



# **FCC Radio Test Report**

FCC ID: LDK88752517

: BTL-FCCP-3-2112T026 Report No.

: Video Phone Equipment : CP-8875 **Model Name Brand Name** : CISCO

: Cisco Systems Inc Applicant : 125 West Tasman Drive Address San Jose, CA 95134-1706

**United States** 

Radio Function : WLAN 2.4 GHz

FCC Rule Part(s) : FCC Part15, Subpart C (15.247) : ANSI C63.10-2013

Measurement Procedure(s)

Date of Receipt : 2021/12/6

Date of Test : 2021/12/6 ~ 2022/1/21

Issued Date : 2022/2/7

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

Prepared by

Approved by

Testing Laboratory

BTL Inc.

No.18, Ln. 171, Sec. 2, Jiuzong Rd., Neihu Dist., Taipei City 114, Taiwan

Web: www.newbtl.com Tel: +886-2-2657-3299 Fax: +886-2-2657-3331

Project No.: 2112T026 Page 1 of 72 Report Version: R00



#### **Declaration**

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

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

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BTL 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.

Project No.: 2112T026 Page 2 of 72 Report Version: R00





#### **CONTENTS REVISION HISTORY** 5 SUMMARY OF TEST RESULTS 6 7 1.1 **TEST FACILITY** 1.2 MEASUREMENT UNCERTAINTY 7 1.3 TEST ENVIRONMENT CONDITIONS 7 1.4 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING 8 1.5 **DUTY CYCLE** 9 2 **GENERAL INFORMATION** 10 2.1 **DESCRIPTION OF EUT** 10 2.2 **TEST MODES** 11 2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED 12 2.4 SUPPORT UNITS 13 3 AC POWER LINE CONDUCTED EMISSIONS TEST 14 14 3.1 LIMIT 3.2 **TEST PROCEDURE** 14 3.3 **DEVIATION FROM TEST STANDARD** 14 3.4 TEST SETUP 15 3.5 15 TEST RESULT 4 RADIATED EMISSIONS TEST 16 4.1 LIMIT 16 4.2 TEST PROCEDURE 17 **DEVIATION FROM TEST STANDARD** 4.3 17 TEST SETUP 4.4 17 4.5 **EUT OPERATING CONDITIONS** 18 4.6 TEST RESULT - BELOW 30 MHZ 19 4.7 TEST RESULT - 30 MHZ TO 1 GHZ 19 TEST RESULT - ABOVE 1 GHZ 4.8 19 5 **BANDWIDTH TEST** 20 5.1 LIMIT 20 TEST PROCEDURE 5.2 20 5.3 **DEVIATION FROM TEST STANDARD** 20 5.4 **TEST SETUP** 20 5.5 **EUT OPERATING CONDITIONS** 20 **TEST RESULT** 20 5.6 **OUTPUT POWER TEST** 6 21 6.1 LIMIT 21 6.2 TEST PROCEDURE 21 **DEVIATION FROM TEST STANDARD** 6.3 21 6.4 **TEST SETUP** 21 6.5 **EUT OPERATING CONDITIONS** 21 6.6 **TEST RESULT** 21 POWER SPECTRAL DENSITY 7 22 7.1 LIMIT 22 7.2 **TEST PROCEDURE** 22 7.3 **DEVIATION FROM TEST STANDARD** 22 7.4 **TEST SETUP** 22 7.5 **EUT OPERATING CONDITIONS** 22 7.6 **TEST RESULT** 22



8	ANTENN	NA CONDUCTED SPURIOUS EMISSIONS TEST	23
8.1	LIMIT		23
8.2	TEST	PROCEDURE	23
8.3	DEVI	ATION FROM TEST STANDARD	23
8.4	TEST	SETUP	23
8.5	EUT (	OPERATING CONDITIONS	23
8.6	TEST	RESULT	23
9	LIST OF	MEASURING EQUIPMENTS	24
10	EUT TES	ST PHOTO	26
11	EUT PH	OTOS	26
ADDEND	ALV A	AC DOWED LINE CONDUCTED EMISSIONS	07
APPEND	IX A	AC POWER LINE CONDUCTED EMISSIONS	27
APPEND	IX B	RADIATED EMISSIONS - 30 MHZ TO 1 GHZ	32
APPEND	IX C	RADIATED EMISSIONS - ABOVE 1 GHZ	35
APPEND	IX D	BANDWIDTH	60
APPEND	IX E	OUTPUT POWER	64
APPEND	IX F	POWER SPECTRAL DENSITY	66
APPEND	IX G	ANTENNA CONDUCTED SPURIOUS EMISSIONS	69

Project No.: 2112T026 Page 4 of 72 Report Version: R00



# **REVISION HISTORY**

Report No.	Version	Description	Issued Date
BTL-FCCP-3-2112T026	R00	Original Report.	2022/2/7

Project No.: 2112T026 Page 5 of 72 Report Version: R00



# 1 SUMMARY OF TEST RESULTS

Test procedures according to the technical standards.

FCC Part 15, Subpart C (15.247)							
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)	7(b) Output Power		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:

(1) "N/A" denotes test is not applicable in this Test Report.

(2) The report format version is TP.1.1.1.

Project No.: 2112T026 Page 6 of 72 Report Version: R00

#### 1.1 TEST FACILITY

The test facilities used to collect the test data in this report:

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.

The test sites and facilities are covered under PCC RN. 674415 and DN. 1740059.

□ CB18 □ CB18 □ CB18

⊠ SR05

### 1.2 MEASUREMENT UNCERTAINTY

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

A. AC power line conducted emissions test:

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

### B. Radiated emissions test:

Test Site	Measurement Frequency Range	U,(dB)
	0.03 GHz ~ 0.2 GHz	4.17
	0.2 GHz ~ 1 GHz	4.72
CB15	1 GHz ~ 6 GHz	5.21
CB15	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	20 °C, 58 %	AC 120V	Paul Shen	
Radiated emissions below 1 GHz	21 °C, 68 %	AC 120V	Eddie Lee	
Radiated emissions above 1 GHz	20~21 °C, 66~67 %	AC 120V	Eddie Lee	
Bandwidth	24.5 °C, 52 %	AC 120V	Angela Wang	
Output Power	24.5 °C, 52 %	AC 120V	Angela Wang	
Power Spectral Density	24.5 °C, 52 %	AC 120V	Angela Wang	
Antenna conducted Spurious Emission	24.5 °C, 52 %	AC 120V	Angela Wang	

Project No.: 2112T026 Page 7 of 72 Report Version: R00



# 1.4 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

Test Software	PuTTY V0.62					
Mode	2412 MHz	2437 MHz	2462 MHz	Data Rate		
IEEE 802.11b	17	17	17	1 Mbps		
IEEE 802.11g	13	16	13	6 Mbps		
IEEE 802.11n (HT20)	13	15	13	MCS 0		

