FCC Test Report (WLAN)

Report No.:	RF200601E14-1
FCC ID:	PY320100490
Test Model:	RAX40v2
Series Model:	RAX38v2, RAX35v2
Received Date:	June 01, 2020
Test Date:	June 03 to 14, 2020
Issued Date:	June 23, 2020
Applicant:	NETGEAR, Inc.
Address:	350 East Plumeria Drive San Jose, CA 95134
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
FCC Registration / Designation Number:	723255 / TW2022

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

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Release Control Record

Issue No.	Description	Date Issued
RF200601E14-1	Original release.	June 23, 2020

1 Certificate of Conformity

Product:	Nighthawk AX4 AX3000 4-Stream WiFi Router
Brand:	NETGEAR
Test Model:	RAX40v2
Series Model:	RAX38v2, RAX35v2
Sample Status:	ENGINEERING SAMPLE
Applicant:	NETGEAR, Inc.
Test Date:	June 03 to 14, 2020
Standard:	47 CFR FCC Part 15, Subpart E (Section 15.407) ANSI C63.10: 2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : Vivian Huang , **Date:** June 23, 2020

Vivian Huang / Specialist

Approved by : , **Date:** June 23, 2020

Clark Lin / Technical Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -11.36dB at 0.29844 MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement*	Pass	Meet the requirement of limit. Minimum passing margin is -0.1 dB at 5350.00 MHz, 5725.00 MHz, 5150.00 MHz and 5135.71 MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is R-SMA not a standard connector.

Note:

1. For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOBE test plots were recorded in Annex A.
2. For U-NII-1, U-NII-2A, U-NII-2C band compliance with rule 15.407(b) of the band-edge items, the test plots were recorded in Annex B. Test Procedures refer to report 4.1.3.
3. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.9 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.1 dB
	30MHz ~ 1GHz	5.5 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.1 dB
	18GHz ~ 40GHz	5.3 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Nighthawk AX4 AX3000 4-Stream WiFi Router
Brand	NETGEAR
Test Model	RAX40v2
Series Model	RAX38v2, RAX35v2
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	12Vdc from power adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode and VHT20/40 in 2.4GHz 1024QAM for OFDMA in 11ax HE mode
Modulation Technology	DSSS,OFDM, OFDMA
Transfer Rate	802.11b: up to 11 Mbps 802.11a/g: up to 54 Mbps 802.11n: up to 300 Mbps 802.11ac: up to 1733.3 Mbps 802.11ax: up to 2401.9 Mbps
Operating Frequency	**2.4GHz:** 2.412 ~ 2.462GHz **5GHz:** 5.18~5.32GHz, 5.50~5.72GHz, 5.745 ~ 5.825GHz
Number of Channel	**2.4GHz:** 802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20): 11 802.11n (HT40), VHT40, 802.11ax (HE40): 7 **5GHz:** 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 25 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 12 802.11ac (VHT80), 802.11ax (HE80): 6 802.11ac (VHT160), 802.11ax (HE160): 2
Output Power	**CDD Mode:** **2.412 ~ 2.462 GHz:** 880.166 mW **5.18 ~ 5.25 GHz:** 825.158 mW **5.25 ~ 5.32GHz:** 222.375 mW **5.5 ~ 5.72GHz:** 222.715 mW **5.745 ~ 5.825 GHz:** 895.617 mW **Beamforming Mode:** **2.412 ~ 2.462 GHz:** 815.713 mW **5.18 ~ 5.25 GHz:** 825.158 mW **5.25 ~ 5.32GHz:** 222.375 mW **5.5 ~ 5.72GHz:** 222.715 mW **5.745 ~ 5.825 GHz:** 895.617 mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x1
Data Cable Supplied	NA

Note:

1. The EUT has three model names which are identical to each other in all aspects except for the followings:

Product name	Model Name	Description
Nighthawk AX4 AX3000 4-Stream WiFi Router	RAX40v2	1. RAX38v2 is all the same as RAX40v2, just add model name into the FCC certification. 2. RAX35v2 is all the same as RAX40v2, except RAX40v2 has one USB port, but RAX35v2 removed USB components.
	RAX38v2	
	RAX35v2	
Note: From the above models, model: **RAX40v2** was selected as representative model for the test and its data was recorded in this report.		

2. Simultaneously transmission condition.

Condition	Technology	
1	WLAN 2.4GHz	WLAN 5GHz
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.		

3. The EUT must be supplied with a power adapter and following different models could be chosen:

No.	Brand	Model No.	P/N	Spec.
1	NETGEAR	2ABL030F 1 NA	332-10758-01	Input: 100-120Vac, 1.0A, 50/60Hz Output: 12Vdc, 2.5A DC Output cable: Unshielded, 1.8m
2	NETGEAR	AD2067F10	332-10797-01	Input: 100-120Vac, 1.0A, 50/60Hz Output: 12Vdc, 2.5A DC Output cable: Unshielded, 1.8m
Note: From the above models, the worst radiated emission test and conducted emission test were found in **Adapter 1**. Therefore only the test data of the model was recorded in this report.				

4. The antennas provided to the EUT, please refer to the following table:

Antenna NO.	Chain No.	Antenna Net Gain(dBi)	Frequency range	Antenna Type	Connector Type	Cable Length (mm)	Cable Loss (dB)
Dual_Ant0	2.4G_Ant0 5G_Ant1	1.87	2.4~2.4835GHz	Diople	i-pex(MHF)	65	0.4
		2.84	5.15~5.25GHz				0.5
		3.04	5.25~5.35GHz				0.5
		3.23	5.47~5.725GHz				0.5
		2.91	5.725~5.85GHz				0.5
Dual_Ant1	2.4G_Ant1 5G_Ant0	1.87	2.4~2.4835GHz	Diople	i-pex(MHF)	65	0.4
		2.84	5.15~5.25GHz				0.5
		3.04	5.25~5.35GHz				0.5
		3.23	5.47~5.725GHz				0.5
		2.91	5.725~5.85GHz				0.5

5. The EUT incorporates a MIMO function:

2.4GHz Band		
MODULATION MODE	**TX & RX CONFIGURATION**	
802.11b	2TX	2RX
802.11g	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
VHT20	2TX	2RX
VHT40	2TX	2RX
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
5GHz Band		
MODULATION MODE	**TX & RX CONFIGURATION**	
802.11a	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
802.11ac (VHT20)	2TX	2RX
802.11ac (VHT40)	2TX	2RX
802.11ac (VHT80)	2TX	2RX
802.11ac (VHT160)	2TX	2RX
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	2TX	2RX
802.11ax (HE160)	2TX	2RX

Note:

1. All of modulation mode support beamforming function except 802.11a/b/g modulation mode.
2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz), 802.11ac mode for 20MHz (40MHz, 80MHz, 160MHz) and 802.11ax mode for 20MHz (40MHz, 80MHz, 160MHz), therefore the manufacturer will control the power for 802.11n/ VHT mode is the same as the 802.11ax mode or more lower than it and investigated worst case to representative mode in test report. (Final test mode refer to section 3.2.1)

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

3.2 Description of Test Modes

FOR 5180 ~ 5320MHz

8 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

Channel	Frequency	Channel	Frequency
36	5180 MHz	52	5260 MHz
40	5200 MHz	56	5280 MHz
44	5220 MHz	60	5300 MHz
48	5240 MHz	64	5320 MHz

4 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	54	5270 MHz
46	5230 MHz	62	5310 MHz

2 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz

1 straddle channel is provided for 802.11ac (VHT160), 802.11ax (HE160):

Channel	Frequency
50	5250 MHz

FOR 5500 ~ 5720MHz

12 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

Channel	Frequency	Channel	Frequency
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz	144	5720 MHz

6 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	142	5710 MHz

3 channels are provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
106	5530 MHz	138	5690 MHz
122	5610 MHz		

1 straddle channel is provided for 802.11ac (VHT160), 802.11ax (HE160):

Channel	Frequency
114	5570 MHz

FOR 5745 ~ 5825MHz:

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

Channel	Frequency	Channel	Frequency
149	5745 MHz	161	5805 MHz
153	5765 MHz	165	5825 MHz
157	5785 MHz		

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency
155	5775 MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE≥1G:** Radiated Emission above 1GHz **RE<1G:** Radiated Emission below 1GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

Note: The EUT had been pre-tested on the positioned of each 2 axis. The worst case was found when positioned on **X-plane**.

Radiated Emission Test (Above 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

CDD Mode						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11a	5180-5320	36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	6Mb/s
802.11ax (HE20)		36 to 64	36, 40, 48, 52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		38 to 62	38, 46, 54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		42, 58	42, 58	OFDMA	BPSK	MCS0
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	6Mb/s
802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	BPSK	MCS0
802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	BPSK	MCS0
802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	BPSK	MCS0
802.11ax (HE160)		114	114	OFDMA	BPSK	MCS0
802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6Mb/s
802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	BPSK	MCS0
802.11ax (HE40)		151 to 159	151, 159	OFDMA	BPSK	MCS0
802.11ax (HE80)		155	155	OFDMA	BPSK	MCS0

Radiated Emission Test (Below 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

CDD Mode						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE40)	5180-5320 5500-5720 5745-5825	36 to 62 102 to 142 151 to 159	151	OFDMA	BPSK	MCS0

Power Line Conducted Emission Test:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

CDD Mode						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE40)	5180-5320 5500-5720 5745-5825	36 to 62 102 to 142 151 to 159	151	OFDMA	BPSK	MCS0

Antenna Port Conducted Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

CDD Mode						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11a	5180-5320	36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	6Mb/s
802.11ac (VHT20) (Output power only)		36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	MCS0
802.11ac (VHT40) (Output power only)		38 to 62	38, 46, 54, 62	OFDM	BPSK	MCS0
802.11ac (VHT80) (Output power only)		42, 58	42, 58	OFDM	BPSK	MCS0
802.11ac (VHT160) (Output power only)		50	50	OFDM	BPSK	MCS0
802.11ax (HE20)		36 to 64	36, 40, 48, 52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		38 to 62	38, 46, 54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		42, 58	42, 58	OFDMA	BPSK	MCS0
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	6Mb/s
802.11ac (VHT20) (Output power only)		100 to 144	100, 116, 140, 144	OFDM	BPSK	MCS0
802.11ac (VHT40) (Output power only)		102 to 142	102, 110, 134, 142	OFDM	BPSK	MCS0
802.11ac (VHT80) (Output power only)		106 to 138	106, 122, 138	OFDM	BPSK	MCS0
802.11ac (VHT160) (Output power only)		114	114	OFDM	BPSK	MCS0
802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	BPSK	MCS0
802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	BPSK	MCS0
802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	BPSK	MCS0
802.11ax (HE160)		114	114	OFDMA	BPSK	MCS0
802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6Mb/s
802.11ac (VHT20) (Output power only)		149 to 165	149, 157, 165	OFDM	BPSK	MCS0
802.11ac (VHT40) (Output power only)		151 to 159	151, 159	OFDM	BPSK	MCS0
802.11ac (VHT80) (Output power only)		155	155	OFDM	BPSK	MCS0
802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	BPSK	MCS0
802.11ax (HE40)		151 to 159	151, 159	OFDMA	BPSK	MCS0
802.11ax (HE80)		155	155	OFDMA	BPSK	MCS0

Beamforming Mode (output power only)						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11ac (VHT20)	5180-5320	36 to 48	36, 40, 48	OFDM	BPSK	MCS0
802.11ac (VHT40)		38 to 46	38, 46	OFDM	BPSK	MCS0
802.11ac (VHT80)		42	42	OFDM	BPSK	MCS0
802.11ac (VHT160)		50	50	OFDM	BPSK	MCS0
802.11ax (HE20)		36 to 48	36, 40, 48	OFDMA	BPSK	MCS0
802.11ax (HE40)		38 to 46	38, 46	OFDMA	BPSK	MCS0
802.11ax (HE80)		42	42	OFDMA	BPSK	MCS0
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11ac (VHT20)	5500-5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	MCS0
802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	BPSK	MCS0
802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	BPSK	MCS0
802.11ac (VHT160)		114	114	OFDM	BPSK	MCS0
802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	BPSK	MCS0
802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	BPSK	MCS0
802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	BPSK	MCS0
802.11ax (HE160)		114	114	OFDMA	BPSK	MCS0
802.11ac (VHT20)	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	MCS0
802.11ac (VHT40)		151 to 159	151, 159	OFDM	BPSK	MCS0
802.11ac (VHT80)		155	155	OFDM	BPSK	MCS0
802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	BPSK	MCS0
802.11ax (HE40)		151 to 159	151, 159	OFDMA	BPSK	MCS0
802.11ax (HE80)		155	155	OFDMA	BPSK	MCS0

Test Condition:

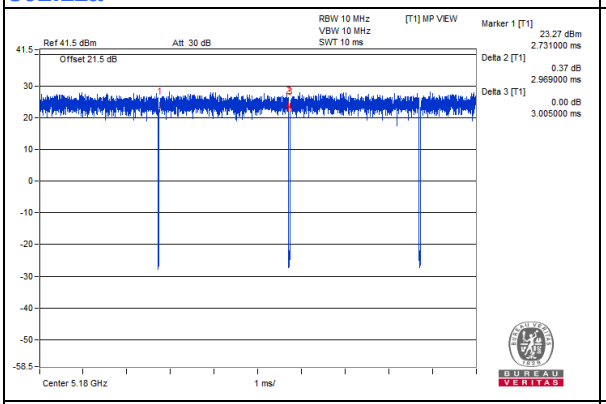
Applicable To	Environmental Conditions	Input Power (System)	Tested By
RE≥1G	23deg. C, 68%RH	120Vac, 60Hz	Ryan Du
RE<1G	24deg. C, 68%RH	120Vac, 60Hz	Tom Yang
PLC	23deg. C, 66%RH	120Vac, 60Hz	Nick Lo
APCM	25deg. C, 60%RH	120Vac, 60Hz	Anderson Chen

3.3 Duty Cycle of Test Signal

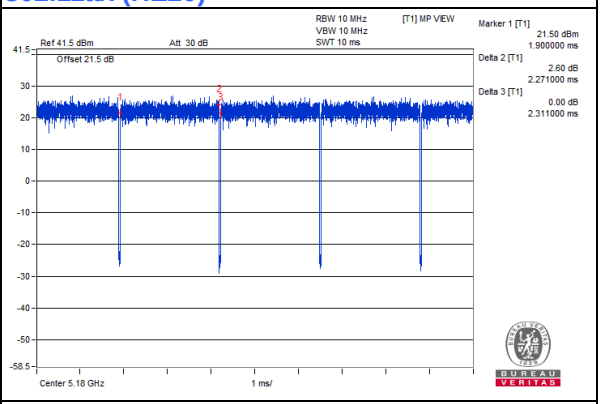
If duty cycle of test signal is ≥ 98 %, duty factor is not required.
If duty cycle of test signal is < 98%, duty factor shall be considered.

802.11b: Duty cycle = 2.969 ms /3.005 ms=0.988
802.11ax (HE20): Duty cycle = 2.271 ms /2.311 ms=0.983
802.11ax (HE40): Duty cycle = 2.357 ms /2.395 ms=0.984
802.11ax (HE80): Duty cycle = 2.437 ms /2.475 ms=0.985
802.11ax (HE160): Duty cycle = 1.626 ms /1.666 ms=0.976, Duty factor = 10 * log (1/Duty cycle) = 0.11 dB

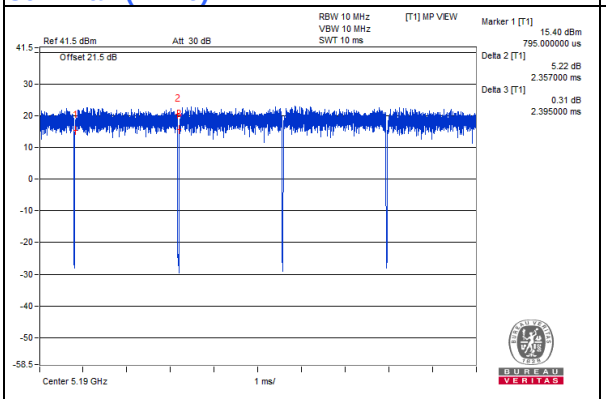
802.11a



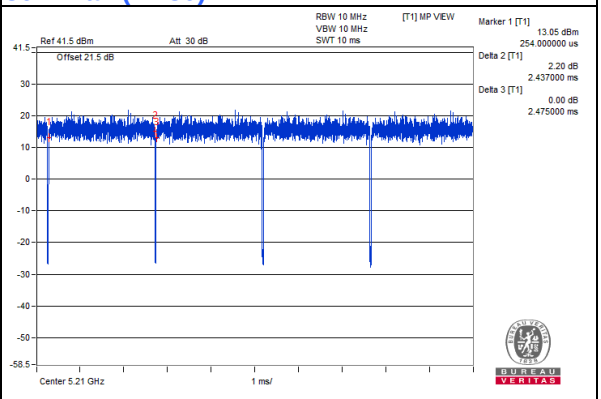
802.11ax (HE20)



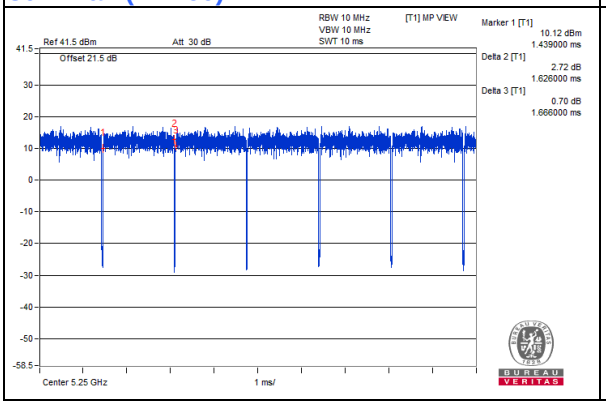
802.11ax (HE40)



802.11ax (HE80)



802.11ax (HE160)



3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

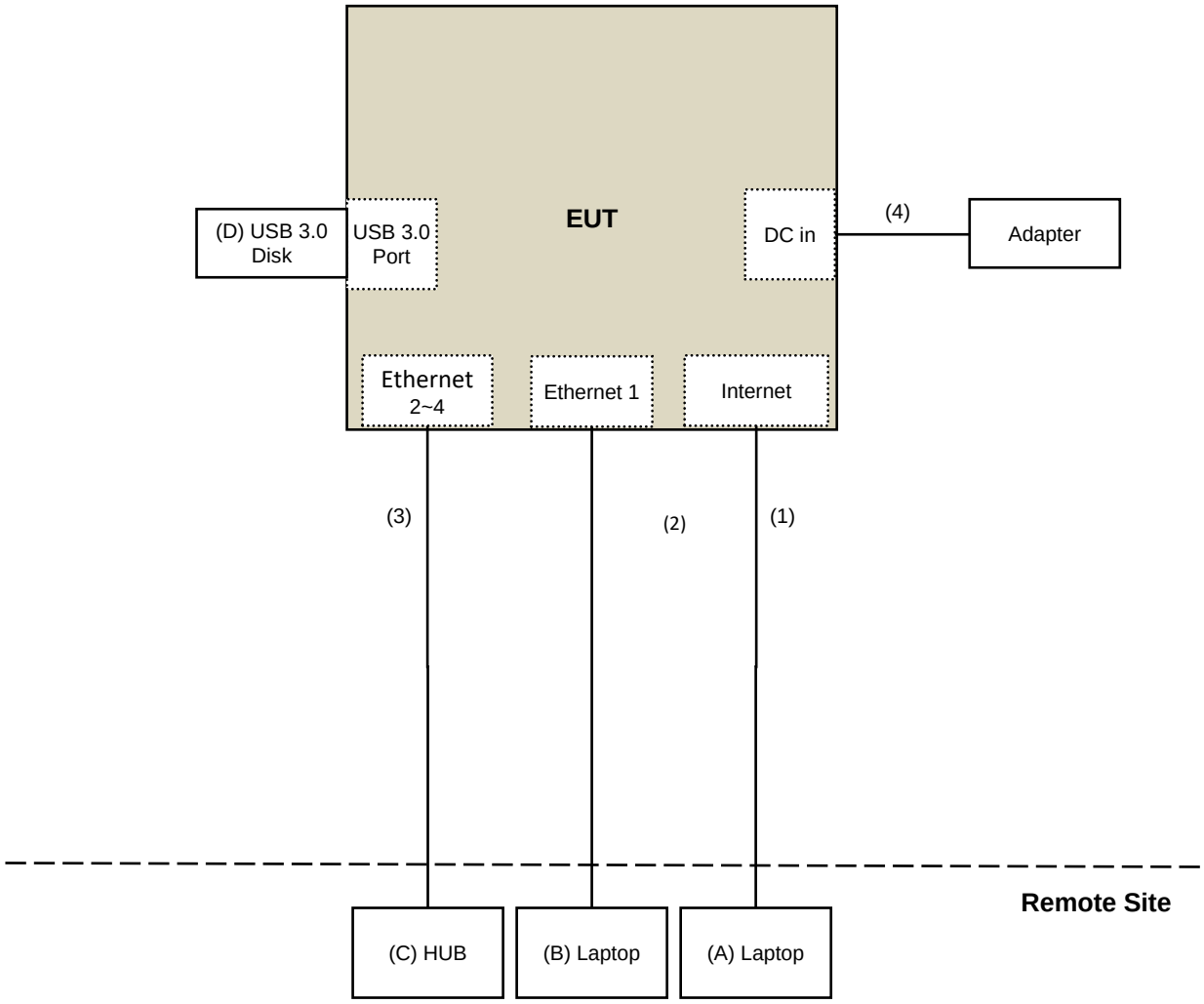
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E6420	B92T3R1	FCC DoC	Provided by Lab
B.	Laptop	DELL	E5430	HYV4VY1	FCC DoC	Provided by Lab
C.	HUB	DLinkGreen	D-Link	DGS-1005D	DR8WC92000968	Provided by Lab
D.	USB 3.0 Disk	SanDisk	BM181225896Z	NA	NA	Provided by Lab

Note:

1. All power cords of the above support units are non-shielded (1.8m).

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ-45 Cable	1	10	No	0	Provided by Lab
2.	RJ-45 Cable	1	10	No	0	Provided by Lab
3.	RJ-45 Cable	3	10	No	0	Provided by Lab
4.	DC Cable	1	1.8	No	0	Supplied by client

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standard and References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards and references:

Test Standard:
FCC Part 15, Subpart E (15.407)
ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

References Test Guidance:
KDB 789033 D02 General UNII Test Procedure New Rules v02r01
KDB 662911 D01 Multiple Transmitter Output v02r01

All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequencies (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
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3m	
		PK:74 (dBμV/m)	AV:54 (dBμV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)	PK:-27 (dBm/MHz)	PK:68.2(dBμV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	15.407(b)(4)(i)	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK: 68.2(dBμV/m) *1 PK:105.2 (dBμV/m) *2 PK: 110.8(dBμV/m) *3 PK:122.2 (dBμV/m) *4

*1 beyond 75 MHz or more above of the band edge.

*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

*4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note:

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$E = \frac{1000000\sqrt{30P}}{3}$ μV/m, where P is the eirp (Watts).

4.1.2 Test Instruments

For Radiated emission & Bandedge & OOBE test

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY51210202	Dec. 13, 2019	Dec. 12, 2020
Pre-Amplifier EMCI	EMC001340	980142	May 25, 2020	May 24, 2021
Loop Antenna Electro-Metrics	EM-6879	264	Feb. 18, 2020	Feb. 17, 2021
RF Cable	NA	LOOPCAB-001	Jan. 08, 2020	Jan. 07, 2021
RF Cable	NA	LOOPCAB-002	Jan. 08, 2020	Jan. 07, 2021
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-01	Oct. 23, 2019	Oct. 22, 2020
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Nov. 11, 2019	Nov. 10, 2020
RF Cable	8D	966-4-1	Mar. 18, 2020	Mar. 17, 2021
RF Cable	8D	966-4-2	Mar. 18, 2020	Mar. 17, 2021
RF Cable	8D	966-4-3	Mar. 18, 2020	Mar. 17, 2021
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-4-01	Sep. 26, 2019	Sep. 25, 2020
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Nov. 24, 2019	Nov. 23, 2020
Pre-Amplifier EMCI	EMC12630SE	980385	Aug. 15, 2019	Aug. 14, 2020
RF Cable	EMC104-SM-SM-1200	160923	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC104-SM-SM-2000	180502	Apr. 29, 2020	Apr. 28, 2021
RF Cable	EMC104-SM-SM-6000	180418	Apr. 29, 2020	Apr. 28, 2021
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 15, 2020	Jan. 14, 2021
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 24, 2019	Nov. 23, 2020
RF Cable	EMC102-KM-KM-1200	160924	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC-KM-KM-4000	200214	Mar. 11, 2020	Mar. 10, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 4.
3. Tested Date: June 03 to 13, 2020

For other test items:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	May 29, 2020	May 28, 2021
Power meter Anritsu	ML2495A	1529002	July 26, 2019	July 25, 2020
Power sensor Anritsu	MA2411B	1339443	July 26, 2019	July 25, 2020
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 14, 2020	Apr. 13, 2021
AC Power Source Extech Electronics	6205	1440452	NA	NA
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	Jan. 16, 2020	Jan. 15, 2021
Voltage Meter FLUKE	179	89610322	Sep. 25, 2019	Sep. 24, 2020
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA

NOTE:
1. The test was performed in Oven room 2.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: June 14, 2020

4.1.3 Test Procedure

For Radiated emission below 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. 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 from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

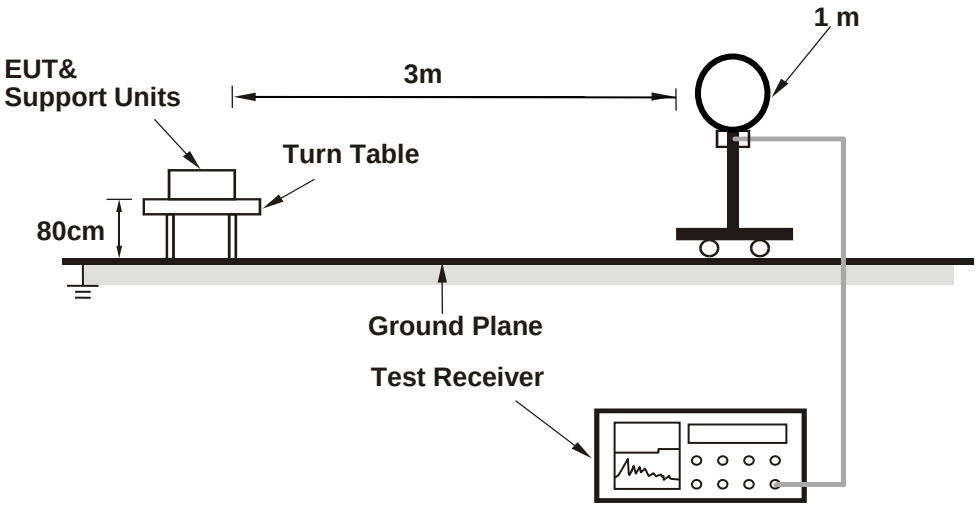
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

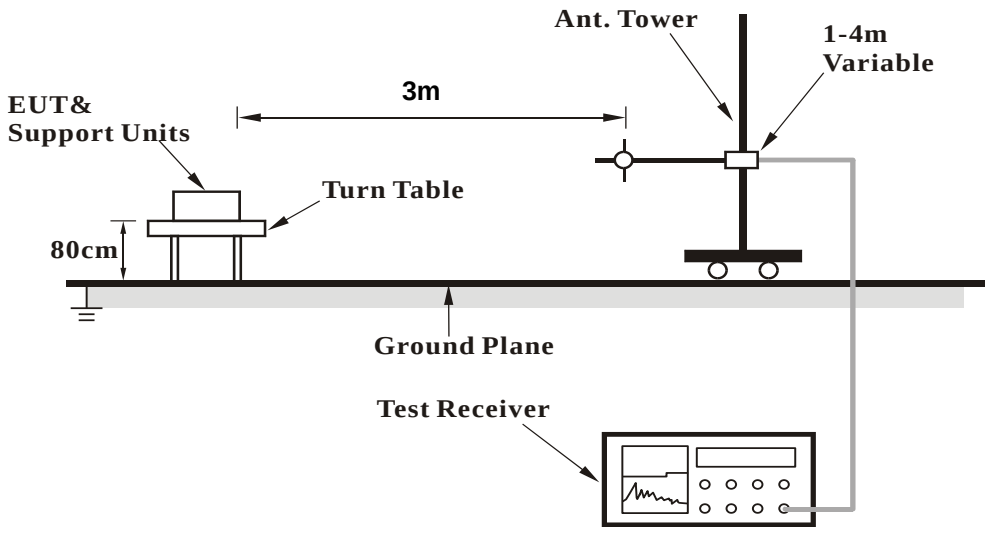
No deviation.

4.1.5 Test Setup

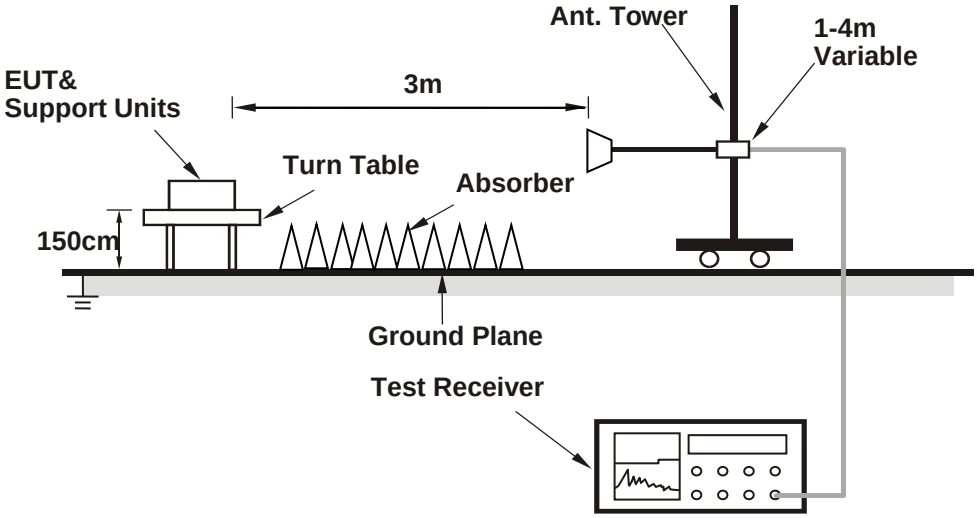
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT Operating Condition

a. Connected the EUT with the Laptop which is placed on the testing table.
b. Controlling software (Mtool 3.1.0.3) has been activated to set the EUT under transmission condition continuously.

