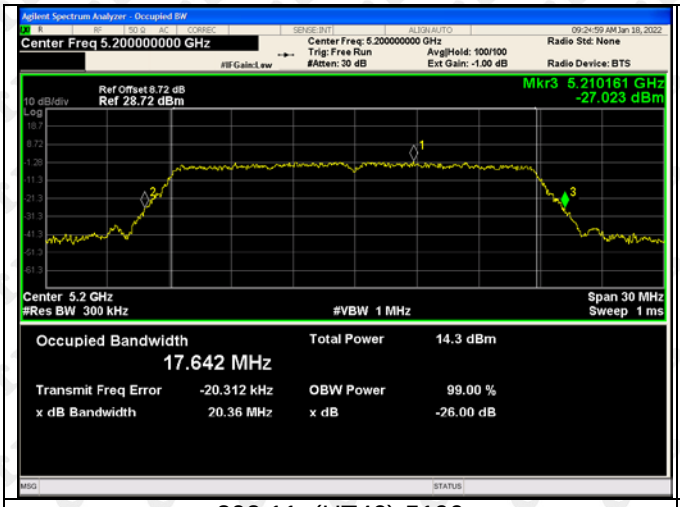
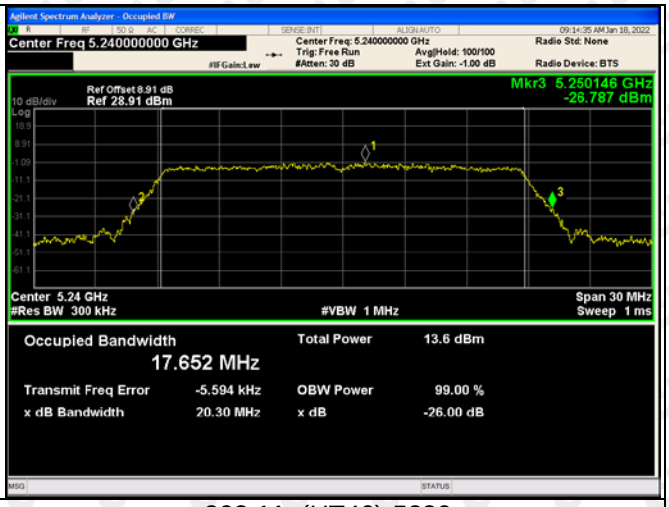


802.11n(HT40)-5190



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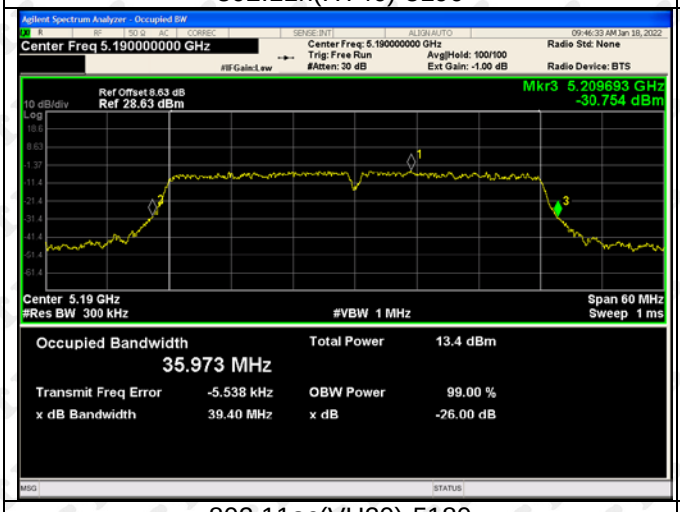

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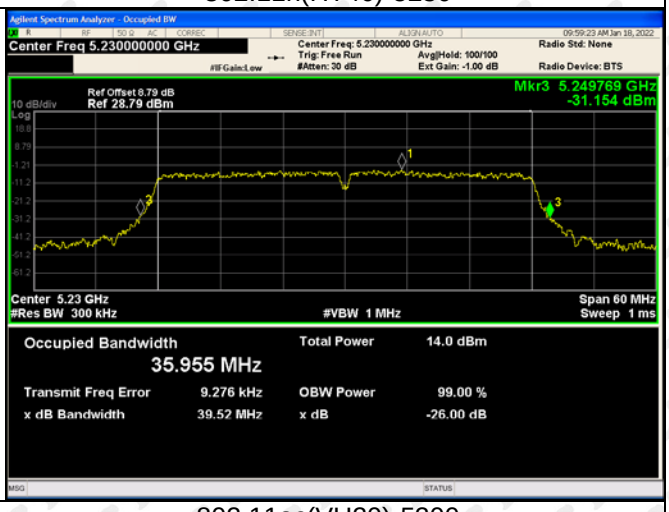

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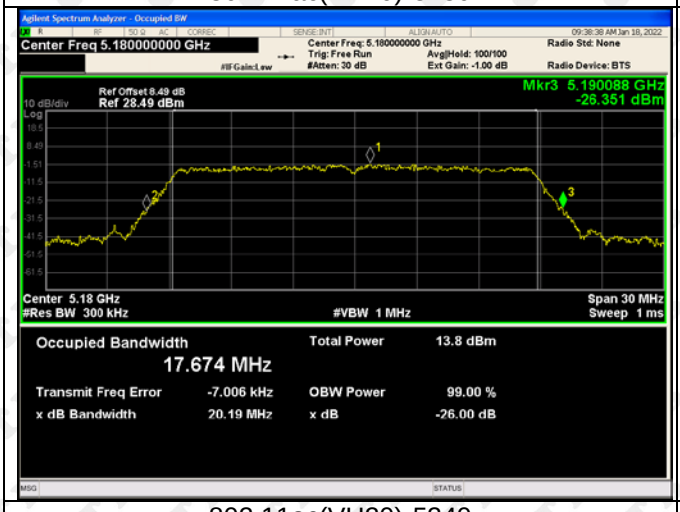

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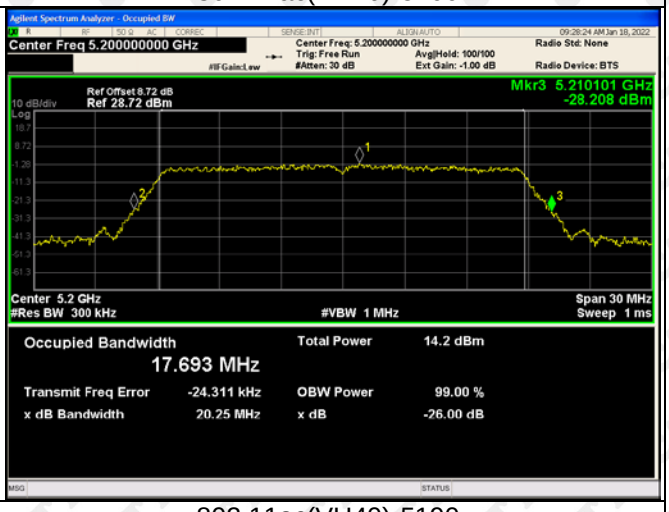

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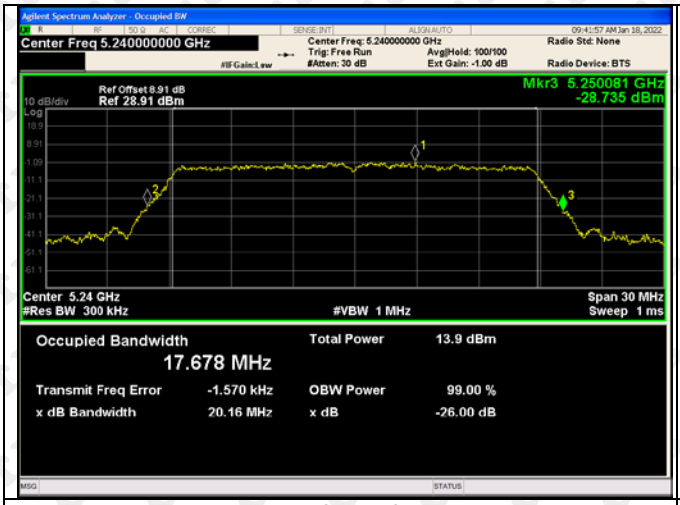

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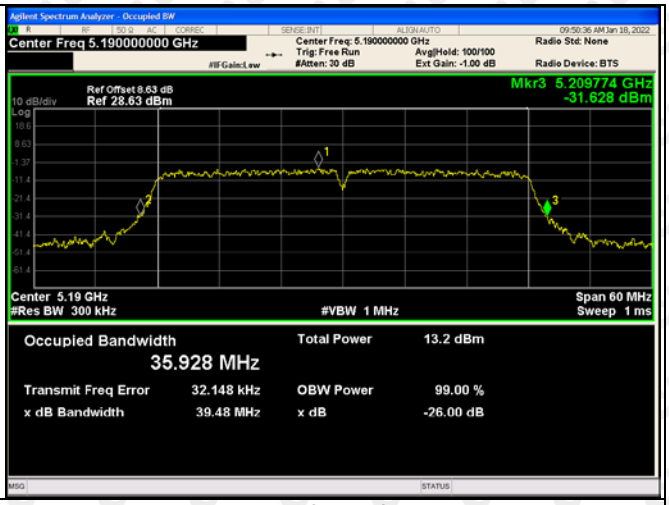

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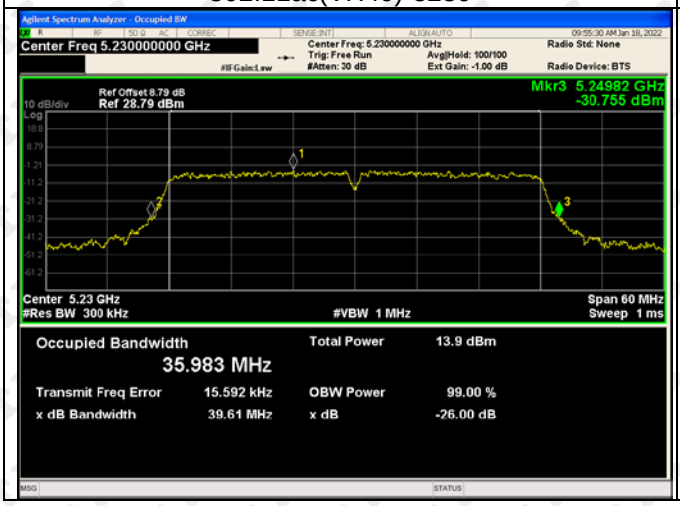
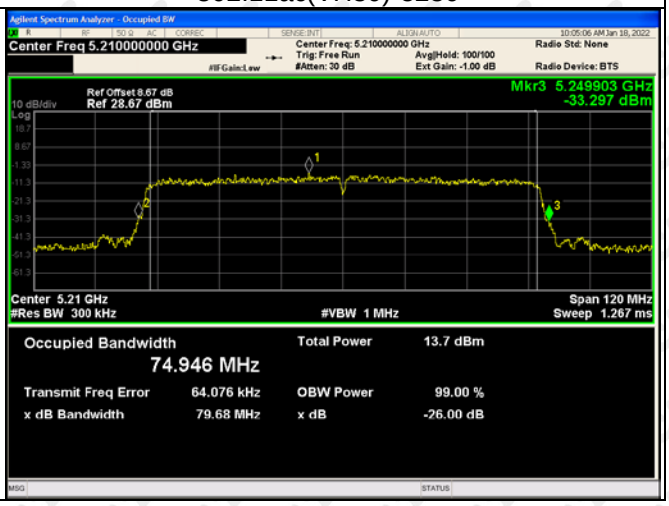
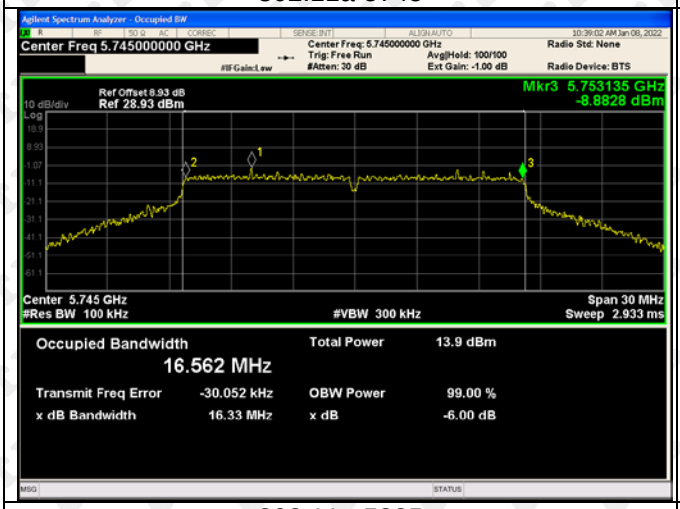


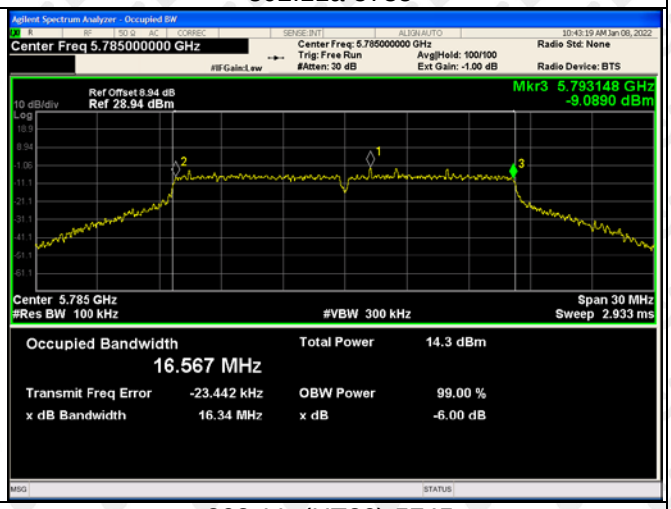


5745-5825MHz ANT 1:

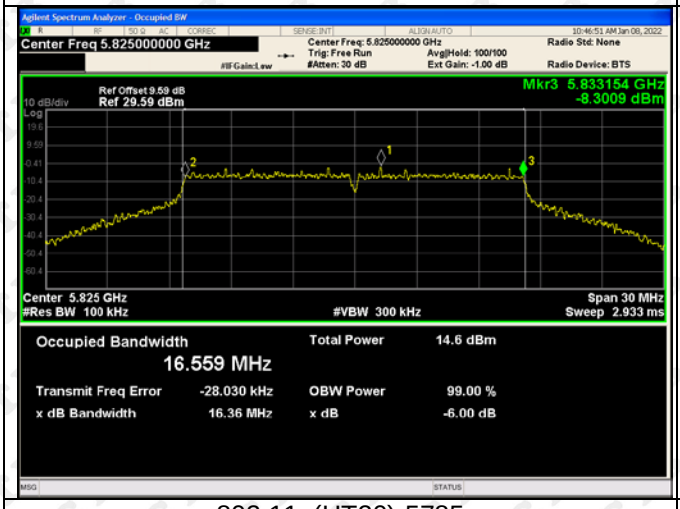
802.11a-5745



802.11a-5785



802.11a-5825



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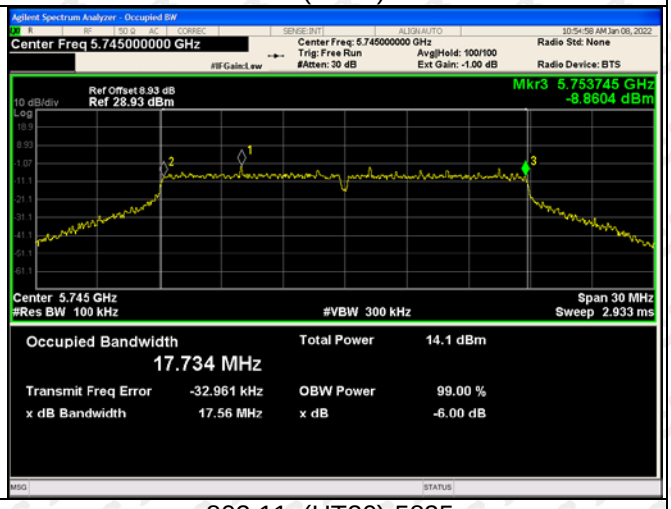
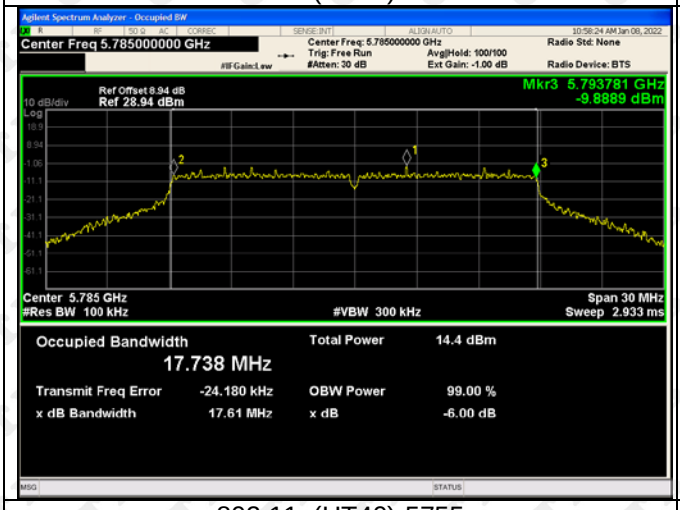


802.11n(HT20)-5785

802.11n(HT20)-5825

802.11n(HT40)-5755



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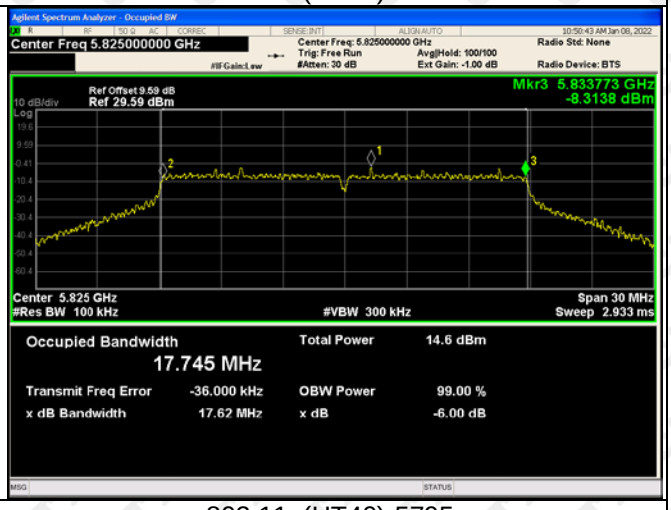

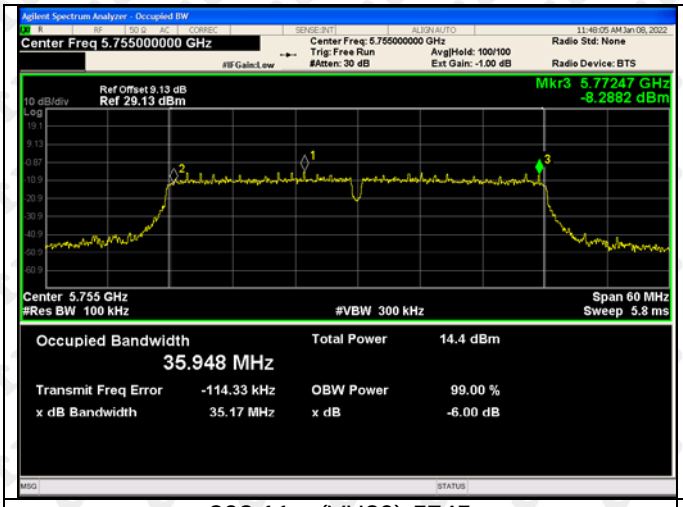

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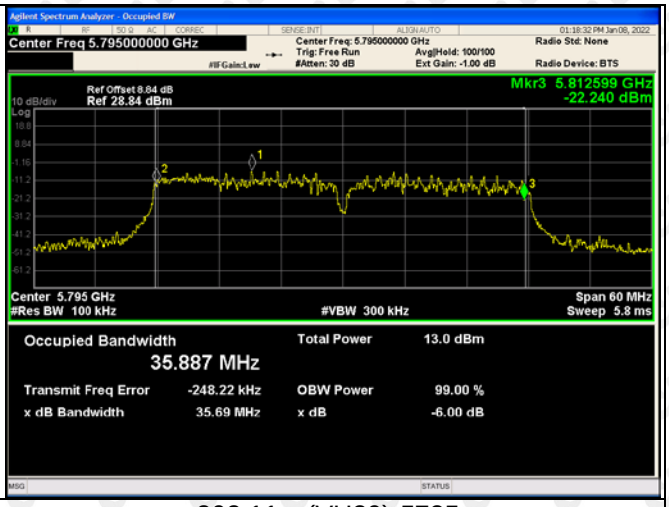

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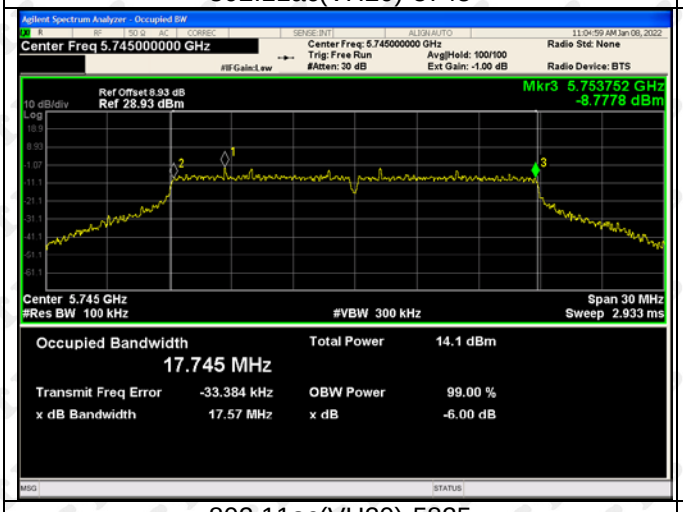

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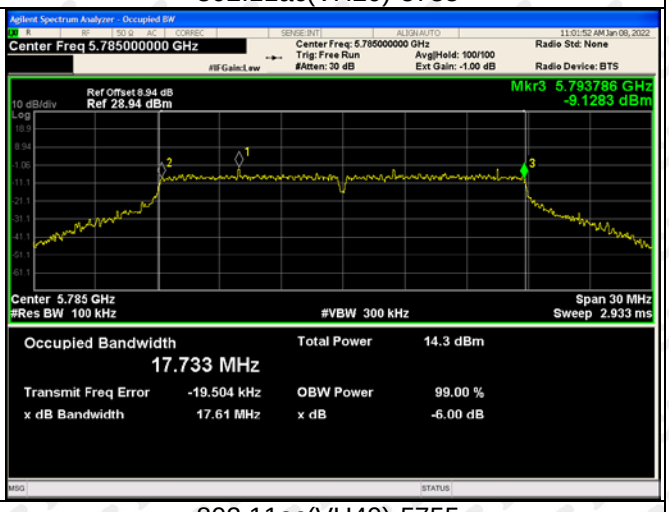
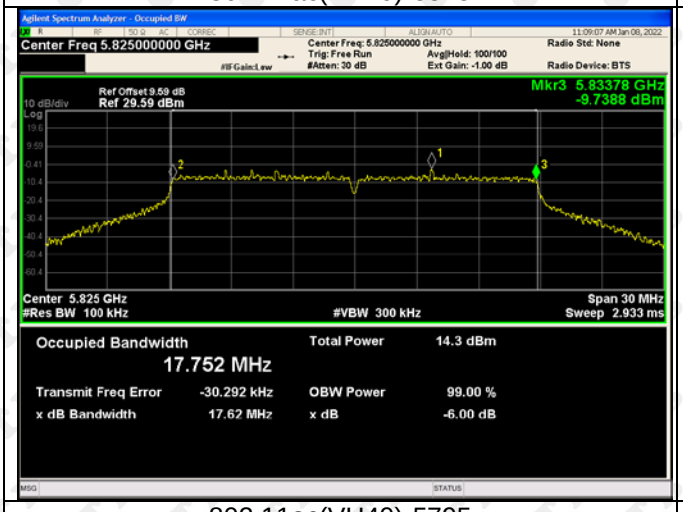
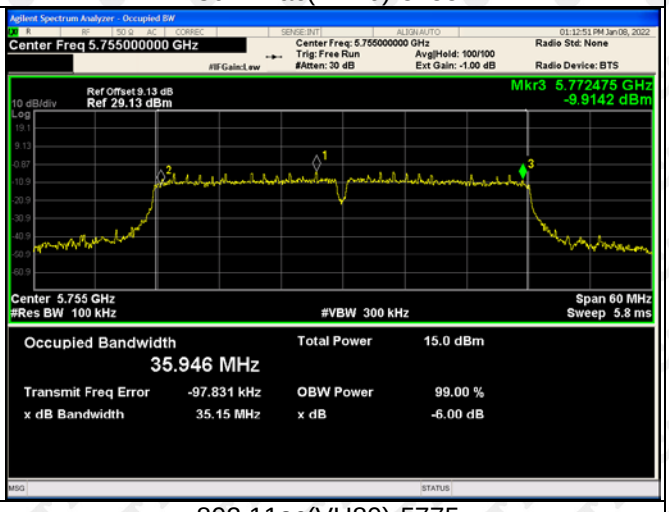


802.11ac(VH40)-5755



802.11ac(VH40)-5795



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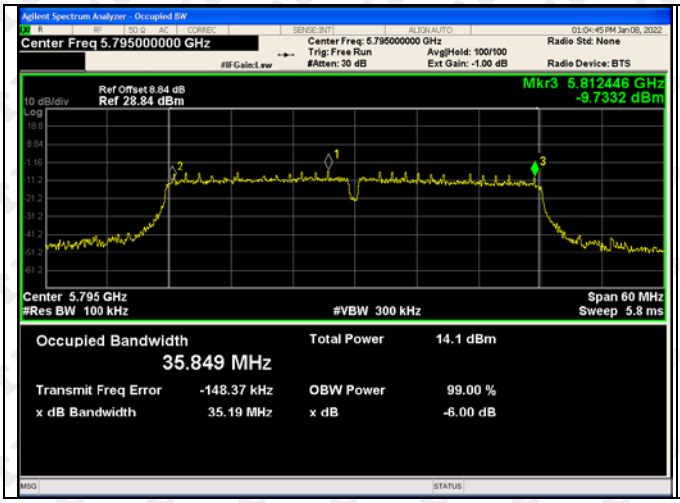
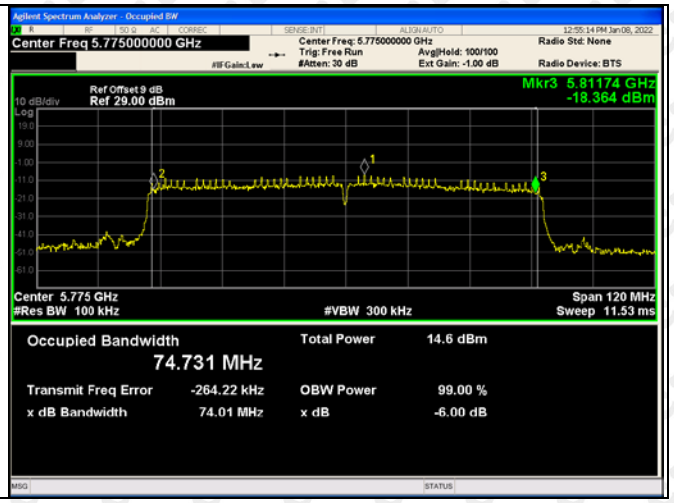
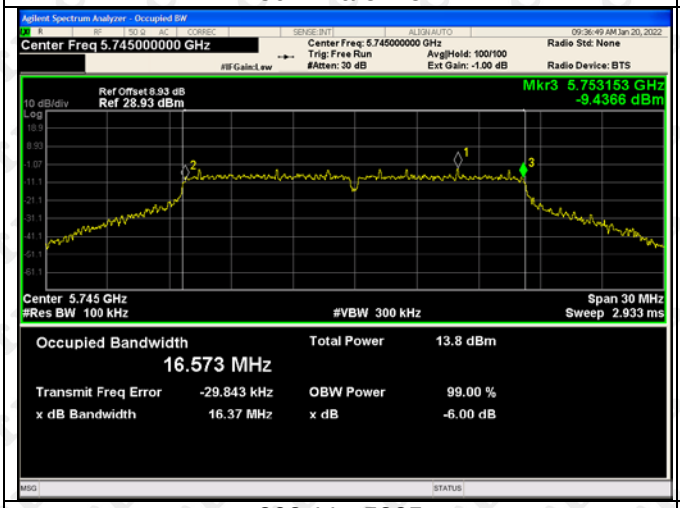