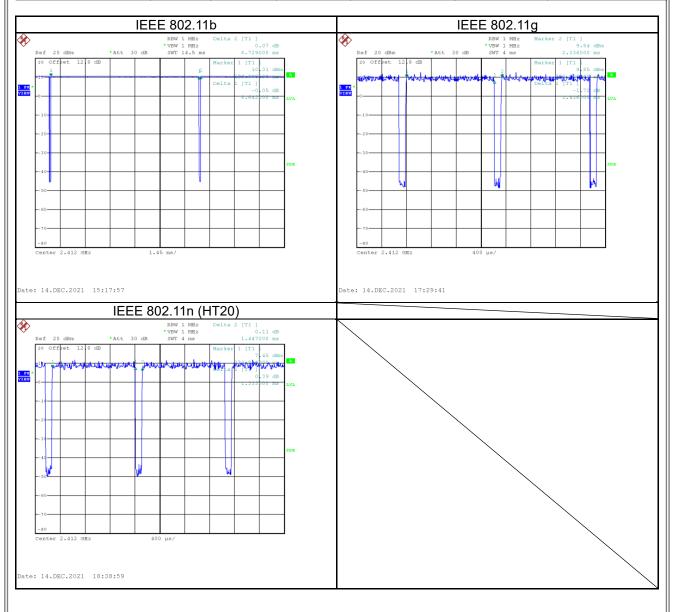
Project No.: 2112T026 Page 8 of 72 Report Version: R00



### 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			Delta 2	On Time/Period	10 log(1/Duty Cycle)
Mode	ON	Numbers	On Time (B)	Period (ON+OFF)	Duty Cycle	Duty Factor
lviode	(ms)	(ON)	(ms)	(ms)	(%)	(dB)
IEEE 802.11b	8.642	1	8.642	8.729	99.00%	0.04
IEEE 802.11g	1.416	1	1.416	2.336	60.62%	2.17
IEEE 802.11n (HT20)	1.333	1	1.333	1.447	92.12%	0.36



# **2 GENERAL INFORMATION**

### 2.1 DESCRIPTION OF EUT

Equipment	Video Phone
Model Name	CP-8875
Brand Name	CISCO
Model Difference	N/A
Power Source	#1 DC voltage supplied from AC/DC Adapter. (1) DELTA / ADP-50GR B (2) CISCO / AM50U-480A #2 DC Voltage supplied from PoE Adapter.
Power Rating	#1 (1) I/P: 100-240V~1.3A, 50-60Hz O/P: 48V1.042A, 50.1W MAX. (2) I/P: 100-240V~1.2A, 50-60Hz O/P: 48V1.042A, 50.016W #2 I/P: 48V
Products Covered	2 * AC/DC Adapter (1) Delta / ADP-50GR B (2) Cisco / AM50U-480A 1 * Wall bracket 1 * Phone bracket 1 * 6-inch Ethernet cable
Operation Band	2400 MHz ~ 2483.5 MHz
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Technology	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM
Transfer Rate	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 72.2 Mbps
Output Power Max.	IEEE 802.11b: 19.79 dBm (0.0953 W) IEEE 802.11g: 24.38 dBm (0.2742W) IEEE 802.11n (HT20): 24.69 dBm (0.2944 W)
Test Model	CP-8875
Sample Status	Engineering Sample
EUT Modification(s)	N/A

### NOTE:

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

# (2) Channel List:

•	Official Liot.	0.16.1.110. 2.04.						
	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.	Manufacturer	Part number	Туре	Connector	Frequency (MHz)	Gain (dBi)
1	GINPAQ NWA TECHNOLOGY CO. LTD	WA-P-LB-02-885	PCB	I-PEX	2400-2500	1.79

Project No.: 2112T026 Page 10 of 72 Report Version: R00



### 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 802.11b	06	-
	TX Mode_IEEE 802.11b		
	TX Mode_IEEE 802.11g	01/11	Bandedge
Transmitter Radiated Emissions	TX Mode_IEEE 802.11n (HT20)		
(above 1GHz)	TX Mode_IEEE 802.11b		
	TX Mode_IEEE 802.11g	01/06/11	Harmonic
	TX Mode_IEEE 802.11n (HT20)		
Bandwidth &	TX Mode_IEEE 802.11b		
Power Spectral Density &	TX Mode_IEEE 802.11g	01/06/11	-
Antenna conducted Spurious Emission	TX Mode_IEEE 802.11n (HT20)		
	TX Mode_IEEE 802.11b		
Output Power	TX Mode_IEEE 802.11g	01/06/11 -	
	TX Mode_IEEE 802.11n (HT20)		

### NOTE:

- (1) For radiated emission band edge test, both Vertical and Horizontal are evaluated, but only the worst case (Vertical) is recorded.
- (2) All power supply methods are evaluated, the adapter Cisco / AM50U-480A Version is the worst and recorded as below test data.
- (3) Wall bracket and Footstand type are evaluated, but only the worst case (Footstand) is recorded.

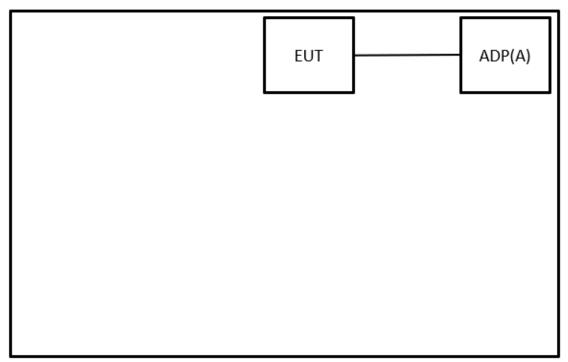
Project No.: 2112T026 Page 11 of 72 Report Version: R00



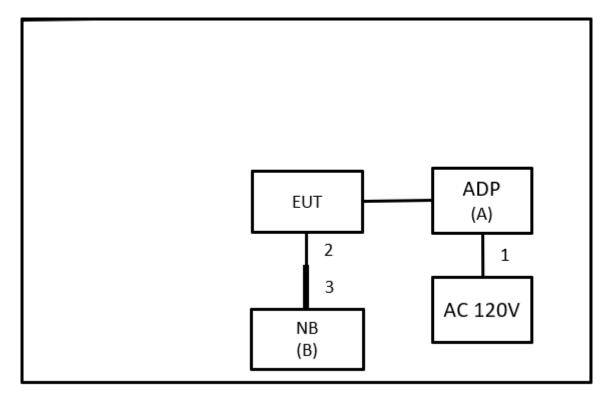
### 2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

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

AC power line conducted emissions



**Radiated Emissions** 





# 2.4 SUPPORT UNITS

Iter	n Equipment	Brand	Model No.	Series No.	Remarks
Α	Adapter	CISCO	AM50U-480A	N/A	Supplied by test requester
В	NB	HP	TPN-I119	N/A	Furnished by test lab.

Item	Shielded	Ferrite Core	Length	Cable Type	Remarks
1	N/A	N/A	1.5m	Power Cord	Furnished by test lab.
2	N/A	N/A	1.8m	RJ232 to VGA	Supplied by test requester
3	N/A	N/A	1.8m	VGA to USB	Furnished by test lab.

Project No.: 2112T026 Page 13 of 72 Report Version: R00



### 3 AC POWER LINE CONDUCTED EMISSIONS TEST

#### 3.1 LIMIT

Frequency	Limit (	dΒμV)
(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	=	41.67

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

The following table is the setting of the receiver.

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

#### 3.2 TEST PROCEDURE

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

### NOTE:

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

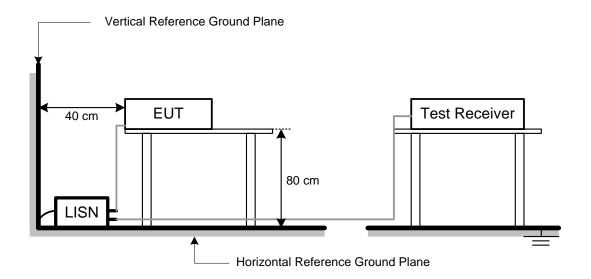
#### 3.3 DEVIATION FROM TEST STANDARD

No deviation.

Project No.: 2112T026 Page 14 of 72 Report Version: R00



### 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)

Frequency (MHz)	Radiated Emissions (dBuV/m)		Measurement Distance
(IVIHZ)	Peak	Average	(meters)
Above 1000	74	54	3

#### NOTE:

- (1) The limit for radiated test was performed according to FCC 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	=	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

Project No.: 2112T026 Page 16 of 72 Report Version: R00



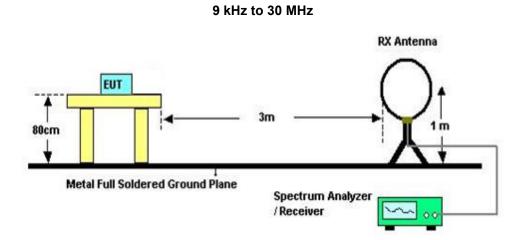
#### 4.2 TEST PROCEDURE

- 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

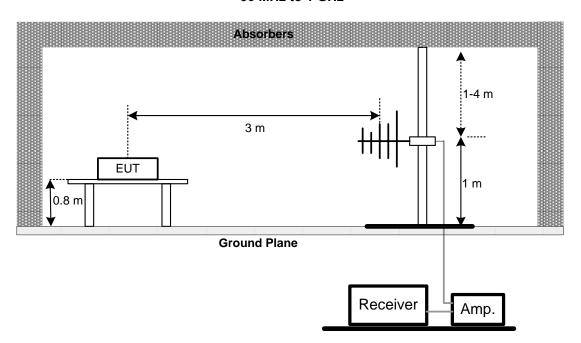
No deviation.

#### 4.4 TEST SETUP

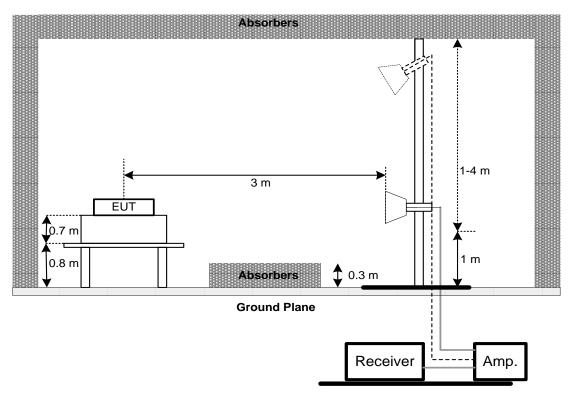




30 MHz to 1 GHz



Above 1 GHz



### 4.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.



### 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.

Project No.: 2112T026 Page 19 of 72 Report Version: R00

### **5 BANDWIDTH TEST**

### 5.1 LIMIT

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

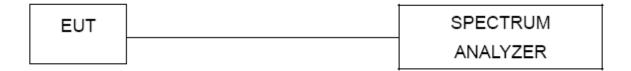
### 5.2 TEST PROCEDURE

- 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.
- c. 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

EUT	Power Meter
	1 OWEI WICKEI

#### 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	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

EUT	SPECTRUM
	ANALYZER

### 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.

Project No.: 2112T026 Page 22 of 72 Report Version: R00



### 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

EUT SPECTRUM ANALYZER

#### 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.

Project No.: 2112T026 Page 23 of 72 Report Version: R00



# 9 LIST OF MEASURING EQUIPMENTS

	AC Power Line Conducted Emissions							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until		
1	TWO-LINE V-NETWORK	R&S	ENV216	101339	2021/3/10	2022/3/9		
2	Test Cable	EMCI	EMCCFD300-BM -BMR-6000	170714	2021/6/7	2022/6/6		
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	EMC02325	980217	2021/4/8	2022/4/7		
2	Preamplifier	EMCI	EMC012645B	980222	2021/4/8	2022/4/7		
3	Preamplifier	EMCI	EMC001340	980555	2021/4/8	2022/4/7		
4	Test Cable	EMCI	EMC104-SM-100 0	180809	2021/4/8	2022/4/7		
5	Test Cable	EMCI	EMC104-SM-SM- 3000	151205	2021/4/8	2022/4/7		
6	Test Cable	EMCI	EMC-SM-SM-700 0	180408	2021/4/8	2022/4/7		
7	MXE EMI Receiver	Agilent	N9038A	MY56400087	2021/5/27	2022/5/26		
8	Signal Analyzer	Agilent	N9010A	MY56480554	2021/8/25	2022/8/24		
9	Loop Ant	Electro-Metrics	EMCI-LPA600	274	2021/6/1	2022/5/31		
10	Horn Ant	SCHWARZBECK	BBHA 9120D	9120D-1342	2021/6/2	2022/6/1		
11	Horn Ant	Schwarzbeck	BBHA 9170	340	2021/7/9	2022/7/8		
12	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	9168-352	2021/8/11	2022/8/10		
13	5dB Attenuator	EMCI	EMCI-N-6-05	AT-N0625	2021/8/11	2022/8/10		
14	Measurement Software	EZ	EZ_EMC (Version NB-03A1-01)	N/A	N/A	N/A		

	Bandwidth					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Spectrum Analyzer	R&S	FSP 30	100854	2021/4/16	2022/4/15

	Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Power Meter	Anritsu	ML2495A	1128008	2021/5/26	2022/5/25
2	Power Sensor	Anritsu	MA2411B	1126001	2021/5/26	2022/5/25

Project No.: 2112T026 Page 24 of 72 Report Version: R00



Power Spectral Density						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Spectrum Analyzer	R&S	FSP 30	100854	2021/4/16	2022/4/15

	Antenna conducted Spurious Emission						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until	
1	Spectrum Analyzer	R&S	FSP 30	100854	2021/4/16	2022/4/15	

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

Project No.: 2112T026 Page 25 of 72 Report Version: R00



10 EUT TEST PHOTO
Please refer to document Appendix No.: TP-2112T026-FCCP-1 (APPENDIX-TEST PHOTOS).
11 EUT PHOTOS
Please refer to document Appendix No.: EP-2112T026-1 (APPENDIX-EUT PHOTOS).

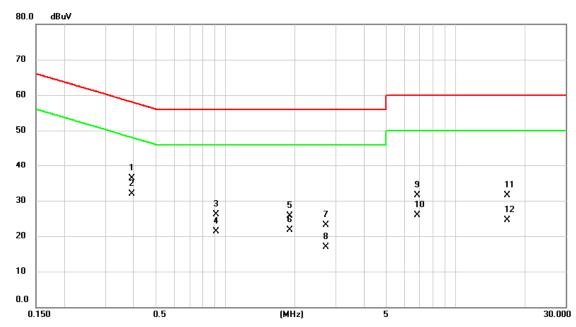
Project No.: 2112T026 Page 26 of 72 Report Version: R00



APPENDIX A	AC POWER LINE CONDUCTED EMISSIONS

Project No.: 2112T026 Page 27 of 72 Report Version: R00

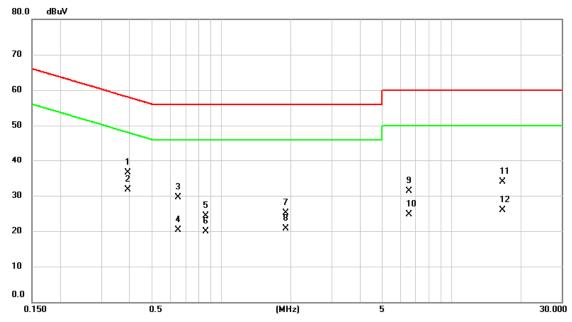
Test Mode	Normal		2021/12/17
Test Frequency	-	Phase	Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBu∨	dB	dBu∨	dBu∨	dB	Detector	Comment
1		0.3930	26.60	9.72	36.32	58.00	-21.68	QP	
2	*	0.3930	22.18	9.72	31.90	48.00	-16.10	AVG	
3		0.9105	16.35	9.74	26.09	56.00	-29.91	QP	
4		0.9105	11.53	9.74	21.27	46.00	-24.73	AVG	
5		1.9005	15.89	9.77	25.66	56.00	-30.34	QP	
6		1.9005	11.88	9.77	21.65	46.00	-24.35	AVG	
7		2.7173	13.33	9.79	23.12	56.00	-32.88	QР	
8		2.7173	7.17	9.79	16.96	46.00	-29.04	AVG	
9		6.8303	21.50	10.03	31.53	60.00	-28.47	QP	
10		6.8303	15.79	10.03	25.82	50.00	-24.18	AVG	
11		16.7460	21.40	10.20	31.60	60.00	-28.40	QP	
12		16.7460	14.36	10.20	24.56	50.00	-25.44	AVG	

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

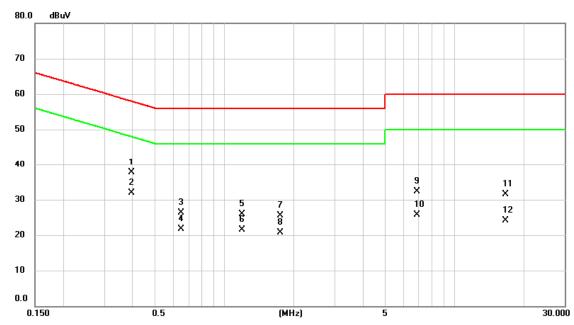
Test Mode	Normal	Tested Date	2021/12/17
Test Frequency	-	Phase	Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBu∨	dB	dBu∨	dBu∨	dB	Detector	Comment
1		0.3930	26.86	9.73	36.59	58.00	-21.41	QP	
2	*	0.3930	21.92	9.73	31.65	48.00	-16.35	AVG	
3		0.6495	19.85	9.74	29.59	56.00	-26.41	QP	
4		0.6495	10.55	9.74	20.29	46.00	-25.71	AVG	
5		0.8565	14.56	9.75	24.31	56.00	-31.69	QP	
6		0.8565	10.17	9.75	19.92	46.00	-26.08	AVG	
7		1.8983	15.24	9.78	25.02	56.00	-30.98	QР	
8		1.8983	10.92	9.78	20.70	46.00	-25.30	AVG	
9		6.5670	21.25	10.04	31.29	60.00	-28.71	QP	
10		6.5670	14.68	10.04	24.72	50.00	-25.28	AVG	
11		16.5750	23.53	10.29	33.82	60.00	-26.18	QP	
12		16.5750	15.56	10.29	25.85	50.00	-24.15	AVG	

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

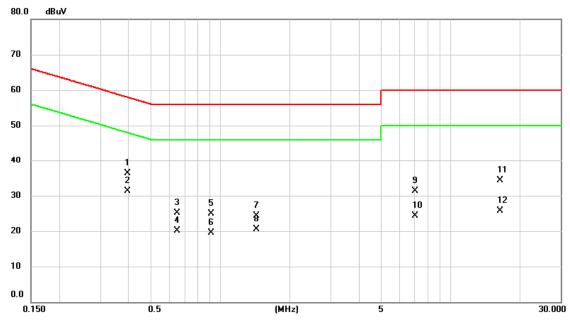
Test Mode	Idle		2021/12/17
Test Frequency	-	Phase	Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBu∨	dB	dBu∨	dBu∨	dB	Detector	Comment
1		0.3952	28.03	9.72	37.75	57.95	-20.20	QP	
2	*	0.3952	22.21	9.72	31.93	47.95	-16.02	AVG	
3		0.6495	16.52	9.73	26.25	56.00	-29.75	QP	
4		0.6495	11.97	9.73	21.70	46.00	-24.30	AVG	
5		1.1962	16.17	9.74	25.91	56.00	-30.09	QР	
6		1.1962	11.83	9.74	21.57	46.00	-24.43	AVG	
7		1.7453	15.74	9.76	25.50	56.00	-30.50	QΡ	
8		1.7453	11.04	9.76	20.80	46.00	-25.20	AVG	
9		6.8550	22.24	10.03	32.27	60.00	-27.73	QP	
10		6.8550	15.69	10.03	25.72	50.00	-24.28	AVG	
11		16.6718	21.32	10.20	31.52	60.00	-28.48	QP	
12		16.6718	13.87	10.20	24.07	50.00	-25.93	AVG	

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

Test Mode	Idle	Tested Date	2021/12/17
Test Frequency	-	Phase	Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBu∨	dB	dBu∨	dBu∨	dB	Detector	Comment
1		0.3952	26.57	9.73	36.30	57.95	-21.65	QP	
2	*	0.3952	21.59	9.73	31.32	47.95	-16.63	AVG	
3		0.6517	15.36	9.74	25.10	56.00	-30.90	QP	
4		0.6517	10.41	9.74	20.15	46.00	-25.85	AVG	
5		0.9127	15.09	9.75	24.84	56.00	-31.16	QP	
6		0.9127	9.67	9.75	19.42	46.00	-26.58	AVG	
7		1.4303	14.53	9.76	24.29	56.00	-31.71	QP	
8		1.4303	10.67	9.76	20.43	46.00	-25.57	AVG	
9		7.0440	21.15	10.06	31.21	60.00	-28.79	QP	
10		7.0440	14.28	10.06	24.34	50.00	-25.66	AVG	
11		16.3544	23.95	10.28	34.23	60.00	-25.77	QP	
12		16.3544	15.42	10.28	25.70	50.00	-24.30	AVG	

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



APPENDIX B	RADIATED EMISSIONS - 30 MHZ TO 1 GHZ

Project No.: 2112T026 Page 32 of 72 Report Version: R00

	Test Mo			802.11b		Test Date			2/1/21	
Test Frequency				7MHz		Polarization		Vertical		
Temp 80.0 dBuV/m			2	1°C		Hum.		68	3%	
70 dB 70 50 40 40 20	2 X	3 X	*		5x	6 X				_
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0.0										
30.000	127.00	224.00	321.00	418.00	515.00 6	512.00 <b>7</b> 09.	.00 806	6.00	1000.00	⊣мн
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comme	ent
1	*	34.4297	39.52	-9.73	29.79	40.00	-10.21	peak		
2		121.5680	38.47	-10.79	27.68	43.50	-15.82	peak		
3		220.2493	40.82	-12.21	28.61	46.00	-17.39	peak		
4		357.9570	32.43	-7.06	25.37	46.00	-20.63	peak		
5		539.3470	32.00	-2.86	29.14	46.00	-16.86	peak		
6		695.6140	29.06	0.05	29.11	46.00	-16.89	peak		

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

Test Mode Test Frequency				802.11b		Test Date			2022/1/21		
				7MHz	Polarization			Horizontal			
Temp			2	1°C	Hum.			68%			
70 de	3uV/m	Ž X									
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0.0											
30.000	127.00		321.00	418.00				5.00	1000.00	МН	
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comme	ent	
1	*	67.5066	40.11	-10.50	29.61	40.00	-10.39	peak			
2		220.5080	46.14	-12.21	33.93	46.00	-12.07	peak			
3		314.8243	36.37	-7.95	28.42	46.00	-17.58	peak			
4		396.0780	33.69	-6.00	27.69	46.00	-18.31	peak			
5		543.8736	32.42	-2.77	29.65	46.00	-16.35	peak			
6		676.0200	29.59	-0.09	29.50	46.00	-16.50	peak			

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



APPENDIX C	RADIATED EMISSIONS - ABOVE 1 GHZ

Project No.: 2112T026 Page 35 of 72 Report Version: R00



Test Mode Test Frequency Temp			IEEE	802.11b		Test Date Polarization			2021/12/16 Vertical		
			241	12MHz							
			20°C			Hum.			66%		
130.0	dBuV/m										
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2312.	000 2332.0	00 2352.00	2372.00	2392.00	2412.00	2432.00 24	152.00 247	72.00	2512.00	MHz	
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure ment	- Limit	Over				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Commer	nt	
1		2389.247	28.21	31.21	59.42	74.00	-14.58	peak			
2		2389.247	20.33	31.21	51.54	54.00	-2.46	AVG			
3	Χ	2412.000	78.85	31.28	110.13	74.00	36.13	peak	NoLimit		
4	*	2412.000	75.11	31.28	106.39	54.00	52.39	AVG	NoLimit		
5		2506.513	25.95	31.59	57.54	74.00	-16.46	peak			
6		2506.513	13.16	31.59	44.75	54.00	-9.25	AVG	<del>-</del>		

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



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	Test Mo			802.11b 2MHz		Test Date Polarization			/12/16
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No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2374.267	25.50	31.16	56.66	74.00	-17.34	peak	
2		2374.267	4.46	31.16	35.62	54.00	-18.38	AVG	N. 11 11
3	X *	2462.000	79.30	31.44	110.74	74.00	36.74	peak	NoLimit
4	*	2462.000	75.72	31.44	107.16	54.00	53.16	AVG	NoLimit
5		2484.160	28.34	31.52	59.86	74.00	-14.14	peak	
6		2484.160	19.90	31.52	51.42	54.00	-2.58	AVG	

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



	est Mo			E 802				Test D				/12/28	
Tes	t Frequ		2	412MF	Ηz			Polariz				tical	
	Temp			21°C				Hun	n		67	7%	
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No.	Mk.	Freq.	Readir Leve	_	orrect actor		easure- ment	Lim	it	Over			
		MHz	dBu√	7	dB	d	BuV/m	dBuV	//m	dB	Detector	Comme	ent
1		2388.333	37.40	3	1.21		68.61	74.0	0	-5.39	peak		
2		2388.333	21.63		1.21		52.84	54.0		-1.16	AVG		
3	Χ	2412.000	77.76		1.28		09.04	74.0		35.04	peak	NoLim	
4	*	2412.000	68.10		1.28		99.38	54.0		45.38	AVG	NoLim	it
5		2497.660	25.83		1.56		57.39	74.0		-16.61	peak		
6		2497.660	13.36	3	1.56		44.92	54.0	0	-9.08	AVG		

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



	Test Mo			802.11g 2MHz		Test Date Polarizatio			/12/28 tical
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No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		·
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2364.053		31.13	57.61	74.00	-16.39	peak	
2		2364.053		31.13	36.16	54.00	-17.84	AVG	
3	X	2462.000		31.44	112.64	74.00	38.64	peak	NoLimit
4	*	2462.000		31.44	103.17	54.00	49.17	AVG	NoLimit
5		2484.433		31.52	68.96	74.00	-5.04	peak	
6		2484.433	22.07	31.52	53.59	54.00	-0.41	AVG	

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



	Test Mo			02.11n (HT	20)	Test Dat			/12/28	
Tes	st Frequ	_	2	412MHz		Polarizati	ion		tical	
1000 10	Temp			21°C		Hum.		67	7%	
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No.	Mk.	Freq.	Readin Level			- Limit	Over			
		MHz	dBuV		dBuV/m	n dBuV/n	n dB	Detector	Commen	nt
1		2388.587	34.89			74.00	-7.90	peak	33	_
2		2388.587	20.84			54.00	-1.95	AVG		_
3	Χ	2412.000	77.61	31.28	108.89	74.00	34.89	peak	NoLimit	_
4	*	2412.000	68.14	31.28	99.42	54.00	45.42	AVG	NoLimit	
5		2484.527	25.61	31.52	57.13	74.00	-16.87	peak		
6		2484.527	4.42	31.52	35.94	54.00	-18.06	AVG		

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



	est Mo			2.11n (HT20		Test Date			/12/28	
Tes	t Frequ			S2MHz		Polarization	n		tical	
1000 10	Temp		2	21°C		Hum.		67	7%	
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90										-
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10.0										
2362.000		0 2402.00	2422.00	2442.00	2462.00 2			22.00	2562.00	MH
No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over			
		N 41 1-	Level	Factor	ment	-ID: ///	-ID	D-44	0	4
1		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comme	ะกัเ
2		2380.947 2380.947	25.30 4.76	31.18 31.18	56.48 35.94	74.00 54.00	-17.52 -18.06	peak AVG		
3	Х	2462.000	81.16	31.44	112.60	74.00	38.60	peak	NoLim	nit
4	*	2462.000	71.27	31.44	102.71	54.00	48.71	AVG	NoLim	
5		2484.793	36.86	31.52	68.38	74.00	-5.62	peak	14021111	
6		2484.793	21.55	31.52	53.07	54.00	-0.93	AVG		

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



	Test Mo	nde		1	EEE	802 1	1h				Test Da	ate		2021	/12/16
Te	est Frequ			•		2MHz					olariza				rtical
	Temp				2	0°C					Hum				6%
130.0	dBuV/m														
120															
110															
100															
90 -															
80															
70															
60															
50															
40		1 X 2 X													
30		X													
20															
10.0															
1000.0	000 3550.0	00 6100	.00	8650	.00	1120	0.00	1375	50.00	163	300.00	1885	0.00 2 <sup>.</sup>	400.00	26500.00 MH
No.	Mk.	Freq		Rea Le			rrect ctor		easur ment	9-	Limit	t	Over		
		MHz		dB			IB		3uV/n	n	dBuV/	m	dB	Detector	Comment
1		4824.0	00	54.	94	-11	1.64		13.30		74.00	)	-30.70	peak	
2	*	4824.0	00	47.	59	-11	1.64	3	35.95		54.00	)	-18.05	AVG	

