TEST REPORT

	DIA C		DT&C Co., l	_td.		
U	Dt&C	42, Yurim-ro, 154Beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea, 17042 Tel : 031-321-2664, Fax : 031-321-1664				
1. Report	No: DRTFCC1907-021	3				
2. Custom	er					
• Name	: Home Tech Innovation	, Inc.				
• Addre	ss : 1035 Cambridge St,	Suite 11A, Camb	ridge, MA 02141			
3. Use of F	Report : FCC Original Gra	ant				
4. Product	Name / Model Name : S	uvie Cooking Rot	oot / Suvie			
FCC ID	: 2AT2K-SUVIE01					
5. Test Me	thod Used : KDB558074	D01v05r02, ANS	I C63.10-2013			
Test Spe	ecification : FCC Part 15	Subpart C.247				
6. Date of	Test : 2019.07.04 ~ 2019).07.15				
7. Testing	Environment : See apper	nded test report.				
8. Test Re	sult : Refer to the attache	ed test result.				
Affirmation	Tested by		Reviewed by	And		
	Name : Woohyun Lim	M	Name : Geunki Son	(Signature)		
	ults presented in this test re					
the use of th	is test report is inhibited oth	her than its purpose	 This test report shall no 	ot be reproduced		

2019.07.26.

except in full, without the written approval of DT&C Co., Ltd.

DT&C Co., Ltd.

If this report is required to confirmation of authenticity, please contact to report@dtnc.net

Test Report Version

Test Report No.	Date	Description
DRTFCC1907-0213	Jul. 26, 2019	Initial issue

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1. EUT DESCRIPTION

FCC Equipment Class	Digital Transmission System(DTS)
Product	Suvie Cooking Robot
Model Name	Suvie
Add Model Name	SUVIE01
Power Supply	AC 120 V
Frequency Range	▪ 802.11b/g/n : 2412 MHz ~ 2462 MHz
Max. RF Output Power	2.4GHz Band • 802.11b : 14.26 dBm • 802.11g : 19.77 dBm • 802.11n (HT20) : 19.38 dBm
Modulation Type	• 802.11b: CCK, DSSS • 802.11g/n: OFDM
Antenna Specification	Antenna type: Internal monopole antenna Antenna gain: 3.03 dBi

2. INFORMATION ABOUT TESTING

2.1 Test mode

Test mode	Worst case data rate	Tested Frequency(MHz)					
802.11b	802.11b 11 Mbps		2437	2462			
802.11g	48 Mbps	2412	2437	2462			
802.11n	MCS 2	2412	2437	2462			

Note 1: The worst case data rate is determined as above test mode according to the power measurements. Note 2: The power measurement results for all modes and data rate were reported.

2.2 Auxiliary equipment

Equipment	Model No. Serial No. M		Manufacturer	Note
-			-	-
-			-	-

2.3 Tested environment

Temperature	: 20 ~ 25 °C
Relative humidity content	: 40 ~ 45 %
Details of power supply	: AC 120 V

2.4 EMI suppression Device(s) / Modifications

EMI suppression device(s) added and/or modifications made during testing \rightarrow None

2.5 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with requirements of ANSI C63.4-2014 and ANSI C63.10-2013. All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95 % level of confidence.

Test items	Measurement uncertainty
Transmitter Output Power	0.7 dB (The confidence level is about 95 %, $k = 2$)
Conducted spurious emission	0.9 dB (The confidence level is about 95 %, $k = 2$)
AC conducted emission	2.4 dB (The confidence level is about 95 %, k=2)
Radiated spurious emission (1 GHz Below)	5.1 dB (The confidence level is about 95 %, $k = 2$)
Radiated spurious emission (1 GHz ~ 18 GHz)	5.4 dB (The confidence level is about 95 %, $k = 2$)
Radiated spurious emission (18 GHz Above)	5.3 dB (The confidence level is about 95 %, $k = 2$)

3. SUMMARY OF TESTS

FCC Part Section(s)	Parameter	Limit	Test Condition	Status Note 1			
15.247(a)	6 dB Bandwidth	> 500 kHz		С			
15.247(b)	Transmitter Output Power	< 1 Watt		С			
15.247(d)	Out of Band Emissions / Band Edge	20 dBc in any 100 kHz BW	Conducted	С			
15.247(e)	Transmitter Power Spectral Density	< 8 dBm/3 kHz		С			
-	RSS-Gen [6.7]	Occupied Bandwidth (99 %)		NA			
15.247(d) 15.205 15.209	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	FCC 15.209 limits	Radiated	C Note 3			
15.207	AC Line Conducted Emissions	FCC 15.207 limits	AC Line Conducted	С			
15.203	Antenna Requirements	FCC 15.203	-	С			
Note 1: C=Comply NC=Not Comply NT=Not Tested NA=Not Applicable Note 2: For radiated emission tests below 30 MHz were performed on semi-anechoic chamber which is correlated with OATS. Note 3: This test item was performed in X axis.							



4. TEST METHODOLOGY

The measurement procedures described in the ANSI C63.10-2013 and the guidance provided in KDB558074 D01v05r02 were used in measurement of the EUT.

The EUT was tested per the guidance of KDB558074 D01v05r02. And ANSI C63.10-2013 was used to reference appropriate EUT setup and maximizing procedures of radiated spurious emission and AC line conducted emission testing.

4.1 EUT configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

4.2 EUT exercise

The EUT was operated in the test mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

4.3 General test procedures

Conducted Emissions

The power-line conducted emission test procedure is not described on the KDB558074 D01v05r02.

So this test was fulfilled with the requirements in Section 6.2 of ANSI C63.10-2013.

The EUT is placed on the wooden table, which is 0.8 m above ground plane and the conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-peak and Average detector

Radiated Emissions

Basically the radiated tests were performed with KDB558074 D01v05r02. But some requirements and procedures like test site requirements, EUT setup and maximizing procedure were fulfilled with the requirements in Section 5 and 6 of the ANSI C63.10-2013.

The EUT is placed on a non-conductive table. For emission measurements at or below 1 GHz, the table height is 80 cm. For emission measurements above 1 GHz, the table height is 1.5 m. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the highest emission.

4.4 Description of test modes

The EUT has been tested with all modes of operating conditions to determine the worst case emission characteristics. A test program is used to control the EUT for staying in continuous transmitting mode.



5. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

6. FACILITIES AND ACCREDITATIONS

6.1 Facilities

DT&C Co., Ltd.

The 3 m test site and conducted measurement facility used to collect the radiated data are located at the 42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 17042. The test site complies with the requirements of § 2.948 according to ANSI C63.4-2014.

- FCC MRA Accredited Test Firm No. : KR0034

www.dtnc.net						
Telephone	:	+ 82-31-321-2664				
FAX	:	+ 82-31-321-1664				

6.2 Equipment

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, loop, horn. Spectrum analyzers with pre-selectors and peak, quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

7. ANTENNA REQUIREMENTS

7.1 According to FCC 47 CFR §15.203

An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

The antenna is permanently attached to connector using a strong adhesive. Therefore this E.U.T Complies with the requirement of §15.203

8. TEST RESULT

8.1 6dB bandwidth

Test Requirements and limit, §15.247(a)

The bandwidth at 6 dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the receive antenna while the EUT is operating in transmission mode at the appropriate frequencies.

The minimum permissible 6 dB bandwidth is 500 kHz.

Test Configuration:

Refer to the APPENDIX I.

Test Procedure:

- KDB558074 D01v05r02 Section 8.2
- ANSI C63.10-2013 Section 11.8.2
- 1. Set resolution bandwidth (RBW) = 100 kHz.
- 2. Set the video bandwidth (VBW) \geq 3 x RBW.
- (RBW : 100 kHz / VBW : 300 kHz)
- 3. Detector = **Peak**.
- 4. Trace mode = **Max hold**.
- 5. Sweep = Auto couple.
- 6. Allow the trace to stabilize.
- 7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Test Mode	Frequency	Test Results[MHz]		
	2412	7.35		
802.11b	2437	8.28		
	2462	8.08		
	2412	15.17		
802.11g	2437	16.04		
	2462	15.44		
	2412	15.15		
802.11n	2437	15.17		
	2462	15.74		

