d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.
Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described in this section. For devices that use channel aggregation refer to III.A and III.C for determining emission bandwidth.

D. 99% Occupied Bandwidth

The 99% occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. Measurement of the 99% occupied bandwidth is *required* only as a condition for using the optional band-edge measurement techniques described in II.G.3.d). Measurements of 99% occupied bandwidth may also optionally be used in lieu of the EBW to define the minimum frequency range over which the 789033 D02 General UNII Test Procedures New Rules v02r01 Page 4 spectrum is integrated when measuring maximum conducted output power as described in II.E. However, the EBW must be measured to determine bandwidth dependent limits on maximum conducted output power in accordance with Section 15.407(a).
The following procedure shall be used for measuring (99%) power bandwidth:
1. Set center frequency to the nominal EUT channel center frequency.

2. Set span = 1.5 times to 5.0 times the OBW.

3. Set RBW = 1% to 5% of the OBW

4. Set VBW ≥ 3 * RBW

5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.

6. Use the 99% power bandwidth function of the instrument (if available).

7. If the instrument does not have a 99% power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

10.4 Test Results

5180-5240MHz

Test mode ANT 1	Test Channel (MHz)	26dB Bandwidth (MHz)
802.11a	5180	21.278
	5200	20.953
	5240	21.148
802.11ac20	5180	21.768
	5200	21.59
	5240	21.708
802.11ac40	5190	41.53
	5230	41.194
802.11ac80	5210	82.152
802.11n(HT20)	5180	21.76
	5200	21.823
	5240	21.749
802.11n(HT40)	5190	42.035
	5230	41.203
802.11ax20	5180	21.996
	5200	22.125
	5240	22.175
802.11ax40	5190	40.734
	5230	40.258
802.11ax80	5210	80.61

Test mode ANT 2	Test Channel (MHz)	26dB Bandwidth (MHz)
802.11a	5180	20.872
	5200	20.988
	5240	20.77
802.11ac20	5180	21.853
	5200	21.909
	5240	21.832
802.11ac40	5190	41.517
	5230	41.543
802.11ac80	5210	80.13
802.11n(HT20)	5180	21.859
	5200	21.912
	5240	21.448
802.11n(HT40)	5190	41.703
	5230	40.878
802.11ax20	5180	21.874
	5200	22.095
	5240	22.306
802.11ax40	5190	40.399
	5230	40.556
802.11ax80	5210	80.603

5745-5825 MHz

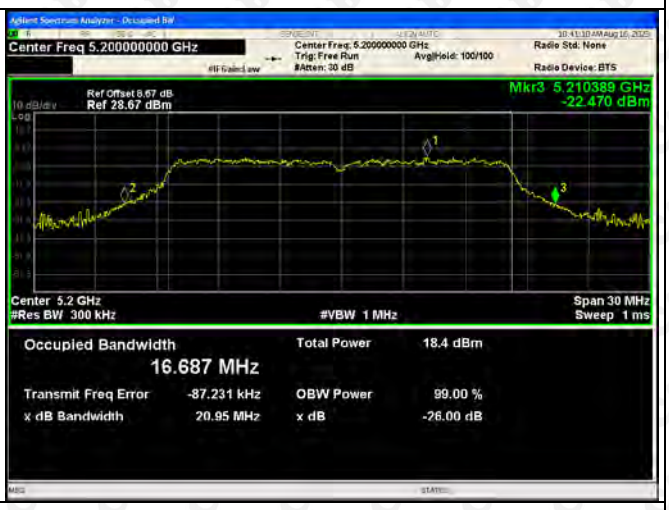
Test mode Ant 1	Test Channel (MHz)	6dB Bandwidth (MHz)	Result
802.11a	5745	16.388	Pass
	5785	16.337	Pass
	5825	17.73	Pass
802.11ac(VH20)	5745	17.731	Pass
	5785	17.794	Pass
	5825	17.814	Pass
802.11ac(VH40)	5755	36.512	Pass
	5795	36.466	Pass
802.11ac(VH80)	5775	76.279	Pass
802.11n(VH20)	5745	17.755	Pass
	5785	17.756	Pass
	5825	17.799	Pass
802.11n(VH40)	5755	36.476	Pass
	5795	36.482	Pass
802.11ax(VH20)	5745	17.722	Pass
	5785	17.765	Pass
	5825	17.737	Pass
802.11ax(VH40)	5755	36.557	Pass
	5795	36.517	Pass
802.11ax(VH80)	5775	76.233	Pass

Test mode Ant 2	Test Channel (MHz)	6dB Bandwidth (MHz)	Result
802.11a	5745	16.576	Pass
	5785	16.543	Pass
	5825	16.561	Pass
802.11ac(VH20)	5745	17.764	Pass
	5785	17.701	Pass
	5825	17.762	Pass
802.11ac(VH40)	5755	36.509	Pass
	5795	36.486	Pass
802.11ac(VH80)	5775	76.287	Pass
802.11n(VH20)	5745	17.725	Pass
	5785	17.698	Pass
	5825	17.8	Pass
802.11n(VH40)	5755	36.502	Pass
	5795	36.485	Pass
802.11ax(VH20)	5745	76.168	Pass
	5785	17.714	Pass
	5825	17.748	Pass
802.11ax(VH40)	5755	17.816	Pass
	5795	36.478	Pass
802.11ax(VH80)	5775	36.49	Pass

