

**FCC 15.407 U-NII  
(Permissive Change)  
5GHz Test Report**

**for**

**LG Electronics Inc.**

**222, LG-ro, Jinwi-myeon Pyeongtaek-Si, Gyeonggi-Do,  
17709 Republic of Korea**

**Product Name : Notebook Computer**  
**Model Name : (1)17Z90R (2)17ZD90R  
(3)17Z90S (4)17ZD90S**  
**Brand : LG**  
**FCC ID : BEJNT-17Z90R**

**Prepared by: : AUDIX Technology Corporation,  
EMC Department**



The test report is based on a single evaluation of one sample of the above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo.

## TABLE OF CONTENTS

Description	Page
TEST REPORT.....	4
<b>1. REVISION RECORD OF TEST REPORT .....</b>	<b>4</b>
<b>2. SUMMARY OF TEST RESULTS .....</b>	<b>5</b>
<b>3. GENERAL INFORMATION .....</b>	<b>6</b>
3.1. Description of Application .....	6
3.2. Description of EUT .....	7
3.3. Reference Test Guidance.....	8
3.4. Information for Permissive Change.....	9
3.5. Antenna Information .....	9
3.6. EUT Specifications Assessed in Current Report .....	10
3.7. Description of Key Components .....	14
3.8. Test Configuration.....	17
3.9. Output Power Setting .....	25
3.10. Tested Supporting System List.....	31
3.11. Setup Configuration.....	31
3.12. Operating Condition of EUT .....	32
3.13. Description of Test Facility .....	32
3.14. Measurement Uncertainty .....	33
<b>4. MEASUREMENT EQUIPMENTLIST.....</b>	<b>34</b>
4.1. Conducted Emission Measurement .....	34
4.2. Radiated Emission Measurement .....	35
4.3. RF Conducted Measurement .....	35
<b>5. CONDUCTED EMISSION.....</b>	<b>36</b>
5.1. Block Diagram of Test Setup .....	36
5.2. Conducted Emission Limit .....	36
5.3. Test Procedure .....	36
5.4. Test Results .....	36
<b>6. RADIATED EMISSION .....</b>	<b>37</b>
6.1. Block Diagram of Test Setup .....	37
6.2. Radiated Emission Limits.....	38
6.3. Test Procedure .....	40
6.4. Measurement Result Explanation.....	41
6.5. Test Results .....	41
<b>7. MAXIMUM OUTPUT POWER .....</b>	<b>42</b>
7.1. Block Diagram of Test Setup .....	42
7.2. Specification Limits.....	42
7.3. Test Procedure .....	43
7.4. Test Results .....	43
<b>8. DEVIATION TO TEST SPECIFICATIONS .....</b>	<b>44</b>

APPENDIX A TEST DATA AND PLOTS

APPENDIX B TESTPHOTOGRAPHS

## TEST REPORT (Permissive Change)

Applicant : LG Electronics Inc.  
Manufacturer : LG Electronics Inc.  
Factory : LG Electronics Nanjing New Technology Co., Ltd.  
EUT Description  
(1) Product : Notebook Computer  
(2) Model : (1)17Z90R (2)17ZD90R (3)17Z90S (4)17ZD90S  
(3) Brand : LG  
(4) Power Supply: DC 20V, 3.25A

Applicable Standards:

Title 47 FCC CFR Part 15 Subpart E

**Audix Technology Corp.** tested the equipment mentioned in accordance with the requirements set forth in the above standards. Test results indicate that the equipment tested is capable of demonstrating compliance with the requirements as documented within this report. **Audix Technology Corp.** does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens and samples.

Date of Report: 2023. 10. 17

Reviewed by: Sabrina Wang (Sabrina Wang/Administrator)

Approved by: Johnny Hsueh (Johnny Hsueh/Section Manager)

## 1. REVISION RECORD OF TEST REPORT

Edition No	Issued Date	Revision Summary	Report Number
0	2023. 10. 17	Original Report	EM-F230500

## 2. SUMMARY OF TEST RESULTS

Rule	Description	Results
15.207	Conducted Emission	<b>PASS</b>
15.205/15.209	Undesirable Emissions Limits: Radiated Band Edge and Radiated Spurious Emission	<b>PASS</b>
15.407(a)(5)/15.407(e)	Emission/Occupied Bandwidth	N/A <sup>Note3</sup>
15.407(a)	Maximum Output Power	<b>PASS</b>
15.407(b)	Conducted Band Edges	N/A <sup>Note3</sup>
15.407(a)	Power Spectral Density	N/A <sup>Note3</sup>
15.407	Frequency Stability	N/A <sup>Note3</sup>
15.407(h)(2)	Dynamic Frequency Selection(DFS)	N/A <sup>Note3</sup>
15.203	Antenna Requirement	<b>Compliance</b>
Note: 1. Decision rule according to the limit of the test standard chapter, the test value is lower than the limit specified in the test chapter, and it is judged as Pass. 2. The uncertainties value is not used in determining the result. 3. Due to the difference mentioned by cover letter don't influence on RF characteristics, so it is unnecessary to re-test.		

### 3. GENERAL INFORMATION

#### 3.1. Description of Application

Applicant	LG Electronics Inc. 222, LG-ro, Jinwi-myeon Pyeongtaek-Si, Gyeonggi-Do, 17709 Republic of Korea
Manufacturer	LG Electronics Inc. 222, LG-ro, Jinwi-myeon Pyeongtaek-Si, Gyeonggi-Do, 17709 Republic of Korea
Factory	LG Electronics Nanjing New Technology Co., Ltd. No.346, Yaoxin Road, Economic & Technical Development Zone, Nanjing, China.
Product	Notebook Computer
Model	(1)17Z90R (2)17ZD90R (3)17Z90S (4)17ZD90S The difference between all models is different in the sales customers, color difference and component.
Configuration (HVIN)	17Z90R-K, 17Z90R-N, 17Z90R-A, 17Z90R-R, 17Z90R-Q, 17Z90R-H, 17Z90R-T, 17Z90S-G, 17Z90S-V, 17Z90S-M, 17Z90S-C, 17Z90S-H
Brand	LG

The model 17Z90R and 17Z90S series has following different configuration and components, and the details are as follows:

Difference		Main Board	GPU	Battery	CPU	TPM (Trusted Platform Module)	Panel Touch Function	Antenna
Original	17Z90R-K	ROYAL MAIN B/D	Intel Iris Xe Graphics	LBV7227E (80 Wh)	Intel, i7-1360P Intel, i5-1340P	Not Support	Without	#1 WA-P-LELE-04-011 #2 L1LRF009-CS-H
	17Z90R-N					Support		
	17Z90R-A	ROYAL NVIDIA MAIN B/D	NVIDIA GeForce RTX 3050	LBY122CM (90 Wh)	Not Support			
	17Z90R-R				Support			
	17Z90R-Q	ROYAL MAIN B/D	Intel Iris Xe Graphics	LBV7227E (80 Wh)	Intel, i7-1370P Intel, i5-1350P	Support		
	17Z90R-H	ROYAL MAIN B/D	Intel Iris Xe Graphics	LBV7227E (80 Wh)	Intel, i7-1360P Intel, i5-1340P	Not Support		
17Z90R-T	Support							
This Time	17Z90S-G	MTL MAIN B/D	Intel Arc Graphics	LB3122MM (77 Wh)	Intel, Ultra 7 155H Intel, Ultra 5 125H	Not Support	Without	#1 WA-P-LELE-04-011 #2 L1LRF009-CS-H
	17Z90S-V					Support		
	17Z90S-M					Not Support		
	17Z90S-C					Not Support		
	17Z90S-H					Not Support		

### 3.2. Description of EUT

Test Model	17Z90S		
Serial Number	N/A		
Power Rating	DC 20V, 3.25A		
Software Version	XY (X, Y can be 0 to 9 for different SW version not influence RF parameter)		
RF Features	WLAN:802.11 a/b/g/n/ac/ax Bluetooth: BT and BLE (BT 5.1)		
Transmit Type	2.4 GHz		
	802.11b		1T1R
	802.11g		1T1R
	802.11n-HT20		2T2R
	802.11n-HT40		2T2R
	802.11ax-HE20		2T2R
	802.11ax-HE40		2T2R
	BT/BLE		1T1R
	U-NII Bands		
	802.11a		1T1R
	802.11n-HT20/802.11ac-VHT20/802.11ax-HE20		2T2R
	802.11n-HT40/802.11ac-VHT40/802.11ax-HE40		2T2R
	802.11ac-VHT80/802.11ax-HE80		2T2R
	802.11ac-VHT160/802.11ax-HE160		2T2R
	The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).		
Device Category	<input type="checkbox"/> Outdoor Access Point <input type="checkbox"/> Fixed point-to-point Access Point <input type="checkbox"/> Indoor Access Point <input checked="" type="checkbox"/> Mobile and Portable client device		
Sample Status	Trial sample		
Test Sample	Sample No.	Test Item	Firmware
	01	AC Conduction, RSE, Output Power	N/A
	02	AC Conduction, RSE, Output Power	N/A
Date of Receipt	2023. 09. 05		
Date of Test	2023. 09. 26 ~ 10. 06		

Interface Ports of EUT	<ul style="list-style-type: none"><li>• One HDMI Port</li><li>• Two USB Type C Ports</li><li>• One Earphone Port</li><li>• One Micro SD Card Slot</li><li>• Two USB 3.0 Ports</li></ul>
Accessories Supplied	<ul style="list-style-type: none"><li>• AC Adapter</li><li>• Type C cable *2</li><li>• LAN Gender</li></ul>

Note: Pursuant ISO 17025:2017 section 7.8.2, Audix Technology Corp. does not assume responsibility for all EUT's information including RF features, transmit type, antenna information...etc are provided by customer.

### 3.3. Reference Test Guidance

KDB 789033 D02 General UNII Test Procedures New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10:2013



### 3.4. Information for Permissive Change

- The EUT is an addition version with original FCC ID: BEJNT-17Z90R is as following.
  - (a) To add new models 17Z90S and 17ZD90S.
  - (b) To add new Configuration (HVIN) 17Z90S-G, 17Z90S-V, 17Z90S-M, 17Z90S-C and 17Z90S-H.
  - (c) Based on original ROYAL MAIN B/D main board, the difference between ROYAL MAIN B/D main board and MTL MAIN B/D main board is refer to Cover Letter-Permissive Change. The MTL MAIN B/D main board is for new Configuration (HVIN) 17Z90S-G, 17Z90S-V, 17Z90S-M, 17Z90S-C and 17Z90S-H.
  - (d) To add new CPUs for MTL MAIN B/D main board.
  - (e) To add new Battery Pack for MTL MAIN B/D main board.
  - (f) To add new Type C cable (3A).
- The differences between this application and original's ID as clarify in following list.

Configuration (HVIN) \ Difference		Main Board	GPU	Battery	CPU	TPM (Trusted Platform Module)	Panel Touch Function	Antenna
Original	17Z90R-K	ROYAL MAIN B/D	Intel Iris Xe Graphics	LBV7227E (80 Wh)	Intel, i7-1360P Intel, i5-1340P	Not Support	Without	#1 WA-P-LELE-04-011 #2 L1LRF009-CS-H
	17Z90R-N					Support		
	17Z90R-Q					Support		
	17Z90R-H					Not Support		
	17Z90R-T					Support		
Permissive Change	17Z90S-G	MTL MAIN B/D	Intel Arc Graphics	LB3122MM (77 Wh)	Intel, Ultra 7 155H Intel, Ultra 5 125H	Not Support	Without	#1 WA-P-LELE-04-011 #2 L1LRF009-CS-H
	17Z90S-V					Support		
	17Z90S-M					Not Support		
	17Z90S-C					Not Support		
	17Z90S-H					Not Support		
						With	#3 WA-P-LBLB-04-108	

- Due to above different item, there have some test item should be re-tested (see section 2), the test data are recorded in this report.

### 3.5. Antenna Information

No.	Antenna Part Number	Manufacturer	Antenna Type	Frequency (MHz)	Max Gain(dBi)		Directional Gain
					Aux	Main	
1.	WA-P-LELE-04-011	INPAQ	Mono-Pole	2400	1.10	2.20	1.68
				2450	1.60	3.00	2.36
				2500	1.50	2.70	2.14
				5150	3.80	4.10	3.95
				5400	3.70	4.00	3.85
				5850	3.30	3.70	3.50
				5925	3.20	3.50	3.35
				6525	2.50	2.70	2.60
				7125	2.10	2.50	2.30

According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then

$$\text{Directional gain} = 10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/N_{ANT}] \text{ dBi}$$

We chose the antenna gain corresponding to the frequency listed on the table which is closer to center frequency of WLAN.

No.	Antenna Part Number	Manufacturer	Antenna Type	Frequency (MHz)	Max Gain(dBi)		Directional Gain
					Aux	Main	
2.	L1LRF009-CS-H	LUXSHARE-ICT	Mono-Pole	2400	2.89	-1.45	1.24
				2450	-0.07	0.26	0.10
				2500	-6.91	2.15	-0.35
				5150	3.64	5.24	4.51
				5400	1.11	0.55	0.84
				5850	2.88	4.96	4.04
				5925	2.48	5.85	4.49
				6525	1.38	1.19	1.29
				7125	1.89	3.99	3.07

According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then

$$\text{Directional gain} = 10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/N_{ANT}] \text{ dBi}$$

We chose the antenna gain corresponding to the frequency listed on the table which is closer to center frequency of WLAN.

No.	Antenna Part Number	Manufacturer	Antenna Type	Frequency (MHz)	Max Gain(dBi)		Directional Gain
					Aux	Main	
3.	WA-P-LBLB-04-108	INPAQ	Mono-Pole	2400-2500	2.90	3.10	3.00
				5150-5350	2.80	-2.10	1.01
				5470-5725	5.70	2.50	4.39
				5725-5850	5.30	5.20	5.25
				5925-6425	3.70	4.80	4.28
				6425-6525	-1.00	1.00	0.11
				6525-6875	2.80	1.60	2.24
				6875-7125	-1.40	2.90	1.26

According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then

$$\text{Directional gain} = 10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/N_{ANT}] \text{ dBi}$$

### 3.6. EUT Specifications Assessed in Current Report

Mode	U-NII Band	Fundamental Range (MHz)	Channel Number
802.11a	1	5180-5240	4
	2A	5260-5320	4
	2C	5500-5720	12
	3	5745-5825	5
802.11n-HT20/ 802.11ac-VHT20 802.11ax-HE20	1	5180-5240	4
	2A	5260-5320	4
	2C	5500-5720	12
	3	5745-5825	5
802.11n-HT40/ 802.11ac-VHT40 802.11ax-HE40	1	5190-5230	2
	2A	5270-5310	2
	2C	5510-5710	6
	3	5755-5795	2
802.11ac-VHT80 802.11ax-HE80	1	5210	1
	2A	5290	1
	2C	5530-5690	3
	3	5775	1
802.11ac-VHT160 802.11ax-HE160	1	5250	1
	2A		
	2C	5570	1

Remark: U-NII Band 2A and 2C (DFS Function, Slave/no In service monitor, no Ad-Hoc mode)

Mode	Modulation	Data Rate (Mbps)
802.11a	OFDM (BPSK/QPSK/16QAM/64QAM)	Up to 54
802.11n-HT20	OFDM (BPSK/QPSK/16QAM/64QAM)	Up to 144.4
802.11n-HT40		Up to 300
802.11ac-VHT20	OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)	Up to 173.3
802.11ac-VHT40		Up to 400
802.11ac-VHT80		Up to 866.7
802.11ac-VHT160		Up to 1733.3
802.11ax-HE20	OFDMA (BPSK/ QPSK/ 16QAM/ 64QAM/ 256QAM/1024QAM)	Up to 287
802.11ax-HE40		Up to 574
802.11ax-HE80		Up to 1201
802.11ax-HE160		Up to 2402

Channel List					
802.11a/802.11n-HT20/802.11ac-VHT20/802.11ax-HE20					
U-NII Band	Channel Number	Frequency (MHz)	U-NII Band	Channel Number	Frequency (MHz)
1	36	5180	2C	120	5600
	40	5200		124	5620
	44	5220		128	5640
	48	5240		132	5660
2A	52	5260		136	5680
	56	5280		140	5700
	60	5300		144	5720
	64	5320		149	5745
2C	100	5500	3	153	5765
	104	5520		157	5785
	108	5540		161	5805
	112	5560		165	5825
	116	5580			

Channel List					
802.11n-HT40/802.11ac-VHT40/802.11ax-HE40					
U-NII Band	Channel Number	Frequency (MHz)	U-NII Band	Channel Number	Frequency (MHz)
1	38	5190	2C	118	5590
	46	5230		126	5630
2A	54	5270		134	5670
	62	5310		142	5710
2C	102	5510	3	151	5755
	110	5550		159	5795

Channel List					
802.11ac-VHT80/802.11ax-HE80					
U-NII Band	Channel Number	Frequency (MHz)	U-NII Band	Channel Number	Frequency (MHz)
1	42	5210	2C	138	5690
2A	58	5290	3	155	5775
2C	106	5530			
	122	5610			

Channel List					
802.11ac-VHT160/802.11ax-HE160					
U-NII Band	Channel Number	Frequency (MHz)	U-NII Band	Channel Number	Frequency (MHz)
1	50	5250	2C	114	5570
2A					

Note: Test modes are presented at section 3.8.