Test Results: Comply



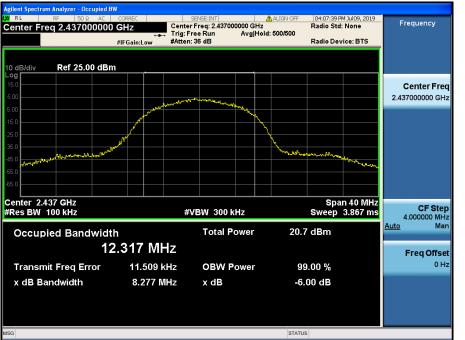
RESULT PLOTS

6 dB Bandwidth



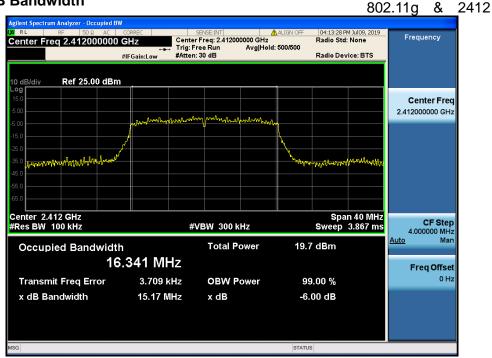
6 dB Bandwidth

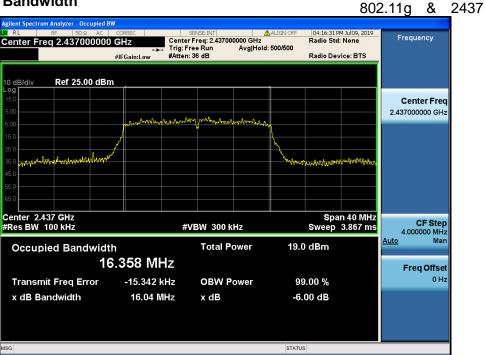
802.11b & 2437

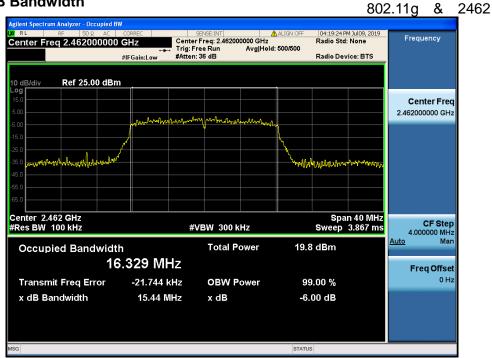


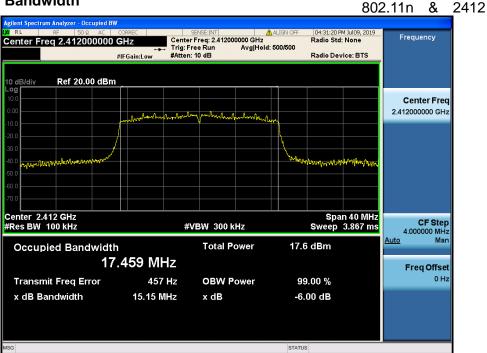


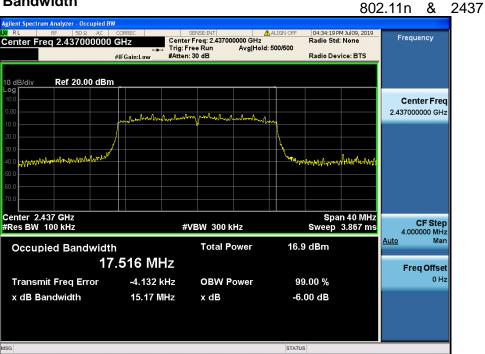
Dt&C

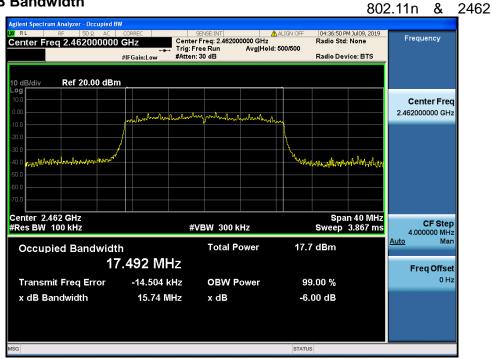










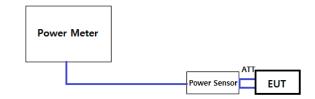


8.2 Maximum peak conducted output power

Test Requirements and limit, §15.247(b)

The maximum permissible conducted output power is 1 Watt.

Test Configuration



Test Procedure

- KDB558074 D01v05r02 Section 8.3.1.3
- ANSI C63.10-2013 Section 11.9.1.3

PKPM1 Peak power meter method

- 1. The maximum conducted output powers were measured using a broadband peak RF power meter which has greater video bandwidth than DUT's DTS bandwidth and utilize a fast-responding diode detector.
- KDB558074 D01v05r02 Section 8.3.2.3
- ANSI C63.10-2013 Section 11.9.2.3.2

Method AVGPM-G

 The average conducted output powers were measured using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since this measurement is made only during the ON time of the transmitter, no duty cycle correction is required.



Test Results: Comply

Freq. (MHz)			Maxim	mum Peak Conducted Output Power (dBm) for <u>802.11b</u>					
	Det.				Data Rat	e [Mbps]			
		1	2	5.5	11	-	-	-	-
2412	PK	13.51	13.55	13.19	13.58	-	-	-	-
	AV	10.11	10.31	10.43	10.52	-	-	-	-
2437	PK	13.70	13.71	13.74	14.26	-	-	-	-
2437	AV	10.27	10.72	10.51	10.80	-	-	-	-
2462	PK	13.72	13.78	13.83	13.85	-	-	-	-
	AV	10.55	10.70	10.84	10.76	-	-	-	-

F ree or			Maxim	um Peak Co	nducted Ou	tput Power	(dBm) for <u>8</u>	02.11g				
Freq. (MHz)	Det.	Data Rate [Mbps]										
		6	9	12	18	24	36	48	54			
2412	PK	19.14	19.39	19.23	19.76	19.13	19.77	18.19	18.39			
2412	AV	9.50	9.47	9.70	10.22	9.75	9.72	7.81	7.86			
2437	PK	19.60	19.66	19.69	19.34	19.71	19.73	19.28	19.23			
2437	AV	10.57	10.48	10.63	9.92	10.60	10.59	8.78	8.69			
2462	PK	19.23	19.44	19.45	19.01	19.39	19.57	17.86	18.14			
2402	AV	10.05	9.99	9.97	9.83	10.03	9.95	8.68	8.56			

Free		Maximum Peak Conducted Output Power (dBm) for <u>802.11n(HT20)</u>											
Freq. (MHz)	Det.	Data Rate [MCS]											
		0	1	2	3	4	5	6	7				
2442	PK	18.24	18.45	18.11	17.93	17.34	16.69	17.85	16.45				
2412	AV	8.40	7.53	7.66	8.23	7.87	7.74	7.91	6.58				
2437	PK	19.13	19.38	18.92	19.23	19.20	19.37	19.29	18.69				
2437	AV	8.41	8.30	8.34	8.59	8.44	8.44	8.29	7.10				
2462	PK	19.25	19.30	18.33	18.38	19.27	17.75	18.26	17.36				
2402	AV	8.87	8.33	8.39	8.61	8.77	8.29	8.32	7.15				



8.3 Maximum power spectral density

Test requirements and limit, §15.247(e)

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

Test Configuration:

Refer to the APPENDIX I.

Test Procedure

- KDB558074 D01v05r02 Section 8.4
- ANSI C63.10-2013 Section 11.10.2

Method PKPSD (peak PSD)

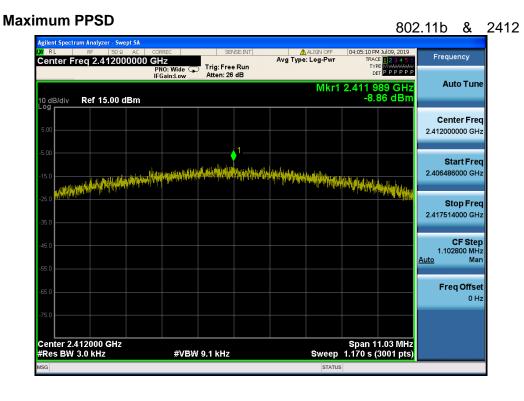
- 1. Set analyzer center frequency to DTS channel center frequency.
- 2. Set the span to **1.5 times** the DTS bandwidth.
- 3. Set the RBW to : 3 kHz \leq RBW \leq 100 kHz
- 4. Set the VBW \ge 3 x RBW
- 5. Detector = Peak
- 6. Sweep time = **Auto couple**
- 7. Trace mode = **Max hold.**
- 8. Allow trace to fully stabilize.
- 9. Use the **peak marker function** to determine the maximum amplitude level within the RBW.

10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

Test Mode	Frequency	RBW	PKPSD [dBm]
	2412	3 kHz	-8.86
802.11b	2437	3 kHz	-10.48
	2462	3 kHz	-9.75
	2412	3 kHz	-12.45
802.11g	2437	3 kHz	-12.61
	2462	3 kHz	-12.60
	2412	3 kHz	-11.78
802.11n	2437	3 kHz	-15.35
	2462	3 kHz	-14.59

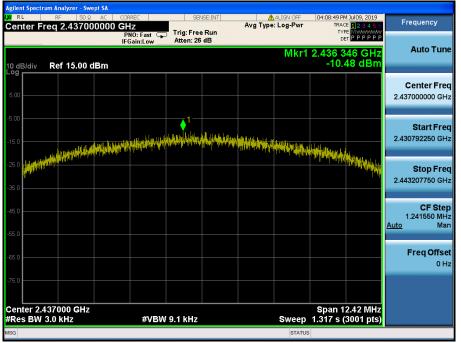
Test Results: Comply

RESULT PLOTS



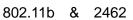
Maximum PPSD

802.11b & 2437



TDt&C

Maximum PPSD





TDt&C

Maximum PPSD



Maximum PPSD

802.11g & 2437 m Analyz F Frequency Avg Type: Log-Pwr Center Freq 2.437000000 GHz PNO: Fast Trig: Free Run IFGain:Low Atten: 26 dB Auto Tune Mkr1 2.438 259 GH -12.61 dBm 10 dB/div Ref 15.00 dBm **Center Freq** 2.437000000 GHz MANANAMANANA MANANAMANANANA Start Freq 2.424967750 GHz Stop Freq 2.449032250 GHz CF Step 2.406450 MHz Man WWW WWW <u>Auto</u> **Freq Offset** 0 Hz Center 2.43700 GHz #Res BW 3.0 kHz Span 24.06 MHz Sweep 2.553 s (3001 pts) #VBW 9.1 kHz

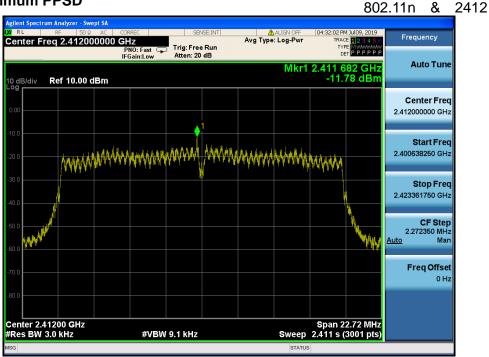
TDt&C

Maximum PPSD



Dt&C

Maximum PPSD



Maximum PPSD

<u>802.11n & 2437</u>



Dt&C

Maximum PPSD





8.4 Out of band emissions at the band edge / conducted spurious emissions

Test requirements and limit, §15.247(d)

§15.247(d) specifies that in any 100 kHz bandwidth outside of the authorized frequency band, the power shall be attenuated according to the following conditions:

If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to **15.247(b)(3)** requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.

If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to **15.247(b)(3)** requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in band average PSD level. In either case, attenuation to levels below the general emission limits specified in §15.209(a) is not required.

Test Configuration:

Refer to the APPENDIX I.

Test Procedure

- KDB558074 D01v05r02 Section 8.5
- ANSI C63.10-2013 Section 11.11

- Reference level measurement

1. Set instrument center frequency to DTS channel center frequency.

- 2. Set the span to \geq 1.5 times the DTS bandwidth.
- 3. Set the $\overrightarrow{RBW} = 100 \text{ kHz}$.
- 4. Set the VBW \geq 3 x RBW.
- 5. Detector = Peak.
- 6. Sweep time = Auto couple.
- 7. Trace mode = Max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum PSD level.