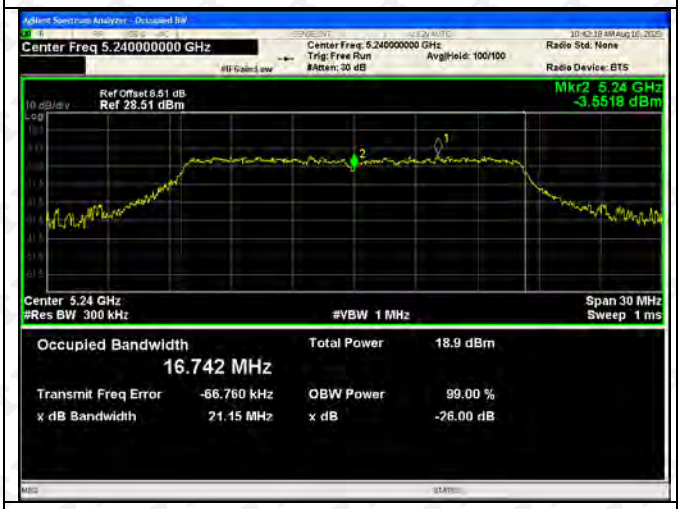
Test Graph
ANT 1
-26dB OBW
5180-5240MHz

802.11a-5180

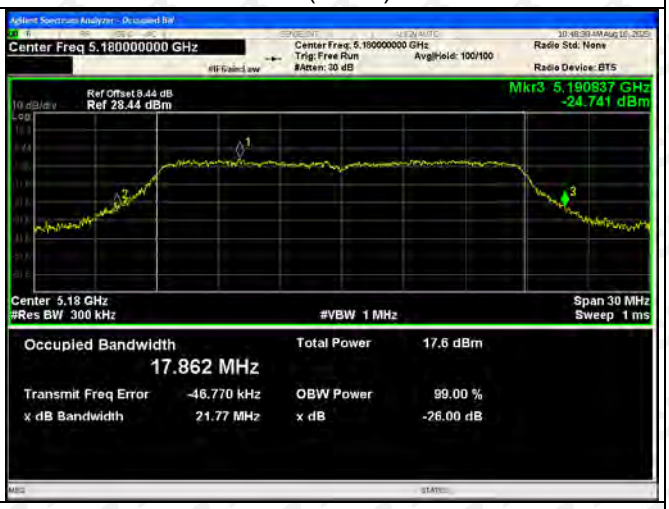
802.11a-5200



802.11a-5240

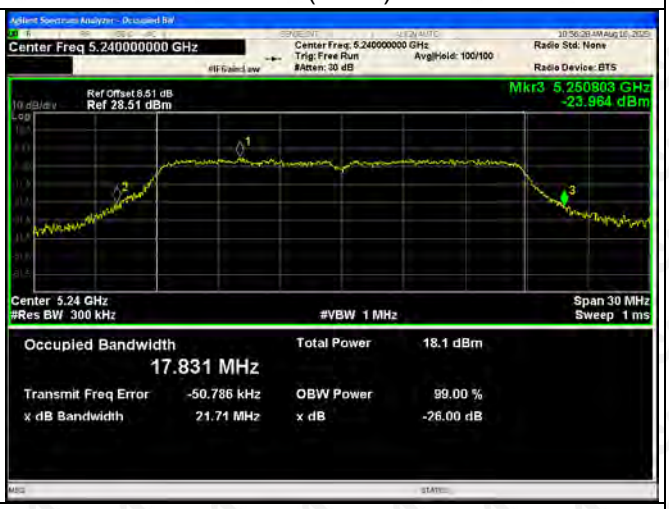


802.11ac(VH20)-5180



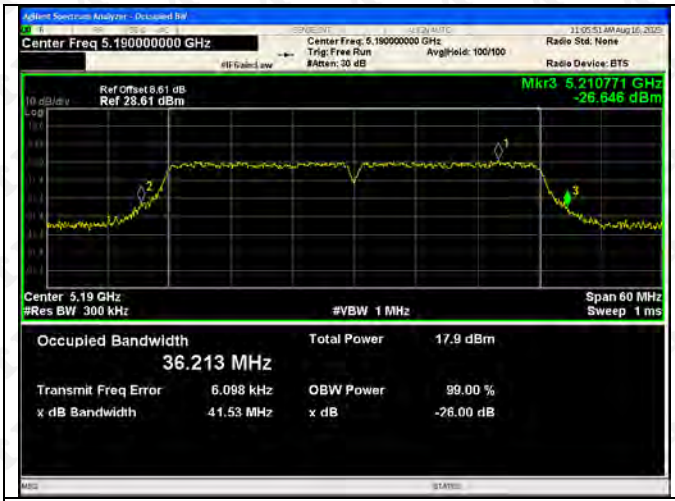
802.11ac(VH20)-5200

802.11ac(VH20)-5240

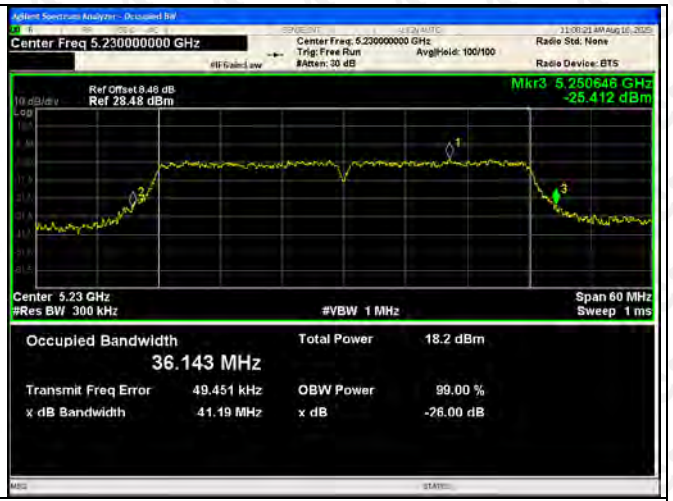


802.11ac(VH40)-5190

802.11ac(VH40)-5230

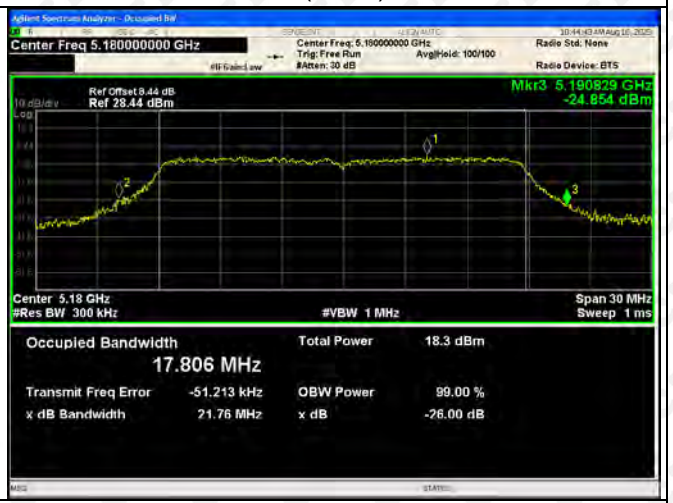


802.11ac(VH80)-5210



802.11n(HT20)-5180

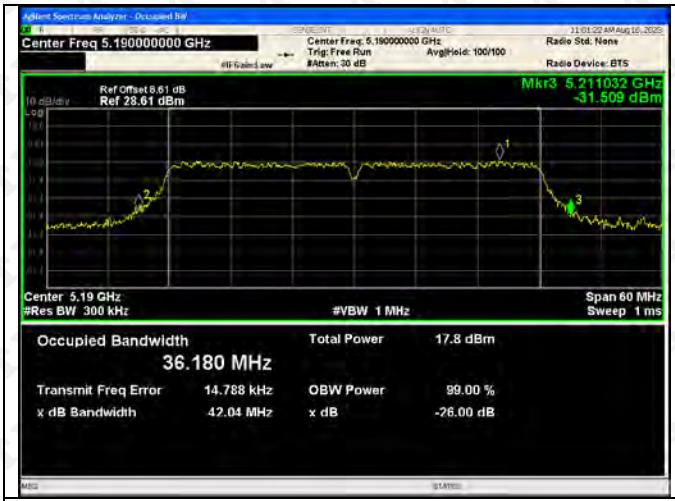
802.11n(HT20)-5200



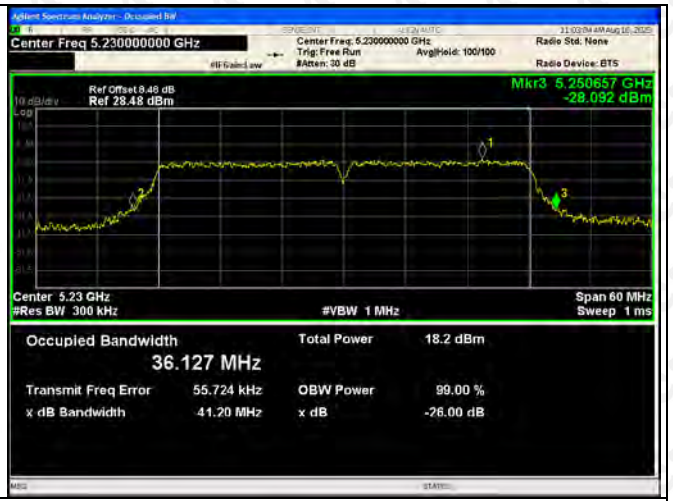
802.11n(HT20)-5240

802.11n(HT40)-5190

802.11n(HT40)-5230



802.11ax(VH20)-5180

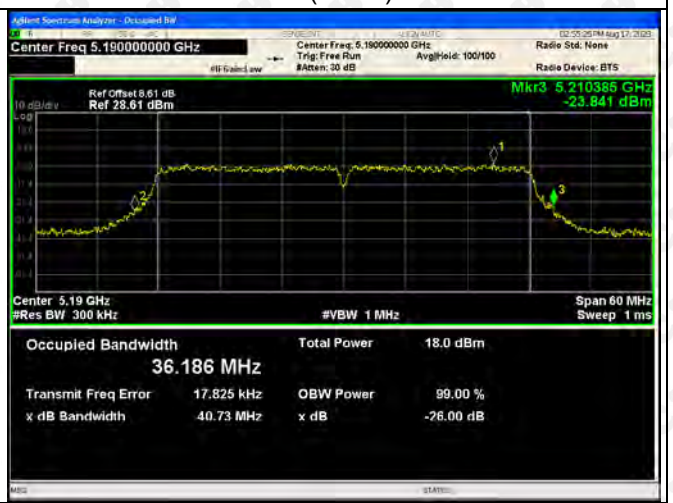


802.11ax(VH20)-5200

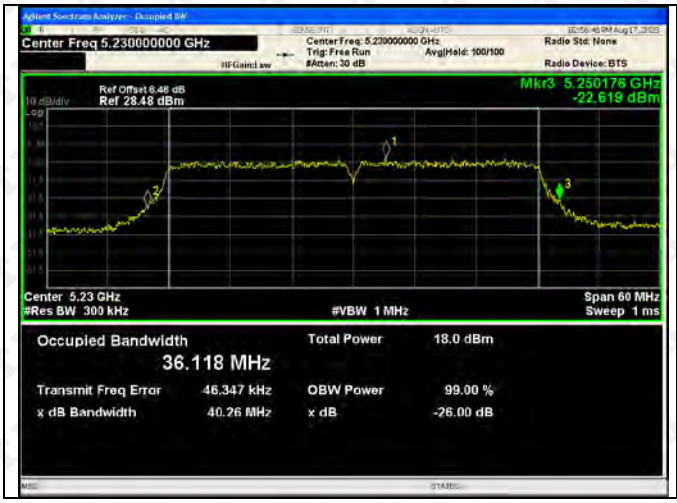
802.11ax(VH20)-5240

802.11ax(VH40)-5190

802.11ax(VH40)-5230



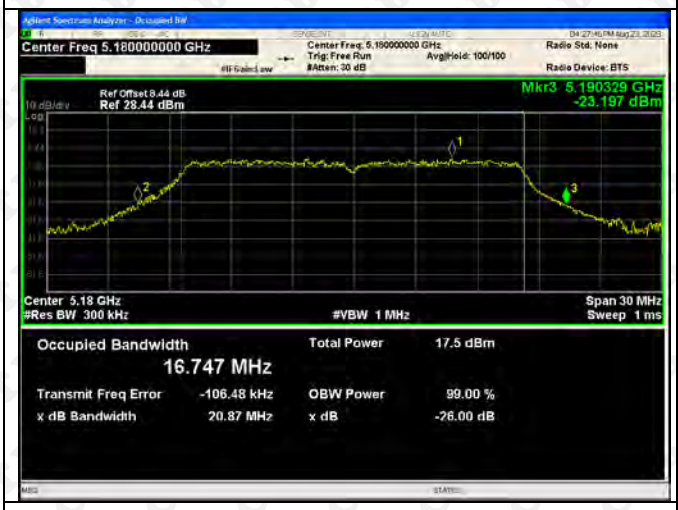
802.11ax(VH80)-5210


Agilent Spectrum Analyzer - Occupied BW
Center Freq 5.230000000 GHz
Center Freq: 5.230000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Ref Offset 6.48 dB
10 dB/div
Ref 28.48 dBm
Mkr3 5.250178 GHz
-22.619 dBm
Center 5.23 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 60 MHz
Sweep 1 ms
Occupied Bandwidth
36.118 MHz
Total Power 18.0 dBm
Transmit Freq Error -46.347 kHz
OBW Power 99.00 %
x dB Bandwidth 40.26 MHz
x dB -26.00 dB

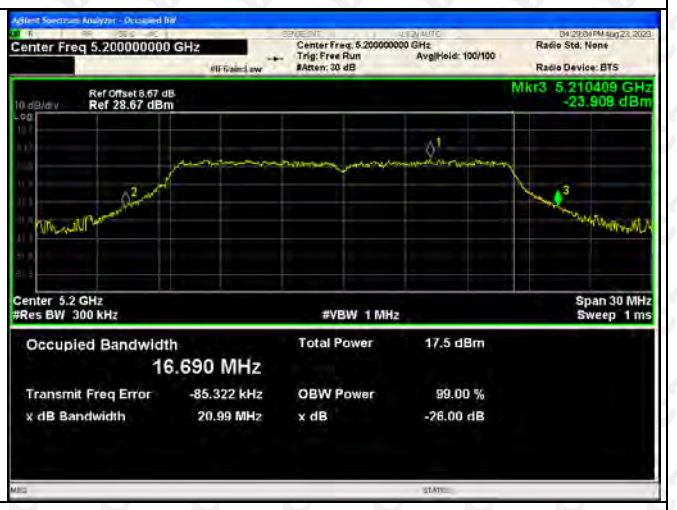

Agilent Spectrum Analyzer - Occupied BW
Center Freq 5.210000000 GHz
Center Freq: 5.210000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Ref Offset 6.52 dB
10 dB/div
Ref 28.52 dBm
Mkr3 5.250389 GHz
-27.533 dBm
Center 5.21 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 120 MHz
Sweep 1.267 ms
Occupied Bandwidth
75.739 MHz
Total Power 18.5 dBm
Transmit Freq Error 83.678 kHz
OBW Power 99.00 %
x dB Bandwidth 80.61 MHz
x dB -26.00 dB

Test Graph
ANT 2:
-26dB OBW
5180-5240MHz

802.11a-5180

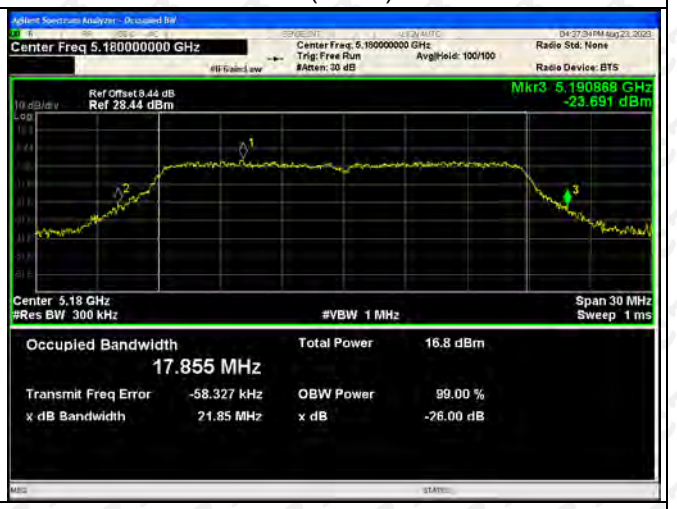


802.11a-5200



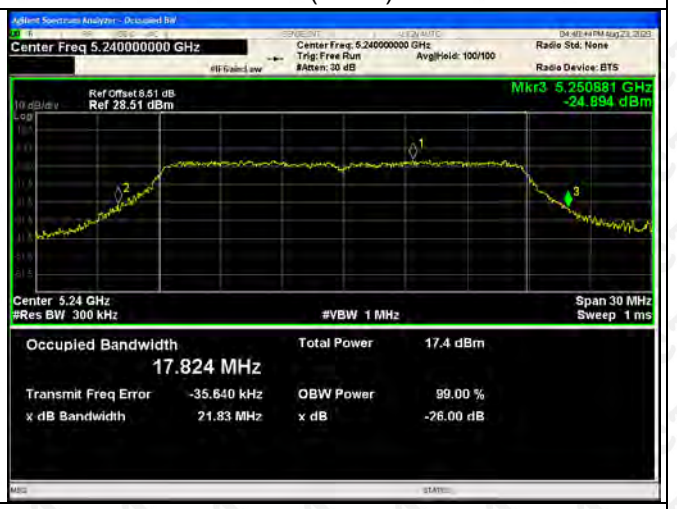
802.11a-5240

802.11ac(VH20)-5180



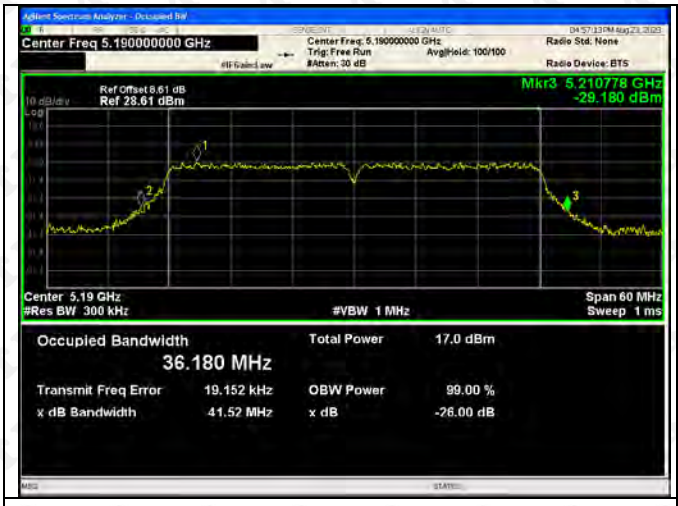
802.11ac(VH20)-5200

802.11ac(VH20)-5240

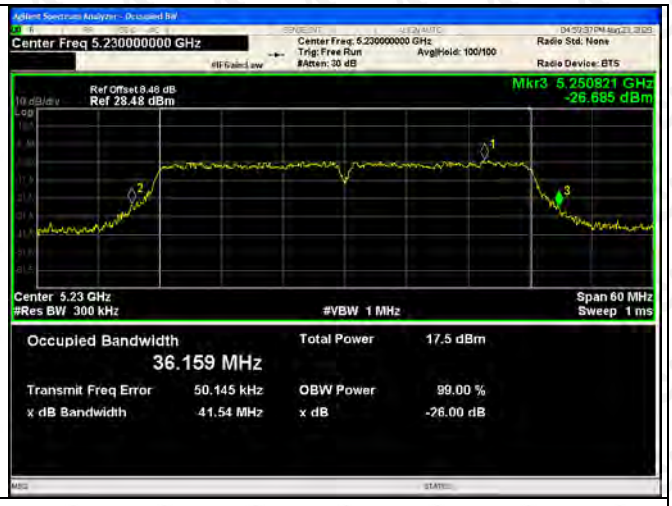


802.11ac(VH40)-5190

802.11ac(VH40)-5230



802.11ac(VH80)-5210



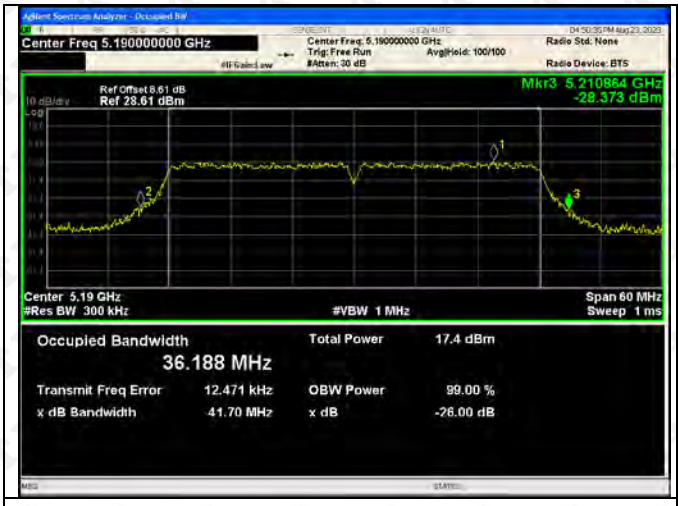
802.11n(HT20)-5180

802.11n(HT20)-5200

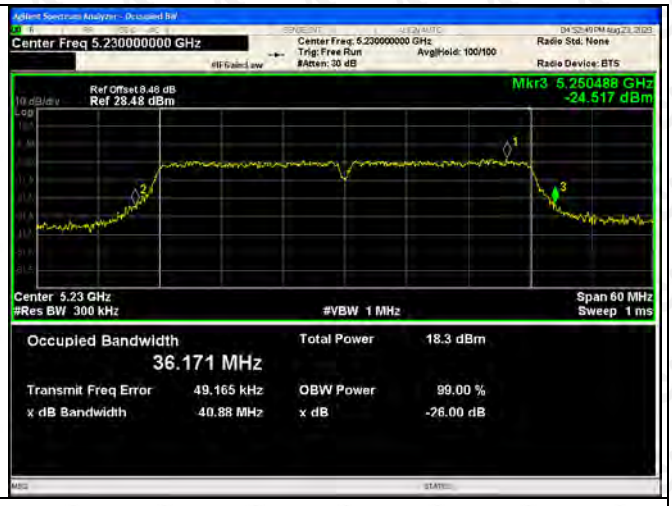
802.11n(HT20)-5240

802.11n(HT40)-5190

802.11n(HT40)-5230



802.11ax(VH20)-5180



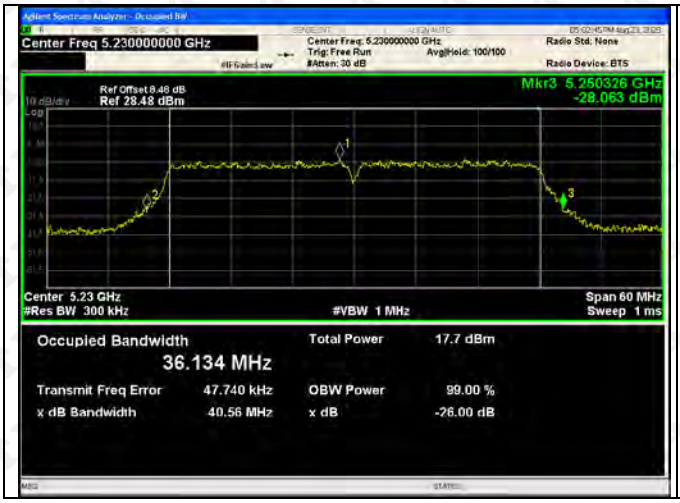
802.11ax(VH20)-5200

802.11ax(VH20)-5240

802.11ax(VH40)-5190

802.11ax(VH40)-5230

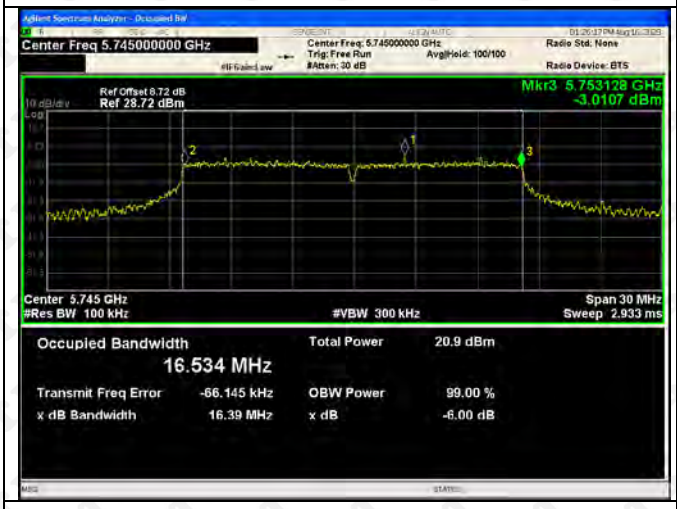
802.11ax(VH80)-5210


Agilent Spectrum Analyzer - Occupied BW
Center Freq 5.230000000 GHz
Center Freq: 5.230000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Ref Offset 8.48 dB
10 dB/div
Ref 28.48 dBm
Mkr3 5.250326 GHz
-28.063 dBm
Center 5.23 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 60 MHz
Sweep 1 ms
Occupied Bandwidth
36.134 MHz
Total Power 17.7 dBm
Transmit Freq Error 47.740 kHz
OBW Power 99.00 %
x dB Bandwidth 40.56 MHz
x dB -26.00 dB

