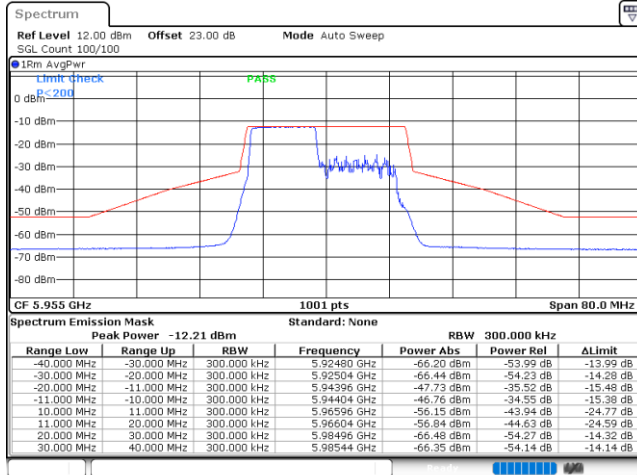




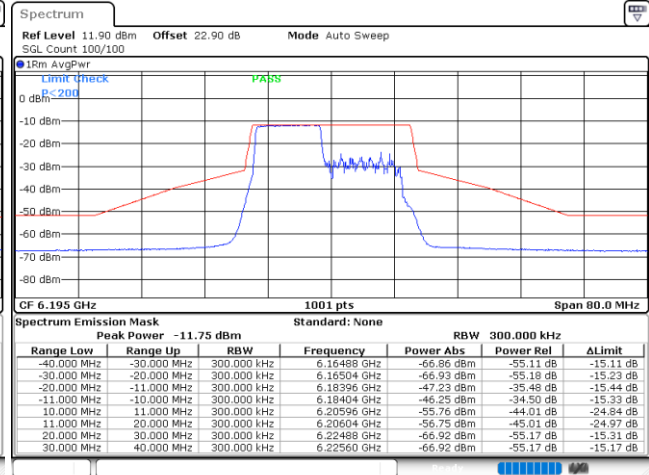
EUT Mode : 802.11ax HE20 106RU

Plot on Channel 5955MHz



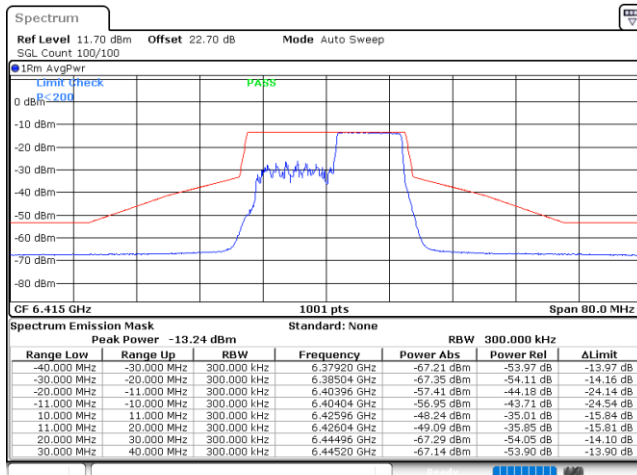
Date: 20.DEC.2022 23:41:03

Plot on Channel 6195MHz



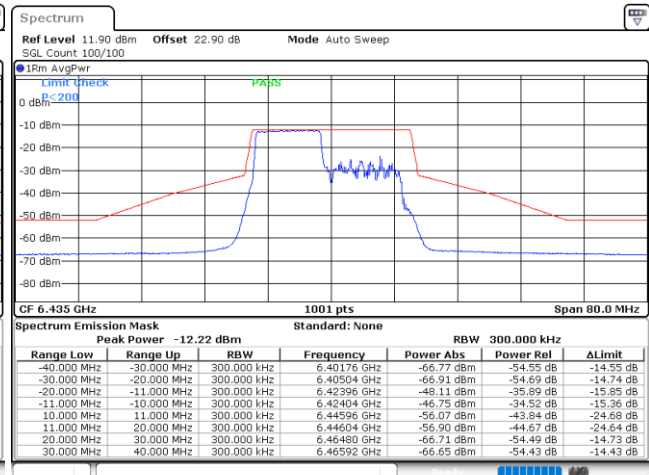
Date: 21.DEC.2022 00:00:20

Plot on Channel 6415MHz



Date: 21.DEC.2022 04:12:14

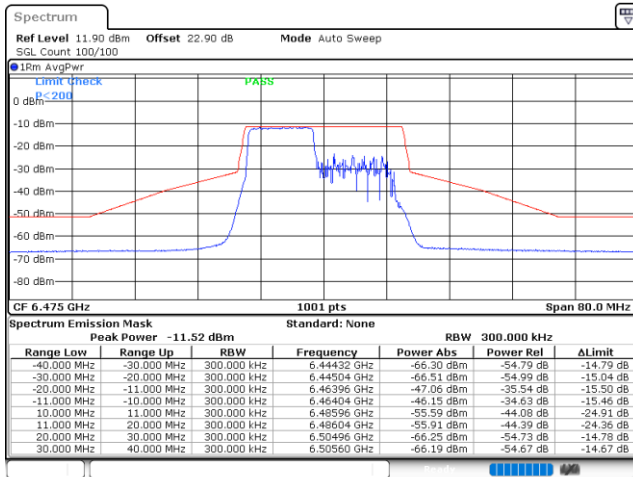
Plot on Channel 6435MHz



Date: 21.DEC.2022 04:39:26

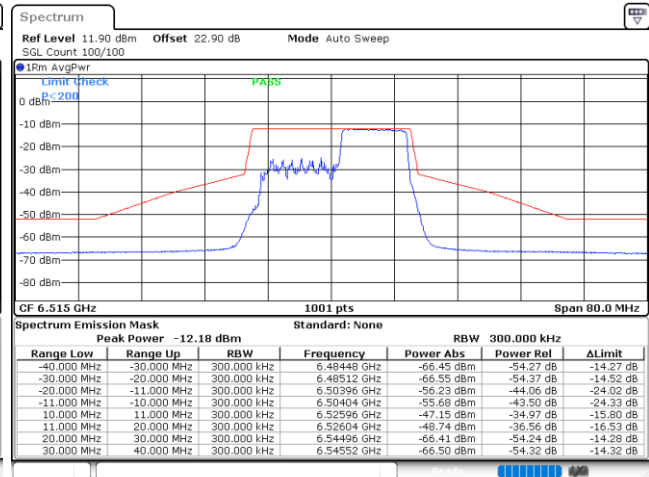


Plot on Channel 6475MHz



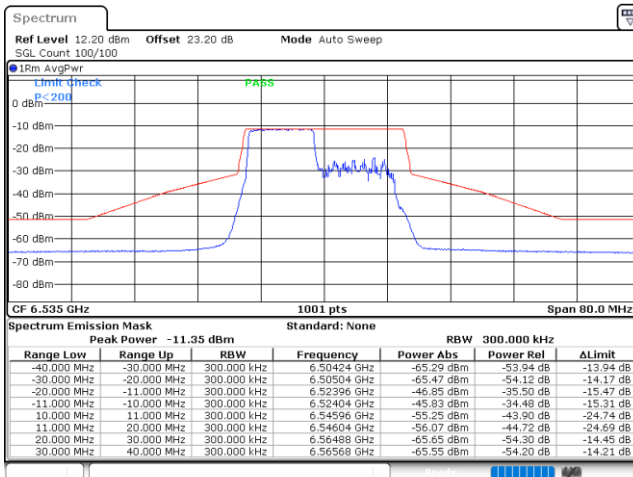
Date: 21.DEC.2022 05:01:13

Plot on Channel 6515MHz



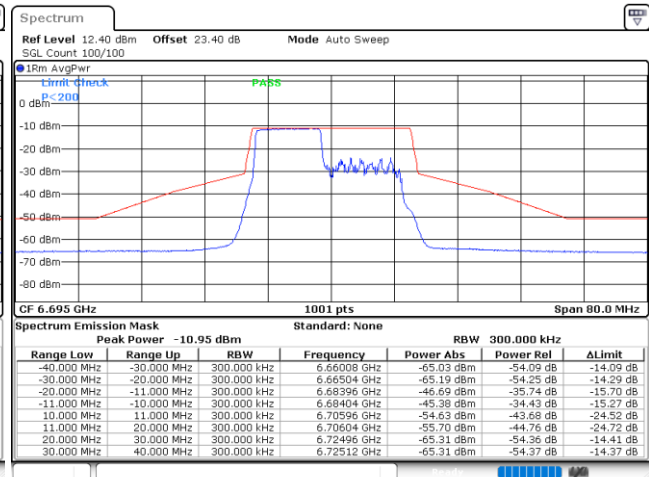
Date: 21.DEC.2022 05:15:12

Plot on Channel 6535MHz



Date: 21.DEC.2022 21:50:46

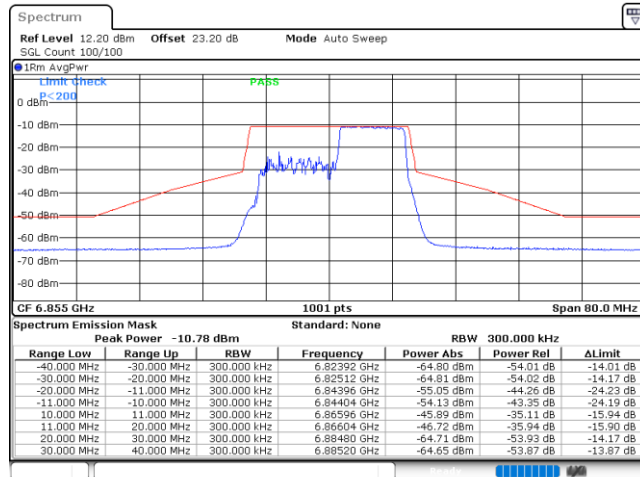
Plot on Channel 6695MHz



Date: 21.DEC.2022 22:12:02

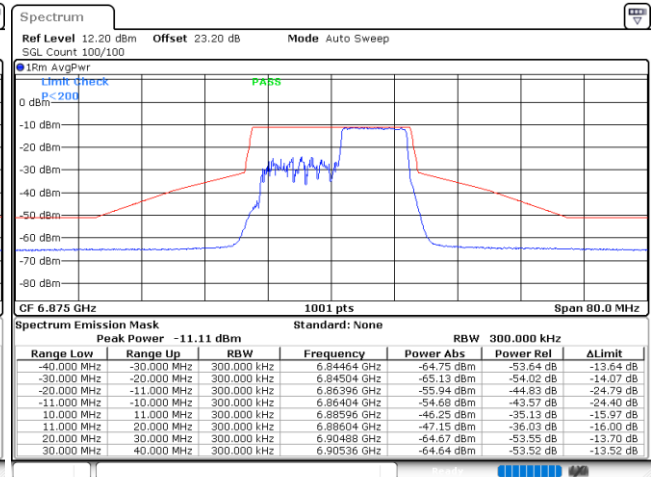


Plot on Channel 6855MHz



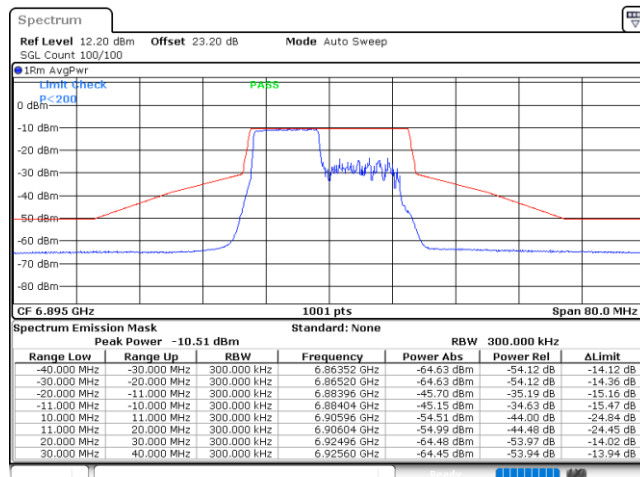
Date: 21.DEC.2022 22:47:27

Plot on Channel 6875MHz



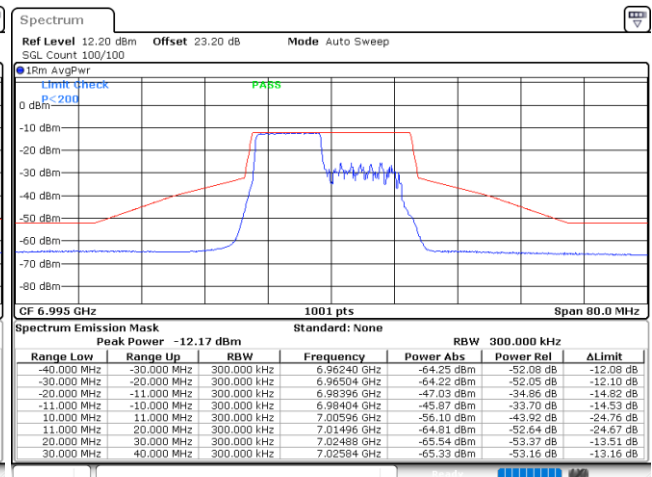
Date: 21.DEC.2022 23:35:11

Plot on Channel 6895MHz



Date: 21.DEC.2022 23:54:48

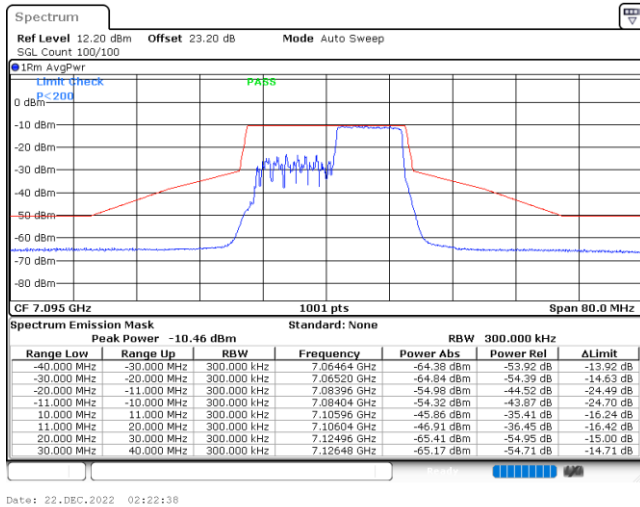
Plot on Channel 6995MHz



Date: 22.DEC.2022 02:11:13



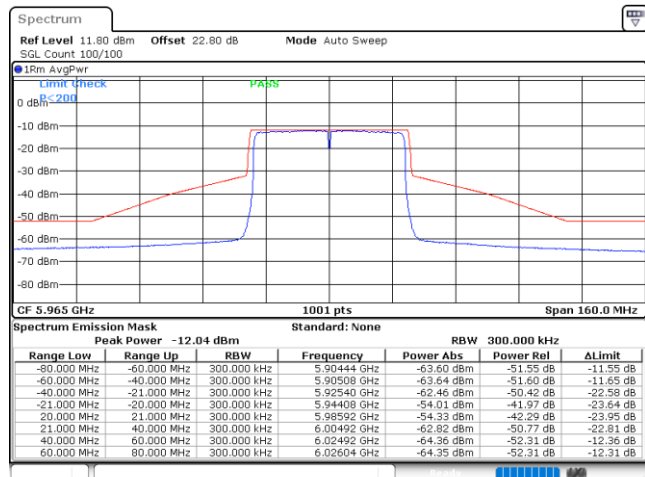
Plot on Channel 7095MHz





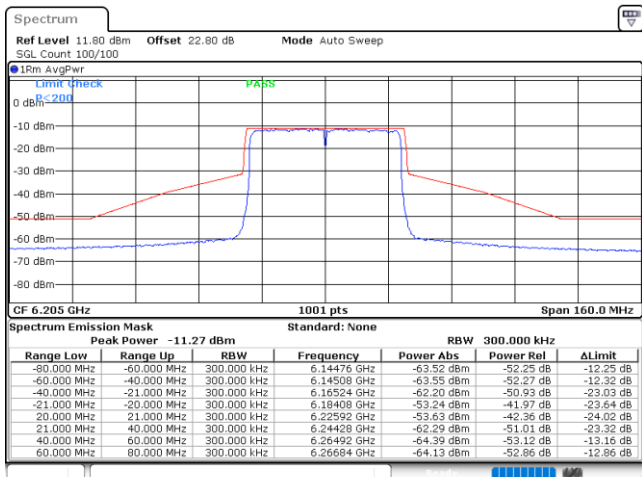
EUT Mode : 802.11ax HE40

Plot on Channel 5965MHz



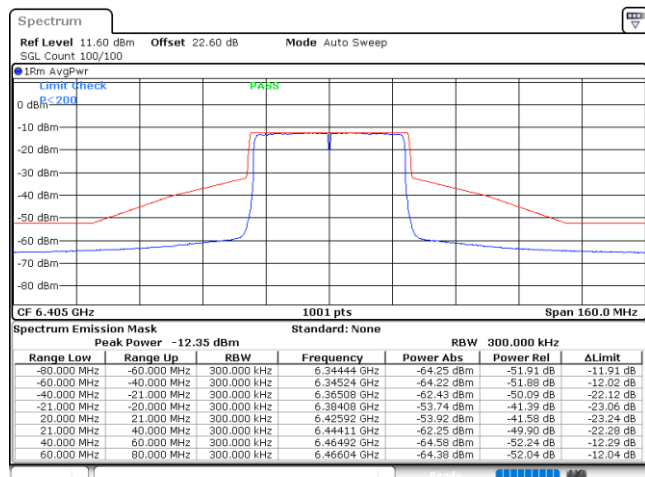
Date: 12.DEC.2022 09:54:58

Plot on Channel 6205MHz



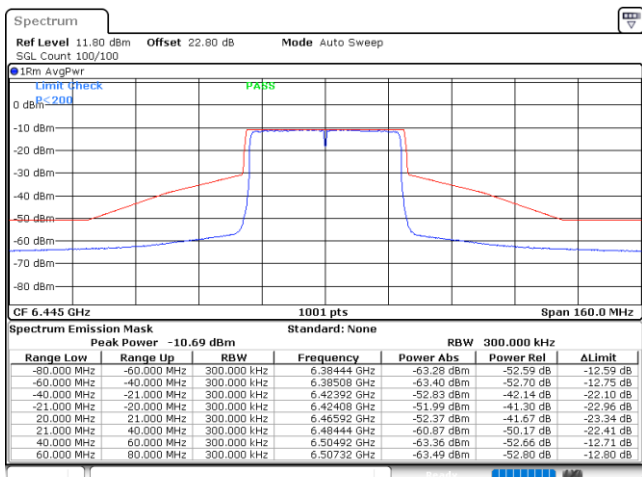
Date: 12.DEC.2022 09:57:31

Plot on Channel 6405MHz



Date: 12.DEC.2022 10:00:29

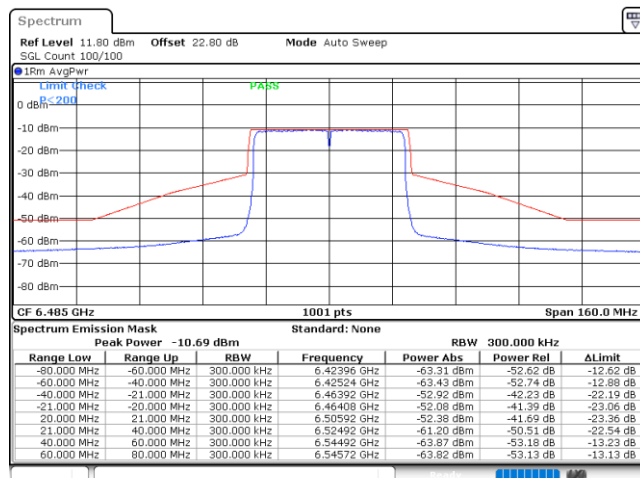
Plot on Channel 6445MHz



Date: 12.DEC.2022 10:03:04

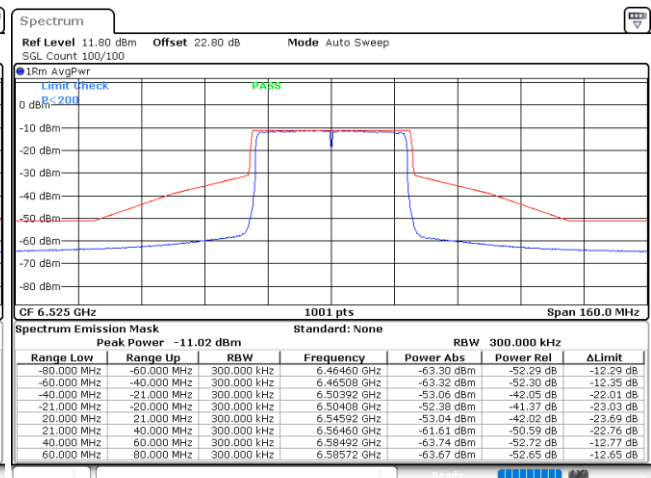


Plot on Channel 6485MHz



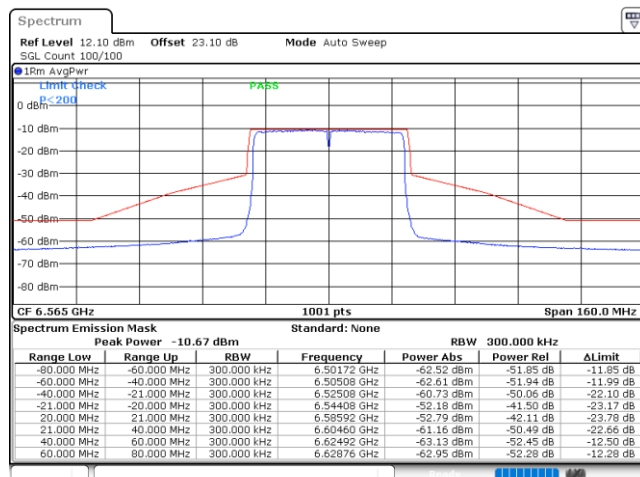
Date: 12.DEC.2022 10:05:59

Plot on Channel 6525MHz



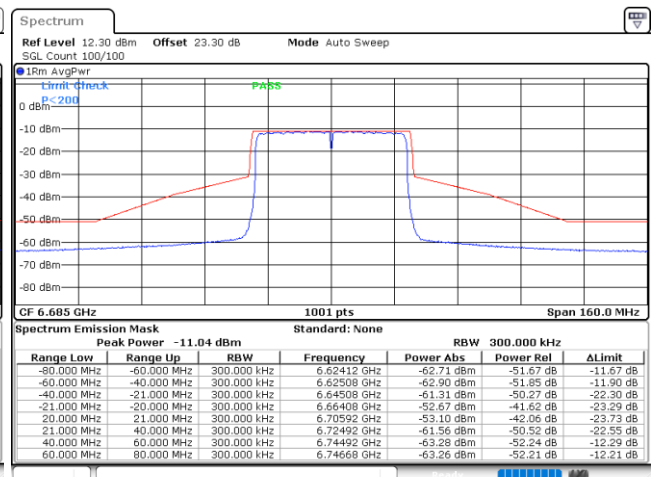
Date: 12.DEC.2022 10:09:08

Plot on Channel 6565MHz



Date: 14.DEC.2022 09:58:20

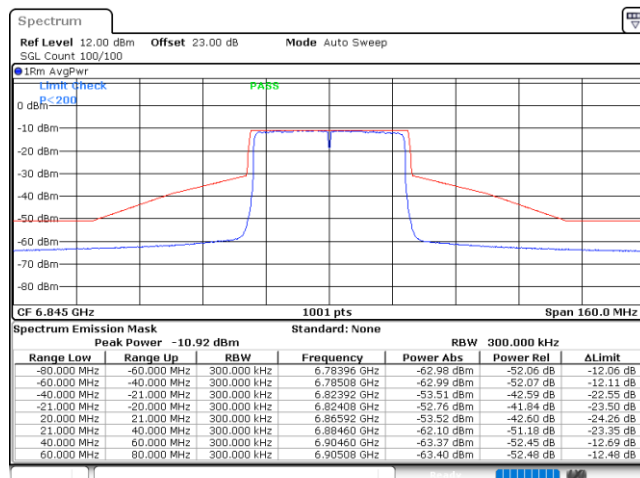
Plot on Channel 6685MHz



Date: 12.DEC.2022 10:33:21

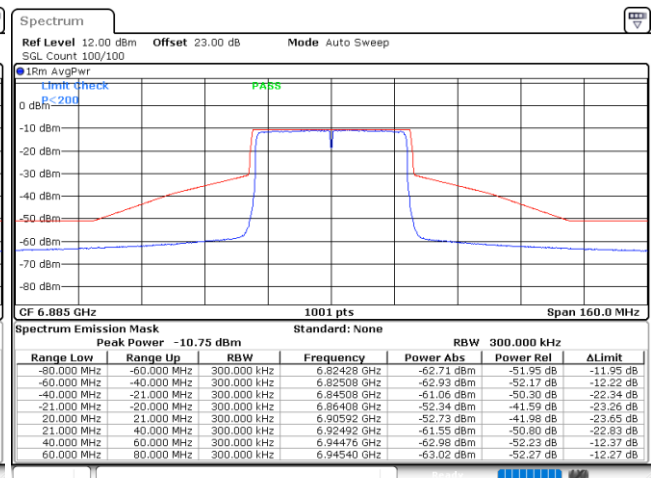


Plot on Channel 6845MHz



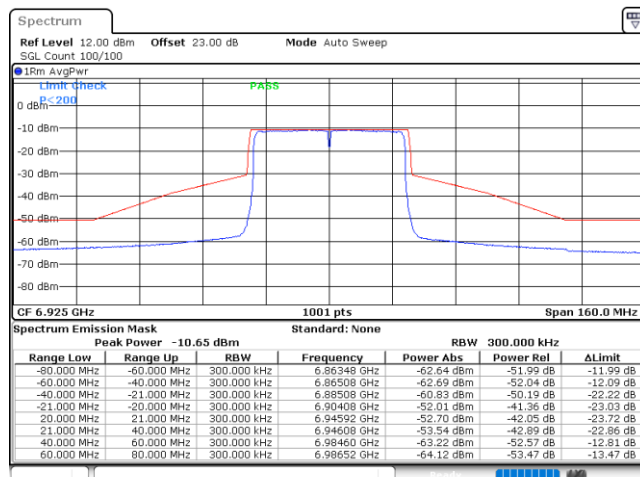
Date: 12.DEC.2022 10:36:19

Plot on Channel 6885MHz



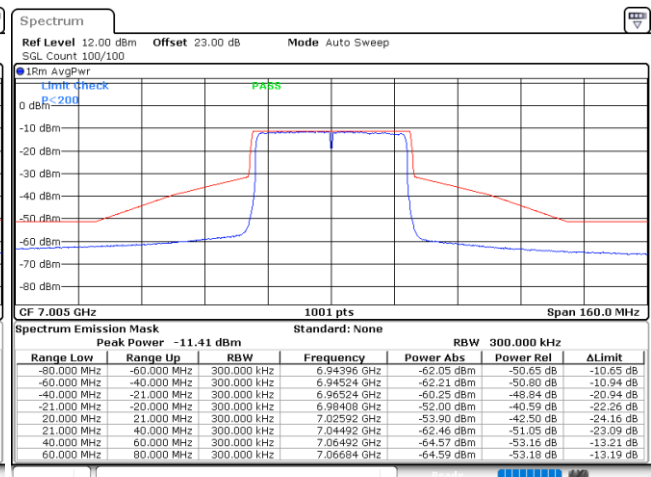
