

TEST REPORT

Applicant: Sinocan International Technologies Co., Ltd

Address of Applicant: 4F,Building B,Peking University Founder Science Park,
SongBai Road North , Longteng Community, Shiyan Street ,
Baoan District, Shenzhen, China

Manufacturer/Factory: Sinocan International Technologies Co., Ltd

**Address of
Manufacturer/Factory:** 4F,Building B,Peking University Founder Science Park,
SongBai Road North , Longteng Community, Shiyan Street ,
Baoan District, Shenzhen, China

Equipment Under Test (EUT)

Product Name: Integrated Video Conference Terminal

Model No.: S5VB1, S5VS1、 S5MS10、 S5VB2、 S5VB5、 S5VB8

Trade Mark: 

FCC ID: 2AT6L- S5VB1

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247

Date of sample receipt: Apr.12, 2021

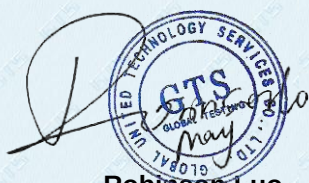
Date of Test: Apr.13, 2021-May. 06, 2021

Date of report issued: May. 12, 2021

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Robinson Luo

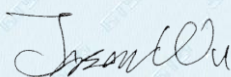
Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Version No.	Date	Description
00	May. 12, 2021	Original

Prepared By:

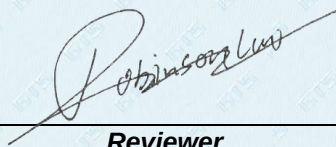


Date:

May. 11, 2021

Project Engineer

Check By:


Reviewer

Date:

May. 11, 2021

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4 Test Summary

Test Item	Section	Result
Antenna requirement	FCC part 15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	FCC part 15.207	Pass
Conducted Peak Output Power	FCC part 15.247 (b)(3)	Pass
Channel Bandwidth & 99% OCB	FCC part 15.247 (a)(2)	Pass
Power Spectral Density	FCC part 15.247 (e)	Pass
Band Edge	FCC part 15.247(d)	Pass
Spurious Emission	FCC part 15.205/15.209	Pass

Remark: Test according to ANSI C63.10:2013 and RSS-Gen

Pass: The EUT complies with the essential requirements in the standard.

Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	30MHz-200MHz	3.8039dB	(1)
Radiated Emission	200MHz-1GHz	3.9679dB	(1)
Radiated Emission	1GHz-18GHz	4.29dB	(1)
Radiated Emission	18GHz-40GHz	3.30dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	3.44dB	(1)

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

5 General Information

5.1 General Description of EUT

Product Name:	Integrated Video Conference Terminal
Model No.:	S5VB1, S5VS1、S5MS10、S5VB2、S5VB5、S5VB8
Serial No.:	N/A
Hardware version:	T.RK3399.75B
Software version:	MS10B_Monitor_GENERAL_MS10B_maintain_3399_SRRC_V2_202102241617_5.0.3.01
Test sample(s) ID:	GTSL202105000104-1
Sample(s) Status	Engineer sample
Operation Frequency:	802.11b/802.11g/802.11n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz
Channel numbers:	802.11b/802.11g /802.11n(HT20): 11 802.11n(HT40):7
Channel separation:	5MHz
Modulation technology:	802.11b: Direct Sequence Spread Spectrum (DSSS) 802.11g/802.11n(H20)/802.11n(HT40): Orthogonal Frequency Division Multiplexing (OFDM)
Antenna Type:	Integral Antenna
Antenna gain:	ANT 1: 2.5dBi ANT 2: 2.5dBi
Power supply:	DC 12V From adapter with ac 100-240V
Test Model No.:	S5VB1
Remark: All models differences are only naming method, which represents different customer codes and sales markets, and others are the same	

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Test channel	Frequency (MHz)	
	802.11b/802.11g/802.11n(HT20)	802.11n(HT40)
Lowest channel	2412MHz	2422MHz
Middle channel	2437MHz	2437MHz
Highest channel	2462MHz	2452MHz

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode
<i>Remark: During the test, the dutycycle >98%, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.</i>	

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:				
Pre-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.				
Mode	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)
Data rate	1Mbps	6Mbps	6.5Mbps	13Mbps

5.3 Description of Support Units

None

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations: ● FCC —Registration No.: 381383 Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 381383. ● IC —Registration No.: 9079A The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A ● NVLAP (LAB CODE:600179-0) Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). LAB CODE:600179-0

5.7 Test Location

All tests were performed at:
Global United Technology Services Co., Ltd. Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Tel: 0755-27798480 Fax: 0755-27798960

5.8 Additional Instructions

Test Software	Special test command provided by manufacturer
Power level setup	Default

6 Test Instruments list

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July. 02 2020	July. 01 2025
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June. 25 2020	June. 24 2021
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 25 2020	June. 24 2021
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June. 25 2020	June. 24 2021
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 25 2020	June. 24 2021
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	June. 25 2020	June. 24 2021
9	Coaxial Cable	GTS	N/A	GTS211	June. 25 2020	June. 24 2021
10	Coaxial cable	GTS	N/A	GTS210	June. 25 2020	June. 24 2021
11	Coaxial Cable	GTS	N/A	GTS212	June. 25 2020	June. 24 2021
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 25 2020	June. 24 2021
13	Amplifier(2GHz-20GHz)	HP	84722A	GTS206	June. 25 2020	June. 24 2021
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 25 2020	June. 24 2021
15	Band filter	Amindeon	82346	GTS219	June. 25 2020	June. 24 2021
16	Power Meter	Anritsu	ML2495A	GTS540	June. 25 2020	June. 24 2021
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 25 2020	June. 24 2021
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	June. 25 2020	June. 24 2021
19	Splitter	Agilent	11636B	GTS237	June. 25 2020	June. 24 2021
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	June. 25 2020	June. 24 2021
21	Breitband hornantenne	SCHWARZBECK	BBHA 9170	GTS579	Oct. 18 2020	Oct. 17 2021
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 18 2020	Oct. 17 2021
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 18 2020	Oct. 17 2021
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June. 25 2020	June. 24 2021

Conducted Emission						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May.15 2019	May.14 2022
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 25 2020	June. 24 2021
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June. 25 2020	June. 24 2021
4	ENV216 2-L-V-NETZNACHB.DE	ROHDE&SCHWARZ	ENV216	GTS226	June. 25 2020	June. 24 2021
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Thermo meter	KTJ	TA328	GTS233	June. 25 2020	June. 24 2021
8	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	June. 25 2020	June. 24 2021
9	ISN	SCHWARZBECK	NTFM 8158	GTS565	June. 25 2020	June. 24 2021

RF Conducted Test:						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	June. 25 2020	June. 24 2021
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 25 2020	June. 24 2021
3	Spectrum Analyzer	Agilent	E4440A	GTS533	June. 25 2020	June. 24 2021
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	June. 25 2020	June. 24 2021
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	June. 25 2020	June. 24 2021
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	June. 25 2020	June. 24 2021
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	June. 25 2020	June. 24 2021
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	June. 25 2020	June. 24 2021

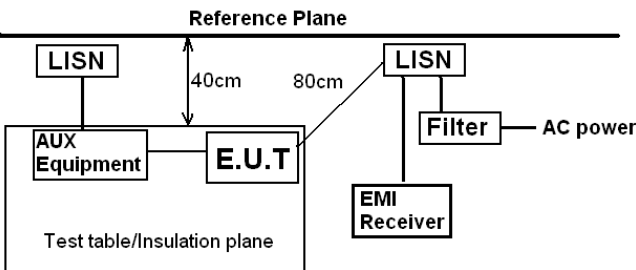
General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	June. 25 2020	June. 24 2021
2	Barometer	ChangChun	DYM3	GTS255	June. 25 2020	June. 24 2021

7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203 /247(c)
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall 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, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.	
EUT Antenna: <i>The antennas are integral antenna, the best case gain of the antennas are 2.5dBi, Two antennas simultaneously transmitting, the Directional Gain is 5.5dBi, Antennas information reference to the appendix II for details</i>	