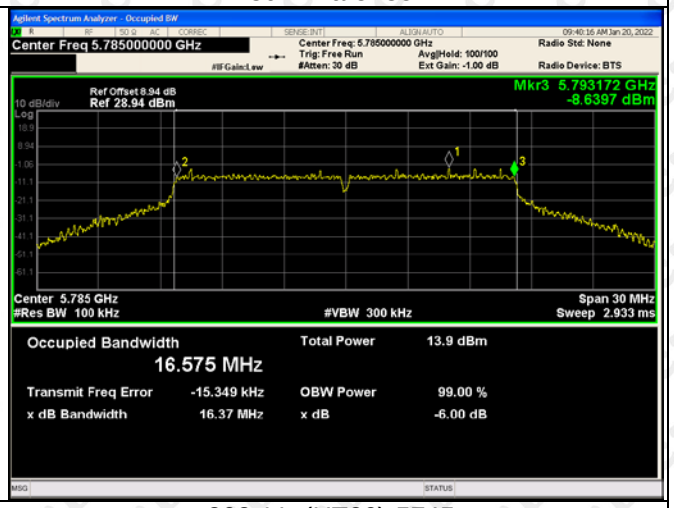


5745-5825MHz ANT 2:

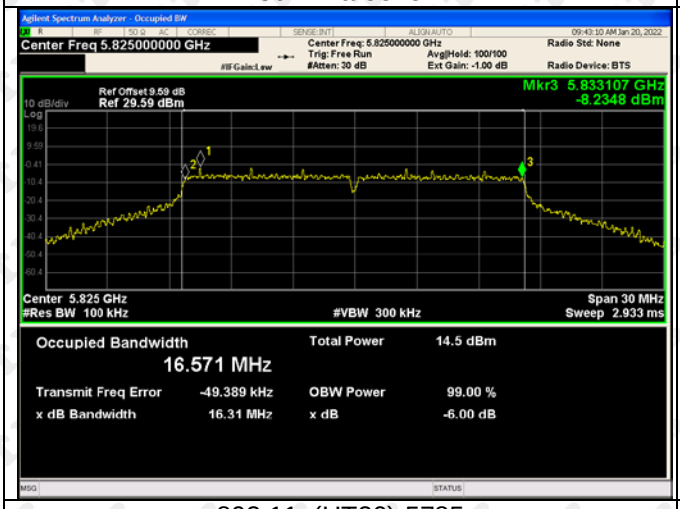
802.11a-5745



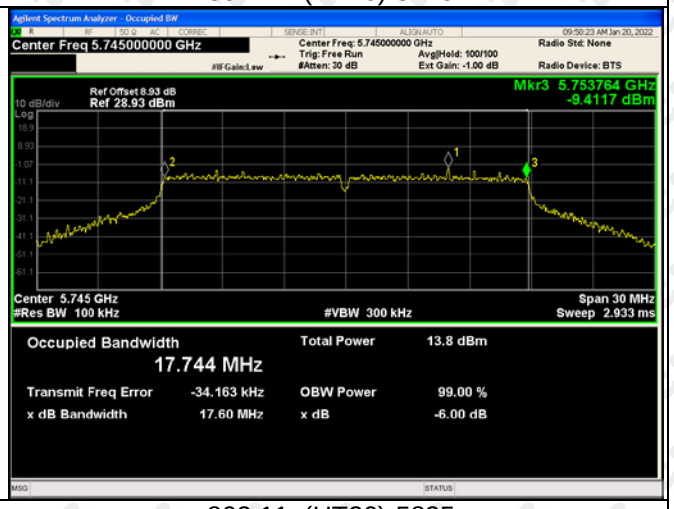
802.11a-5785



802.11a-5825

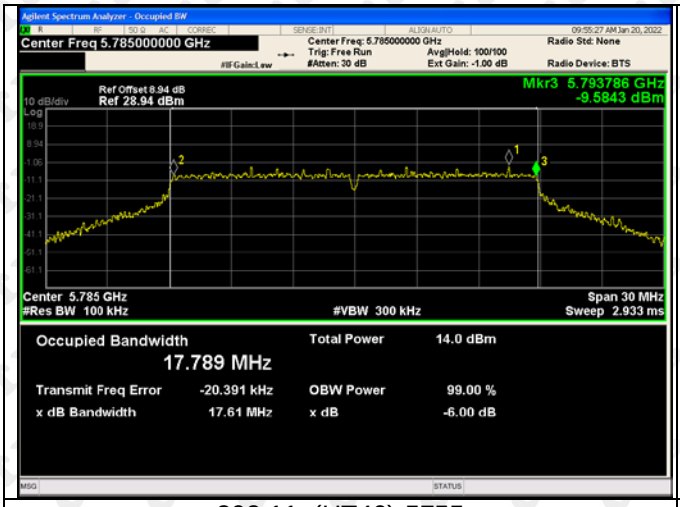


802.11n(HT20)-5745



802.11n(HT20)-5785

802.11n(HT20)-5825



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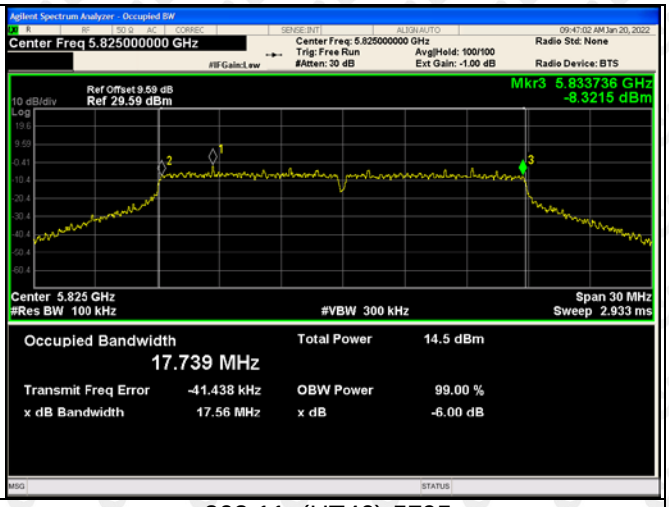

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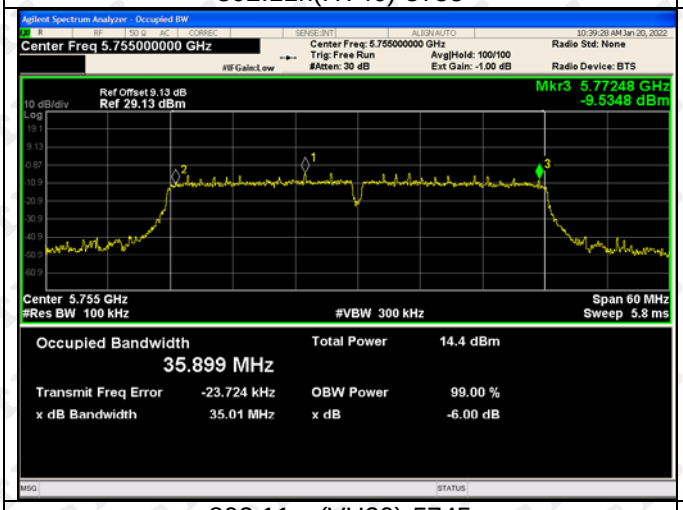

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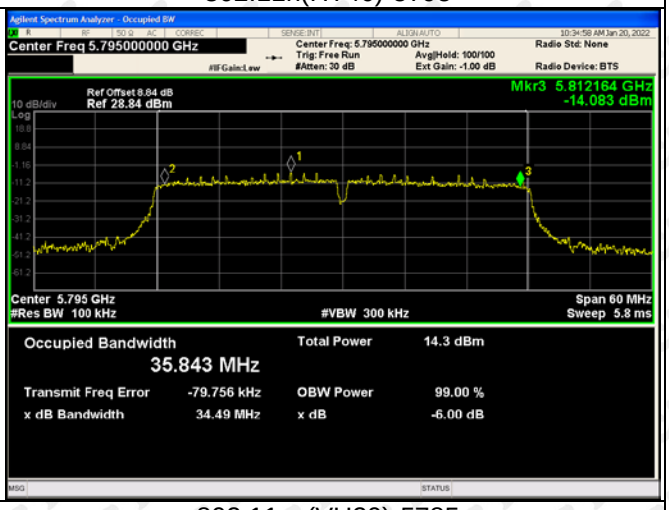

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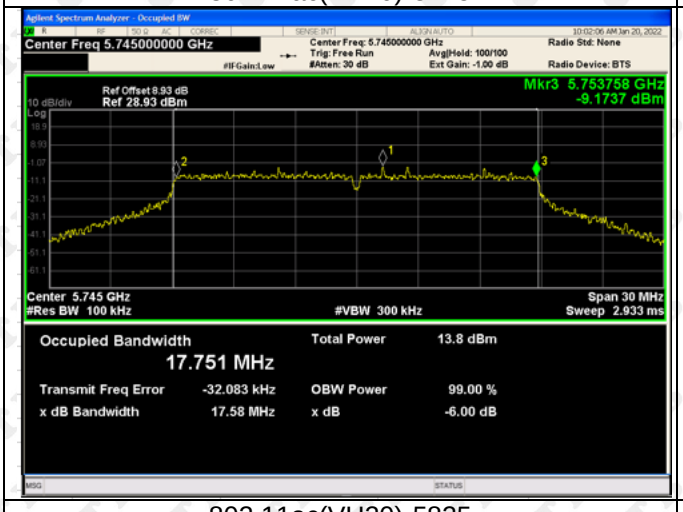

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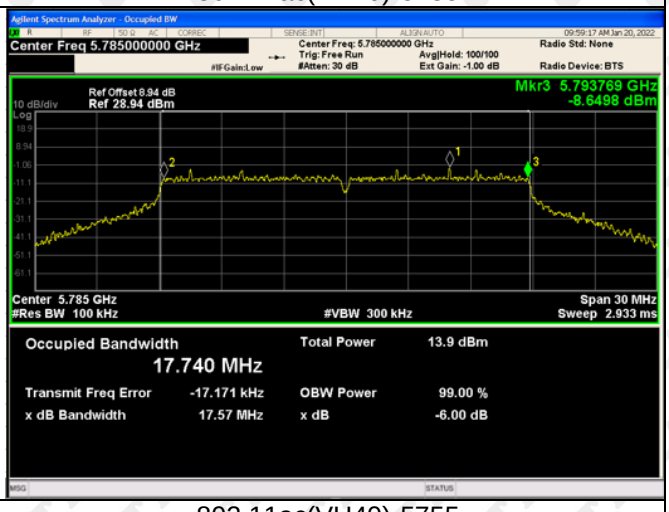
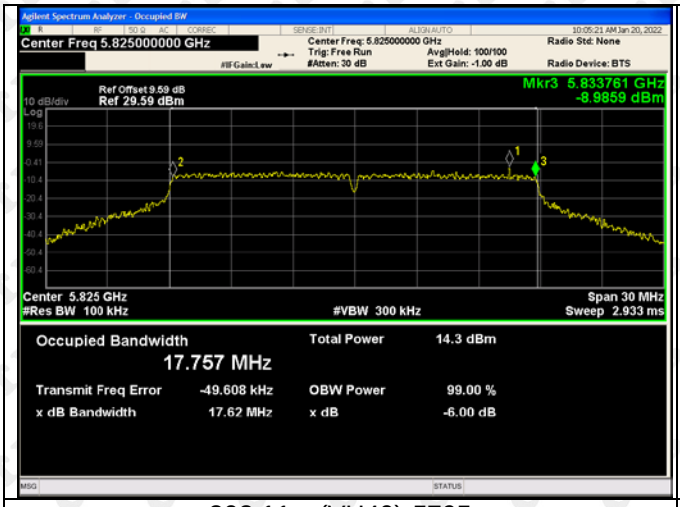
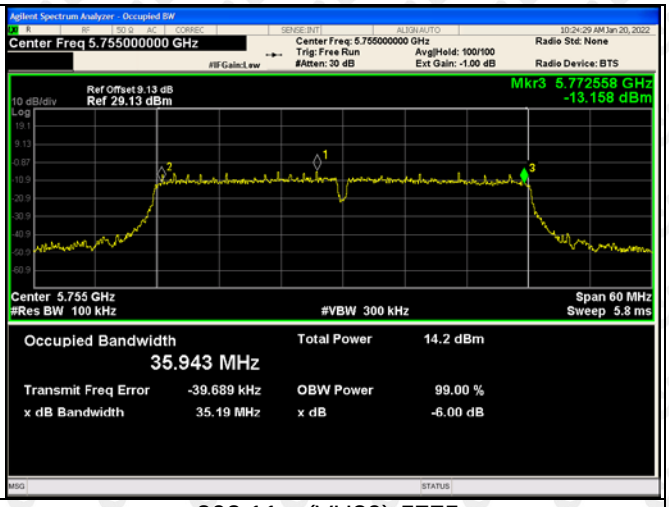


