5470-5725MHz:

Test mode	Test Channel (MHz)	26dB Bandwidth (MHz)
802.11a	5500	26.569
	5580	28.384
	5700	28.143
802.11ac20	5500	27.56
	5580	25.231
	5700	25.908
802.11ac40	5510	48.74
	5670	43.257
802.11ax20	5500	24.865
	5580	24.706
	5700	26.1
802.11ax40	5510	43.288
	5670	44.148
802.11n(HT20)	5500	25.231
	5580	25.589
	5700	24.408
802.11n(HT40)	5510	45.975
	5670	43.873

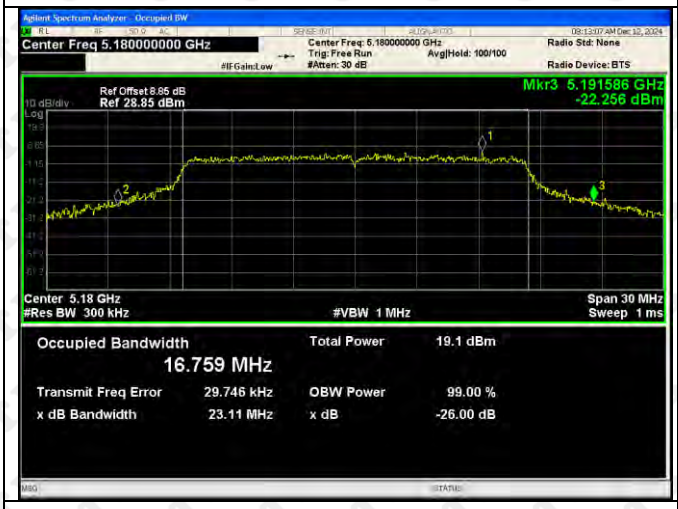
5725-5850MHz:

Test mode	Test Channel (MHz)	6dB Bandwidth (MHz)
802.11a	5745	16.479
	5785	16.466
	5825	16.495
802.11ac20	5745	17.734
	5785	17.732
	5825	17.708
802.11ac40	5755	36.461
	5795	36.413
802.11ax(HT20)	5745	19.061
	5785	19.084
	5825	19.052
802.11ax(HT40)	5755	38.101
	5795	37.933
802.11n20	5745	17.733
	5785	17.691
	5825	17.714
802.11n40	5755	36.485
	5795	36.466