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

1	est Mo	de		I	EEE	802.1	1b			Т	est Da	ate		2021	/12/16
Tes	t Frequ	iency				2MHz				Po	olariza	tion			zontal
	Temp	)			20	0°C					Hum.			6	6%
30.0 dB	uV/m														
20															
10															
00															
o															
o															
0 -															
0															
o		1 2 X													
o		^													
o															
0.0															
1000.00	3550.0	0 6100	.00	8650	.00	11200	.00	1375	0.00	163	00.00	1885	0.00 2	1400.00	26500.00 MI
No.	Mk.	Freq.	•	Rea Le		Cor Fac			asure nent	)-	Limit	t	Over		
		MHz		dB		d			BuV/m	1 (	dBuV/	m	dB	Detector	Comment
1		4824.0	00	55.	.59	-11	.64		3.95		74.00	)	-30.05	peak	
2	*	4824.0	00	49.	.33	-11	.64	3	7.69		54.00	)	-16.31	AVG	

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



	Test Mod	de			EEE	802.1°	1b				Test Da	ate			2021	/12/16	
T	est Frequ				243	7MHz					olariza					rtical	
	Temp				2	0°C					Hum				6	6%	
130.0	dBuV/m																_
120																	
110																	
100 -																	-
90																	_
80																	
_																	_
70																	_
60																	-
50			ı X														
40			2														
			ſ	•													
30																	
20 —																	-
10.0																	
	000 3550.00			8650		11200			0.00		300.00	1885		21400.	00	26500.	00 MH:
No.	Mk.	Freq			ding vel	Cor Fac			easure ment	9-	Limit	İ	Over	ſ			
		MHz		dB	uV	d	В		3uV/n	1	dBuV/	m	dB	С	etector	Comm	ent
1		7311.0			.55	<b>-</b> 5.			19.47		74.00		-24.5		peak		
2	*	7311.0	00	44	.50	-5.	80	3	39.42		54.00	)	-14.5	8	AVG		

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

	Test Mod			802.11b		Test Date			/12/16
Tes	st Freque	ency		37MHz		Polarization	on		zontal
	Temp			20°C		Hum.		66	5%
130.0 dB	uV/m								
120									
120									
110									
100									
30									
30									
, <sub>0</sub> —									
60									
50			ķ.						
40			2 X						
•			X						
30									
20									
10.0									
1000.00	0 3550.00	6100.00	8650.00	11200.00	13750.00	16300.00 1	8850.00 214	100.00	26500.00 MH
No.	Mk.	Freq.	Reading		Measure	- Limit	Over		
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m			Detector	Comment
1		7311.000	54.73	-5.08	49.65	74.00	-24.35	peak	
2	*	7311.000	43.59	-5.08	38.51	54.00	-15.49	AVG	

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



	To at Ma	مام	ıccc	000 445		Took Date		2024	140/46
	Test Mo est Frequ			802.11b 62MHz		Test Date Polarizatio			/12/16 tical
	Temp			20°C		Hum.	/I I		3%
130.0	dBuV/m		•			T I GITTI			<b>3</b> 7 0
120									
110									
'''									
100									
90									
80									
70									
60									
50			1 X						
40			2						
70			×						
30									
20									
10.0									
	.000 3550.0	0 6100.00	8650.00	11200.00	13750.00	16300.00 18	B850.00 214	100.00	26500.00 MHz
No.	Mk.	Freq.	Reading		Measure		Over		
		4.	Level	Factor	ment		<b>.</b>		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7386.000	53.45	-4.79	48.66	74.00	-25.34	peak	
2	*	7386.000	43.92	-4.79	39.13	54.00	-14.87	AVG	

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

T	est Mod	le		802.11b		Test Da		2021	/12/16
Tes	t Freque	ency		62MHz		Polarizat	ion		zontal
	Temp			20°C		Hum.		66	3%
130.0 dB	ıV/m								
120									
110									
100									
90									
30									
70									
50									
50			*						
10 <u> </u>			2 X						
30									
20									
10.0									
	3550.00		8650.00	11200.00	13750.00			400.00	26500.00 MH
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure ment	- Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/n	n dB	Detector	Comment
1		7386.000	54.73	-4.79	49.94	74.00	-24.06	peak	
2	*	7386.000	43.38	-4.79	38.59	54.00	-15.41	AVG	

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



Te	Test Mo					302.11g 2MHz				Test Da				/12/16 rtical
	Temp					)°C				Hum				6%
130.0	dBuV/m													
120														
110														
100 -														
90														
80														
70														
60 —														
50														
40		*												
30		2 X												
20														
10.0														
	000 3550.0			8650.00		11200.00		50.00		00.00			21400.00	26500.00 MH
No.	Mk.	Freq.		Readir Leve		Correct Factor		easure ment	:-	Limi	t	Over	-	
		MHz		dBu∖		dB		BuV/m	1	dBuV/	m	dB	Detector	Comment
1		4824.00	00	53.56	3	-11.64		41.92		74.00	)	-32.0	8 peak	
2	*	4824.00	00	42.85	5	-11.64	- ;	31.21		54.00	)	-22.79		

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

	Test Mo				802.11	]			Test Da				/12/16
Те	st Frequ				12MHz			Po	olarizat	ion			zontal
	Temp	)			20°C				Hum.			66	5%
130.0 d	BuV/m												
120													
120													
110													
100													
30													
30													
,, <u> </u>													
60 —													
50													
40		X											
"		2 X											
30		×											
20													
10.0													
1000.0	00 3550.0	00 6100.	00	8650.00	11200.0	0 1	3750.00	163	00.00	18850.00	2140	00.00	26500.00 MH
No.	Mk.	Freq.		Reading			Measure	<b>;</b> -	Limit	Ov	er		
				Level	Fact		ment						
		MHz		dBuV	dB		dBuV/m	)	dBuV/r			Detector	Comment
1		4824.00		54.71	-11.6		43.07		74.00			peak	
2	*	4824.00	)()	42.78	-11.6	4ز	31.14		54.00	-22	.86	AVG	

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



	Test Mode				EEE	802 1	1a				Test Da	ate		2021	/12/16
Te	est Frequ			<u>'</u>		7MHz					olariza				rtical
	Temp					0°C					Hum				6%
130.0	dBuV/m														
120															
110															
100															
90															
80															
70															
60															
50		1 X													
40		2 X													
30		×													
20															
10.0															
	000 3550.0			8650		1120			50.00		300.00	1885		1400.00	26500.00 MH:
No.	Mk.	Freq	•	Rea Le			rrect ctor		easure ment	<b>9-</b>	Limit	I	Over		
		MHz		dB			IB		3uV/n	n	dBuV/	m	dB	Detector	Comment
1		4874.0	00	56.	61	-11	1.58	4	45.03		74.00	)	-28.97	peak	
2	*	4874.0	00	44.	43	-11	.58	3	32.85		54.00	)	-21.15	AVG	

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

	Test Mo	de		I	EEE 8	802.1	l1g			Т	est Da	ate			2021	/12/16
Te	st Frequ	iency				7MH:	Z			Po	olarizat	tion				zontal
	Temp				20	O°C					Hum.				6	6%
130.0 dl	BuV/m															
20																
10																
00																
_																
0																
:0																
o 💳																
0																
io																
		X X														
		2 X														
iO		^														
20																
- 1																
10.0						1120	0.00	1375	0.00	1630	00.00	18850	0.00	21400.0	D	26500.00
	00 3550.0	0 6100	.00	8650	.00	1120	0.00									
	00 3550.0 Mk.	0 6100 Freq		Rea	ding	Со	rrect	Me	asure	<del>)</del> -	Limit		Over	•		
1000.00		Freq		Rea Le	ding vel	Co Fa	rrect ctor	Me	ment						-44	Camara
			•	Rea	ding vel uV	Co Fa	rrect	Me I dE			Limit dBuV/i 74.00	m	Over dB -31.5	De	etector peak	Comme

