



# **FCC Radio Test Report**

FCC ID: RWO-RZ090484

This report concerns: Class II Permissive Changes

Report No. : BTL-FCCP-5-2211C022

Equipment : Notebook PC

Model Name : RZ09-0485

Brand Name : RAZER

Applicant : Razer Inc.

Address : 9 Pasteur, Suite 100, Irvine, CA92618, USA.

Manufacturer : Razer Inc.

Address : 9 Pasteur, Suite 100, Irvine, CA92618, USA.

**Equipment Class**: 6XD - 15E 6 GHz Low Power Indoor Client

Radio Function : U-NII 6 GHz (U-NII 5, U-NII 6, U-NII 7, U-NII 8)

FCC Rule Part(s) : FCC CFR Title 47, Part15, Subpart E (15.407)

Measurement : ANSI C63.10-2013

Procedure(s)

**Date of Receipt** : 2022/11/09

**Date of Test** : 2022/11/25 ~ 2023/1/19

**Issued Date** : 2023/2/17

The above equipment has been tested and found in compliance with the requirement of the above standards by BTL Inc.

Prepared by : \_\_\_\_\_\_ Frict ea Engineer

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#### **Declaration**

**BTL** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

**BTL**'s reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

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**BTL**'s laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

#### Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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### **REVISION HISTORY**

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-5-2211C022	R00	Original Report.	2023/1/4	Invalid
BTL-FCCP-5-2211C022	R01	Revised report to address TAF Audit's comments.	2023/1/31	Invalid
BTL-FCCP-5-2211C022	R02	Revised report to address TCB's comments.	2023/2/17	Valid

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### I SUMMARY OF TEST RESULTS

Test procedures according to the technical standards.

Standard(s) Section	Description	Test Result	Judgement	Remark
15.407(b)(9)	AC power line conducted emissions	APPENDIX A	Pass	
15.407(b)(6)(9)	Undesirable emissions	APPENDIX B APPENDIX C	Pass	
15.407(a)(4)(5)(6)(7)(8)	Maximum e.i.r.p.	APPENDIX D	Pass	
15.203 15.407(a)(9)	Antenna requirement	NOTE (3)	Pass	
15.407(a)(12)	Maximum power spectral density	NOTE (3)	Pass	
15.407(b)(7)	In-band emission (Mask)	NOTE (3)	Pass	
15.407(b)(10)	Restricted bands of operation	NOTE (3)	Pass	
15.407(c)	Automatically discontinue transmission	NOTE (3)	Pass	
15.407(d)	Operational restrictions for 6 GHz U-NII devices	NOTE (3)	Pass	
15.407(d)(6)	Contention-based protocol	APPENDIX E	Pass	
15.407(g) 2.1055	Frequency stability	NOTE (3)	Pass	

#### NOTE:

- (1) "N/A" denotes test is not applicable in this Test Report.
- (2) The report format version is TP.1.1.1.
- (3) This item is demonstrated to full compliance referring to the test report number 200611-01.TR38 of the integrated module (model name: AX211NGW, FCC ID: PD9AX211NG).

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#### 1.1 TEST FACILITY

TI	he test	facilities	used to	collect	the	test	data	in	this	report

No. 72, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan The test sites and facilities are covered under FCC RN: 674415 and DN: TW0659.

□ C06 ⊠ CB21 □ CB22

No. 68-1, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan The test sites and facilities are covered under FCC RN: 674415 and DN: TW0659.

oxin C05 oxin CB08 oxin CB11 oxin CB15 oxin CB16

⊠ SR10

#### 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $\mathbf{y} \pm \mathbf{U}$ , where expanded uncertainty  $\mathbf{U}$  is based on a standard uncertainty multiplied by a coverage factor of  $\mathbf{k} = \mathbf{2}$ , providing a level of confidence of approximately  $\mathbf{95}$  %. The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2  $\mathbf{U}_{cispr}$  requirement.

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U (dB)
C05	CISPR	150 kHz ~ 30MHz	3.44

#### B. Radiated emissions test:

Test Site	Measurement Frequency Range	U,(dB)
	0.03 GHz ~ 0.2 GHz	4.17
	0.2 GHz ~ 1 GHz	4.72
CB21	1 GHz ~ 6 GHz	5.21
CB21	6 GHz ~ 18 GHz	5.51
	18 GHz ~ 26 GHz	3.69
	26 GHz ~ 40 GHz	4.23

#### C. Conducted test:

Test Item	U,(dB)
Maximum e.i.r.p.	0.3669
Contention-based protocol	-

#### NOTE:

Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

#### 1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Environment Condition	Test Voltage	Tested by
AC Power Line Conducted Emissions	19°C, 65%	AC 120V/60Hz	Jay Tien
Radiated emissions below 1 GHz	23°C, 59%	AC 120V/60Hz	Mark Wang
Radiated emissions above 1 GHz	23°C, 59%	AC 120V/60Hz	Mark Wang
Maximum e.i.r.p.	22.6°C, 51%	AC 120V/60Hz	Angela Wang
Contention-based protocol	23.4°C, 55%	AC 120V/60Hz	Tim Lee

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### 1.4 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

Test Software	DRTU V02999.22.180.0					
UNII-5						
Mode	5955 MHz	6175 MHz	6415 MHz	Data Rate		
IEEE 802.11ax (HE20)	1.625	1.625	1.625	HE0		
Mode	5965 MHz	6165 MHz	6405 MHz	Data Rate		
IEEE 802.11ax (HE40)	4.5	4	4.125	HE0		
Mode	5985 MHz	6145 MHz	6385 MHz	Data Rate		
IEEE 802.11ax (HE80)	7.25	7.125	7.125	HE0		
Mode	6025 MHz	6345 MHz		Data Rate		
IEEE 802.11ax (HE160)	9.875	9.875		HE0		

UNII-6						
Mode	6435 MHz	6475 MHz	6515 MHz	Data Rate		
IEEE 802.11ax (HE20)	2.25	2.25	2.25	HE0		
Mode	6445 MHz	6485 MHz		Data Rate		
IEEE 802.11ax (HE40)	4.75	5.125		HE0		
Mode	6465 MHz			Data Rate		
IEEE 802.11ax (HE80)	7.5			HE0		
Mode	6505 MHz			Data Rate		
IEEE 802.11ax (HE160)	10.25			HE0		

UNII-6+ UNII-7					
Mode 6525 MHz Data Rate					
IEEE 802.11ax (HE40)	5.25	HE0			

UNII-7						
Mode	6535 MHz	6695 MHz	6855 MHz	Data Rate		
IEEE 802.11ax (HE20)	1.875	1.875	1.875	HE0		
Mode	6685 MHz	6845 MHz		Data Rate		
IEEE 802.11ax (HE40)	4.25	4.25		HE0		
Mode	6545 MHz	6625 MHz	6785 MHz	Data Rate		
IEEE 802.11ax (HE80)	7.625	7.375	7.375	HE0		
Mode	6665 MHz			Data Rate		
IEEE 802.11ax (HE160)	10			HE0		

		UNII-8			
Mode	6875 MHz	6995 MHz	7095 MHz	7115 MHz	Data Rate
IEEE 802.11ax (HE20)	1.875	1.875	1.875	0	HE0
Mode	6885 MHz	7085 MHz			Data Rate
IEEE 802.11ax (HE40)	5.25	5.25			HE0
Mode	6865 MHz	6945 MHz	7025 MHz		Data Rate
IEEE 802.11ax (HE80)	7.375	8	8		HE0
Mode	6985 MHz				Data Rate
IEEE 802.11ax (HE160)	10				HE0

## 2 GENERAL INFORMATION

### 2.1 DESCRIPTION OF EUT

Equipment	Notebook PC					
Model Name	RZ09-0485					
Brand Name RAZER						
Model Difference	N/A					
Power Source	1# DC voltage supplied from AC adapter. Model: RC30-024801 2# Supplied from battery. Model: RC30-0248					
Power Rating	1# I/P: 100-240V, 3.6A ,50/60Hz O/P: 19.5V===11.8A 2# DC 15.4V, 5209mAh, 80Wh					
Products Covered	1* POWER Adapter 1* AC Cable					
Operation Band	UNII-5: 5925 MHz ~ 6425 MHz UNII-6: 6425 MHz ~ 6525 MHz UNII-7: 6525 MHz ~ 6875 MHz UNII-8: 6875 MHz ~ 7125 MHz					
Modulation Technology	OFDMA					
Transfer Rate	IEEE 802.11ax: up to 2402 Mbps					
Maximum E.I.R.P. for UNII-5	IEEE 802.11ax (HE20): 8.66 dBm (0.0073 W) IEEE 802.11ax (HE40): 11.51 dBm (0.0142 W) IEEE 802.11ax (HE80): 14.39 dBm (0.0275 W) IEEE 802.11ax (HE160): 17.11 dBm (0.0514 W)					
Maximum E.I.R.P. for UNII-6	IEEE 802.11ax (HE20): 9.40 dBm (0.0087 W) IEEE 802.11ax (HE40): 12.32 dBm (0.0171 W) IEEE 802.11ax (HE80): 14.60 dBm (0.0288 W) IEEE 802.11ax (HE160): 17.47 dBm (0.0558 W)					
Maximum E.I.R.P. for UNII-7	IEEE 802.11ax (HE20): 8.60 dBm (0.0072 W) IEEE 802.11ax (HE40): 11.30 dBm (0.0135 W) IEEE 802.11ax (HE80): 14.61 dBm (0.0289 W) IEEE 802.11ax (HE160): 17.33 dBm (0.0541 W)					
Maximum E.I.R.P. for UNII-6+ UNII-7	IEEE 802.11ax (HE40): 12.40 dBm (0.0174 W)					
Maximum E.I.R.P. for UNII-8	IEEE 802.11ax (HE20): 8.77 dBm (0.0075 W) IEEE 802.11ax (HE40): 12.22 dBm (0.0167 W) IEEE 802.11ax (HE80): 14.85 dBm (0.0305 W) IEEE 802.11ax (HE160): 17.16 dBm (0.0520 W)					
Test Model	RZ09-0485					
Sample Status	Engineering Sample					
EUT Modification(s)	N/A					

#### NOTE

(1) For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

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(2) Channel List:

(2) Channer	UNII-5											
IEEE 802.1	IEEE 802.11ax (HE20)		1ax (HE40)	IEEE 802.11ax (HE80)		IEEE 802.1	lax (HE160)					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)					
1	5955	3	5965	7	5985	15	6025					
5	5975	11	6005	23	6065	47	6185					
9	5995	19	6045	39	6145	79	6345					
13	6015	27	6085	55	6225							
17	6035	35	6125	71	6305							
21	6055	43	6165	87	6385							
25	6075	51	6205									
29	6095	59	6245									
33	6115	67	6285									
37	6135	75	6325									
41	6155	83	6365									
45	6175	91	6405									
49	6195											
53	6215											
57	6235											
61	6255											
65	6275											
69	6295											
73	6315											
77	6335											
81	6355											
85	6375											
89	6395											
93	6415											

	UNII-6											
IEEE 802.1	1ax (HE20)	IEEE 802.11ax (HE40)		IEEE 802.11ax (HE80)		IEEE 802.11ax (HE160						
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)					
97	6435	99	6445	103	6465	111	6505					
101	6455	107	6485									
105	6475	115	6525									
109	6495											
113	6515											



	UNII-7										
IEEE 802.1	1ax (HE20)	IEEE 802.11ax (HE40)		IEEE 802.11ax (HE80)		IEEE 802.11ax (HE160)					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)				
117	6535	123	6565	119	6545	143	6665				
121	6555	131	6605	135	6625	175	6825				
125	6575	139	6645	151	6705						
129	6595	147	6685	167	6785						
133	6615	155	6725								
137	6635	163	6765								
141	6655	171	6805								
145	6675	179	6845								
149	6695										
153	6715										
157	6735										
161	6755										
165	6775										
169	6795										
173	6815										
177	6835										
181	6855										