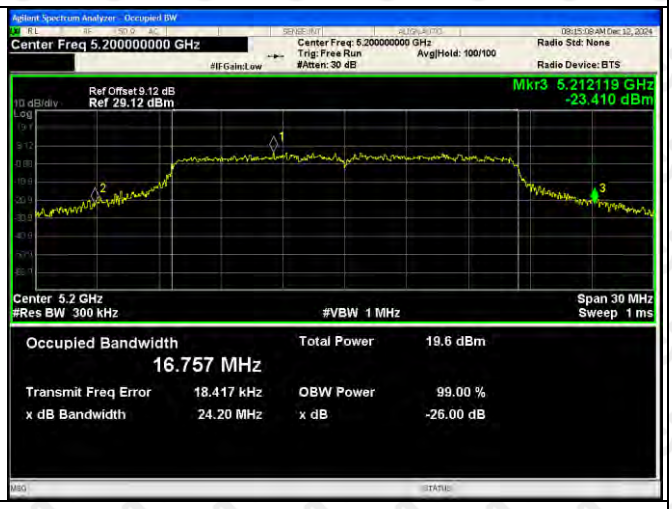
Test Graph

5150-5250MHz

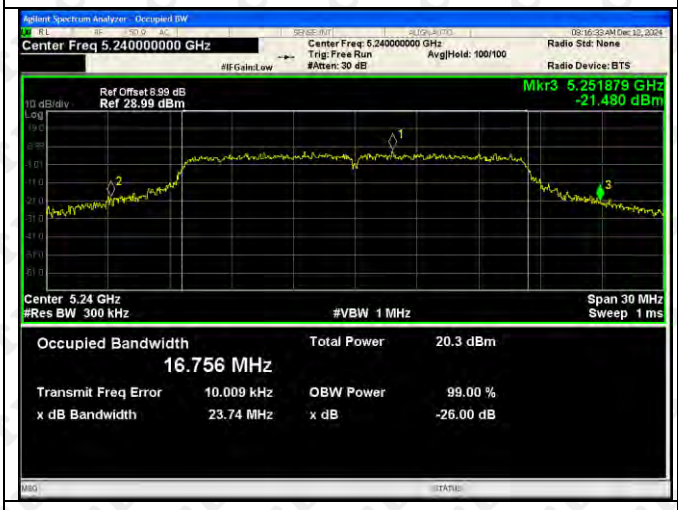
802.11a-5180



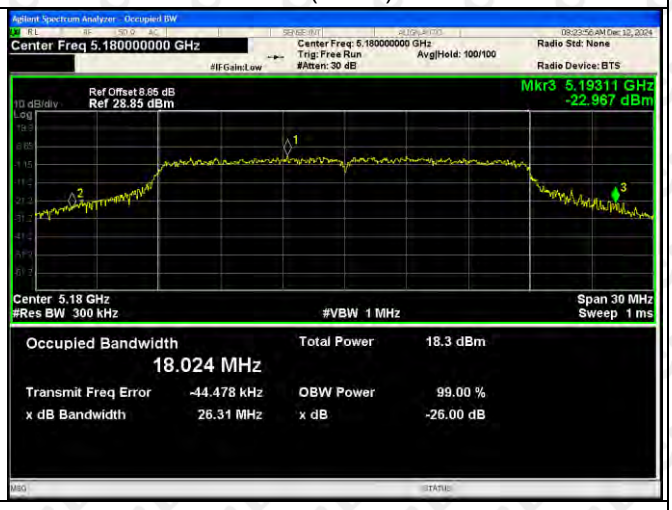
802.11a-5200



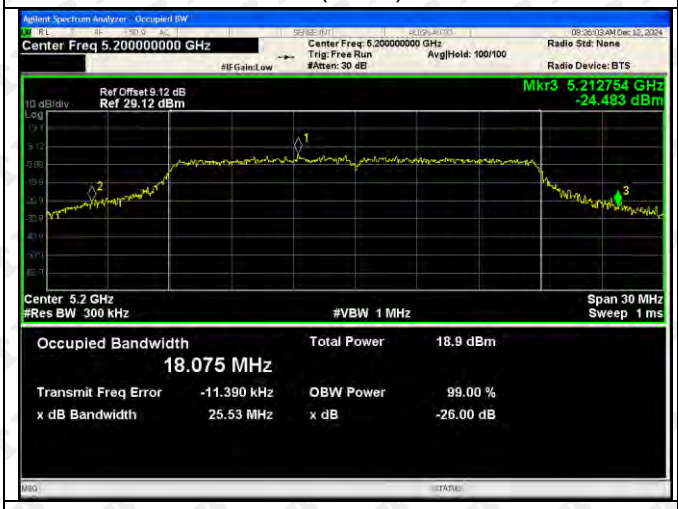
802.11a-5240



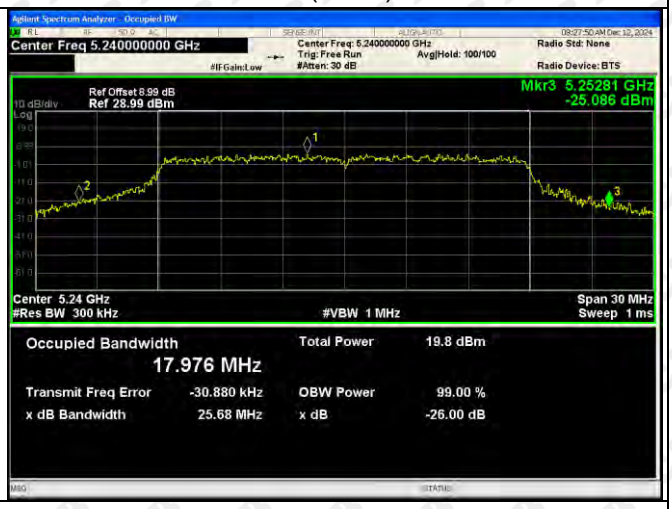
802.11ac(VH20)-5180



802.11ac(VH20)-5200



802.11ac(VH20)-5240

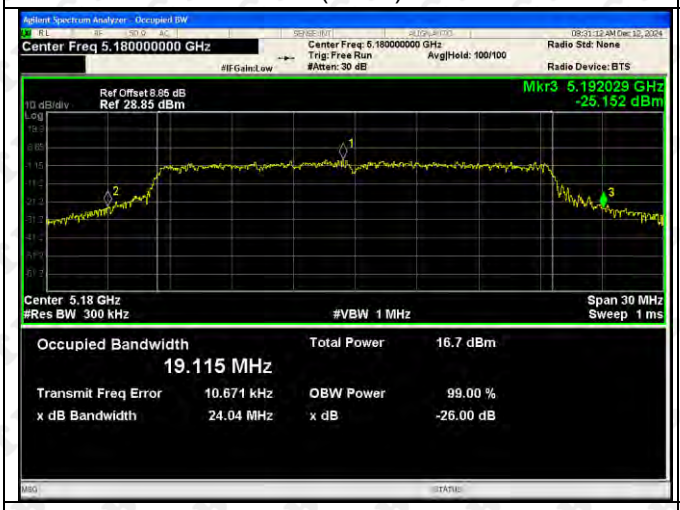


802.11ac(VH40)-5190

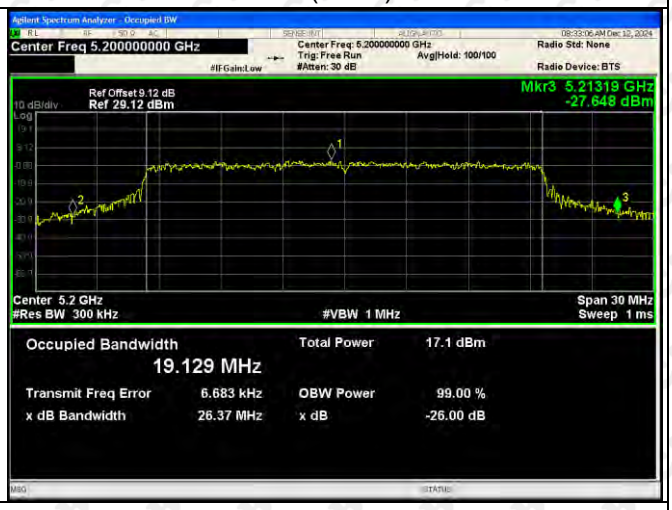
802.11ac(VH40)-5230

802.11ax(HT20)-5180

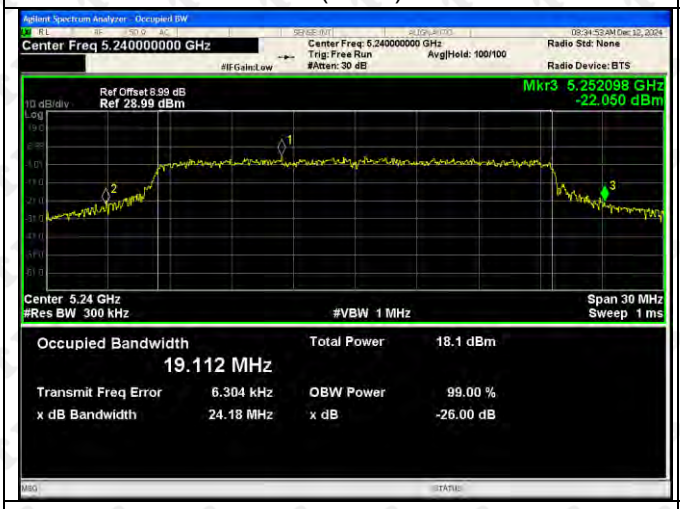
802.11ax(HT20)-5200



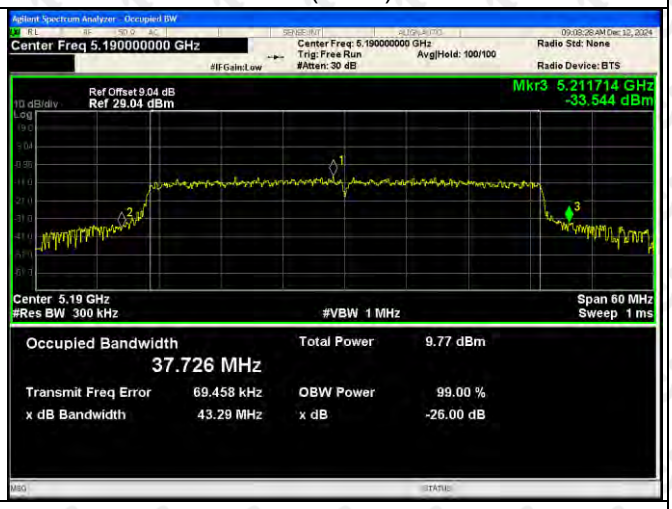
802.11ax(HT20)-5240



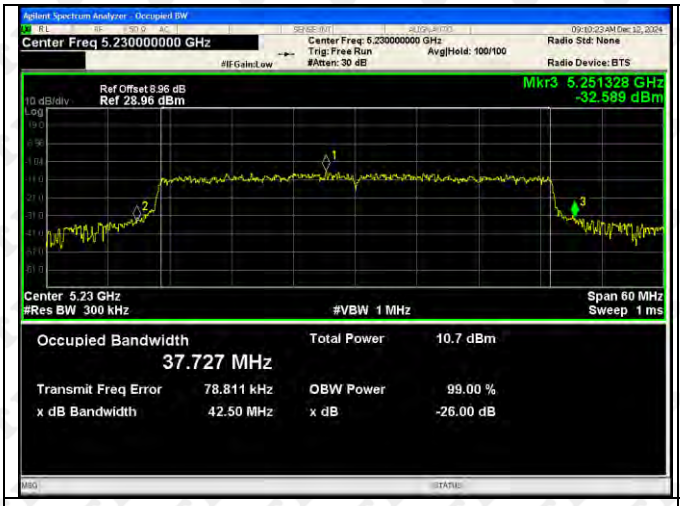
802.11ax(HT40)-5190



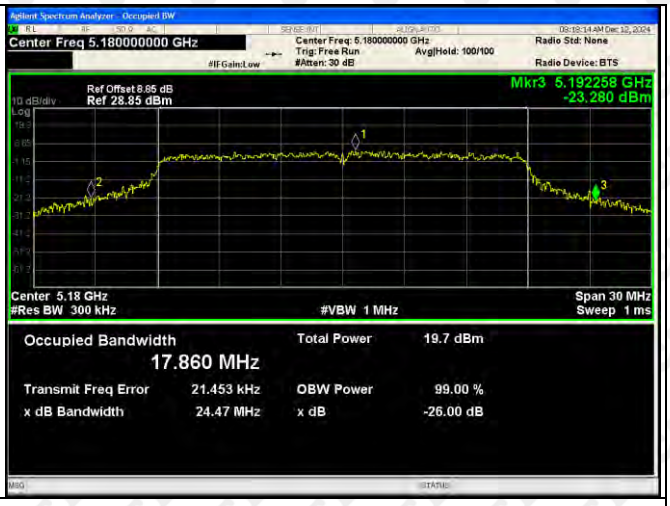
802.11ax(HT40)-5230



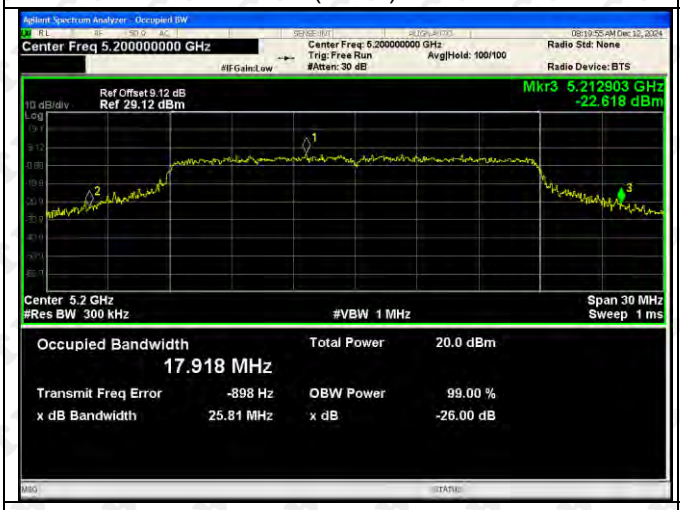
802.11n(VH20)-5180



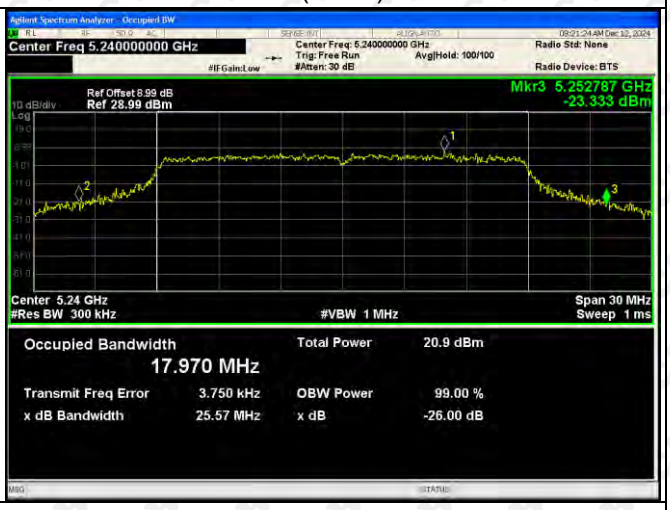
802.11n(VH20)-5200



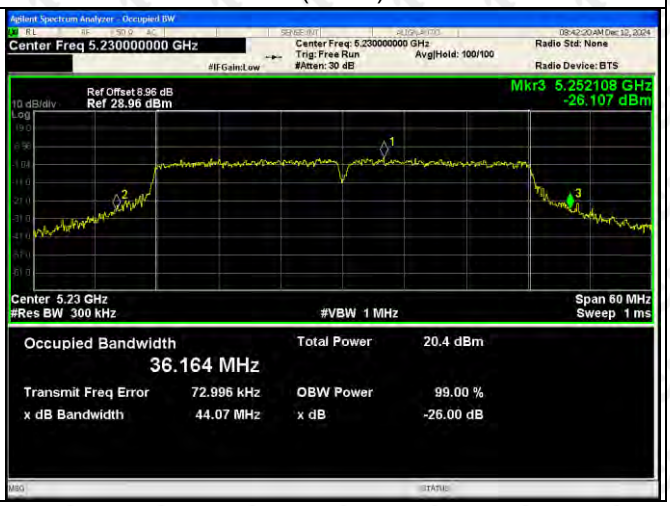
802.11n(VH20)-5240



802.11n(VH40)-5190

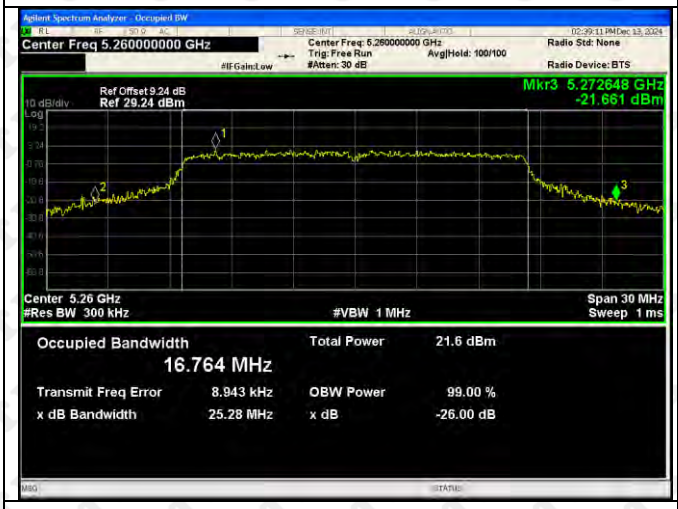


802.11n(VH40)-5230

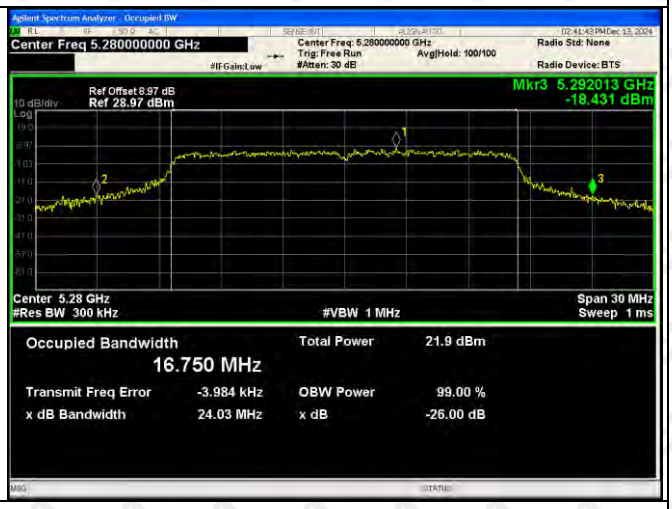