### 3.7. Description of Key Components

#### 3.7.1. For the All Component Lists

Item	Supplier	Model / Type	Character
System	Microsoft	Win 10	---
		Win 10 Pro	---
		Win11 Home	---
Main Board	LG	ROYAL NVIDIA MAIN B/D PCB	Main Board (PM) Manufacturer: #1 Hannstar Board Tech (Jiang Yin) Corp.,Ltd. #2 Elec&Eltek Company (MCO) Limited. CPU (Socket: BGA1744)
		ROYAL MAIN B/D PCB	Main Board (GM) Manufacturer: #1 Hannstar Board Tech (Jiang Yin) Corp.,Ltd. #2 Elec&Eltek Company (MCO) Limited. CPU (Socket: BGA1744)
		MTL MAIN B/D	<b>Main Board (MTL)</b> <b>Manufacturer:</b> <b>#1 Hannstar Board Tech (Jiang Yin) Corp.,Ltd.</b> <b>#2 Elec&amp;Eltek Company (MCO) Limited.</b> <b>CPU (Socket: BGA2049)</b>
WLAN SUB Board	LG	17Z90R SUB B/D	Manufacturer: #1 Hannstar Board Tech (Jiang Yin)Corp.,Ltd. #2 JiangSuHuaShen Electronic co.,Ltd (HXF) #3 Elec&Eltek Company (MCO) Limited.
CPU (Socket: BGA1744)	Intel	i7-1360P	2.2GHz
	Intel	i5-1340P	1.9GHz
	Intel	i7-1370P	1.9GHz
	Intel	i5-1350P	1.9GHz
CPU (Socket: BGA2049)	Intel	Ultra 7 155H*	3.8GHz
	Intel	Ultra 5 125H*	3.6GHz
17" LCD Panel	LG Display	LP170WQ1-SPF2	Resolution: 2560 x 1600, 60Hz WQXGA IPS #1 Without Touch #2 With Touch
		LP170WQ2-SPB1	Resolution: 2560 x 1600, 144Hz WQXGA IPS
Storage (SSD)	SK hynix	---	2TB/1TB/512GB/256GB
	Samsung	---	2TB/1TB/512GB/256GB
Memory (RAM)	Samsung	---	32GB/16GB/8GB LPDDR5x(On Board)
	SK Hynix	---	32GB/16GB/8GB LPDDR5x(On Board)
Battery Pack	LG	LBY122CM	90Wh with PM M/B, DC 7.76V, 90Wh
	LG	LBV7227E	80Wh with GM M/B DC 7.74V, 80Wh
	LG	LB3122MM*	77Wh with MTL M/B DC 15.52V, 77Wh

Item	Supplier	Model / Type	Character
WLAN Combo Card	Intel	AX211D2W	WLAN and BT, 2x2 PCIe M.2 1216 SD adapter card FCC ID: PD9AX211D2 IC: 1000M-AX211D2
WLAN Combo Antenna	LG (INPAQ)	WA-P-LELE-04-011	PCB, Mono-pole Type Main: Black, Aux: Gray
	LG (INPAQ)	WA-P-LBLB-04-108	PCB, Mono-pole Type Main: Black, Aux: Gray
	LG (LUXSHARE-ICT)	L1LRF009-CS-H	PCB, Mono-pole Type Main: Black, Aux: Gray
Touch Pad	LITE-ON	SP8001(SG-A0630-00A)	---
	ELAN	SD081A-36H0	---
Keyboard	TIC	KT0120B9	---
	LITE ON	SN8B02	---
Web Camera	Chicony	CKFLF26	---
	Luxvisions	1BF225N3	---
LAN Gender (Type C to LAN)	SUZHOU MEC ELECTRONICS	80-5946-111	(White) 10/100Megabit Ethernet
		80-5946-101	(Black) 10/100 Megabit Ethernet
	ARIN TECH CO. LTD	GD-08MF-36-WH-LP10	(White) 10/100Megabit Ethernet
		GD-08MF-36-BK-LP11	(Black) 10/100 Megabit Ethernet
	HUIZHOU DEHONG TECHNOLOGY CO.,LTD.	370-50713	(White) 10/100Megabit Ethernet
		370-50714	(Black) 10/100 Megabit Ethernet
Type C to LAN: Shielded, Undetached, 0.12m			
AC Adapter	LG (PI ELECTRONICS)	LP65WFC20P-NJ W	(White) I/P: AC 100-240V, 1.6A, 50-60Hz O/P:DC5V,3A(15W) or DC9V, 3A(27W)or 15V,3A (15W) or 20V,3.25A (65W) Wall-Mounted: (2C)
	LG (PI ELECTRONICS)	LP65WFC20P-NJ B	(Black) I/P: AC 100-240V, 1.6A, 50-60Hz O/P:DC5V,3A(15W) or DC9V, 3A(27W)or 15V,3A (15W) or 20V,3.25A (65W) Wall-Mounted: (2C)
Type C Cable	#1 Shielded, Detached, 2.0m (5A)		
	#2 Shielded, Detached, 1.8m (3A)*		
<b>Note: “*” Standing for adding new configuration.</b>			

Remark: For more detailed features description, please refer to the manufacturer’s specifications or the user manual.

3.7.2. The EUT collocates with following worst components, which are used to establish a basic configuration of system during test:

SKU (Mode)			1	2	3
Main Board		LG, MTL MAIN B/D	V	V	V
WLAN SUB Board		LG, 17Z90R SUB B/D	V	V	V
CPU		Intel, Ultra 7 155H	V		V
		Intel, Ultra 5 125H		V	
17" LCD Panel		LG Display, LP170WQ1-SPF2 without Touch	V	V	
		LG Display, LP170WQ1-SPF2 with Touch			V
Storage (SSD)		Samsung, 2TB	V	V	V
		Samsung, 256GB	V	V	V
Memory (RAM)		Samsung, 32GB	V	V	V
Battery Pack		LG, 77Wh	V	V	V
Touch Pad		LITE-ON	V	V	V
Keyboard		TIC	V	V	V
Web Camera		Chicony	V	V	V
WLAN Combo Card		Intel, AX211D2W	V	V	V
WLAN Combo Antenna		LG (INPAQ), WA-P-LELE-04-011	V		
		LG (LUXSHARE-ICT), L1LRF009-CS-H		V	
		LG (INPAQ), WA-P-LBLB-04-108			V
Type C #1	AC Adapter	LG (PI ELECTRONICS), LP65WFC20P-NJ W	V	V	V
Type C #2	Link to LAN Gender	MEC (White)	V	V	V



### 3.8. Test Configuration

Mode	TX <sub>on</sub> (ms)	TX <sub>on+off</sub> (ms)	Duty Cycle (x)	Duty Cycle Factor [10log(1/x)] (dB)
802.11a	2.090	2.130	0.981	N/A
802.11n-HT20	4.000	4.050	0.988	N/A
802.11n-HT40	3.99	4.050	0.985	N/A
802.11ac-VHT80	3.970	4.020	0.988	N/A
802.11ac-VHT160	2.790	2.840	0.982	N/A
802.11ax-HE20	2.600	2.640	0.985	N/A
802.11ax-HE40	2.590	2.650	0.977	0.101
802.11ax-HE80	2.590	2.640	0.981	N/A
802.11ax-HE160	2.430	2.480	0.980	N/A
802.11ax-HE20 (RU Config 26)	0.755	0.805	0.938	0.278
802.11ax-HE20 (RU Config 52)	1.460	1.505	0.970	0.132
802.11ax-HE20 (RU Config 106)	3.020	3.070	0.984	N/A
802.11ax-HE40 (RU Config 242)	1.410	1.470	0.959	0.182
802.11ax-HE80 (RU Config 484)	2.790	2.840	0.982	N/A
802.11ax-HE160 (RU Config 996)	1.330	1.390	0.957	0.191

Note: When duty cycle is less than 98% (0.98) that duty cycle factor 10log(1/x) is needed to add in conducted test items measured in average detector.

Mode	TX <sub>on</sub> (ms)	T <sub>on</sub> +T <sub>off</sub> (ms)
802.11a		
802.11n-HT20		
802.11n-HT40		
802.11ac-VHT80		
802.11ac-VHT160		

Mode	TX <sub>on</sub> (ms)	T <sub>on</sub> +T <sub>off</sub> (ms)
802.11ax-HE20		
802.11ax-HE40		
802.11ax-HE80		
802.11ax-HE160		

Mode	TX <sub>on</sub> (ms)	T <sub>on</sub> +T <sub>off</sub> (ms)
802.11ax-HE20 (RU Config 26)		
802.11ax-HE20 (RU Config 52)		
802.11ax-HE20 (RU Config 106)		
802.11ax-HE40 (RU Config 242)		

Mode	TX <sub>on</sub> (ms)	T <sub>on</sub> +T <sub>off</sub> (ms)
802.11ax-HE80 (RU Config 484)		
802.11ax-HE160 (RU Config 996)		

AC Conduction	
SKU #1	Normal operation
SKU #2	Normal operation
SKU #3	Normal operation

	Item	Mode	Data Rate	Test Channel	
Radiated Test Case	SKU #1	Radiated Spurious Emission (30MHz~1GHz)	802.11n-HT40	MCS8	110
	SKU #2		802.11n-HT40	MCS8	110
	SKU #3		802.11n-HT40	MCS8	110

Item		Mode	Data Rate	Test Channel	
Radiated Test Case	SKU #3	Radiated Band Edge <small>Note1</small>	802.11ax-HE80	HE0	106
	SKU #1	Radiated Spurious Emission <small>Note1 &amp; 2</small>	802.11n-HT40	MCS8	151
	SKU #2		802.11ax-HE40	HE0	151
	SKU #3		802.11a	6 Mbps	165

Item		Mode	Data Rate	RU Configuration	Test Channel	
Radiated Test Case	SKU #1	Radiated Band Edge <small>Note1</small>	802.11ax-HE80	HE0	484/65	106
	SKU #2		802.11ax-HE20	HE0	106/54	140

Item		Mode	Data Rate	Test Channel	
Conducted Test Case	SKU #1 SKU #2	Maximum output power (SPOT Check)	802.11a	6 Mbps	36/40/48/52/60/64/100/116/140/144/149/157/165
			802.11n-HT20	MCS8	36/40/48/52/60/64/100/116/140/144/149/157/165
			802.11n-HT40	MCS8	38/46/54/62/102/110/134/142/151/159
			802.11ac-VHT80	MCS0	42/58/106/122/138/155
			802.11ac-VHT160	MCS0	50/114
			802.11ax-HE20	HE0	36/40/48/52/60/64/100/116/140/144/149/157/165
			802.11ax-HE40	HE0	38/46/54/62/102/110/134/142/151/159
			802.11ax-HE80	HE0	42/58/106/122/138/155
		802.11ax-HE160	HE0	50/114	

Item			Mode	Data Rate	Test Channel
Conducted Test Case	SKU #3	Maximum output power (SPOT Check)	802.11a	6 Mbps	36/40/48/52/60/64/100/116/140/144/149/157/165
			802.11n-HT20	MCS8	36/40/48/52/60/64/100/116/140/144/149/157/165
			802.11n-HT40	MCS8	38/46/54/62/102/110/134/142/151/159
			802.11ac-VHT80	MCS0	42/58/106/122/138/155
			802.11ac-VHT160	MCS0	50/114
			802.11ax-HE20	HE0	36/40/48/52/60/64/100/116/140/144/149/157/165
			802.11ax-HE40	HE0	38/46/54/62/102/110/134/142/151/159
			802.11ax-HE80	HE0	42/58/106/122/138/155
			802.11ax-HE160	HE0	50/114

Item			Mode	Data Rate	RU Configuration	Test Channel
Conducted Test Case	SKU #1	Maximum output power (SPOT Check)	802.11ax-HE20	HE0	26/0	36/100/149
					52/37	
					106/53	
				HE0	26/8	64/140/165
					52/40	
					106/53	
	802.11ax-HE40		HE0	242/61	38/102/151	
			HE0	242/62	62/134/159	
	802.11ax-HE80		HE0	484/65	42/106/155	
			HE0	484/66	58/122/155	
	802.11ax-HE160		HE0	996/67	50/114	
			HE0	996/S67	50/114	

Item			Mode	Data Rate	RU Configuration	Test Channel
Conducted Test Case	SKU #3	Maximum output power (SPOT Check)	802.11ax-HE20	HE0	26/0	36/100/149
					52/37	
					106/53	
			802.11ax-HE40	HE0	26/8	64/140/165
					52/40	
					106/53	
			802.11ax-HE80	HE0	242/61	38/102/151
					242/62	62/134/159
			802.11ax-HE160	HE0	484/65	42/106/155
					484/66	58/122/155
			802.11ax-HE160	HE0	996/67	50/114
					996/S67	50/114

Note 1:  Mobile Device  Portable Device

and 3 axis were assessed. The worst scenario for Radiated Spurious Emission as follow:

Lie  Side  Stand

Note 2: Low, mid, and high channels were measured, only the worst channel of each modulation was presented in this report.

Note 3: The modulation and bandwidth are similar for 802.11n mode for HT20/HT40 and 802.11ac mode for VHT20/VHT40, therefore investigated worst case to representative mode in the test report.

Note 4: The data rates were selected based on preliminary testing that identified rate as the worst case for output power.



### 3.9. Output Power Setting

For SKU (Mode) 1, 2

Mode	U-NII Band	Centre Frequency (MHz)	Power Setting	
			AUX	Main
802.11a	1	5180	17.000	17.000
		5200	17.000	17.000
		5240	17.000	17.000
	2A	5260	17.000	17.000
		5300	17.000	17.000
		5320	17.000	17.000
	2C	5500	17.000	17.000
		5580	17.000	17.000
		5700	17.000	17.000
		5720	17.000	17.000
	3	5745	17.000	17.000
		5785	17.000	17.000
5825		17.000	17.000	

Mode	U-NII Band	Centre Frequency (MHz)	Power Setting		Mode	U-NII Band	Centre Frequency (MHz)	Power Setting	
			AUX	Main				AUX	Main
802.11n- HT20	1	5180	17.000	17.000	802.11ax- HE20	1	5180	17.000	17.000
		5200	17.000	17.000			5200	17.000	17.000
		5240	17.000	17.000			5240	17.000	17.000
	2A	5260	17.000	17.000		2A	5260	17.000	17.000
		5300	17.000	17.000			5300	17.000	17.000
		5320	17.000	17.000			5320	17.000	17.000
	2C	5500	17.000	17.000		2C	5500	17.000	17.000
		5580	17.000	17.000			5580	17.000	17.000
		5700	17.000	17.000			5700	17.000	17.000
		5720	17.000	17.000			5720	17.000	17.000
	3	5745	17.000	17.000		3	5745	17.000	17.000
		5785	17.000	17.000			5785	17.000	17.000
5825		17.000	17.000	5825	17.000		17.000		

Mode	U-NII Band	Centre Frequency (MHz)	Power Setting		Mode	U-NII Band	Centre Frequency (MHz)	Power Setting	
			AUX	Main				AUX	Main
802.11n-HT40	1	5190	15.000	15.000	802.11ax-HE40	1	5190	15.000	15.000
		5230	17.000	17.000			5230	17.000	17.000
	2A	5270	17.000	17.000		2A	5270	17.000	17.000
		5310	15.250	15.250			5310	15.250	15.250
	2C	5510	17.000	17.000		2C	5510	17.000	17.000
		5550	17.000	17.000			5550	17.000	17.000
		5670	17.000	17.000			5670	17.000	17.000
		5710	17.000	17.000			5710	17.000	17.000
	3	5755	17.000	17.000		3	5755	17.000	17.000
		5795	17.000	17.000			5795	17.000	17.000

Mode	U-NII Band	Centre Frequency (MHz)	Power Setting		Mode	U-NII Band	Centre Frequency (MHz)	Power Setting	
			AUX	Main				AUX	Main
802.11ac-VT80	1	5210	14.000	14.000	802.11ax-HE80	1	5210	14.000	14.000
	2A	5290	15.250	15.250		2A	5290	15.250	15.250
	2C	5530	15.000	15.000		2C	5530	15.000	15.000
		5610	17.000	17.000			5610	17.000	17.000
		5690	17.000	17.000			5690	17.000	17.000
	3	5775	17.000	17.000		3	5775	17.000	17.000

Mode	U-NII Band	Centre Frequency (MHz)	Power Setting		Mode	U-NII Band	Centre Frequency (MHz)	Power Setting	
			AUX	Main				AUX	Main
802.11ac-VT160	1/2A	5250	11.000	11.000	802.11ax-HE160	1/2A	5250	11.000	11.000
	2C	5570	14.000	14.000		2C	5570	14.000	14.000

Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Setting	
				AUX	Main
802.11ax-HE20	1	5180	26/0	10.000	10.000
			52/37	13.000	13.000
			106/53	16.000	16.000
	2A	5320	26/8	10.000	10.000
			52/40	13.000	13.000
			106/54	15.750	15.750
	2C	5500	26/0	10.000	10.000
			52/37	13.000	13.000
			106/53	15.250	15.250
		5700	26/8	10.000	10.000
			52/40	13.000	13.000
			106/54	16.000	16.000
	3	5745	26/0	16.000	16.000
			52/37	13.000	13.000
			106/53	17.000	17.000
5825		26/8	16.000	16.000	
		52/40	13.000	13.000	
		106/54	17.000	17.000	
802.11ax-HE40	1	5190	242/61	16.750	16.750
	2A	5310	242/62	16.250	16.250
	2C	5510	242/61	17.000	17.000
		5670	242/62	17.000	17.000
	3	5755	242/61	17.000	17.000
		5795	242/62	17.000	17.000
802.11ax-HE80	1	5210	484/65	14.000	14.000
	2A	5290	484/66	12.000	12.000
	2C	5530	484/65	15.250	15.250
		5610	484/66	17.000	17.000
	3	5775	484/65	17.000	17.000
			484/66	17.000	17.000
802.11ax-HE160	1/ 2A	5250	996/67	14.000	14.000
			996/S67	12.500	12.500
	2C	5570	996/67	14.000	14.000
			996/S67	17.000	17.000

For SKU (Mode) 3

Mode	U-NII Band	Centre Frequency (MHz)	Power Setting	
			AUX	Main
802.11a	1	5180	17.000	17.000
		5200	17.000	17.000
		5240	17.000	17.000
	2A	5260	17.000	17.000
		5300	17.000	17.000
		5320	17.000	17.000
	2C	5500	17.000	17.000
		5580	17.000	17.000
		5700	17.000	17.000
		5720	17.000	17.000
	3	5745	17.000	17.000
		5785	17.000	17.000
5825		17.000	17.000	

Mode	U-NII Band	Centre Frequency (MHz)	Power Setting		Mode	U-NII Band	Centre Frequency (MHz)	Power Setting	
			AUX	Main				AUX	Main
802.11n-HT20	1	5180	17.000	17.000	802.11ax-HE20	1	5180	17.000	17.000
		5200	17.000	17.000			5200	17.000	17.000
		5240	17.000	17.000			5240	17.000	17.000
	2A	5260	17.000	17.000		2A	5260	17.000	17.000
		5300	17.000	17.000			5300	17.000	17.000
		5320	17.000	17.000			5320	17.000	17.000
	2C	5500	17.000	17.000		2C	5500	17.000	17.000
		5580	17.000	17.000			5580	17.000	17.000
		5700	17.000	17.000			5700	17.000	17.000
		5720	17.000	17.000			5720	17.000	17.000
	3	5745	17.000	17.000		3	5745	17.000	17.000
		5785	17.000	17.000			5785	17.000	17.000
5825		17.000	17.000	5825	17.000		17.000		

Mode	U-NII Band	Centre Frequency (MHz)	Power Setting		Mode	U-NII Band	Centre Frequency (MHz)	Power Setting	
			AUX	Main				AUX	Main
802.11n-HT40	1	5190	15.000	15.000	802.11ax-HE40	1	5190	15.000	15.000
		5230	17.000	17.000			5230	17.000	17.000
	2A	5270	17.000	17.000		2A	5270	17.000	17.000
		5310	15.250	15.250			5310	15.250	15.250
	2C	5510	17.000	17.000		2C	5510	17.000	17.000
		5550	17.000	17.000			5550	17.000	17.000
		5670	17.000	17.000			5670	17.000	17.000
		5710	17.000	17.000			5710	17.000	17.000
	3	5755	17.000	17.000		3	5755	17.000	17.000
		5795	17.000	17.000			5795	17.000	17.000

Mode	U-NII Band	Centre Frequency (MHz)	Power Setting		Mode	U-NII Band	Centre Frequency (MHz)	Power Setting	
			AUX	Main				AUX	Main
802.11ac-VT80	1	5210	14.000	14.000	802.11ax-HE80	1	5210	14.000	14.000
	2A	5290	15.250	15.250		2A	5290	15.250	15.250
	2C	5530	15.000	15.000		2C	5530	15.000	15.000
		5610	17.000	17.000			5610	17.000	17.000
		5690	17.000	17.000			5690	17.000	17.000
	3	5775	17.000	17.000		3	5775	17.000	17.000

Mode	U-NII Band	Centre Frequency (MHz)	Power Setting		Mode	U-NII Band	Centre Frequency (MHz)	Power Setting	
			AUX	Main				AUX	Main
802.11ac-VT160	1 / 2A	5250	11.000	11.000	802.11ax-HE160	1 / 2A	5250	11.000	11.000
	2C	5570	14.000	14.000		2C	5570	14.000	14.000

Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Setting	
				AUX	Main
802.11ax-HE20	1	5180	26/0	10.000	10.000
			52/37	13.000	13.000
			106/53	16.000	16.000
	2A	5320	26/8	10.000	10.000
			52/40	13.000	13.000
			106/54	15.750	15.750
	2C	5500	26/0	10.000	10.000
			52/37	13.000	13.000
			106/53	15.250	15.250
		5700	26/8	10.000	10.000
			52/40	13.000	13.000
			106/54	16.000	16.000
	3	5745	26/0	16.000	16.000
			52/37	13.000	13.000
			106/53	17.000	17.000
5825		26/8	16.000	16.000	
		52/40	13.000	13.000	
		106/54	17.000	17.000	
802.11ax-HE40	1	5190	242/61	16.750	16.750
	2A	5310	242/62	16.250	16.250
	2C	5510	242/61	17.000	17.000
		5670	242/62	17.000	17.000
	3	5755	242/61	17.000	17.000
		5795	242/62	17.000	17.000
802.11ax-HE80	1	5210	484/65	14.000	14.000
	2A	5290	484/66	12.000	12.000
	2C	5530	484/65	15.250	15.250
		5610	484/66	17.000	17.000
	3	5775	484/65	17.000	17.000
			484/66	17.000	17.000
802.11ax-HE160	1/2A	5250	996/67	14.000	14.000
			996/S67	12.500	12.500
	2C	5570	996/67	14.000	14.000
			996/S67	17.000	17.000

### 3.10. Tested Supporting System List

#### 3.10.1. Support Peripheral Unit

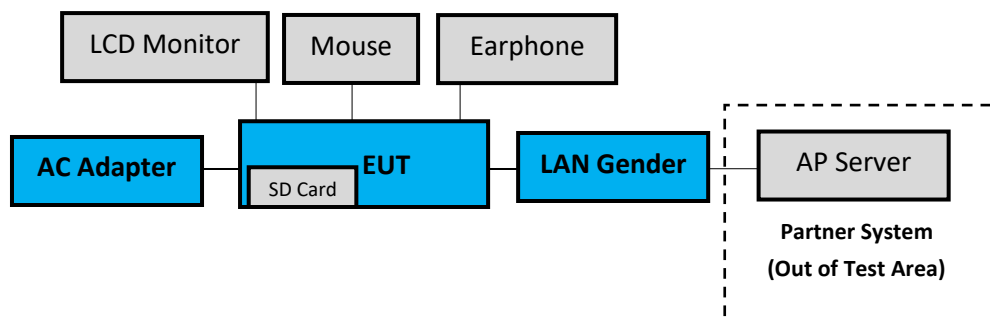
No.	Product	Brand	Model No.	Serial No.	Approval
1.	LCD Monitor	DELL	U2718Qb	CN-0M5R5F-QDC 00-99P-04CL	N/A
2.	USB Mouse	Lenovo	SM-8823	8SSM50L24506AV LC99H049R	N/A
3.	Earphone	APPLE	N/A	N/A	N/A
4.	SD Card	ADATA	MicroSDHC Card	N/A	N/A
<b>Partner System</b>					
5	AP Server	ASUS	RT-AX88U	N/A	FCC ID: MSQ-RTAXHP00 IC: 3568A-RTAXHP00

#### 3.10.2. Cable Lists

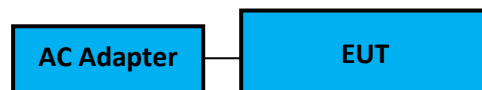
No.	Cable Description Of The Above Support Units
1.	HDMI Cable: Shielded, Detachable, 1.8 AC Power Cord: Unshielded, Detachable, 1.8m
2.	USB Cable: Unshielded, Undetachable, 1.8
3.	Earphone Cable: Unshielded, Undetachable, 1.2m
4.	N/A
5.	AC adapter: M/N:WA-30B12, Cable: Unshielded, Detachable, 1.2m LAN cable: Unshielded, Detachable, 3.0m
6.	LAN cable: Unshielded, Detachable, 1.8m

### 3.11. Setup Configuration

#### 3.11.1. EUT Configuration for Power Line & Radiated Emission



#### 3.11.2. EUT Configuration for RF Conducted Test Items



### 3.12. Operating Condition of EUT

Test program “DRTU” is used for enabling EUT WLAN function under continues transmitting and choosing data rate/ channel.

[ANT AUX port (A Button in DRTU) and ANT Main port (B Button in DRTU)].

### 3.13. Description of Test Facility

Name of Test Firm	Audix Technology Corporation / EMC Department No. 491, Zhongfu Rd., Linkou Dist., New Taipei City 244, Taiwan Tel: +886-2-26092133 Fax: +886-2-26099303 Website : www.audixtech.com Contact e-mail: attemc_report@audixtech.com
Accreditations	The laboratory is accredited by following organizations under ISO/IEC 17025:2017 (1) NVLAP(USA) NVLAP Lab Code 200077-0 (2) TAF(Taiwan) No. 1724
Test Facilities	FCC OET Designation Number under APEC MRA by NCC is : TW1724 ISED CAB Identifier Number under APEC TEL MRA by NCC is TW1724 (1) No.8 Shielded Room (2) No.1 3m Semi Anechoic Chamber



### 3.14. Measurement Uncertainty

The measurement uncertainty levels have been estimated as specified in ETSI TR 100 028-2001

Test Items/Facilities		Frequency Range	Uncertainty
Conduction Test	<input type="checkbox"/>	No. 7 Shielded Room	9kHz-150kHz ±3.7dB
			150kHz-30MHz ±3.4dB
	<input checked="" type="checkbox"/>	No. 8 Shielded Room	9kHz-150kHz ±3.7dB
			150kHz-30MHz ±3.5dB
Radiation Test	<input checked="" type="checkbox"/>	No.1 3m Semi Anechoic Chamber	30MHz-200MHz, 3m, Horizontal ±3.6dB
			200MHz-1000MHz, 3m, Horizontal ±4.3dB
			30MHz-200MHz, 3m, Vertical ±4.4dB
			200MHz-1000MHz, 3m, Vertical ±4.8dB
			1GHz-6GHz, 3m ±4.8dB
			6GHz-18GHz, 3m ±4.5dB
	<input type="checkbox"/>	No.3 3m Semi Anechoic Chamber	30MHz-200MHz, 3m, Horizontal ±4.0dB
			200MHz-1000MHz, 3m, Horizontal ±4.4dB
			30MHz-200MHz, 3m, Vertical ±4.7dB
			200MHz-1000MHz, 3m, Vertical ±4.5dB
			1GHz-6GHz, 3m ±4.8dB
			6GHz-18GHz, 3m ±4.5dB
	<input type="checkbox"/>	No.4 3m Semi Anechoic Chamber	30MHz-200MHz, 3m, Horizontal ±4.3dB
			200MHz-1000MHz, 3m, Horizontal ±4.2dB
			30MHz-200MHz, 3m, Vertical ±4.8dB
			200MHz-1000MHz, 3m, Vertical ±4.7dB
			1GHz-6GHz, 3m ±4.6dB
			6GHz-18GHz, 3m ±4.4dB
	<input type="checkbox"/>	No.5 3m Semi Anechoic Chamber	30MHz-200MHz, 3m, Horizontal ±4.6dB
			200MHz-1000MHz, 3m, Horizontal ±4.4dB
			30MHz-200MHz, 3m, Vertical ±4.5dB
			200MHz-1000MHz, 3m, Vertical ±4.9dB
			1GHz-6GHz, 3m ±4.9dB
			6GHz-18GHz, 3m ±4.6dB
Radiated emissions (18GHz-40GHz)		18GHz-40GHz, 3m ±3.4dB	

Remark : Uncertainty =  $ku_c(y)$

Test Items	Uncertainty
Maximum output power	± 0.33dB

## 4. MEASUREMENT EQUIPMENT LIST

### 4.1. Conducted Emission Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Test Receiver	R&S	ESR3	101774	2023. 01. 11	1 Year
2.	A.M.N.	R&S	ENV432	101567	2023. 06. 02	1 Year
3.	L.I.S.N.	Kyoritsu	KNW-407	8-855-9	2022. 12. 19	1 Year
4.	Pulse Limiter	R&S	ESH3-Z2	100354	2022. 12. 14	1 Year
5.	Digital Thermo-Hygro Meter	iMax	HTC-1	No.8 S/R	2023. 04. 13	1 Year
6.	Coaxial Cable	Yeida	RG/58AU	CE-08	2023. 09. 06	1 Year
7.	Test Software	Audix	e3	V9 18621a	N.C.R.	N.C.R.

## 4.2. Radiated Emission Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A-526	MY53400071	2023.08.16	1 Year
2.	Test Receiver	R&S	ESCS30	100338	2023.06.20	1 Year
3.	Amplifier	HP	8447D	2944A06305	2022.12.29	1 Year
4.	Microwave Amplifier	Keysight	83051A	MY56480113	2023.09.11	1 Year
5.	Microwave Amplifier	Agilent	8449B	3008A02678	2023.02.17	1 Year
6.	Loop Antenna	TESEQ	HLA 6121	60478	2023.02.21	1 Year
7.	Bilog Antenna	TESEQ	CBL6112D	33821	2023.06.30	1 Year
8.	Horn Antenna	EMCO	3115	9609-4927	2023.07.21	1 Year
9.	Horn Antenna	COM-POWER	AH-840	101092	2022.12.30	1 Year
10.	5G Notch Filter	Microwave Circuits	N0452502	459775	2023.05.03	1 Year
11.	5G Notch Filter	Microwave Circuits	N0555983	504921	2023.08.02	1 Year
12.	5G Notch Filter	Microwave Circuits	N0257881	459776	2023.08.012	1 Year
13.	Coaxial Cable	MIYAZAKI	5D2W	RE-11	2023.01.07	1 Year
14.	Coaxial Cable	HUBER+SUHNER	RG223/U	RE-33	2023.03.02	1 Year
15.	Coaxial Cable	HUBER+SUHNER	SUCOFLEX 106	RE-14	2023.01.07	1 Year
16.	Coaxial Cable	HUBER+SUHNER	SUCOFLEX 102	RE-30	2023.08.21	1 Year
17.	Digital Thermo-Hygro Meter	iMax	HTC-1	No.1 3m A/C	2023.04.13	1 Year
18.	Test Software	Audix	e3	V9 18621a	N.C.R.	N.C.R.

## 4.3. RF Conducted Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Keysight	N9020B-544	MY57120357	2023. 02. 22	1 Year
2.	Power Meter	Anritsu	ML2495A	2127005	2022. 12. 01	1 Year
3.	Power Meter	Anritsu	ML2495A	2127004	2022. 12. 07	1 Year
4.	Power Sensor	Anritsu	MA2411B	1911360	2022. 12. 07	1 Year
5.	Power Sensor	Anritsu	MA2411B	1911356	2022. 12. 01	1 Year
6.	Digital Thermo-Hygro Meter	iMax	HTC-1	RF-03	2023. 04. 13	1 Year

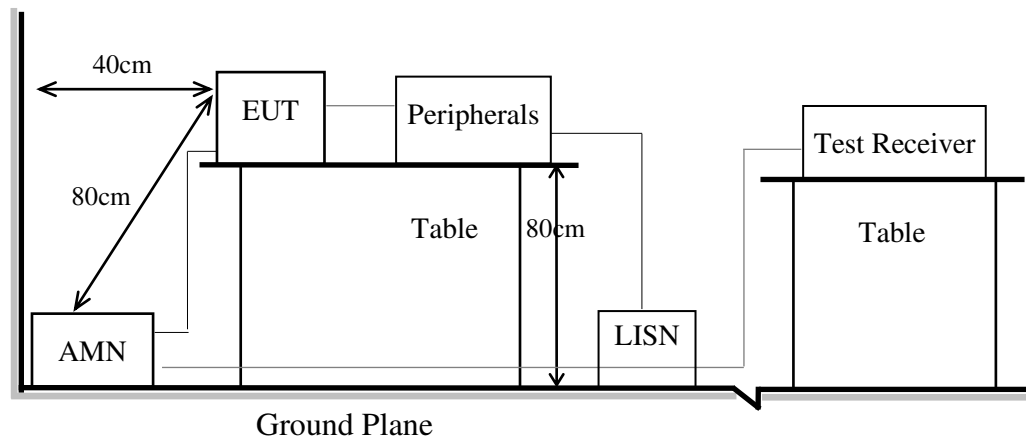
## 5. CONDUCTED EMISSION

### 5.1. Block Diagram of Test Setup

#### 5.1.1. Block Diagram of EUT

Indicated as section 3.11

#### 5.1.2. Shielded Room Setup Diagram



### 5.2. Conducted Emission Limit

Frequency	Conducted Limit	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dB $\mu$ V	56 ~ 46 dB $\mu$ V
500kHz ~ 5MHz	56 dB $\mu$ V	46 dB $\mu$ V
5MHz ~ 30MHz	60 dB $\mu$ V	50 dB $\mu$ V

Remark1.: If the average limit is met when using a Quasi-Peak detector, the measurement using the average detector is not required.

2.: The lower limit applies to the band edges.

### 5.3. Test Procedure

- 5.3.1. To set up the EUT as indicated in ANSI C63.10. The EUT was placed on the table which has 80 cm height to the ground and 40 cm distance to the conducting wall.
- 5.3.2. Power supplier of the EUT was connected to the AC mains through an Artificial Mains Network (A.M.N.).
- 5.3.3. The AC power supplies to all peripheral devices must be provided through line impedance stabilization network (L.I.S.N.)
- 5.3.4. Checking frequency range from 150kHz to 30 MHz and record the emission which does not have 20 dB below limit.

### 5.4. Test Results

Please refer to Appendix A.

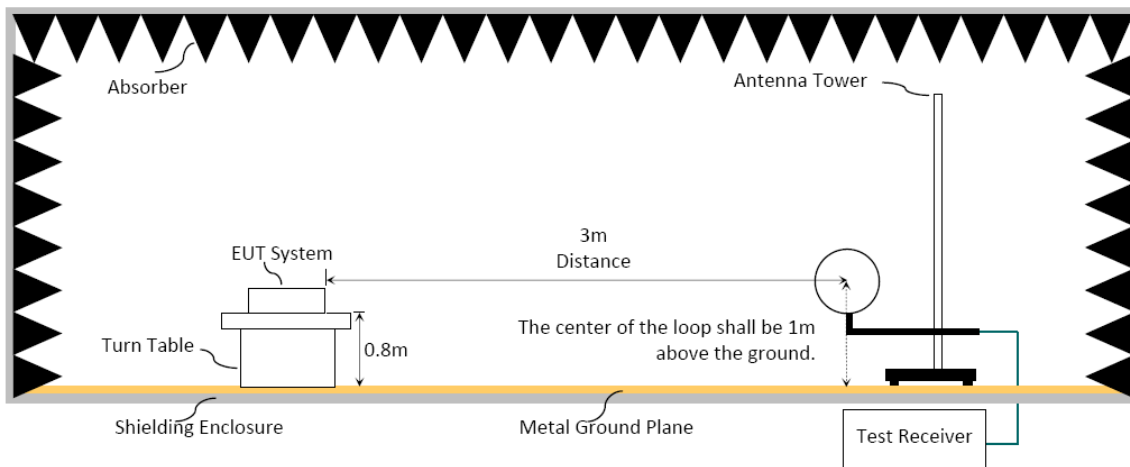
## 6. RADIATED EMISSION

### 6.1. Block Diagram of Test Setup

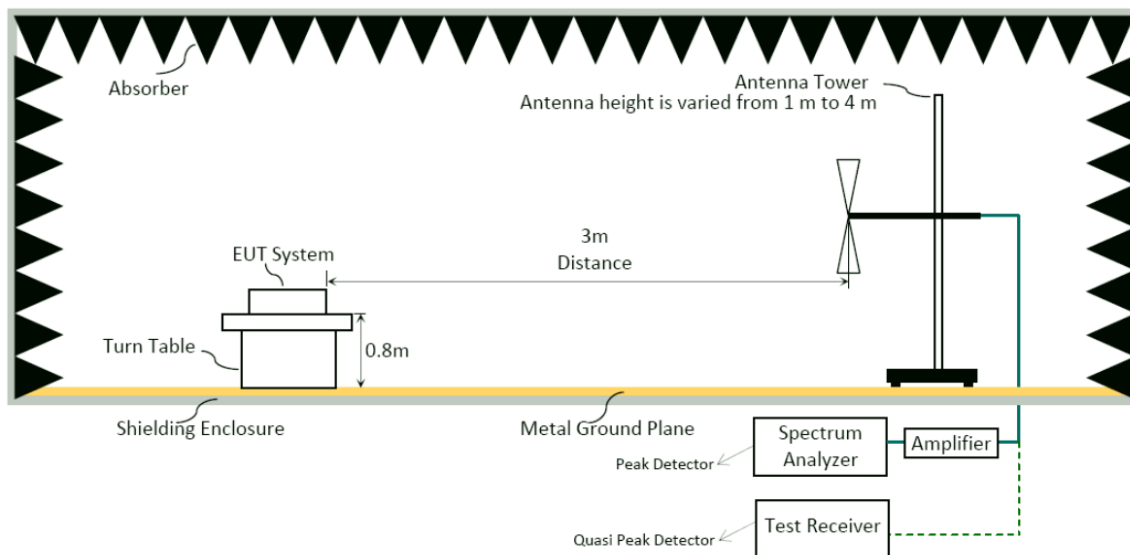
#### 6.1.1. Block Diagram of EUT

Indicated as section 3.11

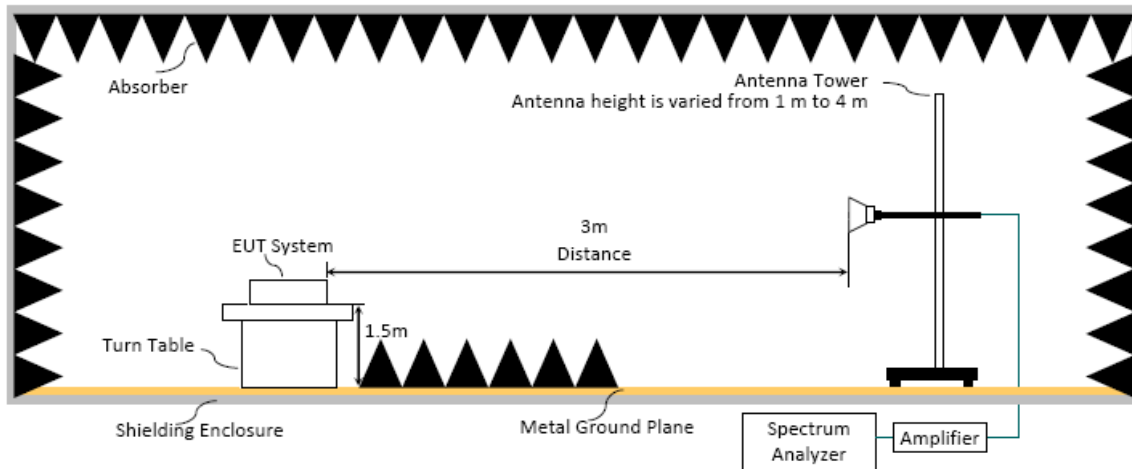
#### 6.1.2. Setup Diagram for 9kHz-30MHz



#### 6.1.3. Setup Diagram for 30-1000MHz



### 6.1.4. Setup Diagram for above 1GHz



## 6.2. Radiated Emission Limits

Radiated emissions fall in restricted bands, as defined in Section 15.205 must be in compliance with the radiated emission limits specified in 15.209 as below.

