FCC Test Report

Report No.:	RF190108E06-1
FCC ID:	PY318400434
Test Model:	RAX200
Received Date:	Jan. 08, 2019
Test Date:	Mar. 07 to May 10, 2019
Issued Date:	June 06, 2019
Applicant:	NETGEAR, Inc.
Address:	350 East Plumeria Drive San Jose, CA 95134
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
FCC Registration / Designation Number:	723255 / TW2022

Testing Laboratory
2022

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Release Control Record

Issue No.	Description	Date Issued
RF190108E06-1	Original release.	June 06, 2019

1 Certificate of Conformity

Product:	Nighthawk AX12 12-Stream Tri-Band AX WiFi Router
Brand:	NETGEAR
Test Model:	RAX200
Sample Status:	ENGINEERING SAMPLE
Applicant:	NETGEAR, Inc.
Test Date:	Mar. 07 to May 10, 2019
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 : Wendy Wu , **Date:** June 06, 2019

Wendy Wu / Specialist

Approved by : , **Date:** June 06, 2019

May Chen / Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -9.12dB at 0.32188MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement*	Pass	Meet the requirement of limit. Minimum passing margin is -0.1dB at 5150.00MHz, 5647.61MHz, 5648.28MHz.
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.

*For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOBE test plots were recorded in Annex A.

Note:

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	1.8 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	4.9 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.1 dB
	6GHz ~ 18GHz	4.9 dB
	18GHz ~ 40GHz	5.2 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Nighthawk AX12 12-Stream Tri-Band AX WiFi Router
Brand	NETGEAR
Test Model	RAX200
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	19Vdc from power adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM for OFDM in 11ac mode 1024QAM for OFDMA in 11ax HE mode
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	802.11b: up to 11Mbps 802.11a/g: up to 54Mbps 802.11n: up to 600Mbps 802.11ac: up to 3466.7Mbps 802.11ax: up to 4803.9Mbps
Operating Frequency	**2.4GHz:** 2.412 ~ 2.462GHz **5GHz:** 5.18~ 5.24GHz, 5.26 ~ 5.32GHz, 5.5 ~ 5.72GHz, 5.745 ~ 5.825GHz
Number of Channel	**2.4GHz:** 802.11b, 802.11g, 802.11n (HT20), 802.11ax (HE20): 11 802.11n (HT40), 802.11ax (HE40): 7 **5GHz:** 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 25 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 12 802.11ac (VHT80), 802.11ax (HE80): 6 802.11ac (VHT160), 802.11ax (HE160): 2
Output Power	**Non-Beamforming Mode:** **2.4GHz:** 964.63mW **5.18 ~ 5.24GHz:** 960.502mW **5.26 ~ 5.32GHz:** 243.628mW **5.5 ~ 5.72GHz:** 247.638mW **5.745 ~ 5.825GHz:** 998.049mW **Beamforming Mode:** **2.4GHz:** 765.668mW **5.18 ~ 5.24GHz:** 758.575mW **5.26 ~ 5.32GHz:** 181.757mW **5.5 ~ 5.72GHz:** 172.712mW **5.745 ~ 5.825GHz:** 696.123mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x 1
Data Cable Supplied	RJ45 cable x 1 (Unshielded, 1.8m)

Note:

1. Simultaneously transmission condition.

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

2. The EUT must be supplied power adapter and following different models could be chosen as following table:

No.	Brand	Model No.	P/N	Spec.
1	NETGEAR	AD2073F20	332-11482-01	Input: 100-240Vac, 1.5A, 50/60Hz Output: 19V, 3.16A DC Output cable: Unshielded, 1.8m
2	NETGEAR	2ABS060K	332-11474-01	Input: 100-240Vac, 1.7A, 50/60Hz Output: 19V, 3.16A DC Output cable: Unshielded, 1.8m
Note: From the above adapters, the worst case was found in **Adapter 2.** Therefore only the test data of the mode was recorded in this report.				

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

Frequency Range (GHz)	Directional Antenna Gain (dBi)	Antenna Type	Antenna Connector
2.4~2.4835	7.01	Dipole	i-pex(MHF)
5.15~5.25	7.15		
5.25~5.35	7.37		
5.47~5.725	7.62		
5.725~5.85	7.53		
Note: More detailed information, please refer to opearating description.			

Frequency Range (GHz)	Antenna Net Gain (dBi)	Antenna Type	Connecter Type
5.15~5.85	2 (RX only)	PCB	i-pex(MHF)

4. The EUT incorporates a MIMO function:

2.4GHz Band		
MODULATION MODE	**TX & RX CONFIGURATION**	
802.11b	4TX	4RX
802.11g	4TX	4RX
802.11n (HT20)	4TX	4RX
802.11n (HT40)	4TX	4RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX
5GHz Band		
MODULATION MODE	**TX & RX CONFIGURATION**	
802.11a	4TX	4RX
802.11n (HT20)	4TX	4RX
802.11n (HT40)	4TX	4RX
802.11ac (VHT20)	4TX	4RX
802.11ac (VHT40)	4TX	4RX
802.11ac (VHT80)	4TX	4RX
802.11ac (VHT160)	4TX	4RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX
802.11ax (HE80)	4TX	4RX
802.11ax (HE160)	4TX	4RX
Receiver Mode	-	1RX

Note:
1. All of modulation mode support beamforming function except 802.11a/b/g modulation mode.
2. The EUT support Beamforming and non-beamforming mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz), 802.11ac mode for 20MHz (40MHz, 80MHz, 160MHz) and 802.11ax mode for 20MHz (40MHz, 80MHz, 160MHz), therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

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

3.2 Description of Test Modes

FOR 5180 ~ 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

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

Channel	Frequency
50	5250 MHz

FOR 5500 ~ 5720MHz

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

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

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

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

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

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

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

Channel	Frequency
114	5570 MHz

FOR 5745 ~ 5825MHz:

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

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

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

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

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

Channel	Frequency
155	5775 MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

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

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

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

Radiated Emission Test (Above 1GHz):

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

Non-Beamforming 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
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	6Mb/s
802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	BPSK	MCS0
802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	BPSK	MCS0
802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	BPSK	MCS0
802.11ax (HE160)		114	114	OFDMA	BPSK	MCS0
802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6Mb/s
802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	BPSK	MCS0
802.11ax (HE40)		151 to 159	151, 159	OFDMA	BPSK	MCS0
802.11ax (HE80)		155	155	OFDMA	BPSK	MCS0

Radiated Emission Test (Below 1GHz):

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

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

Non-Beamforming Mode (low band)						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11ax (HE40)	5180-5240 5260-5320	38 to 46 54 to 62	46	OFDMA	BPSK	MCS0
Non-Beamforming Mode (high band)						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11a	5500-5720 5745-5825	100 to 144 149 to 165	165	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.

Non-Beamforming Mode (low band)						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11ax (HE40)	5180-5240 5260-5320	38 to 46 54 to 62	46	OFDMA	BPSK	MCS0
Non-Beamforming Mode (high band)						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11a	5500-5720 5745-5825	100 to 144 149 to 165	165	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.

Non-Beamforming 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
802.11ac (VHT160) (Output power only)		50	50	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
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	6Mb/s
802.11ac (VHT20) (Output power only)		100 to 144	100, 116, 140, 144	OFDM	BPSK	MCS0
802.11ac (VHT40) (Output power only)		102 to 142	102, 110, 134, 142	OFDM	BPSK	MCS0
802.11ac (VHT80) (Output power only)		106 to 138	106, 122, 138	OFDM	BPSK	MCS0
802.11ac (VHT160) (Output power only)		114	114	OFDM	BPSK	MCS0
802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	BPSK	MCS0
802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	BPSK	MCS0
802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	BPSK	MCS0
802.11ax (HE160)		114	114	OFDMA	BPSK	MCS0

802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6Mb/s
802.11ac (VHT20) (Output power only)		149 to 165	149, 157, 165	OFDM	BPSK	MCS0
802.11ac (VHT40) (Output power only)		151 to 159	151, 159	OFDM	BPSK	MCS0
802.11ac (VHT80) (Output power only)		155	155	OFDM	BPSK	MCS0
802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	BPSK	MCS0
802.11ax (HE40)		151 to 159	151, 159	OFDMA	BPSK	MCS0
802.11ax (HE80)		155	155	OFDMA	BPSK	MCS0
Beamforming Mode (output power only)						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11ac (VHT20)	5180-5240	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
802.11ac (VHT160)		50	50	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
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11ac (VHT20)	5500-5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	MCS0
802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	BPSK	MCS0
802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	BPSK	MCS0
802.11ac (VHT160)		114	114	OFDM	BPSK	MCS0
802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	BPSK	MCS0
802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	BPSK	MCS0
802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	BPSK	MCS0
802.11ax (HE160)		114	114	OFDMA	BPSK	MCS0
802.11ac (VHT20)	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	MCS0
802.11ac (VHT40)		151 to 159	151, 159	OFDM	BPSK	MCS0
802.11ac (VHT80)		155	155	OFDM	BPSK	MCS0
802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	BPSK	MCS0
802.11ax (HE40)		151 to 159	151, 159	OFDMA	BPSK	MCS0
802.11ax (HE80)		155	155	OFDMA	BPSK	MCS0

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested By
RE≥1G	24deg. C, 70%RH	120Vac, 60Hz	Ryan Du
RE<1G	23deg. C, 68%RH	120Vac, 60Hz	Ryan Du
PLC	25deg. C, 75%RH	120Vac, 60Hz	Andy Ho
APCM	25deg. C, 60%RH	120Vac, 60Hz	Jyunchun Lin

3.3 Duty Cycle of Test Signal

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

802.11a: Duty cycle = 2.062 ms/2.093 ms = 0.985

802.11ac (VHT20): Duty cycle = 1.926 ms/1.957 ms = 0.984

802.11ac (VHT40): Duty cycle = 0.951 ms/0.981 ms = 0.969, Duty factor = 10 * log (1/Duty cycle) = 0.13

802.11ac (VHT80): Duty cycle = 0.459 ms/0.489 ms = 0.939, Duty factor = 10 * log (1/Duty cycle) = 0.27

802.11ac (VHT160): Duty cycle = 0.251 ms/0.281 ms = 0.893, Duty factor = 10 * log (1/Duty cycle) = 0.49

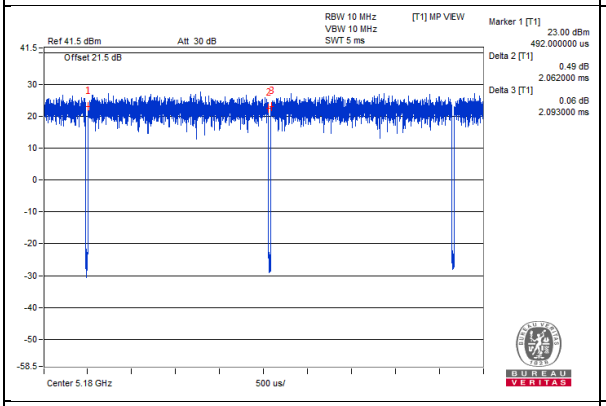
802.11ax (HE20): Duty cycle = 1.485 ms/1.519 ms = 0.978, Duty factor = 10 * log (1/Duty cycle) = 0.10

802.11ax (HE40): Duty cycle = 0.771 ms/0.805 ms = 0.958, Duty factor = 10 * log (1/Duty cycle) = 0.19

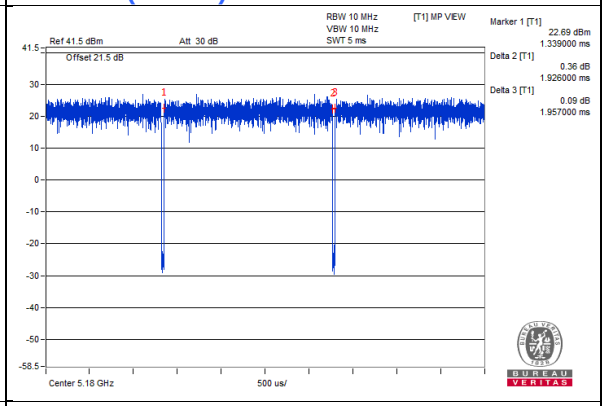
802.11ax (HE80): Duty cycle = 0.4 ms/0.432 ms = 0.926, Duty factor = 10 * log (1/Duty cycle) = 0.33

802.11ax (HE160): Duty cycle = 0.232 ms/0.262 ms = 0.885, Duty factor = 10 * log (1/Duty cycle) = 0.53

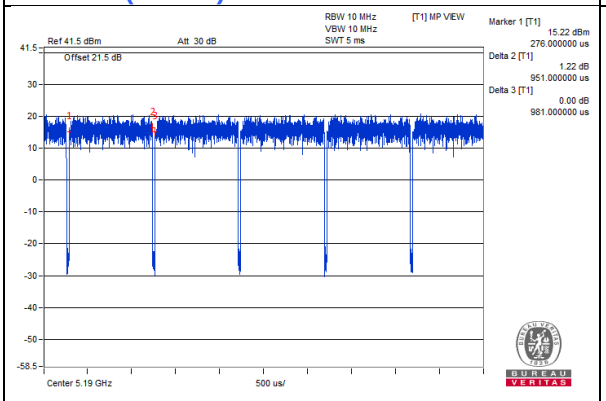
802.11a



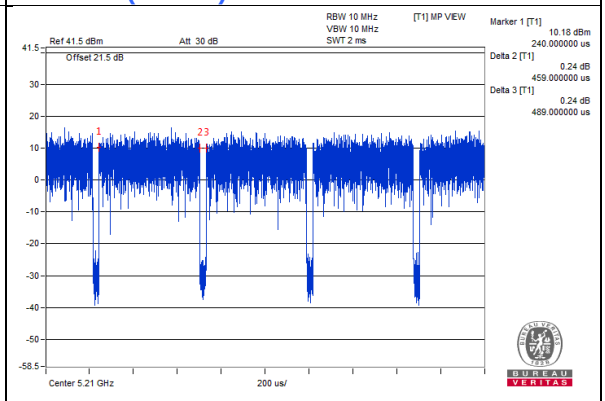
802.11ac (VHT20)



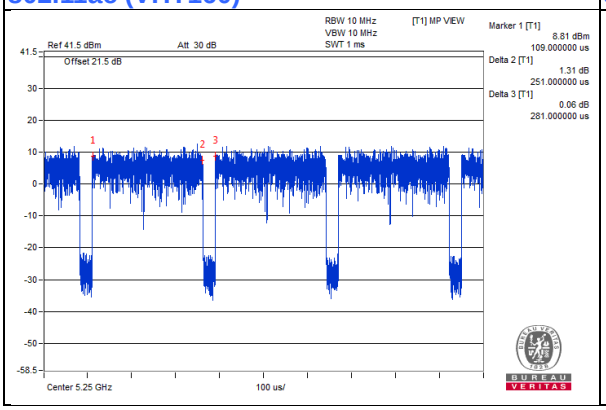
802.11ac (VHT40)



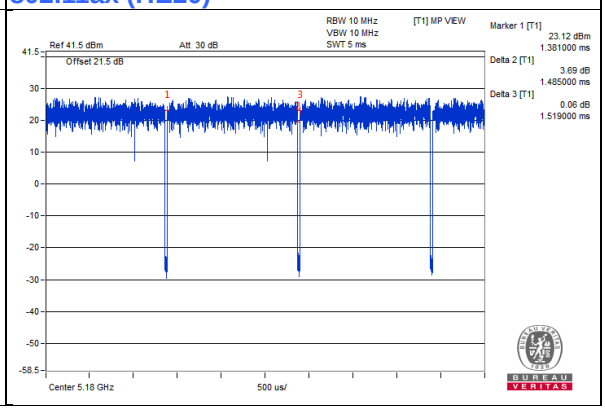
802.11ac (VHT80)



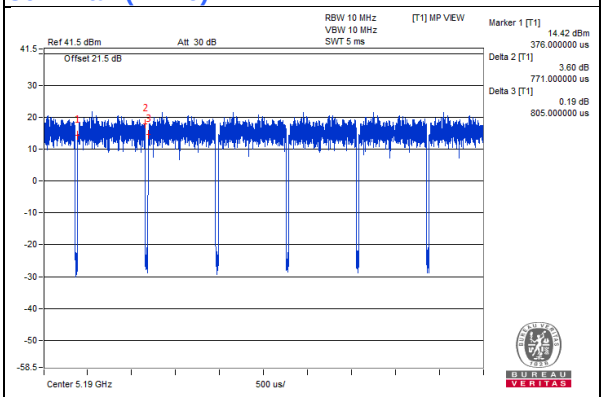
802.11ac (VHT160)



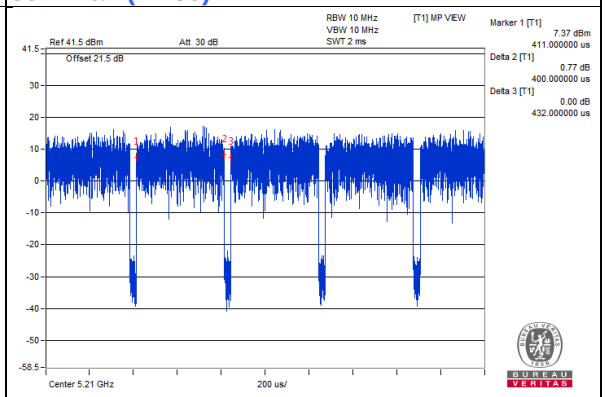
802.11ax (HE20)



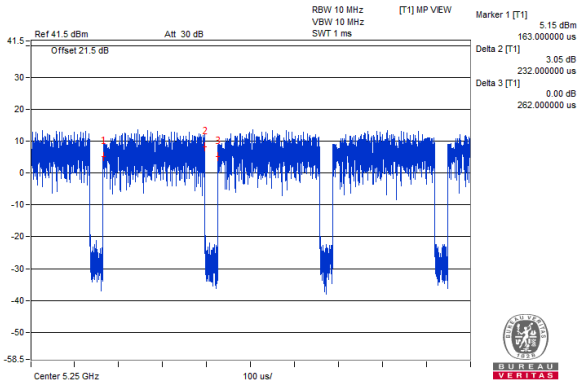
802.11ax (HE40)



802.11ax (HE80)



802.11ax (HE160)



3.4 Description of Support Units

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

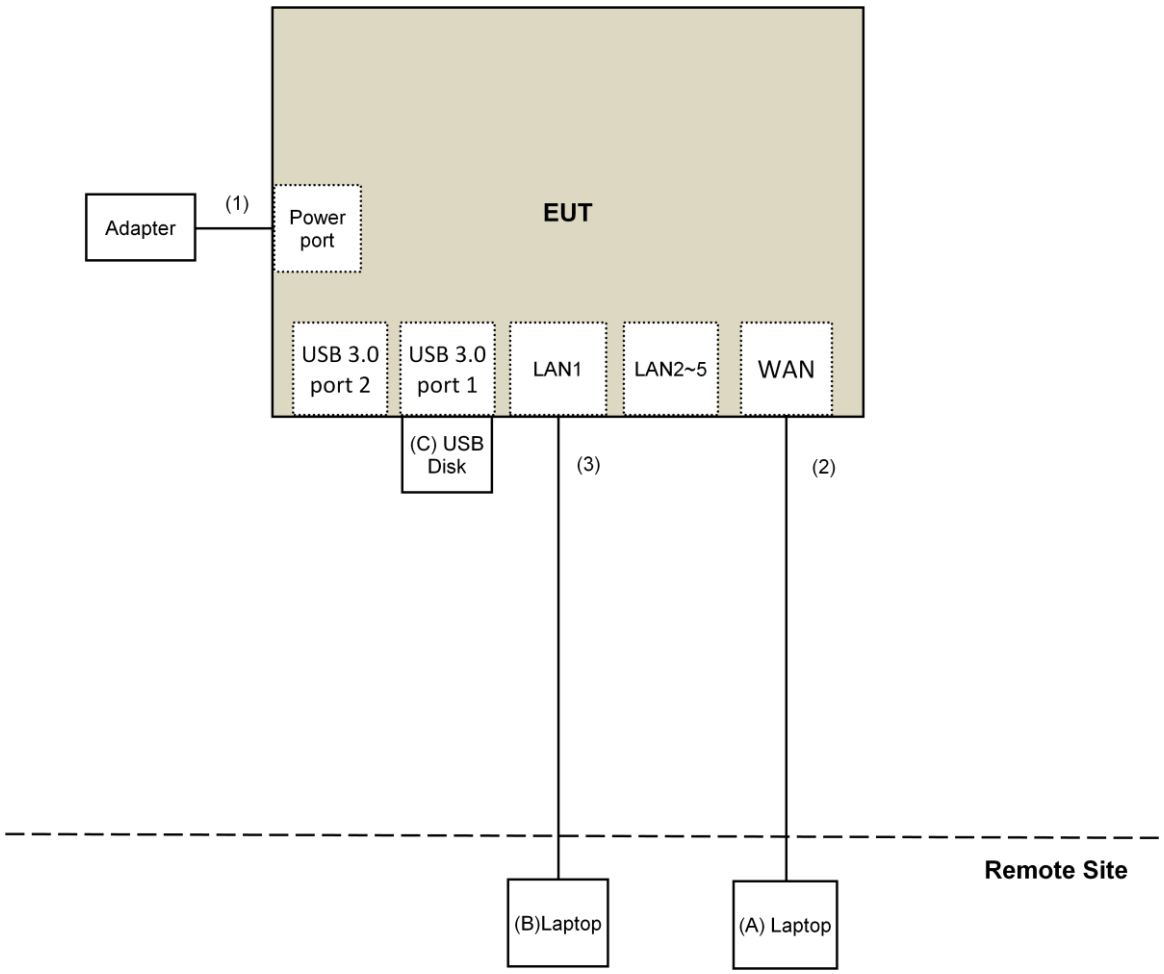
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E6420	B92T3R1	FCC DoC	Provided by Lab
B.	Laptop	HP	Pavilion 14-ab023TU	5CD5340WXZ	NA	Provided by Lab
C.	USB Disk	SanDink	BM181225896Z	NA	NA	Provided by Lab

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.8	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



3.5 General Description of Applied Standard

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

FCC Part 15, Subpart E (15.407)
KDB 789033 D02 General UNII Test Procedure New Rules v02r01
KDB 662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2013

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

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

<table>
<tr><td colspan="2">Applicable To</td><td colspan="2">Limit</td></tr>
<tr><td colspan="2" rowspan="2">789033 D02 General UNII Test Procedure New Rules v02r01</td><td colspan="2">Field Strength at 3m</td></tr>
<tr><td>PK:74 (dBμV/m)</td><td>AV:54 (dBμV/m)</td></tr>
<tr><td>Frequency Band</td><td colspan="2">Applicable To</td><td>EIRP Limit</td><td>Equivalent Field Strength at 3m</td></tr>
<tr><td>5150~5250 MHz</td><td colspan="2">15.407(b)(1)</td><td rowspan="3">PK:-27 (dBm/MHz)</td><td rowspan="3">PK:68.2(dBμV/m)</td></tr>
<tr><td>5250~5350 MHz</td><td colspan="2">15.407(b)(2)</td></tr>
<tr><td>5470~5725 MHz</td><td colspan="2">15.407(b)(3)</td></tr>
<tr><td rowspan="2">5725~5850 MHz</td><td>☒</td><td>15.407(b)(4)(i)</td><td>PK:-27 (dBm/MHz) *1
PK:10 (dBm/MHz) *2
PK:15.6 (dBm/MHz) *3
PK:27 (dBm/MHz) *4</td><td>PK: 68.2(dBμV/m) *1
PK:105.2 (dBμV/m) *2
PK: 110.8(dBμV/m) *3
PK:122.2 (dBμV/m) *4</td></tr>
<tr><td>☐</td><td>15.407(b)(4)(ii)</td><td colspan="2">Emission limits in section 15.247(d)</td></tr>
<tr><td colspan="5">*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.</td></tr>
</table>

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 below 1GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Keysight	N9038A	MY54450088	July 05, 2018	July 04, 2019
Pre-Amplifier EMCI	EMC001340	980142	Jan. 25, 2019	Jan. 24, 2020
Loop Antenna Electro-Metrics	EM-6879	269	Sep. 07, 2018	Sep. 06, 2019
RF Cable	NA	LOOPCAB-001	Jan. 14, 2019	Jan. 13, 2020
RF Cable	NA	LOOPCAB-002	Jan. 14, 2019	Jan. 13, 2020
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-01	Oct. 30, 2018	Oct. 29, 2019
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Nov. 22, 2018	Nov. 21, 2019
RF Cable	8D	966-4-1	Mar. 19, 2019	Mar. 18, 2020
RF Cable	8D	966-4-2	Mar. 19, 2019	Mar. 18, 2020
RF Cable	8D	966-4-3	Mar. 19, 2019	Mar. 18, 2020
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-4-01	Sep. 27, 2018	Sep. 26, 2019
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 4.
3. Loop antenna was used for all emissions below 30 MHz.
4. Tested Date: Mar. 29, 2019

For OOBE test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Keysight	N9038A	MY54450088	July 05, 2018	July 04, 2019
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Nov. 25, 2018	Nov. 24, 2019
Pre-Amplifier EMCI	EMC12630SE	980385	Aug. 16, 2018	Aug. 15, 2019
RF Cable	EMC104-SM-SM-1200	160923	Jan. 28, 2019	Jan. 27, 2020
RF Cable	104 RF cable	131215	Jan. 10, 2019	Jan. 09, 2020
RF Cable	EMC104-SM-SM-6000	180418	May 07, 2018	May 06, 2019
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 28, 2019	Jan. 27, 2020
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 25, 2018	Nov. 24, 2019
RF Cable	EMC102-KM-KM-1200	160924	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC102-KM-KM-1200	160925	Jan. 28, 2019	Jan. 27, 2020
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 4.
3. Tested Date: Mar. 07, 2019

For other test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Keysight	N9038A	MY54450088	July 05, 2018	July 04, 2019
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Nov. 25, 2018	Nov. 24, 2019
Pre-Amplifier EMCI	EMC12630SE	980385	Aug. 16, 2018	Aug. 15, 2019
RF Cable	EMC104-SM-SM-1200	160923	Jan. 28, 2019	Jan. 27, 2020
RF Cable	104 RF cable	131215	Jan. 10, 2019	Jan. 09, 2020
RF Cable	EMC104-SM-SM-6000	180418	May 03, 2019	May 02, 2020
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 28, 2019	Jan. 27, 2020
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 25, 2018	Nov. 24, 2019
RF Cable	EMC102-KM-KM-1200	160924	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC102-KM-KM-1200	160925	Jan. 28, 2019	Jan. 27, 2020
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA
Spectrum Analyzer R&S	FSV40	100964	June 20, 2018	June 19, 2019
Power meter Anritsu	ML2495A	1014008	May 09, 2018	May 08, 2019
Power sensor Anritsu	MA2411B	0917122	May 09, 2018	May 08, 2019
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 15, 2019	Apr. 14, 2020
AC Power Source Extech Electronics	6205	1440452	NA	NA
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	Jan. 09, 2019	Jan. 08, 2020
True RMS Clamp Meter FLUKE	325	31130711WS	May 22, 2018	May 21, 2019

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 4.
3. Tested Date: May 08, 2019

4.1.3 Test Procedure

For Radiated emission below 30MHz

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

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

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

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

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

NOTE:

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

For Radiated emission above 30MHz

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

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

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

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

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

Note:

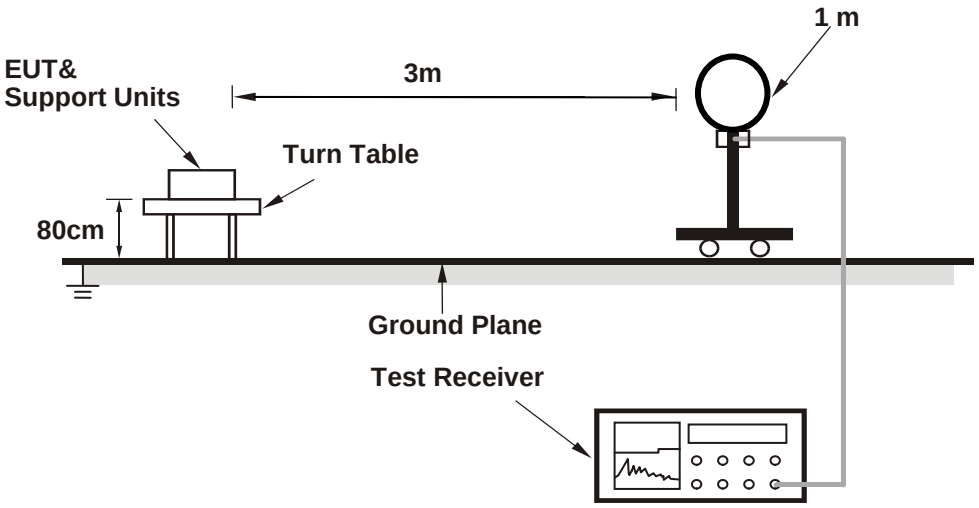
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

4.1.4 Deviation from Test Standard

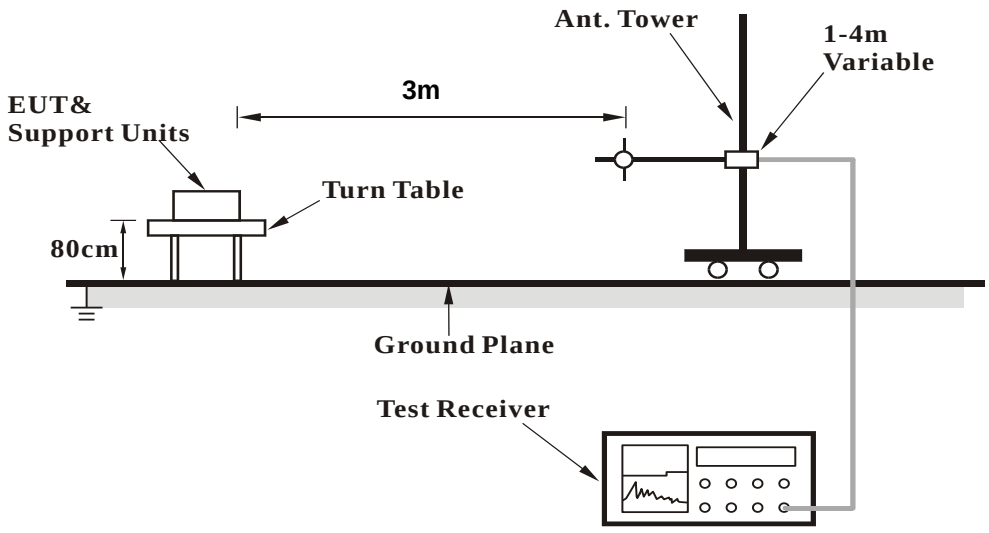
No deviation.

