

FCC Test Report (5GHz WLAN)

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Test Model: EX3510-B0

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Release Control Record

Issue No.	Description	Date Issued
RF200420E01B-1	Original release.	Nov. 19, 2020

1 Certificate of Conformity

Product: AX5700 WiFi6 Gigabit Ethernet Gateway

Brand: ZYXEL

Test Model: EX3510-B0

Sample Status: ENGINEERING SAMPLE

Applicant: Zyxel Communications Corporation

Test Date: Oct. 16 to 30, 2020

Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)
ANSI C63.10: 2013

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

Prepared by : Phoenix Huang, **Date:** Nov. 19, 2020
Phoenix Huang / Specialist

Approved by : Clark Lin, **Date:** Nov. 19, 2020
Clark Lin / Technical Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -16.24 dB at 0.15391 MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement*	Pass	Meet the requirement of limit. Minimum passing margin is -0.1 dB at 5150.00 MHz and 11490.00 MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is i-pex(MHF) not a standard connector.

Note:

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

2.1 Measurement Uncertainty

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

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

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT (5GHz WLAN)

Product	AX5700 WiFi6 Gigabit Ethernet Gateway
Brand	ZYXEL
Test Model	EX3510-B0
Status of EUT	ENGINEERING SAMPLE
CPU Model No.	BCM4906
RF Chip Model No.	BCM43684
Version of Firmware	V5.17(ABUP.2)b1_0814
Power Supply Rating	12Vdc from power adapter
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode only 1024QAM for OFDMA in 11ax HE mode
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: up to 54 Mbps 802.11n: up to 600 Mbps 802.11ac: up to 3466.7 Mbps 802.11ax: up to 4803.9 Mbps
Operating Frequency	5.18 ~ 5.25 GHz, 5.25 ~ 5.32 GHz, 5.50 ~ 5.72 GHz, 5.745 ~ 5.825 GHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 25 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 12 802.11ac (VHT80), 802.11ax (HE80): 6 802.11ac (VHT160), 802.11ax (HE160): 2
Output Power	CDD Mode: 5.18 ~ 5.25 GHz: 717.668 mW 5.25 ~ 5.32 GHz: 211.983 mW 5.5 ~ 5.72 GHz: 205.931 mW 5.745 ~ 5.825 GHz: 830.85 mW Beamforming Mode: 5.18 ~ 5.25 GHz: 504.886 mW 5.25 ~ 5.32 GHz: 139.305 mW 5.5 ~ 5.72 GHz: 134.541 mW 5.745 ~ 5.825 GHz: 533.051 mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	-Adapter x 1 (Brand: MNC, Model: MAUS-1202503000); -Ethernet Cable x 1 (Unshielded, 1 m)

Note:

1. This report is prepared for FCC class II change. The difference compared with the Report No.: RF200420E01-1, RF200420E01A-1 as the following:

◆ Adding 2nd source 5GHz FEM as the following table:

5GHz FEM	Brand	Model
Main Source	SKYWORKS	SKY85755-11
2 nd Source	RichWave	RTC7676E

2. According to above conditions, for AC Power Conducted Emissions, Radiated Emission and Transmit Power test items need to be performed and all data was verified to meet the requirements.

3. The EUT has two radios as following table:

Radio 1	Radio 2
WLAN 2.4GHz	WLAN 5GHz

4. Simultaneously transmission condition.

Condition	Technology	
1	WLAN (2.4GHz)	WLAN 5GHz

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

5. The EUT must be supplied with a power adapter as following table:

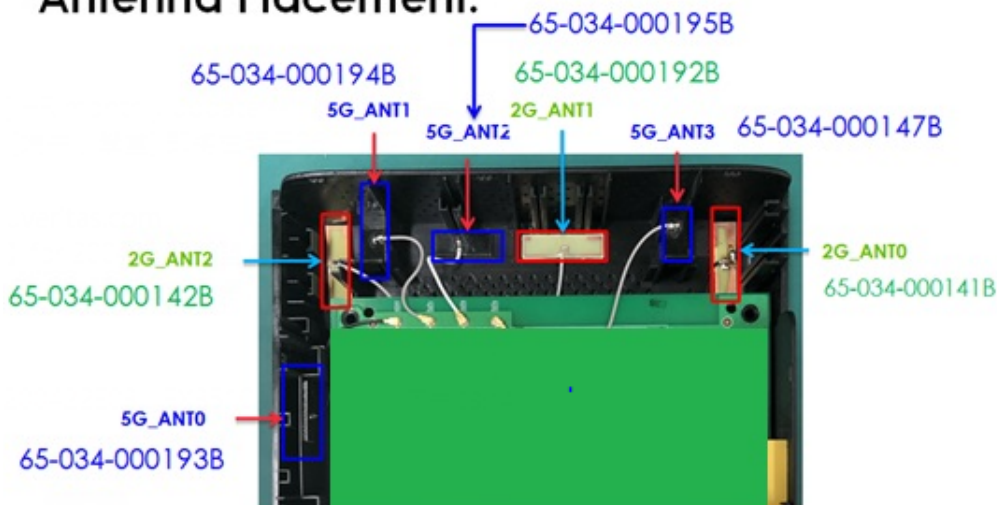
Brand	Model No.	Spec.
MNC	MAUS-1202503000	AC Input: 100-240 Vac 50/60 Hz, 0.8 A DC Output: 12 Vdc / 2.5A DC Cable: 1.5 m, Unshielded

6. The directional antenna gain, please refer to the following table:

Frequency Range (GHz)	Directional Antenna Gain (dBi)	Antenna Type	Antenna Connector
2.4~2.4835	5.27	Dipole	None
5.15 ~ 5.25	8.09		i-pex(MHF)
5.25 ~ 5.35	7.66		
5.47 ~ 5.725	7.86		
5.725 ~ 5.85	7.98		

Note: More detailed information, please refer to antenna specification.

Antenna Placement:



* Antenna port location

7. The EUT incorporates a MIMO function:

2.4GHz Band		
MODULATION MODE	TX & RX CONFIGURATION	
802.11b	3TX	3RX
802.11g	3TX	3RX
802.11n (HT20)	3TX	3RX
802.11n (HT40)	3TX	3RX
VHT20	3TX	3RX
VHT40	3TX	3RX
802.11ax (HE20)	3TX	3RX
802.11ax (HE40)	3TX	3RX
5GHz Band		
MODULATION MODE	TX & RX CONFIGURATION	
802.11a	4TX	4TX
802.11n (HT20)	4TX	4TX
802.11n (HT40)	4TX	4TX
802.11ac (VHT20)	4TX	4TX
802.11ac (VHT40)	4TX	4TX
802.11ac (VHT80)	4TX	4TX
802.11ac (VHT160)	4TX	4TX
802.11ax (HE20)	4TX	4TX
802.11ax (HE40)	4TX	4TX
802.11ax (HE80)	4TX	4TX
802.11ax (HE160)	4TX	4TX

Note:

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

8. The power setting are list as below:

CDD Mode									
802.11a		802.11ac (VHT20)		802.11ac (VHT40)		802.11ac (VHT80)		802.11ac (VHT160)	
Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting
5180	84	5180	81	5190	69	5210	64	5250	63
5200	88	5200	86	5230	94	5290	72	5570	66
5240	88	5240	86	5270	71	5530	64		
5260	64	5260	62	5310	71	5610	67		
5300	64	5300	62	5510	64	5690	67		
5320	64	5320	62	5550	66	5775	89		
5500	58	5500	58	5670	67				
5580	58	5580	58	5710	67				
5700	58	5700	58	5755	92				
5720	58	5720	58	5795	92				
5745	94	5745	92						
5785	94	5785	92						
5825	94	5825	92						
802.11ax (HE20)		802.11ax (HE40)		802.11ax (HE80)		802.11ax (HE160)			
Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting		
5180	81	5190	69	5210	64	5250	63		
5200	86	5230	94	5290	72	5570	66		
5240	86	5270	71	5530	64				
5260	62	5310	71	5610	67				
5300	62	5510	64	5690	67				
5320	62	5550	66	5775	89				
5500	58	5670	67						
5580	58	5710	67						
5700	58	5755	92						
5720	58	5795	92						
5745	92								
5785	92								
5825	92								

Beamforming Mode							
802.11ac (VHT20)		802.11ac (VHT40)		802.11ac (VHT80)		802.11ac (VHT160)	
Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting
5180	81	5190	69	5210	64	5250	63
5200	85	5230	88	5290	62	5570	58
5240	85	5270	60	5530	57		
5260	60	5310	60	5610	60		
5300	60	5510	57	5690	57		
5320	60	5550	57	5775	82		
5500	55	5670	57				
5580	55	5710	57				
5700	55	5755	86				
5720	55	5795	86				
5745	84						
5785	84						
5825	84						
802.11ax (HE20)		802.11ax (HE40)		802.11ax (HE80)		802.11ax (HE160)	
Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting
5180	81	5190	69	5210	64	5250	63
5200	85	5230	88	5290	62	5570	58
5240	85	5270	60	5530	57		
5260	60	5310	60	5610	60		
5300	60	5510	57	5690	57		
5320	60	5550	57	5775	82		
5500	55	5670	57				
5580	55	5710	57				
5700	55	5755	86				
5720	55	5795	86				
5745	84						
5785	84						
5825	84						

9. 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.

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

3.2 Description of Test Modes

FOR 5180 ~ 5320MHz

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

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

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

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

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

Channel	Frequency	Channel	Frequency
42	5210MHz	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	5745MHz	161	5805MHz
153	5765MHz	165	5825MHz
157	5785MHz		

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

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

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

Channel	Frequency
155	5775MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE $\geq$ 1G	RE<1G	PLC	APCM	
1	√	√	√	√	-

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

Radiated Emission Test (Above 1GHz):

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

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

Radiated Emission Test (Below 1GHz):

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

CDD Mode						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	5180-5320, 5500-5720, 5745-5825	36 to 64, 100 to 144, 149 to 165	165	OFDMA	BPSK	MCS0

Power Line Conducted Emission Test:

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

CDD Mode						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	5180-5320, 5500-5720, 5745-5825	36 to 64, 100 to 144, 149 to 165	165	OFDMA	BPSK	MCS0

Antenna Port Conducted Measurement:

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

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

Beamforming Mode (output power only)						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ac (VHT20)	5180-5320	36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	MCS0
802.11ac (VHT40)		38 to 62	38, 46, 54, 62	OFDM	BPSK	MCS0
802.11ac (VHT80)		42, 58	42, 58	OFDM	BPSK	MCS0
802.11ac (VHT160)		50	50	OFDM	BPSK	MCS0
802.11ax (HE20)		36 to 64	36, 40, 48, 52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		38 to 62	38, 46, 54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		42, 58	42, 58	OFDMA	BPSK	MCS0
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11ac (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	25deg. C, 67%RH, 23deg. C, 68%RH	120Vac, 60Hz	Tom Yang, Benson Chao
RE _{<} 1G	27deg. C, 72%RH	120Vac, 60Hz	Dya Du
PLC	25deg. C, 69%RH	120Vac, 60Hz	Sampson Chen
APCM	25deg. C, 60%RH	120Vac, 60Hz	Kevin Ko

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is < 98%, duty factor shall be considered.

802.11a: Duty cycle = 1.47 ms / 1.517 ms = 0.969, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.14 \text{ dB}$

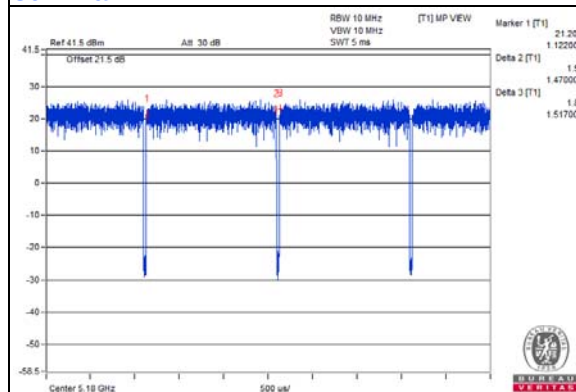
802.11ax (HE20): Duty cycle = 1.145 ms / 1.194 ms = 0.959, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.18 \text{ dB}$

802.11ax (HE40): Duty cycle = 1.186 ms / 1.218 ms = 0.974, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.12 \text{ dB}$

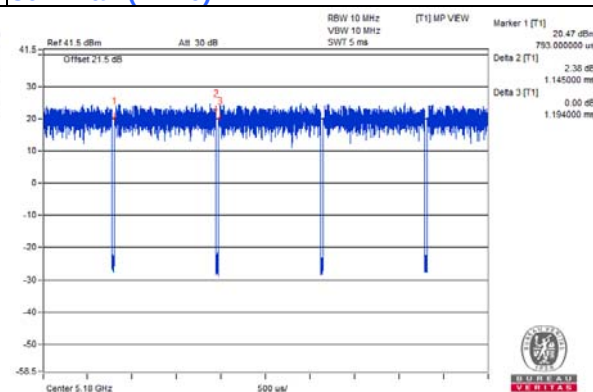
802.11ax (HE80): Duty cycle = 1.225 ms / 1.258 ms = 0.974, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.12 \text{ dB}$

802.11ax (HE160): Duty cycle = 1.222 ms / 1.263 ms = 0.968, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.14 \text{ dB}$

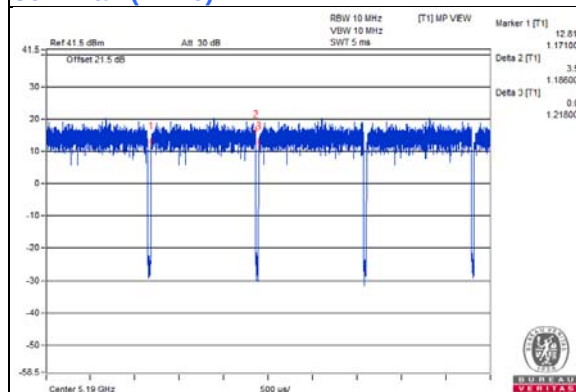
802.11a



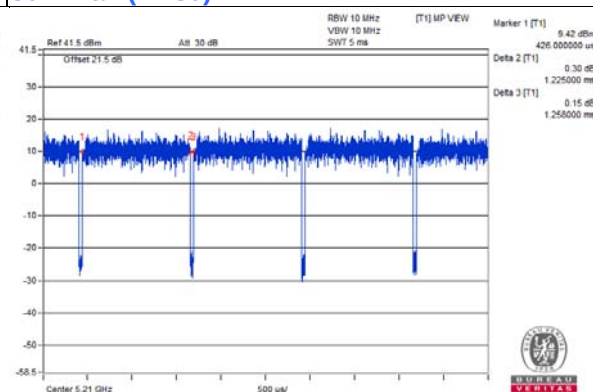
802.11ax (HE20)



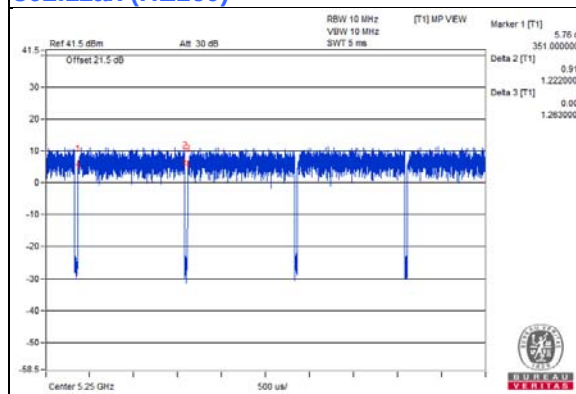
802.11ax (HE40)



802.11ax (HE80)



802.11ax (HE160)



3.4 Description of Support Units

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

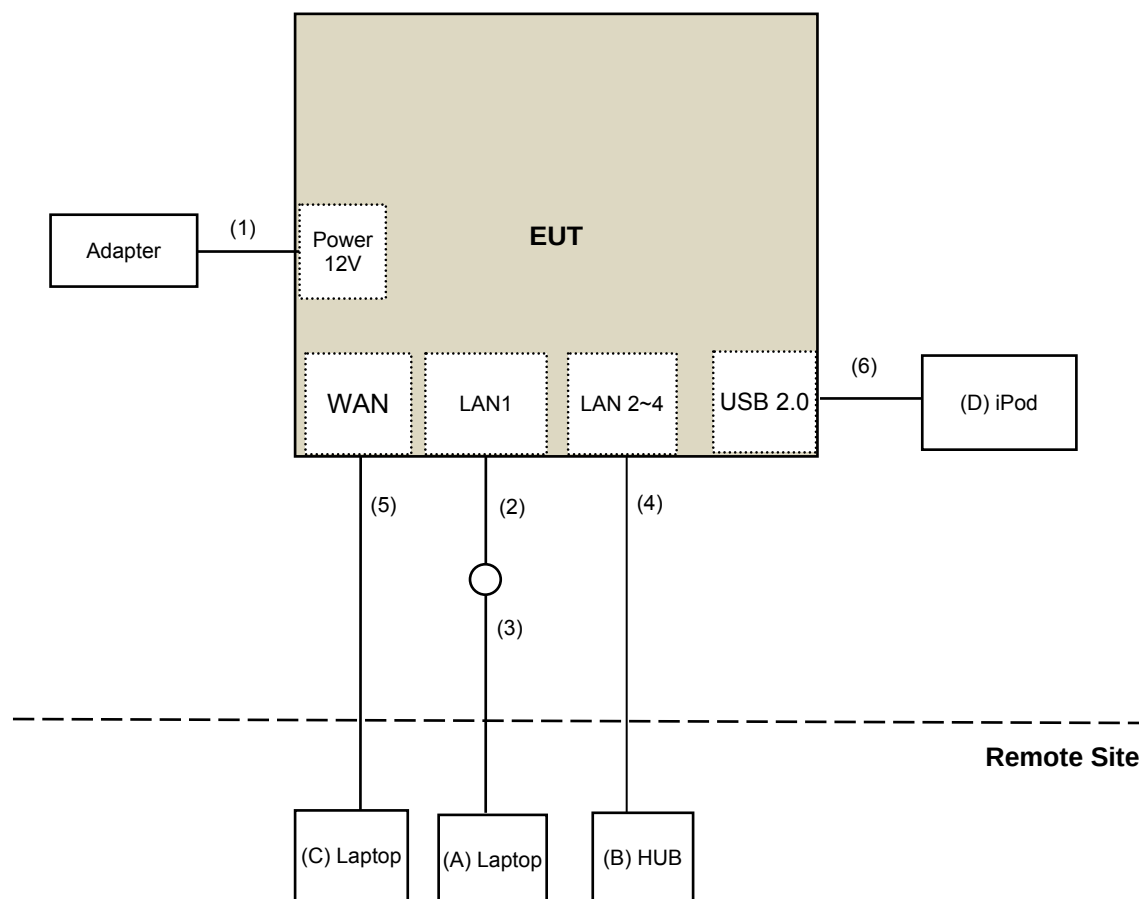
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E5430	HYV4VY1	FCC DoC	Provided by Lab
B.	HUB	ZyXEL	GS1100-16	S150H44000046	FCC DoC	Provided by Lab
C.	Laptop	DELL	PP27L	8SNZ12S	FCC DoC	Provided by Lab
D.	iPod	Apple	MD778TA/A	CC4JMH7LF4T1	NA	Provided by Lab

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	1.5	No	0	Supplied by client
2.	RJ-45 Cable	1	1	No	0	Supplied by client
3.	RJ-45 Cable	1	10	No	0	Provided by Lab
4.	RJ-45 Cable	3	10	No	0	Provided by Lab
5.	RJ-45 Cable	1	10	No	0	Provided by Lab
6.	USB Cable	1	0.1	Yes	0	Provided by Lab

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards and References

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

Test Standard:

FCC Part 15, Subpart E (15.407)

ANSI C63.10-2013

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

References Test Guidance:

KDB 789033 D02 General UNII Test Procedure New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output v02r01

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

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

Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3m	
		PK:74 (dBuV/m)	AV:54 (dBuV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)	PK:-27 (dBm/MHz)	PK:68.2(dBuV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	15.407(b)(4)(i)	PK: -27 (dBm/MHz) ^{*1} PK: 10 (dBm/MHz) ^{*2} PK: 15.6 (dBm/MHz) ^{*3} PK: 27 (dBm/MHz) ^{*4}	PK: 68.2(dBuV/m) ^{*1} PK: 105.2 (dBuV/m) ^{*2} PK: 110.8(dBuV/m) ^{*3} PK: 122.2 (dBuV/m) ^{*4}
5725~5850 MHz	15.407(b)(4)(i)	PK:-27 (dBm/MHz) ^{*1} PK:10 (dBm/MHz) ^{*2} PK:15.6 (dBm/MHz) ^{*3} PK:27 (dBm/MHz) ^{*4}	PK: 68.2(dBuV/m) ^{*1} PK:105.2 (dBuV/m) ^{*2} PK: 110.8(dBuV/m) ^{*3} PK:122.2 (dBuV/m) ^{*4}
^{*1} beyond 75 MHz or more above of the band edge. ^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. ^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above. ^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.			

Note:

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

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

4.1.2 Test Instruments

For Radiated Emission test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESR7	102026	Apr. 22, 2020	Apr. 21, 2021
Spectrum Analyzer Keysight	N9030B	MY57141948	May 22, 2020	May 21, 2021
Pre-Amplifier EMCi	EMC001340	980142	May 25, 2020	May 24, 2021
Loop Antenna Electro-Metrics	EM-6879	264	Feb. 18, 2020	Feb. 17, 2021
RF Cable	NA	LOOPCAB-001	Jan. 08, 2020	Jan. 07, 2021
RF Cable	NA	LOOPCAB-002	Jan. 08, 2020	Jan. 07, 2021
Pre-Amplifier EMCi	EMC330N	980538	Apr. 28, 2020	Apr. 27, 2021
Trilog Broadband Antenna SCHWARZBECK	VULB9168	9168-0842	Nov. 08, 2019	Nov. 07, 2020
RF Cable	8D	966-5-1	Apr. 29, 2020	Apr. 28, 2021
RF Cable	8D	966-5-2	Apr. 29, 2020	Apr. 28, 2021
RF Cable	8D	966-5-3	Apr. 29, 2020	Apr. 28, 2021
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-02	Jan. 14, 2020	Jan. 13, 2021
Horn Antenna SCHWARZBECK	BBHA 9120D	9120D-1819	Nov. 24, 2019	Nov. 23, 2020
Pre-Amplifier EMCi	EMC12630SE	980509	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMCi	EMC104-SM-SM-1500	180503	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMCi	EMC104-SM-SM-2000	180501	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMCi	EMC104-SM-SM-6000	180506	Apr. 29, 2020	Apr. 28, 2021
Pre-Amplifier EMCi	EMC184045SE	980387	Jan. 15, 2020	Jan. 14, 2021
Horn Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 24, 2019	Nov. 23, 2020
RF Cable	EMC102-KM-KM-1200	160924	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC-KM-KM-4000	200214	Mar. 11, 2020	Mar. 10, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 5.
3. Tested Date: Oct. 16 to 29, 2020

For other test items:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	May 29, 2020	May 28, 2021
Power meter Anritsu	ML2495A	1529002	July 22, 2020	July 21, 2021
Power sensor Anritsu	MA2411B	1339443	July 22, 2020	July 21, 2021
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 14, 2020	Apr. 13, 2021
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA

- NOTE:**
1. The test was performed in Oven room 2.
 2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 3. Tested Date: Oct. 29, 2020

4.1.3 Test Procedure

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

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

For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

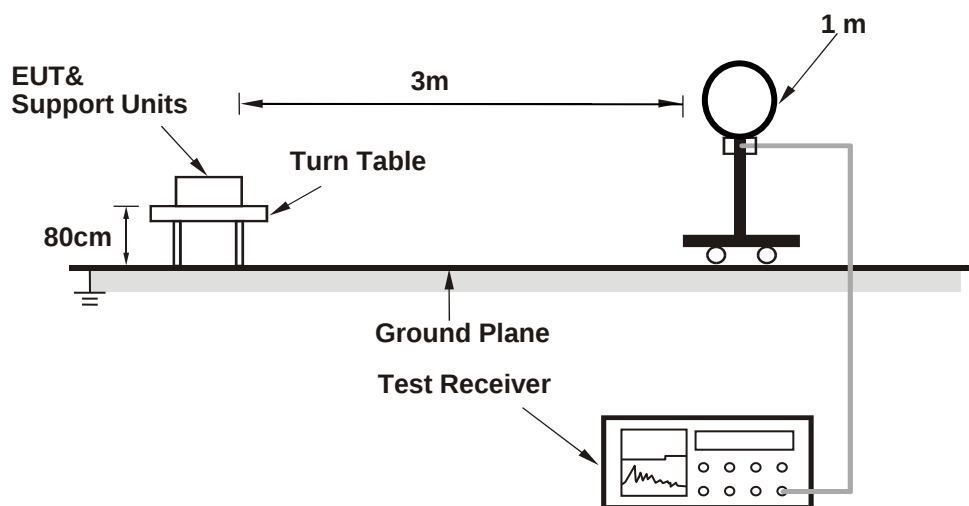
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) 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

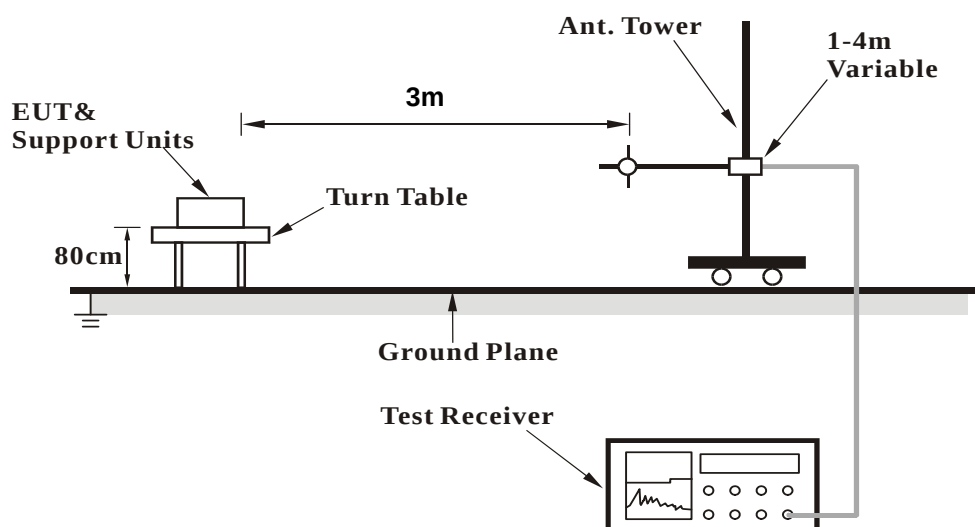
No deviation.