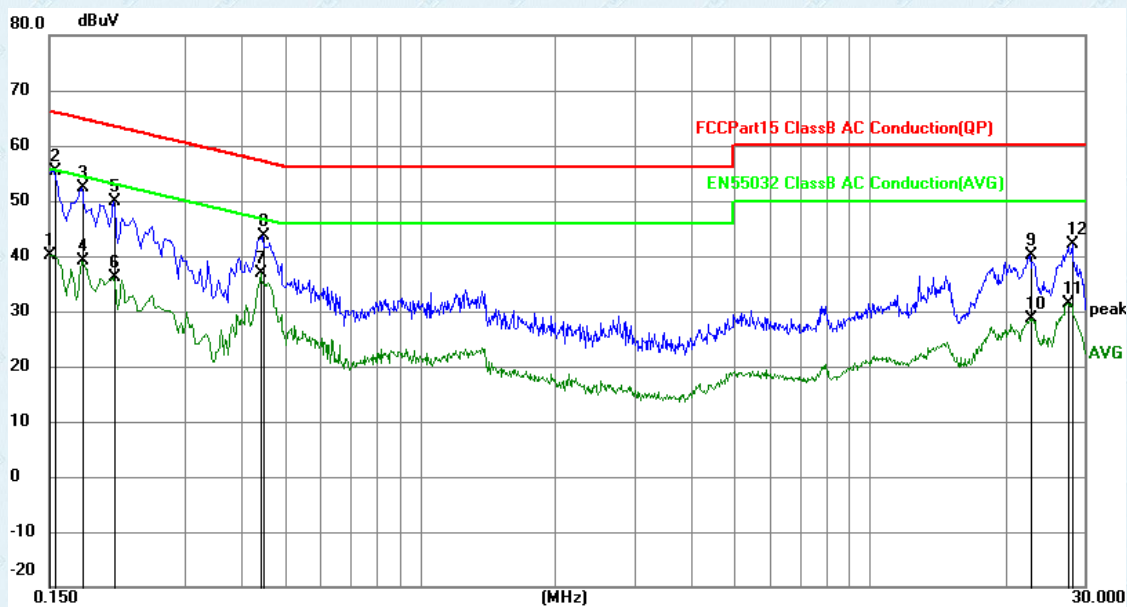
7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207					
Test Method:	ANSI C63.10:2013					
Test Frequency Range:	150KHz to 30MHz					
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto					
Limit:	Frequency range (MHz)	Limit (dBUV)				
		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.						
Test setup:	Reference Plane  Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m					
Test procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.					
Test Instruments:	Refer to section 6.0 for details					
Test mode:	Refer to section 5.2 for details					
Test environment:	Temp.:	25 °C	Humid.:	52%	Press.:	1012mbar
Test voltage:	AC 120V, 60Hz					
Test results:	Pass					

Remark: Both high and low voltages have been tested to show only the worst low voltage test data.

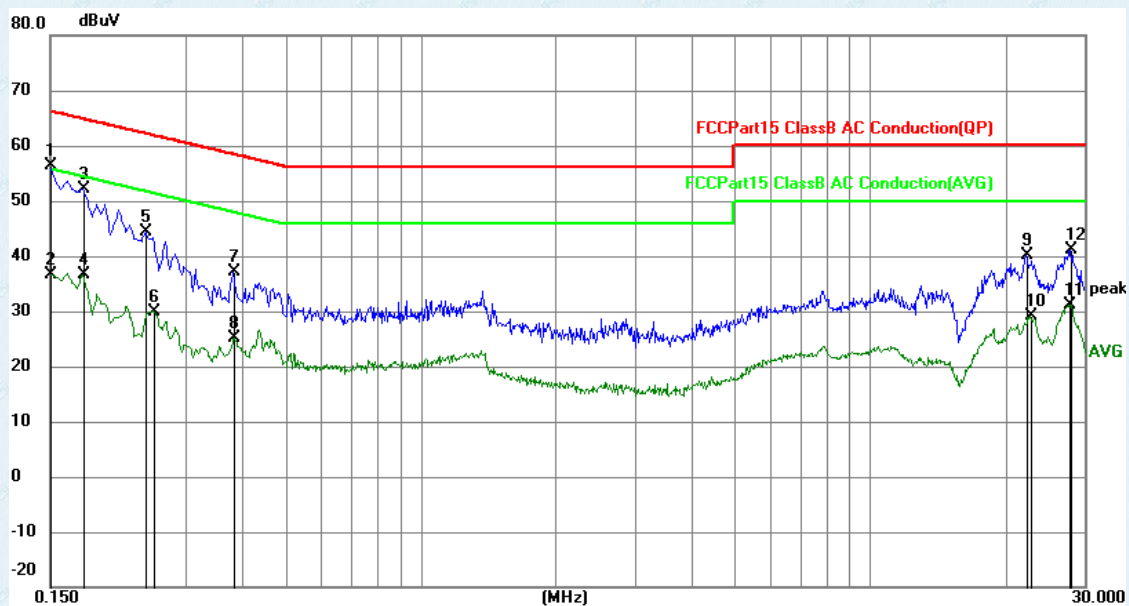
Measurement data

Line:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	29.59	10.49	40.08	56.00	-15.92	AVG
2	0.1545	44.83	10.49	55.32	65.75	-10.43	QP
3	0.1770	41.97	10.47	52.44	64.63	-12.19	QP
4	0.1770	28.70	10.47	39.17	54.63	-15.46	AVG
5	0.2085	39.50	10.45	49.95	63.26	-13.31	QP
6	0.2085	25.60	10.45	36.05	53.26	-17.21	AVG
7	0.4425	26.46	10.37	36.83	47.01	-10.18	AVG
8	0.4470	33.18	10.37	43.55	56.93	-13.38	QP
9	22.7130	29.54	10.60	40.14	60.00	-19.86	QP
10	22.8435	18.14	10.60	28.74	50.00	-21.26	AVG
11	27.6810	20.75	10.67	31.42	50.00	-18.58	AVG
12	28.2165	31.37	10.67	42.04	60.00	-17.96	QP

Neutral:

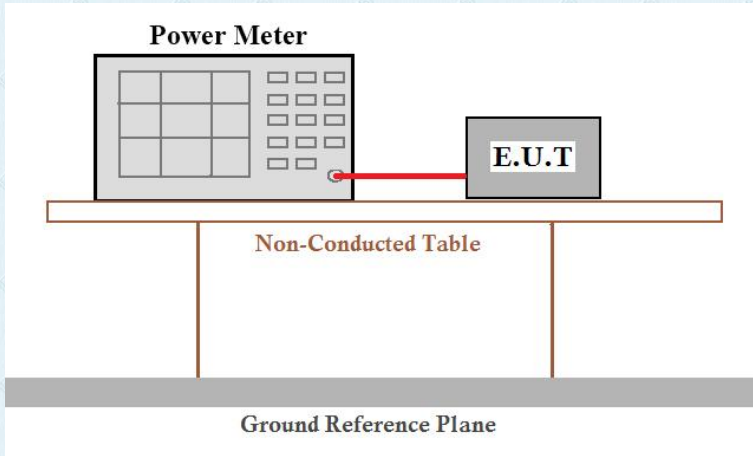


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	45.85	10.49	56.34	66.00	-9.66	QP
2	0.1500	26.22	10.49	36.71	56.00	-19.29	AVG
3	0.1770	41.71	10.47	52.18	64.63	-12.45	QP
4	0.1770	26.21	10.47	36.68	54.63	-17.95	AVG
5	0.2445	33.91	10.43	44.34	61.94	-17.60	QP
6	0.2535	19.58	10.42	30.00	51.64	-21.64	AVG
7	0.3840	26.68	10.38	37.06	58.19	-21.13	QP
8	0.3840	14.83	10.38	25.21	48.19	-22.98	AVG
9	22.2450	29.44	10.59	40.03	60.00	-19.97	QP
10	22.7130	18.43	10.60	29.03	50.00	-20.97	AVG
11	27.7935	20.56	10.67	31.23	50.00	-18.77	AVG
12	27.8835	30.46	10.67	41.13	60.00	-18.87	QP

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Receiver Read level + LISN Factor + Cable Loss
4. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.

7.3 Conducted Peak Output Power

Test Requirement :	FCC Part15 C Section 15.247 (b)(3)
Test Method :	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	30dBm
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

ANT 1(Module RTL8821CU):

Test CH	Peak Output Power (dBm)				Limit(dBm)	Result
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)		
Lowest	16.15	16.53	15.78	15.95	30.00	Pass
Middle	16.57	16.52	16.13	16.13		
Highest	16.22	16.16	15.87	16.02		

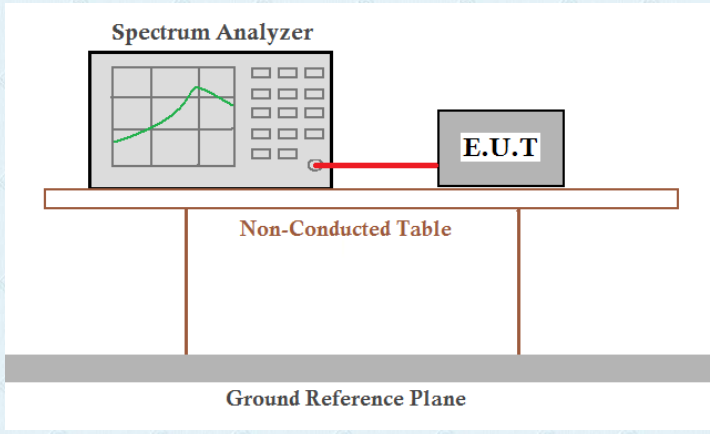
ANT 2(Module RTL8822CU):

Test CH	Peak Output Power (dBm)				Limit(dBm)	Result
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)		
Lowest	14.17	12.11	12.13	10.69	30.00	Pass
Middle	13.98	11.80	11.74	9.85		
Highest	14.08	11.89	11.56	9.84		