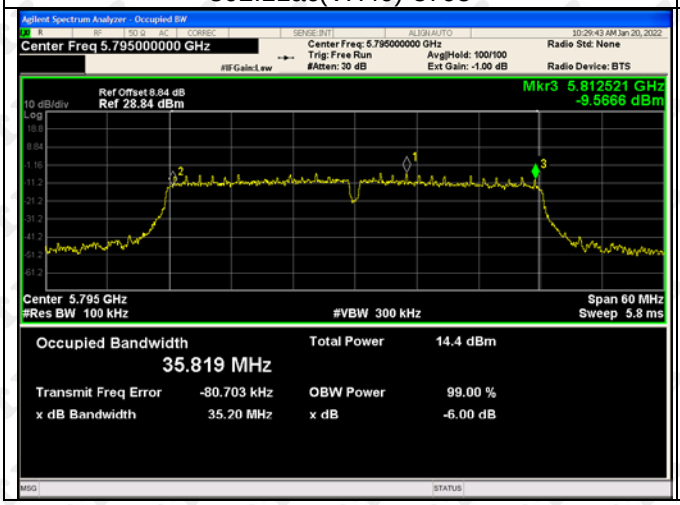
802.11ac(VH40)-5755

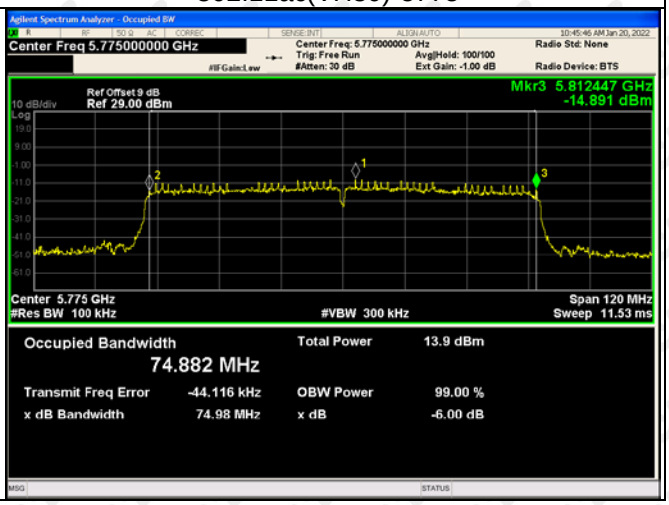


802.11ac(VH40)-5795



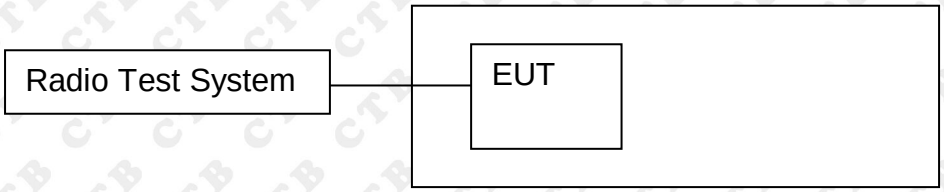
802.11ac(VH80)-5775





11. POWER SPECTRAL DENSITY

11.1 Block Diagram Of Test Setup



11.2 Limit

(1) For the band 5.15-5.25 GHz.

(iv) For mobile and portable 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.
(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. 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.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

11.3 Test procedure

According to KDB789033 D02v02r01 sectionE, the following is the measurement procedure.

For devices operating in the bands 5.15−5.25 GHz, 5.25−5.35 GHz, and 5.47−5.725 GHz, the preceding procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in Section 15.407(a)(5). For devices operating in the band 5.725−5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:
a) Set RBW ≥ 1/*T*, where *T* is defined in II.B.l.a).

b) Set VBW ≥ 3 RBW.

c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10 log (500 kHz/RBW) to the measured result, whereas RBW (<500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.

d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add 10 log (1MHz/RBW) to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.

e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.
Note: As a practical matter, it is recommended to use reduced RBW of 100 kHz for the II.F.5.c) and II.F.5.d), since RBW=100 kHz is available on nearly all spectrum analyzers.

11.4 Test Result

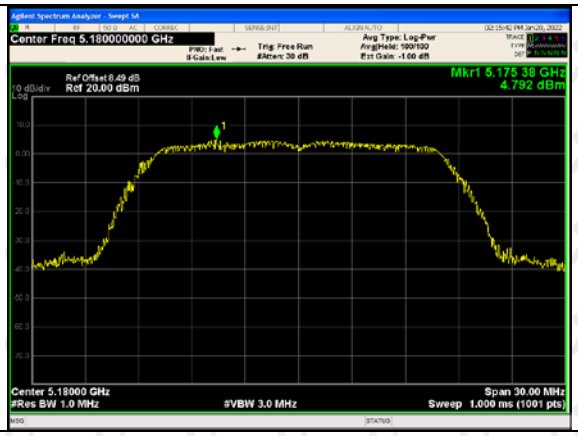
ANT 1+ ANT 2

Test mode	Test Channel (MHz)	PSD [dBm/MHz] ANT 1	PSD [dBm/MHz] ANT 2	PSD [dBm/MHz] Total	Limit (dBm)	Result
802.11a	5180	4.792	5.377	/	11	Pass
	5200	5.667	5.806	/	11	Pass
	5240	5.733	5.356	/	11	Pass
802.11n(HT20)	5180	4.536	4.926	7.746	11	Pass
	5200	4.539	4.966	7.768	11	Pass
	5240	5.214	4.553	7.906	11	Pass
802.11n(HT40)	5190	2.491	1.321	4.956	11	Pass
	5230	1.846	2.02	4.944	11	Pass
802.11ac(VH20)	5210	6.289	4.512	8.501	11	Pass
	5180	6.933	4.67	8.958	11	Pass
	5200	5.137	4.775	7.970	11	Pass
802.11ac(VH40)	5240	1.181	1.325	4.264	11	Pass
	5190	1.815	1.988	4.913	11	Pass
802.11ac(VH80)	5230	-1.504	-1.341	1.589	11	Pass

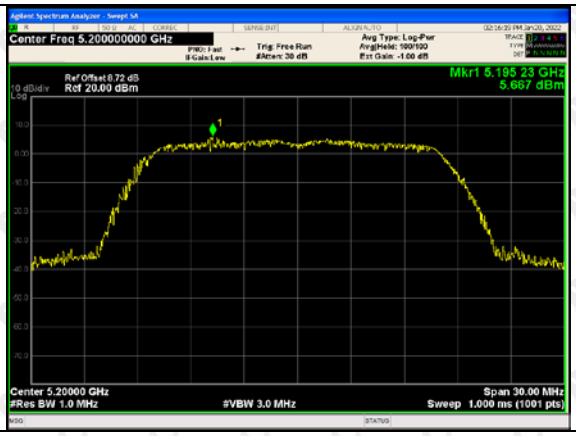
Test mode	Test Channel (MHz)	PSD [dBm/MHz] ANT 1	PSD [dBm/MHz] ANT 2	PSD [dBm/MHz] Total	Limit (dBm)	Result
802.11a	5180	0.676	0.085	/	30	Pass
	5200	1.664	0.728	/	30	Pass
	5240	1.353	0.873	/	30	Pass
802.11n(HT20)	5180	0.264	-0.317	2.994	30	Pass
	5200	1.351	-0.084	3.703	30	Pass
	5240	1.493	1.302	4.409	30	Pass
802.11n(HT40)	5190	-1.983	-2.909	0.589	30	Pass
	5230	-2.316	-2.669	0.521	30	Pass
802.11ac(VH20)	5210	1.151	-0.542	3.397	30	Pass
	5180	1.187	-0.34	3.501	30	Pass
	5200	0.909	0.553	3.745	30	Pass
802.11ac(VH40)	5240	-1.364	-2.717	1.022	30	Pass
	5190	-2.437	-2.584	0.500	30	Pass
802.11ac(VH80)	5230	-4.92	-7.105	-2.866	30	Pass

5180-5230MHz ANT 1:

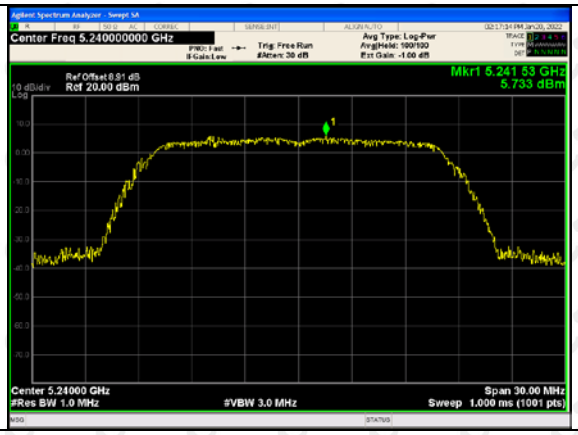
802.11a-5180



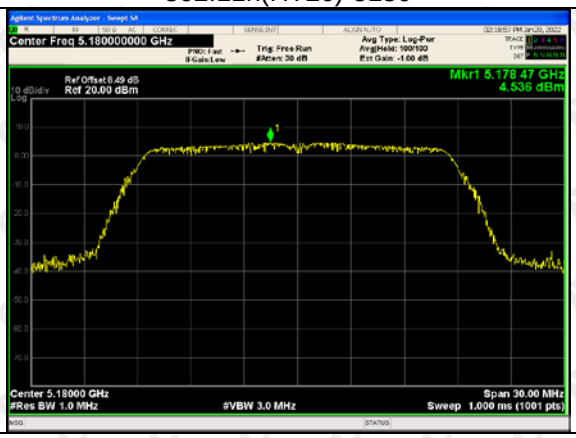
802.11a-5200



802.11a-5240



802.11n(HT20)-5180



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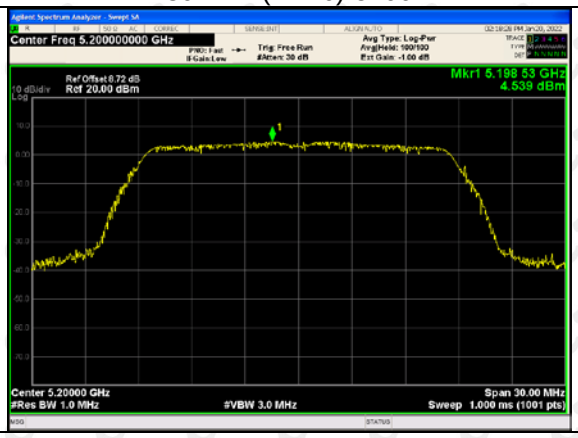

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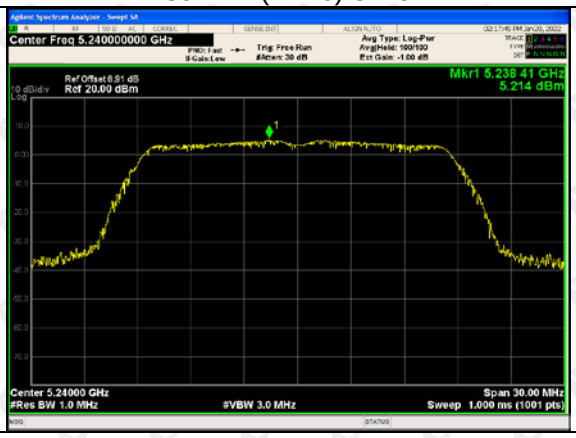
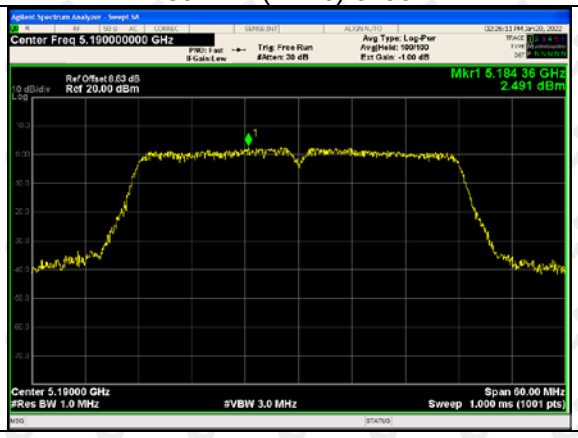


802.11n(HT40)-5190



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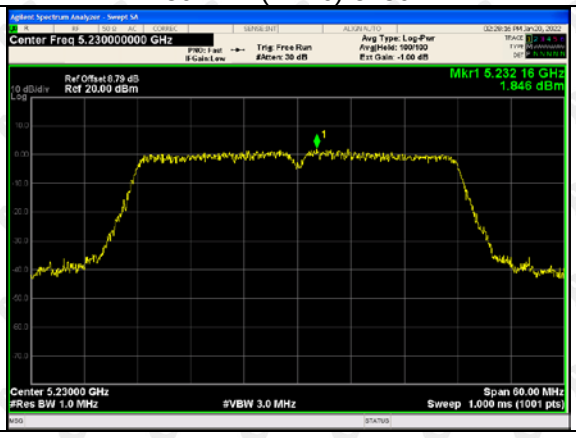

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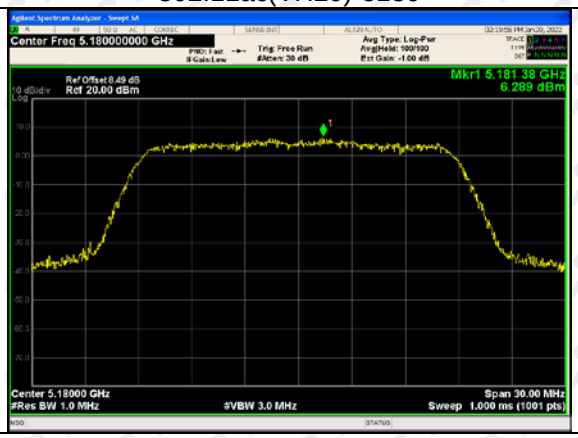

