

**FCC 15.247 & RSS-247  
(Permissive Change)  
2.4GHz 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**  
**IC : 2703H-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.

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## 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 CFR FCC Part 15 Subpart C  
RSS-Gen (Issue 5), Amendment 2, February 2021  
RSS-247 (Issue 2), February 2017

**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/Administrator)

Approved by:  (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-F230498

## 2. SUMMARY OF TEST RESULTS

Rule		Description	Results
FCC	IC		
15.207	RSS-Gen §8.8	Conducted Emission	<b>PASS</b>
15.247(d)/ 15.205	RSS-Gen §8.9 RSS-247 §5.5	Radiated Band Edge and Radiated Spurious Emission	<b>PASS</b>
15.247(a)(2)	RSS-247 §5.2(1)	DTS/Occupied Bandwidth	N/A <sup>Note3</sup>
15.247(b)(3)	RSS-247 §5.4(4)	Maximum Peak Output Power	<b>PASS</b>
15.247(d)	RSS-247 §5.5	Conducted Band Edges and Conducted Spurious Emission	N/A <sup>Note3</sup>
15.247 (e)	RSS-247 §5.2(2)	Peak Power Spectral Density	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. Note: Model 17Z90R and 17Z90S is for ISED application.
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			With	#3 WA-P-LBLB-04-108
	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			With	#3 WA-P-LBLB-04-108

### 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).		
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 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 and IC: 2703H-17Z90R are as following.
  - (a) To add new models 17Z90S and 17ZD90S for FCC ID application.
  - (b) To add new model 17Z90S for ISED application.
  - (c) To add new Configuration (HVIN) 17Z90S-G, 17Z90S-V, 17Z90S-M, 17Z90S-C and 17Z90S-H.
  - (d) 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.
  - (e) To add new CPUs for MTL MAIN B/D main board.
  - (f) To add new Battery Pack for MTL MAIN B/D main board.
  - (g) To add new Type C cable (3A).
- The differences between this application and original's ID as clarify in following list.

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

### 3.6. EUT Specifications Assessed in Current Report

Mode	Fundamental Range (MHz)	Channel Number	Modulation	Data Rate (Mbps)
802.11b	2412-2472	13	DSSS (DBPSK/DQPSK/CCK)	Up to 11
802.11g		13	OFDM (BPSK/QPSK/16QAM/64QAM)	Up to 54
802.11n-HT20			Up to 144.4	
802.11n-HT40	2422-2462	9	OFDM (BPSK/QPSK/16QAM/64QAM)	Up to 300
802.11ax-HE20	2412-2472	13	OFDMA (BPSK/ QPSK/ 16QAM/ 64QAM/ 256QAM/1024QAM)	Up to 287
802.11ax-HE40	2422-2462	9		Up to 574
BLE	2402-2480	40	GFSK (1Mbps, 2Mbps, PHY Coded S8, PHY Coded S2)	Up to 2

Channel List			
802.11 b/g/n-HT20/ax-HE20		802.11n-HT40/ax-HE40	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
1	2412	3	2422
2	2417	4	2427
3	2422	5	2432
4	2427	6	2437
5	2432	7	2442
6	2437	8	2447
7	2442	9	2452
8	2447	10	2457
9	2452	11	2462
10	2457		
11	2462		
12	2467		
13	2472		

Channel List							
BLE							
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
37	2402	09	2422	18	2442	28	2462
00	2404	10	2424	19	2444	29	2464
01	2406	38	2426	20	2446	30	2466
02	2408	11	2428	21	2448	31	2468
03	2410	12	2430	22	2450	32	2470
04	2412	13	2432	23	2452	33	2472
05	2414	14	2434	24	2454	34	2474
06	2416	15	2436	25	2456	35	2476
07	2418	16	2438	26	2458	36	2478
08	2420	17	2440	27	2460	39	2480

### 3.7. Descriptions 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)
802.11b	8.340	8.400	0.993	N/A
802.11g	2.090	2.140	0.977	0.101
802.11n-HT20	4.000	4.050	0.988	N/A
802.11n-HT40	3.990	4.040	0.988	N/A
802.11ax-HE20	3.990	4.040	0.988	N/A
802.11ax-HE40	3.990	4.040	0.988	N/A
802.11ax-HE20 (RU Config 26)	0.52	0.575	0.904	0.438
802.11ax-HE20 (RU Config 52)	0.735	0.785	0.936	0.287
802.11ax-HE20 (RU Config 106)	1.505	1.56	0.965	0.155
802.11ax-HE40 (RU Config 242)	3.38	3.43	0.985	N/A

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.



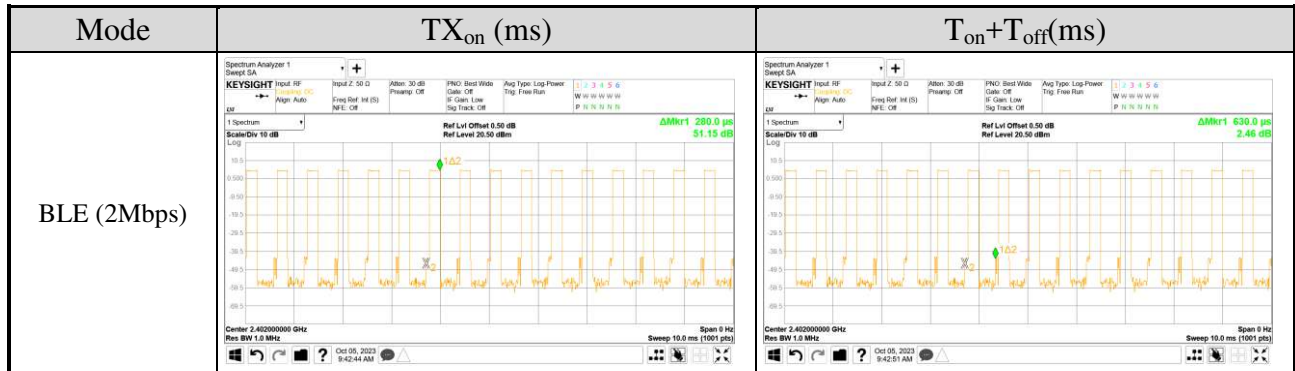
Mode	TX <sub>on</sub> (ms)	T <sub>on</sub> +T <sub>off</sub> (ms)
802.11n-HT20		
802.11n-HT40		
802.11ax-HE20		
802.11ax-HE40		



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)	TX <sub>on+off</sub> (ms)	Duty Cycle (x)	Duty Cycle Factor [10log(1/x)] (dB)
BLE (2Mbps)	0.280	0.630	0.444	3.526

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.



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)	802.11ax-HE20	HE0	7
			BLE	2Mbps	17
	SKU #2		802.11ax-HE20	HE0	7
			BLE	2Mbps	17
	SKU #3		802.11ax-HE20	HE0	7
			BLE	2Mbps	17

Item		Mode	Data Rate	Test Channel	
Radiated Test Case	SKU #1	Radiated Band Edge <sup>Note1</sup>	BLE	2Mbps	39
	SKU #2		BLE	2Mbps	39
	SKU #3	802.11n-HT40	MCS8	9	
		BLE	2Mbps	39	
	SKU #1	Radiated Spurious Emission <sup>Note1 &amp; 2</sup>	802.11g	6Mbps	7
			BLE	2Mbps	17
	SKU #2		802.11ax-HE20	HE0	7
			BLE	2Mbps	39
	SKU #3		802.11ax-HE40	HE0	7
			BLE	2Mbps	37

Item		Mode	RU Config	Test Channel	
Radiated Test Case	SKU #1	Radiated Band Edge <sup>Note 1</sup>	802.11ax-HE40	242/62	11
	SKU #2		802.11ax-HE40	242/62	11

Item			Mode	Data Rate	Test Channel	
Conducted Test Case	SKU #1 SKU #2	Peak Output Power (SPOT Check)	802.11b	1Mbps	1/7/8/11/12/13	
			802.11g	6Mbps	1/2/7/10/11/12/13	
			802.11n-HT20	MCS8	1/2/3/7/10/11/12/13	
			802.11n-HT40	MCS8	3/7/9/10/11	
			802.11ax-HE20	HE0	1/2/7/10/11/12/13	
			802.11ax-HE40	HE0	3/7/9/10/11	
	BLE		1Mbps	37/17/39		
			2Mbps	37/17/39		
			PHY Coded S2	37/17/39		
			PHY Coded S8	37/17/39		
			SKU #3	802.11b	1Mbps	1/7/8/11/12/13
				802.11g	6Mbps	1/2/7/10/11/12/13
	802.11n-HT20			MCS8	1/2/3/7/10/11/12/13	
	802.11n-HT40			MCS8	3/7/9/10/11	
	802.11ax-HE20			HE0	1/2/7/10/11/12/13	
	802.11ax-HE40			HE0	3/7/9/10/11	
	BLE		1Mbps	37/17/39		
			2Mbps	37/17/39		
PHY Coded S2		37/17/39				
PHY Coded S8		37/17/39				

Item			Mode	Data Rate	RU Configuration	Test Channel
Conducted Test Case	SKU #1 SKU #2	Peak Output Power (SPOT Check)	802.11ax-HE20	HE0	26/0	1
					52/37	
					106/53	
				HE0	26/8	13
					52/40	
					106/5	
	802.11ax-HE40		HE0	242/61	3	
			HE0	242/62	11	
	SKU #3		802.11ax-HE20	HE0	26/0	1
					52/37	
					106/53	
				HE0	26/8	13
52/40						
106/5						
802.11ax-HE40	HE0	242/61	3			
	HE0	242/62	11			

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	Centre Frequency (MHz)	Power Setting		Mode	Centre Frequency (MHz)	Power Setting	
		AUX	Main			AUX	Main
802.11b	2412	20.000	20.000	802.11g	2412	17.000	17.000
	2442	20.000	20.000		2417	19.000	19.250
	2462	20.000	20.000		2442	20.000	20.000
	2467	19.000	18.750		2457	18.750	18.500
	2472	16.500	15.500		2462	16.750	16.750
					2467	14.500	14.250
			2472	11.500	11.500		

Mode	Centre Frequency (MHz)	Power Setting		Mode	Centre Frequency (MHz)	Power Setting	
		AUX	Main			AUX	Main
802.11n-HT20	2412	14.750	14.750	802.11n-HT40	2422	13.750	13.750
	2417	17.000	17.000		2442	14.750	14.750
	2442	18.250	18.250		2452	13.750	13.750
	2457	20.000	20.000		2457	9.000	9.000
	2462	18.250	18.250		2462	5.500	5.500
	2467	15.000	15.000				
	2472	11.000	11.000				

Mode	Centre Frequency (MHz)	Power Setting		Mode	Centre Frequency (MHz)	Power Setting	
		AUX	Main			AUX	Main
802.11ax-HE20	2412	14.750	14.750	802.11ax-HE40	2422	13.750	13.750
	2417	17.000	17.000		2442	14.750	14.750
	2422	18.250	18.250		2452	13.750	13.750
	2442	20.000	20.000		2457	9.000	9.000
	2457	18.250	18.250		2462	5.500	5.500
	2462	15.000	15.000				
	2467	11.000	11.000				
	2472	6.000	6.000				

Mode	RU Configuration	Centre Frequency (MHz)	Power Setting	
			AUX	Main
802.11ax- HE20	26/0	2412	18.250	18.250
	52/37		18.500	18.500
	106/53		18.250	18.250
	26/0	2472	5.500	5.500
	52/37		6.000	6.000
	106/53		6.000	6.000
802.11ax- HE40	242/61	2422	15.000	15.000
	242/62	2462	6.000	6.000

Mode	Centre Frequency (MHz)	Power Setting			
		1Mbps	2Mbps	PHY Coded S2	PHY Coded S8
BLE	2402	Default	Default	Default	Default
	2440	Default	Default	Default	Default
	2480	Default	Default	Default	Default

For SKU (Mode) 3

Mode	Centre Frequency (MHz)	Power Setting		Mode	Centre Frequency (MHz)	Power Setting	
		AUX	Main			AUX	Main
802.11b	2412	18.000	18.000	802.11g	2412	17.000	17.000
	2442	18.000	18.000		2417	18.000	18.000
	2462	18.000	18.000		2442	18.000	18.000
	2467	18.000	18.000		2457	18.000	18.000
	2472	16.500	15.500		2462	16.750	16.750
					2467	14.500	14.250
			2472	11.500	11.500		

Mode	Centre Frequency (MHz)	Power Setting		Mode	Centre Frequency (MHz)	Power Setting	
		AUX	Main			AUX	Main
802.11n-HT20	2412	14.750	14.750	802.11n-HT40	2422	13.750	13.750
	2417	17.000	17.000		2442	14.750	14.750
	2442	18.000	18.000		2452	13.750	13.750
	2457	18.000	18.000		2457	9.000	9.000
	2462	18.000	18.000		2462	5.500	5.500
	2467	15.000	15.000				
2472	11.000	11.000					

Mode	Centre Frequency (MHz)	Power Setting		Mode	Centre Frequency (MHz)	Power Setting	
		AUX	Main			AUX	Main
802.11ax-HE20	2412	14.750	14.750	802.11ax-HE40	2422	13.750	13.750
	2417	17.000	17.000		2442	14.750	14.750
	2422	18.000	18.000		2452	13.750	13.750
	2442	18.000	18.000		2457	9.000	9.000
	2457	18.000	18.000		2462	5.500	5.500
	2462	15.000	15.000				
	2467	11.000	11.000				
	2472	6.000	6.000				

Mode	RU Configuration	Centre Frequency (MHz)	Power Setting	
			AUX	Main
802.11ax-HE20	26/0	2412	18.000	18.000
	52/37		18.000	18.000
	106/53		18.000	18.000
	26/0	2472	5.500	5.500
	52/37		6.000	6.000
	106/53		6.000	6.000
802.11ax-HE40	242/61	2422	15.000	15.000
	242/62	2462	6.000	6.000

Mode	Centre Frequency (MHz)	Power Setting			
		1Mbps	2Mbps	PHY Coded S2	PHY Coded S8
BLE	2402	Default	Default	Default	Default
	2440	Default	Default	Default	Default
	2480	Default	Default	Default	Default



### 3.10. Tested Supporting System List

#### 3.10.1. Support Peripheral Unit

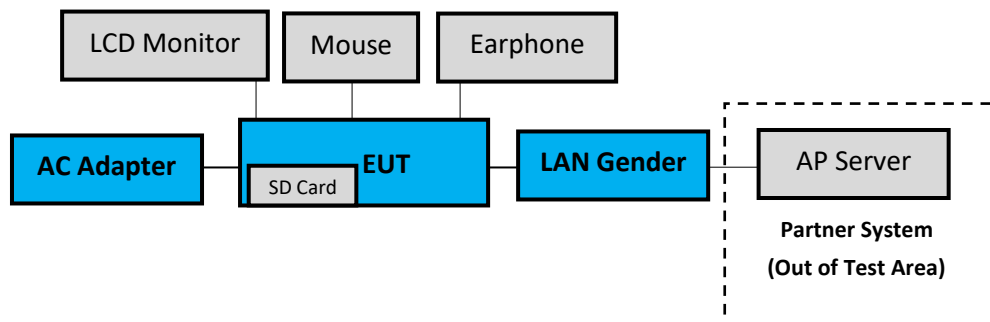
No.	Product	Brand	Model No.	Serial No.	Approval
1.	LCD Monitor	DELL	U2718Qb	CN-0M5R5F-QDC 00-99P-04CL	N/A
2.	USB Mouse	Lenovo	SM-8823	8SSM50L24506AV LC99H049R	N/A
3.	Earphone	APPLE	N/A	N/A	N/A
4.	SD Card	ADATA	MicroSDHC Card	N/A	N/A
<b>Partner System</b>					
5	AP Server	ASUS	RT-AX88U	N/A	FCC ID: MSQ-RTAXHP00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

#### 3.10.2. Cable Lists

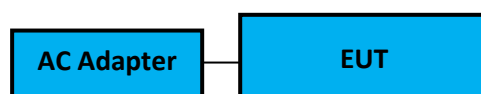
No.	Cable Description Of The Above Support Units
1.	HDMI Cable: Shielded, Detachable, 1.8 AC Power Cord: Unshielded, Detachable, 1.8m
2.	USB Cable: Unshielded, Undetachable, 1.8
3.	Earphone Cable: Unshielded, Undetachable, 1.2m
4.	N/A
5.	AC adapter: M/N:WA-30B12, Cable: Unshielded, Detachable, 1.2m LAN 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 BT or WLAN function under continues transmitting and choosing data rate/ channel.