- Emission level measurement

- 1. Set the center frequency and span to encompass frequency range to be measured.
- 2. Set the RBW = 100 kHz. (Actual 1 MHz, See below note)
- 3. Set the VBW ≥ 3 x RBW. (Actual 3 MHz, See below note)
- 4. Detector = **Peak**.
- 5. Ensure that the number of measurement points \geq Span / RBW.
- 6. Sweep time = **Auto couple.**
- 7. Trace mode = **Max hold.**
- 8. Allow the trace to stabilize. (this may take some time, depending on the extent of the span)
- 9. Use the peak marker function to determine the maximum amplitude level.

Note: The conducted spurious emission was tested with below settings. Frequency range: 9 kHz ~ 30 MHz RBW = 100 kHz, VBW = 300 kHz, SWEEP TIME = AUTO, DETECTOR = PEAK, TRACE = MAX HOLD, SWEEP POINT: 40001

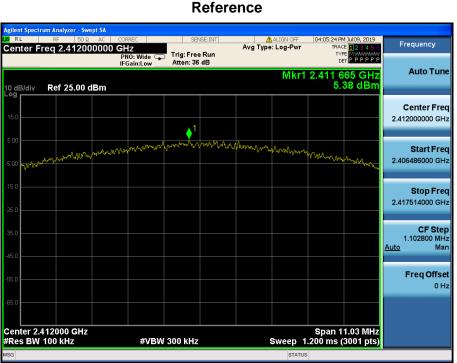
Frequency range: 30 MHz ~ 10 GHz, 10 GHz ~25 GHz RBW = 1 MHz, VBW = 3 MHz, SWEEP TIME = AUTO, DETECTOR = PEAK, TRACE = MAX HOLD, SWEEP POINT: 40001

LIMIT LINE = 20 dB below of the reference level of above measurement procedure Step 2. (RBW = 100 kHz, VBW = 300 kHz)

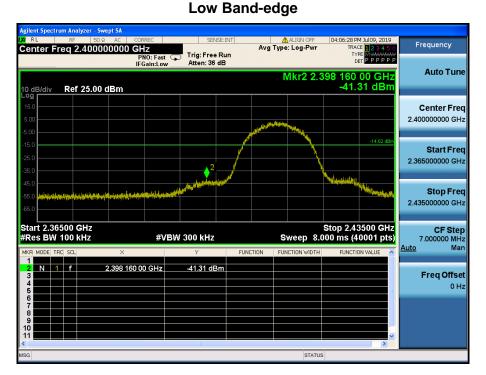
If the emission level with above setting was close to the limit (ie, less than 3 dB margin) then zoom scan is required using RBW = 100 kHz, VBW = 300 kHz, SPAN = 100 MHz and BINS = 2001 to get accurate emission level within 100 kHz BW.

RESULT PLOTS

802.11b & 2412



. . . .



Agilent Spectrum	RF 50 Ω 🧥	DC CORREC			Avg Type	ALIGN OFF	TRAC	M JULO9, 2019 2E 1 2 3 4 5 6	Frequency
10 dB/div	Ref 25.00 dl	PNO: Fast IFGain:Low	Atten: 36				/kr1 28	1.9 kHz 01 dBm	Auto Tune
Log 15.0 5.00									Center Freq 15.004500 MHz
-15.0 -25.0 -35.0								-14.62 dBm	Start Freq 9.000 kHz
-45.0 -55.0 -65.0	phone of a state of the state of the states	el hit flogffa gaar oo galad gaagalka ku	htter Water and and and and and	adaulatika takata kata	hertrajud betteling	when and the second second	مۇنىرىلىلىلەر مەنە	h n ation in the second s	Stop Freq 30.000000 MHz
Start 9 kHz #Res BW 10	SCL	#VI × 281.9 kHz	3W 300 kHz -51.01 dB	FUNCTIO		weep 5.3	33 ms (4	0.00 MHz 0001 pts) IN VALUE	CF Step 2.999100 MHz <u>Auto</u> Man
									Freq Offset 0 Hz
7 8 9 10 11									
MSG						STATUS	上 DC Cou		

	m Analyzer - Swep									
Center Fre	RF 50 Ω eq 5.015000				SE:INT		ALIGN OFF e: Log-Pwr	TRAG	M Jul 09, 2019 CE <mark>1 2 3 4 5 6</mark>	Frequency
		PI	lO:Fast 🗔 Jain:Low	Trig: Free Atten: 36				TY D	PE MWWWWWW ET P P P P P P	
			Jameow				Mkr	5 5 869	93 GHz	Auto Tune
	Ref 25.00 dl	Bm							73 dBm	
Log 15.0		1								Our terr From
5.00		-Y								Center Freq 5.015000000 GHz
-5.00										5.015000000 GHz
-15.0									-14.62 dBm	
-15.0										Start Freq
						5				30.000000 MHz
-35.0		ويريقه ومعالمه المدرور				The state of the second se	Accession for the state	ana adalah si si si sa	مريقة المتعادية ورور	
-45.0		and the second	Column and and and	a false for a state	ويتفالق ويقاليني	and the second	a da ang kina ta ki s _a p	all the second second		Stop Freq
-33.0										10.00000000 GHz
-65.0										
Start 30 M	Hz								.000 GHz	CF Step
#Res BW 1	.0 MHz		#VBV	V 3.0 MHz		s	weep 18	.67 ms (4	0001 pts)	997.000000 MHz
MKR MODE TRO		Х		Y		TION FU	NCTION WIDTH	FUNCTIO	ON VALUE	<u>Auto</u> Man
1 N 1 2 N 1	f	2.412 0		10.96 dB -38.55 dB						
3 N 1 4 N 1	f	5.660 8 5.881 1	1 GHz	-39.20 dB -39.64 dB	m					Freq Offset
5 N 1	f	5.869 9		-39.73 dB					=	0 Hz
6										
8										
10										
11 <u> </u>									~	
MSG							STATUS	6		



802.11b & 2437



Reference

Agilent Spectrum Analyzer - Swe					
₩ RL RF 50Ω2 Center Freq 15.0045		SENSE:INT	ALIGN OFF Avg Type: Log-Pwr	04:09:11 PM Jul 09, 2019 TRACE 123456	Frequency
	PNO: Fast 🕞	Trig: Free Run Atten: 36 dB		TYPE MWWWWW DET PPPPP	
10 dB/div Ref 25.00 d	Bm		Г 	/lkr1 281.9 kHz -51.45 dBm	Auto Tune
15.00					Center Freq 15.004500 MHz
-5.00				-15.25 dBm	Start Freq 9.000 kHz
-35.0 -45.0 1 -55.0 -	cheff fan hen in der ster ter	n, alfall garradus a sarting madus kuralqalaa	hulanahiyendiyanahikanahikanahika	allertessentlyressennerfalserleitsertersettigte	Stop Freq 30.000000 MHz
Start 9 kHz #Res BW 100 kHz	#VBW	300 kHz	Sweep 5.3	Stop 30.00 MHz 33 ms (40001 pts)	CF Step 2.999100 MHz Auto Man
MKR MODE TRC SCL 1 N 1 f 2 3	× 281.9 kHz	-51.45 dBm	TION FUNCTION WIDTH	FUNCTION VALUE	Freq Offset
4 5 6 7					0 Hz
8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9					
<				DC Coupled	

Agilent Spectrum Analyzer - Sv					
	Ω AC CORREC	SENSE:INT	ALIGN OFF Avg Type: Log-Pwr	04:09:20 PM Jul 09, 2019 TRACE 1 2 3 4 5 6	Frequency
Center Freq 5.0150	PNO: Fast G IFGain:Low	Trig: Free Run Atten: 36 dB	Avg Type. Logi wi		
10 dB/div Ref 25.00	dBm		Mkr	5 6.664 54 GHz -39.67 dBm	Auto Tune
Log 15.0 5.00	1				Center Freq 5.015000000 GHz
-15.0				-15.25 dBm	Start Freq 30.000000 MHz
-45.0 -55.0 -65.0					Stop Freq 10.000000000 GHz
Start 30 MHz #Res BW 1.0 MHz	#VBV	V 3.0 MHz	Sweep 18	Stop 10.000 GHz .67 ms (40001 pts)	CF Step 997.000000 MHz
MKR MODE TRC SCL	× 2.438 00 GHz	10.22 dBm	CTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Mar
2 N 1 f 3 N 1 f 4 N 1 f 5 N 1 f	7.155 06 GHz 5.395 85 GHz 5.720 13 GHz 6.664 54 GHz	-39.09 dBm -39.18 dBm -39.40 dBm -39.67 dBm			Freq Offset 0 Hz
6 7 8 9 10					
				×	
MSG			STATUS	3	

Agilent Spect	um Analyzer -									
LXIRL		DΩ AC CORI		SENSE		ALIGN		04:09:27 PM	Jul 09, 2019	Frequency
Center F	req 17.50		∎Z IO: Fast ⊊ iain:Low	Trig: Free R Atten: 36 dl	un	ng type. Log.	-1 941	TYPE	PPPPP	
						Mk	(r3 2	4.986 87	75 GHz	Auto Tune
10 dB/div Log	Ref 25.0	0 dBm						-26.2	9 dBm	
15.0										Center Freq
5.00										17.500000000 GHz
-5.00										
-15.0									-15.25 dBm	
-25.0										Start Freq
-35.0					The Residence of the local division of the l	A REAL PROPERTY AND A REAL PROPERTY.			a provident in Date of the	10.00000000 GHz
-45.0	and the second state of the second					and the statistical differences of				
-55.0										Stop Freq
-65.0										25.00000000 GHz
Start 10.0 #Res BW			#VBV	V 3.0 MHz		Swee	p 40.	Stop 25. 00 ms (40	000 GHz 1001 pts)	CF Step 1.50000000 GHz
MKR MODE T		×		Y	FUNCTIO	N FUNCTION	WIDTH	FUNCTION	N VALUE	Auto Man
1 N 1 2 N 1		24.844 750 24.702 625		-24.84 dBm -26.01 dBm						
3 N 1	f	24.986 875		-26.29 dBm	i					Freq Offset
5									=	0 Hz
6										
8										
10										
11									×	
MSG							STATUS			

