

FCC RADIO TEST REPORT

Applicant.....: Guangzhou Driven Technology Co., Ltd
Address.....: Room 510, Bldg.A No.19 Lianhe Street, Nanxiang 3rd Road, Huangpu district,
Guangzhou, Guangdong Province, China
Manufacturer.....: Guangzhou Driven Technology Co., Ltd
Address.....: Room 510, Bldg.A No.19 Lianhe Street, Nanxiang 3rd Road, Huangpu district,
Guangzhou, Guangdong Province, China
Factory.....: Guangzhou Driven Technology Co., Ltd
Address.....: Room 510, Bldg.A No.19 Lianhe Street, Nanxiang 3rd Road, Huangpu district,
Guangzhou, Guangdong Province, China
Product Name.....: 10.1-inch Smart Control & Infotainment System
Brand Name.....: DrivenSmart
Model No.: RVCS-CS-X101
FCC ID: 2BSZHRVCS-CS-X101
Measurement Standard....: 47 CFR FCC PART 15 Subpart E (section 407)
Receipt Date of Samples....: October 13, 2025
Date of Tested.....: October 13, 2025 to December 24, 2025
Date of Report.....: December 26, 2025

This report shows that above equipment is technically compliant with the requirements of the standards above. All test results in this report apply only to the tested sample(s). Without prior written approval of Dongguan Nore Testing Center Co., Ltd, this report shall not be reproduced except in full.



Prepared by

Jenny Liu / Project Engineer



Approved by

Iori Fan / Authorized Signatory

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1. Summary of Test Result

FCC Rules	Description of Test	Result	Remarks
§15.207 (a)	AC Power Conducted Emission	N/A	---
§15.407(a)	Max. Conducted Output Power	PASS	---
§15.407(a)	26dB Spectrum Bandwidth and 99% Occupied Bandwidth	PASS	---
§15.407(e)	6dB Bandwidth	PASS	---
§15.407(a)	Power Spectral Density	PASS	---
§15.407(b) §15.205	Radiated Emissions	PASS	---
§15.407(b)	Band Edge Emissions	PASS	---
§15.407(g)	Frequency Stability	PASS	---
§15.203	Antenna Requirement	PASS	---
§15.407(h)	Dynamic Frequency Selection	N/A	---
Note: N/A means not applicable.			

2. General Description of EUT

Product Information	
Product Name:	10.1-inch Smart Control & Infotainment System
Main Model Name:	RVCS-CS-X101
Additional Model Name:	N/A
Model difference:	N/A
S/N:	2510-6627
Brand Name:	DrivenSmart
Hardware Version:	L837/L838_7708_VER_N_240802_FR4(MAIN)
Software Version:	MCU Version 2025.06.24 14:05:53(MAIN)
Rating:	DC 12V
Typical Arrangement:	Table-top
Temperature range:	-20℃~70℃
I/O Port:	Refer to the user manual
Accessories Information	
Adapter:	N/A
Cable:	N/A
Other:	N/A
Additional Information	
Note:	N/A
Remark:	All the information above are provided by the manufacturer. More detailed feature of the EUT please refers to the user manual.

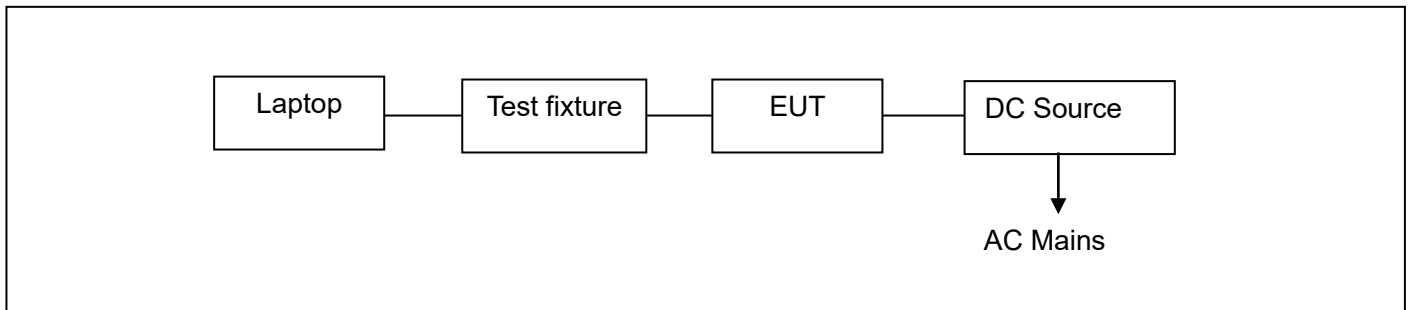
Technical Specification	
Frequency Range:	5150-5250MHz 5725-5850MHz
Modulation Technology:	DSSS, OFDM
Modulation Type:	BPSK, QPSK for 802.11a 1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK for 802.11n/ac
Number of Channel:	U-NII-1 4 Channel for 802.11a/n(HT20)/ac(VHT20) 2 Channel for 802.11n(HT40)/ac(VHT40) 1 Channel for 802.11ac(VHT80) U-NII-3: 5 Channel for 802.11a/n(HT20)/ac(VHT20) 2 Channel for 802.11n(HT40)/ac(VHT40) 1 Channel for 802.11ac(VHT80)
Antenna Type:	SMD Antenna
Number of Antenna:	1
Antenna Gain:	2 dBi (Declared by the manufacturer)
Beamforming Gain:	Not support
Note: The product will consist of three module and this report only applies to 5GHz WLAN feature of module 1.	

Channel List					
U-NII-1 Band 5180~5250MHz					
IEEE 802.11a/n(HT20)/ac(VHT20)		IEEE 802.11n(HT40)/ac(VHT40)		IEEE 802.11 ac (VHT80)	
Channel	Frequency MHz	Channel	Frequency MHz	Channel	Frequency MHz
36	5180	38	5190	42	5210
40	5200	46	5230	-	-
44	5220	-	-	-	-
48	5240	-	-	-	-
U-NII-3 Band 5725~5850MHz					
IEEE 802.11a/n(HT20)/ac(VHT20)		IEEE 802.11n(HT40)/ac(VHT40)		IEEE 802.11 ac (VHT80)	
Channel	Frequency MHz	Channel	Frequency MHz	Channel	Frequency MHz
149	5745	151	5755	155	5775
153	5765	159	5795	-	-
157	5785	-	-		
161	5805	-	-		
165	5825	-	-		

3. Test Channels and Modes Detail

No.	Mode	Channel	Frequency (MHz)	Remark
1	TX	36	5180	IEEE 802.11a/n(HT20)/ac(HT20)
		40	5200	IEEE 802.11a/n(HT20)/ac(HT20)
		48	5240	IEEE 802.11a/n(HT20) /ac(HT20)
		149	5745	IEEE 802.11a/n(HT20) /ac(HT20)
		157	5785	IEEE 802.11a/n(HT20) /ac(HT20)
		165	5825	IEEE 802.11a/n(HT20) /ac(HT20)
		38	5190	IEEE 802.11n(HT40) /ac(VHT40)
		46	5230	IEEE 802.11n(HT40) /ac(VHT40)
		151	5755	IEEE 802.11n(HT40) /ac(VHT40)
		159	5795	IEEE 802.11n(HT40) /ac(VHT40)
		42	5210	IEEE 802.11ac(VHT80)
		155	5775	IEEE 802.11ac(VHT80)
2.	Normal Mode	---	---	---
Note: TX mode means that the EUT was programmed to be in continuously transmitting mode.				

4. Configuration of EUT



5. Modification of EUT

No modifications are made to the EUT during all test items.

6. Description of Support Device

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Equipment	Brand	M/N	S/N	Specification	Remarks
1.	Laptop	Lenovo	R720-15 1KBN	PF0Z35FH	I/P: AC 100-240V 50-60Hz, 1.5A O/P: DC 20V 6.75A Power cord: 1.10m unshielded DC Line: 1.15m unshielded with a core	Provide by the Lab
2.	Adapter (for laptop)	Delta	ADL135N DC3A	---		Provide by the Lab
3.	Router	LINKSYS	WRT320 0ACM	060A621419	FCC ID: Q87-WRT3200ACM IC: 3839A-WRT3200ACM	Provided by the Lab
4.	Adapter (for router)	LINKSYS	Mu42-31 20300-A1	2A5C142	Input: AC 100-240V 50/60Hz 1.5A Output: DC 12V 3A	Provided by the Lab
5.	DC Source	MAYNUO	M8811	0800109601 60105048	----	Provided by the Lab

No.	Test Software	Modulation	Power Setting	
			5.1 G WIFI	5.8G WIFI
1.	Pandora_R22.21.1701	IEEE 802.11a	1	15
2.		IEEE 802.11n(HT20)	1	15
3.		IEEE 802.11ac(VHT20)	1	15
4.		IEEE 802.11n(HT40)	1	15
5.		IEEE 802.11ac(VHT40)	1	15
6.		IEEE 802.11ac(VHT80)	1	15

7. Test Facility and Location

Test Site	:	Dongguan Nore Testing Center Co., Ltd. (Dongguan NTC Co., Ltd.)
Accreditations and Authorizations	:	The Laboratory has been assessed and proved to be in compliance with CNAS/CL01 Listed by CNAS, August 13, 2018 The Certificate Registration Number is L5795. The Certificate is valid until August 13, 2030 The Laboratory has been assessed and proved to be in compliance with ISO17025 Listed by A2LA, November 01, 2017 The Certificate Registration Number is 4429.01 The Certificate is valid until December 31, 2027 Listed by FCC, November 06, 2017 Test Firm Registration Number: 907417 Listed by ISED, June 08, 2017 The Certificate Registration Number. Is 46405-9743A The CAB identifier number: CN0015
Test Site Location	:	Room 101, 1101, Building 2, No. 61, Hongmei Section, Wangsha Road, Hongmei Town, Dongguan, Guangdong, People's Republic of China

8. Applicable Standards and References

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

Test Standards:

47 CFR Part 15, Subpart E, 15.407

ANSI C63.10-2020

References Test Guidance:

KDB 789033 D02 v02r01

9. Deviations and Abnormalities from Standard Conditions

No additions, deviations and exclusions from the standard.

10. Test Conditions

No.	Test Item	Test Mode	Test Voltage	Tested by	Remarks
1.	AC Power Conducted Emission	---	---	---	---
2.	Max. Conducted Output Power	1	DC 12V	Sean	See note 1
3.	26dB Spectrum Bandwidth and 99% Occupied Bandwidth	1	DC 12V	Sean	See note 1
4.	6dB Bandwidth	1	DC 12V	Sean	See note 1
5.	Power Spectral Density	1	DC 12V	Sean	See note 1
6.	Radiated Emissions	1, 2	DC 12V	Sean	See note 1,3
7.	Band Edge Emissions	1	DC 12V	Sean	See note 1
8.	Frequency Stability	1	DC 12V	Sean	See note 1
9.	Antenna Requirement	---	---	---	---
10.	Dynamic Frequency Selection	---	---	---	---

Note:

1. The testing climatic conditions for temperature, humidity, and atmospheric pressure are within: 15~35℃, 30~70%, 86~106kPa
2. DC 12V come from DC source, only the worst case was recorded in the report.
3. As the EUT can be operated multiple positions, all X,Y,Z axis were considered during the test and only the worst case X was recorded.

11. Measurement Uncertainty

No.	Test Item	Frequency	Uncertainty	Remarks
1.	Conducted Emission	150KHz ~ 30MHz	±2.46 dB	---
2.	Radiated Emission Test	9kHz ~ 30MHz	±5.63 dB	---
		30MHz ~ 1GHz	±5.63 dB	---
		1GHz ~ 18GHz	±5.16 dB	---
		18GHz ~ 40GHz	±5.16 dB	---
3.	Conducted Spurious Emissions	10Hz ~ 40GHz	±1.06 dB	---
4.	RF Output Power	10Hz ~ 40GHz	±1.08 dB	---
5.	Power Spectral Density	10Hz ~ 40GHz	±1.08 dB	---
6.	Occupied Channel Bandwidth	---	±1.05%	---
7.	Time	---	±5%	---
8.	Radio Frequency	---	0.8*10 ⁻⁷	---

Note:

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
2. The measurement uncertainty levels above are estimated and calculated according to CISPR 16-4-2.
3. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

12. Sample Calculations

Conducted Emission						
Freq. (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Detector
0.1900	30.10	10.60	40.70	79.00	-38.30	QP
Where, Freq. = Emission frequency in MHz Reading Level = Spectrum Analyzer/Receiver reading Corrector Factor = Insertion loss of LISN + Cable Loss + RF Switching Unit attenuation Measurement = Reading + Corrector Factor Limit = Limit stated in standard Margin = Measurement - Limit Detector = Reading for Quasi-Peak / Average / Peak						

Radiated Spurious Emissions and Restricted Bands						
Freq. (MHz)	Reading Level (dBuV)	Correct Factor (dB/m)	Measurement (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector
60.0700	45.88	-18.38	27.50	49.00	-21.50	QP
Where, Freq. = Emission frequency in MHz Reading Level = Spectrum Analyzer/Receiver reading Corrector Factor = Antenna Factor + Cable Loss - Pre-amplifier Measurement = Reading + Corrector Factor Limit = Limit stated in standard Over = Margin, which calculated by Measurement - Limit Detector = Reading for Quasi-Peak / Average / Peak						

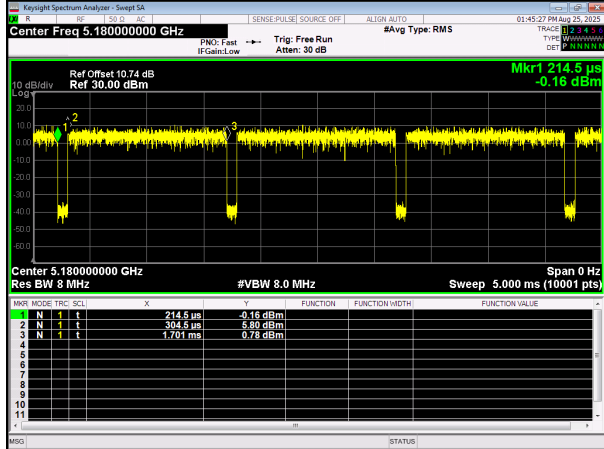
Note: For all conducted test items, the spectrum analyzer offset or transducer is derived from RF cable loss and attenuator factor. The offset or transducer is equal to the RF cable loss plus attenuator factor.

