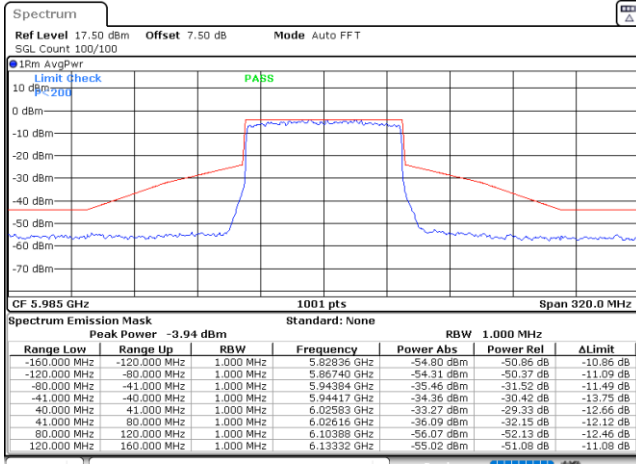




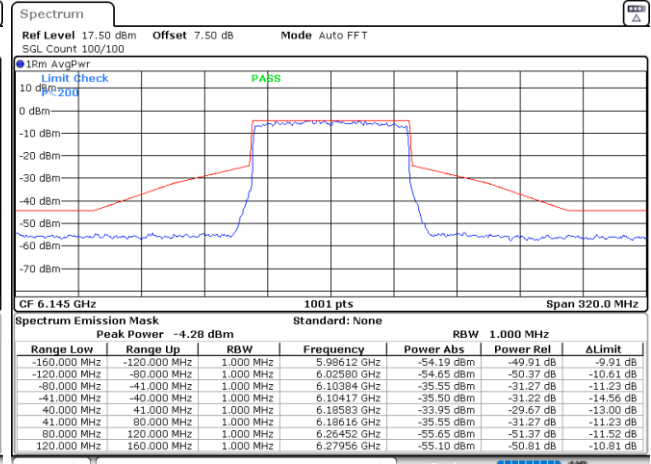
EUT Mode : 802.11ax HE80

Plot on Channel 5985MHz



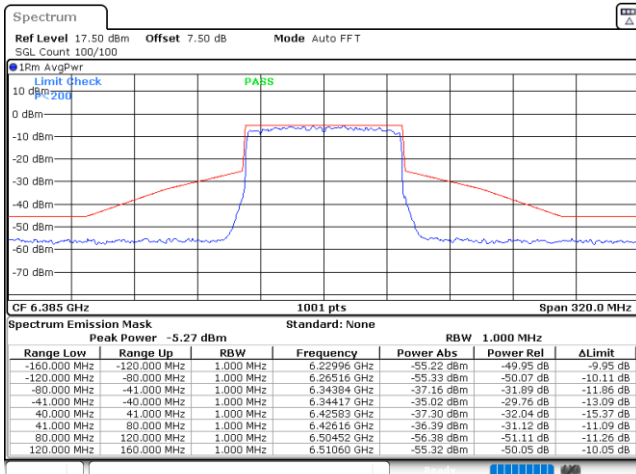
Date: 4.DEC.2021 18:48:52

Plot on Channel 6145MHz



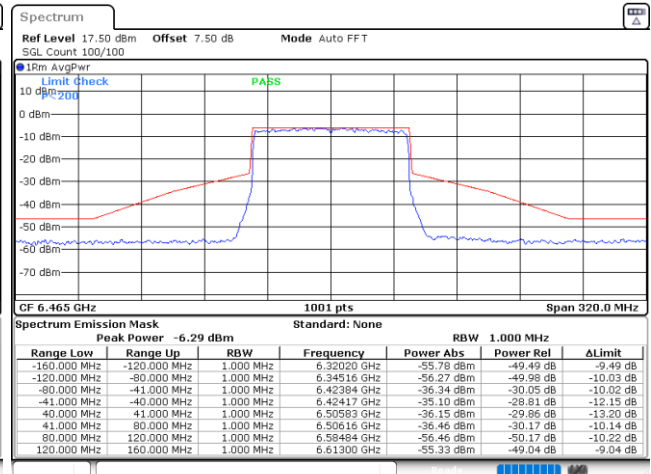
Date: 4.DEC.2021 18:56:31

Plot on Channel 6385MHz



Date: 4.DEC.2021 19:02:50

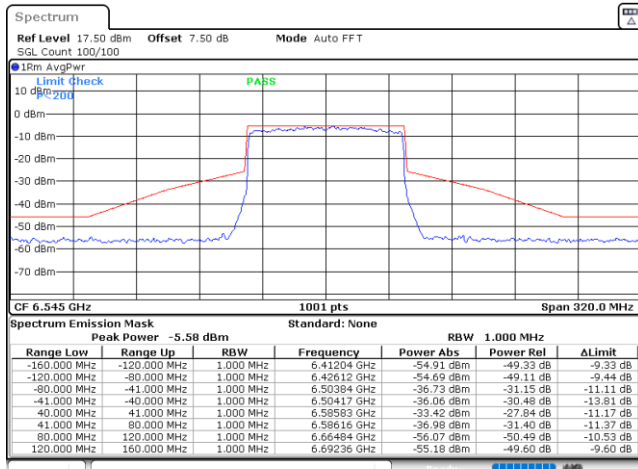
Plot on Channel 6465MHz



Date: 4.DEC.2021 19:11:18

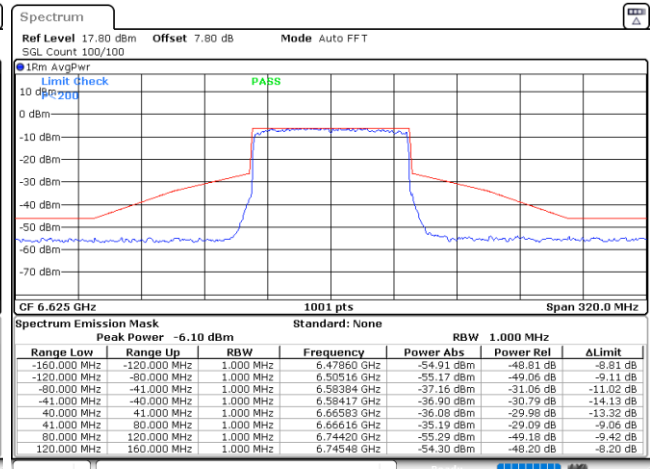


Plot on Channel 6545MHz



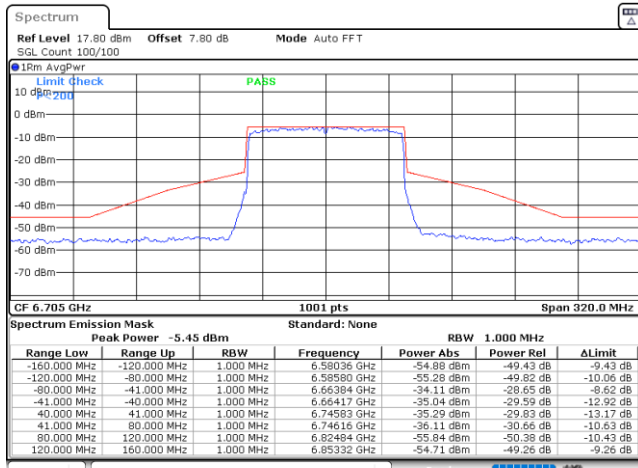
Date: 4.DEC.2021 19:16:46

Plot on Channel 6625MHz



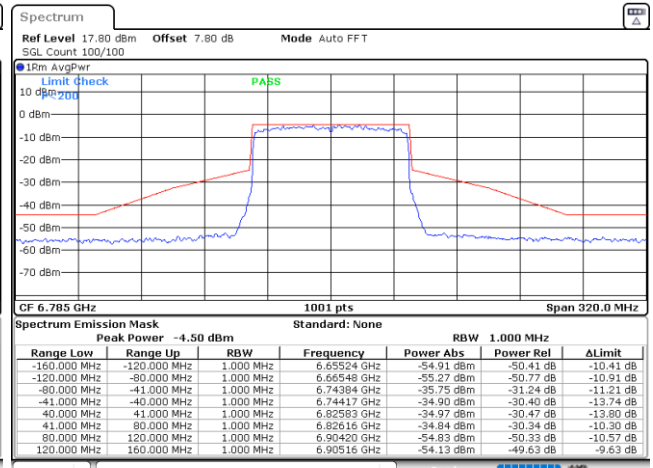
Date: 4.DEC.2021 19:55:52

Plot on Channel 6705MHz



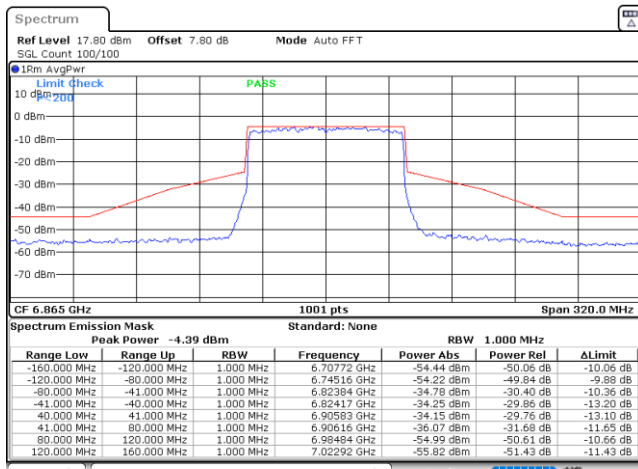
Date: 4.DEC.2021 19:59:13

Plot on Channel 6785MHz



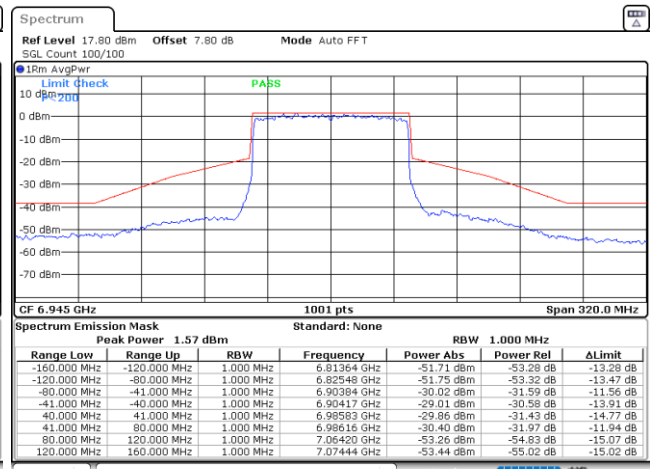
Date: 4.DEC.2021 20:02:52

Plot on Channel 6865MHz



Date: 4.DEC.2021 20:06:16

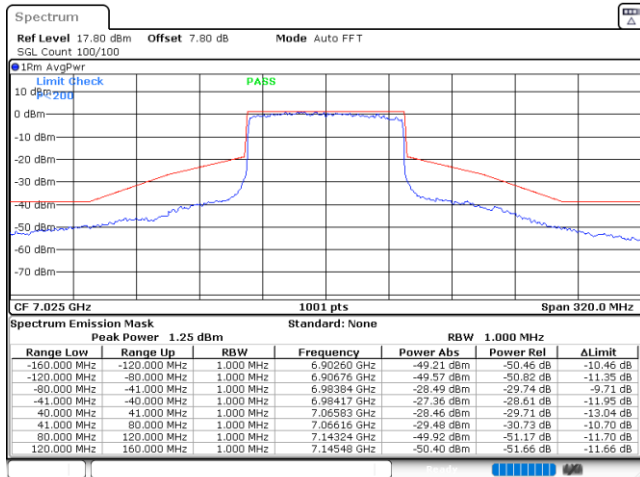
Plot on Channel 6945MHz



Date: 4.DEC.2021 20:11:17



Plot on Channel 7025MHz

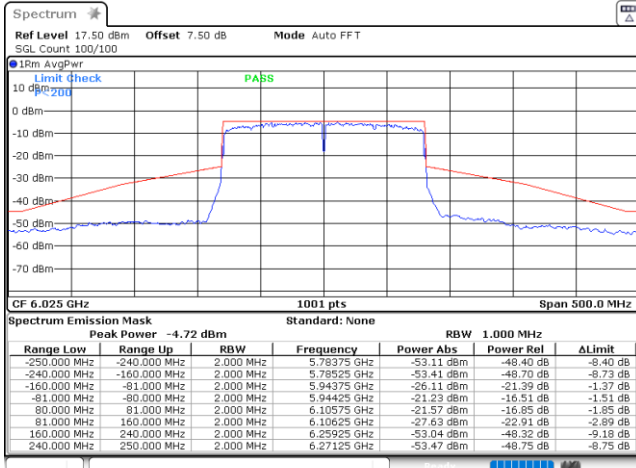


