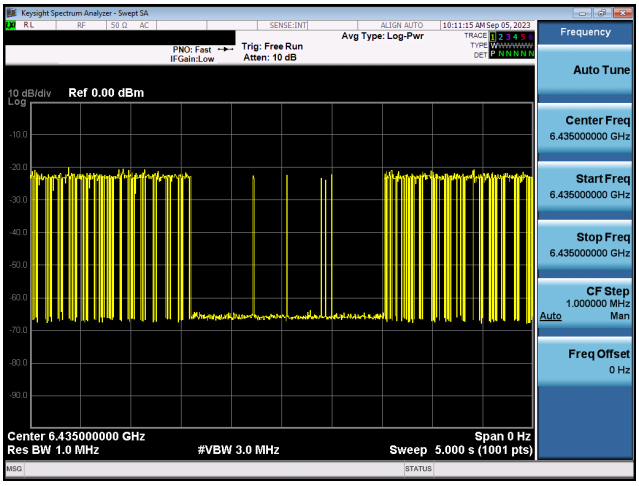
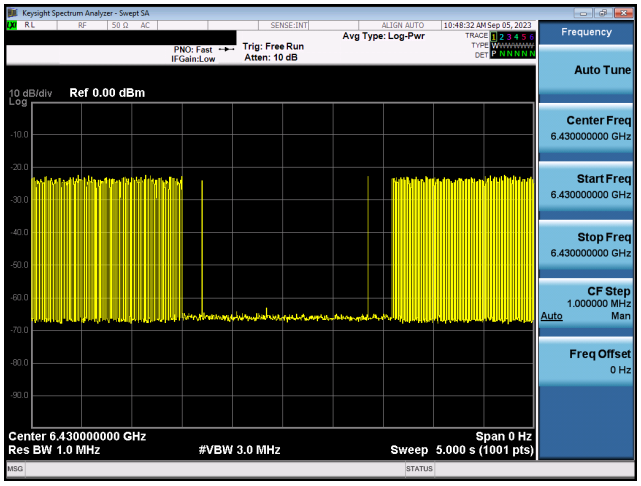
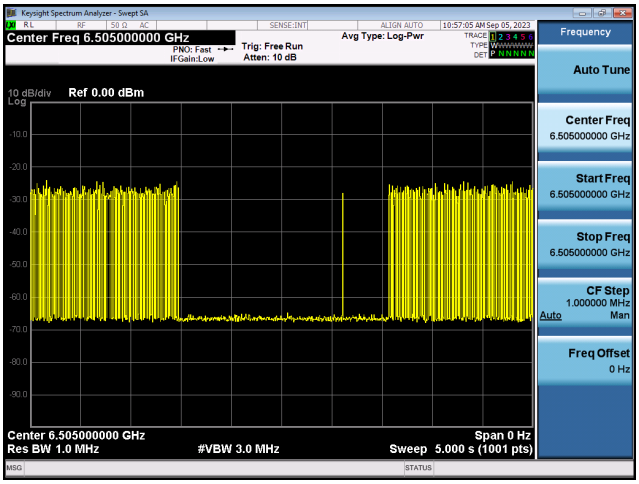
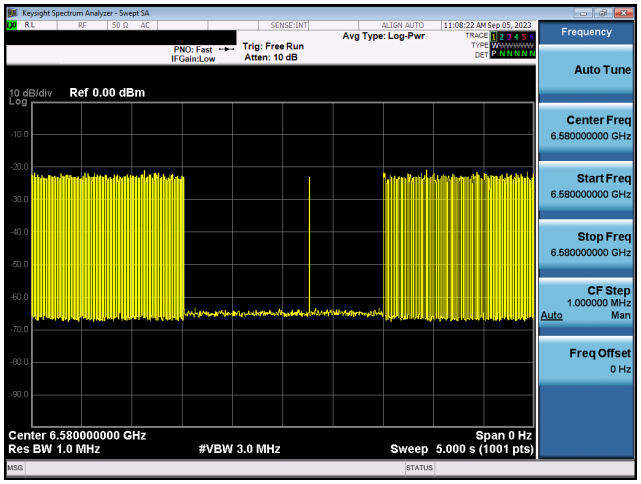
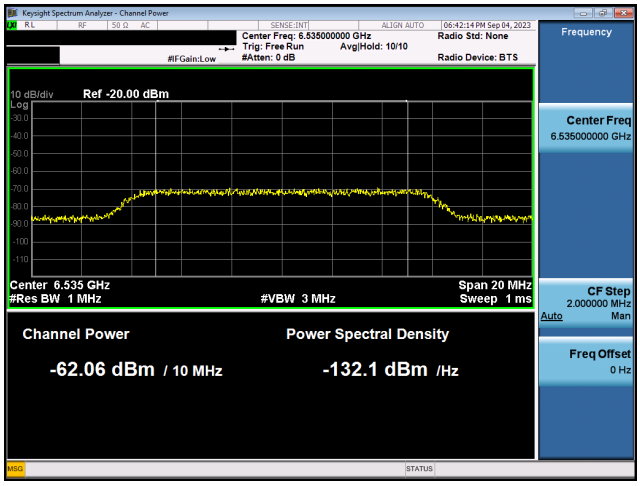
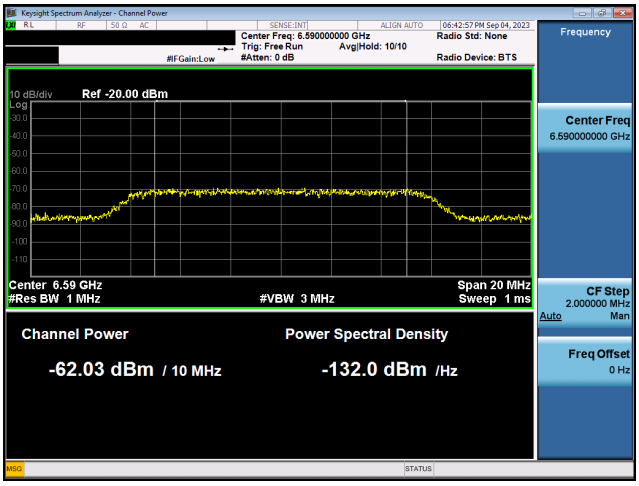
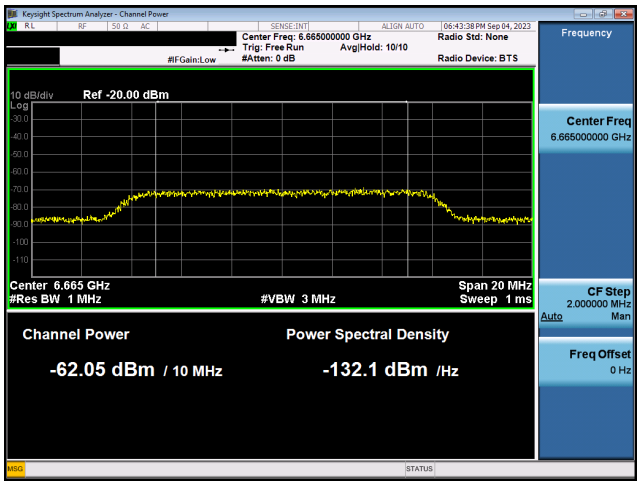
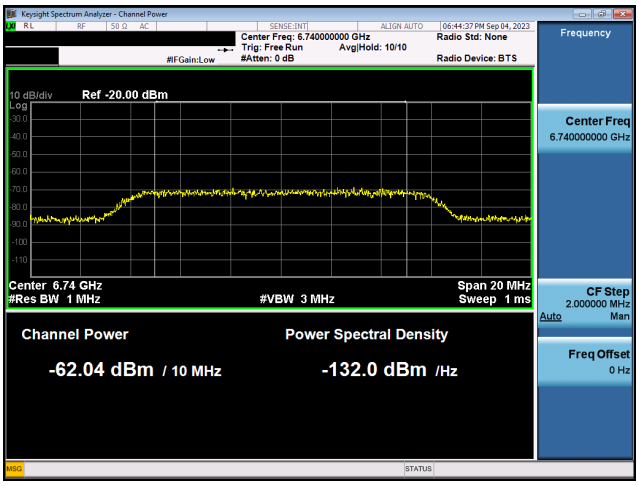
Plots of Start transmitting	
802.11ax (20MHz) / 6435MHz	802.11ax (160MHz) / 6505MHz (Lower Edge - 6430 MHz)
	