Date: 12.DEC.2022 10:38:57

Plot on Channel 6925MHz



Date: 12.DEC.2022 10:41:28

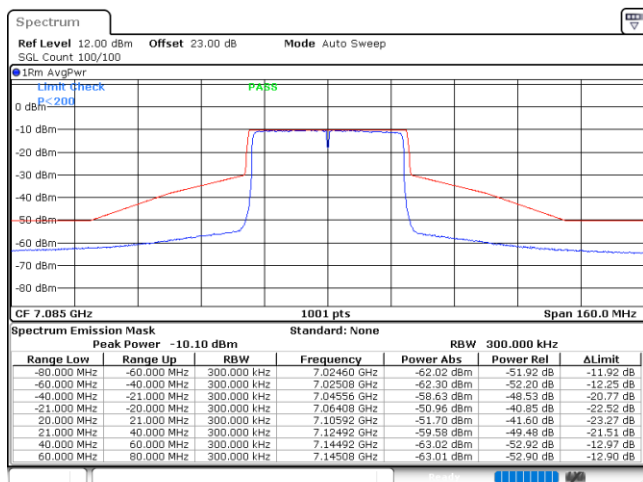
Plot on Channel 7005MHz



Date: 12.DEC.2022 10:43:43



Plot on Channel 7085MHz

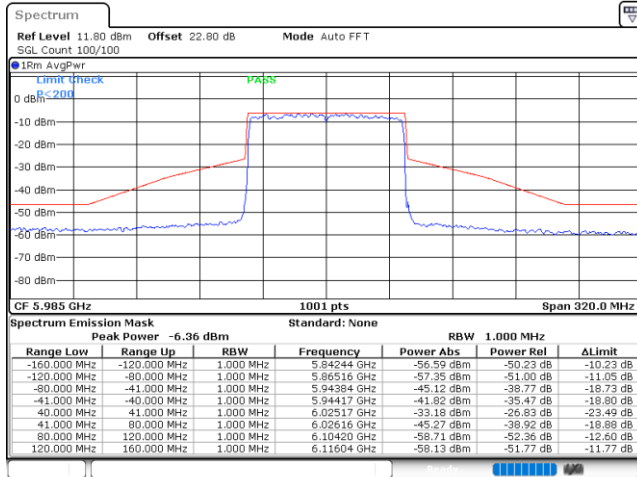


Date: 12.DEC.2022 10:46:13



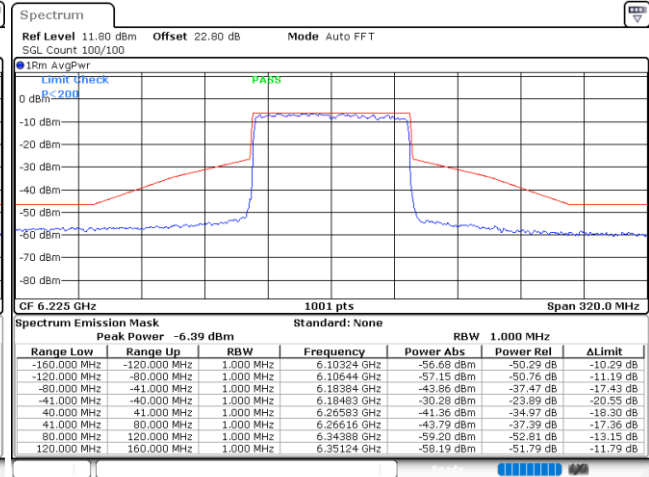
EUT Mode : 802.11ax HE80

Plot on Channel 5985MHz



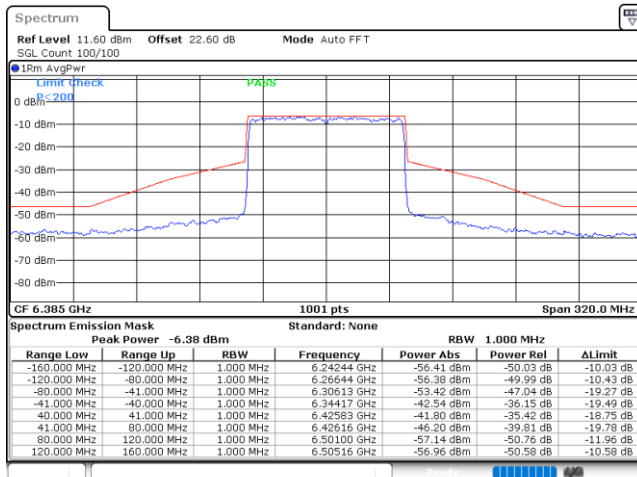
Date: 12.DEC.2022 10:48:58

Plot on Channel 6225MHz



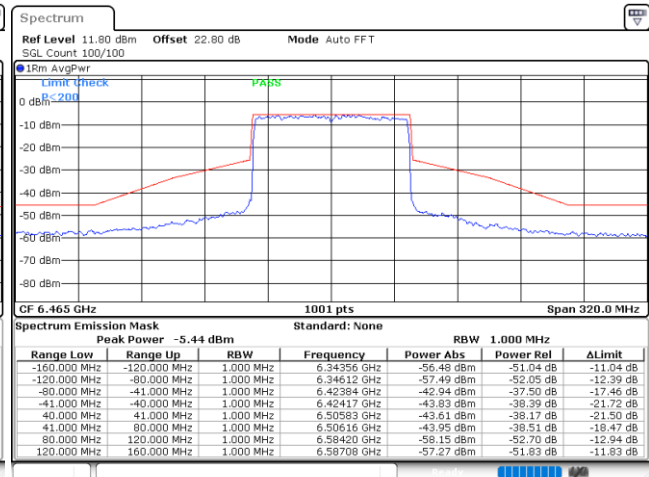
Date: 12.DEC.2022 10:54:39

Plot on Channel 6385MHz



Date: 12.DEC.2022 10:57:37

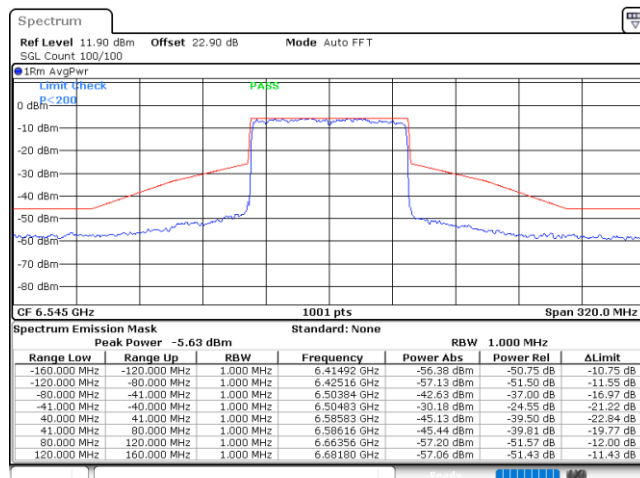
Plot on Channel 6465MHz



Date: 12.DEC.2022 11:00:00

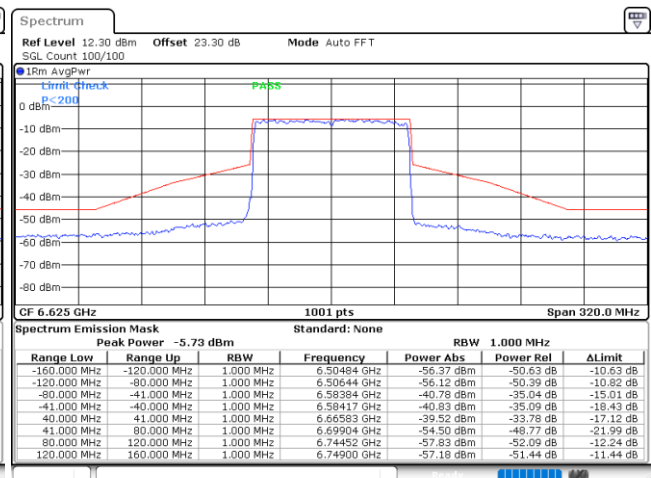


Plot on Channel 6545MHz



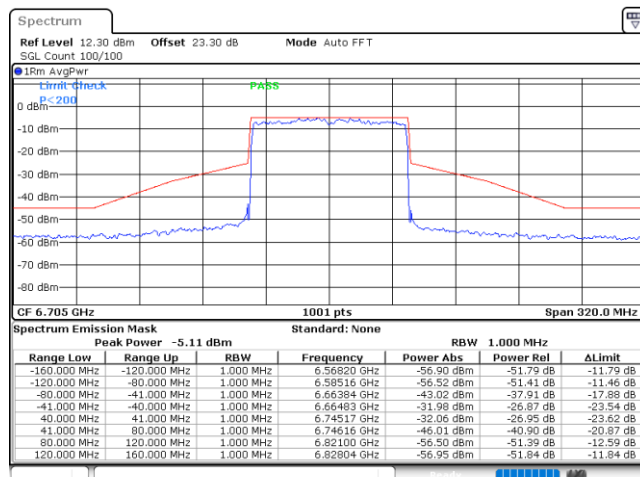
Date: 12.DEC.2022 11:02:24

Plot on Channel 6625MHz



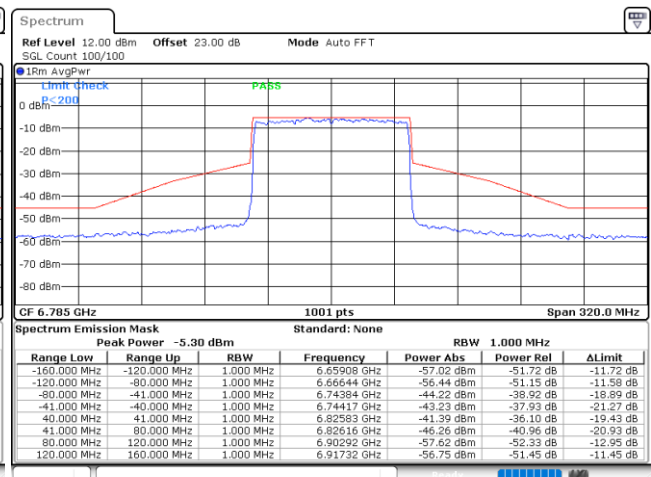
Date: 12.DEC.2022 11:04:46

Plot on Channel 6705MHz



Date: 12.DEC.2022 11:07:23

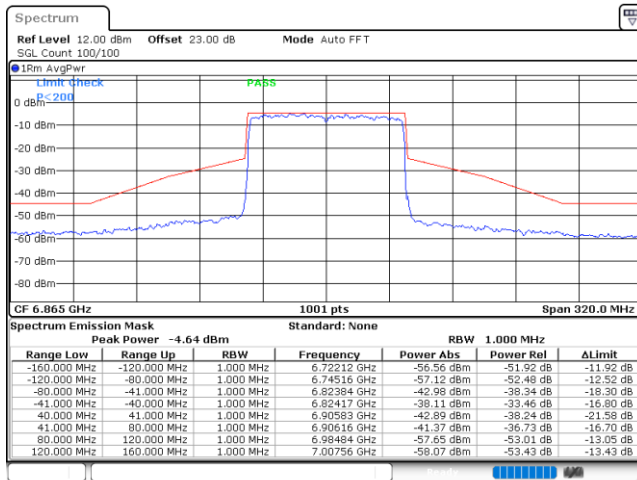
Plot on Channel 6785MHz



Date: 12.DEC.2022 11:09:52

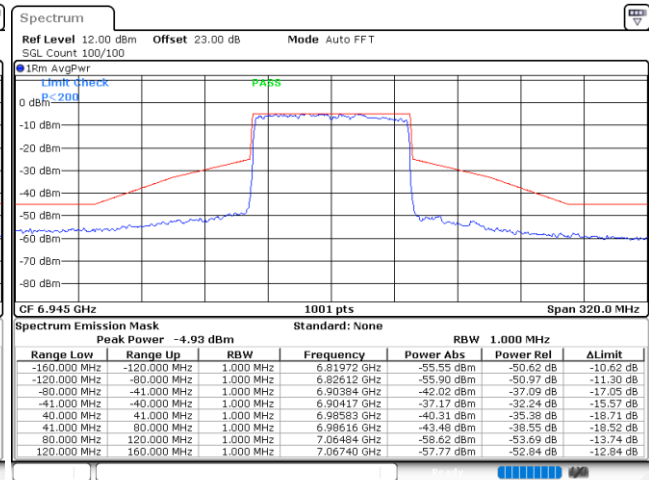


Plot on Channel 6865MHz



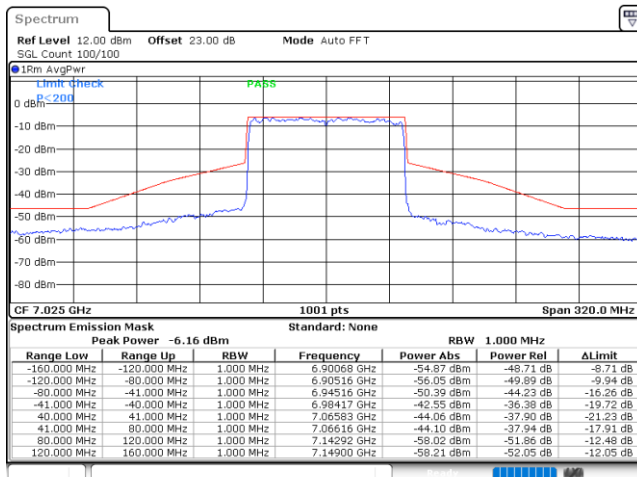
Date: 12.DEC.2022 11:12:20

Plot on Channel 6945MHz



Date: 12.DEC.2022 11:14:58

Plot on Channel 7025MHz

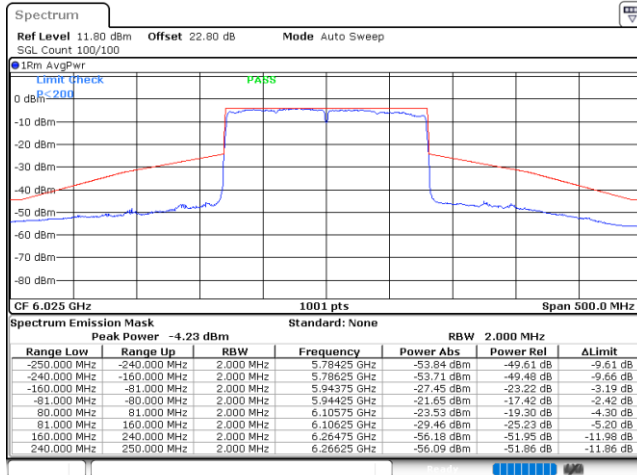


Date: 12.DEC.2022 11:17:48



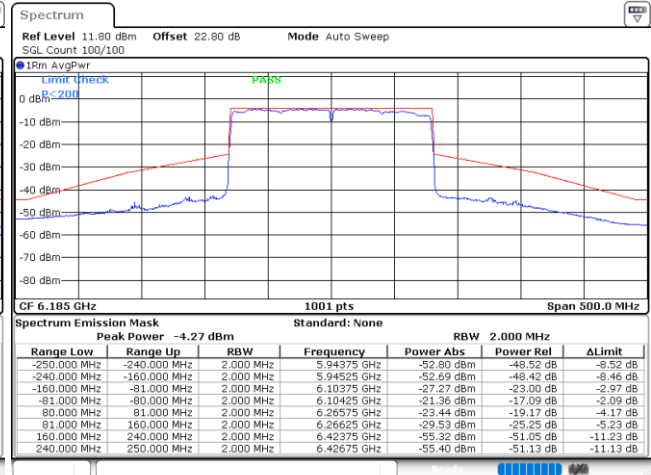
EUT Mode : 802.11ax HE160

Plot on Channel 6025MHz



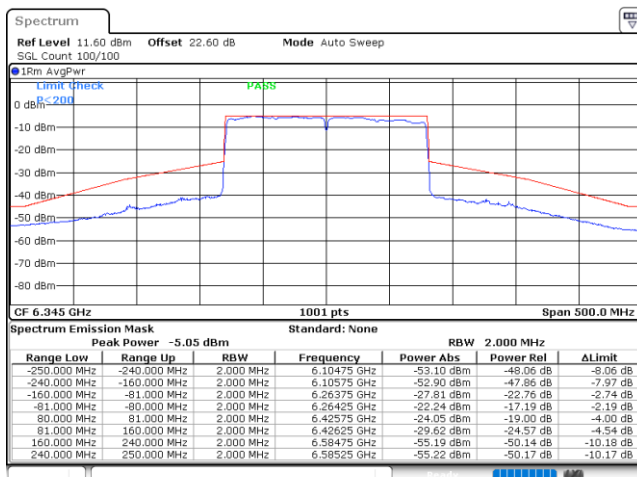
Date: 12.DEC.2022 11:37:35

Plot on Channel 6185MHz



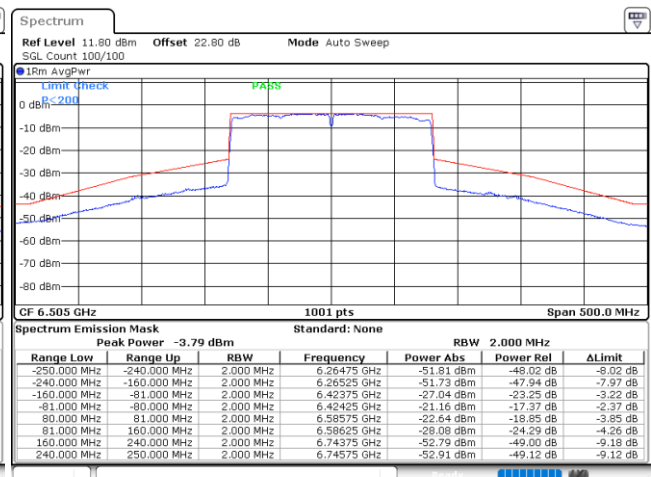
Date: 12.DEC.2022 11:42:22

Plot on Channel 6345MHz



Date: 13.DEC.2022 07:05:41

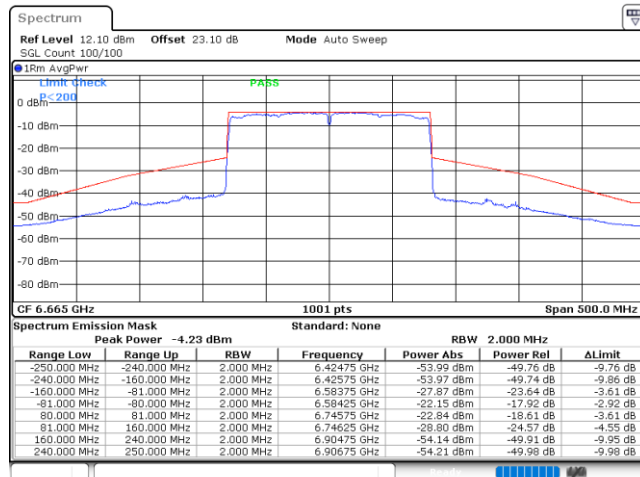
Plot on Channel 6505MHz



Date: 13.DEC.2022 07:15:02

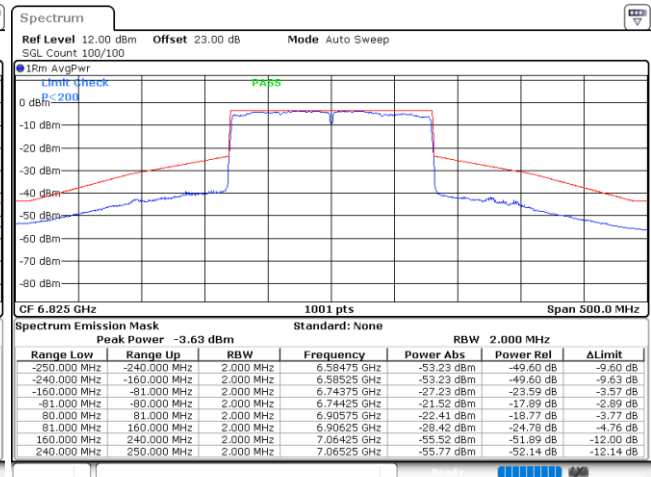


Plot on Channel 6665MHz



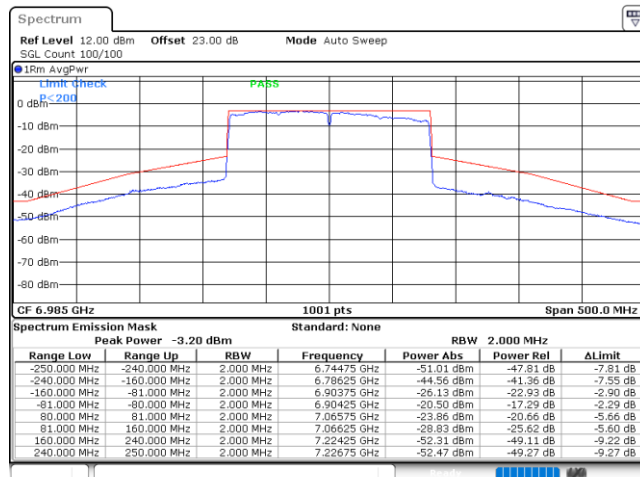
Date: 13.DEC.2022 07:22:49

Plot on Channel 6825MHz



Date: 13.DEC.2022 07:49:22

Plot on Channel 6985MHz



Date: 13.DEC.2022 07:54:23

3.5 Contention Based Protocol

3.5.1 Limit of Contention Based Protocol

<FCC 14-30 CFR 15.407>

(d)(6) Indoor access points, subordinate devices and client devices operating in the 5.925-7.125 GHz band must employ a contention-based protocol.

