



MultiView Spectrum								
Ref Level 30.00 dBm Offse	t 12.20 dB 🖷 R	BW 3 kHz						SGL
Att 20 dB • SWT	60 s 👄 V	BW 10 kHz M	ode Auto Sweep					o1Pk Max
1 Frequency Sweep							M1[1]	
								2.417 300 GHz
20 dBm								
10 dBm								
0 dBm								
-10 dBm			M1					
-20 dBm-		Manufaman	manymany	MMMMMMM				
-20 UBM	1. mmm	Willowan	windowing	1	monthowna	A AN AL		
	(m)		l l	1	l the second	a alwardlynd		
-30 dBm-)					
-40 dBm	1							
	1					N N		
-50 dBm	1					1		
	(7		
-60 dBm							W M	
-60 dBm MpwMpMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM							MMM	MAN WALLA
CF 2.422 GHz		625 pts			.0 MHz/		LI V M/ W	pan 70.0 MHz
		025 pts		/		Ready		01.02.2024 15:52:34
						Reduy		15:52:34



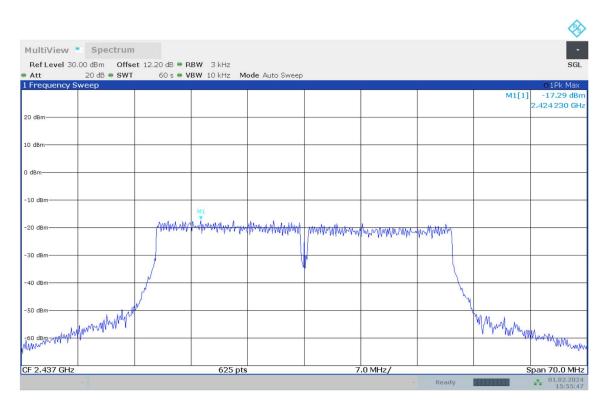


Fig.A.3.11 Power Spectral Density (802.11n-HT40, Ch 6)





Frequency Sweep 0.1Pk Max 0 d8m M1[1] -14.82 dBm 0 d8m 2.462 980 GHz 2.462 980 GHz 0 d8m 0 d8m 0 0 d8m 0 0									
Ref Level 30.00 dbm Offset 12.20 db # RBW 3 kHz SGL Att 20 db * SWT 60 s * VBW 10 kHz Mode Auto Sweep Frequency Sweep 0 dbm 0 dbm 0 dbm 0 dbm 0 dbm 0 dbm 0 dbm 0 dbm 0 dbm 0 dbm 10 dbm 20 dbm 30 dbm 9 dbm 10 dbm 10 dbm 10 dbm <td>MultiView Co</td> <td>octrum</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	MultiView Co	octrum							
Att 20 dB + SWT 60 s + VBW 10 kHz Mode Auto Sweep Frequency Sweep 01Ek Max 0 dBm 1111 -14.82 dBm 0 dBm 1111 -14.92 dBm 10 dBm 1111 -14.9			RW 3147						SGL
0 d8m M1[1] 14.82 d8m 0 d8m 0 d8m 0 d8m 10 d8m 0 d8m 0 d8m </td <td></td> <td></td> <td></td> <td>ode Auto Sweep</td> <td></td> <td></td> <td></td> <td></td> <td>30L</td>				ode Auto Sweep					30L
0 d8m 2.462 980 GHz 0 d8m 10 d8m 10 d8m 10 d8m 20 d8m 10 d8m 40 d8m 10 d8m 50 d8m 10 d8m 60 d8m 10 d8m 625 pts 7.0 MHz/ Span 70.0 MHz	1 Frequency Sweep					r			
0 dBm									
0 dBm dBm dBm 10 dBm 20 dBm 30 dBm 40 dBm 60 dBm 60 dBm 60 dBm 625 pts 7.0 MHz/ 52 oHz 52 oHz 50									2.462 980 GHz
d8m	20 dBm								
d8m									
d8m	10 dBm								
10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 60 dBm 60 dBm F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz									
10 dBm 10 dBm <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
20 dBm 30 dBm 40 dBm 50 dBm 60 dBm 60 dBm F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz	0 dBm								
20 dBm 30 dBm 40 dBm 50 dBm 60 dBm 60 dBm F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz									
20 dBm 30 dBm 40 dBm 50 dBm 60 dBm 60 dBm F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz	-10 dBm-								
40 dBm 50 dBm 60 dBm 60 dBm F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz	10 dbin					M1			
40 dBm 50 dBm 60 dBm 60 dBm F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz					N. A. Muchand	a shar the well			
40 dBm 50 dBm 60 dBm 60 dBm F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz	-20 dBm			MMM water Marken .	Why Might whe	Willion Lit Lot only	Manywana		
40 dBm 50 dBm 60 dBm 60 dBm F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz		MALIANA	monterior	Mathurd					
40 dBm 50 dBm 60 dBm 60 dBm F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz	-30 dBm-	Lida ha h	areas and						
50 dBm 60 dBm MM MM	-30 ubin			1					
50 dBm 60 dBm MM MM									
60 dBm WW WW	-40 dBm								
60 dBm WW WW		r					N N		
60 dBm WW WW	FO dDm	st in the second					4		
F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz	-50 ubm	1					7		
F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz		ľ						Mart	
F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz	-60 dBm	MMM						When a	1.5.1.5.5.5
F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz	ummum um umm	A MONTH						a work	mmmum
F 2.452 GHz 625 pts 7.0 MHz/ Span 70.0 MHz									
- Ready 01/02/2024	CF 2.452 GHz		625 pts		7	.0 MHz/		S	pan 70.0 MHz
							Ready		01.02.2024 15:59:36