Date: 4.DEC.2021 20:15:02



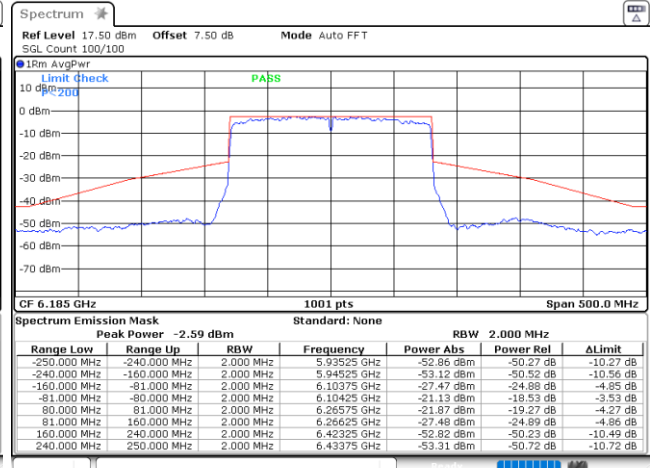
EUT Mode : 802.11ax HE160

Plot on Channel 6025MHz



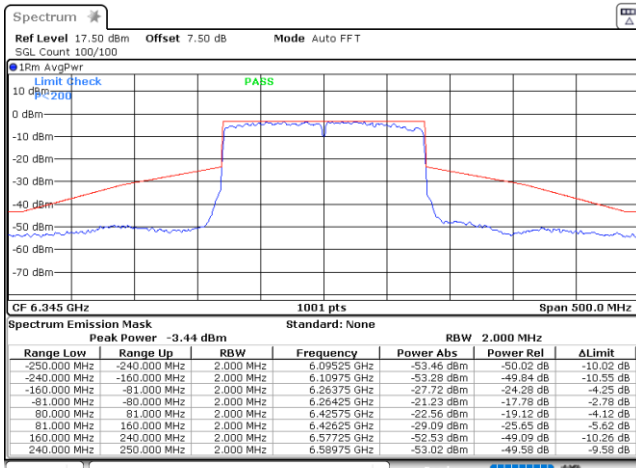
Date: 5.DEC.2021 13:59:24

Plot on Channel 6185MHz



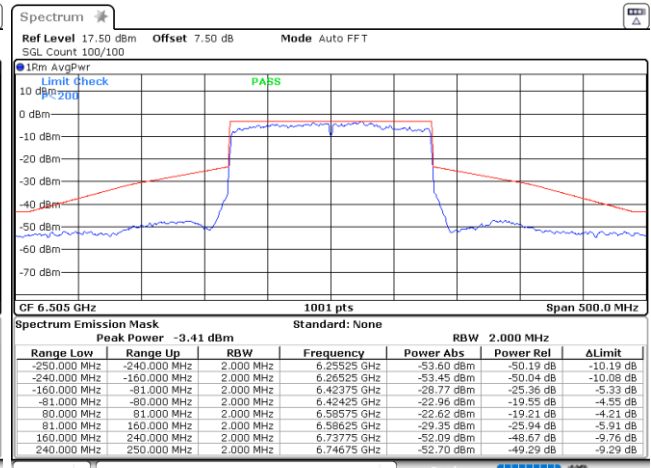
Date: 5.DEC.2021 14:16:05

Plot on Channel 6345MHz



Date: 5.DEC.2021 14:23:52

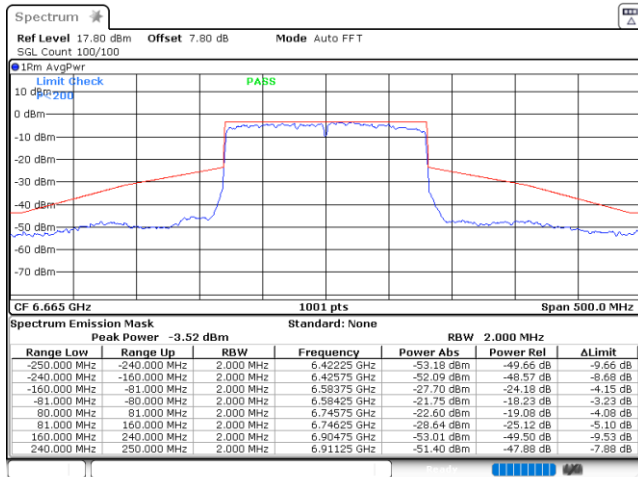
Plot on Channel 6505MHz



Date: 5.DEC.2021 14:56:07

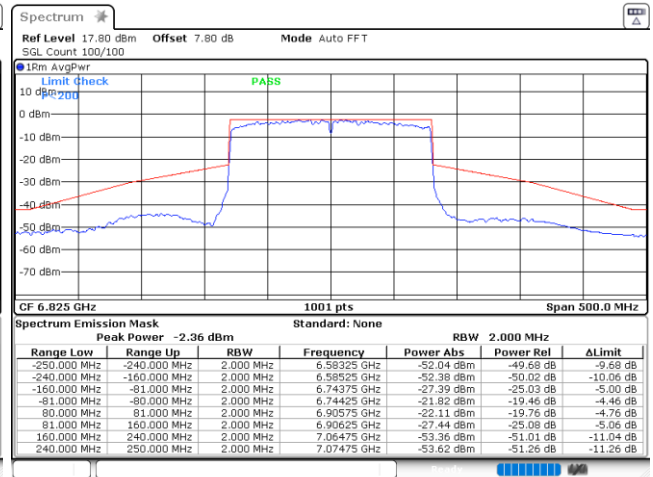


Plot on Channel 6665MHz



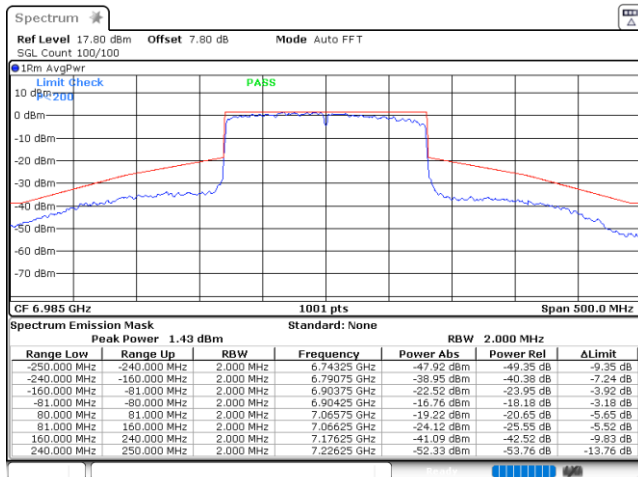
Date: 5.DEC.2021 14:59:42

Plot on Channel 6825MHz



Date: 5.DEC.2021 15:06:54

Plot on Channel 6985MHz



Date: 5.DEC.2021 15:12:16

### 3.5 Contention Based Protocol

#### 3.5.1 Limit of Contention Based Protocol

<FCC 14-30 CFR 15.407>

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

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

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

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

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

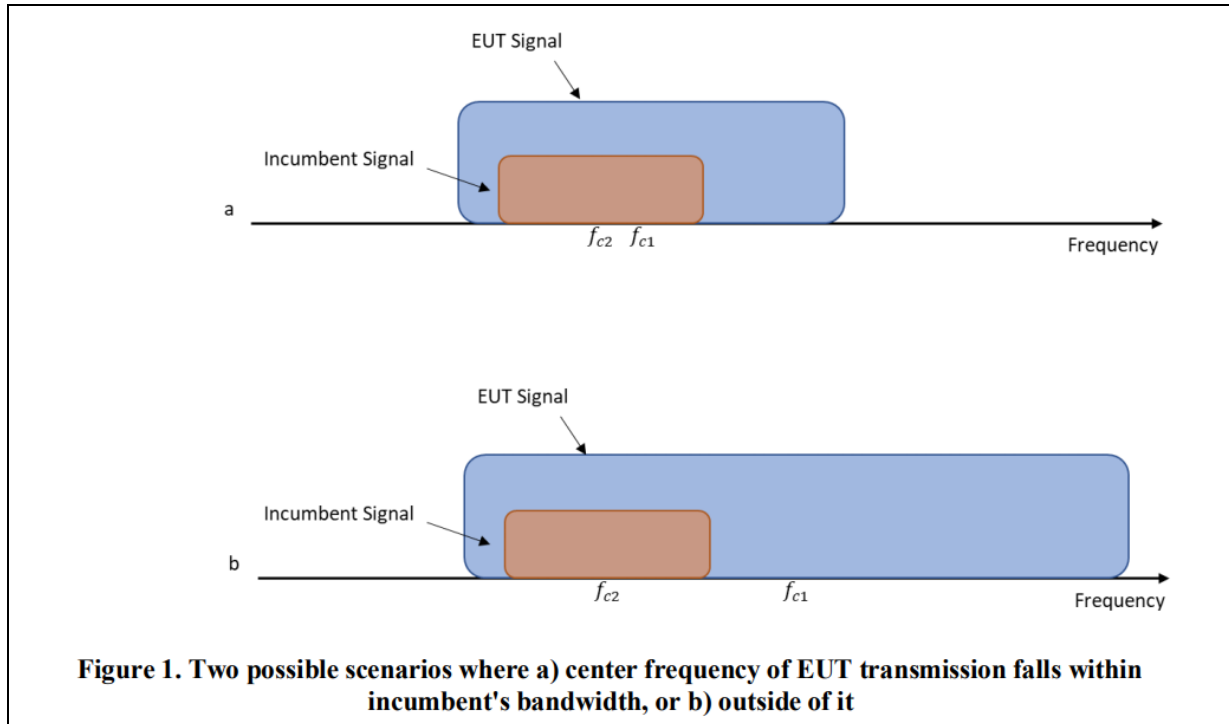
where:

$BW_{EUT}$ : Transmission bandwidth of EUT signal

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

$f_{c1}$ : Center frequency of EUT transmission

$f_{c2}$ : Center frequency of simulated incumbent signal



### 3.5.2 Measuring Instruments

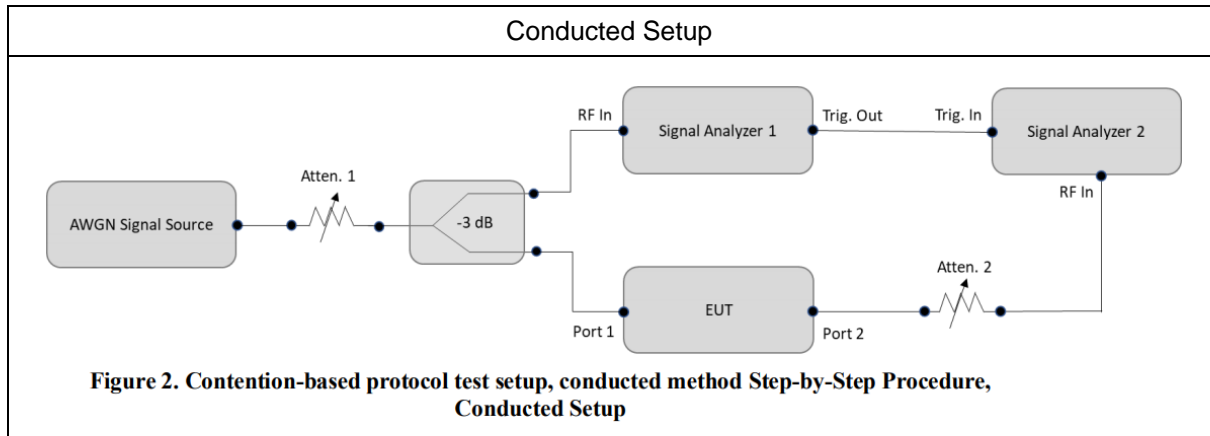
See list of measuring equipment of this test report.

### 3.5.3 Test Procedures

Refer to KDB 987594 D02 v01v01.

1. To ensure EUT reliably detects an incumbent signal in both scenarios shown in Figure 1, the detection threshold test may be repeated more than once with the incumbent signal (having center frequency  $f_{c2}$ ) tuned to different center frequencies within the UT transmission bandwidth. The criteria specified in Table 1 determines how many times the detection threshold test must be performed
2. 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.
3. Monitor the signal analyzer 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.
4. (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.
5. 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 2, choose a different center frequency for the AWGN signal and repeat the process.

### 3.5.4 Test Setup



### 3.5.5 Support Unit used in test configuration and system

Instrument	Brand Name	Model No.	Characteristics
WLAN AP	ASUS	GT-AXE11000	Dual Band AP
Notebook	Dell	P78G	LAN





3.5.6 Test Summary of Contention Based Protocol Test

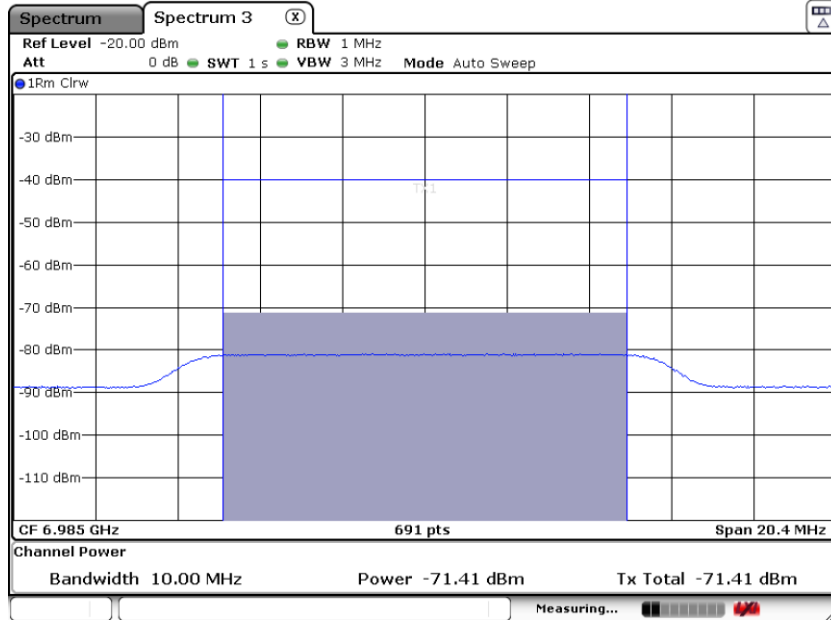
Band	Channel Freq. (MHz)	Channel BW (MHz)	Incumbent freq. (MHz)	Measured Detection level (dBm)	Detection Rate (%)	Regulated Threshold level (dBm)	Margin (dB)
UNII Band 5	6135	20	6135	-78.15	100	-66	12.15
	6185	160	6110	-75.1	100	-66	9.1
			6185	-71.77	100	-66	5.77
			6260	-74.04	100	-66	8.04
UNII Band 6	6455	20	6455	-76.88	100	-65.8	11.08
	6505	160	6430	-73.47	100	-65.8	7.67
			6505	-69.87	100	-65.8	4.07
			6580	-73.62	100	-65.8	7.82
UNII Band 7	6695	20	6695	-77	100	-66.1	10.9
	6665	160	6590	-75.21	100	-66.1	9.11
			6665	-72.15	100	-66.1	6.05
			6740	-75.33	100	-66.1	9.23
UNII Band 8	7015	20	7015	-76.51	100	-69.5	7.01
	6985	160	6910	-74.11	100	-69.5	4.61
			6985	-71.41	100	-69.5	1.91
			7060	-73.09	100	-69.5	3.59

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

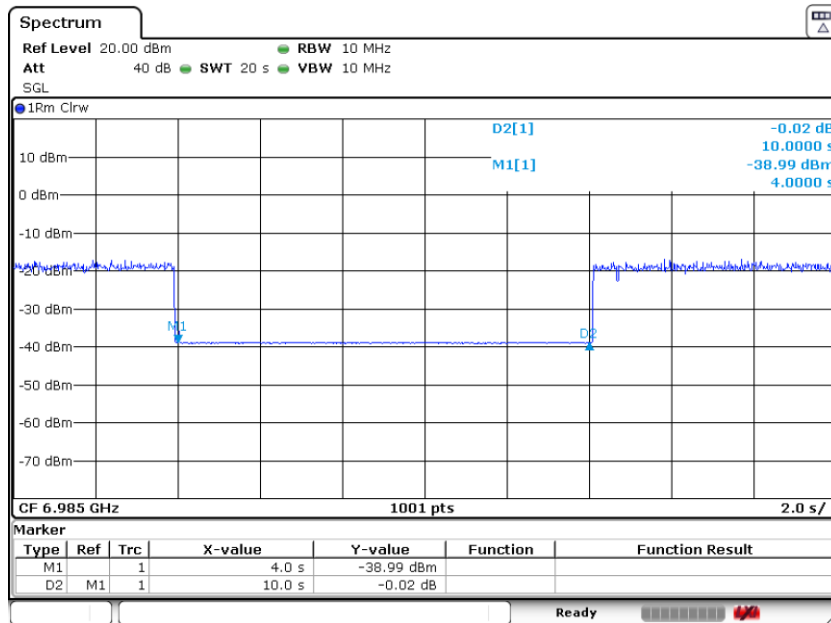


### 3.5.7 Worst Case Plots of Contention Based Protocol

802.11ax (HE160) / 6985MHz  
Threshold Level (TL) = -69.5dBm/MHz



802.11ax (HE160) / 6985MHz  
Test result is pass due to no transmission occur.



Remark: M1: Injection of AWGN signal, M2: Removal of AWGN signal

### 3.6 Unwanted Emissions Measurement

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

#### 3.6.1 Limit of Unwanted Emissions

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

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

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

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

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

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

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

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

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

#### 3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

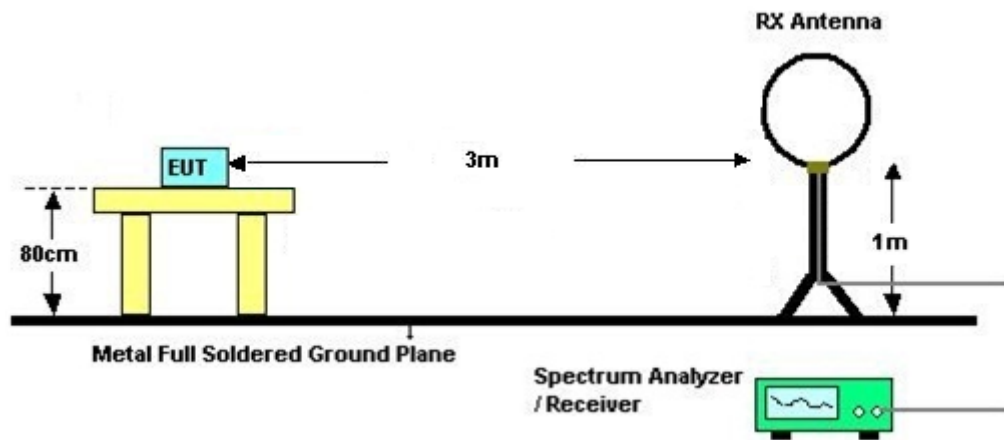


### 3.6.3 Test Procedures

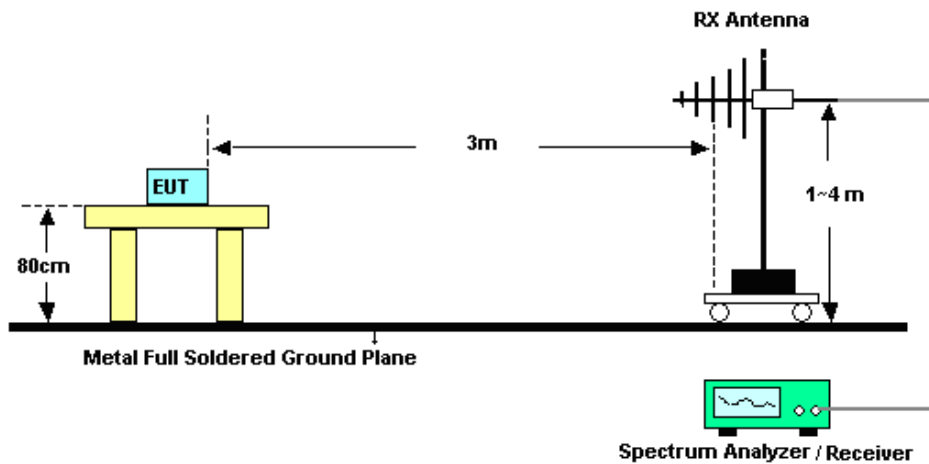
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.
  - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
    - RBW = 120 kHz
    - VBW = 300 kHz
    - Detector = Peak
    - Trace mode = max hold
  - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
    - RBW = 1 MHz
    - VBW  $\geq$  3 MHz
    - Detector = Peak
    - Sweep time = auto
    - Trace mode = max hold
  - (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
    - RBW = 1 MHz
    - VBW = 10 Hz, when duty cycle is no less than 98 percent.
    - VBW  $\geq$  1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was 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 was 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. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