4.1.5 Test Setup

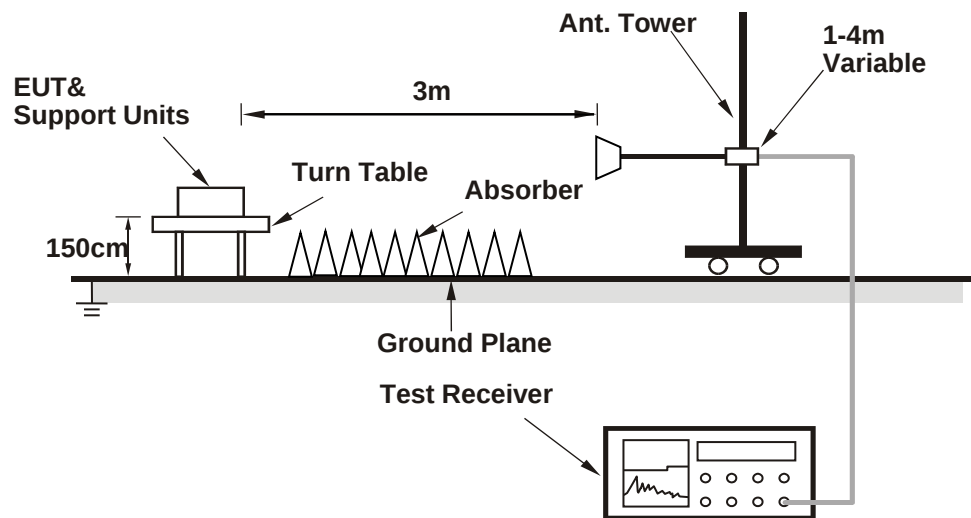
For Radiated emission below 30MHz



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

- Placed the EUT on the testing table.
- Controlling software (accessMTool_REL_3_1_0_3) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz Data:

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	67.4 PK	74.0	-6.6	1.36 H	299	65.7	1.7
2	5150.00	49.3 AV	54.0	-4.7	1.36 H	299	47.6	1.7
3	*5180.00	117.2 PK			1.36 H	299	115.7	1.5
4	*5180.00	107.3 AV			1.36 H	299	105.8	1.5
5	#10360.00	50.7 PK	68.2	-17.5	1.27 H	296	39.5	11.2
6	15540.00	45.2 PK	74.0	-28.8	1.85 H	289	33.5	11.7
7	15540.00	35.2 AV	54.0	-18.8	1.85 H	289	23.5	11.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	67.7 PK	74.0	-6.3	1.75 V	86	66.0	1.7
2	5150.00	50.9 AV	54.0	-3.1	1.75 V	86	49.2	1.7
3	*5180.00	121.9 PK			1.75 V	86	120.4	1.5
4	*5180.00	111.0 AV			1.75 V	86	109.5	1.5
5	#10360.00	54.6 PK	68.2	-13.6	1.59 V	266	43.4	11.2
6	15540.00	53.6 PK	74.0	-20.4	1.30 V	230	41.9	11.7
7	15540.00	37.5 AV	54.0	-16.5	1.30 V	230	25.8	11.7

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	116.3 PK			2.51 H	65	114.9	1.4
2	*5200.00	105.8 AV			2.51 H	65	104.4	1.4
3	#10400.00	51.0 PK	68.2	-17.2	1.31 H	282	39.5	11.5
4	15600.00	45.7 PK	74.0	-28.3	1.85 H	289	34.2	11.5
5	15600.00	35.6 AV	54.0	-18.4	1.85 H	289	24.1	11.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	120.9 PK			1.50 V	64	119.5	1.4
2	*5200.00	111.0 AV			1.50 V	64	109.6	1.4
3	#10400.00	54.4 PK	68.2	-13.8	1.59 V	350	42.9	11.5
4	15600.00	49.4 PK	74.0	-24.6	1.43 V	294	37.9	11.5
5	15600.00	36.5 AV	54.0	-17.5	1.43 V	294	25.0	11.5

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	117.0 PK			1.50 H	61	115.8	1.2
2	*5240.00	106.6 AV			1.50 H	61	105.4	1.2
3	5355.00	54.2 PK	74.0	-19.8	1.50 H	61	52.8	1.4
4	5355.00	42.0 AV	54.0	-12.0	1.50 H	61	40.6	1.4
5	#10480.00	51.0 PK	68.2	-17.2	1.27 H	311	39.5	11.5
6	15720.00	45.4 PK	74.0	-28.6	1.87 H	303	34.3	11.1
7	15720.00	35.5 AV	54.0	-18.5	1.87 H	303	24.4	11.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	120.6 PK			1.56 V	62	119.4	1.2
2	*5240.00	110.7 AV			1.56 V	62	109.5	1.2
3	5350.00	57.2 PK	74.0	-16.8	1.56 V	62	55.8	1.4
4	5350.00	46.9 AV	54.0	-7.1	1.56 V	62	45.5	1.4
5	#10480.00	55.9 PK	68.2	-12.3	1.50 V	260	44.4	11.5
6	15720.00	48.3 PK	74.0	-25.7	1.41 V	218	37.2	11.1
7	15720.00	35.2 AV	54.0	-18.8	1.41 V	218	24.1	11.1

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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	51.3 PK	74.0	-22.7	2.52 H	62	49.6	1.7
2	5150.00	39.3 AV	54.0	-14.7	2.52 H	62	37.6	1.7
3	*5260.00	111.0 PK			2.52 H	62	109.8	1.2
4	*5260.00	100.5 AV			2.52 H	62	99.3	1.2
5	#10520.00	51.2 PK	68.2	-17.0	1.27 H	302	39.8	11.4
6	15780.00	45.1 PK	74.0	-28.9	1.90 H	302	34.4	10.7
7	15780.00	35.1 AV	54.0	-18.9	1.90 H	302	24.4	10.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	53.1 PK	74.0	-20.9	1.81 V	91	51.4	1.7
2	5150.00	41.4 AV	54.0	-12.6	1.81 V	91	39.7	1.7
3	*5260.00	116.7 PK			1.81 V	91	115.5	1.2
4	*5260.00	106.3 AV			1.81 V	91	105.1	1.2
5	#10520.00	49.5 PK	68.2	-18.7	1.24 V	266	38.1	11.4
6	15780.00	47.8 PK	74.0	-26.2	1.40 V	275	37.1	10.7
7	15780.00	34.8 AV	54.0	-19.2	1.40 V	275	24.1	10.7

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	111.0 PK			1.41 H	62	109.8	1.2
2	*5300.00	100.6 AV			1.41 H	62	99.4	1.2
3	10600.00	50.6 PK	74.0	-23.4	1.32 H	282	38.8	11.8
4	10600.00	38.9 AV	54.0	-15.1	1.32 H	282	27.1	11.8
5	15900.00	45.3 PK	74.0	-28.7	1.86 H	285	34.6	10.7
6	15900.00	35.2 AV	54.0	-18.8	1.86 H	285	24.5	10.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	116.5 PK			1.71 V	88	115.3	1.2
2	*5300.00	106.3 AV			1.71 V	88	105.1	1.2
3	10600.00	50.3 PK	74.0	-23.7	2.86 V	290	38.5	11.8
4	10600.00	38.2 AV	54.0	-15.8	2.86 V	290	26.4	11.8
5	15900.00	47.1 PK	74.0	-26.9	1.89 V	301	36.4	10.7
6	15900.00	33.8 AV	54.0	-20.2	1.89 V	301	23.1	10.7

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	111.1 PK			1.52 H	61	109.7	1.4
2	*5320.00	100.7 AV			1.52 H	61	99.3	1.4
3	5350.00	50.5 PK	74.0	-23.5	1.52 H	61	49.1	1.4
4	5350.00	43.0 AV	54.0	-11.0	1.52 H	61	41.6	1.4
5	10640.00	50.9 PK	74.0	-23.1	1.27 H	281	39.0	11.9
6	10640.00	38.8 AV	54.0	-15.2	1.27 H	281	26.9	11.9
7	15960.00	45.2 PK	74.0	-28.8	1.86 H	302	34.3	10.9
8	15960.00	35.0 AV	54.0	-19.0	1.86 H	302	24.1	10.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	116.2 PK			1.81 V	88	114.8	1.4
2	*5320.00	106.0 AV			1.81 V	88	104.6	1.4
3	5350.00	57.5 PK	74.0	-16.5	1.81 V	88	56.1	1.4
4	5350.00	46.9 AV	54.0	-7.1	1.81 V	88	45.5	1.4
5	10640.00	49.8 PK	74.0	-24.2	2.24 V	280	37.9	11.9
6	10640.00	37.1 AV	54.0	-16.9	2.24 V	280	25.2	11.9
7	15960.00	51.2 PK	74.0	-22.8	2.84 V	218	40.3	10.9
8	15960.00	37.9 AV	54.0	-16.1	2.84 V	218	27.0	10.9

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5436.57	51.9 PK	74.0	-22.1	1.53 H	114	50.3	1.6
2	5436.57	40.9 AV	54.0	-13.1	1.53 H	114	39.3	1.6
3	#5468.20	51.9 PK	68.2	-16.3	1.53 H	114	50.3	1.6
4	*5500.00	111.0 PK			1.53 H	114	109.3	1.7
5	*5500.00	100.3 AV			1.53 H	114	98.6	1.7
6	11000.00	50.5 PK	74.0	-23.5	1.25 H	307	38.3	12.2
7	11000.00	38.7 AV	54.0	-15.3	1.25 H	307	26.5	12.2
8	#16500.00	45.5 PK	68.2	-22.7	1.88 H	284	32.1	13.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5436.15	55.7 PK	74.0	-18.3	1.52 V	91	54.1	1.6
2	5436.15	45.2 AV	54.0	-8.8	1.52 V	91	43.6	1.6
3	#5464.49	54.5 PK	68.2	-13.7	1.52 V	91	52.9	1.6
4	*5500.00	116.2 PK			1.52 V	91	114.5	1.7
5	*5500.00	106.1 AV			1.52 V	91	104.4	1.7
6	11000.00	54.0 PK	74.0	-20.0	1.80 V	290	41.8	12.2
7	11000.00	40.8 AV	54.0	-13.2	1.80 V	290	28.6	12.2
8	#16500.00	48.9 PK	68.2	-19.3	1.35 V	316	35.5	13.4

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	110.8 PK			1.45 H	116	109.1	1.7
2	*5580.00	100.1 AV			1.45 H	116	98.4	1.7
3	11160.00	49.3 PK	74.0	-24.7	1.77 H	191	37.7	11.6
4	11160.00	37.7 AV	54.0	-16.3	1.77 H	191	26.1	11.6
5	#16740.00	47.4 PK	68.2	-20.8	1.55 H	213	32.7	14.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	115.6 PK			1.55 V	78	113.9	1.7
2	*5580.00	105.1 AV			1.55 V	78	103.4	1.7
3	11160.00	51.5 PK	74.0	-22.5	1.64 V	288	39.9	11.6
4	11160.00	39.4 AV	54.0	-14.6	1.64 V	288	27.8	11.6
5	#16740.00	49.5 PK	68.2	-18.7	1.66 V	326	34.8	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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	111.2 PK			1.90 H	106	109.4	1.8
2	*5700.00	100.6 AV			1.90 H	106	98.8	1.8
3	#5725.00	59.6 PK	68.2	-8.6	1.90 H	106	57.7	1.9
4	11400.00	56.4 PK	74.0	-17.6	1.25 H	304	43.6	12.8
5	11400.00	43.5 AV	54.0	-10.5	1.25 H	304	30.7	12.8
6	#17100.00	52.7 PK	68.2	-15.5	1.48 H	283	36.4	16.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	116.6 PK			1.52 V	73	114.8	1.8
2	*5700.00	105.6 AV			1.52 V	73	103.8	1.8
3	#5725.00	60.1 PK	68.2	-8.1	1.52 V	73	58.2	1.9
4	11400.00	60.3 PK	74.0	-13.7	1.92 V	276	47.5	12.8
5	11400.00	46.5 AV	54.0	-7.5	1.92 V	276	33.7	12.8
6	#17100.00	55.7 PK	68.2	-12.5	1.78 V	282	39.4	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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	51.9 PK	74.0	-22.1	2.51 H	99	50.3	1.6
2	5460.00	39.1 AV	54.0	-14.9	2.51 H	99	37.5	1.6
3	#5470.00	53.8 PK	68.2	-14.4	2.51 H	99	52.2	1.6
4	*5720.00	110.8 PK			2.51 H	99	108.9	1.9
5	*5720.00	100.6 AV			2.51 H	99	98.7	1.9
6	#5850.00	51.2 PK	68.2	-17.0	2.51 H	99	48.9	2.3
7	11440.00	57.0 PK	74.0	-17.0	1.50 H	194	44.4	12.6
8	11440.00	40.5 AV	54.0	-13.5	1.50 H	194	27.9	12.6
9	#17160.00	53.7 PK	68.2	-14.5	1.95 H	208	37.8	15.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	61.8 PK	74.0	-12.2	1.47 V	97	60.2	1.6
2	5460.00	45.5 AV	54.0	-8.5	1.47 V	97	43.9	1.6
3	#5470.00	62.7 PK	68.2	-5.5	1.47 V	97	61.1	1.6
4	*5720.00	115.5 PK			1.47 V	97	113.6	1.9
5	*5720.00	105.4 AV			1.47 V	97	103.5	1.9
6	#5850.00	53.4 PK	68.2	-14.8	1.47 V	97	51.1	2.3
7	11440.00	58.9 PK	74.0	-15.1	1.85 V	267	46.3	12.6
8	11440.00	44.8 AV	54.0	-9.2	1.85 V	267	32.2	12.6
9	#17160.00	56.3 PK	68.2	-11.9	1.98 V	237	40.4	15.9

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5611.18	52.7 PK	68.2	-15.5	1.48 H	43	51.1	1.6
2	*5745.00	118.2 PK			1.48 H	43	116.3	1.9
3	*5745.00	107.3 AV			1.48 H	43	105.4	1.9
4	#5959.93	53.2 PK	68.2	-15.0	1.48 H	43	50.7	2.5
5	11490.00	67.4 PK	74.0	-6.6	1.17 H	335	54.9	12.5
6	11490.00	49.7 AV	54.0	-4.3	1.17 H	335	37.2	12.5
7	#17235.00	55.6 PK	68.2	-12.6	1.71 H	195	39.8	15.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5645.06	57.7 PK	68.2	-10.5	1.50 V	74	56.0	1.7
2	*5745.00	121.0 PK			1.50 V	74	119.1	1.9
3	*5745.00	111.4 AV			1.50 V	74	109.5	1.9
4	#5943.72	59.6 PK	68.2	-8.6	1.50 V	74	57.1	2.5
5	11490.00	72.4 PK	74.0	-1.6	1.90 V	268	59.9	12.5
6	11490.00	53.9 AV	54.0	-0.1	1.90 V	268	41.4	12.5
7	#17235.00	57.0 PK	68.2	-11.2	2.18 V	277	41.2	15.8

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5559.42	53.6 PK	68.2	-14.6	1.75 H	105	51.9	1.7
2	*5785.00	118.6 PK			1.75 H	105	116.6	2.0
3	*5785.00	107.6 AV			1.75 H	105	105.6	2.0
4	#5941.70	54.0 PK	68.2	-14.2	1.75 H	105	51.6	2.4
5	11570.00	66.8 PK	74.0	-7.2	1.15 H	360	53.9	12.9
6	11570.00	49.1 AV	54.0	-4.9	1.15 H	360	36.2	12.9
7	#17355.00	57.2 PK	68.2	-11.0	1.92 H	203	40.4	16.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5619.26	55.6 PK	68.2	-12.6	1.43 V	70	54.0	1.6
2	*5785.00	121.8 PK			1.43 V	70	119.8	2.0
3	*5785.00	111.7 AV			1.43 V	70	109.7	2.0
4	#5956.24	58.4 PK	68.2	-9.8	1.43 V	70	55.9	2.5
5	11570.00	73.6 PK	74.0	-0.4	2.75 V	256	60.7	12.9
6	11570.00	52.1 AV	54.0	-1.9	2.75 V	256	39.2	12.9
7	#17355.00	59.5 PK	68.2	-8.7	1.79 V	285	42.7	16.8

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5607.11	52.7 PK	68.2	-15.5	2.39 H	102	51.1	1.6
2	*5825.00	119.5 PK			2.39 H	102	117.3	2.2
3	*5825.00	109.1 AV			2.39 H	102	106.9	2.2
4	#5948.37	55.1 PK	68.2	-13.1	2.39 H	102	52.6	2.5
5	11650.00	67.4 PK	74.0	-6.6	1.40 H	336	54.5	12.9
6	11650.00	49.4 AV	54.0	-4.6	1.40 H	336	36.5	12.9
7	#17475.00	53.8 PK	68.2	-14.4	1.96 H	206	35.1	18.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5618.19	55.7 PK	68.2	-12.5	1.50 V	70	54.1	1.6
2	*5825.00	123.4 PK			1.50 V	70	121.2	2.2
3	*5825.00	113.4 AV			1.50 V	70	111.2	2.2
4	#5949.66	58.9 PK	68.2	-9.3	1.50 V	70	56.4	2.5
5	11650.00	69.2 PK	74.0	-4.8	1.33 V	258	56.3	12.9
6	11650.00	52.1 AV	54.0	-1.9	1.33 V	258	39.2	12.9
7	#17475.00	54.1 PK	68.2	-14.1	1.68 V	330	35.4	18.7

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.7 PK	74.0	-7.3	1.70 H	292	65.0	1.7
2	5150.00	51.0 AV	54.0	-3.0	1.70 H	292	49.3	1.7
3	*5180.00	116.8 PK			1.70 H	292	115.3	1.5
4	*5180.00	104.6 AV			1.70 H	292	103.1	1.5
5	#10360.00	51.2 PK	68.2	-17.0	1.30 H	293	40.0	11.2
6	15540.00	44.9 PK	74.0	-29.1	1.88 H	305	33.2	11.7
7	15540.00	35.0 AV	54.0	-19.0	1.88 H	305	23.3	11.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	71.9 PK	74.0	-2.1	2.57 V	113	70.2	1.7
2	5150.00	53.8 AV	54.0	-0.2	2.57 V	113	52.1	1.7
3	*5180.00	121.2 PK			2.57 V	113	119.7	1.5
4	*5180.00	108.8 AV			2.57 V	113	107.3	1.5
5	#10360.00	57.3 PK	68.2	-10.9	1.62 V	260	46.1	11.2
6	15540.00	53.2 PK	74.0	-20.8	2.46 V	254	41.5	11.7
7	15540.00	40.3 AV	54.0	-13.7	2.46 V	254	28.6	11.7

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	119.4 PK			1.65 H	292	118.0	1.4
2	*5200.00	105.7 AV			1.65 H	292	104.3	1.4
3	#10400.00	50.4 PK	68.2	-17.8	1.26 H	267	38.9	11.5
4	15600.00	45.4 PK	74.0	-28.6	1.85 H	290	33.9	11.5
5	15600.00	35.3 AV	54.0	-18.7	1.85 H	290	23.8	11.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	120.8 PK			2.66 V	115	119.4	1.4
2	*5200.00	108.6 AV			2.66 V	115	107.2	1.4
3	#10400.00	59.2 PK	68.2	-9.0	1.56 V	262	47.7	11.5
4	15600.00	56.3 PK	74.0	-17.7	1.80 V	214	44.8	11.5
5	15600.00	40.3 AV	54.0	-13.7	1.80 V	214	28.8	11.5

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	118.2 PK			1.56 H	292	117.0	1.2
2	*5240.00	104.9 AV			1.56 H	292	103.7	1.2
3	5350.00	51.0 PK	74.0	-23.0	1.56 H	292	49.6	1.4
4	5350.00	41.9 AV	54.0	-12.1	1.56 H	292	40.5	1.4
5	#10480.00	51.1 PK	68.2	-17.1	1.29 H	275	39.6	11.5
6	15720.00	45.7 PK	74.0	-28.3	1.85 H	307	34.6	11.1
7	15720.00	35.4 AV	54.0	-18.6	1.85 H	307	24.3	11.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	121.8 PK			2.49 V	96	120.6	1.2
2	*5240.00	110.5 AV			2.49 V	96	109.3	1.2
3	5350.00	56.9 PK	74.0	-17.1	2.49 V	96	55.5	1.4
4	5350.00	45.9 AV	54.0	-8.1	2.49 V	96	44.5	1.4
5	#10480.00	59.6 PK	68.2	-8.6	1.51 V	260	48.1	11.5
6	15720.00	53.7 PK	74.0	-20.3	2.43 V	279	42.6	11.1
7	15720.00	39.8 AV	54.0	-14.2	2.43 V	279	28.7	11.1

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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5097.00	51.1 PK	74.0	-22.9	1.70 H	290	49.3	1.8
2	5097.00	39.4 AV	54.0	-14.6	1.70 H	290	37.6	1.8
3	*5260.00	113.3 PK			1.70 H	290	112.1	1.2
4	*5260.00	99.8 AV			1.70 H	290	98.6	1.2
5	#10520.00	50.9 PK	68.2	-17.3	1.24 H	293	39.5	11.4
6	15780.00	44.8 PK	74.0	-29.2	1.85 H	317	34.1	10.7
7	15780.00	34.9 AV	54.0	-19.1	1.85 H	317	24.2	10.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5096.59	52.7 PK	74.0	-21.3	1.34 V	120	50.9	1.8
2	5096.59	41.3 AV	54.0	-12.7	1.34 V	120	39.5	1.8
3	*5260.00	115.1 PK			1.34 V	120	113.9	1.2
4	*5260.00	102.4 AV			1.34 V	120	101.2	1.2
5	#10520.00	53.3 PK	68.2	-14.9	1.59 V	217	41.9	11.4
6	15780.00	52.2 PK	74.0	-21.8	1.91 V	311	41.5	10.7
7	15780.00	39.3 AV	54.0	-14.7	1.91 V	311	28.6	10.7

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	112.6 PK			2.94 H	70	111.4	1.2
2	*5300.00	99.7 AV			2.94 H	70	98.5	1.2
3	10600.00	50.9 PK	74.0	-23.1	1.30 H	267	39.1	11.8
4	10600.00	38.7 AV	54.0	-15.3	1.30 H	267	26.9	11.8
5	15900.00	45.1 PK	74.0	-28.9	1.81 H	295	34.4	10.7
6	15900.00	34.9 AV	54.0	-19.1	1.81 H	295	24.2	10.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	115.7 PK			2.40 V	112	114.5	1.2
2	*5300.00	103.3 AV			2.40 V	112	102.1	1.2
3	10600.00	55.0 PK	74.0	-19.0	2.54 V	289	43.2	11.8
4	10600.00	41.9 AV	54.0	-12.1	2.54 V	289	30.1	11.8
5	15900.00	51.7 PK	74.0	-22.3	1.94 V	207	41.0	10.7
6	15900.00	38.5 AV	54.0	-15.5	1.94 V	207	27.8	10.7

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	110.5 PK			1.50 H	38	109.1	1.4
2	*5320.00	98.8 AV			1.50 H	38	97.4	1.4
3	5367.00	51.2 PK	74.0	-22.8	1.50 H	38	49.8	1.4
4	5367.00	41.8 AV	54.0	-12.2	1.50 H	38	40.4	1.4
5	10640.00	51.3 PK	74.0	-22.7	1.22 H	280	39.4	11.9
6	10640.00	39.0 AV	54.0	-15.0	1.22 H	280	27.1	11.9
7	15960.00	45.6 PK	74.0	-28.4	1.83 H	288	34.7	10.9
8	15960.00	35.2 AV	54.0	-18.8	1.83 H	288	24.3	10.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	120.9 PK			1.65 V	87	119.5	1.4
2	*5320.00	107.0 AV			1.65 V	87	105.6	1.4
3	5350.00	56.5 PK	74.0	-17.5	1.65 V	87	55.1	1.4
4	5350.00	46.1 AV	54.0	-7.9	1.65 V	87	44.7	1.4
5	10640.00	49.6 PK	74.0	-24.4	1.84 V	229	37.7	11.9
6	10640.00	36.6 AV	54.0	-17.4	1.84 V	229	24.7	11.9
7	15960.00	45.9 PK	74.0	-28.1	1.55 V	245	35.0	10.9
8	15960.00	33.9 AV	54.0	-20.1	1.55 V	245	23.0	10.9

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5435.00	52.2 PK	74.0	-21.8	1.45 H	315	50.6	1.6
2	5435.00	40.9 AV	54.0	-13.1	1.45 H	315	39.3	1.6
3	#5468.84	52.5 PK	68.2	-15.7	1.45 H	315	50.9	1.6
4	*5500.00	111.9 PK			1.45 H	315	110.2	1.7
5	*5500.00	98.5 AV			1.45 H	315	96.8	1.7
6	11000.00	50.6 PK	74.0	-23.4	1.30 H	291	38.4	12.2
7	11000.00	38.7 AV	54.0	-15.3	1.30 H	291	26.5	12.2
8	#16500.00	44.7 PK	68.2	-23.5	1.81 H	296	31.3	13.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5435.46	53.6 PK	74.0	-20.4	1.49 V	109	52.0	1.6
2	5435.46	43.6 AV	54.0	-10.4	1.49 V	109	42.0	1.6
3	#5468.30	54.7 PK	68.2	-13.5	1.49 V	109	53.1	1.6
4	*5500.00	115.4 PK			1.49 V	109	113.7	1.7
5	*5500.00	102.8 AV			1.49 V	109	101.1	1.7
6	11000.00	53.6 PK	74.0	-20.4	1.81 V	282	41.4	12.2
7	11000.00	41.6 AV	54.0	-12.4	1.81 V	282	29.4	12.2
8	#16500.00	48.5 PK	68.2	-19.7	1.95 V	251	35.1	13.4

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	110.8 PK			1.50 H	114	109.1	1.7
2	*5580.00	99.0 AV			1.50 H	114	97.3	1.7
3	11160.00	50.9 PK	74.0	-23.1	1.31 H	287	39.3	11.6
4	11160.00	38.9 AV	54.0	-15.1	1.31 H	287	27.3	11.6
5	#16740.00	45.3 PK	68.2	-22.9	1.88 H	310	30.6	14.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	114.4 PK			1.32 V	113	112.7	1.7
2	*5580.00	101.2 AV			1.32 V	113	99.5	1.7
3	11160.00	53.7 PK	74.0	-20.3	1.88 V	286	42.1	11.6
4	11160.00	40.2 AV	54.0	-13.8	1.88 V	286	28.6	11.6
5	#16740.00	49.8 PK	68.2	-18.4	1.59 V	273	35.1	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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	111.7 PK			1.44 H	117	109.9	1.8
2	*5700.00	99.7 AV			1.44 H	117	97.9	1.8
3	#5725.00	61.1 PK	68.2	-7.1	1.44 H	117	59.2	1.9
4	11400.00	50.5 PK	74.0	-23.5	1.23 H	295	37.7	12.8
5	11400.00	38.3 AV	54.0	-15.7	1.23 H	295	25.5	12.8
6	#17100.00	44.8 PK	68.2	-23.4	1.84 H	300	28.5	16.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	116.0 PK			1.40 V	103	114.2	1.8
2	*5700.00	103.0 AV			1.40 V	103	101.2	1.8
3	#5725.00	63.5 PK	68.2	-4.7	1.40 V	103	61.6	1.9
4	11400.00	54.9 PK	74.0	-19.1	1.45 V	261	42.1	12.8
5	11400.00	42.0 AV	54.0	-12.0	1.45 V	261	29.2	12.8
6	#17100.00	51.3 PK	68.2	-16.9	1.59 V	277	35.0	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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	52.4 PK	74.0	-21.6	2.24 H	116	50.8	1.6
2	5460.00	38.9 AV	54.0	-15.1	2.24 H	116	37.3	1.6
3	#5470.00	39.4 PK	68.2	-28.8	2.24 H	116	37.8	1.6
4	*5720.00	112.4 PK			2.24 H	116	110.5	1.9
5	*5720.00	99.7 AV			2.24 H	116	97.8	1.9
6	#5850.00	52.4 PK	68.2	-15.8	2.24 H	116	50.1	2.3
7	11440.00	50.9 PK	74.0	-23.1	1.25 H	272	38.3	12.6
8	11440.00	39.0 AV	54.0	-15.0	1.25 H	272	26.4	12.6
9	#17160.00	45.1 PK	68.2	-23.1	1.90 H	304	29.2	15.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	53.3 PK	74.0	-20.7	1.48 V	98	51.7	1.6
2	5460.00	40.2 AV	54.0	-13.8	1.48 V	98	38.6	1.6
3	#5470.00	40.4 PK	68.2	-27.8	1.48 V	98	38.8	1.6
4	*5720.00	116.0 PK			1.48 V	98	114.1	1.9
5	*5720.00	103.3 AV			1.48 V	98	101.4	1.9
6	#5850.00	53.1 PK	68.2	-15.1	1.48 V	98	50.8	2.3
7	11440.00	55.2 PK	74.0	-18.8	1.42 V	260	42.6	12.6
8	11440.00	41.4 AV	54.0	-12.6	1.42 V	260	28.8	12.6
9	#17160.00	51.6 PK	68.2	-16.6	1.35 V	262	35.7	15.9

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5634.73	53.5 PK	68.2	-14.7	1.49 H	115	51.8	1.7
2	*5745.00	119.4 PK			1.49 H	115	117.5	1.9
3	*5745.00	107.3 AV			1.49 H	115	105.4	1.9
4	#5966.74	54.0 PK	68.2	-14.2	1.49 H	115	51.5	2.5
5	11490.00	67.6 PK	74.0	-6.4	1.17 H	324	55.1	12.5
6	11490.00	49.9 AV	54.0	-4.1	1.17 H	324	37.4	12.5
7	#17235.00	52.8 PK	68.2	-15.4	1.75 H	192	37.0	15.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5632.95	56.6 PK	68.2	-11.6	1.41 V	104	54.9	1.7
2	*5745.00	123.9 PK			1.41 V	104	122.0	1.9
3	*5745.00	111.6 AV			1.41 V	104	109.7	1.9
4	#5968.23	59.5 PK	68.2	-8.7	1.41 V	104	57.0	2.5
5	11490.00	71.6 PK	74.0	-2.4	1.30 V	258	59.1	12.5
6	11490.00	52.8 AV	54.0	-1.2	1.30 V	258	40.3	12.5
7	#17235.00	53.8 PK	68.2	-14.4	1.27 V	324	38.0	15.8

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5645.56	52.6 PK	68.2	-15.6	1.72 H	105	50.9	1.7
2	*5785.00	120.4 PK			1.72 H	105	118.4	2.0
3	*5785.00	108.1 AV			1.72 H	105	106.1	2.0
4	#5940.27	54.1 PK	68.2	-14.1	1.72 H	105	51.7	2.4
5	11570.00	67.7 PK	74.0	-6.3	1.21 H	333	54.8	12.9
6	11570.00	49.7 AV	54.0	-4.3	1.21 H	333	36.8	12.9
7	#17355.00	53.8 PK	68.2	-14.4	1.71 H	207	37.0	16.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5617.79	55.6 PK	68.2	-12.6	1.48 V	91	54.0	1.6
2	*5785.00	124.4 PK			1.48 V	91	122.4	2.0
3	*5785.00	112.3 AV			1.48 V	91	110.3	2.0
4	#5937.43	59.1 PK	68.2	-9.1	1.48 V	91	56.7	2.4
5	11570.00	68.6 PK	74.0	-5.4	2.90 V	269	55.7	12.9
6	11570.00	51.1 AV	54.0	-2.9	2.90 V	269	38.2	12.9
7	#17355.00	54.3 PK	68.2	-13.9	1.34 V	293	37.5	16.8

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5611.17	52.7 PK	68.2	-15.5	1.67 H	103	51.1	1.6
2	*5825.00	120.6 PK			1.67 H	103	118.4	2.2
3	*5825.00	108.4 AV			1.67 H	103	106.2	2.2
4	#5945.28	55.6 PK	68.2	-12.6	1.67 H	103	53.1	2.5
5	11650.00	67.1 PK	74.0	-6.9	1.14 H	327	54.2	12.9
6	11650.00	49.4 AV	54.0	-4.6	1.14 H	327	36.5	12.9
7	#17475.00	52.9 PK	68.2	-15.3	1.70 H	210	34.2	18.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5562.58	55.3 PK	68.2	-12.9	1.50 V	91	53.6	1.7
2	*5825.00	124.3 PK			1.50 V	91	122.1	2.2
3	*5825.00	112.3 AV			1.50 V	91	110.1	2.2
4	#5936.01	58.7 PK	68.2	-9.5	1.50 V	91	56.3	2.4
5	11650.00	70.3 PK	74.0	-3.7	1.91 V	286	57.4	12.9
6	11650.00	50.6 AV	54.0	-3.4	1.91 V	286	37.7	12.9
7	#17475.00	53.7 PK	68.2	-14.5	1.50 V	252	35.0	18.7

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	64.9 PK	74.0	-9.1	1.73 H	294	63.2	1.7
2	5150.00	51.8 AV	54.0	-2.2	1.73 H	294	50.1	1.7
3	*5190.00	112.6 PK			1.73 H	294	111.1	1.5
4	*5190.00	99.6 AV			1.73 H	294	98.1	1.5
5	#10380.00	50.5 PK	68.2	-17.7	1.24 H	285	39.2	11.3
6	15570.00	45.3 PK	74.0	-28.7	1.85 H	316	33.7	11.6
7	15570.00	35.0 AV	54.0	-19.0	1.85 H	316	23.4	11.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	68.5 PK	74.0	-5.5	1.67 V	55	66.8	1.7
2	5150.00	53.9 AV	54.0	-0.1	1.67 V	55	52.2	1.7
3	*5190.00	116.8 PK			1.67 V	55	115.3	1.5
4	*5190.00	103.2 AV			1.67 V	55	101.7	1.5
5	#10380.00	54.3 PK	68.2	-13.9	2.60 V	281	43.0	11.3
6	15570.00	51.2 PK	74.0	-22.8	1.96 V	220	39.6	11.6
7	15570.00	38.3 AV	54.0	-15.7	1.96 V	220	26.7	11.6

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	59.2 PK	74.0	-14.8	1.46 H	96	57.5	1.7
2	5150.00	46.0 AV	54.0	-8.0	1.46 H	96	44.3	1.7
3	*5230.00	114.5 PK			1.46 H	96	113.2	1.3
4	*5230.00	102.7 AV			1.46 H	96	101.4	1.3
5	#10460.00	50.8 PK	68.2	-17.4	1.30 H	264	39.5	11.3
6	15690.00	45.3 PK	74.0	-28.7	1.90 H	312	34.1	11.2
7	15690.00	35.2 AV	54.0	-18.8	1.90 H	312	24.0	11.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.1 PK	74.0	-7.9	1.89 V	87	64.4	1.7
2	5150.00	52.1 AV	54.0	-1.9	1.89 V	87	50.4	1.7
3	*5230.00	119.7 PK			1.89 V	87	118.4	1.3
4	*5230.00	108.1 AV			1.89 V	87	106.8	1.3
5	#10460.00	55.3 PK	68.2	-12.9	2.53 V	273	44.0	11.3
6	15690.00	51.6 PK	74.0	-22.4	1.92 V	223	40.4	11.2
7	15690.00	38.4 AV	54.0	-15.6	1.92 V	223	27.2	11.2

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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5270.00	109.2 PK			1.52 H	295	108.0	1.2
2	*5270.00	97.5 AV			1.52 H	295	96.3	1.2
3	5389.00	53.6 PK	74.0	-20.4	1.52 H	295	52.2	1.4
4	5389.00	42.0 AV	54.0	-12.0	1.52 H	295	40.6	1.4
5	#10540.00	50.7 PK	68.2	-17.5	1.21 H	274	39.2	11.5
6	15810.00	44.5 PK	74.0	-29.5	1.94 H	316	33.9	10.6
7	15810.00	34.5 AV	54.0	-19.5	1.94 H	316	23.9	10.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5270.00	115.7 PK			1.69 V	90	114.5	1.2
2	*5270.00	103.5 AV			1.69 V	90	102.3	1.2
3	5362.51	57.7 PK	74.0	-16.3	1.69 V	90	56.3	1.4
4	5362.51	47.2 AV	54.0	-6.8	1.69 V	90	45.8	1.4
5	#10540.00	55.0 PK	68.2	-13.2	2.51 V	294	43.5	11.5
6	15810.00	51.3 PK	74.0	-22.7	1.97 V	192	40.7	10.6
7	15810.00	38.0 AV	54.0	-16.0	1.97 V	192	27.4	10.6

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	110.6 PK			2.89 H	69	109.3	1.3
2	*5310.00	98.0 AV			2.89 H	69	96.7	1.3
3	5350.00	63.1 PK	74.0	-10.9	2.89 H	69	61.7	1.4
4	5350.00	45.7 AV	54.0	-8.3	2.89 H	69	44.3	1.4
5	10620.00	50.3 PK	74.0	-23.7	1.21 H	272	38.5	11.8
6	10620.00	38.6 AV	54.0	-15.4	1.21 H	272	26.8	11.8
7	15930.00	44.8 PK	74.0	-29.2	1.94 H	300	34.0	10.8
8	15930.00	34.9 AV	54.0	-19.1	1.94 H	300	24.1	10.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	115.6 PK			1.71 V	92	114.3	1.3
2	*5310.00	103.8 AV			1.71 V	92	102.5	1.3
3	5350.00	72.1 PK	74.0	-1.9	1.71 V	92	70.7	1.4
4	5350.00	53.7 AV	54.0	-0.3	1.71 V	92	52.3	1.4
5	10620.00	55.4 PK	74.0	-18.6	2.49 V	296	43.6	11.8
6	10620.00	42.2 AV	54.0	-11.8	2.49 V	296	30.4	11.8
7	15930.00	51.6 PK	74.0	-22.4	1.96 V	210	40.8	10.8
8	15930.00	38.5 AV	54.0	-15.5	1.96 V	210	27.7	10.8

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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	57.1 PK	74.0	-16.9	1.51 H	328	55.5	1.6
2	5460.00	42.1 AV	54.0	-11.9	1.51 H	328	40.5	1.6
3	#5470.00	67.1 PK	68.2	-1.1	1.51 H	328	65.5	1.6
4	*5510.00	111.2 PK			1.51 H	328	109.5	1.7
5	*5510.00	97.3 AV			1.51 H	328	95.6	1.7
6	11020.00	50.9 PK	74.0	-23.1	1.31 H	258	38.8	12.1
7	11020.00	39.1 AV	54.0	-14.9	1.31 H	258	27.0	12.1
8	#16530.00	45.3 PK	68.2	-22.9	1.89 H	313	31.7	13.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	56.9 PK	74.0	-17.1	1.56 V	80	55.3	1.6
2	5460.00	44.9 AV	54.0	-9.1	1.56 V	80	43.3	1.6
3	#5470.00	62.6 PK	68.2	-5.6	1.56 V	80	61.0	1.6
4	*5510.00	113.5 PK			1.56 V	80	111.8	1.7
5	*5510.00	102.4 AV			1.56 V	80	100.7	1.7
6	11020.00	55.2 PK	74.0	-18.8	2.51 V	277	43.1	12.1
7	11020.00	42.4 AV	54.0	-11.6	2.51 V	277	30.3	12.1
8	#16530.00	51.7 PK	68.2	-16.5	2.00 V	220	38.1	13.6

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	110.5 PK			1.42 H	326	108.8	1.7
2	*5550.00	98.1 AV			1.42 H	326	96.4	1.7
3	11100.00	51.1 PK	74.0	-22.9	1.30 H	279	39.5	11.6
4	11100.00	39.4 AV	54.0	-14.6	1.30 H	279	27.8	11.6
5	#16650.00	45.1 PK	68.2	-23.1	1.85 H	299	30.6	14.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	114.3 PK			1.56 V	98	112.6	1.7
2	*5550.00	102.3 AV			1.56 V	98	100.6	1.7
3	11100.00	54.7 PK	74.0	-19.3	2.51 V	294	43.1	11.6
4	11100.00	41.8 AV	54.0	-12.2	2.51 V	294	30.2	11.6
5	#16650.00	51.8 PK	68.2	-16.4	1.90 V	202	37.3	14.5

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	111.1 PK			2.30 H	113	109.3	1.8
2	*5670.00	99.2 AV			2.30 H	113	97.4	1.8
3	#5725.00	56.1 PK	68.2	-12.1	2.30 H	113	54.2	1.9
4	11340.00	51.6 PK	74.0	-22.4	1.31 H	271	39.1	12.5
5	11340.00	39.4 AV	54.0	-14.6	1.31 H	271	26.9	12.5
6	#17010.00	44.8 PK	68.2	-23.4	1.86 H	305	28.6	16.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	115.7 PK			1.48 V	100	113.9	1.8
2	*5670.00	102.9 AV			1.48 V	100	101.1	1.8
3	#5725.00	58.3 PK	68.2	-9.9	1.48 V	100	56.4	1.9
4	11340.00	55.3 PK	74.0	-18.7	2.51 V	280	42.8	12.5
5	11340.00	42.2 AV	54.0	-11.8	2.51 V	280	29.7	12.5
6	#17010.00	51.6 PK	68.2	-16.6	1.90 V	198	35.4	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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	51.9 PK	74.0	-22.1	2.24 H	111	50.3	1.6
2	5460.00	39.2 AV	54.0	-14.8	2.24 H	111	37.6	1.6
3	#5470.00	53.2 PK	68.2	-15.0	2.24 H	111	51.6	1.6
4	*5710.00	112.5 PK			2.24 H	111	110.7	1.8
5	*5710.00	99.3 AV			2.24 H	111	97.5	1.8
6	#5850.00	52.8 PK	68.2	-15.4	2.24 H	111	50.5	2.3
7	11420.00	50.4 PK	74.0	-23.6	1.26 H	284	37.7	12.7
8	11420.00	38.5 AV	54.0	-15.5	1.26 H	284	25.8	12.7
9	#17130.00	44.7 PK	68.2	-23.5	1.87 H	297	28.6	16.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	53.2 PK	74.0	-20.8	1.63 V	92	51.6	1.6
2	5460.00	41.4 AV	54.0	-12.6	1.63 V	92	39.8	1.6
3	#5470.00	54.8 PK	68.2	-13.4	1.63 V	92	53.2	1.6
4	*5710.00	114.8 PK			1.63 V	92	113.0	1.8
5	*5710.00	103.0 AV			1.63 V	92	101.2	1.8
6	#5850.00	53.5 PK	68.2	-14.7	1.63 V	92	51.2	2.3
7	11420.00	54.9 PK	74.0	-19.1	2.53 V	286	42.2	12.7
8	11420.00	42.0 AV	54.0	-12.0	2.53 V	286	29.3	12.7
9	#17130.00	52.3 PK	68.2	-15.9	1.99 V	196	36.2	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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5645.59	57.7 PK	68.2	-10.5	1.81 H	103	56.0	1.7
2	*5755.00	119.6 PK			1.81 H	103	117.7	1.9
3	*5755.00	106.2 AV			1.81 H	103	104.3	1.9
4	#5998.44	54.7 PK	68.2	-13.5	1.81 H	103	52.1	2.6
5	11510.00	67.1 PK	74.0	-6.9	1.13 H	338	54.6	12.5
6	11510.00	49.3 AV	54.0	-4.7	1.13 H	338	36.8	12.5
7	#17265.00	53.1 PK	68.2	-15.1	1.70 H	209	37.1	16.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5646.05	61.0 PK	68.2	-7.2	1.63 V	90	59.3	1.7
2	*5755.00	121.2 PK			1.63 V	90	119.3	1.9
3	*5755.00	109.2 AV			1.63 V	90	107.3	1.9
4	#5926.63	60.4 PK	68.2	-7.8	1.63 V	90	58.0	2.4
5	11510.00	71.4 PK	74.0	-2.6	1.36 V	249	58.9	12.5
6	11510.00	52.4 AV	54.0	-1.6	1.36 V	249	39.9	12.5
7	#17265.00	54.1 PK	68.2	-14.1	1.31 V	312	38.1	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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5643.53	53.5 PK	68.2	-14.7	1.58 H	104	51.8	1.7
2	*5795.00	120.0 PK			1.58 H	104	117.9	2.1
3	*5795.00	106.2 AV			1.58 H	104	104.1	2.1
4	#5928.04	55.7 PK	68.2	-12.5	1.58 H	104	53.3	2.4
5	11590.00	67.5 PK	74.0	-6.5	1.16 H	318	54.7	12.8
6	11590.00	48.8 AV	54.0	-5.2	1.16 H	318	36.0	12.8
7	#17385.00	52.5 PK	68.2	-15.7	1.70 H	191	35.2	17.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5649.05	56.3 PK	68.2	-11.9	1.59 V	90	54.6	1.7
2	*5795.00	121.3 PK			1.59 V	90	119.2	2.1
3	*5795.00	109.6 AV			1.59 V	90	107.5	2.1
4	#5929.20	61.8 PK	68.2	-6.4	1.59 V	90	59.4	2.4
5	11590.00	71.5 PK	74.0	-2.5	1.25 V	265	58.7	12.8
6	11590.00	52.4 AV	54.0	-1.6	1.25 V	265	39.6	12.8
7	#17385.00	53.1 PK	68.2	-15.1	1.22 V	309	35.8	17.3

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5135.00	64.9 PK	74.0	-9.1	1.66 H	295	63.2	1.7
2	5135.00	48.4 AV	54.0	-5.6	1.66 H	295	46.7	1.7
3	5150.00	58.7 PK	74.0	-15.3	1.66 H	295	57.0	1.7
4	5150.00	49.9 AV	54.0	-4.1	1.66 H	295	48.2	1.7
5	*5210.00	107.7 PK			1.66 H	295	106.3	1.4
6	*5210.00	93.5 AV			1.66 H	295	92.1	1.4
7	5350.00	50.6 PK	74.0	-23.4	1.66 H	295	49.2	1.4
8	5350.00	40.1 AV	54.0	-13.9	1.66 H	295	38.7	1.4
9	#10420.00	51.3 PK	68.2	-16.9	1.33 H	276	39.9	11.4
10	15630.00	44.4 PK	74.0	-29.6	1.84 H	320	33.0	11.4
11	15630.00	34.2 AV	54.0	-19.8	1.84 H	320	22.8	11.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.9 PK	74.0	-7.1	2.07 V	91	65.2	1.7
2	5150.00	53.6 AV	54.0	-0.4	2.07 V	91	51.9	1.7
3	*5210.00	109.5 PK			2.07 V	91	108.1	1.4
4	*5210.00	98.7 AV			2.07 V	91	97.3	1.4
5	5350.00	53.3 PK	74.0	-20.7	2.07 V	91	51.9	1.4
6	5350.00	43.1 AV	54.0	-10.9	2.07 V	91	41.7	1.4
7	#10420.00	55.2 PK	68.2	-13.0	2.49 V	299	43.8	11.4
8	15630.00	51.9 PK	74.0	-22.1	1.95 V	202	40.5	11.4
9	15630.00	38.6 AV	54.0	-15.4	1.95 V	202	27.2	11.4

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5100.00	51.2 PK	74.0	-22.8	1.50 H	37	49.4	1.8
2	5100.00	39.0 AV	54.0	-15.0	1.50 H	37	37.2	1.8
3	*5290.00	105.0 PK			1.50 H	37	103.8	1.2
4	*5290.00	93.1 AV			1.50 H	37	91.9	1.2
5	5350.00	60.7 PK	74.0	-13.3	1.50 H	37	59.3	1.4
6	5350.00	44.1 AV	54.0	-9.9	1.50 H	37	42.7	1.4
7	#10580.00	51.7 PK	68.2	-16.5	1.32 H	267	40.0	11.7
8	15870.00	45.3 PK	74.0	-28.7	1.87 H	314	34.7	10.6
9	15870.00	34.9 AV	54.0	-19.1	1.87 H	314	24.3	10.6

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	54.2 PK	74.0	-19.8	1.61 V	88	52.5	1.7
2	5150.00	43.7 AV	54.0	-10.3	1.61 V	88	42.0	1.7
3	*5290.00	110.9 PK			1.61 V	88	109.7	1.2
4	*5290.00	99.2 AV			1.61 V	88	98.0	1.2
5	5350.00	66.4 PK	74.0	-7.6	1.61 V	88	65.0	1.4
6	5350.00	53.7 AV	54.0	-0.3	1.61 V	88	52.3	1.4
7	#10580.00	55.0 PK	68.2	-13.2	2.51 V	289	43.3	11.7
8	15870.00	51.3 PK	74.0	-22.7	1.97 V	192	40.7	10.6
9	15870.00	38.3 AV	54.0	-15.7	1.97 V	192	27.7	10.6

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	62.6 PK	74.0	-11.4	1.72 H	110	61.0	1.6
2	5460.00	45.5 AV	54.0	-8.5	1.72 H	110	43.9	1.6
3	#5470.00	66.8 PK	68.2	-1.4	1.72 H	110	65.2	1.6
4	*5530.00	106.8 PK			1.72 H	110	105.1	1.7
5	*5530.00	94.9 AV			1.72 H	110	93.2	1.7
6	#5734.85	51.1 PK	68.2	-17.1	1.72 H	110	49.2	1.9
7	11060.00	51.0 PK	74.0	-23.0	1.26 H	284	39.2	11.8
8	11060.00	39.0 AV	54.0	-15.0	1.26 H	284	27.2	11.8
9	#16590.00	44.4 PK	68.2	-23.8	1.91 H	316	30.2	14.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	64.4 PK	74.0	-9.6	1.56 V	98	62.8	1.6
2	5460.00	51.0 AV	54.0	-3.0	1.56 V	98	49.4	1.6
3	#5470.00	66.7 PK	68.2	-1.5	1.56 V	98	65.1	1.6
4	*5530.00	110.4 PK			1.56 V	98	108.7	1.7
5	*5530.00	99.2 AV			1.56 V	98	97.5	1.7
6	#5762.37	54.8 PK	68.2	-13.4	1.56 V	98	52.8	2.0
7	11060.00	54.7 PK	74.0	-19.3	2.60 V	301	42.9	11.8
8	11060.00	41.8 AV	54.0	-12.2	2.60 V	301	30.0	11.8
9	#16590.00	52.0 PK	68.2	-16.2	1.94 V	199	37.8	14.2

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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	108.1 PK			1.65 H	113	106.5	1.6
2	*5610.00	96.4 AV			1.65 H	113	94.8	1.6
3	#5725.00	56.5 PK	68.2	-11.7	1.65 H	113	54.6	1.9
4	11220.00	51.8 PK	74.0	-22.2	1.36 H	269	40.1	11.7
5	11220.00	39.6 AV	54.0	-14.4	1.36 H	269	27.9	11.7
6	#16830.00	44.2 PK	68.2	-24.0	1.90 H	309	29.1	15.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	111.2 PK			1.52 V	100	109.6	1.6
2	*5610.00	100.0 AV			1.52 V	100	98.4	1.6
3	#5725.00	63.0 PK	68.2	-5.2	1.52 V	100	61.1	1.9
4	11220.00	55.6 PK	74.0	-18.4	2.53 V	279	43.9	11.7
5	11220.00	42.4 AV	54.0	-11.6	2.53 V	279	30.7	11.7
6	#16830.00	51.2 PK	68.2	-17.0	1.91 V	219	36.1	15.1

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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	53.2 PK	74.0	-20.8	1.45 H	116	51.6	1.6
2	5460.00	39.3 AV	54.0	-14.7	1.45 H	116	37.7	1.6
3	#5470.00	53.2 PK	68.2	-15.0	1.45 H	116	51.6	1.6
4	*5690.00	109.4 PK			1.45 H	116	107.7	1.7
5	*5690.00	96.0 AV			1.45 H	116	94.3	1.7
6	#5850.00	54.8 PK	68.2	-13.4	1.45 H	116	52.5	2.3
7	11380.00	51.3 PK	74.0	-22.7	1.34 H	281	38.7	12.6
8	11380.00	39.1 AV	54.0	-14.9	1.34 H	281	26.5	12.6
9	#17070.00	44.9 PK	68.2	-23.3	1.90 H	292	28.7	16.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	54.4 PK	74.0	-19.6	1.71 V	93	52.8	1.6
2	5460.00	41.5 AV	54.0	-12.5	1.71 V	93	39.9	1.6
3	#5470.00	55.2 PK	68.2	-13.0	1.71 V	93	53.6	1.6
4	*5690.00	110.8 PK			1.71 V	93	109.1	1.7
5	*5690.00	100.1 AV			1.71 V	93	98.4	1.7
6	#5850.00	56.7 PK	68.2	-11.5	1.71 V	93	54.4	2.3
7	11380.00	54.7 PK	74.0	-19.3	2.52 V	283	42.1	12.6
8	11380.00	41.4 AV	54.0	-12.6	2.52 V	283	28.8	12.6
9	#17070.00	51.9 PK	68.2	-16.3	1.98 V	209	35.7	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.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5622.16	62.8 PK	68.2	-5.4	1.77 H	104	61.1	1.7
2	*5775.00	115.4 PK			1.77 H	104	113.4	2.0
3	*5775.00	102.3 AV			1.77 H	104	100.3	2.0
4	#5927.06	62.3 PK	68.2	-5.9	1.77 H	104	59.9	2.4
5	11550.00	66.8 PK	74.0	-7.2	1.20 H	317	54.1	12.7
6	11550.00	48.3 AV	54.0	-5.7	1.20 H	317	35.6	12.7
7	#17325.00	52.6 PK	68.2	-15.6	1.74 H	189	36.2	16.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5648.28	66.6 PK	68.2	-1.6	1.54 V	89	64.9	1.7
2	*5775.00	117.8 PK			1.54 V	89	115.8	2.0
3	*5775.00	105.7 AV			1.54 V	89	103.7	2.0
4	#5933.23	67.8 PK	68.2	-0.4	1.54 V	89	65.4	2.4
5	11550.00	71.0 PK	74.0	-3.0	1.31 V	269	58.3	12.7
6	11550.00	52.4 AV	54.0	-1.6	1.31 V	269	39.7	12.7
7	#17325.00	54.1 PK	68.2	-14.1	1.27 V	322	37.7	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.

RF Mode	TX 802.11ax (HE160)	Channel	CH 50 : 5250 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5128.00	65.6 PK	74.0	-8.4	1.77 H	292	63.9	1.7
2	5128.00	51.4 AV	54.0	-2.6	1.77 H	292	49.7	1.7
3	*5250.00	105.8 PK			1.77 H	292	104.6	1.2
4	*5250.00	92.6 AV			1.77 H	292	91.4	1.2
5	5350.00	59.3 PK	74.0	-14.7	1.77 H	292	57.9	1.4
6	5350.00	46.4 AV	54.0	-7.6	1.77 H	292	45.0	1.4
7	5370.00	65.9 PK	74.0	-8.1	1.77 H	292	64.5	1.4
8	5370.00	45.1 AV	54.0	-8.9	1.77 H	292	43.7	1.4
9	#10500.00	50.9 PK	68.2	-17.3	1.31 H	274	39.5	11.4
10	15750.00	45.2 PK	74.0	-28.8	1.96 H	289	34.4	10.8
11	15750.00	35.2 AV	54.0	-18.8	1.96 H	289	24.4	10.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	72.9 PK	74.0	-1.1	1.71 V	87	71.2	1.7
2	5150.00	52.6 AV	54.0	-1.4	1.71 V	87	50.9	1.7
3	*5250.00	107.7 PK			1.71 V	87	106.5	1.2
4	*5250.00	96.7 AV			1.71 V	87	95.5	1.2
5	5380.00	70.2 PK	74.0	-3.8	1.71 V	87	68.8	1.4
6	5380.00	52.9 AV	54.0	-1.1	1.71 V	87	51.5	1.4
7	#10500.00	55.1 PK	68.2	-13.1	2.57 V	290	43.7	11.4
8	15750.00	51.4 PK	74.0	-22.6	1.95 V	213	40.6	10.8
9	15750.00	38.4 AV	54.0	-15.6	1.95 V	213	27.6	10.8

Remarks:

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

RF Mode	TX 802.11ax (HE160)	Channel	CH 114 : 5570 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	61.0 PK	74.0	-13.0	1.50 H	317	59.4	1.6
2	5460.00	46.1 AV	54.0	-7.9	1.50 H	317	44.5	1.6
3	#5470.00	61.0 PK	68.2	-7.2	1.50 H	317	59.4	1.6
4	*5570.00	105.4 PK			1.50 H	317	103.7	1.7
5	*5570.00	93.0 AV			1.50 H	317	91.3	1.7
6	#5740.90	53.5 PK	68.2	-14.7	1.50 H	317	51.6	1.9
7	11140.00	50.9 PK	74.0	-23.1	1.31 H	288	39.4	11.5
8	11140.00	38.9 AV	54.0	-15.1	1.31 H	288	27.4	11.5
9	#16710.00	44.9 PK	68.2	-23.3	1.86 H	302	30.2	14.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5452.84	69.3 PK	74.0	-4.7	1.49 V	91	67.7	1.6
2	5452.84	52.7 AV	54.0	-1.3	1.49 V	91	51.1	1.6
3	#5465.12	65.3 PK	68.2	-2.9	1.49 V	91	63.7	1.6
4	*5570.00	112.0 PK			1.49 V	91	110.3	1.7
5	*5570.00	100.3 AV			1.49 V	91	98.6	1.7
6	#5730.71	59.1 PK	68.2	-9.1	1.49 V	91	57.2	1.9
7	11140.00	54.9 PK	74.0	-19.1	2.57 V	286	43.4	11.5
8	11140.00	42.0 AV	54.0	-12.0	2.57 V	286	30.5	11.5
9	#16710.00	51.8 PK	68.2	-16.4	1.90 V	197	37.1	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.

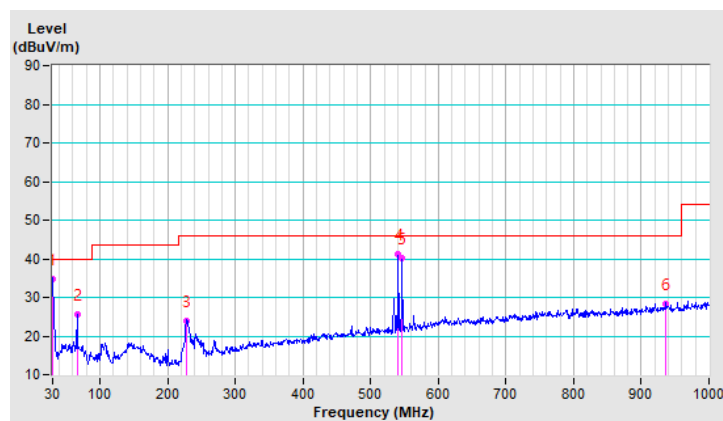
Below 1GHz Data:

RF Mode	TX 802.11ax (HE20)	Channel	CH 165 : 5825 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.19	34.8 QP	40.0	-5.2	1.00 H	143	48.5	-13.7
2	66.66	25.7 QP	40.0	-14.3	1.00 H	224	39.6	-13.9
3	227.59	24.0 QP	46.0	-22.0	1.00 H	65	39.5	-15.5
4	541.19	41.2 QP	46.0	-4.8	1.50 H	264	47.8	-6.6
5	546.92	40.1 QP	46.0	-5.9	1.50 H	117	46.6	-6.5
6	936.16	28.3 QP	46.0	-17.7	3.00 H	271	28.7	-0.4

Remarks:

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

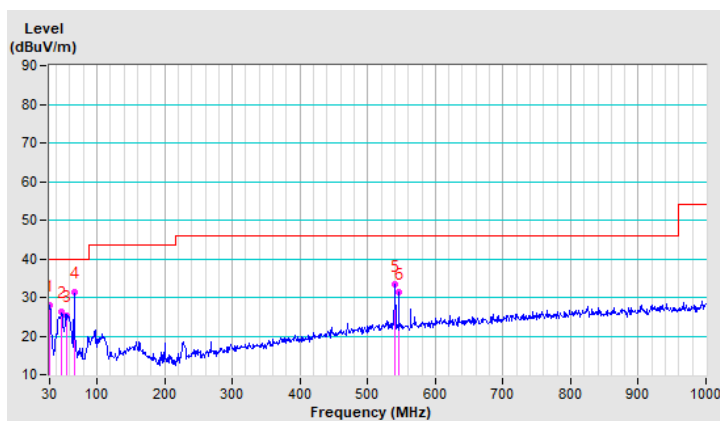


RF Mode	TX 802.11ax (HE20)	Channel	CH 165 : 5825 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.29	27.9 QP	40.0	-12.1	1.00 V	134	41.7	-13.8
2	48.09	26.3 QP	40.0	-13.7	1.00 V	162	38.7	-12.4
3	54.54	25.4 QP	40.0	-14.6	1.00 V	298	38.1	-12.7
4	66.56	31.3 QP	40.0	-8.7	2.00 V	228	45.3	-14.0
5	540.39	33.3 QP	46.0	-12.7	2.00 V	341	39.9	-6.6
6	546.58	31.2 QP	46.0	-14.8	3.00 V	24	37.7	-6.5

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



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 20, 2020	Oct. 19, 2021
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 27, 2020	Oct. 26, 2021
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 19, 2020	Mar. 18, 2021
50 ohms Terminator	50	3	Oct. 26, 2020	Oct. 25, 2021
RF Cable	5D-FB	COCCAB-001	Sep. 26, 2020	Sep. 25, 2021
Fixed attenuator EMCI	STI02-2200-10	005	Aug. 29, 2020	Aug. 28, 2021
Software BVADT	BVADT_Cond_V7.3.7.4	NA	NA	NA

Note:

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
- 3 Tested Date: Oct. 30, 2020

4.2.3 Test Procedure

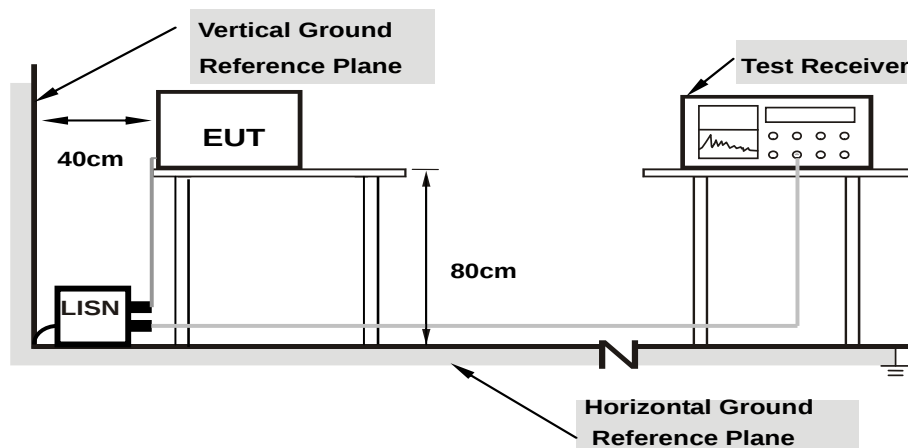
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Condition

Same as 4.1.6.

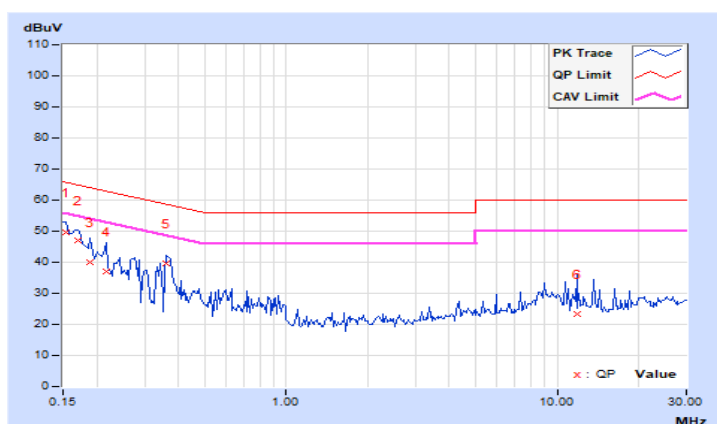
4.2.7 Test Results

RF Mode	TX 802.11ax (HE20)	Channel	CH 165 : 5825 MHz
Frequency Range	0kHz ~ 150kHz;	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz;

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	9.92	39.63	24.12	49.55	34.04	65.79	55.79	-16.24	-21.75
2	0.16953	9.93	37.24	22.44	47.17	32.37	64.98	54.98	-17.81	-22.61
3	0.18906	9.94	29.96	16.57	39.90	26.51	64.08	54.08	-24.18	-27.57
4	0.21641	9.95	27.26	15.85	37.21	25.80	62.96	52.96	-25.75	-27.16
5	0.36094	9.97	29.65	20.06	39.62	30.03	58.71	48.71	-19.09	-18.68
6	11.85938	10.77	12.39	3.55	23.16	14.32	60.00	50.00	-36.84	-35.68

Remarks:

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

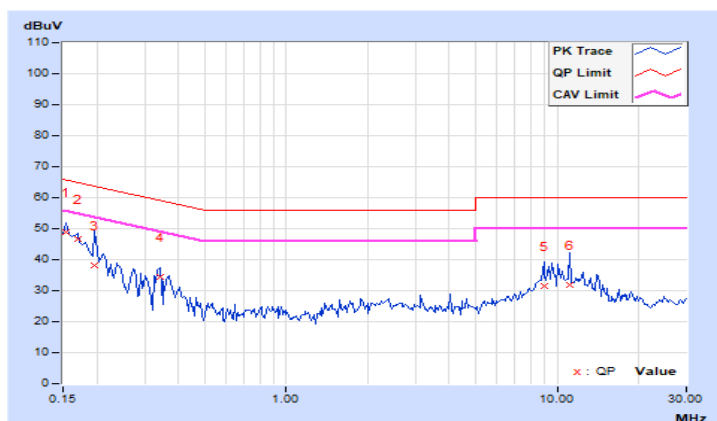


RF Mode	TX 802.11ax (HE20)	Channel	CH 165 : 5825 MHz
Frequency Range	0kHz ~ 150kHz;	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz;

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	9.93	39.03	22.19	48.96	32.12	65.79	55.79	-16.83	-23.67
2	0.16953	9.94	36.86	20.73	46.80	30.67	64.98	54.98	-18.18	-24.31
3	0.19687	9.96	28.21	12.49	38.17	22.45	63.74	53.74	-25.57	-31.29
4	0.34141	9.99	24.61	18.30	34.60	28.29	59.17	49.17	-24.57	-20.88
5	8.92188	10.50	20.89	12.95	31.39	23.45	60.00	50.00	-28.61	-26.55
6	11.12891	10.62	21.08	12.93	31.70	23.55	60.00	50.00	-28.30	-26.45

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 $\leq$ 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 $N_{ANT} \leq 4$;

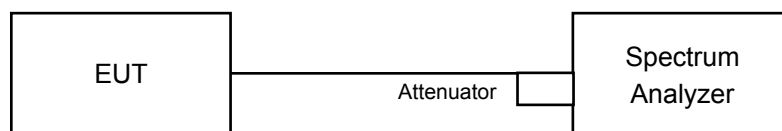
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

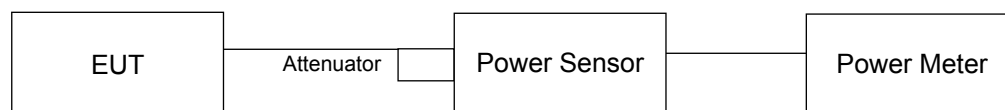
For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

4.3.2 Test Setup

For channel straddling 5250MHz and 5725MHz:



For other channels:



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For channel straddling 5250MHz and 5725MHz:

Follow FCC KDB 789033 UNII test procedure:

Method SA-2

1. Set span to encompass the emission bandwidth (EBW) of the signal.
2. Set RBW =1MHz.
3. Set the VBW $\geq 3 \times$ 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.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Condition

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

4.3.7 Test Results

CDD Mode

802.11a

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	21.07	21.45	20.28	19.76	468.858	26.71	30.00	Pass
40	5200	21.16	21.34	20.01	21.20	498.818	26.98	30.00	Pass
48	5240	21.25	21.23	20.12	21.00	494.786	26.94	30.00	Pass
52	5260	15.29	15.65	15.68	15.55	143.41	21.57	24.00	Pass
60	5300	15.01	15.29	15.89	15.44	139.312	21.44	24.00	Pass
64	5320	15.03	15.60	16.04	15.08	140.54	21.48	24.00	Pass
100	5500	15.22	15.19	14.95	14.76	127.486	21.05	24.00	Pass
116	5580	15.34	15.34	14.76	15.11	130.752	21.16	24.00	Pass
140	5700	14.91	15.41	14.55	15.04	126.153	21.01	24.00	Pass
*144 (U-NII-2C Band)	5720	11.84	11.99	11.48	11.80	62.212	17.94	22.94	Pass
*144 (U-NII-3 Band)	5720	5.90	5.94	5.51	5.68	15.553	11.92	30.00	Pass
149	5745	23.21	23.23	22.62	23.28	815.413	29.11	30.00	Pass
157	5785	23.03	23.07	23.00	23.18	811.173	29.09	30.00	Pass
165	5825	23.38	22.93	22.83	23.34	821.748	29.15	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 duty factor was included in the total power.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	19.39	19.22	19.71	20.18	368.229	25.66	30.00	Pass
40	5200	21.22	21.02	21.50	21.02	526.635	27.22	30.00	Pass
48	5240	21.12	20.96	21.39	20.94	516.044	27.13	30.00	Pass
52	5260	15.63	15.46	15.70	15.74	146.366	21.65	24.00	Pass
60	5300	15.36	15.60	15.80	15.56	144.657	21.60	24.00	Pass
64	5320	15.64	15.81	15.82	15.66	149.758	21.75	24.00	Pass
100	5500	14.93	15.55	14.90	15.34	132.11	21.21	24.00	Pass
116	5580	15.43	15.79	14.96	15.13	136.762	21.36	24.00	Pass
140	5700	15.54	15.81	14.86	15.19	137.573	21.39	24.00	Pass
*144 (U-NII-2C Band)	5720	11.50	11.75	11.44	11.15	58.45	17.67	22.97	Pass
*144 (U-NII-3 Band)	5720	6.53	5.81	5.44	5.61	16.108	12.07	30.00	Pass
149	5745	23.11	23.11	22.80	23.14	805.898	29.06	30.00	Pass
157	5785	23.01	23.09	22.59	22.80	775.788	28.90	30.00	Pass
165	5825	23.00	23.32	22.67	23.16	806.25	29.06	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 duty factor was included in the total power.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	16.26	16.51	16.42	16.76	178.315	22.51	30.00	Pass
46	5230	22.19	22.33	22.73	22.34	695.474	28.42	30.00	Pass
54	5270	16.84	16.98	17.21	17.22	203.519	23.09	24.00	Pass
62	5310	16.69	17.10	17.24	17.29	204.498	23.11	24.00	Pass
102	5510	16.33	16.54	16.35	16.57	176.581	22.47	24.00	Pass
110	5550	16.70	16.67	16.55	16.88	187.163	22.72	24.00	Pass
134	5670	16.70	16.84	17.06	17.00	196.014	22.92	24.00	Pass
*142 (U-NII-2C Band)	5710	13.82	14.28	14.09	14.02	104.516	20.19	24.00	Pass
*142 (U-NII-3 Band)	5710	4.18	4.22	4.04	4.12	10.658	10.28	30.00	Pass
151	5755	23.17	23.20	22.79	22.86	799.726	29.03	30.00	Pass
159	5795	22.84	23.12	22.87	22.75	779.432	28.92	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 duty factor was included in the total power.

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	15.48	15.26	15.33	15.46	138.167	21.40	30.00	Pass
58	5290	17.17	17.20	16.89	17.14	205.226	23.12	24.00	Pass
106	5530	16.48	16.39	16.54	16.53	178.074	22.51	24.00	Pass
122	5610	16.75	16.79	17.07	17.19	198.361	22.97	24.00	Pass
*138 (U-NII-2C Band)	5690	13.90	14.29	14.10	13.96	104.741	20.20	24.00	Pass
*138 (U-NII-3 Band)	5690	0.81	1.21	0.74	1.19	5.163	7.13	30.00	Pass
155	5775	22.58	22.79	22.46	22.30	717.264	28.56	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 duty factor was included in the total power.

802.11ac (VHT160)

Chan.	Chan. Freq. (MHz)	Average 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	9.22	9.62	9.90	9.57	37.567	15.75	30.00	Pass
*50 (U-NII-2A Band)	5250	9.33	9.67	9.45	9.49	36.734	15.65	24.00	Pass
114	5570	16.67	16.44	16.89	16.88	188.125	22.74	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 duty factor was included in the total power.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	19.58	19.41	19.84	20.32	382.109	25.82	30.00	Pass
40	5200	21.38	21.21	21.66	21.19	547.611	27.38	30.00	Pass
48	5240	21.31	21.11	21.55	21.07	535.157	27.28	30.00	Pass
52	5260	15.78	15.63	15.83	15.85	151.145	21.79	24.00	Pass
60	5300	15.53	15.76	16.00	15.68	150.191	21.77	24.00	Pass
64	5320	15.75	16.01	16.01	15.77	155.146	21.91	24.00	Pass
100	5500	15.13	15.70	15.03	15.50	137.061	21.37	24.00	Pass
116	5580	15.53	15.90	15.13	15.28	140.944	21.49	24.00	Pass
140	5700	15.73	15.98	14.97	15.36	142.8	21.55	24.00	Pass
*144 (U-NII-2C Band)	5720	11.87	12.10	11.13	11.56	61.414	17.88	22.97	Pass
*144 (U-NII-3 Band)	5720	6.62	7.10	6.20	6.49	19.131	12.82	30.00	Pass
149	5745	23.22	23.24	22.95	23.27	830.324	29.19	30.00	Pass
157	5785	23.14	23.22	22.79	22.92	801.949	29.04	30.00	Pass
165	5825	23.14	23.48	22.79	23.26	830.85	29.20	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 duty factor was included in the total power.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	16.39	16.68	16.59	16.91	184.804	22.67	30.00	Pass
46	5230	22.36	22.48	22.83	22.47	717.668	28.56	30.00	Pass
54	5270	16.99	17.09	17.41	17.40	211.206	23.25	24.00	Pass
62	5310	16.79	17.27	17.39	17.41	210.995	23.24	24.00	Pass
102	5510	16.45	16.64	16.45	16.73	181.544	22.59	24.00	Pass
110	5550	16.82	16.87	16.74	17.01	194.165	22.88	24.00	Pass
134	5670	16.85	17.02	17.24	17.12	203.257	23.08	24.00	Pass
*142 (U-NII-2C Band)	5710	13.96	14.51	14.13	14.15	107.855	20.33	24.00	Pass
*142 (U-NII-3 Band)	5710	4.39	4.99	4.76	4.80	12.237	10.88	30.00	Pass
151	5755	23.34	23.39	22.98	22.96	830.354	29.19	30.00	Pass
159	5795	22.99	23.31	23.04	22.93	811.065	29.09	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 duty factor was included in the total power.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	15.61	15.37	15.53	15.56	142.529	21.54	30.00	Pass
58	5290	17.35	17.32	16.99	17.30	211.983	23.26	24.00	Pass
106	5530	16.66	16.51	16.69	16.71	184.663	22.66	24.00	Pass
122	5610	16.92	16.95	17.20	17.38	205.931	23.14	24.00	Pass
*138 (U-NII-2C Band)	5690	14.28	14.61	14.35	14.64	115.051	20.61	24.00	Pass
*138 (U-NII-3 Band)	5690	1.61	1.82	1.74	2.05	6.229	7.94	30.00	Pass
155	5775	22.73	22.91	22.61	22.45	741.115	28.70	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 duty factor was included in the total power.

802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	Average 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	9.01	9.70	10.22	9.57	38.108	15.81	30.00	Pass
*50 (U-NII-2A Band)	5250	9.40	9.60	9.92	9.38	37.535	15.74	24.00	Pass
114	5570	16.84	16.57	17.00	16.99	193.822	22.87	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 duty factor was included in the total power.

Beamforming Mode

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	19.39	19.22	19.71	20.18	368.229	25.66	27.91	Pass
40	5200	20.91	20.77	20.86	20.91	487.919	26.88	27.91	Pass
48	5240	20.92	20.47	21.16	20.89	488.385	26.89	27.91	Pass
52	5260	15.35	15.11	15.19	15.28	133.476	21.25	22.34	Pass
60	5300	15.04	15.28	15.44	15.14	133.297	21.25	22.34	Pass
64	5320	15.04	15.55	15.38	15.13	134.906	21.30	22.34	Pass
100	5500	14.85	15.21	14.69	14.70	122.695	20.89	22.14	Pass
116	5580	14.92	15.26	14.78	14.75	124.534	20.95	22.14	Pass
140	5700	14.99	15.28	14.76	14.75	125.055	20.97	22.14	Pass
*144 (U-NII-2C Band)	5720	11.50	11.75	11.44	11.15	58.45	17.67	21.11	Pass
*144 (U-NII-3 Band)	5720	6.53	5.81	5.44	5.61	16.108	12.07	28.02	Pass
149	5745	21.03	21.05	20.87	20.73	494.6	26.94	28.02	Pass
157	5785	21.05	21.36	21.00	21.05	517.366	27.14	28.02	Pass
165	5825	20.83	21.11	20.57	21.06	491.851	26.92	28.02	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test. The duty factor was included in the total power.

1. For U-NII-1: The directional gain = 8.09 dBi > 6 dBi, so the power limit shall be reduced to $30 - (8.09 - 6) = 27.91$ dBm.
2. For U-NII-2A: The directional gain = 7.66 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.66-6)".
3. For U-NII-2C: The directional gain = 7.86 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.86-6)".
4. For U-NII-3: The directional gain = 7.98 dBi > 6 dBi, so the power limit shall be reduced to $30 - (7.98 - 6) = 28.02$ dBm.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	16.26	16.51	16.42	16.76	178.315	22.51	27.91	Pass
46	5230	20.55	20.73	20.97	21.05	484.181	26.85	27.91	Pass
54	5270	14.58	15.18	15.40	15.39	130.936	21.17	22.34	Pass
62	5310	14.78	14.84	15.69	15.31	131.57	21.19	22.34	Pass
102	5510	15.05	15.61	14.83	14.82	129.128	21.11	22.14	Pass
110	5550	14.84	15.37	15.14	14.84	128.052	21.07	22.14	Pass
134	5670	14.99	15.61	15.01	14.77	129.629	21.13	22.14	Pass
*142 (U-NII-2C Band)	5710	13.82	14.28	14.09	14.02	104.516	20.19	22.14	Pass
*142 (U-NII-3 Band)	5710	4.18	4.22	4.04	4.12	10.658	10.28	28.02	Pass
151	5755	21.08	20.97	20.87	20.85	497.058	26.96	28.02	Pass
159	5795	20.66	20.87	20.73	20.97	481.923	26.83	28.02	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test. The duty factor was included in the total power.

1. For U-NII-1: The directional gain = 8.09 dBi > 6 dBi, so the power limit shall be reduced to $30 - (8.09 - 6) = 27.91$ dBm.
2. For U-NII-2A: The directional gain = 7.66 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.66-6)".
3. For U-NII-2C: The directional gain = 7.86 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.86-6)".
4. For U-NII-3: The directional gain = 7.98 dBi > 6 dBi, so the power limit shall be reduced to $30 - (7.98 - 6) = 28.02$ dBm.

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	15.48	15.26	15.33	15.46	138.167	21.40	27.91	Pass
58	5290	14.84	15.36	15.21	14.90	128.927	21.10	22.34	Pass
106	5530	14.94	14.92	15.01	14.75	123.784	20.93	22.14	Pass
122	5610	14.54	14.84	15.27	14.91	123.549	20.92	22.14	Pass
*138 (U-NII-2C Band)	5690	13.90	14.29	14.10	13.96	104.741	20.20	22.14	Pass
*138 (U-NII-3 Band)	5690	0.81	1.21	0.74	1.19	5.163	7.13	28.02	Pass
155	5775	20.70	21.16	21.04	20.84	496.503	26.96	28.02	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test. The duty factor was included in the total power.

1. For U-NII-1: The directional gain = 8.09 dBi > 6 dBi, so the power limit shall be reduced to $30 - (8.09 - 6) = 27.91$ dBm.
2. For U-NII-2A: The directional gain = 7.66 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.66-6)".
3. For U-NII-2C: The directional gain = 7.86 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.86-6)".
4. For U-NII-3: The directional gain = 7.98 dBi > 6 dBi, so the power limit shall be reduced to $30 - (7.98 - 6) = 28.02$ dBm.

802.11ac (VHT160)

Chan.	Chan. Freq. (MHz)	Average 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	9.22	9.62	9.90	9.57	37.567	15.75	27.91	Pass
*50 (U-NII-2A Band)	5250	9.33	9.67	9.45	9.49	36.734	15.65	22.34	Pass
114	5570	14.80	15.10	15.25	14.92	127.101	21.04	22.14	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test. The duty factor was included in the total power.

1. For U-NII-1: The directional gain = 8.09 dBi > 6 dBi, so the power limit shall be reduced to $30 - (8.09 - 6) = 27.91$ dBm.
2. For U-NII-2A: The directional gain = 7.66 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.66-6)".
3. For U-NII-2C: The directional gain = 7.86 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.86-6)".

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	19.58	19.41	19.84	20.32	382.109	25.82	27.91	Pass
40	5200	21.02	20.95	21.05	21.02	504.749	27.03	27.91	Pass
48	5240	21.07	20.62	21.31	21.01	504.673	27.03	27.91	Pass
52	5260	15.47	15.26	15.34	15.40	137.682	21.39	22.34	Pass
60	5300	15.18	15.41	15.55	15.27	137.258	21.38	22.34	Pass
64	5320	15.21	15.69	15.48	15.28	139.305	21.44	22.34	Pass
100	5500	15.05	15.45	14.68	14.83	126.849	21.03	22.14	Pass
116	5580	15.02	15.54	14.78	14.84	128.118	21.08	22.14	Pass
140	5700	15.28	15.29	14.93	14.75	128.506	21.09	22.14	Pass
*144 (U-NII-2C Band)	5720	11.87	12.10	11.13	11.56	61.414	17.88	21.11	Pass
*144 (U-NII-3 Band)	5720	6.62	7.10	6.20	6.49	19.131	12.82	28.02	Pass
149	5745	21.20	21.25	21.03	20.93	515.823	27.13	28.02	Pass
157	5785	21.21	21.47	21.12	21.18	533.051	27.27	28.02	Pass
165	5825	20.96	21.25	20.72	21.22	508.557	27.06	28.02	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test. The duty factor was included in the total power.

1. For U-NII-1: The directional gain = 8.09 dBi > 6 dBi, so the power limit shall be reduced to $30 - (8.09 - 6) = 27.91$ dBm.
2. For U-NII-2A: The directional gain = 7.66 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.66-6)".
3. For U-NII-2C: The directional gain = 7.86 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.86-6)".
4. For U-NII-3: The directional gain = 7.98 dBi > 6 dBi, so the power limit shall be reduced to $30 - (7.98 - 6) = 28.02$ dBm.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	16.39	16.68	16.59	16.91	184.804	22.67	27.91	Pass
46	5230	20.75	20.92	21.17	21.19	504.886	27.03	27.91	Pass
54	5270	14.70	15.28	15.54	15.56	135.025	21.30	22.34	Pass
62	5310	14.95	14.98	15.82	15.47	136.17	21.34	22.34	Pass
102	5510	15.20	15.77	14.95	14.90	133.034	21.24	22.14	Pass
110	5550	15.01	15.50	15.28	14.94	132.095	21.21	22.14	Pass
134	5670	15.14	15.81	15.14	14.93	134.541	21.29	22.14	Pass
*142 (U-NII-2C Band)	5710	13.96	14.51	14.13	14.15	107.855	20.33	22.14	Pass
*142 (U-NII-3 Band)	5710	4.39	4.99	4.76	4.80	12.237	10.88	28.02	Pass
151	5755	21.22	21.15	20.98	21.00	513.957	27.11	28.02	Pass
159	5795	20.84	20.98	20.84	21.12	497.411	26.97	28.02	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test. The duty factor was included in the total power.

1. For U-NII-1: The directional gain = 8.09 dBi > 6 dBi, so the power limit shall be reduced to $30 - (8.09 - 6) = 27.91$ dBm.
2. For U-NII-2A: The directional gain = 7.66 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.66-6)".
3. For U-NII-2C: The directional gain = 7.86 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.86-6)".
4. For U-NII-3: The directional gain = 7.98 dBi > 6 dBi, so the power limit shall be reduced to $30 - (7.98 - 6) = 28.02$ dBm.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	15.61	15.37	15.53	15.56	142.529	21.54	27.91	Pass
58	5290	15.00	15.53	15.31	15.02	133.081	21.24	22.34	Pass
106	5530	15.13	14.77	15.16	14.95	126.646	21.03	22.14	Pass
122	5610	14.72	15.01	15.38	15.09	128.143	21.08	22.14	Pass
*138 (U-NII-2C Band)	5690	14.28	14.61	14.35	14.64	115.051	20.61	22.14	Pass
*138 (U-NII-3 Band)	5690	1.61	1.82	1.74	2.05	6.229	7.94	28.02	Pass
155	5775	20.90	21.36	21.24	21.02	519.319	27.15	28.02	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test. The duty factor was included in the total power.

1. For U-NII-1: The directional gain = 8.09 dBi > 6 dBi, so the power limit shall be reduced to $30-(8.09-6) = 27.91$ dBm.
2. For U-NII-2A: The directional gain = 7.66 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.66-6)".
3. For U-NII-2C: The directional gain = 7.86 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.86-6)".
4. For U-NII-3: The directional gain = 7.98 dBi > 6 dBi, so the power limit shall be reduced to $30-(7.98-6) = 28.02$ dBm.

802.11ax (HE160)

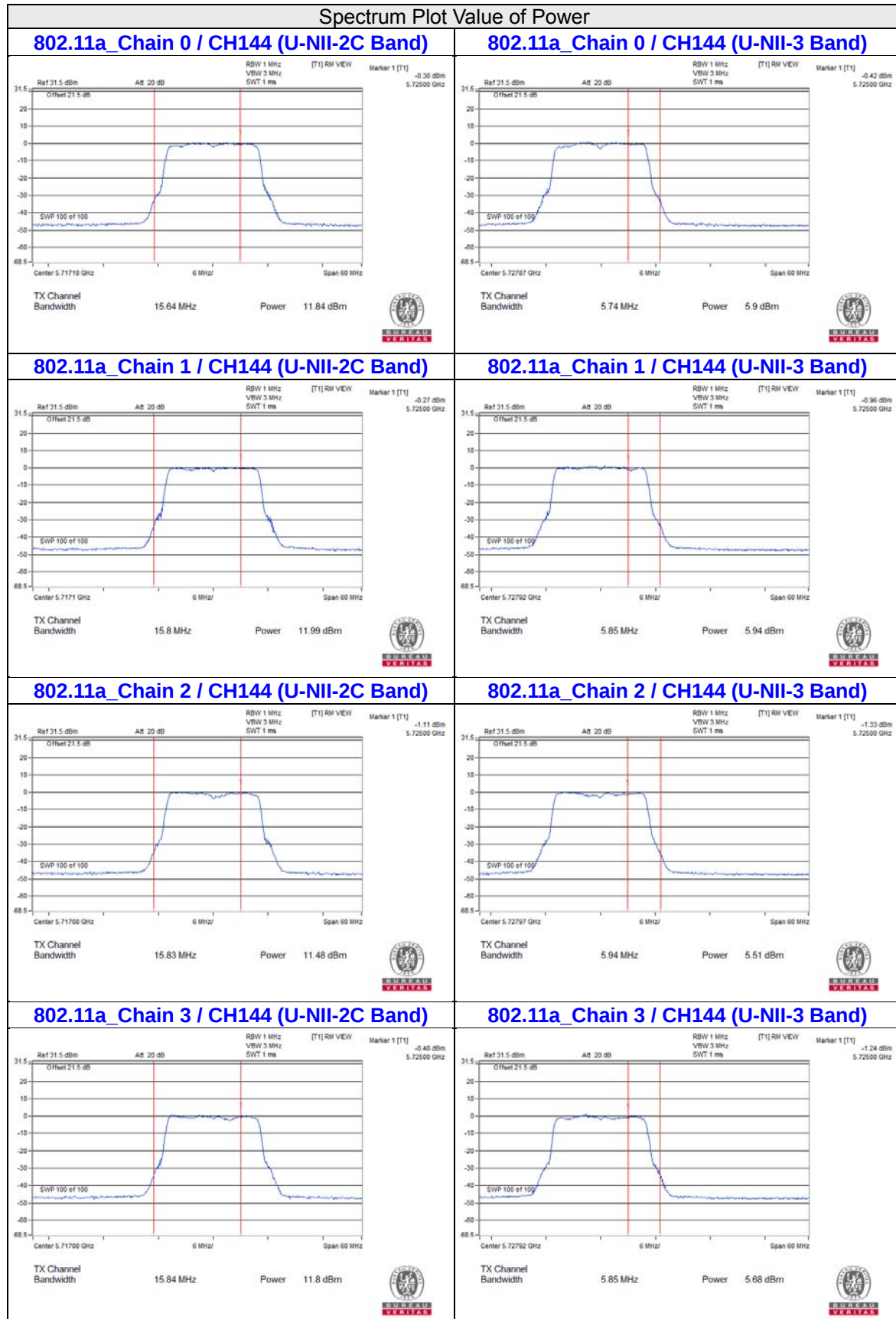
Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
*50 (U-NII-1 Band)	5250	9.01	9.70	10.22	9.57	38.108	15.81	27.91	Pass
*50 (U-NII-2A Band)	5250	9.40	9.60	9.92	9.38	37.535	15.74	22.34	Pass
114	5570	14.96	15.27	15.40	15.12	132.166	21.21	22.14	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test. The duty factor was included in the total power.

1. For U-NII-1: The directional gain = 8.09 dBi > 6 dBi, so the power limit shall be reduced to $30-(8.09-6) = 27.91$ dBm.
2. For U-NII-2A: The directional gain = 7.66 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.66-6)".
3. For U-NII-2C: The directional gain = 7.86 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.86-6)".

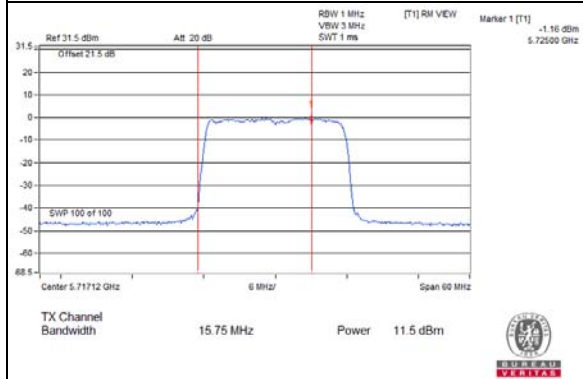
For channel straddling 5725MHz of Power

CDD Mode

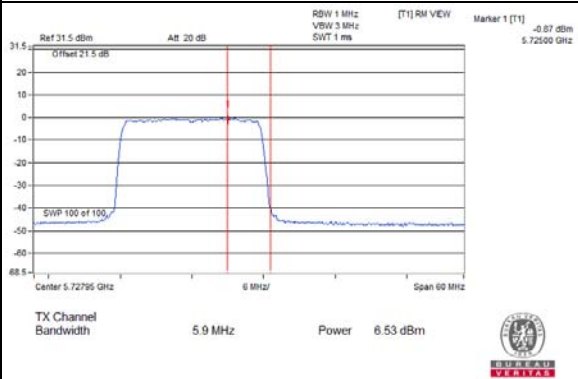


Spectrum Plot Value of Power

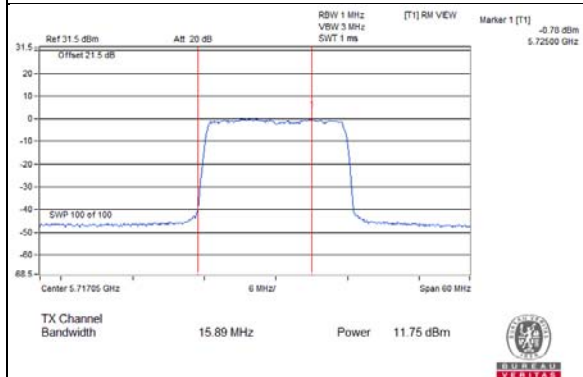
802.11ac (VHT20)_Chain 0 / CH144 (U-NII-2C Band)



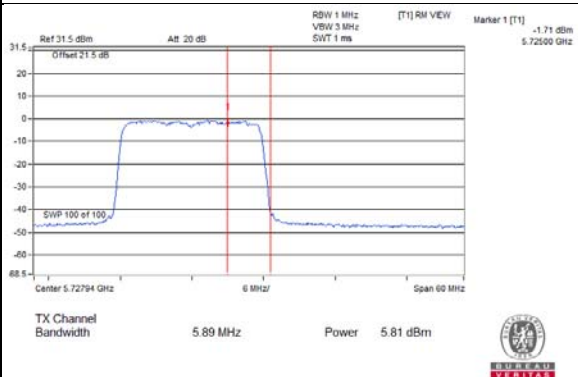
802.11ac (VHT20)_Chain 0 / CH144 (U-NII-3 Band)



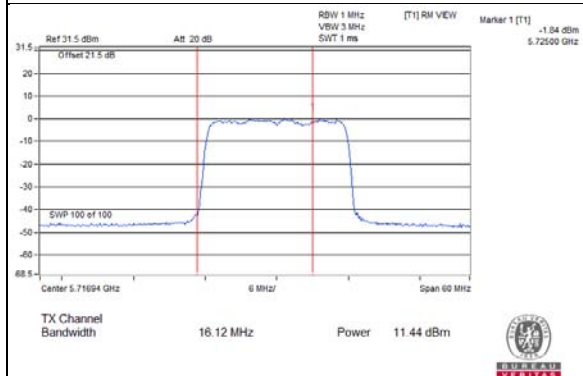
802.11ac (VHT20)_Chain 1 / CH144 (U-NII-2C Band)



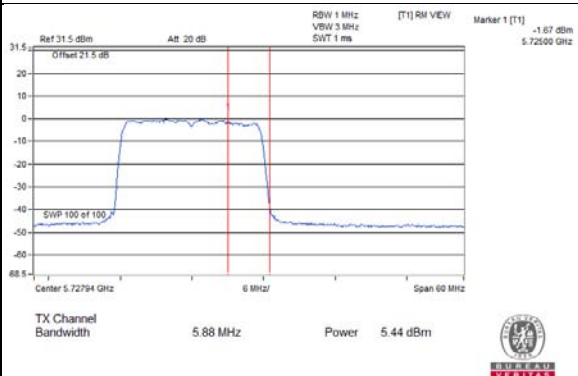
802.11ac (VHT20)_Chain 1 / CH144 (U-NII-3 Band)



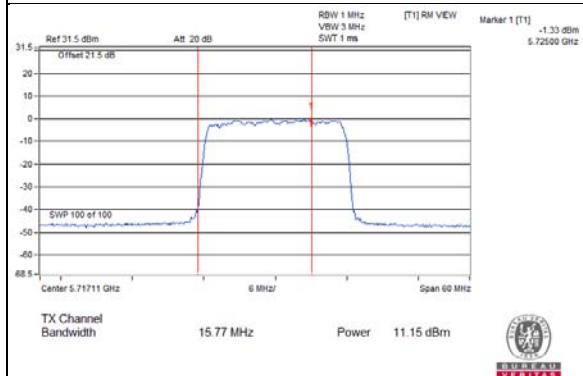
802.11ac (VHT20)_Chain 2 / CH144 (U-NII-2C Band)



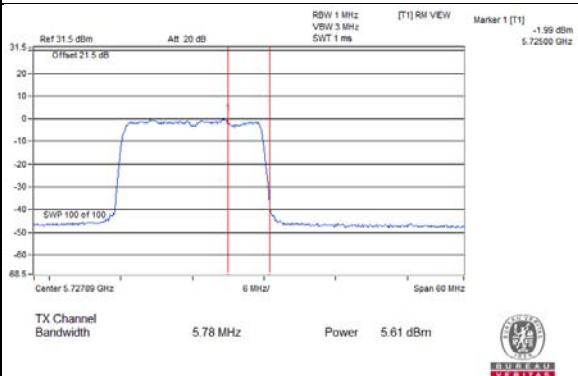
802.11ac (VHT20)_Chain 2 / CH144 (U-NII-3 Band)

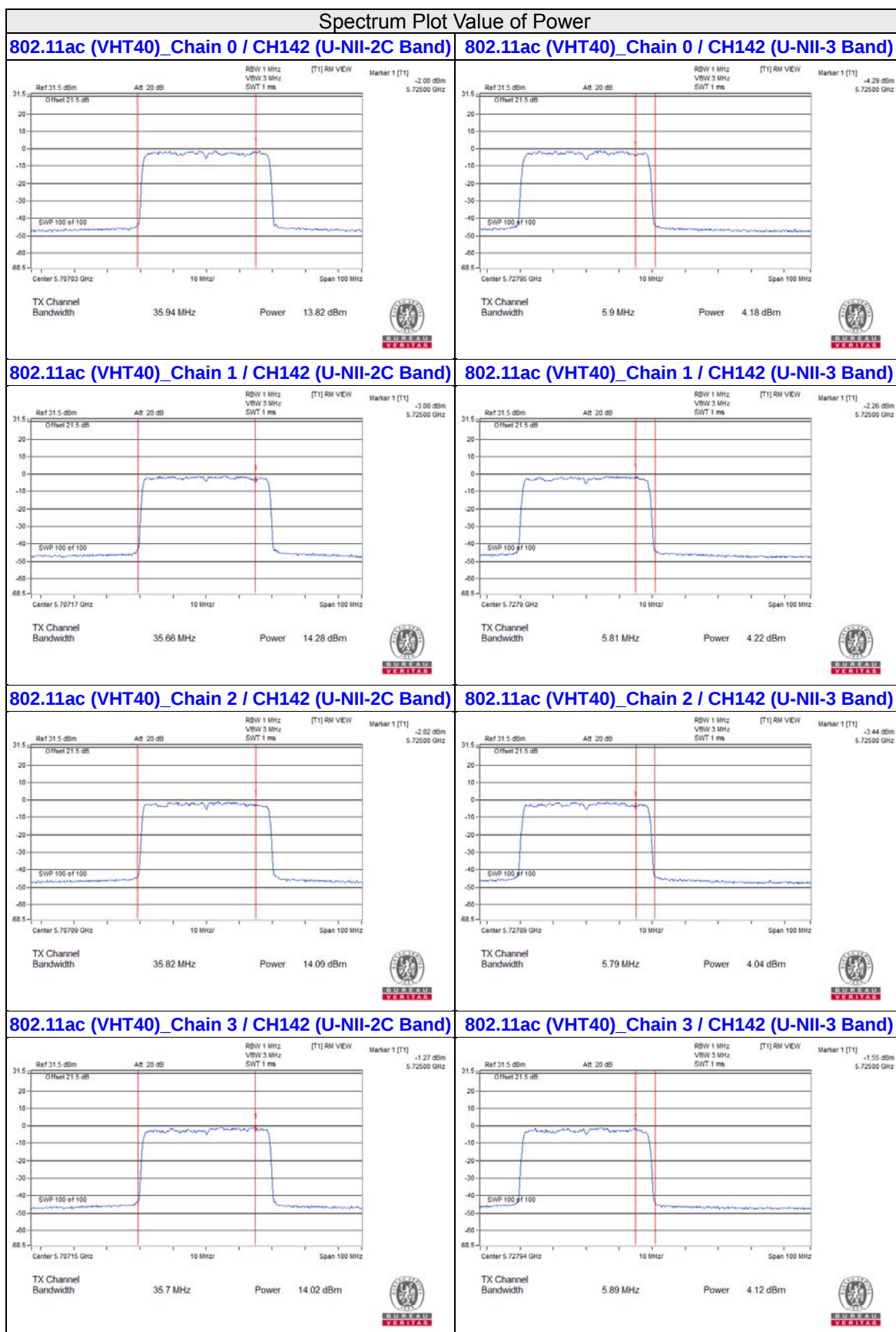


802.11ac (VHT20)_Chain 3 / CH144 (U-NII-2C Band)



