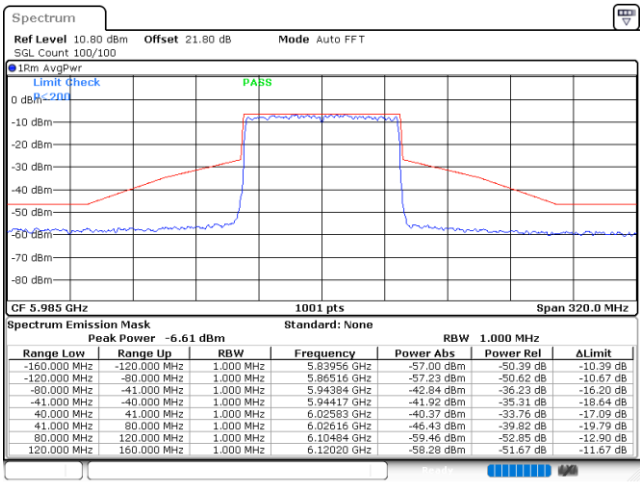
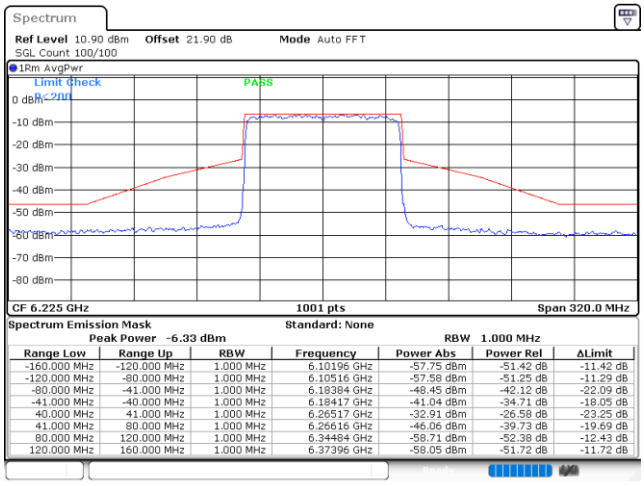
EUT Mode :	802.11ax HE80 Full RU

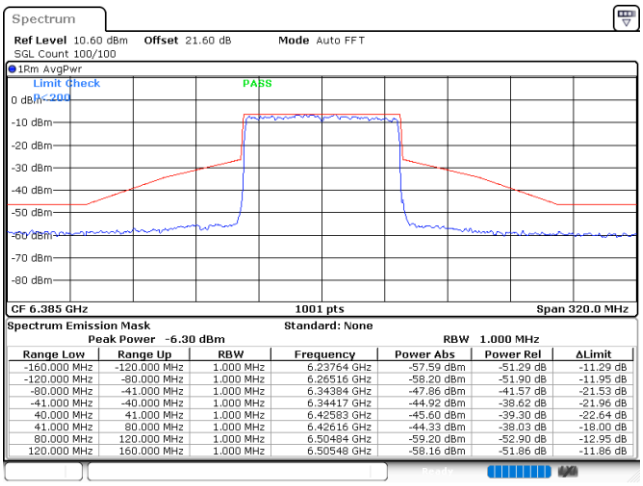
Plot on Channel 5985MHz



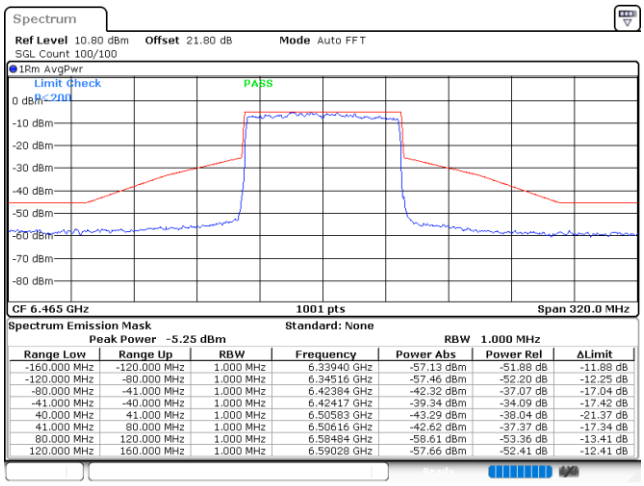
Plot on Channel 6225MHz



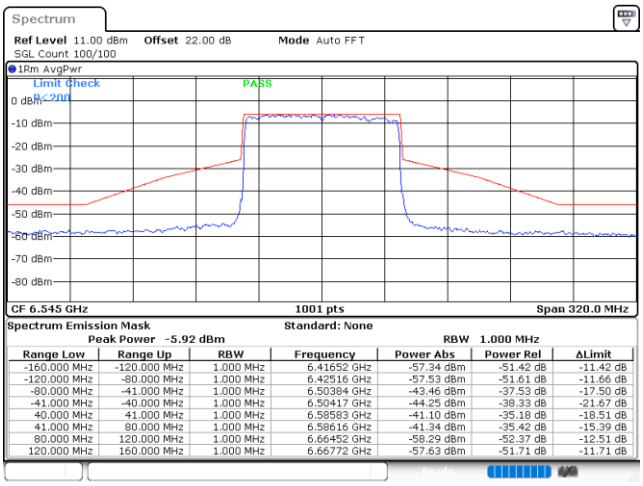
Plot on Channel 6385MHz



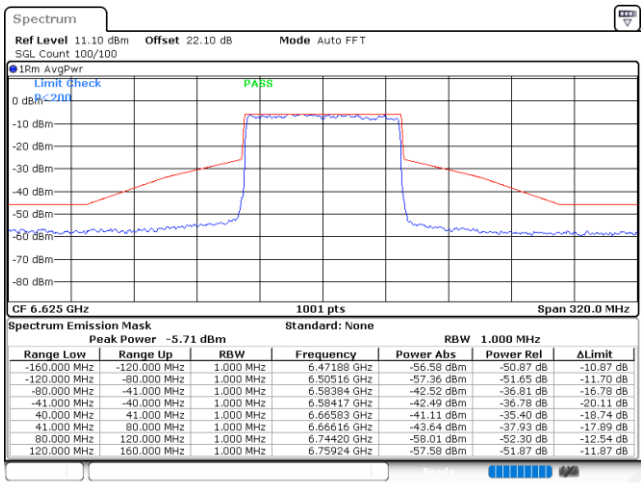
Plot on Channel 6465MHz



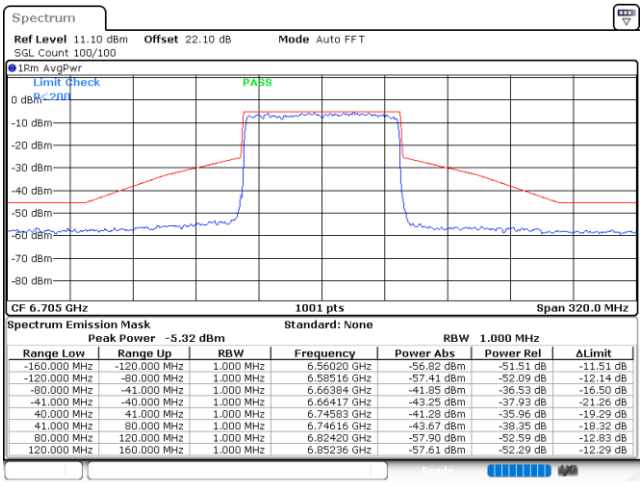
Plot on Channel 6545MHz



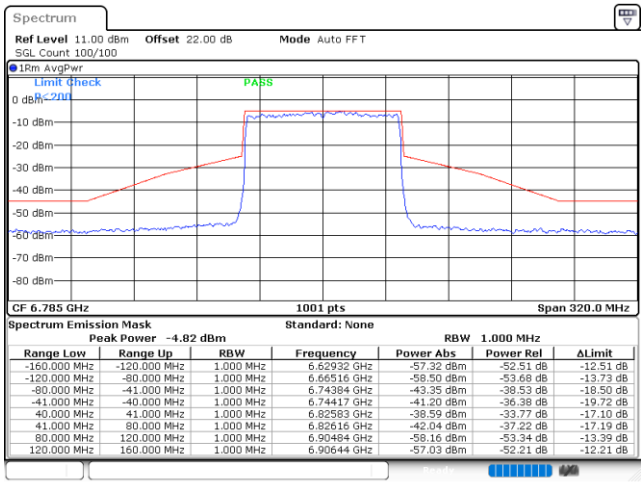
Plot on Channel 6625MHz



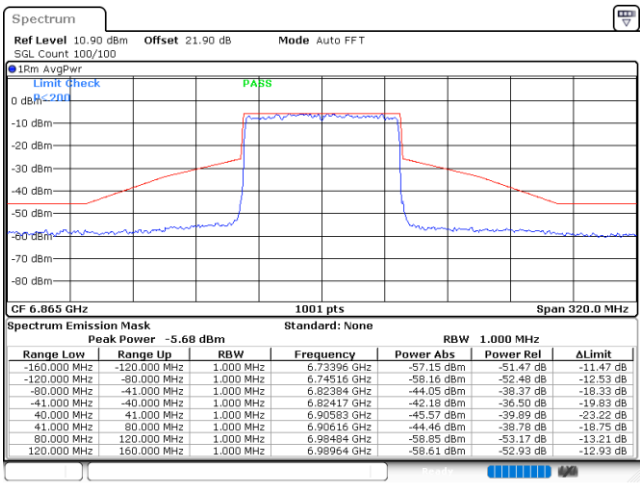
Plot on Channel 6705MHz



Plot on Channel 6785MHz



Plot on Channel 6865MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-160.000 MHz	-120.000 MHz	1.000 MHz	6.73396 GHz	-57.15 dBm	-51.47 dB	-11.47 dB
-120.000 MHz	-80.000 MHz	1.000 MHz	6.74516 GHz	-58.16 dBm	-52.48 dB	-12.53 dB
-80.000 MHz	-41.000 MHz	1.000 MHz	6.82384 GHz	-44.05 dBm	-38.37 dB	-18.33 dB
-41.000 MHz	-40.000 MHz	1.000 MHz	6.82417 GHz	-42.18 dBm	-36.50 dB	-19.83 dB
40.000 MHz	41.000 MHz	1.000 MHz	6.90583 GHz	-45.57 dBm	-39.89 dB	-23.22 dB
41.000 MHz	80.000 MHz	1.000 MHz	6.90616 GHz	-44.46 dBm	-38.78 dB	-18.75 dB
80.000 MHz	120.000 MHz	1.000 MHz	6.98484 GHz	-58.85 dBm	-53.17 dB	-13.21 dB
120.000 MHz	160.000 MHz	1.000 MHz	6.98964 GHz	-58.61 dBm	-52.93 dB	-12.93 dB

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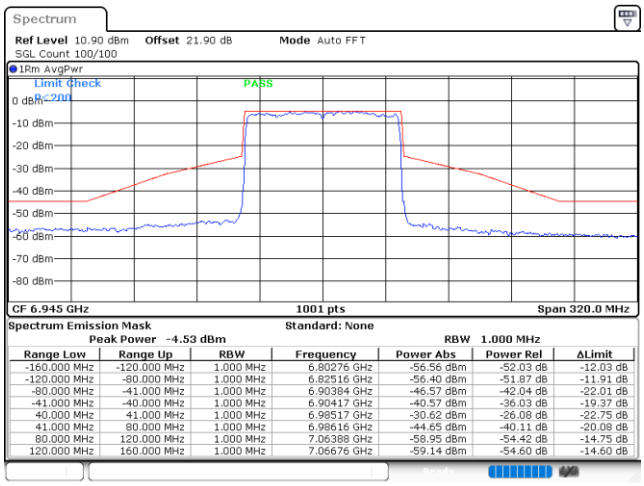
Plot on Channel 6945MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-160.000 MHz	-120.000 MHz	1.000 MHz	6.80276 GHz	-56.56 dBm	-52.03 dB	-12.03 dB
-120.000 MHz	-80.000 MHz	1.000 MHz	6.82516 GHz	-56.40 dBm	-51.87 dB	-11.91 dB
-80.000 MHz	-41.000 MHz	1.000 MHz	6.90384 GHz	-46.57 dBm	-42.04 dB	-22.01 dB
-41.000 MHz	-40.000 MHz	1.000 MHz	6.90417 GHz	-40.57 dBm	-36.03 dB	-19.37 dB
40.000 MHz	41.000 MHz	1.000 MHz	6.98517 GHz	-30.62 dBm	-26.08 dB	-22.75 dB
41.000 MHz	80.000 MHz	1.000 MHz	6.98616 GHz	-44.65 dBm	-40.11 dB	-20.08 dB
80.000 MHz	120.000 MHz	1.000 MHz	7.06388 GHz	-58.95 dBm	-54.42 dB	-14.75 dB
120.000 MHz	160.000 MHz	1.000 MHz	7.06676 GHz	-59.14 dBm	-54.60 dB	-14.60 dB

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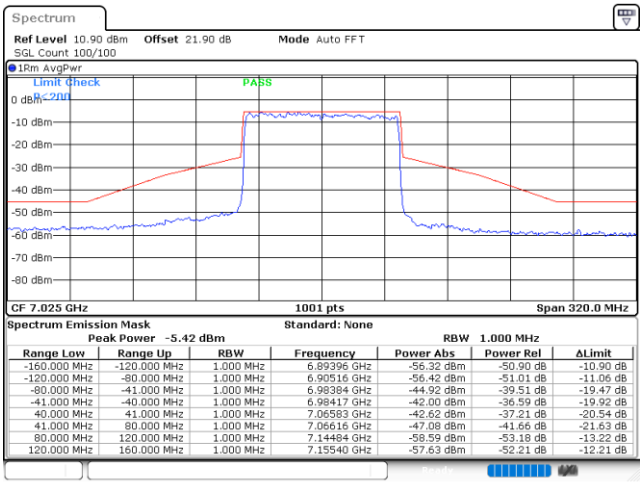
Plot on Channel 7025MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-160.000 MHz	-120.000 MHz	1.000 MHz	6.89396 GHz	-56.32 dBm	-50.90 dB	-10.90 dB
-120.000 MHz	-80.000 MHz	1.000 MHz	6.90516 GHz	-56.42 dBm	-51.01 dB	-11.06 dB
-80.000 MHz	-41.000 MHz	1.000 MHz	6.98384 GHz	-44.92 dBm	-39.51 dB	-19.47 dB
-41.000 MHz	-40.000 MHz	1.000 MHz	6.98417 GHz	-42.00 dBm	-36.59 dB	-19.92 dB
40.000 MHz	41.000 MHz	1.000 MHz	7.06583 GHz	-42.62 dBm	-37.21 dB	-20.54 dB
41.000 MHz	80.000 MHz	1.000 MHz	7.06616 GHz	-47.08 dBm	-41.66 dB	-21.63 dB
80.000 MHz	120.000 MHz	1.000 MHz	7.14484 GHz	-58.59 dBm	-53.18 dB	-13.22 dB
120.000 MHz	160.000 MHz	1.000 MHz	7.15540 GHz	-57.63 dBm	-52.21 dB	-12.21 dB

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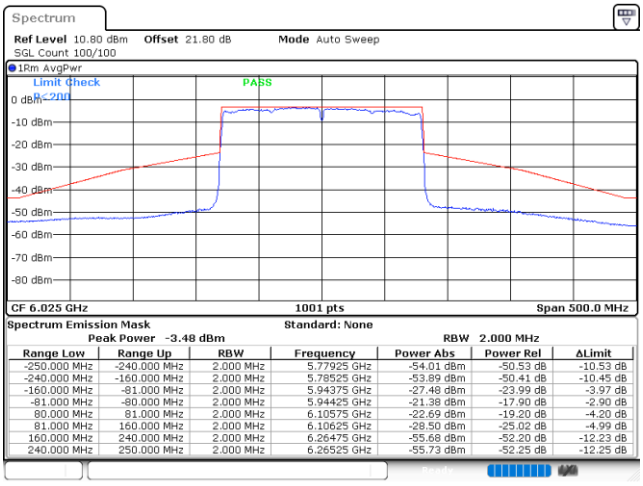
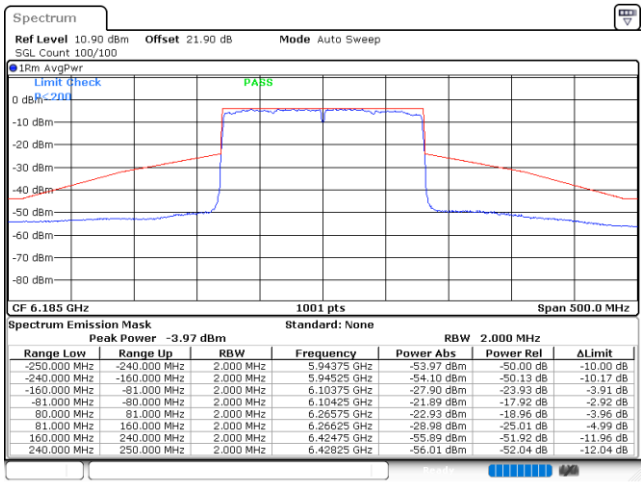
EUT Mode :	802.11ax HE160 Full RU

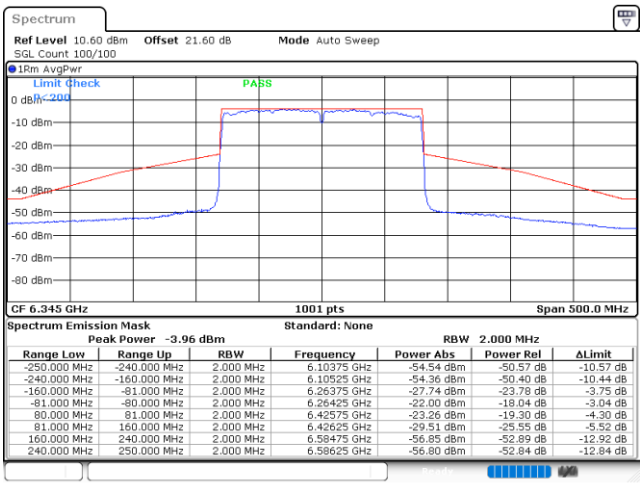
Plot on Channel 6025MHz



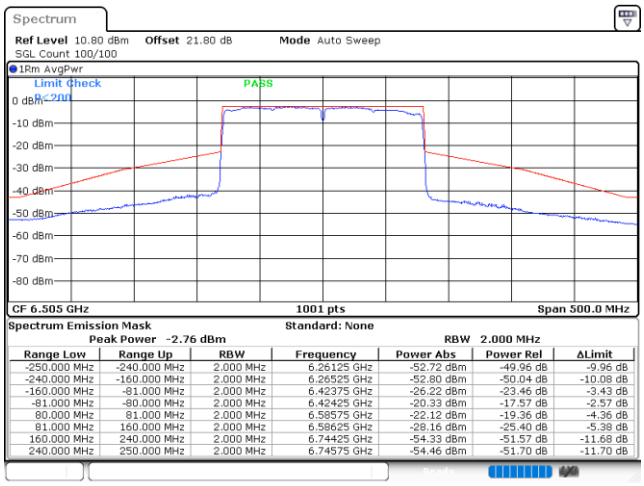
Plot on Channel 6185MHz



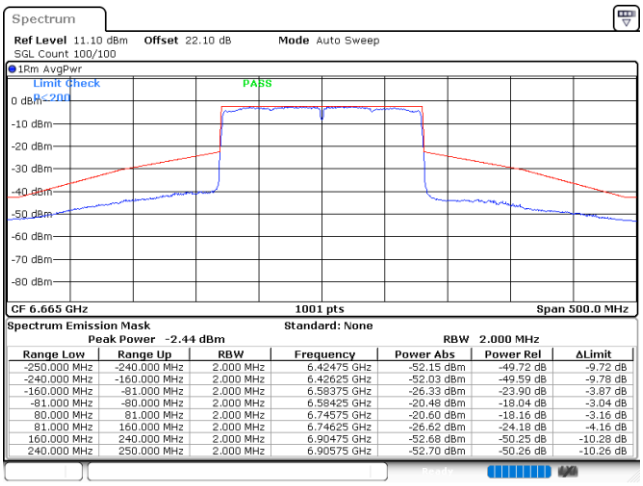
Plot on Channel 6345MHz



Plot on Channel 6505MHz



Plot on Channel 6665MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-250.000 MHz	-240.000 MHz	2.000 MHz	6.42475 GHz	-52.15 dBm	-49.72 dB	-9.72 dB
-240.000 MHz	-160.000 MHz	2.000 MHz	6.42625 GHz	-52.03 dBm	-49.59 dB	-9.78 dB
-160.000 MHz	-81.000 MHz	2.000 MHz	6.58375 GHz	-26.33 dBm	-23.90 dB	-3.87 dB
-81.000 MHz	-80.000 MHz	2.000 MHz	6.58425 GHz	-20.48 dBm	-18.04 dB	-3.04 dB
80.000 MHz	81.000 MHz	2.000 MHz	6.74575 GHz	-20.60 dBm	-18.16 dB	-3.16 dB
81.000 MHz	160.000 MHz	2.000 MHz	6.74625 GHz	-26.62 dBm	-24.18 dB	-4.16 dB
160.000 MHz	240.000 MHz	2.000 MHz	6.90475 GHz	-52.68 dBm	-50.25 dB	-10.28 dB
240.000 MHz	250.000 MHz	2.000 MHz	6.90575 GHz	-52.70 dBm	-50.26 dB	-10.26 dB