### 3.6.4 Test Setup

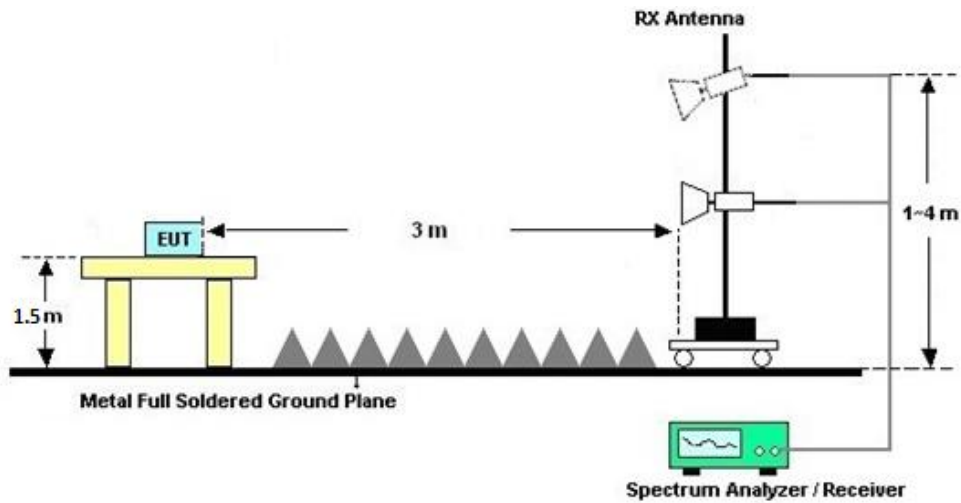
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was 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

### 3.6.7 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix C.

### 3.7 AC Conducted Emission Measurement

#### 3.7.1 Limit of AC Conducted Emission

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

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

\*Decreases with the logarithm of the frequency.

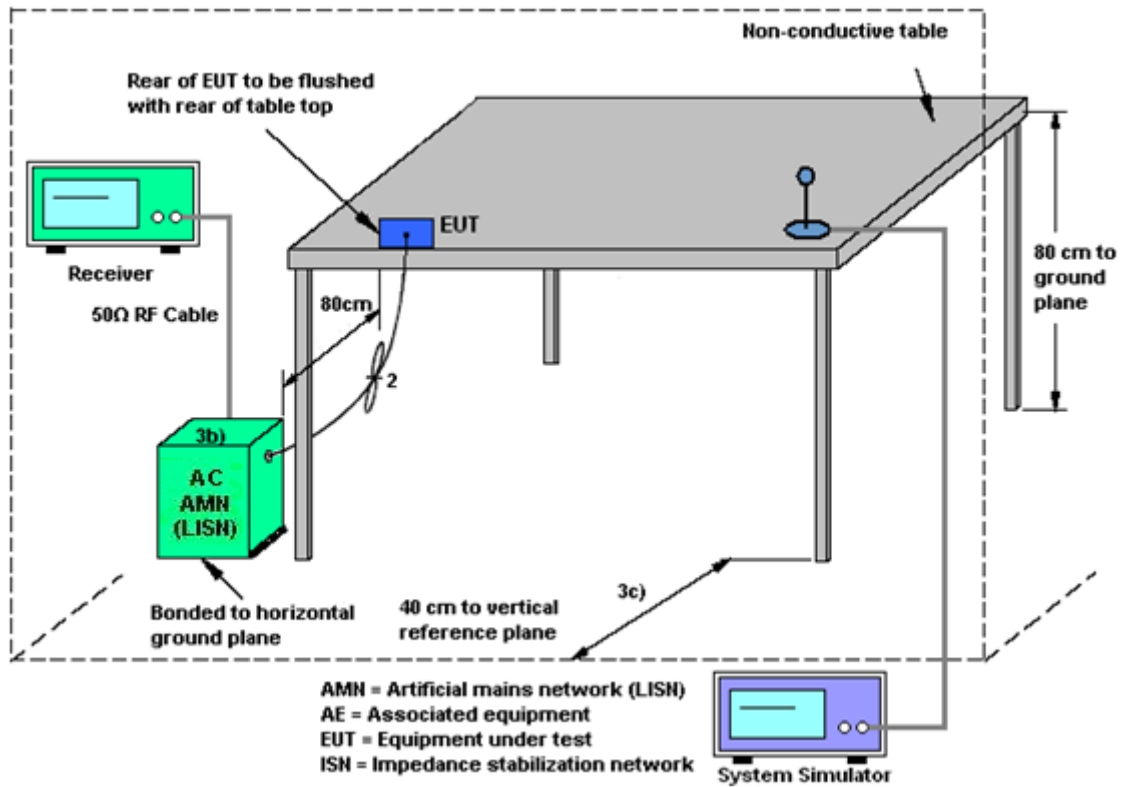
#### 3.7.2 Measuring Instruments

See list of measuring equipment of this test report.

#### 3.7.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was 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 sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

### 3.7.4 Test Setup



### 3.7.5 Test Result of AC Conducted Emission

Please refer to Appendix B.





### 3.8 Antenna Requirements

#### 3.8.1 Standard Applicable

§15.203: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

#### 3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used. The EUT complies with the requirement of 15.203.

#### 3.8.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

For power, the directional gain G<sub>ANT</sub> is set equal to the antenna having the highest gain, i.e.,

Directional gain = G<sub>ANT MAX</sub>(Ant.1 Gain, Ant.2 Gain,...) + Array Gain, as following table for Power, where Array Gain = 0 dB (i.e., no array gain) for N<sub>ANT</sub> ≤ 4;

For PSD, the directional gain calculation is following,

Directional gain = 10 log[(10<sup>G<sub>1</sub>/20</sup> + 10<sup>G<sub>2</sub>/20</sup> + ... + 10<sup>G<sub>n</sub>/20</sup>)<sup>2</sup> / N<sub>ANT</sub>] dBi, as following table for PSD.

N<sub>ANT</sub> = number of transmit antennas

N<sub>SS</sub> = number of spatial streams. (The worst case directional gain will occur when NSS = 1)

<b>&lt;CDD Modes&gt;</b>				
			<b>DG</b>	<b>DG</b>
			<b>for</b>	<b>for</b>
	<b>Ant. 1</b>	<b>Ant. 2</b>	<b>Power</b>	<b>PSD</b>
	<b>(dBi)</b>	<b>(dBi)</b>	<b>(dBi)</b>	<b>(dBi)</b>
<b>U-NII-5</b>	-0.40	-4.00	-0.40	1.00
<b>U-NII-6</b>	-1.30	-3.80	-1.30	0.55
<b>U-NII-7</b>	-1.70	-4.10	-1.70	0.19
<b>U-NII-8</b>	-4.90	-7.50	-4.90	-3.09



## 4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 14, 2021	Dec. 04, 2021~ Dec. 17, 2021	Oct. 13, 2022	Conducted (TH01-KS)
Pulse Power Sensor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 07, 2021	Dec. 04, 2021~ Dec. 17, 2021	Jan. 06, 2022	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 07, 2021	Dec. 04, 2021~ Dec. 17, 2021	Jan. 06, 2022	Conducted (TH01-KS)
EMI Test Receiver	Keysight	N9038A	MY56400004	3Hz~8.5GHz; Max 30dBm	Oct. 16, 2021	Dec. 16, 2021	Oct. 15, 2022	Radiation (03CH06-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz~44GHz	Apr. 12, 2021	Dec. 16, 2021	Apr. 11, 2022	Radiation (03CH06-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 30, 2021	Dec. 16, 2021	Oct. 29, 2022	Radiation (03CH06-KS)
Bilog Antenna	TeseQ	CBL6111D	49921	30MHz~1GHz	May 27, 2021	Dec. 16, 2021	May 26, 2022	Radiation (03CH06-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00218652	1GHz~18GHz	Apr. 25, 2021	Dec. 16, 2021	Apr. 24, 2022	Radiation (03CH06-KS)
SHF-EHF Horn	Com-power	AH-840	101093	18GHz~40GHz	Jan. 06, 2021	Dec. 16, 2021	Jan. 05, 2022	Radiation (03CH06-KS)
Amplifier	SONOMA	310N	187289	9kHz ~1GHz	Apr. 12, 2021	Dec. 16, 2021	Apr. 11, 2022	Radiation (03CH06-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 06, 2021	Dec. 16, 2021	Jan. 05, 2022	Radiation (03CH06-KS)
high gain Amplifier	MITEQ	AMF-7D-0010 1800-30-10P	2025788	1GHz~18GHz	Jan. 06, 2021	Dec. 16, 2021	Jan. 05, 2022	Radiation (03CH06-KS)
Amplifier	Keysight	83017A	MY53270203	500MHz~26.5GHz	Apr. 13, 2021	Dec. 16, 2021	Apr. 12, 2022	Radiation (03CH06-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Dec. 16, 2021	NCR	Radiation (03CH06-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Dec. 16, 2021	NCR	Radiation (03CH06-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Dec. 16, 2021	NCR	Radiation (03CH06-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 21, 2021	Dec. 17, 2021	Apr. 20, 2022	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Oct. 14, 2021	Dec. 17, 2021	Oct. 13, 2022	Conduction (CO01-KS)
AC LISN	R&S	ENV216	100334	9kHz~30MHz	Oct. 14, 2021	Dec. 17, 2021	Oct. 13, 2022	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP00000081 1	AC 0V~300V, 45Hz~1000Hz	Oct. 14, 2021	Dec. 17, 2021	Oct. 13, 2022	Conduction (CO01-KS)
Signal Analyzer	R&S	FSV7	101472	10Hz~7GHz	Jan. 07, 2021	Dec. 07, 2021	Jan. 06, 2022	Conducted (DFS01-KS)
MXG-B RF Vector Signal Generator	Keysight	5182B /5182BX07	MY56200417 /MY59360210	9kHz~7.2GHz	Apr. 13, 2021	Dec. 07, 2021	Apr. 12, 2022	Conducted (DFS01-KS)
Combiner	MTJ Cooperation	MTJ7114-M	N/A	0.5GHz~18GHz	NCR	Dec. 07, 2021	NCR	Conducted (DFS01-KS)

NCR: No Calibration Required



## 5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.94dB
---------------------------------------------------------------------	--------

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0dB
---------------------------------------------------------------------	-------

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0dB
---------------------------------------------------------------------	-------

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0dB
---------------------------------------------------------------------	-------

----- THE END -----



## Appendix A. Conducted Test Results

Test Engineer:	Albert Shi/He Yong	Temperature:	21~25	°C
Test Date:	2021/12/4~2021/12/17	Relative Humidity:	51~54	%

**TEST RESULTS DATA**  
**26dB and 99% OBW**

U-NII-5 MIMO									
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Note
					Ant 1	Ant 2	Ant 1	Ant 2	
HE20	MCS0	2	5955	Full	18.98	18.93	21.33	21.03	
HE20	MCS0	2	6175	Full	18.98	18.93	21.13	20.93	
HE20	MCS0	2	6415	Full	18.98	18.93	20.98	21.08	
HE40	MCS0	2	5965	Full	37.96	37.96	40.46	40.55	
HE40	MCS0	2	6165	Full	37.96	37.96	40.46	40.55	
HE40	MCS0	2	6405	Full	37.76	37.86	40.64	40.82	
HE80	MCS0	2	5985	Full	77.20	77.20	81.84	82.16	
HE80	MCS0	2	6145	Full	77.20	77.08	82.32	82.64	
HE80	MCS0	2	6385	Full	77.08	77.20	82.48	82.64	
HE160	MCS0	2	6025	Full	155.84	155.84	162.72	164.00	
HE160	MCS0	2	6185	Full	155.84	155.84	162.72	163.36	
HE160	MCS0	2	6345	Full	155.84	156.08	164.00	162.72	

**TEST RESULTS DATA**  
**EIRP Power Table**

U-NII-5 MIMO														
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power with duty factor (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2			
HE20	MCS0	2	5955	Full	0.00	0.00	5.98	5.74	8.87	-0.40		8.47	24.00	Pass
HE20	MCS0	2	5955	26/0	0.00	0.00	-3.48	-3.83	-0.64	-0.40		-1.04	24.00	Pass
HE20	MCS0	2	5955	52/37	0.00	0.00	-0.26	-0.72	2.53	-0.40		2.13	24.00	Pass
HE20	MCS0	2	5955	106/53	0.00	0.00	3.49	3.48	6.50	-0.40		6.10	24.00	Pass
HE20	MCS0	2	6175	Full	0.00	0.00	5.85	5.78	8.83	-0.40		8.43	24.00	Pass
HE20	MCS0	2	6175	26/4	0.00	0.00	-3.38	-3.56	-0.46	-0.40		-0.86	24.00	Pass
HE20	MCS0	2	6175	52/39	0.00	0.00	-0.08	-0.51	2.72	-0.40		2.32	24.00	Pass
HE20	MCS0	2	6175	106/53	0.00	0.00	3.30	3.40	6.36	-0.40		5.96	24.00	Pass
HE20	MCS0	2	6415	Full	0.00	0.00	6.15	6.02	9.10	-0.40		8.70	24.00	Pass
HE20	MCS0	2	6415	26/8	0.00	0.00	-2.72	-3.56	-0.11	-0.40		-0.51	24.00	Pass
HE20	MCS0	2	6415	52/40	0.00	0.00	0.28	-0.54	2.90	-0.40		2.50	24.00	Pass
HE20	MCS0	2	6415	106/54	0.00	0.00	4.00	3.10	6.58	-0.40		6.18	24.00	Pass
HE40	MCS0	2	5965	Full	0.00	0.00	10.19	9.21	12.74	-0.40		12.34	24.00	Pass
HE40	MCS0	2	6165	Full	0.00	0.00	9.43	9.03	12.24	-0.40		11.84	24.00	Pass
HE40	MCS0	2	6405	Full	0.00	0.00	9.10	8.85	11.99	-0.40		11.59	24.00	Pass
HE80	MCS0	2	5985	Full	0.00	0.00	12.51	11.87	15.21	-0.40		14.81	24.00	Pass
HE80	MCS0	2	6145	Full	0.00	0.00	12.69	11.93	15.34	-0.40		14.94	24.00	Pass
HE80	MCS0	2	6385	Full	0.00	0.00	11.01	12.02	14.55	-0.40		14.15	24.00	Pass
HE160	MCS0	2	6025	Full	0.00	0.00	14.80	14.62	17.72	-0.40		17.32	24.00	Pass
HE160	MCS0	2	6185	Full	0.00	0.00	14.69	14.65	17.68	-0.40		17.28	24.00	Pass
HE160	MCS0	2	6345	Full	0.00	0.00	14.78	14.51	17.66	-0.40		17.26	24.00	Pass

**TEST RESULTS DATA**  
**EIRP Power Spectral Density**

U-NII-5 MIMO														
Mod.	Data Rate	N <sub>TX</sub>	Freq. (MHz)	RU Config	Duty Factor (dB)		Conducted Power Density with Duty Factor (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2			
HE20	MCS0	2	5955	Full	0.00	0.00			-2.80	1.00	-1.80	-1.00	Pass	
HE20	MCS0	2	5955	26/0	0.00	0.00			-3.33	1.00	-2.33	-1.00	Pass	
HE20	MCS0	2	5955	52/37	0.00	0.00			-2.93	1.00	-1.94	-1.00	Pass	
HE20	MCS0	2	5955	106/53	0.00	0.00			-2.85	1.00	-1.85	-1.00	Pass	
HE20	MCS0	2	6175	Full	0.00	0.00			-2.77	1.00	-1.77	-1.00	Pass	
HE20	MCS0	2	6175	26/4	0.00	0.00			-3.06	1.00	-2.07	-1.00	Pass	
HE20	MCS0	2	6175	52/39	0.00	0.00			-2.96	1.00	-1.96	-1.00	Pass	
HE20	MCS0	2	6175	106/53	0.00	0.00			-3.08	1.00	-2.09	-1.00	Pass	
HE20	MCS0	2	6415	Full	0.00	0.00			-2.59	1.00	-1.59	-1.00	Pass	
HE20	MCS0	2	6415	26/8	0.00	0.00			-2.90	1.00	-1.91	-1.00	Pass	
HE20	MCS0	2	6415	52/40	0.00	0.00			-3.20	1.00	-2.20	-1.00	Pass	
HE20	MCS0	2	6415	106/54	0.00	0.00			-3.06	1.00	-2.06	-1.00	Pass	
HE40	MCS0	2	5965	Full	0.00	0.00			-2.75	1.00	-1.75	-1.00	Pass	
HE40	MCS0	2	6165	Full	0.00	0.00			-2.57	1.00	-1.57	-1.00	Pass	
HE40	MCS0	2	6405	Full	0.00	0.00			-2.71	1.00	-1.71	-1.00	Pass	
HE80	MCS0	2	5985	Full	0.00	0.00			-2.52	1.00	-1.52	-1.00	Pass	
HE80	MCS0	2	6145	Full	0.00	0.00			-2.55	1.00	-1.55	-1.00	Pass	
HE80	MCS0	2	6385	Full	0.00	0.00			-2.64	1.00	-1.64	-1.00	Pass	
HE160	MCS0	2	6025	Full	0.00	0.00			-2.89	1.00	-1.89	-1.00	Pass	
HE160	MCS0	2	6185	Full	0.00	0.00			-2.76	1.00	-1.76	-1.00	Pass	
HE160	MCS0	2	6345	Full	0.00	0.00			-2.72	1.00	-1.72	-1.00	Pass	



**TEST RESULTS DATA**  
**26dB and 99% OBW**

U-NII-6 MIMO									
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Note
					Ant 1	Ant 2	Ant 1	Ant 2	
HE20	MCS0	2	6435	Full	18.98	18.93	21.08	20.98	
HE20	MCS0	2	6475	Full	18.98	18.93	21.08	21.08	
HE20	MCS0	2	6515	Full	18.93	18.93	21.13	20.88	
HE40	MCS0	2	6445	Full	37.76	37.86	40.64	40.64	
HE40	MCS0	2	6485	Full	37.86	37.86	40.46	40.82	
HE40	MCS0	2	6525	Full	37.86	37.86	40.55	40.82	
HE80	MCS0	2	6465	Full	77.20	77.20	82.48	82.48	
HE80	MCS0	2	6545	Full	77.20	77.08	82.64	82.96	
HE160	MCS0	2	6505	Full	156.08	156.08	163.36	163.04	

**TEST RESULTS DATA**  
**EIRP Power Table**

U-NII-6 MIMO															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config	Duty Factor (dB)		Conducted Power with duty factor (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
						Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	SUM		
HE20	MCS0	2	097	6435	Full	0.00	0.00	6.22	6.65	9.45	-1.30		8.15	24.00	Pass
HE20	MCS0	2	105	6475	Full	0.00	0.00	5.97	6.89	9.46	-1.30		8.16	24.00	Pass
HE20	MCS0	2	113	6515	Full	0.00	0.00	5.95	6.71	9.36	-1.30		8.06	24.00	Pass
HE40	MCS0	2	099	6445	Full	0.00	0.00	9.13	10.08	12.64	-1.30		11.34	24.00	Pass
HE40	MCS0	2	107	6485	Full	0.00	0.00	9.22	10.19	12.74	-1.30		11.44	24.00	Pass
HE40	MCS0	2	115	6525	Full	0.00	0.00	9.42	9.49	12.47	-1.30		11.17	24.00	Pass
HE80	MCS0	2	103	6465	Full	0.00	0.00	10.92	11.93	14.46	-1.30		13.16	24.00	Pass
HE80	MCS0	2	119	6545	Full	0.00	0.00	11.37	11.85	14.63	-1.30		13.33	24.00	Pass
HE160	MCS0	2	111	6505	Full	0.00	0.00	14.63	14.13	17.40	-1.30		16.10	24.00	Pass

**TEST RESULTS DATA**  
**EIRP Power Spectral Density**

U-NII-6 MIMO														
Mod.	Data Rate	N <sub>TX</sub>	Freq. (MHz)	RU Config	Duty Factor (dB)		Conducted Power Density with Duty Factor (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	SUM		
HE20	MCS0	2	6435	Full	0.00	0.00			-2.14	0.55	-1.59	-1.00	Pass	
HE20	MCS0	2	6475	Full	0.00	0.00			-2.34	0.55	-1.79	-1.00	Pass	
HE20	MCS0	2	6515	Full	0.00	0.00			-2.31	0.55	-1.76	-1.00	Pass	
HE40	MCS0	2	6445	Full	0.00	0.00			-2.23	0.55	-1.68	-1.00	Pass	
HE40	MCS0	2	6485	Full	0.00	0.00			-2.27	0.55	-1.72	-1.00	Pass	
HE40	MCS0	2	6525	Full	0.00	0.00			-2.30	0.55	-1.75	-1.00	Pass	
HE80	MCS0	2	6465	Full	0.00	0.00			-2.51	0.55	-1.96	-1.00	Pass	
HE80	MCS0	2	6545	Full	0.00	0.00			-2.56	0.55	-2.01	-1.00	Pass	
HE160	MCS0	2	6505	Full	0.00	0.00			-2.51	0.55	-1.96	-1.00	Pass	