[ANT AUX port (A Button in DRTU), 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 Item	Uncertainty
Maximum peak 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.	2.4GHz Notch Filter	K&L Microwave	7NSL10-2441.5/E 130.5-O/O	2	2023.07.22	1 Year
11.	3GHz Notch Filter	Microwave	H3G018G1	484796	2023.07.22	1 Year
12.	Coaxial Cable	MIYAZAKI	5D2W	RE-11	2023.01.07	1 Year
13.	Coaxial Cable	HUBER+SUHNER	RG223/U	RE-33	2023.03.02	1 Year
14.	Coaxial Cable	HUBER+SUHNER	SUCOFLEX 106	RE-14	2023.01.07	1 Year
15.	Coaxial Cable	HUBER+SUHNER	SUCOFLEX 102	RE-30	2023.08.21	1 Year
16.	Digital Thermo-Hygro Meter	iMax	HTC-1	No.1 3m A/C	2023.04.13	1 Year
17.	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.	Power Meter	Anritsu	ML2495A	2127005	2022. 12. 01	1 Year
2.	Power Meter	Anritsu	ML2495A	2127004	2022. 12. 07	1 Year
3.	Power Sensor	Anritsu	MA2411B	1911360	2022. 12. 07	1 Year
4.	Power Sensor	Anritsu	MA2411B	1911356	2022. 12. 01	1 Year
5.	Digital Thermo-Hygro Meter	iMax	HTC-1	RF-03	2023. 04. 13	1 Year

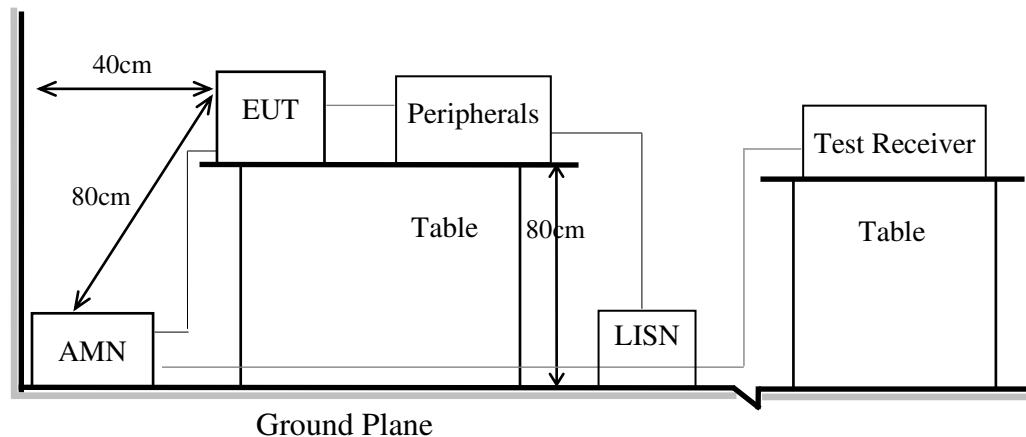
## 5. CONDUCTED EMISSION

### 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.

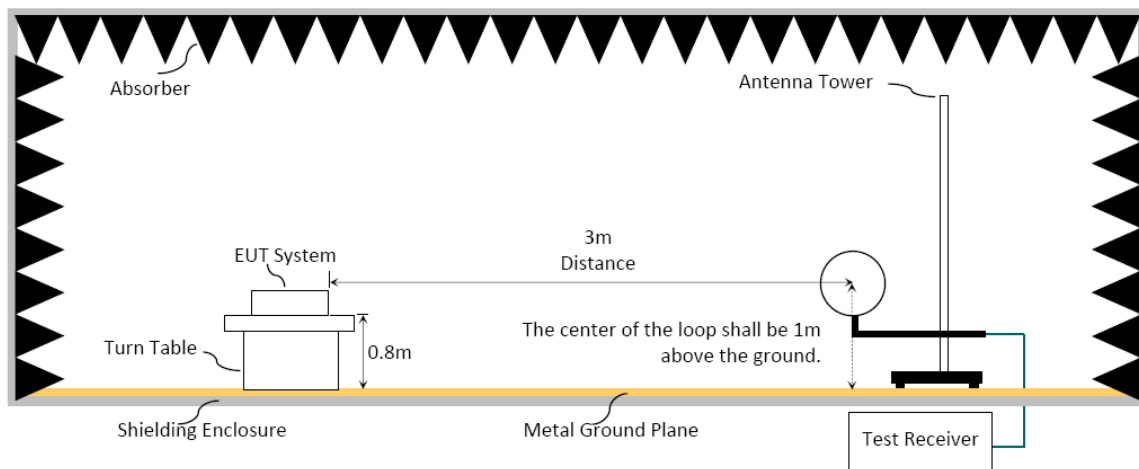
## 6. RADIATED EMISSION

### 6.1. Block Diagram of Test Setup

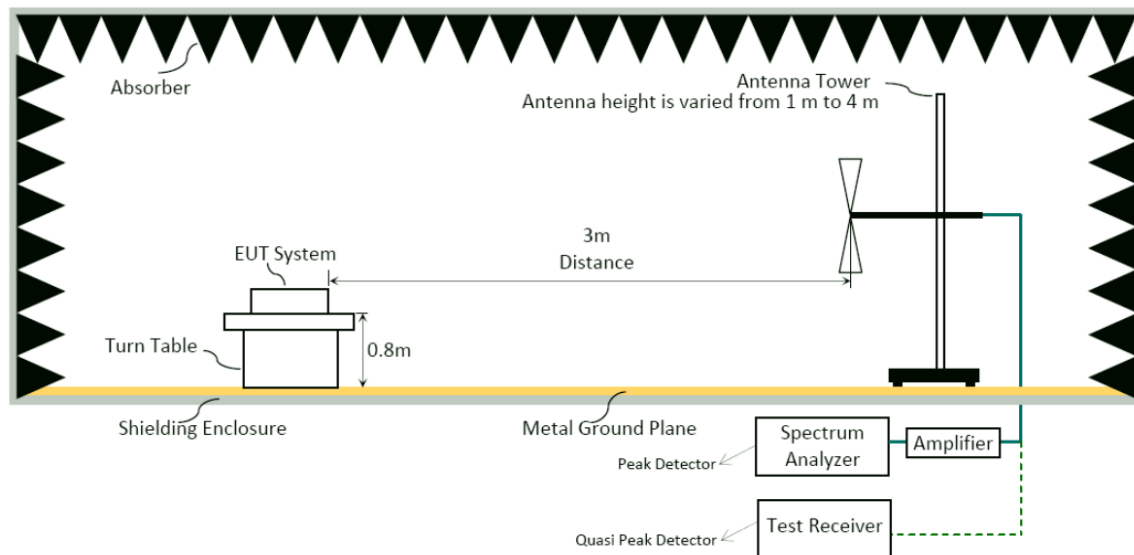
#### 6.1.1. Block Diagram of EUT

Indicated as section 3.11

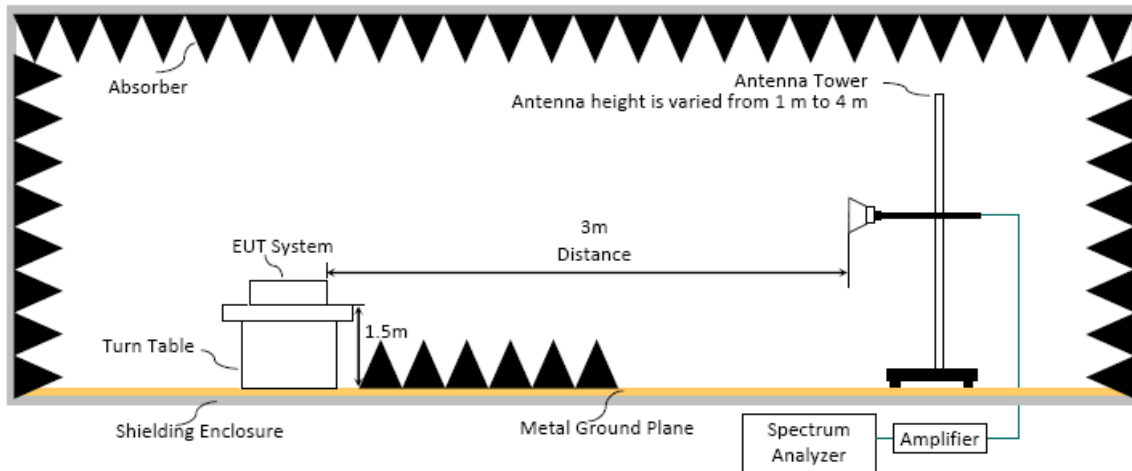
#### 6.1.2. Setup Diagram for 9kHz-30MHz



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



### 6.1.4. Setup Diagram for above 1GHz



## 6.2. Radiated Emission Limits

In any 100kHz bandwidth outside the frequency band, the radio frequency power produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level. In addition, radiated emissions which fall in restricted bands, as defined in Section 15.205/RSS-Gen Section 8.10 table 6, must also comply with the radiated emission limits specified as below.

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.



### 6.3. 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 ~ 25GHz:

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 25 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 (VBW $\geq 1/T$ )
BLE (2Mbps)	3.6kHz
802.11g	510Hz
802.11ax-HE20 (RU Config 26)	2.0kHz
802.11ax-HE20 (RU Config 52)	1.5kHz
802.11ax-HE20 (RU Config 106)	680Hz

VBW = 10Hz (Duty Cycle  $\geq 98\%$ , when duty cycle presented in section 3.8)

Modulation Type	VBW Setting
802.11b	10Hz
802.11n-HT20	10Hz
802.11n-HT40	10Hz
802.11ax-HE20	10Hz
802.11ax-HE40	10Hz
802.11ax-HE40 (RU Config 242)	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 = Peak Emission Level + D.C.C.F.

**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) =  $20\log(TX_{on}/TX_{on+off})$  presented in section 3.8.

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

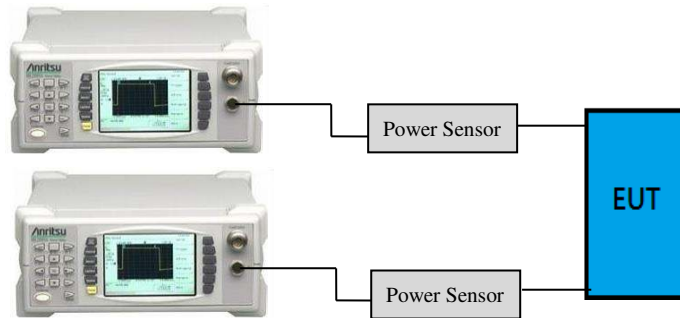
**6.5. Test Results**

Please refer to Appendix A.

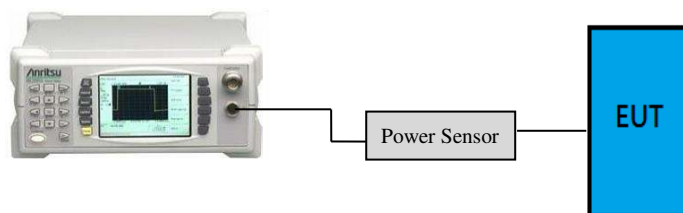
## 7. MAXIMUM PEAK OUTPUT POWER

### 7.1. Block Diagram of Test Setup

- For WLAN Function



- For BLE Function



### 7.2. Specification Limits

The Limits of maximum Peak Output Power for digital modulation in 2400-2483.5MHz is : 1Watt. (30dBm), and E.I.R.P.: 4Watt (36dBm)

### 7.3. Test Procedure

Following measurement procedure is reference to ANSI C63.10:2013:

**PKPM1 Peak power meter method:**

EUT is connected to power sensor and record the maximum output power.

**Maximum peak conducted output power method:**

- (1) Set the RBW  $\geq$  DTS bandwidth
- (2) Set VBW  $\geq 3 \times$  RBW
- (3) Set span  $\geq 3 \times$  RBW.
- (4) Sweep time = auto couple
- (5) Detector = peak.
- (6) Trace mode = max hold.
- (7) Allow trace to fully stabilize.
- (8) Use peak marker function to determine the peak amplitude level.

**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)**

- (1) Set span to at least 1.5 times the OBW
- (2) Set RBW = 1 -5% of OBW
- (3) Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
- (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】**



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---

# APPENDIX A

## TEST DATA AND PLOTS

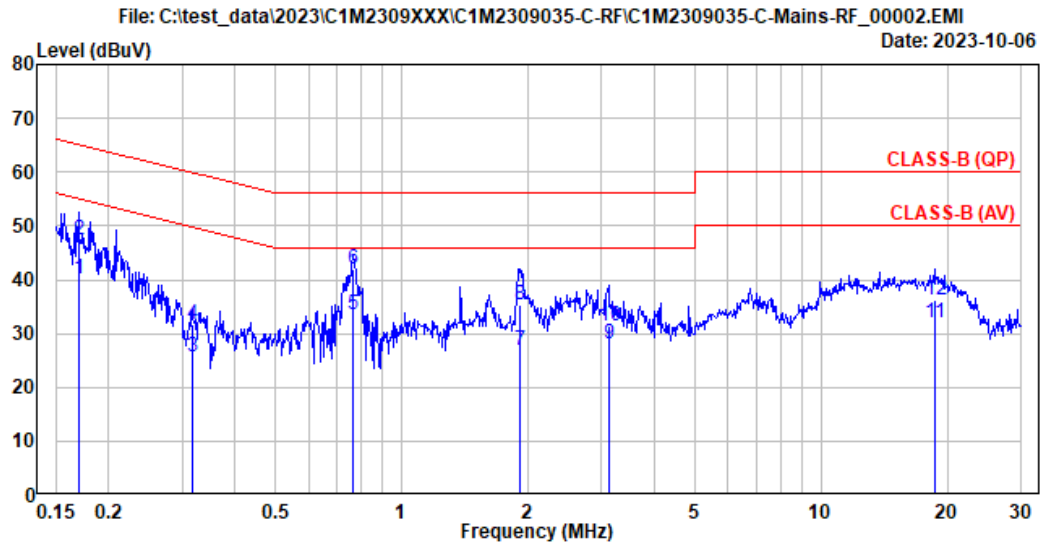
(Model: 17Z90S)

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## 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	: 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	0.170	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

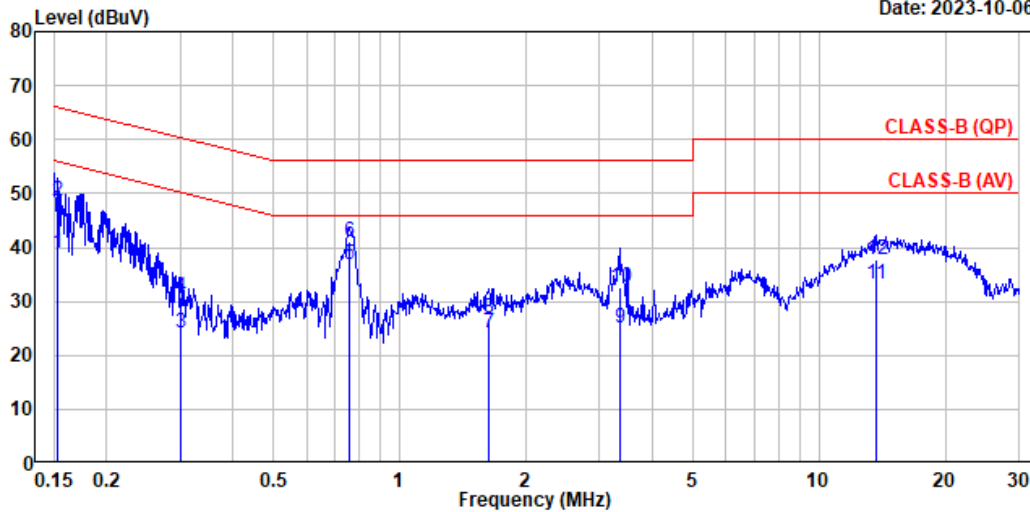
Remarks: 1. Emission Level(dBµV)= AMN Factor(dB) + Cable Loss(dB) + Pulse Att.(dB) + Reading(dBµV).



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



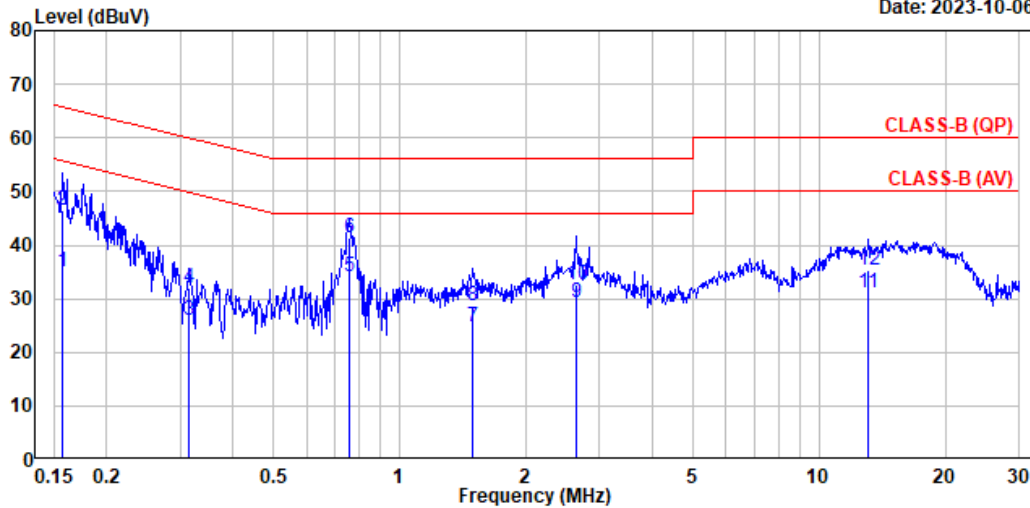
Site No.	: No.8 Shielded Room	Data No.	: 1
Instrument 1	: Receiver ESR(774)		
Instrument 2	: ENV432 (567)(A) CE-08 ESH3-Z2 (354)		
Limit	: CLASS-B (QP)	Phase	: Line
Environment	: 24°C/55%	Test Rating	: 120Vac/60Hz
EUT Model	: 17290S	Engineer	: Roy Hung
Test Mode	: Operating Inpaq		

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.153	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

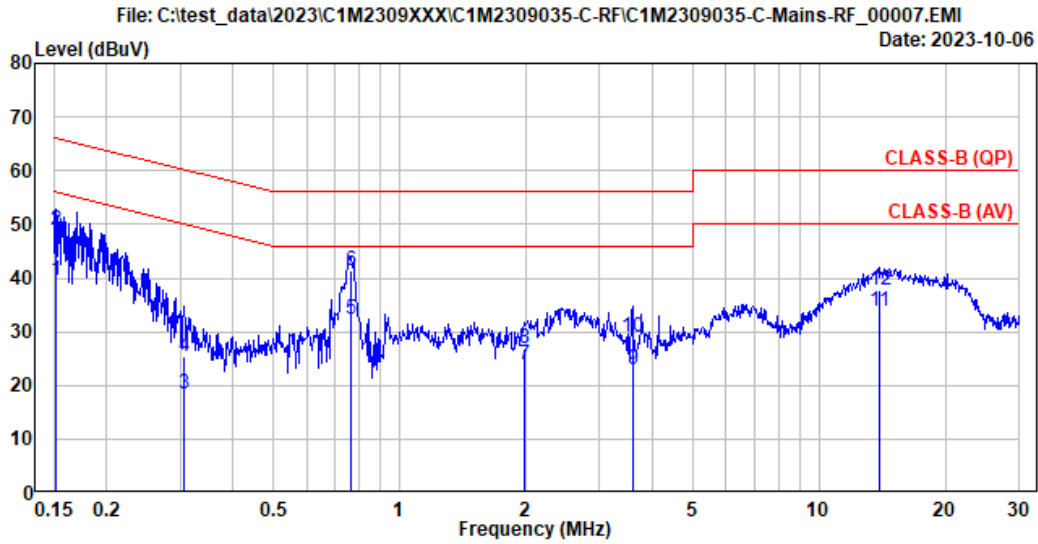


Site No.	: No.8 Shielded Room	Data No.	: 8
Instrument 1	: Receiver ESR(774)		
Instrument 2	: ENV432 (567)(A) CE-08 ESH3-Z2 (354)		
Limit	: CLASS-B (QP)	Phase	: Neutral
Environment	: 24°C/55%	Test Rating	: 120Vac/60Hz
EUT Model	: 17Z90S	Engineer	: Roy Hung
Test Mode	: Operating Luxshare		

