FCC Test Report
(5GHz WLAN)

Report No.:	RFBHKO-WTW-P21110131-1
FCC ID:	2AUS4-NFF1
Test Model:	NF-F1
Received Date:	2021/11/3
Test Date:	2021/11/11 ~ 2021/11/27
Issued Date:	2021/12/15
Applicant:	Neatframe AS
Address:	Martin Linges vei 25 Fornebu 1364 Norway
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
FCC Registration / Designation Number:	198487 / TW2021

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
RFBHKO-WTW-P21110131-1	Original release	2021/12/15

1 Certificate of Conformity

Product:	Video conferencing device
Brand:	neat.
Test Model:	NF-F1
Sample Status:	Engineering sample
Applicant:	Neatframe AS
Test Date:	2021/11/11 ~ 2021/11/27
Standards:	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 RF characteristics under the conditions specified in this report.

Prepared by : Jessica Cheng , **Date:** 2021/12/15

Jessica Cheng / Senior Specialist

Approved by : Jeremy Lin , **Date:** 2021/12/15

Jeremy Lin / Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(9)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -3.20dB at 0.59600MHz.
15.407(b)(1/2/3/4(i/ii)/9)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -0.84dB at 5350.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is ipex not a standard connector.

Note:
1. For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOBE test plots were recorded in Annex A. Test Procedures refer to report 4.1.3.
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	3.00 dB
Conducted Emissions	9kHz ~ 40GHz	2.63 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	2.38 dB
	30MHz ~ 1GHz	5.70 dB
Radiated Emissions above 1 GHz	Above 1GHz	5.21 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Video conferencing device
Brand	neat.
Test Model	NF-F1
Power Supply Rating	AC Input: 100-240V~ 50/60Hz, 2.5A
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM for OFDMA
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: up to 54Mbps 802.11n up to 300Mbps 802.11ac: up to 866.7Mbps 802.11ax: up to 1201Mbps
Operating Frequency	5180~5240MHz, 5260~5320MHz, 5500~5700MHz, 5745~5825MHz
Number of Channel	5180~5240MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 4 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1 5260~5320MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 4 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1 5500~5700MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 11 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 5 802.11ac (VHT80), 802.11ax (HE80): 2 5745~5825MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 5 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1
Output Power	5180~5240MHz: 83.673mW 5260~5320MHz: 82.625mW 5500~5700MHz: 62.161mW 5745~5825MHz: 61.55mW
Antenna Type	Refer to note as below
Antenna Connector	Refer to note as below
Accessory Device	N/A
Cable Supplied	Non-shielded AC 3-Pin cable (3.0m)

Note:

1. WLAN 2.4GHz & WLAN 5GHz & Bluetooth technologies cannot transmit at same time.

2. The EUT provides 2 completed transmitters and 2 receivers.

Modulation Mode	TX Function	RX Function
802.11a	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
802.11ac (VHT20)	2TX	2RX
802.11ac (VHT40)	2TX	2RX
802.11ac (VHT80)	2TX	2RX
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	2TX	2RX

* The bandwidth and modulation are similar for HT20/HT40 on 802.11n mode and VHT20/VHT40 on 802.11ac mode and HE20/HE40 on 802.11ax mode. Therefore the investigated worst case is the representative mode in test report. (Final test mode refer section 3.2.1)

3. The following antennas were provided to the EUT.

Ant. 1 Gain (dBi)	Ant. 2 Gain (dBi)	Antenna Type	Antenna Connector
4.45	4.39	PCB	ipex

4. 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.

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

3.2 Description of Test Modes

For 5180 ~ 5240MHz:

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

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

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

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

Channel	Frequency
42	5210MHz

5260~5320MHz:

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

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

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

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

Channel	Frequency
58	5290MHz

5500~5700MHz:

11 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		

5 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		

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

Channel	Frequency	Channel	Frequency
106	5530 MHz	122	5610 MHz

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≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE≥1G:** Radiated Emission above 1GHz & Bandedge Measurement **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.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ax (HE20)		36 to 48	36, 40, 48	OFDMA	MCS0
	802.11ax (HE40)		38 to 46	38, 46	OFDMA	MCS0
	802.11ax (HE80)		42	42	OFDMA	MCS0
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	MCS0
	802.11ax (HE40)		54 to 62	54, 62	OFDMA	MCS0
	802.11ax (HE80)		58	58	OFDMA	MCS0
-	802.11a	5500-5700	100 to 140	100, 116, 132, 140	OFDM	6.0
	802.11ax (HE20)		100 to 140	100, 116, 132, 140	OFDMA	MCS0
	802.11ax (HE40)		102 to 134	102, 110, 134,	OFDMA	MCS0
	802.11ax (HE80)		106 to 122	106, 122	OFDMA	MCS0
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	MCS0
	802.11ax (HE40)		151 to 159	151, 159	OFDMA	MCS0
	802.11ax (HE80)		155	155	OFDMA	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.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36	OFDM	6.0
-	802.11a	5260-5320	52 to 64		OFDM	6.0
-	802.11a	5500-5700	100 to 140		OFDM	6.0
-	802.11a	5745-5825	149 to 165		OFDM	6.0

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.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36	OFDM	6.0
-	802.11a	5260-5320	52 to 64		OFDM	6.0
-	802.11a	5500-5700	100 to 140		OFDM	6.0
-	802.11a	5745-5825	149 to 165		OFDM	6.0

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.

Antenna Port Conducted Measurement (Transmit Power excluded)						
EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ax (HE20)		36 to 48	36, 40, 48	OFDMA	MCS0
	802.11ax (HE40)		38 to 46	38, 46	OFDMA	MCS0
	802.11ax (HE80)		42	42	OFDMA	MCS0
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	MCS0
	802.11ax (HE40)		54 to 62	54, 62	OFDMA	MCS0
	802.11ax (HE80)		58	58	OFDMA	MCS0
-	802.11a	5500-5700	100 to 140	100, 116, 132, 140	OFDM	6.0
	802.11ax (HE20)		100 to 140	100, 116, 132, 140	OFDMA	MCS0
	802.11ax (HE40)		102 to 134	102, 110, 134,	OFDMA	MCS0
	802.11ax (HE80)		106 to 122	106, 122	OFDMA	MCS0
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	MCS0
	802.11ax (HE40)		151 to 159	151, 159	OFDMA	MCS0
	802.11ax (HE80)		155	155	OFDMA	MCS0

Transmit Power Measurement						
EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	6.5
	802.11n (HT40)		38 to 46	38, 46	OFDM	13.5
	802.11ac (VHT20)		36 to 48	36, 40, 48	OFDM	MCS0
	802.11ac (VHT40)		38 to 46	38, 46	OFDM	MCS0
	802.11ac (VHT80)		42	42	OFDM	MCS0
	802.11ax (HE20)		36 to 48	36, 40, 48	OFDMA	MCS0
	802.11ax (HE40)		38 to 46	38, 46	OFDMA	MCS0
	802.11ax (HE80)		42	42	OFDMA	MCS0
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	6.5
	802.11n (HT40)		54 to 62	54, 62	OFDM	13.5
	802.11ac (VHT20)		52 to 64	52, 60, 64	OFDM	MCS0
	802.11ac (VHT40)		54 to 62	54, 62	OFDM	MCS0
	802.11ac (VHT80)		58	58	OFDM	MCS0
	802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	MCS0
	802.11ax (HE40)		54 to 62	54, 62	OFDMA	MCS0
	802.11ax (HE80)		58	58	OFDMA	MCS0
-	802.11a	5500-5700	100 to 140	100, 116, 132, 140	OFDM	6.0
	802.11n (HT20)		100 to 140	100, 116, 132, 140	OFDM	6.5
	802.11n (HT40)		102 to 134	102, 110, 134,	OFDM	13.5
	802.11ac (VHT20)		100 to 140	100, 116, 132, 140	OFDM	MCS0
	802.11ac (VHT40)		102 to 134	102, 110, 134,	OFDM	MCS0
	802.11ac (VHT80)		106 to 122	106, 122	OFDM	MCS0
	802.11ax (HE20)		100 to 140	100, 116, 132, 140	OFDMA	MCS0
	802.11ax (HE40)		102 to 134	102, 110, 134,	OFDMA	MCS0
	802.11ax (HE80)		106 to 122	106, 122	OFDMA	MCS0
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	6.5
	802.11n (HT40)		151 to 159	151, 159	OFDM	13.5
	802.11ac (VHT20)		149 to 165	149, 157, 165	OFDM	MCS0
	802.11ac (VHT40)		151 to 159	151, 159	OFDM	MCS0
	802.11ac (VHT80)		155	155	OFDM	MCS0
	802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	MCS0
	802.11ax (HE40)		151 to 159	151, 159	OFDMA	MCS0
	802.11ax (HE80)		155	155	OFDMA	MCS0

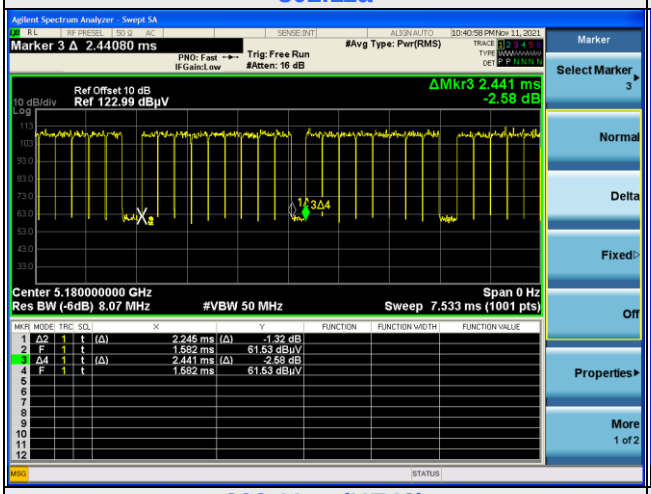
Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested By
RE≥1G	23deg. C, 69%RH	120Vac, 60Hz	Ian Chang & Jed Wu
RE<1G	25deg. C, 70%RH	120Vac, 60Hz	Jed Wu
PLC	25deg. C, 75%RH	120Vac, 60Hz	Ian Chang
APCM	25deg. C, 76%RH	120Vac, 60Hz	Dalen Dai

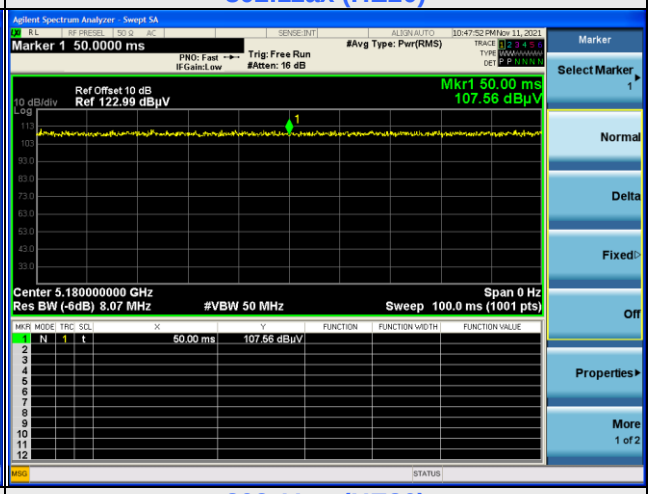
3.3 Duty Cycle of Test Signal

If duty cycle of test signal is ≥ 98 %, duty factor is not required.
If duty cycle of test signal is < 98%, duty factor shall be considered.
802.11a: Duty cycle = 2.245ms/2.441ms = 0.92, Duty factor = 10 * log(1/0.92) = 0.36dB
802.11ax (HE20): Duty cycle = 100%
802.11ax (HE40): Duty cycle = 100%
802.11ax (HE80): Duty cycle = 100%

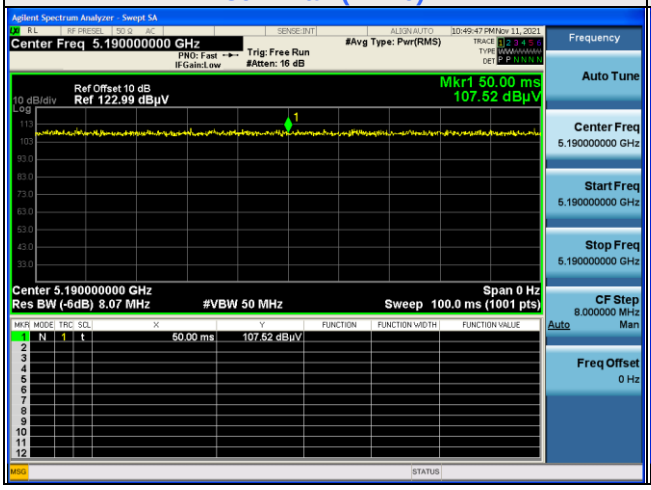
802.11a



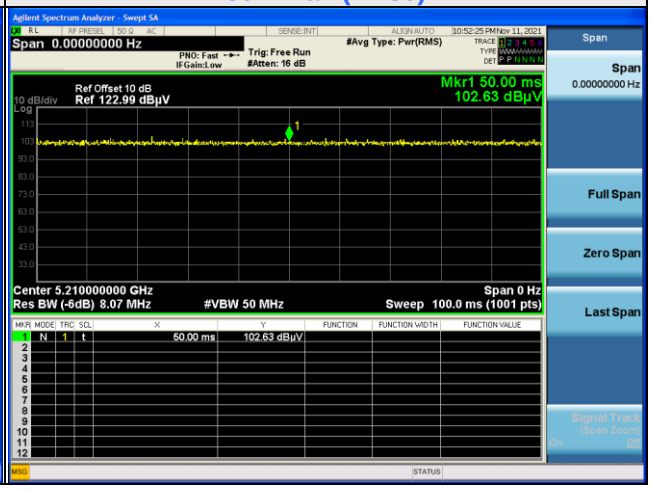
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)



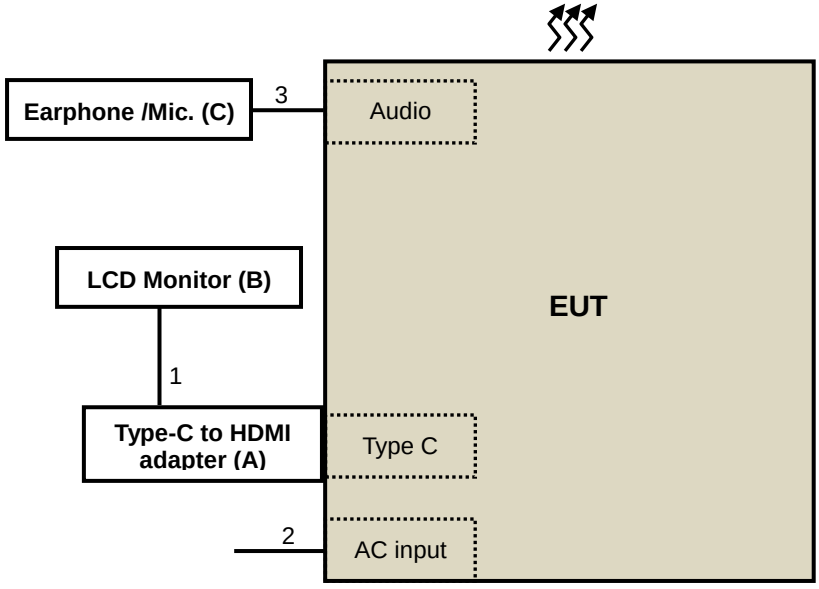
3.4 Description of Support Units

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

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Type-C to HDMI adapter	DELL	DPQANBC067	N/A	N/A	Provided by Lab
B.	LCD Monitor	ASUS	MG28U	N/A	N/A	Provided by Lab
C.	Earphone /Mic.	Oppo	L1516	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/ No)	Cores (Qty.)	Remarks
1.	HDMI cable	1	2	Y	0	Provided by Lab
2.	AC cable	1	3	N	0	Supplied by applicant
3.	Audio cable	1	1.2	N	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:

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

Limits of unwanted emission out of the restricted bands

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

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

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

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

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

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model no.	Serial No.	Calibrated Date	Calibrated Until
Test Receiver Agilent	N9038A	MY51210129	2021/3/12	2022/3/11
Software BVADT	ADT_Radiated_V8.7.08	NA	NA	NA
Software BVADT	ADT_RF Test Software V6.6.5.4	NA	NA	NA
Auto Control System(Antenna Tower, Table, Controller) ADT	SC100+AT100+TT100	0306	NA	NA
Pre_Amplifier EMCI	EMC001340	980269	2021/6/29	2022/6/28
LOOP ANTENNA EMCI	LPA600	270	2021/9/2	2023/9/1
RF Coaxial Cable Pacific	8D-FB	Cable-CH6-02	2021/7/13	2022/7/12
Pre_Amplifier HP	8447D	2432A03504	2021/2/18	2022/2/17
Bi-log Broadband Antenna Schwarzbeck	VULB9168	139	2021/11/1	2022/10/31
Attenuator Mini-Circuits	UNAT-5+	PAD-CH6-01	2021/7/13	2022/7/12
RF Coaxial Cable Pacific	8D-FB	Cable-CH6-02	2021/7/13	2022/7/12
Antenna(Horn) EMCO	3115	00028257	2020/11/22	2021/11/21
			2021/11/14	2022/11/13
Test Receiver Agilent	N9038A	MY51210129	2021/3/12	2022/3/11
Pre-amplifier HP	8449B	3008A01201	2021/2/19	2022/2/18
RF Coaxial Cable NEAT BAR PROER SUHNER	SF-102	Cable-CH6-01	2021/7/8	2022/7/7
Highpass filter Wainwright Instruments	WHK 3.1/18G-10SS	SN 8	2021/5/28	2022/5/27
Fix tool for Boresight	BAF-01	5	NA	NA
Pre_Amplifier MITEQ	AMF-6F-260400-33-8P	892164	2021/2/19	2022/2/18
Antenna(Horn) Schwarzbeck	BBHA-9170	BBHA9170190	2020/11/22	2021/11/21
			2021/11/14	2022/11/13
Spectrum Analyzer R&S	FSV40	101544	2021/5/24	2022/5/23
RF Coaxial Cable WOKEN	WC01	Cable-CH10-03	2021/7/8	2022/7/7
RF Coaxial Cable Rosnol	K1K50-UP0279-K1K50-3000	Cable-CH10(3m)-04	2021/7/8	2022/7/7
Highpass filter SUHNER	11SH10-7000/T18000-O/OP	SN 4	2021/5/28	2022/5/27