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



	Test Mo	de	IEEE	802.11g		Test Date		2021	/12/16
Т	est Frequ			32MHz		Polarization	n		tical
	Temp		2	:0°C		Hum.		66	6%
130.0	dBuV/m								
120									
110									
100									
90									
80									
70									
60									
50		4							
40		*							
30		2 X							
20									
10.0									
	.000 3550.0			11200.00	13750.00			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		-11.51	42.99	74.00	-31.01	peak	
2	*	4924.000	43.20	-11.51	31.69	54.00	-22.31	AVG	

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



	Test Mo	de		IEEE	802.11g		Test [	Date		2021	/12/16
Te	st Frequ	iency			2MHz		Polariz				zontal
	Temp	)		2	0°C		Hur	n.		66	6%
30.0 dl	3uV/m										
20											
20											
10											
00											
o											
0											
o 💳											
0											
0											
0		1 ×									
		2									
0		×									
0 -											
0.0											
1000.00	00 3550.0	0 6100.0	00	8650.00	11200.00	13750.00	16300.00	1885	50.00 214	00.00	26500.00 MI
No.	Mk.	Freq.		Reading Level	Correct Factor	Measure ment	- Lim	nit	Over		
		MHz		dBuV	dB	dBuV/m	ı dBu\	//m	dB	Detector	Comment
1		4924.00	00	54.39	-11.51	42.88	74.0	00	-31.12	peak	
2	*	4924.00	00	43.23	-11.51	31.72	54.0	00	-22.28	AVG	

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



_	Test M					11n (H	Γ20)	)			Test Da					/12/16	
le	est Freq					2MHz				Р	olariza					tical	
120.0	Tem dBuV/m	p			20	)°C					Hum				66	6%	
130.0	dBuV/m																7
120																	
110																	
100																	
90																	
80																	
70																	1
60																	+
50																	1
40		X X															
30		2 X															
20																	
10.0																	
1000.0	000 3550.	.00 6100.	.00	8650.0	0	11200.0	0	1375	0.00	163	00.00	188	50.00	2140	00.00	26500.00	_  3 MH:
No.	Mk.	Freq.		Readi Leve		Corre Facto			asure nent	9-	Limit		Ove	er			
		MHz		dBu'		dB	/1		BuV/n	1	dBuV/	m	dB	,	Detector	Comme	ent
1		4824.00		53.8		-11.6			2.17		74.00		-31.8		peak		_
2	*	4824.00	00	42.9	8	-11.6	4	3	31.34		54.00	)	-22.6	66	AVG		_

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



	Test Mo	do	l iccc	902	11n (HT20	)\			est Da	ıto.		2021	/12/16
T	est Frequ		ICCC		1111 (1112) 2MHz	)			olarizat				zontal
	Temp				°C				Hum.				3%
130.0	dBuV/m												
120													
120													
110													
100													
90													
80													
70													
60													
50													
		1 ×											
40													
30		2 X											
20													
10.0													
	000 3550.0	0 6100.0	0 8650.	.00	11200.00	1375	0.00	1630	00.00	18850.00	D 214	00.00	26500.00 MHz
No.	Mk.	Freq.	Read Lev		Correct Factor		asure nent	-	Limit	C	)ver		
		MHz	dBı		dB		BuV/m	(	dBuV/r	n	dB	Detector	Comment
1		4824.00	0 54.	36	-11.64		2.72		74.00	-3	1.28	peak	
2	*	4824.00	0 42.	88	-11.64	3	1.24		54.00	-2	2.76	AVG	

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



	Test Mo	ıde	IFFE 8	302 11	n (HT20	))		1	Test Da	ate		2021	/12/16
Т	est Frequ			2437M		- /			olariza				tical
	Temp			20°C	;				Hum.			60	6%
130.0	dBuV/m												
120													
110													
100													
90													
80													
70													
60													
50													
40		1 X											
30		2 X											
20													
10.0													
	.000 3550.0				200.00		50.00		00.00	1885		100.00	26500.00 MHz
No.	Mk.	Freq.	Readi Leve		Correct actor		easure ment	:-	Limit		Over		
		MHz	dBu\	/	dB	dl	3uV/m		dBuV/ı	m	dB	Detector	Comment
1		4874.00			11.58		12.28		74.00		-31.72	peak	
2	*	4874.00	0 44.3	0 -	11.58	3	32.72		54.00	)	-21.28	AVG	

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



	Test Mo	nde	IFFF 80	)2.11n (HT2	0)	Test Date		2021	/12/16
Te	est Frequ			137MHz	5)	Polarizatio			zontal
	Temp			20°C		Hum.			5%
130.0	dBuV/m								
120									
110									
100 -									
90									
во									
70									
60									
50									
40		1 X							
30		2 X							
20									
10.0									
	000 3550.0			11200.00	13750.00			00.00	26500.00 MH:
No.	Mk.	Freq.	Reading Level	g Correct Factor	Measure ment	- Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	53.49	-11.58	41.91	74.00	-32.09	peak	
2	*	4874.000	42.35	-11.58	30.77	54.00	-23.23	AVG	

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



					1	<b>T</b> ( <b>D</b> (		2004	// 0 / / 0
_	Test Mo			2.11n (HT20	))	Test Date			/12/16
	est Frequ			32MHz 20°C		Polarizatio	n		tical 5%
130.0	Temp			:0 C		Hum.		00	0%
130.0	db d + / III								
120									
120									
110									
100									
90									
80									
70									
60									
50									
30		1 X							
40									
30		2 X							
20									
10.0									
1000.	.000 3550.0		8650.00	11200.00	13750.00		3850.00 21 <b>4</b>	00.00	26500.00 MHz
No.	Mk.	Freq.	Reading	Correct	Measure	- Limit	Over		
			Level	Factor	ment	ID 111	ID	<b>D</b> 1 1	<u> </u>
		MHz	dBuV	dB	dBuV/m		dB	Detector	Comment
1	*	4924.000		-11.51	42.51	74.00	-31.49	peak	
2	*	4924.000	43.24	-11.51	31.73	54.00	-22.27	AVG	

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



					- \			2004	110110
_	Test Mo			2.11n (HT20	J)	Test Date			/12/16
	Test Freq			62MHz 20°C		Polarizatio	on		zontal
130.0	Temp dBuV/m	)	4	20°C		Hum.		00	6%
130.0	UDU¥7III								
120									
120									
110									
100									
100									
90 —									
80									
_									
70									
60									
50									
40		1 X							
		2							
30		×							
20									
10.0									
	0.000 3550.	00 6100.00	0 8650.00	11200.00	13750.00	16300.00 18	8850.00 21 <b>4</b>	00.00	26500.00 MHz
No.	Mk.	Freq.	Reading		Measure		Over		
140.	14117.	1 104.	Level	Factor	ment		0 101		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4924.000		-11.51	42.80	74.00	-31.20	peak	
2	*	4924.000		-11.51	31.63	54.00	-22.37	AVG	