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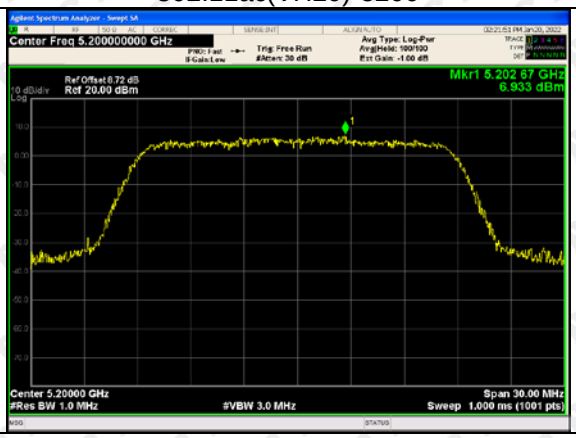

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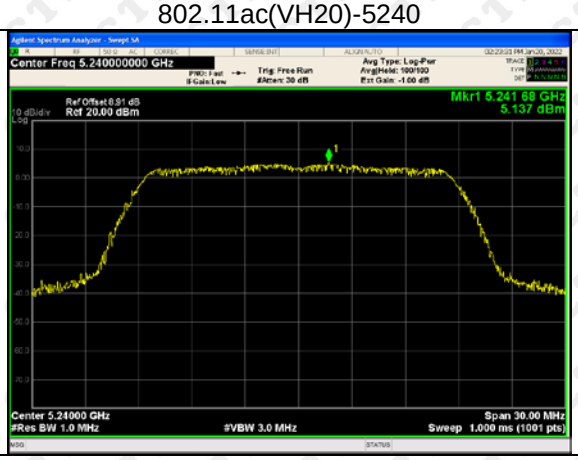

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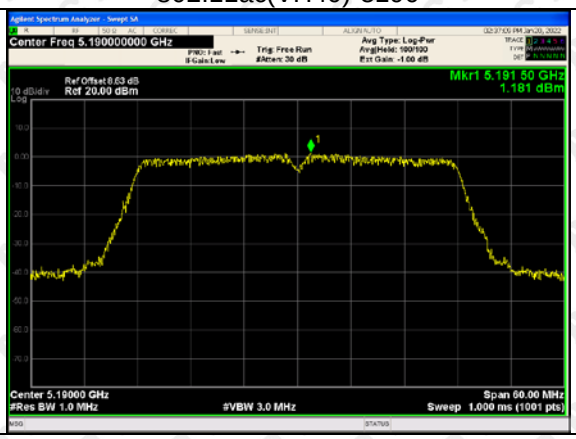

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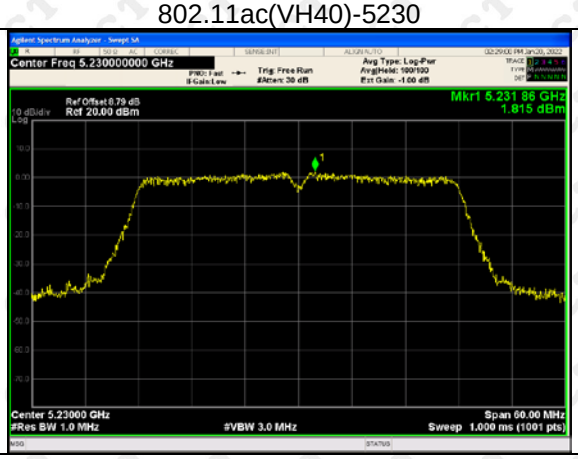

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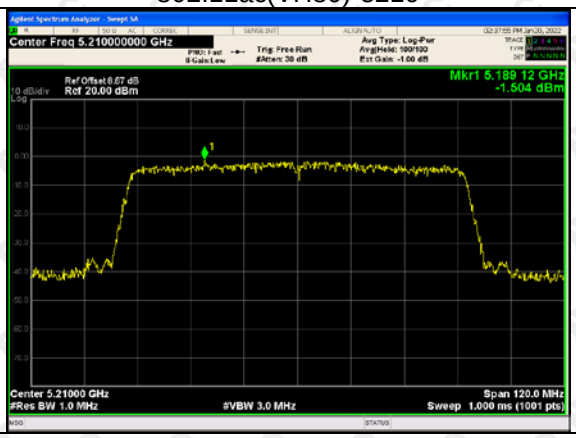
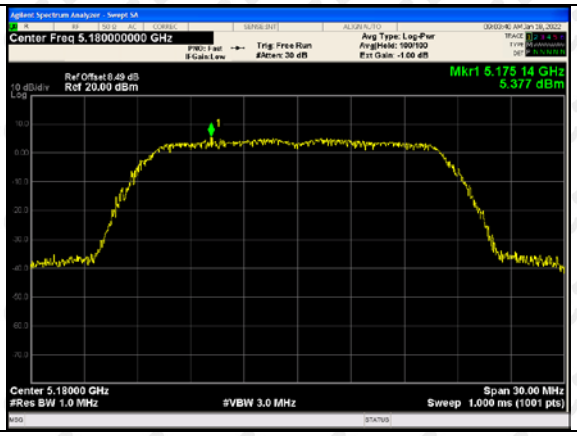
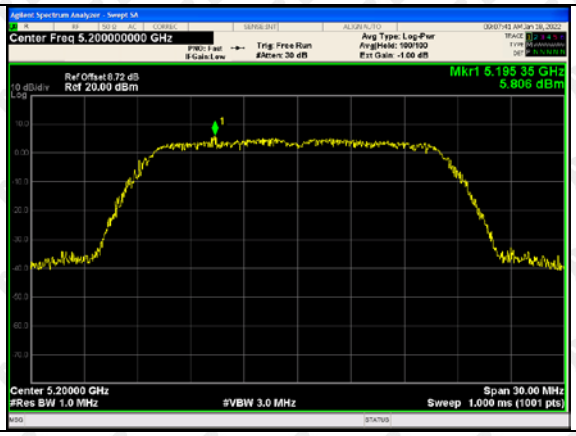


5180-5230MHz ANT 2:

802.11a-5180	802.11a-5200
	
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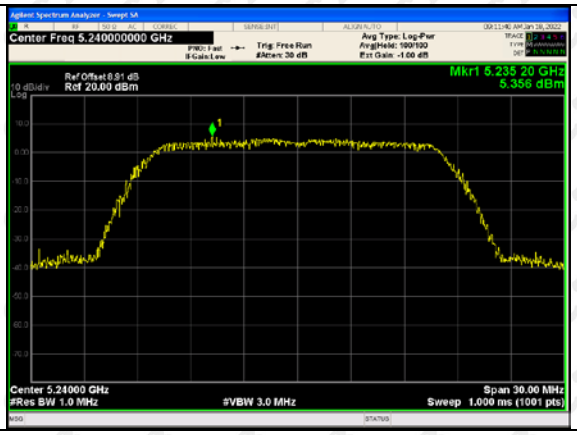	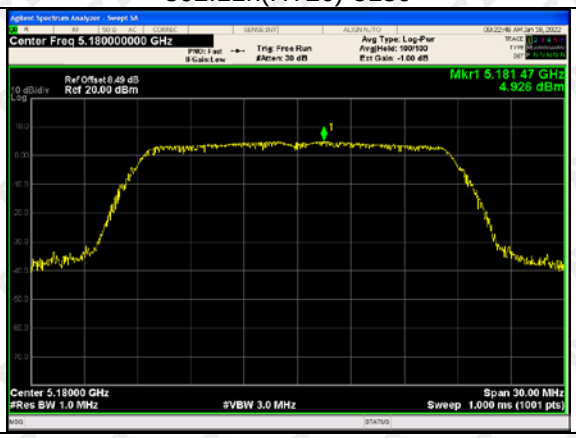
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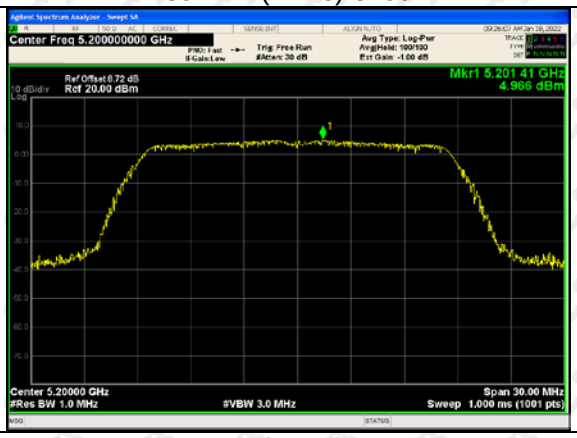	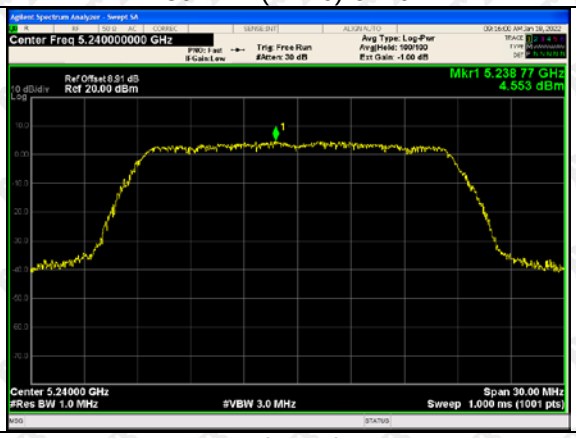
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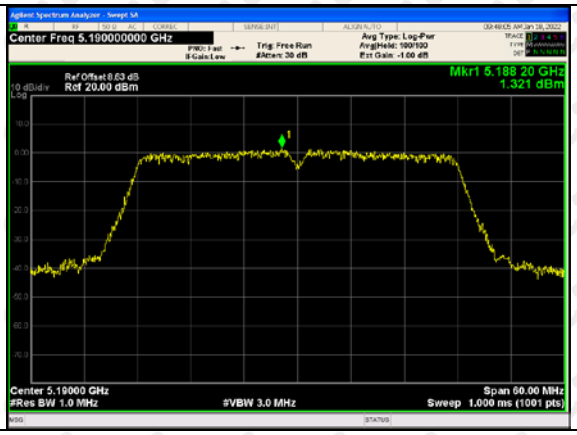

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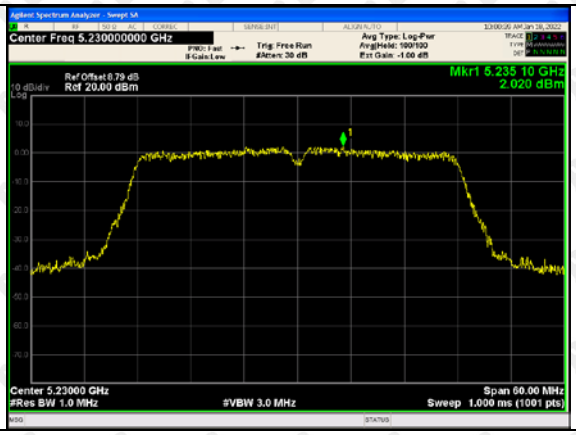
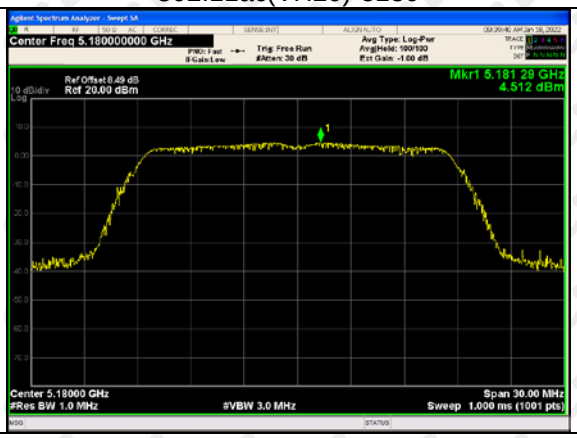


802.11ac(VH20)-5200



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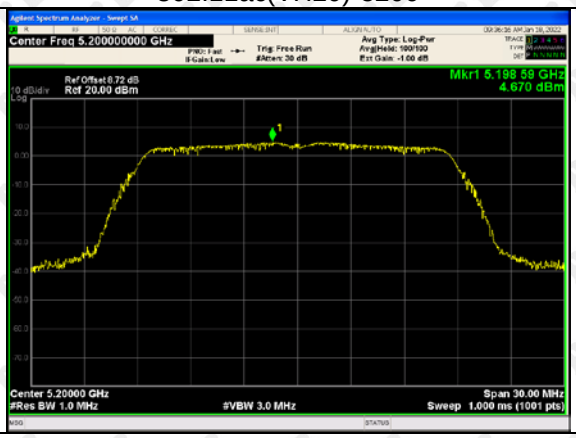

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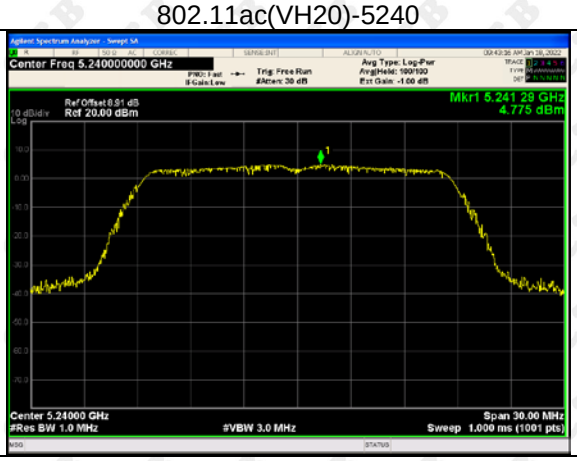
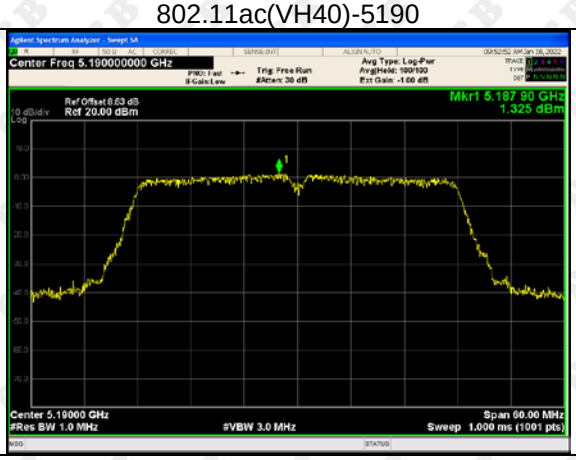