ANT1+ANT2

Modulation	Test CH	Peak Output Power (dBm)		Sum Output Power (dBm)	Limit (dBm)	Result
802.11b	Lowest	ANT 1	16.15	18.28	30	Pass
		ANT 2	14.17			
	Middle	ANT 1	16.57	18.48		
		ANT 2	13.98			
	Highest	ANT 1	16.22	18.29		
		ANT 2	14.08			
802.11g	Lowest	ANT 1	16.53	17.87	30	Pass
		ANT 2	12.11			
	Middle	ANT 1	16.52	17.78		
		ANT 2	11.80			
	Highest	ANT 1	16.16	17.54		
		ANT 2	11.89			
802.11n(HT20)	Lowest	ANT 1	15.78	17.34	30	Pass
		ANT 2	12.13			
	Middle	ANT 1	16.13	17.48		
		ANT 2	11.74			
	Highest	ANT 1	15.87	17.24		
		ANT 2	11.56			
802.11n(HT40)	Lowest	ANT 1	15.95	17.08	30	Pass
		ANT 2	10.69			
	Middle	ANT 1	16.13	17.05		
		ANT 2	9.85			
	Highest	ANT 1	16.02	16.96		
		ANT 2	9.84			

7.4 Channel Bandwidth

Test Requirement :	FCC Part15 C Section 15.247 (a)(2)
Test Method :	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	>500KHz
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer, shown with a grid and a green curve, is connected to an E.U.T. (Equipment Under Test) box by a red cable. Both the Spectrum Analyzer and the E.U.T. are positioned on a brown rectangular table labeled 'Non-Conducted Table'. This table is supported by two vertical legs. Below the table, a thick grey horizontal bar represents the 'Ground Reference Plane'.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

ANT 1(Module RTL8821CU):

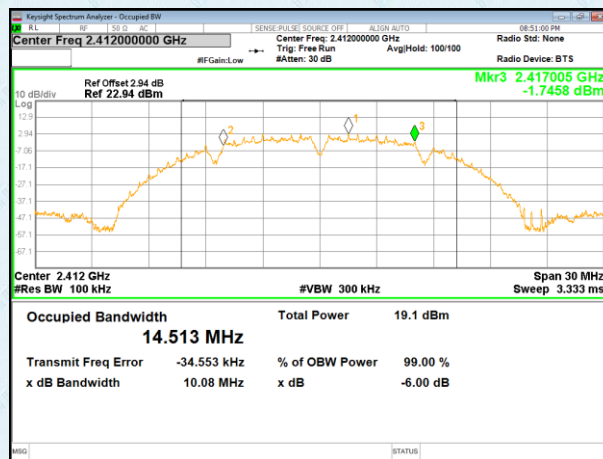
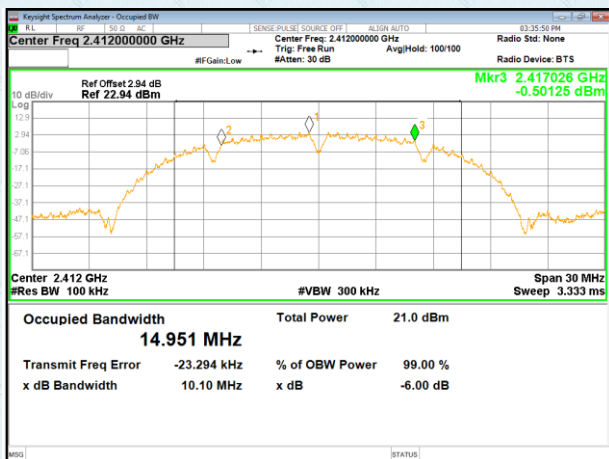
Test CH	Channel Bandwidth (MHz)				Limit(KHz)	Result
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)		
Lowest	10.10	16.52	17.63	36.42	>500	Pass
Middle	10.09	16.52	17.61	36.35		
Highest	10.08	16.51	17.64	36.40		

ANT 2(Module RTL8822CU):

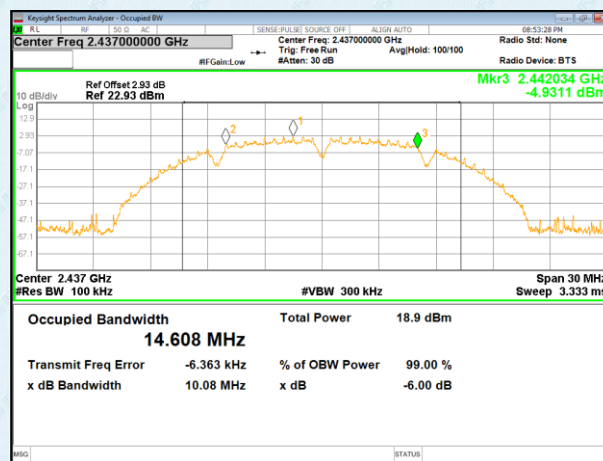
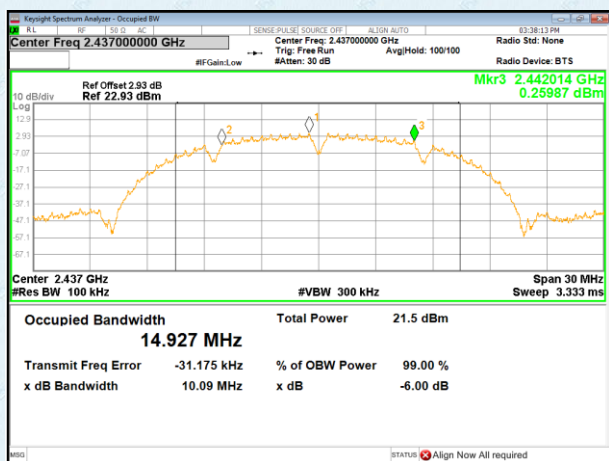
Test CH	Channel Bandwidth (MHz)				Limit(KHz)	Result
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)		
Lowest	10.08	16.30	15.91	35.01	>500	Pass
Middle	10.08	16.33	15.65	34.42		
Highest	10.09	15.43	17.53	35.12		

Test plot as follows:

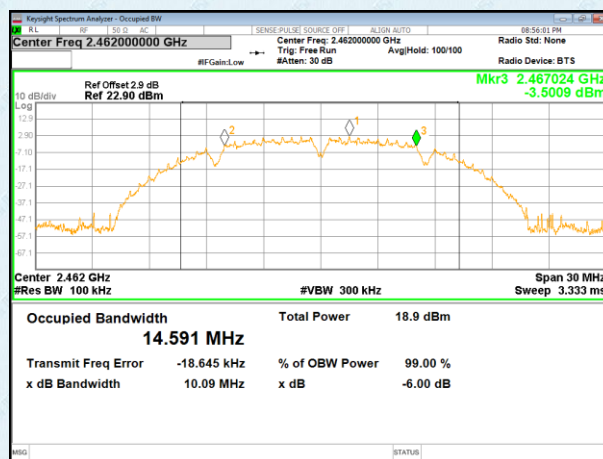
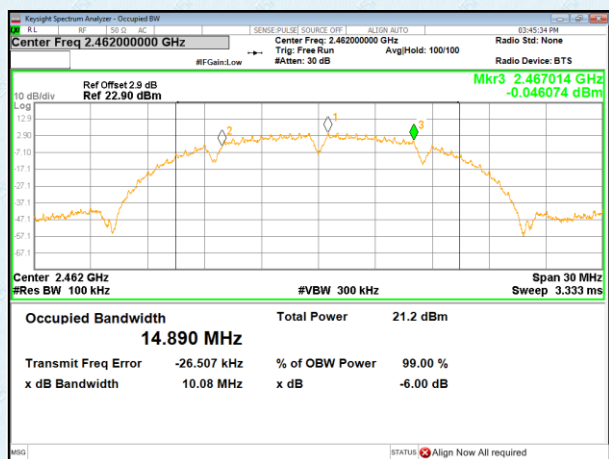
802.11b	ANT 1(Module RTL8821CU)	802.11b	ANT 2(Module RTL8822CU)
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Lowest channel



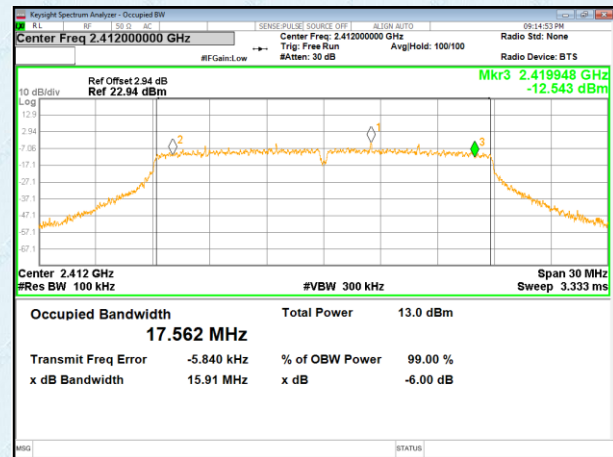
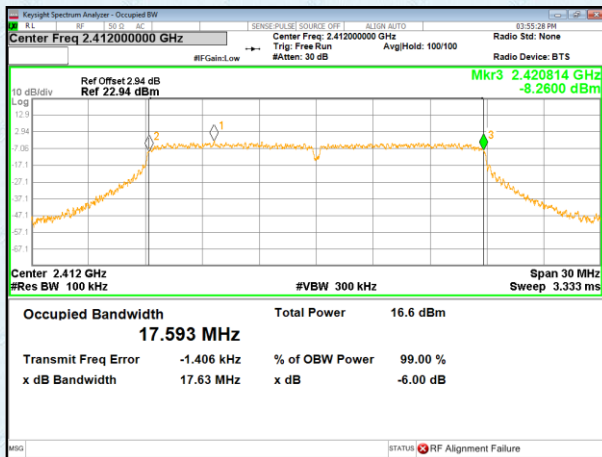
Middle channel



