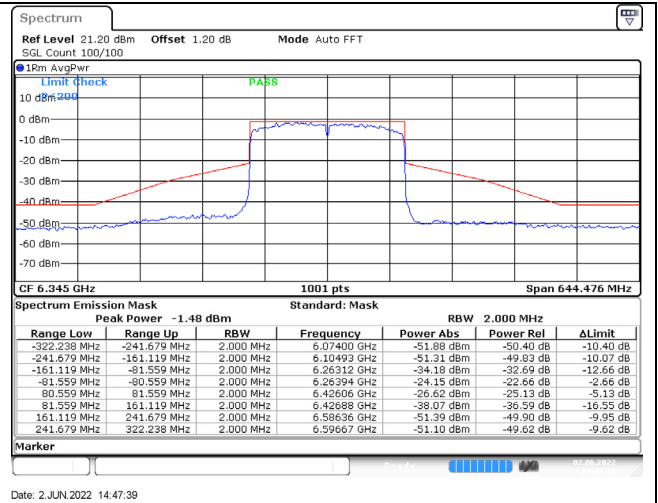
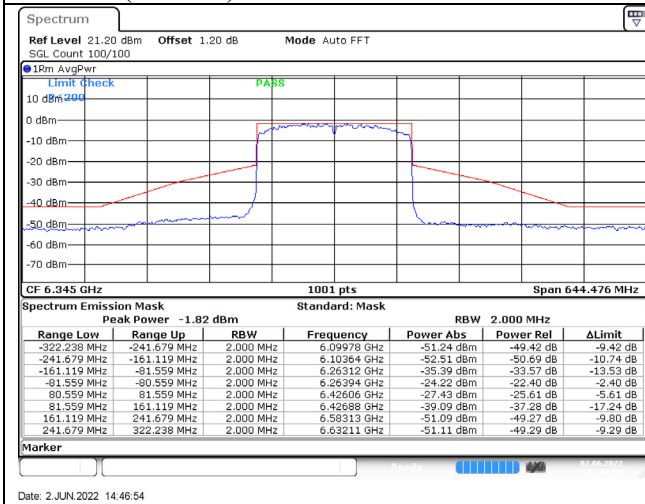


Date: 2 JUN 2022 14:48:21



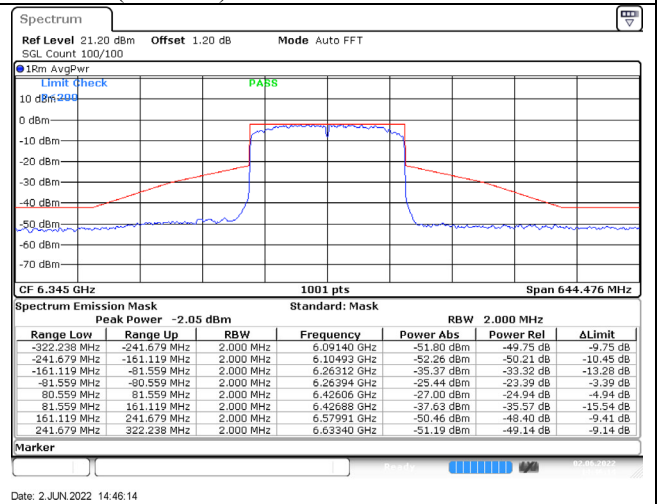
Date: 2 JUN 2022 14:47:39

802.11ax (160MHz) / 6345MHz / Chain A / NSS-4



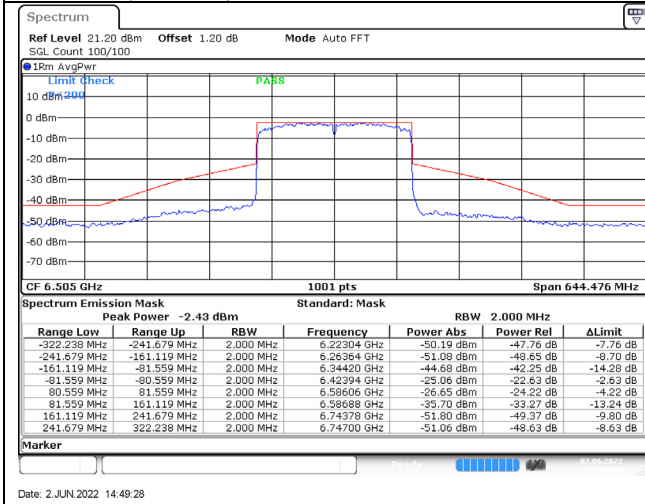
Date: 2 JUN 2022 14:46:54

802.11ax (160MHz) / 6345MHz / Chain B / NSS-4



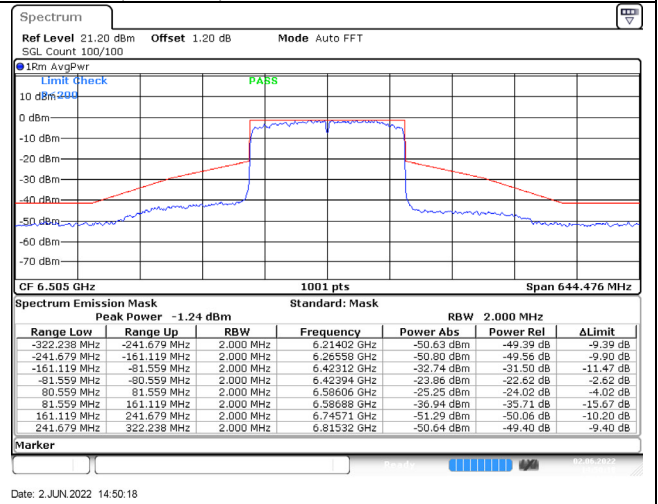
Date: 2 JUN 2022 14:46:14

802.11ax (160MHz) / 6345MHz / Chain C / NSS-4



Date: 2 JUN 2022 14:49:28

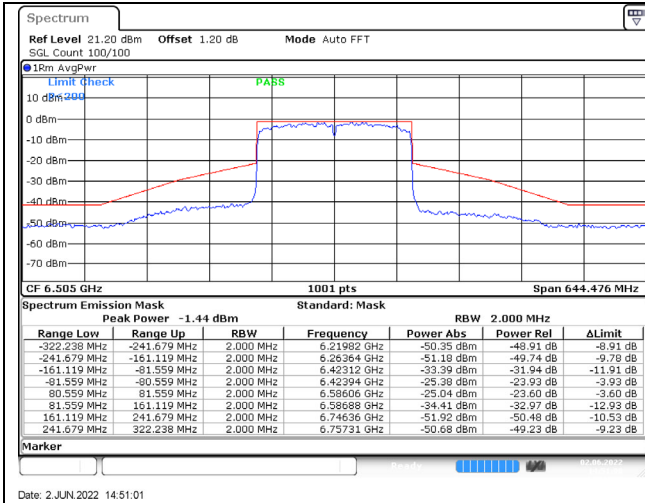
802.11ax (160MHz) / 6345MHz / Chain D / NSS-4