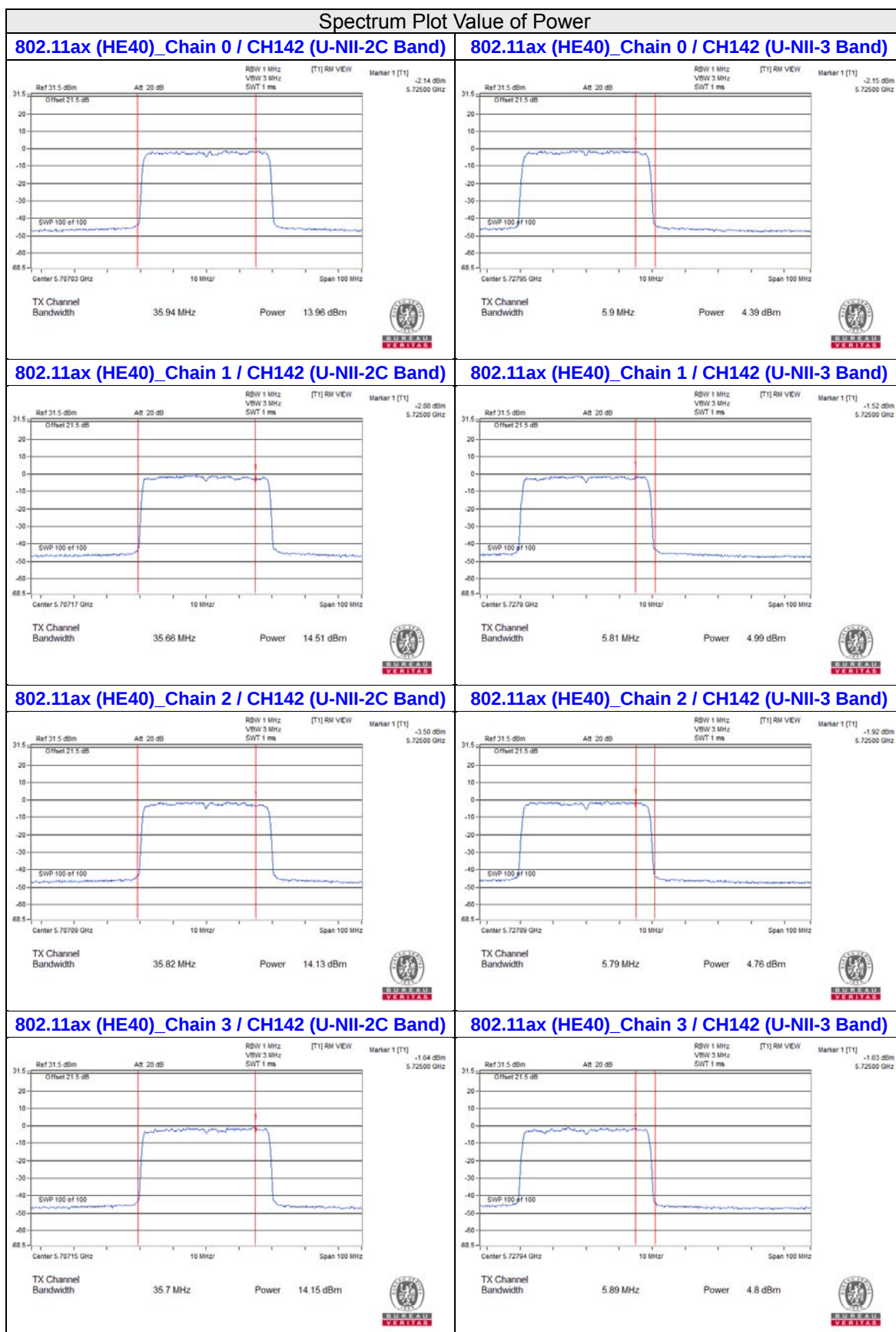
802.11ac (VHT20)_Chain 3 / CH144 (U-NII-3 Band)

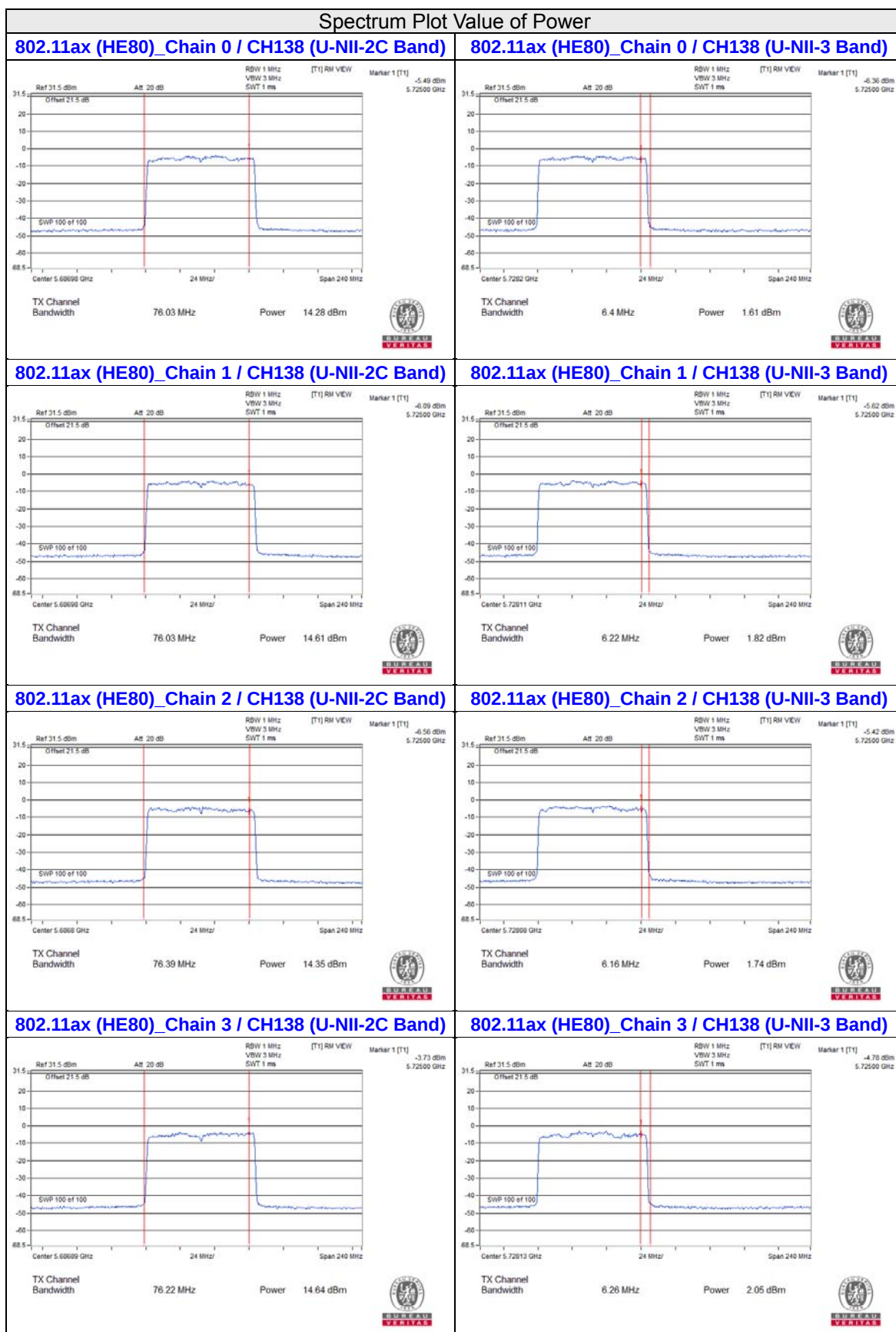






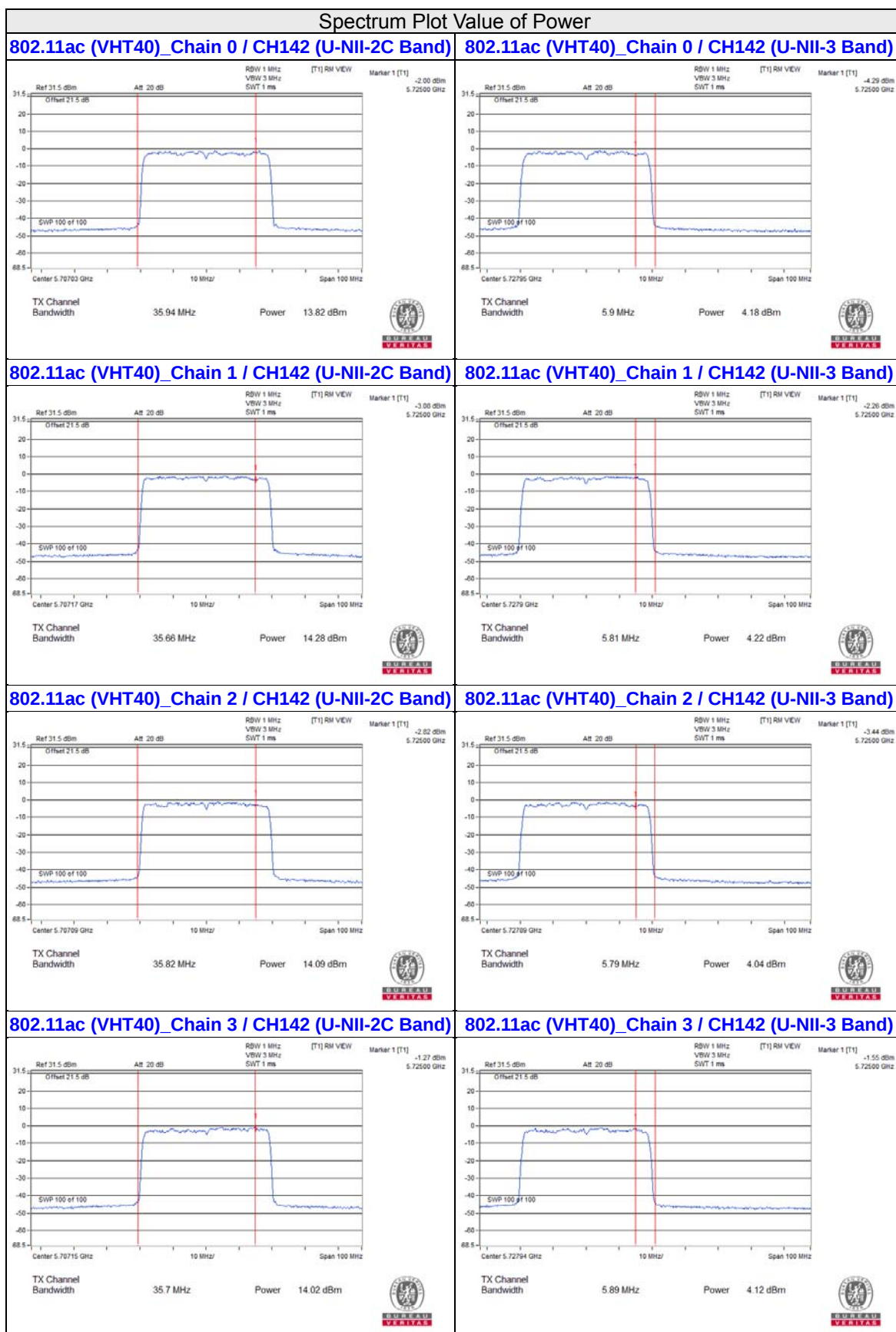






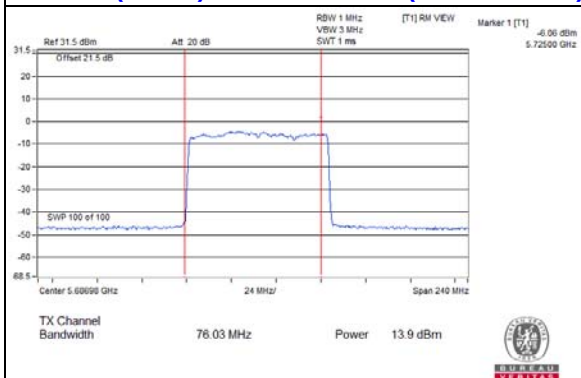
Beamforming Mode



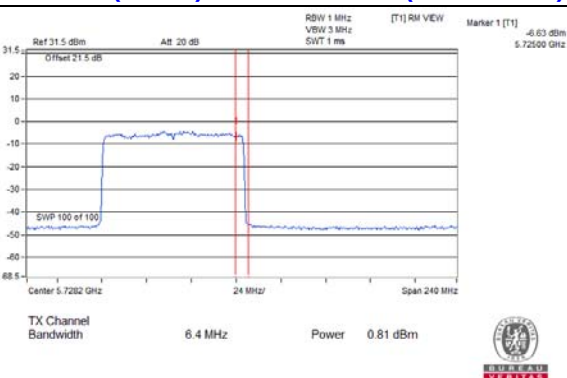


Spectrum Plot Value of Power

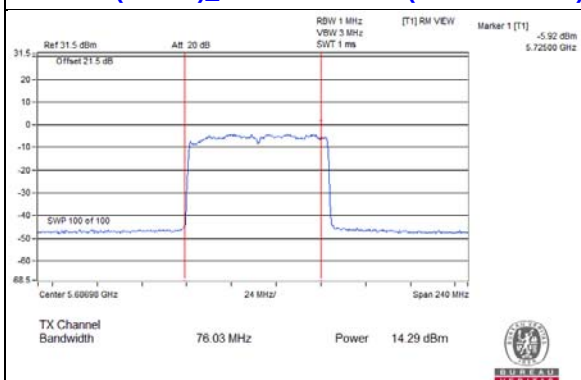
802.11ac (VHT80)_Chain 0 / CH138 (U-NII-2C Band)



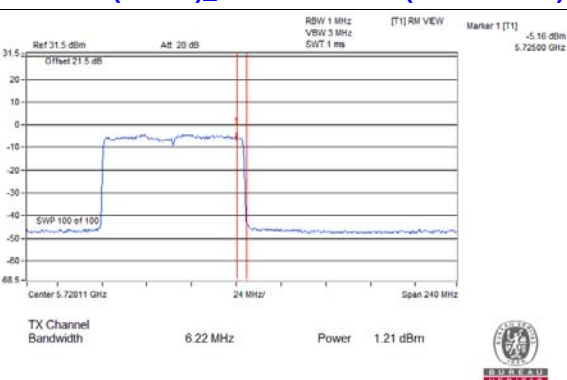
802.11ac (VHT80)_Chain 0 / CH138 (U-NII-3 Band)



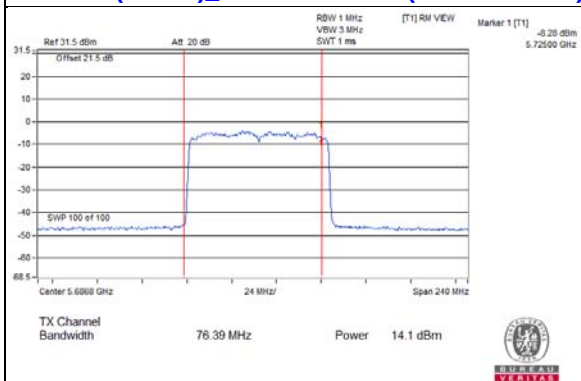
802.11ac (VHT80)_Chain 1 / CH138 (U-NII-2C Band)



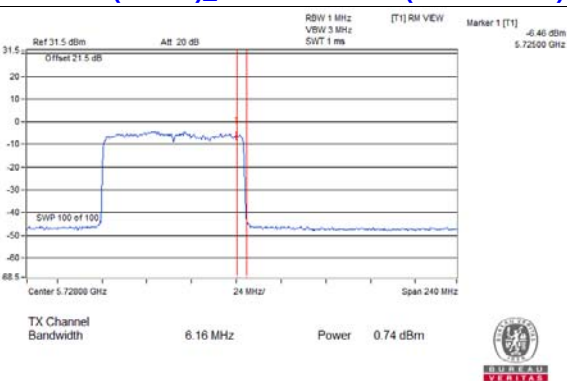
802.11ac (VHT80)_Chain 1 / CH138 (U-NII-3 Band)



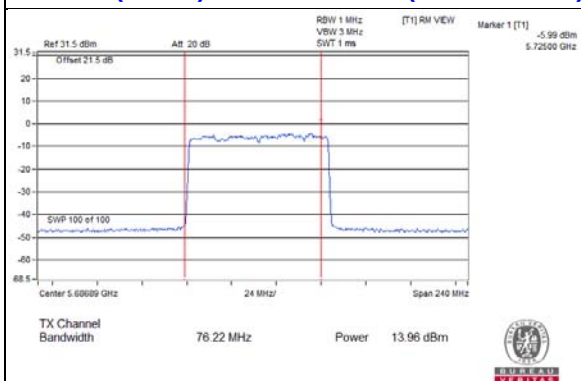
802.11ac (VHT80)_Chain 2 / CH138 (U-NII-2C Band)



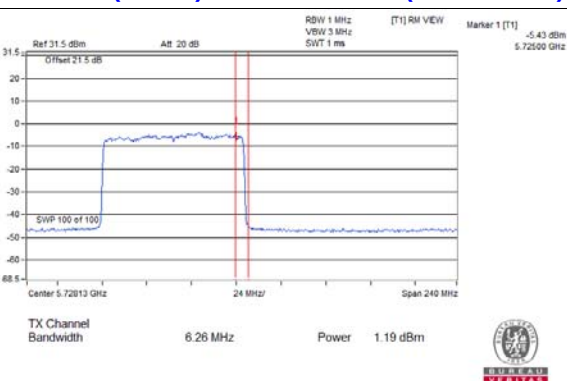
802.11ac (VHT80)_Chain 2 / CH138 (U-NII-3 Band)



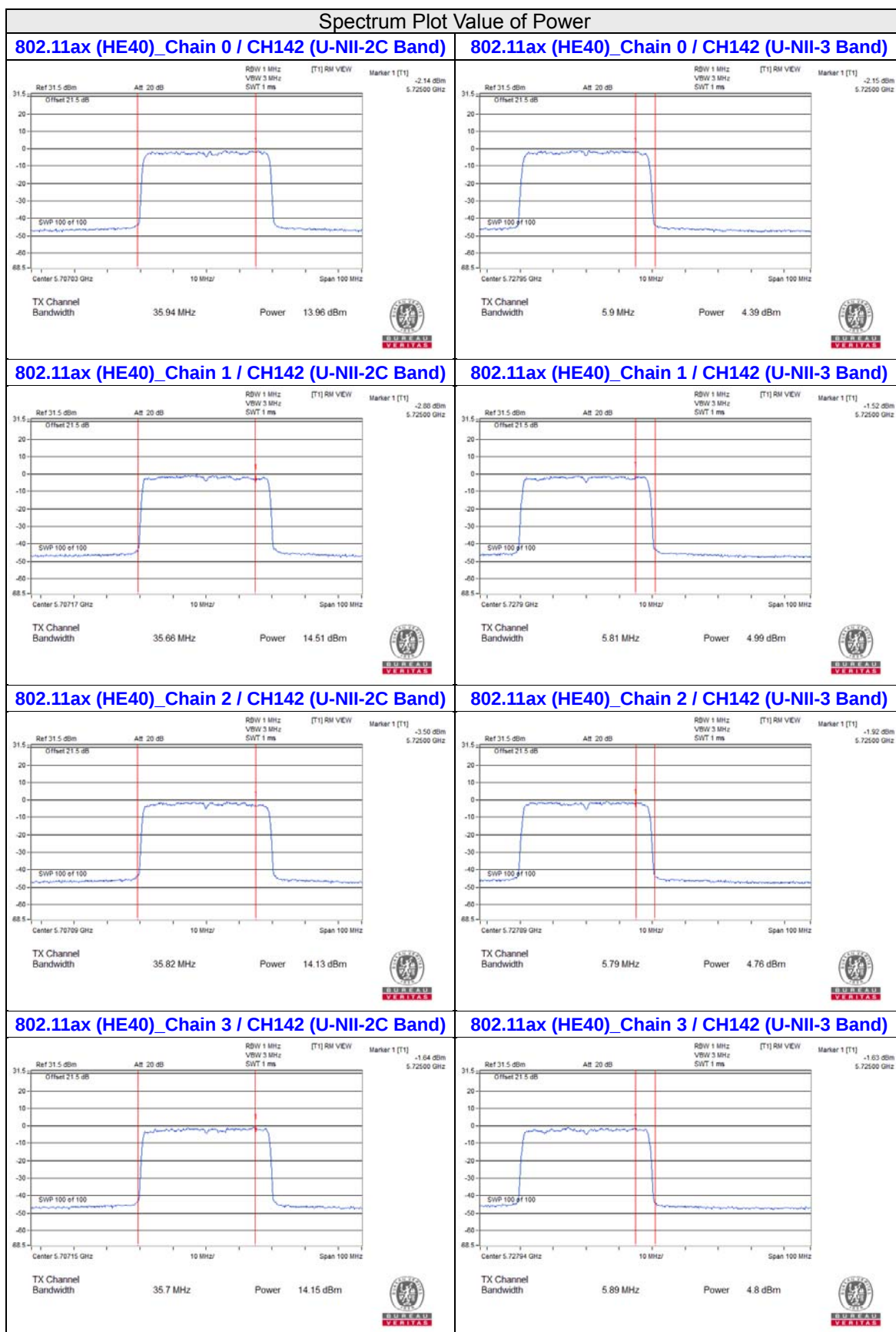
802.11ac (VHT80)_Chain 3 / CH138 (U-NII-2C Band)

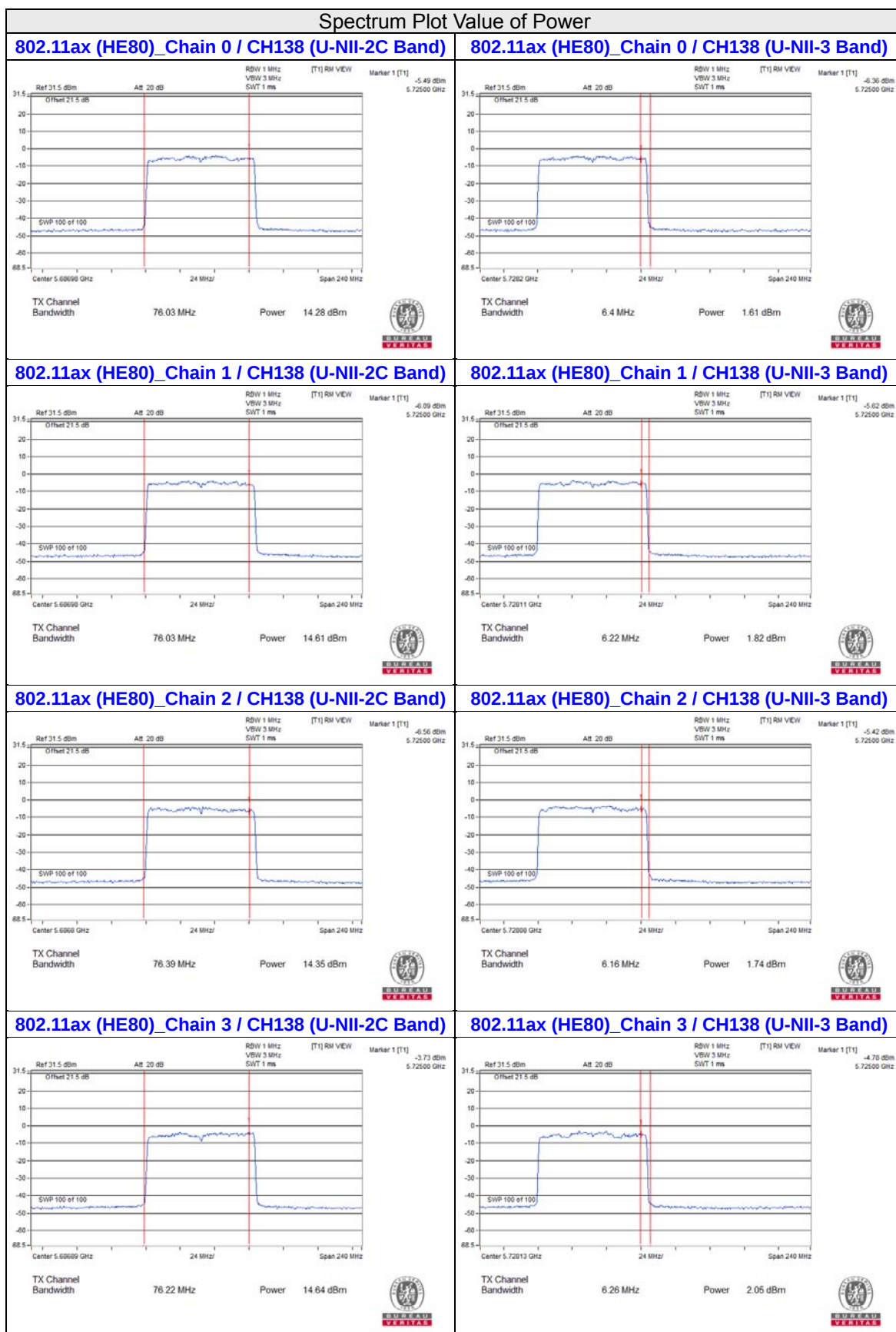


802.11ac (VHT80)_Chain 3 / CH138 (U-NII-3 Band)