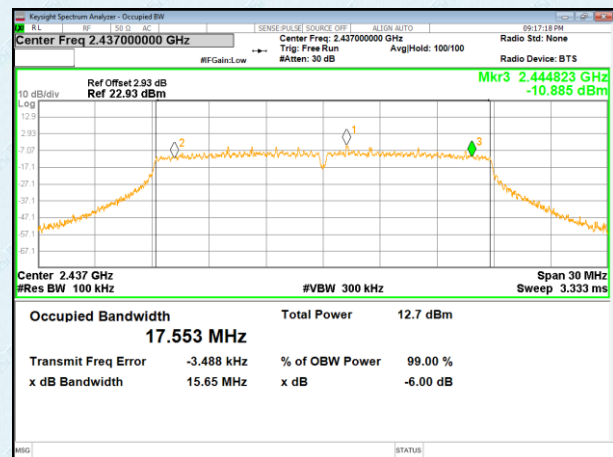
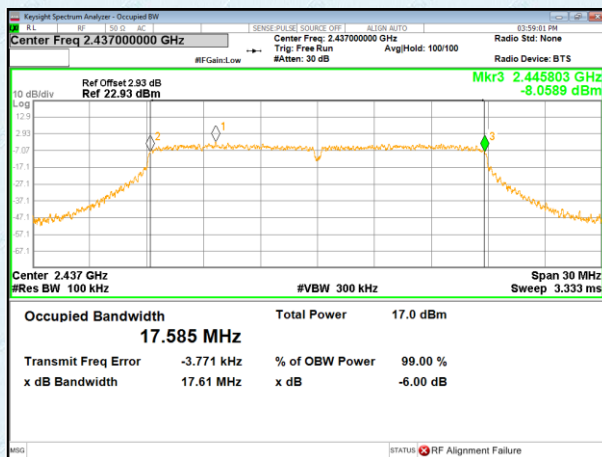
Highest channel



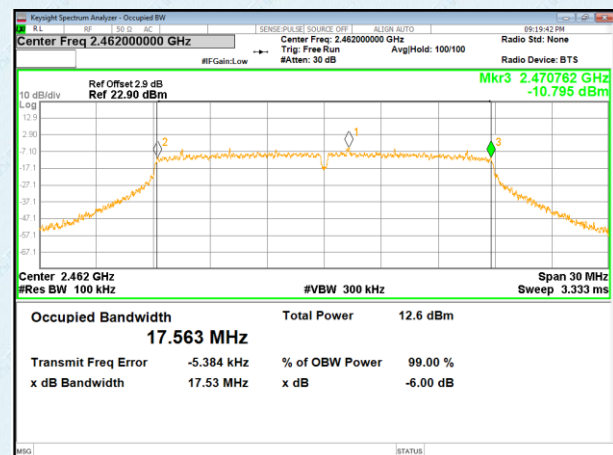
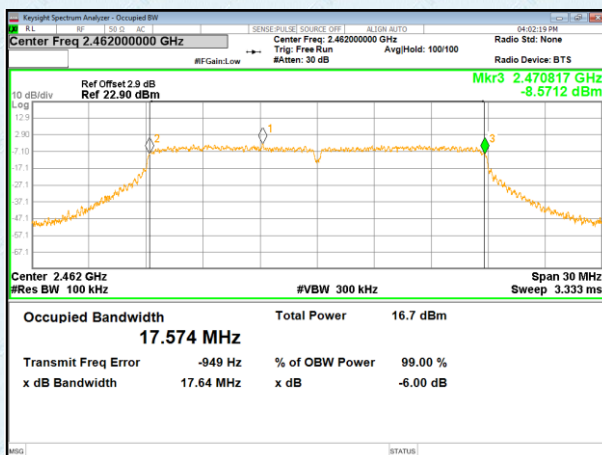
802.11n(HT20)	ANT 1(Module RTL8821CU)	802.11n(HT20)	ANT 2(Module RTL8822CU)
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Lowest channel

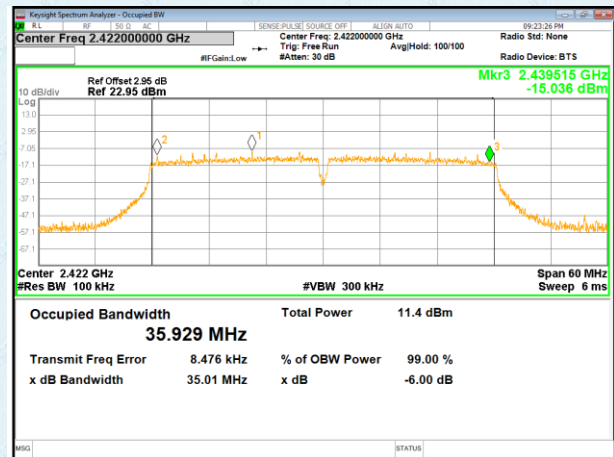
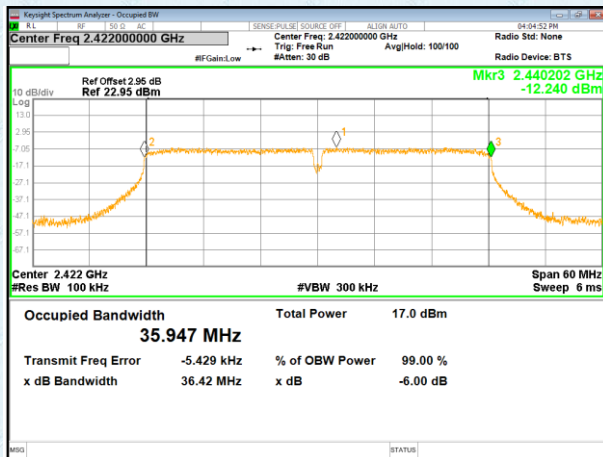


Middle channel

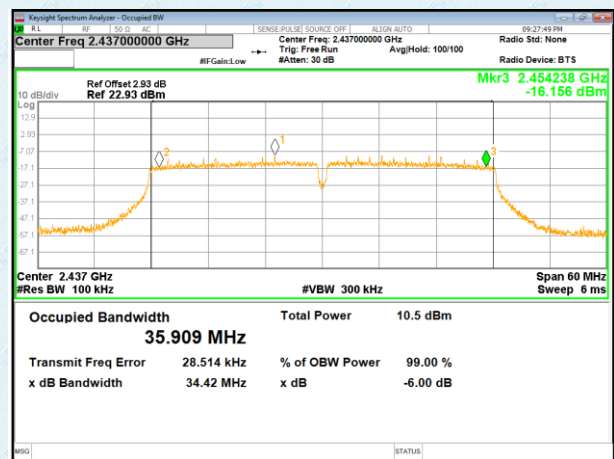
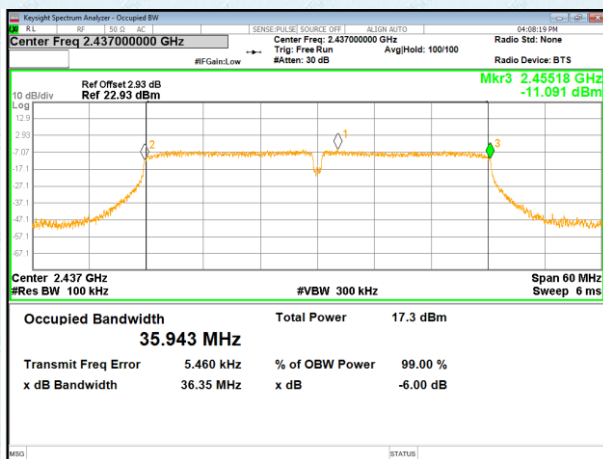