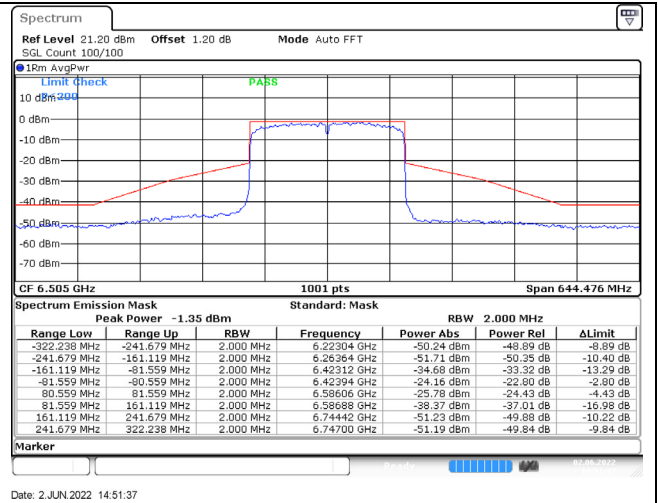
Date: 2 JUN 2022 14:50:18

802.11ax (160MHz) / 6505MHz / Chain A / NSS-4

802.11ax (160MHz) / 6505MHz / Chain B / NSS-4

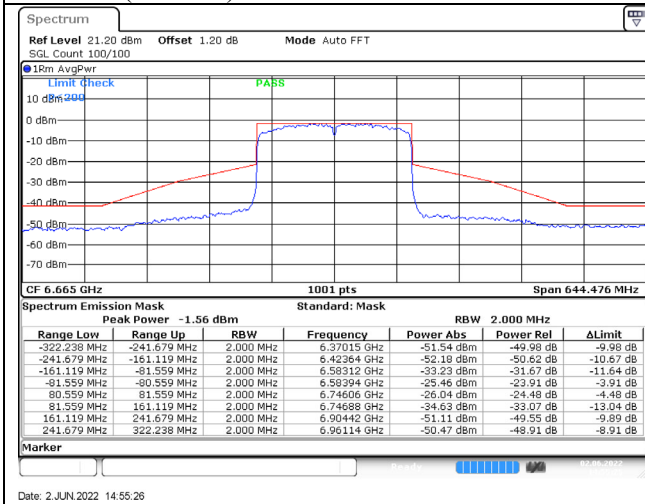


Date: 2 JUN 2022 14:51:01



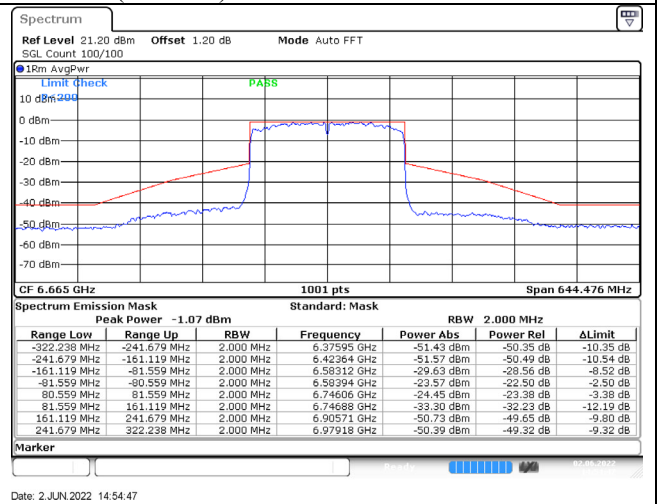
Date: 2 JUN 2022 14:51:37

802.11ax (160MHz) / 6505MHz / Chain C / NSS-4



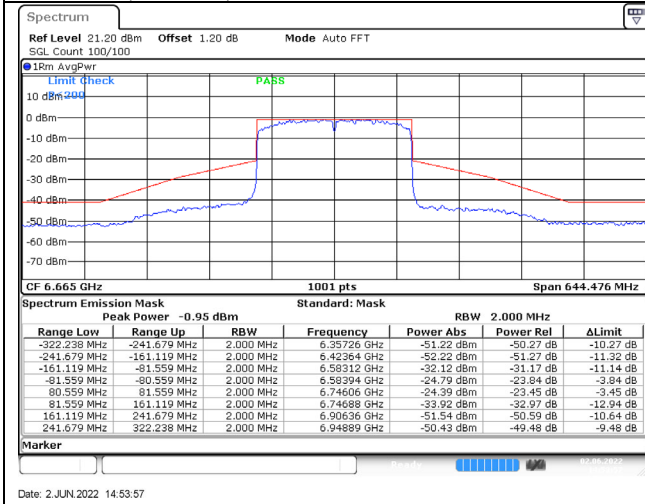
Date: 2 JUN 2022 14:55:26

802.11ax (160MHz) / 6505MHz / Chain D / NSS-4



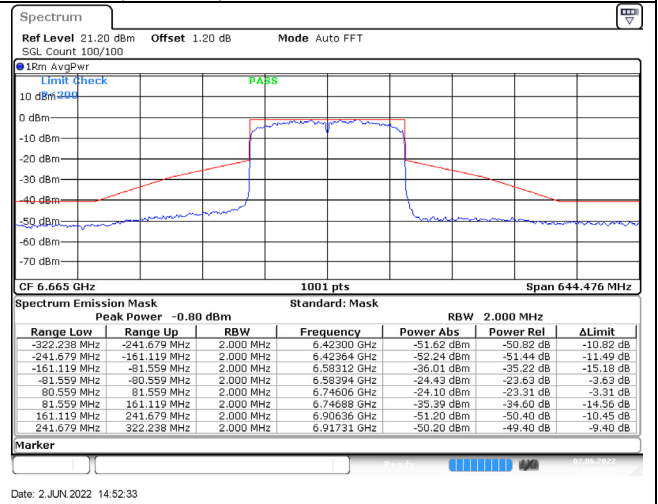
Date: 2 JUN 2022 14:54:47

802.11ax (160MHz) / 6665MHz / Chain A / NSS-4



Date: 2 JUN 2022 14:53:57

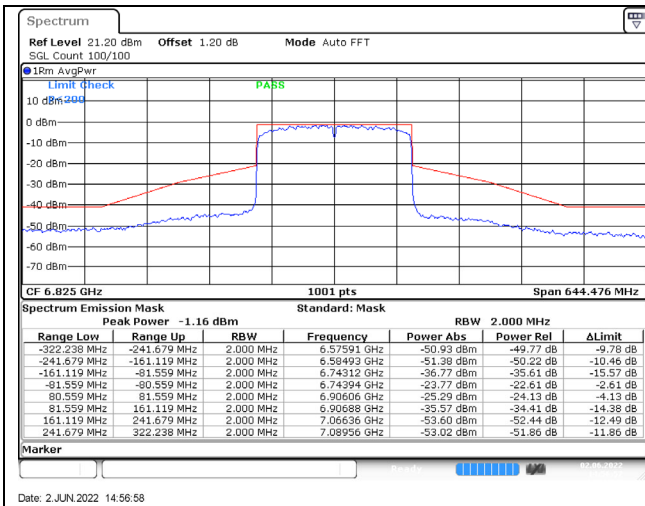
802.11ax (160MHz) / 6665MHz / Chain B / NSS-4