13. Duty cycle

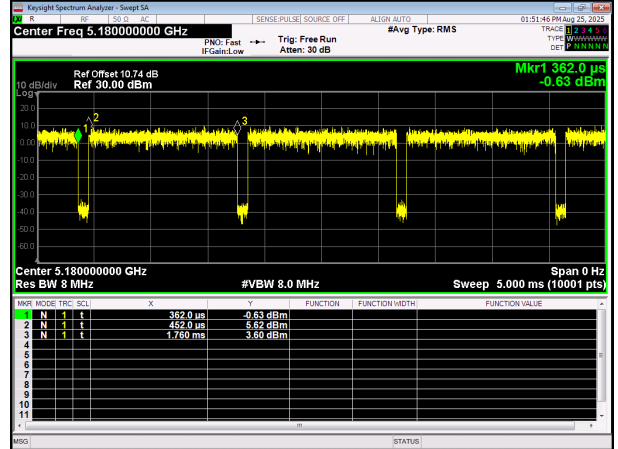
Operation Band (MHz)	Mode	Ton (ms)	Ton+off (ms)	Duty Cycle (%)	1/T minimum VBW (kHz)	Duty Cycle Factor (dB)
U-NII-1	802.11a	1.3965	1.4865	93.95%	0.72	0.27
	802.11n(HT20)	1.308	1.398	93.56%	0.76	0.29
	802.11n(HT40)	0.648	0.738	87.80%	1.54	0.56
	802.11ac(VHT20)	1.317	1.406	93.67%	0.76	0.29
	802.11ac(VHT40)	0.656	0.746	87.94%	1.52	0.56
	802.11ac(VHT80)	0.324	0.413	78.45%	3.09	1.05
U-NII-3	802.11a	1.3965	1.486	93.98%	0.72	0.27
	802.11n(HT20)	1.309	1.398	93.63%	0.76	0.29
	802.11n(HT40)	0.6485	0.738	87.87%	1.54	0.56
	802.11ac(VHT20)	1.3165	1.406	93.63%	0.76	0.29
	802.11ac(VHT40)	0.6565	0.746	88.00%	1.52	0.56
	802.11ac(VHT80)	0.3245	0.422	76.90%	3.08	1.14
Remark: Duty Cycle= (Ton/ Ton+off)*100% Duty Cycle factor=10*log(1/ Duty cycle)						

U-NII-1 Band

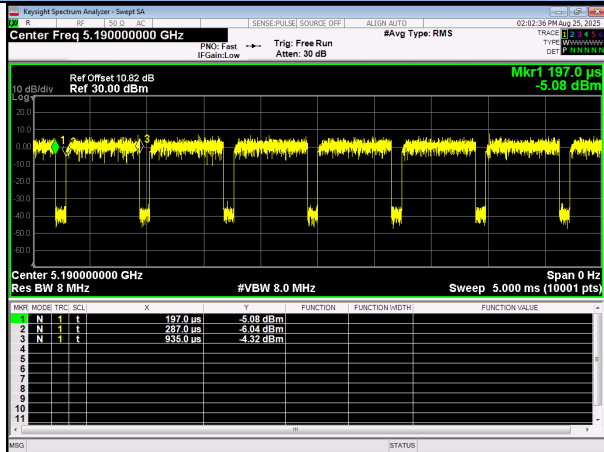
IEEE 802.11a



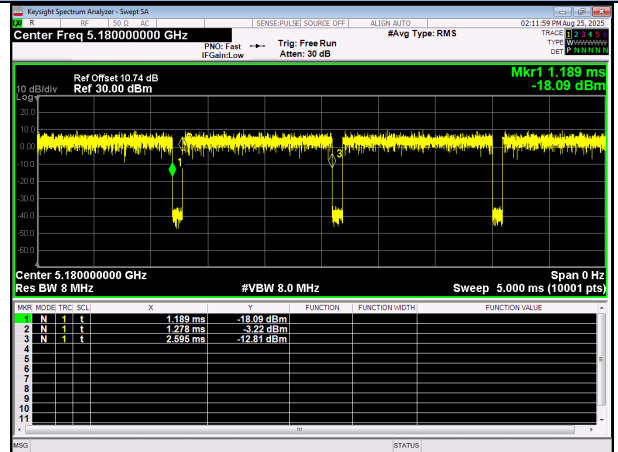
IEEE 802.11n(HT20)



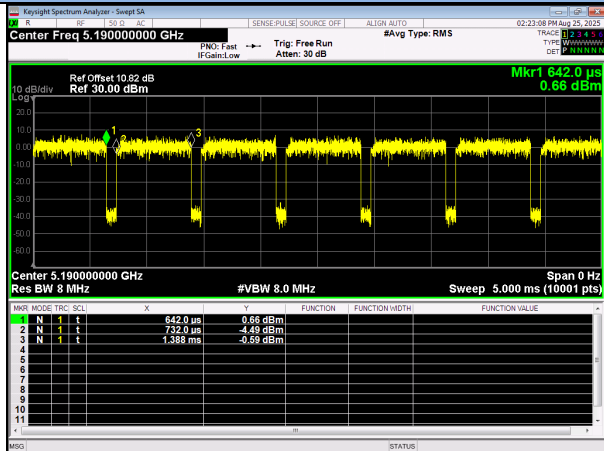
IEEE 802.11n(HT40)



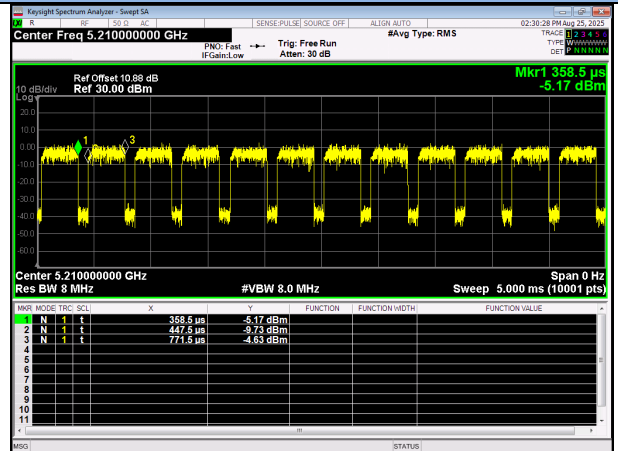
IEEE 802.11ac(VHT20)



IEEE 802.11ac(VHT40)

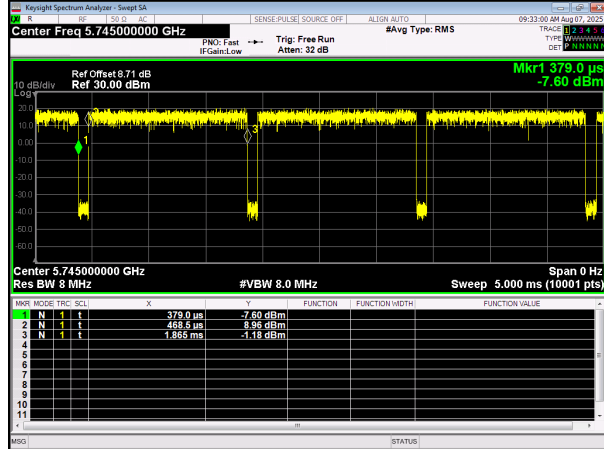


IEEE 802.11ac(VHT80)

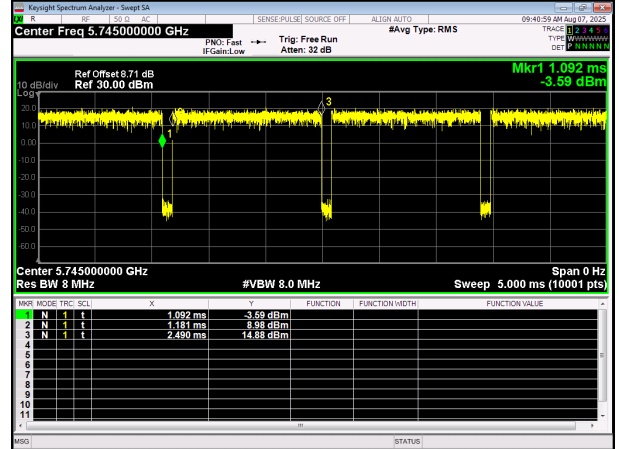


U-NII-3 Band

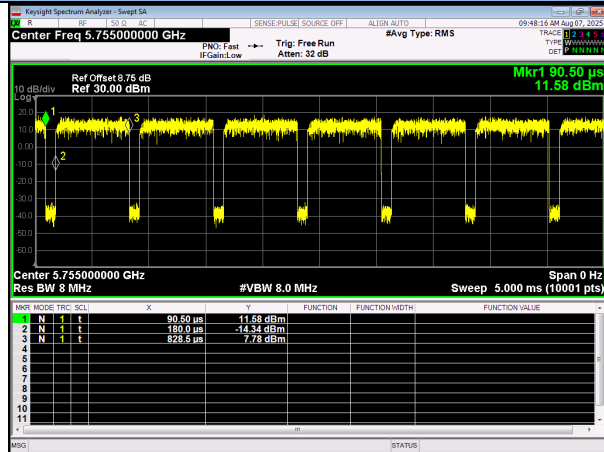
IEEE 802.11a



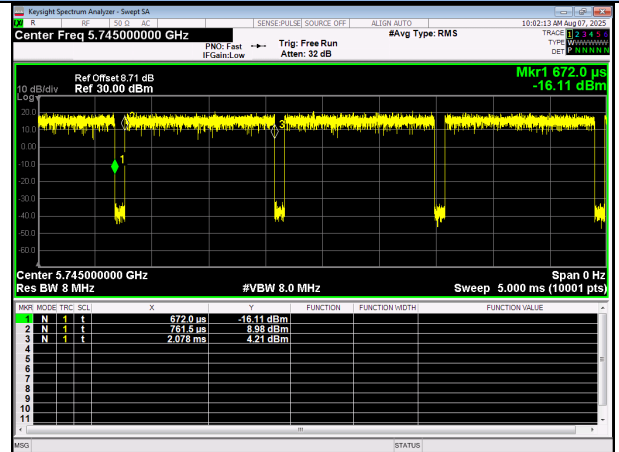
IEEE 802.11n(HT20)



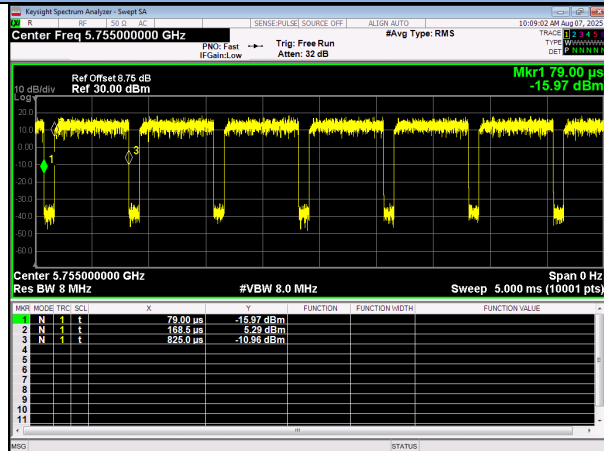
IEEE 802.11n(HT40)



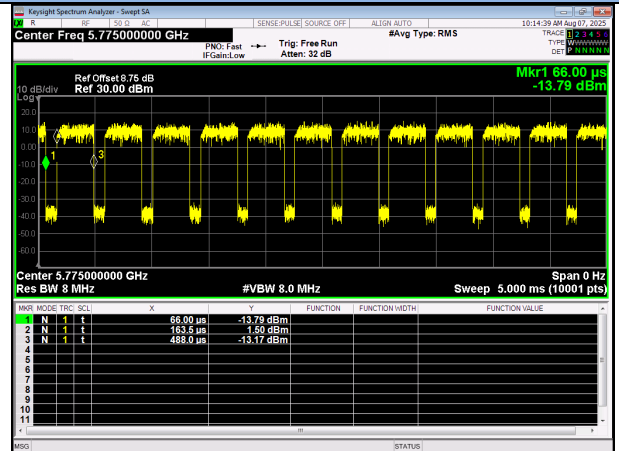
IEEE 802.11ac(VHT20)



IEEE 802.11ac(VHT40)



IEEE 802.11ac(VHT80)



14. Test Items and Results

14.1 Conducted Emissions Measurement

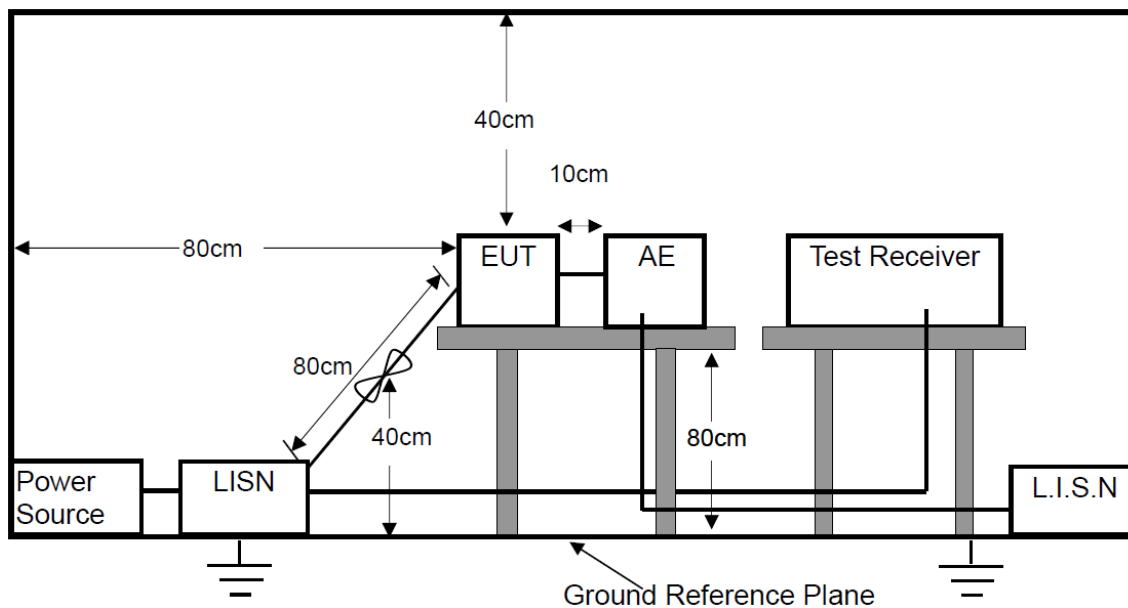
LIMITS

According to the requirements of FCC PART 15.207, the limits are as follows:

Frequency (MHz)	Quasi-peak	Average
0.15 to 0.5	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50

- Note:
1. If the limits for the average detector are met when using the quasi-peak detector, then the limits for the measurements with the average detector are considered to be met.
 2. The lower limit shall apply at the transition frequencies.
 3. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5MHz.

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

- a. The EUT was placed on a wooden table 0.8m height from the metal ground plan and 0.4m from the conducting wall of the shielding room and it was kept at 0.8m from any other grounded conducting surface.
- b. All I/O cables and support devices were positioned as per ANSI C63.10.
- c. Connect mains power port of the EUT to a line impedance stabilization network (LISN).
- d. Connect all support devices to the other LISN and AAN, if needed.
- e. Scan the frequency range from 150KHz to 30MHz at both sides of AC line for maximum conducted interference checking and record the test data.

TEST RESULTS

Not applicable

14.2 Maximum Conducted Output Power Measurement

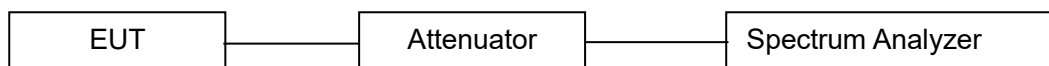
LIMITS

Operation Band	EUT category	Limit
☒5180~5240MHz	☐ Outdoor Access Point	1 Watt (30dBm) (Max. e.i.r.p ≤ 125mW(21dBm) at any elevation angle above 30 degrees as measured from the horizon)
	☐ Fixed point-to-point Access Point	1 Watt (30dBm)
	☐ Indoor Access Point	1 Watt (30dBm) ^{see note 1}
	☒Mobile and Portable client device	250mW (24dBm) ^{see note 2}
☒5260~5320MHz	-	250mW (24dBm) or (11+10log10B*) dBm whichever power is less.
☒5500~5700MHz	-	250mW (24dBm) or (11+10log10B*) dBm whichever power is less.
☒5745~5825MHz	-	1 Watt (30dBm)

Note:

- For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional the antenna exceeds 6 dBi.
- For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- *Where B is the 99% emission bandwidth in megahertz.