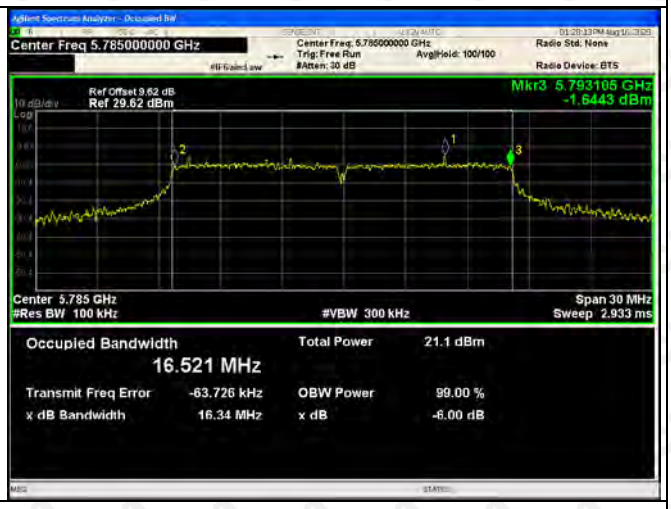

Agilent Spectrum Analyzer - Occupied BW
Center Freq 5.210000000 GHz
Center Freq: 5.210000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Ref Offset 8.52 dB
10 dB/div
Ref 28.52 dBm
Mkr3 5.25039 GHz
-29.077 dBm
Center 5.21 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 120 MHz
Sweep 1.267 ms
Occupied Bandwidth
75.686 MHz
Total Power 17.3 dBm
Transmit Freq Error 88.045 kHz
OBW Power 99.00 %
x dB Bandwidth 80.60 MHz
x dB -26.00 dB