Fig.A.3.12 Power Spectral Density (802.11n-HT40, Ch 9)

Conclusion: Pass





A.4. DTS 6-dB Signal Bandwidth

Method of Measurement: See ANSI C63.10-2013 section 11.8.1.

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) = 300 kHz.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a)	≥ 500

EUT ID: UT03a

Measurement Result:

802.11b/g mode

Mode	Channel	DTS Ba (N	conclusion	
	1	Fig.A.4.1	8.03	Р
802.11b	6	Fig.A.4.2	8.06	Р
	11	Fig.A.4.3	7.52	Р
	1	Fig.A.4.4	15.43	Р
802.11g	6	Fig.A.4.5	16.40	Р
	11	Fig.A.4.6	13.75	Р

802.11n-HT20 mode

Mode	Channel	DTS Ba (M	conclusion	
000.11-	1	Fig.A.4.7	16.03	Р
802.11n	6	Fig.A.4.8	17.69	Р
(HT20)	11	Fig.A.4.9	14.86	Р

802.11n-HT40 mode

Mode	Channel	DTS Ba (M	conclusion	
900 11n	3	Fig.A.4.10	24.63	Р
802.11n (HT40)	6	Fig.A.4.11	36.51	Р
(П140)	9	Fig.A.4.12	23.90	Р





Test graphs as below:

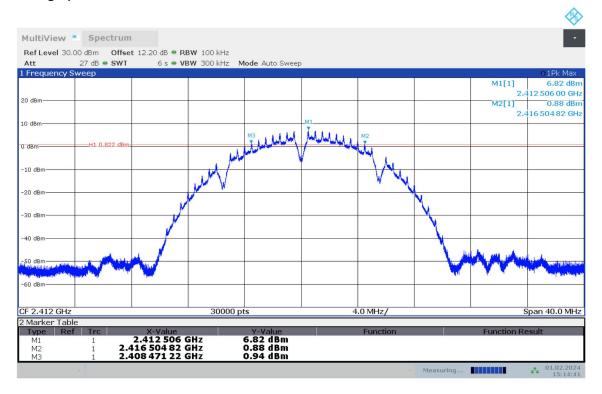
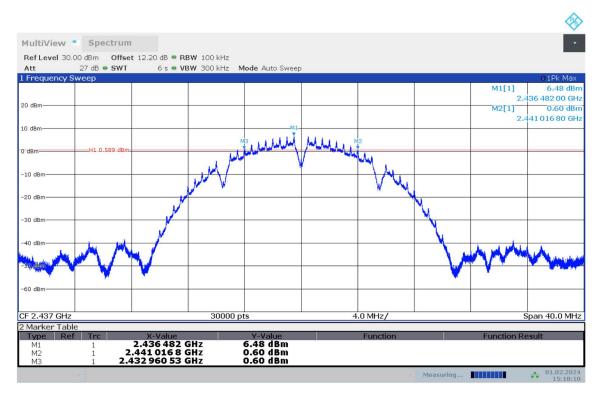


Fig.A.4.1 DTS Bandwidth(802.11b,Ch 1)