	UNII-8										
IEEE 802.1	1ax (HE20)	IEEE 802.11ax (HE40)		IEEE 802.11ax (HE80)		IEEE 802.11ax (HE160)					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)				
185	6875	187	6885	183	6865	207	6985				
189	6895	195	6925	199	6945						
193	6915	203	6965	215	7025						
197	6935	211	7005								
201	6955	219	7045								
205	6975	227	7085								
209	6995										
213	7015										
217	7035										
221	7055										
225	7075										
229	7095										
233	7115										



(3) Table for Filed Antenna:

Ant.	Manufacturer	P/N	Туре	Connector	Gain (dBi)
1	Amphenol	BY5973-15-001-C	PIFA	N/A	3.73
2	Amphenol	BY5962-15-001-C	PIFA	N/A	3.63

#### Note:

- 1) This EUT supports MIMO 2X2, any transmit signals are uncorrelated with each other, so Directional gain= 10log[(10<sup>G1/10</sup>+10<sup>G2/10</sup>+...10<sup>GN/10</sup>)/N]dBi, that is Directional gain=10log[(10<sup>3.73/10</sup>+10<sup>3.63/10</sup>)/2]dBi=3.68.
- 2) Ant.1 refers to main antenna, Ant.2 refers to aux antenna.
- 3) The AUX antenna connector of the module connected to the MAIN antenna of the EUT and the MAIN antenna connector of the module connected to the AUX antenna of the EUT.
- (4) The above Antenna information are derived from the antenna data sheet provided by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

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#### 2.2 TEST MODES

Test Items	Test mode	Channel	Note
AC power line conducted emissions	Normal/Idle	-	-
Transmitter Radiated Emissions (below 1GHz)	IEEE 802.11ax (HE160)	143	-
	IEEE 802.11ax (HE20)	233	Bandedge
Transmitter Radiated Emissions	IEEE 802.11ax (HE160)	79,111,143,207	Dandedge
(above 1GHz)	IEEE 802.11ax (HE20)	233	I I a mas a mila
	IEEE 802.11ax (HE160)	79,111,143,207	Harmonic
Maximum e.i.r.p.	IEEE 802.11ax (HE20)	1/45/93 97/105/113 117/149/181 185/209/229/233	-
	IEEE 802.11ax (HE160)	15/79 111,143,207	
Contentian Recod Protocol	IEEE 802.11ax (HE20)	45,105,149,213	
Contention Based Protocol	IEEE 802.11ax (HE160)	47,111,143,207	

#### NOTE:

- (1) The Radiated emissions test was verified based on the worst conducted power and Bandwidth test results reported in the original report.
- (2) For radiated emission band edge test, both Vertical and Horizontal are evaluated, but only the worst case (Vertical) is recorded.

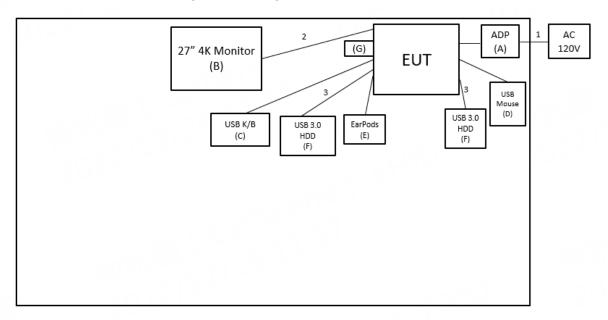
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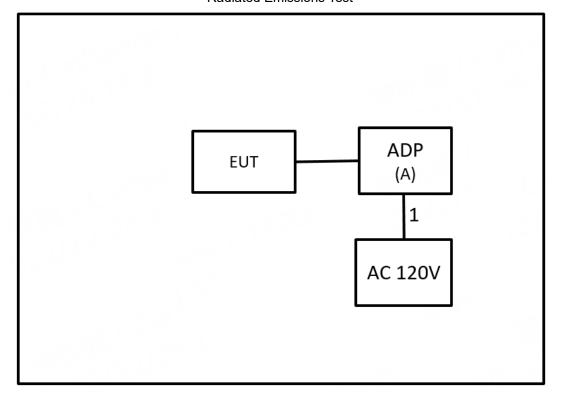
#### 2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Equipment letters and Cable numbers refer to item numbers described in the tables of clause 0.

AC Power Line Conducted Emissions Test



Radiated Emissions Test



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### 2.4 SUPPORT UNITS

### AC power line conducted emissions

Item	Equipment	Brand	Model No.	Series No.	Remarks
Α	ADP	Razer	RC30-024801	N/A	Supplied by test requester.
В	27" 4K Monitor	DELL	U2720Q	CN-083VF-WSL00- 0B7-332L	Furnished by test lab.
С	USB K/B	DELL	KB216t	CN-0W33XP-L0300- 797-05TY-A03	Furnished by test lab.
D	USB Mouse	DELL	MOCZUL	CN-049TWY-PRC00- 79E-01HA	Furnished by test lab.
Е	EarPods	Apple	A1472	N/A	Furnished by test lab.
F	USB 3.0 HDD	WD	WDBC3C0010BSL-0B	WX81A88ALJUC	Furnished by test lab.
G	USB Dongle	Kingston	DataTraveler Exodia	N/A	Furnished by test lab.

Item	Shielded	Ferrite Core	Length	Cable Type	Remarks
1	No	No	1.2m	Power Cable	Supplied by test requester.
2	No	No	1.7m	HDMI Cable	Furnished by test lab.
3	No	No	18cm	TypeC to TypeC Cable	Furnished by test lab.

### Radiated Emissions

Item	Equipment	Brand	Model No.	Series No.	Remarks
Α	ADP	Razer	RC30-024801	N/A	Supplied by test requester.

Item	Shielded	Ferrite Core	Length	Cable Type	Remarks
1	N/A	N/A	1m	Power Cable	Supplied by test requester.

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#### 3 AC POWER LINE CONDUCTED EMISSIONS TEST

#### 3.1 LIMIT

Frequency	Limit (dBμV)		
(MHz)	Quasi-peak	Average	
0.15 - 0.5	66 - 56 *	56 - 46 *	
0.50 - 5.0	56	46	
5.0 - 30.0	60	50	

#### NOTE:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- (3) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor (if use)

Margin Level = Measurement Value - Limit Value

Calculation example:

Salediation Chambio.					
Reading Level		Correct Factor		Measurement Value	
38.22	+	3.45	=	41.67	

Measurement Value		Limit Value		Margin Level
41.67	-	60	=	-18.33

The following table is the setting of the receiver.

Receiver Parameter	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 KHz

#### 3.2 TEST PROCEDURE

- a. The EUT was placed 0.8 m above the horizontal ground plane with the EUT being connected to the power mains through a line impedance stabilization network (LISN).
  - All other support equipment were powered from an additional LISN(s).
  - The LISN provides 50 Ohm/50uH of impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle to keep the cable above 40 cm.
- c. Excess I/O cables that are not connected to a peripheral shall be bundled in the center.
  - The end of the cable will be terminated, using the correct terminating impedance.
  - The overall length shall not exceed 1 m.
- d. The LISN is spaced at least 80 cm from the nearest part of the EUT chassis.
- e. For the actual test configuration, please refer to the related Item EUT TEST PHOTO.

#### NOTE:

- (1) In the results, each reading is marked as Peak, QP or AVG per the detector used. BW=9 kHz (6 dB Bandwidth)
- (2) All readings are Peak unless otherwise stated QP or AVG in column of Note. Both the QP and the AVG readings must be less than the limit for compliance.

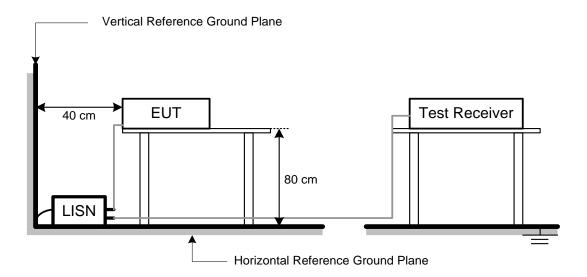
#### 3.3 DEVIATION FROM TEST STANDARD

No deviation.

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#### 3.4 TEST SETUP



### 3.5 TEST RESULT

Please refer to the APPENDIX A.



### 4 UNDESIRABLE EMISSIONS TEST

#### 4.1 LIMIT

According to 15.407(b)(6) the limits are as follows:

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.

According to FCC KDB 987594 D02, clause G. Unwanted Emission Measurement:

Use guidance in KDB 789033 for measurements below 1000 MHz and above 1000 MHz. 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

Item	Maximum e.i.r.p. Limit	Maximum field strength Limit @ 3m
Any emissions outside of the 5.925-	Peak: -7 dBm/MHz	88.2 dBuV/m
7.125 GHz band	Average: -27 dBm/MHz	68.2 dBuV/m

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209.

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
960~1000	500	3

According to 15.407(b)(9) the limits are as follows:

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209.

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
960~1000	500	3

#### NOTE

- (1) e.i.r.p. Limit (dBuV/m at 3m) = Power Limit(dBm) + 95.2. (Referring to FCC KDB 987594 D02, clause G.2.d)(iii))
- (2) Emission level (dBuV/m) = 20log Emission level (uV/m). 3 m Emission level = 10 m Emission level + 20log(10 m/3 m).
- (3) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain (if use)

Margin Level = Measurement Value - Limit Value

Calculation example:

Reading Level		Correct Factor		Measurement Value
19.11	+	2.11	=	21.22

Measurement Value		Limit Value		Margin Level
21.22	-	68.2	11	-46.98

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Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW	1MHz / 3MHz for Peak,
(Emission in restricted band)	1MHz / 1/T for Average

Spectrum Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9KHz~90KHz for PK/AVG detector
Start ~ Stop Frequency	90KHz~110KHz for QP detector
Start ~ Stop Frequency	110KHz~490KHz for PK/AVG detector
Start ~ Stop Frequency	490KHz~30MHz for QP detector
Start ~ Stop Frequency	30MHz~1000MHz for QP detector

#### 4.2 TEST PROCEDURE

Referring to FCC KDB 987594 D02, clause G. and FCC KDB 789033 D02, clause G. Unwanted Emission Measurement:

For measurements below 30 MHz:

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

#### For measurements 30 MHz to 40 GHz:

- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. (between 30 MHz to 1 GHz)
- b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. (between 1 GHz to 40 GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8 m or 1.5 m, the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
- f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (between 30 MHz to 1 GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (between 30 MHz to 1 GHz)

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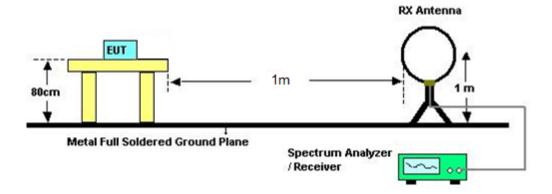


#### 4.3 DEVIATION FROM TEST STANDARD

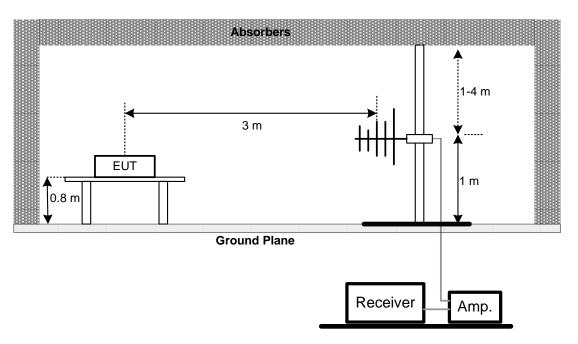
No deviation.