ANT1:
-6dB OBW
5745-5825MHz

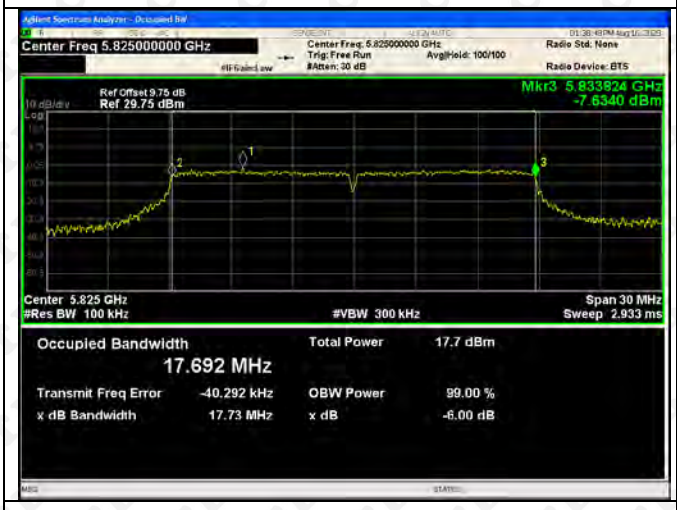
802.11a-5745



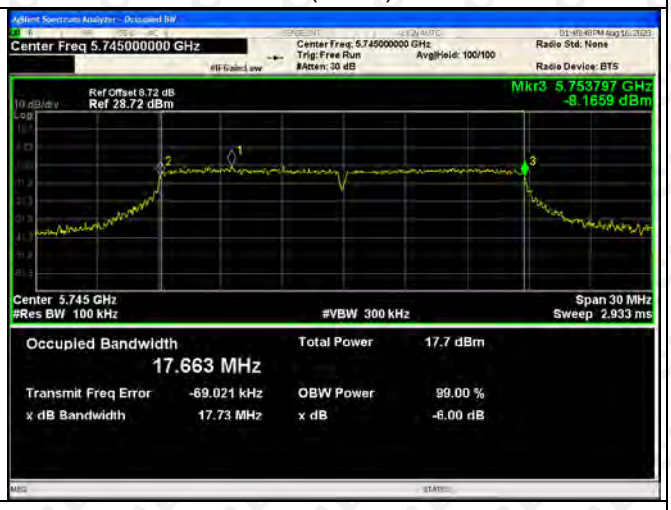
802.11a-5785



802.11a-5825

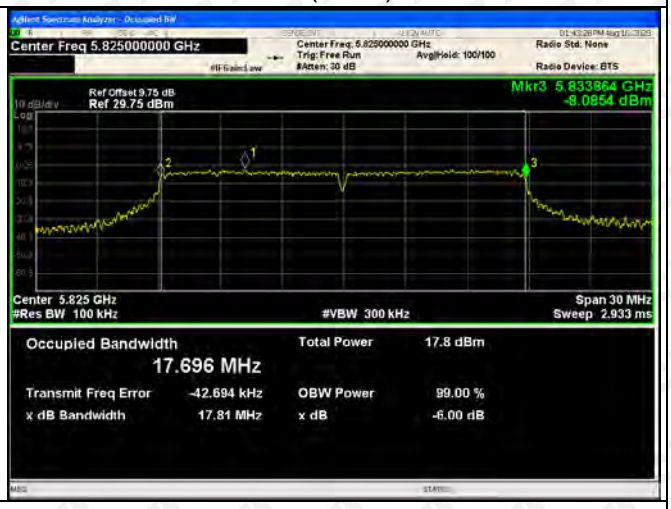


802.11ac(VH20)-5745



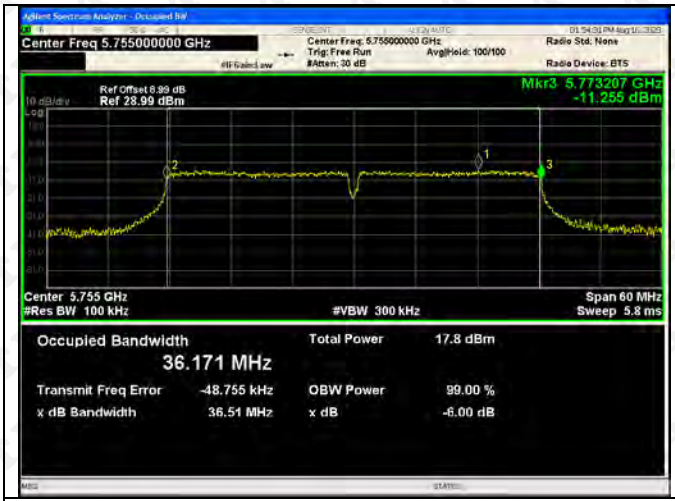
802.11ac(VH20)-5785

802.11ac(VH20)-5825

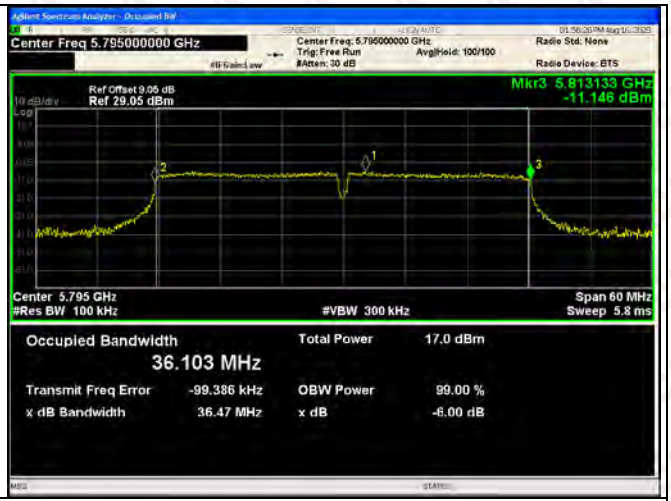


802.11ac(VH40)-5755

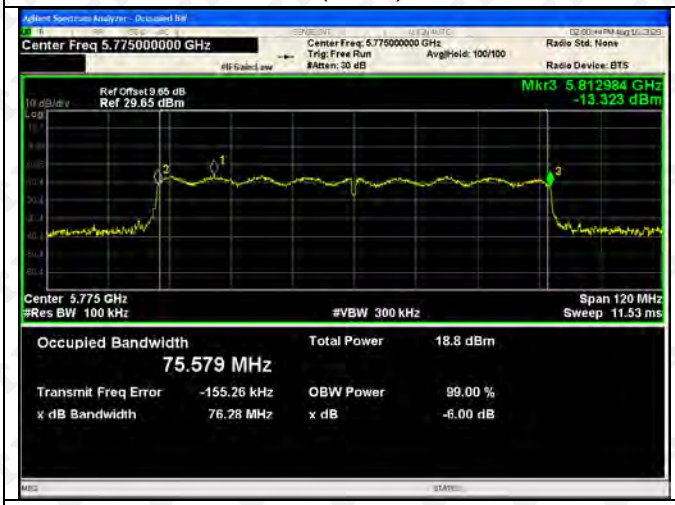
802.11ac(VH40)-5795



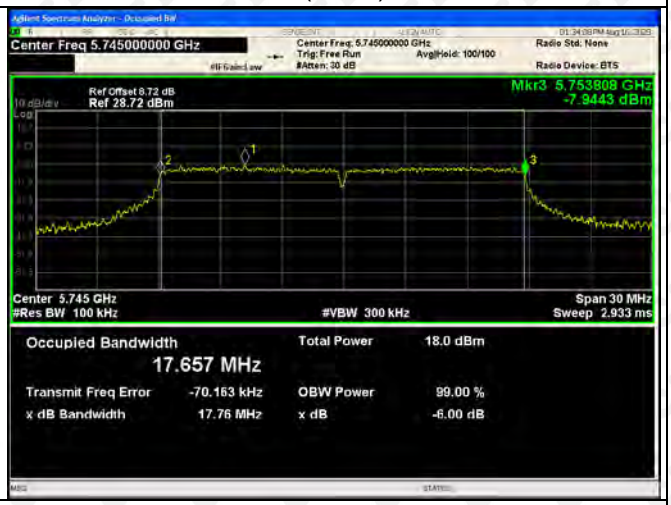
802.11ac(VH80)-5775



802.11n(HT20)-5745



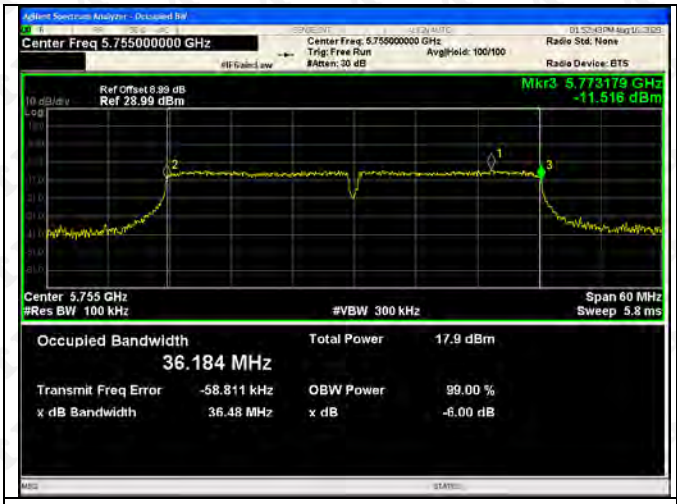
802.11n(HT20)-5785



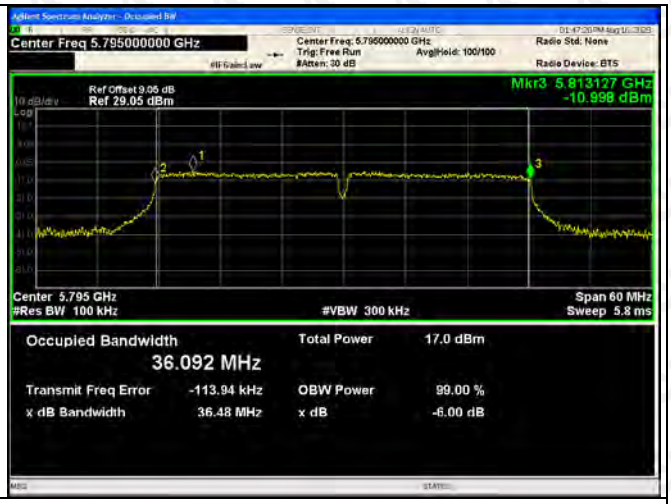
802.11n(HT20)-5825

5802.11n(HT40)-5755

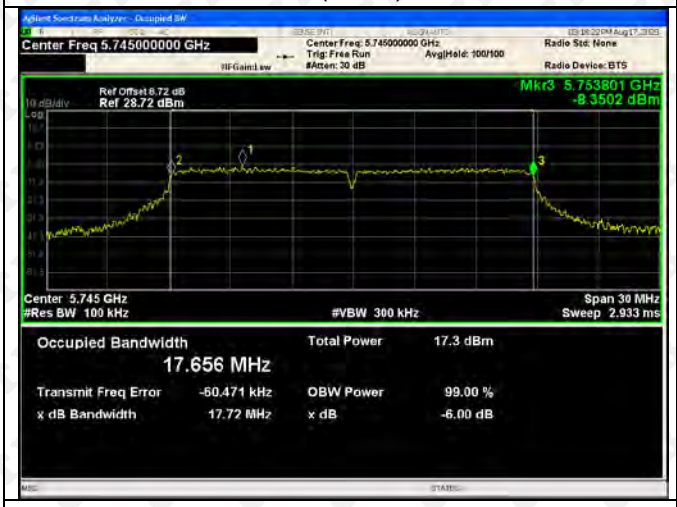
802.11n(HT40)-5795



802.11ax(VH20)-5745

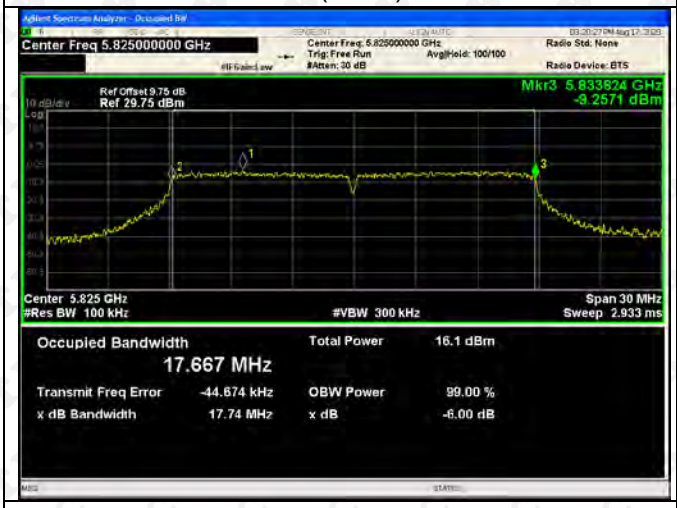


802.11ax(VH20)-5785

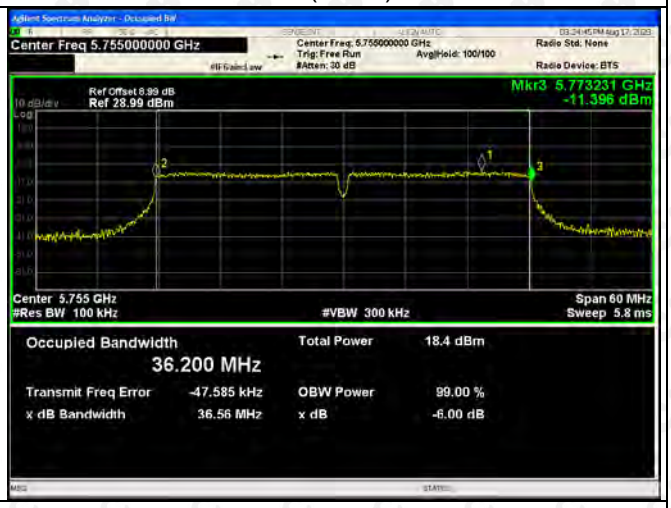


802.11ax(VH20)-5825

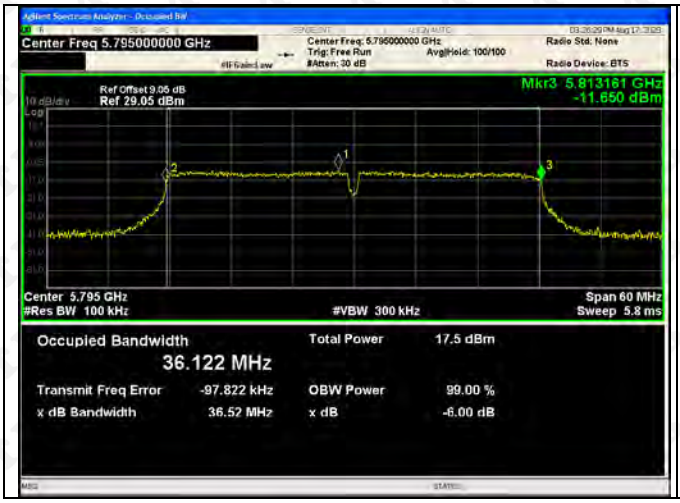
802.11ax(VH40)-5755

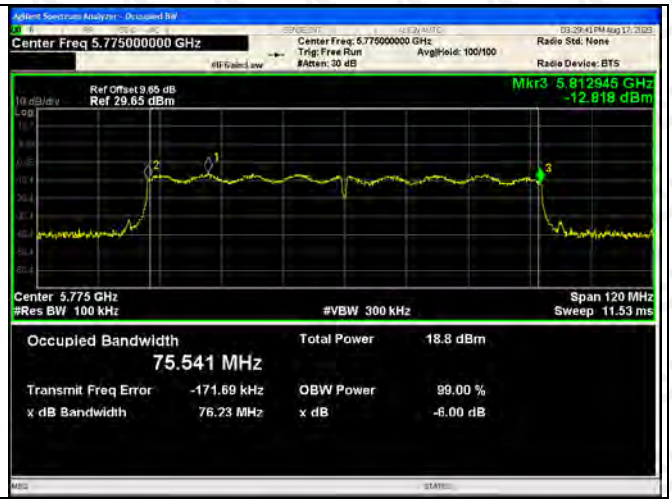


802.11ax(VH40)-5795



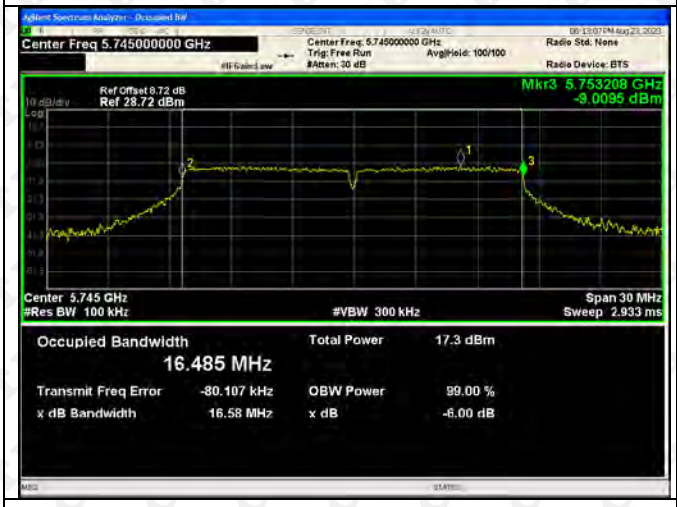
802.11ax(VH80)-5775


Agilent Spectrum Analyzer - Occupied BW
Center Freq 5.795000000 GHz
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Ref Offset 9.05 dB
10 dB/div
Ref 29.05 dBm
Mkr3 5.813161 GHz
-11.650 dBm
Center 5.795 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 60 MHz
Sweep 5.8 ms
Occupied Bandwidth
36.122 MHz
Total Power 17.5 dBm
Transmit Freq Error -97.822 kHz
OBW Power 99.00 %
x dB Bandwidth 36.52 MHz
x dB -6.00 dB


Agilent Spectrum Analyzer - Occupied BW
Center Freq 5.775000000 GHz
Center Freq: 5.775000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Ref Offset 9.65 dB
10 dB/div
Ref 29.65 dBm
Mkr3 5.812945 GHz
-12.818 dBm
Center 5.775 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 120 MHz
Sweep 11.53 ms
Occupied Bandwidth
75.541 MHz
Total Power 18.8 dBm
Transmit Freq Error -171.69 kHz
OBW Power 99.00 %
x dB Bandwidth 76.23 MHz
x dB -6.00 dB

