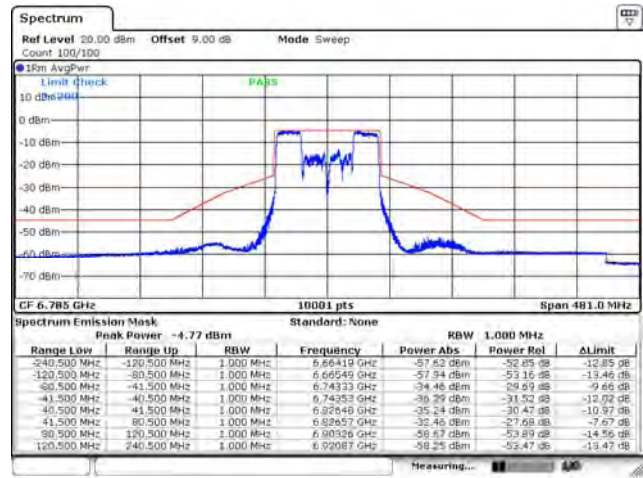
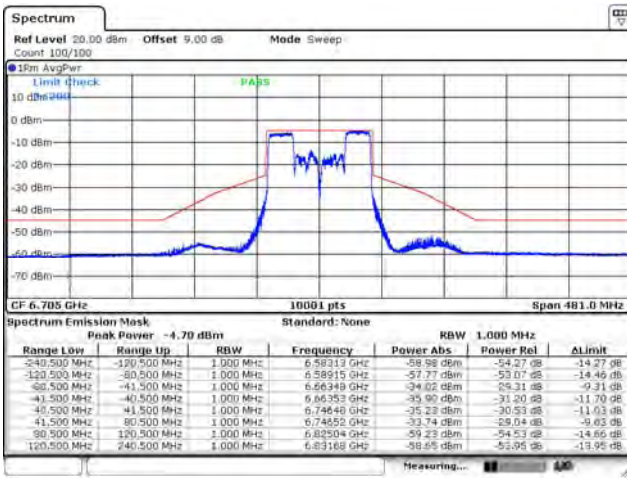


Spectrum Plot

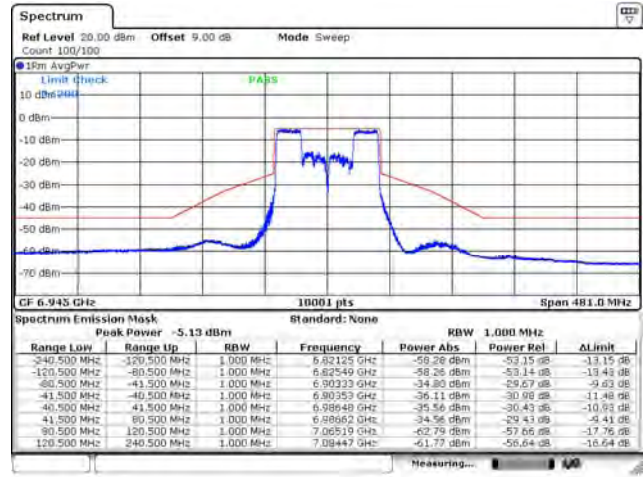
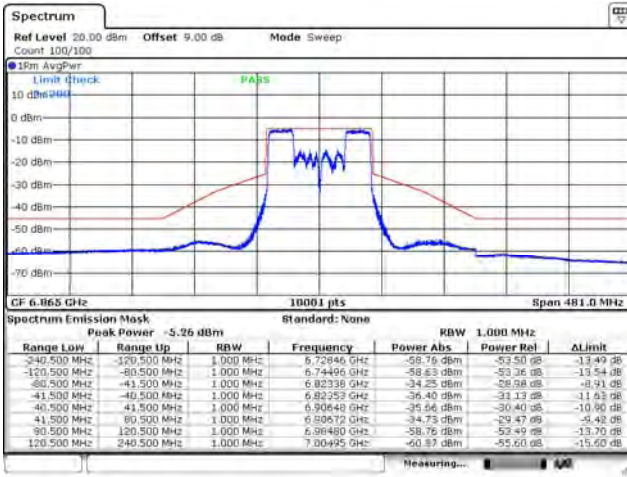
802.11ax (80 MHz) / Ant. 0 / 6705 MHz

802.11ax (80 MHz) / Ant. 0 / 6785 MHz



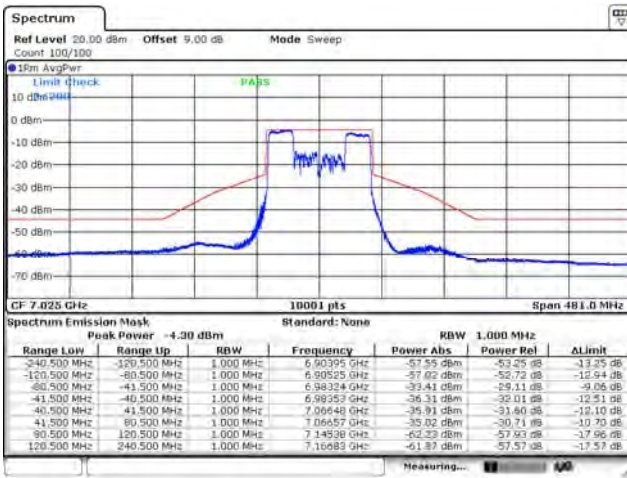
802.11ax (80 MHz) / Ant. 0 / 6865 MHz

802.11ax (80 MHz) / Ant. 0 / 6945 MHz



802.11ax (80 MHz) / Ant. 0 / 7025 MHz

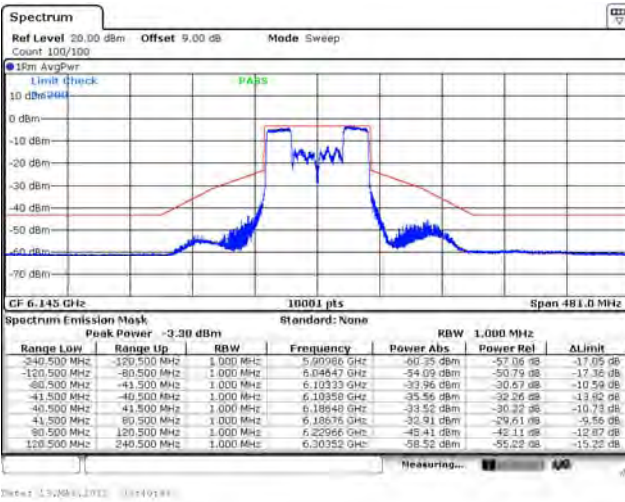
N/A



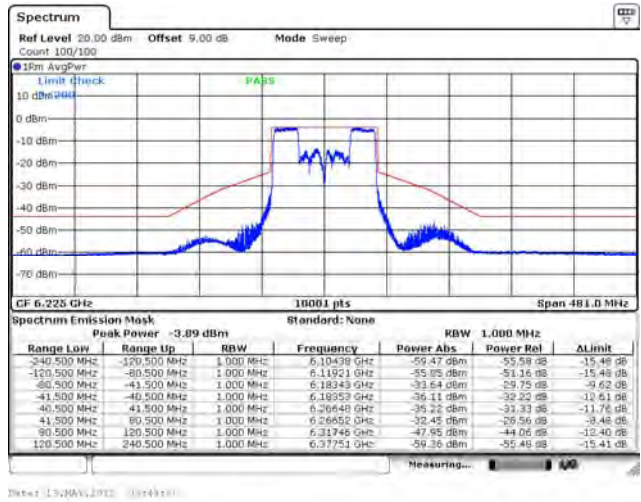
N/A

Spectrum Plot

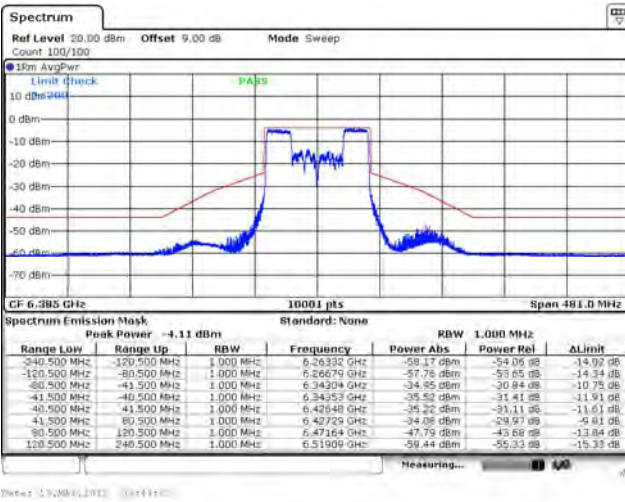
802.11ax (80 MHz) / Ant. 1 / 6145 MHz



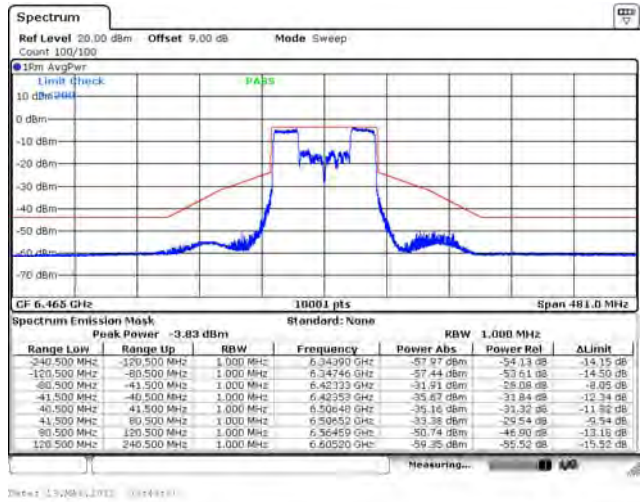
802.11ax (80 MHz) / Ant. 1 / 6225 MHz



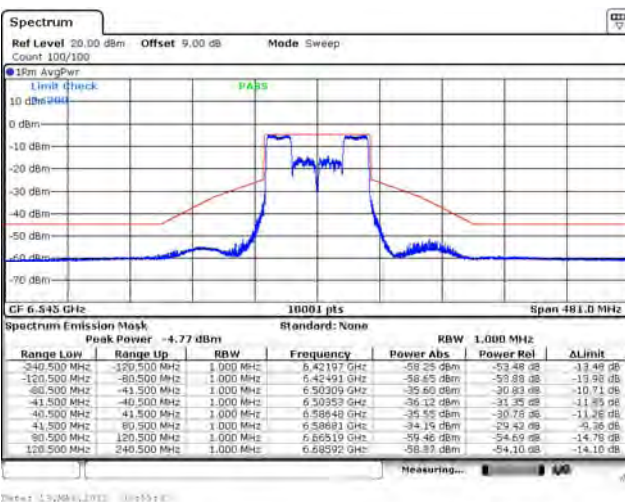
802.11ax (80 MHz) / Ant. 1 / 6385 MHz



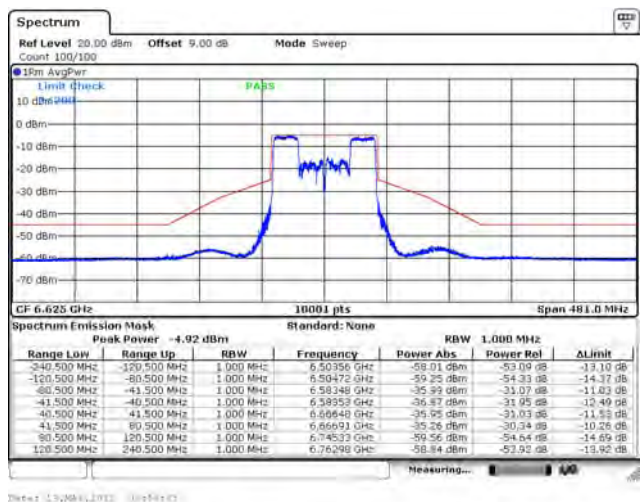
802.11ax (80 MHz) / Ant. 1 / 6465 MHz



802.11ax (80 MHz) / Ant. 1 / 6545 MHz



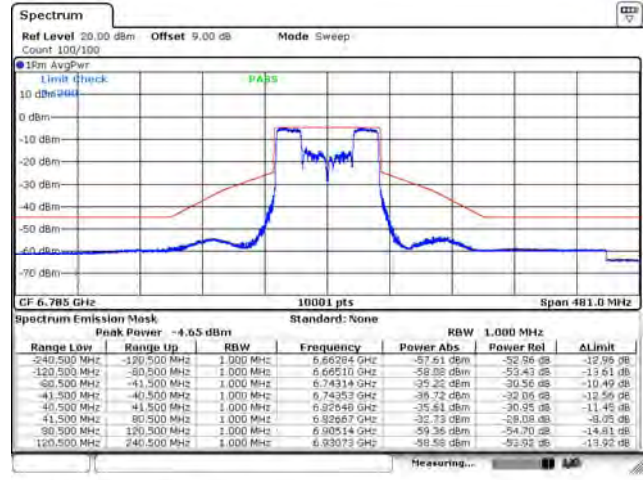
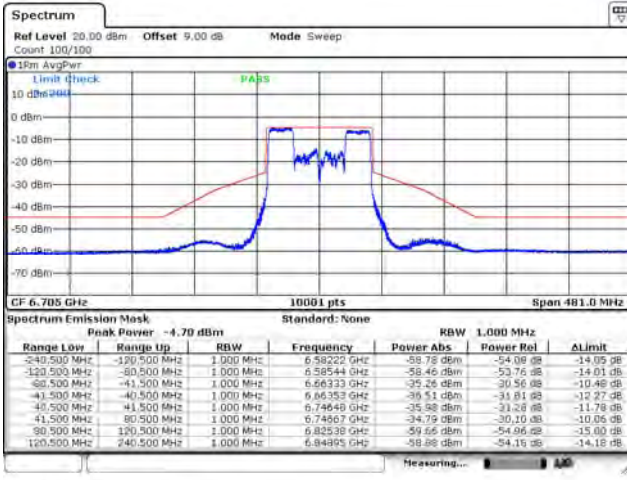
802.11ax (80 MHz) / Ant. 1 / 6625 MHz



Spectrum Plot

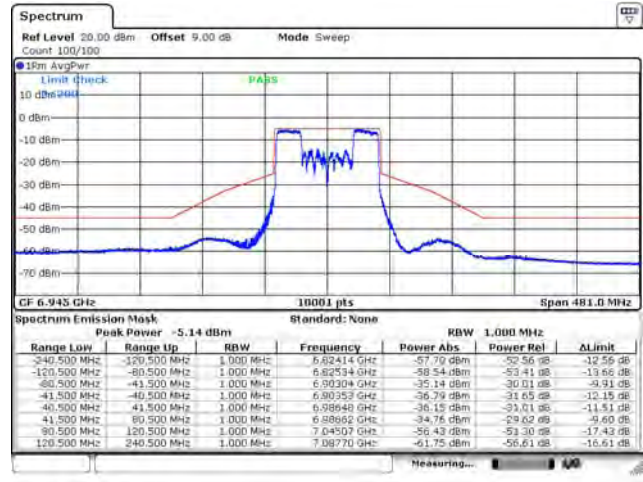
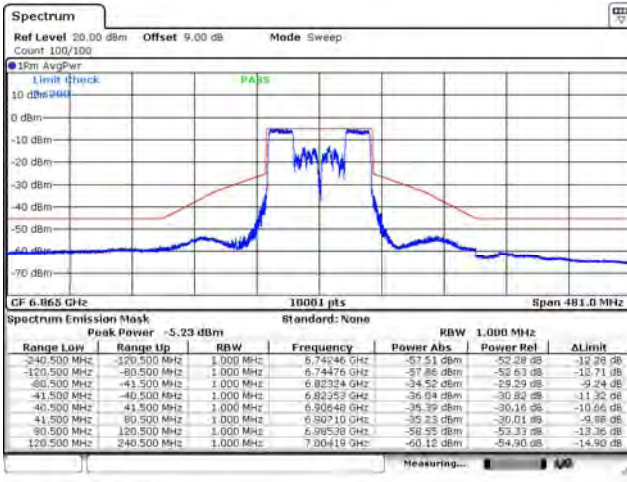
802.11ax (80 MHz) / Ant. 1 / 6705 MHz

802.11ax (80 MHz) / Ant. 1 / 6785 MHz



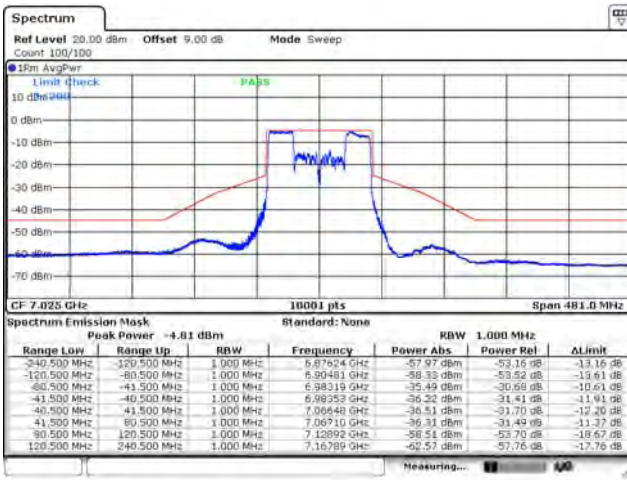
802.11ax (80 MHz) / Ant. 1 / 6865 MHz

802.11ax (80 MHz) / Ant. 1 / 6945 MHz



802.11ax (80 MHz) / Ant. 1 / 7025 MHz

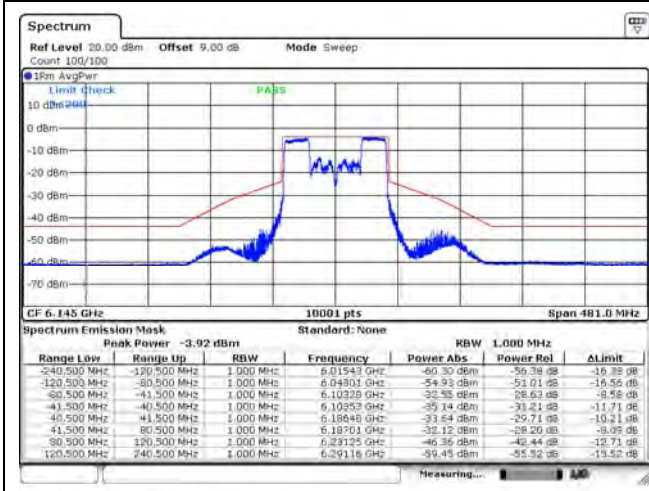
N/A



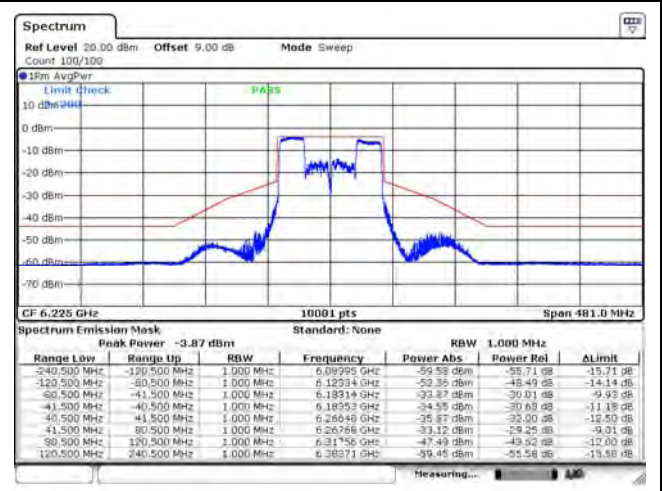
N/A

Spectrum Plot

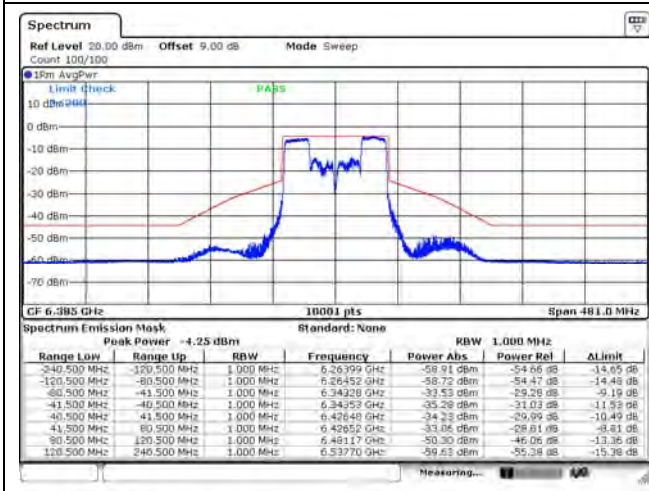
802.11ax (80 MHz) / Ant. 2 / 6145 MHz



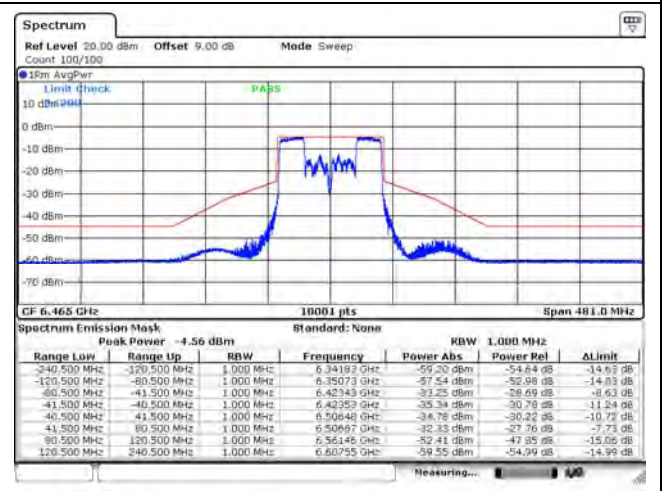
802.11ax (80 MHz) / Ant. 2 / 6225 MHz



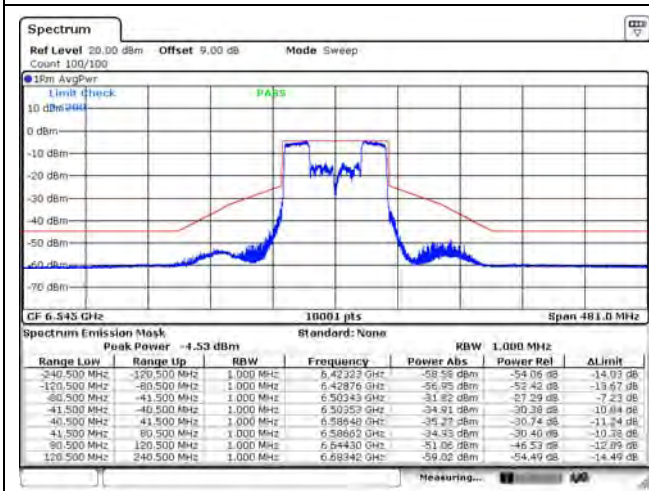
802.11ax (80 MHz) / Ant. 2 / 6385 MHz



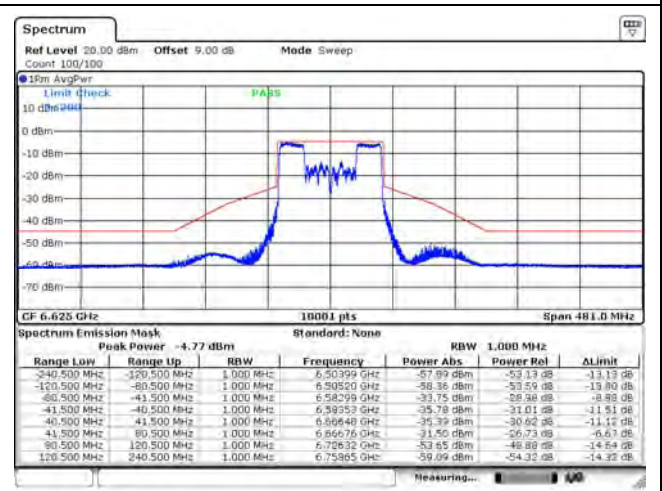
802.11ax (80 MHz) / Ant. 2 / 6465 MHz



802.11ax (80 MHz) / Ant. 2 / 6545 MHz



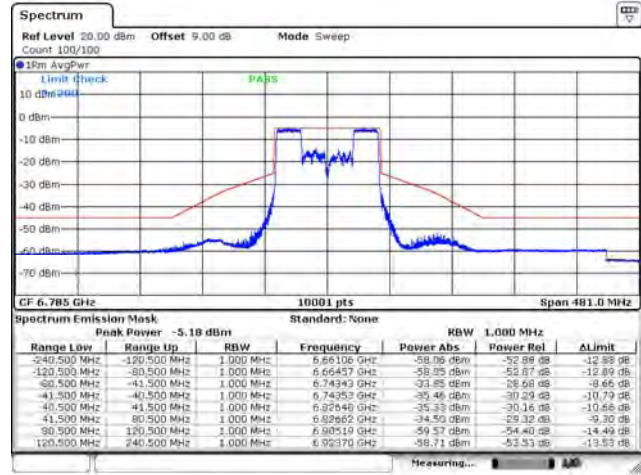
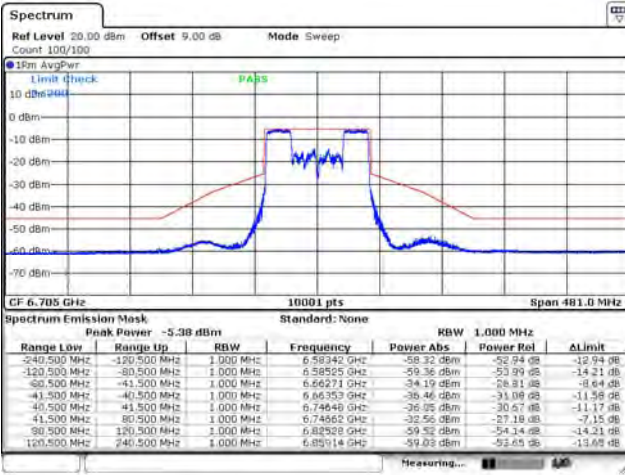
802.11ax (80 MHz) / Ant. 2 / 6625 MHz



Spectrum Plot

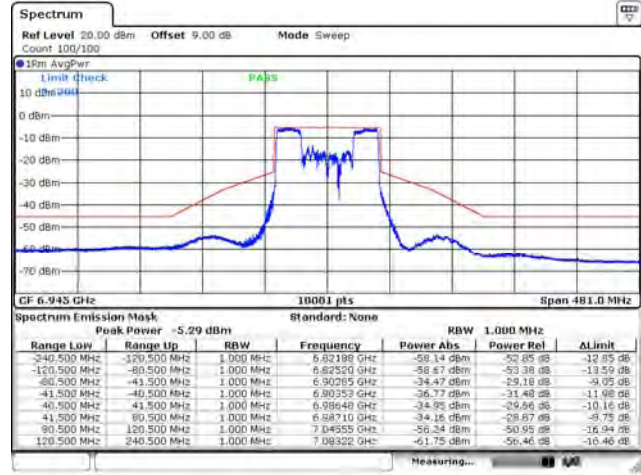
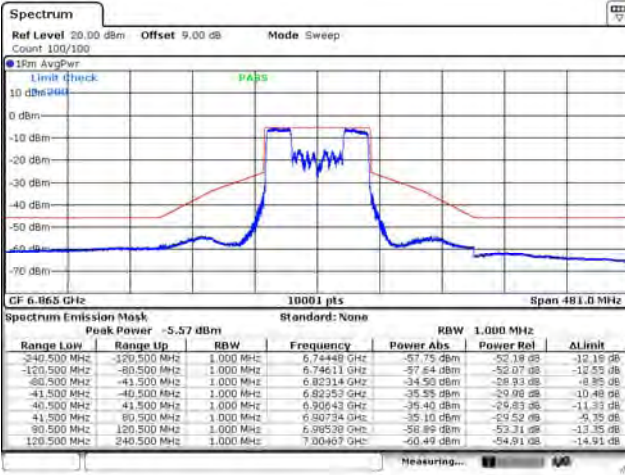
802.11ax (80 MHz) / Ant. 2 / 6705 MHz

