

5725-5850 MHz

Test mode Ant 1	Test Channel (MHz)	6dB Bandwidth (MHz)	Result
802.11a	5745	16.532	Pass
	5785	16.536	Pass
	5825	16.554	Pass
802.11ac(VHT20)	5745	17.753	Pass
	5785	17.72	Pass
	5825	17.738	Pass
802.11ac(VHT40)	5755	36.523	Pass
	5795	36.197	Pass
802.11ac(VHT80)	5775	74.81	Pass
802.11n(HT20)	5745	17.772	Pass
	5785	17.755	Pass
	5825	17.765	Pass
802.11n(HT40)	5755	36.446	Pass
	5795	36.435	Pass

Test mode Ant 2	Test Channel (MHz)	6dB Bandwidth (MHz)	Result
802.11a	5745	16.489	Pass
	5785	16.516	Pass
	5825	16.528	Pass
802.11ac(VHT20)	5745	17.741	Pass
	5785	17.723	Pass
	5825	17.749	Pass
802.11ac(VHT40)	5755	36.514	Pass
	5795	36.446	Pass
802.11ac(VHT80)	5775	74.949	Pass
802.11n(HT20)	5745	17.745	Pass
	5785	17.724	Pass
	5825	17.743	Pass
802.11n(HT40)	5755	36.473	Pass
	5795	36.428	Pass