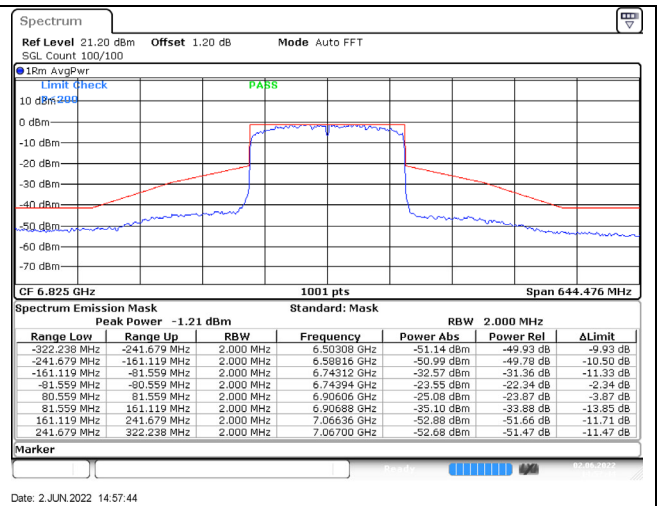
Date: 2 JUN 2022 14:52:33

802.11ax (160MHz) / 6665MHz / Chain C / NSS-4

802.11ax (160MHz) / 6665MHz / Chain D / NSS-4

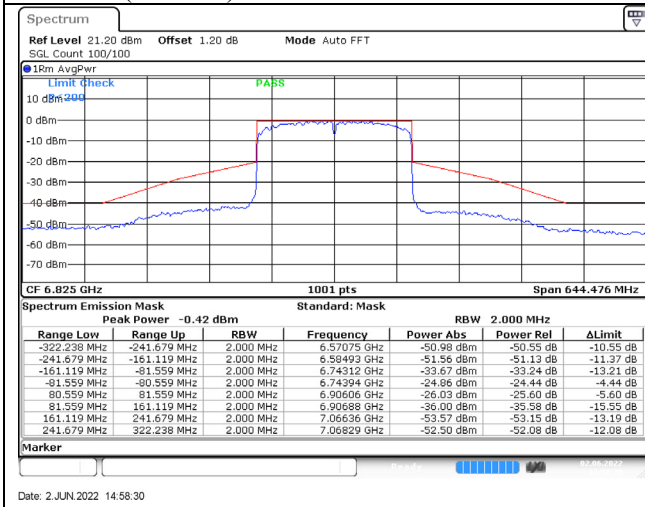


Date: 2 JUN 2022 14:56:58



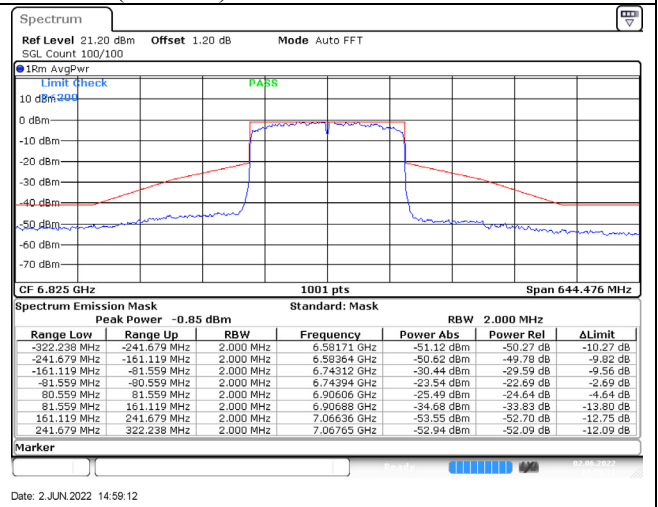
Date: 2 JUN 2022 14:57:44

802.11ax (160MHz) / 6825MHz / Chain A / NSS-4



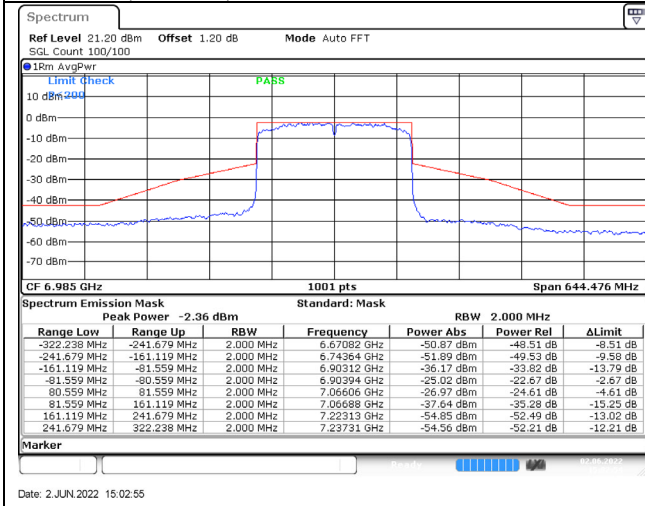
Date: 2 JUN 2022 14:58:30

802.11ax (160MHz) / 6825MHz / Chain B / NSS-4



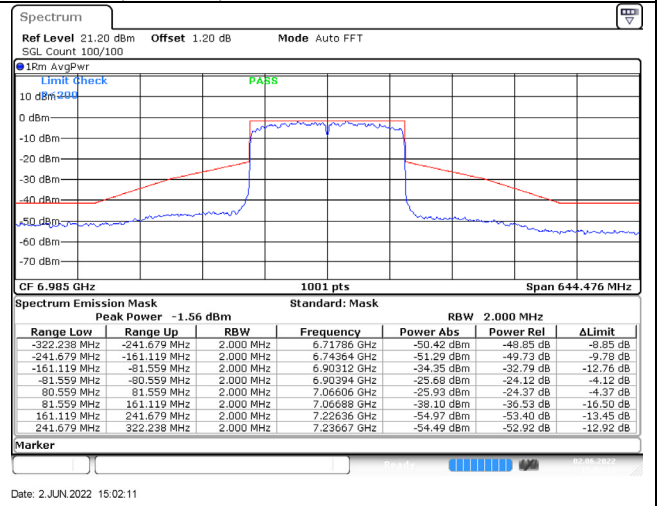
Date: 2 JUN 2022 14:58:12

802.11ax (160MHz) / 6825MHz / Chain C / NSS-4



Date: 2 JUN 2022 15:02:55

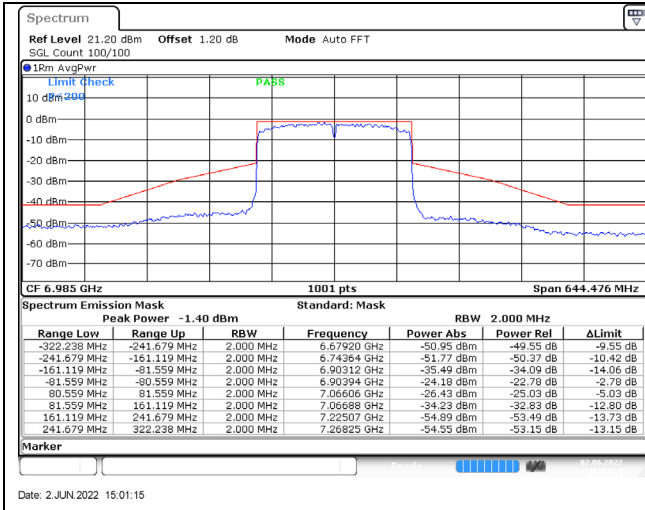
802.11ax (160MHz) / 6825MHz / Chain D / NSS-4



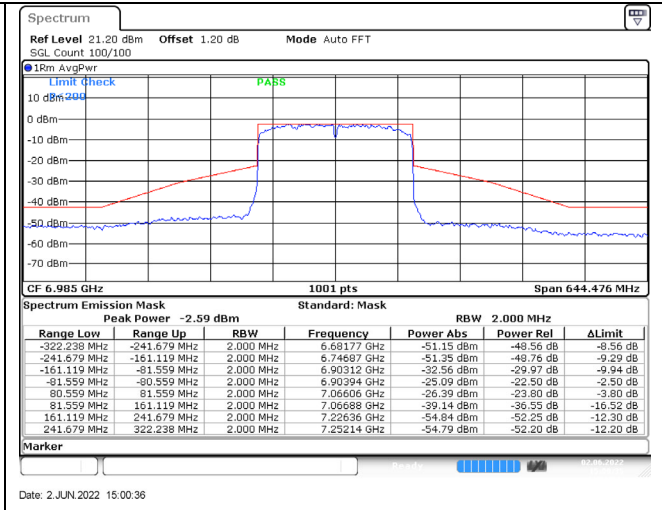
Date: 2 JUN 2022 15:02:11

802.11ax (160MHz) / 6985MHz / Chain A / NSS-4

802.11ax (160MHz) / 6985MHz / Chain B / NSS-4



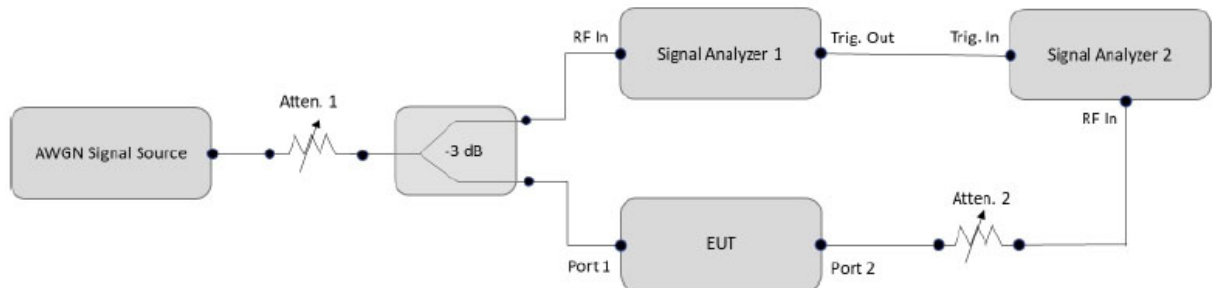
802.11ax (160MHz) /6985MHz / Chain C / NSS-4



802.11ax (160MHz) /6985MHz / Chain D / NSS-4

9. Contention Based Protocol

9.1. Test Setup



9.2. 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.

9.3. 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 BWEUT
$2x BW_{Inc} < BW_{EUT} \leq 4x BW_{Inc}$	Twice. (Incumbent transmission is contained within BWEUT)	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.

9.4. Test Result of Contention Based Protocol

Product : RadiX AXE6600 WiFi 6E Tri-Band Gaming Router
 Test Item : Contention Based Protocol
 Test Date : 2022/05/24

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
		160MHz	47	6185	6110	10	10	100%	90%	Pass
					6185	10	10	100%	90%	Pass
					6260	10	10	100%	90%	Pass

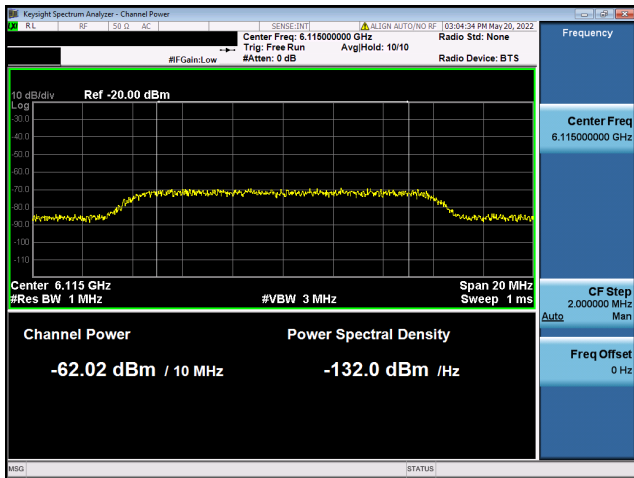
Lowest Interference (AWGN) Level Check							
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signals Frequency (MHz)	Threshold Level (dBm)	EUT Status
U-NII 5	802.11ax	20MHz	33	6115	6115	-71	OFF
						-73	Minimal
						-80	ON
		160MHz	47	6185	6110	-70	OFF
						-72	Minimal
						-78	ON
						-74	OFF
						-75	Minimal
						-81	ON
		6260	47	6185	6260	-72	OFF
						-73	Minimal
						-80	ON

Note:

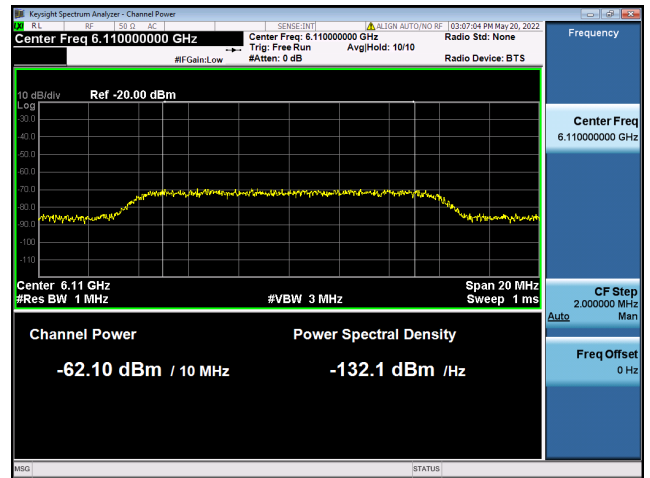
1. Injected (AWGN) POWER at the antenna connector (dBm) = S.G. (dBm) - Cable loss (dB) - Splitter loss (dB) - lowest antenna gain (dB)
2. Only one chain was performed for testing.
3. The AWGN level is reported for the following conditions:
 - OFF = AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds.
 - Minimal = AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently.
 - ON = AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds.