**TEST RESULTS DATA**  
**26dB and 99% OBW**

U-NII-7 MIMO									
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Note
					Ant 1	Ant 2	Ant 1	Ant 2	
HE20	MCS0	2	6535	Full	18.93	18.93	21.08	21.03	
HE20	MCS0	2	6695	Full	18.98	18.93	21.08	20.98	
HE20	MCS0	2	6855	Full	18.98	18.93	20.98	20.93	
HE40	MCS0	2	6565	Full	37.96	37.86	40.73	40.55	
HE40	MCS0	2	6685	Full	37.86	37.96	40.46	40.46	
HE40	MCS0	2	6845	Full	37.96	37.86	40.46	40.46	
HE80	MCS0	2	6625	Full	77.20	77.08	82.16	82.64	
HE80	MCS0	2	6705	Full	77.08	77.32	82.00	82.32	
HE80	MCS0	2	6785	Full	77.20	77.08	82.64	82.32	
HE80	MCS0	2	6865	Full	77.08	77.20	82.32	82.32	
HE160	MCS0	2	6665	Full	156.32	156.08	163.04	163.36	
HE160	MCS0	2	6825	Full	155.36	155.84	164.32	163.68	

**TEST RESULTS DATA**  
**EIRP Power Table**

U-NII-7 MIMO														
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config	Duty Factor (dB)		Conducted Power with duty factor (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2			
HE20	MCS0	2	6535	Full	0.00	0.00	5.59	6.50	9.08	-1.70		7.38	24.00	Pass
HE20	MCS0	2	6695	Full	0.00	0.00	5.29	5.81	8.57	-1.70		6.87	24.00	Pass
HE20	MCS0	2	6855	Full	0.00	0.00	6.75	6.05	9.42	-1.70		7.72	24.00	Pass
HE40	MCS0	2	6565	Full	0.00	0.00	9.66	9.40	12.54	-1.70		10.84	24.00	Pass
HE40	MCS0	2	6685	Full	0.00	0.00	10.01	9.14	12.61	-1.70		10.91	24.00	Pass
HE40	MCS0	2	6845	Full	0.00	0.00	10.23	8.85	12.60	-1.70		10.90	24.00	Pass
HE80	MCS0	2	6625	Full	0.00	0.00	11.41	11.55	14.49	-1.70		12.79	24.00	Pass
HE80	MCS0	2	6705	Full	0.00	0.00	11.77	12.12	14.96	-1.70		13.26	24.00	Pass
HE80	MCS0	2	6785	Full	0.00	0.00	12.26	11.84	15.07	-1.70		13.37	24.00	Pass
HE80	MCS0	2	6865	Full	0.00	0.00	12.92	11.42	15.24	-1.70		13.54	24.00	Pass
HE160	MCS0	2	6665	Full	0.00	0.00	14.78	14.17	17.50	-1.70		15.80	24.00	Pass
HE160	MCS0	2	6825	Full	0.00	0.00	15.37	14.93	18.17	-1.70		16.47	24.00	Pass

**TEST RESULTS DATA**  
**EIRP Power Spectral Density**

U-NII-7 MIMO														
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config	Duty Factor (dB)		Conducted Power Density with Duty Factor (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2			
HE20	MCS0	2	6535	Full	0.00	0.00			-1.77	0.19	-1.58	-1.00	Pass	
HE20	MCS0	2	6695	Full	0.00	0.00			-1.75	0.19	-1.56	-1.00	Pass	
HE20	MCS0	2	6855	Full	0.00	0.00			-1.74	0.19	-1.55	-1.00	Pass	
HE40	MCS0	2	6565	Full	0.00	0.00			-1.72	0.19	-1.53	-1.00	Pass	
HE40	MCS0	2	6685	Full	0.00	0.00			-1.86	0.19	-1.67	-1.00	Pass	
HE40	MCS0	2	6845	Full	0.00	0.00			-2.12	0.19	-1.93	-1.00	Pass	
HE80	MCS0	2	6625	Full	0.00	0.00			-2.23	0.19	-2.04	-1.00	Pass	
HE80	MCS0	2	6705	Full	0.00	0.00			-1.71	0.19	-1.52	-1.00	Pass	
HE80	MCS0	2	6785	Full	0.00	0.00			-1.88	0.19	-1.69	-1.00	Pass	
HE80	MCS0	2	6865	Full	0.00	0.00			-2.03	0.19	-1.84	-1.00	Pass	
HE160	MCS0	2	6665	Full	0.00	0.00			-1.72	0.19	-1.53	-1.00	Pass	
HE160	MCS0	2	6825	Full	0.00	0.00			-2.05	0.19	-1.86	-1.00	Pass	

**TEST RESULTS DATA**  
**26dB EBW and 99% OBW**

U-NII-8 MIMO									
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		Note
					Ant 1	Ant 2	Ant 1	Ant 2	
HE20	MCS0	2	6875	Full	18.98	18.93	21.13	20.83	
HE20	MCS0	2	6895	Full	18.98	18.93	21.03	20.88	
HE20	MCS0	2	6995	Full	18.93	18.93	20.88	20.93	
HE20	MCS0	2	7115	Full	18.93	18.93	21.03	20.83	
HE40	MCS0	2	6885	Full	37.96	37.96	40.82	40.55	
HE40	MCS0	2	6925	Full	37.86	37.86	40.37	40.46	
HE40	MCS0	2	6965	Full	37.86	37.86	40.55	40.55	
HE40	MCS0	2	7085	Full	37.96	37.86	40.64	40.37	
HE80	MCS0	2	6945	Full	77.20	77.20	82.00	82.00	
HE80	MCS0	2	7025	Full	77.20	77.32	81.68	82.32	
HE160	MCS0	2	6985	Full	155.84	155.60	163.68	162.40	

**TEST RESULTS DATA**  
**EIRP Power Table**

U-NII-8 MIMO														
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config	Duty Factor (dB)		Conducted Power with duty factor (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2			
HE20	MCS0	2	6875	Full	0.00	0.00	10.96	9.58	13.33	-4.90		8.43	24.00	Pass
HE20	MCS0	2	6875	26/0	0.00	0.00	1.79	1.02	4.43	-4.90		-0.47	24.00	Pass
HE20	MCS0	2	6875	52/37	0.00	0.00	4.21	3.11	6.71	-4.90		1.81	24.00	Pass
HE20	MCS0	2	6875	106/53	0.00	0.00	7.15	6.22	9.72	-4.90		4.82	24.00	Pass
HE20	MCS0	2	6895	Full	0.00	0.00	10.92	9.14	13.13	-4.90		8.23	24.00	Pass
HE20	MCS0	2	6895	26/0	0.00	0.00	2.75	1.82	5.32	-4.90		0.42	24.00	Pass
HE20	MCS0	2	6895	52/37	0.00	0.00	5.00	3.92	7.50	-4.90		2.60	24.00	Pass
HE20	MCS0	2	6895	106/53	0.00	0.00	6.95	6.18	9.59	-4.90		4.69	24.00	Pass
HE20	MCS0	2	6995	Full	0.00	0.00	10.97	9.38	13.26	-4.90		8.36	24.00	Pass
HE20	MCS0	2	7115	Full	0.00	0.00	10.45	9.86	13.18	-4.90		8.28	24.00	Pass
HE20	MCS0	2	7115	26/8	0.00	0.00	1.57	0.65	4.14	-4.90		-0.76	24.00	Pass
HE20	MCS0	2	7115	52/40	0.00	0.00	4.14	2.83	6.54	-4.90		1.64	24.00	Pass
HE20	MCS0	2	7115	106/54	0.00	0.00	7.33	6.18	9.80	-4.90		4.90	24.00	Pass
HE40	MCS0	2	6885	Full	0.00	0.00	14.04	12.49	16.34	-4.90		11.44	24.00	Pass
HE40	MCS0	2	6925	Full	0.00	0.00	14.32	12.61	16.56	-4.90		11.66	24.00	Pass
HE40	MCS0	2	6965	Full	0.00	0.00	13.81	12.06	16.03	-4.90		11.13	24.00	Pass
HE40	MCS0	2	7085	Full	0.00	0.00	13.93	13.10	16.55	-4.90		11.65	24.00	Pass
HE80	MCS0	2	6945	Full	0.00	0.00	17.32	16.04	19.74	-4.90		14.84	24.00	Pass
HE80	MCS0	2	7025	Full	0.00	0.00	15.82	14.85	18.37	-4.90		13.47	24.00	Pass
HE160	MCS0	2	6985	Full	0.00	0.00	17.81	18.15	20.99	-4.90		16.09	24.00	Pass



**TEST RESULTS DATA**  
**EIRP Power Spectral Density**

U-NII-8 MIMO														
Mod.	Data Rate	N <sub>TX</sub>	Freq. (MHz)	RU Config	Duty Factor (dB)		Conducted Power Density with Duty Factor (dBm/MHz)			DG (dBi)		EIRP Power Density (dBm/MHz)	EIRP Power Density Limit (dBm)	Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	SUM		
HE20	MCS0	2	6875	Full	0.00	0.00			1.57	-3.09	-1.52	-1.00	Pass	
HE20	MCS0	2	6875	26/0	0.00	0.00			1.21	-3.09	-1.88	-1.00	Pass	
HE20	MCS0	2	6875	52/37	0.00	0.00			0.52	-3.09	-2.57	-1.00	Pass	
HE20	MCS0	2	6875	106/53	0.00	0.00			0.75	-3.09	-2.34	-1.00	Pass	
HE20	MCS0	2	6895	Full	0.00	0.00			1.51	-3.09	-1.58	-1.00	Pass	
HE20	MCS0	2	6895	26/0	0.00	0.00			1.01	-3.09	-2.08	-1.00	Pass	
HE20	MCS0	2	6895	52/37	0.00	0.00			1.39	-3.09	-1.71	-1.00	Pass	
HE20	MCS0	2	6895	106/53	0.00	0.00			0.55	-3.09	-2.54	-1.00	Pass	
HE20	MCS0	2	6995	Full	0.00	0.00			1.37	-3.09	-1.72	-1.00	Pass	
HE20	MCS0	2	6995	26/4	0.00	0.00			0.89	-3.09	-2.20	-1.00	Pass	
HE20	MCS0	2	6995	52/38	0.00	0.00			0.72	-3.09	-2.38	-1.00	Pass	
HE20	MCS0	2	6995	106/53	0.00	0.00			0.82	-3.09	-2.27	-1.00	Pass	
HE20	MCS0	2	7115	Full	0.00	0.00			1.36	-3.09	-1.73	-1.00	Pass	
HE20	MCS0	2	7115	26/8	0.00	0.00			1.17	-3.09	-1.92	-1.00	Pass	
HE20	MCS0	2	7115	52/40	0.00	0.00			0.80	-3.09	-2.29	-1.00	Pass	
HE20	MCS0	2	7115	106/54	0.00	0.00			1.11	-3.09	-1.98	-1.00	Pass	
HE40	MCS0	2	6885	Full	0.00	0.00			1.45	-3.09	-1.64	-1.00	Pass	
HE40	MCS0	2	6925	Full	0.00	0.00			1.46	-3.09	-1.63	-1.00	Pass	
HE40	MCS0	2	6965	Full	0.00	0.00			1.50	-3.09	-1.59	-1.00	Pass	
HE40	MCS0	2	7085	Full	0.00	0.00			1.39	-3.09	-1.70	-1.00	Pass	
HE80	MCS0	2	6945	Full	0.00	0.00			1.41	-3.09	-1.68	-1.00	Pass	
HE80	MCS0	2	7025	Full	0.00	0.00			1.32	-3.09	-1.78	-1.00	Pass	
HE160	MCS0	2	6985	Full	0.00	0.00			0.87	-3.09	-2.23	-1.00	Pass	