NOTE: 1. The calibration interval of the above test instruments is 12/24 months. And the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in LK - 966 chamber 1.
4. Tested Date: 2021/11/11 ~ 2021/11/26

4.1.3 Test Procedures

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 detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

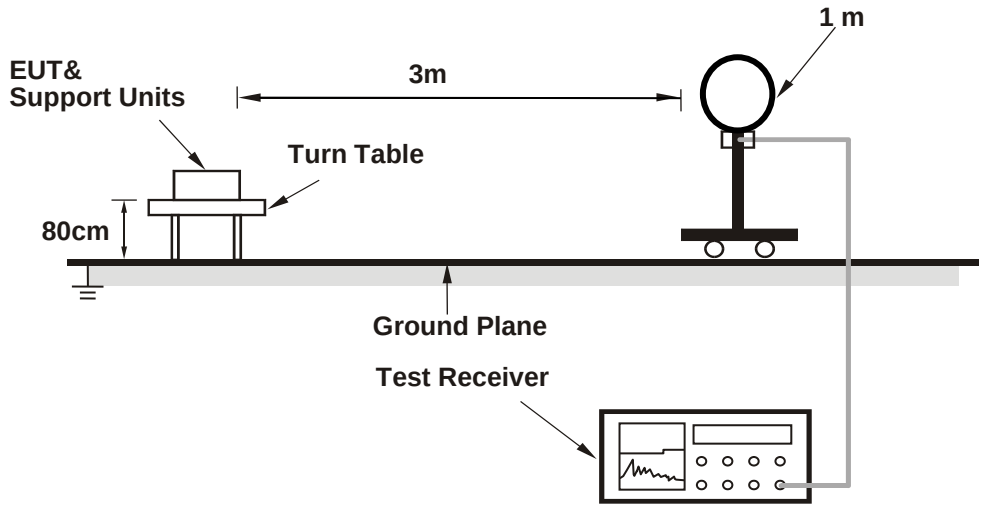
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz. (802.11a: RBW = 1MHz, VBW = 470Hz; 802.11ax (HE20): RBW = 1MHz, VBW = 10Hz; 802.11ax (HE40): RBW = 1MHz, VBW = 10Hz; 802.11ax (HE80): RBW = 1MHz, VBW = 10Hz)
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

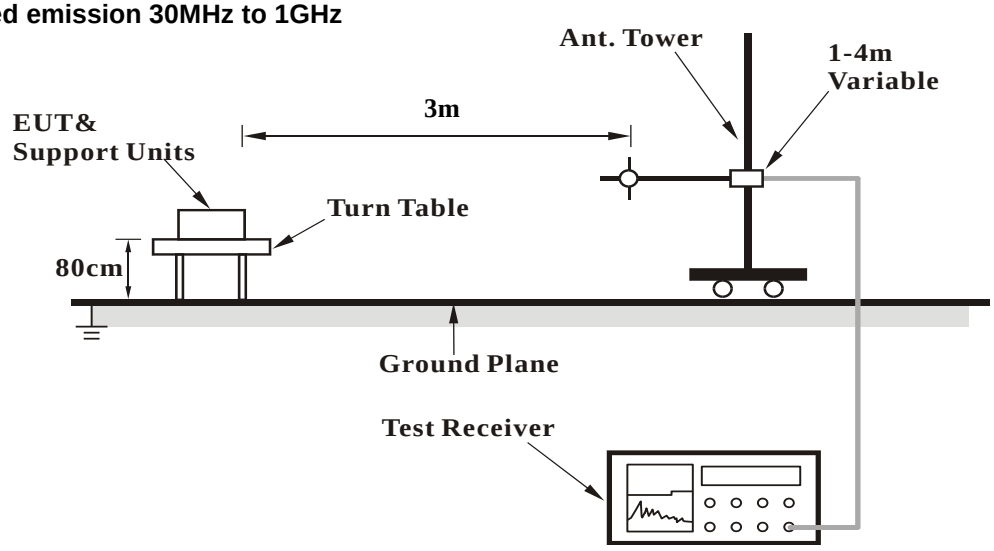
No deviation.

4.1.5 Test Setup

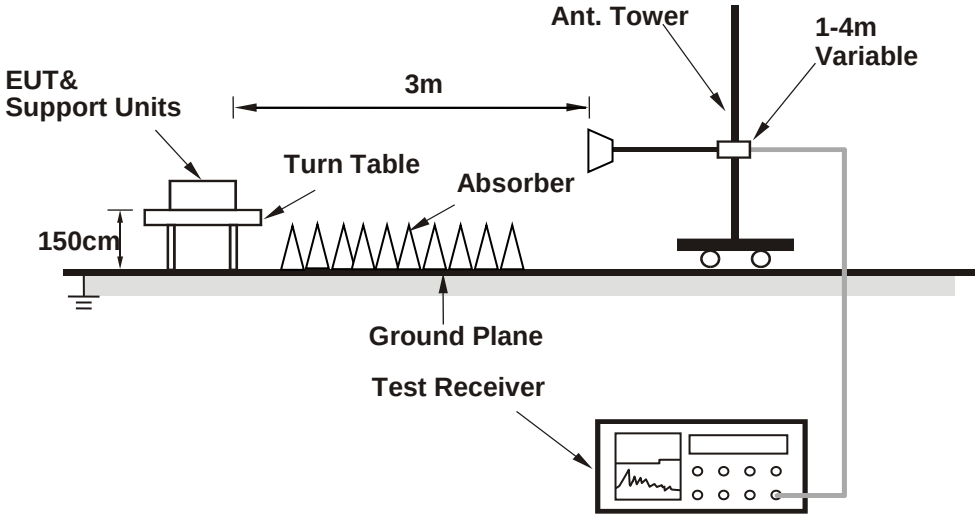
For Radiated emission below 30MHz



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 Conditions

a. Placed the EUT on the testing table.
b. Set the EUT under transmission condition continuously at specific channel frequency.
c. Video camera of EUT captured video image, then sent messages to ext. monitor.
d. The necessary accessories enable the system in full functions.

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	58.97 PK	74.00	-15.03	1.51 H	182	52.16	6.81
2	5150.00	47.65 AV	54.00	-6.35	1.51 H	182	40.84	6.81
3	*5180.00	109.46 PK			1.51 H	182	102.43	7.03
4	*5180.00	100.64 AV			1.51 H	182	93.61	7.03
5	#10360.00	54.61 PK	68.20	-13.59	1.50 H	136	40.05	14.56
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	59.00 PK	74.00	-15.00	3.85 V	154	52.19	6.81
2	**5150.00**	**48.71 AV**	**54.00**	**-5.29**	**3.85 V**	**154**	**41.90**	**6.81**
3	*5180.00	114.15 PK			3.85 V	154	107.12	7.03
4	*5180.00	106.09 AV			3.85 V	154	99.06	7.03
5	#10360.00	55.40 PK	68.20	-12.80	1.69 V	239	40.84	14.56

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	109.53 PK			1.54 H	177	102.36	7.17
2	*5200.00	99.86 AV			1.54 H	177	92.69	7.17
3	#10400.00	53.98 PK	68.20	-14.22	2.54 H	157	39.36	14.62
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	114.43 PK			3.79 V	156	107.26	7.17
2	*5200.00	106.43 AV			3.79 V	156	99.26	7.17
3	#10400.00	55.18 PK	68.20	-13.02	1.67 V	269	40.56	14.62

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	109.23 PK			1.53 H	174	101.89	7.34
2	*5240.00	99.55 AV			1.53 H	174	92.21	7.34
3	5350.00	57.73 PK	74.00	-16.27	1.53 H	360	49.89	7.84
4	5350.00	47.13 AV	54.00	-6.87	1.53 H	360	39.29	7.84
5	#10480.00	54.65 PK	68.20	-13.55	2.24 H	123	39.62	15.03
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	114.23 PK			3.75 V	153	106.89	7.34
2	*5240.00	105.58 AV			3.75 V	153	98.24	7.34
3	5350.00	58.73 PK	74.00	-15.27	3.75 V	153	50.89	7.84
4	5350.00	47.72 AV	54.00	-6.28	3.75 V	153	39.88	7.84
5	#10480.00	55.59 PK	68.20	-12.61	1.85 V	254	40.56	15.03

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	57.07 PK	74.00	-16.93	1.56 H	147	50.26	6.81
2	5150.00	46.97 AV	54.00	-7.03	1.56 H	147	40.16	6.81
3	*5260.00	108.59 PK			1.56 H	147	101.14	7.45
4	*5260.00	100.10 AV			1.56 H	147	92.65	7.45
5	#10520.00	54.47 PK	68.20	-13.73	2.25 H	236	39.31	15.16
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	58.78 PK	74.00	-15.22	3.79 V	149	51.97	6.81
2	5150.00	47.91 AV	54.00	-6.09	3.79 V	149	41.10	6.81
3	*5260.00	114.04 PK			3.79 V	149	106.59	7.45
4	*5260.00	105.01 AV			3.79 V	149	97.56	7.45
5	#10520.00	55.52 PK	68.20	-12.68	1.98 V	264	40.36	15.16

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	108.99 PK			1.56 H	142	101.25	7.74
2	*5300.00	100.05 AV			1.56 H	142	92.31	7.74
3	10600.00	54.63 PK	74.00	-19.37	2.36 H	145	39.32	15.31
4	10600.00	43.74 AV	54.00	-10.26	2.36 H	145	28.43	15.31
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	114.19 PK			3.82 V	142	106.45	7.74
2	*5300.00	105.08 AV			3.82 V	142	97.34	7.74
3	10600.00	55.47 PK	74.00	-18.53	1.67 V	254	40.16	15.31
4	10600.00	44.65 AV	54.00	-9.35	1.67 V	254	29.34	15.31

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	108.14 PK			1.44 H	149	100.36	7.78
2	*5320.00	99.85 AV			1.44 H	149	92.07	7.78
3	5350.00	58.10 PK	74.00	-15.90	1.44 H	149	50.26	7.84
4	5350.00	47.20 AV	54.00	-6.80	1.44 H	149	39.36	7.84
5	10640.00	54.77 PK	74.00	-19.23	1.88 H	198	39.36	15.41
6	10640.00	43.84 AV	54.00	-10.16	1.88 H	198	28.43	15.41
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	112.93 PK			3.68 V	147	105.15	7.78
2	*5320.00	104.83 AV			3.68 V	147	97.05	7.78
3	5350.00	58.85 PK	74.00	-15.15	3.68 V	147	51.01	7.84
4	5350.00	48.42 AV	54.00	-5.58	3.68 V	147	40.58	7.84
5	10640.00	55.66 PK	74.00	-18.34	1.58 V	149	40.25	15.41
6	10640.00	44.87 AV	54.00	-9.13	1.58 V	149	29.46	15.41

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	58.84 PK	74.00	-15.16	3.19 H	147	50.89	7.95
2	5460.00	47.86 AV	54.00	-6.14	3.19 H	147	39.91	7.95
3	#5470.00	58.96 PK	68.20	-9.24	3.19 H	147	50.99	7.97
4	*5500.00	108.92 PK			3.19 H	147	100.91	8.01
5	*5500.00	100.14 AV			3.19 H	147	92.13	8.01
6	11000.00	55.72 PK	74.00	-18.28	3.46 H	235	39.83	15.89
7	11000.00	45.25 AV	54.00	-8.75	3.46 H	235	29.36	15.89
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	59.05 PK	74.00	-14.95	1.43 V	152	51.10	7.95
2	5460.00	47.95 AV	54.00	-6.05	1.43 V	152	40.00	7.95
3	#5470.00	59.75 PK	68.20	-8.45	1.43 V	152	51.78	7.97
4	*5500.00	113.90 PK			1.43 V	152	105.89	8.01
5	*5500.00	104.19 AV			1.43 V	152	96.18	8.01
6	11000.00	56.43 PK	74.00	-17.57	1.95 V	254	40.54	15.89
7	11000.00	45.59 AV	54.00	-8.41	1.95 V	254	29.70	15.89

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	109.16 PK			3.91 H	178	101.62	7.54
2	*5580.00	99.52 AV			3.91 H	178	91.98	7.54
3	11160.00	55.81 PK	74.00	-18.19	2.31 H	242	39.76	16.05
4	11160.00	45.34 AV	54.00	-8.66	2.31 H	242	29.29	16.05
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	113.05 PK			1.39 V	144	105.51	7.54
2	*5580.00	103.54 AV			1.39 V	144	96.00	7.54
3	11160.00	56.46 PK	74.00	-17.54	1.87 V	273	40.41	16.05
4	11160.00	45.91 AV	54.00	-8.09	1.87 V	273	29.86	16.05

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 132：5660 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	*5660.00	107.73 PK			1.55 H	159	100.51	7.22
2	*5660.00	98.47 AV			1.55 H	159	91.25	7.22
3	11320.00	56.40 PK	74.00	-17.60	2.28 H	234	39.84	16.56
4	11320.00	45.74 AV	54.00	-8.26	2.28 H	234	29.18	16.56
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	*5660.00	111.67 PK			1.93 V	143	104.45	7.22
2	*5660.00	102.98 AV			1.93 V	143	95.76	7.22
3	11320.00	57.07 PK	74.00	-16.93	1.95 V	257	40.51	16.56
4	11320.00	46.54 AV	54.00	-7.46	1.95 V	257	29.98	16.56

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 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	107.01 PK			1.54 H	156	99.88	7.13
2	*5700.00	97.26 AV			1.54 H	156	90.13	7.13
3	#5725.00	59.02 PK	68.20	-9.18	1.54 H	156	51.85	7.17
4	11400.00	56.28 PK	74.00	-17.72	1.83 H	195	39.63	16.65
5	11400.00	45.95 AV	54.00	-8.05	1.83 H	195	29.30	16.65
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	110.89 PK			1.06 V	168	103.76	7.13
2	*5700.00	101.98 AV			1.06 V	168	94.85	7.13
3	#5725.00	58.54 PK	68.20	-9.66	1.06 V	168	51.37	7.17
4	11400.00	56.79 PK	74.00	-17.21	1.55 V	143	40.14	16.65
5	11400.00	46.30 AV	54.00	-7.70	1.55 V	143	29.65	16.65

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	#5573.27	58.25 PK	68.20	-9.95	1.48 H	155	50.67	7.58
2	*5745.00	107.49 PK			1.48 H	155	100.28	7.21
3	*5745.00	98.42 AV			1.48 H	155	91.21	7.21
4	#6005.05	59.42 PK	68.20	-8.78	1.48 H	155	51.84	7.58
5	11490.00	56.12 PK	74.00	-17.88	1.58 H	144	39.36	16.76
6	11490.00	46.25 AV	54.00	-7.75	1.58 H	144	29.49	16.76
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	#5554.27	57.76 PK	68.20	-10.44	1.55 V	168	50.07	7.69
2	*5745.00	111.99 PK			1.55 V	168	104.78	7.21
3	*5745.00	102.79 AV			1.55 V	168	95.58	7.21
4	#5983.68	58.79 PK	68.20	-9.41	1.55 V	168	51.27	7.52
5	11490.00	57.07 PK	74.00	-16.93	1.67 V	235	40.31	16.76
6	11490.00	46.52 AV	54.00	-7.48	1.67 V	235	29.76	16.76

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	#5646.43	57.67 PK	68.20	-10.53	1.46 H	151	50.41	7.26
2	*5785.00	107.30 PK			1.46 H	151	100.02	7.28
3	*5785.00	98.18 AV			1.46 H	151	90.90	7.28
4	#6010.75	58.94 PK	68.20	-9.26	1.46 H	151	51.36	7.58
5	11570.00	56.75 PK	74.00	-17.25	1.44 H	123	39.76	16.99
6	11570.00	46.33 AV	54.00	-7.67	1.44 H	123	29.34	16.99
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	#5557.12	57.64 PK	68.20	-10.56	1.48 V	166	49.95	7.69
2	*5785.00	111.52 PK			1.48 V	166	104.24	7.28
3	*5785.00	103.12 AV			1.48 V	166	95.84	7.28
4	#6016.93	59.00 PK	68.20	-9.20	1.48 V	166	51.41	7.59
5	11570.00	57.21 PK	74.00	-16.79	1.72 V	233	40.22	16.99
6	11570.00	46.76 AV	54.00	-7.24	1.72 V	233	29.77	16.99

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	#5562.35	57.59 PK	68.20	-10.61	1.56 H	151	49.94	7.65
2	*5825.00	107.42 PK			1.56 H	151	100.14	7.28
3	*5825.00	98.27 AV			1.56 H	151	90.99	7.28
4	#6002.68	58.10 PK	68.20	-10.10	1.56 H	151	50.52	7.58
5	11650.00	56.65 PK	74.00	-17.35	1.58 H	141	39.41	17.24
6	11650.00	46.60 AV	54.00	-7.40	1.58 H	141	29.36	17.24
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	#5564.73	58.53 PK	68.20	-9.67	1.56 V	143	50.90	7.63
2	*5825.00	110.81 PK			1.56 V	143	103.53	7.28
3	*5825.00	102.92 AV			1.56 V	143	95.64	7.28
4	#5933.32	58.74 PK	68.20	-9.46	1.56 V	143	51.41	7.33
5	11650.00	57.52 PK	74.00	-16.48	1.72 V	240	40.28	17.24
6	11650.00	47.02 AV	54.00	-6.98	1.72 V	240	29.78	17.24

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	58.27 PK	74.00	-15.73	1.56 H	174	51.46	6.81
2	5150.00	47.90 AV	54.00	-6.10	1.56 H	174	41.09	6.81
3	*5180.00	110.67 PK			1.56 H	174	103.64	7.03
4	*5180.00	100.55 AV			1.56 H	174	93.52	7.03
5	#10360.00	54.24 PK	68.20	-13.96	2.25 H	145	39.68	14.56
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	59.69 PK	74.00	-14.31	3.79 V	146	52.88	6.81
2	5150.00	48.45 AV	54.00	-5.55	3.79 V	146	41.64	6.81
3	*5180.00	116.01 PK			3.79 V	146	108.98	7.03
4	*5180.00	105.15 AV			3.79 V	146	98.12	7.03
5	#10360.00	55.08 PK	68.20	-13.12	1.63 V	127	40.52	14.56

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	110.69 PK			1.51 H	157	103.52	7.17
2	*5200.00	102.61 AV			1.51 H	157	95.44	7.17
3	#10400.00	53.99 PK	68.20	-14.21	1.14 H	185	39.37	14.62
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	115.20 PK			3.82 V	159	108.03	7.17
2	*5200.00	105.91 AV			3.82 V	159	98.74	7.17
3	#10400.00	54.87 PK	68.20	-13.33	1.63 V	236	40.25	14.62

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	109.75 PK			1.44 H	153	102.41	7.34
2	*5240.00	99.03 AV			1.44 H	153	91.69	7.34
3	5350.00	57.71 PK	74.00	-16.29	1.44 H	153	49.87	7.84
4	5350.00	47.05 AV	54.00	-6.95	1.44 H	153	39.21	7.84
5	#10480.00	54.70 PK	68.20	-13.50	1.14 H	185	39.67	15.03
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	115.17 PK			3.79 V	174	107.83	7.34
2	*5240.00	104.13 AV			3.79 V	174	96.79	7.34
3	5350.00	58.24 PK	74.00	-15.76	3.79 V	174	50.40	7.84
4	5350.00	47.34 AV	54.00	-6.66	3.79 V	174	39.50	7.84
5	#10480.00	55.39 PK	68.20	-12.81	1.54 V	123	40.36	15.03

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.05 PK	74.00	-16.95	1.55 H	149	50.24	6.81
2	5150.00	46.97 AV	54.00	-7.03	1.55 H	149	40.16	6.81
3	*5260.00	110.91 PK			1.55 H	149	103.46	7.45
4	*5260.00	100.01 AV			1.55 H	149	92.56	7.45
5	#10520.00	54.72 PK	68.20	-13.48	1.87 H	146	39.56	15.16
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	58.07 PK	74.00	-15.93	3.72 V	154	51.26	6.81
2	5150.00	48.07 AV	54.00	-5.93	3.72 V	154	41.26	6.81
3	*5260.00	115.54 PK			3.72 V	154	108.09	7.45
4	*5260.00	104.73 AV			3.72 V	154	97.28	7.45
5	#10520.00	55.72 PK	68.20	-12.48	2.64 V	198	40.56	15.16

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	110.98 PK			1.51 H	148	103.24	7.74
2	*5300.00	100.10 AV			1.51 H	148	92.36	7.74
3	10600.00	54.63 PK	74.00	-19.37	1.87 H	49	39.32	15.31
4	10600.00	43.92 AV	54.00	-10.08	1.87 H	49	28.61	15.31
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	116.00 PK			3.78 V	141	108.26	7.74
2	*5300.00	105.10 AV			3.78 V	141	97.36	7.74
3	10600.00	55.46 PK	74.00	-18.54	2.51 V	263	40.15	15.31
4	10600.00	44.74 AV	54.00	-9.26	2.51 V	263	29.43	15.31

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	109.03 PK			1.56 H	148	101.25	7.78
2	*5320.00	99.12 AV			1.56 H	148	91.34	7.78
3	5350.00	57.43 PK	74.00	-16.57	1.56 H	148	49.59	7.84
4	5350.00	47.20 AV	54.00	-6.80	1.56 H	148	39.36	7.84
5	10640.00	55.06 PK	74.00	-18.94	2.24 H	158	39.65	15.41
6	10640.00	44.06 AV	54.00	-9.94	2.24 H	158	28.65	15.41
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	115.55 PK			3.72 V	148	107.77	7.78
2	*5320.00	104.50 AV			3.72 V	148	96.72	7.78
3	5350.00	58.61 PK	74.00	-15.39	3.72 V	148	50.77	7.84
4	5350.00	48.39 AV	54.00	-5.61	3.72 V	148	40.55	7.84
5	10640.00	56.06 PK	74.00	-17.94	1.85 V	298	40.65	15.41
6	10640.00	44.75 AV	54.00	-9.25	1.85 V	298	29.34	15.41

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	5460.00	59.10 PK	74.00	-14.90	1.15 H	147	51.15	7.95
2	5460.00	47.49 AV	54.00	-6.51	1.15 H	147	39.54	7.95
3	#5470.00	59.42 PK	68.20	-8.78	1.15 H	147	51.45	7.97
4	*5500.00	109.76 PK			1.15 H	147	101.75	8.01
5	*5500.00	99.02 AV			1.15 H	147	91.01	8.01
6	11000.00	55.31 PK	74.00	-18.69	1.80 H	154	39.42	15.89
7	11000.00	45.45 AV	54.00	-8.55	1.80 H	154	29.56	15.89
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	59.53 PK	74.00	-14.47	1.43 V	152	51.58	7.95
2	5460.00	47.59 AV	54.00	-6.41	1.43 V	152	39.64	7.95
3	#5470.00	62.20 PK	68.20	-6.00	1.43 V	152	54.23	7.97
4	*5500.00	114.36 PK			1.43 V	152	106.35	8.01
5	*5500.00	103.41 AV			1.43 V	152	95.40	8.01
6	11000.00	56.04 PK	74.00	-17.96	2.58 V	203	40.15	15.89
7	11000.00	45.68 AV	54.00	-8.32	2.58 V	203	29.79	15.89

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	108.91 PK			1.05 H	164	101.37	7.54
2	*5580.00	97.78 AV			1.05 H	164	90.24	7.54
3	11160.00	55.96 PK	74.00	-18.04	1.90 H	152	39.91	16.05
4	11160.00	45.38 AV	54.00	-8.62	1.90 H	152	29.33	16.05
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	113.55 PK			2.11 V	145	106.01	7.54
2	*5580.00	103.05 AV			2.11 V	145	95.51	7.54
3	11160.00	56.27 PK	74.00	-17.73	2.66 V	193	40.22	16.05
4	11160.00	45.92 AV	54.00	-8.08	2.66 V	193	29.87	16.05

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 132：5660 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	*5660.00	109.02 PK			3.92 H	164	101.80	7.22
2	*5660.00	98.01 AV			3.92 H	164	90.79	7.22
3	11320.00	56.45 PK	74.00	-17.55	1.83 H	143	39.89	16.56
4	11320.00	45.76 AV	54.00	-8.24	1.83 H	143	29.20	16.56
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	*5660.00	112.76 PK			1.93 V	145	105.54	7.22
2	*5660.00	101.92 AV			1.93 V	145	94.70	7.22
3	11320.00	56.80 PK	74.00	-17.20	2.62 V	196	40.24	16.56
4	11320.00	46.48 AV	54.00	-7.52	2.62 V	196	29.92	16.56

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 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	107.93 PK			3.88 H	162	100.80	7.13
2	*5700.00	96.84 AV			3.88 H	162	89.71	7.13
3	#5725.00	58.22 PK	68.20	-9.98	3.88 H	162	51.05	7.17
4	11400.00	56.39 PK	74.00	-17.61	2.28 H	164	39.74	16.65
5	11400.00	45.78 AV	54.00	-8.22	2.28 H	164	29.13	16.65
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	112.34 PK			1.43 V	188	105.21	7.13
2	*5700.00	100.34 AV			1.43 V	188	93.21	7.13
3	#5725.00	62.56 PK	68.20	-5.64	1.43 V	188	55.39	7.17
4	11400.00	56.97 PK	74.00	-17.03	1.87 V	290	40.32	16.65
5	11400.00	46.61 AV	54.00	-7.39	1.87 V	290	29.96	16.65

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	#5566.62	57.93 PK	68.20	-10.27	1.57 H	152	50.31	7.62
2	*5745.00	108.35 PK			1.57 H	152	101.14	7.21
3	*5745.00	97.24 AV			1.57 H	152	90.03	7.21
4	#6000.30	59.35 PK	68.20	-8.85	1.57 H	152	51.77	7.58
5	11490.00	56.02 PK	74.00	-17.98	1.61 H	142	39.26	16.76
6	11490.00	46.07 AV	54.00	-7.93	1.61 H	142	29.31	16.76
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	#5637.87	57.92 PK	68.20	-10.28	3.76 V	164	50.63	7.29
2	*5745.00	112.70 PK			3.76 V	164	105.49	7.21
3	*5745.00	101.90 AV			3.76 V	164	94.69	7.21
4	#5990.32	58.70 PK	68.20	-9.50	3.76 V	164	51.15	7.55
5	11490.00	56.91 PK	74.00	-17.09	1.62 V	251	40.15	16.76
6	11490.00	46.39 AV	54.00	-7.61	1.62 V	251	29.63	16.76

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	#5613.18	58.14 PK	68.20	-10.06	2.26 H	146	50.77	7.37
2	*5785.00	109.87 PK			2.26 H	146	102.59	7.28
3	*5785.00	98.88 AV			2.26 H	146	91.60	7.28
4	#6009.32	59.00 PK	68.20	-9.20	2.26 H	146	51.42	7.58
5	11570.00	56.84 PK	74.00	-17.16	1.53 H	127	39.85	16.99
6	11570.00	46.37 AV	54.00	-7.63	1.53 H	127	29.38	16.99
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	#5596.55	58.02 PK	68.20	-10.18	1.51 V	134	50.58	7.44
2	*5785.00	112.63 PK			1.51 V	134	105.35	7.28
3	*5785.00	101.76 AV			1.51 V	134	94.48	7.28
4	#5996.98	59.48 PK	68.20	-8.72	1.51 V	134	51.90	7.58
5	11570.00	57.19 PK	74.00	-16.81	1.74 V	295	40.20	16.99
6	11570.00	46.74 AV	54.00	-7.26	1.74 V	295	29.75	16.99

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	#5596.07	58.39 PK	68.20	-9.81	2.24 H	147	50.95	7.44
2	*5825.00	109.31 PK			2.24 H	147	102.03	7.28
3	*5825.00	98.21 AV			2.24 H	147	90.93	7.28
4	#5970.37	58.85 PK	68.20	-9.35	2.24 H	147	51.37	7.48
5	11650.00	56.69 PK	74.00	-17.31	1.51 H	140	39.45	17.24
6	11650.00	46.62 AV	54.00	-7.38	1.51 H	140	29.38	17.24
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	#5595.12	58.18 PK	68.20	-10.02	1.56 V	134	50.74	7.44
2	*5825.00	112.70 PK			1.56 V	134	105.42	7.28
3	*5825.00	102.13 AV			1.56 V	134	94.85	7.28
4	#5981.30	59.17 PK	68.20	-9.03	1.56 V	134	51.65	7.52
5	11650.00	57.43 PK	74.00	-16.57	1.68 V	246	40.19	17.24
6	11650.00	46.96 AV	54.00	-7.04	1.68 V	246	29.72	17.24

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	62.67 PK	74.00	-11.33	1.56 H	144	55.86	6.81
2	5150.00	47.36 AV	54.00	-6.64	1.56 H	144	40.55	6.81
3	*5190.00	108.69 PK			1.56 H	144	101.58	7.11
4	*5190.00	97.99 AV			1.56 H	144	90.88	7.11
5	#10380.00	54.06 PK	68.20	-14.14	1.69 H	36	39.47	14.59
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	67.18 PK	74.00	-6.82	3.81 V	150	60.37	6.81
2	5150.00	52.16 AV	54.00	-1.84	3.81 V	150	45.35	6.81
3	*5190.00	113.99 PK			3.81 V	150	106.88	7.11
4	*5190.00	102.70 AV			3.81 V	150	95.59	7.11
5	#10380.00	55.17 PK	68.20	-13.03	1.58 V	225	40.58	14.59

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	*5230.00	107.96 PK			1.58 H	152	100.66	7.30
2	*5230.00	97.26 AV			1.58 H	152	89.96	7.30
3	5350.00	57.73 PK	74.00	-16.27	1.58 H	152	49.89	7.84
4	5350.00	46.95 AV	54.00	-7.05	1.58 H	152	39.11	7.84
5	#10460.00	54.67 PK	68.20	-13.53	1.87 H	149	39.74	14.93
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	*5230.00	112.73 PK			3.80 V	172	105.43	7.30
2	*5230.00	101.60 AV			3.80 V	172	94.30	7.30
3	5350.00	58.06 PK	74.00	-15.94	3.80 V	172	50.22	7.84
4	5350.00	47.47 AV	54.00	-6.53	3.80 V	172	39.63	7.84
5	#10460.00	55.48 PK	68.20	-12.72	2.24 V	158	40.55	14.93

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.07 PK	74.00	-15.93	1.45 H	156	51.26	6.81
2	5150.00	46.50 AV	54.00	-7.50	1.45 H	156	39.69	6.81
3	*5270.00	108.78 PK			1.45 H	156	101.26	7.52
4	*5270.00	97.88 AV			1.45 H	156	90.36	7.52
5	#10540.00	54.88 PK	68.20	-13.32	4.00 H	58	39.68	15.20
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	58.81 PK	74.00	-15.19	3.70 V	153	52.00	6.81
2	5150.00	47.15 AV	54.00	-6.85	3.70 V	153	40.34	6.81
3	*5270.00	113.80 PK			3.70 V	153	106.28	7.52
4	*5270.00	102.92 AV			3.70 V	153	95.40	7.52
5	#10540.00	55.67 PK	68.20	-12.53	1.98 V	356	40.47	15.20

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	107.92 PK			1.55 H	149	100.16	7.76
2	*5310.00	97.52 AV			1.55 H	149	89.76	7.76
3	5350.00	62.00 PK	74.00	-12.00	1.55 H	149	54.16	7.84
4	5350.00	48.10 AV	54.00	-5.90	1.55 H	149	40.26	7.84
5	10620.00	54.84 PK	74.00	-19.16	1.88 H	147	39.48	15.36
6	10620.00	44.21 AV	54.00	-9.79	1.88 H	147	28.85	15.36
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	112.87 PK			3.68 V	175	105.11	7.76
2	*5310.00	102.07 AV			3.68 V	175	94.31	7.76
3	5350.00	67.10 PK	74.00	-6.90	3.68 V	175	59.26	7.84
4	5350.00	53.16 AV	54.00	-0.84	3.68 V	175	45.32	7.84
5	10620.00	55.92 PK	74.00	-18.08	1.87 V	145	40.56	15.36
6	10620.00	44.83 AV	54.00	-9.17	1.87 V	145	29.47	15.36

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	60.76 PK	74.00	-13.24	1.02 H	173	52.81	7.95
2	5460.00	46.67 AV	54.00	-7.33	1.02 H	173	38.72	7.95
3	#5470.00	62.05 PK	68.20	-6.15	1.02 H	173	54.08	7.97
4	*5510.00	107.33 PK			1.02 H	173	99.38	7.95
5	*5510.00	96.20 AV			1.02 H	173	88.25	7.95
6	11020.00	55.34 PK	74.00	-18.66	1.83 H	150	39.44	15.90
7	11020.00	45.22 AV	54.00	-8.78	1.83 H	150	29.32	15.90
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	63.21 PK	74.00	-10.79	1.42 V	152	55.26	7.95
2	5460.00	49.21 AV	54.00	-4.79	1.42 V	152	41.26	7.95
3	#5470.00	66.39 PK	68.20	-1.81	1.42 V	152	58.42	7.97
4	*5510.00	111.06 PK			1.42 V	152	103.11	7.95
5	*5510.00	100.32 AV			1.42 V	152	92.37	7.95
6	11020.00	56.06 PK	74.00	-17.94	1.88 V	286	40.16	15.90
7	11020.00	45.74 AV	54.00	-8.26	1.88 V	286	29.84	15.90

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	108.12 PK			1.08 H	172	100.40	7.72
2	*5550.00	96.77 AV			1.08 H	172	89.05	7.72
3	11100.00	55.69 PK	74.00	-18.31	2.87 H	243	39.74	15.95
4	11100.00	45.20 AV	54.00	-8.80	2.87 H	243	29.25	15.95
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	112.37 PK			2.19 V	145	104.65	7.72
2	*5550.00	101.28 AV			2.19 V	145	93.56	7.72
3	11100.00	56.14 PK	74.00	-17.86	2.62 V	207	40.19	15.95
4	11100.00	45.76 AV	54.00	-8.24	2.62 V	207	29.81	15.95

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 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	106.62 PK			1.49 H	162	99.42	7.20
2	*5670.00	94.83 AV			1.49 H	162	87.63	7.20
3	#5725.00	58.32 PK	68.20	-9.88	1.49 H	162	51.15	7.17
4	11340.00	56.36 PK	74.00	-17.64	1.81 H	147	39.79	16.57
5	11340.00	45.68 AV	54.00	-8.32	1.81 H	147	29.11	16.57
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	111.47 PK			1.86 V	143	104.27	7.20
2	*5670.00	100.18 AV			1.86 V	143	92.98	7.20
3	#5725.00	58.48 PK	68.20	-9.72	1.86 V	143	51.31	7.17
4	11340.00	56.90 PK	74.00	-17.10	2.54 V	211	40.33	16.57
5	11340.00	46.46 AV	54.00	-7.54	2.54 V	211	29.89	16.57

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	#5602.73	57.91 PK	68.20	-10.29	1.56 H	152	50.51	7.40
2	*5755.00	106.36 PK			1.56 H	152	99.14	7.22
3	*5755.00	95.61 AV			1.56 H	152	88.39	7.22
4	#5952.32	59.55 PK	68.20	-8.65	1.56 H	152	52.13	7.42
5	11510.00	56.54 PK	74.00	-17.46	1.77 H	146	39.73	16.81
6	11510.00	46.05 AV	54.00	-7.95	1.77 H	146	29.24	16.81
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	#5563.30	58.79 PK	68.20	-9.41	2.20 V	192	51.15	7.64
2	*5755.00	109.87 PK			2.20 V	192	102.65	7.22
3	*5755.00	98.61 AV			2.20 V	192	91.39	7.22
4	#6008.37	59.33 PK	68.20	-8.87	2.20 V	192	51.75	7.58
5	11510.00	57.06 PK	74.00	-16.94	2.49 V	204	40.25	16.81
6	11510.00	46.59 AV	54.00	-7.41	2.49 V	204	29.78	16.81

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	#5565.68	58.09 PK	68.20	-10.11	1.57 H	150	50.46	7.63
2	*5795.00	107.17 PK			1.57 H	150	99.87	7.30
3	*5795.00	96.08 AV			1.57 H	150	88.78	7.30
4	#6012.18	59.03 PK	68.20	-9.17	1.57 H	150	51.45	7.58
5	11590.00	56.79 PK	74.00	-17.21	1.76 H	154	39.75	17.04
6	11590.00	46.24 AV	54.00	-7.76	1.76 H	154	29.20	17.04
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	#5608.90	58.14 PK	68.20	-10.06	1.45 V	164	50.76	7.38
2	*5795.00	110.91 PK			1.45 V	164	103.61	7.30
3	*5795.00	99.95 AV			1.45 V	164	92.65	7.30
4	#5931.90	60.13 PK	68.20	-8.07	1.45 V	164	52.80	7.33
5	11590.00	57.26 PK	74.00	-16.74	2.58 V	201	40.22	17.04
6	11590.00	46.80 AV	54.00	-7.20	2.58 V	201	29.76	17.04

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.50 PK	74.00	-11.50	1.54 H	157	55.69	6.81
2	5150.00	47.30 AV	54.00	-6.70	1.54 H	157	40.49	6.81
3	*5210.00	104.80 PK			1.54 H	157	97.59	7.21
4	*5210.00	93.90 AV			1.54 H	157	86.69	7.21
5	5350.00	58.00 PK	74.00	-16.00	1.54 H	157	50.16	7.84
6	5350.00	46.94 AV	54.00	-7.06	1.54 H	157	39.10	7.84
7	#10420.00	54.26 PK	68.20	-13.94	3.21 H	216	39.54	14.72
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	67.00 PK	74.00	-7.00	3.79 V	146	60.19	6.81
2	5150.00	52.18 AV	54.00	-1.82	3.79 V	146	45.37	6.81
3	*5210.00	109.53 PK			3.79 V	146	102.32	7.21
4	*5210.00	98.76 AV			3.79 V	146	91.55	7.21
5	5350.00	58.73 PK	74.00	-15.27	3.79 V	146	50.89	7.84
6	5350.00	47.51 AV	54.00	-6.49	3.79 V	146	39.67	7.84
7	#10420.00	55.31 PK	68.20	-12.89	1.88 V	265	40.59	14.72

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.27 PK	74.00	-15.73	1.58 H	147	51.46	6.81
2	5150.00	46.91 AV	54.00	-7.09	1.58 H	147	40.10	6.81
3	*5290.00	105.13 PK			1.58 H	147	97.46	7.67
4	*5290.00	93.01 AV			1.58 H	147	85.34	7.67
5	5350.00	59.30 PK	74.00	-14.70	1.58 H	147	51.46	7.84
6	5350.00	47.50 AV	54.00	-6.50	1.58 H	147	39.66	7.84
7	#10580.00	54.84 PK	68.20	-13.36	2.34 H	196	39.56	15.28
8	#10580.00	43.69 AV	54.00	-10.31	2.34 H	196	28.41	15.28
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	58.90 PK	74.00	-15.10	3.72 V	153	52.09	6.81
2	5150.00	47.71 AV	54.00	-6.29	3.72 V	153	40.90	6.81
3	*5290.00	109.99 PK			3.72 V	153	102.32	7.67
4	*5290.00	98.24 AV			3.72 V	153	90.57	7.67
5	5350.00	64.77 PK	74.00	-9.23	3.72 V	153	56.93	7.84
6	5350.00	52.43 AV	54.00	-1.57	3.72 V	153	44.59	7.84
7	#10580.00	55.79 PK	68.20	-12.41	1.18 V	198	40.51	15.28
8	#10580.00	44.74 AV	54.00	-9.26	1.18 V	198	29.46	15.28

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	61.56 PK	74.00	-12.44	1.03 H	174	53.61	7.95
2	5460.00	48.53 AV	54.00	-5.47	1.03 H	174	40.58	7.95
3	#5470.00	62.29 PK	68.20	-5.91	1.03 H	174	54.32	7.97
4	*5530.00	104.00 PK			1.03 H	174	96.17	7.83
5	*5530.00	92.33 AV			1.03 H	174	84.50	7.83
6	11060.00	55.59 PK	74.00	-18.41	2.38 H	251	39.67	15.92
7	11060.00	45.02 AV	54.00	-8.98	2.38 H	251	29.10	15.92
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	63.30 PK	74.00	-10.70	1.30 V	151	55.35	7.95
2	5460.00	49.73 AV	54.00	-4.27	1.30 V	151	41.78	7.95
3	#5470.00	66.25 PK	68.20	-1.95	1.30 V	151	58.28	7.97
4	*5530.00	108.47 PK			1.30 V	151	100.64	7.83
5	*5530.00	96.51 AV			1.30 V	151	88.68	7.83
6	11060.00	56.13 PK	74.00	-17.87	1.93 V	249	40.21	15.92
7	11060.00	45.61 AV	54.00	-8.39	1.93 V	249	29.69	15.92

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	103.92 PK			4.00 H	161	96.55	7.37
2	*5610.00	92.79 AV			4.00 H	161	85.42	7.37
3	#5725.00	58.24 PK	68.20	-9.96	4.00 H	161	51.07	7.17
4	11220.00	55.52 PK	74.00	-18.48	2.66 H	241	39.31	16.21
5	11220.00	45.23 AV	54.00	-8.77	2.66 H	241	29.02	16.21
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	108.31 PK			1.33 V	140	100.94	7.37
2	*5610.00	97.33 AV			1.33 V	140	89.96	7.37
3	#5725.00	58.29 PK	68.20	-9.91	1.33 V	140	51.12	7.17
4	11220.00	56.26 PK	74.00	-17.74	1.89 V	257	40.05	16.21
5	11220.00	45.84 AV	54.00	-8.16	1.89 V	257	29.63	16.21

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)
Input Power	110Vac, 60Hz		

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	#5641.20	57.99 PK	68.20	-10.21	1.63 H	150	50.71	7.28
2	*5775.00	103.54 PK			1.63 H	150	96.28	7.26
3	*5775.00	92.78 AV			1.63 H	150	85.52	7.26
4	#5967.05	59.16 PK	68.20	-9.04	1.63 H	150	51.68	7.48
5	11550.00	56.62 PK	74.00	-17.38	2.33 H	248	39.70	16.92
6	11550.00	46.06 AV	54.00	-7.94	2.33 H	248	29.14	16.92
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	#5562.82	58.06 PK	68.20	-10.14	1.47 V	162	50.42	7.64
2	*5775.00	107.48 PK			1.47 V	162	100.22	7.26
3	*5775.00	96.58 AV			1.47 V	162	89.32	7.26
4	#6019.77	59.01 PK	68.20	-9.19	1.47 V	162	51.42	7.59
5	11550.00	57.13 PK	74.00	-16.87	1.88 V	238	40.21	16.92
6	11550.00	46.63 AV	54.00	-7.37	1.88 V	238	29.71	16.92

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.

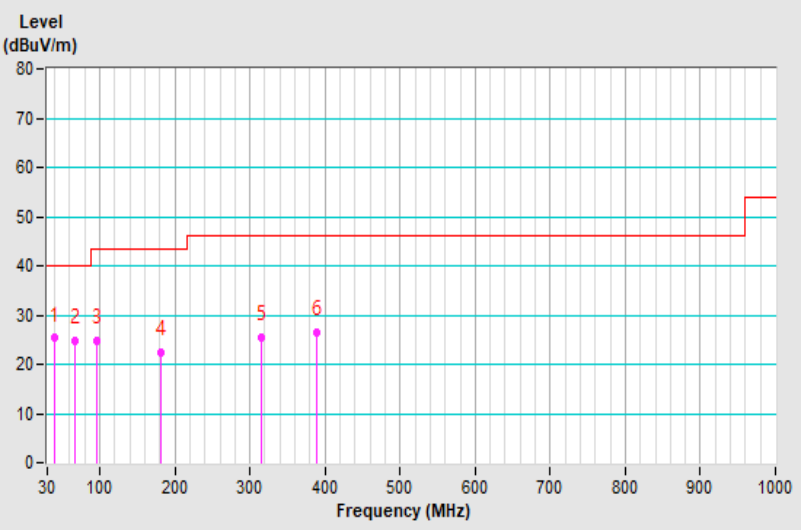
BELOW 1GHz WORST-CASE DATA

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	39.85	25.29 QP	40.00	-14.71	1.97 H	35	32.85	-7.56
2	66.57	24.78 QP	40.00	-15.22	1.68 H	79	32.86	-8.08
3	95.43	24.87 QP	43.50	-18.63	2.41 H	248	36.83	-11.96
4	180.64	22.37 QP	43.50	-21.13	2.37 H	94	29.90	-7.53
5	315.37	25.39 QP	46.00	-20.61	1.50 H	314	29.04	-3.65
6	389.77	26.53 QP	46.00	-19.47	1.88 H	16	28.87	-2.34

Remarks:

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

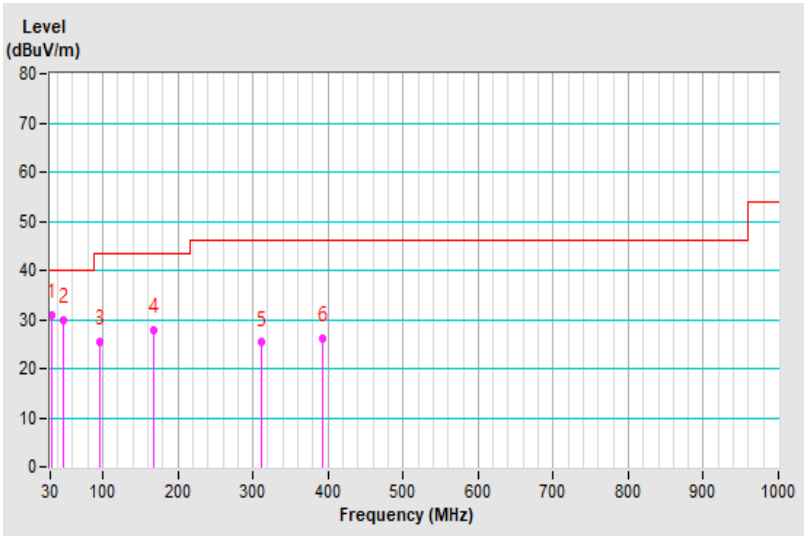


RF Mode	TX 802.11a	Channel	CH 36：5180 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	31.89	30.85 QP	40.00	-9.15	1.86 V	262	39.38	-8.53
2	47.99	29.85 QP	40.00	-10.15	1.79 V	102	36.62	-6.77
3	95.18	25.40 QP	43.50	-18.10	1.38 V	360	37.32	-11.92
4	167.35	27.79 QP	43.50	-15.71	1.48 V	22	34.14	-6.35
5	311.88	25.29 QP	46.00	-20.71	2.11 V	359	29.07	-3.78
6	392.97	26.11 QP	46.00	-19.89	1.57 V	114	28.43	-2.32

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 ESR3 R&S	ESR3	102412	2021/1/29	2022/1/28
LISN SCHWARZBECK	NSLK 8128	8128-244	2021/11/11	2022/11/10
LISN SCHWARZBECK	NNLK8129	8129229	2021/5/20	2022/5/19
DC LISN SCHWARZBECK	NNLK 8121	8121-808	2021/4/18	2022/4/17
LISN SCHWARZBECK	NNLK 8121	8121-731	2021/4/28	2022/4/27
LISN R&S	ENV216	101196	2021/4/26	2022/4/25
LISN R&S	ESH3-Z5	100220	2020/12/1	2021/11/30
LISN R&S	ESH3-Z6	844950/018	2021/7/25	2022/7/24
DC LISN R&S	ESH3-Z6	100219	2021/7/25	2022/7/24
High Voltage Probe Schwarzbeck	TK9420	00982	2021/1/8	2022/1/7
RF Coaxial Cable Commate	5D-FB	Cable-CO5-01	2021/1/29	2022/1/28
Attenuator STI	STI02-2200-10	NO.4	2021/9/3	2022/9/2
50 Ohms Terminator LYNICS	0900510	E1-01-305	2021/2/17	2022/2/16
Isolation Transformer Erika Fiedler	D-65396	017	2021/9/9	2022/9/8
Software BVADT	Cond_V7.3.7.4	NA	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 Linkou Conduction05
3. The VCCI Site Registration No. C-11093.
4. Tested Date: 2021/11/27

4.2.3 Test Procedures

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

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

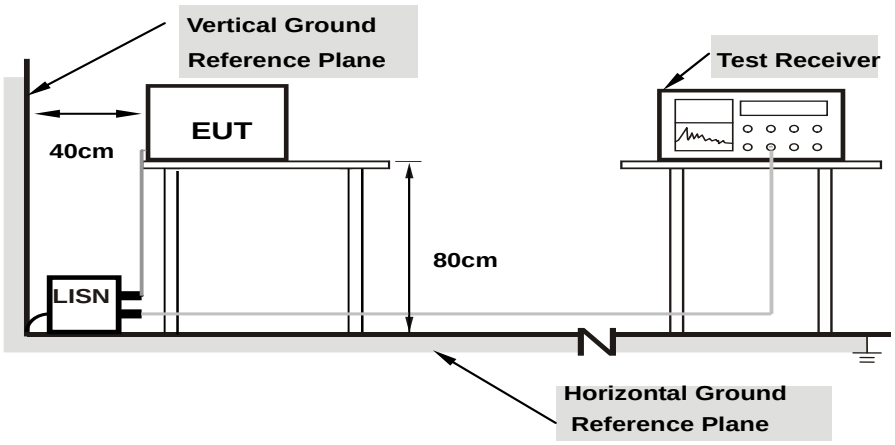
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

Note: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

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 Conditions

Same as Item 4.1.6.

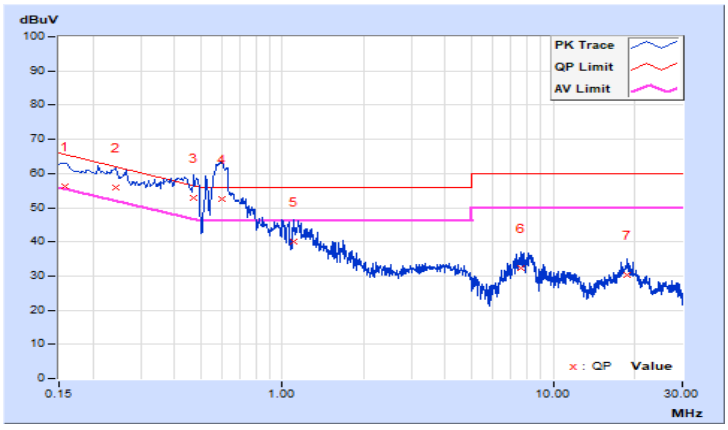
4.2.7 Test Results

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

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15800	9.88	46.47	33.52	56.35	43.40	65.57	55.57	-9.22	-12.17
2	0.24164	9.88	46.12	34.86	56.00	44.74	62.04	52.04	-6.04	-7.30
3	0.47000	9.91	43.11	30.59	53.02	40.50	56.51	46.51	-3.49	-6.01
4	**0.59600**	**9.92**	**42.55**	**32.88**	**52.47**	**42.80**	**56.00**	**46.00**	**-3.53**	**-3.20**
5	1.10791	9.95	30.10	15.33	40.05	25.28	56.00	46.00	-15.95	-20.72
6	7.61200	10.14	22.20	14.68	32.34	24.82	60.00	50.00	-27.66	-25.18
7	18.69200	10.43	19.73	13.74	30.16	24.17	60.00	50.00	-29.84	-25.83

Remarks:

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

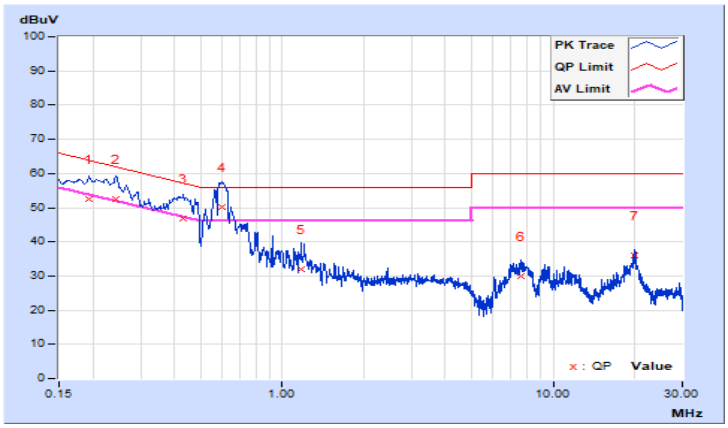


RF Mode	TX 802.11a	Channel	CH 36：5180 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19400	9.89	42.65	24.66	52.54	34.55	63.86	53.86	-11.32	-19.31
2	0.24200	9.89	42.71	24.75	52.60	34.64	62.03	52.03	-9.43	-17.39
3	0.43000	9.91	36.90	20.07	46.81	29.98	57.25	47.25	-10.44	-17.27
4	0.59967	9.93	40.39	23.59	50.32	33.52	56.00	46.00	-5.68	-12.48
5	1.17200	9.97	22.07	6.61	32.04	16.58	56.00	46.00	-23.96	-29.42
6	7.57200	10.15	19.78	12.67	29.93	22.82	60.00	50.00	-30.07	-27.18
7	19.98400	10.47	25.65	22.15	36.12	32.62	60.00	50.00	-23.88	-17.38

Remarks:

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



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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

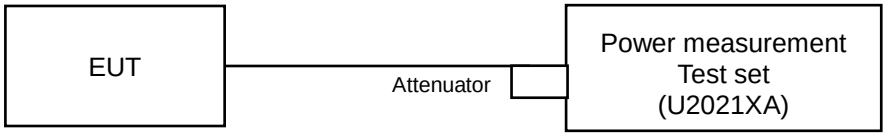
*B is the 26 dB emission bandwidth in megahertz
Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

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

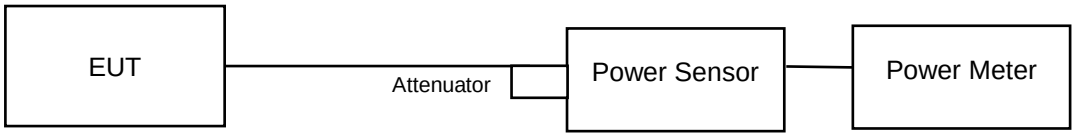
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

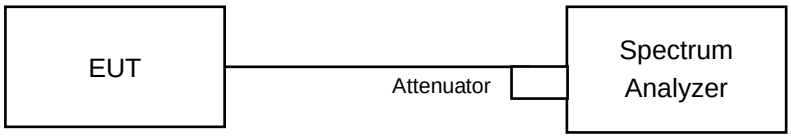
For Power Output Measurement



Or



For 26dB Bandwidth Measurement



4.3.3 Test Instruments

Description & Manufacturer	Model no.	Serial No.	Calibrated Date	Calibrated Until
Pulse Power Sensor Anritsu	MA2411B	0738404	2021/4/15	2022/4/14
Peak Power meter Anritsu	ML2495A	0842014	2021/4/15	2022/4/14
Spectrum Analyzer R&S	FSV40	101042	2021/9/9	2022/9/8
MIMO Power measurement Test set KEYSIGHT	U2021XA	U2021XA_001	2021/6/16	2022/6/15

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 LK - Oven
3. Tested Date: 2021/11/26

4.3.4 Test Procedure

For Average Power Measurement

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 and set the detector to AVERAGE. Duty factor is not added to measured value.

For 26dB Bandwidth Measurement

1. Set RBW = approximately 1% to 5% of the emission bandwidth.
2. Set the VBW $\geqq$ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

Power Output:

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	15.43	15.59	**83.673**	19.23	24	Pass
40	5200	15.54	16.80	83.609	19.22	24	Pass
48	5240	15.75	16.63	79.866	19.02	24	Pass
52	5260	15.84	16.18	**82.625**	19.17	23.83	Pass
60	5300	15.93	16.38	79.72	19.02	23.81	Pass
64	5320	15.51	16.45	74.56	18.73	23.8	Pass
100	5500	15.13	16.23	**62.161**	17.94	23.83	Pass
116	5580	14.55	15.27	61.458	17.89	23.82	Pass
132	5660	14.94	14.81	61.029	17.86	23.83	Pass
140	5700	14.82	14.87	58.829	17.70	23.84	Pass
149	5745	14.61	14.76	**61.55**	17.89	30	Pass
157	5785	15.01	14.75	60.107	17.79	30	Pass
165	5825	14.96	14.59	58.957	17.71	30	Pass

NOTE:

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log(19.19) = 23.83 dBm < 24dBm.
2. 11dBm + 10log(19.2) = 23.83 dBm < 24dBm.
3. 11dBm + 10log(19.07) = 23.80 dBm < 24dBm.
4. 11dBm + 10log(19.21) = 23.83 dBm < 24dBm.
5. 11dBm + 10log(19.3) = 23.86 dBm < 24dBm.
6. 11dBm + 10log(19.85) = 23.98 dBm > 24dBm.
7. 11dBm + 10log(19.95) = 23.99 dBm > 24dBm.

Chain 1

1. 11dBm + 10log(19.37) = 23.87 dBm < 24dBm.
2. 11dBm + 10log(19.11) = 23.81 dBm < 24dBm.
3. 11dBm + 10log(19.07) = 23.80 dBm < 24dBm.
4. 11dBm + 10log(19.23) = 23.84 dBm < 24dBm.
5. 11dBm + 10log(19.18) = 23.82 dBm < 24dBm.
6. 11dBm + 10log(19.2) = 23.83 dBm < 24dBm.
7. 11dBm + 10log(19.26) = 23.84 dBm < 24dBm.

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	14.90	15.92	69.987	18.45	24	Pass
40	5200	15.11	15.93	71.608	18.55	24	Pass
48	5240	15.24	15.48	68.738	18.37	24	Pass
52	5260	15.29	15.75	71.39	18.54	24	Pass
60	5300	14.86	15.68	67.602	18.30	24	Pass
64	5320	14.49	15.61	64.511	18.10	24	Pass
100	5500	14.01	14.70	54.689	17.38	24	Pass
116	5580	14.20	14.18	52.485	17.20	24	Pass
132	5660	14.19	14.11	52.005	17.16	24	Pass
140	5700	13.85	14.10	49.97	16.99	24	Pass
149	5745	14.31	14.01	52.154	17.17	30	Pass
157	5785	14.37	13.93	52.07	17.17	30	Pass
165	5825	13.94	13.93	49.491	16.95	30	Pass

NOTE:

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log(20.98) = 24.22 dBm > 24dBm.
2. 11dBm + 10log(21.01) = 24.22 dBm > 24dBm.
3. 11dBm + 10log(20.94) = 24.21 dBm > 24dBm.
4. 11dBm + 10log(21.18) = 24.26 dBm > 24dBm.
5. 11dBm + 10log(21.07) = 24.24 dBm > 24dBm.
6. 11dBm + 10log(21.05) = 24.23 dBm > 24dBm.
7. 11dBm + 10log(20.89) = 24.20 dBm > 24dBm.

Chain 1

1. 11dBm + 10log(20.92) = 24.21 dBm > 24dBm.
2. 11dBm + 10log(21.08) = 24.24 dBm > 24dBm.
3. 11dBm + 10log(21.07) = 24.24 dBm > 24dBm.
4. 11dBm + 10log(21.1) = 24.24 dBm > 24dBm.
5. 11dBm + 10log(21.31) = 24.29 dBm > 24dBm.
6. 11dBm + 10log(21.01) = 24.22 dBm > 24dBm.
7. 11dBm + 10log(21.44) = 24.31 dBm > 24dBm.

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	15.38	16.43	78.469	18.95	24	Pass
46	5230	15.62	16.08	77.026	18.87	24	Pass
54	5270	15.52	16.12	76.571	18.84	24	Pass
62	5310	14.90	16.11	71.735	18.56	24	Pass
102	5510	14.15	15.02	57.77	17.62	24	Pass
110	5550	14.45	14.68	57.238	17.58	24	Pass
134	5670	14.43	14.50	55.917	17.48	24	Pass
151	5755	14.79	14.42	57.799	17.62	30	Pass
159	5795	14.56	14.34	55.74	17.46	30	Pass

NOTE:

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log(41.64) = 27.20 dBm > 24dBm.
2. 11dBm + 10log(41.63) = 27.19 dBm > 24dBm.
3. 11dBm + 10log(41.52) = 27.18 dBm > 24dBm.
4. 11dBm + 10log(41.86) = 27.22 dBm > 24dBm.
5. 11dBm + 10log(41.73) = 27.20 dBm > 24dBm.

Chain 1

1. 11dBm + 10log(41.66) = 27.20 dBm > 24dBm.
2. 11dBm + 10log(41.6) = 27.19 dBm > 24dBm.
3. 11dBm + 10log(41.84) = 27.22 dBm > 24dBm.
4. 11dBm + 10log(41.94) = 27.23 dBm > 24dBm.
5. 11dBm + 10log(41.97) = 27.23 dBm > 24dBm.

802.11ac (VHT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	14.95	15.99	70.98	18.51	24	Pass
40	5200	15.15	16.01	72.637	18.61	24	Pass
48	5240	15.33	15.52	69.764	18.44	24	Pass
52	5260	15.36	15.77	72.113	18.58	24	Pass
60	5300	14.91	15.78	68.818	18.38	24	Pass
64	5320	14.58	15.70	65.861	18.19	24	Pass
100	5500	14.05	14.73	55.126	17.41	24	Pass
116	5580	14.28	14.26	53.46	17.28	24	Pass
132	5660	14.24	14.15	52.548	17.21	24	Pass
140	5700	13.89	14.13	50.373	17.02	24	Pass
149	5745	14.41	14.10	53.31	17.27	30	Pass
157	5785	14.41	13.96	52.494	17.20	30	Pass
165	5825	14.00	13.95	49.95	16.99	30	Pass

NOTE:

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log(20.98) = 24.22 dBm > 24dBm.
2. 11dBm + 10log(21.01) = 24.22 dBm > 24dBm.
3. 11dBm + 10log(20.94) = 24.21 dBm > 24dBm.
4. 11dBm + 10log(21.18) = 24.26 dBm > 24dBm.
5. 11dBm + 10log(21.07) = 24.24 dBm > 24dBm.
6. 11dBm + 10log(21.05) = 24.23 dBm > 24dBm.
7. 11dBm + 10log(20.89) = 24.20 dBm > 24dBm.

Chain 1

1. 11dBm + 10log(20.92) = 24.21 dBm > 24dBm.
2. 11dBm + 10log(21.08) = 24.24 dBm > 24dBm.
3. 11dBm + 10log(21.07) = 24.24 dBm > 24dBm.
4. 11dBm + 10log(21.1) = 24.24 dBm > 24dBm.
5. 11dBm + 10log(21.31) = 24.29 dBm > 24dBm.
6. 11dBm + 10log(21.01) = 24.22 dBm > 24dBm.
7. 11dBm + 10log(21.44) = 24.31 dBm > 24dBm.

802.11ac (VHT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	15.38	16.48	78.978	18.98	24	Pass
46	5230	15.66	16.10	77.551	18.90	24	Pass
54	5270	15.55	16.17	77.292	18.88	24	Pass
62	5310	14.99	16.20	73.237	18.65	24	Pass
102	5510	14.18	15.07	58.318	17.66	24	Pass
110	5550	14.50	14.69	57.628	17.61	24	Pass
134	5670	14.47	14.60	56.83	17.55	24	Pass
151	5755	14.84	14.50	58.663	17.68	30	Pass
159	5795	14.59	14.42	56.443	17.52	30	Pass

NOTE:

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log(41.64) = 27.20 dBm > 24dBm.
2. 11dBm + 10log(41.63) = 27.19 dBm > 24dBm.
3. 11dBm + 10log(41.52) = 27.18 dBm > 24dBm.
4. 11dBm + 10log(41.86) = 27.22 dBm > 24dBm.
5. 11dBm + 10log(41.73) = 27.20 dBm > 24dBm.

Chain 1

1. 11dBm + 10log(41.66) = 27.20 dBm > 24dBm.
2. 11dBm + 10log(41.6) = 27.19 dBm > 24dBm.
3. 11dBm + 10log(41.84) = 27.22 dBm > 24dBm.
4. 11dBm + 10log(41.94) = 27.23 dBm > 24dBm.
5. 11dBm + 10log(41.97) = 27.23 dBm > 24dBm.

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	15.58	15.99	75.86	18.80	24	Pass
58	5290	15.14	16.04	72.838	18.62	24	Pass
106	5530	14.20	14.83	56.712	17.54	24	Pass
122	5610	14.49	14.56	56.695	17.54	24	Pass
155	5775	14.10	14.12	51.527	17.12	30.00	Pass

NOTE:

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log(83.08) = 30.19 dBm > 24dBm.
2. 11dBm + 10log(82.95) = 30.19 dBm > 24dBm.
3. 11dBm + 10log(83.15) = 30.20 dBm > 24dBm.

Chain 1

1. 11dBm + 10log(83.01) = 30.19 dBm > 24dBm.
2. 11dBm + 10log(83.7) = 30.23 dBm > 24dBm.
3. 11dBm + 10log(83.03) = 30.19 dBm > 24dBm.

802.11ax (HE20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	14.99	16.04	71.729	18.56	24	Pass
40	5200	15.18	16.06	73.326	18.65	24	Pass
48	5240	15.38	15.57	70.572	18.49	24	Pass
52	5260	15.39	15.79	72.525	18.60	24	Pass
60	5300	14.95	15.81	69.367	18.41	24	Pass
64	5320	14.61	15.72	66.232	18.21	24	Pass
100	5500	14.07	14.75	55.381	17.43	24	Pass
116	5580	14.31	14.30	53.893	17.32	24	Pass
132	5660	14.26	14.20	52.971	17.24	24	Pass
140	5700	13.91	14.18	50.786	17.06	24	Pass
149	5745	14.46	14.15	53.927	17.32	30	Pass
157	5785	14.44	14.01	52.974	17.24	30	Pass
165	5825	14.02	14.03	50.528	17.04	30	Pass

NOTE:

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log(20.98) = 24.22 dBm > 24dBm.
2. 11dBm + 10log(21.01) = 24.22 dBm > 24dBm.
3. 11dBm + 10log(20.94) = 24.21 dBm > 24dBm.
4. 11dBm + 10log(21.18) = 24.26 dBm > 24dBm.
5. 11dBm + 10log(21.07) = 24.24 dBm > 24dBm.
6. 11dBm + 10log(21.05) = 24.23 dBm > 24dBm.
7. 11dBm + 10log(20.89) = 24.20 dBm > 24dBm.

Chain 1

1. 11dBm + 10log(20.92) = 24.21 dBm > 24dBm.
2. 11dBm + 10log(21.08) = 24.24 dBm > 24dBm.
3. 11dBm + 10log(21.07) = 24.24 dBm > 24dBm.
4. 11dBm + 10log(21.1) = 24.24 dBm > 24dBm.
5. 11dBm + 10log(21.31) = 24.29 dBm > 24dBm.
6. 11dBm + 10log(21.01) = 24.22 dBm > 24dBm.
7. 11dBm + 10log(21.44) = 24.31 dBm > 24dBm.

802.11ax (HE40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	15.40	16.51	79.445	19.00	24	Pass
46	5230	15.71	16.14	78.354	18.94	24	Pass
54	5270	15.58	16.21	77.924	18.92	24	Pass
62	5310	15.01	16.25	73.865	18.68	24	Pass
102	5510	14.22	15.10	58.783	17.69	24	Pass
110	5550	14.55	14.71	58.09	17.64	24	Pass
134	5670	14.52	14.65	57.488	17.60	24	Pass
151	5755	14.88	14.52	59.075	17.71	30	Pass
159	5795	14.64	14.44	56.904	17.55	30	Pass

NOTE:

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log(41.64) = 27.20 dBm > 24dBm.
2. 11dBm + 10log(41.63) = 27.19 dBm > 24dBm.
3. 11dBm + 10log(41.52) = 27.18 dBm > 24dBm.
4. 11dBm + 10log(41.86) = 27.22 dBm > 24dBm.
5. 11dBm + 10log(41.73) = 27.20 dBm > 24dBm.

Chain 1

1. 11dBm + 10log(41.66) = 27.20 dBm > 24dBm.
2. 11dBm + 10log(41.6) = 27.19 dBm > 24dBm.
3. 11dBm + 10log(41.84) = 27.22 dBm > 24dBm.
4. 11dBm + 10log(41.94) = 27.23 dBm > 24dBm.
5. 11dBm + 10log(41.97) = 27.23 dBm > 24dBm.

802.11ax (HE80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	15.61	16.03	76.478	18.84	24	Pass
58	5290	15.19	16.08	73.588	18.67	24	Pass
106	5530	14.22	14.88	57.185	17.57	24	Pass
122	5610	14.54	14.58	57.152	17.57	24	Pass
155	5775	14.12	14.14	51.764	17.14	30.00	Pass

NOTE:

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log(83.08) = 30.19 dBm > 24dBm.
2. 11dBm + 10log(82.95) = 30.19 dBm > 24dBm.
3. 11dBm + 10log(83.15) = 30.20 dBm > 24dBm.

Chain 1

1. 11dBm + 10log(83.01) = 30.19 dBm > 24dBm.
2. 11dBm + 10log(83.7) = 30.23 dBm > 24dBm.
3. 11dBm + 10log(83.03) = 30.19 dBm > 24dBm.

26dB Bandwidth:

802.11a

Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	19.19	19.37
60	5300	19.2	19.11
64	5320	19.07	19.07
100	5500	19.21	19.23
116	5580	19.3	19.18
132	5660	19.85	19.2
140	5700	19.95	19.26

802.11ax (HE20)

Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.98	20.92
60	5300	21.01	21.08
64	5320	20.94	21.07
100	5500	21.18	21.1
116	5580	21.07	21.31
132	5660	21.05	21.01
140	5700	20.89	21.44

802.11ax (HE40)

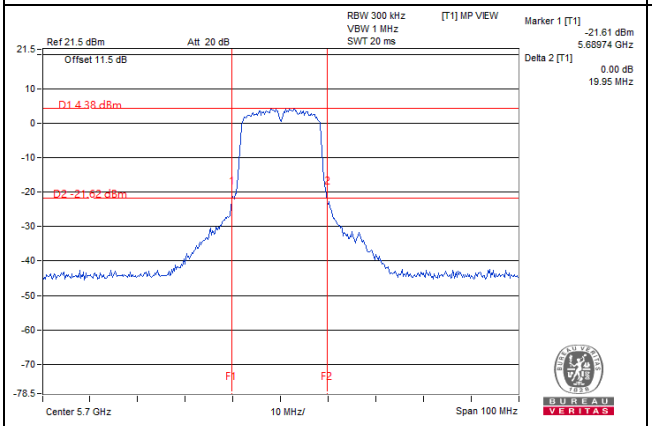
Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	41.64	41.66
62	5310	41.63	41.6
102	5510	41.52	41.84
110	5550	41.86	41.94
134	5670	41.73	41.97

802.11ax (HE80)

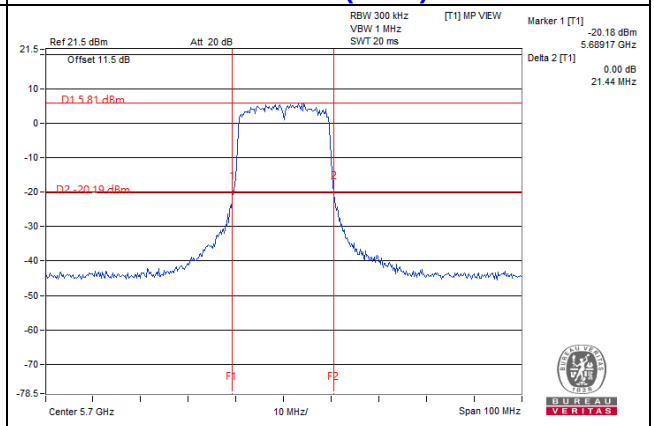
Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	83.08	83.01
106	5530	82.95	83.7
122	5610	83.15	83.03

Spectrum Plot of Worst Value

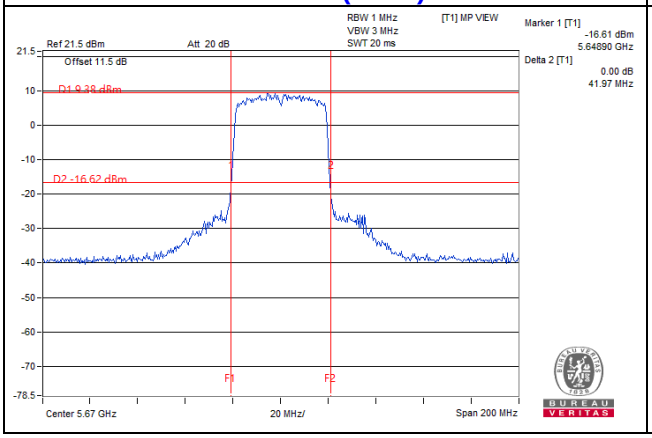
802.11a



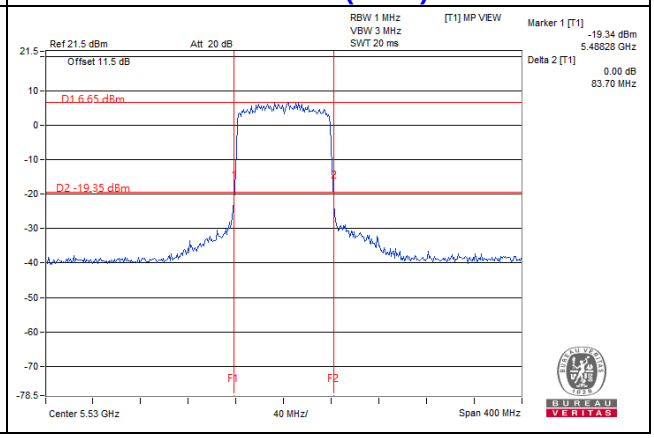
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)



EUT Maximum Conducted Power

802.11a

Frequency Band (MHz)	MAX. Power	
	Output Power(dBm)	Output Power(mW)
5250~5350	19.17	82.625
5470~5725	17.94	62.161

802.11ax (HE20)

Frequency Band (MHz)	MAX. Power	
	Output Power(dBm)	Output Power(mW)
5250~5350	18.60	72.525
5470~5725	17.43	55.381

802.11ax (HE40)

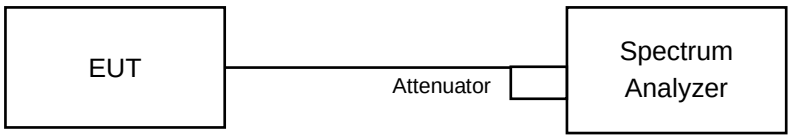
Frequency Band (MHz)	MAX. Power	
	Output Power(dBm)	Output Power(mW)
5250~5350	18.92	77.924
5470~5725	17.69	58.783

802.11ax (HE80)

Frequency Band (MHz)	MAX. Power	
	Output Power(dBm)	Output Power(mW)
5250~5350	18.67	73.588
5470~5725	17.57	57.185

4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.3.3 to get information of above instrument.

4.4.3 Test Procedure

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

4.4.4 Test Result

802.11a

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	16.44	16.32
40	5200	16.32	16.32
48	5240	16.32	16.32
52	5260	16.32	16.32
60	5300	16.44	16.32
64	5320	16.32	16.32
100	5500	16.44	16.32
116	5580	16.44	16.44
132	5660	16.44	16.44
140	5700	16.44	16.32
149	5745	16.34	16.34
157	5785	16.44	16.32
165	5825	16.44	16.32

802.11ax (HE20)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	18.96	18.96
40	5200	18.96	18.96
48	5240	18.96	18.96
52	5260	18.96	18.96
60	5300	18.96	18.84
64	5320	18.96	18.96
100	5500	18.96	18.96
116	5580	18.96	18.96
132	5660	18.96	18.96
140	5700	18.96	18.84
149	5745	18.96	18.96
157	5785	18.96	18.96
165	5825	18.96	18.96

802.11ax (HE40)

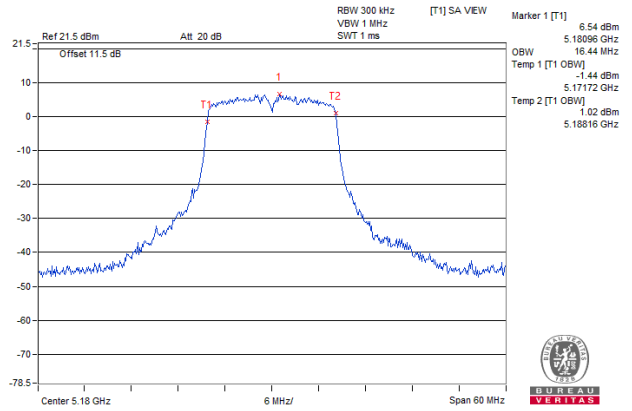
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	37.92	37.92
46	5230	37.92	37.92
54	5270	37.92	37.92
62	5310	37.92	37.92
102	5510	37.68	37.92
110	5550	37.92	37.92
134	5670	37.92	37.92
151	5755	37.92	37.92
159	5795	37.92	37.92

802.11ax (HE80)

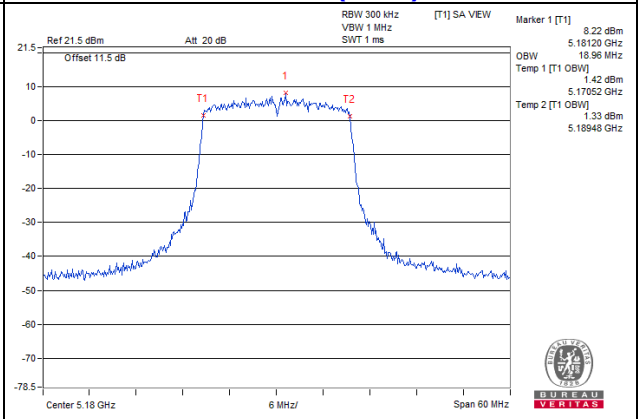
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	77.28	77.28
58	5290	77.28	77.28
106	5530	77.28	77.76
122	5610	77.28	77.28
155	5775	77.28	76.8

Spectrum Plot of Worst Value

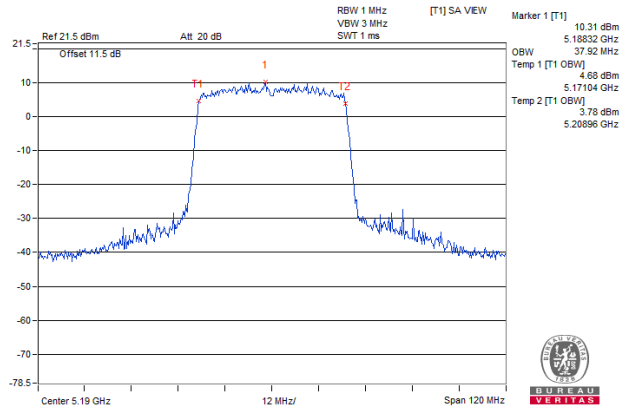
802.11a



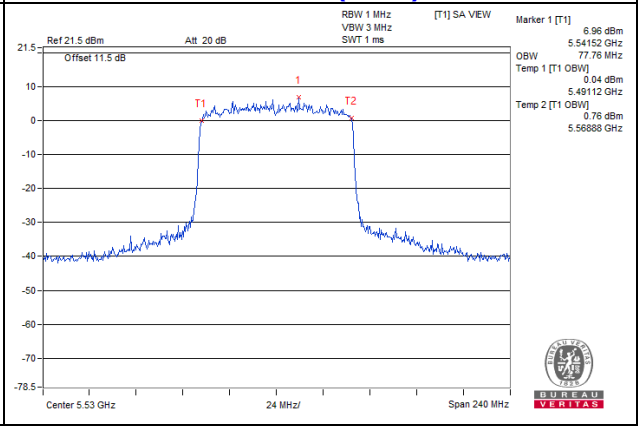
802.11ax (HE20)

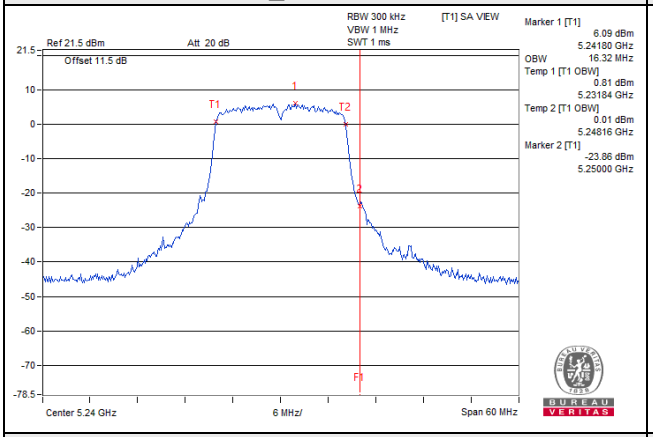
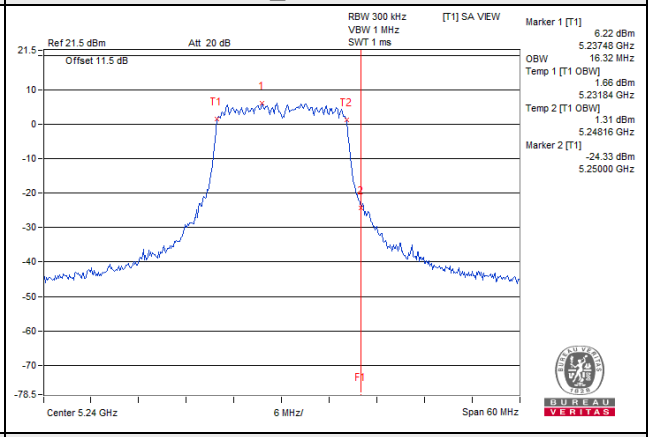
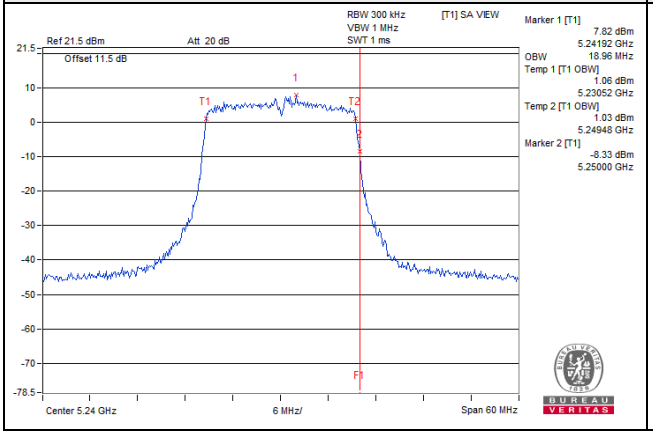
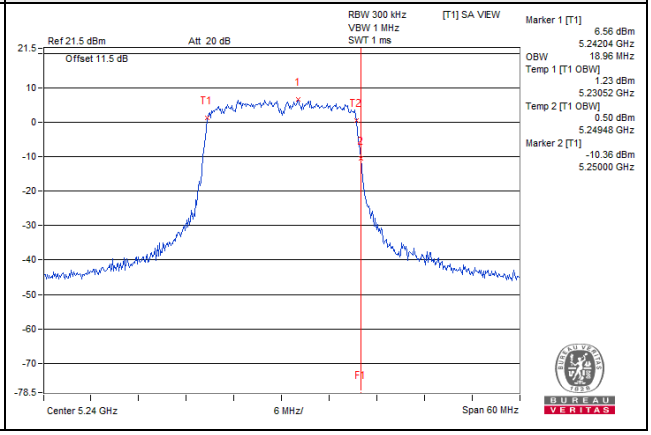