4.1.5 Test Setup

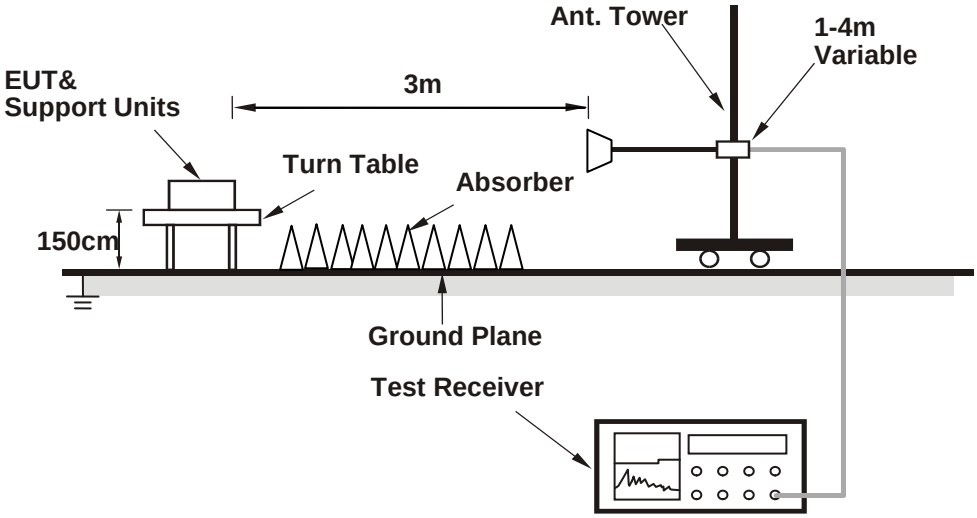
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Condition

a. Connected the EUT with the Laptop which is placed on remote site.
b. Controlling software (Mtool.exe [v3.1.0.1] has been activated to set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz Data:

802.11a

CHANNEL	TX Channel 36	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	5150.00	64.2 PK	74.0	-9.8	1.52 H	329	61.5	2.7
2	5150.00	48.6 AV	54.0	-5.4	1.52 H	329	45.9	2.7
3	*5180.00	112.8 PK			1.52 H	329	110.1	2.7
4	*5180.00	103.4 AV			1.52 H	329	100.7	2.7
5	#10360.00	50.1 PK	68.2	-18.1	2.24 H	10	37.5	12.6
6	15540.00	48.9 PK	74.0	-25.1	2.57 H	142	36.1	12.8
7	15540.00	35.6 AV	54.0	-18.4	2.57 H	142	22.8	12.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	5150.00	70.1 PK	74.0	-3.9	1.95 V	24	67.4	2.7
2	5150.00	53.7 AV	54.0	-0.3	1.95 V	24	51.0	2.7
3	*5180.00	120.4 PK			1.95 V	24	117.7	2.7
4	*5180.00	111.0 AV			1.95 V	24	108.3	2.7
5	#10360.00	52.4 PK	68.2	-15.8	1.39 V	136	39.8	12.6
6	15540.00	49.9 PK	74.0	-24.1	1.78 V	174	37.1	12.8
7	15540.00	36.2 AV	54.0	-17.8	1.78 V	174	23.4	12.8

REMARKS:

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

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.1 PK	74.0	-8.9	1.55 H	341	62.4	2.7
2	5150.00	46.6 AV	54.0	-7.4	1.55 H	341	43.9	2.7
3	*5200.00	113.1 PK			1.55 H	341	110.4	2.7
4	*5200.00	103.6 AV			1.55 H	341	100.9	2.7
5	#10400.00	53.2 PK	68.2	-15.0	2.21 H	0	40.2	13.0
6	15600.00	51.9 PK	74.0	-22.1	2.56 H	152	39.1	12.8
7	15600.00	38.9 AV	54.0	-15.1	2.56 H	152	26.1	12.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.3 PK	74.0	-4.7	1.95 V	19	66.6	2.7
2	5150.00	50.4 AV	54.0	-3.6	1.95 V	19	47.7	2.7
3	*5200.00	120.7 PK			1.95 V	19	118.0	2.7
4	*5200.00	111.2 AV			1.95 V	19	108.5	2.7
5	#10400.00	54.7 PK	68.2	-13.5	1.40 V	145	41.7	13.0
6	15600.00	51.7 PK	74.0	-22.3	1.77 V	171	38.9	12.8
7	15600.00	38.5 AV	54.0	-15.5	1.77 V	171	25.7	12.8

REMARKS:

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

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	113.6 PK			1.51 H	332	111.3	2.3
2	*5240.00	103.9 AV			1.51 H	332	101.6	2.3
3	5350.00	52.8 PK	74.0	-21.2	1.51 H	332	50.2	2.6
4	5350.00	39.1 AV	54.0	-14.9	1.51 H	332	36.5	2.6
5	#10480.00	52.8 PK	68.2	-15.4	2.22 H	12	39.8	13.0
6	15720.00	51.9 PK	74.0	-22.1	2.57 H	150	39.9	12.0
7	15720.00	38.4 AV	54.0	-15.6	2.57 H	150	26.4	12.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	120.4 PK			1.89 V	19	118.1	2.3
2	*5240.00	111.0 AV			1.89 V	19	108.7	2.3
3	5350.00	56.6 PK	74.0	-17.4	1.89 V	19	54.0	2.6
4	5350.00	43.6 AV	54.0	-10.4	1.89 V	19	41.0	2.6
5	#10480.00	54.5 PK	68.2	-13.7	1.45 V	149	41.5	13.0
6	15720.00	52.0 PK	74.0	-22.0	1.78 V	174	40.0	12.0
7	15720.00	38.8 AV	54.0	-15.2	1.78 V	174	26.8	12.0

REMARKS:

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

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	50.4 PK	74.0	-23.6	1.53 H	310	47.7	2.7
2	5150.00	37.2 AV	54.0	-16.8	1.53 H	310	34.5	2.7
3	*5260.00	107.8 PK			1.53 H	310	105.5	2.3
4	*5260.00	97.8 AV			1.53 H	310	95.5	2.3
5	#10520.00	41.8 PK	68.2	-26.4	1.72 H	27	28.8	13.0
6	15780.00	47.1 PK	74.0	-26.9	1.65 H	34	35.1	12.0
7	15780.00	34.3 AV	54.0	-19.7	1.65 H	34	22.3	12.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	53.8 PK	74.0	-20.2	1.47 V	19	51.1	2.7
2	5150.00	42.0 AV	54.0	-12.0	1.47 V	19	39.3	2.7
3	*5260.00	114.1 PK			1.47 V	19	111.8	2.3
4	*5260.00	105.0 AV			1.47 V	19	102.7	2.3
5	#10520.00	41.7 PK	68.2	-26.5	1.50 V	32	28.7	13.0
6	15780.00	47.5 PK	74.0	-26.5	1.57 V	14	35.5	12.0
7	15780.00	34.6 AV	54.0	-19.4	1.57 V	14	22.6	12.0

REMARKS:

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

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	107.5 PK			1.47 H	308	105.1	2.4
2	*5300.00	97.4 AV			1.47 H	308	95.0	2.4
3	10600.00	41.8 PK	74.0	-32.2	1.72 H	30	29.1	12.7
4	10600.00	29.3 AV	54.0	-24.7	1.72 H	30	16.6	12.7
5	15900.00	47.5 PK	74.0	-26.5	1.62 H	46	35.4	12.1
6	15900.00	34.9 AV	54.0	-19.1	1.62 H	46	22.8	12.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	114.2 PK			1.30 V	14	111.8	2.4
2	*5300.00	105.6 AV			1.30 V	14	103.2	2.4
3	10600.00	42.0 PK	74.0	-32.0	1.50 V	20	29.3	12.7
4	10600.00	29.4 AV	54.0	-24.6	1.50 V	20	16.7	12.7
5	15900.00	47.7 PK	74.0	-26.3	1.53 V	30	35.6	12.1
6	15900.00	35.0 AV	54.0	-19.0	1.53 V	30	22.9	12.1

REMARKS:

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

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	108.2 PK			1.46 H	298	105.6	2.6
2	*5320.00	98.1 AV			1.46 H	298	95.5	2.6
3	5350.00	55.3 PK	74.0	-18.7	1.46 H	360	52.7	2.6
4	5350.00	40.3 AV	54.0	-13.7	1.46 H	360	37.7	2.6
5	10640.00	41.8 PK	74.0	-32.2	1.69 H	18	29.0	12.8
6	10640.00	29.4 AV	54.0	-24.6	1.69 H	18	16.6	12.8
7	15960.00	47.8 PK	74.0	-26.2	1.59 H	44	35.4	12.4
8	15960.00	35.0 AV	54.0	-19.0	1.59 H	44	22.6	12.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	115.1 PK			1.49 V	12	112.5	2.6
2	*5320.00	105.9 AV			1.49 V	12	103.3	2.6
3	5350.00	58.9 PK	74.0	-15.1	1.49 V	12	56.3	2.6
4	5350.00	45.6 AV	54.0	-8.4	1.49 V	12	43.0	2.6
5	10640.00	42.2 PK	74.0	-31.8	1.53 V	22	29.4	12.8
6	10640.00	29.5 AV	54.0	-24.5	1.53 V	22	16.7	12.8
7	15960.00	47.8 PK	74.0	-26.2	1.48 V	25	35.4	12.4
8	15960.00	35.3 AV	54.0	-18.7	1.48 V	25	22.9	12.4

REMARKS:

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

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	55.4 PK	68.2	-12.8	1.46 H	292	52.5	2.9
2	*5500.00	108.9 PK			1.46 H	292	106.1	2.8
3	*5500.00	98.6 AV			1.46 H	292	95.8	2.8
4	11000.00	41.4 PK	74.0	-32.6	1.71 H	2	27.8	13.6
5	11000.00	28.8 AV	54.0	-25.2	1.71 H	2	15.2	13.6
6	#16500.00	47.5 PK	68.2	-20.7	1.62 H	38	32.8	14.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	58.8 PK	68.2	-9.4	1.44 V	352	55.9	2.9
2	*5500.00	115.9 PK			1.44 V	352	113.1	2.8
3	*5500.00	105.7 AV			1.44 V	352	102.9	2.8
4	11000.00	41.7 PK	74.0	-32.3	1.55 V	28	28.1	13.6
5	11000.00	29.0 AV	54.0	-25.0	1.55 V	28	15.4	13.6
6	#16500.00	47.7 PK	68.2	-20.5	1.43 V	36	33.0	14.7

REMARKS:

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

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	108.3 PK			1.51 H	299	105.4	2.9
2	*5580.00	97.9 AV			1.51 H	299	95.0	2.9
3	11160.00	41.3 PK	74.0	-32.7	1.70 H	3	28.2	13.1
4	11160.00	28.4 AV	54.0	-25.6	1.70 H	3	15.3	13.1
5	#16740.00	48.9 PK	68.2	-19.3	1.64 H	28	32.8	16.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	114.9 PK			1.44 V	351	112.0	2.9
2	*5580.00	105.0 AV			1.44 V	351	102.1	2.9
3	11160.00	41.6 PK	74.0	-32.4	1.51 V	38	28.5	13.1
4	11160.00	28.6 AV	54.0	-25.4	1.51 V	38	15.5	13.1
5	#16740.00	48.0 PK	68.2	-20.2	1.41 V	44	31.9	16.1

REMARKS:

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

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	108.3 PK			1.50 H	306	105.0	3.3
2	*5700.00	97.9 AV			1.50 H	306	94.6	3.3
3	#5725.00	57.8 PK	68.2	-10.4	1.50 H	306	54.6	3.2
4	11400.00	41.2 PK	74.0	-32.8	1.68 H	6	27.7	13.5
5	11400.00	28.4 AV	54.0	-25.6	1.68 H	6	14.9	13.5
6	#17100.00	49.0 PK	68.2	-19.2	1.64 H	17	32.8	16.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	117.2 PK			1.47 V	358	113.9	3.3
2	*5700.00	105.4 AV			1.47 V	358	102.1	3.3
3	#5725.00	62.3 PK	68.2	-5.9	1.47 V	358	59.1	3.2
4	11400.00	41.5 PK	74.0	-32.5	1.47 V	37	28.0	13.5
5	11400.00	28.6 AV	54.0	-25.4	1.47 V	37	15.1	13.5
6	#17100.00	48.0 PK	68.2	-20.2	1.39 V	60	31.8	16.2

REMARKS:

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

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	47.8 PK	68.2	-20.4	1.46 H	315	44.9	2.9
2	*5720.00	108.9 PK			1.46 H	315	105.6	3.3
3	*5720.00	98.3 AV			1.46 H	315	95.0	3.3
4	#5850.00	50.1 PK	68.2	-18.1	1.46 H	315	46.4	3.7
5	11440.00	41.0 PK	74.0	-33.0	1.65 H	21	27.6	13.4
6	11440.00	28.1 AV	54.0	-25.9	1.65 H	21	14.7	13.4
7	#17160.00	47.6 PK	68.2	-20.6	1.69 H	28	31.3	16.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	52.4 PK	68.2	-15.8	1.47 V	354	49.5	2.9
2	*5720.00	116.6 PK			1.47 V	354	113.3	3.3
3	*5720.00	105.2 AV			1.47 V	354	101.9	3.3
4	#5850.00	54.3 PK	68.2	-13.9	1.47 V	354	50.6	3.7
5	11440.00	41.3 PK	74.0	-32.7	1.46 V	29	27.9	13.4
6	11440.00	28.6 AV	54.0	-25.4	1.46 V	29	15.2	13.4
7	#17160.00	48.0 PK	68.2	-20.2	1.34 V	76	31.7	16.3

REMARKS:

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

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5632.89	61.4 PK	68.2	-6.8	2.09 H	210	58.5	2.9
2	*5745.00	120.3 PK			2.09 H	210	117.0	3.3
3	*5745.00	109.7 AV			2.09 H	210	106.4	3.3
4	#6002.51	60.8 PK	68.2	-7.4	2.09 H	210	57.2	3.6
5	11490.00	44.9 PK	74.0	-29.1	1.21 H	41	31.6	13.3
6	11490.00	33.9 AV	54.0	-20.1	1.21 H	41	20.6	13.3
7	#17235.00	52.5 PK	68.2	-15.7	3.06 H	25	36.0	16.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5636.85	61.8 PK	68.2	-6.4	1.67 V	173	58.9	2.9
2	*5745.00	124.9 PK			1.67 V	173	121.6	3.3
3	*5745.00	115.2 AV			1.67 V	173	111.9	3.3
4	#5950.37	60.4 PK	68.2	-7.8	1.67 V	173	56.8	3.6
5	11490.00	48.3 PK	74.0	-25.7	1.02 V	16	35.0	13.3
6	11490.00	37.9 AV	54.0	-16.1	1.02 V	16	24.6	13.3
7	#17235.00	55.1 PK	68.2	-13.1	3.49 V	230	38.6	16.5

REMARKS:

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

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5591.46	60.5 PK	68.2	-7.7	2.17 H	227	57.6	2.9
2	*5785.00	120.1 PK			2.17 H	227	116.7	3.4
3	*5785.00	109.4 AV			2.17 H	227	106.0	3.4
4	#5978.94	60.9 PK	68.2	-7.3	2.17 H	227	57.3	3.6
5	11570.00	44.9 PK	74.0	-29.1	1.24 H	40	31.9	13.0
6	11570.00	33.6 AV	54.0	-20.4	1.24 H	40	20.6	13.0
7	#17355.00	52.4 PK	68.2	-15.8	3.10 H	35	35.3	17.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5612.33	61.7 PK	68.2	-6.5	1.71 V	173	58.7	3.0
2	*5785.00	124.9 PK			1.71 V	173	121.5	3.4
3	*5785.00	114.5 AV			1.71 V	173	111.1	3.4
4	#5928.57	61.6 PK	68.2	-6.6	1.71 V	173	58.0	3.6
5	11570.00	48.8 PK	74.0	-25.2	1.04 V	9	35.8	13.0
6	11570.00	38.3 AV	54.0	-15.7	1.04 V	9	25.3	13.0
7	#17355.00	55.2 PK	68.2	-13.0	3.45 V	233	38.1	17.1

REMARKS:

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

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5612.50	60.5 PK	68.2	-7.7	2.15 H	237	57.5	3.0
2	*5825.00	119.8 PK			2.15 H	237	116.2	3.6
3	*5825.00	109.3 AV			2.15 H	237	105.7	3.6
4	#5974.08	61.1 PK	68.2	-7.1	2.15 H	237	57.5	3.6
5	11650.00	45.5 PK	74.0	-28.5	1.23 H	28	32.6	12.9
6	11650.00	34.1 AV	54.0	-19.9	1.23 H	28	21.2	12.9
7	#17475.00	52.6 PK	68.2	-15.6	3.08 H	49	34.2	18.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5561.00	62.7 PK	68.2	-5.5	1.62 V	170	59.8	2.9
2	*5825.00	124.7 PK			1.62 V	170	121.1	3.6
3	*5825.00	114.4 AV			1.62 V	170	110.8	3.6
4	#5959.73	61.4 PK	68.2	-6.8	1.62 V	170	57.8	3.6
5	11650.00	48.6 PK	74.0	-25.4	1.03 V	6	35.7	12.9
6	11650.00	38.1 AV	54.0	-15.9	1.03 V	6	25.2	12.9
7	#17475.00	55.4 PK	68.2	-12.8	3.43 V	220	37.0	18.4

REMARKS:

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

802.11ax (HE20)

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	62.2 PK	74.0	-11.8	1.55 H	310	59.5	2.7
2	5150.00	46.2 AV	54.0	-7.8	1.55 H	310	43.5	2.7
3	*5180.00	113.2 PK			1.55 H	310	110.5	2.7
4	*5180.00	101.1 AV			1.55 H	310	98.4	2.7
5	#10360.00	48.2 PK	68.2	-20.0	2.28 H	22	35.6	12.6
6	15540.00	47.1 PK	74.0	-26.9	2.54 H	145	34.3	12.8
7	15540.00	33.7 AV	54.0	-20.3	2.54 H	145	20.9	12.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.9 PK	74.0	-4.1	1.60 V	21	67.2	2.7
2	**5150.00**	**53.9 AV**	**54.0**	**-0.1**	**1.60 V**	**21**	**51.2**	**2.7**
3	*5180.00	119.9 PK			1.60 V	21	117.2	2.7
4	*5180.00	108.0 AV			1.60 V	21	105.3	2.7
5	#10360.00	50.0 PK	68.2	-18.2	1.44 V	122	37.4	12.6
6	15540.00	50.3 PK	74.0	-23.7	1.77 V	183	37.5	12.8
7	15540.00	35.1 AV	54.0	-18.9	1.77 V	183	22.3	12.8

REMARKS:

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

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.3 PK	74.0	-8.7	1.49 H	300	62.6	2.7
2	5150.00	46.7 AV	54.0	-7.3	1.49 H	300	44.0	2.7
3	*5200.00	111.4 PK			1.49 H	300	108.7	2.7
4	*5200.00	101.6 AV			1.49 H	300	98.9	2.7
5	#10400.00	52.9 PK	68.2	-15.3	2.25 H	14	39.9	13.0
6	15600.00	51.9 PK	74.0	-22.1	2.51 H	159	39.1	12.8
7	15600.00	38.4 AV	54.0	-15.6	2.51 H	159	25.6	12.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.5 PK	74.0	-4.5	1.91 V	20	66.8	2.7
2	5150.00	52.7 AV	54.0	-1.3	1.91 V	20	50.0	2.7
3	*5200.00	120.9 PK			1.91 V	20	118.2	2.7
4	*5200.00	109.4 AV			1.91 V	20	106.7	2.7
5	#10400.00	54.9 PK	68.2	-13.3	1.34 V	161	41.9	13.0
6	15600.00	52.3 PK	74.0	-21.7	1.81 V	179	39.5	12.8
7	15600.00	38.8 AV	54.0	-15.2	1.81 V	179	26.0	12.8

REMARKS:

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

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	111.0 PK			1.45 H	304	108.7	2.3
2	*5240.00	101.4 AV			1.45 H	304	99.1	2.3
3	5350.00	65.3 PK	74.0	-8.7	1.45 H	304	62.7	2.6
4	5350.00	46.6 AV	54.0	-7.4	1.45 H	304	44.0	2.6
5	#10480.00	53.4 PK	68.2	-14.8	2.22 H	14	40.4	13.0
6	15720.00	51.5 PK	74.0	-22.5	2.48 H	158	39.5	12.0
7	15720.00	38.1 AV	54.0	-15.9	2.48 H	158	26.1	12.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	121.1 PK			1.84 V	18	118.8	2.3
2	*5240.00	109.7 AV			1.84 V	18	107.4	2.3
3	5350.00	55.8 PK	74.0	-18.2	1.84 V	18	53.2	2.6
4	5350.00	43.7 AV	54.0	-10.3	1.84 V	18	41.1	2.6
5	#10480.00	55.4 PK	68.2	-12.8	1.30 V	155	42.4	13.0
6	15720.00	52.3 PK	74.0	-21.7	1.80 V	190	40.3	12.0
7	15720.00	39.1 AV	54.0	-14.9	1.80 V	190	27.1	12.0

REMARKS:

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

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	50.5 PK	74.0	-23.5	1.58 H	321	47.8	2.7
2	5150.00	37.2 AV	54.0	-16.8	1.58 H	321	34.5	2.7
3	*5260.00	107.3 PK			1.58 H	321	105.0	2.3
4	*5260.00	97.1 AV			1.58 H	321	94.8	2.3
5	#10520.00	41.3 PK	68.2	-26.9	1.66 H	34	28.3	13.0
6	15780.00	47.4 PK	74.0	-26.6	1.69 H	32	35.4	12.0
7	15780.00	34.5 AV	54.0	-19.5	1.69 H	32	22.5	12.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	54.1 PK	74.0	-19.9	1.51 V	18	51.4	2.7
2	5150.00	41.9 AV	54.0	-12.1	1.51 V	18	39.2	2.7
3	*5260.00	114.1 PK			1.51 V	18	111.8	2.3
4	*5260.00	105.0 AV			1.51 V	18	102.7	2.3
5	#10520.00	41.9 PK	68.2	-26.3	1.55 V	27	28.9	13.0
6	15780.00	47.6 PK	74.0	-26.4	1.54 V	1	35.6	12.0
7	15780.00	34.8 AV	54.0	-19.2	1.54 V	1	22.8	12.0

REMARKS:

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

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	107.8 PK			1.60 H	308	105.4	2.4
2	*5300.00	97.7 AV			1.60 H	308	95.3	2.4
3	10600.00	41.2 PK	74.0	-32.8	1.63 H	45	28.5	12.7
4	10600.00	29.0 AV	54.0	-25.0	1.63 H	45	16.3	12.7
5	15900.00	47.9 PK	74.0	-26.1	1.64 H	25	35.8	12.1
6	15900.00	34.9 AV	54.0	-19.1	1.64 H	25	22.8	12.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	115.2 PK			1.52 V	20	112.8	2.4
2	*5300.00	105.6 AV			1.52 V	20	103.2	2.4
3	10600.00	41.9 PK	74.0	-32.1	1.60 V	38	29.2	12.7
4	10600.00	29.6 AV	54.0	-24.4	1.60 V	38	16.9	12.7
5	15900.00	47.8 PK	74.0	-26.2	1.51 V	8	35.7	12.1
6	15900.00	35.0 AV	54.0	-19.0	1.51 V	8	22.9	12.1

REMARKS:

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

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	107.7 PK			1.59 H	301	105.1	2.6
2	*5320.00	97.8 AV			1.59 H	301	95.2	2.6
3	5350.00	50.4 PK	74.0	-23.6	1.59 H	301	47.8	2.6
4	5350.00	37.4 AV	54.0	-16.6	1.59 H	301	34.8	2.6
5	10640.00	41.0 PK	74.0	-33.0	1.67 H	61	28.2	12.8
6	10640.00	28.9 AV	54.0	-25.1	1.67 H	61	16.1	12.8
7	15960.00	48.2 PK	74.0	-25.8	1.70 H	28	35.8	12.4
8	15960.00	35.2 AV	54.0	-18.8	1.70 H	28	22.8	12.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	115.1 PK			1.51 V	20	112.5	2.6
2	*5320.00	105.4 AV			1.51 V	20	102.8	2.6
3	5350.00	57.3 PK	74.0	-16.7	1.51 V	20	54.7	2.6
4	5350.00	44.6 AV	54.0	-9.4	1.51 V	20	42.0	2.6
5	10640.00	41.7 PK	74.0	-32.3	1.62 V	24	28.9	12.8
6	10640.00	29.4 AV	54.0	-24.6	1.62 V	24	16.6	12.8
7	15960.00	47.3 PK	74.0	-26.7	1.56 V	14	34.9	12.4
8	15960.00	34.6 AV	54.0	-19.4	1.56 V	14	22.2	12.4

REMARKS:

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

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	55.6 PK	68.2	-12.6	1.62 H	306	52.7	2.9
2	*5500.00	107.2 PK			1.62 H	306	104.4	2.8
3	*5500.00	97.0 AV			1.62 H	306	94.2	2.8
4	11000.00	41.5 PK	74.0	-32.5	1.65 H	48	27.9	13.6
5	11000.00	29.2 AV	54.0	-24.8	1.65 H	48	15.6	13.6
6	#16500.00	48.7 PK	68.2	-19.5	1.72 H	26	34.0	14.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	58.3 PK	68.2	-9.9	1.48 V	23	55.4	2.9
2	*5500.00	115.0 PK			1.48 V	23	112.2	2.8
3	*5500.00	105.5 AV			1.48 V	23	102.7	2.8
4	11000.00	42.3 PK	74.0	-31.7	1.66 V	38	28.7	13.6
5	11000.00	29.8 AV	54.0	-24.2	1.66 V	38	16.2	13.6
6	#16500.00	48.0 PK	68.2	-20.2	1.59 V	6	33.3	14.7

REMARKS:

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

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	109.3 PK			1.55 H	312	106.4	2.9
2	*5580.00	99.0 AV			1.55 H	312	96.1	2.9
3	11160.00	40.7 PK	74.0	-33.3	1.73 H	1	27.6	13.1
4	11160.00	27.9 AV	54.0	-26.1	1.73 H	1	14.8	13.1
5	#16740.00	49.3 PK	68.2	-18.9	1.61 H	16	33.2	16.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	115.3 PK			1.45 V	349	112.4	2.9
2	*5580.00	105.5 AV			1.45 V	349	102.6	2.9
3	11160.00	41.5 PK	74.0	-32.5	1.55 V	39	28.4	13.1
4	11160.00	28.7 AV	54.0	-25.3	1.55 V	39	15.6	13.1
5	#16740.00	48.1 PK	68.2	-20.1	1.37 V	60	32.0	16.1

REMARKS:

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

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	108.7 PK			1.53 H	318	105.4	3.3
2	*5700.00	98.3 AV			1.53 H	318	95.0	3.3
3	#5725.00	57.8 PK	68.2	-10.4	1.53 H	318	54.6	3.2
4	11400.00	40.9 PK	74.0	-33.1	1.72 H	12	27.4	13.5
5	11400.00	28.1 AV	54.0	-25.9	1.72 H	12	14.6	13.5
6	#17100.00	49.0 PK	68.2	-19.2	1.63 H	24	32.8	16.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	117.1 PK			1.47 V	348	113.8	3.3
2	*5700.00	105.1 AV			1.47 V	348	101.8	3.3
3	#5725.00	62.1 PK	68.2	-6.1	1.47 V	348	58.9	3.2
4	11400.00	42.0 PK	74.0	-32.0	1.50 V	43	28.5	13.5
5	11400.00	29.1 AV	54.0	-24.9	1.50 V	43	15.6	13.5
6	#17100.00	48.3 PK	68.2	-19.9	1.39 V	63	32.1	16.2

REMARKS:

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

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	48.0 PK	68.2	-20.2	1.46 H	315	45.1	2.9
2	*5720.00	110.2 PK			1.46 H	315	106.9	3.3
3	*5720.00	99.4 AV			1.46 H	315	96.1	3.3
4	#5850.00	49.9 PK	68.2	-18.3	1.46 H	315	46.2	3.7
5	11440.00	40.8 PK	74.0	-33.2	1.67 H	27	27.4	13.4
6	11440.00	27.8 AV	54.0	-26.2	1.67 H	27	14.4	13.4
7	#17160.00	47.5 PK	68.2	-20.7	1.67 H	44	31.2	16.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	52.4 PK	68.2	-15.8	1.47 V	6	49.5	2.9
2	*5720.00	117.2 PK			1.47 V	6	113.9	3.3
3	*5720.00	105.8 AV			1.47 V	6	102.5	3.3
4	#5850.00	54.5 PK	68.2	-13.7	1.47 V	6	50.8	3.7
5	11440.00	40.7 PK	74.0	-33.3	1.44 V	34	27.3	13.4
6	11440.00	28.3 AV	54.0	-25.7	1.44 V	34	14.9	13.4
7	#17160.00	47.7 PK	68.2	-20.5	1.30 V	90	31.4	16.3

REMARKS:

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

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5642.83	60.7 PK	68.2	-7.5	2.18 H	214	57.8	2.9
2	*5745.00	121.3 PK			2.18 H	214	118.0	3.3
3	*5745.00	109.1 AV			2.18 H	214	105.8	3.3
4	#6020.48	60.4 PK	68.2	-7.8	2.18 H	214	56.8	3.6
5	11490.00	46.1 PK	74.0	-27.9	1.29 H	24	32.8	13.3
6	11490.00	34.6 AV	54.0	-19.4	1.29 H	24	21.3	13.3
7	#17235.00	52.1 PK	68.2	-16.1	3.09 H	40	35.6	16.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5635.48	62.6 PK	68.2	-5.6	1.64 V	173	59.7	2.9
2	*5745.00	126.2 PK			1.64 V	173	122.9	3.3
3	*5745.00	113.3 AV			1.64 V	173	110.0	3.3
4	#5941.10	61.3 PK	68.2	-6.9	1.64 V	173	57.8	3.5
5	11490.00	48.9 PK	74.0	-25.1	1.04 V	15	35.6	13.3
6	11490.00	38.4 AV	54.0	-15.6	1.04 V	15	25.1	13.3
7	#17235.00	55.0 PK	68.2	-13.2	3.39 V	231	38.5	16.5

REMARKS:

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

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5645.82	60.6 PK	68.2	-7.6	2.07 H	231	57.7	2.9
2	*5785.00	120.6 PK			2.07 H	231	117.2	3.4
3	*5785.00	108.3 AV			2.07 H	231	104.9	3.4
4	#5932.60	61.7 PK	68.2	-6.5	2.07 H	231	58.1	3.6
5	11570.00	46.4 PK	74.0	-27.6	1.31 H	39	33.4	13.0
6	11570.00	34.8 AV	54.0	-19.2	1.31 H	39	21.8	13.0
7	#17355.00	52.4 PK	68.2	-15.8	3.13 H	50	35.3	17.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5609.62	61.3 PK	68.2	-6.9	1.64 V	171	58.3	3.0
2	*5785.00	125.1 PK			1.64 V	171	121.7	3.4
3	*5785.00	112.3 AV			1.64 V	171	108.9	3.4
4	#5968.61	61.3 PK	68.2	-6.9	1.64 V	171	57.7	3.6
5	11570.00	48.7 PK	74.0	-25.3	1.02 V	7	35.7	13.0
6	11570.00	38.5 AV	54.0	-15.5	1.02 V	7	25.5	13.0
7	#17355.00	54.8 PK	68.2	-13.4	3.41 V	245	37.7	17.1

REMARKS:

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

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5640.46	60.7 PK	68.2	-7.5	2.12 H	229	57.8	2.9
2	*5825.00	120.4 PK			2.12 H	229	116.8	3.6
3	*5825.00	108.0 AV			2.12 H	229	104.4	3.6
4	#5929.56	61.2 PK	68.2	-7.0	2.12 H	229	57.6	3.6
5	11650.00	46.3 PK	74.0	-27.7	1.30 H	37	33.4	12.9
6	11650.00	34.8 AV	54.0	-19.2	1.30 H	37	21.9	12.9
7	#17475.00	52.1 PK	68.2	-16.1	3.14 H	46	33.7	18.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5623.67	61.8 PK	68.2	-6.4	1.68 V	175	58.8	3.0
2	*5825.00	124.8 PK			1.68 V	175	121.2	3.6
3	*5825.00	112.2 AV			1.68 V	175	108.6	3.6
4	#5980.12	61.4 PK	68.2	-6.8	1.68 V	175	57.8	3.6
5	11650.00	48.5 PK	74.0	-25.5	1.00 V	18	35.6	12.9
6	11650.00	38.3 AV	54.0	-15.7	1.00 V	18	25.4	12.9
7	#17475.00	55.1 PK	68.2	-13.1	3.42 V	244	36.7	18.4

REMARKS:

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

802.11ax (HE40)

CHANNEL	TX Channel 38	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	62.1 PK	74.0	-11.9	2.13 H	234	59.4	2.7
2	5150.00	49.9 AV	54.0	-4.1	2.13 H	234	47.2	2.7
3	*5190.00	105.2 PK			2.13 H	234	102.5	2.7
4	*5190.00	108.8 PK			2.13 H	234	106.1	2.7
5	*5190.00	93.4 AV			2.13 H	234	90.7	2.7
6	5350.00	47.6 PK	74.0	-26.4	2.13 H	234	45.0	2.6
7	5350.00	35.5 AV	54.0	-18.5	2.13 H	234	32.9	2.6
8	#10380.00	41.2 PK	68.2	-27.0	1.27 H	49	28.4	12.8
9	15570.00	46.5 PK	74.0	-27.5	3.09 H	36	33.8	12.7
10	15570.00	33.7 AV	54.0	-20.3	3.09 H	36	21.0	12.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.1 PK	74.0	-4.9	1.38 V	11	66.4	2.7
2	5150.00	53.8 AV	54.0	-0.2	1.38 V	11	51.1	2.7
3	*5190.00	112.4 PK			1.62 V	8	109.7	2.7
4	*5190.00	114.2 PK			1.38 V	11	111.5	2.7
5	*5190.00	100.9 AV			1.62 V	8	98.2	2.7
6	5350.00	53.8 PK	74.0	-20.2	1.38 V	11	51.2	2.6
7	5350.00	42.1 AV	54.0	-11.9	1.38 V	11	39.5	2.6
8	#10380.00	41.7 PK	68.2	-26.5	1.56 V	47	28.9	12.8
9	15570.00	47.1 PK	74.0	-26.9	1.55 V	14	34.4	12.7
10	15570.00	34.2 AV	54.0	-19.8	1.55 V	14	21.5	12.7

REMARKS:

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

CHANNEL	TX Channel 46	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.1 PK	74.0	-8.9	2.08 H	223	62.4	2.7
2	5150.00	49.7 AV	54.0	-4.3	2.08 H	223	47.0	2.7
3	*5230.00	112.2 PK			2.08 H	223	109.8	2.4
4	*5230.00	101.6 AV			2.08 H	223	99.2	2.4
5	5350.00	54.5 PK	74.0	-19.5	2.08 H	223	51.9	2.6
6	5350.00	41.2 AV	54.0	-12.8	2.08 H	223	38.6	2.6
7	#10460.00	46.5 PK	68.2	-21.7	1.26 H	39	33.5	13.0
8	15690.00	52.6 PK	74.0	-21.4	3.08 H	53	40.5	12.1
9	15690.00	40.3 AV	54.0	-13.7	3.08 H	53	28.2	12.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	68.6 PK	74.0	-5.4	1.89 V	20	65.9	2.7
2	**5150.00**	**53.9 AV**	**54.0**	**-0.1**	**1.89 V**	**20**	**51.2**	**2.7**
3	*5230.00	119.4 PK			1.89 V	20	117.0	2.4
4	*5230.00	107.6 AV			1.89 V	20	105.2	2.4
5	5350.00	58.8 PK	74.0	-15.2	1.89 V	20	56.2	2.6
6	5350.00	45.4 AV	54.0	-8.6	1.89 V	20	42.8	2.6
7	#10460.00	48.7 PK	68.2	-19.5	1.00 V	20	35.7	13.0
8	15690.00	54.7 PK	74.0	-19.3	3.42 V	241	42.6	12.1
9	15690.00	42.9 AV	54.0	-11.1	3.42 V	241	30.8	12.1

REMARKS:

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

CHANNEL	TX Channel 54	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	50.2 PK	74.0	-23.8	2.09 H	241	47.5	2.7
2	5150.00	38.7 AV	54.0	-15.3	2.09 H	241	36.0	2.7
3	*5270.00	106.2 PK			2.09 H	241	103.9	2.3
4	*5270.00	94.6 AV			2.09 H	241	92.3	2.3
5	#10540.00	41.2 PK	68.2	-27.0	1.28 H	49	28.2	13.0
6	15810.00	46.8 PK	74.0	-27.2	3.08 H	32	34.7	12.1
7	15810.00	34.1 AV	54.0	-19.9	3.08 H	32	22.0	12.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	54.7 PK	74.0	-19.3	1.57 V	21	52.0	2.7
2	5150.00	42.2 AV	54.0	-11.8	1.57 V	21	39.5	2.7
3	*5270.00	113.3 PK			1.57 V	21	111.0	2.3
4	*5270.00	102.9 AV			1.57 V	21	100.6	2.3
5	#10540.00	42.3 PK	68.2	-25.9	1.64 V	33	29.3	13.0
6	15810.00	47.9 PK	74.0	-26.1	1.62 V	36	35.8	12.1
7	15810.00	34.8 AV	54.0	-19.2	1.62 V	36	22.7	12.1

REMARKS:

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

CHANNEL	TX Channel 62	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	105.9 PK			2.15 H	230	103.4	2.5
2	*5310.00	94.3 AV			2.15 H	230	91.8	2.5
3	5350.00	57.6 PK	74.0	-16.4	2.15 H	230	55.0	2.6
4	5350.00	45.5 AV	54.0	-8.5	2.15 H	230	42.9	2.6
5	10620.00	41.6 PK	74.0	-32.4	1.30 H	61	28.9	12.7
6	10620.00	28.9 AV	54.0	-25.1	1.30 H	61	16.2	12.7
7	15930.00	46.6 PK	74.0	-27.4	3.06 H	41	34.5	12.1
8	15930.00	34.1 AV	54.0	-19.9	3.06 H	41	22.0	12.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	113.3 PK			1.48 V	18	110.8	2.5
2	*5310.00	102.6 AV			1.48 V	18	100.1	2.5
3	5350.00	61.7 PK	74.0	-12.3	1.48 V	18	59.1	2.6
4	5350.00	49.1 AV	54.0	-4.9	1.48 V	18	46.5	2.6
5	10620.00	42.3 PK	74.0	-31.7	1.64 V	33	29.6	12.7
6	10620.00	29.6 AV	54.0	-24.4	1.64 V	33	16.9	12.7
7	15930.00	47.9 PK	74.0	-26.1	1.62 V	36	35.8	12.1
8	15930.00	34.8 AV	54.0	-19.2	1.62 V	36	22.7	12.1

REMARKS:

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

CHANNEL	TX Channel 102	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	58.1 PK	68.2	-10.1	2.18 H	223	55.2	2.9
2	*5510.00	106.4 PK			2.18 H	223	103.6	2.8
3	*5510.00	94.8 AV			2.18 H	223	92.0	2.8
4	11020.00	42.1 PK	74.0	-31.9	1.26 H	73	28.6	13.5
5	11020.00	29.3 AV	54.0	-24.7	1.26 H	73	15.8	13.5
6	#16530.00	47.3 PK	68.2	-20.9	3.10 H	53	32.6	14.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	62.2 PK	68.2	-6.0	1.42 V	8	59.3	2.9
2	*5510.00	113.8 PK			1.42 V	8	111.0	2.8
3	*5510.00	103.1 AV			1.42 V	8	100.3	2.8
4	11020.00	42.5 PK	74.0	-31.5	1.62 V	44	29.0	13.5
5	11020.00	29.9 AV	54.0	-24.1	1.62 V	44	16.4	13.5
6	#16530.00	47.8 PK	68.2	-20.4	1.65 V	51	33.1	14.7

REMARKS:

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

CHANNEL	TX Channel 110	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	106.1 PK			2.21 H	219	103.2	2.9
2	*5550.00	94.6 AV			2.21 H	219	91.7	2.9
3	11100.00	41.6 PK	74.0	-32.4	1.31 H	64	28.6	13.0
4	11100.00	28.9 AV	54.0	-25.1	1.31 H	64	15.9	13.0
5	#16650.00	47.6 PK	68.2	-20.6	3.06 H	68	32.1	15.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	113.2 PK			1.45 V	353	110.3	2.9
2	*5550.00	102.7 AV			1.45 V	353	99.8	2.9
3	11100.00	42.2 PK	74.0	-31.8	1.59 V	57	29.2	13.0
4	11100.00	29.9 AV	54.0	-24.1	1.59 V	57	16.9	13.0
5	#16650.00	47.6 PK	68.2	-20.6	1.71 V	63	32.1	15.5

REMARKS:

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

CHANNEL	TX Channel 134	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	105.7 PK			2.19 H	227	102.6	3.1
2	*5670.00	94.3 AV			2.19 H	227	91.2	3.1
3	#5725.00	55.3 PK	68.2	-12.9	2.19 H	227	52.1	3.2
4	11340.00	41.3 PK	74.0	-32.7	1.36 H	79	27.9	13.4
5	11340.00	28.9 AV	54.0	-25.1	1.36 H	79	15.5	13.4
6	#17010.00	47.4 PK	68.2	-20.8	3.09 H	83	30.8	16.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	113.1 PK			1.35 V	338	110.0	3.1
2	*5670.00	102.3 AV			1.35 V	338	99.2	3.1
3	#5725.00	59.5 PK	68.2	-8.7	1.35 V	338	56.3	3.2
4	11340.00	41.9 PK	74.0	-32.1	1.60 V	66	28.5	13.4
5	11340.00	29.7 AV	54.0	-24.3	1.60 V	66	16.3	13.4
6	#17010.00	47.2 PK	68.2	-21.0	1.66 V	76	30.6	16.6

REMARKS:

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

CHANNEL	TX Channel 142	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	51.3 PK	68.2	-16.9	2.23 H	241	48.4	2.9
2	*5710.00	105.4 PK			2.23 H	241	102.1	3.3
3	*5710.00	93.8 AV			2.23 H	241	90.5	3.3
4	#5850.00	53.6 PK	68.2	-14.6	2.23 H	241	49.9	3.7
5	11420.00	41.6 PK	74.0	-32.4	1.34 H	92	28.3	13.3
6	11420.00	29.0 AV	54.0	-25.0	1.34 H	92	15.7	13.3
7	#17130.00	47.3 PK	68.2	-20.9	3.05 H	96	31.0	16.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	55.6 PK	68.2	-12.6	1.37 V	332	52.7	2.9
2	*5710.00	113.3 PK			1.37 V	332	110.0	3.3
3	*5710.00	102.2 AV			1.37 V	332	98.9	3.3
4	#5850.00	57.2 PK	68.2	-11.0	1.37 V	332	53.5	3.7
5	11420.00	41.6 PK	74.0	-32.4	1.57 V	81	28.3	13.3
6	11420.00	29.4 AV	54.0	-24.6	1.57 V	81	16.1	13.3
7	#17130.00	47.7 PK	68.2	-20.5	1.62 V	76	31.4	16.3

REMARKS:

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

CHANNEL	TX Channel 151	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5637.64	64.4 PK	68.2	-3.8	2.08 H	237	61.5	2.9
2	*5755.00	118.0 PK			2.08 H	237	114.7	3.3
3	*5755.00	104.6 AV			2.08 H	237	101.3	3.3
4	#5950.92	61.2 PK	68.2	-7.0	2.08 H	237	57.6	3.6
5	11510.00	45.9 PK	74.0	-28.1	1.29 H	42	32.6	13.3
6	11510.00	34.4 AV	54.0	-19.6	1.29 H	42	21.1	13.3
7	#17265.00	52.2 PK	68.2	-16.0	3.15 H	38	35.8	16.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	**#5647.61**	**68.1 PK**	**68.2**	**-0.1**	**1.52 V**	**174**	**65.2**	**2.9**
2	*5755.00	123.5 PK			1.52 V	174	120.2	3.3
3	*5755.00	110.3 AV			1.52 V	174	107.0	3.3
4	#5935.97	62.0 PK	68.2	-6.2	1.52 V	174	58.4	3.6
5	11510.00	48.8 PK	74.0	-25.2	1.00 V	15	35.5	13.3
6	11510.00	38.7 AV	54.0	-15.3	1.00 V	15	25.4	13.3
7	#17265.00	54.5 PK	68.2	-13.7	3.41 V	234	38.1	16.4

REMARKS:

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

CHANNEL	TX Channel 159	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5634.95	61.5 PK	68.2	-6.7	2.06 H	214	58.6	2.9
2	*5795.00	117.7 PK			2.06 H	214	114.3	3.4
3	*5795.00	104.4 AV			2.06 H	214	101.0	3.4
4	#5928.25	62.1 PK	68.2	-6.1	2.06 H	214	58.5	3.6
5	11590.00	45.5 PK	74.0	-28.5	1.29 H	47	32.6	12.9
6	11590.00	34.0 AV	54.0	-20.0	1.29 H	47	21.1	12.9
7	#17385.00	52.8 PK	68.2	-15.4	3.21 H	40	35.4	17.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5621.45	62.7 PK	68.2	-5.5	1.60 V	174	59.7	3.0
2	*5795.00	123.2 PK			1.60 V	174	119.8	3.4
3	*5795.00	110.1 AV			1.60 V	174	106.7	3.4
4	#5933.27	66.7 PK	68.2	-1.5	1.60 V	174	63.1	3.6
5	11590.00	49.3 PK	74.0	-24.7	1.00 V	20	36.4	12.9
6	11590.00	39.0 AV	54.0	-15.0	1.00 V	20	26.1	12.9
7	#17385.00	54.4 PK	68.2	-13.8	3.42 V	246	37.0	17.4

REMARKS:

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

802.11ax (HE80)

CHANNEL	TX Channel 42	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	61.5 PK	74.0	-12.5	2.42 H	262	58.8	2.7
2	5150.00	49.9 AV	54.0	-4.1	2.42 H	262	47.2	2.7
3	*5210.00	107.7 PK			2.42 H	262	105.1	2.6
4	*5210.00	96.3 AV			2.42 H	262	93.7	2.6
5	5350.00	51.9 PK	74.0	-22.1	2.42 H	262	49.3	2.6
6	5350.00	40.1 AV	54.0	-13.9	2.42 H	262	37.5	2.6
7	#10420.00	42.1 PK	68.2	-26.1	1.28 H	55	29.1	13.0
8	15630.00	46.4 PK	74.0	-27.6	3.11 H	48	33.8	12.6
9	15630.00	34.1 AV	54.0	-19.9	3.11 H	48	21.5	12.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.7 PK	74.0	-7.3	1.49 V	19	64.0	2.7
2	5150.00	53.8 AV	54.0	-0.2	1.49 V	19	51.1	2.7
3	*5210.00	111.6 PK			1.49 V	19	109.0	2.6
4	*5210.00	102.2 AV			1.49 V	19	99.6	2.6
5	5350.00	54.0 PK	74.0	-20.0	1.49 V	19	51.4	2.6
6	5350.00	43.3 AV	54.0	-10.7	1.49 V	19	40.7	2.6
7	#10420.00	42.4 PK	68.2	-25.8	1.59 V	22	29.4	13.0
8	15630.00	47.4 PK	74.0	-26.6	1.66 V	49	34.8	12.6
9	15630.00	34.5 AV	54.0	-19.5	1.66 V	49	21.9	12.6

REMARKS:

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

CHANNEL	TX Channel 58	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	52.3 PK	74.0	-21.7	2.44 H	267	49.6	2.7
2	5150.00	41.6 AV	54.0	-12.4	2.44 H	267	38.9	2.7
3	*5290.00	104.3 PK			2.44 H	267	101.9	2.4
4	*5290.00	93.0 AV			2.44 H	267	90.6	2.4
5	5350.00	62.4 PK	74.0	-11.6	2.44 H	267	59.8	2.6
6	5350.00	48.9 AV	54.0	-5.1	2.44 H	267	46.3	2.6
7	#10580.00	42.1 PK	68.2	-26.1	1.25 H	66	29.3	12.8
8	15870.00	46.1 PK	74.0	-27.9	3.14 H	44	34.0	12.1
9	15870.00	34.1 AV	54.0	-19.9	3.14 H	44	22.0	12.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.7 PK	74.0	-17.3	1.48 V	18	54.0	2.7
2	5150.00	45.1 AV	54.0	-8.9	1.48 V	18	42.4	2.7
3	*5290.00	109.8 PK			1.48 V	18	107.4	2.4
4	*5290.00	98.8 AV			1.48 V	18	96.4	2.4
5	5350.00	66.4 PK	74.0	-7.6	1.48 V	18	63.8	2.6
6	5350.00	52.6 AV	54.0	-1.4	1.48 V	18	50.0	2.6
7	#10580.00	42.4 PK	68.2	-25.8	1.58 V	27	29.6	12.8
8	15870.00	47.0 PK	74.0	-27.0	1.61 V	64	34.9	12.1
9	15870.00	34.2 AV	54.0	-19.8	1.61 V	64	22.1	12.1

REMARKS:

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

CHANNEL	TX Channel 106	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	62.8 PK	68.2	-5.4	2.46 H	266	59.9	2.9
2	*5530.00	104.0 PK			2.46 H	266	101.1	2.9
3	*5530.00	92.6 AV			2.46 H	266	89.7	2.9
4	#5725.00	50.4 PK	68.2	-17.8	2.46 H	266	47.2	3.2
5	11060.00	42.7 PK	74.0	-31.3	1.28 H	52	29.4	13.3
6	11060.00	29.5 AV	54.0	-24.5	1.28 H	52	16.2	13.3
7	#16590.00	45.8 PK	68.2	-22.4	3.16 H	39	30.8	15.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	67.3 PK	68.2	-0.9	1.19 V	352	64.4	2.9
2	*5530.00	110.1 PK			1.19 V	352	107.2	2.9
3	*5530.00	98.3 AV			1.19 V	352	95.4	2.9
4	#5725.00	54.6 PK	68.2	-13.6	1.19 V	352	51.4	3.2
5	11060.00	42.3 PK	74.0	-31.7	1.57 V	14	29.0	13.3
6	11060.00	29.9 AV	54.0	-24.1	1.57 V	14	16.6	13.3
7	#16590.00	46.7 PK	68.2	-21.5	1.58 V	73	31.7	15.0

REMARKS:

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

CHANNEL	TX Channel 122	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	103.6 PK			2.47 H	271	100.6	3.0
2	*5610.00	92.1 AV			2.47 H	271	89.1	3.0
3	#5725.00	53.8 PK	68.2	-14.4	2.47 H	271	50.6	3.2
4	11220.00	42.1 PK	74.0	-31.9	1.31 H	36	29.0	13.1
5	11220.00	29.2 AV	54.0	-24.8	1.31 H	36	16.1	13.1
6	#16830.00	45.9 PK	68.2	-22.3	3.19 H	27	29.6	16.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	110.4 PK			1.29 V	351	107.4	3.0
2	*5610.00	98.9 AV			1.29 V	351	95.9	3.0
3	#5725.00	57.4 PK	68.2	-10.8	1.29 V	351	54.2	3.2
4	11220.00	43.0 PK	74.0	-31.0	1.53 V	12	29.9	13.1
5	11220.00	30.3 AV	54.0	-23.7	1.53 V	12	17.2	13.1
6	#16830.00	46.1 PK	68.2	-22.1	1.60 V	66	29.8	16.3

REMARKS:

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

CHANNEL	TX Channel 138	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	52.6 PK	68.2	-15.6	2.47 H	282	49.7	2.9
2	*5690.00	103.7 PK			2.47 H	282	100.4	3.3
3	*5690.00	92.2 AV			2.47 H	282	88.9	3.3
4	#5850.00	54.3 PK	68.2	-13.9	2.47 H	282	50.6	3.7
5	11380.00	41.8 PK	74.0	-32.2	1.31 H	52	28.3	13.5
6	11380.00	28.9 AV	54.0	-25.1	1.31 H	52	15.4	13.5
7	#17070.00	45.7 PK	68.2	-22.5	3.21 H	16	29.3	16.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	56.7 PK	68.2	-11.5	1.28 V	347	53.8	2.9
2	*5690.00	110.8 PK			1.28 V	347	107.5	3.3
3	*5690.00	99.2 AV			1.28 V	347	95.9	3.3
4	#5850.00	58.1 PK	68.2	-10.1	1.28 V	347	54.4	3.7
5	11380.00	43.0 PK	74.0	-31.0	1.52 V	6	29.5	13.5
6	11380.00	30.2 AV	54.0	-23.8	1.52 V	6	16.7	13.5
7	#17070.00	46.7 PK	68.2	-21.5	1.58 V	75	30.3	16.4

REMARKS:

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

CHANNEL	TX Channel 155	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5628.91	63.6 PK	68.2	-4.6	2.12 H	226	60.7	2.9
2	*5775.00	110.9 PK			2.12 H	226	107.6	3.3
3	*5775.00	113.5 PK			2.12 H	226	110.2	3.3
4	*5775.00	98.9 AV			2.12 H	226	95.6	3.3
5	#5921.72	66.1 PK	70.6	-4.5	2.12 H	226	62.5	3.6
6	11550.00	49.0 PK	74.0	-25.0	1.12 H	16	36.0	13.0
7	11550.00	38.8 AV	54.0	-15.2	1.12 H	16	25.8	13.0
8	#17325.00	55.6 PK	68.2	-12.6	3.47 H	237	38.8	16.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	**#5648.28**	**68.1 PK**	**68.2**	**-0.1**	**1.74 V**	**171**	**65.2**	**2.9**
2	*5775.00	114.3 PK			1.00 V	357	111.0	3.3
3	*5775.00	117.3 PK			1.74 V	171	114.0	3.3
4	*5775.00	104.4 AV			1.00 V	357	101.1	3.3
5	#5931.50	61.9 PK	68.2	-6.3	1.74 V	171	58.3	3.6
6	11550.00	48.7 PK	74.0	-25.3	1.08 V	10	35.7	13.0
7	11550.00	38.4 AV	54.0	-15.6	1.08 V	10	25.4	13.0
8	#17325.00	55.6 PK	68.2	-12.6	3.41 V	230	38.8	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.

802.11ax (HE160)

CHANNEL	TX Channel 50	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	61.9 PK	74.0	-12.1	2.15 H	227	59.2	2.7
2	5150.00	49.7 AV	54.0	-4.3	2.15 H	227	47.0	2.7
3	*5250.00	104.1 PK			2.15 H	227	101.9	2.2
4	*5250.00	93.4 AV			2.15 H	227	91.2	2.2
5	5350.00	57.2 PK	74.0	-16.8	2.15 H	227	54.6	2.6
6	5350.00	44.3 AV	54.0	-9.7	2.15 H	227	41.7	2.6
7	#10500.00	41.9 PK	68.2	-26.3	1.29 H	27	28.8	13.1
8	15750.00	45.9 PK	74.0	-28.1	3.19 H	28	33.9	12.0
9	15750.00	33.5 AV	54.0	-20.5	3.19 H	28	21.5	12.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.5 PK	74.0	-8.5	1.81 V	19	62.8	2.7
2	**5150.00**	**53.9 AV**	**54.0**	**-0.1**	**1.81 V**	**19**	**51.2**	**2.7**
3	*5250.00	108.0 PK			1.81 V	19	105.8	2.2
4	*5250.00	97.5 AV			1.81 V	19	95.3	2.2
5	5350.00	61.3 PK	74.0	-12.7	1.81 V	19	58.7	2.6
6	5350.00	48.7 AV	54.0	-5.3	1.81 V	19	46.1	2.6
7	#10500.00	43.4 PK	68.2	-24.8	1.58 V	26	30.3	13.1
8	15750.00	46.6 PK	74.0	-27.4	1.64 V	68	34.6	12.0
9	15750.00	34.2 AV	54.0	-19.8	1.64 V	68	22.2	12.0

REMARKS:

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

CHANNEL	TX Channel 114	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	64.9 PK	68.2	-3.3	2.13 H	213	62.0	2.9
2	*5570.00	104.0 PK			2.13 H	213	101.1	2.9
3	*5570.00	92.4 AV			2.13 H	213	89.5	2.9
4	#5725.00	64.7 PK	68.2	-3.5	2.13 H	213	61.5	3.2
5	11140.00	42.2 PK	74.0	-31.8	1.34 H	27	29.2	13.0
6	11140.00	29.0 AV	54.0	-25.0	1.34 H	27	16.0	13.0
7	#16710.00	46.2 PK	68.2	-22.0	3.16 H	14	30.2	16.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	67.8 PK	68.2	-0.4	1.28 V	353	64.9	2.9
2	*5570.00	108.3 PK			1.28 V	353	105.4	2.9
3	*5570.00	96.3 AV			1.28 V	353	93.4	2.9
4	#5725.00	67.8 PK	68.2	-0.4	1.28 V	353	64.6	3.2
5	11140.00	44.0 PK	74.0	-30.0	1.53 V	29	31.0	13.0
6	11140.00	31.1 AV	54.0	-22.9	1.53 V	29	18.1	13.0
7	#16710.00	46.5 PK	68.2	-21.7	1.63 V	75	30.5	16.0

REMARKS:

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

Below 1GHz Data:

Low band

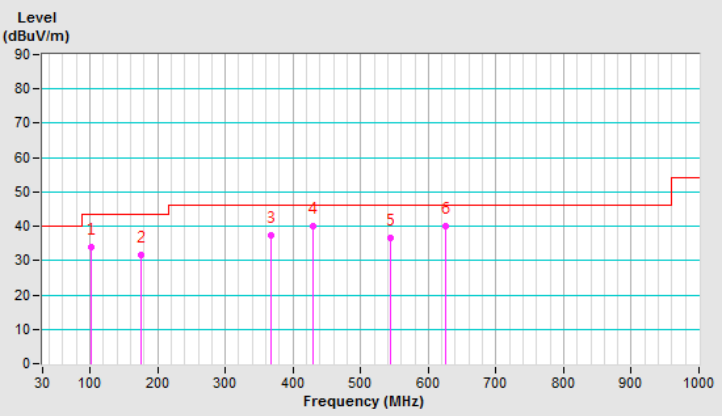
802.11ax (HE40)

CHANNEL	TX Channel 46	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	101.22	33.9 QP	43.5	-9.6	1.50 H	134	45.7	-11.8
2	176.18	31.6 QP	43.5	-11.9	1.50 H	259	40.4	-8.8
3	367.15	37.4 QP	46.0	-8.6	1.00 H	100	42.7	-5.3
4	430.37	40.0 QP	46.0	-6.0	2.00 H	352	43.2	-3.2
5	543.78	36.6 QP	46.0	-9.4	2.00 H	360	37.6	-1.0
6	625.56	40.1 QP	46.0	-5.9	1.50 H	178	39.0	1.1

REMARKS:

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

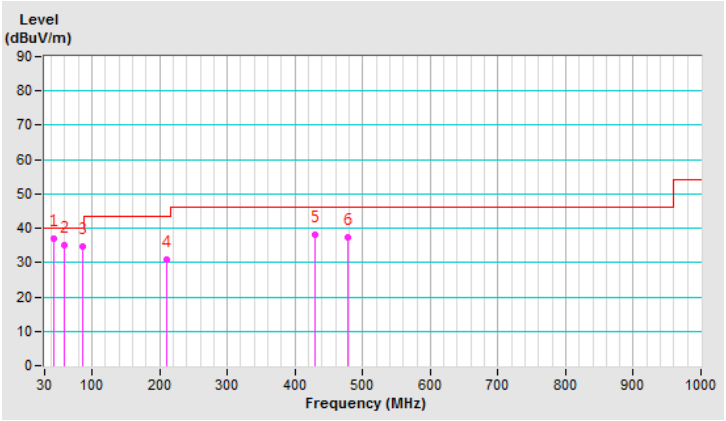


CHANNEL	TX Channel 46	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	43.14	36.9 QP	40.0	-3.1	1.00 V	360	45.3	-8.4
2	59.05	35.2 QP	40.0	-4.8	2.00 V	208	43.9	-8.7
3	87.04	34.7 QP	40.0	-5.3	2.00 V	360	48.0	-13.3
4	209.86	30.9 QP	43.5	-12.6	1.00 V	0	41.2	-10.3
5	430.15	38.0 QP	46.0	-8.0	2.00 V	90	41.2	-3.2
6	478.87	37.5 QP	46.0	-8.5	1.00 V	178	39.7	-2.2

REMARKS:

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



High band

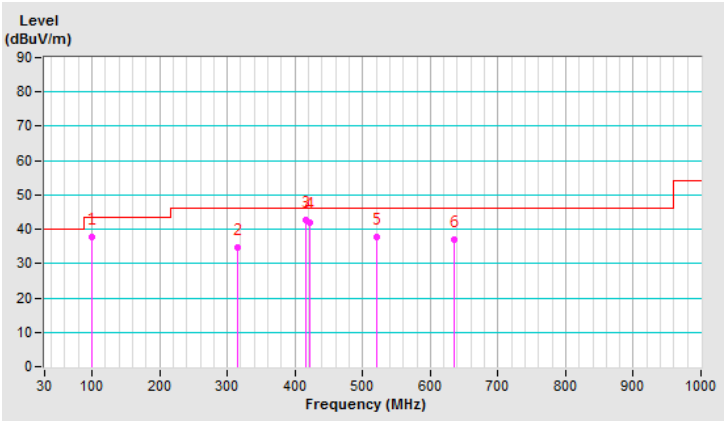
802.11a

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	98.99	37.6 QP	43.5	-5.9	2.00 H	292	49.7	-12.1
2	315.13	34.5 QP	46.0	-11.5	1.50 H	2	41.0	-6.5
3	416.47	42.6 QP	46.0	-3.4	1.00 H	360	46.3	-3.7
4	422.58	42.1 QP	46.0	-3.9	1.50 H	17	45.5	-3.4
5	521.62	37.7 QP	46.0	-8.3	2.00 H	360	38.9	-1.2
6	634.99	36.9 QP	46.0	-9.1	1.50 H	177	35.6	1.3

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 of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

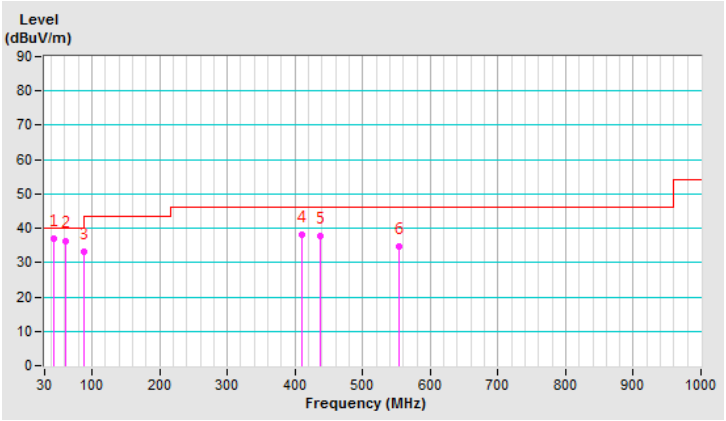


CHANNEL	TX Channel 165	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	43.70	36.9 QP	40.0	-3.1	1.00 V	329	45.2	-8.3
2	60.41	36.4 QP	40.0	-3.6	1.50 V	0	45.2	-8.8
3	87.88	33.2 QP	40.0	-6.8	1.50 V	360	46.5	-13.3
4	410.60	38.1 QP	46.0	-7.9	1.50 V	1	42.1	-4.0
5	437.01	37.6 QP	46.0	-8.4	1.50 V	196	40.6	-3.0
6	553.24	34.8 QP	46.0	-11.2	1.00 V	174	35.6	-0.8

REMARKS:

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



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

Note: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 24, 2018	Oct. 23, 2019
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 22, 2018	Oct. 21, 2019
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 17, 2019	Mar. 16, 2020
50 ohms Terminator	N/A	3	Oct. 22, 2018	Oct. 21, 2019
RF Cable	5D-FB	COCCAB-001	Sep. 28, 2018	Sep. 27, 2019
Fixed attenuator EMCI	STI02-2200-10	003	Mar. 14, 2019	Mar. 13, 2020
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

Note:

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
3 Tested Date: Mar. 30, 2019

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.

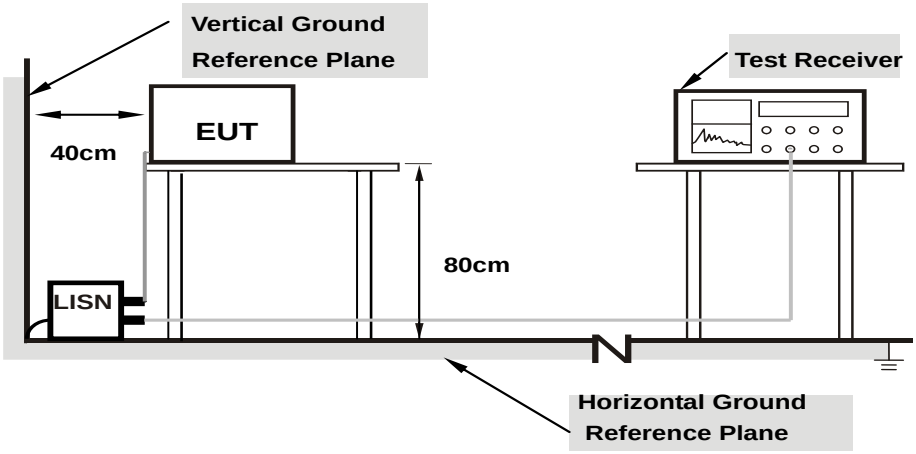
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

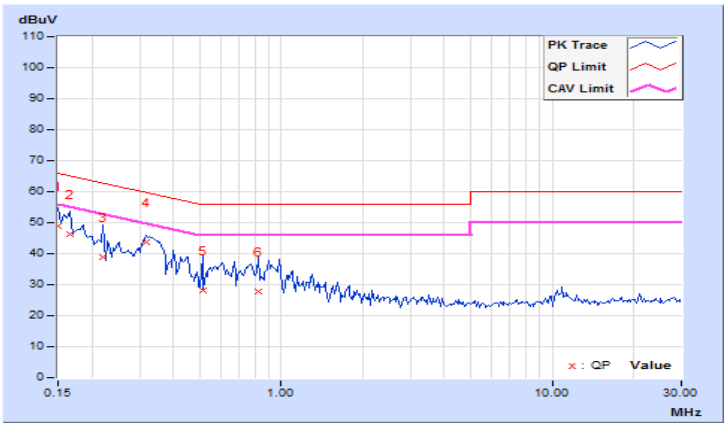
Low band

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

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.03	38.69	20.59	48.72	30.62	66.00	56.00	-17.28	-25.38
2	0.16562	10.04	36.13	17.18	46.17	27.22	65.18	55.18	-19.01	-27.96
3	0.22031	10.05	29.01	16.55	39.06	26.60	62.81	52.81	-23.75	-26.21
4	0.31797	10.07	33.81	29.68	43.88	39.75	59.76	49.76	-15.88	-10.01
5	0.51328	10.09	18.24	5.17	28.33	15.26	56.00	46.00	-27.67	-30.74
6	0.82578	10.12	17.80	7.70	27.92	17.82	56.00	46.00	-28.08	-28.18

REMARKS:

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

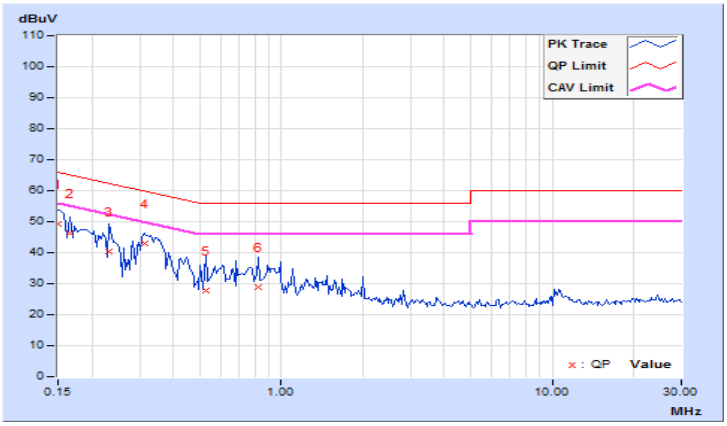


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.94	39.42	20.74	49.36	30.68	66.00	56.00	-16.64	-25.32
2	0.16562	9.94	36.45	17.14	46.39	27.08	65.18	55.18	-18.79	-28.10
3	0.23203	9.95	30.37	16.50	40.32	26.45	62.38	52.38	-22.06	-25.93
4	0.31406	9.97	33.10	26.19	43.07	36.16	59.86	49.86	-16.79	-13.70
5	0.52500	9.98	17.82	8.64	27.80	18.62	56.00	46.00	-28.20	-27.38
6	0.82188	9.99	18.91	8.02	28.90	18.01	56.00	46.00	-27.10	-27.99

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.



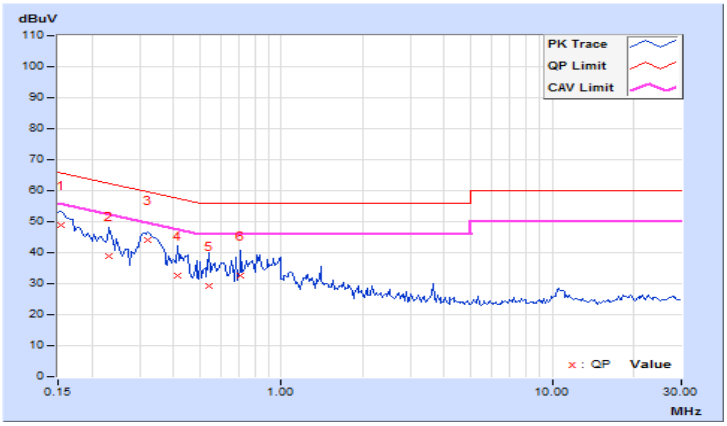
High band

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

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	10.03	38.74	20.76	48.77	30.79	65.79	55.79	-17.02	-25.00
2	0.23203	10.05	28.92	16.34	38.97	26.39	62.38	52.38	-23.41	-25.99
3	**0.32188**	**10.07**	**34.01**	**30.47**	**44.08**	**40.54**	**59.66**	**49.66**	**-15.58**	**-9.12**
4	0.41563	10.08	22.68	11.41	32.76	21.49	57.54	47.54	-24.78	-26.05
5	0.54063	10.09	19.31	8.56	29.40	18.65	56.00	46.00	-26.60	-27.35
6	0.70859	10.11	22.42	15.17	32.53	25.28	56.00	46.00	-23.47	-20.72

REMARKS:

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



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

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	9.94	38.58	20.84	48.52	30.78	65.79	55.79	-17.27	-25.01
2	0.20078	9.95	32.59	17.30	42.54	27.25	63.58	53.58	-21.04	-26.33
3	0.32188	9.97	34.29	30.53	44.26	40.50	59.66	49.66	-15.40	-9.16
4	0.41563	9.98	21.88	10.47	31.86	20.45	57.54	47.54	-25.68	-27.09
5	0.54453	9.98	18.08	5.82	28.06	15.80	56.00	46.00	-27.94	-30.20
6	0.69688	9.99	16.87	6.74	26.86	16.73	56.00	46.00	-29.14	-29.27

REMARKS:

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

4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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

*B is the 26 dB emission bandwidth in megahertz

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

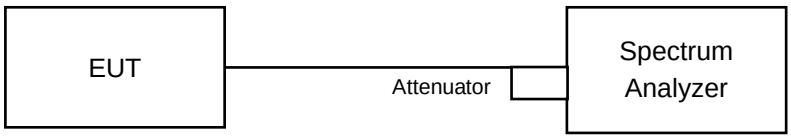
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

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

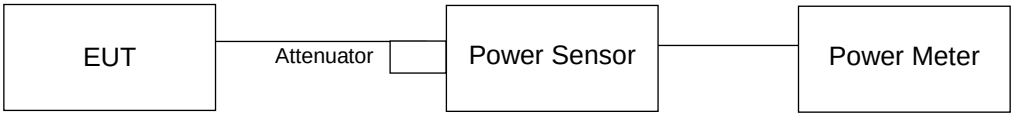
4.3.2 Test Setup

FOR POWER OUTPUT MEASUREMENT

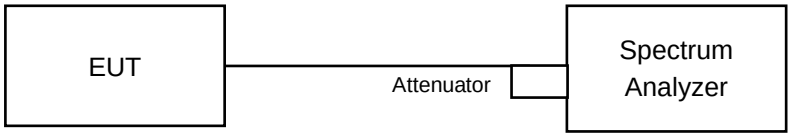
For channel straddling 5725MHz:



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:

For 802.11a, 802.11ac (VHT20):

Method SA-1

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

For other modulation:

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 Result

Non-Beamforming Mode

802.11a

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	23.84	22.55	22.31	22.36	764.393	28.83	30.00	Pass
40	5200	23.91	22.52	22.29	22.26	762.387	28.82	30.00	Pass
48	5240	23.63	22.41	22.38	22.49	755.257	28.78	30.00	Pass
52	5260	16.66	16.17	17.28	16.09	181.845	22.60	24.00	Pass
60	5300	16.79	15.92	16.89	16.71	182.583	22.61	24.00	Pass
64	5320	16.38	16.35	17.08	16.49	182.219	22.61	24.00	Pass
100	5500	16.13	15.17	17.49	16.22	171.889	22.35	24.00	Pass
116	5580	16.51	14.19	17.50	16.22	169.126	22.28	24.00	Pass
140	5700	14.98	15.07	17.43	17.24	171.915	22.35	24.00	Pass
*144 (U-NII-2C Band)	5720	9.17	10.26	11.93	11.73	49.367	16.93	22.95	Pass
*144 (U-NII-3 Band)	5720	3.04	4.08	5.96	5.26	11.875	10.75	30.00	Pass
149	5745	23.56	23.20	24.13	24.41	970.795	29.87	30.00	Pass
157	5785	23.98	23.43	24.32	23.94	988.466	29.95	30.00	Pass
165	5825	23.62	23.88	24.37	23.98	998.049	29.99	30.00	Pass

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

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
144	5720	61.242	17.87
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
144	5720	14.76	15.59	17.30	17.09	171.018	22.33

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.56	21.79	21.63	21.49
60	5300	21.67	21.81	21.78	21.70
64	5320	21.49	21.86	21.73	21.40
100	5500	21.66	21.54	21.64	21.69
116	5580	21.64	21.74	21.76	21.68
140	5700	21.66	21.80	21.67	21.54
144 (U-NII-2C Band)	5720	15.75	15.78	15.86	15.68

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.49	24.32 > 24
60	5300	21.67	24.35 > 24
64	5320	21.40	24.3 > 24
100	5500	21.54	24.33 > 24
116	5580	21.64	24.35 > 24
140	5700	21.54	24.33 > 24
144 (U-NII-2C Band)	5720	15.68	22.95 < 24

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	22.77	21.07	21.86	21.68	617.865	27.91	30.00	Pass
40	5200	23.69	22.31	22.40	22.15	741.939	28.70	30.00	Pass
48	5240	23.82	22.41	21.91	22.46	746.609	28.73	30.00	Pass
52	5260	16.98	16.04	16.46	16.03	174.413	22.42	24.00	Pass
60	5300	16.42	16.33	16.50	16.60	177.184	22.48	24.00	Pass
64	5320	16.43	15.85	16.85	16.43	174.784	22.43	24.00	Pass
100	5500	16.16	14.86	17.37	16.27	168.865	22.28	24.00	Pass
116	5580	16.34	14.29	17.53	15.93	165.704	22.19	24.00	Pass
140	5700	14.96	15.01	17.05	17.28	167.184	22.23	24.00	Pass
*144 (U-NII-2C Band)	5720	9.29	9.72	12.22	11.54	48.796	16.88	22.97	Pass
*144 (U-NII-3 Band)	5720	3.57	4.17	6.75	5.76	13.386	11.27	30.00	Pass
149	5745	23.68	23.22	23.75	24.20	943.404	29.75	30.00	Pass
157	5785	23.33	23.59	24.05	23.85	940.596	29.73	30.00	Pass
165	5825	23.16	24.07	23.96	23.85	953.831	29.79	30.00	Pass

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

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
144	5720	62.182	17.94
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
144	5720	14.54	15.26	17.54	17.00	168.892	22.28

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.89	21.57	21.78	21.80
60	5300	21.86	21.68	21.53	21.82
64	5320	21.88	21.77	21.59	21.69
100	5500	21.87	21.72	21.57	21.73
116	5580	21.98	21.77	21.72	21.85
140	5700	21.84	21.72	21.69	21.76
144 (U-NII-2C Band)	5720	15.92	15.76	15.75	15.88

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.57	24.33 > 24
60	5300	21.53	24.33 > 24
64	5320	21.59	24.34 > 24
100	5500	21.57	24.33 > 24
116	5580	21.72	24.36 > 24
140	5700	21.69	24.36 > 24
144 (U-NII-2C Band)	5720	15.75	22.97 < 24

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	19.82	20.44	21.28	20.70	458.368	26.61	30.00	Pass
46	5230	24.54	23.61	23.47	23.29	949.696	29.78	30.00	Pass
54	5270	17.74	17.56	18.07	17.63	238.509	23.78	24.00	Pass
62	5310	18.15	17.47	18.15	17.30	240.176	23.81	24.00	Pass
102	5510	17.95	16.26	18.72	17.82	239.647	23.80	24.00	Pass
110	5550	18.28	15.88	19.08	17.65	245.144	23.89	24.00	Pass
134	5670	17.49	16.98	18.62	17.88	240.147	23.80	24.00	Pass
*142 (U-NII-2C Band)	5710	12.61	12.41	14.69	14.85	98.667	19.94	24.00	Pass
*142 (U-NII-3 Band)	5710	2.15	2.23	4.61	4.38	9.227	9.65	30.00	Pass
151	5755	23.69	23.29	23.76	24.38	959.029	29.82	30.00	Pass
159	5795	23.38	23.33	23.91	24.38	953.243	29.79	30.00	Pass

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

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
142	5710	107.894	20.33
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
142	5710	16.53	16.65	18.64	18.75	239.319	23.79

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	41.86	41.10	41.43	41.30
62	5310	41.72	41.28	41.43	41.08
102	5510	41.58	41.41	41.55	41.00
110	5550	41.47	41.45	41.57	41.14
134	5670	41.62	41.50	41.52	41.12
142 (U-NII-2C Band)	5710	35.93	35.57	35.69	35.51

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.10	27.13 > 24
62	5310	41.08	27.13 > 24
102	5510	41.00	27.12 > 24
110	5550	41.14	27.14 > 24
134	5670	41.12	27.14 > 24
142 (U-NII-2C Band)	5710	35.51	26.5 > 24

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	20.99	20.70	20.92	21.54	509.249	27.07	30.00	Pass
58	5290	17.46	17.38	18.22	17.54	233.549	23.68	24.00	Pass
106	5530	17.51	15.73	19.21	17.85	238.097	23.77	24.00	Pass
122	5610	18.05	15.93	19.05	17.33	237.428	23.76	24.00	Pass
*138 (U-NII-2C Band)	5690	14.05	13.54	15.59	15.59	128.325	21.08	24.00	Pass
*138 (U-NII-3 Band)	5690	-2.19	-0.30	1.85	1.34	4.7192	6.74	30.00	Pass
155	5775	23.97	23.17	23.99	23.64	938.767	29.73	30.00	Pass

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

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
138	5690	133.0442	21.24
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
138	5690	17.15	16.73	18.38	18.34	236.077	23.73

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	82.48	82.16	82.16	82.40
106	5530	82.75	82.32	81.86	82.38
122	5610	82.66	82.09	82.13	82.85
138 (U-NII-2C Band)	5690	76.44	76.01	75.92	76.10

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.16	30.14 > 24
106	5530	81.86	30.13 > 24
122	5610	82.09	30.14 > 24
138 (U-NII-2C Band)	5690	75.92	29.8 > 24

802.11ac (VHT160)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
*50 (U-NII-1 Band)	5250	11.43	11.06	12.13	11.25	63.063	18.00	30.00	Pass
*50 (U-NII-2A Band)	5250	11.59	11.73	11.57	11.35	64.167	18.07	24.00	Pass
114	5570	17.79	16.19	18.57	18.09	238.07	23.77	24.00	Pass

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

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
50	5250	127.23	21.05
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
50	5250	17.50	16.93	17.33	17.04	210.208	23.23

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50 (U-NII-2A Band)	5250	163.38	164.76	163.33	163.15
114	5570	163.76	165.04	162.67	163.04

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50 (U-NII-2A Band)	5250	163.15	33.12 > 24
114	5570	162.67	33.11 > 24

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	22.81	21.13	21.89	21.76	625.196	27.96	30.00	Pass
40	5200	23.71	22.41	22.46	22.19	750.919	28.76	30.00	Pass
48	5240	23.82	22.53	21.92	22.53	754.71	28.78	30.00	Pass
52	5260	17.02	16.12	16.60	16.16	178.29	22.51	24.00	Pass
60	5300	16.52	16.39	16.63	16.72	181.441	22.59	24.00	Pass
64	5320	16.53	15.88	16.99	16.52	178.582	22.52	24.00	Pass
100	5500	16.29	14.96	17.47	16.27	172.104	22.36	24.00	Pass
116	5580	16.39	14.43	17.62	16.03	169.181	22.28	24.00	Pass
140	5700	15.09	15.06	17.06	17.29	168.744	22.27	24.00	Pass
*144 (U-NII-2C Band)	5720	9.15	9.16	12.33	11.81	49.85	16.98	22.97	Pass
*144 (U-NII-3 Band)	5720	3.87	3.97	7.26	6.48	15.037	11.77	30.00	Pass
149	5745	23.79	23.30	23.84	24.35	967.501	29.86	30.00	Pass
157	5785	23.46	23.69	24.15	23.98	965.755	29.85	30.00	Pass
165	5825	23.23	24.07	23.98	23.95	963.996	29.84	30.00	Pass

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

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
144	5720	64.887	18.12
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
144	5720	14.69	15.26	17.67	17.03	171.963	22.35

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.78	21.68	22.00	21.83
60	5300	21.87	21.46	21.86	21.71
64	5320	21.76	21.58	21.81	21.87
100	5500	21.67	21.88	21.78	21.80
116	5580	21.78	21.84	21.88	21.87
140	5700	21.87	21.78	21.85	21.90
144 (U-NII-2C Band)	5720	15.95	15.82	15.75	15.83

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.68	24.36 > 24
60	5300	21.46	24.31 > 24
64	5320	21.58	24.34 > 24
100	5500	21.67	24.35 > 24
116	5580	21.78	24.38 > 24
140	5700	21.78	24.38 > 24
144 (U-NII-2C Band)	5720	15.75	22.97 < 24

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	19.84	20.53	21.37	20.72	464.483	26.67	30.00	Pass
46	5230	24.57	23.67	23.56	23.31	960.502	29.82	30.00	Pass
54	5270	17.81	17.64	18.13	17.71	242.504	23.85	24.00	Pass
62	5310	18.21	17.48	18.21	17.42	243.628	23.87	24.00	Pass
102	5510	18.09	16.33	18.81	17.89	244.922	23.89	24.00	Pass
110	5550	18.32	15.96	19.12	17.68	247.638	23.94	24.00	Pass
134	5670	17.59	17.02	18.68	17.96	244.069	23.88	24.00	Pass
*142 (U-NII-2C Band)	5710	12.96	12.79	14.57	15.31	105.857	20.25	24.00	Pass
*142 (U-NII-3 Band)	5710	2.85	3.08	4.75	5.27	10.765	10.32	30.00	Pass
151	5755	23.78	23.31	23.81	24.48	974.049	29.89	30.00	Pass
159	5795	23.53	23.41	23.96	24.42	970.284	29.87	30.00	Pass

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

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
142	5710	116.622	20.67
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
142	5710	16.62	16.76	18.68	18.79	242.817	23.85

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	41.32	41.78	41.63	41.84
62	5310	41.65	41.71	41.48	41.71
102	5510	41.50	41.68	41.48	41.60
110	5550	41.40	41.70	41.47	41.41
134	5670	41.45	41.73	41.33	41.52
142 (U-NII-2C Band)	5710	35.64	35.84	35.80	35.78

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.32	27.16 > 24
62	5310	41.48	27.17 > 24
102	5510	41.48	27.17 > 24
110	5550	41.40	27.17 > 24
134	5670	41.33	27.16 > 24
142 (U-NII-2C Band)	5710	35.64	26.51 > 24

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	21.00	20.77	20.95	21.57	513.292	27.10	30.00	Pass
58	5290	17.58	17.52	18.33	17.64	239.927	23.80	24.00	Pass
106	5530	17.62	15.86	19.26	17.92	242.635	23.85	24.00	Pass
122	5610	18.18	15.98	19.08	17.48	242.28	23.84	24.00	Pass
*138 (U-NII-2C Band)	5690	14.38	13.93	15.51	15.49	132.944	21.24	24.00	Pass
*138 (U-NII-3 Band)	5690	0.10	0.56	2.63	2.03	6.036	7.81	30.00	Pass
155	5775	24.07	23.25	24.11	23.75	961.388	29.83	30.00	Pass

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

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
138	5690	138.98	21.43
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
138	5690	17.23	16.81	18.49	18.39	240.474	23.81

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	83.20	82.91	82.59	82.46
106	5530	81.98	82.55	82.53	82.46
122	5610	82.27	82.26	82.57	82.46
138 (U-NII-2C Band)	5690	76.02	76.35	76.09	76.16

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.46	30.16 > 24
106	5530	81.98	30.13 > 24
122	5610	82.26	30.15 > 24
138 (U-NII-2C Band)	5690	76.02	29.8 > 24

802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
*50 (U-NII-1 Band)	5250	11.70	10.99	11.94	11.08	63.021	17.99	30.00	Pass
*50 (U-NII-2A Band)	5250	11.85	11.66	11.57	11.33	65.392	18.16	24.00	Pass
114	5570	17.92	16.23	18.62	18.13	241.711	23.83	24.00	Pass

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

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
50	5250	128.413	21.09
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
50	5250	17.56	16.97	17.41	17.13	213.513	23.29

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50 (U-NII-2A Band)	5250	163.73	163.49	164.35	163.60
114	5570	163.29	164.07	163.58	163.34

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50 (U-NII-2A Band)	5250	163.49	33.13 > 24
114	5570	163.29	33.12 > 24

Beamforming Mode

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	22.77	21.07	21.86	21.68	617.865	27.91	28.85	Pass
40	5200	23.69	22.31	22.40	22.15	741.939	28.70	28.85	Pass
48	5240	23.82	22.41	21.91	22.46	746.609	28.73	28.85	Pass
52	5260	16.98	16.04	16.46	16.03	174.413	22.42	22.63	Pass
60	5300	16.42	16.33	16.50	16.60	177.184	22.48	22.63	Pass
64	5320	16.43	15.85	16.85	16.43	174.784	22.43	22.63	Pass
100	5500	16.16	14.86	17.37	16.27	168.865	22.28	22.38	Pass
116	5580	16.34	14.29	17.53	15.93	165.704	22.19	22.38	Pass
140	5700	14.96	15.01	17.05	17.28	167.184	22.23	22.38	Pass
*144 (U-NII-2C Band)	5720	9.29	9.72	12.22	11.54	48.796	16.88	21.35	Pass
*144 (U-NII-3 Band)	5720	3.57	4.17	6.75	5.76	13.386	11.27	28.47	Pass
149	5745	22.24	21.80	22.28	22.81	678.879	28.32	28.47	Pass
157	5785	21.91	22.18	22.62	22.48	680.256	28.33	28.47	Pass
165	5825	21.72	22.46	22.32	22.32	666.008	28.23	28.47	Pass

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

1. For U-NII-1: The directional gain = 7.15dBi > 6dBi, so the power limit shall be reduced to 30-(7.15-6) = 28.85dBm.
2. For U-NII-2A: The directional gain = 7.37dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.37-6)”.
3. For U-NII-2C: The directional gain = 7.62dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.62-6)”.
4. For U-NII-3: The directional gain = 7.53dBi > 6dBi, so the power limit shall be reduced to 30-(7.53-6) = 28.47dBm.

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
144	5720	62.182	17.94
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
144	5720	14.54	15.26	17.54	17.00	168.892	22.28

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.89	21.57	21.78	21.80
60	5300	21.86	21.68	21.53	21.82
64	5320	21.88	21.77	21.59	21.69
100	5500	21.87	21.72	21.57	21.73
116	5580	21.98	21.77	21.72	21.85
140	5700	21.84	21.72	21.69	21.76
144 (U-NII-2C Band)	5720	15.92	15.76	15.75	15.88

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.57	24.33 > 24
60	5300	21.53	24.33 > 24
64	5320	21.59	24.34 > 24
100	5500	21.57	24.33 > 24
116	5580	21.72	24.36 > 24
140	5700	21.69	24.36 > 24
144 (U-NII-2C Band)	5720	15.75	22.97 < 24

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	19.82	20.44	21.28	20.70	458.368	26.61	28.85	Pass
46	5230	23.46	22.51	22.47	22.13	739.967	28.69	28.85	Pass
54	5270	16.29	16.27	16.83	16.59	178.723	22.52	22.63	Pass
62	5310	16.71	16.03	16.77	16.20	176.189	22.46	22.63	Pass
102	5510	16.58	14.63	17.14	16.30	168.958	22.28	22.38	Pass
110	5550	16.69	14.22	17.40	15.96	167.49	22.24	22.38	Pass
134	5670	15.85	15.30	17.07	16.36	166.527	22.21	22.38	Pass
*142 (U-NII-2C Band)	5710	10.33	10.87	10.12	12.65	53.326	17.27	22.38	Pass
*142 (U-NII-3 Band)	5710	-0.09	0.69	-0.02	2.13	4.931	6.93	28.47	Pass
151	5755	22.22	21.76	22.26	23.01	684.946	28.36	28.47	Pass
159	5795	21.87	21.76	22.47	22.75	668.752	28.25	28.47	Pass

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

1. For U-NII-1: The directional gain = 7.15dBi > 6dBi, so the power limit shall be reduced to 30-(7.15-6) = 28.85dBm.
2. For U-NII-2A: The directional gain = 7.37dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.37-6)”.
3. For U-NII-2C: The directional gain = 7.62dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.62-6)”.
4. For U-NII-3: The directional gain = 7.53dBi > 6dBi, so the power limit shall be reduced to 30-(7.53-6) = 28.47dBm.

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
142	5710	58.257	17.65
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
142	5710	14.84	15.18	17.08	17.15	166.37	22.21

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	41.86	41.10	41.43	41.30
62	5310	41.72	41.28	41.43	41.08
102	5510	41.58	41.41	41.55	41.00
110	5550	41.47	41.45	41.57	41.14
134	5670	41.62	41.50	41.52	41.12
142 (U-NII-2C Band)	5710	35.93	35.57	35.69	35.51

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.10	27.13 > 24
62	5310	41.08	27.13 > 24
102	5510	41.00	27.12 > 24
110	5550	41.14	27.14 > 24
134	5670	41.12	27.14 > 24
142 (U-NII-2C Band)	5710	35.51	26.5 > 24

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	20.99	20.70	20.92	21.54	509.249	27.07	28.85	Pass
58	5290	16.25	16.33	17.00	16.36	178.494	22.52	22.63	Pass
106	5530	16.06	14.20	17.62	16.30	167.136	22.23	22.38	Pass
122	5610	16.53	14.48	17.43	15.94	167.631	22.24	22.38	Pass
*138 (U-NII-2C Band)	5690	11.19	10.61	12.51	12.43	63.902	18.06	22.38	Pass
*138 (U-NII-3 Band)	5690	-3.60	-3.32	-1.22	-1.84	2.4629	3.91	28.47	Pass
155	5775	21.14	21.58	24.03	21.47	667.108	28.24	28.47	Pass

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

1. For U-NII-1: The directional gain = 7.15dBi > 6dBi, so the power limit shall be reduced to 30-(7.15-6) = 28.85dBm.
2. For U-NII-2A: The directional gain = 7.37dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.37-6)”.
3. For U-NII-2C: The directional gain = 7.62dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.62-6)”.
4. For U-NII-3: The directional gain = 7.53dBi > 6dBi, so the power limit shall be reduced to 30-(7.53-6) = 28.47dBm.

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
138	5690	66.3649	18.22
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
138	5690	15.63	15.26	16.90	16.82	167.195	22.23

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	82.48	82.16	82.16	82.40
106	5530	82.75	82.32	81.86	82.38
122	5610	82.66	82.09	82.13	82.85
138 (U-NII-2C Band)	5690	76.44	76.01	75.92	76.10

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.16	30.14 > 24
106	5530	81.86	30.13 > 24
122	5610	82.09	30.14 > 24
138 (U-NII-2C Band)	5690	75.92	29.8 > 24

802.11ac (VHT160)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
*50 (U-NII-1 Band)	5250	10.55	8.83	10.55	10.75	47.27	16.75	28.85	Pass
*50 (U-NII-2A Band)	5250	10.95	9.41	10.18	10.89	49.116	16.91	22.63	Pass
114	5570	16.42	14.74	17.10	16.53	169.902	22.30	22.38	Pass

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

1. For U-NII-1: The directional gain = 7.15dBi > 6dBi, so the power limit shall be reduced to 30-(7.15-6) = 28.85dBm.
2. For U-NII-2A: The directional gain = 7.37dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.37-6)”.
3. For U-NII-2C: The directional gain = 7.62dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.62-6)”.

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
50	5250	96.386	19.84
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
50	5250	16.36	16.14	16.31	16.21	168.905	22.28

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50 (U-NII-2A Band)	5250	163.38	164.76	163.33	163.15
114	5570	163.76	165.04	162.67	163.04

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50 (U-NII-2A Band)	5250	163.15	33.12 > 24
114	5570	162.67	33.11 > 24

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	22.81	21.13	21.89	21.76	625.196	27.96	28.85	Pass
40	5200	23.71	22.41	22.46	22.19	750.919	28.76	28.85	Pass
48	5240	23.82	22.53	21.92	22.53	754.71	28.78	28.85	Pass
52	5260	17.02	16.12	16.60	16.16	178.29	22.51	22.63	Pass
60	5300	16.52	16.39	16.63	16.72	181.441	22.59	22.63	Pass
64	5320	16.53	15.88	16.99	16.52	178.582	22.52	22.63	Pass
100	5500	16.29	14.96	17.47	16.27	172.104	22.36	22.38	Pass
116	5580	16.39	14.43	17.62	16.03	169.181	22.28	22.38	Pass
140	5700	15.09	15.06	17.06	17.29	168.744	22.27	22.38	Pass
*144 (U-NII-2C Band)	5720	9.15	9.16	12.33	11.81	49.85	16.98	21.35	Pass
*144 (U-NII-3 Band)	5720	3.87	3.97	7.26	6.48	15.037	11.77	28.47	Pass
149	5745	22.34	21.80	22.38	22.85	688.486	28.38	28.47	Pass
157	5785	21.96	22.30	22.65	22.54	690.41	28.39	28.47	Pass
165	5825	21.73	22.57	22.45	22.45	681.237	28.33	28.47	Pass

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

1. For U-NII-1: The directional gain = 7.15dBi > 6dBi, so the power limit shall be reduced to 30-(7.15-6) = 28.85dBm.
2. For U-NII-2A: The directional gain = 7.37dBi > 6dBi, so the power limit shall be reduced to "Determined Conducted Limit- (7.37-6)".
3. For U-NII-2C: The directional gain = 7.62dBi > 6dBi, so the power limit shall be reduced to "Determined Conducted Limit- (7.62-6)".
4. For U-NII-3: The directional gain = 7.53dBi > 6dBi, so the power limit shall be reduced to 30-(7.53-6) = 28.47dBm.

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
144	5720	64.887	18.12
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
144	5720	14.69	15.26	17.67	17.03	171.963	22.35

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.78	21.68	22.00	21.83
60	5300	21.87	21.46	21.86	21.71
64	5320	21.76	21.58	21.81	21.87
100	5500	21.67	21.88	21.78	21.80
116	5580	21.78	21.84	21.88	21.87
140	5700	21.87	21.78	21.85	21.90
144 (U-NII-2C Band)	5720	15.95	15.82	15.75	15.83

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.68	24.36 > 24
60	5300	21.46	24.31 > 24
64	5320	21.58	24.34 > 24
100	5500	21.67	24.35 > 24
116	5580	21.78	24.38 > 24
140	5700	21.78	24.38 > 24
144 (U-NII-2C Band)	5720	15.75	22.97 < 24

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	19.84	20.53	21.37	20.72	464.483	26.67	28.85	Pass
46	5230	23.57	22.64	22.56	22.23	758.575	28.80	28.85	Pass
54	5270	16.42	16.28	16.92	16.65	181.757	22.59	22.63	Pass
62	5310	16.84	16.09	16.89	16.21	179.598	22.54	22.63	Pass
102	5510	16.61	14.69	17.27	16.35	171.743	22.35	22.38	Pass
110	5550	16.71	14.35	17.49	16.09	170.857	22.33	22.38	Pass
134	5670	15.94	15.39	17.11	16.41	169.014	22.28	22.38	Pass
*142 (U-NII-2C Band)	5710	10.44	10.70	12.83	12.53	62.55	17.96	22.38	Pass
*142 (U-NII-3 Band)	5710	0.43	1.15	3.32	2.57	6.643	8.22	28.47	Pass
151	5755	22.31	21.89	22.34	23.01	696.123	28.43	28.47	Pass
159	5795	21.99	21.86	22.51	22.89	684.361	28.35	28.47	Pass

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

1. For U-NII-1: The directional gain = 7.15dBi > 6dBi, so the power limit shall be reduced to 30-(7.15-6) = 28.85dBm.
2. For U-NII-2A: The directional gain = 7.37dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.37-6)”.
3. For U-NII-2C: The directional gain = 7.62dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.62-6)”.
4. For U-NII-3: The directional gain = 7.53dBi > 6dBi, so the power limit shall be reduced to 30-(7.53-6) = 28.47dBm.

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
142	5710	69.193	18.4
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
142	5710	14.92	15.26	17.19	17.29	170.56	22.32

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	41.32	41.78	41.63	41.84
62	5310	41.65	41.71	41.48	41.71
102	5510	41.50	41.68	41.48	41.60
110	5550	41.40	41.70	41.47	41.41
134	5670	41.45	41.73	41.33	41.52
142 (U-NII-2C Band)	5710	35.64	35.84	35.80	35.78

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.32	27.16 > 24
62	5310	41.48	27.17 > 24
102	5510	41.48	27.17 > 24
110	5550	41.40	27.17 > 24
134	5670	41.33	27.16 > 24
142 (U-NII-2C Band)	5710	35.64	26.51 > 24

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	21.00	20.77	20.95	21.57	513.292	27.10	28.85	Pass
58	5290	16.31	16.36	17.12	16.44	181.585	22.59	22.63	Pass
106	5530	16.13	14.32	17.72	16.44	171.271	22.34	22.38	Pass
122	5610	16.62	14.49	17.56	16.01	170.957	22.33	22.38	Pass
*138 (U-NII-2C Band)	5690	11.27	10.88	12.43	12.55	66.02	18.20	22.38	Pass
*138 (U-NII-3 Band)	5690	-2.87	-2.48	-0.67	-1.18	2.9164	4.65	28.47	Pass
155	5775	21.27	21.64	24.11	21.53	679.714	28.32	28.47	Pass

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

1. For U-NII-1: The directional gain = 7.15dBi > 6dBi, so the power limit shall be reduced to 30-(7.15-6) = 28.85dBm.
2. For U-NII-2A: The directional gain = 7.37dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.37-6)”.
3. For U-NII-2C: The directional gain = 7.62dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.62-6)”.
4. For U-NII-3: The directional gain = 7.53dBi > 6dBi, so the power limit shall be reduced to 30-(7.53-6) = 28.47dBm.

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
138	5690	68.9364	18.38
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
138	5690	15.63	15.31	16.96	16.89	169.046	22.28

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	83.20	82.91	82.59	82.46
106	5530	81.98	82.55	82.53	82.46
122	5610	82.27	82.26	82.57	82.46
138 (U-NII-2C Band)	5690	76.02	76.35	76.09	76.16

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

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.46	30.16 > 24
106	5530	81.98	30.13 > 24
122	5610	82.26	30.15 > 24
138 (U-NII-2C Band)	5690	76.02	29.8 > 24

802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
*50 (U-NII-1 Band)	5250	10.11	8.80	11.22	10.93	49.096	16.91	28.85	Pass
*50 (U-NII-2A Band)	5250	10.34	9.36	10.85	11.15	50.41	17.03	22.63	Pass
114	5570	16.43	14.79	17.21	16.63	172.712	22.37	22.38	Pass

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

1. For U-NII-1: The directional gain = 7.15dBi > 6dBi, so the power limit shall be reduced to 30-(7.15-6) = 28.85dBm.
2. For U-NII-2A: The directional gain = 7.37dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.37-6)”.
3. For U-NII-2C: The directional gain = 7.62dBi > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit- (7.62-6)”.

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
50	5250	99.506	19.98
Note: The total power was calculated through formula and record the value for reference only.			

For Reference only – Power meter value

The power value was measured by power meter with average sensor.

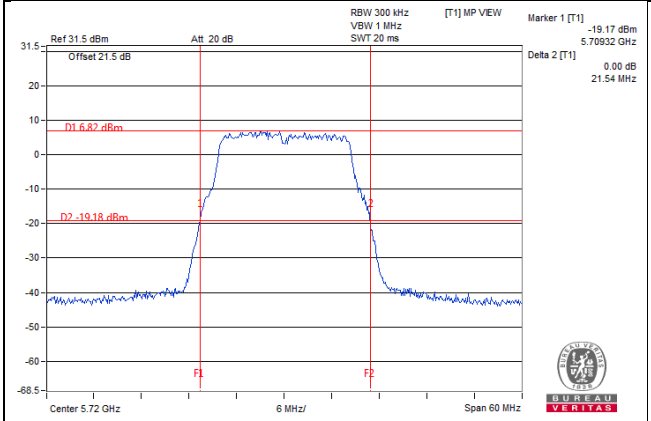
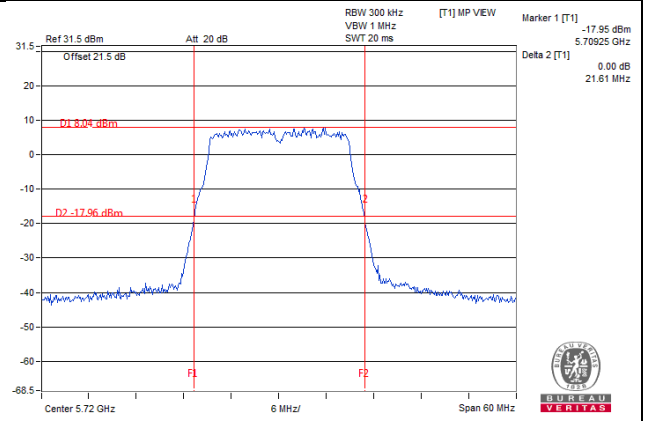
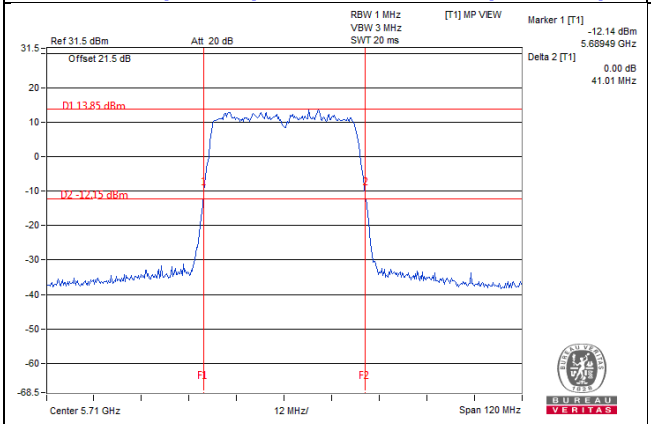
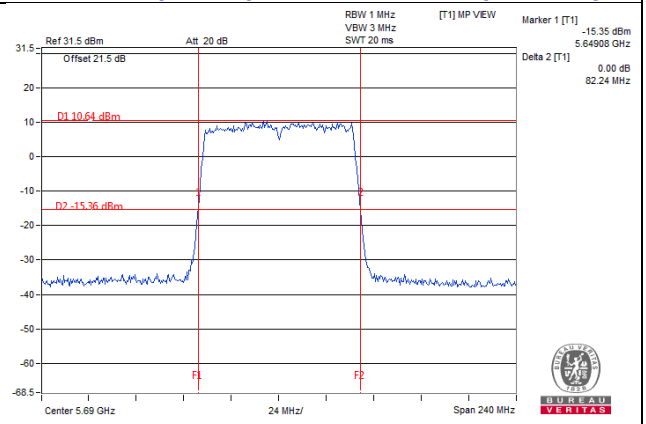
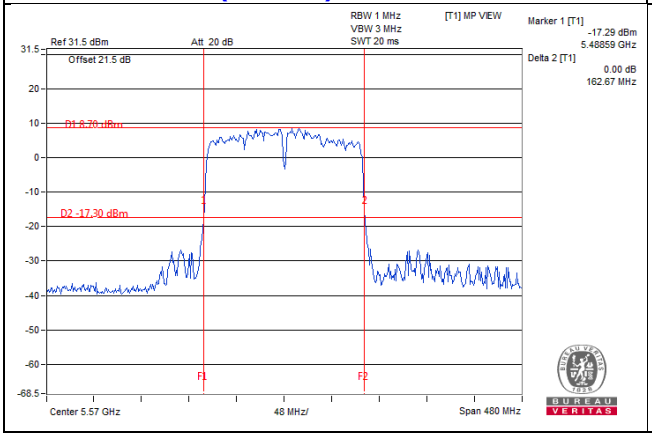
Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3		
50	5250	16.42	16.16	16.45	16.33	172.269	22.36

26dB OCCUPIED BANDWIDTH

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50 (U-NII-2A Band)	5250	163.73	163.49	164.35	163.60
114	5570	163.29	164.07	163.58	163.34

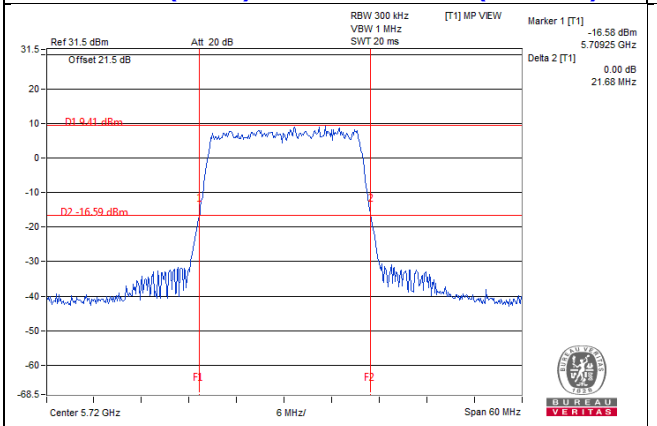
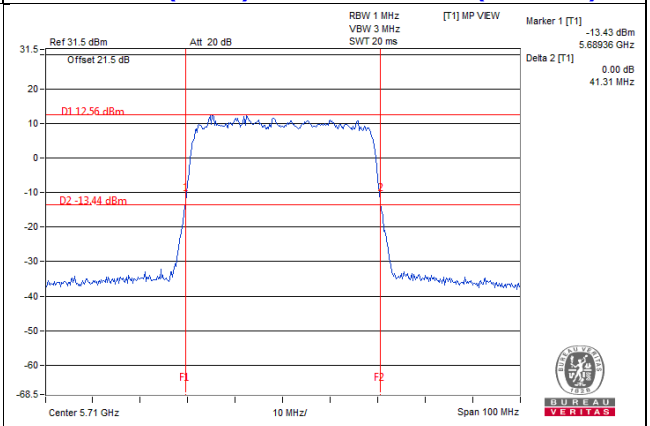
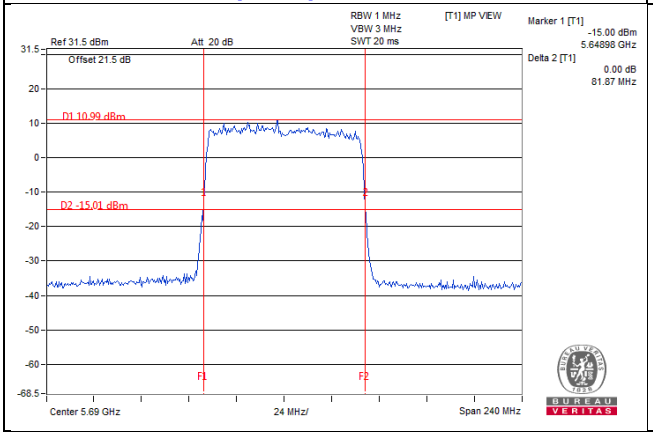
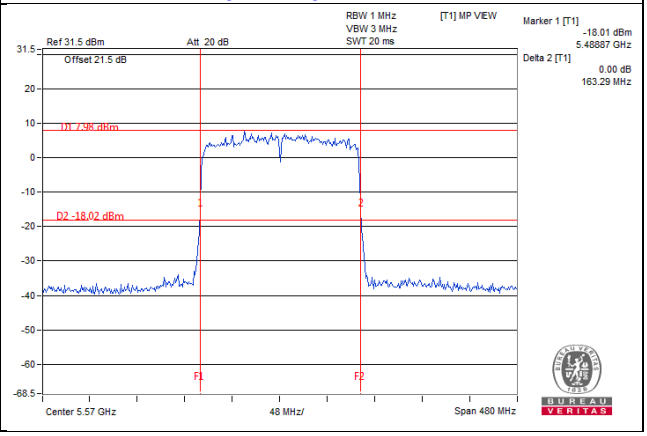
Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB <U-NII-2A, U-NII-2C>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50 (U-NII-2A Band)	5250	163.49	33.13 > 24
114	5570	163.29	33.12 > 24

Spectrum Plot of Worst Value	
802.11a_Chain 3 / CH144 (U-NII-2C)	**802.11ac (VHT20)_Chain 2 / CH144 (U-NII-2C)**
	
802.11ac (VHT40)_Chain 3 / CH142 (U-NII-2C)	**802.11ac (VHT80)_Chain 2 / CH138 (U-NII-2C)**
	
802.11ac (VHT160)_Chain 2 / CH114	
	

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

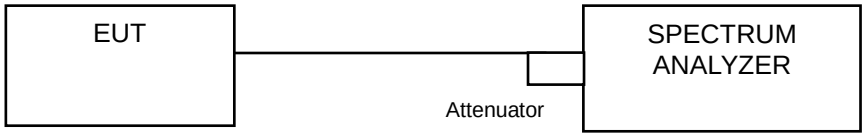
Spectrum Plot of Worst Value	
802.11ax (HE20)_Chain 2 / CH144 (U-NII-2C)	**802.11ax (HE40)_Chain 0 / CH142 (U-NII-2C)**
	
802.11ax (HE80)_Chain 0 / CH138	**802.11ax (HE160)_Chain 0 / CH114**
	

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

802.11a

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	16.92	16.92	16.92	16.92
40	5200	16.92	16.80	16.92	16.92
48	5240	17.04	16.92	16.92	16.92
52	5260	16.80	17.04	16.92	16.80
60	5300	16.92	16.68	16.80	16.80
64	5320	16.92	16.92	16.92	16.92
100	5500	16.92	16.92	16.92	16.80
116	5580	16.92	16.92	16.92	16.80
140	5700	16.92	17.04	16.92	16.68
144 (U-NII-2C Band)	5720	13.40	13.52	13.40	13.40
144 (U-NII-3 Band)	5720	3.40	3.40	3.52	3.40
149	5745	17.04	17.04	16.92	16.80
157	5785	17.04	16.92	17.16	16.92
165	5825	17.04	16.92	17.16	17.04

802.11ax (HE20)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	19.20	19.20	19.20	19.20
40	5200	19.08	19.08	19.20	19.08
48	5240	19.08	19.08	19.08	19.20
52	5260	19.08	19.20	19.08	19.08
60	5300	19.08	19.08	19.08	18.96
64	5320	19.08	19.08	19.20	19.20
100	5500	19.08	18.96	19.08	19.20
116	5580	19.08	19.20	19.08	19.08
140	5700	19.20	19.08	18.96	19.20
144 (U-NII-2C Band)	5720	14.60	14.60	14.48	14.60
144 (U-NII-3 Band)	5720	4.48	4.60	4.48	4.48
149	5745	19.08	19.20	19.08	19.20
157	5785	19.08	19.20	19.20	19.08
165	5825	19.20	19.20	19.32	19.20

802.11ax (HE40)

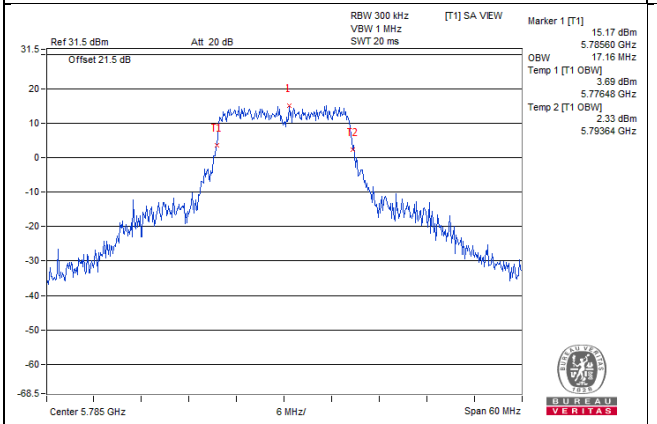
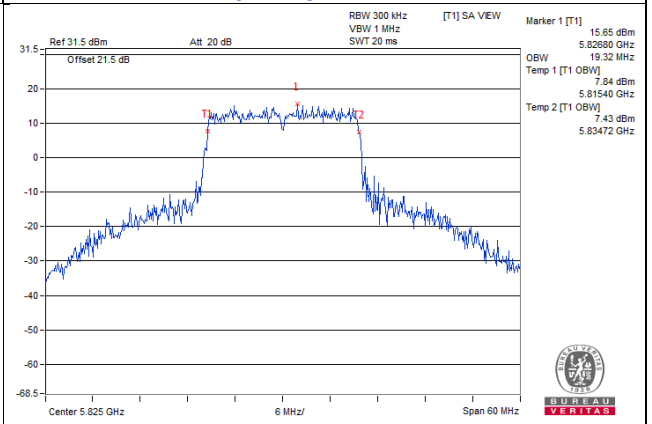
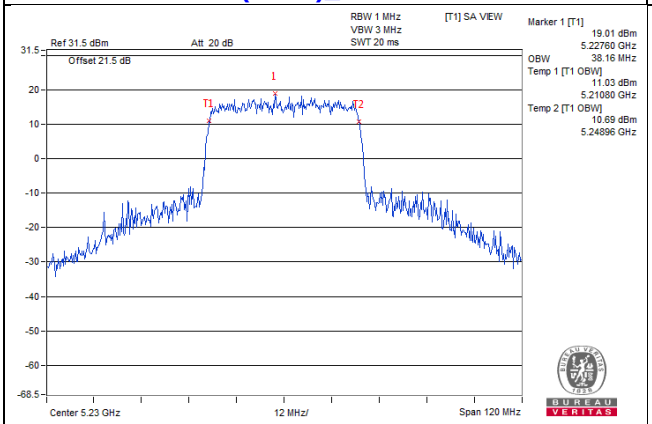
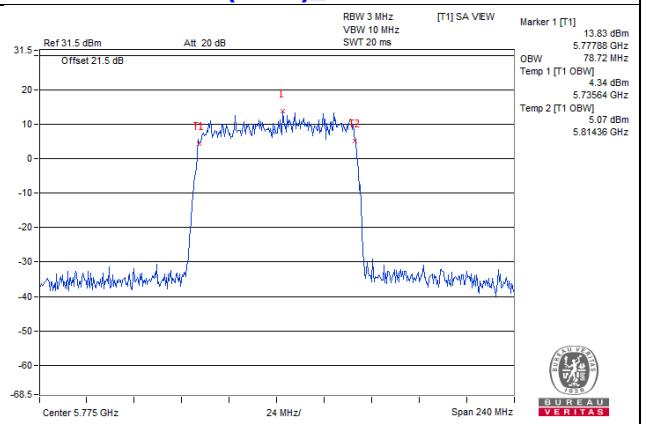
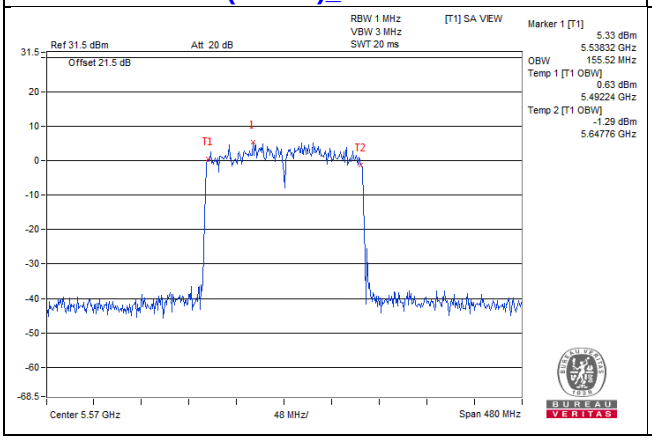
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	37.92	37.92	37.68	37.92
46	5230	38.16	37.68	37.92	37.92
54	5270	38.16	37.92	37.92	37.68
62	5310	37.92	38.16	37.92	37.92
102	5510	37.92	37.68	37.92	37.92
110	5550	37.92	37.68	37.92	37.68
134	5670	37.92	37.92	37.92	37.92
142 (U-NII-2C Band)	5710	34.00	34.00	34.00	34.00
142 (U-NII-3 Band)	5710	3.80	4.00	4.00	3.80
151	5755	37.92	37.92	37.92	38.16
159	5795	37.92	38.16	37.92	37.92

802.11ax (HE80)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	76.80	77.28	77.28	77.28
58	5290	77.28	77.28	77.28	77.28
106	5530	76.80	77.28	76.80	77.28
122	5610	77.76	76.80	77.28	77.28
138 (U-NII-2C Band)	5690	73.88	73.88	73.88	73.88
138 (U-NII-3 Band)	5690	3.40	3.40	3.40	3.40
155	5775	78.72	78.24	78.72	78.24

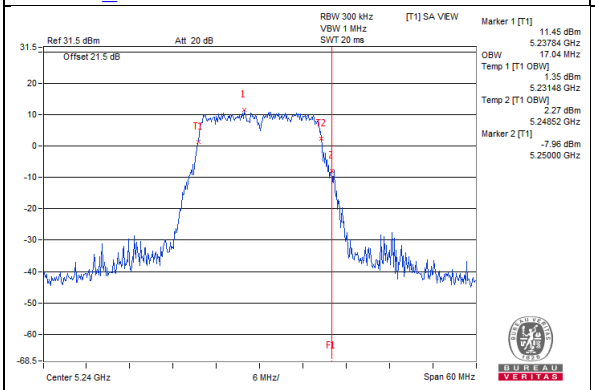
802.11ax (HE160)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50 (U-NII-1 Band)	5250	155.52	154.56	154.56	155.52
50 (U-NII-2A Band)	5250	155.52	154.56	154.56	155.52
114	5570	155.52	155.52	154.56	154.56

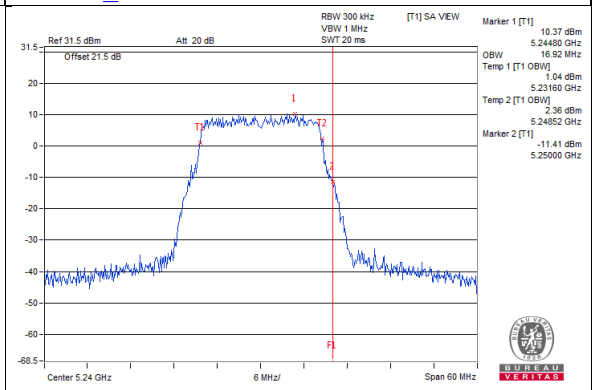
Spectrum Plot of Max. Value	
802.11a_Chain 2 / CH157	**802.11ax (HE20)_Chain 2 / CH165**
	
802.11ax (HE40)_Chain 0 / CH46	**802.11ax (HE80)_Chain 0 / CH155**
	
802.11ax (HE160)_Chain 0 / CH114	
	

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

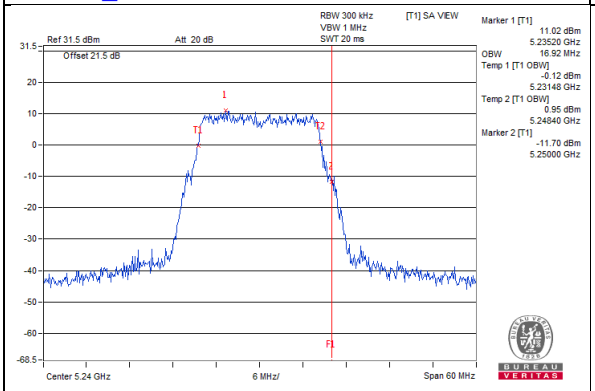
802.11a_Chain 0 / CH48



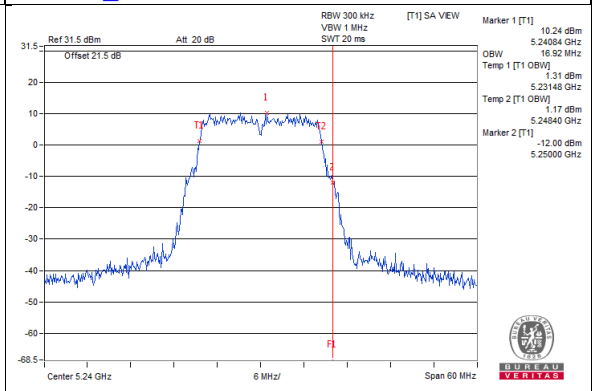
802.11a_Chain 1 / CH48



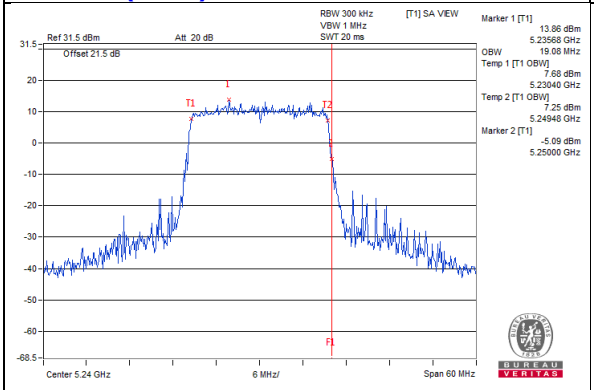
802.11a_Chain 2 / CH48



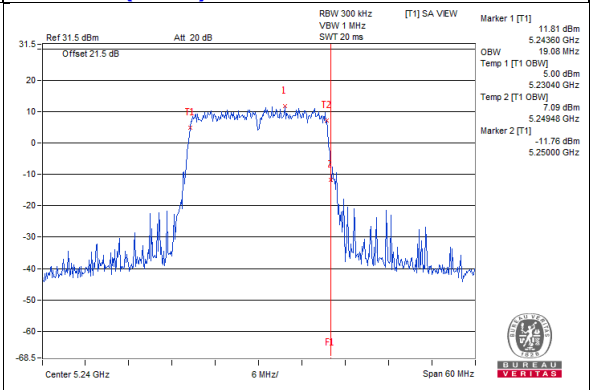
802.11a_Chain 3 / CH48



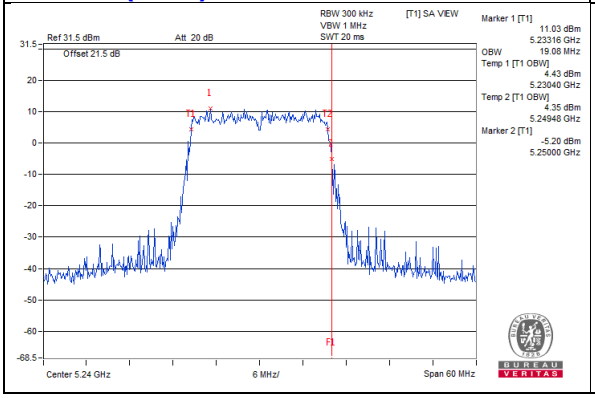
802.11ax (HE20)_Chain 0 / CH48



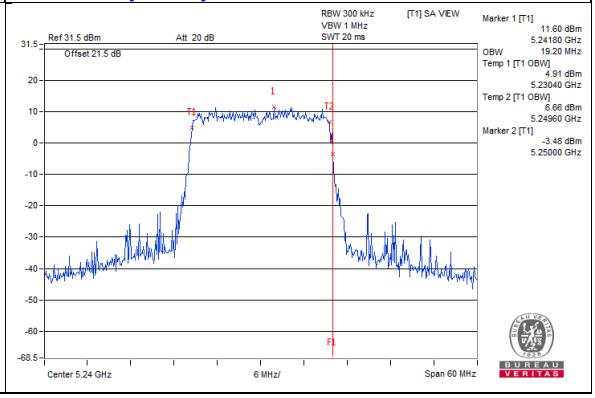
802.11ax (HE20)_Chain 1 / CH48



802.11ax (HE20)_Chain 2 / CH48

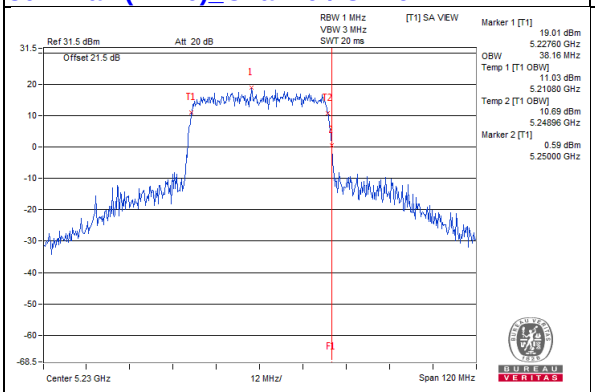


802.11ax (HE20)_Chain 3 / CH48

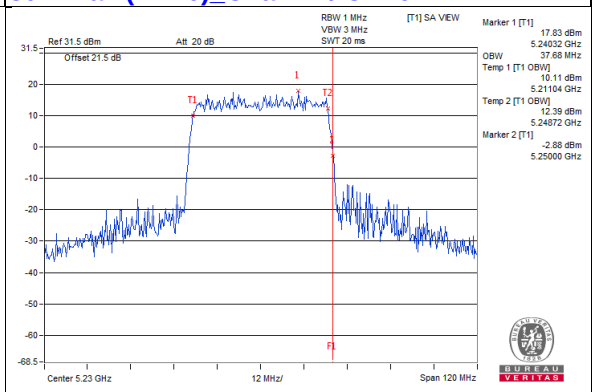


Spectrum Plot for near by DFS band
(DFS is required, if 99% OCP straddle into U-NII-2A band)

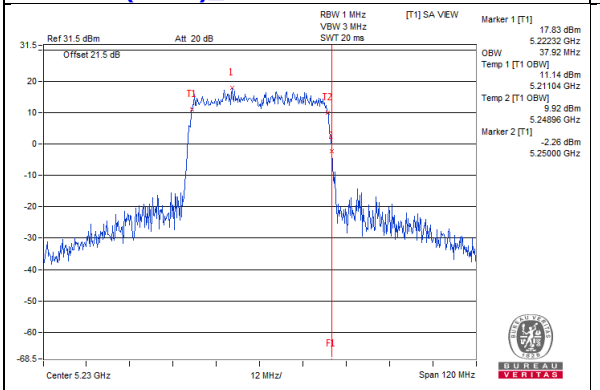
802.11ax (HE40)_Chain 0 / CH46



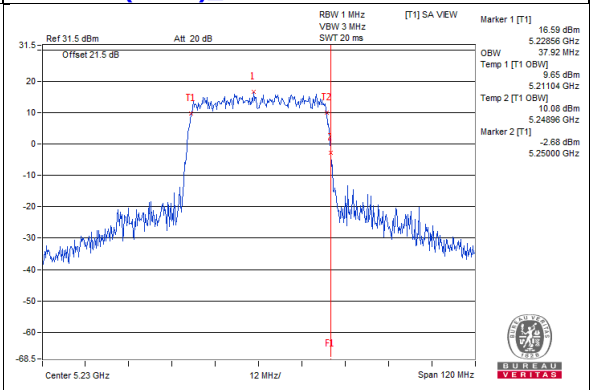
802.11ax (HE40)_Chain 1 / CH46



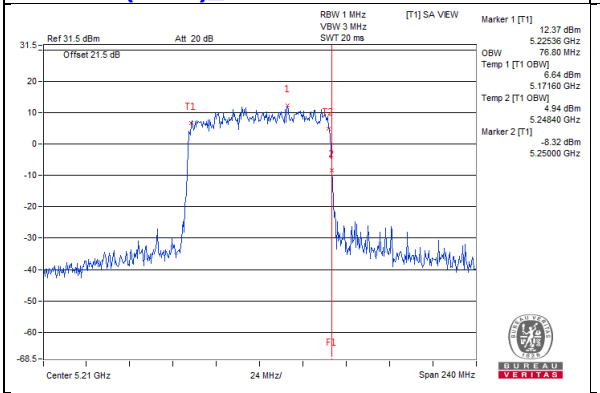
802.11ax (HE40)_Chain 2 / CH46



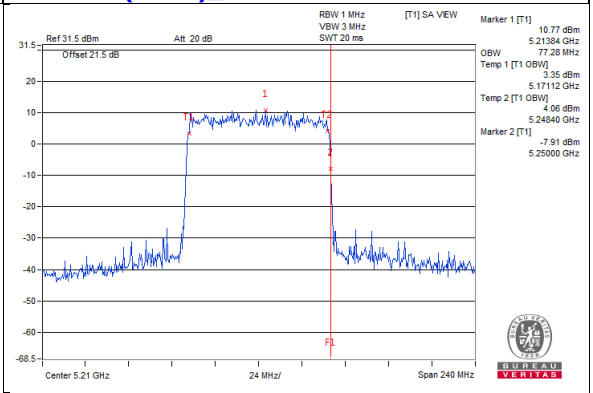
802.11ax (HE40)_Chain 3 / CH46



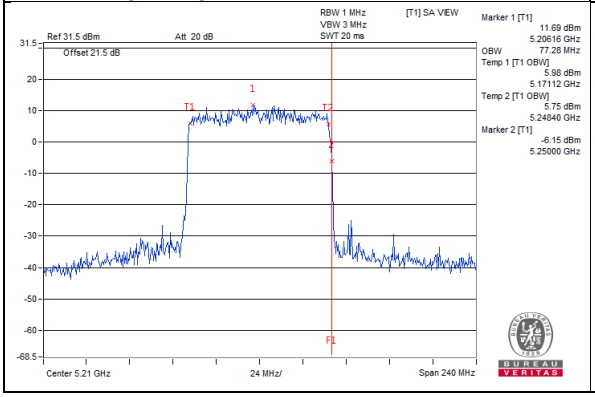
802.11ax (HE80)_Chain 0 / CH42



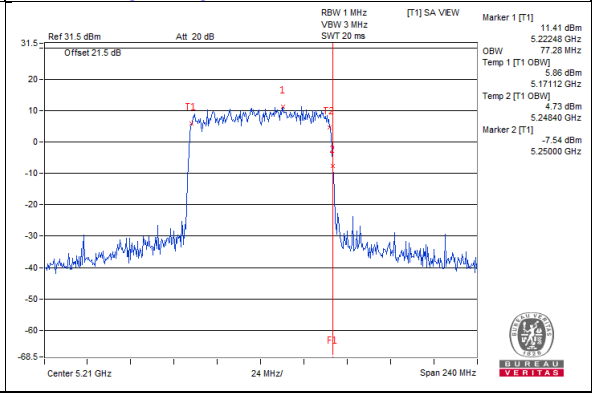
802.11ax (HE80)_Chain 1 / CH42



802.11ax (HE80)_Chain 2 / CH42

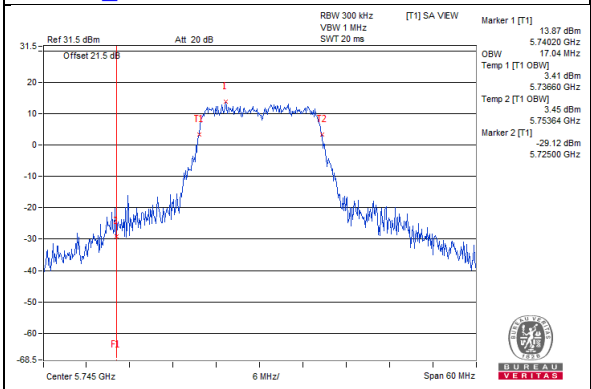


802.11ax (HE80)_Chain 3 / CH42

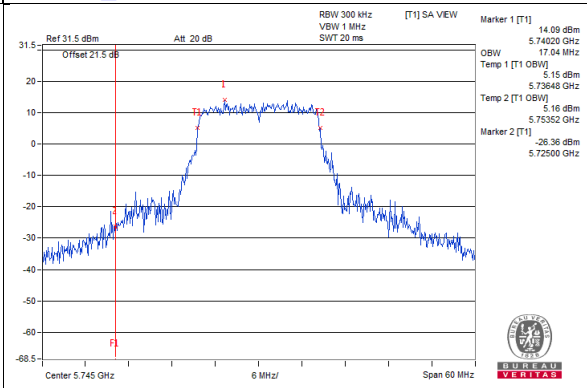


Spectrum Plot for near by DFS band
(DFS is required, if 99% OCP straddle into U-NII-2C band)

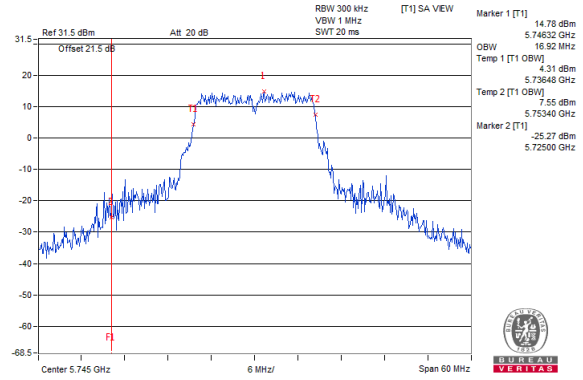
802.11a_Chain 0 / CH149



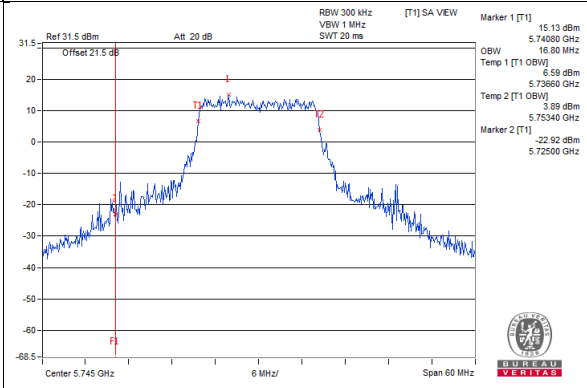
802.11a_Chain 1 / CH149



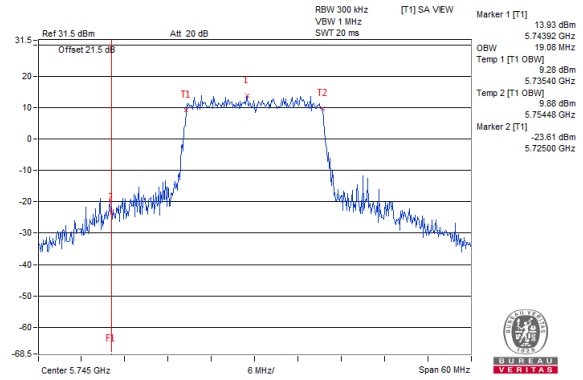
802.11a_Chain 2 / CH149



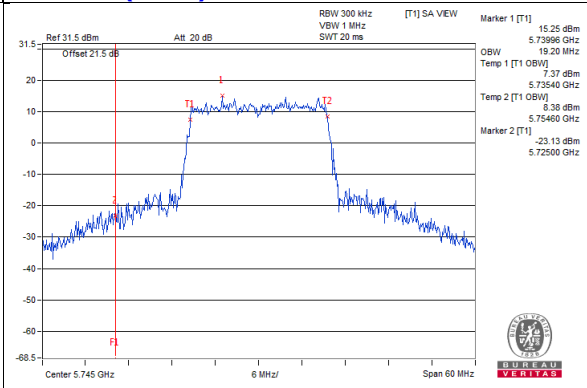
802.11a_Chain 3 / CH149



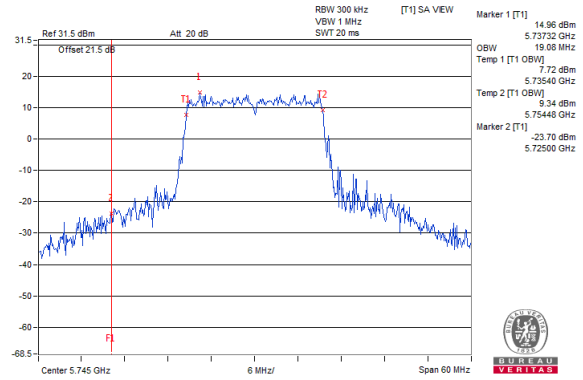
802.11ax (HE20)_Chain 0 / CH149



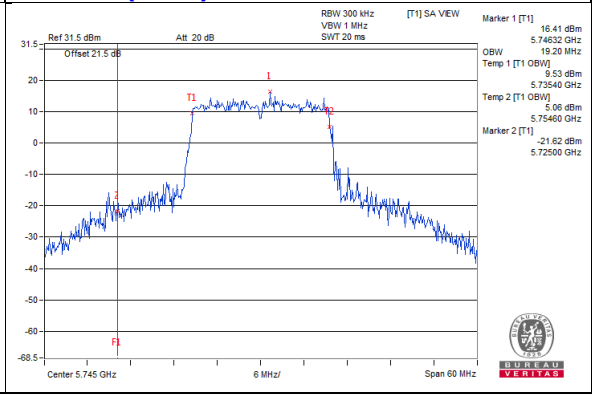
802.11ax (HE20)_Chain 1 / CH149



802.11ax (HE20)_Chain 2 / CH149

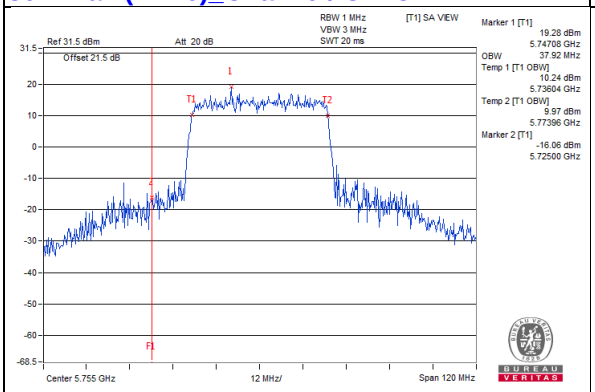


802.11ax (HE20)_Chain 3 / CH149

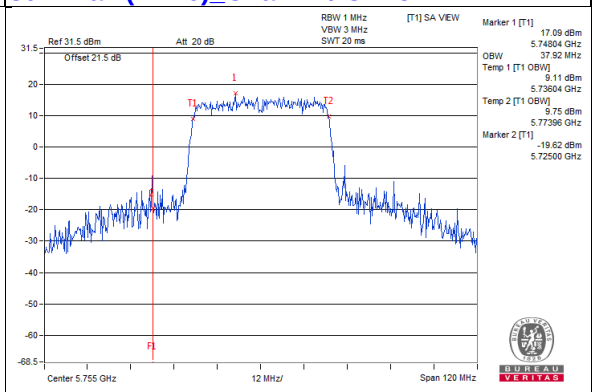


Spectrum Plot for near by DFS band
(DFS is required, if 99% OCP straddle into U-NII-2C band)

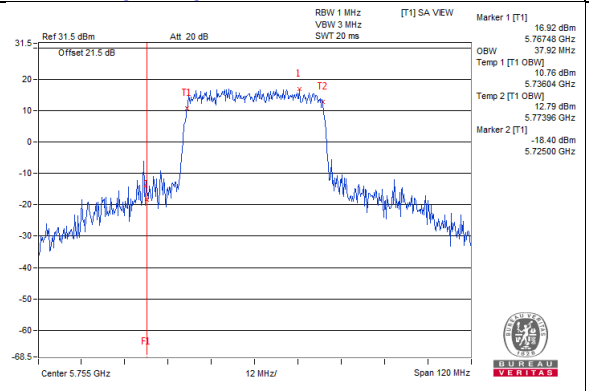
802.11ax (HE40)_Chain 0 / CH151



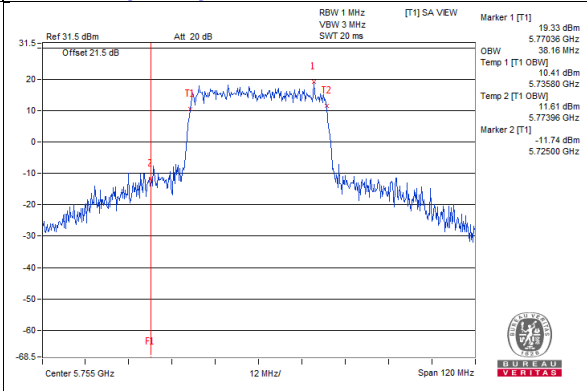
802.11ax (HE40)_Chain 1 / CH151



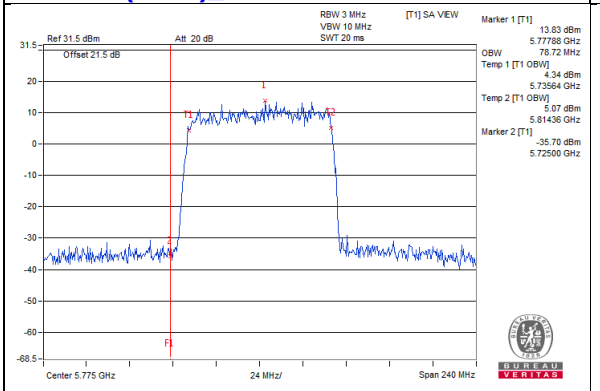
802.11ax (HE40)_Chain 2 / CH151



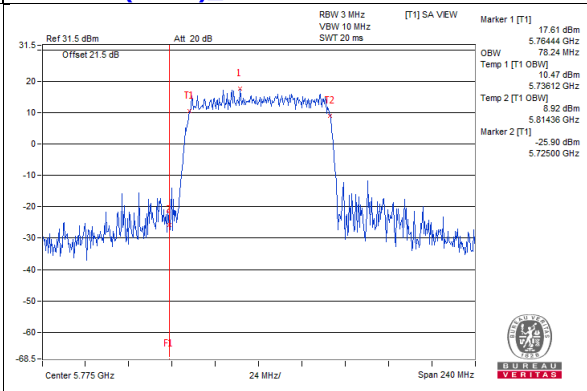
802.11ax (HE40)_Chain 3 / CH151



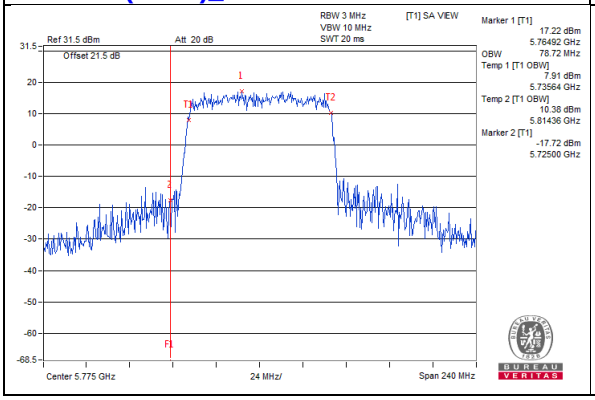
802.11ax (HE80)_Chain 0 / CH155



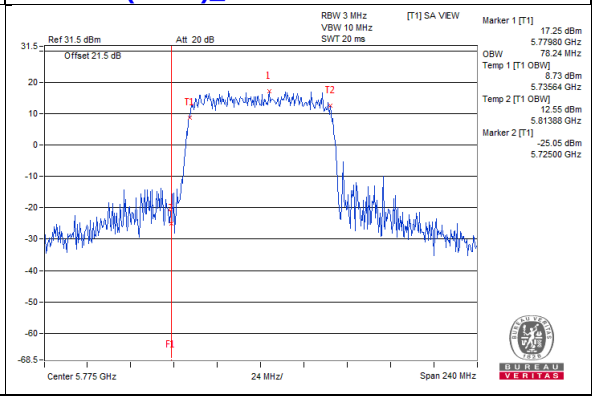
802.11ax (HE80)_Chain 1 / CH155



802.11ax (HE80)_Chain 2 / CH155



802.11ax (HE80)_Chain 3 / CH155

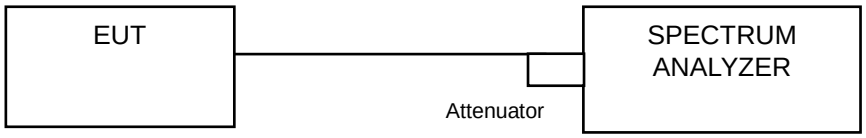


4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

For 802.11a:

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

Using method SA-1

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

For U-NII-3:

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

For other modulation:

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:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
4. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/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:

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)				Total Power Density (dBm/MHz)	MAX. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
36	5180	9.79	8.62	8.06	8.17	14.74	15.85	Pass
40	5200	9.76	8.28	8.19	7.96	14.63	15.85	Pass
48	5240	10.04	8.24	8.38	8.38	14.85	15.85	Pass
52	5260	2.64	2.04	2.95	1.78	8.40	9.63	Pass
60	5300	3.01	1.67	2.77	2.90	8.64	9.63	Pass
64	5320	2.18	2.17	3.01	2.46	8.49	9.63	Pass
100	5500	2.18	1.02	3.16	2.14	8.21	9.38	Pass
116	5580	2.44	-0.03	3.15	2.40	8.16	9.38	Pass
140	5700	0.72	0.80	3.53	3.00	8.22	9.38	Pass
144 (U-NII-2C Band)	5720	-0.95	0.27	1.58	1.35	6.69	9.38	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-1: The directional gain = 7.15dBi > 6dBi, so the power density limit shall be reduced to 17-(7.15-6) = 15.85dBm.
3. For U-NII-2A: The directional gain = 7.37dBi > 6dBi, so the power density limit shall be reduced to 11-(7.37-6) = 9.63dBm.
4. For U-NII-2C: The directional gain = 7.62dBi > 6dBi, so the power density limit shall be reduced to 11-(7.62-6) = 9.38dBm.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	8.26	6.36	7.08	6.94	0.10	13.34	15.85	Pass
40	5200	9.10	7.51	7.53	7.57	0.10	14.10	15.85	Pass
48	5240	8.98	7.94	7.17	7.55	0.10	14.08	15.85	Pass
52	5260	2.11	1.22	2.64	1.39	0.10	8.00	9.63	Pass
60	5300	1.48	1.53	1.83	1.85	0.10	7.80	9.63	Pass
64	5320	1.65	1.28	2.01	1.77	0.10	7.81	9.63	Pass
100	5500	1.35	-0.10	2.78	1.74	0.10	7.68	9.38	Pass
116	5580	1.29	-0.21	2.95	1.26	0.10	7.59	9.38	Pass
140	5700	0.06	0.00	2.31	2.42	0.10	7.47	9.38	Pass
144 (U-NII-2C Band)	5720	-1.70	-0.92	1.59	1.02	0.10	6.32	9.38	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-1: The directional gain = 7.15dBi > 6dBi, so the power density limit shall be reduced to 17-(7.15-6) = 15.85dBm.
3. For U-NII-2A: The directional gain = 7.37dBi > 6dBi, so the power density limit shall be reduced to 11-(7.37-6) = 9.63dBm.
4. For U-NII-2C: The directional gain = 7.62dBi > 6dBi, so the power density limit shall be reduced to 11-(7.62-6) = 9.38dBm.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	2.15	2.72	3.82	3.22	0.19	9.23	15.85	Pass
46	5230	6.94	6.05	6.10	5.38	0.19	12.36	15.85	Pass
54	5270	0.28	-0.12	0.59	0.27	0.19	6.47	9.63	Pass
62	5310	1.01	-0.11	0.73	0.00	0.19	6.64	9.63	Pass
102	5510	0.68	-1.75	1.38	0.01	0.19	6.44	9.38	Pass
110	5550	0.69	-1.84	1.87	-0.19	0.19	6.55	9.38	Pass
134	5670	-0.33	-0.56	0.97	0.35	0.19	6.36	9.38	Pass
142 (U-NII-2C Band)	5710	-0.96	-1.21	0.46	1.59	0.19	6.33	9.38	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-1: The directional gain = 7.15dBi > 6dBi, so the power density limit shall be reduced to 17-(7.15-6) = 15.85dBm.
3. For U-NII-2A: The directional gain = 7.37dBi > 6dBi, so the power density limit shall be reduced to 11-(7.37-6) = 9.63dBm.
4. For U-NII-2C: The directional gain = 7.62dBi > 6dBi, so the power density limit shall be reduced to 11-(7.62-6) = 9.38dBm.
5. 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 With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	1.22	0.06	0.37	1.05	0.33	7.05	15.85	Pass
58	5290	-3.08	-3.02	-2.38	-2.71	0.33	3.56	9.63	Pass
106	5530	-2.24	-4.62	-1.25	-2.39	0.33	3.89	9.38	Pass
122	5610	-2.38	-4.74	-1.11	-3.02	0.33	3.73	9.38	Pass
138 (U-NII-2C Band)	5690	-3.30	-3.49	-1.61	-1.33	0.33	4.03	9.38	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-1: The directional gain = 7.15dBi > 6dBi, so the power density limit shall be reduced to 17-(7.15-6) = 15.85dBm.
3. For U-NII-2A: The directional gain = 7.37dBi > 6dBi, so the power density limit shall be reduced to 11-(7.37-6) = 9.63dBm.
4. For U-NII-2C: The directional gain = 7.62dBi > 6dBi, so the power density limit shall be reduced to 11-(7.62-6) = 9.38dBm.
5. Refer to section 3.3 for duty cycle spectrum plot.

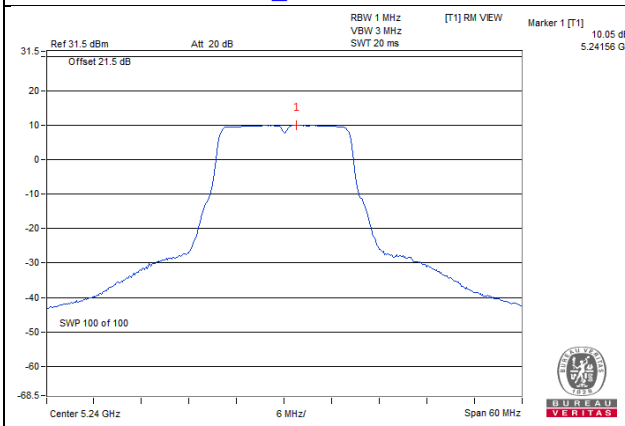
802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
50 (U-NII-1 Band)	5250	-4.90	-5.72	-4.86	-5.41	0.53	1.34	15.85	Pass
50 (U-NII-2A Band)	5250	-4.90	-5.72	-4.86	-5.41	0.53	1.34	9.63	Pass
114	5570	-5.38	-7.09	-3.18	-4.09	0.53	1.85	9.38	Pass

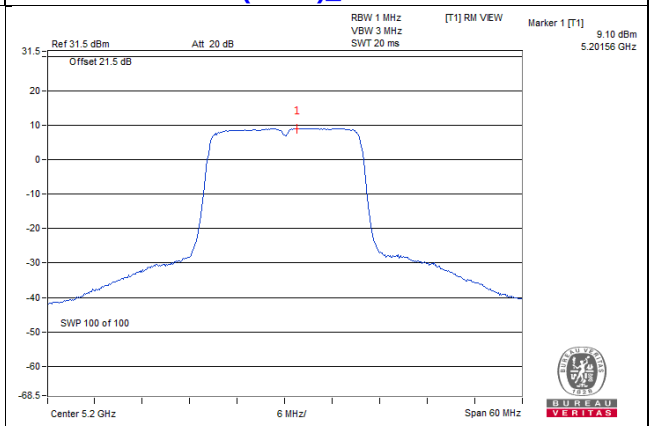
Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-1: The directional gain = 7.15dBi > 6dBi, so the power density limit shall be reduced to 17-(7.15-6) = 15.85dBm.
3. For U-NII-2A: The directional gain = 7.37dBi > 6dBi, so the power density limit shall be reduced to 11-(7.37-6) = 9.63dBm.
4. For U-NII-2C: The directional gain = 7.62dBi > 6dBi, so the power density limit shall be reduced to 11-(7.62-6) = 9.38dBm.
5. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

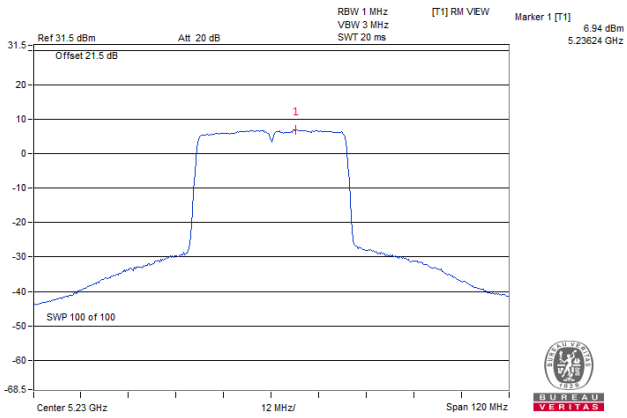
802.11a_Chain 0 / CH48



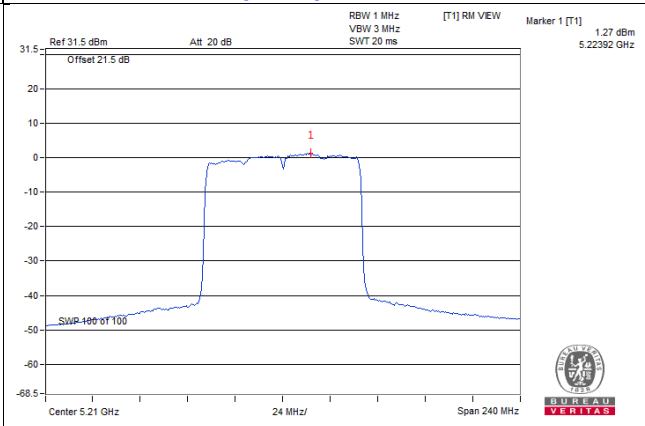
802.11ax (HE20)_Chain 0 / CH40



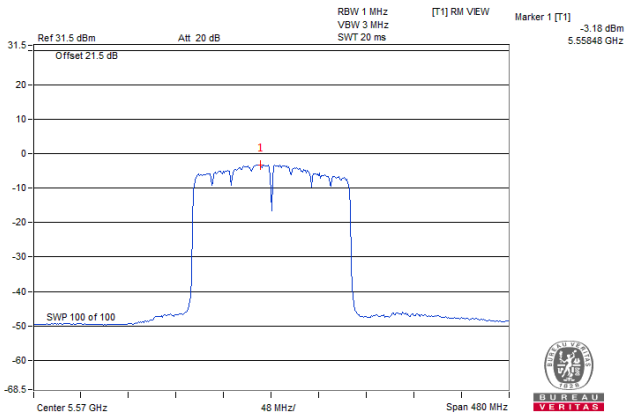
802.11ax (HE40)_Chain 0 / CH46



802.11ax (HE80)_Chain 0 / CH42



802.11ax (HE160)_Chain 2 / CH114



For U-NII-3:

802.11a

Chan.	Freq. (MHz)	PSD (dBm/300kHz)				Total PSD		Total PSD (dBm/500kHz)	Limit (dBm/ 500kHz)	Pass /Fail
		Chain 0	Chain 1	Chain 2	Chain 3	mW/ 300kHz	dBm/ 300kHz			
144 (U-NII-3 Band)	5720	-9.52	-8.04	-6.76	-7.37	0.6628	-1.79	0.43	28.47	Pass
149	5745	1.37	1.67	2.69	2.68	6.5511	8.16	10.38	28.47	Pass
157	5785	2.50	1.57	3.02	2.30	6.9165	8.40	10.62	28.47	Pass
165	5825	2.32	1.88	2.59	2.05	6.6665	8.24	10.46	28.47	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 = 7.53dBi > 6dBi, so the power density limit shall be reduced to 30-(7.53-6) = 28.47dBm.

802.11ax (HE20)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/300kHz)				Duty Factor (dB)	Total PSD With Duty Factor		Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
		Chain 0	Chain 1	Chain 2	Chain 3		mW/300 kHz	dBm/300kHz			
144 (U-NII-3 Band)	5720	-10.20	-9.87	-7.12	-7.67	0.10	0.57653	-2.39	-0.17	28.47	Pass
149	5745	0.23	0.69	1.53	1.06	0.10	5.0381	7.02	9.24	28.47	Pass
157	5785	0.80	1.01	1.81	1.26	0.10	5.4395	7.36	9.58	28.47	Pass
165	5825	0.85	1.36	1.39	0.92	0.10	5.3161	7.26	9.48	28.47	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 = 7.53dBi > 6dBi, so the power density limit shall be reduced to 30-(7.53-6) = 28.47dBm.

3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/300kHz)				Duty Factor (dB)	Total PSD With Duty Factor		Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
		Chain 0	Chain 1	Chain 2	Chain 3		mW/300 kHz	dBm/300kHz			
142 (U-NII-3 Band)	5710	-10.51	-10.49	-8.61	-7.91	0.19	0.49885	-3.02	-0.80	28.47	Pass
151	5755	-2.81	-2.85	-1.75	-1.48	0.19	2.5288	4.03	6.25	28.47	Pass
159	5795	-2.23	-2.18	-2.11	-1.50	0.19	2.6383	4.21	6.43	28.47	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 = 7.53dBi > 6dBi, so the power density limit shall be reduced to 30-(7.53-6) = 28.47dBm.

3. Refer to section 3.3 for duty cycle spectrum plot.

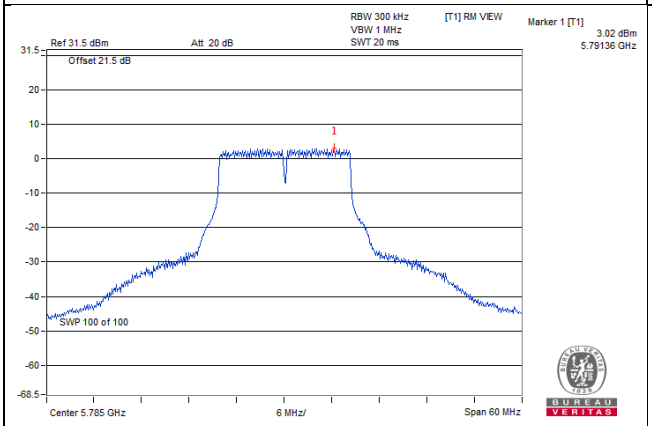
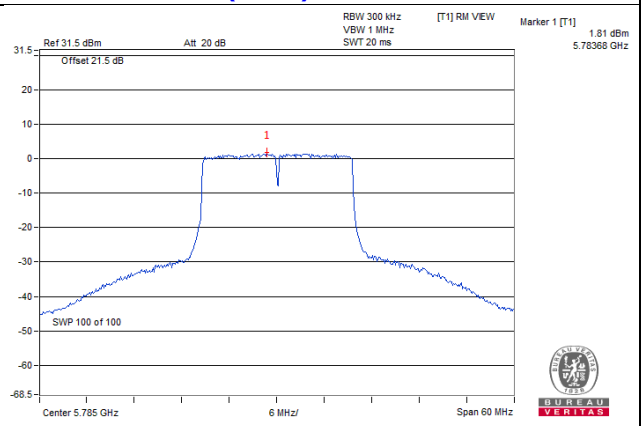
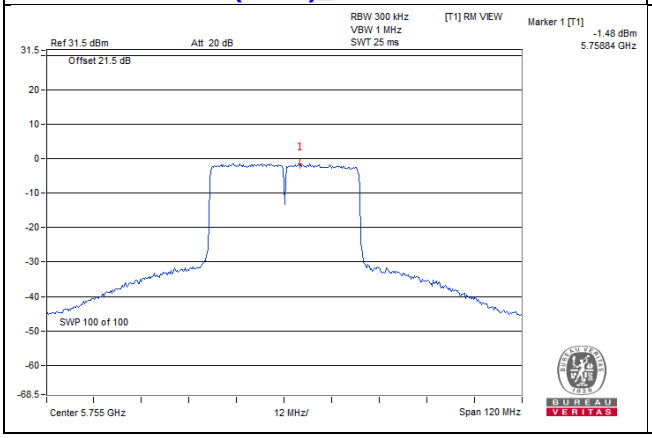
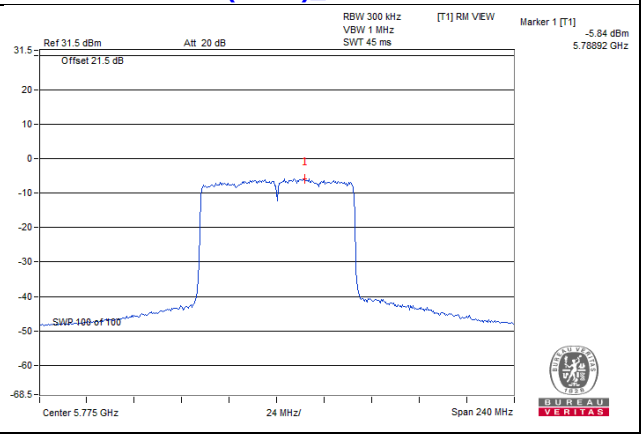
802.11ax (HE80)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/300kHz)				Duty Factor (dB)	Total PSD With Duty Factor		Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
		Chain 0	Chain 1	Chain 2	Chain 3		mW/300 kHz	dBm/300kHz			
138 (U-NII-3 Band)	5690	-13.83	-13.45	-11.24	-11.35	0.33	0.25383	-5.95	-3.73	28.47	Pass
155	5775	-10.50	-6.62	-5.84	-5.98	0.33	0.88545	-0.53	1.69	28.47	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 = 7.53dBi > 6dBi, so the power density limit shall be reduced to 30-(7.53-6) = 28.47dBm.

3. Refer to section 3.3 for duty cycle spectrum plot.

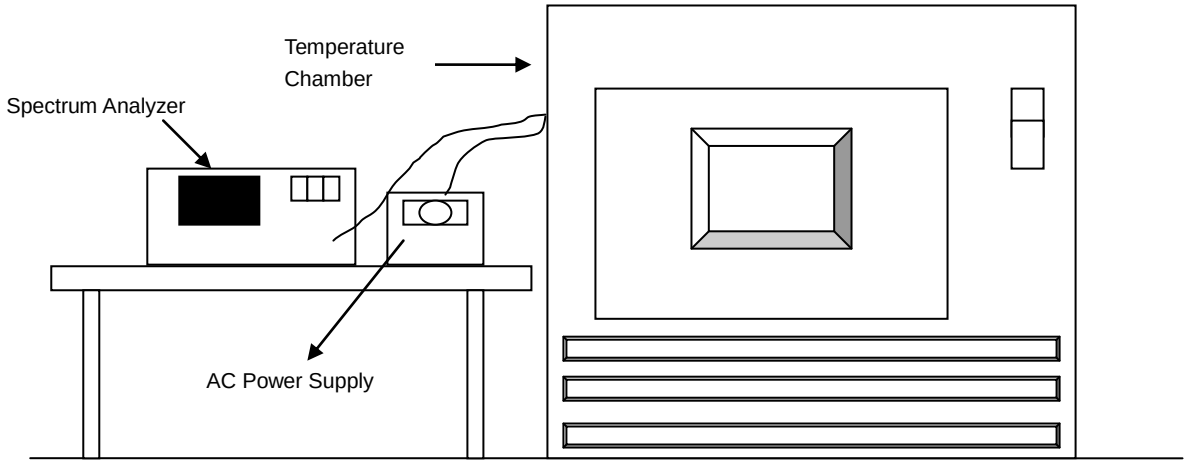
Spectrum Plot of Worst Value	
802.11a_Chain 2 / CH157	**802.11ax (HE20)_Chain 2 / CH157**
	
802.11ax (HE40)_Chain 3 / CH151	**802.11ax (HE80)_Chain 2 / CH155**
	

4.6 Frequency Stability Measurement

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
TEMP. (℃)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
50	120	5179.9892	PASS	5179.9867	PASS	5179.9864	PASS	5179.9878	PASS
40	120	5179.9941	PASS	5179.9921	PASS	5179.9942	PASS	5179.9942	PASS
30	120	5179.9892	PASS	5179.9909	PASS	5179.9934	PASS	5179.9899	PASS
20	120	5179.988	PASS	5179.9864	PASS	5179.9855	PASS	5179.9872	PASS
10	120	5180.0218	PASS	5180.0202	PASS	5180.0204	PASS	5180.022	PASS
0	120	5180.0027	PASS	5180.0025	PASS	5180.0013	PASS	5179.9999	PASS
-10	120	5179.9782	PASS	5179.9771	PASS	5179.9745	PASS	5179.9747	PASS
-20	120	5179.9736	PASS	5179.9736	PASS	5179.9764	PASS	5179.9721	PASS
-30	120	5180.0173	PASS	5180.0181	PASS	5180.0211	PASS	5180.0198	PASS

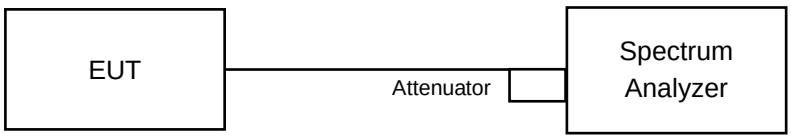
Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
TEMP. (℃)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
20	138	5179.9885	PASS	5179.9857	PASS	5179.9847	PASS	5179.9863	PASS
	120	5179.988	PASS	5179.9864	PASS	5179.9855	PASS	5179.9872	PASS
	102	5179.9875	PASS	5179.9872	PASS	5179.9853	PASS	5179.9866	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

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
144 (U-NII-3 Band)	5720	3.25	3.23	3.24	3.23	0.5	Pass
149	5745	16.37	16.35	16.40	16.39	0.5	Pass
157	5785	16.34	16.35	16.37	16.38	0.5	Pass
165	5825	16.36	16.37	16.36	16.33	0.5	Pass

802.11ax (HE20)

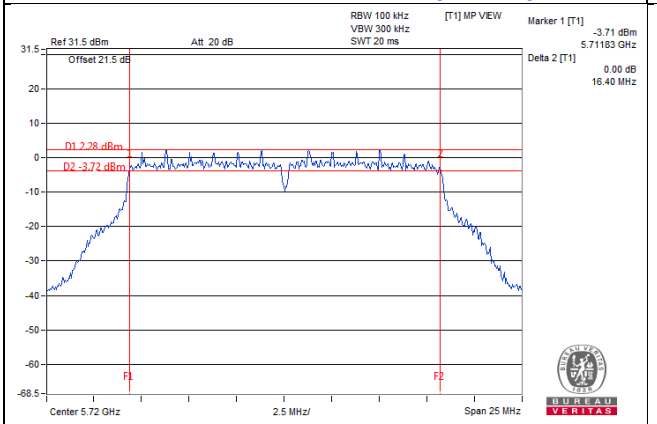
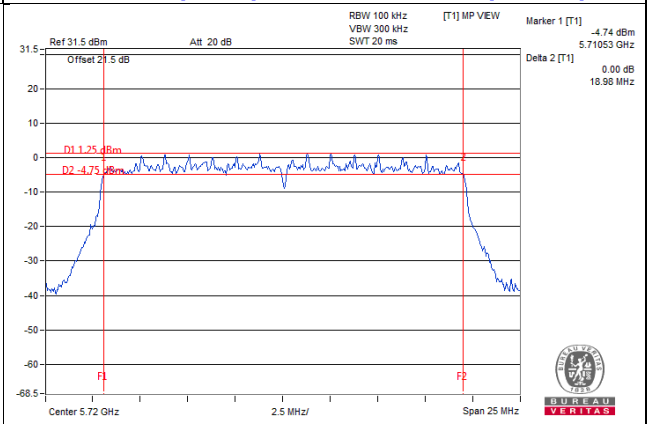
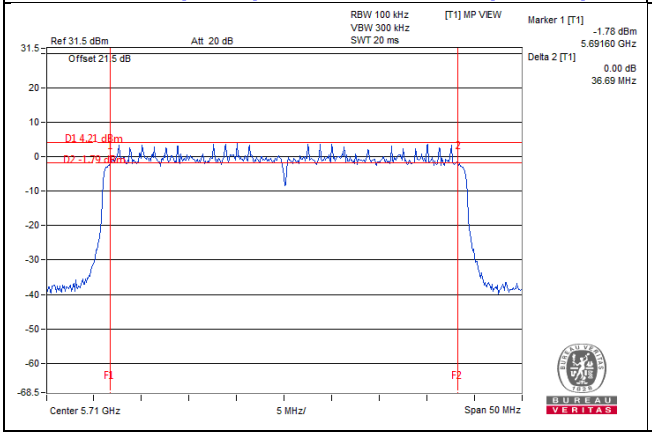
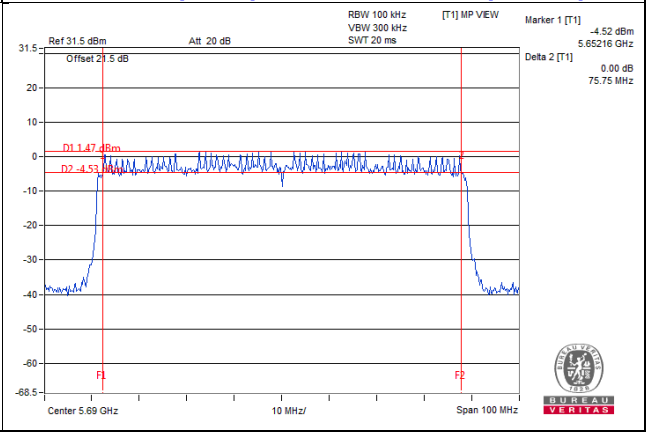
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
144 (U-NII-3 Band)	5720	4.51	4.55	4.54	4.55	0.5	Pass
149	5745	18.92	18.93	18.81	18.86	0.5	Pass
157	5785	18.83	18.98	18.82	18.84	0.5	Pass
165	5825	18.81	18.96	18.83	18.83	0.5	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
142 (U-NII-3 Band)	5710	3.56	3.80	3.66	3.29	0.5	Pass
151	5755	37.40	37.06	37.82	37.27	0.5	Pass
159	5795	36.95	37.05	37.74	37.26	0.5	Pass

802.11ax (HE80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
138 (U-NII-3 Band)	5690	3.25	3.07	2.99	2.91	0.5	Pass
155	5775	77.57	76.45	75.75	76.92	0.5	Pass

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

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

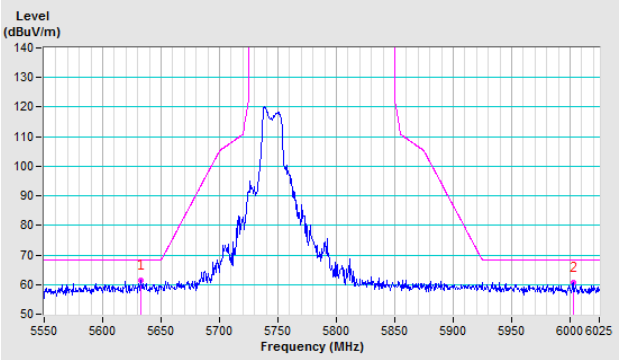
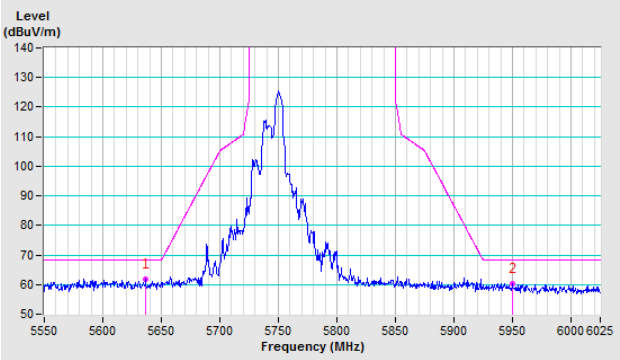
5 Pictures of Test Arrangements

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

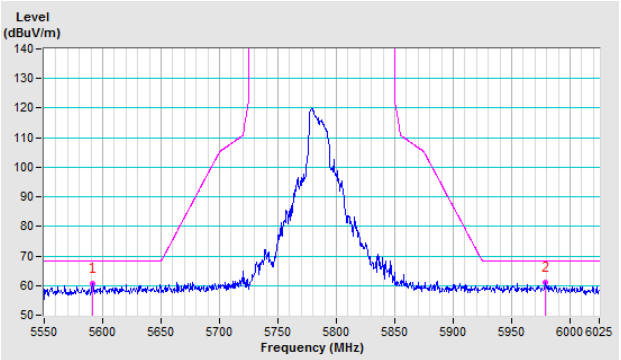
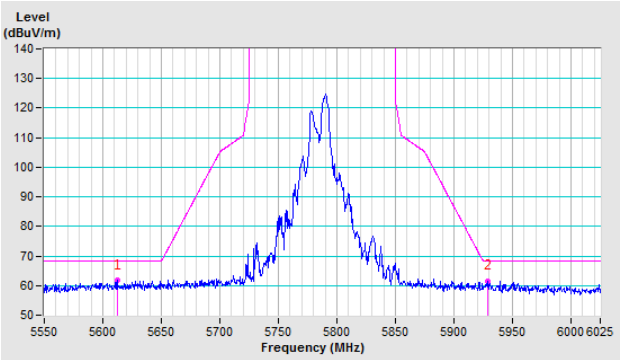
Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

802.11a

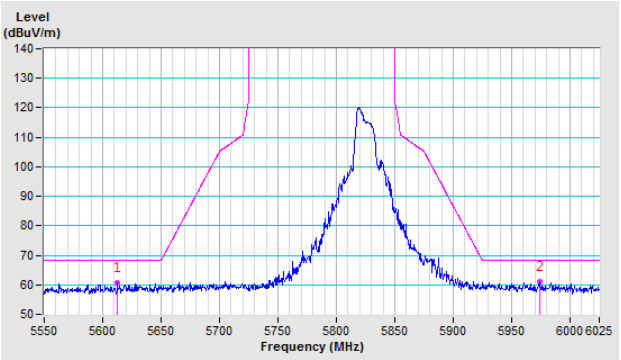
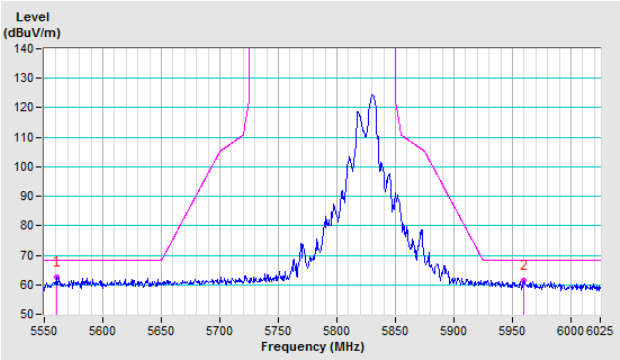
CH 149 5745 MHz

Horizontal	Vertical
	

CH 157 5785 MHz

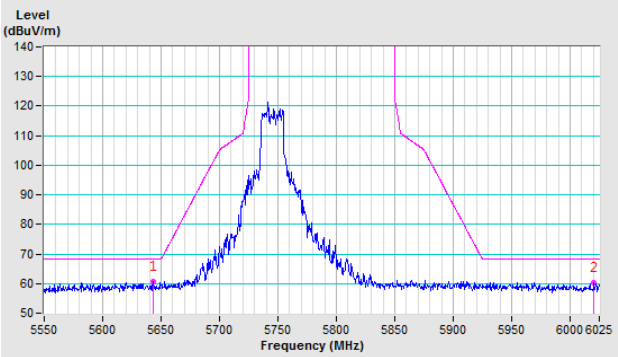
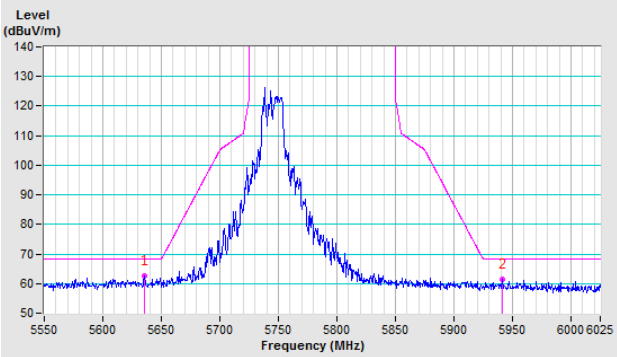
Horizontal	Vertical
	

CH 165 5825 MHz

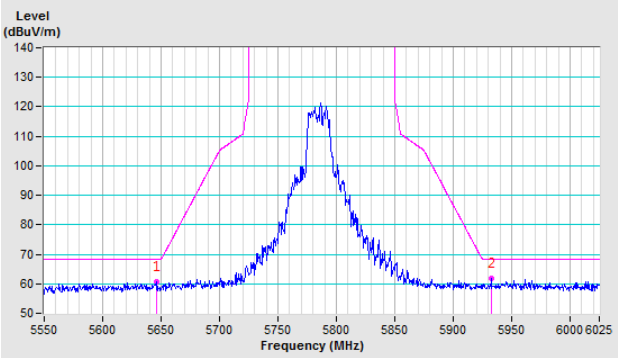
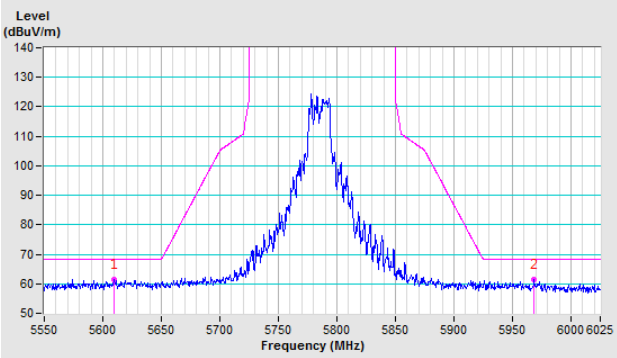
Horizontal	Vertical
	

802.11ax (HE20)

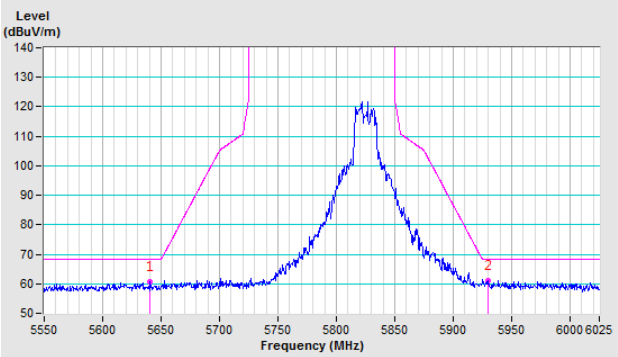
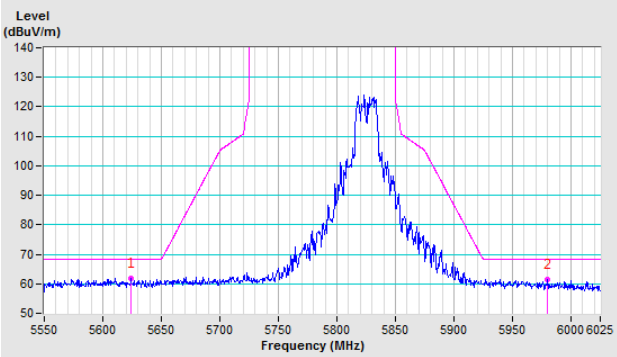
CH 149 5745 MHz

Horizontal	Vertical
	

CH 157 5785 MHz

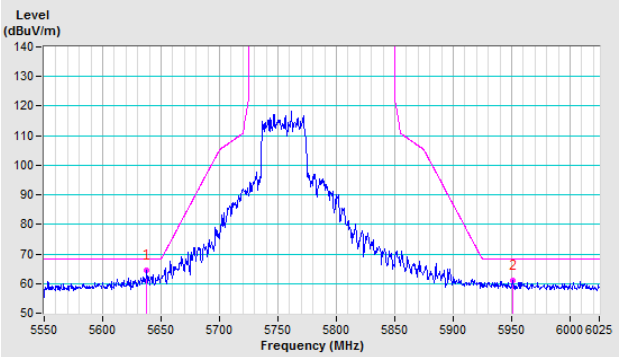
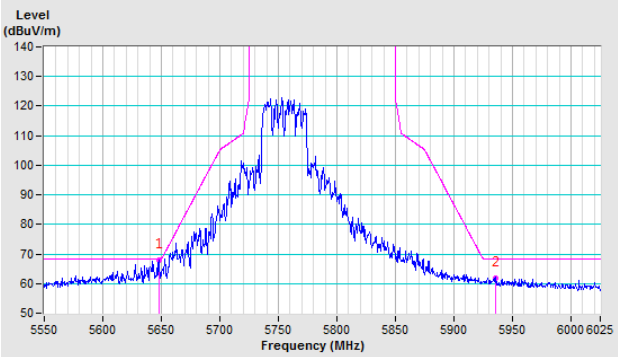
Horizontal	Vertical
	

CH 165 5825 MHz

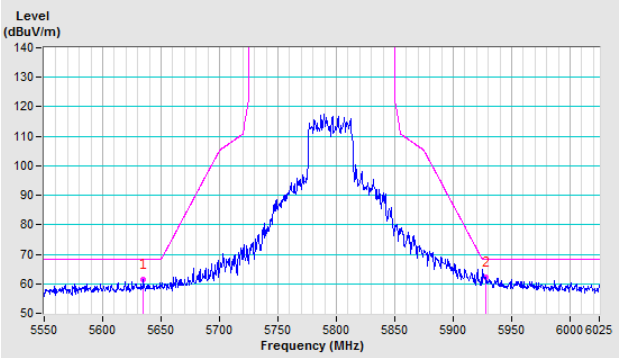
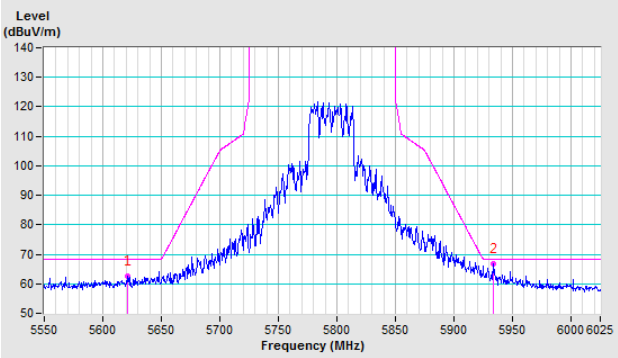
Horizontal	Vertical
	

802.11ax (HE40)

CH 151 5755 MHz

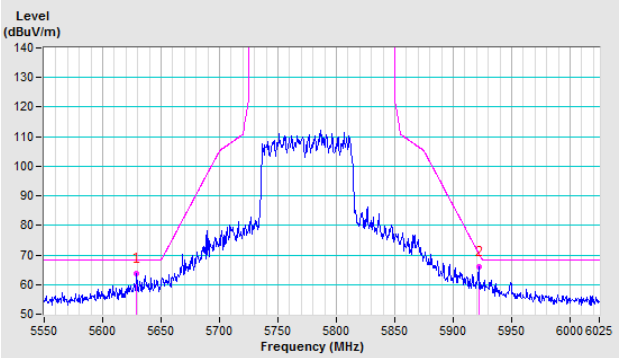
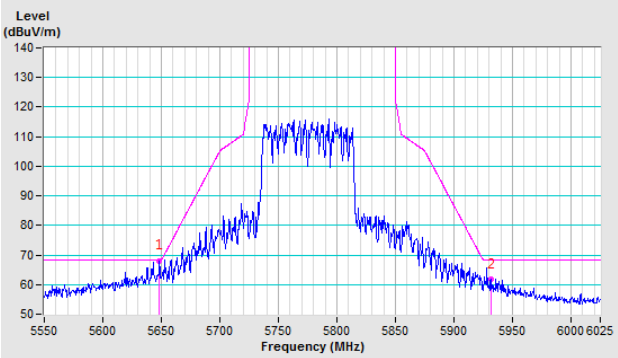
Horizontal	Vertical
	

CH 159 5795 MHz

Horizontal	Vertical
	

802.11ax (HE80)

CH 155 5775 MHz

Horizontal	Vertical
	

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.

If you have any comments, please feel free to contact us at the following:

Lin kou EMC/RF Lab
Tel: 886-2-26052180
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The address and road map of all our labs can be found in our web site also.

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