#### 4.4 TEST SETUP

#### 9 kHz to 30 MHz

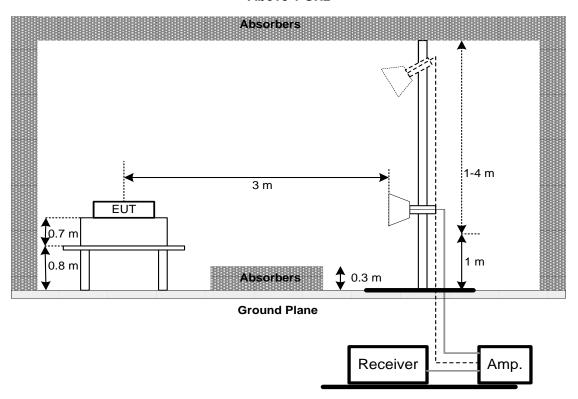


### 30 MHz to 1 GHz





#### **Above 1 GHz**



#### 4.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

#### NOTE:

- (1) Distance extrapolation factor = 40 log (specific distance / test distance) (dB).
- (2) Limit line = specific limits (dBuV) + distance extrapolation factor.

#### 4.6 TEST RESULT - BELOW 30 MHZ

There were no emissions found below 30 MHz within 20 dB of the limit.

#### 4.7 TEST RESULT - 30 MHZ TO 1 GHZ

Please refer to the APPENDIX B.

#### 4.8 TEST RESULT - ABOVE 1 GHZ

Please refer to the APPENDIX C.

#### NOTE:

(1) No limit: This is fundamental signal, the judgment is not applicable. For fundamental signal judgment was referred to Peak output test.



#### 5 MAXIMUM E.I.R.P. TEST

#### 5.1 LIMIT

Equipment Category	Band	Maximum e.i.r.p. Limit
	U-NII 5 (5.925-6.425 GHz)	
Indoor access point client	U-NII 6 (6.425-6.525 GHz)	24 dBm
devices	U-NII 7 (6.525-6.875 GHz)	24 UDIII
	U-NII 8 (6.875-7.125 GHz)	

<sup>\*</sup> For outdoor devices, the maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

According to 15.407(a)(11):

The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

#### 5.2 TEST PROCEDURE

Referring to FCC KDB 987594 D02, clause E. and FCC KDB 789033 D02, clause E. 3 Measurement using a Power Meter (PM):

a. The maximum peak conducted output power was performed in accordance with method of clause E. 3. b) Method PM-G (Measurement using a gated RF average power meter):

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

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Referring to FCC KDB 987594 D02, clause H. Measurement of emission at elevation angles higher than 30° from horizon:

Note: Elevation angle is defined as 0° is horizontal and 90° is straight-up.

#### For fixed infrastructure, not electrically or mechanically steerable beam antenna

- a. If elevation plane radiation pattern is available:
  - (i) Determine the device intended mounting elevation angle and define 0° reference angle on the elevation plane radiation pattern.
  - (ii) Indicate any radiation pattern between 30° and 90° which has the highest gain.
  - (iii) Calculate the EIRP based on this highest gain and conducted output power.
  - (iv) Compare to the 125 mW limit to establish compliance.
  - (v) Include the elevation pattern data in the application filing with the test report to show how the calculations are made.

Note: For MIMO devices, take the maximum gain of each antenna and apply the guidance in KDB Publication 662911 for calculating the overall gain including directional gain for the maximum EIRP calculation.

- b. If the elevation plane radiation pattern is not available, but the antenna type (such as dipole omnidirectional, Yagi, parabolic, or sector antenna) has a symmetrical elevation plane pattern referenced at the main beam and all lobes on the main beam elevation plane have highest gains, then the following measurement method is acceptable to determine compliance:
  - (i) Determine the device's intended mounting elevation angle referenced to the horizon.
  - (ii) Rotate the EUT antenna by 90° around the main beam axis in a horizontal position to transform the measurement in elevation angle into an azimuth angle and define a 0° reference angle based on the device's intended mounting elevation angle.
  - (iii) Move the test antenna along the horizontal arc, or rotate the turntable with the EUT antenna placed at the center, between 30° and 90° relative to the 0° reference angle, and then continuing down from 90° to 30° on the other side of the pattern, while maintaining the test antenna pointing with constant distance to the EUT antenna. Search for the spot which has the highest measured emission. Both horizontal and vertical polarization shall be investigated to determine the maximum radiated emission level.

Note: Moving the test antenna along the horizontal arc, or rotating the turntable, shall be performed in an angular step size as small as possible, but not larger than 3°.

- (iv) Calculate the EIRP based on the highest measured emission. Compare to the limit of 125 mW to determine compliance.
- (v) The antenna pattern measurements must be included in the filing.

#### For All Other Antenna Types

For all other antenna types (such as patch antennas, array antennas, antennas with irregular radiator shapes, etc.) which have any combination of following characteristics:

- Asymmetrical, complex radiation patterns
- · 2-D or 3-D steerable beam
- · Portable/mobile, not fixed infrastructure device

Provide the following information in the report:

- a. Describe what type of antenna is used.
- b. Determine by calculation, measurement or simulation, all radiation lobes/beams, which have EIRP higher than 125 mW within a 3-dB elevation beamwidth.
  - Provide an explanation of how these antenna beams are controlled to be kept below the 30° elevation angle. The explanation should include device installation instructions, mechanical control, electromechanical control or software algorithms, if the beams are electrically controlled by software.

#### 5.3 DEVIATION FROM TEST STANDARD

No deviation.

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### 5.4 TEST SETUP

EUT Power Meter

### 5.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 5.6 TEST RESULT

Please refer to the APPENDIX D.

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### **6 CONTENTION BASED PROTOCOL**

#### 6.1 LIMIT

Indoor access points, subordinate devices and client devices operating in the 5.925-7.125 GHz band (herein referred to as unlicensed devices) are required to use technologies that include a contention-based protocol to avoid co-channel interference with incumbent devices sharing the band. To ensure incumbent co-channel operations are detected in a technology-agnostic manner, unlicensed devices are required to detect co-channel radio frequency energy (energy detect) and avoid simultaneous transmission.

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. (See note) 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.

Note: The EUT with a lowest gain is 3.63dBi. All power injected into EUT should be -62+3.63=-58.37dBm.

#### 6.2 TEST PROCEDURE

a. Number of times detection threshold:

lf	Number of Tests	Placement of Incumbent Transmission
BWeut≪BWinc	Once	Tune incumbent and EUT transmissions
DVVEOT ~ DVVInc	Office	(f <sub>c1</sub> =f <sub>c2</sub> )
BW <sub>Inc</sub> <bw<sub>FUT \$\leq 2BW<sub>Inc</sub></bw<sub>	Once	Incumbent transmission is contained
BVVIIIC \BVVEOI \ZBVVIIIC	Office	within BW <sub>EUT</sub>
		Incumbent transmission is located as
2BW <sub>Inc</sub> <bw<sub>EUT&lt;4BW<sub>Inc</sub></bw<sub>	Twice. Incumbent transmission	closely □s possible to the lower edge
ZBVVIIIC \BVVEOT \- 4BVVIIIC	is contained within BW <sub>EUT</sub>	and upper edge, respectively, of the
		EUT channel
		Incumbent transmission is located as
		closely as possible to the lower edge of
BW <sub>EUT</sub> >4BW <sub>Inc</sub>	Three times	the EUT channel, in the middle of EUT
		channel, and as closely as possible to
		the upper edge of the EUT channel

Where:

BW<sub>EUT</sub>: Transmission bandwidth of EUT signal.

BW<sub>Inc</sub>: Transmission bandwidth of the simulated incumbent signal (10 MHz wide AWGN signal).

fc1: Center frequency of EUT transmission.

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

- b. Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use step b table to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
- c. 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 and the EUT as show in the block diagram below.
- d. Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer.
- e. 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.

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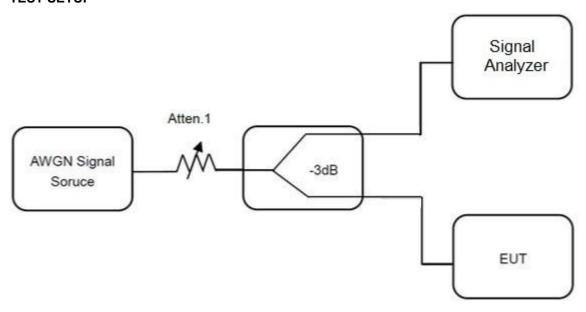


- f. (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.
- g. Refer to step b table to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step c, choose a different center frequency for the AWGN signal and repeat the process.

#### 6.3 DEVIATION FROM TEST STANDARD

No deviation.

#### 6.4 TEST SETUP



### 6.5 EUT OPERATING CONDITIONS

The EUT was Configured to be in normally transmitting mode with a constant duty cycle.

#### 6.6 TEST RESULT

Please refer to the APPENDIX E.

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### 7 LIST OF MEASURING EQUIPMENTS

AC Power Line Conducted Emissions								
Item	Kind of Equipment	Manufacturer	Type No. Serial No.		Calibrated Date	Calibrated Until		
1	TWO-LINE V- NETWORK	- RX.S		101521	2022/9/28	2023/9/27		
2	Test Cable	EMCI	EMCCFD300- BM-BMR-5000	220331	2022/3/31	2023/3/30		
3	EMI Test Receiver	R&S	ESR 7	101433	2022/11/16	2023/11/15		
4	Measurement Software	EZ	EZ_EMC (Version NB- 03A1-01)	N/A	N/A	N/A		

	Radiated Emissions								
Item	Kind of Equipment	Manufacturer	Type No.			Calibrated Until			
1	Preamplifier	EMCI	EMC330N	980850	2022/9/19	2023/9/18			
2	Preamplifier	EMCI	EMC118A45SE	980819	2022/3/8	2023/3/7			
3	Preamplifier	EMCI	EMC184045SE	980882	2022/2/9	2023/2/8			
4	Preamplifier	EMCI	EMC001340	980579	2022/9/30	2023/9/29			
5	Test Cable	EMCI	EMC104-SM-SM- 1000	220319	2022/3/15	2023/3/14			
6	Test Cable	EMCI	EMC104-SM-SM- 3000	220322	2022/3/15	2023/3/14			
7	Test Cable	EMCI	EMC104-SM-SM- 7000	220324	2022/3/15	2023/3/14			
8	EXA Signal Analyzer	keysight	N9020B	MY57120120	2022/3/7	2023/3/6			
9	Loop Ant	Electro-Metrics	EMCI-LPA600	291	2022/9/19	2023/9/18			
10	Horn Antenna	RFSPIN	DRH18-E	211202A18EN	2022/5/18	2023/5/17			
11	Horn Ant	Schwarzbeck	BBHA 9170D	1136	2022/5/18	2023/5/17			
12	Log-bicon Antenna	Schwarzbeck	VULB9168	1369	2022/5/20	2023/5/19			
13	6dB Attenuator	EMCI	EMCI-N-6-06	AT-N0625	2022/5/20	2023/5/19			
14	Test Cable	EMCI	EMC101G-KM-KM- 3000	220329	2022/3/15	2023/3/14			
15	Test Cable	EMCI	EMC102-KM-KM- 1000	220327	2022/3/15	2023/3/14			
16	Measurement Software	EZ	EZ_EMC (Version NB-03A1-01)	N/A	N/A	N/A			

	Maximum e.i.r.p.								
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until			
1	Power Meter	Anritsu	ML2495A	1128008	2022/6/1	2023/5/31			
2	Power Sensor	Anritsu	MA2411B	1126001	2022/6/1	2023/5/31			

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	Contention Based Protocol									
Item	Kind of Equipment	Manufacturer	Type No. Serial No.		Calibrated Date	Calibrated Until				
1	Spectrum Analyzer	Keysight	N9010A	MY54200240	2022/6/9	2023/6/8				
2	MXG Vector Signal Generator	Agilent	N5182B	MY51350711	2022/4/14	2023/4/13				
3	POWER SPLITTER	Mini-Circuits	ZFRSC-183-S+	N/A	2022/5/12	2023/5/11				
4	POWER SPLITTER Mini-Cicuits		ZFRSC-123-S+	N/A	2022/5/12	2023/5/11				

Remark: "N/A" denotes no model name, no serial no. or no calibration specified. All calibration period of equipment list is one year.