802.11b & 2462



Reference

High Band-edge



	wept SA						
RL RF 50: Center Freq 15.004	Ω ▲ DC CORREC 1500 MHz PNO: Fast	SENSE:I	Avg	ALIGN OFF Type: Log-Pwr	04:11:58 PM TRACE TYPE	123456 MWWWWWW PPPPPP	Frequency
10 dB/div Ref 25.00	IFGain:Low				Mkr1 281		Auto Tun
.og 15.0 5.00 5.00							Center Fre 15.004500 M⊦
25.0						-15.20 dBm	Start Fre 9.000 k⊦
45.0 - 55.0 -		والمراجع والمراجع والمراجع	at 4				Stop Fre
	and the link of the state of th		yahadiyani (Madiyi Ndradiyi n	ng naleo a fi gil glan that fil fil an			30.000000 MI
Start 9 kHz Res BW 100 kHz	#VI	BW 300 kHz		Sweep 5.3	Stop 30 333 ms (40).00 MHz)001 pts)	CF Ste 2.999100 MH
Start 9 kHz Res BW 100 kHz KR MODE TRC SCL 1 N 2 3			FUNCTION		Stop 30).00 MHz)001 pts)	CF St e 2.999100 Mł <u>Auto</u> Ma
tart 9 kHz Res BW 100 kHz KR MODE TRC: SCL 1 N 1 f 2 f 3 4 5 6 6 7 1 7	#V	BW 300 kHz Y		Sweep 5.3	Stop 30 333 ms (40).00 MHz)001 pts)	CF Ste 2.999100 Mi <u>Auto</u> Mi Freq Offs
itart 9 KHz Res BW 100 KHz KR MODE TRC SCL 1 N 1 f 3 J 4 S 6 S	#V	BW 300 kHz Y		Sweep 5.3	Stop 30 333 ms (40).00 MHz)001 pts)	30.00000 MH 2.999100 MH <u>Auto</u> Ma Freq Offs 0 H

Agilent Spectrum Analyzer - Swe					
Center Freq 5.01500		SENSE:INT	ALIGN OFF	04:12:07 PM Jul 09, 2019 TRACE 1 2 3 4 5 6	Frequency
	PNO: Fast 🕞 IFGain:Low	Trig: Free Run Atten: 36 dB		TYPE MWWWWW DET PPPPP	
10 dB/div Ref 25.00 d	IBm		Mkr	5 5.973 37 GHz -39.72 dBm	Auto Tune
15.0 5.00					Center Freq 5.015000000 GHz
-15.0 -25.0 -35.0	Check to a Million of the		51	-15.20 dBm	Start Freq 30.000000 MHz
-45.0 -55.0 -65.0					Stop Freq 10.000000000 GHz
Start 30 MHz #Res BW 1.0 MHz	#VBV	/ 3.0 MHz	Sweep 18	Stop 10.000 GHz .67 ms (40001 pts)	CF Step 997.000000 MHz Auto Man
MKR MODE TRC SCL	× 2.461 43 GHz	Y FU 10.82 dBm	JNCTION FUNCTION WIDTH	FUNCTION VALUE	Auto Man
2 N 1 f 3 N 1 f 4 N 1 f 5 N 1 f	5.923 52 GHz 5.542 41 GHz 6.071 32 GHz 5.973 37 GHz	-38.32 dBm -38.94 dBm -39.64 dBm -39.72 dBm			Freq Offset 0 Hz
6 7 8 9 10					
11		THE SECOND		>	
MSG			STATUS		



802.11g & 2412



Reference

Low Band-edge



Agilent Spectrum Analyzer - Sv							
Center Freq 15.004		SENSE:IN		ALIGN OFF	04:15:35 PM : TRACE	123456	Frequency
	PNO: Fast IFGain:Low	Trig: Free Run Atten: 36 dB			TYPE DET	PPPPP	
10 dB/div Ref 25.00	dBm			1	0 Mkr1 293 -50.0	.9 kHz 2 dBm	Auto Tune
Log 15.0 5.00 -5.00							Center Fred 15.004500 MH;
-15.0							Start Fred 9.000 kH:
-45.0	yllegelmlatterriterritetten frittertersterste	aparkhiseantallersahhandelandhan	harmondowinghitestreame	ang dan teratara	al contraction of the second	n Maral Million An	Stop Fred 30.000000 MH;
Start 9 kHz #Res BW 100 kHz	#VE	300 kHz		Sweep 5.3	Stop 30 333 ms (40	001 pts)	CF Step 2.999100 MH Auto Mar
MKR MODE TRC SCL	× 293.9 kHz	∀ -50.02 dBm	FUNCTION F	UNCTION WIDTH	FUNCTION	VALUE	<u>Auto</u> Mai
2 3 4 5 6							Freq Offse 0 H
8 9 10							
11						~	
S							

	um Analyzer - Swept									
Center Fr	RF 50 Ω req 5.015000	AC CORREC			SE:INT		ALIGN OFF e: Log-Pwr	04:15:45 PM TRACE	123456	Frequency
			Fast 🖵	Trig: Free Atten: 36				TYPI DE	PPPPP	
		ii ouiii					Mkr	5 2.383	17 GHz	Auto Tune
10 dB/div	Ref 25.00 dE	3m							5 dBm	
Log 15.0		1								Center Freq
5.00		\uparrow								5.015000000 GHz
-5.00										
-15.0		<u></u>							-10.09 dDm	Start Freq
-25.0		45								30.000000 MHz
-35.0		- {								
-45.0 gerenout	Alfahan da da sa		and a second second		egorole formalistic	and a second	n na na hAirteanna an Dhairteanna an Airteanna an Airteanna an Airteanna an Airteanna an Airteanna an Airteanna	den ander andere andere	nagaran di minatin Marata di Ministra da m	04 E
-55.0 -55.0	a painter a china cala canderia			all and a second se						Stop Freq 10.00000000 GHz
-65.0										10.000000000000000
Start 30 IV	1Hz							Stop 10.	000 GHz	CF Step
#Res BW	1.0 MHz		#VBW :	3.0 MHz		S	weep 18			997.000000 MHz
MKR MODE TR		Х		Y	FUNC	TION FU	NCTION WIDTH	FUNCTIO	N VALUE	<u>Auto</u> Man
1 N 1 2 N 1	f	2.416 82 G 2.399 87 G	Hz	7.94 dB -21.97 dB	m					
3 N 1 4 N 1	f f	2.397 38 G 2.390 90 G	Hz Hz	-26.24 dB -31.59 dB	m m					Freq Offset 0 Hz
5 N 1	f	2.383 17 G	Hz	-36.95 dB	m				=	0 H2
7										
9										
10									~	
<				ш						
MSG							STATUS			

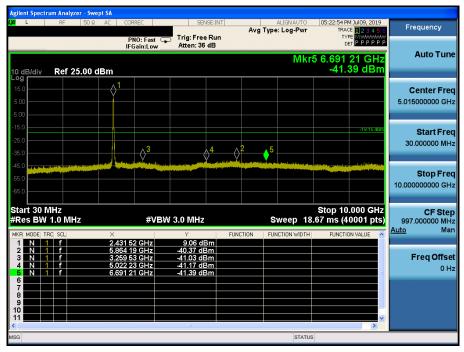


802.11g & 2437



Reference

Agilent Spectrum Analyzer - Swept SJ LXI R L RF 50 ହ 🗘 DC		OF NOT A IT		04:18:23 PM Jul 09, 2019	
Center Freq 15.004500		SENSE:INT	ALIGN OFF	TRACE 123456	Frequency
	IFGain:Low	Atten: 36 dB			Auto Tune
10 dB/div Ref 25.00 dBn	n			Vlkr1 281.9 kHz -49.73 dBm	Auto Func
15.0 5.00					Center Freq 15.004500 MHz
-5.00				-19.15 dBm	Start Freq
-25.0 -35.0 -45.0					9.000 kHz
-55.0	lehidestajatrateanekishurjat	angenertane new karter terapitetyse	winitial the property and a state of the second	ละกระประสิทางสีมาการสมุลาที่ ที่สี่ประกรุกรับสมประที่สามประว	Stop Freq 30.000000 MHz
Start 9 kHz #Res BW 100 kHz	#VBW	300 kHz	-	Stop 30.00 MHz 333 ms (40001 pts)	CF Step 2.999100 MHz <u>Auto</u> Man
1 N 1 f	× 281.9 kHz	Y FUN -49.73 dBm	CTION FUNCTION WIDTH	FUNCTION VALUE	Main
2 3 4 5					Freq Offset 0 Hz
6 7 8 9 10					
11		m		×	
MSG			STATUS	DC Coupled	



Agilent Spectrum Analyzer - Swept SA				
M RL RF 50 Ω AC Center Freq 17.50000000	00 GHz	AVG Type: Log-Pwi		Frequency
10 dB/div Ref 25.00 dBm	PNO: Fast 🖵 Trig: Free IFGain:Low Atten: 36 o	dB	оет РРРРРР 24.264 625 GHz -26.57 dBm	Auto Tune
Log 15.0 5.00				Center Freq 17.500000000 GHz
-15.0	The local of the life in the set of the part of the life in the set of the life in the set of the life in the set of the life in the life		2 -1913 #	Start Freq 10.000000000 GHz
-45.0 44444 a del a di a d				Stop Fred 25.000000000 GHz
Start 10.000 GHz #Res BW 1.0 MHz	#VBW 3.0 MHz	Sweep 4	Stop 25.000 GHz 10.00 ms (40001 pts)	CF Step 1.500000000 GHz <u>Auto</u> Mar
1 N 1 f 24.74 2 N 1 f 23.3 3 N 1 f 24.24 4 5	67 500 GHz -25.57 dB 79 250 GHz -26.08 dB 64 625 GHz -26.57 dB	m		Freq Offset 0 Hz
6 7 8 9 10 11				
KS		STAT	v s	

802.11g & 2462



Reference

High Band-edge



Agilent Spectrum Analyzer - S					
Center Freq 15.004		SENSE:INT	ALIGN OFF Avg Type: Log-Pwr	04:21:38 PM Jul 09, 2019 TRACE 1 2 3 4 5 6	Frequency
	PNO: Fast IFGain:Low	Atten: 36 dB			Auto Tune
10 dB/div Ref 25.00	dBm			Vlkr1 281.9 kHz -49.90 dBm	
15.0					Center Freq
5.00					15.004500 MHz
-5.00				-18.30 dBm	Otort Erec
-25.0					Start Freq 9.000 kHz
-35.0					
-55.0	n og kuldering store af er sendererer f	an and a start of all all a start of a start of a	A sum of a solid of solid local	and doe statements was done	Stop Freq 30.000000 MHz
-65.0		and the sheat of a state of the second	hinoponalitativitativapolianoolaalaat		30.00000 WHZ
Start 9 kHz #Res BW 100 kHz	#VE	W 300 kHz	Sweep 5.3	Stop 30.00 MHz 333 ms (40001 pts)	CF Step 2.999100 MHz
MKR MODE TRC SCL	× 281.9 kHz	Y F -49.90 dBm	UNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Mar
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		40.00 0.011			Freq Offset
4 5 6				=	0 Hz
7					
9 10					
11 <				>	
ISG			STATUS	DC Coupled	