802.11ax (160MHz) / 6505MHz (Middle - 6505 MHz)	802.11ax (160MHz) / 6505MHz (Upper Edge - 6580 MHz)
	

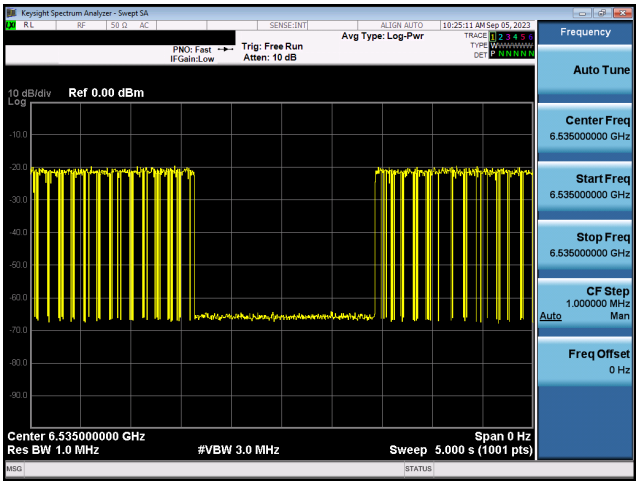
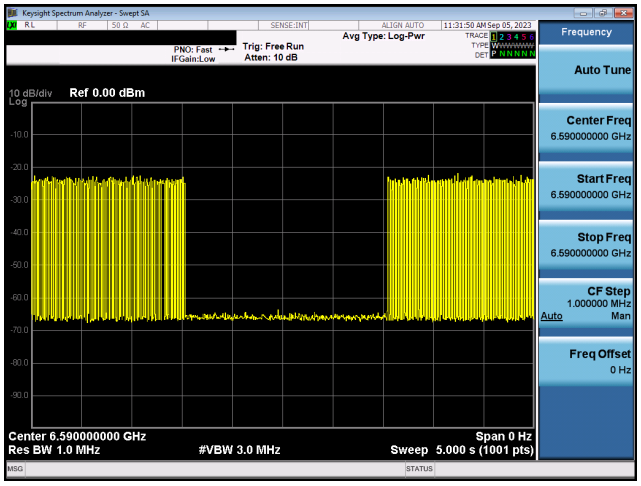
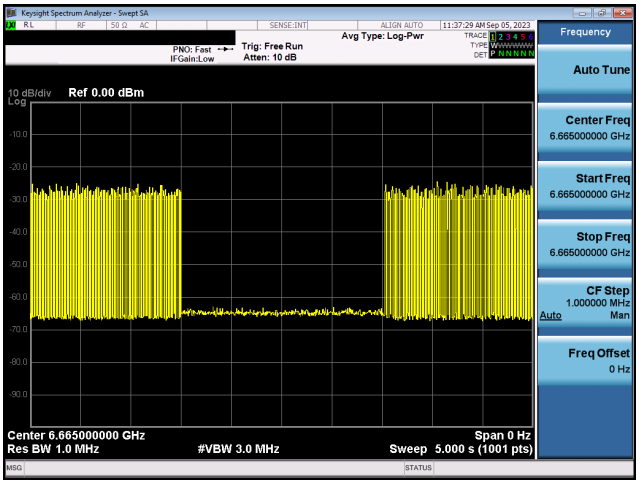
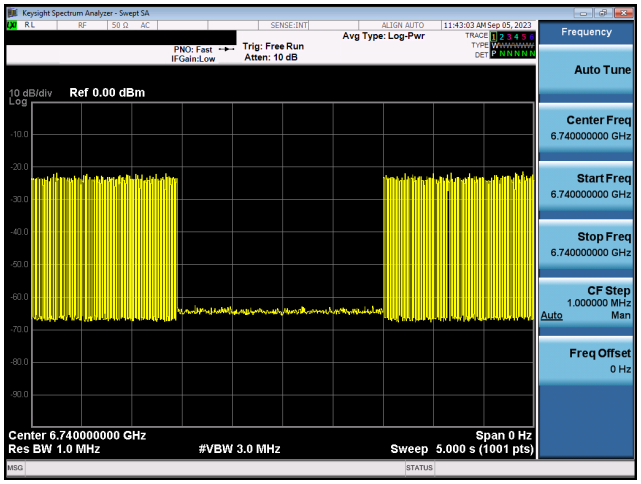
For U-NII-7 band

