/m)	Margin (dB)	Remar	
11400.000	34	.11	16.08	50.7	19	74	4.00	-23.81	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		EEE 802.11a 5700 MHz	ı /	Temp/Hum	24(°C)/ 33%RH		
Test Item		Harmonic		Test Date		er 30, 201	
Polarize		Horizontal		Test Engineer		Chuang	
Detector	Pe	ak and Avera	age	Test Voltage	120Va	c / 60Hz	
110.0 dBuV/m							
					Limit1: Limit2:	_	
70							
	1						
30.0							
1000.000 4900.0	0 8800.00 1	2700.00 16600.00	20500.00 2	4400.00 28300.00 32	200.00 40	0000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	
11400.000	33.80	16.08	49.88	74.00	-24.12	peak	
N/A							

Test Mode		EEE 802.11a 5720 MHz	a /	Temp/Hum		′ 33%RH
Test Item		Harmonic		Test Date	Novembe	
Polarize	-	Vertical		Test Engineer		Chuang
Detector	Pe	eak and Aver	age	Test Voltage	120Va	c / 60Hz
110.0 dBuV/m		1 1				
					Limit1: Limit2:	_
70						
		1				
		-				
30.0						
1000.000 4900.0	0 8800.00	12700.00 16600.00	20500.00 2	4400.00 28300.00 32	200.00 40	000.00 MHz
Frequency	Reading	Correct	Result	Limit	Margin	
(MHz)	(dBuV)	Factor (dB/m)	(dBuV/m)		(dB)	Remark
11440.000	34.57	16.09	50.66	74.00	-23.34	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		EE 802.11a / 5720 MHz		emp/Hum		33%RH	
Test Item		Harmonic		est Date	November 30, 20		
Polarize		Horizontal		t Engineer	Jerry	Chuang	
Detector	Pea	k and Average	Tes	st Voltage	120Va	c / 60Hz	
110.0 dBuV/m							
					Limit1: Limit2:	_	
70							
	1						
30.0 1000.000 4900.00	8800.00 127	700.00 16600.00 205	DO.OO 24400.0	00 28300.00 322	00.00 40	000.00 MHz	
	eading (dBuV)		Result BuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	
11440.000	32.99	16.09	49.08	74.00	-24.92	peak	
N/A							
		L			-		
emark:		cies from 1 GH					

Test Mode		IEEE 802.11n HT20 / 5500 MHz			emp/H	um	24(°C)	/ 33%RH
Test Item		armonic		Test Date			November 30, 20	
Polarize		/ertical		Test Engineer			Jerry	Chuang
Detector	Peak a	and Average	е	Те	st Volt	age	120Va	ac / 60Hz
110.0 dBu¥/m							Limit1: Limit2:	
70	1							
30.0	00 8800.00 12	2700.00 16600.00) 20500.00	24400.	00 2830	0.00 322	00.00 4	0000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV			imit uV/m)	Margin (dB)	Remark
10990.000	42.32	16.04	58.3	6	74	4.00	-15.64	peak
10990.000	31.75	16.04	47.7	9	54	4.00	-6.21	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		IEEE 802.11n HT20 / 5500 MHz			mp/Hum	24(°C)/	′ 33%RH	
Test Item		larmonic		Te	est Date	November 30, 20		
Polarize	H	orizontal			Engineer	Jerry	Chuang	
Detector	Peak	and Averag	je	Tes	t Voltage	120Va	c / 60Hz	
110.0 dBu¥/m								
						Limit1: Limit2:		
70								
	1							
	2 X							
30.0								
1000.000 4900.0	0 8800.00 12	2700.00 16600.00	20500.00	24400.00) 28300.00 32	200.00 40	000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resul (dBuV/i	-	Limit (dBuV/m)	Margin (dB)	Remark	
11010.000	38.92	16.06	54.98	}	74.00	-19.02	peak	
11010.000	29.06	16.06	45.12	2	54.00	-8.88	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		IEEE 802.11n HT20 / 5580 MHz			emp/H	um		C)/ 33%RH
Test Item	F	larmonic		Τ	est Da	te	Novem	ber 30, 201
Polarize		Vertical		Test Engineer		Jerr	y Chuang	
Detector	Peak	and Average	ge	Te	st Volt	age	120\	/ac / 60Hz
110.0 dBuV/m							Limit1: Limit2:	
70								
30.0 1000.000 4900.	00 8800.00 12	2700.00 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 uV/m)	Margin (dB)	Remark
11160.000	39.37	16.07	55.4	4	74	.00	-18.56	peak
11160.000	29.96	16.07	46.0	3	54	.00	-7.97	AVG
N/A								
emark:								

- 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 HT20 / 5580 MHz			lum	24(°C)/ 33%RH		
Test Item	F	larmonic		Test D	ate	Novemb	er 30, 201	
Polarize	H	lorizontal		Test Eng	jineer		Chuang	
Detector	Peak	and Averag	e	Test Vo	ltage	120Va	c / 60Hz	
110.0 dBu¥/m						Limit1: Limit2:		
70								
30.0 1000.000 4900.	00 8800.00 12	2700.00 16600.00	20500.00	24400.00 28	300.00 322	00.00 40	0000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m		Limit BuV/m)	Margin (dB)	Remark	
11160.000	35.31	16.07	51.38	7	4.00	-22.62	peak	
11160.000	27.38	16.07	43.45	5	54.00	-10.55	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		IEEE 802.11n HT20 / 5700 MHz			emp/Hu	m	-	C)/ 33%RH	
Test Item	Н	armonic		Test Date			November 30, 20		
Polarize	\ \	/ertical		Test Engineer			Jerr	y Chuang	
Detector	Peaka	and Average	e	Te	st Volta	ge	120\	/ac / 60Hz	
110.0 dBu¥/m							Limit1: Limit2:	_	
70									
30.0									
1000.000 4900).00 8800.00 12	2700.00 16600.00) 20500.00	24400.	00 28300	.00 322	00.00	40000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV/		Lin (dBu		Margin (dB)	Remark	
11390.000	44.16	16.09	60.2	5	74.	00	-13.75	peak	
11390.000	32.19	16.09	48.2	3	54.	00	-5.72	AVG	
N/A									
emark:									