Agilent Spectrum Analyzer - Swe (X) RL RF 50 Ω Center Freq 5.01500		SENSE:INT	ALIGN OFF Avg Type: Log-Pwr	04:21:49 PM Jul 09, 2019 TRACE 123456	Frequency
10 dB/div Ref 25.00 d	PNO: Fast G IFGain:Low	Trig: Free Run Atten: 36 dB	Mkr	түре	Auto Tune
15.0 5.00	1				Center Freq 5.015000000 GHz
-15.0 -25.0 -35.0	2 4		5	-18:30 dBm	Start Freq 30.000000 MHz
-45.0 -55.0 -65.0					Stop Freq 10.000000000 GHz
Start 30 MHz #Res BW 1.0 MHz	#VB\ ×	N 3.0 MHz	Sweep 18	Stop 10.000 GHz .67 ms (40001 pts)	CF Step 997.000000 MHz <u>Auto</u> Man
1 N 1 f 2 N 1 f 3 N 1 f 4 N 1 f 5 N 1 f 6 7	2.463 43 GHz 2.477 39 GHz 2.492 09 GHz 2.494 09 GHz 5.739 32 GHz	8.47 dBm -18.83 dBm -35.37 dBm -36.37 dBm -38.42 dBm		=	Freq Offset 0 Hz
8 9 10 11 11		nu -	STATUS	×	

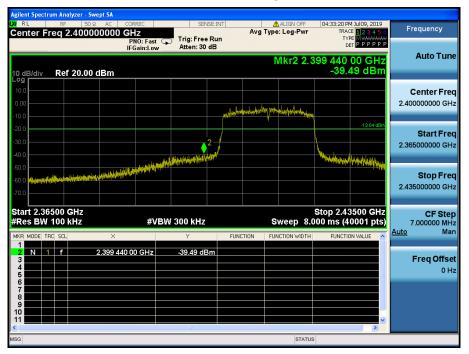


802.11n & 2412



Reference

Low Band-edge



Agilent Spectrum Analyzer - Sw					
Center Freq 15.004		SENSE:INT	ALIGN OFF Avg Type: Log-Pwr	04:33:27 PM Jul 09, 2019 TRACE 1 2 3 4 5 6	Frequency
Center Freq 15.004	PNO: Fast (IFGain:Low	Trig: Free Run Atten: 30 dB	Avg Type. Log-t wi		
10 dB/div Ref 20.00	dBm			Mkr1 285.7 kHz -57.02 dBm	Auto Tune
10.0 0.00 -10.0					Center Freq 15.004500 MHz
-20.0				-19.64 dBm	Start Freq 9.000 kHz
-50.0	ntrational migrospinistic data	, rootentaa tiin ahaa daddaa iy ay taacaydd	egender betrecken besteren feber besteren besteren besteren besteren besteren besteren besteren besteren beste	ehiyashinayastatiidoodadinyystaintayihaa	Stop Freq 30.000000 MHz
Start 9 kHz #Res BW 100 kHz	#VB	W 300 kHz	Sweep 5.3	Stop 30.00 MHz 333 ms (40001 pts)	CF Step 2.999100 MHz Auto Mar
MKR MODE TRC SCL	× 285.7 kHz	-57.02 dBm	JNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Mar
2 3 4 5					Freq Offsel 0 Hz
6 7 8 9 10					
				~	
MSG			STATUS	DC Coupled	

Agilent Spectrum Analy	rzer - Swept SA						
KARL RF	50 Ω AC CORREC	SENSE		ALIGN OFF	04:33:38 PM Jul 09 TRACE		Frequency
Center Freq 5.	015000000 GHz PNO: F IFGain:L	ast 🕞 Trig: Free Ri .ow Atten: 30 dE	un –	e. Log-i wi	TYPE MW DET P P	PPPP	
				Mkr	5 2.377 69 -44.37 c		Auto Tune
10 dB/div Ref 2	20.00 dBm						
10.0	Q'						Center Freq
0.00							5.015000000 GHz
-10.0							
-20.0					-11	9.64 dBm	Start Freq
-30.0	X4						30.000000 MHz
-40.0						_	
-50.0	and the sectors and the sectors of t	and the second second second states of the		n an NGA marija	والمحمد ورواعات وروائه الافعا	1 ⁹⁴ Products	
-60.0 Loc and the particular form		and the second secon		and the second secon	القائلة بناجياتهما ومقالك أنشار		Stop Freq
-70.0							10.00000000 GHz
Start 30 MHz #Res BW 1.0 MI	Hz ‡	#VBW 3.0 MHz	2	Sweep 18	Stop 10.000 .67 ms (4000	GHZ 1 pts)	CF Step 997.000000 MHz
MKR MODE TRC SCL	×	Y		JNCTION WIDTH	FUNCTION VAL	JE 🔼	<u>Auto</u> Man
1 N 1 f	2.413 83 GH 2.395 13 GH						
3 N 1 f	2.392 89 GH	z -30.95 dBm					Freq Offset
4 N 1 f 5 N 1 f	2.385 91 GH 2.377 69 GH						0 Hz
6							
8							
9							
11						~	
MSG				STATUS			

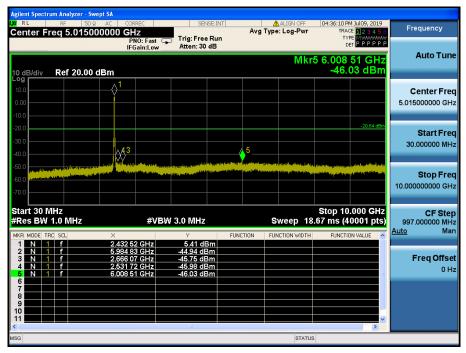


802.11n & 2437



Reference

Agilent Spectrum Analyzer - Swa					
22 RL RF 50Ω Center Freq 15.0045	ALDC CORREC COD MHZ PNO: Fast ⊂ IEGain:Low	Trig: Free Run Atten: 30 dB	Avg Type: Log-Pwr	04:35:59 PM Jul 09, 2019 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P P P P P P	Frequency
10 dB/div Ref 20.00 d		Atten: 30 dB		Mkr1 307.4 kHz -56.08 dBm	Auto Tune
Log 10.0 0.00 -10.0					Center Freq 15.004500 MHz
-20.0				-20.64 dBm	Start Freq 9.000 kHz
-70.0	สารที่เราไรเกาะกับเราสาราสารเสราร์ระปุญหัง	aritelywity control and an for the second states of the	hann fa danaith práirsí muintifigtraighairmachad		Stop Freq 30.000000 MHz
Start 9 kHz #Res BW 100 kHz	#VBI	N 300 kHz	Sweep 5.	Stop 30.00 MHz 333 ms (40001 pts)	CF Step 2.999100 MHz <u>Auto</u> Man
1 N 1 f 2 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	307.4 kHz	-56.08 dBm			Freq Offset 0 Hz
6 7 8 9 10 11					
MSG		m	STATU	DC Coupled	



Agilent Spectr									
Center Fr		0000000 G	REC HZ NO:Fast G Gain:Low	Trig: Free R Atten: 30 dB	Av un	ALIGN OFF g Type: Log-Pwr	04:36:18 PM Jul 09, 20: TRACE 2 3 4 TYPE MWWW DET P P P	56	Frequency
10 dB/div	Ref 20.0		Jam.cow			Mkr3 2	4.217 375 GF -32.93 dB		Auto Tune
10.0 0.00									Center Freq 17.500000000 GHz
-20.0			194. 0		so galanting of any for some list the		-20.64 c		Start Freq 10.000000000 GHz
-50.0									Stop Fred 25.000000000 GHz
Start 10.0 #Res BW	1.0 MHz	×	#VBV	N 3.0 MHz	FUNCTION	Sweep 40	Stop 25.000 GF .00 ms (40001 pt	ts)	CF Step 1.500000000 GHz <u>Auto</u> Mar
1 N 1 2 N 1 3 N 1 4 5	f f	24.827 12 24.186 25 24.217 37	0 GHz	-30.46 dBm -32.66 dBm -32.93 dBm			PONCTION VALUE		Freq Offset 0 Hz
6 7 8 9 10 11									
MSG				Ш		STATUS	>		

802.11n & 2462



Reference

High Band-edge



Agilent Spectrum Analyzer - S LXI RL RF 50	wept SA Ω ALDC CORREC	SENSE:INT	ALIGN OFF	04:38:58 PM Jul 09, 2019	
Center Freq 15.004	ISOO MHZ PNO: Fast G IFGain:Low	Trig: Free Run Atten: 30 dB	Avg Type: Log-Pwr	TRACE 123456 TYPE MWWWW DET PPPPP	Frequency
10 dB/div Ref 20.00	dBm			Vkr1 323.9 kHz -57.79 dBm	Auto Tune
10.0 0.00					Center Freq 15.004500 MHz
-20.0				-20.13 dBm	Start Freq 9.000 kHz
-50.0 1 1	adi na artington ti Nasislanti, Inda	n/netrostantinet/servationst	₽₩₽₽₽₩₩₩₩₩₩₩₽₩₽₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩		Stop Freq 30.000000 MHz
Start 9 KH2 #Res BW 100 kHz MKR MODE TRC SCL	#VBV × 323.9 kHz	V 300 kHz -57.79 dBm	Sweep 5.3	Stop 30.00 MHz 333 ms (40001 pts) FUNCTION VALUE	CF Step 2.999100 MHz <u>Auto</u> Man
2 3 4 5 6 7 8	323.9 KHZ				Freq Offset 0 Hz
9 9 10 11 11 MSG		ill.	STATUS	DC Coupled	

