

# FCC Radio Test Report

# FCC ID: QYLWCN3980B41

Report No. Equipment Model Name Brand Name Applicant Address	<ul> <li>BTL-FCCP-9-2202T096</li> <li>Body Worn Camera</li> <li>BC-4K</li> <li>Getac</li> <li>Getac Technology Corporation</li> <li>5F., Building A, No.209, Sec.1, Nangang., Rd., Nangang Dist., Taipei City 11568, Taiwan, R.O.C.</li> </ul>
Radio Function	: WLAN 2.4 GHz
FCC Rule Part(s) Measurement Procedure(s)	: FCC CFR Title 47, Part 15, Subpart C (15.247) : ANSI C63.10-2013
Date of Receipt Date of Test Issued Date	: 2022/3/23 : 2022/3/23 ~ 2022/9/5 : 2022/10/3

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

NC.

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#### Declaration

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

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

#### Limitation

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

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



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### **REVISION HISTORY**

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-9-2202T096	R00	Original Report.	2022/10/3	Valid

#### SUMMARY OF TEST RESULTS 1

Test procedures according to the technical standards.

Standard(s) Section	Description	Test Result	Judgement	Remark
15.207	AC Power Line Conducted Emissions	APPENDIX A	Pass	
15.205 15.209 15.247(d)	Radiated Emissions	APPENDIX B APPENDIX C	Pass	
15.247(a)	Bandwidth	APPENDIX D	Pass	
15.247(b)	Output Power	APPENDIX E	Pass	
15.247(e)	Power Spectral Density	APPENDIX F	Pass	
15.247(d)	Antenna conducted Spurious Emission	APPENDIX G	Pass	
15.203	Antenna Requirement		Pass	

NOTE:

"N/A" denotes test is not applicable in this Test Report.
 The report format version is TP.1.1.1.



#### 1.1 TEST FACILITY The test facilities used to collect the test data in this report: No. 72, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan The test sites and facilities are covered under FCC RN: 674415 and DN: TW0659. ⊠ CB21 C06 CB22 No. 68-1, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan The test sites and facilities are covered under FCC RN: 674415 and DN: TW0659. $\boxtimes$ C05 □ CB08 □ CB11 □ CB15 □ CB16 $\boxtimes$ **SR05** 1.2 MEASUREMENT UNCERTAINTY The reported uncertainty of measurement $\mathbf{y} \pm \mathbf{U}$ , where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $\mathbf{k} = 2$ , providing a level of confidence of approximately 95 %. The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2 Ucispr requirement. A. AC power line conducted emissions test: Test Site Method **Measurement Frequency Range** U (dB) C05 CISPR 150 kHz ~ 30MHz 3.44 B. Radiated emissions test : Measurement Frequency Test Site U,(dB) Range 0.03 GHz ~ 0.2 GHz 4.17 0.2 GHz ~ 1 GHz 4.72 1 GHz ~ 6 GHz 5.21 **CB21** 6 GHz ~ 18 GHz 5.51 18 GHz ~ 26 GHz 3.69 26 GHz ~ 40 GHz 4.23 C. Conducted test : Test Item U,(dB) Occupied Bandwidth 0.5334 Output power 0.3669 Power Spectral Density 0.6591 **Conducted Spurious emissions** 0.5416 Conducted Band edges 0.5348 NOTE: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

#### **1.3 TEST ENVIRONMENT CONDITIONS**

Test Item	Environment Condition	Test Voltage	Tested by
AC Power Line Conducted Emissions	22 °C, 50 %	AC 120V	Jay Tien
Radiated emissions below 1 GHz	24 °C, 58 %	AC 120V	Mark Wang
Radiated emissions above 1 GHz	24~25 °C, 58~65 %	AC 120V	Mark Wang
Bandwidth	23.2 °C, 53 %	AC 120V	Angela Wang
Output Power	23.2 °C, 53 %	AC 120V	Angela Wang
Power Spectral Density	23.2 °C, 53 %	AC 120V	Angela Wang
Antenna conducted Spurious Emission	23.2 °C, 53 %	AC 120V	Angela Wang

#### 1.4 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

Test Software	Qualcomm Radio Control Tool V4.0.00172.0						
Mode	2412 MHz	2437 MHz	2462 MHz	Data Rate			
IEEE 802.11b	10	10	10	1 Mbps			
IEEE 802.11g	11	11	11	6 Mbps			
IEEE 802.11n (HT20)	10	10	10	MCS 0			



#### 1.5 DUTY CYCLE

If duty cycle is  $\geq$  98 %, duty factor is not required. If duty cycle is < 98 %, duty factor shall be considered.

Remark	Delta 1					Del	ta 2		On T	īme	/Peri	od	10 log(1	I/Duty Cyd
Mode	ON	Numbers	On Time (B	3)	Peric		DN+OF			uty C	Cycle		Dut	y Factor
	(ms)	(ON)	(ms)				าร)			(%				(dB)
EE 802.11b	12.280	1	12.280				370			99.2				0.03
EE 802.11g	2.030	1	2.030				)70			98.0				0.08
EE 802.11n (HT20)	1.900	1	1.900			1.9	930		ę	98.4	5%			0.07
	EE 802.11			~					EEE		)2.11	-		
Ref 20 dBm *Att 30 dB	RBW 1 MHz *VBW 1 MHz B SWT 25 ms	Delta 2 [T1 ] -0.10 c 12.370000 m		\$	Ref 20	dDm		Att 30	-TD	NBW VBW SWT		Delta	2 [T1 ] -6.91 2.070000	dB
20 Offset 13 1 dB	5 5WI 25 105	Marker 1 [T1					.3 1 dB	xcc 30	CLB	DW1 1	5 10.5	Marker	r 1 [T1 2,37	
-10-1	2	6.49 c 1.790000 m Delta 1 [T1 ]			-10					1.1		Delte	630-000000	
R		-0.08 d	18 18 LVL	1 PK CLRWR	M		uluubuuh	mar (horal)	us way is a	un NW	a manakad	pupan	2.030000	AB LVL
10														
- 20-					20									
- 30-			308		30									H
- 4 0-			308		40		+				-			308
50			_		50	V				V	-			<b>!</b>
- 60					60									
- 70-			_		70									
-80 Center 2.412 GHz	2.5 ms/				-80 Center	2.412	GHZ		500	μ <i>s/</i>				
e: 2.AUG.2022 17:04:27			1	Date	: 2.AUG	.2022	17:01:5	56						
	802.11n (H													
	OUZ.IIII (F RBW 1 MHz	Delta 2 [T1 ]												
Ref 20 dBm *Att 30 dB	*VBW 1 MHz	-0.25 c 1.930000 m												
20 Offset 13.1 dB		Marker 1 [T1 -4,47 c			$\backslash$									
	n a alma di Mundu andela	Peltal 2 [Fh]	SGL			$\overline{\ }$								
		1.900000 1	13 LVL				$\overline{\ }$							
-10	<b>Î</b>		_											
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-50			-											
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60			-										$\mathbf{i}$	
- 60														
			_											
70	500 µs/													
-70	500 µs/													
70 -80 Center 2.412 GHz	500 µs/													
-70	500 µs/													
70 -80 Center 2.412 GHz	500 µa/													
70 -80 Center 2.412 GHz	500 µø/													
70 -80 Center 2.412 GHz	500 µs/													
70 -80 Center 2.412 GHz	500 µs/													
70 -80 Center 2.412 GHz	500 µs/													
70 -80 Center 2.412 GHz	500 µs/													
70 -80 Center 2.412 GHz	500 µs/													
70 -80 Center 2.412 GHz	500 µa/													
70	500 µa/													