FCC KDB 987594 D02 U-NII 6GHz EMC Measurement v01

Unlicensed low-power indoor devices must detect co-channel radio frequency power that is at least -62 dBm or lower. Upon detection of energy in the band, unlicensed low power indoor devices must vacate the channel and stay off the channel as long as detected radio frequency power is equal to or greater than the threshold (-62 dBm). The -62 dBm (or lower) threshold is referenced to a 0 dBi antenna gain. To ensure incumbent operations are reliably detected in the band, low power indoor devices must detect RF energy throughout their intended operating channel. For example, an 802.11 device that plans to transmit a 40 MHz- wide signal (on a primary 20 MHz channel and a secondary 20 MHz channel) must detect energy throughout the entire 40 MHz channel. Additionally, low-power indoor devices must detect co-channel energy with 90% or greater certainty.

Table 1. Criteria to determine number of times detection threshold test may be performed

If	Number of Tests	Placement of Incumbent Transmission
$BW_{EUT} \leq BW_{Inc}$	Once	Tune incumbent and EUT transmissions ($f_{c1} = f_{c2}$)
$BW_{Inc} < BW_{EUT} \leq 2BW_{Inc}$	Once	Incumbent transmission is contained within BW_{EUT}
$2BW_{Inc} < BW_{EUT} \leq 4BW_{Inc}$	Twice. Incumbent transmission is contained within BW_{EUT}	Incumbent transmission is located as closely as possible to the lower edge and upper edge, respectively, of the EUT channel
$BW_{EUT} > 4BW_{Inc}$	Three times	Incumbent transmission is located as closely as possible to the lower edge of the EUT channel, in the middle of EUT channel, and as closely as possible to the upper edge of the EUT channel

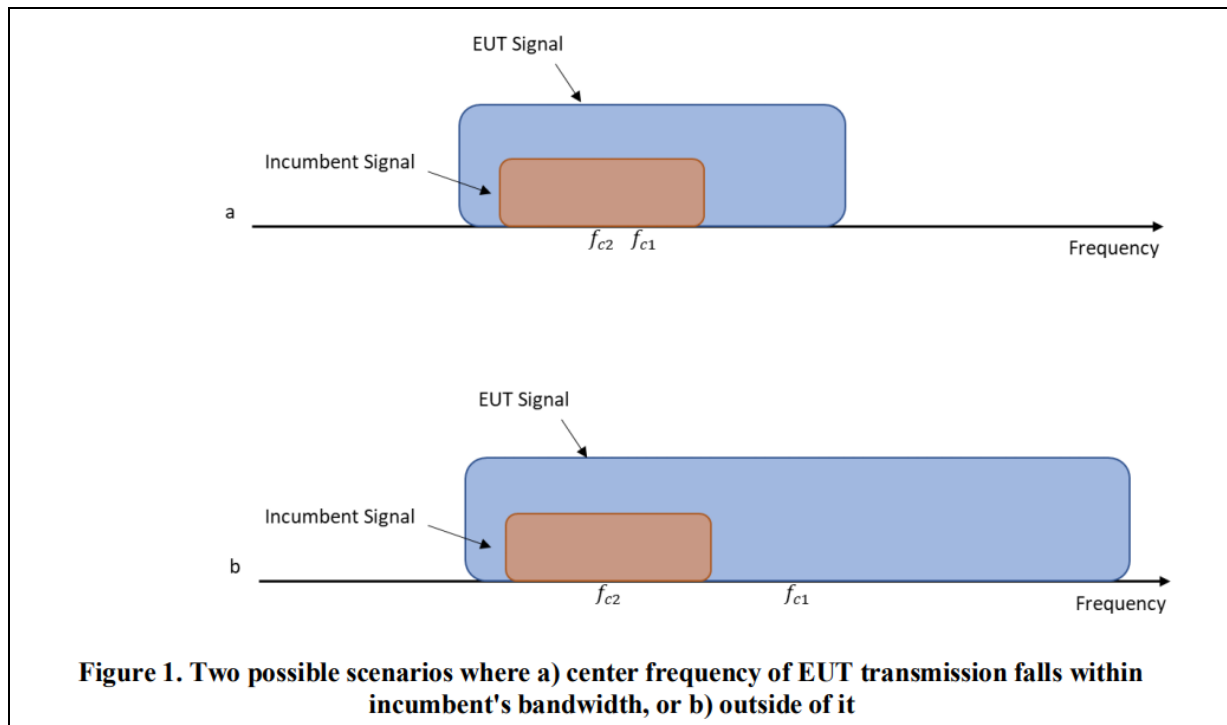
where:

BW_{EUT} : Transmission bandwidth of EUT signal

BW_{Inc} : Transmission bandwidth of the simulated incumbent signal (10 MHz wide AWGN signal)

f_{c1} : Center frequency of EUT transmission

f_{c2} : Center frequency of simulated incumbent signal



3.5.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.5.3 Test Procedures

The testing follows FCC KDB 987594 D02 U-NII 6GHz EMC Measurement v01.

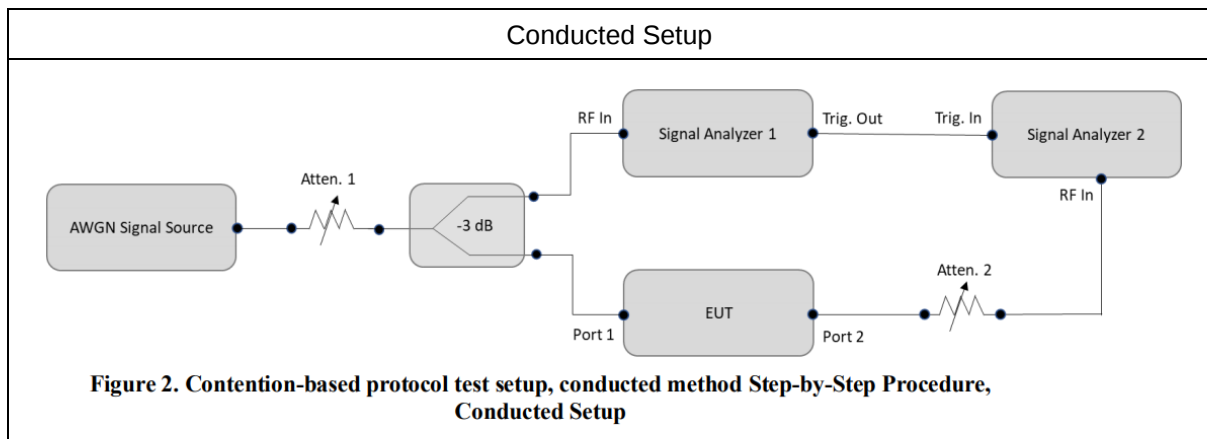
Section I) Contention Based Protocol

Conducted method Step-by-Step Procedure, Conducted Setup

1. Configure the EUT to transmit with a constant duty cycle.
2. Set the operating parameters of the EUT including power level, operating frequency, modulation and bandwidth.
3. 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.
4. Connect the output port of the EUT to the signal analyzer 2, as shown in test setup Figure 2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver.
5. Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters set at step two.
6. Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use Table 1 to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
7. 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 as shown in test setup Figure 2.
8. Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.

9. 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.
10. (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.
11. Refer to Table 1 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 5, choose a different center frequency for the AWGN signal and repeat the process.
12. For the contention-based protocol test where only one channel in each supported sub-band needs to be tested. The narrowest and widest bandwidth in each channel shall be measured EUT was driven in MIMO mode, the interferer level was injected to both chains to monitor the performance, while the interferer level is determined according the lowest antenna gain among both antennas (i.e, lower interferer level).

3.5.4 Test Setup



3.5.5 Support Unit used in test configuration and system

Instrument	Brand Name	Model No.	Characteristics
WLAN AP	ASUS	GT-AXE11000	Dual Band AP
Notebook	Acer	N15C1	LAN

3.5.6 Minimum Antenna gain for Contention Based Protocol Test

CBP Antenna Gain	<UNII-5>: [-3.3] dBi <UNII-6>: [-5.9] dBi <UNII-7>: [-5.8] dBi <UNII-8>: [-6.8] dBi
------------------	---

Note: The CBP antenna gain is considering the minimum gain from closed mode as worse case.



3.5.7 Test Summary of Contention Based Protocol Test

Test Engineer :	Qiao Tan	Temperature :	23.4~24.5℃
		Relative Humidity :	53.7~55.2%

Band	Channel Freq. (MHz)	Channel BW (MHz)	Incumbent freq. (MHz)	Injected AWGN Level (dBm)	Detection Rate (%)	Regulated Threshold level (dBm)	Adjusted Power (dBm)	Margin (dB)
UNII Band 5	6135	20	6135	-68.44	100	-62	-65.14	3.14
				Result: Stop Transmission				
				-73.44	< 90	-62	-70.14	8.14
				Result: Minimal Operation				
				-74.44	0	-62	-71.14	9.14
				Result: Normal Operation				
	6185	160	6110	-73.48	100	-62	-70.18	8.18
				Result: Stop Transmission				
				-73.48	< 90	-62	-70.18	8.18
				Result: Minimal Operation				
				-74.48	0	-62	-71.18	9.18
				Result: Normal Operation				
			6185	-73.47	100	-62	-70.17	8.17
				Result: Stop Transmission				
				-73.47	< 90	-62	-70.17	8.17
				Result: Minimal Operation				
				-74.47	0	-62	-71.17	9.17
				Result: Normal Operation				
			6260	-72.23	100	-62	-68.93	6.93
				Result: Stop Transmission				
				-72.23	< 90	-62	-68.93	6.93
				Result: Minimal Operation				
				-73.23	0	-62	-69.93	7.93
				Result: Normal Operation				

Note 1: Adjusted Power = Injected AWGN Level - minimum antenna gain (-3.3 dBi).

Note 2: Path Loss is negligible. (0 dB)

Note 3: Margin = Regulated Threshold level - Adjusted Power.

Note 4: The CBP antenna gain consider the minimum gain from close mode rather than open mode.



Band	Channel Freq. (MHz)	Channel BW (MHz)	Incumbent freq. (MHz)	Injected AWGN Level (dBm)	Detection Rate (%)	Regulated Threshold level (dBm)	Adjusted Power (dBm)	Margin (dB)
UNII Band 6	6455	20	6455	-70.11	100	-62	-64.21	2.21
					Result: Stop Transmission			
				-75.11	< 90	-62	-69.21	7.21
					Result: Minimal Operation			
				-76.11	0	-62	-70.21	8.21
					Result: Normal Operation			
	6505	160	6430	-74.02	100	-62	-68.12	6.12
					Result: Stop Transmission			
				-75.02	< 90	-62	-69.12	7.12
					Result: Minimal Operation			
				-76.02	0	-62	-70.12	8.12
					Result: Normal Operation			
			6505	-75.19	100	-62	-69.29	7.29
					Result: Stop Transmission			
				-76.19	< 90	-62	-70.29	8.29
					Result: Minimal Operation			
				-77.19	0	-62	-71.29	9.29
					Result: Normal Operation			
			6580	-73.13	100	-62	-67.23	5.23
					Result: Stop Transmission			
				-75.13	< 90	-62	-69.23	7.23
					Result: Minimal Operation			
				-76.13	0	-62	-70.23	8.23
					Result: Normal Operation			

Note 1: Adjusted Power = Injected AWGN Level - minimum antenna gain (-5.9 dBi).

Note 2: Path Loss is negligible. (0 dB)

Note 3: Margin = Regulated Threshold level - Adjusted Power.

Note 4: The CBP antenna gain consider the minimum gain from close mode rather than open mode.



Band	Channel Freq. (MHz)	Channel BW (MHz)	Incumbent freq. (MHz)	Injected AWGN Level (dBm)	Detection Rate (%)	Regulated Threshold level (dBm)	Adjusted Power (dBm)	Margin (dB)
UNII Band 7	6695	20	6695	-69.42	100	-62	-63.62	1.62
					Result: Stop Transmission			
				-74.42	< 90	-62	-68.62	6.62
					Result: Minimal Operation			
				-75.42	0	-62	-69.62	7.62
					Result: Normal Operation			
	6665	160	6590	-74.04	100	-62	-68.24	6.24
					Result: Stop Transmission			
				-76.04	< 90	-62	-70.24	8.24
					Result: Minimal Operation			
				-77.04	0	-62	-71.24	9.24
					Result: Normal Operation			
			6665	-75.53	100	-62	-69.73	7.73
					Result: Stop Transmission			
				-76.53	< 90	-62	-70.73	8.73
					Result: Minimal Operation			
				-77.53	0	-62	-71.73	9.73
					Result: Normal Operation			
			6740	-73.25	100	-62	-67.45	5.45
					Result: Stop Transmission			
				-76.25	< 90	-62	-70.45	8.45
					Result: Minimal Operation			
				-77.25	0	-62	-71.45	9.45
					Result: Normal Operation			

Note 1: Adjusted Power = Injected AWGN Level - minimum antenna gain (-5.8 dBi).

Note 2: Path Loss is negligible. (0 dB)

Note 3: Margin = Regulated Threshold level - Adjusted Power.

Note 4: The CBP antenna gain consider the minimum gain from close mode rather than open mode.



Band	Channel Freq. (MHz)	Channel BW (MHz)	Incumbent freq. (MHz)	Injected AWGN Level (dBm)	Detection Rate (%)	Regulated Threshold level (dBm)	Adjusted Power (dBm)	Margin (dB)
UNII Band 8	7015	20	7015	-70.42	100	-62	-63.62	1.62
					Result: Stop Transmission			
				-75.42	< 90	-62	-68.62	6.62
					Result: Minimal Operation			
				-76.42	0	-62	-69.62	7.62
					Result: Normal Operation			
	6985	160	6910	-74.93	100	-62	-68.13	6.13
					Result: Stop Transmission			
				-77.93	< 90	-62	-71.13	9.13
					Result: Minimal Operation			
				-78.93	0	-62	-72.13	10.13
					Result: Normal Operation			
			6985	-74.96	100	-62	-68.16	6.16
					Result: Stop Transmission			
				-76.96	< 90	-62	-70.16	8.16
					Result: Minimal Operation			
				-77.96	0	-62	-71.16	9.16
					Result: Normal Operation			
			7060	-73.23	100	-62	-66.43	4.43
					Result: Stop Transmission			
				-75.23	< 90	-62	-68.43	6.43
					Result: Minimal Operation			
				-76.23	0	-62	-69.43	7.43
					Result: Normal Operation			

Note 1: Adjusted Power = Injected AWGN Level - minimum antenna gain (-6.8 dBi).

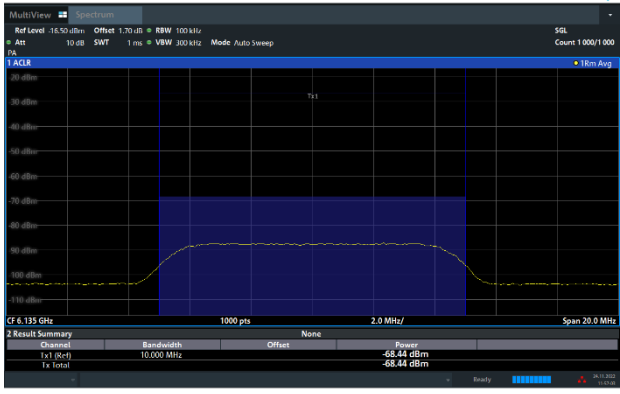
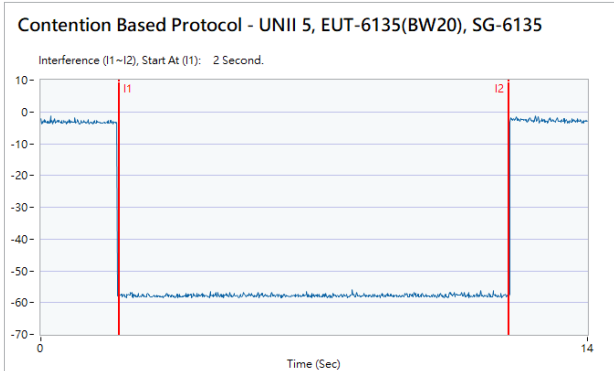
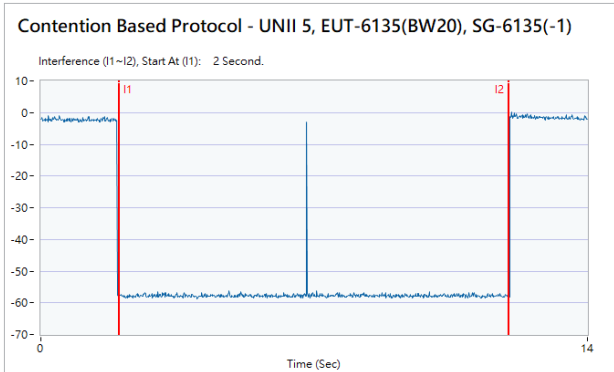
Note 2: Path Loss is negligible. (0 dB)

Note 3: Margin = Regulated Threshold level - Adjusted Power.

Note 4: The CBP antenna gain consider the minimum gain from close mode rather than open mode.



3.5.8 Test Plots of Contention Based Protocol Test

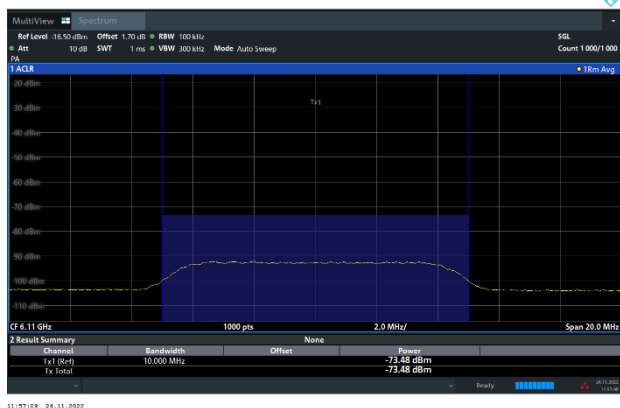
Contention Based Protocol Result Plots on U-NII 5 (AWGN Interference)	
802.11ax (HE20) / 6135MHz Threshold Level (TL) = -68.44dBm	802.11ax (HE20) / CH37 Test result is pass due to no transmission occur.
	
802.11ax (HE20) / 6135MHz Threshold Level (TL) = -69.44dBm	802.11ax (HE20) / CH37 Transmit when the interferer is 1dB lower.
	



Contention Based Protocol Result Plots on U-NII 5 (AWGN Interference)

802.11ax (HE160) / 6110MHz (Lower edge)

Threshold Level (TL) = -73.48dBm

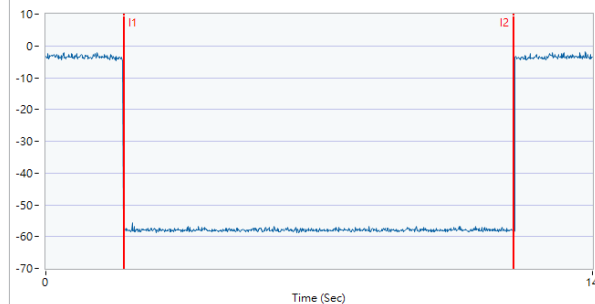


802.11ax (HE160) / CH47 (Lower edge)

Test result is pass due to no transmission occur.

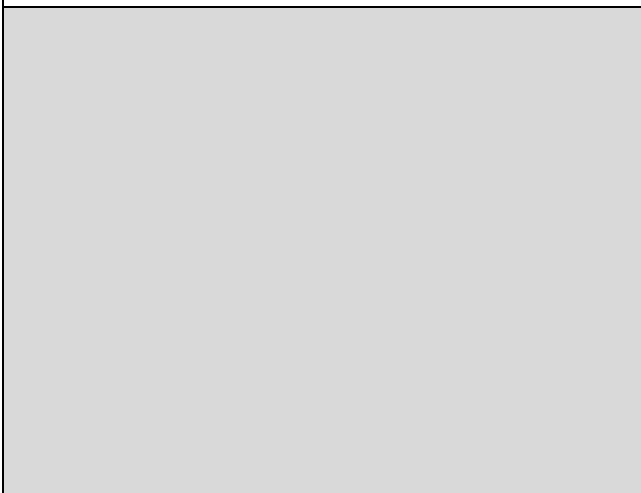
Contention Based Protocol - UNII 5, EUT-6185(BW160), SG-6110

Interference (I1~I2), Start At (I1): 2 Second.



802.11ax (HE160) / 6110MHz (Lower edge)

Threshold Level (TL) = -74.48dBm

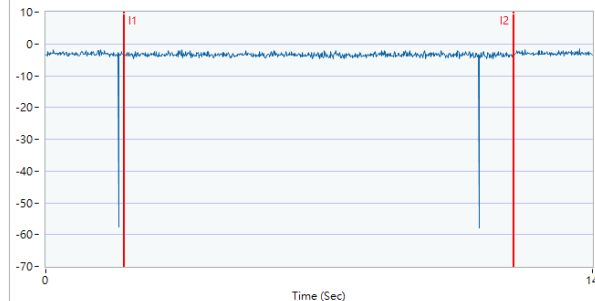


802.11ax (HE160) / CH47 (Lower edge)

Transmit when the interferer is 1dB lower.

Contention Based Protocol - UNII 5, EUT-6185(BW160), SG-6110(-1)

Interference (I1~I2), Start At (I1): 2 Second.