802.11ax (80 MHz) / Ant. 2 / 6785 MHz



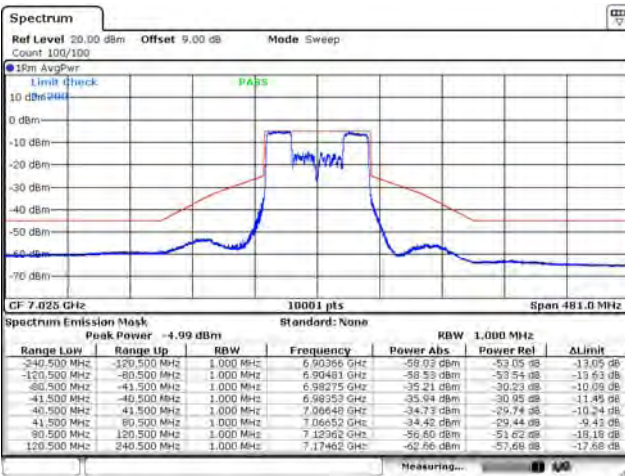
802.11ax (80 MHz) / Ant. 2 / 6865 MHz

802.11ax (80 MHz) / Ant. 2 / 6945 MHz



802.11ax (80 MHz) / Ant. 2 / 7025 MHz

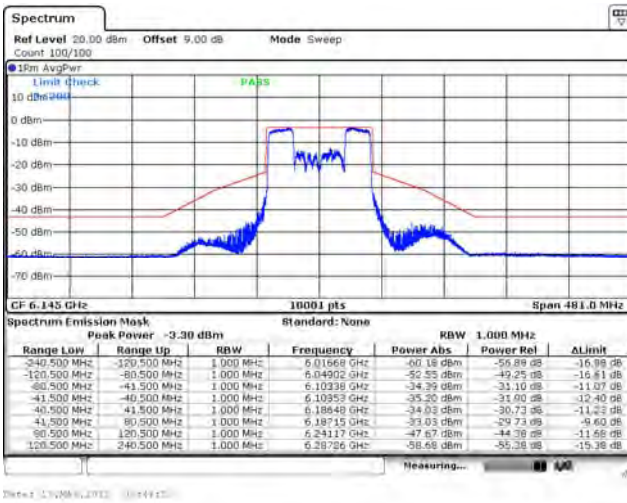
N/A



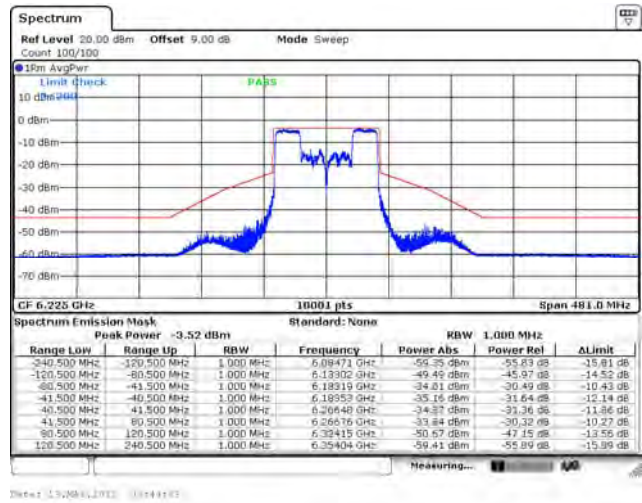
N/A

Spectrum Plot

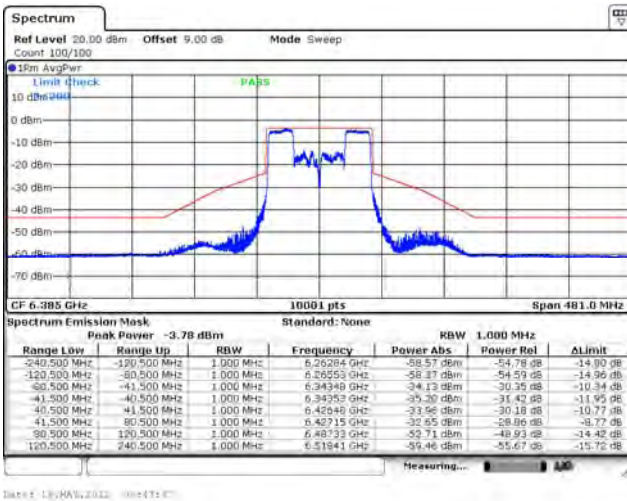
802.11ax (80 MHz) / Ant. 3 / 6145 MHz



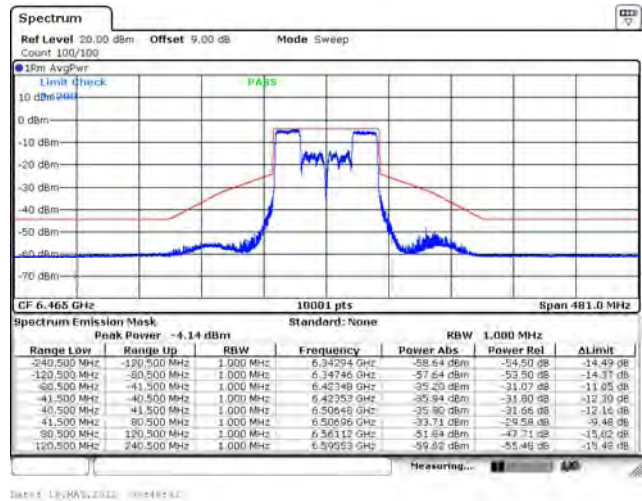
802.11ax (80 MHz) / Ant. 3 / 6225 MHz



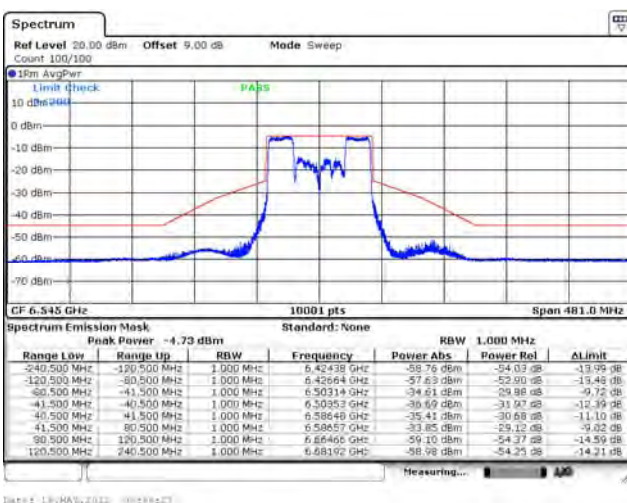
802.11ax (80 MHz) / Ant. 3 / 6385 MHz



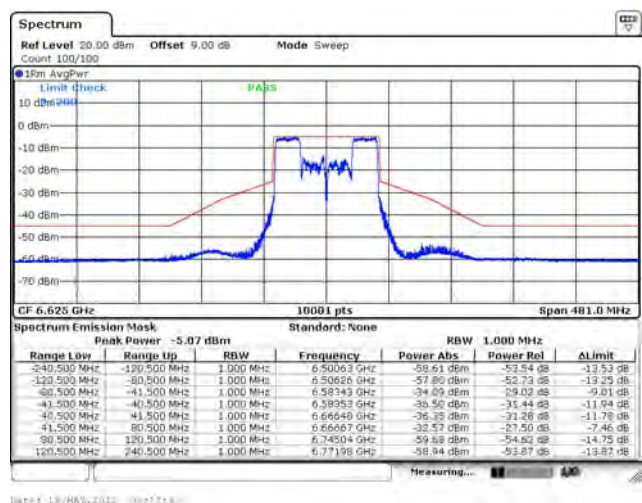
802.11ax (80 MHz) / Ant. 3 / 6465 MHz



802.11ax (80 MHz) / Ant. 3 / 6545 MHz

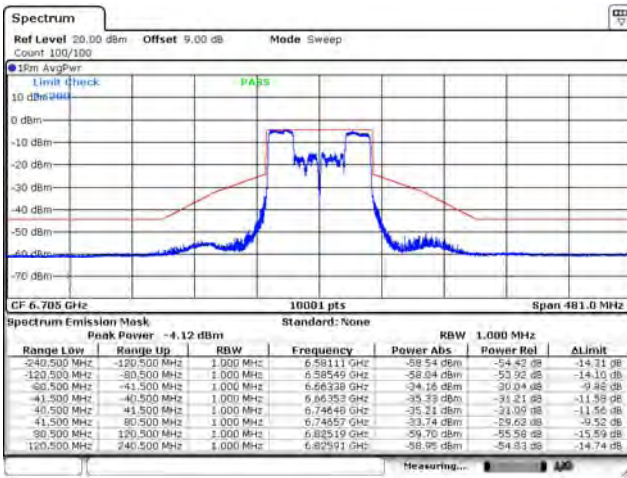


802.11ax (80 MHz) / Ant. 3 / 6625 MHz

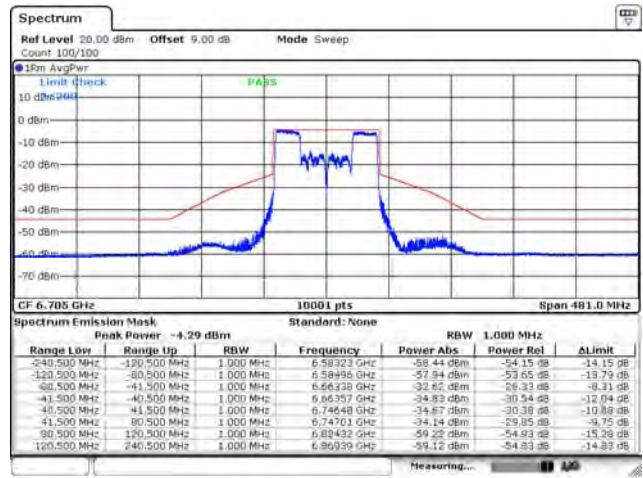


Spectrum Plot

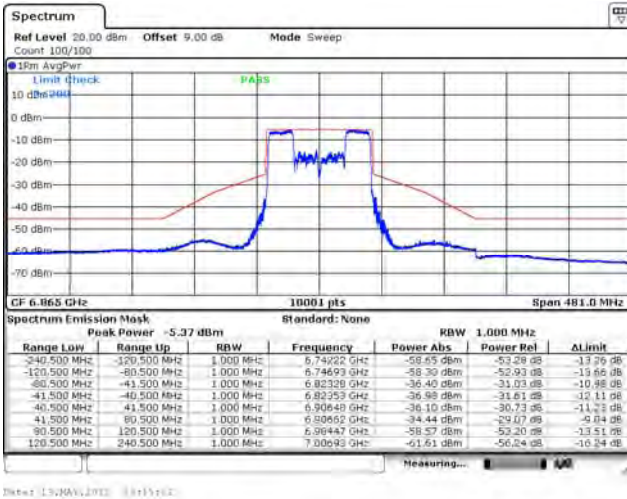
802.11ax (80 MHz) / Ant. 3 / 6705 MHz



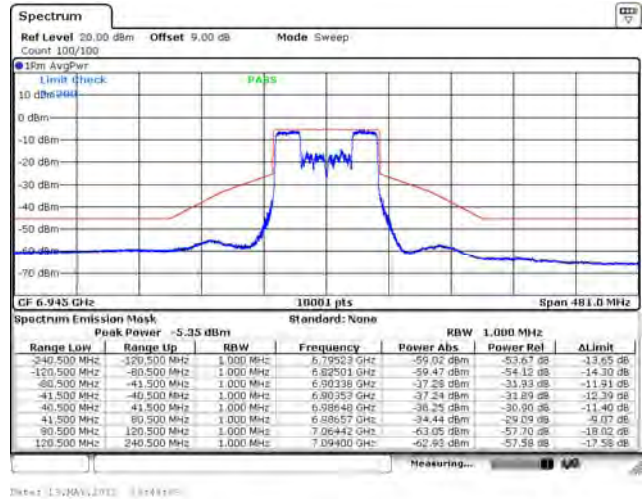
802.11ax (80 MHz) / Ant. 3 / 6785 MHz



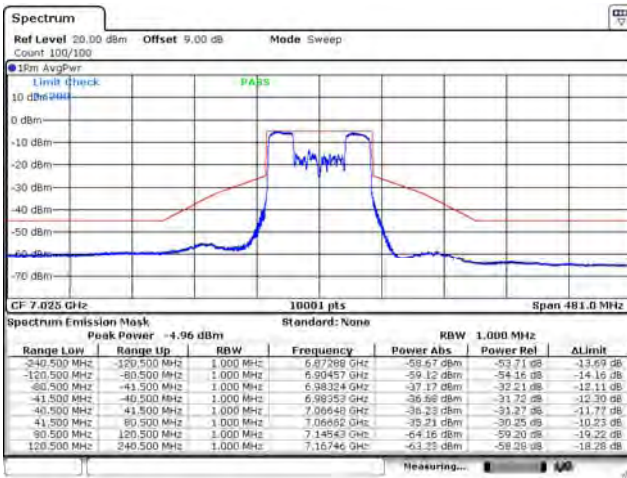
802.11ax (80 MHz) / Ant. 3 / 6865 MHz



802.11ax (80 MHz) / Ant. 3 / 6945 MHz



802.11ax (80 MHz) / Ant. 3 / 7025 MHz

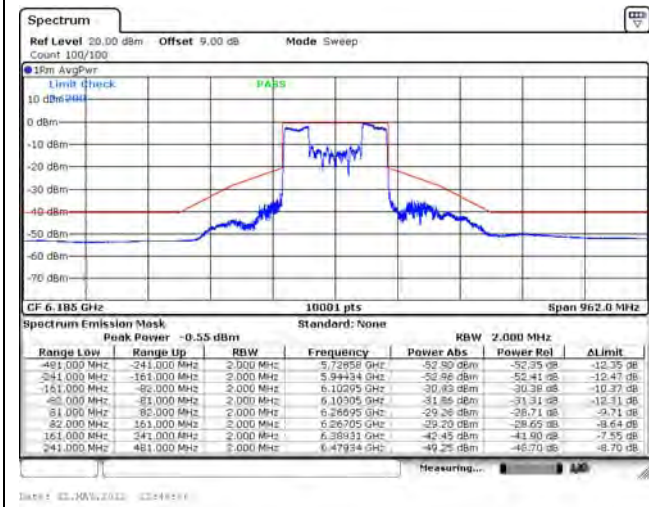


N/A

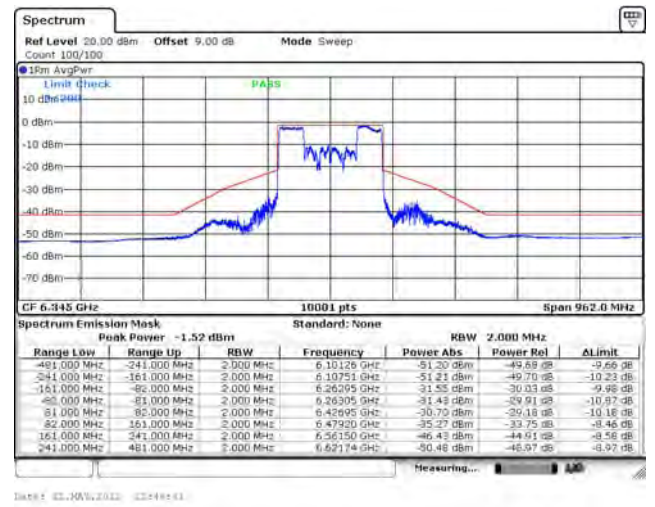
N/A

Spectrum Plot

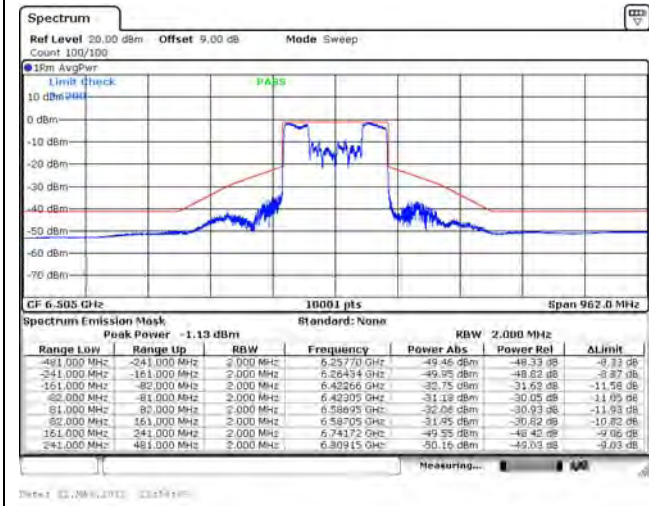
802.11ax (160 MHz) / Ant. 0 / 6185 MHz



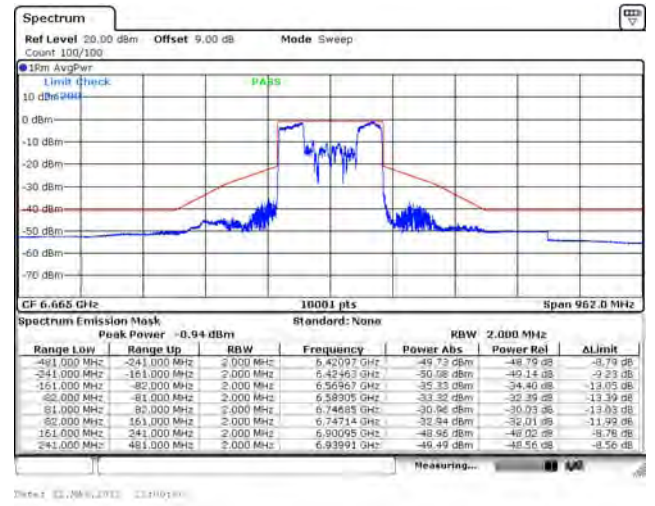
802.11ax (160 MHz) / Ant. 0 / 6345 MHz



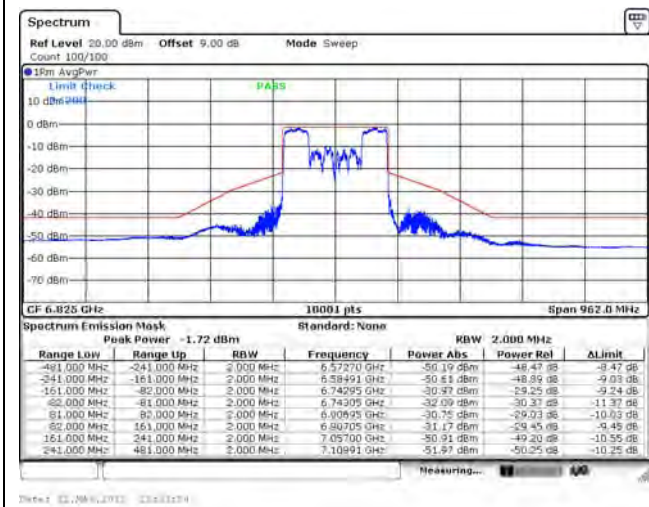
802.11ax (160 MHz) / Ant. 0 / 6505 MHz



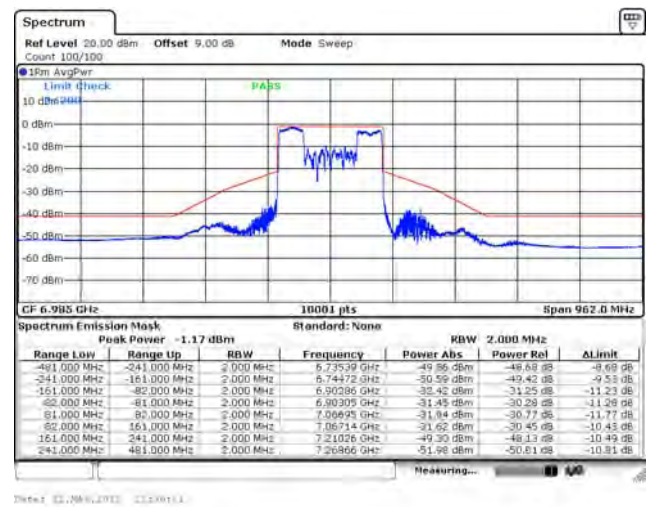
802.11ax (160 MHz) / Ant. 0 / 6665 MHz



802.11ax (160 MHz) / Ant. 0 / 6825 MHz

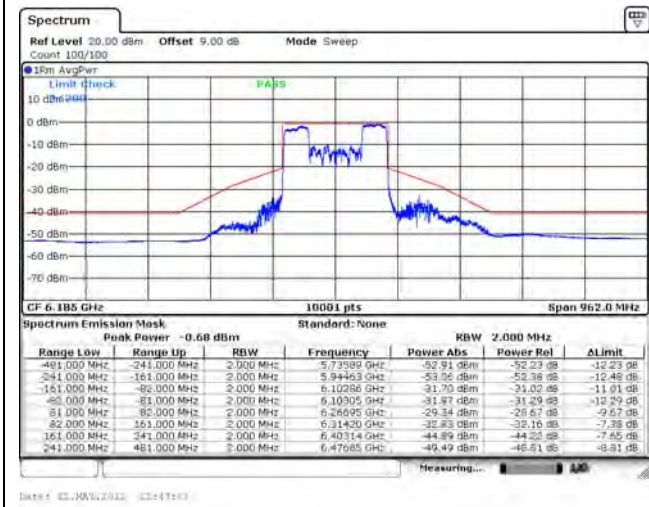


802.11ax (160 MHz) / Ant. 0 / 6985 MHz

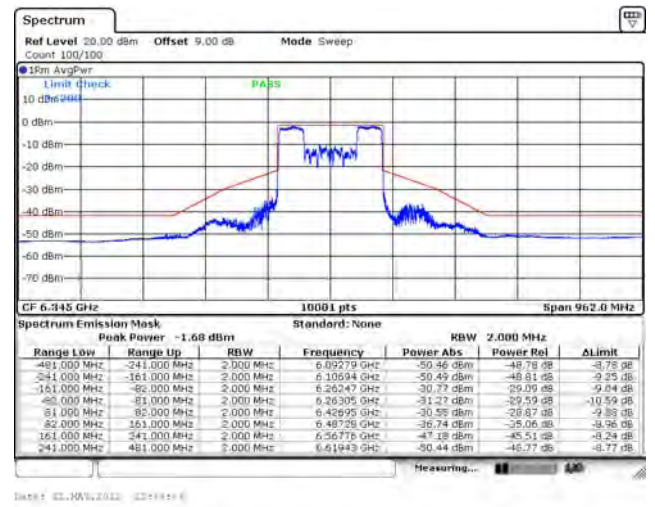


Spectrum Plot

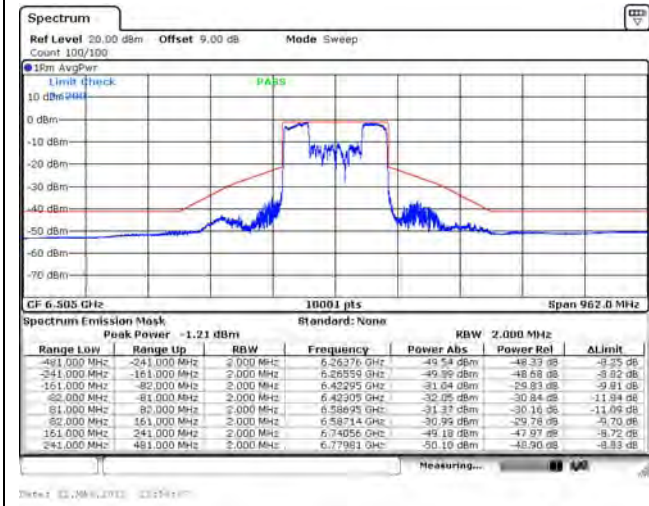
802.11ax (160 MHz) / Ant. 1 / 6185 MHz



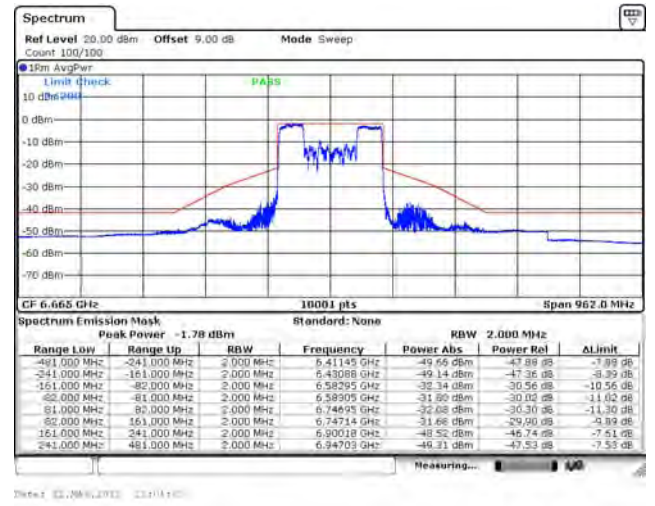
802.11ax (160 MHz) / Ant. 1 / 6345 MHz



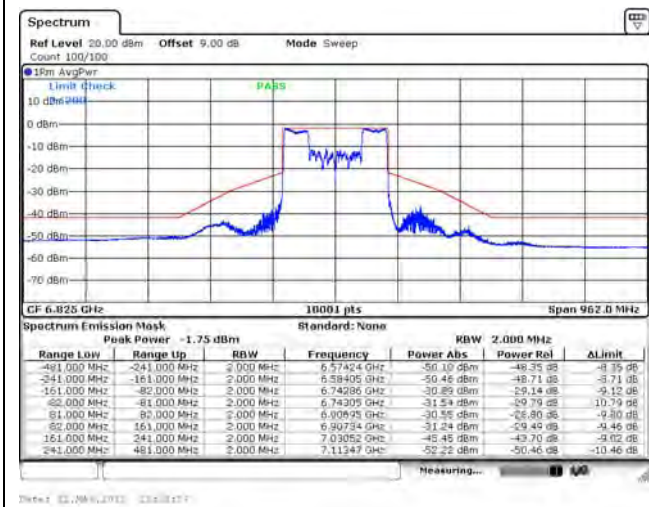
802.11ax (160 MHz) / Ant. 1 / 6505 MHz



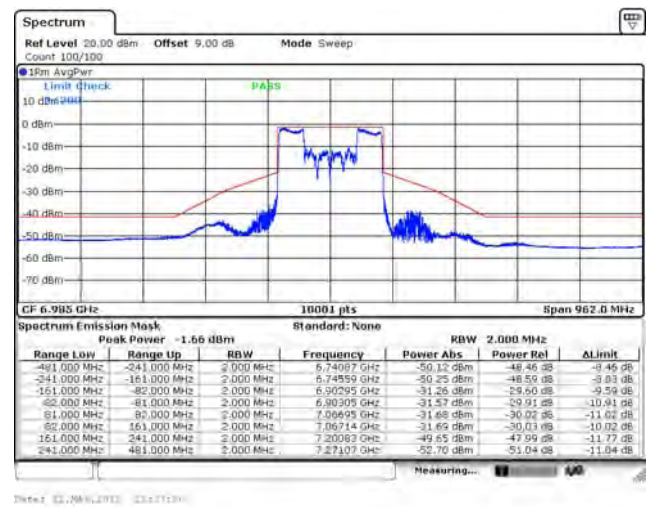
802.11ax (160 MHz) / Ant. 1 / 6665 MHz



802.11ax (160 MHz) / Ant. 1 / 6825 MHz

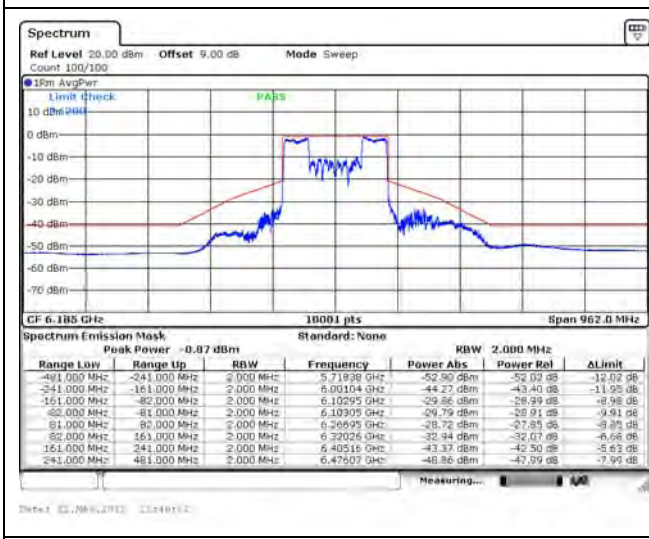


802.11ax (160 MHz) / Ant. 1 / 6985 MHz

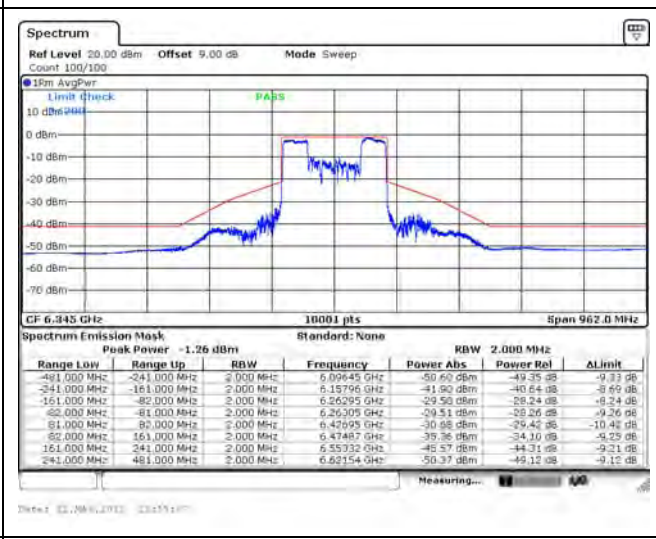


Spectrum Plot

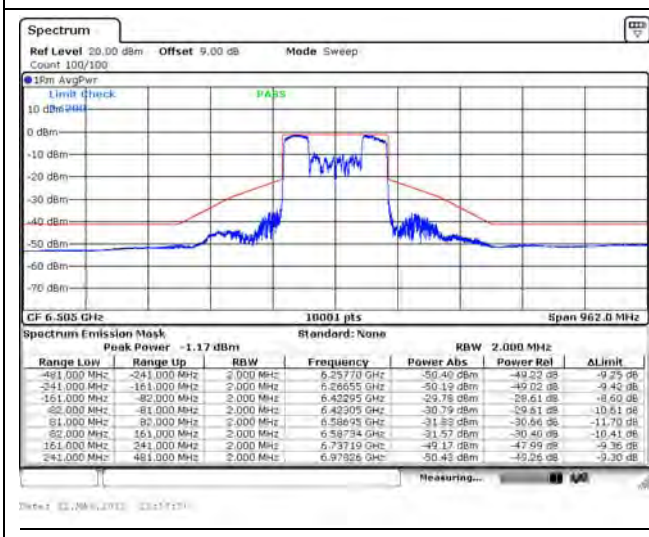
802.11ax (160 MHz) / Ant. 2 / 6185 MHz



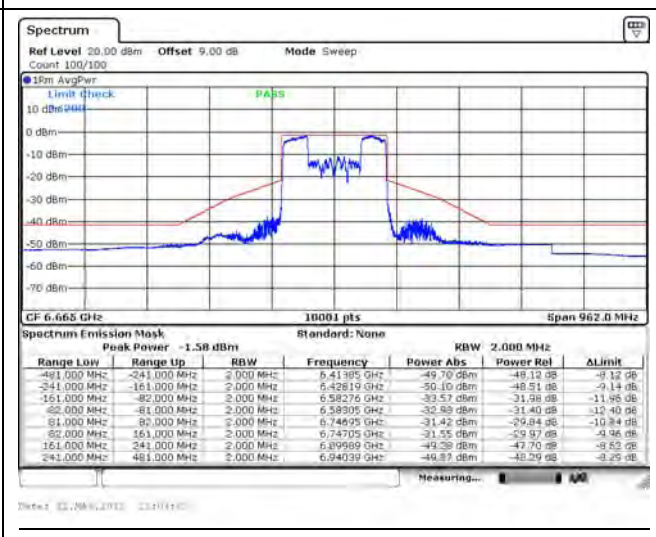
802.11ax (160 MHz) / Ant. 2 / 6345 MHz