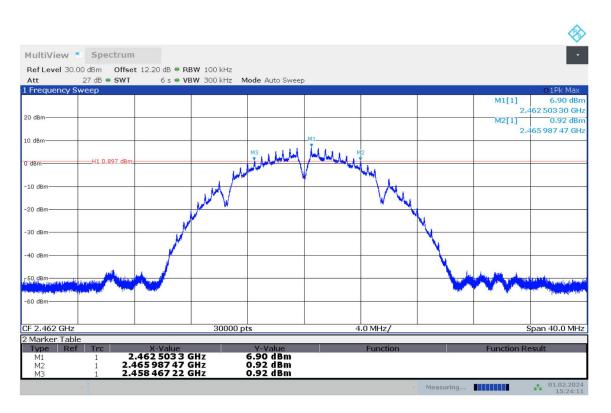
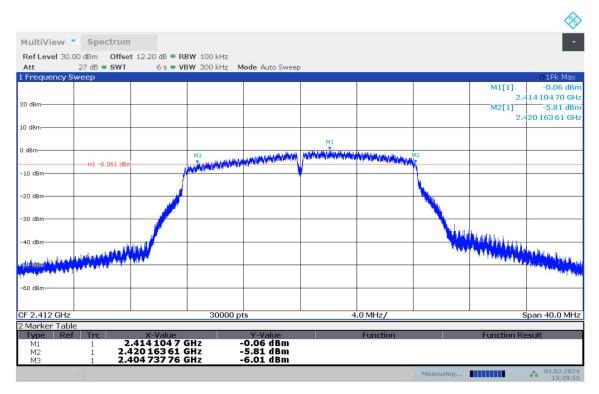
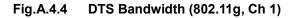


Fig.A.4.3 DTS Bandwidth (802.11b, Ch 11)









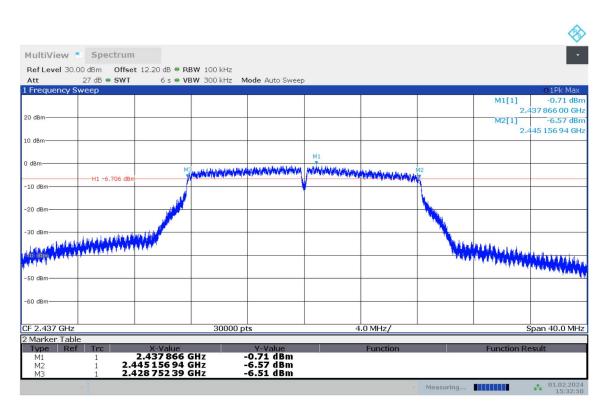
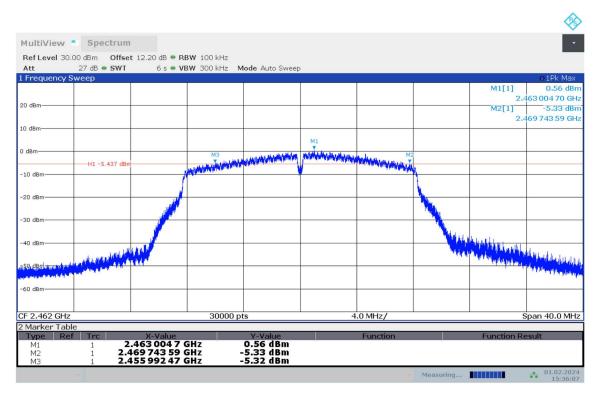


Fig.A.4.5 DTS Bandwidth (802.11g, Ch 6)