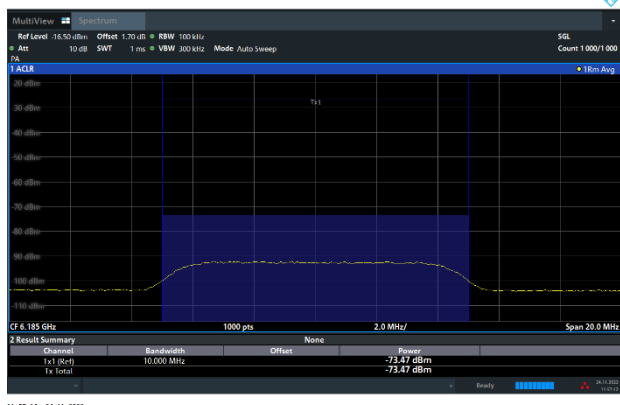




Contention Based Protocol Result Plots on U-NII 5 (AWGN Interference)

802.11ax (HE160) / 6185MHz (Middle)

Threshold Level (TL) = -73.47dBm

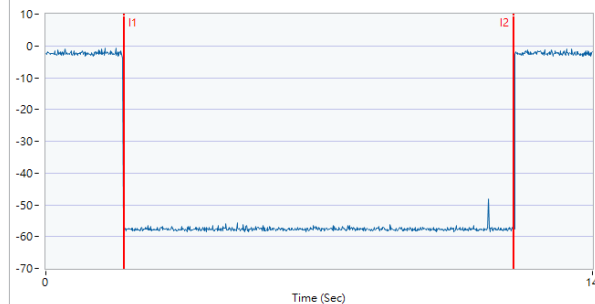


802.11ax (HE160) / CH47 (Middle)

Test result is pass due to no transmission occur.

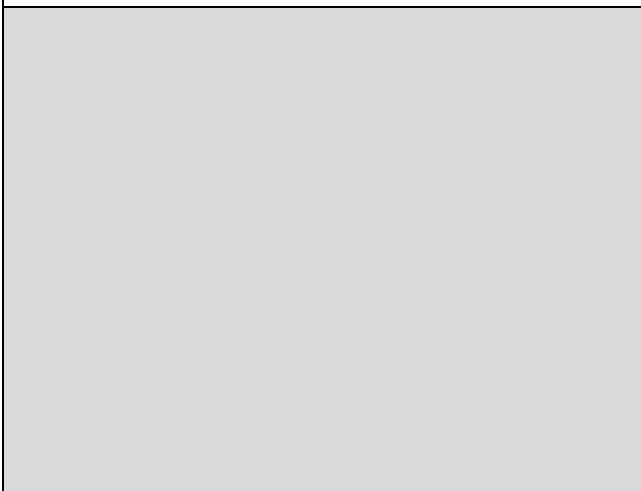
Contention Based Protocol - UNII 5, EUT-6185(BW160), SG-6185

Interference (I1~I2), Start At (I1): 2 Second.



802.11ax (HE160) / 6185MHz (Middle)

Threshold Level (TL) = -74.47dBm

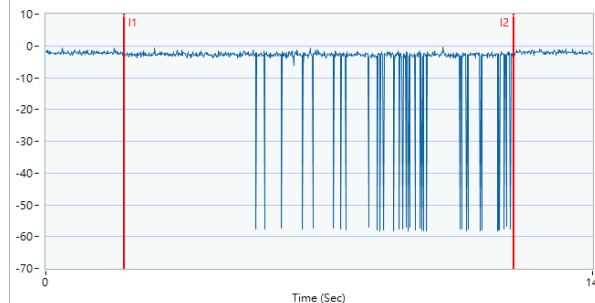


802.11ax (HE160) / CH47 (Middle)

Transmit when the interferer is 1dB lower.

Contention Based Protocol - UNII 5, EUT-6185(BW160), SG-6185(-1)

Interference (I1~I2), Start At (I1): 2 Second.

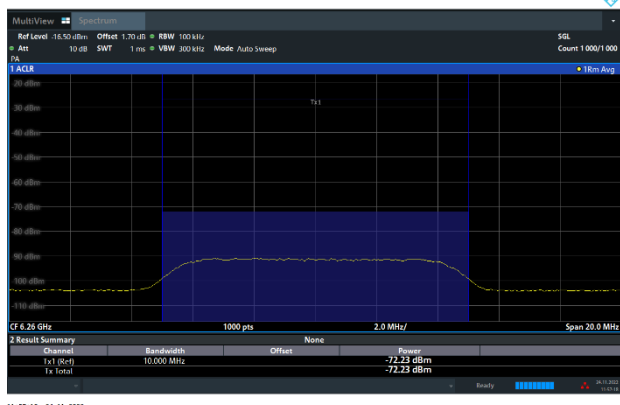




Contention Based Protocol Result Plots on U-NII 5 (AWGN Interference)

802.11ax (HE160) / 6260MHz (Upper edge)

Threshold Level (TL) = -72.23dBm

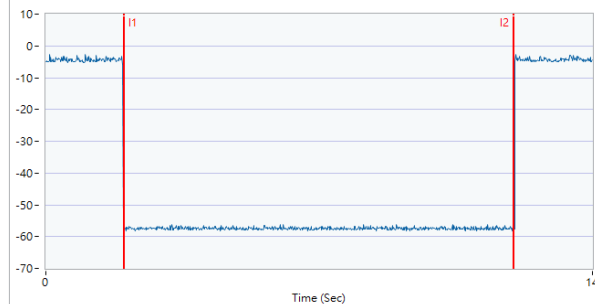


802.11ax (HE160) / CH47 (Upper edge)

Test result is pass due to no transmission occur.

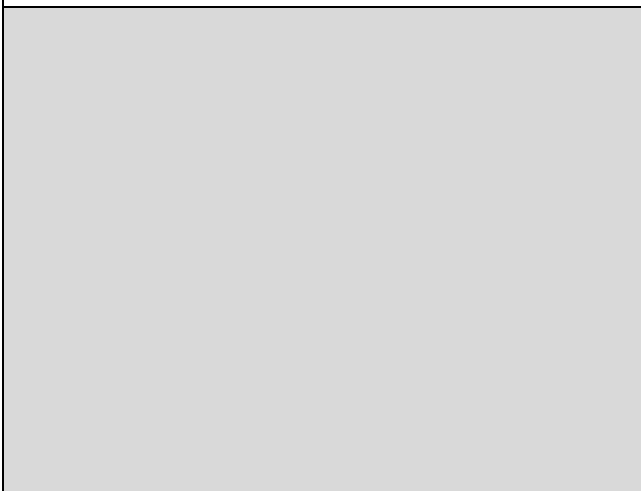
Contention Based Protocol - UNII 5, EUT-6185(BW160), SG-6260

Interference (I1~I2), Start At (I1): 2 Second.



802.11ax (HE160) / 6260MHz (Upper edge)

Threshold Level (TL) = -73.23dBm

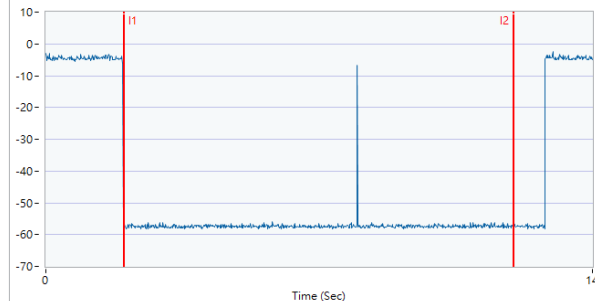


802.11ax (HE160) / CH47 (Upper edge)

Transmit when the interferer is 1dB lower.

Contention Based Protocol - UNII 5, EUT-6185(BW160), SG-6260(-1)

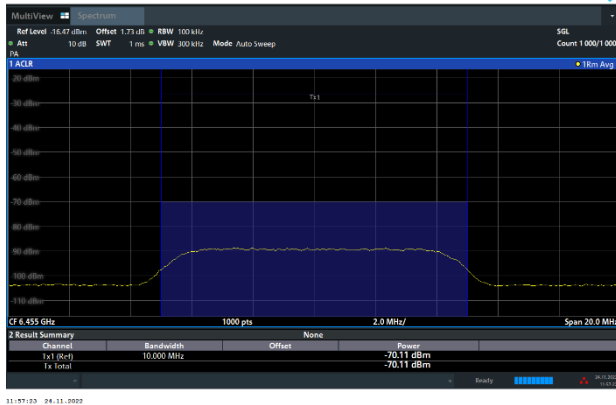
Interference (I1~I2), Start At (I1): 2 Second.





Contention Based Protocol Result Plots on U-NII 6 (AWGN Interference)

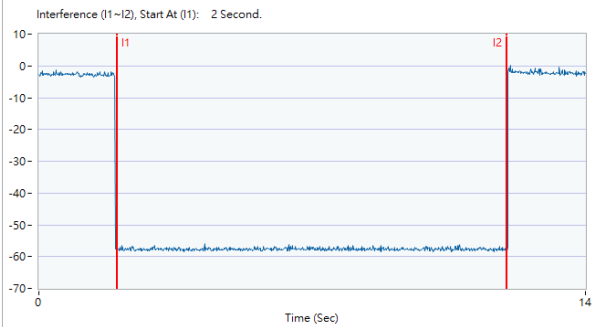
802.11ax (HE20) / 6455MHz
Threshold Level (TL) = -70.11dBm



802.11ax (HE20) / CH101

Test result is pass due to no transmission occur.

Contention Based Protocol - UNII 6, EUT-6455(BW20), SG-6455



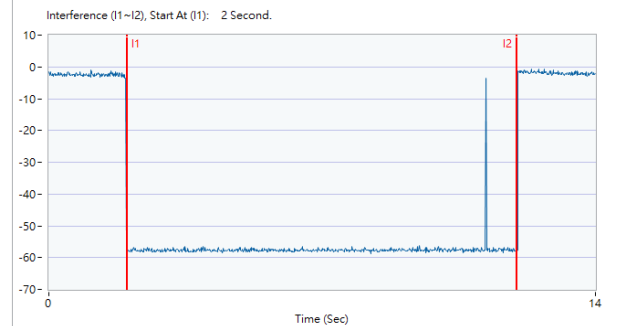
802.11ax (HE20) / 6455MHz
Threshold Level (TL) = -71.11dBm



802.11ax (HE20) / CH101

Transmit when the interferer is 1dB lower.

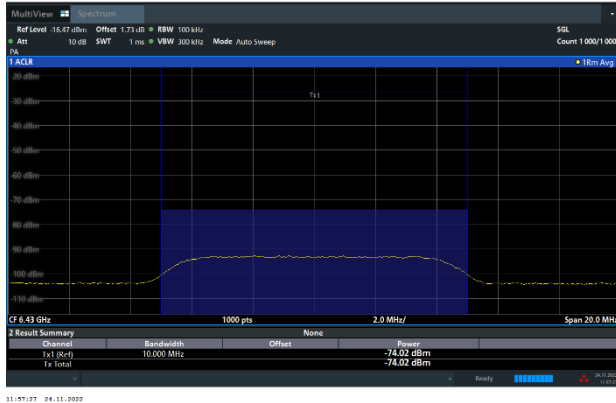
Contention Based Protocol - UNII 6, EUT-6455(BW20), SG-6455(-1)





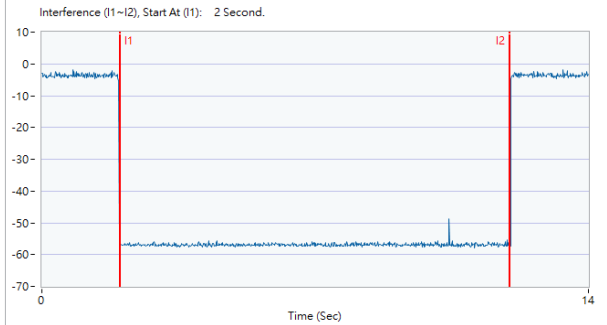
Contention Based Protocol Result Plots on U-NII 6 (AWGN Interference)

802.11ax (HE160) / 6430MHz (Lower edge)
Threshold Level (TL) = -74.02dBm



802.11ax (HE160) / CH111 (Lower edge)
Test result is pass due to no transmission occur.

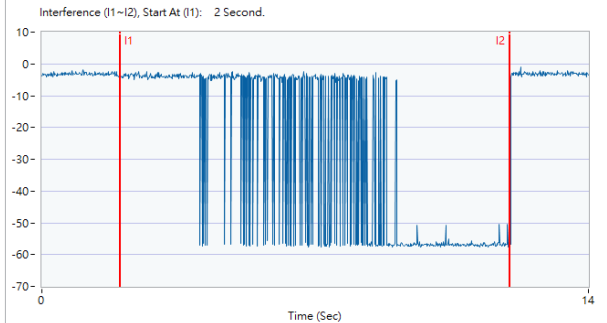
Contention Based Protocol - UNII 6, EUT-6505(BW160), SG-6430



802.11ax (HE160) / 6430MHz (Lower edge)
Threshold Level (TL) = -75.02dBm

802.11ax (HE160) / CH111 (Lower edge)
Transmit when the interferer is 1dB lower.

Contention Based Protocol - UNII 6, EUT-6505(BW160), SG-6430(-1)

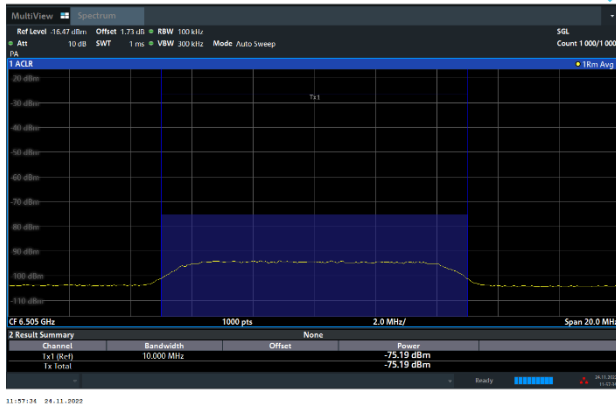




Contention Based Protocol Result Plots on U-NII 6 (AWGN Interference)

802.11ax (HE160) / 6505MHz (Middle)

Threshold Level (TL) = -75.19dBm

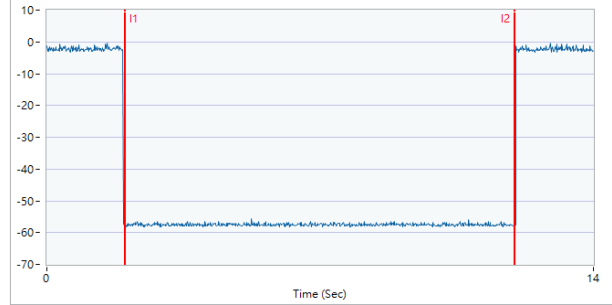


802.11ax (HE160) / CH111 (Middle)

Test result is pass due to no transmission occur.

Contention Based Protocol - UNII 6, EUT-6505(BW160), SG-6505

Interference (I1~I2), Start At (I1): 2 Second.



802.11ax (HE160) / 6505MHz (Middle)

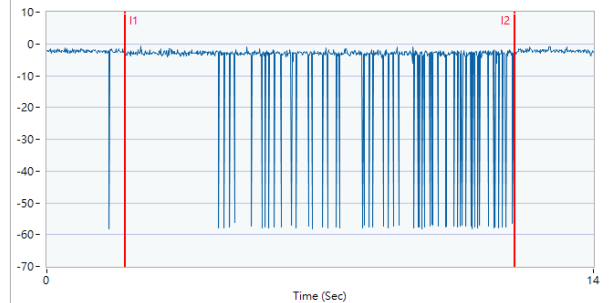
Threshold Level (TL) = -76.19dBm

802.11ax (HE160) / CH111 (Middle)

Transmit when the interferer is 1dB lower.

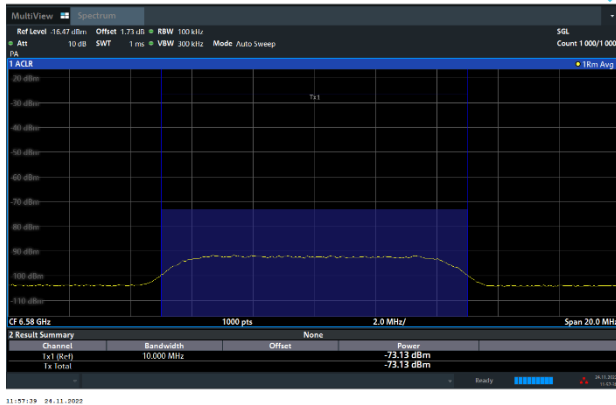
Contention Based Protocol - UNII 6, EUT-6505(BW160), SG-6505(-1)

Interference (I1~I2), Start At (I1): 2 Second.



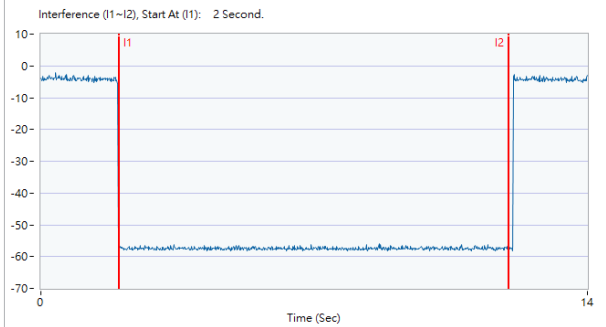
**Contention Based Protocol Result Plots on U-NII 6 (AWGN Interference)**

802.11ax (HE160) / 6580MHz (Upper edge)
Threshold Level (TL) = -73.13dBm



802.11ax (HE160) / CH111 (Upper edge)

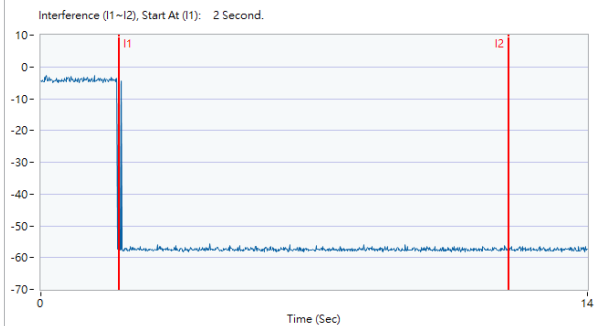
Test result is pass due to no transmission occur.

Contention Based Protocol - UNII 6, EUT-6505(BW160), SG-6580

802.11ax (HE160) / 6580MHz (Upper edge)
Threshold Level (TL) = -74.13dBm

802.11ax (HE160) / CH111 (Upper edge)

Transmit when the interferer is 1dB lower.

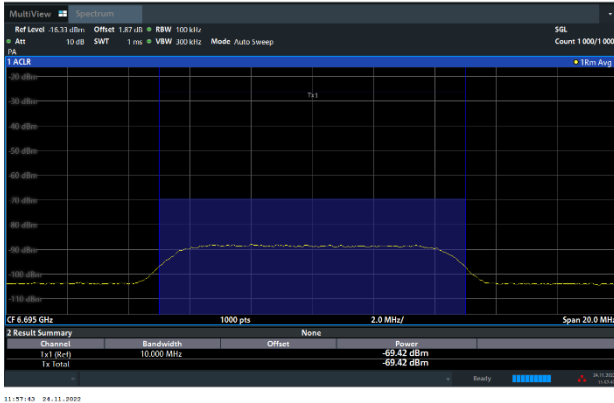
Contention Based Protocol - UNII 6, EUT-6505(BW160), SG-6580(-1)

Contention Based Protocol Result Plots on U-NII 7 (AWGN Interference)

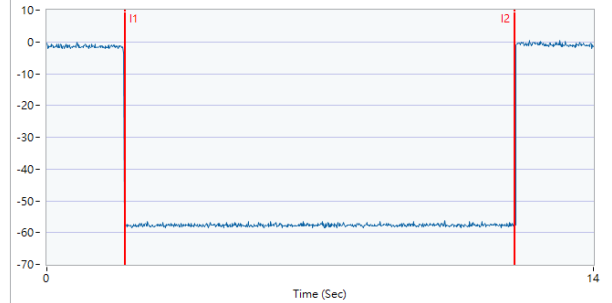
802.11ax (HE20) / 6695MHz
Threshold Level (TL) = -69.42dBm

802.11ax (HE20) / CH149

Test result is pass due to no transmission occur.


Contention Based Protocol - UNII 7, EUT-6695(BW20), SG-6695

Interference (I1~I2), Start At (I1): 2 Second.



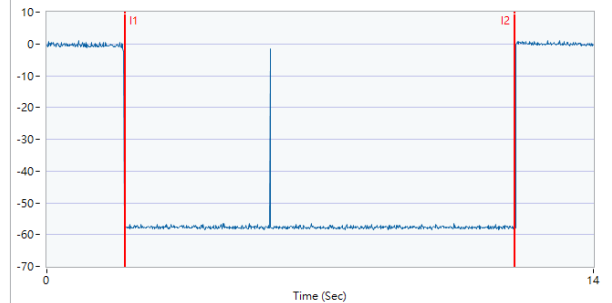
802.11ax (HE20) / 6695MHz
Threshold Level (TL) = -70.42dBm

802.11ax (HE20) / CH149

Transmit when the interferer is 1dB lower.

Contention Based Protocol - UNII 7, EUT-6695(BW20), SG-6695(-1)

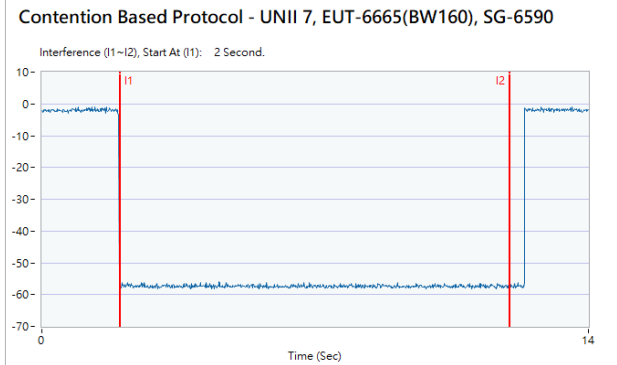
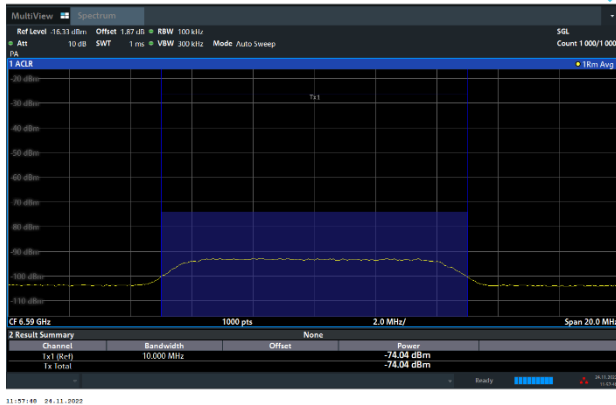
Interference (I1~I2), Start At (I1): 2 Second.



Contention Based Protocol Result Plots on U-NII 7 (AWGN Interference)

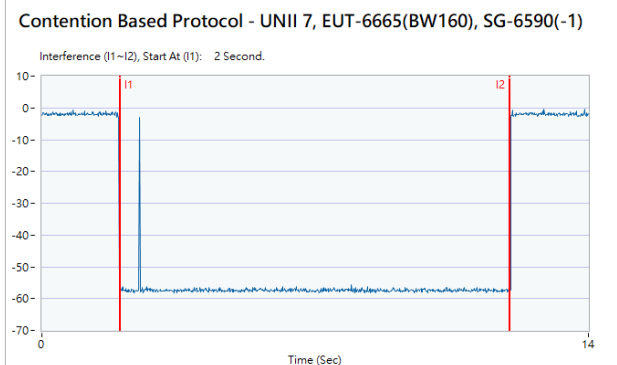
802.11ax (HE160) / 6590MHz (Lower edge)
Threshold Level (TL) = -74.04dBm

802.11ax (HE160) / CH143 (Lower edge)
Test result is pass due to no transmission occur.



802.11ax (HE160) / 6590MHz (Lower edge)
Threshold Level (TL) = -75.04dBm

802.11ax (HE160) / CH143 (Lower edge)
Transmit when the interferer is 1dB lower.

