Shenzhen Huatongwei International Inspection Co.,Ltd.
Huatongwei 101, No.006, Keji south 12th Road, High-tech zone community,
Yuehai Street, Nanshan District, Shenzhen, Guangdong, China
Phone: 400-963-0755 E-mail: cs@szhtw.com.c Website:http://www.szhtw.com.cn

# **TEST REPORT**

## For WiFi-5GHz Band

Report No.....: CHTW25050061

Project No .....: SHT2502040501W

FCC ID .....: XAK436HDB

Applicant's name ...... AudioCodes Ltd.

Address...... 6 Ofra Haza Street Oryehuda Israel

Product Name .....: IP Phone

Trade Mark.....

Model No.....: C436HD

Listed Model(s) .....:

Standard ...... FCC CFR Title 47 Part 15 Subpart E § 15.407

Date of receipt of test sample...... 2025/3/6

Date of testing...... 2025/3/6- 2025/5/20

Date of issue...... 2025/5/21

Result..... Pass

Compiled by (Position+Printed name+Signature) : File administrator Xiaodong Zhao

,

Supervised by

(Position+Printed name+Signature): Project Engineer Kiki Kong

Approved by

(Position+Printed name+Signature): RF Manager Xu Yang

Testing Laboratory Name ...... Shenzhen Huatongwei International Inspection Co., Ltd.

Address......: Building 7, Baiwang Idea Factory, No.1051, Songbai Road, Yangguang

Community, Xili Subdistrict, Nanshan District, Shenzhen, Guangdong,

China

Test Report Form No. .....: R0054

Test Report Form(s) Originator.....: Shenzhen Huatongwei International Inspection Co., Ltd.

Master TRF...... Dated 2025-04

### Shenzhen Huatongwei International Inspection Co., Ltd. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen Huatongwei International Inspection Co., Ltd. is acknowledged as copyright owner and source of the material. Shenzhen Huatongwei International Inspection Co., Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context. The test report merely correspond to the test sample. The authenticity of this Test Report and its contents can be verified by contacting the Laboratory, responsible for this Test Report.



# **Contents**

<u>1.</u>	IEST STANDARDS AND REPORT VERSION	<u> 3</u>
1.1. 1.2.	Test Standards Report version	3
1.2.	Report version	3
<u>2.</u>	TEST DESCRIPTION	4
<u>3.</u>	SUMMARY	5
3.1.	Client Information	5
3.2.	Product Description	5
3.3.	Radio Specification Description	6
3.4.	Testing Laboratory Information	6
<u>4.</u>	TEST CONFIGURATION	7
4.1.	Test frequency list	7
4.2.	Descriptions of Test mode	7
4.3.	Test mode	7
4.4.	Test sample information	8
4.5.	Support unit used in test configuration and system	8
4.6.	Testing environmental condition	8
4.7.	Statement of the measurement uncertainty	9
4.8.	Equipment Used during the Test	10
<u>5.</u>	TEST CONDITIONS AND RESULTS	12
5.1.	Antenna Requirement	12
5.2.	AC Conducted Emission	13
5.3.	Maximum Conducted Output Power	15
5.4.	Power Spectral Density	17
5.5.	26dB bandwidth and 99% Occupy bandwidth	19
5.6.	6dB Bandwidth	20
5.7.	Band edge	21
5.8. 5.9.	Radiated Spurious Emissions	31 44
5.9.	Frequency stability	44
<u>6.</u>	TEST SETUP PHOTOS	45
<u>7.</u>	EXTERNAL AND INTERNAL PHOTOS	47
7.1.	External Photos	47
7.2.	Internal Photos	50
<u>8.</u>	APPENDIX REPORT	53

Report No.: CHTW25050061 Page 3 of 53

# 1. TEST STANDARDS AND REPORT VERSION

## 1.1. Test Standards

The tests were performed according to following standards:

- FCC CFR Title 47 Part 15 Subpart E § 15.407: General technical requirements
- ANSI C63.10:2013: American National Standard for Testing Unlicensed Wireless Devices
- KDB789033 D02 v02r01: GUIDELINES FOR COMPLIANCE TESTING OF UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE (U-NII) DEVICES PART 15, SUBPART E
- KDB662911 D01 Multiple Transmitter Output v02r01: Emissions Testing of Transmitters with Multiple Outputs in the Same Band (e.g., MIMO, Smart Antenna, etc)
- KDB662911 D02 MIMO with Cross-Polarized Antennas v01: MIMO with Cross-Polarized Antenna

## 1.2. Report version

Revision No.	Date of issue	Description
N/A	2025-05-21	Original

Report No.: CHTW25050061 Page 4 of **53** 

# 2. TEST DESCRIPTION

Report clause	Test Items	Standard Requirement	Result	Test Engineer
5.1	Antenna Requirement	15.203/15.247(c)	PASS	Xiangyu Wei
5.2	AC Conducted Emission	15.207	PASS	YATING.CHEN
5.3	Maximum Conducted Output Power	15.407(a)	PASS	Xiangyu Wei
5.4	Maximum Power Spectral Density	15.407(a)	PASS	Xiangyu Wei
5.5	26dB Bandwidth and 99% Ocuppy bandwith	15.407(a)	PASS	Xiangyu Wei
5.6	6dB Bandwidth	15.407(a)	PASS	Xiangyu Wei
5.7	Band edge	15.407(b)	PASS	Yifan Wang
5.8	Radiated Spurious Emissions	15.209	PASS	Yifan Wang
5.9	Frequency Stability	15.407(g)	PASS	Xiangyu Wei

# Note:

The measurement uncertainty is not included in the test result.

Report No.: CHTW25050061 Page 5 of **53** 

# 3. **SUMMARY**

# 3.1. Client Information

Applicant:	AudioCodes Ltd.
Address:	6 Ofra Haza Street Oryehuda Israel
Manufacturer:	AudioCodes Ltd.
Address:	6 Ofra Haza Street Oryehuda Israel
Factory:	SerNet (Suzhou) Technologies Corp
Address:	No. 8 Tangzhuang Road, Suzhou Industrial Park, Jiangsu, Suzhou, 215021, CN

# 3.2. Product Description

Main unit information:			
Product Name:	IP Phone		
Trade Mark: Coudiocodes			
Model No.:	C436HD		
Listed Model(s):	-		
Power supply:	DC 12.0V from adapter or 48V POE		
Hardware version:	GGWV00810		
Software version:	2.7.372		
Accessory unit information:			
Adapter information:	Model:RD1201000-C55-26MG Input:100-240Va.c., 50/60Hz 0.6MAX Output:12.0Vd.c.,1.0A		

Report No.: CHTW25050061 Page 6 of **53** 

# 3.3. Radio Specification Description

5G WIFI				
Support type <sup>*1</sup>	⊠ 802.11a	⊠ 802.11n(HT20)	⊠ 802.11n(HT40)	
	⊠ 802.11ac(HT20)	802.11ac(HT40)	⊠ 802.11ac(HT80)	
	⊠ 802.11ax(HE20)	802.11ax(HE40)	⊠ 802.11ax(HE80)	
Function:	Outdoor AP		☐ Fixed P2P	
	☐ Client			
DFS type:	master devices	Slave devices with radar detection	⊠Slave devices without radar detection	
Modulation:	BPSK, QPSK, 16QAM, 64	4QAM, 256QAM, 1024QAN	М	
Operation frequency:	⊠ Band I:	5150MHz~5250MHz		
	⊠ Band II: 5250MHz~5350		MHz	
	⊠ Band III:	5470MHz~5725MHz		
	⊠ Band IV:	5725MHz~5850MHz		
Supported Bandwidth	th 20MHz: 802.11n,802.11a,802.11ac,802.11ax		ac,802.11ax	
	40MHz:	802.11n,802.11ac,802.11ax		
	80MHz:	802.11n,802.11ac,802.11ax		
Antenna technology:	SISO			
Antenna Delivery:	☐ 1*TX+1*RX		☐ 3*TX+3*RX	
Antenna type:	FPC Antenna			
Antenna gain:	Antenna 0: 3.61dBi			
	Antenna 1: 3.51dBi			

Note:

# 3.4. Testing Laboratory Information

Laboratory Name	Shenzhen Huatongwei International Inspection Co., Ltd.			
Laboratory Location	Building 7, Baiwang Idea Factory, No.1051, Songbai Road, Yangguang Community, Xili Subdistrict, Nanshan District, Shenzhen, Guangdong, China			
Contact information:	Tel: 400-963-0755 E-mail: cs@szhtw.com.cn http://www.szhtw.com.cn			
	Туре	Accreditation Number		
Qualifications	FCC Registration Number 762235			
	FCC Designation Number	CN1181		

<sup>\*1:</sup> only show the RF function associated with this report.

Report No.: CHTW25050061 Page 7 of **53** 

# 4. TEST CONFIGURATION

# 4.1. Test frequency list

According to section 15.31(m), regards to the operating frequency range over 10 MHz, must select three channels which were tested. The Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, please see the below.

	Test	20MHz		40MHz		80MHz	
Band	Channel	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
	CH∟	36	5180	38	5190	-	-
I	CH <sub>M</sub>	44	5220	-	-	42	5210
	CH <sub>H</sub>	48	5240	46	5230	-	-
	CH <sub>L</sub>	52	5260	54	5270	-	-
II	CH <sub>M</sub>	56	5280	-	-	58	5290
	CH <sub>H</sub>	64	5320	62	5310	-	-
	CH∟	100	5500	102	5510	106	5530
III	CH <sub>M</sub>	116	5580	110	5550	122	5610
	CH <sub>H</sub>	140	5700	134	5670	138	5690
	CH <sub>H1</sub>	144	5720	142	5710		
	CHL	149	5745	151	5755	-	-
IV	CH <sub>M</sub>	157	5785	-	-	155	5775
	CH <sub>H</sub>	165	5825	159	5795	-	-

# 4.2. Descriptions of Test mode

Preliminary tests were performed in different data rates, final test modes are considering the modulation and worse data rates as below table.

Modulation	Data rate
802.11a	6Mbps
802.11n(HT20)/802.11ac(HT20)/802.11ax(HE20)	MCS0
802.11n(HT40)/802.11ac(HT40)/802.11ax(HE40)	MCS0
802.11ac(HT80)/802.11ax(HE80)	MCS0

#### 4.3. Test mode

For RF test items

The engineering test program was provided and enabled to make EUT continuous transmit.

For AC power line conducted emissions:

The EUT was set to connect with the WLAN AP under large package sizes transmission.

For Radiated spurious emissions test item:

The engineering test program was provided and enabled to make EUT continuous transmit.

The EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data Recorded in the report.

Report No.: CHTW25050061 Page 8 of **53** 

# 4.4. Test sample information

Test item	HTW sample no.	
RF Conducted test items	Please refer to the description in the appendix report	
RF Radiated test items	YPHT25020405002	
EMI test items	YPHT25020405001	

Note:

RF Conducted test items: Maximum Conducted Output Power, Maximum Power Spectral Density , 26dB

Bandwidth and 99% Ocuppy bandwith, 6dB Bandwidth, Frequency Stability

RF Radiated test items: Band edge, Radiated Spurious Emission

EMI test items: AC Conducted Emission

# 4.5. Support unit used in test configuration and system

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The following peripheral devices and interface cables were connected during the measurement:

Whether support unit is used?						
✓ No						
Item	Item Equipment Trade Name Model No.					
1						
2						

# 4.6. Testing environmental condition

Туре	Requirement	Actual
Temperature:	15~35°C	25°C
Relative Humidity:	25~75%	50%
Air Pressure:	860~1060mbar	1000mbar

Report No.: CHTW25050061 Page 9 of **53** 

# 4.7. Statement of the measurement uncertainty

No.	Test Items	Measurement Uncertainty	
1	AC Conducted Emission	3.21dB	
2	Maximum Conducted Output Power	1.07	
3	Maximum Power Spectral Density	1.07	
4	26dB Bandwidth and 99% Ocuppy bandwith	0.002%	
5	6dB Bandwidth	0.002%	
6	Radiated Band Edge Emission	4.54dB for 30MHz-1GHz 5.10dB for above 1GHz	
7	Radiated Spurious Emission	4.54dB for 30MHz-1GHz 5.10dB for above 1GHz	
8	Frequency Stability	0.05ppm	

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

Report No.: CHTW25050061 Page 10 of **53** 

# 4.8. Equipment Used during the Test

•	RF Conducted test item							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
•	Signal and spectrum Analyzer	R&S	HTWE0242	FSV40	100048	2024/08/27	2025/08/26	
•	Signal & Spectrum Analyzer	R&S	HTWE0262	FSW26	103440	2024/08/21	2025/08/20	
•	Vector signal generator	R&S	HTWE0244	SMBV100A	260790	2025/03/13	2026/03/12	
•	Test software	Tonscend	N/A	JS1120	N/A	N/A	N/A	

•	Conducted Emission							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
•	EMI Test Receiver	R&S	HTWE0111	ESCI	101247	2024/08/12	2025/08/11	
•	Artificial Mains	SCHWARZBECK	HTWE0113	NNLK 8121	573	2024/08/12	2025/08/11	
•	Protection Network	SCHWARZBECK	HTWE0567	VTSD9561FN	00899	2024/08/12	2025/08/11	
•	ISN	FCC	HTWE0148	FCC-TLISN-T2- 02	20371	2024/08/12	2025/08/11	
•	ISN	FCC	HTWE0150	FCC-TLISN-T8- 02	20375	2024/08/12	2025/08/11	
•	Test Software	R&S	N/A	EMC32	N/A	N/A	N/A	

•	Radiated Emission – 9kHz~30MHz							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
•	Semi-Anechoic Chamber	Albatross projects	HTWE0127	SAC-3m-02	C11121	2023/04/06	2026/04/05	
•	EMI Test Receiver	R&S	HTWE0099	ESCI 7	100900	2024/08/12	2025/08/11	
•	Loop Antenna	R&S	HTWE0170	HFH2-Z2	100020	2024/04/08	2027/04/07	
•	Test Software	R&S	N/A	EMC32	N/A	N/A	N/A	

•	Radiated Emission - 30MHz~1GHz							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
•	Semi-Anechoic Chamber	Albatross projects	HTWE0127	SAC-3m-02	C11121	2023/04/06	2026/04/05	
•	EMI Test Receiver	R&S	HTWE0099	ESCI 7	100900	2024/08/12	2025/08/11	
•	Ultra-Broadband Antenna	SCHWARZBEC K	HTWE0119	VULB9163	546	2023/02/22	2026/02/21	
•	Pre-Amplifer	SCHWARZBEC K	HTWE0295	BBV 9742	/	2024/05/24	2025/05/23	
•	Test Software	R&S	N/A	EMC32	N/A	N/A	N/A	

Report No.: CHTW25050061 Page 11 of **53** 

•	Radiated emission- Above 1GHz						
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
•	Semi-Anechoic Chamber	Albatross projects	HTWE0122	SAC-3m-01	C11121	2023/04/17	2026/04/16
•	Spectrum Analyzer	R&S	HTWE0098	FSP40	100597	2024/08/12	2025/08/11
•	Spectrum Analyzer	R&S	HTWE0385	N9020A	MY54486658	2024/08/12	2025/0811
•	Horn Antenna	SCHWARZBECK	HTWE0126	BBHA 9120D	1011	2023/02/14	2026/02/13
•	Pre-Amplifer	CD	HTWE0071	PAP-0102	12004	2024/06/06	2025/06/05
•	Broadband Pre- amplifier	SCHWARZBECK	HTWE0551	SCU18F	100855	2024/06/06	2025/06/05
•	Test Software	Audix	N/A	E3	N/A	N/A	N/A

Report No.: CHTW25050061 Page 12 of **53** 

# 5. TEST CONDITIONS AND RESULTS

## 5.1. Antenna Requirement

#### Requirement

#### FCC CFR Title 47 Part 15 Subpart C Section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responseble party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

#### FCC CFR Title 47 Part 15 Subpart C Section 15.407(a):

Systems operating in the NII band, if transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

## **TEST RESULT**

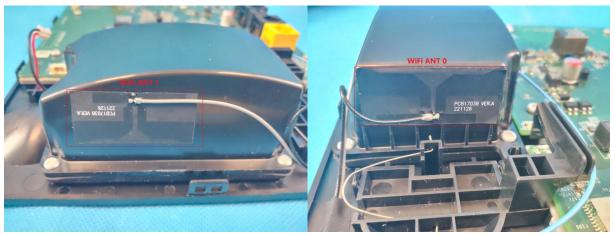
oxtimes Passed	☐ Not Applicable
----------------	------------------

The product has two external antennas with different gain, ANT 0: 3.61dBi and ANT 1:3.51dBi, according to KDB662911 D01Multiple Transmitter Output v02r01,

if tansmit signals are correlated, then directional gain=  $10 \log[(10^{\circ}(G1/20) + 10^{\circ}(G2/20) + ... + 10^{\circ}(GN/20))^2/NANT] dBi=10log[(10^{\(3.61/20) + 10^{\(3.51/20)})^2/2]=6.57dBi}$ ;

if tansmit signals are uncorrelated, then directional gain=  $10 \log[(10^{(G1/10)} + 10^{(G2/10)} + ... + 10^{(GN/10)})]$  ANT] dBi= $10\log[(10^{(3.61/10)} + 10^{(3.51/10)})]$  =3.56dBi;

so the max directional gain 6.57dBi more than 6dBi, so the limit of power and PSD should be reduce by (6.57-6=0.57) dB



Report No.: CHTW25050061 Page 13 of **53** 

#### 5.2. AC Conducted Emission

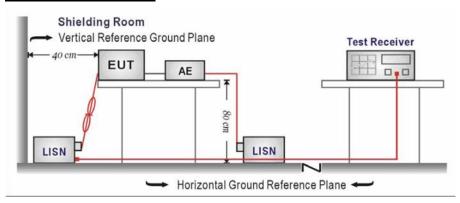
#### LIMIT

#### FCC CFR Title 47 Part 15 Subpart C Section 15.207

Fraguency ronge (MHz)	Limit (dBuV)			
Frequency range (MHz)	Quasi-peak	Average		
0.15-0.5	66 to 56*	56 to 46*		
0.5-5	56	46		
5-30	60	50		

<sup>\*</sup> Decreases with the logarithm of the frequency.

#### **TEST CONFIGURATION**



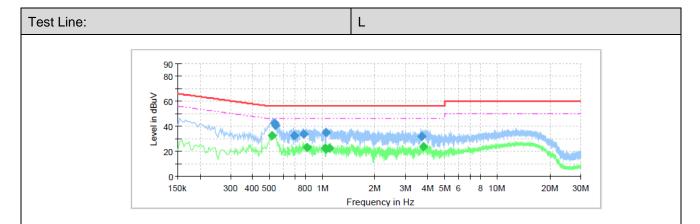
#### **TEST PROCEDURE**

- The EUT was setup according to ANSI C63.10 requirements.
- 2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.
- 3. The EUT and simulators are connected to the main power through a line impedances stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment.
- 4. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
- 5. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
- 6. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
- Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
- 8. During the above scans, the emissions were maximized by cable manipulation.

#### **TEST MODE:**

Please refer to the clause 4.3

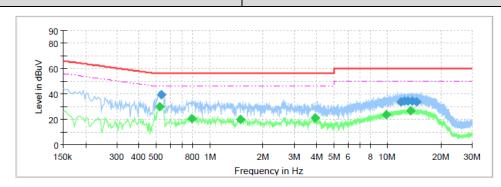
#### **TEST RESULT**



# Final\_Result

	0 10 1					
Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Corr.
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)		(dB)
0.519500		32.71	46.00	13.29	L1	10.4
0.535500	42.46	-	56.00	13.54	L1	10.4
0.539500	40.77	-	56.00	15.23	L1	10.4
0.695500	32.25		56.00	23.75	L1	10.4
0.783500	33.64	-	56.00	22.36	L1	10.5
0.819500		22.93	46.00	23.07	L1	10.5
1.039500		22.77	46.00	23.23	L1	10.5
1.047500	35.14	-	56.00	20.86	L1	10.5
1.055500		22.00	46.00	24.00	L1	10.5
1.099500		22.78	46.00	23.22	L1	10.5
3.691500	31.78		56.00	24.22	L1	10.6
3.795500		23.72	46.00	22.28	L1	10.6

Test Line: N



# Final\_Result

Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Corr.
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)		(dB)
0.523500		30.02	46.00	15.98	N	10.2
0.535500	39.08		56.00	16.92	N	10.2
0.791500	-	20.42	46.00	25.58	N	10.2
1.487500		20.02	46.00	25.98	N	10.2
3.915500		21.35	46.00	24.65	N	10.3
9.839500		23.61	50.00	26.39	N	10.4
11.943500	33.99		60.00	26.01	N	10.4
12.483500	34.44	-	60.00	25.56	N	10.4
12.983500	34.29	-	60.00	25.71	N	10.4
13.511500	-	26.62	50.00	23.38	N	10.4
13.855500	34.17		60.00	25.83	N	10.4
14.595500	34.03	-	60.00	25.97	N	10.5

Report No.: CHTW25050061 Page 15 of **53** 

### 5.3. Maximum Conducted Output Power

#### LIMIT

#### FCC CFR Title 47 Part 15 Subpart E Section 15.407(a):

#### For the 5.15~5.25GHz band:

Outdoor AP

The maximum conducted output power ( $P_{out}$ ) shall not exceed the lesser of 1W (30dBm). if  $G_{Tx}$ >6dBi, then  $P_{out}$  =30-( $G_{Tx}$ -6). e.i.r.p. at any elevation angle above 30 degrees  $\leq$  125mW (21dBm)

Indoor AP

The maximum conducted output power ( $P_{out}$ ) shall not exceed the lesser of 1W (30dBm). if  $G_{Tx}$ >6dBi, then Pout =30-( $G_{Tx}$ -6).

Point-to-point AP

The maximum conducted output power ( $P_{out}$ ) shall not exceed the lesser of 1W (30dBm). if  $G_{Tx}$ >23dBi, then Pout =30-( $G_{Tx}$ -23).

Client devices

The maximum conducted output power ( $P_{out}$ ) shall not exceed the lesser of 250W (24dBm). if  $G_{Tx}$ >6dBi, then  $Pout = 24-(G_{Tx}-6)$ .

#### For the 5.25~5.35GHz band:

The maximum conducted output power ( $P_{out}$ ) shall not exceed the lesser of 250mW (24dBm) or 11dBm+10 log B, where B is the 26dB emission bandwith in MHz. if  $G_{Tx}$ >6dBi, then  $P_{out}$  =24-( $G_{Tx}$ -6).

#### For the 5.47~5.725GHz band:

The maximum conducted output power ( $P_{out}$ ) shall not exceed the lesser of 250mW (24dBm) or 11dBm+10 log B, where B is the 26dB emission bandwith in MHz. if  $G_{Tx}$ >6dBi, then  $P_{out}$  =24-( $G_{Tx}$ -6).

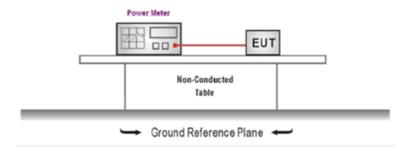
#### For the 5.725~5.85GHz band:

Point-to-multipoint systems (P2M)
 The maximum conducted output power (Pout) shall not exceed the lesser of 1W (30dBm).
 if G<sub>Tx</sub>>6dBi, then Pout =30-(G<sub>Tx</sub>-6).

Point-to-point systems (P2P)

The maximum conducted output power (Pout) shall not exceed the lesser of 1W (30dBm).

## **TEST CONFIGURATION**



Report No.: CHTW25050061 Page 16 of **53** 

# **TEST PROCEDURE**

- 1. The EUT was tested according to KDB789033 Section E-3-b)
- 2. The maximum conducted output power may be measured using a broadband AVG RF power meter.
- 3. Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor.
- 4. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.
- 5. Record the measurement data.

## 6. TEST MODE:

Please refer to the clause 4.3

#### **TEST RESULT**

## **TEST Data**

Report No.: CHTW25050061 Page 17 of 53

## 5.4. Power Spectral Density

#### LIMIT

FCC CFR Title 47 Part 15 Subpart E Section 15.407(a):

#### For the 5.15~5.25GHz band:

Outdoor AP

The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz. if  $G_{Tx}$ >6dBi, then PSD =17-( $G_{Tx}$ -6).

Indoor AP

The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz. if  $G_{Tx}$ >6dBi, then PSD =17-( $G_{Tx}$ -6).

Point-to-point AP

The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz. if  $G_{Tx}$ >23dBi, then PSD =17-( $G_{Tx}$ -23).

Client devices

The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz. if  $G_{Tx}$ >6dBi, then PSD =11-( $G_{Tx}$ -6).

#### For the 5.25~5.35GHz band:

The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz. if  $G_{Tx}$ >6dBi, then PSD =11-( $G_{Tx}$ -6).

#### For the 5.47~5.725GHz band:

The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz. if  $G_{Tx}$ >6dBi, then PSD =11-( $G_{Tx}$ -6).

#### For the 5.725~5.85GHz band:

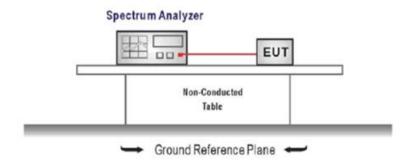
Point-to-multipoint systems (P2M)

The peak power spectral density (PSD) shall not exceed the lesser of 30dBm/500kHz. if  $G_{Tx}$ >6dBi, then PSD =30-( $G_{Tx}$ -6).

Point-to-point systems (P2P)

The peak power spectral density (PSD) shall not exceed the lesser of 30dBm/500kHz.

#### **TEST CONFIGURATION**



Report No.: CHTW25050061 Page 18 of 53

# **TEST PROCEDURE**

- 1. According KDB 789033 D02 Section F
- 2. Analyzer was setting as follow:

Center frequency: test channel

Span was set to encompass the entire emission bandwidth of the signal

RBW=1MHz for devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz

RBW=500kHz for devices operating in the band 5.725-5.85 GHz

VBW ≥ 3 RBW

Number of sweep points > 2 x (span/RBW)

Sweep time = auto

Detector = Peak

Trigger was set to free run for all modes, trace was averaged over 100 sweeps

3. The peak search function of the spectrum analyzer was used to find the peak of the spectrum.

## **TEST MODE:**

Please refer to the clause 4.3

## **TEST RESULT**

#### **TEST Data**

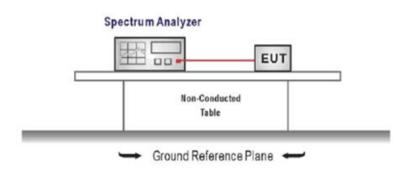
Report No.: CHTW25050061 Page 19 of 53

## 5.5. 26dB bandwidth and 99% Occupy bandwidth

#### LIMIT

The bandwidth at 26dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in KDB 789033 D02, and at the appropriate frequencies. The spectrum analyzer's bandwidth measurement function is configured to measure the 26dB bandwidth.

#### **TEST CONFIGURATION**



#### **TEST PROCEDURE**

- 1. According KDB 789033 D02 Section C, 26dB bandwidth test as follow
  - a) Set RBW = approximately 1% of the emission bandwidth.
  - b) Set the VBW > RBW.
  - c) Detector = Peak.
  - d) Trace mode = max hold.
  - e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
- 2. According KDB 789033 D02 Section D, 99% bandwidth test as follow
  - a). Set center frequency to the nominal EUT channel center frequency.
  - b). Set span = 1.5 times to 5.0 times the OBW.
  - c). Set RBW = 1% to 5% of the OBW
  - d). Set VBW ≥ 3 RBW
  - e). Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
  - f). Use the 99% power bandwidth function of the instrument

### **TEST MODE:**

Please refer to the clause 4.3

#### **TEST RESULT**

#### **TEST Data**

Report No.: CHTW25050061 Page 20 of **53** 

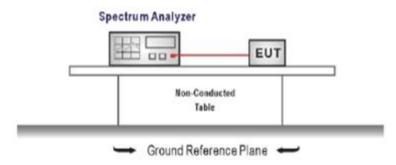
#### 5.6. 6dB Bandwidth

#### LIMIT

#### FCC CFR Title 47 Part 15 Subpart E Section 15.407(e)

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz

#### **TEST CONFIGURATION**



#### **TEST PROCEDURE**

- 1. C Connect the antenna port(s) to the spectrum analyzer input.
- 2. Configure the spectrum analyzer as shown below (enter all losses between the transmitter output and the spectrum analyzer).

Center Frequency =test channel center frequency

Span=2 x emission bandwidth

RBW = 100 kHz, VBW ≥ 3 × RBW

Sweep time= auto couple

Detector = Peak

Trace mode = max hold

- 3. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter wave form on the spectrum analyzer.
- 4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission, and record the pertinent measurements.

#### **TEST MODE:**

Please refer to the clause 4.3

#### **TEST RESULT**

#### **TEST Data**

Report No.: CHTW25050061 Page 21 of **53** 

# 5.7. Band edge

#### LIMIT

FCC CFR Title 47 Part 15 Subpart E Section 15.407(b)

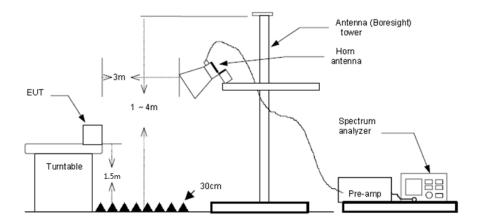
FCC CFR Title 47 Part 15 Subpart E Section 15.407(b)							
Un-restricted band emissions above 1GHz							
Operating Band	Frequency	EIRP Limit	Value				
5150-5250MHz	Above 1GHz	-27dBm/MHz(68.2dBuV/m)@3m	Peak				
5250-5350MHz	Above 1GHz	-27dBm/MHz(68.2dBuV/m)@3m	Peak				
5470-5725MHz	Above 1GHz	-27dBm/MHz(68.2dBuV/m)@3m	Peak				
	1GHz-5.65GHz	-27 dBm/MHz(68.2dBuV/m)@3m	Peak				
	5.65GHz-5.7GHz	-27*dBm/MHz to 10dBm/MHz (68.2* dBuV/m to 105.2dBuV/m)	Peak				
	5.7GHz-5.72GHz	10*dBm/MHz to 15.6dBm/MHz (105.6*dBuV/m to 110.8dBuV/m)	Peak				
5725-5850 MHz	5.72GHz-5.725GHz	15.6*dBm/MHz to 27dBm/MHz (110.8dBuV/m to* 122.2dBuV/m)	Peak				
3723-3630 WITZ	5.85GHz-5.855GHz	27dBm/MHz to 15.6*dBm/MHz (122.2dBuV/m to110.8* dBuV/m)	Peak				
	5.855GHz-5.875GHz	15.6dBm/MHz to 10*dBm/MHz (110.8dBuV/m to 105.2* dBuV/m	Peak				
	5.875GHz-5.925GHz	10dBm/MHz to -27*dBm/MHz (105.6dBuV/m to 68.2* dBuV/m)	Peak				
	Above 5.925GHz	-27 dBm/MHz(68.2dBuV/m)@3m	Peak				

<sup>\*</sup> Increase/Decreases with the linearly of the frequency.

For emission above 1GHz and in restricted band, according to FCC KDB 789033 D02 General UNII Test Procedure, all emission that complies with both the average and peak limits of Section 15.209 is not required to satisfy the -27 dBm/MHz peak emission limit.  $E[dB\mu V/m] = EIRP[dBm] + 95.2$ , for d = 3 meters.

# **TEST CONFIGURATION**

#### Radiated:



Report No.: CHTW25050061 Page 22 of 53

## **TEST PROCEDURE**

- 1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.
- 2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
- 3. The EUT waspositioned such that the distance from antenna to the EUT was 3 meters.
- 4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. Thisis repeated for both horizontal and vertical polarization of the antenna. In order to find themaximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.
- The receiver set as follow: RBW=1MHz, VBW=3MHz PEAK detector for Peak value. RBW=1MHz, VBW=3MHz RMS detector for Average value.

## **TEST MODE:**

Please refer to the clause 4.3

TEST RESULTS	
⊠ Passed	☐ Not Applicable

Report No.: CHTW25050061 Page 23 of **53** 

# **Radiated Band Edge Test Data**

Band: I& II			Worst m	node: 80	)2.11a		Т	est chann	el: CH	L
Test value					Hori	zontal				
Mark 1	MHZ	Reading dBuV/m 55.64	Antenna dB 31.90	Cable dB 6.12	Preamp dB 40.02	Aux dB 10.00	Level dBuV/m 63.64	Limit dBuV/m 68.20	Over limit -4.56	Remark Peak
Mark 1	MHZ	Reading dBuV/m 41.20	Antenna dB 31.90	Cable dB 6.12	Preamp dB 40.02			dBuV/m 1	imit	emark verage
Band: I& II			Worst m	node: 80	02.11a		T	est chann	el: CH	L
Test value					Vert	ical				
Mar	k Frequency MHz 1 5150.07	Reading dBuV/m 52.42	Antenna dB 31.90	Cable dB 6.12	Pream dB 40.02	dB	dBuV/n	Limit n dBuV/n 68.20		
Mark 1	Frequency MHz 5150.07	Reading dBuV/m 37.76	Antenna dB 31.90	Cable dB 6.12	Preamp dB 40.02	Aux dB 10.00	Level dBuV/m 45.76	Limit dBuV/m 54.00	Over limit -8.24	Remark Average

Band: I& II			Worst m	ode: 80	2.11a		Tes	st chann	el: CH <sub>H</sub>	
Test value					Horiz	ontal				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1 2	5349.93 5459.99			6.28 6.37	39.83 39.74		64.77 51.90		-3.43 -16.30	Peak Peak
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m		Over limit	Remark
1 2	5349.93 5459.99		31.40 31.80	6.28 6.37	39.83 39.74	10.00	48.03 40.78	54.00 54.00		Average Average
Band: I& II			Worst m	ode: 80	2.11a		Tes	st chann	el: CH <sub>H</sub>	
Test value					Verti	cal				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1 2	5349.93 5459.99	51.25 44.62		6.28 6.37	39.83 39.74		59.10 53.05		-9.10 -15.15	
Mark	MHZ	dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m		Over limit	Remark
1 2	5349.93 5459.99	35.96 32.46	31.40 31.80	6.28 6.37	39.83 39.74		43.81 40.89			Average Average

Band: I& II			Worst mo	ode: 802	2.11n(H <sup>-</sup>	T40)		Test cha	nnel: C	HL
Test value					Hor	izontal				
Mark 1	Frequency MHz 5150.07	Reading dBuV/m 37.91	Antenna dB 31.90	Cable dB 6.12	Preamp dB 40.02	Aux dB 10.00	Level dBuV/m 45.91	Limit dBuV/m 54.00	Over limit -8.09	Remark Average
Mark	MHZ	Reading dBuV/m 54.92	dB	Cable dB 6.12	Preamp dB 40.02	dB	Level dBuV/m 62.92	Limit dBuV/m 68.20		
Band: I& II			Worst mo	ode: 802	2.11n(H	T40)		Test cha	nnel: C	:H <sub>L</sub>
Test value										
					Ver	tical				
Mark	Frequency MHZ 5150.07	Reading dBuV/m 54.99	Antenna dB 31.90	Cable dB 6.12	Preamp dB 40.02	Aux dB	Level dBuV/m 62.99	Limit dBuV/m 68.20	Over limit -5.21	Remark Peak

Page 24 of **53** 

Band: I& II			Worst i	mode: 8	02.11n(H	HT40)	Te	st chann	el: CH <sub>H</sub>	
Test value					Horiz	zontal				
Mark	Frequency	Reading	Antenna	Cable	Preamp	Aux	Level	Limit	Over	Remark
	MHZ	dBuV/m	dB	dB	dB .	dB	dBuV/m	dBuV/n	ı limi	t
1	5349.93	55.91	31.40	6.28	39.83	10.00	63.76	68.20	-4.4	4 Peak
2	5459.99	43.49	31.80	6.37	39.74	10.00	51.92	68.20	-16.2	8 Peak
Mark	Frequency	Reading	Antenna	Cable	Preamp	Aux	Level	Limit	0ver	Remark
	MHZ	dBuV/m	dB	dB	dB	dB	dBuV/m	dBuV/m	limit	
1	5349.93	35.53	31.40	6.28	39.83	10.00	43.38	54.00	-10.62	Average
2	5459.99	32.50	31.80	6.37	39.74	10.00	40.93	54.00	-13.07	Average
Band: I& II			Worst	mode: 8	02.11n(H	HT40)	Te	st chann	el: CH <sub>H</sub>	
Test value					Verti	cal				
Mark	Frequency	Reading	Antenna	Cable	Preamp	Aux	Level	Limit	Over	Remark
	MHZ	dBuV/m	dB	dB	dB	dB	dBuV/m	dBuV/m	limit	
1	5349.93	53.51	31.40	6.28	39.83	10.00	61.36	68.20	-6.84	Peak
2	5459.99	43.84	31.80	6.37	39.74	10.00	52.27	68.20	-15.93	Peak
				 Cable	Preamp	Aux	Level	Limit	0ver	Remark
Mark	Frequency	Reading	Antenna						2.0	The second secon
Mark	Frequency MHz	Reading dBuV/m	Antenna dB		•		dBuV/m	dBuV/m	limit	
Mark 1	Frequency MHZ 5349.93	dBuV/m	dB 31.40	dB 6.28	dB 39.83	dB	dBuV/m 42.35		limit -11.65	Average

Band: I& II			Worst mo	de: 802	11ax(H	E80)	-	Test cha	ınnel: C	HL
Test value					Hori	zontal				
Mark	Frequency MHZ 5150.07	Reading dBuV/m 56.74	Antenna dB 31.90	Cable dB 6.12	Preamp dB 40.02	Aux dB 10.00		Limit dBuV/m 68.20	Over limit -3.46	Remark Peak
Mark	MHZ	Reading dBuV/m 43.59	Antenna dB 31.90	Cable dB 6.12	Preamp dB 40.02	Aux dB 10.00	Level dBuV/m 51.59			Remark : : Average
Band: I& II			Worst mo	de: 802	11ax(H	E80)	-	Test cha	nnel: C	HL
Test value					Vert	ical				
l est value Mark	Frequency MHZ 5150.07	Reading dBuV/m 53.27	Antenna dB 31.90	Cable dB 6.12	Preamp dB 40.02	Aux dB	Level dBuV/m 61.27	Limit dBuV/m 68.20		

Band: I& II			Worst mo	de: 802	.11ax(H	E80)	٦	est cha	nnel: Cł	<del>1</del> н
Test value					Horiz	zontal				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1 2	5349.93 5459.99	52.20	31.40 31.80	6.28 6.37	39.83 39.74	10.00		68.20	-8.15 -16.61	
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1 2	5349.93 5459.99	38.53 32.63	31.40 31.80	6.28 6.37	39.83 39.74	10.00 10.00	46.38 41.06	54.00 54.00		Average Average
Band: I& II			Worst mo	de: 802	.11ax(H	E80)	7	est cha	nnel: Cł	<del>1</del> н
Test value					Verti	cal				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1 2	5349.93 5459.99	47.10 43.16	31.40 31.80	6.28 6.37	39.83 39.74	10.00 10.00		68.20 68.20		Peak Peak
Mark	Frequency MHZ	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1 2	5349.93 5459.99	37.01 32.57	31.40 31.80	6.28	39.83 39.74	10.00	44.86 41.00			_

Band: III			Worst	mode: 8	02.11a		Te	st chann	el: CH <sub>L</sub>	
Test value					Hori	zontal				
Mark 1	Frequency MHZ 5460.09 5469.92	Reading dBuV/m 46.25 53.75	Antenna dB 31.80	Cable dB 6.37 6.37	Preamp dB 39.74 39.74	dB 10.00	Level dBuV/m 54.68 62.18			Remark Peak Peak
Mark 1 2	Frequency MHz 5460.09 5469.92	Reading dBuV/m	Antenna dB 31.80	Cable dB 6.37 6.37	Preamp dB 39.74 39.74	Aux dB 10.00	Level dBuV/m 43.50 45.87	Limit dBuV/m 54.00	Over limit -10.50	Remark
Band: III			Worst	mode: 8	02.11a		Te	st chann	el: CH <sub>L</sub>	
Test value					Vert	ical				
Mark 1 2	Frequency MHZ 5460.09 5469.92			Cable dB 6.37 6.37	Preamp dB 39.74 39.74	dB 10.00	Level dBuV/m 52.73 55.96	68.20	-15.47	Peak
Mark	Frequency MHZ 5460.09	Reading dBuV/m 33.12	Antenna dB 31.80	Cable dB 6.37	Preamp dB 39.74	Aux dB 10.00	Level dBuV/m 41.55		Over limit	Remark Average
1										

Band: III			Worst ı	mode: 8	02.11a		Τe	est chann	el: CH <sub>H</sub>	
Test value					Hori	zontal				
Mark 1	Frequency MHZ 5724.97	Reading dBuV/m 55.65	Antenna dB 31.85	Cable dB 6.64	Preamp dB 39.40	Aux dB 10.00	Level dBuV/m 64.74	Limit dBuV/m 68.20	Over limit -3.46	Remark Peak
Band: III			Worst i	mode: 8	02.11a		Te	est chann	el: CH <sub>H</sub>	ı
Test value					Vert	ical				
Mark 1	Frequency MHz 5725.39	Reading dBuV/m 51.06	Antenna dB 31.85	Cable dB 6.65	Preamp dB 39.40	Aux dB 10.00	Level dBuV/m 60.16	Limit dBuV/m 68.20	Over limit -8.04	Remark Peak

Band: III			Worst	mode: 8	302.11n	(HT40)	Т	est channe	el: CH∟	
Test value					Hor	rizontal				
Mark	Frequency	Reading	Antenna	Cable	Preamp	Aux	Level	Limit	Over	Remark
	MHZ	dBuV/m	dB	dB	dB	dB	dBuV/m	dBuV/m	limit	
1			31.80	6.37	39.74			68.20		Peak
2	5469.92	55.05	31.80	6.37	39.74	10.00	63.48	68.20	-4.72	2 Peak
Mark	Frequency	Reading	Antenna	Cable	Preamp	Aux	Level	Limit 0	ver R	emark
	MHZ	dBuV/m	dB	dB	dB .	dB	dBuV/m	dBuV/m 1	imit	
1	5460.09	36.08	31.80	6.37	39.74	10.00	44.51	54.00 -	9.49 A	verage
2	5469.92	37.99	31.80	6.37	39.74	10.00	46.42	54.00 -	7.58 A	verage
Band: III			Worst	mode: 8	302.11n	(HT40)	Т	est channe	el: CH <sub>L</sub>	
Test value					Ver	tical				
1 CSt Value										
Mark	Frequency	Reading	Antenna	Cable	Preamp		Level	Limit	Over	Remark
	Frequency MHZ	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	dBuV/m	dBuV/m	limit	
		_	dB			dB	dBuV/m		limit	
Mark	MHZ	dBuV/m	dB 31.80	dB	dB	dB 10.00	dBuV/m 55.00	dBuV/m	limit -13.20	
Mark	MHZ 5460.09	dBuV/m 46.57	dB 31.80	dB 6.37	dB 39.74	dB 10.00	dBuV/m 55.00	dBuV/m 68.20 68.20	limit -13.20 -8.48	Peak
Mark 1 2	MHZ 5460.09 5469.92	dBuV/m 46.57 51.29	dB 31.80 31.80	dB 6.37 6.37	dB 39.74 39.74	dB 10.00 10.00	dBuV/m 55.00 59.72	dBuV/m 68.20 68.20 Limit	limit -13.20 -8.48	Peak Peak
Mark 1 2	MHz 5460.09 5469.92 Frequency	dBuV/m 46.57 51.29 Reading	dB 31.80 31.80 Antenna	dB 6.37 6.37 Cable	dB 39.74 39.74 Preamp	dB 10.00 10.00	dBuV/m 55.00 59.72 Level dBuV/m	dBuV/m 68.20 68.20 Limit dBuV/m	limit -13.20 -8.48  Over limit	Peak Peak

Band: III			Worst	mode:	802.11n	(HT40)		Test chan	nel: CH	Ін
Test value					Hor	izontal				
Mark 1	Frequency MHz 5724.97	Reading dBuV/m 52.91	Antenna dB 31.85	Cable dB 6.64	Preamp dB 39.40	Aux dB 10.00	Level dBuV/m 62.00	Limit dBuV/m 68.20	Over limit -6.20	Remark Peak
Dandi III			141		000 44	<u> </u>				
Band: III			Worst	mode:	802.11n	(HT40)		Test chan	nel: CH	Н
Test value			Worst	mode: 8		(HT40) tical		Test chan	nel: CH	Н

Band: III			Worst mo	de: 802	2.11ax(H	IE80)		Test cha	nnel: CH	L
Test value					Hori	zontal				
Mark			Antenna dB 31.80 31.80	Cable dB 6.37 6.37	Preamp dB 39.74 39.74	dB 10.00	Level dBuV/m 60.97 63.07	Limit dBuV/m 68.20 68.20		
Mark 1 2	Frequency MHz 5460.09 5469.92	Reading dBuV/m 42.10 42.54	Antenna dB 31.80 31.80	Cable dB 6.37 6.37		Aux dB 10.00 10.00		dBuV/m 54.00	limit	emark Verage Verage
Band: III			Worst mo	de: 802	2.11ax(H	IE80)		Test cha	nnel: CH	L
Test value					Vert	ical				
Mark 1 2	Frequency MHz 5460.09 5469.92	Reading dBuV/m 51.83 53.67	Antenna dB 31.80 31.80	Cable dB 6.37 6.37	Preamp dB 39.74 39.74	Aux dB 10.00 10.00		Limit dBuV/m 68.20 68.20	-7.94	Remark Peak Peak
Mark 1 2	Frequency MHz 5460.09 5469.92	Reading dBuV/m 40.93 40.89	Antenna dB 31.80 31.80	Cable dB 6.37 6.37	Preamp dB 39.74 39.74	dB	Level dBuV/m 49.36		-4.64	Remark Average Average

Band: III			Worst	mode: 8	302.11ax	(HE80)	) Te	est chann	el: CH₁	Л
Test value					Hori	izontal				
Mark 1	Frequency MHZ 5724.97	Reading dBuV/m 54.21	Antenna dB 31.85	Cable dB 6.64	Preamp dB 39.40	Aux dB 10.00	Level dBuV/m 63.30	Limit dBuV/m 68.20	Over limit -4.90	Remark Peak
Band: III			Worst	mode: 8	02.11ax	(HE80)	) Te	est chann	el: CH₁	Л
Test value					Vert	tical				
Mark 1	Frequency MHz 5724.97	Reading dBuV/m 52.83	Antenna dB 31.85	Cable dB 6.64	Preamp dB 39.40	Aux dB 10.00	Level dBuV/m 61.92	Limit dBuV/m 68.20	Over limit -6.28	Remark Peak

Band: IV			Worst n	node: 802	.11a			Test ch	annel: CH <sub>L</sub>	
Frequency (MHz)	Read Level (dBuV)	Antenn a Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Pream p Factor (dB)	Level (dBuV/ m)	Limit Line (dBuV/ m)	Over Limit (dB)	Test value	Polari zation
5650	43.03	31.6	6.56	10	39.51	51.68	68.2	-16.52	Vertical	Peak
5700.007	46.15	31.8	6.62	10	39.43	55.14	105.2	-50.06	Vertical	Peak
5720.045	54.18	31.84	6.64	10	39.4	63.26	110.8	-47.54	Vertical	Peak
5650	42.86	31.6	6.56	10	39.51	51.51	68.2	-16.69	Horizontal	Peak
5700.007	48.83	31.8	6.62	10	39.43	57.82	105.2	-47.38	Horizontal	Peak
5720.045	58.93	31.84	6.64	10	39.4	68.01	110.8	-42.79	Horizontal	Peak
Band: IV			Worst n	node: 802	.11a			Test ch	annel: CH <sub>H</sub>	
Frequency (MHz)	Read Level (dBuV)	Antenn a Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Pream p Factor (dB)	Level (dBuV/ m)	Limit Line (dBuV/ m)	Over Limit (dB)	Test value	Polari zation
5849.961	59.7	32.2	6.71	10	39.28	69.33	122.2	-52.87	Vertical	Peak
5854.921	58.89	32.21	6.71	10	39.28	68.53	110.8	-42.27	Vertical	Peak
5875.003	50.3	32.25	6.71	10	39.27	59.99	105.2	-45.21	Vertical	Peak
5849.961	64.27	32.2	6.71	10	39.28	73.9	122.2	-48.3	Horizontal	Peak
5854.921	59.5	32.21	6.71	10	39.28	69.14	110.8	-41.66	Horizontal	Peak
5875.003	51.4	32.25	6.71	10	39.27	61.09	105.2	-44.11	Horizontal	Peak

Band: IV			Worst	mode: 80	)2.11n(HT	40)	Te	st channel:	CH <sub>L</sub>	
Frequency (MHz)	Read Level (dBuV)	Antenn a Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Pream p Factor (dB)	Level (dBuV/ m)	Limit Line (dBuV/ m)	Over Limit (dB)	Test value	Polariz ation
5650	45.16	31.6	6.56	10	39.51	53.81	68.2	-14.39	Vertical	Peak
5700.007	60.36	31.8	6.62	10	39.43	69.35	105.2	-35.85	Vertical	Peak
5720.045	69.14	31.84	6.64	10	39.4	78.22	110.8	-32.58	Vertical	Peak
5650	49.79	31.6	6.56	10	39.51	58.44	68.2	-9.76	Horizontal	Peak
5700.007	66.19	31.8	6.62	10	39.43	75.18	105.2	-30.02	Horizontal	Peak
5720.045	74.65	31.84	6.64	10	39.4	83.73	110.8	-27.07	Horizontal	Peak
Band: IV			Worst	mode: 80	2.11n(HT	40)	Te	st channel:	CH <sub>H</sub>	
Frequency (MHz)	Read Level (dBuV)	Antenn a Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Pream p Factor (dB)	Level (dBuV/ m)	Limit Line (dBuV/ m)	Over Limit (dB)	Test value	Polariz ation
5849.961	59.64	32.2	6.71	10	39.28	69.27	122.2	-52.93	Vertical	Peak
5854.921	55.16	32.21	6.71	10	39.28	64.8	110.8	-46	Vertical	Peak
5875.003	52.05	32.25	6.71	10	39.27	61.74	105.2	-43.46	Vertical	Peak
5849.961	61.44	32.2	6.71	10	39.28	71.07	122.2	-51.13	Horizontal	Peak
5854.921	58.42	32.21	6.71	10	39.28	68.06	110.8	-42.74	Horizontal	Peak
5875.003	57.43	32.25	6.71	10	39.27	67.12	105.2	-38.08	Horizontal	Peak

Report No.: CHTW25050061 Page 30 of **53** 

Band: IV			Worst	mode: 80	)2.11ax(H	E80)	Te	st channel:	CH <sub>L</sub>	
Frequency (MHz)	Read Level (dBuV)	Antenn a Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Pream p Factor (dB)	Level (dBuV/ m)	Limit Line (dBuV/ m)	Over Limit (dB)	Test value	Polariz ation
5650	45.75	31.6	6.56	10	39.51	54.4	68.2	-13.8	Vertical	Peak
5700.007	56.4	31.8	6.62	10	39.43	65.39	105.2	-39.81	Vertical	Peak
5720.045	55.13	31.84	6.64	10	39.4	64.21	110.8	-46.59	Vertical	Peak
5650	49.13	31.6	6.56	10	39.51	57.78	68.2	-10.42	Horizontal	Peak
5700.007	61.42	31.8	6.62	10	39.43	70.41	105.2	-34.79	Horizontal	Peak
5720.045	59.93	31.84	6.64	10	39.4	69.01	110.8	-41.79	Horizontal	Peak
Band: IV			Worst	mode: 80	)2.11ax(H	E80)	Te	st channel:	CH <sub>H</sub>	
Frequency (MHz)	Read Level (dBuV)	Antenn a Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Pream p Factor (dB)	Level (dBuV/ m)	Limit Line (dBuV/ m)	Over Limit (dB)	Test value	Polariz ation
5849.961	56.6	32.2	6.71	10	39.28	66.23	122.2	-55.97	Vertical	Peak
5854.921	56.44	32.21	6.71	10	39.28	66.08	110.8	-44.72	Vertical	Peak
5875.003	54.66	32.25	6.71	10	39.27	64.35	105.2	-40.85	Vertical	Peak
5849.961	59.76	32.2	6.71	10	39.28	69.39	122.2	-52.81	Horizontal	Peak
5854.921	59.94	32.21	6.71	10	39.28	69.58	110.8	-41.22	Horizontal	Peak
5875.003	58.98	32.25	6.71	10	39.27	68.67	105.2	-36.53	Horizontal	Peak

## Remark:

- 1. Final Level = Receiver Read level + Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. Pre-scan all modulation mode and antenna. 802.11a, 802.11n, 802.11ac,802.11ax mode in the report only displays the worst antenna information. The worst antenna is antenna 1.

Report No.: CHTW25050061 Page 31 of **53** 

# 5.8. Radiated Spurious Emissions

## **LIMIT**

FCC CFR Title 47 Part 15 Subpart C Section 15.209 and Part 15 Subpart E Section 15.407

Frequency	Limit (dBuV/m)	Value
0.009 MHz ~0.49 MHz	2400/F(kHz) @300m	Quasi-peak
0.49 MHz ~ 1.705 MHz	24000/F(kHz) @30m	Quasi-peak
1.705 MHz ~30 MHz	30 @30m	Quasi-peak

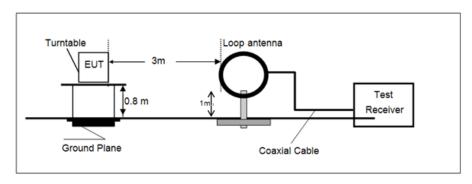
Note: Limit dBuV/m @3m = Limit dBuV/m @300m + 40\*log(300/3)= Limit dBuV/m @300m +80,

Limit dBuV/m @3m = Limit dBuV/m @30m +40\*log(30/3)= Limit dBuV/m @30m + 40.

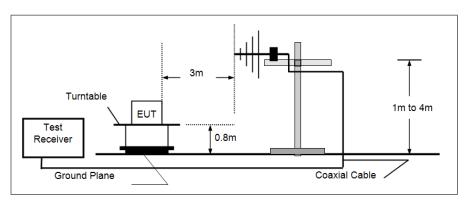
Unwanted emissions below	v 1GHz and Restricted band emissions	above 1GHz
Frequency	Limit (dBuV/m @3m)	Value
30MHz-88MHz	40.00	Quasi-peak
88MHz-216MHz	43.50	Quasi-peak
216MHz-960MHz	46.00	Quasi-peak
960MHz-1GHz	54.00	Quasi-peak
Above 1GHz	54.00	Average
Above IGHZ	74.00	Peak

# **TEST CONFIGURATION**

#### ➤ 9KHz ~30MHz

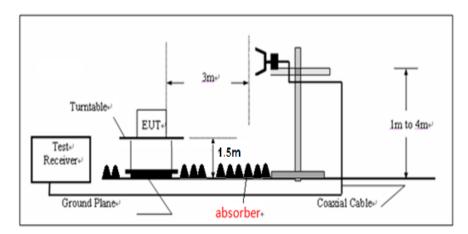


#### > 30MHz ~ 1GHz



Report No.: CHTW25050061 Page 32 of **53** 

#### Above 1GHz



#### **TEST PROCEDURE**

- 1. The EUT was setup and tested according to ANSI C63.10:2013
- 2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
- 3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
- 4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
- Set to the maximum power setting and enable the EUT transmit continuously.
- 6. Use the following spectrum analyzer settings
  - a) Span shall wide enough to fully capture the emission being measured;
  - h) Below 1 GHz

RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold; If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

c) From 1 GHz to 10<sup>th</sup> harmonic:

RBW=1MHz, VBW=3MHz Peak detector for Peak value.

RBW=1MHz, VBW=3MHz RMS detector for Average value.

#### TEST MODE:

Please refer to the clause 4.3

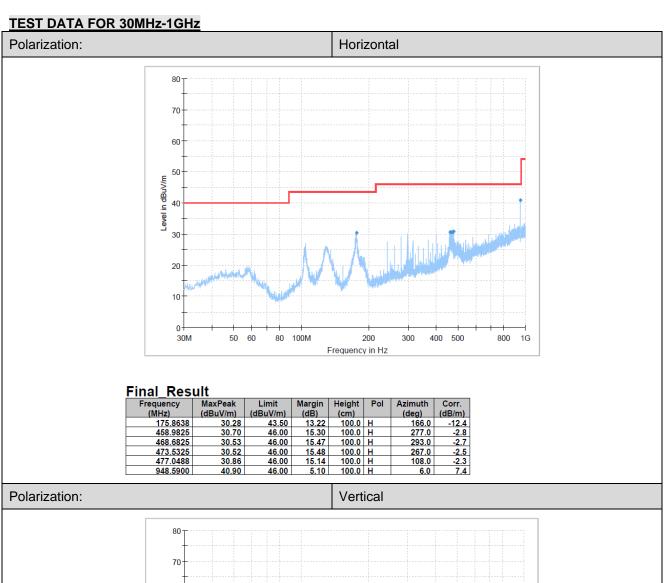
## **TEST RESULT**

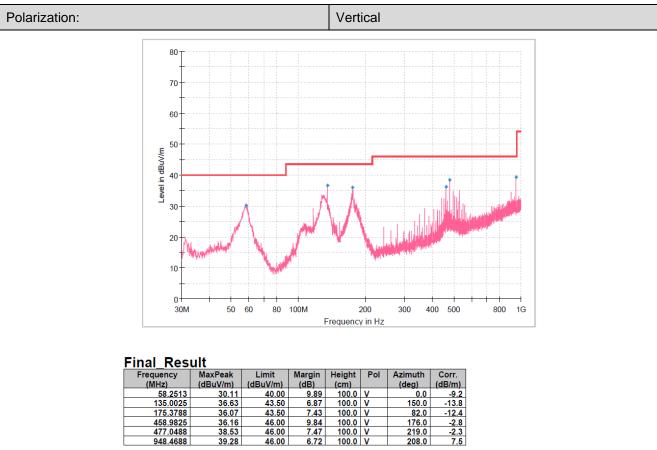
### **TEST Data**

## TEST DATA FOR 9 kHz ~ 30 MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

Report No.: CHTW25050061 Page 33 of 53





82.0 176.0 219.0 208.0

-2.8 -2.3 7.5

36.07 36.16 38.53 39.28

175.3788 458.9825 477.0488 948.4688 43.50 46.00 46.00 46.00

Report No.: CHTW25050061 Page 34 of **53** 

# **TEST DATA FOR Above 1GHz**

U-NII-1		٧	Vorst mode	e: 802.1	.11a Test channel: CH <sub>L</sub>					
Polarization:				ŀ	Horizonta	al				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	5177.97	41.19	31.73	6.15	39.99	39.08	68.20	-29.12	Peak	
2	8506.17	41.72	37.21	8.24	40.20	46.97	68.20	-21.23	Peak	
3	10374.00	40.54	39.82	8.90	40.12	49.14	54.00	-4.86	Average	
4	10374.42	47.29	39.82	8.90	40.12	55.89	68.20	-12.31	Peak	
5	11486.41	39.39	40.49	9.19	40.21	48.86	68.20	-19.34	Peak	
Polarization:				\	/ertical					
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	2868.67	43.22	28.44	4.44	41.04	35.06	68.20	-33.14	Peak	
2	5125.52	40.09	31.95	6.10	40.05	38.09	68.20	-30.11	Peak	
3	6974.36	44.82	35.00	7.38	39.46	47.74	68.20	-20.46	Peak	
4	10374.00	43.58	39.82	8.90	40.12	52.18	54.00	-1.82	Average	
5	10374.42	50.89	39.82	8.90	40.12	59.49	68.20	-8.71	Peak	

U-NII-1		W	orst mode:	802.11	а	Test channel: CH <sub>M</sub>				
Polarization:				Н	orizontal					
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	4920.96	40.00	31.20	5.95	40.23	36.92	68.20	-31.28	Peak	
2	6956.63	43.68	34.93	7.38	39.45	46.54	68.20	-21.66	Peak	
3	7941.19	41.85	36.85	8.03	39.95	46.78	68.20	-21.42	Peak	
4	10453.00	40.90	39.95	8.96	40.17	49.64	54.00	-4.36	Average	
5	10453.95	45.53	39.95	8.96	40.17	54.27	68.20	-13.93	Peak	
Polarization:				V	ertical					
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	4107.32	39.55	29.90	5.58	40.21	34.82	68.20	-33.38	Peak	
2	5125.52	39.86	31.95	6.10	40.05	37.86	68.20	-30.34	Peak	
3	6974.36	44.82	35.00	7.38	39.46	47.74	68.20	-20.46	Peak	
4	10453.00	41.37	39.95	8.96	40.17	50.11	54.00	-3.89	Average	
5	10453.95	48.16	39.95	8.96	40.17	56.90	68.20	-11.30	Peak	

U-NII-1		V	Vorst mode	e: 802.1	I1a	٦	Test channel: CH <sub>H</sub>				
Polarization:					Horizonta	al					
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark		
1	3943.39	40.67	29.70	5.36	40.38	35.35	68.20	-32.85	Peak		
2	6851.19	41.97	34.40	7.41	39.39	44.39	68.20	-23.81	Peak		
3	8973.25	40.54	37.95	8.39	40.01	46.87	68.20	-21.33	Peak		
4	10480.00	42.15	39.98	8.98	40.19	50.92	54.00	-3.08	Average		
5	10480.59	47.13	39.98	8.98	40.19	55.90	68.20	-12.30	Peak		
Polarization:					Vertical						
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cabl dB	e Pream dB	p Level dBuV/m	Limit dBuV/m	Over limit	Remark		
1	3018.50	42.99	28.54	4.54	40.94	35.13	68.20	-33.07	Peak		
2	5086.52	40.16	31.92	6.07	40.10	38.05	68.20	-30.15	Peak		
3	6992.14	47.82	35.07	7.37	39.47	50.79	68.20	-17.41	Peak		
4	10480.59	44.16	39.98	8.98	40.19	52.93	68.20	-15.27	Peak		

U-NII-1		V	Vorst mode	e: 802.1	1n(HT40	))	Test chan	nel: CH <sub>L</sub>	
Polarization:				I	Horizonta	al			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	3834.51	39.12	29.54	5.28	40.54	33.40	68.20	-34.80	Peak
2	5925.86	36.13	32.30	6.71	39.25	35.89	68.20	-32.31	Peak
3	7981.72	38.76	36.96	8.03	39.94	43.81	68.20	-24.39	Peak
4	11515.68	38.67	40.47	9.22	40.22	48.14	68.20	-20.06	Peak
Polarization:				,	Vertical				
Mark	Frequency	Reading	Antenna	Cable	Preamo	Level	Limit	Over	Remark
110111	MHZ	dBuV/m	dB	dB	dB	dBuV/m	dBuV/m	limit	Tremor It
1	2972.75	41.50	28.50	4.53	40.97	33.56	68.20	-34.64	Peak
2	6235.36	38.87	32.77	6.79	39.20	39.23	68.20	-28.97	Peak
3	8593.22	39.25	37.47	8.27	40.16	44.83	68.20	-23.37	Peak
4	11515.68	39.34	40.47	9.22	40.22	48.81	68.20	-19.39	Peak

U-NII-1		٧	Vorst mode	e: 802.′	11n(HT40	)) -	Test char	nel: CH	4
Polarization:					Horizont	al			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	4149.35	39.94	29.90	5.64	40.26	35.22	68.20	-32.98	Peak
2	6156.51	38.39	32.61	6.74	39.20	38.54	68.20	-29.66	Peak
3	8042.90	40.92	37.00	8.04	39.93	46.03	68.20	-22.17	Peak
4	10453.95	42.23	39.95	8.96	40.17	50.97	68.20	-17.23	Peak
Polarization:					Vertical				
Mark	Frequency MHZ	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	4652.95	40.24	31.01	5.86	40.35	36.76	68.20	-31.44	Peak
2	6235.36	40.35	32.77	6.79	39.20	40.71	68.20	-27.49	Peak
3	8002.06	41.23	37.00	8.04	39.94	46.33	68.20	-21.87	Peak
4	10453.95	42.54	39.95	8.96	40.17	51.28	68.20	-16.92	Peak

U-NII-1	Worst mode: 802.11ax(HE80) Test channel: CH <sub>M</sub>									
Polarization:					Horizont	al				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	2883.32	43.49	28.47	4.47	41.03	35.40	68.20	-32.80	Peak	
2	4971.32	40.67	31.29	5.98	40.21	37.73	68.20	-30.47	Peak	
3	8002.06	41.14	37.00	8.04	39.94	46.24	68.20	-21.96	Peak	
4	10453.95	43.49	39.95	8.96	40.17	52.23	68.20	-15.97	Peak	
Polarization:					Vertical					
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	Over	Remark	
PIDIR	MHZ	dBuV/m	dB	dB	dB	dBuV/m	dBuV/m	limit	Kellibi K	
1	2678.14	43.79	27.66	4.28	41.10	34.63	68.20	-33.57	Peak	
1 2	6461.58	40.36	33.67	7.02	39.22	41.83	68.20	-26.37	Peak	
3	9685.35	39.88	39.27	8.60	39.84	47.91	68.20	-20.29	Peak	
4	10453.95	42.15	39.95	8.96	40.17	50.89	68.20	-17.31	Peak	

U-NII-2A			Worst mod	e: 802.	11a		Test channel: CH <sub>L</sub>					
Polarization:					Horizont	al	//m dBuV/m limit 68.20 -33.91 Peak					
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m			Remark			
1	3057.17	42.03	28.63	4.54	40.91	34.29	68.20	-33.91	Peak			
2	5047.83	40.28	31.69	6.04	40.15	37.86	68.20	-30.34	Peak			
3	7961.43	40.20	36.92	8.03	39.95	45.20	68.20	-23.00	Peak			
4	10507.00	41.75	40.00	9.00	40.21	50.54	54.00	-3.46	Average			
5	10507.31	46.92	40.00	9.00	40.21	55.71	68.20	-12.49	Peak			
Polarization:					Vertical							
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark			
1	3216.84	41.05	28.80	4.81	40.81	33.85	68.20	-34.35	Peak			
2	5244.30	39.62	31.42	6.20	39.91	37.33	68.20	-30.87	Peak			
3	8527.85	40.49	37.26	8.25	40.19	45.81	68.20	-22.39	Peak			
4	10507.00	41.98	40.00	9.00	40.21	50.77	54.00	-3.23	Average			
5	10507.31	46.84	40.00	9.00	40.21	55.63	68.20	-12.57	Peak			

U-NII-2A	Worst mode: 802				2.11a Test channel: CH <sub>M</sub>				
Polarization:				ŀ	Horizonta	I			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	2803.70	42.05	28.31	4.35	41.09	33.62	68.20	-34.58	Peak
2	4760.78	38.85	31.22	5.86	40.30	35.63	68.20	-32.57	Peak
3	8927.68	39.42	37.90	8.38	40.03	45.67	68.20	-22.53	Peak
4	10560.00	40.92	40.00	8.98	40.26	49.64	54.00	-4.36	Average
5	10560.94	47.06	40.00	8.98	40.26	55.78	68.20	-12.42	Peak
Polarization:				١	/ertical				
Mark	Frequency MHZ	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over	Remark
1	5151.68	39.18	31.89	6.12	40.02	37.17	68.20	-31.03	Peak
2	7117.84	39.97	35.45	7.44	39.59	43.27	68.20	-24.93	Peak
3	9181.20	39.75	38.69	8.47	39.93	46.98	68.20	-21.22	Peak
4	10560.00	41.91	40.00	8.98	40.26	50.63	54.00	-3.37	Average
5	10560.94	47.60	40.00	8.98	40.26	56.32	68.20	-11.88	Peak

U-NII-2A	Worst mode: 802.				.11a Test channel: CH				I <sub>H</sub>	
Polarization:	Horizontal									
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Pream	np Level dBuV/m	Limit dBuV/			
1	4096.88	40.15	29.90	5.56	40.22	35.39	68.20	-32.81	l Peak	
2	6267.19	39.50	32.83	6.81	39.20	39.94	68.20	-28.26	5 Peak	
3	7961.43	40.34	36.92	8.03	39.95	45.34	68.20	-22.86	5 Peak	
4	10641.00	41.39	40.00	8.94	40.34	49.99	54.00	-4.01	l Average	
5	10641.89	47.03	40.00	8.94	40.34	55.63	68.20	-12.57	7 Peak	
Polarization:					Vertical					
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	4772.91	38.50	31.25	5.86	40.30	35.31	68.20	-32.89	Peak	
2	6764.54	39.24	34.13	7.43	39.34	41.46	68.20	-26.74	Peak	
3	8950.44	39.27	37.90	8.38	40.02	45.53	68.20	-22.67	Peak	
4	10641.00	41.28	40.00	8.94	40.34	49.88	54.00	-4.12	Average	
5	10641.89	47.08	40.00	8.94	40.34	55.68	68.20	-12.52	Peak	

U-NII-2A		١	Worst mode	e: 802.1	11n(HT40	0)	Test char	nnel: CH	L
Polarization:					Horizont	al			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	
1	2905.42	42.97	28.50	4.50	41.01	34.96	68.20	-33.24	Peak
2	5112.49	40.06	31.97	6.09	40.07	38.05	68.20	-30.15	Peak
3	7376.08	41.82	36.20	7.68	39.88	45.82	68.20	-22.38	Peak
4	10560.94	40.54	40.00	8.98	40.26	49.26	68.20	-18.94	Peak
Polarization:					Vertical				
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	Over	Remark
	MHZ	dBuV/m	dB	dB	dB	dBuV/m	dBuV/m	limit	Dook
1	4760.78	40.42	31.22	5.86		37.20	68.20	-31.00	Peak
2	6974.36	44.87	35.00	7.38		47.79	68.20	-20.41	Peak
3	8527.85	41.48	37.26	8.25		46.80	68.20	-21.40	Peak
4	10560.00	41.75	40.00	8.98	40.26 40.26	50.47 54.53	54.00	-3.53	Average
5	10560.94	45.81	40.00	8.98			68.20	-13.67	Peak

U-NII-2A		V	Vorst mode	e: 802.1	11n(HT40	))	Test char	nel: CH	1
Polarization:					Horizonta	al			
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	Over	Remark
	MHZ	dBuV/m	dB	dB	dB	dBuV/m	dBuV/m	limit	
1	3003.17	42.74	28.51	4.54	40.95	34.84	68.20	-33.36	Peak
2	5191.17	40.76	31.65	6.16	39.97	38.60	68.20	-29.60	Peak
3	7981.72	41.72	36.96	8.03	39.94	46.77	68.20	-21.43	Peak
4	10614.84	41.12	40.00	8.95	40.31	49.76	68.20	-18.44	Peak
Polarization:					Vertical				
Mark	Frequency	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	dBuV/m	dBuV/m	Over	Remark
1	4570.77	40.37	30.78	5.87	40.39	36.63	68.20	-31.57	Peak
2	6992.14	47.69	35.07	7.37	39.47	50.66	68.20	-17.54	Peak
3	9734.78	39.92	39.30	8.60	39.85	47.97	68.20	-20.23	Peak
4	11545.04	39.83	40.41	9.25	40.26	49.23	68.20	-18.97	Peak

U-NII-2A		١	Norst mode	e: 802.1	1ax(HE8	30)	Test chan	nel: CH <sub>№</sub>	И
Polarization:					Horizonta	al			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	4159.93	38.69	29.90	5.65	40.29	33.95	68.20	-34.25	Peak
2	7301.36	40.49	36.10	7.61	39.80	44.40	68.20	-23.80	Peak
3	9734.78	38.72	39.30	8.60	39.85	46.77	68.20	-21.43	Peak
4	10750.81	38.95	40.15	8.90	40.45	47.55	68.20	-20.65	Peak
Polarization:					Vertical				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	2912.82	42.74	28.50	4.51	41.01	34.74	68.20	-33.46	Peak
2	5125.52	40.49	31.95	6.10	40.05	38.49	68.20	-29.71	Peak
3	6974.36	46.49	35.00	7.38	39.46	49.41	68.20	-18.79	Peak
4	11140.85	40.57	40.12	8.91	40.56	49.04	68.20	-19.16	Peak

U-NII-2C		١	Norst mode	e: 802.	11a		Test char	nnel: CH	L
Polarization:					Horizonta	al			
Mark	Frequency	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	dBuV/m	Limit dBuV/m	Over	Remark
1	4086.46	41.39	29.90	5.55	40.23	36.61	68.20	-31.59	Peak
2	5125.52	41.17	31.95	6.10	40.05	39.17	68.20	-29.03	Peak
3	7338.62	44.03	36.18	7.65	39.84	48.02	68.20	-20.18	Peak
4	10999.00	43.05	40.50	8.80	40.70	51.65	54.00	-2.35	Average
5	10999.95	49.02	40.50	8.80	40.70	57.62	68.20	-10.58	Peak
Polarization:					Vertical				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	2754.19	44.19	28.03	4.31	41.10	35.43	68.20	-32.77	Peak
2	6662.01	41.78	34.18	7.37	39.29	44.04	68.20	-24.16	Peak
3	7338.62	43.14	36.18	7.65	39.84	47.13	68.20	-21.07	Peak
4	10999.00	43.27	40.50	8.80	40.70	51.87	54.00	-2.13	Average
5	10999.95	47.88	40.50	8.80	40.70	56.48	68.20	-11.72	Peak

U-NII-2C		V	Vorst mode	e: 802.1	1a		Test char	nel: CH	М
Polarization:					Horizonta	al			
Mark	Frequency	Reading dBuV/m	Antenna dB	Cable dB	Preamp	dBuV/m	dBuV/m	Over	Remark
1	3534.54	40.64	29.14	5.14	40.97	33.95	68.20	-34.25	Peak
2	5112.49	38.72	31.97	6.09	40.07	36.71	68.20	-31.49	Peak
3	7338.62	41.10	36.18	7.65	39.84	45.09	68.20	-23.11	Peak
4	11169.00	42.82	40.06	8.94	40.53	51.29	54.00	-2.71	Average
5	11169.24	48.26	40.06	8.94	40.53	56.73	68.20	-11.47	Peak
Polarization:				,	Vertical				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	3216.84	41.88	28.80	4.81	40.81	34.68	68.20	-33.52	Peak
2	5034.99	40.28	31.61	6.03	40.16	37.76	68.20	-30.44	Peak
3	7338.62	41.97	36.18	7.65	39.84	45.96	68.20	-22.24	Peak
4	11169.00	42.99	40.06	8.94	40.53	51.46	54.00	-2.54	Average
5	11169.24	47.57	40.06	8.94	40.53	56.04	68.20	-12.16	Peak

U-NII-2C		,	Worst mod	e: 802.′	11a	-	Test char	nnel: CH	Н
Polarization:					Horizont	al			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over	Remark
1	2868.67	42.10	28.44	4.44	41.04	33.94	68.20	-34.26	Peak
2	4641.12	38.70	30.98	5.87	40.35	35.20	68.20	-33.00	Peak
3	7338.62	43.29	36.18	7.65	39.84	47.28	68.20	-20.92	Peak
4	11428.00	41.73	40.43	9.14	40.27	51.03	54.00	-2.97	Average
5	11428.08	48.05	40.43	9.14	40.27	57.35	68.20	-10.85	Peak
Polarization:					Vertical				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	3299.78	41.41	28.30	4.83	40.80	33.74	68.20	-34.46	Peak
2	6299.18	39.92	32.90	6.83	39.20	40.45	68.20	-27.75	Peak
3	8022.46	40.51	37.00	8.04	39.93	45.62	68.20	-22.58	Peak
4	11428.00	40.88	40.43	9.14	40.27	50.18	54.00	-3.82	Average
5	11428.08	47.15	40.43	9.14	40.27	56.45	68.20	-11.75	Peak

U-NII-2C			Worst mode	e: 802.	11n(HT40	0)	Test char	nel: CH <sub>l</sub>	L
Polarization:					Horizont	al			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	6203.70	40.14	32.71	6.77	39.20	40.42	68.20	-27.78	Peak
2	7357.33	43.53	36.20	7.67	39.86	47.54	68.20	-20.66	Peak
3	9228.06	40.49	38.97	8.49	39.91	48.04	68.20	-20.16	Peak
4	11027.98	44.64	40.42	8.82	40.67	53.21	68.20	-14.99	Peak
Polarization:					Vertical				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	3018.50	43.15	28.54	4.54	40.94	35.29	68.20	-32.91	Peak
2	5125.52	40.32	31.95	6.10	40.05	38.32	68.20	-29.88	Peak
3	6974.36	48.41	35.00	7.38	39.46	51.33	68.20	-16.87	Peak
4	10971.98	43.00	40.50	8.81	40.67	51.64	68.20	-16.56	Peak

I-NII-2C		1	Worst mode	e: 802.1	1n(HT40	))	Test char	nel: CH	M
olarization:				[	Horizont	al			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	3003.17	43.10	28.51	4.54	40.95	35.20	68.20	-33.00	Peak
2	6974.36	41.98	35.00	7.38	39.46	44.90	68.20	-23.30	Peak
3	7413.73	43.07	36.20	7.72	39.91	47.08	68.20	-21.12	Peak
4	11112.00	39.64	40.18	8.89	40.59	48.12	54.00	-5.88	Average
5	11112.52	45.98	40.17	8.89	40.59	54.45	68.20	-13.75	Peak
olarization:				,	Vertical				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	
1	4421.99	40.31	30.44	5.88	40.51	36.12	68.20	-32.08	Peak
2	6363.65	41.57	33.25	6.88	39.20	42.50	68.20	-25.78	Peak
3	7413.73	44.92	36.20	7.72	39.91	48.93	68.20	-19.27	Peak
4	11112.00	44.03	40.18	8.89	40.59	52.51	54.00	-1.49	Average
	11112.52	49.64	40.17	8.89	40.59	58.11	68.20	-10.09	Peak

U-NII-2C			Worst mod	le: 802.	11n(HT	10)	Test cha	annel: Cl	H <sub>H</sub>
Polarization:					Horizon	ıtal			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	3863.90	40.23	29.63	5.30	40.49	34.67	68.20	-33.53	Peak
2	7624.25	42.59	36.05	7.89	39.96	46.57	68.20	-21.63	Peak
3	9042.04	40.18	38.08	8.42	39.98	46.70	68.20	-21.50	Peak
4	11428.00	39.33	40.43	9.14	40.27	48.63	54.00	-5.37	Average
5	11428.08	44.36	40.43	9.14	40.27	53.66	68.20	-14.54	Peak
Polarization:					Vertical				
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	0ver	Remark
Hark	MHZ	dBuV/m	dB	dB	dB	dBuV/m	dBuV/m		Remark
1	5138.58	39.93	31.92	6.11	40.04	37.92	68.20	-30.28	Peak
2	6992.14	45.69	35.07	7.37	39.47	48.66	68.20	-19.54	Peak
3	7624.25	44.53	36.05	7.89	39.96	48.51	68.20	-19.69	Peak
4	11457.00	40.75	40.46	9.17	40.24	50.14		-3.86	Average
	11457.21	46.69	40.46	9.17	40.24	56.08	68.20	-12.12	Peak

U-NII-2C		V	Vorst mode	e: 802.1	1ax(HE8	0) T	est chan	nel: CH <sub>∟</sub>	
Polarization:				ŀ	Horizonta	ıl			
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5125.52	39.82	31.95	6.10	40.05	37.82	68.20	-30.38	Peak
2	7376.08	43.02	36.20	7.68	39.88	47.02	68.20	-21.18	Peak
3	9275.16	40.25	39.15	8.51	39.89	48.02	68.20	-20.18	Peak
4	11084.27	44.19	40.25	8.87	40.62	52.69	68.20	-15.51	Peak
Polarization:				\	/ertical				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	3863.90	40.82	29.63	5.30	40.49	35.26	68.20	-32.94	Peak
2	5164.81	40.36	31.81	6.14	40.01	38.30	68.20	-29.90	Peak
3	7376.08	44.93	36.20	7.68	39.88	48.93	68.20	-19.27	Peak
4	11084.00	38.75	40.25	8.87	40.62	47.25	54.00	-6.75	Average
5	11084.27	47.38	40.25	8.87	40.62	55.88	68.20	-12.32	Peak

U-NII-2C		٧	Vorst mode	e: 802.1	1ax(HE8	30)	Test char	1				
Polarization:	Horizontal											
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark			
1	4159.93	38.30	29.90	5.65	40.29	33.56	68.20	-34.64	Peak			
2	7045.74	39.92	35.28	7.37	39.51	43.06	68.20	-25.14	Peak			
3	9042.04	38.89	38.08	8.42	39.98	45.41	68.20	-22.79	Peak			
4	11399.03	41.26	40.40	9.12	40.30	50.48	68.20	-17.72	Peak			
Polarization:				\	/ertical							
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	0ver	Remark			
ridi K	MHZ	dBuV/m	dB	dB	dB	dBuV/m	dBuV/m	limit	Kellidi K			
1	4223.95	40.50	29.95	5.75	40.41	35.79	68.20	-32.41	Peak			
2	6645.07	44.47	34.20	7.34	39.28	46.73	68.20	-21.47	Peak			
3	7585.53	44.15	36.10	7.86	39.95	48.16	68.20	-20.04	Peak			
4	11370.00	37.07	40.31	9.10	40.33	46.15	54.00	-7.85	Average			
-		46.13	40.31	9.10	40.33	55.21	68.20	-12.99	Peak			

U-NII-3		V	orst mode	: 802.1	1a	Т	Test channel: CH <sub>∟</sub>			
Polarization:				H						
Mark	Frequency MHZ	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over	Remark	
1	2818.01	43.24	28.34	4.37	41.08	34.87	68.20	-33.33	Peak	
2	5151.68	40.12	31.89	6.12	40.02	38.11	68.20	-30.09	Peak	
2	6992.14	44.69	35.07	7.37	39.47	47.66	68.20	-20.54	Peak	
4	11515.00	40.82	40.47	9.22	40.22	50.29	54.00	-3.71	Average	
5	11515.68	46.71	40.47	9.22	40.22	56.18	68.20	-12.02	Peak	
Polarization:				\	/ertical					
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	4159.93	40.74	29.90	5.65	40.29	36.00	68.20	-32.20	Peak	
2	5138.58	40.58	31.92	6.11	40.04	38.57	68.20	-29.63	Peak	
3	7508.69	41.59	36.18	7.79	39.93	45.63	68.20	-22.57	Peak	
4	11515.00	41.06	40.47	9.22	40.22	50.53	54.00	-3.47	Average	
5	11515.68	46.18	40.47	9.22	40.22	55.65	68.20	-12.55	Peak	

U-NII-3	-NII-3 Worst mode: 80						Test channel: CH <sub>M</sub>			
Polarization:	Horizontal									
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	3795.66	39.32	29.40	5.26	40.60	33.38	68.20	-34.82	Peak	
2	6094.14	37.25	32.50	6.70	39.20	37.25	68.20	-30.95	Peak	
3	8527.85	40.94	37.26	8.25	40.19	46.26	68.20	-21.94	Peak	
4	11574.00	41.04	40.35	9.29	40.30	50.38	54.00	-3.62	Average	
5	11574.46	46.67	40.35	9.29	40.30	56.01	68.20	-12.19	Peak	
Polarization:					Vertical					
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over	Remark	
1	2898.03	42.05	28.50	4.49	41.02	34.02	68.20	-34.18	Peak	
2	6078.64	37.99	32.50	6.69	39.20	37.98	68.20	-30.22	Peak	
3	7663.17	40.86	36.00	7.92	39.97	44.81	68.20	-23.39	Peak	
4	11574.00	40.92	40.35	9.29	40.30	50.26	54.00	-3.74	Average	
5	11574.46	46.04	40.35	9.29	40.30	55.38	68.20	-12.82	Peak	

U-NII-3 Worst mode: 802					2.11a Test channel: CH <sub>H</sub>					
Polarization:					Horizont	al				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	3873.75	40.84	29.65	5.31	40.47	35.33	68.20	-32.87	Peak	
2	5086.52	39.26	31.92	6.07	40.10	37.15	68.20	-31.05	Peak	
3	8002.06	40.38	37.00	8.04	39.94	45.48	68.20	-22.72	Peak	
3 4	11663.00	42.60	40.05	9.40	40.43	51.62	54.00	-2.38	Average	
5	11663.19	48.02	40.05	9.40	40.43	57.04	68.20	-11.16	Peak	
Polarization:					Vertical					
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark	
1	2987.92	42.39	28.50	4.53	40.96	34.46	68.20	-33.74	Peak	
2	5073.59	40.11	31.84	6.06	40.12	37.89	68.20	-30.31	Peak	
3	7663.17	41.80	36.00	7.92	39.97	45.75	68.20	-22.45	Peak	
4	11663.00	41.32	40.05	9.40	40.43	50.34	54.00	-3.66	Average	
5	11663.19	46.98	40.05	9.40	40.43	56.00	68.20	-12.20	Peak	

U-NII-3 Worst mode: 802						.11n(HT40) Test channel: CH <sub>L</sub>					
Polarization:					Horizont	tal					
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark		
1	4712.55	40.74	31.13	5.86	40.32	37.41	68.20	-30.79	Peak		
2	6974.36	42.73	35.00	7.38	39.46	45.65	68.20	-22.55	Peak		
3	9298.80	39.43	39.20	8.52	39.88	47.27	68.20	-20.93	Peak		
4	11515.00	42.26	40.47	9.22	40.22	51.73	54.00	-2.27	Average		
5	11515.68	48.42	40.47	9.22	40.22	57.89	68.20	-10.31	Peak		
Polarization:					Vertical						
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	Over	Remark		
Hulk	MHZ	dBuV/m	dB	dB	dB	dBuV/m	dBuV/m	limit	Kelliul K		
1	5099.49	40.33	32.00	6.08	40.08	38.33	68.20	-29.87	Peak		
2	6992.14	45.31	35.07	7.37		48.28	68.20	-19.92	Peak		
3	8996.12	42.48	37.99	8.40	40.00	48.87	68.20	-19.33	Peak		
4	11515.00	41.05	40.47	9.22	40.22	50.52	54.00	-3.48	Average		
5	11515.68	50.24	40.47	9.22	40.22	59.71	68.20	-8.49	Peak		

U-NII-3	J-NII-3 Worst mode: 802						2.11n(HT40) Test channel: CH <sub>H</sub>				
Polarization:						Horizontal					
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark		
1	5125.52	40.04	31.95	6.10	40.05	38.04	68.20	-30.16	Peak		
2	7301.36	41.42	36.10	7.61	39.80	45.33	68.20	-22.87	Peak		
3	9251.58	39.43	39.10	8.50	39.90	47.13	68.20	-21.07	Peak		
4	11603.00	41.32	40.29	9.32	40.34	50.59	54.00	-3.41	Average		
5	11603.96	45.68	40.28	9.32	40.35	54.93	68.20	-13.27	Peak		
Polarization:					Vertical						
Mark	Frequency	Reading	Antenna	Cable	Preamp		Limit	Over	Remark		
	MHZ	dBuV/m	dB	dB	dB	dBuV/m	dBuV/m	limit			
1	5379.50	40.73	31.52	6.31	39.80	38.76	68.20	-29.44	Peak		
2	6974.36	49.35	35.00	7.38	39.46	52.27	68.20	-15.93	Peak		
3	9346.26	40.00	39.20	8.54	39.86	47.88	68.20	-20.32	Peak		
4	11603.00	42.07	40.29	9.32	40.34	51.34	54.00	-2.66	Average		
5	11603.96	48.51	40.28	9.32	40.35	57.76	68.20	-10.44	Peak		

Report No.: CHTW25050061 Page 43 of **53** 

J-NII-3		Worst mod	e: 802.	2.11ax(HE80) Test channel: CH				M	
Polarization:			Horizont	al					
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	3805.33	40.36	29.42	5.27	40.58	34.47	68.20	-33.73	Peak
2	6645.07	41.25	34.20	7.34	39.28	43.51	68.20	-24.69	Peak
3	8002.06	41.47	37.00	8.04	39.94	46.57	68.20	-21.63	Peak
4	11574.00	37.34	40.35	9.29	40.30	46.68	54.00	-7.32	Average
5	11574.46	46.95	40.35	9.29	40.30	56.29	68.20	-11.91	Peak
Polarization:					Vertical				
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5164.81	40.06	31.81	6.14	40.01	38.00	68.20	-30.20	Peak
2	6974.36	47.55	35.00	7.38	39.46	50.47	68.20	-17.73	Peak
3	8549.59	42.42	37.30	8.26	40.18	47.80	68.20	-20.40	Peak
4	11574.00	37.47	40.35	9.29	40.30	46.81	54.00	-7.19	Average
5	11574.46	46.65	40.35	9.29	40.30	55.99	68.20	-12.21	Peak

#### Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. Measuring frequencies from 1 GHz to 40GHz.
- 4. Pre-scan all modulation mode and antenna. 802.11a, 802.11n, 802.11ac,802.11ax mode in the report only displays the worst antenna information. The worst antenna is antenna 1.

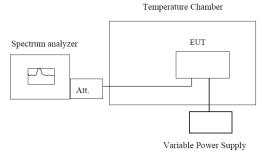
Report No.: CHTW25050061 Page 44 of 53

## 5.9. Frequency stability

### LIMIT

Within Operation Band

## **TEST CONFIGURATION**



Note: Measurement setup for testing on Antenna connector

### **TEST PROCEDURE**

- 1. The equipment under test was connected to an external power supply.
- 2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators.
- 3. The EUT was placed inside the temperature chamber.
- Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25<sup>°</sup>C operating frequency as reference frequency.
- 5. Turn EUT off and set the chamber temperature to −20°C. After the temperature stabilized for approximately 30 minutes recorded the frequency.
- 6. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached..

#### **TEST MODE:**

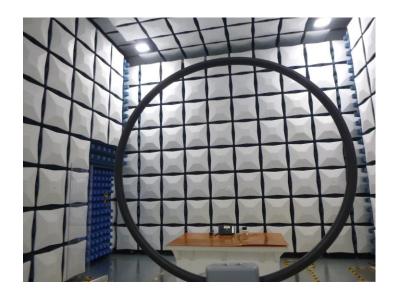
Please refer to the clause 4.3

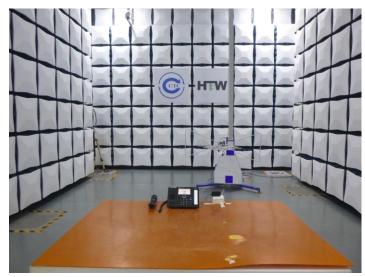
## **TEST RESULT**

Refer to the appendix report on the section 8

# 6. TEST SETUP PHOTOS

Radiated Emission











AC Conducted Emission



Report No.: CHTW25050061 Page 47 of **53** 

# 7. EXTERNAL AND INTERNAL PHOTOS

# 7.1. External Photos







Report No.: CHTW25050061 Page 48 of **53** 







Report No.: CHTW25050061 Page 49 of **53** 







Report No.: CHTW25050061 Page 50 of **53** 

# 7.2. Internal Photos







Report No.: CHTW25050061 Page 51 of **53** 