### 6.2.1. General Limit

Frequency (MHz)	Distance(m)	Limits	
		dB $\mu$ V/m	$\mu$ V/m
0.009 - 0.490	300	67.6-20 log f(kHz)	2400/f kHz
0.490 - 1.705	30	87.6-20 log f(kHz)	24000/f kHz
1.705 - 30	30	29.5	30
30 - 88	3	40.0	100
88- 216	3	43.5	150
216- 960	3	46.0	200
Above 960	3	54.0	500
Above 1000	3	74.0 dB $\mu$ V/m (Peak) 54.0 dB $\mu$ V/m (Average)	

Remark : (1) dB $\mu$ V/m = 20 log ( $\mu$ V/m)

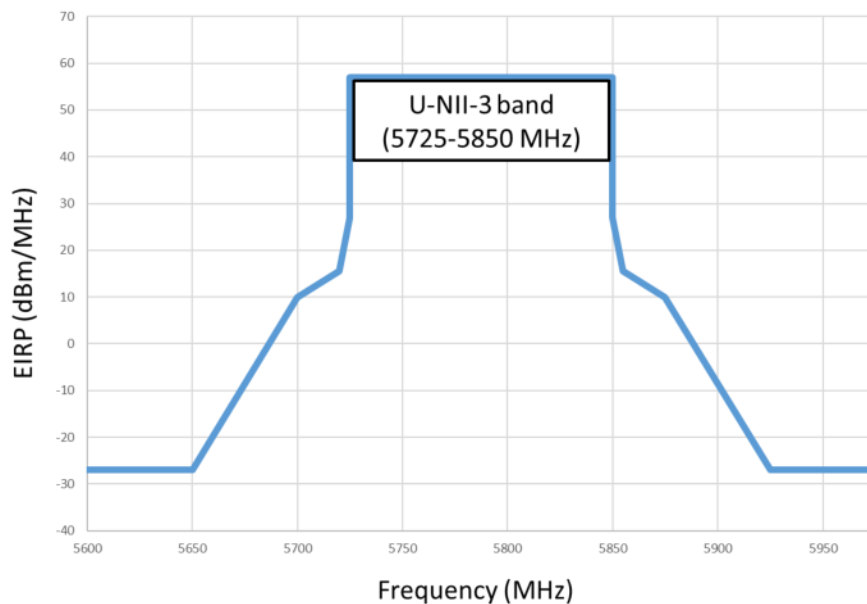
- (2) The tighter limit applies to the edge between two frequency bands.
- (3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
- (4) Fundamental and emission fall within operation band are exempted from this section.
- (5) Pursuant to ANSI C63.10: 6.6.4.3, if the maximized peak measured value complies with the average limit, then it is unnecessary to perform an average measurement.

6.2.2. Limit for non-restricted frequency above 1 GHz

Frequency Band (MHz)	E.I.R.P. Limit	Field Strength Limit at 3 m
5150 to 5250	-27 dBm	68.2 dB $\mu$ V/m
5250 to 5350		68.2 dB $\mu$ V/m
5470 to 5725		68.2 dB $\mu$ V/m

Note: Field Strength at 3 m = E.I.R.P. + 95.2 dB

Frequency Band (MHz)	Field Strength Limit at 3 m	
5725 to 5850	<input checked="" type="checkbox"/>	15.407(b)(4)(i) All emissions shall be limited to a level of 68.2 dB $\mu$ V/m at 75 MHz or more above or below the band edge increasing linearly to 105.2 dB $\mu$ V/m at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 110.8 dB $\mu$ V/m at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 122.2 dB $\mu$ V/m at the band edge.
	<input type="checkbox"/>	15.407(b)(4)(ii), compliance with the emission limits in § 15.247(d) shall be at least 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c))



### 6.3. Test Procedure

#### Frequency Range 9kHz~30MHz:

The EUT setup on the turntable which has 0.8 m height to the ground. The turn table rotated 360 degrees and antenna fixed to 1 m to find the maximum emission level. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2013 regulation.

- (1) RBW = 9kHz with peak and average detector.
- (2) Detector: average and peak (9kHz-490kHz)  
Q.P. (490kHz-30MHz)

#### Frequency Range 30MHz ~ 40GHz:

The EUT setup on the turn table which has 80cm (for 30-1000MHz) and 1.5m (for above 1GHz) height to the ground. The turn table rotated 360 degrees and antenna varied from 1 m to 4 m to find the maximum emission level. Both horizontal and vertical polarization are required. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2013 regulation.

#### Frequency below 1GHz:

Spectrum Analyzer is used for pre-testing with following setting:

- (1)RBW = 120kHz
- (2)VBW  $\geq 3 \times$  RBW.
- (3)Detector = Peak.
- (4)Sweep time = auto.
- (5)Trace mode = max hold.
- (6)Allow sweeps to continue until the trace stabilizes.

Note 1: When peak-detected value is lower than limit that the measurement using the Q.P. detector is not required, otherwise using Q.P. for final measurement.

Note 2: When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds.

#### Frequency above 1GHz to 10th harmonic(up to 40 GHz):

##### Peak Detector:

- (1)RBW = 1MHz
- (2)VBW  $\geq 3 \times$  RBW.
- (3)Detector = Peak.
- (4)Sweep time = auto.
- (5)Trace mode = max hold.
- (6)Allow sweeps to continue until the trace stabilizes.

Note: When peak-detected value is lower than limit that the measurement using the average detector is not required, otherwise using average detector for final measurement.



**Average Detector:**

**Option 1:**

(1) RBW = 1MHz

(2) VBW  $\geq 1/T$ . (Duty Cycle < 98%, when duty cycle presented in section 3.8)

Modulation Type	VBW Setting
802.11ax-HE40	390Hz
802.11ax-HE20 (RU Config 26)	1.5kHz
802.11ax-HE20 (RU Config 52)	750Hz
802.11ax-HE20 (RU Config 106)	10Hz
802.11ax-HE40 (RU Config 242)	750Hz
802.11ax-HE80 (RU Config 484)	10Hz
802.11ax-HE160 (RU Config 996)	820Hz

(3) VBW = set VBW  $\leq$  RBW / 100, but not less than 10Hz (Duty Cycle  $\geq$  98%, when duty cycle presented in section 3.8)

Modulation Type	VBW Setting
802.11a	10Hz
802.11n-HT20	10Hz
802.11n-HT40	10Hz
802.11ac-VHT80	10Hz
802.11ac-VHT160	10Hz
802.11ax-HE20	10Hz
802.11ax-HE80	10Hz
802.11ax-HE160	10Hz

(4) Detector = Peak.

(5) Sweep time = auto.

(6) Trace mode = max hold.

(7) Allow sweeps to continue until the trace stabilizes.

**Option 2:**

Average Emission Level(dB $\mu$ V/m) = Peak Emission Level(dB $\mu$ V/m) + DCCF(dB).

**6.4. Measurement Result Explanation**

Peak Emission Level(dB $\mu$ V/m) = Antenna Factor(dB/m) + Cable Loss (dB) – Preamp Gain (dB) + Reading(dB $\mu$ V).

Average Emission Level(dB $\mu$ V/m) = Antenna Factor(dB/m) + Cable Loss (dB) – Preamp Gain (dB) + Reading(dB $\mu$ V).

Average Emission Level(dB $\mu$ V/m) = Peak Emission Level(dB $\mu$ V/m) + DCCF(dB)  
 Duty Cycle Correction Factor (DCCF)(dB) = 20log(TX<sub>on</sub>/TX<sub>on+off</sub>) presented in section 3.8.

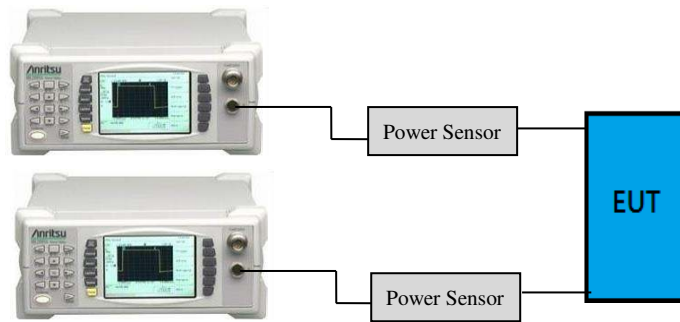
ERP(dBm) = Peak Emission Level(dB $\mu$ V/m) - 95.2dB - 2.14dB

**6.5. Test Results**

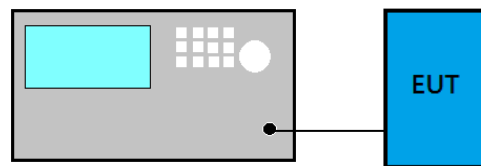
Please refer to Appendix A.

## 7. MAXIMUM OUTPUT POWER

### 7.1. Block Diagram of Test Setup



- For 802.11ac-VHT80/160, 802.11ax-HE160 modes only



### 7.2. Specification Limits

Frequency Band (MHz)	Category	Limit
5150 to 5250	Outdoor Access Point	1 W(30 dBm)/ Max e.i.r.p. $\leq 125$ mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon
	Fixed point-to-point Access Point	1 W(30 dBm)
	Indoor Access Point	1 W(30 dBm)
	Mobile and Portable client device	250 mW(24 dBm)
5250 to 5350	N/A	250 mW or $11 \text{ dBm} + 10 \log B$ <sup>Note 1</sup>
5470 to 5725		250 mW or $11 \text{ dBm} + 10 \log B$ <sup>Note 1</sup>
5725 to 5850		1 W(30 dBm)

Note 1: B is the 26 dB emission bandwidth, which presented in section 7 and appendix A.1.

### 7.3. Test Procedure

Following measurement procedure is reference to KDB 789033 D02 General UNII Test Procedures New Rules v02r01:

■ **Method AVGPM (Measurement using an RF average power meter):**

EUT is connected to power sensor and record the maximum average output power and duty cycle factor is added when duty cycle presented in section 3.8 is < 98%.

■ **Method AVGSA-2 (Spectrum channel power) for 802.11ac-VHT80/160, 802.11ax-HE80/160 modes only**

- (1) Set span to at least 1.5 times the OBW
- (2) Set RBW = 1 MHz
- (3) Set the video bandwidth (VBW)  $\geq$  3 MHz.
- (4) Detector = RMS.
- (5) Trace mode = trace average at least 100 traces
- (6) Sweep = auto couple.
- (7) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function with band limits set equal to the OBW band edges.
- (8) Duty cycle factor is added when duty cycle presented in section 3.8 is < 98%.

### 7.4. Test Results

Please refer to Appendix A

## **8. DEVIATION TO TEST SPECIFICATIONS**

**【NONE】**



# APPENDIX A

## TEST DATA AND PLOTS

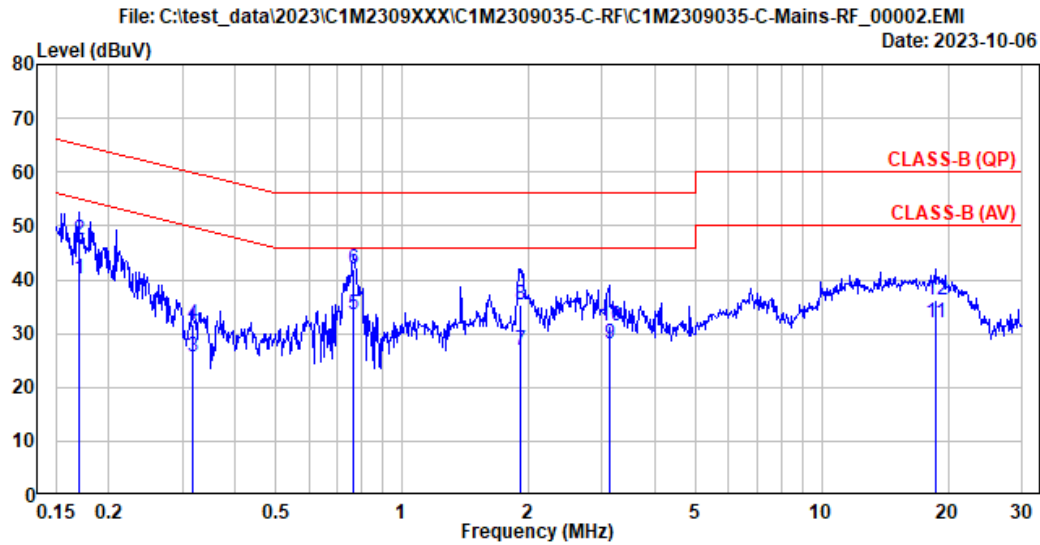
(Model: 17Z90S)

## TABLE OF CONTENTS

<b>A.1 CONDUCTED EMISSION</b> .....	<b>2</b>
<b>A.2 RADIATED EMISSION</b> .....	<b>8</b>
A.2.1 Emissions within Restricted Frequency Bands.....	8
A.2.2 Emissions outside the frequency band:.....	17
A.2.3 Emissions in Non-restricted Frequency Bands:.....	17
<b>A.3 MAXIMUM OUTPUT POWER</b> .....	<b>18</b>
A.3.1 Average Output Power .....	18

## A.1 CONDUCTED EMISSION

Test Date	2023/10/06	Temp./Hum.	24°C/55%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	Roy Hung
Test SKU	SKU #1 [with (INPAQ) WA-P-LELE-04-011 Antenna]		



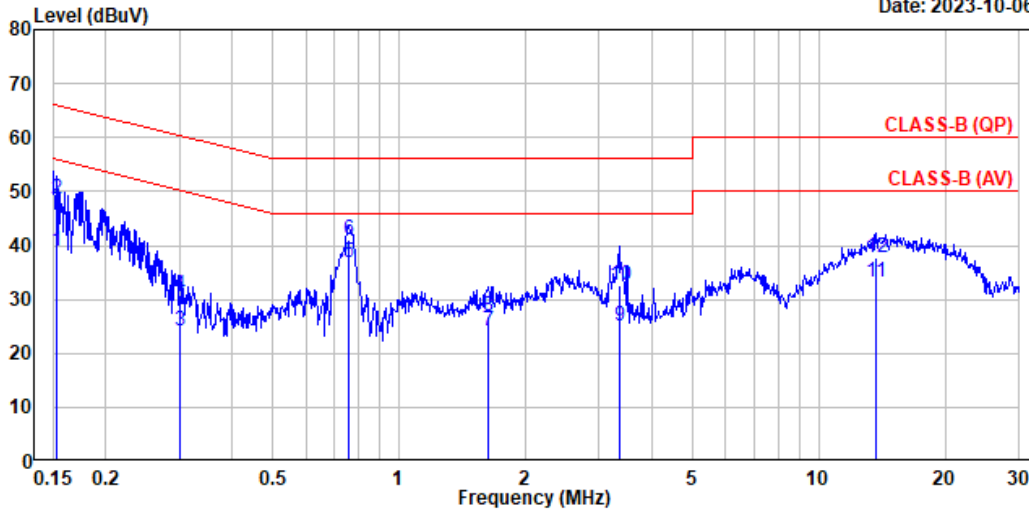
Site No.	: No.8 Shielded Room	Data No.	: 2
Instrument 1	: Receiver ESR(774)		
Instrument 2	: ENV432 (567)(A) CE-08 ESH3-Z2 (354)		
Limit	: CLASS-B (QP)	Phase	: Neutral
Environment	: 24°C/55%	Test Rating	: 120Vac/60Hz
EUT Model	: 17290S	Engineer	: Roy Hung
Test Mode	: Operating		
	Inpaq		

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.170	10.30	0.03	9.85	20.04	40.22	54.97	14.75	Average
2	0.170	10.30	0.03	9.85	27.29	47.47	64.97	17.50	QP
3	0.317	10.28	0.03	9.85	5.60	25.76	49.79	24.03	Average
4	0.317	10.28	0.03	9.85	11.51	31.67	59.79	28.12	QP
5	0.765	10.29	0.04	9.85	13.36	33.54	46.00	12.46	Average
6	0.765	10.29	0.04	9.85	21.73	41.91	56.00	14.09	QP
7	1.915	10.32	0.06	9.86	6.78	27.02	46.00	18.98	Average
8	1.915	10.32	0.06	9.86	15.21	35.45	56.00	20.55	QP
9	3.122	10.35	0.07	9.86	7.91	28.19	46.00	17.81	Average
10	3.122	10.35	0.07	9.86	11.21	31.49	56.00	24.51	QP
11	18.684	10.94	0.19	9.93	10.79	31.85	50.00	18.15	Average
12	18.684	10.94	0.19	9.93	15.09	36.15	60.00	23.85	QP

Remarks: 1. Emission Level(dBµV)= AMN Factor(dB) + Cable Loss(dB) + Pulse Att.(dB) + Reading(dBµV).

Test Date	2023/10/06	Temp./Hum.	24°C/55%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	Roy Hung
Test SKU	SKU #1 [with (INPAQ) WA-P-LELE-04-011 Antenna]		

File: C:\test\_data\2023\1M2309XXX\1M2309035-C-RF\1M2309035-C-Mains-RF\_00001.EMI  
 Date: 2023-10-06



Site No.	: No.8 Shielded Room	Data No.	: 1
Instrument 1	: Receiver ESR(774)		
Instrument 2	: ENV432 (567)(A) CE-08 ESH3-Z2 (354)		
Limit	: CLASS-B (QP)	Phase	: Line
Environment	: 24°C/55%	Test Rating	: 120Vac/60Hz
EUT Model	: 17Z90S	Engineer	: Roy Hung
Test Mode	: Operating Inpaq		

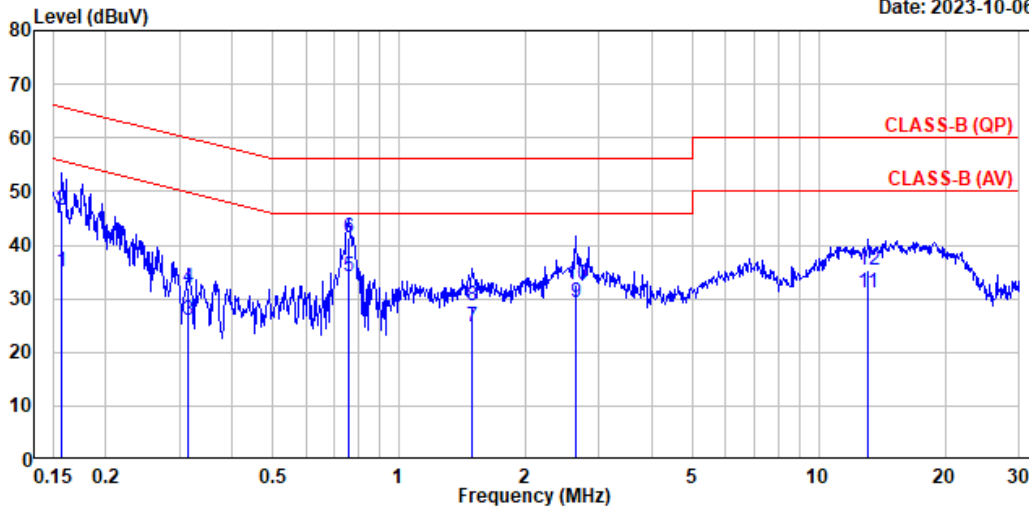
	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.153	10.30	0.03	9.85	18.81	38.99	55.83	16.84	Average
2	0.153	10.30	0.03	9.85	28.43	48.61	65.83	17.22	QP
3	0.300	10.27	0.03	9.85	3.93	24.08	50.25	26.17	Average
4	0.300	10.27	0.03	9.85	10.65	30.80	60.25	29.45	QP
5	0.758	10.28	0.04	9.85	16.69	36.86	46.00	9.14	Average
6	0.758	10.28	0.04	9.85	20.82	40.99	56.00	15.01	QP
7	1.625	10.29	0.05	9.86	3.83	24.03	46.00	21.97	Average
8	1.625	10.29	0.05	9.86	6.72	26.92	56.00	29.08	QP
9	3.347	10.32	0.07	9.86	4.75	25.00	46.00	21.00	Average
10	3.347	10.32	0.07	9.86	12.20	32.45	56.00	23.55	QP
11	13.649	10.58	0.16	9.91	12.58	33.23	50.00	16.77	Average
12	13.649	10.58	0.16	9.91	17.08	37.73	60.00	22.27	QP

Remarks: 1. Emission Level(dBµV)= AMN Factor(dB) + Cable Loss(dB) + Pulse Att.(dB) + Reading(dBµV).



Test Date	2023/10/06	Temp./Hum.	24°C/55%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	Roy Hung
Test SKU	SKU #2 [with (LUXSHARE-ICT) L1LRF009-CS-H Antenna]		

File: C:\test\_data\2023\1M2309XXX\1M2309035-C-RF\1M2309035-C-Mains-RF\_00008.EMI  
 Date: 2023-10-06

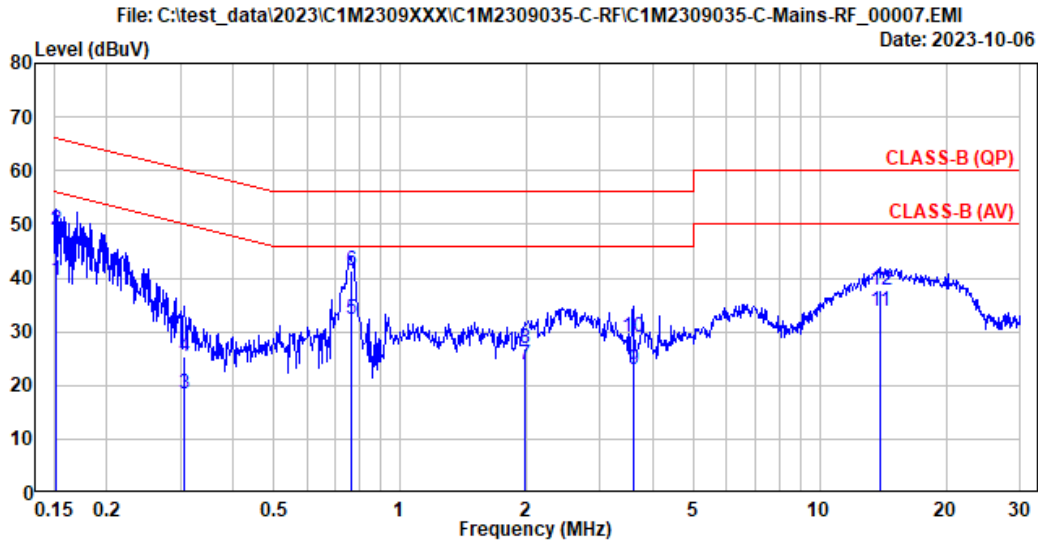


Site No.	: No.8 Shielded Room	Data No.	: 8
Instrument 1	: Receiver ESR(774)		
Instrument 2	: ENV432 (567)(A) CE-08 ESH3-Z2 (354)		
Limit	: CLASS-B (QP)	Phase	: Neutral
Environment	: 24°C/55%	Test Rating	: 120Vac/60Hz
EUT Model	: 17Z90S	Engineer	: Roy Hung
Test Mode	: Operating Luxshare		

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.157	10.30	0.03	9.85	14.90	35.08	55.63	20.55	Average
2	0.157	10.30	0.03	9.85	26.37	46.55	65.63	19.08	QP
3	0.315	10.28	0.03	9.85	5.85	26.01	49.83	23.82	Average
4	0.315	10.28	0.03	9.85	11.73	31.89	59.83	27.94	QP
5	0.762	10.29	0.04	9.85	14.02	34.20	46.00	11.80	Average
6	0.762	10.29	0.04	9.85	21.30	41.48	56.00	14.52	QP
7	1.493	10.31	0.05	9.86	4.61	24.83	46.00	21.17	Average
8	1.493	10.31	0.05	9.86	8.58	28.80	56.00	27.20	QP
9	2.635	10.34	0.07	9.86	8.95	29.22	46.00	16.78	Average
10	2.635	10.34	0.07	9.86	12.28	32.55	56.00	23.45	QP
11	13.116	10.73	0.16	9.90	10.39	31.18	50.00	18.82	Average
12	13.116	10.73	0.16	9.90	14.56	35.35	60.00	24.65	QP

Remarks: 1. Emission Level(dBμV)= AMN Factor(dB) + Cable Loss(dB) + Pulse Att.(dB) + Reading(dBμV).

Test Date	2023/10/06	Temp./Hum.	24°C/55%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	Roy Hung
Test SKU	SKU #2 [with (LUXSHARE-ICT) L1LRF009-CS-H Antenna]		

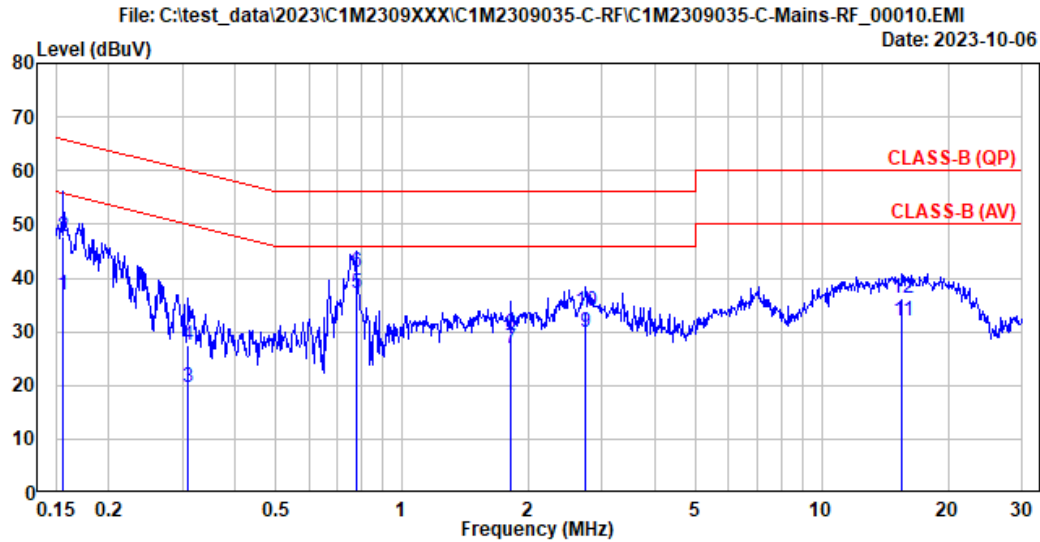


Site No.	: No.8 Shielded Room	Data No.	: 7
Instrument 1	: Receiver ESR(774)		
Instrument 2	: ENV432 (567)(A) CE-08 ESH3-Z2 (354)		
Limit	: CLASS-B (QP)	Phase	: Line
Environment	: 24°C/55%	Test Rating	: 120Vac/60Hz
EUT Model	: 17Z90S	Engineer	: Roy Hung
Test Mode	: Operating Luxshare		

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.152	10.30	0.03	9.85	19.25	39.43	55.92	16.49	Average
2	0.152	10.30	0.03	9.85	28.78	48.96	65.92	16.96	QP
3	0.306	10.27	0.03	9.85	-1.68	18.47	50.08	31.61	Average
4	0.306	10.27	0.03	9.85	5.18	25.33	60.08	34.75	QP
5	0.765	10.28	0.04	9.85	12.25	32.42	46.00	13.58	Average
6	0.765	10.28	0.04	9.85	21.04	41.21	56.00	14.79	QP
7	1.983	10.30	0.06	9.86	3.71	23.93	46.00	22.07	Average
8	1.983	10.30	0.06	9.86	6.56	26.78	56.00	29.22	QP
9	3.589	10.33	0.08	9.86	2.53	22.80	46.00	23.20	Average
10	3.589	10.33	0.08	9.86	8.75	29.02	56.00	26.98	QP
11	13.924	10.58	0.16	9.91	13.02	33.67	50.00	16.33	Average
12	13.924	10.58	0.16	9.91	17.23	37.88	60.00	22.12	QP

Remarks: 1. Emission Level(dBµV)= AMN Factor(dB) + Cable Loss(dB) + Pulse Att.(dB) + Reading(dBµV).

Test Date	2023/10/06	Temp./Hum.	24°C/55%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	Roy Hung
Test SKU	SKU #3 [with (INPAQ) WA-P-LBLB-04-108 Antenna]		



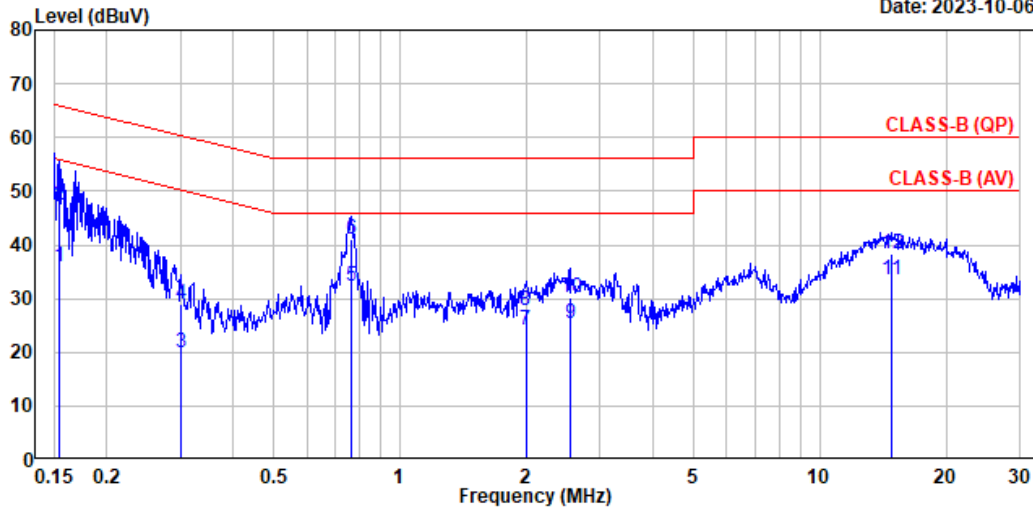
Site No.	: No.8 Shielded Room	Data No.	: 10
Instrument 1	: Receiver ESR(774)		
Instrument 2	: ENV432 (567)(A) CE-08 ESH3-Z2 (354)		
Limit	: CLASS-B (QP)	Phase	: Neutral
Environment	: 24°C/55%	Test Rating	: 120Vac/60Hz
EUT Model	: 17290S	Engineer	: Roy Hung
Test Mode	: Operating Touch		

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.156	10.30	0.03	9.85	16.76	36.94	55.67	18.73	Average
2	0.156	10.30	0.03	9.85	27.64	47.82	65.67	17.85	QP
3	0.309	10.28	0.03	9.85	-0.54	19.62	50.00	30.38	Average
4	0.309	10.28	0.03	9.85	7.44	27.60	60.00	32.40	QP
5	0.777	10.29	0.04	9.85	16.82	37.00	46.00	9.00	Average
6	0.777	10.29	0.04	9.85	20.74	40.92	56.00	15.08	QP
7	1.822	10.32	0.06	9.86	6.49	26.73	46.00	19.27	Average
8	1.822	10.32	0.06	9.86	9.47	29.71	56.00	26.29	QP
9	2.742	10.34	0.07	9.86	9.62	29.89	46.00	16.11	Average
10	2.742	10.34	0.07	9.86	13.40	33.67	56.00	22.33	QP
11	15.538	10.83	0.17	9.91	11.24	32.15	50.00	17.85	Average
12	15.538	10.83	0.17	9.91	15.46	36.37	60.00	23.63	QP

Remarks: 1. Emission Level(dBμV)= AMN Factor(dB) + Cable Loss(dB) + Pulse Att.(dB) + Reading(dBμV).

Test Date	2023/10/06	Temp./Hum.	24°C/55%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	Roy Hung
Test SKU	SKU #3 [with (INPAQ) WA-P-LBLB-04-108 Antenna]		

File: C:\test\_data\2023\C1M2309XXX\C1M2309035-C-RF\C1M2309035-C-Mains-RF\_00009.EMI  
 Date: 2023-10-06



Site No.	: No.8 Shielded Room	Data No.	: 9
Instrument 1	: Receiver ESR(774)		
Instrument 2	: ENV432 (567)(A) CE-08 ESH3-Z2 (354)		
Limit	: CLASS-B (QP)	Phase	: Line
Environment	: 24°C/55%	Test Rating	: 120Vac/60Hz
EUT Model	: 17Z90S	Engineer	: Roy Hung
Test Mode	: Operating		
	Touch		

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.155	10.30	0.03	9.85	15.61	35.79	55.75	19.96	Average
2	0.155	10.30	0.03	9.85	27.09	47.27	65.75	18.48	QP
3	0.301	10.27	0.03	9.85	-0.17	19.98	50.20	30.22	Average
4	0.301	10.27	0.03	9.85	8.72	28.87	60.20	31.33	QP
5	0.765	10.28	0.04	9.85	12.27	32.44	46.00	13.56	Average
6	0.765	10.28	0.04	9.85	20.95	41.12	56.00	14.88	QP
7	1.993	10.30	0.06	9.86	3.94	24.16	46.00	21.84	Average
8	1.993	10.30	0.06	9.86	7.41	27.63	56.00	28.37	QP
9	2.545	10.31	0.07	9.86	5.02	25.26	46.00	20.74	Average
10	2.545	10.31	0.07	9.86	9.82	30.06	56.00	25.94	QP
11	14.782	10.61	0.17	9.91	12.83	33.52	50.00	16.48	Average
12	14.782	10.61	0.17	9.91	17.55	38.24	60.00	21.76	QP

Remarks: 1. Emission Level(dBμV)= AMN Factor(dB) + Cable Loss(dB) + Pulse Att.(dB) + Reading(dBμV).

## A.2 RADIATED EMISSION

Test Date	2023/09/26~10/02	Temp./Hum.	24~25°C/55~63%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	(1)Martin Chen (2)Hua Wu

### A.2.1 Emissions within Restricted Frequency Bands

#### A.2.1.1 Frequency 9kHz~30MHz

**The emissions (9kHz~30MHz) not reported for there is no emission be found.**

#### A.2.1.2 Frequency Below 1GHz

● **Test SKU: SKU #1 [with (INPAQ) WA-P-LELE-04-011 Antenna]**

Mode	802.11n-HT40	U-NII Band	3
		Frequency	TX 5755MHz

#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
34.850	22.21	1.30	26.51	36.37	33.37	40.00	6.63	Peak
144.783	16.88	2.82	26.04	32.27	25.92	43.50	17.58	Peak
324.233	19.61	4.67	25.89	32.92	31.31	46.00	14.69	Peak
378.392	21.05	5.29	26.35	36.03	36.02	46.00	9.98	Peak
462.458	22.59	6.09	26.93	32.29	34.04	46.00	11.96	Peak
527.933	23.49	6.51	27.23	33.04	35.80	46.00	10.20	Peak

#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
34.850	22.21	1.30	0.00	14.69	38.20	40.00	1.80	QP
147.208	16.74	2.84	26.03	42.24	35.78	43.50	7.72	Peak
204.600	15.58	3.45	25.80	38.42	31.65	43.50	11.85	Peak
319.383	19.48	4.61	25.84	31.27	29.52	46.00	16.48	Peak
378.392	21.05	5.29	26.35	36.27	36.26	46.00	9.74	Peak
473.775	22.76	6.19	27.00	32.40	34.34	46.00	11.66	Peak

● Test SKU: SKU #2 [with (LUXSHARE-ICT) L1LRF009-CS-H Antenna]

Mode	802.11n-HT40	U-NII Band	3
		Frequency	TX 5755MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
35.658	21.78	1.31	26.51	36.78	33.36	40.00	6.64	Peak
143.975	16.93	2.81	26.05	33.80	27.49	43.50	16.01	Peak
197.325	15.30	3.37	25.82	33.82	26.67	43.50	16.83	Peak
274.925	18.52	4.13	25.69	32.61	29.56	46.00	16.44	Peak
378.392	21.05	5.29	26.35	35.89	35.88	46.00	10.12	Peak
461.650	22.58	6.08	26.93	32.20	33.93	46.00	12.07	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
34.850	22.21	1.30	0.00	14.85	38.36	40.00	1.64	QP
145.592	16.83	2.82	26.04	41.68	35.30	43.50	8.20	Peak
167.417	15.74	3.05	25.94	37.11	29.96	43.50	13.54	Peak
324.233	19.61	4.67	25.89	32.76	31.16	46.00	14.84	Peak
378.392	21.05	5.29	26.35	36.18	36.17	46.00	9.83	Peak
452.758	22.42	6.00	26.87	33.52	35.07	46.00	10.93	Peak

● Test SKU: SKU #3 [with (INPAQ) WA-P-LBLB-04-108 Antenna]

Mode	802.11n-HT40	U-NII Band	3
		Frequency	TX 5755MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
35.658	21.78	1.31	26.51	36.64	33.22	40.00	6.78	Peak
145.592	16.83	2.82	26.04	34.14	27.76	43.50	15.74	Peak
246.633	17.92	3.84	25.73	33.88	29.90	46.00	16.10	Peak
324.233	19.61	4.67	25.89	31.23	29.62	46.00	16.38	Peak
377.583	21.03	5.28	26.34	37.75	37.72	46.00	8.28	Peak
440.633	22.24	5.90	26.79	32.66	34.00	46.00	12.00	Peak

Antenna at Vertical Polarization

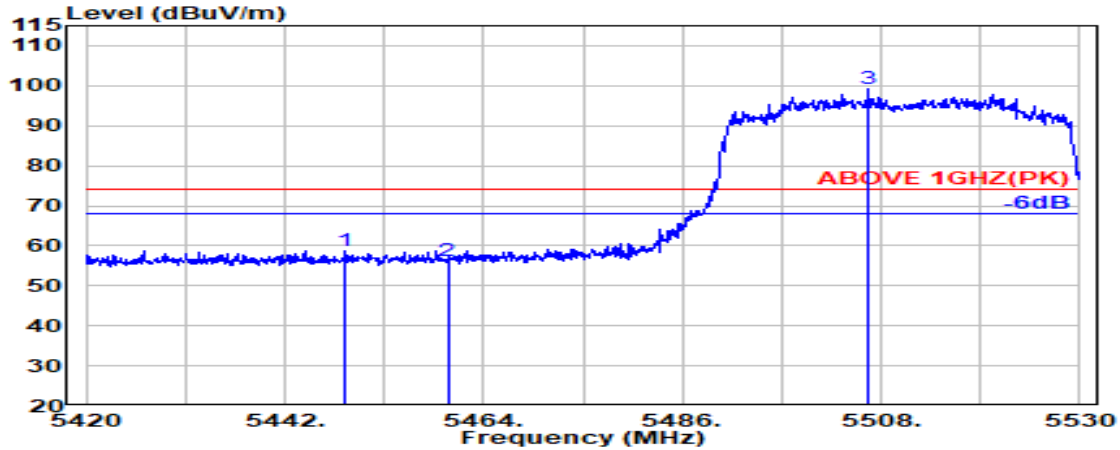
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
34.850	22.21	1.30	0.00	14.58	38.09	40.00	1.91	QP
145.592	16.83	2.82	26.04	41.60	35.22	43.50	8.28	Peak
308.067	19.15	4.47	25.74	31.05	28.92	46.00	17.08	Peak
377.583	21.03	5.28	26.34	36.61	36.58	46.00	9.42	Peak
431.742	22.09	5.81	26.73	33.41	34.59	46.00	11.41	Peak
536.017	23.60	6.54	27.26	32.45	35.33	46.00	10.67	Peak

A.2.1.3 Frequency Above 1 GHz to 10<sup>th</sup> harmonics

**Band Edge:**

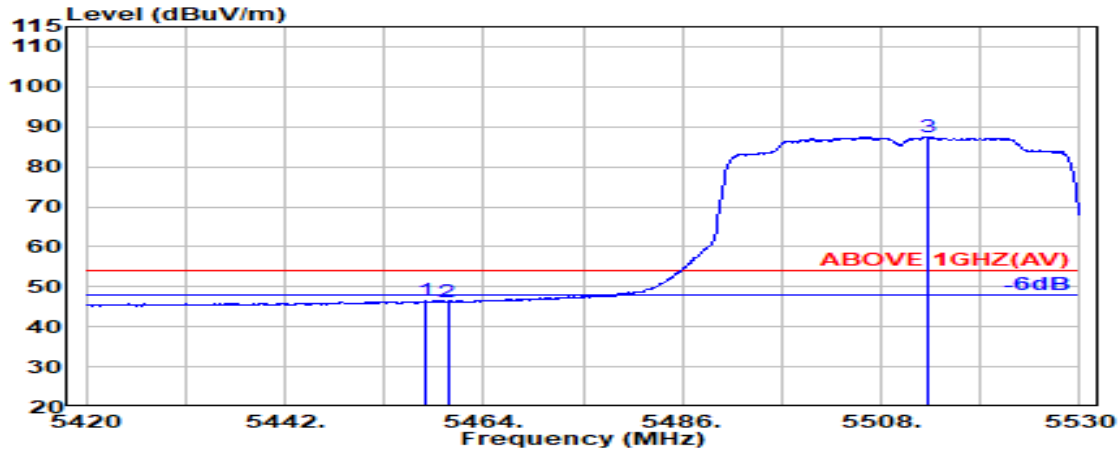
- Test SKU: SKU #1 [with (INPAQ) WA-P-LELE-04-011 Antenna]

Mode	802.11ax-HE40	U-NII Band	2C
		Frequency	TX 5510MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5448.685	34.70	8.72	34.22	49.59	58.79	74.00	15.21	Peak
5460.023	34.74	8.73	34.22	46.94	56.20	74.00	17.80	Peak
@ 5506.646	34.89	8.76	34.20	89.80	99.24	---	---	Peak

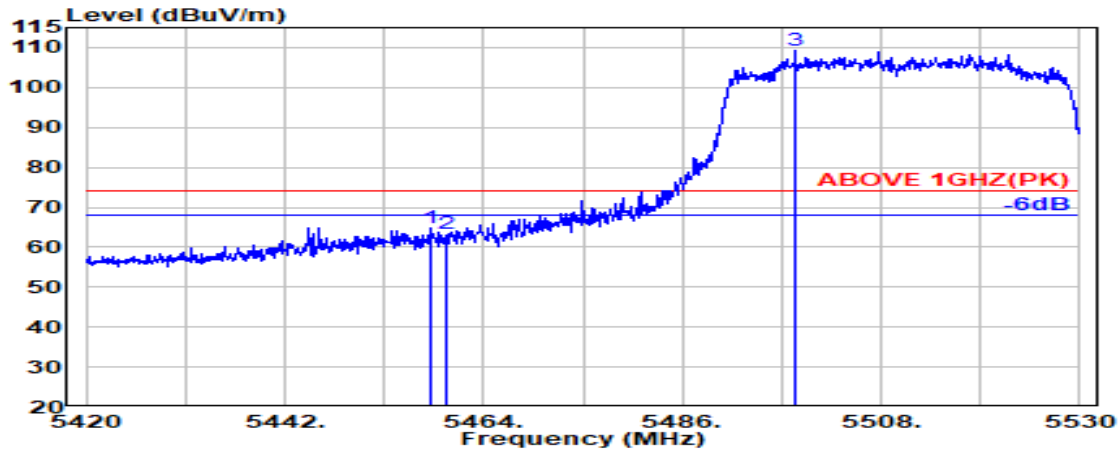


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5457.484	34.73	8.73	34.22	37.26	46.51	54.00	7.49	Average
5460.023	34.74	8.73	34.22	37.08	46.34	54.00	7.66	Average
@ 5513.162	34.87	8.76	34.21	77.94	87.37	---	---	Average

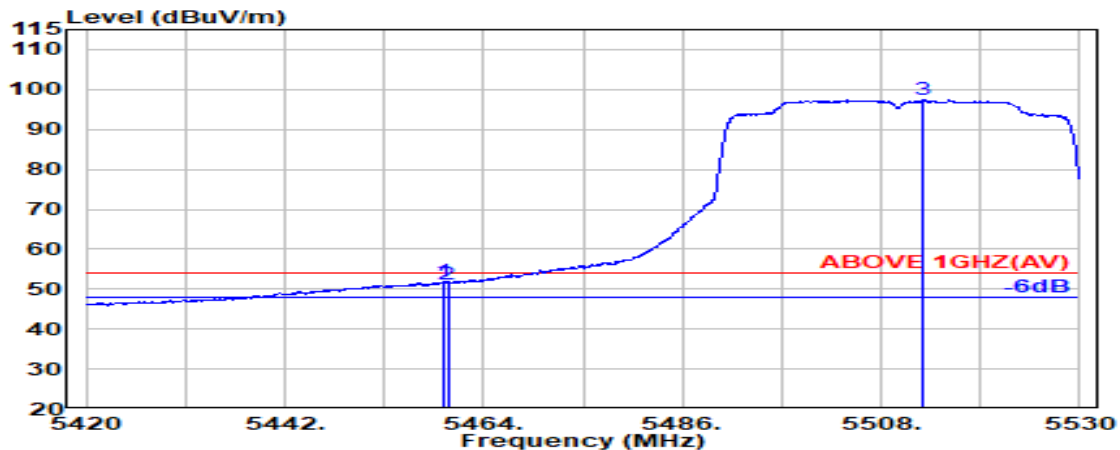
Remark: The “@” means fundamental frequency, it is ignored in this section.

Mode	802.11ax-HE40	U-NII Band	2C
		Frequency	TX 5510MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5458.077	34.73	8.73	34.22	55.71	64.96	74.00	9.04	Peak
5460.000	34.74	8.73	34.22	54.18	63.43	74.00	10.57	Peak
@ 5498.523	34.89	8.75	34.20	99.67	109.12	---	---	Peak



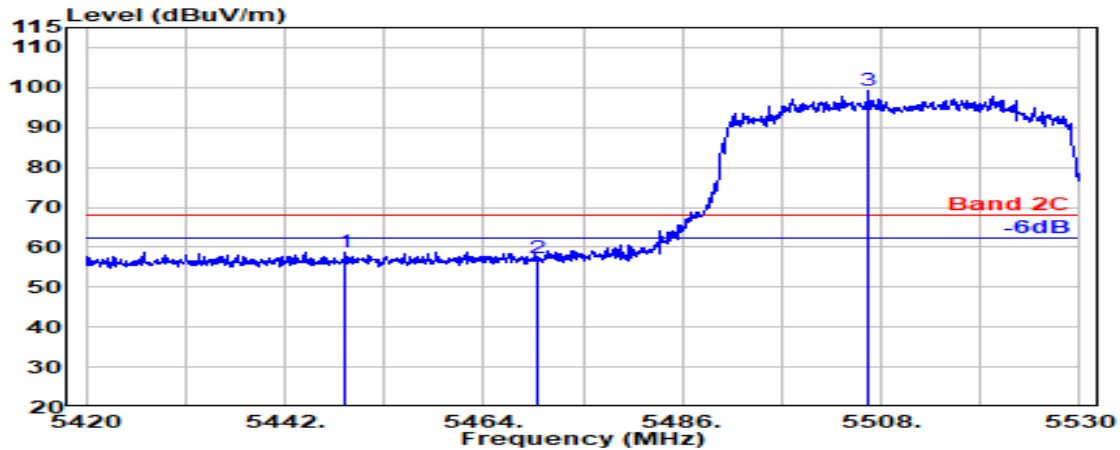
Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5459.685	34.74	8.73	34.22	42.67	51.92	54.00	2.08	Average
5460.023	34.74	8.73	34.22	42.09	51.34	54.00	2.66	Average
@ 5512.738	34.87	8.76	34.21	87.96	97.39	---	---	Average

Remark: The “@” means fundamental frequency, it is ignored in this section.

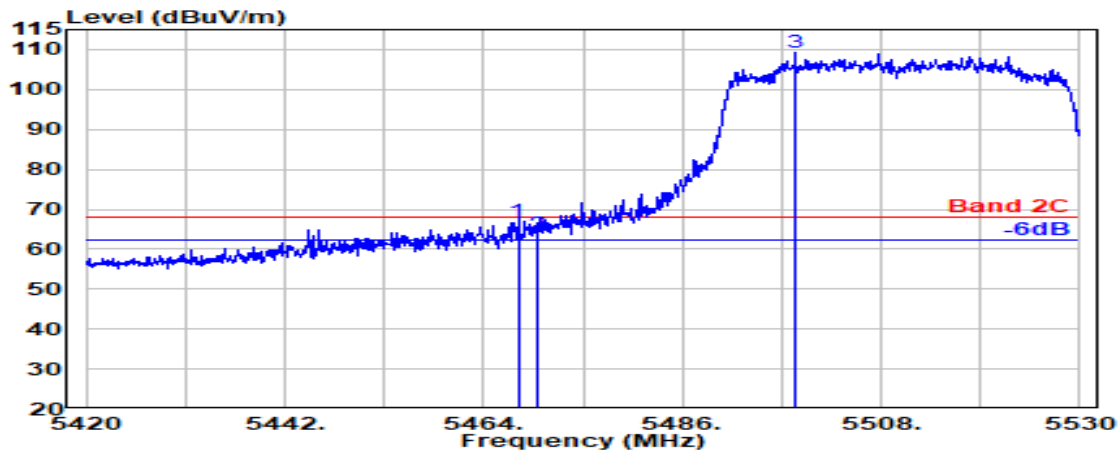


Mode	802.11ax-HE40	U-NII Band	2C
		Frequency	TX 5510MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5448.685	34.70	8.72	34.22	49.59	58.79	68.20	9.41	Peak
5470.000	34.78	8.74	34.21	48.02	57.33	68.20	10.87	Peak
@ 5506.646	34.89	8.76	34.20	89.80	99.24	68.20	---	Peak



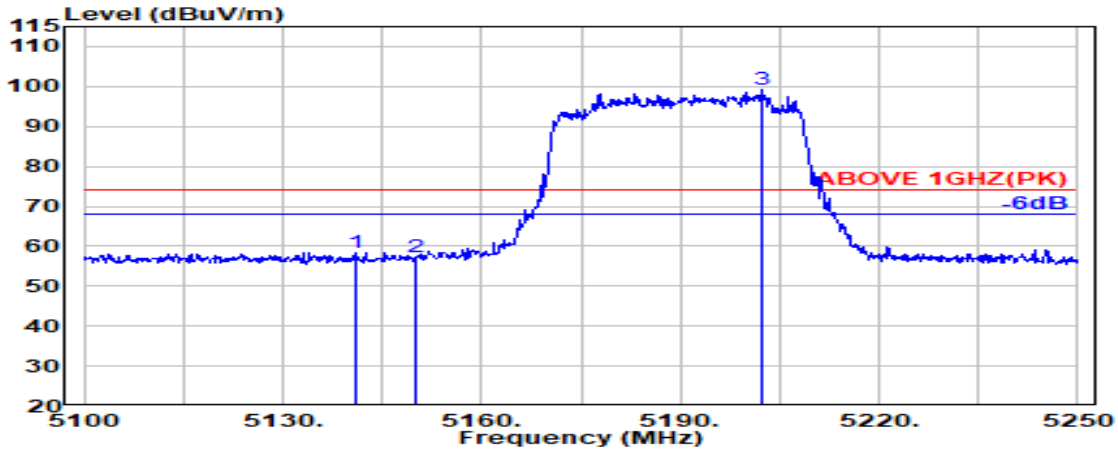
Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5467.808	34.77	8.73	34.21	57.64	66.93	68.20	1.27	Peak
5470.000	34.78	8.74	34.21	54.39	63.69	68.20	4.51	Peak
@ 5498.523	34.89	8.75	34.20	99.67	109.12	68.20	---	Peak

Remark: The “@” means fundamental frequency, it is ignored in this section.

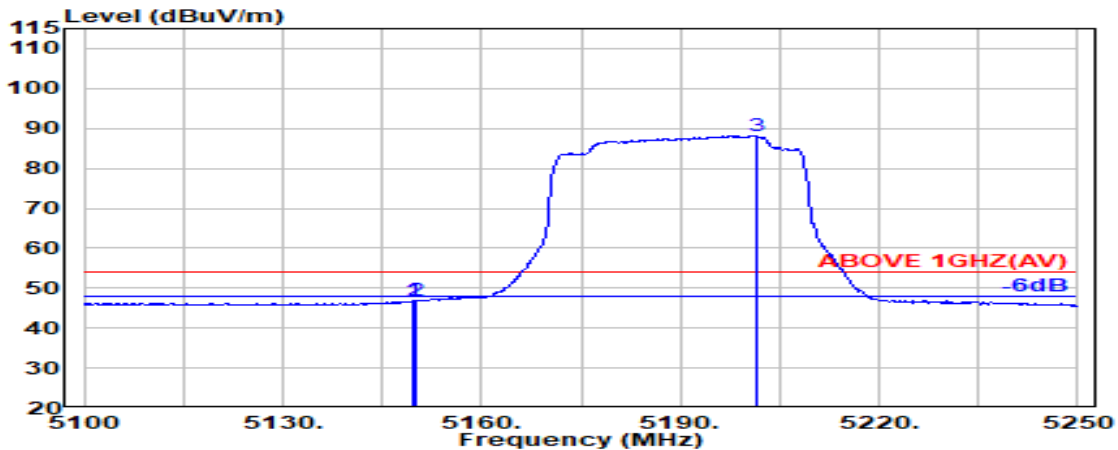
● Test SKU: SKU #2 [with (LUXSHARE-ICT) L1LRF009-CS-H Antenna]

Mode	802.11ax-HE80	U-NII Band	1
RU Configuration	484/65	Frequency	TX 5210MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5141.100	33.68	8.54	34.34	50.62	58.50	74.00	15.50	Peak
5150.000	33.70	8.54	34.34	49.25	57.15	74.00	16.85	Peak
@ 5202.150	34.00	8.58	34.32	91.05	99.31	---	---	Peak

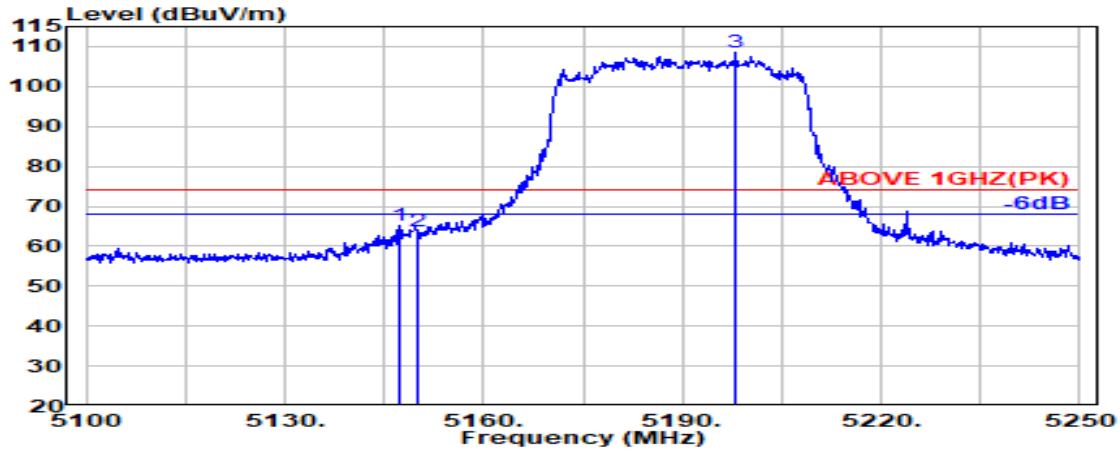


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.650	33.70	8.54	34.34	38.84	46.75	54.00	7.25	Average
5150.000	33.70	8.54	34.34	38.89	46.79	54.00	7.21	Average
@ 5201.400	34.00	8.58	34.32	80.00	88.26	---	---	Average

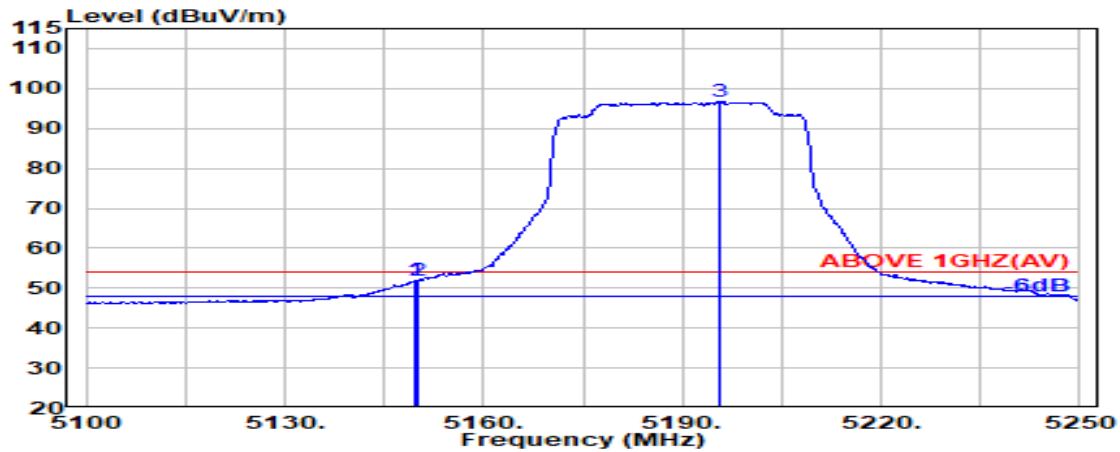
Remark: The “@” means fundamental frequency, it is ignored in this section.

Mode	802.11ax-HE80	U-NII Band	1
RU Configuration	484/65	Frequency	TX 5210MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5147.250	33.69	8.54	34.34	57.39	65.29	74.00	8.71	Peak
5150.000	33.70	8.54	34.34	55.70	63.61	74.00	10.39	Peak
@ 5197.950	33.99	8.57	34.32	100.22	108.46	---	---	Peak



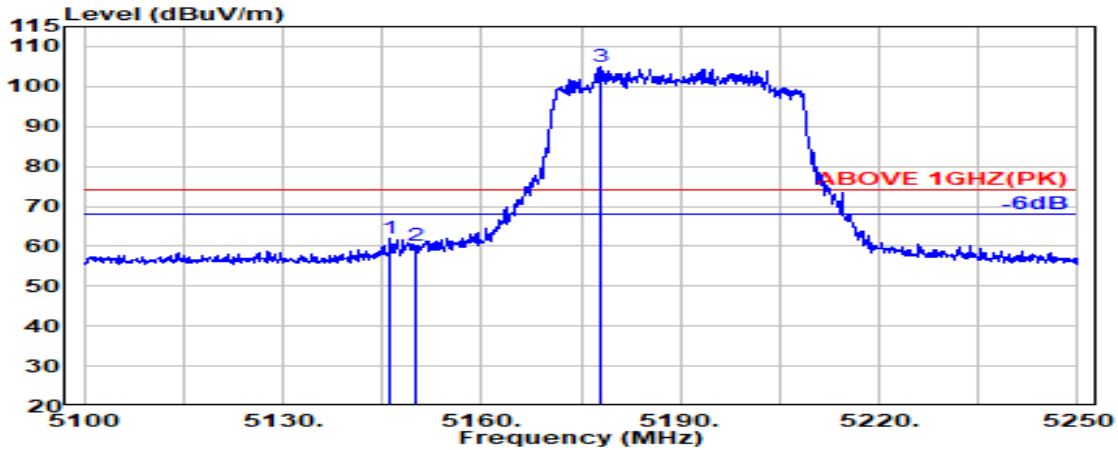
Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.500	33.70	8.54	34.34	44.07	51.98	54.00	2.02	Average
5150.000	33.70	8.54	34.34	44.01	51.92	54.00	2.08	Average
@ 5195.550	33.97	8.57	34.32	88.50	96.73	---	---	Average

Remark: The “@” means fundamental frequency, it is ignored in this section.

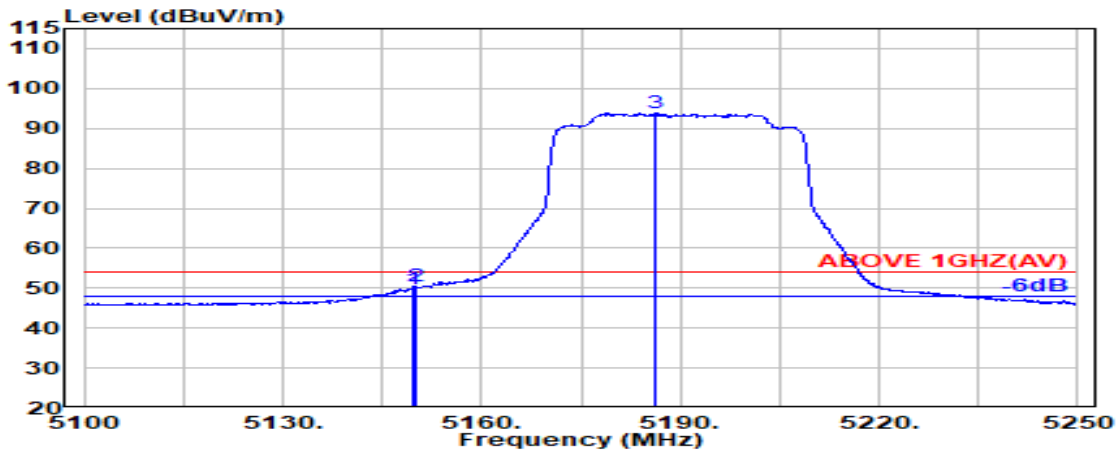
● Test SKU: SKU #3 [with (INPAQ) WA-P-LBLB-04-108 Antenna]

Mode	802.11ax-HE80	U-NII Band	1
RU Configuration	484/65	Frequency	TX 5210MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5146.039	33.69	8.54	34.34	53.92	61.81	74.00	12.19	Peak
5150.000	33.70	8.54	34.34	52.32	60.22	74.00	13.78	Peak
@ 5178.000	33.87	8.56	34.33	96.70	104.81	---	---	Peak

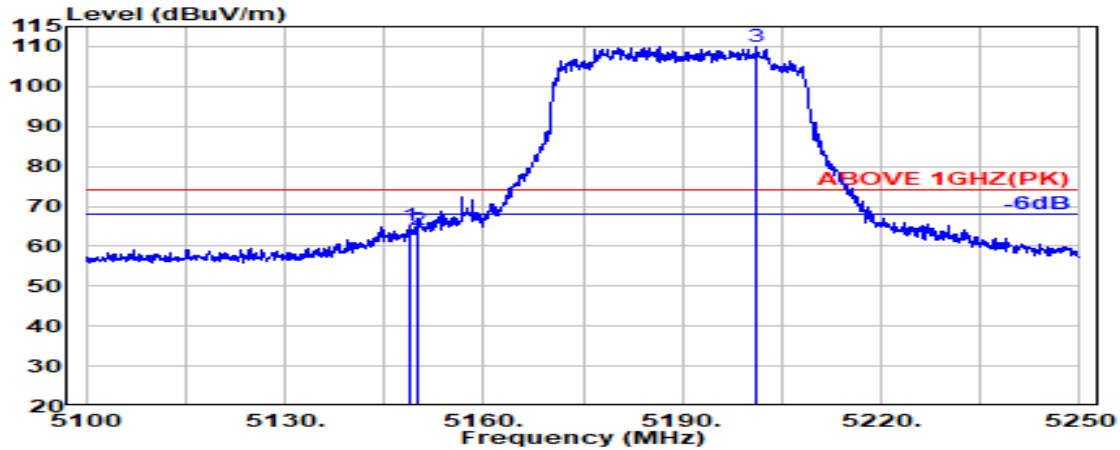


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.500	33.70	8.54	34.34	41.93	49.84	54.00	4.16	Average
5150.000	33.70	8.54	34.34	42.41	50.32	54.00	3.68	Average
@ 5186.308	33.92	8.57	34.32	85.76	93.93	---	---	Average

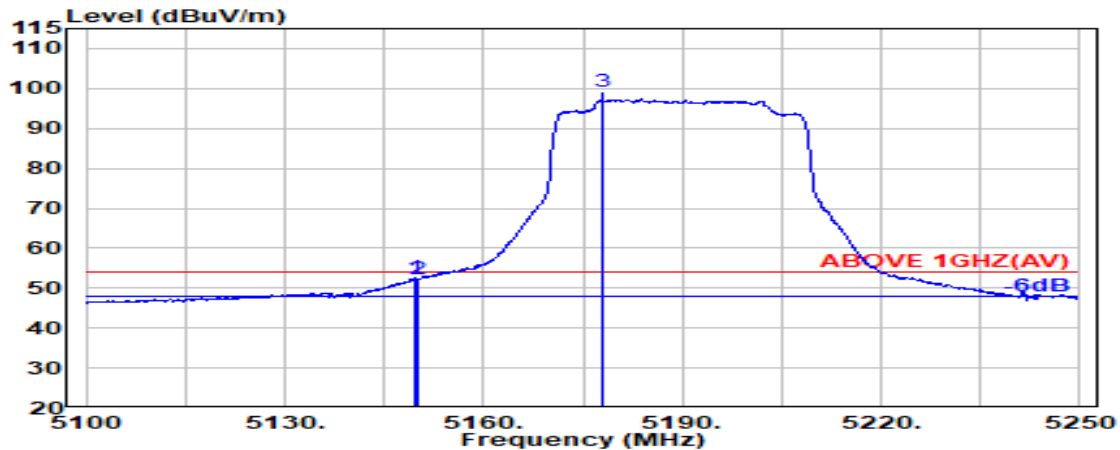
Remark: The “@” means fundamental frequency, it is ignored in this section.

Mode	802.11ax-HE80	U-NII Band	1
RU Configuration	484/65	Frequency	TX 5210MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.039	33.70	8.54	34.34	57.23	65.13	74.00	8.87	Peak
5150.000	33.70	8.54	34.34	56.31	64.21	74.00	9.79	Peak
@ 5201.192	34.00	8.58	34.32	101.86	110.12	---	---	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.615	33.70	8.54	34.34	44.56	52.47	54.00	1.53	Average
5150.000	33.70	8.54	34.34	44.35	52.25	54.00	1.75	Average
@ 5177.769	33.87	8.56	34.33	91.27	99.37	---	---	Average

Remark: The “@” means fundamental frequency, it is ignored in this section.

### A.2.2 Emissions outside the frequency band:

The emissions (up to 25GHz) not reported for there is no emission be found.

● **Test SKU: SKU #1 [with (INPAQ) WA-P-LELE-04-011 Antenna]**

Mode	802.11n-HT40	U-NII Band	3
		Frequency	TX 5755MHz

#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
11510.000	39.33	13.33	34.52	32.98	51.13	54.00	2.87	Peak

#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
11510.000	39.33	13.33	34.52	33.39	51.53	54.00	2.47	Peak

● **Test SKU: SKU #2 [with (LUXSHARE-ICT) L1LRF009-CS-H Antenna]**

Mode	802.11ac-VHT80	U-NII Band	1
		Frequency	TX 5210MHz

#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
10420.000	38.24	11.99	34.71	34.68	50.20	54.00	3.80	Peak

#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
10420.000	38.24	11.99	34.71	36.45	51.97	54.00	2.03	Peak

● **Test SKU: SKU #3 [with (INPAQ) WA-P-LBLB-04-108 Antenna]**

Mode	802.11ax-HE80	U-NII Band	1
		Frequency	TX 5210MHz

#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
10420.000	38.24	11.99	34.71	34.51	50.03	54.00	3.97	Peak

#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
10420.000	38.24	11.99	34.71	35.68	51.20	54.00	2.80	Peak

### A.2.3 Emissions in Non-restricted Frequency Bands:

Pursuant to ANSI C63.10:2013 that emission levels below the FCC 15.209(a)/RSS-Gen Section 8.9 table 4 general radiated emissions limits is not required.

### A.3 MAXIMUM OUTPUT POWER

Test Date	2023/10/05	Temp./Hum.	23°C/53%
Cable Loss	1.00dB	Tested By	Hua Wu
Test Voltage	AC 120V, 60Hz (via AC Adapter)		

#### A.3.1 Average Output Power

● **SPOT CHECK Power**

**Test SKU: SKU #1 [with (INPAQ) WA-P-LELE-04-011 Antenna] &  
 SKU #2 [with (LUXSHARE-ICT) L1LRF009-CS-H Antenna]**

Mode	Centre Frequency (MHz)	Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Max. Average Output Power (dBm)
		Aux	Main		
802.11a	5180	16.43	16.94	N/A	16.94
	5200	16.47	16.77		16.77
	5240	16.69	16.39		16.69
	5260	16.56	16.86		16.86
	5300	16.29	16.68		16.68
	5320	16.58	16.96		16.96
	5500	17.00	16.86		17.00
	5580	16.78	16.92		16.92
	5700	16.92	16.77		16.92
	5720	17.16	16.78		17.16
	5745	16.88	16.93		16.93
	5785	17.33	16.76		17.33
	5825	17.12	16.58		17.12

Note: 1. The results have been included cable loss.

2. Max Average Output Power (dBm) = Max of each average output power (dBm)+ Duty Cycle Factor (dB) when duty cycle is less than 98%.

3. We did spot check for output power and all output power values keep identical thus other conducted items is exempt.

**Test SKU: SKU #1 [with (INPAQ) WA-P-LELE-04-011 Antenna] &  
 SKU #2 [with (LUXSHARE-ICT) L1LRF009-CS-H Antenna]**

Mode	Centre Frequency (MHz)	Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total. Average Output Power (dBm)
		Aux	Main		
802.11n-HT20	5180	16.51	16.37	N/A	19.45
	5200	16.33	16.24		19.30
	5240	16.51	16.43		19.48
	5260	16.29	16.52		19.42
	5300	15.81	16.21		19.02
	5320	16.16	16.39		19.29
	5500	16.57	16.55		19.57
	5580	16.92	16.42		19.69
	5700	16.76	16.66		19.72
	5720	16.86	16.48		19.68
	5745	16.86	16.48		19.68
	5785	16.63	16.26		19.46
802.11n-HT40	5825	16.90	16.29	N/A	19.62
	5190	15.37	15.42		18.41
	5230	16.78	16.96		19.88
	5270	16.80	16.99		19.91
	5310	15.06	15.24		18.16
	5510	17.04	16.67		19.87
	5550	16.86	17.27		20.08
	5670	17.30	16.58		19.97
	5710	17.32	16.61		19.99
802.11ac-VHT80	5755	17.22	17.11	N/A	20.18
	5795	17.25	16.78		20.03
	5210	13.58	13.98		16.79
	5290	13.99	13.91		16.96
	5530	14.90	14.82		17.87
	5610	16.17	16.16		19.18
802.11ac-VHT160	5690	16.25	15.97	N/A	19.12
	5775	16.79	16.60		19.71
	5250	11.10	10.89		14.01
	5570	14.09	14.16		17.14

- Note: 1. The results have been included cable loss.  
 2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.  
 3. We did spot check for output power and all output power values keep identical thus other conducted items is exempt.



**Test SKU: SKU #1 [with (INPAQ) WA-P-LELE-04-011 Antenna] &  
 SKU #2 [with (LUXSHARE-ICT) L1LRF009-CS-H Antenna]**

Mode	Centre Frequency (MHz)	Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total. Average Output Power (dBm)
		Aux	Main		
802.11ax-HE20	5180	16.53	15.96	N/A	19.26
	5200	16.71	16.10		19.43
	5240	16.75	16.35		19.56
	5260	16.40	16.49		19.46
	5300	16.44	16.53		19.50
	5320	16.37	16.36		19.38
	5500	16.30	16.78		19.56
	5580	16.89	16.57		19.74
	5700	16.74	16.43		19.60
	5720	16.69	16.64		19.68
	5745	16.85	16.58		19.73
	5785	16.90	16.61		19.77
5825	17.05	16.25	19.68		
802.11ax-HE40	5190	14.75	14.87	0.101	17.82
	5230	16.57	16.63		19.61
	5270	16.47	16.56		19.53
	5310	14.55	14.97		17.78
	5510	16.48	16.71		19.61
	5550	17.01	16.77		19.90
	5670	16.83	16.28		19.57
	5710	16.77	16.69		19.74
	5755	16.94	16.34		19.66
5795	16.92	16.47	19.71		
802.11ax-HE80	5210	13.55	13.44	0.101	16.51
	5290	13.81	14.06		16.95
	5530	14.76	14.48		17.63
	5610	16.04	16.01		19.04
	5690	16.18	15.70		18.96
	5775	16.58	16.55		19.58
802.11ax-HE160	5250	11.05	10.81	N/A	13.94
	5570	13.94	13.69		16.83

Note: 1. The results have been included cable loss.

2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.

3. We did spot check for output power and all output power values keep identical thus other conducted items is exempt.

**Test SKU: SKU #1 [with (INPAQ) WA-P-LELE-04-011 Antenna] &  
 SKU #2 [with (LUXSHARE-ICT) L1LRF009-CS-H Antenna]**

Mode	Centre Frequency (MHz)	RU Configuration	Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total. Average Output Power (dBm)
			Aux	Main		
802.11ax-HE20	5180	26/0	9.49	9.53	0.278	12.80
		52/37	12.90	12.88	0.132	16.03
		106/53	15.75	15.67	N/A	18.72
	5320	26/8	9.32	9.20	0.278	12.55
		52/40	13.10	12.85	0.132	16.12
		106/54	15.58	15.60	N/A	18.60
	5500	26/0	9.63	9.48	0.278	12.84
		52/37	13.30	12.99	0.132	16.29
		106/53	14.91	14.73	N/A	17.83
	5700	26/8	9.37	9.36	0.278	12.65
		52/40	13.00	12.83	0.132	16.06
		106/54	16.01	15.69	N/A	18.86
	5745	26/0	15.43	15.09	0.278	18.55
		52/37	12.91	12.76	0.132	15.98
		106/53	17.20	16.93	N/A	20.08
5825	26/8	15.70	15.28	0.278	18.78	
	52/40	13.13	12.65	0.132	16.04	
	106/54	17.27	16.65	N/A	19.98	
802.11ax-HE40	5190	242/61	16.11	15.81	0.182	19.15
	5310	242/62	15.47	15.52		18.69
	5510	242/61	16.47	16.63		19.74
	5670	242/62	17.28	17.29		20.48
	5755	242/61	16.76	16.76		19.95
	5795	242/62	17.38	17.04		20.41
802.11ax-HE80	5210	484/65	13.85	13.98	N/A	16.93
	5290	484/66	11.84	11.82		14.84
	5530	484/65	14.82	15.26		18.06
	5610	484/66	17.02	16.61		19.83
	5775	484/65	17.05	17.01		20.04
	5775	484/66	16.84	16.92		19.89
802.11ax-HE160	5250	996/67	13.48	13.16	0.191	16.52
		996/S67	11.47	11.30		14.59
	5570	996/67	13.43	13.32		16.58
		996/S67	15.78	15.76		18.97

- Note: 1. The results have been included cable loss.  
 2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.  
 3. We did spot check for output power and all output power values keep identical thus other conducted items is exempt.

**Test SKU: SKU #3 [with (INPAQ) WA-P-LBLB-04-108 Antenna]**

Mode	Centre Frequency (MHz)	Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Max. Average Output Power (dBm)
		Aux	Main		
802.11a	5180	16.17	16.72	N/A	16.72
	5200	16.45	16.57		16.57
	5240	16.46	16.16		16.46
	5260	16.45	16.65		16.65
	5300	16.18	16.62		16.62
	5320	16.44	16.77		16.77
	5500	16.91	16.67		16.91
	5580	16.44	16.76		16.76
	5700	16.72	16.58		16.72
	5720	16.74	16.70		16.74
	5745	16.60	16.60		16.60
	5785	17.19	16.68		17.19
	5825	17.12	16.43		17.12

Note: 1. The results have been included cable loss.

2. Max Average Output Power (dBm) = Max of each average output power (dBm)+ Duty Cycle Factor (dB) when duty cycle is less than 98%.
3. We did spot check for output power and all output power values keep identical thus other conducted items is exempt.

**Test SKU: SKU #3 [with (INPAQ) WA-P-LBLB-04-108 Antenna]**

Mode	Centre Frequency (MHz)	Average Output Power (dBm)		Duty Cycle Factor (dB) $10\log(1/X)$	Total. Average Output Power (dBm)
		Aux	Main		
802.11n-HT20	5180	16.29	16.26	N/A	19.29
	5200	16.19	16.09		19.15
	5240	16.19	16.55		19.38
	5260	16.17	16.34		19.27
	5300	15.79	16.02		18.92
	5320	15.97	16.39		19.20
	5500	16.41	16.59		19.51
	5580	16.62	16.23		19.44
	5700	16.65	16.47		19.57
	5720	16.76	16.12		19.46
	5745	16.63	16.43		19.54
	5785	16.61	16.22		19.43
	5825	16.74	16.18		19.48
802.11n-HT40	5190	15.12	15.39	N/A	18.27
	5230	16.70	16.93		19.83
	5270	16.66	16.77		19.73
	5310	14.78	14.94		17.87
	5510	16.80	16.48		19.65
	5550	16.73	17.10		19.93
	5670	16.95	16.42		19.70
	5710	17.25	16.55		19.92
	5755	17.10	17.05		20.09
5795	17.07	16.58	19.84		
802.11ac-VHT80	5210	13.25	13.44	N/A	16.36
	5290	13.95	13.66		16.82
	5530	14.25	14.57		17.42
	5610	15.62	15.77		18.71
	5690	15.77	15.60		18.70
	5775	16.18	16.35		19.28
802.11ac-VHT160	5250	10.51	10.57	N/A	13.55
	5570	13.53	13.90		16.73

- Note: 1. The results have been included cable loss.  
 2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.  
 3. We did spot check for output power and all output power values keep identical thus other conducted items is exempt.

**Test SKU: SKU #3 [with (INPAQ) WA-P-LBLB-04-108 Antenna]**

Mode	Centre Frequency (MHz)	Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total. Average Output Power (dBm)
		Aux	Main		
802.11ax-HE20	5180	16.32	15.92	N/A	19.13
	5200	16.34	16.11		19.24
	5240	16.65	16.24		19.46
	5260	16.27	16.36		19.33
	5300	16.34	16.44		19.40
	5320	16.34	16.25		19.31
	5500	16.11	16.50		19.32
	5580	16.81	16.46		19.65
	5700	16.59	16.35		19.48
	5720	16.46	16.61		19.55
	5745	16.72	16.29		19.52
	5785	16.77	16.45		19.62
	5825	16.83	16.15		19.51
802.11ax-HE40	5190	14.65	14.84	0.101	17.76
	5230	16.49	16.43		19.47
	5270	16.31	16.33		19.33
	5310	14.51	14.84		17.69
	5510	16.30	16.51		19.42
	5550	16.82	16.60		19.72
	5670	16.67	16.28		19.49
	5710	16.84	16.69		19.78
	5755	16.66	16.43		19.56
5795	16.88	16.40	19.66		
802.11ax-HE80	5210	13.00	13.16	0.101	16.09
	5290	13.53	13.54		16.55
	5530	14.11	14.03		17.08
	5610	15.38	15.54		18.47
	5690	15.74	15.31		18.54
	5775	16.06	15.99		19.04
802.11ax-HE160	5250	10.59	10.37	N/A	13.49
	5570	13.58	13.51		16.56

- Note: 1. The results have been included cable loss.  
 2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.  
 3. We did spot check for output power and all output power values keep identical thus other conducted items is exempt.