5250-5350MHz

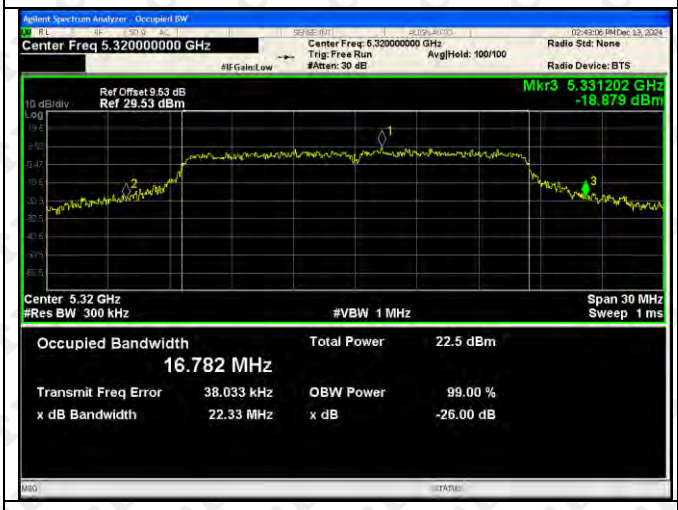
802.11a-5260



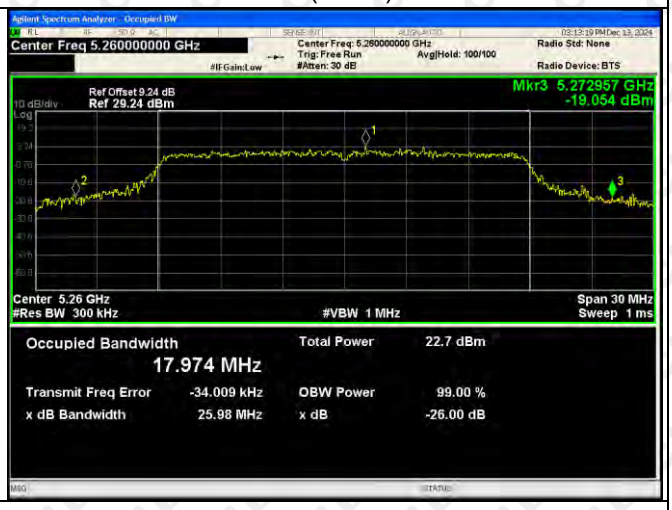
802.11a-5280



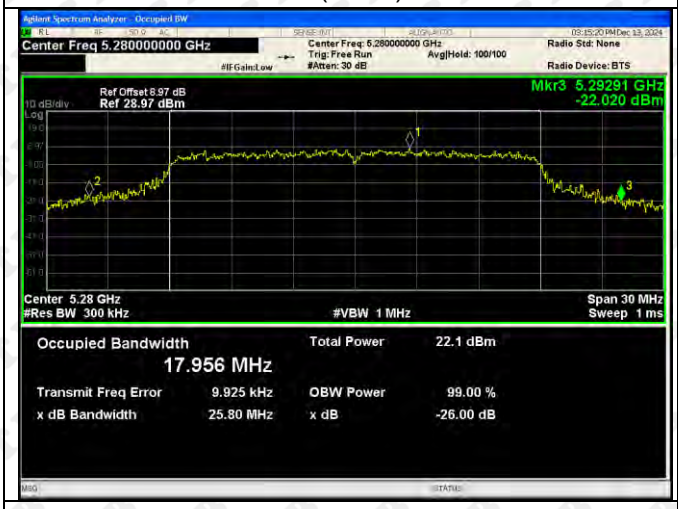
802.11a-5320



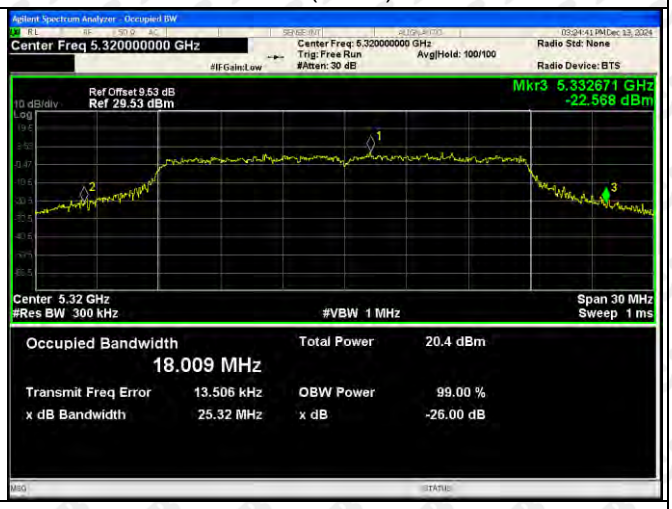
802.11ac(VH20)-5260



802.11ac(VH20)-5280



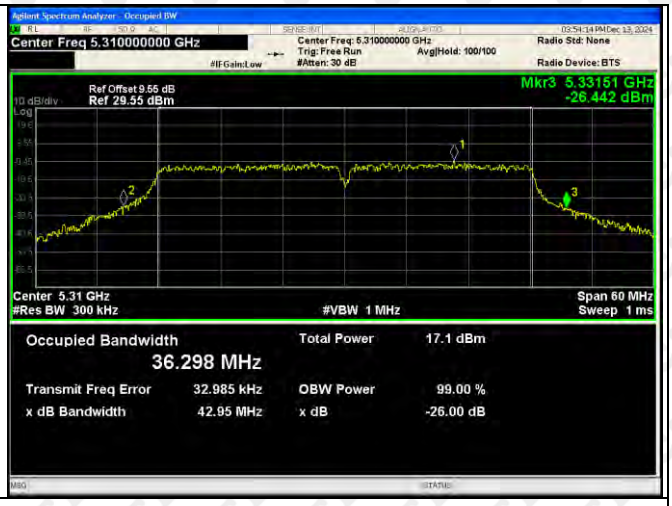
802.11ac(VH20)-5320



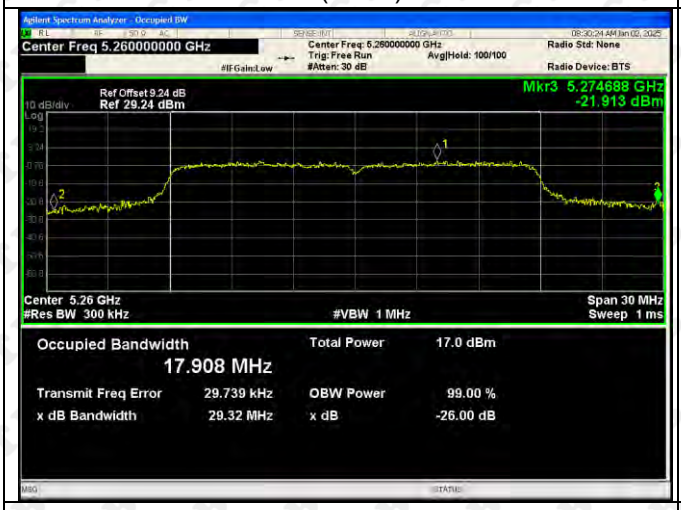
802.11ac(VH40)-5270

802.11ac(VH40)-5310

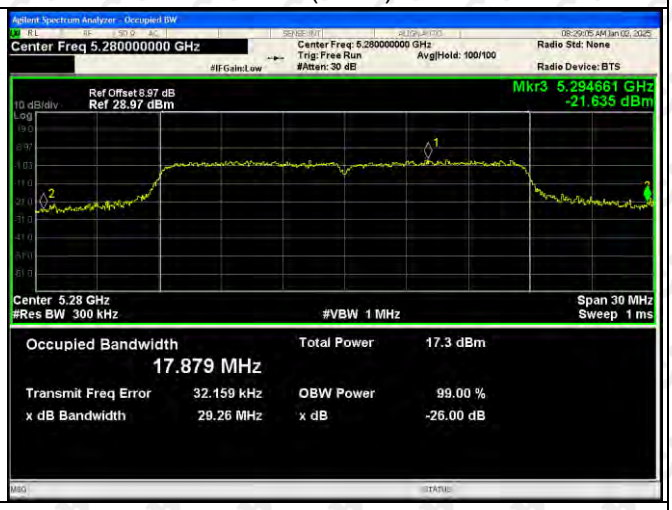
802.11ax(HT20)-5260



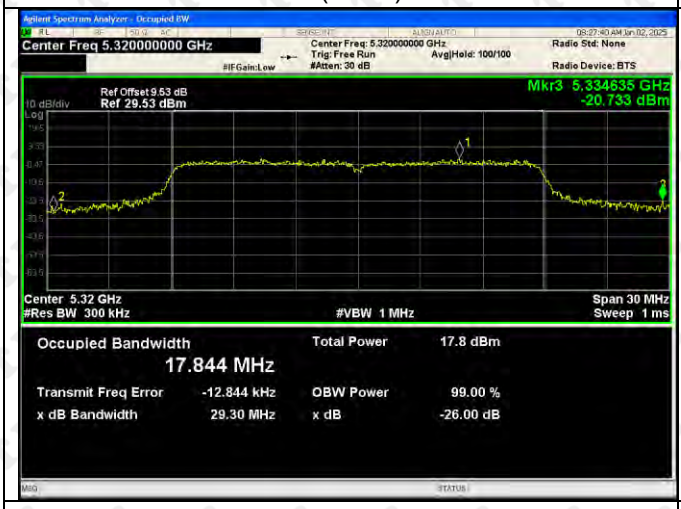
802.11ax(HT20)-5280



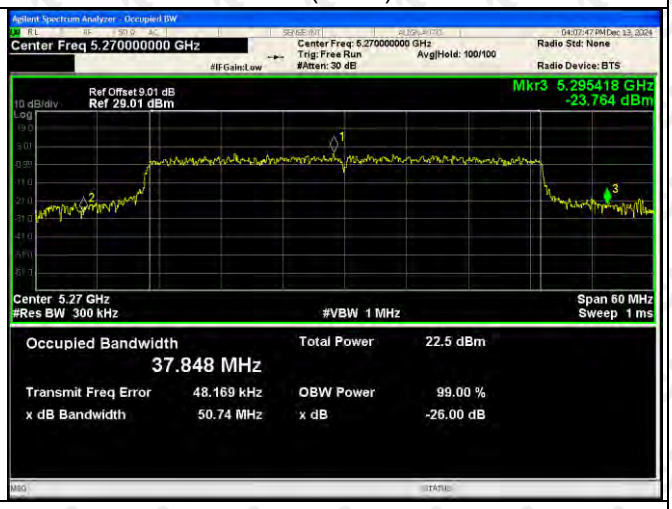
802.11ax(HT20)-5320



802.11ax(HT40)-5270



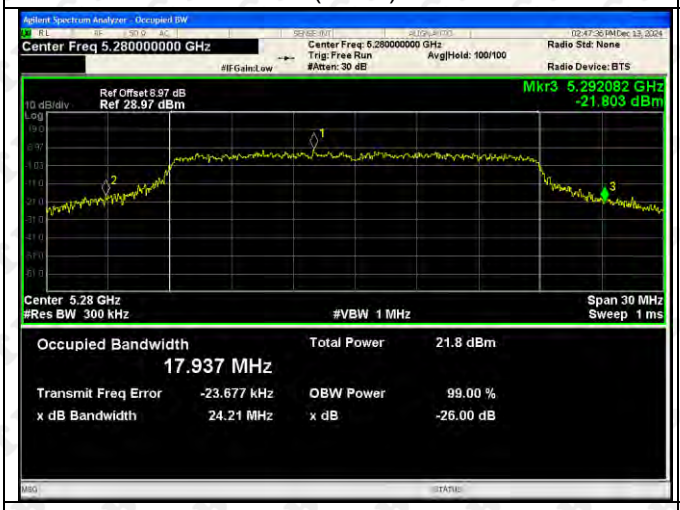
802.11ax(HT40)-5310



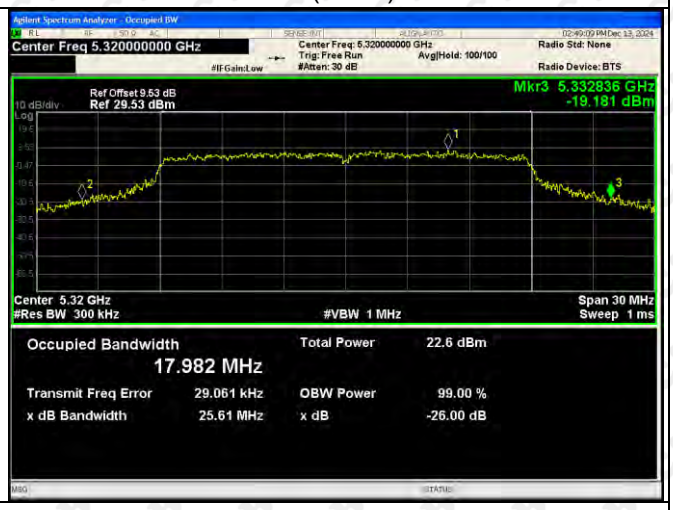
802.11n(VH20)-5260

802.11n(VH20)-5280

8802.11n(VH20)-5320



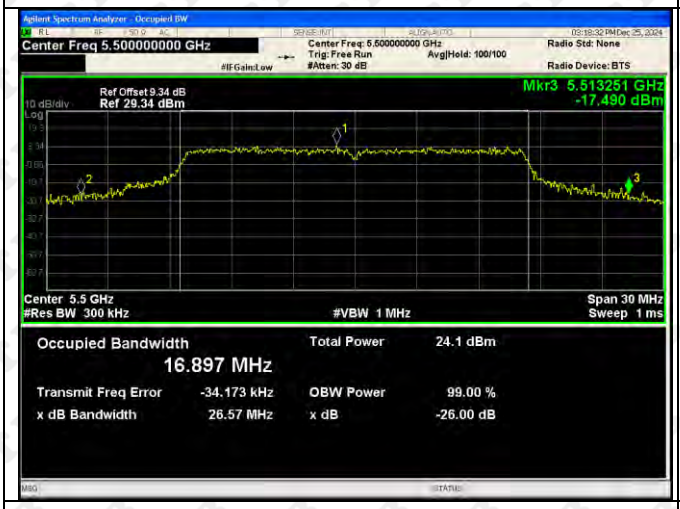
802.11n(VH40)-5270



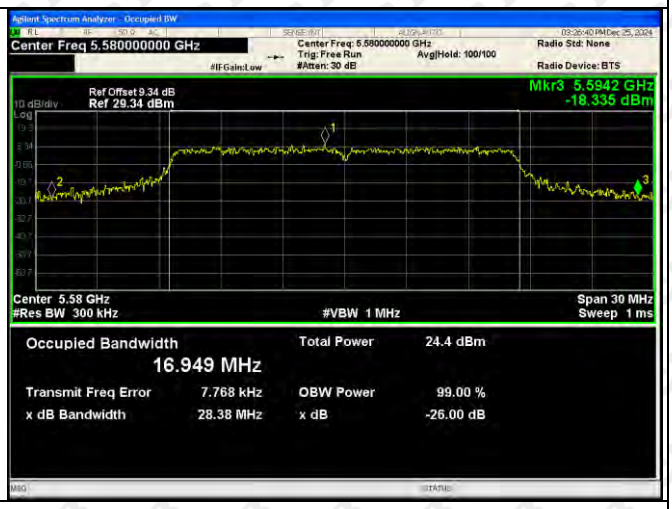
802.11n(VH40)-5310

5470-5725MHz

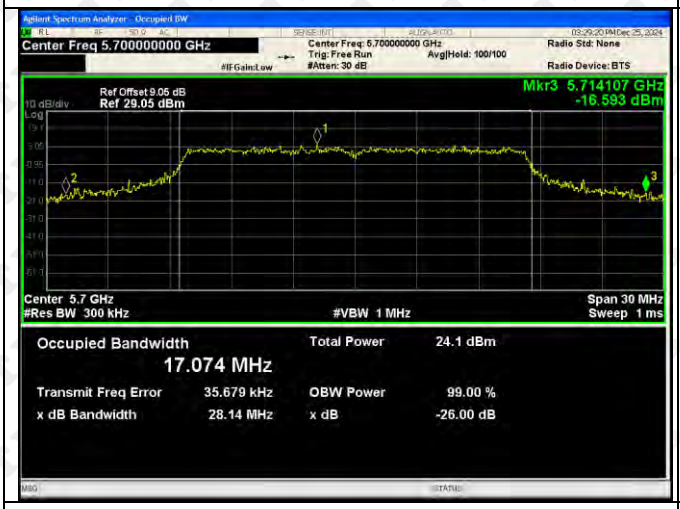
802.11a-5500



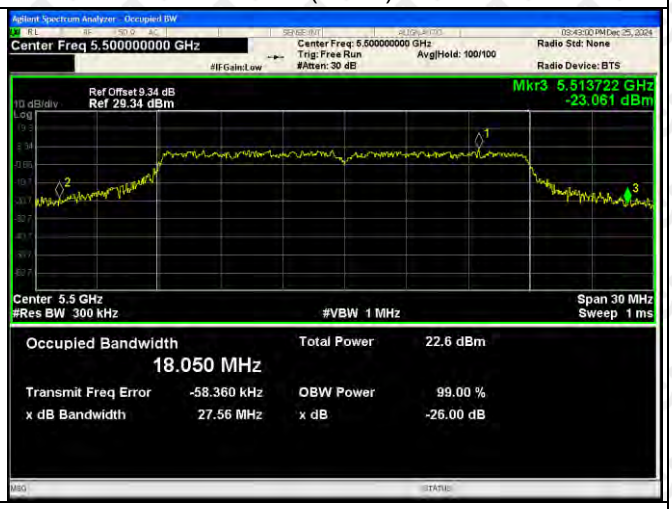