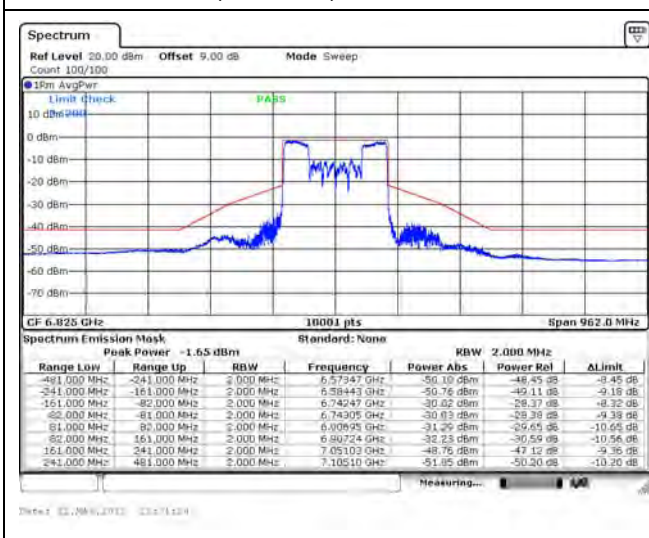
802.11ax (160 MHz) / Ant. 2 / 6505 MHz



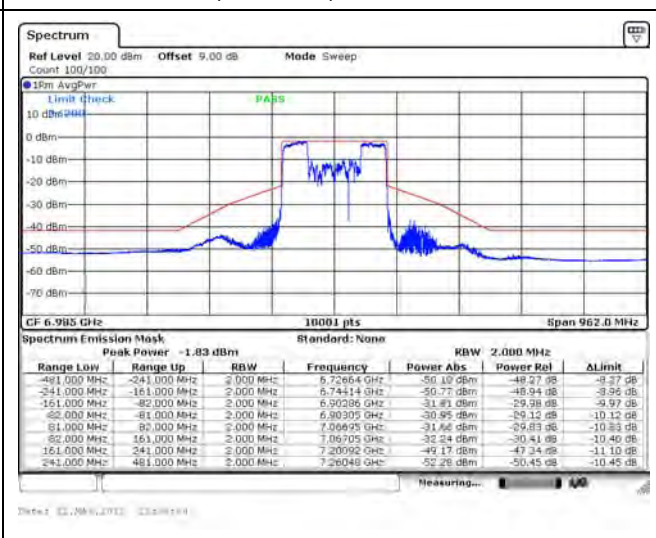
802.11ax (160 MHz) / Ant. 2 / 6665 MHz



802.11ax (160 MHz) / Ant. 2 / 6825 MHz

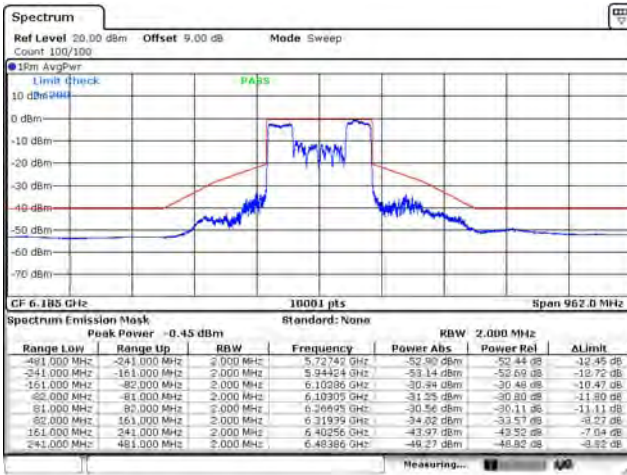


802.11ax (160 MHz) / Ant. 2 / 6985 MHz

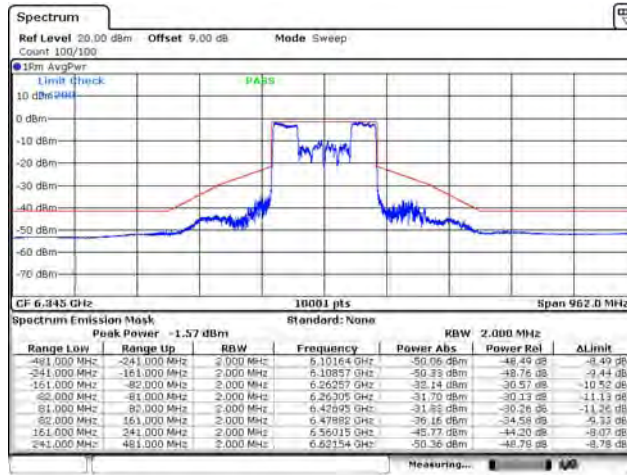


Spectrum Plot

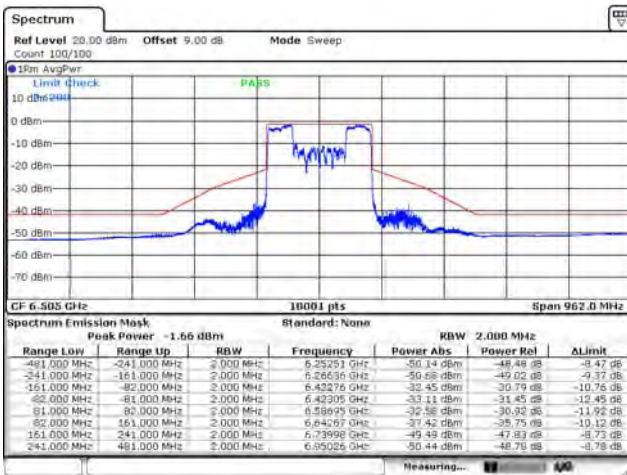
802.11ax (160 MHz) / Ant. 3 / 6185 MHz



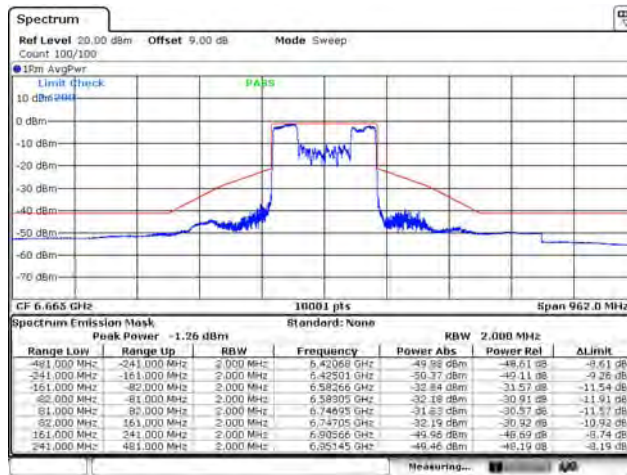
802.11ax (160 MHz) / Ant. 3 / 6345 MHz



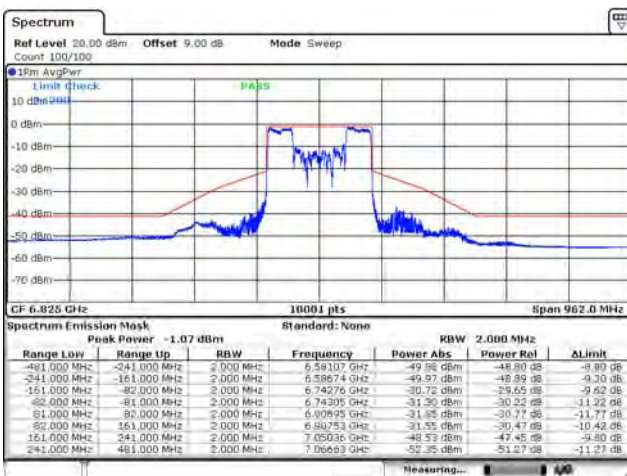
802.11ax (160 MHz) / Ant. 3 / 6505 MHz



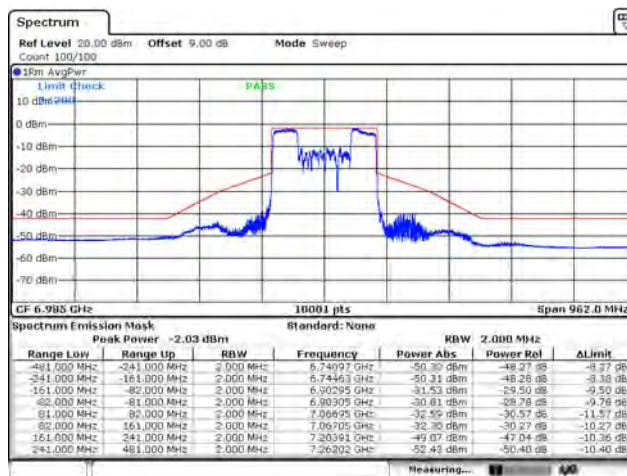
802.11ax (160 MHz) / Ant. 3 / 6665 MHz



802.11ax (160 MHz) / Ant. 3 / 6825 MHz



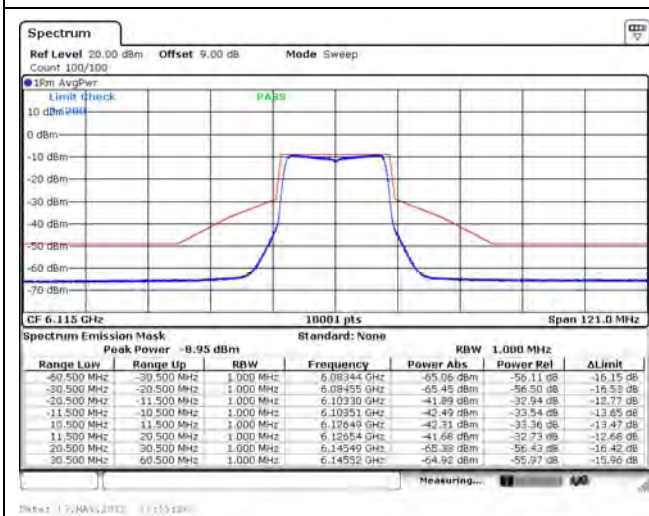
802.11ax (160 MHz) / Ant. 3 / 6985 MHz



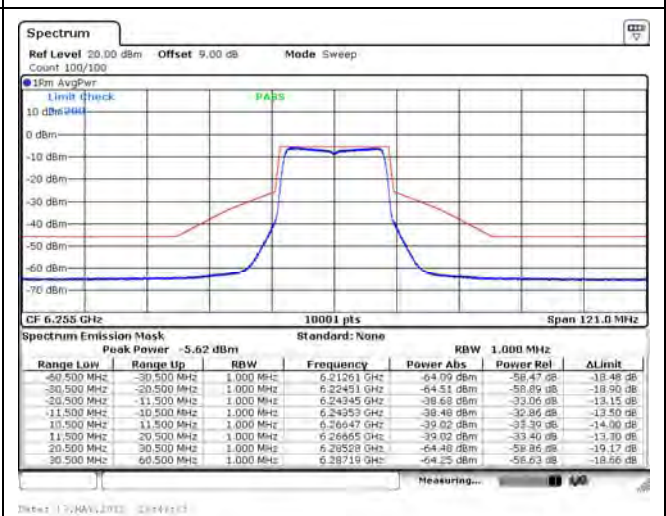
Beamforming mode

Spectrum Plot

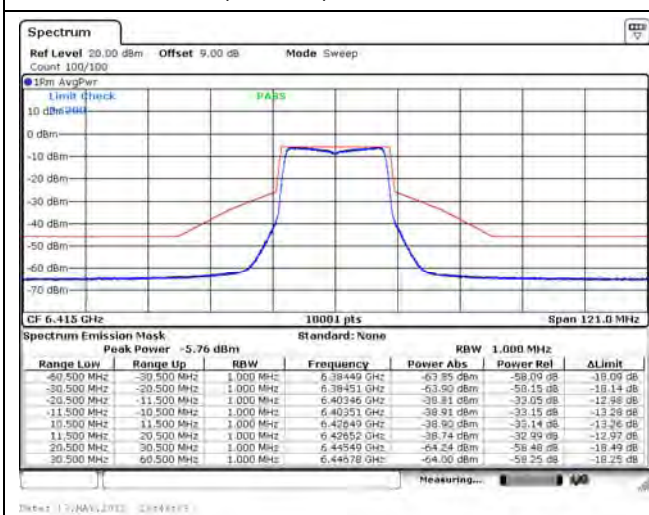
802.11ax (20 MHz) / Ant. 0 / 6115 MHz



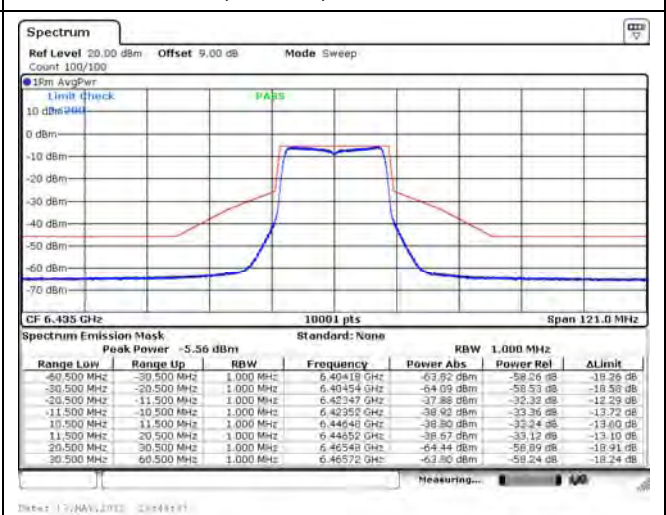
802.11ax (20 MHz) / Ant. 0 / 6255 MHz



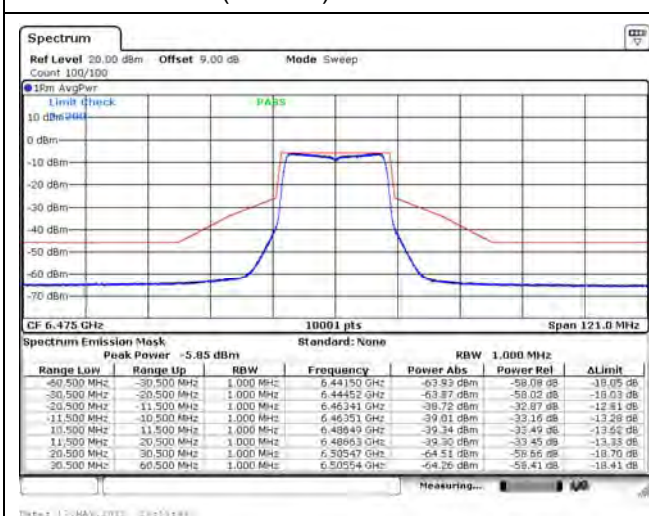
802.11ax (20 MHz) / Ant. 0 / 6415 MHz



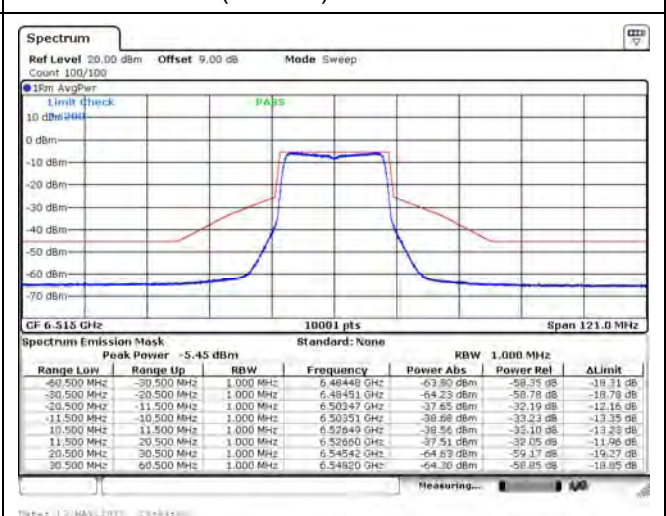
802.11ax (20 MHz) / Ant. 0 / 6435 MHz



802.11ax (20 MHz) / Ant. 0 / 6475 MHz

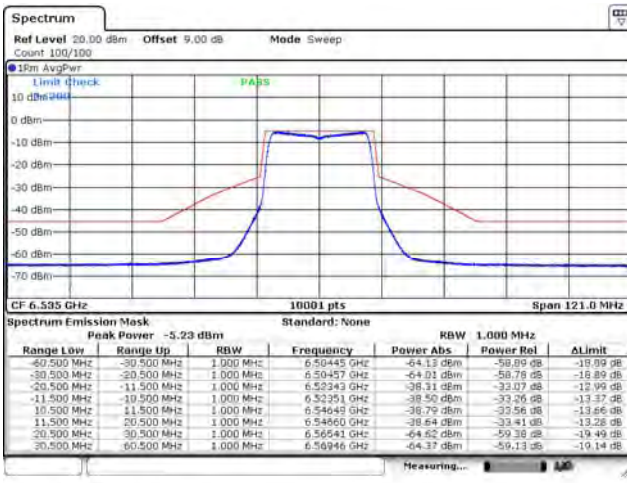


802.11ax (20 MHz) / Ant. 0 / 6515 MHz

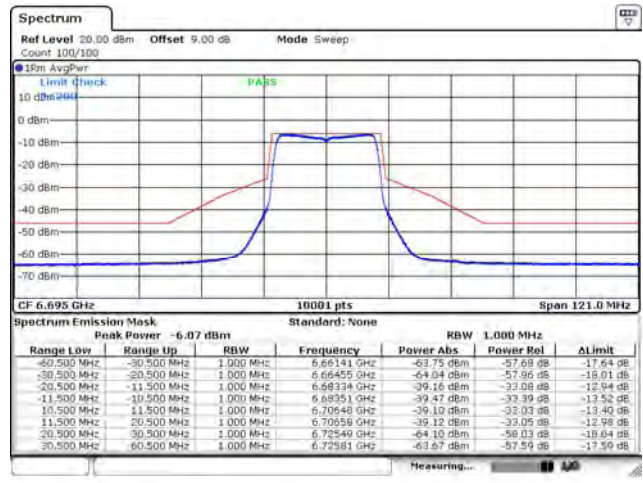


Spectrum Plot

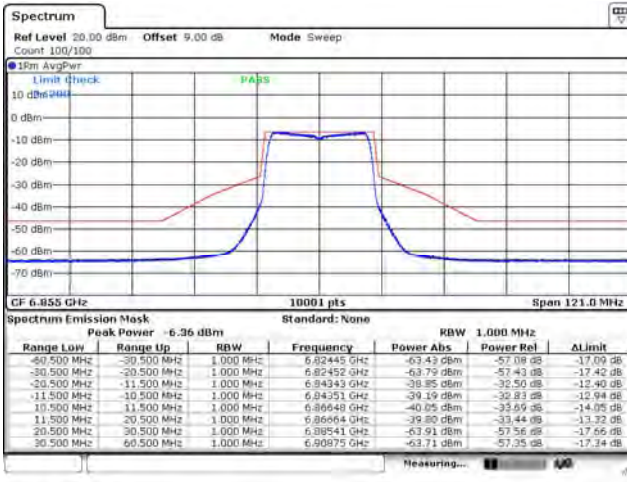
802.11ax (20 MHz) / Ant. 0 / 6535 MHz



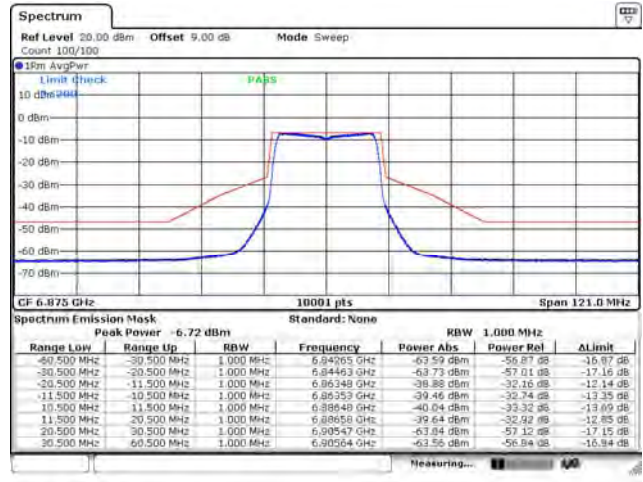
802.11ax (20 MHz) / Ant. 0 / 6695 MHz



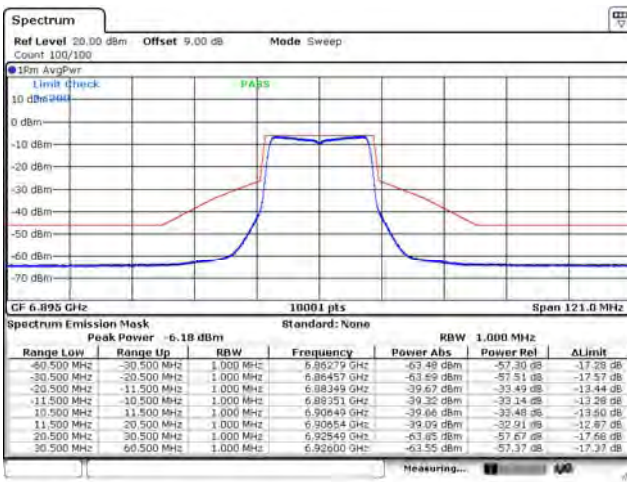
802.11ax (20 MHz) / Ant. 0 / 6855 MHz



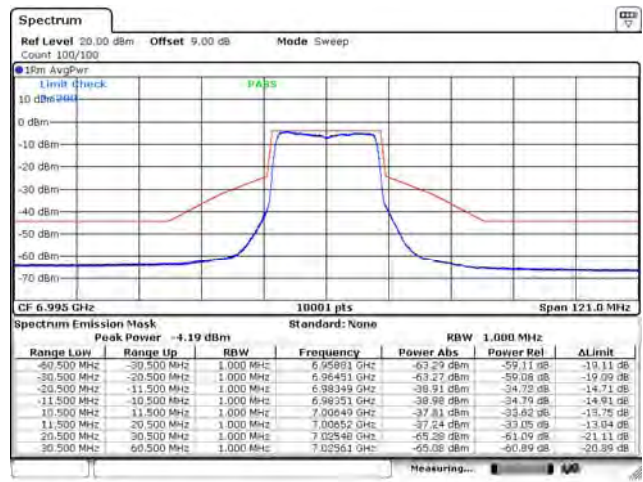
802.11ax (20 MHz) / Ant. 0 / 6875 MHz

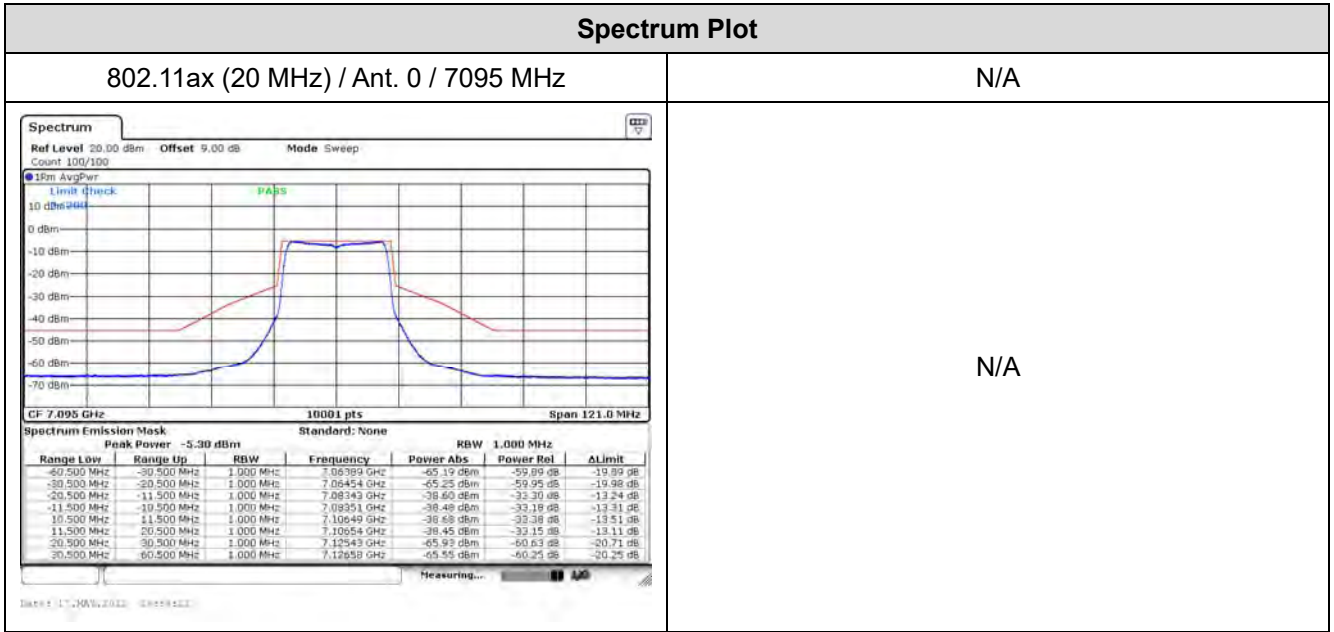


802.11ax (20 MHz) / Ant. 0 / 6895 MHz



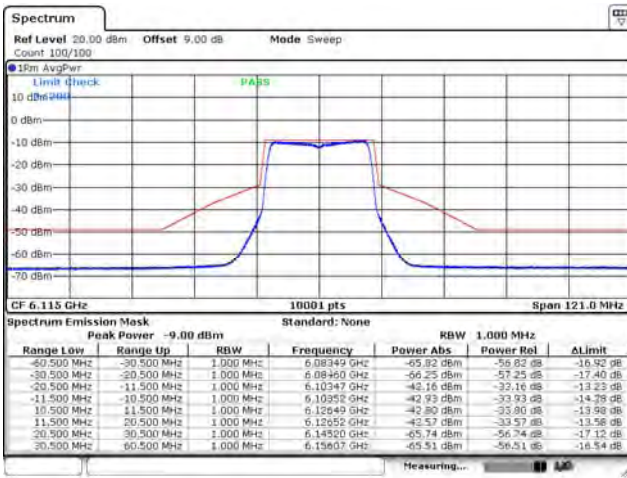
802.11ax (20 MHz) / Ant. 0 / 6995 MHz



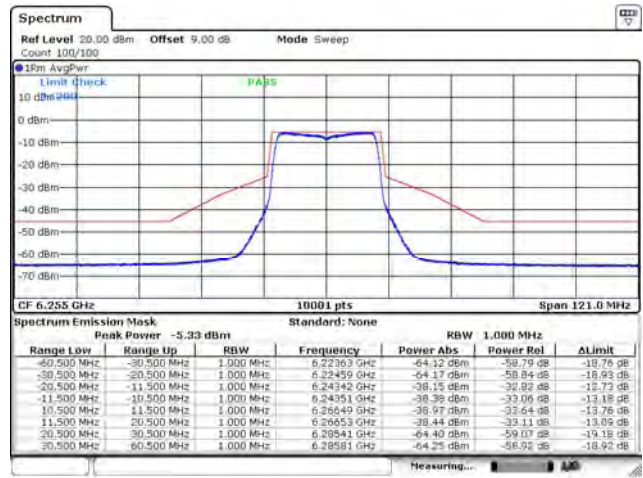


Spectrum Plot

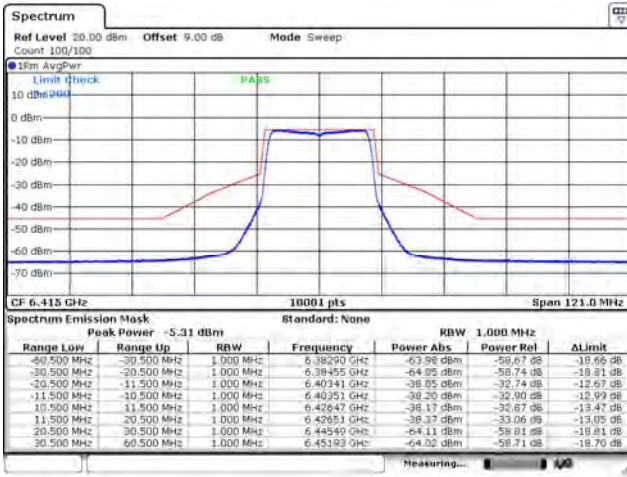
802.11ax (20 MHz) / Ant. 1 / 6115 MHz



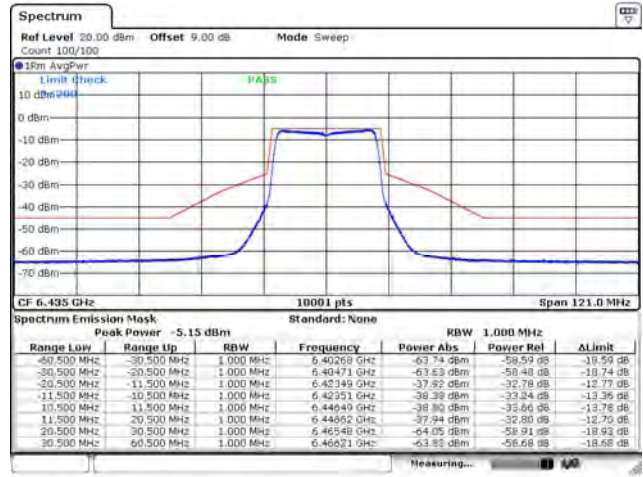
802.11ax (20 MHz) / Ant. 1 / 6255 MHz



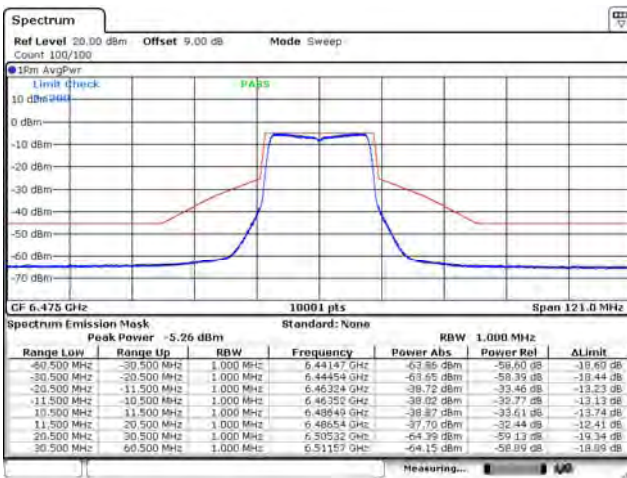
802.11ax (20 MHz) / Ant. 1 / 6415 MHz



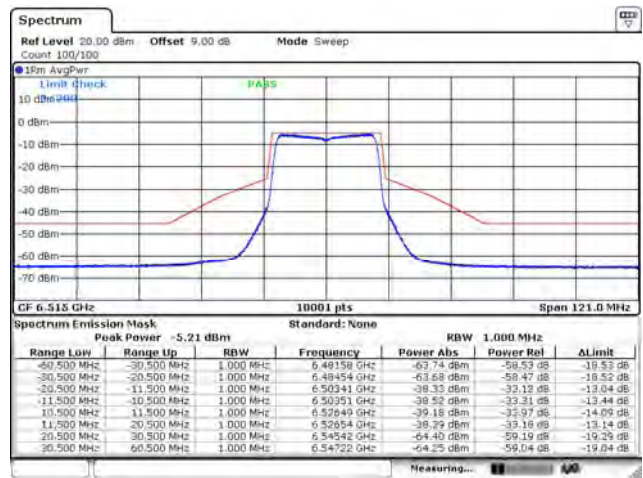
802.11ax (20 MHz) / Ant. 1 / 6435 MHz



802.11ax (20 MHz) / Ant. 1 / 6475 MHz

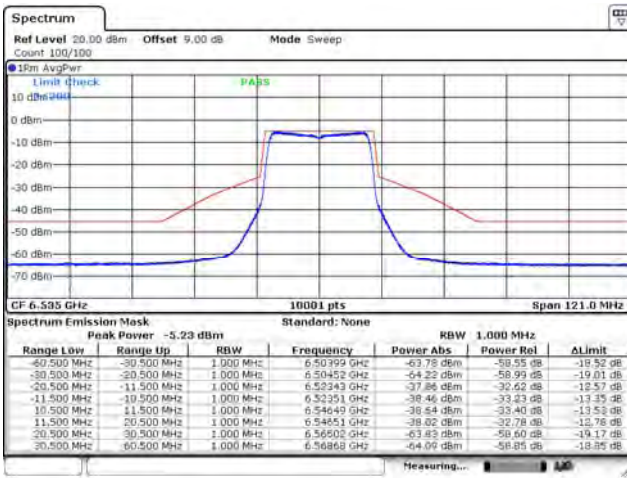


802.11ax (20 MHz) / Ant. 1 / 6515 MHz

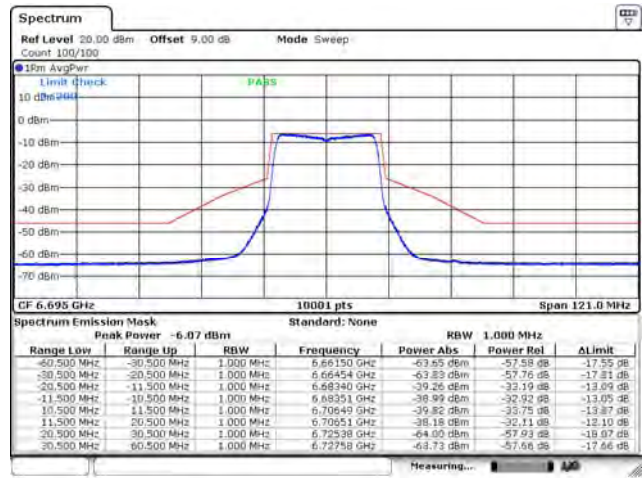