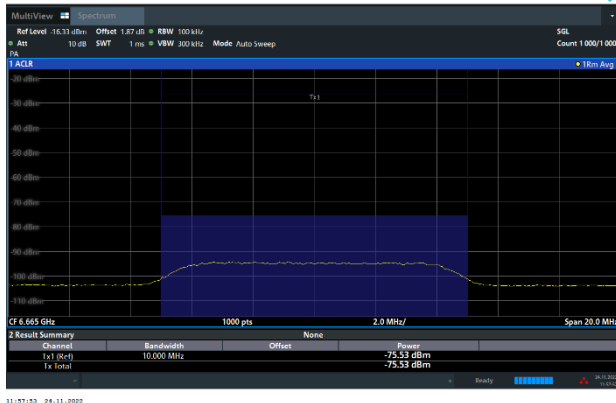




Contention Based Protocol Result Plots on U-NII 7 (AWGN Interference)

802.11ax (HE160) / 6665MHz (Middle)

Threshold Level (TL) = -75.53dBm

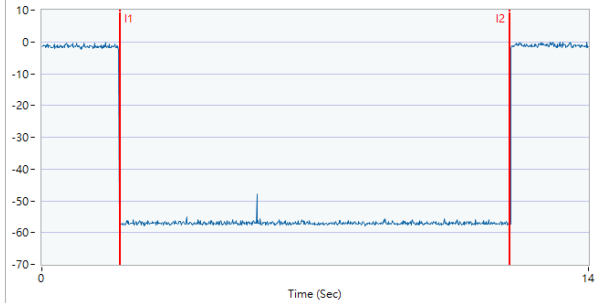


802.11ax (HE160) / CH143 (Middle)

Test result is pass due to no transmission occur.

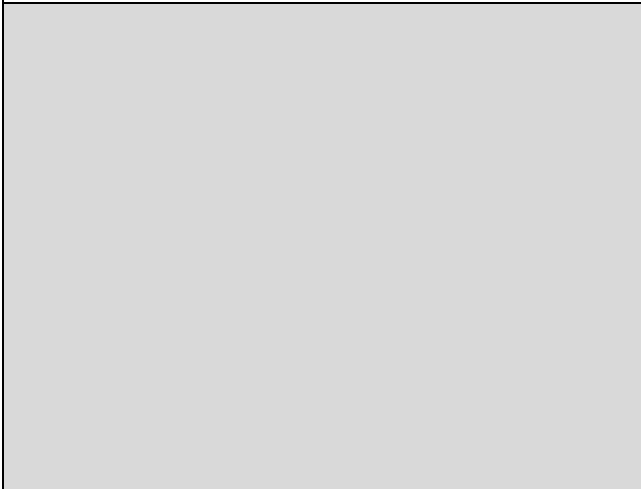
Contention Based Protocol - UNII 7, EUT-6665(BW160), SG-6665

Interference (I1~I2), Start At (I1): 2 Second.



802.11ax (HE160) / 6665MHz (Middle)

Threshold Level (TL) = -76.53dBm

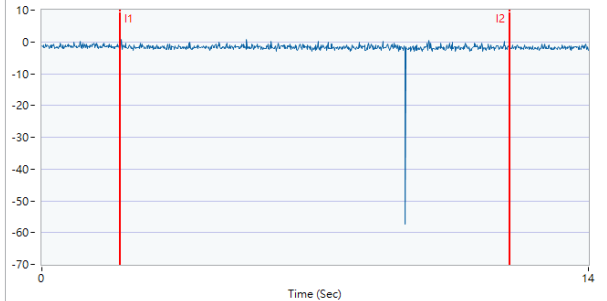


802.11ax (HE160) / CH143 (Middle)

Transmit when the interferer is 1dB lower.

Contention Based Protocol - UNII 7, EUT-6665(BW160), SG-6665(-1)

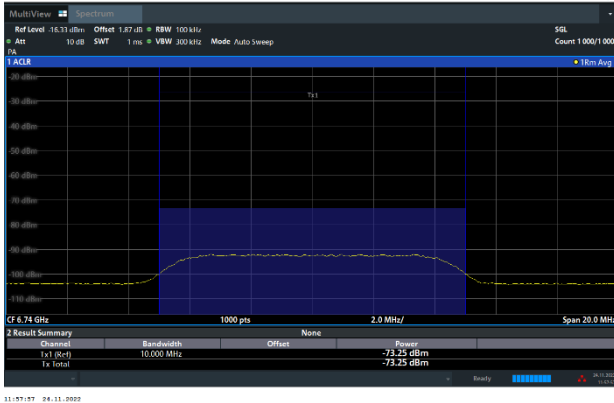
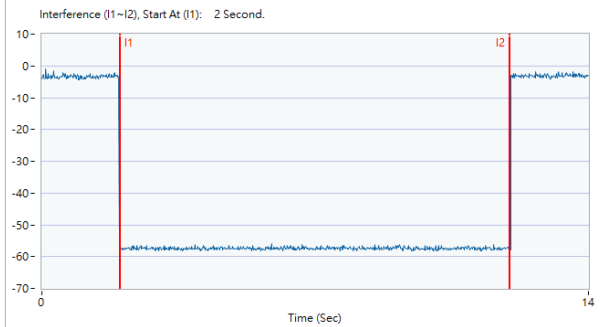
Interference (I1~I2), Start At (I1): 2 Second.



Contention Based Protocol Result Plots on U-NII 7 (AWGN Interference)

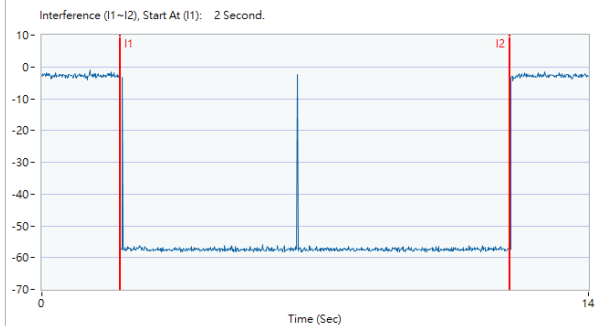
802.11ax (HE160) / 6740MHz (Upper edge)
Threshold Level (TL) = -73.25dBm

802.11ax (HE160) / CH143 (Upper edge)
Test result is pass due to no transmission occur.


Contention Based Protocol - UNII 7, EUT-6665(BW160), SG-6740


802.11ax (HE160) / 6740MHz (Upper edge)
Threshold Level (TL) = -74.25dBm

802.11ax (HE160) / CH143 (Upper edge)
Transmit when the interferer is 1dB lower.

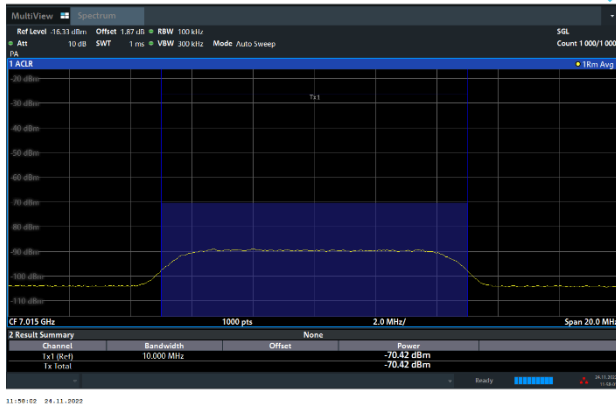
Contention Based Protocol - UNII 7, EUT-6665(BW160), SG-6740(-1)




Contention Based Protocol Result Plots on U-NII 8 (AWGN Interference)

802.11ax (HE20) / 7015MHz

Threshold Level (TL) = -70.42dBm

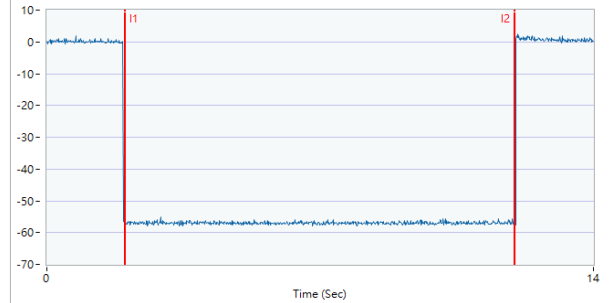


802.11ax (HE20) / CH213

Test result is pass due to no transmission occur.

Contention Based Protocol - UNII 8, EUT-7015(BW20), SG-7015

Interference (I1~I2), Start At (I1): 2 Second.



802.11ax (HE20) / 7015MHz

Threshold Level (TL) = -71.42dBm

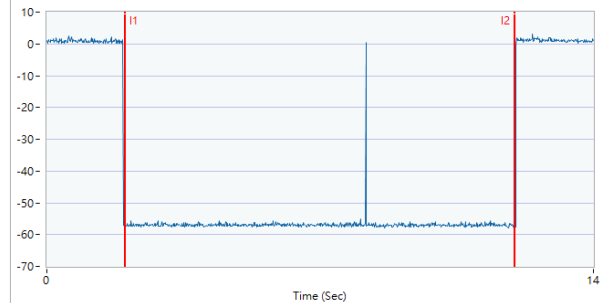


802.11ax (HE20) / CH213

Transmit when the interferer is 1dB lower.

Contention Based Protocol - UNII 8, EUT-7015(BW20), SG-7015(-1)

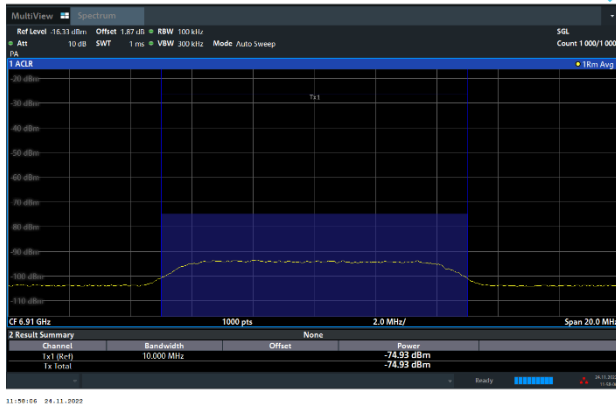
Interference (I1~I2), Start At (I1): 2 Second.



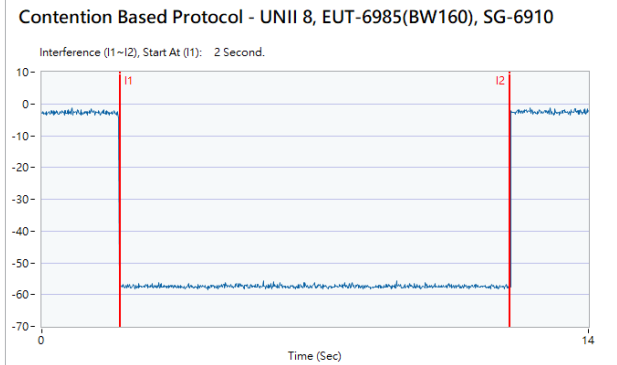


Contention Based Protocol Result Plots on U-NII 8 (AWGN Interference)

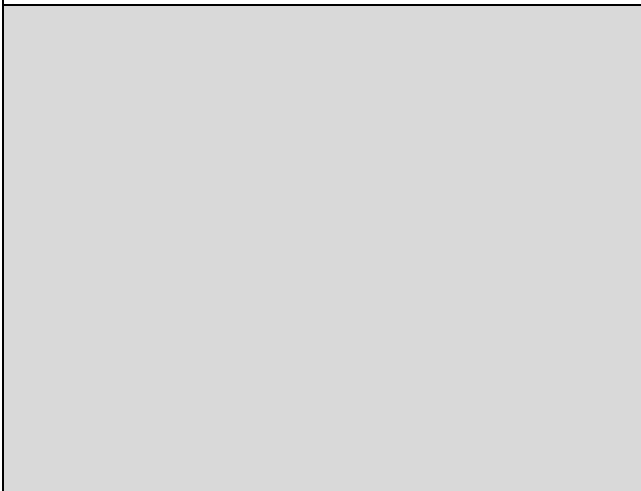
802.11ax (HE160) / 6910MHz (Lower edge)
Threshold Level (TL) = -74.93dBm



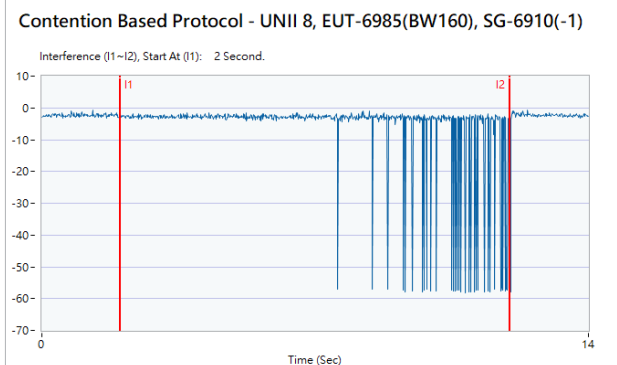
802.11ax (HE160) / CH207 (Lower edge)
Test result is pass due to no transmission occur.



802.11ax (HE160) / 6910MHz (Lower edge)
Threshold Level (TL) = -75.93dBm

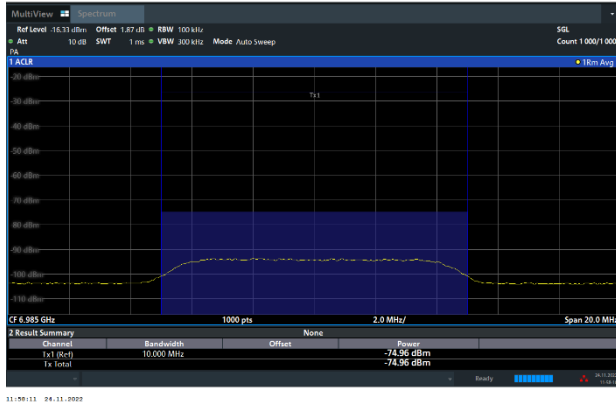


802.11ax (HE160) / CH207 (Lower edge)
Transmit when the interferer is 1dB lower.



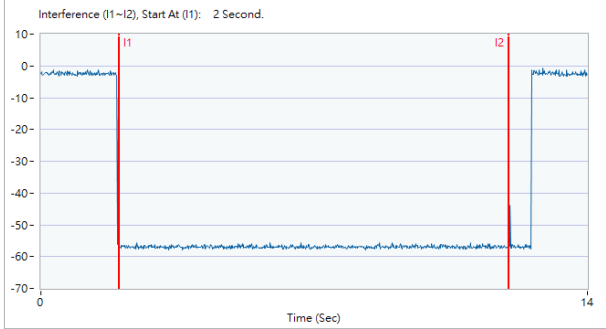
**Contention Based Protocol Result Plots on U-NII 8 (AWGN Interference)**

802.11ax (HE160) / 6985MHz (Middle)
Threshold Level (TL) = -74.96dBm



802.11ax (HE160) / CH207 (Middle)

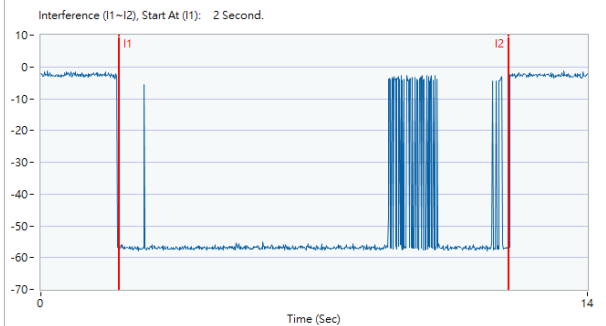
Test result is pass due to no transmission occur.

Contention Based Protocol - UNII 8, EUT-6985(BW160), SG-6985

802.11ax (HE160) / 6985MHz (Middle)
Threshold Level (TL) = -75.96dBm

802.11ax (HE160) / CH207 (Middle)

Transmit when the interferer is 1dB lower.

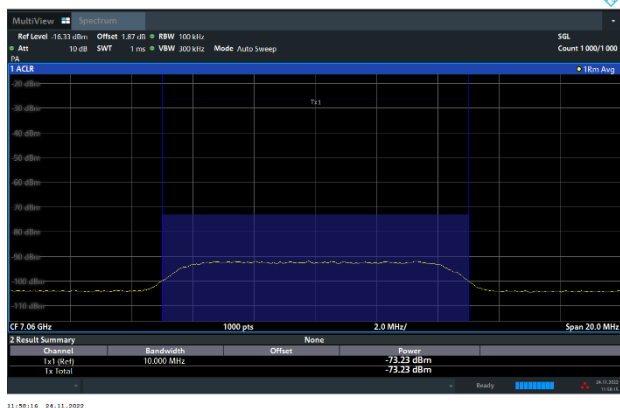
Contention Based Protocol - UNII 8, EUT-6985(BW160), SG-6985(-1)



Contention Based Protocol Result Plots on U-NII 8 (AWGN Interference)

802.11ax (HE160) / 7060MHz (Upper edge)

Threshold Level (TL) = -73.23dBm

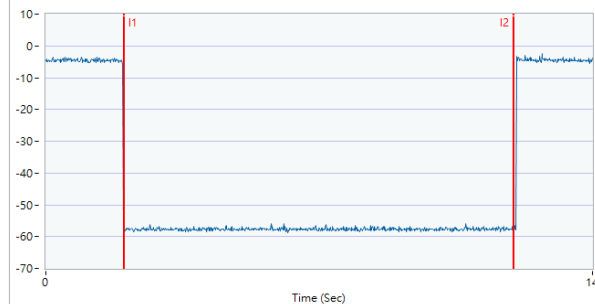


802.11ax (HE160) / CH207 (Upper edge)

Test result is pass due to no transmission occur.

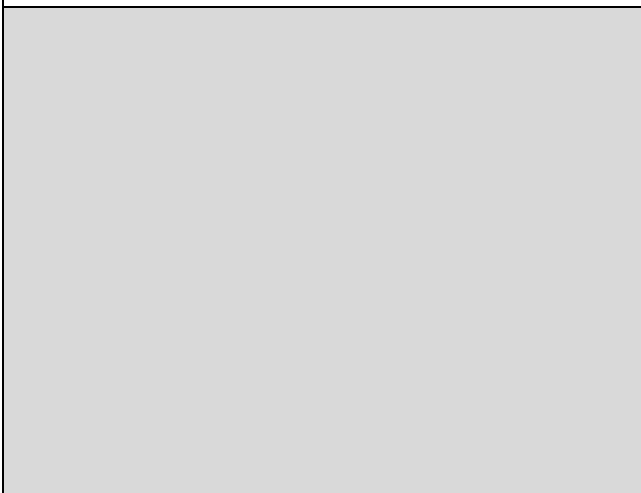
Contention Based Protocol - UNII 8, EUT-6985(BW160), SG-7060

Interference (I1~I2), Start At (I1): 2 Second.



802.11ax (HE160) / 7060MHz (Upper edge)

Threshold Level (TL) = -74.23dBm

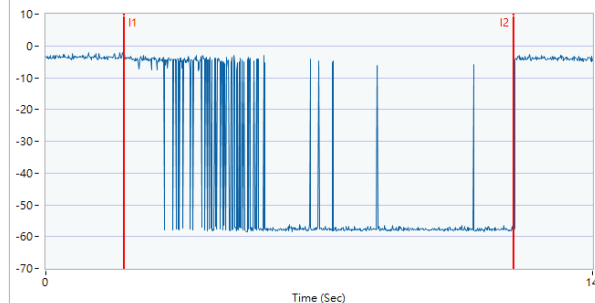


802.11ax (HE160) / CH207 (Upper edge)

Transmit when the interferer is 1dB lower.

Contention Based Protocol - UNII 8, EUT-6985(BW160), SG-7060(-1)

Interference (I1~I2), Start At (I1): 2 Second.



3.6 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.6.1 Limit of Unwanted Emissions

- (1) For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.

EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27 (RMS)	68.3
- 7 (Peak)	88.3

According 987594 D02 U-NII 6GHz EMC Measurement v01 section G:

Unwanted emissions outside of restricted bands are measured with a RMS detector.

In addition, 15.35(b) applies where the peak emissions must be limited to no more than 20 dB above the average limit

- (2) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

Note: The following formula is used to convert the EIRP to field strength.

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts)}$$

3.6.2 Measuring Instruments

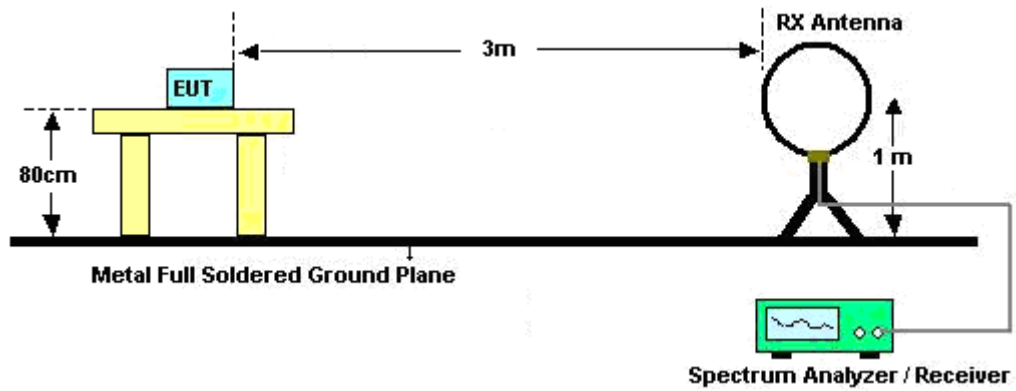
Please refer to the measuring equipment list in this test report.

3.6.3 Test Procedures

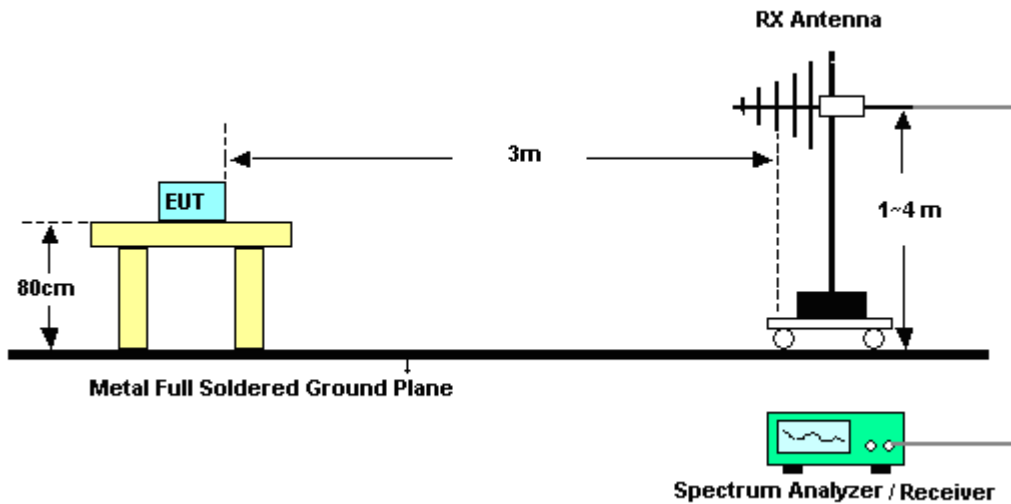
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.
 - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold
 - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW $\geq$ 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold
 - (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
 - RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT is set 3 meters away from the receiving antenna which is mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT is arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit line, the position is marked as “-“.
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as “-“..