	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	: 17290S	Engineer	: Roy Hung
Test Mode	: Operating Luxshare		

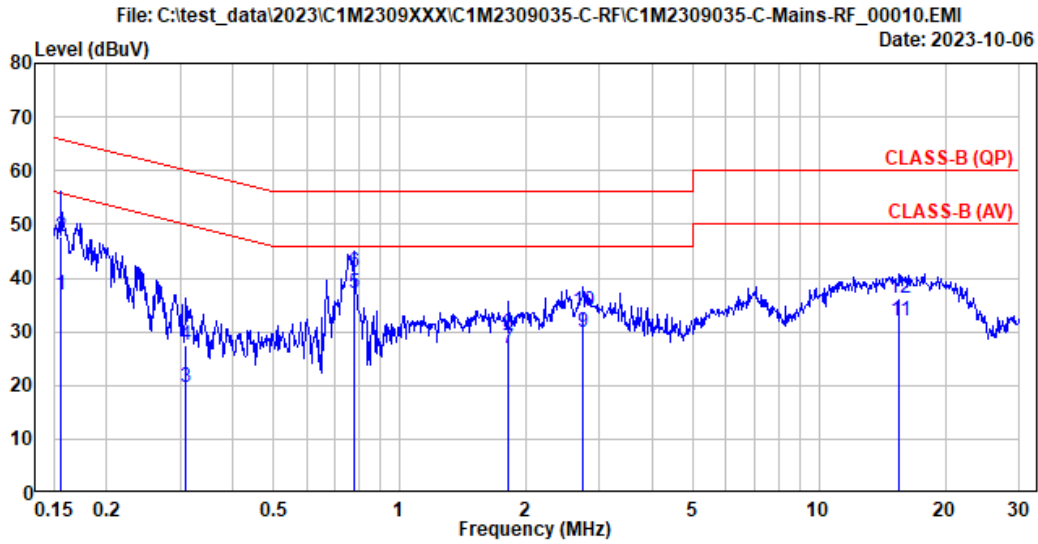
	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.152	10.30	0.03	9.85	19.25	39.43	55.92	16.49	Average
2	0.152	10.30	0.03	9.85	28.78	48.96	65.92	16.96	QP
3	0.306	10.27	0.03	9.85	-1.68	18.47	50.08	31.61	Average
4	0.306	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).

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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]		



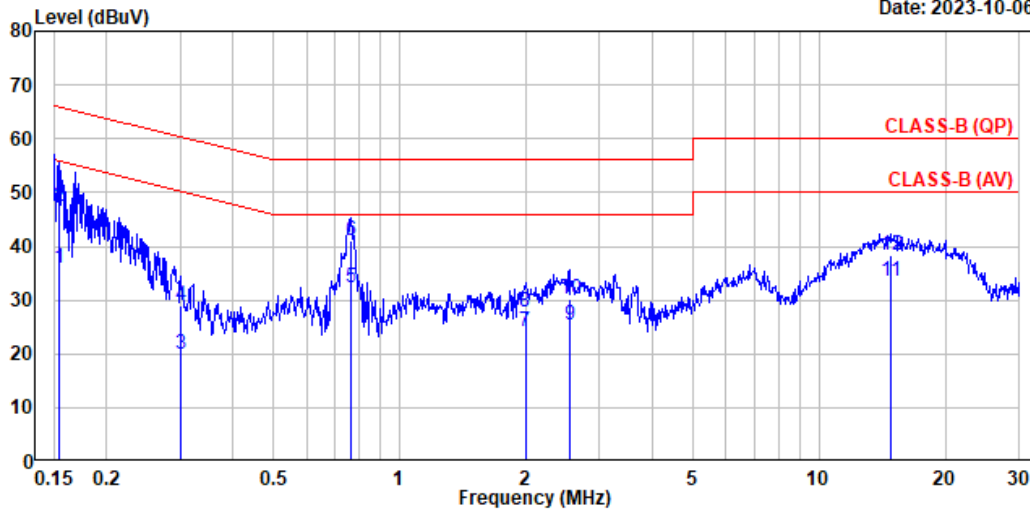
Site No.	: No.8 Shielded Room	Data No.	: 10
Instrument 1	: Receiver ESR(774)		
Instrument 2	: ENV432 (567)(A) CE-08 ESH3-Z2 (354)		
Limit	: CLASS-B (QP)	Phase	: Neutral
Environment	: 24°C/55%	Test Rating	: 120Vac/60Hz
EUT Model	: 17290S	Engineer	: Roy Hung
Test Mode	: Operating Touch		

	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	: 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	0.155	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	2023/09/26~10/06	Temp./Hum.	23~25°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	802.11ax-HE20	Frequency	TX 2442MHz
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## 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	34.95	31.95	40.00	8.05	Peak
145.592	16.83	2.82	26.04	32.03	25.65	43.50	17.85	Peak
206.217	15.67	3.46	25.80	34.25	27.58	43.50	15.92	Peak
378.392	21.05	5.29	26.35	37.29	37.28	46.00	8.72	Peak
496.408	23.07	6.37	27.14	32.09	34.39	46.00	11.61	Peak
591.792	24.25	6.73	27.39	32.06	35.65	46.00	10.35	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
35.658	21.78	1.31	0.00	14.77	37.86	40.00	2.14	QP
144.783	16.88	2.82	26.04	40.91	34.56	43.50	8.94	Peak
198.942	15.29	3.39	25.81	37.66	30.52	43.50	12.98	Peak
320.192	19.51	4.62	25.85	30.71	28.98	46.00	17.02	Peak
378.392	21.05	5.29	26.35	36.34	36.33	46.00	9.67	Peak
490.750	23.01	6.33	27.11	32.37	34.60	46.00	11.40	Peak

Mode	BLE (2Mbps)	Frequency	TX 2480MHz
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## 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	36.12	32.69	40.00	7.31	Peak
148.017	16.69	2.85	26.03	33.54	27.06	43.50	16.44	Peak
219.150	16.43	3.59	25.78	35.58	29.82	46.00	16.18	Peak
345.250	20.22	4.92	26.08	31.82	30.89	46.00	15.11	Peak
378.392	21.05	5.29	26.35	36.89	36.88	46.00	9.12	Peak
524.700	23.45	6.50	27.23	32.64	35.36	46.00	10.64	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
35.658	21.78	1.31	0.00	15.25	38.34	40.00	1.66	QP
145.592	16.83	2.82	26.04	40.30	33.92	43.50	9.58	Peak
200.558	15.33	3.41	25.81	40.19	33.11	43.50	10.39	Peak
311.300	19.25	4.51	25.77	31.75	29.74	46.00	16.26	Peak
378.392	21.05	5.29	26.35	37.03	37.02	46.00	8.98	Peak
496.408	23.07	6.37	27.14	32.92	35.22	46.00	10.78	Peak

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

Mode	802.11ax-HE20				Frequency	TX 2442MHz		
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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
33.233	22.77	1.27	26.52	36.08	33.60	40.00	6.40	Peak
145.592	16.83	2.82	26.04	34.36	27.98	43.50	15.52	Peak
248.250	18.00	3.86	25.73	34.80	30.93	46.00	15.07	Peak
378.392	21.05	5.29	26.35	35.50	35.49	46.00	10.51	Peak
474.583	22.77	6.19	27.01	32.00	33.96	46.00	12.04	Peak
548.950	23.76	6.58	27.29	32.72	35.77	46.00	10.23	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	15.17	38.67	40.00	1.33	QP
146.400	16.79	2.83	26.04	41.08	34.67	43.50	8.83	Peak
324.233	19.61	4.67	25.89	31.91	30.31	46.00	15.69	Peak
378.392	21.05	5.29	26.35	37.02	37.01	46.00	8.99	Peak
464.883	22.63	6.11	26.95	32.45	34.24	46.00	11.76	Peak
556.225	23.84	6.61	27.31	32.20	35.34	46.00	10.66	Peak

Mode	BLE (2Mbps)				Frequency	TX 2480MHz		
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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	37.57	34.57	40.00	5.43	Peak
144.783	16.88	2.82	26.04	35.70	29.36	43.50	14.14	Peak
252.292	18.13	3.89	25.72	32.70	29.00	46.00	17.00	Peak
377.583	21.03	5.28	26.34	35.93	35.89	46.00	10.11	Peak
441.442	22.25	5.90	26.80	32.09	33.45	46.00	12.55	Peak
527.125	23.48	6.50	27.23	32.84	35.59	46.00	10.41	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
35.658	21.78	1.31	0.00	15.07	38.16	40.00	1.84	QP
146.400	16.79	2.83	26.04	41.83	35.41	43.50	8.09	Peak
310.492	19.23	4.50	25.76	31.20	29.16	46.00	16.84	Peak
377.583	21.03	5.28	26.34	35.66	35.63	46.00	10.37	Peak
460.033	22.55	6.07	26.92	32.78	34.48	46.00	11.52	Peak
527.933	23.49	6.51	27.23	31.96	34.72	46.00	11.28	Peak



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

Mode	802.11ax-HE20				Frequency	TX 2442MHz		
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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	36.68	33.67	40.00	6.33	Peak
144.783	16.88	2.82	26.04	34.96	28.61	43.50	14.89	Peak
246.633	17.92	3.84	25.73	34.47	30.49	46.00	15.51	Peak
378.392	21.05	5.29	26.35	36.28	36.27	46.00	9.73	Peak
506.917	23.22	6.43	27.18	32.51	34.98	46.00	11.02	Peak
624.125	24.43	6.90	27.41	33.10	37.01	46.00	8.99	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
34.042	22.48	1.28	0.00	14.23	37.99	40.00	2.01	QP
146.400	16.79	2.83	26.04	41.53	35.11	43.50	8.39	Peak
253.908	18.15	3.91	25.72	33.73	30.07	46.00	15.93	Peak
378.392	21.05	5.29	26.35	36.52	36.51	46.00	9.49	Peak
461.650	22.58	6.08	26.93	32.65	34.38	46.00	11.62	Peak
538.442	23.62	6.55	27.26	31.54	34.44	46.00	11.56	Peak

Mode	BLE (2Mbps)				Frequency	TX 2480MHz		
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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
34.042	22.48	1.28	26.51	35.95	33.19	40.00	6.81	Peak
144.783	16.88	2.82	26.04	34.36	28.02	43.50	15.48	Peak
324.233	19.61	4.67	25.89	32.09	30.49	46.00	15.51	Peak
378.392	21.05	5.29	26.35	36.91	36.90	46.00	9.10	Peak
482.667	22.89	6.26	27.06	32.32	34.41	46.00	11.59	Peak
548.950	23.76	6.58	27.29	32.48	35.53	46.00	10.47	Peak

Antenna at Vertical Polarization

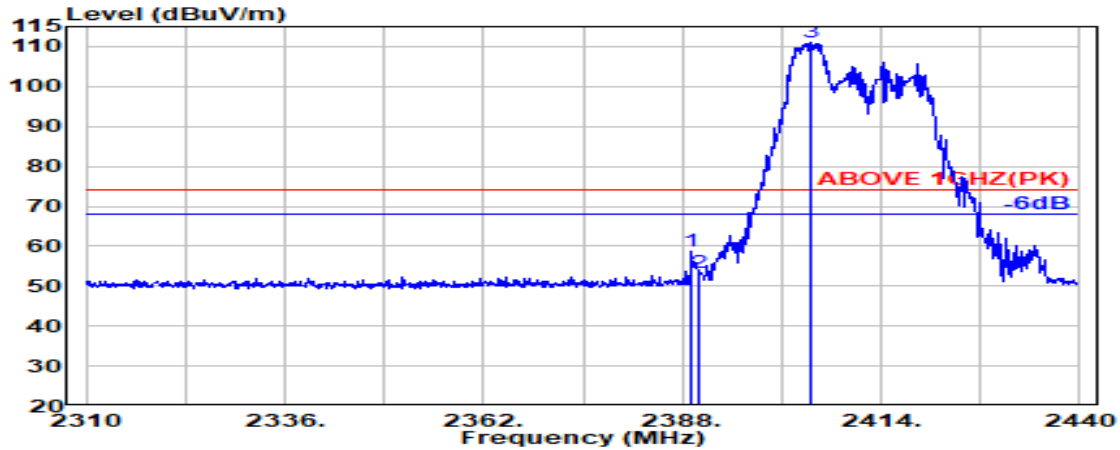
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
34.042	22.48	1.28	0.00	14.66	38.42	40.00	1.58	QP
145.592	16.83	2.82	26.04	41.75	35.37	43.50	8.13	Peak
300.792	18.94	4.37	25.67	31.20	28.85	46.00	17.15	Peak
377.583	21.03	5.28	26.34	36.30	36.26	46.00	9.74	Peak
460.033	22.55	6.07	26.92	32.87	34.58	46.00	11.42	Peak
523.083	23.43	6.49	27.22	32.00	34.70	46.00	11.30	Peak

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

**Band Edge:**

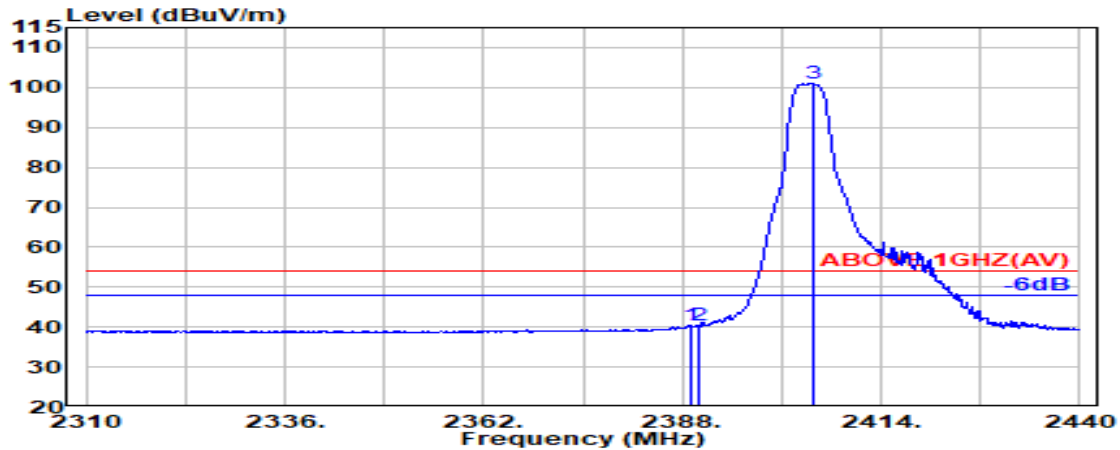
- Test SKU: SKU #1 [with (INPAQ) WA-P-LELE-04-011 Antenna]

Mode	802.11ax-HE20	Frequency	TX 2412MHz
		RU Configuration	52/37



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
2389.200	28.20	6.03	34.51	58.83	58.56	74.00	15.44	Peak
2390.000	28.20	6.03	34.51	53.77	53.50	74.00	20.50	Peak
@ 2404.900	28.22	6.06	34.51	111.39	111.16	---	---	Peak

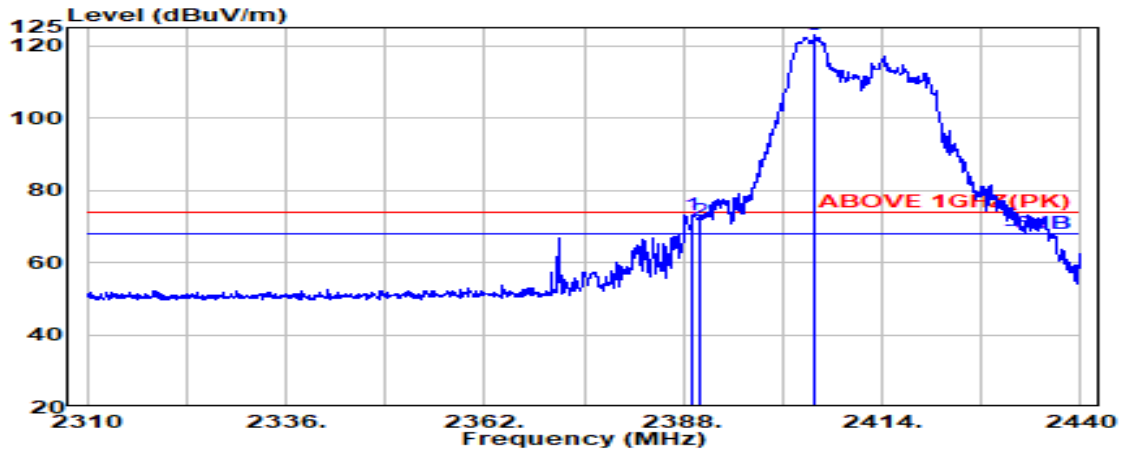


Antenna at Horizontal Polarization

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
2389.100	28.20	6.03	34.51	40.84	40.57	54.00	13.43	Average
2390.000	28.20	6.03	34.51	40.66	40.39	54.00	13.61	Average
@ 2405.000	28.22	6.06	34.51	101.27	101.04	---	---	Average

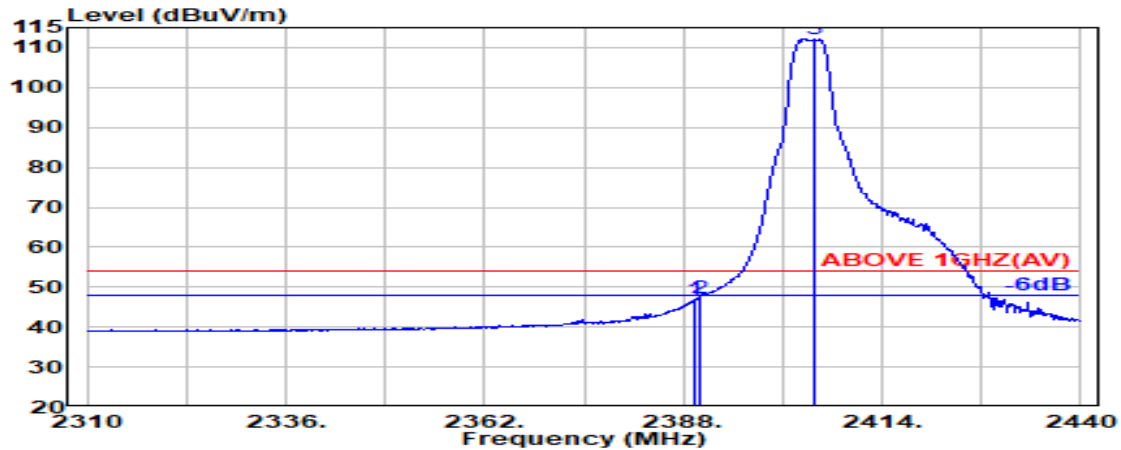
Remark: The “@” means fundamental frequency, it is ignored in this section.

Mode	802.11ax-HE20	Frequency	TX 2412MHz
		RU Configuration	52/37



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
2389.300	28.20	6.03	34.51	73.23	72.96	74.00	1.04	Peak
2390.000	28.20	6.03	34.51	71.75	71.48	74.00	2.52	Peak
@ 2405.100	28.22	6.06	34.51	123.15	122.91	---	---	Peak

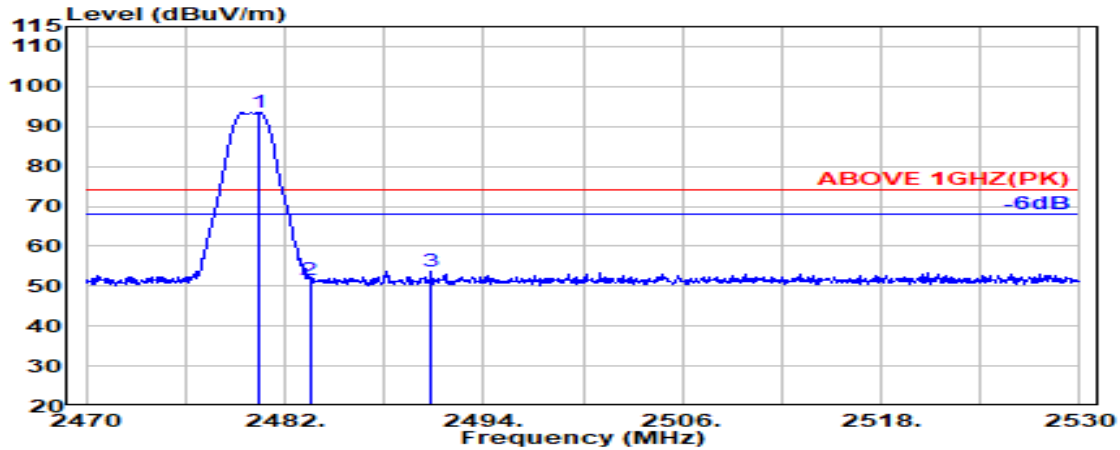


Antenna at Vertical Polarization

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
2389.600	28.20	6.03	34.51	47.21	46.94	54.00	7.06	Average
2390.000	28.20	6.03	34.51	47.58	47.30	54.00	6.70	Average
@ 2405.200	28.22	6.06	34.51	112.48	112.25	---	---	Average

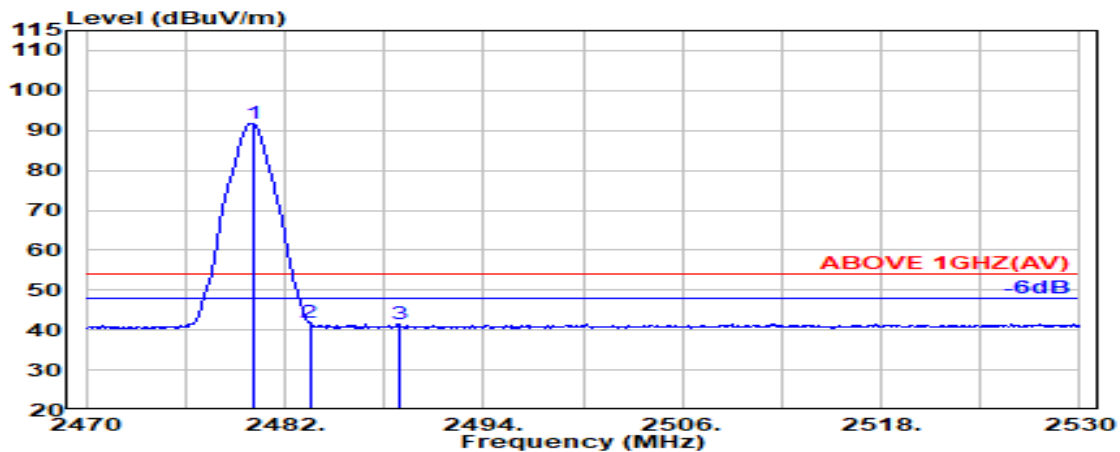
Remark: The “@” means fundamental frequency, it is ignored in this section.

Mode	BLE (2Mbps)	Frequency	TX 2480MHz
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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
@ 2480.450	28.46	6.16	34.53	93.30	93.40	---	---	Peak
2483.500	28.47	6.17	34.53	51.32	51.43	74.00	22.57	Peak
2490.800	28.48	6.18	34.53	53.49	53.62	74.00	20.38	Peak

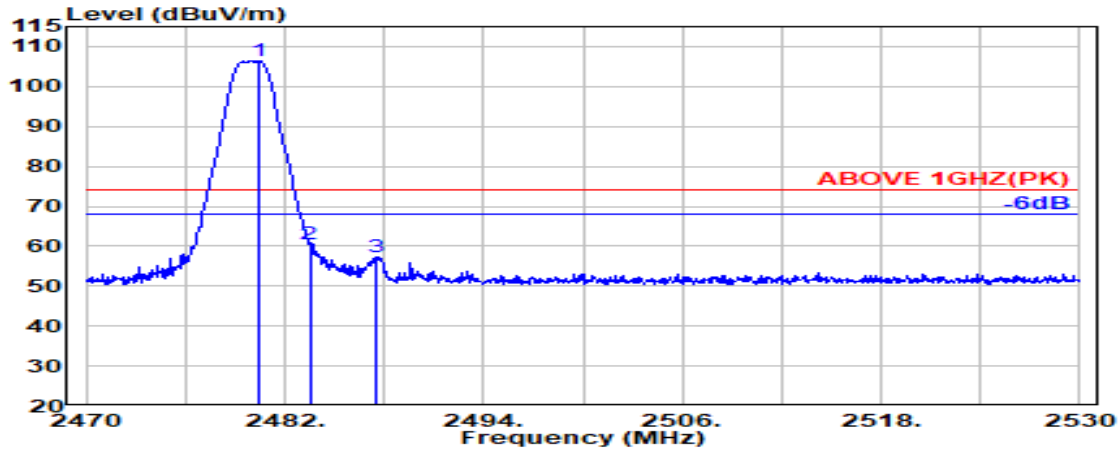


Antenna at Horizontal Polarization

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
@ 2480.050	28.46	6.16	34.53	91.68	91.78	---	---	Average
2483.500	28.47	6.17	34.53	41.62	41.72	54.00	12.28	Average
2488.850	28.48	6.17	34.53	41.33	41.45	54.00	12.55	Average

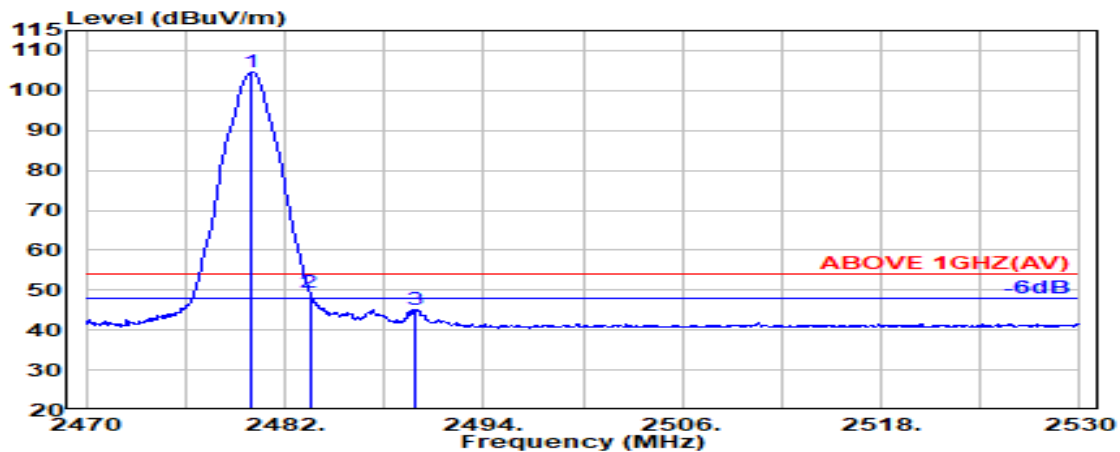
Remark: The “@” means fundamental frequency, it is ignored in this section.

Mode	BLE (2Mbps)	Frequency	TX 2480MHz
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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
@ 2480.450	28.46	6.16	34.53	106.23	106.33	---	---	Peak
2483.500	28.47	6.17	34.53	60.49	60.60	74.00	13.40	Peak
2487.450	28.48	6.17	34.53	57.25	57.37	74.00	16.63	Peak



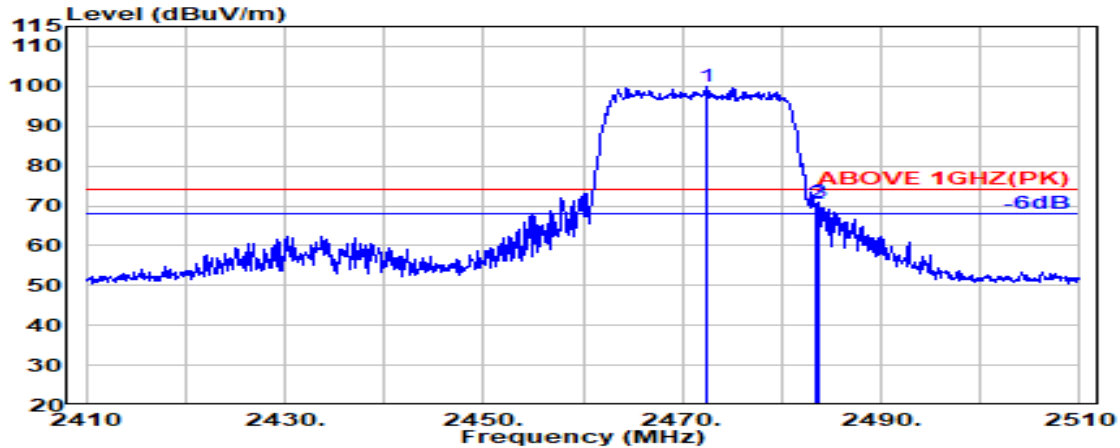
Antenna at Vertical Polarization

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
@ 2480.000	28.46	6.16	34.53	104.60	104.69	---	---	Average
2483.500	28.47	6.17	34.53	49.15	49.26	54.00	4.74	Average
2489.800	28.48	6.18	34.53	45.07	45.20	54.00	8.80	Average

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

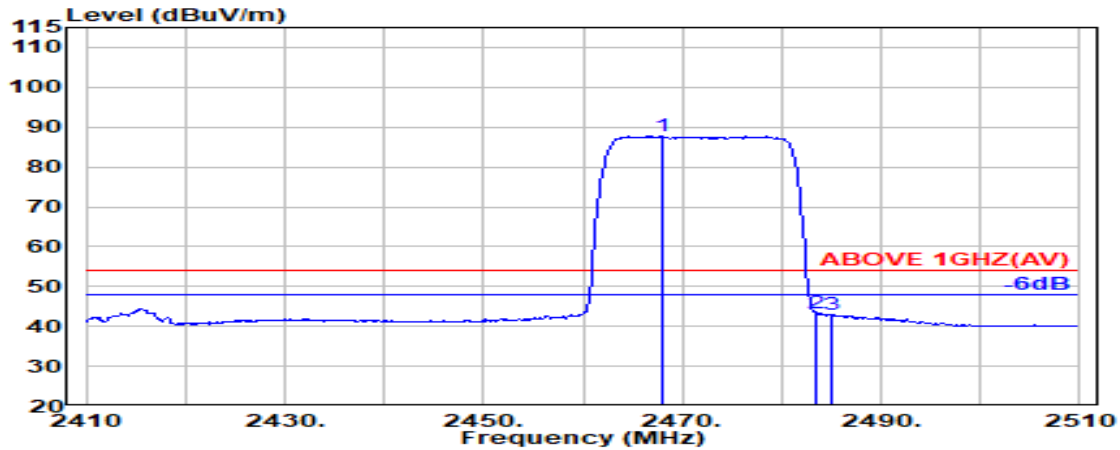
● Test SKU: SKU #2 [with (LUXSHARE-ICT) L1LRF009-CS-H Antenna]

Mode	802.11ax-HE40	Frequency	TX 2462MHz
		RU Configuration	242/62



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
@ 2472.400	28.45	6.15	34.52	99.96	100.04	---	---	Peak
2483.500	28.47	6.17	34.53	70.57	70.68	74.00	3.32	Peak
2483.700	28.47	6.17	34.53	70.92	71.03	74.00	2.97	Peak

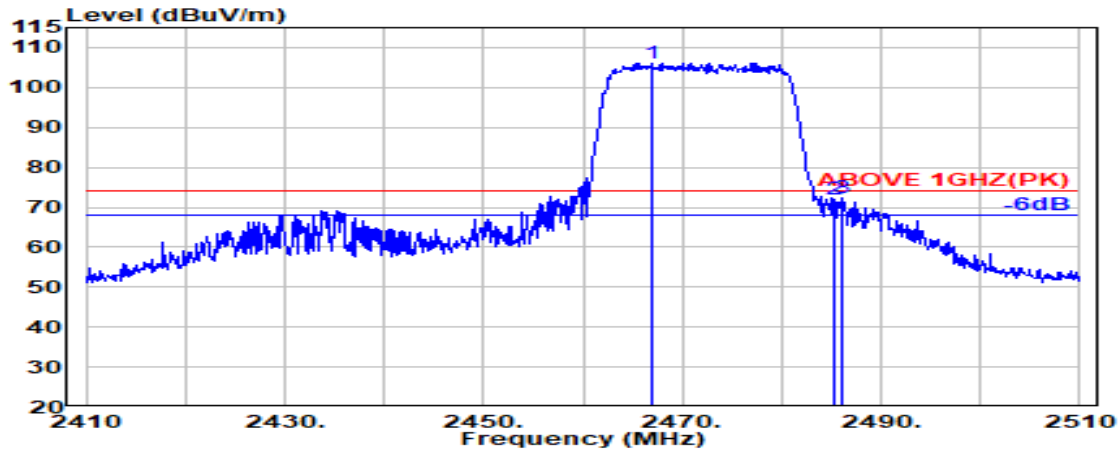


Antenna at Horizontal Polarization

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
@ 2467.900	28.44	6.15	34.52	87.73	87.79	---	---	Average
2483.500	28.47	6.17	34.53	43.11	43.22	54.00	10.78	Average
2485.000	28.47	6.17	34.53	42.90	43.01	54.00	10.99	Average

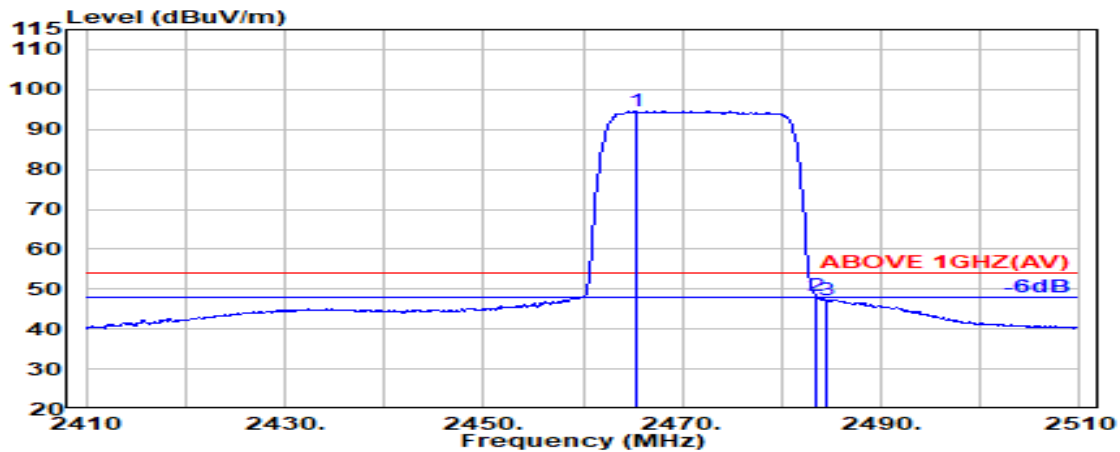
Remark: The “@” means fundamental frequency, it is ignored in this section.

Mode	802.11ax-HE40	Frequency	TX 2462MHz
		RU Configuration	242/62



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
@ 2467.000	28.43	6.14	34.52	106.14	106.20	---	---	Peak
2485.300	28.47	6.17	34.53	71.90	72.01	74.00	1.99	Peak
2486.000	28.47	6.17	34.53	72.18	72.29	74.00	1.71	Peak

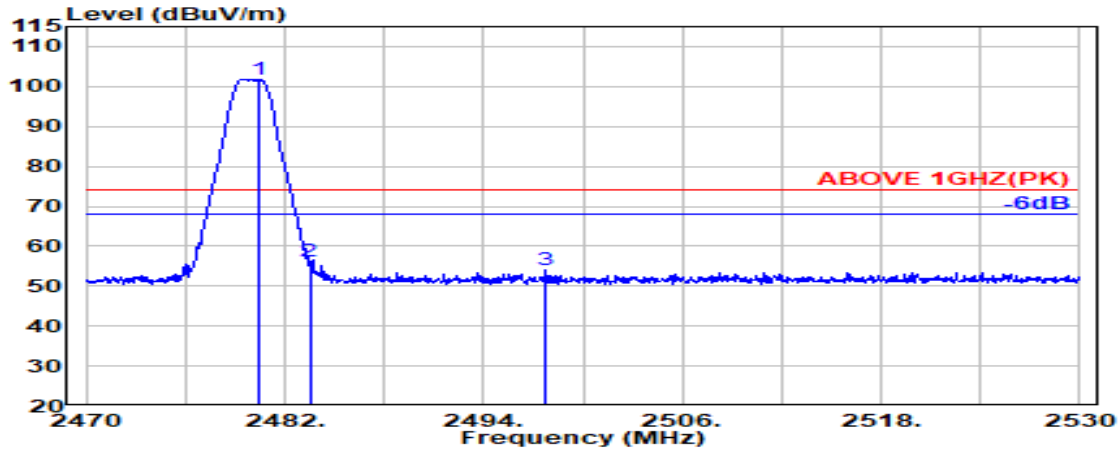


Antenna at Vertical Polarization

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
@ 2465.300	28.43	6.14	34.52	94.53	94.58	---	---	Average
2483.500	28.47	6.17	34.53	48.31	48.42	54.00	5.58	Average
2484.400	28.47	6.17	34.53	47.28	47.39	54.00	6.61	Average

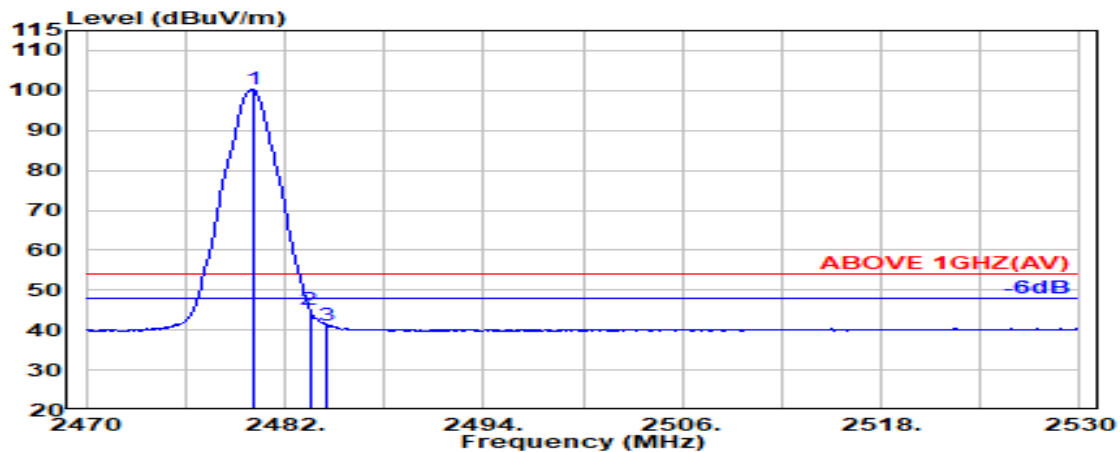
Remark: The “@” means fundamental frequency, it is ignored in this section.

Mode	BLE (2Mbps)	Frequency	TX 2480MHz
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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
@ 2480.500	28.46	6.16	34.53	101.78	101.87	---	---	Peak
2483.500	28.47	6.17	34.53	56.14	56.25	74.00	17.75	Peak
2497.700	28.50	6.19	34.53	53.79	53.95	74.00	20.05	Peak



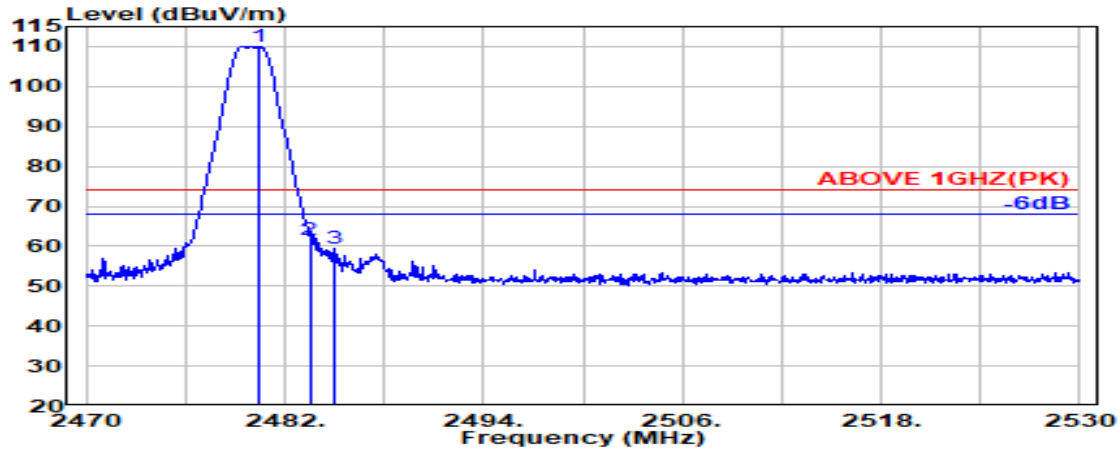
Antenna at Horizontal Polarization

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
@ 2480.050	28.46	6.16	34.53	100.12	100.22	---	---	Average
2483.500	28.47	6.17	34.53	44.89	45.00	54.00	9.00	Average
2484.500	28.47	6.17	34.53	41.21	41.32	54.00	12.68	Average

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

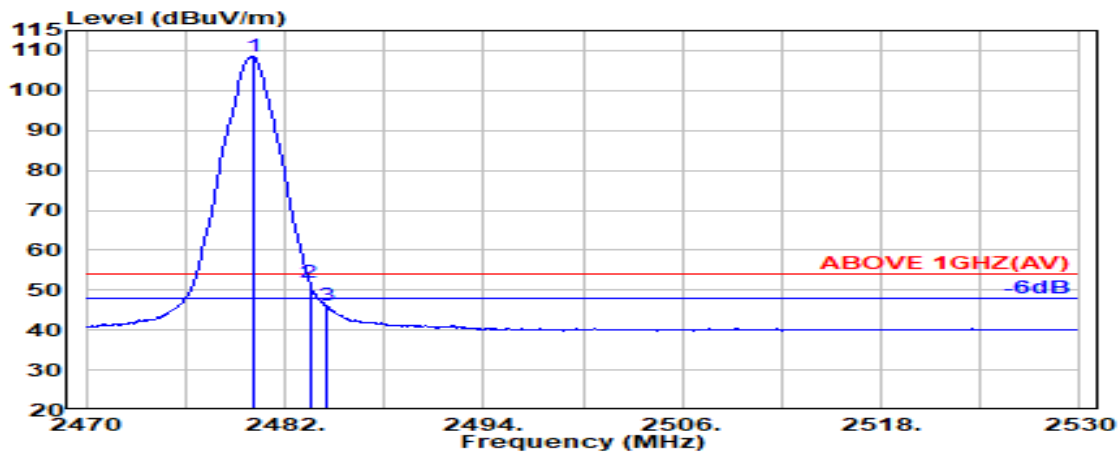


Mode	BLE (2Mbps)	Frequency	TX 2480MHz
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Antenna at Vertical Polarization

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
@ 2480.450	28.46	6.16	34.53	110.03	110.12	---	---	Peak
2483.500	28.47	6.17	34.53	61.52	61.62	74.00	12.38	Peak
2485.050	28.47	6.17	34.53	59.32	59.44	74.00	14.56	Peak



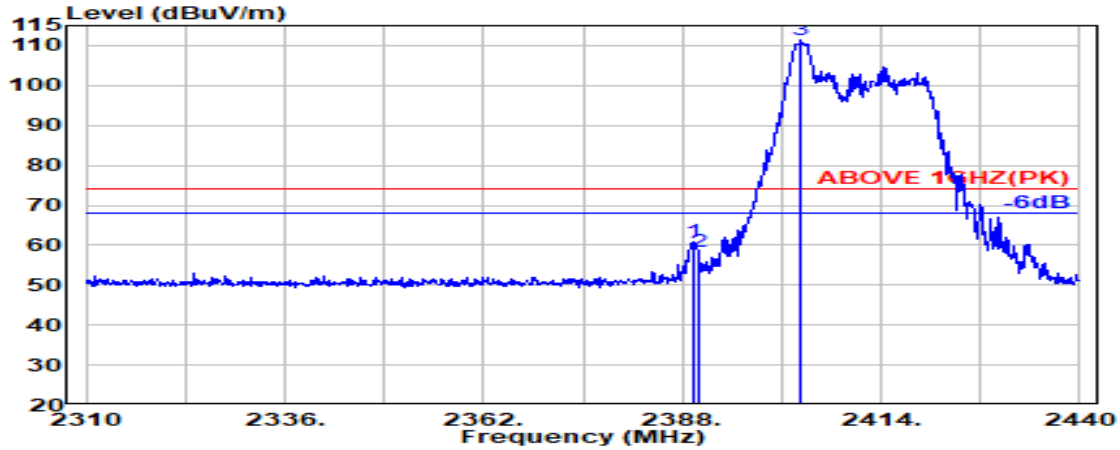
Antenna at Vertical Polarization

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
@ 2480.100	28.46	6.16	34.53	108.36	108.45	---	---	Average
2483.500	28.47	6.17	34.53	51.75	51.85	54.00	2.15	Average
2484.500	28.47	6.17	34.53	45.91	46.02	54.00	7.98	Average

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

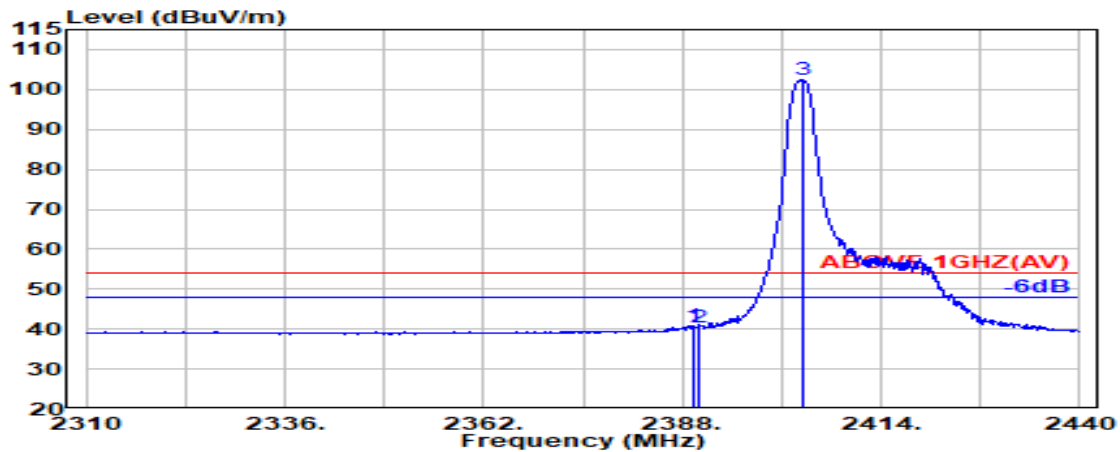
● Test SKU: SKU #3 [with (INPAQ) WA-P-LBLB-04-108 Antenna]

Mode	802.11ax-HE20	Frequency	TX 2412MHz
		RU Configuration	26/0



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
2389.400	28.30	6.03	34.51	60.97	60.80	74.00	13.20	Peak
2390.000	28.30	6.03	34.51	58.64	58.46	74.00	15.54	Peak
@ 2403.500	28.31	6.05	34.51	111.52	111.37	---	---	Peak

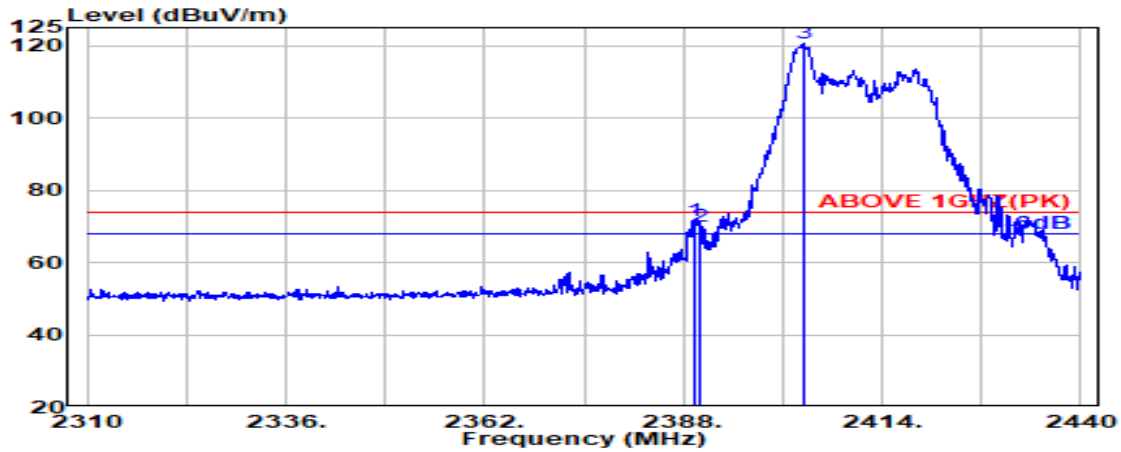


Antenna at Horizontal Polarization

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
2389.400	28.30	6.03	34.51	41.10	40.92	54.00	13.08	Average
2390.000	28.30	6.03	34.51	40.46	40.29	54.00	13.71	Average
@ 2403.900	28.31	6.05	34.51	102.47	102.32	---	---	Average

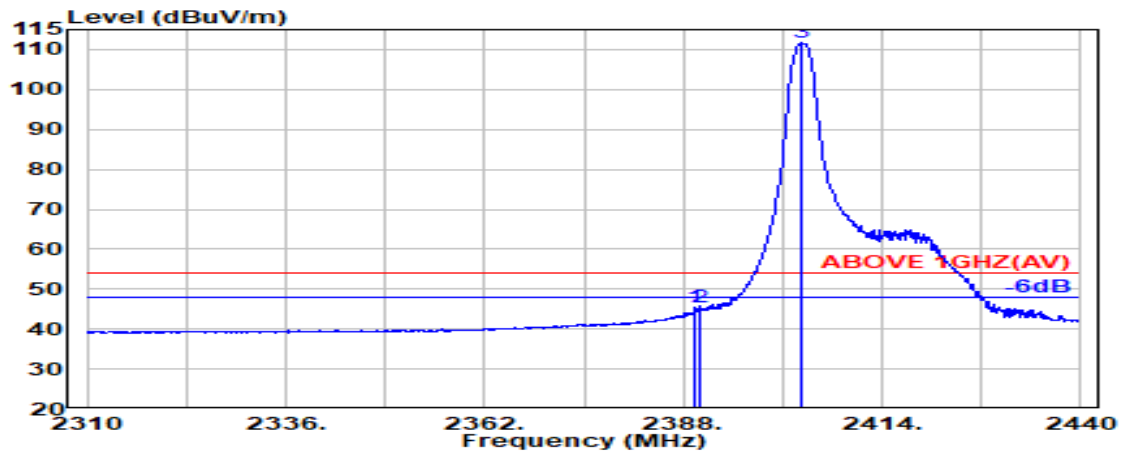
Remark: The “@” means fundamental frequency, it is ignored in this section.

Mode	802.11ax-HE20	Frequency	TX 2412MHz
		RU Configuration	26/0



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
2389.400	28.30	6.03	34.51	71.57	71.39	74.00	2.61	Peak
2390.000	28.30	6.03	34.51	70.23	70.06	74.00	3.94	Peak
@ 2403.700	28.31	6.05	34.51	120.67	120.52	---	---	Peak

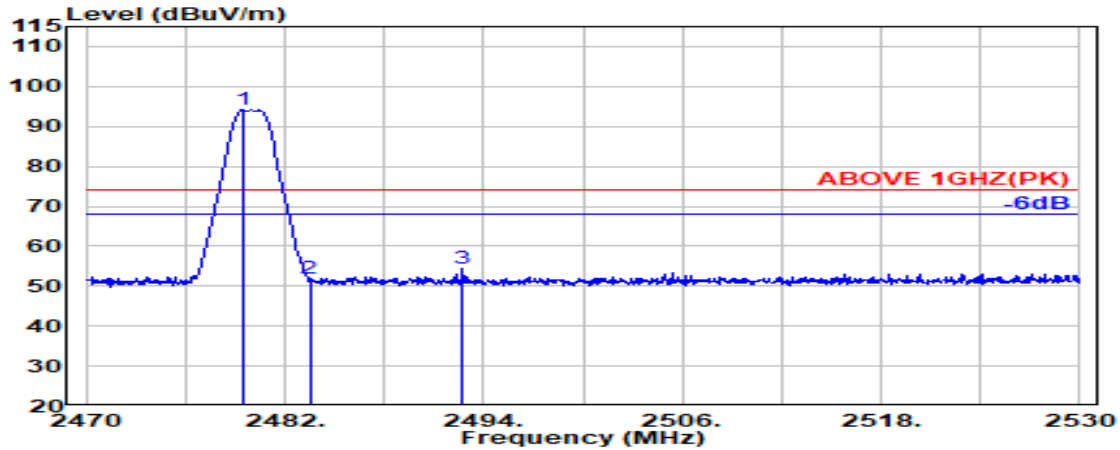


Antenna at Vertical Polarization

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
2389.500	28.30	6.03	34.51	45.57	45.40	54.00	8.60	Average
2390.000	28.30	6.03	34.51	45.69	45.52	54.00	8.48	Average
@ 2403.600	28.31	6.05	34.51	111.77	111.62	---	---	Average

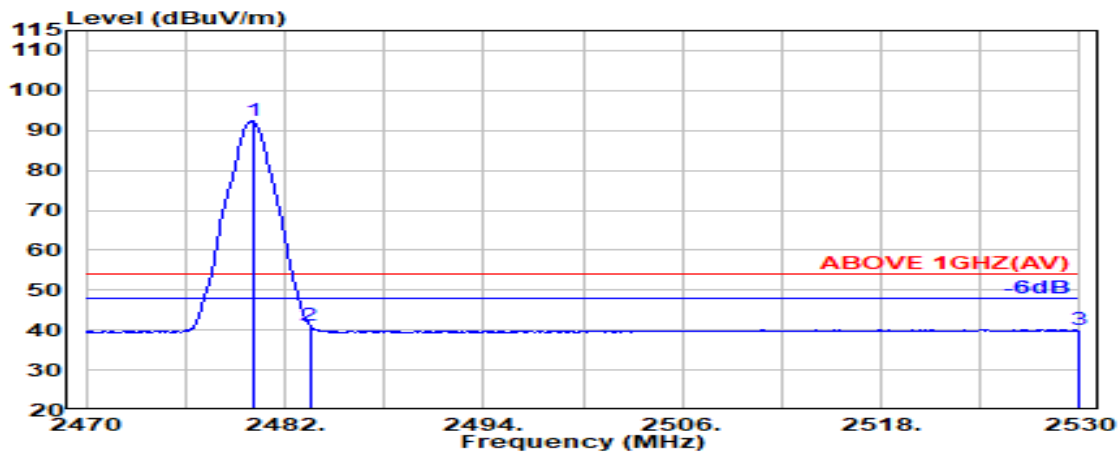
Remark: The “@” means fundamental frequency, it is ignored in this section.

Mode	BLE (2Mbps)	Frequency	TX 2480MHz
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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
@ 2479.450	28.46	6.16	34.53	93.96	94.06	---	---	Peak
2483.500	28.47	6.17	34.53	51.94	52.05	74.00	21.95	Peak
2492.700	28.49	6.18	34.53	54.27	54.41	74.00	19.59	Peak

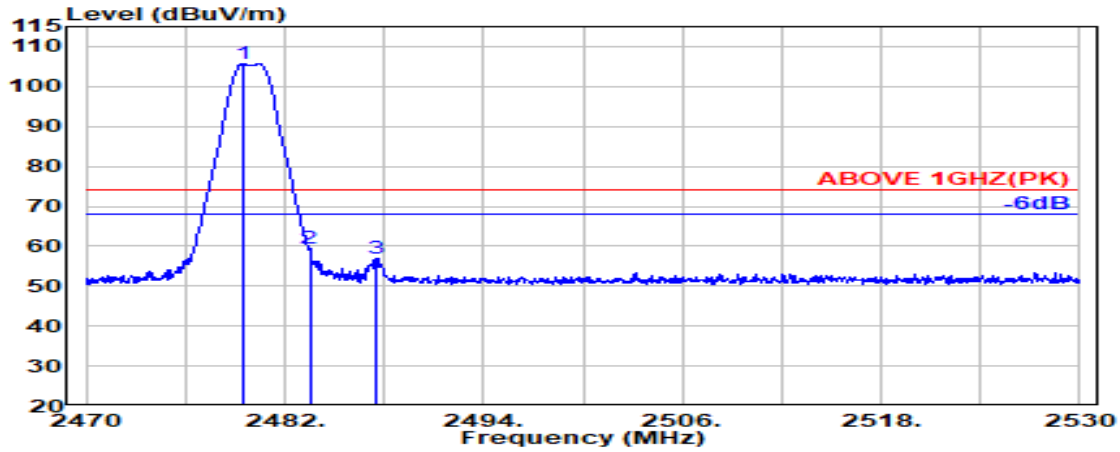


Antenna at Horizontal Polarization

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
@ 2480.050	28.46	6.16	34.53	92.31	92.40	---	---	Average
2483.500	28.47	6.17	34.53	41.10	41.21	54.00	12.79	Average
2530.000	28.50	6.23	34.54	39.92	40.10	54.00	13.90	Average

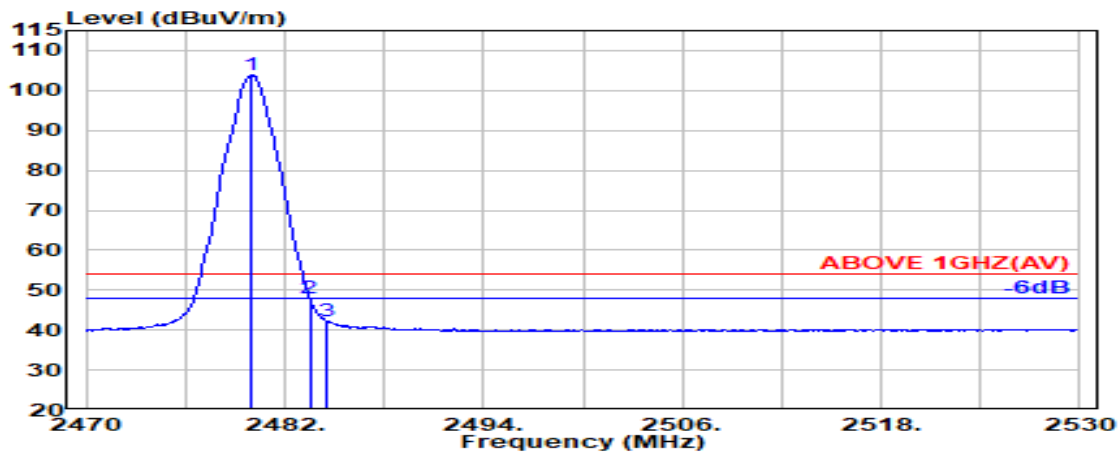
Remark: The “@” means fundamental frequency, it is ignored in this section.

Mode	BLE (2Mbps)	Frequency	TX 2480MHz
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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
@ 2479.450	28.46	6.16	34.53	105.57	105.67	---	---	Peak
2483.500	28.47	6.17	34.53	59.40	59.51	74.00	14.49	Peak
2487.450	28.48	6.17	34.53	56.84	56.96	74.00	17.04	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
@ 2479.950	28.46	6.16	34.53	103.83	103.92	---	---	Average
2483.500	28.47	6.17	34.53	47.80	47.91	54.00	6.09	Average
2484.500	28.47	6.17	34.53	42.10	42.21	54.00	11.79	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	802.11g	Frequency	TX 2442MHz
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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
4884.000	33.44	8.38	34.42	36.32	43.71	54.00	10.29	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
4884.000	33.44	8.38	34.42	37.01	44.41	54.00	9.59	Peak

Mode	BLE (2Mbps)	Frequency	TX 2440MHz
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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
4880.000	33.42	8.37	34.42	36.43	43.80	54.00	10.20	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
4880.000	33.42	8.37	34.42	36.70	44.08	54.00	9.92	Peak

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

Mode	802.11b	Frequency	TX 2442MHz
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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
4884.000	33.17	8.38	34.42	37.12	44.25	54.00	9.75	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
4884.000	33.17	8.38	34.42	36.71	43.83	54.00	10.17	Peak

Mode	BLE (2Mbps)	Frequency	TX 2402MHz
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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
4804.000	32.92	8.32	34.43	39.12	45.92	54.00	8.08	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
4804.000	32.92	8.32	34.43	36.36	43.17	54.00	10.83	Peak

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

Mode	802.11n-HT20				Frequency	TX 2442MHz		
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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
4884.000	33.17	8.38	34.42	37.23	44.36	54.00	9.64	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
4884.000	33.17	8.38	34.42	36.21	43.34	54.00	10.66	Peak

Mode	BLE (2Mbps)				Frequency	TX 2480MHz		
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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
4960.000	33.24	8.42	34.41	37.03	44.29	54.00	9.71	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
4960.000	33.24	8.42	34.41	37.48	44.74	54.00	9.26	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 PEAK 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 Peak 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)	Peak Output Power (dBm)		Max. Peak Output Power (dBm)
		Aux	Main	
802.11b	2412	23.20	23.02	23.20
	2442	23.09	23.19	23.19
	2462	23.12	22.92	23.12
	2467	22.48	21.94	22.48
	2472	20.44	19.29	20.44
802.11g	2412	21.21	20.95	21.21
	2417	22.81	23.10	23.10
	2442	23.86	23.60	23.86
	2457	23.00	22.54	23.00
	2462	21.11	21.04	21.11
	2467	19.06	18.79	19.06
	2472	16.83	16.57	16.83

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

2. We did spot check for output power and all output power values keep identical or lower 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)	Peak Output Power (dBm)		Total Peak Output Power (dBm)
		Aux	Main	
802.11n-HT20	2412	18.64	19.35	22.02
	2417	21.10	21.34	24.23
	2422	22.32	22.53	25.44
	2442	23.23	23.48	26.37
	2457	22.13	22.35	25.25
	2462	19.00	19.36	22.19
	2467	15.24	15.50	18.38
802.11n-HT40	2422	19.85	20.19	23.03
	2442	20.51	21.29	23.93
	2452	20.10	20.40	23.26
	2457	14.98	15.59	18.31
	2462	11.88	11.96	14.93
802.11ax-HE20	2412	19.11	19.20	22.17
	2417	21.29	21.49	24.40
	2422	22.77	22.38	25.59
	2442	23.60	23.80	26.71
	2457	22.40	22.43	25.43
	2462	19.53	19.46	22.51
	2467	15.48	15.51	18.51
802.11ax-HE40	2422	19.76	19.80	22.79
	2442	20.74	21.10	23.93
	2452	19.48	19.96	22.74
	2457	14.82	15.16	18.00
	2462	12.20	11.95	15.09

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

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

Mode	Centre Frequency (MHz)	RU Configuration	Peak Output Power (dBm)		Total Peak Output Power (dBm)
			Aux	Main	
802.11ax-HE20	2412	26/0	22.13	22.22	25.19
		52/37	22.27	22.37	25.33
		106/53	22.08	22.06	25.08
	2472	26/8	18.54	18.70	21.63
		52/40	18.99	18.66	21.84
		106/54	18.95	18.67	21.82
802.11ax-HE40	2422	242/61	19.40	19.48	22.45
	2462	242/62	17.49	17.69	20.60

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

2. We did spot check for output power and all output power values keep identical or lower 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)	Max. Peak Output Power (dBm)
BLE (1M)	2402	5.31
	2440	5.77
	2480	6.13
BLE (2M)	2402	5.39
	2440	5.96
	2480	6.15
BLE (PHY Coded S2)	2402	5.36
	2440	5.86
	2480	6.00
BLE (PHY Coded S8)	2402	5.41
	2440	5.83
	2480	6.11

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

2. 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)	Peak Output Power (dBm)		Max. Peak Output Power (dBm)
		Aux	Main	
802.11b	2412	22.08	21.99	22.08
	2442	22.12	21.98	22.12
	2462	21.84	21.78	21.84
	2467	20.37	19.16	20.37
	2472	21.12	20.97	21.12
802.11g	2412	21.23	21.13	21.23
	2417	22.34	22.64	22.64
	2442	22.68	22.37	22.68
	2457	22.26	22.21	22.26
	2462	20.97	21.05	21.05
	2467	18.92	18.63	18.92
	2472	16.65	16.44	16.65

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

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

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

Mode	Centre Frequency (MHz)	Peak Output Power (dBm)		Total Peak Output Power (dBm)
		Aux	Main	
802.11n-HT20	2412	18.55	19.16	21.88
	2417	20.86	21.21	24.05
	2422	22.27	22.47	25.38
	2442	22.29	22.17	25.24
	2457	22.27	22.32	25.31
	2462	18.99	19.21	22.11
	2467	15.08	15.36	18.23
802.11n-HT40	2472	10.93	10.84	13.90
	2422	19.68	20.12	22.92
	2442	20.30	21.18	23.77
	2452	19.84	20.22	23.04
	2457	14.99	15.42	18.22
802.11ax-HE20	2462	11.74	11.82	14.79
	2412	19.00	19.14	22.08
	2417	21.06	21.40	24.24
	2422	22.49	22.60	25.56
	2442	22.38	22.43	25.42
	2457	22.36	22.37	25.38
	2462	19.33	19.32	22.34
802.11ax-HE40	2467	15.45	15.33	18.40
	2472	11.15	11.20	14.19
	2422	19.72	19.63	22.69
	2442	20.58	20.89	23.75
	2452	19.25	19.79	22.54
802.11ax-HE40	2457	14.74	15.00	17.88
	2462	11.95	11.89	14.93

Note: 1. The results have been included cable loss.  
 2. We did spot check for output power and all output power values keep identical or lower thus other conducted items is exempt.

Mode	Centre Frequency (MHz)	RU Configuration	Peak Output Power (dBm)		Total Peak Output Power (dBm)
			Aux	Main	
802.11ax-HE20	2412	26/0	22.04	22.27	25.17
		52/37	22.34	22.28	25.32
		106/53	22.06	22.01	25.05
	2472	26/8	18.36	18.47	21.43
		52/40	18.71	18.66	21.70
		106/54	18.63	18.57	21.61
802.11ax-HE40	2422	242/61	19.35	19.28	22.33
	2462	242/62	17.32	17.57	20.46

Note: 1. The results have been included cable loss.  
 2. We did spot check for output power and all output power values keep identical or lower thus other conducted items is exempt.

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

Mode	Centre Frequency (MHz)	Max. Peak Output Power (dBm)
BLE (1M)	2402	5.23
	2440	5.69
	2480	6.02
BLE (2M)	2402	5.38
	2440	5.85
	2480	6.13
BLE (PHY Coded S2)	2402	5.29
	2440	5.77
	2480	5.99
BLE (PHY Coded S8)	2402	5.36
	2440	5.76
	2480	6.12

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

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

● **Original Peak Output Power (FCC ID: BEJNT-17Z90R & IC: 2703H-17Z90R)**

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

Mode	Centre Frequency (MHz)	Peak Output Power (dBm)		Max Peak Output Power (dBm)	Antenna Gain (dBi)		E.I.R.P (dBm) <sup>Note 2</sup>	Limit
		Aux	Main		Aux	Main		
802.11b	2412	23.390	23.170	23.390	1.10	2.20	25.370	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2442	23.360	23.290	23.360	1.60	3.00	26.290	
	2462	23.220	23.160	23.220	1.60	3.00	26.160	
	2467	22.670	22.210	22.670	1.60	3.00	25.210	
	2472	20.650	19.560	20.650	1.60	3.00	22.560	
802.11g	2412	21.490	21.240	21.490	1.10	2.20	23.440	
	2417	23.110	23.400	23.400	1.10	2.20	25.600	
	2442	24.040	23.870	24.040	1.60	3.00	26.870	
	2457	23.130	22.840	23.130	1.60	3.00	25.840	
	2462	21.380	21.340	21.380	1.60	3.00	24.340	
	2467	19.300	18.990	19.300	1.60	3.00	21.990	
	2472	17.050	16.770	17.050	1.60	3.00	19.770	

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

2. E.I.R.P.= The Max. of Peak Output Power (AUX or Main)(dBm)+ Antenna Gain (dBi).

Mode	Centre Frequency (MHz)	Peak Output Power (dBm)		Total Peak Output Power <sup>Note2</sup> (dBm)	Directional Gain <sup>Note3</sup> (dBi)	E.I.R.P <sup>Note4</sup> (dBm)	Limit
		Aux	Main				
802.11n-HT20	2412	18.900	19.490	22.215	1.68	23.895	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2417	21.250	21.520	24.397	1.68	26.077	
	2422	22.610	22.640	25.635	1.68	27.315	
	2442	23.460	23.660	26.571	2.36	28.931	
	2457	22.400	22.640	25.532	2.36	27.892	
	2462	19.300	19.600	22.463	2.36	24.823	
	2467	15.490	15.720	18.617	2.36	20.977	
802.11n-HT40	2472	11.400	11.280	14.351	2.36	16.711	
	2422	19.980	20.390	23.200	1.68	24.880	
	2442	20.740	21.520	24.158	2.36	26.518	
	2452	20.200	20.610	23.420	2.36	25.780	
	2457	15.250	15.740	18.512	2.36	20.872	
802.11ax-HE20	2462	12.030	12.190	15.121	2.36	17.481	
	2412	19.270	19.490	22.392	1.68	24.072	
	2417	21.510	21.760	24.647	1.68	26.327	
	2422	22.930	22.660	25.807	1.68	27.487	
	2442	23.800	24.030	26.927	2.36	29.287	
	2457	22.650	22.710	25.690	2.36	28.050	
	2462	19.740	19.690	22.725	2.36	25.085	
802.11ax-HE40	2467	15.780	15.630	18.716	2.36	21.076	
	2472	11.510	11.430	14.480	2.36	16.840	
	2422	20.050	20.030	23.050	1.68	24.730	
	2442	20.960	21.200	24.092	2.36	26.452	
	2452	19.720	20.140	22.945	2.36	25.305	
802.11ax-HE40	2457	15.010	15.400	18.220	2.36	20.580	
	2462	12.320	12.170	15.256	2.36	17.616	

- Note: 1. The results have been included cable loss.  
 2. According to KDB 662911 D01 E)1), Total peak power = sum to individual output power  
 3. According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then  
 Directional gain =  $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/N_{ANT}]$  dBi  
 2400MHz: Directional gain =  $10 \log[(10^{1.10/10} + 10^{2.20/10})/2]$ = 1.68dBi  
 2450MHz: Directional gain =  $10 \log[(10^{1.60/10} + 10^{3.00/10})/2]$ = 2.36dBi  
 The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).  
 4. E.I.R.P.= The Total Peak Output Power (dBm)+ Directional Gain (dBi).



Mode	Centre Frequency (MHz)	RU Configuration	Peak Output Power (dBm)		Total Peak Output Power Note 2 (dBm)	Directional Gain Note 3 (dBi)	E.I.R.P Note 4 (dBm)	Limit
			Aux	Main				
802.11ax-HE20	2412	26/30	22.260	22.330	25.305	1.68	26.985	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
		52/37	22.490	22.580	25.546	1.68	27.226	
		106/53	22.180	22.190	25.195	1.68	26.875	
	2472	26/8	18.720	18.830	21.786	2.36	24.146	
		52/40	19.080	18.940	22.021	2.36	24.381	
		106/54	19.080	18.920	22.011	2.36	24.371	
802.11ax-HE40	2422	242/61	19.570	19.580	22.585	1.68	24.265	
	2462	242/62	17.700	17.810	20.766	2.36	23.126	

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

2. According to KDB 662911 D01 E)1), Total peak power = sum to individual output power

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

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

$$2400\text{MHz: Directional gain} = 10 \log[(10^{1.10/10} + 10^{2.20/10})/2] = 1.68\text{dBi}$$

$$2450\text{MHz: Directional gain} = 10 \log[(10^{1.60/10} + 10^{3.00/10})/2] = 2.36\text{dBi}$$

The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

4. E.I.R.P.= The Total Peak Output Power (dBm)+ Directional Gain (dBi).

Mode	Centre Frequency (MHz)	Peak Output Power (dBm)		Antenna Gain (dBi)	E.I.R.P (dBm) Note 2	Limit
		Aux	Aux			
BLE (1Mbps)	2402	5.360	1.60	6.960	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)	
	2440	5.830	1.60	7.430		
	2480	6.180	1.60	7.780		
BLE (2Mbps)	2402	5.460	1.60	7.060		
	2440	6.000	1.60	7.600		
	2480	6.200	1.60	7.800		
BLE (PHY Coded S2)	2402	6.090	1.60	7.690		
	2440	5.880	1.60	7.480		
	2480	5.450	1.60	7.050		
BLE (PHY Coded S8)	2402	5.470	1.60	7.070		
	2440	5.870	1.60	7.470		
	2480	6.170	1.60	7.770		

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

2. E.I.R.P.= The Peak Output Power (dBm)+ Antenna Gain (dBi).

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

Mode	Centre Frequency (MHz)	Peak Output Power (dBm)		Max Peak Output Power (dBm)	Antenna Gain (dBi)		E.I.R.P (dBm) <sup>Note 2</sup>	Limit
		Aux	Main		Aux	Main		
802.11b	2412	23.390	23.170	23.390	2.89	-1.45	26.276	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2442	23.360	23.290	23.360	-0.07	0.26	23.555	
	2462	23.220	23.160	23.220	-0.07	0.26	23.425	
	2467	22.670	22.210	22.670	-0.07	0.26	22.603	
	2472	20.650	19.560	20.650	-0.07	0.26	20.583	
802.11g	2412	21.490	21.240	21.490	2.89	-1.45	24.376	
	2417	23.110	23.400	23.400	2.89	-1.45	25.996	
	2442	24.040	23.870	24.040	-0.07	0.26	24.135	
	2457	23.130	22.840	23.130	-0.07	0.26	23.105	
	2462	21.380	21.340	21.380	-0.07	0.26	21.605	
	2467	19.300	18.990	19.300	-0.07	0.26	19.255	
	2472	17.050	16.770	17.050	-0.07	0.26	17.035	

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

2. E.I.R.P.= The Max. of Peak Output Power (AUX or Main)(dBm)+ Antenna Gain (dBi).

Mode	Centre Frequency (MHz)	Peak Output Power (dBm)		Total Peak Output Power Note2 (dBm)	Directional Gain Note3 (dBi)	E.I.R.P <sup>Note4</sup> (dBm)	Limit
		Aux	Main				
802.11n-HT20	2412	18.900	19.490	22.215	1.24	23.455	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2417	21.250	21.520	24.397	1.24	25.637	
	2422	22.610	22.640	25.635	1.24	26.875	
	2442	23.460	23.660	26.571	0.10	26.671	
	2457	22.400	22.640	25.532	0.10	25.632	
	2462	19.300	19.600	22.463	0.10	22.563	
	2467	15.490	15.720	18.617	0.10	18.717	
802.11n-HT40	2472	11.400	11.280	14.351	0.10	14.451	
	2422	19.980	20.390	23.200	1.24	24.440	
	2442	20.740	21.520	24.158	0.10	24.258	
	2452	20.200	20.610	23.420	0.10	23.520	
	2457	15.250	15.740	18.512	0.10	18.612	
802.11ax-HE20	2462	12.030	12.190	15.121	0.10	15.221	
	2412	19.270	19.490	22.392	1.24	23.632	
	2417	21.510	21.760	24.647	1.24	25.887	
	2422	22.930	22.660	25.807	1.24	27.047	
	2442	23.800	24.030	26.927	0.10	27.027	
	2457	22.650	22.710	25.690	0.10	25.790	
	2462	19.740	19.690	22.725	0.10	22.825	
	2467	15.780	15.630	18.716	0.10	18.816	
802.11ax-HE40	2472	11.510	11.430	14.480	0.10	14.580	
	2422	20.050	20.030	23.050	1.24	24.290	
	2442	20.960	21.200	24.092	0.10	24.192	
	2452	19.720	20.140	22.945	0.10	23.045	
	2457	15.010	15.400	18.220	0.10	18.320	
	2462	12.320	12.170	15.256	0.10	15.356	

- Note: 1. The results have been included cable loss.  
 2. According to KDB 662911 D01 E)1), Total peak power = sum to individual output power  
 3. According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then  
 Directional gain =  $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/N_{ANT}]$  dBi  
 2400MHz: Directional gain =  $10 \log[(10^{2.89/10} + 10^{-1.45/10})/2]$  = 1.24dBi  
 2450MHz: Directional gain =  $10 \log[(10^{-0.07/10} + 10^{0.26/10})/2]$  = 0.10dBi  
 The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).  
 4. E.I.R.P.= The Total Peak Output Power (dBm)+ Directional Gain (dBi).

Mode	Centre Frequency (MHz)	RU Configuration	Peak Output Power (dBm)		Total Peak Output Power Note 2 (dBm)	Directional Gain Note 3 (dBi)	E.I.R.P>Note 4 (dBm)	Limit
			Aux	Main				
802.11ax-HE20	2412	26/30	22.260	22.330	25.305	1.24	26.545	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
		52/37	22.490	22.580	25.546	1.24	26.786	
		106/53	22.180	22.190	25.195	1.24	26.435	
	2472	26/8	18.720	18.830	21.786	0.10	21.886	
		52/40	19.080	18.940	22.021	0.10	22.121	
		106/54	19.080	18.920	22.011	0.10	22.111	
802.11ax-HE40	2422	242/61	19.570	19.580	22.585	1.24	23.825	
	2462	242/62	17.700	17.810	20.766	0.10	20.866	

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

2. According to KDB 662911 D01 E)1), Total peak power = sum to individual output power

3. According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then  
 Directional gain =  $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/N_{ANT}]$  dBi

2400MHz: Directional gain =  $10 \log[(10^{2.89/10} + 10^{-1.45/10})/2] = 1.24$  dBi

2450MHz: Directional gain =  $10 \log[(10^{-0.07/10} + 10^{0.26/10})/2] = 0.10$  dBi

The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

4. E.I.R.P.= The Total Peak Output Power (dBm)+ Directional Gain (dBi).

Mode	Centre Frequency (MHz)	Peak Output Power (dBm)		Antenna Gain (dBi)	E.I.R.P (dBm) Note 2	Limit
		Aux	Aux			
BLE (1Mbps)	2402	5.360	2.89	8.250	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)	
	2440	5.830	2.89	8.720		
	2480	6.180	2.89	9.070		
BLE (2Mbps)	2402	5.460	2.89	8.350		
	2440	6.000	2.89	8.890		
	2480	6.200	2.89	9.090		
BLE (PHY Coded S2)	2402	6.090	2.89	8.980		
	2440	5.880	2.89	8.770		
	2480	5.450	2.89	8.340		
BLE (PHY Coded S8)	2402	5.470	2.89	8.360		
	2440	5.870	2.89	8.760		
	2480	6.170	2.89	9.060		

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

2. E.I.R.P.= The Peak Output Power (dBm)+ Antenna Gain (dBi).

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

Mode	Centre Frequency (MHz)	Peak Output Power (dBm)		Max Peak Output Power (dBm)	Antenna Gain (dBi)		E.I.R.P (dBm) <sup>Note 2</sup>	Limit
		Aux	Main		Aux	Main		
802.11b	2412	22.20	22.22	22.22	2.90	3.10	25.320	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2442	22.23	22.20	22.23	2.90	3.10	25.300	
	2462	22.11	22.07	22.11	2.90	3.10	25.170	
	2467	20.53	19.42	20.53	2.90	3.10	23.430	
	2472	21.39	21.12	21.39	2.90	3.10	24.290	
802.11g	2412	21.49	21.24	21.49	2.90	3.10	24.390	
	2417	22.60	22.77	22.77	2.90	3.10	25.870	
	2442	22.82	22.65	22.82	2.90	3.10	25.750	
	2457	22.52	22.40	22.52	2.90	3.10	25.500	
	2462	21.18	21.24	21.24	2.90	3.10	24.340	
	2467	19.19	18.82	19.19	2.90	3.10	22.090	
	2472	16.87	16.63	16.87	2.90	3.10	19.770	

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

2. E.I.R.P.= The Max. of Peak Output Power (AUX or Main)(dBm)+ Antenna Gain (dBi).

Mode	Centre Frequency (MHz)	Peak Output Power (dBm)		Total Peak Output Power <sup>Note2</sup> (dBm)	Directional Gain <sup>Note3</sup> (dBi)	E.I.R.P <sup>Note4</sup> (dBm)	Limit
		Aux	Main				
802.11n-HT20	2412	18.70	19.35	22.05	3.00	25.050	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2417	21.14	21.40	24.28	3.00	27.280	
	2422	22.55	22.61	25.59	3.00	28.590	
	2442	22.39	22.45	25.43	3.00	28.430	
	2457	22.42	22.43	25.44	3.00	28.440	
	2462	19.13	19.45	22.30	3.00	25.300	
	2467	15.29	15.54	18.43	3.00	21.430	
2472	11.22	11.13	14.19	3.00	17.190		
802.11n-HT40	2422	19.83	20.27	23.07	3.00	26.070	
	2442	20.59	21.39	24.02	3.00	27.020	
	2452	20.08	20.47	23.29	3.00	26.290	
	2457	15.11	15.63	18.39	3.00	21.390	
2462	11.87	11.99	14.94	3.00	17.940		
802.11ax-HE20	2412	19.12	19.34	22.24	3.00	25.240	
	2417	21.36	21.58	24.48	3.00	27.480	
	2422	22.66	22.72	25.70	3.00	28.700	
	2442	22.60	22.58	25.60	3.00	28.600	
	2457	22.59	22.56	25.59	3.00	28.590	
	2462	19.62	19.56	22.60	3.00	25.600	
	2467	15.62	15.45	18.55	3.00	21.550	
2472	11.31	11.31	14.32	3.00	17.320		
802.11ax-HE40	2422	19.90	19.91	22.92	3.00	25.920	
	2442	20.82	21.07	23.96	3.00	26.960	
	2452	19.54	19.99	22.78	3.00	25.780	
	2457	14.89	15.29	18.10	3.00	21.100	
	2462	12.14	12.01	15.09	3.00	18.090	

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

2. According to KDB 662911 D01 E)1), Total peak power = sum to individual output power

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

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

$$2400\text{-}2500\text{MHz: Directional gain} = 10 \log[(10^{2.90/10} + 10^{3.10/10})/2] = 3.00\text{dBi}$$

The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

4. E.I.R.P.= The Total Peak Output Power (dBm)+ Directional Gain (dBi).

Mode	Centre Frequency (MHz)	RU Configuration	Peak Output Power (dBm)		Total Peak Output Power Note2 (dBm)	Directional Gain Note3 (dBi)	E.I.R.P <sup>Note4</sup> (dBm)	Limit
			Aux	Main				
802.11ax-HE20	2412	26/0	22.31	22.37	25.35	3.00	28.350	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
		52/37	22.46	22.53	25.51	3.00	28.510	
		106/53	22.19	22.16	25.19	3.00	28.190	
	2472	26/8	18.62	18.70	21.67	3.00	24.670	
		52/40	18.94	18.81	21.89	3.00	24.890	
		106/54	18.88	18.77	21.84	3.00	24.840	
802.11ax-HE40	2422	242/61	19.46	19.43	22.46	3.00	25.460	
	2442	242/62	17.54	17.68	20.62	3.00	23.620	

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

2. According to KDB 662911 D01 E)1), Total peak power = sum to individual output power

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

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

$$2400\text{-}2500\text{MHz: Directional gain} = 10 \log[(10^{2.90/10} + 10^{3.10/10})/2] = 3.00\text{dBi}$$

The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

4. E.I.R.P.= The Total Peak Output Power (dBm)+ Directional Gain (dBi).

Mode	Centre Frequency (MHz)	Peak Output Power (dBm)		Antenna Gain (dBi)	E.I.R.P (dBm) <sup>Note2</sup>	Limit
		Aux		Aux		
BLE (1Mbps)	2402	5.30		2.90	8.200	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2440	5.77		2.90	8.670	
	2480	6.10		2.90	9.000	
BLE (2Mbps)	2402	5.43		2.90	8.330	
	2440	5.93		2.90	8.830	
	2480	6.17		2.90	9.070	
BLE (PHY Coded S2)	2402	5.38		2.90	8.280	
	2440	5.85		2.90	8.750	
	2480	6.05		2.90	8.950	
BLE (PHY Coded S8)	2402	5.44		2.90	8.340	
	2440	5.78		2.90	8.680	
	2480	6.15		2.90	9.050	

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

2. E.I.R.P.= The Peak Output Power (dBm)+ Antenna Gain (dBi).

### A.3.2 Average Output Power (Reporting only)

#### ● 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)		10log (1/X)	Max. Average Output Power (dBm)
		Aux	Main		
802.11b	2412	19.44	19.89	N/A	19.89
	2442	19.42	19.80		19.80
	2462	19.44	19.67		19.67
	2467	19.01	18.70		19.01
	2472	16.24	15.73		16.24
802.11g	2412	16.32	16.40	0.101	16.50
	2417	18.36	18.75		18.85
	2442	19.23	19.23		19.33
	2457	17.82	17.80		17.92
	2462	16.06	16.29		16.39
	2467	14.26	13.92		14.36
	2472	11.09	11.05		11.19

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

2. We did spot check for output power and all output power values keep identical or lower 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)		10log (1/X)	Total. Average Output Power (dBm)
		Aux	Main		
802.11n-HT20	2412	14.13	14.31	N/A	17.23
	2417	16.44	16.86		19.67
	2422	17.76	17.49		20.64
	2442	19.15	19.24		22.21
	2457	17.38	17.45		20.43
	2462	14.25	14.50		17.39
	2467	10.47	10.43		13.46
	2472	5.42	5.04		8.24
802.11n-HT40	2422	13.95	13.66	N/A	16.82
	2442	14.49	14.96		17.74
	2452	13.75	14.08		16.93
	2457	8.58	9.05		11.83
	2462	5.82	5.58		8.71
802.11ax-HE20	2412	14.02	14.54	N/A	17.30
	2417	16.56	16.57		19.58
	2422	17.64	17.74		20.70
	2442	19.11	19.38		22.26
	2457	17.69	17.70		20.71
	2462	14.81	14.54		17.69
	2467	10.75	10.59		13.68
	2472	5.47	5.07		8.28
802.11ax-HE40	2422	13.54	13.74	N/A	16.65
	2442	14.39	14.75		17.58
	2452	13.27	13.65		16.47
	2457	8.44	8.94		11.71
	2462	5.20	5.16		8.19

Note: 1. The results have been included cable loss.  
 2. We did spot check for output power and all output power values keep identical or lower thus other conducted items is exempt.