- 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		802.11r <u>5700 M</u>		/	Te	emp/H	um	24(°C	C)/ 33%RH
Test Item		Harmor				est Da			ber 30, 20 ⁻
Polarize		Horizon				st Engi			y Chuang
Detector	Pea	k and A	verage		Te	st Volt	age	120\	/ac / 60Hz
110.0 dBuV/m									
								Limit1: Limit2:	
70									
		1 X							
30.0									
1000.000 4900.00	D 8800.00	12700.00	16600.00	20500.00	24400.	00 2830)0.00 322	00.00	40000.00 MHz
Frequency (MHz)	Reading (dBuV)	Fac	rect ctor 8/m)	Resı (dBuV			imit uV/m)	Margin (dB)	Remark
11400.000	34.52	16	.08	50.6	0	74	4.00	-23.40	peak
N/A									
emark:									
2111GI IV.									

Test Mode	57	02.11n HT2 /20 MHz	0 /	Temp/I			/ 33%RH
Test Item		armonic		Test D		November 30, 2	
Polarize		/ertical		Test Engineer			Chuang
Detector	Peaka	and Average	e	Test Vo	ltage	120Va	ac / 60Hz
110.0 dBu¥/m						Limit1: Limit2:	_
70	1 *						
30.0 1000.000 4900.	00 8800.00 12	2700.00 16600.00) 20500.00	24400.00 28	300.00 322	00.00 4	0000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m		Limit BuV/m)	Margin (dB)	Remark
11440.000	43.72	16.09	59.81		74.00	-14.19	peak
11440.000	34.80	16.09	50.89	4	54.00	-3.11	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 HT2(/20 MHz	Temp/	Hum		/ 33%RH	
Test Item		armonic		Test I		November 30, 20	
Polarize		orizontal		Test En			Chuang
Detector	Peak	and Average	•	Test Vo	oltage	120Va	c / 60Hz
110.0 dBuV/m							
						Limit1: Limit2:	_
70							
	1						
	*						
30.0							
1000.000 4900.	00 8800.00 1.	2700.00 16600.00	20500.00	24400.00 2	8300.00 322	00.00 40	0000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resul (dBuV/i		Limit IBuV/m)	Margin (dB)	Remark
11440.000	37.64	16.09	53.73		74.00	-20.27	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

Test Mode		02.11n HT4 510 MHz	0 /	Те	mp/Hum	24	(°C)/ 33	%RH	
Test Item	F	larmonic		Te	est Date	Nove	mber 3	0, 201	
Polarize		Vertical			Enginee		Jerry Chuang		
Detector	Peak	and Averag	e	Tes	st Voltage	12	0Vac / 6	50Hz	
110.0 dBu∀/m							nit1: —		
70									
30.0 1000.000 4900.0	0 8800.00 12	2700.00 16600.00	20500.00	24400.0	0 28300.00	32200.00	40000.0) MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor	Resul (dBuV/		Limit (dBuV/m	Marg) (dB		Remark	
11020.000	44.11	(dB/m) 16.05	60.16		74.00	-13.8		peak	
11020.000	34.06	16.05	50.11		54.00	-3.8		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

Rev.00

Test Mode		302.11n HT4 510 MHz	10 /	ſemp/Hum	24(°C)/	33%RH
Test Item	ŀ	Harmonic		Test Date	Novembe	er 30, 201
Polarize		Iorizontal		st Engineer	Jerry	Chuang
Detector	Peak	and Averag	je T	est Voltage	120Va	c / 60Hz
110.0 dBuV/m					Limit1: Limit2:	
70						
30.0 1000.000 4900.	.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	38.77	16.05	54.82	74.00	-19.18	peak
11020.000	28.58	16.05	44.63	54.00	-9.37	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		02.11n HT4 550 MHz	10 /	Tem	p/Hum	24(°C)/	33%RH
Test Item	F	larmonic		Tes	t Date	Novembe	er 30, 201
Polarize		Vertical			Ingineer	Jerry	Chuang
Detector	Peak	and Averag	je		Voltage		c / 60Hz
110.0 dBuV/m						Limit1: Limit2:	_
70							
30.0 1000.000 4900.	DO 8800.00 12	2700.00 16600.00	0 20500.00	24400.00	28300.00 3220	00.00 40	000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/n		Limit (dBuV/m)	Margin (dB)	Remark
11090.000	45.47	16.07	61.54		74.00	-12.46	peak
11090.000	33.35	16.07	49.42		54.00	-4.58	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 HT4 550 MHz	10 /	Temp/⊦	lum	24(°C)	/ 33%RH	
Test Item	F	larmonic		Test D	ate		er 30, 201	
Polarize	F	lorizontal		Test Eng	ineer	Jerry Chuang		
Detector	Peak	and Average	je	Test Vol	tage	120Va	c / 60Hz	
110.0 dBu∀/m						Limit1: Limit2:	_	
70								
30.0 1000.000 4900.0	0 8800.00 13	2700.00 16600.00) 20500.00	24400.00 283	00.00 322	00.00 40	0000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m		₋imit BuV/m)	Margin (dB)	Remark	
11110.000	40.15	16.06	56.21	7	4.00	-17.79	peak	
11110.000	28.00	16.06	44.06	5	4.00	-9.94	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 HT4 670 MHz	0 /	Temp/	Hum		/ 33%RH	
Test Item		armonic		Test D			er 30, 2017	
Polarize		/ertical		Test Eng		Jerry Chuang		
Detector	Peak a	and Average	e	Test Vo	ltage	120Va	c / 60Hz	
110.0 dBu¥/m						Limit1:	_	
						Limit2:		
70								
	1 X							
	2							
30.0								
1000.000 4900.	00 8800.00 12	2700.00 16600.00	20500.00	24400.00 28	300.00 322	00.00 40	1000.00 MHz	
		Correct						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m		Limit BuV/m)	Margin (dB)	Remark	
11340.000	40.49	16.08	56.57		74.00	-17.43	peak	
11340.000	33.52	16.08	49.60		54.00	-4.40	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 HT40 670 MHz		Temp/Hum	24(°C)/	33%RH	
Test Item		armonic		Test Date		er 30, 201	
Polarize		orizontal		est Engineer	Jerry Chuang		
Detector	Peak	and Average	e 1	est Voltage	120Va	c / 60Hz	
110.0 dBu¥/m					1:-14		
					Limit1: Limit2:	_	
70							
	1						
	×						
30.0							
1000.000 4900.	.00 8800.00 1.	2700.00 16600.00	20500.00 244	00.00 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	
11340.000	35.73	16.08	51.81	74.00	-22.19	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 HT40 710 MHz	0/	Temp/Hum	24(°C)/	33%RH	
Test Item		armonic		Test Date	Novembe		
Polarize		Vertical		est Engineer	Jerry Chuang		
Detector	Peak	and Average	e 1	est Voltage	120Va	c / 60Hz	
110.0 dBuV/m							
					Limit1: Limit2:	_	
70							
	1						
	*						
30.0							
1000.000 4900	.00 8800.00 13	2700.00 16600.00	20500.00 244	00.00 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	
11420.000	43.69	16.08	59.77	74.00	-14.23	peak	
11420.000	32.94	16.08	49.02	54.00	-4.98	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 HT40 /10 MHz	/т	emp/Hum	24(°C)/	33%RH	
Test Item		armonic		Test Date		er 30, 201	
Polarize		orizontal		st Engineer	Jerry Chuang		
Detector	Peak	and Average	Te	est Voltage	120Va	c / 60Hz	
110.0 dBuV/m							
					Limit1: Limit2:	_	
70							
	1						
30.0							
1000.000 4900.	00 8800.00 12	2700.00 16600.00	20500.00 24400	1.00 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	
11420.000	37.15	16.08	53.23	74.00	-20.77	peak	
N/A							
					<u> </u>		
emark:							