Agilent Spectrum Analyzer					
Center Freq 5.01	50 Ω AC CORREC 5000000 GHz	SENSE:INT	ALIGN OFF Avg Type: Log-Pwr	04:39:08 PM Jul 09, 2019 TRACE 123456	Frequency
	PNO: Fast C IFGain:Low	Trig: Free Run Atten: 30 dB		TYPE MWWWWWW DET P P P P P P	
	il Gainicow _		Mkr	5 6.752 27 GHz	Auto Tune
	00 dBm			-45.66 dBm	
Log 10.0					Contor From
	ĭ				Center Freq 5.015000000 GHz
-10.0					0.010000000000112
-20.0				-20.13 dBm	
-30.0	<u>∆</u> 2				Start Freq
-40.0	¥		5		30.000000 MHz
-50.0	and the second se	and the second		a partition of the second state on the second	
-60.0 An exceletion of a life of the second second		the state of the s	And a statistic second and a statistic second and		Stop Freq
-70.0					10.00000000 GHz
Start 30 MHz #Res BW 1.0 MHz	#\/B	W 3.0 MHz	Sween 19	Stop 10.000 GHz .67 ms (40001 pts)	CF Step 997.000000 MHz
MKRI MODEL TRCI SCL	× ×		UNCTION FUNCTION WIDTH	FUNCTION VALUE	Auto Man
	2.461 68 GHz	6.74 dBm	ONCTION FONCTION WIDTH	FONCTION VALUE	
2 N 1 f 3 N 1 f	2.486 11 GHz 2.490 85 GHz	-33.63 dBm -38.83 dBm			Freq Offset
4 N 1 f 5 N 1 f	2.498 32 GHz 6.752 27 GHz	-41.54 dBm -45.66 dBm			0 Hz
	6./52 2/ GHZ	-45.66 dBm			
8					
9					
11				~	
K MSG		ш	STATUS		
			314103		



8.5 Radiated spurious emissions

Test Requirements and limit, §15.247(d), §15.205, §15.209

In any 100 kHz bandwidth outside the operating frequency band, 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. In case the emission fall within the restricted band specified on 15.205(a) and (b), then the 15.209(a) limit in the table below has to be followed.

- FCC Part 15.209(a) and (b)

Frequency (MHz)	Limit (uV/m)	Measurement Distance (meter)
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 – 30.0	30	30
30 ~ 88	100 **	3
88 ~ 216	150 **	3
216 ~ 960	200 **	3
Above 960	500	3

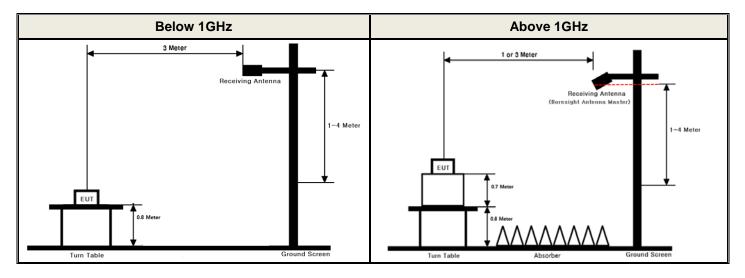
** Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g. 15.231 and 15.241.

• FCC Part 15.205 (a): Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	MHz	GHz	GHz
0.009 ~ 0.110	8.41425 ~ 8.41475	108 ~ 121.94	1300 ~ 1427	4.5 ~ 5.15	14.47 ~ 14.5
0.495 ~ 0.505	12.29 ~ 12.293	123 ~ 138	1435 ~ 1626.5	5.35 ~ 5.46	15.35 ~ 16.2
2.1735 ~ 2.1905	12.51975 ~ 12.52025	149.9 ~ 150.05	1645.5 ~ 1646.5	7.25 ~ 7.75	17.7 ~ 21.4
4.125 ~ 4.128	12.57675 ~ 12.57725	156.52475 ~	1660 ~ 1710	8.025 ~ 8.5	22.01 ~ 23.12
4.17725 ~ 4.17775	13.36 ~ 13.41	156.52525	1718.8 ~ 1722.2	9.0 ~ 9.2	23.6 ~ 24.0
4.20725 ~ 4.20775	16.42 ~ 16.423	156.7 ~ 156.9	2200 ~ 2300	9.3 ~ 9.5	31.2 ~ 31.8
6.215 ~ 6.218	16.69475 ~ 16.69525	162.0125 ~ 167.17	2310 ~ 2390	10.6 ~ 12.7	36.43 ~ 36.5
6.26775 ~ 6.26825	16.80425 ~ 16.80475	167.72 ~ 173.2	2483.5 ~ 2500	13.25 ~ 13.4	Above 38.6
6.31175 ~ 6.31225	25.5 ~ 25.67	240 ~ 285	2655 ~ 2900		
8.291 ~ 8.294	37.5 ~ 38.25	322 ~ 335.4	3260 ~ 3267		
8.362 ~ 8.366	73 ~ 74.6	399.90 ~ 410	3332 ~ 3339		
8.37625 ~ 8.38675	74.8 ~ 75.2	608 ~ 614	3345.8 ~ 3358		
		960 ~ 1240	3600 ~ 4400		

• FCC Part 15.205(b): The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

Test Configuration



Test Procedure

- 1. The EUT is placed on a non-conductive table, emission measurements at below 1 GHz, the table height is 80 cm and above 1 GHz, the table height is 1.5 m.
- 2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 1 or 3 m away from the receiving antenna, which is varied from 1 m to 4 m to find out the highest emissions.
- 4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 6. Repeat above procedures until the measurements for all frequencies are complete.



Measurement Instrument Setting for Radiated Emission Measurements.

- KDB558074 D01v05 - Section 8.6

- ANSI C63.10-2013 – Section 11.12

Peak Measurement

RBW = As specified in below table, VBW \geq 3 x RBW, Sweep = Auto, Detector = Peak, Trace mode = Max Hold until the trace stabilizes.

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
>1000 MHz	1 MHz

Average Measurement:

- 1. RBW = 1 MHz (unless otherwise specified).
- 2. VBW \geq 3 x RBW.
- 3. Detector = RMS (Number of points ≥ 2 x Span / RBW)
- 4. Averaging type = power. (i.e., RMS)
- 5. Sweep time = auto.
- 6. Perform a trace average of at least 100 traces.
- 7. A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:
- 1) If power averaging (RMS) mode was used in step 4, then the applicable correction factor is 10 log(1/D), where D is the duty cycle.
- 2) If linear voltage averaging mode was used in step 4, then the applicable correction factor is 20 log(1/D), where D is the duty cycle.
- 3) If a specific emission is demonstrated to be continuous (≥ 98 percent duty cycle) rather than turning on and off with the transmit cycle, then no duty cycle correction is required for that emission.

Duty Cycle Correction factor

Test Mode	Date rate	T _{on} (ms)	T _{on+off} (ms)	D = T _{on} / (T _{on+off})	DCCF = 10 log(1/D) (dB)
802.11b	11 Mbps	0.843	0.879	95.90	0.19
802.11g	48 Mbps	0.252	0.293	86.00	0.66
802.11n	MCS 2	0.672	0.713	94.23	0.26

Note1: Where, T= Transmission duration / D= Duty cycle

Note2: Please refer to the appendix I for duty cycle plots.

Test Results: Comply

Please refer to next page for data table and the appendix II for worst data plots.

Tested Frequency	Frequency (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
	143.97	Н	Х	QP	39.28	-1.42	N/A	N/A	37.86	43.50	5.64
	167.98	Н	Х	PK	38.90	-0.72	N/A	N/A	38.18	43.50	5.32
	359.91	Н	Х	QP	40.70	0.28	N/A	N/A	40.98	46.00	5.02
2412	407.93	Н	Х	PK	38.40	1.40	N/A	N/A	39.80	46.00	6.20
	431.93	V	Х	QP	38.30	2.02	N/A	N/A	40.32	46.00	5.68
	455.94	Н	Х	PK	35.83	2.64	N/A	N/A	38.47	46.00	7.53
	-	-	-	-	-	-	-	-	-	-	-

Radiated Spurious Emissions data(9 kHz ~ 1 GHz) : 802.11b

Note.

1. Exploratory testing has been performed to determine the emissions characteristic of this EUT. And lowest channel of 802.11b was selected for final testing and reported.

- 2. No other unwanted emissions were found above listed frequencies.
- 3. All data were recorded using a spectrum analyzer employing a peak detector.

If PK results were meet Quasi-peak limit, Quasi-peak measurements were omitted.

4. Sample Calculation.

Margin = Limit – Result / Result = Reading + T.F + DCCF + DCF / T.F = AF + CL – AG Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain, DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor

5. Information of Distance Factor.

For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.

- Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB

MultiViev			ceiver			Spe		ım	2	5												V
Meas BW Att Input I Bargraph		<) 12	0 kHz 0 dB 1 AC	Meas Prea PS	s Time mp	0	ns Off Dn	Step Notch	TDS	Scan Off							Fr	equency	359	.99824	00	MH:
		93	dBµV	/	42.3	3 35	9.9	9982	400	MHz	-20	-10	0	10	20	30	40	50	60	70	80	90
	_	_	dBµV		40.7	7 35	9.9	9982	400	MHz	-20	-10	0	10	20	30	40	50	60	70	80	9
2 Scan		-					1	00 MHz	-							-		_		-	1Pk	Clrw
90 dBµV				_			-	+								_					_	-
80 dBuV-				_			_	+								-			_			
70 dBµV							_	+								+						
60 dBµV				_			-	-								-					_	-
50 dBµV	-			_		_	-	+							_	-			_		-	-
40 dBµV							-	+								+					_	-
30 dBµV				_		_	-	+								-					-	-
20 dBµV							-	+								+						
10 dBµV				_			-	-								-			_		_	-
Start 30.0											R	ange 2				TF				Cha	. 1.0	CL
itart 30.0	MHŻ	_					_		_				M	easuring .			440	10.07.2019	At		p 1.0	0.0111

802.11b & 2412 & X axis & Hor

Detector Mode : QP



	opunous			(
Tested Frequency	Frequency (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
	2389.51	V	Х	PK	52.27	2.32	N/A	N/A	54.59	74.00	19.41
2412	2389.63	V	Х	AV	41.86	2.32	0.19	N/A	44.37	54.00	9.63
2412	4823.85	Н	Х	PK	51.23	1.34	N/A	N/A	52.57	74.00	21.43
	4824.10	Н	Х	AV	41.44	1.34	0.19	N/A	42.97	54.00	11.03
0407	4874.00	Н	Х	PK	51.60	1.58	N/A	N/A	53.18	74.00	20.82
2437	4873.87	Н	Х	AV	40.77	1.58	0.19	N/A	42.54	54.00	11.46
	2484.02	V	Х	PK	51.05	2.64	N/A	N/A	53.69	74.00	20.31
2462	2483.74	V	Х	AV	41.52	2.64	0.19	N/A	44.35	54.00	9.65
2462	4923.96	Н	Х	PK	51.12	1.65	N/A	N/A	52.77	74.00	21.23
	4923.89	Н	Х	AV	40.45	1.65	0.19	N/A	42.29	54.00	11.71

Radiated Spurious Emissions data(1 ~ 25 GHz) : 802.11b

Note.