Plots of shows Incumbent signal level

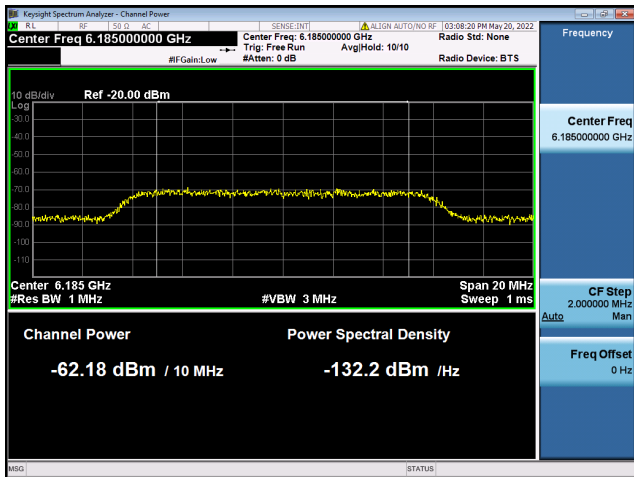
802.11ax (20MHz) / 6115MHz



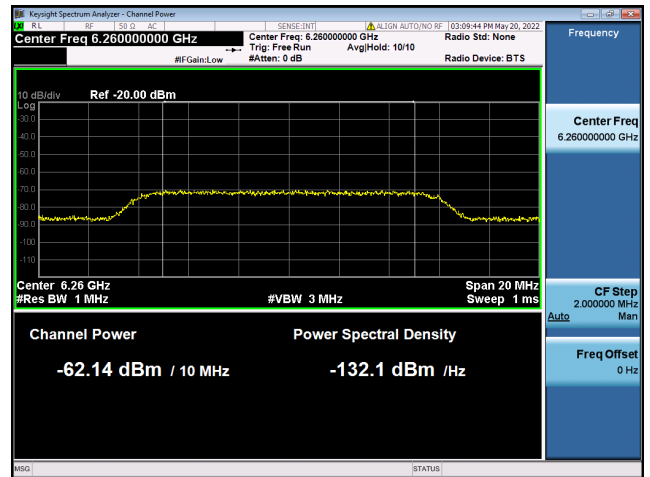
802.11ax (160MHz) / 6110MHz (Lower Edge)



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

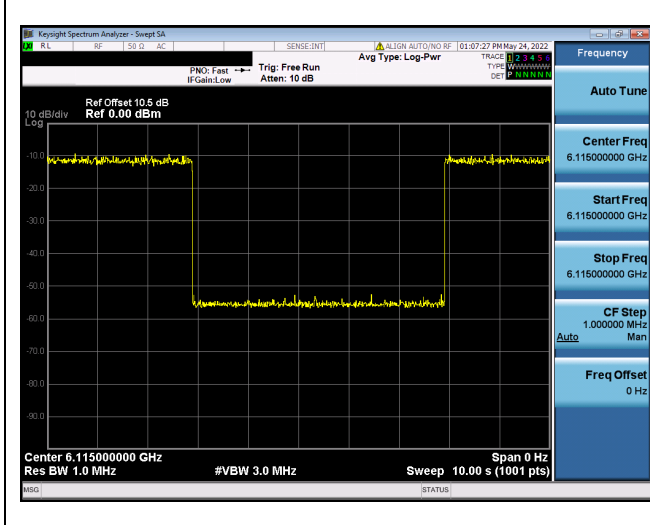


802.11ax (160MHz) / 6260MHz (Upper Edge)

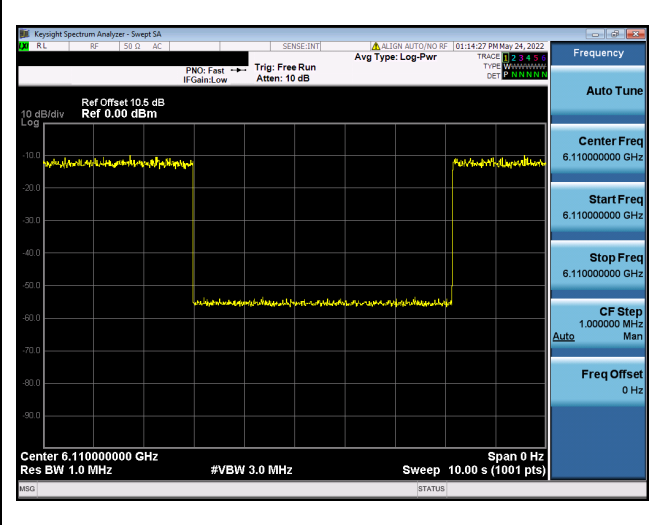


Plots of EUT ceased transmission in the time domain

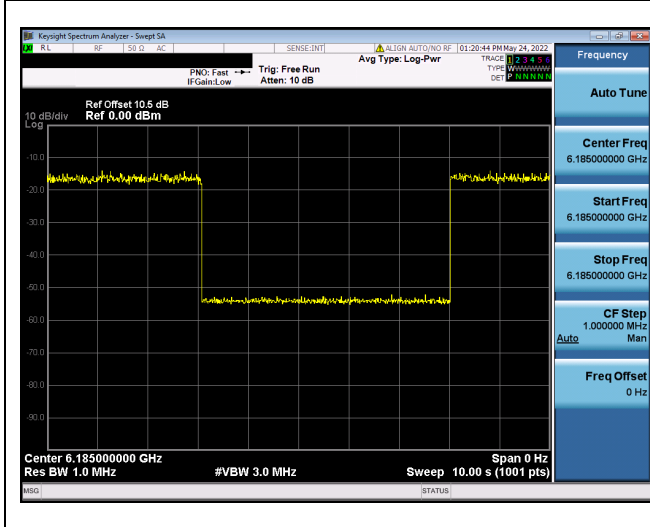
802.11ax (20MHz) / 6115MHz



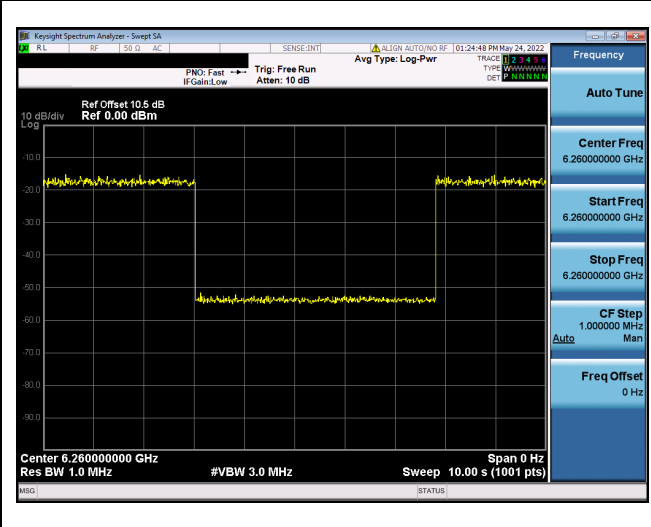
802.11ax (160MHz) / 6110MHz
(Low Edge - 6110 MHz)



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



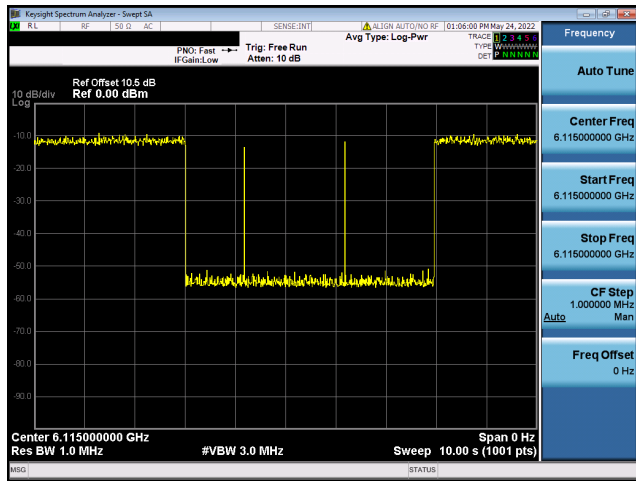
802.11ax (160MHz) / 6260MHz
(High Edge - 6260 MHz)



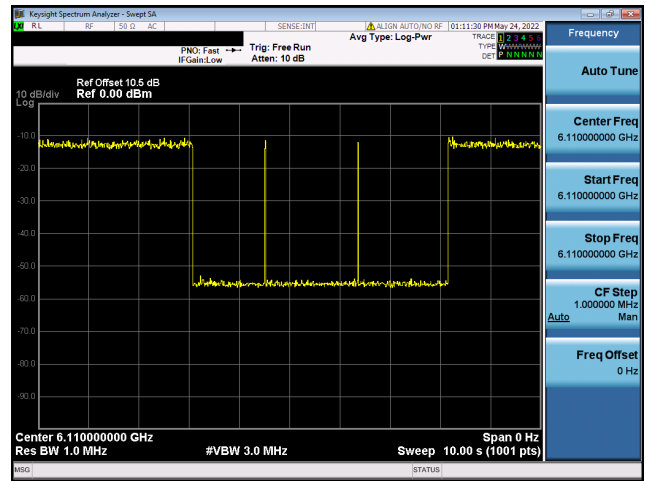
Note: Injected Interference signal at 2 sec.