802.11a-5580



802.11a-5700

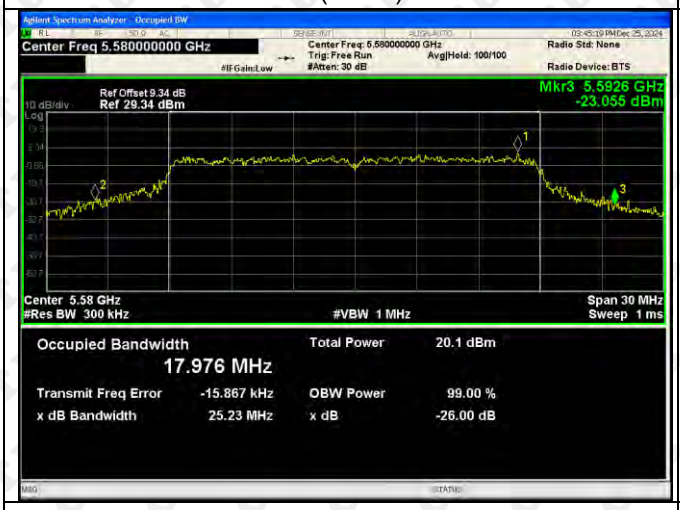


802.11ac(VH20)-5500

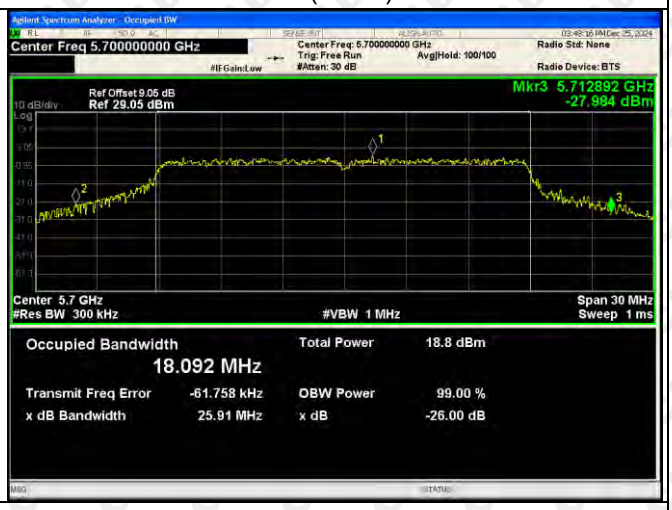


802.11ac(VH20)-5580

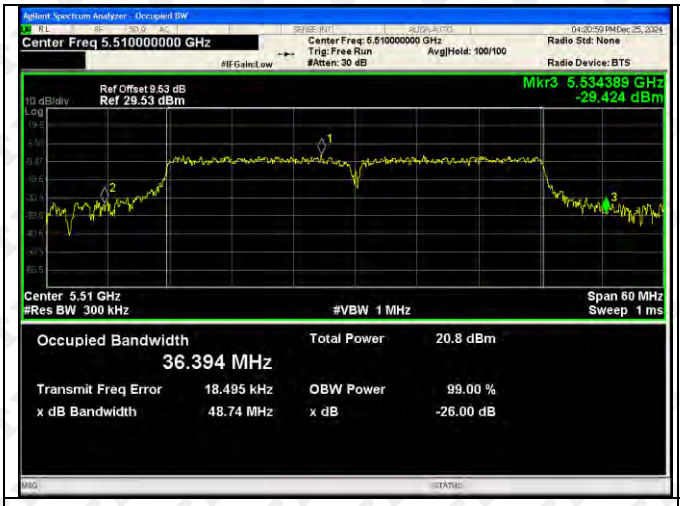
802.11ac(VH20)-5700



802.11ac(VH40)-5510

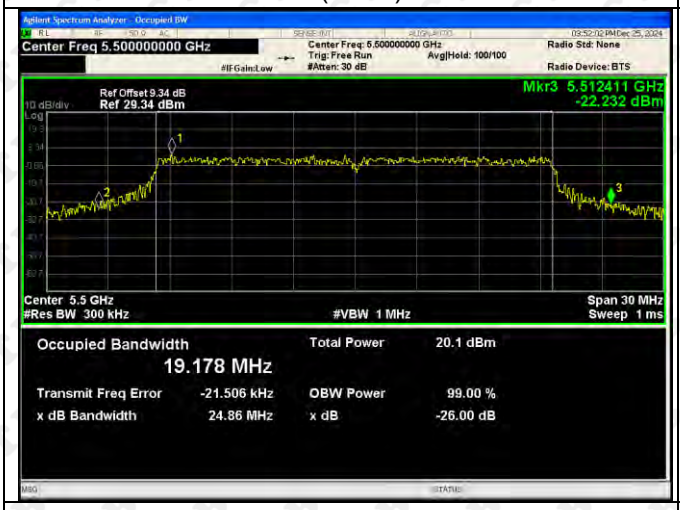


802.11ac(VH40)-5670

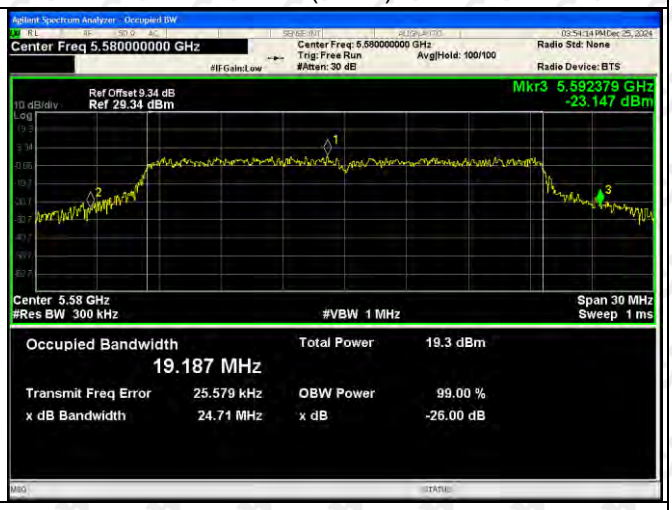


802.11ax(HT20)-5500

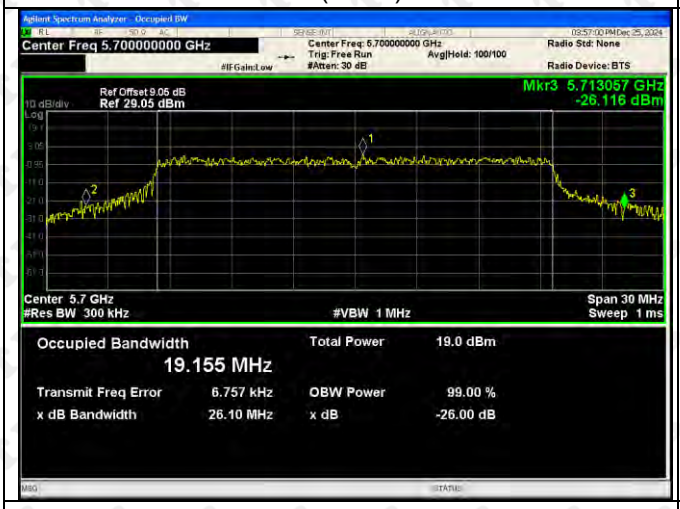
802.11ax(HT20)-5580



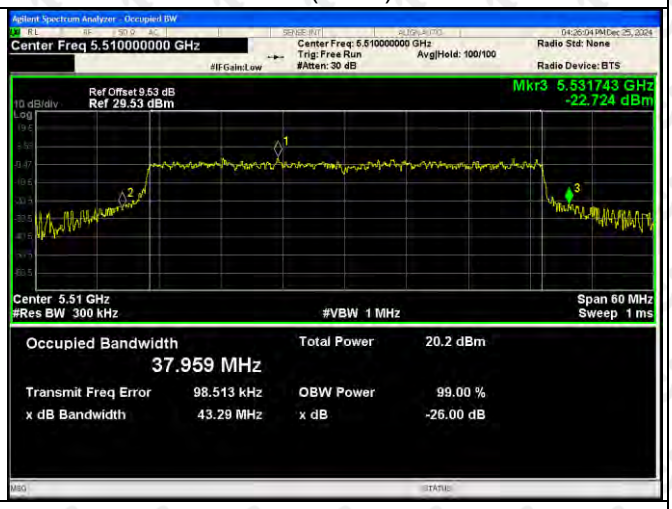
802.11ax(HT20)-5700



802.11ax(HT40)-5510

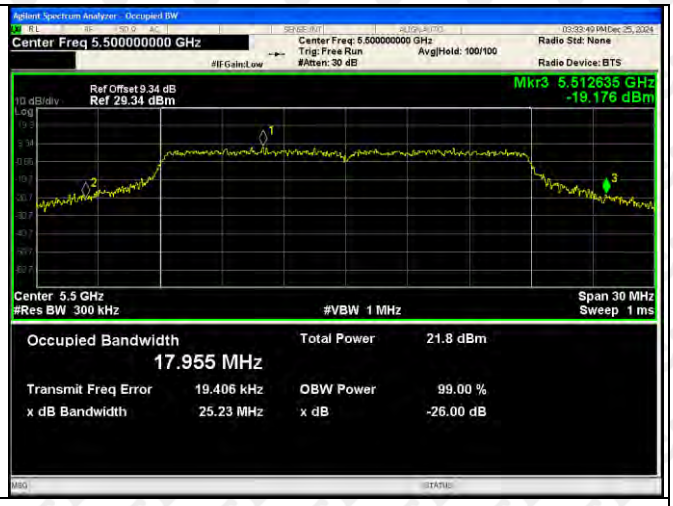


802.11ax(HT40)-5670

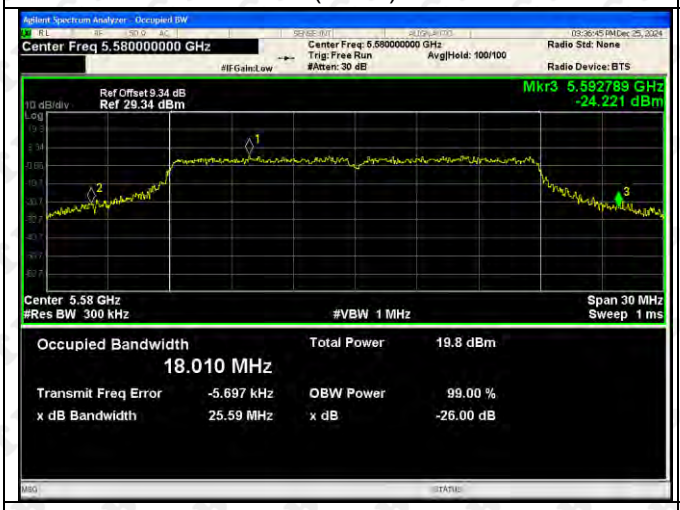


802.11n(VH20)-5500

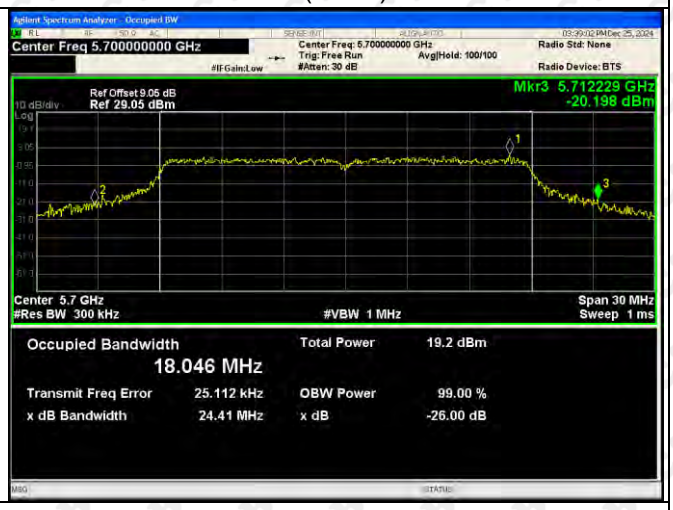
802.11n(VH20)-5580



802.11n(VH20)-5700



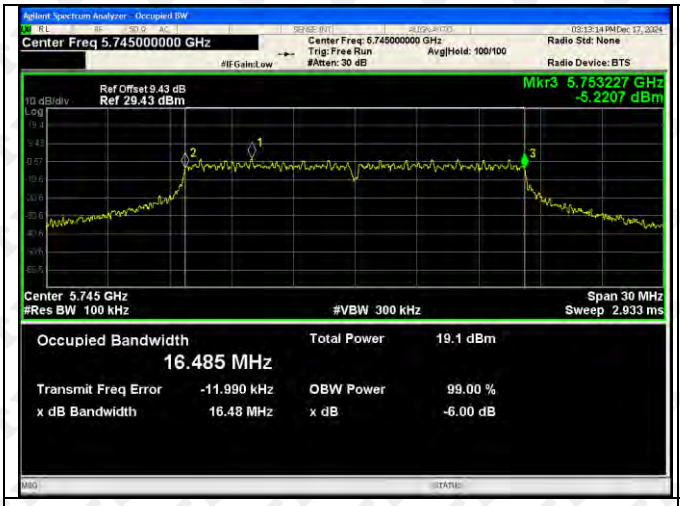
802.11n(VH40)-5510



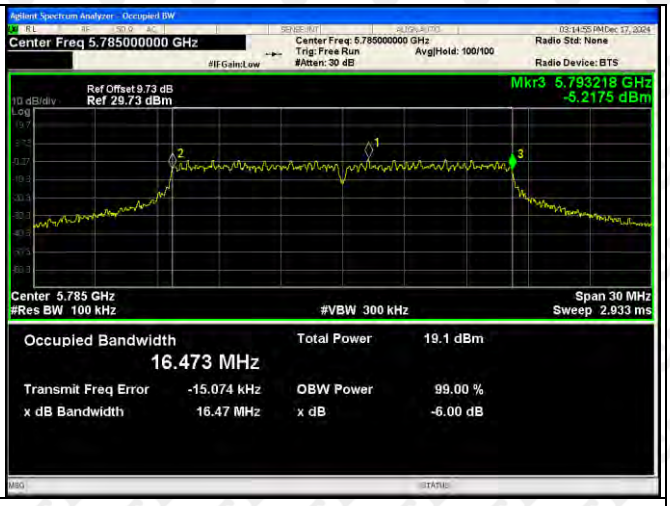
802.11n(VH40)-5670

5725-5850MHz

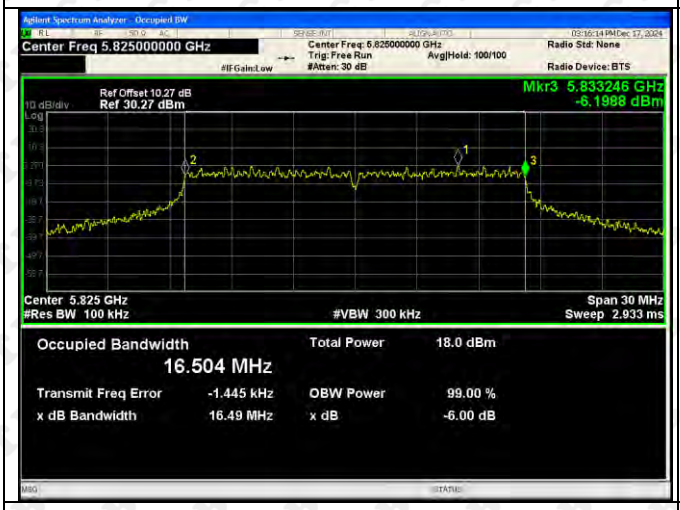
802.11a-5745	802.11a-5785



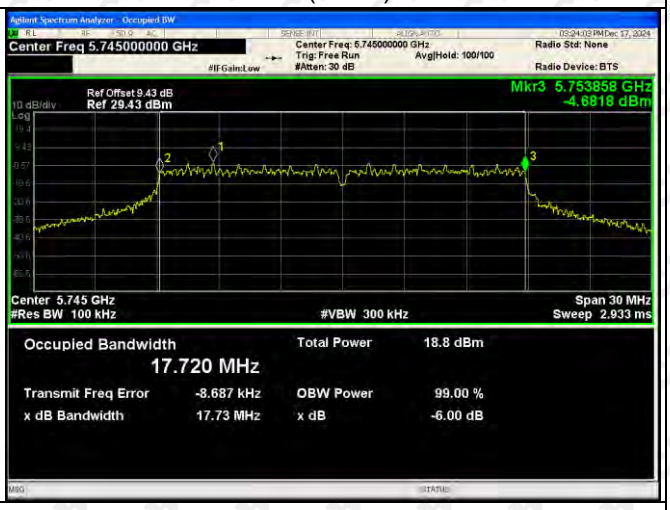
802.11a-5825



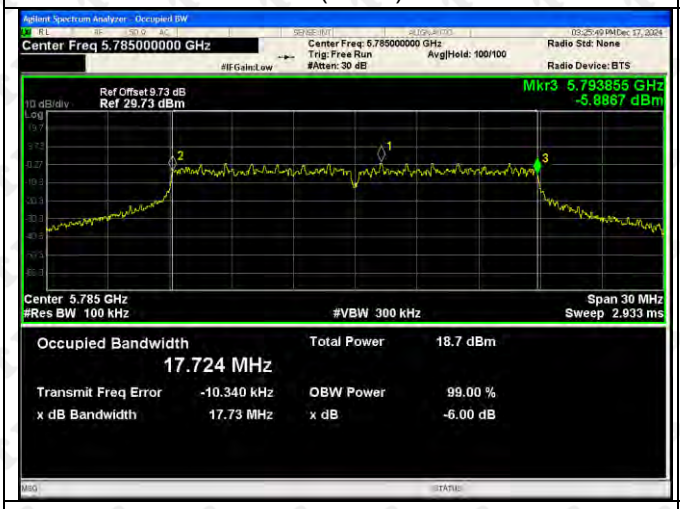
802.11ac(VH20)-5745



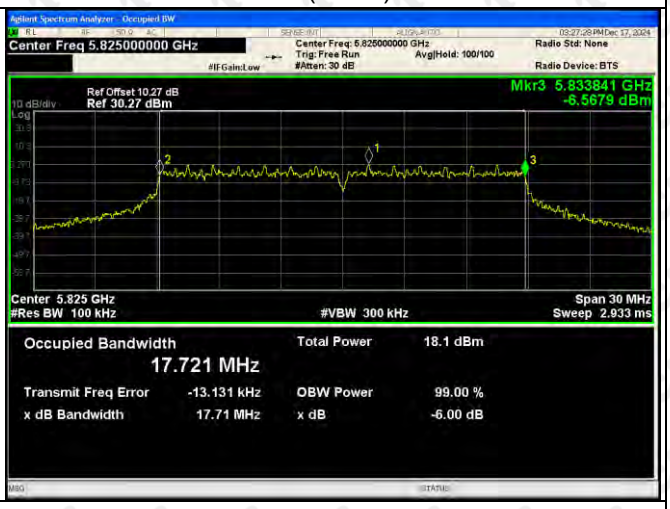
802.11ac(VH20)-5785



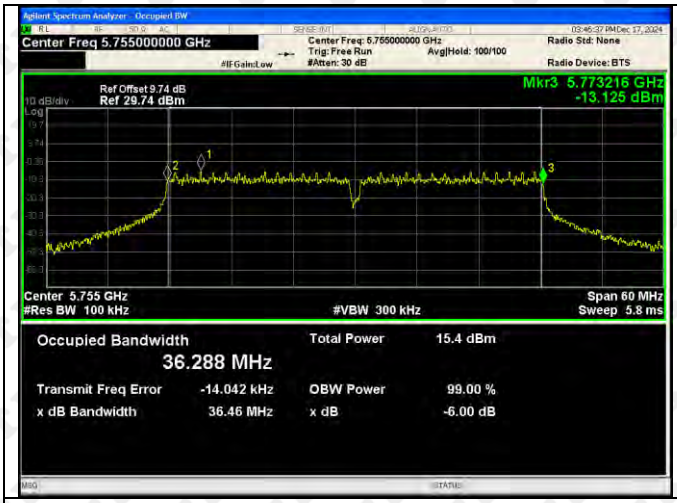
802.11ac(VH20)-5825



802.11ac(VH40)-5755

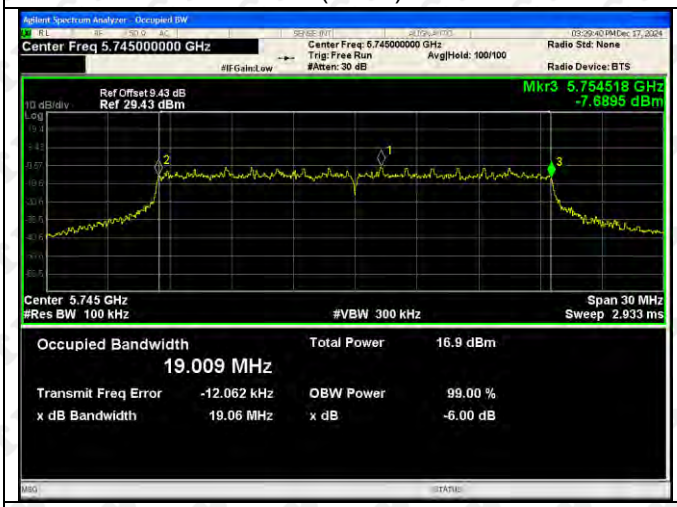


802.11ac(VH40)-5795

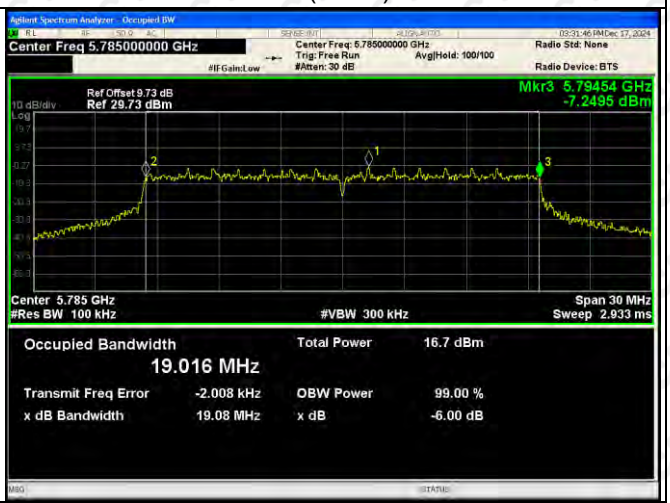


802.11ax(HT20)-5745

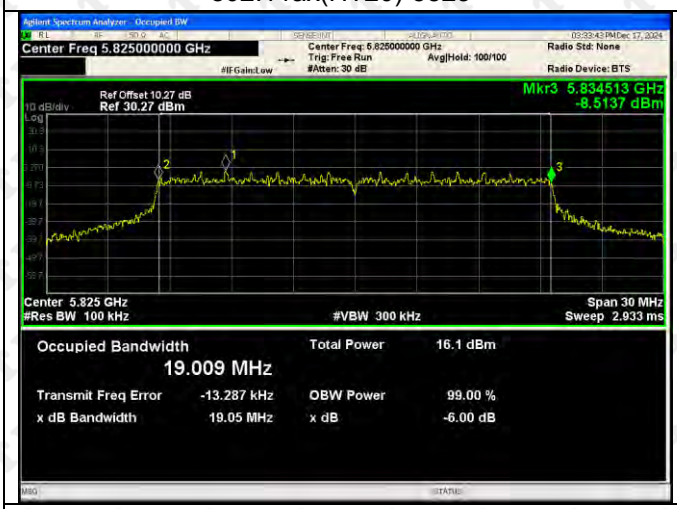
802.11ax(HT20)-5785



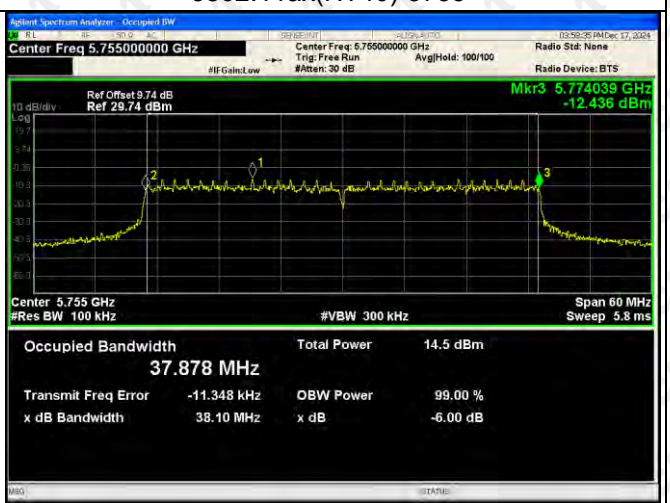
802.11ax(HT20)-5825



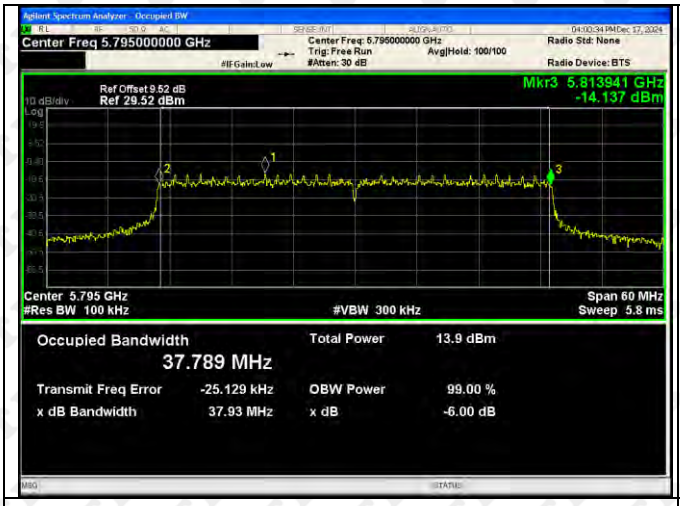
5802.11ax(HT40)-5755



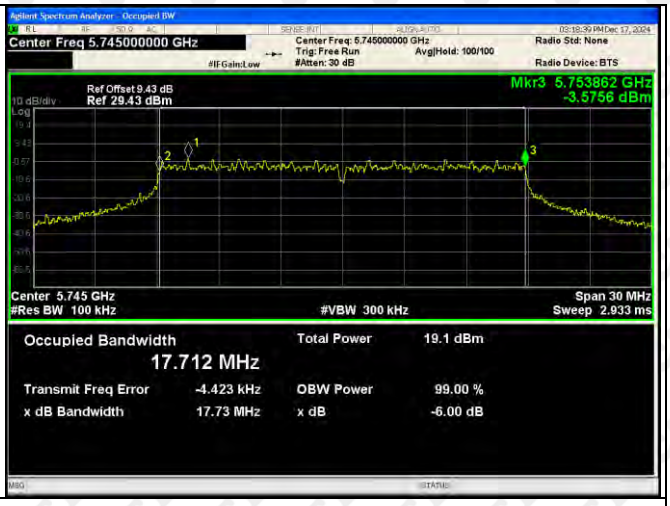
802.11ax(HT40)-5795



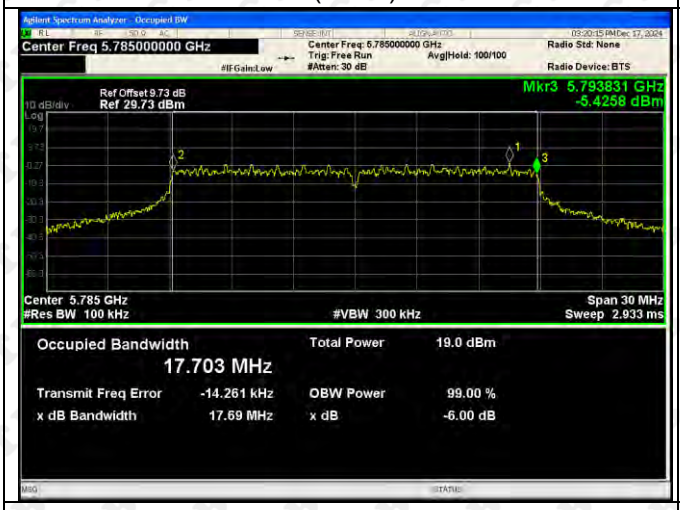
802.11n(VH20)-5745



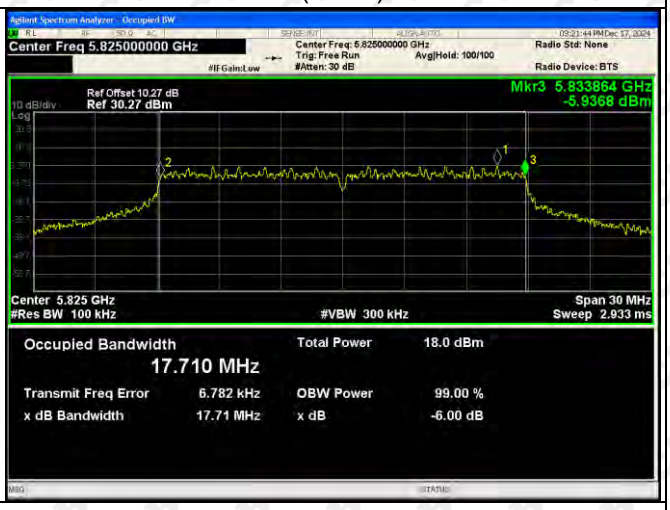
802.11n(VH20)-5785



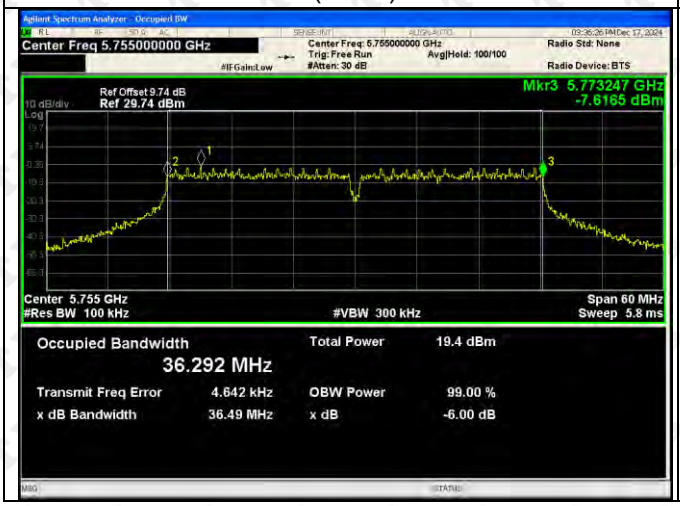
802.11n(VH20)-5825

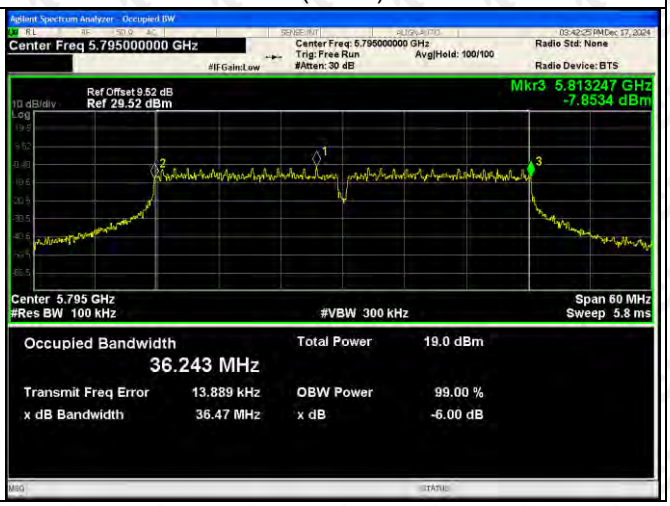


802.11n(VH40)-5755



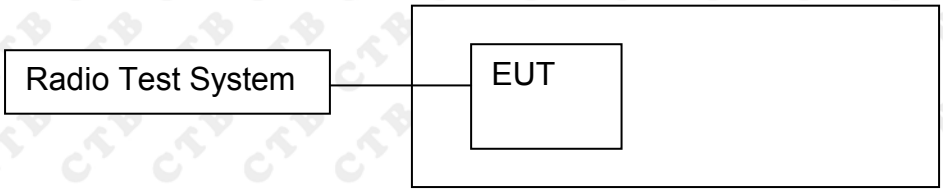
802.11n(VH40)-5795





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.I.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

5150-5250MHz:

Test mode	Test Channel (MHz)	PSD [dBm/MHz]	Limit [dBm/MHz]	Result
802.11a	5180	-1.872	11	Pass
	5200	-0.471	11	Pass
	5240	0.907	11	Pass
802.11ac(VH20)	5180	-1.382	11	Pass
	5200	-1.579	11	Pass
	5240	0.526	11	Pass
802.11ac(VH40)	5190	-10.487	11	Pass
	5230	-7.893	11	Pass
802.11ax(HT20)	5180	-5.363	11	Pass
	5200	-4.988	11	Pass
	5240	-1.495	11	Pass
802.11ax(HT40)	5190	-16.059	11	Pass
	5230	-12.768	11	Pass
802.11n(VH20)	5180	-1.49	11	Pass
	5200	-0.983	11	Pass
	5240	1.78	11	Pass
802.11n (VH40)	5190	-3.7	11	Pass
	5230	-3.307	11	Pass

5250-5350 MHz:

Test mode	Test Channel (MHz)	PSD [dBm/MHz]	Limit (dBm)	Result
802.11a	5260	2.192	11	Pass
	5280	2.516	11	Pass
	5320	2.434	11	Pass
802.11ac(HT20)	5260	0.869	11	Pass
	5280	2.458	11	Pass
	5320	0.992	11	Pass
802.11ac(HT40)	5270	-6.88	11	Pass
	5310	-8.789	11	Pass
802.11ax(VH20)	5260	1.62	11	Pass
	5280	2.085	11	Pass
	5320	2.45	11	Pass
802.11ax(VH40)	5270	-1.205	11	Pass
	5310	-0.945	11	Pass
802.11n(VH20)	5260	2.904	11	Pass
	5280	0.308	11	Pass
	5320	3.271	11	Pass
802.11n(VH40)	5270	-4.928	11	Pass
	5310	-6.605	11	Pass

5470-5725MHz:

Test mode	Test Channel (MHz)	PSD [dBm/MHz]	Limit (dBm)	Result
802.11a	5500	4.373	30	Pass
	5580	3.381	30	Pass
	5700	2.508	30	Pass
802.11ac(VH20)	5530	1.128	30	Pass
	5500	0.402	30	Pass
	5580	-2.673	30	Pass
802.11ac(VH40)	5700	-2.76	30	Pass
	5510	-6.845	30	Pass
802.11ax(VH20)	5530	-2.34	30	Pass
	5500	-1.738	30	Pass
	5580	-3.638	30	Pass
802.11ax(VH40)	5700	-3.673	30	Pass
	5510	-5.473	30	Pass
802.11n(HT20)	5500	1.844	30	Pass
	5580	-2.077	30	Pass
	5700	-0.779	30	Pass
802.11n(HT40)	5510	-2.499	30	Pass
	5670	-4.217	30	Pass

5725-5850MHz:

Test mode	Test Channel (MHz)	PSD [dBm/500kHz]	Limit [dBm/MHz]	Result
802.11a	5745	-3.571	30	Pass
	5785	-5.291	30	Pass
	5825	-6.417	30	Pass
802.11ac(VH20)	5745	-4.338	30	Pass
	5785	-4.581	30	Pass
	5825	-6.192	30	Pass
802.11ac(VH40)	5755	-11.248	30	Pass
	5795	-14.583	30	Pass
802.11ax(VH20)	5745	-6.331	30	Pass
	5785	-8.103	30	Pass
	5825	-7.8	30	Pass
802.11ax(VH40)	5755	-11.733	30	Pass
	5795	-12.919	30	Pass
802.11n(HT20)	5745	-3.609	30	Pass
	5785	-4.421	30	Pass
	5825	-5.756	30	Pass
802.11n(HT40)	5755	-7.055	30	Pass
	5795	-10.031	30	Pass

5150-5250MHz

802.11a-5180

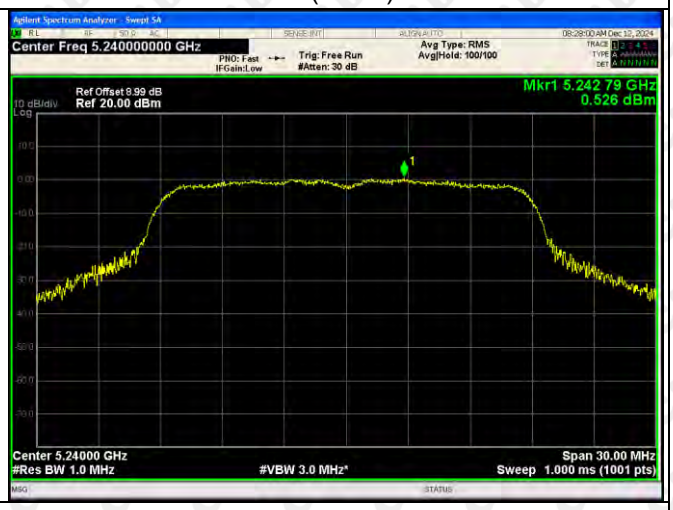
802.11a-5200

802.11a-5240

802.11ac(VH20)-5180

802.11ac(VH20)-5200

802.11ac(VH20)-5240



802.11ac(VH40)-5190

802.11ac(VH40)-5230

802.11ax(HT20)-5180

802.11ax(HT20)-5200

802.11ax(HT20)-5240

802.11ax(HT40)-5190

802.11ax(HT40)-5230

802.11n(VH20)-5180

802.11n(VH20)-5200

802.11n(VH20)-5240

802.11n(VH40)-5190

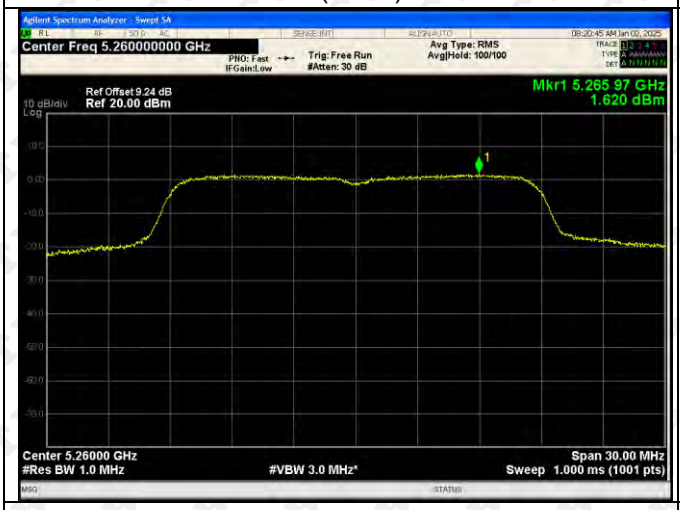
802.11n(VH40)-5230

5250-5350MHz

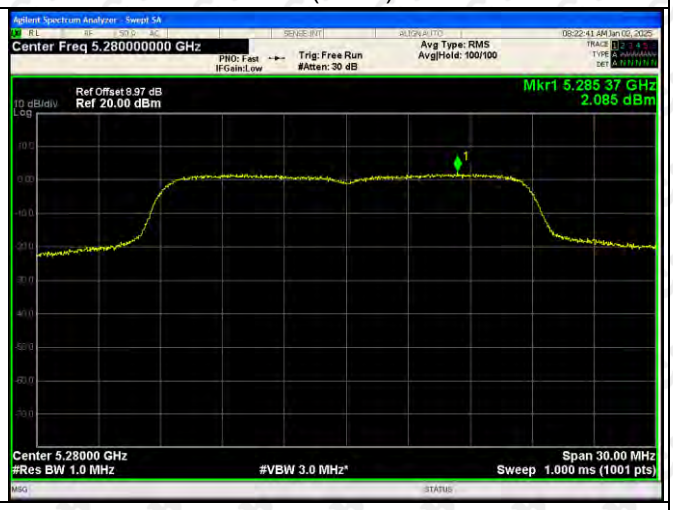
802.11a-5260	802.11a-5280
	
802.11a-5320	802.11ac(VH20)-5260
	
802.11ac(VH20)-5280	802.11ac(VH20)-5320
	
802.11ac(VH40)-5270	802.11ac(VH40)-5310

802.11ax(HT20)-5260

802.11ax(HT20)-5280



802.11ax(HT20)-5320



802.11ax(HT40)-5270

802.11ax(HT40)-5310

802.11n(VH20)-5260

802.11n(VH20)-5280

8802.11n(VH20)-5320

802.11n(VH40)-5270

802.11n(VH40)-5310

5470-5725MHz

802.11a-5500	802.11a-5580
	
802.11a-5700	802.11ac(VH20)-5500
	
802.11ac(VH20)-5580	802.11ac(VH20)-5700
	
802.11ac(VH40)-5510	802.11ac(VH40)-5670

802.11ax(HT20)-5500

802.11ax(HT20)-5580

802.11ax(HT20)-5700

802.11ax(HT40)-5510

802.11ax(HT40)-5670

802.11n(VH20)-5500

802.11n(VH20)-5580

802.11n(VH20)-5700

802.11n(VH40)-5510

802.11n(VH40)-5670

5725-5850MHz

802.11a-5745	802.11a-5785

802.11a-5825

802.11ac(VH20)-5745

802.11ac(VH20)-5785

802.11ac(VH20)-5825

802.11ac(VH40)-5755

802.11ac(VH40)-5795

802.11ax(HT20)-5745

802.11ax(HT20)-5785

802.11ax(HT20)-5825

5802.11ax(HT40)-5755

802.11ax(HT40)-5795

802.11n(VH20)-5745

802.11n(VH20)-5785

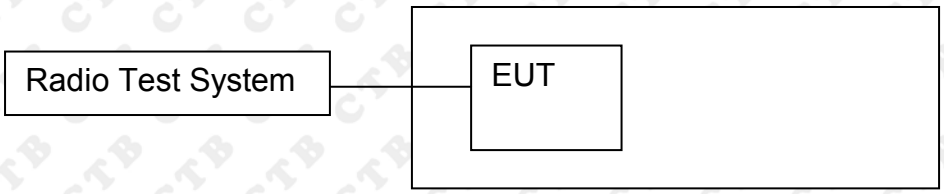
802.11n(VH20)-5825

802.11n(VH40)-5755

802.11n(VH40)-5795

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

TX Frequency (5150-5250MHz)
Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5180.0846	5180	0.0846	16.3302
		V max (V)	132	5180.0327	5180	0.0327	6.3124
		V min (V)	108	5180.0065	5180	0.0065	1.2542
Limits				±20ppm			
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)	0	5180.0268	5180	0.0268	5.1816
		T (°C)	10	5180.0061	5180	0.0061	1.1693
		T (°C)	20	5180.0511	5180	0.0511	9.8642
		T (°C)	30	5180.0341	5180	0.0341	6.5885
		T (°C)	40	5180.0054	5180	0.0054	1.0425
Limits				±20ppm			
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)	120	5200.0039	5200	0.0039	0.7452
		V max (V)	132	5200.0016	5200	0.0016	0.3049
		V min (V)	108	5200.0348	5200	0.0348	6.6871
Limits				±20ppm			
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)	0	5200.0163	5200	0.0163	3.1362
		T (°C)	10	5200.0088	5200	0.0088	1.6984
		T (°C)	20	5200.0397	5200	0.0397	7.6406
		T (°C)	30	5200.0087	5200	0.0087	1.6792
		T (°C)	40	5200.0010	5200	0.0010	0.2018
Limits				±20ppm			
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)	120	5240.0208	5240	0.0208	3.9665
		V max (V)	132	5240.0236	5240	0.0236	4.4947
		V min (V)	108	5240.0427	5240	0.0427	8.1523
Limits				±20ppm			
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)	0	5240.0152	5240	0.0152	2.8982
		T (°C)	10	5240.0093	5240	0.0093	1.7707
		T (°C)	20	5240.0151	5240	0.0151	2.8869
		T (°C)	30	5240.0105	5240	0.0105	2.0071
		T (°C)	40	5240.0203	5240	0.0203	3.8772
Limits				±20ppm			
Result				Complies			

TX Frequency (5250-5350MHz)
Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5260.0223	5260	0.0223	4.2426
		V max (V)	132	5260.0307	5260	0.0307	5.8359
		V min (V)	108	5260.0090	5260	0.0090	1.7081
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5260.0021	5260	0.0021	0.4077
		T (°C)	10	5260.0259	5260	0.0259	4.9258
		T (°C)	20	5260.0294	5260	0.0294	5.5920
		T (°C)	30	5260.0001	5260	0.0001	0.0206
		T (°C)	40	5260.0640	5260	0.0640	12.1738
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5280.0300	5280	0.0300	5.6886
		V max (V)	132	5280.0649	5280	0.0649	12.2871
		V min (V)	108	5280.0004	5280	0.0004	0.0738
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5280.0775	5280	0.0775	14.6791
		T (°C)	10	5280.0303	5280	0.0303	5.7396
		T (°C)	20	5280.0554	5280	0.0554	10.4929
		T (°C)	30	5280.0873	5280	0.0873	16.5401
		T (°C)	40	5280.0500	5280	0.0500	9.4749
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5320.0900	5320	0.0900	16.9098
		V max (V)	132	5320.0123	5320	0.0123	2.3086
		V min (V)	108	5320.0118	5320	0.0118	2.2176
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5320.0153	5320	0.0153	2.8712
		T (°C)	10	5320.0857	5320	0.0857	16.1136
		T (°C)	20	5320.0501	5320	0.0501	9.4217
		T (°C)	30	5320.0579	5320	0.0579	10.8923
		T (°C)	40	5320.0674	5320	0.0674	12.6699
Limits				±20ppm			
Result				Complies			

TX Frequency (5470-5725MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5500.0073	5500	0.0073	1.3288
		V max (V)	132	5500.0402	5500	0.0402	7.3074
		V min (V)	108	5500.0615	5500	0.0615	11.1850
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5500.0560	5500	0.0560	10.1896
		T (°C)	10	5500.0572	5500	0.0572	10.4055
		T (°C)	20	5500.0482	5500	0.0482	8.7554
		T (°C)	30	5500.0211	5500	0.0211	3.8325
		T (°C)	40	5500.0246	5500	0.0246	4.4816
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5580.0120	5580	0.0120	2.1565
		V max (V)	132	5580.0013	5580	0.0013	0.2262
		V min (V)	108	5580.0700	5580	0.0700	12.5534
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5580.0327	5580	0.0327	5.8639
		T (°C)	10	5580.0847	5580	0.0847	15.1736
		T (°C)	20	5580.0014	5580	0.0014	0.2490
		T (°C)	30	5580.0494	5580	0.0494	8.8518
		T (°C)	40	5580.0458	5580	0.0458	8.2044
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5700.0704	5700	0.0704	12.3515
		V max (V)	132	5700.0915	5700	0.0915	16.0605
		V min (V)	108	5700.0081	5700	0.0081	1.4240
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5700.0658	5700	0.0658	11.5442
		T (°C)	10	5700.0232	5700	0.0232	4.0730
		T (°C)	20	5700.0698	5700	0.0698	12.2459
		T (°C)	30	5700.0104	5700	0.0104	1.8209
		T (°C)	40	5700.0933	5700	0.0933	16.3614
Limits				±20ppm			
Result				Complies			

TX Frequency (5725-5850MHz)
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	5745.0171	5745	0.0171	2.9731
		V max (V)	132	5745.0796	5745	0.0796	13.8574
		V min (V)	108	5745.0171	5745	0.0171	2.9731
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5745.0275	5745	0.0275	4.7913
		T (°C)	10	5745.0266	5745	0.0266	4.6372
		T (°C)	20	5745.0354	5745	0.0354	6.1683
		T (°C)	30	5745.0124	5745	0.0124	2.1670
		T (°C)	40	5745.0078	5745	0.0078	1.3637
Limits				±20ppm			
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)	120	5785.0236	5785	0.0236	4.0715
		V max (V)	132	5785.0037	5785	0.0037	0.6429
		V min (V)	108	5785.0781	5785	0.0781	13.4967
Limits				±20ppm			
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)	0	5785.0413	5785	0.0413	7.1400
		T (°C)	10	5785.0926	5785	0.0926	16.0057
		T (°C)	20	5785.0604	5785	0.0604	10.4421
		T (°C)	30	5785.0035	5785	0.0035	0.6089
		T (°C)	40	5785.0281	5785	0.0281	4.8596
Limits				±20ppm			
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	5825.0506	5825	0.0506	8.6803
		V max (V)	132	5825.0760	5825	0.0760	13.0421
		V min (V)	108	5825.0853	5825	0.0853	14.6508
Limits				±20ppm			
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)	0	5825.0240	5825	0.0240	4.1125
		T (°C)	10	5825.0568	5825	0.0568	9.7431
		T (°C)	20	5825.0536	5825	0.0536	9.2096
		T (°C)	30	5825.0926	5825	0.0926	15.9004
		T (°C)	40	5825.0849	5825	0.0849	14.5751
Limits				±20ppm			
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.

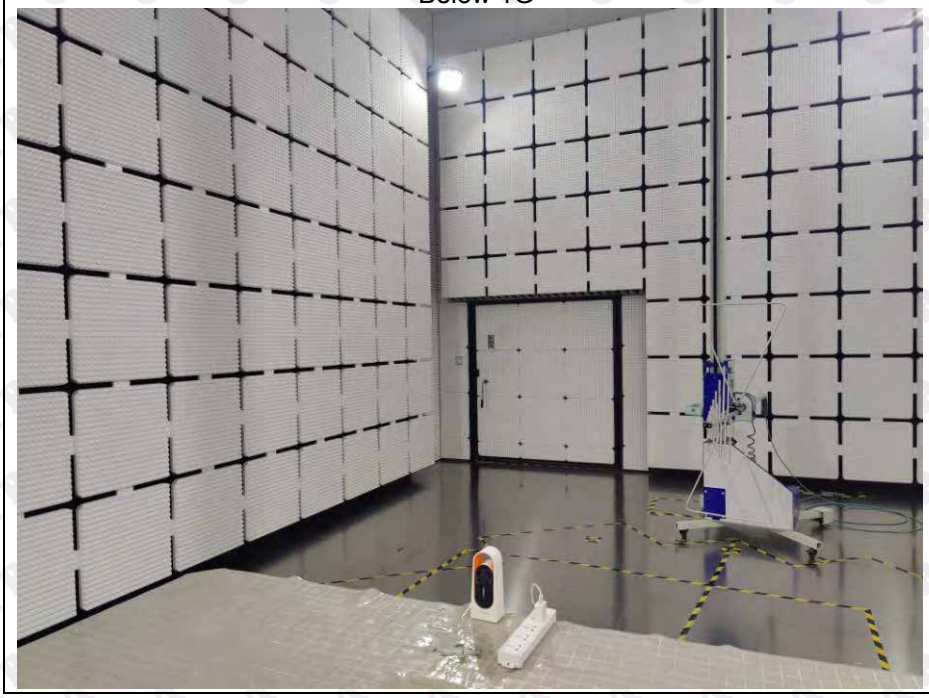
EUT Antenna:

The antenna is internal antenna and no consideration of replacement. The best case gain of the antenna is WiFi (5.2G): 4.15dBi, WiFi (5.3G): 4.29dBi, WiFi (5.6G): 4.10dBi, WiFi (5.8G): 4.56dBi.

15. EUT TEST SETUP PHOTOGRAPHS

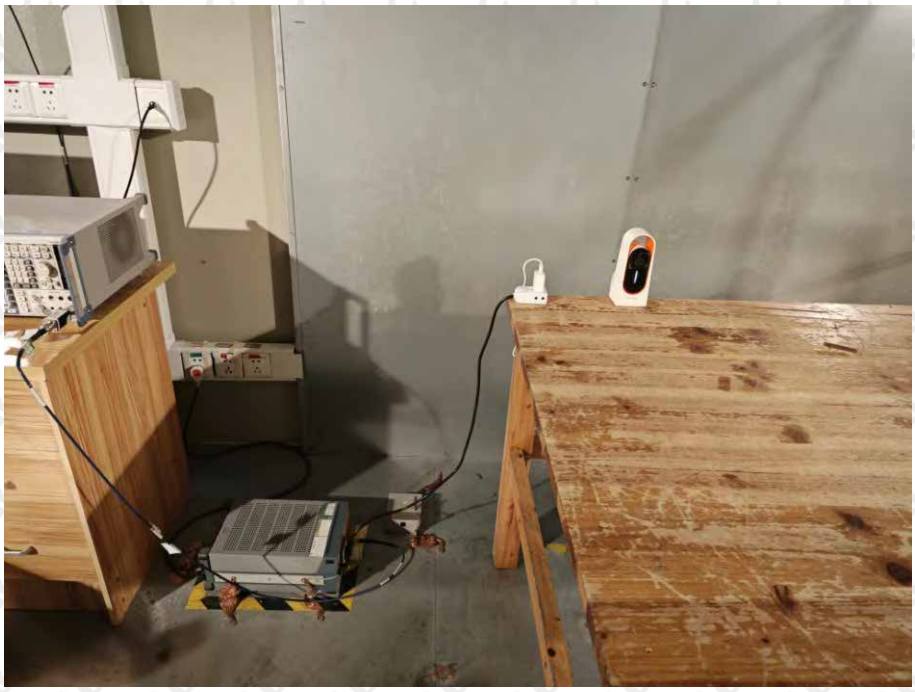
Radiated Emission

Below 1G



Above 1G

Conducted Emission



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