802.11ac(VH40)-5230



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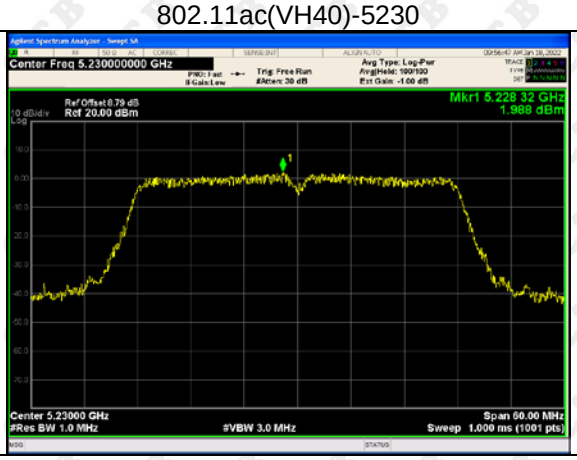
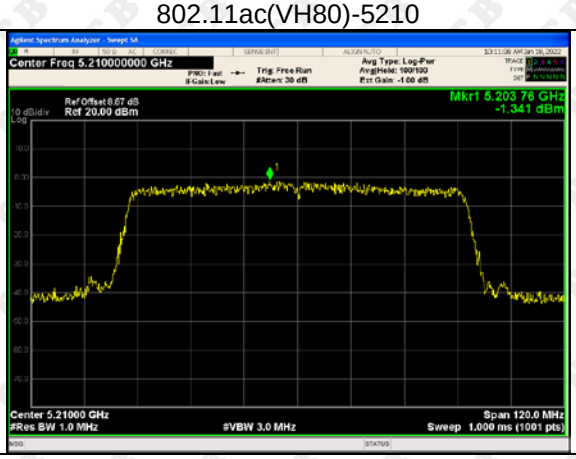
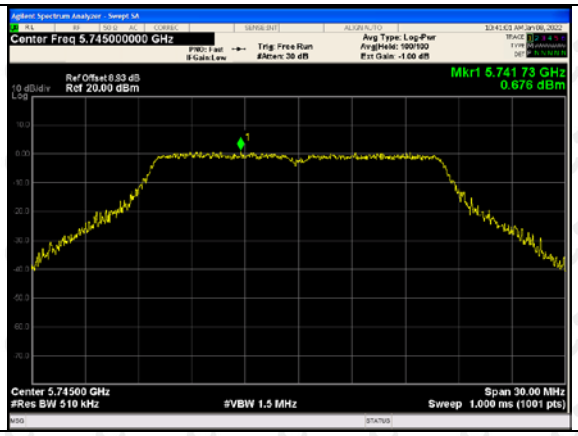


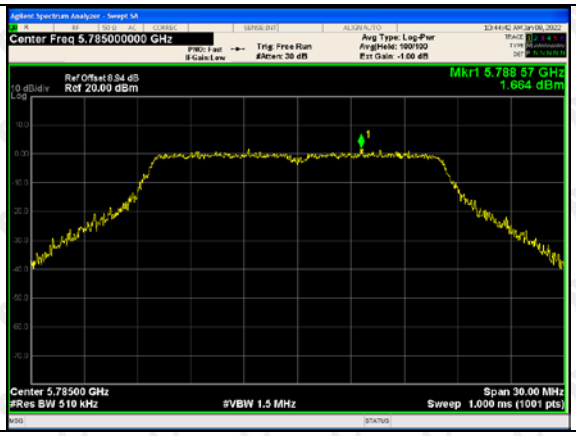


5745-5825MHz ANT 1:

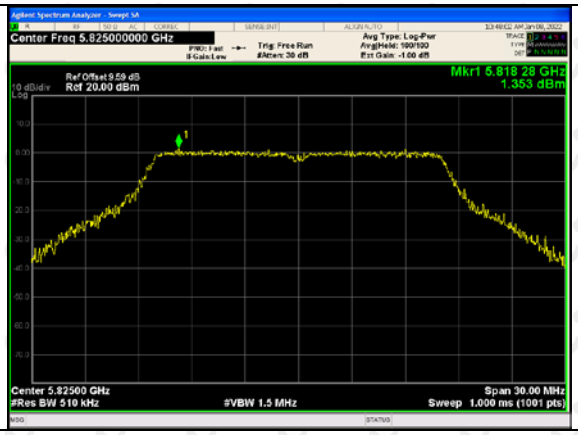
802.11a-5745



802.11a-5785



802.11a-5825



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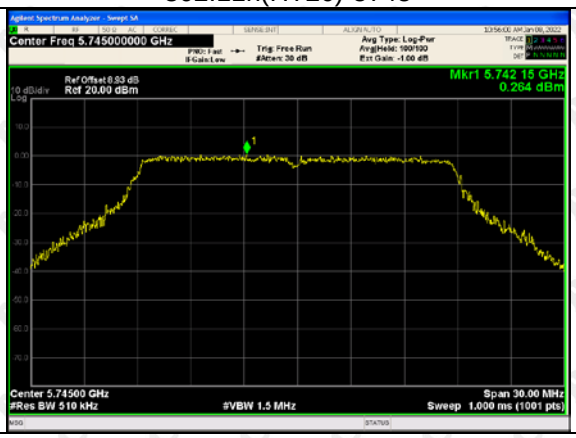

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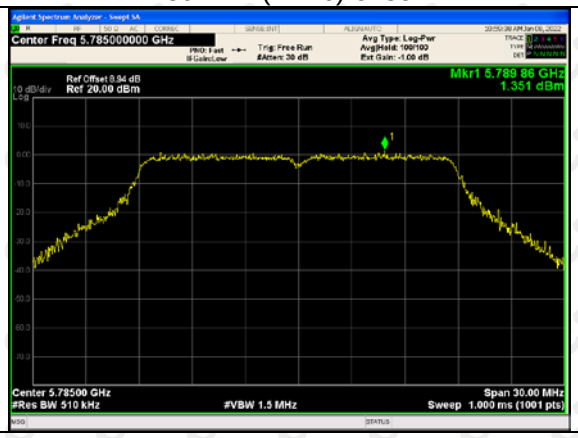

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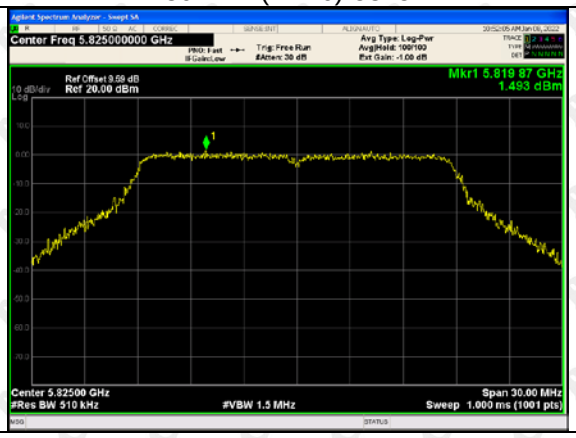

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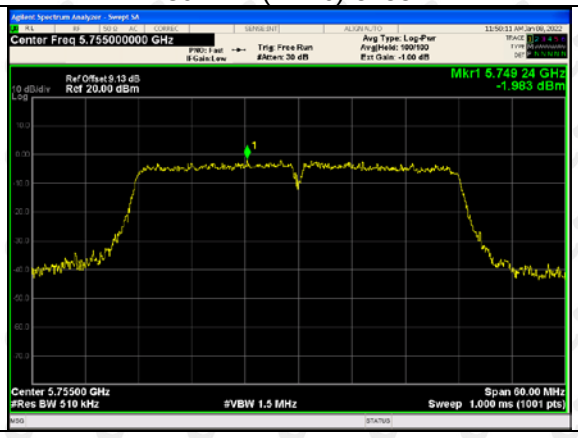

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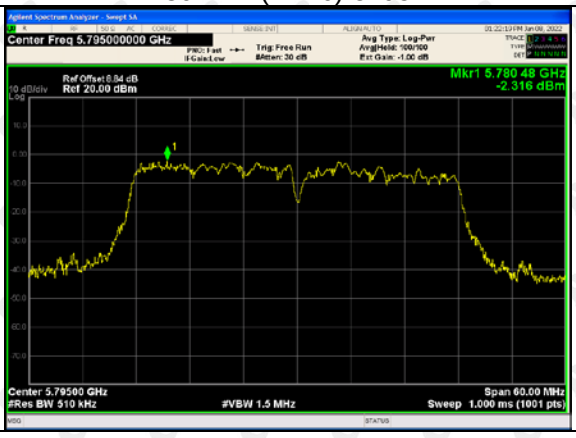
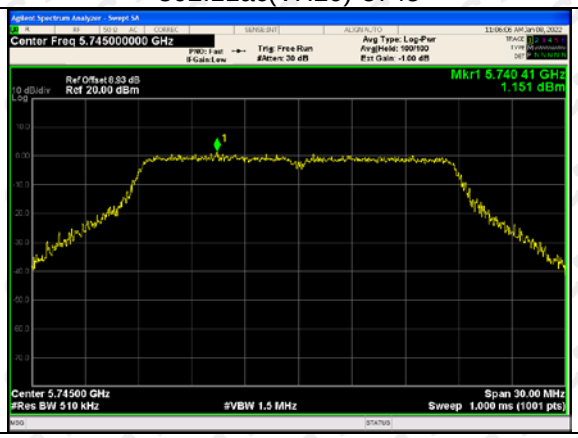


802.11ac(VH20)-5745



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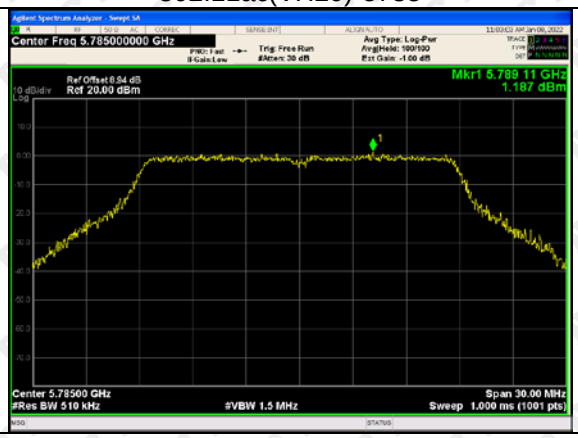

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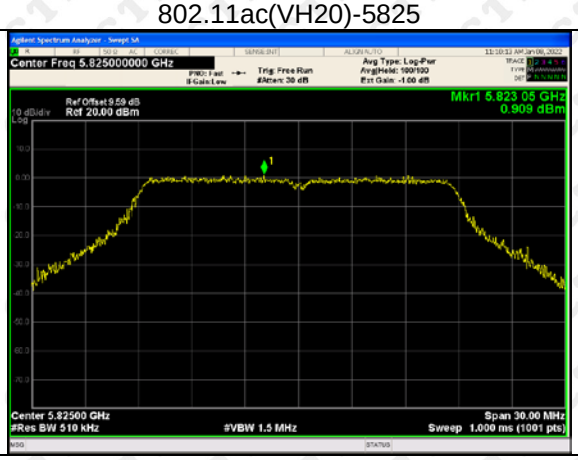

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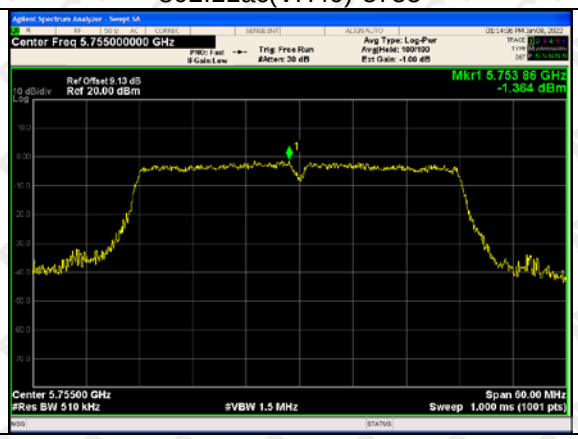