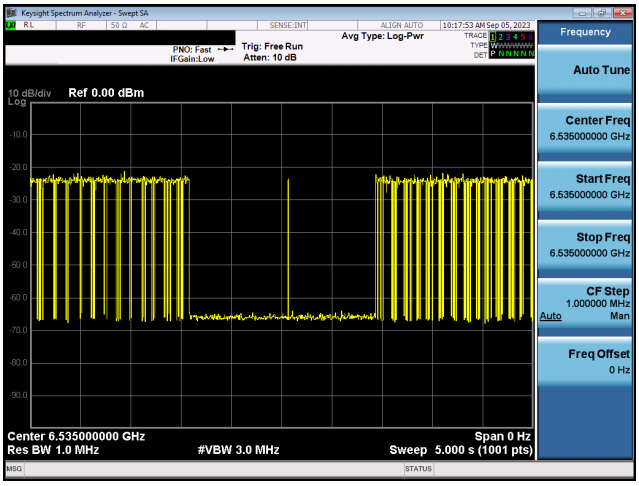
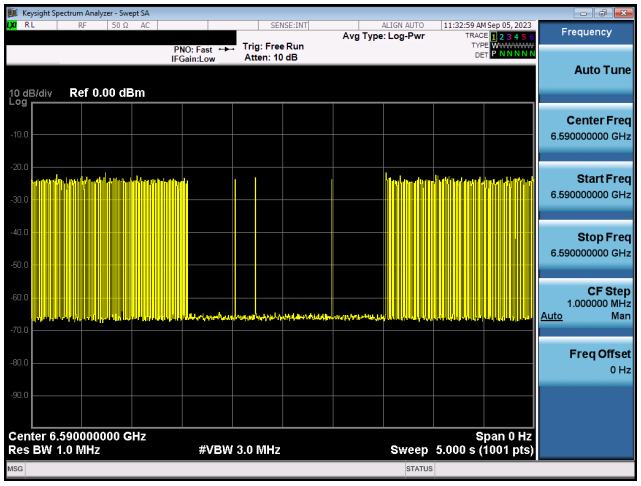
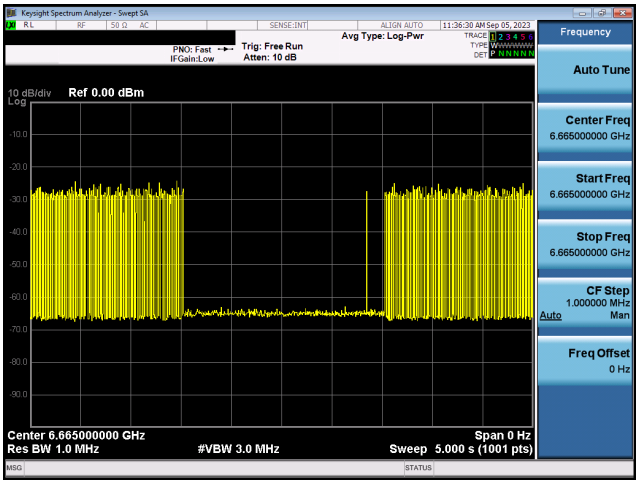
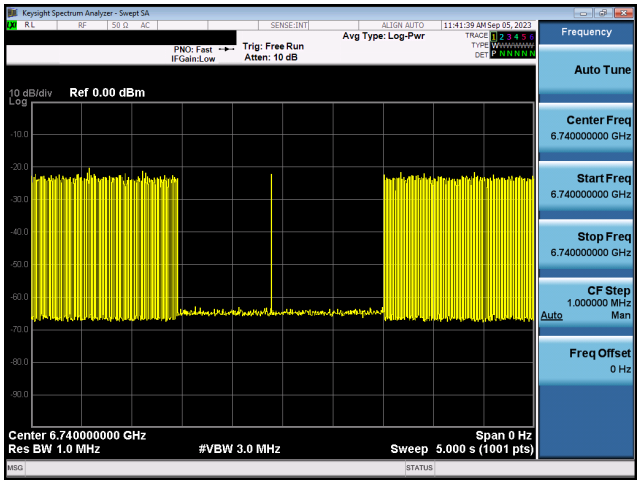
Contention Based Protocol Measurement										
Measurement Mode		Conducted measurement			Device Type		Client			
The Incumbent Signal (AWGN) Level (dBm)		-62 dBm (at the antenna connector)								
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	Test Result					
					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	-70	OFF
						-71	Minimal
						-72	ON
		160MHz	143	6665	6590	-72	OFF
						-74	Minimal
						-75	ON
					6665	-69	OFF
						-70	Minimal
						-71	ON
					6740	-67	OFF
						-68	Minimal
						-70	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 5 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 5 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) / 6665MHz (Lower Edge - 6590 MHz)
	
802.11ax (160MHz) / 6665MHz (Middle - 6665 MHz)	802.11ax (160MHz) / 6665MHz (Upper Edge - 6740 MHz)
	

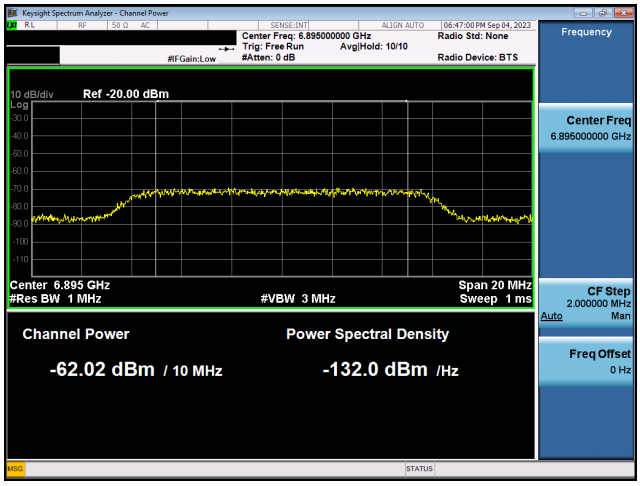
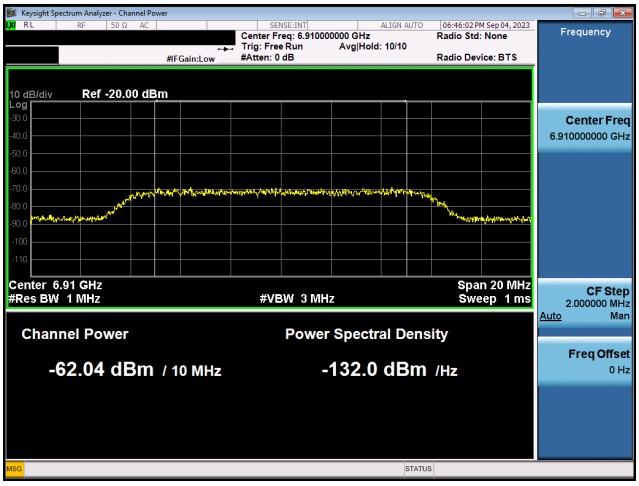
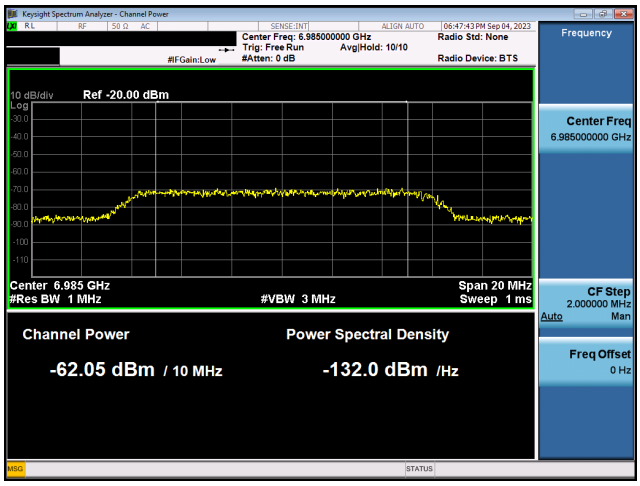
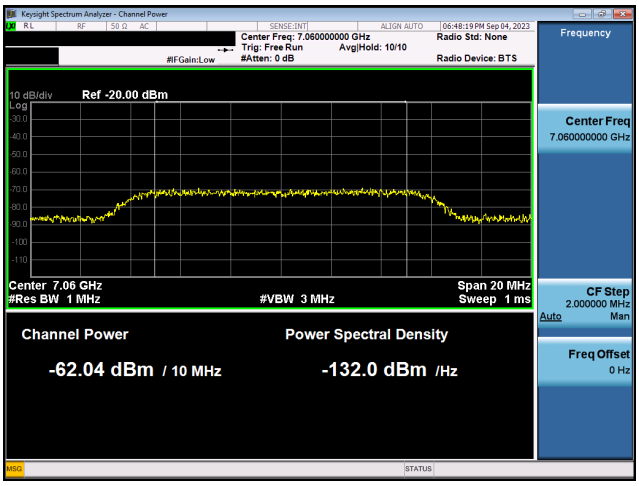
Plots of Start transmitting	
802.11ax (20MHz) / 6535MHz	802.11ax (160MHz) / 6665MHz (Lower Edge - 6590 MHz)
	
802.11ax (160MHz) / 6665MHz (Middle - 6665 MHz)	802.11ax (160MHz) / 6665MHz (Upper Edge - 6740 MHz)
	

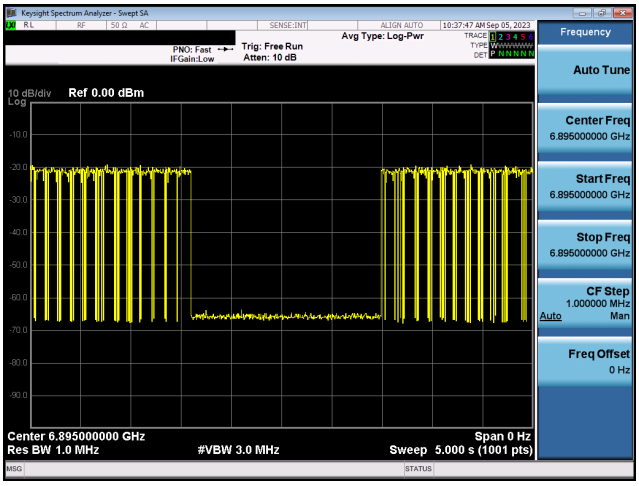
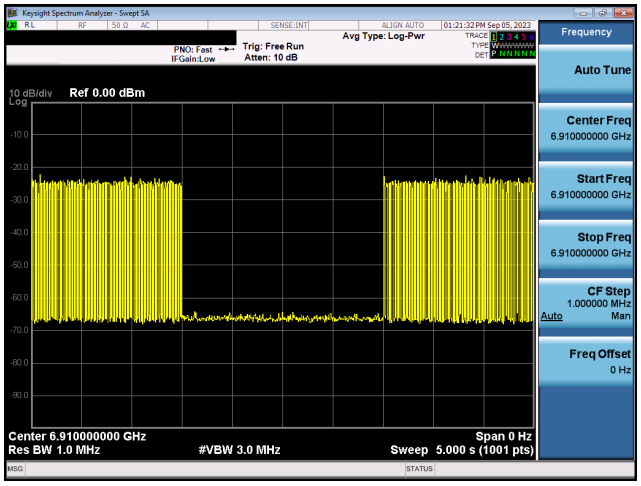
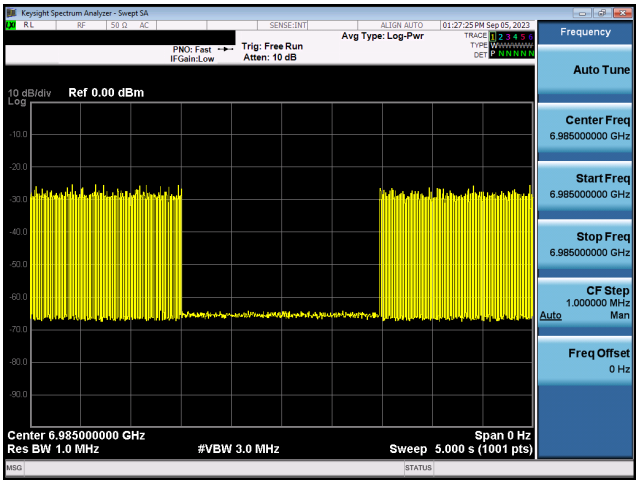
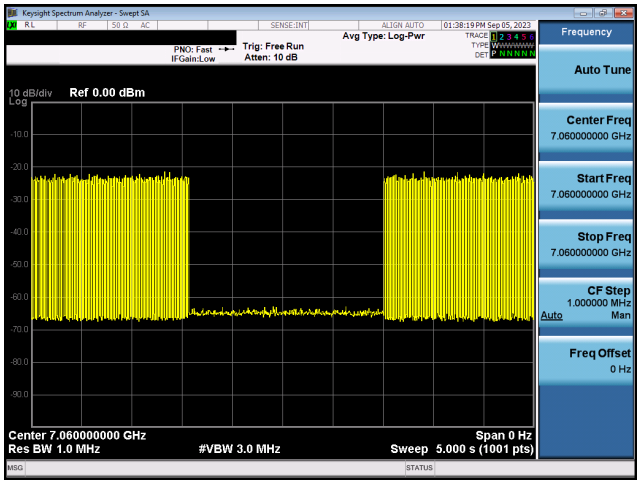
For U-NII-8 band

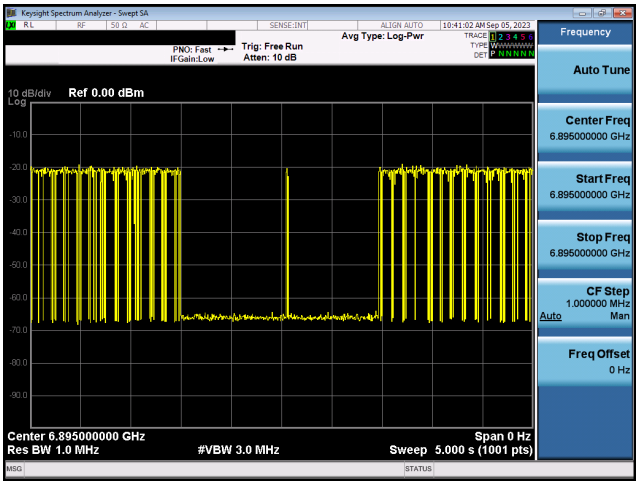
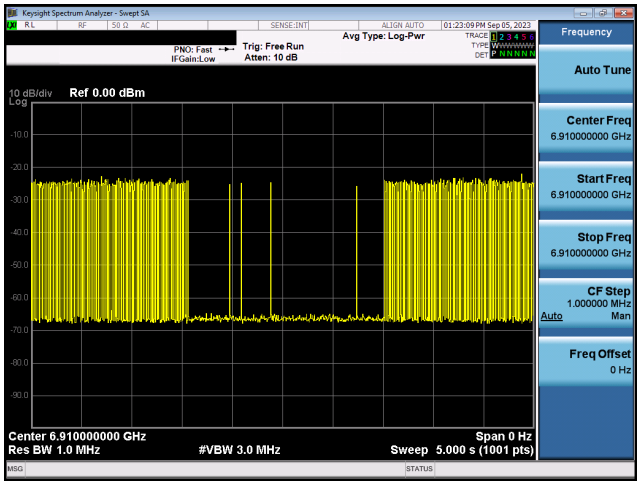
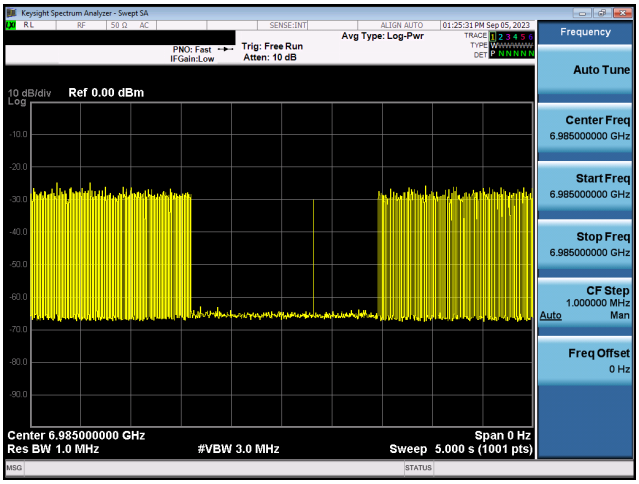
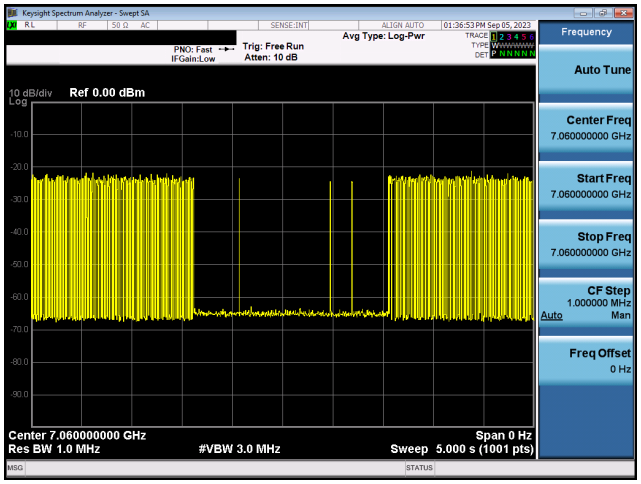
Contention Based Protocol Measurement										
Measurement Mode		Conducted measurement			Device Type		Client			
The Incumbent Signal (AWGN) Level (dBm)		-62 dBm (at the antenna connector)								
Operation Band	Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	Test Result					
					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
		160MHz	207	6985	6910	10	10	100%	90%	Pass
					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	-69	OFF
						-71	Minimal
						-72	ON
		160MHz	207	6985	6910	-73	OFF
						-74	Minimal
						-75	ON
					6985	-68	OFF
						-69	Minimal
						-70	ON
					7060	-68	OFF
						-69	Minimal
						-70	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 5 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 5 seconds.