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

Test Mode	IEE		11ac VH 30 MHz	T80 /	Te	emp/H	um	24(°C)/ 33%RH	
Test Item			rmonic			est Da			oer 30, 2017	
Polarize			ertical			st Engi		Jerry Chuang		
Detector	F	Peak a	nd Avera	ge	Те	st Volt	age	120V	ac / 60Hz	
110.0 dBuV/m	1	1								
								Limit1: Limit2:	_	
70										
		1 X								
30.0										
1000.000 49	00.00 8800	D.00 12	700.00 1660	0.00 20500.00	24400.	.00 2830)0.00 322	00.00	40000.00 MHz	
Frequency	Rea	ding	Correct	Res	ult	L	imit	Margin	Demer	
(MHz)		uV)	Factor (dB/m)	(dBu\	//m)	(dB	uV/m)	(dB)	Remark	
11060.000	36	.41	16.06	52.4	17	74	4.00	-21.53	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		EEE 8	02.11a 5530 N		T80 /		Te	emp/H	um	24(°0	C)/ 33%RH	
Test Item			Harmo					est Da			ber 30, 201	
Polarize			lorizo					t Engi		Jerry Chuang		
Detector		Peal	c and <i>i</i>	Avera	ge		Te	st Volt	age	120	/ac / 60Hz	
110.0 dBuV/m												
										Limit1: Limit2:		
70												
			¦									
30.0												
1000.000 49	00.00	8800.00	12700.0	0 1660	0.00 205	00.00	24400.	00 283	DO.OO 322	00.00	40000.00 MHz	
Frequency (MHz)		Reading (dBuV)	F	orrect Factor dB/m)		Resul ⁱ IBuV/r			imit uV/m)	Margin (dB)	Remark	
11060.000		35.55		16.06		51.61		74	4.00	-22.39	peak	
N/A												
Remark:												

- fundamental frequency. 2 For above 1GHz the FLIT 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

Test Mode		.11ac VHT8 90 MHz	30 /	Ter	mp/Hum	24(°C)/	/ 33%RH	
Test Item		armonic			st Date		er 30, 201	
Polarize		'ertical			Engineer	Jerry Chuang		
Detector	Peak a	ind Average	;	Tes	t Voltage	120Va	c / 60Hz	
110.0 dBuV/n						Limit1: Limit2:	_	
70								
30.0 1000.000 49	100.00 8800.00 12	2700.00 16600.00) 20500.00	24400.00) 28300.00 32	200.00 40	1000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resul (dBuV/		Limit (dBuV/m)	Margin (dB)	Remark	
11400.000	43.36	16.08	59.44	ŀ	74.00	-14.56	peak	
11400.000	30.11	16.08	46.19)	54.00	-7.81	AVG	
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		IEEE		11ac 0 MI		Г80	/	Т	emp/H	lum	24(°0	C)/ 33%	6RH
Test Item				rmor					Test D		Novem		
Polarize				izon					st Eng		Jerry Chuang		
Detector		Pe	ak ar	nd Av	/era	ge		Te	est Vo	tage	120\	/ac / 6	0Hz
110.0 dBuV/m													
											Limit1: Limit2:		
70													
			X										
30.0													
1000.000 49	00.00	8800.00	127	'00.00	16600).00	20500.00	2440).00 283	300.00 322	00.00	40000.00	MHz
Frequency (MHz)		Readir (dBuV		Fa	rrect ctor 3/m)		Resı (dBuV			Limit BuV/m)	Margin (dB)	Re	emark
11380.000		35.26	6	16	6.09		51.3	5	7	4.00	-22.65	r	beak
N/A													
Remark:													