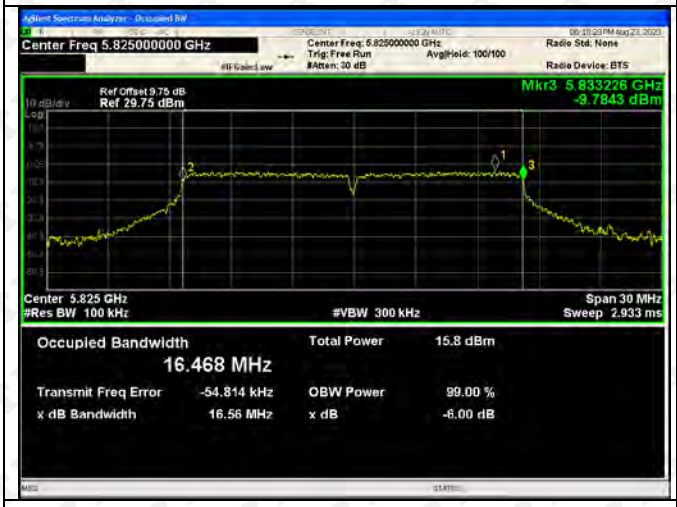
Test Graph
ANT 2
5745-5825MHz
-6dB OBW

802.11a-5745



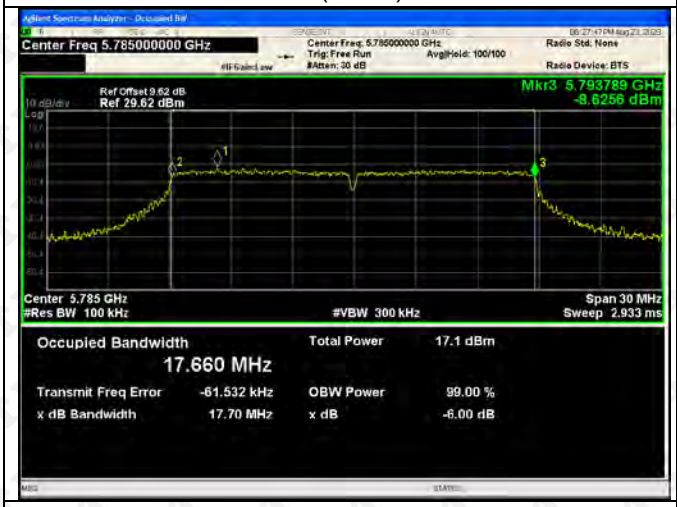
802.11a-5785

802.11a-5825

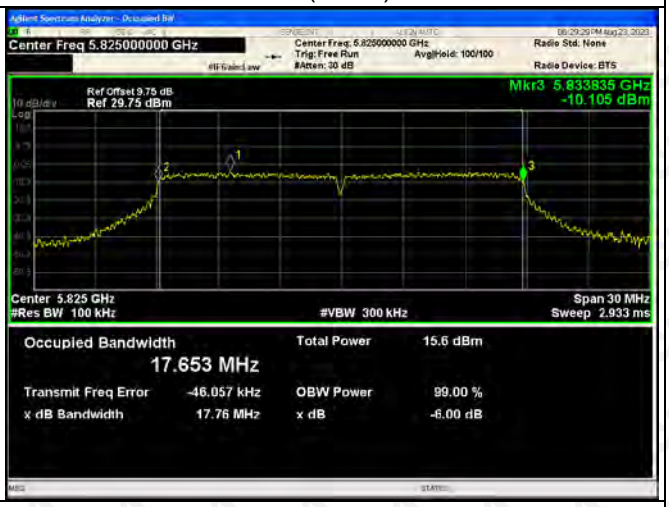


802.11ac(VH20)-5745

802.11ac(VH20)-5785

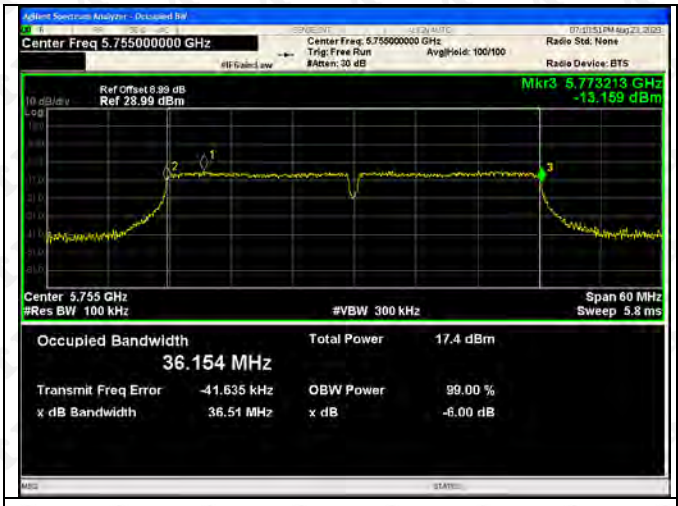


802.11ac(VH20)-5825

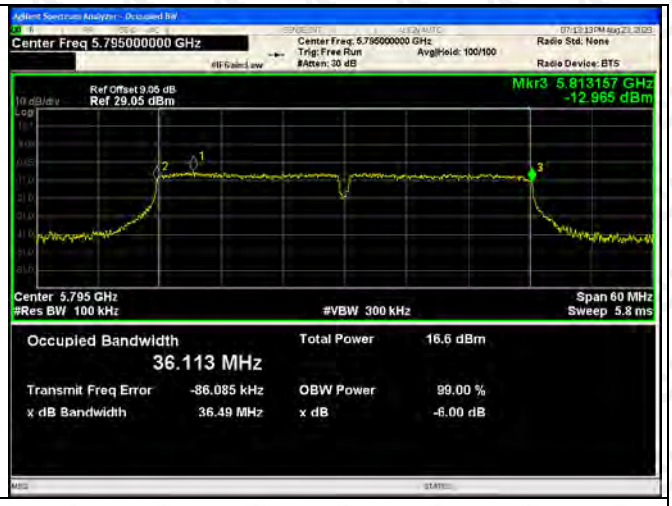


802.11ac(VH40)-5755

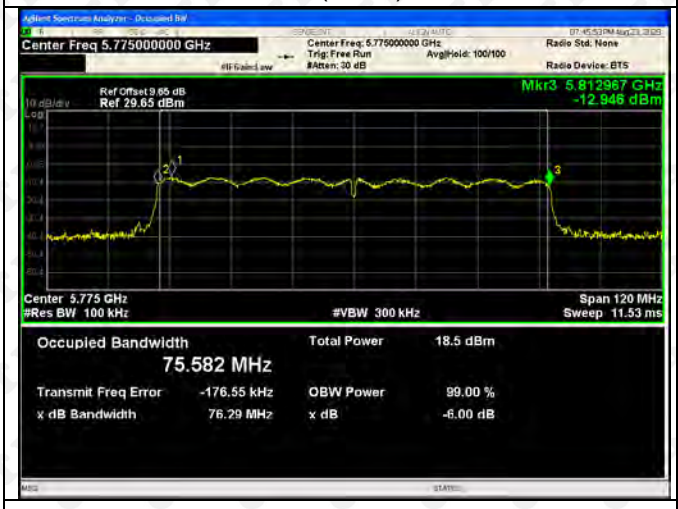
802.11ac(VH40)-5795



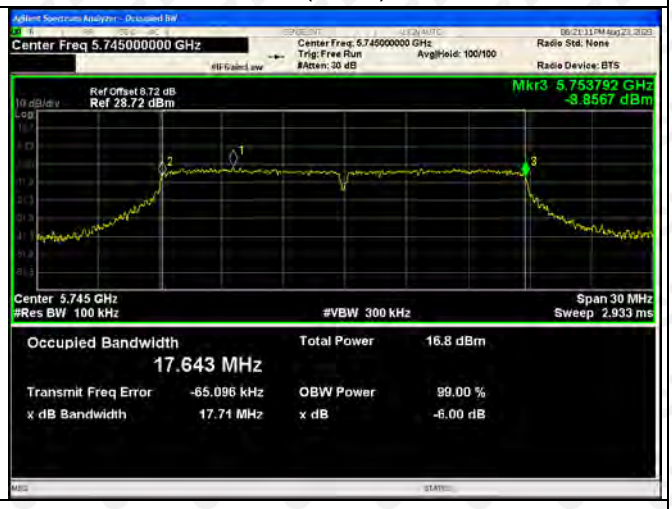
802.11ac(VH80)-5775



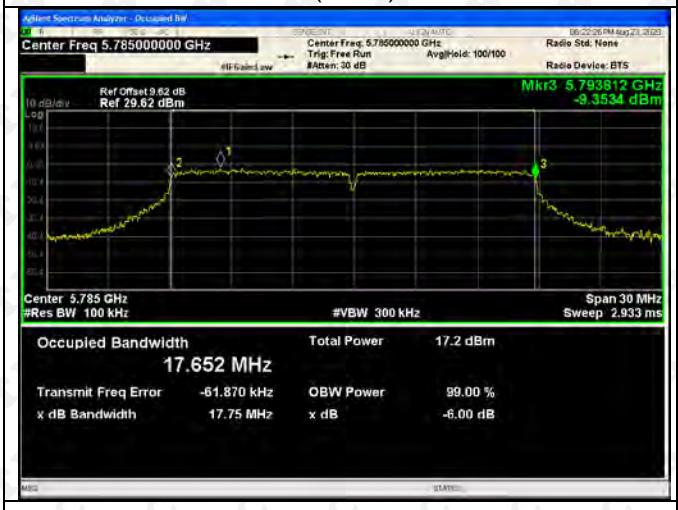
802.11n(HT20)-5745



802.11n(HT20)-5785

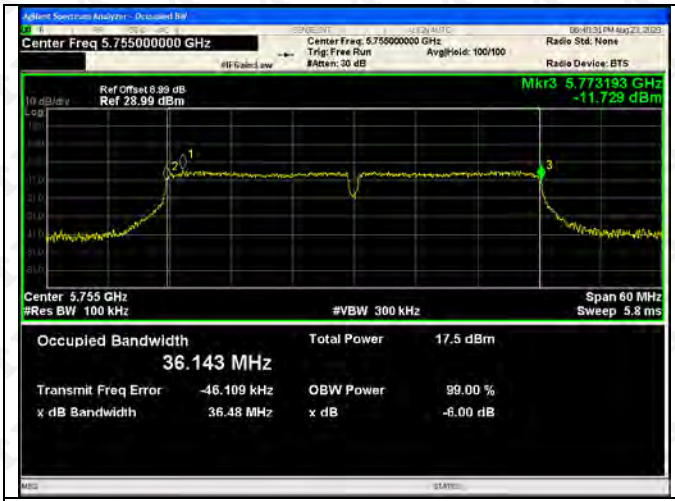


802.11n(HT20)-5825

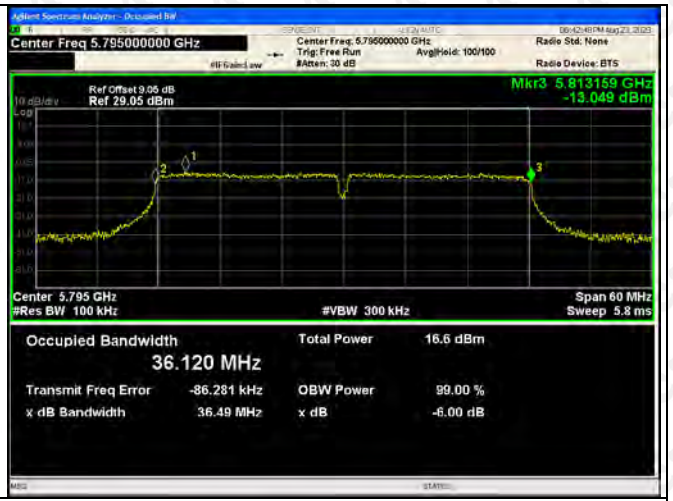


5802.11n(HT40)-5755

802.11n(HT40)-5795



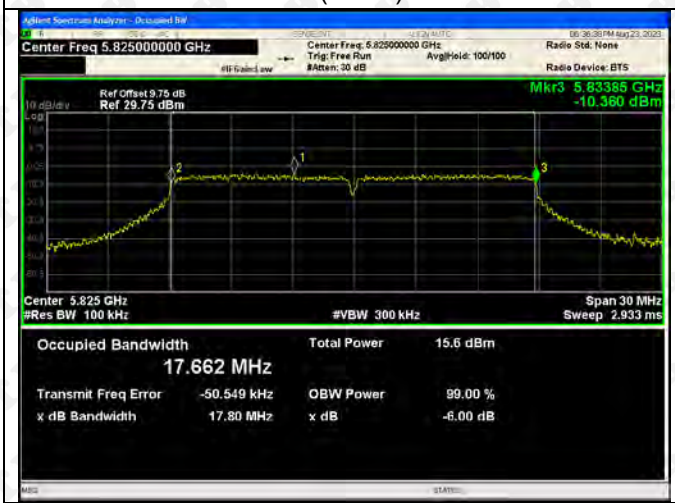
802.11ax(VH20)-5745



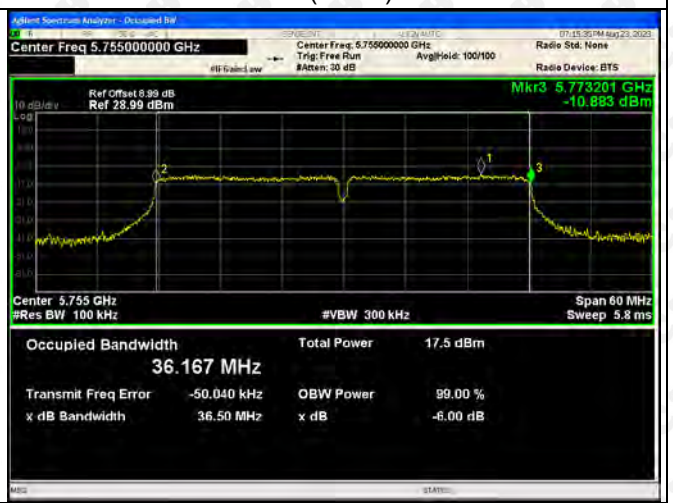
802.11ax(VH20)-5785

802.11ax(VH20)-5825

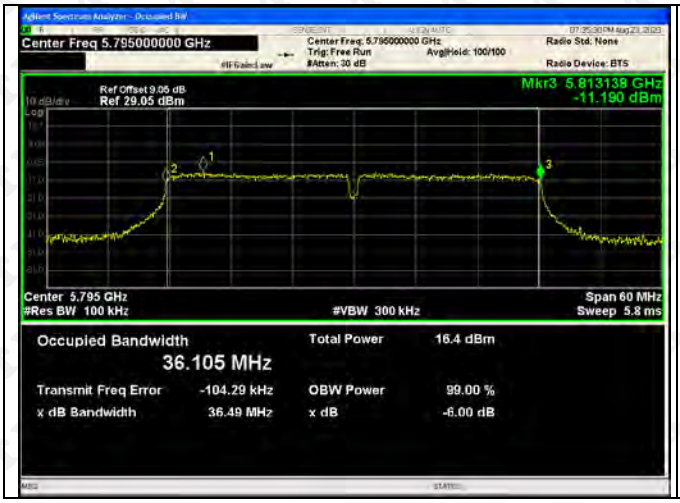
802.11ax(VH40)-5755

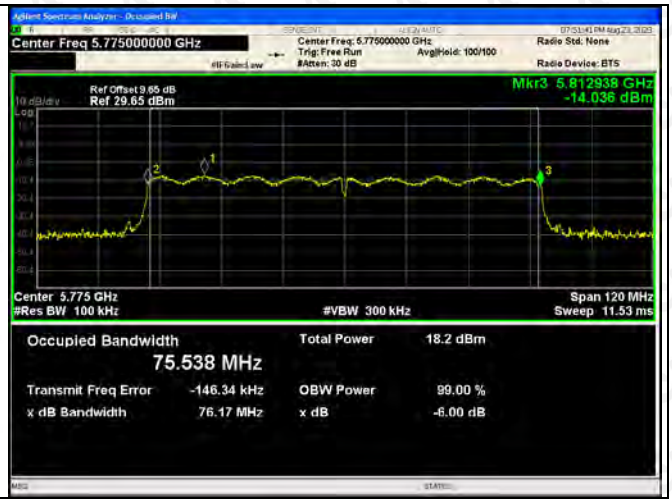


802.11ax(VH40)-5795



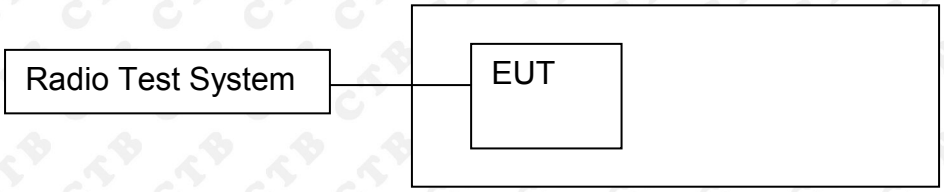
802.11ax(VH80)-5775


Agilent Spectrum Analyzer - Occupied BW
Center Freq 5.795000000 GHz
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Ref Offset 9.05 dB
10 dB/div
Ref 29.05 dBm
Mkr3 5.813138 GHz
-11.190 dBm
Center 5.795 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 60 MHz
Sweep 5.8 ms
Occupied Bandwidth
36.105 MHz
Total Power 16.4 dBm
Transmit Freq Error -104.29 kHz
OBW Power 99.00 %
x dB Bandwidth 36.49 MHz
x dB -6.00 dB


Agilent Spectrum Analyzer - Occupied BW
Center Freq 5.775000000 GHz
Center Freq: 5.775000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Ref Offset 9.65 dB
10 dB/div
Ref 29.65 dBm
Mkr3 5.812938 GHz
-14.036 dBm
Center 5.775 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 120 MHz
Sweep 11.53 ms
Occupied Bandwidth
75.538 MHz
Total Power 18.2 dBm
Transmit Freq Error -146.34 kHz
OBW Power 99.00 %
x dB Bandwidth 76.17 MHz
x dB -6.00 dB

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.

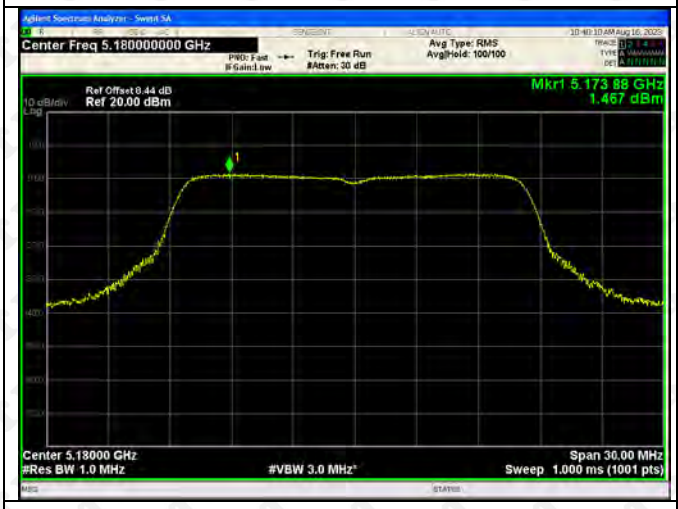
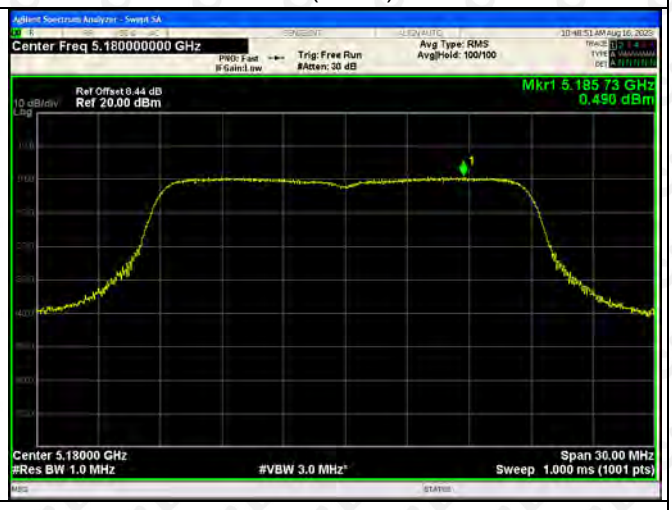
11.4 Test Result

ANT 1+ANT2

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	1.467	0.403	/	11	Pass
	5200	1.419	0.578	/	11	Pass
	5240	2.286	1.008	/	11	Pass
802.11ac(VH20)	5180	0.49	-0.049	3.239	11	Pass
	5200	0.764	0.228	3.515	11	Pass
	5240	1.118	0.381	3.775	11	Pass
802.11ac(VH40)	5190	-2.46	-3.165	0.212	11	Pass
	5230	-1.877	-2.673	0.754	11	Pass
802.11ac(VH80)	5210	-3.88	-4.872	-1.337	11	Pass
]802.11n(VH20)	5180	1.174	-0.293	3.512	11	Pass
	5200	1.017	-0.128	3.492	11	Pass
	5240	1.581	0.548	4.105	11	Pass
802.11n(VH40)	5190	-2.383	-2.969	0.344	11	Pass
	5230	-1.825	-2.56	0.833	11	Pass
802.11ax(VH20)	5180	0.61	-4.908	1.684	11	Pass
	5200	0.805	-0.034	3.416	11	Pass
	5240	0.985	0.232	3.635	11	Pass
802.11ax(VH40)	5190	-2.341	0.582	2.372	11	Pass
	5230	-2.161	-2.97	0.464	11	Pass
802.11ax(VH80)	5210	-3.871	-1.75	0.328	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	-0.852	-2.264	/	30	Pass
	5785	-0.393	-2.179	/	30	Pass
	5825	-2.78	-3.758	/	30	Pass
802.11ac(VH20)	5745	-2.154	-2.827	0.533	30	Pass
	5785	-1.887	-2.691	0.740	30	Pass
	5825	-1.968	-4.222	0.060	30	Pass
802.11ac(VH40)	5755	-5.238	-5.611	-2.410	30	Pass
	5795	-5.887	-6.247	-3.053	30	Pass
802.11ac(VH80)	5775	-6.149	-7.022	-3.553	30	Pass
]802.11n(VH20)	5745	-1.783	-2.707	0.790	30	Pass
	5785	-1.55	-2.523	1.001	30	Pass
	5825	-3.226	-3.982	-0.577	30	Pass
802.11n(VH40)	5755	-5.171	-5.584	-2.362	30	Pass
	5795	-5.618	-6.544	-3.046	30	Pass
802.11ax(VH20)	5745	-2.377	-7.071	-1.108	30	Pass
	5785	-2.008	-2.75	0.647	30	Pass
	5825	-3.727	-2.664	-0.153	30	Pass
802.11ax(VH40)	5755	-4.908	-4.038	-1.441	30	Pass
	5795	-5.503	-5.53	-2.506	30	Pass
802.11ax(VH80)	5775	-6.369	-6.106	-3.225	30	Pass