8 EUT TEST PHOTO							
Please refer to document Appendix No.: TP-2211C022-1 (APPENDIX-TEST PHOTOS).							
EUT PHOTOS							
Please refer to document Appendix No.: EP-2211C022-1 (APPENDIX-EUT PHOTOS).							

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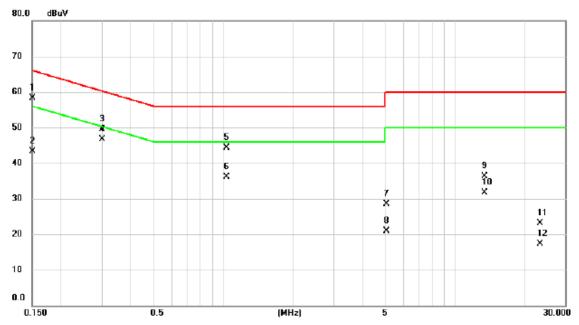


APPENDIX A	AC POWER LINE CONDUCTED EMISSIONS

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Test Mode	Normal	Tested Date	2022/12/21
Test Frequency	-	Phase	Line

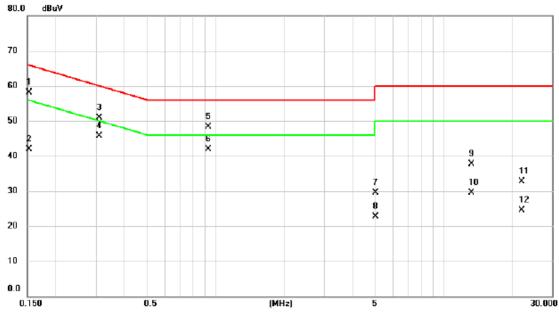


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBu∀	dB	dBu∀	dBu∀	dB	Detector	Comment
1		0.1500	48.68	9.63	58.31	66.00	-7.69	QP	
2		0.1500	33.76	9.63	43.39	56.00	-12.61	AVG	
3		0.3007	39.94	9.65	49.59	60.22	-10.63	QP	
4	*	0.3007	36.97	9.65	46.62	50.22	-3.60	AVG	
5		1.0320	34.66	9.70	44.36	56.00	-11.64	QP	
6		1.0320	26.41	9.70	36.11	46.00	-9.89	AVG	
7		5.0775	18.56	9.85	28.41	60.00	-31.59	QP	
8		5.0775	11.04	9.85	20.89	50.00	-29.11	AVG	
9		13.4812	26.25	9.98	36.23	60.00	-23.77	QP	
10		13.4812	21.72	9.98	31.70	50.00	-18.30	AVG	
11		23.3250	13.12	10.05	23.17	60.00	-36.83	QP	
12		23.3250	7.34	10.05	17.39	50.00	-32.61	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode	Normal	Tested Date	2022/12/21
Test Frequency	-	Phase	Neutral

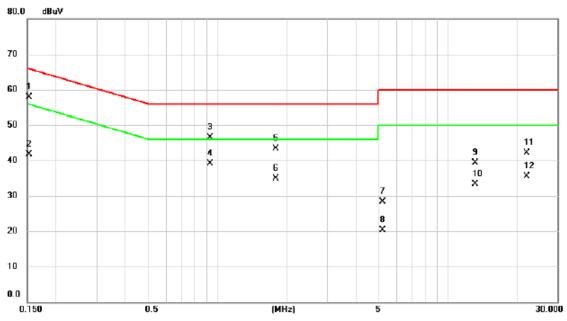


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBu∀	dB	dBu∀	dBu∀	dB	Detector	Comment
1		0.1522	48.46	9.65	58.11	65.88	-7.77	QP	
2		0.1522	32.29	9.65	41.94	55.88	-13.94	AVG	
3		0.3097	41.28	9.66	50.94	59.98	-9.04	QP	
4		0.3097	35.96	9.66	45.62	49.98	-4.36	AVG	
5		0.9307	38.59	9.71	48.30	56.00	-7.70	QP	
6	*	0.9307	32.23	9.71	41.94	46.00	-4.06	AVG	
7		5.0460	19.71	9.86	29.57	60.00	-30.43	QP	
8		5.0460	12.90	9.86	22.76	50.00	-27.24	AVG	
9		13.2360	27.64	10.04	37.68	60.00	-22.32	QP	
10		13.2360	19.38	10.04	29.42	50.00	-20.58	AVG	
11		22.0740	22.53	10.19	32.72	60.00	-27.28	QP	
12		22.0740	14.23	10.19	24.42	50.00	-25.58	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



١.				
	Test Mode	Idle	Tested Date	2022/12/21
	Test Frequency	-	Phase	Line

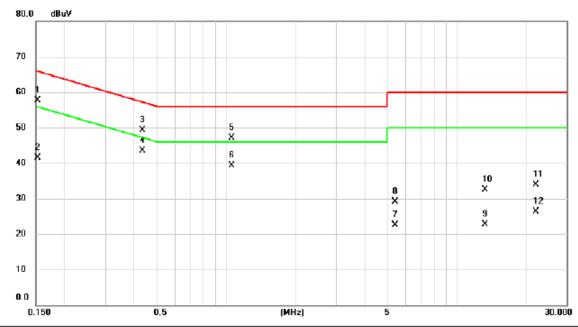


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBu∀	dB	dBu∀	dBu∀	dB	Detector	Comment
1		0.1522	48.32	9.64	57.96	65.88	-7.92	QP	
2		0.1522	32.05	9.64	41.69	55.88	-14.19	AVG	
3		0.9330	36.89	9.70	46.59	56.00	-9.41	QP	
4	*	0.9330	29.35	9.70	39.05	46.00	-6.95	AVG	
5		1.7970	33.55	9.73	43.28	56.00	-12.72	QP	
6		1.7970	25.24	9.73	34.97	46.00	-11.03	AVG	
7		5.2125	18.44	9.85	28.29	60.00	-31.71	QP	
8		5.2125	10.51	9.85	20.36	50.00	-29.64	AVG	
9		13.2045	29.34	9.98	39.32	60.00	-20.68	QP	
10		13.2045	23.32	9.98	33.30	50.00	-16.70	AVG	
11		21.9975	32.12	10.04	42.16	60.00	-17.84	QP	
12		21.9975	25.37	10.04	35.41	50.00	-14.59	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



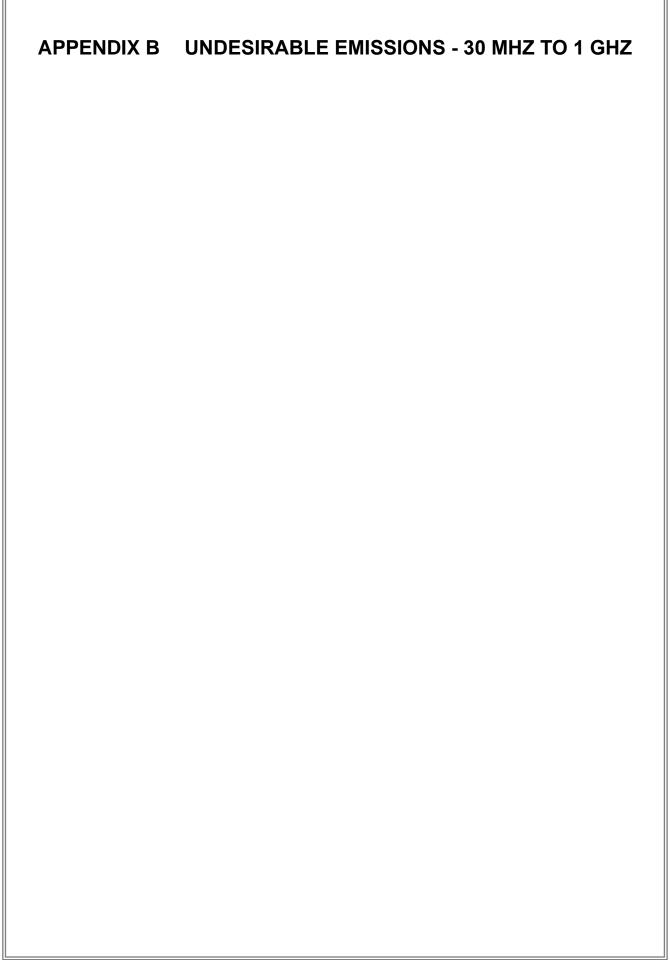
١.				
	Test Mode	Idle	Tested Date	2022/12/21
	Test Frequency	-	Phase	Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBu∀	dB	dBuV	dBu∀	dB	Detector	Comment
1		0.1522	47.98	9.65	57.63	65.88	-8.25	QP	
2		0.1522	31.85	9.65	41.50	55.88	-14.38	AVG	
3		0.4357	39.70	9.67	49.37	57.14	-7.77	QP	
4	*	0.4357	33.76	9.67	43.43	47.14	-3.71	AVG	
5		1.0611	37.44	9.71	47.15	56.00	-8.85	QP	
6		1.0611	29.50	9.71	39.21	46.00	-6.79	AVG	
7		5.4082	12.65	9.87	22.52	60.00	-37.48	QP	
8		5.4082	19.26	9.87	29.13	50.00	-20.87	AVG	
9		13.2247	12.58	10.04	22.62	60.00	-37.38	QP	
10		13.2247	22.38	10.04	32.42	50.00	-17.58	AVG	
11		22.0335	23.68	10.19	33.87	60.00	-26.13	QP	
12		22.0335	16.04	10.19	26.23	50.00	-23.77	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.

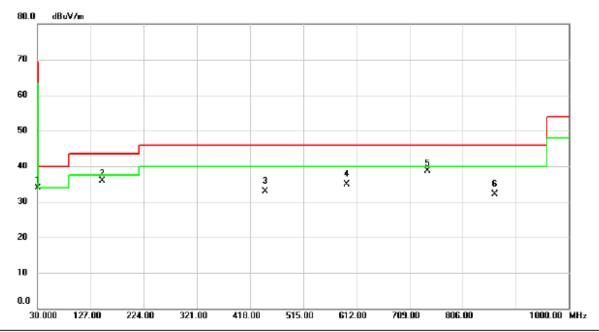




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Test Mode	IEEE 802.11ax (HE160)	Test Date	2023/1/19
Test Frequency	6665MHz	Polarization	Vertical
Temp	23°C	Hum.	59%

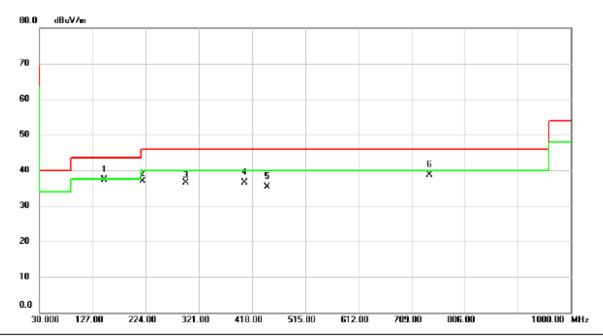


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	30.0000	46.80	-12.81	33.99	40.00	-6.01	peak	
2		148.5016	47.87	-11.90	35.97	43.50	-7.53	peak	
3		445.5156	40.36	-7.53	32.83	46.00	-13.17	QP	
4		593.9903	39.21	-4.34	34.87	46.00	-11.13	QP	
5		742.4973	40.54	-1.74	38.80	46.00	-7.20	peak	
6		865.2023	32.33	-0.29	32.04	46.00	-13.96	QP	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode	IEEE 802.11ax (HE160)	Test Date	2023/1/19
Test Frequency	6665MHz	Polarization	Horizontal
Temp	23°C	Hum.	59%



No.	M	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	14	8.5016	49.27	-11.90	37.37	43.50	-6.13	QP	
2		21	7.8243	52.33	-15.35	36.98	46.00	-9.02	peak	
3		29	7.0086	48.11	-11.51	36.60	46.00	-9.40	peak	
4		40	4.9696	45.19	-8.64	36.55	46.00	-9.45	QP	
5		44	5.5156	42.84	-7.53	35.31	46.00	-10.69	QP	
6		74	2.4973	40.38	-1.74	38.64	46.00	-7.36	QP	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.

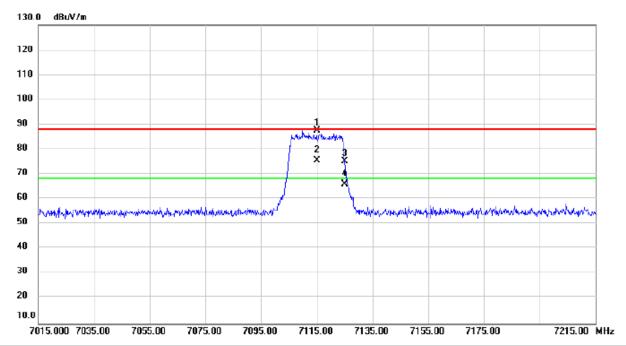


APPENDIX C	UNDESIRABLE EMISSIONS - ABOVE 1 GHZ

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Test Mode	IEEE 802.11ax (HE20)	Test Date	2022/12/7
Test Frequency	7115MHz	Polarization	Vertical
Temp	23°C	Hum.	59%

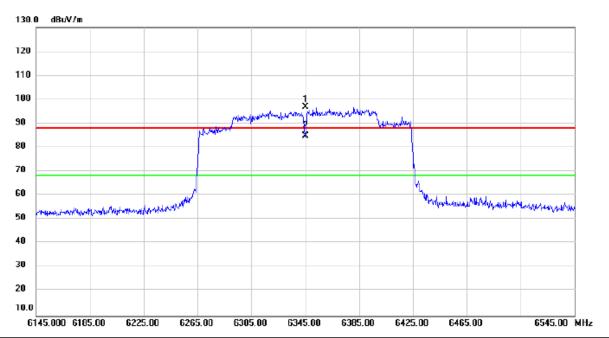


No	. Mi	c. Freq.	Reading Level		Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7115.000	81.96	5.51	87.47	88.20	-0.73	peak	No Limit
2	*	7115.000	70.08	5.51	75.59	68.20	7.39	AVG	No Limit
3		7125.000	69.76	5.52	75.28	88.20	-12.92	peak	
4		7125.000	60.51	5.52	66.03	68.20	-2.17	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



Test Mode	IEEE 802.11ax (HE160)	Test Date	2022/12/7
Test Frequency	6345MHz	Polarization	Vertical
Temp	23°C	Hum.	59%

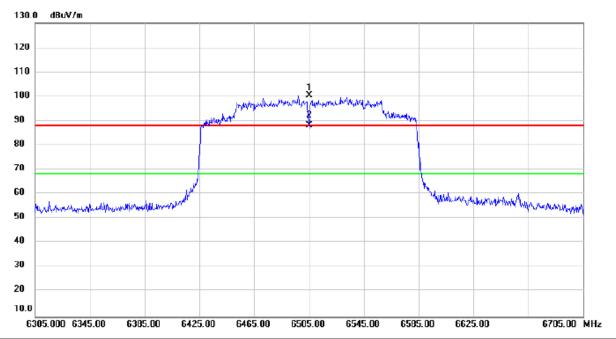


No	. М	k.	Freq.	Reading Level		Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	Х	63	45.000	92.71	4.26	96.97	88.20	8.77	peak	No Limit
2	*	63	45.000	80.45	4.26	84.71	68.20	16.51	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.

Report No.: BTL-FCCP-5-2211C022

Test Mode	IEEE 802.11ax (HE160)	Test Date	2022/12/7
Test Frequency	6505MHz	Polarization	Vertical
Temp	23°C	Hum.	59%

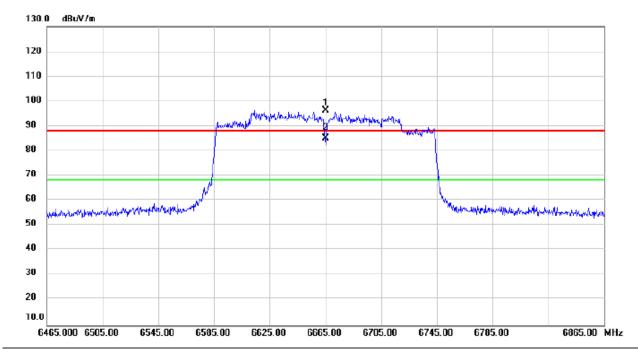


1	No.	Mk	. Freq.			Measure- ment		Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	Χ	6505.000	95.54	5.05	100.59	88.20	12.39	peak	No Limit
	2	*	6505.000	83.18	5.05	88.23	68.20	20.03	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.

Report No.: BTL-FCCP-5-2211C022

Test Mode	IEEE 802.11ax (HE160)	Test Date	2022/12/7
Test Frequency	6665MHz	Polarization	Vertical
Temp	23°C	Hum.	59%

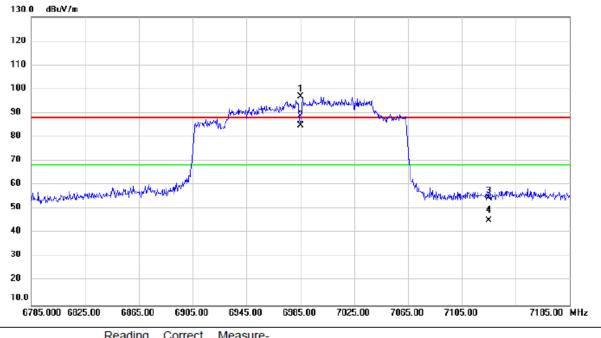


No.	М	k. Fred		Correct Factor	Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	Х	6665.00	0 91.10	5.19	96.29	88.20	8.09	peak	No Limit
2	*	6665.00	0 79.92	5.19	85.11	68.20	16.91	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



Test Mode	IEEE 802.11ax (HE160)	Test Date	2022/12/7
Test Frequency	6985MHz	Polarization	Vertical
Temp	23°C	Hum.	59%

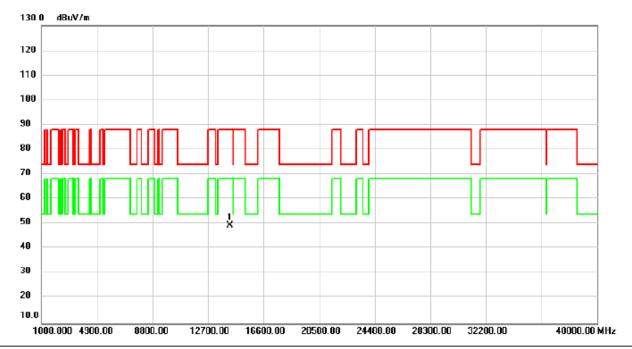


No.	Mi	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	6985.000	91.25	5.47	96.72	88.20	8.52	peak	No Limit
2	*	6985.000	79.43	5.47	84.90	68.20	16.70	AVG	No Limit
3		7125.000	49.08	5.52	54.60	88.20	-33.60	peak	
4		7125.000	39.58	5.52	45.10	68.20	-23.10	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



Test Mode	IEEE 802.11ax (HE20)	Test Date	2022/12/7
Test Frequency	7115MHz	Polarization	Vertical
Temp	23°C	Hum.	59%



No.	М	c. Freq.			Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	14230.00	42.10	7.24	49.34	88.20	-38.86	peak		

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode	IEEE 802.11ax (HE20)	Test Date	2022/12/7
Test Frequency	7115MHz	Polarization	Horizontal
Temp	23°C	Hum.	59%



1 \* 14230.00

(1) Measurement Value = Reading Level + Correct Factor.

7.24

49.68

88.20

-38.52

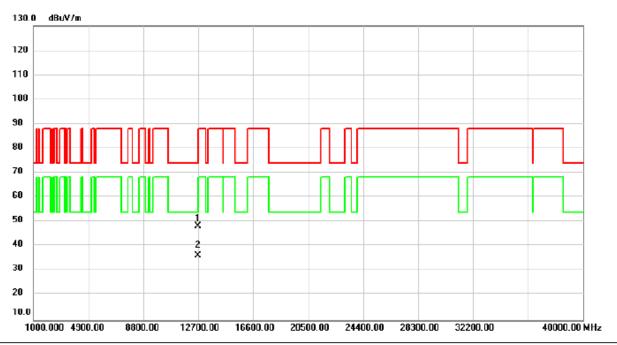
peak

(2) Margin Level = Measurement Value - Limit Value.

42.44



Test Mode	IEEE 802.11ax (HE160)	Test Date	2022/12/7
Test Frequency	6345MHz	Polarization	Vertical
Temp	23°C	Hum.	59%

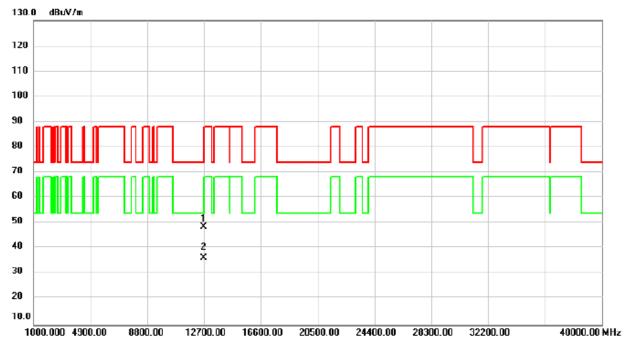


	No.	M	c. Freq.			Measure- ment		Over		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1			40.91	7.44	48.35	74.00	-25.65	peak	
_	2	*	12690.00	28.80	7.44	36.24	54.00	-17.76	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode	IEEE 802.11ax (HE160)	Test Date	2022/12/7
Test Frequency	6345MHz	Polarization	Horizontal
Temp	23°C	Hum.	59%

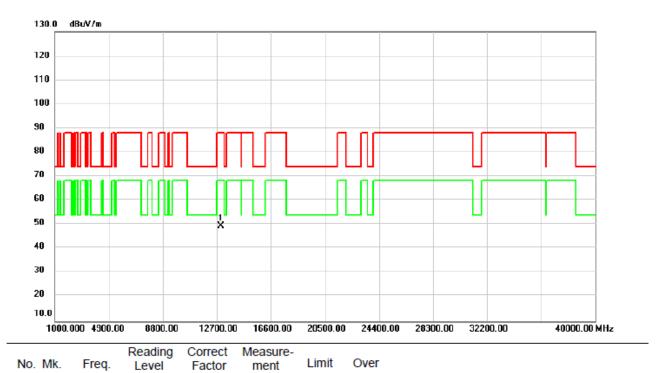


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		12690.00	41.06	7.44	48.50	74.00	-25.50	peak	
2	*	12690.00	28.79	7.44	36.23	54.00	-17.77	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode	IEEE 802.11ax (HE160)	Test Date	2022/12/7		
Test Frequency	6505MHz	Polarization	Vertical		
Temp	23°C	Hum.	59%		



dBuV/m

88.20

dB

-38.73

Detector

peak

Comment

dBuV/m

49.47

#### **REMARKS:**

MHz

1 \* 13010.00

(1) Measurement Value = Reading Level + Correct Factor.

dB

7.66

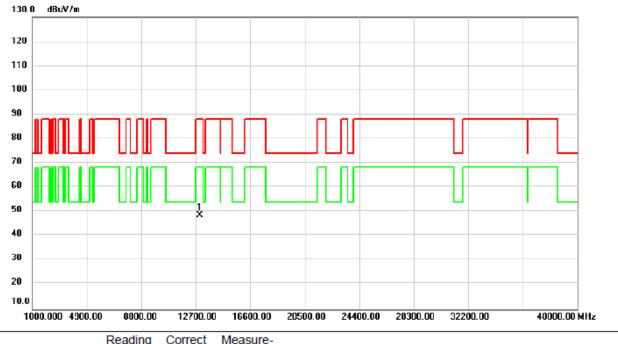
(2) Margin Level = Measurement Value - Limit Value.