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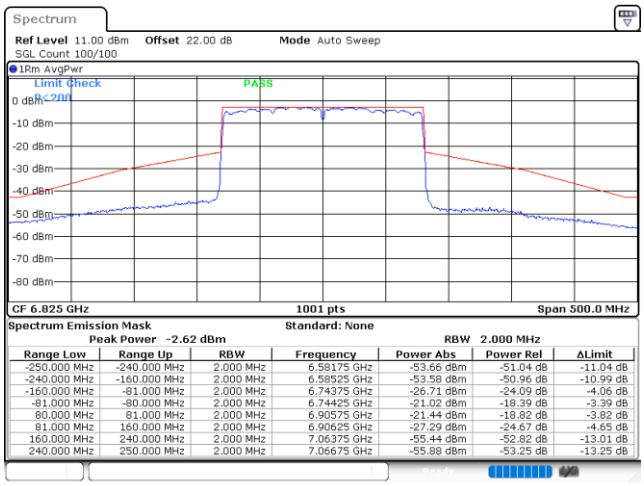
Plot on Channel 6825MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-250.000 MHz	-240.000 MHz	2.000 MHz	6.58175 GHz	-53.66 dBm	-51.04 dB	-11.04 dB
-240.000 MHz	-160.000 MHz	2.000 MHz	6.58525 GHz	-53.58 dBm	-50.96 dB	-10.99 dB
-160.000 MHz	-81.000 MHz	2.000 MHz	6.74375 GHz	-26.71 dBm	-24.09 dB	-4.06 dB
-81.000 MHz	-80.000 MHz	2.000 MHz	6.74425 GHz	-21.02 dBm	-18.39 dB	-3.39 dB
80.000 MHz	81.000 MHz	2.000 MHz	6.90575 GHz	-21.44 dBm	-18.82 dB	-3.82 dB
81.000 MHz	160.000 MHz	2.000 MHz	6.90625 GHz	-27.29 dBm	-24.67 dB	-4.65 dB
160.000 MHz	240.000 MHz	2.000 MHz	7.06375 GHz	-55.44 dBm	-52.82 dB	-13.01 dB
240.000 MHz	250.000 MHz	2.000 MHz	7.06675 GHz	-55.88 dBm	-53.25 dB	-13.25 dB

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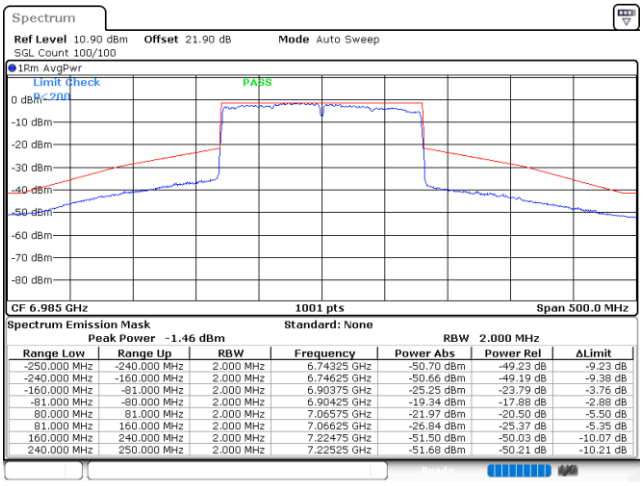
Plot on Channel 6985MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-250.000 MHz	-240.000 MHz	2.000 MHz	6.74325 GHz	-50.70 dBm	-49.23 dB	-9.23 dB
-240.000 MHz	-160.000 MHz	2.000 MHz	6.74625 GHz	-50.66 dBm	-49.19 dB	-9.38 dB
-160.000 MHz	-81.000 MHz	2.000 MHz	6.90375 GHz	-25.25 dBm	-23.79 dB	-3.76 dB
-81.000 MHz	-80.000 MHz	2.000 MHz	6.90425 GHz	-19.34 dBm	-17.88 dB	-2.88 dB
80.000 MHz	81.000 MHz	2.000 MHz	7.06575 GHz	-21.97 dBm	-20.50 dB	-5.50 dB
81.000 MHz	160.000 MHz	2.000 MHz	7.06625 GHz	-26.84 dBm	-25.37 dB	-5.35 dB
160.000 MHz	240.000 MHz	2.000 MHz	7.22475 GHz	-51.50 dBm	-50.03 dB	-10.07 dB
240.000 MHz	250.000 MHz	2.000 MHz	7.22525 GHz	-51.68 dBm	-50.21 dB	-10.21 dB

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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:

$BWEUT$: Transmission bandwidth of EUT signal

$BWInc$: Transmission bandwidth of the simulated incumbent signal (10 MHz wide AWGN signal)

$fc1$: Center frequency of EUT transmission

$fc2$: Center frequency of simulated incumbent signal

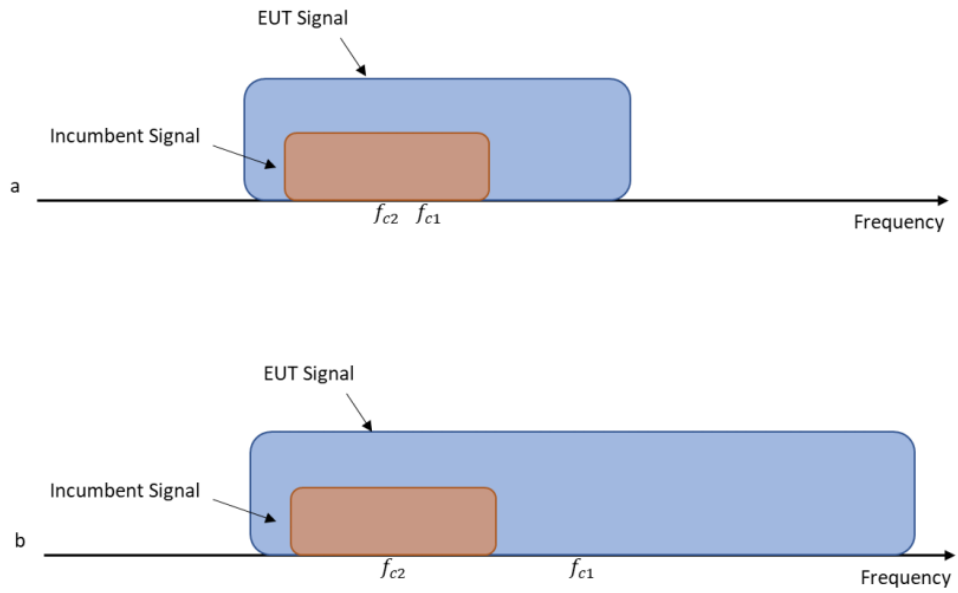


Figure 1. Two possible scenarios where a) center frequency of EUT transmission falls within incumbent's bandwidth, or b) outside of it

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

Conducted Setup

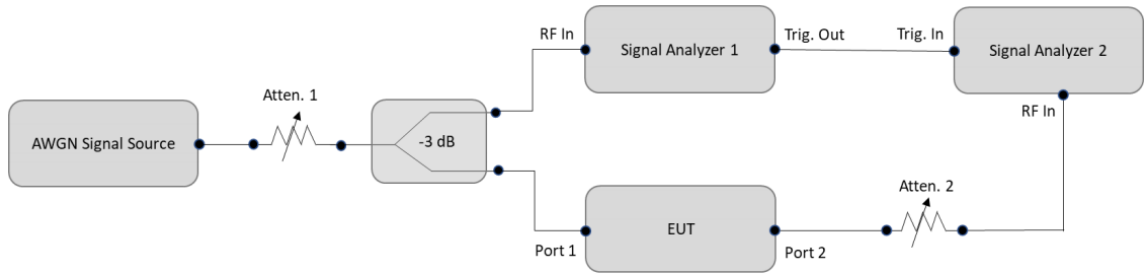


Figure 2. Contention-based protocol test setup, conducted method Step-by-Step Procedure, Conducted Setup

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 Test Summary of Contention Based Protocol Test

Band	Channel Freq. (MHz)	Channel BW (MHz)	Incumbent freq. (MHz)	Measured Detection level (dBm)	Detection Rate (%)	Regulated Threshold level (dBm)	Margin (dB)
UNII Band 5	6135	20	6135	-66.77	100	-62.9	3.87
					Result : Stop Transmission		
				-67.77	< 90	-62.9	4.87
					Result : Start Transmission		
	6185	160	6110	-67.42	100	-62.9	4.52
					Result : Stop Transmission		
				-68.42	< 90	-62.9	5.52
					Result : Start Transmission		
			6185	-64.03	100	-62.9	1.13
					Result : Stop Transmission		
				-65.03	< 90	-62.9	2.13
					Result : Start Transmission		
			6260	-64.05	100	-62.9	1.15
					Result : Stop Transmission		
				-65.05	< 90	-62.9	2.15
					Result : Start Transmission		

Note: Threshold Level (TL) = -62dBm + minimum antenna gain

Band	Channel Freq. (MHz)	Channel BW (MHz)	Incumbent freq. (MHz)	Measured Detection level (dBm)	Detection Rate (%)	Regulated Threshold level (dBm)	Margin (dB)
UNII Band 6	6455	20	6455	-69.12	100	-65	4.12
					Result : Stop Transmission		
				-70.12	< 90	-65	5.12
					Result : Start Transmission		
	6505	160	6430	-68.59	100	-65	3.59
					Result : Stop Transmission		
				-69.59	< 90	-65	4.59
					Result : Start Transmission		
			6505	-68.97	100	-65	3.97
					Result : Stop Transmission		
				-69.97	< 90	-65	4.97
					Result : Start Transmission		
			6580	-67.71	100	-65	2.71
					Result : Stop Transmission		
				-68.71	< 90	-65	3.71
					Result : Start Transmission		

Note: Threshold Level (TL) = -62dBm + minimum antenna gain

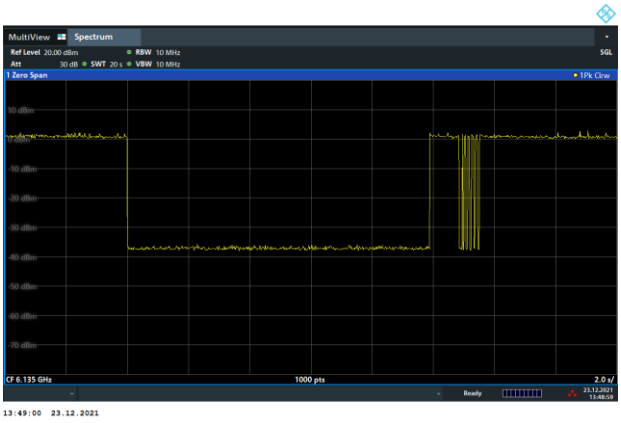
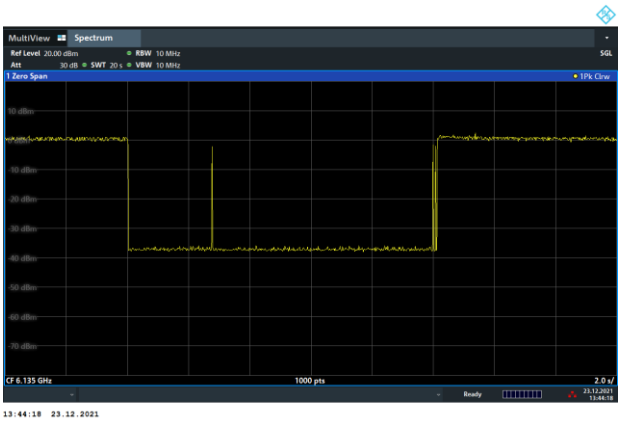
Band	Channel Freq. (MHz)	Channel BW (MHz)	Incumbent freq. (MHz)	Measured Detection level (dBm)	Detection Rate (%)	Regulated Threshold level (dBm)	Margin (dB)
UNII Band 7	6695	20	6695	-69.31	100	-65.6	3.71
					Result : Stop Transmission		
				-70.31	< 90	-65.6	4.71
					Result : Start Transmission		
	6665	160	6590	-68.83	100	-65.6	3.23
					Result : Stop Transmission		
				-69.83	< 90	-65.6	4.23
					Result : Start Transmission		
			6665	-67.72	100	-65.6	2.12
					Result : Stop Transmission		
				-68.72	< 90	-65.6	3.12
					Result : Start Transmission		
			6740	-66.82	100	-65.6	1.22
					Result : Stop Transmission		
				-67.82	< 90	-65.6	2.22
					Result : Start Transmission		

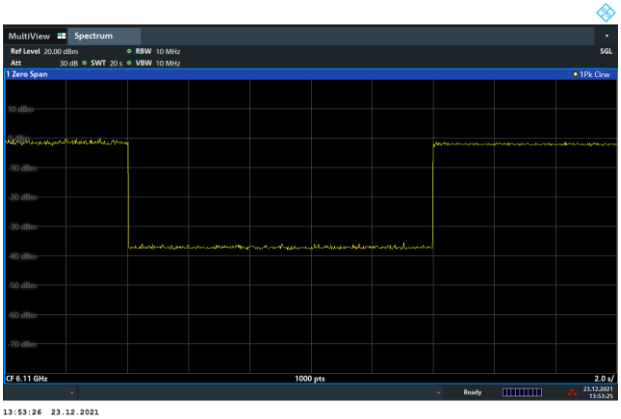
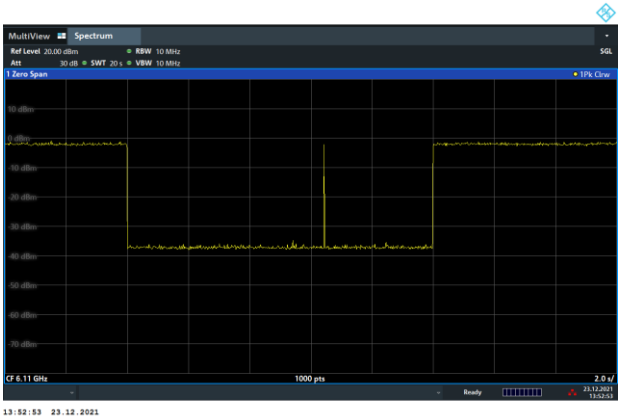
Note: Threshold Level (TL) = -62dBm + minimum antenna gain

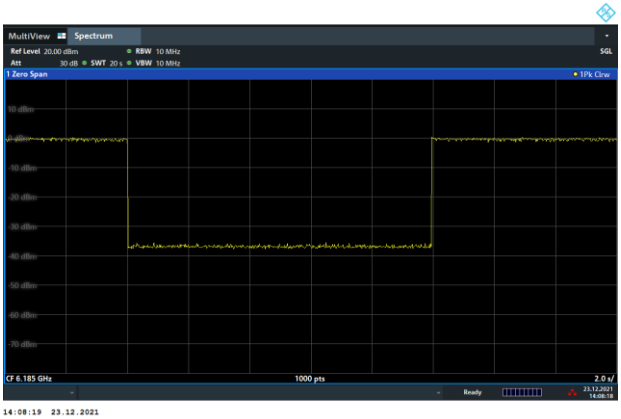
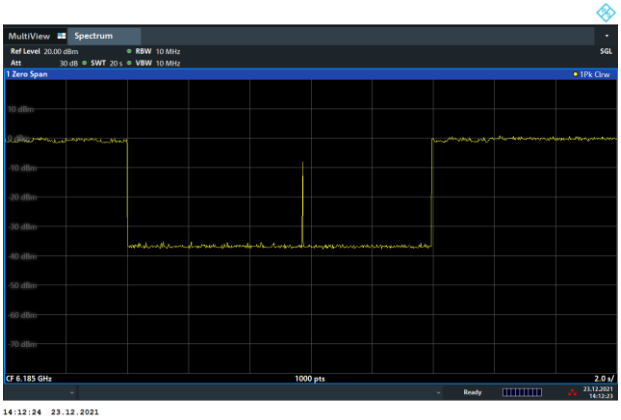
Band	Channel Freq. (MHz)	Channel BW (MHz)	Incumbent freq. (MHz)	Measured Detection level (dBm)	Detection Rate (%)	Regulated Threshold level (dBm)	Margin (dB)
UNII Band 8	7015	20	7015	-70.21	100	-67	3.21
					Result : Stop Transmission		
				-71.21	< 90	-67	4.21
					Result : Start Transmission		
	6985	160	6910	-70.48	100	-67	3.48
					Result : Stop Transmission		
				-71.48	< 90	-67	4.48
					Result : Start Transmission		
			6985	-70.12	100	-67	3.12
					Result : Stop Transmission		
				-71.12	< 90	-67	4.12
					Result : Start Transmission		
			7060	-68.42	100	-67	1.42
					Result : Stop Transmission		
				-69.42	< 90	-67	2.42
					Result : Start Transmission		

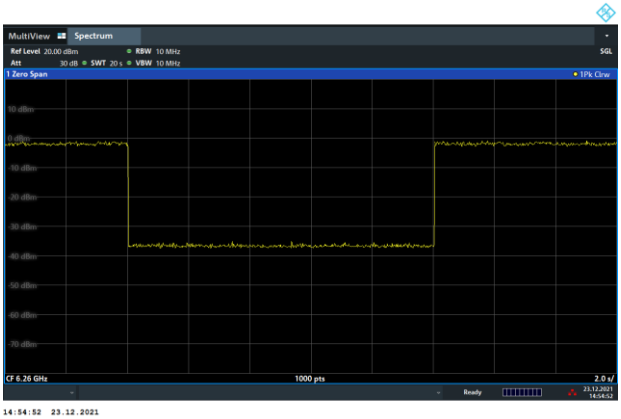
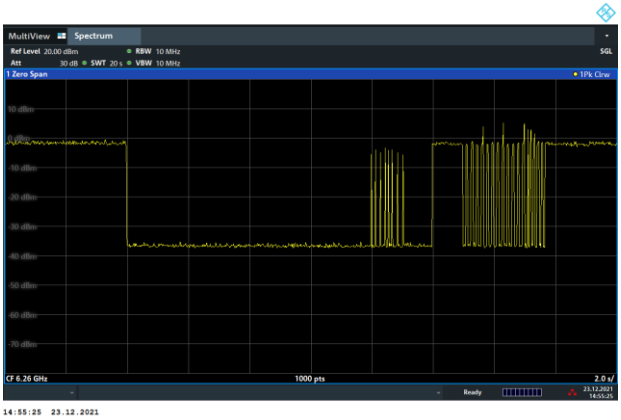
Note: Threshold Level (TL) = -62dBm + minimum antenna gain

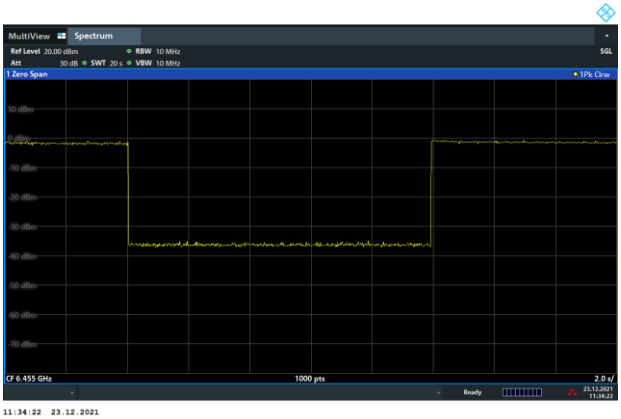
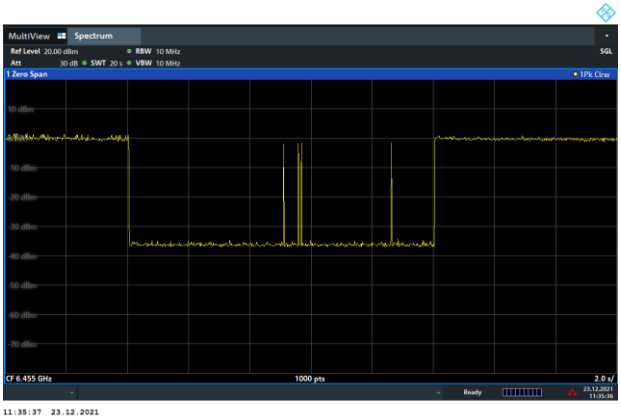
3.5.7 Test Plots of Contention Based Protocol Test

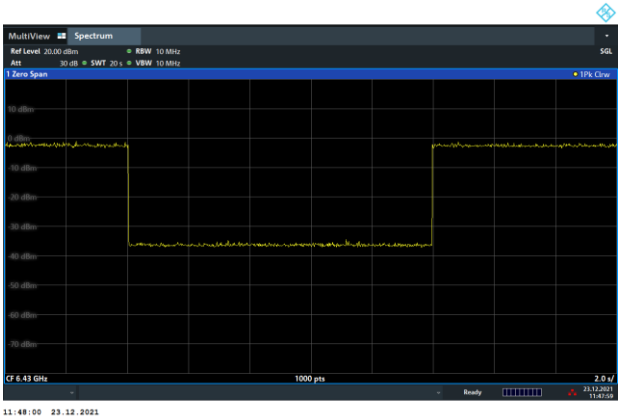
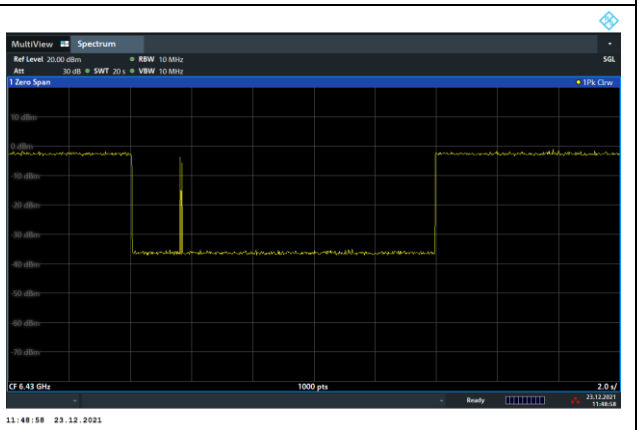
Contention Based Protocol Result Plots on U-NII 5 (AWGN Interference)	
802.11ax (HE20) / 6135MHz Threshold Level (TL) = -69.77dBm	802.11ax (HE20) / CH37 Test result is pass due to no transmission occur.
	