Spectrum Plot

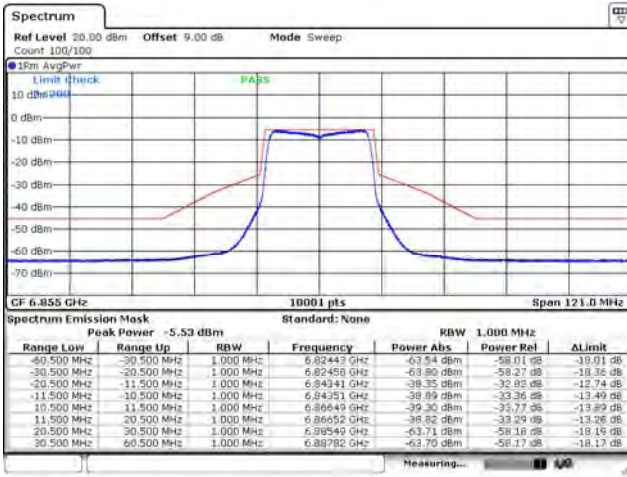
802.11ax (20 MHz) / Ant. 1 / 6535 MHz



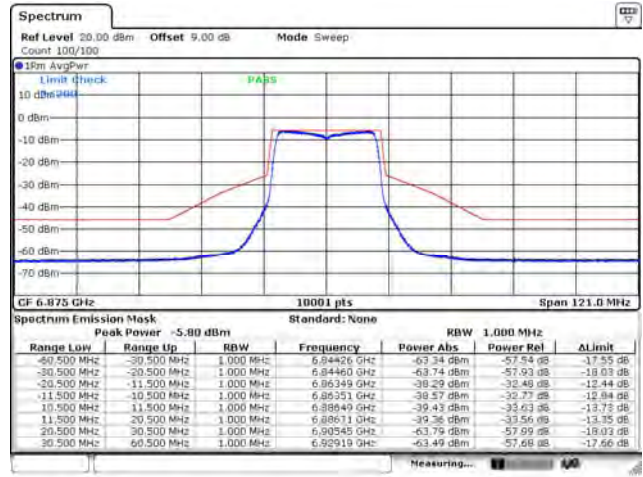
802.11ax (20 MHz) / Ant. 1 / 6695 MHz



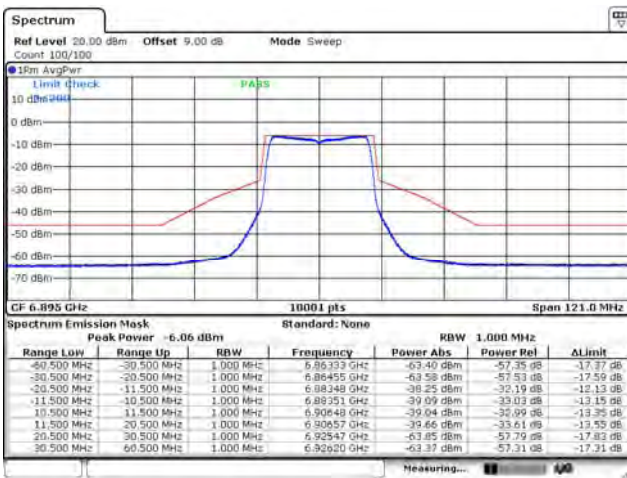
802.11ax (20 MHz) / Ant. 1 / 6855 MHz



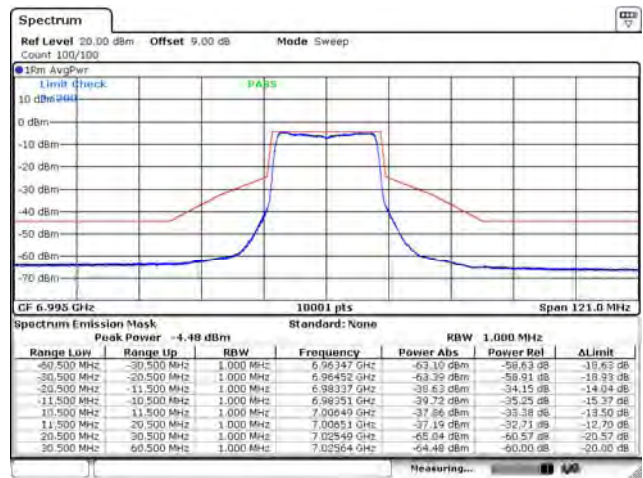
802.11ax (20 MHz) / Ant. 1 / 6875 MHz

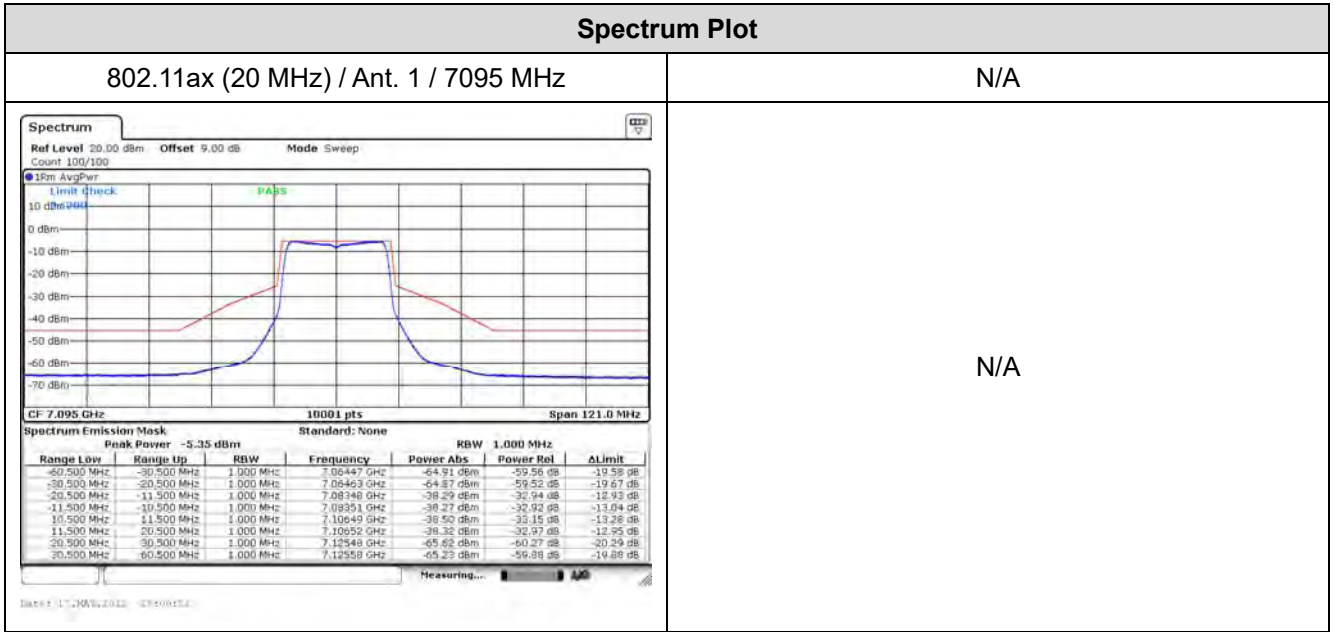


802.11ax (20 MHz) / Ant. 1 / 6895 MHz



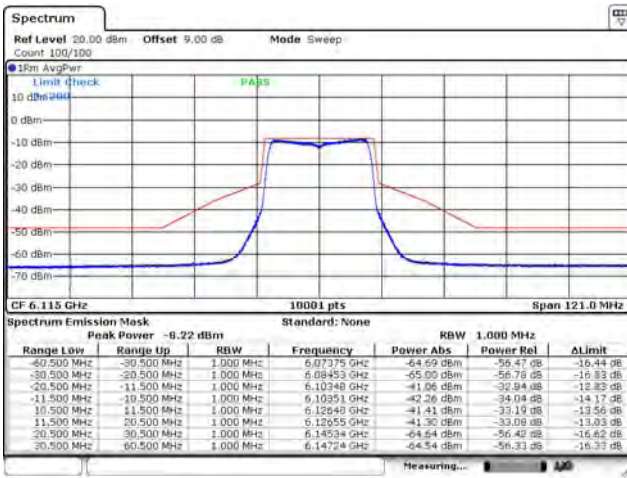
802.11ax (20 MHz) / Ant. 1 / 6995 MHz



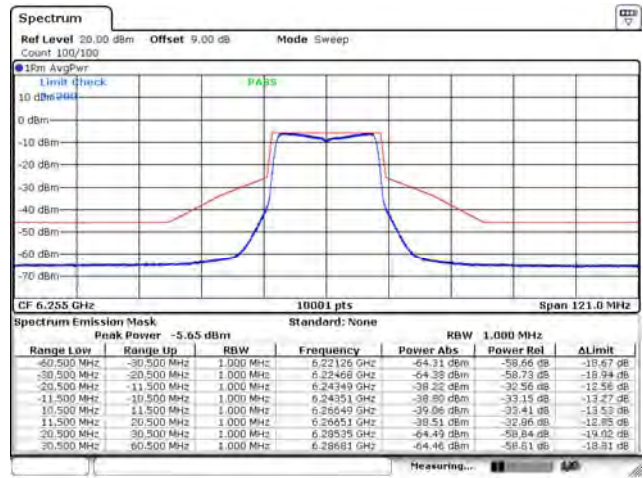


Spectrum Plot

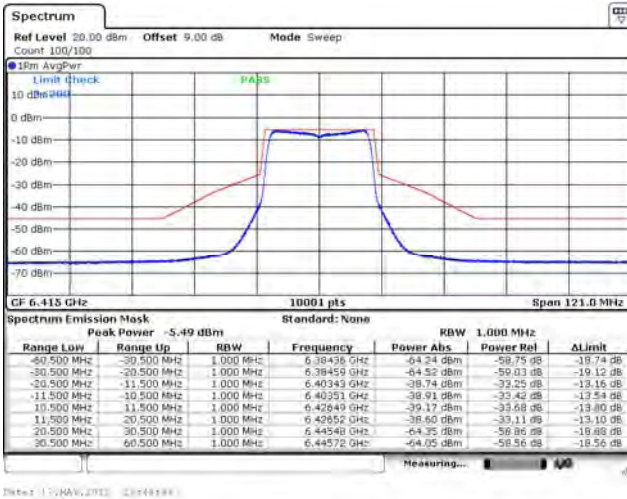
802.11ax (20 MHz) / Ant. 2 / 6115 MHz



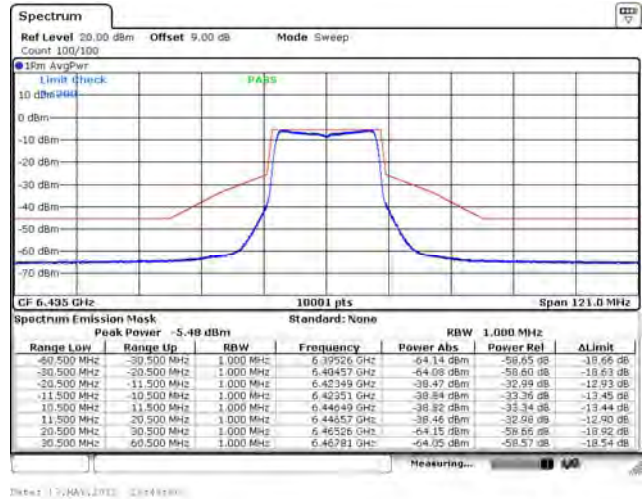
802.11ax (20 MHz) / Ant. 2 / 6255 MHz



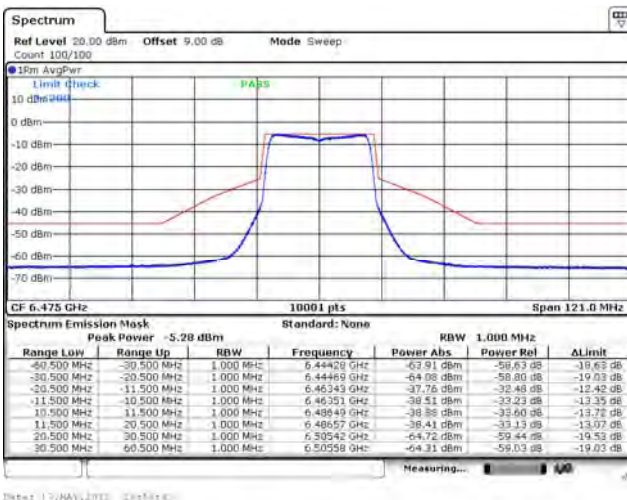
802.11ax (20 MHz) / Ant. 2 / 6415 MHz



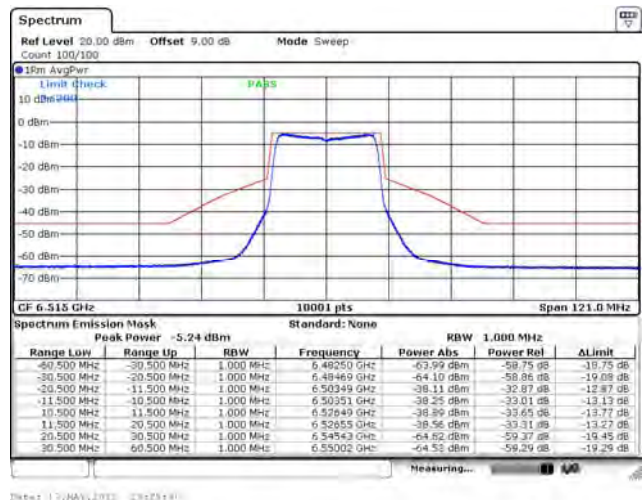
802.11ax (20 MHz) / Ant. 2 / 6435 MHz



802.11ax (20 MHz) / Ant. 2 / 6475 MHz

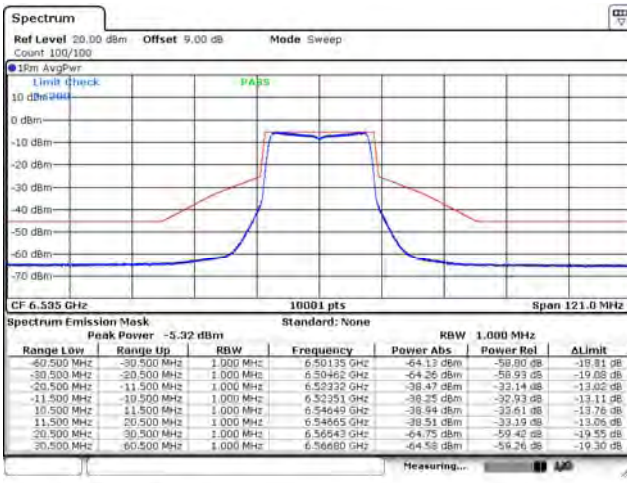


802.11ax (20 MHz) / Ant. 2 / 6515 MHz

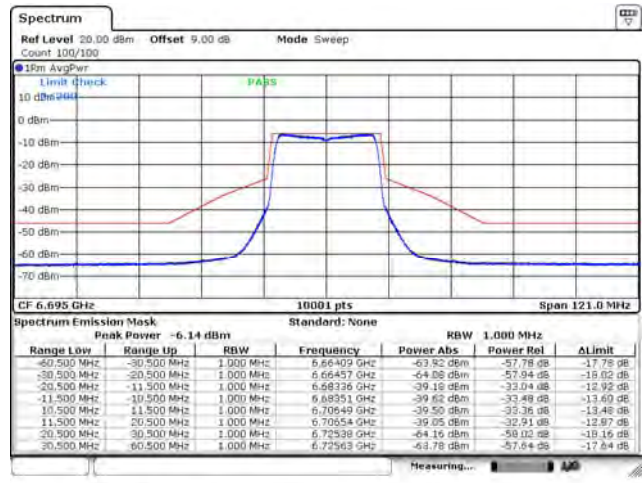


Spectrum Plot

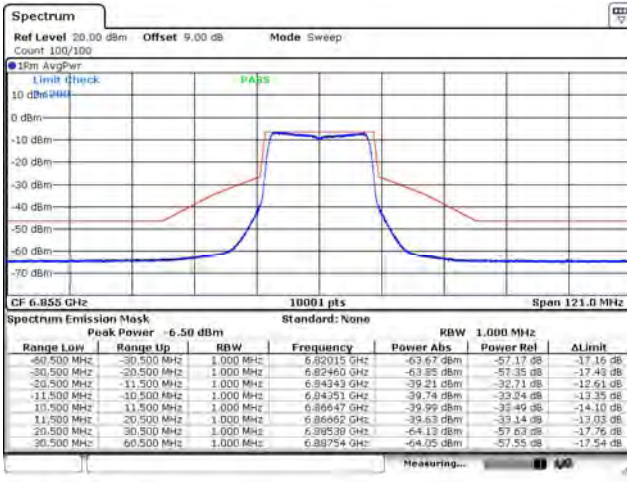
802.11ax (20 MHz) / Ant. 2 / 6535 MHz



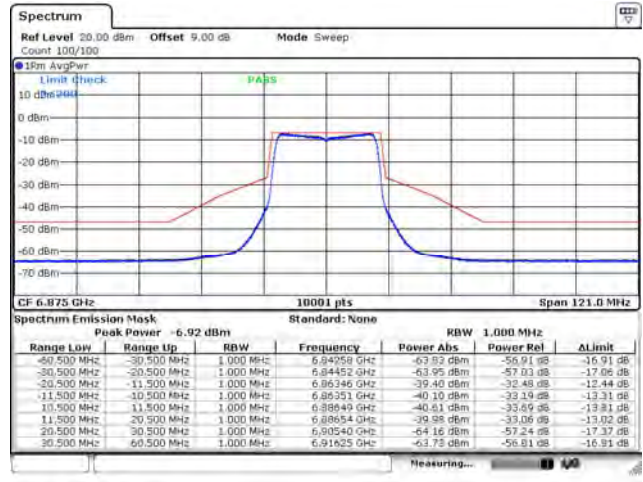
802.11ax (20 MHz) / Ant. 2 / 6695 MHz



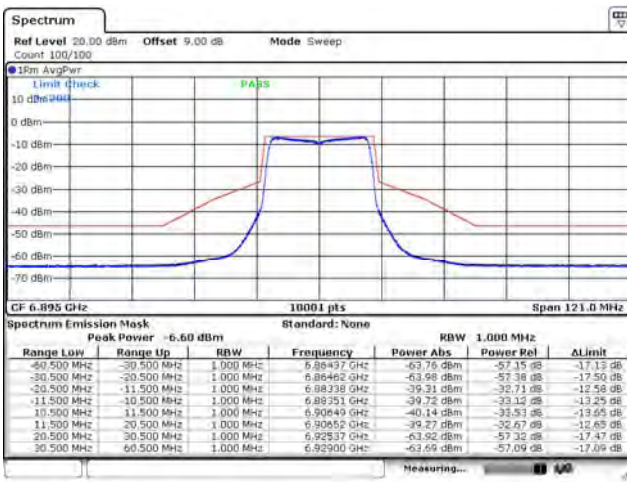
802.11ax (20 MHz) / Ant. 2 / 6855 MHz



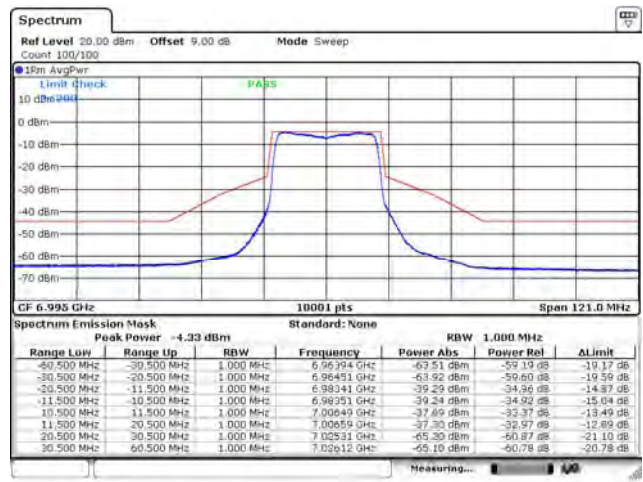
802.11ax (20 MHz) / Ant. 2 / 6875 MHz

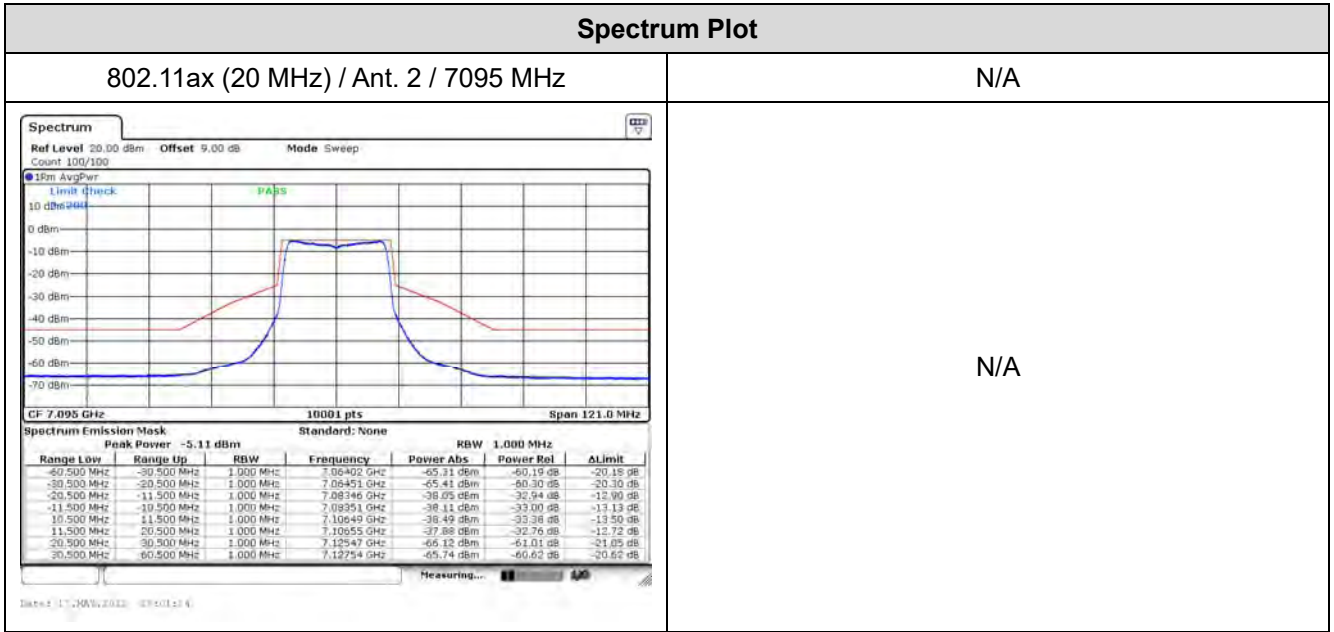


802.11ax (20 MHz) / Ant. 2 / 6895 MHz



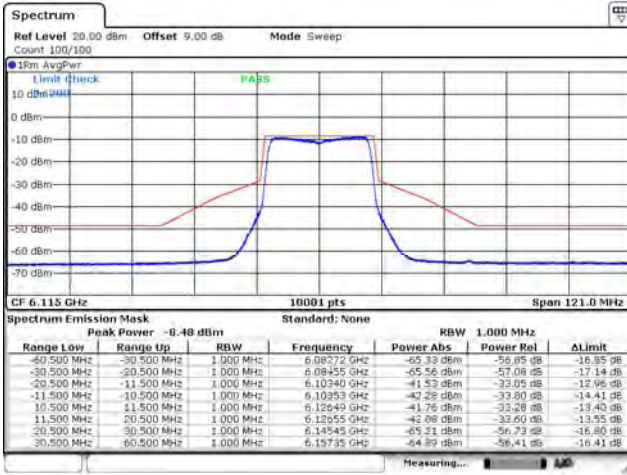
802.11ax (20 MHz) / Ant. 2 / 6995 MHz



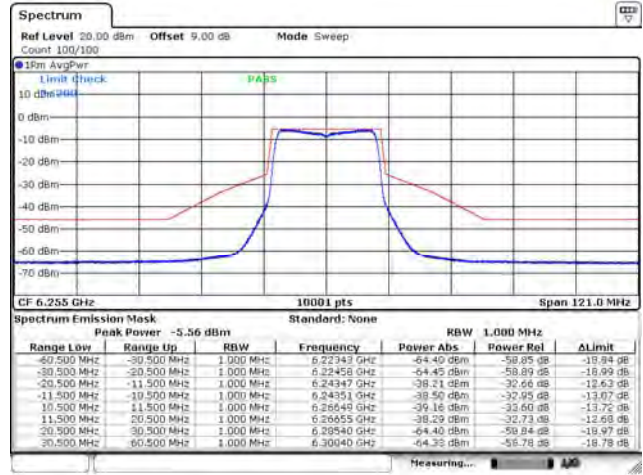


Spectrum Plot

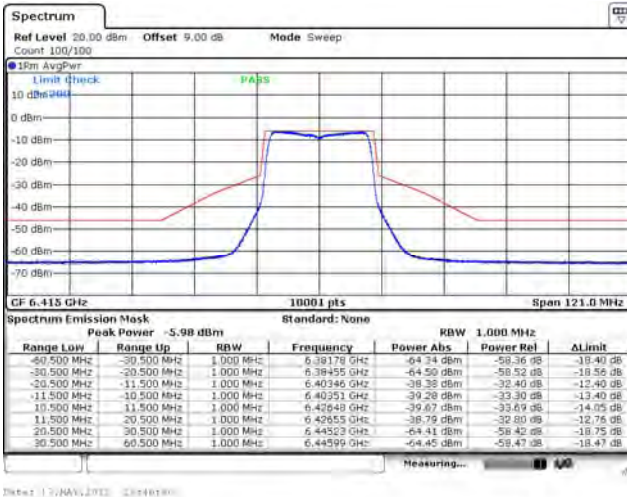
802.11ax (20 MHz) / Ant. 3 / 6115 MHz



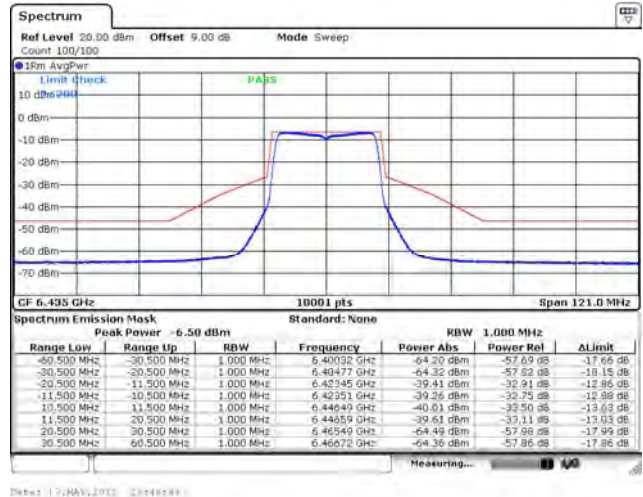
802.11ax (20 MHz) / Ant. 3 / 6255 MHz



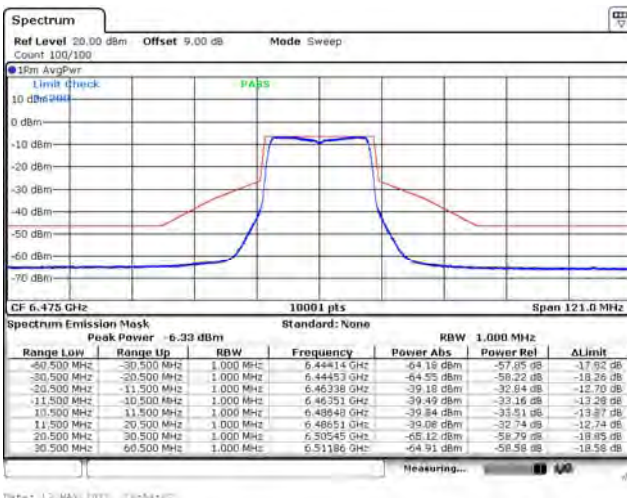
802.11ax (20 MHz) / Ant. 3 / 6415 MHz



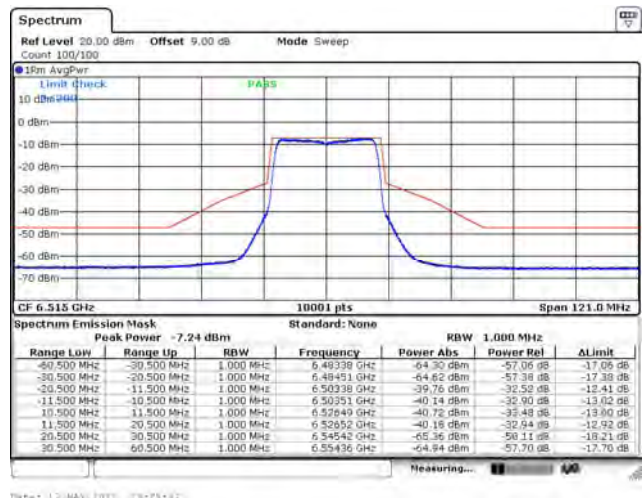
802.11ax (20 MHz) / Ant. 3 / 6435 MHz



802.11ax (20 MHz) / Ant. 3 / 6475 MHz



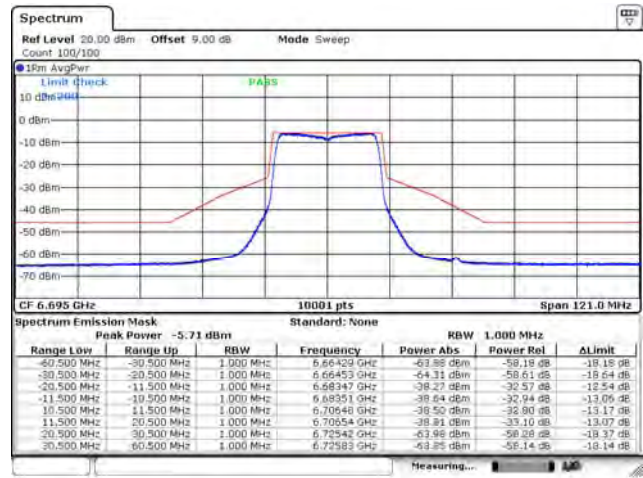
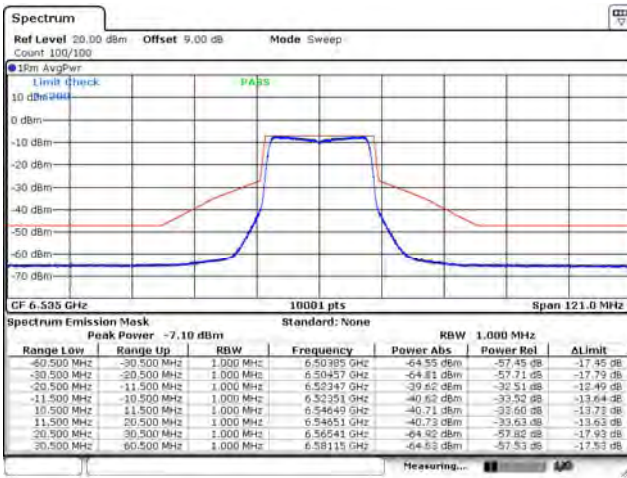
802.11ax (20 MHz) / Ant. 3 / 6515 MHz



Spectrum Plot

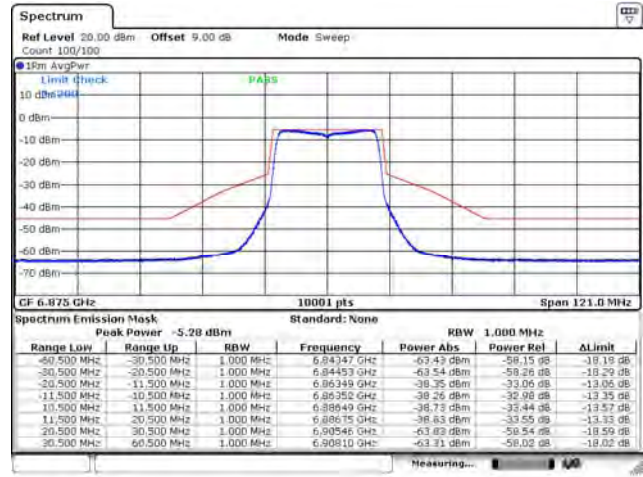
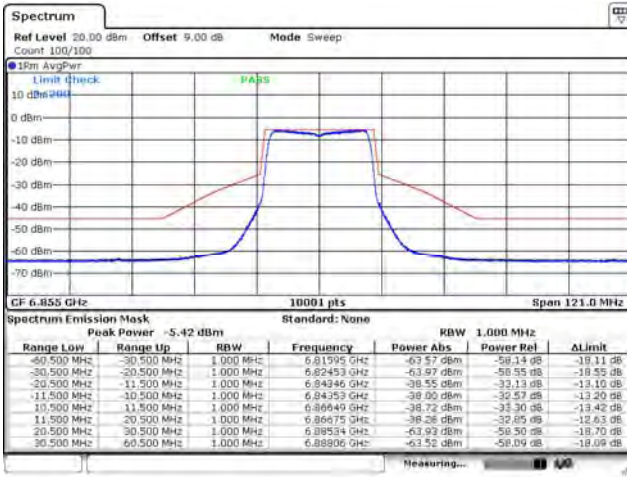
802.11ax (20 MHz) / Ant. 3 / 6535 MHz

802.11ax (20 MHz) / Ant. 3 / 6695 MHz



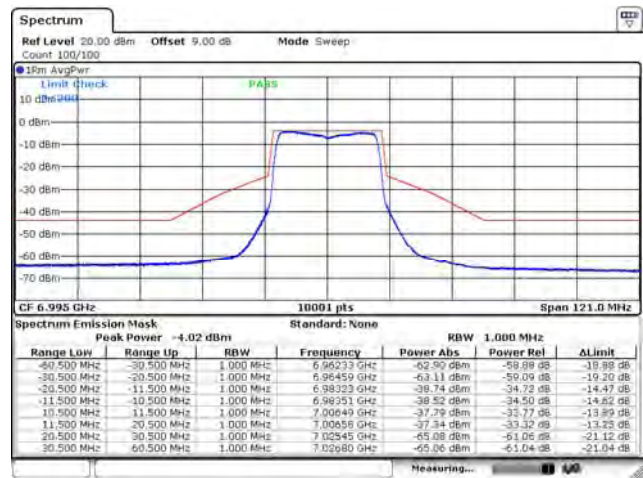
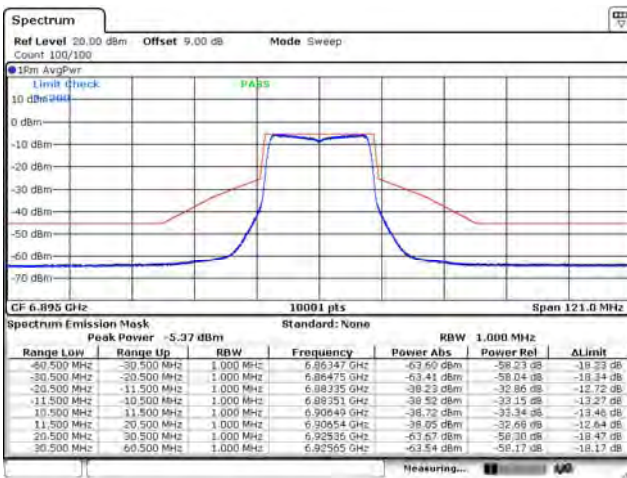
802.11ax (20 MHz) / Ant. 3 / 6855 MHz