Plots of Start transmitting

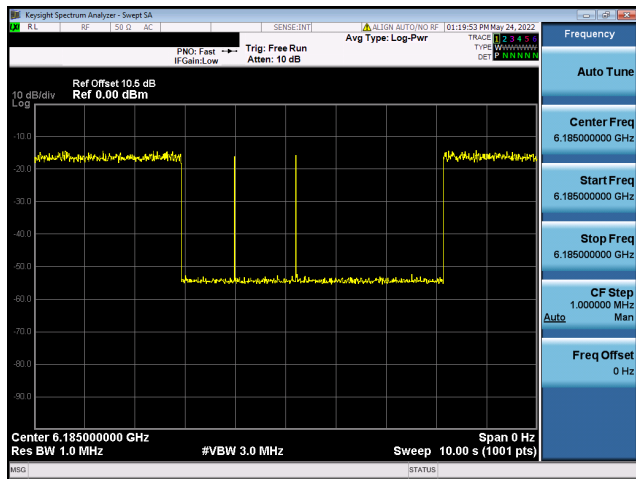
802.11ax (20MHz) / 6115MHz



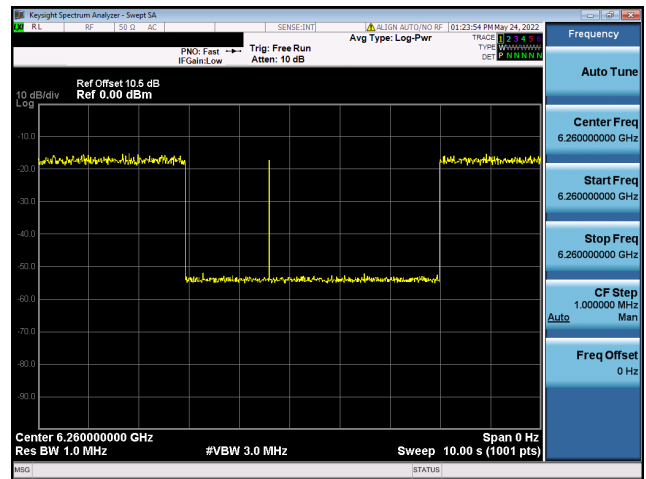
802.11ax (160MHz) / 6110MHz
(Low Edge - 6110 MHz)



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



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



Product : RadiX AXE6600 WiFi 6E Tri-Band Gaming Router
 Test Item : Contention Based Protocol
 Test Date : 2022/05/24

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

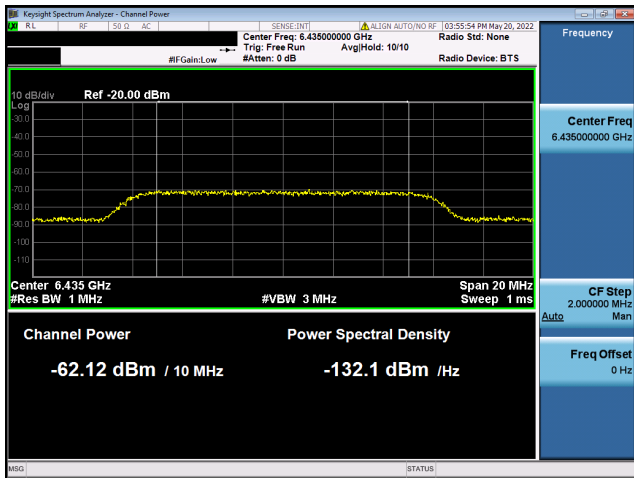
Lowest Interference (AWGN) Level Check							
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signals Frequency (MHz)	Threshold Level (dBm)	EUT Status
U-NII 6	802.11ax	20MHz	97	6435	6435	-73	OFF
						-74	Minimal
						-81	ON
		160MHz	111	6505	6430	-70	OFF
						-71	Minimal
						-79	ON
					6505	-66	OFF
						-67	Minimal
						-74	ON
					6580	-70	OFF
						-71	Minimal
						-79	ON

Note:

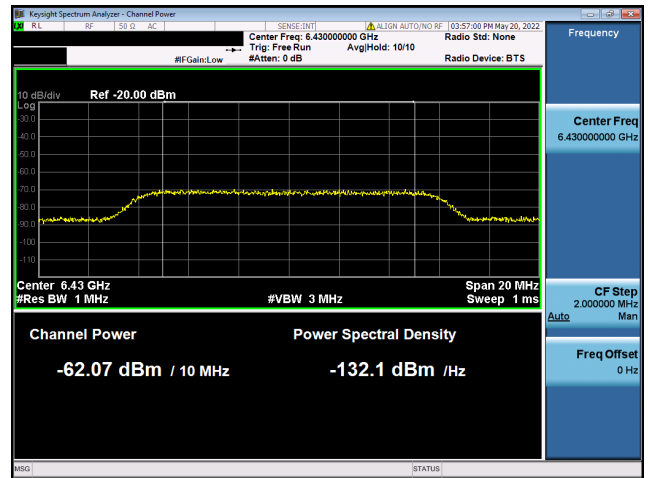
1. Injected (AWGN) POWER at the antenna connector (dBm) = S.G. (dBm) - Cable loss (dB) - Splitter loss (dB) - lowest antenna gain (dB)
2. Only one chain was performed for testing.
3. The AWGN level is reported for the following conditions:
 - OFF = AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds.
 - Minimal = AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently.
 - ON = AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds.

Plots of shows Incumbent signal level

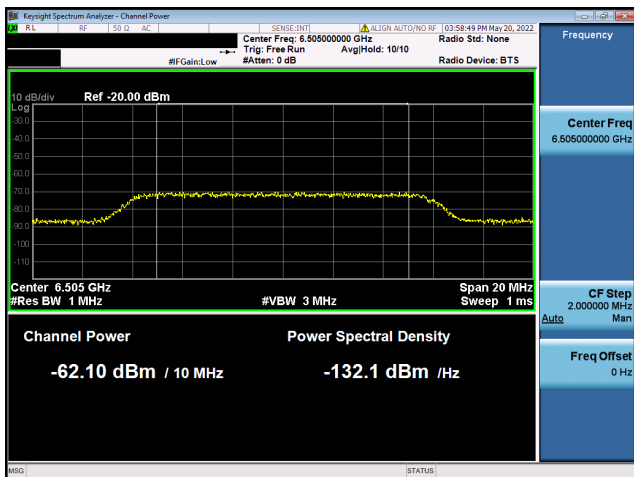
802.11ax (20MHz) / 6435MHz



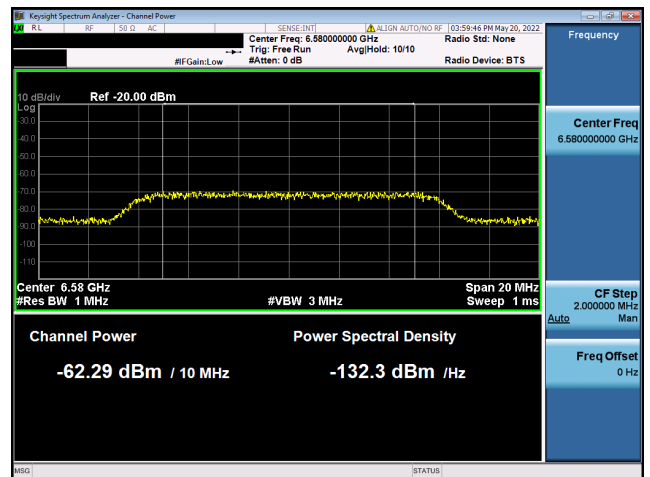
802.11ax (160MHz) / 6430MHz(Lower Edge)