Above 1G Test Data for UNII-3

Test Mode		IEEE 802.11a / 5745 MHz		Te	emp/H	um	24(°C)/ 33%RH	
Test Item		Har	monic		Т	est Da	ate	Novem	ber 30, 2017
Polarize			rtical			t Engi		Jerry	/ Chuang
Detector		Peak an	d Avera	age	Te	st Volt	age	120V	/ac / 60Hz
110.0 dBu∀/m									
								Limit1: Limit2:	_
70									
		i X							
30.0									
1000.000 4900.0	0 8800.00	12700.00	16600.00	20500.00	24400.	00 2830	0.00 3220	0.00	40000.00 MHz
Frequency (MHz)	Reading (dBuV)	^g Fa	errect actor B/m)	Resı (dBuV			imit uV/m)	Margin (dB)	Remark
11490.000	35.13		, 6.09	51.2	2	74	1.00	-22.78	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		IEEE 802.11 5745 MHz		Temp/Hum	n 24(°C	C)/ 33%RH
Test Item		Harmonic		Test Date		ber 30, 20 ⁻
Polarize		Horizonta		Test Engine		y Chuang
Detector	F	Peak and Ave	rage	Test Voltag	e 120\	/ac / 60Hz
110.0 dBuV/m						
					Limit1: Limit2:	_
70						
		l l				
		×				
30.0						
1000.000 4900.	00 8800.00	12700.00 16600.0	0 20500.00 2	28300.00	32200.00	40000.00 MHz
		Correct				
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)) (dBuV/		Remark
11490.000	33.47	16.09	49.56	74.00) -24.44	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		IE	EE 802. 5745 Mi		Te	emp/H	um	24(°C))/ 33%RH
Test Item			Harmon			est Da			er 30, 201
Polarize			Vertica			st Engi			Chuang
Detector		Pea	ik and Av	/erage	Te	st Volt	age	120Va	ac / 60Hz
110.0 dBuV/m								Limit1:	_
								Limit2:	
70									
		1							
		2 X							
30.0									
1000.000 4900.0	00 88	00.00 12	2700.00 166	0.00 20500.00	24400.	.00 2830	0.00 3220	DO.OO 4	10000.00 MHz
Frequency (MHz)		ading BuV)	Correct Factor (dB/m)	Resi (dBu)			imit uV/m)	Margin (dB)	Remark
11570.000	38	3.06	16.01	54.0)7	74	4.00	-19.93	peak
11570.000	29	9.54	16.01	45.5	55	74	4.00	-28.45	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		IEEE 802.11a / 5745 MHz Harmonic		Temp/Hum Test Date		24(°C)/ 33%R				
Test Item								November 30, 20		
Polarize			zontal			st Eng		Jerry Chuang		
Detector	P	eak an	d Avera	ige	Te	st Voli	age	120V	/ac / 60Hz	
110.0 dBuV/m										
								Limit1: Limit2:	_	
70										
		×								
30.0										
1000.000 4900.00	8800.00	12700.00	16600.00	20500.00	24400	.00 283	00.00 322	00.00	40000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Fa	rrect ctor B/m)	Resi (dBuV			imit uV/m)	Margin (dB)	Remark	
11570.000	34.90	16	6.01	50.9)1	74	4.00	-23.09	peak	
N/A										
I								<u> </u>		
emark:										
1. Measur	ina freau	encies	from 1	$C \Box = tc$	tha 1	10th ha	rmonio	of highor	^	

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

Test Mode		IEEE 802.11a / 5825 MHz			Te	emp/H	um	24(°C)/ 33%RH
Test Item			armonic)	Т	est Da	ate	November 30, 20	
Polarize			/ertical			st Engi			/ Chuang
Detector		Peak a	and Ave	erage	Те	st Volt	age	120V	ac / 60Hz
110.0 dBuV/m								Limit1:	
								Limit1: Limit2:	_
70									
		1 X							
		2 X							
30.0									
1000.000 4900.	00 8800.00) 12700.0	DO 16600.	00 20500.00	24400.	00 2830)0.00 3220	00.00	40000.00 MHz
			Correct						
Frequency (MHz)	Readir (dBu\	ng /\	Factor (dB/m)	Resi (dBuV			imit uV/m)	Margin (dB)	Remark
11650.000	39.66	6	15.93	55.5	59	74	4.00	-18.41	peak
11650.000	31.70)	15.93	47.6	63	54	4.00	-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		IEEE 802.11a / 5825 MHz Harmonic		Temp/Hum Test Date		24(°C)/ 33%R			
Test Item							November 30, 20		
Polarize		Horizonta			t Engi		Jerry	Chuang	
Detector	Pea	ak and Ave	rage	Te	st Volt	age	120Va	ac / 60Hz	
110.0 dBuV/m									
							Limit1: Limit2:	_	
70									
	1								
30.0									
1000.000 4900.00	8800.00 12	2700.00 16600.	00 20500.00	24400.	00 2830	0.00 3220	DO. OO 4	40000.00 MHz	
	Reading (dBuV)	Correct Factor (dB/m)	Resu (dBuV			imit uV/m)	Margin (dB)	Remark	
11570.000	33.35	16.01	49.3	6	74	4.00	-24.64	peak	
N/A									
I		L							
mark:		ncies from							