Mode	Centre Frequency (MHz)	RU Configuration	Average Output Power (dBm)		10log (1/X)	Total. Average Output Power (dBm)
			Aux	Main		
802.11n-HT20	2412	26/0	17.26	17.07	0.438	20.61
		52/37	17.74	17.67	0.287	21.00
		106/53	17.61	17.67	0.155	20.81
	2472	26/8	4.89	5.10	0.438	8.44
		52/40	5.89	5.89	0.287	9.19
		106/54	6.13	6.03	0.155	9.25
802.11n-HT40	2422	242/61	14.43	14.19	N/A	17.32
	2462	242/62	6.16	6.07	N/A	9.13

Note: 1. The results have been included cable loss.  
 2. We did spot check for output power and all output power values keep identical or lower 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)		10log (1/X)	Max. Average Output Power (dBm)
		Aux	Main		
802.11b	2412	17.95	17.96	N/A	17.96
	2442	18.17	17.99		18.17
	2462	17.90	17.86		17.90
	2467	16.17	15.62		16.17
	2472	16.52	16.45		16.52
802.11g	2412	16.58	16.66	0.101	16.76
	2417	17.66	17.66		17.76
	2442	17.65	17.72		17.82
	2457	17.59	17.43		17.69
	2462	16.01	16.29		16.39
	2467	14.21	13.79		14.31
	2472	10.87	10.94		11.04

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

2. We did spot check for output power and all output power values keep identical or lower 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)		10log (1/X)	Total. Average Output Power (dBm)
		Aux	Main		
802.11n-HT20	2412	13.92	14.29	N/A	17.12
	2417	16.23	16.51		19.38
	2422	17.47	17.51		20.50
	2442	17.59	17.50		20.56
	2457	17.32	17.39		20.37
	2462	14.18	14.26		17.23
	2467	10.46	10.29		13.39
	2472	5.25	4.98		8.13
802.11n-HT40	2422	13.69	13.52	N/A	16.62
	2442	14.51	14.88		17.71
	2452	13.52	13.99		16.77
	2457	8.52	9.03		11.79
	2462	5.59	5.25		8.43
802.11ax-HE20	2412	13.98	14.39	N/A	17.20
	2417	16.51	16.40		19.47
	2422	17.50	17.53		20.53
	2442	17.63	17.67		20.66
	2457	17.35	17.36		20.37
	2462	14.50	14.26		17.39
	2467	10.67	10.55		13.62
	2472	5.29	5.08		8.20
802.11ax-HE40	2422	13.26	13.74	N/A	16.52
	2442	14.13	14.44		17.30
	2452	13.04	13.58		16.33
	2457	8.30	8.88		11.61
	2462	4.92	5.21		8.08

Note: 1. The results have been included cable loss.  
 2. We did spot check for output power and all output power values keep identical or lower thus other conducted items is exempt.

Mode	Centre Frequency (MHz)	RU Configuration	Average Output Power (dBm)		10log (1/X)	Total. Average Output Power (dBm)
			Aux	Main		
802.11n-HT20	2412	26/0	17.04	17.36	0.438	20.65
		52/37	17.55	17.50	0.287	20.82
		106/53	17.71	17.65	0.155	20.85
	2472	26/8	4.77	4.91	0.438	8.29
		52/40	5.65	5.84	0.287	9.04
		106/54	5.87	5.76	0.155	8.98
802.11n-HT40	2422	242/61	14.21	14.22	N/A	17.23
	2462	242/62	6.09	5.87	N/A	8.99

Note: 1. The results have been included cable loss.  
 2. We did spot check for output power and all output power values keep identical or lower thus other conducted items is exempt.

● **Original Average Output Power (FCC ID: BEJNT-17Z90R & IC: 2703H-17Z90R)**

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

Mode	Centre Frequency (MHz)	Average Output Power (dBm)		Duty cycle factor (dB) 10log (1/x)	Max Average Output Power (dBm)	Antenna Gain (dBi)		E.I.R.P (dBm) <sup>Note2</sup>	Limit
		Aux	Main			Aux	Main		
802.11b	2412	19.570	20.080	N/A	20.080	1.10	2.20	22.280	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2442	19.530	20.030		20.030	1.60	3.00	23.030	
	2462	19.700	19.970		19.970	1.60	3.00	22.970	
	2467	19.110	18.910		19.110	1.60	3.00	21.910	
	2472	16.510	15.900		16.510	1.60	3.00	18.900	
802.11g	2412	16.430	16.670	0.101	16.771	1.10	2.20	18.971	
	2417	18.640	19.010		19.090	1.10	2.20	21.311	
	2442	19.420	19.470		19.571	1.60	3.00	22.571	
	2457	18.110	17.970		18.211	1.60	3.00	21.071	
	2462	16.260	16.580		16.681	1.60	3.00	19.681	
	2467	14.490	14.220		14.591	1.60	3.00	17.321	
	2472	11.270	11.230		11.371	1.60	3.00	14.331	

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

2. E.I.R.P.= The Max. of Average Output Power (AUX or Main)(dBm)+ Antenna Gain (dBi).

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

Mode	Centre Frequency (MHz)	Average Output Power (dBm)		Duty cycle factor (dB) 10log (1/x)	Total Average Output Power <sup>Note2</sup> (dBm)	Directional Gain <sup>Note3</sup> (dBi)	Average Output Power (E.I.R.P) <sup>Note4</sup> (dBm)	Limit
		Aux	Main					
802.11n-HT20	2412	14.320	14.560	N/A	17.452	1.68	19.132	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2417	16.600	16.970		19.799	1.68	21.479	
	2422	17.880	17.720		20.811	1.68	22.491	
	2442	19.430	19.470		22.460	2.36	24.820	
	2457	17.630	17.750		20.701	2.36	23.061	
	2462	14.410	14.680		17.557	2.36	19.917	
	2467	10.710	10.660		13.695	2.36	16.055	
	2472	5.520	5.320		8.431	2.36	10.791	
802.11n-HT40	2422	14.080	13.940	N/A	17.021	1.68	18.701	
	2442	14.750	15.170		17.975	2.36	20.335	
	2452	14.010	14.380		17.209	2.36	19.569	
	2457	8.870	9.270		12.085	2.36	14.445	
	2462	5.930	5.730		8.841	2.36	11.201	
802.11ax-HE20	2412	14.280	14.680	N/A	17.495	1.68	19.175	
	2417	16.770	16.760		19.775	1.68	21.455	
	2422	17.840	17.910		20.885	1.68	22.565	
	2442	19.280	19.620		22.464	2.36	24.824	
	2457	17.930	17.830		20.891	2.36	23.251	
	2462	14.920	14.660		17.802	2.36	20.162	
	2467	11.020	10.800		13.922	2.36	16.282	
	2472	5.680	5.360		8.533	2.36	10.893	
802.11ax-HE40	2422	13.680	13.980	N/A	16.843	1.68	18.523	
	2442	14.560	14.890		17.738	2.36	20.098	
	2452	13.410	13.860		16.651	2.36	19.011	
	2457	8.680	9.150		11.932	2.36	14.292	
	2462	5.340	5.440		8.401	2.36	10.761	

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

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

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

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

$$2400\text{MHz: Directional gain} = 10 \log[(10^{1.10/10} + 10^{2.20/10})/2] = 1.68\text{dBi}$$

$$2450\text{MHz: Directional gain} = 10 \log[(10^{1.60/10} + 10^{3.00/10})/2] = 2.36\text{dBi}$$

The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

4. E.I.R.P.= The Total Average Output Power (dBm)+ Directional Gain (dBi).

Mode	Centre Frequency (MHz)	RU Configuration	Average Output Power (dBm)		Duty cycle factor (dB) 10log	Total Average Output Power Note2 (dBm)	Directional Gain Note3 (dBi)	Average Output Power (E.I.R.P)Note4	Limit
			Aux	Main					
802.11ax-HE20	2412	26/30	17.420	17.350	0.264	20.659	1.68	22.339	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
		52/37	17.960	17.860	0.146	21.067	1.68	22.747	
		106/53	17.810	17.930	N/A	20.881	1.68	22.561	
	2472	26/8	5.190	5.260	0.264	8.499	2.36	10.859	
		52/40	6.060	6.150	0.146	9.262	2.36	11.622	
		106/54	6.270	6.200	N/A	9.245	2.36	11.605	
802.11ax-HE40	2422	242/61	14.540	14.430	0.150	17.646	1.68	19.326	
	2462	242/62	6.350	6.260	0.150	9.466	2.36	11.826	

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

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

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

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

$$2400\text{MHz: Directional gain} = 10 \log[(10^{1.10/10} + 10^{2.20/10})/2] = 1.68\text{dBi}$$

$$2450\text{MHz: Directional gain} = 10 \log[(10^{1.60/10} + 10^{3.00/10})/2] = 2.36\text{dBi}$$

The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

4. E.I.R.P.= The Total Average Output Power (dBm)+ Directional Gain (dBi).

**Test SKU: 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)	Antenna Gain (dBi)		E.I.R.P (dBm) <sup>Note 2</sup>	Limit
		Aux	Main			Aux	Main		
802.11b	2412	19.570	20.080	N/A	20.080	2.89	-1.45	22.460	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2442	19.530	20.030		20.030	-0.07	0.26	20.290	
	2462	19.700	19.970		19.970	-0.07	0.26	20.230	
	2467	19.110	18.910		19.110	-0.07	0.26	19.170	
	2472	16.510	15.900		16.510	-0.07	0.26	16.440	
802.11g	2412	16.430	16.670	0.101	16.771	2.89	-1.45	19.421	
	2417	18.640	19.010		19.090	2.89	-1.45	21.631	
	2442	19.420	19.470		19.571	-0.07	0.26	19.831	
	2457	18.110	17.970		18.211	-0.07	0.26	18.331	
	2462	16.260	16.580		16.681	-0.07	0.26	16.941	
	2467	14.490	14.220		14.591	-0.07	0.26	14.581	
	2472	11.270	11.230		11.371	-0.07	0.26	11.591	

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

2. E.I.R.P.= The Max. of Average Output Power (AUX or Main)(dBm)+ Antenna Gain (dBi).

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

Mode	Centre Frequency (MHz)	Average Output Power (dBm)		Duty cycle factor (dB) 10log (1/x)	Total Average Output Power <sup>Note2</sup> (dBm)	Directional Gain <sup>Note3</sup> (dBi)	Average Output Power (E.I.R.P) <sup>Note4</sup> (dBm)	Limit
		Aux	Main					
802.11n-HT20	2412	14.320	14.560	N/A	17.452	1.24	18.692	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2417	16.600	16.970		19.799	1.24	21.039	
	2422	17.880	17.720		20.811	1.24	22.051	
	2442	19.430	19.470		22.460	0.10	22.560	
	2457	17.630	17.750		20.701	0.10	20.801	
	2462	14.410	14.680		17.557	0.10	17.657	
	2467	10.710	10.660		13.695	0.10	13.795	
	2472	5.520	5.320		8.431	0.10	8.531	
802.11n-HT40	2422	14.080	13.940	N/A	17.021	1.24	18.261	
	2442	14.750	15.170		17.975	0.10	18.075	
	2452	14.010	14.380		17.209	0.10	17.309	
	2457	8.870	9.270		12.085	0.10	12.185	
	2462	5.930	5.730		8.841	0.10	8.941	
802.11ax-HE20	2412	14.280	14.680	N/A	17.495	1.24	18.735	
	2417	16.770	16.760		19.775	1.24	21.015	
	2422	17.840	17.910		20.885	1.24	22.125	
	2442	19.280	19.620		22.464	0.10	22.564	
	2457	17.930	17.830		20.891	0.10	20.991	
	2462	14.920	14.660		17.802	0.10	17.902	
	2467	11.020	10.800		13.922	0.10	14.022	
	2472	5.680	5.360		8.533	0.10	8.633	
802.11ax-HE40	2422	13.680	13.980	N/A	16.843	1.24	18.083	
	2442	14.560	14.890		17.738	0.10	17.838	
	2452	13.410	13.860		16.651	0.10	16.751	
	2457	8.680	9.150		11.932	0.10	12.032	
	2462	5.340	5.440		8.401	0.10	8.501	

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

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

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

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

$$2400\text{MHz: Directional gain} = 10 \log[(10^{2.89/10} + 10^{-1.45/10})/2] = 1.24\text{dBi}$$

$$2450\text{MHz: Directional gain} = 10 \log[(10^{-0.07/10} + 10^{0.26/10})/2] = 0.10\text{dBi}$$

The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

4. E.I.R.P.= The Total Average Output Power (dBm)+ Directional Gain (dBi).



Mode	Centre Frequency (MHz)	RU Configuration	Average Output Power (dBm)		Duty cycle factor (dB) 10log	Total Average Output Power Note 2 (dBm)	Directional Gain Note 3 (dBi)	Average Output Power (E.I.R.P.) <sup>Note 4</sup>	Limit
			Aux	Main					
802.11ax-HE20	2412	26/30	17.420	17.350	0.264	20.659	1.24	21.899	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
		52/37	17.960	17.860	0.146	21.067	1.24	22.307	
		106/53	17.810	17.930	N/A	20.881	1.24	22.121	
	2472	26/8	5.190	5.260	0.264	8.499	0.10	8.599	
		52/40	6.060	6.150	0.146	9.262	0.10	9.362	
		106/54	6.270	6.200	N/A	9.245	0.10	9.345	
802.11ax-HE40	2422	242/61	14.540	14.430	0.150	17.646	1.24	18.886	
	2462	242/62	6.350	6.260	0.150	9.466	0.10	9.566	

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

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

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

$$\text{Directional gain} = 10 \log[(10^{G^1/10} + 10^{G^2/10} + \dots + 10^{G^N/10})/N_{\text{ANT}}] \text{ dBi}$$

$$2400\text{MHz: Directional gain} = 10 \log[(10^{2.89/10} + 10^{-1.45/10})/2] = 1.24\text{dBi}$$

$$2450\text{MHz: Directional gain} = 10 \log[(10^{-0.07/10} + 10^{0.26/10})/2] = 0.10\text{dBi}$$

The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

4. E.I.R.P.= The Total Average Output Power (dBm)+ Directional Gain (dBi).

**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)	Antenna Gain (dBi)		E.I.R.P (dBm) <sup>Note 2</sup>	Limit
		Aux	Main			Aux	Main		
802.11b	2412	18.23	18.24	N/A	18.24	2.90	3.10	21.340	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2442	18.28	18.19		18.28	2.90	3.10	21.290	
	2462	18.09	18.05		18.09	2.90	3.10	21.150	
	2467	16.41	15.76		16.41	2.90	3.10	19.310	
	2472	16.66	16.75		16.75	2.90	3.10	19.850	
802.11g	2412	16.80	16.86	N/A	16.86	2.90	3.10	19.960	
	2417	17.77	17.84		17.84	2.90	3.10	20.940	
	2442	17.87	17.82		17.87	2.90	3.10	20.920	
	2457	17.69	17.64		17.69	2.90	3.10	20.740	
	2462	16.12	16.42		16.42	2.90	3.10	19.520	
	2467	14.39	14.04		14.39	2.90	3.10	17.290	
	2472	11.12	11.06		11.12	2.90	3.10	14.160	

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

2. E.I.R.P.= The Max. of Average Output Power (AUX or Main)(dBm)+ Antenna Gain (dBi).

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

Mode	Centre Frequency (MHz)	Average Output Power (dBm)		Duty cycle factor (dB) 10log (1/x)	Total Average Output Power <sup>Note 2</sup> (dBm)	Directional Gain <sup>Note 3</sup> (dBi)	Average Output Power (E.I.R.P) <sup>Note 4</sup> (dBm)	Limit
		Aux	Main					
802.11n-HT20	2412	14.18	14.40	N/A	17.30	3.00	20.302	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2417	16.49	16.81		19.66	3.00	22.663	
	2422	17.62	17.70		20.67	3.00	23.670	
	2442	17.72	17.72		20.73	3.00	23.730	
	2457	17.56	17.55		20.57	3.00	23.565	
	2462	14.31	14.52		17.43	3.00	20.427	
	2467	10.60	10.47		13.55	3.00	16.546	
	2472	5.41	5.14		8.29	3.00	11.287	
802.11n-HT40	2422	13.93	13.75	N/A	16.85	3.00	19.851	
	2442	14.63	15.06		17.86	3.00	20.861	
	2452	13.81	14.21		17.02	3.00	20.025	
	2457	8.70	9.16		11.95	3.00	14.946	
	2462	5.83	5.55		8.70	3.00	11.703	
802.11ax-HE20	2412	14.15	14.54	N/A	17.36	3.00	20.360	
	2417	16.62	16.64		19.64	3.00	22.640	
	2422	17.64	17.72		20.69	3.00	23.690	
	2442	17.84	17.86		20.86	3.00	23.860	
	2457	17.61	17.58		20.61	3.00	23.605	
	2462	14.72	14.48		17.61	3.00	20.612	
	2467	10.86	10.68		13.78	3.00	16.781	
	2472	5.58	5.23		8.42	3.00	11.419	
802.11ax-HE40	2422	13.56	13.87	N/A	16.73	3.00	19.728	
	2442	14.42	14.71		17.58	3.00	20.578	
	2452	13.23	13.69		16.48	3.00	19.476	
	2457	8.56	9.03		11.81	3.00	14.812	
	2462	5.19	5.31		8.26	3.00	11.261	

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

2. According to KDB 662911 D01 E)1), Total Ave power = sum to individual output power + duty cycle factor (dB), when duty cycle is less than 98%.
3. According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then  
 Directional gain =  $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/N_{ANT}]$  dBi  
 2400MHz: Directional gain =  $10 \log[(10^{2.89/10} + 10^{-1.45/10})/2]$  = 1.24dBi  
 2450MHz: Directional gain =  $10 \log[(10^{-0.07/10} + 10^{0.26/10})/2]$  = 0.10dBi  
 The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).
4. E.I.R.P.= The Total Average Output Power (dBm)+ Directional Gain (dBi).

Mode	Centre Frequency (MHz)	RU Configuration	Average Output Power (dBm)		Duty cycle factor (dB) 10log	Total Average Output Power Note2 (dBm)	Directional Gain Note3 (dBi)	Average Output Power (E.I.R.P)Note4	Limit
			Aux	Main					
802.11ax-HE20	2412	26/30	17.33	17.46	0.264	20.670	3.00	23.670	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
		52/37	17.70	17.78	0.137	20.887	3.00	23.887	
		106/53	17.81	17.93	0.000	20.881	3.00	23.881	
	2472	26/8	4.99	5.12	0.264	8.330	3.00	11.330	
		52/40	5.86	5.95	0.137	9.053	3.00	12.053	
		106/54	6.13	6.05	0.000	9.100	3.00	12.100	
802.11ax-HE40	2422	242/61	14.39	14.32	0.114	17.479	3.00	20.479	
	2462	242/62	6.19	6.11	0.114	9.274	3.00	12.274	

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

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

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

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

$$2400\text{MHz: Directional gain} = 10 \log[(10^{2.89/10} + 10^{-1.45/10})/2] = 1.24\text{dBi}$$

$$2450\text{MHz: Directional gain} = 10 \log[(10^{-0.07/10} + 10^{0.26/10})/2] = 0.10\text{dBi}$$

The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

4. E.I.R.P.= The Total Average Output Power (dBm)+ Directional Gain (dBi).