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

ANSI C63.10 – 2020 Section 12.4.2.4

TEST RESULTS

PASS

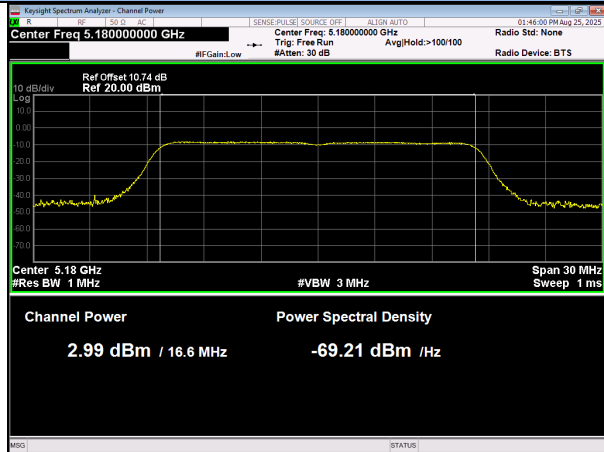
Please refer to the following tables.

U-NII-1					
Frequency MHz	Data Rate Mbps	Duty Cycle Factor (dB)	Average Output Power dBm	Total Power with duty cycle factor	Limit dBm
IEEE 802.11a Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5180	OFDM 6M	0.27	2.99	3.26	24.00
Channel: 5200	OFDM 6M		2.94	3.21	24.00
Channel: 5240	OFDM 6M		3.00	3.27	24.00
IEEE 802.11n(HT20) Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5180	HT MCS0	0.29	3.04	3.33	24.00
Channel: 5200	HT MCS0		2.90	3.19	24.00
Channel: 5240	HT MCS0		2.96	3.25	24.00
IEEE 802.11n(HT40) Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5190	HT MCS0	0.56	3.05	3.61	24.00
Channel: 5230	HT MCS0		2.95	3.51	24.00
IEEE 802.11ac (VHT20) Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5180	VHT MCS0	0.29	2.94	3.23	24.00
Channel: 5200	VHT MCS0		2.89	3.18	24.00
Channel: 5240	VHT MCS0		2.90	3.19	24.00
IEEE 802.11ac (VHT40) Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5190	VHT MCS0	0.56	3.09	3.65	24.00
Channel: 5230	VHT MCS0		2.93	3.49	24.00
IEEE 802.11ac (VHT80) Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5210	VHT MCS0	1.05	2.62	3.67	24.00
Note: Duty Cycle Factor was considered during the test.					

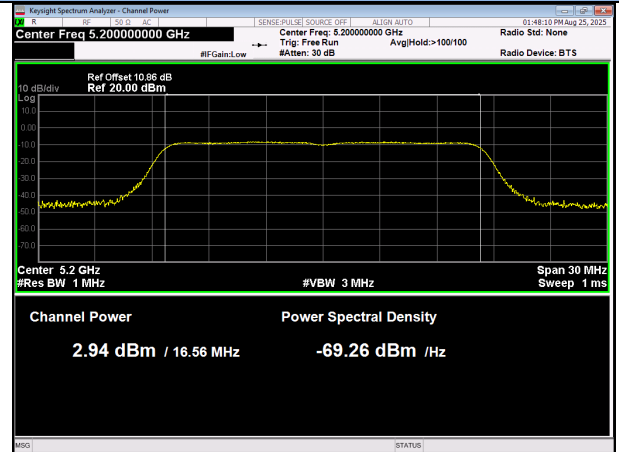
U-NII-3					
Frequency MHz	Data Rate Mbps	Duty Cycle Factor (dB)	Average Output Power dBm	Total Power with duty cycle factor	Limit dBm
IEEE 802.11a Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5745	OFDM 6M	0.27	15.33	15.60	30.00
Channel: 5785	OFDM 6M		15.62	15.89	30.00
Channel: 5825	OFDM 6M		15.12	15.39	30.00
IEEE 802.11n(HT20) Mode (OFDM, Antenna Gain=-2dBi)					
Channel: 5745	HT MCS0	0.29	15.12	15.41	30.00
Channel: 5785	HT MCS0		15.44	15.73	30.00
Channel: 5825	HT MCS0		15.05	15.34	30.00
IEEE 802.11n(HT40) Mode (OFDM, Antenna Gain=-2dBi)					
Channel: 5755	HT MCS0	0.56	15.07	15.63	30.00
Channel: 5795	HT MCS0		15.01	15.57	30.00
IEEE 802.11ac (VHT20) Mode (OFDM, Antenna Gain=-2dBi)					
Channel: 5745	VHT MCS0	0.29	15.34	15.63	30.00
Channel: 5785	VHT MCS0		15.53	15.82	30.00
Channel: 5825	VHT MCS0		15.13	15.42	30.00
IEEE 802.11ac (VHT40) Mode (OFDM, Antenna Gain=-2dBi)					
Channel: 5755	VHT MCS0	0.56	15.04	15.60	30.00
Channel: 5795	VHT MCS0		14.99	15.55	30.00
IEEE 802.11ac (VHT80) Mode (OFDM, Antenna Gain=-2dBi)					
Channel: 5775	VHT MCS0	1.14	14.44	15.58	30.00
Note: Duty Cycle Factor was considered during the test.					

U-NII-1 Band

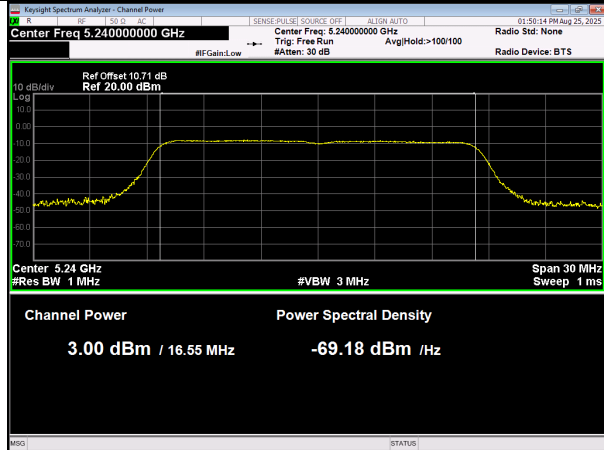
IEEE 802.11a Low Channel



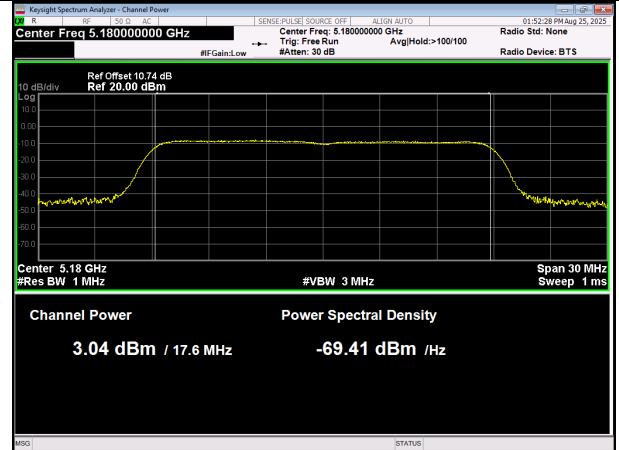
IEEE 802.11a Middle Channel



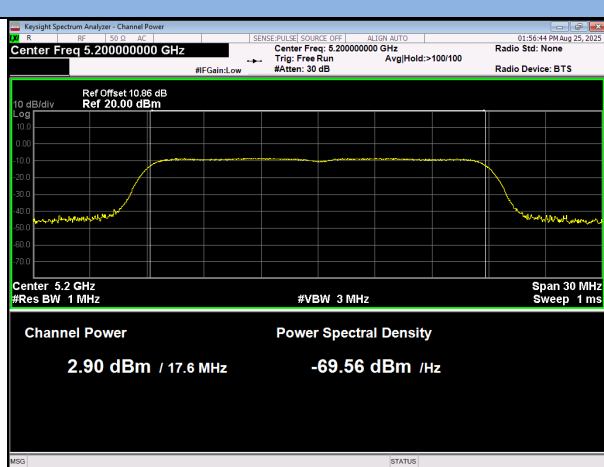
IEEE 802.11a High Channel



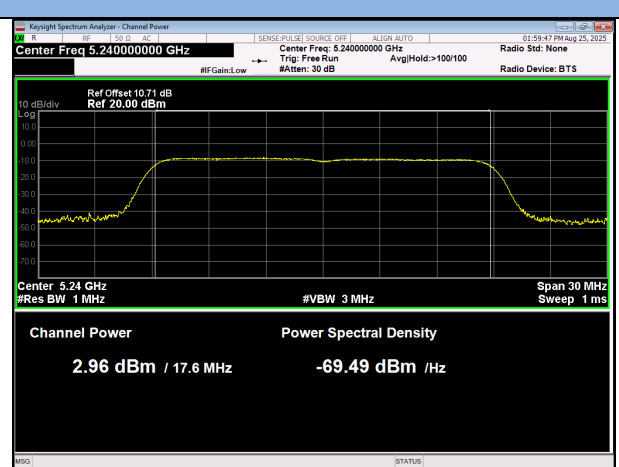
IEEE 802.11n(HT20) Low Channel



IEEE 802.11n(HT20) Middle Channel

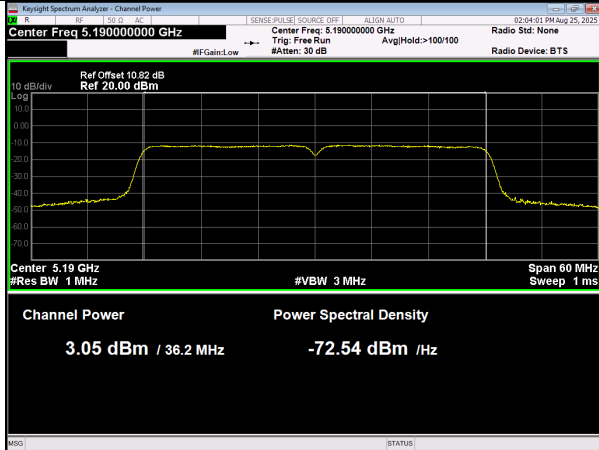


IEEE 802.11n(HT20) High Channel

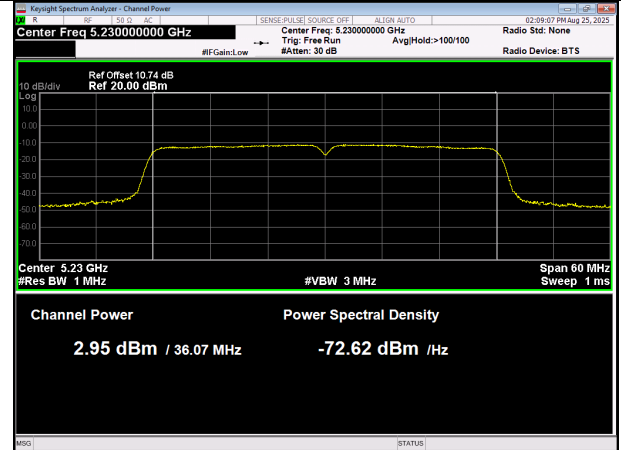


U-NII-1 Band

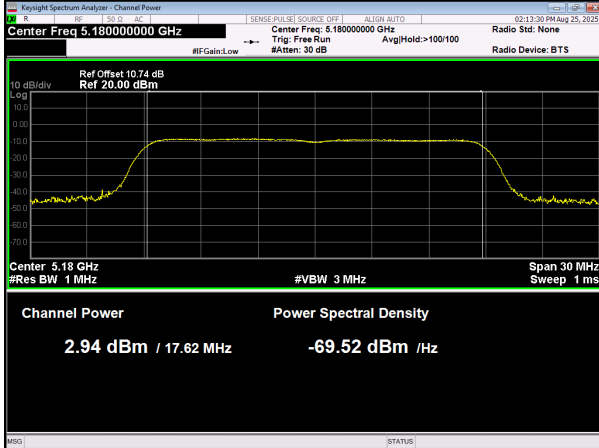
IEEE 802.11n(HT40) Low Channel



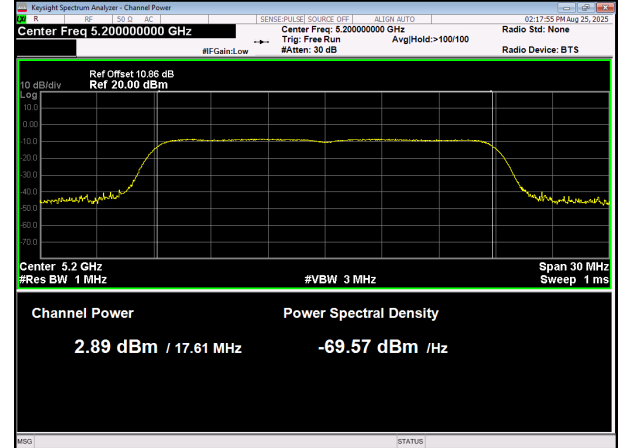
IEEE 802.11n(HT40) High Channel



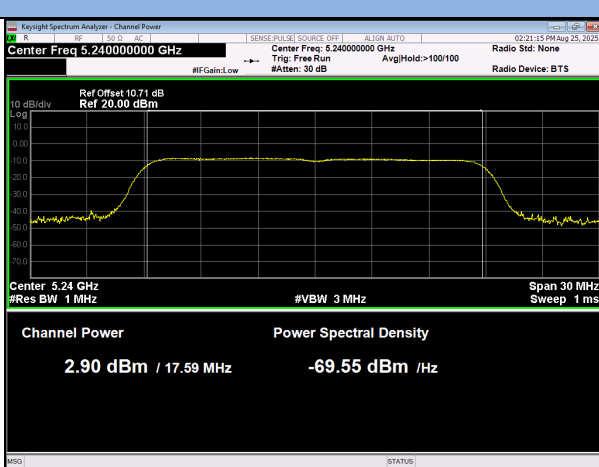
IEEE 802.11ac(VHT20) Low Channel



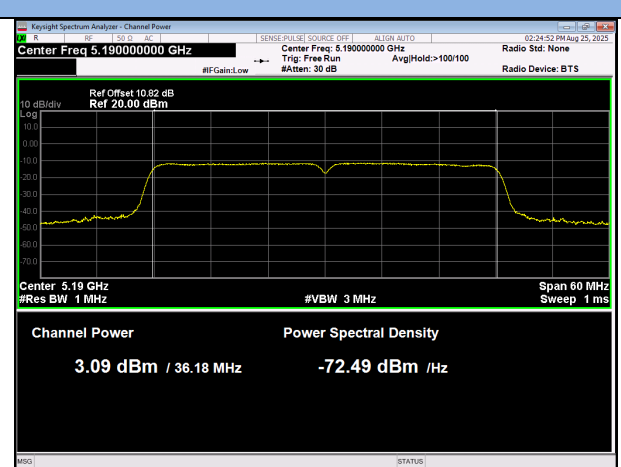
IEEE 802.11ac(VHT20) Middle Channel



IEEE 802.11ac(VHT20) High Channel

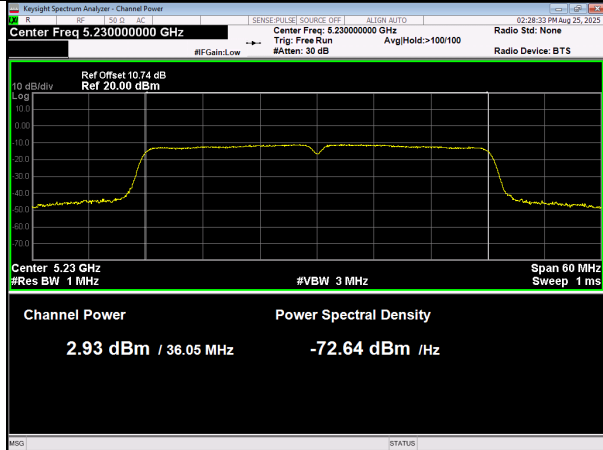


IEEE 802.11ac(VHT40) Low Channel

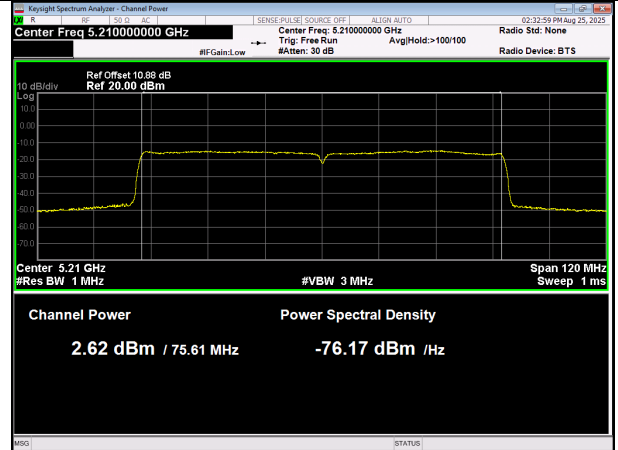


U-NII-1 Band

IEEE 802.11ac(VHT40) High Channel

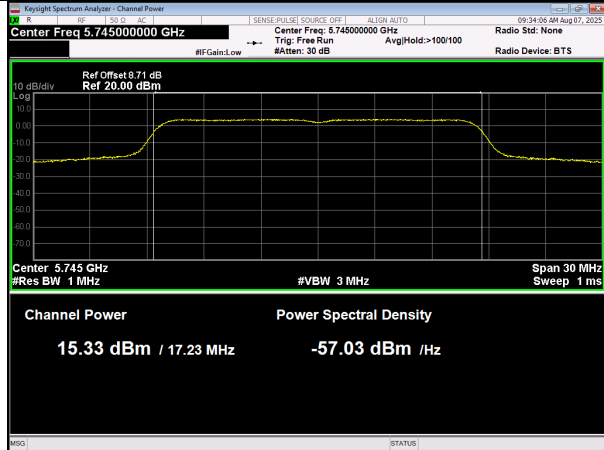


IEEE 802.11ac(VHT80)