802.11ax (HE20) / 6135MHz Threshold Level (TL) = -70.77dBm	802.11ax (HE20) / CH37 Transmission occur when interferer is 1dB lower.
	

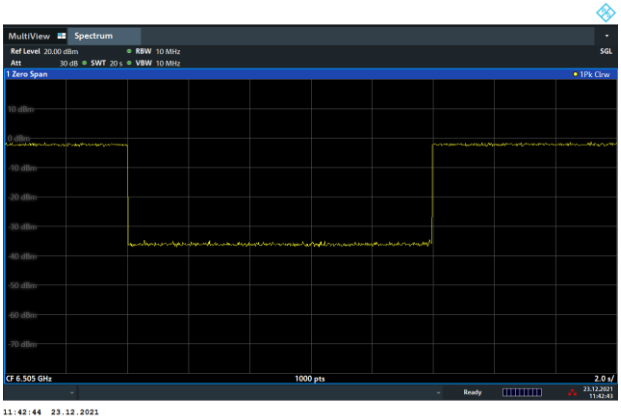
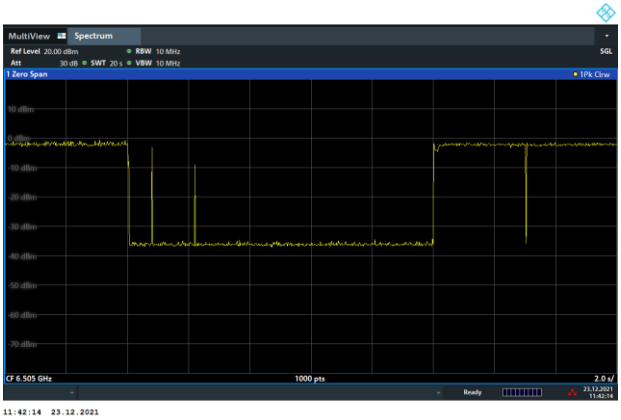
Contention Based Protocol Result Plots on U-NII 5 (AWGN Interference)	
802.11ax (HE160) / 6110MHz (Lower edge) Threshold Level (TL) = -67.42dBm	802.11ax (HE160) / 6110MHz (Lower edge) Test result is pass due to no transmission occur.
	
802.11ax (HE160) / 6110MHz (Lower edge) Threshold Level (TL) = -68.42dBm	802.11ax (HE160) / CH47 (Lower edge) Transmission occur when interferer is 1dB lower.
	

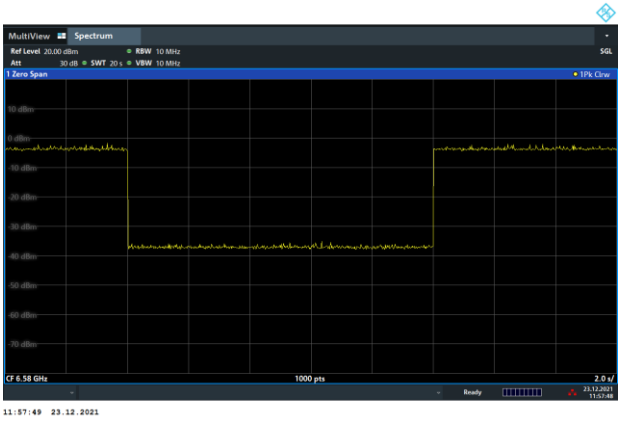
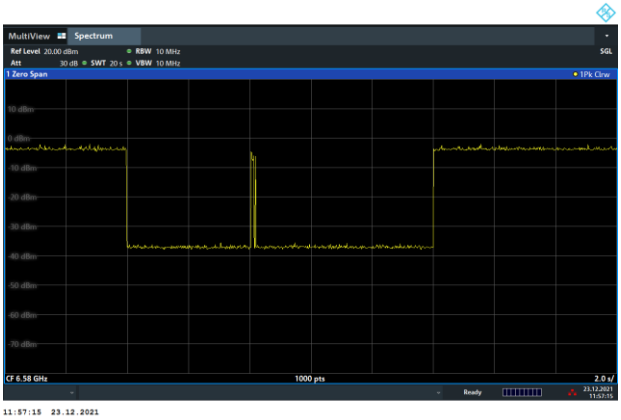
Contention Based Protocol Result Plots on U-NII 5 (AWGN Interference)	
802.11ax (HE160) / 6185MHz (Middle) Threshold Level (TL) = -64.03dBm	802.11ax (HE160) / CH47 (Middle) Test result is pass due to no transmission occur.
	
802.11ax (HE160) / 6185MHz (Middle) Threshold Level (TL) = -65.03dBm	802.11ax (HE160) / CH47 (Middle) Transmission occur when interferer is 1dB lower.
	

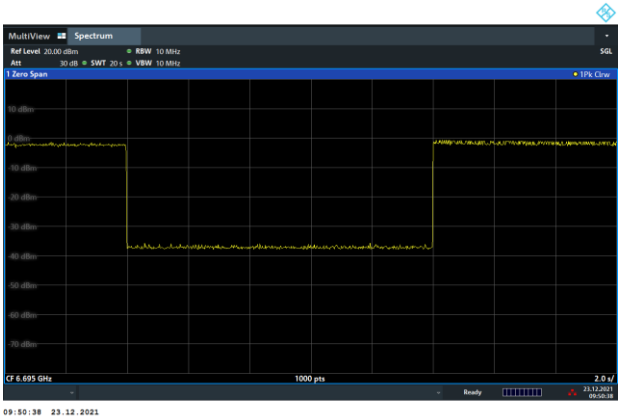
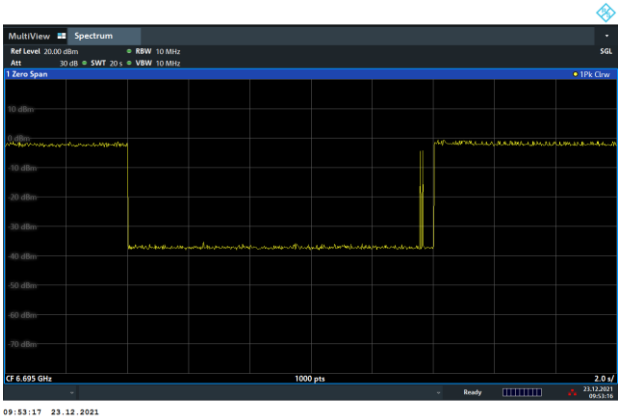
Contention Based Protocol Result Plots on U-NII 5 (AWGN Interference)	
802.11ax (HE160) / 6260MHz (Upper edge) Threshold Level (TL) = -64.05dBm	802.11ax (HE160) / CH47 (Upper edge) Test result is pass due to no transmission occur.
	
802.11ax (HE160) / 6260MHz (Upper edge) Threshold Level (TL) = -65.05dBm	802.11ax (HE160) / CH47 (Upper edge) Transmission occur when interferer is 1dB lower.
	

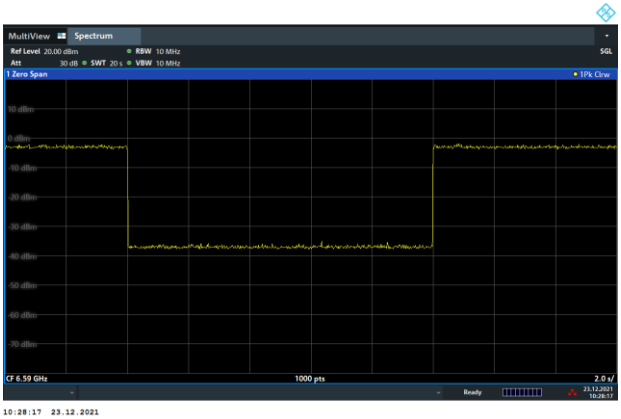
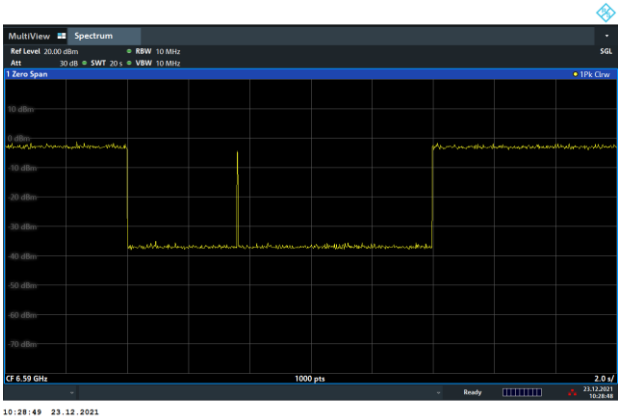
Contention Based Protocol Result Plots on U-NII 6 (AWGN Interference)	
802.11ax (HE20) / 6455MHz Threshold Level (TL) = -69.12dBm	802.11ax (HE20) / CH101 Test result is pass due to no transmission occur.
	
802.11ax (HE20) / 6455MHz Threshold Level (TL) = -70.12dBm	802.11ax (HE20) / CH101 Transmission occur when interferer is 1dB lower.
	

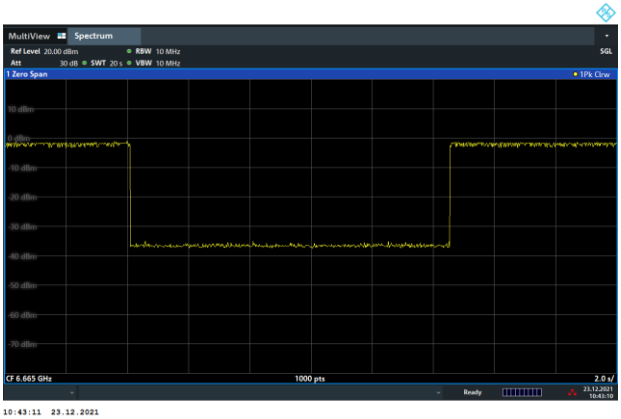
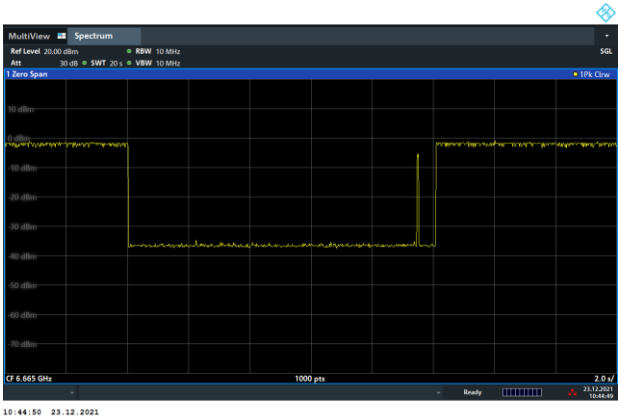
Contention Based Protocol Result Plots on U-NII 6 (AWGN Interference)	
802.11ax (HE160) / 6430MHz (Lower edge) Threshold Level (TL) = -68.59dBm	802.11ax (HE160) / CH111 (Lower edge) Test result is pass due to no transmission occur.
	
802.11ax (HE160) / 6430MHz (Lower edge) Threshold Level (TL) = -69.59dBm	802.11ax (HE160) / CH111 (Lower edge) Transmission occur when interferer is 1dB lower.
	

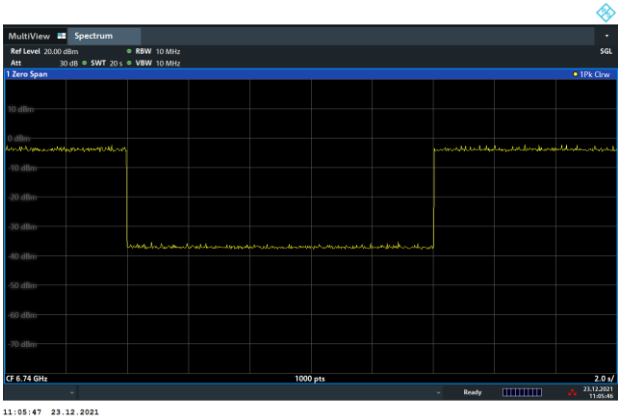
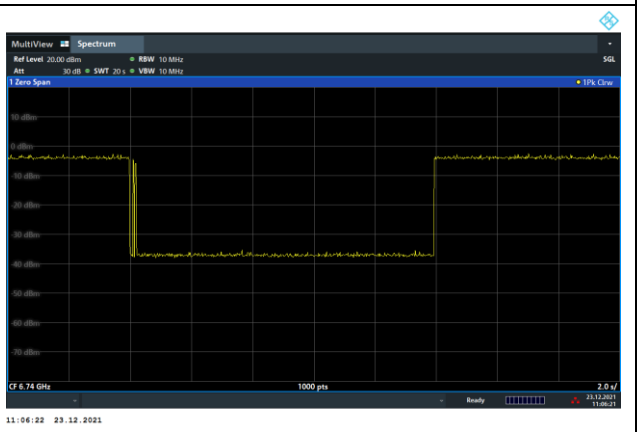
Contention Based Protocol Result Plots on U-NII 6 (AWGN Interference)	
802.11ax (HE160) / 6505MHz (Middle) Threshold Level (TL) = -68.97dBm	802.11ax (HE160) / CH111 (Middle) Test result is pass due to no transmission occur.
	
802.11ax (HE160) / 6505MHz (Middle) Threshold Level (TL) = -69.97dBm	802.11ax (HE160) / CH111 (Middle) Transmission occur when interferer is 1dB lower.
	

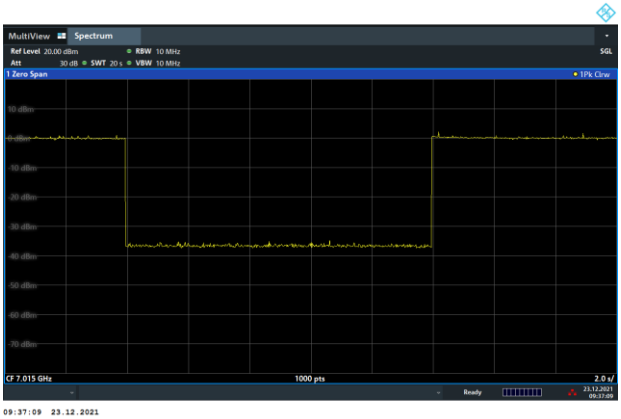
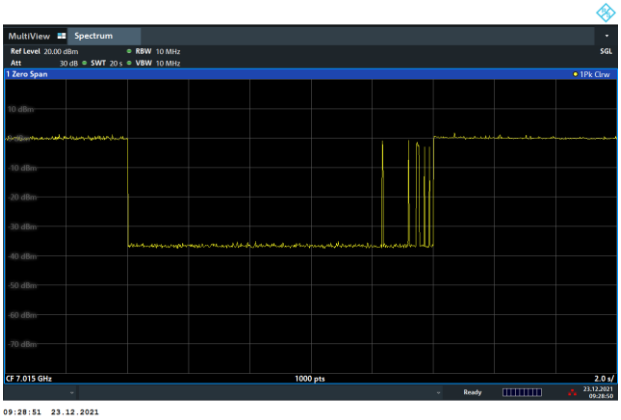
Contention Based Protocol Result Plots on U-NII 6 (AWGN Interference)	
802.11ax (HE160) / 6580MHz (Upper edge) Threshold Level (TL) = -67.71dBm	802.11ax (HE160) / CH111 (Upper edge) Test result is pass due to no transmission occur.
	
802.11ax (HE160) / 6580MHz (Upper edge) Threshold Level (TL) = -68.71dBm	802.11ax (HE160) / CH111 (Upper edge) Transmission occur when interferer is 1dB lower.
	

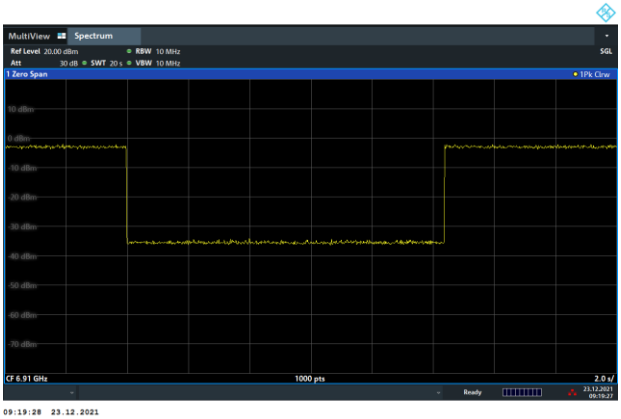
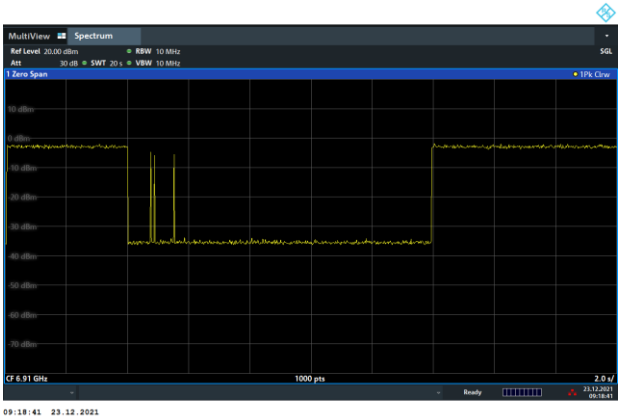
Contention Based Protocol Result Plots on U-NII 7 (AWGN Interference)	
802.11ax (HE20) / 6695MHz Threshold Level (TL) = -69.31dBm	802.11ax (HE20) / CH149 Test result is pass due to no transmission occur.
	
802.11ax (HE20) / 6695MHz Threshold Level (TL) = -70.31dBm	802.11ax (HE20) / CH149 Transmission occur when interferer is 1dB lower.
	

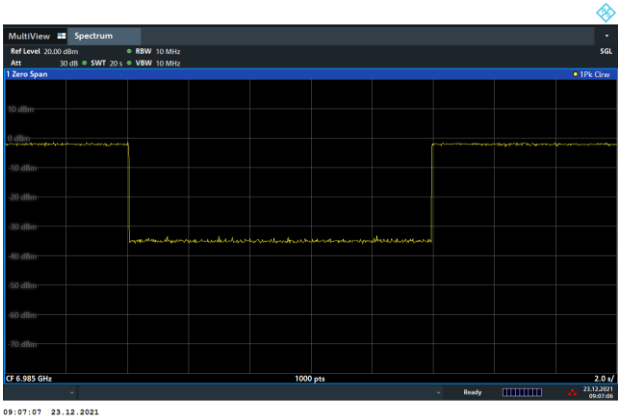
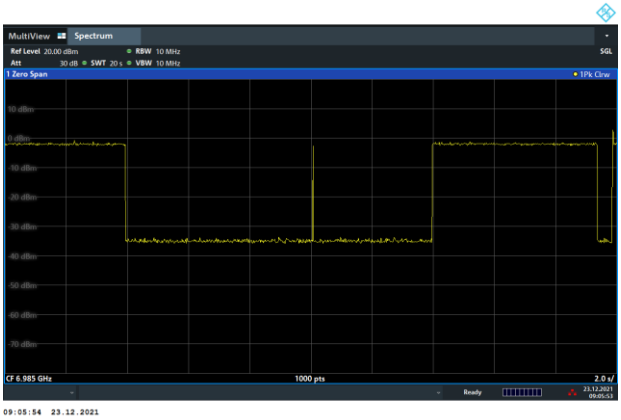
Contention Based Protocol Result Plots on U-NII 7 (AWGN Interference)	
802.11ax (HE160) / 6590MHz (Lower edge) Threshold Level (TL) = -68.83dBm	802.11ax (HE160) / CH143 (Lower edge) Test result is pass due to no transmission occur.
	
802.11ax (HE160) / 6590MHz (Lower edge) Threshold Level (TL) = -69.83dBm	802.11ax (HE160) / CH143 (Lower edge) Transmission occur when interferer is 1dB lower.
	