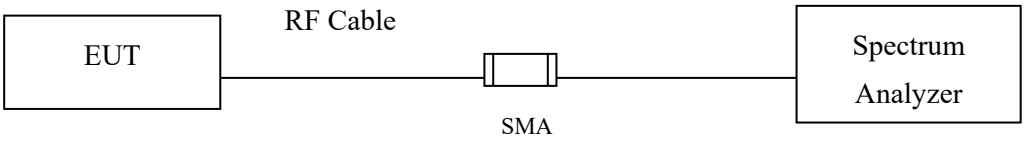
Plots of shows Incumbent signal level	
802.11ax (20MHz) / 6895MHz	802.11ax (160MHz) / 6910MHz (Lower Edge)
	
802.11ax (160MHz) / 6985MHz (Middle)	802.11ax (160MHz) / 7060MHz (Upper Edge)
	

Plots of EUT ceased transmission in the time domain	
802.11ax (20MHz) / 6895MHz	802.11ax (160MHz) / 6985MHz (Lower Edge - 6910 MHz)
	
802.11ax (160MHz) / 6985MHz (Middle - 6985 MHz)	802.11ax (160MHz) / 6985MHz (Upper Edge - 7060 MHz)
	

Plots of Start transmitting	
802.11ax (20MHz) / 6895MHz	802.11ax (160MHz) / 6985MHz (Lower Edge - 6910 MHz)
	
802.11ax (160MHz) / 6985MHz (Middle - 6985 MHz)	802.11ax (160MHz) / 6985MHz (Upper Edge - 7060 MHz)
	

11. Duty Cycle

11.1. Test Setup



11.2. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to U-NII test procedure of KDB789033 for compliance to FCC 47CFR 15.407 requirements.

11.3. Duty Cycle

Product : Wi-Fi 6/6E Sensor
Test Item : Duty Cycle
Test Date : 2023/07/18 ~ 2023/07/19

Mode	Time On (ms)	Time On + Time Off (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11a	1.9820	2.1580	91.84	0.37
802.11ax20	5.4500	6.8100	80.03	0.97
802.11ax40	5.4700	6.9700	78.48	1.05
802.11ax80	5.4250	6.8250	79.49	1.00
802.11ax160	5.4750	6.9250	79.06	1.02

Note:

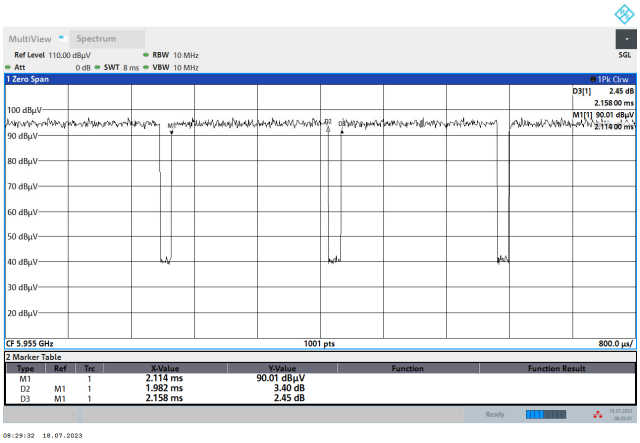
Offset = 20 log(1/duty cycle)

Accotding to KDB 789033

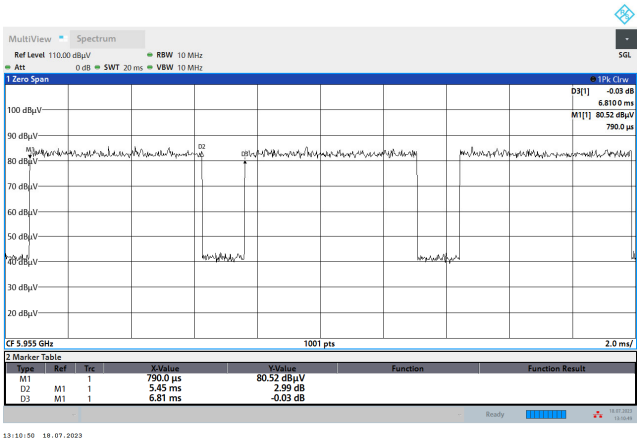
If power averaging (rms) mode was used in step (iv) above, the correction factor is 10 log (1/x), where x is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB must be added to the measured emission levels.

If linear voltage averaging mode was used in step (iv) above, the correction factor is 20 log (1/x), where x is the duty cycle. For example, if the transmit duty cycle was 50%, then 6 dB must be added to the measured emission levels.

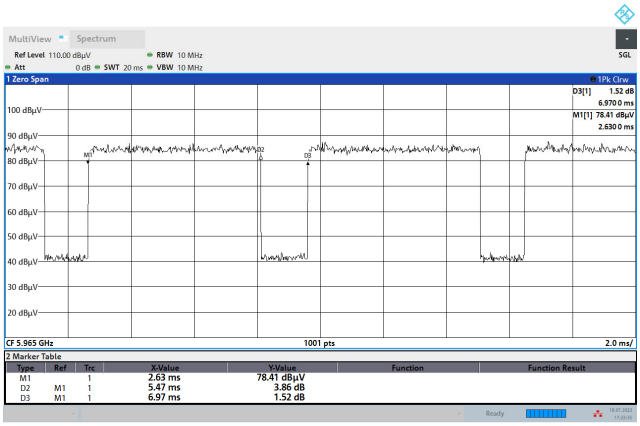
802.11a / 5955 MHz



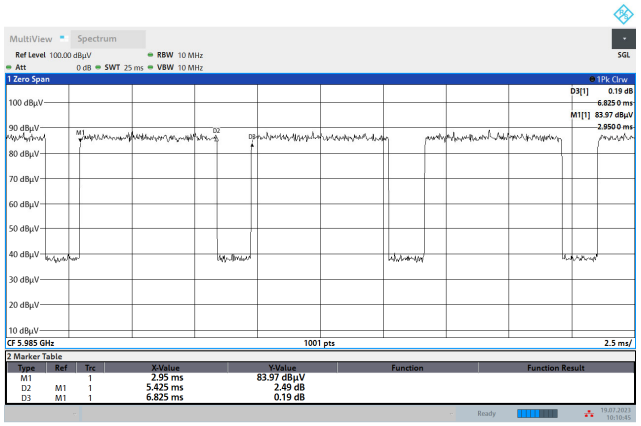
802.11ax20 / 5955 MHz



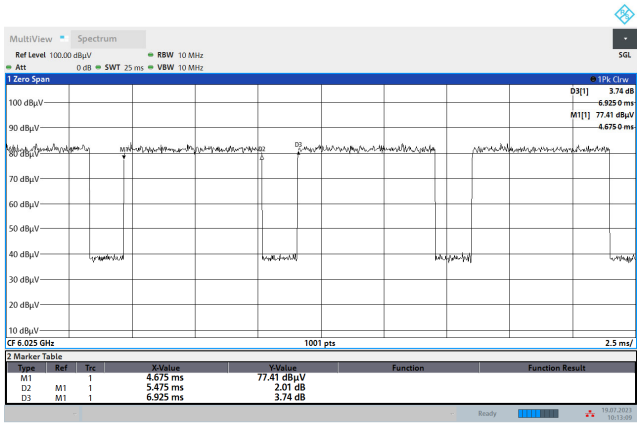
802.11ax40 / 5965 MHz



802.11ax80 / 5985 MHz



802.11ax160 / 6025 MHz



NA