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 HT2 745 MHz	20 /	Temp/H	um	24(°C)	/ 33%RH
Test Item	F	larmonic		Test Da	ate	Novemb	er 30, 201
Polarize		Vertical		Test Engi		Jerry	Chuang
Detector	Peak	and Averag	e	Test Volt	age	120Va	nc / 60Hz
110.0 dBuV/m						Limit1: Limit2:	
70							
30.0 1000.000 4900.0	0 8800.00 12	700.00 16600.00	20500.00 2	4400.00 283	00.00 322	00.00 4	0000.00 MHz
		Correct					
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)		imit uV/m)	Margin (dB)	Remark
11490.000	36.94	16.09	53.03	74	4.00	-20.97	peak
11490.000	27.58	16.09	43.67	54	4.00	-10.33	AVG
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		802.11n HT20 / 745 MHz	Ten	np/Hum	24(°C)/	′ 33%RH	
Test Item		larmonic	Tes	st Date	November 30, 20 ⁻		
Polarize	ŀ	lorizontal		Engineer	Jerry	Chuang	
Detector	Peak	and Average	Test	Voltage	120Va	c / 60Hz	
110.0 dBuV/m							
					Limit1: Limit2:	_	
70							
	1						
30.0							
1000.000 4900.0	10 8800.00 1	2700.00 16600.00 2050	D.OO 24400.00	28300.00 322	00.00 40	000.00 M Hz	
Frequency	Reading	Correct F Factor (1)	esult	Limit	Margin	Remark	
(MHz)	(dBuV)	(dB/m) (d	BuV/m)	(dBuV/m)	(dB)	Remark	
11490.000	33.75	16.09	9.84	74.00	-24.16	peak	
N/A							
		<u>├</u> ──					

- 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 HT2 785 MHz	20/	Temp/	Hum	24(°C)	/ 33%RH	
Test Item	F	larmonic		Test [Date	November 30, 20		
Polarize		Vertical		Test En		Jerry Chuang		
Detector	Peak	and Averag	je	Test Vo	oltage	120Va	nc / 60Hz	
110.0 dBu¥/m						Limit1: Limit2:	_	
70								
30.0 1000.000 4900.0	00 8800.00 12	2700.00 16600.00) 20500.00	24400.00 20	8300.00 322	00.00 4	0000.00 MHz	
		Correct						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m		Limit IBuV/m)	Margin (dB)	Remark	
11570.000	38.10	16.01	54.11		74.00	-19.89	peak	
11570.000	28.63	16.01	44.64		54.00	-9.36	AVG	
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		802.11n HT 5785 MHz	20/		mp/H)/ 33%RH	
Test Item		Harmonic			est Da		November 30, 20		
Polarize		Horizontal			t Engi		Jerry Chuang		
Detector	Peal	k and Avera	ge	Test Voltage			120Va	ac / 60Hz	
110.0 dBuV/m									
							Limit1: Limit2:		
70									
		1							
30.0									
1000.000 4900.00	0 8800.00	12700.00 16600.0	00 20500.00	24400.0	0 2830	00.00 3220	00.00 4	10000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resı (dBuV			imit uV/m)	Margin (dB)	Remark	
11570.000	34.40	16.01	50.4	1	74	4.00	-23.59	peak	
N/A			<u> </u>						
							<u> </u>	<u> </u>	
							<u> </u>		
emark:									

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 HT2 325 MHz	ר /0/	ſemp/Hum	24(°C)/	33%RH	
Test Item		armonic		Test Date	November 30, 20		
Polarize		/ertical		st Engineer		Chuang	
Detector	Peak a	and Average	e To	est Voltage	120Va	c / 60Hz	
110.0 dBu¥/m					Limit1: Limit2:	-	
70							
30.0 1000.000 4900.	00 8800.00 12	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	
11650.000	38.32	15.93	54.25	74.00	-19.75	peak	
11650.000	29.71	15.93	45.64	54.00	-8.36	AVG	
N/A							
				1			

- 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 HT2 325 MHz	0/	Temp/H	lum	24(°C)	/ 33%RH	
Test Item	H	armonic		Test D	ate	November 30, 20		
Polarize	He	orizontal		Test Eng	ineer	Jerry	Chuang	
Detector	Peak a	and Average	e	Test Vol	tage	120Va	ic / 60Hz	
110.0 dBu∀/m						Limit1: Limit2:		
70								
30.0 1000.000 4900.	00 8800.00 12	2700.00 16600.00	0 20500.00	24400.00 283	00.00 322	00.00 40	0000.00 MHz	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m		₋imit 3uV/m)	Margin (dB)	Remark	
11650.000	37.02	15.93	52.95	7	4.00	-21.05	peak	
11650.000	29.39	15.93	45.32	5	4.00	-8.68	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		302.11n HT₄ 755 MHz	40/	Те	mp/Hum	24(°	°C)/ 33%RH
Test Item	F	larmonic		Те	est Date	Nover	nber 30, 201
Polarize		Vertical			t Enginee	r Jer	ry Chuang
Detector	Peak	and Averag	je	Tes	st Voltage	120	Vac / 60Hz
110.0 dBuV/m						Limit	
70							
30.0 1000.000 4900.0	0 8800.00 12	2700.00 16600.00) 20500.00	24400.0	0 28300.00	32200.00	40000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resul (dBuV/r		Limit (dBuV/m	Margiı) (dB)	ⁿ Remark
11510.000	43.30	16.08	59.38		74.00	-14.62	2 peak
11510.000	30.84	16.08	46.92		54.00	-7.08	AVG
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	IEEE 802.11n HT40/ 5755 MHz			emp/Hum	24(°C)/ 33%RH		
Test Item	Н	armonic		Test Date	November 30, 20		
Polarize		orizontal		st Engineer	Jerry	Chuang	
Detector	Peak	and Average	e Te	est Voltage	120Va	c / 60Hz	
110.0 dBuV/m							
					Limit1: Limit2:	_	
70							
	1						
30.0							
1000.000 4900.0	DO 8800.00 1	2700.00 16600.00	20500.00 24400).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	
11510.000	37.43	16.08	53.51	74.00	-20.49	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		IEEE 802.11n HT40/ 5795 MHz		Те	mp/Hum	24(°C)/	33%RH
Test Item		armonic		Test Date		November 30, 20	
Polarize		/ertical			Engineer	Jerry Chuan	
Detector	Peaka	and Average	e	Test Voltage 120Vac			c / 60Hz
110.0 dBuV/m						Limit1: Limit2:	
70	1						
30.0 1000.000 4900	.00 8800.00 12	2700.00 16600.00) 20500.00	24400.0	0 28300.00 322	00.00 40	000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Resul (dBuV/r		Limit (dBuV/m)	Margin (dB)	Remark
11590.000	45.60	16.00	61.60		74.00	-12.40	peak
11590.000	32.98	16.00	48.98		54.00	-5.02	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

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test Mode		02.11n HT4 '95 MHz	.0/	Temp/H	lum	24(°C).	/ 33%RH
Test Item		armonic		Test D			er 30, 2017
Polarize		orizontal		Test Eng		Jerry Chuang	
Detector	Peak a	and Average	e	Test Vol	tage	120Va	ac / 60Hz
110.0 dBuV/m							
						Limit1: Limit2:	_
70							
	1						
30.0							
1000.000 4900	1.00 8800.00 12	2700.00 16600.00) 20500.00	24400.00 283	300.00 322	00.00 40	0000.00 MHz
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/n		₋imit 3uV/m)	Margin (dB)	Remark
11590.000	38.98	16.00	54.98	7	4.00	-19.02	peak
11590.000	26.44	16.00	42.44		4.00	-11.56	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

Polarize Vertical Test Engineer Jerry Chuang Detector Peak and Average Test Voltage 120Vac / 60Hz 110.0 dBuV/m Immit: Immit: Immit: Immit: Immit: Immit: Immit: Immit: Immit: Immit: Immit: Immit: Immit: Immit: Immit: <	Test Mode		2.11ac VHT8 75 MHz	80/	Ter	mp/Hum	24(°C)/	33%RH
Detector Peak and Average Test Voltage 120Vac / 60Hz 110.0 d8uV/m							November 30, 20	
III.0 dBuV/m Limit: Limit: <thlimit:< th=""> <thlimit:< th=""> <thlimit:< th=""></thlimit:<></thlimit:<></thlimit:<>								
Image: Second	Detector	Peak a	ind Average	;	Tes	t Voltage	120Va	c / 60Hz
Image: Second	110.0 dBuV/m							-
Index Non Reading (dBuV) Correct Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remain (dB) <th< td=""><td>70</td><td>×</td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	70	×						
Frequency (MHz) Reading (dBuV) Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remaind (dB) 11580.000 43.05 16.00 59.05 74.00 -14.95 peak 11580.000 29.76 16.00 45.76 54.00 -8.24 AVG		00.00 8800.00 1	2700.00 16600.00) 20500.00	24400.00) 28300.00 322	00.00 40	000.00 MHz
Frequency (MHz) Reading (dBuV) Factor (dB/m) Result (dBuV/m) Limit (dBuV/m) Margin (dB) Remaind (dB) 11580.000 43.05 16.00 59.05 74.00 -14.95 peak 11580.000 29.76 16.00 45.76 54.00 -8.24 AVG		_						
11580.000 29.76 16.00 45.76 54.00 -8.24 AVG			Factor					Remark
11580.000 29.76 16.00 45.76 54.00 -8.24 AVG	11580.000	43.05	16.00	59.05	;	74.00	-14.95	peak
Ν/Δ	11580.000	29.76	16.00	45.76	;	54.00	-8.24	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

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test Mode	IE)2.11a <u>775 M</u>	c VHT8 <u>Hz</u>	30/		emp/H		24(°C)/ 33%RH	
Test Item			larmor				Test Da		November 30, 20		
Polarize			lorizon				st Engi			Chuang	
Detector		Peak	and A	verage		Te	est Volt	age	120V	ac / 60Hz	
110.0 dBuV/m											
									Limit1: Limit2:	_	
70											
			1								
			×								
30.0											
1000.000 49	00.00 88	00.00	12700.00	16600.00	20500.00	24400).00 283	DO.OO 322	00.00	10000.00 MHz	
Frequency (MHz)		ading BuV)	Fa	rrect ictor B/m)	Res (dBu\			imit uV/m)	Margin (dB)	Remark	
11580.000	30	6.16	16	6.00	52.´	6	74	4.00	-21.84	peak	
N/A											
Remark:											

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

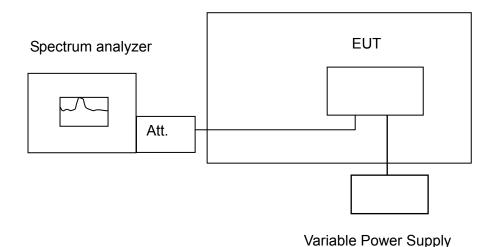
According to §15.407(g) manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the operational description.

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 $+50^{\circ}$ C reached.

4.6.3 Test Setup

Temperature Chamber



4.6.4 Test Result

Tomp (°C)		Measured Frequency	51	80	(MHz)		Li	mit		
Temp. (C)	Voltage (V)		Time (min)			20p	opm		Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
50	5	5180.05513	5180.05651	5180.05641	5180.06321	10.6429	10.9093	10.8900	12.2027	Pass
40	5	5180.03214	5180.03548	5180.04654	5180.04541	6.2046	6.8494	8.9846	8.7664	Pass
30	5	5180.01356	5180.02456	5180.02851	5180.02452	2.6178	4.7413	5.5039	4.7336	Pass
20	5	5180.00999	5180.01172	5180.01216	5180.01216	1.9286	2.2625	2.3475	2.3475	Pass
10	5	5180.00240	5180.00269	5180.00149	5180.00159	0.4633	0.5193	0.2876	0.3069	Pass
0	5	5179.99580	5179.99521	5179.99258	5179.99453	-0.8108	-0.9247	-1.4324	-1.0560	Pass
Tamm (%C)		Measured Frequency	51	80	(MHz)		Liı	mit		
Temp. (C)	Voltage (V)		Time (min)			20p	opm		Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
20	4.5	5180.00911	5180.01247	5180.00999	5180.01172	1.7587	2.4073	1.9286	2.2625	Pass
20	5	5180.00999	5180.01172	5180.01216	5180.01216	1.9286	2.2625	2.3475	2.3475	Pass
20	5.5	5180.00864	5180.01172	5180.01264	5180.01216	1.6680	2.2625	2.4402	2.3475	Pass

Tomm (°C)		Measured Frequency	51	80	(MHz)			Limit		
Temp. (C)	Voltage (V)		Time (min)			2	0ppm		Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
50	5	5260.03320	5260.04542	5260.04247	5260.04758	6.3118	8.6350	8.0741	9.0456	Pass
40	5	5260.01695	5260.03671	5260.04654	5260.04954	3.2215	6.9791	8.8479	9.4183	Pass
30	5	5260.02214	5260.02755	5260.03453	5260.03169	4.2091	5.2376	6.5646	6.0247	Pass
20	5	5259.98428	5259.99646	5260.01215	5260.01389	-2.9886	-0.6730	2.3099	2.6407	Pass
10	5	5259.98348	5259.98577	5259.98216	5259.98612	-3.1407	-2.7053	-3.3916	-2.6397	Pass
0	5	5259.97355	5259.97615	5259.97547	5259.97785	-5.0285	-4.5342	-4.6635	-4.2110	Pass
Tamm (%C)		Measured Frequency	51	80	(MHz)			Limit		
Temp. (°C)	Voltage (V)		Time (min)			2	0ppm		Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
20	4.5	5259.98645	5259.99714	5260.01341	5260.01852	-2.5760	-0.5437	2.5494	3.5209	Pass
20	5	5259.98428	5259.99646	5260.01215	5260.01389	-2.9886	-0.6730	2.3099	2.6407	Pass
20	5.5	5259.98581	5259.99758	5260.01478	5260.01411	-2.6977	-0.4601	2.8099	2.6825	Pass

LLSRF Complianc	e Certification Services Inc.
------------------------	-------------------------------

FCC ID: PPQ-WCBN3509ANB ISED NO: 4491A-WCBN3509ANB

Report No.: T171127W01-RP2

Tomp (°C)	Voltage (V)	Measured Frequency	51	80	(MHz)		Liı	mit		
Temp. (C)	voltage (v)		Time (min	ı)			20p	opm		Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
50	5	5500.04450	5500.04750	5500.05421	5500.05721	8.0909	8.6364	9.8564	10.4018	Pass
40	5	5500.04575	5500.04417	5500.04547	5500.05712	8.3182	8.0309	8.2673	10.3855	Pass
30	5	5500.02651	5500.02457	5500.02574	5500.02515	4.8200	4.4673	4.6800	4.5722	Pass
20	5	5499.98520	5499.98609	5499.98609	5500.01042	-2.6909	-2.5291	-2.5291	1.8945	Pass
10	5	5499.97656	5499.97585	5499.97691	5499.97545	-4.2618	-4.3907	-4.1982	-4.4636	Pass
0	5	5499.97571	5499.97758	5499.97875	5499.97455	-4.4164	-4.0764	-3.8636	-4.6273	Pass
Tomm (°C)	Voltore ()()	Measured Frequency	51	80	(MHz)		Liı	nit		
Temp. (C)	Voltage (V)		Time (min	ı)			20 p	opm		Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
20	4.5	5499.98347	5499.98257	5499.98741	5500.01542	-3.0053	-3.1691	-2.2891	2.8036	Pass
20	5	5499.98520	5499.98609	5499.98609	5500.01042	-2.6909	-2.5291	-2.5291	1.8945	Pass
20	5.5	5499.98257	5499.98575	5499.98741	5500.01717	-3.1691	-2.5905	-2.2891	3.1218	Pass

Tomp (°C)	Voltage (V)	Measured Frequency	51	80	(MHz)		Liı	mit		
remp. (C)	voltage (v)		Time (min	i)			20p	opm		Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
50	5	5745.05174	5745.05741	5745.05417	5745.05744	9.0061	9.9930	9.4291	9.9983	Pass
40	5	5745.04330	5745.04874	5745.05571	5745.05587	7.5363	8.4839	9.6971	9.7250	Pass
30	5	5745.03417	5745.03142	5745.03527	5745.03147	5.9478	5.4686	6.1393	5.4778	Pass
20	5	5745.01172	5745.01710	5745.02724	5745.02471	2.0400	2.9765	4.7415	4.3011	Pass
10	5	5744.98452	5744.98741	5744.98775	5744.98104	-2.6945	-2.1915	-2.1323	-3.3003	Pass
0	5	5744.97270	5744.97814	5744.97741	5744.97852	-4.7520	-3.8050	-3.9321	-3.7389	Pass
Tomp (°C)		Measured Frequency	51	80	(MHz)		Liı	mit	-	
Temp. (C)	Voltage (V)		Time (min	ı)			20 p	opm		Result
Operating	Frequency:	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
20	4.5	5745.01471	5745.01781	5745.02413	5745.02527	2.5605	3.1008	4.2002	4.3986	Pass
20	5	5745.01172	5745.01710	5745.02724	5745.02471	2.0400	2.9765	4.7415	4.3011	Pass
20	5.5	5745.01652	5745.01172	5745.02257	5745.02147	2.8755	2.0400	3.9286	3.7372	Pass

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

Deminant		Operational N	lode
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 antinement	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 multiple bandwidth mods	Master Device or Client with Radar Detection	Client Without Radar Detection		
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required		
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link		
All other tests Any single BW mode Not required				
Note: Frequencies selected for statistical performance check (Section 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 channels 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	$\operatorname{Roundup} \begin{cases} \left(\frac{1}{360}\right) \\ \left(\frac{19 \cdot 10^{6}}{\operatorname{PRI}_{\mu \operatorname{sec}}}\right) \end{cases}$	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	e (Radar Types hort Pulse Rad nel closing time	dar Type 0 sho	ould be used for the detection	80% bandwidth test, chann	120 el move time,

Table 5 – Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Number of Pulses per Burst		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

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: ??

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.

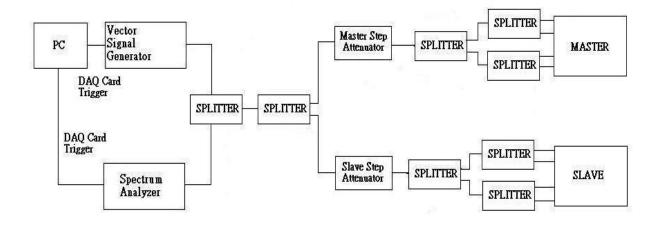
The short pulse types 2, 3 and 4, and the long pulse type 5 parameters are randomized at run-time.

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.

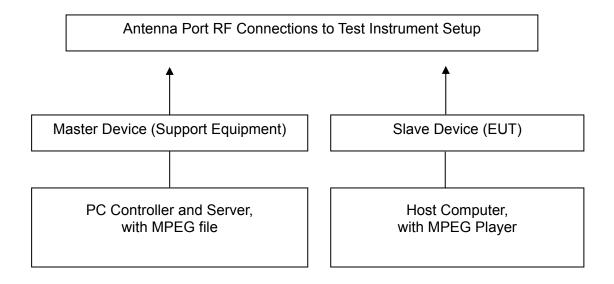
Adjustment Of Displayed Traffic Level

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.

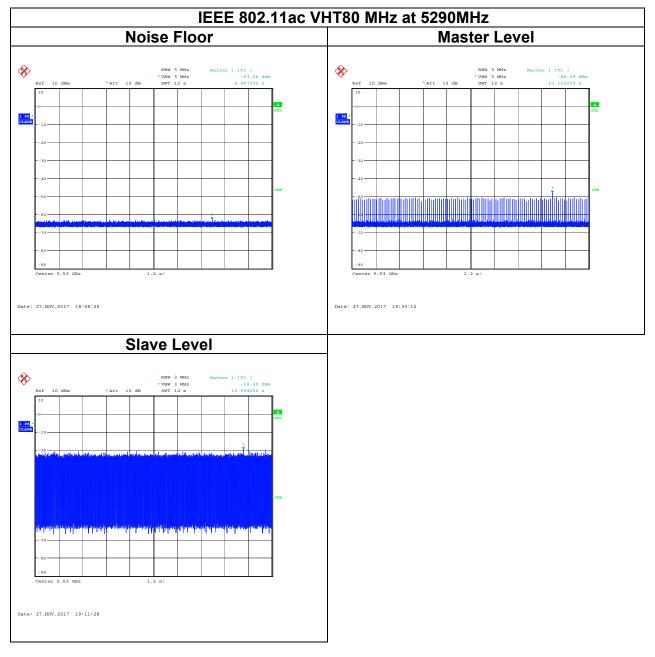
If a different setting of the Master Step Attenuator is required to meet the above conditions, perform a new System Calibration for the new Master Step Attenuator setting.

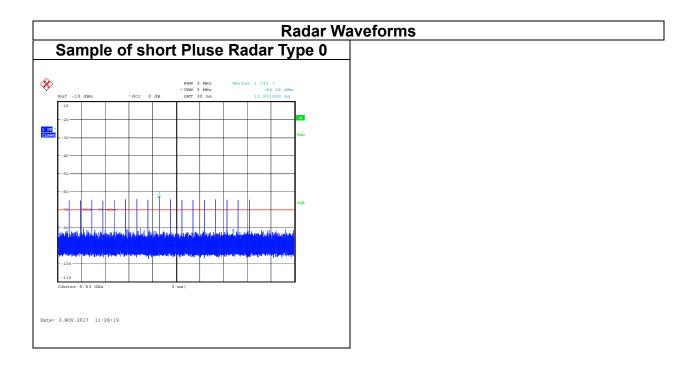


4.7.3 Test Setup



4.7.4 Test Result





TEST CHANNEL AND METHOD

All tests were performed at a channel center frequency of 5530 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:

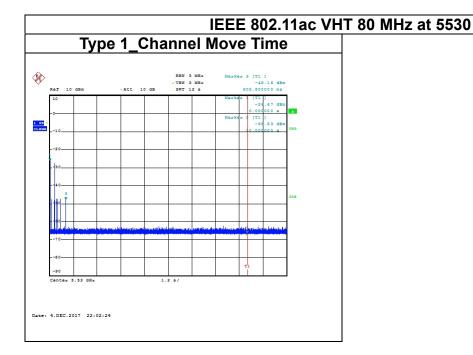
Aggregate Transmission Time =

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

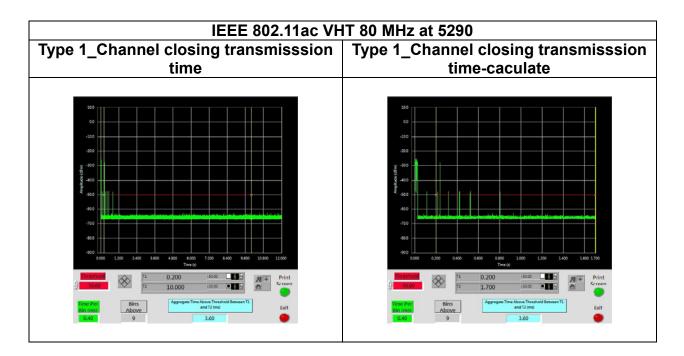
The observation period over which the aggregate time is calculated

Begins at (Reference Marker + 200 msec) and

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



Channel Move Time	Limit
(s)	(s)
0.8028	10



Aggregate Transmission Time	Limit	Margin
(ms)	(ms)	(ms)
3.6	60	-56.4