3.6.4 Test Setup

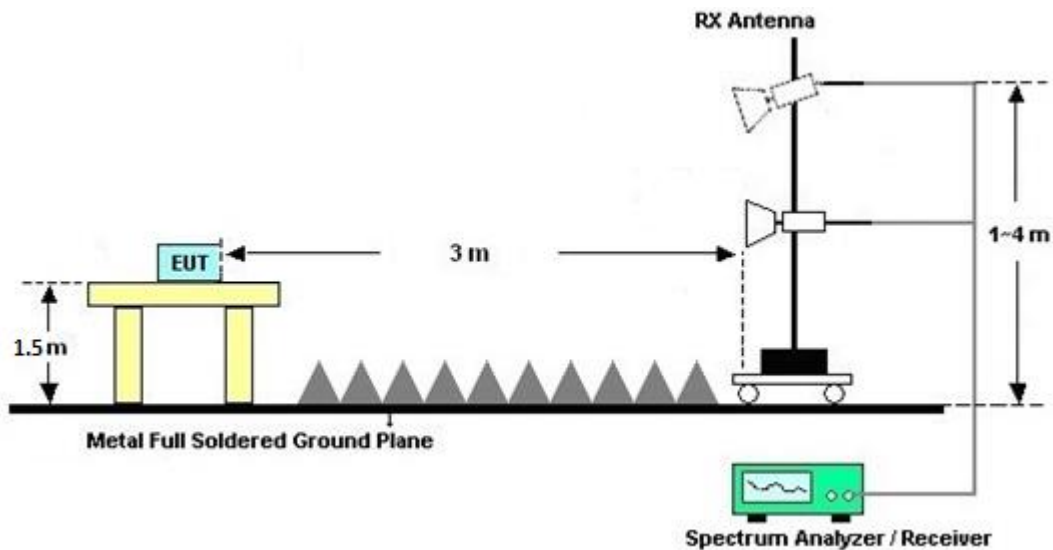
For radiated emissions below 30MHz



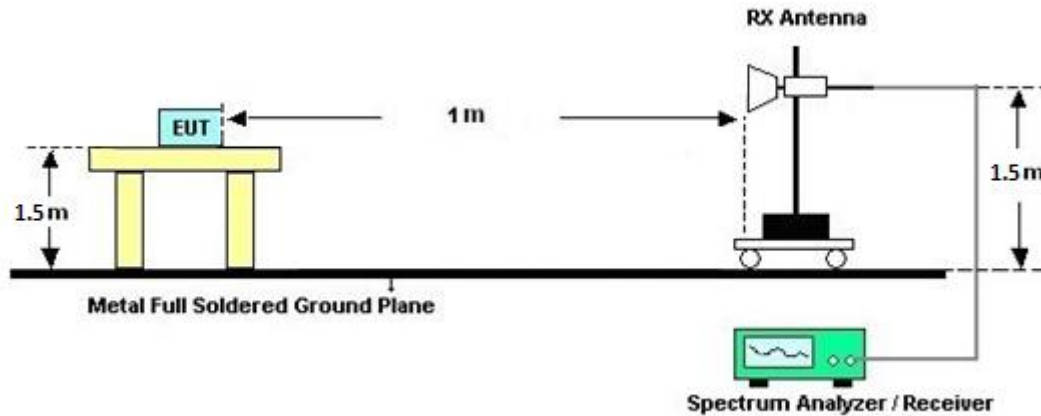
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



3.6.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.6.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.6.7 Duty Cycle

Please refer to Appendix E.

3.6.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix C and D.

3.7 AC Conducted Emission Measurement

3.7.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

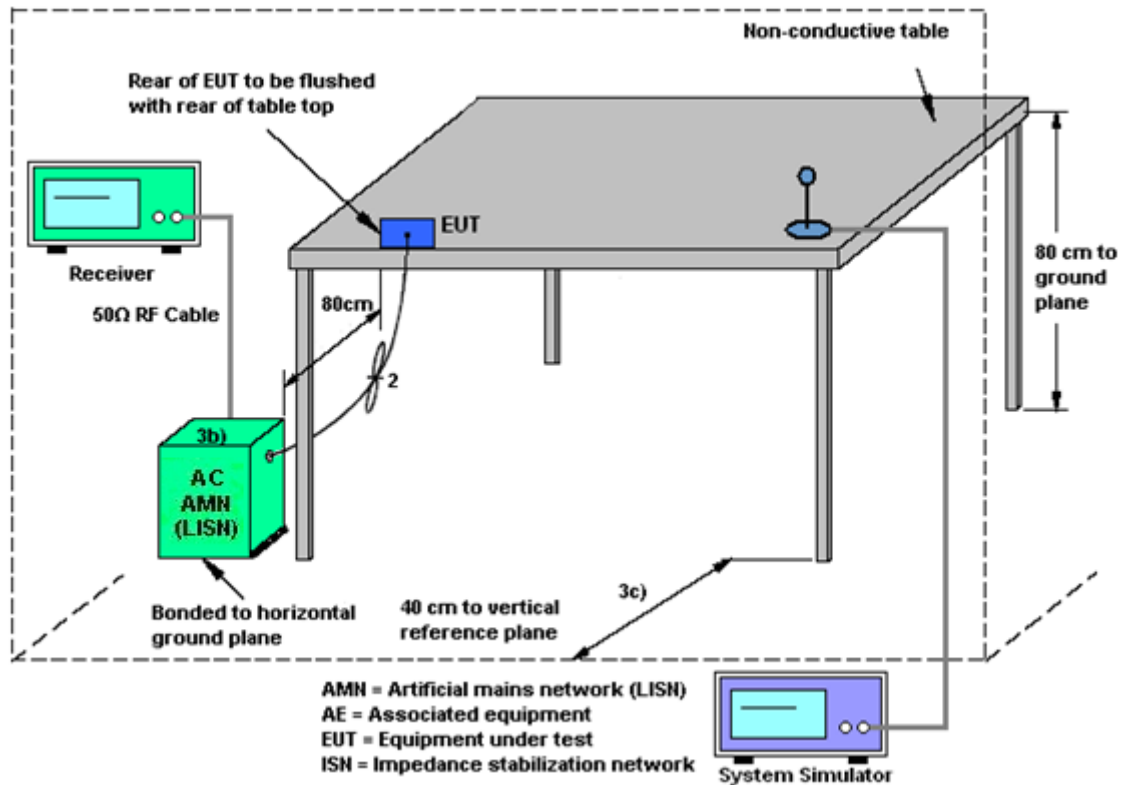
3.7.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.7.3 Test Procedures

1. The EUT is placed 0.4 meter away from the conducting wall of the shielding room, and is kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both Line and Neutral shall be tested in order to find out the maximum conducted emission.
7. The frequency range from 150 kHz to 30 MHz is scanned.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.7.4 Test Setup



3.7.5 Test Result of AC Conducted Emission

Please refer to Appendix B.



3.8 Antenna Requirements

3.8.1 Standard Applicable

The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.



4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	TESEQ	HLA 6120	31244	9 kHz~30 MHz	Mar. 18, 2022	Dec. 01, 2022~ Dec. 20, 2022	Mar. 17, 2023	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	41912 & 05	30MHz~1GHz	Feb. 06, 2022	Dec. 01, 2022~ Dec. 20, 2022	Feb. 05, 2023	Radiation (03CH15-HY)
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Dec. 27, 2021	Dec. 01, 2022~ Dec. 20, 2022	Dec. 26, 2022	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-02294	1GHz~18GHz	Jun. 23, 2022	Dec. 01, 2022~ Dec. 20, 2022	Jun. 22, 2023	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	00993	18GHz~40GHz	Nov. 24, 2022	Dec. 01, 2022~ Dec. 20, 2022	Nov. 23, 2023	Radiation (03CH15-HY)
Amplifier	EMEC	EM1G18G	060838	1GHz~18GHz	Sep. 01, 2022	Dec. 01, 2022~ Dec. 20, 2022	Aug. 31, 2023	Radiation (03CH15-HY)
Preamplifier	EM Electronics	EM01G18G	060801	18GHz~40GHz	Jun. 28, 2022	Dec. 01, 2022~ Dec. 20, 2022	Jun. 27, 2023	Radiation (03CH15-HY)
Preamplifier	EMEC	EM18G40G	060802	1GHz-18GHz	Mar. 08, 2022	Dec. 01, 2022~ Dec. 20, 2022	Mar. 07, 2023	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	20MHz~8.4GHz	Oct. 18, 2022	Dec. 01, 2022~ Dec. 20, 2022	Oct. 17, 2023	Radiation (03CH15-HY)
Spectrum Analyzer	Keysight	N9010	MY54200485	10Hz~44GHz	May 07, 2022	Dec. 01, 2022~ Dec. 20, 2022	May 06, 2023	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Dec. 01, 2022~ Dec. 20, 2022	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Dec. 01, 2022~ Dec. 20, 2022	N/A	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24 (k5)	RK-000451	N/A	N/A	Dec. 01, 2022~ Dec. 20, 2022	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104, 102E	MY582185/4, MY9838/4PE, 519228/2	30MHz~18G	Jun. 21, 2022	Dec. 01, 2022~ Dec. 20, 2022	Jun. 20, 2023	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804011/2,804 012/2	30MHz-40GHz	Jan. 04, 2022	Dec. 01, 2022~ Dec. 20, 2022	Jan. 03, 2023	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 10, 2022	Dec. 01, 2022~ Dec. 20, 2022	Mar. 09, 2023	Radiation (03CH15-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 17, 2022	Nov. 25, 2022~ Dec. 31, 2022	Nov. 16, 2023	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W #010	RPR6W-2101 002(NO:123)	10MHz~8GHz	Jan. 13, 2022	Nov. 25, 2022~ Dec. 31, 2022	Jan. 12, 2023	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101905	10Hz - 40GHz(amp)	Aug. 03, 2022	Nov. 25, 2022~ Dec. 31, 2022	Aug. 02, 2023	Conducted (TH05-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Signal Generator (Interferer)	Rohde & Schwarz	SMW200A	109425	100kHz~7.5GHz	Jan. 13, 2022	Nov. 24, 2022	Jan. 12, 2023	CBP (DF02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV3044	101104	10Hz~44GHz	Feb. 16, 2022	Nov. 24, 2022	Feb. 15, 2023	CBP (DF02-HY)
Power Divider	Woken	2Way Divider	DCMB1KW7A 1	0.5GHz-18GHz	Calibration from System	Nov. 24, 2022	Calibration from System	CBP (DF02-HY)
Power Divider	Woken	2Way Divider	DCMB1KW7A 2	0.5GHz-18GHz	Calibration from System	Nov. 24, 2022	Calibration from System	CBP (DF02-HY)
Power Divider	MVE	MVE8546	A702478	0.5GHz-6GHz	Calibration from System	Nov. 24, 2022	Calibration from System	CBP (DF02-HY)
Coupler	MVE	MVE4816	A400014	0.5-18GHz	Calibration from System	Nov. 24, 2022	Calibration from System	CBP (DF02-HY)
Power Divider	Woken	3Way SMA Power Divder Rated to 20W	STI08-0010 (#2)	2GHz-8GHz	Calibration from System	Nov. 24, 2022	Calibration from System	CBP (DF02-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Dec. 07, 2022	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Dec. 01, 2022	Dec. 07, 2022	Nov. 30, 2023	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 17, 2022	Dec. 07, 2022	Nov. 16, 2023	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 17, 2022	Dec. 07, 2022	Nov. 16, 2023	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	Dec. 07, 2022	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-FN	00691	N/A	Aug. 01, 2022	Dec. 07, 2022	Jul. 31, 2023	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 30, 2021	Dec. 07, 2022	Dec. 29, 2022	Conduction (CO05-HY)

5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.50 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.30 dB
--	---------

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 6000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.20 dB
--	---------

Uncertainty of Radiated Emission Measurement (6000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.40 dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.20 dB
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Appendix A. Test Result of Conducted Test Items

Test Engineer:	Hank Hsu	Temperature:	21~25	°C
Test Date:	2022/11/25~2022/12/31	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

U-NII-5 MIMO										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Emission Bandwidth Limit (MHz)	Pass /Fail
					Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	001	5955	17.18	16.98	21.85	21.55	320.00	Pass
11a	6Mbps	2	049	6195	17.23	16.93	21.80	21.50	320.00	Pass
11a	6Mbps	2	093	6415	17.23	16.98	21.70	21.75	320.00	Pass

TEST RESULTS DATA
EIRP Power Table

U-NII-5 MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 3	Ant 4	SUM	Ant 3	Ant 4			
11a	6Mbps	2	001	5955	5.10	5.00	8.06	1.20		9.26	24.00	Pass
11a	6Mbps	2	049	6195	4.30	5.60	8.01	1.20		9.21	24.00	Pass
11a	6Mbps	2	093	6415	4.70	5.00	7.86	1.20		9.06	24.00	Pass

TEST RESULTS DATA
EIRP Power Spectral Density

U-NII-5 MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Conducted Power Density (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm/MHz)	Pass /Fail
					Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM		
11a	6Mbps	2	001	5955	0.29	0.29			-3.60	2.29		-1.32	-1.00	Pass
11a	6Mbps	2	049	6195	0.29	0.29			-3.80	2.29		-1.51	-1.00	Pass
11a	6Mbps	2	093	6415	0.29	0.29			-3.81	2.29		-1.52	-1.00	Pass

TEST RESULTS DATA
26dB and 99% OBW

U-NII-6 MIMO										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Emission Bandwidth Limit (MHz)	Pass /Fail
					Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	097	6435	17.18	16.98	21.80	21.55	320.00	Pass
11a	6Mbps	2	105	6475	17.18	16.98	21.75	21.75	320.00	Pass
11a	6Mbps	2	113	6515	17.18	16.98	21.90	21.65	320.00	Pass

TEST RESULTS DATA
EIRP Power Table

U-NII-6 MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 3	Ant 4	SUM	Ant 3	Ant 4			
11a	6Mbps	2	097	6435	5.30	5.90	8.62	1.20		9.82	24.00	Pass
11a	6Mbps	2	105	6475	5.20	5.00	8.11	1.20		9.31	24.00	Pass
11a	6Mbps	2	113	6515	5.20	5.80	8.52	1.20		9.72	24.00	Pass

TEST RESULTS DATA
EIRP Power Spectral Density

U-NII-6 MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Conducted Power Density (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm/MHz)	Pass /Fail
					Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM		
11a	6Mbps	2	097	6435	0.29	0.29			-3.06	1.46		-1.60	-1.00	Pass
11a	6Mbps	2	105	6475	0.29	0.29			-3.16	1.46		-1.70	-1.00	Pass
11a	6Mbps	2	113	6515	0.29	0.29			-3.04	1.46		-1.58	-1.00	Pass

TEST RESULTS DATA
26dB and 99% OBW

U-NII-7 MIMO										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Emission Bandwidth Limit (MHz)	Pass /Fail
					Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	117	6535	17.18	16.98	21.80	21.75	320.00	Pass
11a	6Mbps	2	149	6695	17.23	17.03	21.80	21.75	320.00	Pass
11a	6Mbps	2	181	6855	17.13	16.98	21.70	21.50	320.00	Pass

U-NII-7 straddle channel MIMO										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Emission Bandwidth Limit (MHz)	Pass /Fail
					Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	185	6875	17.13	16.98	21.70	21.60	320.00	Pass

TEST RESULTS DATA
EIRP Power Table

U-NII-7 MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 3	Ant 4	SUM	Ant 3	Ant 4			
11a	6Mbps	2	117	6535	5.00	6.20	8.65	1.40		10.05	24.00	Pass
11a	6Mbps	2	149	6695	5.30	7.10	9.30	1.40		10.70	24.00	Pass
11a	6Mbps	2	181	6855	5.40	6.30	8.88	1.40		10.28	24.00	Pass

U-NII-7 straddle channel MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 3	Ant 4	SUM	Ant 3	Ant 4			
11a	6Mbps	2	185	6875	5.90	7.30	9.67	1.40		11.07	24.00	Pass

TEST RESULTS DATA
EIRP Power Spectral Density

U-NII-7 MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Conducted Power Density (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm/MHz)	Pass /Fail
					Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM		
11a	6Mbps	2	117	6535	0.29	0.29			-2.73	1.57		-1.17	-1.00	Pass
11a	6Mbps	2	149	6695	0.29	0.29			-2.71	1.57		-1.14	-1.00	Pass
11a	6Mbps	2	181	6855	0.29	0.29			-3.01	1.57		-1.44	-1.00	Pass

FCC U-NII-7 straddle channel MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Conducted Power Density (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm/MHz)	Pass /Fail
					Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM		
11a	6Mbps	2	185	6875	0.29	0.29			-3.04	1.57		-1.47	-1.00	Pass

TEST RESULTS DATA
26dB EBW and 99% OBW

U-NII-8 MIMO										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Emission Bandwidth Limit (MHz)	Pass /Fail
					Ant 3	Ant 4	Ant 3	Ant 4		
11a	6Mbps	2	189	6895	17.23	16.98	21.70	21.60	320.00	Pass
11a	6Mbps	2	209	6995	17.03	16.83	21.60	21.65	320.00	Pass
11a	6Mbps	2	229	7095	17.08	16.88	21.70	21.65	320.00	Pass

TEST RESULTS DATA
EIRP Power Table

U-NII-8 MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 3	Ant 4	SUM	Ant 3	Ant 4			
11a	6Mbps	2	189	6895	6.10	7.70	9.98	0.40		10.38	24.00	Pass
11a	6Mbps	2	209	6995	6.40	6.80	9.61	0.40		10.01	24.00	Pass
11a	6Mbps	2	229	7095	7.60	8.20	10.92	0.40		11.32	24.00	Pass

TEST RESULTS DATA
EIRP Power Spectral Density

U-NII-8 MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Conducted Power Density (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm/MHz)	Pass /Fail
					Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM		
11a	6Mbps	2	189	6895	0.29	0.29			-2.16	0.95		-1.20	-1.00	Pass
11a	6Mbps	2	209	6995	0.29	0.29			-2.02	0.95		-1.07	-1.00	Pass
11a	6Mbps	2	229	7095	0.29	0.29			-2.04	0.95		-1.09	-1.00	Pass

TEST RESULTS DATA
26dB and 99% OBW

U-NII-5 MIMO											
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Emission Bandwidth Limit (MHz)	Pass /Fail
						Ant 3	Ant 4	Ant 3	Ant 4		
HE20	MCS0	2	001	5955	Full	19.18	19.18	21.85	21.70	320.00	Pass
HE20	MCS0	2	049	6195	Full	19.18	19.13	21.80	21.55	320.00	Pass
HE20	MCS0	2	093	6415	Full	19.13	19.18	21.80	21.75	320.00	Pass
HE40	MCS0	2	003	5965	Full	37.76	37.76	39.78	39.96	320.00	Pass
HE40	MCS0	2	051	6205	Full	37.86	37.76	40.23	39.96	320.00	Pass
HE40	MCS0	2	091	6405	Full	37.86	37.76	39.87	39.96	320.00	Pass
HE80	MCS0	2	007	5985	Full	77.20	77.08	82.24	82.08	320.00	Pass
HE80	MCS0	2	055	6225	Full	77.20	77.08	82.40	82.08	320.00	Pass
HE80	MCS0	2	087	6385	Full	77.08	77.08	82.56	82.08	320.00	Pass
HE160	MCS0	2	015	6025	Full	157.04	156.56	304.59	243.25	320.00	Pass
HE160	MCS0	2	047	6185	Full	156.80	156.56	303.13	302.69	320.00	Pass
HE160	MCS0	2	079	6345	Full	156.80	157.04	306.55	302.81	320.00	Pass

TEST RESULTS DATA
EIRP Power Table

U-NII-5 MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM		
HE20	MCS0	2	001	5955	Full	6.20	5.60	8.92	1.20		10.12	24.00	Pass
HE20	MCS0	2	001	5955	26/0	-2.60	-2.90	0.26	1.20		1.46	24.00	Pass
HE20	MCS0	2	001	5955	52/37	0.20	0.40	3.31	1.20		4.51	24.00	Pass
HE20	MCS0	2	001	5955	106/53	2.90	3.10	6.01	1.20		7.21	24.00	Pass
HE20	MCS0	2	049	6195	Full	4.60	5.80	8.25	1.20		9.45	24.00	Pass
HE20	MCS0	2	049	6195	26/4	-3.00	-0.70	1.31	1.20		2.51	24.00	Pass
HE20	MCS0	2	049	6195	52/38	-0.20	1.80	3.92	1.20		5.12	24.00	Pass
HE20	MCS0	2	049	6195	106/53	2.00	4.30	6.31	1.20		7.51	24.00	Pass
HE20	MCS0	2	093	6415	Full	5.10	5.40	8.26	1.20		9.46	24.00	Pass
HE20	MCS0	2	093	6415	26/8	-3.60	-3.40	-0.49	1.20		0.71	24.00	Pass
HE20	MCS0	2	093	6415	52/40	-0.80	-0.30	2.47	1.20		3.67	24.00	Pass
HE20	MCS0	2	093	6415	106/54	2.90	2.50	5.71	1.20		6.91	24.00	Pass
HE40	MCS0	2	003	5965	Full	8.40	9.10	11.77	1.20		12.97	24.00	Pass
HE40	MCS0	2	051	6205	Full	7.80	9.20	11.57	1.20		12.77	24.00	Pass
HE40	MCS0	2	091	6405	Full	8.30	8.40	11.36	1.20		12.56	24.00	Pass
HE80	MCS0	2	007	5985	Full	11.20	11.50	14.36	1.20		15.56	24.00	Pass
HE80	MCS0	2	055	6225	Full	9.80	11.60	13.80	1.20		15.00	24.00	Pass
HE80	MCS0	2	087	6385	Full	11.20	11.40	14.31	1.20		15.51	24.00	Pass
HE160	MCS0	2	015	6025	Full	13.70	14.20	16.97	1.20		18.17	24.00	Pass
HE160	MCS0	2	047	6185	Full	13.90	14.30	17.11	1.20		18.31	24.00	Pass
HE160	MCS0	2	079	6345	Full	14.50	13.90	17.22	1.20		18.42	24.00	Pass

TEST RESULTS DATA
EIRP Power Spectral Density

U-NII-5 MIMO															
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power Density (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
						Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM		
HE20	MCS0	2	001	5955	Full	0.18	0.18			-3.41	2.29		-1.13	-1.00	Pass
HE20	MCS0	2	001	5955	26/0	0.48	0.48			-3.52	2.29		-1.24	-1.00	Pass
HE20	MCS0	2	001	5955	52/37	0.52	0.52			-3.44	2.29		-1.16	-1.00	Pass
HE20	MCS0	2	001	5955	106/53	0.58	0.58			-3.66	2.29		-1.37	-1.00	Pass
HE20	MCS0	2	049	6195	Full	0.18	0.18			-3.59	2.29		-1.30	-1.00	Pass
HE20	MCS0	2	049	6195	26/4	0.48	0.48			-3.62	2.29		-1.33	-1.00	Pass
HE20	MCS0	2	049	6195	52/38	0.52	0.52			-3.62	2.29		-1.33	-1.00	Pass
HE20	MCS0	2	049	6195	106/53	0.58	0.58			-3.82	2.29		-1.54	-1.00	Pass
HE20	MCS0	2	093	6415	Full	0.18	0.18			-4.16	2.29		-1.87	-1.00	Pass
HE20	MCS0	2	093	6415	26/8	0.48	0.48			-4.35	2.29		-2.06	-1.00	Pass
HE20	MCS0	2	093	6415	52/40	0.52	0.52			-4.33	2.29		-2.05	-1.00	Pass
HE20	MCS0	2	093	6415	106/54	0.58	0.58			-4.18	2.29		-1.89	-1.00	Pass
HE40	MCS0	2	003	5965	Full	0.34	0.34			-3.54	2.29		-1.26	-1.00	Pass
HE40	MCS0	2	051	6205	Full	0.34	0.34			-3.58	2.29		-1.30	-1.00	Pass
HE40	MCS0	2	091	6405	Full	0.34	0.34			-3.70	2.29		-1.41	-1.00	Pass
HE80	MCS0	2	007	5985	Full	0.35	0.35			-3.47	2.29		-1.18	-1.00	Pass
HE80	MCS0	2	055	6225	Full	0.35	0.35		-3.87	2.29		-1.58	-1.00	Pass	
HE80	MCS0	2	087	6385	Full	0.35	0.35		-3.41	2.29		-1.13	-1.00	Pass	
HE160	MCS0	2	015	6025	Full	0.43	0.43		-3.39	2.29		-1.10	-1.00	Pass	
HE160	MCS0	2	047	6185	Full	0.43	0.43		-3.38	2.29		-1.10	-1.00	Pass	
HE160	MCS0	2	079	6345	Full	0.43	0.43		-3.43	2.29		-1.14	-1.00	Pass	