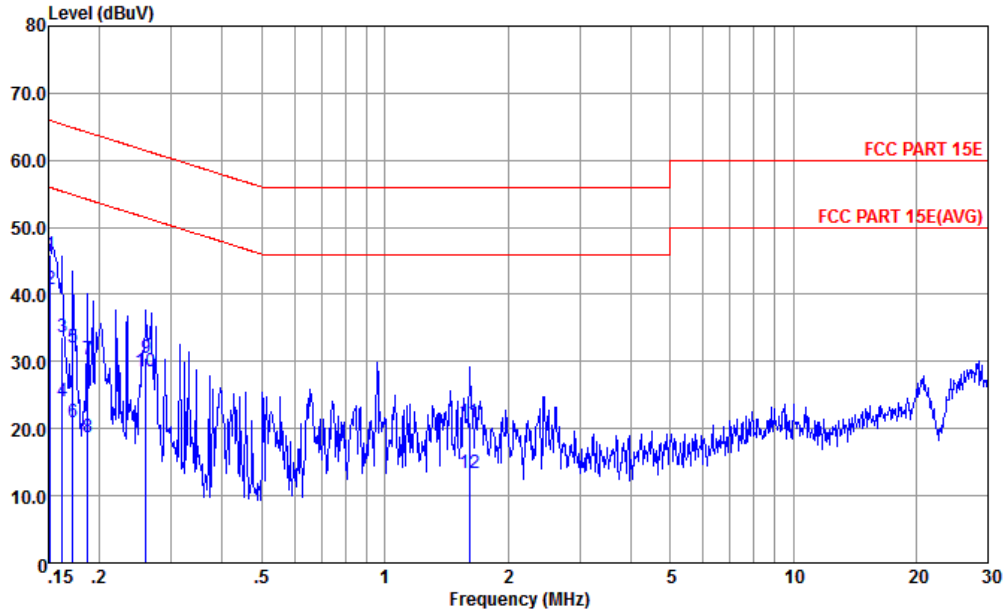
**TEST RESULTS DATA**  
**EIRP Power Table for**  
**sample 2**

Band VIII MIMO														
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power with duty factor (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2			
HE20	MCS0	2	6875	Full	0.00	0.00	10.33	9.88	13.12	-4.90		8.22	24.00	Pass
HE40	MCS0	2	6925	Full	0.00	0.00	12.96	12.22	15.62	-4.90		10.72	24.00	Pass
HE80	MCS0	2	6945	Full	0.00	0.00	16.33	15.38	18.89	-4.90		13.99	24.00	Pass
HE160	MCS0	2	6985	Full	0.00	0.00	18.18	17.61	20.91	-4.90		16.01	24.00	Pass



## Appendix B. AC Conducted Emission Test Results

Test Engineer :	Amos Zhang	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

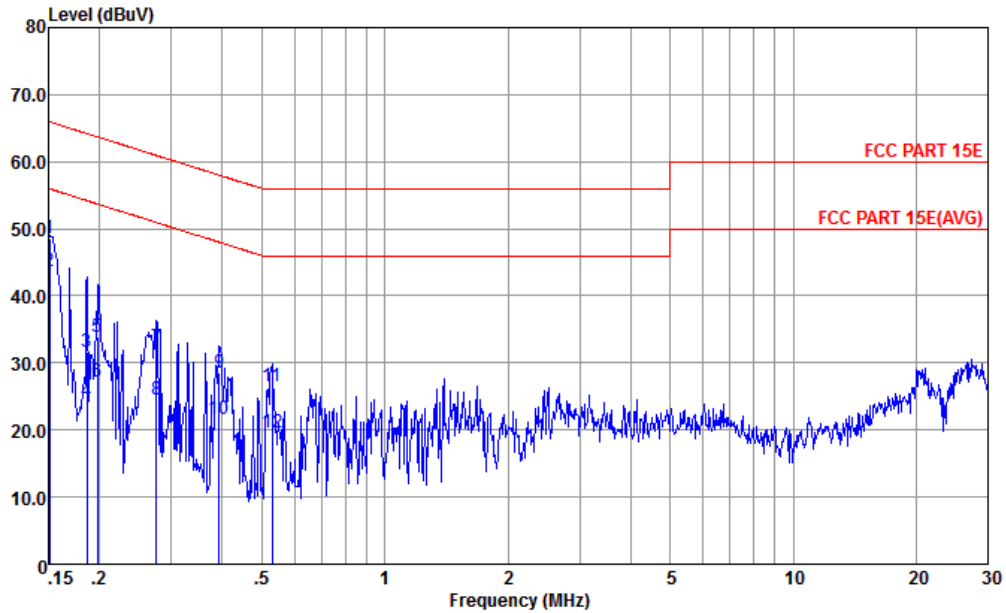


Site : CO01-KS  
Condition : FCC PART 15E LISN-060105-L LINE

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	46.00	-19.91	65.91	35.50	0.02	10.48	QP
2 *	0.152	40.80	-15.11	55.91	30.30	0.02	10.48	Average
3	0.162	33.67	-31.67	65.34	23.19	0.03	10.45	QP
4	0.162	23.97	-31.37	55.34	13.49	0.03	10.45	Average
5	0.172	32.05	-32.81	64.86	21.60	0.03	10.42	QP
6	0.172	20.95	-33.91	54.86	10.50	0.03	10.42	Average
7	0.187	30.23	-33.92	64.15	19.80	0.04	10.39	QP
8	0.187	18.63	-35.52	54.15	8.20	0.04	10.39	Average
9	0.260	30.59	-30.83	61.42	20.20	0.06	10.33	QP
10	0.260	28.49	-22.93	51.42	18.10	0.06	10.33	Average
11	1.610	20.87	-35.13	56.00	10.50	0.14	10.23	QP
12	1.610	13.47	-32.53	46.00	3.10	0.14	10.23	Average



Test Engineer :	Amos Zhang	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS  
 Condition : FCC PART 15E LISN-060105-N NEUTRAL

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.151	48.69	-17.27	65.96	38.10	0.11	10.48	QP
2 *	0.151	43.69	-12.27	55.96	33.10	0.11	10.48	Average
3	0.186	31.59	-32.61	64.20	21.10	0.10	10.39	QP
4	0.186	24.29	-29.91	54.20	13.80	0.10	10.39	Average
5	0.198	33.97	-29.74	63.71	23.50	0.10	10.37	QP
6	0.198	27.27	-26.44	53.71	16.80	0.10	10.37	Average
7	0.276	32.22	-28.72	60.94	21.80	0.10	10.32	QP
8	0.276	24.62	-26.32	50.94	14.20	0.10	10.32	Average
9	0.393	28.57	-29.42	57.99	18.19	0.11	10.27	QP
10	0.393	21.57	-26.42	47.99	11.19	0.11	10.27	Average
11	0.529	26.55	-29.45	56.00	16.20	0.11	10.24	QP
12	0.529	19.65	-26.35	46.00	9.30	0.11	10.24	Average



### Appendix C. Radiated Spurious Emission

#### U-NII 5 - 5925-6425MHzMHz

#### 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.	
1+2		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11ax HE20 Full CH 01 5955MHz		5922.16	74.13	-14.17	88.3	58.9	35.78	11.44	31.99	100	116	P	H
		5924.96	61.04	-7.26	68.3	45.81	35.78	11.44	31.99	100	116	A	H
	*	5959	113.56	-	-	98.34	35.76	11.47	32.01	100	116	P	H
		5959	105.38	-	-	90.16	35.76	11.47	32.01	100	116	A	H
		5922.16	71.95	-16.35	88.3	56.72	35.78	11.44	31.99	269	82	P	V
		5924.96	60.19	-8.11	68.3	44.96	35.78	11.44	31.99	269	82	A	V
	*	5959	111.26	-	-	96.04	35.76	11.47	32.01	269	82	P	V
	5959	103.01	-	-	87.79	35.76	11.47	32.01	269	82	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U-NII 5 5925~6425MHz
WIFI 802.11ax HE20 Partial 26 (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. 1+2, 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). Rows include test results for frequencies 5848.24, 5897.38, 5950, 5902.28, 5885.9, 5950, 5950.

Remark

- 1. No other spurious found.
2. All results are PASS against Peak and Average limit line.



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

Table with 14 columns: WIFI Ant. 1+2, 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). Rows include data for 802.11ax HE40 Full CH 03 5965MHz and a Remark section.



U-NII 5 5925~6425MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. 1+2, 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). Rows include test results for 802.11ax HE80 Full CH 07 5985MHz and a Remark section.





U-NII 5 5925~6425MHz
WIFI 802.11ax HE160 Full (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. 1+2, 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). Rows include data for 802.11ax HE160 Full CH 15 6025MHz and a Remark section.



U-NII 5 5925~6425MHz
WIFI 802.11ax HE160 Full (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1+2, 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). Rows include data for 802.11ax HE160 Full channels 15, 47, and 79.

U-NII 6 - Straddle Channel

WIFI 802.11ax HE160 Full (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1+2, 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). Rows include data for 802.11ax HE160 Full channels 111 and 111.



U-NII 7 - 6525-6875MHzMHz

WIFI 802.11ax HE160 Full (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11ax HE160 Full		13330	46.6	-27.4	74	49.23	39.95	17.53	60.11	300	0	P	H
CH 143 6665MHz		13330	45.66	-28.34	74	48.29	39.95	17.53	60.11	100	0	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

U-NII 7 - Straddle Channel

WIFI 802.11ax HE160 Full (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11ax HE160 Full		13650	46.1	-42.2	88.3	48.43	39.98	17.78	60.09	300	0	P	H
CH 175 6825MHz		13650	46.12	-42.18	88.3	48.45	39.98	17.78	60.09	100	0	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U-NII 8 - 6875-7125MHzMHz

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.	
1+2		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11ax HE20 Full CH 233 7115MHz		7125	70.97	-17.33	88.3	54.64	36.53	12.59	32.79	100	114	P	H
		7125	65.06	-3.24	68.3	48.73	36.53	12.59	32.79	100	114	A	H
	*	7111	82.18	-	-	65.88	36.52	12.57	32.79	100	114	P	H
		7111	73.1	-	-	56.8	36.52	12.57	32.79	100	114	A	H
		7125	69.59	-18.71	88.3	53.26	36.53	12.59	32.79	301	81	P	V
		7125	64.02	-4.28	68.3	47.69	36.53	12.59	32.79	301	81	A	V
	*	7120	81.59	-	-	65.26	36.53	12.59	32.79	301	81	P	V
		7120	73.9	-	-	57.57	36.53	12.59	32.79	301	81	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U-NII 8 6875~7125MHz
WIFI 802.11ax HE20 Partial 26 (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. 1+2, 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). Rows include data for 802.11ax HE20 and CH 233 7115MHz.