5180-5240MHz

ANT 1

802.11a-5180



802.11a-5200



802.11a-5240



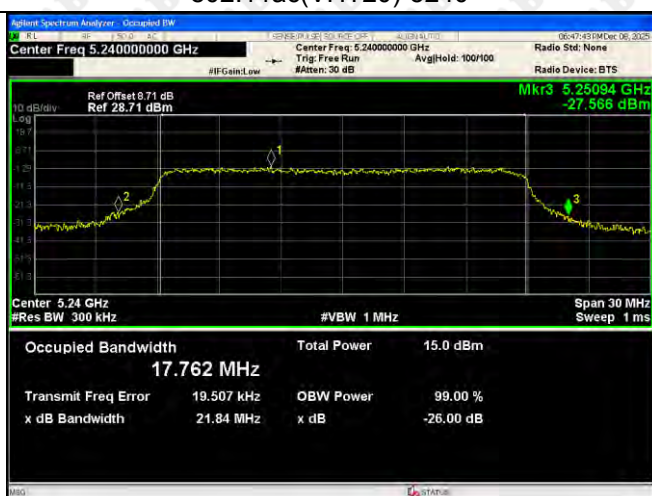
802.11ac(VHT20)-5180



802.11ac(VHT20)-5200

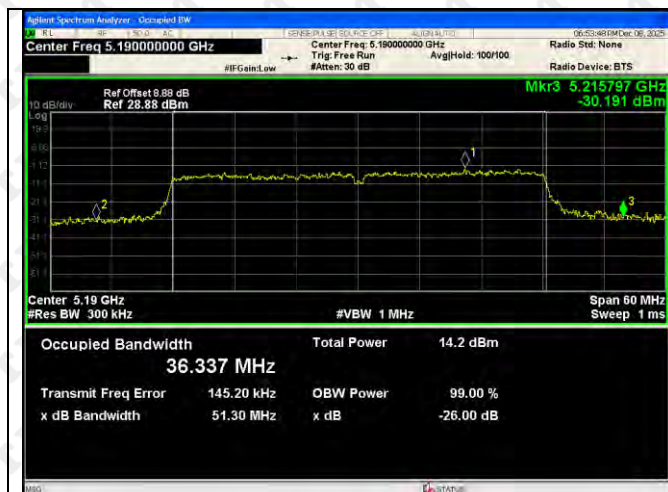


802.11ac(VHT20)-5240



802.11ac(VHT40)-5190

802.11ac(VHT40)-5230



802.11ac(VHT80)-5210



802.11n(HT20)-5180



802.11n(HT20)-5200



802.11n(HT20)-5240



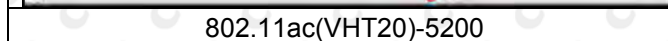
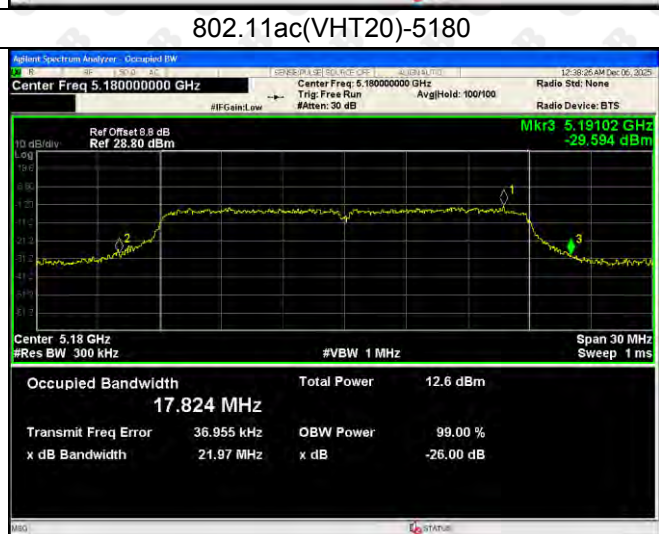
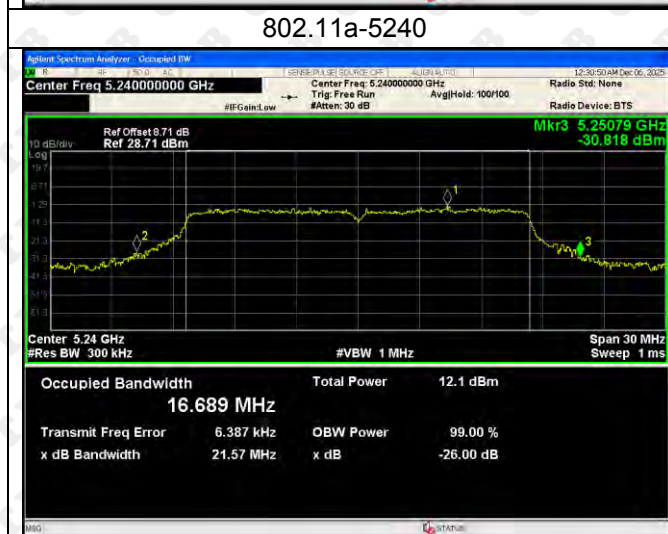
802.11n(HT40)-5190