TEST RESULTS DATA
26dB and 99% OBW

U-NII-6 MIMO											
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Emission Bandwidth Limit (MHz)	Pass /Fail
						Ant 3	Ant 4	Ant 3	Ant 4		
HE20	MCS0	2	097	6435	Full	19.18	19.13	21.75	21.90	320.00	Pass
HE20	MCS0	2	105	6475	Full	19.13	19.18	21.65	21.75	320.00	Pass
HE20	MCS0	2	113	6515	Full	19.13	19.18	22.10	21.65	320.00	Pass
HE40	MCS0	2	099	6445	Full	37.86	37.76	39.78	39.69	320.00	Pass
HE40	MCS0	2	107	6485	Full	37.76	37.76	39.96	39.87	320.00	Pass
HE80	MCS0	2	103	6465	Full	77.08	77.20	82.56	82.56	320.00	Pass

U-NII-6 straddle channel MIMO											
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Emission Bandwidth Limit (MHz)	Pass /Fail
						Ant 3	Ant 4	Ant 3	Ant 4		
HE40	MCS0	2	115	6525	Full	37.76	37.76	40.05	39.87	320.00	Pass
HE80	MCS0	2	119	6545	Full	77.20	77.08	82.24	81.60	320.00	Pass
HE160	MCS0	2	111	6505	Full	156.56	156.80	304.59	304.27	320.00	Pass

TEST RESULTS DATA
EIRP Power Table

U-NII-6 MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4			
HE20	MCS0	2	097	6435	Full	6.30	6.20	9.26	1.20		10.46	24.00	Pass
HE20	MCS0	2	097	6435	26/0	-2.40	-1.90	0.87	1.20		2.07	24.00	Pass
HE20	MCS0	2	097	6435	52/37	-0.20	0.80	3.34	1.20		4.54	24.00	Pass
HE20	MCS0	2	097	6435	106/53	3.10	3.60	6.37	1.20		7.57	24.00	Pass
HE20	MCS0	2	105	6475	Full	5.90	5.90	8.91	1.20		10.11	24.00	Pass
HE20	MCS0	2	105	6475	26/4	-2.00	-1.60	1.21	1.20		2.41	24.00	Pass
HE20	MCS0	2	105	6475	52/38	-0.50	0.40	2.98	1.20		4.18	24.00	Pass
HE20	MCS0	2	105	6475	106/53	2.70	3.70	6.24	1.20		7.44	24.00	Pass
HE20	MCS0	2	113	6515	Full	6.10	6.20	9.16	1.20		10.36	24.00	Pass
HE20	MCS0	2	113	6515	26/8	-3.80	-2.80	-0.26	1.20		0.94	24.00	Pass
HE20	MCS0	2	113	6515	52/40	-0.80	0.20	2.74	1.20		3.94	24.00	Pass
HE20	MCS0	2	113	6515	106/54	2.60	3.40	6.03	1.20		7.23	24.00	Pass
HE40	MCS0	2	099	6445	Full	9.40	10.10	12.77	1.20		13.97	24.00	Pass
HE40	MCS0	2	107	6485	Full	9.20	9.90	12.57	1.20		13.77	24.00	Pass
HE80	MCS0	2	103	6465	Full	11.50	12.50	15.04	1.20		16.24	24.00	Pass

U-NII-6 straddle channel MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4			
HE40	MCS0	2	115	6525	Full	9.50	10.20	12.87	1.20		14.07	24.00	Pass
HE80	MCS0	2	119	6545	Full	12.20	12.60	15.41	1.20		16.61	24.00	Pass
HE160	MCS0	2	111	6505	Full	15.00	15.60	18.32	1.20		19.52	24.00	Pass

TEST RESULTS DATA
EIRP Power Spectral Density

U-NII-6 MIMO															
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power Density (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
						Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM		
HE20	MCS0	2	097	6435	Full	0.18	0.18			-3.29	1.46		-1.83	-1.00	Pass
HE20	MCS0	2	097	6435	26/0	0.48	0.48			-3.36	1.46		-1.90	-1.00	Pass
HE20	MCS0	2	097	6435	52/37	0.52	0.52			-3.53	1.46		-2.07	-1.00	Pass
HE20	MCS0	2	097	6435	106/53	0.58	0.58			-3.42	1.46		-1.96	-1.00	Pass
HE20	MCS0	2	105	6475	Full	0.18	0.18			-3.15	1.46		-1.69	-1.00	Pass
HE20	MCS0	2	105	6475	26/4	0.48	0.48			-3.61	1.46		-2.15	-1.00	Pass
HE20	MCS0	2	105	6475	52/38	0.52	0.52			-3.61	1.46		-2.15	-1.00	Pass
HE20	MCS0	2	105	6475	106/53	0.58	0.58			-3.17	1.46		-1.71	-1.00	Pass
HE20	MCS0	2	113	6515	Full	0.18	0.18			-3.49	1.46		-2.03	-1.00	Pass
HE20	MCS0	2	113	6515	26/8	0.48	0.48			-3.95	1.46		-2.49	-1.00	Pass
HE20	MCS0	2	113	6515	52/40	0.52	0.52			-3.93	1.46		-2.47	-1.00	Pass
HE20	MCS0	2	113	6515	106/54	0.58	0.58			-3.64	1.46		-2.18	-1.00	Pass
HE40	MCS0	2	099	6445	Full	0.34	0.34			-2.56	1.46		-1.10	-1.00	Pass
HE40	MCS0	2	107	6485	Full	0.34	0.34			-2.80	1.46		-1.34	-1.00	Pass
HE80	MCS0	2	103	6465	Full	0.35	0.35			-2.65	1.46		-1.19	-1.00	Pass

U-NII-6 straddle channel MIMO															
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power Density (dBm/MHz)		DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail	
						Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4			SUM
HE40	MCS0	2	115	6525	Full	0.34	0.34			-2.85	1.46	-1.39	-1.00	Pass	
HE80	MCS0	2	119	6545	Full	0.35	0.35			-2.60	1.46	-1.14	-1.00	Pass	
HE160	MCS0	2	111	6505	Full	0.43	0.43			-2.63	1.46	-1.17	-1.00	Pass	

TEST RESULTS DATA
26dB and 99% OBW

U-NII-7 MIMO											
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Emission Bandwidth Limit (MHz)	Pass /Fail
						Ant 3	Ant 4	Ant 3	Ant 4		
HE20	MCS0	2	117	6535	Full	19.18	19.13	21.90	21.75	320.00	Pass
HE20	MCS0	2	149	6695	Full	19.18	19.13	21.95	21.85	320.00	Pass
HE20	MCS0	2	181	6855	Full	19.13	19.08	21.90	21.55	320.00	Pass
HE40	MCS0	2	123	6565	Full	37.86	37.76	40.05	39.96	320.00	Pass
HE40	MCS0	2	147	6685	Full	37.86	37.76	40.05	39.87	320.00	Pass
HE40	MCS0	2	179	6845	Full	37.76	37.86	39.78	39.78	320.00	Pass
HE80	MCS0	2	135	6625	Full	77.20	77.08	82.40	82.08	320.00	Pass
HE80	MCS0	2	151	6705	Full	77.08	77.08	82.40	81.92	320.00	Pass
HE80	MCS0	2	167	6785	Full	77.08	77.08	82.40	82.08	320.00	Pass
HE160	MCS0	2	143	6665	Full	156.80	156.56	300.53	302.81	320.00	Pass

U-NII-7 straddle channel MIMO											
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Emission Bandwidth Limit (MHz)	Pass /Fail
						Ant 3	Ant 4	Ant 3	Ant 4		
HE20	MCS0	2	185	6875	Full	19.13	19.13	21.90	21.50	320.00	Pass
HE40	MCS0	2	187	6885	Full	37.96	37.76	40.05	39.96	320.00	Pass
HE80	MCS0	2	183	6865	Full	77.08	77.08	82.56	81.92	320.00	Pass
HE160	MCS0	2	175	6825	Full	156.56	156.56	303.13	303.77	320.00	Pass

TEST RESULTS DATA
EIRP Power Table

U-NII-7 MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4			
HE20	MCS0	2	117	6535	Full	5.90	6.50	9.22	1.40		10.62	24.00	Pass
HE20	MCS0	2	117	6535	26/0	-3.40	-2.30	0.20	1.40		1.60	24.00	Pass
HE20	MCS0	2	117	6535	52/37	-1.20	0.30	2.62	1.40		4.02	24.00	Pass
HE20	MCS0	2	117	6535	106/53	2.00	3.40	5.77	1.40		7.17	24.00	Pass
HE20	MCS0	2	149	6695	Full	6.20	7.30	9.80	1.40		11.20	24.00	Pass
HE20	MCS0	2	149	6695	26/4	-2.80	-0.80	1.32	1.40		2.72	24.00	Pass
HE20	MCS0	2	149	6695	52/38	-0.60	1.20	3.40	1.40		4.80	24.00	Pass
HE20	MCS0	2	149	6695	106/53	2.10	3.90	6.10	1.40		7.50	24.00	Pass
HE20	MCS0	2	181	6855	Full	6.00	7.10	9.60	1.40		11.00	24.00	Pass
HE20	MCS0	2	181	6855	26/8	-3.70	-1.80	0.36	1.40		1.76	24.00	Pass
HE20	MCS0	2	181	6855	52/40	-0.80	1.00	3.20	1.40		4.60	24.00	Pass
HE20	MCS0	2	181	6855	106/54	2.50	4.10	6.38	1.40		7.78	24.00	Pass
HE40	MCS0	2	123	6565	Full	9.40	9.40	12.41	1.40		13.81	24.00	Pass
HE40	MCS0	2	147	6685	Full	9.10	9.80	12.47	1.40		13.87	24.00	Pass
HE40	MCS0	2	179	6845	Full	8.90	9.90	12.44	1.40		13.84	24.00	Pass
HE80	MCS0	2	135	6625	Full	11.60	12.10	14.87	1.40		16.27	24.00	Pass
HE80	MCS0	2	151	6705	Full	11.40	12.40	14.94	1.40		16.34	24.00	Pass
HE80	MCS0	2	167	6785	Full	11.20	12.80	15.08	1.40		16.48	24.00	Pass
HE160	MCS0	2	143	6665	Full	14.60	15.20	17.92	1.40		19.32	24.00	Pass

U-NII-7 straddle channel MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4			
HE20	MCS0	2	185	6875	Full	5.80	7.10	9.51	1.40		10.91	24.00	Pass
HE20	MCS0	2	185	6875	26/8	-3.90	-2.50	-0.13	1.40		1.27	24.00	Pass
HE20	MCS0	2	185	6875	52/40	-1.30	0.60	2.76	1.40		4.16	24.00	Pass
HE20	MCS0	2	185	6875	106/54	1.80	3.80	5.92	1.40		7.32	24.00	Pass
HE40	MCS0	2	187	6885	Full	9.30	10.40	12.90	1.40		14.30	24.00	Pass
HE80	MCS0	2	183	6865	Full	11.60	13.10	15.42	1.40		16.82	24.00	Pass
HE160	MCS0	2	175	6825	Full	14.50	15.80	18.21	1.40		19.61	24.00	Pass

TEST RESULTS DATA
EIRP Power Spectral Density

U-NII-7 MIMO															
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power Density (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
						Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM		
HE20	MCS0	2	117	6535	Full	0.18	0.18			-2.95	1.57		-1.39	-1.00	Pass
HE20	MCS0	2	117	6535	26/0	0.48	0.48			-2.96	1.57		-1.39	-1.00	Pass
HE20	MCS0	2	117	6535	52/37	0.52	0.52			-3.25	1.57		-1.69	-1.00	Pass
HE20	MCS0	2	117	6535	106/53	0.58	0.58			-3.04	1.57		-1.47	-1.00	Pass
HE20	MCS0	2	149	6695	Full	0.18	0.18			-2.71	1.57		-1.14	-1.00	Pass
HE20	MCS0	2	149	6695	26/4	0.48	0.48			-2.74	1.57		-1.17	-1.00	Pass
HE20	MCS0	2	149	6695	52/38	0.52	0.52			-2.72	1.57		-1.15	-1.00	Pass
HE20	MCS0	2	149	6695	106/53	0.58	0.58			-2.72	1.57		-1.15	-1.00	Pass
HE20	MCS0	2	181	6855	Full	0.18	0.18			-2.87	1.57		-1.30	-1.00	Pass
HE20	MCS0	2	181	6855	26/8	0.48	0.48			-2.89	1.57		-1.33	-1.00	Pass
HE20	MCS0	2	181	6855	52/40	0.52	0.52			-2.89	1.57		-1.32	-1.00	Pass
HE20	MCS0	2	181	6855	106/54	0.58	0.58			-2.89	1.57		-1.32	-1.00	Pass
HE40	MCS0	2	123	6565	Full	0.34	0.34			-2.63	1.57		-1.06	-1.00	Pass
HE40	MCS0	2	147	6685	Full	0.34	0.34			-2.81	1.57		-1.24	-1.00	Pass
HE40	MCS0	2	179	6845	Full	0.34	0.34			-3.04	1.57		-1.48	-1.00	Pass
HE80	MCS0	2	135	6625	Full	0.35	0.35			-2.69	1.57		-1.13	-1.00	Pass
HE80	MCS0	2	151	6705	Full	0.35	0.35		-2.89	1.57		-1.32	-1.00	Pass	
HE80	MCS0	2	167	6785	Full	0.35	0.35		-3.05	1.57		-1.48	-1.00	Pass	
HE160	MCS0	2	143	6665	Full	0.43	0.43		-2.67	1.57		-1.10	-1.00	Pass	

U-NII-7 straddle channel MIMO															
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power Density (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
						Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM		
HE20	MCS0	2	185	6875	Full	0.18	0.18			-3.02	1.57	-1.45	-1.00	Pass	
HE20	MCS0	2	185	6875	26/8	0.48	0.48			-3.31	1.57	-1.74	-1.00	Pass	
HE20	MCS0	2	185	6875	52/40	0.52	0.52			-3.31	1.57	-1.74	-1.00	Pass	
HE20	MCS0	2	185	6875	106/54	0.58	0.58			-3.14	1.57	-1.57	-1.00	Pass	
HE40	MCS0	2	187	6885	Full	0.34	0.34			-2.67	1.57	-1.11	-1.00	Pass	
HE80	MCS0	2	183	6865	Full	0.35	0.35			-2.93	1.57	-1.37	-1.00	Pass	
HE160	MCS0	2	175	6825	Full	0.43	0.43			-2.70	1.57	-1.13	-1.00	Pass	

TEST RESULTS DATA
26dB EBW and 99% OBW

U-NII-8 MIMO											
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Emission Bandwidth Limit (MHz)	Pass /Fail
						Ant 3	Ant 4	Ant 3	Ant 4		
HE20	MCS0	2	189	6895	Full	19.18	19.18	21.90	21.70	320.00	Pass
HE20	MCS0	2	209	6995	Full	19.08	19.08	21.70	21.50	320.00	Pass
HE20	MCS0	2	229	7095	Full	19.08	19.13	21.55	21.65	320.00	Pass
HE40	MCS0	2	195	6925	Full	37.86	37.76	40.23	39.87	320.00	Pass
HE40	MCS0	2	211	7005	Full	37.86	37.76	40.05	39.60	320.00	Pass
HE40	MCS0	2	227	7085	Full	37.86	37.76	39.96	39.96	320.00	Pass
HE80	MCS0	2	199	6945	Full	77.08	77.08	82.24	82.08	320.00	Pass
HE80	MCS0	2	215	7025	Full	76.96	77.08	82.08	81.92	320.00	Pass
HE160	MCS0	2	207	6985	Full	156.32	156.32	305.09	290.00	320.00	Pass

TEST RESULTS DATA
EIRP Power Table

U-NII-8 MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
						Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM		
HE20	MCS0	2	189	6895	Full	7.30	8.20	10.78	0.40		11.18	24.00	Pass
HE20	MCS0	2	189	6895	26/0	-2.70	-1.80	0.78	0.40		1.18	24.00	Pass
HE20	MCS0	2	189	6895	52/37	-0.10	1.80	3.96	0.40		4.36	24.00	Pass
HE20	MCS0	2	189	6895	106/53	3.00	4.30	6.71	0.40		7.11	24.00	Pass
HE20	MCS0	2	209	6995	Full	6.60	7.60	10.14	0.40		10.54	24.00	Pass
HE20	MCS0	2	209	6995	26/4	-2.30	-1.30	1.24	0.40		1.64	24.00	Pass
HE20	MCS0	2	209	6995	52/38	0.00	0.80	3.43	0.40		3.83	24.00	Pass
HE20	MCS0	2	209	6995	106/53	2.40	3.40	5.94	0.40		6.34	24.00	Pass
HE20	MCS0	2	229	7095	Full	8.30	9.10	11.73	0.40		12.13	24.00	Pass
HE20	MCS0	2	229	7095	26/8	-1.90	-0.30	1.98	0.40		2.38	24.00	Pass
HE20	MCS0	2	229	7095	52/40	1.00	2.60	4.88	0.40		5.28	24.00	Pass
HE20	MCS0	2	229	7095	106/54	3.70	5.30	7.58	0.40		7.98	24.00	Pass
HE40	MCS0	2	195	6925	Full	9.70	10.50	13.13	0.40		13.53	24.00	Pass
HE40	MCS0	2	211	7005	Full	10.10	10.40	13.26	0.40		13.66	24.00	Pass
HE40	MCS0	2	227	7085	Full	11.00	12.10	14.60	0.40		15.00	24.00	Pass
HE80	MCS0	2	199	6945	Full	13.00	13.30	16.16	0.40		16.56	24.00	Pass
HE80	MCS0	2	215	7025	Full	13.20	13.10	16.16	0.40		16.56	24.00	Pass
HE160	MCS0	2	207	6985	Full	15.50	15.90	18.71	0.40		19.11	24.00	Pass

TEST RESULTS DATA
EIRP Power Spectral Density

U-NII-8 MIMO															
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power Density (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
						Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM		
HE20	MCS0	2	189	6895	Full	0.18	0.18			-2.22	0.95	-1.27	-1.00	Pass	
HE20	MCS0	2	189	6895	26/0	0.48	0.48			-2.58	0.95	-1.63	-1.00	Pass	
HE20	MCS0	2	189	6895	52/37	0.52	0.52			-2.23	0.95	-1.27	-1.00	Pass	
HE20	MCS0	2	189	6895	106/53	0.58	0.58			-2.37	0.95	-1.42	-1.00	Pass	
HE20	MCS0	2	209	6995	Full	0.18	0.18			-2.45	0.95	-1.49	-1.00	Pass	
HE20	MCS0	2	209	6995	26/4	0.48	0.48			-2.65	0.95	-1.70	-1.00	Pass	
HE20	MCS0	2	209	6995	52/38	0.52	0.52			-2.50	0.95	-1.55	-1.00	Pass	
HE20	MCS0	2	209	6995	106/53	0.58	0.58			-2.74	0.95	-1.78	-1.00	Pass	
HE20	MCS0	2	229	7095	Full	0.18	0.18			-2.46	0.95	-1.51	-1.00	Pass	
HE20	MCS0	2	229	7095	26/8	0.48	0.48			-2.65	0.95	-1.70	-1.00	Pass	
HE20	MCS0	2	229	7095	52/40	0.52	0.52			-2.47	0.95	-1.52	-1.00	Pass	
HE20	MCS0	2	229	7095	106/54	0.58	0.58			-2.54	0.95	-1.59	-1.00	Pass	
HE40	MCS0	2	195	6925	Full	0.34	0.34			-2.17	0.95	-1.22	-1.00	Pass	
HE40	MCS0	2	211	7005	Full	0.34	0.34			-2.02	0.95	-1.07	-1.00	Pass	
HE40	MCS0	2	227	7085	Full	0.34	0.34			-2.08	0.95	-1.12	-1.00	Pass	
HE80	MCS0	2	199	6945	Full	0.35	0.35			-2.02	0.95	-1.07	-1.00	Pass	
HE80	MCS0	2	215	7025	Full	0.35	0.35		-2.05	0.95	-1.09	-1.00	Pass		
HE160	MCS0	2	207	6985	Full	0.43	0.43		-2.10	0.95	-1.15	-1.00	Pass		



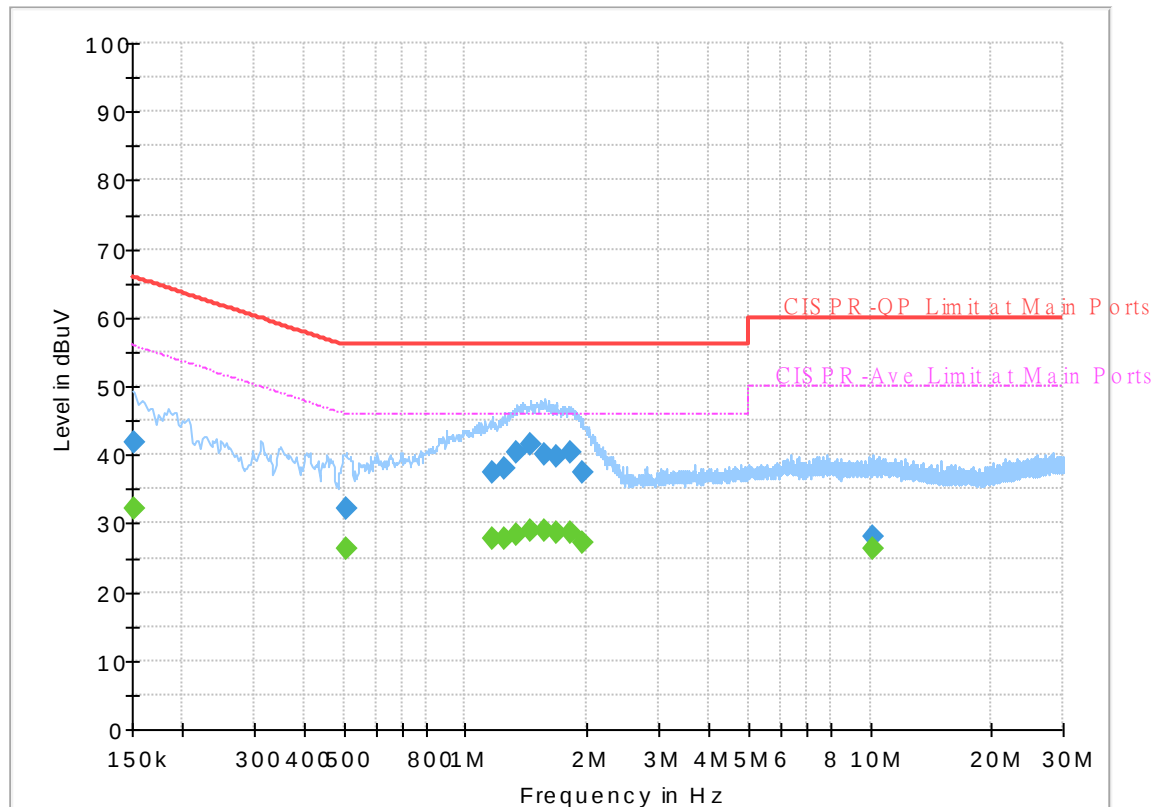
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Tom Lee	Temperature :	23~26°C
		Relative Humidity :	45~55%