- 1. The radiated emissions were investigated up to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
- 2. Sample Calculation.

Margin = Limit – Result / Result = Reading + T.F + DCCF + DCF / T.F = AF + CL – AG Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain, DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor

3. Information of Distance Factor.

For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.

- Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB



	opunous		5510115 (. 002.11	9				
Tested Frequency	Frequency (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
	2389.66	V	Х	PK	61.95	2.32	N/A	N/A	64.27	74.00	9.73
0440	2389.86	V	Х	AV	46.13	2.32	0.66	N/A	49.11	54.00	4.89
2412	4823.77	Н	Х	PK	50.20	1.34	N/A	N/A	51.54	74.00	22.46
	4824.39	Н	Х	AV	39.69	1.34	0.66	N/A	41.69	54.00	12.31
0407	4874.45	Н	Х	PK	51.71	1.57	N/A	N/A	53.28	74.00	20.72
2437	4873.61	Н	Х	AV	40.50	1.57	0.66	N/A	42.73	54.00	11.27
	2483.74	V	Х	PK	65.83	2.64	N/A	N/A	68.47	74.00	5.53
0400	2483.67	V	Х	AV	49.33	2.64	0.66	N/A	52.63	54.00	1.37
2462 -	4923.74	н	Х	PK	49.88	1.65	N/A	N/A	51.53	74.00	22.47
	4923.59	Н	Х	AV	39.09	1.65	0.66	N/A	41.40	54.00	12.60

Radiated Spurious Emissions data(1~ 25 GHz) : 802.11g

Note.

- 1. The radiated emissions were investigated up to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
- 2. Sample Calculation.

Margin = Limit – Result / Result = Reading + T.F+ DCCF + DCF / T.F = AF + CL – AG Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain, DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor

3. Information of Distance Factor.

For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.

- Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB



Tested Frequency	Frequency (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
	2389.84	V	Х	PK	58.38	2.32	N/A	N/A	60.70	74.00	13.30
2442	2389.99	V	Х	AV	44.08	2.32	1.17	N/A	47.57	54.00	6.43
2412	4823.73	Н	Х	PK	49.57	1.34	N/A	N/A	50.91	74.00	23.09
	4823.89	Н	Х	AV	39.32	1.34	1.17	N/A	41.83	54.00	12.17
0407	4874.45	Н	Х	PK	50.24	1.57	N/A	N/A	51.81	74.00	22.19
2437	4873.57	Н	Х	AV	39.37	1.57	1.17	N/A	42.11	54.00	11.89
	2484.16	V	Х	PK	65.99	2.64	N/A	N/A	68.63	74.00	5.37
0.400	2483.51	V	Х	AV	49.96	2.64	1.17	N/A	53.77	54.00	0.23
2462	4924.26	Н	Х	PK	49.96	1.65	N/A	N/A	51.61	74.00	22.39
	4923.71	Н	Х	AV	39.44	1.65	1.17	N/A	42.26	54.00	11.74

Radiated Spurious Emissions data(1 ~ 25 GHz) : 802.11n

Note.

- 1. The radiated emissions were investigated up to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
- 2. Sample Calculation.

Margin = Limit – Result / Result = Reading + T.F+ DCCF + DCF / T.F = AF + CL – AG Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain, DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor

3. Information of Distance Factor.

For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.

- Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB

8.6 Power-line conducted emissions

Test Requirements and limit, §15.207

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 uH/50 ohm line impedance stabilization network(LISN).

Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequency ranges.

Frequency Range	Conducted Limit (dBuV)						
(MHz)	Quasi-Peak	Average					
0.15 ~ 0.5	66 to 56 *	56 to 46 *					
0.5 ~ 5	56	46					
5 ~ 30	60	50					

* Decreases with the logarithm of the frequency

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

Test Configuration

See test photographs for the actual connections between EUT and support equipment.

Test Procedure

- 1. The EUT is placed on a wooden table 80 cm above the reference ground plane.
- 2. The EUT is connected via LISN to the test power supply.
- 3. The measurement results are obtained as described below:
- 4. Detectors Quasi Peak and Average Detector.

Test Results: Comply(Refer to next page.)

The worst data was reported.

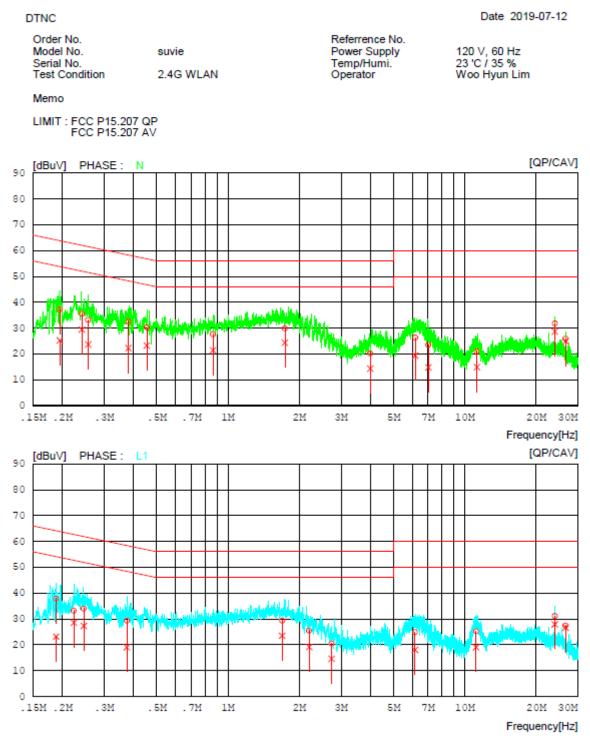


RESULT PLOTS

AC Line Conducted Emissions (Graph)

Test Mode: 802.11b & 2412 MHz

Results of Conducted Emission



AC Line Conducted Emissions (List)

Test Mode: 802.11g & 2437 MHz

Results of Conducted Emission

Date 2019-07-12

Order No.		Referrence No.	
Model No.	suvie	Power Supply	120 V, 60 Hz
Serial No.		Temp/Humi.	23 'C / 35 %
Test Condition	2.4G WLAN	Operator	Woo Hyun Lim

Memo

DTNC

LIMIT : FCC P15.207 QP FCC P15.207 AV

NC	FREQ	READING QP CAV [dBuV][dBuV		QP CAV	QP	MIT CAV [dBuV]	MARGIN QP CAV] [dBuV][dBuV	PHASE
1	0.19505	27.3915.31	9.94	37.33 25.25	63.82	53.82	26.4928.57	N
2	0.24157	25.6519.49	9.94	35.5929.43	62.04	52.04	26.45 22.61	N
3	0.25664	23.2013.80	9.94	33.1423.74	61.54	51.54	28.40 27.80	N
4	0.37950	22.70 12.35	9.95	32.65 22.30	58.29	48.29	25.6425.99	N
5	0.45360	20.3213.30	9.95	30.2723.25	56.81	46.81	26.5423.56	N
6	0.86394	17.6311.52	9.97	27.60 21.49	56.00	46.00	28.40 24.51	N
7	1.73800	19.8914.42	10.01	29.9024.43	56.00	46.00	26.10 21.57	N
8	3.98520	10.09 4.21	10.12	20.2114.33	56.00	46.00	35.7931.67	N
9	6.18140	16.21 9.23	10.20	26.4119.43	60.00	50.00	33.5930.57	N
10	7.01540	13.32 4.66	10.22	23.5414.88	60.00	50.00	36.4635.12	N
11	11.24520	10.62 4.54	10.37	20.9914.91	60.00	50.00	39.0135.09	N
12	23.99900	21.2218.03	10.63	31.85 28.66	60.00	50.00	28.1521.34	N
13	26.62400	15.2314.27	10.69	25.9224.96	60.00	50.00	34.0825.04	N
14	0.18800	27.8913.19	9.94	37.8323.13	64.12	54.12	26.2930.99	L1
15	0.22330	23.2118.56	9.94	33.1528.50	62.70	52.70	29.5524.20	L1
16	0.24598	23.9517.40	9.94	33.8927.34	61.89	51.89	28.00 24.55	L1
17	0.37379	19.31 9.03	9.95	29.2618.98	58.42	48.42	29.1629.44	L1
18	1.69400	19.2813.45	10.01	29.2923.46	56.00	46.00	26.71 22.54	L1
19	2.20120	15.42 9.07	10.03	25.4519.10	56.00	46.00	30.5526.90	L1
20	2.73760	10.40 4.54	10.04	20.4414.58	56.00	46.00	35.5631.42	L1
21	6.15920	14.63 7.83	10.20	24.8318.03	60.00	50.00	35.17 31.97	L1
22	11.15300	14.86 8.63	10.37	25.2319.00	60.00	50.00	34.77 31.00	L1
23	23.99840	20.4617.29	10.61	31.07 27.90	60.00	50.00	28.9322.10	L1
24	26.62320	16.6615.96	10.66	27.3226.62	60.00	50.00	32.68 23.38	L1