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

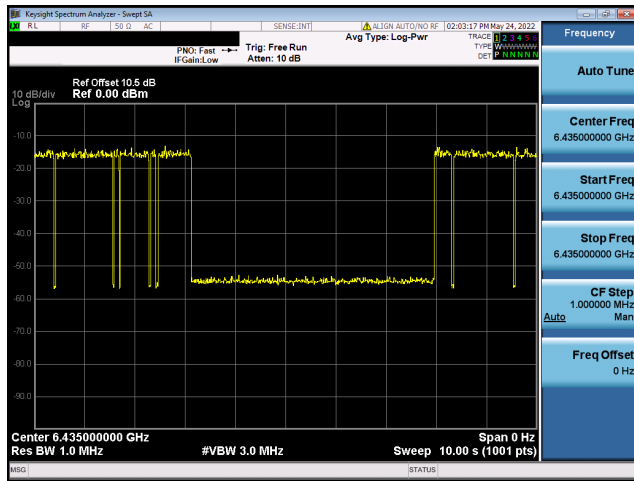


802.11ax (160MHz) / 6580MHz (Upper Edge)

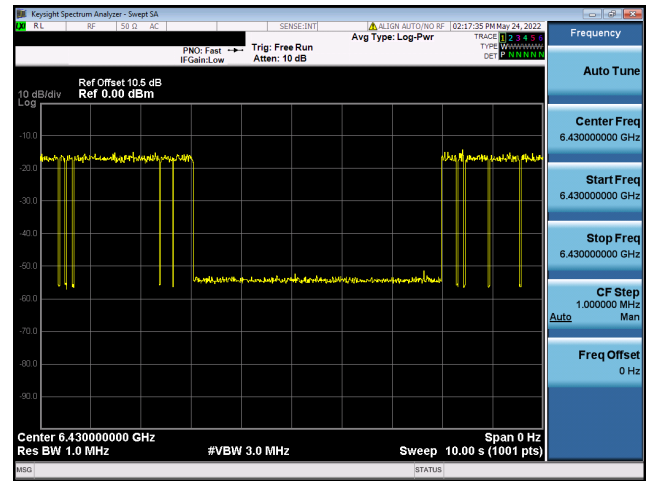


Plots of EUT ceased transmission in the time domain

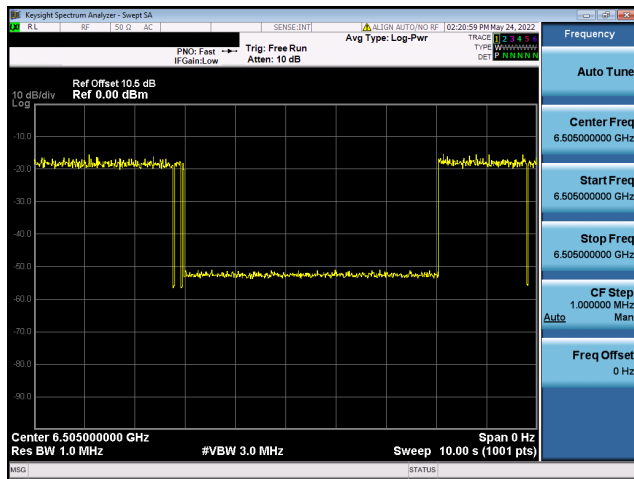
802.11ax (20MHz) / 6435MHz



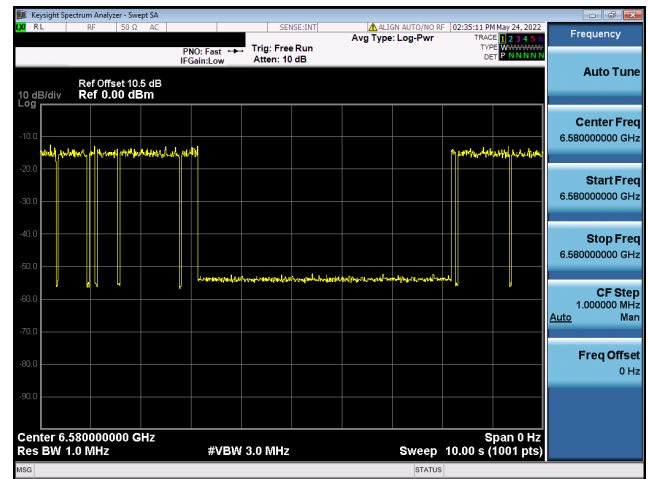
802.11ax (160MHz) / 6430MHz
(Low Edge - 6430MHz)



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

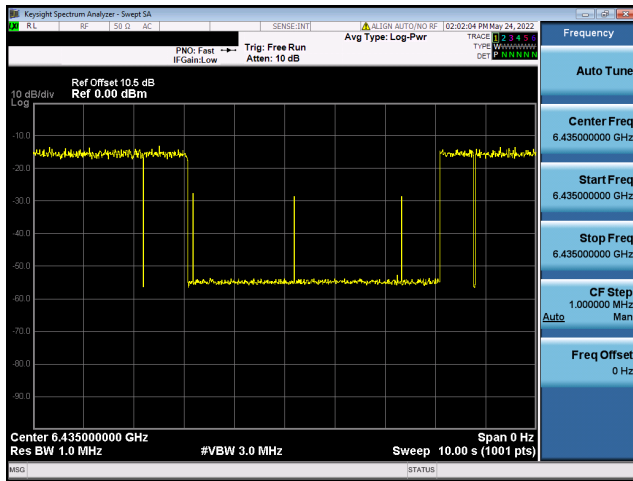


802.11ax (160MHz) / 6580MHz
(High Edge - 6580MHz)

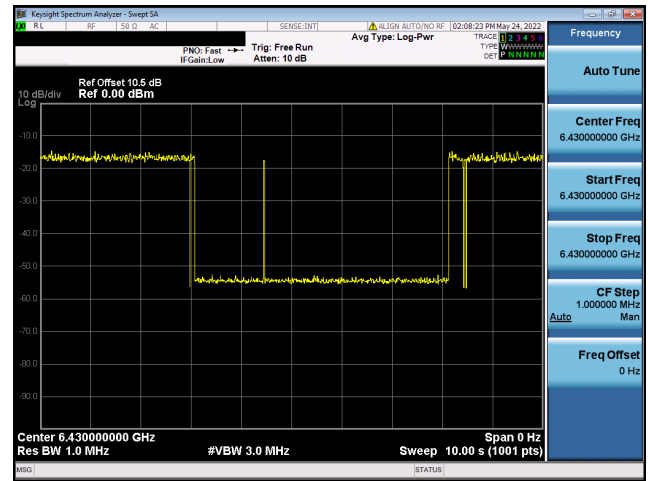


Plots of Start transmitting

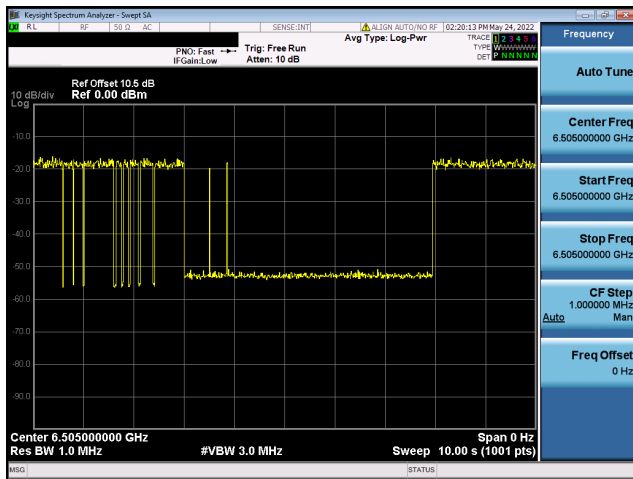
802.11ax (20MHz) / 6435MHz



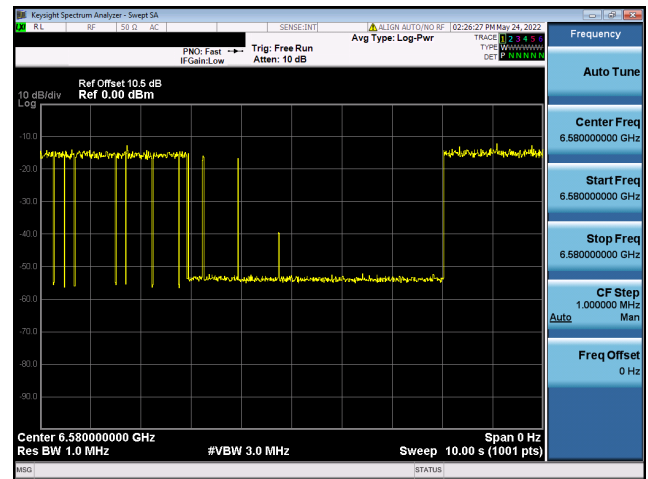
802.11ax (160MHz) / 6430MHz
(Low Edge - 6430MHz)



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



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



Product : RadiX AXE6600 WiFi 6E Tri-Band Gaming Router
 Test Item : Contention Based Protocol
 Test Date : 2022/05/24

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
					6590	10	10	100%	90%	Pass
		160MHz	143	6665	6665	10	10	100%	90%	Pass
					6740	10	10	100%	90%	Pass