dBuV

41.81



Test Mode	IEEE 802.11ax (HE160)	Test Date	2022/12/7
Test Frequency	6505MHz	Polarization	Horizontal
Temp	23°C	Hum.	59%

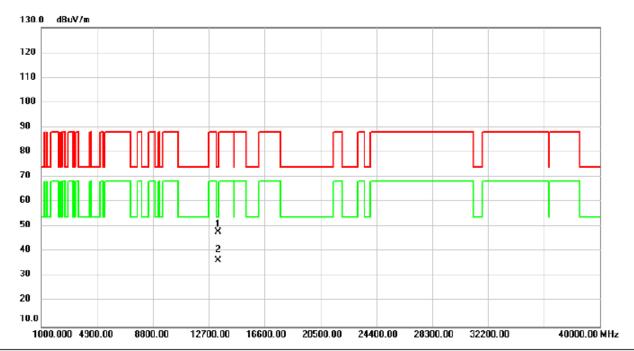


	No.	M	k. Fr	eq.	Reading Level		Measure- ment	Limit	Over		
_			М	Hz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
-	1	*	13010	.00	40.93	7.66	48.59	88.20	-39.61	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode	IEEE 802.11ax (HE160)	Test Date	2022/12/7
Test Frequency	6665MHz	Polarization	Vertical
Temp	23°C	Hum.	59%

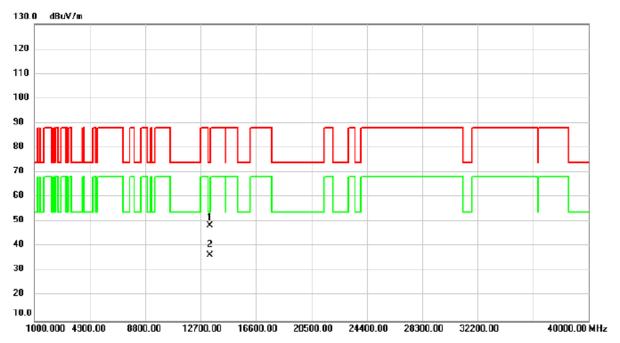


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		13330.00	40.78	7.23	48.01	74.00	-25.99	peak	
2	*	13330.00	29.27	7.23	36.50	54.00	-17.50	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode	IEEE 802.11ax (HE160)	Test Date	2022/12/7
Test Frequency	6665MHz	Polarization	Horizontal
Temp	23°C	Hum.	59%

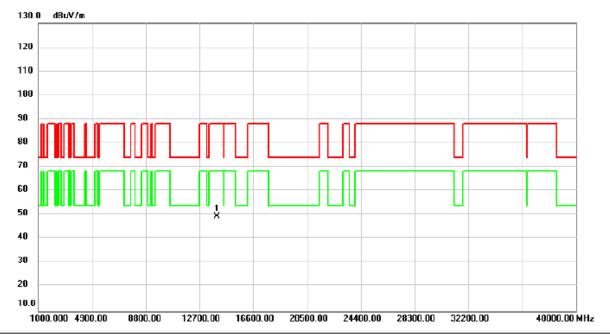


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		13330.00	41.19	7.23	48.42	74.00	-25.58	peak	
2	*	13330.00	29.25	7.23	36.48	54.00	-17.52	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.

Report No.: BTL-FCCP-5-2211C022

Test Mode	IEEE 802.11ax (HE160)	Test Date	2022/12/7
Test Frequency	6985MHz	Polarization	Vertical
Temp	23°C	Hum.	59%

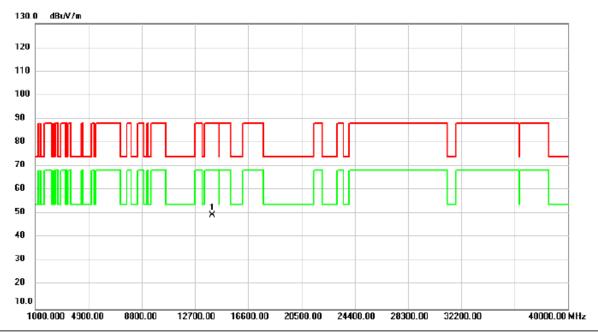


No.	М	k. Fre	eq.	Reading Level		Measure- ment	Limit	Over				
		MH	z	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
1	*	13970.	00	42.28	7.22	49.50	88.20	-38.70	peak			

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode	IEEE 802.11ax (HE160)	Test Date	2022/12/7
Test Frequency	6985MHz	Polarization	Horizontal
Temp	23°C	Hum.	59%



No.	M	k. F		Reading Level		Measure- ment	Limit	Over		
		1	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.





APPENDIX D	MAXIMUM E.I.R.P.

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Test Mode	IEEE 802.11a	x (HE20) Ma	in Ant.		Tested Date	2022/11/2	25
		· / <u>-</u>					
Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	E.I.R.P. (dBm)	E.I.R.P. (W)	E.I.R.P. Limit (dBm)	E.I.R.P. Limit (W)	Result
5955	1.36	0.0014	5.09	0.0032	24.00	0.2512	Pass
6175	1.51	0.0014	5.24	0.0033	24.00	0.2512	Pass
6415	1.37	0.0014	5.10	0.0032	24.00	0.2512	Pass
6435	2.16	0.0014	5.89	0.0039	24.00	0.2512	Pass
6475	2.11	0.0016	5.84	0.0038	24.00	0.2512	Pass
6515	2.24	0.0017	5.97	0.0040	24.00	0.2512	Pass
6535	1.53	0.0014	5.26	0.0034	24.00	0.2512	Pass
6695	1.24	0.0013	4.97	0.0031	24.00	0.2512	Pass
6855	1.60	0.0014	5.33	0.0034	24.00	0.2512	Pass
6875	1.41	0.0014	5.14	0.0033	24.00	0.2512	Pass
6995	1.86	0.0015	5.59	0.0036	24.00	0.2512	Pass
7095	1.55	0.0014	5.28	0.0034	24.00	0.2512	Pass
7115	-8.47	0.0001	-4.74	0.0003	24.00	0.2512	Pass
7110	0.17	0.0001		0.0000	21.00	0.2012	1 400
Test Mode	IEEE 802.11a	x (HE20)_Aux	Ant.		Tested Date	2022/11/2	25
T4							
Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	E.I.R.P. (dBm)	E.I.R.P. (W)	E.I.R.P. Limit (dBm)	E.I.R.P. Limit (W)	Resul
5955	2.33	0.0017	5.96	0.0039	24.00	0.2512	Pass
6175	2.38	0.0017	6.01	0.0040	24.00	0.2512	Pass
6415	2.26	0.0017	5.89	0.0039	24.00	0.2512	Pass
6435	3.20	0.0017	6.83	0.0048	24.00	0.2512	Pass
6475	2.97	0.0020	6.60	0.0046	24.00	0.2512	Pass
6515	2.77	0.0019	6.40	0.0044	24.00	0.2512	Pass
6535	2.26	0.0017	5.89	0.0039	24.00	0.2512	Pass
6695	2.03	0.0016	5.66	0.0037	24.00	0.2512	Pass
6855	2.18	0.0017	5.81	0.0038	24.00	0.2512	Pass
6875	2.29	0.0017	5.92	0.0039	24.00	0.2512	Pass
6995	2.28	0.0017	5.91	0.0039	24.00	0.2512	Pass
7095	1.86	0.0015	5.49	0.0035	24.00	0.2512	Pass
7115	-8.33	0.0001	-4.70	0.0003	24.00	0.2512	Pass
-			-				
Test Mode	IEEE 802.11a	x (HE20)_Tota	al		Tested Date	2022/11/2	25
Test Frequency	Conducted	Conducted	E.I.R.P.	E.I.R.P.	E.I.R.P. Limit	E.I.R.P. Limit	Desi
(MHz)	Power (dBm)	Power (W)	(dBm)	(W)	(dBm)	(W)	Resu
5955	4.88	0.0031	8.56	0.0072	24.00	0.2512	Pas
6175	4.98	0.0031	8.66	0.0073	24.00	0.2512	Pas
6415	4.85	0.0031	8.53	0.0071	24.00	0.2512	Pas
6435	5.72	0.0037	9.40	0.0087	24.00	0.2512	Pas
6475	5.57	0.0036	9.25	0.0084	24.00	0.2512	Pas
6515	5.52	0.0036	9.20	0.0083	24.00	0.2512	Pas
6535	4.92	0.0031	8.60	0.0072	24.00	0.2512	Pas
6695	4.66	0.0029	8.34	0.0068	24.00	0.2512	Pas
6855	4.91	0.0031	8.59	0.0072	24.00	0.2512	Pass
6875	4.88	0.0031	8.56	0.0072	24.00	0.2512	Pass
	5.09	0.0032	8.77	0.0075	24.00	0.2512	Pas
6995	0.00						
6995 7095	4.72	0.0030	8.40	0.0069	24.00	0.2512	Pass





					•		
Test Mode	IEEE 802.11a	x (HE40)_Ma	in Ant.		Tested Date	2022/11/2	25
Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	E.I.R.P. (dBm)	E.I.R.P. (W)	E.I.R.P. Limit (dBm)	E.I.R.P. Limit (W)	Result
5965	4.56	0.0029	8.29	0.0067	24.00	0.2512	Pass
6165	4.37	0.0027	8.10	0.0065	24.00	0.2512	Pass
6405	4.41	0.0028	8.14	0.0065	24.00	0.2512	Pass
6445	4.99	0.0032	8.72	0.0074	24.00	0.2512	Pass
6485	5.40	0.0035	9.13	0.0082	24.00	0.2512	Pass
6525	5.66	0.0037	9.39	0.0087	24.00	0.2512	Pass
6685	4.15	0.0026	7.88	0.0061	24.00	0.2512	Pass
6845	4.52	0.0028	8.25	0.0067	24.00	0.2512	Pass
6885	5.07	0.0032	8.80	0.0076	24.00	0.2512	Pass
7085	5.33	0.0034	9.06	0.0081	24.00	0.2512	Pass
Test Mode	IEEE 802.11a	x (HE40)_Aux	Ant.		Tested Date	2022/11/2	25
Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	E.I.R.P. (dBm)	E.I.R.P. (W)	E.I.R.P. Limit (dBm)	E.I.R.P. Limit (W)	Result
5965	5.06	0.0032	8.69	0.0074	24.00	0.2512	Pass
6165	4.92	0.0031	8.55	0.0072	24.00	0.2512	Pass