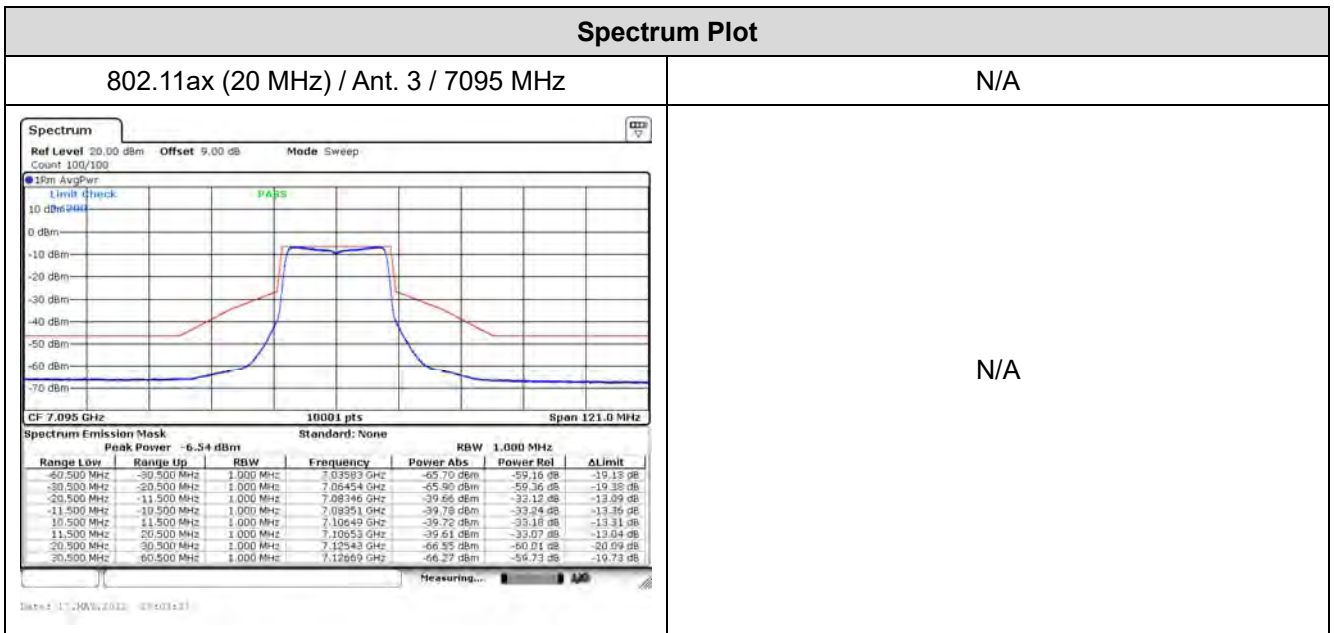
802.11ax (20 MHz) / Ant. 3 / 6875 MHz



802.11ax (20 MHz) / Ant. 3 / 6895 MHz

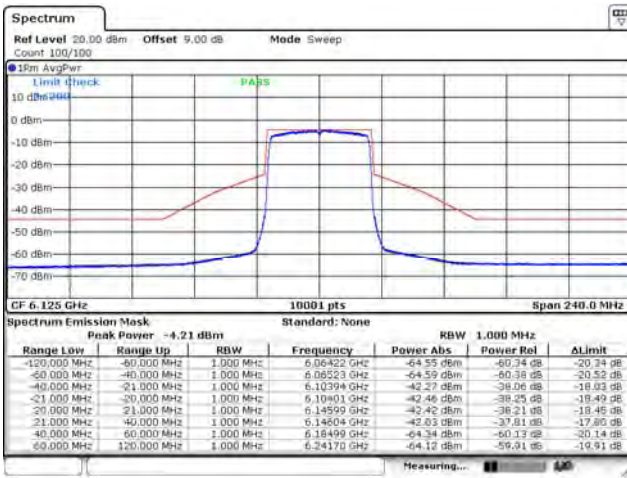
802.11ax (20 MHz) / Ant. 3 / 6995 MHz



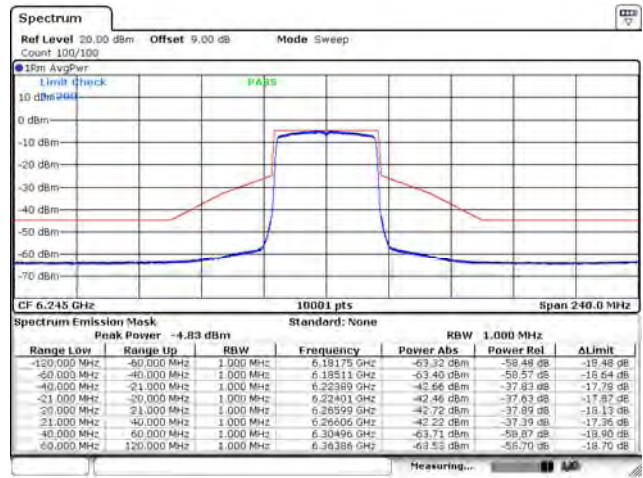


Spectrum Plot

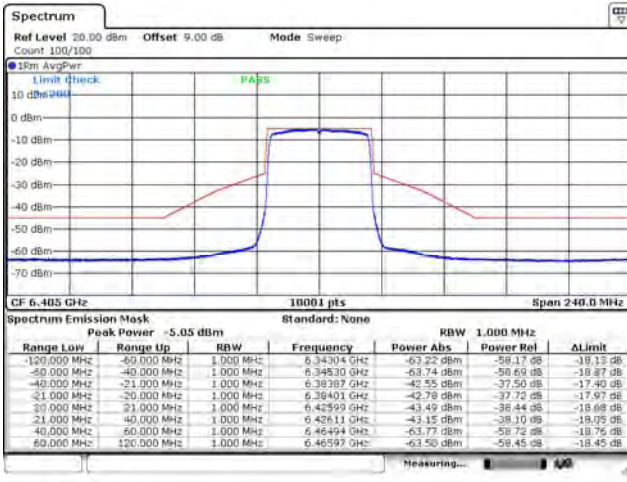
802.11ax (40 MHz) / Ant. 0 / 6125 MHz



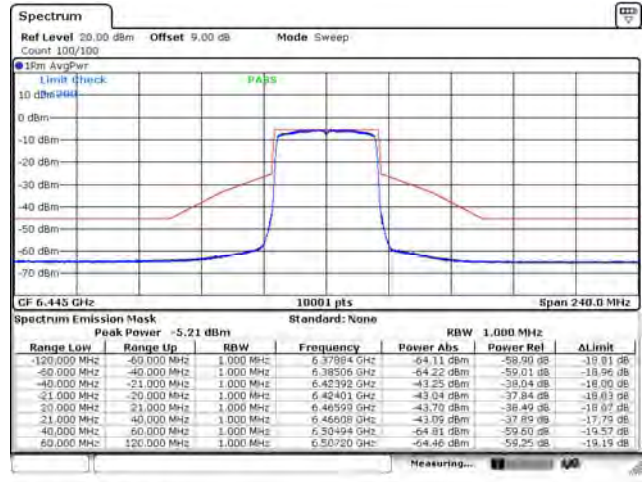
802.11ax (40 MHz) / Ant. 0 / 6245 MHz



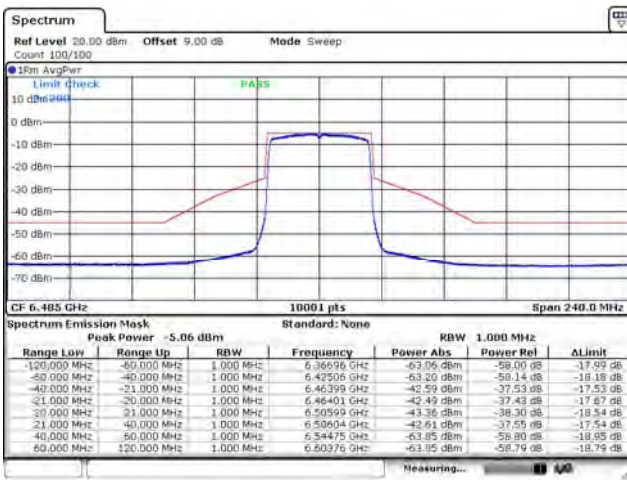
802.11ax (40 MHz) / Ant. 0 / 6405 MHz



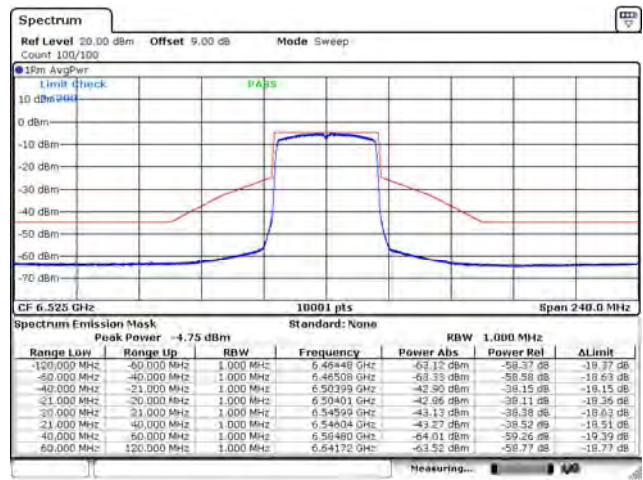
802.11ax (40 MHz) / Ant. 0 / 6445 MHz



802.11ax (40 MHz) / Ant. 0 / 6485 MHz

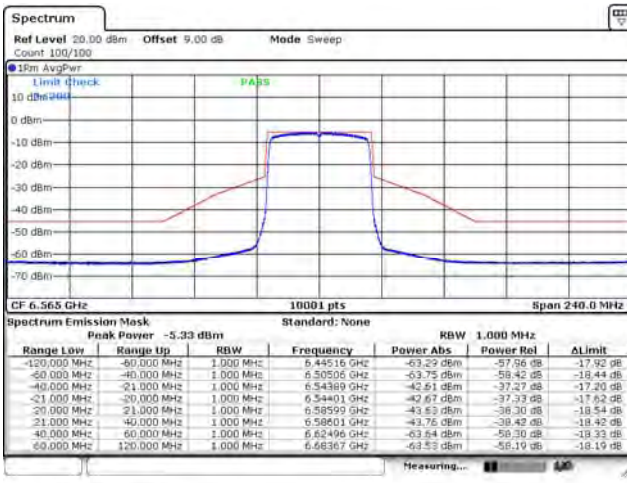


802.11ax (40 MHz) / Ant. 0 / 6525 MHz

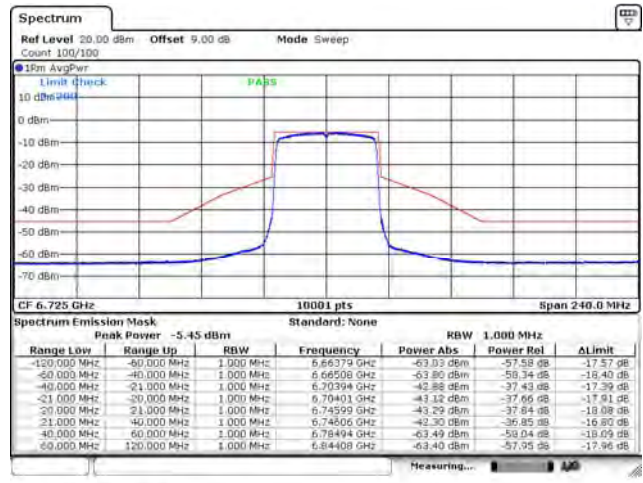


Spectrum Plot

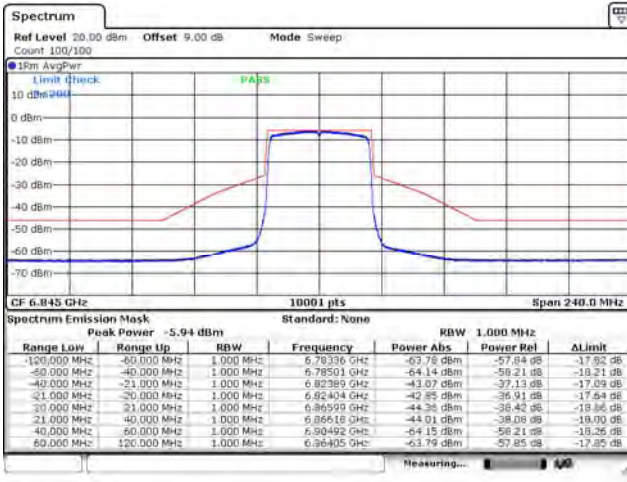
802.11ax (40 MHz) / Ant. 0 / 6565 MHz



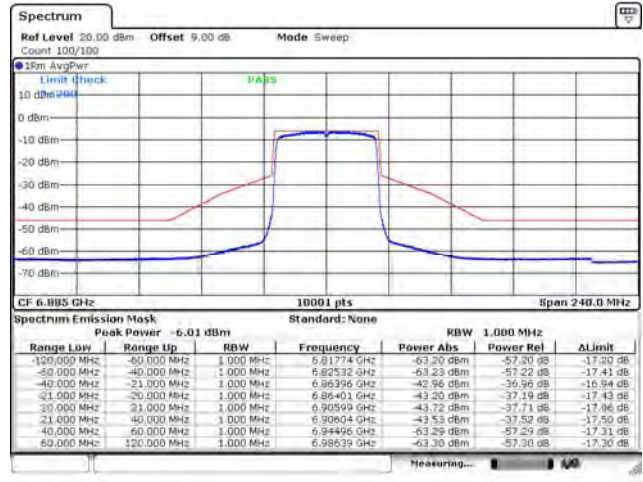
802.11ax (40 MHz) / Ant. 0 / 6725 MHz



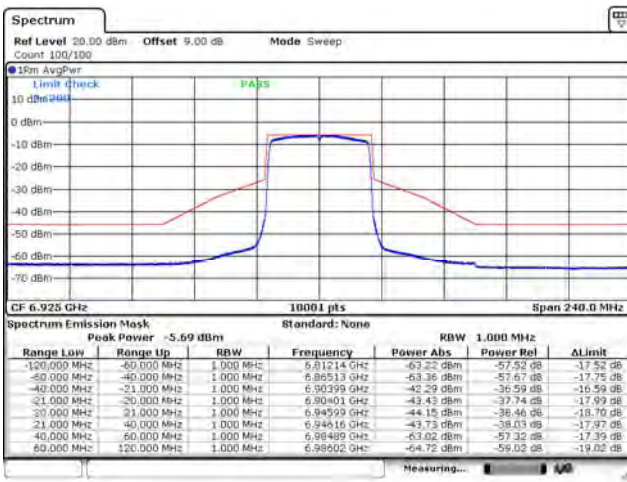
802.11ax (40 MHz) / Ant. 0 / 6845 MHz



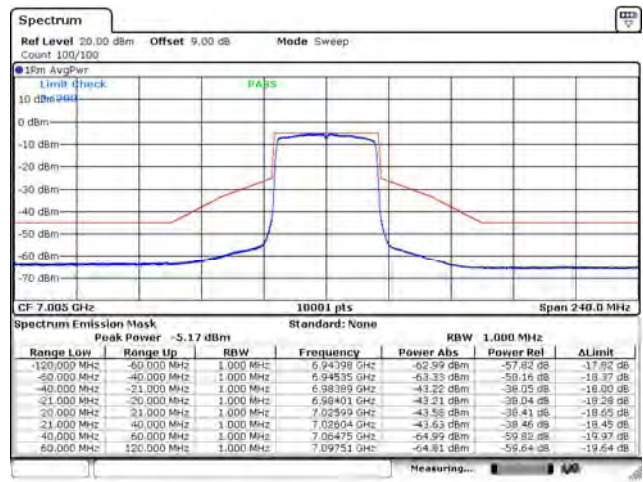
802.11ax (40 MHz) / Ant. 0 / 6885 MHz

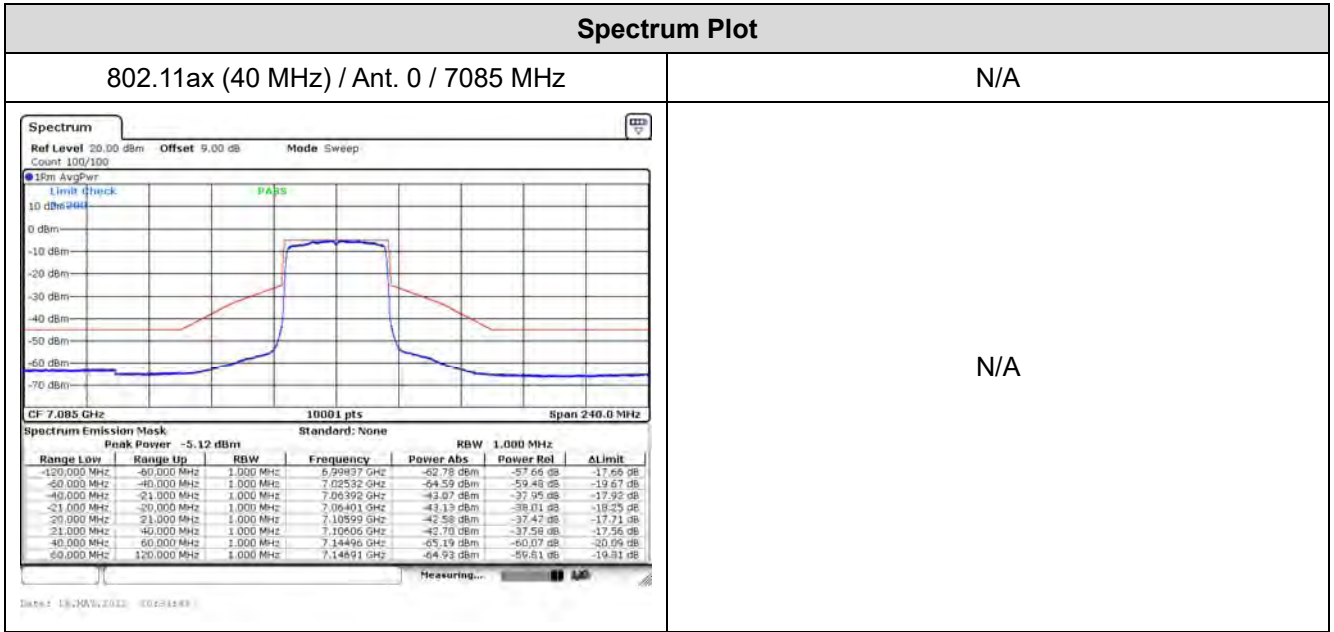


802.11ax (40 MHz) / Ant. 0 / 6925 MHz



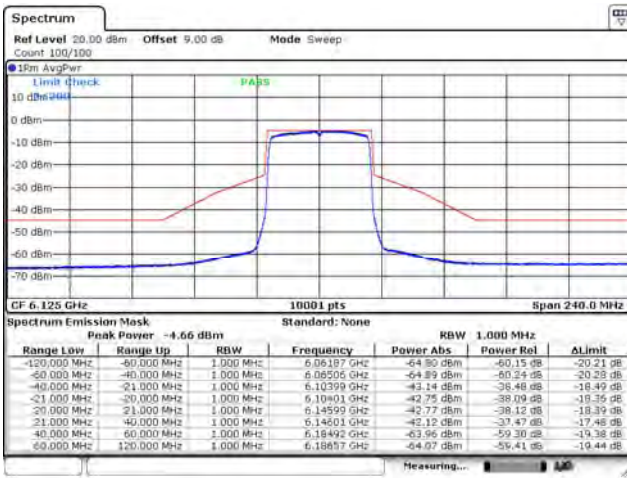
802.11ax (40 MHz) / Ant. 0 / 7005 MHz



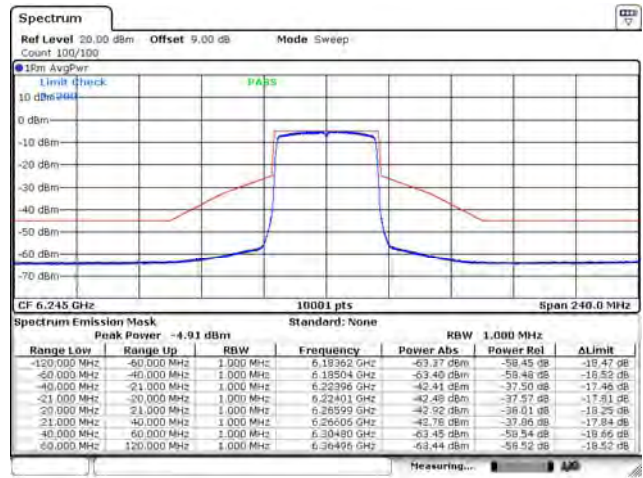


Spectrum Plot

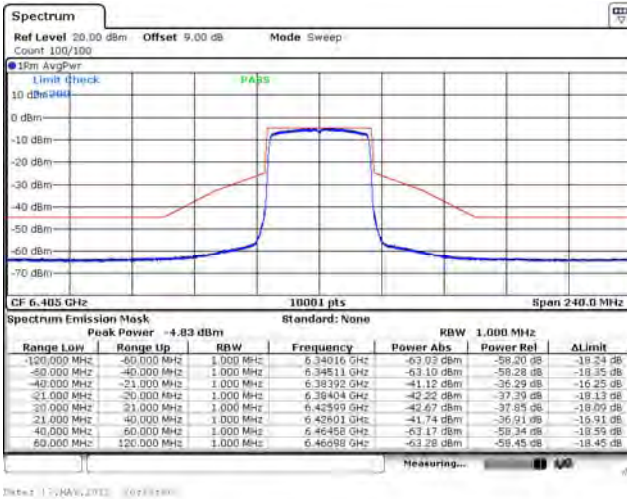
802.11ax (40 MHz) / Ant. 1 / 6125 MHz



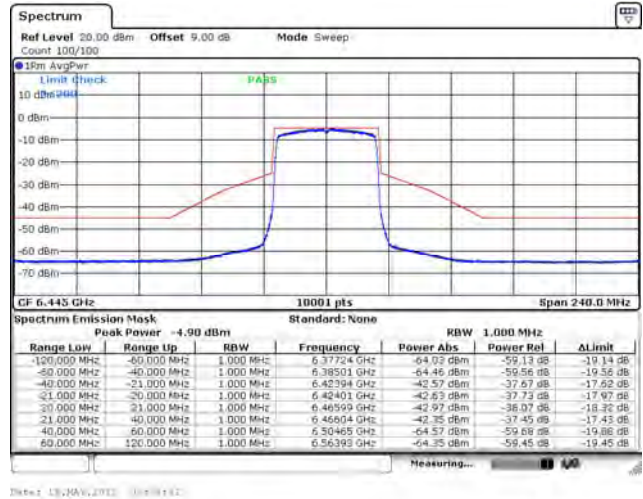
802.11ax (40 MHz) / Ant. 1 / 6245 MHz



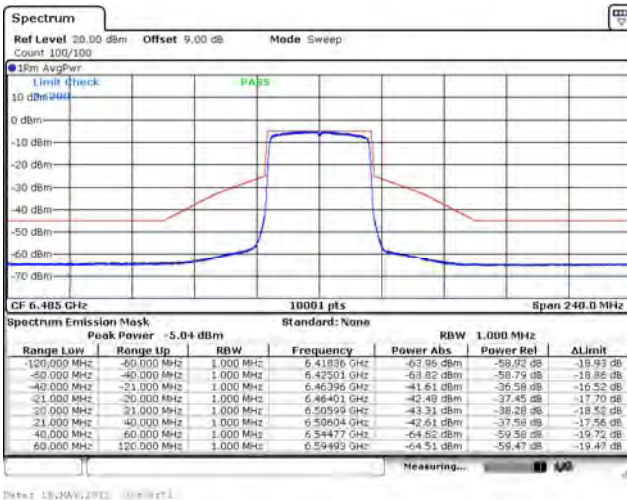
802.11ax (40 MHz) / Ant. 1 / 6405 MHz



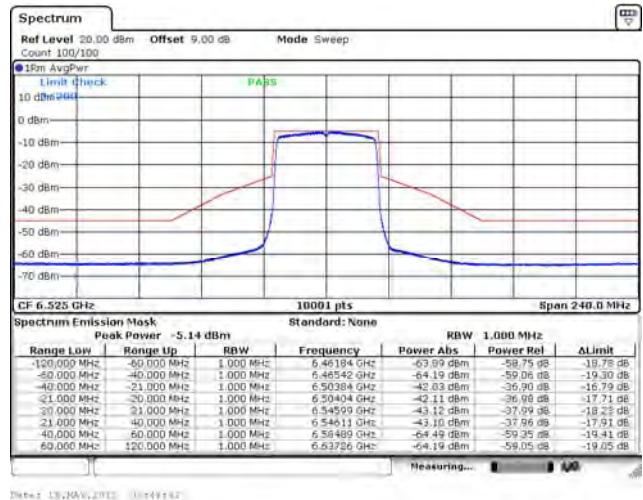
802.11ax (40 MHz) / Ant. 1 / 6445 MHz



802.11ax (40 MHz) / Ant. 1 / 6485 MHz

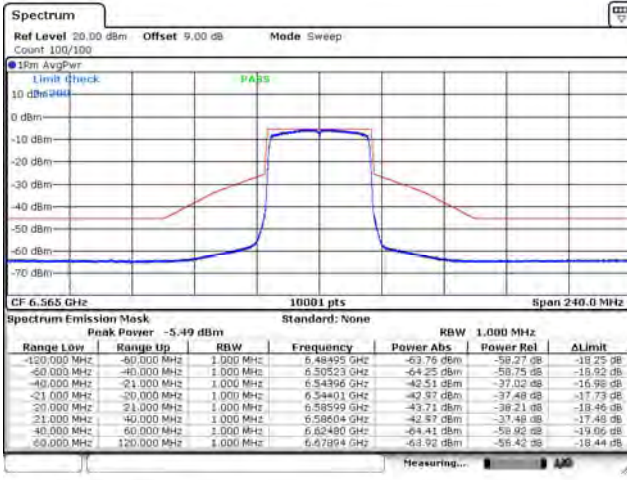


802.11ax (40 MHz) / Ant. 1 / 6525 MHz

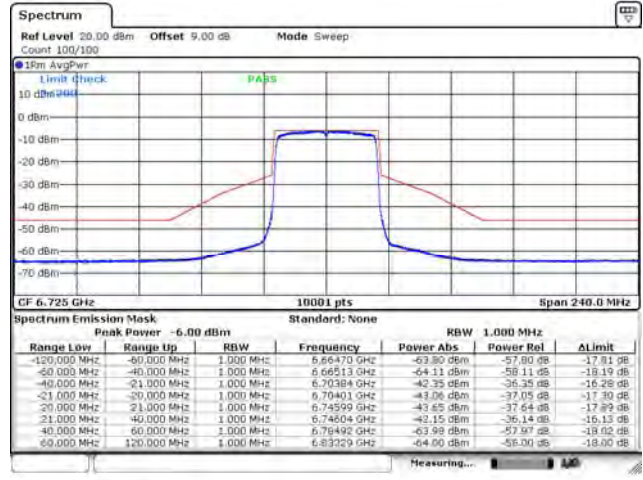


Spectrum Plot

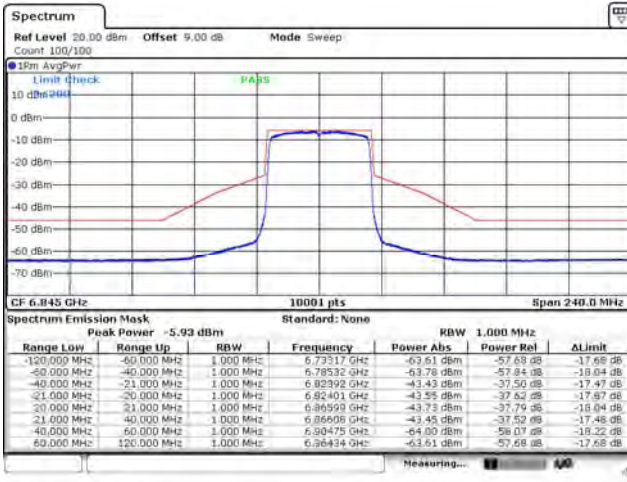
802.11ax (40 MHz) / Ant. 1 / 6565 MHz



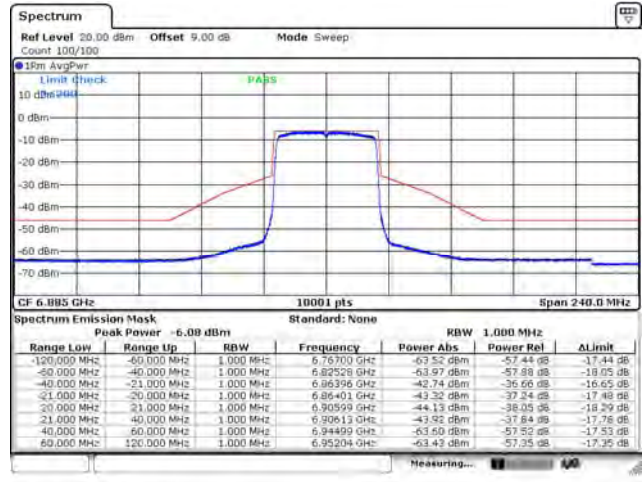
802.11ax (40 MHz) / Ant. 1 / 6725 MHz



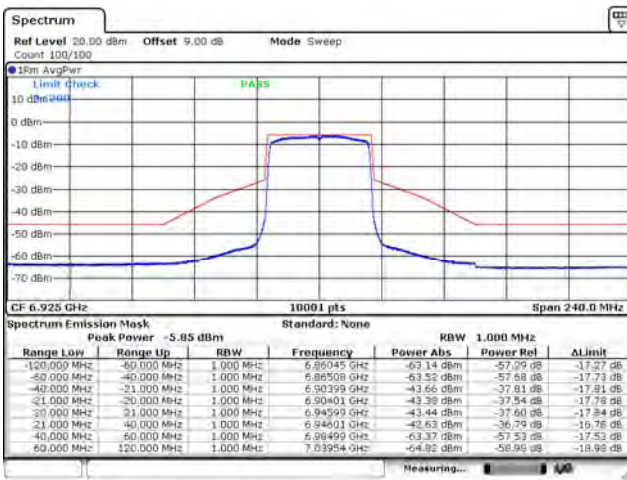
802.11ax (40 MHz) / Ant. 1 / 6845 MHz



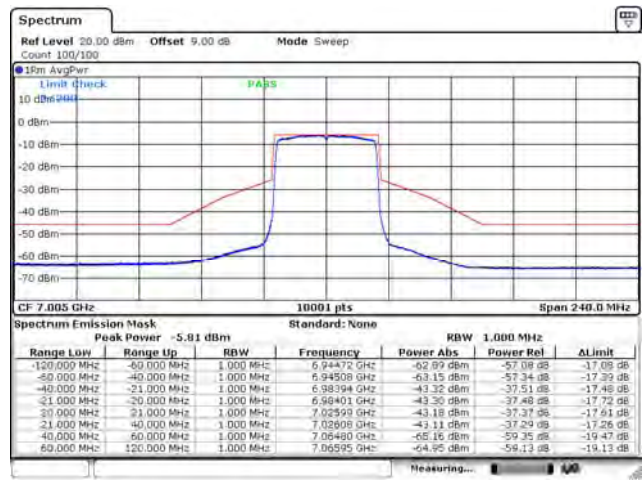
802.11ax (40 MHz) / Ant. 1 / 6885 MHz

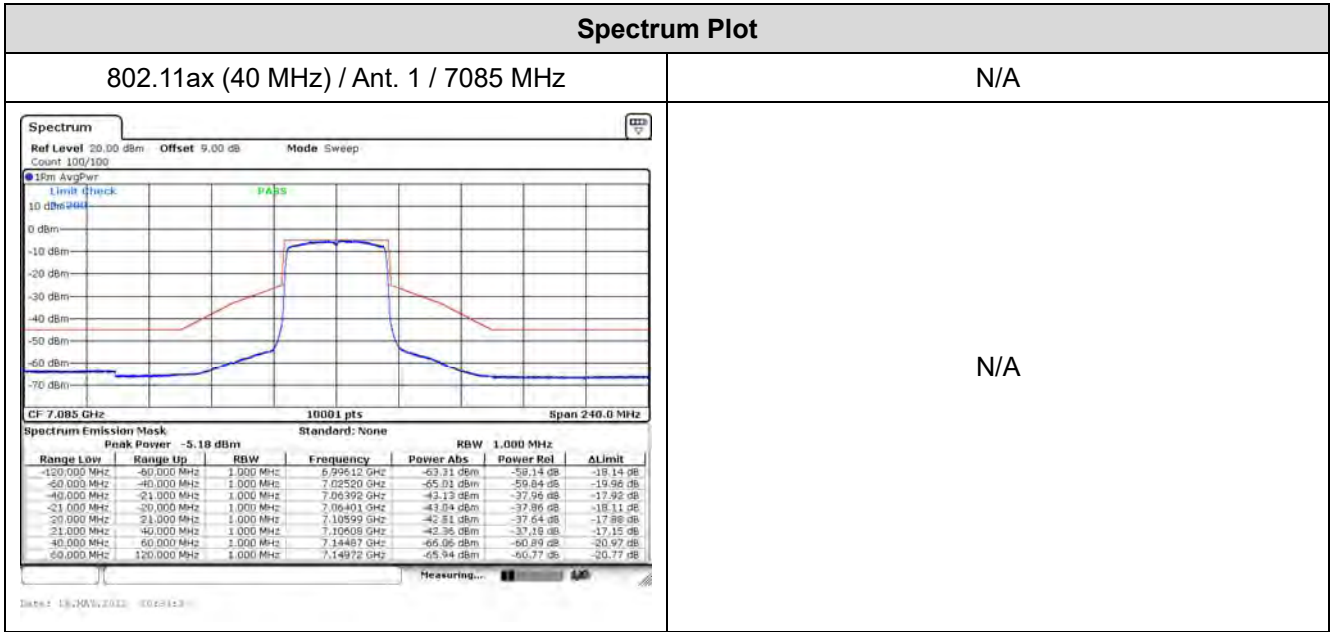


802.11ax (40 MHz) / Ant. 1 / 6925 MHz



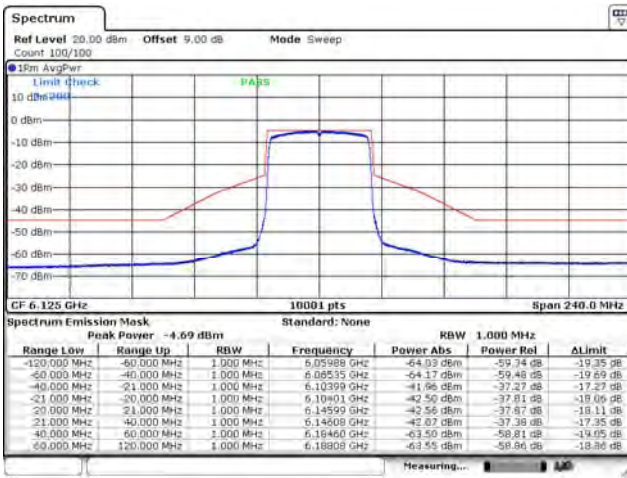
802.11ax (40 MHz) / Ant. 1 / 7005 MHz



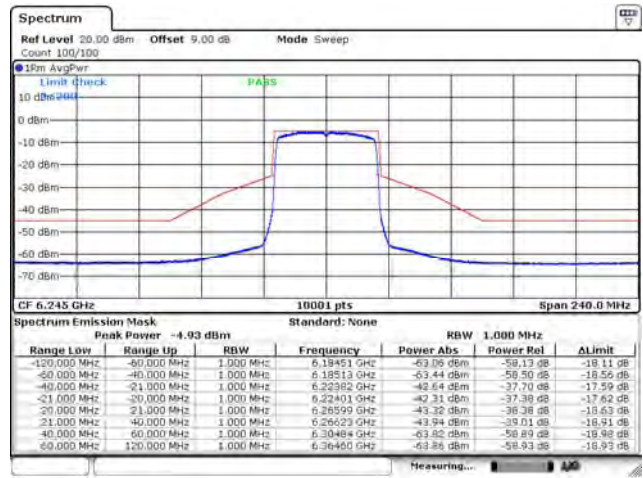


Spectrum Plot

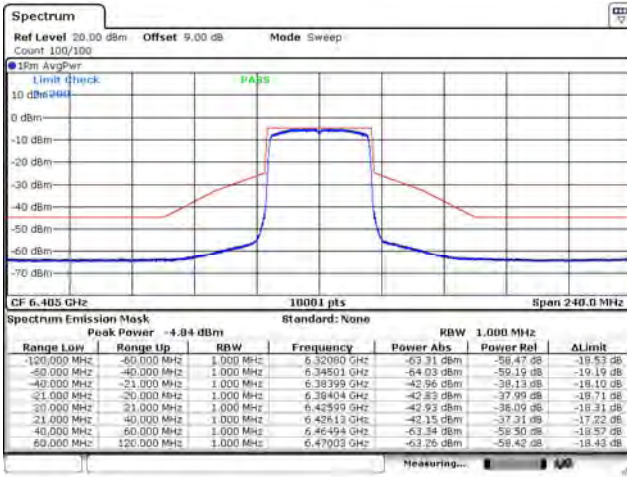
802.11ax (40 MHz) / Ant. 2 / 6125 MHz



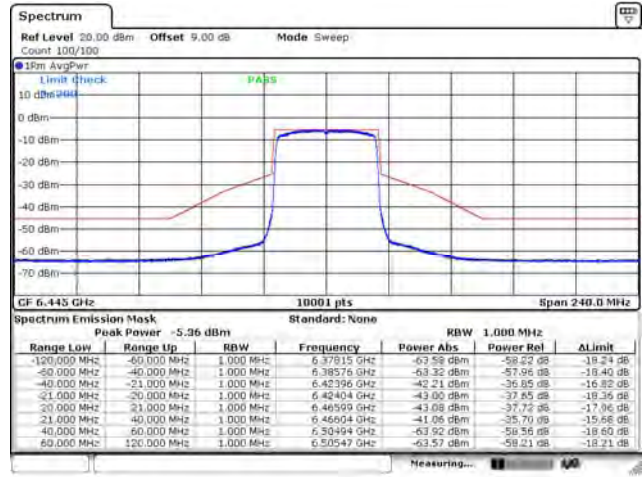
802.11ax (40 MHz) / Ant. 2 / 6245 MHz