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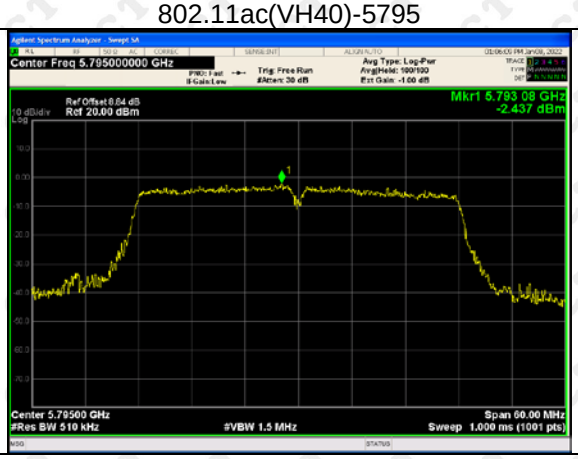
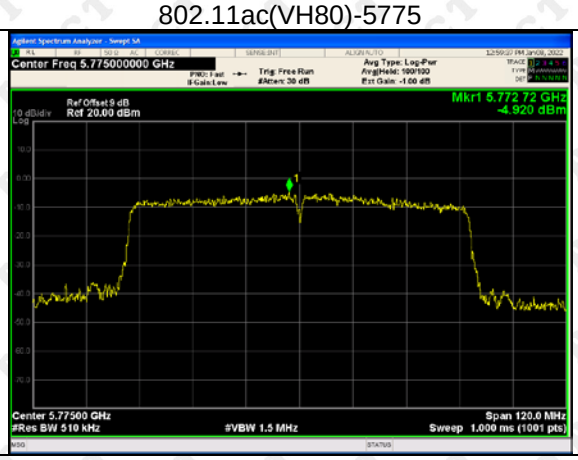
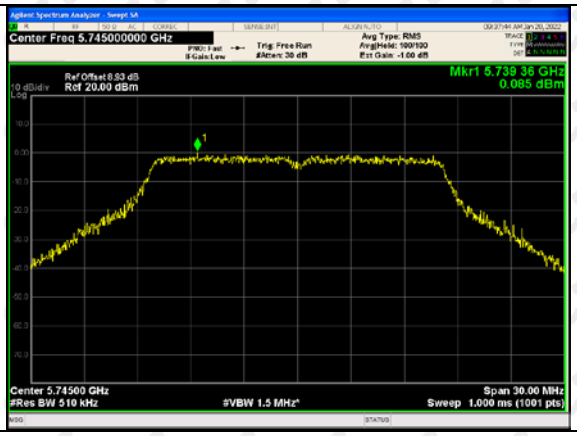
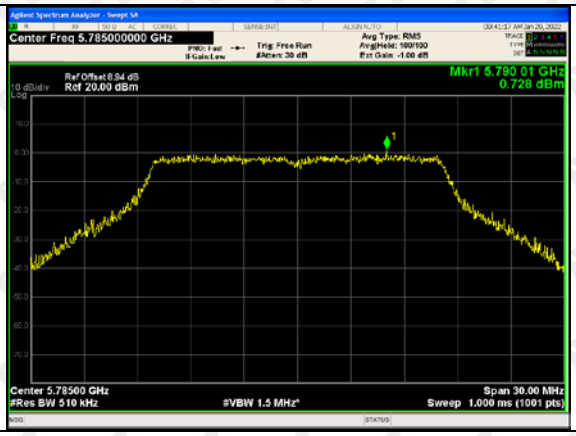
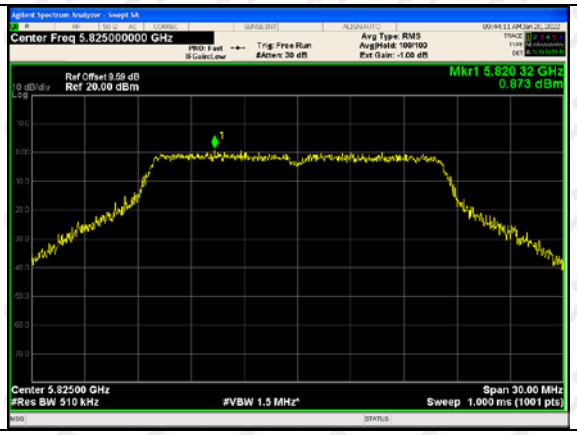
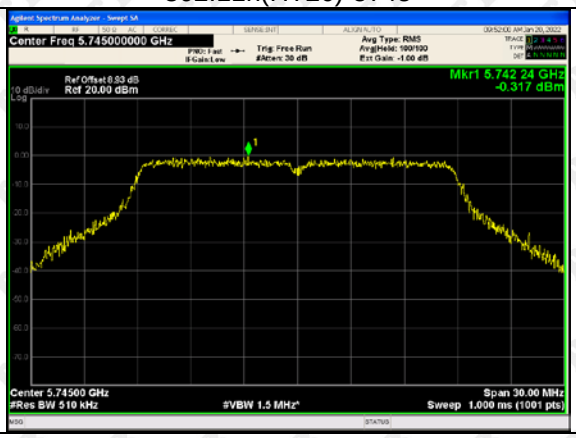
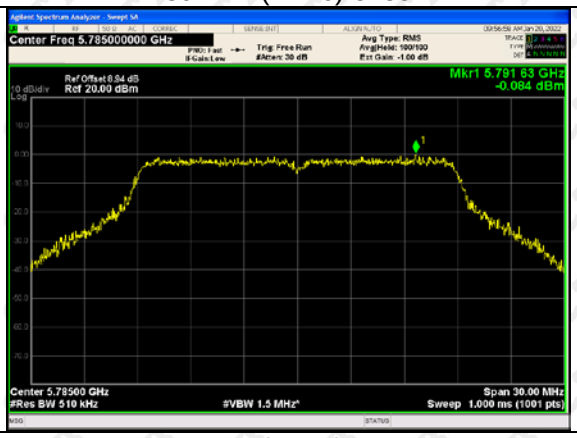
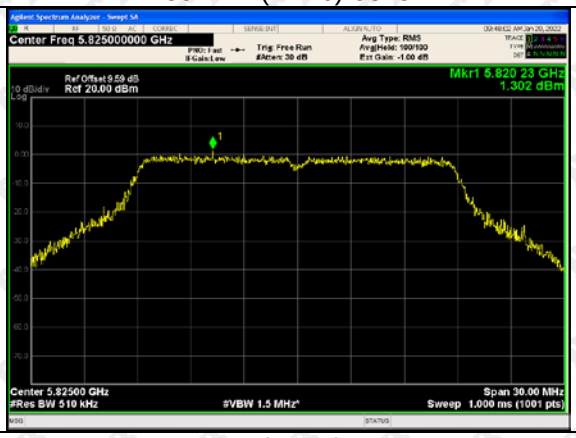
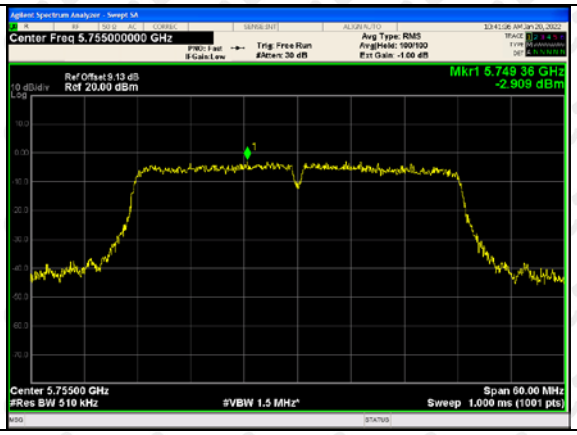


802.11ac(VH80)-5775



5745-5825MHz ANT 2:

802.11a-5745	802.11a-5785
	
802.11a-5825	802.11n(HT20)-5745
	
802.11n(HT20)-5785	802.11n(HT20)-5825
	
802.11n(HT40)-5755	802.11n(HT40)-5795



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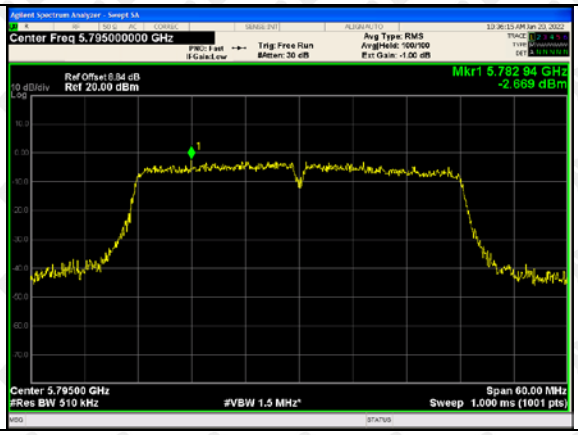

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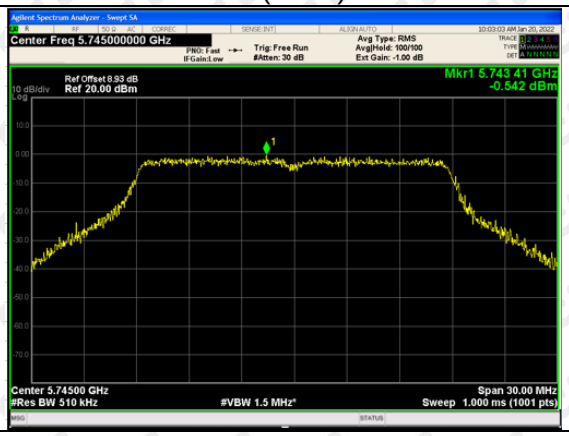

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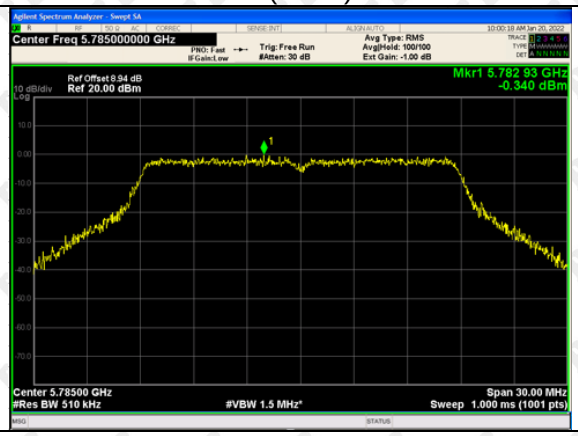
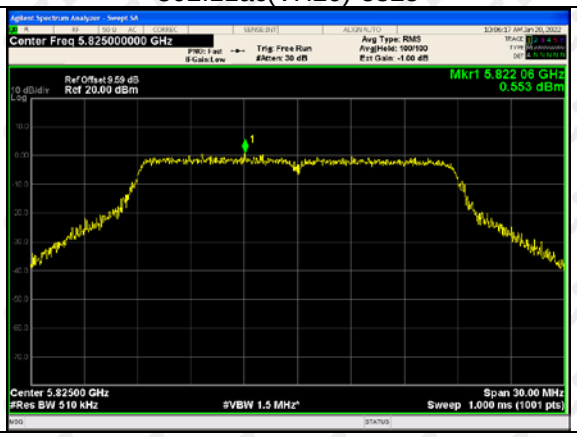
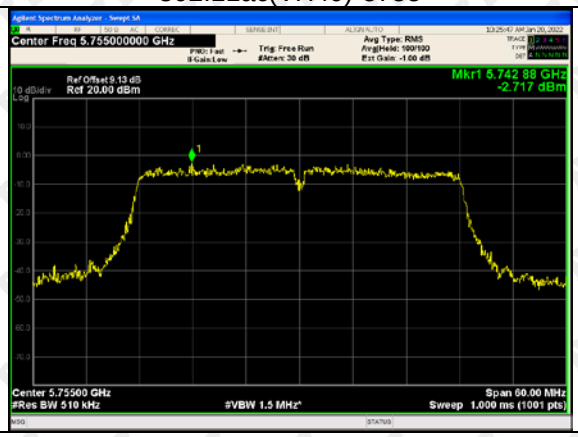


802.11ac(VH40)-5755



802.11ac(VH40)-5795



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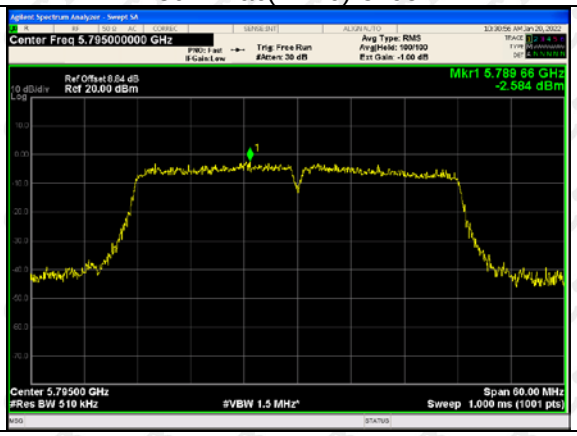
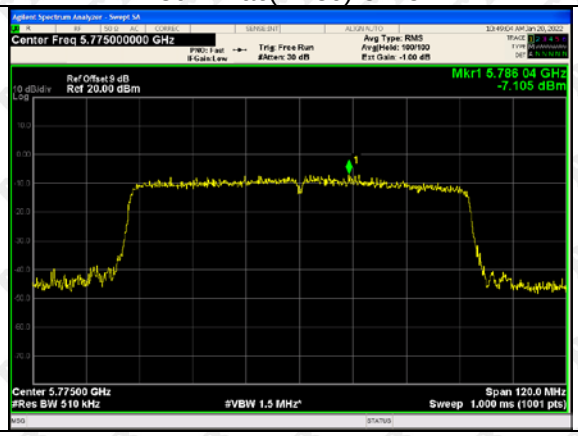
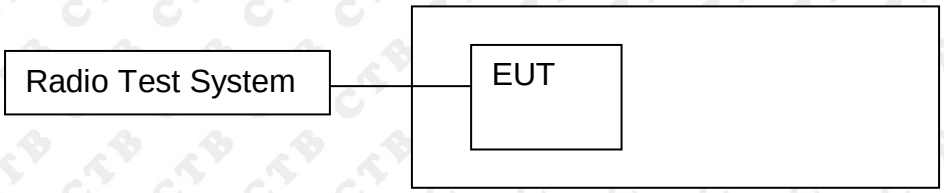




12. FREQUENCY STABILITY

12.1 Block Diagram Of Test Setup



12.2 Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

12.3 Test procedure

1. The EUT was placed inside temperature chamber and powered and powered by nominal DC voltage.

2. Set EUT as normal operation.

3. Turn the EUT on and couple its output to spectrum.

4. Turn the EUT off and set the chamber to the highest temperature specified.

5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT and measure the operating frequency.