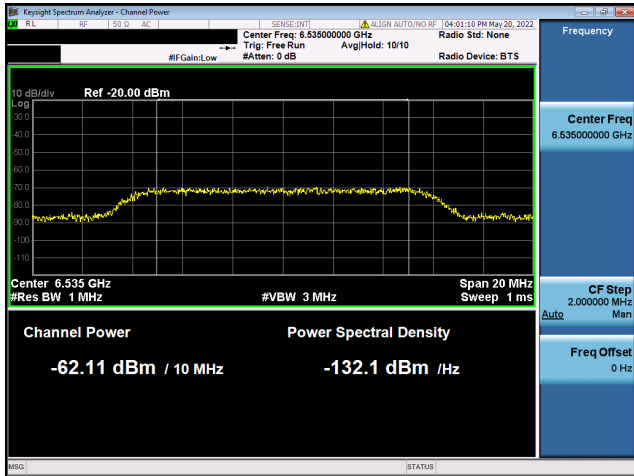
Lowest Interference (AWGN) Level Check							
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signals Frequency (MHz)	Threshold Level (dBm)	EUT Status
U-NII 7	802.11ax	20MHz	117	6535	6535	-73	OFF
						-75	Minimal
						-82	ON
		160MHz	143	6665	6590	-71	OFF
						-72	Minimal
						-79	ON
						-67	OFF
						-68	Minimal
						-75	ON
		160MHz	143	6665	6740	-69	OFF
						-70	Minimal
						-77	ON

Note:

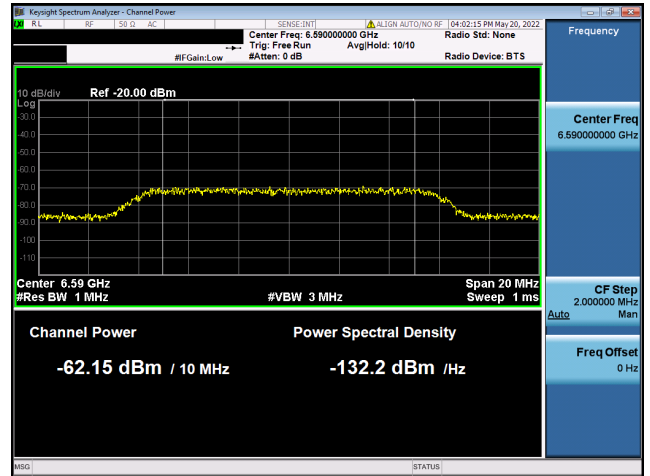
1. Injected (AWGN) POWER at the antenna connector (dBm) = S.G. (dBm) - Cable loss (dB) - Splitter loss (dB) - lowest antenna gain (dB)
2. Only one chain was performed for testing.
3. The AWGN level is reported for the following conditions:
 - OFF = AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds.
 - Minimal = AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently.
 - ON = AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds.

Plots of shows Incumbent signal level

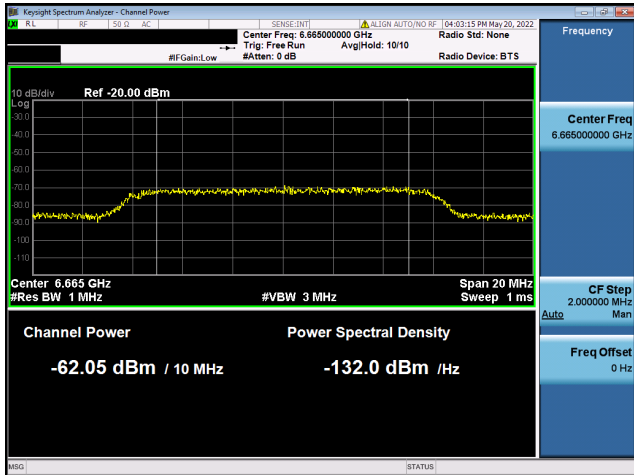
802.11ax (20MHz) / 6535MHz



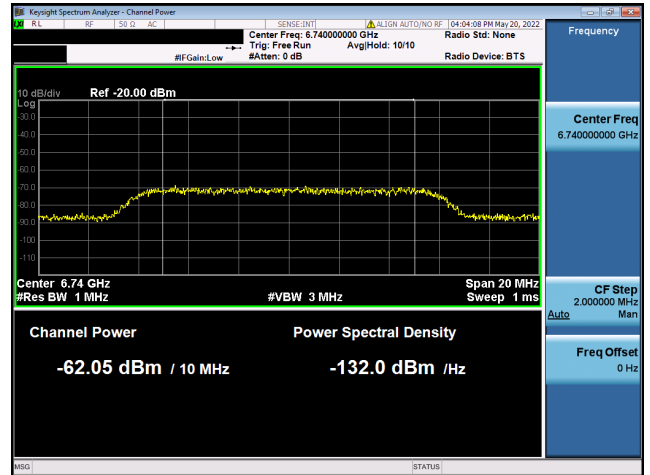
802.11ax (160MHz) / 6590MHz (Lower Edge)



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

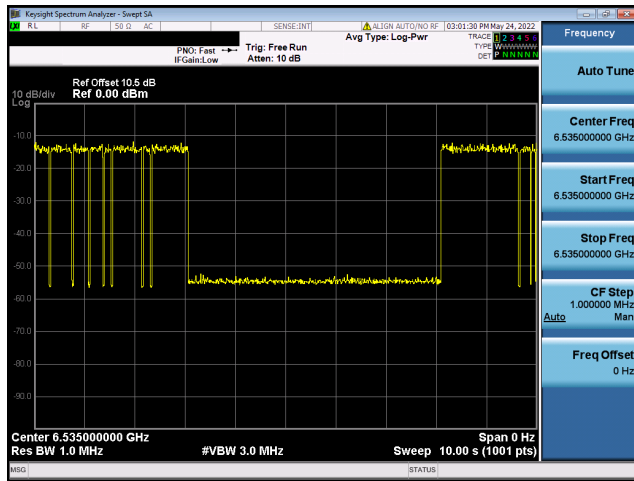


802.11ax (160MHz) / 6740MHz (Upper Edge)

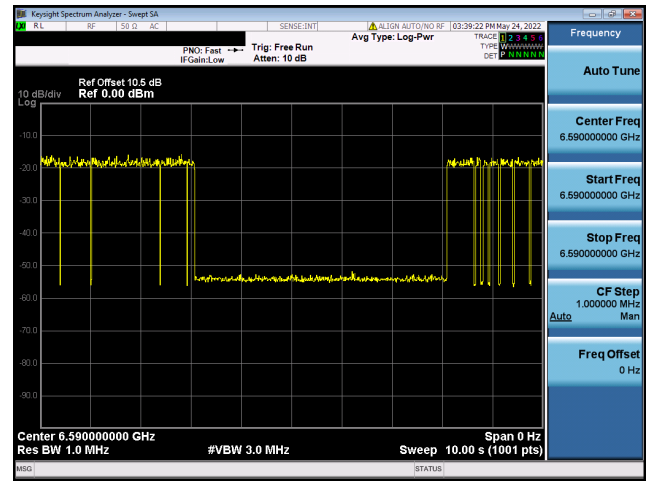


Plots of EUT ceased transmission in the time domain

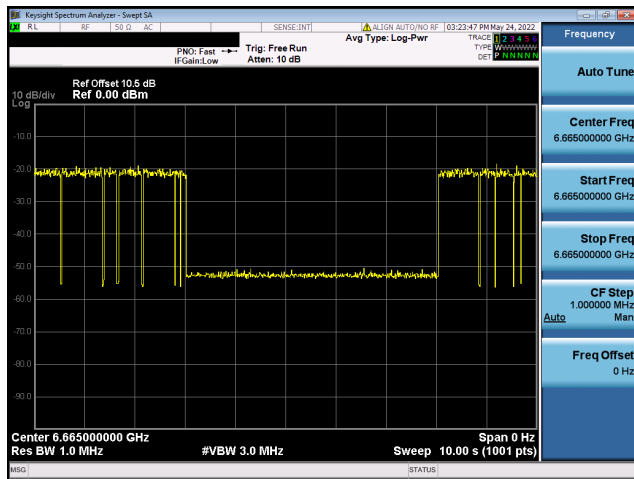
802.11ax (20MHz) / 6535MHz



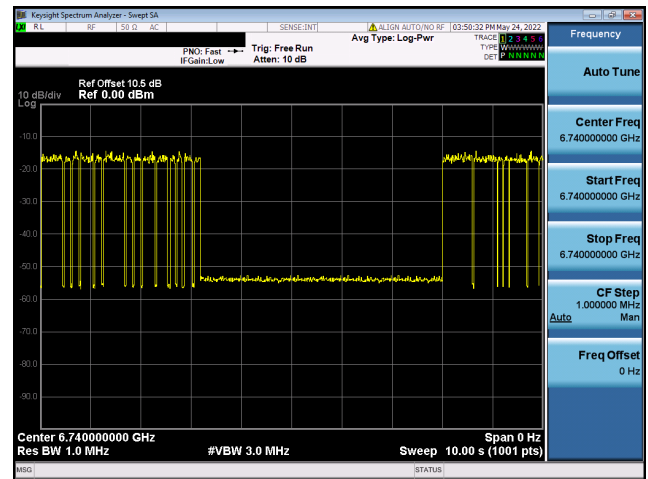
802.11ax (160MHz) / 6590MHz
(Low Edge - 6590 MHz)