4.1.7 Test Results

Above 1GHz Data:

802.11a

Channel	TX Channel 36	**Detector Function**	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	59.3 PK	74.0	-14.7	1.52 H	138	56.3	3.0
2	5150.00	48.7 AV	54.0	-5.3	1.52 H	138	45.7	3.0
3	*5180.00	109.4 PK			1.52 H	138	106.4	3.0
4	*5180.00	100.3 AV			1.52 H	138	97.3	3.0
5	#10360.00	49.0 PK	68.2	-19.2	1.70 H	208	35.8	13.2
6	15540.00	47.1 PK	74.0	-26.9	1.69 H	183	33.5	13.6
7	15540.00	35.8 AV	54.0	-18.2	1.69 H	183	22.2	13.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5147.00	70.7 PK	74.0	-3.3	1.85 V	71	67.7	3.0
2	5147.00	53.8 AV	54.0	-0.2	1.85 V	71	50.8	3.0
3	*5180.00	116.3 PK			1.85 V	71	113.3	3.0
4	*5180.00	107.8 AV			1.85 V	71	104.8	3.0
5	#10360.00	47.4 PK	68.2	-20.8	1.49 V	199	34.2	13.2
6	15540.00	49.9 PK	74.0	-24.1	1.35 V	82	36.3	13.6
7	15540.00	35.1 AV	54.0	-18.9	1.35 V	82	21.5	13.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 40	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	63.6 PK	74.0	-10.4	1.55 H	149	60.6	3.0
2	5150.00	47.9 AV	54.0	-6.1	1.55 H	149	44.9	3.0
3	*5200.00	110.3 PK			1.55 H	149	107.4	2.9
4	*5200.00	101.5 AV			1.55 H	149	98.6	2.9
5	#10400.00	48.5 PK	68.2	-19.7	1.69 H	215	35.2	13.3
6	15600.00	46.9 PK	74.0	-27.1	1.68 H	193	33.0	13.9
7	15600.00	35.5 AV	54.0	-18.5	1.68 H	193	21.6	13.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	70.4 PK	74.0	-3.6	2.08 V	287	67.4	3.0
2	5150.00	53.5 AV	54.0	-0.5	2.08 V	287	50.5	3.0
3	*5200.00	121.9 PK			2.05 V	282	119.0	2.9
4	*5200.00	109.2 AV			2.05 V	282	106.3	2.9
5	#10400.00	47.7 PK	68.2	-20.5	1.48 V	211	34.4	13.3
6	15600.00	49.6 PK	74.0	-24.4	1.30 V	98	35.7	13.9
7	15600.00	35.2 AV	54.0	-18.8	1.30 V	98	21.3	13.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 48	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	111.3 PK			1.52 H	133	108.4	2.9
2	*5240.00	102.1 AV			1.52 H	133	99.2	2.9
3	5350.00	53.2 PK	74.0	-20.8	1.52 H	133	50.2	3.0
4	5350.00	40.5 AV	54.0	-13.5	1.52 H	133	37.5	3.0
5	#10480.00	48.1 PK	68.2	-20.1	1.70 H	200	34.6	13.5
6	15720.00	47.2 PK	74.0	-26.8	1.65 H	201	33.8	13.4
7	15720.00	35.1 AV	54.0	-18.9	1.65 H	201	21.7	13.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	118.7 PK			1.81 V	75	115.8	2.9
2	*5240.00	110.4 AV			1.81 V	75	107.5	2.9
3	5384.00	55.4 PK	74.0	-18.6	1.81 V	75	52.4	3.0
4	5384.00	44.6 AV	54.0	-9.4	1.81 V	75	41.6	3.0
5	#10480.00	48.2 PK	68.2	-20.0	1.53 V	200	34.7	13.5
6	15720.00	49.9 PK	74.0	-24.1	1.32 V	93	36.5	13.4
7	15720.00	35.6 AV	54.0	-18.4	1.32 V	93	22.2	13.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 52	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	53.5 PK	74.0	-20.5	1.55 H	161	50.5	3.0
2	5150.00	40.7 AV	54.0	-13.3	1.55 H	161	37.7	3.0
3	*5260.00	110.8 PK			1.55 H	161	108.0	2.8
4	*5260.00	101.9 AV			1.55 H	161	99.1	2.8
5	#10520.00	47.9 PK	68.2	-20.3	1.66 H	208	34.3	13.6
6	15780.00	47.5 PK	74.0	-26.5	1.63 H	210	34.4	13.1
7	15780.00	34.7 AV	54.0	-19.3	1.63 H	210	21.6	13.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	56.6 PK	74.0	-17.4	3.29 V	106	53.6	3.0
2	5150.00	44.8 AV	54.0	-9.2	3.29 V	106	41.8	3.0
3	*5260.00	120.9 PK			3.29 V	106	118.1	2.8
4	*5260.00	109.7 AV			3.29 V	106	106.9	2.8
5	#10520.00	47.9 PK	68.2	-20.3	1.50 V	190	34.3	13.6
6	15780.00	49.2 PK	74.0	-24.8	1.37 V	90	36.1	13.1
7	15780.00	36.1 AV	54.0	-17.9	1.37 V	90	23.0	13.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 60	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	111.1 PK			1.59 H	169	108.2	2.9
2	*5300.00	101.9 AV			1.59 H	169	99.0	2.9
3	10600.00	48.4 PK	74.0	-25.6	1.68 H	199	35.2	13.2
4	10600.00	35.3 AV	54.0	-18.7	1.68 H	199	22.1	13.2
5	15900.00	47.8 PK	74.0	-26.2	1.66 H	209	34.7	13.1
6	15900.00	35.5 AV	54.0	-18.5	1.66 H	209	22.4	13.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	120.7 PK			3.31 V	102	117.8	2.9
2	*5300.00	109.6 AV			3.31 V	102	106.7	2.9
3	10600.00	48.2 PK	74.0	-25.8	1.55 V	204	35.0	13.2
4	10600.00	35.8 AV	54.0	-18.2	1.55 V	204	22.6	13.2
5	15900.00	49.1 PK	74.0	-24.9	1.37 V	100	36.0	13.1
6	15900.00	36.0 AV	54.0	-18.0	1.37 V	100	22.9	13.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 64	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	110.4 PK			1.49 H	180	107.5	2.9
2	*5320.00	101.2 AV			1.49 H	180	98.3	2.9
3	5350.00	59.7 PK	74.0	-14.3	1.49 H	180	56.7	3.0
4	5350.00	48.0 AV	54.0	-6.0	1.49 H	180	45.0	3.0
5	10640.00	48.4 PK	74.0	-25.6	1.67 H	197	35.1	13.3
6	10640.00	35.2 AV	54.0	-18.8	1.67 H	197	21.9	13.3
7	15960.00	48.0 PK	74.0	-26.0	1.71 H	221	34.6	13.4
8	15960.00	35.6 AV	54.0	-18.4	1.71 H	221	22.2	13.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5320.00	118.6 PK			3.36 V	99	115.7	2.9
2	*5320.00	109.1 AV			3.36 V	99	106.2	2.9
3	5350.00	68.0 PK	74.0	-6.0	3.36 V	99	65.0	3.0
4	**5350.00**	**53.9 AV**	**54.0**	**-0.1**	**3.36 V**	**99**	**50.9**	**3.0**
5	10640.00	48.2 PK	74.0	-25.8	1.53 V	204	34.9	13.3
6	10640.00	35.7 AV	54.0	-18.3	1.53 V	204	22.4	13.3
7	15960.00	49.1 PK	74.0	-24.9	1.34 V	86	35.7	13.4
8	15960.00	36.2 AV	54.0	-17.8	1.34 V	86	22.8	13.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 100	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	57.0 PK	74.0	-17.0	1.27 H	161	53.8	3.2
2	5460.00	42.8 AV	54.0	-11.2	1.27 H	161	39.6	3.2
3	#5470.00	62.8 PK	68.2	-5.4	1.27 H	161	59.6	3.2
4	*5500.00	110.4 PK			1.27 H	161	107.1	3.3
5	*5500.00	100.3 AV			1.27 H	161	97.0	3.3
6	11000.00	48.7 PK	74.0	-25.3	1.63 H	186	34.7	14.0
7	11000.00	35.6 AV	54.0	-18.4	1.63 H	186	21.6	14.0
8	#16500.00	48.1 PK	68.2	-20.1	1.66 H	208	32.6	15.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	60.9 PK	74.0	-13.1	3.06 V	254	57.7	3.2
2	5460.00	46.6 AV	54.0	-7.4	3.06 V	254	43.4	3.2
3	#5470.00	67.5 PK	68.2	-0.7	3.06 V	254	64.3	3.2
4	*5500.00	117.1 PK			3.06 V	254	113.8	3.3
5	*5500.00	107.2 AV			3.06 V	254	103.9	3.3
6	11000.00	47.5 PK	74.0	-26.5	1.55 V	218	33.5	14.0
7	11000.00	35.2 AV	54.0	-18.8	1.55 V	218	21.2	14.0
8	#16500.00	48.9 PK	68.2	-19.3	1.40 V	80	33.4	15.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 116	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	110.6 PK			1.64 H	155	107.3	3.3
2	*5580.00	101.5 AV			1.64 H	155	98.2	3.3
3	11160.00	48.4 PK	74.0	-25.6	1.71 H	212	35.0	13.4
4	11160.00	35.5 AV	54.0	-18.5	1.71 H	212	22.1	13.4
5	#16740.00	47.7 PK	68.2	-20.5	1.62 H	201	31.1	16.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	120.5 PK			2.96 V	97	117.2	3.3
2	*5580.00	110.5 AV			2.96 V	97	107.2	3.3
3	11160.00	48.5 PK	74.0	-25.5	1.56 V	218	35.1	13.4
4	11160.00	36.0 AV	54.0	-18.0	1.56 V	218	22.6	13.4
5	#16740.00	49.5 PK	68.2	-18.7	1.32 V	96	32.9	16.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 140	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	109.4 PK			1.50 H	134	105.6	3.8
2	*5700.00	100.4 AV			1.50 H	134	96.6	3.8
3	#5725.00	60.5 PK	68.2	-7.7	1.50 H	134	56.7	3.8
4	11400.00	48.2 PK	74.0	-25.8	1.71 H	187	34.0	14.2
5	11400.00	34.9 AV	54.0	-19.1	1.71 H	187	20.7	14.2
6	#17100.00	47.5 PK	68.2	-20.7	1.70 H	207	30.0	17.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	116.6 PK			2.78 V	109	112.8	3.8
2	*5700.00	107.8 AV			2.78 V	109	104.0	3.8
3	#5725.00	67.9 PK	68.2	-0.3	2.78 V	109	64.1	3.8
4	11400.00	47.6 PK	74.0	-26.4	1.57 V	227	33.4	14.2
5	11400.00	35.0 AV	54.0	-19.0	1.57 V	227	20.8	14.2
6	#17100.00	49.4 PK	68.2	-18.8	1.40 V	80	31.9	17.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 144	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	52.1 PK	74.0	-21.9	1.69 H	145	48.9	3.2
2	5460.00	39.8 AV	54.0	-14.2	1.69 H	145	36.6	3.2
3	#5470.00	54.3 PK	68.2	-13.9	1.69 H	145	51.1	3.2
4	*5720.00	111.4 PK			1.69 H	145	107.6	3.8
5	*5720.00	101.8 AV			1.69 H	145	98.0	3.8
6	#5850.00	55.7 PK	68.2	-12.5	1.69 H	145	51.5	4.2
7	11440.00	48.3 PK	74.0	-25.7	1.73 H	191	34.2	14.1
8	11440.00	35.0 AV	54.0	-19.0	1.73 H	191	20.9	14.1
9	#17160.00	47.5 PK	68.2	-20.7	1.65 H	197	30.5	17.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	52.6 PK	74.0	-21.4	3.00 V	109	49.4	3.2
2	5460.00	40.1 AV	54.0	-13.9	3.00 V	109	36.9	3.2
3	#5470.00	53.4 PK	68.2	-14.8	3.00 V	109	50.2	3.2
4	*5720.00	119.9 PK			3.00 V	109	116.1	3.8
5	*5720.00	110.1 AV			3.00 V	109	106.3	3.8
6	#5850.00	56.1 PK	68.2	-12.1	3.00 V	109	51.9	4.2
7	11440.00	47.6 PK	74.0	-26.4	1.50 V	216	33.5	14.1
8	11440.00	35.1 AV	54.0	-18.9	1.50 V	216	21.0	14.1
9	#17160.00	48.8 PK	68.2	-19.4	1.45 V	76	31.8	17.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 149	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5745.00	114.0 PK			1.39 H	172	110.2	3.8
2	*5745.00	104.9 AV			1.39 H	172	101.1	3.8
3	11490.00	52.7 PK	74.0	-21.3	1.27 H	140	38.7	14.0
4	11490.00	41.6 AV	54.0	-12.4	1.27 H	140	27.6	14.0
5	#17235.00	50.6 PK	68.2	-17.6	1.55 H	352	34.1	16.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5745.00	121.6 PK			1.79 V	25	117.8	3.8
2	*5745.00	112.1 AV			1.79 V	25	108.3	3.8
3	11490.00	60.9 PK	74.0	-13.1	1.50 V	289	46.9	14.0
4	11490.00	48.5 AV	54.0	-5.5	1.50 V	289	34.5	14.0
5	#17235.00	54.2 PK	68.2	-14.0	1.16 V	133	37.7	16.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 157	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5785.00	115.5 PK			1.00 H	174	111.6	3.9
2	*5785.00	105.6 AV			1.00 H	174	101.7	3.9
3	11570.00	53.3 PK	74.0	-20.7	1.29 H	141	39.7	13.6
4	11570.00	42.0 AV	54.0	-12.0	1.29 H	141	28.4	13.6
5	#17355.00	50.8 PK	68.2	-17.4	1.51 H	337	33.8	17.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5785.00	121.8 PK			1.79 V	38	117.9	3.9
2	*5785.00	112.2 AV			1.79 V	38	108.3	3.9
3	11570.00	60.6 PK	74.0	-13.4	1.50 V	297	47.0	13.6
4	11570.00	48.4 AV	54.0	-5.6	1.50 V	297	34.8	13.6
5	#17355.00	53.7 PK	68.2	-14.5	1.22 V	131	36.7	17.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 165	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5825.00	115.4 PK			1.47 H	182	111.3	4.1
2	*5825.00	105.3 AV			1.47 H	182	101.2	4.1
3	11650.00	52.8 PK	74.0	-21.2	1.27 H	143	39.3	13.5
4	11650.00	42.2 AV	54.0	-11.8	1.27 H	143	28.7	13.5
5	#17475.00	50.7 PK	68.2	-17.5	1.51 H	349	32.1	18.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5825.00	121.5 PK			1.75 V	26	117.4	4.1
2	*5825.00	111.9 AV			1.75 V	26	107.8	4.1
3	11650.00	61.2 PK	74.0	-12.8	1.52 V	294	47.7	13.5
4	11650.00	48.9 AV	54.0	-5.1	1.52 V	294	35.4	13.5
5	#17475.00	53.5 PK	68.2	-14.7	1.26 V	133	34.9	18.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ax (HE20)

Channel	TX Channel 36	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	59.7 PK	74.0	-14.3	1.22 H	184	56.7	3.0
2	5150.00	49.6 AV	54.0	-4.4	1.22 H	184	46.6	3.0
3	*5180.00	110.5 PK			1.22 H	184	107.5	3.0
4	*5180.00	99.5 AV			1.22 H	184	96.5	3.0
5	#10360.00	47.3 PK	68.2	-20.9	1.66 H	207	34.1	13.2
6	15540.00	48.2 PK	74.0	-25.8	1.58 H	195	34.6	13.6
7	15540.00	34.2 AV	54.0	-19.8	1.58 H	195	20.6	13.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	68.9 PK	74.0	-5.1	2.05 V	186	65.9	3.0
2	5150.00	53.8 AV	54.0	-0.2	2.05 V	186	50.8	3.0
3	*5180.00	117.4 PK			2.05 V	186	114.4	3.0
4	*5180.00	105.0 AV			2.05 V	186	102.0	3.0
5	#10360.00	46.4 PK	68.2	-21.8	1.41 V	209	33.2	13.2
6	15540.00	48.4 PK	74.0	-25.6	1.37 V	101	34.8	13.6
7	15540.00	33.8 AV	54.0	-20.2	1.37 V	101	20.2	13.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 40	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.8 PK	74.0	-13.2	1.24 H	174	57.8	3.0
2	5150.00	47.1 AV	54.0	-6.9	1.24 H	174	44.1	3.0
3	*5200.00	110.3 PK			1.24 H	174	107.4	2.9
4	*5200.00	101.1 AV			1.24 H	174	98.2	2.9
5	#10400.00	47.6 PK	68.2	-20.6	1.73 H	177	34.3	13.3
6	15600.00	48.1 PK	74.0	-25.9	1.69 H	197	34.2	13.9
7	15600.00	34.6 AV	54.0	-19.4	1.69 H	197	20.7	13.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	70.3 PK	74.0	-3.7	2.05 V	286	67.3	3.0
2	5150.00	53.6 AV	54.0	-0.4	2.05 V	286	50.6	3.0
3	*5200.00	121.5 PK			2.05 V	286	118.6	2.9
4	*5200.00	108.9 AV			2.05 V	286	106.0	2.9
5	#10400.00	46.3 PK	68.2	-21.9	1.43 V	201	33.0	13.3
6	15600.00	48.6 PK	74.0	-25.4	1.40 V	96	34.7	13.9
7	15600.00	34.1 AV	54.0	-19.9	1.40 V	96	20.2	13.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 48	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	111.8 PK			1.51 H	131	108.9	2.9
2	*5240.00	102.3 AV			1.51 H	131	99.4	2.9
3	5350.00	54.1 PK	74.0	-19.9	1.51 H	131	51.1	3.0
4	5350.00	41.2 AV	54.0	-12.8	1.51 H	131	38.2	3.0
5	#10480.00	47.5 PK	68.2	-20.7	1.76 H	161	34.0	13.5
6	15720.00	48.1 PK	74.0	-25.9	1.73 H	209	34.7	13.4
7	15720.00	34.6 AV	54.0	-19.4	1.73 H	209	21.2	13.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	121.6 PK			2.08 V	295	118.7	2.9
2	*5240.00	110.7 AV			2.08 V	295	107.8	2.9
3	5350.00	55.6 PK	74.0	-18.4	2.08 V	295	52.6	3.0
4	5350.00	43.9 AV	54.0	-10.1	2.08 V	295	40.9	3.0
5	#10480.00	46.8 PK	68.2	-21.4	1.42 V	187	33.3	13.5
6	15720.00	49.2 PK	74.0	-24.8	1.35 V	101	35.8	13.4
7	15720.00	34.5 AV	54.0	-19.5	1.35 V	101	21.1	13.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 52	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	53.4 PK	74.0	-20.6	1.30 H	181	50.4	3.0
2	5150.00	40.7 AV	54.0	-13.3	1.30 H	181	37.7	3.0
3	*5260.00	110.2 PK			1.30 H	181	107.4	2.8
4	*5260.00	100.9 AV			1.30 H	181	98.1	2.8
5	#10520.00	46.8 PK	68.2	-21.4	1.68 H	192	33.2	13.6
6	15780.00	48.7 PK	74.0	-25.3	1.55 H	189	35.6	13.1
7	15780.00	34.5 AV	54.0	-19.5	1.55 H	189	21.4	13.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	55.8 PK	74.0	-18.2	3.28 V	274	52.8	3.0
2	5150.00	44.6 AV	54.0	-9.4	3.28 V	274	41.6	3.0
3	*5260.00	120.3 PK			3.28 V	274	117.5	2.8
4	*5260.00	109.0 AV			3.28 V	274	106.2	2.8
5	#10520.00	46.3 PK	68.2	-21.9	1.42 V	213	32.7	13.6
6	15780.00	48.2 PK	74.0	-25.8	1.41 V	111	35.1	13.1
7	15780.00	33.6 AV	54.0	-20.4	1.41 V	111	20.5	13.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 60	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	110.6 PK			1.26 H	192	107.7	2.9
2	*5300.00	101.1 AV			1.26 H	192	98.2	2.9
3	10600.00	47.5 PK	74.0	-26.5	1.76 H	193	34.3	13.2
4	10600.00	34.4 AV	54.0	-19.6	1.76 H	193	21.2	13.2
5	15900.00	47.2 PK	74.0	-26.8	1.64 H	207	34.1	13.1
6	15900.00	34.9 AV	54.0	-19.1	1.64 H	207	21.8	13.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	120.5 PK			3.26 V	258	117.6	2.9
2	*5300.00	109.3 AV			3.26 V	258	106.4	2.9
3	10600.00	47.7 PK	74.0	-26.3	1.60 V	227	34.5	13.2
4	10600.00	34.8 AV	54.0	-19.2	1.60 V	227	21.6	13.2
5	15900.00	48.9 PK	74.0	-25.1	1.46 V	67	35.8	13.1
6	15900.00	35.2 AV	54.0	-18.8	1.46 V	67	22.1	13.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 64	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	111.1 PK			1.12 H	171	108.2	2.9
2	*5320.00	100.3 AV			1.12 H	171	97.4	2.9
3	5350.00	60.4 PK	74.0	-13.6	1.12 H	171	57.4	3.0
4	5350.00	49.4 AV	54.0	-4.6	1.12 H	171	46.4	3.0
5	10640.00	47.4 PK	74.0	-26.6	1.67 H	227	34.1	13.3
6	10640.00	34.9 AV	54.0	-19.1	1.67 H	227	21.6	13.3
7	15960.00	48.1 PK	74.0	-25.9	1.61 H	192	34.7	13.4
8	15960.00	35.7 AV	54.0	-18.3	1.61 H	192	22.3	13.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	119.1 PK			3.21 V	104	116.2	2.9
2	*5320.00	108.1 AV			3.21 V	104	105.2	2.9
3	5350.00	65.2 PK	74.0	-8.8	3.21 V	104	62.2	3.0
4	**5350.00**	**53.9 AV**	**54.0**	**-0.1**	**3.21 V**	**104**	**50.9**	**3.0**
5	10640.00	48.1 PK	74.0	-25.9	1.64 V	211	34.8	13.3
6	10640.00	35.1 AV	54.0	-18.9	1.64 V	211	21.8	13.3
7	15960.00	49.3 PK	74.0	-24.7	1.49 V	77	35.9	13.4
8	15960.00	35.6 AV	54.0	-18.4	1.49 V	77	22.2	13.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 100	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	56.4 PK	74.0	-17.6	1.28 H	162	53.2	3.2
2	5460.00	45.7 AV	54.0	-8.3	1.28 H	162	42.5	3.2
3	#5470.00	61.8 PK	68.2	-6.4	1.28 H	162	58.6	3.2
4	*5500.00	112.8 PK			1.28 H	162	109.5	3.3
5	*5500.00	100.5 AV			1.28 H	162	97.2	3.3
6	11000.00	47.7 PK	74.0	-26.3	1.62 H	218	33.7	14.0
7	11000.00	35.1 AV	54.0	-18.9	1.62 H	218	21.1	14.0
8	#16500.00	48.2 PK	68.2	-20.0	1.60 H	188	32.7	15.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	61.9 PK	74.0	-12.1	3.16 V	119	58.7	3.2
2	5460.00	48.6 AV	54.0	-5.4	3.16 V	119	45.4	3.2
3	#5470.00	68.0 PK	68.2	-0.2	3.16 V	119	64.8	3.2
4	*5500.00	120.6 PK			3.16 V	119	117.3	3.3
5	*5500.00	107.6 AV			3.16 V	119	104.3	3.3
6	11000.00	47.6 PK	74.0	-26.4	1.63 V	223	33.6	14.0
7	11000.00	34.8 AV	54.0	-19.2	1.63 V	223	20.8	14.0
8	#16500.00	48.7 PK	68.2	-19.5	1.42 V	69	33.2	15.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 116	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	110.9 PK			1.33 H	174	107.6	3.3
2	*5580.00	101.1 AV			1.33 H	174	97.8	3.3
3	11160.00	47.5 PK	74.0	-26.5	1.74 H	196	34.1	13.4
4	11160.00	34.3 AV	54.0	-19.7	1.74 H	196	20.9	13.4
5	#16740.00	47.5 PK	68.2	-20.7	1.58 H	197	30.9	16.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	120.5 PK			3.21 V	99	117.2	3.3
2	*5580.00	109.3 AV			3.21 V	99	106.0	3.3
3	11160.00	48.2 PK	74.0	-25.8	1.57 V	212	34.8	13.4
4	11160.00	35.2 AV	54.0	-18.8	1.57 V	212	21.8	13.4
5	#16740.00	48.9 PK	68.2	-19.3	1.49 V	77	32.3	16.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 140	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	110.4 PK			1.55 H	168	106.6	3.8
2	*5700.00	99.2 AV			1.55 H	168	95.4	3.8
3	#5725.00	62.5 PK	68.2	-5.7	1.55 H	168	58.7	3.8
4	11400.00	48.1 PK	74.0	-25.9	1.59 H	218	33.9	14.2
5	11400.00	35.4 AV	54.0	-18.6	1.59 H	218	21.2	14.2
6	#17100.00	48.5 PK	68.2	-19.7	1.63 H	201	31.0	17.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	117.3 PK			2.90 V	108	113.5	3.8
2	*5700.00	106.4 AV			2.90 V	108	102.6	3.8
3	**#5725.00**	**68.1 PK**	**68.2**	**-0.1**	**2.90 V**	**108**	**64.3**	**3.8**
4	11400.00	47.6 PK	74.0	-26.4	1.68 V	210	33.4	14.2
5	11400.00	34.8 AV	54.0	-19.2	1.68 V	210	20.6	14.2
6	#17100.00	48.4 PK	68.2	-19.8	1.45 V	63	30.9	17.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 144	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	52.2 PK	74.0	-21.8	1.30 H	186	49.0	3.2
2	5460.00	39.7 AV	54.0	-14.3	1.30 H	186	36.5	3.2
3	#5470.00	54.4 PK	68.2	-13.8	1.30 H	186	51.2	3.2
4	*5720.00	110.3 PK			1.30 H	186	106.5	3.8
5	*5720.00	100.8 AV			1.30 H	186	97.0	3.8
6	#5850.00	55.1 PK	68.2	-13.1	1.30 H	186	50.9	4.2
7	11440.00	47.7 PK	74.0	-26.3	1.59 H	215	33.6	14.1
8	11440.00	35.2 AV	54.0	-18.8	1.59 H	215	21.1	14.1
9	#17160.00	48.7 PK	68.2	-19.5	1.62 H	207	31.7	17.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	53.6 PK	74.0	-20.4	3.13 V	115	50.4	3.2
2	5460.00	41.1 AV	54.0	-12.9	3.13 V	115	37.9	3.2
3	#5470.00	54.3 PK	68.2	-13.9	3.13 V	115	51.1	3.2
4	*5720.00	120.2 PK			3.13 V	115	116.4	3.8
5	*5720.00	108.8 AV			3.13 V	115	105.0	3.8
6	#5850.00	56.9 PK	68.2	-11.3	3.13 V	115	52.7	4.2
7	11440.00	48.5 PK	74.0	-25.5	1.60 V	212	34.4	14.1
8	11440.00	35.2 AV	54.0	-18.8	1.60 V	212	21.1	14.1
9	#17160.00	49.5 PK	68.2	-18.7	1.50 V	67	32.5	17.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 149	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5745.00	115.9 PK			1.06 H	170	112.1	3.8
2	*5745.00	104.7 AV			1.06 H	170	100.9	3.8
3	11490.00	54.3 PK	74.0	-19.7	1.26 H	156	40.3	14.0
4	11490.00	40.6 AV	54.0	-13.4	1.26 H	156	26.6	14.0
5	#17235.00	49.8 PK	68.2	-18.4	1.54 H	350	33.3	16.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5745.00	122.6 PK			1.99 V	232	118.8	3.8
2	*5745.00	111.9 AV			1.99 V	232	108.1	3.8
3	11490.00	59.7 PK	74.0	-14.3	1.55 V	287	45.7	14.0
4	11490.00	46.3 AV	54.0	-7.7	1.55 V	287	32.3	14.0
5	#17235.00	53.1 PK	68.2	-15.1	1.17 V	141	36.6	16.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 157	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5785.00	117.5 PK			1.00 H	173	113.6	3.9
2	*5785.00	105.2 AV			1.00 H	173	101.3	3.9
3	11570.00	54.1 PK	74.0	-19.9	1.24 H	153	40.5	13.6
4	11570.00	40.7 AV	54.0	-13.3	1.24 H	153	27.1	13.6
5	#17355.00	49.5 PK	68.2	-18.7	1.54 H	346	32.5	17.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5785.00	124.1 PK			2.00 V	324	120.2	3.9
2	*5785.00	111.3 AV			2.00 V	324	107.4	3.9
3	11570.00	59.5 PK	74.0	-14.5	1.50 V	281	45.9	13.6
4	11570.00	46.3 AV	54.0	-7.7	1.50 V	281	32.7	13.6
5	#17355.00	53.5 PK	68.2	-14.7	1.15 V	146	36.5	17.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 165	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5825.00	116.9 PK			1.36 H	183	112.8	4.1
2	*5825.00	105.1 AV			1.36 H	183	101.0	4.1
3	11650.00	54.1 PK	74.0	-19.9	1.22 H	159	40.6	13.5
4	11650.00	40.7 AV	54.0	-13.3	1.22 H	159	27.2	13.5
5	#17475.00	49.6 PK	68.2	-18.6	1.55 H	355	31.0	18.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5825.00	124.2 PK			2.23 V	50	120.1	4.1
2	*5825.00	111.1 AV			2.23 V	50	107.0	4.1
3	11650.00	59.7 PK	74.0	-14.3	1.61 V	285	46.2	13.5
4	11650.00	46.2 AV	54.0	-7.8	1.61 V	285	32.7	13.5
5	#17475.00	53.4 PK	68.2	-14.8	1.16 V	151	34.8	18.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ax (HE40)

Channel	TX Channel 38	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.8 PK	74.0	-11.2	1.90 H	184	59.8	3.0
2	5150.00	50.0 AV	54.0	-4.0	1.90 H	184	47.0	3.0
3	*5190.00	108.4 PK			1.90 H	184	105.4	3.0
4	*5190.00	95.9 AV			1.90 H	184	92.9	3.0
5	#10380.00	47.1 PK	68.2	-21.1	1.72 H	179	33.9	13.2
6	15570.00	47.9 PK	74.0	-26.1	1.61 H	196	34.1	13.8
7	15570.00	35.4 AV	54.0	-18.6	1.61 H	196	21.6	13.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	69.0 PK	74.0	-5.0	3.20 V	279	66.0	3.0
2	5150.00	53.8 AV	54.0	-0.2	3.20 V	279	50.8	3.0
3	*5190.00	112.7 PK			3.20 V	279	109.7	3.0
4	*5190.00	100.9 AV			3.20 V	279	97.9	3.0
5	#10380.00	46.3 PK	68.2	-21.9	1.38 V	199	33.1	13.2
6	15570.00	47.5 PK	74.0	-26.5	1.36 V	114	33.7	13.8
7	15570.00	33.1 AV	54.0	-20.9	1.36 V	114	19.3	13.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 46	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	61.6 PK	74.0	-12.4	1.29 H	166	58.6	3.0
2	5150.00	50.9 AV	54.0	-3.1	1.29 H	166	47.9	3.0
3	*5230.00	107.1 PK			1.29 H	166	104.2	2.9
4	*5230.00	97.4 AV			1.29 H	166	94.5	2.9
5	5350.00	58.7 PK	74.0	-15.3	1.29 H	166	55.7	3.0
6	5350.00	40.6 AV	54.0	-13.4	1.29 H	166	37.6	3.0
7	#10460.00	47.3 PK	68.2	-20.9	1.79 H	206	33.8	13.5
8	15690.00	48.0 PK	74.0	-26.0	1.69 H	215	34.5	13.5
9	15690.00	35.4 AV	54.0	-18.6	1.69 H	215	21.9	13.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	68.3 PK	74.0	-5.7	3.16 V	284	65.3	3.0
2	**5150.00**	**53.9 AV**	**54.0**	**-0.1**	**3.16 V**	**284**	**50.9**	**3.0**
3	*5230.00	117.9 PK			3.16 V	284	115.0	2.9
4	*5230.00	105.3 AV			3.16 V	284	102.4	2.9
5	5350.00	60.3 PK	74.0	-13.7	3.16 V	284	57.3	3.0
6	5350.00	41.7 AV	54.0	-12.3	3.16 V	284	38.7	3.0
7	#10460.00	46.1 PK	68.2	-22.1	1.46 V	212	32.6	13.5
8	15690.00	49.4 PK	74.0	-24.6	1.42 V	104	35.9	13.5
9	15690.00	34.6 AV	54.0	-19.4	1.42 V	104	21.1	13.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 54	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	54.6 PK	74.0	-19.4	1.38 H	152	51.6	3.0
2	5150.00	41.2 AV	54.0	-12.8	1.38 H	152	38.2	3.0
3	*5270.00	107.4 PK			1.38 H	152	104.6	2.8
4	*5270.00	96.9 AV			1.38 H	152	94.1	2.8
5	#10540.00	46.8 PK	68.2	-21.4	1.80 H	206	33.4	13.4
6	15810.00	47.3 PK	74.0	-26.7	1.64 H	197	34.4	12.9
7	15810.00	34.9 AV	54.0	-19.1	1.64 H	197	22.0	12.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	55.3 PK	74.0	-18.7	1.84 V	121	52.3	3.0
2	5150.00	44.6 AV	54.0	-9.4	1.84 V	121	41.6	3.0
3	*5270.00	116.2 PK			1.84 V	121	113.4	2.8
4	*5270.00	104.9 AV			1.84 V	121	102.1	2.8
5	#10540.00	46.5 PK	68.2	-21.7	1.32 V	202	33.1	13.4
6	15810.00	47.4 PK	74.0	-26.6	1.30 V	121	34.5	12.9
7	15810.00	33.3 AV	54.0	-20.7	1.30 V	121	20.4	12.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 62	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	107.1 PK			1.34 H	181	104.2	2.9
2	*5310.00	94.9 AV			1.34 H	181	92.0	2.9
3	5350.00	55.1 PK	74.0	-18.9	1.34 H	181	52.1	3.0
4	5350.00	46.9 AV	54.0	-7.1	1.34 H	181	43.9	3.0
5	10620.00	47.6 PK	74.0	-26.4	1.71 H	183	34.3	13.3
6	10620.00	34.6 AV	54.0	-19.4	1.71 H	183	21.3	13.3
7	15930.00	47.3 PK	74.0	-26.7	1.70 H	199	34.0	13.3
8	15930.00	35.1 AV	54.0	-18.9	1.70 H	199	21.8	13.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	115.1 PK			3.37 V	98	112.2	2.9
2	*5310.00	103.0 AV			3.37 V	98	100.1	2.9
3	5350.00	67.2 PK	74.0	-6.8	3.37 V	98	64.2	3.0
4	5350.00	53.8 AV	54.0	-0.2	3.37 V	98	50.8	3.0
5	10620.00	48.7 PK	74.0	-25.3	1.59 V	217	35.4	13.3
6	10620.00	35.4 AV	54.0	-18.6	1.59 V	217	22.1	13.3
7	15930.00	49.0 PK	74.0	-25.0	1.45 V	78	35.7	13.3
8	15930.00	35.5 AV	54.0	-18.5	1.45 V	78	22.2	13.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 102	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	55.7 PK	74.0	-18.3	1.09 H	170	52.5	3.2
2	5460.00	46.1 AV	54.0	-7.9	1.09 H	170	42.9	3.2
3	#5470.00	58.1 PK	68.2	-10.1	1.09 H	170	54.9	3.2
4	*5510.00	108.1 PK			1.09 H	170	104.9	3.2
5	*5510.00	95.6 AV			1.09 H	170	92.4	3.2
6	11020.00	48.1 PK	74.0	-25.9	1.77 H	203	34.3	13.8
7	11020.00	34.9 AV	54.0	-19.1	1.77 H	203	21.1	13.8
8	#16530.00	47.1 PK	68.2	-21.1	1.60 H	215	31.4	15.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	65.3 PK	74.0	-8.7	3.02 V	108	62.1	3.2
2	5460.00	51.3 AV	54.0	-2.7	3.02 V	108	48.1	3.2
3	#5470.00	67.7 PK	68.2	-0.5	3.02 V	108	64.5	3.2
4	*5510.00	114.2 PK			3.02 V	108	111.0	3.2
5	*5510.00	102.3 AV			3.02 V	108	99.1	3.2
6	11020.00	48.8 PK	74.0	-25.2	1.63 V	227	35.0	13.8
7	11020.00	35.6 AV	54.0	-18.4	1.63 V	227	21.8	13.8
8	#16530.00	49.1 PK	68.2	-19.1	1.44 V	93	33.4	15.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 110	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	107.7 PK			1.39 H	153	104.4	3.3
2	*5550.00	97.3 AV			1.39 H	153	94.0	3.3
3	11100.00	47.1 PK	74.0	-26.9	1.72 H	192	33.8	13.3
4	11100.00	34.0 AV	54.0	-20.0	1.72 H	192	20.7	13.3
5	#16650.00	47.2 PK	68.2	-21.0	1.69 H	198	30.6	16.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	115.8 PK			1.82 V	105	112.5	3.3
2	*5550.00	104.5 AV			1.82 V	105	101.2	3.3
3	11100.00	47.9 PK	74.0	-26.1	1.67 V	227	34.6	13.3
4	11100.00	35.0 AV	54.0	-19.0	1.67 V	227	21.7	13.3
5	#16650.00	49.4 PK	68.2	-18.8	1.50 V	85	32.8	16.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 134	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	107.7 PK			1.41 H	166	104.1	3.6
2	*5670.00	96.8 AV			1.41 H	166	93.2	3.6
3	#5725.00	59.4 PK	68.2	-8.8	1.41 H	166	55.6	3.8
4	11340.00	47.2 PK	74.0	-26.8	1.75 H	178	33.1	14.1
5	11340.00	34.2 AV	54.0	-19.8	1.75 H	178	20.1	14.1
6	#17010.00	47.2 PK	68.2	-21.0	1.68 H	208	29.4	17.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	115.6 PK			3.02 V	146	112.0	3.6
2	*5670.00	104.1 AV			3.02 V	146	100.5	3.6
3	#5725.00	67.6 PK	68.2	-0.6	3.02 V	146	63.8	3.8
4	11340.00	47.7 PK	74.0	-26.3	1.58 V	221	33.6	14.1
5	11340.00	35.1 AV	54.0	-18.9	1.58 V	221	21.0	14.1
6	#17010.00	48.5 PK	68.2	-19.7	1.41 V	76	30.7	17.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 142	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	50.6 PK	74.0	-23.4	1.40 H	163	47.4	3.2
2	5460.00	39.9 AV	54.0	-14.1	1.40 H	163	36.7	3.2
3	#5470.00	51.1 PK	68.2	-17.1	1.40 H	163	47.9	3.2
4	*5710.00	107.8 PK			1.40 H	163	104.0	3.8
5	*5710.00	97.1 AV			1.40 H	163	93.3	3.8
6	#5850.00	54.7 PK	68.2	-13.5	1.40 H	163	50.5	4.2
7	11420.00	47.6 PK	74.0	-26.4	1.69 H	195	33.5	14.1
8	11420.00	34.7 AV	54.0	-19.3	1.69 H	195	20.6	14.1
9	#17130.00	47.7 PK	68.2	-20.5	1.73 H	205	30.5	17.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	50.5 PK	74.0	-23.5	2.99 V	107	47.3	3.2
2	5460.00	40.6 AV	54.0	-13.4	2.99 V	107	37.4	3.2
3	#5470.00	50.7 PK	68.2	-17.5	2.99 V	107	47.5	3.2
4	*5710.00	115.5 PK			2.99 V	107	111.7	3.8
5	*5710.00	104.8 AV			2.99 V	107	101.0	3.8
6	#5850.00	55.3 PK	68.2	-12.9	2.99 V	107	51.1	4.2
7	11420.00	47.6 PK	74.0	-26.4	1.63 V	229	33.5	14.1
8	11420.00	34.9 AV	54.0	-19.1	1.63 V	229	20.8	14.1
9	#17130.00	49.0 PK	68.2	-19.2	1.42 V	78	31.8	17.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 151	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5755.00	114.9 PK			1.16 H	172	111.1	3.8
2	*5755.00	102.5 AV			1.16 H	172	98.7	3.8
3	11510.00	54.3 PK	74.0	-19.7	1.25 H	169	40.5	13.8
4	11510.00	40.7 AV	54.0	-13.3	1.25 H	169	26.9	13.8
5	#17265.00	49.8 PK	68.2	-18.4	1.57 H	9	33.2	16.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5755.00	120.7 PK			3.10 V	334	116.9	3.8
2	*5755.00	109.7 AV			3.10 V	334	105.9	3.8
3	11510.00	59.3 PK	74.0	-14.7	1.53 V	287	45.5	13.8
4	11510.00	46.1 AV	54.0	-7.9	1.53 V	287	32.3	13.8
5	#17265.00	53.8 PK	68.2	-14.4	1.12 V	160	37.2	16.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 159	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5795.00	113.9 PK			1.41 H	182	110.0	3.9
2	*5795.00	102.5 AV			1.41 H	182	98.6	3.9
3	11590.00	53.7 PK	74.0	-20.3	1.20 H	158	40.1	13.6
4	11590.00	40.5 AV	54.0	-13.5	1.20 H	158	26.9	13.6
5	#17385.00	49.9 PK	68.2	-18.3	1.53 H	360	32.5	17.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5795.00	121.3 PK			3.08 V	230	117.4	3.9
2	*5795.00	110.6 AV			3.08 V	230	106.7	3.9
3	11590.00	59.4 PK	74.0	-14.6	1.51 V	280	45.8	13.6
4	11590.00	45.9 AV	54.0	-8.1	1.51 V	280	32.3	13.6
5	#17385.00	53.1 PK	68.2	-15.1	1.18 V	139	35.7	17.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ax (HE80)

Channel	TX Channel 42	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.1 PK	74.0	-13.9	1.00 H	184	57.1	3.0
2	5150.00	49.6 AV	54.0	-4.4	1.00 H	184	46.6	3.0
3	*5210.00	102.4 PK			1.00 H	184	99.4	3.0
4	*5210.00	91.3 AV			1.00 H	184	88.3	3.0
5	5350.00	52.8 PK	74.0	-21.2	1.00 H	184	49.8	3.0
6	5350.00	42.7 AV	54.0	-11.3	1.00 H	184	39.7	3.0
7	#10420.00	47.7 PK	68.2	-20.5	1.74 H	193	34.4	13.3
8	15630.00	48.1 PK	74.0	-25.9	1.64 H	220	34.4	13.7
9	15630.00	35.6 AV	54.0	-18.4	1.64 H	220	21.9	13.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	67.8 PK	74.0	-6.2	3.35 V	277	64.8	3.0
2	5150.00	53.8 AV	54.0	-0.2	3.35 V	277	50.8	3.0
3	*5210.00	109.3 PK			3.35 V	277	106.3	3.0
4	*5210.00	98.2 AV			3.35 V	277	95.2	3.0
5	5350.00	55.9 PK	74.0	-18.1	3.35 V	277	52.9	3.0
6	5350.00	44.2 AV	54.0	-9.8	3.35 V	277	41.2	3.0
7	#10420.00	46.7 PK	68.2	-21.5	1.29 V	208	33.4	13.3
8	15630.00	47.5 PK	74.0	-26.5	1.31 V	117	33.8	13.7
9	15630.00	33.3 AV	54.0	-20.7	1.31 V	117	19.6	13.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 58	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	50.9 PK	74.0	-23.1	1.38 H	181	47.9	3.0
2	5150.00	42.1 AV	54.0	-11.9	1.38 H	181	39.1	3.0
3	*5290.00	105.5 PK			1.38 H	181	102.6	2.9
4	*5290.00	93.2 AV			1.38 H	181	90.3	2.9
5	5350.00	61.3 PK	74.0	-12.7	1.38 H	181	58.3	3.0
6	5350.00	49.3 AV	54.0	-4.7	1.38 H	181	46.3	3.0
7	#10580.00	47.5 PK	68.2	-20.7	1.79 H	197	34.2	13.3
8	15870.00	48.1 PK	74.0	-25.9	1.70 H	217	35.0	13.1
9	15870.00	35.3 AV	54.0	-18.7	1.70 H	217	22.2	13.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.0 PK	74.0	-17.0	1.96 V	119	54.0	3.0
2	5150.00	47.1 AV	54.0	-6.9	1.96 V	119	44.1	3.0
3	*5290.00	111.6 PK			1.96 V	119	108.7	2.9
4	*5290.00	100.6 AV			1.96 V	119	97.7	2.9
5	5350.00	64.6 PK	74.0	-9.4	1.96 V	119	61.6	3.0
6	5350.00	53.8 AV	54.0	-0.2	1.96 V	119	50.8	3.0
7	#10580.00	46.0 PK	68.2	-22.2	1.33 V	214	32.7	13.3
8	15870.00	48.0 PK	74.0	-26.0	1.35 V	128	34.9	13.1
9	15870.00	33.7 AV	54.0	-20.3	1.35 V	128	20.6	13.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 106	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	55.5 PK	74.0	-18.5	1.10 H	163	52.3	3.2
2	5460.00	45.5 AV	54.0	-8.5	1.10 H	163	42.3	3.2
3	#5470.00	57.7 PK	68.2	-10.5	1.10 H	163	54.5	3.2
4	*5530.00	104.1 PK			1.10 H	163	100.8	3.3
5	*5530.00	92.5 AV			1.10 H	163	89.2	3.3
6	#5725.00	51.3 PK	68.2	-16.9	1.10 H	163	47.5	3.8
7	11060.00	47.6 PK	74.0	-26.4	1.69 H	176	34.0	13.6
8	11060.00	34.5 AV	54.0	-19.5	1.69 H	176	20.9	13.6
9	#16590.00	47.1 PK	68.2	-21.1	1.72 H	203	30.8	16.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	62.2 PK	74.0	-11.8	3.28 V	100	59.0	3.2
2	5460.00	50.9 AV	54.0	-3.1	3.28 V	100	47.7	3.2
3	#5470.00	67.6 PK	68.2	-0.6	3.28 V	100	64.4	3.2
4	*5530.00	111.9 PK			3.28 V	100	108.6	3.3
5	*5530.00	99.5 AV			3.28 V	100	96.2	3.3
6	#5725.00	51.7 PK	68.2	-16.5	3.28 V	100	47.9	3.8
7	11060.00	48.1 PK	74.0	-25.9	1.62 V	208	34.5	13.6
8	11060.00	35.4 AV	54.0	-18.6	1.62 V	208	21.8	13.6
9	#16590.00	48.4 PK	68.2	-19.8	1.38 V	73	32.1	16.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 122	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	106.7 PK			1.37 H	180	103.3	3.4
2	*5610.00	94.5 AV			1.37 H	180	91.1	3.4
3	#5725.00	60.3 PK	68.2	-7.9	1.37 H	180	56.5	3.8
4	11220.00	47.7 PK	74.0	-26.3	1.66 H	169	34.3	13.4
5	11220.00	34.3 AV	54.0	-19.7	1.66 H	169	20.9	13.4
6	#16830.00	47.4 PK	68.2	-20.8	1.67 H	194	30.7	16.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	115.7 PK			3.17 V	108	112.3	3.4
2	*5610.00	100.3 AV			3.17 V	108	96.9	3.4
3	#5725.00	67.7 PK	68.2	-0.5	3.17 V	108	63.9	3.8
4	11220.00	47.4 PK	74.0	-26.6	1.61 V	231	34.0	13.4
5	11220.00	34.9 AV	54.0	-19.1	1.61 V	231	21.5	13.4
6	#16830.00	48.5 PK	68.2	-19.7	1.38 V	79	31.8	16.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 138	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	53.0 PK	74.0	-21.0	1.41 H	172	49.8	3.2
2	5460.00	40.8 AV	54.0	-13.2	1.41 H	172	37.6	3.2
3	#5470.00	55.4 PK	68.2	-12.8	1.41 H	172	52.2	3.2
4	*5690.00	106.7 PK			1.41 H	172	102.9	3.8
5	*5690.00	94.3 AV			1.41 H	172	90.5	3.8
6	#5850.00	63.1 PK	68.2	-5.1	1.41 H	172	58.9	4.2
7	11380.00	47.3 PK	74.0	-26.7	1.66 H	200	33.2	14.1
8	11380.00	34.1 AV	54.0	-19.9	1.66 H	200	20.0	14.1
9	#17070.00	46.5 PK	68.2	-21.7	1.68 H	199	28.9	17.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	53.2 PK	74.0	-20.8	3.07 V	72	50.0	3.2
2	5460.00	41.3 AV	54.0	-12.7	3.07 V	72	38.1	3.2
3	#5470.00	55.6 PK	68.2	-12.6	3.07 V	72	52.4	3.2
4	*5690.00	113.6 PK			3.07 V	72	109.8	3.8
5	*5690.00	100.6 AV			3.07 V	72	96.8	3.8
6	#5850.00	63.6 PK	68.2	-4.6	3.07 V	72	59.4	4.2
7	11380.00	47.4 PK	74.0	-26.6	1.59 V	229	33.3	14.1
8	11380.00	34.5 AV	54.0	-19.5	1.59 V	229	20.4	14.1
9	#17070.00	48.4 PK	68.2	-19.8	1.42 V	63	30.8	17.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 155	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5775.00	107.6 PK			1.39 H	176	103.7	3.9
2	*5775.00	97.1 AV			1.39 H	176	93.2	3.9
3	11550.00	53.8 PK	74.0	-20.2	1.31 H	166	40.1	13.7
4	11550.00	40.4 AV	54.0	-13.6	1.31 H	166	26.7	13.7
5	#17325.00	50.2 PK	68.2	-18.0	1.57 H	360	33.4	16.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5775.00	115.7 PK			2.92 V	259	111.8	3.9
2	*5775.00	102.6 AV			2.92 V	259	98.7	3.9
3	11550.00	59.0 PK	74.0	-15.0	1.54 V	288	45.3	13.7
4	11550.00	45.4 AV	54.0	-8.6	1.54 V	288	31.7	13.7
5	#17325.00	53.3 PK	68.2	-14.9	1.24 V	151	36.5	16.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ax (HE160)

Channel	TX Channel 50	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.2 PK	74.0	-11.8	1.50 H	181	59.2	3.0
2	5150.00	47.8 AV	54.0	-6.2	1.50 H	181	44.8	3.0
3	*5250.00	101.1 PK			1.50 H	181	98.3	2.8
4	*5250.00	89.5 AV			1.50 H	181	86.7	2.8
5	5377.90	63.7 PK	74.0	-10.3	1.50 H	181	60.7	3.0
6	5377.90	49.4 AV	54.0	-4.6	1.50 H	181	46.4	3.0
7	#10500.00	47.7 PK	68.2	-20.5	1.72 H	163	34.1	13.6
8	15750.00	47.7 PK	74.0	-26.3	1.72 H	195	34.5	13.2
9	15750.00	35.8 AV	54.0	-18.2	1.72 H	195	22.6	13.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5135.71	70.2 PK	74.0	-3.8	3.34 V	277	67.2	3.0
2	**5135.71**	**53.9 AV**	**54.0**	**-0.1**	**3.34 V**	**277**	**50.9**	**3.0**
3	*5250.00	106.0 PK			3.34 V	277	103.2	2.8
4	*5250.00	93.2 AV			3.34 V	277	90.4	2.8
5	5377.90	68.6 PK	74.0	-5.4	3.34 V	277	65.6	3.0
6	5377.90	52.3 AV	54.0	-1.7	3.34 V	277	49.3	3.0
7	#10500.00	46.7 PK	68.2	-21.5	1.25 V	203	33.1	13.6
8	15750.00	47.6 PK	74.0	-26.4	1.28 V	112	34.4	13.2
9	15750.00	33.3 AV	54.0	-20.7	1.28 V	112	20.1	13.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 114	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	62.9 PK	74.0	-11.1	1.53 H	196	59.7	3.2
2	5460.00	47.2 AV	54.0	-6.8	1.53 H	196	44.0	3.2
3	#5470.00	62.0 PK	68.2	-6.2	1.53 H	196	58.8	3.2
4	*5570.00	101.7 PK			1.53 H	196	98.4	3.3
5	*5570.00	89.8 AV			1.53 H	196	86.5	3.3
6	#5725.00	59.2 PK	68.2	-9.0	1.53 H	196	55.4	3.8
7	11140.00	47.5 PK	74.0	-26.5	1.71 H	166	34.2	13.3
8	11140.00	34.2 AV	54.0	-19.8	1.71 H	166	20.9	13.3
9	#16710.00	47.1 PK	68.2	-21.1	1.68 H	202	30.5	16.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5442.05	64.8 PK	74.0	-9.2	2.76 V	321	61.6	3.2
2	5442.05	48.7 AV	54.0	-5.3	2.76 V	321	45.5	3.2
3	#5470.00	67.9 PK	68.2	-0.3	2.76 V	321	64.7	3.2
4	*5570.00	105.2 PK			2.76 V	321	101.9	3.3
5	*5570.00	93.1 AV			2.76 V	321	89.8	3.3
6	#5772.54	60.9 PK	68.2	-7.3	2.76 V	321	57.0	3.9
7	11140.00	48.0 PK	74.0	-26.0	1.61 V	230	34.7	13.3
8	11140.00	35.3 AV	54.0	-18.7	1.61 V	230	22.0	13.3
9	#16710.00	48.8 PK	68.2	-19.4	1.41 V	70	32.2	16.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Below 1GHz Data:

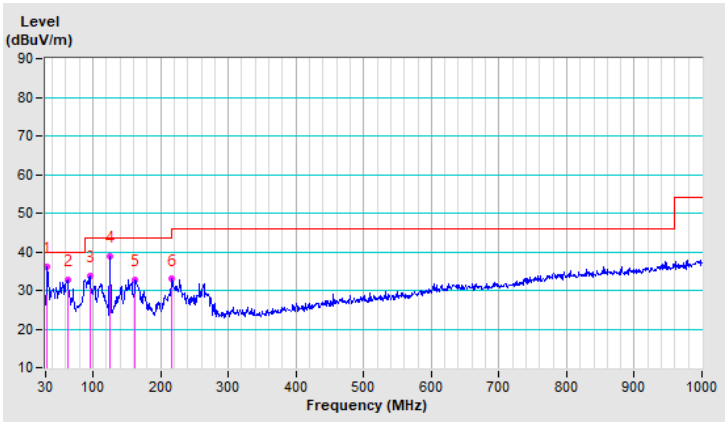
802.11ax (HE40)

CHANNEL	TX Channel 151	**DETECTOR FUNCTION**	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	32.55	36.1 QP	40.0	-3.9	1.50 H	142	45.3	-9.2
2	62.23	32.9 QP	40.0	-7.1	2.00 H	127	41.5	-8.6
3	95.06	33.7 QP	43.5	-9.8	2.00 H	134	46.6	-12.9
4	125.01	38.8 QP	43.5	-4.7	1.50 H	69	48.0	-9.2
5	162.02	32.7 QP	43.5	-10.8	1.50 H	272	40.2	-7.5
6	216.94	32.9 QP	46.0	-13.1	1.50 H	154	43.6	-10.7

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

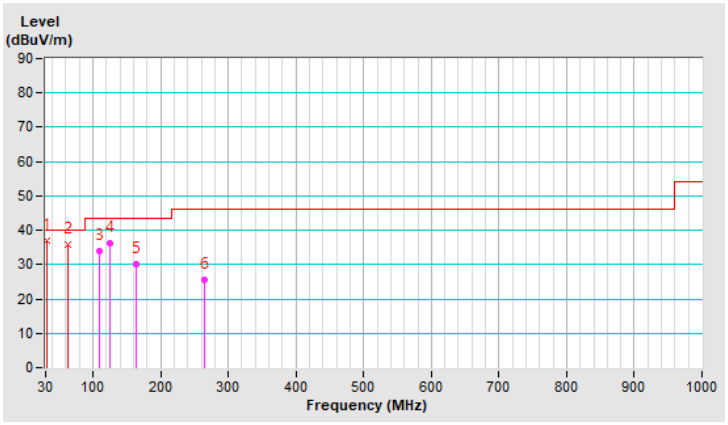


CHANNEL	TX Channel 151	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	31.07	37.0 QP	40.0	-3.0	1.00 V	128	46.3	-9.3
2	62.52	35.9 QP	40.0	-4.1	2.00 V	5	44.6	-8.7
3	109.57	34.0 QP	43.5	-9.5	1.00 V	283	44.5	-10.5
4	125.01	36.3 QP	43.5	-7.2	1.00 V	55	45.5	-9.2
5	163.76	30.1 QP	43.5	-13.4	1.00 V	252	37.8	-7.7
6	264.30	25.6 QP	46.0	-20.4	1.50 V	360	33.4	-7.8

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	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 lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 23, 2019	Oct. 22, 2020
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 23, 2019	Oct. 22, 2020
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 19, 2020	Mar. 18, 2021
50 ohms Terminator	50	3	Oct. 23, 2019	Oct. 22, 2020
RF Cable	5D-FB	COCCAB-001	Sep. 27, 2019	Sep. 26, 2020
Fixed attenuator EMCI	STI02-2200-10	005	Aug. 30, 2019	Aug. 29, 2020
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

Note:
1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
3 Tested Date: June 10, 2020

4.2.3 Test Procedure

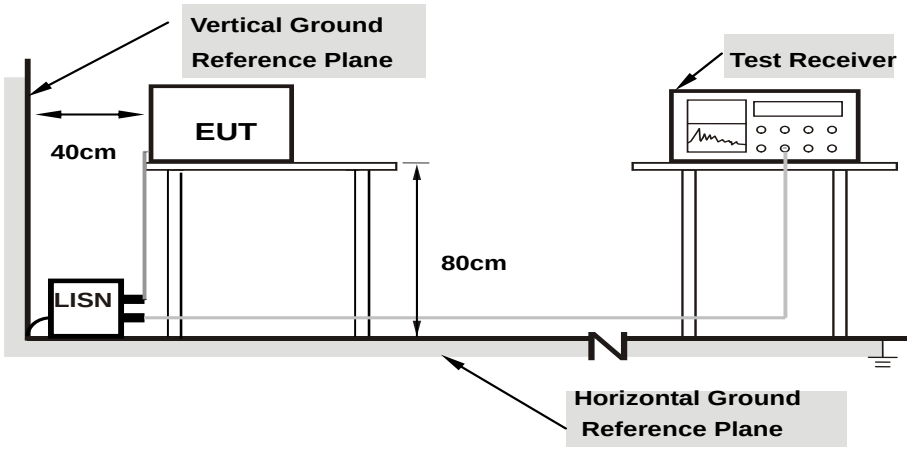
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

Note: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT Operating Condition

Same as 4.1.6.

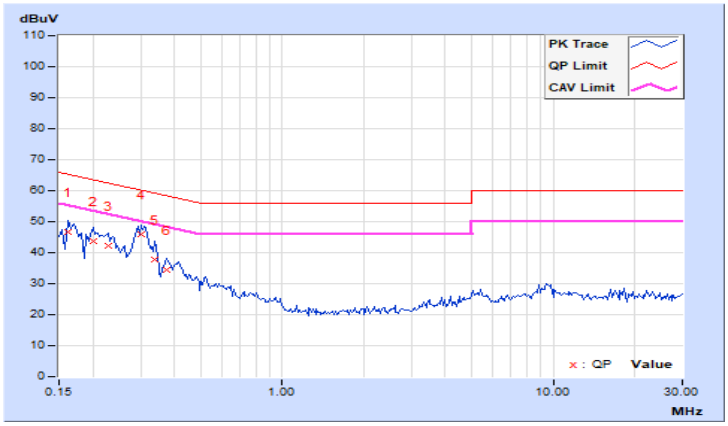
4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16172	10.03	36.76	28.22	46.79	38.25	65.38	55.38	-18.59	-17.13
2	0.20078	10.04	33.48	22.32	43.52	32.36	63.58	53.58	-20.06	-21.22
3	0.22812	10.04	32.15	21.27	42.19	31.31	62.52	52.52	-20.33	-21.21
4	0.30234	10.05	35.92	26.60	45.97	36.65	60.18	50.18	-14.21	-13.53
5	0.33750	10.05	27.62	20.19	37.67	30.24	59.26	49.26	-21.59	-19.02
6	0.37266	10.05	24.42	16.00	34.47	26.05	58.44	48.44	-23.97	-22.39

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

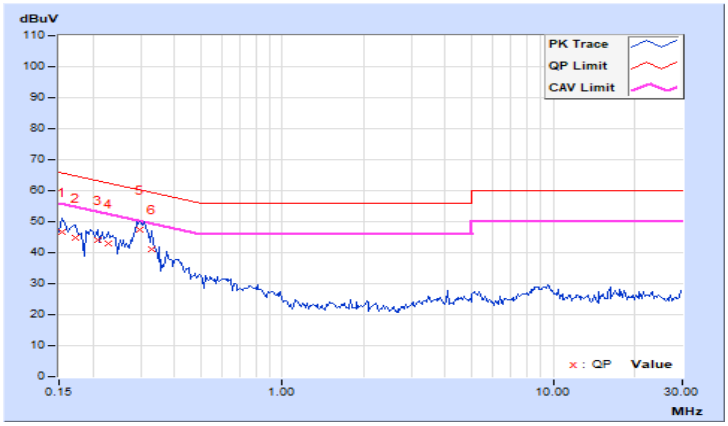


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	10.02	36.48	25.44	46.50	35.46	65.79	55.79	-19.29	-20.33
2	0.17344	10.02	34.80	22.82	44.82	32.84	64.79	54.79	-19.97	-21.95
3	0.20859	10.03	34.18	24.12	44.21	34.15	63.26	53.26	-19.05	-19.11
4	0.22812	10.03	32.93	22.15	42.96	32.18	62.52	52.52	-19.56	-20.34
5	**0.29844**	**10.03**	**37.42**	**28.90**	**47.45**	**38.93**	**60.29**	**50.29**	**-12.84**	**-11.36**
6	0.32969	10.04	31.10	22.06	41.14	32.10	59.46	49.46	-18.32	-17.36

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
	√	Indoor Access Point	1 Watt (30 dBm)
		Client device	250mW (24 dBm)
U-NII-2A	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3	√		1 Watt (30 dBm)

*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

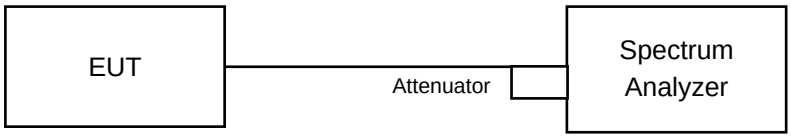
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

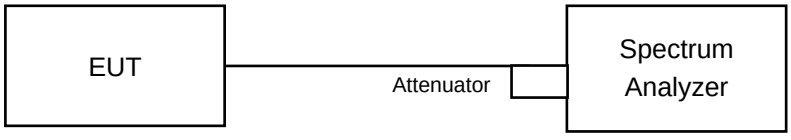
FOR POWER OUTPUT MEASUREMENT

For channel straddling 5250MHz & channel straddling 5725MHz:



For other channels:

FOR 26dB OCCUPIED BANDWIDTH



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

FOR POWER OUTPUT MEASUREMENT

For channel straddling 5725MHz:

Follow FCC KDB 789033 UNII test procedure:

Method SA-1

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW =1MHz.
3. Set the VBW ≥ 3 x RBW.
4. Number of points in sweep ≥ 2 Span / RBW.
5. Sweep time = auto.
6. Set trigger to free run (duty cycle ≥ 98 percent)
7. Detector = RMS.
8. Trace average at least 100 traces in power averaging mode
9. Compute power by integrating the spectrum across the 26 dB EBW of the signal.

For channel straddling 5250MHz

Follow FCC KDB 789033 UNII test procedure:

Method SA-2

1. Set span to encompass the emission bandwidth (EBW) of the signal.
2. Set RBW =1MHz.
3. Set the VBW ≥ 3 x RBW.
4. Number of points in sweep ≥ 2 Span / RBW.
5. Sweep time = auto.
6. Detector = RMS.
7. Trace average at least 100 traces in power averaging mode
8. Compute power by integrating the spectrum across the 26 dB EBW of the signal.
9. Duty factor need added to measured value (duty cycle < 98 percent).

For other channels:

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

FOR 26dB OCCUPIED BANDWIDTH

1. Set RBW = approximately 1% of the emission bandwidth.
2. Set the VBW > RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak 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%.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Condition

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 Test Results

POWER OUTPUT

CDD Mode

802.11a

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	22.93	22.97	394.489	25.96	30.00	Pass
40	5200	26.02	26.07	804.521	29.06	30.00	Pass
48	5240	26.07	26.11	812.895	29.10	30.00	Pass
52	5260	20.38	20.39	218.54	23.40	24.00	Pass
60	5300	20.44	20.42	220.816	23.44	24.00	Pass
64	5320	20.40	20.43	220.056	23.43	24.00	Pass
100	5500	20.72	19.99	217.802	23.38	24.00	Pass
116	5580	20.79	20.03	220.643	23.44	24.00	Pass
140	5700	19.70	19.56	183.69	22.64	24.00	Pass
*144 (U-NII-2C Band)	5720	16.90	16.67	95.429	19.80	22.98	Pass
*144 (U-NII-3 Band)	5720	10.76	10.45	23.004	13.62	30.00	Pass
149	5745	26.11	26.57	862.261	29.36	30.00	Pass
157	5785	26.01	26.53	848.805	29.29	30.00	Pass
165	5825	26.07	26.52	853.321	29.31	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
144	5720	118.433	20.73	20.61	20.04	216.005	23.34

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.76	24.37 > 24
60	5300	21.73	24.37 > 24
64	5320	21.62	24.34 > 24
100	5500	21.56	24.33 > 24
116	5580	21.63	24.35 > 24
140	5700	21.71	24.36 > 24
144 (U-NII-2C Band)	5720	15.79	22.98 < 24

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	21.04	20.97	252.083	24.02	30.00	Pass
40	5200	26.04	26.02	801.736	29.04	30.00	Pass
48	5240	26.00	26.05	800.824	29.04	30.00	Pass
52	5260	20.21	20.25	210.88	23.24	24.00	Pass
60	5300	20.26	20.49	218.113	23.39	24.00	Pass
64	5320	20.24	20.39	215.077	23.33	24.00	Pass
100	5500	20.65	19.96	215.228	23.33	24.00	Pass
116	5580	20.66	19.88	213.687	23.30	24.00	Pass
140	5700	19.26	18.26	151.322	21.80	24.00	Pass
*144 (U-NII-2C Band)	5720	16.46	16.02	84.253	19.26	23.00	Pass
*144 (U-NII-3 Band)	5720	11.21	10.72	25.016	13.98	30.00	Pass
149	5745	26.07	26.69	871.235	29.40	30.00	Pass
157	5785	26.02	26.60	857.033	29.33	30.00	Pass
165	5825	26.09	26.59	862.48	29.36	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
144	5720	109.269	20.38	20.63	19.82	211.551	23.25

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.77	24.37 > 24
60	5300	21.87	24.39 > 24
64	5320	21.82	24.38 > 24
100	5500	21.73	24.37 > 24
116	5580	21.89	24.4 > 24
140	5700	21.80	24.38 > 24
144 (U-NII-2C Band)	5720	15.88	23 < 24

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	21.05	21.00	253.243	24.04	30.00	Pass
46	5230	26.08	26.05	808.226	29.08	30.00	Pass
54	5270	20.35	20.35	216.785	23.36	24.00	Pass
62	5310	19.48	19.21	172.084	22.36	24.00	Pass
102	5510	18.90	18.09	142.042	21.52	24.00	Pass
110	5550	20.75	19.67	211.533	23.25	24.00	Pass
134	5670	20.73	19.82	214.244	23.31	24.00	Pass
*142 (U-NII-2C Band)	5710	16.88	16.61	94.567	19.76	24.00	Pass
*142 (U-NII-3 Band)	5710	7.03	6.46	9.472	9.76	30.00	Pass
151	5755	25.91	26.84	873.001	29.41	30.00	Pass
159	5795	25.96	26.79	871.987	29.41	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
142	5710	104.039	20.17	20.62	19.93	213.746	23.30

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.78	27.2 > 24
62	5310	41.51	27.18 > 24
102	5510	41.53	27.18 > 24
110	5550	41.71	27.2 > 24
134	5670	41.78	27.2 > 24
142 (U-NII-2C Band)	5710	35.79	26.53 > 24

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	20.47	20.27	217.844	23.38	30.00	Pass
58	5290	20.47	20.25	217.355	23.37	24.00	Pass
106	5530	18.79	17.98	138.489	21.41	24.00	Pass
122	5610	20.59	20.10	216.881	23.36	24.00	Pass
*138 (U-NII-2C Band)	5690	17.50	17.07	107.167	20.30	24.00	Pass
*138 (U-NII-3 Band)	5690	4.03	3.49	4.763	6.78	30.00	Pass
155	5775	24.19	24.61	551.49	27.42	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
138	5690	111.93	20.49	20.75	19.91	216.799	23.36

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.23	30.15 > 24
106	5530	82.90	30.18 > 24
122	5610	82.70	30.17 > 24
138 (U-NII-2C Band)	5690	75.90	29.8 > 24

802.11ac (VHT160)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain0	Chain1				
*50 (U-NII-1 Band)	5250	14.66	14.45	57.103	17.57	30.00	PASS
*50 (U-NII-2A Band)	5250	13.94	14.11	50.537	17.04	24.00	PASS
114	5570	20.11	19.88	199.84	23.01	24.00	PASS

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1		
50	5250	107.64	20.32	20.39	20.39	218.791	23.40

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50 (U-NII-2A Band)	5250	81.44	30.1 > 24
114	5570	162.87	33.11 > 24

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	21.13	21.09	258.247	24.12	30.00	Pass
40	5200	26.09	26.15	818.541	29.13	30.00	Pass
48	5240	26.08	26.10	812.889	29.10	30.00	Pass
52	5260	20.26	20.42	216.323	23.35	24.00	Pass
60	5300	20.39	20.53	222.375	23.47	24.00	Pass
64	5320	20.33	20.56	221.657	23.46	24.00	Pass
100	5500	20.69	20.01	217.45	23.37	24.00	Pass
116	5580	20.83	19.97	220.371	23.43	24.00	Pass
140	5700	19.44	18.53	159.188	22.02	24.00	Pass
*144 (U-NII-2C Band)	5720	16.86	16.39	92.08	19.64	23.00	Pass
*144 (U-NII-3 Band)	5720	11.64	11.09	27.441	14.38	30.00	Pass
149	5745	26.17	26.74	886.063	29.47	30.00	Pass
157	5785	26.12	26.70	876.996	29.43	30.00	Pass
165	5825	26.23	26.68	885.345	29.47	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
144	5720	119.521	20.77	20.72	19.96	217.115	23.37

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.77	24.37 > 24
60	5300	21.87	24.39 > 24
64	5320	21.82	24.38 > 24
100	5500	21.73	24.37 > 24
116	5580	21.89	24.4 > 24
140	5700	21.80	24.38 > 24
144 (U-NII-2C Band)	5720	15.88	23 < 24

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	21.13	21.13	259.436	24.14	30.00	Pass
46	5230	26.18	26.13	825.158	29.17	30.00	Pass
54	5270	20.43	20.44	221.07	23.45	24.00	Pass
62	5310	19.62	19.29	176.54	22.47	24.00	Pass
102	5510	18.97	18.24	145.567	21.63	24.00	Pass
110	5550	20.85	19.82	217.559	23.38	24.00	Pass
134	5670	20.83	19.96	220.143	23.43	24.00	Pass
*142 (U-NII-2C Band)	5710	17.15	16.93	101.197	20.05	24.00	Pass
*142 (U-NII-3 Band)	5710	7.44	6.96	10.512	10.22	30.00	Pass
151	5755	26.01	26.96	895.617	29.52	30.00	Pass
159	5795	26.03	26.87	887.274	29.48	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
142	5710	111.709	20.48	20.76	20.03	219.817	23.42

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.78	27.2 > 24
62	5310	41.51	27.18 > 24
102	5510	41.53	27.18 > 24
110	5550	41.71	27.2 > 24
134	5670	41.78	27.2 > 24
142 (U-NII-2C Band)	5710	35.79	26.53 > 24

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	20.61	20.46	226.253	23.55	30.00	Pass
58	5290	20.53	20.39	222.375	23.47	24.00	Pass
106	5530	18.93	18.05	141.989	21.52	24.00	Pass
122	5610	20.71	20.21	222.715	23.48	24.00	Pass
*138 (U-NII-2C Band)	5690	17.77	17.32	113.792	20.56	24.00	Pass
*138 (U-NII-3 Band)	5690	4.60	3.81	5.288	7.23	30.00	Pass
155	5775	24.32	24.71	566.197	27.53	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
138	5690	119.08	20.76	20.83	20.06	222.451	23.47

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.23	30.15 > 24
106	5530	82.90	30.18 > 24
122	5610	82.70	30.17 > 24
138 (U-NII-2C Band)	5690	75.90	29.8 > 24

802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain0	Chain1				
*50 (U-NII-1 Band)	5250	15.04	14.78	61.976	17.92	30.00	PASS
*50 (U-NII-2A Band)	5250	14.41	14.41	55.212	17.42	24.00	PASS
114	5570	20.18	19.93	202.633	23.07	24.00	PASS

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1		
50	5250	117.188	20.69	20.46	20.45	222.091	23.47

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50 (U-NII-2A Band)	5250	81.44	30.1 > 24
114	5570	162.87	33.11 > 24

Beamforming Mode

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	21.04	20.97	252.083	24.02	30.00	Pass
40	5200	26.04	26.02	801.736	29.04	30.00	Pass
48	5240	26.00	26.05	800.824	29.04	30.00	Pass
52	5260	20.21	20.25	210.88	23.24	23.95	Pass
60	5300	20.26	20.49	218.113	23.39	23.95	Pass
64	5320	20.24	20.39	215.077	23.33	23.95	Pass
100	5500	20.65	19.96	215.228	23.33	23.76	Pass
116	5580	20.66	19.88	213.687	23.30	23.76	Pass
140	5700	19.26	18.26	151.322	21.80	23.76	Pass
*144 (U-NII-2C Band)	5720	16.46	16.02	84.253	19.26	22.76	Pass
*144 (U-NII-3 Band)	5720	11.21	10.72	25.016	13.98	30.00	Pass
149	5745	26.07	26.69	871.235	29.40	30.00	Pass
157	5785	26.02	26.60	857.033	29.33	30.00	Pass
165	5825	26.09	26.59	862.48	29.36	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

1. For UNII-1: The directional gain = 2.84 dBi + 10log(2) = 5.85 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.
2. For UNII-2A: The directional gain = 3.04 dBi + 10log(2) = 6.05 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.05-6)”.
3. For UNII-2C: The directional gain = 3.23 dBi + 10log(2) = 6.24 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.24-6)”.
4. For UNII-3: The directional gain = 2.91 dBi + 10log(2) = 5.92 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
144	5720	109.269	20.38	20.63	19.82	211.551	23.25

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.77	24.37 > 24
60	5300	21.87	24.39 > 24
64	5320	21.82	24.38 > 24
100	5500	21.73	24.37 > 24
116	5580	21.89	24.4 > 24
140	5700	21.80	24.38 > 24
144 (U-NII-2C Band)	5720	15.88	23 < 24

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	21.05	21.00	253.243	24.04	30.00	Pass
46	5230	26.08	26.05	808.226	29.08	30.00	Pass
54	5270	20.35	20.35	216.785	23.36	23.95	Pass
62	5310	19.48	19.21	172.084	22.36	23.95	Pass
102	5510	18.90	18.09	142.042	21.52	23.76	Pass
110	5550	20.75	19.67	211.533	23.25	23.76	Pass
134	5670	20.73	19.82	214.244	23.31	23.76	Pass
*142 (U-NII-2C Band)	5710	16.88	16.61	94.567	19.76	23.76	Pass
*142 (U-NII-3 Band)	5710	7.03	6.46	9.472	9.76	30.00	Pass
151	5755	25.91	26.84	873.001	29.41	30.00	Pass
159	5795	25.96	26.79	871.987	29.41	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

1. For UNII-1: The directional gain = 2.84 dBi + 10log(2) = 5.85 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.
2. For UNII-2A: The directional gain = 3.04 dBi + 10log(2) = 6.05 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.05-6)”.
3. For UNII-2C: The directional gain = 3.23 dBi + 10log(2) = 6.24 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.24-6)”.
4. For UNII-3: The directional gain = 2.91 dBi + 10log(2) = 5.92 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
142	5710	104.039	20.17	20.62	19.93	213.746	23.30

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.78	27.2 > 24
62	5310	41.51	27.18 > 24
102	5510	41.53	27.18 > 24
110	5550	41.71	27.2 > 24
134	5670	41.78	27.2 > 24
142 (U-NII-2C Band)	5710	35.79	26.53 > 24

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	20.47	20.27	217.844	23.38	30.00	Pass
58	5290	20.47	20.25	217.355	23.37	23.95	Pass
106	5530	18.79	17.98	138.489	21.41	23.76	Pass
122	5610	20.59	20.10	216.881	23.36	23.76	Pass
*138 (U-NII-2C Band)	5690	17.50	17.07	107.167	20.30	23.76	Pass
*138 (U-NII-3 Band)	5690	4.03	3.49	4.763	6.78	30.00	Pass
155	5775	24.19	24.61	551.49	27.42	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

1. For UNII-1: The directional gain = 2.84 dBi + 10log(2) = 5.85 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.
2. For UNII-2A: The directional gain = 3.04 dBi + 10log(2) = 6.05 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.05-6)”.
3. For UNII-2C: The directional gain = 3.23 dBi + 10log(2) = 6.24 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.24-6)”.
4. For UNII-3: The directional gain = 2.91 dBi + 10log(2) = 5.92 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
138	5690	111.93	20.49	20.75	19.91	216.799	23.36

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.23	30.15 > 24
106	5530	82.90	30.18 > 24
122	5610	82.70	30.17 > 24
138 (U-NII-2C Band)	5690	75.90	29.8 > 24

802.11ac (VHT160)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain0	Chain1				
*50 (U-NII-1 Band)	5250	14.66	14.45	57.103	17.57	30.00	PASS
*50 (U-NII-2A Band)	5250	13.94	14.11	50.537	17.04	23.95	PASS
114	5570	20.11	19.88	199.84	23.01	23.76	PASS

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

1. For UNII-1: The directional gain = 2.84 dBi + 10log(2) = 5.85 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.
2. For UNII-2A: The directional gain = 3.04 dBi + 10log(2) = 6.05 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.05-6)”.
3. For UNII-2C: The directional gain = 3.23 dBi + 10log(2) = 6.24 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.24-6)”.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1		
50	5250	107.64	20.32	20.39	20.39	218.791	23.40

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50 (U-NII-2A Band)	5250	81.44	30.1 > 24
114	5570	162.87	33.11 > 24

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	21.13	21.09	258.247	24.12	30.00	Pass
40	5200	26.09	26.15	818.541	29.13	30.00	Pass
48	5240	26.08	26.10	812.889	29.10	30.00	Pass
52	5260	20.26	20.42	216.323	23.35	23.95	Pass
60	5300	20.39	20.53	222.375	23.47	23.95	Pass
64	5320	20.33	20.56	221.657	23.46	23.95	Pass
100	5500	20.69	20.01	217.45	23.37	23.76	Pass
116	5580	20.83	19.97	220.371	23.43	23.76	Pass
140	5700	19.44	18.53	159.188	22.02	23.76	Pass
*144 (U-NII-2C Band)	5720	16.86	16.39	92.08	19.64	22.76	Pass
*144 (U-NII-3 Band)	5720	11.64	11.09	27.441	14.38	30.00	Pass
149	5745	26.17	26.74	886.063	29.47	30.00	Pass
157	5785	26.12	26.70	876.996	29.43	30.00	Pass
165	5825	26.23	26.68	885.345	29.47	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

1. For UNII-1: The directional gain = 2.84 dBi + 10log(2) = 5.85 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.
2. For UNII-2A: The directional gain = 3.04 dBi + 10log(2) = 6.05 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.05-6)”.
3. For UNII-2C: The directional gain = 3.23 dBi + 10log(2) = 6.24 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.24-6)”.
4. For UNII-3: The directional gain = 2.91 dBi + 10log(2) = 5.92 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
144	5720	119.521	20.77	20.72	19.96	217.115	23.37

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.77	24.37 > 24
60	5300	21.87	24.39 > 24
64	5320	21.82	24.38 > 24
100	5500	21.73	24.37 > 24
116	5580	21.89	24.4 > 24
140	5700	21.80	24.38 > 24
144 (U-NII-2C Band)	5720	15.88	23 < 24

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	21.13	21.13	259.436	24.14	30.00	Pass
46	5230	26.18	26.13	825.158	29.17	30.00	Pass
54	5270	20.43	20.44	221.07	23.45	23.95	Pass
62	5310	19.62	19.29	176.54	22.47	23.95	Pass
102	5510	18.97	18.24	145.567	21.63	23.76	Pass
110	5550	20.85	19.82	217.559	23.38	23.76	Pass
134	5670	20.83	19.96	220.143	23.43	23.76	Pass
*142 (U-NII-2C Band)	5710	17.15	16.93	101.197	20.05	23.76	Pass
*142 (U-NII-3 Band)	5710	7.44	6.96	10.512	10.22	30.00	Pass
151	5755	26.01	26.96	895.617	29.52	30.00	Pass
159	5795	26.03	26.87	887.274	29.48	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

1. For UNII-1: The directional gain = 2.84 dBi + 10log(2) = 5.85 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.
2. For UNII-2A: The directional gain = 3.04 dBi + 10log(2) = 6.05 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.05-6)”.
3. For UNII-2C: The directional gain = 3.23 dBi + 10log(2) = 6.24 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.24-6)”.
4. For UNII-3: The directional gain = 2.91 dBi + 10log(2) = 5.92 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
142	5710	111.709	20.48	20.76	20.03	219.817	23.42

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.78	27.2 > 24
62	5310	41.51	27.18 > 24
102	5510	41.53	27.18 > 24
110	5550	41.71	27.2 > 24
134	5670	41.78	27.2 > 24
142 (U-NII-2C Band)	5710	35.79	26.53 > 24

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	20.61	20.46	226.253	23.55	30.00	Pass
58	5290	20.53	20.39	222.375	23.47	23.95	Pass
106	5530	18.93	18.05	141.989	21.52	23.76	Pass
122	5610	20.71	20.21	222.715	23.48	23.76	Pass
*138 (U-NII-2C Band)	5690	17.77	17.32	113.792	20.56	23.76	Pass
*138 (U-NII-3 Band)	5690	4.60	3.81	5.288	7.23	30.00	Pass
155	5775	24.32	24.71	566.197	27.53	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

1. For UNII-1: The directional gain = 2.84 dBi + 10log(2) = 5.85 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.
2. For UNII-2A: The directional gain = 3.04 dBi + 10log(2) = 6.05 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.05-6)”.
3. For UNII-2C: The directional gain = 3.23 dBi + 10log(2) = 6.24 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.24-6)”.
4. For UNII-3: The directional gain = 2.91 dBi + 10log(2) = 5.92 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
138	5690	119.08	20.76	20.83	20.06	222.451	23.47

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.23	30.15 > 24
106	5530	82.90	30.18 > 24
122	5610	82.70	30.17 > 24
138 (U-NII-2C Band)	5690	75.90	29.8 > 24

802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain0	Chain1				
*50 (U-NII-1 Band)	5250	15.04	14.78	61.976	17.92	30.00	PASS
*50 (U-NII-2A Band)	5250	14.41	14.41	55.212	17.42	23.95	PASS
114	5570	20.18	19.93	202.633	23.07	23.76	PASS

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

1. For UNII-1: The directional gain = 2.84 dBi + 10log(2) = 5.85 dBi < 6 dBi, so the “Determined Conducted Limit” shall not be reduced.
2. For UNII-2A: The directional gain = 3.04 dBi + 10log(2) = 6.05 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.05-6)”.
3. For UNII-2C: The directional gain = 3.23 dBi + 10log(2) = 6.24 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(6.24-6)”.

The Total Power for the straddle channel and power meter value for reference only:

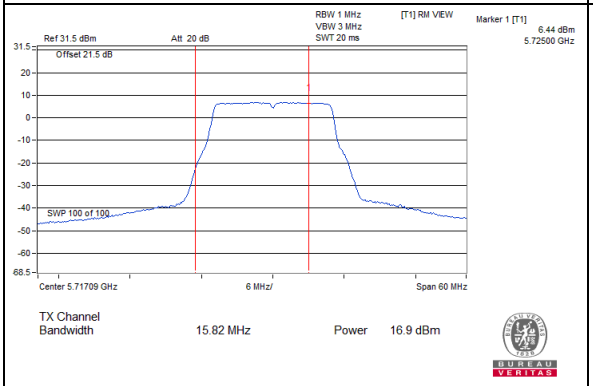
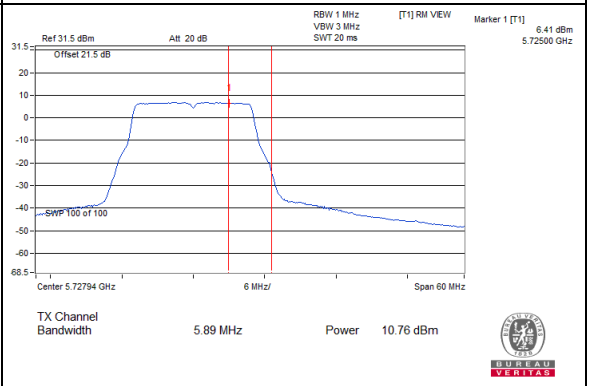
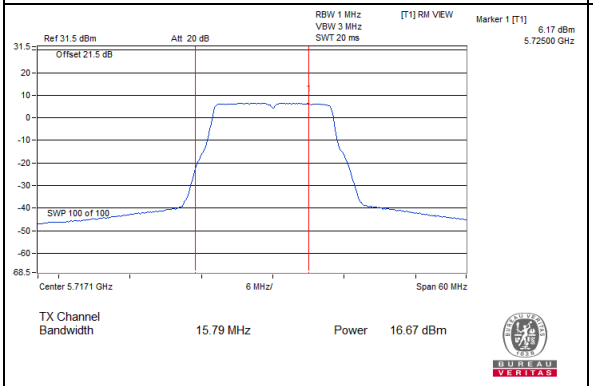
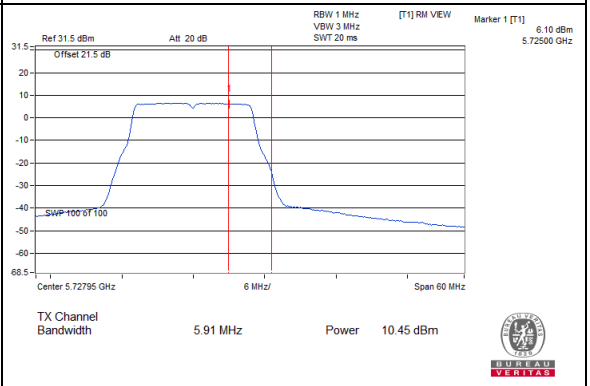
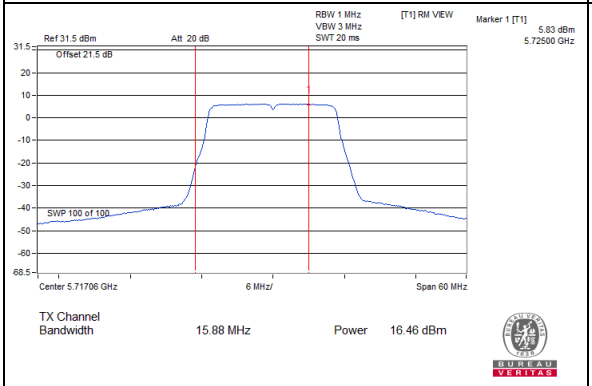
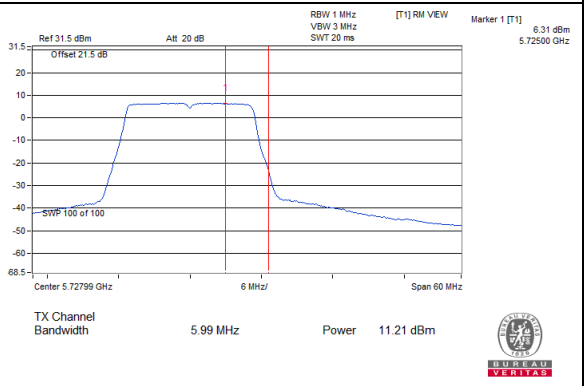
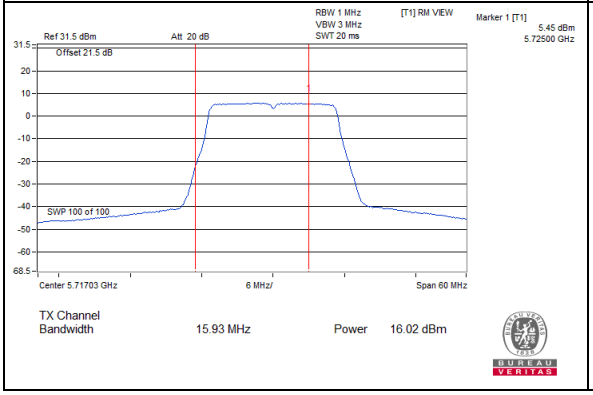
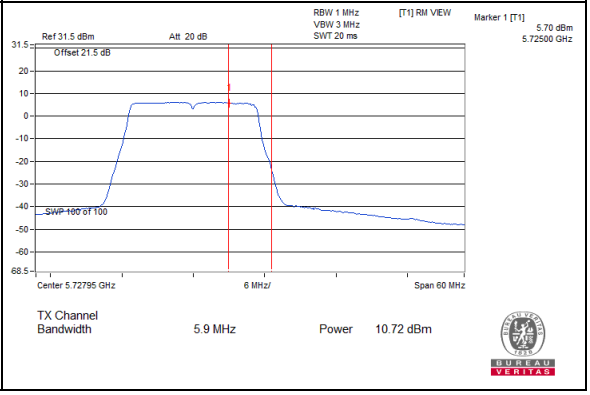
Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1		
50	5250	117.188	20.69	20.46	20.45	222.091	23.47

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50 (U-NII-2A Band)	5250	81.44	30.1 > 24
114	5570	162.87	33.11 > 24

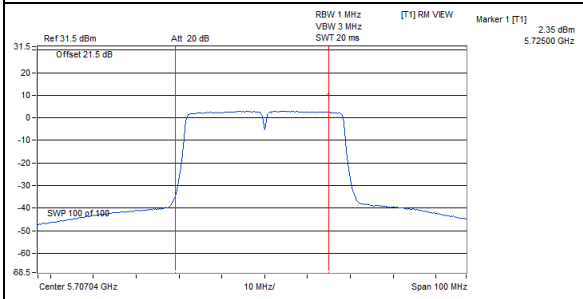
For channel straddling 5725MHz of Power

CDD Mode / Beamforming Mode

Spectrum Plot Value of Power	
802.11a_Chain 0 / CH144 (U-NII-2C Band)	**802.11a_Chain 0 / CH144 (U-NII-3 Band)**
	
802.11a_Chain 1 / CH144 (U-NII-2C Band)	**802.11a_Chain 1 / CH144 (U-NII-3 Band)**
	
802.11ac (VHT20)_Chain 0 / CH144 (U-NII-2C Band)	**802.11ac (VHT20)_Chain 0 / CH144 (U-NII-3 Band)**
	
802.11ac (VHT20)_Chain 1 / CH144 (U-NII-2C Band)	**802.11ac (VHT20)_Chain 1 / CH144 (U-NII-3 Band)**
	

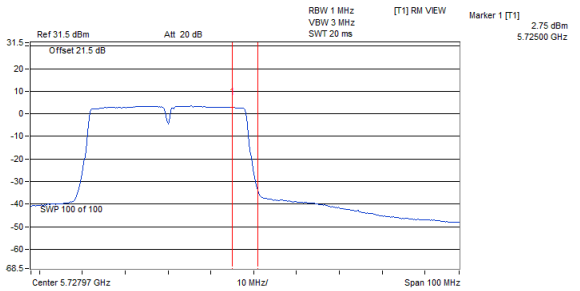
Spectrum Plot Value of Power

802.11ac (VHT40)_Chain 0 / CH142 (U-NII-2C Band)



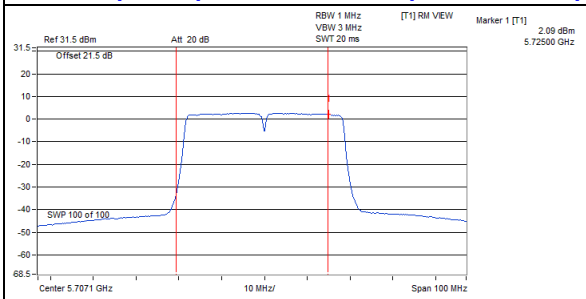
TX Channel Bandwidth 35.91 MHz Power 16.88 dBm

802.11ac (VHT40)_Chain 0 / CH142 (U-NII-3 Band)



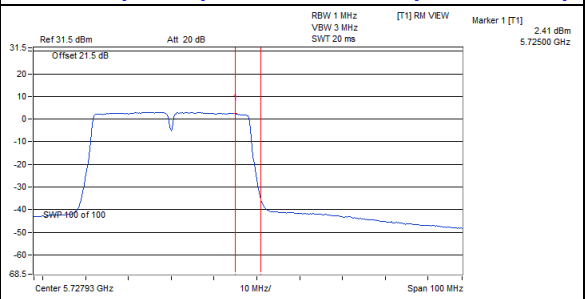
TX Channel Bandwidth 5.94 MHz Power 7.03 dBm

802.11ac (VHT40)_Chain 1 / CH142 (U-NII-2C Band)



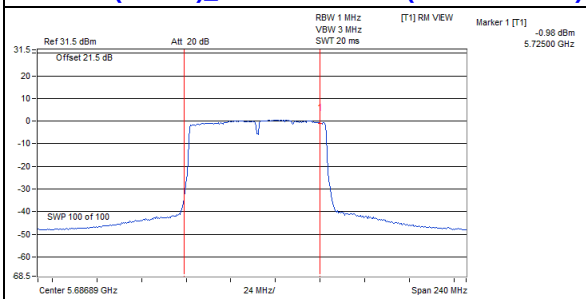
TX Channel Bandwidth 35.79 MHz Power 16.61 dBm

802.11ac (VHT40)_Chain 1 / CH142 (U-NII-3 Band)



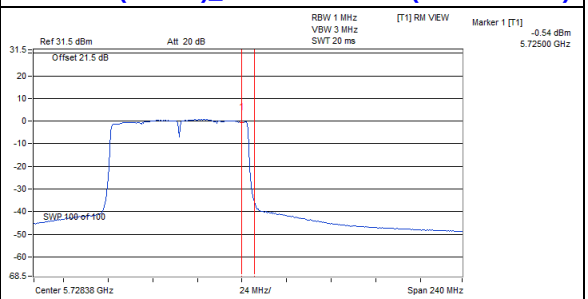
TX Channel Bandwidth 5.87 MHz Power 6.46 dBm

802.11ac (VHT80)_Chain 0 / CH138 (U-NII-2C Band)



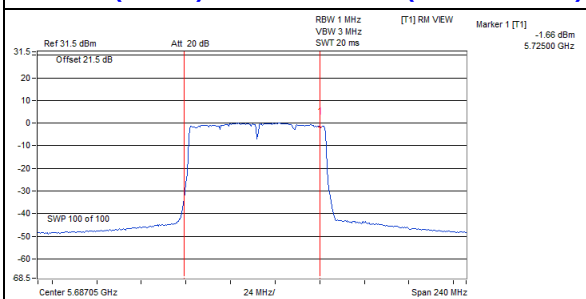
TX Channel Bandwidth 76.22 MHz Power 17.5 dBm

802.11ac (VHT80)_Chain 0 / CH138 (U-NII-3 Band)



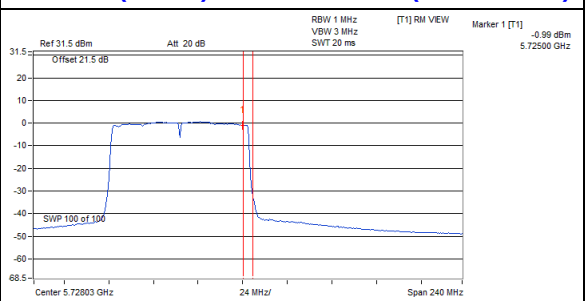
TX Channel Bandwidth 6.77 MHz Power 4.03 dBm

802.11ac (VHT80)_Chain 1 / CH138 (U-NII-2C Band)

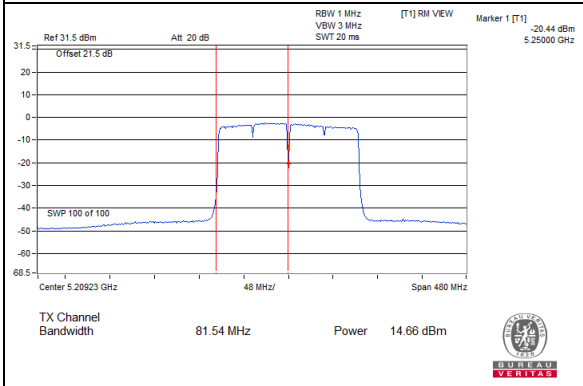
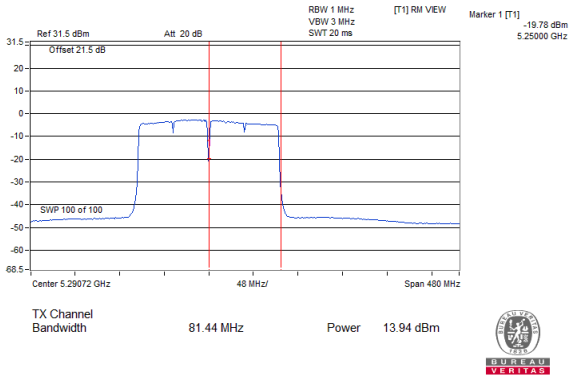
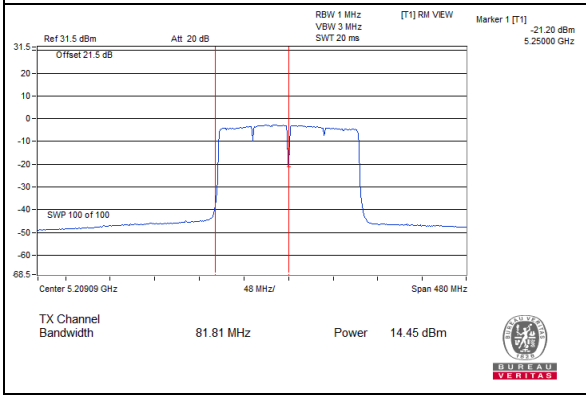
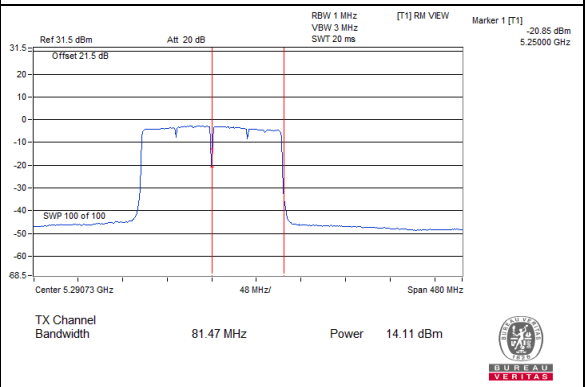


TX Channel Bandwidth 75.9 MHz Power 17.07 dBm

802.11ac (VHT80)_Chain 1 / CH138 (U-NII-3 Band)

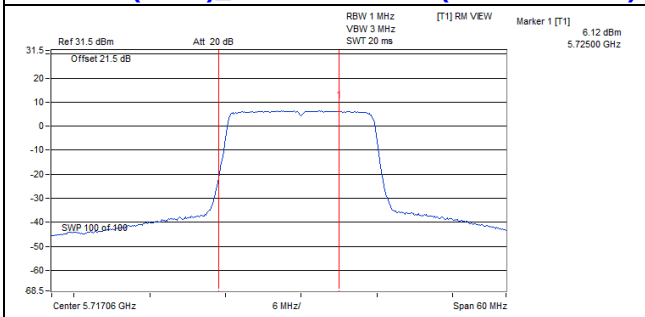


TX Channel Bandwidth 6.06 MHz Power 3.49 dBm

Spectrum Plot Value of Power	
802.11ac (VHT160)_Chain 0 / CH50 (U-NII-1 Band)	**802.11ac (VHT160)_Chain 0 / CH50 (U-NII-2A Band)**
 TX Channel Bandwidth 81.54 MHz Power 14.66 dBm	 TX Channel Bandwidth 81.44 MHz Power 13.94 dBm
802.11ac (VHT160)_Chain 1 / CH50 (U-NII-1 Band)	**802.11ac (VHT160)_Chain 1 / CH50 (U-NII-2A Band)**
 TX Channel Bandwidth 81.81 MHz Power 14.45 dBm	 TX Channel Bandwidth 81.47 MHz Power 14.11 dBm

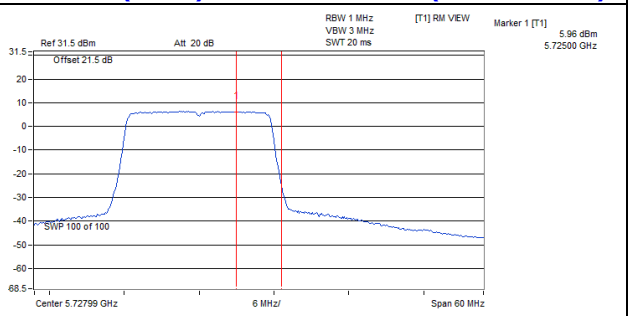
Spectrum Plot Value of Power

802.11ax (HE20)_Chain 0 / CH144 (U-NII-2C Band)



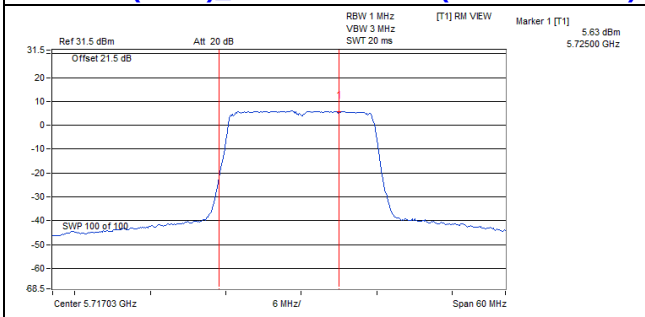
TX Channel Bandwidth 15.88 MHz Power 16.86 dBm

802.11ax (HE20)_Chain 0 / CH144 (U-NII-3 Band)



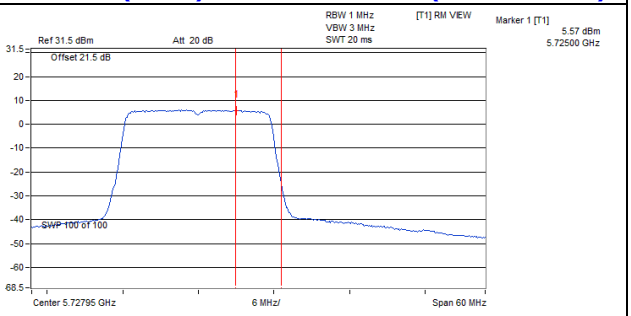
TX Channel Bandwidth 5.99 MHz Power 11.64 dBm

802.11ax (HE20)_Chain 1 / CH144 (U-NII-2C Band)



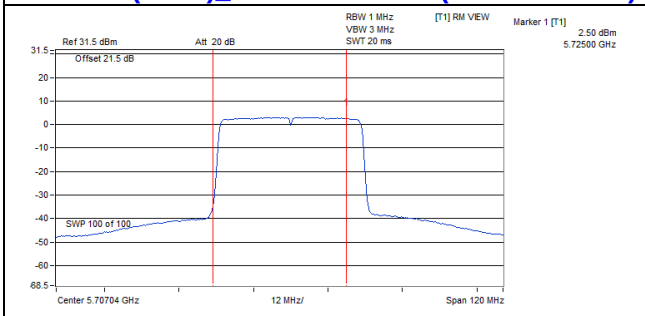
TX Channel Bandwidth 15.93 MHz Power 16.39 dBm

802.11ax (HE20)_Chain 1 / CH144 (U-NII-3 Band)



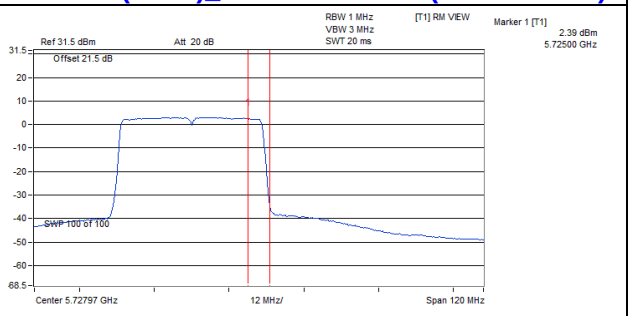
TX Channel Bandwidth 5.9 MHz Power 11.09 dBm

802.11ax (HE40)_Chain 0 / CH142 (U-NII-2C Band)



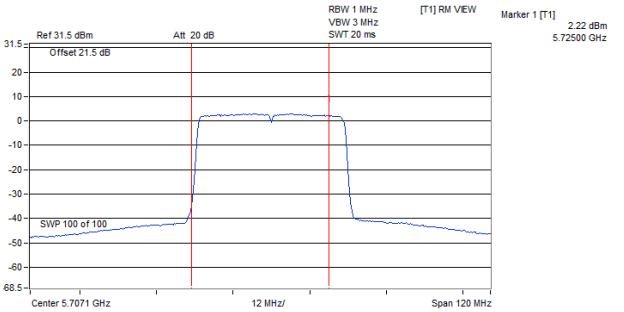
TX Channel Bandwidth 35.91 MHz Power 17.15 dBm

802.11ax (HE40)_Chain 0 / CH142 (U-NII-3 Band)



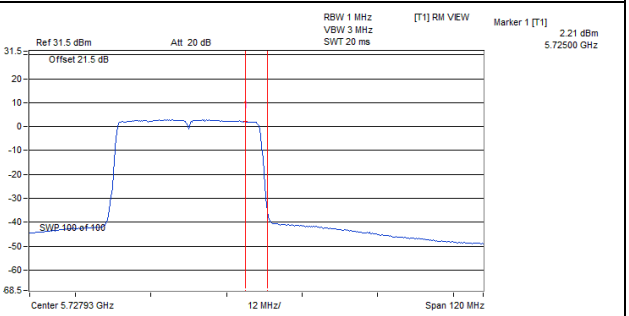
TX Channel Bandwidth 5.94 MHz Power 7.44 dBm

802.11ax (HE40)_Chain 1 / CH142 (U-NII-2C Band)

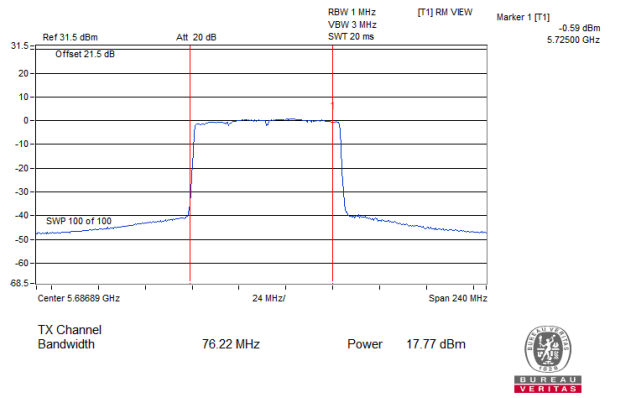
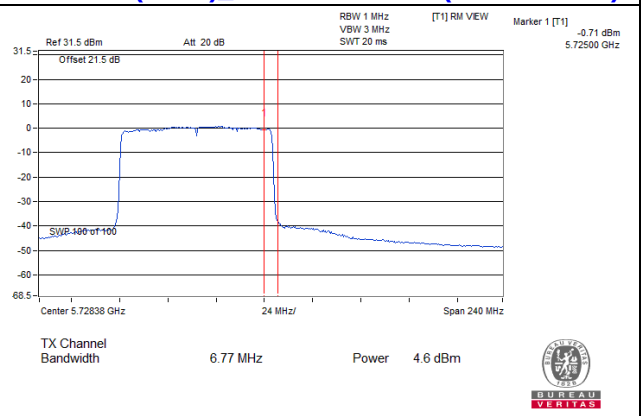
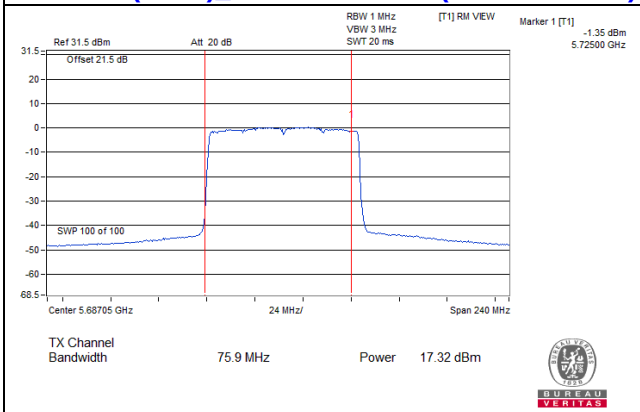
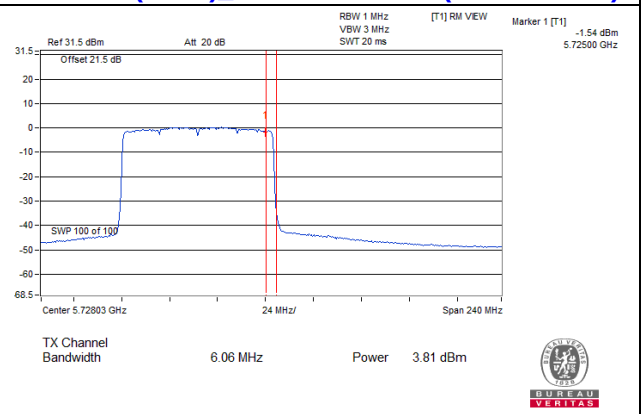
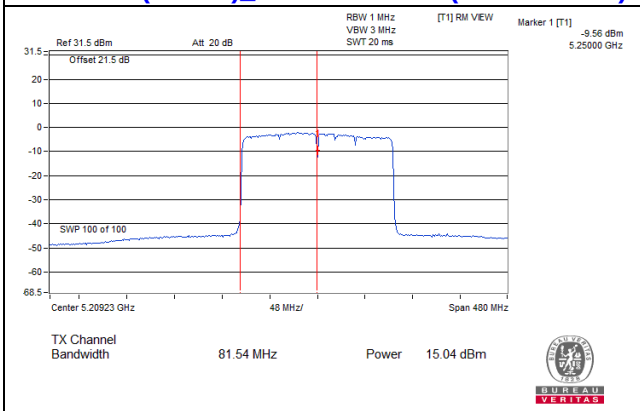
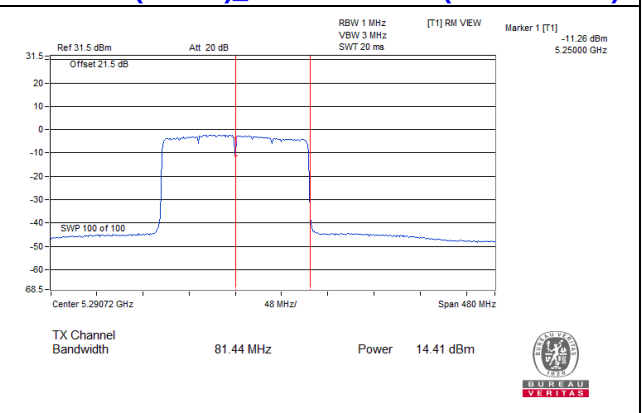
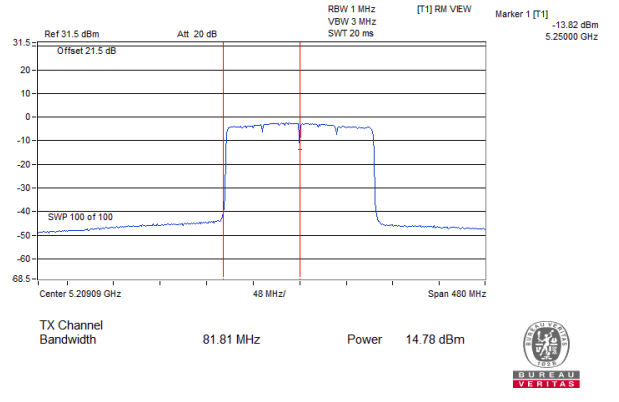
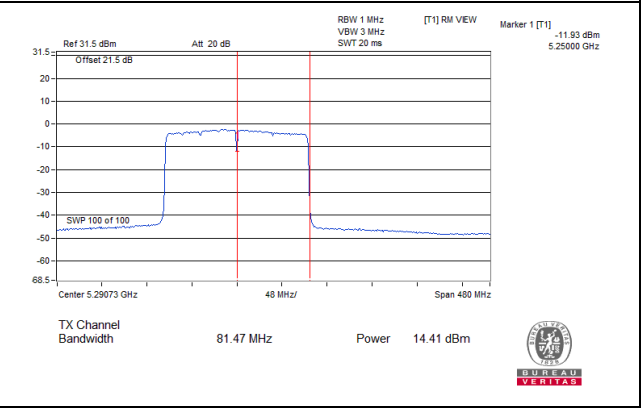


TX Channel Bandwidth 35.79 MHz Power 16.93 dBm

802.11ax (HE40)_Chain 1 / CH142 (U-NII-3 Band)



TX Channel Bandwidth 5.87 MHz Power 6.96 dBm

Spectrum Plot Value of Power	
802.11ax (HE80)_Chain 0 / CH138 (U-NII-2C Band)	**802.11ax (HE80)_Chain 0 / CH138 (U-NII-3 Band)**
 TX Channel Bandwidth 76.22 MHz Power 17.77 dBm	 TX Channel Bandwidth 6.77 MHz Power 4.6 dBm
802.11ax (HE80)_Chain 1 / CH138 (U-NII-2C Band)	**802.11ax (HE80)_Chain 1 / CH138 (U-NII-3 Band)**
 TX Channel Bandwidth 75.9 MHz Power 17.32 dBm	 TX Channel Bandwidth 6.06 MHz Power 3.81 dBm
802.11ax (HE160)_Chain 0 / CH50 (U-NII-1 Band)	**802.11ax (HE160)_Chain 0 / CH50 (U-NII-1 Band)**
 TX Channel Bandwidth 81.54 MHz Power 15.04 dBm	 TX Channel Bandwidth 81.44 MHz Power 14.41 dBm
802.11ax (HE160)_Chain 1 / CH50 (U-NII-1 Band)	**802.11ax (HE160)_Chain 1 / CH50 (U-NII-1 Band)**
 TX Channel Bandwidth 81.81 MHz Power 14.78 dBm	 TX Channel Bandwidth 81.47 MHz Power 14.41 dBm

26dB OCCUPIED BANDWIDTH

802.11a

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain0	Chain1
36	5180	22.02	21.72
40	5200	41.78	43.38
48	5240	42.15	43.78
52	5260	21.87	21.76
60	5300	21.74	21.73
64	5320	21.72	21.62
100	5500	21.66	21.56
116	5580	21.78	21.63
140	5700	21.86	21.71
144 (U-NII-2C Band)	5720	15.82	15.79
144 (U-NII-3 Band)	5720	5.89	5.91
149	5745	45.16	45.02
157	5785	44.84	45.14
165	5825	44.58	45.75

802.11ax (HE20)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain0	Chain1
36	5180	21.82	22
40	5200	41.29	44.18
48	5240	41.51	44.73
52	5260	21.77	21.96
60	5300	21.87	22
64	5320	21.82	22.03
100	5500	21.73	21.78
116	5580	21.89	21.96
140	5700	21.8	21.99
144 (U-NII-2C Band)	5720	15.88	15.93
144 (U-NII-3 Band)	5720	5.99	5.9
149	5745	47.7	49.25
157	5785	47.12	49.38
165	5825	47.39	49.91

802.11ax (HE40)

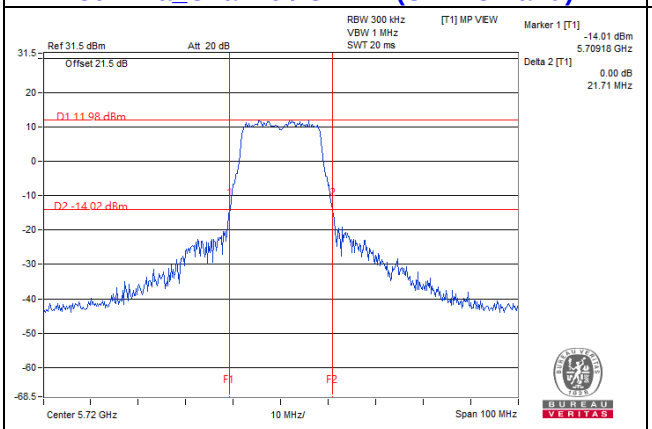
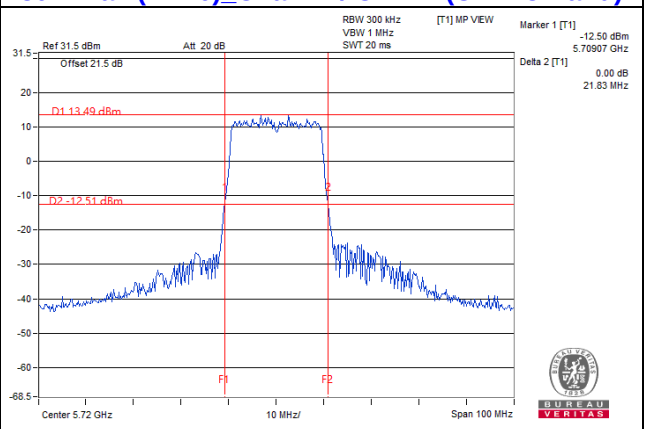
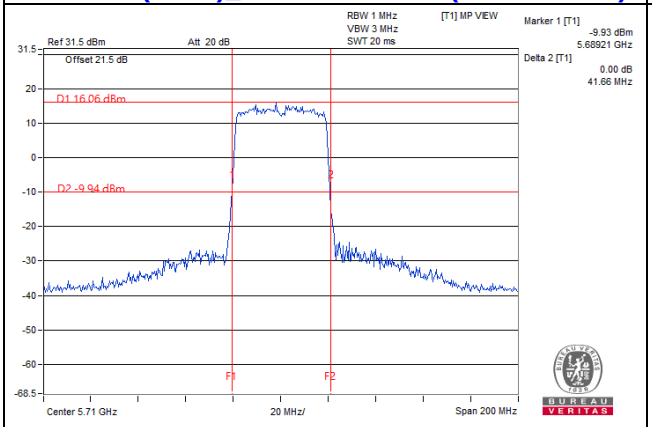
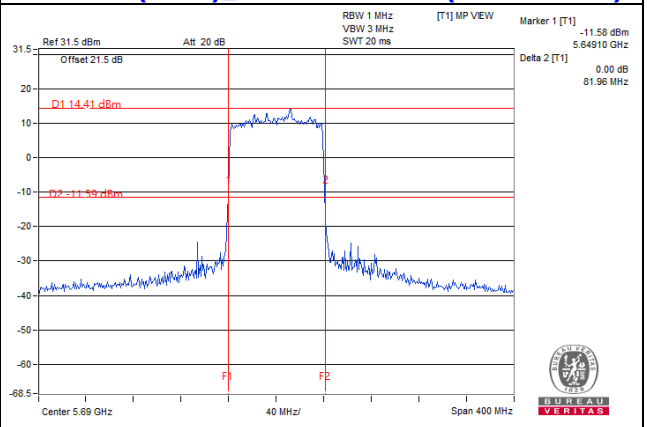
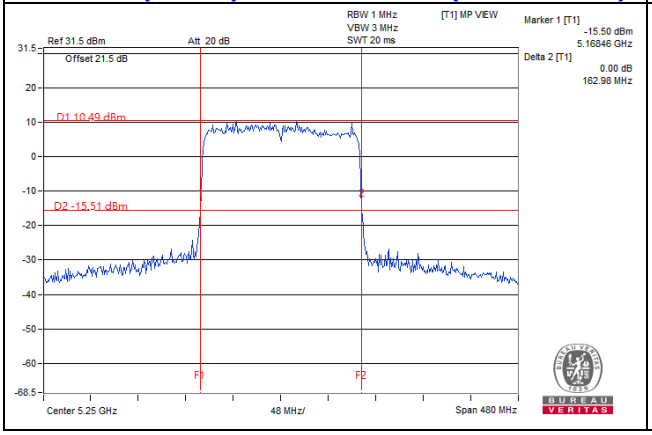
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain0	Chain1
38	5190	41.75	41.87
46	5230	63.29	73.23
54	5270	41.85	41.78
62	5310	41.51	41.99
102	5510	41.53	41.75
110	5550	41.79	41.71
134	5670	42.15	41.78
142 (U-NII-2C Band)	5710	35.91	35.79
142 (U-NII-3 Band)	5710	5.94	5.87
151	5755	89.79	91.6
159	5795	86.69	93.17

802.11ax (HE80)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain0	Chain1
42	5210	82.7	82.42
58	5290	82.94	82.23
106	5530	82.99	82.9
122	5610	82.85	82.7
138 (U-NII-2C Band)	5690	76.22	75.9
138 (U-NII-3 Band)	5690	6.77	6.06
155	5775	150.61	151.94

802.11ax (HE160)

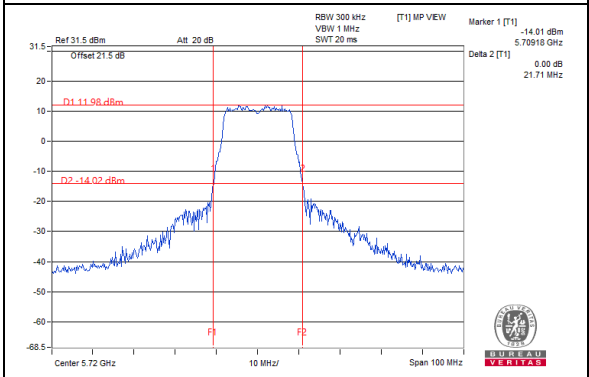
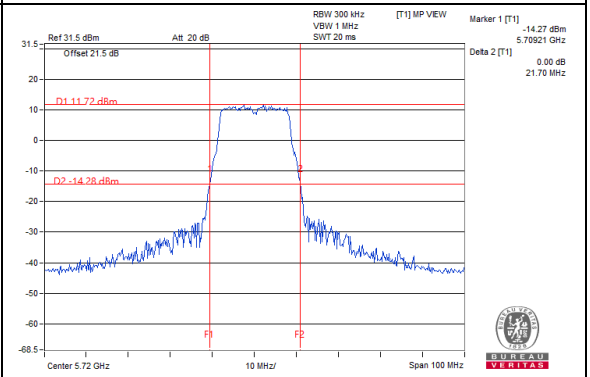
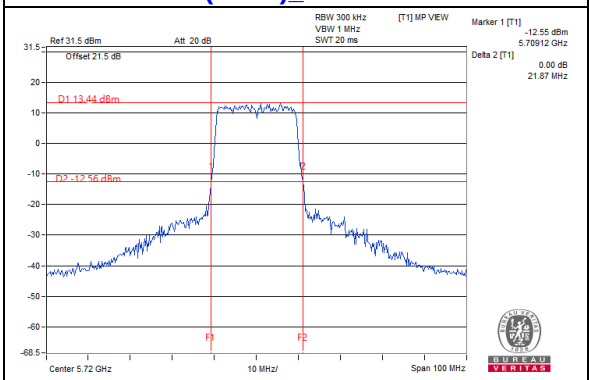
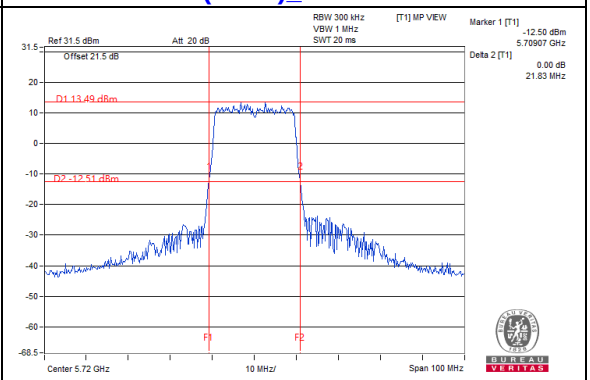
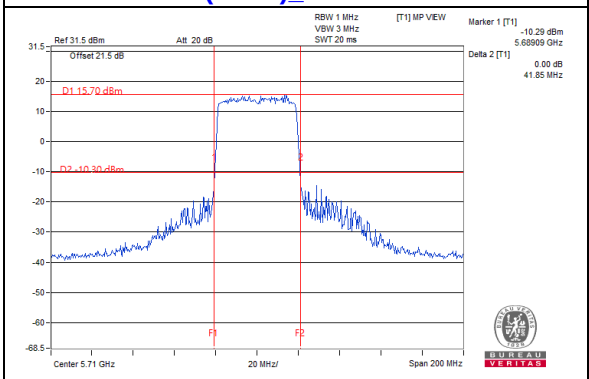
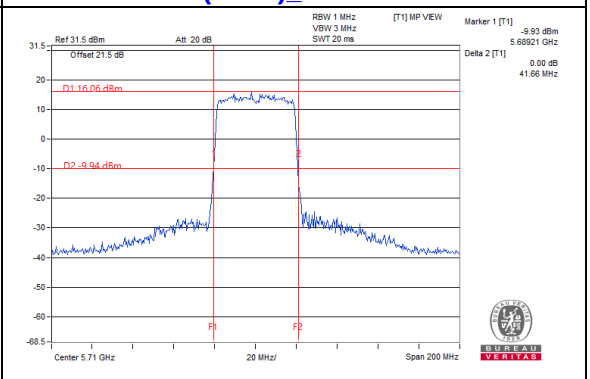
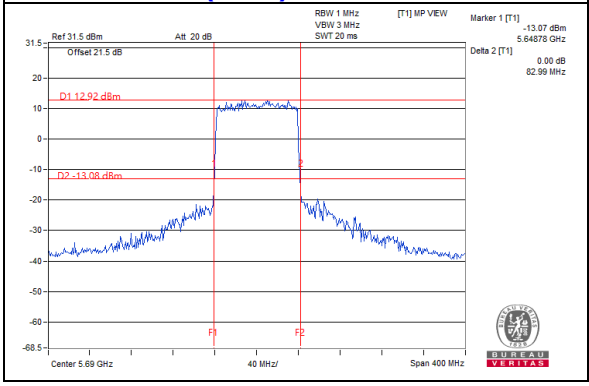
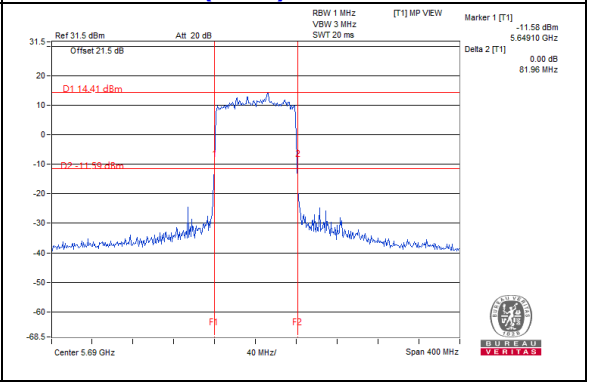
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain0	Chain1
50 (U-NII-1 Band)	5250	81.54	81.81
50 (U-NII-2A Band)	5250	81.44	81.47
114	5570	162.87	163.58

Spectrum Plot of Worst Value	
802.11a_Chain 0 / CH144 (U-NII-3 Band)	**802.11ax (HE20)_Chain 1 / CH144 (U-NII-3 Band)**
	
802.11ax (HE40)_Chain 1 / CH142 (U-NII-3 Band)	**802.11ax (HE80)_Chain 1 / CH138 (U-NII-3 Band)**
	
802.11ax (HE160)_Chain 0 / CH50 (U-NII-1 Band)	
	

Note:

For CH144 (U-NII-3) = Delta 2 - (5725MHz - Marker 1)
For CH142 (U-NII-3) = Delta 2 - (5725MHz - Marker 1)
For CH138 (U-NII-3) = Delta 2 - (5725MHz - Marker 1)
For CH50 (U-NII-1) = 5250MHz - Marker 1

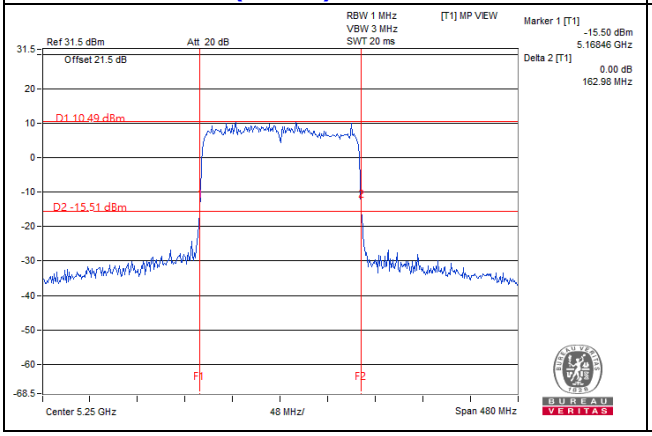
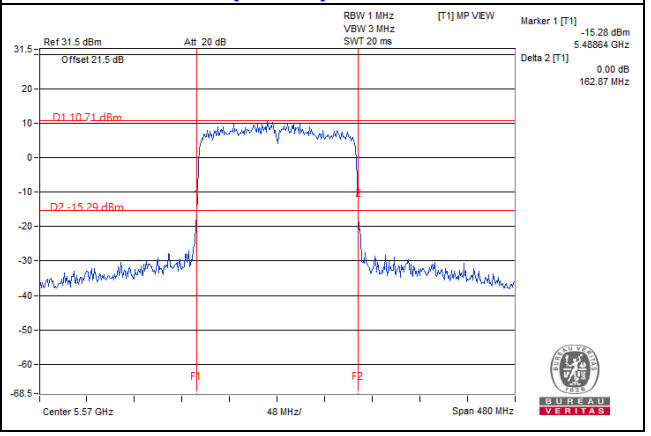
For channel straddling 5725MHz of 26dB BW

Spectrum Plot Value of 26dB BW	
802.11a_Chain 0 / CH144	**802.11a_Chain 1 / CH144**
	
802.11ax (HE20)_Chain 0 / CH144	**802.11ax (HE20)_Chain 1 / CH144**
	
802.11ax (HE40)_Chain 0 / CH142	**802.11ax (HE40)_Chain 1 / CH142**
	
802.11ax (HE80)_Chain 0 / CH138	**802.11ax (HE80)_Chain 1 / CH138**
	

Note:

For CH144 (U-NII-2C) = 5725MHz - Marker 1
For CH142 (U-NII-2C) = 5725MHz - Marker 1
For CH138 (U-NII-2C) = 5725MHz - Marker 1

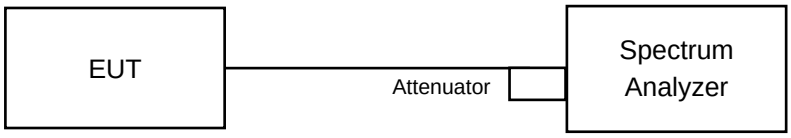
For channel straddling 5250MHz of 26dB BW

Spectrum Plot Value of 26dB BW	
802.11ax (HE160)_Chain 0 / CH50	**802.11ax (HE160)_Chain 1 / CH50**
	

Note: For CH50 (U-NII-2A) = Delta 2 – (5250MHz - Marker 1)

4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to SAMPLE. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

4.4.4 Test Results

CDD Mode

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	16.92	16.92	Pass
40	5200	17.4	17.64	Pass
48	5240	17.28	18.12	Pass
52	5260	16.92	16.92	Pass
60	5300	16.92	16.92	Pass
64	5320	16.92	17.04	Pass
100	5500	17.04	16.92	Pass
116	5580	17.04	17.04	Pass
140	5700	16.8	17.04	Pass
144 (U-NII-2C Band)	5720	13.52	13.52	Pass
144 (U-NII-3 Band)	5720	3.4	3.4	Pass
149	5745	20.88	20.04	Pass
157	5785	19.92	20.76	Pass
165	5825	20.4	22.44	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	19.08	19.08	Pass
40	5200	19.2	19.68	Pass
48	5240	19.32	19.56	Pass
52	5260	18.96	19.08	Pass
60	5300	19.08	19.08	Pass
64	5320	19.08	19.08	Pass
100	5500	19.08	19.2	Pass
116	5580	19.08	19.08	Pass
140	5700	19.08	19.08	Pass
144 (U-NII-2C Band)	5720	14.6	14.6	Pass
144 (U-NII-3 Band)	5720	4.48	4.48	Pass
149	5745	22.56	21.12	Pass
157	5785	22.2	23.76	Pass
165	5825	21.12	25.92	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
38	5190	37.68	37.68	Pass
46	5230	38.16	38.64	Pass
54	5270	37.68	38.16	Pass
62	5310	37.92	38.16	Pass
102	5510	37.68	37.92	Pass
110	5550	37.92	38.16	Pass
134	5670	37.92	37.92	Pass
142 (U-NII-2C Band)	5710	33.96	33.96	Pass
142 (U-NII-3 Band)	5710	3.72	3.72	Pass
151	5755	43.2	50.4	Pass
159	5795	42.24	53.76	Pass

802.11ax (HE80)

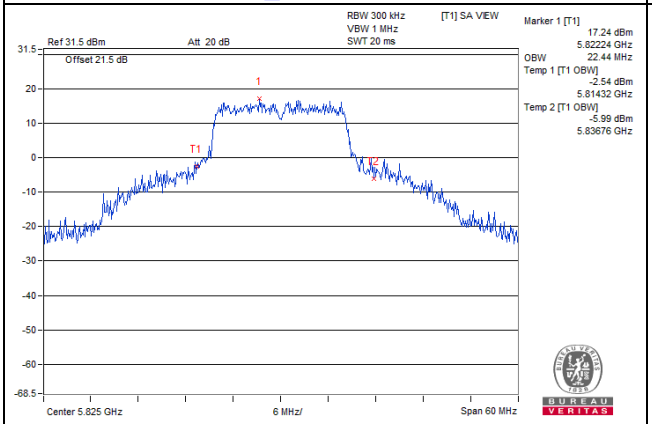
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
42	5210	77.28	77.28	Pass
58	5290	77.28	76.8	Pass
106	5530	77.28	77.28	Pass
122	5610	77.28	77.28	Pass
138 (U-NII-2C Band)	5690	73.4	73.88	Pass
138 (U-NII-3 Band)	5690	3.4	3.4	Pass
155	5775	77.76	77.28	Pass

802.11ax (HE160)

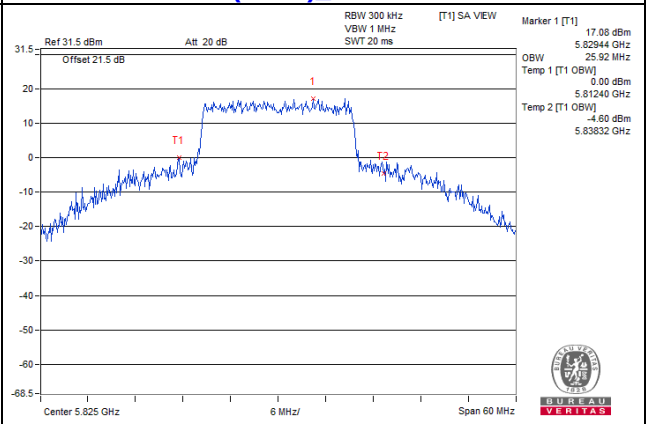
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
50 (U-NII-1 Band)	5250	78.72	77.76	Pass
50 (U-NII-2A Band)	5250	77.76	77.76	Pass
114	5570	155.52	155.52	Pass

Spectrum Plot of Max. Value

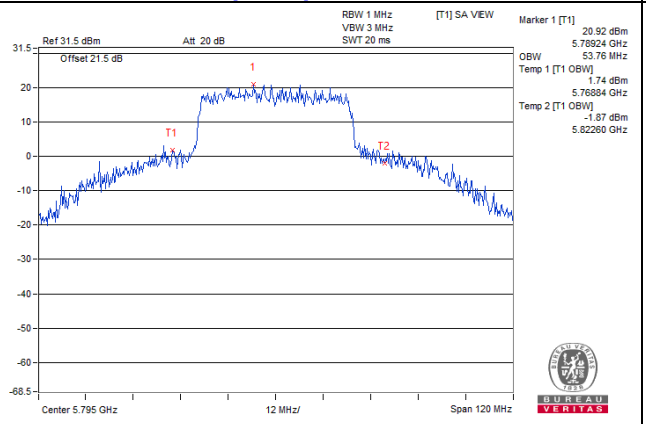
802.11a_Chain 1 / CH165



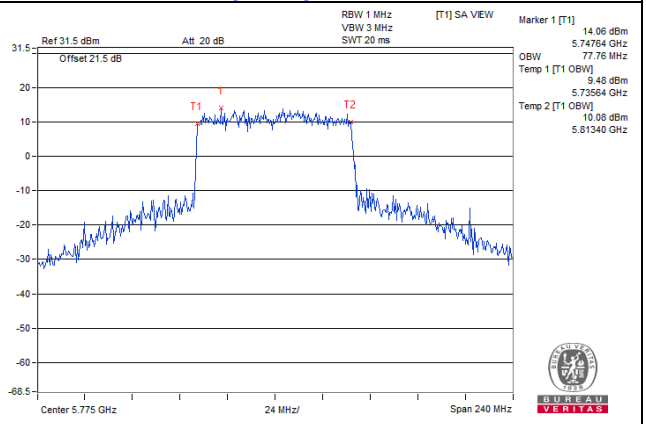
802.11ax (HE20)_Chain 1 / CH165



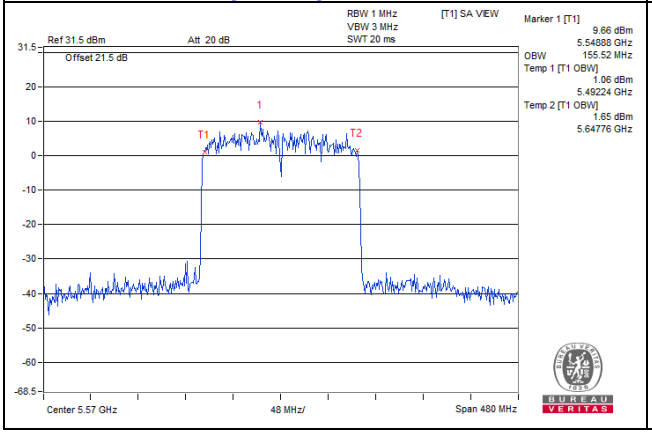
802.11ax (HE40)_Chain 1 / CH159



802.11ax (HE80)_Chain 0 / CH155

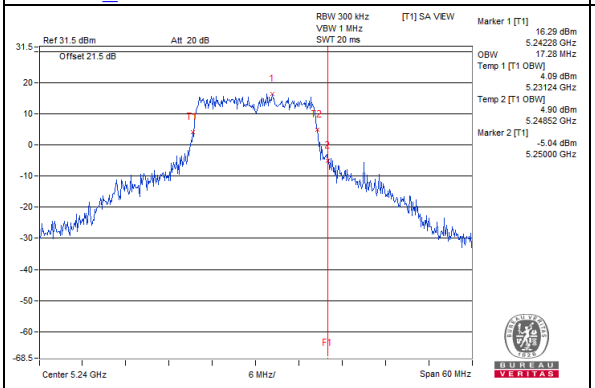


802.11ax (HE160)_Chain 0 / CH114

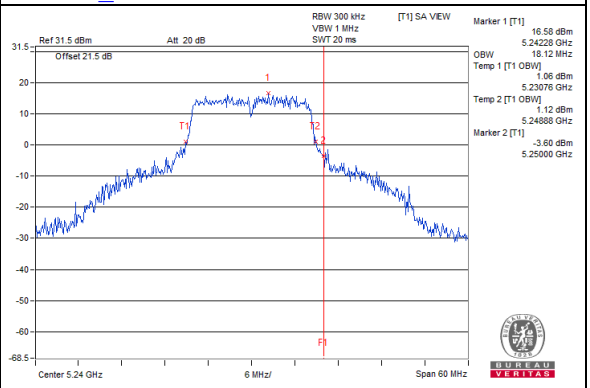


Spectrum Plot for near by DFS band
(DFS is required, if 99% OCP straddle into U-NII-2A band)

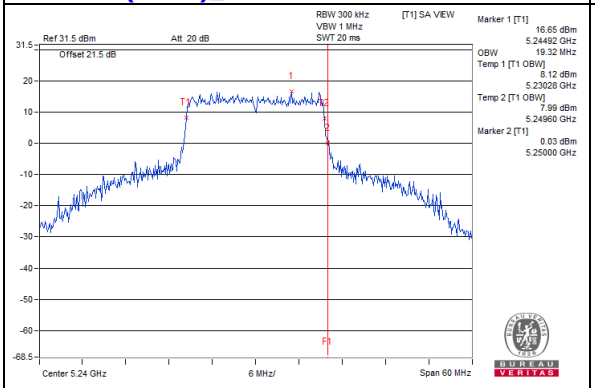
802.11a_Chain 0 / CH48



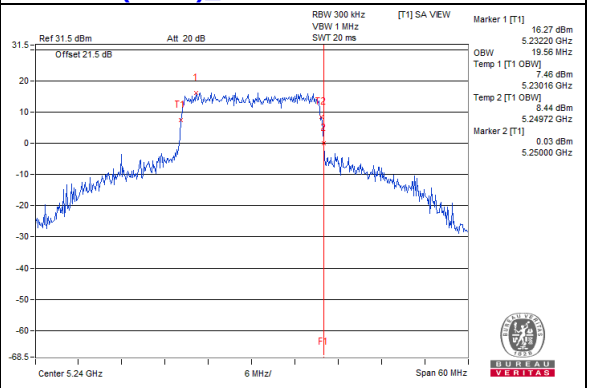
802.11a_Chain 1 / CH48



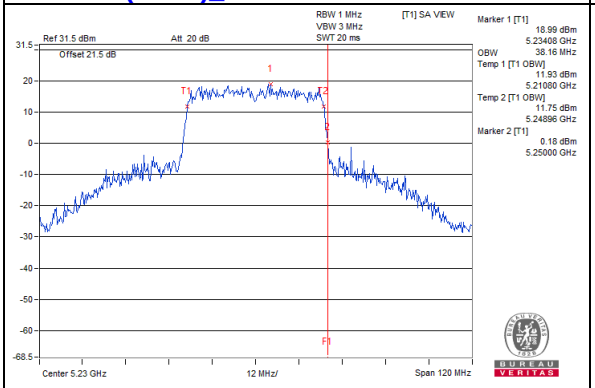
802.11ax (HE20)_Chain 0 / CH48



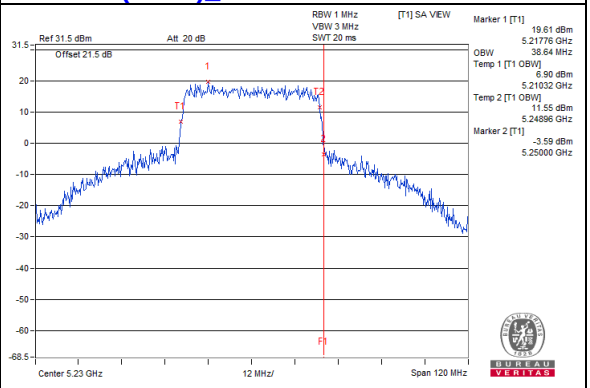
802.11ax (HE20)_Chain 1 / CH48



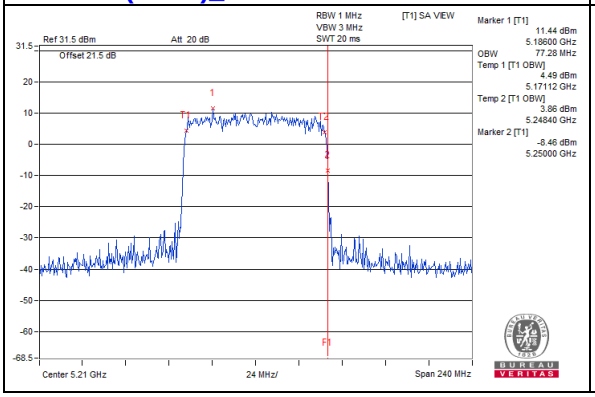
802.11ax (HE40)_Chain 0 / CH46



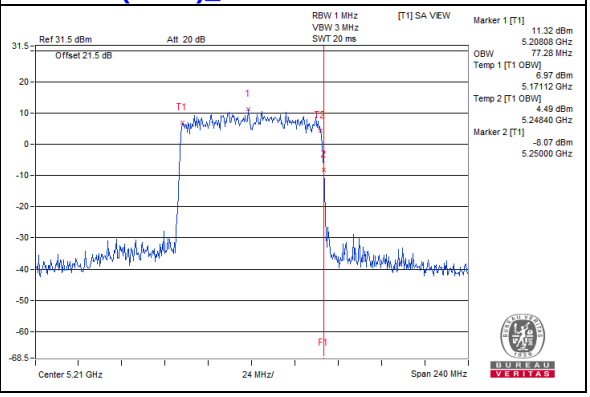
802.11ax (HE40)_Chain 1 / CH46



802.11ax (HE80)_Chain 0 / CH42

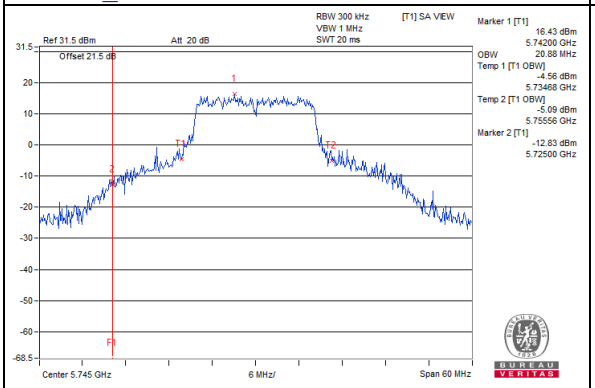


802.11ax (HE80)_Chain 1 / CH42

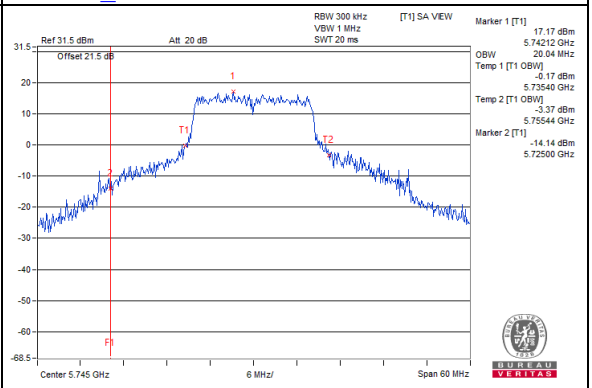


Spectrum Plot for near by DFS band
(DFS is required, if 99% OCP straddle into U-NII-2C band)

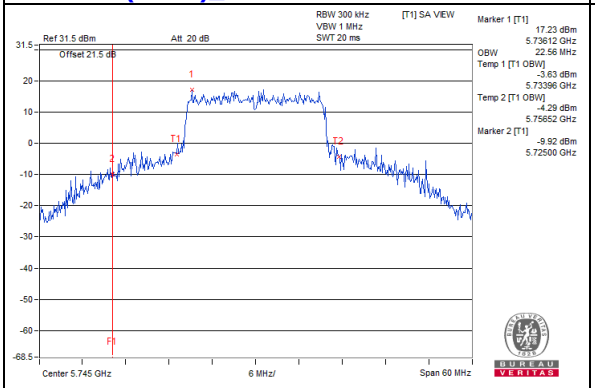
802.11a_Chain 0 / CH149



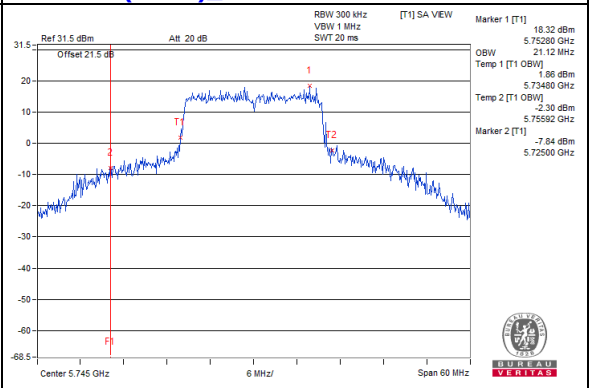
802.11a_Chain 1 / CH149



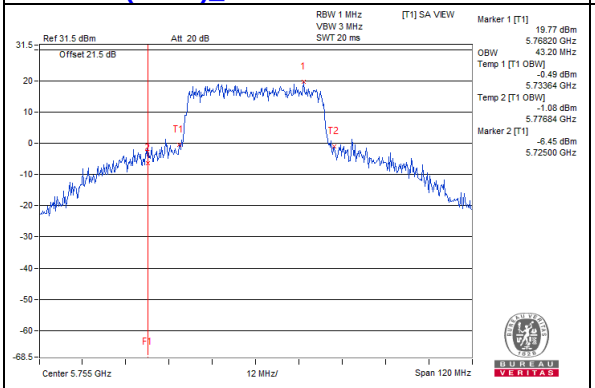
802.11ax (HE20)_Chain 0 / CH149



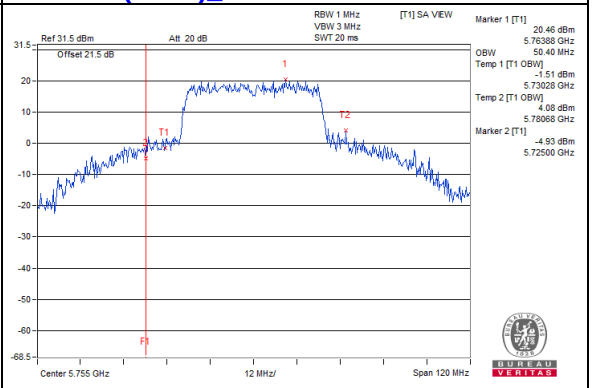
802.11ax (HE20)_Chain 1 / CH149



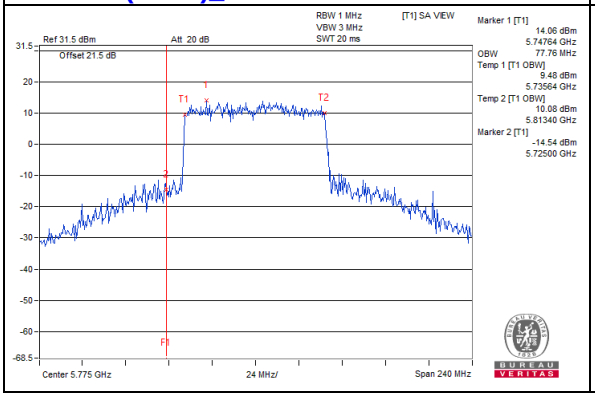
802.11ax (HE40)_Chain 0 / CH151



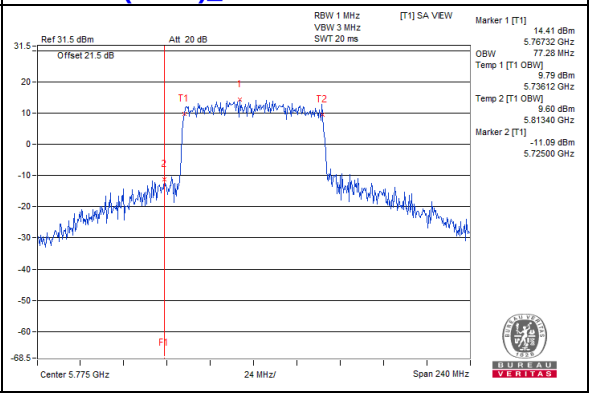
802.11ax (HE40)_Chain 1 / CH151



802.11ax (HE80)_Chain 0 / CH155



802.11ax (HE80)_Chain 1 / CH155

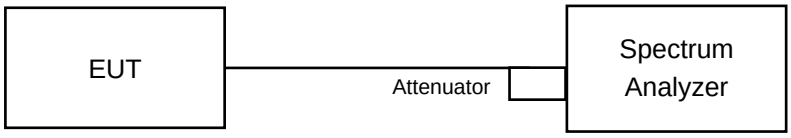


4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	17dBm/ MHz
		Fixed point-to-point Access Point	
	√	Indoor Access Point	
		Client device	11dBm/ MHz
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

For 802.11b, 802.11ax (HE20), 802.11ax (HE40), 802.11ax (HE80)

For U-NII-1, U-NII-2A, U-NII-2C band:

Using method SA-1

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3. Sweep time = auto, trigger set to “free run”.
4. Trace average at least 100 traces in power averaging mode.
5. Record the max value

For U-NII-3 band:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
4. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500kHz/300kHz)
5. Sweep time = auto, trigger set to “free run”.
6. Trace average at least 100 traces in power averaging mode.
7. Record the max value

For 802.11ax (HE160)

For U-NII-1, U-NII-2A, U-NII-2C band:

Using method SA-2

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3. Sweep time = auto, trigger set to “free run”.
4. Trace average at least 100 traces in power averaging mode.
5. Record the max value and add 10 log (1/duty cycle)

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

Same as Item 4.3.6.

4.5.7 Test Results

For U-NII-1, U-NII-2A, U-NII-2C band:

CDD Mode

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
36	5180	8.71	8.55	11.64	17.00	Pass
40	5200	11.59	11.46	14.54	17.00	Pass
48	5240	11.82	11.99	14.92	17.00	Pass
52	5260	6.82	6.89	9.87	10.95	Pass
60	5300	6.66	6.99	9.84	10.95	Pass
64	5320	6.82	7.15	10.00	10.95	Pass
100	5500	7.60	6.89	10.27	10.76	Pass
116	5580	7.02	6.47	9.76	10.76	Pass
140	5700	6.06	5.26	8.69	10.76	Pass
144 (U-NII-2C Band)	5720	6.70	6.34	9.53	10.76	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For UNII-1: The directional gain is 2.84 dBi + 10log(2) = 5.85 dBi < 6dBi, so there is no need to reduced the power density.
3. For UNII-2A: The directional gain is 3.04 dBi + 10log(2) = 6.05 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.05-6) = 10.95 dBm.
4. For UNII-2C: The directional gain is 3.23 dBi + 10log(2) = 6.24 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.24-6) = 10.76 dBm.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
36	5180	6.67	6.90	9.80	17.00	Pass
40	5200	11.14	11.27	14.22	17.00	Pass
48	5240	11.39	11.87	14.65	17.00	Pass
52	5260	5.93	6.74	9.36	10.95	Pass
60	5300	5.98	6.85	9.45	10.95	Pass
64	5320	6.34	6.95	9.67	10.95	Pass
100	5500	6.89	6.43	9.68	10.76	Pass
116	5580	6.27	6.03	9.16	10.76	Pass
140	5700	4.55	3.92	7.26	10.76	Pass
144 (U-NII-2C Band)	5720	6.18	5.76	8.99	10.76	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For UNII-1: The directional gain is 2.84 dBi + 10log(2) = 5.85 dBi < 6dBi, so there is no need to reduced the power density.
3. For UNII-2A: The directional gain is 3.04 dBi + 10log(2) = 6.05 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.05-6) = 10.95 dBm.
4. For UNII-2C: The directional gain is 3.23 dBi + 10log(2) = 6.24 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.24-6) = 10.76 dBm.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
38	5190	2.87	3.43	6.17	17.00	Pass
46	5230	8.23	8.59	11.42	17.00	Pass
54	5270	3.13	3.23	6.19	10.95	Pass
62	5310	1.91	1.97	4.95	10.95	Pass
102	5510	2.20	1.15	4.72	10.76	Pass
110	5550	4.23	3.04	6.69	10.76	Pass
134	5670	2.86	2.63	5.76	10.76	Pass
142 (U-NII-2C Band)	5710	3.09	2.81	5.96	10.76	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For UNII-1: The directional gain is 2.84 dBi + 10log(2) = 5.85 dBi < 6dBi, so there is no need to reduced the power density.
3. For UNII-2A: The directional gain is 3.04 dBi + 10log(2) = 6.05 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.05-6) = 10.95 dBm.
4. For UNII-2C: The directional gain is 3.23 dBi + 10log(2) = 6.24 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.24-6) = 10.76 dBm.

802.11ax (HE80)

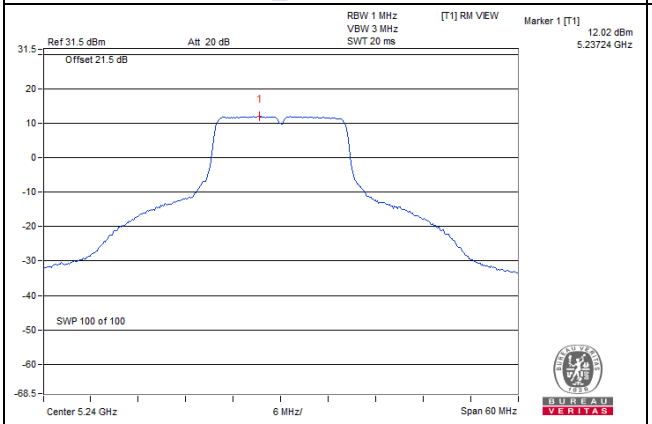
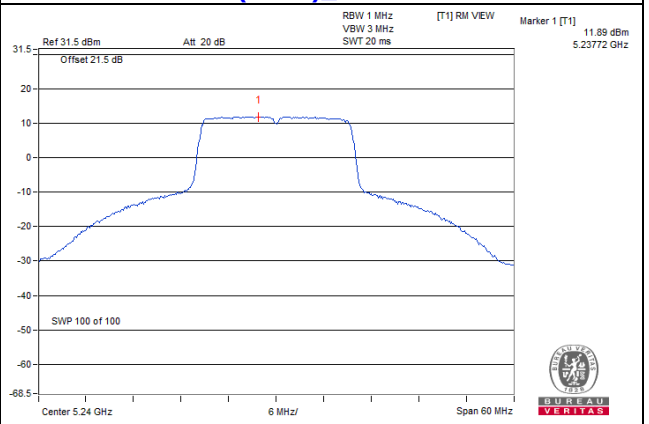
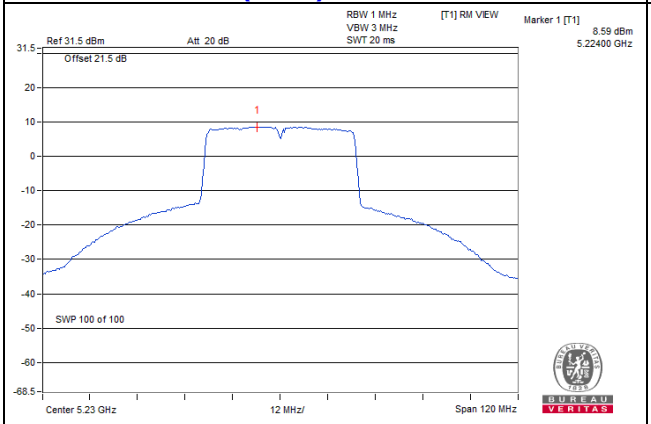
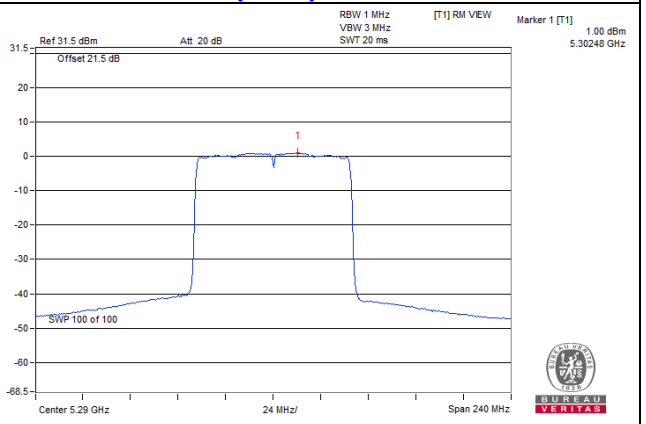
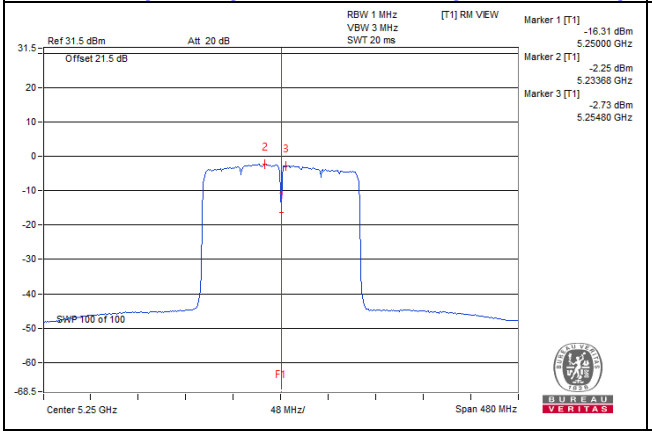
Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
42	5210	0.49	0.39	3.45	17.00	Pass
58	5290	0.71	1.00	3.87	10.95	Pass
106	5530	-0.46	-1.79	1.94	10.76	Pass
122	5610	0.80	0.12	3.48	10.76	Pass
138 (U-NII-2C Band)	5690	0.67	0.10	3.40	10.76	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For UNII-1: The directional gain is 2.84 dBi + 10log(2) = 5.85 dBi < 6dBi, so there is no need to reduced the power density.
3. For UNII-2A: The directional gain is 3.04 dBi + 10log(2) = 6.05 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.05-6) = 10.95 dBm.
4. For UNII-2C: The directional gain is 3.23 dBi + 10log(2) = 6.24 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.24-6) = 10.76 dBm.

802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
50 (U-NII-1)	5250	-2.25	-2.52	0.11	0.74	17.00	Pass
50 (U-NII-2A)	5250	-2.70	-2.84	0.11	0.35	10.95	Pass
114	5570	-2.45	-3.36	0.11	0.24	10.76	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For UNII-1: The directional gain is 2.84 dBi + 10log(2) = 5.85 dBi < 6dBi, so there is no need to reduced the power density.
3. For UNII-2A: The directional gain is 3.04 dBi + 10log(2) = 6.05 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.05-6) = 10.95 dBm.
4. For UNII-2C: The directional gain is 3.23 dBi + 10log(2) = 6.24 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.24-6) = 10.76 dBm.

Spectrum Plot of Worst Value	
802.11a_Chain 1 / CH48	**802.11ax (HE20)_Chain 1 / CH48**
	
802.11ax (HE40)_Chain 1 / CH46	**802.11ax (HE80)_Chain 1 / CH58**
	
802.11ax (HE160)_Chain 0 / CH50 (U-NII-1 Band)	
	

For U-NII-3 band:

CDD Mode

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1				
144 (U-NII-3 Band)	5720	-1.05	-1.60	1.69	3.91	30.00	Pass
149	5745	4.40	4.91	7.67	9.89	30.00	Pass
157	5785	4.34	5.05	7.72	9.94	30.00	Pass
165	5825	4.23	5.00	7.64	9.86	30.00	Pass

Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. The directional gain is 2.91 dBi + 10log(2) = 5.92 dBi < 6dBi, so there is no need to reduced the power density.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1				
144 (U-NII-3 Band)	5720	-2.19	-3.01	0.43	2.65	30.00	Pass
149	5745	3.25	3.87	6.58	8.80	30.00	Pass
157	5785	3.16	4.03	6.63	8.85	30.00	Pass
165	5825	3.16	4.02	6.62	8.84	30.00	Pass

Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. The directional gain is 2.91 dBi + 10log(2) = 5.92 dBi < 6dBi, so there is no need to reduced the power density.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1				
142 (U-NII-3 Band)	5710	-5.80	-6.21	-2.99	-0.77	30.00	Pass
151	5755	0.37	1.27	3.85	6.07	30.00	Pass
159	5795	0.33	1.31	3.86	6.08	30.00	Pass

Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. The directional gain is 2.91 dBi + 10log(2) = 5.92 dBi < 6dBi, so there is no need to reduced the power density.

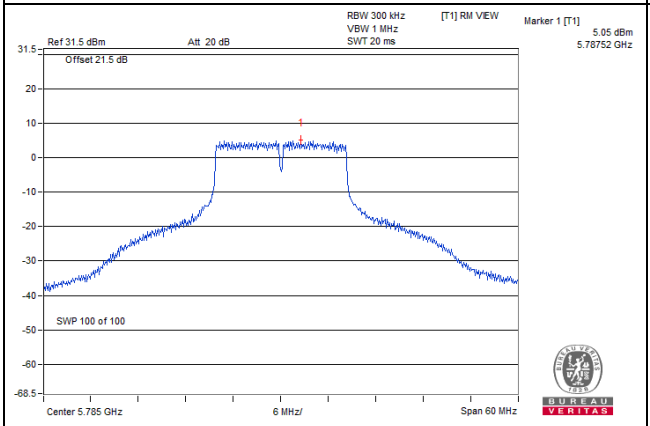
802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1				
138 (U-NII-3 Band)	5690	-8.88	-9.45	-6.15	-3.93	30.00	Pass
155	5775	-4.69	-4.01	-1.33	0.89	30.00	Pass

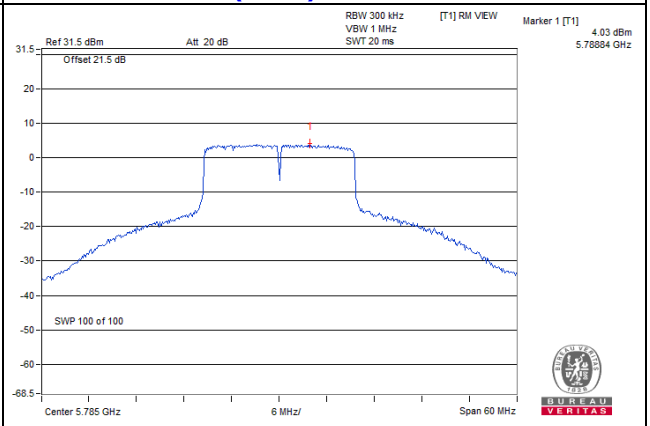
Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. The directional gain is 2.91 dBi + 10log(2) = 5.92 dBi < 6dBi, so there is no need to reduced the power density.

Spectrum Plot of Worst Value

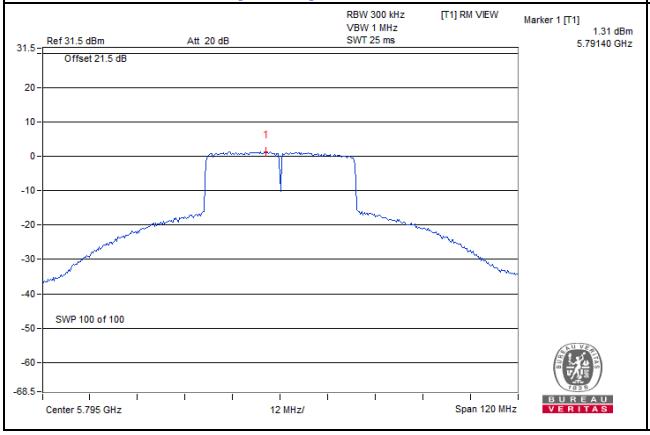
802.11a_Chain 1 / CH157



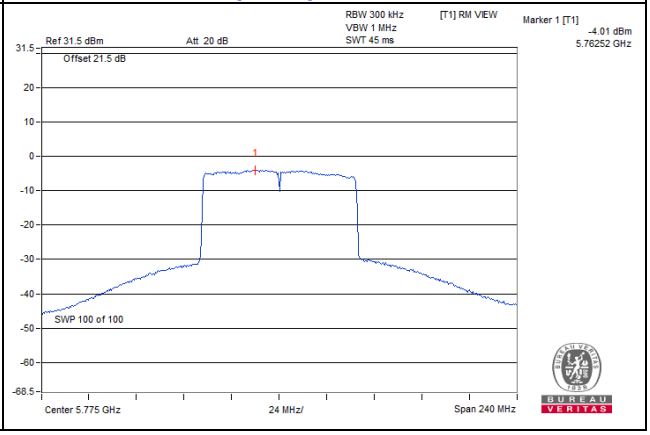
802.11ax (HE20)_Chain 1 / CH157



802.11ax (HE40)_Chain 1 / CH159



802.11ax (HE80)_Chain 1 / CH155

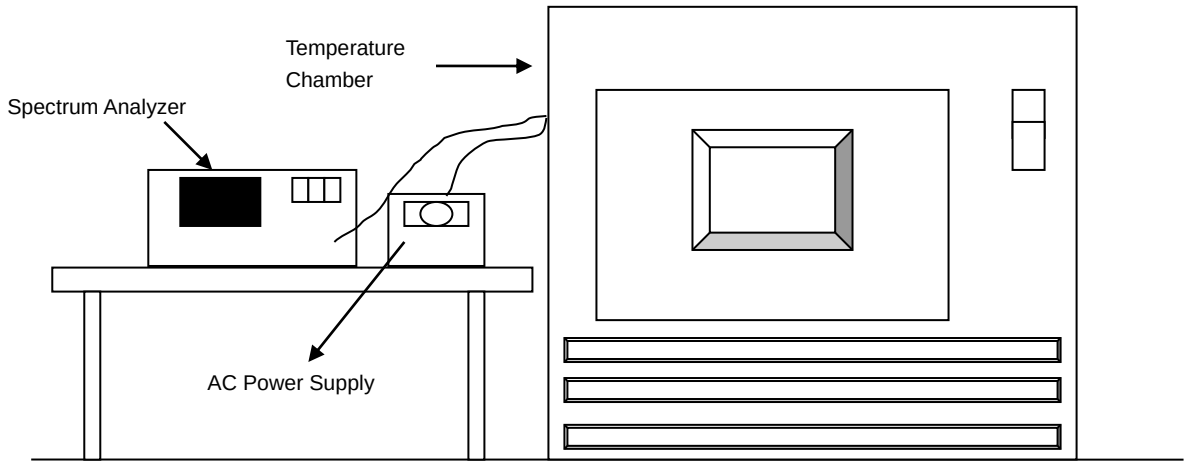


4.6 Frequency Stability Measurement

4.6.1 Limits of Frequency Stability Measurement

The frequency of the carrier signal shall be maintained within band of operation

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
b. Turn the EUT on and couple its output to a spectrum analyzer.
c. Turn the EUT off and set the chamber to the highest temperature specified.
d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes.
e. Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.
f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

Set the EUT transmit at un-modulation mode to test frequency stability.

4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
TEMP. (℃)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
40	120	5179.9867	Pass	5179.9862	Pass	5179.9893	Pass	5179.9864	Pass
30	120	5180.0027	Pass	5180.0023	Pass	5180.0024	Pass	5180.0028	Pass
20	120	5180.0157	Pass	5180.0126	Pass	5180.0132	Pass	5180.015	Pass
10	120	5179.9902	Pass	5179.9865	Pass	5179.9897	Pass	5179.9878	Pass
0	120	5179.9901	Pass	5179.9901	Pass	5179.9891	Pass	5179.9907	Pass

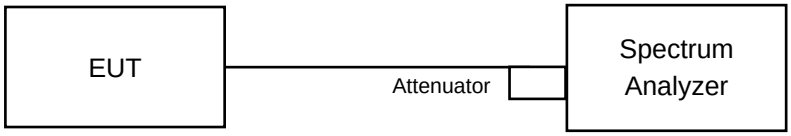
Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
TEMP. (℃)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
20	138	5180.015	Pass	5180.012	Pass	5180.0126	Pass	5180.0148	Pass
	120	5180.0157	Pass	5180.0126	Pass	5180.0132	Pass	5180.015	Pass
	102	5180.0155	Pass	5180.0121	Pass	5180.0139	Pass	5180.0146	Pass

4.7 6dB Bandwidth Measurement

4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 Test Procedure

MEASUREMENT PROCEDURE REF

a. Set resolution bandwidth (RBW) = 100kHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.7.7 Test Results

CDD Mode

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
144 (U-NII-3 Band)	5720	3.19	3.18	Pass
149	5745	16.42	16.42	Pass
157	5785	16.43	16.41	Pass
165	5825	16.42	16.41	Pass

802.11ax (HE20)

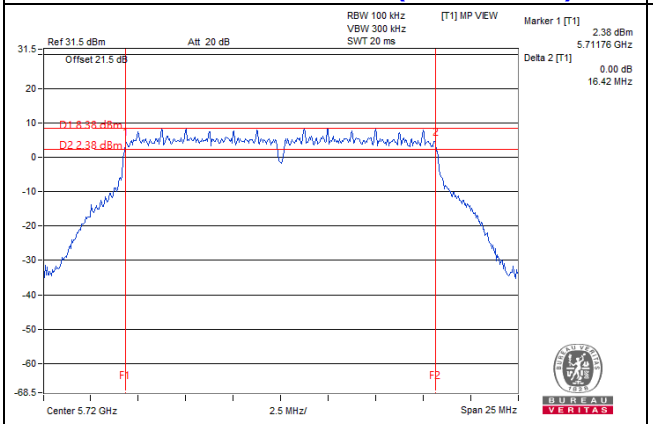
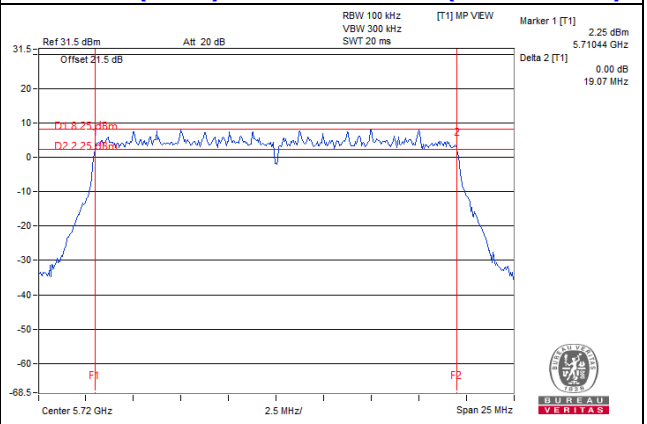
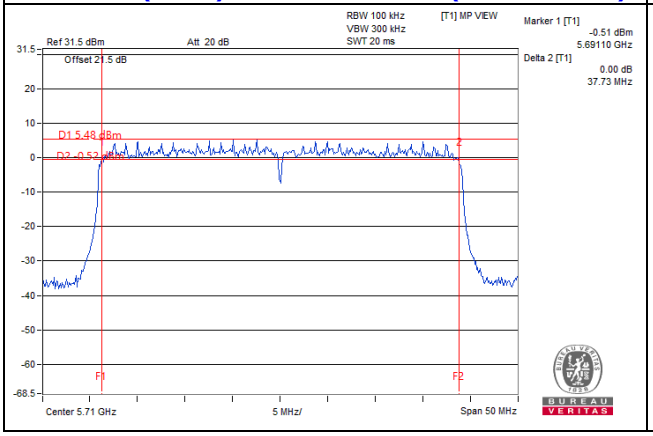
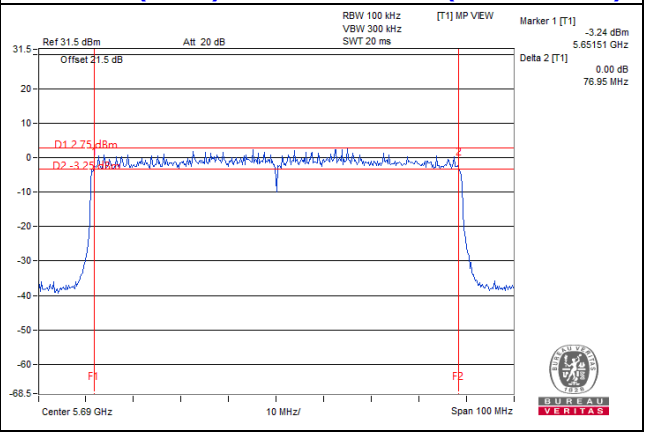
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
144 (U-NII-3 Band)	5720	4.56	4.51	Pass
149	5745	19.01	19.01	Pass
157	5785	19.01	18.93	Pass
165	5825	18.96	18.71	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
142 (U-NII-3 Band)	5710	3.87	3.83	Pass
151	5755	37.86	37.79	Pass
159	5795	37.92	37.78	Pass

802.11ax (HE80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
138 (U-NII-3 Band)	5690	3.85	3.46	Pass
155	5775	77.49	77.18	Pass

Spectrum Plot of Worst Value	
802.11a_Chain 1 / CH144 (U-NII-3 Band)	**802.11ax (HE20)_Chain 1 / CH144 (U-NII-3 Band)**
	
802.11ax (HE40)_Chain 1 / CH142 (U-NII-3 Band)	**802.11ax (HE80)_Chain 1 / CH138 (U-NII-3 Band)**
	

Note: The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

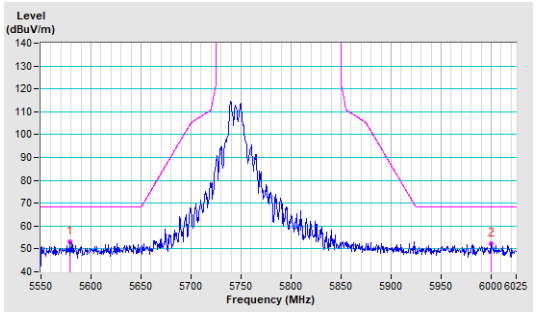
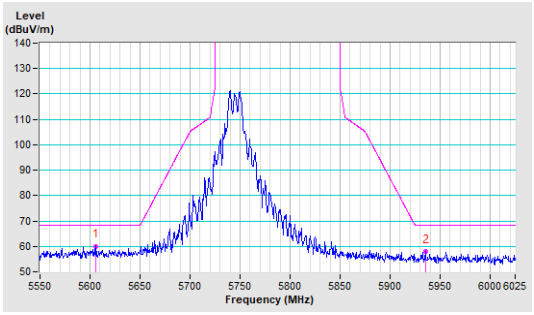
5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

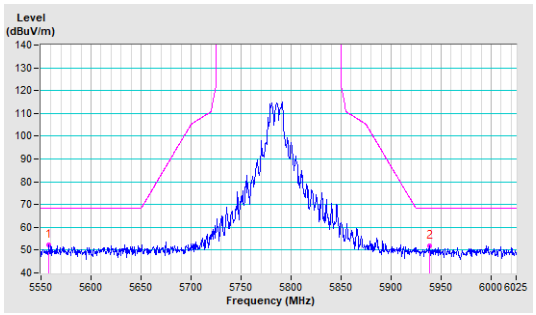
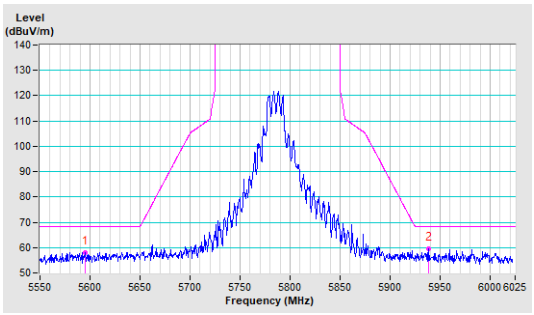
Annex A - Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

802.11a

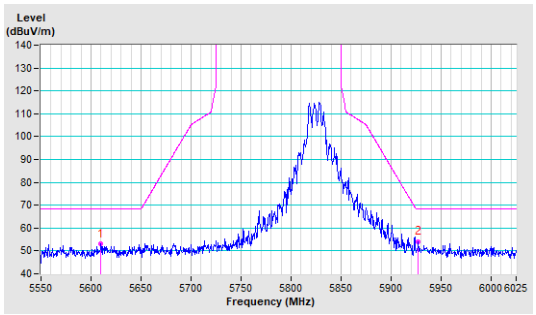
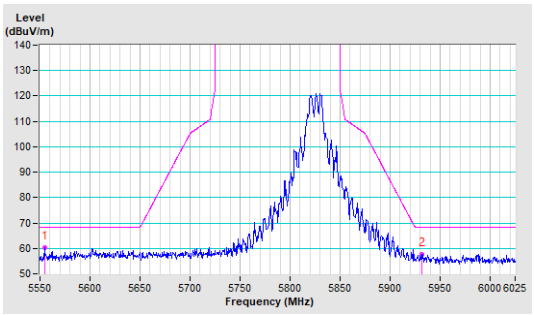
CH 149 5745 MHz

Horizontal	Vertical
	

CH 157 5785 MHz

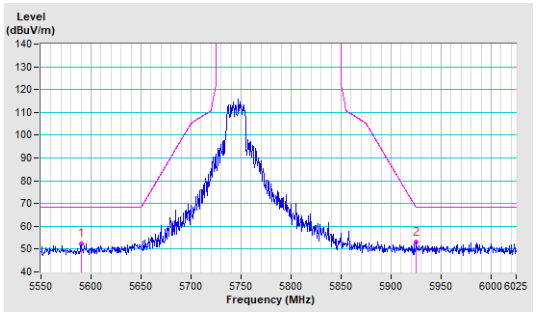
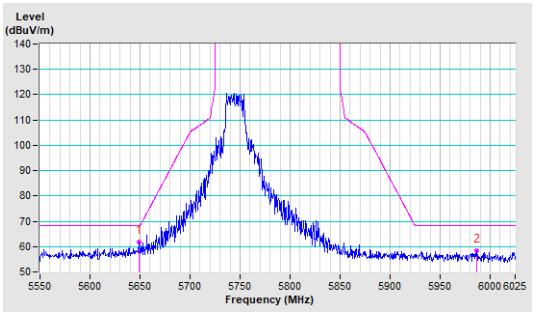
Horizontal	Vertical
	

CH 165 5825 MHz

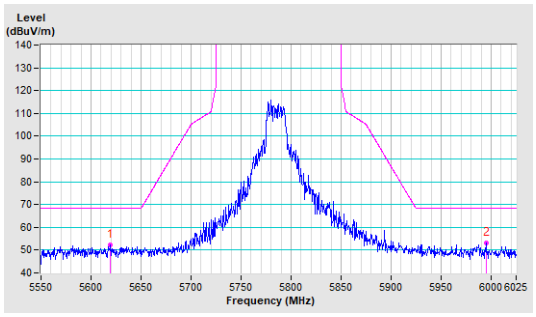
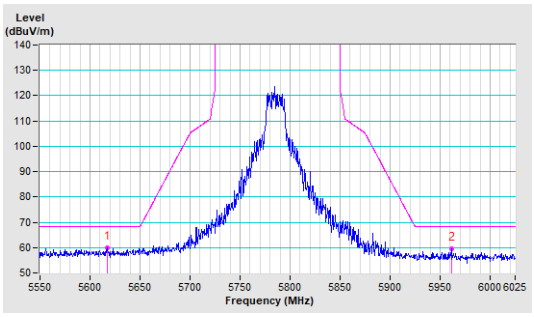
Horizontal	Vertical
	

802.11ax (HE20)

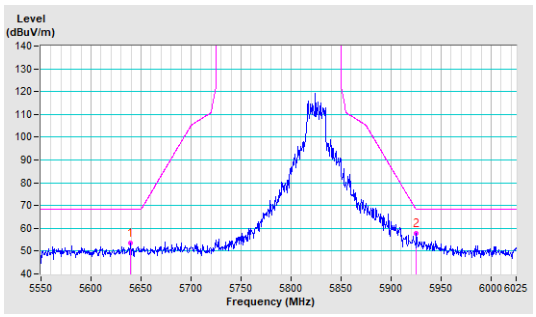
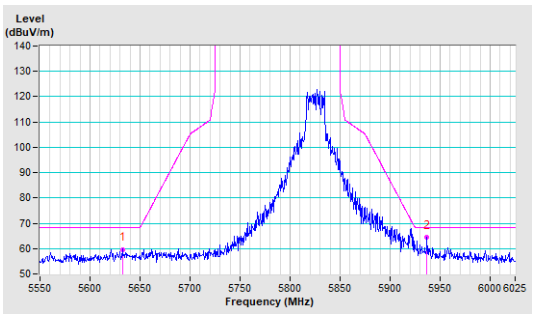
CH 149 5745 MHz

Horizontal	Vertical
	

CH 157 5785 MHz

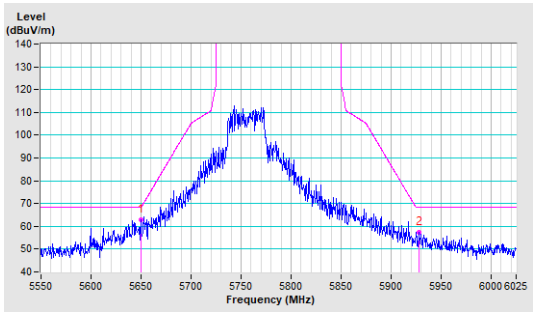
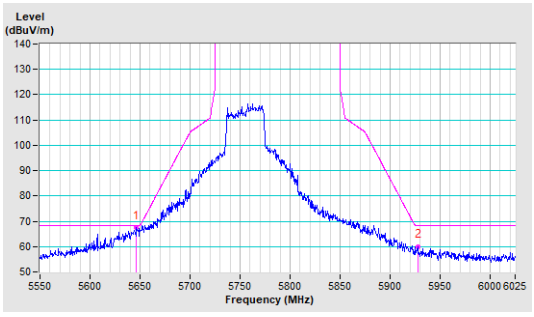
Horizontal	Vertical
	

CH 165 5825 MHz

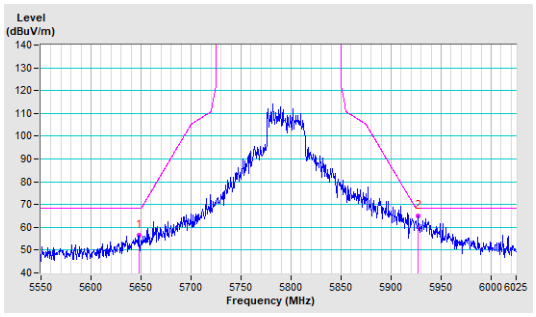
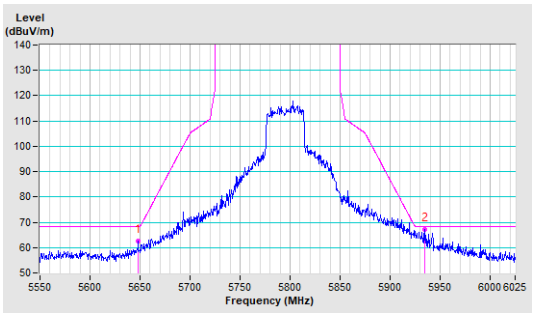
Horizontal	Vertical
	

802.11ax (HE40)

CH 151 5755 MHz

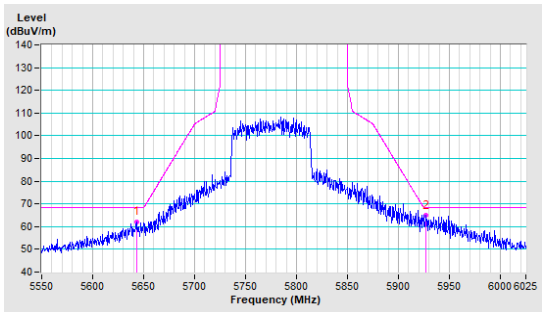
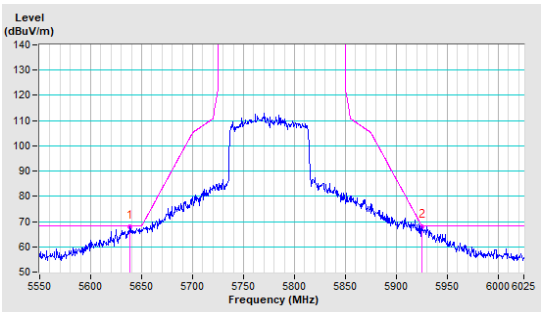
Horizontal	Vertical
	

CH 159 5795 MHz

Horizontal	Vertical
	

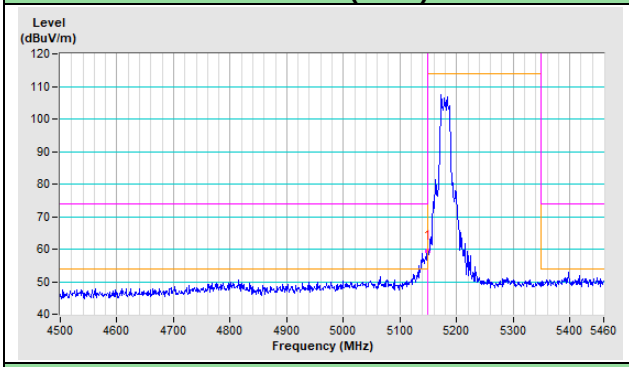
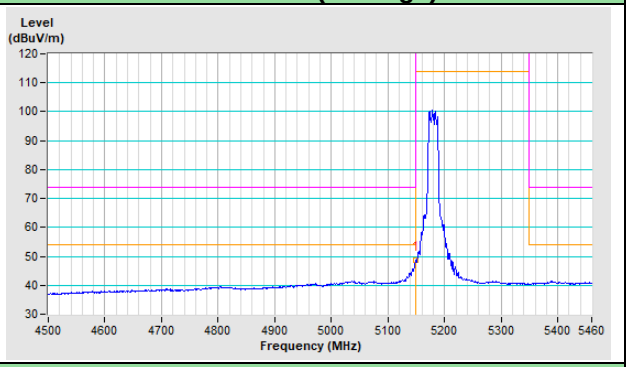
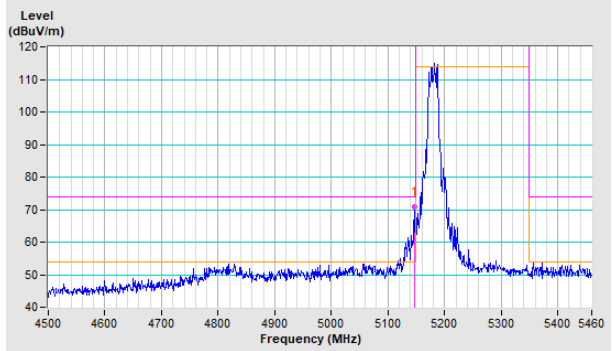
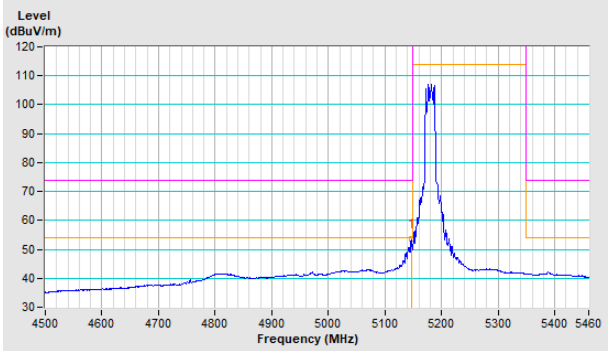
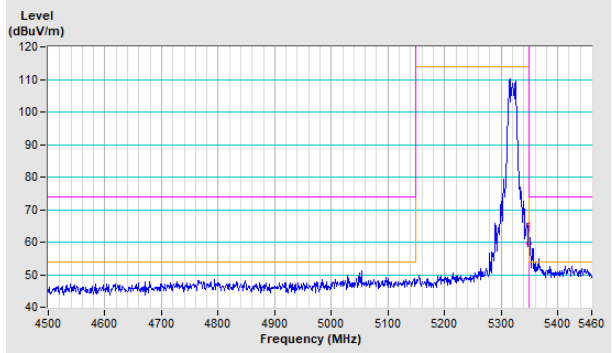
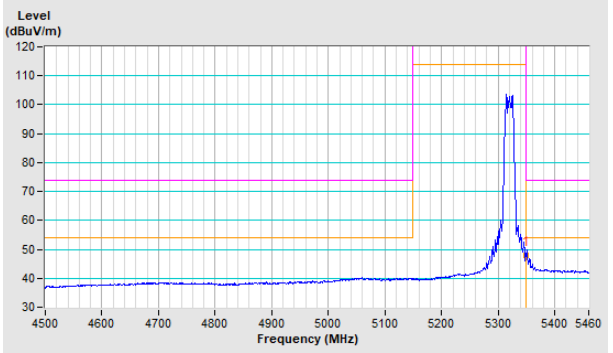
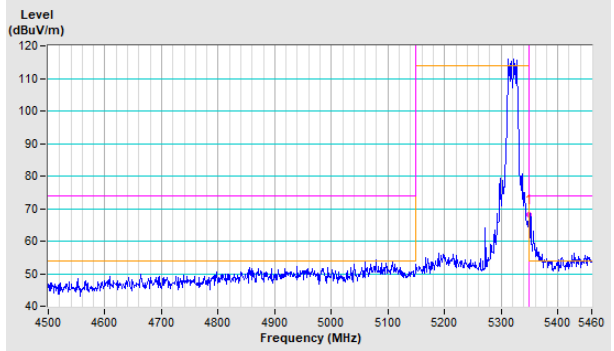
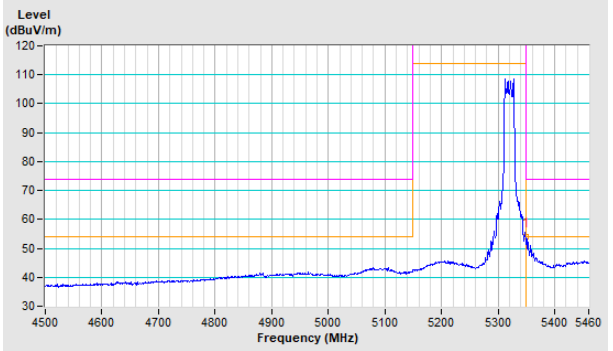
802.11ax (HE80)

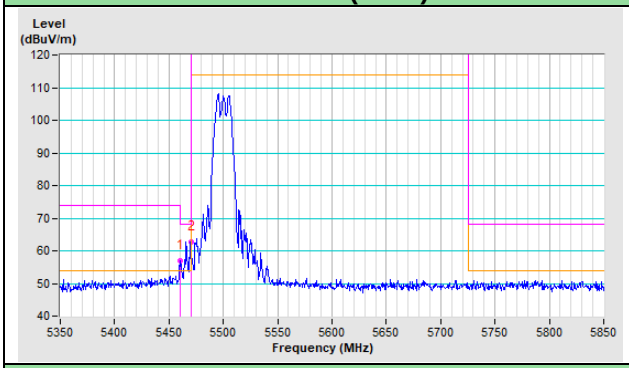
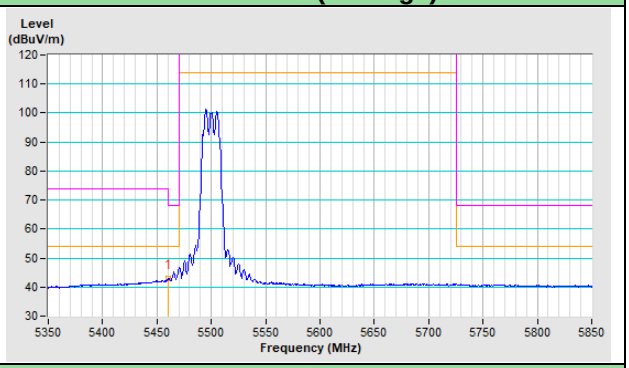
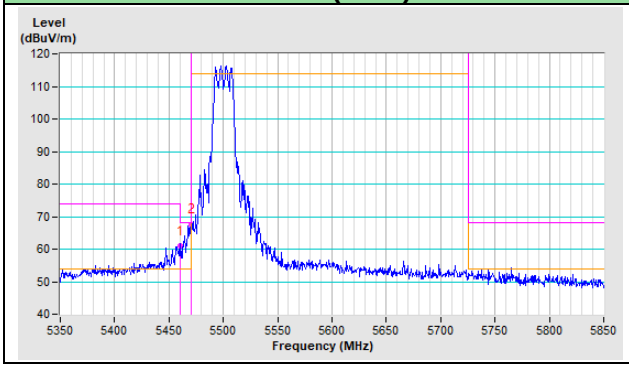
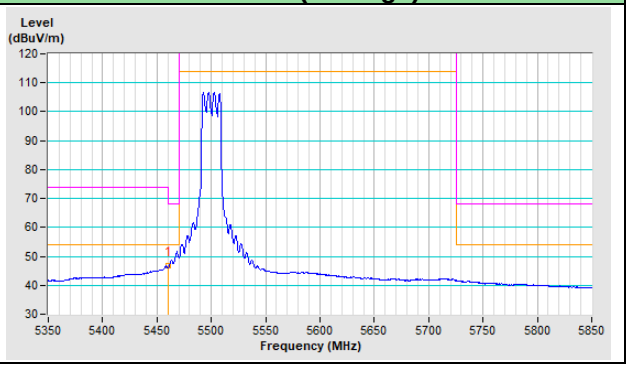
CH 155 5775 MHz

Horizontal	Vertical
	

Annex B - Band-Edge Measurement (For U-NII-1, U-NII-2A, U-NII-2C band)

802.11a

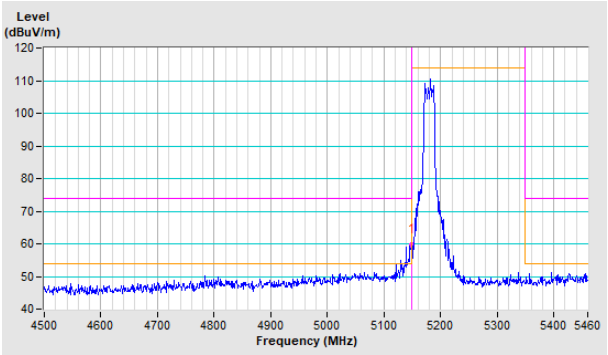
Channel 36	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
Channel 64	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