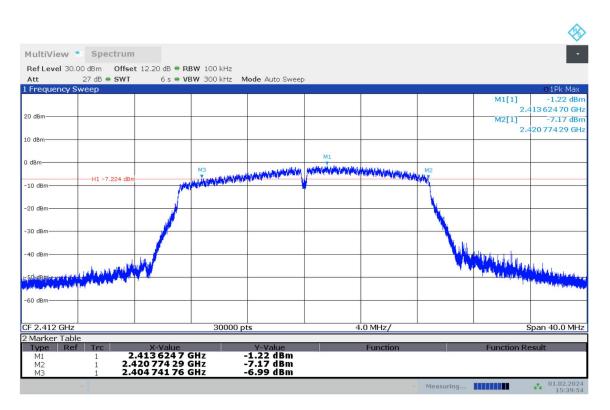
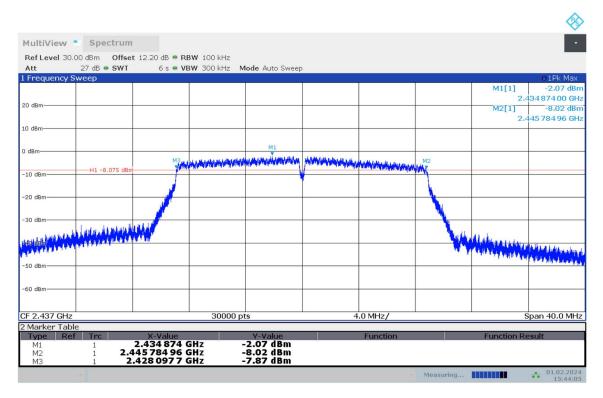


Fig.A.4.7 DTS Bandwidth (802.11n-20MHz, Ch 1)









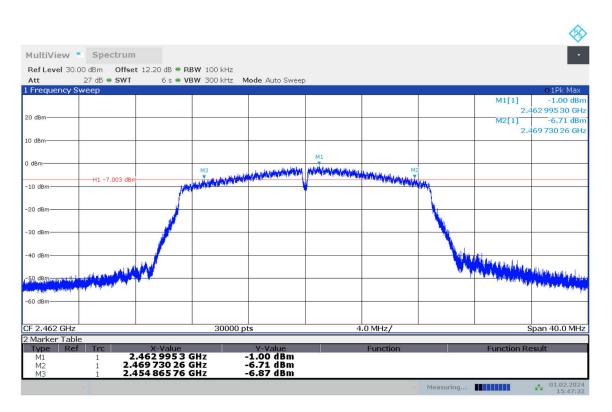
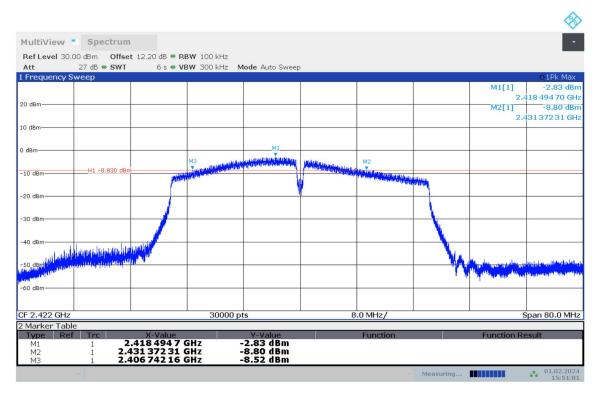


Fig.A.4.9 DTS Bandwidth (802.11n-HT20, Ch 11)









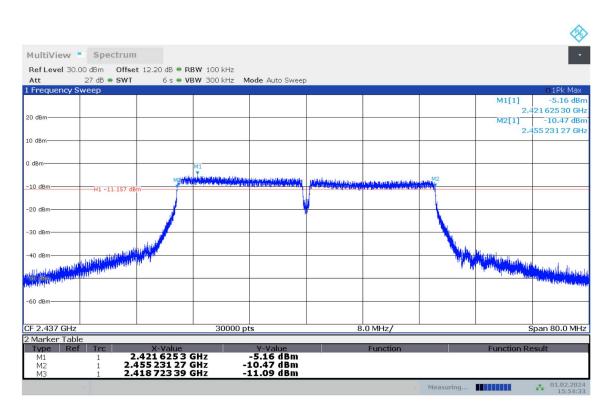


Fig.A.4.11 DTS Bandwidth (802.11n-HT40, Ch 6)





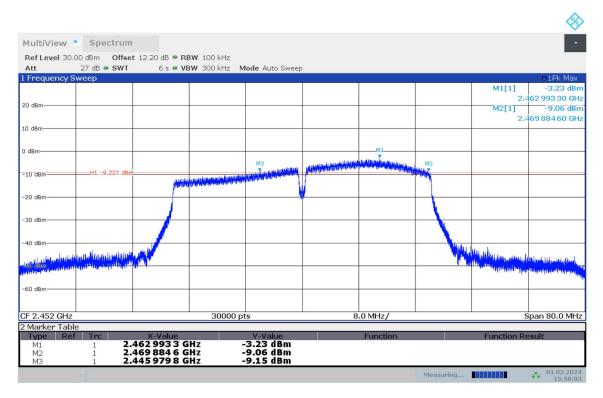


Fig.A.4.12 DTS Bandwidth (802.11n-HT40, Ch 9)

Conclusion: Pass





A.5. Band Edges Compliance

Method of Measurement: See ANSI C63.10-2013-clause 6.10.4

Connect the spectrum analyzer to the EUT using an appropriate RF cable connected to the EUT output. Configure the spectrum analyzer settings as described below.