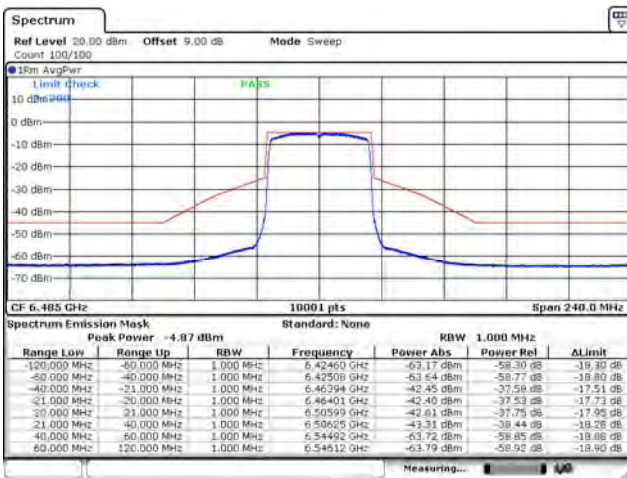
802.11ax (40 MHz) / Ant. 2 / 6405 MHz



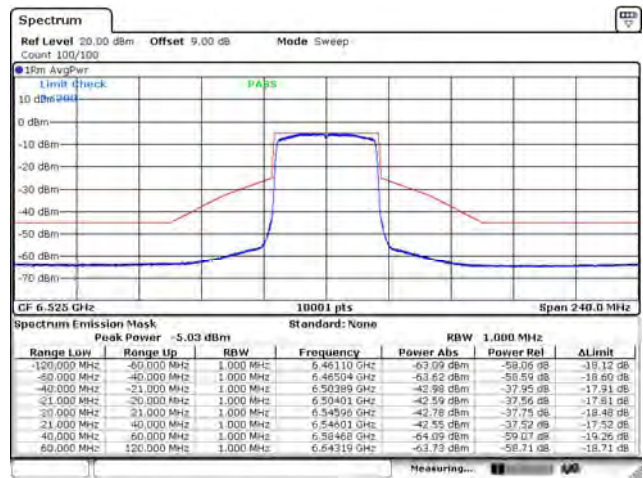
802.11ax (40 MHz) / Ant. 2 / 6445 MHz



802.11ax (40 MHz) / Ant. 2 / 6485 MHz

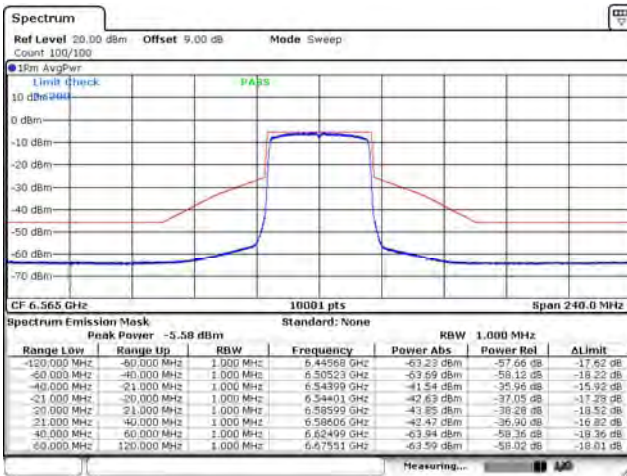


802.11ax (40 MHz) / Ant. 2 / 6525 MHz

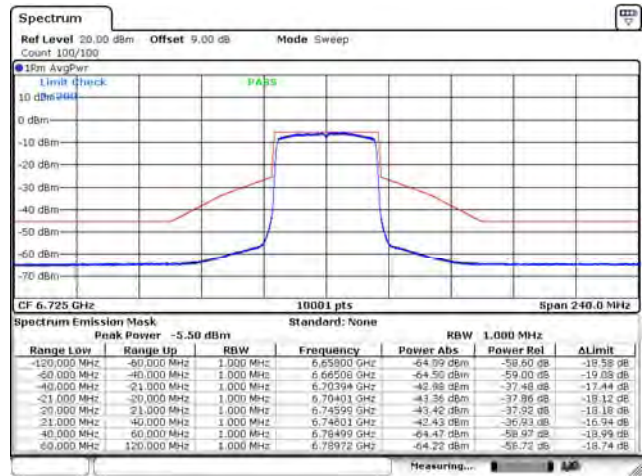


Spectrum Plot

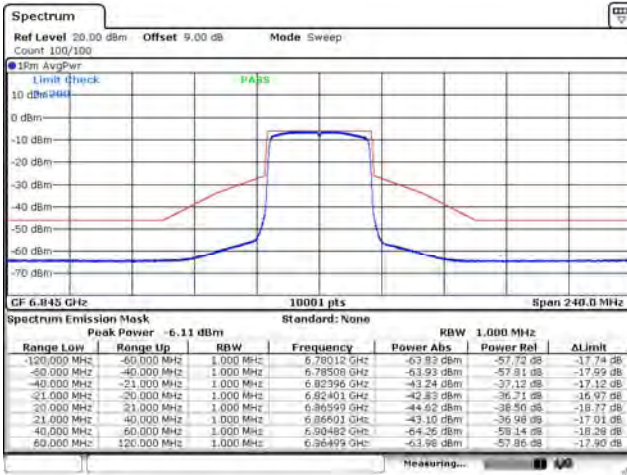
802.11ax (40 MHz) / Ant. 2 / 6565 MHz



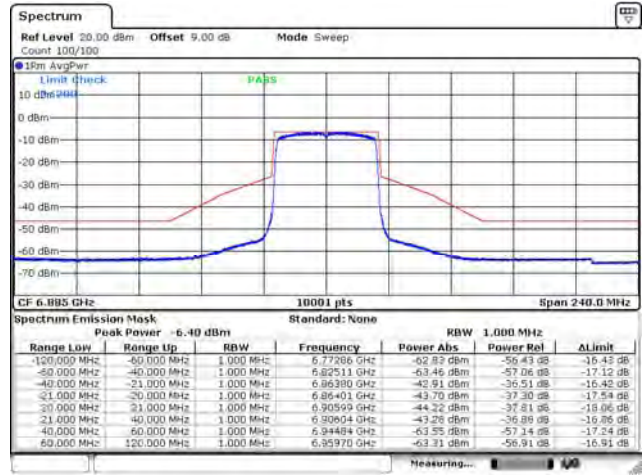
802.11ax (40 MHz) / Ant. 2 / 6725 MHz



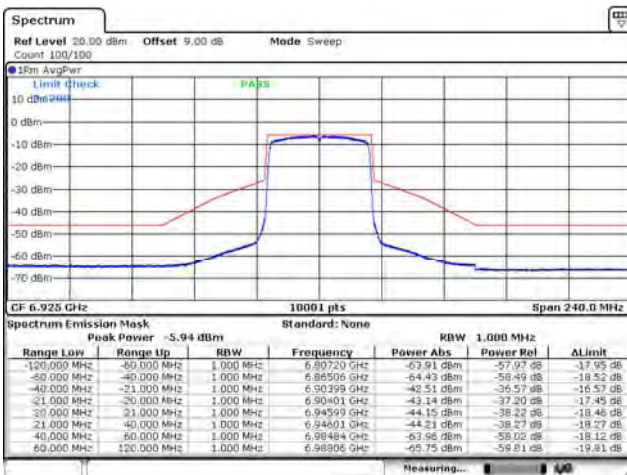
802.11ax (40 MHz) / Ant. 2 / 6845 MHz



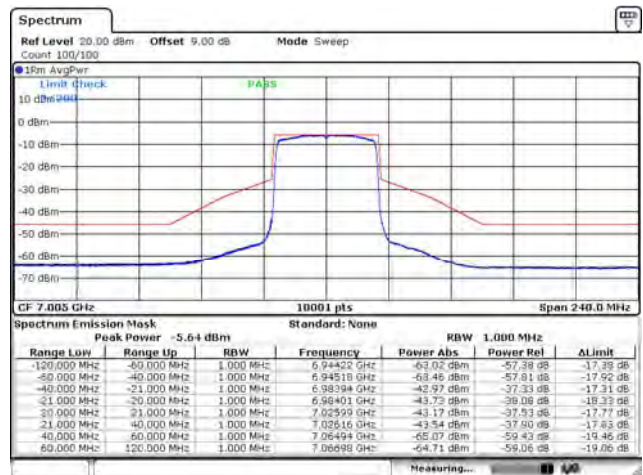
802.11ax (40 MHz) / Ant. 2 / 6885 MHz

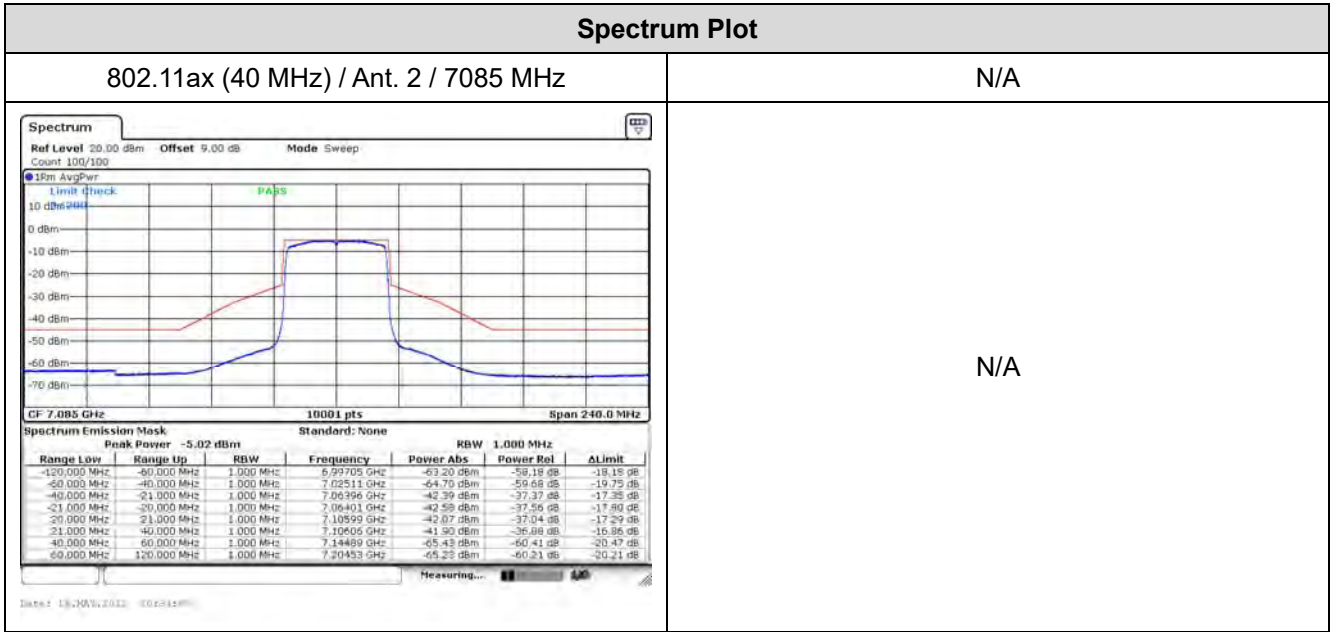


802.11ax (40 MHz) / Ant. 2 / 6925 MHz



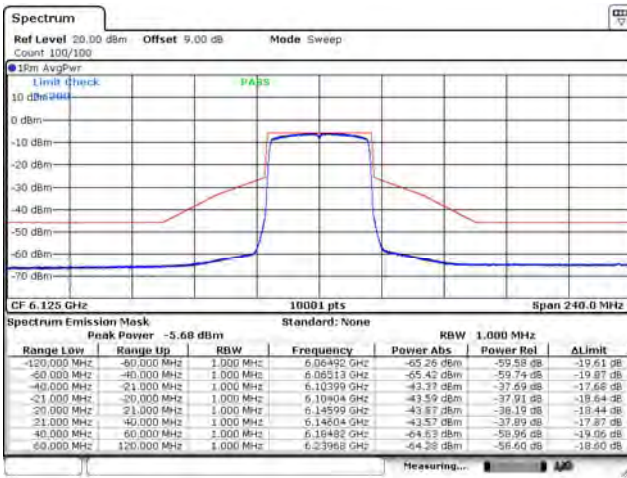
802.11ax (40 MHz) / Ant. 2 / 7005 MHz



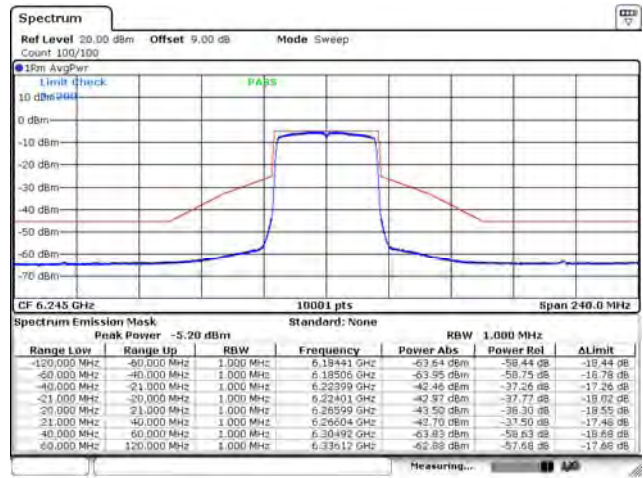


Spectrum Plot

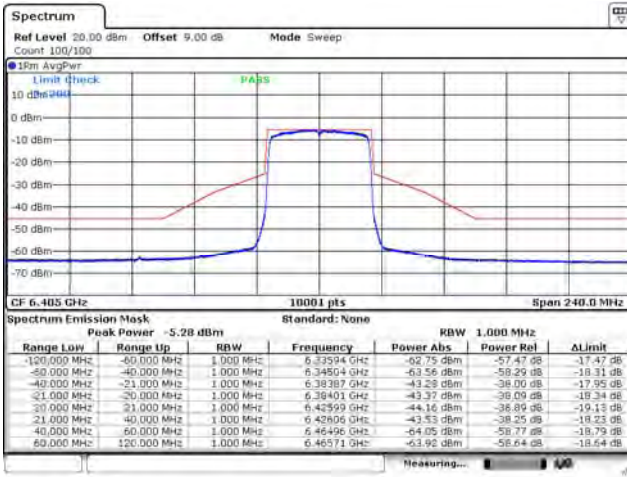
802.11ax (40 MHz) / Ant. 3 / 6125 MHz



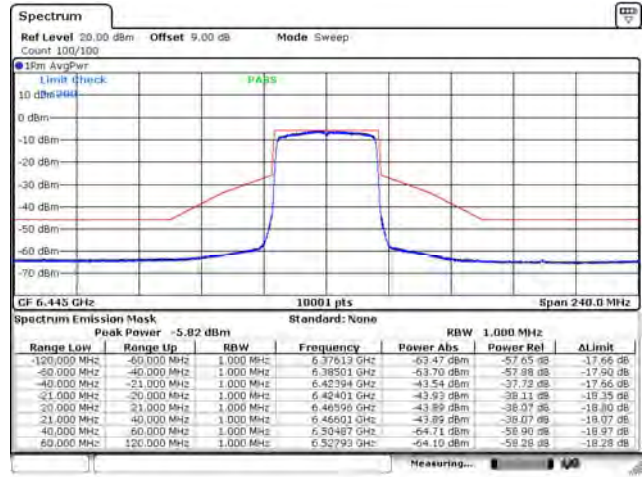
802.11ax (40 MHz) / Ant. 3 / 6245 MHz



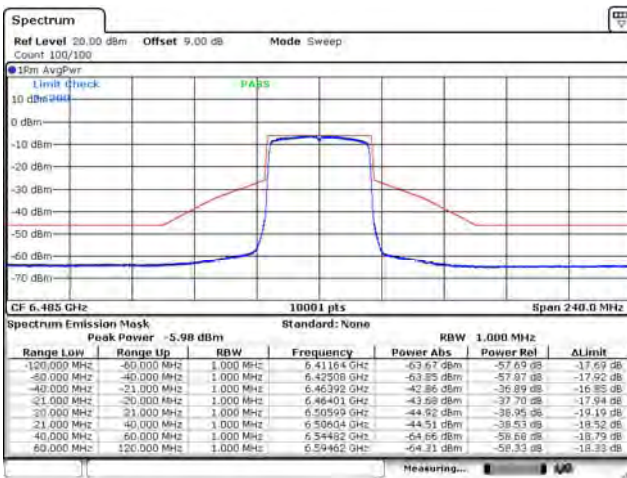
802.11ax (40 MHz) / Ant. 3 / 6405 MHz



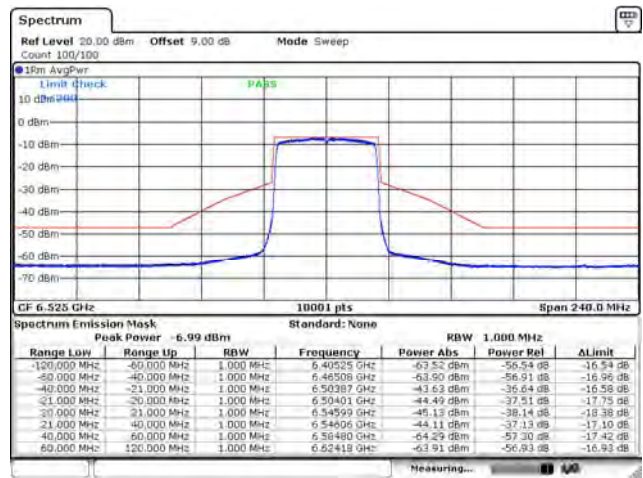
802.11ax (40 MHz) / Ant. 3 / 6445 MHz



802.11ax (40 MHz) / Ant. 3 / 6485 MHz

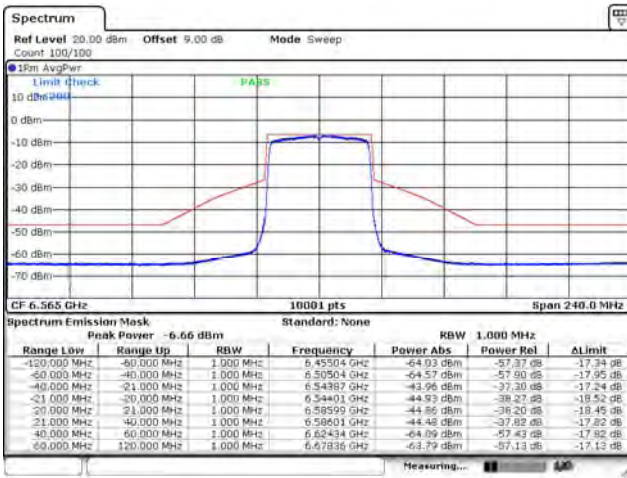


802.11ax (40 MHz) / Ant. 3 / 6525 MHz

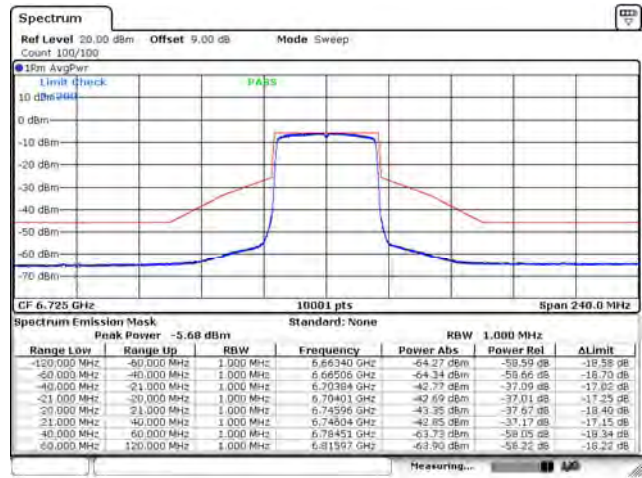


Spectrum Plot

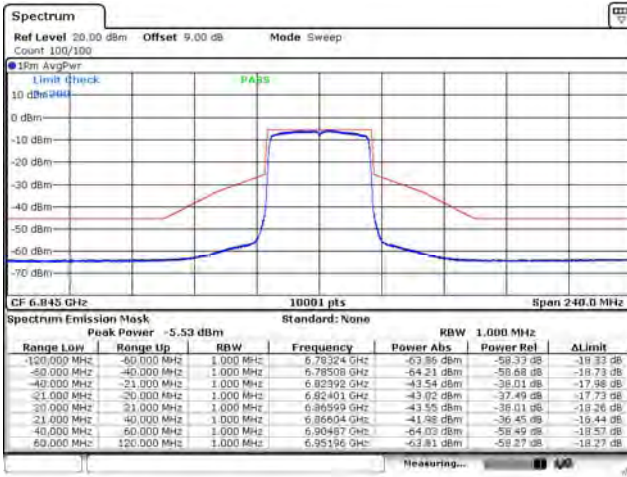
802.11ax (40 MHz) / Ant. 3 / 6565 MHz



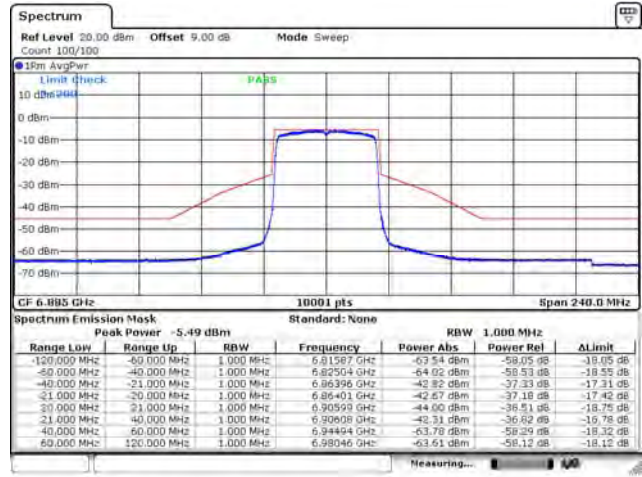
802.11ax (40 MHz) / Ant. 3 / 6725 MHz



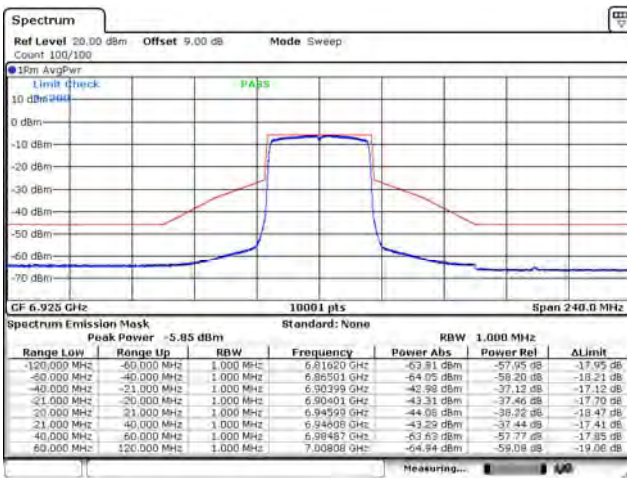
802.11ax (40 MHz) / Ant. 3 / 6845 MHz



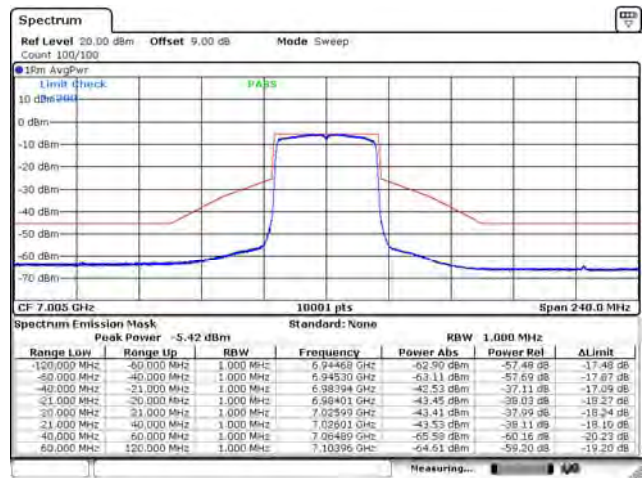
802.11ax (40 MHz) / Ant. 3 / 6885 MHz

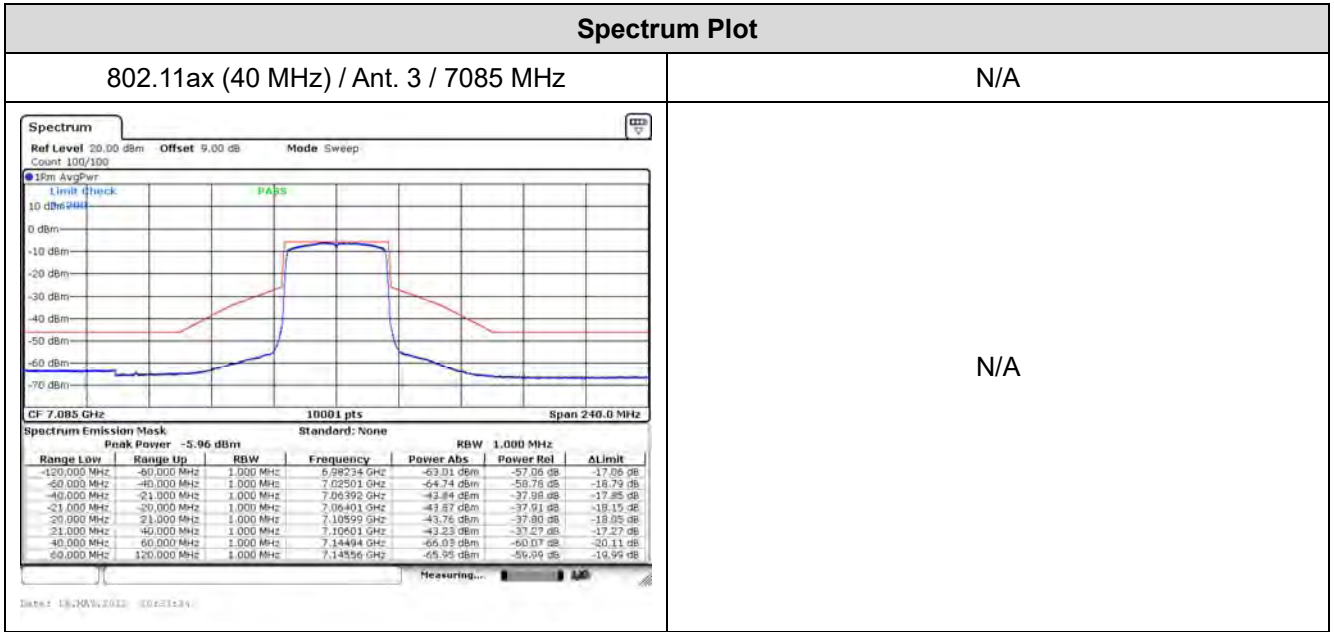


802.11ax (40 MHz) / Ant. 3 / 6925 MHz



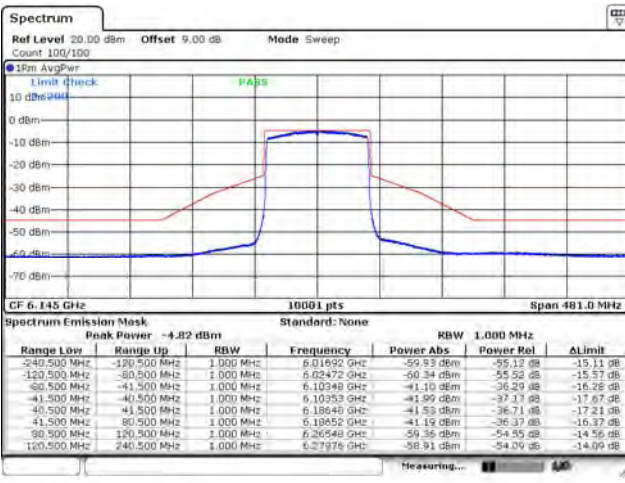
802.11ax (40 MHz) / Ant. 3 / 7005 MHz



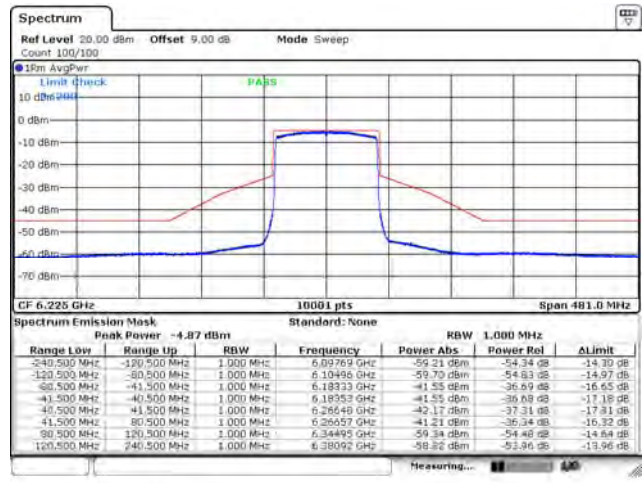


Spectrum Plot

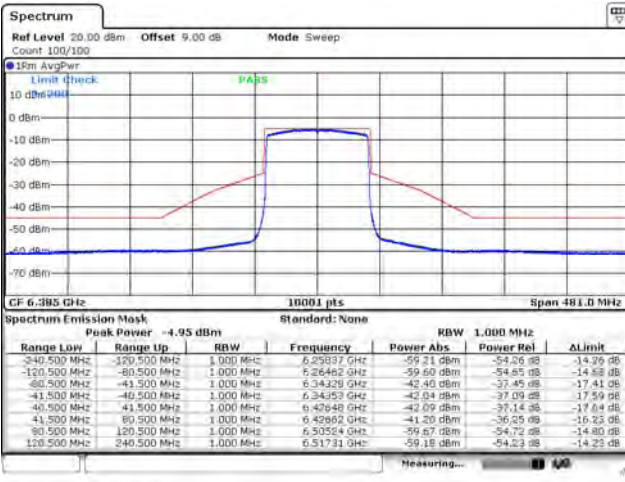
802.11ax (80 MHz) / Ant. 0 / 6145 MHz



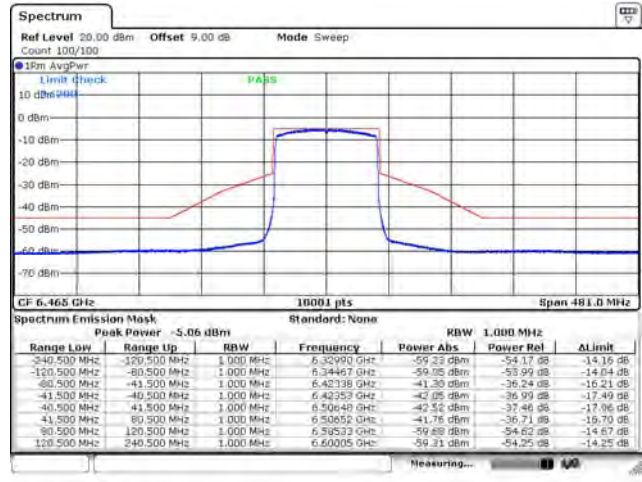
802.11ax (80 MHz) / Ant. 0 / 6225 MHz



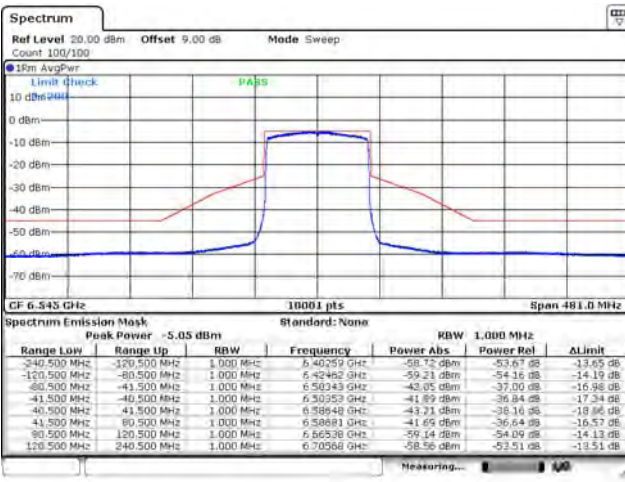
802.11ax (80 MHz) / Ant. 0 / 6385 MHz



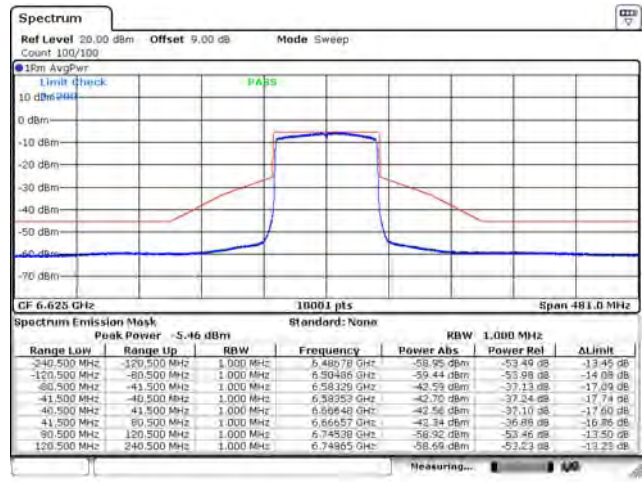
802.11ax (80 MHz) / Ant. 0 / 6465 MHz



802.11ax (80 MHz) / Ant. 0 / 6545 MHz



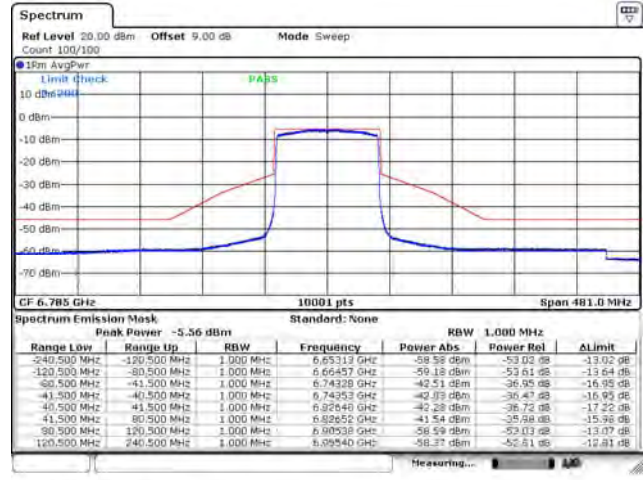
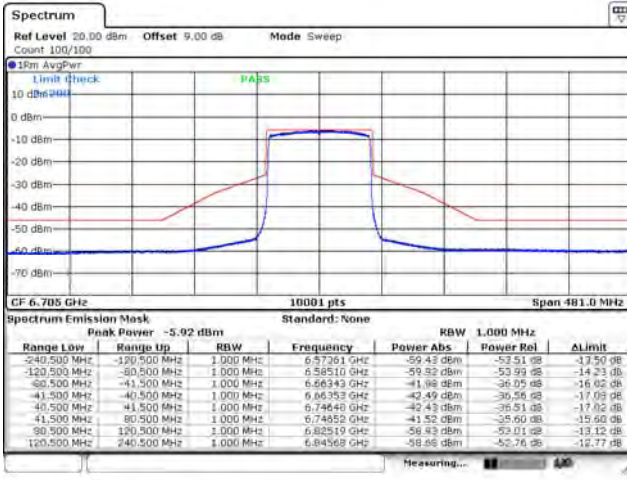
802.11ax (80 MHz) / Ant. 0 / 6625 MHz



Spectrum Plot

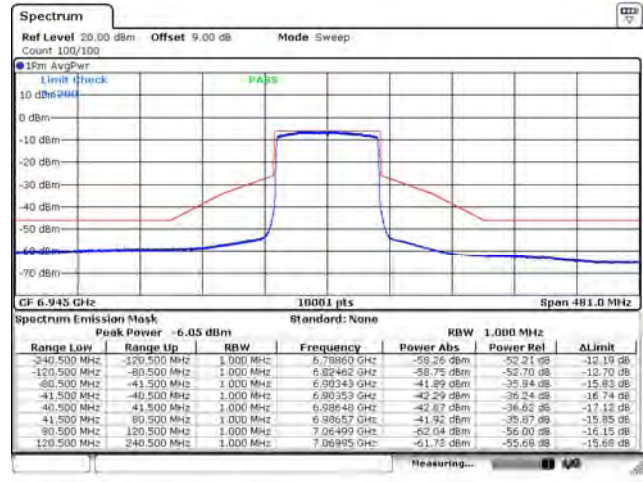
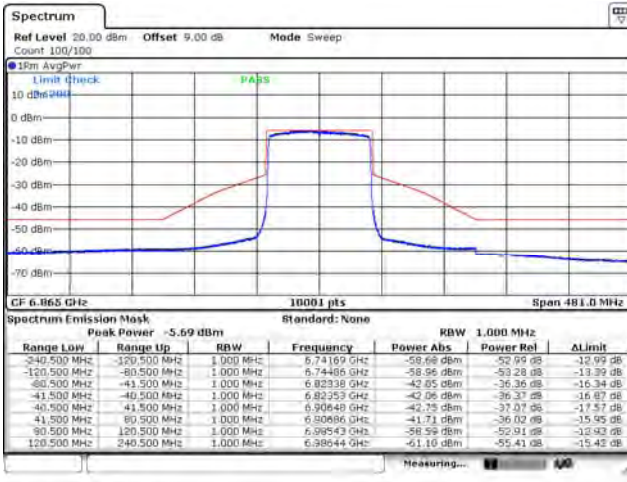
802.11ax (80 MHz) / Ant. 0 / 6705 MHz