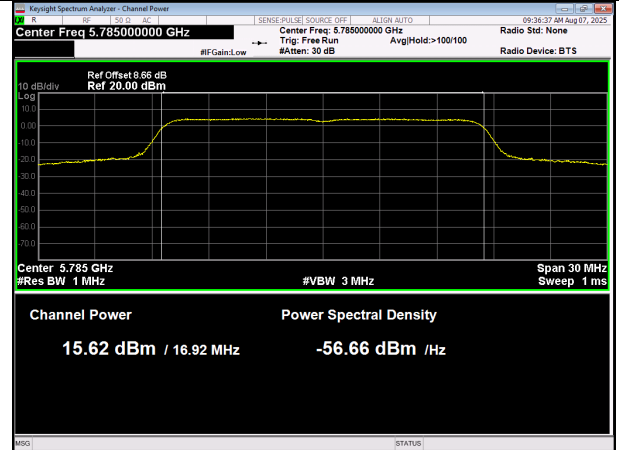


U-NII-3 Band

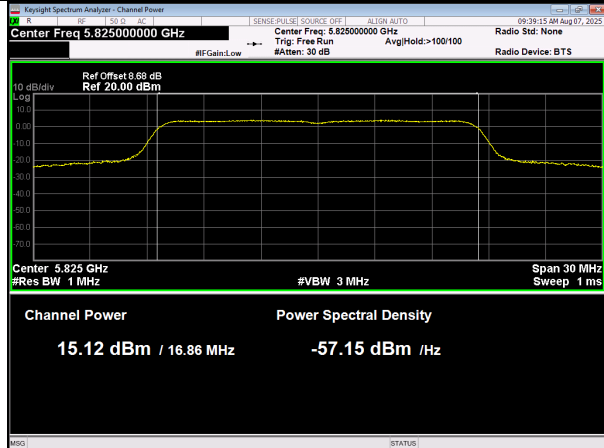
IEEE 802.11a Low Channel



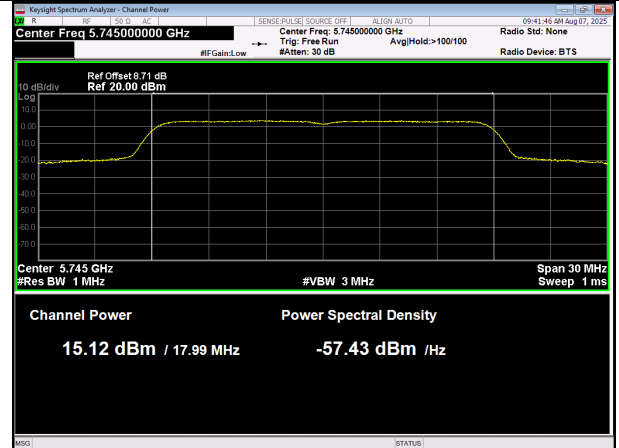
IEEE 802.11a Middle Channel



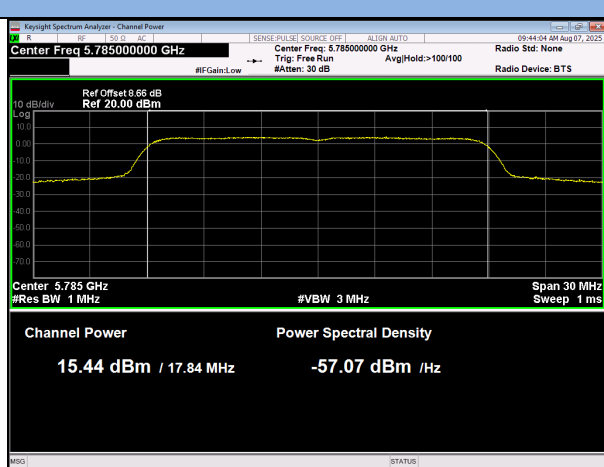
IEEE 802.11a High Channel



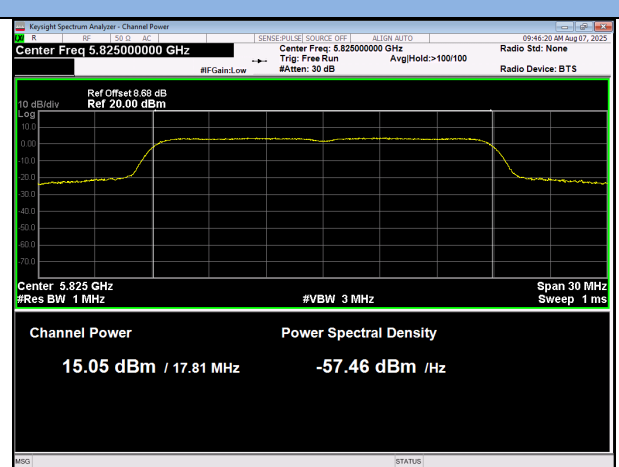
IEEE 802.11n(HT20) Low Channel



IEEE 802.11n(HT20) Middle Channel

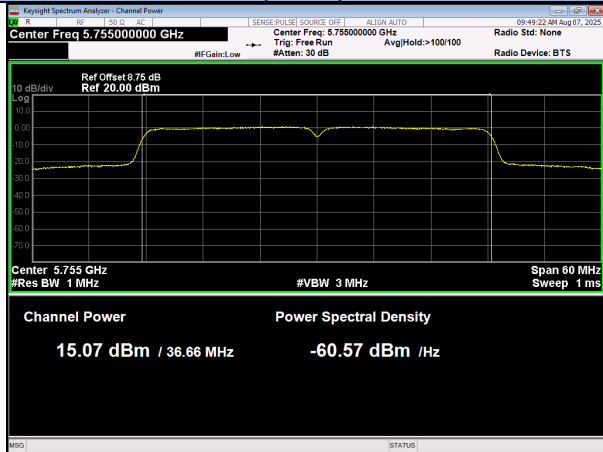


IEEE 802.11n(HT20) High Channel

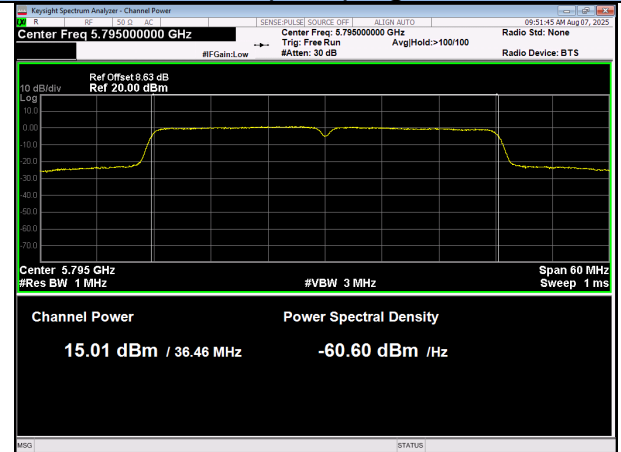


U-NII-3 Band

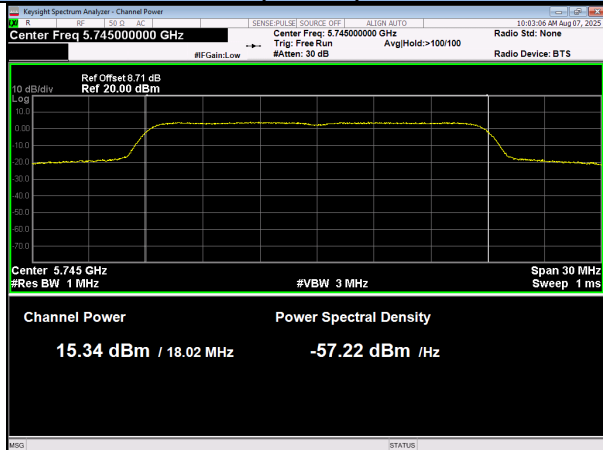
IEEE 802.11n(HT40) Low Channel



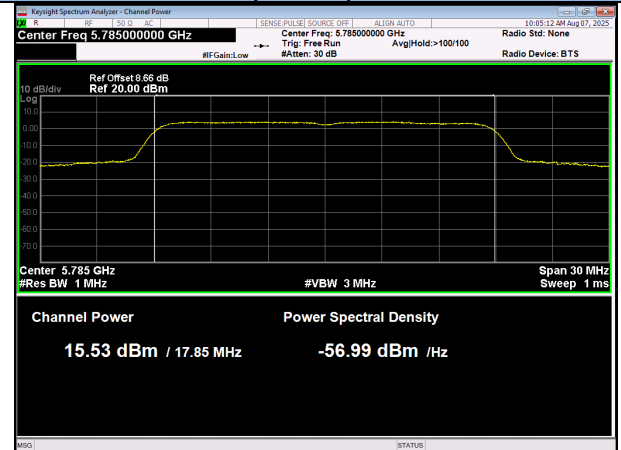
IEEE 802.11n(HT40) High Channel



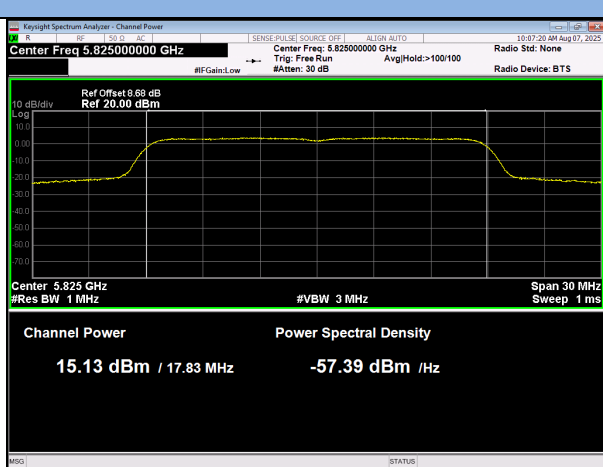
IEEE 802.11ac(VHT20) Low Channel



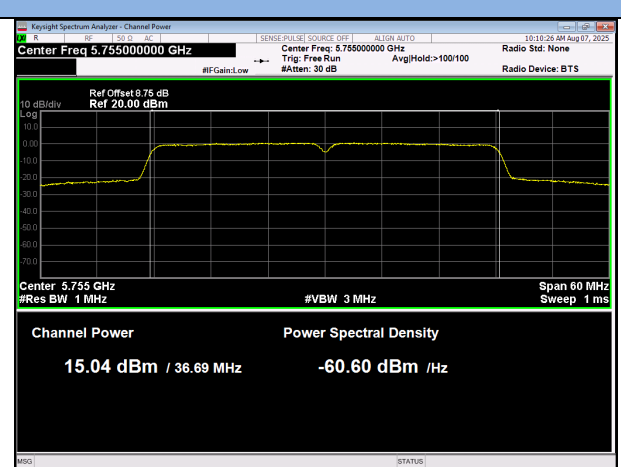
IEEE 802.11ac(VHT20) Middle Channel



IEEE 802.11ac(VHT20) High Channel

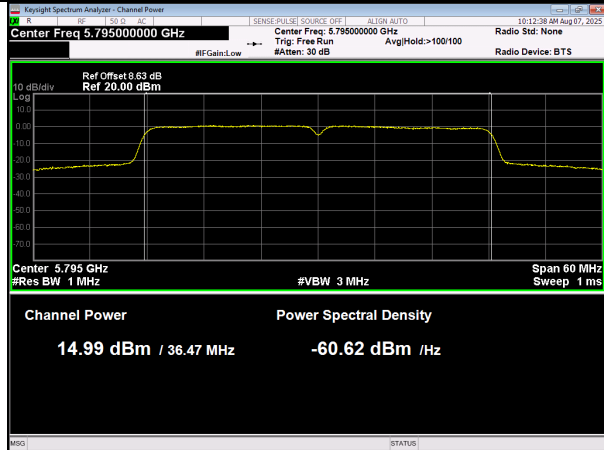


IEEE 802.11ac(VHT40) Low Channel

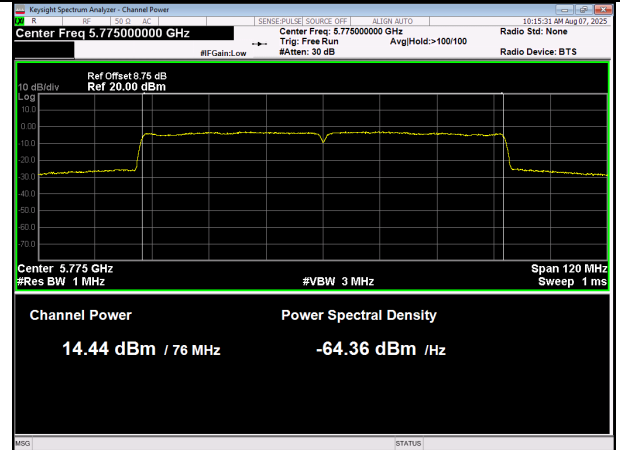


U-NII-3 Band

IEEE 802.11ac(VHT40) High Channel



IEEE 802.11ac(VHT80)

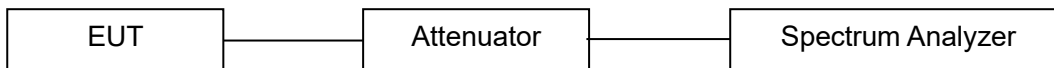


14.3 6dB Bandwidth Measurement

LIMITS

The minimum 6dB bandwidth shall be at least 500 kHz

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer was set as below according to ANSI C63.10 clause 11.8.1:

- Set the RBW = 100KHz.
- Set the VBW $\geq 3 \times$ RBW
- Set the Detector = peak.
- Set the Sweep time = auto couple.
- Set the Trace mode = max hold.
- Allow trace to fully stabilize.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

TEST RESULTS

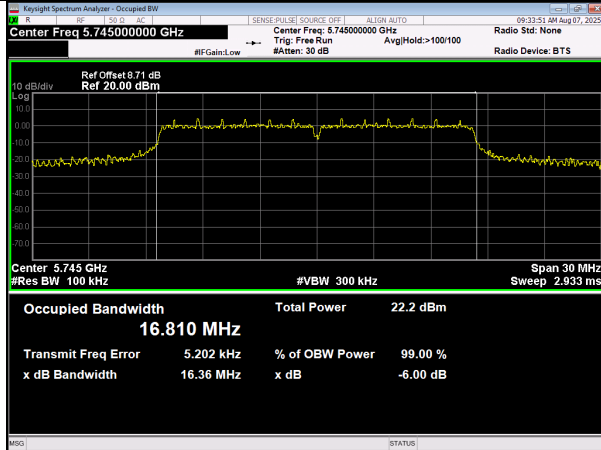
PASS

Please refer to the following tables.