- a) Set Span = 100MHz
- b) Sweep Time: coupled
- c) Set the RBW= 100 kHz
- c) Set the VBW= 300 kHz
- d) Detector: Peak
- e) Trace: Max hold

Measurement Limit:

Standard	Limit (dBc)
FCC 47 CFR Part 15.247 (d)	> 20

EUT ID: UT03a

Measurement Result:

802.11b/g mode

Mode	Channel	Test Results	Conclusion
802.11b	1	Fig.A.5.1	Р
	11	Fig.A.5.2	Р
000.44	1	Fig.A.5.3	Р
802.11g	11	Fig.A.5.4	Р

802.11n-HT20 mode

Mode	Channel	Test Results	Conclusion
802.11n	1	Fig.A.5.5	Р
(HT20)	11	Fig.A.5.6	Р

802.11n-HT40 mode

Mode	Channel	Test Results	Conclusion
802.11n	3	Fig.A.5.7	Р
(HT40)	9	Fig.A.5.8	Р

Test graphs as below:





MultiView 📍	Spectrum								-
	00 dBm Offset								
Att Frequency Sv		1.01 ms 🖷 🕻	BW 300 kHz M	ode Auto Sweep					01Pk Max
Frequency Sv	weep							M1[1]	6.92 dB
									412 490 0 G
0 dBm								M2[1]	-50.72 dB
o dom									400 000 0 G
) dBm									
						AM MAAR			
dBm					, MA	and a not			
					W	V VY			
						N.			
10 dBm		~			N	14			
	11 13.070 UB				JV V				
20 dBm									
					ſ		1		
					1		X		
30 dBm					/		1		
					1				
40 dBm					_				
					1				
50 dBm				J. 1	2		MAMM		
SU UBM				at MW	1		1 VIMM	0.97	
1. Co.	A L		a a shark white	and Sharly	V		0.1.	Mulmun	Annahan make
50 dBm	m m when when when	www.www.hww	manonand						A CONTRACTOR ON CAL
.35 GHz			1001 pts	S	10	0.0 MHz/			2.45 Gł



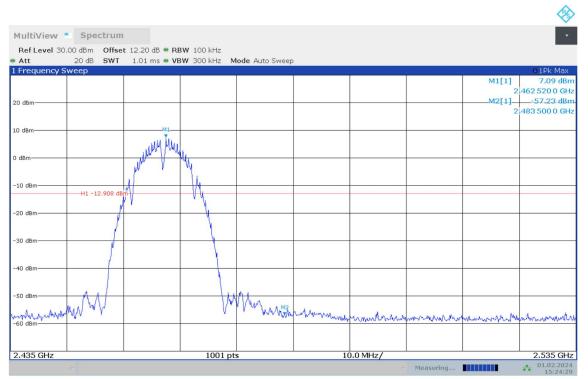
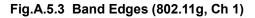


Fig.A.5.2 Band Edges (802.11b, Ch 11)





	0.00 dBm Offse								
Att Frequency		1.01 ms 🖷 VI	BW 300 kHz M	ode Auto Sweep					01Pk Max
rrequency	Sweep							M1[1]	0.05 dB
									4142900 G
dBm									-44.63 dB
									400 000 0 G
								1	
dBm									+
						M1		1	
lBm						M1			
					wonaner	mal have a constraint of the		1	
					8-10-10	N.		1	
) dBm									
dBm	H1 -19.952 dB	m					1		
					1		\mathbf{X}		
dBm					1		1		
ubm-									
							Ju hl		
D dBm				M	2		90.50	l	+
	www.www.			No. AND	uhr ¹		N. Salar	1	
D dBm				and many "			Wh	Maria	
			walnus	ment				The month and	my in a solar to M
Munder	munum	and an	annum					mounder	a and a with m
) dBm									+
								1	