ANT 1
Test Graph
5180-5240MHz

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

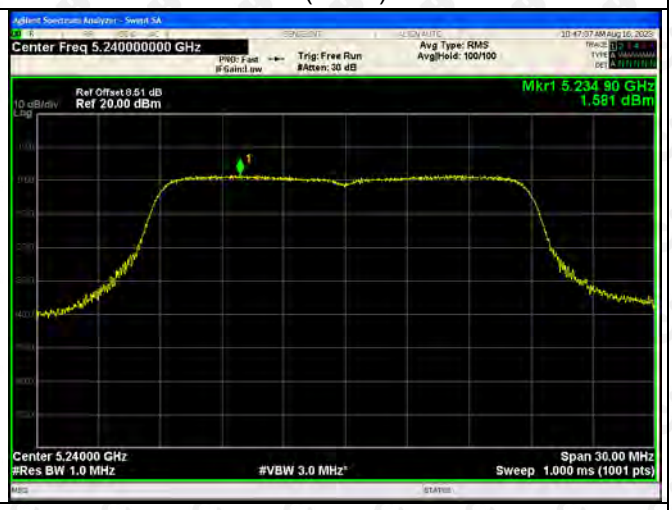
802.11ac(VH80)-5210

802.11n(HT20)-5180

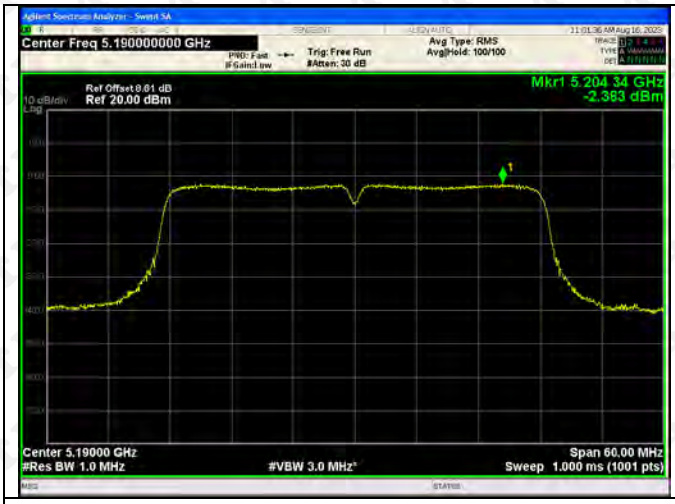
802.11n(HT20)-5200

802.11n(HT20)-5240

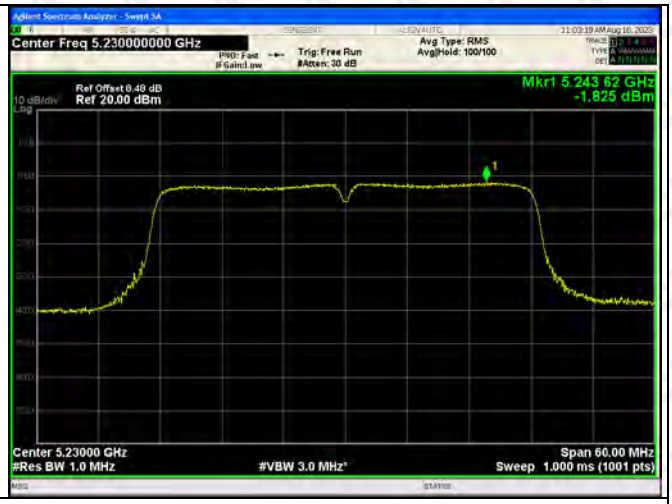
802.11n(HT40)-5190



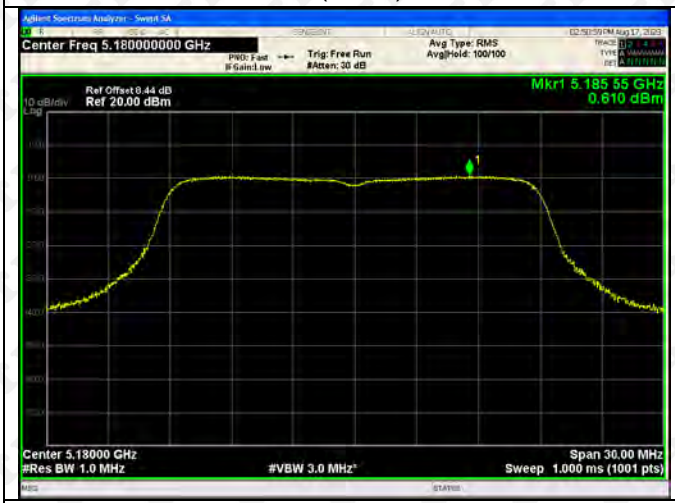
802.11n(HT40)-5230



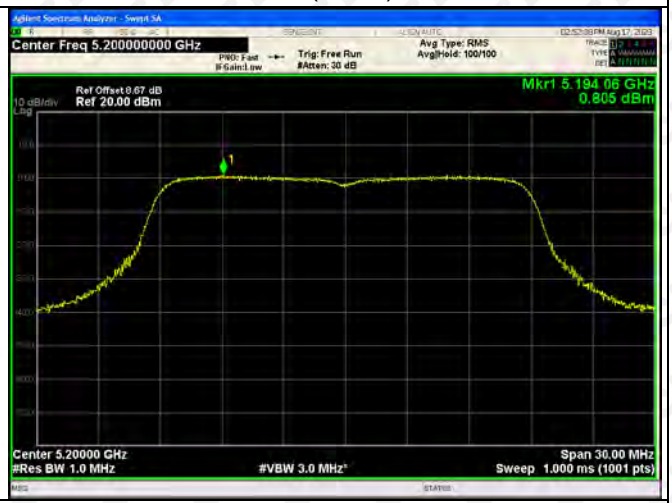
802.11ax(VH20)-5180



802.11ax(VH20)-5200

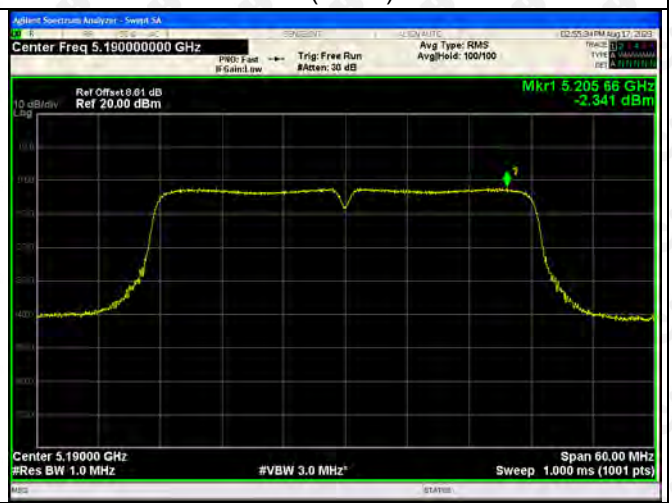


802.11ax(VH20)-5240

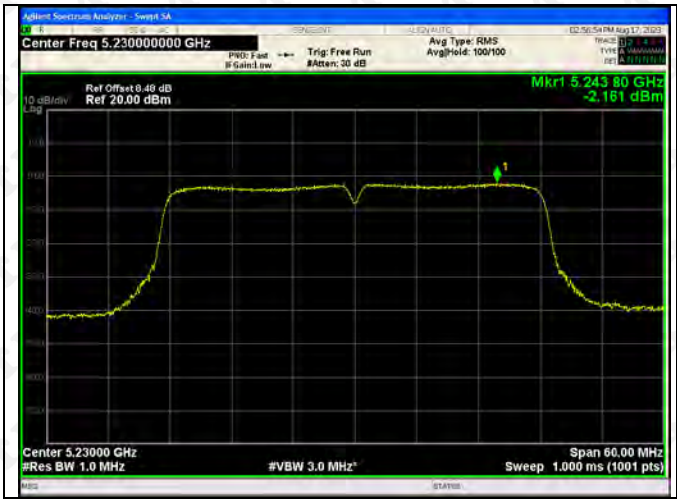


802.11ax(VH40)-5190

802.11ax(VH40)-5230

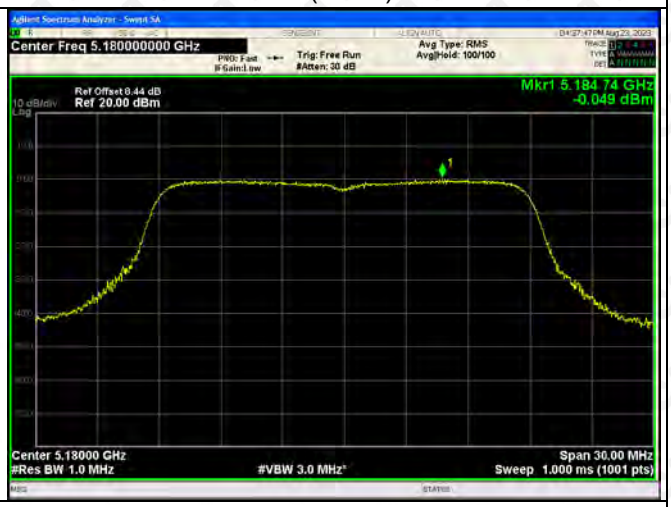


802.11ax(VH80)-5210

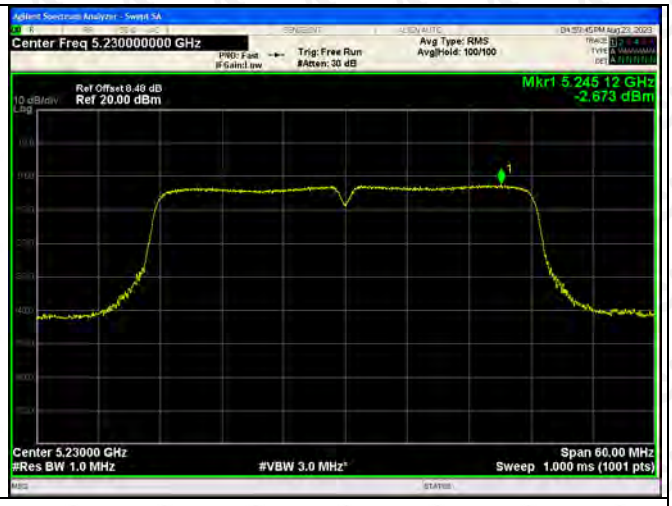

Agilent Spectrum Analyzer - Swept SA
Center Freq 5.230000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 100/100
Ref Offset 8.48 dB
10 dB/div
Ref 20.00 dBm
Mkr1 5.243 80 GHz
-2.161 dBm
Center 5.23000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Span 60.00 MHz
Sweep 1.000 ms (1001 pts)


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.210000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 100/100
Ref Offset 8.52 dB
10 dB/div
Ref 20.00 dBm
Mkr1 5.237 48 GHz
-3.871 dBm
Center 5.21000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Span 120.0 MHz
Sweep 1.000 ms (1001 pts)