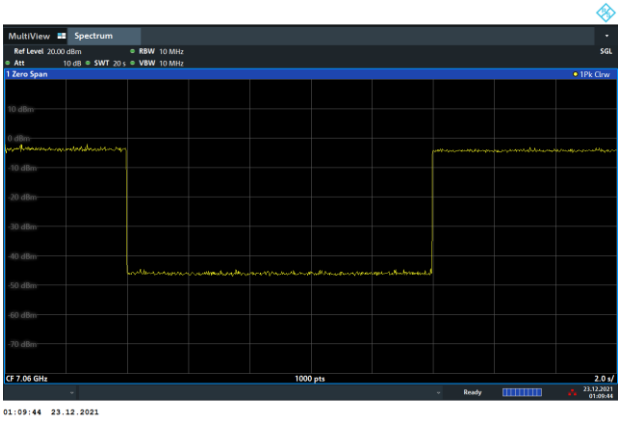
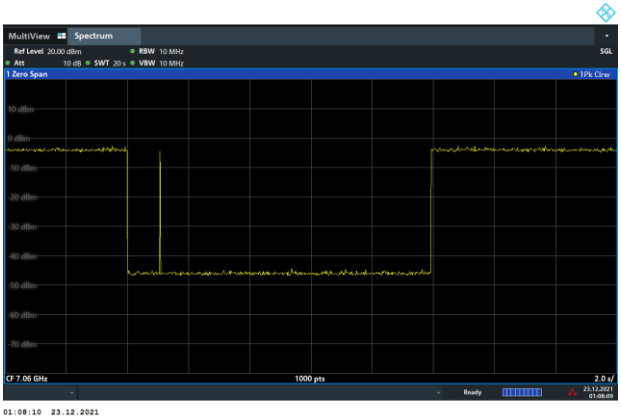
Contention Based Protocol Result Plots on U-NII 7 (AWGN Interference)	
802.11ax (HE160) / 6665MHz (Middle) Threshold Level (TL) = -67.72dBm	802.11ax (HE160) / CH143 (Middle) Test result is pass due to no transmission occur.
	
802.11ax (HE160) / 6665MHz (Middle) Threshold Level (TL) = -68.72dBm	802.11ax (HE160) / CH143 (Middle) Transmission occur when interferer is 1dB lower.
	

Contention Based Protocol Result Plots on U-NII 7 (AWGN Interference)	
802.11ax (HE160) / 6740MHz (Upper edge) Threshold Level (TL) = -66.82dBm	802.11ax (HE160) / CH143 (Upper edge) Test result is pass due to no transmission occur.
	
802.11ax (HE160) / 6740MHz (Upper edge) Threshold Level (TL) = -67.82dBm	802.11ax (HE160) / CH143 (Upper edge) Transmission occur when interferer is 1dB lower.
	

Contention Based Protocol Result Plots on U-NII 8 (AWGN Interference)	
802.11ax (HE20) / 7015MHz Threshold Level (TL) = -70.21dBm	802.11ax (HE20) / CH213 Test result is pass due to no transmission occur.
	
802.11ax (HE20) / 7015MHz Threshold Level (TL) = -71.21dBm	802.11ax (HE20) / CH213 Transmission occur when interferer is 1dB lower.
	

Contention Based Protocol Result Plots on U-NII 8 (AWGN Interference)	
802.11ax (HE160) / 6910MHz (Lower edge) Threshold Level (TL) = -70.48dBm	802.11ax (HE160) / CH207 (Lower edge) Test result is pass due to no transmission occur.
	
802.11ax (HE160) / 6910MHz (Lower edge) Threshold Level (TL) = -71.48dBm	802.11ax (HE160) / CH207 (Lower edge) Transmission occur when interferer is 1dB lower.
	

Contention Based Protocol Result Plots on U-NII 8 (AWGN Interference)	
802.11ax (HE160) / 6985MHz (Middle) Threshold Level (TL) = -70.12dBm	802.11ax (HE160) / CH207 (Middle) Test result is pass due to no transmission occur.
	
802.11ax (HE160) / 6985MHz (Middle) Threshold Level (TL) = -71.12dBm	802.11ax (HE160) / CH207 (Middle) Transmission occur when interferer is 1dB lower.
	

Contention Based Protocol Result Plots on U-NII 8 (AWGN Interference)	
802.11ax (HE160) / 7060MHz (Upper edge) Threshold Level (TL) = -68.42dBm	802.11ax (HE160) / CH207 (Upper edge) Test result is pass due to no transmission occur.
	
802.11ax (HE160) / 7060MHz (Upper edge) Threshold Level (TL) = -69.42dBm	802.11ax (HE160) / CH207 (Upper edge) Transmission occur when interferer is 1dB lower.
	

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.

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/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 ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

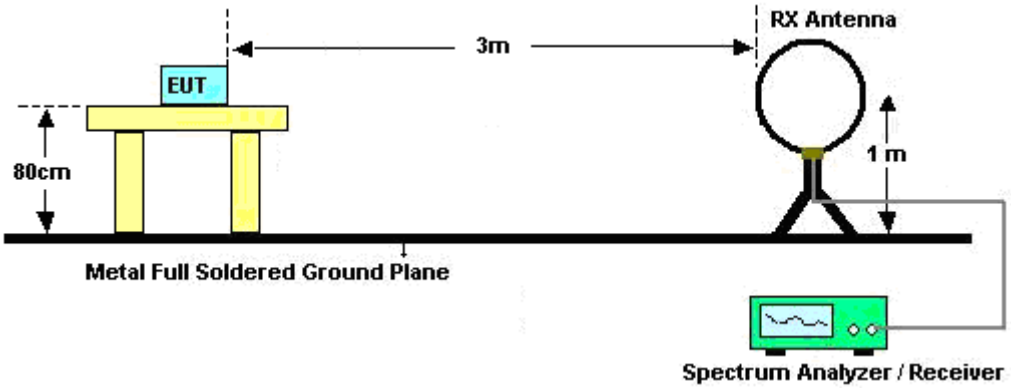
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

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.

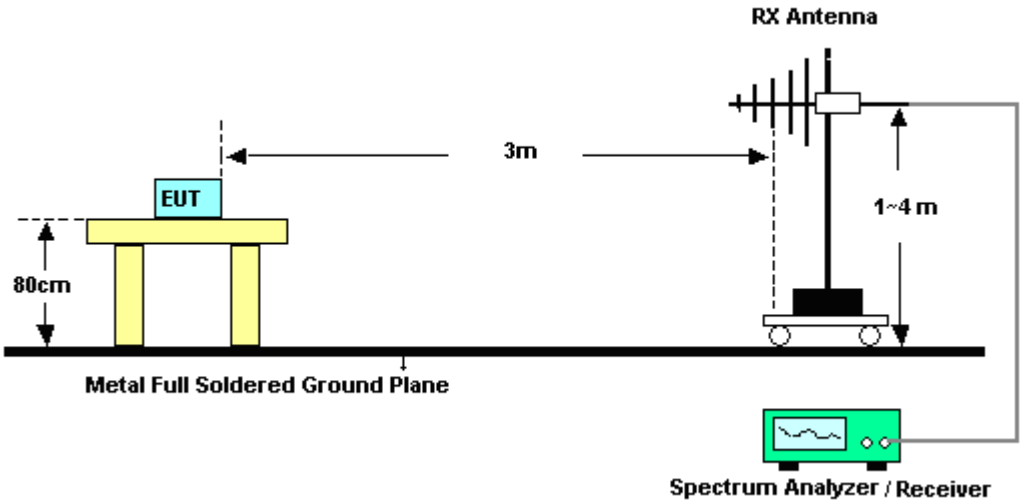
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit 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

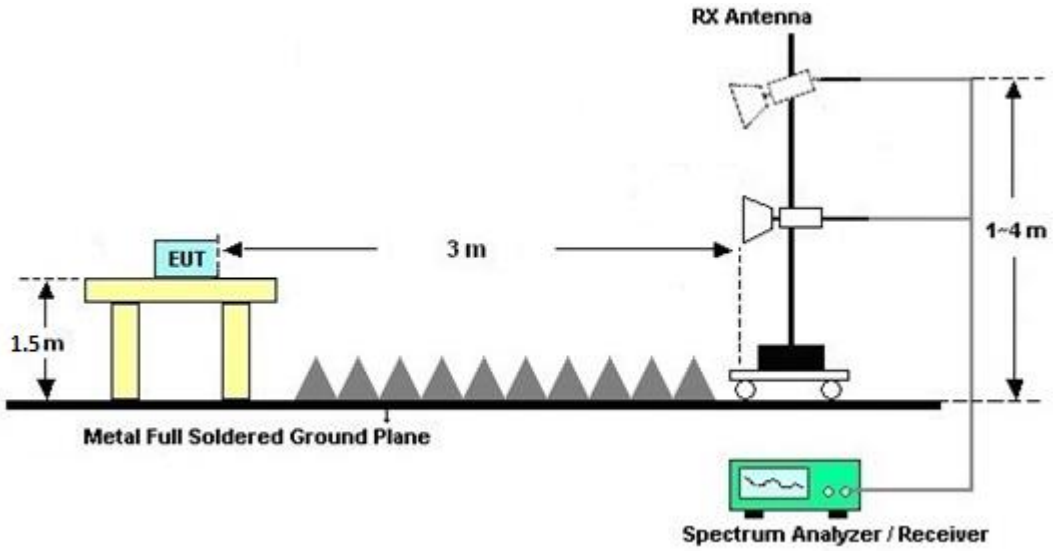
For radiated emissions below 30MHz



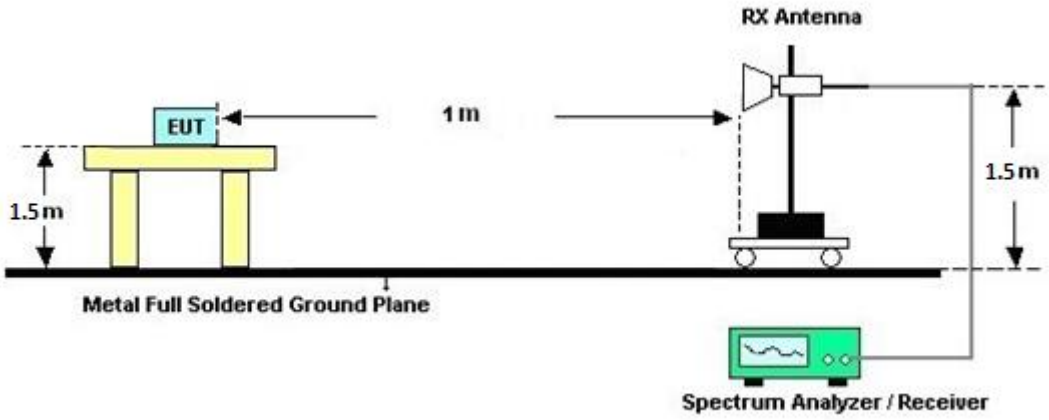
For radiated emissions from 30MHz to 1GHz



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 (dBμV)	
	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.

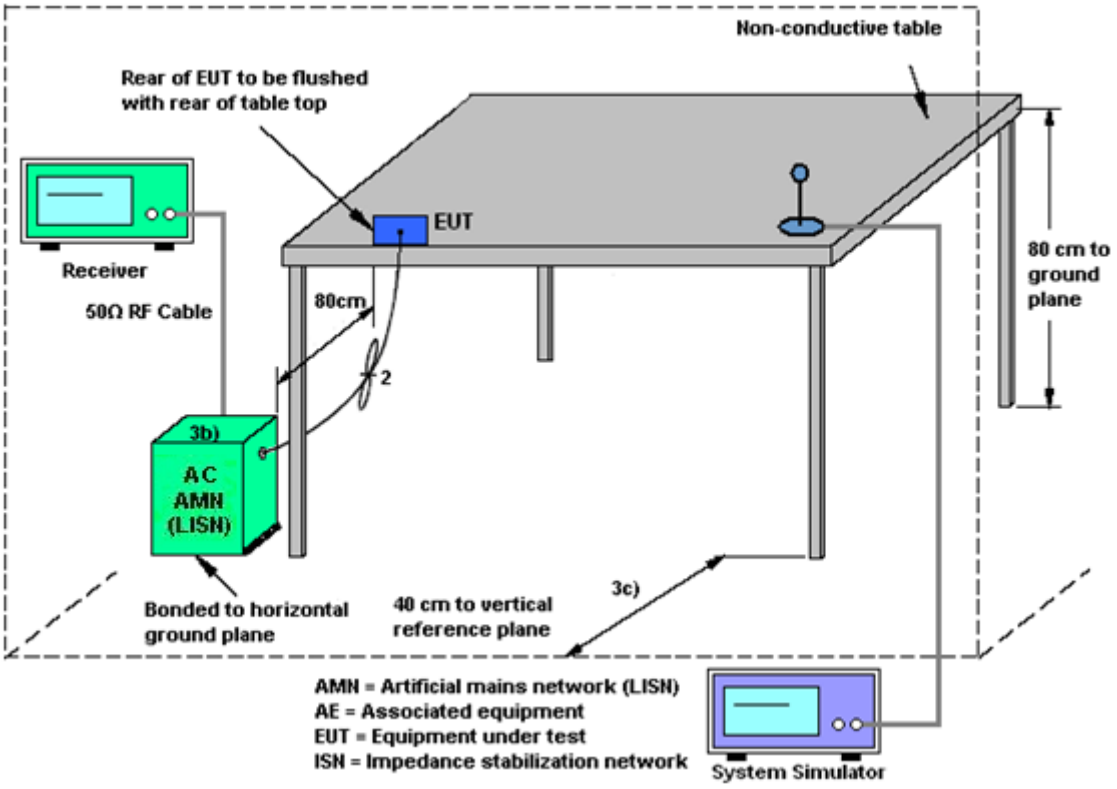
3.7.2 Measuring Instruments

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 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.8.2 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For power measurements on IEEE 802.11 devices,

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows:

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

G_{ANT} is set equal to the gain of the antenna having the highest gain.

For PSD measurements, the directional gain calculation follows F)2)f)ii) of KDB 662911 D01 v02r01.

$$DirectionalGain = 10 \cdot \log\left[\frac{\sum_{j=1}^{N_{SS}}\left\{\sum_{k=1}^{N_{ANT}} g_{j,k}\right\}^2}{N_{ANT}}\right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k/20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth antenna.

As minimum N_{SS}=1 is supported by EUT, the formula can be simplified as:

Directional gain = $10*\log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ dBi

Where G1, G2….GN denote single antenna gain.

For example: If a device has two antenna, G_{ANT1}= 3.6dBi; G_{ANT2}=4.2dBi

Directional gain of power measurement = max(3.6, 4.2) + 0 = 4.2 dBi

Directional gain of PSD measurement = $10 * \log[(10^{3.6/20} + 10^{4.2/20})^2 / 2]$ = 6.92 dBi

The directional gain of EUT is listed in the following table.

	Ant. 4 (dBi)	Ant. 3 (dBi)	DG for Power (dBi)	DG for PSD (dBi)
5925 MHz ~ 6425 MHz	-0.90	-0.90	-0.90	2.11
6425 MHz ~ 6525 MHz	-3.00	-1.30	-1.30	0.90
6525 MHz ~ 6875 MHz	-3.60	-1.50	-1.50	0.52
6875 MHz ~ 7125 MHz	-5.00	-1.20	-1.20	0.12

Calculation example:

For the band 5925~6425MHz, the DG for PSD is derived from formula is

10 x log { { [10^ (-0.90dBi / 20) + 10^ (-0.90dBi / 20)] ^ 2 } / 2 }

= 2.11 dBi

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 04, 2021	Dec.14, 2021~ Dec. 18, 2021	Jan. 03, 2022	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	41912 & 05	30MHz~1GHz	Feb. 08, 2021	Dec.14, 2021~ Dec. 18, 2021	Feb. 07, 2022	Radiation (03CH15-HY)
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Dec. 28, 2020	Dec.14, 2021~ Dec. 18, 2021	Dec. 27, 2021	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-01620	1GHz~18GHz	Oct. 25, 2021	Dec.14, 2021~ Dec. 18, 2021	Oct. 24, 2022	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	00991	18GHz~40GHz	May 12, 2021	Dec.14, 2021~ Dec. 18, 2021	May 11, 2022	Radiation (03CH15-HY)
Preamplifier	Jet-Power	JPA0118-55-303	171000180005006	1GHz~18GHz	May 06, 2021	Dec.14, 2021~ Dec. 18, 2021	May 05, 2022	Radiation (03CH15-HY)
Preamplifier	E-INSTRUMENT TECH LTD.	ERA-10M-7000-MR	EC1900247	10MHz-7GHz	Dec. 03, 2021	Dec.14, 2021~ Dec. 18, 2021	Dec. 02, 2022	Radiation (03CH15-HY)
Preamplifier	EMEC	EM18G40G	060801	18-40GHz	Jun. 22, 2021	Dec.14, 2021~ Dec. 18, 2021	Jun. 21, 2022	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY55420170	20MHz~8.4GHz	Jul. 15, 2021	Dec. 14, 2021~ Dec. 18, 2021	Jul. 14, 2022	Radiation (03CH15-HY)
Spectrum Analyzer	Agilent	E4446A	MY50180136	3Hz~44GHz	May 07, 2021	Dec.14, 2021~ Dec. 18, 2021	May 06, 2022	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Dec.14, 2021~ Dec. 18, 2021	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Dec.14, 2021~ Dec. 18, 2021	N/A	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24 (k5)	RK-000451	N/A	N/A	Dec.14, 2021~ Dec. 18, 2021	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104, 102E	MY36980/4, MY9838/4PE, 508405/2E	30MHz~18G	Nov. 15, 2021	Dec.14, 2021~ Dec. 18, 2021	Nov. 14, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz-40GHz	Feb. 22, 2021	Dec.14, 2021~ Dec. 18, 2021	Feb. 21, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz-40GHz	Feb. 22, 2021	Dec.14, 2021~ Dec. 18, 2021	Feb. 21, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	Dec.14, 2021~ Dec. 18, 2021	Mar. 10, 2022	Radiation (03CH15-HY)
Filter	Wainwright	WLJ4-1000-1530-6000-40ST	SN4	1.53GHz Low Pass Filter	Jul. 02, 2021	Dec.14, 2021~ Dec. 18, 2021	Jul. 01, 2022	Radiation (03CH15-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN6	6.75GHz High Pass Filter	Jun. 30, 2021	Dec.14, 2021~ Dec. 18, 2021	Jun. 29, 2022	Radiation (03CH15-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 16, 2021	Nov. 23, 2021~ Feb. 18, 2022	Nov. 15, 2022	Conducted (TH05-HY)
Power Meter	DARE	RPR3006W #010	RPR6W-2101002(NO:123)	10MHz~8GHz	Feb. 03, 2021	Nov. 23, 2021~ Feb. 01, 2022	Feb. 02, 2022	Conducted (TH05-HY)
Power Meter	DARE	RPR3006W #010	RPR6W-2101003 (NO:85)	10MHz~8GHz	Apr. 15, 2021	Feb. 01, 2022~ Feb. 18, 2022	Apr. 14, 2022	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz~40GHz	Aug. 30, 2021	Nov. 23, 2021~ Feb. 18, 2022	Aug. 29, 2022	Conducted (TH05-HY)
Switch Control Manframe	EM Electronics	EMSW18SE	SW191204(BOX8)	N/A	Jan. 07, 2021	Nov. 23, 2021~ Jan. 05, 2022	Jan. 06, 2022	Conducted (TH05-HY)
Switch Control Manframe	E-IUSTRUMENT	ETF-1405-0	EC1900067 (BOX7)	N/A	Aug. 12, 2021	Jan. 05, 2022~ Feb. 18, 2022	Aug. 11, 2022	Conducted (TH05-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Nov. 16, 2021	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 30, 2020	Nov. 16, 2021	Nov. 29, 2021	Conduction (CO05-HY)
Hygrometer	TECPEL	DTM-303A	TP201973	N/A	Oct. 22, 2021	Nov. 16, 2021	Oct. 21, 2022	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 01, 2020	Nov. 16, 2021	Nov. 30, 2021	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Nov. 16, 2021	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	00691	N/A	Jul. 28, 2021	Nov. 16, 2021	Jul. 27, 2022	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 31, 2020	Nov. 16, 2021	Dec. 30, 2021	Conduction (CO05-HY)
Signal Generator (Interferer)	Rohde & Schwarz	SMW200A	109425	100kHz~7.5GHz	Jan. 11, 2021	Dec. 22, 2021~ Dec. 23, 2021	Jan. 10, 2022	CBP (DF02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV3044	101048	10Hz~44GHz	Apr. 20, 2021	Dec. 22, 2021~ Dec. 23, 2021	Apr. 19, 2022	CBP (DF02-HY)
Power Divider	Woken	2Way Divider	DCMB1KW7A1	0.5GHz-18GHz	Calibration from System	Dec. 22, 2021~ Dec. 23, 2021	Calibration from System	CBP (DF02-HY)
Power Divider	Woken	2Way Divider	DCMB1KW7A2	0.5GHz-18GHz	Calibration from System	Dec. 22, 2021~ Dec. 23, 2021	Calibration from System	CBP (DF02-HY)
Coupler	Woken	10dB 30W SMA	DOM5CIW3A1	0.5-18GHz	Calibration from System	Dec. 22, 2021~ Dec. 23, 2021	Calibration from System	CBP (DF02-HY)
Power Divider	Woken	3Way SMA Power Divder Rated to 20W	STI08-0010(#2)	2GHz-8GHz	Calibration from System	Dec. 22, 2021~ Dec. 23, 2021	Calibration from System	CBP (DF02-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.1 dB**