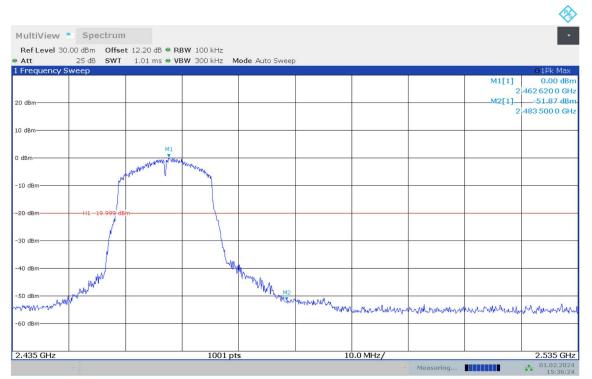


Fig.A.5.4 Band Edges (802.11g, Ch 11)





tt	25 dB SWT	1.01 ms 🖷 VI	3W 300 kHz M	ode Auto Sweep					
requency	Sweep								●1Pk Ma
								M1[1]	-1.55 dE
									4148900G
dBm									-45.86 di
								2	400 000 0 6
lBm									
10111									
3m						M1			
					with	And have we have			
					Martheren		η		
dBm									
							1		
dBm					_		1		
	H1 -21.547 dB	m			1		4		
dBm					-				
					1				
dBm							here		
				M	3.		WW WALL		
	unturnin			. Arti	19		W.W.	Mmanaha	
dBm			5	A. M. AMONIO	<		, Mi	An	
NA MANA	mar man	Manna A and M.	- manual when	maker as				mundamartin	marchall
A 2.0.0 0. 1010.	and the second of the	www.edds.ed.bard.e.	~						



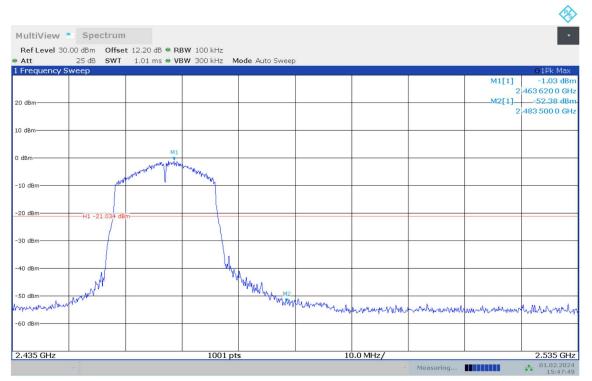


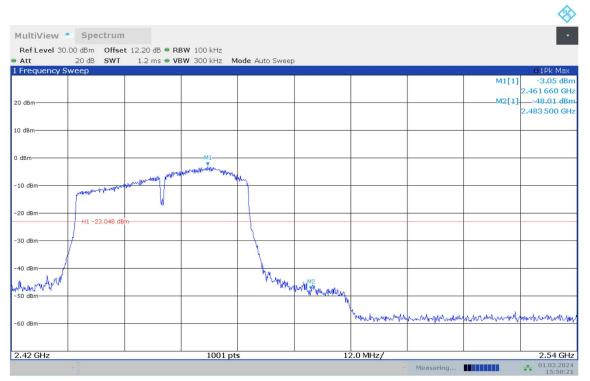
Fig.A.5.6 Band Edges (802.11n-HT20, Ch 11)

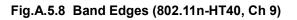




	Spectrum								•
Ref Level 3 Att	0.00 dBm Offse 20 dB SWT			lode Auto Sweep					
Frequency		1.2 ms 🔍 V	BAA SOOKIIZ IV	Iode Auto Sweep					01Pk Max
								M1[1]	
									2.417260 GH
0 dBm								M2[1]	-45.22 dB
									2.400 000 GH
0 dBm									
o abiii									
I dBm						M1			
					1.40	many many m	Munites of the second		
10 dBm					AND PARTY AND	<u> </u>	and a second and a s	~	
					r"	N N		www.wy	
20 dBm	H1 -22.729 dB	m							
					1				
30 dBm								<u> </u>	
					1				
40 dBm					/				
				Ann with M	2			1	
			L L	mult with the addition of				Mar.	
50 dBm			- And	,				114	Manhow
al al a data da	on es a los		1 . WANNER					· ~	WY
60 dBm	www.www.www.www.	and many and	MMM PWV						
2.34 GHz			1001 pt	s	12	2.0 MHz/			2.46 GH







Conclusion: Pass

©Copyright. All rights reserved by CTTL.