### 2 GENERAL INFORMATION

#### 2.1 DESCRIPTION OF EUT

Equipment	Body Worn Ca	Imera					
Model Name	BC-4K						
Brand Name	Getac						
Model Difference	N/A						
Power Source	<ul><li>(1) From host</li><li>(2) Battery su</li></ul>	system or power adapter. pplied.					
	(1)						
	BC-4K	Cable type	Input Voltage				
	Pogo pins	Magnetic USB type A to pogo Cable	5V /1.5A				
Power Rating	USB type C	Type C To C cable	5V/3A and 9V/2.2A				
	(2) Getac / BP1S1P5000P: Rated Voltage: 3.63 Vdc Rated capacity: 4750 mAh, 17.24 Wh Typical capacity: 5000 mAh, 18.15 Wh						
Products Covered	1 * Adjustable 1 * Clip Mount 1 * Magnetic M 1 * Molle Mour 1 * Dual Magn	fount ht					
Operation Band	2400 MHz ~ 24						
Operation Frequency	2412 MHz ~ 24	462 MHz					
Modulation Technology	IEEE 802.11b: IEEE 802.11g: IEEE 802.11n:	DSSS OFDM OFDM					
Transfer Rate	IEEE 802.11g: IEEE 802.11n:	11/5.5/2/1 Mbps 54/48/36/24/18/12/9/6 Mbps up to 72.2 Mbps					
Output Power Max.	IEEE 802.11g:	15.77 dBm (0.0378 W) 18.56 dBm (0.0718 W) (HT20): 17.68 dBm (0.0586 W)					
Test Model	BC-4K						
Sample Status	Engineering S	ample					
EUT Modification(s)	N/A						

NOTE:

(1) The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

#### (2) Channel List:

	CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n (HT20)									
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)					
01	2412	05	2432	09	2452					
02	2417	06	2437	10	2457					
03	2422	07	2442	11	2462					
04	2427	08	2447							



#### (3) Table for Filed Antenna:

Ant.	Brand Name	Model Name	Туре	Connector	Frequency (MHz)	Gain (dBi)
					2400-2500	2.02
	- Getac		IFA		5150-5250	2.65
-		Getac BC-4K		IFA N/A	5250-5350	3.39
					5470-5725	3.87
					5725-5850	2.39

(4) The above Antenna information are derived from the antenna data sheet provided by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.



#### 2.2 TEST MODES

Test Items	Test mode	Channel	Note
AC power line conducted emissions	Normal/Idle	-	-
Transmitter Radiated Emissions (below 1GHz)	TX Mode_IEEE 802.11g	01	-
	TX Mode_IEEE 802.11b		
Transmitter Radiated Emissions	TX Mode_IEEE 802.11g	01/11	Pondodao
(above 1GHz)	TX Mode_IEEE 802.11n (HT20)		Bandedge
	TX Mode_IEEE 802.11n (HT40)	03/09	
	TX Mode_IEEE 802.11b		
Transmitter Radiated Emissions	TX Mode_IEEE 802.11g	01/06/11	Harmonic
(above 1GHz)	TX Mode_IEEE 802.11n (HT20)		Harmonic
	TX Mode_IEEE 802.11n (HT40)	03/06/09	
Bandwidth &	TX Mode_IEEE 802.11b		
Output Power &	TX Mode_IEEE 802.11g	01/06/11	
Power Spectral Density &	TX Mode_IEEE 802.11n (HT20)		-
Antenna conducted Spurious Emission	TX Mode_IEEE 802.11n (HT40)	03/06/09	

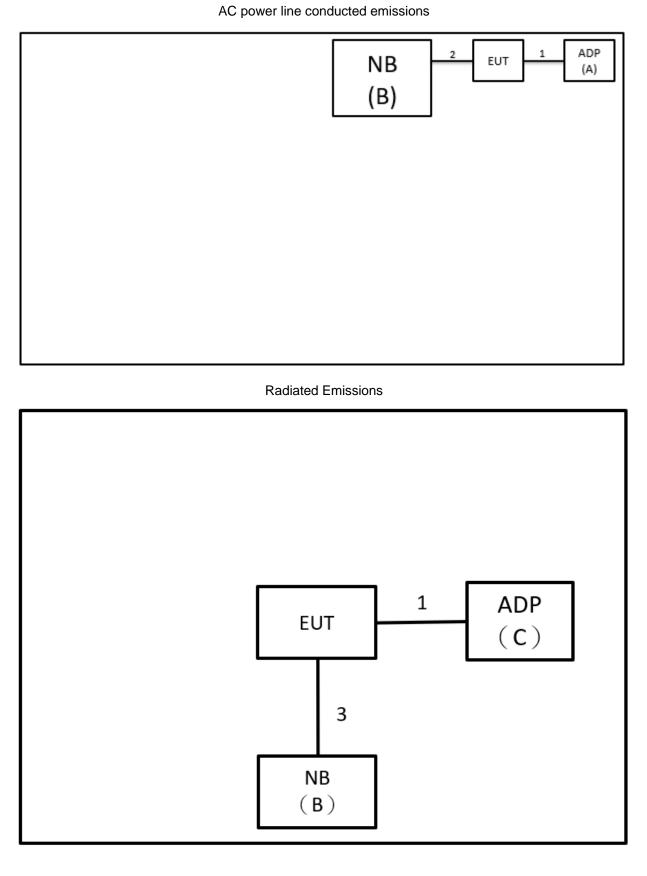
#### NOTE:

(1) For radiated emission band edge test, both Vertical and Horizontal are evaluated, but only the worst case (Vertical) is recorded.



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

Equipment letters and Cable numbers refer to item numbers described in the tables of clause 2.4.



### 2.4 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.	Remarks	
А	Adapter	SONY	AC-0051-TW	4017W29100317	Furnished by test lab.	
В	NB	ASUS	X555LN-0021B4 210U	N/A	Furnished by test lab.	
С	Adapter	SAMSUNG	EP-TA12JWS	N/A	Furnished by test lab.	
Item	Shielded	Ferrite Core	Length	Cable Type	Remarks	
1	N/A	N/A	1m	Magnetic USB typeA to pogo Cable	Supplied by test requester.	
2	N/A	N/A	1.2m	USB Cable	Furnished by test lab.	
3	N/A	N/A	1m	Type C to USB	Furnished by test lab.	



#### 3 AC POWER LINE CONDUCTED EMISSIONS TEST

#### 3.1 LIMIT

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

NOTE:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- (3) The test result calculated as following:
  - Measurement Value = Reading Level + Correct Factor
  - Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor (if use)

Margin Level = Measurement Value - Limit Value

Calculation example:

Reading Level		Correct Factor		Measurement Value
38.22	+	3.45	Ш	41.67

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

The following table is the setting of the receiver.

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

#### 3.2 TEST PROCEDURE

a. The EUT was placed 0.8 m above the horizontal ground plane with the EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment were powered from an additional LISN(s).

- The LISN provides 50 Ohm/50uH of impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle to keep the cable above 40 cm.
- c. Excess I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable will be terminated, using the correct terminating impedance. The overall length shall not exceed 1 m.
- The LISN is spaced at least 80 cm from the nearest part of the EUT chassis. d
- e. For the actual test configuration, please refer to the related Item EUT TEST PHOTO.

#### NOTE:

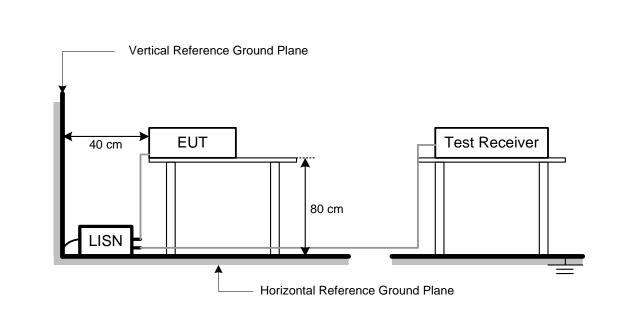
- (1) In the results, each reading is marked as Peak, QP or AVG per the detector used. BW=9 kHz (6 dB Bandwidth)
- (2) All readings are Peak unless otherwise stated QP or AVG in column of Note. Both the QP and the AVG readings must be less than the limit for compliance.

#### 3.3 DEVIATION FROM TEST STANDARD

No deviation.



#### 3.4 TEST SETUP



#### 3.5 TEST RESULT

Please refer to the **APPENDIX A**.



### 4 RADIATED EMISSIONS TEST

#### 4.1 LIMIT

In case the emission fall within the restricted band specified on 15.205, then the 15.209 limit in the table below has to be followed.

#### LIMITS OF RADIATED EMISSIONS MEASUREMENT (9 kHz to 1000 MHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

#### LIMITS OF RADIATED EMISSIONS MEASUREMENT (Above 1000 MHz)

(MHz) (dBuV/m)	Measurement Distance
(MIL2) Peak Average	(meters)
Above 1000 74 54	3

NOTE:

- (1) The limit for radiated test was performed according to FCC CFR Title 47, Part 15, Subpart C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

(4) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

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

Margin Level = Measurement Value - Limit Value

Calculation example:

Reading Level		Correct Factor		Measurement Value
19.11	+	2.11	Ι	21.22

Measurement Value		Limit Value		Margin Level
21.22	-	54	=	-32.78

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

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





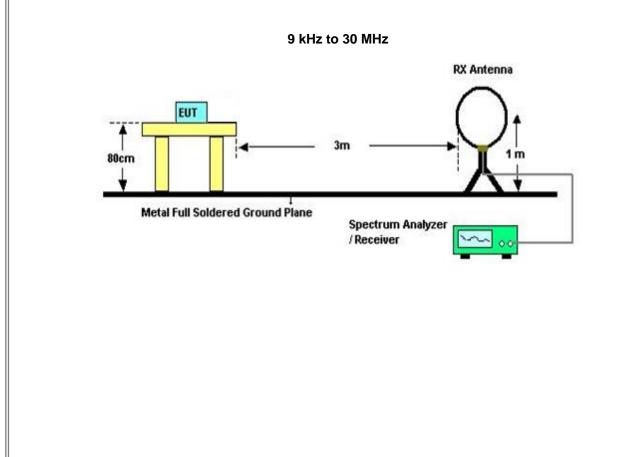
#### 4.2 TEST PROCEDURE

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

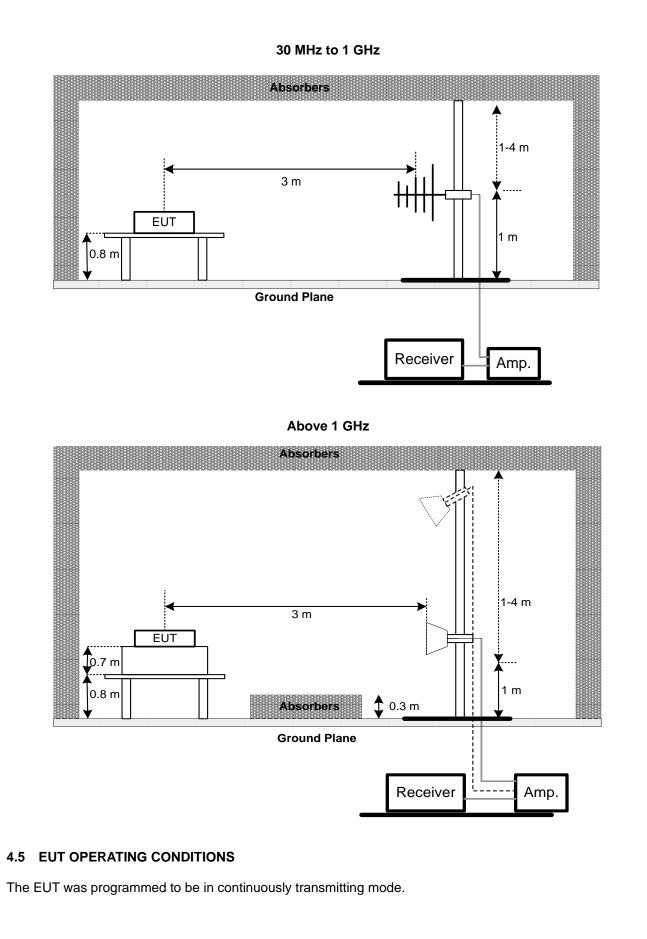
#### 4.3 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.4 TEST SETUP









#### 4.6 TEST RESULT – BELOW 30 MHZ

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

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

Please refer to the APPENDIX B.

#### 4.8 TEST RESULT – ABOVE 1 GHZ

Please refer to the APPENDIX C.

#### NOTE:

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



### 5 BANDWIDTH TEST

#### 5.1 LIMIT

FCC Part15, Subpart C (15.247)					
Section Test Item Limit					
15.247(a)	6 dB Bandwidth	500 kHz			

#### 5.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting: RBW= 100KHz, VBW=300KHz, Sweep time = 2.5 ms.

#### 5.3 DEVIATION FROM TEST STANDARD

No deviation.

#### 5.4 TEST SETUP



#### 5.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

#### 5.6 TEST RESULT

Please refer to the APPENDIX D.



### 6 OUTPUT POWER TEST

#### 6.1 LIMIT

	FCC Part15, Subpart C (15.247)							
Section	Test Item	Limit						
15.247(b)	Maximum Output Power	1 Watt or 30dBm						

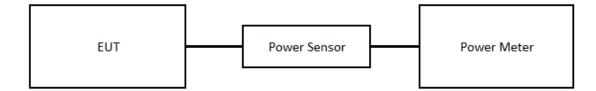
#### 6.2 TEST PROCEDURE

- a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- b. The maximum peak conducted output power was performed in accordance with FCC KDB 558074 D01 15.247 Meas Guidance.
- Subclause 11.9.1.1 of ANSI C63.10 is applied. The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

#### 6.3 DEVIATION FROM TEST STANDARD

No deviation.

#### 6.4 TEST SETUP



#### 6.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

#### 6.6 TEST RESULT

Please refer to the APPENDIX E.



### 7 POWER SPECTRAL DENSITY

#### 7.1 LIMIT

	FCC Part15, Subpart C (15.247) Section Test Item								
Section	Limit								
15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)							

#### 7.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting: RBW = 3 kHz, VBW = 10 kHz, Sweep time = Auto.

#### 7.3 DEVIATION FROM TEST STANDARD

No deviation.

#### 7.4 TEST SETUP



#### 7.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

#### 7.6 TEST RESULT

Please refer to the APPENDIX F.





### 8 ANTENNA CONDUCTED SPURIOUS EMISSIONS TEST

#### 8.1 LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits.

#### 8.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting: RBW = 100 kHz, VBW=300 kHz, Sweep time = Auto.
- c. Offset = antenna gain + cable loss.

#### 8.3 DEVIATION FROM TEST STANDARD

No deviation.

#### 8.4 TEST SETUP



#### 8.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

#### 8.6 TEST RESULT

Please refer to the APPENDIX G.

### 9 LIST OF MEASURING EQUIPMENTS

<u> </u>														
		AC Pow	er Line Conducted	d Emissions										
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until								
1	TWO-LINE V-NETWORK	R&S	ENV216	101051	2022/6/15	2023/6/14								
2	Test Cable	EMCI	EMCRG58-BM-B M-9000	210501	2022/5/2	2023/5/1								
3	EMI Test Receiver	R&S	ESR 7	101433	2021/11/24	2022/11/23								
4	Measurement Software	EZ	EZ_EMC (Version NB-03A1-01)	N/A	N/A	N/A								
	Radiated Emissions													
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until								
1	Preamplifier	EMCI	EMC330N	980850	2021/9/23	2022/9/22								
2	Preamplifier	EMCI	EMC118A45SE	980819	2022/3/8	2023/3/7								
3	Preamplifier	EMCI	EMC001340	980555	2022/4/6	2023/4/5								
4	Test Cable	EMCI	EMC104-SM-SM- 1000	220319	2022/3/15	2023/3/14								
5	Test Cable	EMCI	EMC104-SM-SM- 3000	220322	2022/3/15	2023/3/14								
6	Test Cable	EMCI	EMC104-SM-SM- 7000	220324	2022/3/15	2023/3/14								
7	EXA Signal Analyzer	keysight	N9020A	MY57120120	2022/3/7	2023/3/6								
8	Loop Ant	Electro-Metrics	EMCI-LPA600	274	2022/6/28	2023/6/27								
9	Horn Antenna	RFSPIN	DRH18-E	211202A18EN	2022/5/18	2023/5/17								
10	Horn Ant	Schwarzbeck	BBHA 9170D	1136	2022/5/18	2023/5/17								
11	Log-bicon Antenna	Schwarzbeck	VULB9168	1369	2022/5/20	2023/5/19								
12	6dB Attenuator	EMCI	EMCI-N-6-06	AT-N0625	2022/5/20	2023/5/19								
13	Measurement Software	EZ	EZ_EMC (Version NB-03A1-01)	N/A	N/A	N/A								
14	Measurement Software	EZ	EZ_EMC (Version NB-03A1-01)	N/A	N/A	N/A								
			Bandwidth											
ltem	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until								
1	Spectrum Analyzer	R&S	FSP38	101139	2022/3/2	2023/3/1								
			Output Power											
	Kind of				Calibrated	Calibrated								
Item	Equipment	Manufacturer	Type No.	Serial No.	Date	Until								
1	Power Meter	Keysight	8990B	MY51000517	2022/3/18	2023/3/17								
2	Power Sensor	Keysight	N1923A	MY58310005	2022/3/18	2023/3/17								



Power Spectral Density										
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until				
1	Spectrum Analyzer	R&S	FSP38	101139	2022/3/2	2023/3/1				

		Antenna	conducted Spuric	ous Emission		
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Spectrum Analyzer	R&S	FSP38	101139	2022/3/2	2023/3/1

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



### 10 EUT TEST PHOTO

Please refer to document Appendix No.: TP-2202T096-FCCP-1 (APPENDIX-TEST PHOTOS).

### 11 EUT PHOTOS

Please refer to document Appendix No.: EP-2202T096-3 (APPENDIX-EUT PHOTOS).



# APPENDIX A AC POWER LINE CONDUCTED EMISSIONS



st Frequency       -       Phase       Line         80.0       dBv/	st Mo	de	Normal						Tested Date	2022/8/5
Image: constraint of the	st Fre	quency							Phase	Line
60       7       80       7       9       7       9 </th <th>80.0</th> <th>dBu¥</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	80.0	dBu¥								
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	70									
a       a	60									
30	50									
20       1       3       3       1       5       5       5       5       7       9       7       9       7       12	40									
20       x	30									11
10       2       1       4       5       ×       1 <th1< th=""> <th1< th=""> <th1< th=""></th1<></th1<></th1<>	20	×					7 ¥	¥o		X 12
0.150         0.5         (MHz)         5         30.000           Io. Mk.         Freq.         Reading Level         Correct Factor         Measure- ment         Limit         Margin           MHz         dBuv         dB         dBuv         dBuv         dB         Detector         Comment           1         0.2017         6.46         9.63         16.09         63.54         -47.45         QP           2         0.2017         -5.96         9.63         3.67         53.54         -49.87         AVG           3         0.5595         7.04         9.62         16.66         56.00         -39.34         QP           4         0.5595         -6.26         9.62         3.36         46.00         -42.64         AVG           5         1.0410         0.15         9.66         9.81         56.00         -41.21         AVG           7         2.5598         6.39         9.71         16.10         56.00         -39.90         QP           8         2.5598         2.38         9.71         12.09         46.00         -33.91         AVG           9         4.9312         7.58         9.75         17.33         56.0	10	2			Х 6					
Instruction         Reading Level         Correct Factor         Measurement         Limit         Margin           Instruction         MHz         dBuv         dB         dBuv         dB         Detector         Comment           1         0.2017         6.46         9.63         16.09         63.54         -47.45         QP           2         0.2017         -5.96         9.63         3.67         53.54         -49.87         AVG           3         0.5595         7.04         9.62         16.66         56.00         -39.34         QP           4         0.5595         -6.26         9.62         3.36         46.00         -42.64         AVG           5         1.0410         0.15         9.66         9.81         56.00         -39.90         QP           6         1.0410         -4.87         9.66         4.79         46.00         -43.91         QP           7         2.5598         6.39         9.71         16.10         56.00         -39.90         QP           8         2.5598         2.38         9.71         12.09         46.00         -33.91         AVG           9         4.9312         7.58         <										
Io.         Mk.         Freq.         Level         Factor         ment         Limit         Margin           MHz         dBuV         dB         dBuV         dBuV         dB         Detector         Comment           1         0.2017         6.46         9.63         16.09         63.54         -47.45         QP           2         0.2017         -5.96         9.63         3.67         53.54         -49.87         AVG           3         0.5595         7.04         9.62         16.66         56.00         -39.34         QP           4         0.5595         -6.26         9.62         3.36         46.00         -42.64         AVG           5         1.0410         0.15         9.66         9.81         56.00         -46.19         QP           6         1.0410         -4.87         9.66         4.79         46.00         -41.21         AVG           7         2.5598         6.39         9.71         16.10         56.00         -39.90         QP           8         2.5598         2.38         9.71         12.09         46.00         -33.91         AVG           9         4.9312         7.58	U.	150				(MHZ)		5		30.000
1       0.2017       6.46       9.63       16.09       63.54       -47.45       QP         2       0.2017       -5.96       9.63       3.67       53.54       -49.87       AVG         3       0.5595       7.04       9.62       16.66       56.00       -39.34       QP         4       0.5595       -6.26       9.62       3.36       46.00       -42.64       AVG         5       1.0410       0.15       9.66       9.81       56.00       -49.90       QP         6       1.0410       -4.87       9.66       4.79       46.00       -41.21       AVG         7       2.5598       6.39       9.71       16.10       56.00       -39.90       QP         8       2.5598       2.38       9.71       12.09       46.00       -33.91       AVG         9       4.9312       7.58       9.75       17.33       56.00       -38.67       QP         10       *       4.9312       4.45       9.75       14.20       46.00       -31.80       AVG         11       18.2018       12.62       9.82       22.44       60.00       -37.56       QP	o. Mł	_	Reading			Limit	Margin			
2       0.2017       -5.96       9.63       3.67       53.54       -49.87       AVG         3       0.5595       7.04       9.62       16.66       56.00       -39.34       QP         4       0.5595       -6.26       9.62       3.36       46.00       -42.64       AVG         5       1.0410       0.15       9.66       9.81       56.00       -46.19       QP         6       1.0410       -4.87       9.66       4.79       46.00       -41.21       AVG         7       2.5598       6.39       9.71       16.10       56.00       -39.90       QP         8       2.5598       2.38       9.71       12.09       46.00       -33.91       AVG         9       4.9312       7.58       9.75       17.33       56.00       -38.67       QP         10       *       4.9312       4.45       9.75       14.20       46.00       -31.80       AVG         11       18.2018       12.62       9.82       22.44       60.00       -37.56       QP		k. Freq.	Level	Factor	meni	Liiii	margin			
3       0.5595       7.04       9.62       16.66       56.00       -39.34       QP         4       0.5595       -6.26       9.62       3.36       46.00       -42.64       AVG         5       1.0410       0.15       9.66       9.81       56.00       -46.19       QP         6       1.0410       -4.87       9.66       4.79       46.00       -41.21       AVG         7       2.5598       6.39       9.71       16.10       56.00       -39.90       QP         8       2.5598       2.38       9.71       12.09       46.00       -33.91       AVG         9       4.9312       7.58       9.75       17.33       56.00       -38.67       QP         0       *       4.9312       4.45       9.75       14.20       46.00       -31.80       AVG         1       18.2018       12.62       9.82       22.44       60.00       -37.56       QP		MHz	dBu∨	dB	dBu∨	dBu∨	dB		Comment	
4       0.5595       -6.26       9.62       3.36       46.00       -42.64       AVG         5       1.0410       0.15       9.66       9.81       56.00       -46.19       QP         6       1.0410       -4.87       9.66       4.79       46.00       -41.21       AVG         7       2.5598       6.39       9.71       16.10       56.00       -39.90       QP         8       2.5598       2.38       9.71       12.09       46.00       -33.91       AVG         9       4.9312       7.58       9.75       17.33       56.00       -38.67       QP         10       *       4.9312       4.45       9.75       14.20       46.00       -31.80       AVG         11       18.2018       12.62       9.82       22.44       60.00       -37.56       QP	-	MHz 0.2017	dBuV 6.46	dB 9.63	dBu∨ 16.09	dBu∨ 63.54	dB -47.45	QP	Comment	
5       1.0410       0.15       9.66       9.81       56.00       -46.19       QP         6       1.0410       -4.87       9.66       4.79       46.00       -41.21       AVG         7       2.5598       6.39       9.71       16.10       56.00       -39.90       QP         8       2.5598       2.38       9.71       12.09       46.00       -33.91       AVG         9       4.9312       7.58       9.75       17.33       56.00       -38.67       QP         0       *       4.9312       4.45       9.75       14.20       46.00       -31.80       AVG         1       18.2018       12.62       9.82       22.44       60.00       -37.56       QP	2	MHz 0.2017 0.2017	dBu∨ 6.46 -5.96	dB 9.63 9.63	dBu∨ 16.09 3.67	dBu∨ 63.54 53.54	dB -47.45 -49.87	QP AVG	Comment	
6       1.0410       -4.87       9.66       4.79       46.00       -41.21       AVG         7       2.5598       6.39       9.71       16.10       56.00       -39.90       QP         8       2.5598       2.38       9.71       12.09       46.00       -33.91       AVG         9       4.9312       7.58       9.75       17.33       56.00       -38.67       QP         0       *       4.9312       4.45       9.75       14.20       46.00       -31.80       AVG         1       18.2018       12.62       9.82       22.44       60.00       -37.56       QP	2	MHz 0.2017 0.2017 0.5595	dBuV 6.46 -5.96 7.04	dB 9.63 9.63 9.62	dBu∨ 16.09 3.67 16.66	dBu∨ 63.54 53.54 56.00	dB -47.45 -49.87 -39.34	QP AVG QP	Comment	
7       2.5598       6.39       9.71       16.10       56.00       -39.90       QP         8       2.5598       2.38       9.71       12.09       46.00       -33.91       AVG         9       4.9312       7.58       9.75       17.33       56.00       -38.67       QP         10       *       4.9312       4.45       9.75       14.20       46.00       -31.80       AVG         11       18.2018       12.62       9.82       22.44       60.00       -37.56       QP	2 3 4	MHz 0.2017 0.2017 0.5595 0.5595	dBu∨ 6.46 -5.96 7.04 -6.26	dB 9.63 9.63 9.62 9.62	dBu∨ 16.09 3.67 16.66 3.36	dBuV 63.54 53.54 56.00 46.00	dB -47.45 -49.87 -39.34 -42.64	QP AVG QP AVG	Comment	
8       2.5598       2.38       9.71       12.09       46.00       -33.91       AVG         9       4.9312       7.58       9.75       17.33       56.00       -38.67       QP         10       *       4.9312       4.45       9.75       14.20       46.00       -31.80       AVG         11       18.2018       12.62       9.82       22.44       60.00       -37.56       QP	2 3 4 5	MHz 0.2017 0.2017 0.5595 0.5595 1.0410	dBu∨ 6.46 -5.96 7.04 -6.26 0.15	dB 9.63 9.63 9.62 9.62 9.66	dBuV 16.09 3.67 16.66 3.36 9.81	dBuV 63.54 53.54 56.00 46.00 56.00	dB -47.45 -49.87 -39.34 -42.64 -46.19	QP AVG QP AVG QP	Comment	
9       4.9312       7.58       9.75       17.33       56.00       -38.67       QP         0       *       4.9312       4.45       9.75       14.20       46.00       -31.80       AVG         1       18.2018       12.62       9.82       22.44       60.00       -37.56       QP	2 3 4 5 6	MHz 0.2017 0.2017 0.5595 0.5595 1.0410 1.0410	dBuV 6.46 -5.96 7.04 -6.26 0.15 -4.87	dB 9.63 9.62 9.62 9.66 9.66	dBu∨ 16.09 3.67 16.66 3.36 9.81 4.79	dBu∨ 63.54 53.54 56.00 46.00 56.00 46.00	dB -47.45 -49.87 -39.34 -42.64 -46.19 -41.21	QP AVG QP AVG QP AVG	Comment	
0 * 4.9312 4.45 9.75 14.20 46.00 -31.80 AVG 1 18.2018 12.62 9.82 22.44 60.00 -37.56 QP	2 3 4 5 6 7	MHz 0.2017 0.2017 0.5595 0.5595 1.0410 1.0410 2.5598	dBu∨ 6.46 -5.96 7.04 -6.26 0.15 -4.87 6.39	dB 9.63 9.62 9.62 9.66 9.66 9.66 9.71	dBuV 16.09 3.67 16.66 3.36 9.81 4.79 16.10	dBu∨ 63.54 53.54 56.00 46.00 56.00 46.00	dB -47.45 -49.87 -39.34 -42.64 -46.19 -41.21 -39.90	QP AVG QP AVG QP AVG QP	Comment	
1 18.2018 12.62 9.82 22.44 60.00 -37.56 QP	2 3 4 5 6 7 8	MHz 0.2017 0.5595 0.5595 1.0410 1.0410 2.5598 2.5598	dBuV 6.46 -5.96 7.04 -6.26 0.15 -4.87 6.39 2.38	dB 9.63 9.62 9.62 9.66 9.66 9.71 9.71	dBu∨ 16.09 3.67 16.66 3.36 9.81 4.79 16.10 12.09	dBu√ 63.54 53.54 56.00 46.00 56.00 46.00 56.00	dB -47.45 -49.87 -39.34 -42.64 -46.19 -41.21 -39.90 -33.91	QP AVG QP AVG QP AVG QP AVG	Comment	
	2 3 4 5 6 7 8 9	MHz 0.2017 0.2017 0.5595 0.5595 1.0410 1.0410 2.5598 2.5598 4.9312	dBu∨ 6.46 -5.96 7.04 -6.26 0.15 -4.87 6.39 2.38 7.58	dB 9.63 9.62 9.62 9.66 9.66 9.71 9.71 9.75	dBuV 16.09 3.67 16.66 3.36 9.81 4.79 16.10 12.09 17.33	dBu√ 63.54 53.54 56.00 46.00 56.00 56.00 46.00 56.00	dB -47.45 -49.87 -39.34 -42.64 -46.19 -41.21 -39.90 -33.91 -33.67	QP AVG QP AVG QP AVG QP AVG QP	Comment	
	2 3 4 5 6 7 8 9 0 *	MHz 0.2017 0.5595 0.5595 1.0410 1.0410 2.5598 2.5598 4.9312 4.9312	dBuV 6.46 -5.96 7.04 -6.26 0.15 -4.87 6.39 2.38 7.58 4.45	dB 9.63 9.62 9.62 9.66 9.66 9.71 9.71 9.75 9.75	dBuV 16.09 3.67 16.66 3.36 9.81 4.79 16.10 12.09 17.33 14.20	dBu√ 63.54 53.54 56.00 46.00 56.00 46.00 46.00 56.00 46.00	dB -47.45 -49.87 -39.34 -42.64 -46.19 -41.21 -39.90 -33.91 -38.67 -31.80	QP AVG QP AVG AVG QP AVG QP AVG	Comment	

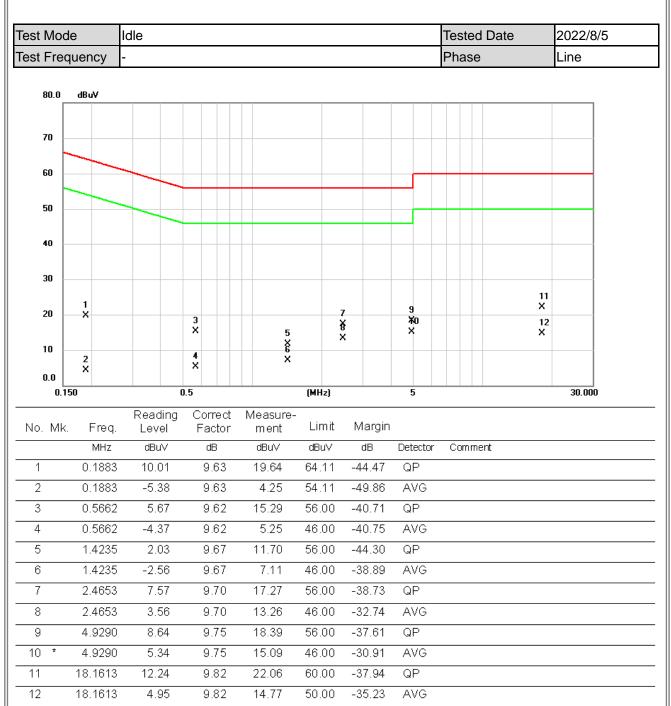
(1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value - Limit Value.



t Mo	de	Normal						Tested Date	2022/8/5
t Fre	quency							Phase	Neutral
80.0	dBuV								
70									
60									
50									
40									
30									11
20	1 X		3 X	E		, {	9 ¥0		X 12 X
10			4	5 × 6 ×	>	\$	×		
0.0	2 X		×						
0.	150	C	.5		(MHz)		5		30.000
o. Mł	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
	MHz	dBu∨	dB	dBu∨	dBu∨	dB	Detector	Comment	
1	0.2310	6.57	9.62	16.19	62.41	-46.22	QP		
2	0.2310	-6.21	9.62	3.41	52.41	-49.00	AVG		
3	0.5571	6.90	9.62	16.52	56.00	-39.48	QP		
4	0.5571	-6.65	9.62	2.97	46.00	-43.03	AVG		
5	1.3266	2.74	9.67	12.41	56.00	-43.59	QP		
5	1.3266	-2.49	9.67	7.18	46.00	-38.82	AVG		
7	2.4652	7.37	9.70	17.07	56.00	-38.93	QP		
3	2.4652	2.81	9.70	12.51	46.00	-33.49	AVG		
9	4.8345	6.82	9.76	16.58	56.00	-39.42	QP		
0	4.8345	3.54	9.76	13.30	46.00	-32.70	AVG		
1	19.2007	14.33	9.94	24.27	60.00	-35.73	QP		
2 *	19.2007	8.10	9.94	18.04	50.00	-31.96	AVG		

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





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

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



st Moo	de	Idle						Tested Date	2022/8/5
st Fre	quency	-						Phase	Neutral
80.0	dBuV								
80.0	abuy								
70									
60									
50									
40									
30									11
20	1 X		3 X	5		7 8	9 X0		X 12 X
10	2 X		4 ×	5 × 6 ×		×	X		
0.0 0.1	50	(	).5		(MHz)		5		30.000
lo. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
	MHz	dBu∨	dB	dBu∨	dBu∨	dB	Detector	Comment	
1	0.1950	8.79	9.62	18.41	63.82	-45.41	QP		
2	0.1950	-5.73	9.62	3.89	53.82	-49.93	AVG		
3	0.5571	6.92	9.62	16.54	56.00	-39.46	QP		
4	0.5571	-6.00	9.62	3.62	46.00	-42.38	AVG		
5	1.4235	1.98	9.67	11.65	56.00	-44.35	QP		
6	1.4235	-3.12	9.67	6.55	46.00	-39.45	AVG		
7	3.1290	5.63	9.73	15.36	56.00	-40.64	QP		
8	3.1290	1.67	9.73	11.40	46.00	-34.60	AVG		
9	4.7423	3.21	9.76	12.97	56.00	-43.03	QP		
10	4.7423	0.11	9.76	9.87	46.00	-36.13	AVG		

16.13 50.00 -33.87 AVG

#### **REMARKS**:

12 \* 18.0555

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

9.92

6.21



## APPENDIX B RADIATED EMISSIONS - 30 MHZ TO 1 GHZ



	Test Mo st Frequ			802.11g 2MHz		Test Date Polarizatior			2/8/8	
Tes	Temp			4°C		Hum.	1	Vertical 58%		
80.0 dB	iennµ av/m	)	Z	40		num.		50	D 70	
70										
50										
50										
40 —		Ž					5 X			
30		2 X				<b>4</b> ×		6 X		
20										
10										
0.0										
30.000	127.00	) 224.00	321.00	418.00	515.00 6	12.00 709	9.00 806	5.00	1000.00 MH	
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	40.7993	51.07	-17.58	33.49	40.00	-6.51	peak		
2		153.4487	47.10	-18.16	28.94	43.50	-14.56	peak		
3		227.7183	58.64	-21.55	37.09	46.00	-8.91	peak		
4		682.9393	41.43	-9.38	32.05	46.00	-13.95	peak		
5		758.6317	44.10	-7.71	36.39	46.00	-9.61	peak		
6		843.7330	36.93	-6.57	30.36	46.00	-15.64	peak		

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



Te	Test Mo est Frequ		I	EEE 241	802. <sup>-</sup> 2MH					est Dat Iarizati				2/8/8 zontal	
	Temp				4°C			Hum.						8%	
80.0 c	iBuV/m														
70															
50															
50															
40 —		\$													
30		^	З Х			4 *					5 X	6 X			
20	X					×									
10															
0.0															
30.000			321.		418.		515.		612.		709.		6.00	1000.00	MH
No.	Mk.	Freq.	Le	ding vel	Fa	rrect actor		easure- ment		Limit		Over			
		MHz	dB			dΒ		BuV/m	C	dBuV/m	า	dB		Comm	ent
1		76.7217	48			1.75		26.52		40.00		-13.48	peak		
2	*	230.2080	59			1.43		37.74		46.00		-8.26	peak		
3		303.5723	49			8.20		30.98		46.00		-15.02	peak		
4		460.1627	41		-1	4.13	2	27.73		46.00		-18.27	peak		
5		683.0363	43	.56	-9	).38		34.18		46.00		-11.82	peak		
6		767.6203	42	.09	-7	<b>'</b> .56		34.53		46.00		-11.47	peak		

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



# APPENDIX C RADIATED EMISSIONS - ABOVE 1 GHZ

Ta	Test Mo est Frequ			802.11b 2MHz		Test Date Polarizatior	2		2/8/1 rtical
	Temp			5°C		Hum.	1		5%
130.0 d	iBuV/m		2	00		Tionin.			570
120 📖									
110									
00									
90									
BO									
70 🗖									
50									
50									
50									
40 L		1 X							
		2 X							
30		×							
20									
10.0									
	00 3550.0	0 6100.00	8650.00	11200.00	13750.00 1	6300.00 18	850.00 214	400.00	26500.00 MH
No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4824.000	38.80	0.72	39.52	74.00	-34.48	peak	
2	*	4824.000	30.45	0.72	31.17	54.00	-22.83	AVG	

To	Test Mode Test Frequency			802.11b 2MHz		Test Date Polarization	2		2/8/1 zontal
Te	Temp			<u>210112</u> 5°C		Hum.	1		5%
130.0 d	BuV/m	/	2	50		rium.		0.	J 70
120									
120									
110									
100									
90 –									
80									
70									
60									
50									
40		1 X 2							
30		2 X							
20									
10.0									
1000.0 No.	00 3550.0 Mk.	0 6100.00 Freq.	8650.00 Reading	11200.00 Correct	13750.00 1 Measure-	6300.00 18 Limit	850.00 214 Over	00.00	26500.00 MH
INU.	IVIK.	гіец.	Level	Factor	ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4824.000		0.72	39.89	74.00	-34.11	peak	
2	*	4824.000	) 31.66	0.72	32.38	54.00	-21.62	AVG	

т	Test Mo est Freq			802.11b 7MHz		Test Date Polarization	2		2/8/1 rtical
	Tem			5°C		Hum.	1		5%
130.0	dBuV/m	9		00		T MITT.			570
120 🗕									
110									
100									
90									
30									
'o 🥅									
50									
50									
40		1 X							
		2							
30		×							
20									
10.0									
	000 3550.	00 6100.00	) 8650.00	11200.00	13750.00 1	6300.00 18	850.00 214	100.00	26500.00 MH
No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		
		•	Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000		0.89	40.13	74.00	-33.87	peak	
2	*	4874.000	) 30.61	0.89	31.50	54.00	-22.50	AVG	



	Test Mo	de	IFFF	802.11b		Test Date		202	2/8/1
Т	Test Frequ			7MHz		Polarization	1		zontal
	Temp		2	5°C		Hum.			5%
130.0	dBuV/m								
120									
110									
100 —									
90									
80									
70									
60									
50									
40		1 X							
40		2 X							
30		×							
20									
10.0									
1000.	.000 3550.0	0 6100.00	) 8650.00	11200.00	13750.00 1	16300.00 18	350.00 214	00.00	26500.00 MHz
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000		0.89	42.73	74.00	-31.27	peak	
2	*	4874.000	) 29.98	0.89	30.87	54.00	-23.13	AVG	



Т	Test Mo est Frequ			802.11b 2MHz		Test Date Polarization	1		2/8/1 rtical
· · · ·	Temp			5°C		Hum.			5%
130.0	dBuV/m								
120									
110									
100 -									
90									
80									
70									
60 —									
50									
40		1 X							
30		2 X							
20									
10.0									
1000.	.000 3550.0	0 6100.00	8650.00	11200.00	13750.00 1	16300.00 188	850.00 214	100.00	26500.00 MHz
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4924.000		1.07	41.38	74.00	-32.62	peak	
2	*	4924.000	30.09	1.07	31.16	54.00	-22.84	AVG	



Te	Test Mo est Frequ		16	<u>EEE 80</u> 2462N				Test Date Polarizatio			2/8/1 zontal
	Temp			25°(	С			Hum.		65	5%
130.0 d	dBuV/m										
20											
10											
00											
0 -											
0											
0											
0											
0		1 X									
0		2 X									
0		^									
0.0											
	000 3550.0	)0 6100.0	0 8650.	.00 1	1200.00	13750.00	163	300.00 1	8850.00 214	400.00	26500.00 MH
No.	Mk.	Freq.	Read Lev		Correct Factor	Measur ment	e-	Limit	Over		
		MHz	dBu		dB	dBuV/r	n	dBuV/m	dB	Detector	Comment
1		4924.00			1.07	44.51		74.00	-29.49	peak	
2	*	4924.00			1.07	33.88		54.00	-20.12	AVG	

	Test Mo			802.11g		Test Date			2/8/2
	est Frequ Temp			<u>2MHz</u> 4°C		Polarizatio Hum.	n		tical 3%
130.0	dBuV/m		Z·	40		num.		50	570
120 🗕									
10									
100 -									
90									
BO									
70 🗖									
50									
50									
40 –		1 X							
30		2 X							
		x							
20									
10.0									
	.000 3550.0		8650.00	11200.00				100.00	26500.00 MH
No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		
		MHz	Level dBuV	Factor dB	ment dBuV/m	dBuV/m	dB	Dotoctor	Commont
1		4824.000	ави v 39.64	0.72	40.36	74.00	-33.64	Detector peak	Comment
2	*	4824.000	27.95	0.72	28.67	54.00	-25.33	AVG	

	Test Mode			802.11g		Test Date		202	2/8/2
T	est Frequ			2MHz		Polarization	า		zontal
	Temp	)	24	4°C		Hum.		58	3%
130.0	dBu¥/m								
120									
110									
100									
90 -									
80									
70									
60 —									
50									
40		1 X							
30		2 X							
20									
10.0									
	000 3550.0		8650.00	11200.00				00.00	26500.00 MHz
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4824.000	39.69	0.72	40.41	74.00	-33.59	peak	
2	*	4824.000	27.81	0.72	28.53	54.00	-25.47	AVG	

	Test Mode		IEEE	802.11g		Test Date		202	2/8/2
Т	est Frequ			7MHz		Polarization	n		tical
	Temp	)	24	4°C		Hum.		58	3%
130.0	dBuV/m								
120									
110									
100 -									
90 -									
80									
70									
60									
50									
40		1 X							
30		2 X							
20									
10.0									
	.000 3550.0		8650.00	11200.00				00.00	26500.00 MHz
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	40.49	0.89	41.38	74.00	-32.62	peak	
2	*	4874.000	28.70	0.89	29.59	54.00	-24.41	AVG	

Te	Test Mo est Frequ			802.11g 7MHz		Test Date Polarization	1		2/8/2 zontal
	Temp			4°C		Hum.			3%
130.0 d	BuV/m								
120									
110									
100									
90 -									
во —									
70									
60									
50									
40 -		1 X							
30 -		2 X							
20									
10.0									
1000.0 No.	00 3550.0 Mk.		8650.00 Decision	11200.00			850.00 214 Over	400.00	26500.00 MH
INO.	IVIK.	Freq.	Reading Level	Correct Factor	Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	39.89	0.89	40.78	74.00	-33.22	peak	
2	*	4874.000	28.53	0.89	29.42	54.00	-24.58	AVG	



-	Test N				802.11g		Test Date			2/8/2
l	Test Free				2MHz		Polarization	n		tical
130.0	Terr dBuV/m	ıр		2	4°C		Hum.		50	3%
130.0	00047711									
120										
110										
100										
90										
90										
80 -										
70										
60										
50										
40		1 X								
40		2								
30 -		×								
20										
10.0										
	.000 3550	.00 6100	00	8650.00	11200.00	13750.00	16300.00 18	850.00 214	00.00	26500.00 MHz
No.	Mk.	Freq		Reading	Correct	Measure-		Over		
			-	Level	Factor	ment		0.0.		
		MHz		dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4924.0	00	40.64	1.07	41.71	74.00	-32.29	peak	
2	*	4924.0	00	28.94	1.07	30.01	54.00	-23.99	AVG	



	Test Mode Test Frequency			802.11g		Test Date			2/8/2
	Tem			<u>2MHz</u> 4°C		Polarization Hum.	)		zontal 3%
130.0	dBuV/m	9	Z	40				50	D 70
120									
110 -									
100 🗕									
90									
80 –									
70									
~~									
60 —									
50									
		1 X							
40									
30 -		2 X							
20									
10.0	000 0550			44000.00	40750.00	0000.00 40		00.00	
	.000 3550.			11200.00				00.00	26500.00 MHz
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4924.000		1.07	42.18	74.00	-31.82	peak	2011110111
2	*	4924.000		1.07	30.17	54.00	-23.83	AVG	

	Test Mo			.11n (HT20		Test Date			2/8/2
T	est Frequ			2412MHz		Polarization			tical
	Temp	)	2	4°C		Hum.		58	3%
130.0	dBu¥/m							1	
120									
110									
100									
90 -									
80									
70									
60									
50									
40		1 X							
30		2 X							
20									
10.0									
	.000 3550.0			11200.00				00.00	26500.00 MHz
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4824.000	39.41	0.72	40.13	74.00	-33.87	peak	
2	*	4824.000	28.06	0.72	28.78	54.00	-25.22	AVG	

	Test Mo	nde .		.11n (HT20	))	Test Date		202	2/8/2
Т	est Frequ			2MHz	,,	Polarization	1		zontal
	Temp			4°C		Hum.			3%
130.0	dBuV/m								
120									
120									
110									
100									
90									
80									
70									
60									
50									
		1							
40		X							
30		2 X							
20									
10.0									
1000.	.000 3550.0	0 6100.00	8650.00	11200.00	13750.00 1	6300.00 18	850.00 214	00.00	26500.00 MHz
No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4824.000		0.72	39.67	74.00	-34.33	peak	
2	*	4824.000	28.31	0.72	29.03	54.00	-24.97	AVG	

	Test Mo	de	IEEE 802	.11n (HT20	))	Test Date		202	2/8/2
Т	est Frequ	iency		7MHz		Polarization	n	Ver	tical
	Temp		2	4°C		Hum.		58	3%
130.0	dBuV/m								
120									
110									
100									
90 -									
80									
70									
60									
50		1 X							
40									
30		2 X							
20									
10.0									
	.000 3550.0			11200.00				00.00	26500.00 MHz
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	40.69	0.89	41.58	74.00	-32.42	peak	
2	*	4874.000	29.01	0.89	29.90	54.00	-24.10	AVG	