802.11ax (80 MHz) / Ant. 0 / 6785 MHz



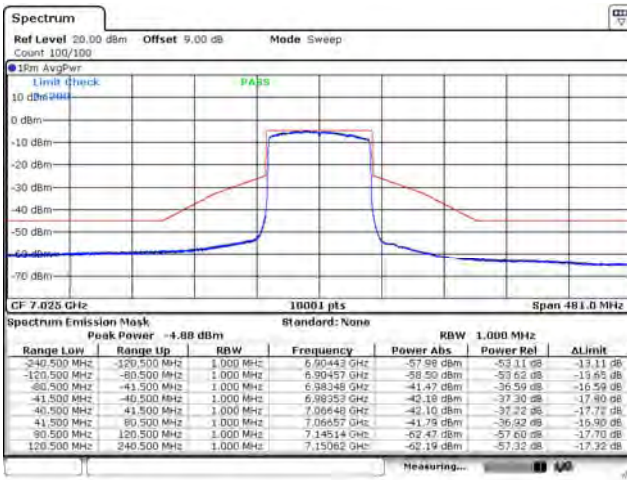
802.11ax (80 MHz) / Ant. 0 / 6865 MHz

802.11ax (80 MHz) / Ant. 0 / 6945 MHz



802.11ax (80 MHz) / Ant. 0 / 7025 MHz

N/A



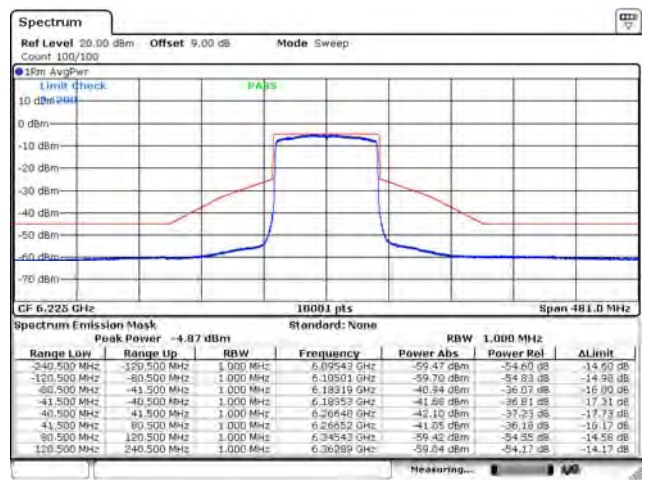
N/A

Spectrum Plot

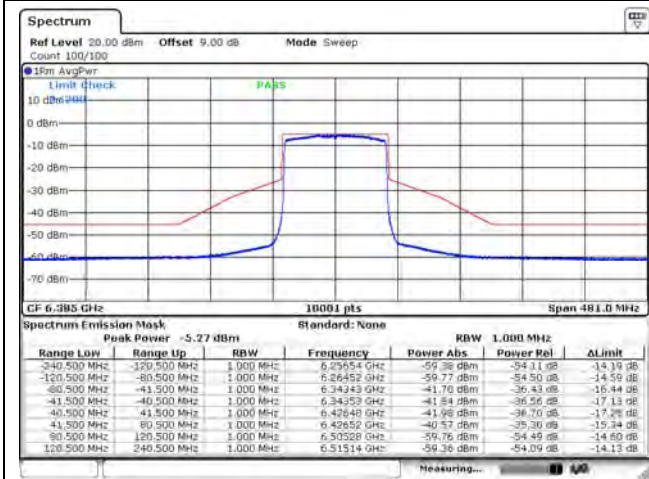
802.11ax (80 MHz) / Ant. 1 / 6145 MHz



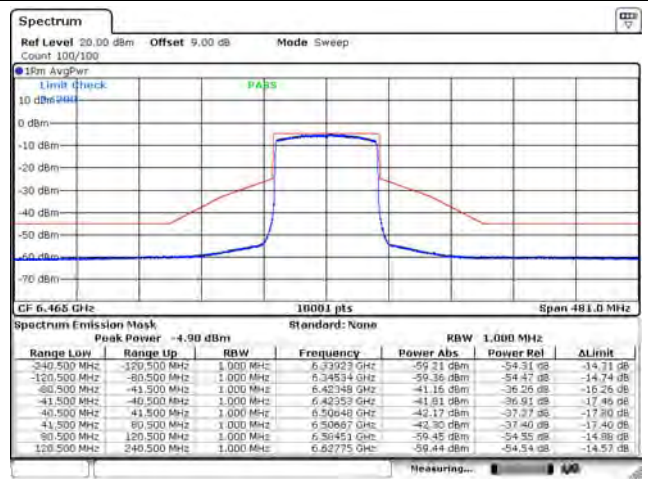
802.11ax (80 MHz) / Ant. 1 / 6225 MHz



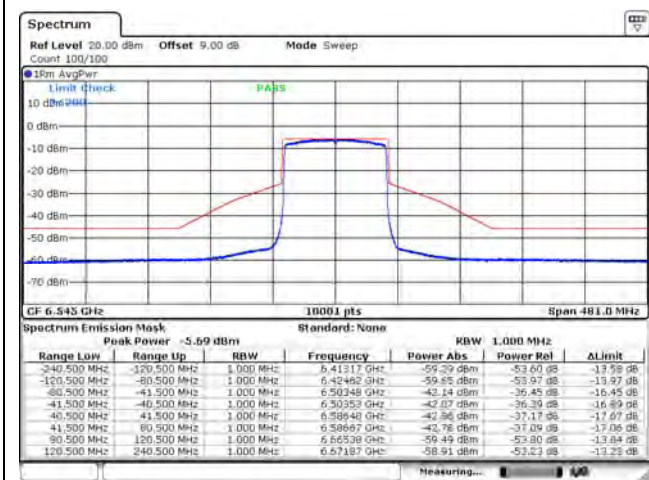
802.11ax (80 MHz) / Ant. 1 / 6385 MHz



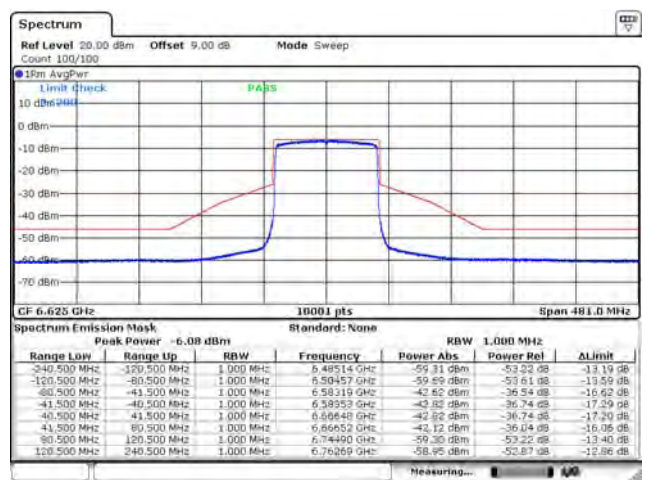
802.11ax (80 MHz) / Ant. 1 / 6465 MHz



802.11ax (80 MHz) / Ant. 1 / 6545 MHz

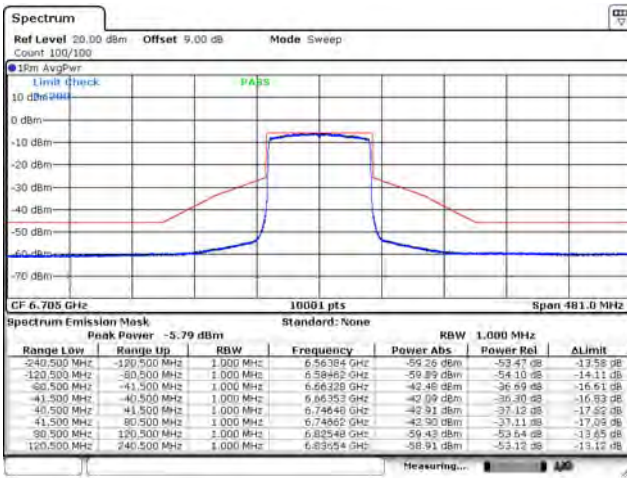


802.11ax (80 MHz) / Ant. 1 / 6625 MHz

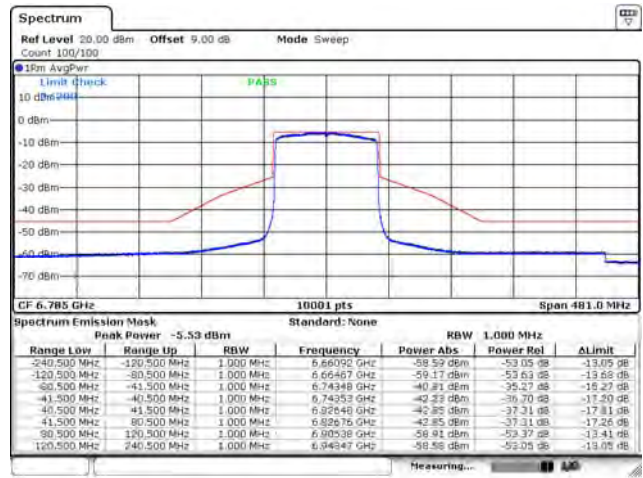


Spectrum Plot

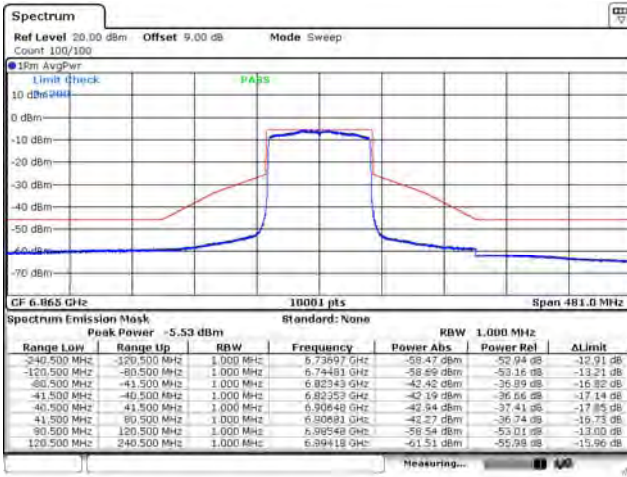
802.11ax (80 MHz) / Ant. 1 / 6705 MHz



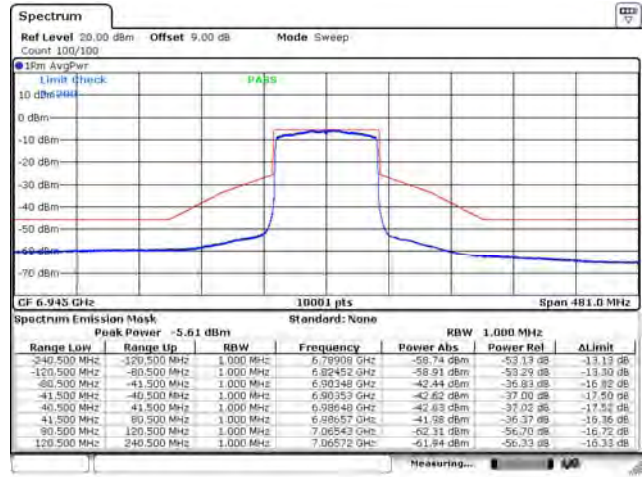
802.11ax (80 MHz) / Ant. 1 / 6785 MHz



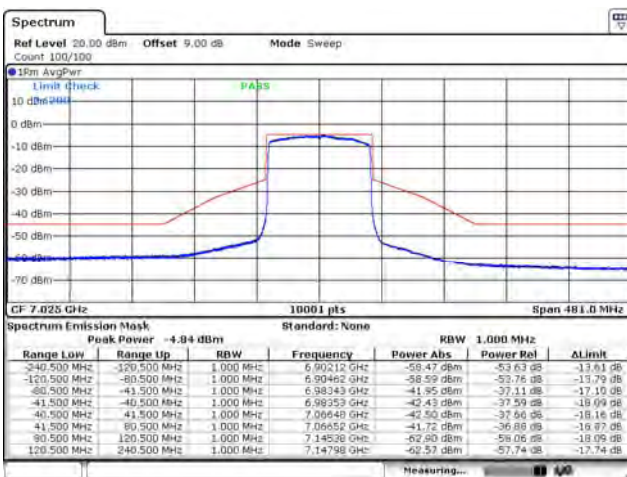
802.11ax (80 MHz) / Ant. 1 / 6865 MHz



802.11ax (80 MHz) / Ant. 1 / 6945 MHz



802.11ax (80 MHz) / Ant. 1 / 7025 MHz

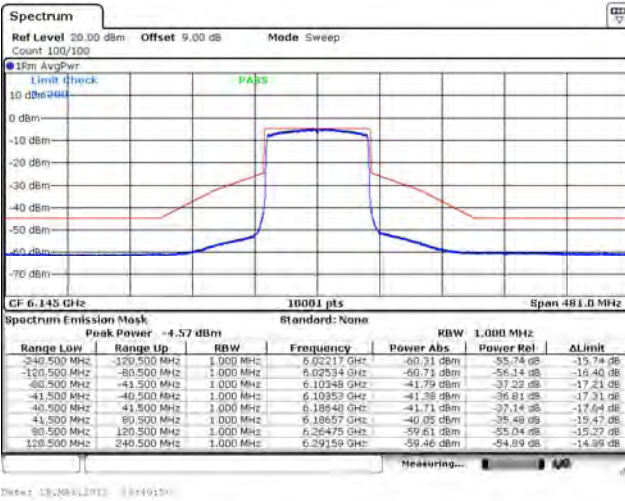


N/A

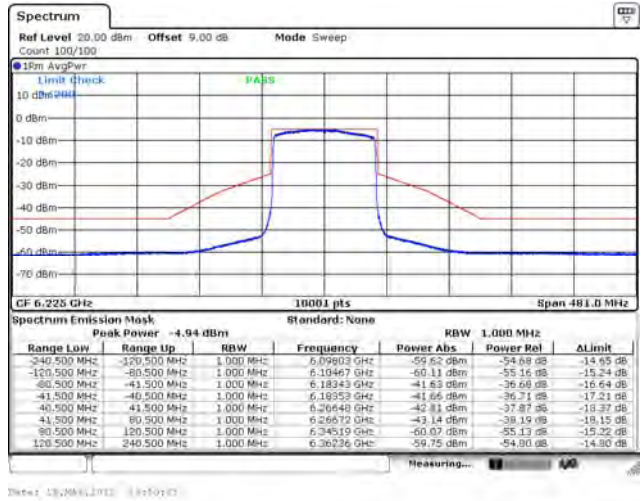
N/A

Spectrum Plot

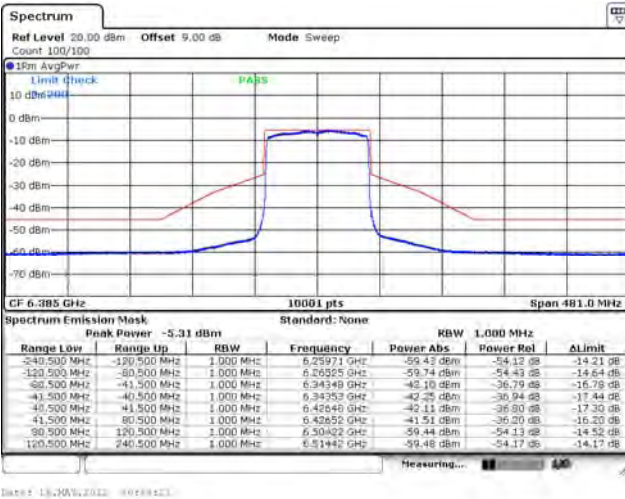
802.11ax (80 MHz) / Ant. 2 / 6145 MHz



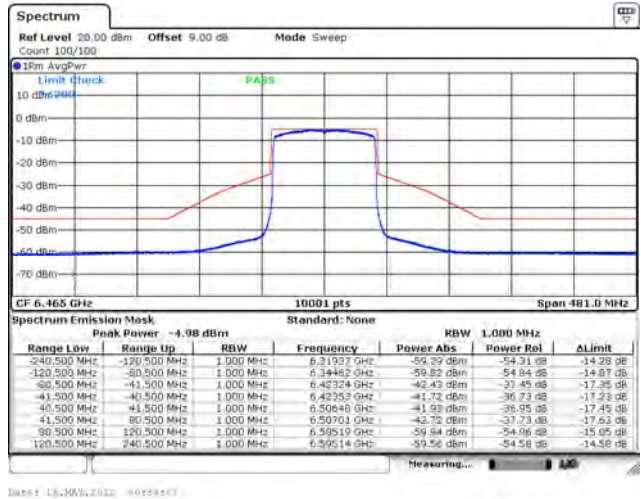
802.11ax (80 MHz) / Ant. 2 / 6225 MHz



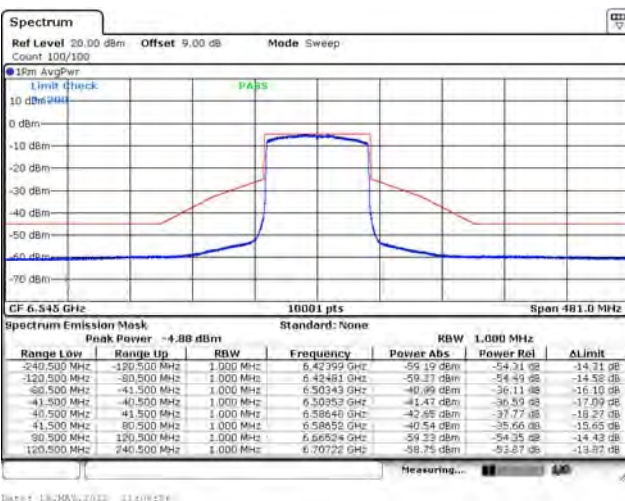
802.11ax (80 MHz) / Ant. 2 / 6385 MHz



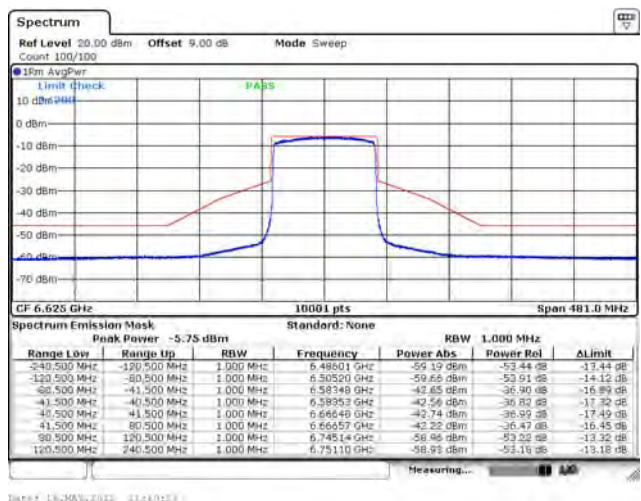
802.11ax (80 MHz) / Ant. 2 / 6465 MHz



802.11ax (80 MHz) / Ant. 2 / 6545 MHz



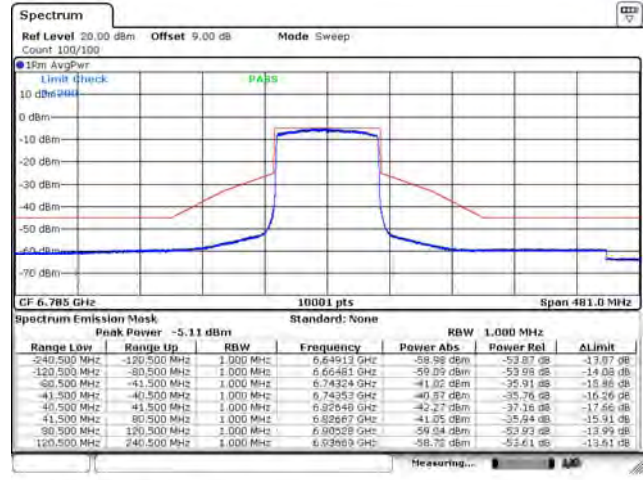
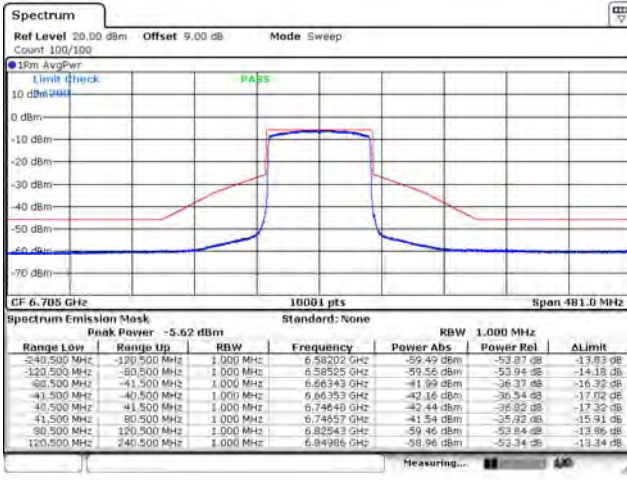
802.11ax (80 MHz) / Ant. 2 / 6625 MHz



Spectrum Plot

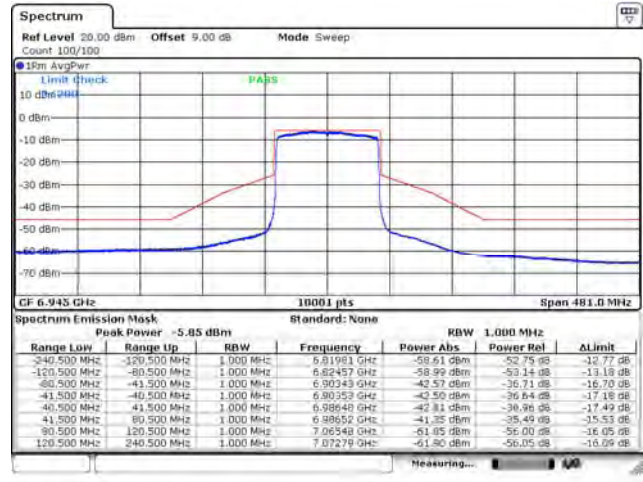
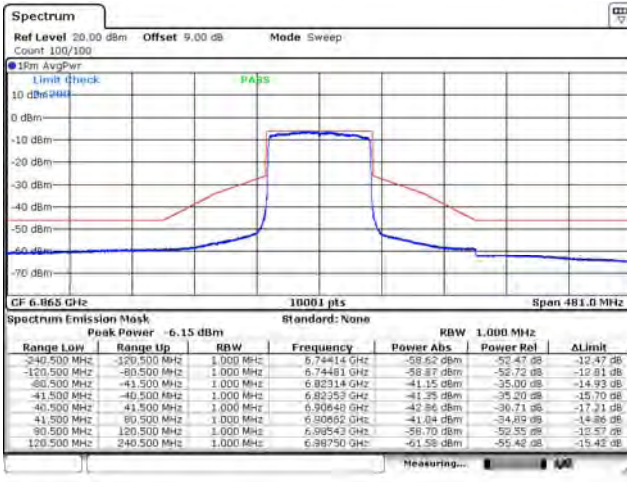
802.11ax (80 MHz) / Ant. 2 / 6705 MHz

802.11ax (80 MHz) / Ant. 2 / 6785 MHz



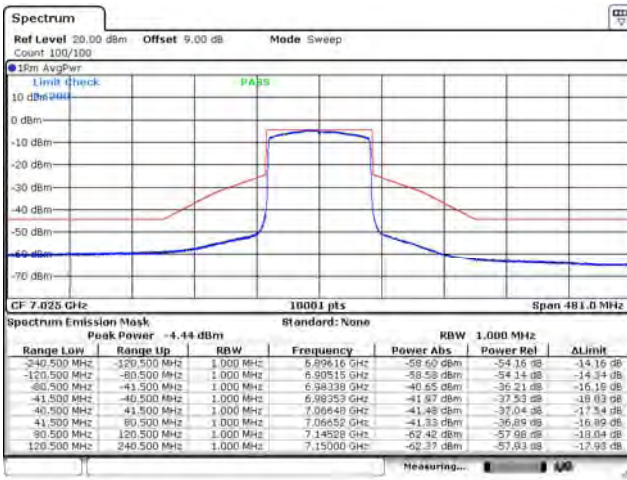
802.11ax (80 MHz) / Ant. 2 / 6865 MHz

802.11ax (80 MHz) / Ant. 2 / 6945 MHz



802.11ax (80 MHz) / Ant. 2 / 7025 MHz

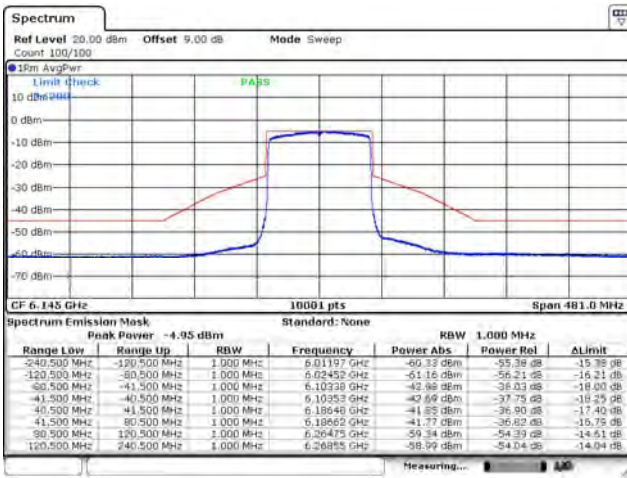
N/A



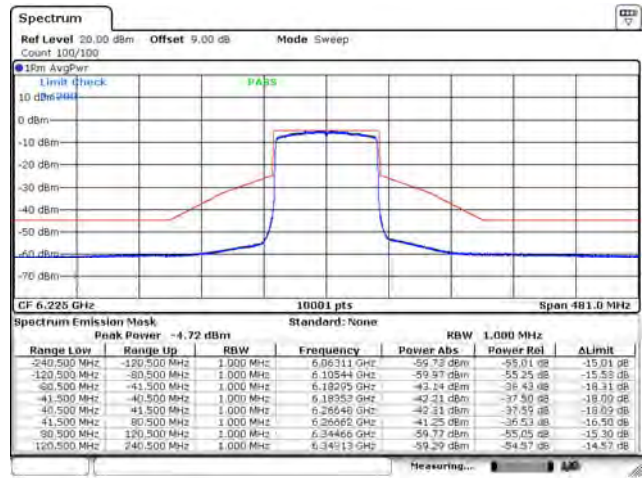
N/A

Spectrum Plot

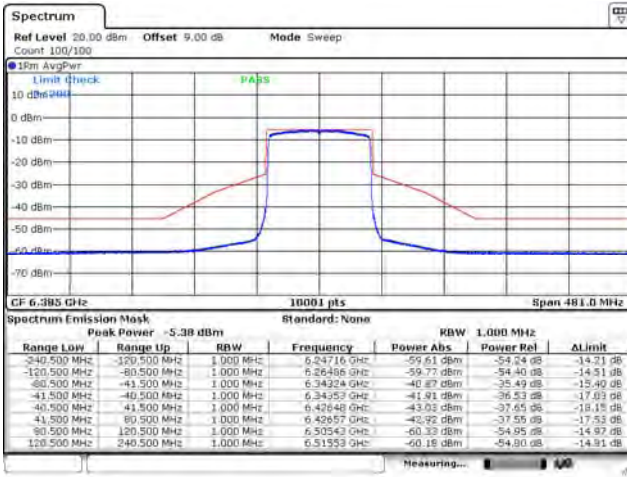
802.11ax (80 MHz) / Ant. 3 / 6145 MHz



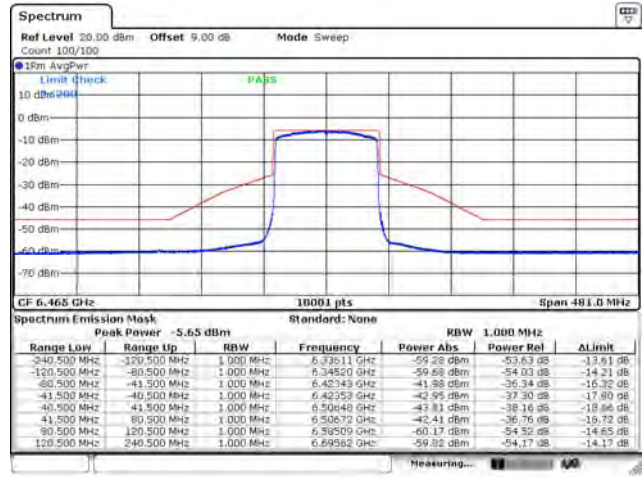
802.11ax (80 MHz) / Ant. 3 / 6225 MHz



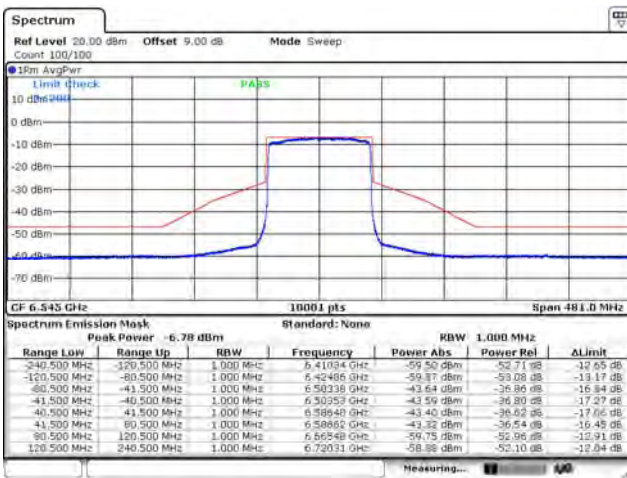
802.11ax (80 MHz) / Ant. 3 / 6385 MHz



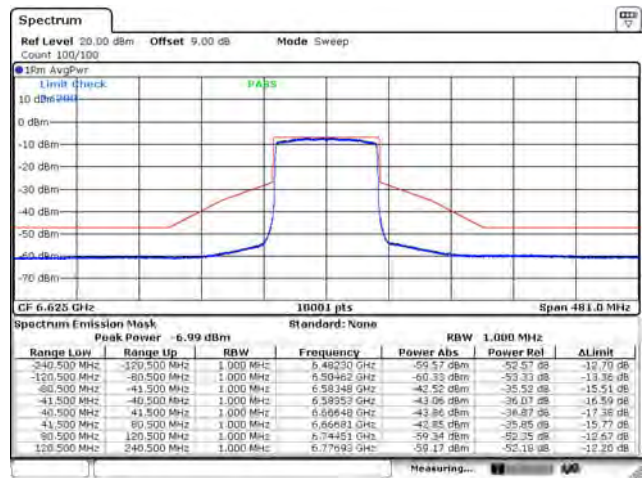
802.11ax (80 MHz) / Ant. 3 / 6465 MHz



802.11ax (80 MHz) / Ant. 3 / 6545 MHz



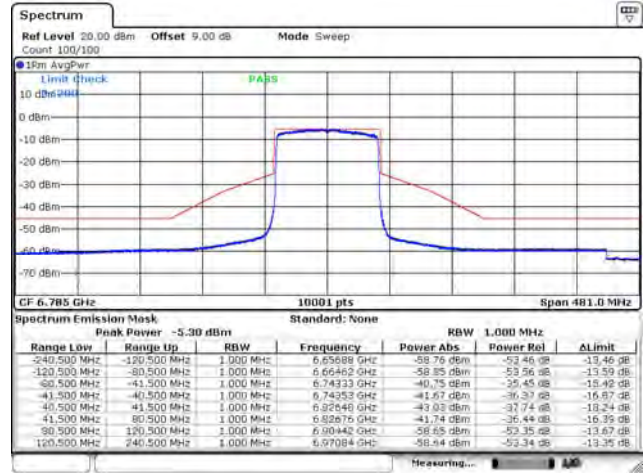
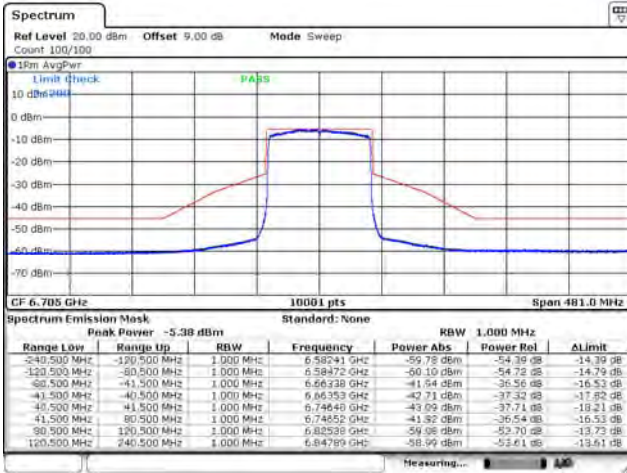
802.11ax (80 MHz) / Ant. 3 / 6625 MHz



Spectrum Plot

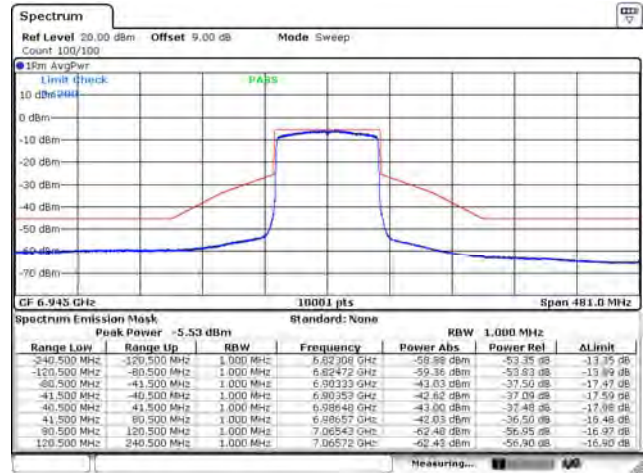
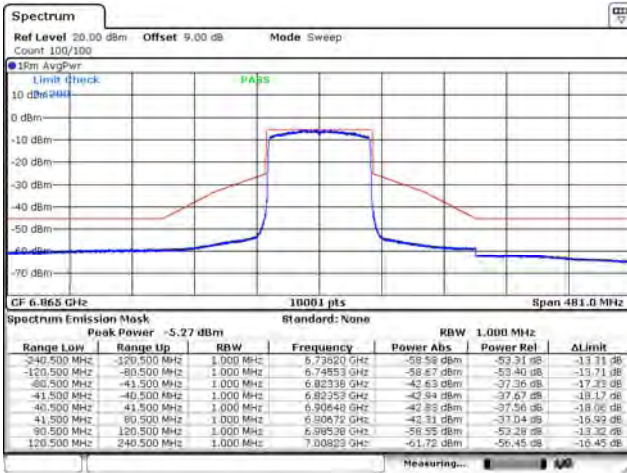
802.11ax (80 MHz) / Ant. 3 / 6705 MHz