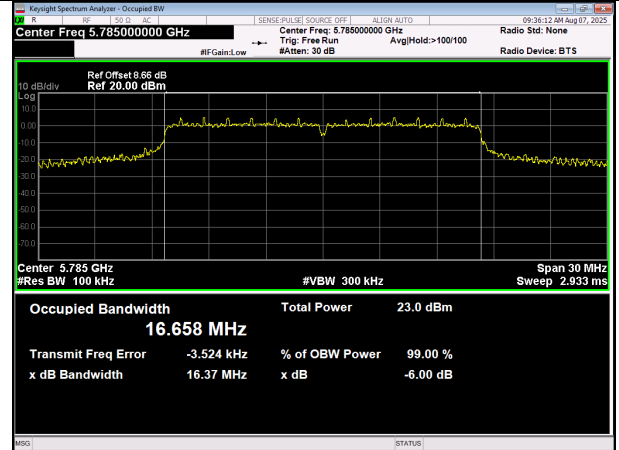
U-NII-3 Band			
Frequency MHz	Data Rate Mbps	6dB Bandwidth MHz	Limit
IEEE 802.11a Mode (OFDM)			
Channel: 5745	OFDM 6M	16.36	>500KHz
Channel: 5785	OFDM 6M	16.37	>500KHz
Channel: 5825	OFDM 6M	16.37	>500KHz
IEEE 802.11n(HT20) Mode (OFDM)			
Channel: 5745	HT MCS0	17.27	>500KHz
Channel: 5785	HT MCS0	17.09	>500KHz
Channel: 5825	HT MCS0	17.32	>500KHz
IEEE 802.11n(HT40) Mode (OFDM)			
Channel: 5755	HT MCS0	35.78	>500KHz
Channel: 5795	HT MCS0	35.40	>500KHz
IEEE 802.11ac (VHT20) Mode (OFDM)			
Channel: 5745	VHT MCS0	17.31	>500KHz
Channel: 5785	VHT MCS0	17.08	>500KHz
Channel: 5825	VHT MCS0	17.03	>500KHz
IEEE 802.11ac (VHT40) Mode (OFDM)			
Channel: 5755	VHT MCS0	35.53	>500KHz
Channel: 5795	VHT MCS0	35.51	>500KHz
IEEE 802.11ac (VHT80) Mode (OFDM)			
Channel: 5775	VHT MCS0	75.38	>500KHz

U-NII-3

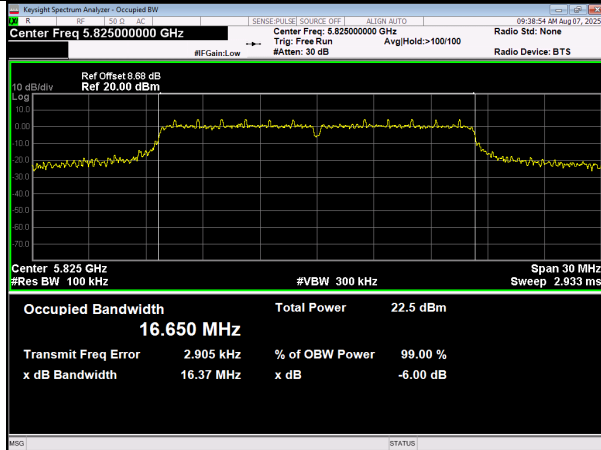
IEEE 802.11a Low Channel



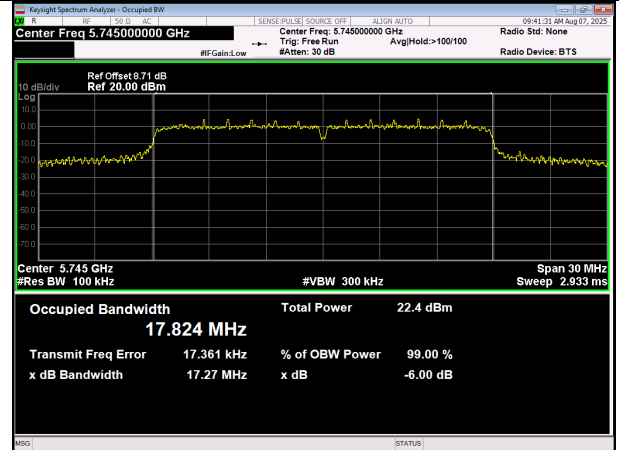
IEEE 802.11a Middle Channel



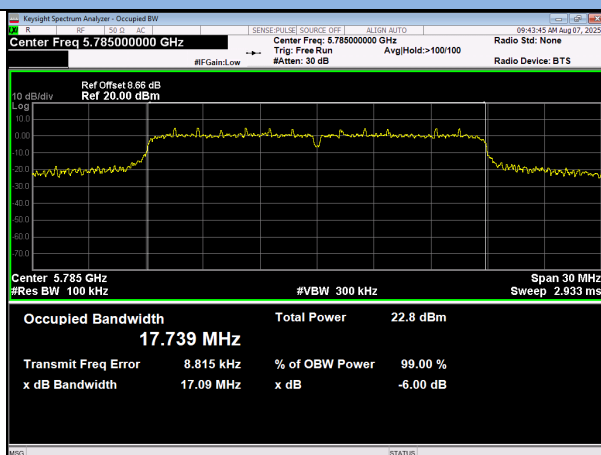
IEEE 802.11a High Channel



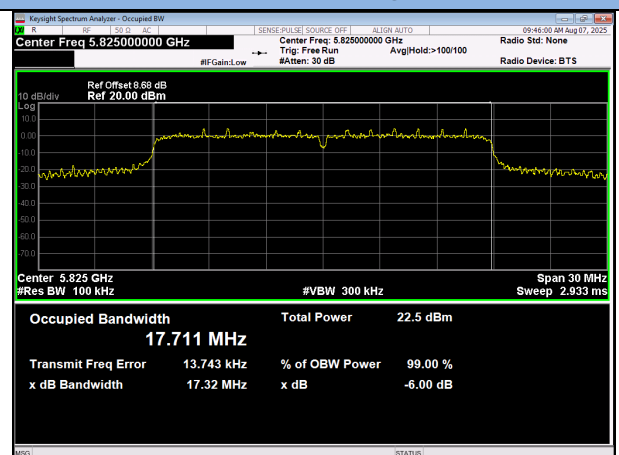
IEEE 802.11n(HT20) Low Channel



IEEE 802.11n(HT20) Middle Channel

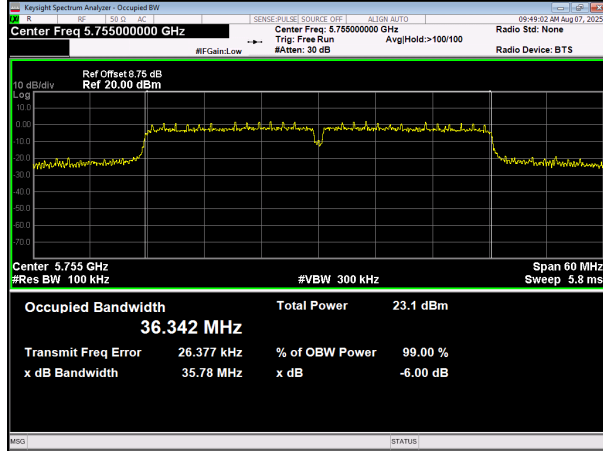


IEEE 802.11n(HT20) High Channel

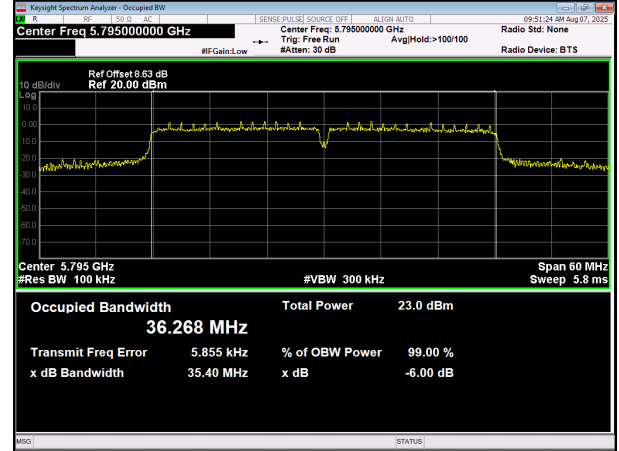


U-NII-3

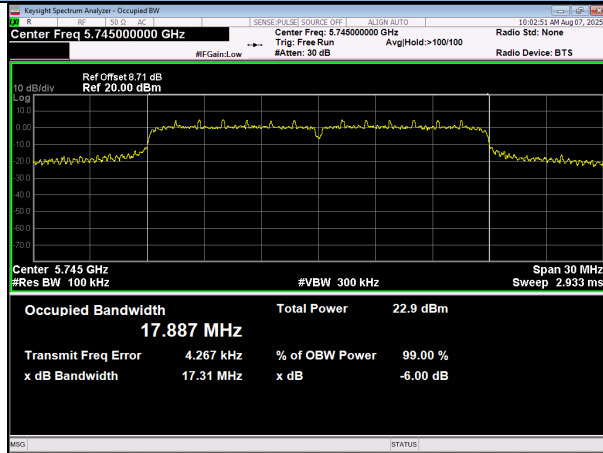
IEEE 802.11n(HT40) Low Channel



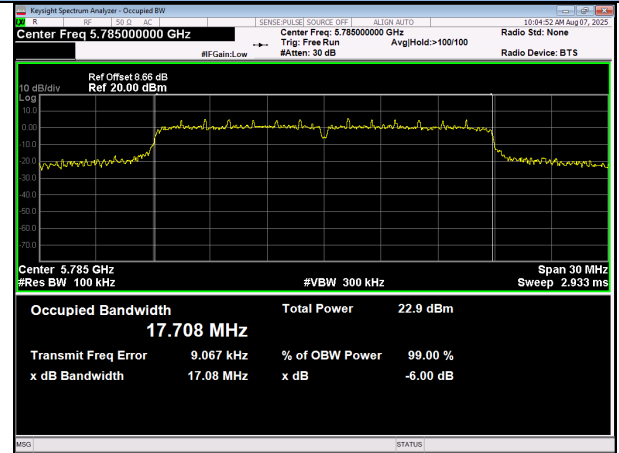
IEEE 802.11n(HT40) High Channel



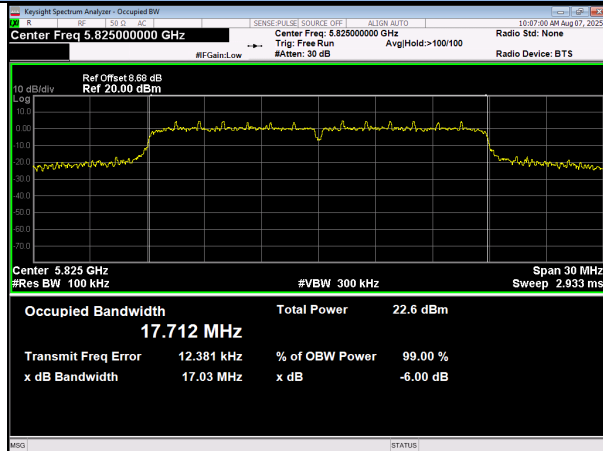
IEEE 802.11ac(VHT20) Low Channel



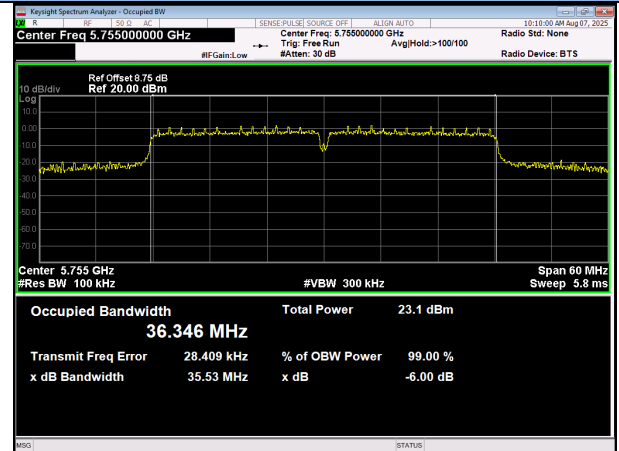
IEEE 802.11ac(VHT20) Middle Channel



IEEE 802.11ac(VHT20) High Channel



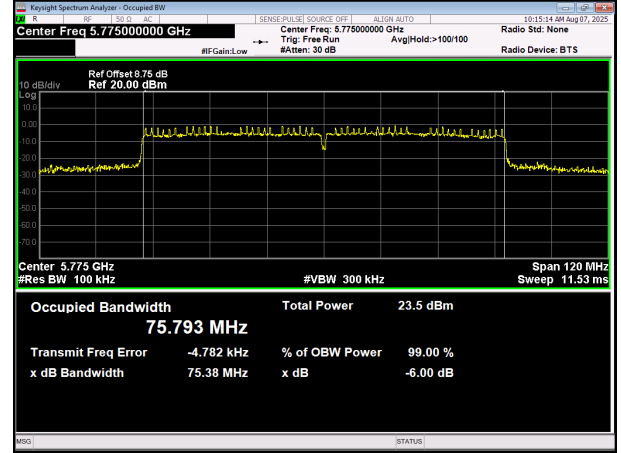
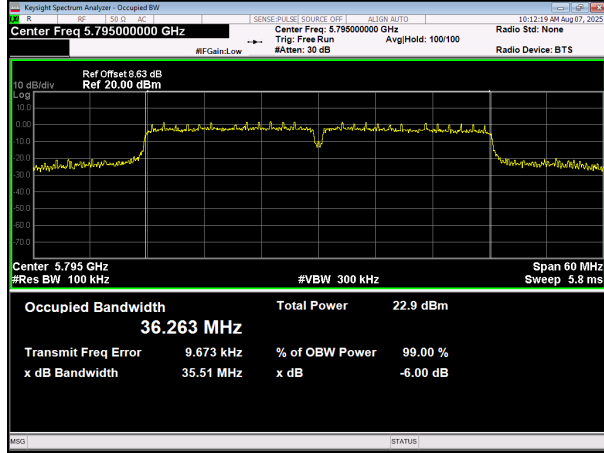
IEEE 802.11ac(VHT40) Low Channel



U-NII-3

IEEE 802.11ac(VHT40) High Channel

IEEE 802.11ac(VHT80)

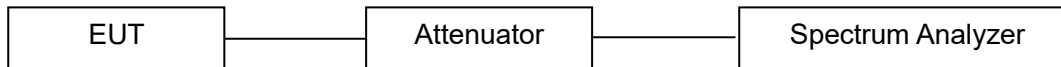


14.4 26dB Bandwidth & 99% Occupied Bandwidth

LIMITS

No restriction limits.