For channel straddling 5250MHz of Power

CDD Mode





Beamforming Mode





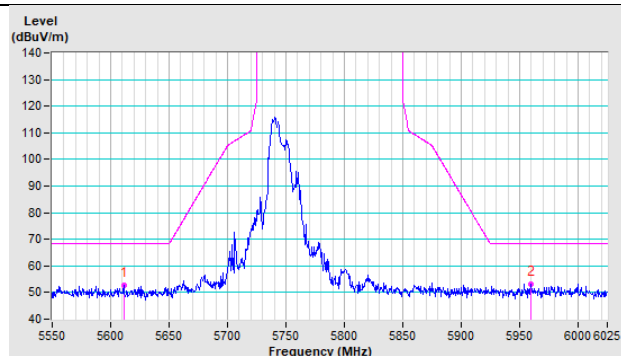
5 Pictures of Test Arrangements

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

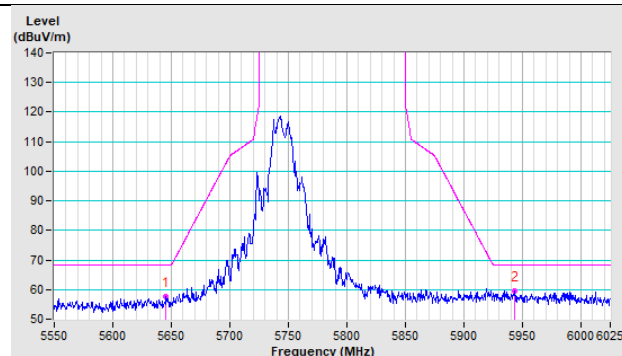
Annex A - Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