ANT 2

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

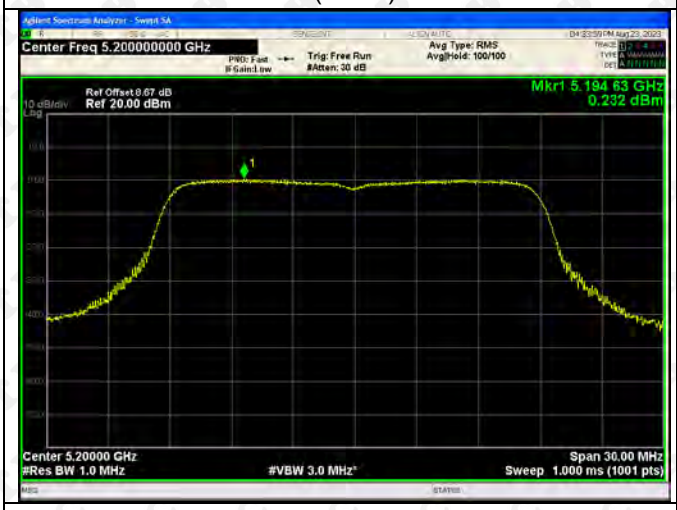
802.11ac(VH80)-5210



802.11n(HT20)-5180

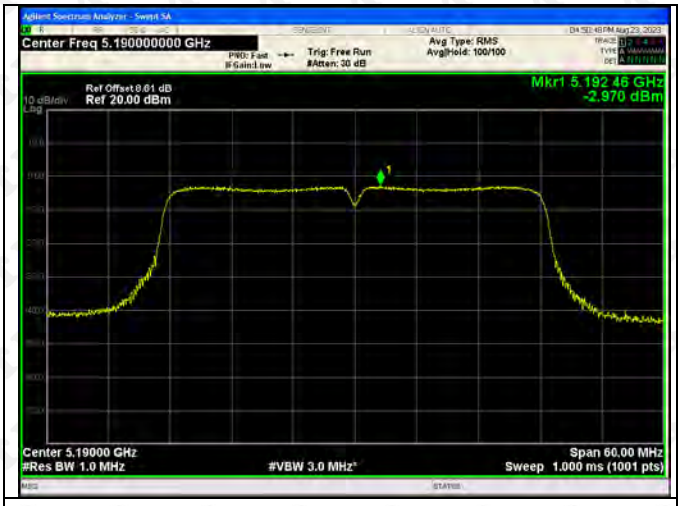
802.11n(HT20)-5200

802.11n(HT20)-5240



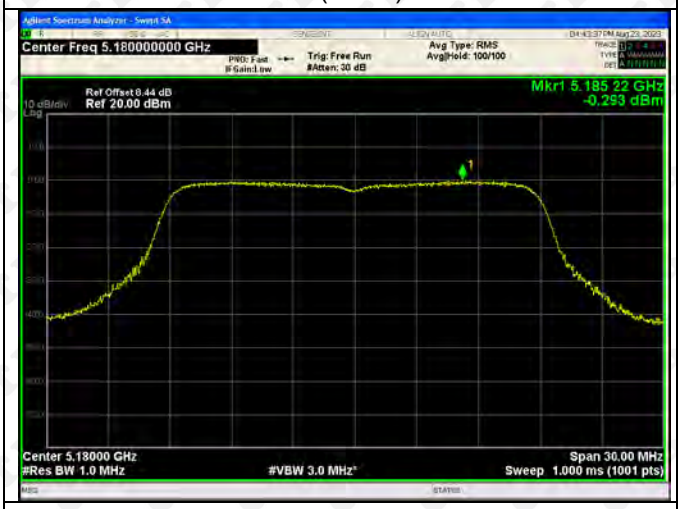
802.11n(HT40)-5190

802.11n(HT40)-5230



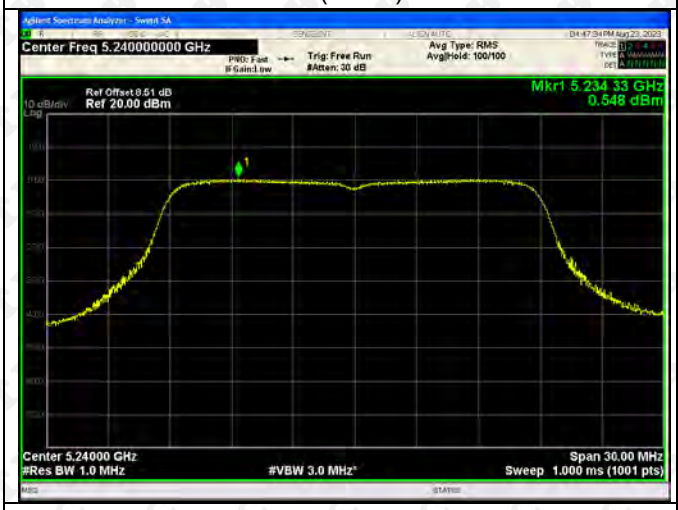
802.11ax(VH20)-5180

802.11ax(VH20)-5200



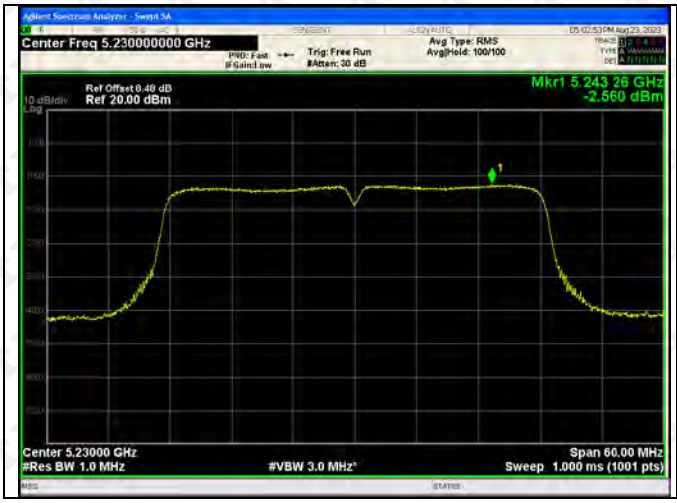
802.11ax(VH20)-5240

802.11ax(VH40)-5190



802.11ax(VH40)-5230

802.11ax(VH80)-5210


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.230000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold: 100/100
Ref Offset 8.48 dB
10 dB/div
Ref 20.00 dBm
Mkr1 5.243 26 GHz
-2.560 dBm
Center 5.23000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Span 60.00 MHz
Sweep 1.000 ms (1001 pts)


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.210000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold: 100/100
Ref Offset 8.52 dB
10 dB/div
Ref 20.00 dBm
Mkr1 5.237 36 GHz
-4.908 dBm
Center 5.21000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Span 120.0 MHz
Sweep 1.000 ms (1001 pts)

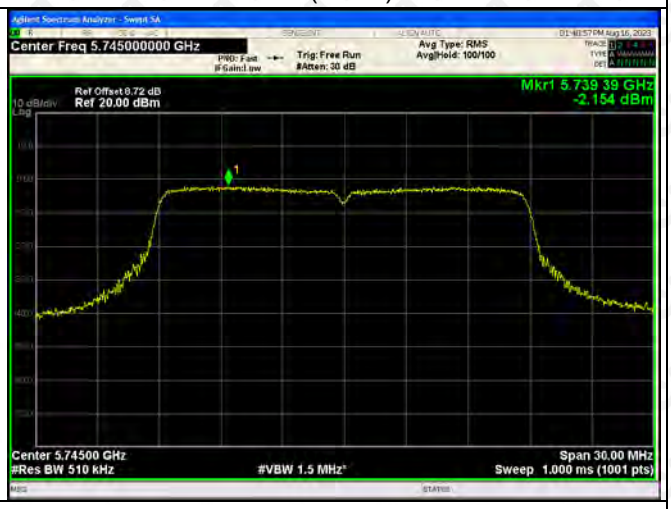
ANT1:
5745-5825MHz

802.11a-5745

802.11a-5785

802.11a-5825

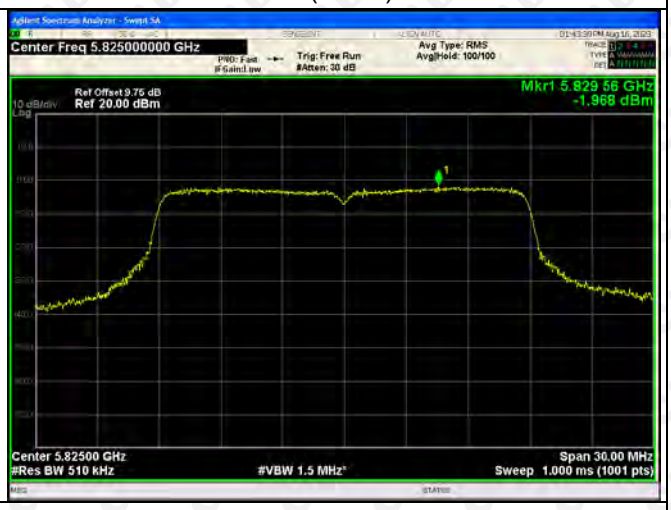
802.11ac(VH20)-5745



802.11ac(VH20)-5785

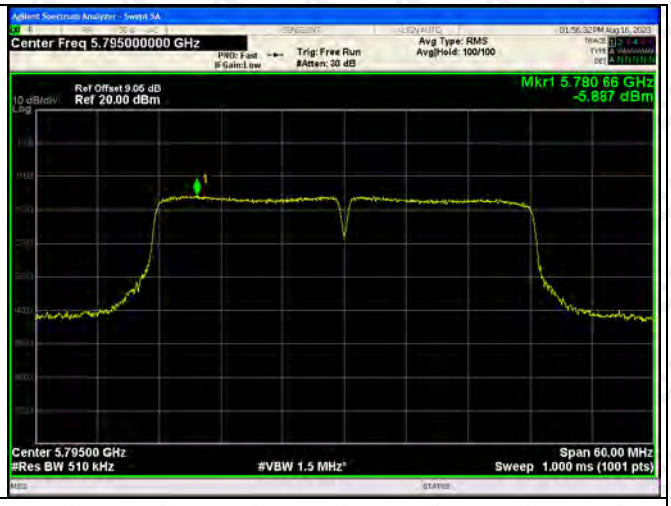
802.11ac(VH20)-5825

802.11ac(VH40)-5755



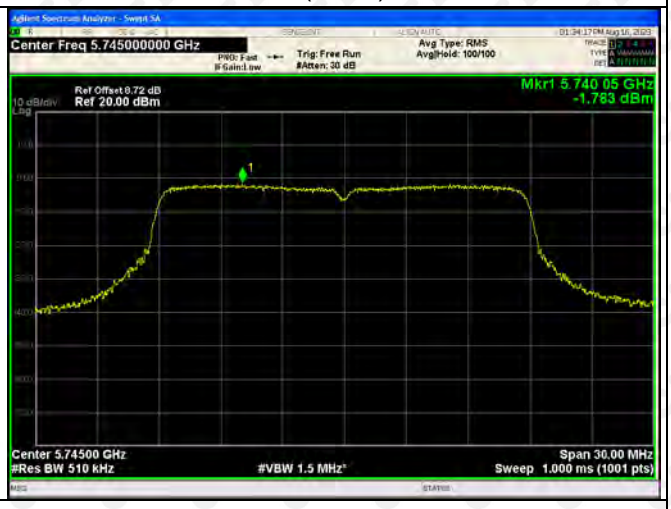
802.11ac(VH40)-5795

802.11ac(VH80)-5775



802.11n(HT20)-5745

802.11n(HT20)-5785

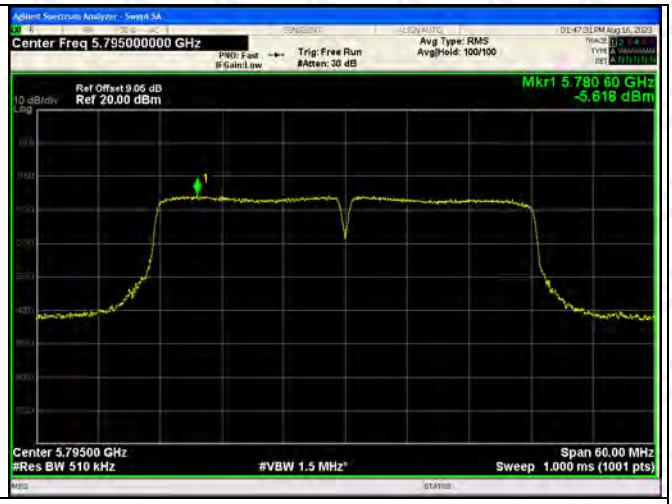


802.11n(HT20)-5825

5802.11n(HT40)-5755

802.11n(HT40)-5795

802.11ax(VH20)-5745

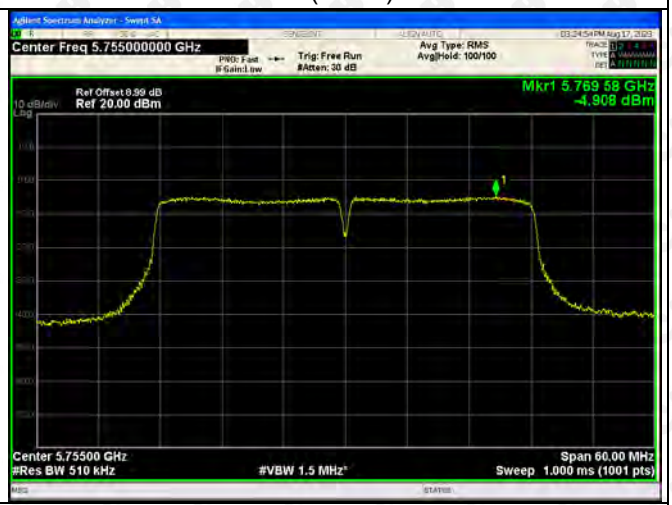


802.11ax(VH20)-5785

802.11ax(VH20)-5825

802.11ax(VH40)-5755

802.11ax(VH40)-5795

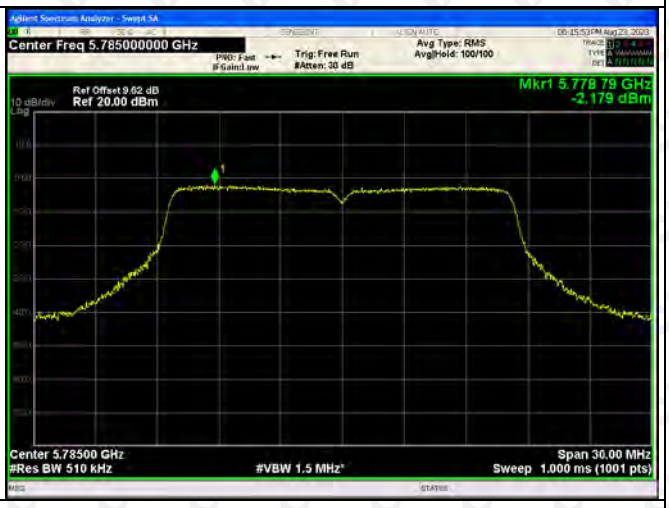
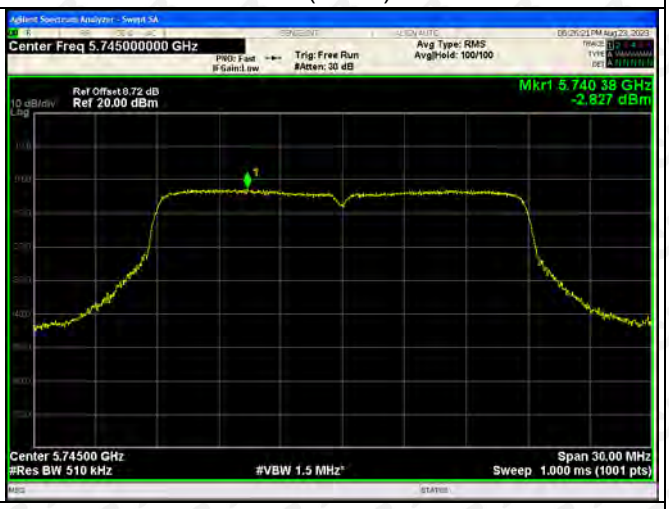


802.11ax(VH80)-5775

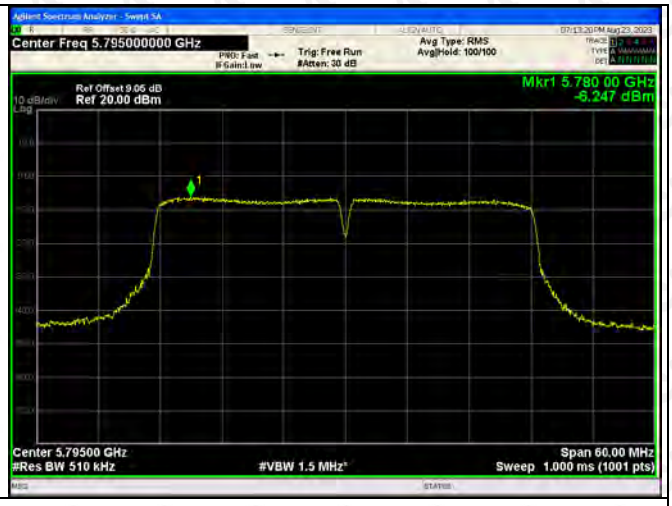

Agilent Spectrum Analyzer - Swept SA
Center Freq 5.795000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 100/100
Ref Offset 9.06 dB
10 dB/div
Ref 20.00 dBm
Mkr1 5.782 10 GHz
-5.503 dBm
Center 5.79500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 60.00 MHz
Sweep 1.000 ms (1001 pts)


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.775000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 100/100
Ref Offset 9.65 dB
10 dB/div
Ref 20.00 dBm
Mkr1 5.748 00 GHz
-6.369 dBm
Center 5.77500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 120.0 MHz
Sweep 1.000 ms (1001 pts)