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

The antenna port of the EUT was connected to the input of a spectrum analyzer.

Analyzer was set as below according to FCC KDB789033(v02r01):

- a. For 26dB bandwidth, Set the RBW = Approximately 1% of the emission bandwidth
 - b. Set the VBW $>$ RBW
 - c. Detector = peak.
 - d. Sweep time = auto couple.
 - e. Trace mode = max hold.
 - f. Allow trace to fully stabilize.
 - g. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.
-
1. For 99% occupied bandwidth, Set the RBW = 1% to 5% of the OBW
 2. Set the VBW $\geq 3 \times$ RBW
 3. Detector = peak.
 4. Span = 1.5 times to 5.0 times the OBW
 5. Sweep time = auto couple.
 6. Trace mode = max hold. Allow trace to fully stabilize.
 7. Use the 99% power bandwidth function of the spectrum analyzer measure the occupied bandwidth.

TEST RESULTS

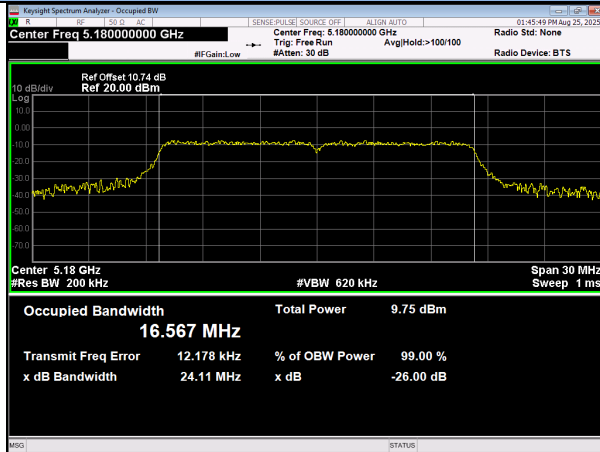
PASS

Please refer to the following tables.

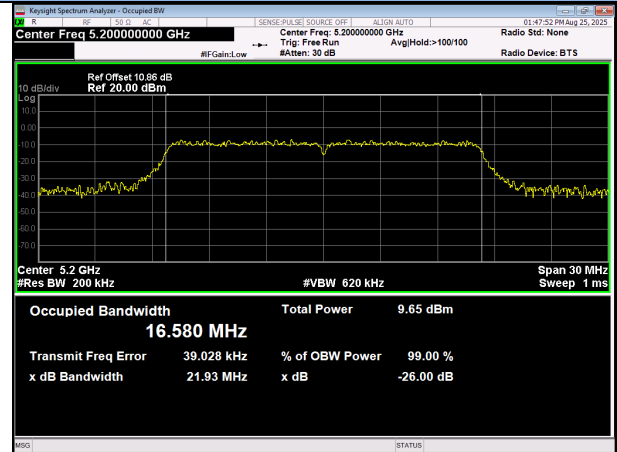
U-NII-1 Band			
Frequency MHz	Data Rate Mbps	26dB Bandwidth MHz	99% Occupied Bandwidth MHz
IEEE 802.11a Mode (OFDM)			
Channel: 5180	6	24.11	---
Channel: 5200	6	21.93	---
Channel: 5240	6	23.79	---
IEEE 802.11n(HT20) Mode (OFDM)			
Channel: 5180	MCS0	25.56	---
Channel: 5200	MCS0	26.43	---
Channel: 5240	MCS0	23.71	---
IEEE 802.11n(HT40) Mode (OFDM)			
Channel: 5190	MCS0	45.96	---
Channel: 5230	MCS0	50.17	---
IEEE 802.11ac (VHT20) Mode (OFDM)			
Channel: 5180	MCS0	27.66	---
Channel: 5200	MCS0	27.52	---
Channel: 5240	MCS0	29.57	---
IEEE 802.11ac (VHT40) Mode (OFDM)			
Channel: 5190	MCS0	48.98	---
Channel: 5230	MCS0	45.41	---
IEEE 802.11ac (VHT80) Mode (OFDM)			
Channel: 5210	MCS0	87.59	---

U-NII-1 Band 26dB Bandwidth

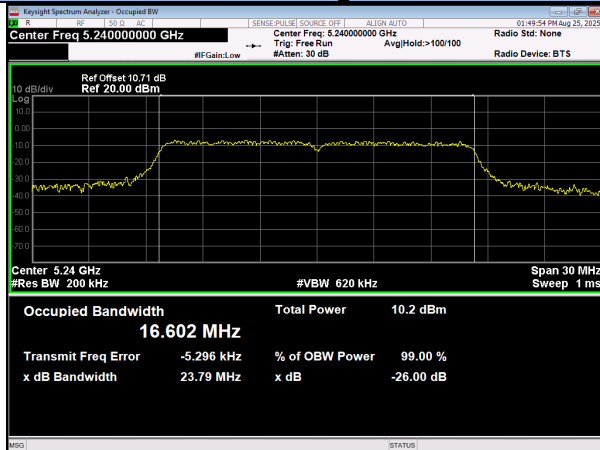
IEEE 802.11a Low Channel



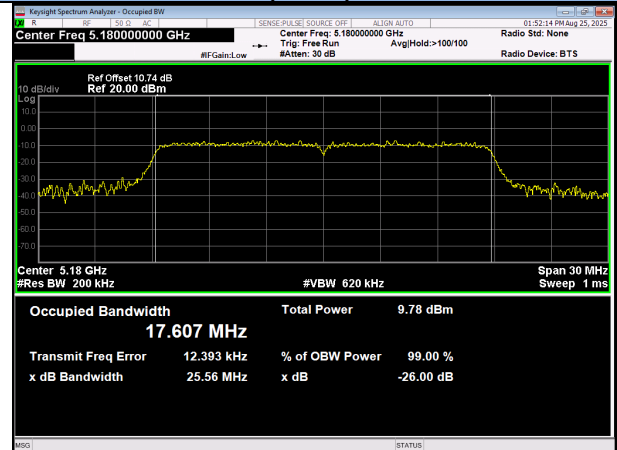
IEEE 802.11a Middle Channel



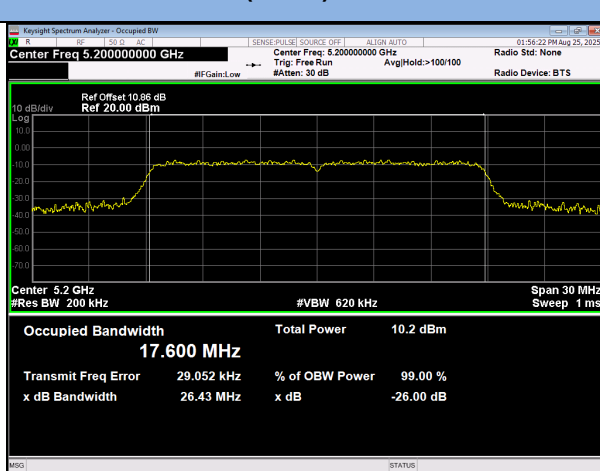
IEEE 802.11a High Channel



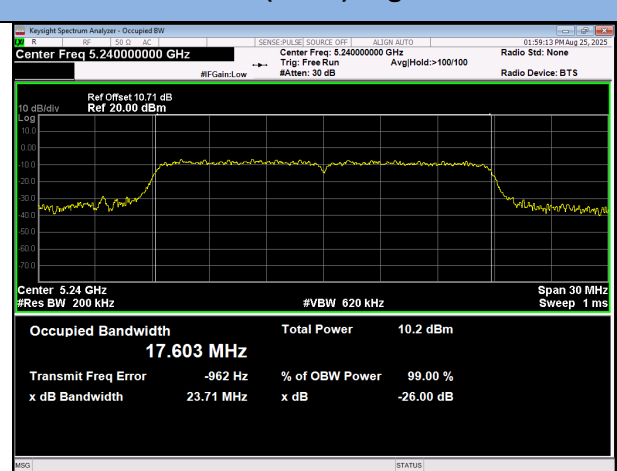
IEEE 802.11n(HT20) Low Channel



IEEE 802.11n(HT20) Middle Channel

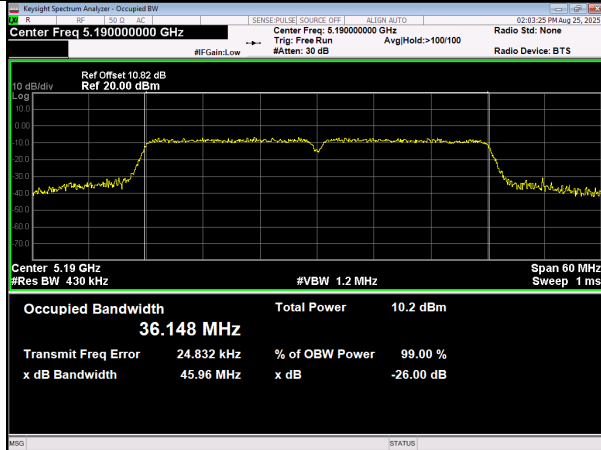


IEEE 802.11n(HT20) High Channel

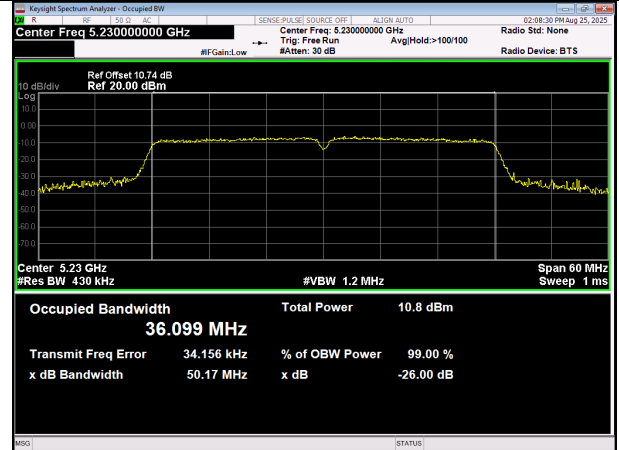


U-NII-1 Band 26dB Bandwidth

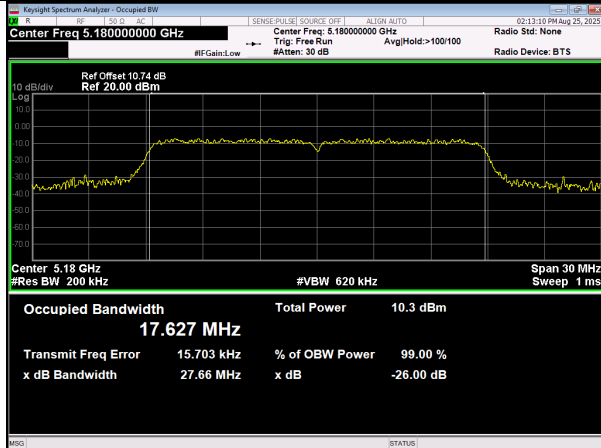
IEEE 802.11n(HT40) Low Channel



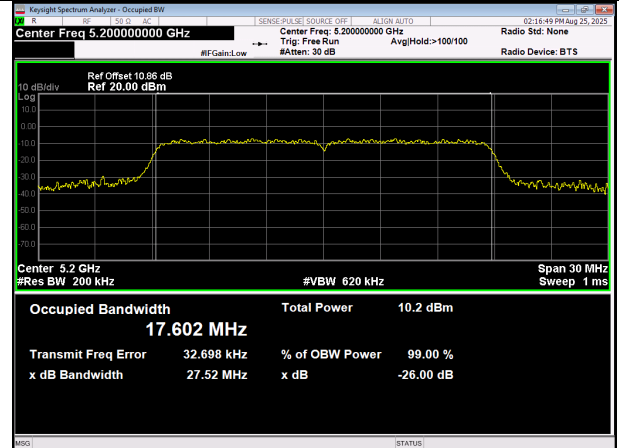
IEEE 802.11n(HT40) High Channel



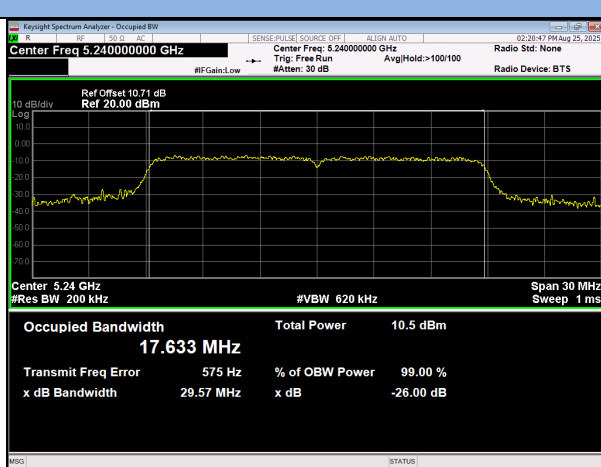
IEEE 802.11ac(VHT20) Low Channel



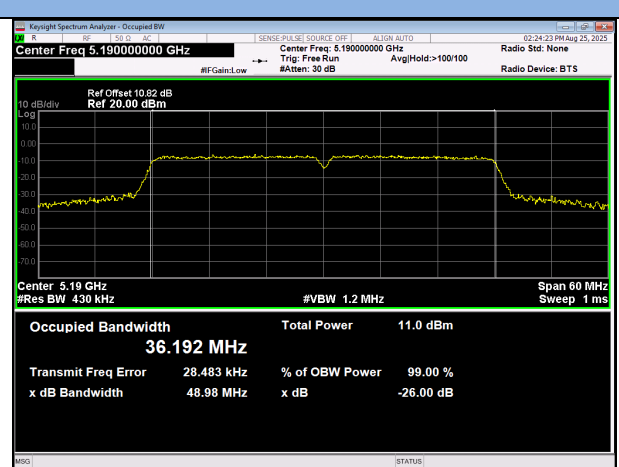
IEEE 802.11ac(VHT20) Middle Channel



IEEE 802.11ac(VHT20) High Channel

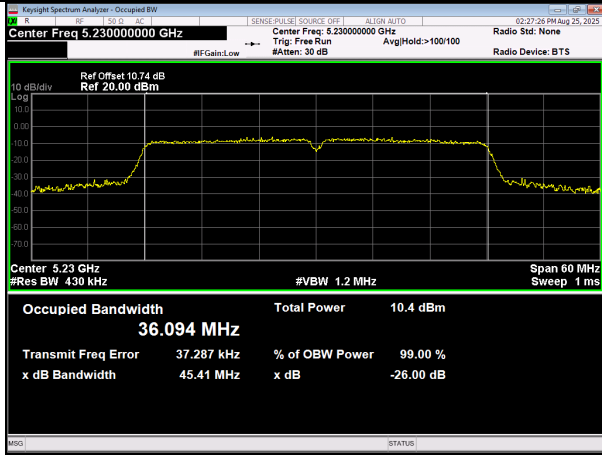


IEEE 802.11ac(VHT40) Low Channel

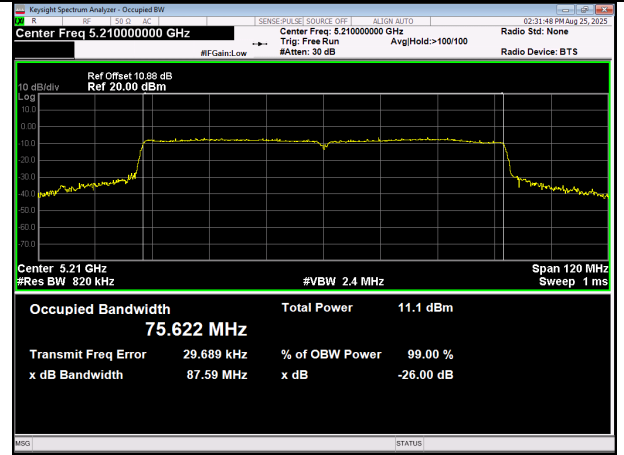


U-NII-1 Band 26dB Bandwidth

IEEE 802.11ac(VHT40) High Channel



IEEE 802.11ac(VHT80)

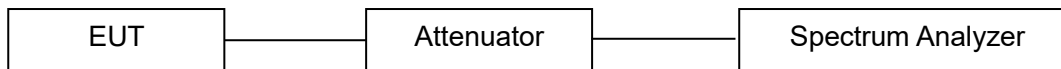


14.5 Power Spectral Density

LIMITS

Operation Band		Limit
☒ 5180~5240MHz	☐ Outdoor access point	17 dBm/MHz
	☐ Indoor access point	17 dBm/MHz
	☐ Fixed point-to-point access points	17 dBm/MHz
	☒ Client devices	11 dBm/MHz
☒ 5260~5320MHz	-	11 dBm/MHz
☒ 5500~5700MHz	-	11 dBm/MHz
☒ 5745~5825MHz	-	30 dBm/500kHz

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

The antenna port of the EUT was connected to the input of a spectrum analyzer.