Remark

- 1. No other spurious found.
2. All results are PASS against Peak and Average limit line.



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

Table with 14 columns: WIFI Ant. 1+2, 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). Rows include test results for 802.11ax HE40 Full and CH 227 7085MHz.

Remark

- 1. No other spurious found.
2. All results are PASS against Peak and Average limit line.



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

Table with 14 columns: WIFI Ant. 1+2, 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). Rows include data for 802.11ax HE80 Full and CH 215 7025MHz channels.

Remark

- 1. No other spurious found.
2. All results are PASS against Peak and Average limit line.



U-NII 8 6875~7125MHz

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

WIFI Ant. 1+2	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 )
802.11ax HE160 Full CH 207 6985MHz		7138.28	64.19	-24.11	88.3	47.86	36.53	12.6	32.8	104	110	P	H
		7128.68	54.05	-14.25	68.3	37.71	36.53	12.6	32.79	104	110	A	H
	*	6940	99.86	-	-	83.78	36.33	12.44	32.69	104	110	P	H
		6940	89.78	-	-	73.7	36.33	12.44	32.69	104	110	A	H
		7134.44	61.6	-26.7	88.3	45.27	36.53	12.6	32.8	342	354	P	V
		7126.44	52.19	-16.11	68.3	35.86	36.53	12.59	32.79	342	354	A	V
	*	6940	96.89	-	-	80.81	36.33	12.44	32.69	342	354	P	V
	6940	88.74	-	-	72.66	36.33	12.44	32.69	342	354	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

U-NII 8 6875~7125MHz

WIFI 802.11ax HE160 Full (Harmonic @ 3m)

WIFI Ant. 1+2	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 )
802.11ax HE160 Full CH 207 6985MHz		13970	45.22	-43.08	88.3	47.52	39.73	18.02	60.05	300	0	P	H
		13970	45.62	-42.68	88.3	47.92	39.73	18.02	60.05	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





U-NII 8 6875~7125MHz

WIFI 802.11ax HE20 With WPC (Band Edge @ 3m)

WIFI Ant. 1+2	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)
802.11ax HE20 CH 233 7115MHz		7125	70.79	-17.51	88.3	54.46	36.53	12.59	32.79	295	125	P	H
		7125	65.13	-3.17	68.3	48.8	36.53	12.59	32.79	295	125	A	H
		7111	81.89	-	-	65.59	36.52	12.57	32.79	295	125	P	H
		7111	73.33	-	-	57.03	36.52	12.57	32.79	295	125	A	H
		7125.32	62.78	-25.52	88.3	46.45	36.53	12.59	32.79	250	180	P	V
		7125	55.35	-12.95	68.3	39.02	36.53	12.59	32.79	250	180	A	V
		7120	85.3	-	-	68.97	36.53	12.59	32.79	250	180	P	V
	7120	75.01	-	-	58.68	36.53	12.59	32.79	250	180	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI 802.11ax HE20 With WPC (Harmonic @ 3m)

WIFI Ant. 1+2	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)
802.11ax HE20 CH 233 7115MHz		14230	44.21	-44.09	88.3	46.33	39.72	18.2	60.04	300	0	P	H
		14230	45.63	-42.67	88.3	47.75	39.72	18.2	60.04	100	239	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz
WIFI 802.11ax HE20 (LF @ 3m)

Table with 14 columns: WIFI Ant. 1+2, 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). Rows include frequencies like 30, 99.84, 175.5, 227.88, 280.26, 925.31, 30.97, 40.67, 55.22, 176.47, 249.22, 739.07.

Remark

- 1. No other spurious found.
2. All results are PASS against limit line.



WIFI 802.11ax HE20 With WPC (LF @ 3m)

WIFI Ant. 1+2	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)
802.11ax HE20 CH 233 LF		30	24.22	-15.78	40	29.72	25.15	0.58	31.23	-	-	P	H
		94.02	19.08	-24.42	43.5	33.2	16.27	1.54	31.93	-	-	P	H
		162.89	26.05	-17.45	43.5	39.02	16.31	2.05	31.33	-	-	P	H
		280.26	33.67	-12.33	46	43.54	18.95	2.71	31.53	-	-	P	H
		338.46	28.24	-17.76	46	36.78	20.13	2.98	31.65	-	-	P	H
		851.59	28.74	-17.26	46	28.6	26.69	4.76	31.31	-	-	P	H
		31.94	34.48	-5.52	40	40.68	24.46	0.61	31.27	-	-	P	V
		41.64	31.46	-8.54	40	43.5	18.86	0.75	31.65	-	-	P	V
		164.83	37.16	-6.34	43.5	49.27	17.15	2.07	31.33	-	-	P	V
		198.78	28.94	-14.56	43.5	41.67	16.32	2.29	31.34	-	-	P	V
		288.02	32.78	-13.22	46	41.59	20.01	2.75	31.57	-	-	P	V
	910.76	34.34	-11.66	46	32.88	27.51	4.92	30.97	-	-	P	V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



**Note symbol**

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



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.	
1+2		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		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)

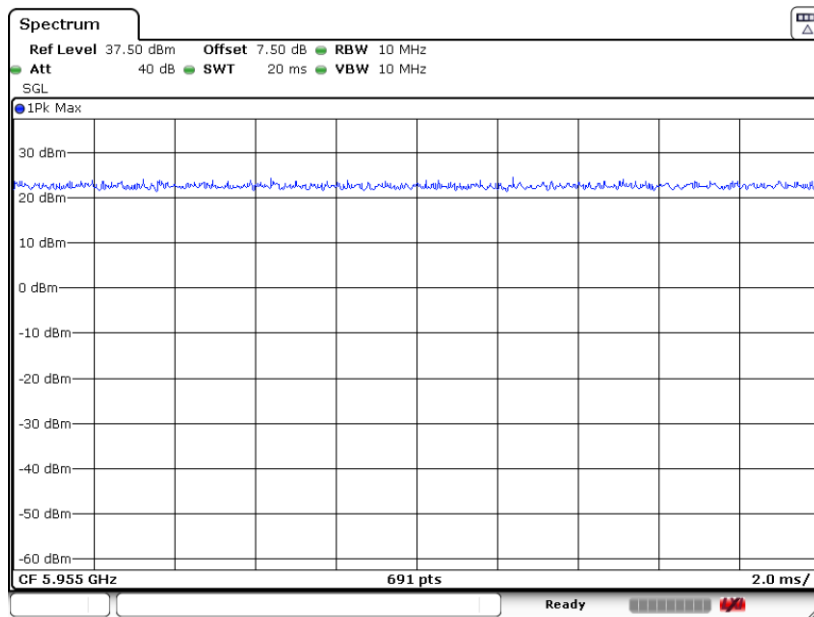
Both peak and average measured complies with the limit line, so test result is “PASS”.



### Appendix D. Duty Cycle Plots

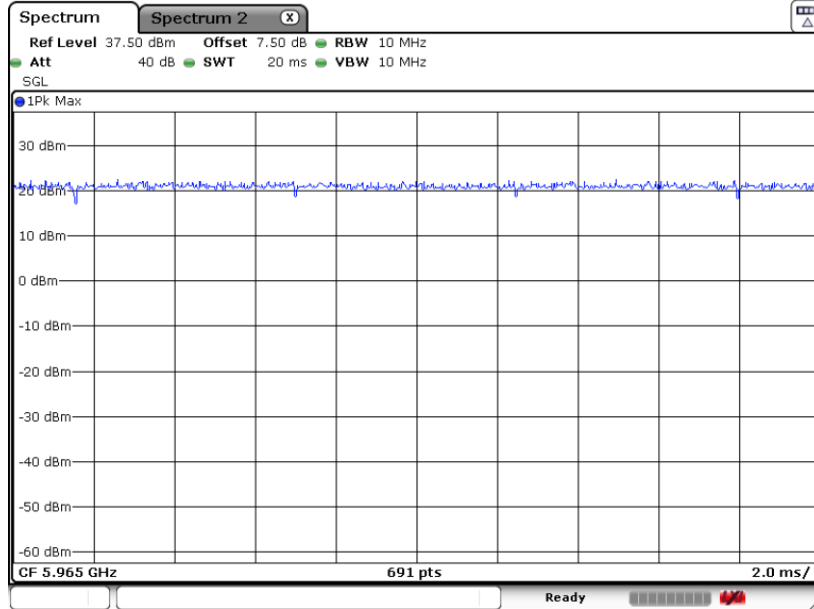
Antenna	Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
1+2	802.11ax HE20	100	-	-	10Hz
1+2	802.11ax HE40	100	-	-	10Hz
1+2	802.11ax HE80	100	-	-	10Hz
1+2	802.11ax HE160	100	-	-	10Hz

#### 802.11ax HE20

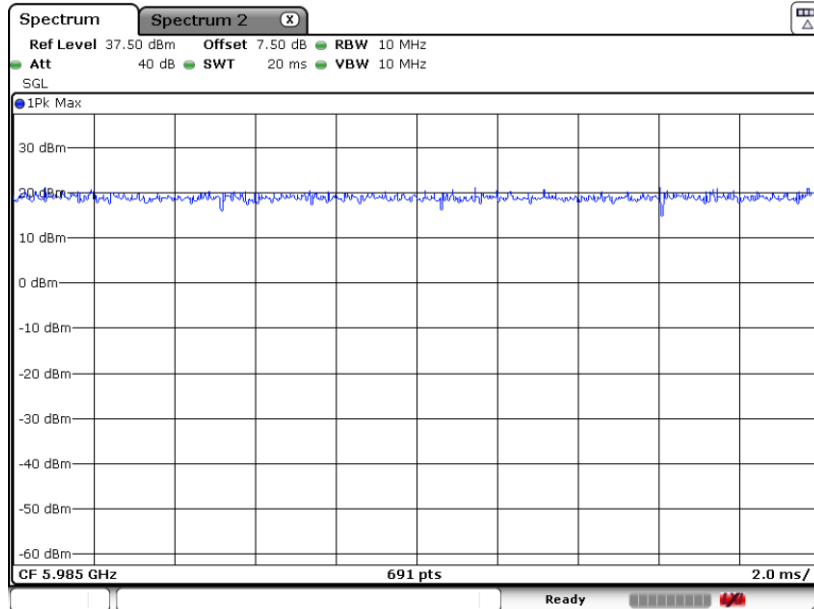




802.11ax HE40



802.11ax HE80





802.11ax HE160