EUT Information

Report NO : 262403-04
Test Mode : Mode 1
Test Voltage : 120Vac/60Hz
Phase : Line

Full Spectrum



Final_Result

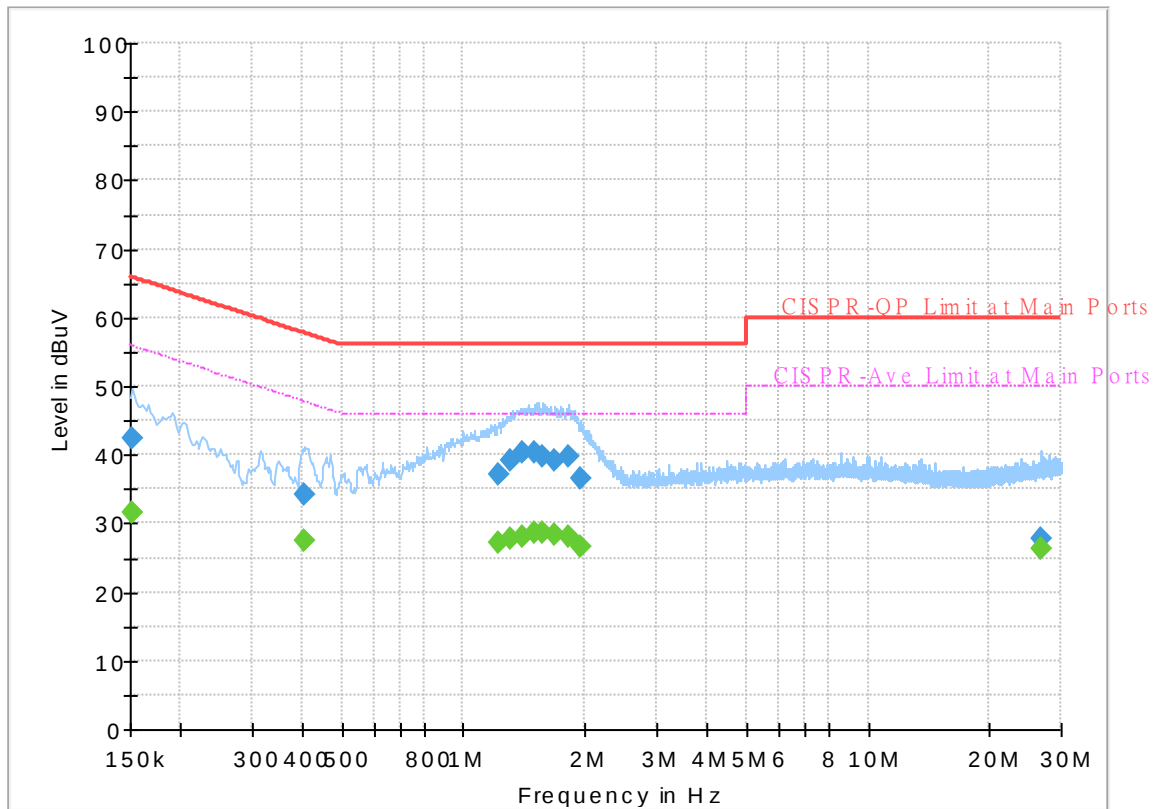
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	32.04	55.88	23.84	L1	OFF	19.8
0.152250	41.92	---	65.88	23.96	L1	OFF	19.8
0.507750	---	26.44	46.00	19.56	L1	OFF	19.8
0.507750	32.02	---	56.00	23.98	L1	OFF	19.8
1.169250	---	27.65	46.00	18.35	L1	OFF	19.8
1.169250	37.38	---	56.00	18.62	L1	OFF	19.8
1.250250	---	27.92	46.00	18.08	L1	OFF	19.8
1.250250	38.08	---	56.00	17.92	L1	OFF	19.8
1.342500	---	28.36	46.00	17.64	L1	OFF	19.8
1.342500	40.25	---	56.00	15.75	L1	OFF	19.8
1.443750	---	28.83	46.00	17.17	L1	OFF	19.9
1.443750	41.38	---	56.00	14.62	L1	OFF	19.9
1.576500	---	28.84	46.00	17.16	L1	OFF	19.9
1.576500	40.07	---	56.00	15.93	L1	OFF	19.9
1.682250	---	28.75	46.00	17.25	L1	OFF	19.9
1.682250	39.65	---	56.00	16.35	L1	OFF	19.9
1.810500	---	28.55	46.00	17.45	L1	OFF	19.9
1.810500	40.38	---	56.00	15.62	L1	OFF	19.9
1.945500	---	27.12	46.00	18.88	L1	OFF	19.9
1.945500	37.33	---	56.00	18.67	L1	OFF	19.9
10.189500	---	26.36	50.00	23.64	L1	OFF	20.2

10.189500	28.06	---	60.00	31.94	L1	OFF	20.2
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EUT Information

Report NO : 262403-04
Test Mode : Mode 1
Test Voltage : 120Vac/60Hz
Phase : Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	31.68	55.88	24.20	N	OFF	19.8
0.152250	42.27	---	65.88	23.61	N	OFF	19.8
0.406500	---	27.45	47.72	20.27	N	OFF	19.8
0.406500	34.29	---	57.72	23.43	N	OFF	19.8
1.218750	---	27.12	46.00	18.88	N	OFF	19.8
1.218750	37.04	---	56.00	18.96	N	OFF	19.8
1.311000	---	27.91	46.00	18.09	N	OFF	19.8
1.311000	39.17	---	56.00	16.83	N	OFF	19.8
1.394250	---	27.99	46.00	18.01	N	OFF	19.8
1.394250	40.34	---	56.00	15.66	N	OFF	19.8
1.497750	---	28.56	46.00	17.44	N	OFF	19.8
1.497750	40.34	---	56.00	15.66	N	OFF	19.8
1.576500	---	28.57	46.00	17.43	N	OFF	19.8
1.576500	39.86	---	56.00	16.14	N	OFF	19.8
1.684500	---	28.41	46.00	17.59	N	OFF	19.8
1.684500	39.20	---	56.00	16.80	N	OFF	19.8
1.821750	---	27.93	46.00	18.07	N	OFF	19.8
1.821750	39.79	---	56.00	16.21	N	OFF	19.8
1.947750	---	26.57	46.00	19.43	N	OFF	19.8
1.947750	36.47	---	56.00	19.53	N	OFF	19.8
26.754000	---	26.19	50.00	23.81	N	OFF	20.8

26.754000	27.67	---	60.00	32.33	N	OFF	20.8
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Appendix C. Radiated Spurious Emission

Test Engineer :	Bigshow Wang, Quentin Liu and Eric Xiao	Temperature :	21~26°C
		Relative Humidity :	45~60%

<Open Mode>

Band 5 - 5925~6425MHz

WIFI 802.11ax HE20 Full (Band Edge @ 3m)

WIFI Ant. 3+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Full CH 01 5955MHz		5885.9	49.07	-39.13	88.2	41.78	34.27	9.73	36.71	100	306	P	H
		5899.4	38.96	-29.24	68.2	31.63	34.3	9.74	36.71	100	306	A	H
	*	5955	94.05	-	-	86.84	34.1	9.82	36.71	100	306	P	H
	*	5955	85.09	-	-	77.88	34.1	9.82	36.71	100	306	A	H
													H
													H
		5882.6	48.95	-39.25	88.2	41.67	34.27	9.72	36.71	352	132	P	V
		5904.2	38.97	-29.23	68.2	31.65	34.28	9.75	36.71	352	132	A	V
	*	5955	96.35	-	-	89.14	34.1	9.82	36.71	352	132	P	V
	*	5955	87.31	-	-	80.1	34.1	9.82	36.71	352	132	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 5 5925~6425MHz

WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI Ant. 3+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 03 5965MHz		5912.89	49.3	-38.9	88.2	42	34.25	9.76	36.71	100	306	P	H
		5920.9	39.26	-28.94	68.2	31.98	34.22	9.77	36.71	100	306	A	H
	*	5965	93.6	-	-	86.38	34.1	9.83	36.71	100	306	P	H
	*	5965	84.54	-	-	77.32	34.1	9.83	36.71	100	306	A	H
													H
													H
		5913.91	49.16	-39.04	88.2	41.87	34.24	9.76	36.71	335	129	P	V
		5924.9	39.22	-28.98	68.2	31.95	34.2	9.78	36.71	335	129	A	V
	*	5965	96.81	-	-	89.59	34.1	9.83	36.71	335	129	P	V
	*	5965	87.15	-	-	79.93	34.1	9.83	36.71	335	129	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 5 5925~6425MHz

WIFI 802.11ax HE80 Full (Band Edge @ 3m)

WIFI Ant. 3+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE80 Full CH 07 5985MHz		5922.02	49.45	-38.75	88.2	42.18	34.21	9.77	36.71	100	293	P	H
		5921.88	40.12	-28.08	68.2	32.85	34.21	9.77	36.71	100	293	A	H
	*	5985	93.79	-	-	86.54	34.1	9.86	36.71	100	293	P	H
	*	5985	84.52	-	-	77.27	34.1	9.86	36.71	100	293	A	H
													H
													H
		5847.26	49.76	-38.44	88.2	42.6	34.2	9.67	36.71	303	131	P	V
		5919.36	40.1	-28.1	68.2	32.82	34.22	9.77	36.71	303	131	A	V
	*	5985	96.04	-	-	88.79	34.1	9.86	36.71	303	131	P	V
	*	5985	86.86	-	-	79.61	34.1	9.86	36.71	303	131	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 5 5925~6425MHz

WIFI 802.11ax HE160 Full (Band Edge @ 3m)

WIFI Ant. 3+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE160 Full CH 15 6025MHz		5912.05	57.65	-30.55	88.2	50.35	34.25	9.76	36.71	100	306	P	H
		5910.4	44.17	-24.03	68.2	36.86	34.26	9.76	36.71	100	306	A	H
	*	6025	92.21	-	-	84.86	34.15	9.9	36.7	100	306	P	H
	*	6025	83.24	-	-	75.89	34.15	9.9	36.7	100	306	A	H
													H
													H
		5909.74	60.03	-28.17	88.2	52.72	34.26	9.76	36.71	312	131	P	V
		5909.41	46	-22.2	68.2	38.69	34.26	9.76	36.71	312	131	A	V
	*	6025	94.87	-	-	87.52	34.15	9.9	36.7	312	131	P	V
	*	6025	85.86	-	-	78.51	34.15	9.9	36.7	312	131	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 5 5925~6425MHz

WIFI 802.11ax HE160 Full (Harmonic @ 3m)

[illegible]

[illegible]

[illegible]

Band 6 - 6425~6525MHz

WIFI 802.11ax HE160 Full (Harmonic @ 3m)

[illegible]

Band 7 - 6525~6875MHz

WIFI 802.11ax HE160 Full (Harmonic @ 3m)

[illegible]

[illegible]

**Band 8 - 6875~7125MHz****WIFI 802.11ax HE20 Full (Band Edge @ 3m)**

WIFI Ant. 3+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Full CH 229 7095MHz	*	7095	94.2	-	-	84.11	36.28	10.52	36.71	100	247	P	H
	*	7095	85.22	-	-	75.13	36.28	10.52	36.71	100	247	A	H
		7125.32	54.82	-33.38	88.2	44.58	36.4	10.54	36.7	100	247	P	H
		7244.04	42.37	-25.83	68.2	31.62	36.79	10.65	36.69	100	247	A	H
													H
													H
	*	7095	99.68	-	-	89.59	36.28	10.52	36.71	289	142	P	V
	*	7095	89.27	-	-	79.18	36.28	10.52	36.71	289	142	A	V
		7152.52	52.12	-36.08	88.2	41.75	36.51	10.56	36.7	289	142	P	V
		7220.2	42.67	-25.53	68.2	32	36.74	10.62	36.69	289	142	A	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 8 - 6875~7125MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI Ant. 3+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 227 7085MHz	*	7085	94.84	-	-	84.8	36.24	10.51	36.71	100	257	P	H
	*	7085	85.32	-	-	75.28	36.24	10.51	36.71	100	257	A	H
		7129.1	54.6	-33.6	88.2	44.34	36.42	10.54	36.7	100	257	P	H
		7235.88	42.53	-25.67	68.2	31.81	36.77	10.64	36.69	100	257	A	H
													H
													H
	*	7085	98.62	-	-	88.58	36.24	10.51	36.71	288	140	P	V
	*	7085	89.15	-	-	79.11	36.24	10.51	36.71	288	140	A	V
		7125.87	53.24	-34.96	88.2	43	36.4	10.54	36.7	288	140	P	V
		7125	42.68	-25.52	68.2	32.45	36.4	10.54	36.71	288	140	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 8 - 6875~7125MHz
WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI Ant. 3+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 227 7085MHz		14170	48.82	-39.38	88.2	47.27	40.27	15.24	53.96	-	-	P	H
		21255	36.64	-37.36	74	55.96	38.3	-2.82	54.8	-	-	P	H
													H
													H
													H
													H
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													H
													H
													H
													H
		14170	48.24	-39.96	88.2	46.69	40.27	15.24	53.96	-	-	P	V
		21255	37.45	-36.55	74	56.77	38.3	-2.82	54.8	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												



Band 8 - 6875~7125MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

WIFI Ant. 3+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE80 Full CH 215 7025MHz	*	7025	93.8	-	-	84.11	35.95	10.46	36.72	100	240	P	H
	*	7025	84.44	-	-	74.75	35.95	10.46	36.72	100	240	A	H
		7206.66	51.63	-36.57	88.2	41.01	36.71	10.61	36.7	100	240	P	H
		7238.79	42.36	-25.84	68.2	31.62	36.78	10.65	36.69	100	240	A	H
													H
													H
	*	7025	96.59	-	-	86.9	35.95	10.46	36.72	305	140	P	V
	*	7025	87.63	-	-	77.94	35.95	10.46	36.72	305	140	A	V
		7221.51	51.59	-36.61	88.2	40.91	36.74	10.63	36.69	305	140	P	V
		7240.41	42.57	-25.63	68.2	31.83	36.78	10.65	36.69	305	140	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 8 - 6875~7125MHz

WIFI 802.11ax HE160 Full (Band Edge @ 3m)

WIFI Ant. 3+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE160 Full CH 207 6985MHz	*	6985	93.74	-	-	84.27	35.74	10.44	36.71	100	263	P	H
	*	6985	84.94	-	-	75.47	35.74	10.44	36.71	100	263	A	H
		7130.2	63.21	-24.99	88.2	52.95	36.42	10.54	36.7	100	263	P	H
		7130.9	49.19	-19.01	68.2	38.93	36.42	10.54	36.7	100	263	A	H
													H
													H
	*	6985	95.29	-	-	85.82	35.74	10.44	36.71	313	126	P	V
	*	6985	86.55	-	-	77.08	35.74	10.44	36.71	313	126	A	V
		7130.9	60.64	-27.56	88.2	50.38	36.42	10.54	36.7	313	126	P	V
		7130.55	48.34	-19.86	68.2	38.08	36.42	10.54	36.7	313	126	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 8 - 6875~7125MHz
WIFI 802.11ax HE160 Full (Harmonic @ 3m)

WIFI Ant. 3+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE160 Full CH 207 6985MHz		13970	48.83	-39.37	88.2	47.6	40.07	15.17	54.01	-	-	P	H
		20955	36.23	-37.77	74	56.04	38.2	-3.2	54.81	-	-	P	H
													H
													H
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													H
													H
													H
		13970	48.07	-40.13	88.2	46.84	40.07	15.17	54.01	-	-	P	V
		20955	36.92	-37.08	74	56.73	38.2	-3.2	54.81	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												

Emission below 1GHz

WIFI 802.11ax HE160 Full (LF @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
3+4		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE160 Full LF		48.43	24.8	-15.2	40	41.44	15.05	0.88	32.57	-	-	P	H
		86.26	22.57	-17.43	40	39.9	14	1.14	32.47	-	-	P	H
		160.95	28.76	-14.74	43.5	43.31	16.32	1.58	32.45	-	-	P	H
		186.17	28.68	-14.82	43.5	44.74	14.64	1.79	32.49	-	-	P	H
		312.27	27.73	-18.27	46	38.78	19.22	2.14	32.41	-	-	P	H
		510.15	32.01	-13.99	46	37.86	23.91	2.71	32.47	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
		42.61	33.47	-6.53	40	47.16	18.05	0.81	32.55	-	-	P	V
		160.95	31.18	-12.32	43.5	45.73	16.32	1.58	32.45	-	-	P	V
		184.23	27.5	-16	43.5	43.52	14.68	1.78	32.48	-	-	P	V
		220.12	24.49	-21.51	46	40.02	15.09	1.86	32.48	-	-	P	V
		510.15	34.25	-11.75	46	40.1	23.91	2.71	32.47	-	-	P	V
		863.23	30.07	-15.93	46	29.39	28.91	3.61	31.84	-	-	P	V
													V
													V
													V
													V
													V
												V	
Remark	1. No other spurious found.												
	2. All results are PASS against limit line.												
	3. The emission position marked as “-” means no suspected emission found and emission level has at least 6dB margin against limit or emission is noise floor only.												



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is Margin line.
P/A	Peak or Average
H/V	Horizontal or Vertical



A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
3+4		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a		5925	55.45	-32.75	88.2	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
5955MHz		5925	43.54	-24.66	68.2	42.6	32.22	4.58	35.86	103	308	A	H

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Margin(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 5925MHz:

1. Level(dBμV/m)
 = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
 = 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)
 = 55.45 (dBμV/m)
2. Margin(dB)
 = Level(dBμV/m) – Limit Line(dBμV/m)
 = 55.45(dBμV/m) – 74(dBμV/m)
 = -32.75(dB)

For Average Limit @ 5925MHz:

1. Level(dBμV/m)
 = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
 = 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)
 = 43.54 (dBμV/m)
2. Margin(dB) = Level(dBμV/m) – Limit Line(dBμV/m)
 = 43.54(dBμV/m) – 54(dBμV/m)
 = -24.66(dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.



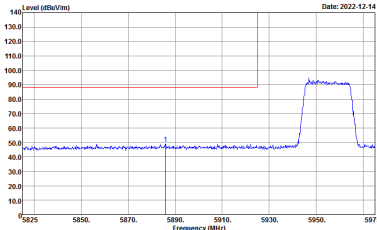
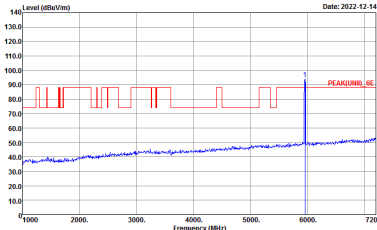
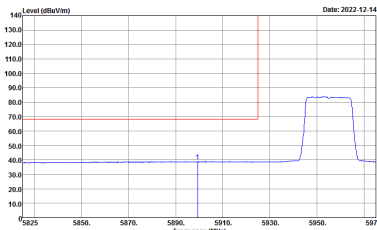
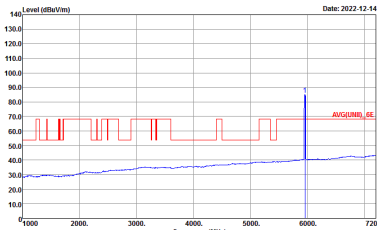
Appendix D. Radiated Spurious Emission Plots

Test Engineer :	Bigshow Wang, Quentin Liu and Eric Xiao	Temperature :	21~26°C
		Relative Humidity :	45~60%

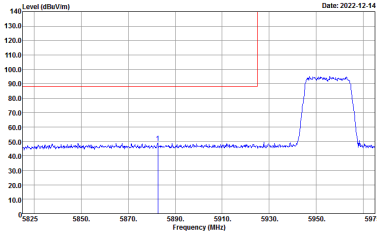
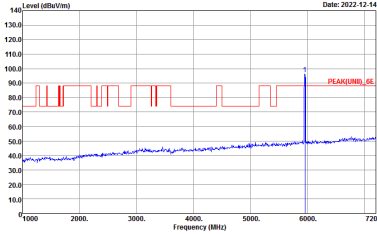
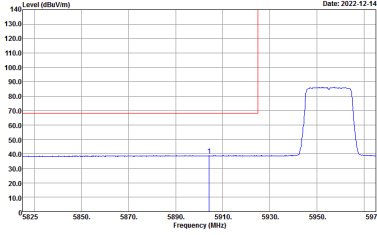
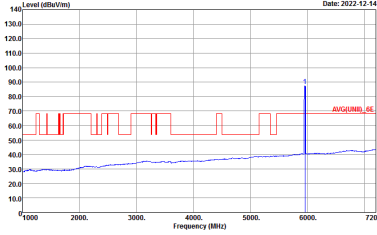


<Open Mode>

Band 5 - 5925~6425MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

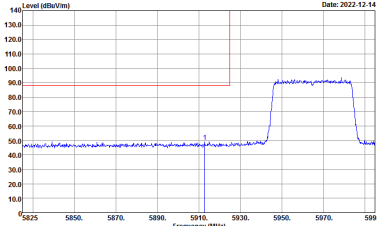
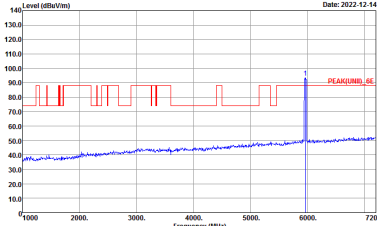
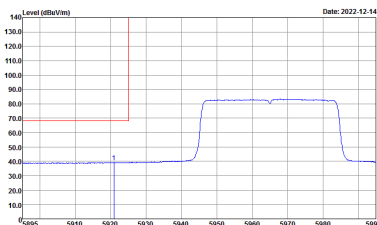
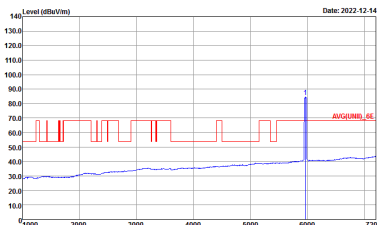
WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH01 5955MHz	
3+4	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(UNIT)_6E 3m 91200_02294_220623 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT)_6E 3m 91200_02294_220623 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_BE(UNIT)_6E 3m 91200_02294_220623 HORIZONTAL : RBW:1000.000kHz VBW:1000kHz SWT:Auto	 Site : 03CH15-HY Condition : AVG(UNIT)_6E 3m 91200_02294_220623 HORIZONTAL : RBW:1000.000kHz VBW:1000kHz SWT:Auto



WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH01 5955MHz	
3+4	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(UNIT)_6E 3m 91200_02294_220623 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT)_6E 3m 91200_02294_220623 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_BE(UNIT)_6E 3m 91200_02294_220623 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH15-HY Condition : AVG(UNIT)_6E 3m 91200_02294_220623 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto



Band 5 5925~6425MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 5965MHz	
3+4	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(UNIT1)_6E 3m 91200_02294_220623 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT1)_6E 3m 91200_02294_220623 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_BE(UNIT1)_6E 3m 91200_02294_220623 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH15-HY Condition : AVG(UNIT1)_6E 3m 91200_02294_220623 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto



WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 5965MHz	
3+4	Vertical	Fundamental
Peak	Site : 03CH15-HY Condition : PEAK_BE(UNIT)_6E 3m 91200_02294_220623 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH15-HY Condition : PEAK(UNIT)_6E 3m 91200_02294_220623 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH15-HY Condition : AVG_BE(UNIT)_6E 3m 91200_02294_220623 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto	Site : 03CH15-HY Condition : AVG(UNIT)_6E 3m 91200_02294_220623 VERTICAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto