FCC Test Report (WLAN)

Report No.:	RFBCMA-WTW-P21050301-1
FCC ID:	RAXHT3000W
Test Model:	HT3000W
Series Model:	WN3000
Received Date:	Mar. 16, 2021
Test Date:	Mar. 17 to June 02, 2021
Issued Date:	July 20, 2021
Applicant:	Arcadyan Technology Corporation
Address:	No.8, Sec.2, Guangfu Rd.,Hsinchu City 30071, Taiwan, R.O.C.
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

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Release Control Record

Issue No.	Description	Date Issued
RFBCMA-WTW-P21050301-1	Original release.	July 20, 2021

1 Certificate of Conformity

Product:	Wi-Fi Daughtercard
Brand:	Hughes
Test Model:	HT3000W
Series Model:	WN3000
Sample Status:	Engineering sample
Applicant:	Arcadyan Technology Corporation
Test Date:	Mar. 17 to June 02, 2021
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 : Phoenix Huang , **Date:** July 20, 2021

Phoenix Huang / Specialist

Approved by : , **Date:** July 20, 2021

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)(8)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -14.90 dB at 0.25156 MHz.
15.407(b) (1/2/3/4(i/ii)/8)	Radiated Emissions & Band Edge Measurement*	Pass	Meet the requirement of limit. Minimum passing margin is -1.0 dB at 5150.00 MHz, 5350.00 MHz, 5470.00 MHz and 5725.00 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 i-pex(MHF) 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	5.1 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	Wi-Fi Daughtercard
Brand	Hughes
Test Model	HT3000W
Series Model	WN3000
Status of EUT	Engineering sample
Power Supply Rating	12 Vdc
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 866.7 Mbps 802.11ax: up to 1201.0 Mbps
Operating Frequency	**2.4GHz:** 2.412 ~ 2.462GHz **5GHz:** 5.18~ 5.24 GHz, 5.26 ~ 5.32 GHz, 5.50 ~ 5.72 GHz, 5.745 ~ 5.825 GHz
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
Output Power	**CDD Mode:** **2.412 ~ 2.462 GHz:** 546.729 mW **5.18 ~ 5.24 GHz:** 568.329 mW **5.26 ~ 5.32 GHz:** 246.883 mW **5.5 ~ 5.72 GHz:** 248.442 mW **5.745 ~ 5.825 GHz:** 474.031 mW **Beamforming Mode:** **2.412 ~ 2.462 GHz:** 485.414 mW **5.18 ~ 5.24 GHz:** 450.516 mW **5.26 ~ 5.32 GHz:** 227.7 mW **5.5 ~ 5.72 GHz:** 238.82 mW **5.745 ~ 5.825 GHz:** 443.757 mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	NA
Data Cable Supplied	NA

Note:

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

Model Name	LAN port	Remark
HT3000W	2	With heat sink
WN3000	1	Without heat sink
Node: From the above models, the radiated emission worst case was found in **model: HT3000W**. Therefore only the test data of the mode 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 has below radios as following table:

Radio 1	Radio 2
WLAN 2.4GHz	WLAN 5GHz

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

Antenna Set	RF Chain No.	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
1	0	WG622221-HS	1.9	2.4~2.4835	Dipole	i-pex(MHF)	60
	1	WG622221-HS	2.1	2.4~2.4835	Dipole	i-pex(MHF)	70
	0	WG622221-HS	2.5	5.15~5.85	Dipole	i-pex(MHF)	40
	1	WG622221-HS	3	5.15~5.85	Dipole	i-pex(MHF)	41
2	0	WE620221-HS	1.5	2.4~2.4835	Dipole	i-pex(MHF)	90
	1	WE620221-HS	2	2.4~2.4835	Dipole	i-pex(MHF)	70
	0	WE620221-HS	2.4	5.15~5.85	Dipole	i-pex(MHF)	43
	1	WE620221-HS	2.9	5.15~5.85	Dipole	i-pex(MHF)	40
Note: Max. gain was selected for the final test.							

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
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	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) and 802.11ax mode for 20MHz (40MH, 80MHz), therefore the manufacturer will control the power for 802.11n/ac mode is the same as the 802.11ax or more lower than it and investigated worst case to representative mode in test report.

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.
7. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

3.2 Description of Test Modes

FOR 5180 ~ 5240MHz

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

Channel	Frequency	Channel	Frequency
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

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

Channel	Frequency
42	5210 MHz

FOR 5260 ~ 5320MHz

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

Channel	Frequency	Channel	Frequency
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

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

Channel	Frequency
58	5290 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		

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's Dipole antenna had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Y Z-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	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6Mb/s
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
802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6Mb/s
802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		54 to 62	54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		58	58	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
802.11a	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**
802.11a	5180-5320, 5500-5720, 5745-5825	36 to 64, 100 to 144, 149 to 165	36	OFDM	BPSK	6Mb/s

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
802.11a	5180-5320, 5500-5720, 5745-5825	36 to 64, 100 to 144, 149 to 165	36	OFDM	BPSK	6Mb/s

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	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6Mb/s
802.11ac (VHT20) (output power only)		36 to 48	36, 40, 48	OFDM	BPSK	MCS0
802.11ac (VHT40) (output power only)		38 to 46	38, 46	OFDM	BPSK	MCS0
802.11ac (VHT80) (output power only)		42	42	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
802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6Mb/s
802.11ac (VHT20) (output power only)		52 to 64	52, 60, 64	OFDM	BPSK	MCS0
802.11ac (VHT40) (output power only)		54 to 62	54, 62	OFDM	BPSK	MCS0
802.11ac (VHT80) (output power only)		58	58	OFDM	BPSK	MCS0
802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		54 to 62	54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		58	58	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
802.11ax (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

CDD Mode						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
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)	5180-5240	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
802.11ax (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
802.11ac (VHT20)	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	MCS0
802.11ac (VHT40)		54 to 62	54, 62	OFDM	BPSK	MCS0
802.11ac (VHT80)		58	58	OFDM	BPSK	MCS0
802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		54 to 62	54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		58	58	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
802.11ax (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
802.11ac (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

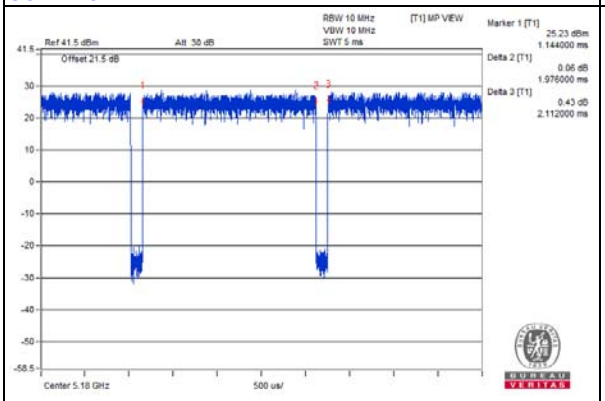
Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested By
RE≥1G	20deg. C, 71%RH, 24deg. C, 72%RH	120Vac, 60Hz	Gary Cheng, Gary Cheng
RE<1G	24deg. C, 63%RH	120Vac, 60Hz	Sampson Chen
PLC	25deg. C, 62%RH	120Vac, 60Hz	Sampson Chen
APCM	25deg. C, 60%RH	120Vac, 60Hz	Eric Peng

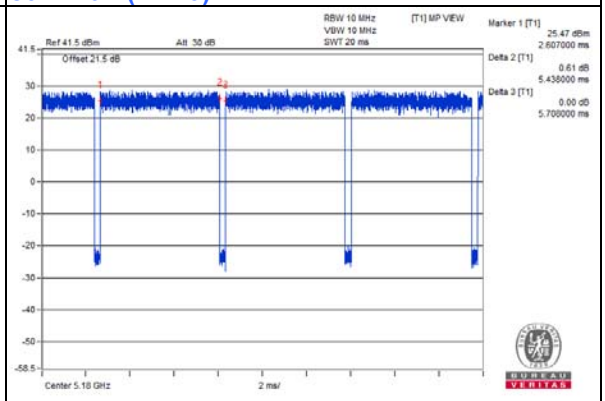
3.3 Duty Cycle of Test Signal

Duty cycle of test signal is < 98%, duty factor shall be considered.
802.11a: Duty cycle = 1.976 ms / 2.112 ms = 0.936, Duty factor = 10 * log(1/ Duty cycle) = 0.29 dB
802.11ax (HE20): Duty cycle = 5.438 ms / 5.708 ms = 0.953, Duty factor = 10 * log(1/ Duty cycle) = 0.21 dB
802.11ax (HE40): Duty cycle = 5.438 ms / 5.758 ms = 0.944, Duty factor = 10 * log(1/ Duty cycle) = 0.25 dB
802.11ax (HE80): Duty cycle = 5.438 ms / 5.76 ms = 0.944, Duty factor = 10 * log(1/ Duty cycle) = 0.25 dB

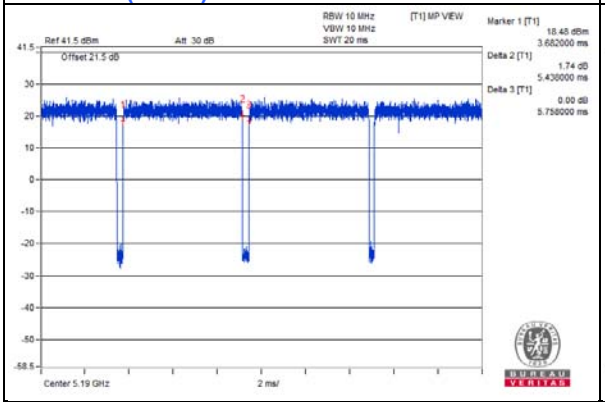
802.11a



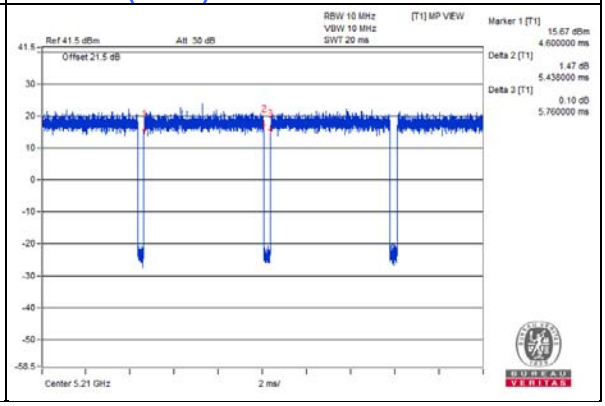
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)



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.	Adapter	APD	WB-18D12FU	NA	NA	Supplied by client
B.	Laptop	DELL	Latitude E7440	NA	NA	Supplied by client
C.	Laptop	Lenovo	20U5S01X00 L14	PF-1ANPYA	NA	Provided by Lab
D.	Test Tool	Arcadyan	NA	NA	NA	Supplied by client

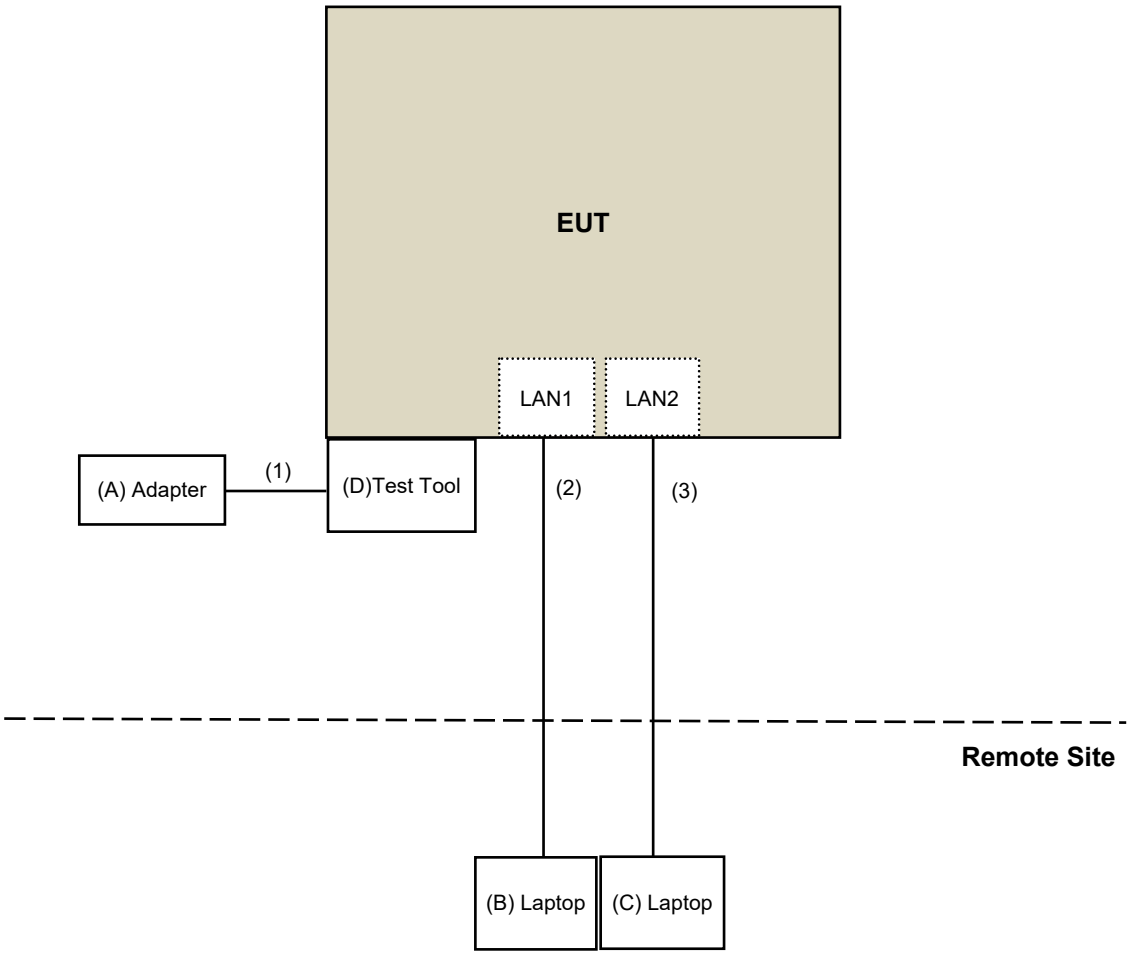
Note:

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

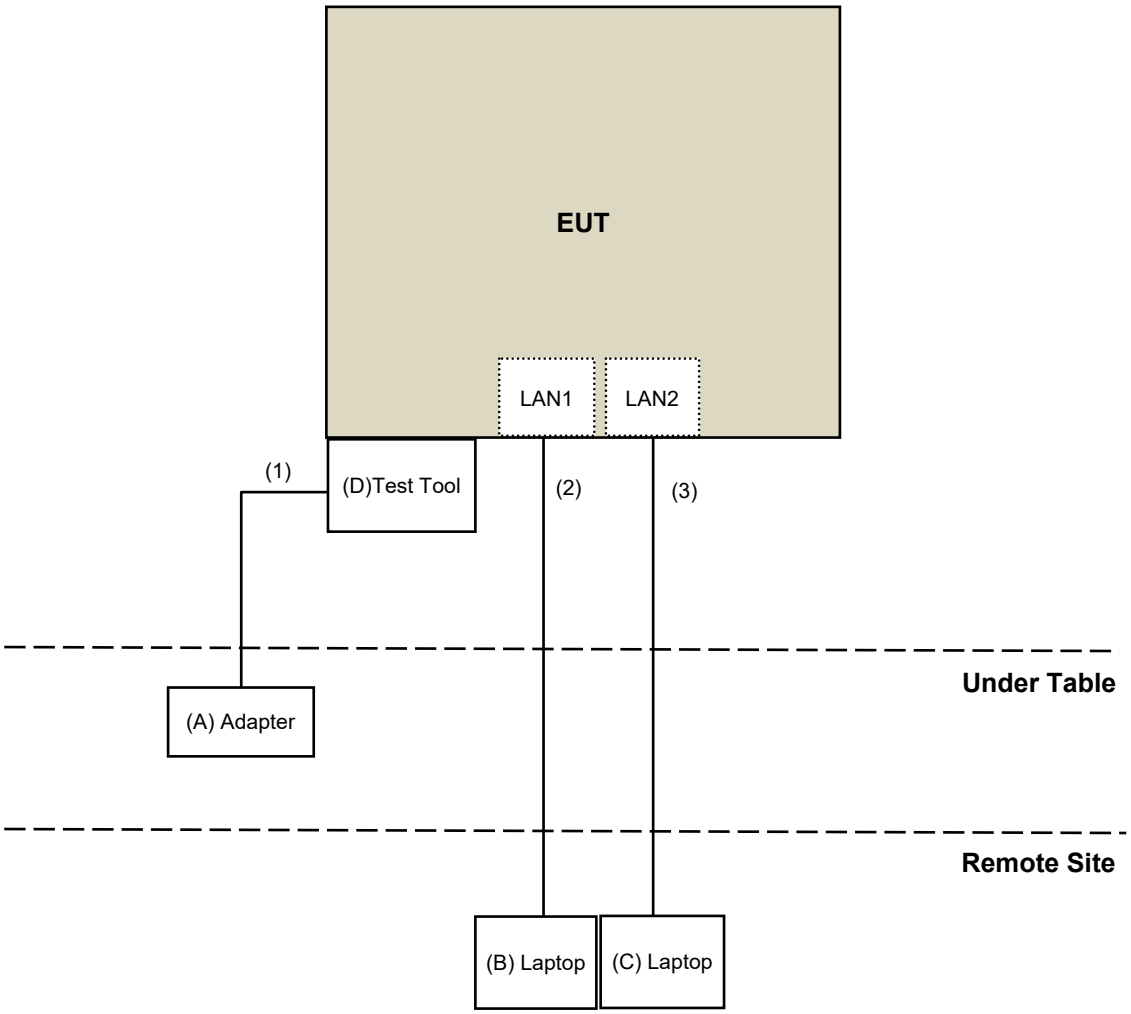
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.4	No	0	Supplied by client
2.	RJ-45 Cable	1	10	No	0	Provided by Lab
3.	RJ-45 Cable	1	10	No	0	Provided by Lab

3.4.1 Configuration of System under Test

For AC Power Conducted Emission test:



For Radiated Emission test:



3.5 General Description of Applied Standards 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
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 test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESR3	102528	Mar. 02, 2021	Mar. 01, 2022
Spectrum Analyzer Keysight	N9030B	MY57141948	May 22, 2020	May 21, 2021
Pre-Amplifier EMCI	EMC001340	980142	May 25, 2020	May 24, 2021
Loop Antenna Electro-Metrics	EM-6879	264	Mar. 05, 2021	Mar. 04, 2022
RF Cable	5D-FB	LOOPCAB-001	Jan. 07, 2021	Jan. 06, 2022
RF Cable	5D-FB	LOOPCAB-002	Jan. 07, 2021	Jan. 06, 2022
Pre-Amplifier EMCI	EMC330N	980538	Apr. 26, 2021	Apr. 25, 2022
Trilog Broadband Antenna SCHWARZBECK	VULB9168	9168-0842	Nov. 03, 2020	Nov. 02, 2021
RF Cable	8D	966-5-1	Apr. 26, 2021	Apr. 25, 2022
RF Cable	8D	966-5-2	Apr. 26, 2021	Apr. 25, 2022
RF Cable	8D	966-5-3	Apr. 26, 2021	Apr. 25, 2022
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-02	Jan. 11, 2021	Jan. 10, 2022
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-1819	Nov. 22, 2020	Nov. 21, 2021
Pre-Amplifier EMCI	EMC12630SE	980509	Apr. 26, 2021	Apr. 25, 2022
RF Cable EMCI	EMC104-SM-SM-1500	180503	Apr. 26, 2021	Apr. 25, 2022
RF Cable EMCI	EMC104-SM-SM-2000	180501	Apr. 26, 2021	Apr. 25, 2022
RF Cable EMCI	EMC104-SM-SM-6000	180506	Apr. 26, 2021	Apr. 25, 2022
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 11, 2021	Jan. 10, 2022
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 22, 2020	Nov. 21, 2021
RF Cable	EMC102-KM-KM-1200	160924	Jan. 11, 2021	Jan. 10, 2022
RF Cable	EMC-KM-KM-4000	200214	Mar. 10, 2021	Mar. 09, 2022
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. 5.
3. Tested Date: May 15 to 17, 2021

For OOBE & Bandedge test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESR3	102528	Mar. 02, 2021	Mar. 01, 2022
Spectrum Analyzer Keysight	N9030B	MY57141948	May 22, 2020	May 21, 2021
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-1819	Nov. 22, 2020	Nov. 21, 2021
Pre-Amplifier EMCI	EMC12630SE	980509	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMCI	EMC104-SM-SM-1500	180503	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMCI	EMC104-SM-SM-2000	180501	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMCI	EMC104-SM-SM-6000	180506	Apr. 29, 2020	Apr. 28, 2021
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 11, 2021	Jan. 10, 2022
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 22, 2020	Nov. 21, 2021
RF Cable	EMC102-KM-KM-1200	160924	Jan. 11, 2021	Jan. 10, 2022
RF Cable	EMC-KM-KM-4000	200214	Mar. 10, 2021	Mar. 09, 2022
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. 5.
3. Tested Date: Mar. 17 to 26, 2021

For other test items test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	101516	Mar. 08, 2021	Mar. 07, 2022
Power meter Anritsu	ML2495A	1529002	July 22, 2020	July 21, 2021
Power sensor Anritsu	MA2411B	1339443	July 22, 2020	July 21, 2021
10dB Attenuator Woken	MDCS18N-10	MDCS18N-10-01	Apr. 13, 2021	Apr. 12, 2022
DC Power Supply Topward	6603D	795558	NA	NA
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	Jan. 14, 2021	Jan. 13, 2022
True RMS Clamp Meter FLUKE	325	31130711WS	June 06, 2020	June 05, 2021
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 01, 2021

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:

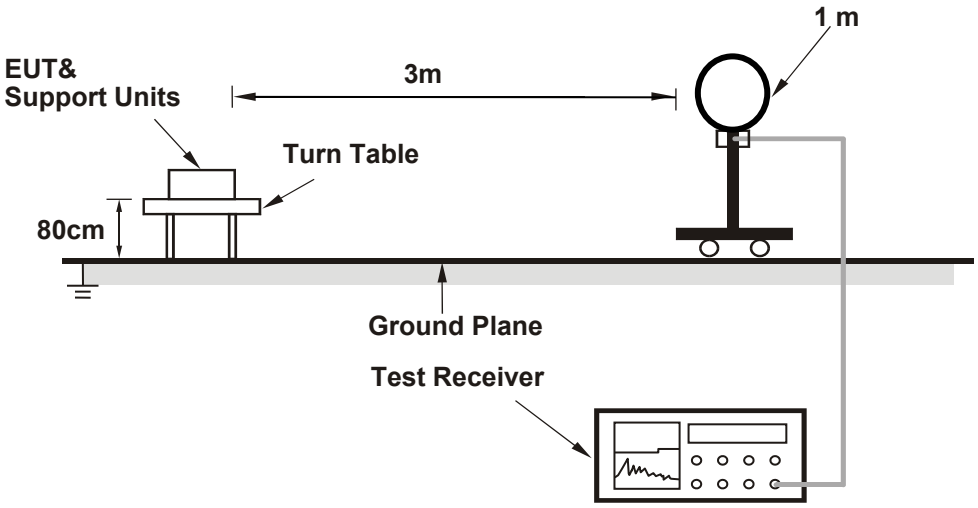
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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

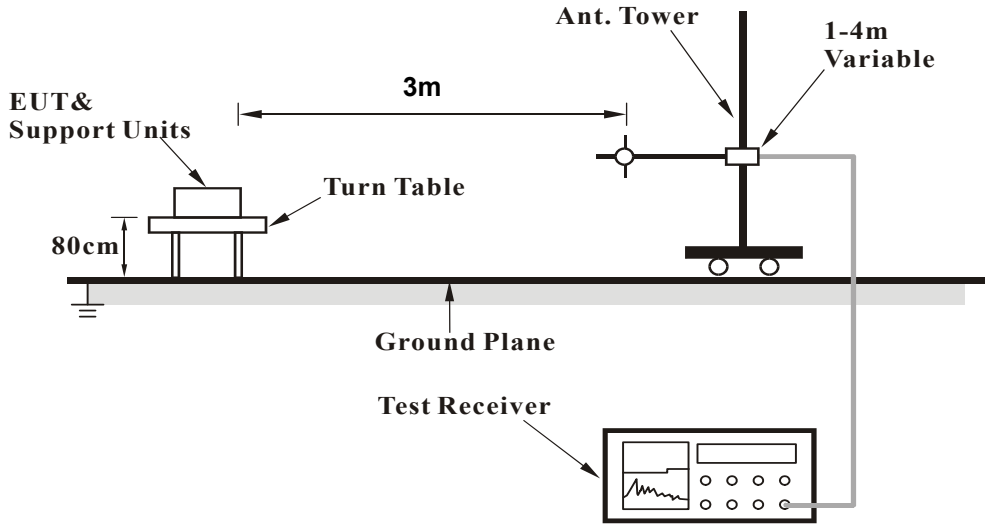
No deviation.

4.1.5 Test Setup

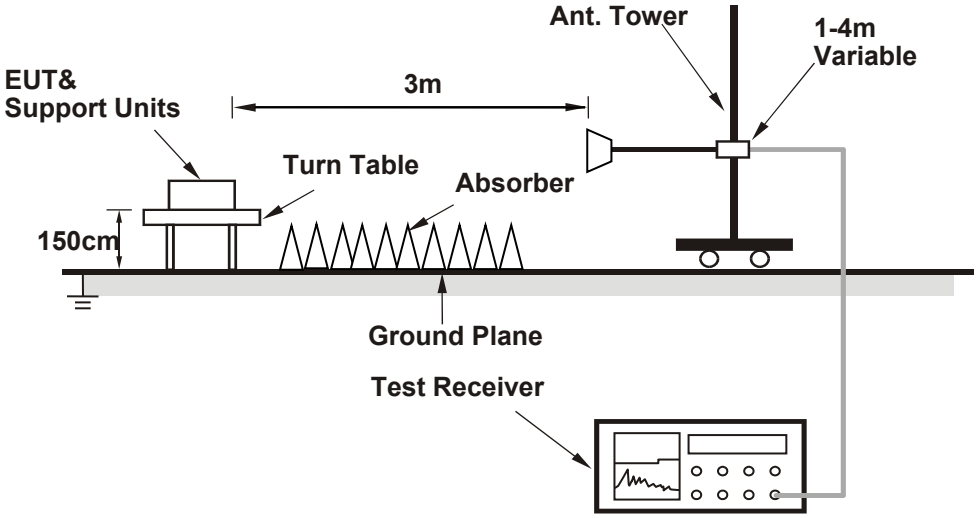
For Radiated emission below 30MHz



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. Placed the EUT on the testing table.
b. Controlling software (QRCT 4.0.00177.0) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz Data:

RF Mode	TX 802.11a	Channel	CH 36：5180 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	65.6 PK	74.0	-8.4	1.00 H	252	63.3	2.3
2	5150.00	52.5 AV	54.0	-1.5	1.00 H	252	50.2	2.3
3	*5180.00	118.7 PK			1.00 H	252	116.5	2.2
4	*5180.00	108.0 AV			1.00 H	252	105.8	2.2
5	#10360.00	47.7 PK	68.2	-20.5	1.75 H	138	35.9	11.8
6	15540.00	61.8 PK	74.0	-12.2	1.07 H	239	50.0	11.8
7	15540.00	48.2 AV	54.0	-5.8	1.07 H	239	36.4	11.8
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	65.0 PK	74.0	-9.0	1.09 V	269	62.7	2.3
2	5150.00	52.3 AV	54.0	-1.7	1.09 V	269	50.0	2.3
3	*5180.00	117.2 PK			1.09 V	269	115.0	2.2
4	*5180.00	107.5 AV			1.09 V	269	105.3	2.2
5	#10360.00	47.7 PK	68.2	-20.5	1.05 V	146	35.9	11.8
6	15540.00	64.3 PK	74.0	-9.7	1.07 V	236	52.5	11.8
7	15540.00	50.4 AV	54.0	-3.6	1.07 V	236	38.6	11.8

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.

RF Mode	TX 802.11a	Channel	CH 40：5200 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	64.2 PK	74.0	-9.8	1.00 H	252	61.9	2.3
2	5150.00	52.2 AV	54.0	-1.8	1.00 H	252	49.9	2.3
3	*5200.00	119.6 PK			1.00 H	252	117.5	2.1
4	*5200.00	109.8 AV			1.00 H	252	107.7	2.1
5	#10400.00	47.5 PK	68.2	-20.7	1.71 H	155	35.5	12.0
6	15600.00	61.8 PK	74.0	-12.2	1.07 H	249	50.3	11.5
7	15600.00	48.3 AV	54.0	-5.7	1.07 H	249	36.8	11.5
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	61.5 PK	74.0	-12.5	1.02 V	231	59.2	2.3
2	5150.00	52.8 AV	54.0	-1.2	1.02 V	231	50.5	2.3
3	*5200.00	120.2 PK			1.02 V	231	118.1	2.1
4	*5200.00	110.5 AV			1.02 V	231	108.4	2.1
5	#10400.00	47.0 PK	68.2	-21.2	1.03 V	131	35.0	12.0
6	15600.00	63.9 PK	74.0	-10.1	1.15 V	233	52.4	11.5
7	15600.00	50.2 AV	54.0	-3.8	1.15 V	233	38.7	11.5

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.

RF Mode	TX 802.11a	Channel	CH 48：5240 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	52.9 PK	74.0	-21.1	1.06 H	260	50.6	2.3
2	5150.00	41.2 AV	54.0	-12.8	1.06 H	260	38.9	2.3
3	*5240.00	119.8 PK			1.06 H	260	117.8	2.0
4	*5240.00	110.1 AV			1.06 H	260	108.1	2.0
5	5350.00	52.3 PK	74.0	-21.7	1.06 H	260	50.4	1.9
6	5350.00	43.2 AV	54.0	-10.8	1.06 H	260	41.3	1.9
7	#10480.00	47.1 PK	68.2	-21.1	1.77 H	135	35.2	11.9
8	15720.00	65.3 PK	74.0	-8.7	1.05 H	254	53.5	11.8
9	15720.00	50.8 AV	54.0	-3.2	1.05 H	254	39.0	11.8
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	53.4 PK	74.0	-20.6	2.41 V	301	51.1	2.3
2	5150.00	41.6 AV	54.0	-12.4	2.41 V	301	39.3	2.3
3	*5240.00	118.8 PK			2.41 V	301	116.8	2.0
4	*5240.00	109.6 AV			2.41 V	301	107.6	2.0
5	5376.02	52.7 PK	74.0	-21.3	2.41 V	301	50.7	2.0
6	5376.02	43.4 AV	54.0	-10.6	2.41 V	301	41.4	2.0
7	#10480.00	47.2 PK	68.2	-21.0	1.04 V	144	35.3	11.9
8	15720.00	64.5 PK	74.0	-9.5	1.09 V	227	52.7	11.8
9	15720.00	50.6 AV	54.0	-3.4	1.09 V	227	38.8	11.8

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.

RF Mode	TX 802.11a	Channel	CH 52：5260 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	52.3 PK	74.0	-21.7	1.10 H	254	50.0	2.3
2	5150.00	40.8 AV	54.0	-13.2	1.10 H	254	38.5	2.3
3	*5260.00	120.4 PK			1.10 H	254	118.4	2.0
4	*5260.00	110.4 AV			1.10 H	254	108.4	2.0
5	5350.00	52.3 PK	74.0	-21.7	1.10 H	254	50.4	1.9
6	5350.00	43.0 AV	54.0	-11.0	1.10 H	254	41.1	1.9
7	#10520.00	47.0 PK	68.2	-21.2	1.79 H	154	35.0	12.0
8	15780.00	63.1 PK	74.0	-10.9	1.14 H	240	51.6	11.5
9	15780.00	50.4 AV	54.0	-3.6	1.14 H	240	38.9	11.5
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	53.8 PK	74.0	-20.2	2.38 V	272	51.5	2.3
2	5150.00	41.3 AV	54.0	-12.7	2.38 V	272	39.0	2.3
3	*5260.00	119.7 PK			2.38 V	272	117.7	2.0
4	*5260.00	110.1 AV			2.38 V	272	108.1	2.0
5	5375.99	52.3 PK	74.0	-21.7	1.04 V	243	50.3	2.0
6	5375.99	43.6 AV	54.0	-10.4	1.04 V	243	41.6	2.0
7	#10520.00	47.5 PK	68.2	-20.7	1.11 V	142	35.5	12.0
8	15780.00	64.6 PK	74.0	-9.4	1.01 V	211	53.1	11.5
9	15780.00	50.8 AV	54.0	-3.2	1.01 V	211	39.3	11.5

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.