Analyzer was set as below according to FCC KDB789033 (v02r01):

- Set analyzer center frequency to center frequency
- Set the RBW to: 1MHz
- Set the VBW to: 3MHz
- Detector = RMS
- Sweep time = auto couple
- Trace Average = 100 times
- If measured bandwidth of Maximum PSD is specified in 500kHz, add $10\log(500\text{kHz}/\text{RBW})$ to the measured result, whereas RBW (<500kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement. Allow trace to fully stabilize.

TEST RESULTS

PASS

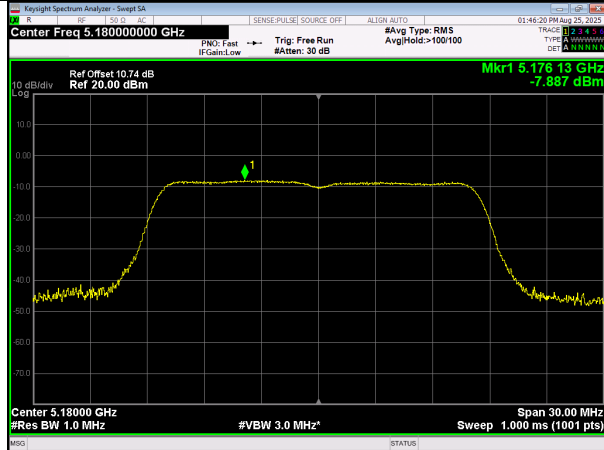
Please refer to the following test plots.

U-NII-1					
Frequency MHz	Data Rate Mbps	Duty Cycle Factor (dB)	PSD dBm	Total PSD with duty cycle factor	Limit dBm/ MHz
IEEE 802.11a Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5180	OFDM 6M	0.27	-7.887	-7.617	11
Channel: 5200	OFDM 6M		-8.252	-7.982	11
Channel: 5240	OFDM 6M		-7.779	-7.509	11
IEEE 802.11n(HT20) Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5180	HT MCS0	0.29	-8.25	-7.960	11
Channel: 5200	HT MCS0		-8.319	-8.029	11
Channel: 5240	HT MCS0		-8.284	-7.994	11
IEEE 802.11n(HT40) Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5190	HT MCS0	0.56	-11.308	-10.748	11
Channel: 5230	HT MCS0		-11.061	-10.501	11
IEEE 802.11ac(VHT20) Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5180	VHT MCS0	0.29	-8.257	-7.967	11
Channel: 5200	VHT MCS0		-8.431	-8.141	11
Channel: 5240	VHT MCS0		-8.259	-7.969	11
IEEE 802.11ac(VHT40) Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5190	VHT MCS0	0.56	-11.372	-10.812	11
Channel: 5230	VHT MCS0		-10.856	-10.296	11
IEEE 802.11ac(VHT80) Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5210	VHT MCS0	1.05	-14.547	-13.497	11
Note: Please refer to section 13 for duty cycle factor.					

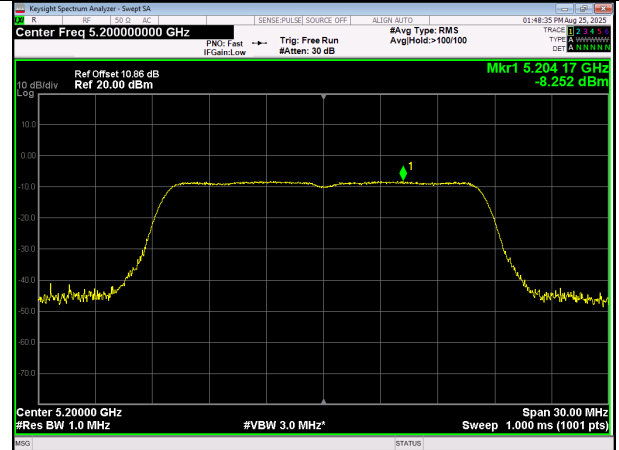
U-NII-3					
Frequency MHz	Data Rate Mbps	Duty Cycle Factor (dB)	PSD dBm/500KHz	Total PSD with duty cycle factor	Limit dBm/ 500KHz
IEEE 802.11a Mode (OFDM, Antenna Gain=-2dBi)					
Channel: 5745	OFDM 6M	0.27	1.313	1.583	30
Channel: 5785	OFDM 6M		1.606	1.876	30
Channel: 5825	OFDM 6M		1.148	1.418	30
IEEE 802.11n(HT20) Mode (OFDM, Antenna Gain=-2dBi)					
Channel: 5745	HT MCS0	0.29	0.799	1.089	30
Channel: 5785	HT MCS0		1.143	1.433	30
Channel: 5825	HT MCS0		0.845	1.135	30
IEEE 802.11n(HT40) Mode (OFDM, Antenna Gain=-2dBi)					
Channel: 5755	HT MCS0	0.56	-2.093	-1.533	30
Channel: 5795	HT MCS0		-2.080	-1.520	30
IEEE 802.11ac(VHT20) Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5745	VHT MCS0	0.29	0.926	1.216	30
Channel: 5785	VHT MCS0		1.345	1.635	30
Channel: 5825	VHT MCS0		0.960	1.250	30
IEEE 802.11ac(VHT40) Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5755	VHT MCS0	0.56	-1.845	-1.285	30
Channel: 5795	VHT MCS0		-2.214	-1.654	30
IEEE 802.11ac(VHT80) Mode (OFDM, Antenna Gain=2dBi)					
Channel: 5755	VHT MCS0	1.14	-5.441	-4.301	30
Note: Please refer to section 13 for duty cycle factor.					