6165         4.92         0.0031         8.55         0.0072         24.00         0.2512         Pass           6405         5.03         0.0032         8.66         0.0073         24.00         0.2512         Pass           6445         5.80         0.0038         9.43         0.0088         24.00         0.2512         Pass           6485         5.85         0.0038         9.48         0.0089         24.00         0.2512         Pass           6525         5.76         0.0038         9.39         0.0087         24.00         0.2512         Pass           6685         4.83         0.0030         8.46         0.0070         24.00         0.2512         Pass           6845         4.70         0.0030         8.33         0.0068         24.00         0.2512         Pass           6885         5.54         0.0036         9.17         0.0083         24.00         0.2512         Pass		Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	E.I.R.P. (dBm)	E.I.R.P. (W)	E.I.R.P. Limit (dBm)	E.I.R.P. Limit (W)	Result
6405         5.03         0.0032         8.66         0.0073         24.00         0.2512         Pass           6445         5.80         0.0038         9.43         0.0088         24.00         0.2512         Pass           6485         5.85         0.0038         9.48         0.0089         24.00         0.2512         Pass           6525         5.76         0.0038         9.39         0.0087         24.00         0.2512         Pass           6685         4.83         0.0030         8.46         0.0070         24.00         0.2512         Pass           6845         4.70         0.0030         8.33         0.0068         24.00         0.2512         Pass           6885         5.54         0.0036         9.17         0.0083         24.00         0.2512         Pass		5965	5.06	0.0032	8.69	0.0074	24.00	0.2512	Pass
6445         5.80         0.0038         9.43         0.0088         24.00         0.2512         Pass           6485         5.85         0.0038         9.48         0.0089         24.00         0.2512         Pass           6525         5.76         0.0038         9.39         0.0087         24.00         0.2512         Pass           6685         4.83         0.0030         8.46         0.0070         24.00         0.2512         Pass           6845         4.70         0.0030         8.33         0.0068         24.00         0.2512         Pass           6885         5.54         0.0036         9.17         0.0083         24.00         0.2512         Pass	Ī	6165	4.92	0.0031	8.55	0.0072	24.00	0.2512	Pass
6485         5.85         0.0038         9.48         0.0089         24.00         0.2512         Pass           6525         5.76         0.0038         9.39         0.0087         24.00         0.2512         Pass           6685         4.83         0.0030         8.46         0.0070         24.00         0.2512         Pass           6845         4.70         0.0030         8.33         0.0068         24.00         0.2512         Pass           6885         5.54         0.0036         9.17         0.0083         24.00         0.2512         Pass		6405	5.03	0.0032	8.66	0.0073	24.00	0.2512	Pass
6525         5.76         0.0038         9.39         0.0087         24.00         0.2512         Pass           6685         4.83         0.0030         8.46         0.0070         24.00         0.2512         Pass           6845         4.70         0.0030         8.33         0.0068         24.00         0.2512         Pass           6885         5.54         0.0036         9.17         0.0083         24.00         0.2512         Pass	ĺ	6445	5.80	0.0038	9.43	0.0088	24.00	0.2512	Pass
6685         4.83         0.0030         8.46         0.0070         24.00         0.2512         Pass           6845         4.70         0.0030         8.33         0.0068         24.00         0.2512         Pass           6885         5.54         0.0036         9.17         0.0083         24.00         0.2512         Pass		6485	5.85	0.0038	9.48	0.0089	24.00	0.2512	Pass
6845         4.70         0.0030         8.33         0.0068         24.00         0.2512         Pass           6885         5.54         0.0036         9.17         0.0083         24.00         0.2512         Pass	ĺ	6525	5.76	0.0038	9.39	0.0087	24.00	0.2512	Pass
6885 5.54 0.0036 9.17 0.0083 24.00 0.2512 Pass	ĺ	6685	4.83	0.0030	8.46	0.0070	24.00	0.2512	Pass
	ĺ	6845	4.70	0.0030	8.33	0.0068	24.00	0.2512	Pass
7005		6885	5.54	0.0036	9.17	0.0083	24.00	0.2512	Pass
7085   5.72   0.0037   9.35   0.0086   24.00   0.2512   Pass		7085	5.72	0.0037	9.35	0.0086	24.00	0.2512	Pass

Test Mode	IEEE 802.11ax (HE40)_Total	Tested Date	2022/11/25

Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	E.I.R.P. (dBm)	E.I.R.P. (W)	E.I.R.P. Limit (dBm)	E.I.R.P. Limit (W)	Result
5965	7.83	0.0061	11.51	0.0142	24.00	0.2512	Pass
6165	7.66	0.0058	11.34	0.0136	24.00	0.2512	Pass
6405	7.74	0.0059	11.42	0.0139	24.00	0.2512	Pass
6445	8.42	0.0070	12.10	0.0162	24.00	0.2512	Pass
6485	8.64	0.0073	12.32	0.0171	24.00	0.2512	Pass
6525	8.72	0.0074	12.40	0.0174	24.00	0.2512	Pass
6685	7.51	0.0056	11.19	0.0132	24.00	0.2512	Pass
6845	7.62	0.0058	11.30	0.0135	24.00	0.2512	Pass
6885	8.32	0.0068	12.00	0.0158	24.00	0.2512	Pass
7085	8.54	0.0071	12.22	0.0167	24.00	0.2512	Pass





6545

6625

6785

6865

6945

7025

8.09

7.73

7.68

7.74

8.18

8.15

0.0064

0.0059

0.0059

0.0059

0.0066

0.0065

Test Mode	IEEE 802.11a	x (HE80)_Mai	in Ant.		Tested Date	2022/11/2	25
_							
Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	E.I.R.P. (dBm)	E.I.R.P. (W)	E.I.R.P. Limit (dBm)	E.I.R.P. Limit (W)	Result
5985	7.57	0.0057	11.30	0.0135	24.00	0.2512	Pass
6145	7.48	0.0056	11.21	0.0132	24.00	0.2512	Pass
6385	7.24	0.0053	10.97	0.0125	24.00	0.2512	Pass
6465	7.66	0.0058	11.39	0.0138	24.00	0.2512	Pass
6545	7.74	0.0059	11.47	0.0140	24.00	0.2512	Pass
6625	7.45	0.0056	11.18	0.0131	24.00	0.2512	Pass
6785	7.37	0.0055	11.10	0.0129	24.00	0.2512	Pass
6865	7.22	0.0053	10.95	0.0124	24.00	0.2512	Pass
6945	8.14	0.0065	11.87	0.0154	24.00	0.2512	Pass
7025	7.73	0.0059	11.46	0.0140	24.00	0.2512	Pass
Test Mode	IEEE 802.11a	x (HE80)_Aux	Ant.		Tested Date	2022/11/2	25
	•					•	
Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	E.I.R.P. (dBm)	E.I.R.P. (W)	E.I.R.P. Limit (dBm)	E.I.R.P. Limit (W)	Result
5985	7.57	0.0057	11.20	0.0132	24.00	0.2512	Pass
6145	7.91	0.0062	11.54	0.0143	24.00	0.2512	Pass
6385	7.74	0.0059	11.37	0.0137	24.00	0.2512	Pass
6465	8.14	0.0065	11.77	0.0150	24.00	0.2512	Pass

Test Mode	IEEE 802.11ax (HE80) _Total	Tested Date	2022/11/25

11.72

11.36

11.31

11.37

11.81

11.78

0.0149

0.0137

0.0135

0.0137

0.0152

0.0151

24.00

24.00

24.00

24.00

24.00

24.00

0.2512

0.2512

0.2512

0.2512

0.2512

0.2512

Pass

Pass

Pass

Pass

Pass

Pass

Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	E.I.R.P. (dBm)	E.I.R.P. (W)	E.I.R.P. Limit (dBm)	E.I.R.P. Limit (W)	Result
5985	10.58	0.0114	14.26	0.0267	24.00	0.2512	Pass
6145	10.71	0.0118	14.39	0.0275	24.00	0.2512	Pass
6385	10.51	0.0112	14.19	0.0262	24.00	0.2512	Pass
6465	10.92	0.0124	14.60	0.0288	24.00	0.2512	Pass
6545	10.93	0.0124	14.61	0.0289	24.00	0.2512	Pass
6625	10.60	0.0115	14.28	0.0268	24.00	0.2512	Pass
6785	10.54	0.0113	14.22	0.0264	24.00	0.2512	Pass
6865	10.50	0.0112	14.18	0.0262	24.00	0.2512	Pass
6945	11.17	0.0131	14.85	0.0305	24.00	0.2512	Pass
7025	10.96	0.0125	14.64	0.0291	24.00	0.2512	Pass



6985

10.24

0.0106

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0.2512

Pass

Test Mode	IEEE 802.11a	x (HE160)_M	ain Ant.		Tested Date	2022/11/2	25	
Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	E.I.R.P. (dBm)	E.I.R.P. (W)	E.I.R.P. Limit (dBm)	E.I.R.P. Limit (W)	Result	
6025	10.27	0.0106	14.00	0.0251	24.00	0.2512	Pass	
6345	10.19	0.0104	13.92	0.0247	24.00	0.2512	Pass	
6505	10.61	0.0115	14.34	0.0272	24.00	0.2512	Pass	
6665	10.39	0.0109	14.12	0.0258	24.00	0.2512	Pass	

0.0249

24.00

Test Mode	IEEE 802.11ax (HE160)_Aux Ant.	Tested Date	2022/11/25
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13.97

Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	E.I.R.P. (dBm)	E.I.R.P. (W)	E.I.R.P. Limit (dBm)	E.I.R.P. Limit (W)	Result
6025	10.44	0.0111	14.07	0.0255	24.00	0.2512	Pass
6345	10.64	0.0116	14.27	0.0267	24.00	0.2512	Pass
6505	10.94	0.0124	14.57	0.0286	24.00	0.2512	Pass
6665	10.87	0.0122	14.50	0.0282	24.00	0.2512	Pass
6985	10.69	0.0117	14.32	0.0270	24.00	0.2512	Pass

Test Mode	IEEE 802.11ax (HE160)_Total	Tested Date	2022/11/25
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Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	E.I.R.P. (dBm)	E.I.R.P. (W)	E.I.R.P. Limit (dBm)	E.I.R.P. Limit (W)	Result
6025	13.37	0.0217	17.05	0.0507	24.00	0.2512	Pass
6345	13.43	0.0220	17.11	0.0514	24.00	0.2512	Pass
6505	13.79	0.0239	17.47	0.0558	24.00	0.2512	Pass
6665	13.65	0.0232	17.33	0.0541	24.00	0.2512	Pass
6985	13.48	0.0223	17.16	0.0520	24.00	0.2512	Pass

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APPENDIX E	CONTENTION BASED PROTOCOL

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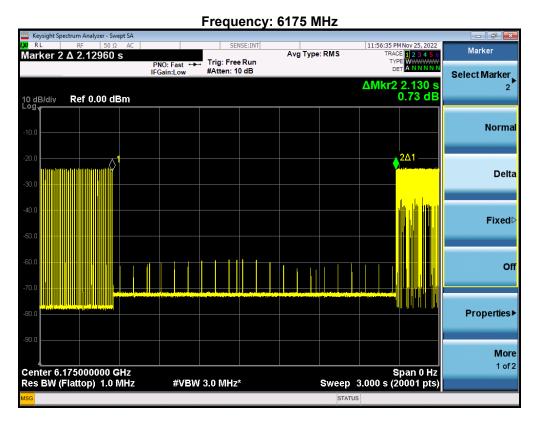
Test Mode UNII-5, UNII-6, UNII-7, UNII-8