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.8 dB**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.3 dB**

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.6 dB**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Ching Chen	Temperature:	21-25	°C
Test Date:	2021/11/23~2022/02/18	Relative Humidity:	51-54	%

TEST RESULTS DATA
26dB and 99% OBW

Band V MIMO									
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Note
					Ant 4	Ant 3	Ant 4	Ant 3	
HE20	MCS0	2	5955	Full	19.13	19.18	21.75	21.75	
HE20	MCS0	2	6195	Full	19.18	19.08	22.05	21.75	
HE20	MCS0	2	6415	Full	19.18	19.13	22.00	21.85	
HE40	MCS0	2	5965	Full	37.86	37.76	40.05	39.87	
HE40	MCS0	2	6205	Full	37.76	37.76	40.05	39.78	
HE40	MCS0	2	6405	Full	37.86	37.76	40.05	39.96	
HE80	MCS0	2	5985	Full	76.96	77.08	82.56	81.76	
HE80	MCS0	2	6225	Full	77.08	77.08	82.40	81.76	
HE80	MCS0	2	6385	Full	76.96	76.96	82.24	82.08	
HE160	MCS0	2	6025	Full	156.56	156.56	166.40	166.08	
HE160	MCS0	2	6185	Full	156.56	156.32	165.76	166.08	
HE160	MCS0	2	6345	Full	156.56	156.32	165.76	165.76	

TEST RESULTS DATA
EIRP Power Table

FCC Band V MIMO												
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 4	Ant 3	SUM	Ant 4	Ant 3	SUM		
HE20	MCS0	2	5955	Full	6.60	6.50	9.56	-0.90		8.66	24.00	Pass
HE20	MCS0	2	5955	26/0	-3.00	-3.20	-0.09	-0.90		-0.99	24.00	Pass
HE20	MCS0	2	5955	52/37	-0.20	-0.20	2.81	-0.90		1.91	24.00	Pass
HE20	MCS0	2	5955	106/53	2.90	3.40	6.17	-0.90		5.27	24.00	Pass
HE20	MCS0	2	6195	Full	6.70	6.50	9.61	-0.90		8.71	24.00	Pass
HE20	MCS0	2	6195	26/4	-2.30	-1.10	1.35	-0.90		0.45	24.00	Pass
HE20	MCS0	2	6195	52/39	-0.20	0.20	3.01	-0.90		2.11	24.00	Pass
HE20	MCS0	2	6195	106/53	2.80	3.20	6.01	-0.90		5.11	24.00	Pass
HE20	MCS0	2	6415	Full	6.50	6.30	9.41	-0.90		8.51	24.00	Pass
HE20	MCS0	2	6415	26/8	-3.00	-3.10	-0.04	-0.90		-0.94	24.00	Pass
HE20	MCS0	2	6415	52/40	-0.10	-0.70	2.62	-0.90		1.72	24.00	Pass
HE20	MCS0	2	6415	106/54	3.10	2.70	5.91	-0.90		5.01	24.00	Pass
HE40	MCS0	2	5965	Full	9.50	9.70	12.61	-0.90		11.71	24.00	Pass
HE40	MCS0	2	6205	Full	9.00	9.20	12.11	-0.90		11.21	24.00	Pass
HE40	MCS0	2	6405	Full	9.40	8.80	12.12	-0.90		11.22	24.00	Pass
HE80	MCS0	2	5985	Full	11.80	11.90	14.86	-0.90		13.96	24.00	Pass
HE80	MCS0	2	6225	Full	12.00	12.00	15.01	-0.90		14.11	24.00	Pass
HE80	MCS0	2	6385	Full	12.70	11.70	15.24	-0.90		14.34	24.00	Pass
HE160	MCS0	2	6025	Full	14.50	15.30	17.93	-0.90		17.03	24.00	Pass
HE160	MCS0	2	6185	Full	14.70	14.90	17.81	-0.90		16.91	24.00	Pass
HE160	MCS0	2	6345	Full	15.30	14.50	17.93	-0.90		17.03	24.00	Pass

TEST RESULTS DATA
EIRP Power Spectral Density

FCC Band V MIMO												
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Conducted Power Density with Duty Factor (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
					Ant 4	Ant 3	SUM	Ant 4	Ant 3	SUM		
HE20	MCS0	2	5955	Full			-3.39	2.11		-1.27	-1.00	Pass
HE20	MCS0	2	5955	26/0			-3.85	2.11		-1.74	-1.00	Pass
HE20	MCS0	2	5955	52/37			-3.99	2.11		-1.88	-1.00	Pass
HE20	MCS0	2	5955	106/53			-3.47	2.11		-1.35	-1.00	Pass
HE20	MCS0	2	6195	Full			-3.12	2.11		-1.01	-1.00	Pass
HE20	MCS0	2	6195	26/4			-3.30	2.11		-1.18	-1.00	Pass
HE20	MCS0	2	6195	52/39			-3.24	2.11		-1.12	-1.00	Pass
HE20	MCS0	2	6195	106/53			-3.53	2.11		-1.42	-1.00	Pass
HE20	MCS0	2	6415	Full			-3.37	2.11		-1.26	-1.00	Pass
HE20	MCS0	2	6415	26/8			-3.40	2.11		-1.29	-1.00	Pass
HE20	MCS0	2	6415	52/40			-3.79	2.11		-1.68	-1.00	Pass
HE20	MCS0	2	6415	106/54			-3.39	2.11		-1.27	-1.00	Pass
HE40	MCS0	2	5965	Full			-3.15	2.11		-1.04	-1.00	Pass
HE40	MCS0	2	6205	Full			-3.27	2.11		-1.16	-1.00	Pass
HE40	MCS0	2	6405	Full			-3.34	2.11		-1.22	-1.00	Pass
HE80	MCS0	2	5985	Full			-3.49	2.11		-1.38	-1.00	Pass
HE80	MCS0	2	6225	Full			-3.46	2.11		-1.35	-1.00	Pass
HE80	MCS0	2	6385	Full			-3.44	2.11		-1.33	-1.00	Pass
HE160	MCS0	2	6025	Full			-3.20	2.11		-1.09	-1.00	Pass
HE160	MCS0	2	6185	Full			-3.30	2.11		-1.19	-1.00	Pass
HE160	MCS0	2	6345	Full			-3.25	2.11		-1.14	-1.00	Pass

TEST RESULTS DATA
26dB and 99% OBW

Band VI MIMO									
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Note
					Ant 4	Ant 3	Ant 4	Ant 3	
HE20	MCS0	2	6435	Full	19.18	19.18	21.95	21.65	
HE20	MCS0	2	6475	Full	19.13	19.18	21.90	21.95	
HE20	MCS0	2	6515	Full	19.18	19.18	21.85	21.65	
HE40	MCS0	2	6445	Full	37.96	37.86	39.87	39.87	
HE40	MCS0	2	6485	Full	37.86	37.76	39.78	39.60	
HE80	MCS0	2	6465	Full	77.20	76.96	82.40	82.24	

Band VI straddle channel MIMO														
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
					Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	
HE40	MCS0	2	6525	Full	37.86	37.76	39.87	39.60	320.00		320.00		320.00		
HE80	MCS0	2	6545	Full	76.96	76.96	82.72	81.76	320.00		320.00		320.00		
HE160	MCS0	2	6505	Full	156.56	156.56	166.40	165.44	320.00		320.00		320.00		

TEST RESULTS DATA
EIRP Power Table

FCC Band VI MIMO												
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 4	Ant 3	SUM	Ant 4	Ant 3	SUM		
HE20	MCS0	2	6435	Full	7.10	6.00	9.60	-1.30		8.30	24.00	Pass
HE20	MCS0	2	6435	26/0	-2.40	-3.50	0.10	-1.30		-1.20	24.00	Pass
HE20	MCS0	2	6435	52/37	0.30	-0.40	2.97	-1.30		1.67	24.00	Pass
HE20	MCS0	2	6435	106/53	3.10	2.40	5.77	-1.30		4.47	24.00	Pass
HE20	MCS0	2	6475	Full	6.60	6.00	9.32	-1.30		8.02	24.00	Pass
HE20	MCS0	2	6475	26/4	-2.10	-2.80	0.57	-1.30		-0.73	24.00	Pass
HE20	MCS0	2	6475	52/39	0.20	-0.70	2.78	-1.30		1.48	24.00	Pass
HE20	MCS0	2	6475	106/54	2.70	2.40	5.56	-1.30		4.26	24.00	Pass
HE20	MCS0	2	6515	Full	6.80	6.10	9.47	-1.30		8.17	24.00	Pass
HE20	MCS0	2	6515	26/8	-3.00	-3.40	-0.19	-1.30		-1.49	24.00	Pass
HE20	MCS0	2	6515	52/40	0.30	-0.70	2.84	-1.30		1.54	24.00	Pass
HE20	MCS0	2	6515	106/54	2.60	1.90	5.27	-1.30		3.97	24.00	Pass
HE40	MCS0	2	6445	Full	10.70	9.70	13.24	-1.30		11.94	24.00	Pass
HE40	MCS0	2	6485	Full	10.80	9.80	13.34	-1.30		12.04	24.00	Pass
HE80	MCS0	2	6465	Full	13.40	12.40	15.94	-1.30		14.64	24.00	Pass

FCC Band VI straddle channel MIMO												
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 4	Ant 3	SUM	Ant 4	Ant 3	SUM		
HE40	MCS0	2	6525	Full	11.00	10.20	13.63	-1.30		12.33	24.00	Pass
HE80	MCS0	2	6545	Full	13.10	12.10	15.64	-1.30		14.34	24.00	Pass
HE160	MCS0	2	6505	Full	16.90	15.90	19.44	-1.30		18.14	24.00	Pass

TEST RESULTS DATA
EIRP Power Spectral Density

Band VI MIMO												
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Conducted Power Density with Duty Factor (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
					Ant 4	Ant 3	SUM	Ant 4	Ant 3	SUM		
HE20	MCS0	2	6435	Full			-3.46	0.90		-2.56	-1.00	Pass
HE20	MCS0	2	6435	26/0			-3.54	0.90		-2.64	-1.00	Pass
HE20	MCS0	2	6435	52/37			-3.59	0.90		-2.68	-1.00	Pass
HE20	MCS0	2	6435	106/53			-3.84	0.90		-2.93	-1.00	Pass
HE20	MCS0	2	6475	Full			-3.32	0.90		-2.42	-1.00	Pass
HE20	MCS0	2	6475	26/4			-3.77	0.90		-2.87	-1.00	Pass
HE20	MCS0	2	6475	52/39			-3.36	0.90		-2.46	-1.00	Pass
HE20	MCS0	2	6475	106/54			-3.56	0.90		-2.66	-1.00	Pass
HE20	MCS0	2	6515	Full			-3.49	0.90		-2.59	-1.00	Pass
HE20	MCS0	2	6515	26/8			-3.61	0.90		-2.70	-1.00	Pass
HE20	MCS0	2	6515	52/40			-3.56	0.90		-2.66	-1.00	Pass
HE20	MCS0	2	6515	106/54			-3.85	0.90		-2.95	-1.00	Pass
HE40	MCS0	2	6445	Full			-2.40	0.90		-1.50	-1.00	Pass
HE40	MCS0	2	6485	Full			-2.21	0.90		-1.31	-1.00	Pass
HE80	MCS0	2	6465	Full			-2.21	0.90		-1.31	-1.00	Pass

FCC Band VI straddle channel MIMO												
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Conducted Power Density with Duty Factor (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
					Ant 4	Ant 3	SUM	Ant 4	Ant 3	SUM		
HE40	MCS0	2	6525	Full			-2.05	0.90		-1.15	-1.00	Pass
HE80	MCS0	2	6545	Full			-2.44	0.90		-1.54	-1.00	Pass
HE160	MCS0	2	6505	Full			-1.95	0.90		-1.05	-1.00	Pass

TEST RESULTS DATA
26dB and 99% OBW

Band VII MIMO									
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Note
					Ant 4	Ant 3	Ant 4	Ant 3	
HE20	MCS0	2	6535	Full	19.18	19.13	21.95	21.60	
HE20	MCS0	2	6695	Full	19.13	19.13	21.90	21.70	
HE20	MCS0	2	6855	Full	19.13	19.13	21.95	21.95	
HE40	MCS0	2	6565	Full	37.76	37.86	39.96	39.96	
HE40	MCS0	2	6685	Full	37.76	37.86	39.96	39.78	
HE40	MCS0	2	6845	Full	37.96	37.76	39.96	39.96	
HE80	MCS0	2	6625	Full	76.96	76.96	82.24	82.08	
HE80	MCS0	2	6705	Full	77.08	76.96	82.24	81.92	
HE80	MCS0	2	6785	Full	77.20	76.96	81.92	81.76	
HE160	MCS0	2	6665	Full	156.56	156.56	166.08	166.72	

Band VII straddle channel MIMO														
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
					Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	
HE20	MCS0	2	6875	Full	19.13	19.13	21.90	21.60	320.00		320.00		320.00		
HE40	MCS0	2	6885	Full	37.76	37.76	39.87	39.87	320.00		320.00		320.00		
HE80	MCS0	2	6865	Full	77.08	77.08	82.08	81.76	320.00		320.00		320.00		
HE160	MCS0	2	6825	Full	156.80	156.56	166.72	166.08	320.00		320.00		320.00		

TEST RESULTS DATA
EIRP Power Table

FCC Band VII MIMO												
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 4	Ant 3	SUM	Ant 4	Ant 3	SUM		
HE20	MCS0	2	6535	Full	8.10	7.80	10.96	-1.50		9.46	24.00	Pass
HE20	MCS0	2	6535	26/0	-1.30	-1.50	1.61	-1.50		0.11	24.00	Pass
HE20	MCS0	2	6535	52/37	1.60	1.60	4.61	-1.50		3.11	24.00	Pass
HE20	MCS0	2	6535	106/53	4.30	4.30	7.31	-1.50		5.81	24.00	Pass
HE20	MCS0	2	6695	Full	7.70	7.60	10.66	-1.50		9.16	24.00	Pass
HE20	MCS0	2	6695	26/4	-1.40	-0.60	2.03	-1.50		0.53	24.00	Pass
HE20	MCS0	2	6695	52/38	0.90	0.90	3.91	-1.50		2.41	24.00	Pass
HE20	MCS0	2	6695	106/53	4.10	3.90	7.01	-1.50		5.51	24.00	Pass
HE20	MCS0	2	6855	Full	7.90	5.90	10.02	-1.50		8.52	24.00	Pass
HE20	MCS0	2	6855	26/8	-2.70	-3.70	-0.16	-1.50		-1.66	24.00	Pass
HE20	MCS0	2	6855	52/40	0.50	-0.90	2.87	-1.50		1.37	24.00	Pass
HE20	MCS0	2	6855	106/54	3.90	2.10	6.10	-1.50		4.60	24.00	Pass
HE40	MCS0	2	6565	Full	10.80	10.00	13.43	-1.50		11.93	24.00	Pass
HE40	MCS0	2	6685	Full	10.80	10.10	13.47	-1.50		11.97	24.00	Pass
HE40	MCS0	2	6845	Full	12.00	10.20	14.20	-1.50		12.70	24.00	Pass
HE80	MCS0	2	6625	Full	13.60	12.50	16.10	-1.50		14.60	24.00	Pass
HE80	MCS0	2	6705	Full	13.30	12.80	16.07	-1.50		14.57	24.00	Pass
HE80	MCS0	2	6785	Full	14.10	12.90	16.55	-1.50		15.05	24.00	Pass
HE160	MCS0	2	6665	Full	16.80	16.10	19.47	-1.50		17.97	24.00	Pass

FCC Band VII straddle channel MIMO												
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 4	Ant 3	SUM	Ant 4	Ant 3	SUM		
HE20	MCS0	2	6875	Full	7.30	6.00	9.71	-1.50		8.21	24.00	Pass
HE20	MCS0	2	6875	26/8	-2.00	-2.80	0.63	-1.50		-0.87	24.00	Pass
HE20	MCS0	2	6875	52/40	0.50	-0.50	3.04	-1.50		1.54	24.00	Pass
HE20	MCS0	2	6875	106/54	3.60	2.40	6.05	-1.50		4.55	24.00	Pass
HE40	MCS0	2	6885	Full	11.90	10.40	14.22	-1.50		12.72	24.00	Pass
HE80	MCS0	2	6865	Full	14.20	13.30	16.78	-1.50		15.28	24.00	Pass
HE160	MCS0	2	6825	Full	17.20	16.00	19.65	-1.50		18.15	24.00	Pass

TEST RESULTS DATA
EIRP Power Spectral Density

FCC Band VII MIMO												
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Conducted Power Density with Duty Factor (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
					Ant 4	Ant 3	SUM	Ant 4	Ant 3	SUM		
HE20	MCS0	2	6535	Full			-1.68	0.52		-1.16	-1.00	Pass
HE20	MCS0	2	6535	26/0			-2.04	0.52		-1.51	-1.00	Pass
HE20	MCS0	2	6535	52/37			-1.71	0.52		-1.19	-1.00	Pass
HE20	MCS0	2	6535	106/53			-1.93	0.52		-1.41	-1.00	Pass
HE20	MCS0	2	6695	Full			-1.84	0.52		-1.32	-1.00	Pass
HE20	MCS0	2	6695	26/4			-2.20	0.52		-1.68	-1.00	Pass
HE20	MCS0	2	6695	52/38			-2.35	0.52		-1.83	-1.00	Pass
HE20	MCS0	2	6695	106/53			-1.94	0.52		-1.41	-1.00	Pass
HE20	MCS0	2	6855	Full			-3.16	0.52		-2.63	-1.00	Pass
HE20	MCS0	2	6855	26/8			-3.82	0.52		-3.30	-1.00	Pass
HE20	MCS0	2	6855	52/40			-3.47	0.52		-2.95	-1.00	Pass
HE20	MCS0	2	6855	106/54			-3.47	0.52		-2.94	-1.00	Pass
HE40	MCS0	2	6565	Full			-1.80	0.52		-1.27	-1.00	Pass
HE40	MCS0	2	6685	Full			-1.78	0.52		-1.25	-1.00	Pass
HE40	MCS0	2	6845	Full			-1.56	0.52		-1.03	-1.00	Pass
HE80	MCS0	2	6625	Full			-1.99	0.52		-1.47	-1.00	Pass
HE80	MCS0	2	6705	Full			-1.96	0.52		-1.43	-1.00	Pass
HE80	MCS0	2	6785	Full			-1.73	0.52		-1.21	-1.00	Pass
HE160	MCS0	2	6665	Full			-1.67	0.52		-1.14	-1.00	Pass

FCC Band VII straddle channel MIMO												
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Conducted Power Density with Duty Factor (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
					Ant 4	Ant 3	SUM	Ant 4	Ant 3	SUM		
HE20	MCS0	2	6875	Full			-3.06	0.52		-2.53	-1.00	Pass
HE20	MCS0	2	6875	26/8			-3.06	0.52		-2.54	-1.00	Pass
HE20	MCS0	2	6875	52/40			-3.33	0.52		-2.81	-1.00	Pass
HE20	MCS0	2	6875	106/54			-3.59	0.52		-3.07	-1.00	Pass
HE40	MCS0	2	6885	Full			-1.70	0.52		-1.18	-1.00	Pass
HE80	MCS0	2	6865	Full			-1.81	0.52		-1.29	-1.00	Pass
HE160	MCS0	2	6825	Full			-1.59	0.52		-1.07	-1.00	Pass

TEST RESULTS DATA
26dB EBW and 99% OBW

Band VIII MIMO									
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Note
					Ant 4	Ant 3	Ant 4	Ant 3	
HE20	MCS0	2	6895	Full	19.13	19.13	21.65	21.50	
HE20	MCS0	2	6995	Full	19.08	19.08	21.60	21.65	
HE20	MCS0	2	7095	Full	19.13	19.08	21.75	21.55	
HE40	MCS0	2	6925	Full	37.76	37.76	39.87	39.69	
HE40	MCS0	2	7005	Full	37.86	37.86	39.78	39.87	
HE40	MCS0	2	7085	Full	37.76	37.76	39.96	39.78	
HE80	MCS0	2	6945	Full	77.08	76.96	82.24	81.76	
HE80	MCS0	2	7025	Full	77.08	76.96	82.24	82.24	
HE160	MCS0	2	6985	Full	156.08	156.08	166.40	166.40	

TEST RESULTS DATA
EIRP Power Table

Band VIII MIMO												
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Conducted Power (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 4	Ant 3	SUM	Ant 4	Ant 3	SUM		
HE20	MCS0	2	6895	Full	7.40	7.70	10.56	-1.20		9.36	24.00	Pass
HE20	MCS0	2	6895	26/0	-2.00	-2.10	0.96	-1.20		-0.24	24.00	Pass
HE20	MCS0	2	6895	52/37	0.80	1.00	3.91	-1.20		2.71	24.00	Pass
HE20	MCS0	2	6895	106/53	3.70	4.10	6.91	-1.20		5.71	24.00	Pass
HE20	MCS0	2	6995	Full	9.00	8.40	11.72	-1.20		10.52	24.00	Pass
HE20	MCS0	2	6995	26/4	0.30	0.20	3.26	-1.20		2.06	24.00	Pass
HE20	MCS0	2	6995	52/38	2.10	1.70	4.91	-1.20		3.71	24.00	Pass
HE20	MCS0	2	6995	106/53	5.20	5.30	8.26	-1.20		7.06	24.00	Pass
HE20	MCS0	2	7095	Full	10.30	9.60	12.97	-1.20		11.77	24.00	Pass
HE20	MCS0	2	7095	26/8	0.60	0.50	3.56	-1.20		2.36	24.00	Pass
HE20	MCS0	2	7095	52/40	3.10	3.00	6.06	-1.20		4.86	24.00	Pass
HE20	MCS0	2	7095	106/54	6.80	6.30	9.57	-1.20		8.37	24.00	Pass
HE40	MCS0	2	6925	Full	11.40	10.70	14.07	-1.20		12.87	24.00	Pass
HE40	MCS0	2	7005	Full	11.80	11.20	14.52	-1.20		13.32	24.00	Pass
HE40	MCS0	2	7085	Full	12.20	11.60	14.92	-1.20		13.72	24.00	Pass
HE80	MCS0	2	6945	Full	14.50	13.80	17.17	-1.20		15.97	24.00	Pass
HE80	MCS0	2	7025	Full	14.40	13.70	17.07	-1.20		15.87	24.00	Pass
HE160	MCS0	2	6985	Full	17.20	17.10	20.16	-1.20		18.96	24.00	Pass

TEST RESULTS DATA
EIRP Power Spectral Density

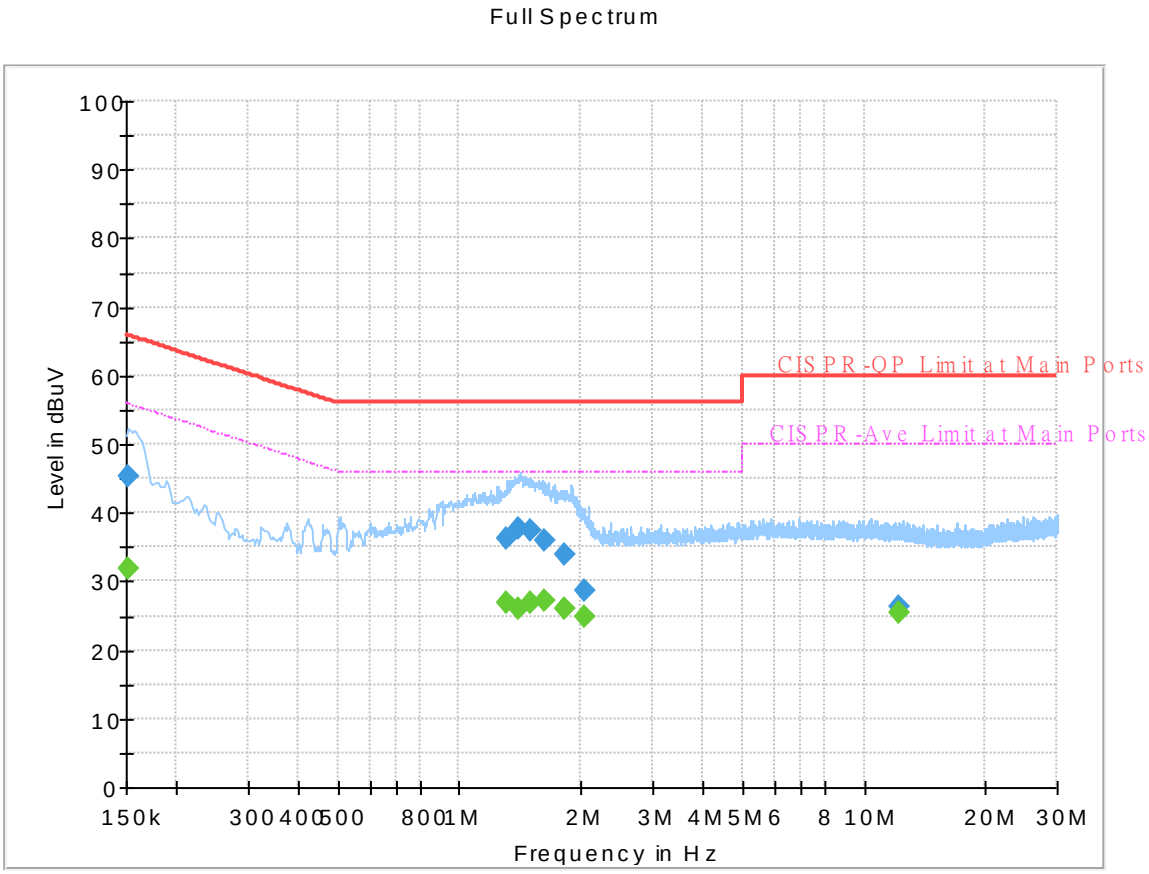
FCC Band VIII MIMO												
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Conducted Power Density with Duty Factor (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
					Ant 4	Ant 3	SUM	Ant 4	Ant 3	SUM		
HE20	MCS0	2	6895	Full			-2.58	0.12		-2.46	-1.00	Pass
HE20	MCS0	2	6895	26/0			-2.59	0.12		-2.47	-1.00	Pass
HE20	MCS0	2	6895	52/37			-2.66	0.12		-2.55	-1.00	Pass
HE20	MCS0	2	6895	106/53			-2.69	0.12		-2.58	-1.00	Pass
HE20	MCS0	2	6995	Full			-1.27	0.12		-1.15	-1.00	Pass
HE20	MCS0	2	6995	26/4			-1.42	0.12		-1.30	-1.00	Pass
HE20	MCS0	2	6995	52/38			-1.48	0.12		-1.36	-1.00	Pass
HE20	MCS0	2	6995	106/53			-1.29	0.12		-1.17	-1.00	Pass
HE20	MCS0	2	7095	Full			-1.58	0.12		-1.47	-1.00	Pass
HE20	MCS0	2	7095	26/8			-1.59	0.12		-1.48	-1.00	Pass
HE20	MCS0	2	7095	52/40			-1.92	0.12		-1.80	-1.00	Pass
HE20	MCS0	2	7095	106/54			-1.69	0.12		-1.57	-1.00	Pass
HE40	MCS0	2	6925	Full			-1.68	0.12		-1.57	-1.00	Pass
HE40	MCS0	2	7005	Full			-1.32	0.12		-1.20	-1.00	Pass
HE40	MCS0	2	7085	Full			-1.46	0.12		-1.35	-1.00	Pass
HE80	MCS0	2	6945	Full			-1.34	0.12		-1.23	-1.00	Pass
HE80	MCS0	2	7025	Full			-1.55	0.12		-1.43	-1.00	Pass
HE160	MCS0	2	6985	Full			-1.26	0.12		-1.15	-1.00	Pass

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Calvin Wang	**Temperature :**	23~26℃
		Relative Humidity :	45~55%

EUT Information

Report NO :	161608-05
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line



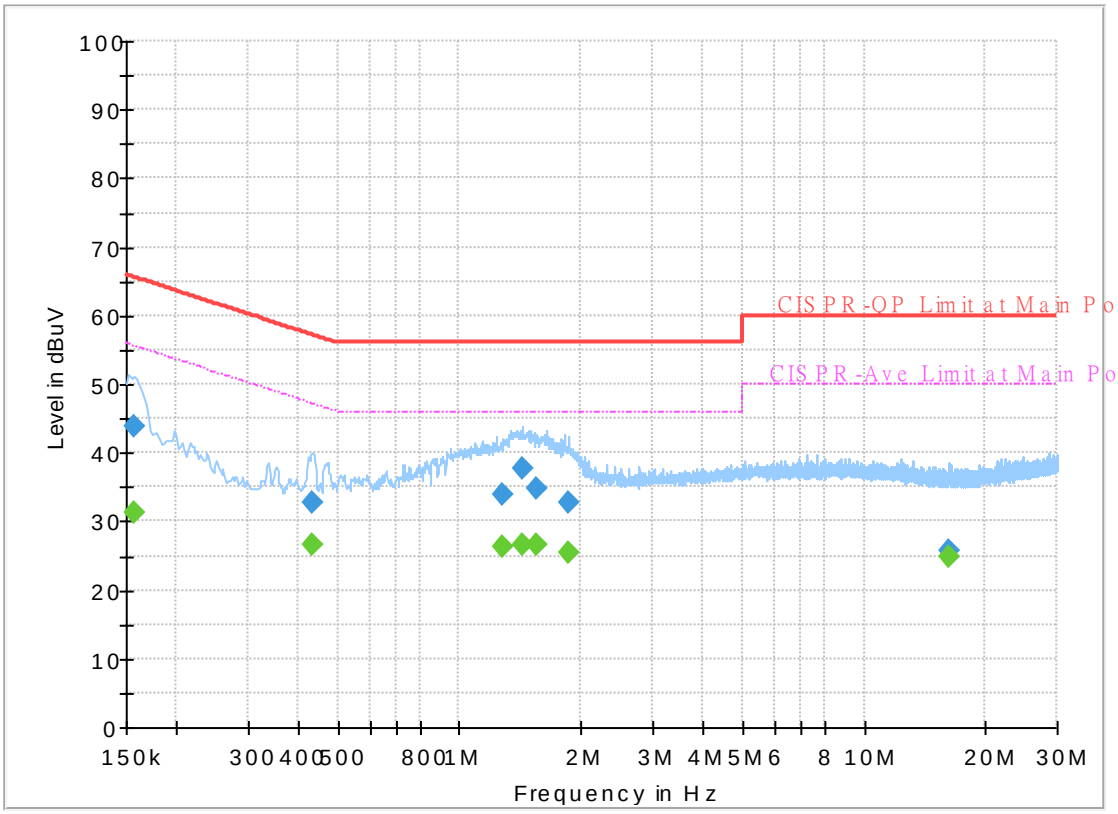
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	31.81	55.88	24.07	L1	OFF	19.7
0.152250	45.41	---	65.88	20.47	L1	OFF	19.7
1.313250	---	26.95	46.00	19.05	L1	OFF	20.2
1.313250	36.26	---	56.00	19.74	L1	OFF	20.2
1.405500	---	26.16	46.00	19.84	L1	OFF	20.2
1.405500	37.62	---	56.00	18.38	L1	OFF	20.2
1.502250	---	26.81	46.00	19.19	L1	OFF	20.2
1.502250	37.48	---	56.00	18.52	L1	OFF	20.2
1.621500	---	27.28	46.00	18.72	L1	OFF	20.2
1.621500	35.94	---	56.00	20.06	L1	OFF	20.2
1.817250	---	26.06	46.00	19.94	L1	OFF	20.2
1.817250	33.97	---	56.00	22.03	L1	OFF	20.2
2.042250	---	24.99	46.00	21.01	L1	OFF	20.2
2.042250	28.79	---	56.00	27.21	L1	OFF	20.2
12.252750	---	25.43	50.00	24.57	L1	OFF	20.2
12.252750	26.33	---	60.00	33.67	L1	OFF	20.2

EUT Information

Report NO :	161608-05
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)
0.156750	---	31.20	55.63	24.43	N	OFF	19.7
0.156750	43.77	---	65.63	21.86	N	OFF	19.7
0.431250	---	26.49	47.23	20.74	N	OFF	19.7
0.431250	32.85	---	57.23	24.38	N	OFF	19.7
1.279500	---	26.22	46.00	19.78	N	OFF	20.2
1.279500	33.96	---	56.00	22.04	N	OFF	20.2
1.432500	---	26.61	46.00	19.39	N	OFF	20.2
1.432500	37.61	---	56.00	18.39	N	OFF	20.2
1.558500	---	26.50	46.00	19.50	N	OFF	20.2
1.558500	34.90	---	56.00	21.10	N	OFF	20.2
1.866750	---	25.41	46.00	20.59	N	OFF	20.2
1.866750	32.70	---	56.00	23.30	N	OFF	20.2
16.215000	---	24.71	50.00	25.29	N	OFF	20.4
16.215000	25.67	---	60.00	34.33	N	OFF	20.4

Appendix C. Radiated Spurious Emission

Test Engineer :	Leo Lee, Mancy Chou and Bigshow Wang	**Temperature :**	22.1~23.1°C
		Relative Humidity :	55~60%

Band 5 - 5925~6425MHz

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
4+3		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5840.26	51.61	-36.59	88.2	42.43	32.18	10.63	33.63	374	287	P	H
		5922.44	42.37	-25.83	68.2	32.98	32.34	10.69	33.64	374	287	A	H
	*	5955	94.96	-	-	85.49	32.4	10.71	33.64	374	287	P	H
	*	5955	84.66	-	-	75.19	32.4	10.71	33.64	374	287	A	H
802.11ax													H
HE20 Full													H
CH 01		5853.14	52.93	-35.27	88.2	43.71	32.21	10.64	33.63	100	228	P	V
5955MHz		5924.68	42.53	-25.67	68.2	33.13	32.35	10.69	33.64	100	228	A	V
	*	5955	99.73	-	-	90.26	32.4	10.71	33.64	100	228	P	V
	*	5955	90.56	-	-	81.09	32.4	10.71	33.64	100	228	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. 4+3	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5925	53.16	-35.04	88.2	43.76	32.35	10.69	33.64	100	301	P	H
		5918.22	42.39	-25.81	68.2	33.01	32.34	10.68	33.64	100	301	A	H
	*	5965	95.65	-	-	86.18	32.4	10.72	33.65	100	301	P	H
	*	5965	84.86	-	-	75.39	32.4	10.72	33.65	100	301	A	H
802.11ax													H
HE40 Full													H
CH 03		5867.64	52.45	-35.75	88.2	43.19	32.24	10.65	33.63	100	229	P	V
5965MHz		5919.66	42.78	-25.42	68.2	33.4	32.34	10.68	33.64	100	229	A	V
	*	5965	101.09	-	-	91.62	32.4	10.72	33.65	100	229	P	V
	*	5965	90	-	-	80.53	32.4	10.72	33.65	100	229	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. 4+3	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5922.76	52.51	-35.69	88.2	43.11	32.35	10.69	33.64	100	298	P	H
		5897.48	43.17	-25.03	68.2	33.85	32.29	10.67	33.64	100	298	A	H
	*	5985	95.29	-	-	85.81	32.4	10.73	33.65	100	298	P	H
	*	5985	85.67	-	-	76.19	32.4	10.73	33.65	100	298	A	H
802.11ax													H
HE80 Full													H
CH 07		5918.12	52.27	-35.93	88.2	42.89	32.34	10.68	33.64	100	229	P	V
5985MHz		5911.08	44.23	-23.97	68.2	34.87	32.32	10.68	33.64	100	229	A	V
	*	5985	100.19	-	-	90.71	32.4	10.73	33.65	100	229	P	V
	*	5985	90.44	-	-	80.96	32.4	10.73	33.65	100	229	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. 4+3	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		5919.08	52.8	-35.4	88.2	43.42	32.34	10.68	33.64	100	300	P	H
		5908.84	43.93	-24.27	68.2	34.57	32.32	10.68	33.64	100	300	A	H
	*	6025	96.38	-	-	86.73	32.55	10.76	33.66	100	300	P	H
	*	6025	85.99	-	-	76.34	32.55	10.76	33.66	100	300	A	H
802.11ax													H
HE160 Full													H
CH 15		5921.96	55.89	-32.31	88.2	46.5	32.34	10.69	33.64	100	235	P	V
6025MHz		5921.32	50.26	-17.94	68.2	40.88	32.34	10.68	33.64	100	235	A	V
	*	6025	99.65	-	-	90	32.55	10.76	33.66	100	235	P	V
	*	6025	90.46	-	-	80.81	32.55	10.76	33.66	100	235	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 (Harmonic @ 3m)

WIFI Ant. 4+3	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		10944	50.68	-23.32	74	56.78	40.49	14.28	60.87	-	-	P	H
		10944	40.64	-13.36	54	46.74	40.49	14.28	60.87	-	-	A	H
		12050	46.96	-27.04	74	54.65	39	14.8	61.49	-	-	P	H
		14488	50.81	-23.19	74	56.14	41.36	16.49	63.18	-	-	P	H
		14488	40.79	-13.21	54	46.12	41.36	16.49	63.18	-	-	A	H
		18000	58.38	-15.62	74	48.79	48.4	18.43	57.24	-	-	P	H
		18000	48.3	-5.7	54	38.71	48.4	18.43	57.24	-	-	A	H
		18075	35.37	-38.63	74	57.07	37.85	-3.72	55.83	-	-	P	H
													H
													H
802.11ax													H
HE160 Full													H
CH 15		10928	49.98	-24.02	74	56.12	40.46	14.27	60.87	-	-	P	V
6025MHz		10928	39.95	-14.05	54	46.09	40.46	14.27	60.87	-	-	A	V
		12050	47.14	-26.86	74	54.83	39	14.8	61.49	-	-	P	V
		14472	50.38	-23.62	74	55.75	41.32	16.49	63.18	-	-	P	V
		14472	40.34	-13.66	54	45.71	41.32	16.49	63.18	-	-	A	V
		17960	58.09	-15.91	74	49.42	47.6	18.4	57.33	-	-	P	V
		17960	48.03	-5.97	54	39.36	47.6	18.4	57.33	-	-	A	V
		18075	37.96	-36.04	74	59.66	37.85	-3.72	55.83	-	-	P	V
													V
													V
													V
													V

WIFI Ant. 4+3	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		10952	50.1	-23.9	74	56.19	40.5	14.28	60.87	-	-	P	H
		10952	40.05	-13.95	54	46.14	40.5	14.28	60.87	-	-	A	H
		12370	46.71	-27.29	74	55.12	38.66	15.02	62.09	-	-	P	H
		14496	50.47	-23.53	74	55.75	41.39	16.5	63.17	-	-	P	H
		14496	40.42	-13.58	54	45.7	41.39	16.5	63.17	-	-	A	H
		17952	57.62	-16.38	74	49.13	47.44	18.4	57.35	-	-	P	H
		17952	47.65	-6.35	54	39.16	47.44	18.4	57.35	-	-	A	H
		18555	36.43	-37.57	74	57.37	38.03	-3.6	55.37	-	-	P	H
													H
													H
802.11ax													H
HE160 Full													H
CH 47		10784	49.92	-24.08	74	56.47	40.14	14.2	60.89	-	-	P	V
6185MHz		10784	39.87	-14.13	54	46.42	40.14	14.2	60.89	-	-	A	V
		12370	47.4	-26.6	74	55.81	38.66	15.02	62.09	-	-	P	V
		14496	50.27	-23.73	74	55.55	41.39	16.5	63.17	-	-	P	V
		14496	40.29	-13.71	54	45.57	41.39	16.5	63.17	-	-	A	V
		18000	57.11	-16.89	74	47.52	48.4	18.43	57.24	-	-	P	V
		18000	47.15	-6.85	54	37.56	48.4	18.43	57.24	-	-	A	V
		18555	38.01	-35.99	74	58.95	38.03	-3.6	55.37	-	-	P	V
													V
													V
													V
													V

WIFI Ant. 4+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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)
		10880	49.41	-24.59	74	55.69	40.36	14.24	60.88	-	-	P	H
		10880	39.37	-14.63	54	45.65	40.36	14.24	60.88	-	-	A	H
		12690	46.32	-27.68	74	54.42	38.68	15.23	62.01	-	-	P	H
		14496	51.17	-22.83	74	56.45	41.39	16.5	63.17	-	-	P	H
		14496	41.14	-12.86	54	46.42	41.39	16.5	63.17	-	-	A	H
		17960	57.19	-16.81	74	48.52	47.6	18.4	57.33	-	-	P	H
		17960	47.18	-6.82	54	38.51	47.6	18.4	57.33	-	-	A	H
		19035	36.58	-37.42	74	56.75	38.59	-3.67	55.09	-	-	P	H
													H
													H
802.11ax													H
HE160 Full													H
CH 79		10992	49.48	-24.52	74	55.46	40.58	14.3	60.86	-	-	P	V
6345MHz		10992	39.43	-14.57	54	45.41	40.58	14.3	60.86	-	-	A	V
		12690	45.95	-28.05	74	54.05	38.68	15.23	62.01	-	-	P	V
		14480	51.29	-22.71	74	56.64	41.34	16.49	63.18	-	-	P	V
		14480	41.27	-12.73	54	46.62	41.34	16.49	63.18	-	-	A	V
		17952	57.35	-16.65	74	48.86	47.44	18.4	57.35	-	-	P	V
		17952	47.3	-6.7	54	38.81	47.44	18.4	57.35	-	-	A	V
		19035	38.96	-35.04	74	59.13	38.59	-3.67	55.09	-	-	P	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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 6 - 6425~6525MHz

WIFI 802.11ax HE160 Full (Harmonic @ 3m)