Highest channel

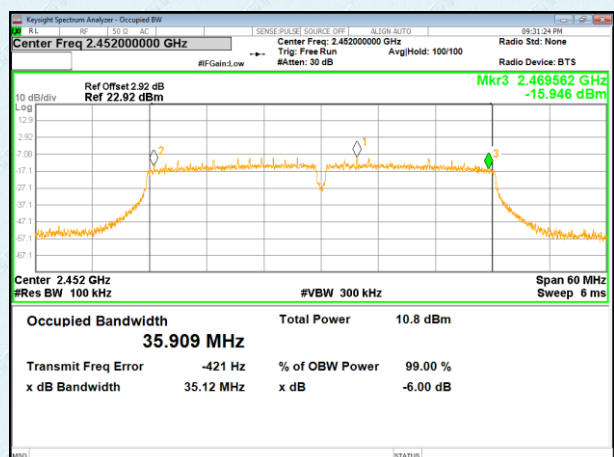
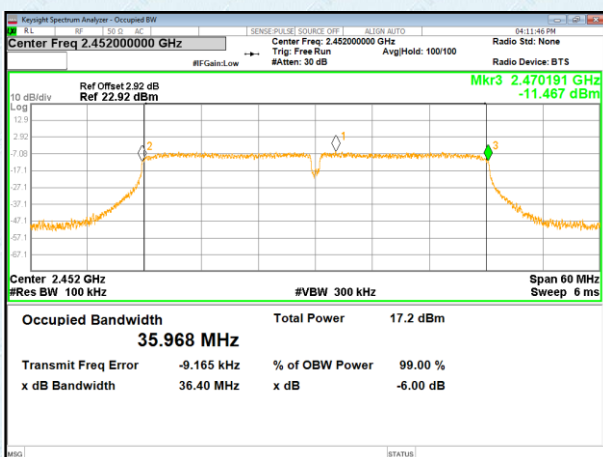
802.11n(HT40)	ANT 1(Module RTL8821CU)	802.11n(HT40)	ANT 2(Module RTL8822CU)
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Lowest channel

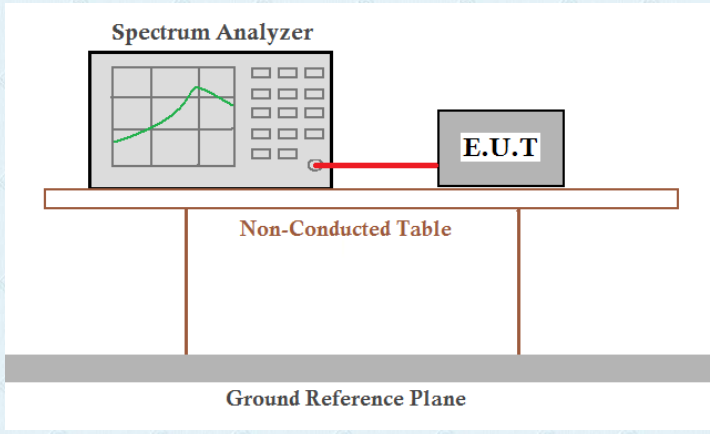


Middle channel



Highest channel

7.5 Power Spectral Density

Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	8dBm/3kHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

ANT 1(Module RTL8821CU):

Test CH	Power Spectral Density (dBm/3kHz)				Limit (dBm/3kHz)	Result
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)		
Lowest	-15.534	-16.268	-16.210	-17.026	8.00	Pass
Middle	-15.113	-16.240	-15.881	-17.421		
Highest	-15.441	-16.430	-16.025	-18.357		

ANT 2(Module RTL8822CU):

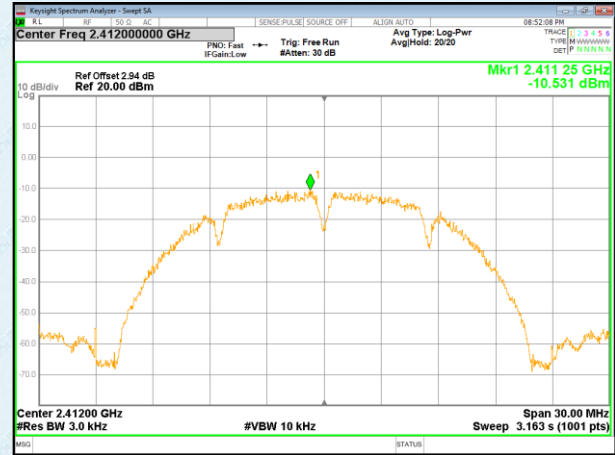
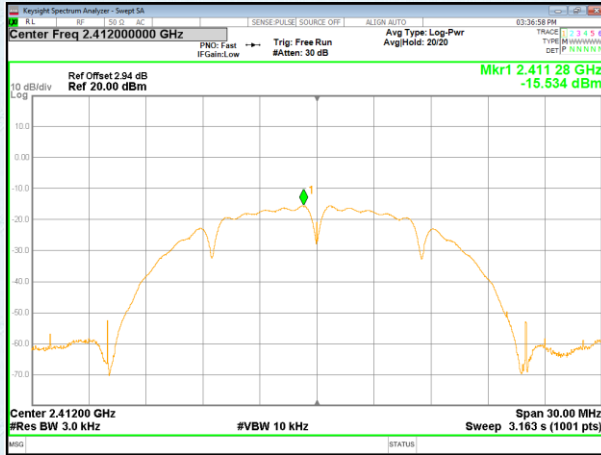
Test CH	Power Spectral Density (dBm/3kHz)				Limit (dBm/3kHz)	Result
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)		
Lowest	-10.531	-16.568	-18.011	-22.474	8.00	Pass
Middle	-10.902	-17.830	-17.710	-23.371		
Highest	-10.556	-17.455	-17.567	-22.839		

ANT1+ANT2

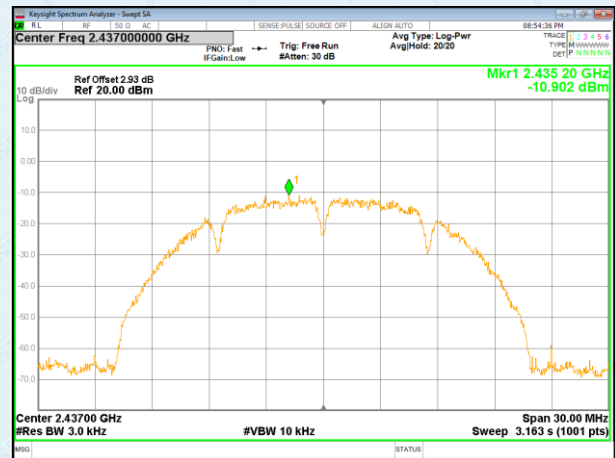
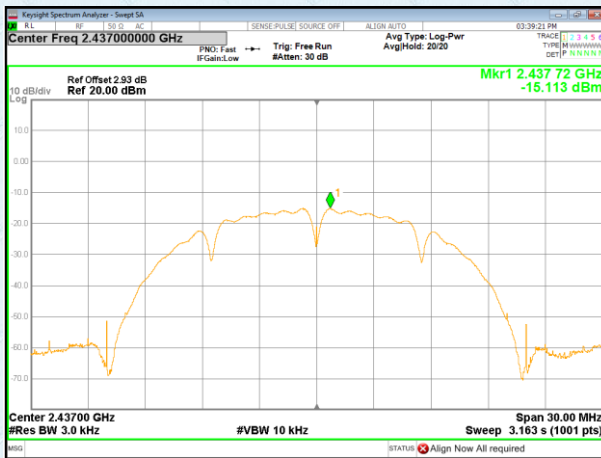
Modulation	Test CH	Power Spectral Density (dBm/3kHz)		Sum Output Power(dBm)	Limit (dBm/3kHz)	Result
802.11b	Lowest	ANT 1	-15.534	-9.338	8	Pass
		ANT 2	-10.531			
	Middle	ANT 1	-15.113	-9.506		
		ANT 2	-10.902			
	Highest	ANT 1	-15.441	-9.335		
		ANT 2	-10.556			
802.11g	Lowest	ANT 1	-16.268	-13.405	8	Pass
		ANT 2	-16.568			
	Middle	ANT 1	-16.240	-13.952		
		ANT 2	-17.830			
	Highest	ANT 1	-16.430	-13.902		
		ANT 2	-17.455			
802.11n(HT20)	Lowest	ANT 1	-16.210	-14.001	8	Pass
		ANT 2	-18.011			
	Middle	ANT 1	-15.881	-13.690		
		ANT 2	-17.710			
	Highest	ANT 1	-16.025	-13.776		
		ANT 2	-17.567			
802.11n(HT40)	Lowest	ANT 1	-17.026	-15.936	8	Pass
		ANT 2	-22.474			
	Middle	ANT 1	-17.421	-17.416		
		ANT 2	-23.371			
	Highest	ANT 1	-18.357	-17.033		
		ANT 2	-22.839			

Test plot as follows:

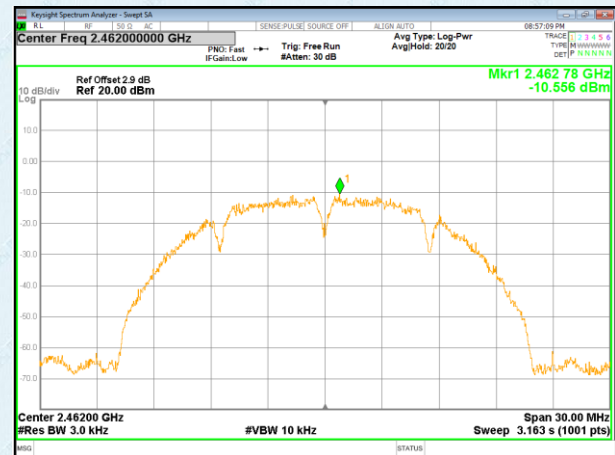
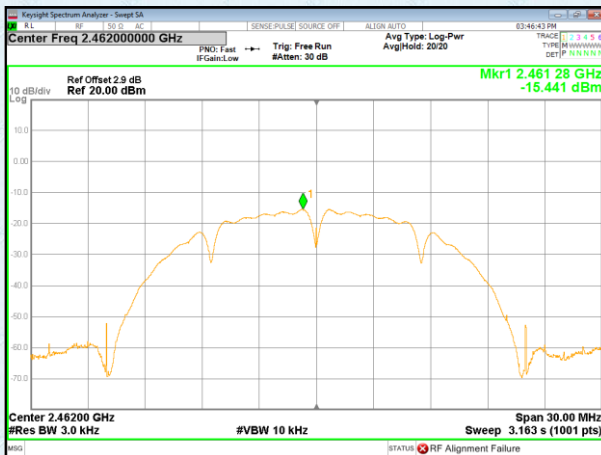
802.11b	ANT 1(Module RTL8821CU)	802.11b	ANT 2(Module RTL8822CU)
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Lowest channel

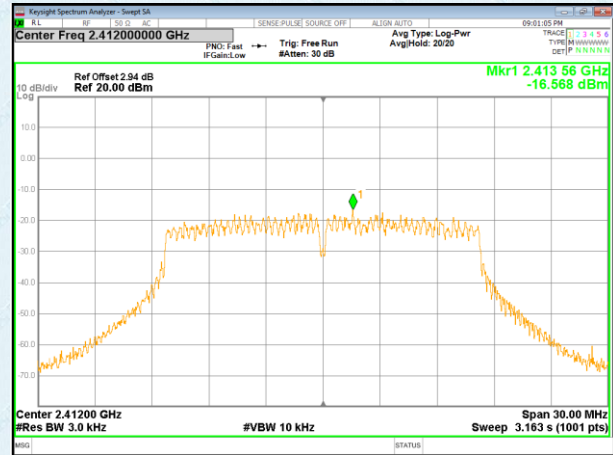
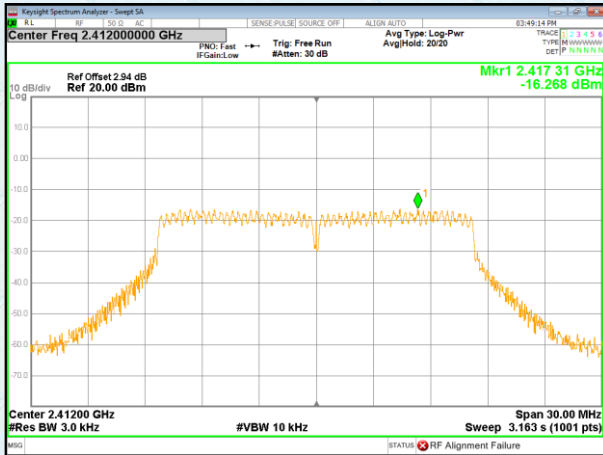


Middle channel

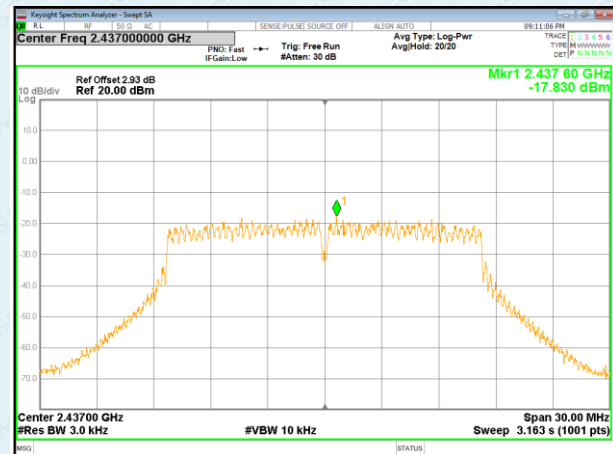
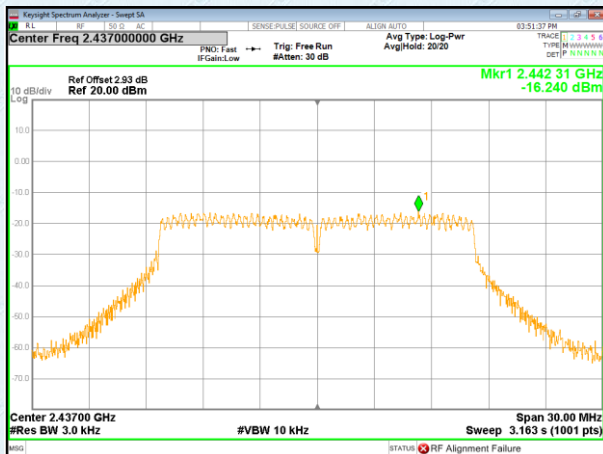


Highest channel

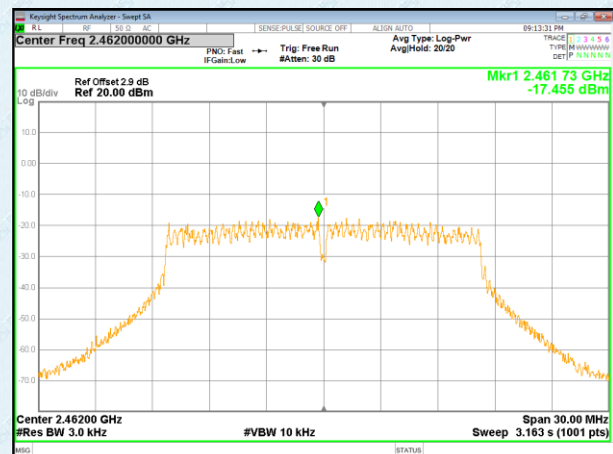
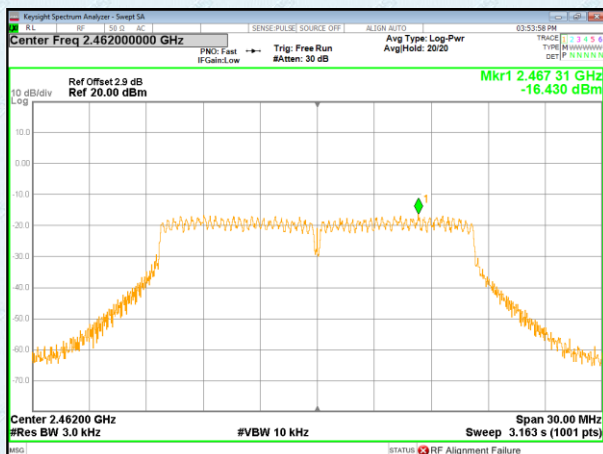
802.11g	ANT 1(Module RTL8821CU)	802.11g	ANT 2(Module RTL8822CU)
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Lowest channel

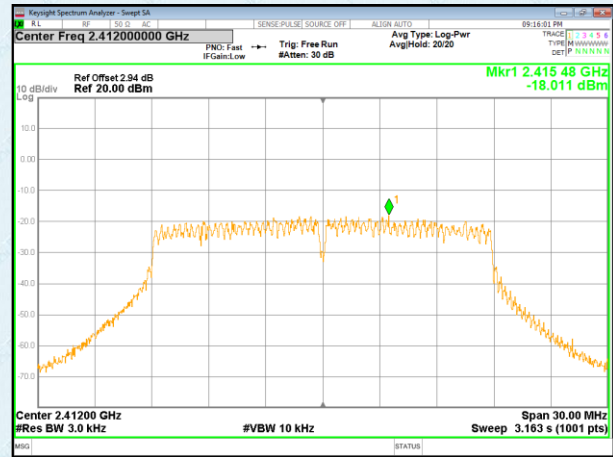
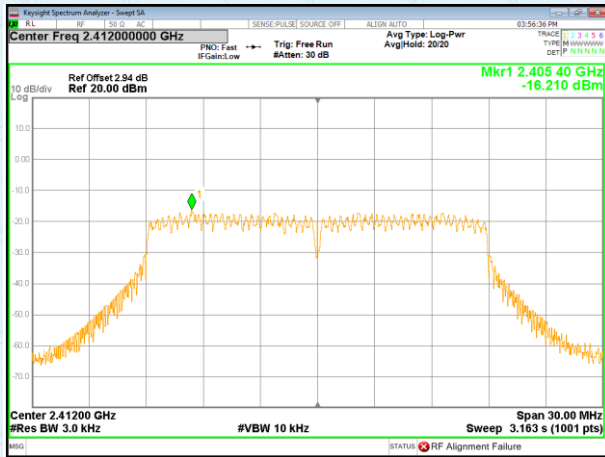