RF Mode	TX 802.11a	Channel	CH 60：5300 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	120.5 PK			1.08 H	240	118.8	1.7
2	*5300.00	110.6 AV			1.08 H	240	108.9	1.7
3	5350.00	63.5 PK	74.0	-10.5	1.08 H	240	61.6	1.9
4	5350.00	51.8 AV	54.0	-2.2	1.08 H	240	49.9	1.9
5	10600.00	47.3 PK	74.0	-26.7	1.76 H	140	35.4	11.9
6	10600.00	35.9 AV	54.0	-18.1	1.76 H	140	24.0	11.9
7	15900.00	64.3 PK	74.0	-9.7	1.11 H	241	53.0	11.3
8	15900.00	50.7 AV	54.0	-3.3	1.11 H	241	39.4	11.3
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	*5300.00	119.3 PK			2.38 V	281	117.6	1.7
2	*5300.00	109.8 AV			2.38 V	281	108.1	1.7
3	5350.00	61.5 PK	74.0	-12.5	2.38 V	281	59.6	1.9
4	5350.00	52.6 AV	54.0	-1.4	2.38 V	281	50.7	1.9
5	10600.00	50.7 PK	74.0	-23.3	1.01 V	15	38.8	11.9
6	10600.00	39.2 AV	54.0	-14.8	1.01 V	15	27.3	11.9
7	15900.00	64.4 PK	74.0	-9.6	1.04 V	224	53.1	11.3
8	15900.00	50.9 AV	54.0	-3.1	1.04 V	224	39.6	11.3

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.

RF Mode	TX 802.11a	Channel	CH 64：5320 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	117.4 PK			1.00 H	282	115.6	1.8
2	*5320.00	107.3 AV			1.00 H	282	105.5	1.8
3	5350.00	65.5 PK	74.0	-8.5	1.00 H	282	63.6	1.9
4	5350.00	52.7 AV	54.0	-1.3	1.00 H	282	50.8	1.9
5	10640.00	47.3 PK	74.0	-26.7	1.81 H	133	35.5	11.8
6	10640.00	36.1 AV	54.0	-17.9	1.81 H	133	24.3	11.8
7	15960.00	60.8 PK	74.0	-13.2	1.11 H	240	49.2	11.6
8	15960.00	47.3 AV	54.0	-6.7	1.11 H	240	35.7	11.6
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	*5320.00	117.9 PK			1.04 V	280	116.1	1.8
2	*5320.00	108.4 AV			1.04 V	280	106.6	1.8
3	5350.00	66.3 PK	74.0	-7.7	1.04 V	280	64.4	1.9
4	**5350.00**	**53.0 AV**	**54.0**	**-1.0**	**1.04 V**	**280**	**51.1**	**1.9**
5	10640.00	50.6 PK	74.0	-23.4	1.09 V	12	38.8	11.8
6	10640.00	38.8 AV	54.0	-15.2	1.09 V	12	27.0	11.8
7	15960.00	61.4 PK	74.0	-12.6	1.05 V	224	49.8	11.6
8	15960.00	47.6 AV	54.0	-6.4	1.05 V	224	36.0	11.6

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.

RF Mode	TX 802.11a	Channel	CH 100：5500 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	1.16 H	278	54.9	2.1
2	5460.00	46.1 AV	54.0	-7.9	1.16 H	278	44.0	2.1
3	#5470.00	64.8 PK	68.2	-3.4	1.16 H	278	62.6	2.2
4	*5500.00	119.7 PK			1.16 H	278	117.6	2.1
5	*5500.00	110.3 AV			1.16 H	278	108.2	2.1
6	11000.00	50.3 PK	74.0	-23.7	1.03 H	261	37.9	12.4
7	11000.00	38.5 AV	54.0	-15.5	1.03 H	261	26.1	12.4
8	#16500.00	47.3 PK	68.2	-20.9	1.11 H	240	33.6	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	5460.00	59.6 PK	74.0	-14.4	1.14 V	269	57.5	2.1
2	5460.00	46.5 AV	54.0	-7.5	1.14 V	269	44.4	2.1
3	#5470.00	66.5 PK	68.2	-1.7	1.14 V	269	64.3	2.2
4	*5500.00	118.0 PK			1.14 V	269	115.9	2.1
5	*5500.00	108.5 AV			1.14 V	269	106.4	2.1
6	11000.00	50.5 PK	74.0	-23.5	1.00 V	3	38.1	12.4
7	11000.00	39.1 AV	54.0	-14.9	1.00 V	3	26.7	12.4
8	#16500.00	51.2 PK	68.2	-17.0	1.90 V	14	37.5	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.

RF Mode	TX 802.11a	Channel	CH 116：5580 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	118.3 PK			1.17 H	264	116.2	2.1
2	*5580.00	108.8 AV			1.17 H	264	106.7	2.1
3	11160.00	50.1 PK	74.0	-23.9	1.02 H	265	38.1	12.0
4	11160.00	38.1 AV	54.0	-15.9	1.02 H	265	26.1	12.0
5	#16740.00	48.2 PK	68.2	-20.0	1.00 H	256	32.9	15.3
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	*5580.00	119.5 PK			1.19 V	255	117.4	2.1
2	*5580.00	109.8 AV			1.19 V	255	107.7	2.1
3	11160.00	50.4 PK	74.0	-23.6	1.04 V	3	38.4	12.0
4	11160.00	38.9 AV	54.0	-15.1	1.04 V	3	26.9	12.0
5	#16740.00	50.6 PK	68.2	-17.6	1.87 V	0	35.3	15.3

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.

RF Mode	TX 802.11a	Channel	CH 140：5700 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	118.5 PK			1.10 H	280	116.2	2.3
2	*5700.00	109.4 AV			1.10 H	280	107.1	2.3
3	#5725.00	67.1 PK	68.2	-1.1	1.10 H	280	64.7	2.4
4	11400.00	50.3 PK	74.0	-23.7	1.05 H	278	37.8	12.5
5	11400.00	38.3 AV	54.0	-15.7	1.05 H	278	25.8	12.5
6	#17100.00	48.4 PK	68.2	-19.8	1.05 H	268	31.6	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	*5700.00	116.5 PK			1.06 V	255	114.2	2.3
2	*5700.00	107.0 AV			1.06 V	255	104.7	2.3
3	#5725.00	66.4 PK	68.2	-1.8	1.06 V	255	64.0	2.4
4	11400.00	50.5 PK	74.0	-23.5	1.03 V	16	38.0	12.5
5	11400.00	38.9 AV	54.0	-15.1	1.03 V	16	26.4	12.5
6	#17100.00	50.5 PK	68.2	-17.7	1.81 V	3	33.7	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.

RF Mode	TX 802.11a	Channel	CH 144：5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	54.9 PK	74.0	-19.1	1.13 H	259	52.8	2.1
2	5460.00	42.0 AV	54.0	-12.0	1.13 H	259	39.9	2.1
3	#5470.00	55.4 PK	68.2	-12.8	1.13 H	259	53.2	2.2
4	*5720.00	118.6 PK			1.13 H	259	116.2	2.4
5	*5720.00	109.1 AV			1.13 H	259	106.7	2.4
6	#5850.00	58.0 PK	68.2	-10.2	1.13 H	259	55.3	2.7
7	11440.00	50.2 PK	74.0	-23.8	1.08 H	260	37.8	12.4
8	11440.00	38.3 AV	54.0	-15.7	1.08 H	260	25.9	12.4
9	#17160.00	48.7 PK	68.2	-19.5	1.02 H	256	32.1	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	5460.00	54.6 PK	74.0	-19.4	1.15 V	247	52.5	2.1
2	5460.00	42.2 AV	54.0	-11.8	1.15 V	247	40.1	2.1
3	#5470.00	55.2 PK	68.2	-13.0	1.15 V	247	53.0	2.2
4	*5720.00	120.0 PK			1.15 V	247	117.6	2.4
5	*5720.00	110.3 AV			1.15 V	247	107.9	2.4
6	#5850.00	57.6 PK	68.2	-10.6	1.15 V	247	54.9	2.7
7	11440.00	50.6 PK	74.0	-23.4	1.09 V	10	38.2	12.4
8	11440.00	38.8 AV	54.0	-15.2	1.09 V	10	26.4	12.4
9	#17160.00	50.8 PK	68.2	-17.4	1.91 V	13	34.2	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.

RF Mode	TX 802.11a	Channel	CH 149：5745 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	#5650.46	55.3 PK	68.5	-13.2	1.03 H	265	53.0	2.3
2	*5745.00	123.6 PK			1.03 H	265	121.2	2.4
3	*5745.00	112.4 AV			1.03 H	265	110.0	2.4
4	#5933.23	52.0 PK	68.2	-16.2	1.03 H	265	49.1	2.9
5	11490.00	50.2 PK	74.0	-23.8	1.01 H	250	37.6	12.6
6	11490.00	37.9 AV	54.0	-16.1	1.01 H	250	25.3	12.6
7	#17235.00	48.8 PK	68.2	-19.4	1.05 H	251	32.0	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	#5556.94	51.9 PK	68.2	-16.3	2.92 V	229	49.8	2.1
2	*5745.00	120.1 PK			2.92 V	229	117.7	2.4
3	*5745.00	110.7 AV			2.92 V	229	108.3	2.4
4	#5941.28	50.1 PK	68.2	-18.1	2.92 V	229	47.2	2.9
5	11490.00	51.2 PK	74.0	-22.8	1.14 V	13	38.6	12.6
6	11490.00	39.1 AV	54.0	-14.9	1.14 V	13	26.5	12.6
7	#17235.00	60.5 PK	68.2	-7.7	1.04 V	360	43.7	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.

RF Mode	TX 802.11a	Channel	CH 157：5785 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	#5590.19	54.8 PK	68.2	-13.4	1.06 H	270	52.7	2.1
2	*5785.00	123.2 PK			1.06 H	270	120.6	2.6
3	*5785.00	112.6 AV			1.06 H	270	110.0	2.6
4	#5979.76	52.9 PK	68.2	-15.3	1.06 H	270	50.0	2.9
5	11570.00	49.7 PK	74.0	-24.3	1.02 H	270	37.1	12.6
6	11570.00	37.9 AV	54.0	-16.1	1.02 H	270	25.3	12.6
7	#17355.00	47.6 PK	68.2	-20.6	1.00 H	259	29.9	17.7
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	#5600.82	53.1 PK	68.2	-15.1	3.18 V	203	51.0	2.1
2	*5785.00	119.4 PK			3.18 V	203	116.8	2.6
3	*5785.00	110.4 AV			3.18 V	203	107.8	2.6
4	#5933.16	50.2 PK	68.2	-18.0	3.18 V	203	47.3	2.9
5	11570.00	51.7 PK	74.0	-22.3	1.09 V	2	39.1	12.6
6	11570.00	39.5 AV	54.0	-14.5	1.09 V	2	26.9	12.6
7	#17355.00	60.3 PK	68.2	-7.9	1.06 V	360	42.6	17.7

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.

RF Mode	TX 802.11a	Channel	CH 165：5825 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	#5637.79	54.9 PK	68.2	-13.3	1.01 H	267	52.6	2.3
2	*5825.00	122.2 PK			1.01 H	267	119.6	2.6
3	*5825.00	112.4 AV			1.01 H	267	109.8	2.6
4	#5929.83	57.3 PK	68.2	-10.9	1.01 H	267	54.4	2.9
5	11650.00	50.3 PK	74.0	-23.7	1.03 H	261	38.1	12.2
6	11650.00	38.0 AV	54.0	-16.0	1.03 H	261	25.8	12.2
7	#17475.00	48.1 PK	68.2	-20.1	1.02 H	244	29.4	18.7
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	#5639.32	53.9 PK	68.2	-14.3	3.20 V	205	51.6	2.3
2	*5825.00	119.0 PK			3.20 V	205	116.4	2.6
3	*5825.00	110.3 AV			3.20 V	205	107.7	2.6
4	#5929.48	53.5 PK	68.2	-14.7	3.20 V	205	50.6	2.9
5	11650.00	50.8 PK	74.0	-23.2	1.13 V	4	38.6	12.2
6	11650.00	38.8 AV	54.0	-15.2	1.13 V	4	26.6	12.2
7	#17475.00	60.8 PK	68.2	-7.4	1.08 V	360	42.1	18.7

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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 36：5180 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	65.6 PK	74.0	-8.4	1.03 H	274	63.3	2.3
2	5150.00	52.8 AV	54.0	-1.2	1.03 H	274	50.5	2.3
3	*5180.00	118.5 PK			1.03 H	274	116.3	2.2
4	*5180.00	106.4 AV			1.03 H	274	104.2	2.2
5	#10360.00	44.9 PK	68.2	-23.3	1.76 H	136	33.1	11.8
6	15540.00	65.7 PK	74.0	-8.3	2.06 H	232	53.9	11.8
7	15540.00	51.0 AV	54.0	-3.0	2.06 H	232	39.2	11.8
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	63.5 PK	74.0	-10.5	2.57 V	208	61.2	2.3
2	5150.00	52.0 AV	54.0	-2.0	2.57 V	208	49.7	2.3
3	*5180.00	117.6 PK			2.57 V	208	115.4	2.2
4	*5180.00	105.8 AV			2.57 V	208	103.6	2.2
5	#10360.00	45.1 PK	68.2	-23.1	1.05 V	160	33.3	11.8
6	15540.00	64.9 PK	74.0	-9.1	2.06 V	253	53.1	11.8
7	15540.00	50.2 AV	54.0	-3.8	2.06 V	253	38.4	11.8

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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 40：5200 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	65.9 PK	74.0	-8.1	1.00 H	248	63.6	2.3
2	5150.00	52.4 AV	54.0	-1.6	1.00 H	248	50.1	2.3
3	*5200.00	119.8 PK			1.00 H	248	117.7	2.1
4	*5200.00	107.6 AV			1.00 H	248	105.5	2.1
5	#10400.00	45.3 PK	68.2	-22.9	1.82 H	125	33.3	12.0
6	15600.00	65.7 PK	74.0	-8.3	2.04 H	238	54.2	11.5
7	15600.00	49.8 AV	54.0	-4.2	2.04 H	238	38.3	11.5
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	64.8 PK	74.0	-9.2	2.43 V	207	62.5	2.3
2	**5150.00**	**53.0 AV**	**54.0**	**-1.0**	**2.43 V**	**207**	**50.7**	**2.3**
3	*5200.00	119.7 PK			2.43 V	207	117.6	2.1
4	*5200.00	107.4 AV			2.43 V	207	105.3	2.1
5	#10400.00	45.0 PK	68.2	-23.2	1.11 V	166	33.0	12.0
6	15600.00	65.1 PK	74.0	-8.9	2.02 V	246	53.6	11.5
7	15600.00	50.2 AV	54.0	-3.8	2.02 V	246	38.7	11.5

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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 48：5240 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	53.1 PK	74.0	-20.9	1.00 H	270	50.8	2.3
2	5150.00	41.4 AV	54.0	-12.6	1.00 H	270	39.1	2.3
3	*5240.00	121.3 PK			1.00 H	270	119.3	2.0
4	*5240.00	108.7 AV			1.00 H	270	106.7	2.0
5	5350.00	52.3 PK	74.0	-21.7	1.00 H	270	50.4	1.9
6	5350.00	42.9 AV	54.0	-11.1	1.00 H	270	41.0	1.9
7	#10480.00	45.4 PK	68.2	-22.8	1.78 H	132	33.5	11.9
8	15720.00	65.6 PK	74.0	-8.4	2.06 H	246	53.8	11.8
9	15720.00	50.9 AV	54.0	-3.1	2.06 H	246	39.1	11.8
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	52.8 PK	74.0	-21.2	2.44 V	194	50.5	2.3
2	5150.00	41.2 AV	54.0	-12.8	2.44 V	194	38.9	2.3
3	*5240.00	119.4 PK			2.44 V	194	117.4	2.0
4	*5240.00	107.1 AV			2.44 V	194	105.1	2.0
5	5350.00	53.1 PK	74.0	-20.9	2.44 V	194	51.2	1.9
6	5350.00	43.6 AV	54.0	-10.4	2.44 V	194	41.7	1.9
7	#10480.00	45.0 PK	68.2	-23.2	1.07 V	160	33.1	11.9
8	15720.00	65.3 PK	74.0	-8.7	2.02 V	254	53.5	11.8
9	15720.00	50.6 AV	54.0	-3.4	2.02 V	254	38.8	11.8

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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 52：5260 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	52.0 PK	74.0	-22.0	1.02 H	280	49.7	2.3
2	5150.00	40.7 AV	54.0	-13.3	1.02 H	280	38.4	2.3
3	*5260.00	120.8 PK			1.02 H	280	118.8	2.0
4	*5260.00	108.3 AV			1.02 H	280	106.3	2.0
5	5350.00	52.0 PK	74.0	-22.0	1.02 H	280	50.1	1.9
6	5350.00	42.8 AV	54.0	-11.2	1.02 H	280	40.9	1.9
7	#10520.00	44.9 PK	68.2	-23.3	1.80 H	118	32.9	12.0
8	15780.00	65.6 PK	74.0	-8.4	2.06 H	243	54.1	11.5
9	15780.00	51.0 AV	54.0	-3.0	2.06 H	243	39.5	11.5
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	53.4 PK	74.0	-20.6	2.48 V	208	51.1	2.3
2	5150.00	41.1 AV	54.0	-12.9	2.48 V	208	38.8	2.3
3	*5260.00	119.9 PK			2.48 V	208	117.9	2.0
4	*5260.00	107.6 AV			2.48 V	208	105.6	2.0
5	5350.00	52.4 PK	74.0	-21.6	2.48 V	208	50.5	1.9
6	5350.00	43.7 AV	54.0	-10.3	2.48 V	208	41.8	1.9
7	#10520.00	44.9 PK	68.2	-23.3	1.03 V	170	32.9	12.0
8	15780.00	65.2 PK	74.0	-8.8	1.98 V	265	53.7	11.5
9	15780.00	50.6 AV	54.0	-3.4	1.98 V	265	39.1	11.5

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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 60：5300 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	120.3 PK			1.04 H	290	118.6	1.7
2	*5300.00	107.9 AV			1.04 H	290	106.2	1.7
3	5350.00	63.2 PK	74.0	-10.8	1.04 H	290	61.3	1.9
4	5350.00	51.3 AV	54.0	-2.7	1.04 H	290	49.4	1.9
5	10600.00	45.5 PK	74.0	-28.5	1.84 H	128	33.6	11.9
6	10600.00	36.4 AV	54.0	-17.6	1.84 H	128	24.5	11.9
7	15900.00	65.1 PK	74.0	-8.9	2.07 H	234	53.8	11.3
8	15900.00	50.6 AV	54.0	-3.4	2.07 H	234	39.3	11.3
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	*5300.00	119.5 PK			2.50 V	209	117.8	1.7
2	*5300.00	107.2 AV			2.50 V	209	105.5	1.7
3	5350.00	61.6 PK	74.0	-12.4	2.50 V	209	59.7	1.9
4	5350.00	52.8 AV	54.0	-1.2	2.50 V	209	50.9	1.9
5	10600.00	50.7 PK	74.0	-23.3	1.09 V	160	38.8	11.9
6	10600.00	38.5 AV	54.0	-15.5	1.09 V	160	26.6	11.9
7	15900.00	65.7 PK	74.0	-8.3	1.97 V	267	54.4	11.3
8	15900.00	51.0 AV	54.0	-3.0	1.97 V	267	39.7	11.3

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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 64：5320 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	120.3 PK			1.00 H	267	118.5	1.8
2	*5320.00	108.1 AV			1.00 H	267	106.3	1.8
3	5350.00	66.6 PK	74.0	-7.4	1.00 H	267	64.7	1.9
4	5350.00	52.9 AV	54.0	-1.1	1.00 H	267	51.0	1.9
5	10640.00	45.2 PK	74.0	-28.8	1.84 H	140	33.4	11.8
6	10640.00	36.1 AV	54.0	-17.9	1.84 H	140	24.3	11.8
7	15960.00	64.9 PK	74.0	-9.1	2.07 H	224	53.3	11.6
8	15960.00	50.5 AV	54.0	-3.5	2.07 H	224	38.9	11.6
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	*5320.00	118.6 PK			2.43 V	210	116.8	1.8
2	*5320.00	106.1 AV			2.43 V	210	104.3	1.8
3	5350.00	64.1 PK	74.0	-9.9	2.43 V	210	62.2	1.9
4	5350.00	51.6 AV	54.0	-2.4	2.43 V	210	49.7	1.9
5	10640.00	50.8 PK	74.0	-23.2	1.08 V	153	39.0	11.8
6	10640.00	38.8 AV	54.0	-15.2	1.08 V	153	27.0	11.8
7	15960.00	65.2 PK	74.0	-8.8	1.92 V	271	53.6	11.6
8	15960.00	50.7 AV	54.0	-3.3	1.92 V	271	39.1	11.6

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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 100：5500 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	5456.00	60.4 PK	74.0	-13.6	1.00 H	272	58.3	2.1
2	5456.00	47.3 AV	54.0	-6.7	1.00 H	272	45.2	2.1
3	5460.00	58.4 PK	74.0	-15.6	1.00 H	272	56.3	2.1
4	5460.00	45.0 AV	54.0	-9.0	1.00 H	272	42.9	2.1
5	#5468.00	66.6 PK	68.2	-1.6	1.00 H	272	64.4	2.2
6	#5470.00	63.0 PK	68.2	-5.2	1.00 H	272	60.8	2.2
7	*5500.00	121.9 PK			1.00 H	272	119.8	2.1
8	*5500.00	109.5 AV			1.00 H	272	107.4	2.1
9	11000.00	51.1 PK	74.0	-22.9	1.86 H	127	38.7	12.4
10	11000.00	39.3 AV	54.0	-14.7	1.86 H	127	26.9	12.4
11	#16500.00	52.0 PK	68.2	-16.2	2.08 H	233	38.3	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	5456.00	56.7 PK	74.0	-17.3	2.58 V	323	54.6	2.1
2	5456.00	43.6 AV	54.0	-10.4	2.58 V	323	41.5	2.1
3	5460.00	60.5 PK	74.0	-13.5	2.58 V	323	58.4	2.1
4	5460.00	47.2 AV	54.0	-6.8	2.58 V	323	45.1	2.1
5	#5468.00	64.0 PK	68.2	-4.2	2.58 V	323	61.8	2.2
6	#5470.00	66.7 PK	68.2	-1.5	2.58 V	323	64.5	2.2
7	*5500.00	119.5 PK			2.58 V	323	117.4	2.1
8	*5500.00	107.1 AV			2.58 V	323	105.0	2.1
9	11000.00	50.4 PK	74.0	-23.6	1.08 V	146	38.0	12.4
10	11000.00	38.9 AV	54.0	-15.1	1.08 V	146	26.5	12.4
11	#16500.00	51.3 PK	68.2	-16.9	2.07 V	232	37.6	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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 116：5580 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	125.1 PK			1.08 H	259	123.0	2.1
2	*5580.00	112.8 AV			1.08 H	259	110.7	2.1
3	11160.00	51.0 PK	74.0	-23.0	1.88 H	119	39.0	12.0
4	11160.00	39.0 AV	54.0	-15.0	1.88 H	119	27.0	12.0
5	#16740.00	51.5 PK	68.2	-16.7	2.06 H	240	36.2	15.3
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	*5580.00	121.1 PK			2.95 V	231	119.0	2.1
2	*5580.00	109.9 AV			2.95 V	231	107.8	2.1
3	11160.00	50.3 PK	74.0	-23.7	1.12 V	146	38.3	12.0
4	11160.00	38.6 AV	54.0	-15.4	1.12 V	146	26.6	12.0
5	#16740.00	50.9 PK	68.2	-17.3	2.06 V	247	35.6	15.3

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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 140：5700 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	121.3 PK			1.00 H	277	119.0	2.3
2	*5700.00	109.2 AV			1.00 H	277	106.9	2.3
3	**#5725.00**	**67.2 PK**	**68.2**	**-1.0**	**1.00 H**	**277**	**64.8**	**2.4**
4	11400.00	50.9 PK	74.0	-23.1	1.81 H	121	38.4	12.5
5	11400.00	39.0 AV	54.0	-15.0	1.81 H	121	26.5	12.5
6	#17100.00	51.8 PK	68.2	-16.4	2.07 H	230	35.0	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	*5700.00	118.1 PK			2.92 V	329	115.8	2.3
2	*5700.00	106.2 AV			2.92 V	329	103.9	2.3
3	#5725.00	66.8 PK	68.2	-1.4	2.92 V	329	64.4	2.4
4	11400.00	50.2 PK	74.0	-23.8	1.07 V	158	37.7	12.5
5	11400.00	38.5 AV	54.0	-15.5	1.07 V	158	26.0	12.5
6	#17100.00	50.4 PK	68.2	-17.8	2.01 V	256	33.6	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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 144：5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	55.2 PK	74.0	-18.8	1.05 H	269	53.1	2.1
2	5460.00	42.6 AV	54.0	-11.4	1.05 H	269	40.5	2.1
3	#5470.00	55.3 PK	68.2	-12.9	1.05 H	269	53.1	2.2
4	*5720.00	125.4 PK			1.05 H	269	123.0	2.4
5	*5720.00	113.0 AV			1.05 H	269	110.6	2.4
6	#5850.00	57.5 PK	68.2	-10.7	1.05 H	269	54.8	2.7
7	11440.00	50.8 PK	74.0	-23.2	1.82 H	123	38.4	12.4
8	11440.00	39.3 AV	54.0	-14.7	1.82 H	123	26.9	12.4
9	#17160.00	52.1 PK	68.2	-16.1	2.06 H	225	35.5	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	5460.00	54.9 PK	74.0	-19.1	3.01 V	255	52.8	2.1
2	5460.00	42.5 AV	54.0	-11.5	3.01 V	255	40.4	2.1
3	#5470.00	55.0 PK	68.2	-13.2	3.01 V	255	52.8	2.2
4	*5720.00	120.6 PK			3.01 V	255	118.2	2.4
5	*5720.00	109.3 AV			3.01 V	255	106.9	2.4
6	#5850.00	57.6 PK	68.2	-10.6	3.01 V	255	54.9	2.7
7	11440.00	49.7 PK	74.0	-24.3	1.08 V	132	37.3	12.4
8	11440.00	38.2 AV	54.0	-15.8	1.08 V	132	25.8	12.4
9	#17160.00	50.3 PK	68.2	-17.9	2.04 V	236	33.7	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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 149：5745 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	#5644.52	65.6 PK	68.2	-2.6	1.00 H	271	63.3	2.3
2	*5745.00	125.1 PK			1.00 H	271	122.7	2.4
3	*5745.00	112.6 AV			1.00 H	271	110.2	2.4
4	#5928.57	54.3 PK	68.2	-13.9	1.00 H	271	51.4	2.9
5	11490.00	51.5 PK	74.0	-22.5	1.91 H	119	38.9	12.6
6	11490.00	39.5 AV	54.0	-14.5	1.91 H	119	26.9	12.6
7	#17235.00	52.1 PK	68.2	-16.1	2.02 H	246	35.3	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	#5646.90	53.1 PK	68.2	-15.1	2.97 V	245	50.8	2.3
2	*5745.00	120.6 PK			2.97 V	245	118.2	2.4
3	*5745.00	109.6 AV			2.97 V	245	107.2	2.4
4	#5941.87	50.7 PK	68.2	-17.5	2.97 V	245	47.8	2.9
5	11490.00	49.8 PK	74.0	-24.2	1.13 V	155	37.2	12.6
6	11490.00	38.3 AV	54.0	-15.7	1.13 V	155	25.7	12.6
7	#17235.00	50.6 PK	68.2	-17.6	2.01 V	233	33.8	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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 157：5785 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	#5602.25	55.7 PK	68.2	-12.5	1.00 H	262	53.6	2.1
2	*5785.00	124.8 PK			1.00 H	262	122.2	2.6
3	*5785.00	112.2 AV			1.00 H	262	109.6	2.6
4	#5968.95	52.1 PK	68.2	-16.1	1.00 H	262	49.2	2.9
5	11570.00	50.7 PK	74.0	-23.3	1.89 H	121	38.1	12.6
6	11570.00	38.8 AV	54.0	-15.2	1.89 H	121	26.2	12.6
7	#17355.00	52.3 PK	68.2	-15.9	2.14 H	219	34.6	17.7
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	#5589.43	53.5 PK	68.2	-14.7	3.03 V	241	51.4	2.1
2	*5785.00	120.2 PK			3.03 V	241	117.6	2.6
3	*5785.00	109.4 AV			3.03 V	241	106.8	2.6
4	#5974.18	50.1 PK	68.2	-18.1	3.03 V	241	47.2	2.9
5	11570.00	50.4 PK	74.0	-23.6	1.17 V	139	37.8	12.6
6	11570.00	38.9 AV	54.0	-15.1	1.17 V	139	26.3	12.6
7	#17355.00	51.0 PK	68.2	-17.2	2.06 V	256	33.3	17.7

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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 165：5825 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	#5624.57	54.7 PK	68.2	-13.5	1.03 H	283	52.6	2.1
2	*5825.00	125.4 PK			1.03 H	283	122.8	2.6
3	*5825.00	112.8 AV			1.03 H	283	110.2	2.6
4	#5928.10	57.8 PK	68.2	-10.4	1.03 H	283	54.9	2.9
5	11650.00	51.4 PK	74.0	-22.6	1.83 H	128	39.2	12.2
6	11650.00	39.5 AV	54.0	-14.5	1.83 H	128	27.3	12.2
7	#17475.00	52.2 PK	68.2	-16.0	2.04 H	232	33.5	18.7
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	#5626.00	53.0 PK	68.2	-15.2	2.99 V	230	50.7	2.3
2	*5825.00	120.6 PK			2.99 V	230	118.0	2.6
3	*5825.00	109.7 AV			2.99 V	230	107.1	2.6
4	#5925.25	56.4 PK	68.2	-11.8	2.99 V	230	53.5	2.9
5	11650.00	50.3 PK	74.0	-23.7	1.13 V	135	38.1	12.2
6	11650.00	38.8 AV	54.0	-15.2	1.13 V	135	26.6	12.2
7	#17475.00	50.7 PK	68.2	-17.5	2.11 V	262	32.0	18.7

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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 38：5190 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	67.2 PK	74.0	-6.8	1.00 H	274	64.9	2.3
2	**5150.00**	**53.0 AV**	**54.0**	**-1.0**	**1.00 H**	**274**	**50.7**	**2.3**
3	*5190.00	114.7 PK			1.00 H	274	112.6	2.1
4	*5190.00	103.2 AV			1.00 H	274	101.1	2.1
5	#10380.00	47.8 PK	68.2	-20.4	1.72 H	138	35.8	12.0
6	15570.00	61.7 PK	74.0	-12.3	1.02 H	251	50.0	11.7
7	15570.00	47.8 AV	54.0	-6.2	1.02 H	251	36.1	11.7
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	64.3 PK	74.0	-9.7	3.15 V	278	62.0	2.3
2	5150.00	50.7 AV	54.0	-3.3	3.15 V	278	48.4	2.3
3	*5190.00	113.5 PK			3.15 V	278	111.4	2.1
4	*5190.00	100.2 AV			3.15 V	278	98.1	2.1
5	#10380.00	50.8 PK	68.2	-17.4	1.10 V	163	38.8	12.0
6	15570.00	64.5 PK	74.0	-9.5	1.95 V	267	52.8	11.7
7	15570.00	50.2 AV	54.0	-3.8	1.95 V	267	38.5	11.7

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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 46：5230 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	67.6 PK	74.0	-6.4	1.00 H	253	65.3	2.3
2	5150.00	52.5 AV	54.0	-1.5	1.00 H	253	50.2	2.3
3	*5230.00	117.7 PK			1.00 H	253	115.6	2.1
4	*5230.00	105.9 AV			1.00 H	253	103.8	2.1
5	5350.00	60.8 PK	74.0	-13.2	1.00 H	253	58.9	1.9
6	5350.00	43.0 AV	54.0	-11.0	1.00 H	253	41.1	1.9
7	#10460.00	47.6 PK	68.2	-20.6	1.77 H	139	35.6	12.0
8	15690.00	62.0 PK	74.0	-12.0	1.12 H	240	50.1	11.9
9	15690.00	48.4 AV	54.0	-5.6	1.12 H	240	36.5	11.9
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	65.0 PK	74.0	-9.0	3.26 V	229	62.7	2.3
2	5150.00	48.1 AV	54.0	-5.9	3.26 V	229	45.8	2.3
3	*5230.00	117.0 PK			3.26 V	229	114.9	2.1
4	*5230.00	104.6 AV			3.26 V	229	102.5	2.1
5	5350.00	60.8 PK	74.0	-13.2	3.26 V	229	58.9	1.9
6	5350.00	42.4 AV	54.0	-11.6	3.26 V	229	40.5	1.9
7	#10460.00	50.4 PK	68.2	-17.8	1.14 V	151	38.4	12.0
8	15690.00	65.4 PK	74.0	-8.6	1.95 V	270	53.5	11.9
9	15690.00	50.8 AV	54.0	-3.2	1.95 V	270	38.9	11.9

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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 54：5270 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	60.0 PK	74.0	-14.0	1.00 H	269	57.7	2.3
2	5150.00	44.3 AV	54.0	-9.7	1.00 H	269	42.0	2.3
3	*5270.00	118.0 PK			1.00 H	269	116.1	1.9
4	*5270.00	105.2 AV			1.00 H	269	103.3	1.9
5	5350.00	60.1 PK	74.0	-13.9	1.00 H	269	58.2	1.9
6	5350.00	48.2 AV	54.0	-5.8	1.00 H	269	46.3	1.9
7	5354.95	69.2 PK	74.0	-4.8	1.00 H	269	67.2	2.0
8	5354.95	52.7 AV	54.0	-1.3	1.00 H	269	50.7	2.0
9	#10540.00	48.1 PK	68.2	-20.1	1.71 H	144	36.2	11.9
10	15810.00	61.9 PK	74.0	-12.1	1.02 H	246	50.5	11.4
11	15810.00	48.1 AV	54.0	-5.9	1.02 H	246	36.7	11.4
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	5150.00	59.2 PK	74.0	-14.8	3.19 V	227	56.9	2.3
2	5150.00	41.3 AV	54.0	-12.7	3.19 V	227	39.0	2.3
3	*5270.00	117.3 PK			3.19 V	227	115.4	1.9
4	*5270.00	105.4 AV			3.19 V	227	103.5	1.9
5	5350.00	59.3 PK	74.0	-14.7	3.19 V	227	57.4	1.9
6	5350.00	47.6 AV	54.0	-6.4	3.19 V	227	45.7	1.9
7	5354.95	68.4 PK	74.0	-5.6	3.19 V	227	66.4	2.0
8	5354.95	52.0 AV	54.0	-2.0	3.19 V	227	50.0	2.0
9	#10540.00	50.8 PK	68.2	-17.4	1.05 V	140	38.9	11.9
10	15810.00	65.5 PK	74.0	-8.5	1.98 V	266	54.1	11.4
11	15810.00	50.8 AV	54.0	-3.2	1.98 V	266	39.4	11.4

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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 62：5310 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	114.6 PK			1.00 H	269	112.8	1.8
2	*5310.00	102.7 AV			1.00 H	269	100.9	1.8
3	5350.00	65.6 PK	74.0	-8.4	1.00 H	269	63.7	1.9
4	**5350.00**	**53.0 AV**	**54.0**	**-1.0**	**1.00 H**	**269**	**51.1**	**1.9**
5	10620.00	47.8 PK	74.0	-26.2	1.80 H	134	36.0	11.8
6	10620.00	36.2 AV	54.0	-17.8	1.80 H	134	24.4	11.8
7	15930.00	62.0 PK	74.0	-12.0	1.02 H	232	50.5	11.5
8	15930.00	48.4 AV	54.0	-5.6	1.02 H	232	36.9	11.5
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	*5310.00	114.3 PK			2.46 V	232	112.5	1.8
2	*5310.00	102.3 AV			2.46 V	232	100.5	1.8
3	5350.00	65.5 PK	74.0	-8.5	2.46 V	232	63.6	1.9
4	5350.00	52.7 AV	54.0	-1.3	2.46 V	232	50.8	1.9
5	10620.00	50.7 PK	74.0	-23.3	1.05 V	150	38.9	11.8
6	10620.00	38.8 AV	54.0	-15.2	1.05 V	150	27.0	11.8
7	15930.00	65.2 PK	74.0	-8.8	1.95 V	255	53.7	11.5
8	15930.00	50.6 AV	54.0	-3.4	1.95 V	255	39.1	11.5

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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 102：5510 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	55.2 PK	74.0	-18.8	3.87 H	282	53.1	2.1
2	5460.00	41.7 AV	54.0	-12.3	3.87 H	282	39.6	2.1
3	#5466.91	66.0 PK	68.2	-2.2	3.87 H	282	63.8	2.2
4	#5470.00	66.8 PK	68.2	-1.4	3.87 H	282	64.6	2.2
5	*5510.00	114.0 PK			3.87 H	282	111.9	2.1
6	*5510.00	102.5 AV			3.87 H	282	100.4	2.1
7	11020.00	51.1 PK	74.0	-22.9	1.84 H	131	38.8	12.3
8	11020.00	39.2 AV	54.0	-14.8	1.84 H	131	26.9	12.3
9	#16530.00	51.5 PK	68.2	-16.7	2.05 H	228	37.6	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	5460.00	55.9 PK	74.0	-18.1	1.00 V	222	53.8	2.1
2	5460.00	42.9 AV	54.0	-11.1	1.00 V	222	40.8	2.1
3	#5466.91	65.1 PK	68.2	-3.1	1.00 V	222	62.9	2.2
4	#5470.00	60.4 PK	68.2	-7.8	1.00 V	222	58.2	2.2
5	*5510.00	111.7 PK			1.00 V	222	109.6	2.1
6	*5510.00	100.4 AV			1.00 V	222	98.3	2.1
7	11020.00	50.1 PK	74.0	-23.9	1.02 V	139	37.8	12.3
8	11020.00	38.8 AV	54.0	-15.2	1.02 V	139	26.5	12.3
9	#16530.00	51.8 PK	68.2	-16.4	2.03 V	247	37.9	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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 110：5550 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	**#5470.00**	**67.2 PK**	**68.2**	**-1.0**	**1.04 H**	**268**	**65.0**	**2.2**
2	*5550.00	119.2 PK			1.04 H	268	117.1	2.1
3	*5550.00	108.2 AV			1.04 H	268	106.1	2.1
4	11100.00	51.5 PK	74.0	-22.5	1.89 H	133	39.6	11.9
5	11100.00	39.7 AV	54.0	-14.3	1.89 H	133	27.8	11.9
6	#16650.00	52.6 PK	68.2	-15.6	2.09 H	222	37.8	14.8
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	#5470.00	67.0 PK	68.2	-1.2	1.06 V	272	64.8	2.2
2	*5550.00	119.1 PK			1.06 V	272	117.0	2.1
3	*5550.00	107.8 AV			1.06 V	272	105.7	2.1
4	11100.00	49.8 PK	74.0	-24.2	1.07 V	151	37.9	11.9
5	11100.00	38.4 AV	54.0	-15.6	1.07 V	151	26.5	11.9
6	#16650.00	51.1 PK	68.2	-17.1	2.10 V	234	36.3	14.8

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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 134：5670 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	118.4 PK			1.00 H	268	116.1	2.3
2	*5670.00	106.6 AV			1.00 H	268	104.3	2.3
3	#5725.00	66.7 PK	68.2	-1.5	1.00 H	268	64.3	2.4
4	11340.00	50.4 PK	74.0	-23.6	1.80 H	138	38.2	12.2
5	11340.00	38.9 AV	54.0	-15.1	1.80 H	138	26.7	12.2
6	#17010.00	51.7 PK	68.2	-16.5	2.13 H	249	35.1	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	*5670.00	115.8 PK			2.41 V	234	113.5	2.3
2	*5670.00	104.3 AV			2.41 V	234	102.0	2.3
3	#5725.00	64.8 PK	68.2	-3.4	2.41 V	234	62.4	2.4
4	11340.00	49.9 PK	74.0	-24.1	1.12 V	150	37.7	12.2
5	11340.00	38.7 AV	54.0	-15.3	1.12 V	150	26.5	12.2
6	#17010.00	51.1 PK	68.2	-17.1	2.11 V	247	34.5	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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 142：5710 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	55.8 PK	74.0	-18.2	1.01 H	261	53.7	2.1
2	5460.00	43.1 AV	54.0	-10.9	1.01 H	261	41.0	2.1
3	#5470.00	57.0 PK	68.2	-11.2	1.01 H	261	54.8	2.2
4	*5710.00	118.6 PK			1.01 H	261	116.2	2.4
5	*5710.00	106.5 AV			1.01 H	261	104.1	2.4
6	#5850.00	60.6 PK	68.2	-7.6	1.01 H	261	57.9	2.7
7	11420.00	50.7 PK	74.0	-23.3	1.86 H	130	38.2	12.5
8	11420.00	39.1 AV	54.0	-14.9	1.86 H	130	26.6	12.5
9	#17130.00	51.8 PK	68.2	-16.4	2.12 H	240	35.0	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	5460.00	55.9 PK	74.0	-18.1	2.39 V	242	53.8	2.1
2	5460.00	43.5 AV	54.0	-10.5	2.39 V	242	41.4	2.1
3	#5470.00	56.6 PK	68.2	-11.6	2.39 V	242	54.4	2.2
4	*5710.00	116.2 PK			2.39 V	242	113.8	2.4
5	*5710.00	104.7 AV			2.39 V	242	102.3	2.4
6	#5850.00	60.2 PK	68.2	-8.0	2.39 V	242	57.5	2.7
7	11420.00	50.0 PK	74.0	-24.0	1.08 V	134	37.5	12.5
8	11420.00	38.6 AV	54.0	-15.4	1.08 V	134	26.1	12.5
9	#17130.00	51.7 PK	68.2	-16.5	2.04 V	231	34.9	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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 151：5755 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	#5635.37	67.1 PK	68.2	-1.1	1.00 H	268	64.8	2.3
2	*5755.00	119.5 PK			1.00 H	268	117.0	2.5
3	*5755.00	107.8 AV			1.00 H	268	105.3	2.5
4	#5930.23	58.0 PK	68.2	-10.2	1.00 H	268	55.1	2.9
5	11510.00	51.0 PK	74.0	-23.0	1.86 H	134	38.4	12.6
6	11510.00	39.1 AV	54.0	-14.9	1.86 H	134	26.5	12.6
7	#17265.00	51.6 PK	68.2	-16.6	2.12 H	224	34.7	16.9
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	#5649.79	67.0 PK	68.2	-1.2	3.25 V	232	64.7	2.3
2	*5755.00	118.6 PK			3.25 V	232	116.1	2.5
3	*5755.00	107.0 AV			3.25 V	232	104.5	2.5
4	#5931.15	56.8 PK	68.2	-11.4	3.25 V	232	53.9	2.9
5	11510.00	50.8 PK	74.0	-23.2	1.11 V	129	38.2	12.6
6	11510.00	39.0 AV	54.0	-15.0	1.11 V	129	26.4	12.6
7	#17265.00	50.7 PK	68.2	-17.5	2.07 V	269	33.8	16.9

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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 159：5795 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	#5635.14	61.9 PK	68.2	-6.3	1.00 H	264	59.6	2.3
2	*5795.00	118.6 PK			1.00 H	264	116.0	2.6
3	*5795.00	107.0 AV			1.00 H	264	104.4	2.6
4	#5925.21	65.3 PK	68.2	-2.9	1.00 H	264	62.4	2.9
5	11590.00	51.9 PK	74.0	-22.1	1.88 H	134	39.3	12.6
6	11590.00	39.8 AV	54.0	-14.2	1.88 H	134	27.2	12.6
7	#17385.00	52.0 PK	68.2	-16.2	2.02 H	228	34.1	17.9
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	#5648.30	60.0 PK	68.2	-8.2	3.22 V	233	57.7	2.3
2	*5795.00	117.4 PK			3.22 V	233	114.8	2.6
3	*5795.00	106.2 AV			3.22 V	233	103.6	2.6
4	#5930.74	59.3 PK	68.2	-8.9	3.22 V	233	56.4	2.9
5	11590.00	50.6 PK	74.0	-23.4	1.15 V	138	38.0	12.6
6	11590.00	38.9 AV	54.0	-15.1	1.15 V	138	26.3	12.6
7	#17385.00	50.1 PK	68.2	-18.1	2.07 V	262	32.2	17.9

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.

RF Mode	TX 802.11ax (HE80)	Channel	CH 42：5210 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	64.6 PK	74.0	-9.4	1.00 H	257	62.3	2.3
2	5150.00	52.0 AV	54.0	-2.0	1.00 H	257	49.7	2.3
3	*5210.00	109.4 PK			1.00 H	257	107.3	2.1
4	*5210.00	98.6 AV			1.00 H	257	96.5	2.1
5	5350.00	54.4 PK	74.0	-19.6	1.00 H	257	52.5	1.9
6	5350.00	42.7 AV	54.0	-11.3	1.00 H	257	40.8	1.9
7	#10420.00	47.3 PK	68.2	-20.9	1.67 H	137	35.2	12.1
8	15630.00	62.3 PK	74.0	-11.7	1.00 H	258	50.6	11.7
9	15630.00	48.1 AV	54.0	-5.9	1.00 H	258	36.4	11.7
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	65.4 PK	74.0	-8.6	2.96 V	227	63.1	2.3
2	5150.00	52.5 AV	54.0	-1.5	2.96 V	227	50.2	2.3
3	*5210.00	110.4 PK			2.96 V	227	108.3	2.1
4	*5210.00	99.3 AV			2.96 V	227	97.2	2.1
5	5350.00	53.8 PK	74.0	-20.2	2.96 V	227	51.9	1.9
6	5350.00	40.5 AV	54.0	-13.5	2.96 V	227	38.6	1.9
7	#10420.00	51.6 PK	68.2	-16.6	1.14 V	175	39.5	12.1
8	15630.00	64.4 PK	74.0	-9.6	1.91 V	277	52.7	11.7
9	15630.00	49.9 AV	54.0	-4.1	1.91 V	277	38.2	11.7

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.

RF Mode	TX 802.11ax (HE80)	Channel	CH 58：5290 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	50.0 PK	74.0	-24.0	1.00 H	281	47.7	2.3
2	5150.00	38.0 AV	54.0	-16.0	1.00 H	281	35.7	2.3
3	*5290.00	107.3 PK			1.00 H	281	105.5	1.8
4	*5290.00	95.5 AV			1.00 H	281	93.7	1.8
5	5356.91	62.5 PK	74.0	-11.5	1.00 H	281	60.5	2.0
6	5356.91	48.4 AV	54.0	-5.6	1.00 H	281	46.4	2.0
7	#10580.00	47.7 PK	68.2	-20.5	1.71 H	133	35.9	11.8
8	15870.00	61.5 PK	74.0	-12.5	1.00 H	248	50.2	11.3
9	15870.00	47.9 AV	54.0	-6.1	1.00 H	248	36.6	11.3
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	5150.00	55.0 PK	74.0	-19.0	1.00 V	237	52.7	2.3
2	5150.00	39.9 AV	54.0	-14.1	1.00 V	237	37.6	2.3
3	*5290.00	107.6 PK			1.00 V	237	105.8	1.8
4	*5290.00	96.1 AV			1.00 V	237	94.3	1.8
5	5356.91	66.5 PK	74.0	-7.5	1.00 V	237	64.5	2.0
6	5356.91	52.0 AV	54.0	-2.0	1.00 V	237	50.0	2.0
7	#10580.00	51.1 PK	68.2	-17.1	1.14 V	174	39.3	11.8
8	15870.00	64.1 PK	74.0	-9.9	1.91 V	260	52.8	11.3
9	15870.00	49.8 AV	54.0	-4.2	1.91 V	260	38.5	11.3

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.

RF Mode	TX 802.11ax (HE80)	Channel	CH 106：5530 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	5455.71	64.3 PK	74.0	-9.7	1.00 H	267	62.2	2.1
2	5455.71	52.4 AV	54.0	-1.6	1.00 H	267	50.3	2.1
3	5460.00	64.5 PK	74.0	-9.5	1.00 H	267	62.4	2.1
4	5460.00	52.2 AV	54.0	-1.8	1.00 H	267	50.1	2.1
5	#5470.00	65.2 PK	68.2	-3.0	1.00 H	267	63.0	2.2
6	*5530.00	111.1 PK			1.00 H	267	109.1	2.0
7	*5530.00	99.6 AV			1.00 H	267	97.6	2.0
8	#5725.00	53.4 PK	68.2	-14.8	1.00 H	267	51.0	2.4
9	11060.00	51.8 PK	74.0	-22.2	1.93 H	147	39.7	12.1
10	11060.00	39.9 AV	54.0	-14.1	1.93 H	147	27.8	12.1
11	#16590.00	52.2 PK	68.2	-16.0	1.99 H	220	37.9	14.3
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	59.0 PK	74.0	-15.0	3.27 V	226	56.9	2.1
2	5460.00	46.5 AV	54.0	-7.5	3.27 V	226	44.4	2.1
3	#5470.00	60.5 PK	68.2	-7.7	3.27 V	226	58.3	2.2
4	*5530.00	109.3 PK			3.27 V	226	107.3	2.0
5	*5530.00	97.5 AV			3.27 V	226	95.5	2.0
6	#5725.00	51.8 PK	68.2	-16.4	3.27 V	226	49.4	2.4
7	11060.00	49.4 PK	74.0	-24.6	1.03 V	151	37.3	12.1
8	11060.00	38.1 AV	54.0	-15.9	1.03 V	151	26.0	12.1
9	#16590.00	51.4 PK	68.2	-16.8	2.14 V	223	37.1	14.3

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.

RF Mode	TX 802.11ax (HE80)	Channel	CH 122：5610 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	116.1 PK			1.04 H	266	114.0	2.1
2	*5610.00	104.1 AV			1.04 H	266	102.0	2.1
3	**#5725.00**	**67.2 PK**	**68.2**	**-1.0**	**1.04 H**	**266**	**64.8**	**2.4**
4	11220.00	52.1 PK	74.0	-21.9	1.94 H	120	40.0	12.1
5	11220.00	39.8 AV	54.0	-14.2	1.94 H	120	27.7	12.1
6	#16830.00	52.0 PK	68.2	-16.2	2.06 H	238	36.2	15.8
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	*5610.00	111.8 PK			3.64 V	211	109.7	2.1
2	*5610.00	100.6 AV			3.64 V	211	98.5	2.1
3	#5725.00	63.1 PK	68.2	-5.1	3.64 V	211	60.7	2.4
4	11220.00	49.3 PK	74.0	-24.7	1.12 V	151	37.2	12.1
5	11220.00	38.1 AV	54.0	-15.9	1.12 V	151	26.0	12.1
6	#16830.00	50.8 PK	68.2	-17.4	2.15 V	245	35.0	15.8

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.

RF Mode	TX 802.11ax (HE80)	Channel	CH 138：5690 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	58.7 PK	74.0	-15.3	1.02 H	273	56.6	2.1
2	5460.00	46.5 AV	54.0	-7.5	1.02 H	273	44.4	2.1
3	#5470.00	64.5 PK	68.2	-3.7	1.02 H	273	62.3	2.2
4	*5690.00	115.7 PK			1.02 H	273	113.4	2.3
5	*5690.00	103.9 AV			1.02 H	273	101.6	2.3
6	#5850.00	65.4 PK	68.2	-2.8	1.02 H	273	62.7	2.7
7	11380.00	51.6 PK	74.0	-22.4	1.85 H	137	39.2	12.4
8	11380.00	39.5 AV	54.0	-14.5	1.85 H	137	27.1	12.4
9	#17070.00	51.3 PK	68.2	-16.9	2.03 H	231	34.5	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	5460.00	58.6 PK	74.0	-15.4	3.59 V	225	56.5	2.1
2	5460.00	46.4 AV	54.0	-7.6	3.59 V	225	44.3	2.1
3	#5470.00	62.1 PK	68.2	-6.1	3.59 V	225	59.9	2.2
4	*5690.00	111.8 PK			3.59 V	225	109.5	2.3
5	*5690.00	100.8 AV			3.59 V	225	98.5	2.3
6	#5850.00	63.2 PK	68.2	-5.0	3.59 V	225	60.5	2.7
7	11380.00	49.6 PK	74.0	-24.4	1.09 V	162	37.2	12.4
8	11380.00	38.4 AV	54.0	-15.6	1.09 V	162	26.0	12.4
9	#17070.00	51.0 PK	68.2	-17.2	2.14 V	234	34.2	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.

RF Mode	TX 802.11ax (HE80)	Channel	CH 155：5775 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	#5639.97	67.1 PK	68.2	-1.1	1.00 H	269	64.8	2.3
2	*5775.00	113.5 PK			1.00 H	265	111.0	2.5
3	*5775.00	102.5 AV			1.00 H	265	100.0	2.5
4	#5929.20	62.7 PK	68.2	-5.5	1.00 H	269	59.8	2.9
5	11550.00	52.0 PK	74.0	-22.0	1.92 H	136	39.5	12.5
6	11550.00	39.6 AV	54.0	-14.4	1.92 H	136	27.1	12.5
7	#17325.00	52.2 PK	68.2	-16.0	2.05 H	214	34.9	17.3
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	#5641.97	62.7 PK	68.2	-5.5	3.74 V	222	60.4	2.3
2	*5775.00	111.4 PK			3.74 V	222	108.9	2.5
3	*5775.00	100.3 AV			3.74 V	222	97.8	2.5
4	#5934.56	58.9 PK	68.2	-9.3	3.74 V	222	56.0	2.9
5	11550.00	49.8 PK	74.0	-24.2	1.12 V	144	37.3	12.5
6	11550.00	38.3 AV	54.0	-15.7	1.12 V	144	25.8	12.5
7	#17325.00	51.4 PK	68.2	-16.8	2.08 V	227	34.1	17.3

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.

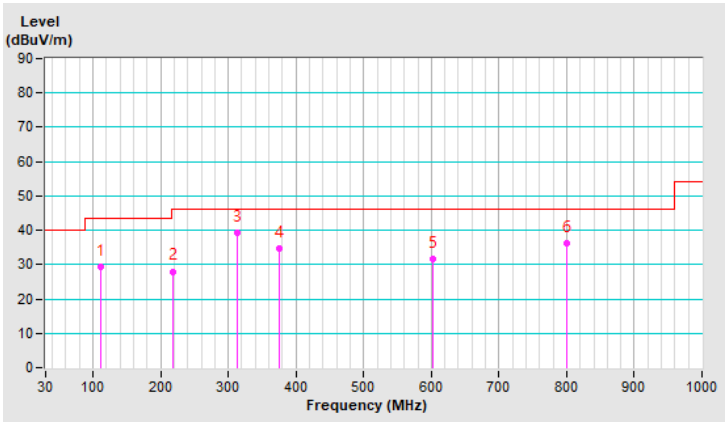
Below 1GHz Data:

RF Mode	TX 802.11a	Channel	CH 36：5180 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

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	111.73	29.3 QP	43.5	-14.2	1.50 H	277	45.1	-15.8
2	218.77	28.0 QP	46.0	-18.0	1.50 H	277	44.0	-16.0
3	312.96	39.1 QP	46.0	-6.9	1.50 H	300	51.0	-11.9
4	375.00	34.6 QP	46.0	-11.4	1.00 H	191	45.1	-10.5
5	601.65	31.5 QP	46.0	-14.5	1.50 H	153	36.7	-5.2
6	800.10	36.2 QP	46.0	-9.8	1.00 H	252	38.6	-2.4

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 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.

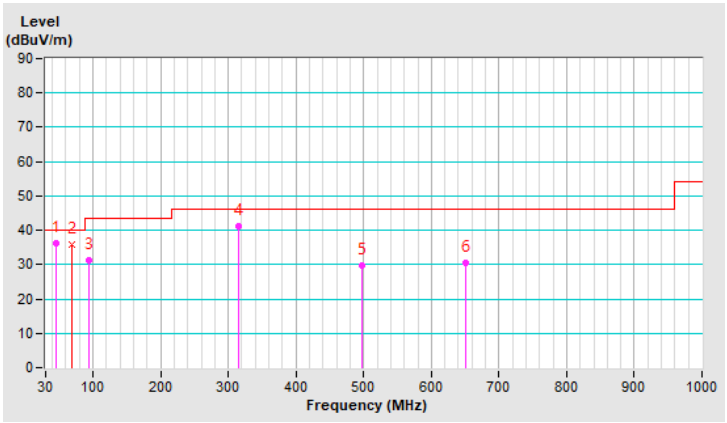


RF Mode	TX 802.11a	Channel	CH 36：5180 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

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	45.34	36.1 QP	40.0	-3.9	1.50 V	185	48.9	-12.8
2	68.23	35.9 QP	40.0	-4.1	1.00 V	70	50.5	-14.6
3	93.05	31.4 QP	43.5	-12.1	1.00 V	180	49.8	-18.4
4	315.19	41.3 QP	46.0	-4.7	1.00 V	270	53.2	-11.9
5	498.08	29.8 QP	46.0	-16.2	2.00 V	180	37.5	-7.7
6	650.01	30.4 QP	46.0	-15.6	1.00 V	280	35.0	-4.6

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 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. 20, 2020	Oct. 19, 2021
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 27, 2020	Oct. 26, 2021
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 26, 2021	Mar. 25, 2022
50 ohms Terminator	50	3	Oct. 26, 2020	Oct. 25, 2021
RF Cable	5D-FB	COCCAB-001	Sep. 26, 2020	Sep. 25, 2021
Fixed attenuator EMCI	STI02-2200-10	005	Aug. 29, 2020	Aug. 28, 2021
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: May 15, 2021

4.2.3 Test Procedure

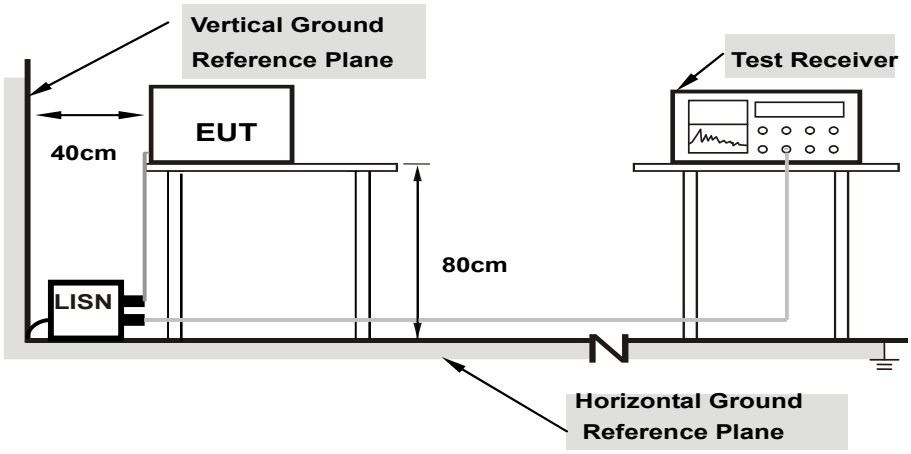
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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.

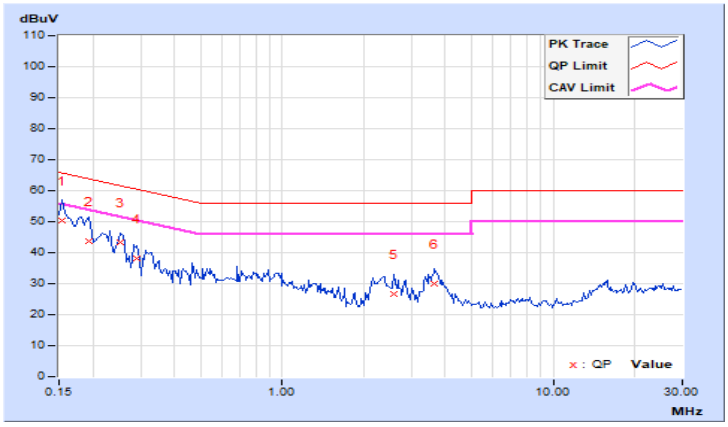
4.2.7 Test Results

RF Mode	TX 802.11a	Channel	CH 36：5180 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz

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	0.15391	9.96	40.30	30.35	50.26	40.31	65.79	55.79	-15.53	-15.48
2	0.19297	9.99	33.67	22.07	43.66	32.06	63.91	53.91	-20.25	-21.85
3	**0.25156**	**10.00**	**33.45**	**26.81**	**43.45**	**36.81**	**61.71**	**51.71**	**-18.26**	**-14.90**
4	0.29063	10.00	28.01	21.33	38.01	31.33	60.51	50.51	-22.50	-19.18
5	2.58984	10.18	16.65	7.70	26.83	17.88	56.00	46.00	-29.17	-28.12
6	3.65625	10.26	19.69	9.12	29.95	19.38	56.00	46.00	-26.05	-26.62

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

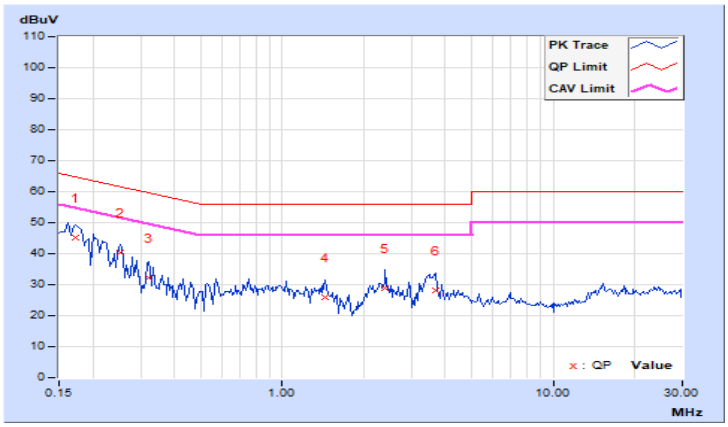


RF Mode	TX 802.11a	Channel	CH 36：5180 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz

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	0.17344	9.96	35.33	21.72	45.29	31.68	64.79	54.79	-19.50	-23.11
2	0.25156	9.99	30.27	24.09	40.26	34.08	61.71	51.71	-21.45	-17.63
3	0.32188	10.00	22.36	13.85	32.36	23.85	59.66	49.66	-27.30	-25.81
4	1.44141	10.10	15.76	8.90	25.86	19.00	56.00	46.00	-30.14	-27.00
5	2.39453	10.16	18.70	10.06	28.86	20.22	56.00	46.00	-27.14	-25.78
6	3.67969	10.23	17.93	8.96	28.16	19.19	56.00	46.00	-27.84	-26.81

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

Note: This device can support different category application which switched by access point mode and client mode by software.

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

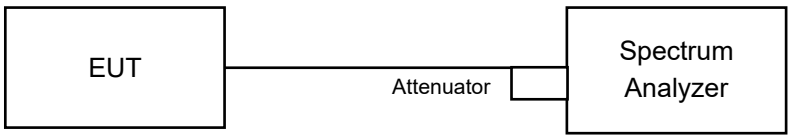
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

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

4.3.2 Test Setup

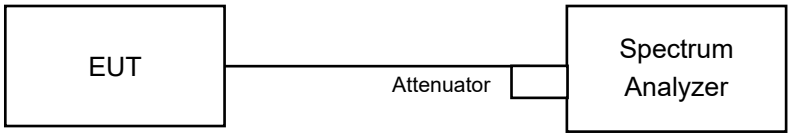
FOR POWER OUTPUT MEASUREMENT

For channel straddling 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-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

CDD Mode

Power Output:

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	24.22	24.83	568.329	27.55	30	Pass
40	5200	24.02	24.10	509.388	27.07	30	Pass
48	5240	23.54	23.29	439.248	26.43	30	Pass
52	5260	20.95	20.64	240.329	23.81	24	Pass
60	5300	20.87	20.48	233.866	23.69	24	Pass
64	5320	20.74	20.62	233.922	23.69	24	Pass
100	5500	20.79	20.80	240.176	23.81	24	Pass
116	5580	20.99	20.85	247.222	23.93	24	Pass
140	5700	21.08	20.75	247.083	23.93	24	Pass
*144 (U-NII-2C Band)	5720	18.18	18.48	145.612	21.63	22.82	Pass
*144 (U-NII-3 Band)	5720	11.71	12.05	32.981	15.18	30	Pass
149	5745	23.88	23.21	453.754	26.57	30	Pass
157	5785	23.67	23.37	450.079	26.53	30	Pass
165	5825	23.90	23.59	474.031	26.76	30	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 duty factor was included in the total power.

Determined Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	20.71	24.16 > 24
60	5300	20.52	24.12 > 24
64	5320	20.61	24.14 > 24
100	5500	20.59	24.13 > 24
116	5580	20.56	24.13 > 24
140	5700	20.7	24.15 > 24
144 (U-NII-2C Band)	5720	15.21	22.82 < 24

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

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	23.67	22.68	418.162	26.21	30	Pass
40	5200	23.65	23.40	450.516	26.54	30	Pass
48	5240	23.41	23.29	432.585	26.36	30	Pass
52	5260	20.55	20.29	220.407	23.43	24	Pass
60	5300	20.76	20.69	236.344	23.74	24	Pass
64	5320	21.02	20.67	243.155	23.86	24	Pass
100	5500	20.76	20.82	239.906	23.80	24	Pass
116	5580	21.04	20.72	245.089	23.89	24	Pass
140	5700	21.03	20.50	238.967	23.78	24	Pass
*144 (U-NII-2C Band)	5720	17.75	17.78	125.481	20.99	22.93	Pass
*144 (U-NII-3 Band)	5720	12.04	12.10	33.813	15.29	30	Pass
149	5745	23.60	22.99	428.154	26.32	30	Pass
157	5785	23.79	23.50	463.204	26.66	30	Pass
165	5825	23.78	23.36	455.552	26.59	30	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 duty factor was included in the total power.

Determined Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	21.4	24.3 > 24
60	5300	21.24	24.27 > 24
64	5320	21.24	24.27 > 24
100	5500	21.44	24.31 > 24
116	5580	21.41	24.3 > 24
140	5700	21.65	24.35 > 24
144 (U-NII-2C Band)	5720	15.62	22.93 < 24

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

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	22.52	22.11	341.204	25.33	30	Pass
46	5230	23.52	23.40	443.682	26.47	30	Pass
54	5270	20.97	20.66	241.439	23.83	24	Pass
62	5310	19.32	20.51	197.967	22.97	24	Pass
102	5510	20.28	20.60	221.475	23.45	24	Pass
110	5550	20.71	20.67	234.442	23.70	24	Pass
134	5670	21.01	20.61	241.263	23.82	24	Pass
*142 (U-NII-2C Band)	5710	18.28	18.24	141.862	21.52	24	Pass
*142 (U-NII-3 Band)	5710	8.13	8.12	13.752	11.38	30	Pass
151	5755	23.66	23.23	442.652	26.46	30	Pass
159	5795	23.00	22.94	396.315	25.98	30	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 duty factor was included in the total power.

Determined Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	42.58	27.29 > 24
62	5310	42.62	27.29 > 24
102	5510	42.45	27.27 > 24
110	5550	42.3	27.26 > 24
134	5670	42.16	27.24 > 24
142 (U-NII-2C Band)	5710	36.2	26.58 > 24

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

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	21.14	21.17	260.935	24.17	30	Pass
58	5290	18.19	17.96	128.435	21.09	24	Pass
106	5530	20.51	20.74	231.037	23.64	24	Pass
122	5610	20.56	20.86	235.662	23.72	24	Pass
*138 (U-NII-2C Band)	5690	16.15	16.14	87.199	19.41	24	Pass
*138 (U-NII-3 Band)	5690	2.27	2.29	3.581	5.54	30	Pass
155	5775	21.45	21.11	268.759	24.29	30	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 duty factor was included in the total power.

Determined Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	82.76	30.17 > 24
106	5530	82.94	30.18 > 24
122	5610	83.04	30.19 > 24
138 (U-NII-2C Band)	5690	76.28	29.82 > 24

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

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	23.72	22.72	422.573	26.26	30	Pass
40	5200	23.74	23.50	460.464	26.63	30	Pass
48	5240	23.55	23.35	442.736	26.46	30	Pass
52	5260	20.64	20.32	223.524	23.49	24	Pass
60	5300	20.87	20.76	241.304	23.83	24	Pass
64	5320	21.10	20.72	246.857	23.92	24	Pass
100	5500	20.85	20.86	243.518	23.87	24	Pass
116	5580	21.07	20.81	248.442	23.95	24	Pass
140	5700	21.07	20.63	243.549	23.87	24	Pass
*144 (U-NII-2C Band)	5720	18.03	18.11	134.615	21.29	22.93	Pass
*144 (U-NII-3 Band)	5720	12.39	12.43	36.566	15.63	30	Pass
149	5745	23.70	23.05	436.26	26.40	30	Pass
157	5785	23.82	23.62	471.135	26.73	30	Pass
165	5825	23.87	23.46	465.601	26.68	30	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 duty factor was included in the total power.

Determined Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	21.4	24.3 > 24
60	5300	21.24	24.27 > 24
64	5320	21.24	24.27 > 24
100	5500	21.44	24.31 > 24
116	5580	21.41	24.3 > 24
140	5700	21.65	24.35 > 24
144 (U-NII-2C Band)	5720	15.62	22.93 < 24

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

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	22.63	22.24	350.726	25.45	30	Pass
46	5230	23.64	23.52	456.112	26.59	30	Pass
54	5270	21.11	20.71	246.883	23.92	24	Pass
62	5310	19.43	20.65	203.845	23.09	24	Pass
102	5510	20.40	20.67	226.329	23.55	24	Pass
110	5550	20.84	20.79	241.289	23.83	24	Pass
134	5670	21.06	20.75	246.494	23.92	24	Pass
*142 (U-NII-2C Band)	5710	18.49	18.75	154.19	21.88	24	Pass
*142 (U-NII-3 Band)	5710	8.33	8.67	15.004	11.76	30	Pass
151	5755	23.73	23.34	451.822	26.55	30	Pass
159	5795	23.11	23.05	406.481	26.09	30	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 duty factor was included in the total power.

Determined Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	42.58	27.29 > 24
62	5310	42.62	27.29 > 24
102	5510	42.45	27.27 > 24
110	5550	42.3	27.26 > 24
134	5670	42.16	27.24 > 24
142 (U-NII-2C Band)	5710	36.2	26.58 > 24

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

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	21.27	21.22	266.402	24.26	30	Pass
58	5290	18.24	18.06	130.654	21.16	24	Pass
106	5530	20.58	20.88	236.749	23.74	24	Pass
122	5610	20.63	20.92	239.206	23.79	24	Pass
*138 (U-NII-2C Band)	5690	16.48	16.73	96.982	19.87	24	Pass
*138 (U-NII-3 Band)	5690	2.68	2.77	3.968	5.99	30	Pass
155	5775	21.54	21.17	273.479	24.37	30	Pass

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

Determined Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	82.76	30.17 > 24
106	5530	82.94	30.18 > 24
122	5610	83.04	30.19 > 24
138 (U-NII-2C Band)	5690	76.28	29.82 > 24

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

Beamforming Mode

Power Output:

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	21.95	21.38	294.079	24.68	30	Pass
40	5200	23.56	23.35	443.258	26.47	30	Pass
48	5240	23.45	23.05	423.146	26.26	30	Pass
52	5260	20.66	20.15	219.927	23.42	24	Pass
60	5300	20.62	20.31	222.744	23.48	24	Pass
64	5320	20.55	20.16	217.254	23.37	24	Pass
100	5500	20.66	20.79	236.363	23.74	24	Pass
116	5580	20.48	20.43	222.094	23.47	24	Pass
140	5700	20.04	19.47	189.437	22.77	24	Pass
*144 (U-NII-2C Band)	5720	16.63	16.74	97.861	19.91	22.93	Pass
*144 (U-NII-3 Band)	5720	11.09	11.18	27.265	14.36	30	Pass
149	5745	23.52	23.08	428.141	26.32	30	Pass
157	5785	23.50	23.18	431.842	26.35	30	Pass
165	5825	23.35	23.11	420.916	26.24	30	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 duty factor was included in the total power.

1. The directional gain = 10 log[$(10^{G0/20} + 10^{G1/20})^2$ / 2] = 5.76 dBi < 6dBi, so the power limit shall not be reduced.

Determined Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	21.4	24.3 > 24
60	5300	21.24	24.27 > 24
64	5320	21.24	24.27 > 24
100	5500	21.44	24.31 > 24
116	5580	21.41	24.3 > 24
140	5700	21.65	24.35 > 24
144 (U-NII-2C Band)	5720	15.62	22.93 < 24

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

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	21.97	21.53	299.631	24.77	30	Pass
46	5230	21.84	21.92	308.353	24.89	30	Pass
54	5270	20.54	20.01	213.471	23.29	24	Pass
62	5310	19.18	20.60	197.61	22.96	24	Pass
102	5510	18.36	18.40	137.732	21.39	24	Pass
110	5550	20.27	20.17	210.406	23.23	24	Pass
134	5670	20.19	20.06	205.863	23.14	24	Pass
*142 (U-NII-2C Band)	5710	17.24	17.18	111.397	20.47	24	Pass
*142 (U-NII-3 Band)	5710	7.12	7.09	10.873	10.36	30	Pass
151	5755	23.53	23.24	436.287	26.40	30	Pass
159	5795	22.93	22.84	388.645	25.90	30	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 duty factor was included in the total power.

1. The directional gain = 10 log[$(10^{G0/20} + 10^{G1/20})^2$ / 2] = 5.76 dBi < 6dBi, so the power limit shall not be reduced.

Determined Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	42.58	27.29 > 24
62	5310	42.62	27.29 > 24
102	5510	42.45	27.27 > 24
110	5550	42.3	27.26 > 24
134	5670	42.16	27.24 > 24
142 (U-NII-2C Band)	5710	36.2	26.58 > 24

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

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	21.21	20.57	246.155	23.91	30	Pass
58	5290	18.07	17.93	126.208	21.01	24	Pass
106	5530	19.60	19.79	186.481	22.71	24	Pass
122	5610	20.18	20.11	206.797	23.16	24	Pass
*138 (U-NII-2C Band)	5690	15.25	15.28	71.206	18.53	24	Pass
*138 (U-NII-3 Band)	5690	1.24	1.46	2.892	4.61	30	Pass
155	5775	21.35	20.96	261.197	24.17	30	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 duty factor was included in the total power.
1. The directional gain = 10 log[($10^{G0/20}$ + $10^{G1/20}$)^2 / 2] = 5.76 dBi < 6dBi, so the power limit shall not be reduced.

Determined Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	82.76	30.17 > 24
106	5530	82.94	30.18 > 24
122	5610	83.04	30.19 > 24
138 (U-NII-2C Band)	5690	76.28	29.82 > 24

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

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	22.03	21.52	301.494	24.79	30	Pass
40	5200	23.65	23.40	450.516	26.54	30	Pass
48	5240	23.59	23.18	436.53	26.40	30	Pass
52	5260	20.71	20.18	221.992	23.46	24	Pass
60	5300	20.73	20.39	227.7	23.57	24	Pass
64	5320	20.70	20.30	224.642	23.51	24	Pass
100	5500	20.71	20.83	238.82	23.78	24	Pass
116	5580	20.56	20.50	225.965	23.54	24	Pass
140	5700	20.12	19.62	194.424	22.89	24	Pass
*144 (U-NII-2C Band)	5720	17.01	17.12	106.809	20.29	22.93	Pass
*144 (U-NII-3 Band)	5720	11.50	11.44	29.45	14.69	30	Pass
149	5745	23.58	23.18	436.004	26.39	30	Pass
157	5785	23.53	23.24	436.287	26.40	30	Pass
165	5825	23.41	23.18	427.25	26.31	30	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 duty factor was included in the total power.

1. The directional gain = 10 log[$(10^{G0/20} + 10^{G1/20})^2$ / 2] = 5.76 dBi < 6dBi, so the power limit shall not be reduced.

Determined Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	21.4	24.3 > 24
60	5300	21.24	24.27 > 24
64	5320	21.24	24.27 > 24
100	5500	21.44	24.31 > 24
116	5580	21.41	24.3 > 24
140	5700	21.65	24.35 > 24
144 (U-NII-2C Band)	5720	15.62	22.93 < 24

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

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	22.10	21.64	308.062	24.89	30	Pass
46	5230	22.05	22.13	323.63	25.10	30	Pass
54	5270	20.68	20.15	220.464	23.43	24	Pass
62	5310	19.25	20.71	201.9	23.05	24	Pass
102	5510	18.50	18.54	142.244	21.53	24	Pass
110	5550	20.36	20.30	215.794	23.34	24	Pass
134	5670	20.22	20.14	208.472	23.19	24	Pass
*142 (U-NII-2C Band)	5710	17.83	17.73	127.026	21.04	24	Pass
*142 (U-NII-3 Band)	5710	7.58	7.63	12.2	10.86	30	Pass
151	5755	23.56	23.36	443.757	26.47	30	Pass
159	5795	23.08	22.95	400.478	26.03	30	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 duty factor was included in the total power.

1. The directional gain = 10 log[$(10^{G0/20} + 10^{G1/20})^2$ / 2] = 5.76 dBi < 6dBi, so the power limit shall not be reduced.

Determined Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	42.58	27.29 > 24
62	5310	42.62	27.29 > 24
102	5510	42.45	27.27 > 24
110	5550	42.3	27.26 > 24
134	5670	42.16	27.24 > 24
142 (U-NII-2C Band)	5710	36.2	26.58 > 24

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

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	21.44	20.78	258.99	24.13	30	Pass
58	5290	18.15	18.07	129.434	21.12	24	Pass
106	5530	19.65	19.82	188.197	22.75	24	Pass
122	5610	20.26	20.22	211.366	23.25	24	Pass
*138 (U-NII-2C Band)	5690	15.81	15.72	79.898	19.03	24	Pass
*138 (U-NII-3 Band)	5690	2.09	1.87	3.343	5.24	30	Pass
155	5775	21.46	21.16	270.576	24.32	30	Pass

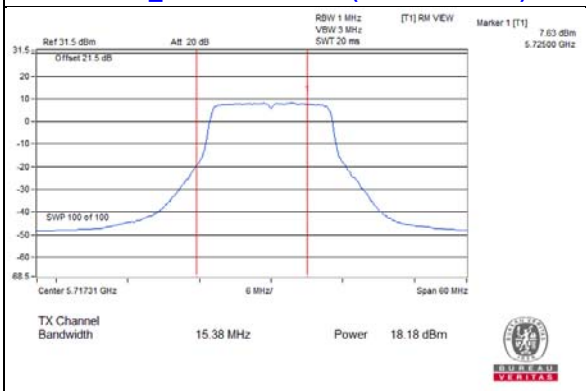
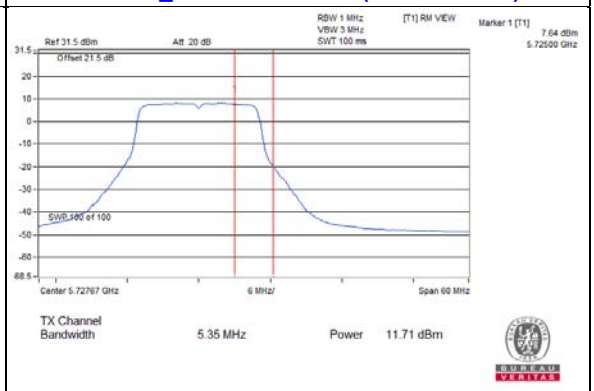
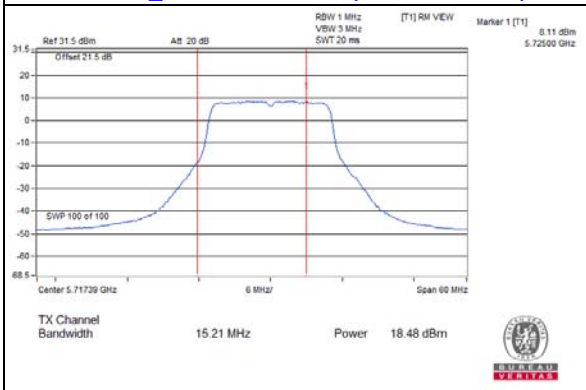
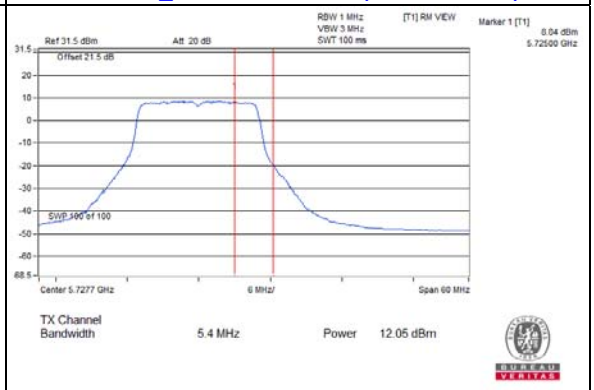
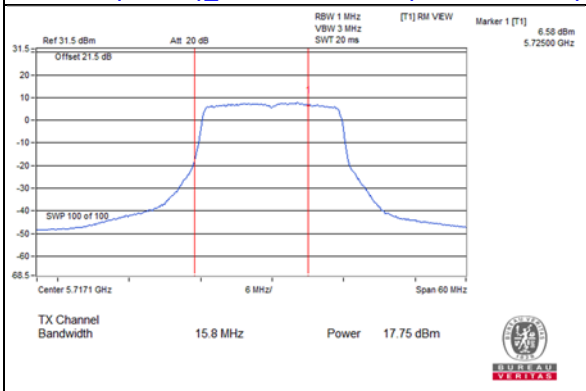
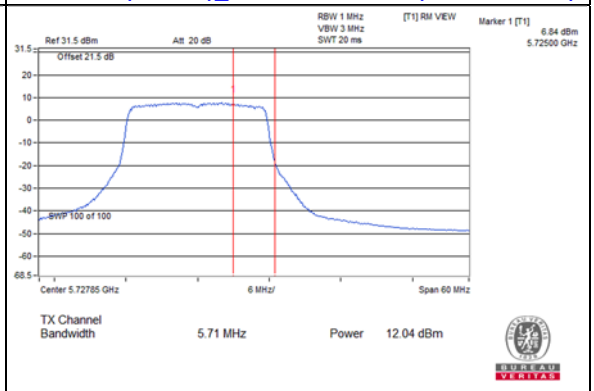
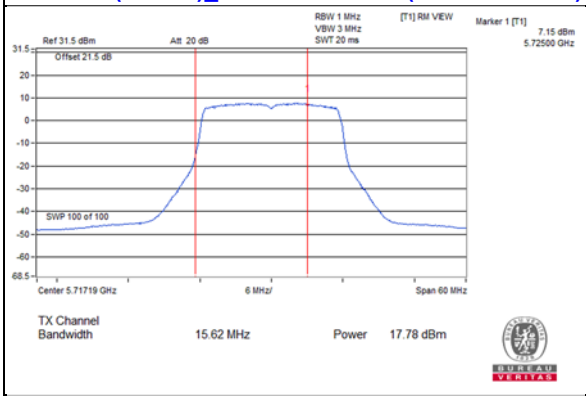
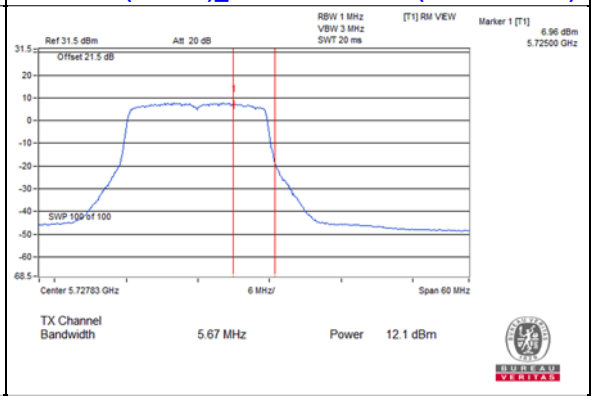
Note: * Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test. The duty factor was included in the total power.
1. The directional gain = 10 log[($10^{G0/20}$ + $10^{G1/20}$)^2 / 2] = 5.76 dBi < 6dBi, so the power limit shall not be reduced.

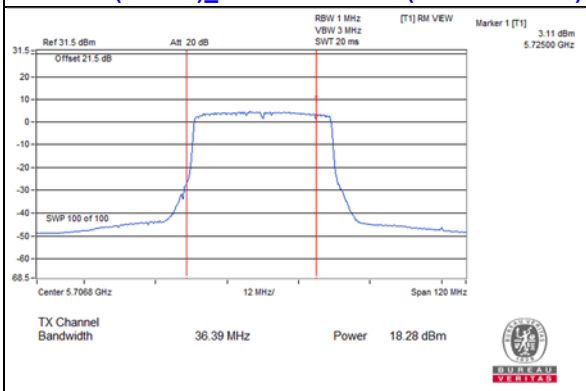
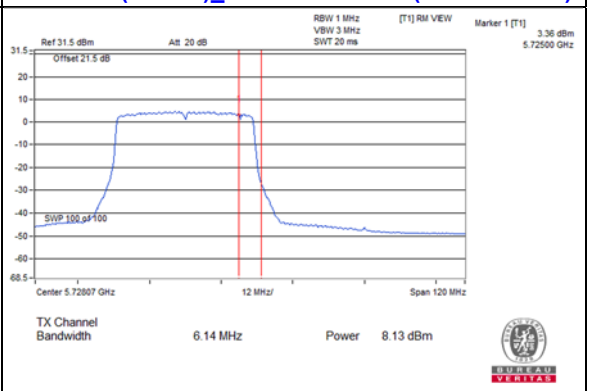
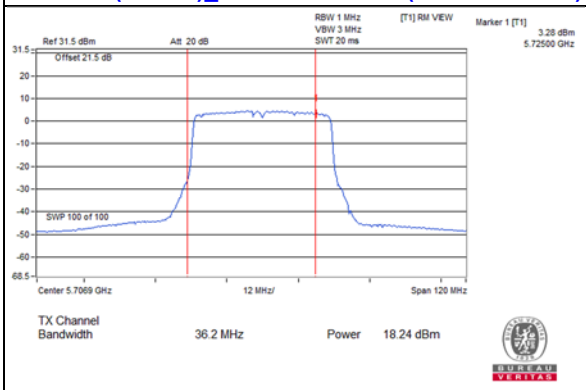
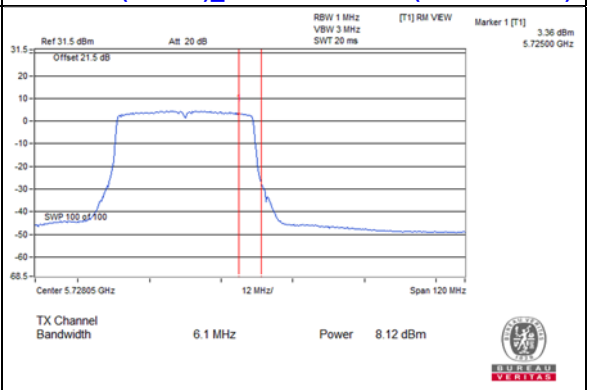
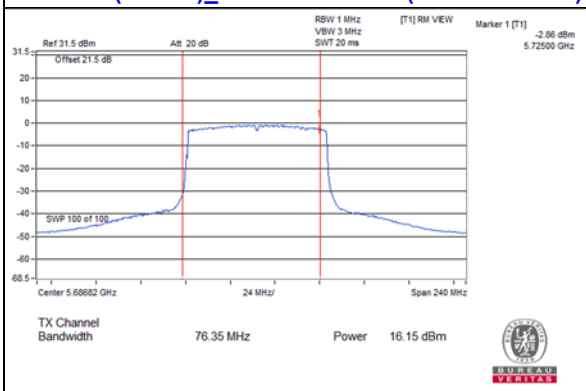
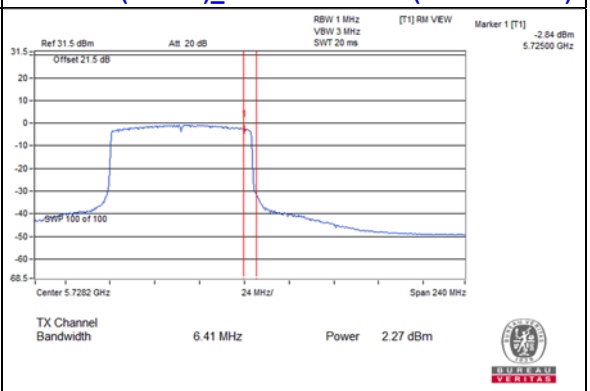
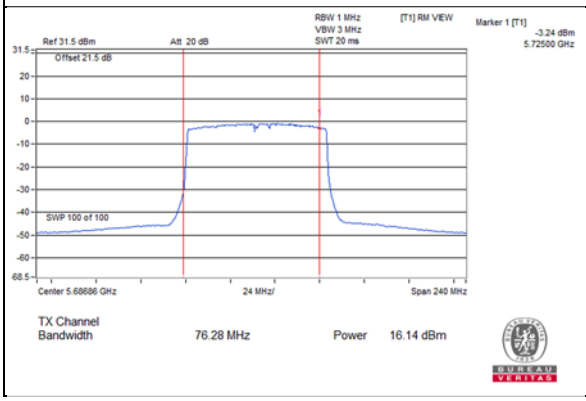
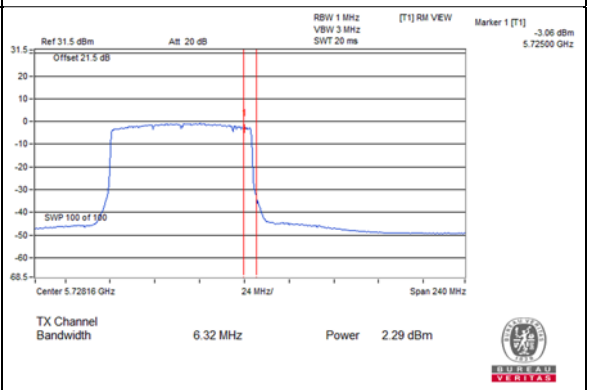
Determined Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	82.76	30.17 > 24
106	5530	82.94	30.18 > 24
122	5610	83.04	30.19 > 24
138 (U-NII-2C Band)	5690	76.28	29.82 > 24

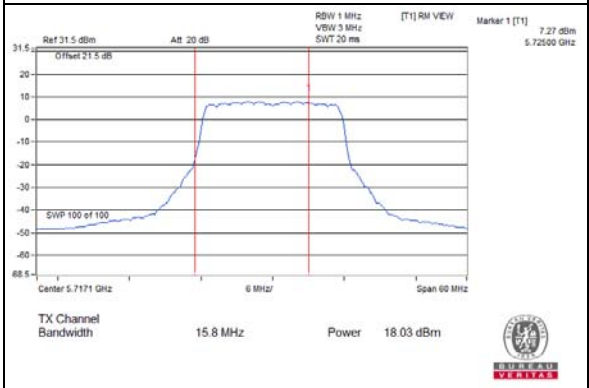
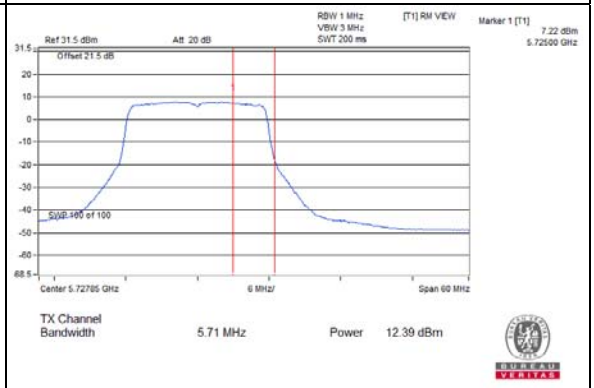
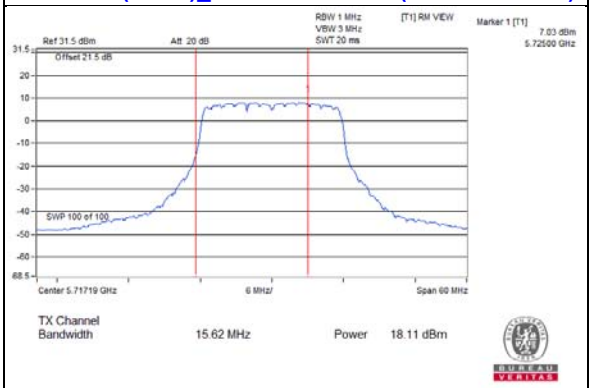
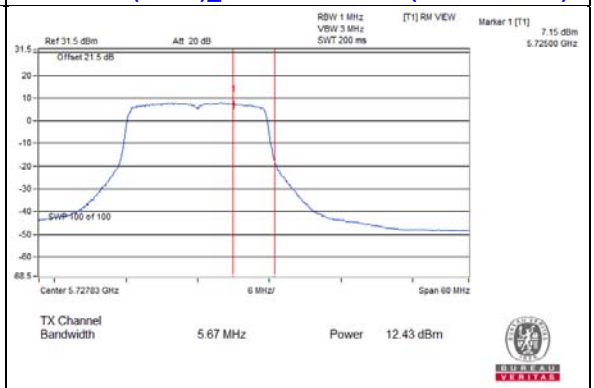
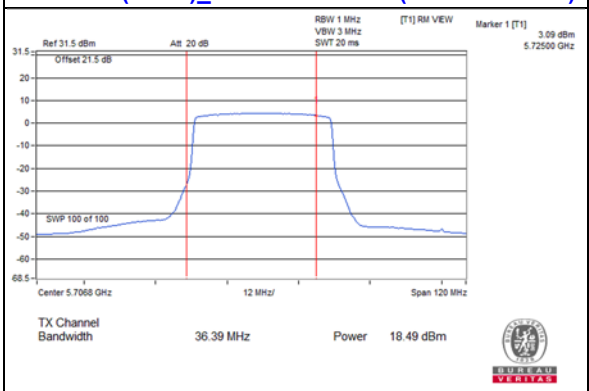
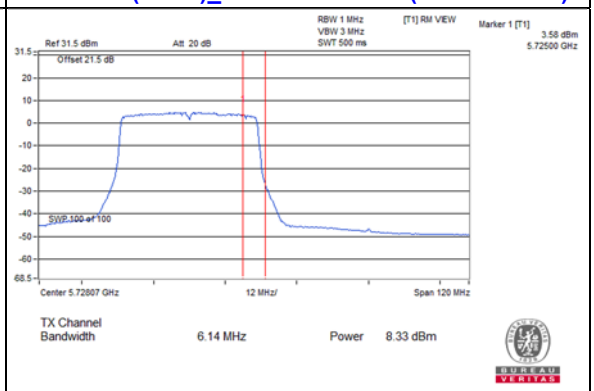
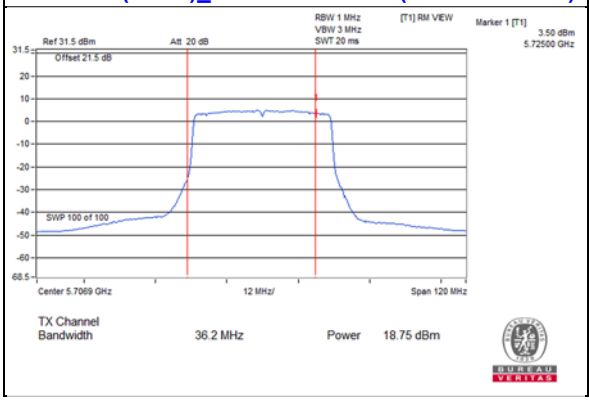
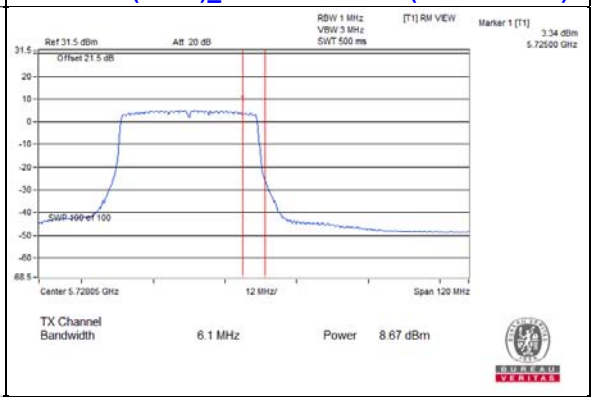
Note: For U-NII-2A U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

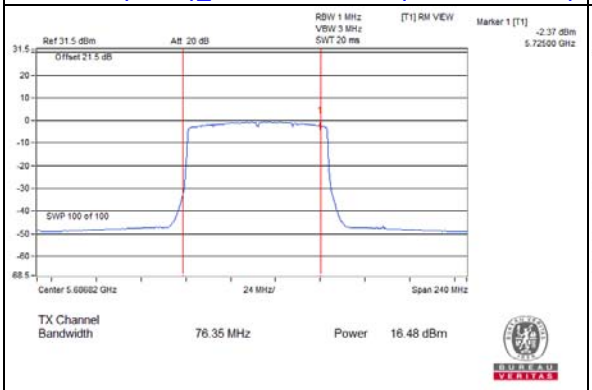
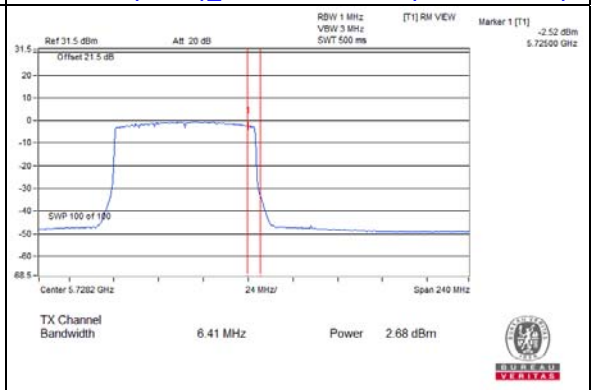
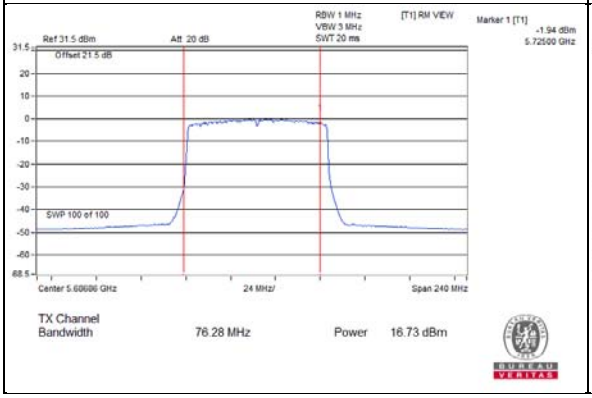
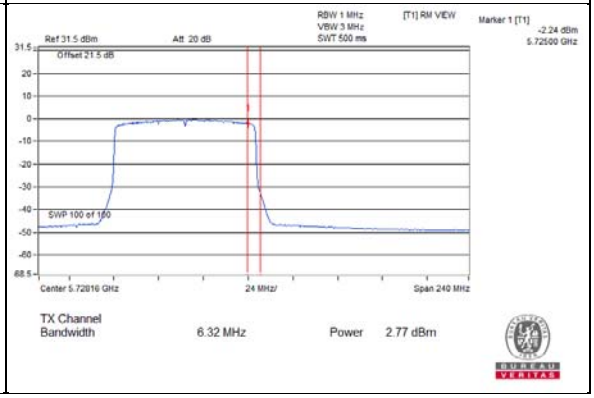
For channel straddling 5725MHz of Power

CDD Mode

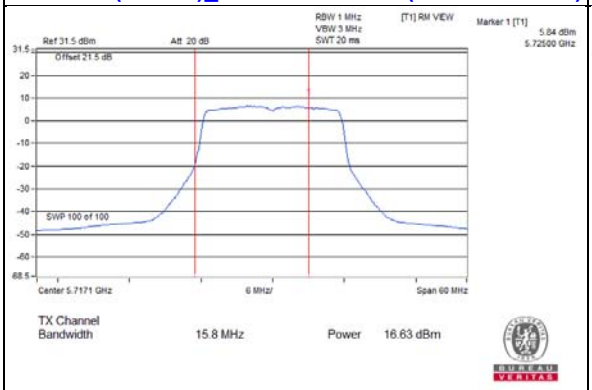
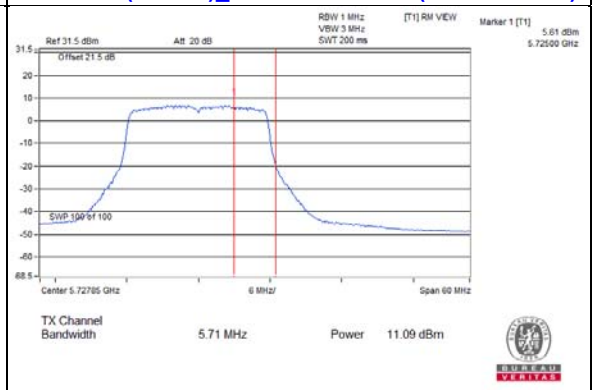
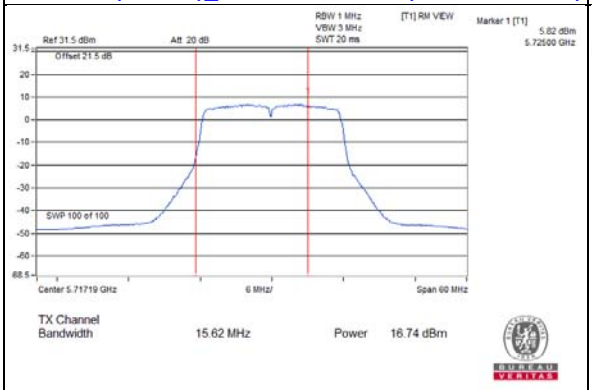
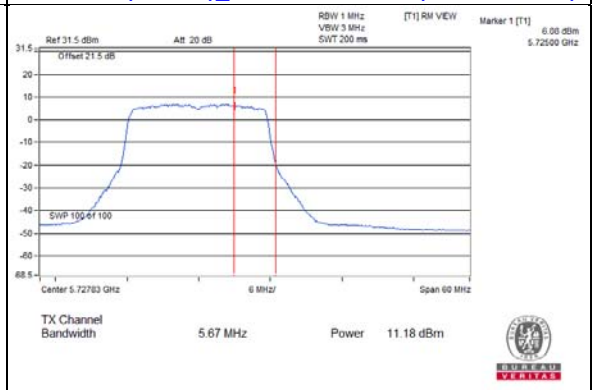
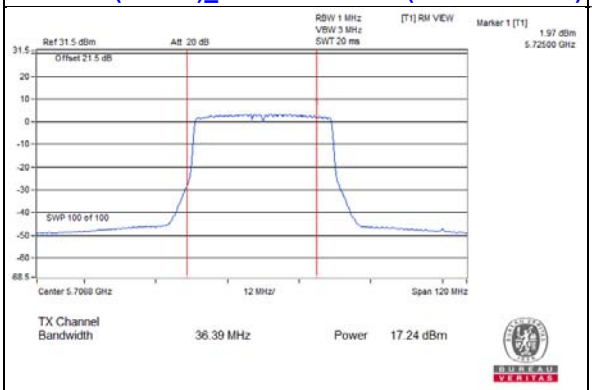
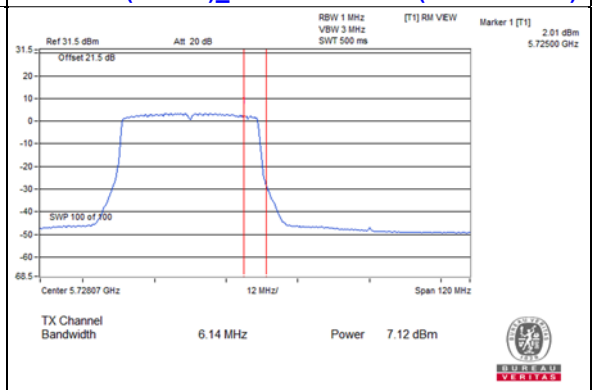
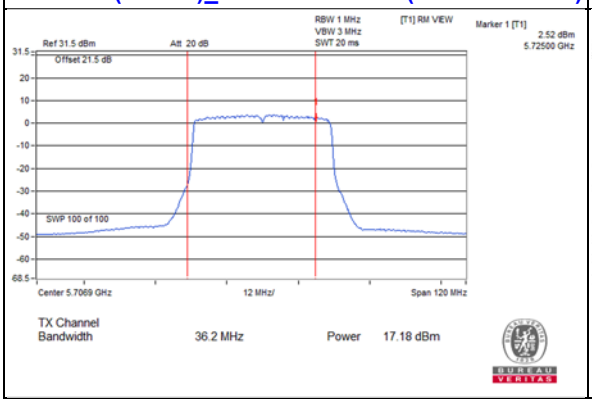
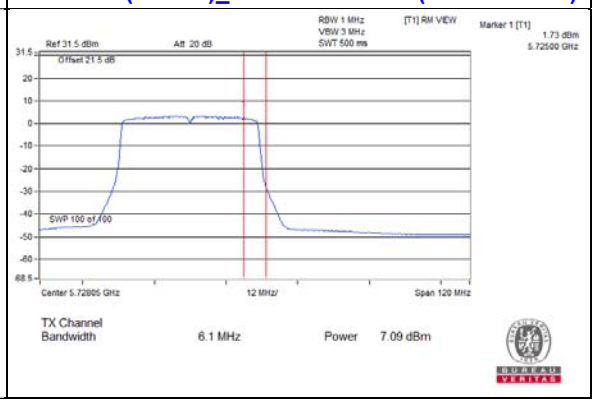
Spectrum Plot Value of Power	
802.11a_Chain 0 / CH144 (U-NII-2C Band)	**802.11a_Chain 0 / CH144 (U-NII-3 Band)**
	
802.11a_Chain 1 / CH144 (U-NII-2C Band)	**802.11a_Chain 1 / CH144 (U-NII-3 Band)**
	
802.11ac (VHT20)_Chain 0 / CH144 (U-NII-2C Band)	**802.11ac (VHT20)_Chain 0 / CH144 (U-NII-3 Band)**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

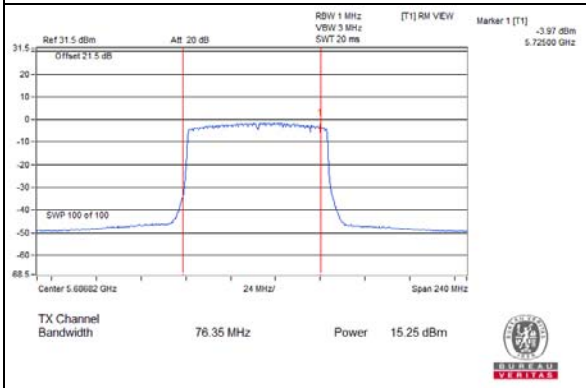
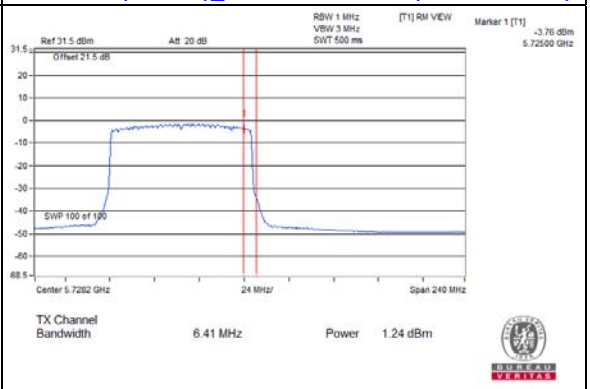
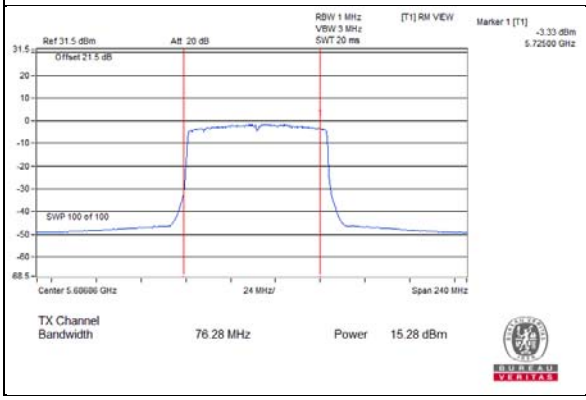
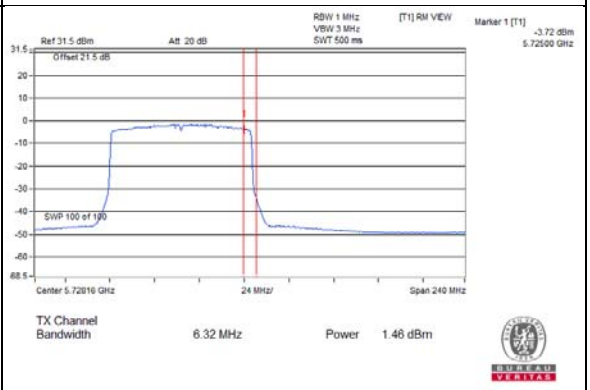
Spectrum Plot Value of Power	
802.11ac (VHT40)_Chain 0 / CH142 (U-NII-2C Band)	**802.11ac (VHT40)_Chain 0 / CH142 (U-NII-3 Band)**
 TX Channel Bandwidth 36.39 MHz Power 18.28 dBm	 TX Channel Bandwidth 6.14 MHz Power 8.13 dBm
802.11ac (VHT40)_Chain 1 / CH142 (U-NII-2C Band)	**802.11ac (VHT40)_Chain 1 / CH142 (U-NII-3 Band)**
 TX Channel Bandwidth 36.2 MHz Power 18.24 dBm	 TX Channel Bandwidth 6.1 MHz Power 8.12 dBm
802.11ac (VHT80)_Chain 0 / CH138 (U-NII-2C Band)	**802.11ac (VHT80)_Chain 0 / CH138 (U-NII-3 Band)**
 TX Channel Bandwidth 76.35 MHz Power 16.15 dBm	 TX Channel Bandwidth 6.41 MHz Power 2.27 dBm
802.11ac (VHT80)_Chain 1 / CH138 (U-NII-2C Band)	**802.11ac (VHT80)_Chain 1 / CH138 (U-NII-3 Band)**
 TX Channel Bandwidth 76.28 MHz Power 16.14 dBm	 TX Channel Bandwidth 6.32 MHz Power 2.29 dBm

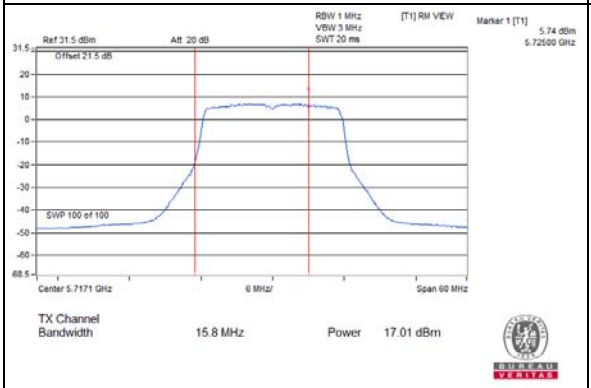
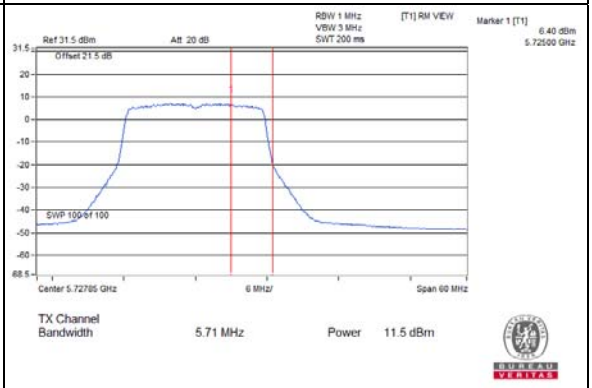
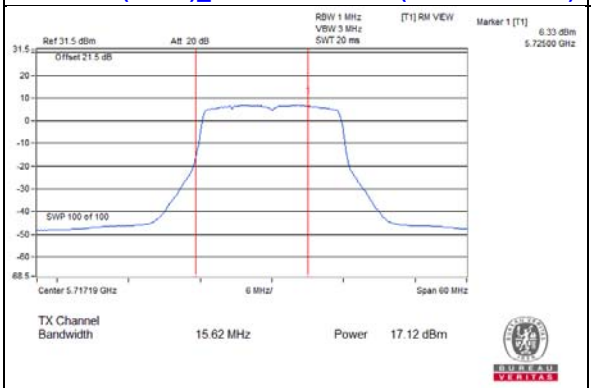
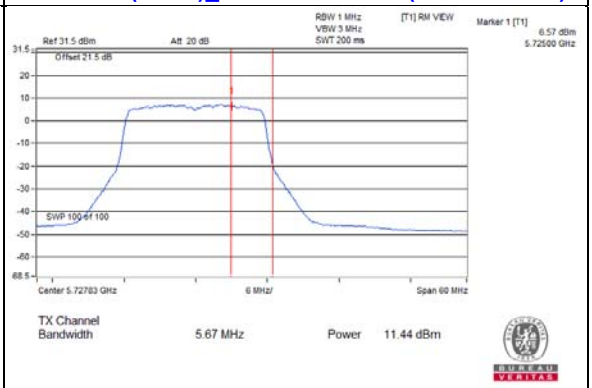
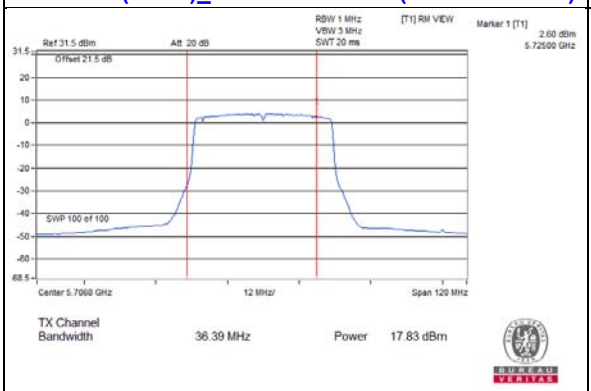
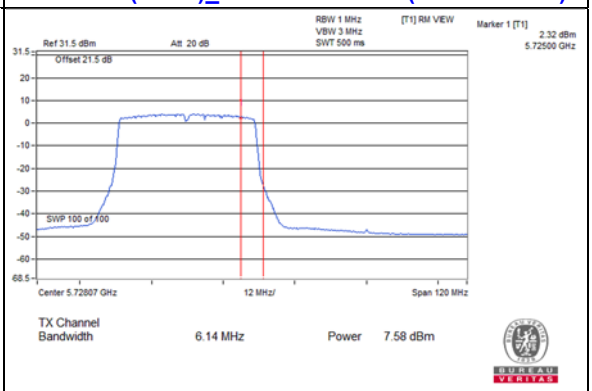
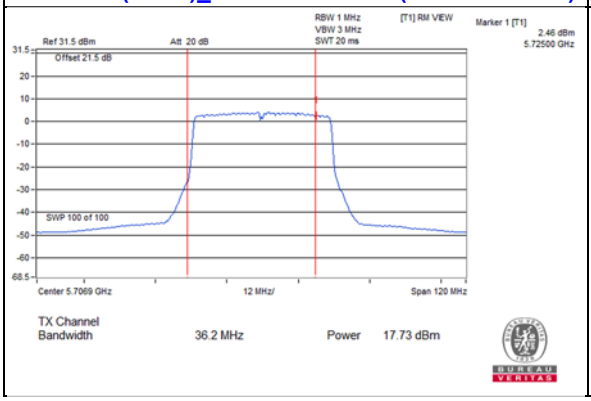
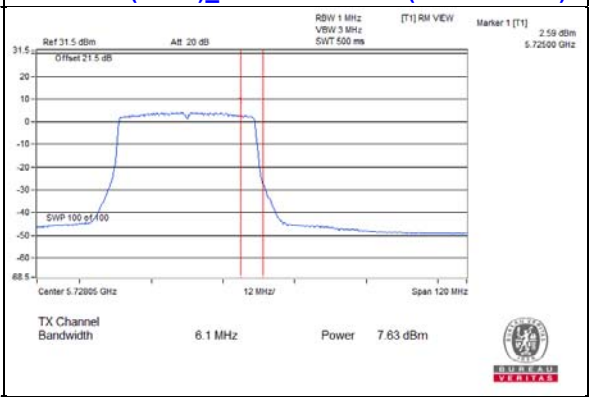
Spectrum Plot Value of Power	
802.11ax (HE20)_Chain 0 / CH144 (U-NII-2C Band)	**802.11ax (HE20)_Chain 0 / CH144 (U-NII-3 Band)**
	
802.11ax (HE20)_Chain 1 / CH144 (U-NII-2C Band)	**802.11ax (HE20)_Chain 1 / CH144 (U-NII-3 Band)**
	
802.11ax (HE40)_Chain 0 / CH142 (U-NII-2C Band)	**802.11ax (HE40)_Chain 0 / CH142 (U-NII-3 Band)**
	
802.11ax (HE40)_Chain 1 / CH142 (U-NII-2C Band)	**802.11ax (HE40)_Chain 1 / CH142 (U-NII-3 Band)**
	

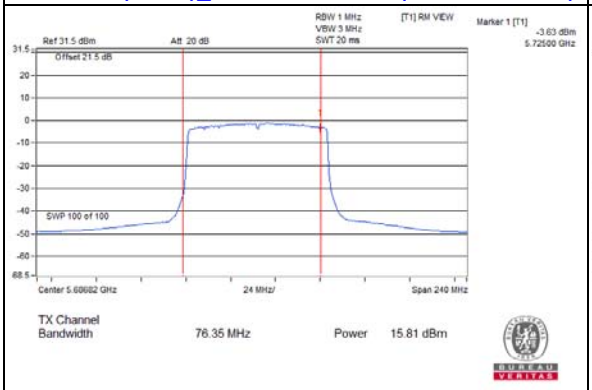
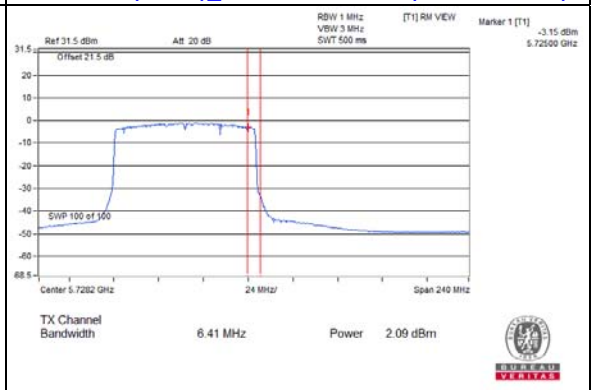
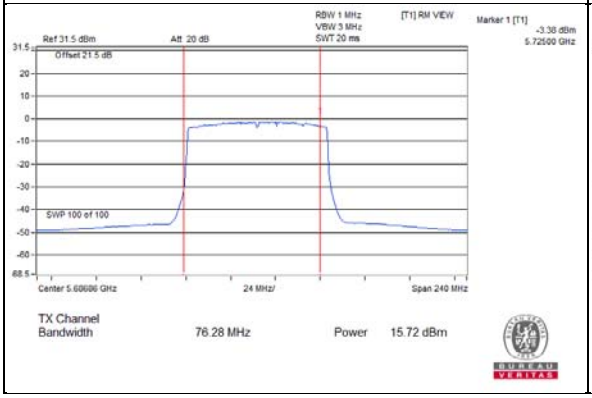
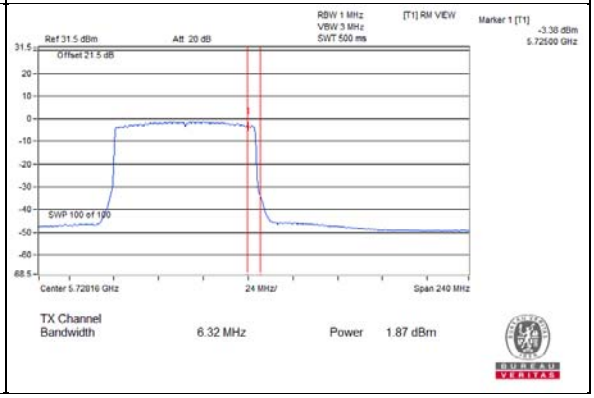
Spectrum Plot Value of Power	
802.11ax (HE80)_Chain 0 / CH138 (U-NII-2C Band)	**802.11ax (HE80)_Chain 0 / CH138 (U-NII-3 Band)**
	
802.11ax (HE80)_Chain 1 / CH138 (U-NII-2C Band)	**802.11ax (HE80)_Chain 1 / CH138 (U-NII-3 Band)**
	

Beamforming Mode

Spectrum Plot Value of Power	
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)**
	
802.11ac (VHT40)_Chain 0 / CH142 (U-NII-2C Band)	**802.11ac (VHT40)_Chain 0 / CH142 (U-NII-3 Band)**
	
802.11ac (VHT40)_Chain 1 / CH142 (U-NII-2C Band)	**802.11ac (VHT40)_Chain 1 / CH142 (U-NII-3 Band)**
	

Spectrum Plot Value of Power	
802.11ac (VHT80)_Chain 0 / CH138 (U-NII-2C Band)	**802.11ac (VHT80)_Chain 0 / CH138 (U-NII-3 Band)**
	
802.11ac (VHT80)_Chain 1 / CH138 (U-NII-2C Band)	**802.11ac (VHT80)_Chain 1 / CH138 (U-NII-3 Band)**
	

Spectrum Plot Value of Power	
802.11ax (HE20)_Chain 0 / CH144 (U-NII-2C Band)	**802.11ax (HE20)_Chain 0 / CH144 (U-NII-3 Band)**
	
802.11ax (HE20)_Chain 1 / CH144 (U-NII-2C Band)	**802.11ax (HE20)_Chain 1 / CH144 (U-NII-3 Band)**
	
802.11ax (HE40)_Chain 0 / CH142 (U-NII-2C Band)	**802.11ax (HE40)_Chain 0 / CH142 (U-NII-3 Band)**
	
802.11ax (HE40)_Chain 1 / CH142 (U-NII-2C Band)	**802.11ax (HE40)_Chain 1 / CH142 (U-NII-3 Band)**
	

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)**
	
802.11ax (HE80)_Chain 1 / CH138 (U-NII-2C Band)	**802.11ax (HE80)_Chain 1 / CH138 (U-NII-3 Band)**
	

26dB Bandwidth:

802.11a

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.75	20.71
60	5300	20.69	20.52
64	5320	20.63	20.61
100	5500	20.59	20.59
116	5580	20.68	20.56
140	5700	20.75	20.7
144 (U-NII-2C Band)	5720	15.38	15.21

802.11ax (HE20)

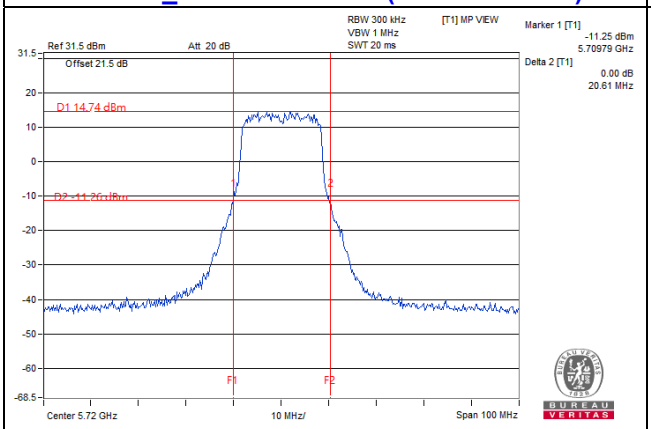
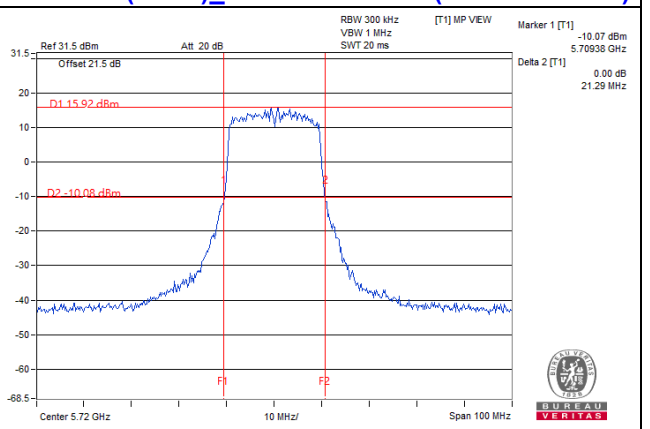
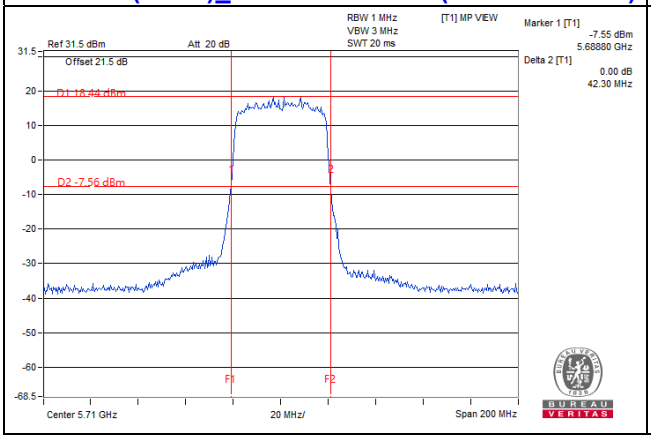
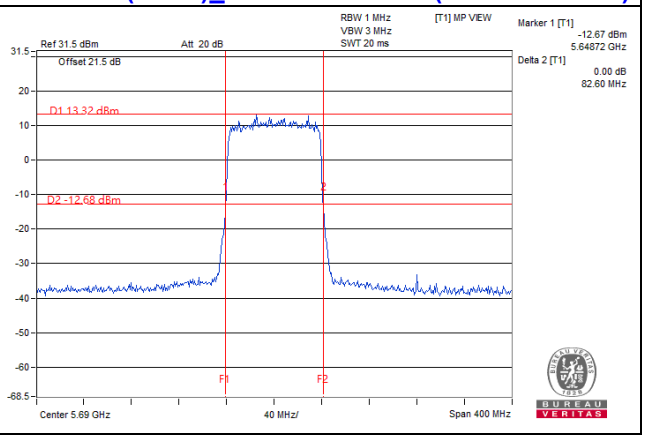
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	21.9	21.4
60	5300	21.56	21.24
64	5320	21.97	21.24
100	5500	21.52	21.44
116	5580	21.77	21.41
140	5700	21.71	21.65
144 (U-NII-2C Band)	5720	15.8	15.62

802.11ax (HE40)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	42.59	42.58
62	5310	42.78	42.62
102	5510	42.45	42.52
110	5550	42.3	42.5
134	5670	42.81	42.16
142 (U-NII-2C Band)	5710	36.39	36.2

802.11ax (HE80)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	82.76	82.98
106	5530	83.29	82.94
122	5610	83.04	84.51
138 (U-NII-2C Band)	5690	76.35	76.28

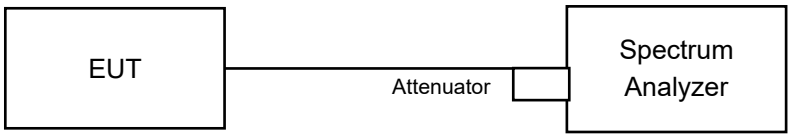
Spectrum Plot of Worst Value	
802.11a_Chain 1 / CH144 (U-NII-2C Band)	**802.11ax (HE20)_Chain 1 / CH144 (U-NII-2C Band)**
	
802.11ax (HE40)_Chain 1 / CH142 (U-NII-2C Band)	**802.11ax (HE80)_Chain 1 / CH138 (U-NII-2C Band)**
	

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

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)	
		Chain 0	Chain 1
36	5180	16.44	16.44
40	5200	16.44	16.44
48	5240	16.44	16.44
52	5260	16.44	16.56
60	5300	16.44	16.44
64	5320	16.44	16.56
100	5500	16.56	16.44
116	5580	16.56	16.44
140	5700	16.44	16.44
144 (U-NII-2C Band)	5720	13.28	13.28
144 (U-NII-3 Band)	5720	3.16	3.04
149	5745	16.44	16.44
157	5785	16.56	16.68
165	5825	16.68	16.56

802.11ax (HE20)

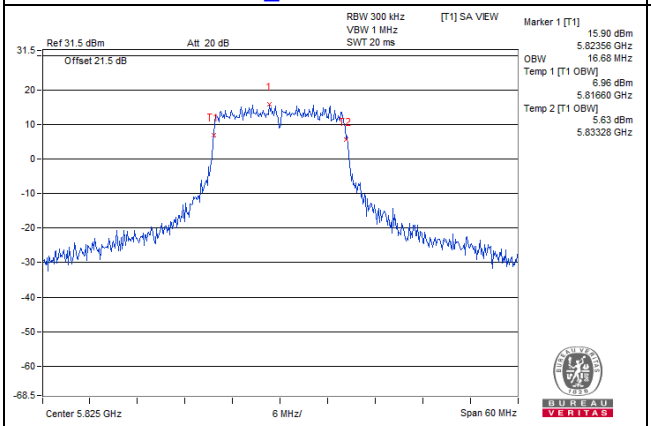
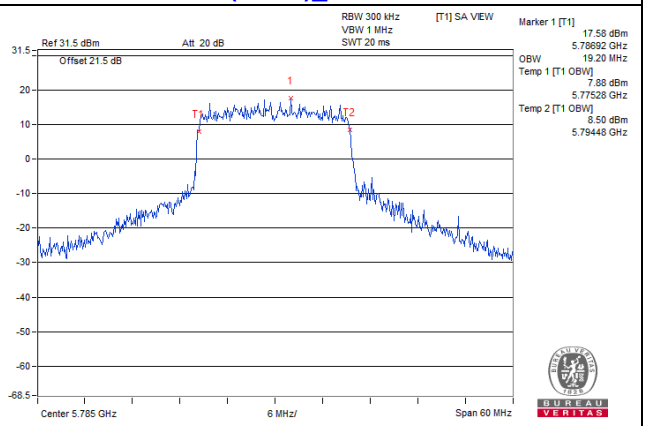
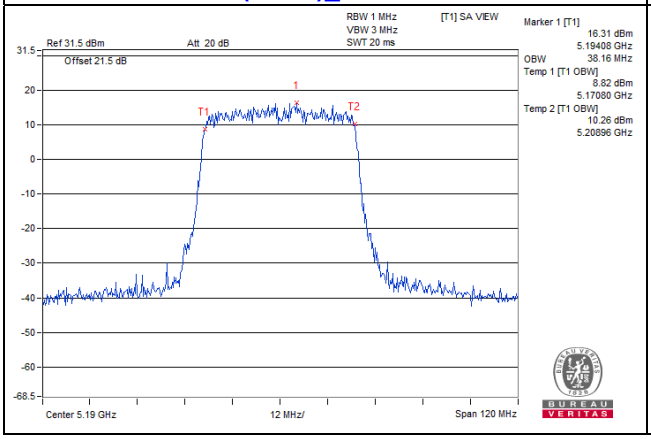
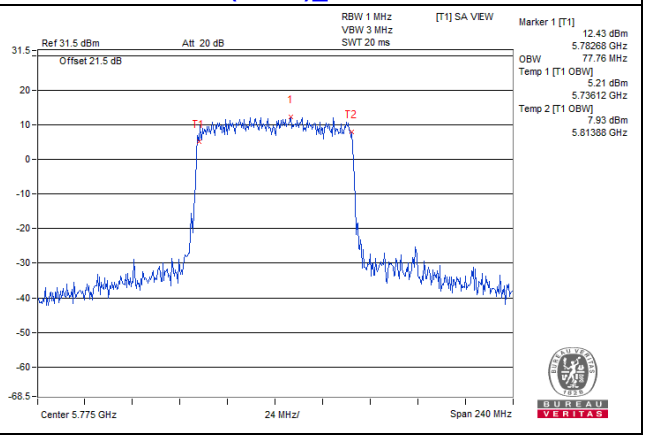
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	19.08	18.96
40	5200	18.96	19.08
48	5240	19.08	18.96
52	5260	19.08	18.96
60	5300	18.96	18.96
64	5320	19.08	18.84
100	5500	19.08	19.08
116	5580	19.08	18.96
140	5700	18.96	19.08
144 (U-NII-2C Band)	5720	14.6	14.6
144 (U-NII-3 Band)	5720	4.36	4.36
149	5745	19.08	18.96
157	5785	19.08	19.2
165	5825	19.08	19.08

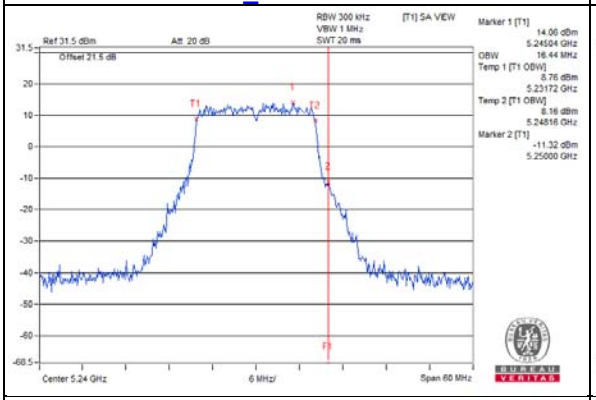
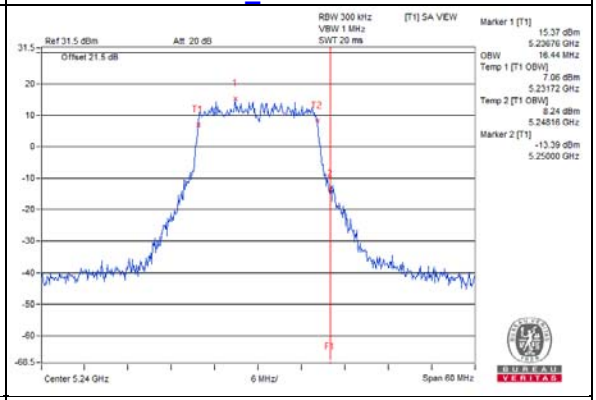
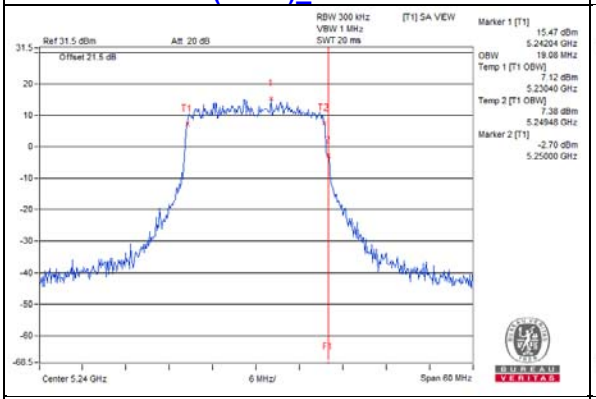
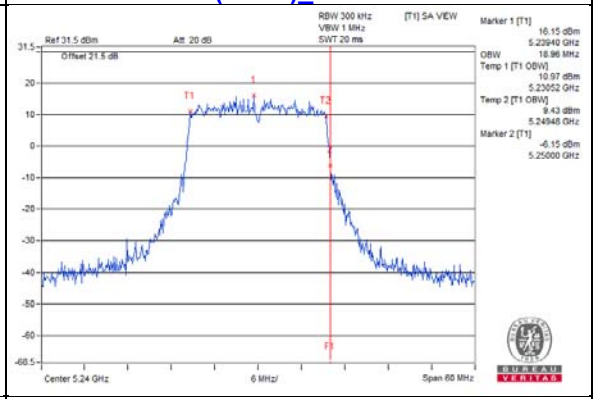
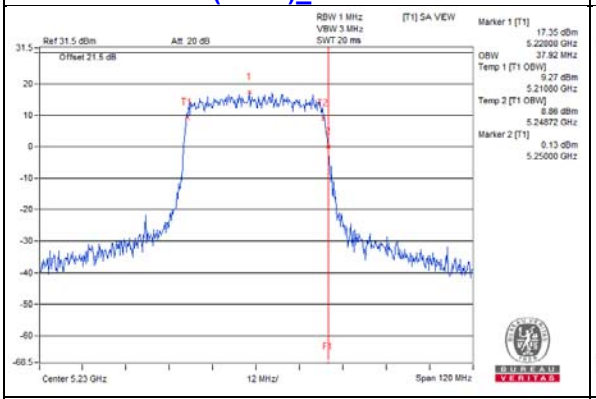
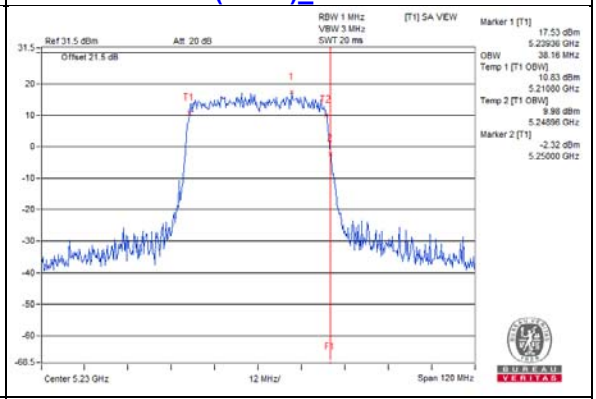
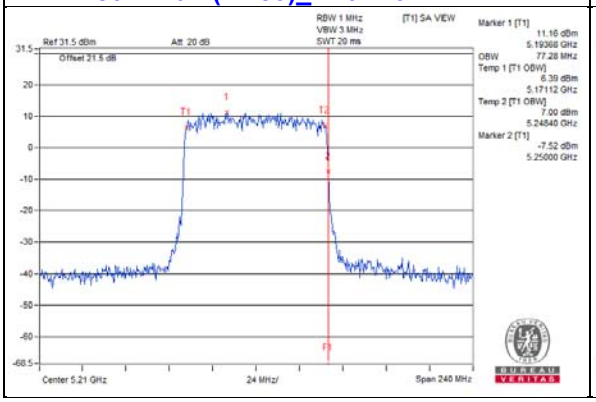
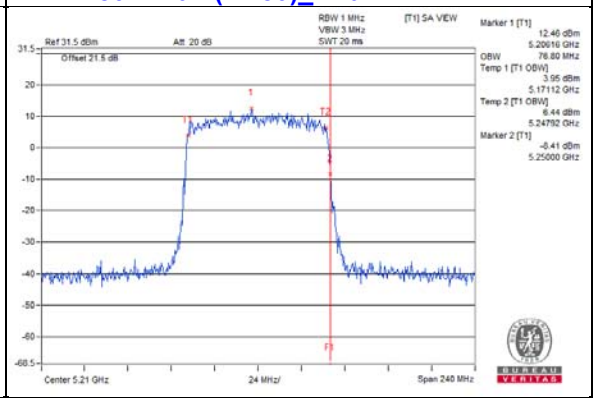
802.11ax (HE40)

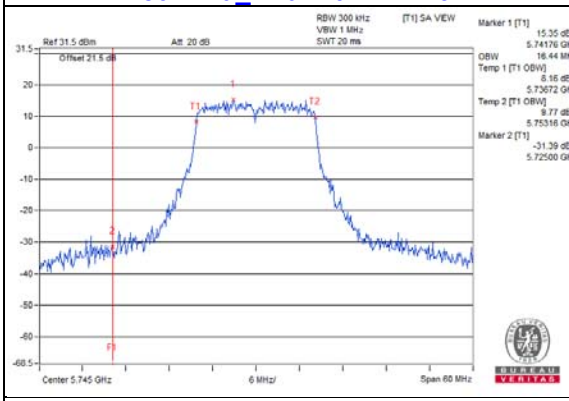
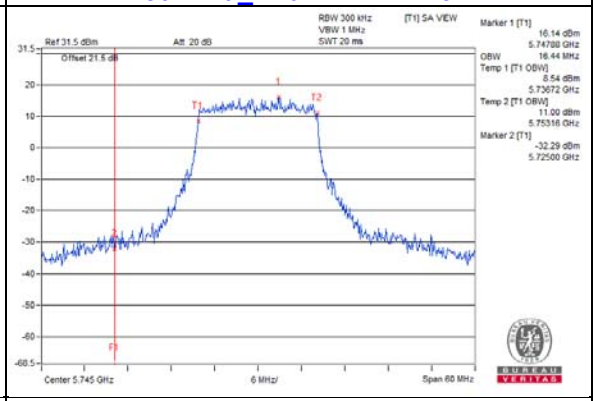
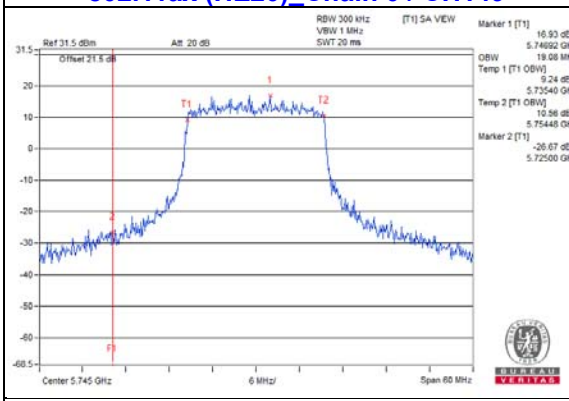
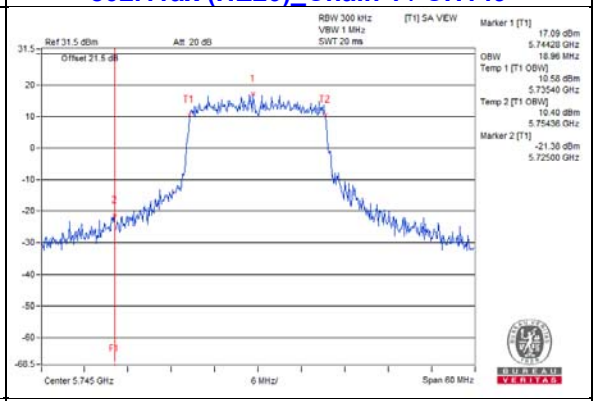
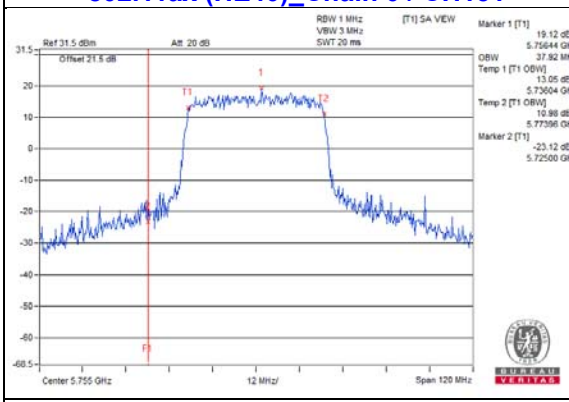
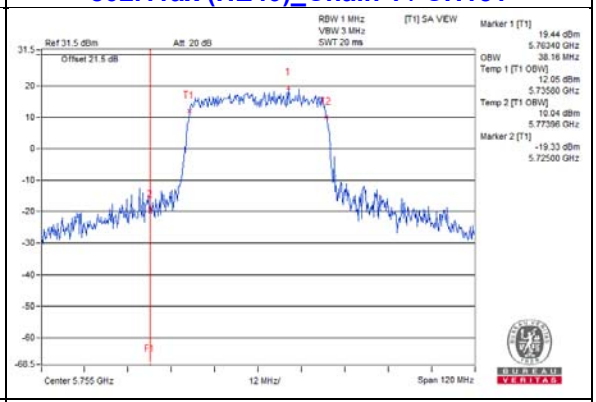
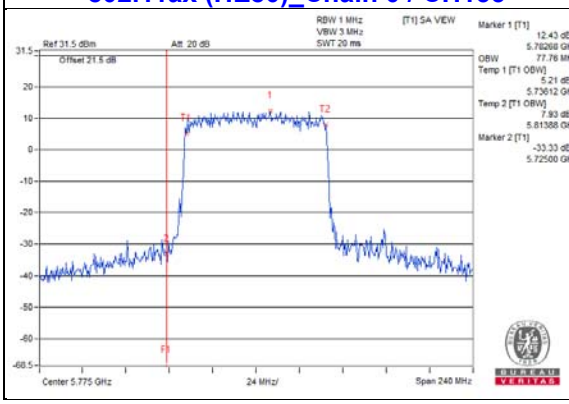
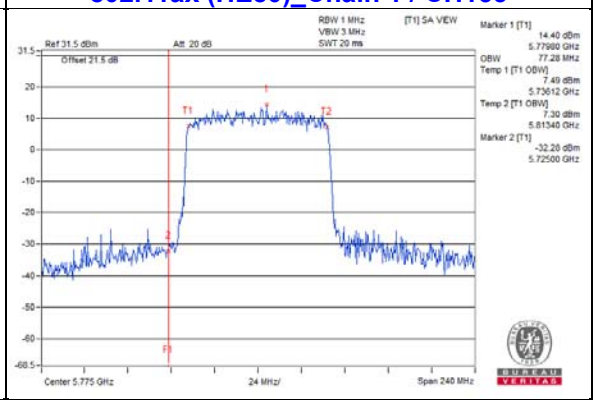
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	38.16	38.16
46	5230	37.92	38.16
54	5270	38.16	38.16
62	5310	38.16	38.16
102	5510	38.16	38.16
110	5550	38.16	38.16
134	5670	37.92	38.16
142 (U-NII-2C Band)	5710	34.2	34.2
142 (U-NII-3 Band)	5710	3.96	3.72
151	5755	37.92	38.16
159	5795	38.16	38.16

802.11ax (HE80)

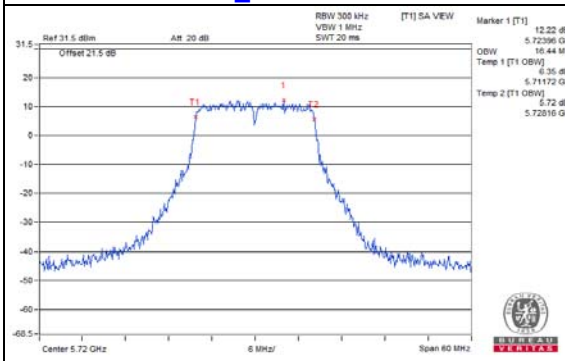
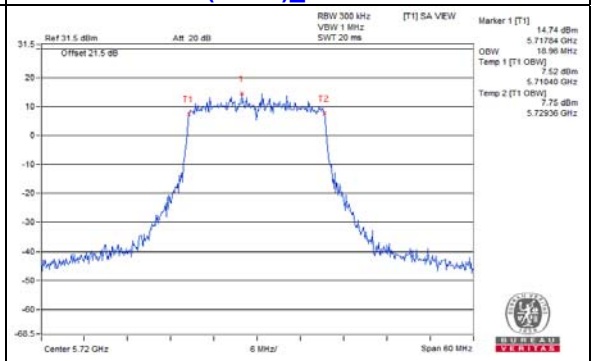
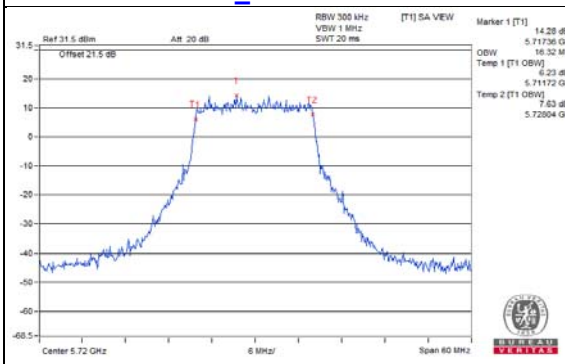
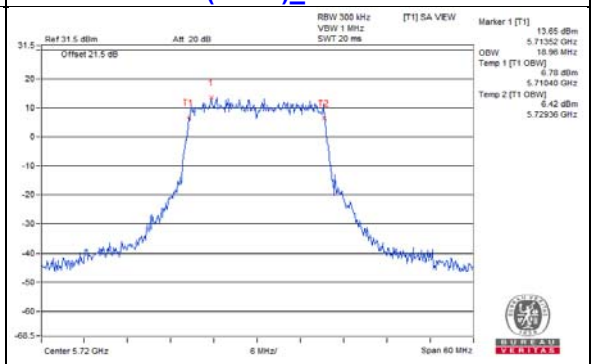
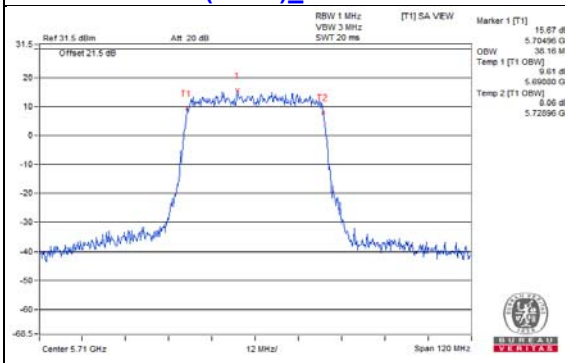
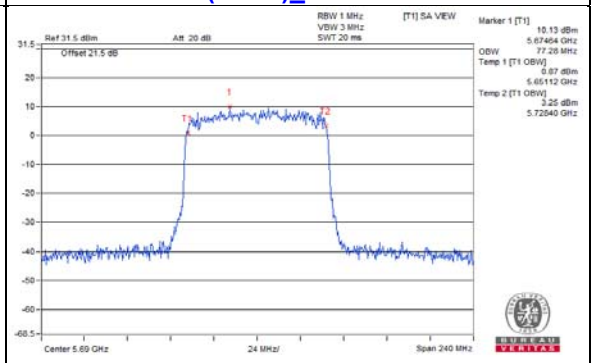
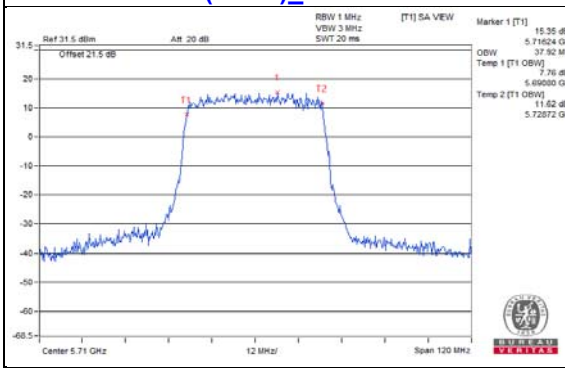
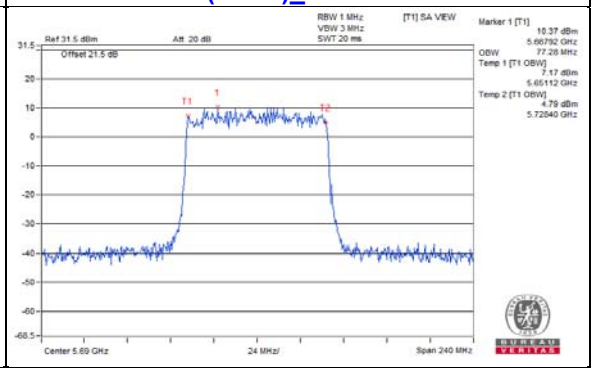
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	77.28	76.8
58	5290	77.28	77.28
106	5530	77.28	77.28
122	5610	77.28	77.28
138 (U-NII-2C Band)	5690	73.88	73.88
138 (U-NII-3 Band)	5690	3.4	3.4
155	5775	77.76	77.28

Spectrum Plot of Worst Value	
802.11a_Chain 0 / CH165	**802.11ax (HE20)_Chain 1 / CH157**
	
802.11ax (HE40)_Chain 0 / CH38	**802.11ax (HE80)_Chain 0 / CH155**
	

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**
	

For channel straddling 5725MHz of OCP99% BW

Spectrum Plot Value of OCP99% BW	
802.11a_Chain 0 / CH144	**802.11ax (HE20)_Chain 0 / CH144**
	
802.11a_Chain 1 / CH144	**802.11ax (HE20)_Chain 1 / CH144**
	
802.11ax (HE40)_Chain 0 / CH142	**802.11ax (HE80)_Chain 0 / CH138**
	
802.11ax (HE40)_Chain 1 / CH142	**802.11ax (HE80)_Chain 1 / CH138**
	

Note:

For CH144 (U-NII-2C) = 5725MHz - Temp 1
For CH142 (U-NII-2C) = 5725MHz - Temp 1
For CH138 (U-NII-2C) = 5725MHz - Temp 1
For CH144 (U-NII-3) = Temp 2 - 5725MHz
For CH142 (U-NII-3) = Temp 2 - 5725MHz
For CH138 (U-NII-3) = Temp 2 - 5725MHz

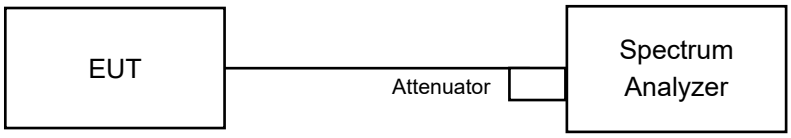
4.5 Peak Power Spectral Density Measurement

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

Note: This device can support different category application which switched by access point mode and client mode by software.

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 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)

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 (increasing) 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 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)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
36	5180	9.82	9.82	0.29	13.12	17.00	Pass
40	5200	10.12	10.10	0.29	13.41	17.00	Pass
48	5240	9.79	9.75	0.29	13.07	17.00	Pass
52	5260	7.13	6.59	0.29	10.17	11.00	Pass
60	5300	7.69	6.86	0.29	10.59	11.00	Pass
64	5320	7.32	7.68	0.29	10.80	11.00	Pass
100	5500	6.91	7.13	0.29	10.32	11.00	Pass
116	5580	7.06	7.13	0.29	10.39	11.00	Pass
140	5700	7.34	7.40	0.29	10.67	11.00	Pass
144 (U-NII-2C Band)	5720	7.16	7.53	0.29	10.65	11.00	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. The directional gain = 10 log[$(10^{G0/20} + 10^{G1/20})^2$ / 2] = 5.76 dBi < 6dBi, so the power density limit shall not be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

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				
36	5180	8.76	8.66	0.21	11.93	17.00	Pass
40	5200	9.40	9.57	0.21	12.71	17.00	Pass
48	5240	9.06	9.12	0.21	12.31	17.00	Pass
52	5260	6.47	6.32	0.21	9.62	11.00	Pass
60	5300	7.46	7.06	0.21	10.49	11.00	Pass
64	5320	7.03	7.79	0.21	10.65	11.00	Pass
100	5500	6.62	6.68	0.21	9.87	11.00	Pass
116	5580	6.45	6.89	0.21	9.90	11.00	Pass
140	5700	7.96	6.91	0.21	10.69	11.00	Pass
144 (U-NII-2C Band)	5720	7.64	7.12	0.21	10.61	11.00	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. The directional gain = 10 log[$(10^{G0/20} + 10^{G1/20})^2$ / 2] = 5.76 dBi < 6dBi, so the power density limit shall not be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

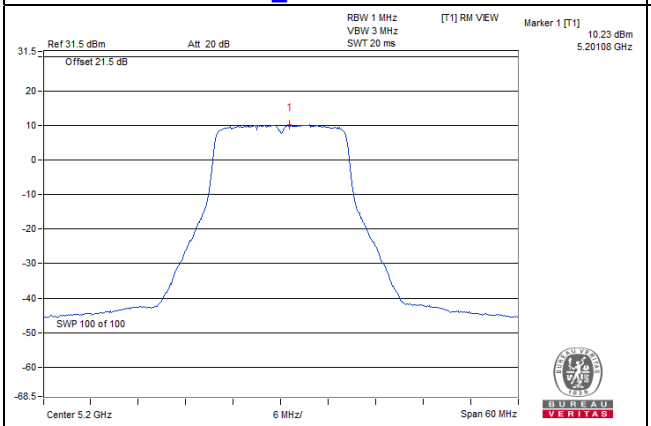
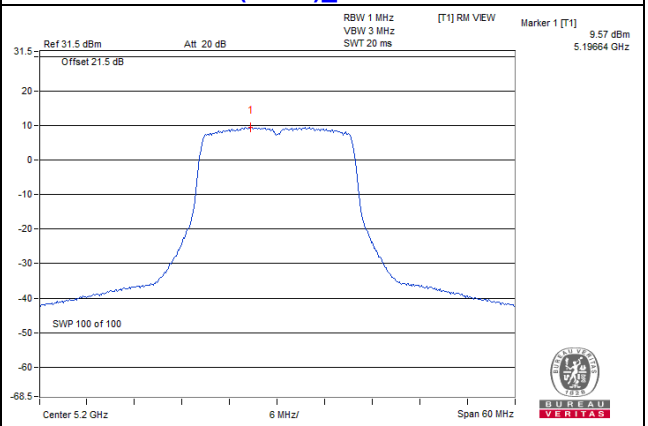
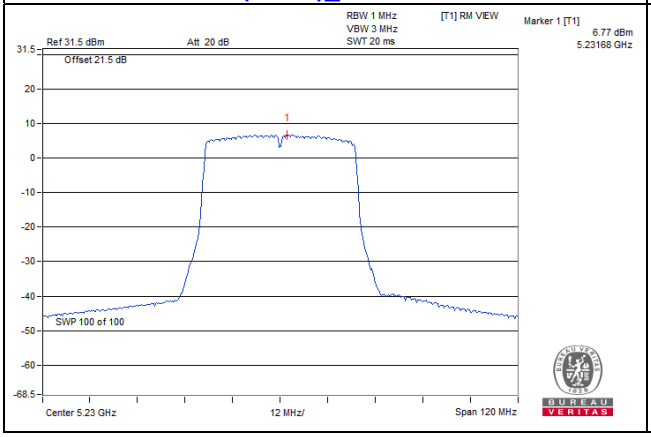
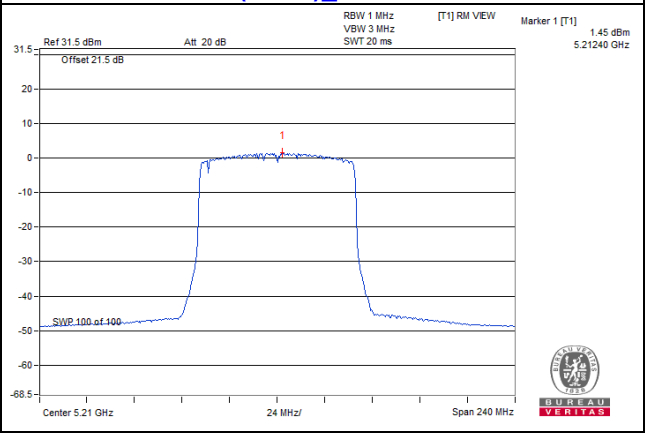
Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
38	5190	5.15	5.39	0.25	8.53	17.00	Pass
46	5230	6.26	6.77	0.25	9.78	17.00	Pass
54	5270	3.74	3.74	0.25	7.00	11.00	Pass
62	5310	4.33	4.08	0.25	7.47	11.00	Pass
102	5510	3.19	3.63	0.25	6.67	11.00	Pass
110	5550	3.37	3.50	0.25	6.69	11.00	Pass
134	5670	4.12	4.62	0.25	7.64	11.00	Pass
142 (U-NII-2C Band)	5710	4.54	5.00	0.25	8.03	11.00	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. The directional gain = 10 log[$(10^{G0/20} + 10^{G1/20})^2$ / 2] = 5.76 dBi < 6dBi, so the power density limit shall not be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE80)

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				
42	5210	1.45	1.32	0.25	4.64	17.00	Pass
58	5290	-1.85	-1.76	0.25	1.46	11.00	Pass
106	5530	0.90	1.38	0.25	4.41	11.00	Pass
122	5610	-0.97	-0.24	0.25	2.67	11.00	Pass
138 (U-NII-2C Band)	5690	-0.58	-0.20	0.25	2.87	11.00	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. The directional gain = 10 log[$(10^{G0/20} + 10^{G1/20})^2$ / 2] = 5.76 dBi < 6dBi, so the power density limit shall not be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value	
802.11a_Chain 0 / CH40	**802.11ax (HE20)_Chain 1 / CH40**
	
802.11ax (HE40)_Chain 1 / CH46	**802.11ax (HE80)_Chain 0 / CH42**
	

For U-NII-3 band:

CDD Mode

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Duty Factor (dB)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1					
144 (U-NII-3 Band)	5720	-0.18	0.21	0.29	3.32	5.54	30.00	Pass
149	5745	3.04	3.06	0.29	6.35	8.57	30.00	Pass
157	5785	3.37	3.19	0.29	6.58	8.80	30.00	Pass
165	5825	3.51	3.43	0.29	6.77	8.99	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 = 10 log[$(10^{G0/20} + 10^{G1/20})^2$ / 2] = 5.76 dBi < 6dBi, so the power density limit shall not be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Duty Factor (dB)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1					
144 (U-NII-3 Band)	5720	-1.74	-1.19	0.21	1.76	3.98	30.00	Pass
149	5745	1.67	2.14	0.21	5.13	7.35	30.00	Pass
157	5785	2.45	2.56	0.21	5.73	7.95	30.00	Pass
165	5825	2.71	2.76	0.21	5.96	8.18	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 = 10 log[$(10^{G0/20} + 10^{G1/20})^2$ / 2] = 5.76 dBi < 6dBi, so the power density limit shall not be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Duty Factor (dB)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1					
142 (U-NII-3 Band)	5710	-5.37	-5.35	0.25	-2.10	0.12	30.00	Pass
151	5755	-1.10	-0.94	0.25	2.24	4.46	30.00	Pass
159	5795	-1.44	-1.00	0.25	2.04	4.26	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 = 10 log[$(10^{G0/20} + 10^{G1/20})^2$ / 2] = 5.76 dBi < 6dBi, so the power density limit shall not be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

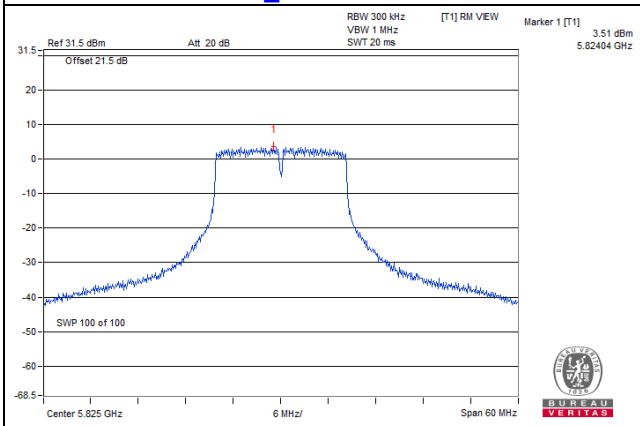
802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Duty Factor (dB)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1					
138 (U-NII-3 Band)	5690	-11.17	-10.86	0.25	-7.75	-5.53	30.00	Pass
155	5775	-6.16	-5.76	0.25	-2.70	-0.48	30.00	Pass

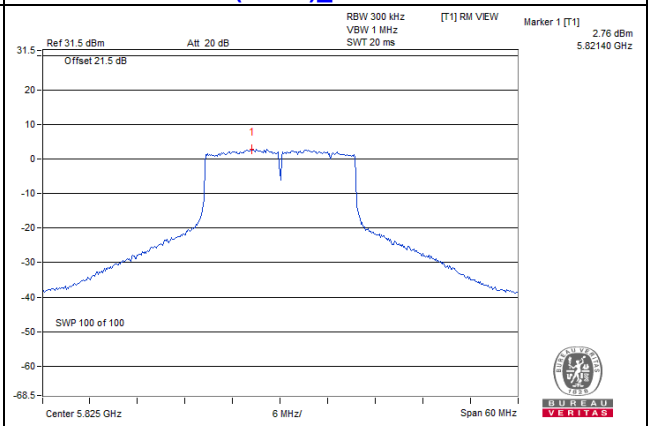
Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. The directional gain = 10 log[($10^{G0/20}$ + $10^{G1/20}$)^2 / 2] = 5.76 dBi < 6dBi, so the power density limit shall not be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

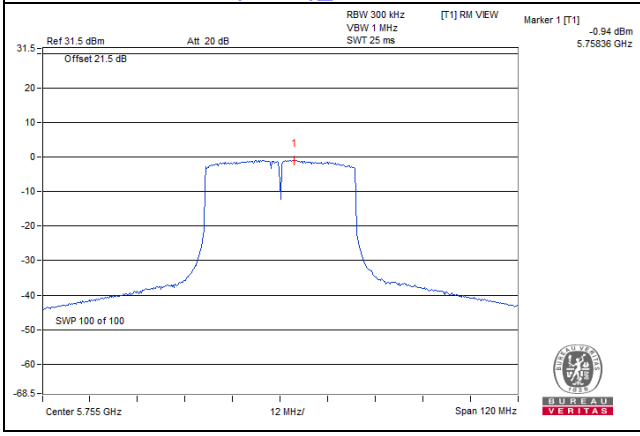
802.11a_Chain 0 / CH165



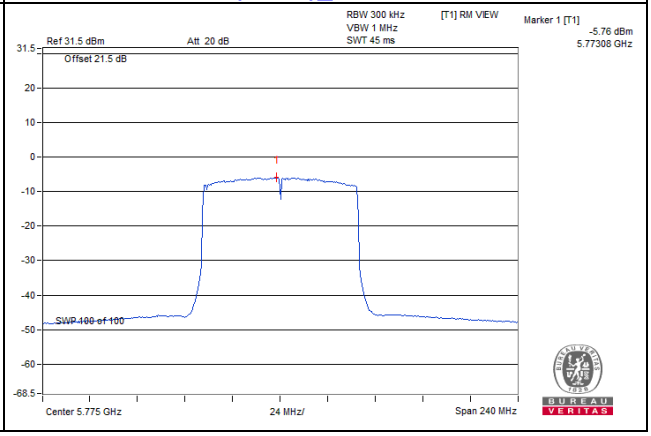
802.11ax (HE20)_Chain 1 / CH165



802.11ax (HE40)_Chain 1 / CH151



802.11ax (HE80)_Chain 1 / CH155

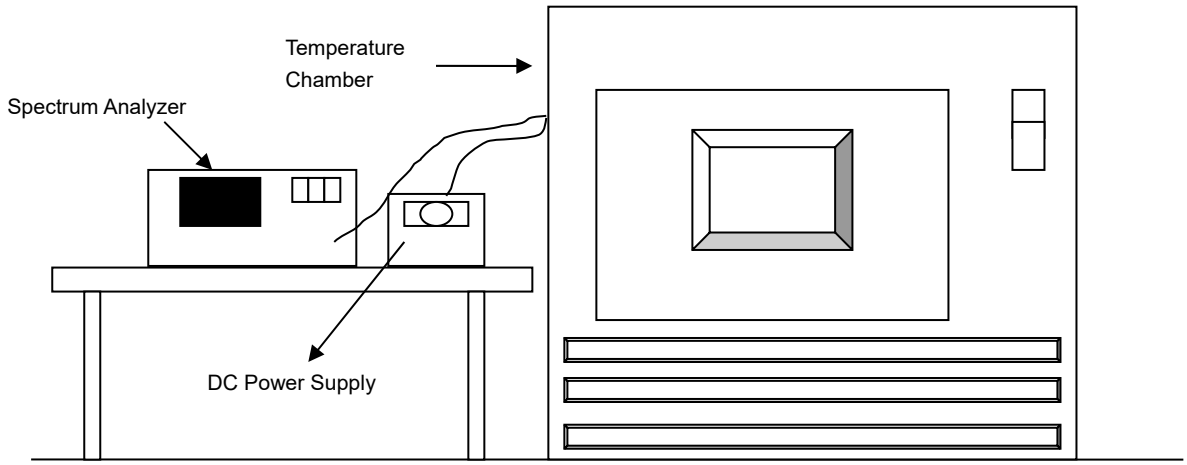


4.6 Frequency Stability Measurement

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 DC 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 (Vdc)	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	12	5179.9905	Pass	5179.9937	Pass	5179.9918	Pass	5179.9897	Pass
30	12	5179.9768	Pass	5179.9754	Pass	5179.9766	Pass	5179.9777	Pass
20	12	5180.0174	Pass	5180.0196	Pass	5180.0189	Pass	5180.0159	Pass
10	12	5179.9966	Pass	5179.9973	Pass	5179.996	Pass	5179.996	Pass
0	12	5180.001	Pass	5180.0018	Pass	5180.0005	Pass	5180.0008	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
TEMP. (℃)	Power Supply (Vdc)	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	13.8	5180.0172	Pass	5180.0193	Pass	5180.0192	Pass	5180.015	Pass
	12	5180.0174	Pass	5180.0196	Pass	5180.0189	Pass	5180.0159	Pass
	10.2	5180.0166	Pass	5180.0199	Pass	5180.019	Pass	5180.0165	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

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
144 (U-NII-3 Band)	5720	3.15	3.11	0.5	Pass
149	5745	16.07	16.09	0.5	Pass
157	5785	16.32	16.06	0.5	Pass
165	5825	15.87	16.34	0.5	Pass

802.11ax (HE20)

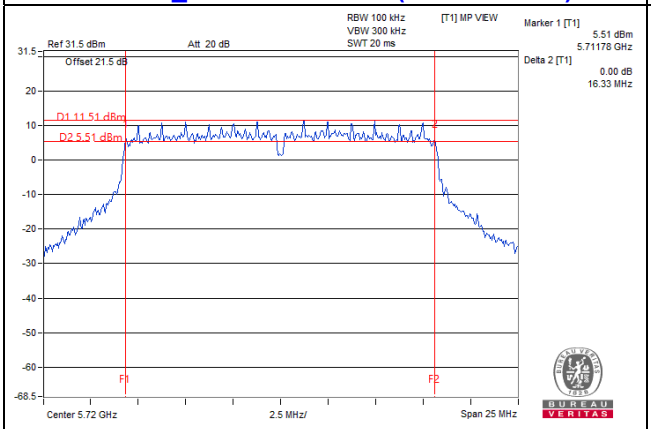
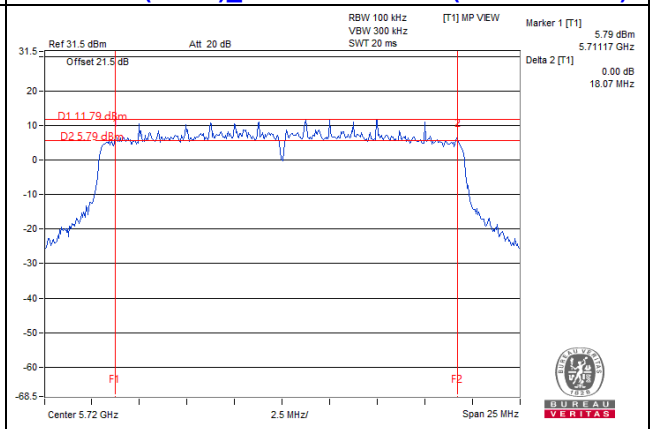
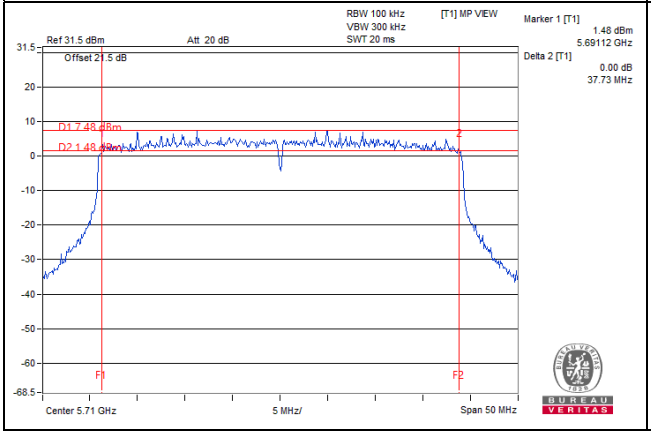
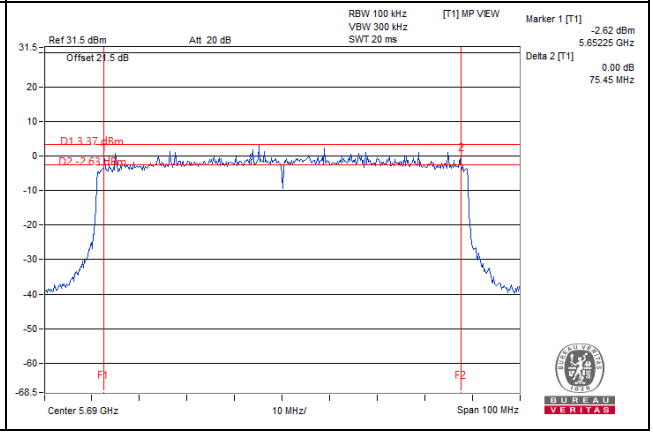
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
144 (U-NII-3 Band)	5720	4.33	4.24	0.5	Pass
149	5745	18.58	17.82	0.5	Pass
157	5785	18.63	18.54	0.5	Pass
165	5825	18.57	18.62	0.5	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
142 (U-NII-3 Band)	5710	3.98	3.85	0.5	Pass
151	5755	37.88	37.77	0.5	Pass
159	5795	37.94	37.69	0.5	Pass

802.11ax (HE80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
138 (U-NII-3 Band)	5690	3.69	2.7	0.5	Pass
155	5775	76.68	76.75	0.5	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

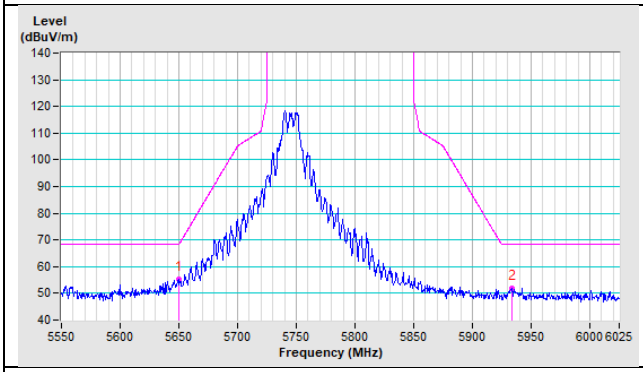
5 Pictures of Test Arrangements

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

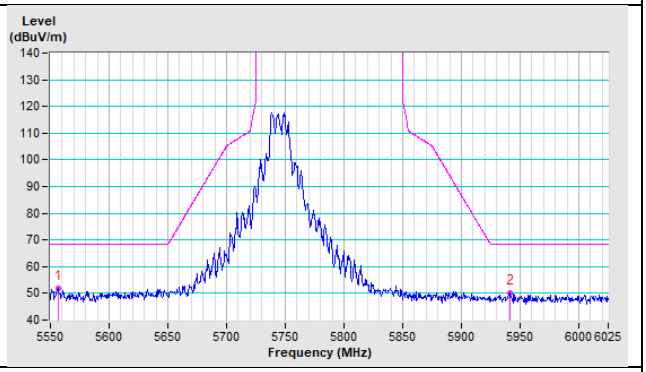
Annex A - Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

802.11a CH 149：5745 MHz

Horizontal

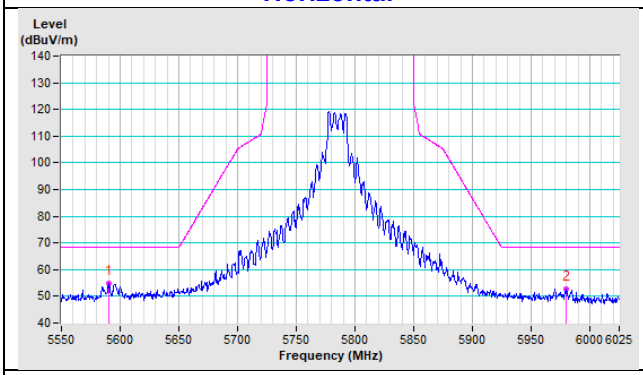


Vertical

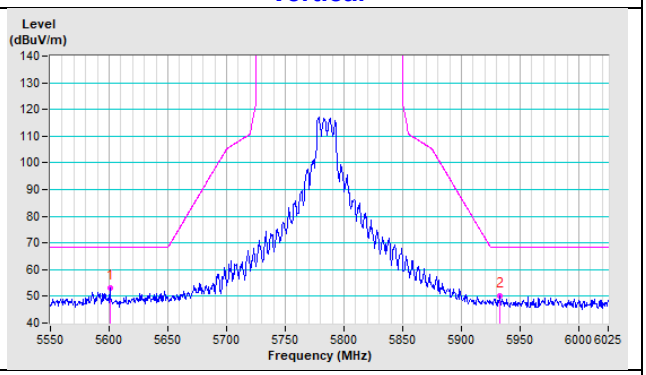


802.11a CH 157：5785 MHz

Horizontal

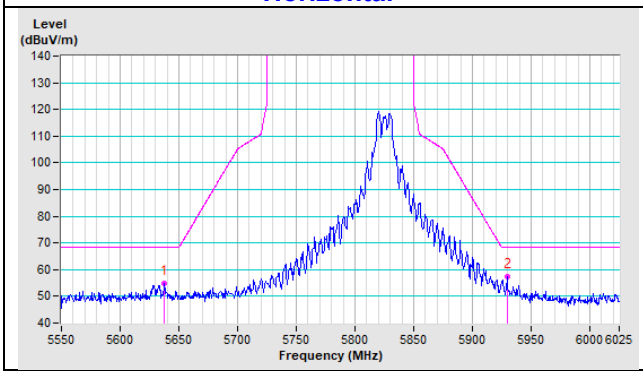


Vertical

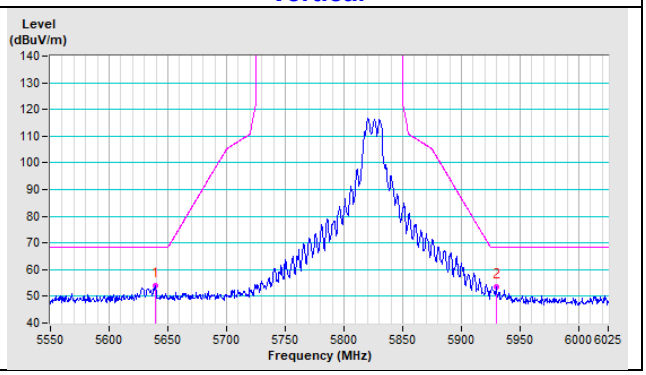


802.11a CH 165：5825 MHz

Horizontal

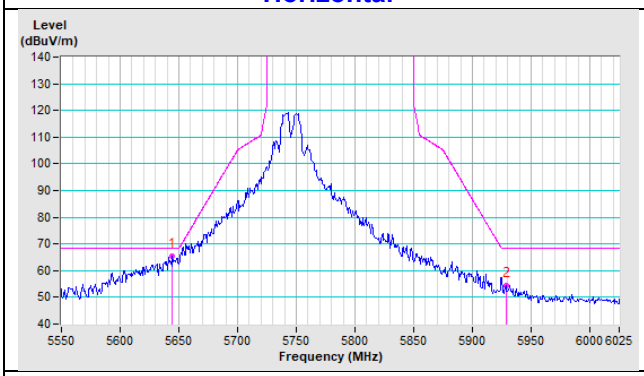


Vertical

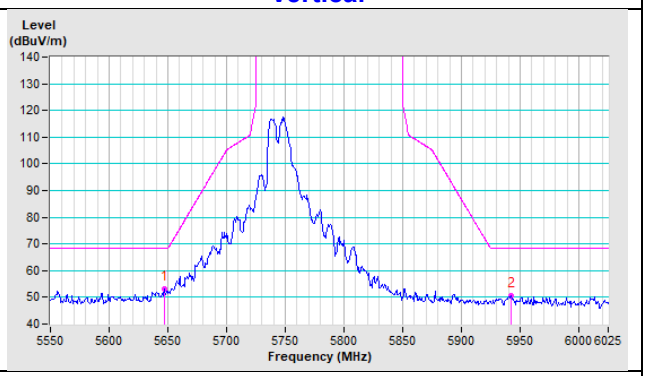


802.11ax (HE20) CH 149：5745 MHz

Horizontal

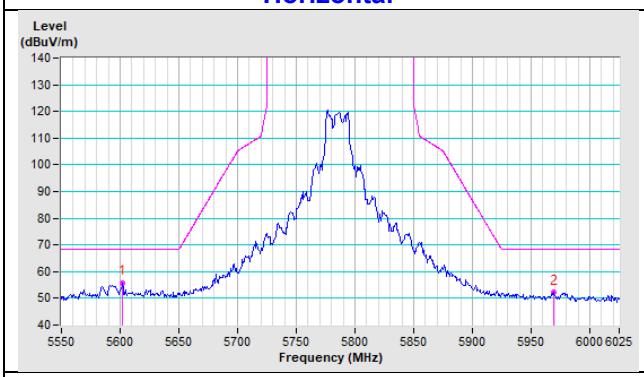


Vertical

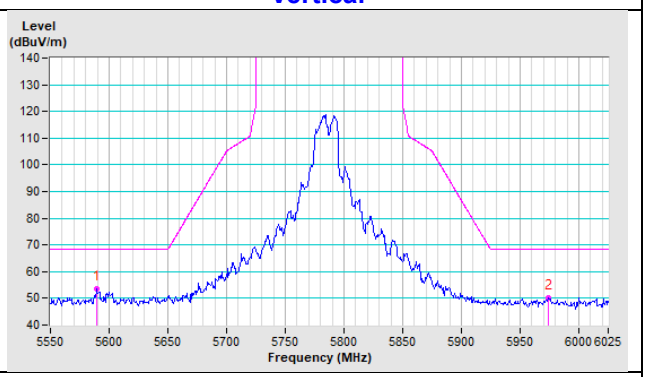


802.11ax (HE20) CH 157：5785 MHz

Horizontal

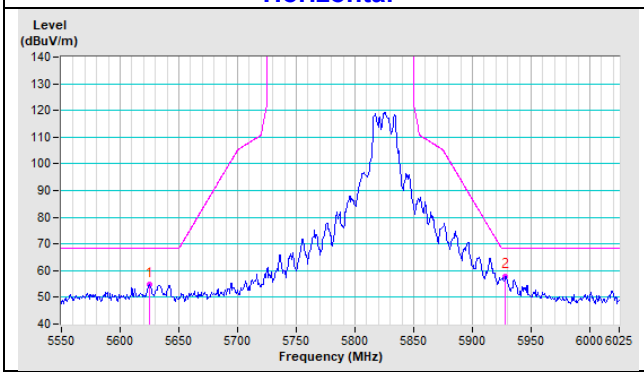


Vertical

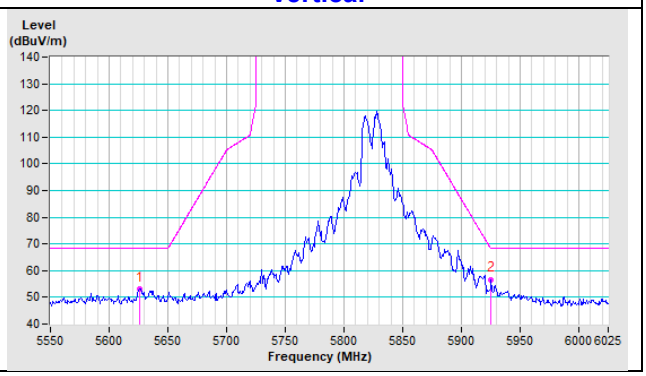


802.11ax (HE20) CH 165：5825 MHz

Horizontal

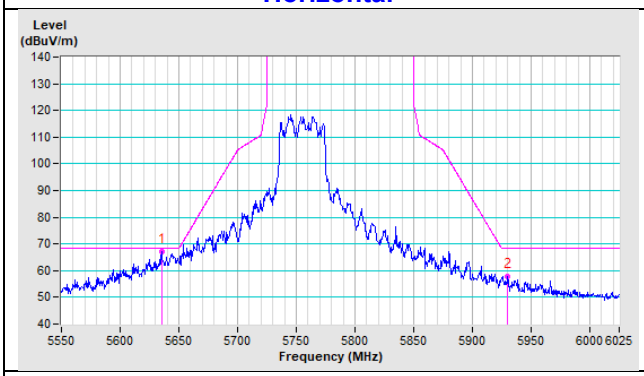


Vertical

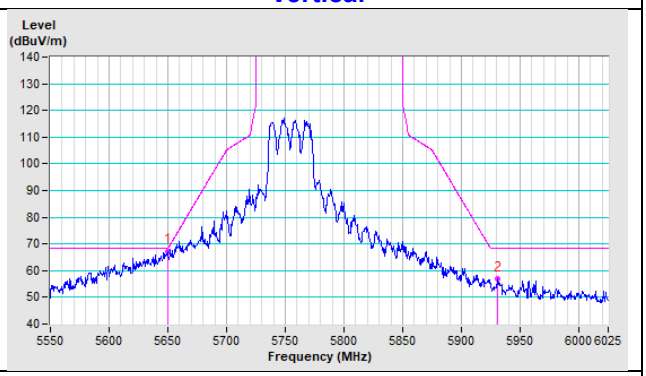


802.11ax (HE40) CH 151：5755 MHz

Horizontal

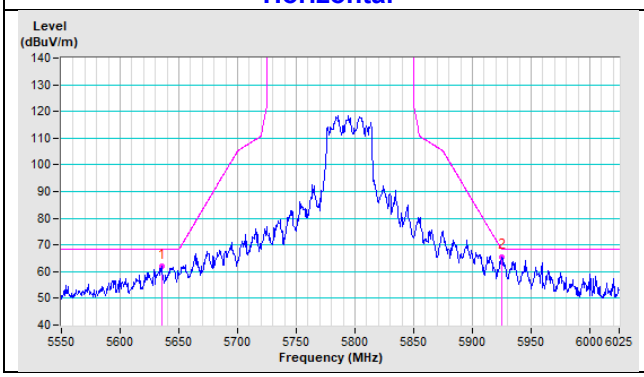


Vertical

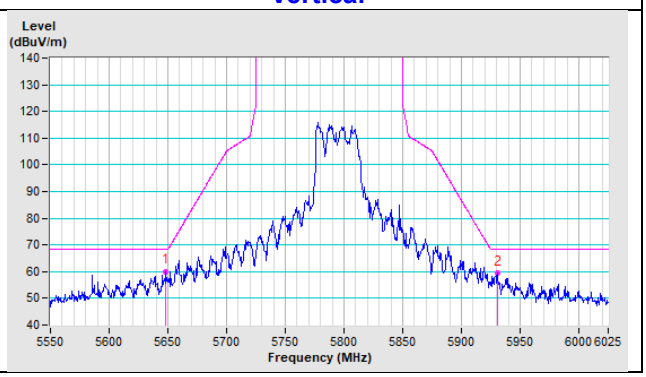


802.11ax (HE40) CH 159：5795 MHz

Horizontal

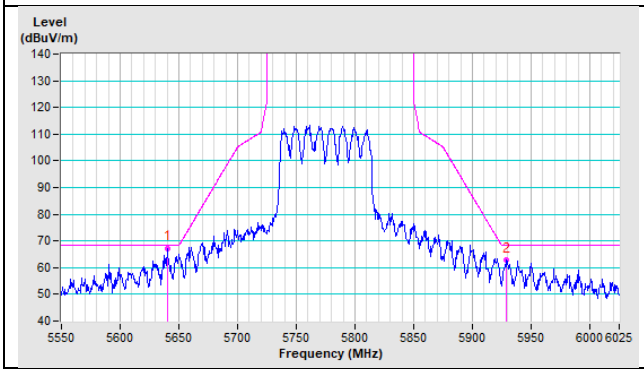


Vertical

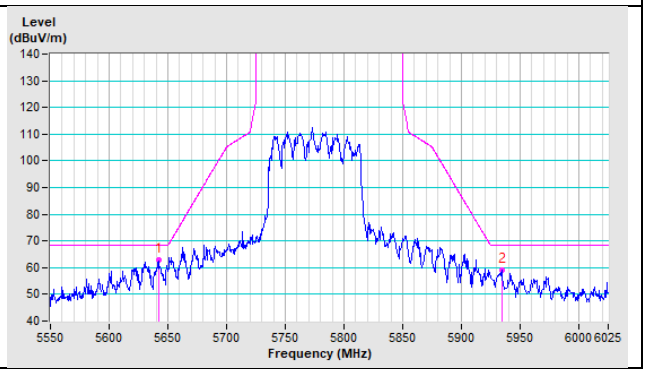


802.11ax (HE80) CH 155：5775 MHz

Horizontal



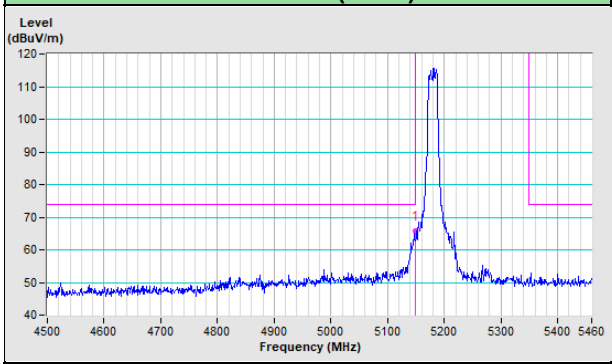
Vertical



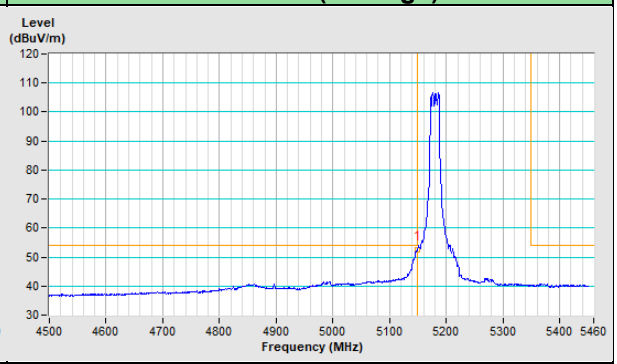
Annex B - Band-Edge Measurement (For U-NII-1, U-NII-2A, U-NII-2C band)

802.11a Channel 36

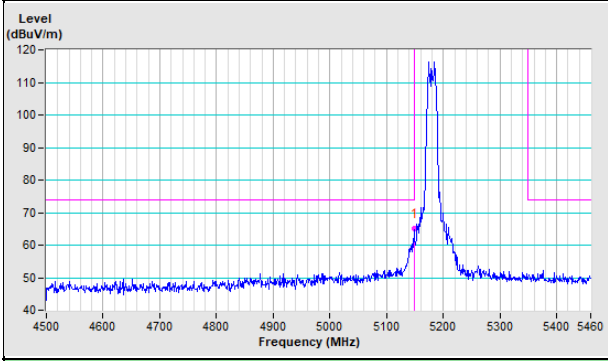
Horizontal (Peak)



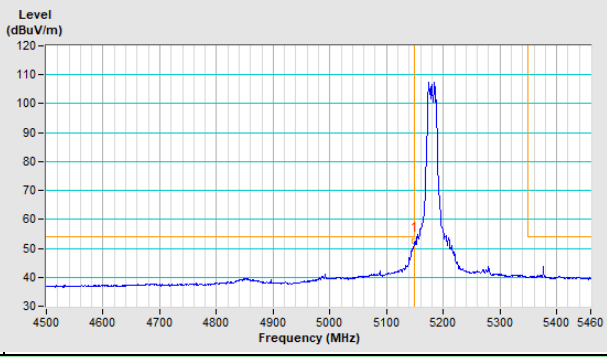
Horizontal (Average)



Vertical (Peak)

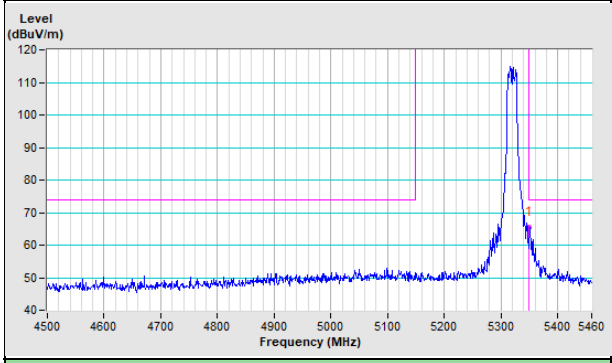


Vertical (Average)

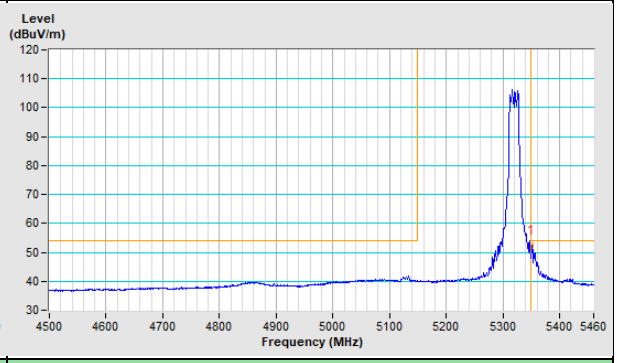


802.11a Channel 64

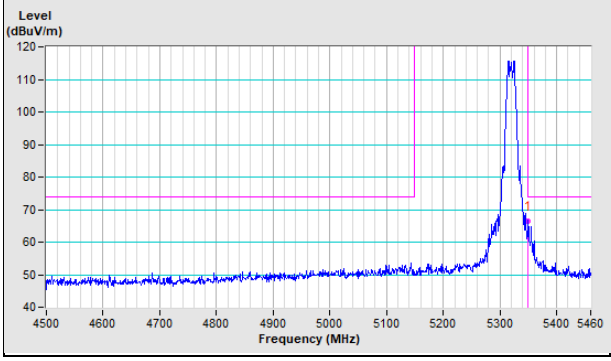
Horizontal (Peak)



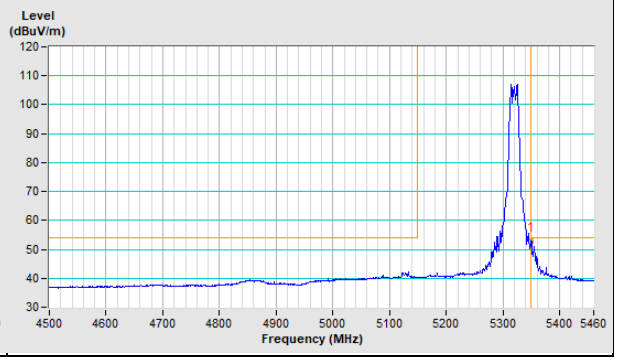
Horizontal (Average)

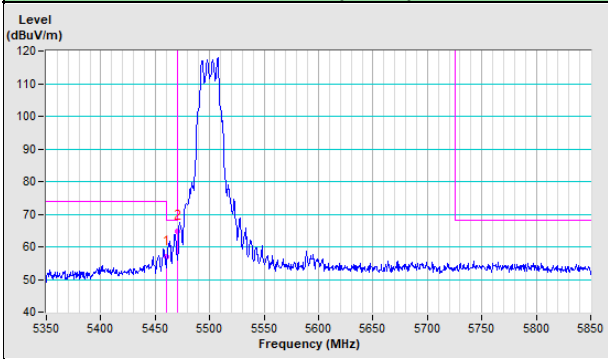
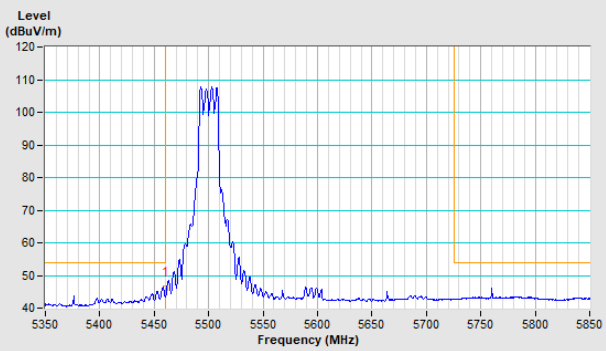
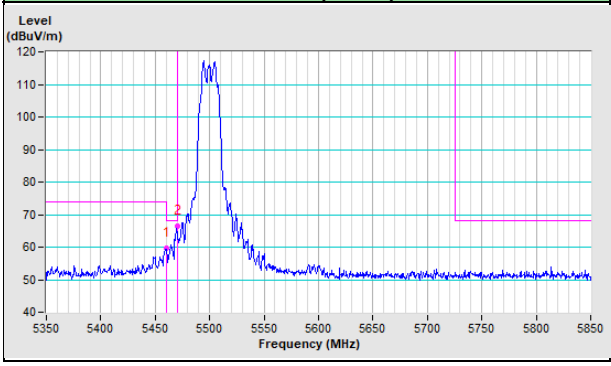
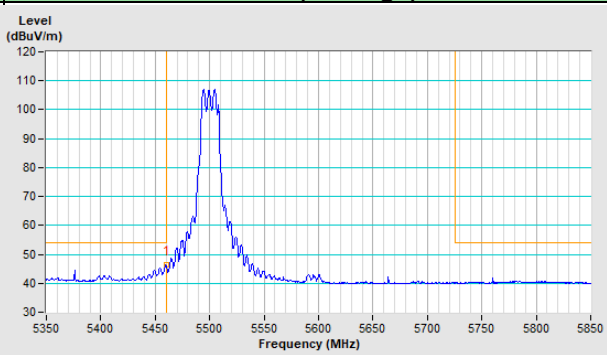


Vertical (Peak)



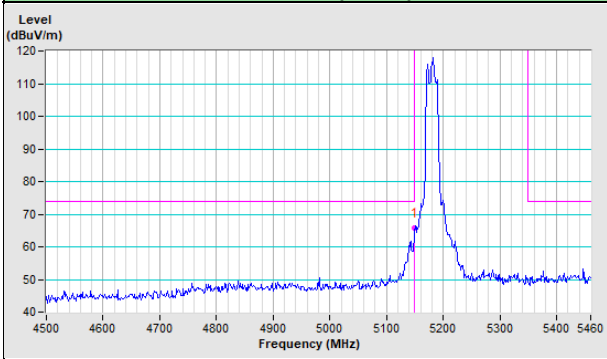
Vertical (Average)



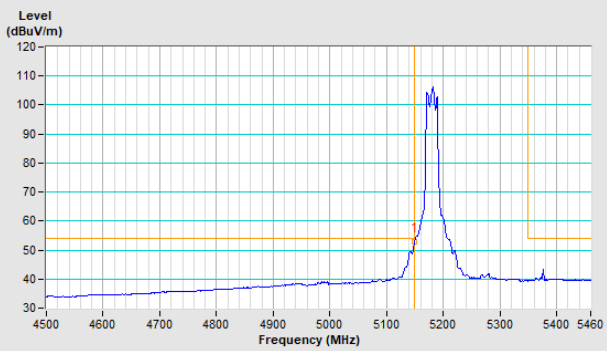
802.11a Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE20) Channel 36

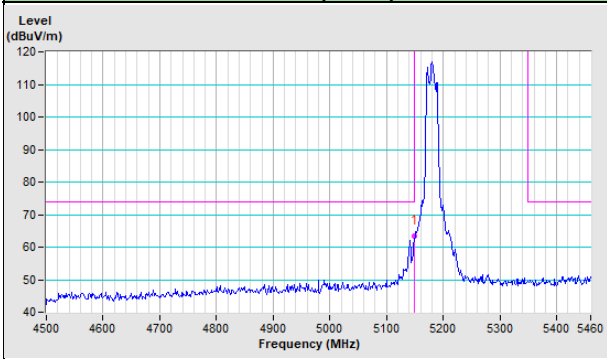
Horizontal (Peak)



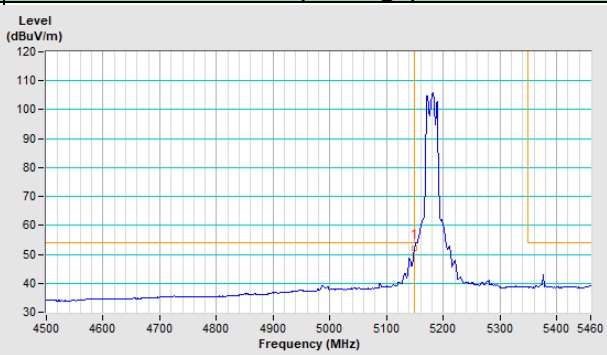
Horizontal (Average)



Vertical (Peak)

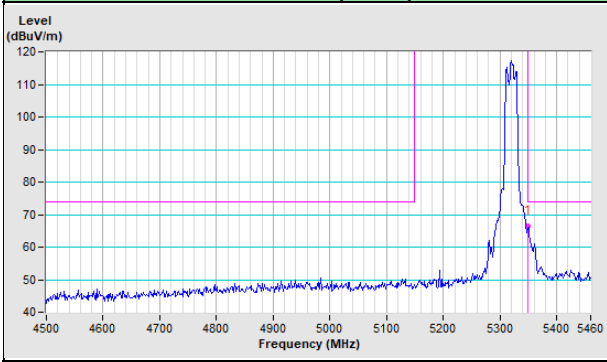


Vertical (Average)

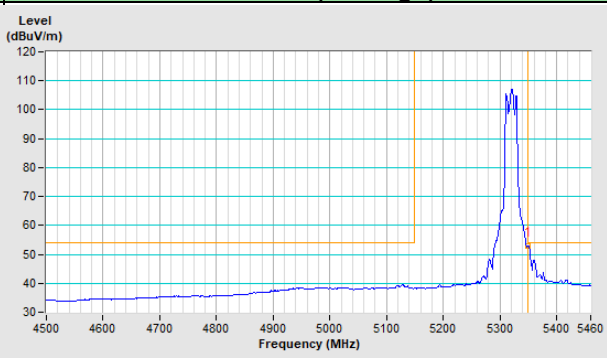


802.11ax (HE20) Channel 64

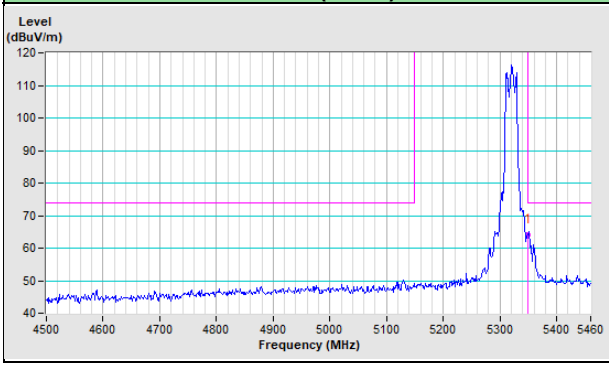
Horizontal (Peak)



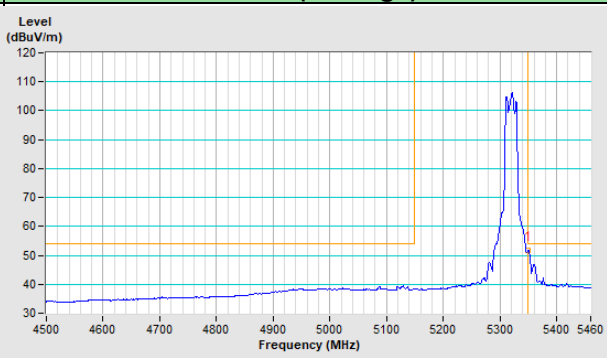
Horizontal (Average)

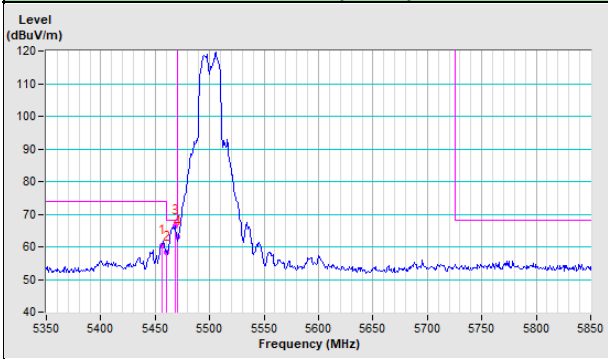
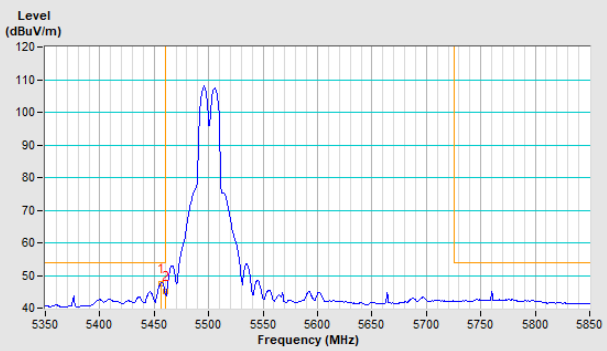
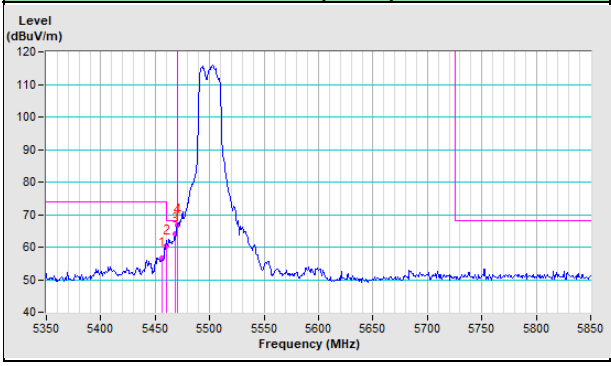
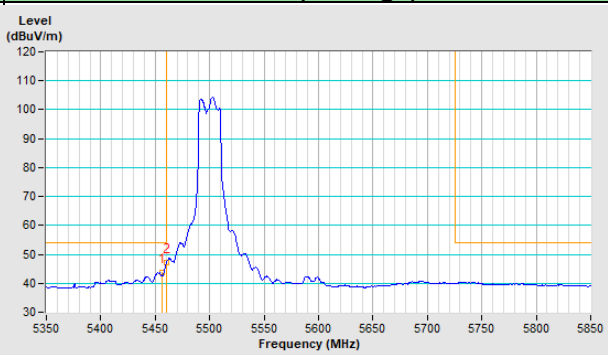


Vertical (Peak)



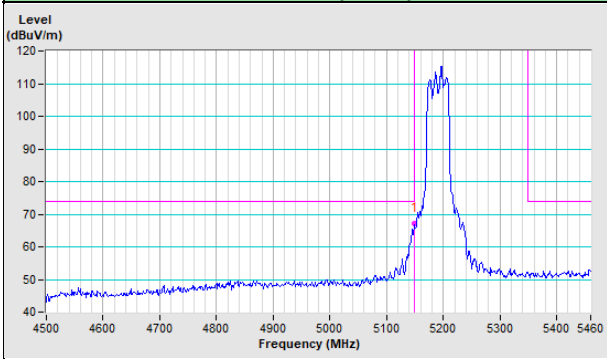
Vertical (Average)



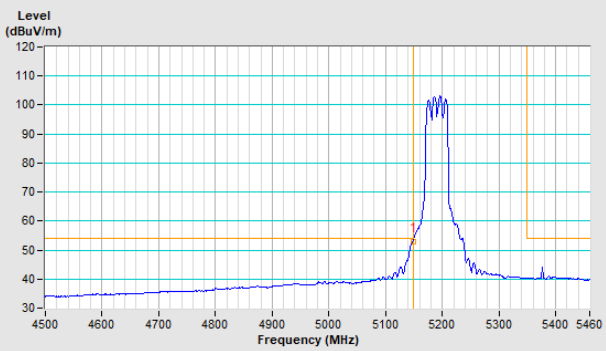
802.11ax (HE20) Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE40) Channel 38

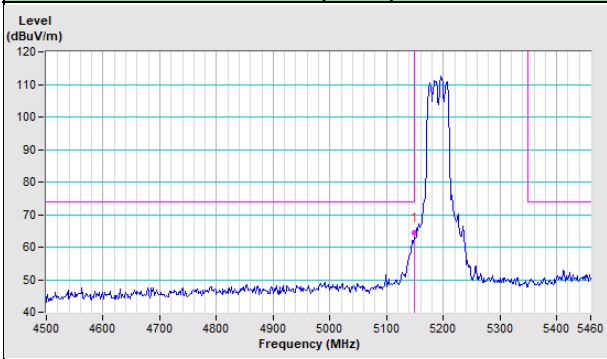
Horizontal (Peak)



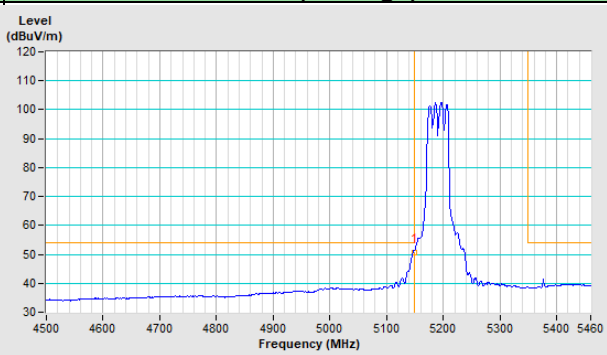
Horizontal (Average)



Vertical (Peak)

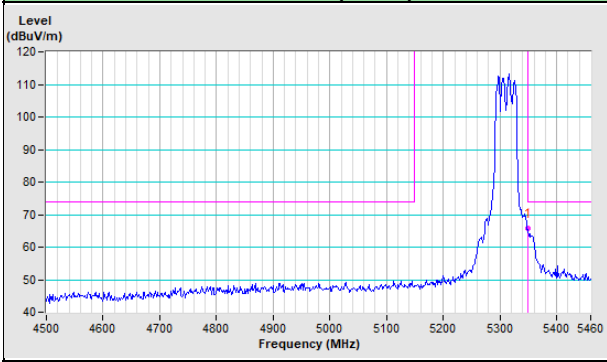


Vertical (Average)

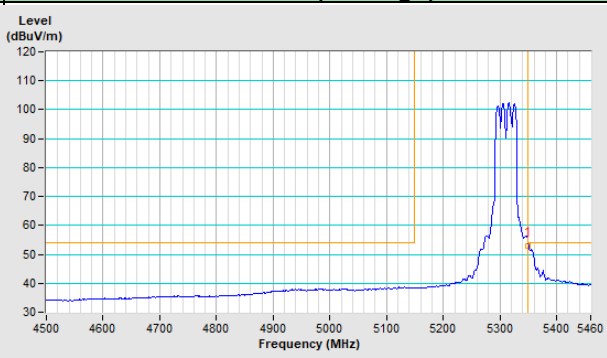


802.11ax (HE40) Channel 62

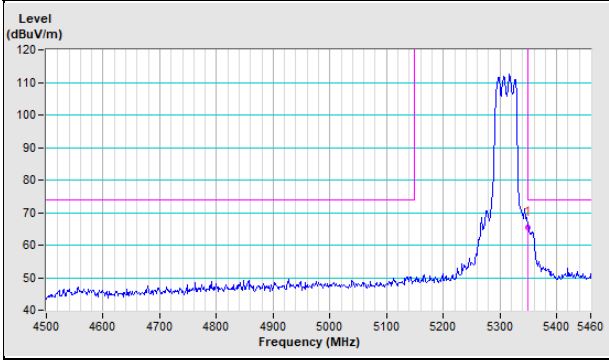
Horizontal (Peak)



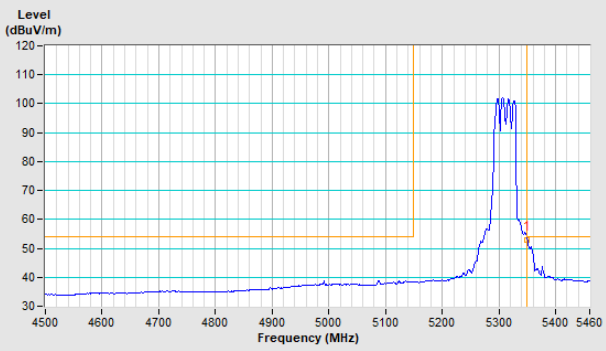
Horizontal (Average)

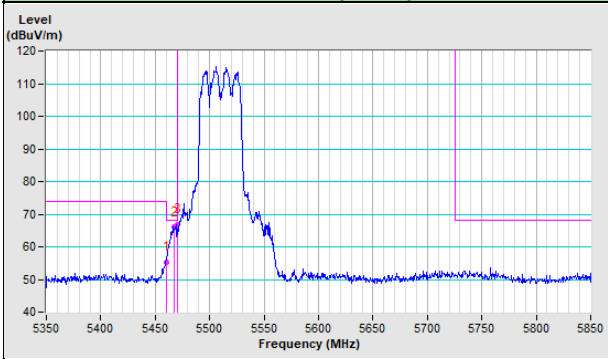
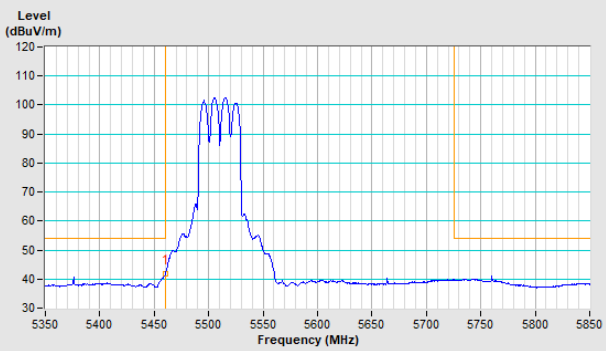
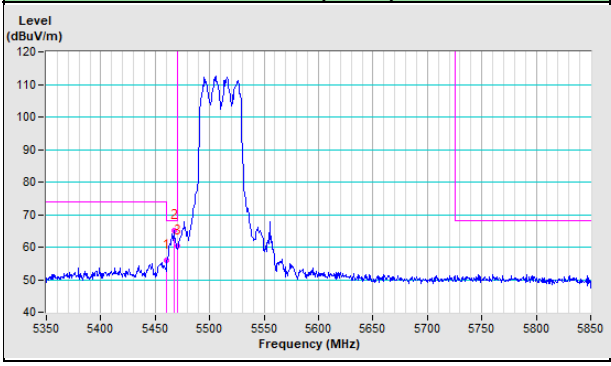
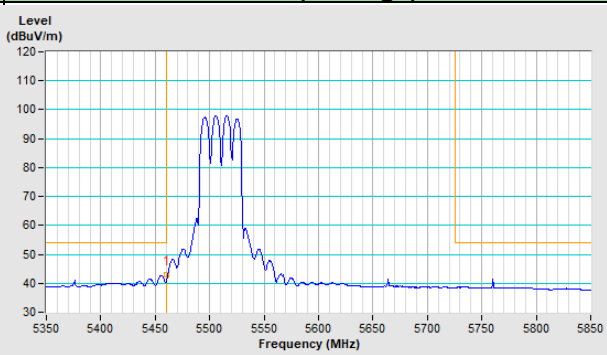


Vertical (Peak)



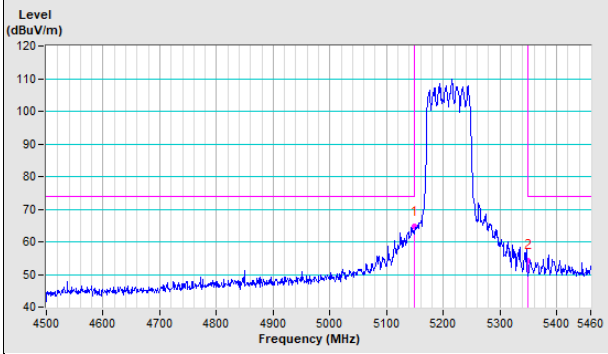
Vertical (Average)



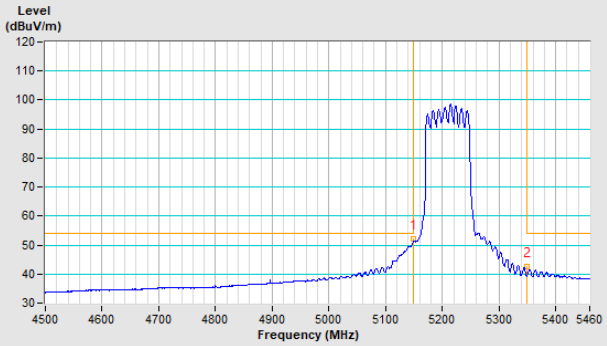
802.11ax (HE40) Channel 102	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE80) Channel 42

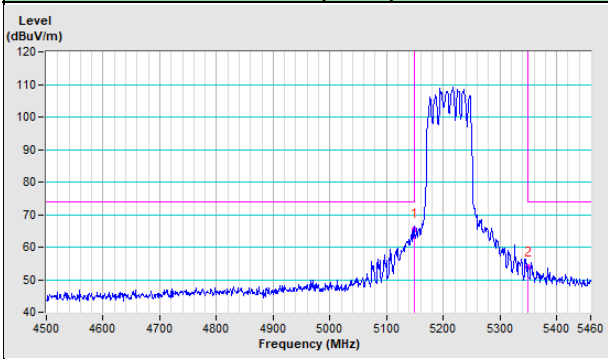
Horizontal (Peak)



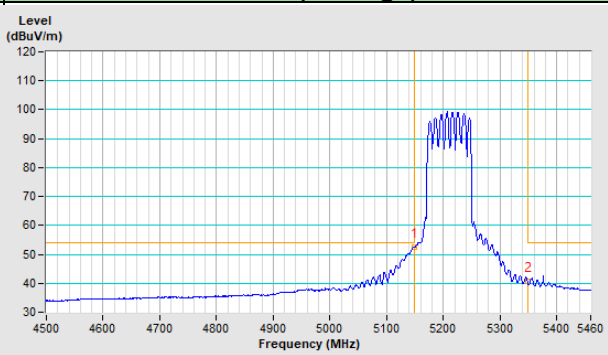
Horizontal (Average)



Vertical (Peak)

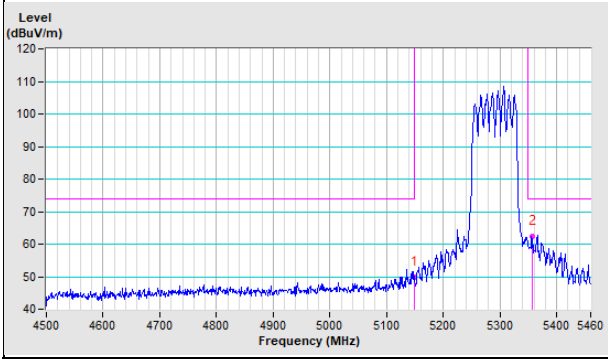


Vertical (Average)

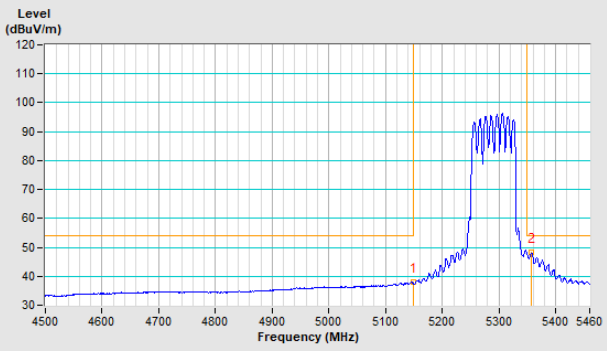


802.11ax (HE80) Channel 58

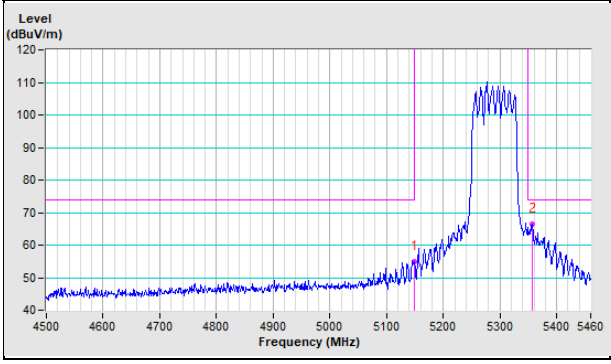
Horizontal (Peak)



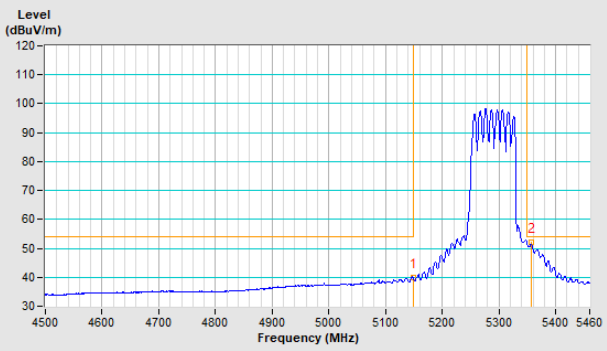
Horizontal (Average)

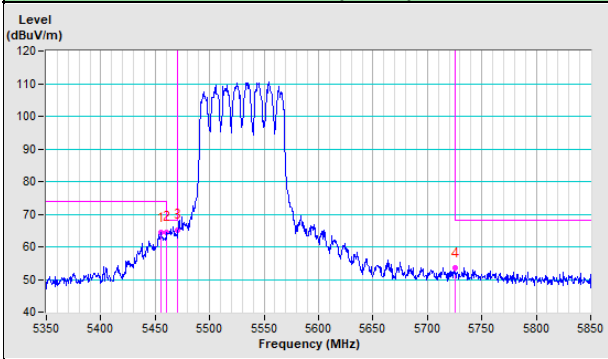
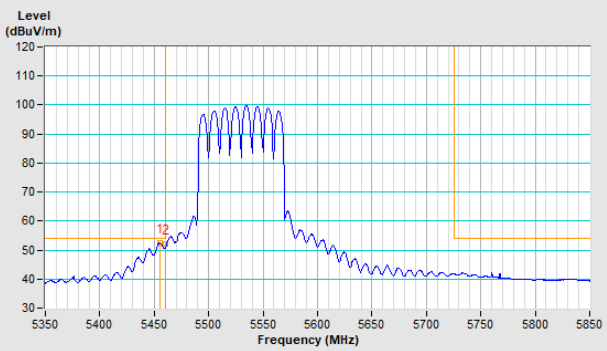
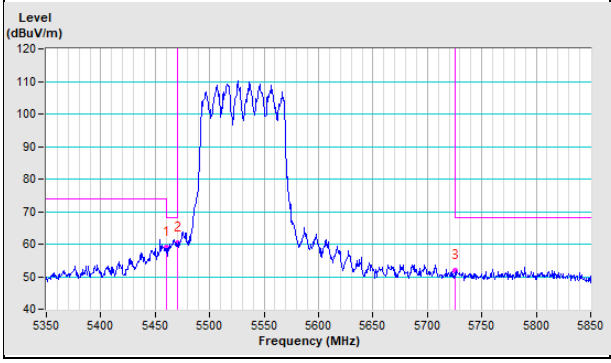
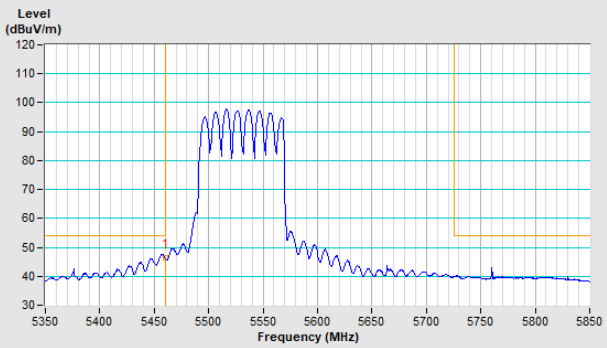


Vertical (Peak)



Vertical (Average)



802.11ax (HE80) Channel 106	
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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