WIFI Ant. 4+3	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		10872	49.84	-24.16	74	56.14	40.34	14.24	60.88	-	-	P	H
		10872	39.84	-14.16	54	46.14	40.34	14.24	60.88	-	-	A	H
		13010	45.88	-42.32	88.2	52.75	39.19	15.45	61.51	-	-	P	H
		14496	50	-24	74	55.28	41.39	16.5	63.17	-	-	P	H
		14496	39.9	-14.1	54	45.18	41.39	16.5	63.17	-	-	A	H
		18000	57.5	-16.5	74	47.91	48.4	18.43	57.24	-	-	P	H
		18000	47.49	-6.51	54	37.9	48.4	18.43	57.24	-	-	A	H
		19515	37.35	-36.65	74	57.46	38.52	-3.63	55	-	-	P	H
													H
													H
802.11ax													H
HE160 Full													H
CH 111		10976	49.9	-24.1	74	55.92	40.55	14.29	60.86	-	-	P	V
6505MHz		10976	39.85	-14.15	54	45.87	40.55	14.29	60.86	-	-	A	V
		13010	44.97	-43.23	88.2	51.84	39.19	15.45	61.51	-	-	P	V
		14472	49.98	-24.02	74	55.35	41.32	16.49	63.18	-	-	P	V
		14472	40	-14	54	45.37	41.32	16.49	63.18	-	-	A	V
		17992	57.22	-16.78	74	47.82	48.24	18.42	57.26	-	-	P	V
		17992	47.21	-6.79	54	37.81	48.24	18.42	57.26	-	-	A	V
		19515	37.69	-36.31	74	57.8	38.52	-3.63	55	-	-	P	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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 7 - 6525~6875MHz

WIFI 802.11ax HE160 Full (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
4+3		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		10912	49.49	-24.51	74	55.68	40.42	14.26	60.87	-	-	P	H
		10912	39.43	-14.57	54	45.62	40.42	14.26	60.87	-	-	A	H
		13330	46.7	-27.3	74	53.4	39.55	15.71	61.96	-	-	P	H
		14480	50.18	-23.82	74	55.53	41.34	16.49	63.18	-	-	P	H
		14480	40.16	-13.84	54	45.51	41.34	16.49	63.18	-	-	A	H
		18000	57.95	-16.05	74	48.36	48.4	18.43	57.24	-	-	P	H
		18000	47.92	-6.08	54	38.33	48.4	18.43	57.24	-	-	A	H
		19995	39.26	-34.74	74	58.89	38.8	-3.53	54.9	-	-	P	H
													H
													H
802.11ax													H
HE160 Full													H
CH 143		10856	49.98	-24.02	74	56.32	40.31	14.23	60.88	-	-	P	V
6665MHz		10856	39.97	-14.03	54	46.31	40.31	14.23	60.88	-	-	A	V
		13330	47.26	-26.74	74	53.96	39.55	15.71	61.96	-	-	P	V
		14480	50.08	-23.92	74	55.43	41.34	16.49	63.18	-	-	P	V
		14480	40.11	-13.89	54	45.46	41.34	16.49	63.18	-	-	A	V
		18000	57.95	-16.05	74	48.36	48.4	18.43	57.24	-	-	P	V
		18000	47.91	-6.09	54	38.32	48.4	18.43	57.24	-	-	A	V
		19995	41.12	-32.88	74	60.75	38.8	-3.53	54.9	-	-	P	V
													V
													V
													V
													V

WIFI Ant. 4+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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)
		10864	49.87	-24.13	74	56.18	40.33	14.24	60.88	-	-	P	H
		10864	39.84	-14.16	54	46.15	40.33	14.24	60.88	-	-	A	H
		13650	46.7	-41.5	88.2	53.12	40.15	15.98	62.55	-	-	P	H
		14488	50.04	-23.96	74	55.37	41.36	16.49	63.18	-	-	P	H
		14488	40.04	-13.96	54	45.37	41.36	16.49	63.18	-	-	A	H
		18000	56.95	-17.05	74	47.36	48.4	18.43	57.24	-	-	P	H
		18000	46.91	-7.09	54	37.32	48.4	18.43	57.24	-	-	A	H
		20475	39.95	-34.05	74	59.87	38.48	-3.5	54.9	-	-	P	H
													H
													H
802.11ax													H
HE160 Full													H
CH 175		10872	49.89	-24.11	74	56.19	40.34	14.24	60.88	-	-	P	V
6825MHz		10872	39.86	-14.14	54	46.16	40.34	14.24	60.88	-	-	A	V
		13650	46.02	-42.18	88.2	52.44	40.15	15.98	62.55	-	-	P	V
		14496	49.84	-24.16	74	55.12	41.39	16.5	63.17	-	-	P	V
		14496	39.9	-14.1	54	45.18	41.39	16.5	63.17	-	-	A	V
		17880	57.12	-16.88	74	50.19	46.1	18.35	57.52	-	-	P	V
		17880	47.12	-6.88	54	40.19	46.1	18.35	57.52	-	-	A	V
		20475	39.05	-34.95	74	58.97	38.48	-3.5	54.9	-	-	P	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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 8 - 6875~7125MHz

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

WIFI Ant. 4+3	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
	*	7095	96.92	-	-	83.57	35.68	11.61	33.94	400	303	P	H
	*	7095	86.11	-	-	72.76	35.68	11.61	33.94	400	303	A	H
		7130.28	58	-30.2	88.2	44.49	35.82	11.64	33.95	400	303	P	H
		7239.56	46.78	-21.42	68.2	32.8	36.24	11.72	33.98	400	303	A	H
802.11ax													H
HE20 Full													H
CH 229	*	7095	101.31	-	-	87.96	35.68	11.61	33.94	100	203	P	V
7095MHz	*	7095	91.02	-	-	77.67	35.68	11.61	33.94	100	203	A	V
		7127.72	60.52	-27.68	88.2	47.02	35.81	11.64	33.95	100	203	P	V
		7233.48	46.84	-21.36	68.2	32.9	36.2	11.72	33.98	100	203	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 (Band Edge @ 3m)

WIFI Ant. 4+3	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
	*	7085	95.02	-	-	81.72	35.64	11.6	33.94	400	302	P	H
	*	7085	85	-	-	71.7	35.64	11.6	33.94	400	302	A	H
		7174.08	56.77	-31.43	88.2	43.11	35.95	11.68	33.97	400	302	P	H
		7231.86	46.78	-21.42	68.2	32.85	36.19	11.72	33.98	400	302	A	H
802.11ax													H
HE40 Full													H
CH 227	*	7085	100.75	-	-	87.45	35.64	11.6	33.94	100	203	P	V
7085MHz	*	7085	90.63	-	-	77.33	35.64	11.6	33.94	100	203	A	V
		7230.06	57.43	-30.77	88.2	43.51	36.18	11.72	33.98	100	203	P	V
		7234.02	46.91	-21.29	68.2	32.97	36.2	11.72	33.98	100	203	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 HE80 Full (Band Edge @ 3m)

WIFI Ant. 4+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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)
	*	7025	93.55	-	-	80.53	35.4	11.55	33.93	381	298	P	H
	*	7025	84.92	-	-	71.9	35.4	11.55	33.93	381	298	A	H
		7127.72	55.7	-32.5	88.2	42.2	35.81	11.64	33.95	381	298	P	H
		7139.08	47.23	-20.97	68.2	33.68	35.86	11.65	33.96	381	298	A	H
802.11ax													H
HE80 Full													H
CH 215	*	7025	99.97	-	-	86.95	35.4	11.55	33.93	100	209	P	V
7025MHz	*	7025	90.16	-	-	77.14	35.4	11.55	33.93	100	209	A	V
		7126.12	56.23	-31.97	88.2	42.74	35.8	11.64	33.95	100	209	P	V
		7129	47.4	-20.8	68.2	33.89	35.82	11.64	33.95	100	209	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. 4+3	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
	*	6985	95.36	-	-	82.52	35.24	11.52	33.92	387	303	P	H
	*	6985	85.95	-	-	73.11	35.24	11.52	33.92	387	303	A	H
		7128.04	57.92	-30.28	88.2	44.42	35.81	11.64	33.95	387	303	P	H
		7129	47.97	-20.23	68.2	34.46	35.82	11.64	33.95	387	303	A	H
802.11ax													H
HE160 Full													H
CH 207	*	6985	100.9	-	-	88.06	35.24	11.52	33.92	100	201	P	V
6985MHz	*	6985	91.35	-	-	78.51	35.24	11.52	33.92	100	201	A	V
		7132.84	60.57	-27.63	88.2	47.05	35.83	11.64	33.95	100	201	P	V
		7126.44	50.13	-18.07	68.2	36.63	35.81	11.64	33.95	100	201	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. 4+3	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (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)
		10944	49.92	-24.08	74	56.02	40.49	14.28	60.87	-	-	P	H
		10944	39.98	-14.02	54	46.08	40.49	14.28	60.87	-	-	A	H
		13970	49.33	-38.87	88.2	55.8	40.61	16.25	63.33	-	-	P	H
		14496	50.35	-23.65	74	55.63	41.39	16.5	63.17	-	-	P	H
		14496	40.28	-13.72	54	45.56	41.39	16.5	63.17	-	-	A	H
		17944	56.89	-17.11	74	48.59	47.28	18.39	57.37	-	-	P	H
		17944	46.86	-7.14	54	38.56	47.28	18.39	57.37	-	-	A	H
		20955	38.51	-35.49	74	57.84	38.75	-3.36	54.72	-	-	P	H
													H
													H
802.11ax													H
HE160 Full													H
CH 207		10944	50.86	-23.14	74	56.96	40.49	14.28	60.87	-	-	P	V
6985MHz		10944	40.67	-13.33	54	46.77	40.49	14.28	60.87	-	-	A	V
		13970	49.06	-39.14	88.2	55.53	40.61	16.25	63.33	-	-	P	V
		14496	48.8	-25.2	74	54.08	41.39	16.5	63.17	-	-	P	V
		14496	39.26	-14.74	54	44.54	41.39	16.5	63.17	-	-	A	V
		17952	58.16	-15.84	74	49.67	47.44	18.4	57.35	-	-	P	V
		17952	48.03	-5.97	54	39.54	47.44	18.4	57.35	-	-	A	V
		20955	37.85	-36.15	74	57.18	38.75	-3.36	54.72	-	-	P	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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Emission below 1GHz

WIFI 802.11ax HE160 Full (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
4+3		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE160 Full LF		30	21.99	-18.01	40	29.28	24.59	0.61	32.49	-	-	P	H
		88.2	24.75	-18.75	43.5	41.64	14.36	1.25	32.5	-	-	P	H
		97.9	29.69	-13.81	43.5	45.31	15.57	1.3	32.49	-	-	P	H
		165.8	25.74	-17.76	43.5	40.39	16.02	1.82	32.49	-	-	P	H
		186.17	24.77	-18.73	43.5	40.63	14.76	1.85	32.47	-	-	P	H
		564.47	27.76	-18.24	46	30.96	26.15	3.24	32.59	-	-	P	H
													H
													H
													H
													H
													H
													H
		30.97	29.07	-10.93	40	36.74	24.21	0.62	32.5	-	-	P	V
		65.89	24.58	-15.42	40	44.11	11.92	1.09	32.54	-	-	P	V
		94.99	27.03	-16.47	43.5	42.95	15.28	1.28	32.48	-	-	P	V
		171.62	25.13	-18.37	43.5	40.33	15.48	1.81	32.49	-	-	P	V
		261.83	19.81	-26.19	46	30.03	19.93	2.27	32.42	-	-	P	V
		917.55	32.37	-13.63	46	30.42	29.3	4.16	31.51	-	-	P	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 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 **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
4+3		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	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. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

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. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

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. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

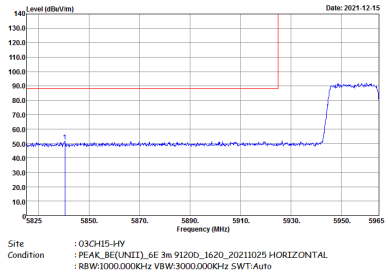
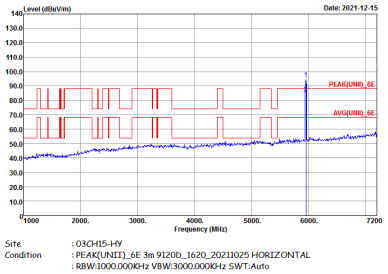
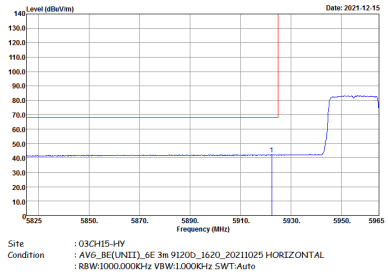
Both peak and average measured complies with the limit line, so test result is "PASS".

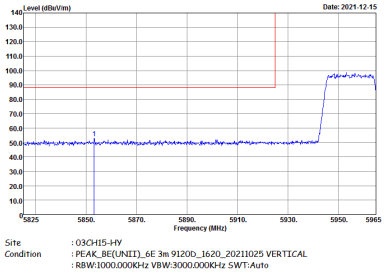
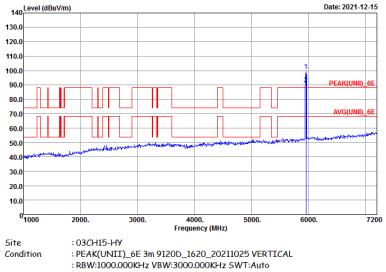
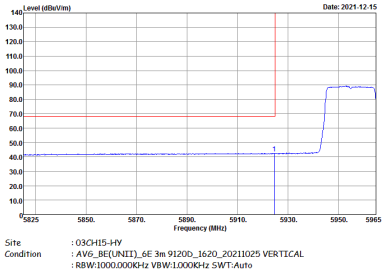
Appendix D. Radiated Spurious Emission

Test Engineer :	Leo Lee, Mancy Chou and Bigshow Wang	Temperature :	22.1~23.1°C
		Relative Humidity :	55~60%

Band 5 - 5925~6425MHz

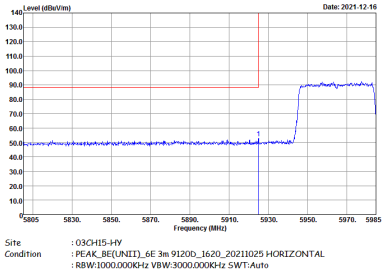
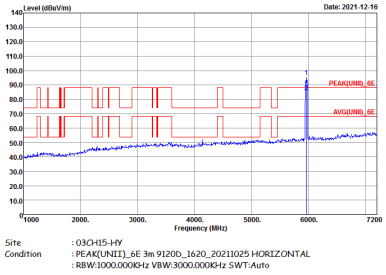
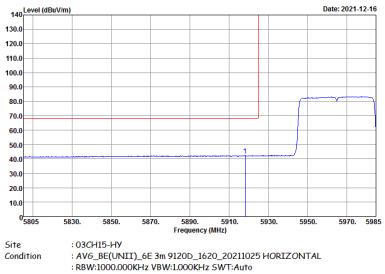
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

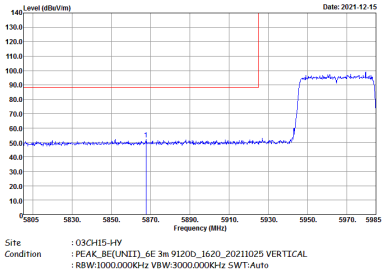
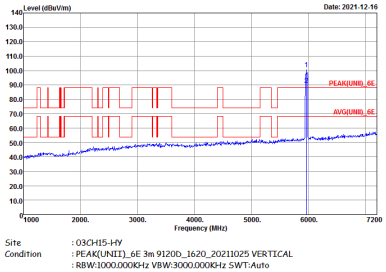
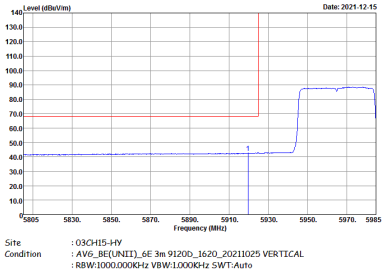
WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH01 5955MHz	
4+3	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH01 5955MHz	
4+3	Vertical	Fundamental
Peak		
Avg.		Left blank

Band 5 5925~6425MHz

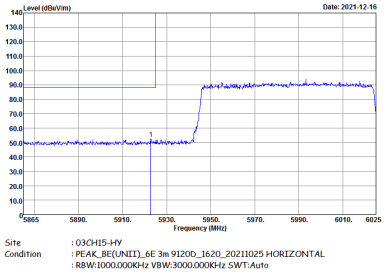
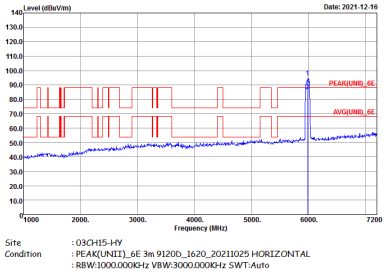
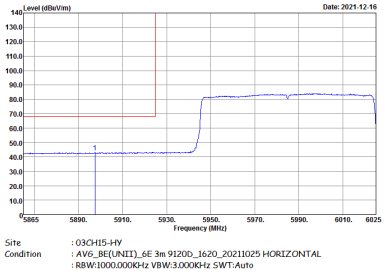
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

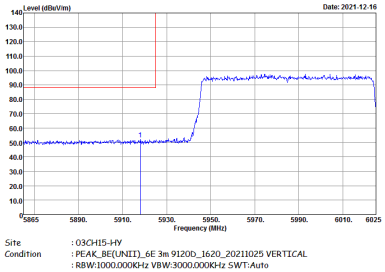
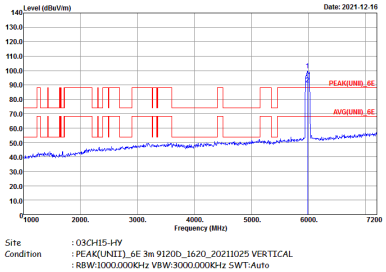
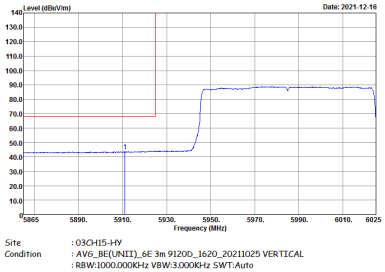
WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 5965MHz	
4+3	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 5965MHz	
4+3	Vertical	Fundamental
Peak		
Avg.		Left blank

Band 5 5925~6425MHz

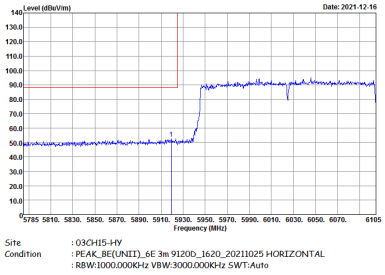
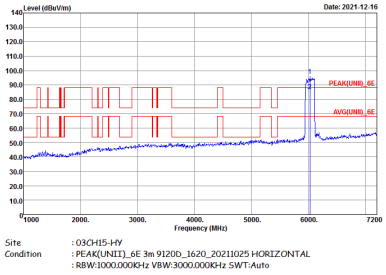
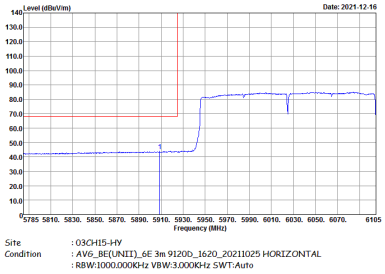
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

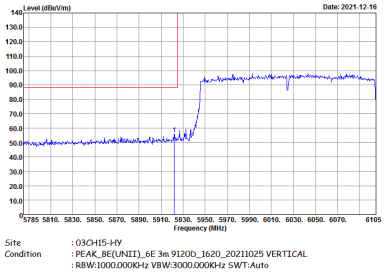
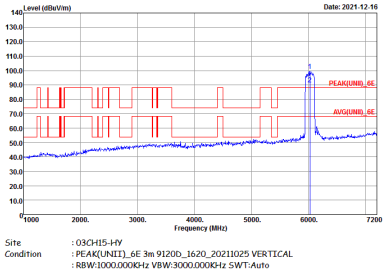
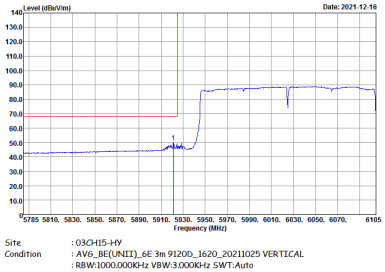
WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH07 5985MHz	
4+3	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH07 5985MHz	
4+3	Vertical	Fundamental
Peak		
Avg.		Left blank

Band 5 5925~6425MHz

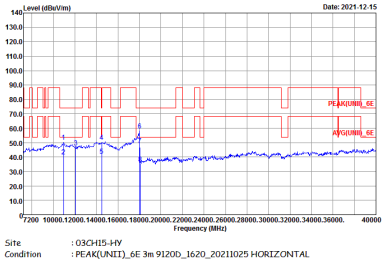
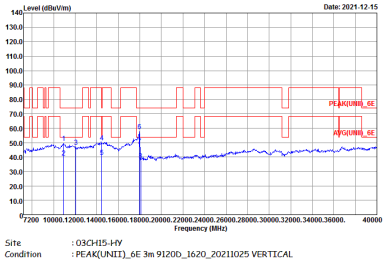
WIFI 802.11ax HE160 Full (Band Edge @ 3m)

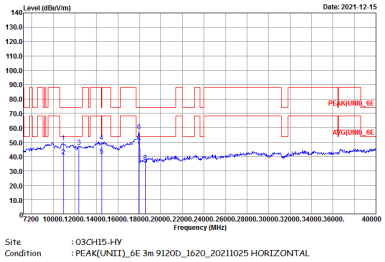
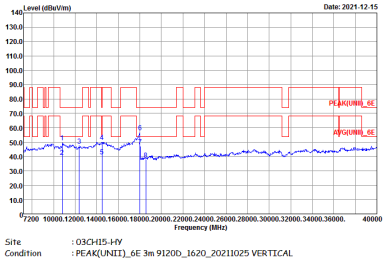
WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH15 6025MHz	
4+3	Horizontal	Fundamental
Peak		
Avg.		Left blank

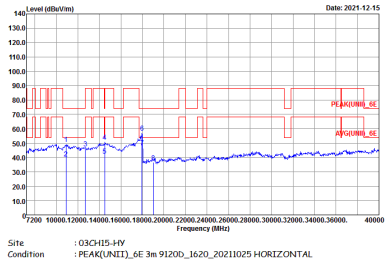
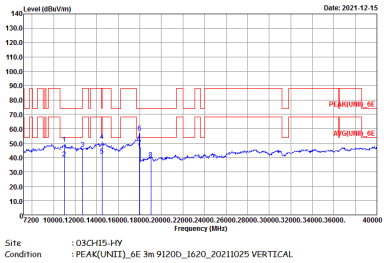
WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH15 6025MHz	
4+3	Vertical	Fundamental
Peak		
Avg.		Left blank

Band 5 - 5925~6425MHz

WIFI 802.11ax HE160 Full (Harmonic @ 3m)

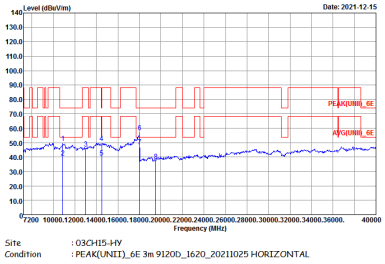
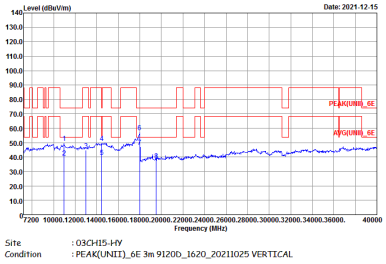
WIFI	Band 5 5925~6425MHz Harmonic @ 3m	
ANT	802.11ax HE160 Full CH15 6025MHz	
4+3	Horizontal	Vertical
Peak Avg.		