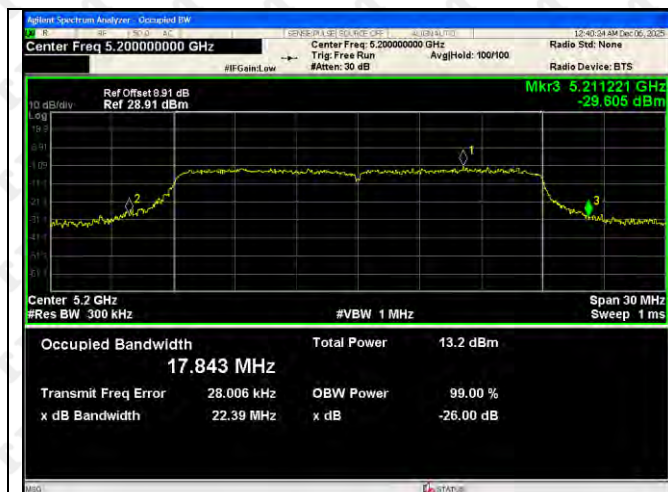


802.11n(HT40)-5230

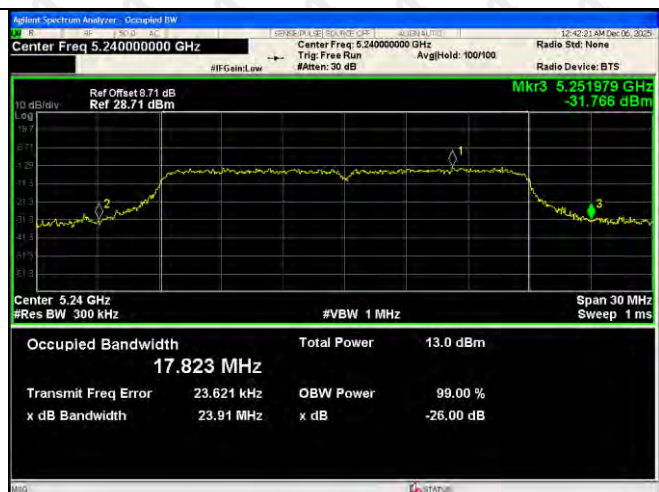


ANT2





802.11ac(VHT40)-5190



802.11ac(VHT40)-5230



802.11ac(VHT80)-5210



802.11ac(VHT80)-5230



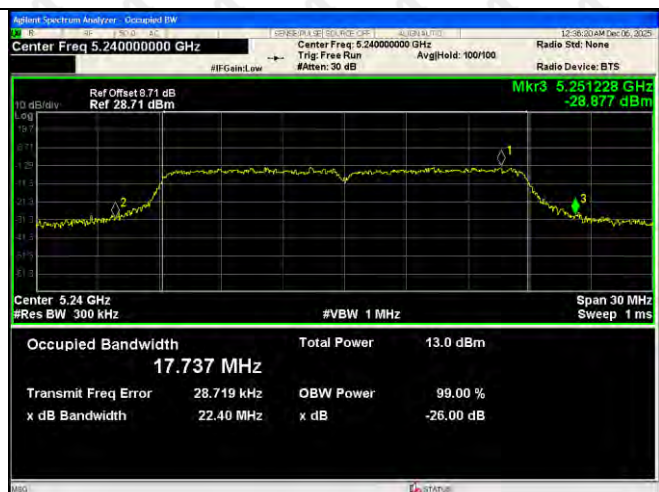
802.11n(HT20)-5210



802.11n(HT20)-5240



802.11n(HT40)-5190



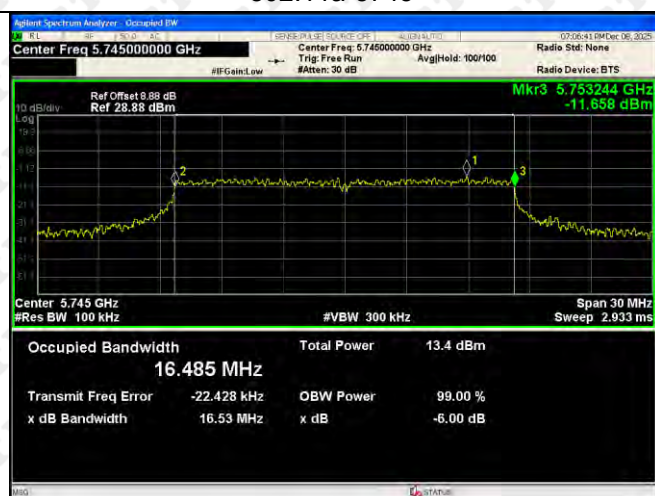
802.11n(HT40)-5230



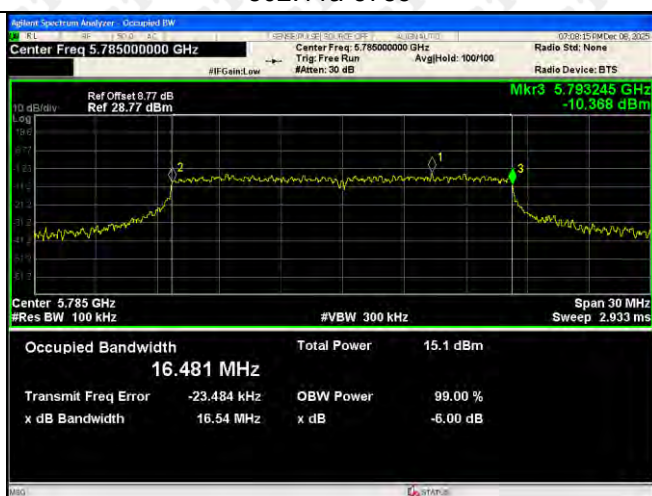
5745-5825MHz

ANT 1:

802.11a-5745



802.11a-5785



802.11a-5825



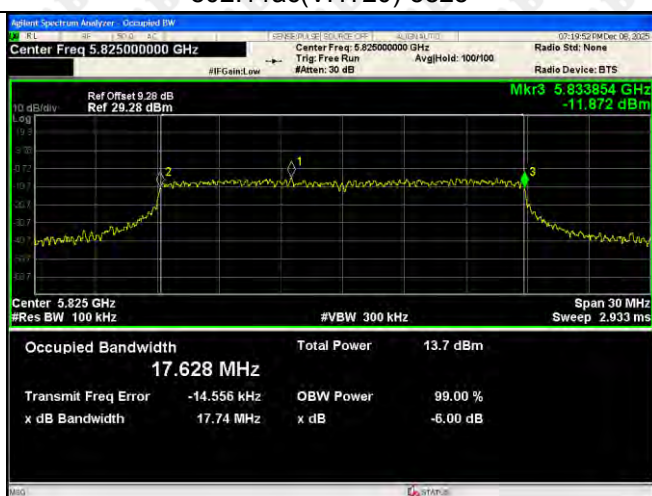
802.11ac(VHT20)-5745



802.11ac(VHT20)-5785



802.11ac(VHT20)-5825



802.11ac(VHT40)-5755

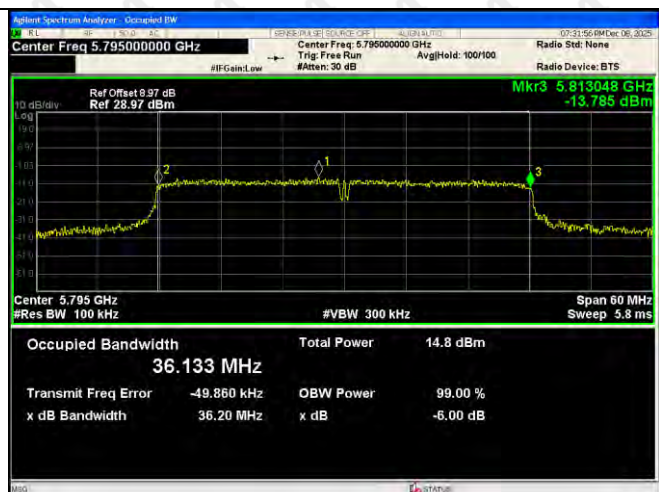


802.11ac(VHT40)-5795





802.11ac(VHT80)-5775



802.11n(HT20)-5745



802.11n(HT20)-5785



802.11n(HT20)-5825



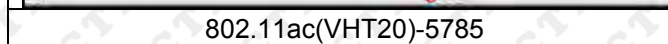
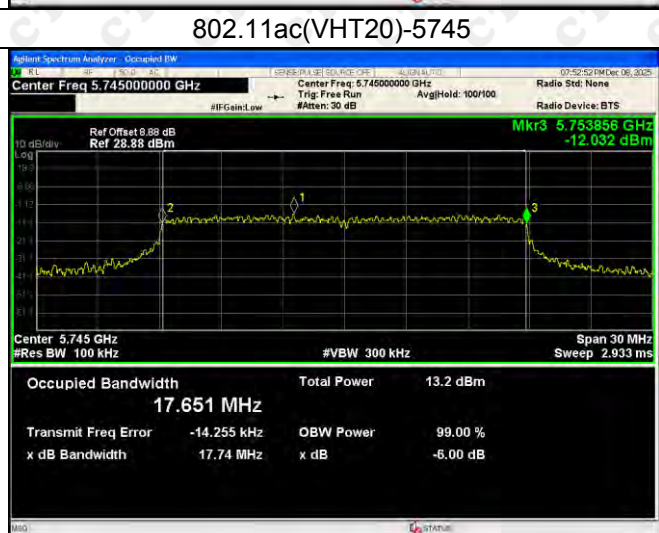
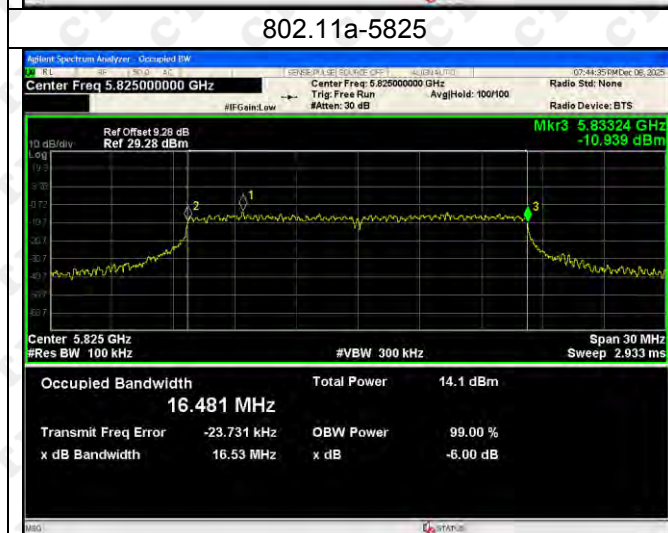
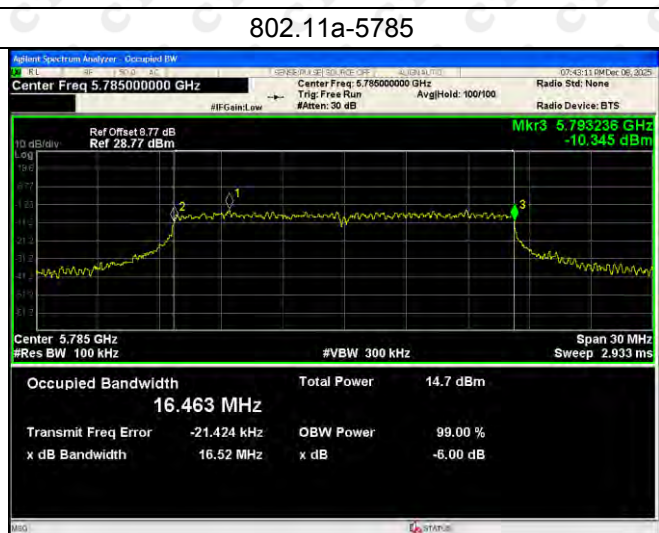
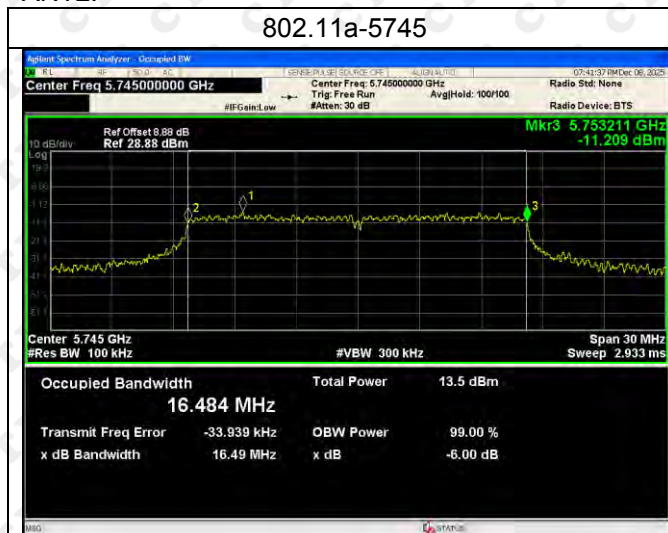
5802.11n(HT40)-5755



802.11n(HT40)-5795



ANT2:





802.11ac(VHT40)-5755



802.11ac(VHT40)-5795



802.11ac(VHT80)-5775



802.11ac(VHT80)-5795



802.11n(HT20)-5775



802.11n(HT20)-5745



5802.11n(HT40)-5755

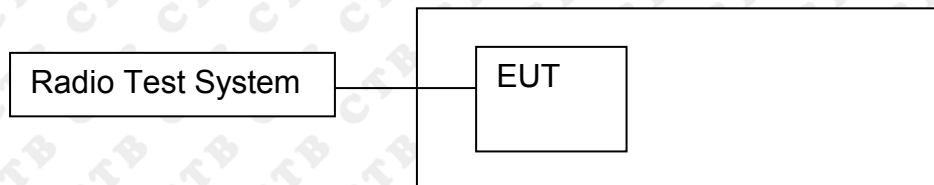


802.11n(HT40)-5795



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 $11 \text{ dBm} + 10 \log B$, 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 ($< 1 \text{ MHz}$, or $< 500 \text{ kHz}$) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:

a) Set $\text{RBW} \geq 1/T$, where T is defined in II.B.I.a).

b) Set $\text{VBW} \geq 3 \text{ RBW}$.

c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10 \log (500 \text{ kHz}/\text{RBW})$ 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 $10 \log (1\text{MHz}/\text{RBW})$ 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+ANT2

Test mode	Test Channel (MHz)	PSD [dBm/MHz] ANT 1	PSD [dBm/MHz] ANT 2	PSD [dBm/MHz] Total	Limit (dBm/MHz)	Result
802.11a	5180	2.66	1.729	/	11	Pass
	5200	4.445	1.785	/	11	Pass
	5240	5.313	0.904	/	11	Pass
802.11ac(VHT20)	5180	1.949	1.59	4.784	11	Pass
	5200	3.951	1.506	5.909	11	Pass
	5240	3.531	2.32	5.978	11	Pass
802.11ac(VHT40)	5190	0.428	-1.788	2.470	11	Pass
	5230	0.56	-0.755	2.962	11	Pass
802.11ac(VHT80)	5230	-6.41	-9.016	-4.510	11	Pass
802.11n(HT20)	5180	2.28	1.971	5.139	11	Pass
	5200	4.181	2.266	6.339	11	Pass
	5240	3.727	2.768	6.284	11	Pass
802.11n(HT40)	5190	-0.294	-1.694	2.072	11	Pass
	5230	0.743	-1.333	2.838	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	5745	-0.362	-0.428	/	30	Pass
	5785	1.272	0.951	/	30	Pass
	5825	0.22	0.253	/	30	Pass
802.11ac(VHT20)	5745	-0.57	-0.468	2.492	30	Pass
	5785	1.044	1.091	4.078	30	Pass
	5825	-0.241	0.571	3.194	30	Pass
802.11ac(VHT40)	5755	-3.264	-2.892	-0.064	30	Pass
	5795	-2.114	-2.539	0.689	30	Pass
802.11ac(VHT80)	5795	-4.045	-4.379	-1.198	30	Pass
802.11n(HT20)	5775	-0.256	-0.232	2.766	30	Pass
	5745	1.739	1.235	4.505	30	Pass
	5785	0.084	0.678	3.401	30	Pass
802.11n(HT40)	5825	-3.222	-2.629	0.095	30	Pass
	5755	-2.934	-2.835	0.126	30	Pass