A.6. Transmitter Spurious Emission

A.6.1 Transmitter Spurious Emission – Conducted

Method of Measurement: See ANSI C63.10-2013-clause 11.11

Establish a reference level by using the following procedure:

a) Set instrument center frequency to DTS channel center frequency

- b) Set the span to \geq 1.5 times the DTS bandwidth
- c) Set the RBW= 100 kHz
- d) Set the VBW= 300 kHz

e) Detector = Peak

- f) Sweep time = auto couple
- g) Trace mode = max hold
- h) Allow trace to fully stabilize

i) Use the peak marker function to determine the maximum PSD level

Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

Establish an emission level by using the following procedure:

a) Set the center frequency and span to encompass frequency range to be measured.

- b) Set the RBW = 100 kHz.
- c) Set the VBW = 300 kHz.
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

Measurement Limit:

Standard	Limit
ECC 47 CEP Port 15 247 (d)	20dB below peak output power in 100 kHz
FCC 47 CFR Part 15.247 (d)	bandwidth

EUT ID: UT03a

Measurement Results:





802.11b mode

MODE	Channel	Frequency Range	Test Results	Conclusion
		2.412 GHz	Fig.A.6.1.1	Р
	1	30 MHz ~ 1 GHz	Fig.A.6.1.2	Р
		1 GHz ~ 26.5 GHz	Fig.A.6.1.3	Р
		2.437 GHz	Fig.A.6.1.4	Р
802.11b	6	30 MHz ~ 1 GHz	Fig.A.6.1.5	Р
		1 GHz ~ 26.5 GHz	Fig.A.6.1.6	Р
		2.462 GHz	Fig.A.6.1.7	Р
	11	30 MHz ~ 1 GHz	Fig.A.6.1.8	Р
		1 GHz ~ 26.5 GHz	Fig.A.6.1.9	Р

802.11g mode

MODE	Channel	Frequency Range	Test Results	Conclusion
		2.412 GHz	Fig.A.6.1.10	Р
	1	30 MHz ~ 1 GHz	Fig.A.6.1.11	Р
		1 GHz ~ 26.5 GHz	Fig.A.6.1.12	Р
		2.437 GHz	Fig.A.6.1.13	Р
802.11g	6	30 MHz ~ 1 GHz	Fig.A.6.1.14	Р
		1 GHz ~ 26.5 GHz	Fig.A.6.1.15	Р
		2.462 GHz	Fig.A.6.1.16	Р
	11	30 MHz ~ 1 GHz	Fig.A.6.1.17	Р
		1 GHz ~ 26.5 GHz	Fig.A.6.1.18	Р





802.11n-HT20 mode

MODE	Channel	Frequency Range	Test Results	Conclusion
		2.412 GHz	Fig.A.6.1.19	Р
	1	30 MHz ~ 1 GHz	Fig.A.6.1.20	Р
		1 GHz ~ 26.5 GHz	Fig.A.6.1.21	Р
900 11n	6	2.437 GHz	Fig.A.6.1.22	Р
802.11n		30 MHz ~ 1 GHz	Fig.A.6.1.23	Р
(HT20)		1 GHz ~ 26.5 GHz	Fig.A.6.1.24	Р
		2.462 GHz	Fig.A.6.1.25	Р
	11	30 MHz ~ 1 GHz	Fig.A.6.1.26	Р
		1 GHz ~ 26.5 GHz	Fig.A.6.1.27	Р

802.11n-HT40 mode

MODE	Channel	Frequency Range	Test Results	Conclusion
		2.422 GHz	Fig.A.6.1.28	Р
	3	30 MHz ~ 1 GHz	Fig.A.6.1.29	Р
		1 GHz ~ 26.5 GHz	Fig.A.6.1.30	Р
900 11n	6	2.437 GHz	Fig.A.6.1.31	Р
802.11n		30 MHz ~ 1 GHz	Fig.A.6.1.32	Р
(HT40)		1 GHz ~ 26.5 GHz	Fig.A.6.1.33	Р
		2.452 GHz	Fig.A.6.1.34	Р
	9	30 MHz ~ 1 GHz	Fig.A.6.1.35	Р
		1 GHz ~ 26.5 GHz	Fig.A.6.1.36	Р

Test graphs as below:





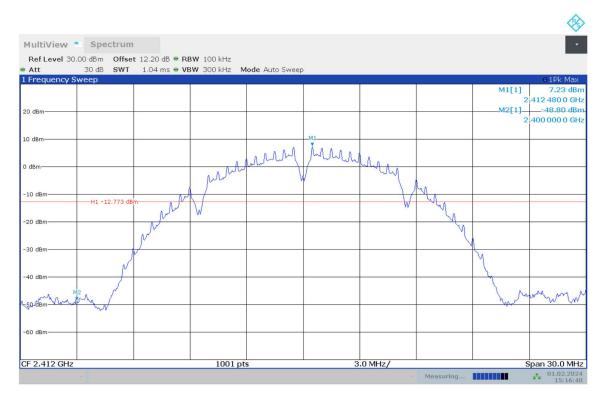


Fig.A.6.1.1 Transmitter Spurious Emission - Conducted (802.11b, Ch1, Center Frequency)

	Spectrum		PW 100 kH-						
Att			BW 300 kHz M	lode Auto Sweep					
1 Frequency S	Sweep		I			1	I		o 1Pk Max
								M1[1]	-54.49 dBr 589.009 0 MH
20 dBm									
10 dBm									
0 dBm									
-10 dBm	H1 -12.773 dB	m							
-20 dBm									
-30 dBm									
-40 dBm									
-50 dBm					M1	a and a an a		Т. Т.	
60.dBm	a Rijela Jisas (na Gaugas 201) ng taang magina provinsi panang p	م ومناقعات رامی الارارا رامی مربعات المربع المربع	A Dit lands and the first	numates half here red and		House to History and History and Andrews	hilling all has seen a start of the special has a start of the second second second second second second second	Philippin and a state of the second s	
30.0 MHz			30001 pt	te	0	7.0 MHz/			1.0 GH







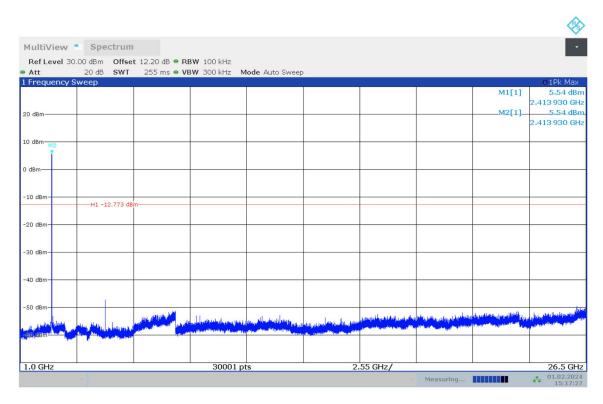


Fig.A.6.1.3 Transmitter Spurious Emission - Conducted (802.11b, Ch1, 1 GHz-26.5 GHz)





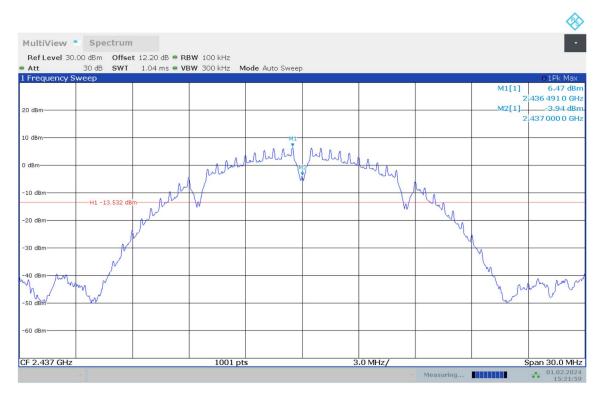


Fig.A.6.1.4 Transmitter Spurious Emission - Conducted (802.11b, Ch6, Center Frequency)

Att		30.1 ms 🖷 VI	3W 300 kHz M	lode Auto Sweep	í.				
l Frequency S	weep							M1[1]	• 1Pk Max -31.43 dBr
									889.6340 MH
20 dBm									
.0 dBm									
) dBm									
10 dBm									
	H1 -13.532 dB	m							
-20 dBm									
-30 dBm								M1	
-40 dBm									
-50 dBm									
					maketer og sa	Children in children	a sa a		
	And the late for the standing	il a real to obtain the state	dinite land on availa	Addition of the second states and		an a		Halanda B. Maria and Maria	A REPORT OF A R
indemodel to a star second	Defects of a local sector between the second	View Park Intel State	State Provide Provide State	and the second sec					