ANT2:

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

802.11ac(VH80)-5775



802.11n(HT20)-5745

802.11n(HT20)-5785

802.11n(HT20)-5825

5802.11n(HT40)-5755

802.11n(HT40)-5795

802.11ax(VH20)-5745

802.11ax(VH20)-5785

802.11ax(VH20)-5825

802.11ax(VH40)-5755

802.11ax(VH40)-5795

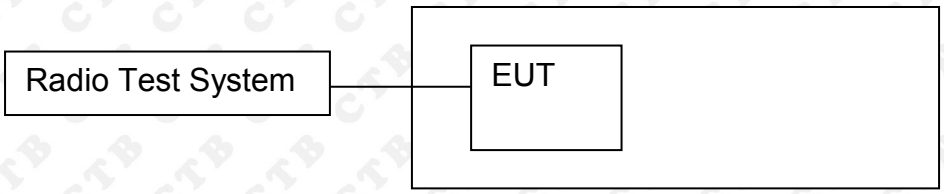
802.11ax(VH80)-5775


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.795000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 100/100
Ref Offset 9.06 dB
10 dB/div
Ref 20.00 dBm
Mkr1 5.780 96 GHz
-6.544 dBm
Center 5.79500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 60.00 MHz
Sweep 1.000 ms (1001 pts)


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.775000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 100/100
Ref Offset 9.65 dB
10 dB/div
Ref 20.00 dBm
Mkr1 5.740 08 GHz
-7.071 dBm
Center 5.77500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 120.0 MHz
Sweep 1.000 ms (1001 pts)

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 (5180-5240MHz)

ANT1

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	12.0	5180.1234	5180	0.1234	23.8249
		V max (V)	13.2	5180.0382	5180	0.0382	7.3786
		V min (V)	10.8	5180.0188	5180	0.0188	3.6345
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5180.0884	5180	0.0884	17.0584
		T (°C)	-10	5180.1128	5180	0.1128	21.7761
		T (°C)	0	5180.0712	5180	0.0712	13.7528
		T (°C)	10	5180.0392	5180	0.0392	7.5742
		T (°C)	20	5180.0794	5180	0.0794	15.3348
		T (°C)	30	5180.0192	5180	0.0192	3.7020
		T (°C)	40	5180.1093	5180	0.1093	21.1096
		T (°C)	50	5180.0109	5180	0.0109	2.1004
		T (°C)	60	5180.0056	5180	0.0056	1.0900
		T (°C)	70	5180.0241	5180	0.0241	4.6514
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)	12.0	5200.0056	5200	0.0056	1.0720
		V max (V)	13.2	5200.0092	5200	0.0092	1.7699
		V min (V)	10.8	5200.0324	5200	0.0324	6.2224
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5200.0365	5200	0.0365	7.0173
		T (°C)	-10	5200.0517	5200	0.0517	9.9451
		T (°C)	0	5200.0533	5200	0.0533	10.2556
		T (°C)	10	5200.0055	5200	0.0055	1.0489
		T (°C)	20	5200.0490	5200	0.0490	9.4156
		T (°C)	30	5200.0323	5200	0.0323	6.2071
		T (°C)	40	5200.0086	5200	0.0086	1.6494
		T (°C)	50	5200.0077	5200	0.0077	1.4889
		T (°C)	60	5200.0448	5200	0.0448	8.6151
		T (°C)	70	5200.0428	5200	0.0428	8.2265
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)	12.0	5240.0121	5240	0.0121	2.3098
		V max (V)	13.2	5240.0410	5240	0.0410	7.8268
		V min (V)	10.8	5240.0346	5240	0.0346	6.6086
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5240.0478	5240	0.0478	9.1223
		T (°C)	-10	5240.0225	5240	0.0225	4.2875
		T (°C)	0	5240.0510	5240	0.0510	9.7393
		T (°C)	10	5240.0221	5240	0.0221	4.2202
		T (°C)	20	5240.0385	5240	0.0385	7.3511
		T (°C)	30	5240.0031	5240	0.0031	0.5972
		T (°C)	40	5240.0022	5240	0.0022	0.4155
		T (°C)	50	5240.0520	5240	0.0520	9.9226
		T (°C)	60	5240.0186	5240	0.0186	3.5491
		T (°C)	70	5240.0249	5240	0.0249	4.7554
Limits				±20ppm			
Result				Complies			

TX Frequency (5180-5240MHz)

ANT2

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	12.0	5180.0715	5180	0.0715	13.8079
		V max (V)	13.2	5180.0901	5180	0.0901	17.3968
		V min (V)	10.8	5180.0600	5180	0.0600	11.5903
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5180.0117	5180	0.0117	2.2624
		T (°C)	-10	5180.0860	5180	0.0860	16.5972
		T (°C)	0	5180.1222	5180	0.1222	23.5859
		T (°C)	10	5180.0910	5180	0.0910	17.5723
		T (°C)	20	5180.0689	5180	0.0689	13.3107
		T (°C)	30	5180.0467	5180	0.0467	9.0073
		T (°C)	40	5180.1182	5180	0.1182	22.8254
		T (°C)	50	5180.0422	5180	0.0422	8.1384
		T (°C)	60	5180.0148	5180	0.0148	2.8542
		T (°C)	70	5180.0612	5180	0.0612	11.8147
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)	12.0	5200.0412	5200	0.0412	7.9309
		V max (V)	13.2	5200.0011	5200	0.0011	0.2199
		V min (V)	10.8	5200.0055	5200	0.0055	1.0606
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5200.0262	5200	0.0262	5.0303
		T (°C)	-10	5200.0476	5200	0.0476	9.1479
		T (°C)	0	5200.0405	5200	0.0405	7.7872
		T (°C)	10	5200.0228	5200	0.0228	4.3777
		T (°C)	20	5200.0269	5200	0.0269	5.1739
		T (°C)	30	5200.0419	5200	0.0419	8.0579
		T (°C)	40	5200.0147	5200	0.0147	2.8306
		T (°C)	50	5200.0431	5200	0.0431	8.2915
		T (°C)	60	5200.0034	5200	0.0034	0.6457
		T (°C)	70	5200.0445	5200	0.0445	8.5562
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)	12.0	5240.0209	5240	0.0209	3.9821
		V max (V)	13.2	5240.0144	5240	0.0144	2.7483
		V min (V)	10.8	5240.0454	5240	0.0454	8.6604
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5240.0320	5240	0.0320	6.1129
		T (°C)	-10	5240.0274	5240	0.0274	5.2272
		T (°C)	0	5240.0125	5240	0.0125	2.3821
		T (°C)	10	5240.0003	5240	0.0003	0.0552
		T (°C)	20	5240.0173	5240	0.0173	3.2972
		T (°C)	30	5240.0264	5240	0.0264	5.0475
		T (°C)	40	5240.0529	5240	0.0529	10.0870
		T (°C)	50	5240.0398	5240	0.0398	7.5896
		T (°C)	60	5240.0126	5240	0.0126	2.4112
		T (°C)	70	5240.0286	5240	0.0286	5.4653
Limits				±20ppm			
Result				Complies			

ANT1:

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)	12.0	5745.0505	5745	0.0505	8.7826
		V max (V)	13.2	5745.0028	5745	0.0028	0.4796
		V min (V)	10.8	5745.0505	5745	0.0505	8.7826
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5745.00911	5745	0.00911	1.5866
		T (°C)	-10	5745.00909	5745	0.00909	1.5814
		T (°C)	0	5745.00433	5745	0.00433	0.7530
		T (°C)	10	5745.00621	5745	0.00621	1.0802
		T (°C)	20	5745.00637	5745	0.00637	1.1090
		T (°C)	30	5745.00209	5745	0.00209	0.3640
		T (°C)	40	5745.00670	5745	0.00670	1.1658
		T (°C)	50	5745.01285	5745	0.01285	2.2367
		T (°C)	60	5745.01109	5745	0.01109	1.9311
		T (°C)	70	5745.00782	5745	0.00782	1.3609
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)	12.0	5785.0378	5785	0.0378	6.5281
		V max (V)	13.2	5785.0268	5785	0.0268	4.6358
		V min (V)	10.8	5785.0332	5785	0.0332	5.7468
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5785.00653	5785	0.00653	1.1290
		T (°C)	-10	5785.00695	5785	0.00695	1.2006
		T (°C)	0	5785.01116	5785	0.01116	1.9293
		T (°C)	10	5785.01276	5785	0.01276	2.2057
		T (°C)	20	5785.00019	5785	0.00019	0.0322
		T (°C)	30	5785.01092	5785	0.01092	1.8881
		T (°C)	40	5785.00916	5785	0.00916	1.5827
		T (°C)	50	5785.01225	5785	0.01225	2.1181
		T (°C)	60	5785.00391	5785	0.00391	0.6750
		T (°C)	70	5785.00576	5785	0.00576	0.9950
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)	12.0	5825.0753	5825	0.0753	12.9355
		V max (V)	13.2	5825.0706	5825	0.0706	12.1140
		V min (V)	10.8	5825.0472	5825	0.0472	8.0989
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5825.00838	5825	0.00838	1.4393
		T (°C)	-10	5825.00656	5825	0.00656	1.1258
		T (°C)	0	5825.00839	5825	0.00839	1.4401
		T (°C)	10	5825.01248	5825	0.01248	2.1423
		T (°C)	20	5825.00928	5825	0.00928	1.5938
		T (°C)	30	5825.00455	5825	0.00455	0.7815
		T (°C)	40	5825.01022	5825	0.01022	1.7547
		T (°C)	50	5825.00901	5825	0.00901	1.5463
		T (°C)	60	5825.01200	5825	0.01200	2.0594
		T (°C)	70	5825.00892	5825	0.00892	1.5311
Limits				5725-5850 MHz			
Result				Complies			

ANT2:

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)	12.0	5745.0295	5745	0.0295	5.1326
		V max (V)	13.2	5745.0455	5745	0.0455	7.9273
		V min (V)	10.8	5745.0452	5745	0.0452	7.8651
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5745.00711	5745	0.00711	1.2370
		T (°C)	-10	5745.00804	5745	0.00804	1.3992
		T (°C)	0	5745.00324	5745	0.00324	0.5639
		T (°C)	10	5745.00977	5745	0.00977	1.7009
		T (°C)	20	5745.00285	5745	0.00285	0.4963
		T (°C)	30	5745.00099	5745	0.00099	0.1723
		T (°C)	40	5745.01006	5745	0.01006	1.7519
		T (°C)	50	5745.00875	5745	0.00875	1.5232
		T (°C)	60	5745.01142	5745	0.01142	1.9879
		T (°C)	70	5745.00157	5745	0.00157	0.2735
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)	12.0	5785.0798	5785	0.0798	13.7959
		V max (V)	13.2	5785.0240	5785	0.0240	4.1490
		V min (V)	10.8	5785.0050	5785	0.0050	0.8563
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5785.00735	5785	0.00735	1.2706
		T (°C)	-10	5785.01047	5785	0.01047	1.8102
		T (°C)	0	5785.00189	5785	0.00189	0.3263
		T (°C)	10	5785.01279	5785	0.01279	2.2113
		T (°C)	20	5785.00118	5785	0.00118	0.2040
		T (°C)	30	5785.00428	5785	0.00428	0.7394
		T (°C)	40	5785.00854	5785	0.00854	1.4759
		T (°C)	50	5785.00844	5785	0.00844	1.4588
		T (°C)	60	5785.00984	5785	0.00984	1.7004
		T (°C)	70	5785.00876	5785	0.00876	1.5144
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)	12.0	5825.0810	5825	0.0810	13.9070
		V max (V)	13.2	5825.0191	5825	0.0191	3.2870
		V min (V)	10.8	5825.0487	5825	0.0487	8.3675
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5825.01211	5825	0.01211	2.0798
		T (°C)	-10	5825.01176	5825	0.01176	2.0194
		T (°C)	0	5825.00481	5825	0.00481	0.8265
		T (°C)	10	5825.00594	5825	0.00594	1.0199
		T (°C)	20	5825.00341	5825	0.00341	0.5861
		T (°C)	30	5825.00489	5825	0.00489	0.8387
		T (°C)	40	5825.00624	5825	0.00624	1.0708
		T (°C)	50	5825.00831	5825	0.00831	1.4264
		T (°C)	60	5825.00521	5825	0.00521	0.8946
		T (°C)	70	5825.00667	5825	0.00667	1.1443
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 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 internal antenna and no consideration of replacement. The best case gain of the antenna is Ant1(5.2G): 2.15dBi, Ant2(5.2G): 5.36dBi, Ant1(5.8G): 2.67dBi, Ant2(5.8G): 4.83dBi.

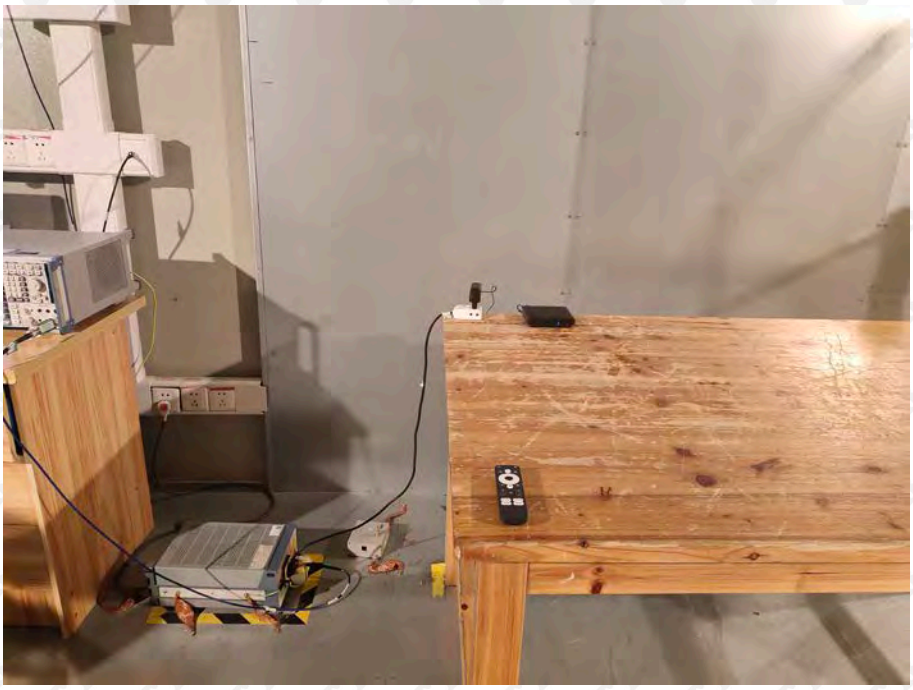
15. EUT TEST SETUP PHOTOGRAPHS

Spurious emissions

Below 1GHz

Above 1GHz

Conducted Emission



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