Middle channel

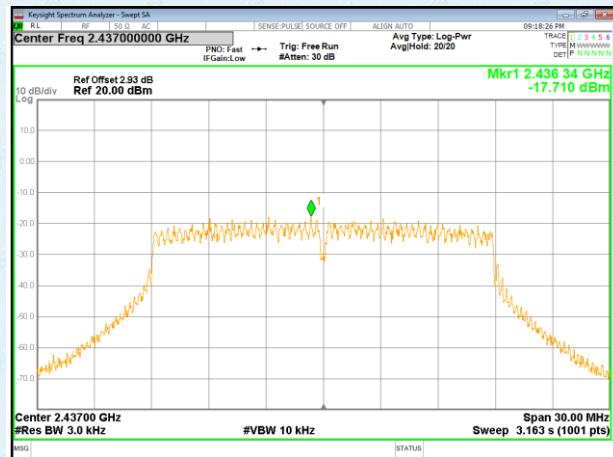
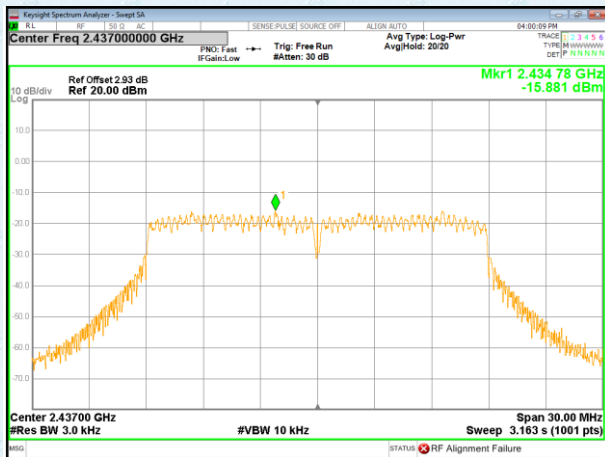


Highest channel

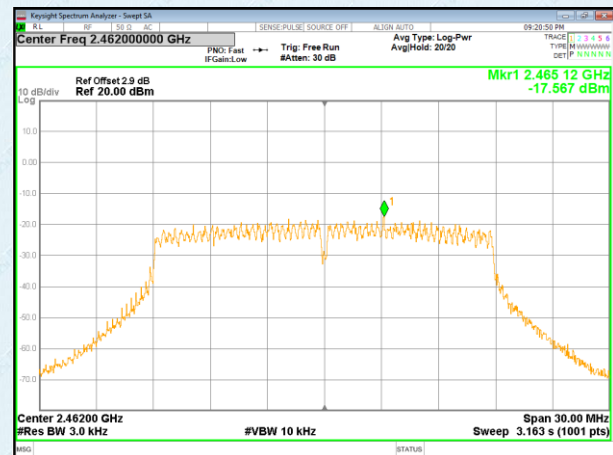
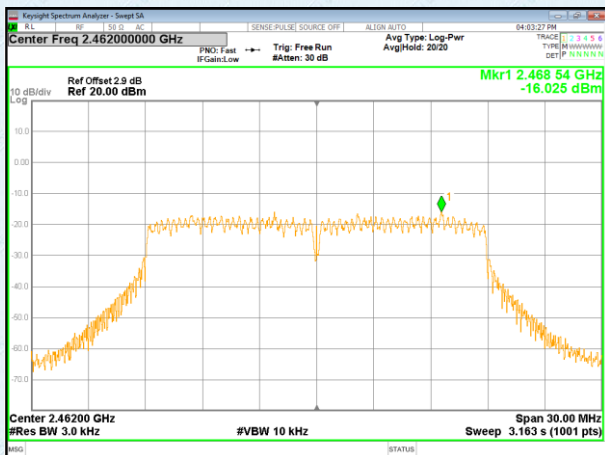
802.11n(HT20)	ANT 1(Module RTL8821CU)	802.11n(HT20)	ANT 2(Module RTL8822CU)
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Lowest channel

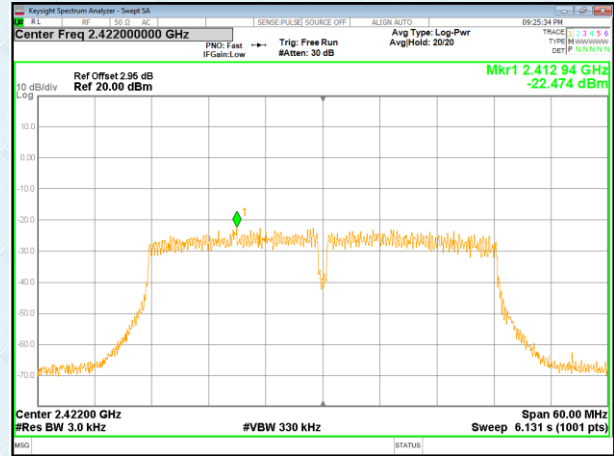
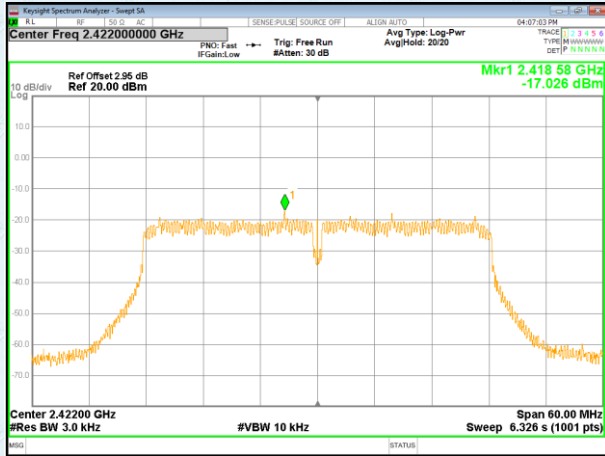


Middle channel

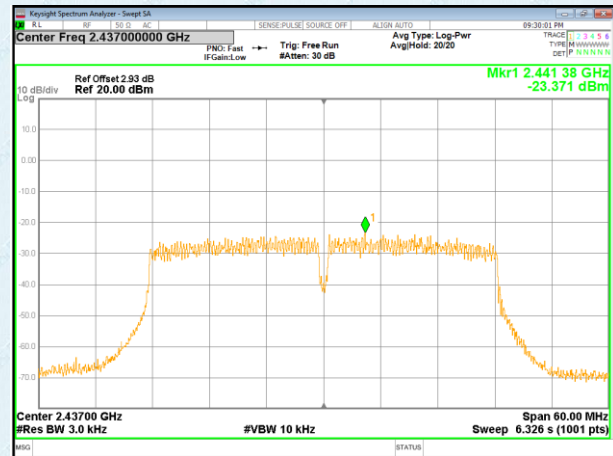
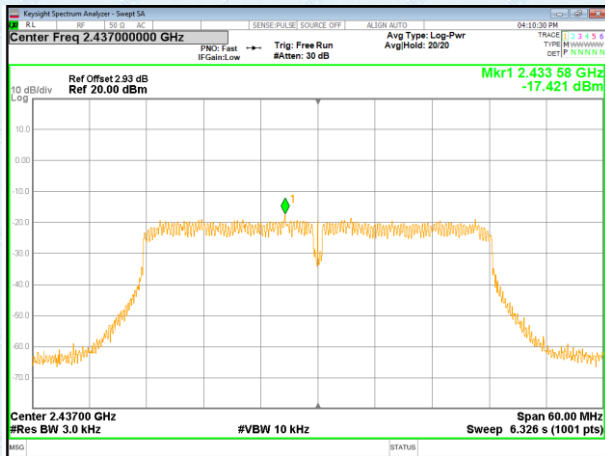


Highest channel

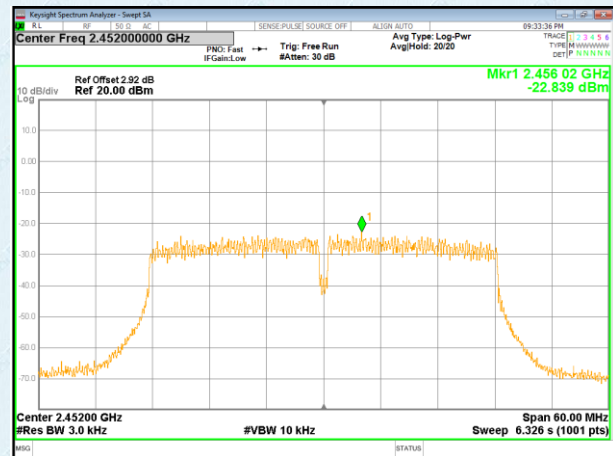
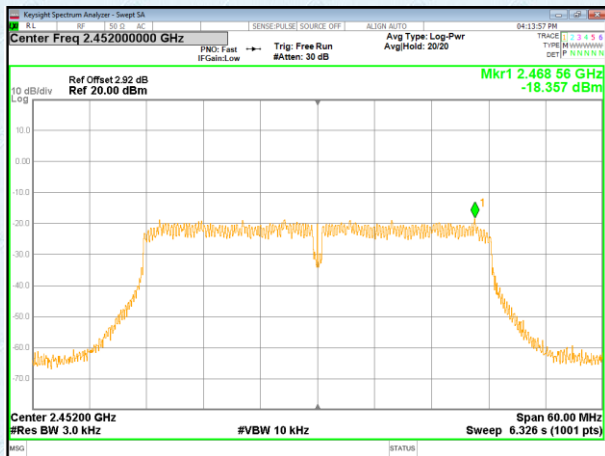
802.11n(HT40)	ANT 1(Module RTL8821CU)	802.11n(HT40)	ANT 2(Module RTL8822CU)
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Lowest channel



