

30M-3GHz Spurious Emission Test Data CH-High

	ectrum Analyzer - Swep					Ø 🛃
RL		DC	SENSE:INT	Avg Type: Log-Pwr	04:06:06 PM Sep 05, 2018 TRACE 1 2 3 4 5 6	Frequency
enter F	req 1.515000	PNO: Fast + IFGain:Low	+ Trig: Free Run #Atten: 30 dB	Avg Hold: 100/100	TYPE MWWWW DET P N N N N N	
0 dB/div	Ref Offset 13.6 Ref 30.00 di		1.1.1.1.1.1.1	Mkr1 2	.443 264 2 GHz -1.783 dBm	Auto Tune
20.0	1.0000					Center Fre
10.0	_				A1	1.515000000 GH
0.00						
20.0					Di 1 -21.82 dBm	Start Fre 30.000000 MI
0.0	_			the second second		Stop Fr
0.0 Latin						3.000000000 G
Res BW	515 GHz 100 kHz		W 300 kHz		Span 2.970 GHz 4.0 ms (60000 pts)	CF Ste 297.000000 M Auto M
		×	-1,783 dBm	UNCTION FUNCTION WIDTH	FUNCTION VALUE	
2 3 4 5 6					E	Freq Offs 0
						Scale Ty
7 8						
7						Log <u>L</u>

3G-8GHz Spurious Emission Test Data CH-High

Keysight Spectrum Analyzer - Swept SA					
Center Freq 5.500000000	GH ₇		: Log-Pwr TRAC	M Sep 05, 2018 E 1 2 3 4 5 6	Frequency
Ref Offset 13.6 dB	PNO: Fast +++ Trig: Free IFGain:Low #Atten: 30		Mkr1 3.901	91 GHz 68 dBm	Auto Tune
20.0 10.0 0.00					Center Fre 5.500000000 GH
-10.0				01.121.82.dBm	Start Fre 3.000000000 G⊢
40.0 -50.0					Stop Fre 8.000000000 G⊢
Center 5.500 GHz #Res BW 100 kHz	#VBW 300 kHz	Sw FUNCTION FUN	eep 480.0 ms (10		CF Ste 500.000000 MH Auto Ma
2 3 4 5	01 91 GHz -40.968 dB	im			Freq Offso 0 ⊦
6 7 8 9					Scale Typ
10 11					_og <u>Lii</u>
< MSG	m.		STATUS		

8G-13GHz Spurious Emission Test Data CH-High

	Analyzer - Swept SA								_	- 0	
	^{F 50 Ω DC}	0 GHz PNO: Fast ↔	SENSE		Avg Type Avg Hold:	Log-Pwr 100/100	TRAC	M Sep 05, 2018 CE 1 2 3 4 5 6 PE M WWWWW		uency	
0 dB/div R	ef Offset 13.6 dB	IFGain:Low	#Atten: 30 c	В	Mkr1 9.000 51 GHz -41.897 dBm					GHZ Auto Tune	
20.0 10.0 0.00										nter Fre 00000 GH	
20.0								Di 1 -21.82 dBm		Start Fre	
40.0 50.0 50.0				latiotycist						Stop Fre 00000 G⊢	
enter 10.50 Res BW 100) kHz	#VBV	V 300 kHz	FUNCTION		eep 480.	0 ms (10	.000 GHz 0000 pts)	500.0 <u>Auto</u>	CF Ste 00000 MH Ma	
1 N 1 f 2 3 4 5	9.0	00 51 GHz	-41.897 dBm						Fr	eqOffso 0⊦	
6 7 8 9 10								=	So Log	c ale Typ Li	
11 <			Ш			STATUS		•		<u></u>	

13G-18GHz Spurious Emission Test Data CH-High

		alyzer - Swep										
Center F	req 1			Hz l0: Fast ↔		Run	Avg Type Avg/Hold	: Log-Pwr 100/100	TRA	M Sep 05, 2018 CE 1 2 3 4 5 6 PE M WWWW		equency
10 dB/div		ffset 13.6 30.00 dl	iFG dB	iain:Low	#Atten: 30				17.786	00 GHz 81 dBm		Auto Tune
20.0 10.0												Center Fre
-10.0										01-121-82 dBm	13.00	Start Fre
40.0 50.0 60.0		titte jater et		table geographic	Proposition di						18.00	Stop Fre 0000000 G⊦
Center 1 Res BW	V 100 k		X	#VB\	V 300 kHz	FUE		veep 480	.0 ms (10	5.000 GHz 00000 pts)	500 Auto	CF Ste 0.000000 MH Ma
1 N 2 3 4 5 6	1 1		17.786 00) GHz	-40.681 dE	3m						Freq Offs 0 H
7 8 9 10											Log	Scale Typ
11										•	۲, e	
ISG								STATUS	3			

18G-23GHz Spurious Emission Test Data CH-High

		-							alyzer - Sw	trum Ana	ight Spec	
Frequency	M Sep 05, 2018 CE 1 2 3 4 5 6 DE M WWWWW	TRA	: Log-Pwr 100/100	Avg T Avg H		Trig: Fre	Hz NO: Fast ↔	000000	50 Ω 0.5000		er Fre	
Auto Tun	02 GHz 90 dBm	19.821	Mkr1		80 dB	#Atten: 3	Gain:Low	11 1.6 dB	Offset 14		div	IO dB
Center Free 20.500000000 GH									_			-og 20.0 10.0
Start Free 18.00000000 GH	Di 1 - 21.82 dBm											0.00 10.0 20.0
Stop Fre 23.000000000 GH	n felgelen hjerfilte		******			i i i i i i i i i i i i i i i i i i i			n dunadi	ikin Maas		40.0 50.0
CF Ste 500.000000 MH Auto Ma	. /	.0 ms (1	veep 480.			300 kHz	#VBV			500 G 100 ki	BW 1	Cent #Res
Freq Offse 0 H	DN VALUE	FUNCT	ICTION WIDTH	NCTION	Bm	-38.390 d	2 GHz	× 19.821 (f	DDE TRO	
Scale Type												6 7 8 9 10
	•					Ш				1 1	1	•

23G-26.5GHz Spurious Emission Test Data CH-High

- # ×							Analyzer - Swej			
Frequency	04:47:31 PM Sep 05, 2018 TRACE 1 2 3 4 5 6 TYPE M WWWWW	e: Log-Pwr i: 100/100	Avg	SENSE:IN	Hz O: Fast →	DC 00000 GI	50 Ω 24.7500	Freq 2		
Auto Tur	0ET P NNNNN	Mkr1 2		#Atten: 30 dB	iain:Low	IFG	Offset 14	Def	-	_
	-36.126 dBm						30.00 d		B/div	l0 di
Center Fre		-					-			20.0
24.75000000 GH		_								10.0
									_	0.00
Start Fre	10000							-	-	10.0
23.00000000 GH	Di 121.82.dBm								-	-20.0
	•	and externa	100		and south					-30.0
Stop Fre										-40.0
26.50000000 GH										-60.0
CF Ste	Span 3.500 GHz			-			GH7	24.750	ter :	°en
350.000000 MH	0 ms (100000 pts)	weep 340.		300 kHz	#VBW			N 100		
<u>Auto</u> Ma	FUNCTION VALUE	NCTION WIDTH	FUNCTION	-36,126 dBm		x 26,457 965		TRC SCL		MKR
Freq Offs				-30.120 dBm	GHZ	20.457 905		1 f	N	2
0+					_					3
	E									5
Scale Typ			_							78
Log <u>L</u>										9 10
										11
		STATUS							-	sg

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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台灣檢驗科技股份有限公司

f (886-2) 2298-0488



30M-3GHz Spurious Emission Test Data CH-High 2457MHz

0 0	. Chick and the second								nalyzer - Sw			
Frequency	10 PM Sep 05, 2018 TRACE 1 2 3 4 5 6 TYPE M WWWW		d: 100/100		sense:IN		Iz	0000 GH	.51500	RF req 1		ent
Auto Tun	263 8 GHz	.448 2			tten: 30 dB		NO: Fast ← Gain:Low	6 dB	Offset 13			
	.923 dBm	0				-	-	Bm	30.00	Ref	3/div	0 dE
Center Fre 1.515000000 GH		● ¹				-				-		20.0 10.0
Start Fre 30.000000 M⊢	DL1 -18.96 dBm				_	_						0.00 10.0 20.0
Stop Fre 3.000000000 G⊢	Net the successive simulation of the successive statement of			ucio) toismit				n departention	<u>a</u> ndrean			30.0 40.0 50.0 60.0
CF Ste 297.000000 MH Auto Ma	n 2.970 GHz 60000 pts)	4.0 ms	Sweep 28	FUNCTION	kHz	BW 3	#VB	×		515 G 100 H		Res
Freq Offse 0 ⊢	E				923 dBm		8 GHz	2.448 263		f	N 1	2 3 4 5
Scale Typ												6 7 8 9
Log <u>Li</u>												10 11
			STATUS			-			-		-	sa

3G-8GHz Spurious Emission Test Data CH-High

Keysight Spectrum Analyzer - Swept SA			(† X
RL RF 50Ω DC Center Freq 5.500000000	GHz SENSE:IN	Avg Type: Log-Pwr TRACE 1 2 3 4 5 6 Freque	ncy
Ref Offset 13.6 dB	PNO: Fast Trig: Free Run IFGain:Low #Atten: 30 dB	DET P NNNNN	o Tun
og 20.0 10.0		Centr	
10.0 20.0 30.0		EL1-16.96 dbm	rt Fre 000 GH
40.0 50.0 60.0		Sto 8.000000	o p Fre 000 G⊦
enter 5.500 GHz Res BW 100 kHz	#VBW 300 kHz	Span 5.000 GHz C Sweep 480.0 ms (100000 pts) 500.0000 FUNCTION WIDTH FUNCTION VALUE	F Ste 000 MH Ma
2 3 4 5	52 51 GHz -40.938 dBm	Freq	Offs 0 H
6 7 8 9 10		Scal	е Тур
11	III	status *	

8G-13GHz Spurious Emission Test Data CH-High

										Analyzer - Sw		
Frequency	5 6	M Sep 05, 20 CE 1 2 3 4 PE M WWW	TRAC	Log-Pwr	Avg Type Avg Hold	Run		GHz NO: Fast ↔	000000		Freq	RL enter
Auto Tune	١z	80 GH 47 dBi	1 8.191				#Atten: 3	Gain:Low	IF .6 dB	f Offset 13 f 30.00 (dB/di
Center Fre 10.500000000 GH	_											0.0
Start Fre 8.000000000 GH	Bm	DL1 -18.95 d									1	0.0
Stop Fre 13.000000000 GH		inter constant							Manidosia).		A C durat	0.0 0.0 0.0
CF Ste 500.000000 MH <u>Auto</u> Ma		.000 GH 0000 pt	.0 ms (10	еер 480. Споммотн			300 kHz		×	kHz	10.500 W 100	Res B
Freq Offs 0 H						3m	-41.947 dE	30 GHz	8.191 8		1 f	1 N 2 3 4 5 6
Scale Typ												0 7 8 9 0 1
<u> </u>				STATUS			m					a

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13G-18GHz Spurious Emission Test Data CH-High

- O B	55-03 DH 5 05- 2010			cruce in			Analyzer - S	Spectrum	ysight
Frequency	12 3 4 5 6 TRACE 1 2 3 4 5 6 TYPE M WWWW DET P N N N N N	: Log-Pwr : 100/100	Avg	SENSE:IN		000000			
Auto Tu	.310 94 GHz 41.388 dBm	Mkr1		#Atten: 30 dB	FGain:Low	1 3.6 dB	f Offset 1 f 30.00		B/div
Center Fr 15.500000000 G									
Start Fr 13.000000000 G	DL1 -18.96 dBm							_	
Stop Fr 18.00000000 G		a and the state of the state of the			ahtta a sha a s	di name ya ku			
CF Sto 500.000000 M Auto M	pan 5.000 GHz is (100000 pts)	/eep 480.0	FUNCTION	300 kHz	#VB\	×		15.50 N 100	s Bl
Freq Offs 0	E		TUNCTON	-41.388 dBm	94 GHz	17.310		1 f	N
Scale Ty									
				111					-

18G-23GHz Spurious Emission Test Data CH-High

		Analyzer - Swe										
Center F	req 2			Hz NO: Fast		NSE:INT	Avg	Type: Log-Pw fold: 100/100	r TR	PM Sep 05, 2018		requency
10 dB/div		Offset 14	IFC	Gain:Low	#Atten: 3	0 dB			1 22.80	B 00 GHz 132 dBm	1	Auto Tune
20.0 10.0												Center Freq 00000000 GHz
-10.0										DL1 -18.96 dBm	18.00	Start Freq 00000000 GHz
40.0 50.0 60.0											23.00	Stop Freq
Center 2 Res BW	100	kHz	X	#VB	W 300 kHz	FUN		Sweep 48	30.0 ms (1	5.000 GHz 00000 pts)	50 Auto	CF Step 0.000000 MHz Man
1 N 2 3 4 5 6	1 1		22.808 0	0 GHz	-38.132 di	3m				I		Freq Offset 0 Hz
7 8 9 10											Log	Scale Type
11	1		_						-	•		
ISG								STAT	US			

23G-26.5GHz Spurious Emission Test Data CH-High

e la									nalyzer - Sw 50 Ω	RF		Ka
Frequency	PM Sep 05, 2018 ACE 1 2 3 4 5 6 YPE M WWWW DET P N N N N N	TRA	: Log-Pwr : 100/100	Avg		Trig: Free		00000 0				
Auto Tur	458 GHz 795 dBm	6.267	Mkr1 2		0 dB	#Atten: 3	Sain:Low	.6 dB	Offset 14		B/div	10 4
Center Fre 24.750000000 GH									30.00			20.0 10.0
Start Fre 23.000000000 GH	DL1 -18.95 dBm											0.00 10.0 20.0
Stop Fre 26.50000000 GH		de oplatique		(11)07/10		d južečaki u					i i i i i i i i i i i i i i i i i i i	40.0 50.0
CF Ste 350.000000 MH Auto Ma	3.500 GHz 00000 pts)	0 ms (1	/eep 340.	UNCTION		300 kHz	#VBV	×		4.750 100 k	s BV	Re
Freq Offs 0 H	E				3m	-35.795 dE	8 GHz	26.267 45		1 1	N	1 2 3 4 5
Scale Typ Log <u>L</u>												6 7 8 9 10
	•		STATUS			ш					4	< L



30M-3GHz Spurious Emission Test Data CH-High 2462MHz

Frequency	04:03:59 PM Sep 05, 2018 TRACE 1 2 3 4 5 6		Avg Type	SENSE:INT			50 Ω DC		-	
	TYPE MWWWWW	100/100	Avg Hold:	Free Run		PNO: Fast	5000000 0	eq 1.51	er Fre	ente
Auto Tun		IFGain:Low #Atten: 30 dB Der/P NNN Ref Offset 13.6 dB Mkr1 2.449 501 3 GL						-	-	
	-8.864 dBm						et 13.6 dB 00 dBm	Ref Offs Ref 30.	div	dB/d
Center Fre			_	-						0.0
1.515000000 GH				-		_	_	-	-	0.0
2.7.27	1	•								.0
Start Fre 30.000000 MH				_				-		.0
	DL1 -28.42 dBm		-	-	_	_	_	-		.0
Stop Fre	the south of the second state		- to the property of the	un a tel complete	يد مرغب	و و معاد به الله ال				.0
3.000000000 GH						and the first t				.0
	Span 2.970 GHz		_					15 GHz		
	0 ms (60000 pts)	weep 284.	SI	kHz	BW 30	#VI	x	00 kHz		_
297.000000 MH			THE OWNER ADDRESS OF THE OWNER							
297.000000 MH	FUNCTION VALUE	CTION WIDTH	UNCTION FUN	64 dBm	-8	01 3 GHz		f		R MOI
297.000000 MH Auto Ma Freq Offse		CTION WIDTH	UNCTION	64 dBm	-8	01 3 GHz				N 2
297.000000 MH Auto Ma Freq Offse		CTION WIDTH	UNCTION	64 dBm	-8	01 3 GHz				N
297.000000 MH <u>Auto</u> Ma Freq Offse 0 H		CTION WIDTH	JNCTION FUN	64 dBm	-8	01 3 GHz				N 22 33 44 55 57 77 53 57 77 53 57 77 53 57 77 53 57 57 57 57 57 57 57 57 57 57 57 57 57
CF Steig 297.000000 MH Auto Ma Freq Offse 0 H Scale Typ		CTION WIDTH	UNCTION FUN	54 dBm	-8	01 3 GHz				N 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

3G-8GHz Spurious Emission Test Data CH-High

Go Image: Construction of the second se			analyzer - Swe										- @ X
Ref Offset 13.6 dB Mkr1 3.907 01 GHz 0 gBidiu -40.191 dBm 0 gBidiu<				0000 GH				Avg Typ	e: Log-Pwr	TRA	CE 1 2 3 4 5 6		luency
200	10 dB/div			6 dB		01 GHz	í A	uto Tune					
20.0 Image: Constraint of the second of the se	20.0 10.0												
Stop Free Stop Free <t< td=""><td>-10.0 -20.0 -30.0</td><td></td><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>DL1 -28.42 dBm</td><td></td><td></td></t<>	-10.0 -20.0 -30.0		1								DL1 -28.42 dBm		
Res BW 100 kHz #VBW 300 kHz Sweep 48.0.0 ms (100000 pts) 500.00000 MH N 1 3.907.01 GHz -40.191 dBm Function with the function withe function withe function with the function withe function with t	-40.0 -50.0												
2 1 000000000000000000000000000000000000	#Res BW	100	kHz			W 300 kHz	FUN			.0 ms (10	0000 pts)	500.0 Auto	CF Step 00000 MH Mai
7	2 3 4 5	1 1		3.907 0	1 GHz	-40.191 dE	3m					Fr	eqOffse 0 H
	7 8												cale Type Lii
	K					III					•		

8G-13GHz Spurious Emission Test Data CH-High

	ectrum Analyzer - S					- G (B 🔀
Center F	RF 50 req 10.500	Ω DC 0000000 GHz PNO: Fast *	SENSE:INT	Avg Type: Log-Pwr Avg Hold: 100/100	05:03:42 PM Sep 05, 2018 TRACE 1 2 3 4 5 6 TYPE M WWWW DET P N N N N N	Frequency
10 dB/div	Ref Offset 1 Ref 30.00	IFGain:Low	#Atten: 30 dB	Mkr1	10.600 78 GHz -42.011 dBm	Auto Tun
20.0 10.0						Center Fre 10.500000000 GH
-10.00 -20.0 -30.0					DL1 -28.42 oBm	Start Fre 8.000000000 GH
40.0 50.0				such of the Deck of the second state of the second state of the second state of the second state of the second	elen an an had still been bland han star an de stille an star An an	Stop Fre 13.00000000 GF
		#VB	W 300 kHz	Sweep 480	Span 5.000 GHz 0.0 ms (100000 pts)	CF Ste 500.000000 M Auto M
1 N 1 2 3 4 5	f	10.600 78 GHz	-42.011 dBm		E	Freq Offs
6 7 8 9 10						Scale Typ
< [1 1		m	STATU	5	

13G-18GHz Spurious Emission Test Data CH-High

RL Center F	RF 50		GHz		ISE:INT	Avg Ty	pe: Log-Pwr	TB	PM Sep 05, 2018 ACE 1 2 3 4 5 6		uency
		1	PNO: Fast ↔ IFGain:Low	Trig: Free #Atten: 3		Avg Ho	id: 100/100 Mkr1	1			uto Tun
I0 dB/div	Ref Offset Ref 30.0										
20.0 10.0											nter Fre 00000 GH
20.0									DL1 -28.42 dBm		Start Fre 00000 G⊦
0.0	a ka sa ng Manan					al ainsti					Stop Fre
enter 15 Res BW	5.500 GHz 100 kHz		#VB	V 300 kHz).0 ms (1	5.000 GHz 00000 pts)	500.0 Auto	CF Ste 00000 Mi Mi
KR MODE TI	f	× 17.209	89 GHz	-41.188 dE		ICTION	UNCTION WIDTH	FUNC	TION VALUE		
2 3 4 5					_					Fr	eq Offs 0 I
6 7 8 9										s	cale Typ
9 0 1					-					Log	L
Ļ					'	'					

18G-23GHz Spurious Emission Test Data CH-High

									alyzer - Swi			
Frequency	ACE 1 2 3 4 5 6	Avg Type: Log-Pwr TRACE 1 2 3 4 5 Avg Hold: 100/100 TYPE MWWWW		ee Run		SHz	000000	50 Ω 0.5000	RF eq 20		Cen	
Auto Tun	0 14 GHz	22.450	5 N 1 S 1 S 1			#Atten: 3	Gain:Low	IF	Offset 14			
	55 GBM	-38.0		_	T	-		dBm	30.00 0	Ref	3/div	Log
Center Fre 20.500000000 GH					-					-		20.0 10.0
Start Fre					-							0.00
18.000000000 GH	1 <u>1 -26.42 dBm</u>		_	_								20.0
Stop Fre												40.0
23.000000000 GH					-							-60.0
CF Ste 500.000000 MH	5.000 GHz 00000 pts)		weep 480		z	300 kHz	#VBI			.500 C 100 k		
<u>Auto</u> Ma	TION VALUE	FUNCT	NCTION WIDTH	FUNCTION	iBm	-38.035 d	4 GHz	× 22.450 *		C SCL		1
Freq Offse 0 ⊢	E											23456
Scale Typ					-							7 8 9
Log <u>Li</u>	+											10 11
	+		STATUS			ш						< li

23G-26.5GHz Spurious Emission Test Data CH-High

									halyzer - Sw		ht Spect		
Frequency	PM Sep 05, 2018 ACE 1 2 3 4 5 6 YPE M WWWWW	TR	Log-Pwr	Avg Type	SE:INT		Hz	000000 G	50 g 4.750	RF eq 24	r Fre	a. nter	
Auto Tun	DET P NNNNN		0.11.010	Auginoid		#Atten: 30	io: Fast					_	
	443 GHz 110 dBm	-36.	MKr1 2						Offset 14 30.00			B/di	
Center Fre					_								.og
24.75000000 GH								-		-			10.0
								1					D.OC
Start Fre 23.00000000 GH										_			20.0
	DL1 -28.42 dBm) ¹ ===						and the second		-			30.C
Stop Fre													40.C
26.50000000 GH		_			-			-	_	-	_		60.C
CF Ste 350.000000 MH	3.500 GHz 00000 pts)	Span .0 ms (1	eep 340.	Sw		300 kHz	#VB			.750 C 100 k			
<u>Auto</u> Ma	TION VALUE	FUNC	CTION WIDTH	CTION FUN		-36,110 dBr	GHz	× 25,809 44	-	C SCL			ике 1
					-							-	23
FreqOffse					_								
	E										-	_	4 5
0 H	E						_						4 5 6 7
Freq Offse 0 H Scale Typ	E												4 5 6

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11 RADIATED BANDEDGE AND SPURIOUS EMISSION MEASUREMENT

11.1 Standard Applicable

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands must also comply with the §15.209 & RSS-Gen §8.8, 8.9 limit as below.

And according to §15.33(a) (1) & RSS-Gen §6.13(a), for an intentional radiator operates below 10GHz, the frequency range of measurements: to the tenth harmonic of the highest fundamental frequency or to 40GHz, whichever is lower.

Frequency (MHz)	Field strength (microvolts/meter)	Distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Note:

- 1. The lower limit shall apply at the transition frequencies.
- 2. Emission level (dB μ V/m) = 20 log Emission level (μ V/m)

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11.2Measurement Equipment Used:

966 Chamber											
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.						
TYPE		NUMBER	NUMBER	CAL.							
Broadband Antenna	SCHWAZBECK	VULB 9168	9168-617	2017/10/27	2018/10/26						
Horn Antenna	Schwarzbeck	BBHA9120D	1341	2018/06/07	2019/06/06						
Horn Antenna	SCHWAZBECK	BBHA9170	184	2017/12/12	2018/12/11						
Loop Antenna	ETS.LINDGREN	6502	148045	2017/09/26	2018/09/25						
3m Site NSA	SGS	966 chamber D	N/A	2018/07/06	2019/07/05						
EMI Test Receiver	R&S	ESU 40	100363	2018/04/11	2019/04/10						
Pre-Amplifier	EMC Instruments	EMC184045B	980135	2017/10/27	2018/10/26						
Pre-Amplifier	EMC Instruments	EMC9135	980234	2017/12/26	2018/12/25						
Pre-Amplifier	EMC Instruments	EMC12630SE	980271	2017/12/26	2018/12/25						
Attenuator	Marvelous	WATT-218FS-10	RF246	2017/12/26	2018/12/25						
Highpass Filter	Micro Tronics	BRM50701-01	G008	2017/12/26	2018/12/25						
Coaxial Cable	Huber Suhner	EMC106-SM-SM -7200	150703	2017/12/26	2018/12/25						
Coaxial Cable	Huber Suhner	RG 214/U	W22.03	2017/12/26	2018/12/25						
Notebook	Lenovo	L420	S0012467	N/A	N/A						

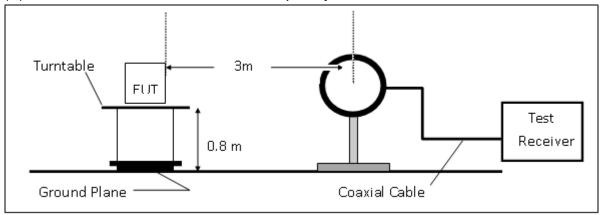
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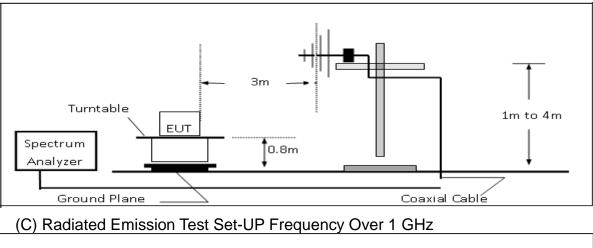


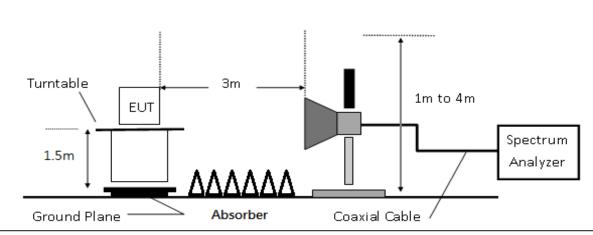
11.3Test SET-UP

(A) Radiated Emission Test Set-UP Frequency Below 30MHz.



(B) Radiated Emission Test Set-Up, Frequency form 30MHz to 1000MHz





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11.4Measurement Procedure

- 1. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
- 2. The EUT was placed on a turn table with 0.8m for frequency< 1GHz and 1.5m for frequency> 1GHz above ground plane.
- 3. The turn table shall rotate 360 degrees to determine the position of maximum emission level.
- 4. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
- 5. When measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.
- 6. Set the spectrum analyzer as RBW=120 kHz and VBW=300 kHz for Peak Detector (PK) and Quasi-peak (QP) at frequency below 1 GHz.
- 7. Set the spectrum analyzer as RBW=1 MHz, VBW=3 MHz for Peak Detector at frequency above 1 GHz.
- 8. Set the spectrum analyzer as RBW=1 MHz, VBW=10 Hz (Duty cycle > 98%) or VBW ≥ 1/T (Duty cycle < 98%) for Average Detector at frequency above 1 GHz.
- 9. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- 10. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 11. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. On spectrum, change spectrum mode in linear display mode, and reduce VBW = 10Hz if average reading is measured.
- 12. Repeat above procedures until all default test channel measured were complete.

11.5Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

Actual FS(dB μ V/m) = SPA. Reading level(dB μ V) + Factor(dB)

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

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11.6 Test Results of Radiated Spurious Emissions form 9 kHz to 30 MHz

Radiated emission below 30MHz is measured in a 9m*9m*6m semi-anechoic chamber, the measurements correspond to those obtained at an open-field test site. And there is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

After Pre-scanned the low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit per 15.31(o) was not reported.

11.7Measurement Result

Note: WLAN/BT coexistence cases were investigated and there are no new emissions to report. Refer to next page spectrum analyzer data chart and tabular data sheets.

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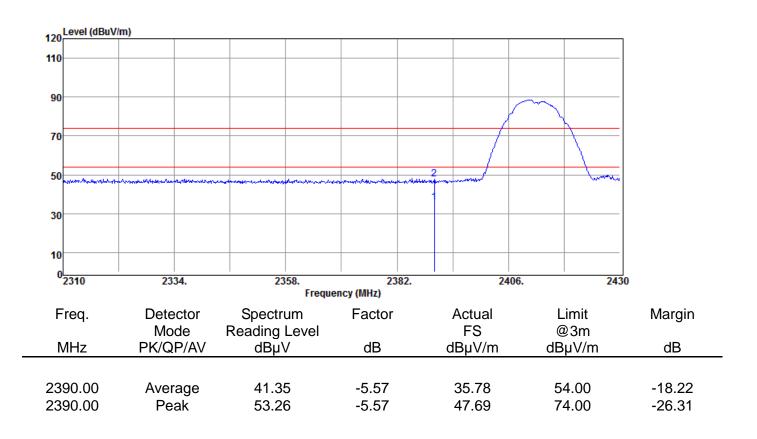
Radiated Band Edge Measurement Result (802.11b)

Operation Mode Test Mode EUT Pol **Test Channel**

:802.11b :BE CH Low :E2 Plan :2412 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-08-06 :25/60 :VERTICAL :Jerry

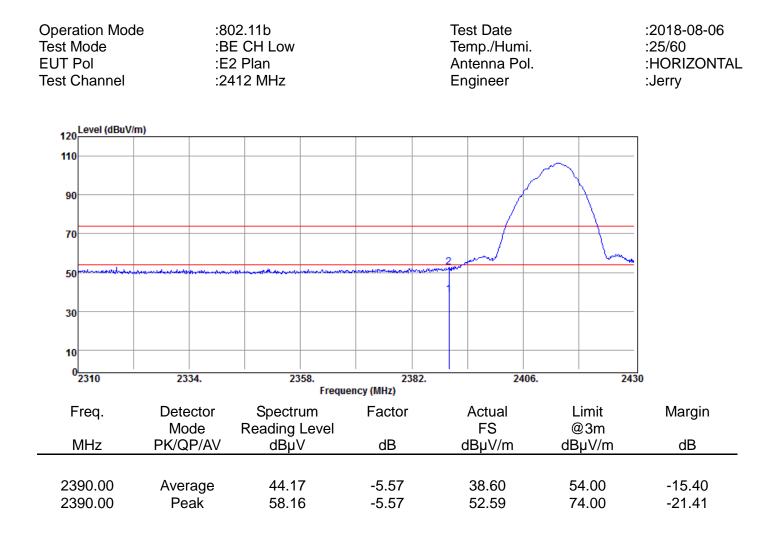


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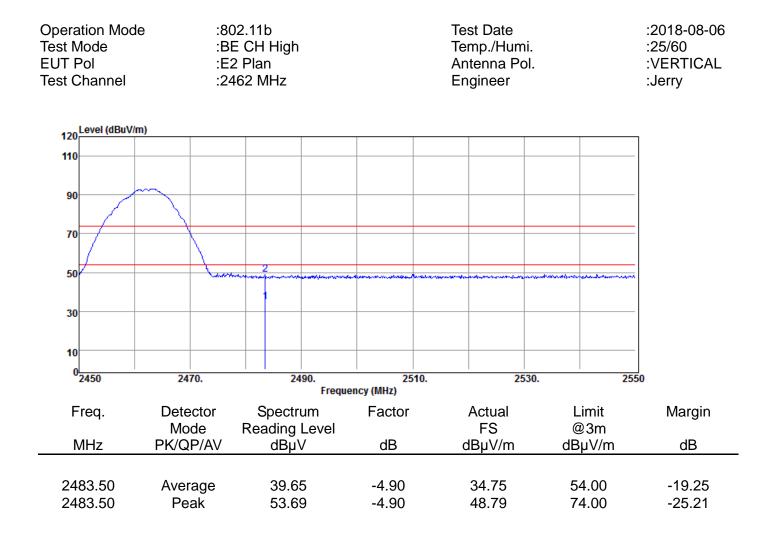




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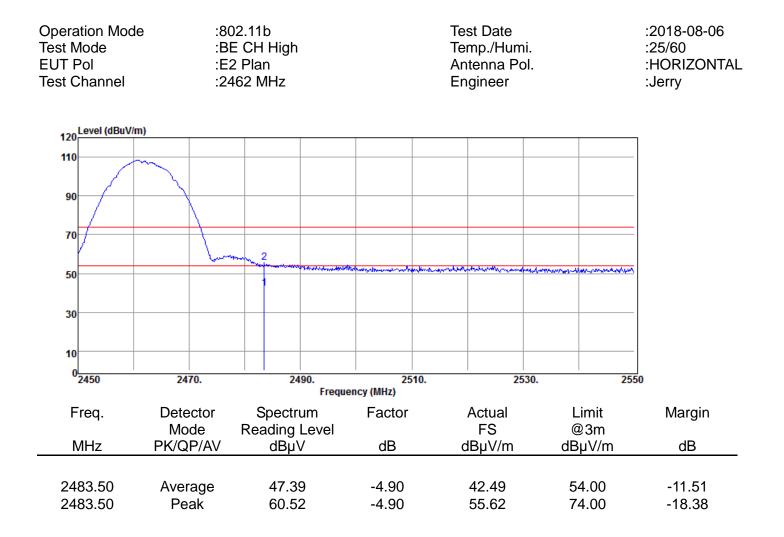




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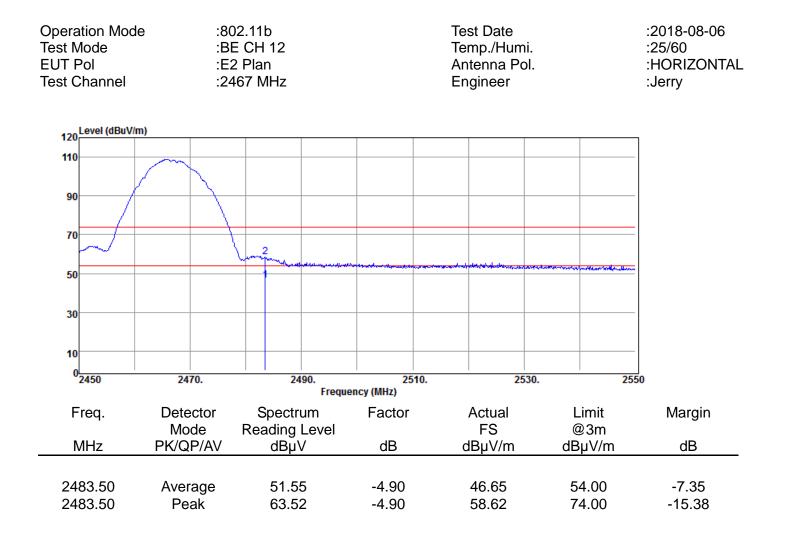
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Operation Moc Test Mode EUT Pol Test Channel	le	:2018-08-06 :25/60 :VERTICAL :Jerry								
120 Level (dBuV/	(m)									
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Operation Mod Test Mode EUT Pol Test Channel		:802.11b :BE CH 13 :E2 Plan :2472 MHz		Test Date Temp./Hum Antenna Po Engineer	:2018-08-06 :25/60 :VERTICAL :Jerry	
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⁰ 2450	2470.	2490). 25 Frequency (MHz)	10. 25	530. 25	50
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MHz	PK/QP/A	V dBµV	dB	dBµV/m	dBµV/m	dB
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2483.50 2483.50	Average Peak	43.51 54.83	-4.90 -4.90	38.61 49.93	54.00 74.00	-15.39 -24.07
2403.00	redk	04.00	-4.90	49.93	74.00	-24.07

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Test M EUT F		e	:E2	CH 13			Te Te Ar Er	:2018-08-09 :25/60 :HORIZONTAL :Jerry			
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24	83.50	Avera	age	55.9	0	-4.90		51.00	5	4.00	-3.00
24	83.50	Pea		66.2	7	-4.90		61.37	7	4.00	-12.63



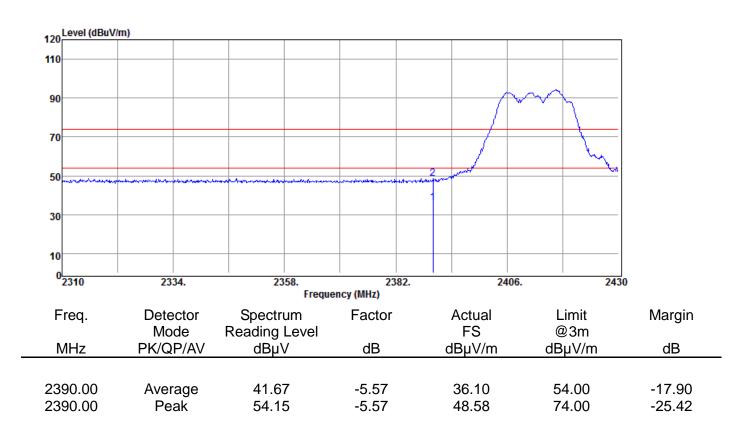
Radiated Band Edge Measurement Result (802.11g)

Operation Mode Test Mode EUT Pol **Test Channel**

:802.11g :BE CH Low :E2 Plan :2412 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

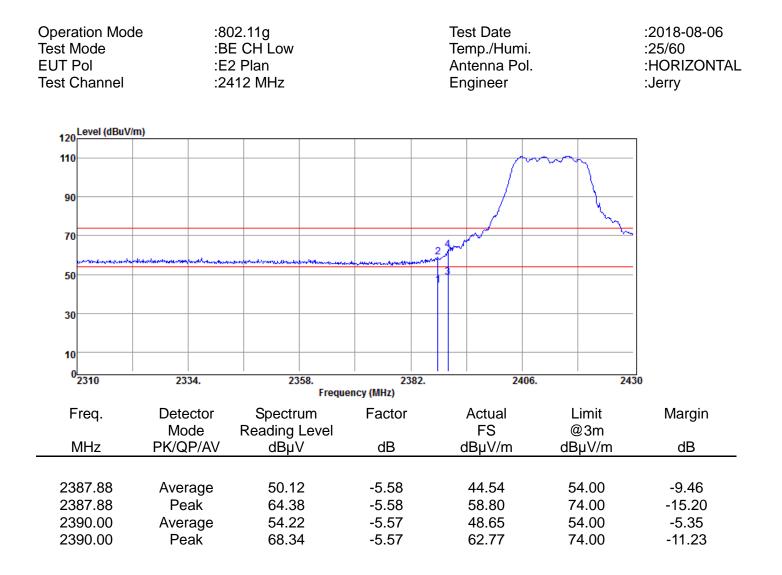
:2018-08-06 :25/60 :VERTICAL :Jerry



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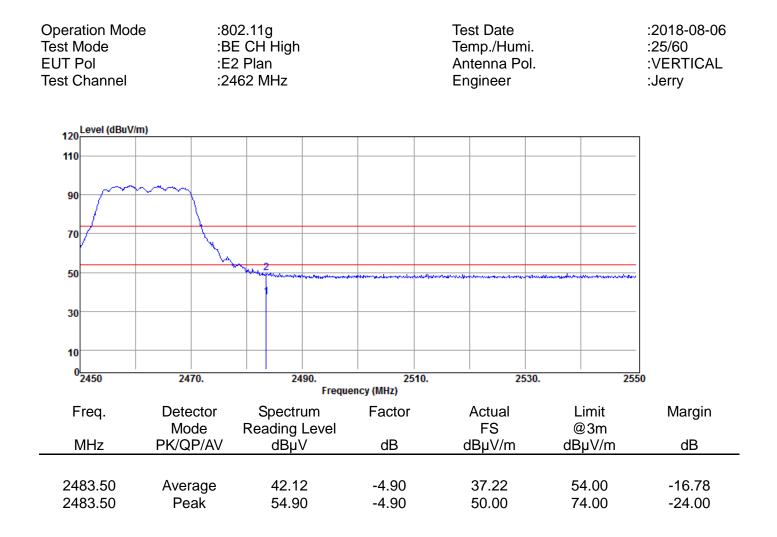




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Operation Moo Test Mode EUT Pol Test Channel	:BE :E2	2.11g CH High Plan 62 MHz	Antenna Pol.								
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Freq.	Detector	Spectrum	Factor	Actual FS	Limit	Margin					
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2483.50 2483.50	Average Peak	51.36 65.86	-4.90 -4.90	46.46 60.96	54.00 74.00	-7.54 -13.04					
2484.50 2484.50	Average Peak	50.02 64.40	-4.90 -4.90	45.12 59.50	-8.88 -14.50						
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Operation Mod Test Mode EUT Pol Test Channel	:B :E	02.11g E CH 12 2 Plan 467 MHz	n Temp./Humi. n Antenna Pol.								
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2483.50 2483.50	Average Peak	42.54 55.65	-4.90 -4.90	37.64 50.75	54.00 74.00	-16.36 -23.25					

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Operation Moc Test Mode EUT Pol Test Channel	le	:802.1 :BE C :E2 PI :2467	H 12 an			:2018-08-09 :25/60 :HORIZONTAL :Jerry				
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					ency (MHz)					
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MHz	Mode PK/OP/A			g Level	dB	<i>.</i>	FS BuV/m	-	3m V/m	dB
	PK/QP/AV dBµV dB dBµV/m dBµV/m							V/III	<u>ub</u>	
2483.50	Average	Э	55	.57	-4.90		50.67	54	.00	-3.33
2483.50								-8.66		
2486.30	Average 51.05 -4.87 46.18 54.00							-7.82		
2486.30	Peak 65.26 -4.87 60.39 74.00							.00	-13.61	

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Test I EUT			:E2 F	CH 13	-			:2018-09-21 :25/60 :VERTICAL :Jerry					
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24	83.50	Aver	200	F	57.72	2	-4.90		52.82	F	4.00	-1.18	
	83.50 83.50	Pe		-	73.63		-4.90		52.02 68.73	-	4.00	-5.27	
	84.50						-4.90		49.47 54.00			-4.53	
	84.50		Average 54.37 Peak 71.34				-4.90		66.44		4.00	-7.56	

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Operation Me Test Mode EUT Pol Test Channe		:802.11 :BE CH :E2 Pla :2472 N	1 13 an			:2018-09-21 :25/60 :HORIZONTAL :Jerry				
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⁰ 2450	2470.		2	490. Eroqui	25 ency (MHz)	10.	25	530.	255	0
Freq.	Detect Mode		Specti eading	um	Factor		Actual Limit FS @3m		imit ≬3m	Margin
MHz	PK/QP/		dBµ		dB	ď	BμV/m	-	uV/m	dB
2483.50	Averag		57.3		-4.90		52.45		4.00	-1.55
2483.50		Peak 73.58			-4.90		68.68		4.00	-5.32
2484.50		Average 54.39			-4.90		49.49		4.00	-4.51
2484.50 2488.30		Peak 70.49			-4.90 -4.86				4.00 4.00	-8.41 -13.29
2488.30		verage 45.57			-4.86 -4.86		40.71 55.41			-13.29 -18.59
2700.00	i can	Peak 60.27					55.41 74.00			10.00



Radiated Band Edge Measurement Result (802.11 HT20)

Operation Test Mode EUT Pol Test Chan	Mode :8 9 :1 1	asurement Resu 302.11n20 3E CH Low E2 Plan 2412 MHz	וו נסטב. דו_ח	Test Date Temp./Humi. Antenna Pol. Engineer	:2018-08-06 :25/60 :VERTICAL :Jerry	
120 Level	(dBuV/m)					1
90					~~~~~	
70						
50	in the second		hilder and a statements and the			
30						
10 0						
2310	2334.	2358. Frequ	2382. ency (MHz)	2406.	24	30
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV		dB	dBµV/m	dBµV/m	dB
2390.0 2390.0	•	41.70 53.35	-5.57 -5.57	36.13 47.78	54.00 74.00	-17.87 -26.22

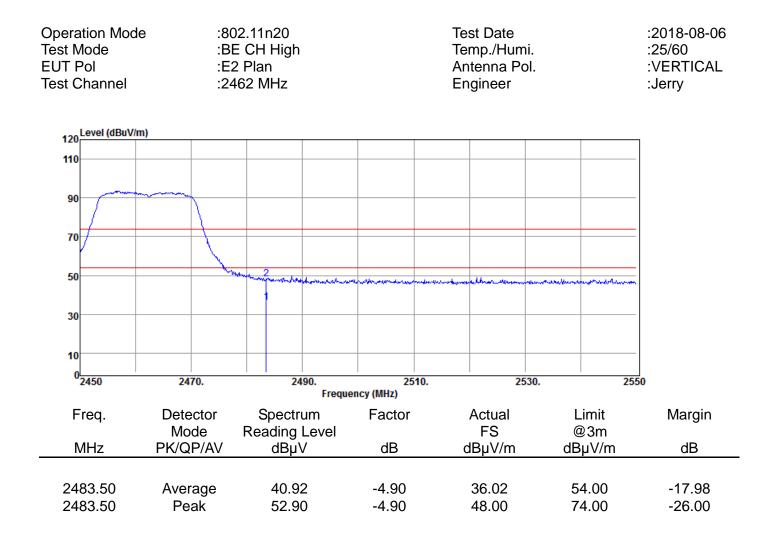
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Operati Test Mo EUT Po Test Ch	ol	e	:BE CH Low Temp./Humi. :E2 Plan Antenna Pol.								:2018-08-06 :25/60 :HORIZONTAL :Jerry
120	evel (dBuV/m	1)									
110									-		
90											
70							2 4	award a			
50	and and approximately and a second	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	maning	endersterfinghlennestern	and the second second	ىرى _{لەر ب} ەررائەر قەتقەرىخىلەردە .	3				
30-											
10											
0	310	23	34.	23	58.		82.	2	406.	243	j 60
-				0 1		ncy (MHz)				,	. ·
Fr	eq.	Dete Mo		Spectr Reading		Factor		Actual FS		.imit ⊉3m	Margin
Μ	Hz	PK/Q		dBµ`		dB	(dBµV/m	-	μV/m	dB
	3.56	Aver		49.0		-5.57		43.45		4.00	-10.55
	3.56	Pe		62.7		-5.57		57.15		4.00	-16.85
	0.00	Aver		54.6		-5.57		49.09		4.00	-4.91
239	0.00	Pe	ak	68.2	4	-5.57		62.67	7	4.00	-11.33

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Operation Mo Test Mode EUT Pol Test Channel	:BE :E2	2.11n20 E CH High 2 Plan 62 MHz		:2018-08-09 :25/60 :HORIZONTAL :Jerry		
120 Level (dBu\	//m)					_
110						
90						
70		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
50			and the test of the second of the second	hadron an	National Contraction of the Cont	
30						
10						
0 <mark></mark> 2450	2470.	2490. Eroquia	2510. ency (MHz)	2530.	25	50
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	-
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
2483.50	Average	55.84	-4.90	50.94	54.00	-3.06
2483.50	Peak	68.50	-4.90	63.60	74.00	-10.40
2485.50	Average	54.54	-4.89	49.65	54.00	-4.35
2485.50	Peak	66.85	-4.89	61.96	-12.04	

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Test EUT	ration Mode Mode Pol Channel	e	:BE :E2	.11n20 CH 12 Plan 7 MHz			:2018-08-09 :25/60 :VERTICAL :Jerry				
1	20 Level (dBuV/n	n)									
11											
ç	0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~									
7	ro /		\rightarrow								
	- www		L.								
!	50			Mur manan			-	- and the second states and the	Areliand	modelumentation	
:	30										
	0										
	0 <mark></mark> 2450	247	0.	24	90.		10.	2	530.	255	0
	_	_		-		ency (MHz)					
	Freq.	Detec		Spectr		Factor		Actual FS		imit	Margin
	MHz	Mod PK/OF		Reading dBu		dB	C	гъ IBµV/m	-	⊉3m µV/m	dB
-	111112	PK/QP/AV dBµV				40			00	P 1/111	
2	483.50	Avera	ade	42.5	4	-4.90		37.64	5	4.00	-16.36
	483.50	6				-4.90				-23.32	

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Operatic Test Moo EUT Pol Test Cha	de I		:BE :E2	2.11r CH Plar 87 M	12 1			:2018-08-09 :25/60 :HORIZONTAL :Jerry				
120	/el (dBuV/m)											_
110			Ma _ a									_
	\square	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~										
90												-
70				~2	4							-
50					3	and the second second	a warman tana bartara t	han an a	and the second second	Antonian	an a	- x
30												-
10												_
0 245	50	247	/0.		24	90. Freque	25 ncy (MHz)	10.	25	530.	25	50
Fre	q.	Dete Moo			pectr dina		Factor		Actual FS		_imit ⊉3m	Margin
MH	lz	PK/QI	Mode Reading Level FS @3m {/QP/AV dBµV dB dBµV/m dBµV/m							dB		
2483		Avera			55.4		-4.90		50.50		4.00	-3.50
2483		Pea	ak		69.73		-4.90		64.83		4.00	-9.17
2485			Average 52.56				-4.88		47.68		4.00	-6.32
2485	6.60	Peak 67.87			7	-4.88	-4.88 62.99 74.00				-11.01	



Operation N Test Mode EUT Pol Test Chann		:BE (:E2	.11n20 CH 13 Plan 2 MHz			:2018-09-21 :25/60 :VERTICAL :Jerry				
120 Level (dB	uV/m)									_
110										
90		~~~~~								
70			4							
10										
50			3	Conversion and a	****				(nest in the second	
30										
10										
0 <mark></mark> 2450	247	70.	24	190. Eroque	251 ency (MHz)	0.	25	30.	255	0
Гиса	Dete	atar	Cast			•	atual	1.5		Morain
Freq.	Dete Moo		Spectr		Factor	A	ctual FS		mit 3m	Margin
N 41 1-			Reading			JD.	-	-		JD
MHz	PK/QI	P/AV	άδμ	$B\mu V$ dB $dB\mu V/m$ $dB\mu V/m$						dB
	_			_						
2483.50	Avera		57.6		-4.90		2.75		.00	-1.25
2483.50	Pea		73.6		-4.90		8.76		.00	-5.24
2484.60	0						-6.89			
2484.60	Peak 68.50 -4.90 63.60 74.00					.00	-10.40			

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Operati Test Mo EUT Po Test Ch	ode ol	le	:BE (:E2 F	.11n20 CH 13 Plan 2 MHz			:2018-09-21 :25/60 :HORIZONTAL :Jerry				
120 Lev	vel (dBuV/m)									_
110											
90											
70				4							
50				3	and the state of t	n mar an	and the second and second		and the sector of the sector o	andarian dari yaka turdhay da	
30											
10											
0 245	50	247	0.		2490.	25	10.	25	5 30.	25	50
					Frequ	iency (MHz)					
Fre	eq.	Deteo			trum	Factor		ctual		imit	Margin
		Moo			g Level			FS	-	23m	ID.
MF	1Z	$PK/QP/AV \qquad dB\mu V \qquad dB \qquad dB\mu V/m \qquad dB\mu V/m$							dB		
2483 2483		Avera Pea		57 73	.31 .04	-4.90 -4.90		52.41 58.14		4.00 4.00	-1.59 -5.86
2485	5.30					-4.89				4.00	-8.01
2485	5.30	Peak 65.37 -4.89 60.48					74	4.00	-13.52		



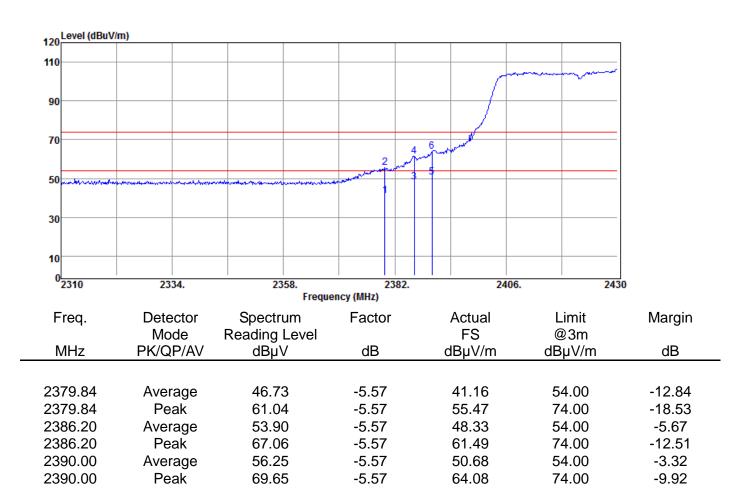
Radiated Band Edge Measurement Result (802.11_HT40)

Operation Mode	
Test Mode	
EUT Pol	
Test Channel	

:802.11n40 :BE CH Low :E2 Plan :2422 MHz

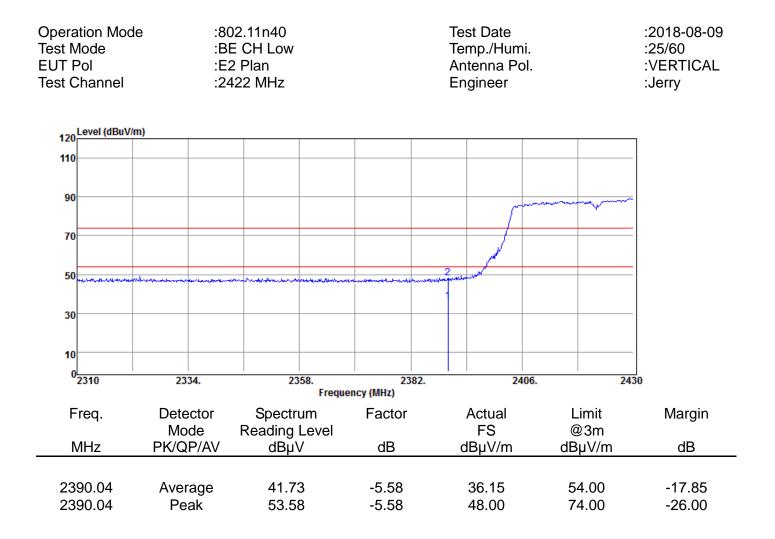
Test Date Temp./Humi. Antenna Pol. Engineer

:2018-08-09 :25/60 :HORIZONTAL :Jerry



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.





Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Operation Moo Test Mode EUT Pol Test Channel	:B :E	02.11n40 E CH High 2 Plan 452 MHz		Test Date Temp./Humi. Antenna Pol. Engineer						
120 Level (dBuV	m)					_				
110										
90										
70										
50		Vole Harry march and a second second	daarteer and the order of the color	relationer and the second s	deren and the analysis and the second					
30										
10										
002450 2470. 2490. 2510. 2530. 2550 Frequency (MHz)										
Freq.	Detector	Spectrum	Factor	Actual FS	Limit	Margin				
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	dBµV/m	@3m dBµV/m	dB				
2483.50	Average	42.04	-4.90	37.14	54.00	-16.86				
2483.50 2483.50	Average Peak	42.04 54.43	-4.90 -4.90	49.53	54.00 74.00	-24.47				

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Test M EUT F		:802.11n40 :BE CH High :E2 Plan :2452 MHz					Test Date Temp./Humi. Antenna Pol. Engineer				:2018-08-09 :25/60 :HORIZONTAL :Jerry	
120	Level (dBuV/n	n)										
110												
	n marine	mon										
90			\									
			\mathbf{X}									
70			- have									
				$\frac{1}{1}$	4	6						
50					3	5	Marghan Surger Star	and and a substance of the				
30					_							
10												
0	2450	24	70.		2	490.	25	i10.	2	530.	255	50
	Frequency (MHz)											
F	req.			pect		Factor		Actual		.imit	Margin	
Mode MHz PK/QP/AV			Reading Level					FS	-	23m	JD	
N	ЛНz	PK/Q	P/AV		dBµ	V	dB	C	lBµV/m	dB	µV/m	dB
0.4	00 50	A				22	4.00		50.00	-	4.00	0.07
	83.50 83.50	Aver Pe	•	55.23 65.68			-4.90 -4.90		50.33 60.78		4.00 4.00	-3.67 -13.22
	85.10	Aver		53.69			-4.90 -4.89		48.80		4.00	-5.20
	85.10		Peak 64.95			-4.89		60.06		4.00	-13.94	
	89.30		Average		49.23		-4.85		44.38		4.00	-9.62
24	89.30	Peak		62.14		4	-4.85		57.29	7	4.00	-16.71

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Operation I Test Mode EUT Pol Test Chanr	:E :E	02.11n40 BE CH 10 22 Plan 2457 MHz		:2018-08-09 :25/60 :VERTICAL :Jerry		
120 Level (d	IBuV/m)					
110						_
90	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					_
70						_
50		han 2	หมางที่ถูกเห็น และ การทุกเพื่องกั	lentyn Martinet ar Staat an Sternbert of St	ana an	
30						_
10						_
0 <mark></mark> 2450	2470.	2490. Free	2510 quency (MHz)). 25	30. 2	550
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
2483.50 2483.50	0	42.40 54.28	-4.90 -4.90	37.50 49.38	54.00 74.00	-16.50 -24.62

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Test M EUT P		9	:BE :E2	2.11ı CH Plar 57 M	10 ר			:2018-08-09 :25/60 :HORIZONTAL :Jerry				
120	Level (dBuV/m	ו)				1						7
110			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~									-
90			-									
70				4	4							
50					3			Ren Bylanger (m. a. Lager Myran, alg	ninderson (Tryson and Type router	an a		
30												-
10					_							-
0	2450	24	70.		24	190.		i 10.	2	530.	25	50
F	req.	Dete Mo			pectr Idina		ncy (MHz) Factor		Actual FS		.imit ⊉3m	Margin
N	1Hz	PK/Q	P/AV		dBµ		dB	(dBµV/m	dB	μV/m	dB
	83.50 83.50	Aver Pe			55.3 69.0		-4.90 -4.90		50.47 64.14		4.00 4.00	-3.53 -9.86
248	35.30 35.30 35.30	Aver Pe	age		53.6 65.7	9	-4.90 -4.89 -4.89		48.80 60.85	5	4.00 4.00 4.00	-5.20 -13.15

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Operation Moc Test Mode EUT Pol Test Channel	:B :E:	02.11n40 E CH 11 2 Plan 462 MHz		:2018-08-09 :25/60 :VERTICAL :Jerry			
120 Level (dBuV/	m)						
110							
90							
70	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	-					
50			1914-1905-1918-19-1-19-18-18-19-19-19-19-19-19-19-19-19-19-19-19-19-	aralland)anasistan) (1974) ang mananang mang mang mang mang mang m	and and a second se		
30							
10							
0 2450	2470.	2490. Frequ	251 ency (MHz)	0. 25	30. 255	50	
Freq.	Detector Spectrum Factor Actual Limit Mode Reading Level FS @3m						
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB	
2483.50 2483.50	Average Peak	42.83 55.38	-4.90 -4.90	37.93 50.48	54.00 74.00	-16.07 -23.52	

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Test M EUT F		:B :E	02.11n40 E CH 11 2 Plan 462 MHz		:2018-08-09 :25/60 :HORIZONTAL :Jerry		
120	Level (dBuV/m	1)					7
110							
90	un manager and the state of the		~				
70							
50			1 Townshirts	eterio conservo terra terra de conservo terra de la conservo de la conservo de la conservo de la conservo de la	unuming gay and the man maket and the		
30							
10							
0	2450	2470.	2490. Frequ	2510. uency (MHz)	2530.	25	50
F	req.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
N	/Hz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
	83.50 83.50	Average Peak	55.36 70.06	-4.90 -4.90	50.46 65.16	54.00 74.00	-3.54 -8.84
24	84.30 84.30 84.30	Average Peak	54.70 69.31	-4.90 -4.90 -4.90	49.80 64.41	54.00 74.00	-8.84 -4.20 -9.59



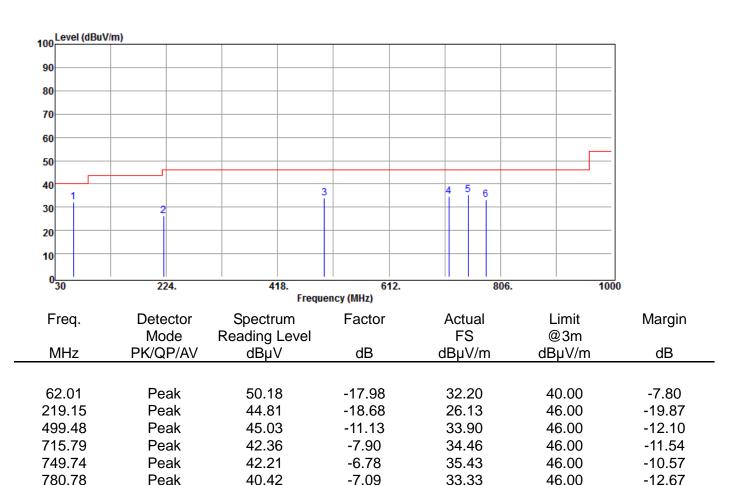
Below 1GHz Worst-Case Data: Radiated Spurious Emission Measurement Result (802.11 g)

Operation Mode Test Mode EUT Pol **Test Channel**

:802.11g :Tx CH Low :E2 Plan :2412 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-08-08 :25/60 :VERTICAL :Jerry



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Test M EUT P		e	:T: :E:	02.11g x CH Low 2 Plan 412 MHz	Test Date Temp./Humi. Antenna Pol. Engineer						:2018-08-08 :25/60 :HORIZONTAL :Jerry	
100 ¹	Level (dBuV/m	n)										7
90												_
80												_
70												_
60												_
50												_
40			1		4			5	6		J	_
30			2	3					Ĭ.			_
20												_
10												_
	30	224	4.	4	18. Freque	61 ncy (MHz)	12.		80	6.	10	00
F	req.	Deteo	ctor	Spectr	um	Factor		Actua	al	L	_imit	Margin
	A1 1	Moc		Reading				FS			2)3m	
IV	/Hz	PK/QF	P/AV	dBµ'	V	dB		dBµV/	m	dE	βµV/m	dB
25	0.19	Pea	ak	53.9	7	-16.91		37.06	3	4	6.00	-8.94
	0.26	Pea		49.0		-15.84		33.19			6.00	-12.81
40	5.39	Pea		45.7	5	-12.57		33.18			6.00	-12.82
49	9.48	Pea	ak	48.0	0	-11.13		36.87	7	4	6.00	-9.13
	6.83	Pea	ak	46.3	8	-6.84		39.54	1	4	6.00	-6.46
77	7.87	Pea	ak	42.9	8	-7.06		35.92	2	4	6.00	-10.08

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Operation Mode Test Mode EUT Pol Test Channel	:Tx :E2	2.11g CH Mid Plan 37 MHz		Test Date Temp./Humi. Antenna Pol. Engineer	:2018-08-08 :25/60 :VERTICAL :Jerry	
100 Level (dBuV/m)					
90						
80						
70						
60						
50						
40				4		
30		2	2	3 5	6	
20						
10						
030	224.	418. Frequ	612. ency (MHz)	806.	100	0
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	_
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
62.01	Peak	50.08	-17.98	32.10	40.00	-7.90
497.54	Peak	44.22	-11.12	33.10	46.00	-12.90
718.70	Peak	40.56	-7.82	32.74	46.00	-13.26
746.83	Peak	43.51	-6.84	36.67	46.00	-9.33
779.81	Peak	39.92	-7.10	32.82	46.00	-13.18
997.09	Peak	34.06	-3.80	30.26	54.00	-23.74

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Operation M Test Mode EUT Pol Test Channe		:Tx :E2	2.11g CH Mid Plan 37 MHz		Test Date Temp./Humi. Antenna Pol. Engineer						:2018-08-08 :25/60 :HORIZONTAL :Jerry
100 Level (dB	uV/m)									1	7
90											
80											
70											
60											
50											
40		2		4			5				
30	1	3								(
20	_										
10											
0 <mark></mark> 30	224	.	4	18. Freque	61 ency (MHz)	12.		806	5 .	100	00
Freq.	Detec		Spectr		Factor		Actu			_imit	Margin
MHz	Mod PK/QF		Reading		dB		FS ∕Bµ			2∂3m	dB
	FNQF	/AV	dBµ	V	uБ		иσμν	//111	UE	βµV/m	UD
125.06	Pea	k	48.3	3	-20.78		27.5	55	4	3.50	-15.95
250.19	Pea	ık	53.7	1	-16.91		36.8	30	4	6.00	-9.20
280.26	Pea		47.8		-15.84		31.9			6.00	-14.04
499.48	Pea		48.1		-11.13		36.9			6.00	-9.03
746.83	Pea		45.6		-6.84		38.8			6.00	-7.16
1000.00	Pea	ık	38.7	6	-3.77		34.9	99	5	4.00	-19.01

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Operation Mode Test Mode EUT Pol Test Channel	:Tx :E2	2.11g CH High Plan 62 MHz		Test Date Temp./Humi. Antenna Pol. Engineer	:2018-08-08 :25/60 :VERTICAL :Jerry	
100 Level (dBuV/n	n)					
90						
80						
70						
60						
50						
40		3		4 5		
30 1 ₂					6	
20						
10						
0 <mark></mark> 30						
30	224.	418. Freque	612. ency (MHz)	806.	100	U
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level	dD	FS	@3m	dB
	PN/QP/AV	dBµV	dB	dBµV/m	dBµV/m	UD
61.04	Peak	50.16	-17.79	32.37	40.00	-7.63
69.77	Peak	49.57	-19.43	30.14	40.00	-9.86
499.48	Peak	46.14	-11.13	35.01	46.00	-10.99
718.70	Peak	41.83	-7.82	34.01	46.00	-11.99
749.74	Peak	43.36	-6.78	36.58	46.00	-9.42
999.03	Peak	34.65	-3.78	30.87	54.00	-23.13

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Test M EUT P		e :Tx CH High Temp./Humi. :E2 Plan Antenna Pol.							:2018-08-08 :25/60 :HORIZONTAL :Jerry			
100	Level (dBuV/n	m)	1								I	7
90												-
80												_
70												_
60												_
50												-
40		ſ	1					4	5			_
30				2	3				Ī			E _
												_
20												_
10												-
0	30	22	24.	4	18. Freque	6′ ency (MHz)	12.		806		10	oo
F	req.	Dete	ector	Spectr		Factor		Actua	al	L	imit	Margin
-		Мо		Reading				FS			⊉3m	
N	/IHz	PK/Q	P/AV	dBµ	V	dB		dBµV/	m	dB	μV/m	dB
		_			•						~ ~ ~	
	50.19	Pe		53.8		-16.91		36.91			6.00	-9.09
	6.36	Pe		47.7		-12.52		35.23			6.00	-10.77
	8.51	Pe		45.5		-11.12		34.42			6.00	-11.58
	6.83 8.84	Pe Pe		46.6 44.9		-6.84 -7.08		39.81 37.88			6.00 6.00	-6.19 -8.12
	0.04 00.00	Pe		44.9 37.9		-7.08 -3.77		34.22			6.00 4.00	-0.12 -19.78
100	00.00	r e	an	57.9	5	-3.77		J4.ZZ	_	5	4.00	-13.70

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Operation Mo Test Mode EUT Pol Test Channe	:T) :E2	:802.11gTest Date:Tx CH 12Temp./Humi.:E2 PlanAntenna Pol.:2467 MHzEngineer					
100 Level (dBu	uV/m)					7	
90							
80							
70							
60							
50							
40		2 3		4	5		
30		23			t		
20							
10							
0	224.	418.	612.	806.	10	DO	
_		-	ency (MHz)				
Freq.	Detector	Spectrum	Factor	Actual FS	Limit	Margin	
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	dBµV/m	@3m dBµV/m	dB	
		αDμν	uВ	αυμνλη	dbpv/m		
62.01	Peak	50.20	-17.98	32.22	40.00	-7.78	
468.44	Peak	45.14	-11.42	33.72	46.00	-12.28	
497.54	Peak	45.08	-11.12	33.96	46.00	-12.04	
746.83	Peak	42.55	-6.84	35.71	46.00	-10.29	
867.11	Peak	41.32	-5.01	36.31	46.00	-9.69	
1000.00	Peak	37.01	-3.77	33.24	54.00	-20.76	

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Operation Mode Test Mode EUT Pol Test Channel	:Tx CH 12 Temp./Humi. :E2 Plan Antenna Pol.						:2018-08-08 :25/60 :HORIZONTAL :Jerry				
100 Level (dBuV/n	n)										1
90											
80											
70											
60									_		
50											
40		1 2	3	4			5		6		
30		Ť									
20											
10											
030	224		418		61	2.	 {	3 06.		100	0
					icy (MHz)						
Freq.	Detec		Spectru		Factor		Actual		Lim		Margin
MHz	Mod PK/QP		Reading L		dB		FS dBµV/m	h	@3r BµV		dB
	FNQF	/Av	dBµV		uБ	(ωμν/ш	u	Бhл	/111	UD
250.19	Pea	k	53.76		-16.91		36.85		46.0	0	-9.15
281.23	Pea	k	48.67		-16.35		32.32		46.0	0	-13.68
406.36	Pea	Peak 46.1			-12.52		33.67		46.0	0	-12.33
499.48	Pea	k	47.32		-11.13		36.19		46.0	0	-9.81
731.31	Pea	k	45.98		-7.24		38.74		46.0	0	-7.26
933.07	Pea	k	40.66		-4.47		36.19		46.0	0	-9.81

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Test M EUT P	beration Mode :802.11g st Mode :Tx CH 13 JT Pol :E2 Plan st Channel :2472 MHz						:2018-08-08 :25/60 :VERTICAL :Jerry				
100	Level (dBuV/n	1)	1								1
90											
80											
70											
60											
50											
40]			4			5			
30		2	2		3						
20											
10											
0	30	2	24.	41	18.		12.		806.	100])0
						ncy (MHz)					
F	req.	Dete		Spectro		Factor		Actual		Limit	Margin
Ν	/IHz	Mo PK/Q		Reading dBµ\		dB	d	FS BµV/m		@3m 3µV/m	dB
										•	
	2.01		ak	49.5		-17.98		31.55		0.00	-8.45
	8.18		ak	45.02		-18.68		26.34		6.00	-19.66
	6.50		ak	39.12		-11.48		27.64		6.00	-18.36
	9.48		ak	45.99		-11.13		34.86		6.00	-11.14
	6.83	Pe		42.5		-6.84		35.74		6.00	-10.26
11	'9.81	Pe	ak	39.42	2	-7.10		32.32	4	6.00	-13.68

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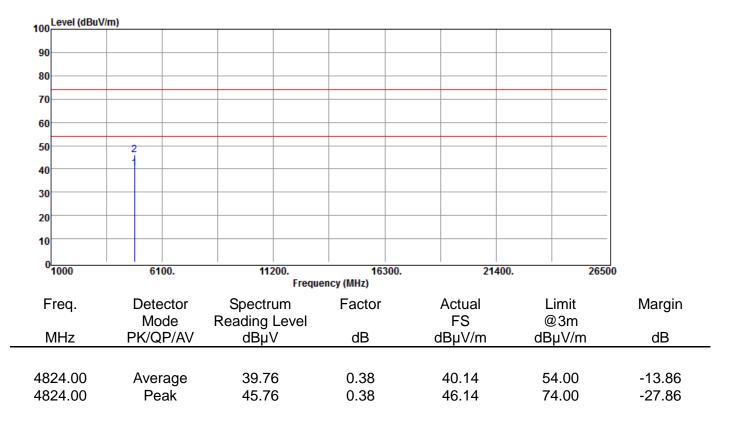
Operati Test Mo EUT Po Test Ch	bl	9	:T :E	02.11g x CH 13 2 Plan 472 MHz			Te Ai	•	'Humi. na Pol.			:2 :H	018-08-08 5/60 ORIZONT/ erry	AL
100	evel (dBuV/m	1)										_		
90												_		
80												_		
70												_		
60												_		
50												_		
40		ſ	1		4			5				_		
30			2	3								-E		
20												_		
10												_		
0														
-30)	22	4.	4	18. Freque	6' ncy (MHz)	12.		806		1	000		
Fre	eq.	Dete		Spectr		Factor		Actu			imit		Margin	
Mł	1 -	Mo PK/QI		Reading		dB		FS ADUN			2)3m		dB	
		PNQ	P/AV	dBµ	v	uБ		dBµ∖	//ጠ	ub	μV/m		uБ	
250).19	Pea	ak	53.7	4	-16.91		36.8	33	4	6.00		-9.17	
281	.23	Pea	ak	49.2	0	-16.35		32.8	35	4	6.00		-13.15	
405		Pea		46.9		-12.57		34.3			6.00		-11.66	
497		Pea		47.5		-11.12		36.4			6.00		-9.54	
746		Pea		45.3		-6.84		38.4			6.00		-7.54	
1000	0.00	Pea	ak	36.4	0	-3.77		32.6	53	5	4.00		-21.37	



Above 1GHz Data:

Radiated Spurious Emission Measurement Result (802.11 b)

Operation Mode	:802.11b	Test Date	:2018-08-09
Test Mode	:Tx CH Low	Temp./Humi.	:25/60
EUT Pol	:E2 Plan	Antenna Pol.	:VERTICAL
Test Channel	:2412 MHz	Engineer	:Jerry
		-	



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Tes EU	eration Mo t Mode T Pol t Channel	de	:T) :E2	02.11b < CH Low 2 Plan 112 MHz				Test Date Temp./Hum Antenna Po Engineer			:2018-08-09 :25/60 :HORIZONTAL :Jerry
	100 Level (dBuV	//m)									_
	90										_
	80										_
	70										-
	60										_
	50	2									_
	40	1									_
	30										_
											_
	20										_
	10										
	0L 1000	61	00.	11	200. Freque	163 ency (MHz)	800.	214	400.	265	500
	Freq.	Dete		Spectr		Factor		Actual		Limit	Margin
	MHz	Mo PK/Q		Reading dBµ		dB		FS dBµV/m		@3m 3µV/m	dB
	4824.00	Aver		42.5		0.38		42.95		54.00	-11.05
	4824.00	Pe	ак	46.5	8	0.38		46.96		74.00	-27.04

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Operation Mode Test Mode EUT Pol Test Channel	:T: :E: :24	02.11b x CH Mid 2 Plan 437 MHz		Test Date Temp./Humi. Antenna Pol. Engineer		:2018-08-09 :25/60 :VERTICAL :Jerry
100 Level (dBu\	//m)					7
90						_
80						_
70						-
60						_
50	2					-
40						_
30						_
20						-
10						-
0	6100.	11200. Freque	16300. ency (MHz)	2140	0. 265	
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
		•		·	-	
4874.00	Average	41.83	0.66	42.49	54.00	-11.51
4874.00	Peak	47.24	0.66	47.90	74.00	-26.10

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Test M EUT P		•	:Tx :E2	2.11b CH Mid Plan 37 MHz			T A	est Date emp./Hun ntenna Po ngineer			:2018-08-09 :25/60 :HORIZONTAL :Jerry
400	Level (dBuV/m)									
100		-]
90											-
80											-
70											-
60		2									•
50		1									-
40											-
30											-
20											-
10											
0	1000	610	00.	11:	200. Freque	163 ncy (MHz)	300.	21	400.	265	00
F	req.	Dete		Spectr		Factor		Actual		Limit	Margin
N	ИНz	Mo PK/Q		Reading dBµ		dB		FS dBµV/m		@3m 3µV/m	dB
487	74.00	Aver	age	44.6	3	0.66		45.29	Ę	54.00	-8.71
48	74.00	Pea	ak	49.7	4	0.66		50.40	7	74.00	-23.60

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Operation Test Mod EUT Pol Test Cha	le		:Tx :E2	2.11b CH High Plan 62 MHz			T A	est Date emp./Hun ntenna P ngineer			:2018-08-09 :25/60 :VERTICAL :Jerry
100 Leve	el (dBuV/m)										
90											
80											
70											_
60											
50		2									
40											
30											
20											_
10											—
0 <mark>0</mark>	0	610	0.	112	200. Freque	163 ency (MHz)	300.	21	1400.	20	6500
Frec	7.	Dete		Spectro		Factor		Actual		Limit	Margin
MH	Z	Moo PK/QF		Reading dBµ\		dB		FS dBµV/m	C	@3m ∄BµV/m	dB
4924.	00	Avera	ade	40.3	9	0.97		41.36		54.00	-12.64
4924.		Pea		46.20		0.97		47.23		74.00	-26.77

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Test M EUT F Test C	Pol Channel		:Tx :E2	02.11b CH High 2 Plan 62 MHz			-	Test Date Temp./Hum Antenna Po Engineer			:2018-08-09 :25/60 :HORIZONTAL :Jerry
100	Level (dBuV/n	1)									Г
90											
80											-
70											-
60											-
50		2									-
40											-
30											-
20											-
10											-
0	1000	610)0.	11	200. Freque	163 ncy (MHz)	300.	214	400.	265	00
F	req.	Dete		Spectr		Factor		Actual		Limit	Margin
N	ЛНz	Moo PK/QI		Reading dBµ		dB		FS dBµV/m		@3m 3µV/m	dB
	24.00	Avera		43.7		0.97		44.67		54.00	-9.33
49	24.00	Pea	ak	47.7	4	0.97		48.71	-	74.00	-25.29

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Test M EUT P Test Cl	ol hannel		:T: :E:	02.11b x CH 12 2 Plan 467 MHz			ר A	ēst Date ēmp./Hum Antenna Po Engineer			:2018-08-09 :25/60 :VERTICAL :Jerry
100	.evel (dBuV/m	1)									7
90											-
80											_
70											-
60											_
50		2									-
40											_
30											-
20											-
10											-
0 1	000	6	100.	11:	200. Freque	163 ency (MHz)	300.	21	400.	265	00
Fr	req.		ector	Spectr		Factor		Actual		Limit	Margin
Μ	lHz		ode QP/AV	Reading dBµ		dB		FS dBµV/m		@3m 3µV/m	dB
	34.00		erage	42.2		1.05		43.32		54.00	-10.68
493	34.00	Pe	eak	48.9	0	1.05		49.95	7	4.00	-24.05

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Test M EUT F		•	:Tx :E2	2.11b CH 12 Plan 67 MHz			T A	Test Date Temp./Hum Antenna Po Engineer			:2018-08-09 :25/60 :HORIZONTAL :Jerry
100	Level (dBuV/m)									_
90											
80											
70											
60											
50		2									-
40											
30											-
20											-
10											
Ū	1000	61	00.	11:	200. Frequei	163 ncy (MHz)	300.	21	400.	265	00
F	req.	Dete		Spectr		Factor		Actual		Limit	Margin
Ν	/IHz	Mo PK/Q		Reading dBµ		dB		FS dBµV/m		@3m BµV/m	dB
N	/11 12			αвμ	v	uВ			u		UD
49	34.00	Aver	age	45.8	3	1.05		46.88	!	54.00	-7.12
49	34.00	Pe	-	50.2	3	1.05		51.28	-	74.00	-22.72

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Test Mo EUT Po Test Ch	annel		:T: :E:	02.11b x CH 13 2 Plan 472 MHz			-	Test Date Temp./Hum Antenna Po Engineer			:2018-08-09 :25/60 :VERTICAL :Jerry
100 Le	evel (dBuV/m))									
90—											_
80—											_
70											_ _
60											_
50		2									_
40		1									_
30											_
20											_
10											_
0											
0 [_] 10	00	6'	100.	11:	200. Freque	163 ency (MHz)	300.	21	400.	26	500
Fre	∋q.		ector	Spectr		Factor		Actual		Limit	Margin
			ode	Reading				FS		@3m	
M	ΗZ	PK/C	QP/AV	dBµ`	V	dB		dBµV/m	d	BµV/m	dB
46.4	4.00	•			•	4.46		40.05		- 4 0 0	
4944			rage	41.1		1.12		42.25		54.00	-11.75
4944	4.00	Pe	eak	46.6	Ь	1.12		47.78		74.00	-26.22

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Test M EUT F			:Tx :E2	2.11b CH 13 Plan 72 MHz			Te A	est Date emp./Hum ntenna Po ngineer			:2018-08-09 :25/60 :HORIZONTAL :Jerry
100	Level (dBuV/m)									_
90											
80											
70											
60											
50		2									
40											
30											
20											
10											
0											
	1000	610	0.	11:	200. Frequei	163 ncy (MHz)	300.	21	400.	2650	00
F	req.	Dete		Spectr		Factor		Actual		Limit	Margin
Ν	ЛНz	Moo PK/QF		Reading dBµ		dB		FS dBµV/m		@3m 3µV/m	dB
N	/11 12			чъμ	v	чD		σομν/Π	UL	γμ v/m	<u>ub</u>
49	44.00	Avera	age	45.3	7	1.12		46.49	5	54.00	-7.51
49	44.00	Pea		49.2	4	1.12		50.36	7	4.00	-23.64



Padiated Spurious Emission Massurament Result (802 11 a)

eration Mode st Mode T Pol st Channel	e :80 :T> :E2	2.11g CH Low Plan 12 MHz	ent Result (ou	Test Date Temp./Humi. Antenna Pol. Engineer		:2018-08-0 :25/60 :VERTICA :Jerry
100 Level (dBuV/n	n)					
90						
80						
70						
60						
50	2					
40						
30						
20						
10						
0 ^L 1000	6100.	11200. Frequ	16300. Jency (MHz)	21400.	26500)
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin

MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB	_
4824.00 4824.00	Average Peak	39.52 48.55	0.38 0.38	39.90 48.93	54.00 74.00	-14.10 -25.07	

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Test Mode:Tx (EUT Pol:E2			:802.11g :Tx CH Low :E2 Plan :2412 MHz				est Date emp./Hum ntenna Po ngineer	:2018-08-09 :25/60 :HORIZONTAL :Jerry			
100	Level (dBuV/m)									
	100										
80	90										
70											
-	60 <u>2</u> 50 <u>1</u>										
30	40										
20											
	10										
0 <mark>1000 6100.</mark>		11	200. Freque	163 ncy (MHz)	300.	21	400.	265	00		
Freq.		Detector Mode		Spectr Reading		Factor		Actual FS		Limit @3m	Margin
Ν	1Hz	PK/Q		Reading Level dBµV		dB		dBµV/m		ΞμV/m	dB
4824.00		Aver	•	40.63		0.38		41.01		54.00	-12.99
482	24.00	Pe	ак	51.59		0.38		51.97		74.00	-22.03

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Operation Mc Test Mode EUT Pol Test Channel	:T. :E :24	02.11g x CH Mid 2 Plan 437 MHz		Test Date Temp./Hum Antenna Po Engineer	:2018-08-09 :25/60 :VERTICAL :Jerry	
100 Level (dBu	V/m)					
90						_
80						_
70						_
60						_
50						_
40	1					_
30						_
20						_
10						_
0 <mark></mark> 1000	6100.	11200. Freque	16300. ency (MHz)	214	400. 26	500
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
			•	p	p	
4874.00	Average	40.32	0.66	40.98	54.00	-13.02
4874.00	Peak	49.83	0.66	50.49	74.00	-23.51

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Test Mode:TxEUT Pol:E2			2.11g CH Mid Plan 37 MHz			T T A E	:2018-08-09 :25/60 :HORIZONTAL :Jerry				
100	Level (dBuV/m)									
100											
80	90										
70											
60											
	2										
50 40	50										
40 30											
20											
10											
0 <mark>1000 6100.</mark>		11:	200. Frequei	16300. ency (MHz)		21	400.	2650	วีอ		
F	req.	Dete		Spectr		Factor		Actual		Limit	Margin
	AL 1	Mo		Reading				FS		@3m	٩D
N	/Hz	PK/Q	P/AV	dBµ'	V	dB		dBµV/m	di	BµV/m	dB
4874.00		Aver	ade	42.1	8	0.66		42.84	Į	54.00	-11.16
	74.00	Pe	-	42.18 52.53		0.66		53.19		74.00	-20.81

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EUT Pol :E2 Pla Test Channel :2462 M				CH High			T A	est Date emp./Hun ntenna P ngineer	:2018-08-09 :25/60 :VERTICAL :Jerry	:25/60 :VERTICAL		
100	100Level (dBuV/m)											
90	90										—	
80	80											
70												
60												
50	50 2											
40	40											
30												
20												
10												
0	0 <mark></mark> 1000 6100.		00	112	163	16300. 2140				26500		
1000 6100.						ency (MHz)		21	400.	2	20300	
Freq. Detector			Spectr		Factor		Actual		Limit	Margin		
MHz		Mode PK/QP/AV		Reading Level dBµV		dB		FS dBµV/m		@3m dBµV/m	dB	
									- p		-	
4924.00		Aver		39.86		0.97		40.83		54.00	-13.17	
492	24.00	Peak		48.73		0.97		49.70		74.00	-24.30	

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:2018-08-09 :25/60 :HORIZONTAL :Jerry
]
])0
Margin
dD
dB
-12.48
-22.64

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Operation Mode:802.11gTest DateTest Mode:Tx CH 12Temp./Humi.EUT Pol:E2 PlanAntenna Pol.Test Channel:2467 MHzEngineer	:2018-08-09 :25/60 :VERTICAL :Jerry
100 Level (dBuV/m)	
90	
80	
70	
60	
50 2	
40 40	
30	
20	
10	
0 <mark>. 11200. 16300. 21400. Frequency (MHz) 16300. 163000. 163000. 163000. 163000. 163000. 163000. 163000. 163000. 163000. 1630000. 1630000. 163000000000000000000000000000000000000</mark>	26500
Freq. Detector Spectrum Factor Actual Limi	5
ModeReading LevelFS@3rMHzPK/QP/AVdBµVdBdBµV/mdBµV	
4934.00 Average 37.55 1.05 38.60 54.0	15 40
4934.00Average37.551.0538.6054.04934.00Peak45.251.0546.3074.0	

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Test Mode:TxEUT Pol:E2			:802.11g :Tx CH 12 :E2 Plan :2467 MHz				est Date emp./Hum ntenna Po ngineer	:2018-08-09 :25/60 :HORIZONTAL :Jerry		
100 Level ((dBuV/m)									
	90									-
	80									-
70									_	
60	60									-
50	50 2									-
40										-
30										-
20										-
10										-
0 1000		6100. 11200.		200.	16300.		21	21400. 26		 500
1000 0100.				ncy (MHz)						
Freq.		etector	Spectr		Factor		Actual		Limit	Margin
MHz		/lode /QP/AV	Reading Level dBµV		dB		FS dBµV/m		@3m BµV/m	dB
101112			αDμ	•			<u>abµ (////</u>			30
4934.0	0 Av	/erage	38.53		1.05		39.58	Į	54.00	-14.42
4934.0		Peak	48.67		1.05		49.72	-	74.00	-24.28

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Operation Mod Test Mode EUT Pol Test Channel	:T :E :2	02.11g x CH 13 2 Plan 472 MHz		Test Date Temp./Humi. Antenna Pol. Engineer	Temp./Humi. Antenna Pol.					
100 Level (dBuV/	m)					7				
90						_				
80						_				
70						-				
60						-				
50	50 2					-				
40						-				
30						-				
20						-				
10						-				
0 1000 6100.		11200. Freque	16300. ency (MHz)	21400.	265	00				
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin				
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB				
4944.00 4944.00	Average Peak	35.02 42.83	1.12 1.12	36.14 43.95	54.00 74.00	-17.86 -30.05				

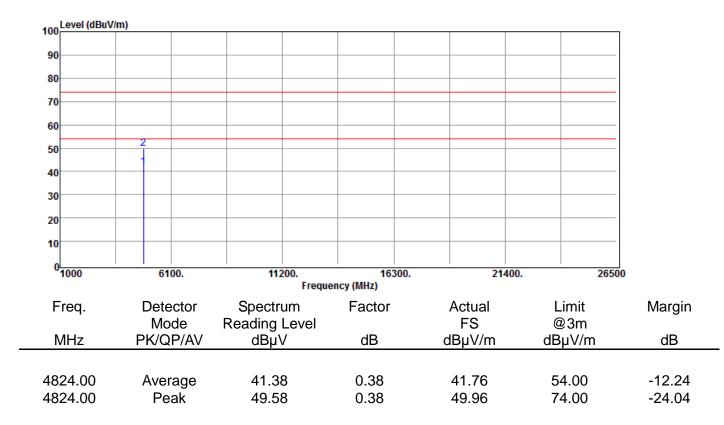
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Test Mode:Tx 0EUT Pol:E2 1			2.11g CH 13 Plan 72 MHz			T T E	:25/6	RIZONTAL				
100	evel (dBuV/m)										
	90											
	80									_		
70												
	60									_		
	50 <u>2</u>									_		
	40										_	
30											_	
20											_	
10											-	
0 <mark></mark> 1000 6100.		11:	200. Freque	16300. ency (MHz)		21400.		26500				
Fre	eq.	Dete		Spectr		Factor		Actual		Limit	Ν	largin
М	Hz	Mode PK/QP/AV		Reading dBµ ^v		dB		FS dBµV/m		@3m BµV/m		dB
	1 12			uрµ	v	uD		սերչյու	u			
4944.00		Aver	age	36.29		1.12		37.41		54.00	-'	16.59
494	4.00	Average Peak		44.58		1.12		45.70		74.00	-2	28.30

Radiated Spurious Emission Measurement Result (802.11n_HT20)

Operation Mode Test Mode	:802.11n20 :Tx CH Low	Test Date Temp./Humi.	:2018-08-09 :25/60
EUT Pol	:E2 Plan	Antenna Pol.	:VERTICAL
Test Channel	:2412 MHz	Engineer	:Jerry



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Test I EUT Test (Channel		:T) :E2	02.11n20 < CH Low 2 Plan 412 MHz			Test Date Temp./Hum Antenna Po Engineer		:2018-08-09 :25/60 :HORIZONTAL :Jerry		
10	Level (dBuV/i	m)									7
90	D										-
8	80									_	
7	70									-	
60									_		
5	50									-	
40	40								_		
30									_		
20											_
1											_
	0 <mark>6100.</mark>		11	200. Freque	16300. ency (MHz)		21400.		265	00	
I	Freq. Detector		Spectr		Factor		Actual		Limit	Margin	
		Mode PK/QP/AV		Reading		ЧD		FS dBu\//m		@3m	dB
	MHz F		F/AV	dBµ'	V	dB		dBµV/m	Cl	3μV/m	UD
48	4824.00 Ave		ade	43.2	7	0.38		43.65	Ę	54.00	-10.35
4824.00 4824.00		Average Peak		52.35		0.38		52.73		74.00	-21.27

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Test M EUT F	Operation Mode:802.11n20Yest Mode:Tx CH MidUT Pol:E2 PlanYest Channel:2437 MHz						:2018-08-09 :25/60 :VERTICAL :Jerry				
100	Level (dBuV/r	m)							1	-	
90											_
80											_
70											_
60											_
50		2									_
40											_
30											_
20											_
10											_
0	1000	6	100.	11:	200. Freque	163 ency (MHz)	300.	21	400.	265	500
F	req.		ector	Spectr		Factor		Actual		Limit	Margin
N	MHz		ode QP/AV	Reading dBµ`		dB		FS dBµV/m		@3m 3µV/m	dB
	74.00 74.00		erage eak	41.6 50.5		0.66 0.66		42.35 51.19		54.00 74.00	-11.65 -22.81
	4074.00 Feak			50.55					-		-

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Test M EUT P			:Tx :E2	2.11n20 CH Mid Plan 37 MHz			:2018-08-09 :25/60 :HORIZONTAL :Jerry				
100	Level (dBuV/m)									
90											
80											
70											
60											
50		2									
50 40		1									
40 30											
20											
10											
U,	1000	61	00.	11:	200. Freque	163 ncy (MHz)	300.	21	400.	2650	อีอ
F	req.	Dete Mo		Spectr Reading		Factor		Actual FS		₋imit ⊉3m	Margin
N	/Hz	PK/Q		dBµ		dB		dBµV/m		₽3m βµV/m	dB
40	74.00	A		40.0	-	0.00		44.00	_	4.00	0.07
	74.00 74.00	Aver Pe		43.6 52.7		0.66 0.66		44.33 53.43		4.00	-9.67 -20.57
40	14.00	10	Peak 52.77		1	0.00	0.66 53.43 74.00				-20.57

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Test Mode EUT Pol Test Chan	Test Mode:TxEUT Pol:E2Test Channel:24			02.11n20 x CH Higl 2 Plan 462 MHz	n			Test Date Temp./Hur Antenna P Engineer			:2018-08-09 :25/60 :VERTICAL :Jerry	
100 Level	(dBuV/m)											
90												
80												
70												
60												
50		2										
40												
30												
20												
10												
0 <mark>0</mark>		61	100.	1	11200.		300.	2	1400.	2	26500	
					Frequ	ency (MHz)						
Freq.			ector	Spec		Factor		Actual		Limit	Margin	
MHz			ode)P/AV	Reading dB		dB		FS dBµV/m		@3m dBµV/m	dB	
								•		•		-
4924.0			rage	42.		0.97		43.50		54.00	-10.50	
4924.0	00	5				0.97		51.25		74.00	-22.75	

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Test M EUT I Test (lode :T> Pol :E2 Channel :24			:Tx CH High :E2 Plan				Test Date Temp./Hum Antenna Po Engineer		:2018-08-09 :25/60 :HORIZONTAL :Jerry	
100	Level (dBuV/n	n)									
90)										_
80)										_
70)										-
60)	2									_
50)										_
40)										_
30											_
20											_
10											_
	1000	61	00.	11:	200. Freque	163 ncy (MHz)	600.	214	400.	265	500
F	req.	Dete	ector	Spectr	um	Factor		Actual		Limit	Margin
		Mo		Reading				FS		@3m	
	MHz	PK/Q	P/AV	dBµ'	V	dB		dBµV/m	d	BµV/m	dB
10	24.00	Δυσε		43.7	0	0.97		44.75		54.00	-9.25
	24.00 24.00	Aver Pe		43.7 53.7		0.97 0.97		44.75 54.67		54.00 74.00	-9.25 -19.33
		. 0	~~~	55.70		0.07		0			10.00

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Operation M Test Mode EUT Pol Test Channe	1	:802.11n20 :Tx CH 12 :E2 Plan :2467 MHz		Test Date Temp./Hun Antenna P Engineer		:2018-08-09 :25/60 :VERTICAL :Jerry
100Level (dB	uV/m)					
90						
80						
70						_
60						_
50	2					_
40	1					
30						_
20						
10						
0 <mark>0</mark>	6100.	. 112	200. 16	 i300. 21		5500
			Frequency (MHz)			
Freq.	Detect				Limit	Margin
MHz	Mode PK/QP/			FS dBµV/m	@3m dBµV/m	dB
		r		- F	- F	-
4934.00	Avera			39.40	54.00	-14.60
4934.00	Peak	K 46.88	8 1.05	47.93	74.00	-26.07

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Operat Test Me EUT Pe Test Ch	ol		:Tx (:E2	11n20 CH 12 Plan 7 MHz			:2018-08-09 :25/60 :HORIZONT :Jerry					
100	.evel (dBuV/m)									_	
90											_	
80											_	
70											_	
60											_	
50		2									-	
40		1									-	
30											-	
20											-	
10											-	
0_1	000	6100).	11:	200. Frequei	163 ncy (MHz)	300.	21	400.	265	500	
Fr	eq.	Detec		Spectr		Factor		Actual		Limit	Margin	
M	IHz	Mode PK/QP		Reading dBµ`		dB		FS dBµV/m		@3m BµV/m	dB	
493	84.00	Avera	ge	39.7	7	1.05		40.82	:	54.00	-13.18	
493	34.00	Peal	-	49.8	8	1.05		50.93		74.00	-23.07	

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Test M EUT P Test C	est Mode :Tx UT Pol :E2 est Channel :24				:802.11n20 :Tx CH 13 :E2 Plan :2472 MHz				Test Date Temp./Humi. Antenna Pol. Engineer				
100	Level (dBuV/n	n)											
90											_		
80											_		
70											_		
60											_		
50		2									_		
40		-									_		
30											_		
20											_		
10											-		
0	1000	6	100.	11:	200. Freque	163 ency (MHz)	300.	21	400.	265	500		
F	req.		ector	Spectr		Factor		Actual		Limit	Margin		
N	ЛНz		ode QP/AV	Reading dBµ		dB		FS dBµV/m		@3m BµV/m	dB		
					•					- /	10.07		
	44.00 44.00		erage eak	36.2 43.8		1.12 1.12		37.35 45.01		54.00 74.00	-16.65 -28.99		
-3-	4944.00 Peak			43.89		1.12		45.01		17.00	-20.00		

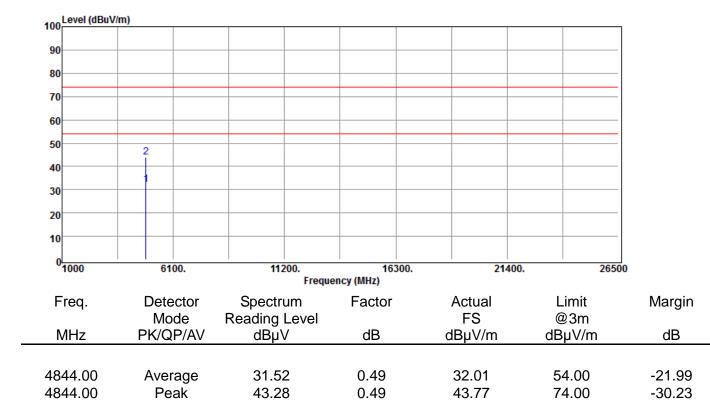
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Operatio Test Mo EUT Po Test Cha			:Tx (:E2	11n20 CH 13 Plan 2 MHz			:2018-08-09 :25/60 :HORIZONTAL :Jerry				
100	vel (dBuV/m)										_
90											
80								_			
70											
60											
50		2									
40											
30											
20											
10											
0 <mark></mark>	00	6100).	11:	200. Frequei	163 ncy (MHz)	300.	21	400.	265	00
Fre	eq.	Detec		Spectr		Factor		Actual		Limit	Margin
MF	Ηz	Mod PK/QP		Reading dBµ\		dB		FS dBµV/m		@3m 3µV/m	dB
4944	4.00	Avera	ge	37.5	5	1.12		38.67	5	54.00	-15.33
4944	4.00	Pea	-	46.5	7	1.12		47.69	7	74.00	-26.31

Radiated Spurious Emission Measurement Result (802.11n_HT40)

Operation Mode Test Mode	:802.11n40 :Tx CH Low	Test Date Temp./Humi.	:2018-08-09 :25/60
EUT Pol	:E2 Plan	Antenna Pol.	:VERTICAL
Test Channel	:2422 MHz	Engineer	:Jerry



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Test EUT Test	eration Mode Mode Pol Channel		:Tx CH :E2 Pla	Tx CH Low E2 Plan				Test Date Temp./Humi. Antenna Pol. Engineer				
1	00 Level (dBuV	/m)								1		
	90											
	80											
	70											
	60											
	50	2										
	40	Ĩ										
	30											
	20											
	10											
	0 ^L 1000	6100	•	11200. Freque	163 ency (MHz)	00.	214	400.	265	_ 00		
	Freq.	Detect		Spectrum	Factor		Actual		imit.	Margin		
	N 41 I	Mode		ading Level	dD		FS		23m	dD		
	MHz	PK/QP/	AV	dBµV	dB	C	lBµV/m	dB	µV/m	dB		
	1844.00	Avera	ne	33.17	0.49		33.66	5.	4.00	-20.34		
	1844.00	Peal		45.70	0.49		46.19		4.00	-27.81		

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Operation Mo Test Mode EUT Pol Test Channel	ר: E:	802.11n40 Fx CH Mid E2 Plan 2437 MHz		:2018-08-09 :25/60 :VERTICAL :Jerry		
100 Level (dBu	iV/m)		1			7
90						_
80						_
70						-
60						-
50	2					-
40						-
30						-
20						-
10						-
0 <mark></mark>	<mark>6100.</mark>	11200. Freque	16300. ency (MHz)	21400	. 265	500
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
4874.00 4874.00	Average Peak	38.02 47.83	0.66 0.66	38.68 48.49	54.00 74.00	-15.32 -25.51

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Test M EUT P			:Tx (:E2	11n40 CH Mid Plan 7 MHz			:2018-08-09 :25/60 :HORIZONTAL :Jerry				
100 ^L	Level (dBuV/m)									_
90											
80											
70											
60											
50		2									
50 40		-									_
40 30											
20											
10											
0	1000	6100).	11:	200. Frequei	163 ncy (MHz)	300.	21	400.	265	ดีด
F	req.	Detect		Spectr		Factor		Actual		_imit	Margin
N	41.1-	Mode		Reading		٩D		FS		@3m	dD
IV	1Hz	PK/QP	/AV	dBh	V	dB		dBµV/m	Œ	3µV/m	dB
487	74.00	Avera	ae	39.2	6	0.66		39.92	5	54.00	-14.08
	74.00	Peal	-	49.2		0.66		49.89		4.00	-24.11

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Operation Moo Test Mode EUT Pol Test Channel	:T: :E :24	02.11n40 x CH High 2 Plan 452 MHz		Test Date Temp./Humi. Antenna Pol. Engineer		:2018-08-09 :25/60 :VERTICAL :Jerry
100 Level (dBuV	/m)					7
90						-
80						_
70						-
60						_
50	2					-
40	Ī					_
30						_
20						_
10						_
0 <mark></mark>	6100.	11200.	16300.	2140	0. 265	
			ency (MHz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
				• p	p	
4904.00	Average	31.69	0.84	32.53	54.00	-21.47
4904.00	Peak	43.51	0.84	44.35	74.00	-29.65

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Test N EUT I Test C	Pol Channel		:T) :E2	02.11n40 < CH High 2 Plan 152 MHz				Test Date Temp./Hum Antenna Po Engineer			:2018-08-09 :25/60 :HORIZONTAL :Jerry
100	Level (dBuV/r	n)									7
90											_
80											_
70											_
60											_
50		2									_ _
40		_									_
30											_
20											_
10											_
C	1000	61	00	11:	200.	163	600.	21/	400.	264	500
						ncy (MHz)		2.		200	
F	req.	Dete		Spectr		Factor		Actual		Limit	Margin
ſ	MHz	Mo PK/Q		Reading dBµ ^v		dB		FS dBµV/m		@3m BµV/m	dB
· · ·					-			Pr. 1, 11		- P ,	
49	04.00	Aver	age	33.2	8	0.84		34.12		54.00	-19.88
49	04.00	Pe	ak	45.7	2	0.84		46.56		74.00	-27.44

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Operatic Test Moo EUT Pol Test Cha	de I		:T: :E:	02.11n40 x CH 10 2 Plan 457 MHz				Fest Date Femp./Hum Antenna Po Engineer			:2018-08-09 :25/60 :VERTICAL :Jerry
100	vel (dBuV/m)		1		1				1	1	7
90											_
80											_
70											-
60											-
50		2									-
40		1									-
30		1									-
20											-
10											-
0 <mark></mark>	00	61	100.	11:	200. Freque	163 ency (MHz)	300.	21	400.	265	500
Fre	q.		ector	Spectr		Factor		Actual		_imit	Margin
MH	z		ode P/AV	Reading dBµ`		dB		FS dBµV/m		@3m 3µV/m	dB
4914	.00	Ave	rage	30.1	0	0.91		31.01	5	64.00	-22.99
4914	.00	Pe	eak	42.1	3	0.91		43.04	7	4.00	-30.96

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Operation Mode:802.11n40Test DateTest Mode:Tx CH 10Temp./Humi.EUT Pol:E2 PlanAntenna Pol.Test Channel:2457 MHzEngineer	:2018-08-09 :25/60 :HORIZONTAL :Jerry
100 Level (dBuV/m)	
90	_
80	_
70	-
60	_
50 2	—
40 1	_
30 30 30 30 30 30 30 30 30 30 30 30 30 3	_
20 20 20 20 20 20 20 20 20 20 20 20 20 2	_
10 10 10 10 10 10 10 10 10 10 10 10 10 1	_
0 1000 6100. 11200. 16300. 21400. 26	
1000 6100. 11200. 16300. 21400. 26 Frequency (MHz)	500
Freq. Detector Spectrum Factor Actual Limit	Margin
Mode Reading Level FS @3m	
MHz PK/QP/AV dBµV dB dBµV/m dBµV/m	dB
4914.00 Average 32.05 0.91 32.96 54.00	-21.04
4914.00Average32.050.9132.9654.004914.00Peak43.870.9144.7874.00	-29.22

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Test M EUT P		9	:T: :E:	02.11n40 x CH 11 2 Plan 462 MHz			T A	est Date emp./Hum ntenna Po ngineer			:2018-08-09 :25/60 :VERTICAL :Jerry
100	Level (dBuV/n	1)	1		1				1		-
90											_
80											_
70											_
60											_
50											_
40		2									_
30		-									_
20											_
10											_
0	1000	61	00.	11:	200. Freque	163 ency (MHz)	300.	21	400.	265	500
F	req.		ector	Spectr		Factor		Actual		Limit	Margin
N	/IHz		ode P/AV	Reading dBµ		dB		FS dBµV/m		@3m BµV/m	dB
492	24.00	Ave	rage	28.7	0	0.97		29.67	ļ	54.00	-24.33
	24.00		eak	38.6		0.97		39.64		74.00	-34.36

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Test M EUT P)	:Tx :E2	2.11n40 CH 11 Plan 32 MHz			T A	est Date emp./Hum ntenna Po ngineer			:2018-08-09 :25/60 :HORIZONTAI :Jerry	L
100 ¹	Level (dBuV/m)									_	
90												
80											-	
70											-	
60											-	
-											-	
50		2									-	
40											-	
30											-	
20											-	
10											-	
0	1000	610	0.	11:	200. Freque	163 ncy (MHz)	300.	21	400.	265	 00	
F	req.	Detec		Spectr		Factor		Actual		Limit	Margin	
N	/Hz	Moc PK/QF	-	Reading dBµ		dB		FS dBµV/m		@3m BµV/m	dB	
	/11 1 Z			αвμ	v				u			•
492	24.00	Avera	age	29.0	2	0.97		29.99	!	54.00	-24.01	
492	24.00	Pea		39.2	6	0.97		40.23	-	74.00	-33.77	



12 PEAK POWER SPECTRAL DENSITY

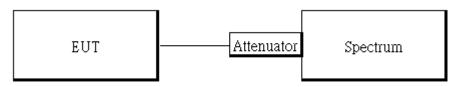
12.1 Standard Applicable

The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

12.2Measurement Equipment Used

Conducted Emission Test Site								
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.			
Spectrum Analyzer	Agilent	N9010A	MY51440113	2018/06/20	2019/06/19			
Attenuator	Marvelous	MVE2213-10	RF30	2017/12/26	2018/12/25			
DC Block	PASTERNACK	PE8210	RF29	2017/12/26	2018/12/25			
Notebook	Lenovo	L420	S0011721	N/A	N/A			

12.3Test Set-up



12.4Measurement Procedure

- 1. Set analyzer center frequency to DTS channel center frequency.
- 2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
- 3. Set the span to 1.5 times the DTS channel bandwidth.
- 4. Set the RBW = 3 kHz. & the VBW = 10 kHz
- For defining Restricted Band Edge Limit:

Set the RBW = 100kHz & VBW = 300 kHz.

- 6. Detector = peak.
- 7. Sweep time = auto couple.
- 8. Trace mode = max hold.
- 9. Allow trace to fully stabilize.
- 10. Use the peak marker function to determine the maximum amplitude level.
- 11.802.11n MIMO mode: offset is set following "measure and add 10 Log (N)" on spectrum to measure the PSD for MIMO mode. Offset = cable loss + 10 log (N), where N is number of transmitting antenna. N=2 for this given application for the test of PSD at MIMO mode, the highest emission of worst case is employing.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Frequency (MHz)	Effective Legacy Gain (dBi)	PSD Limit (dBm)
2412~2462	4.80	8

12.5Test Results:

POWER DENSITY 802.11b							
Freq.	PPSD	Limit	Result				
(MHz)	(dBm)	(dBm)	Result				
2412	-5.064	8.00	PASS				
2437	-5.356	8.00	PASS				
2462	-4.817	8.00	PASS				
2467	-4.884	8.00	PASS				
2472	-5.029	8.00	PASS				

POWER DENSITY 802.11g							
Freq.	PPSD	Limit	Result				
(MHz)	(dBm)	(dBm)	Result				
2412	-8.159	8.00	PASS				
2437	-7.843	8.00	PASS				
2462	-10.902	8.00	PASS				

POWER DENSITY 802.11n HT20								
Freq.	PPSD	Limit	Result					
(MHz)	(dBm)	(dBm)	Result					
2412	-10.080	8.00	PASS					
2437	-9.646	8.00	PASS					
2462	-9.765	8.00	PASS					

POWER DENSITY 802.11n HT40								
Freq.	PPSD	Limit	Result					
(MHz)	(dBm)	(dBm)						
2422	-12.821	8.00	PASS					
2437	-11.862	8.00	PASS					
2452	-17.597	8.00	PASS					
offset 10.60 dB for SISO mode								

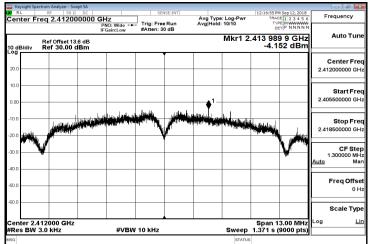
offset	13.60	dB for MIMO mode

*Refer to next page for plots

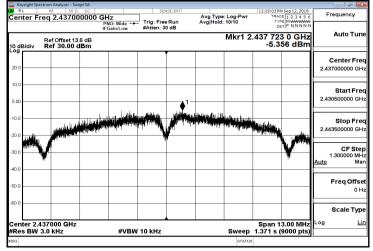


802.11b

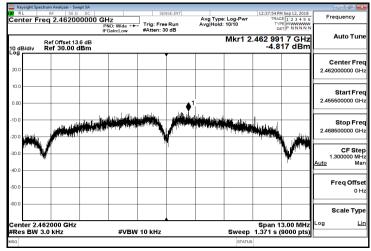
Power Spectral Density Test Plot (CH-Low)



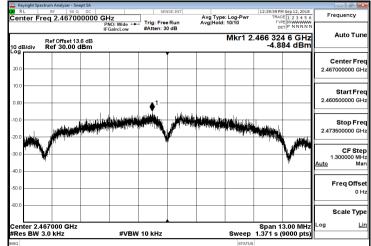
Power Spectral Density Test Plot (CH-Mid)



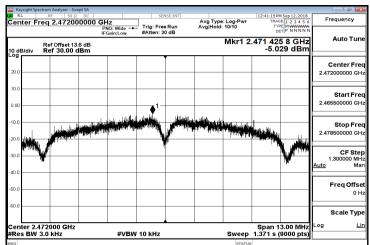
Power Spectral Density Test Plot (CH-High)



Power Spectral Density Test Plot (CH-High) 2467MHz



Power Spectral Density Test Plot (CH-High) 2472 MHz



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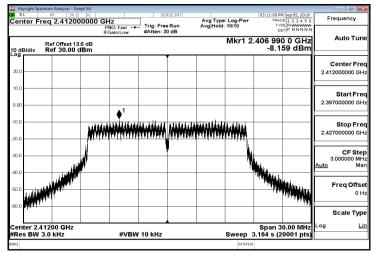
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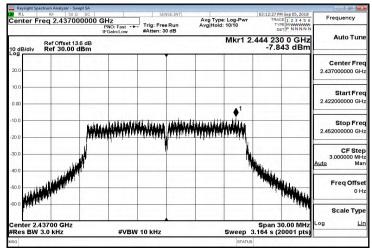


802.11g

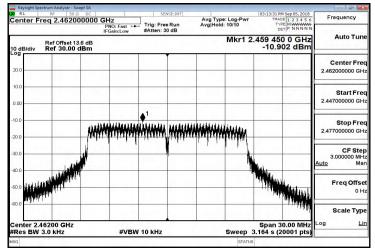
Power Spectral Density Test Plot (CH-Low)



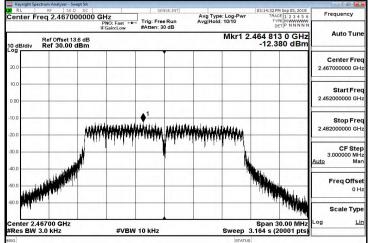
Power Spectral Density Test Plot (CH-Mid)



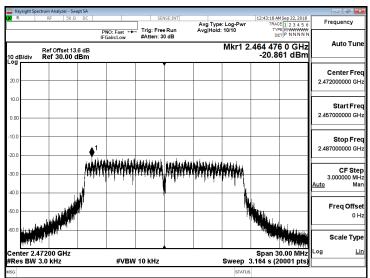
Power Spectral Density Test Plot (CH-High)



Power Spectral Density Test Plot (CH-High) 2467MHz



Power Spectral Density Test Plot (CH-High) 2472MHz



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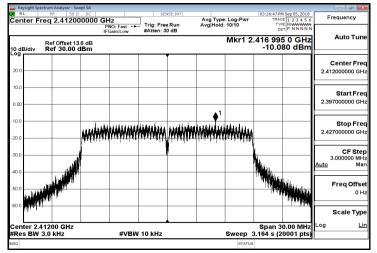
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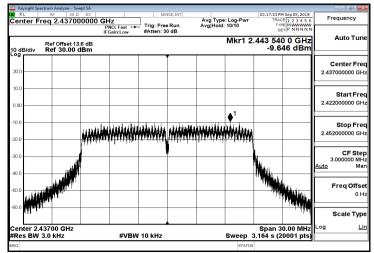


802.11n HT20

Power Spectral Density Test Plot (CH-Low)



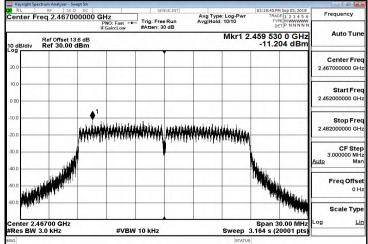
Power Spectral Density Test Plot (CH-Mid)



Power Spectral Density Test Plot (CH-High)

Keysight Spectrum Analyzer	- Swept SA 50 Ω DC	SENSE:INT			ο ω ^ι ×
Center Freq 2.462		Trig: Free Run	Avg Type: Log-Pwr Avg Hold: 10/10	03:18:53 PM Sep 05, 2018 TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N N	Frequency
Ref Offset 10 dB/div Ref 30.0	IFGain:Low	#Atten: 30 dB	Mkr1 2	.455 733 0 GHz -9.765 dBm	Auto Tun
20.0					Center Fre 2.462000000 GH
0.00					Start Fre 2.447000000 GH
20.0			*****		Stop Fr 2.477000000 GI
30.0					CF Sto 3.000000 M Auto M
40.0 50.0	hu.				Freq Offs 0
60.0 4000 GH				Span 30.00 MHz	Scale Tyr Log <u>L</u>
Res BW 3.0 kHz	#VBW	10 KHZ	Sweep	3.164 s (20001 pts)	

Power Spectral Density Test Plot (CH-High) 2467MHz



Power Spectral Density Test Plot (CH-High) 2472MHz

	ectrum Analyzer - Sw									
R	RF 50 Ω]	Run	Avg Type Avg Hold:	Log-Pwr	TRACE	E 1 2 3 4 5 6	Frequency
0 dB/div	Ref Offset 13 Ref 30.00 c	IFO	NO: Fast ++ Gain:Low	#Atten: 3		, rightera		DE 2.469 543	T P N N N N N	Auto Tu
20.0										Center F 2.472000000
0.00										Start F 2.457000000
0.0				♦ ¹						Stop F 2.487000000 (
D.O					MMMM	***	MANNA			CF S 3.000000 P Auto
0.0					1					Freq Off
enter 2	47200 GHz							Span 3	Managan Managan 0.00 MHz	Scale Ty
Res BW			#VBW	10 kHz			Sweep	3.164 s (20		
SG							STATL	JS		

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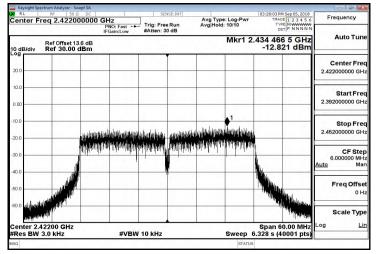
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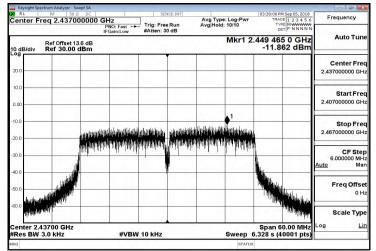


802.11n HT40

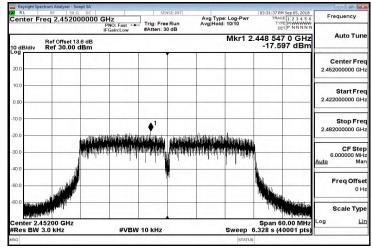
Power Spectral Density Test Plot (CH-Low)



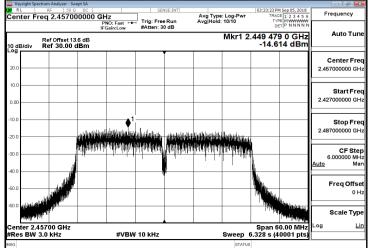
Power Spectral Density Test Plot (CH-Mid)



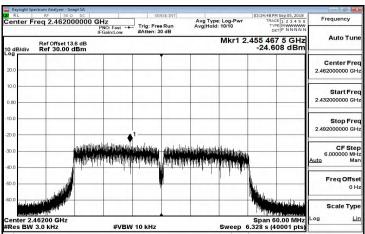
Power Spectral Density Test Plot (CH-High)



Power Spectral Density Test Plot (CH-High) 2457MHz



Power Spectral Density Test Plot (CH-High) 2462MHz



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13 ANTENNA REQUIREMENT

13.1 Standard Applicable

For intentional device, according to §15.203, an intentional radiator shall be designed to ensure that no antenna other than furnished by the responsible party shall be used with the device.

13.2Antenna Connected Construction

The antenna is designed with unique type RF connector and no consideration of replacement. Please see EUT photo for details.

The antenna gain is less than 6dBi. Therefore, it is not necessary to reduce maximum output power limit.

~ End of Report ~

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