**Test SKU: SKU #3 [with (INPAQ) WA-P-LBLB-04-108 Antenna]**

Mode	Centre Frequency (MHz)	RU Configuration	Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total. Average Output Power (dBm)
			Aux	Main		
802.11ax-HE20	5180	26/0	9.24	9.58	0.278	12.70
		52/37	12.70	12.67	0.132	15.83
		106/53	15.75	15.51	N/A	18.64
	5320	26/8	9.39	8.99	0.278	12.48
		52/40	12.80	12.59	0.132	15.84
		106/54	15.34	15.41	N/A	18.39
	5500	26/0	9.59	9.34	0.278	12.76
		52/37	13.36	12.96	0.132	16.31
		106/53	14.72	14.62	N/A	17.68
	5700	26/8	9.47	9.07	0.278	12.56
		52/40	12.75	12.71	0.132	15.87
		106/54	15.92	15.58	N/A	18.76
	5745	26/0	15.16	15.15	0.278	18.44
		52/37	12.81	12.75	0.132	15.92
		106/53	17.01	16.50	N/A	19.77
	5825	26/8	15.57	15.13	0.278	18.64
		52/40	12.84	12.57	0.132	15.85
		106/54	17.24	16.61	N/A	19.95
802.11ax-HE40	5190	242/61	15.81	15.61	0.182	18.90
	5310	242/62	15.36	15.44		18.59
	5510	242/61	16.35	16.48		19.61
	5670	242/62	17.01	17.05		20.22
	5755	242/61	16.79	16.61		19.89
	5795	242/62	17.20	16.88		20.24
802.11ax-HE80	5210	484/65	13.78	13.78	N/A	16.79
	5290	484/66	11.64	11.71		14.69
	5530	484/65	14.78	15.00		17.90
	5610	484/66	16.60	16.53		19.58
	5775	484/65	16.83	16.90		19.88
	5775	484/66	16.66	16.82		19.75
802.11ax-HE160	5250	996/67	12.94	13.09	0.191	16.22
		996/S67	11.41	11.02		14.42
	5570	996/67	12.87	12.93		16.10
		996/S67	15.27	15.47		18.57

- Note: 1. The results have been included cable loss.  
 2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.  
 3. We did spot check for output power and all output power values keep identical thus other conducted items is exempt.

● **Original Average Output Power (FCC ID: BEJNT-17Z90R)**

Mode 802.11a	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Max Average Output Power (dBm) <sup>Note 2</sup>	Limit (dBm)	Limit(11dB m+10 log B) <sup>Note 3</sup>		
		Emission (26dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main						
		Aux	Main	Aux	Main								
U-NII Band 1	5180	23.75	22.73	16.774	16.628	16.560	17.120	0.101	24	N/A			
	5200	23.48	22.95	16.701	16.665	16.750	17.000						
	5240	22.59	22.67	16.739	16.693	16.890	16.660						
U-NII Band 2A	5260	23.26	22.06	16.658	16.594	16.660	17.100						
	5300	23.55	22.80	16.678	16.715	16.530	16.960						
	5320	23.51	22.84	16.766	16.599	16.810	17.110						
U-NII Band 2C	5500	22.93	22.44	16.665	16.664	17.290	17.060						
	5580	22.91	23.10	16.695	16.718	16.960	17.040						
	5700	23.38	23.27	16.680	16.733	17.210	16.930						
	5720	22.28	23.34	16.591	16.688	17.260	16.910						
U-NII Band 3	5745	16.18	15.31	16.649	16.670	16.980	17.120				0.101	30	N/A
	5785	15.07	13.22	16.554	16.606	17.560	16.920						
	5825	16.36	16.34	16.689	16.766	17.380	16.830						

Note: 1. The results have been included cable loss.

2. Max Average Output Power (dBm) = Max of each average output power (dBm)+ Duty Cycle Factor (dB) when duty cycle is less than 98%.

3. B is the 26 dB emission bandwidth.

Mode 802.11n-HT20	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note 2</sup>	Limit (dBm)	Limit(11dB m+10 log B) <sup>Note 3</sup>
		Emission (26dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main				
		Aux	Main	Aux	Main	Aux	Main				
U-NII Band 1	5180	23.04	23.32	17.763	17.765	16.680	16.660	N/A	24	N/A	
	5200	23.38	23.91	17.804	17.745	16.440	16.420				
	5240	23.93	23.52	17.743	17.820	16.660	16.720				
U-NII Band 2A	5260	23.91	23.46	17.823	17.739	16.420	16.630				
	5300	23.97	23.69	17.782	17.783	16.080	16.360				
	5320	23.88	23.47	17.746	17.790	16.460	16.590				
U-NII Band 2C	5500	22.83	23.13	17.826	17.775	16.790	16.790				
	5580	22.92	24.88	17.778	17.794	17.080	16.660				
	5700	23.17	23.86	17.764	17.785	17.000	16.850				
	5720	23.55	24.09	17.774	17.787	16.990	16.600				
Mode 802.11n-HT20	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note 2</sup>	Limit (dBm)	Limit(11dB m+10 log B) <sup>Note 3</sup>
		Emission (6dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main				
		Aux	Main	Aux	Main	Aux	Main				
U-NII Band 3	5745	17.01	17.61	17.805	17.721	16.990	16.650	N/A	30	N/A	
	5785	17.62	17.70	17.728	17.788	16.920	16.550				
	5825	17.57	17.63	17.746	17.715	17.020	16.500				

Note: 1. The results have been included cable loss.

2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.

3. B is the 26 dB emission bandwidth.



Mode 802.11n-HT40	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note 2</sup>	Limit (dBm)	Limit(11dB m+10 log B) <sup>Note 3</sup>			
		Emission (26dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main							
		Aux	Main	Aux	Main									
U-NII Band 1	5190	42.75	41.80	36.004	35.999	15.520	15.550	N/A	24	N/A				
	5230	42.61	42.48	36.038	35.996	17.050	17.130							
U-NII Band 2A	5270	42.82	42.18	35.999	35.985	17.070	17.160							
	5310	42.74	41.66	36.051	36.033	15.220	15.340							
U-NII Band 2C	5510	42.31	42.48	36.007	36.023	17.200	16.920							
	5550	45.02	42.41	36.105	35.996	17.150	17.390							
	5670	43.04	42.93	36.009	35.935	17.470	16.850							
	5710	43.16	41.52	36.000	35.929	17.610	16.870							
Mode 802.11n-HT40	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)					Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note 2</sup>	Limit (dBm)	Limit(11dB m+10 log B) <sup>Note 3</sup>
		Emission (6dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main							
		Aux	Main	Aux	Main									
U-NII Band 3	5755	35.71	35.02	35.998	36.013	17.420	17.250	N/A	30	N/A				
	5795	35.10	36.28	36.020	35.996	17.490	16.920							

Note: 1. The results have been included cable loss.

2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.

3. B is the 26 dB emission bandwidth.

Mode 802.11ac- VHT80	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note 2</sup>	Limit (dBm)	Limit(11dB m+10 log B) <sup>Note 3</sup>
		Emission (26dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main				
		Aux	Main	Aux	Main						
U-NII Band 1	5210	85.80	81.48	75.100	75.094	13.920	14.160	N/A	24	N/A	
U-NII Band 2A	5290	84.26	81.00	75.158	75.048	14.320	14.300			30.08	
U-NII Band 2C	5530	84.22	81.31	75.138	75.173	15.150	15.060			30.10	
	5610	84.52	81.81	75.235	74.921	16.440	16.310			30.13	
	5690	86.69	83.29	75.177	75.005	16.570	16.210			30.21	
Mode 802.11ac- VHT80	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)				Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note 2</sup>
		Emission (6dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main				
		Aux	Main	Aux	Main						
U-NII Band 3	5775	71.33	72.23	75.227	75.176	17.030	16.910	N/A	30	N/A	

Mode 802.11ac- VHT160	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note 2</sup>	Limit (dBm)	Limit(11dB m+10 log B) <sup>Note 3</sup>
		Emission (26dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main				
		Aux	Main	Aux	Main						
U-NII Band 1/2A	5250	163.20	161.20	153.400	153.420	11.310	11.110	N/A	24	33.07	
U-NII Band 2C	5570	162.30	161.40	153.620	153.510	14.300	14.380			33.08	

Note: 1. The results have been included cable loss.

2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.

3. B is the 26 dB emission bandwidth.

Mode 802.11ax- HE20	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note 2</sup>	Limit (dBm)	Limit(11dB m+10 log B) <sup>Note 3</sup>	
		Emission (26dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main					
		Aux	Main	Aux	Main	Aux	Main					
U-NII Band 1	5180	23.76	23.32	18.898	18.910	16.650	16.190	N/A	24	N/A		
	5200	22.78	23.09	18.882	18.925	16.810	16.360					
	5240	23.90	23.41	18.885	18.899	16.990	16.580					
U-NII Band 2A	5260	22.82	23.35	18.866	18.909	16.610	16.590		N/A	24	19.436	
	5300	23.93	22.96	18.894	18.865	16.590	16.640				19.601	
	5320	23.65	22.33	18.884	18.904	16.620	16.590				19.800	
U-NII Band 2C	5500	22.91	23.92	18.887	18.901	16.580	16.890			N/A	24	19.610
	5580	22.86	24.39	18.900	18.932	17.100	16.700					19.625
	5700	23.03	22.98	18.916	18.910	16.920	16.700					19.615
	5720	23.59	23.29	18.916	18.890	16.890	16.870					19.615
U-NII Band 3	5745	15.90	15.12	18.900	18.894	17.060	16.730				N/A	30
	5785	16.35	15.01	18.921	18.920	17.130	16.720	19.915				
	5825	17.92	15.05	18.869	18.916	17.330	16.450	19.822				
												24.61
											24.67	
											24.58	
											24.61	
										24.49		
										24.60		
										24.59		
										24.61		
										24.67		

Note: 1. The results have been included cable loss.

2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.

3. B is the 26 dB emission bandwidth.

Mode 802.11ax- HE40	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note 2</sup>	Limit (dBm)	Limit(11 dB m+10 log B) <sup>Note 3</sup>
		Emission (26dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main				
		Aux	Main	Aux	Main						
U-NII Band 1	5190	42.97	41.68	37.518	37.483	15.020	15.130	0.101	24	N/A	
	5230	40.47	40.62	37.440	37.463	16.760	16.730				
U-NII Band 2A	5270	41.29	42.58	37.597	37.614	16.680	16.720				
	5310	43.41	42.24	37.499	37.487	14.830	15.240				
U-NII Band 2C	5510	41.95	41.43	37.585	37.600	16.720	16.900				
	5550	41.14	42.31	37.544	37.513	17.150	16.890				
	5670	41.38	41.97	37.356	37.505	17.060	16.580				
	5710	42.62	41.04	37.510	37.492	17.060	16.900				
Mode 802.11ax- HE40	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note 2</sup>	Limit (dBm)	Limit(11 dB m+10 log B) <sup>Note 3</sup>
		Emission (6dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main				
		Aux	Main	Aux	Main						
U-NII Band 3	5755	29.89	33.77	37.460	37.525	17.090	16.630	0.101	30	N/A	
	5795	32.65	32.60	37.553	37.470	17.160	16.640				

Note: 1. The results have been included cable loss.

2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.

3. B is the 26 dB emission bandwidth.

Mode 802.11ax- HE80	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note2</sup>	Limit (dBm)	Limit(11dB m+10 log B) <sup>Note3</sup>
		Emission (26dB) Bandwidth		Occupied (99%) Bandwidth							
		Aux	Main	Aux	Main	Aux	Main				
U-NII Band 1	5210	82.70	82.00	76.636	76.632	13.890	13.760	0.101	24	30.20	
U-NII Band 2A	5290	83.32	83.10	76.786	76.613	14.120	14.180				
U-NII Band 2C	5530	81.48	81.67	76.671	76.775	14.890	14.730				
	5610	82.21	81.33	76.806	76.662	16.150	16.110				
	5690	82.73	80.72	76.833	76.655	16.340	15.860				
U-NII Band 1	5210	82.70	82.00	76.636	76.632	13.890	13.760				0.101
U-NII Band 2A	5290	83.32	83.10	76.786	76.613	14.120	14.180				
U-NII Band 2C	5530	81.48	81.67	76.671	76.775	14.890	14.730				
	5610	82.21	81.33	76.806	76.662	16.150	16.110				
	5690	82.73	80.72	76.833	76.655	16.340	15.860				
U-NII Band 1	5210	82.70	82.00	76.636	76.632	13.890	13.760	0.101	24	30.10	
U-NII Band 2A	5290	83.32	83.10	76.786	76.613	14.120	14.180				
U-NII Band 2C	5530	81.48	81.67	76.671	76.775	14.890	14.730				
	5610	82.21	81.33	76.806	76.662	16.150	16.110				
	5690	82.73	80.72	76.833	76.655	16.340	15.860				
U-NII Band 1	5210	82.70	82.00	76.636	76.632	13.890	13.760				0.101
U-NII Band 2A	5290	83.32	83.10	76.786	76.613	14.120	14.180				
U-NII Band 2C	5530	81.48	81.67	76.671	76.775	14.890	14.730				
	5610	82.21	81.33	76.806	76.662	16.150	16.110				
	5690	82.73	80.72	76.833	76.655	16.340	15.860				
Mode 802.11ax- HE80	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note2</sup>	Limit (dBm)	
Emission (6dB) Bandwidth		Occupied (99%) Bandwidth									
Aux	Main	Aux	Main	Aux	Main						
U-NII Band 3	5775	73.83	73.90	76.767	76.860	16.790	16.690	0.101	19.852	30	N/A

Mode 802.11ax- HE160	Centre Frequency (MHz)	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note2</sup>	Limit (dBm)	Limit(11dB m+10 log B) <sup>Note3</sup>
		Emission (26dB) Bandwidth		Occupied (99%) Bandwidth							
		Aux	Main	Aux	Main	Aux	Main				
U-NII Band 1/2A	5250	162.40	162.20	155.03	154.76	11.320	10.910	N/A	14.130	24	33.10
U-NII Band 2C	5570	161.33	162.20	155.25	155.18	14.210	13.990		17.112		33.08

Note: 1. The results have been included cable loss.

2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.

3. B is the 26 dB emission bandwidth.

Mode 802.11ax- HE20	Centre Frequency (MHz)	RU Configuration	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/ X)	Total Average Output Power (dBm) <sup>Note 2</sup>	Limit (dBm)	Limit(11 dBm+1 0 log B) <sup>Note 3</sup>
			Emission (26dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main				
			Aux	Main	Aux	Main						
U-NII Band 1	5180	26/0	23.76	23.32	18.898	18.910	9.710	9.790	0.214	12.974	24	N/A
		52/37	23.76	23.32	18.898	18.910	13.190	13.030	0.146	16.267		
		106/53	23.76	23.32	18.898	18.910	15.940	15.850	N/A	18.906		
U-NII Band 2A	5320	26/8	23.65	22.33	18.884	18.904	9.600	9.410	0.214	12.730	24	24.49
		52/40	23.65	22.33	18.884	18.904	13.220	13.140	0.146	16.336		24.49
		106/54	23.65	22.33	18.884	18.904	15.750	15.800	N/A	18.785		24.49
U-NII Band 2C	5500	26/0	22.91	23.92	18.887	18.901	9.930	9.720	0.214	13.051	24	24.60
		52/37	22.91	23.92	18.887	18.901	13.540	13.250	0.146	16.554		24.60
		106/53	22.91	23.92	18.887	18.901	15.070	15.010	N/A	18.050		24.60
	5700	26/8	23.03	22.98	18.916	18.910	9.670	9.470	0.214	12.795		24.61
		52/40	23.03	22.98	18.916	18.910	13.230	13.120	0.146	16.332		24.61
		106/54	23.03	22.98	18.916	18.910	16.190	15.920	N/A	19.067		24.61
U-NII Band 3	5745	26/0	15.90	15.12	18.900	18.894	15.640	15.360	0.214	18.727	30	N/A
		52/37	15.90	15.12	18.900	18.894	13.190	13.030	0.146	16.267		
		106/53	15.90	15.12	18.900	18.894	17.340	17.040	N/A	20.203		
5825	26/8	17.92	15.05	18.869	18.916	16.000	15.480	0.214	18.972			
	52/40	17.92	15.05	18.869	18.916	13.260	12.870	0.146	16.226			
	106/54	17.92	15.05	18.869	18.916	17.520	16.890	N/A	20.227			

Note: 1. The results have been included cable loss.

2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.

3. B is the 26 dB emission bandwidth.

Mode 802.11ax- HE40	Centre Frequency (MHz)	RU Configuration	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note2</sup>	Limit (dBm)	Limit(1 1dBm+ 10 log B) <sup>Note3</sup>
			Emission (26dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main				
			Aux	Main	Aux	Main						
U-NII Band 1	5190	242/61	42.97	41.68	37.518	37.483	16.260	16.060	0.168	24	N/A	
U-NII Band 2A	5310	242/62	43.41	42.24	37.499	37.487	15.640	15.780				
U-NII Band 2C	5510	242/61	41.95	41.43	37.585	37.600	16.760	16.850				
	5670	242/62	41.38	41.97	37.356	37.505	17.400	17.440				
U-NII Band 3	5755	242/61	29.89	33.77	37.460	37.525	17.040	17.000	0.168	30	N/A	
	5795	242/62	32.65	32.60	37.553	37.470	17.560	17.200				

Note: 1. The results have been included cable loss.

2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.

3. B is the 26 dB emission bandwidth.

Mode 802.11ax- HE80	Centre Frequency (MHz)	RU Configuration	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note 2</sup>	Limit (dBm)	Limit(11d Bm+10 log B) <sup>Note 3</sup>
			Emission (26dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main				
			Aux	Main	Aux	Main						
U-NII Band 1	5210	484/65	82.70	82.00	76.636	76.632	14.120	14.120	0.092	24	N/A	
U-NII Band 2A	5290	484/66	83.32	83.10	76.786	76.613	12.050	12.070				
U-NII Band 2C	5530	484/65	81.48	81.67	76.671	76.775	15.100	15.390				
	5610	484/66	82.21	81.33	76.806	76.662	17.120	16.820				
U-NII Band 3	5775	484/65	73.83	73.90	76.767	76.860	17.160	17.200	0.092	30	N/A	
		484/66	73.83	73.90	76.767	76.860	17.120	17.130				

Mode 802.11ax- HE160	Centre Frequency (MHz)	RU Configuration	Bandwidth(MHz)				Average Output Power (dBm)		Duty Cycle Factor (dB) 10log(1/X)	Total Average Output Power (dBm) <sup>Note 2</sup>	Limit (dBm)	Limit(11d Bm+10 log B) <sup>Note 3</sup>
			Emission (26dB) Bandwidth		Occupied (99%) Bandwidth		Aux	Main				
			Aux	Main	Aux	Main						
U-NII Band 1/2A	5250	996/97	162.40	162.20	155.03	154.76	13.730	13.520	0.191	24	33.10	
		996/S67	162.40	162.20	155.03	154.76	11.740	11.650				
U-NII Band 2C	5570	996/97	161.33	162.20	155.25	155.18	13.770	13.640				
		996/S67	161.33	162.20	155.25	155.18	16.120	16.020				

Note: 1. The results have been included cable loss.

2. According to KDB 662911 D01 E)1), Total average output power(dBm) = Sum to individual output power (dBm)+ duty cycle factor(dB) when duty cycle is less than 98%.

3. B is the 26 dB emission bandwidth