U-NII-1 Band

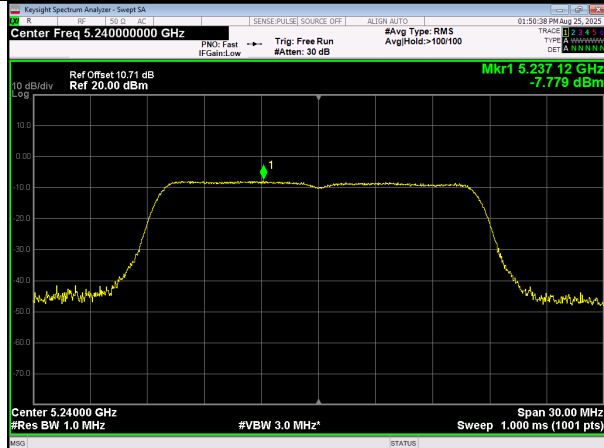
IEEE 802.11a Low Channel



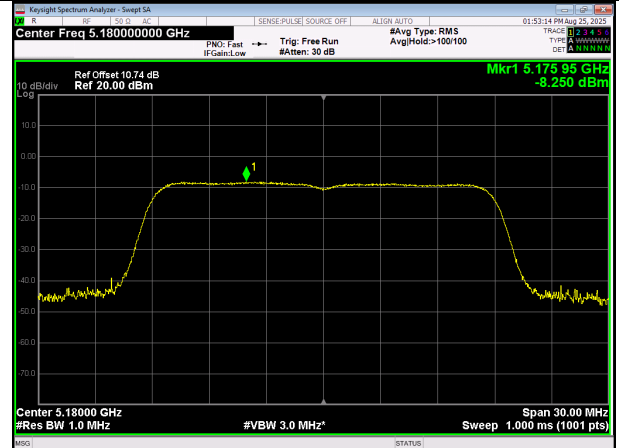
IEEE 802.11a Middle Channel



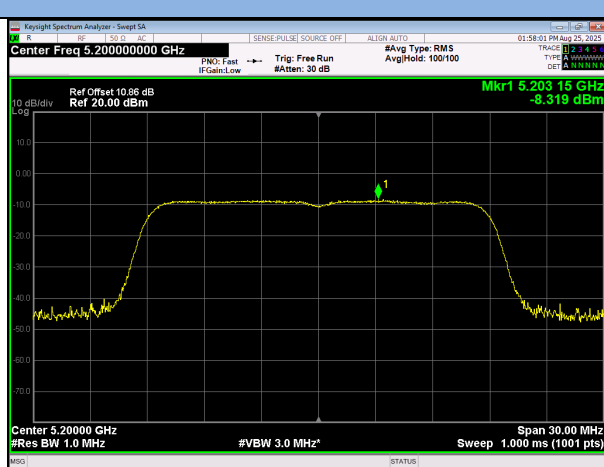
IEEE 802.11a High Channel



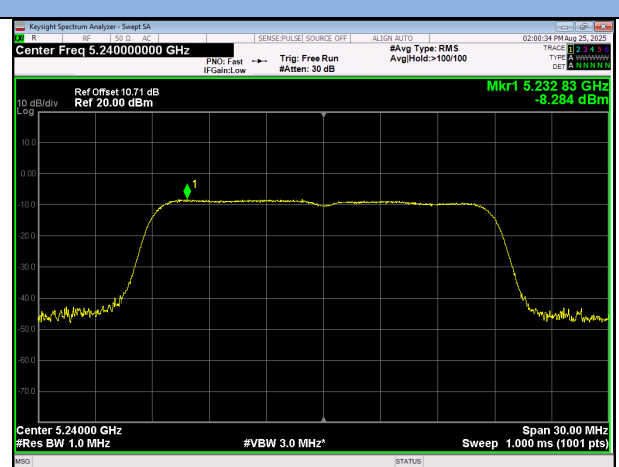
IEEE 802.11n(HT20) Low Channel



IEEE 802.11n(HT20) Middle Channel

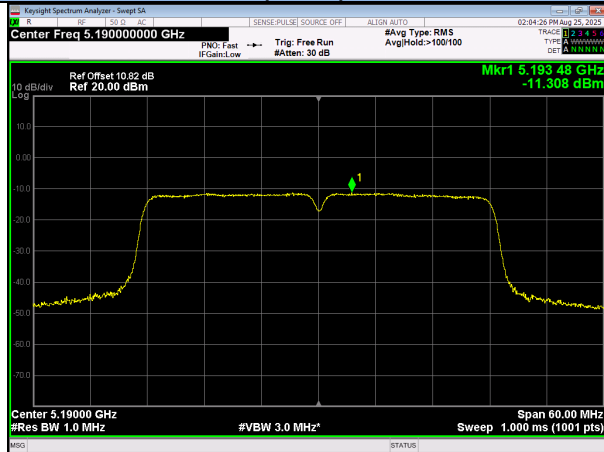


IEEE 802.11n(HT20) High Channel

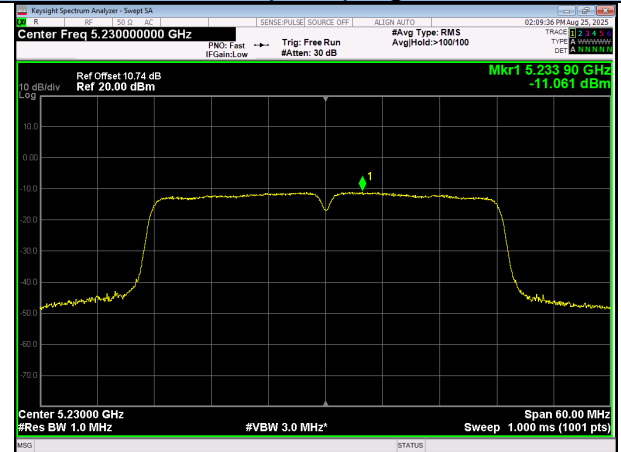


U-NII-1 Band

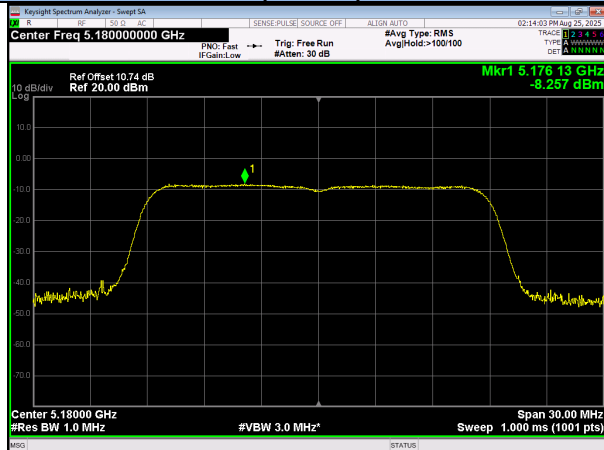
IEEE 802.11n(HT40) Low Channel



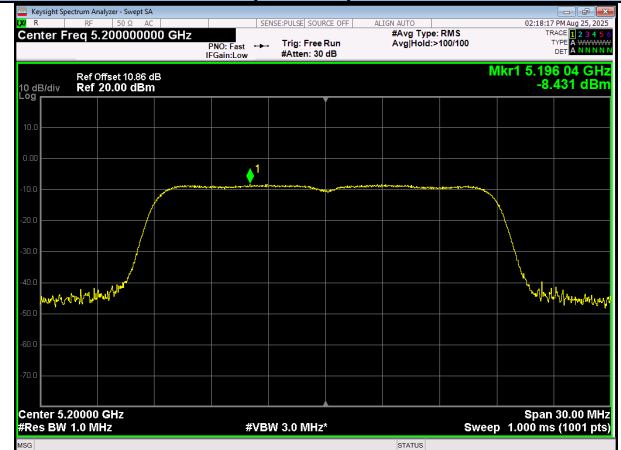
IEEE 802.11n(HT40) High Channel



IEEE 802.11ac(VHT20) Low Channel



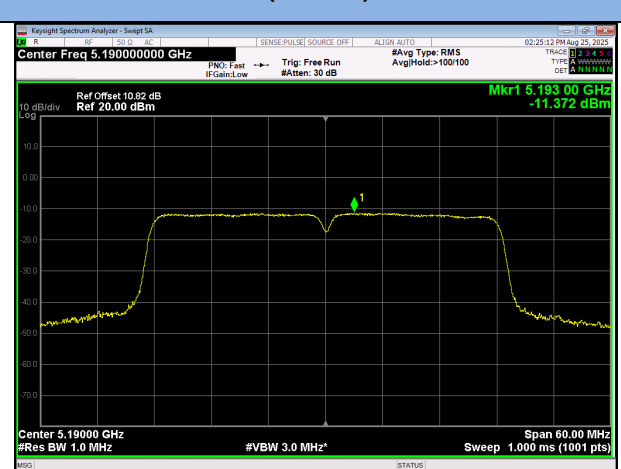
IEEE 802.11ac(VHT20) Middle Channel



IEEE 802.11ac(VHT20) High Channel

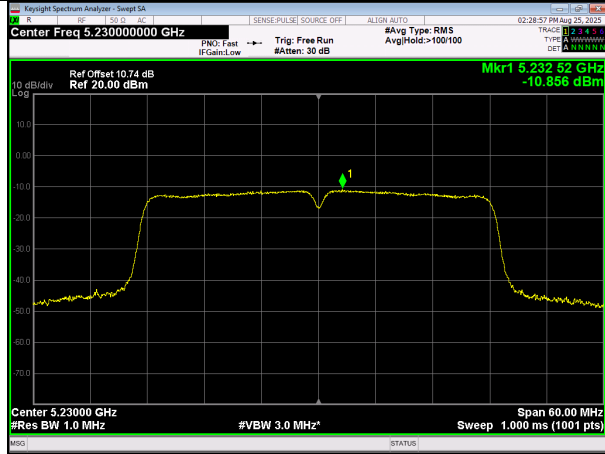


IEEE 802.11ac(VHT40) Low Channel

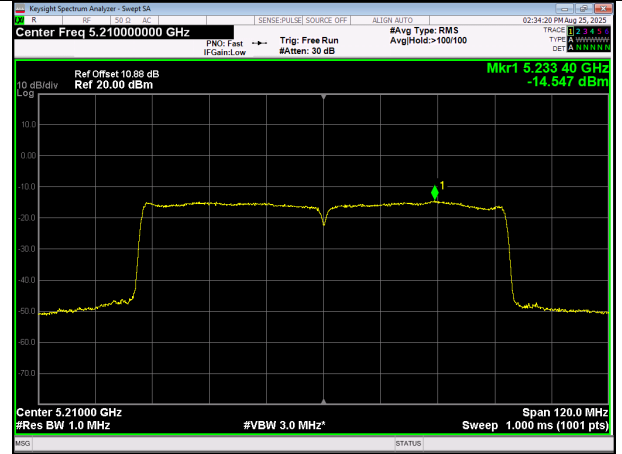


U-NII-1 Band

IEEE 802.11ac(VHT40) High Channel

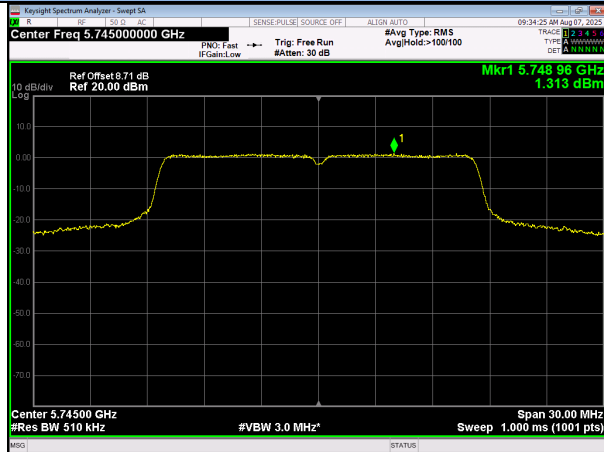


IEEE 802.11ac(VHT80)

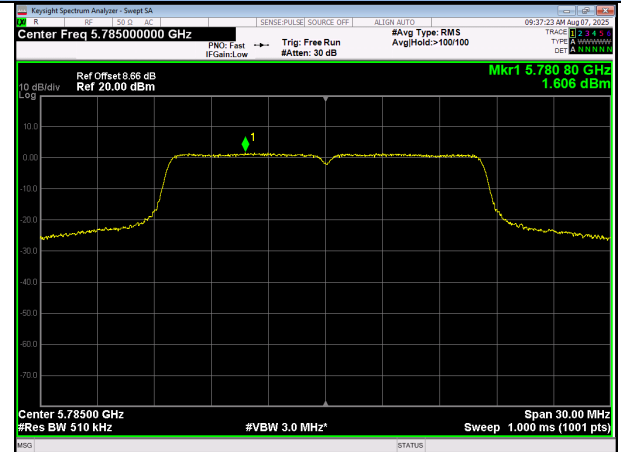


U-NII-3 Band

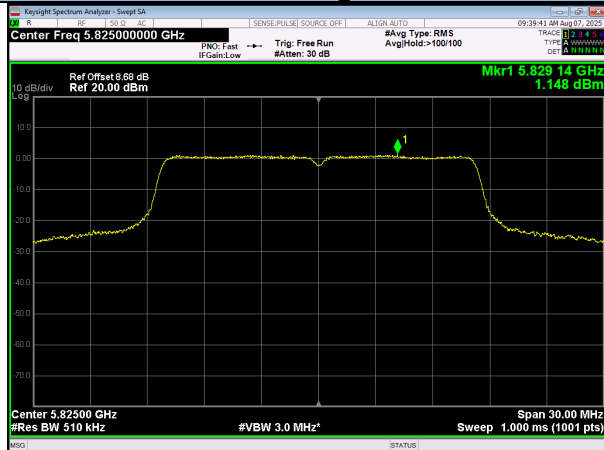
IEEE 802.11a Low Channel



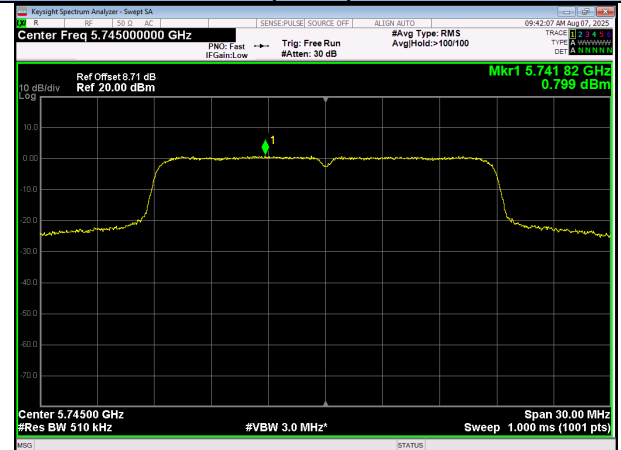
IEEE 802.11a Middle Channel



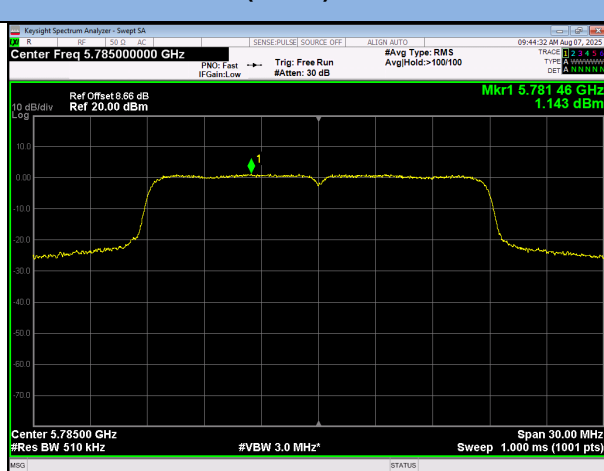
IEEE 802.11a High Channel



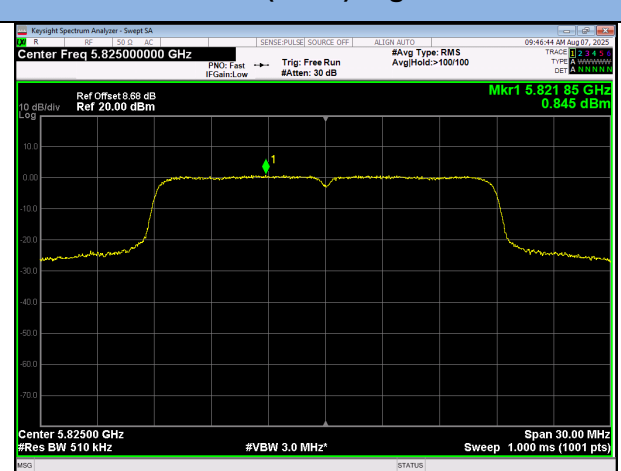
IEEE 802.11n(HT20) Low Channel



IEEE 802.11n(HT20) Middle Channel

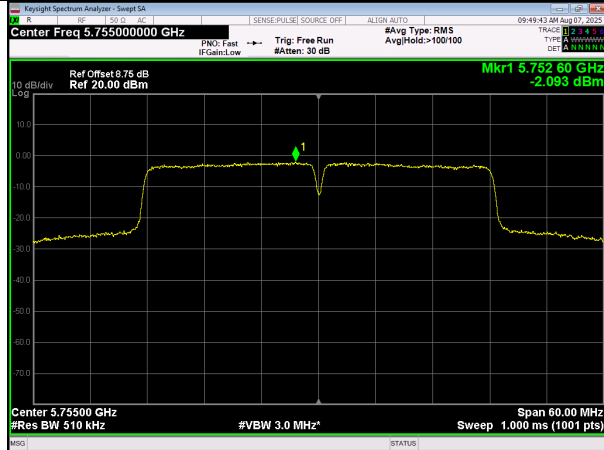


IEEE 802.11n(HT20) High Channel

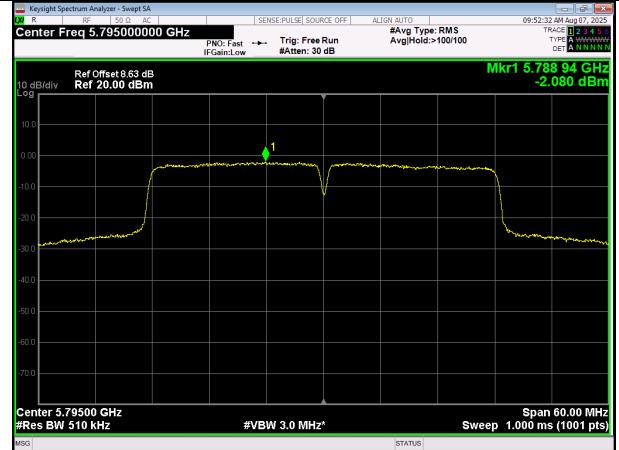


U-NII-3 Band

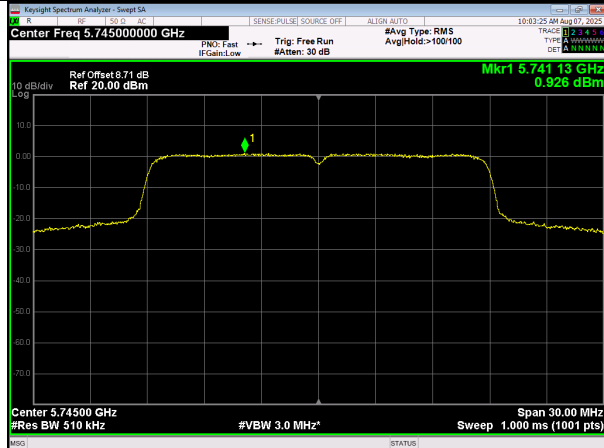
IEEE 802.11n(HT40) Low Channel



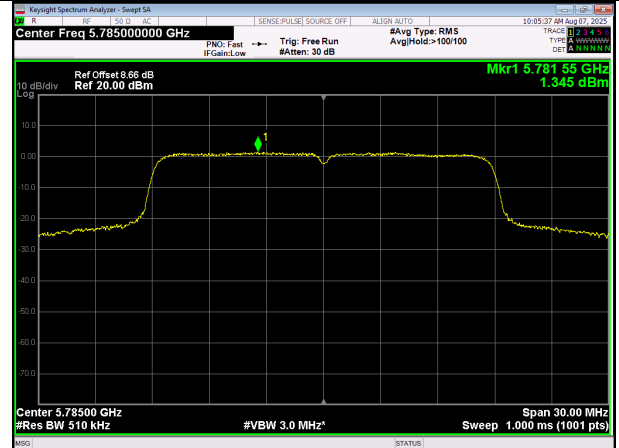
IEEE 802.11n(HT40) High Channel



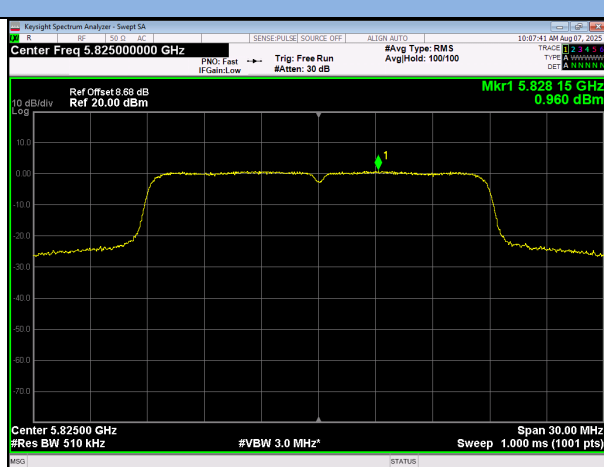
IEEE 802.11ac(VHT20) Low Channel



IEEE 802.11ac(VHT20) Middle Channel



IEEE 802.11ac(VHT20) High Channel

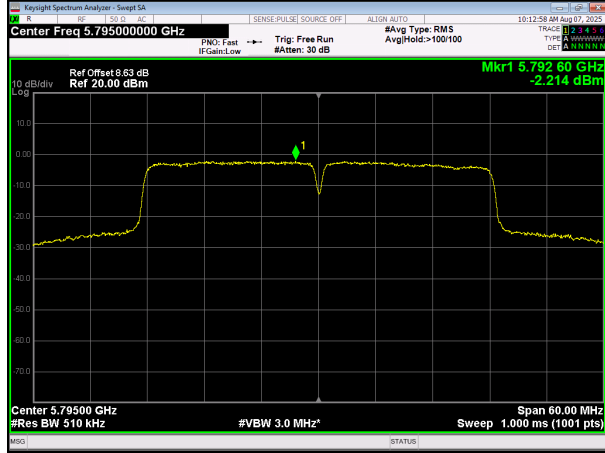


IEEE 802.11ac(VHT40) Low Channel

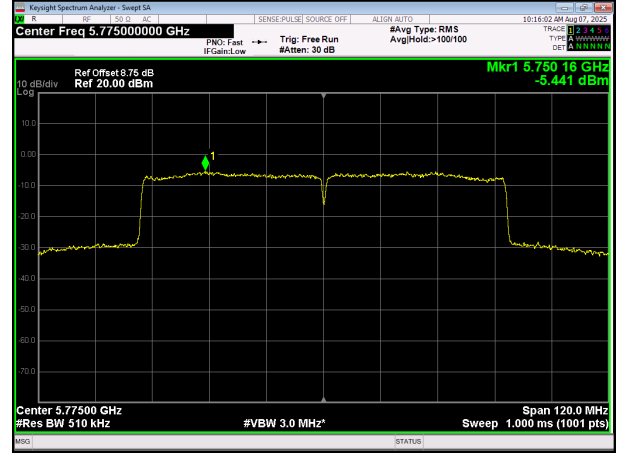


U-NII-3 Band

IEEE 802.11ac(VHT40) High Channel



IEEE 802.11ac(VHT80)



14.6 Band Edge

LIMITS

For transmitters operating in the 5.15-5.25 GHz band:

All emissions outside of the 5.15-5.35GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band:

All emissions outside of the 5.15-5.35GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

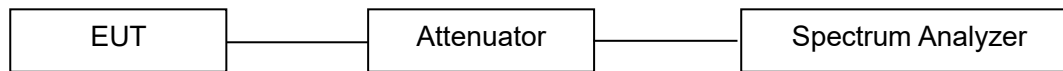
For transmitters operating in the 5.47-5.725 GHz band:

All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band:

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

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

- a. Check the calibration of the measuring instrument using either an internal calibration or a known signal from an external generator.
- b. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
- c. Set RBW to 1MHz and VBW to 3MHz of spectrum analyzer.
- d. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
- e. Repeat above procedures until all measured frequencies were complete.

TEST RESULTS

PASS

Please refer to following pages.

Note: Antenna gain was considered during the test.