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



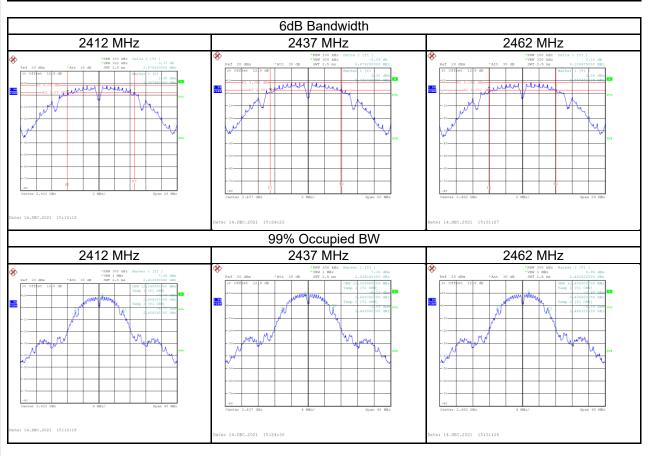
Report No.: BTL-FCCP-3-2112T026 APPENDIX D BANDWIDTH

Project No.: 2112T026 Page 60 of 72 Report Version: R00



Test Mode	IEEE 802.11b
100t Wodo	

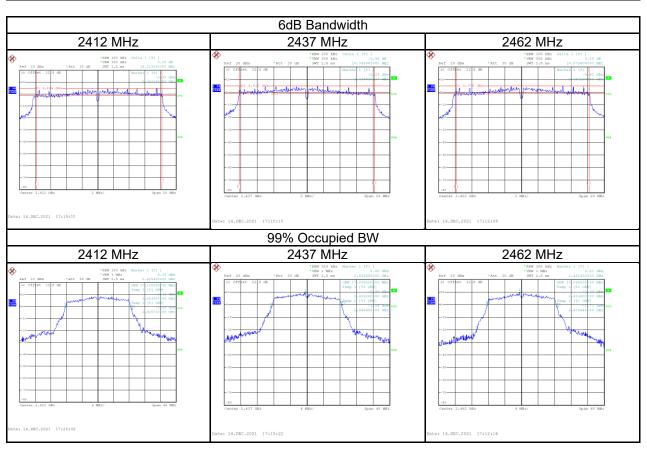
Test Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Minimum 6 dB Bandwidth Limit (kHz)	Result
2412	8.58	12.24	≥ 500	Pass
2437	8.68	12.32	≥ 500	Pass
2462	8.11	12.40	≥ 500	Pass





Test Mode	IEEE 802.11g
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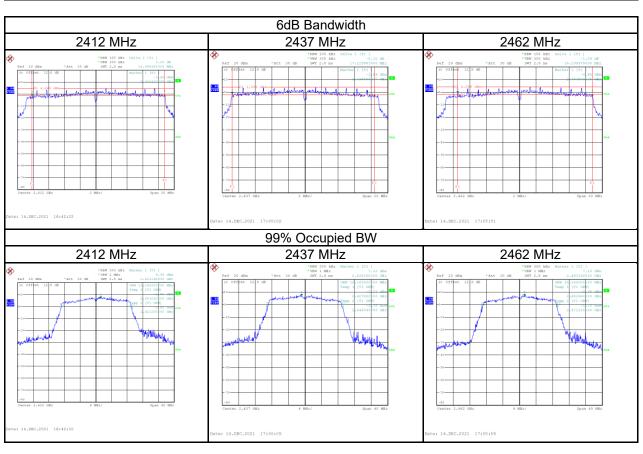
Test Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Minimum 6 dB Bandwidth Limit (kHz)	Result
2412	16.02	17.12	≥ 500	Pass
2437	16.35	17.20	≥ 500	Pass
2462	16.08	17.04	≥ 500	Pass





Test Mode	IEEE 802.11n (HT20)
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Test Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Minimum 6 dB Bandwidth Limit (kHz)	Result
2412	17.00	18.16	≥ 500	Pass
2437	17.23	18.16	≥ 500	Pass
2462	16.30	18.16	≥ 500	Pass







# APPENDIX E OUTPUT POWER

Project No.: 2112T026 Page 64 of 72 Report Version: R00





Test Mode	IEEE 802.11b	Te	ested Date	2021/12/20

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Limit (dBm)	Limit (W)	Result
2412	19.46	0.0883	30.00	1.0000	Complies
2437	19.79	0.0953	30.00	1.0000	Complies
2462	19.58	0.0908	30.00	1.0000	Complies

Test Mode	IEEE 802.11g	Tested Date	2021/12/20

Frequency	Conducted Power	Conducted Power (W)	Limit	Limit	Result
(MHz)	(dBm)	Conducted Power (vv)	(dBm)	(W)	Result
2412	23.72	0.2355	30.00	1.0000	Complies
2437	24.38	0.2742	30.00	1.0000	Complies
2462	24.33	0.2710	30.00	1.0000	Complies

Test Mode IEEE 802.11n (HT20)	Tested Date	2021/12/20
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Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Limit (dBm)	Limit (W)	Result
2412	24.31	0.2698	30.00	1.0000	Complies
2437	24.69	0.2944	30.00	1.0000	Complies
2462	24.52	0.2831	30.00	1.0000	Complies

Project No.: 2112T026 Page 65 of 72 Report Version: R00



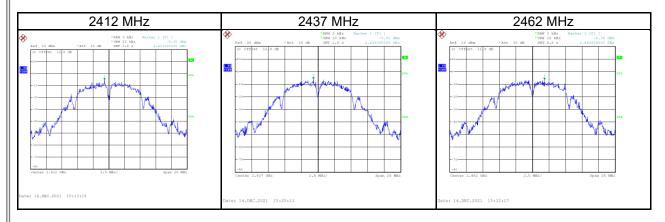
# APPENDIX F POWER SPECTRAL DENSITY

Project No.: 2112T026 Page 66 of 72 Report Version: R00



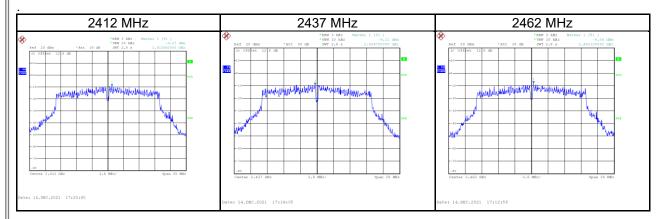
Test Mode IEEE 802.11b

Test Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)	Result
2412	-5.35	8.00	Pass
2437	-5.82	8.00	Pass
2462	-6.36	8.00	Pass



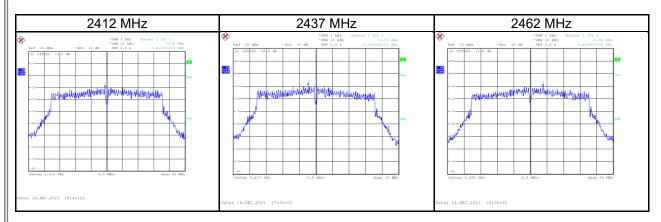
Test Mode IEEE 802.11g

Test Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)	Result
2412	-9.27	8.00	Pass
2437	-9.21	8.00	Pass
2462	-8.04	8.00	Pass





Test Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)	Result
2412	-9.78	8.00	Pass
2437	-9.33	8.00	Pass
2462	-9.96	8.00	Pass





APPENDIX G	ANTENNA CONDUCTED SPURIOUS EMISSIONS

Project No.: 2112T026 Page 69 of 72 Report Version: R00