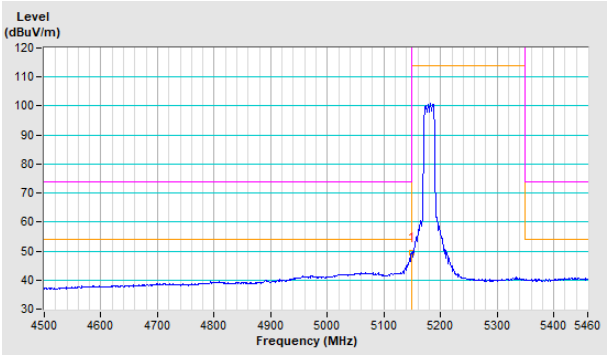
802.11ax (HE20)

Channel 36

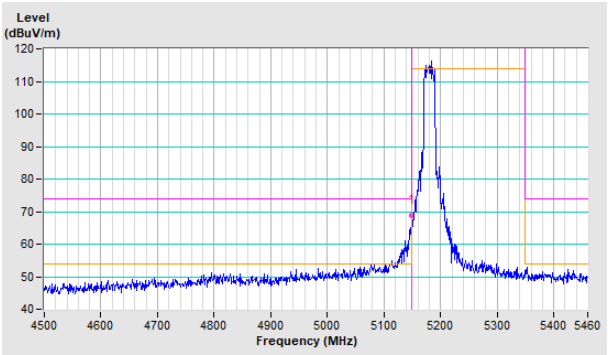
Horizontal (Peak)



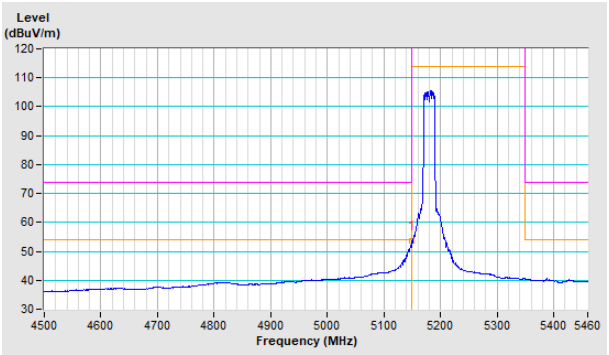
Horizontal (Average)



Vertical (Peak)

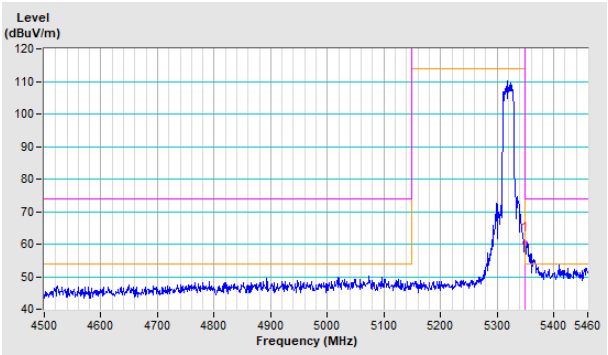


Vertical (Average)

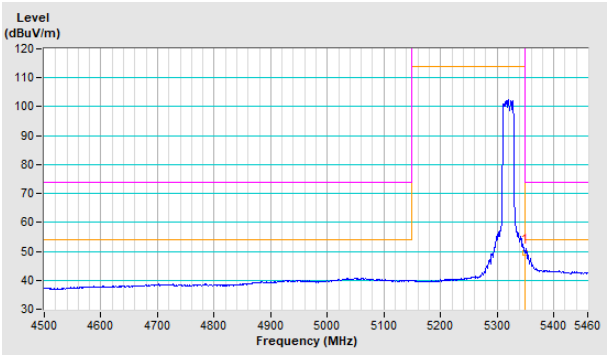


Channel 64

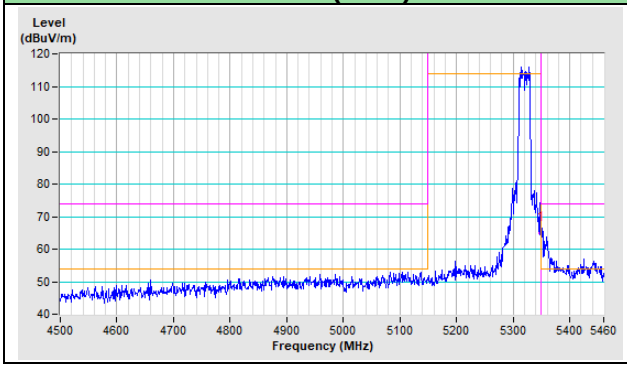
Horizontal (Peak)



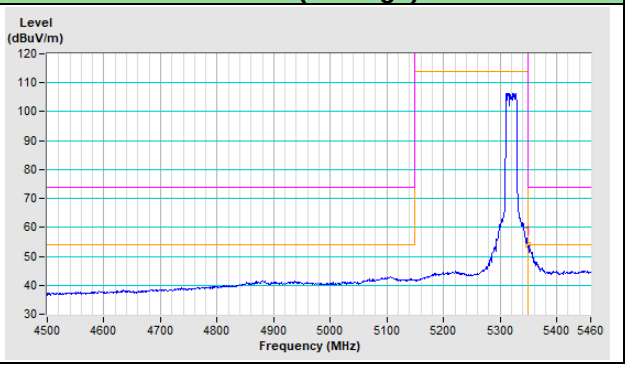
Horizontal (Average)

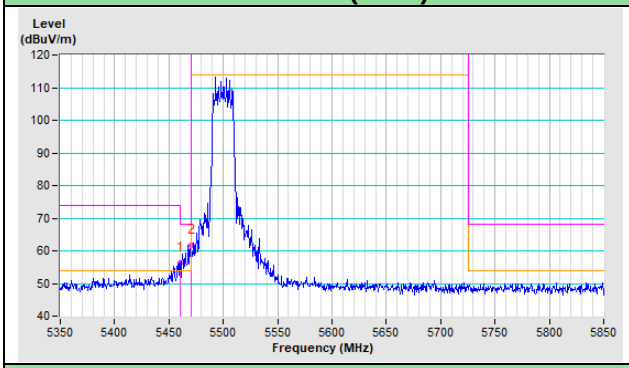
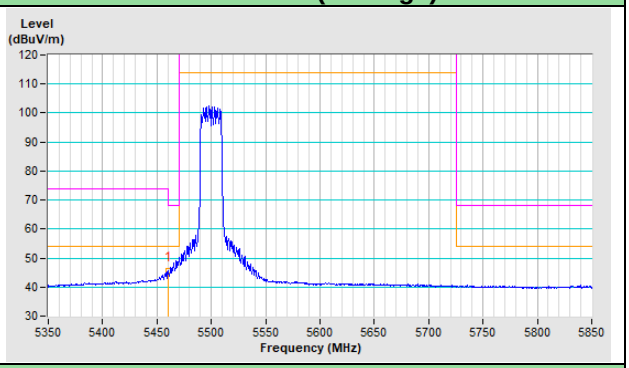
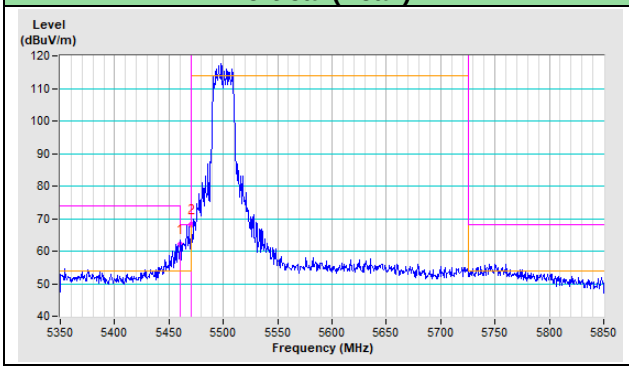
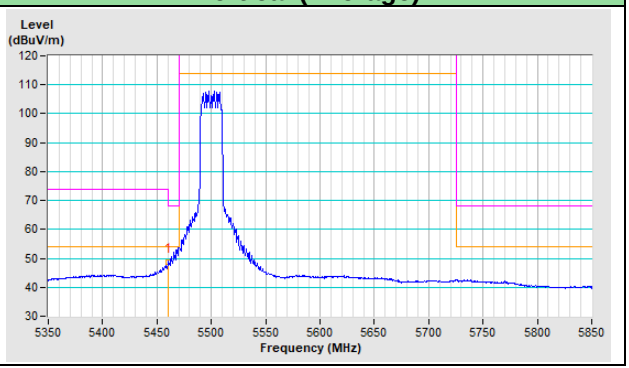


Vertical (Peak)



Vertical (Average)

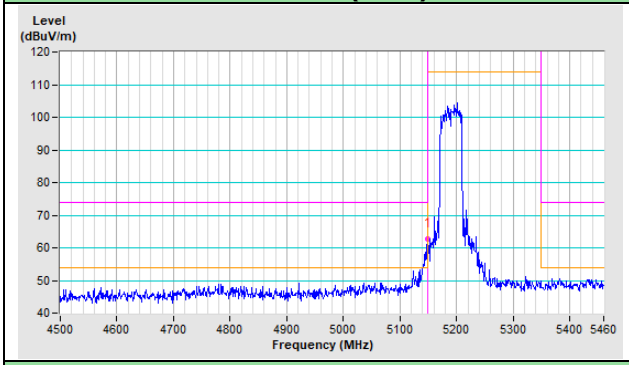


Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

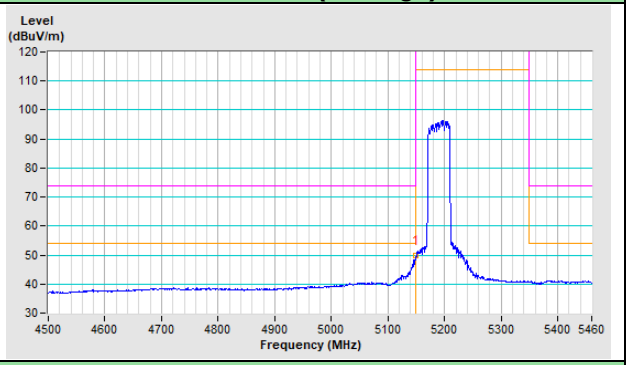
802.11ax (HE40)

Channel 38

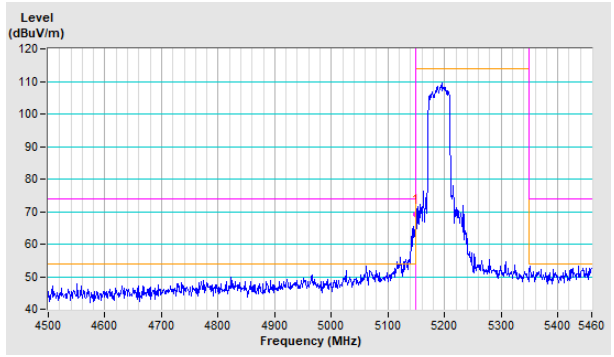
Horizontal (Peak)



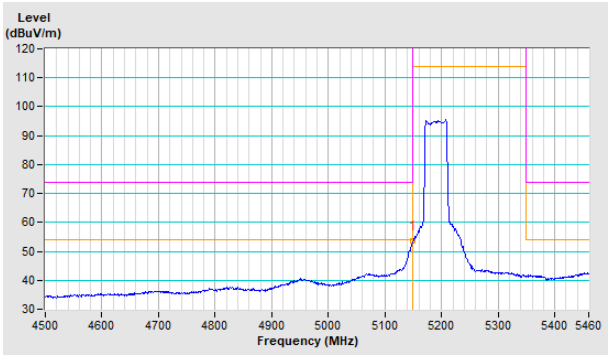
Horizontal (Average)



Vertical (Peak)

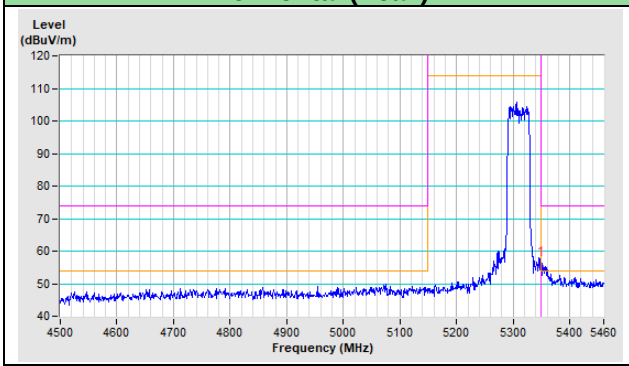


Vertical (Average)

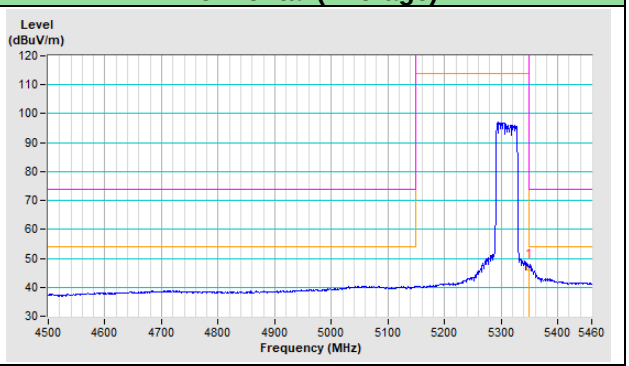


Channel 62

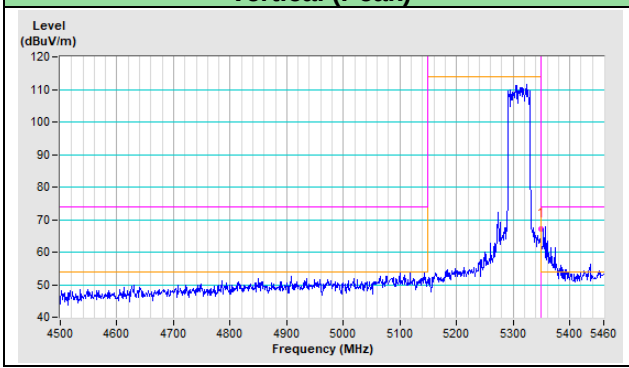
Horizontal (Peak)



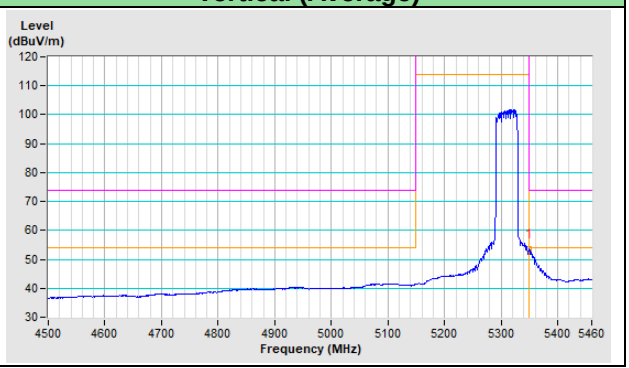
Horizontal (Average)

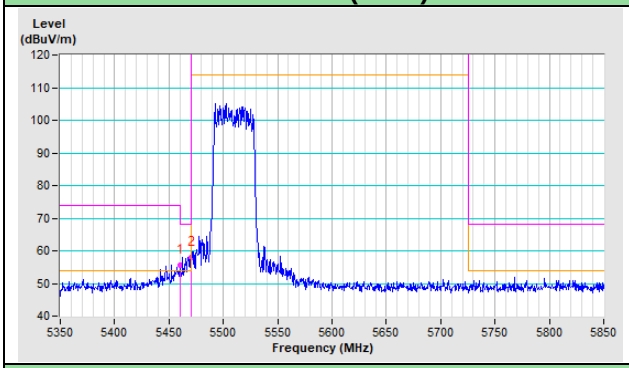
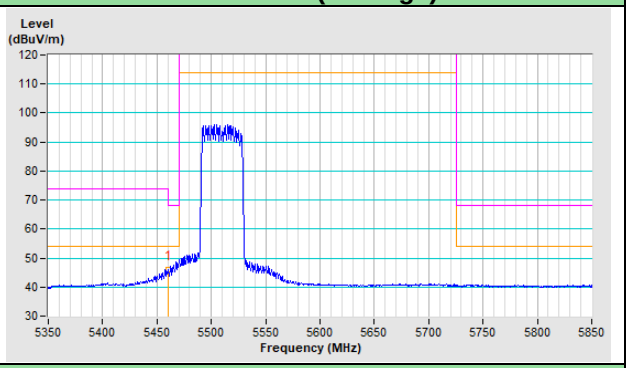
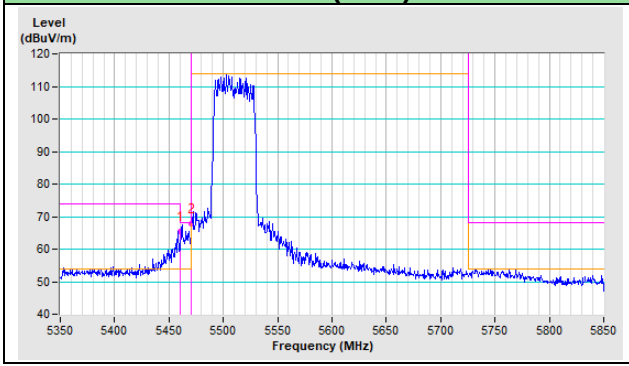
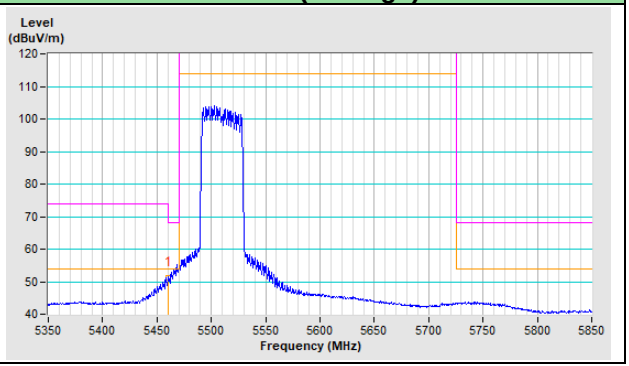


Vertical (Peak)



Vertical (Average)

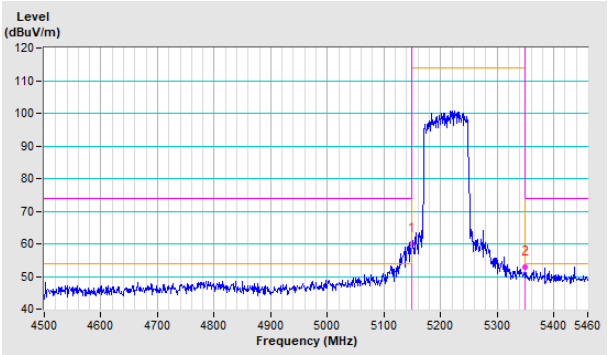


Channel 102	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

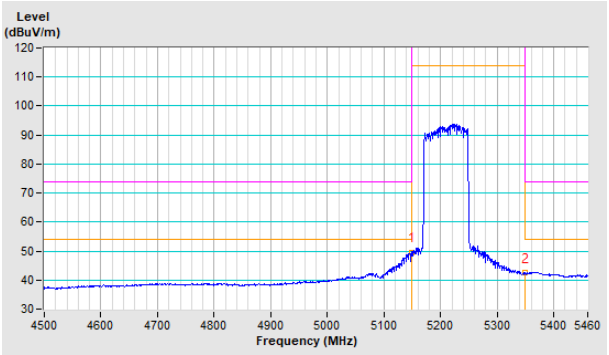
802.11ax (HE80)

Channel 42

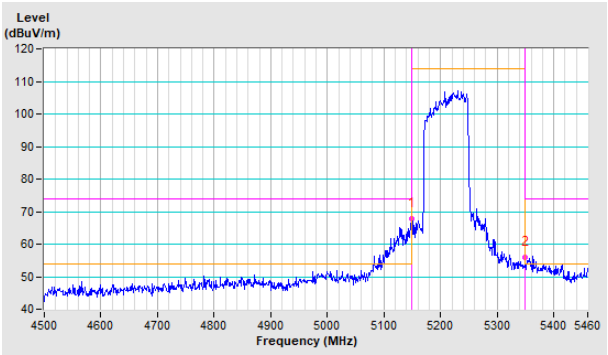
Horizontal (Peak)



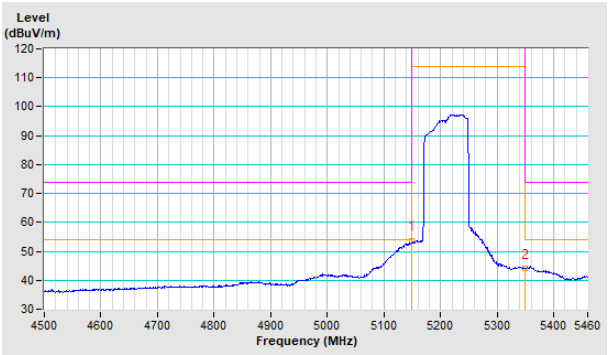
Horizontal (Average)



Vertical (Peak)

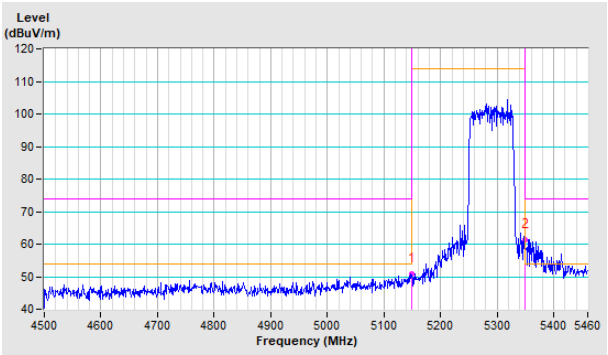


Vertical (Average)

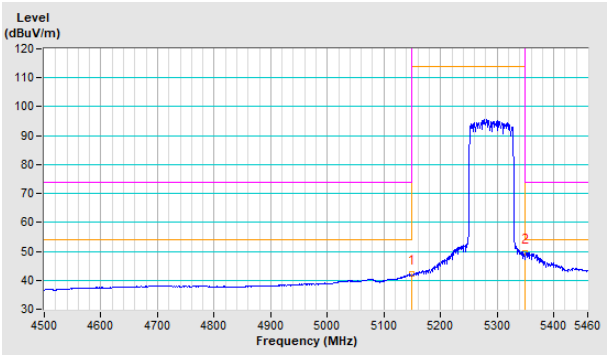


Channel 58

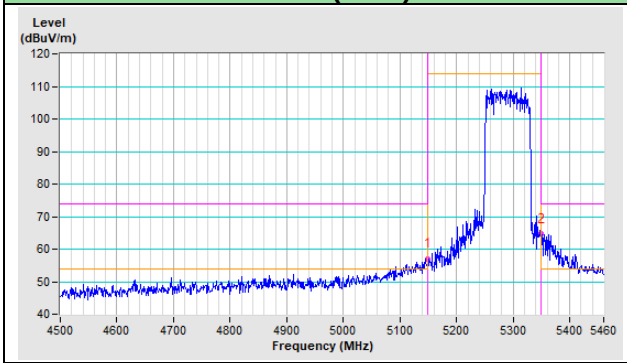
Horizontal (Peak)



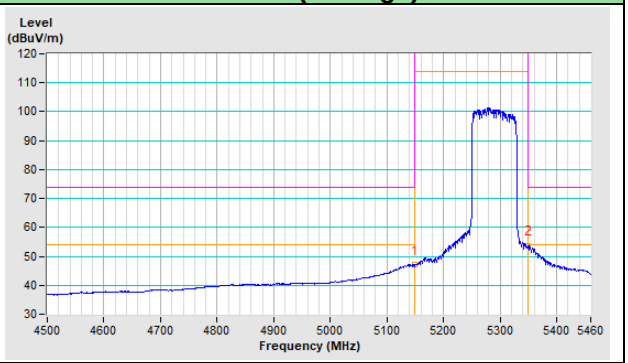
Horizontal (Average)

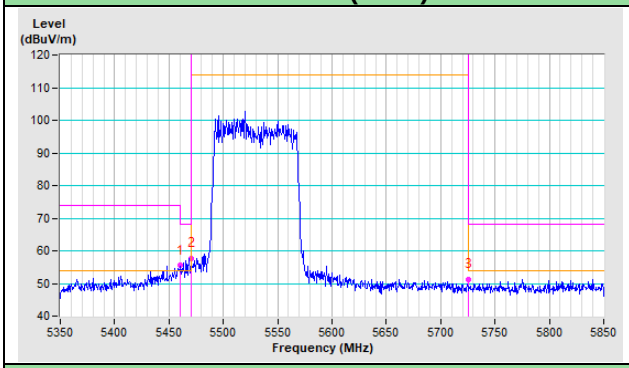
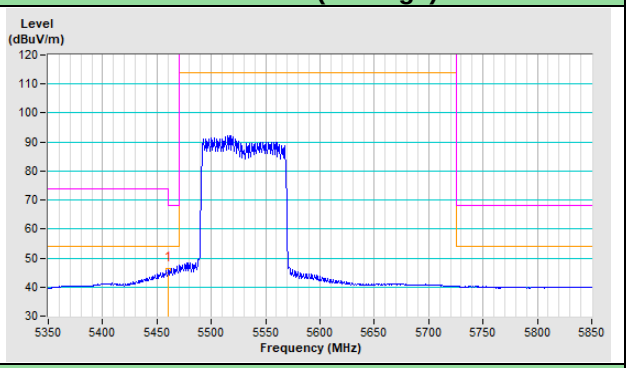
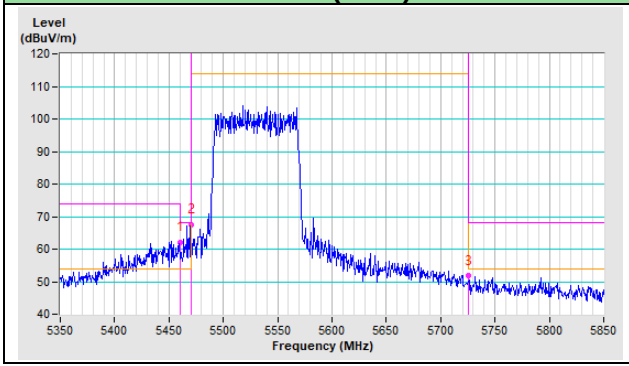
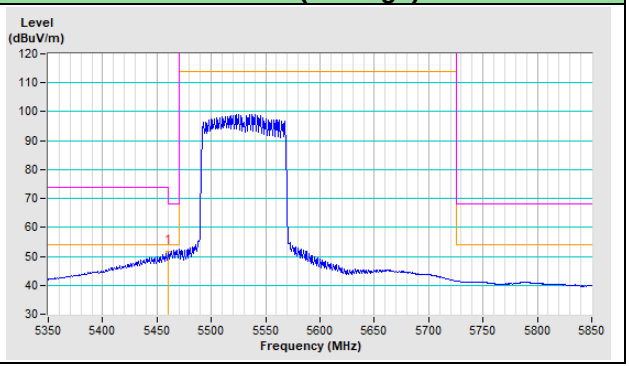


Vertical (Peak)



Vertical (Average)

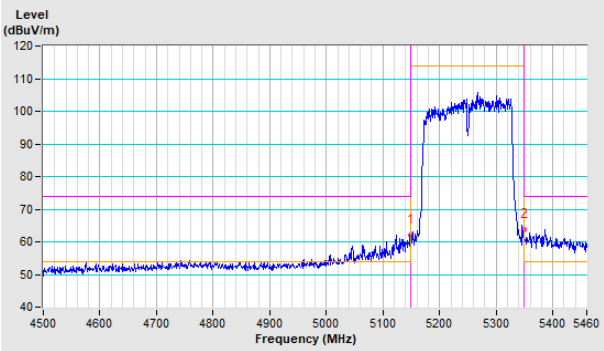


Channel 106	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

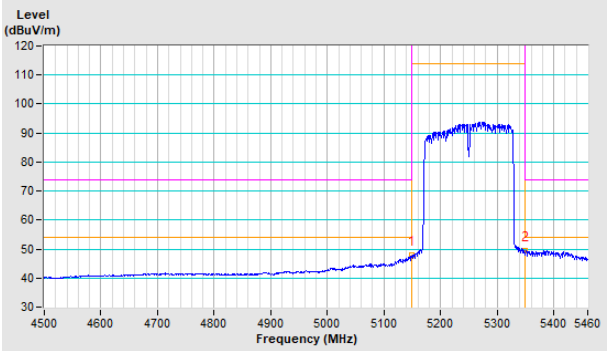
802.11ax (HE160)

Channel 50

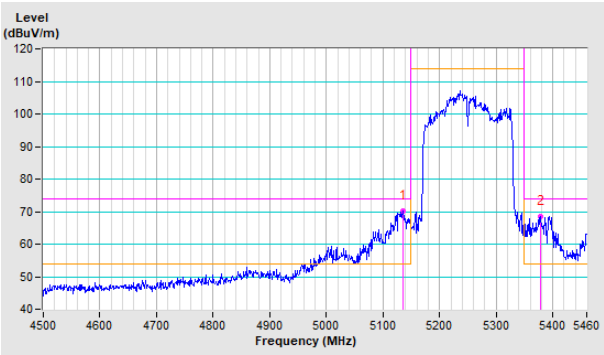
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)



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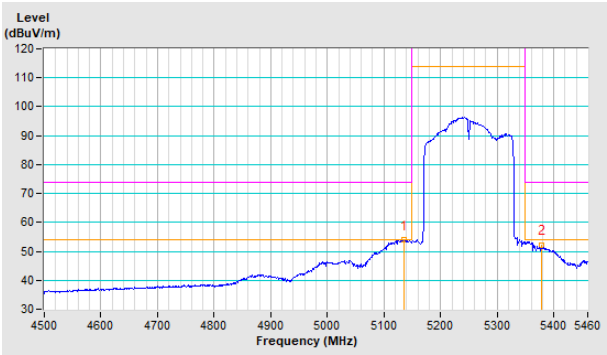
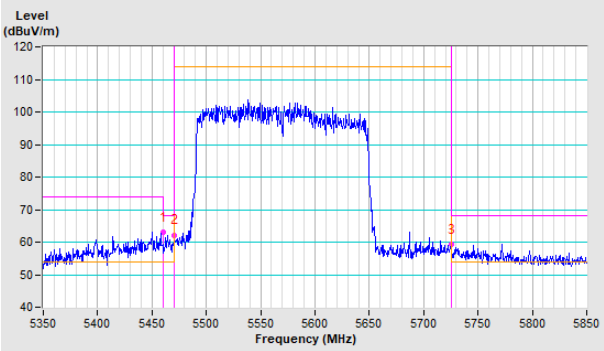
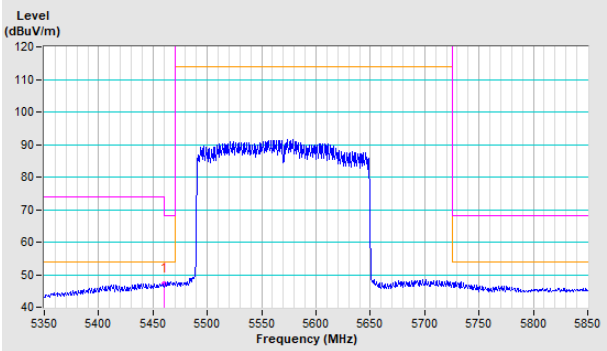


Channel 114

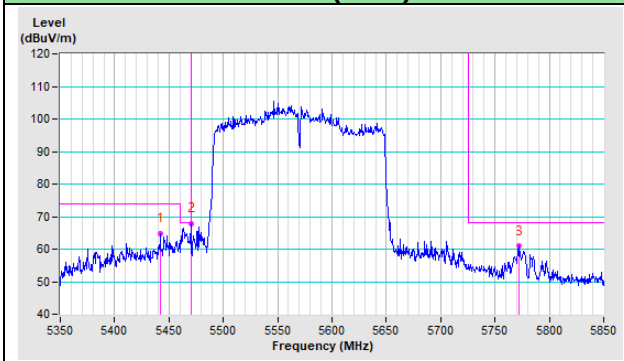
Horizontal (Peak)



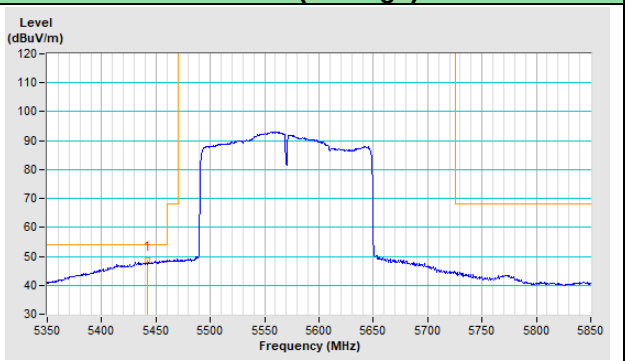
Horizontal (Average)



Vertical (Peak)



Vertical (Average)



Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

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Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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