802.11a CH 149 : 5745 MHz

Horizontal

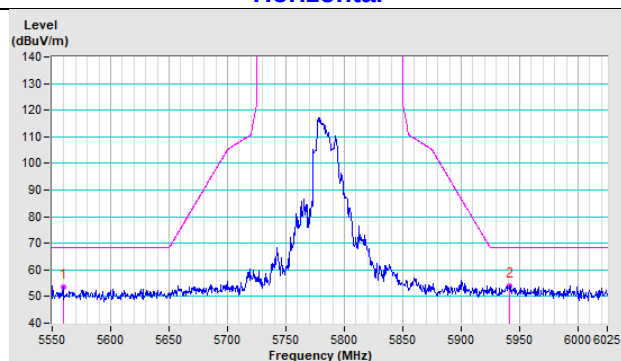


Vertical

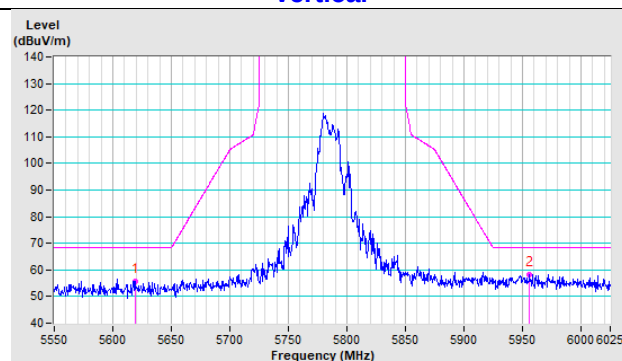


802.11a CH 157 : 5785 MHz

Horizontal

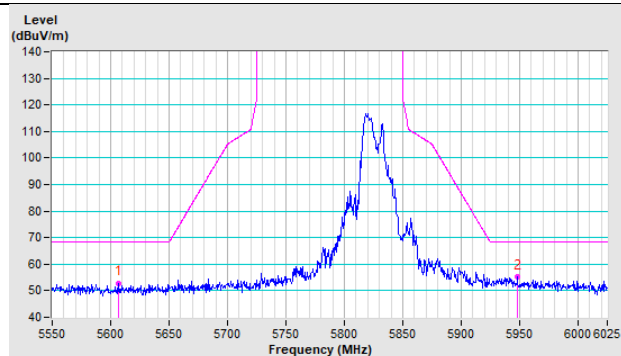


Vertical

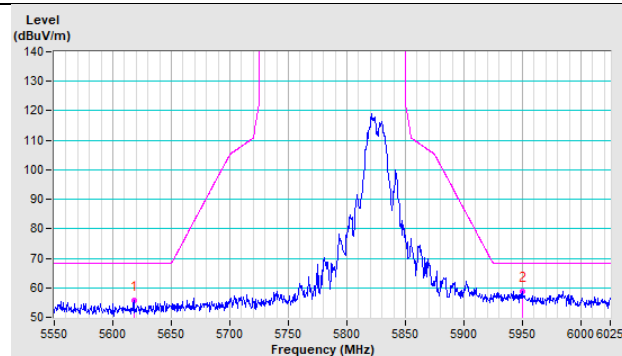


802.11a CH 165 : 5825 MHz

Horizontal

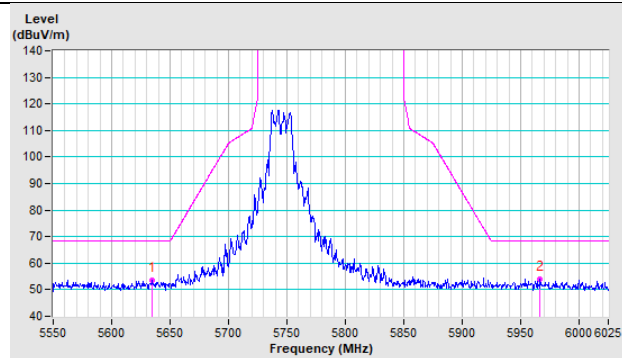


Vertical

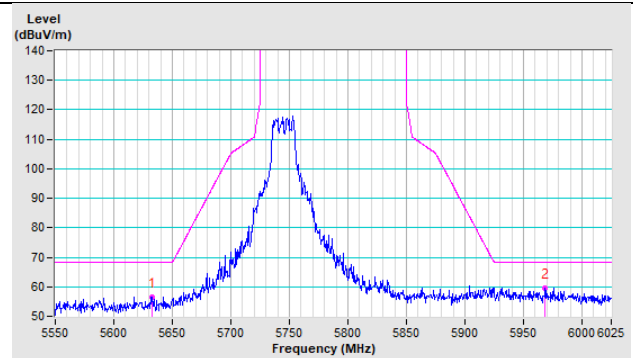


802.11ax (HE20) CH 149 : 5745 MHz

Horizontal

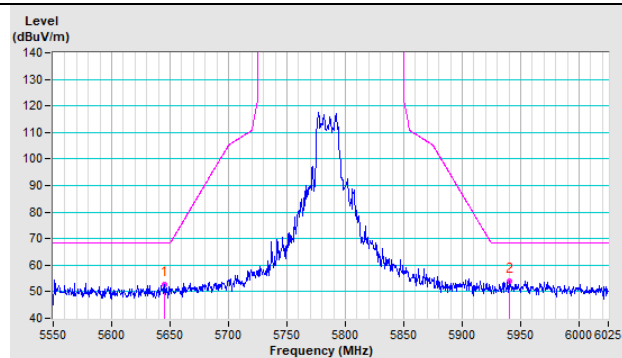


Vertical

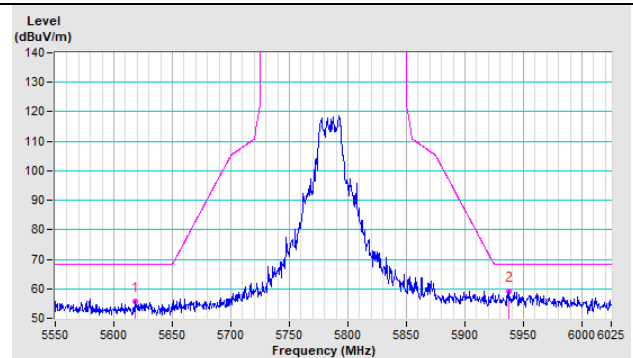


802.11ax (HE20) CH 157 : 5785 MHz

Horizontal

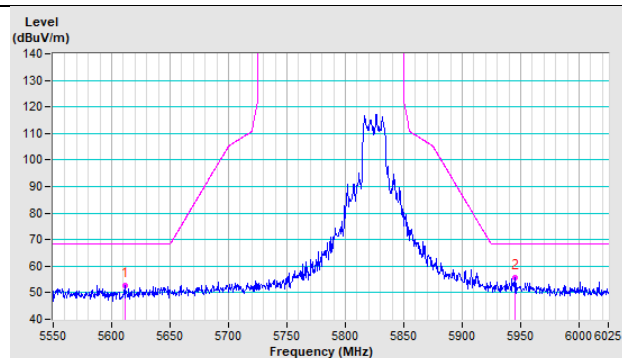


Vertical

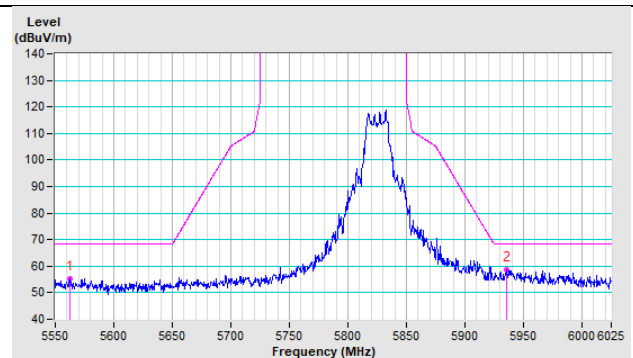


802.11ax (HE20) CH 165 : 5825 MHz

Horizontal

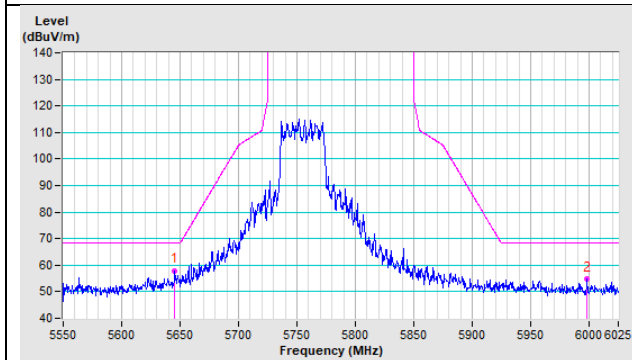


Vertical

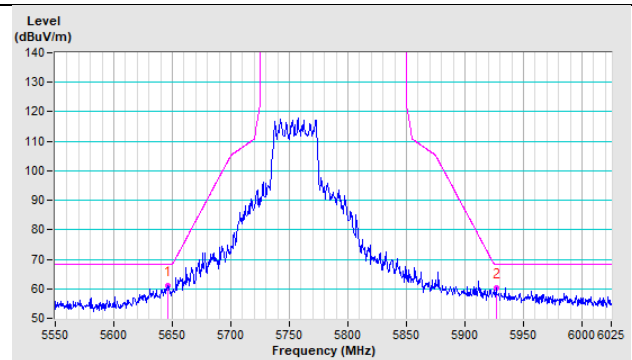


802.11ax (HE40) CH 151 : 5755 MHz

Horizontal

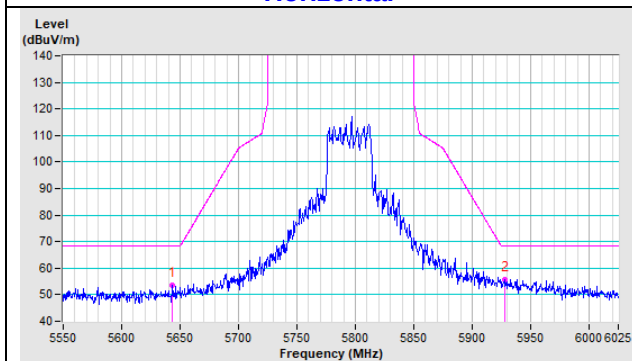


Vertical

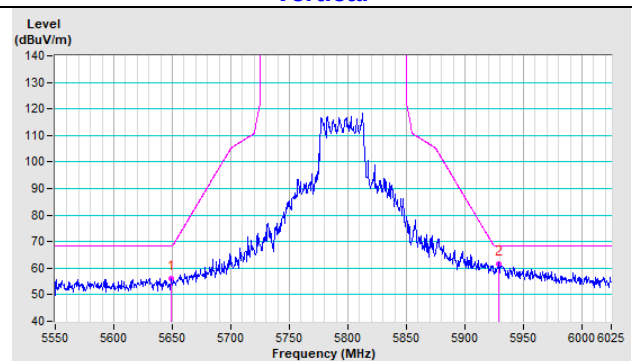


802.11ax (HE40) CH 159 : 5795 MHz

Horizontal

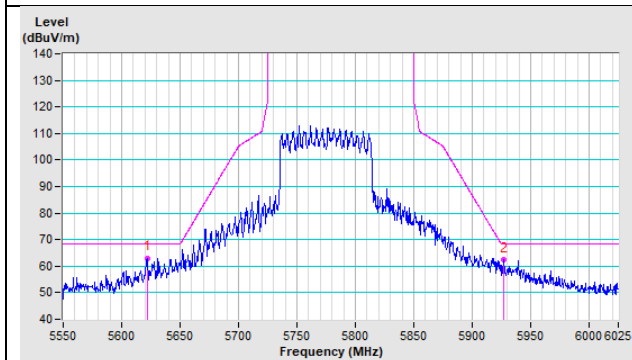


Vertical

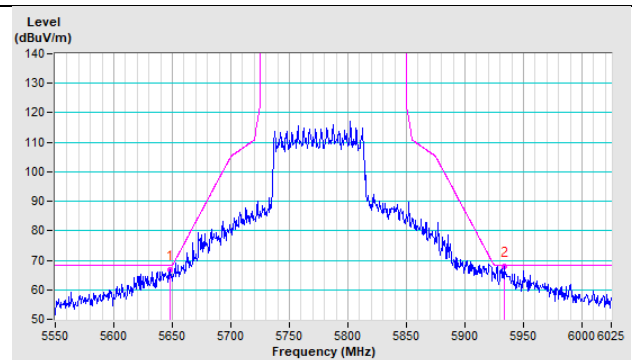


802.11ax (HE80) CH 155 : 5775 MHz

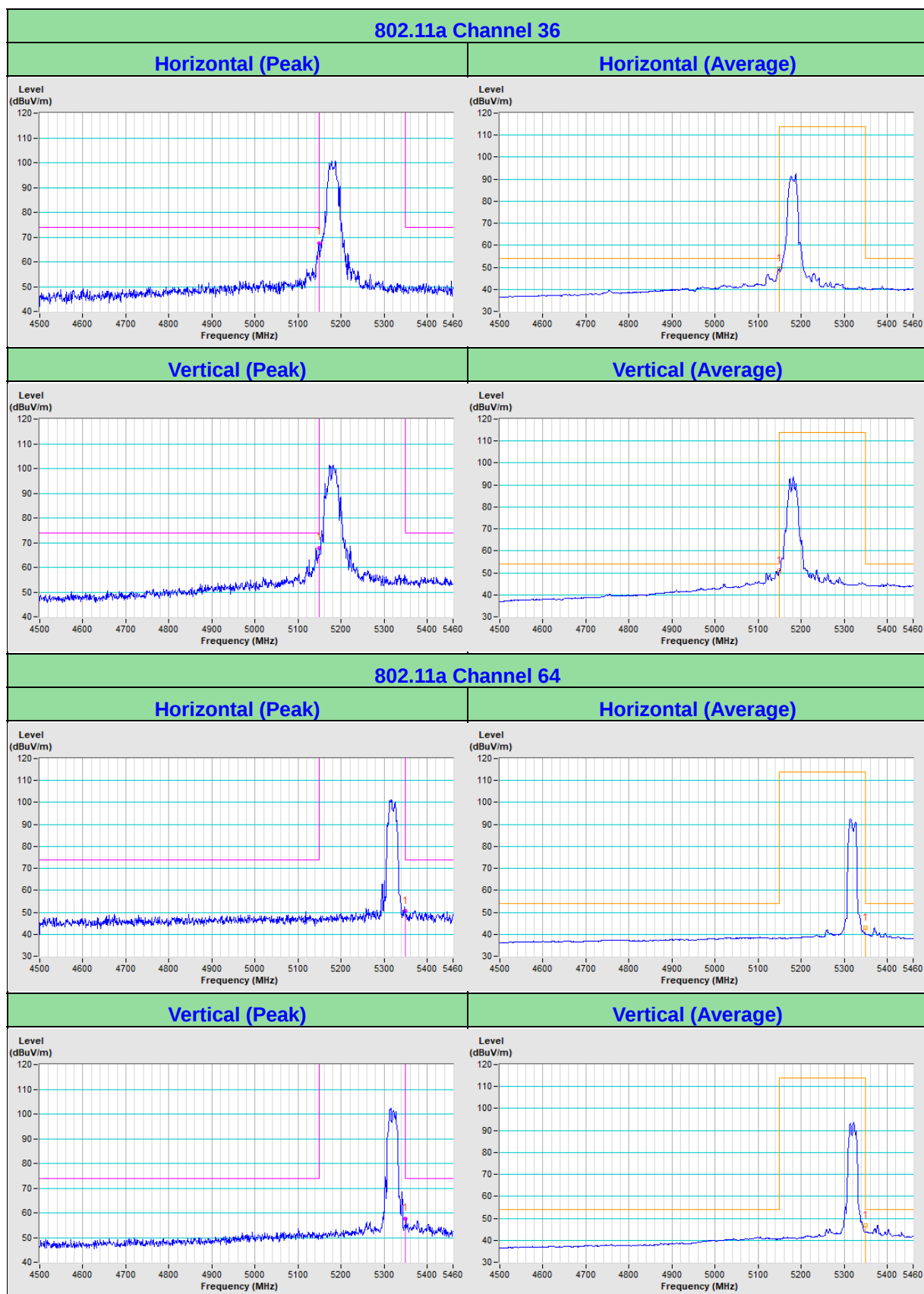
Horizontal

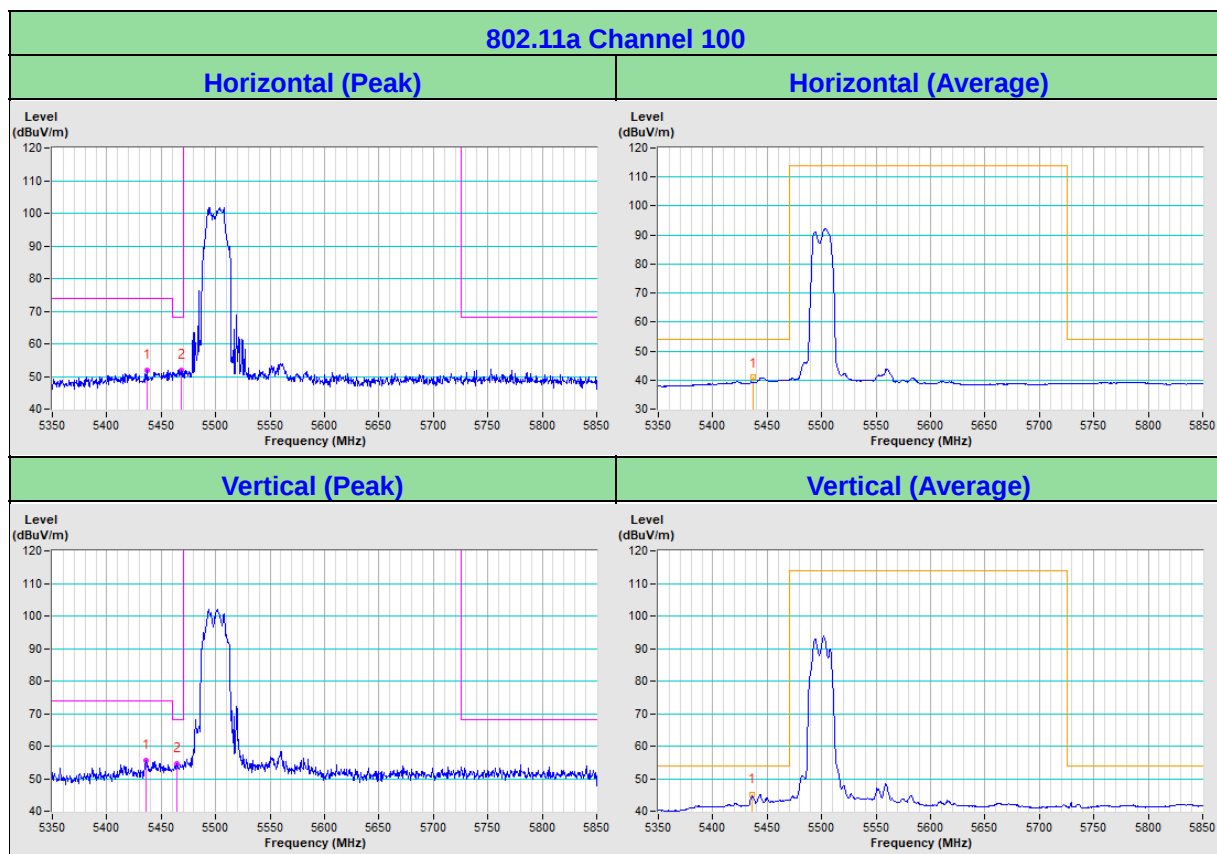


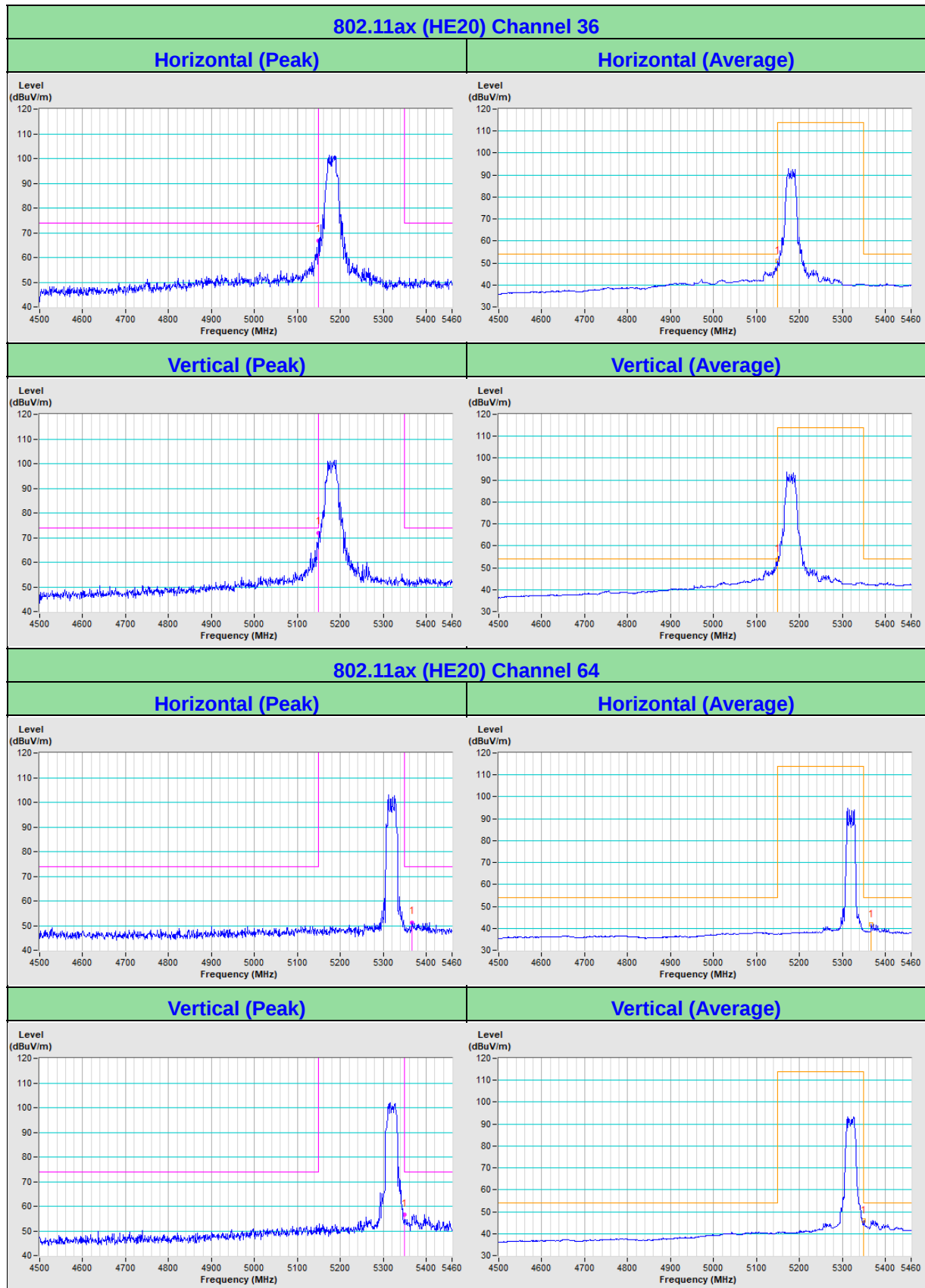
Vertical

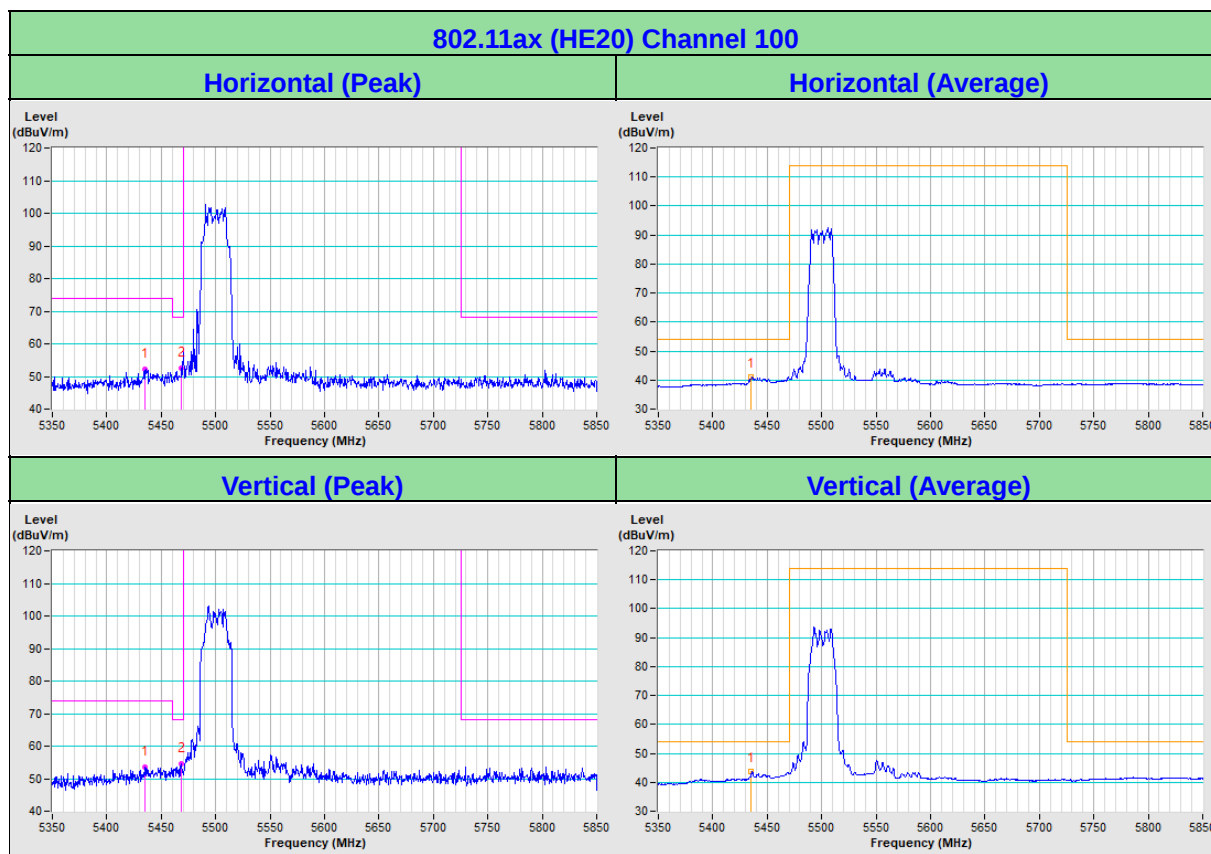


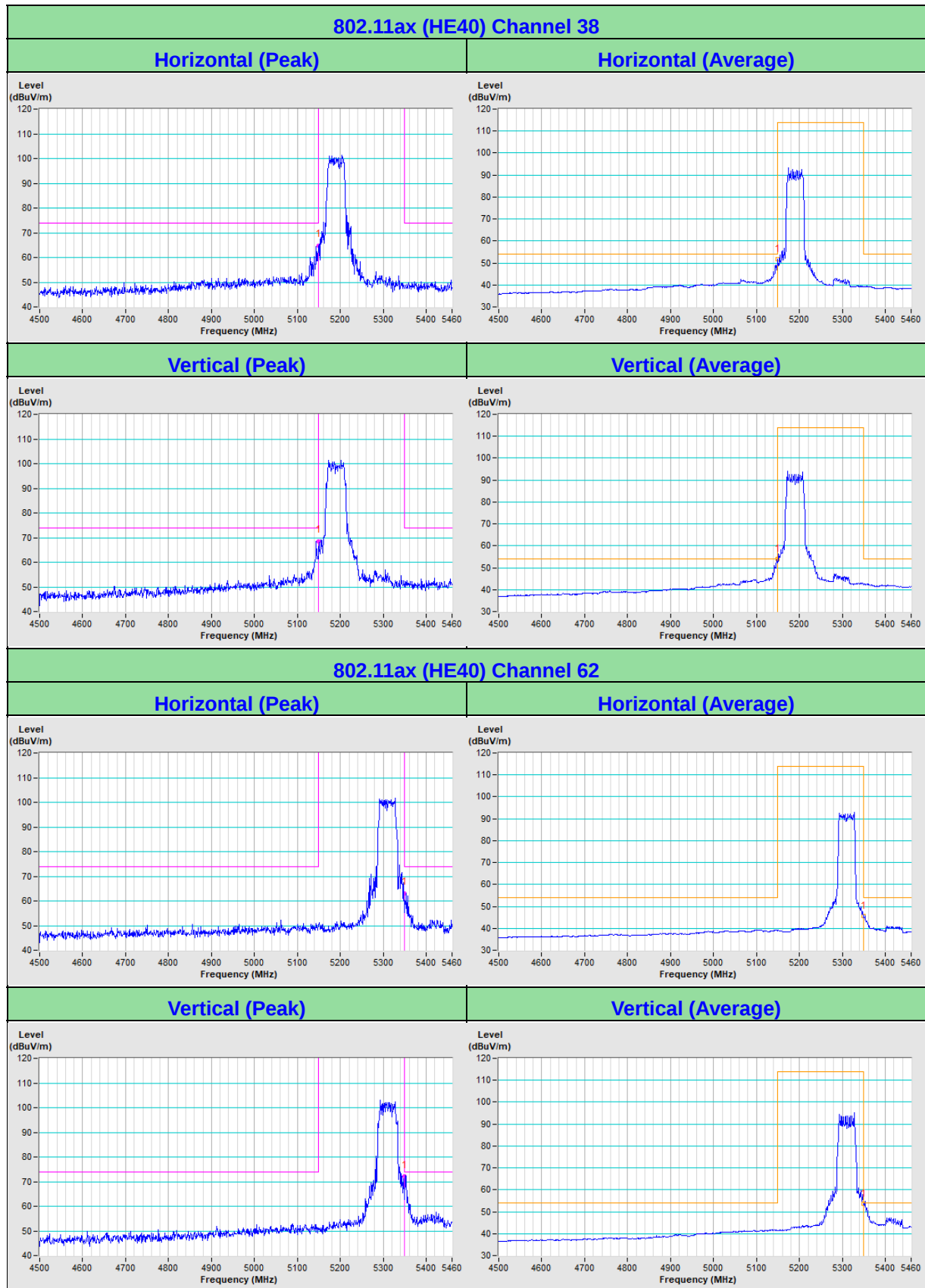
Annex B - Band-Edge Measurement (For U-NII-1, U-NII-2A, U-NII-2C band)

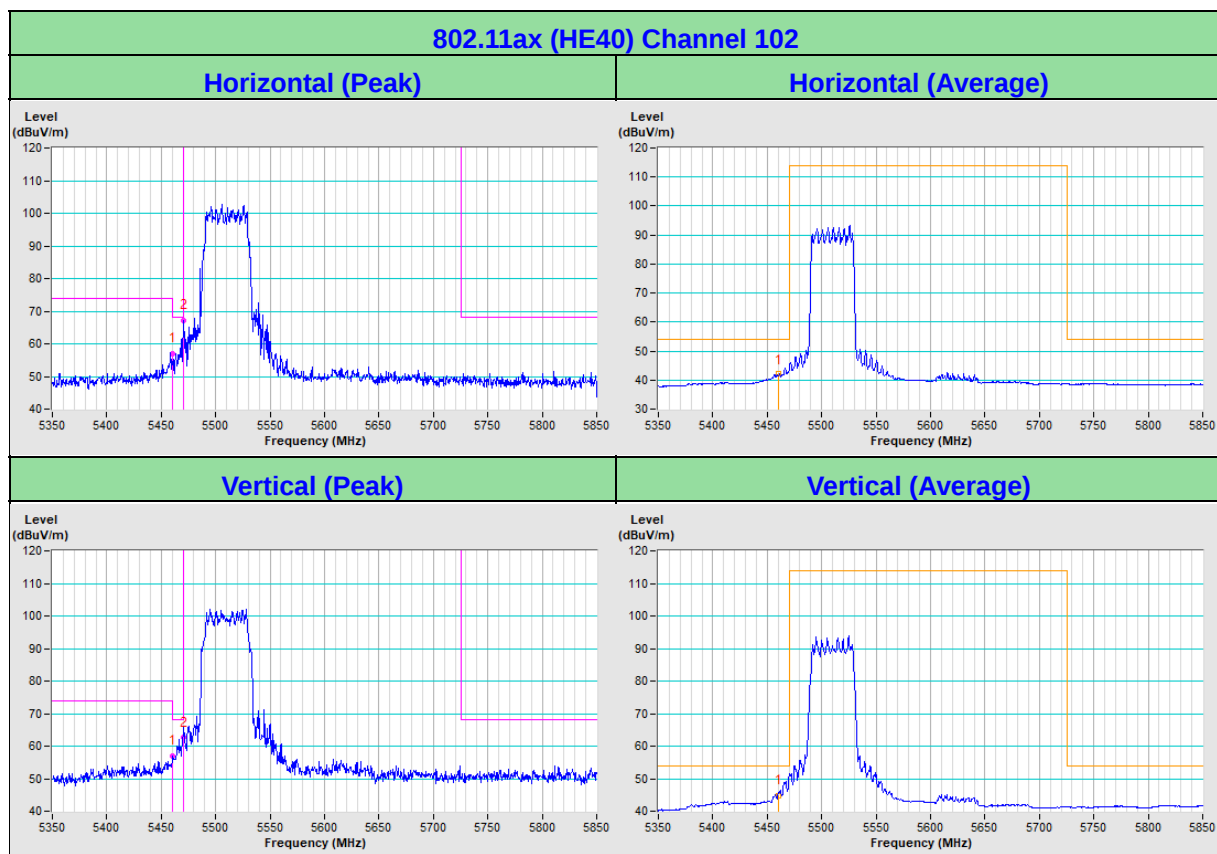






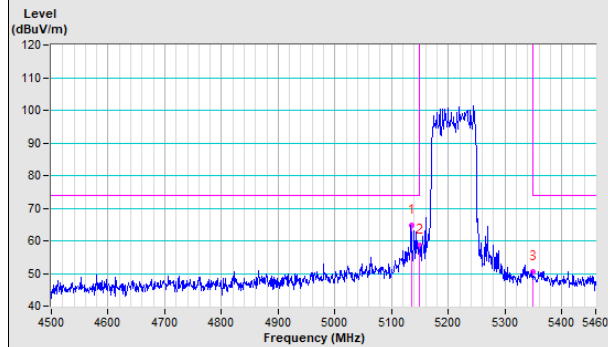




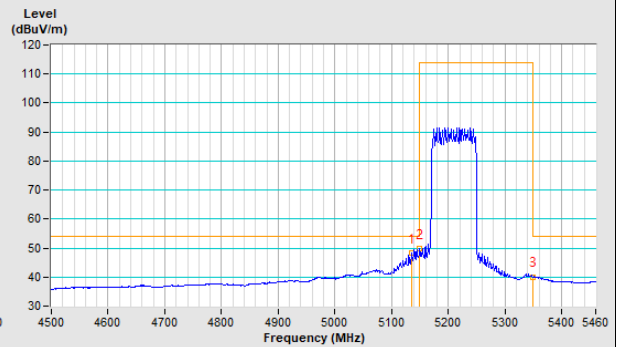


802.11ax (HE80) Channel 42

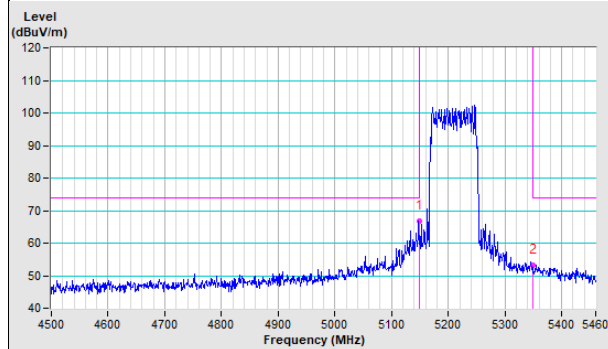
Horizontal (Peak)



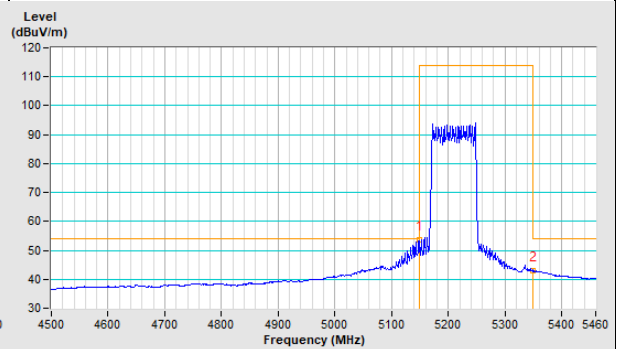
Horizontal (Average)



Vertical (Peak)

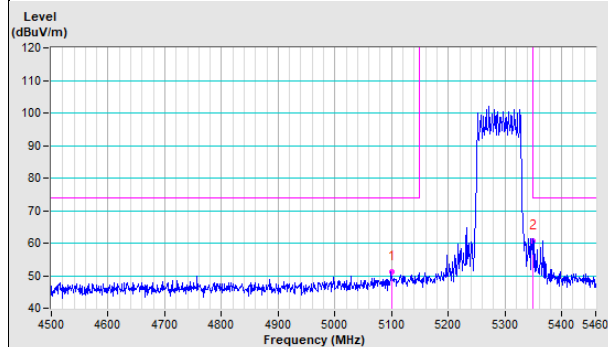


Vertical (Average)

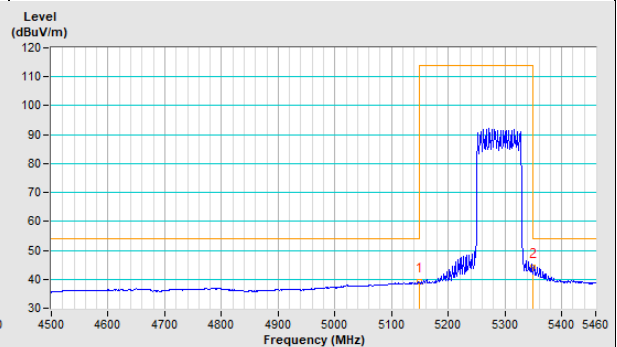


802.11ax (HE80) Channel 58

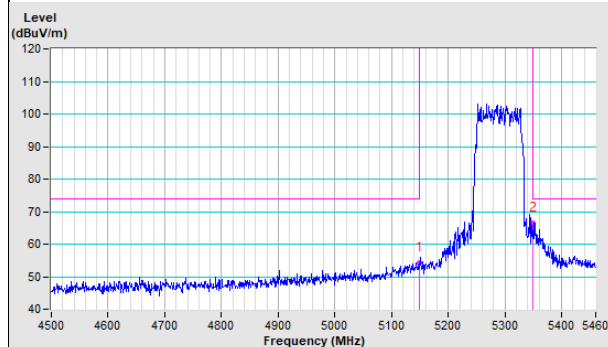
Horizontal (Peak)



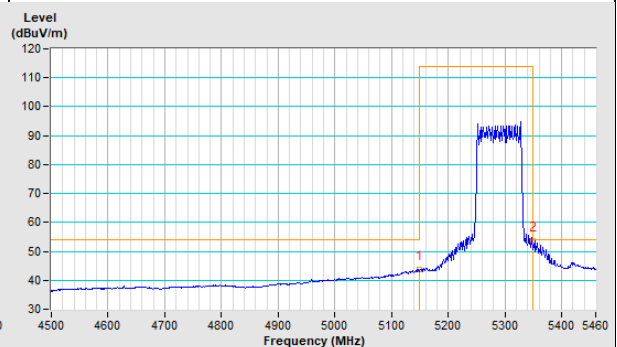
Horizontal (Average)

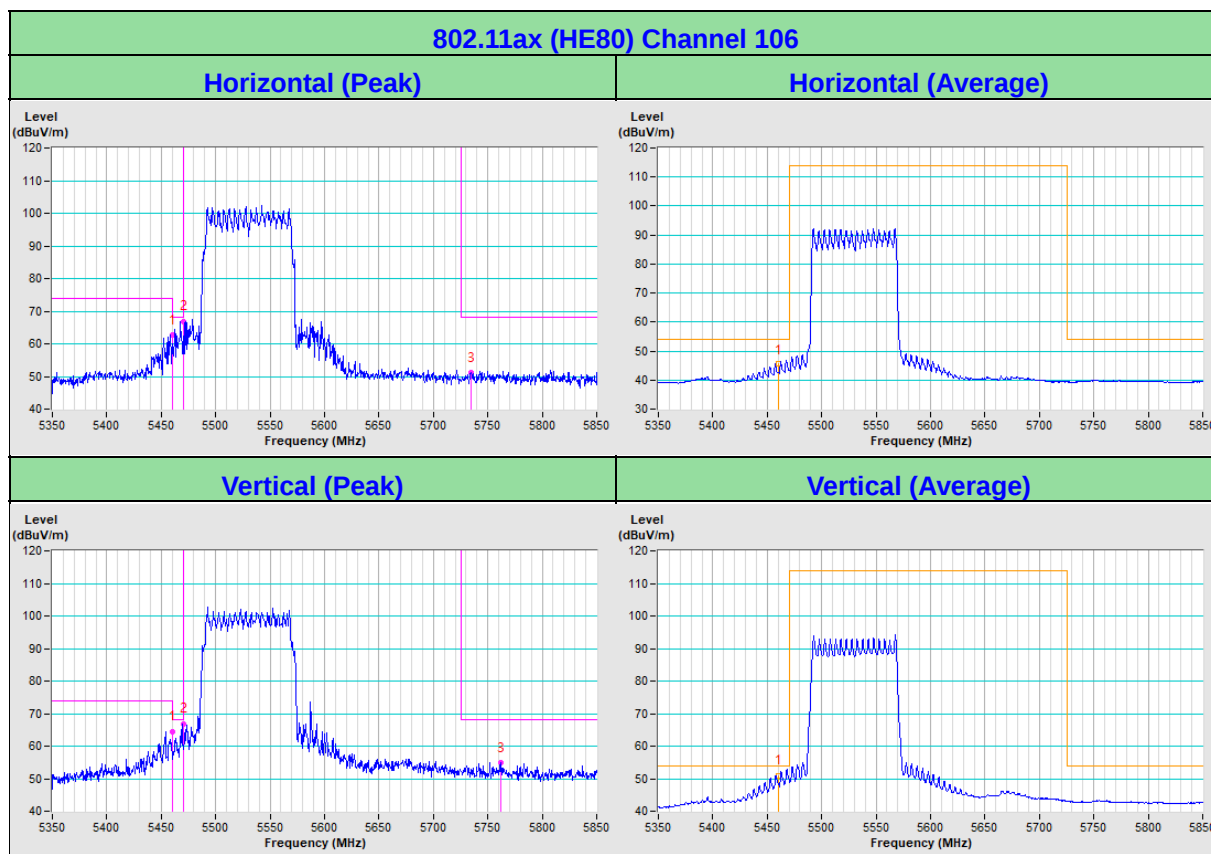


Vertical (Peak)



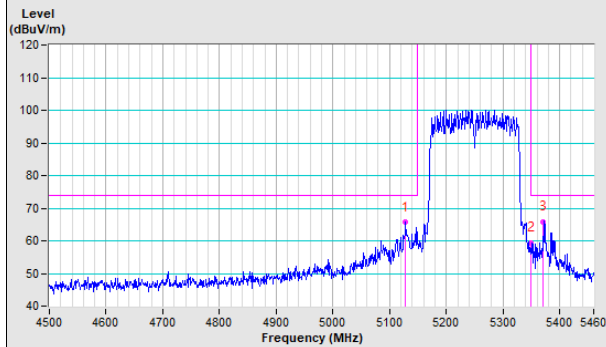
Vertical (Average)



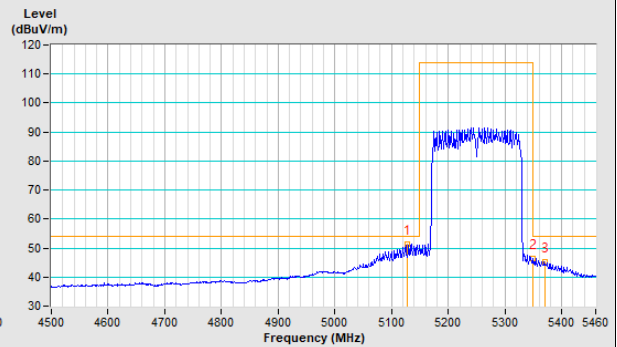


802.11ax (HE160) Channel 50

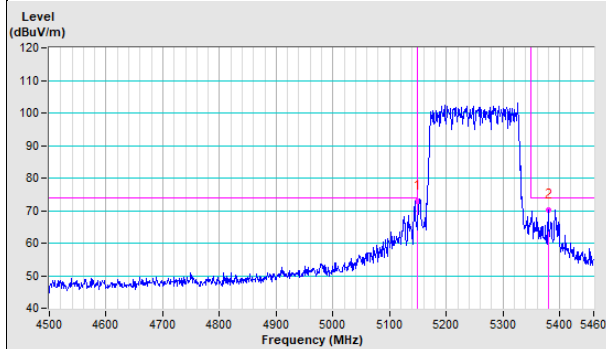
Horizontal (Peak)



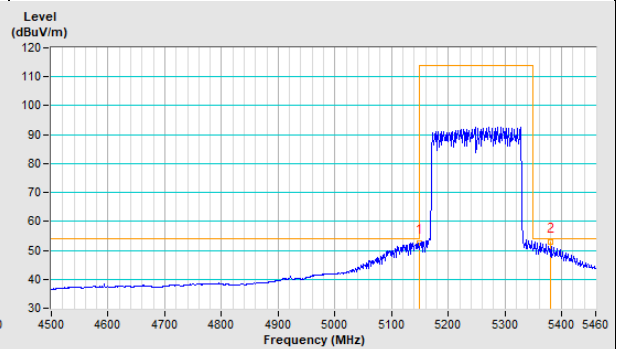
Horizontal (Average)



Vertical (Peak)

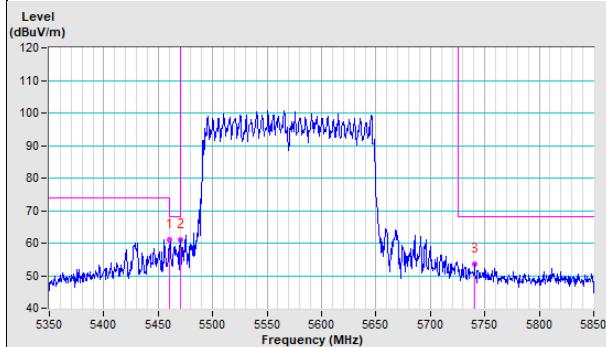


Vertical (Average)

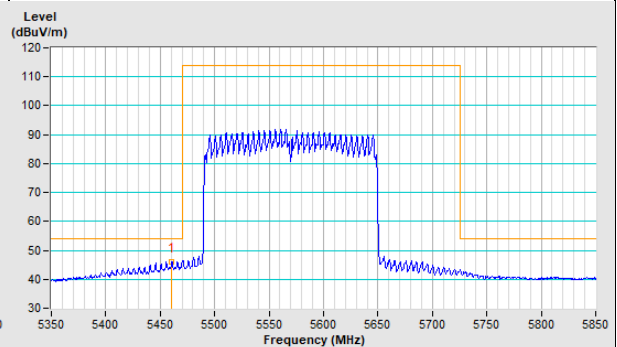


802.11ax (HE160) Channel 114

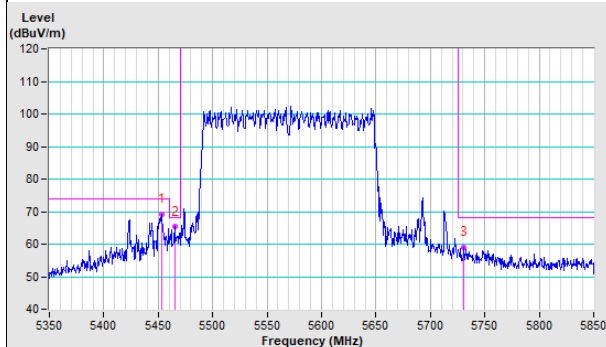
Horizontal (Peak)



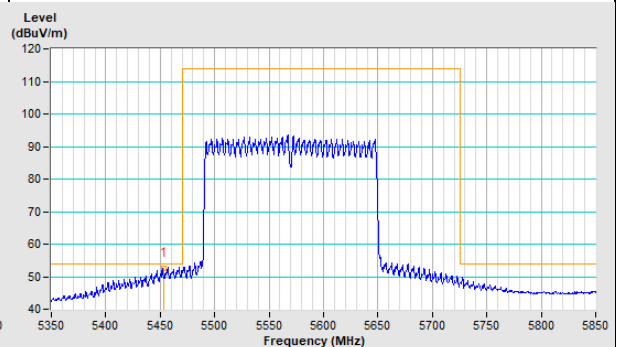
Horizontal (Average)



Vertical (Peak)



Vertical (Average)



Appendix – Information of the Testing Laboratories

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

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

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Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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