802.11ax (80 MHz) / Ant. 3 / 6785 MHz



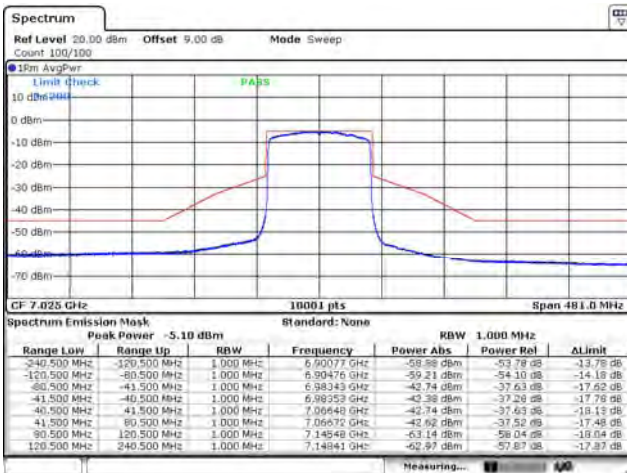
802.11ax (80 MHz) / Ant. 3 / 6865 MHz

802.11ax (80 MHz) / Ant. 3 / 6945 MHz



802.11ax (80 MHz) / Ant. 3 / 7025 MHz

N/A



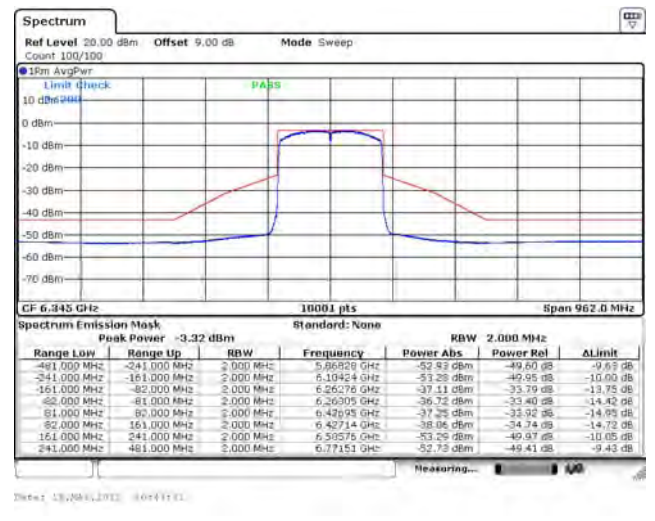
N/A

Spectrum Plot

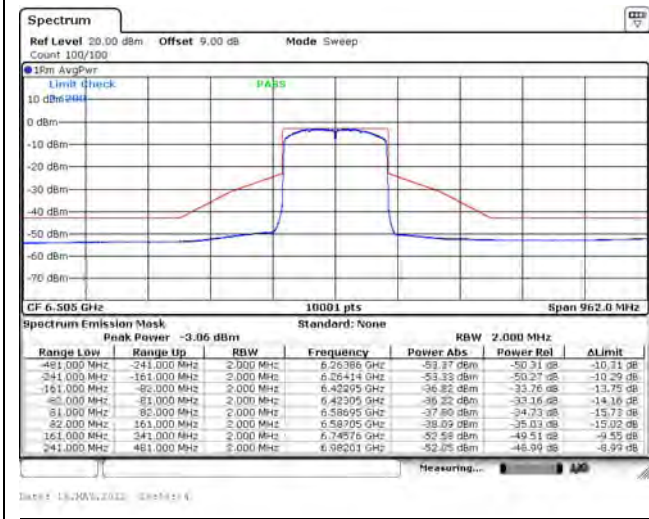
802.11ax (160 MHz) / Ant. 0 / 6185 MHz



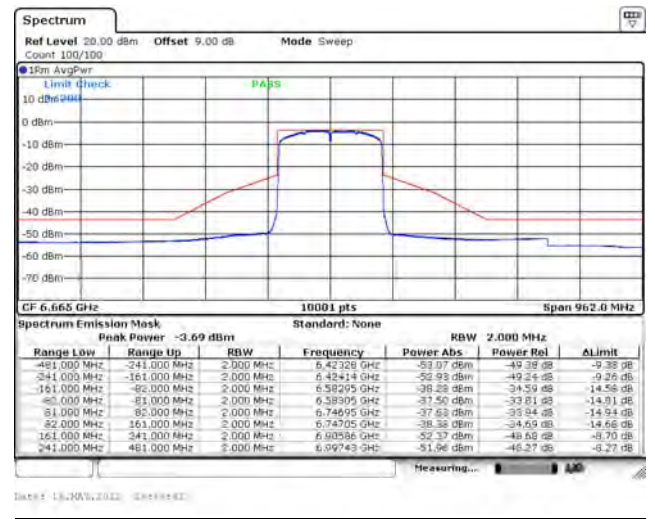
802.11ax (160 MHz) / Ant. 0 / 6345 MHz



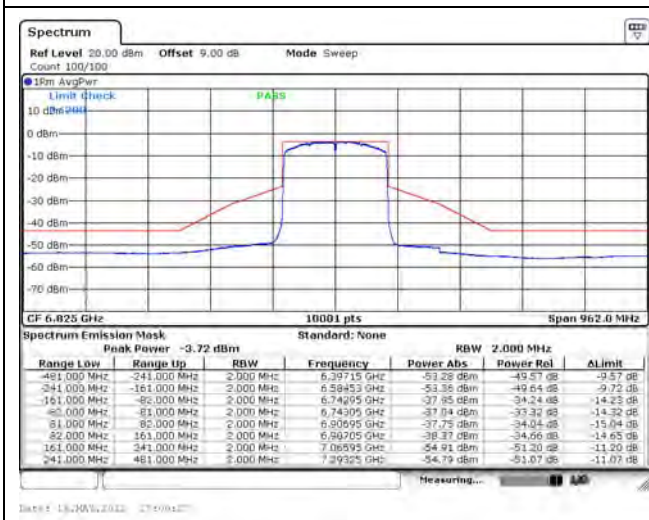
802.11ax (160 MHz) / Ant. 0 / 6505 MHz



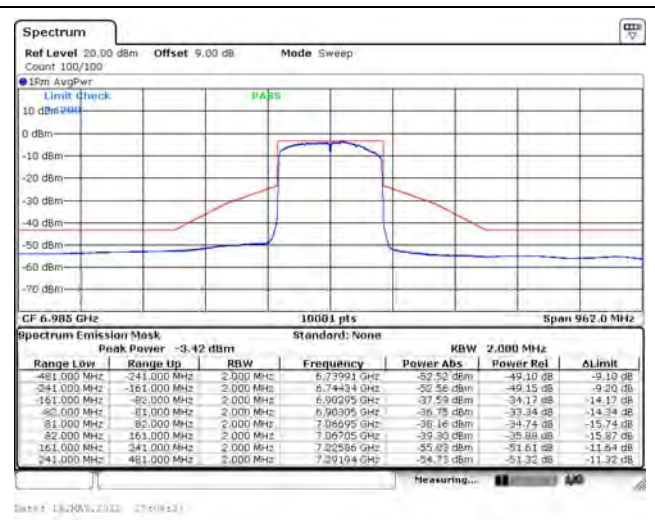
802.11ax (160 MHz) / Ant. 0 / 6665 MHz



802.11ax (160 MHz) / Ant. 0 / 6825 MHz

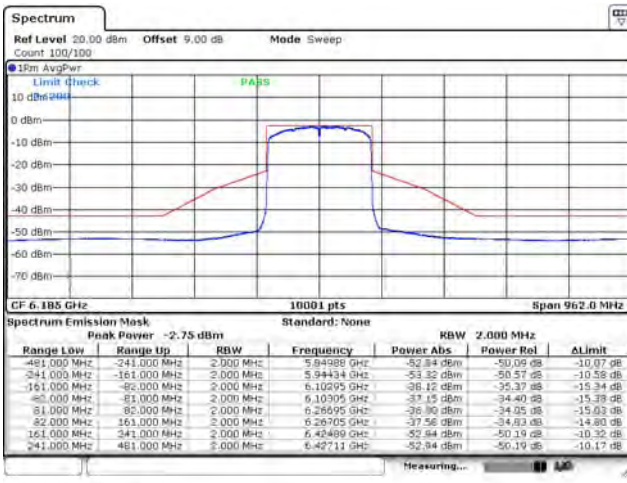


802.11ax (160 MHz) / Ant. 0 / 6985 MHz

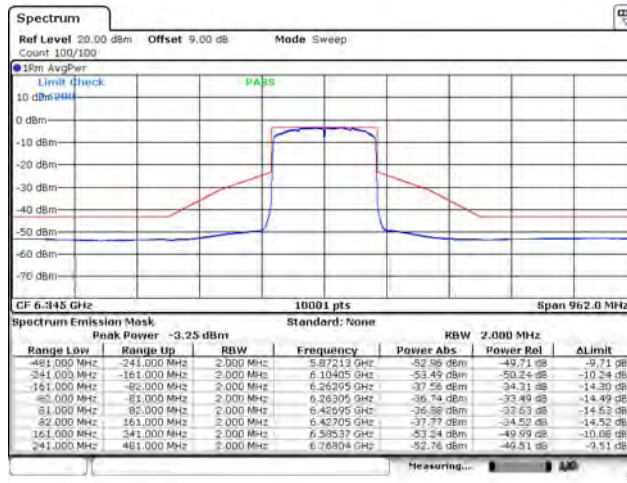


Spectrum Plot

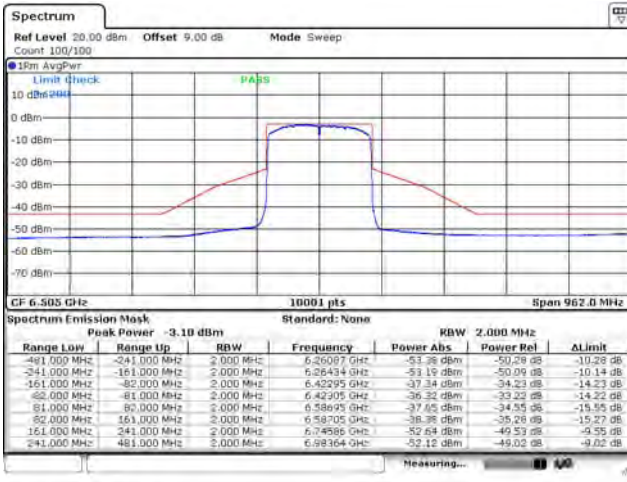
802.11ax (160 MHz) / Ant. 1 / 6185 MHz



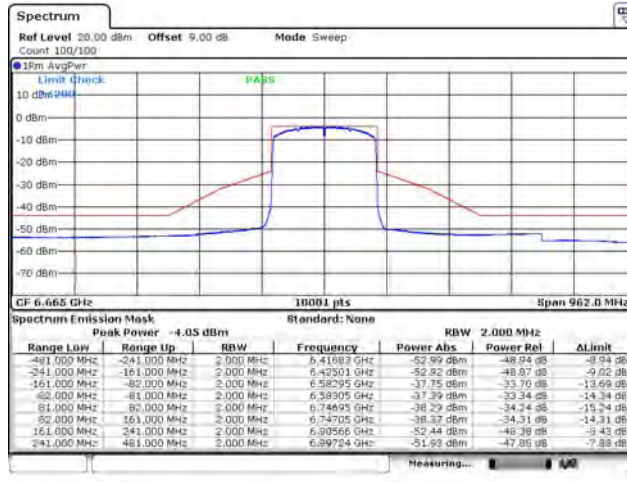
802.11ax (160 MHz) / Ant. 1 / 6345 MHz



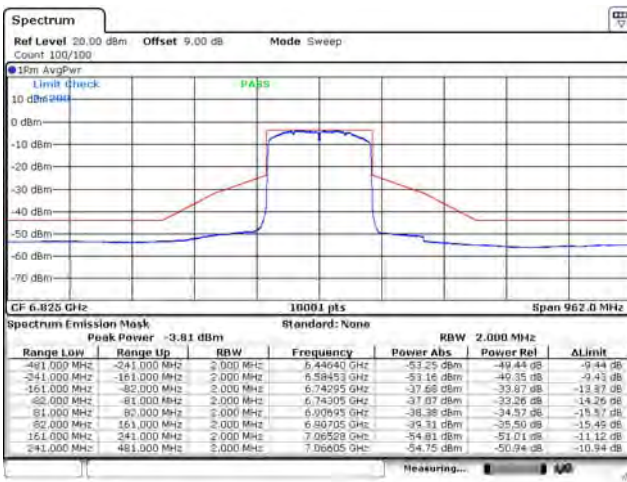
802.11ax (160 MHz) / Ant. 1 / 6505 MHz



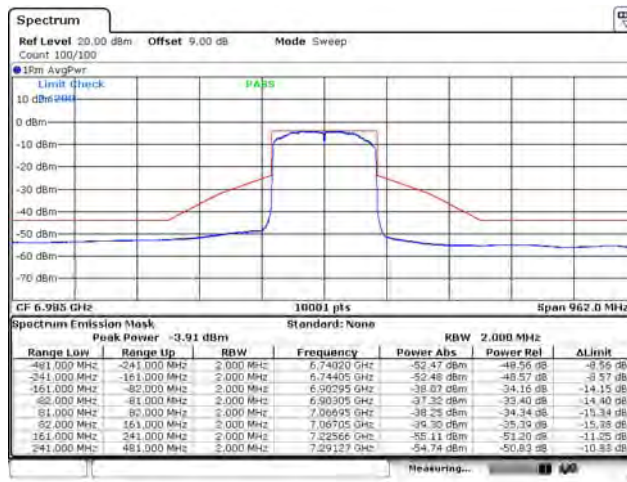
802.11ax (160 MHz) / Ant. 1 / 6665 MHz



802.11ax (160 MHz) / Ant. 1 / 6825 MHz

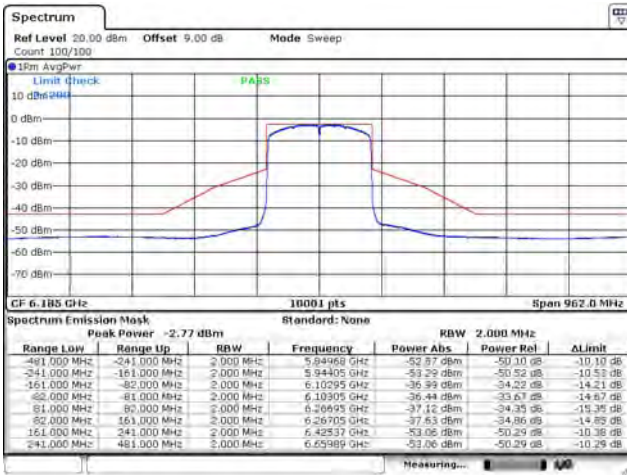


802.11ax (160 MHz) / Ant. 1 / 6985 MHz

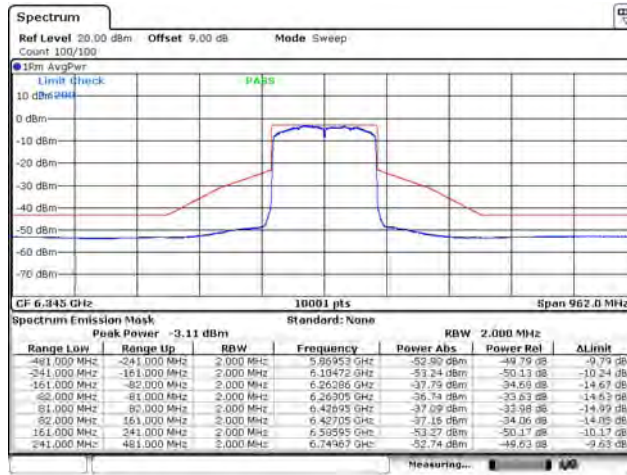


Spectrum Plot

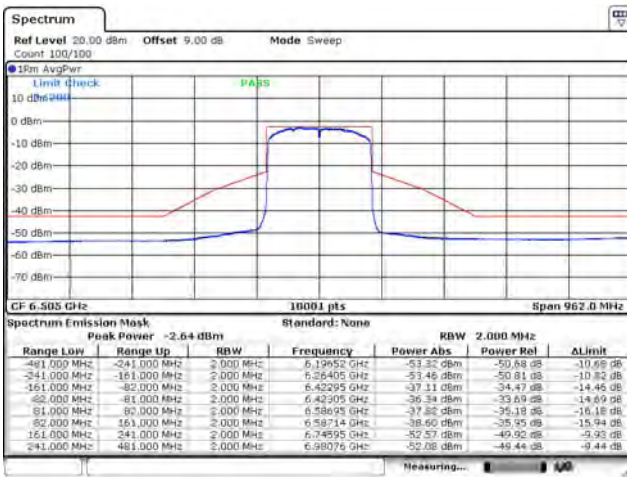
802.11ax (160 MHz) / Ant. 2 / 6185 MHz



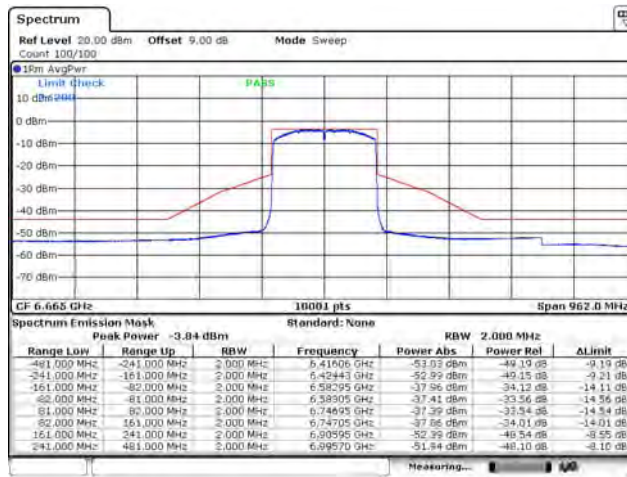
802.11ax (160 MHz) / Ant. 2 / 6345 MHz



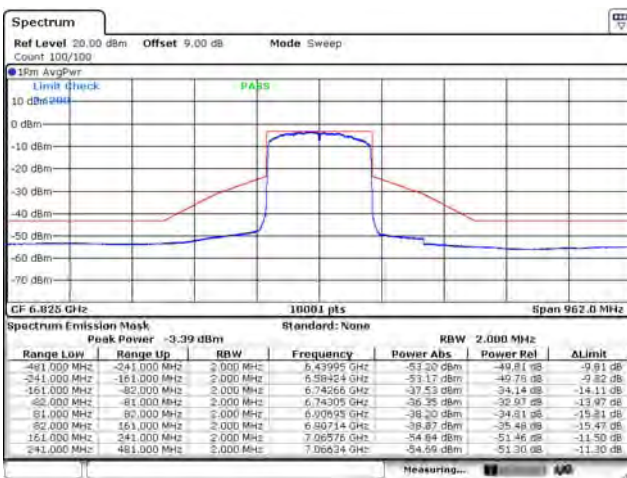
802.11ax (160 MHz) / Ant. 2 / 6505 MHz



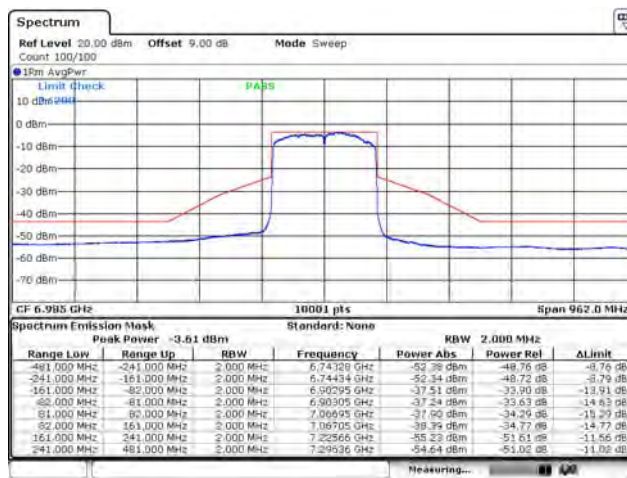
802.11ax (160 MHz) / Ant. 2 / 6665 MHz



802.11ax (160 MHz) / Ant. 2 / 6825 MHz

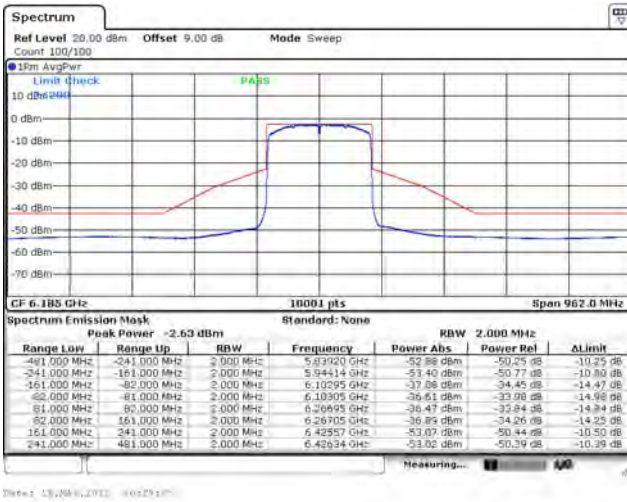


802.11ax (160 MHz) / Ant. 2 / 6985 MHz

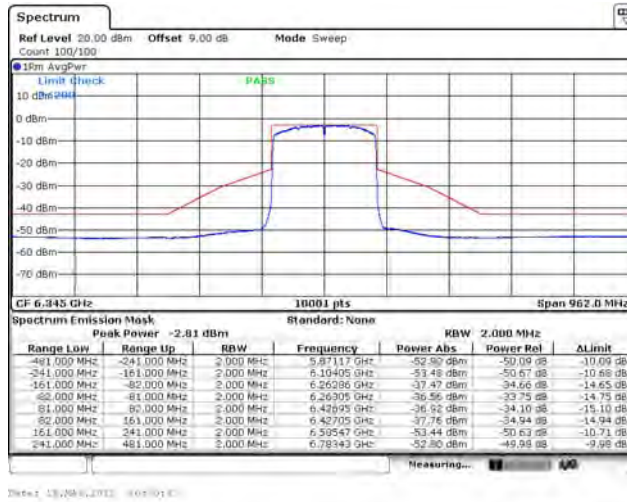


Spectrum Plot

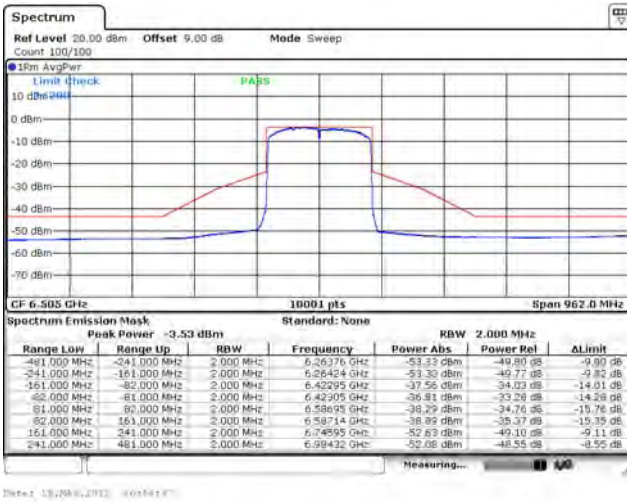
802.11ax (160 MHz) / Ant. 3 / 6185 MHz



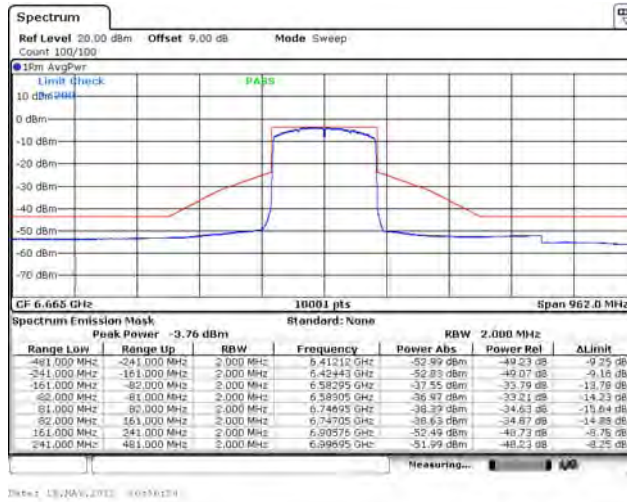
802.11ax (160 MHz) / Ant. 3 / 6345 MHz



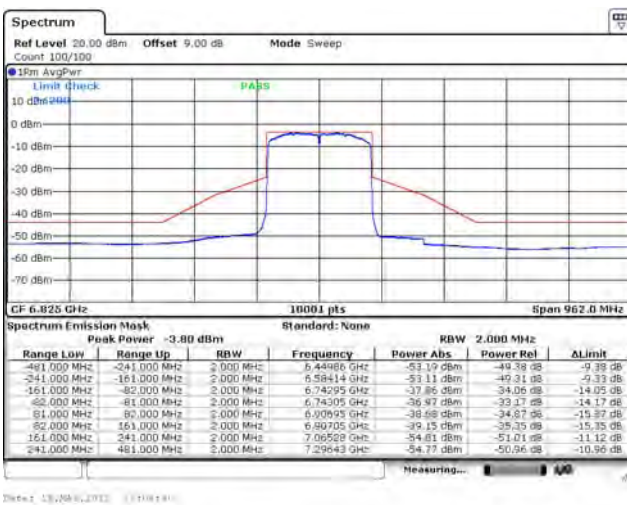
802.11ax (160 MHz) / Ant. 3 / 6505 MHz



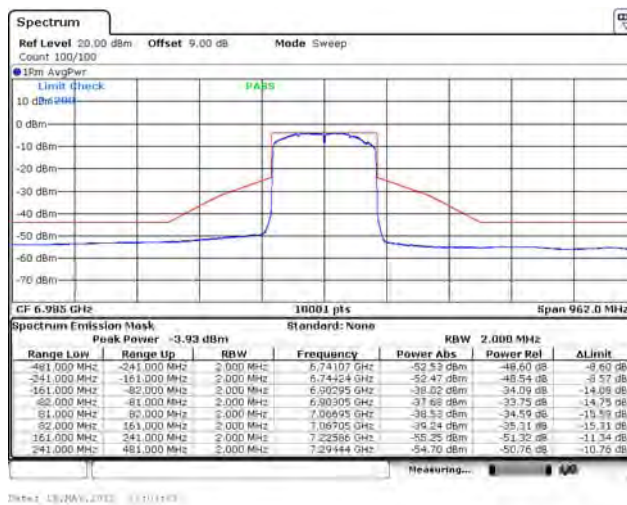
802.11ax (160 MHz) / Ant. 3 / 6665 MHz



802.11ax (160 MHz) / Ant. 3 / 6825 MHz

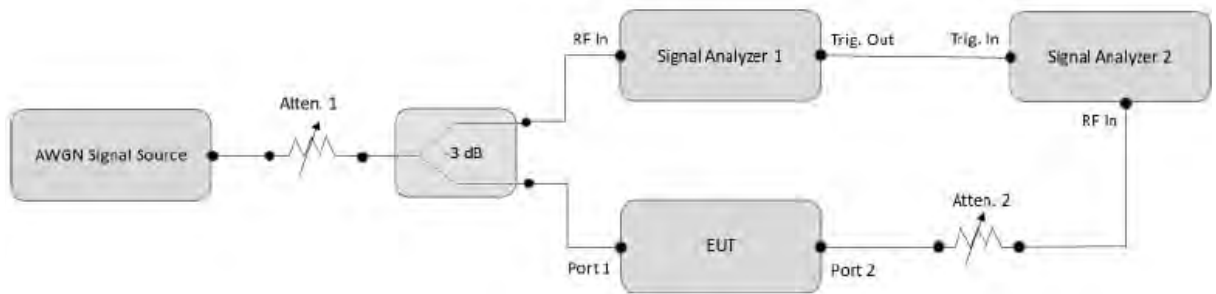


802.11ax (160 MHz) / Ant. 3 / 6985 MHz



10. Contention Based Protocol

10.1. Test Setup



10.2. Limits

Unlicensed indoor low-power devices must detect co-channel radio frequency power that is at least -62 dBm (The threshold is referenced to a 0dBi antenna gain.) or lower. Additionally, indoor low-power devices must detect co-channel energy with 90% or greater certainty.

10.3. Test Procedure

1. Set the signal analyzer center frequency to the nominal EUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT. Connect the output port of the EUT to the signal analyzer
2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver.
2. Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters (set as following section 4.7.5 EUT operating condition).
3. Determine number of times detection threshold test as following table,

Test Items	Number of Tests	Placement of Incumbent Transmission
$BW_{EUT} \leq BW_{Inc}$	Once	Same as EUT transmission
$BW_{Inc} < BW_{EUT} \leq 2x BW_{Inc}$	Once	Contained within BW_{EUT}
$2x BW_{Inc} < BW_{EUT} \leq 4x BW_{Inc}$	Twice. (Incumbent transmission is contained within BW_{EUT})	Closely to the lower edge and upper edge of the EUT Channel
$BW_{EUT} > 4x BW_{Inc}$	Three times	Closely to the lower edge ,in the middle and upper edge of the EUT Channel

4. Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use step c table to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
5. Set the AWGN signal power to an extremely low level (more than 20 dB below the -62 dBm threshold). Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer 1 and the EUT.
6. Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.
7. Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.
8. (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.
9. Refer to step c table to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step d, choose a different center frequency for the AWGN signal and repeat the process.

10.4. Test Result of Contention Based Protocol

For U-NII-5 band

Contention Based Protocol Measurement										
Measurement Mode		Conducted measurement			Device Type		Indoor AP			
The Incumbent Signal (AWGN) Level (dBm)		-62 dBm (at the antenna connector)								
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	Test Result					
					AWGN Signals Frequency (MHz)	Number of Times	Number of Detected	Detection Rate	Limit	Pass/Fail
U-NII 5	802.11ax	20MHz	33	6115	6115	10	10	100%	90%	Pass
					6110	10	10	100%	90%	Pass
		160MHz	47	6185	6185	10	10	100%	90%	Pass
					6260	10	10	100%	90%	Pass

Lowest Interference (AWGN) Level Check							
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signals Frequency (MHz)	Threshold Level (dBm)	EUT Status
U-NII 5	802.11ax	20MHz	33	6115	6115	-67	Start transmitting
					6110	-69	Start transmitting
		160MHz	47	6185	6185	-68	Start transmitting
					6260	-71	Start transmitting

Note:

1. All four chains (0+1+2+3) transmit simultaneously through the splitter to perform testing.
2. Incumbent signal level at the antenna connector (dBm) = S.G. (dBm) – Cable loss (dB) – Splitter loss (dB) – Maximum antenna gain (dBi)

Plots of shows Incumbent signal level

802.11ax (20MHz) / 6115 MHz



802.11ax (160MHz) / 6185 MHz
(Low Edge - 6110 MHz)



802.11ax (160MHz) / 6185 MHz
(Middle - 6185 MHz)



802.11ax (160MHz) / 6185 MHz
(High Edge - 6260 MHz)



Plots of EUT ceased transmission in the time domain

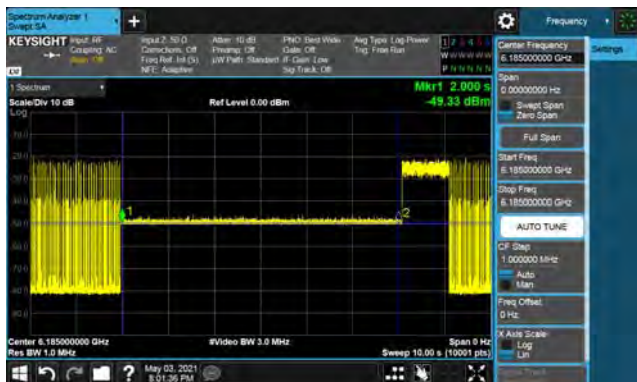
802.11ax (20MHz) / 6115 MHz



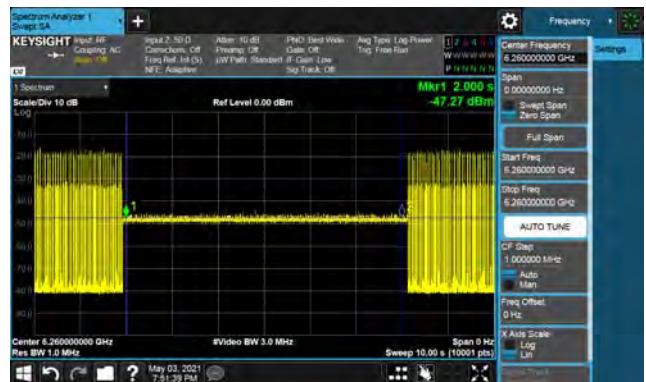
802.11ax (160MHz) / 6185 MHz
(Low Edge - 6110 MHz)



802.11ax (160MHz) / 6185 MHz
(Middle - 6185 MHz)



802.11ax (160MHz) / 6185 MHz
(High Edge - 6260 MHz)



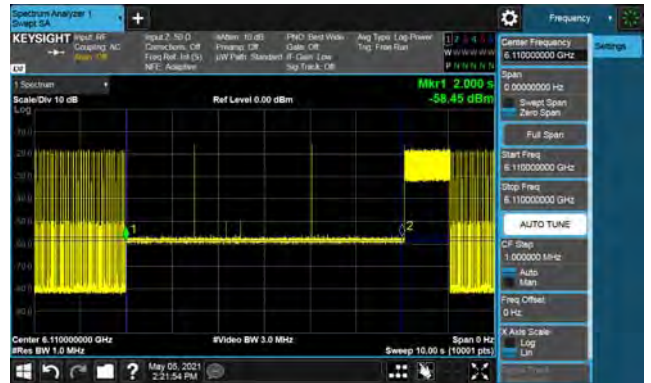
Note: Injected Interference signal at 2 sec.

Plots of Start transmitting

802.11ax (20MHz) / 6115 MHz



802.11ax (160MHz) / 6185 MHz (Low Edge)



802.11ax (160MHz) / 6185 MHz (Middle)



802.11ax (160MHz) / 6185 MHz (High Edge)



For U-NII-6 band

Contention Based Protocol Measurement										
Measurement Mode		Conducted measurement			Device Type		Indoor AP			
The Incumbent Signal (AWGN) Level (dBm)		-62 dBm (at the antenna connector)								
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	Test Result					
					AWGN Signals Frequency (MHz)	Number of Times	Number of Detected	Detection Rate	Limit	Pass/Fail
U-NII 6	802.11ax	20MHz	97	6435	6435	10	10	100%	90%	Pass
					6430	10	10	100%	90%	Pass
		160MHz	111	6505	6505	10	10	100%	90%	Pass
					6580	10	10	100%	90%	Pass

Lowest Interference (AWGN) Level Check							
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signals Frequency (MHz)	Threshold Level (dBm)	EUT Status
U-NII 6	802.11ax	20MHz	97	6435	6435	-72	Start transmitting
					6430	-71	Start transmitting
		160MHz	111	6505	6505	-70	Start transmitting
					6580	-71	Start transmitting

Note:

1. All four chains (0+1+2+3) transmit simultaneously through the splitter to perform testing.
2. Incumbent signal level at the antenna connector (dBm) = S.G. (dBm) – Cable loss (dB) – Splitter loss (dB) – Maximum antenna gain (dBi)

Plots of shows Incumbent signal level

802.11ax (20MHz) / 6435 MHz



802.11ax (160MHz) / 6505 MHz
(Low Edge - 6430 MHz)



802.11ax (160MHz) / 6505 MHz
(Middle - 6505 MHz)



802.11ax (160MHz) / 6505 MHz
(High Edge - 6580 MHz)



Plots of EUT ceased transmission in the time domain

802.11ax (20MHz) / 6435 MHz



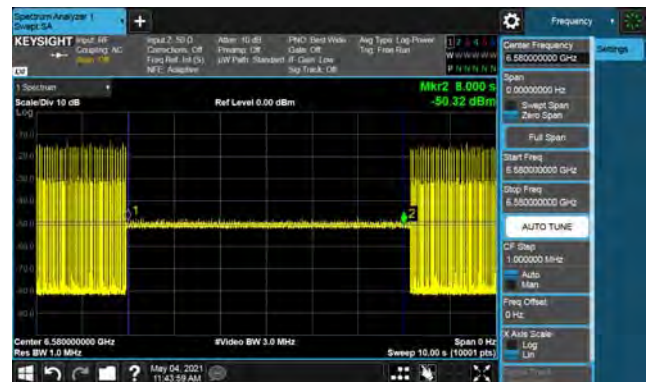
802.11ax (160MHz) / 6505 MHz
(Low Edge - 6430 MHz)



802.11ax (160MHz) / 6505 MHz
(Middle - 6505 MHz)



802.11ax (160MHz) / 6505 MHz
(High Edge - 6580 MHz)



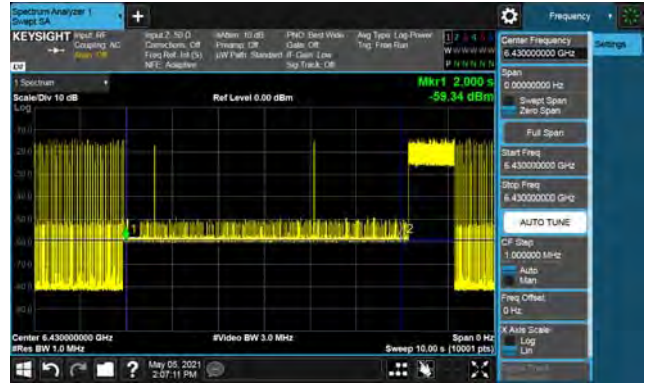
Note: Injected Interference signal at 2 sec.

Plots of Start transmitting

802.11ax (20MHz) / 6435 MHz



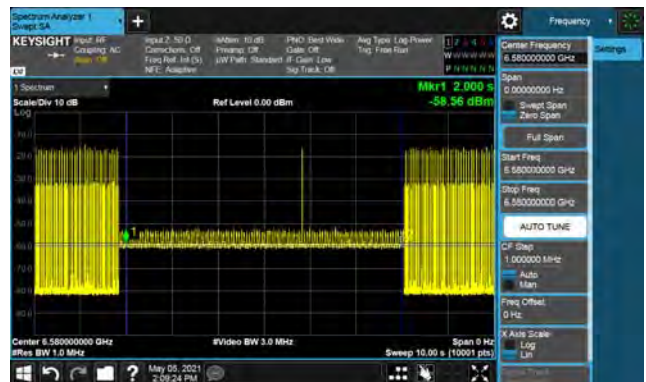
802.11ax (160MHz) / 6505 MHz
 (Low Edge - 6430 MHz)



802.11ax (160MHz) / 6505 MHz
 (Middle - 6505 MHz)



802.11ax (160MHz) / 6505 MHz
 (High Edge - 6580 MHz)



For U-NII-7 band

Contention Based Protocol Measurement										
Measurement Mode		Conducted measurement			Device Type		Indoor AP			
The Incumbent Signal (AWGN) Level (dBm)		-62 dBm (at the antenna connector)								
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	Test Result					
					AWGN Signals Frequency (MHz)	Number of Times	Number of Detected	Detection Rate	Limit	Pass/Fail
U-NII 7	802.11ax	20MHz	117	6535	6535	10	10	100%	90%	Pass
		160MHz	143	6665	6590	10	10	100%	90%	Pass
					6665	10	10	100%	90%	Pass
					6740	10	10	100%	90%	Pass

Lowest Interference (AWGN) Level Check							
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signals Frequency (MHz)	Threshold Level (dBm)	EUT Status
U-NII 7	802.11ax	20MHz	117	6535	6535	-71	Start transmitting
		160MHz	143	6665	6590	-69	Start transmitting
					6665	-68	Start transmitting
					6740	-72	Start transmitting

Note:

1. All four chains (0+1+2+3) transmit simultaneously through the splitter to perform testing.
2. Incumbent signal level at the antenna connector (dBm) = S.G. (dBm) – Cable loss (dB) – Splitter loss (dB) – Maximum antenna gain (dBi)

Plots of shows Incumbent signal level

802.11ax (20MHz) / 6535 MHz



802.11ax (160MHz) / 6665 MHz
(Low Edge - 6590 MHz)



802.11ax (160MHz) / 6665 MHz
(Middle - 6665 MHz)



802.11ax (160MHz) / 6505 MHz
(High Edge - 6740 MHz)



Plots of EUT ceased transmission in the time domain

802.11ax (20MHz) / 6535 MHz



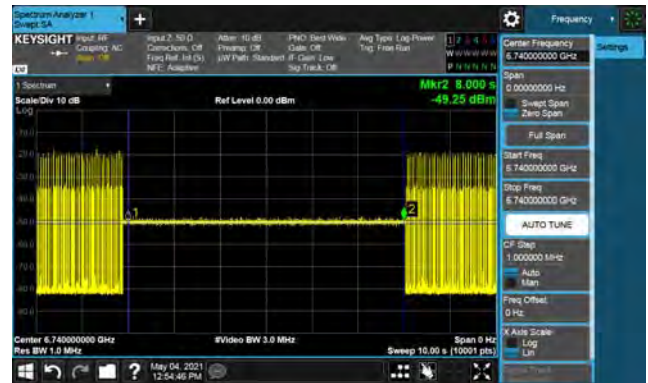
802.11ax (160MHz) / 6665 MHz
(Low Edge - 6590 MHz)



802.11ax (160MHz) / 6665 MHz
(Middle - 6665 MHz)



802.11ax (160MHz) / 6505 MHz
(High Edge - 6740 MHz)



Note: Injected Interference signal at 2 sec.

Plots of Start transmitting

802.11ax (20MHz) / 6535 MHz



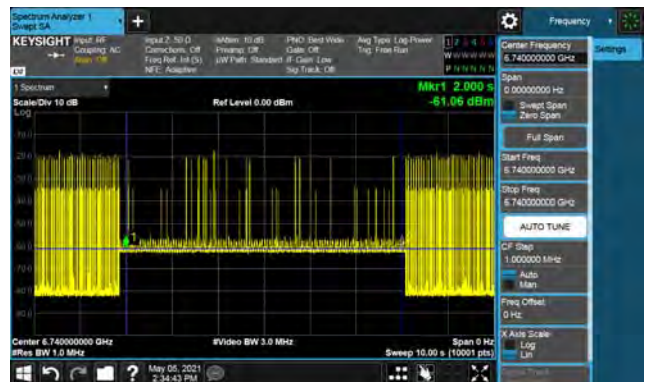
802.11ax (160MHz) / 6665 MHz
(Low Edge - 6590 MHz)



802.11ax (160MHz) / 6665 MHz
(Middle - 6665 MHz)



802.11ax (160MHz) / 6505 MHz
(High Edge - 6740 MHz)



For U-NII-8 band

Contention Based Protocol Measurement										
Measurement Mode		Conducted measurement			Device Type		Indoor AP			
The Incumbent Signal (AWGN) Level (dBm)		-62 dBm (at the antenna connector)								
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	Test Result					
					AWGN Signals Frequency (MHz)	Number of Times	Number of Detected	Detection Rate	Limit	Pass/Fail
U-NII 8	802.11ax	20MHz	189	6895	6895	10	10	100%	90%	Pass
					6910	10	10	100%	90%	Pass
		160MHz	207	6985	6985	10	10	100%	90%	Pass
					7060	10	10	100%	90%	Pass

Lowest Interference (AWGN) Level Check							
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signals Frequency (MHz)	Threshold Level (dBm)	EUT Status
U-NII 8	802.11ax	20MHz	189	6895	6895	-68	Start transmitting
					6910	-69	Start transmitting
		160MHz	207	6985	6985	-69	Start transmitting
					7060	-71	Start transmitting

Note:

1. All four chains (0+1+2+3) transmit simultaneously through the splitter to perform testing.
2. Incumbent signal level at the antenna connector (dBm) = S.G. (dBm) – Cable loss (dB) – Splitter loss (dB) – Maximum antenna gain (dBi)

Plots of shows Incumbent signal level

802.11ax (20MHz) / 6895 MHz



802.11ax (160MHz) / 6985 MHz
(Low Edge - 6910 MHz)



802.11ax (160MHz) / 6985 MHz
(Middle - 6985 MHz)



802.11ax (160MHz) / 6985 MHz
(High Edge - 7060 MHz)



Plots of EUT ceased transmission in the time domain

802.11ax (20MHz) / 6895 MHz



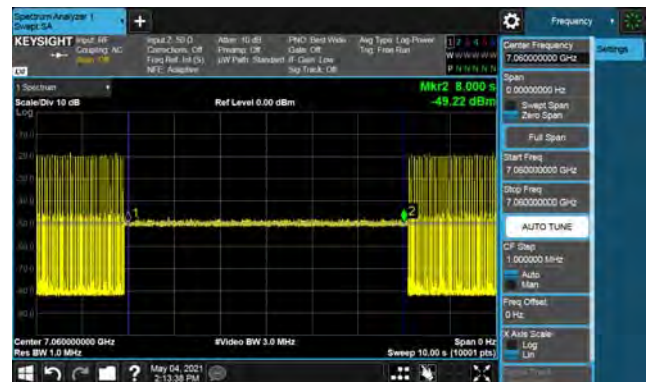
802.11ax (160MHz) / 6985 MHz
 (Low Edge - 6910 MHz)



802.11ax (160MHz) / 6985 MHz
 (Middle - 6985 MHz)



802.11ax (160MHz) / 6985 MHz
 (High Edge - 7060 MHz)



Note: Injected Interference signal at 2 sec.

Plots of Start transmitting

802.11ax (20MHz) / 6895 MHz



802.11ax (160MHz) / 6985 MHz
(Low Edge - 6910 MHz)



802.11ax (160MHz) / 6985 MHz
(Middle - 6985 MHz)



802.11ax (160MHz) / 6985 MHz
(High Edge - 7060 MHz)