6. Repeat step with the temperature chamber set to the lowest temperature.

12.4 Test Result

ANT 1:

TX Frequency (5180-5240MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	#####	5180.0556	5180	0.0556	10.7336
		V max (V)	#####	5180.0323	5180	0.0323	6.2355
		V min (V)	#####	5180.0246	5180	0.0246	4.7490
Limits				5150-5250 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5180.0054	5180	0.0054	1.0425
		T (°C)	-10	5180.0105	5180	0.0105	2.0270
		T (°C)	0	5180.0323	5180	0.0323	6.2355
		T (°C)	10	5180.0386	5180	0.0386	7.4517
		T (°C)	20	5180.0293	5180	0.0293	5.6564
		T (°C)	30	5180.0218	5180	0.0218	4.2085
		T (°C)	40	5180.0125	5180	0.0125	2.4131
		T (°C)	50	5180.0097	5180	0.0097	1.8726
		T (°C)	60	5180.0414	5180	0.0414	7.9923
		T (°C)	70	5180.0697	5180	0.0697	13.4556
Limits				5150-5250 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	#####	5200.0254	5200	0.0254	4.8846
		V max (V)	#####	5200.0428	5200	0.0428	8.2308
		V min (V)	#####	5200.0694	5200	0.0694	13.3462
Limits				5150-5250MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5200.0633	5200	0.0633	12.1731
		T (°C)	-10	5200.0526	5200	0.0526	10.1154
		T (°C)	0	5200.0434	5200	0.0434	8.3462
		T (°C)	10	5200.0928	5200	0.0928	17.8462
		T (°C)	20	5200.0635	5200	0.0635	12.2115
		T (°C)	30	5200.0124	5200	0.0124	2.3846
		T (°C)	40	5200.0733	5200	0.0733	14.0962
		T (°C)	50	5200.0416	5200	0.0416	8.0000
		T (°C)	60	5200.0325	5200	0.0325	6.2500
		T (°C)	70	5200.0427	5200	0.0427	8.2115
Limits				5150-5250 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	#####	5240.0136	5240	0.0136	2.5954
		V max (V)	#####	5240.0414	5240	0.0414	7.9008
		V min (V)	#####	5240.0097	5240	0.0097	1.8511
Limits				5150-5250 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5240.0094	5240	0.0094	1.7939
		T (°C)	-10	5240.0035	5240	0.0035	0.6679
		T (°C)	0	5240.0144	5240	0.0144	2.7481
		T (°C)	10	5240.0856	5240	0.0856	16.3359
		T (°C)	20	5240.0114	5240	0.0114	2.1756
		T (°C)	30	5240.0125	5240	0.0125	2.3855
		T (°C)	40	5240.0063	5240	0.0063	1.2023
		T (°C)	50	5240.0076	5240	0.0076	1.4504
		T (°C)	60	5240.0053	5240	0.0053	1.0115
		T (°C)	70	5240.0105	5240	0.0105	2.0038
Limits				5150-5250 MHz			
Result				Complies			

ANT 2:

TX Frequency (5180-5240MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	#####	5180.0556	5180	0.0556	10.7336
		V max (V)	#####	5180.0323	5180	0.0323	6.2355
		V min (V)	#####	5180.0246	5180	0.0246	4.7490
Limits				5150-5250 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5180.0054	5180	0.0054	1.0425
		T (°C)	-10	5180.0105	5180	0.0105	2.0270
		T (°C)	0	5180.0323	5180	0.0323	6.2355
		T (°C)	10	5180.0386	5180	0.0386	7.4517
		T (°C)	20	5180.0293	5180	0.0293	5.6564
		T (°C)	30	5180.0218	5180	0.0218	4.2085
		T (°C)	40	5180.0125	5180	0.0125	2.4131
		T (°C)	50	5180.0097	5180	0.0097	1.8726
		T (°C)	60	5180.0414	5180	0.0414	7.9923
		T (°C)	70	5180.0697	5180	0.0697	13.4556
Limits				5150-5250 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	#####	5200.0254	5200	0.0254	4.8846
		V max (V)	#####	5200.0428	5200	0.0428	8.2308
		V min (V)	#####	5200.0694	5200	0.0694	13.3462
Limits				5150-5250MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5200.0633	5200	0.0633	12.1731
		T (°C)	-10	5200.0526	5200	0.0526	10.1154
		T (°C)	0	5200.0434	5200	0.0434	8.3462
		T (°C)	10	5200.0928	5200	0.0928	17.8462
		T (°C)	20	5200.0635	5200	0.0635	12.2115
		T (°C)	30	5200.0124	5200	0.0124	2.3846
		T (°C)	40	5200.0733	5200	0.0733	14.0962
		T (°C)	50	5200.0416	5200	0.0416	8.0000
		T (°C)	60	5200.0325	5200	0.0325	6.2500
		T (°C)	70	5200.0427	5200	0.0427	8.2115
Limits				5150-5250 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	#####	5240.0136	5240	0.0136	2.5954
		V max (V)	#####	5240.0414	5240	0.0414	7.9008
		V min (V)	#####	5240.0097	5240	0.0097	1.8511
Limits				5150-5250 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5240.0094	5240	0.0094	1.7939
		T (°C)	-10	5240.0035	5240	0.0035	0.6679
		T (°C)	0	5240.0144	5240	0.0144	2.7481
		T (°C)	10	5240.0856	5240	0.0856	16.3359
		T (°C)	20	5240.0114	5240	0.0114	2.1756
		T (°C)	30	5240.0125	5240	0.0125	2.3855
		T (°C)	40	5240.0063	5240	0.0063	1.2023
		T (°C)	50	5240.0076	5240	0.0076	1.4504
		T (°C)	60	5240.0053	5240	0.0053	1.0115
		T (°C)	70	5240.0105	5240	0.0105	2.0038
Limits				5150-5250 MHz			
Result				Complies			

ANT 1:

TX Frequency(5745-5825MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5745.00888	5745	0.00888	1.5463
		V max (V)	138.00	5745.00061	5745	0.00061	0.1063
		V min (V)	102.00	5745.00768	5745	0.00768	1.3360
Limits				5725-5850 MHz			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5745.01327	5745	0.01327	2.3097
		T (°C)	-10	5745.00016	5745	0.00016	0.0286
		T (°C)	0	5745.01024	5745	0.01024	1.7819
		T (°C)	10	5745.00726	5745	0.00726	1.2646
		T (°C)	20	5745.00168	5745	0.00168	0.2917
		T (°C)	30	5745.00833	5745	0.00833	1.4501
		T (°C)	40	5745.00130	5745	0.00130	0.2268
		T (°C)	50	5745.00619	5745	0.00619	1.0770
		T (°C)	60	5745.00933	5745	0.00933	1.6245
		T (°C)	70	5745.00452	5745	0.00452	0.7863
Limits				5725-5850 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	#####	5785.00414	5785	0.00414	0.7165
		V max (V)	#####	5785.00451	5785	0.00451	0.7795
		V min (V)	#####	5785.00505	5785	0.00505	0.8733
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5785.01221	5785	0.01221	2.1109
		T (°C)	-10	5785.00239	5785	0.00239	0.4132
		T (°C)	0	5785.00399	5785	0.00399	0.6897
		T (°C)	10	5785.00956	5785	0.00956	1.6521
		T (°C)	20	5785.01079	5785	0.01079	1.8644
		T (°C)	30	5785.00870	5785	0.00870	1.5046
		T (°C)	40	5785.00229	5785	0.00229	0.3953
		T (°C)	50	5785.00598	5785	0.00598	1.0341
		T (°C)	60	5785.00652	5785	0.00652	1.1268
		T (°C)	70	5785.00966	5785	0.00966	1.6706
Limits				5725-5850 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	#####	5825.00942	5825	0.00942	1.6177
		V max (V)	#####	5825.00122	5825	0.00122	0.2091
		V min (V)	#####	5825.00806	5825	0.00806	1.3830
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5825.00015	5825	0.00015	0.0263
		T (°C)	-10	5825.00516	5825	0.00516	0.8851
		T (°C)	0	5825.00051	5825	0.00051	0.0873
		T (°C)	10	5825.00262	5825	0.00262	0.4506
		T (°C)	20	5825.01333	5825	0.01333	2.2883
		T (°C)	30	5825.00804	5825	0.00804	1.3806
		T (°C)	40	5825.00207	5825	0.00207	0.3558
		T (°C)	50	5825.01104	5825	0.01104	1.8945
		T (°C)	60	5825.01017	5825	0.01017	1.7459
		T (°C)	70	5825.00205	5825	0.00205	0.3522
Limits				5725-5850 MHz			
Result				Complies			

ANT 2:

TX Frequency(5745-5825MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5745.01015	5745	0.01015	1.7662
		V max (V)	138.00	5745.00043	5745	0.00043	0.0750
		V min (V)	102.00	5745.00423	5745	0.00423	0.7363
Limits				5725-5850 MHz			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5745.01208	5745	0.01208	2.1023
		T (°C)	-10	5745.01308	5745	0.01308	2.2760
		T (°C)	0	5745.00635	5745	0.00635	1.1058
		T (°C)	10	5745.00893	5745	0.00893	1.5540
		T (°C)	20	5745.00145	5745	0.00145	0.2516
		T (°C)	30	5745.00667	5745	0.00667	1.1609
		T (°C)	40	5745.00401	5745	0.00401	0.6984
		T (°C)	50	5745.01120	5745	0.01120	1.9488
		T (°C)	60	5745.00002	5745	0.00002	0.0027
		T (°C)	70	5745.00490	5745	0.00490	0.8531
Limits				5725-5850 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	#####	5785.00965	5785	0.00965	1.6678
		V max (V)	#####	5785.00645	5785	0.00645	1.1143
		V min (V)	#####	5785.01158	5785	0.01158	2.0021
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5785.01328	5785	0.01328	2.2958
		T (°C)	-10	5785.00477	5785	0.00477	0.8244
		T (°C)	0	5785.00380	5785	0.00380	0.6564
		T (°C)	10	5785.00999	5785	0.00999	1.7269
		T (°C)	20	5785.01231	5785	0.01231	2.1286
		T (°C)	30	5785.00265	5785	0.00265	0.4580
		T (°C)	40	5785.01237	5785	0.01237	2.1376
		T (°C)	50	5785.00516	5785	0.00516	0.8927
		T (°C)	60	5785.00592	5785	0.00592	1.0240
		T (°C)	70	5785.01156	5785	0.01156	1.9989
Limits				5725-5850 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5825.01057	5825	0.01057	1.8151
		V max (V)	138.00	5825.01028	5825	0.01028	1.7650
		V min (V)	102.00	5825.00803	5825	0.00803	1.3784
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5825.01233	5825	0.01233	2.1160
		T (°C)	-10	5825.00594	5825	0.00594	1.0193
		T (°C)	0	5825.00736	5825	0.00736	1.2631
		T (°C)	10	5825.01035	5825	0.01035	1.7764
		T (°C)	20	5825.00011	5825	0.00011	0.0195
		T (°C)	30	5825.00545	5825	0.00545	0.9364
		T (°C)	40	5825.01163	5825	0.01163	1.9957
		T (°C)	50	5825.00935	5825	0.00935	1.6056
		T (°C)	60	5825.01091	5825	0.01091	1.8729
		T (°C)	70	5825.00583	5825	0.00583	1.0000
Limits				5725-5850 MHz			
Result				Complies			

13. OPERATION IN THE ABSENCE OF INFORMATION TO THE TRANSMIT

13.1 Requirement

15.407(c) requirement:
The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signal ling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

13.2 Test Results

Operation in the absence of information to the transmit:

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of WLAN message transmitting from remote device and verify whether it shall reconnect. (manufacturer declare)

14. ANTENNA REQUIREMENT

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.

EUT Antenna:

The antenna is Internal Antenna and no consideration of replacement. The best case gain of the antenna is 1.0dBi.

15. EUT PHOTOGRAPHS

EUT Photo 1

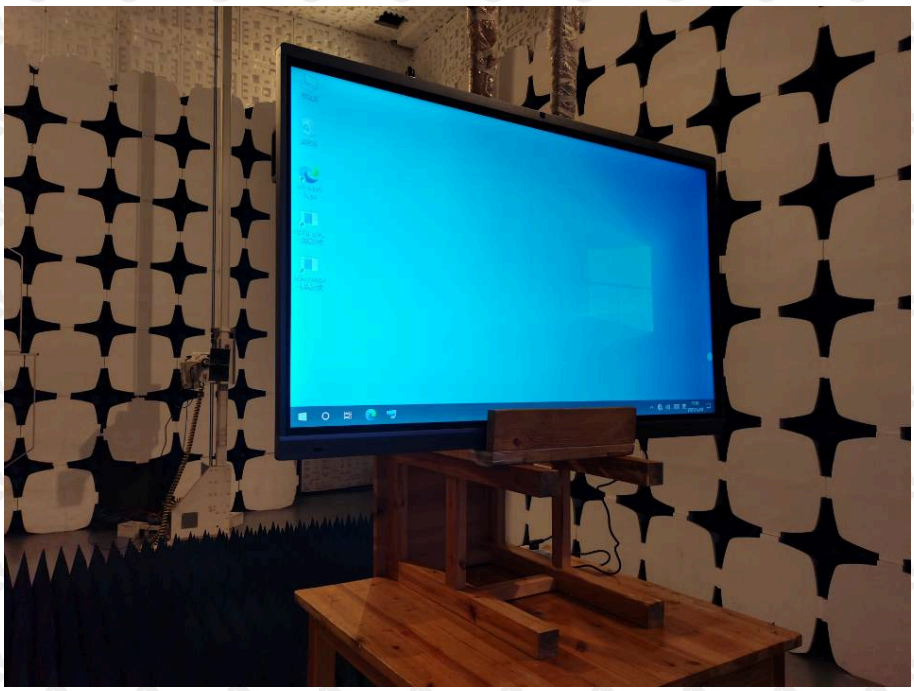
EUT Photo 2

16. EUT TEST SETUP PHOTOGRAPHS

Spurious emissions

Below 1GHz

Above 1G



Conducted Emission

※※※※※ END OF REPORT ※※※※※