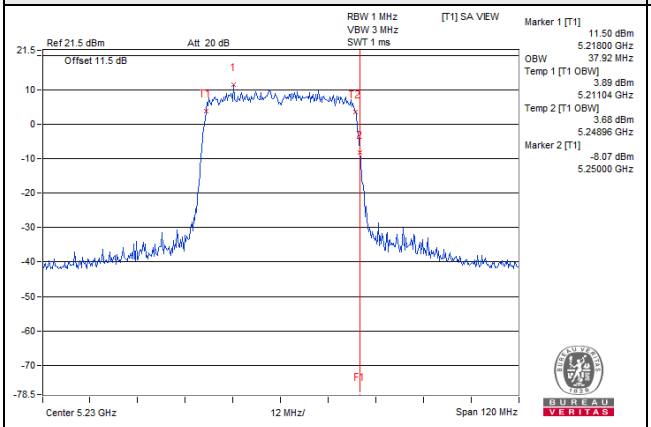
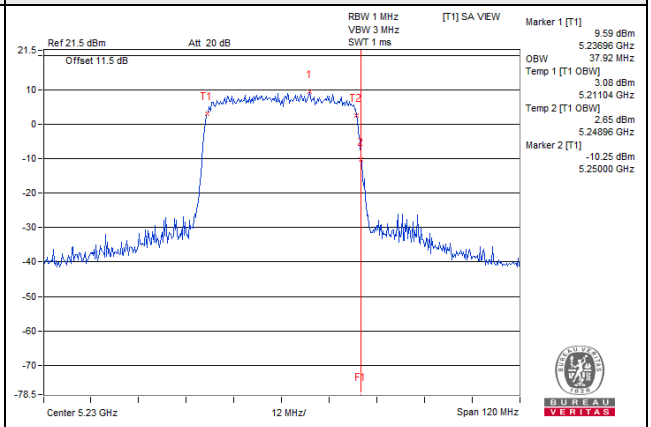
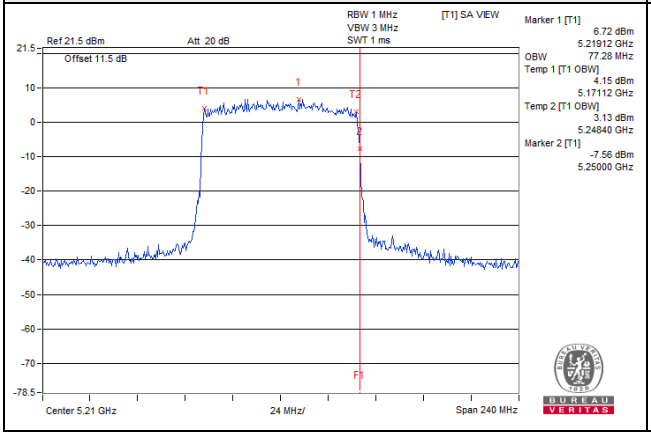
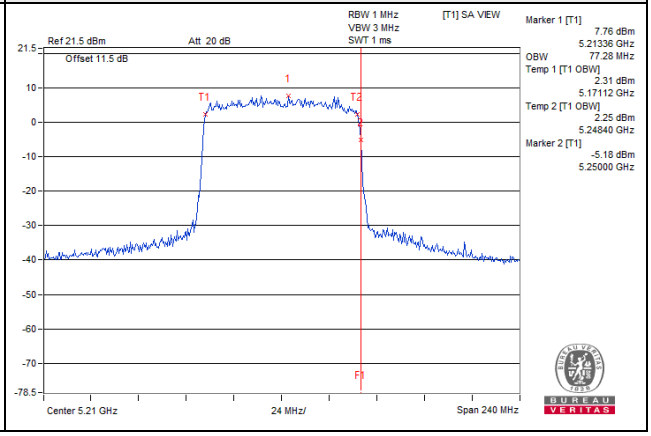
802.11ax (HE40)

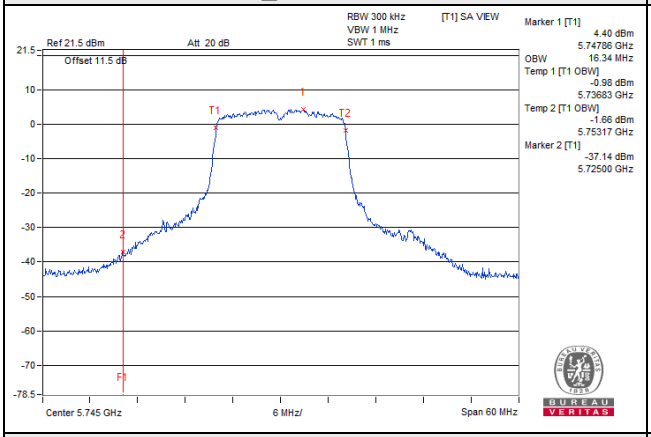
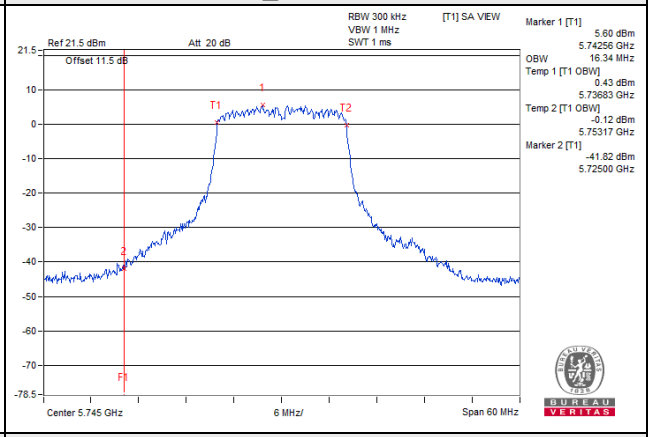
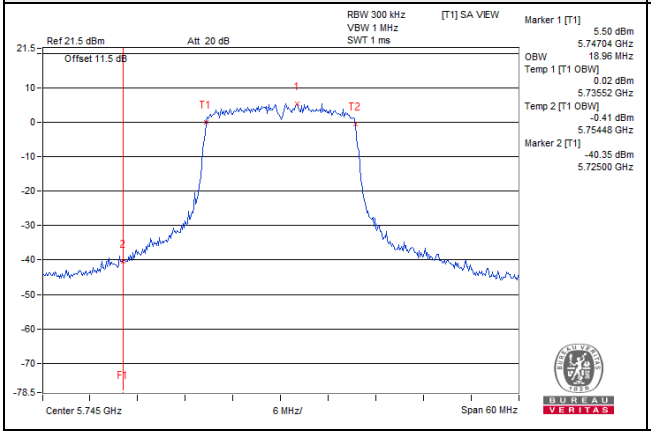
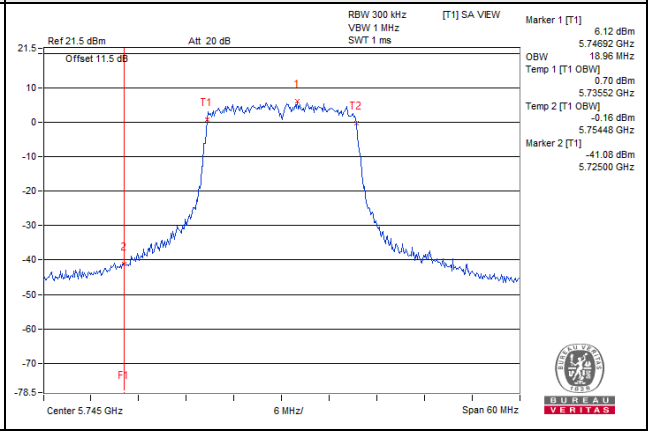


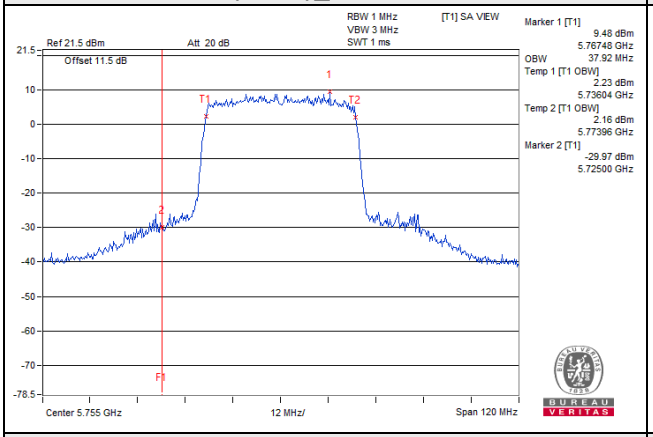
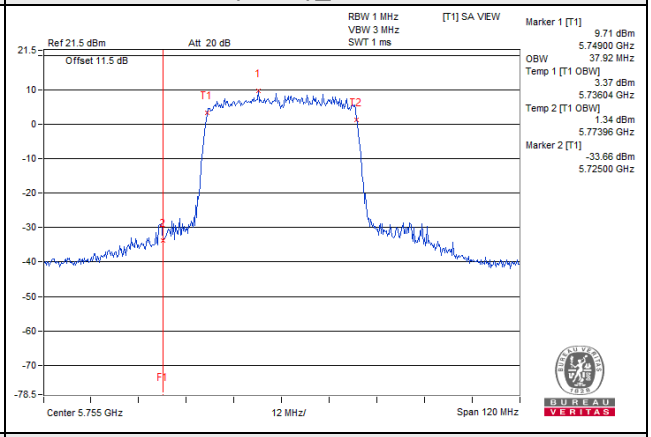
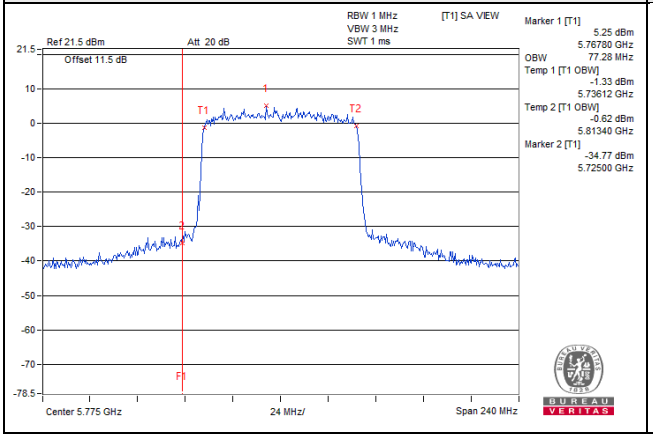
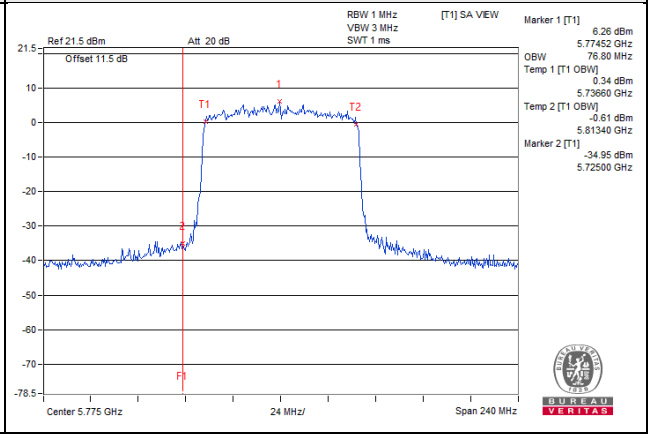
802.11ax (HE80)



Spectrum Plot for near By DFS Band	
802.11a_Chain 0 / CH 48	802.11a_Chain 1 / CH 48
	
802.11ax (HE20)_Chain 0 / CH 48	802.11ax (HE20)_Chain 1 / CH 48
	

Spectrum Plot for near By DFS Band	
802.11ax (HE40)_Chain 0 / CH 46	802.11ax (HE40)_Chain 1 / CH 46
	
802.11ax (HE80)_Chain 0 / CH 42	802.11ax (HE80)_Chain 1 / CH 42
	

Spectrum Plot for near By DFS Band	
802.11a_Chain 0 / CH 149	802.11a_Chain 1 / CH 149
	
802.11ax (HE20)_Chain 0 / CH 149	802.11ax (HE20)_Chain 1 / CH 149
	

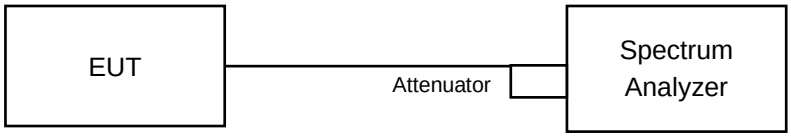
Spectrum Plot for near By DFS Band	
802.11ax (HE40)_Chain 0 / CH 151	802.11ax (HE40)_Chain 1 / CH 151
	
802.11ax (HE80)_Chain 0 / CH 155	802.11ax (HE80)_Chain 1 / CH 155
	

4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.3.3 to get information of above instrument.

4.5.4 Test Procedures

For U-NII-1, U-NII-2A, U-NII-2C Band:
Using method SA-1 (Duty cycle ≥ 98%)
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1MHz, Set VBW ≥ 3 MHz, Detector = RMS.
3) Set Channel power measure = 1MHz.
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value.
Using method SA-2 (Duty cycle < 98%)
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3) Sweep time = auto, trigger set to “free run”.
4) Trace average at least 100 traces in power averaging mode.
5) Record the max value and add 10 log (1/duty cycle)

For U-NII-3 band:
1) Measure the duty cycle (x).
2) Set span to encompass the entire emission bandwidth (EBW) of the signal.
3) Set RBW = 300 kHz, Set VBW ≥ 3 RBW, Detector = RMS
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value
7) Scale the observed power level to an equivalent value in 300 kHz by adjusting (increasing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz)
Note: If Duty cycle < 98%, Add 10 log (1/x), where x is the duty cycle measured in step (1, to the measured PSD to compute the average PSD during the actual transmission time.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

Same as 4.3.6.

4.5.7 Test Results

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

802.11a

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
36	5180	2.62	1.62	0.36	5.52	9.57	Pass
40	5200	2.45	1.81	0.36	5.51	9.57	Pass
48	5240	1.95	1.84	0.36	5.27	9.57	Pass
52	5260	2.23	1.89	0.36	5.43	9.57	Pass
60	5300	2.45	1.57	0.36	5.40	9.57	Pass
64	5320	2.26	1.19	0.36	5.13	9.57	Pass
100	5500	1.25	0.76	0.36	4.38	9.57	Pass
132	5660	0.36	0.96	0.36	4.04	9.57	Pass
116	5580	0.03	0.58	0.36	3.68	9.57	Pass
140	5700	-0.02	0.37	0.36	3.55	9.57	Pass

Note:
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. The directional gain is 7.43 dBi > 6dBi, so the power density limit shall be reduced to 11-(7.43-6) = 9.57 dBm/MHz.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

Chan.	Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
36	5180	1.21	0.51	3.88	9.57	Pass
40	5200	1.12	0.64	3.90	9.57	Pass
48	5240	0.84	0.63	3.75	9.57	Pass
52	5260	1.08	0.76	3.93	9.57	Pass
60	5300	1.27	0.44	3.89	9.57	Pass
64	5320	1.16	0.05	3.65	9.57	Pass
100	5500	0.03	-0.47	2.80	9.57	Pass
132	5660	-0.71	-0.25	2.54	9.57	Pass
116	5580	-1.13	-0.54	2.19	9.57	Pass
140	5700	-1.21	-0.73	2.05	9.57	Pass

Note:
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. The directional gain is 7.43 dBi > 6dBi, so the power density limit shall be reduced to 11-(7.43-6) = 9.57 dBm/MHz.

802.11ax (HE40)

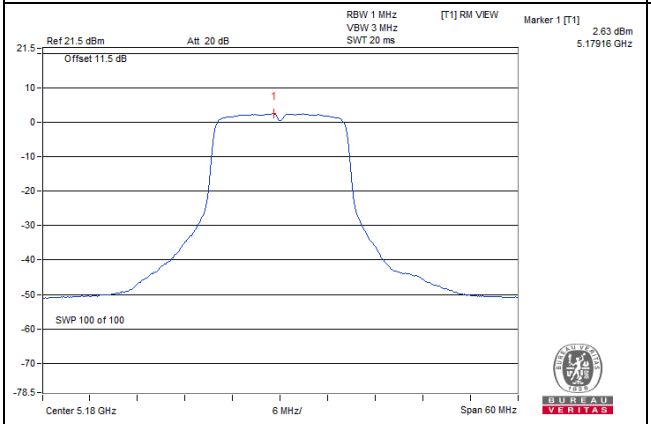
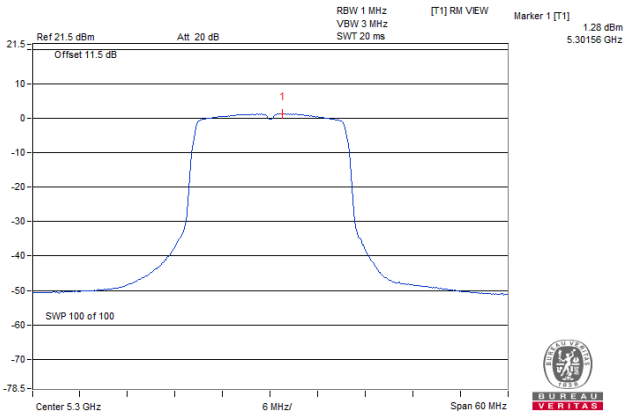
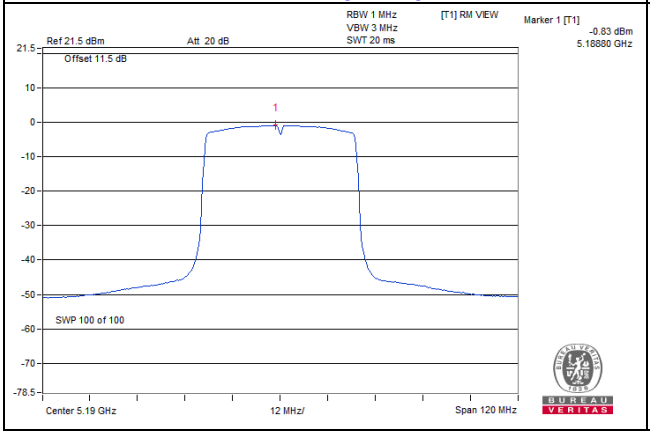
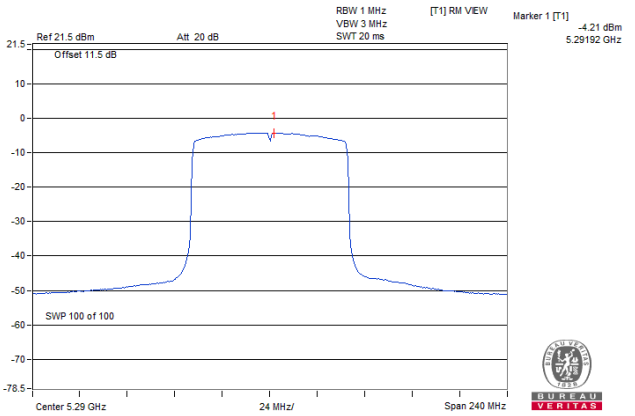
Chan.	Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
38	5190	-0.84	-1.99	1.63	9.57	Pass
46	5230	-1.17	-1.83	1.52	9.57	Pass
54	5270	-1.03	-1.87	1.58	9.57	Pass
62	5310	-1.00	-2.38	1.37	9.57	Pass
102	5510	-2.17	-3.00	0.45	9.57	Pass
110	5550	-2.48	-2.78	0.38	9.57	Pass
134	5670	-3.45	-3.32	-0.37	9.57	Pass

Note:
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. The directional gain is 7.43 dBi > 6dBi, so the power density limit shall be reduced to 11-(7.43-6) = 9.57 dBm/MHz.