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

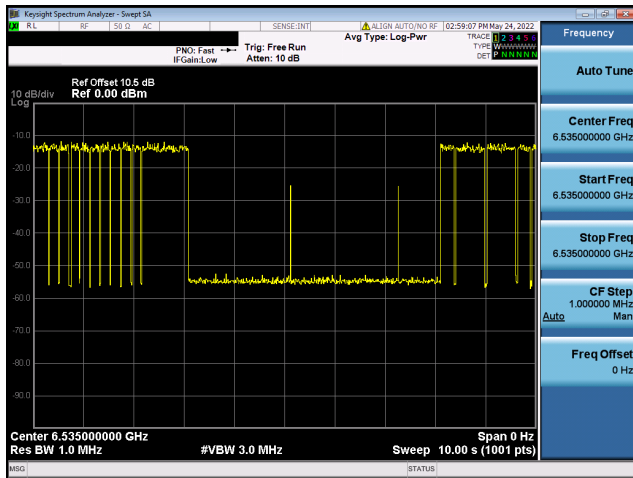


802.11ax (160MHz) / 6740MHz
(High Edge - 6740MHz)

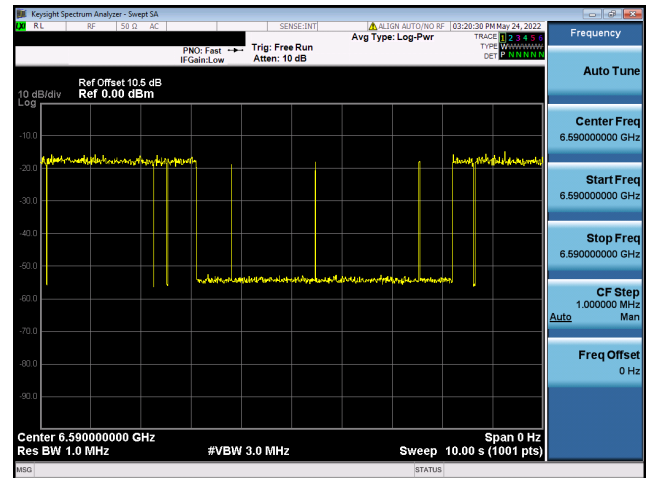


Plots of Start transmitting

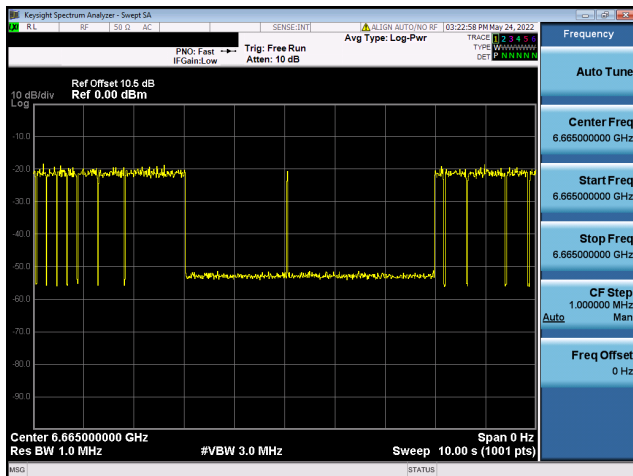
802.11ax (20MHz) / 6535MHz



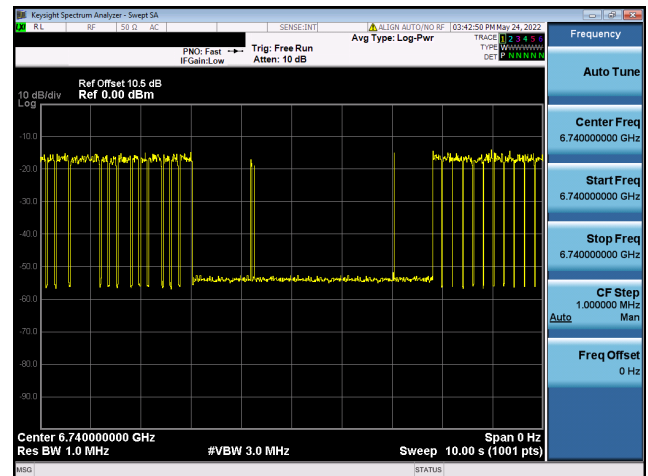
802.11ax (160MHz) / 6590MHz
(Low Edge - 6590MHz)



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



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



Product : RadiX AXE6600 WiFi 6E Tri-Band Gaming Router
 Test Item : Contention Based Protocol
 Test Date : 2022/05/25

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

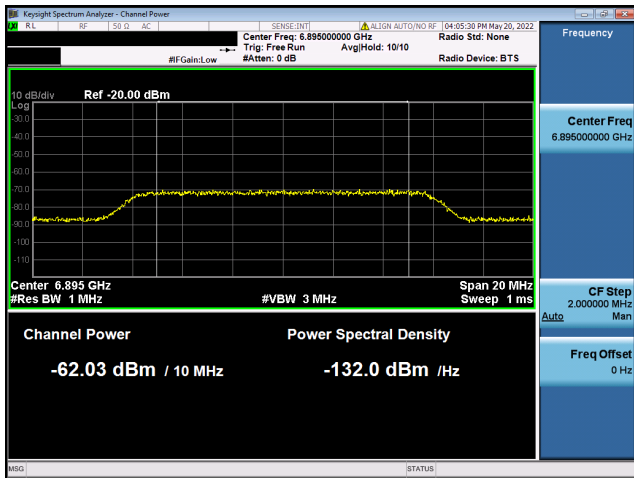
Lowest Interference (AWGN) Level Check							
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signals Frequency (MHz)	Threshold Level (dBm)	EUT Status
U-NII 8	802.11ax	20MHz	189	6895	6895	-74	OFF
						-75	Minimal
						-82	ON
		160MHz	207	6985	6910	-69	OFF
						-70	Minimal
						-77	ON
						-68	OFF
						-69	Minimal
						-76	ON
		160MHz	207	6985	7060	-70	OFF
						-71	Minimal
						-78	ON

Note:

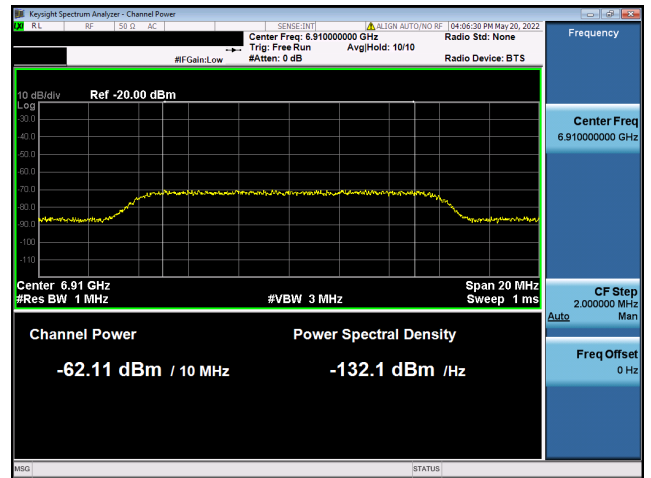
1. Injected (AWGN) POWER at the antenna connector (dBm) = S.G. (dBm) - Cable loss (dB) - Splitter loss (dB) - lowest antenna gain (dB)
2. Only one chain was performed for testing.
3. The AWGN level is reported for the following conditions:
 - OFF = AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds.
 - Minimal = AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently.
 - ON = AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds.

Plots of shows Incumbent signal level

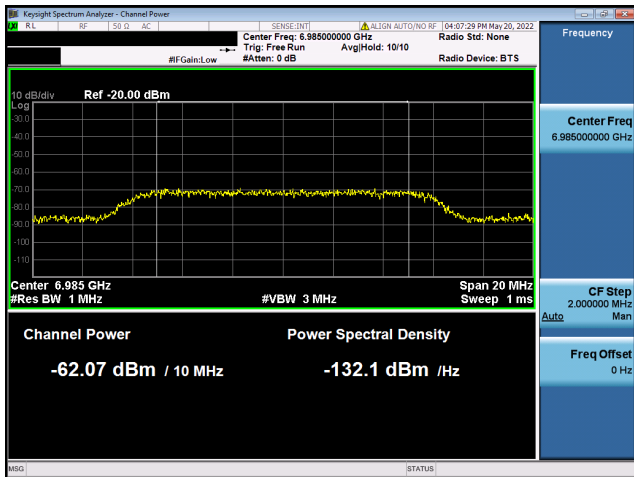
802.11ax (20MHz) / 6895MHz



802.11ax (160MHz) / 6910MHz (Lower Edge)



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



802.11ax (160MHz) / 7060MHz (Upper Edge)