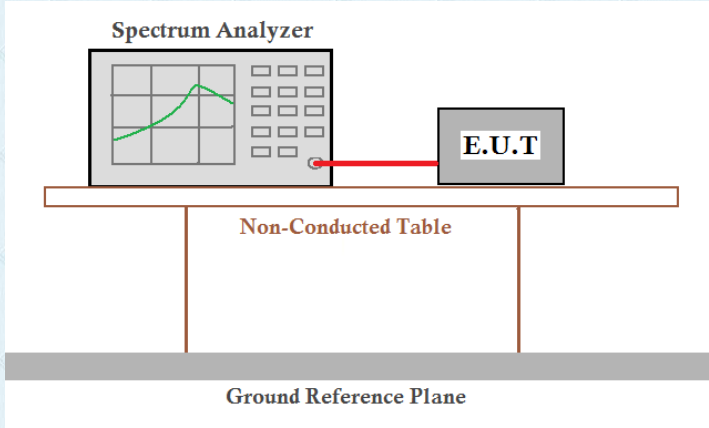
Middle channel



Highest channel

7.6 Band edges

7.6.1 Conducted Emission Method

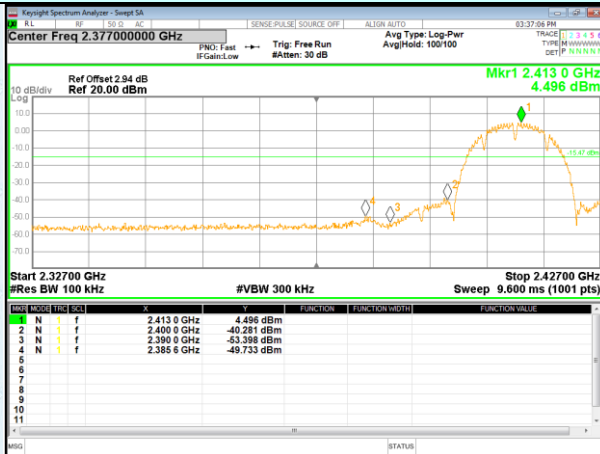
Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB558074 D01 15.247 Meas Guidance v05r02
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall 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.
Test setup:	 The diagram illustrates the test setup for conducted emission measurement. A Spectrum Analyzer is connected via a red cable to an E.U.T (Equipment Under Test). Both are placed on a Non-Conducted Table, which sits on a Ground Reference Plane.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Test plot as follows:

ANT 1(Module RTL8821CU):

Test mode:

802.11b



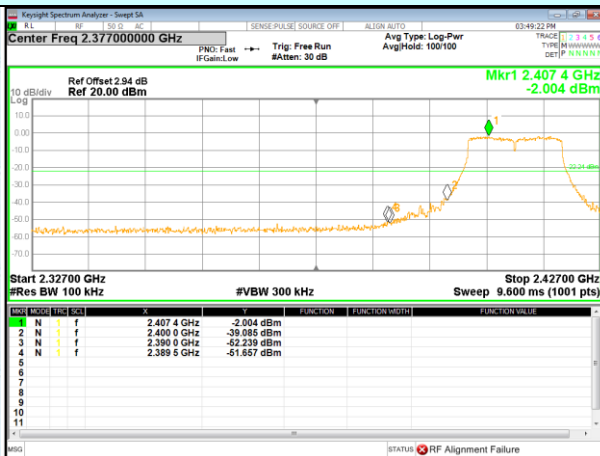
Lowest channel



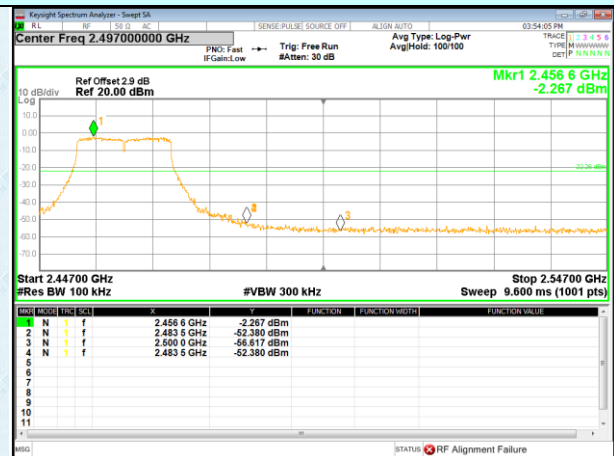
Highest channel

Test mode:

802.11g



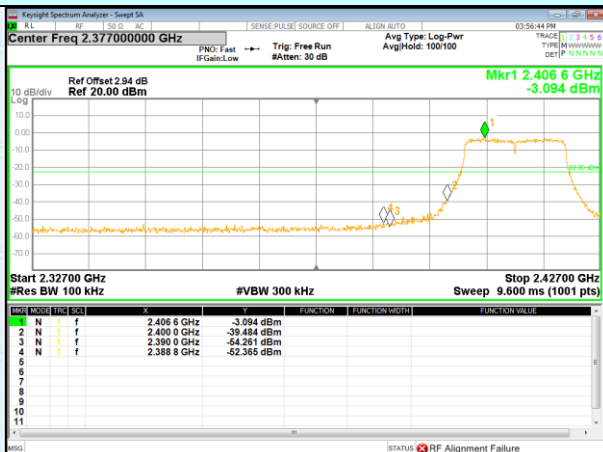
Lowest channel



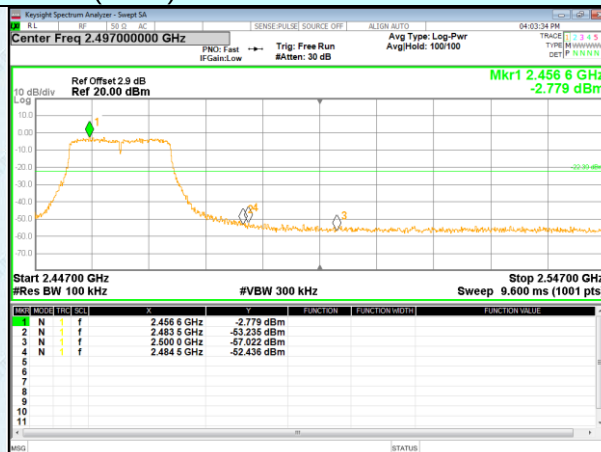
Highest channel

Test mode:

802.11n(HT20)



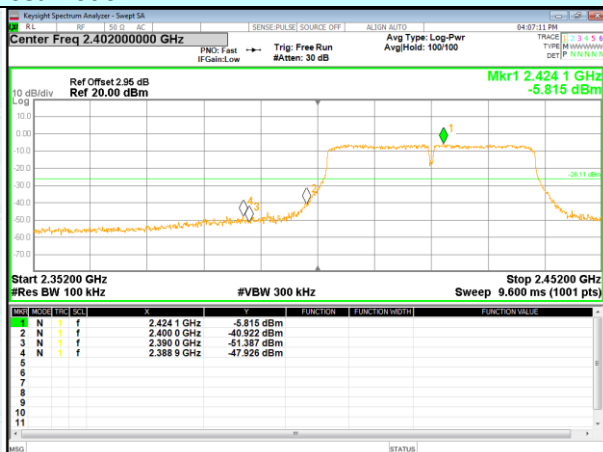
Lowest channel



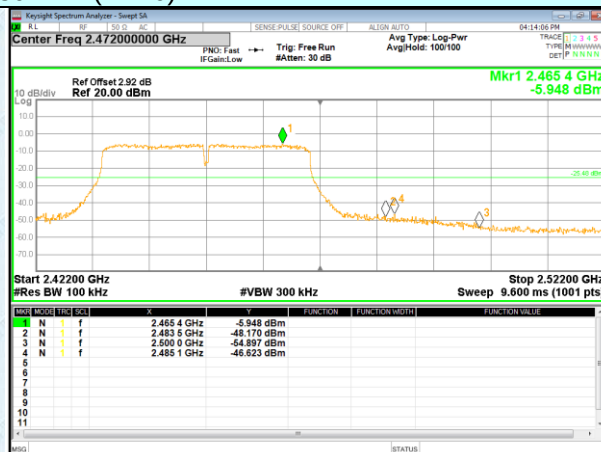
Highest channel

Test mode:

802.11n(HT40)



Lowest channel



Highest channel