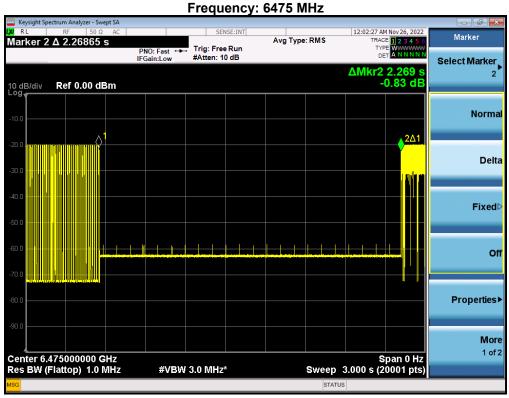
# **Incumbent Signal (AWGN)**

Frequency: 6175 MHz

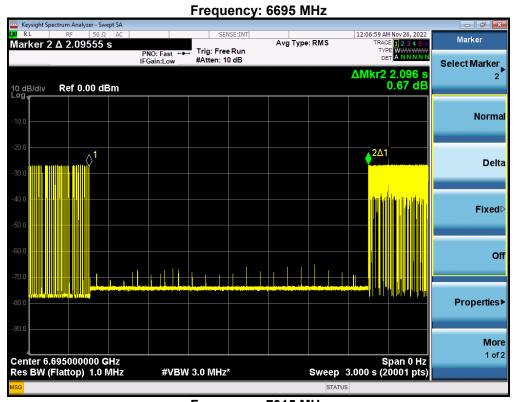


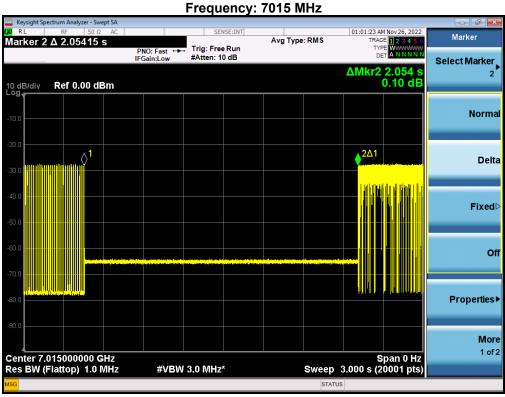




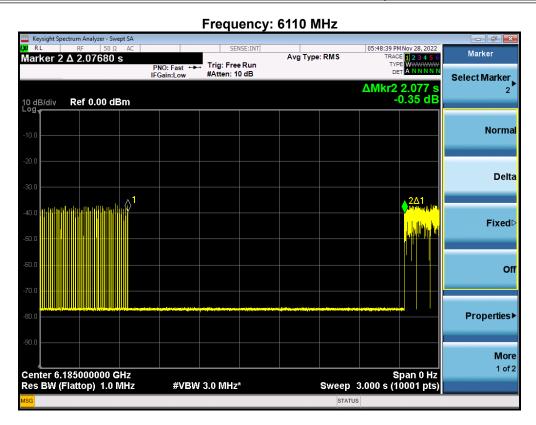


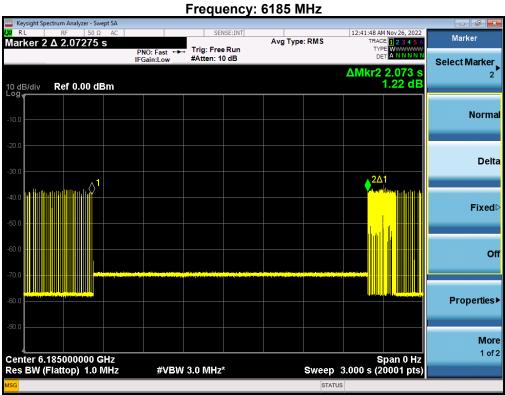




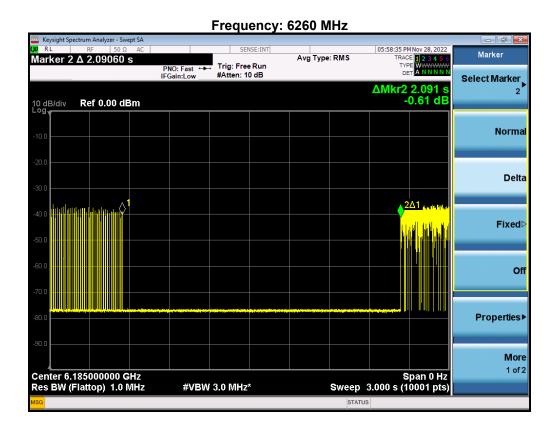


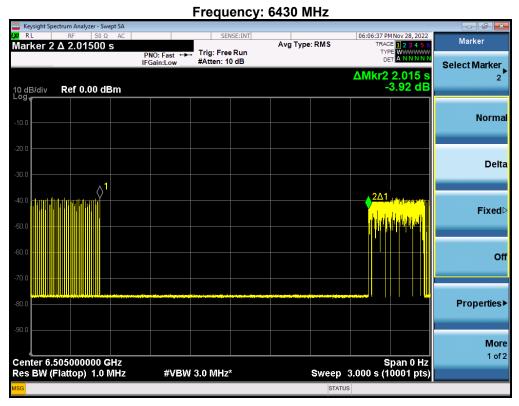




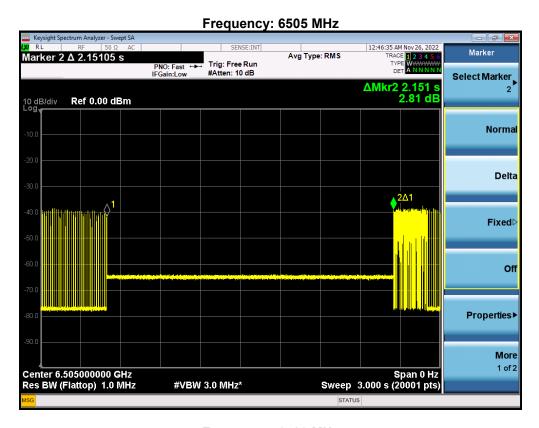


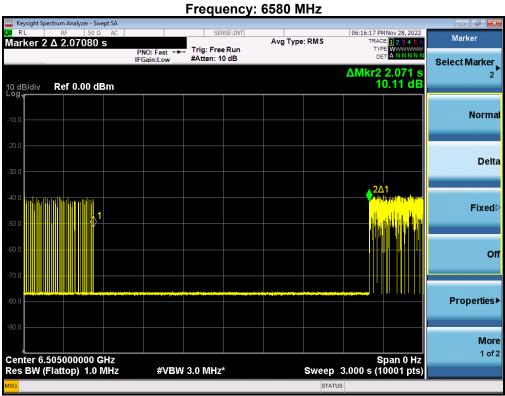




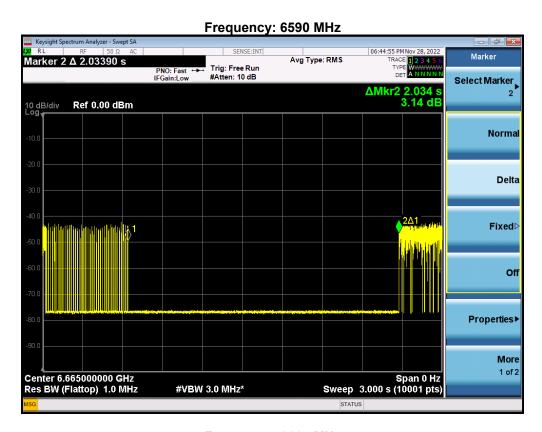


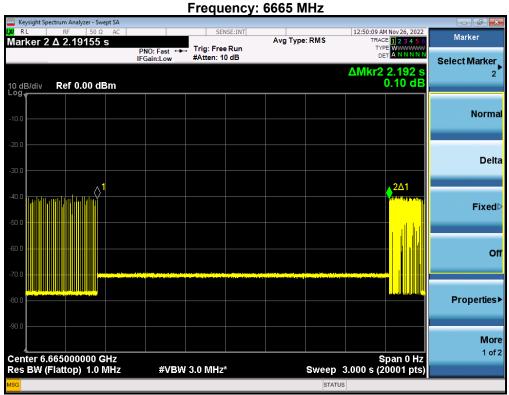




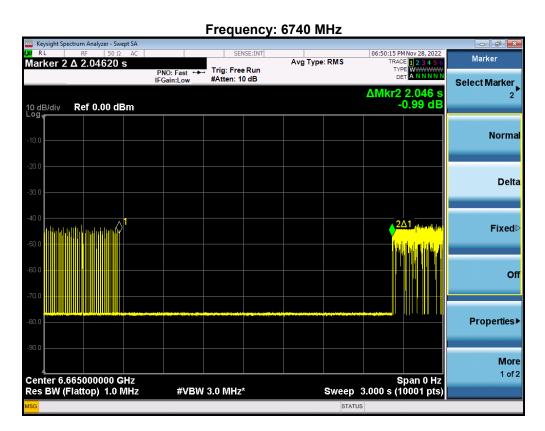


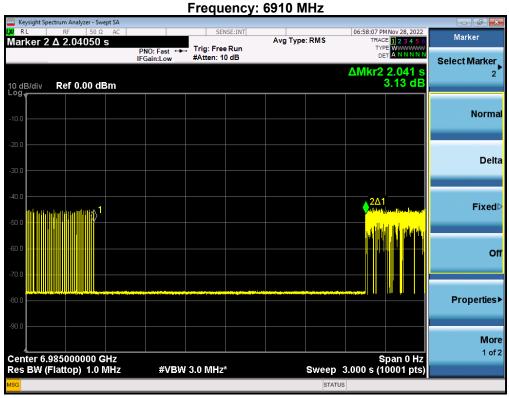




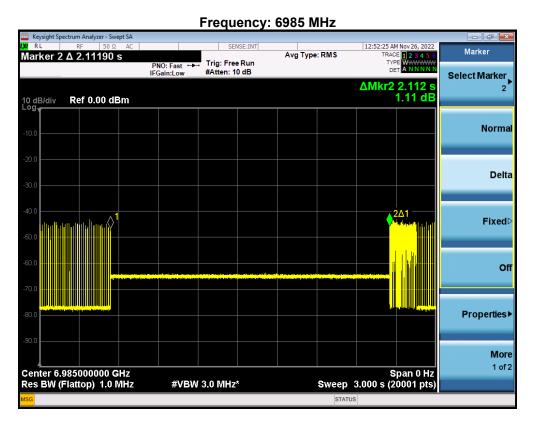


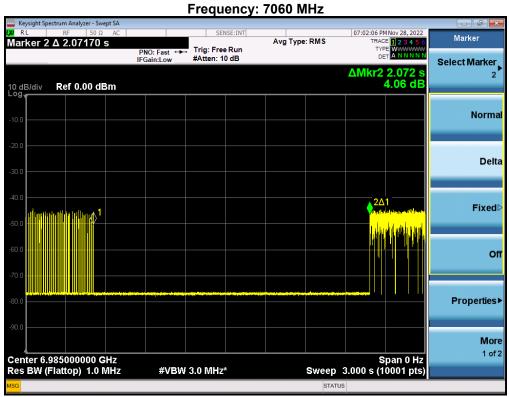














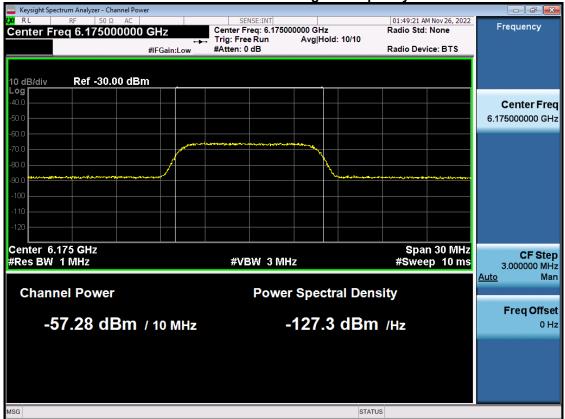


# **Detection power level and detection probability**

Bands	Test Mode	Bandwidth (MHz)	Channel	Frequency (MHz)	interference Frequency (MHz)	Detection power level (dBm)	Detection Power Limit (dBm)	Number of Times	Number of Detected	Detection Probability	Detection Probability Limit	Test Result
	802.11a	20	45	6175	6175	-66.07	-58.99	10	9	90%	90%	Pass
UNII-5					6110	-65.19	-57.29	10	10	100%	90%	Pass
UINII-3	802.11ax	160	47	6185	6185	-67.02	-57.29	10	10	100%	90%	Pass
					6260	-68.15	-57.29	10	9	90%	90%	Pass
	802.11a	20	105	6475	6475	-70.25	-57.29	10	10	100%	90%	Pass
UNII-6	802.11ax	160	111	6505	6430	-71.08	-57.29	10	9	90%	90%	Pass
UINII-0					6505	-69.88	-57.29	10	9	90%	90%	Pass
					6580	-69.71	-57.29	10	10	100%	90%	Pass
	802.11a	20	149	6695	6695	-67.09	-57.29	10	10	100%	90%	Pass
UNII-7		160	143	6665	6590	-68.55	-57.29	10	9	90%	90%	Pass
OINII-7	802.11ax				6665	-66.59	-57.29	10	10	100%	90%	Pass
					6740	-70.21	-57.29	10	10	100%	90%	Pass
	802.11a	20	213	7015	7015	-68.46	-57.29	10	10	100%	90%	Pass
UNII-8				6985	6910	-69.01	-57.29	10	9	90%	90%	Pass
UINII-0	802.11ax	160	207		6985	-67.57	-57.29	10	9	90%	90%	Pass
					7060	-70.33	-57.29	10	10	100%	90%	Pass



# Contention-Based Protocol EUT Channel: CH45 Incumbent Signal Frequency: 6175 MHz



## EUT Channel: CH105 Incumbent Signal Frequency: 6475 MHz