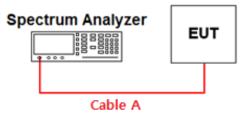
9. LIST OF TEST EQUIPMENT

Туре	Manufacturer	Model	Cal.Date (yy/mm/dd)	Next.Cal.Date (yy/mm/dd)	S/N
Spectrum Analyzer	Agilent Technologies	N9020A	19/06/26	20/06/26	US47360812
Spectrum Analyzer	Agilent Technologies	N9020A	18/12/19	19/12/19	MY48011700
AC Power Supply	DAEKWANG	5KVA	18/12/18	19/12/28	20060321-1
Multimeter	FLUKE	17B	18/12/18	19/12/18	26030065WS
Signal Generator	Rohde Schwarz	SMBV100A	18/12/19	19/12/19	255571
Signal Generator	ANRITSU	MG3695C	18/12/10	19/12/10	173501
Thermohygrometer	BODYCOM	BJ5478	18/12/27	19/12/27	120612-1
Thermohygrometer	SATO	PC-5000TRH-II	18/07/18	19/07/18	N/A
Thermohygrometer	BODYCOM	BJ5478	19/07/03	20/07/03	N/A
HYGROMETER	TESTO	608-H1	19/01/31	20/01/31	34862883
Loop Antenna	Schwarzbeck	FMZB1513	18/01/30	20/01/30	1513-128
BILOG ANTENNA	Schwarzbeck	VULB 9160	18/07/13	20/07/13	3359
Horn Antenna	ETS-Lindgren	3115	18/01/30	20/01/30	6419
Horn Antenna	A.H.Systems Inc.	SAS-574	17/07/31	19/07/31	155
PreAmplifier	tsj	MLA-0118-J01-45	18/12/19	19/12/19	17138
PreAmplifier	tsj	MLA-1840-J02-45	19/06/27	20/06/27	16966-10728
PreAmplifier	tsj	MLA-10K01-B01-27	18/10/31	19/10/31	2005354
Attenuator	SMAJK	SMAJK-2-3	19/06/27	20/06/27	3
Attenuator	SMAJK	SMAJK-2-3	19/06/25	20/06/25	4
Attenuator	SRTechnology	F01-B0606-01	19/0627	20/06/27	13092403
Attenuator	Hefei Shunze	SS5T2.92-10-40	19/0627	20/06/27	16012202
High Pass Filter	Wainwright Instruments	WHNX8.0/26.5-6SS	19/06/27	20/06/27	3
High Pass Filter	Wainwright Instruments	WHKX12-935-1000- 15000-40SS	19/06/26	20/06/26	8
High Pass Filter	Wainwright Instruments	WHKX10-2838-3300- 18000-60SS	19/06/26	20/06/26	1
Power Meter & Wide Bandwidth Sensor	Anritsu	ML2496A MA2411B	18/12/19	19/12/19	1338004 1306053
EMI Receiver	ROHDE&SCHWARZ	ESW44	18/08/06	19/08/06	101645
EMI Test Receiver	Rohde Schwarz	ESCI7	19/01/30	20/01/30	100910
PULSE LIMITER	Rohde Schwarz	ESH3-Z2	18/09/27	19/09/27	101333
LISN	SCHWARZBECK	NNLK 8121	19/03/19	20/03/19	06183
Cable	HUBER+SUHNER	SUCOFLEX	18/12/21	19/12/21	C-1
Cable	HUBER+SUHNER	SUCOFLEX	18/12/21	19/12/21	C-2
Cable	HUBER+SUHNER	SUCOFLEX	18/12/21	19/12/21	C-3
Cable	HUBER+SUHNER	SUCOFLEX	18/12/21	19/12/21	C-4
Cable	Junkosha	MWX241	19/01/14	20/01/14	G-04
Cable	Junkosha	MWX241	19/01/14	20/01/14	G-07
Cable	DT&C	Cable	19/01/14	20/01/14	G-13
Cable	DT&C	Cable	19/01/14	20/01/14	G-14
Cable	HUBER+SUHNER	SUCOFLEX 104	19/01/14	20/01/14	G-15
Cable	DT&C	Cable	19/01/15	20/01/15	RF-55

Note 1: The measurement antennas were calibrated in accordance to the requirements of ANSI C63.5-2017 Note 2: The cable is not a regular calibration item, so it has been calibrated by DT & C itself.

APPENDIX I

Conducted Measurement



Path loss information

Frequency (GHz)	Path Loss (dB)	Frequency (GHz)	Path Loss (dB)
0.03	3.16	15	7.17
1	3.40	20	8.37
2.412 & 2.437 & 2.462	4.04	25	9.46
5	4.60	-	-
10	6.07	-	-

Note 1: The path loss from EUT to Spectrum analyzer was measured and used for test. Path loss (S/A's correction factor) = Cable A + Attenuator



APPENDIX II

Duty cycle plots

Test Procedure

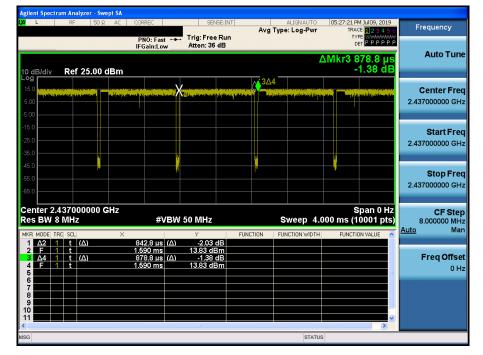
Duty Cycle was measured using section 6.0 b) of KDB558074 D01v05r02 :

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission. Set RBW \geq OBW if possible; otherwise, set RBW to the largest available value. Set VBW \geq RBW. Set detector = peak or average.

The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if T \leq 16.7 microseconds.)

Duty Cycle

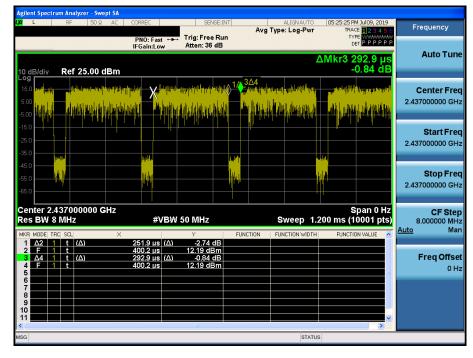
802.11b & 2437



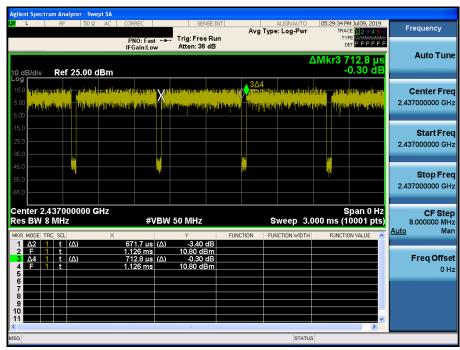
Dt&C

802.11g & 2437

Duty Cycle



802.11n & 2437

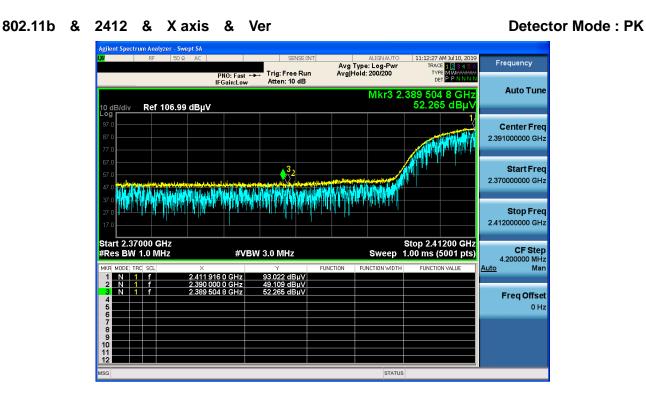


Duty Cycle



APPENDIX III

Unwanted Emissions (Radiated) Test Plot



802.11b & 2412 & X axis & Ver







802.11b & 2462 & X axis & Ver





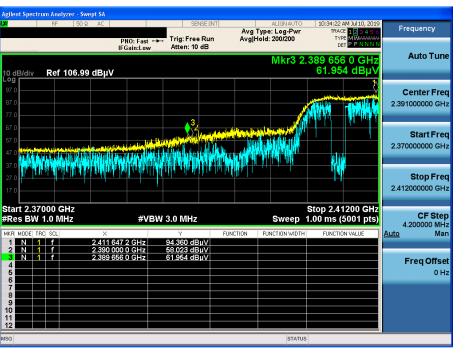
Detector Mode : AV

802.11b & 2462 & X axis & Ver





802.11g & 2412 & X axis & Ver

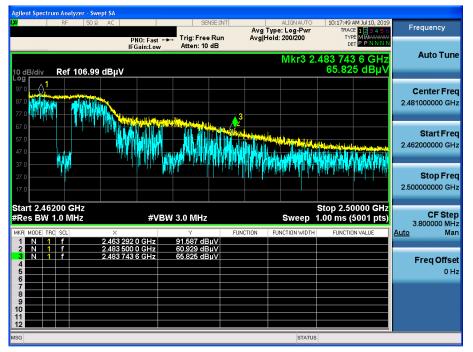


802.11g & 2412 & X axis & Ver





802.11g & 2462 & X axis & Ver



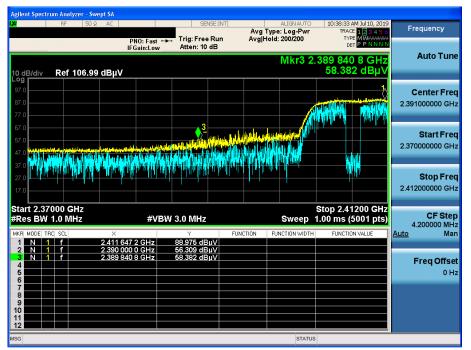
Detector Mode : AV

802.11g & 2462 & X axis & Ver





802.11n & 2412 & X axis & Ver



Detector Mode : AV

802.11n & 2412 & X axis & Ver





802.11n & 2462 & X axis & Ver



802.11n & 2462 & X axis & Ver





802.11b & 2412 & X axis & Hor

Detector Mode : AV



802.11g & 2437 & X axis & Hor

zer - Swept SA Jul 10, 2019 Frequency TYPE A UNATAL Avg Type: RMS Avg|Hold: 200/200 Trig: Free Run Atten: 6 dB PNO: Fast IFGain:Low Auto Tune Mkr1 4.873 612 GHz 40.500 dBµ∨ Ref 66.99 dBµV 5 dB/div Log **Center Freq** 4.874000000 GHz Start Freq 4.871500000 GHz Stop Freq <u>^1</u> 4.876500000 GHz **CF Step** 2.437000000 GHz Auto <u>Man</u> Freq Offset 0 Hz Center 4.874000 GHz #Res BW 1.0 MHz Span 5.000 MHz Sweep 1.00 ms (5001 pts) #VBW 3.0 MHz*



802.11n & 2462 & X axis & Hor