	Test Mo	do		.11n (HT20	ור	Test Date		202	2/8/2
Т	est Frequ			7MHz	)	Polarizatio	n		zontal
	Temp			4°C		Hum.			3%
130.0	dBuV/m								
120									
110									
100									
90									
80									
_									
70									
60 —									
50									
		1 X							
40									
30		2 X							
20									
10.0	000 3550.0	0 6100.00	8650.00	11200.00	13750.00 1	16300.00 18	850.00 214	00.00	26500.00 MHz
No.	Mk.	Freq.	Reading	Correct	Measure-		Over		20300.00 MH2
110.			Level	Factor	ment	Linit	0.001		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	40.87	0.89	41.76	74.00	-32.24	peak	
2	*	4874.000	28.94	0.89	29.83	54.00	-24.17	AVG	

	Test Mo			.11n (HT20	))	Test Date			2/8/2
Т	Test Frequency		2462MHz			Polarization	า	Vertical	
	Temp	1	2	4°C		Hum.		58	3%
130.0	dBuV/m								
120									
110									
100 -									
90									
80									
70									
60									
50									
40		1 X							
30		2 X							
20									
10.0									
	.000 3550.0			11200.00				00.00	26500.00 MHz
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4924.000	40.45	1.07	41.52	74.00	-32.48	peak	
2	*	4924.000	29.00	1.07	30.07	54.00	-23.93	AVG	

Te	Test Mo est Frequ			.11n (HT20 2MHz		Test Date Polarizatior	1		2/8/2 zontal
	Temp			4°C		Hum.			3%
130.0 d	IBuV/m			. •					
120									
110									
100									
90 —									
BO									
70									
60									
50									
40		1 X							
30		2 X							
20									
10.0									
1000.0	00 3550.0	)0 6100.00	8650.00	11200.00	13750.00 1	6300.00 188	350.00 214	100.00	26500.00 MH
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4924.000	40.92	1.07	41.99	74.00	-32.01	peak	
2	*	4924.000	29.08	1.07	30.15	54.00	-23.85	AVG	

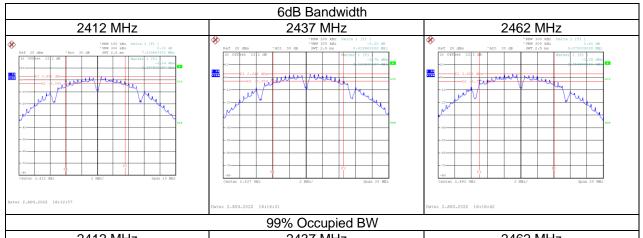


**BIL** 



#### Test Mode IEEE 802.11b Antenna

Test Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Minimum 6 dB Bandwidth Limit (kHz)	Result
2412	7.64	13.28	≥ 500	Pass
2437	8.62	14.00	≥ 500	Pass
2462	9.07	13.68	≥ 500	Pass

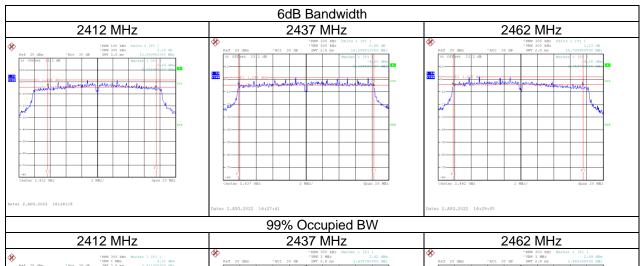






## Test Mode IEEE 802.11g

Test Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Minimum 6 dB Bandwidth Limit (kHz)	Result
2412	13.87	16.64	≥ 500	Pass
2437	16.40	17.12	≥ 500	Pass
2462	15.80	16.80	≥ 500	Pass

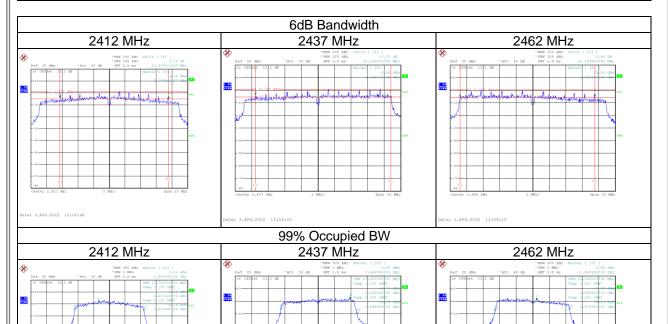






#### Test Mode IEEE 802.11n (HT20)

Test Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Minimum 6 dB Bandwidth Limit (kHz)	Result
2412	13.92	17.76	≥ 500	Pass
2437	16.39	18.40	≥ 500	Pass
2462	16.36	18.08	≥ 500	Pass



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# APPENDIX E OUTPUT POWER



	_				
Test Mode	IEEE 802.11b		Г	Tested Date	2022/8/2
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Limit (dBm)	Limit (W)	Result
2412	15.77	0.0378	30.00	1.0000	Complies
2437	15.63	0.0366	30.00	1.0000	Complies
2462	15.41	0.0348	30.00	1.0000	Complies
Test Mode	IEEE 802.11g		T	ested Date	2022/8/2
Frequency	Conducted Power	Conducted Power	Limit	Limit	Dec. II
(MHz)	(dBm)	(VV)	(dBm)	(W)	Result
2412	18.56	0.0718	30.00	1.0000	Complies
2437	17.92	0.0619	30.00	1.0000	Complies
2462	18.34	0.0682	30.00	1.0000	Complies
Test Mode	IEEE 802.11n (HT	-20)	Т	ested Date	2022/8/2
Frequency	Conducted Power	Conducted Power	Limit	Limit	
(MHz)	(dBm)	(VV)	(dBm)	(W)	Result
2412	17.68	0.0586	30.00	1.0000	Complies
2437	17.57	0.0571	30.00	1.0000	Complies
2462	17.23	0.0528	30.00	1.0000	Complies



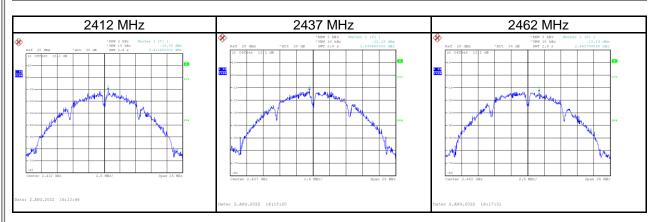


APPENDIX F	POWER SPECTRAL DENSITY	



## Test Mode IEEE 802.11b

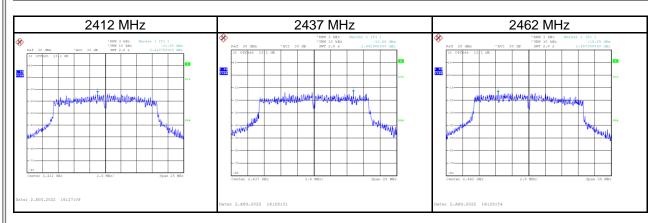
Test Frequency	Power Spectral Density	Maximum Limit	Result
(MHz)	(dBm/3kHz)	(dBm/3kHz)	Roodit
2412	-10.38	8.00	Pass
2437	-12.18	8.00	Pass
2462	-13.19	8.00	Pass





## Test Mode IEEE 802.11g

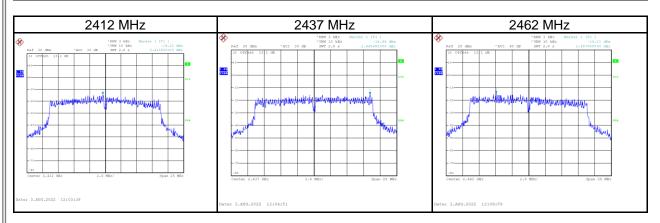
Test Frequency	Power Spectral Density	Maximum Limit	Desult
(MHz)	(dBm/3kHz)	(dBm/3kHz)	Result
2412	-12.88	8.00	Pass
2437	-13.56	8.00	Pass
2462	-14.09	8.00	Pass





## Test Mode IEEE 802.11n (HT20)

Test Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)	Result
2412	-14.12	8.00	Pass
2437	-14.94	8.00	Pass
2462	-14.21	8.00	Pass





## APPENDIX G ANTENNA CONDUCTED SPURIOUS EMISSIONS