WIFI	Band 5 5925~6425MHz Harmonic @ 3m	
ANT	802.11ax HE160 Full CH47 6185MHz	
4+3	Horizontal	Vertical
Peak Avg.		

WIFI	Band 5 5925~6425MHz Harmonic @ 3m	
ANT	802.11ax HE160 Full CH79 6345MHz	
4+3	Horizontal	Vertical
Peak Avg.		

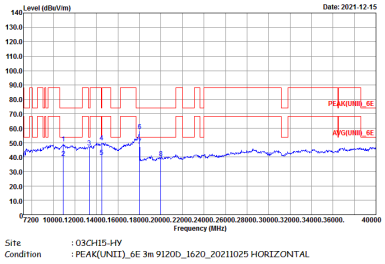
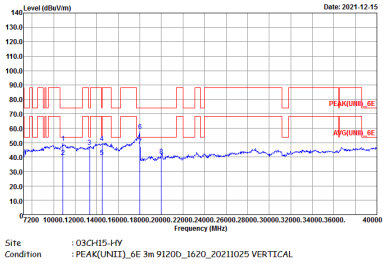
Band 6 - 6425~6525MHz

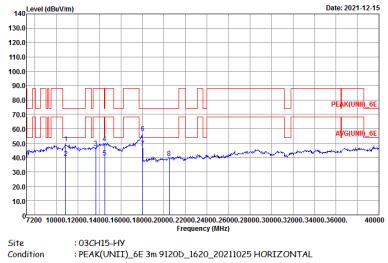
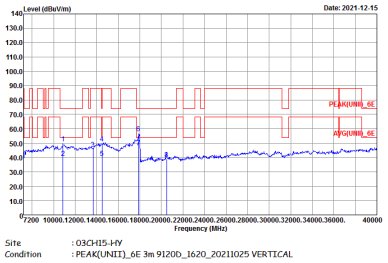
WIFI 802.11ax HE160 Full (Harmonic @ 3m)

WIFI	Band 6 6425~6525MHz Harmonic @ 3m	
ANT	802.11ax HE160 Full CH111 6505MHz	
4+3	Horizontal	Vertical
Peak Avg.		

Band 7 - 6525~6875MHz

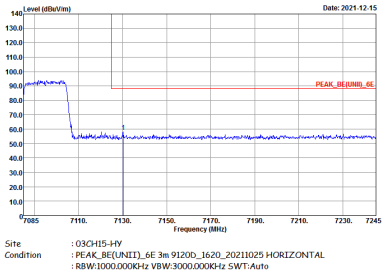
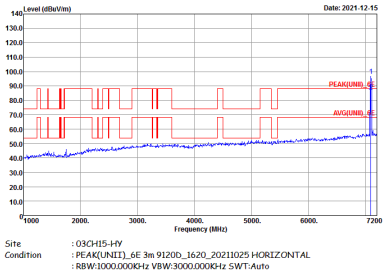
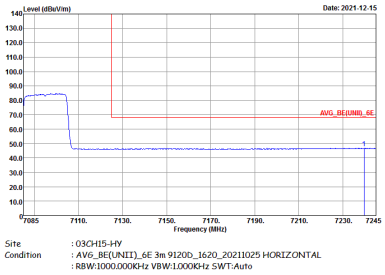
WIFI 802.11ax HE160 Full (Harmonic @ 3m)

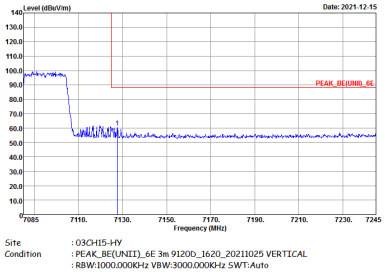
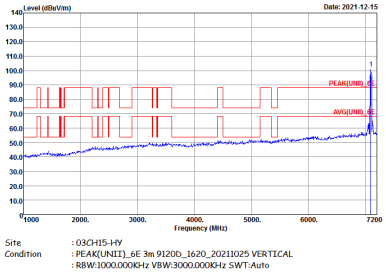
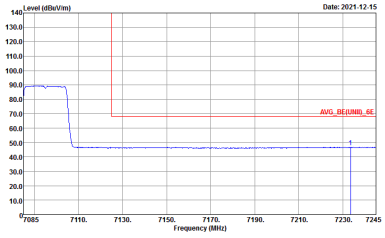
WIFI	Band 7 6525~6875MHz Harmonic @ 3m	
ANT	802.11ax HE160 Full CH143 6665MHz	
4+3	Horizontal	Vertical
Peak Avg.		

WIFI	Band 7 6525~6875MHz Harmonic @ 3m	
ANT	802.11ax HE160 Full CH175 6825MHz	
4+3	Horizontal	Vertical
Peak Avg.		

Band 8 - 6875~7125MHz

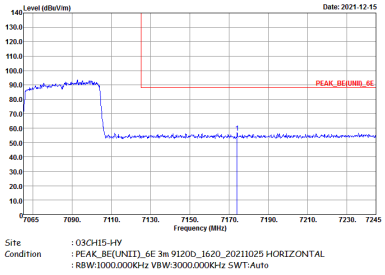
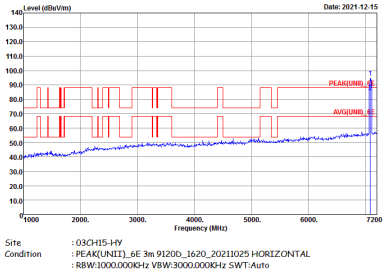
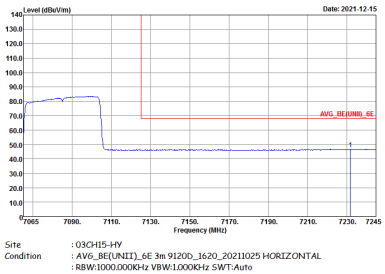
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

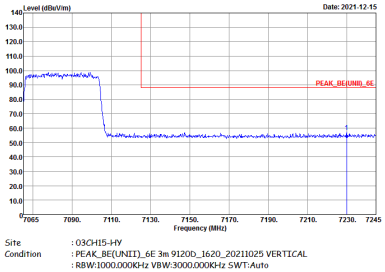
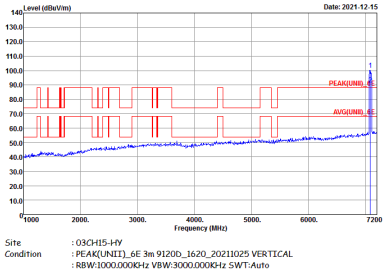
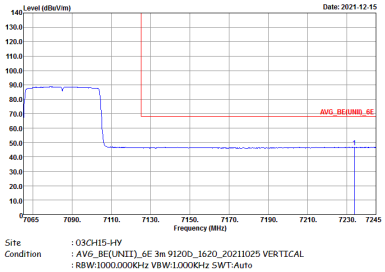
WIFI	Band 8 6875~7125MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH229 7095MHz	
4+3	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 8 6875~7125MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH229 7095MHz	
4+3	Vertical	Fundamental
Peak	 Site : 03CH15-HV Condition : PEAK_BE(UNII)_6E 3m 9120D_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HV Condition : PEAK(UNII)_6E 3m 9120D_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HV Condition : AV6_BE(UNII)_6E 3m 9120D_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	Left blank

Band 8 - 6875~7125MHz

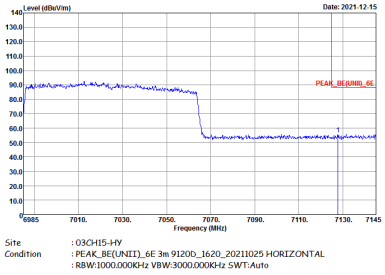
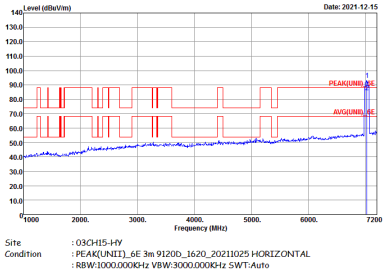
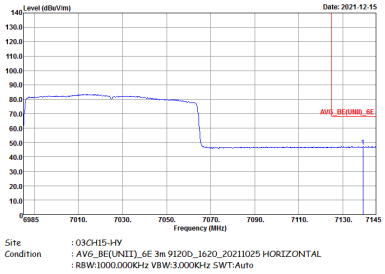
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

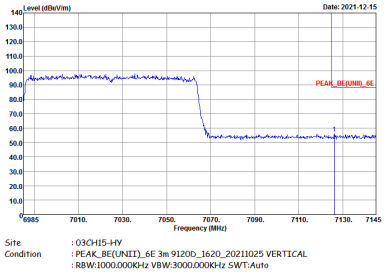
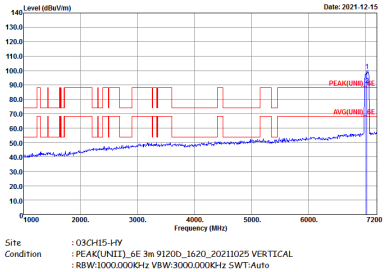
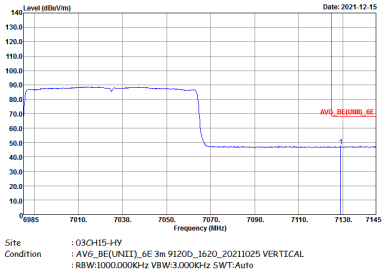
WIFI	Band 8 6875~7125MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH227 7085MHz	
4+3	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 8 6875~7125MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH227 7085MHz	
4+3	Vertical	Fundamental
Peak		
Avg.		Left blank

Band 8 - 6875~7125MHz

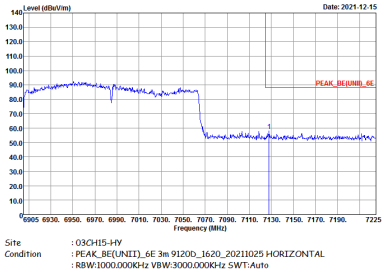
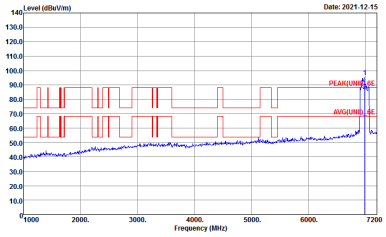
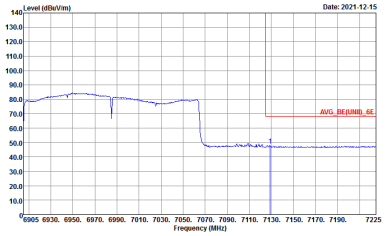
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

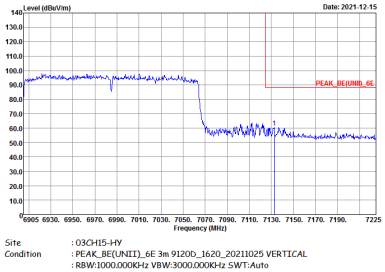
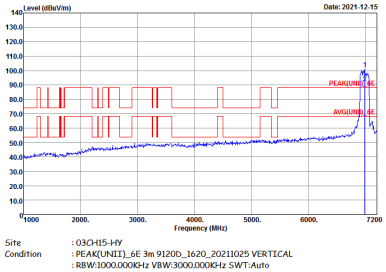
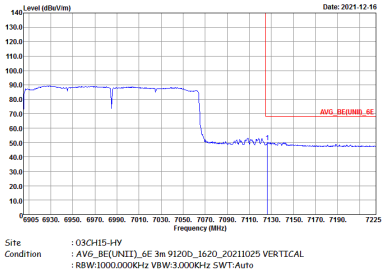
WIFI	Band 8 6875~7125MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH215 7025MHz	
4+3	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 8 6875~7125MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH215 7025MHz	
4+3	Vertical	Fundamental
Peak		
Avg.		Left blank

Band 8 - 6875~7125MHz

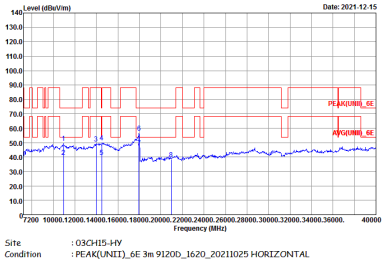
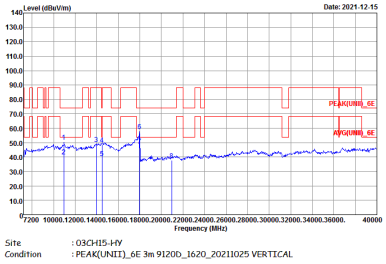
WIFI 802.11ax HE160 Full (Band Edge @ 3m)

WIFI	Band 8 6875~7125MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH207 6985MHz	
4+3	Horizontal	Fundamental
Peak	 Site : 03CH15-HV Condition : PEAK_BE(UNII)_6E 3m 9120D_1620_20211025 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HV Condition : PEAK(UNII)_6E 3m 9120D_1620_20211025 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HV Condition : AV6_BE(UNII)_6E 3m 9120D_1620_20211025 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto	Left blank

WIFI	Band 8 6875~7125MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH207 6985MHz	
4+3	Vertical	Fundamental
Peak		
Avg.		Left blank

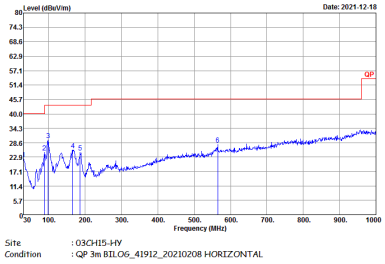
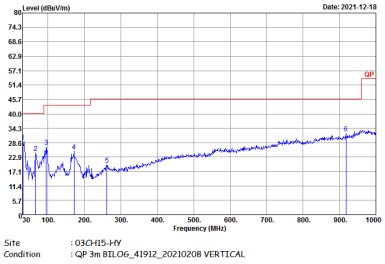
Band 8 - 6875~7125MHz

WIFI 802.11ax HE160 Full (Harmonic @ 3m)

WIFI	Band 8 6875~7125MHz Harmonic @ 3m	
ANT	802.11ax HE160 Full CH207 6985MHz	
4+3	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

5GHz WIFI 802.11ax HE160 Full (LF)

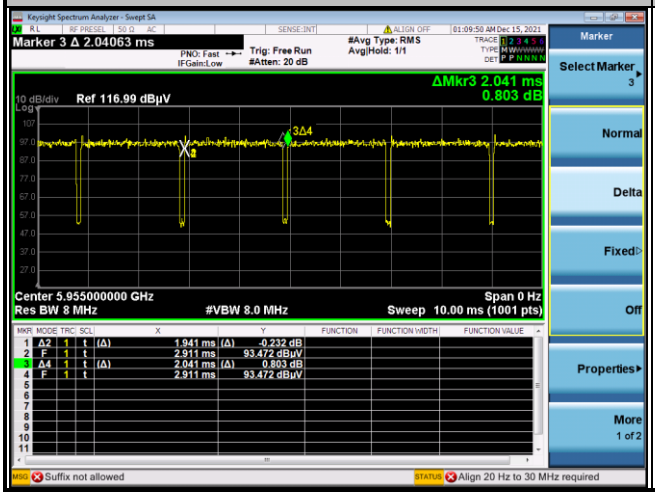
WIFI	5GHz WIFI	
ANT	802.11ax HE160 Full LF	
4+3	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

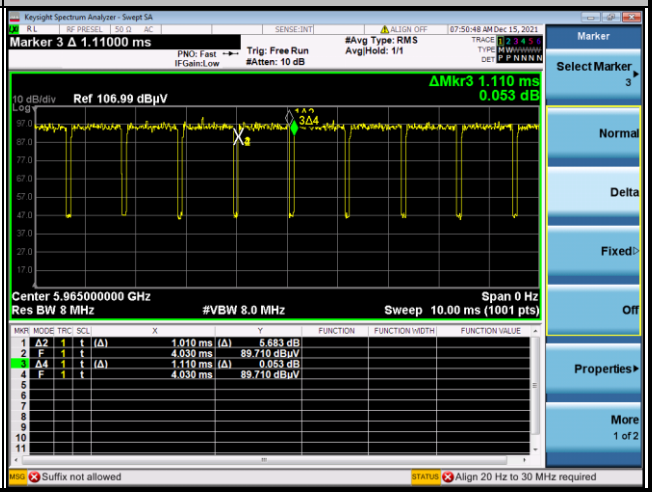
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
4+3	6GHz 802.11ax HE20 Full RU	95.10	1941	0.52	1kHz
4+3	6GHz 802.11ax HE40 Full RU	90.99	1010	0.99	1kHz
4+3	6GHz 802.11ax HE80 Full RU	84.25	615	1.63	3kHz
4+3	6GHz 802.11ax HE160 Full RU	84.83	615	1.63	3kHz

MIMO <Ant. 4+3>

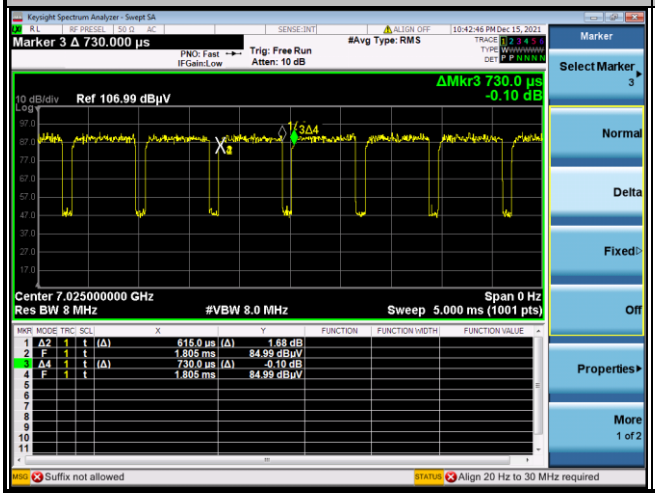
802.11ax HE20 Full RU



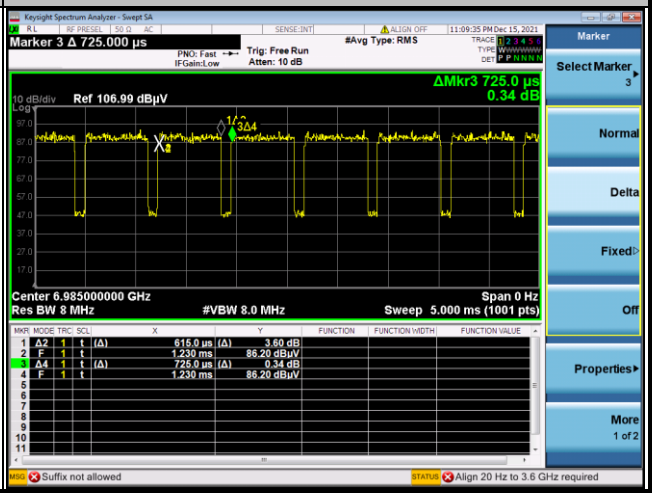
802.11ax HE40 Full RU



802.11ax HE80 Full RU



802.11ax HE160 Full RU



———THE END———