5180-5240MHz

ANT 1

802.11a-5180



802.11a-5200



802.11a-5240



802.11ac(VHT20)-5180



802.11ac(VHT20)-5200



802.11ac(VHT20)-5240



802.11ac(VHT40)-5190

802.11ac(VHT40)-5230



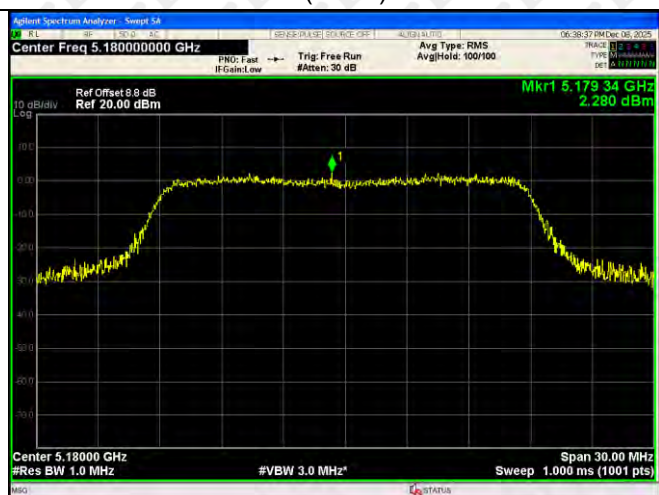
802.11ac(VHT80)-5210



802.11n(HT20)-5180



802.11n(HT20)-5200



802.11n(HT20)-5240



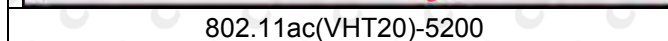
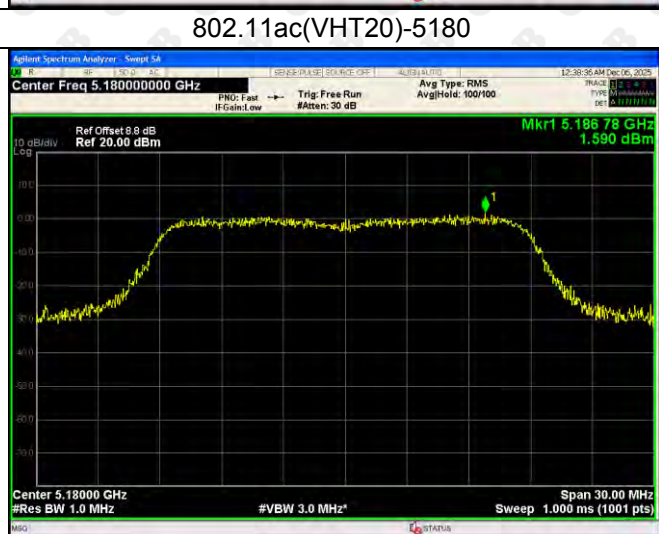
802.11n(HT40)-5190



802.11n(HT40)-5230



ANT2





802.11ac(VHT40)-5190



802.11ac(VHT40)-5230



802.11ac(VHT80)-5210



802.11n(HT20)-5180



802.11n(HT20)-5200



802.11n(HT20)-5240



802.11n(HT40)-5190

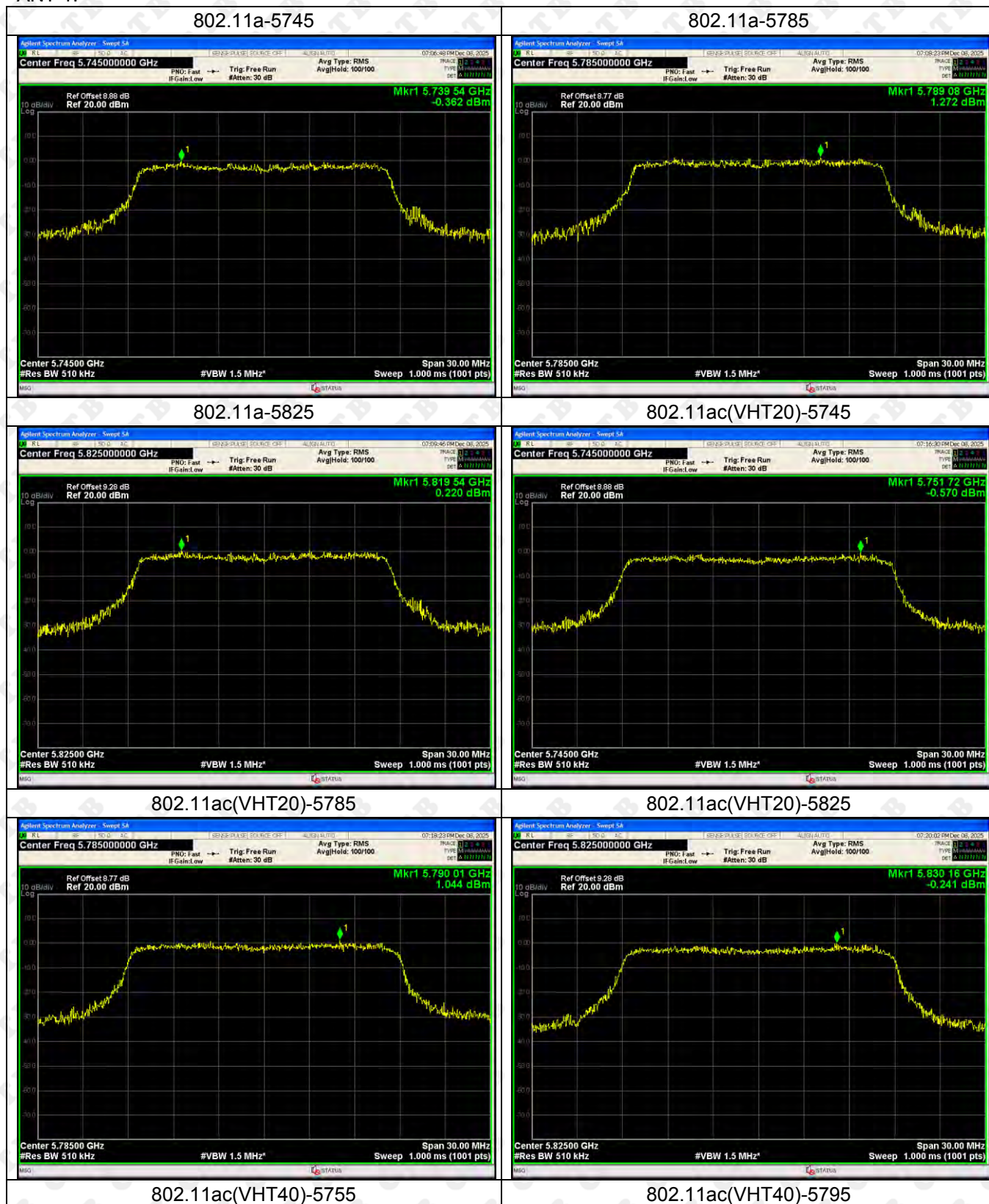


802.11n(HT40)-5230



5745-5825MHz

ANT 1:





802.11ac(VHT80)-5775



802.11n(HT20)-5745



802.11n(HT20)-5785



802.11n(HT20)-5825



5802.11n(HT40)-5755



802.11n(HT40)-5795



ANT2:

802.11a-5745



802.11a-5785



802.11a-5825



802.11ac(VHT20)-5745



802.11ac(VHT20)-5785

802.11ac(VHT20)-5825



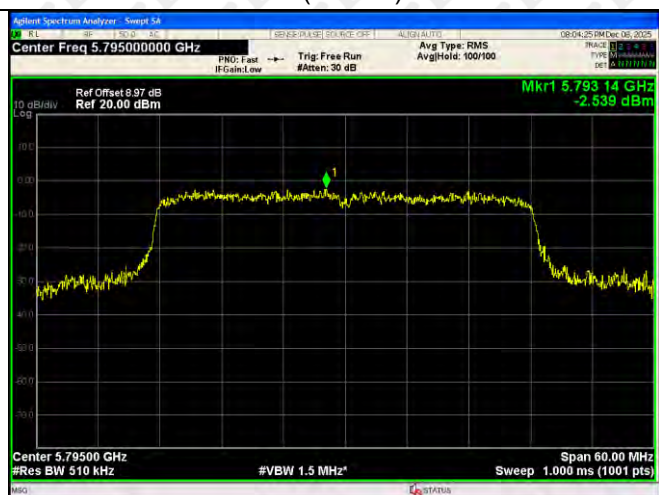
802.11ac(VHT40)-5755



802.11ac(VHT40)-5795



802.11ac(VHT80)-5775



802.11ac(VHT80)-5795



802.11n(HT20)-5785



802.11n(HT20)-5825



5802.11n(HT40)-5755

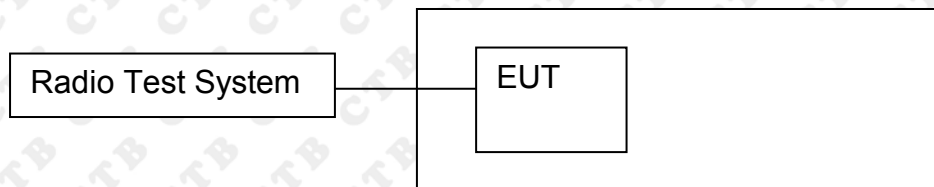


802.11n(HT40)-5795



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

ANT1:

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	5180.0200	5180	0.0200	3.8554
		V max (V)	132	5180.0232	5180	0.0232	4.4832
		V min (V)	108	5180.0723	5180	0.0723	13.9606
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	5180.0340	5180	0.0340	6.5626
		T (°C)	10	5180.0353	5180	0.0353	6.8114
		T (°C)	20	5180.0244	5180	0.0244	4.7062
		T (°C)	30	5180.0433	5180	0.0433	8.3599
		T (°C)	40	5180.0254	5180	0.0254	4.8957
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	5200.0490	5200	0.0490	9.4230
		V max (V)	132	5200.0244	5200	0.0244	4.6848
		V min (V)	108	5200.0069	5200	0.0069	1.3309
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	5200.0066	5200	0.0066	1.2724
		T (°C)	10	5200.0052	5200	0.0052	0.9927
		T (°C)	20	5200.0276	5200	0.0276	5.3154
		T (°C)	30	5200.0022	5200	0.0022	0.4302
		T (°C)	40	5200.0335	5200	0.0335	6.4431
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	5240.0365	5240	0.0365	6.9626
		V max (V)	132	5240.0524	5240	0.0524	9.9932
		V min (V)	108	5240.0456	5240	0.0456	8.7044
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	5240.0466	5240	0.0466	8.8984
		T (°C)	10	5240.0210	5240	0.0210	4.0067
		T (°C)	20	5240.0531	5240	0.0531	10.1343
		T (°C)	30	5240.0076	5240	0.0076	1.4483
		T (°C)	40	5240.0431	5240	0.0431	8.2284
Limits				±20ppm			
Result				Complies			

ANT2:

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	5180.0731	5180	0.0731	14.1088
		V max (V)	132	5180.0144	5180	0.0144	2.7790
		V min (V)	108	5180.0383	5180	0.0383	7.3972
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	5180.0502	5180	0.0502	9.6957
		T (°C)	10	5180.0489	5180	0.0489	9.4327
		T (°C)	20	5180.0712	5180	0.0712	13.7456
		T (°C)	30	5180.0679	5180	0.0679	13.1051
		T (°C)	40	5180.0068	5180	0.0068	1.3218
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	5200.0674	5200	0.0674	12.9664
		V max (V)	132	5200.0457	5200	0.0457	8.7968
		V min (V)	108	5200.0126	5200	0.0126	2.4230
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	5200.0404	5200	0.0404	7.7782
		T (°C)	10	5200.0504	5200	0.0504	9.6959
		T (°C)	20	5200.0059	5200	0.0059	1.1432
		T (°C)	30	5200.0930	5200	0.0930	17.8909
		T (°C)	40	5200.0003	5200	0.0003	0.0640
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	5240.0812	5240	0.0812	15.4948
		V max (V)	132	5240.0552	5240	0.0552	10.5390
		V min (V)	108	5240.0084	5240	0.0084	1.5945
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	5240.0095	5240	0.0095	1.8104
		T (°C)	10	5240.0779	5240	0.0779	14.8722
		T (°C)	20	5240.0596	5240	0.0596	11.3826
		T (°C)	30	5240.0646	5240	0.0646	12.3344
		T (°C)	40	5240.0029	5240	0.0029	0.5450
Limits				±20ppm			
Result				Complies			

ANT1:

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	5745.0698	5745	0.0698	12.1453
		V max (V)	132	5745.0291	5745	0.0291	5.0586
		V min (V)	108	5745.0698	5745	0.0698	12.1453
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	5745.0350	5745	0.0350	6.0928
		T (°C)	10	5745.0737	5745	0.0737	12.8276
		T (°C)	20	5745.0625	5745	0.0625	10.8813
		T (°C)	30	5745.0585	5745	0.0585	10.1851
		T (°C)	40	5745.0642	5745	0.0642	11.1744
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	5785.0508	5785	0.0508	8.7842
		V max (V)	132	5785.0016	5785	0.0016	0.2823
		V min (V)	108	5785.0706	5785	0.0706	12.2097
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	5785.0668	5785	0.0668	11.5417
		T (°C)	10	5785.0853	5785	0.0853	14.7501
		T (°C)	20	5785.0933	5785	0.0933	16.1338
		T (°C)	30	5785.0856	5785	0.0856	14.7914
		T (°C)	40	5785.0220	5785	0.0220	3.7969
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	5825.0038	5825	0.0038	0.6601
		V max (V)	132	5825.0001	5825	0.0001	0.0227
		V min (V)	108	5825.0643	5825	0.0643	11.0438
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	5825.0615	5825	0.0615	10.5532
		T (°C)	10	5825.0160	5825	0.0160	2.7534
		T (°C)	20	5825.0799	5825	0.0799	13.7102
		T (°C)	30	5825.0849	5825	0.0849	14.5700
		T (°C)	40	5825.0481	5825	0.0481	8.2545
Limits				±20ppm			
Result				Complies			

ANT2:

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	5745.0270	5745	0.0270	4.7017
		V max (V)	132	5745.0500	5745	0.0500	8.7107
		V min (V)	108	5745.0612	5745	0.0612	10.6584
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	5745.0022	5745	0.0022	0.3900
		T (°C)	10	5745.0820	5745	0.0820	14.2730
		T (°C)	20	5745.0183	5745	0.0183	3.1818
		T (°C)	30	5745.0550	5745	0.0550	9.5721
		T (°C)	40	5745.0044	5745	0.0044	0.7745
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	5785.0239	5785	0.0239	4.1292
		V max (V)	132	5785.0331	5785	0.0331	5.7207
		V min (V)	108	5785.0420	5785	0.0420	7.2675
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	5785.0400	5785	0.0400	6.9120
		T (°C)	10	5785.0696	5785	0.0696	12.0318
		T (°C)	20	5785.0593	5785	0.0593	10.2431
		T (°C)	30	5785.0678	5785	0.0678	11.7248
		T (°C)	40	5785.0264	5785	0.0264	4.5701
		T (°C)	50	5785.0720	5785	0.0720	12.4467
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	5825.0234	5825	0.0234	4.0153
		V max (V)	132	5825.0063	5825	0.0063	1.0860
		V min (V)	108	5825.0081	5825	0.0081	1.3827
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	5825.0825	5825	0.0825	14.1654
		T (°C)	10	5825.0046	5825	0.0046	0.7892
		T (°C)	20	5825.0414	5825	0.0414	7.1003
		T (°C)	30	5825.0781	5825	0.0781	13.4139
		T (°C)	40	5825.0318	5825	0.0318	5.4598
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 ASK message transmitting from remote device and verify whether it shall resend or discontinue transmission. (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.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is External antenna and no consideration of replacement. The best case gain of the antenna is WiFi (5.2G): 3.47dBi, WiFi (5.8G): 2.88dBi.

15. EUT TEST SETUP PHOTOGRAPHS

Spurious emissions

Below 1GHz



Above 1GHz



Conducted Emission



***** END OF REPORT *****