802.11ax (HE80)

Chan.	Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
42	5210	-4.39	-4.57	-1.47	9.57	Pass
58	5290	-4.22	-5.02	-1.59	9.57	Pass
106	5530	-5.59	-5.89	-2.73	9.57	Pass
122	5610	-6.22	-5.84	-3.02	9.57	Pass

Note:
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. The directional gain is 7.43 dBi > 6dBi, so the power density limit shall be reduced to 11-(7.43-6) = 9.57 dBm/MHz.

Spectrum Plot of Worst Value	
802.11a	**802.11ax (HE20)**
	
802.11ax (HE40)	**802.11ax (HE80)**
	

For U-NII-3 band:

802.11a

TX chain	Channel	Freq. (MHz)	PSD w/o Duty Factor (dBm/ 300kHz)	PSD w/o Duty Factor (dBm/ 500kHz)	10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass /Fail
0	149	5745	-8.79	-6.57	3.01	0.36	-3.2	28.57	Pass
	157	5785	-8.28	-6.06	3.01	0.36	-2.69	28.57	Pass
	165	5825	-8.47	-6.25	3.01	0.36	-2.88	28.57	Pass
1	149	5745	-7.52	-5.3	3.01	0.36	-1.93	28.57	Pass
	157	5785	-7.69	-5.47	3.01	0.36	-2.1	28.57	Pass
	165	5825	-8.05	-5.83	3.01	0.36	-2.46	28.57	Pass

Note: 1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is measure value add 10 log (N_{ANT}) dB.
2. Directional gain = gain of antenna element + 10 log(2 of TX antenna elements)
3. The Directional gain is 7.43 dBi > 6dBi, so the power density limit shall be reduced to 30-(7.43-6) = 28.57 dBm/500kHz.

802.11ax (HE20)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass /Fail
0	149	5745	-10.37	-8.15	3.01	-5.14	28.57	Pass
	157	5785	-10.57	-8.35	3.01	-5.34	28.57	Pass
	165	5825	-10.35	-8.13	3.01	-5.12	28.57	Pass
1	149	5745	-9.48	-7.26	3.01	-4.25	28.57	Pass
	157	5785	-9.63	-7.41	3.01	-4.4	28.57	Pass
	165	5825	-9.91	-7.69	3.01	-4.68	28.57	Pass

Note: 1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is measure value add 10 log (N_{ANT}) dB.
2. Directional gain = gain of antenna element + 10 log(2 of TX antenna elements)
3. The Directional gain is 7.43 dBi > 6dBi, so the power density limit shall be reduced to 30-(7.43-6) = 28.57 dBm/500kHz.

802.11ax (HE40)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass /Fail
0	151	5755	-12.69	-10.47	3.01	-7.46	28.57	Pass
	159	5795	-12.75	-10.53	3.01	-7.52	28.57	Pass
1	151	5755	-11.93	-9.71	3.01	-6.7	28.57	Pass
	159	5795	-12.25	-10.03	3.01	-7.02	28.57	Pass

Note: 1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is measure value add 10 log (N_{ANT}) dB.
2. Directional gain = gain of antenna element + 10 log(2 of TX antenna elements)
3. The Directional gain is 7.43 dBi > 6dBi, so the power density limit shall be reduced to 30-(7.43-6) = 28.57 dBm/500kHz.

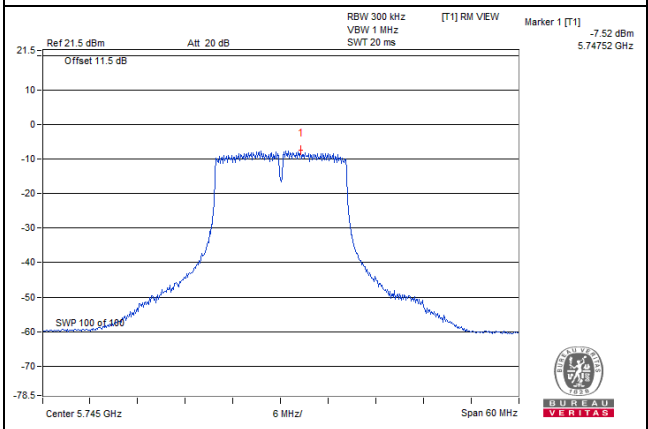
802.11ax (HE80)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass /Fail
0	151	5755	-16.03	-13.81	3.01	-10.8	28.57	Pass
1	151	5755	-14.99	-12.77	3.01	-9.76	28.57	Pass

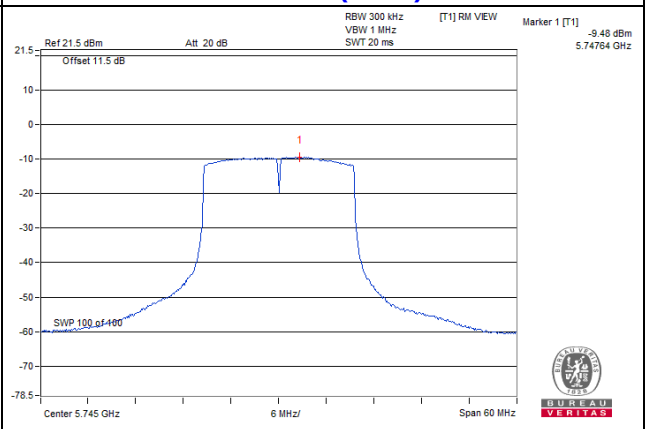
Note: 1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is measure value add 10 log (N_{ANT}) dB.
2. Directional gain = gain of antenna element + 10 log(2 of TX antenna elements)
3. The Directional gain is 7.43 dBi > 6dBi, so the power density limit shall be reduced to 30-(7.43-6) = 28.57 dBm/500kHz.

Spectrum Plot of Worst Value

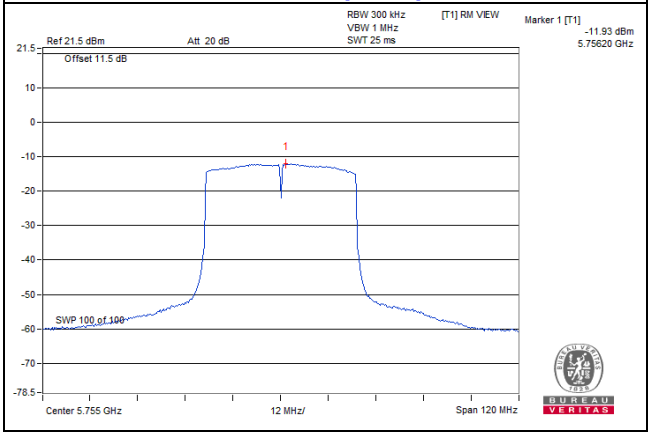
802.11a



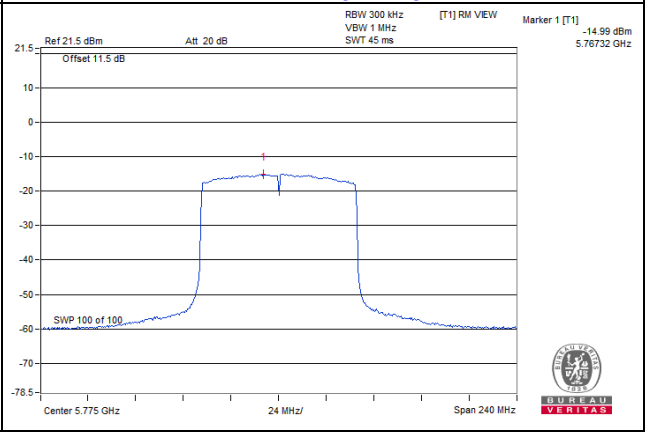
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)

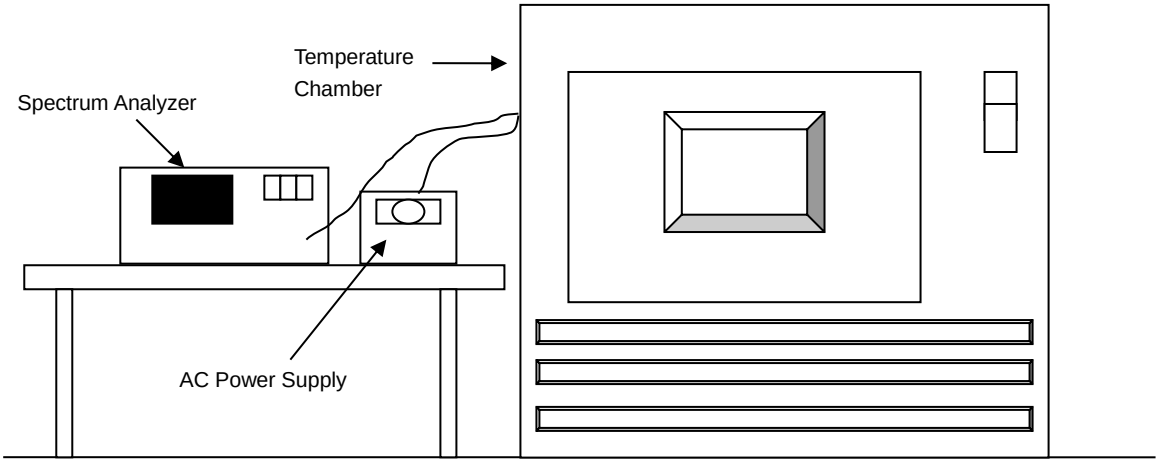


4.6 Frequency Stability

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Description & Manufacturer	Model no.	Serial No.	Calibrated Date	Calibrated Until
Temperature & Humidity Chamber TERCHY	MHU-225AU	920409	2021/7/2	2022/7/1
Spectrum Analyzer R&S	FSV40	101042	2021/9/9	2022/9/8
Digital Multimeter Fluke	87-III	70360742	2021/6/24	2022/6/23
AC Power Source Preen	AFC-500W	F103040004	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. Tested Date: 2021/11/26

4.6.4 Test Procedure

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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
35	120	5180.0108	Pass	5180.0147	Pass	5180.0138	Pass	5180.0133	Pass
30	120	5180.0054	Pass	5180.0063	Pass	5180.0063	Pass	5180.0078	Pass
20	120	5179.9923	Pass	5179.9898	Pass	5179.9897	Pass	5179.9932	Pass
10	120	5180.0014	Pass	5180	Pass	5180.0028	Pass	5180.0011	Pass
0	120	5179.9857	Pass	5179.9862	Pass	5179.988	Pass	5179.9862	Pass

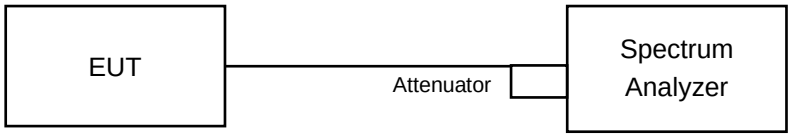
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
20	138	5180.003	Pass	5180.0003	Pass	5180.0022	Pass	5179.9987	Pass
	120	5180.0014	Pass	5180	Pass	5180.0028	Pass	5180.0011	Pass
	102	5180.0113	Pass	5180.009	Pass	5180.009	Pass	5180.0103	Pass

4.7 6dB Bandwidth Measurement

4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.3.3 to get information of above instrument.

4.7.4 Test Procedure

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

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

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

4.7.7 Test Results

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	16.32	16.33	0.5	Pass
157	5785	16.32	16.37	0.5	Pass
165	5825	16.11	16.35	0.5	Pass

802.11ax (HE20)

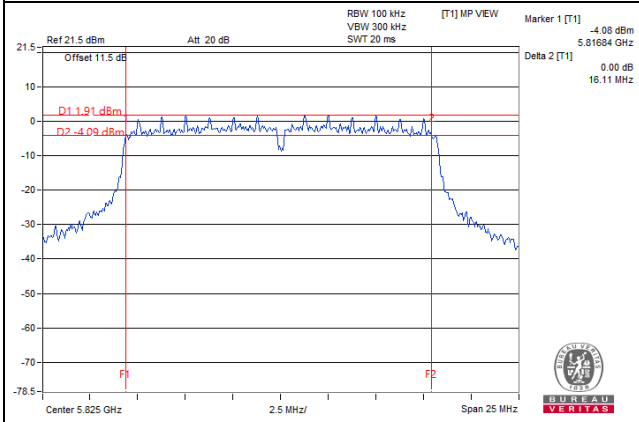
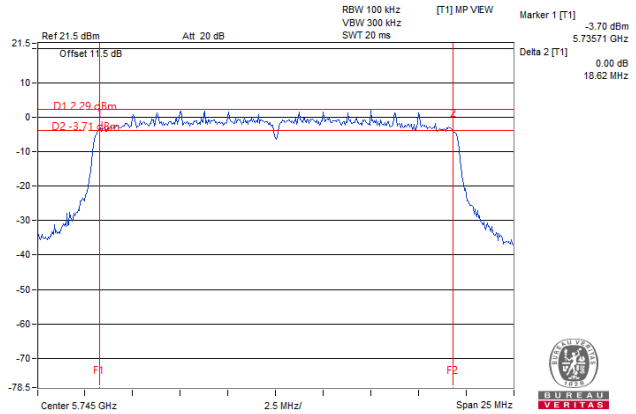
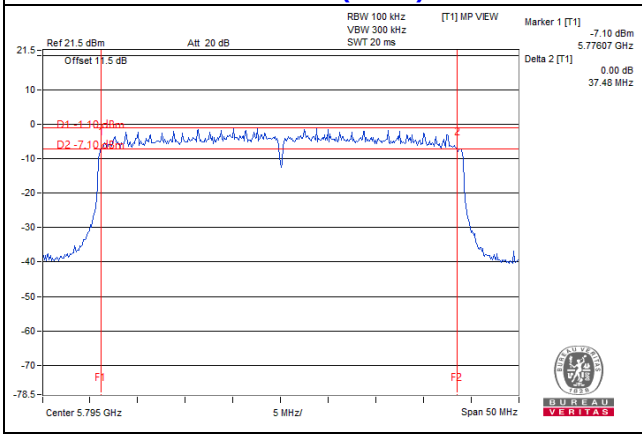
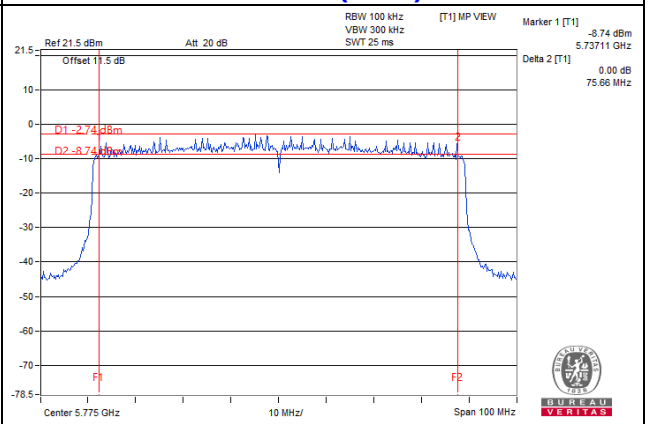
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	18.76	18.62	0.5	Pass
157	5785	18.79	18.77	0.5	Pass
165	5825	18.77	18.76	0.5	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
151	5755	37.58	37.53	0.5	Pass
159	5795	37.48	37.56	0.5	Pass

802.11ax (HE80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
155	5775	77.82	75.66	0.5	Pass

Spectrum Plot of Worst Value	
802.11a	**802.11ax (HE20)**
	
802.11ax (HE40)	**802.11ax (HE80)**
	

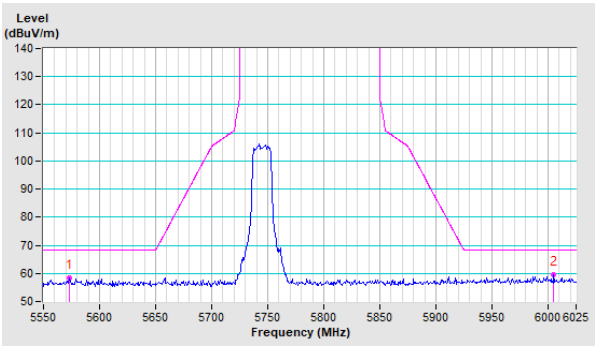
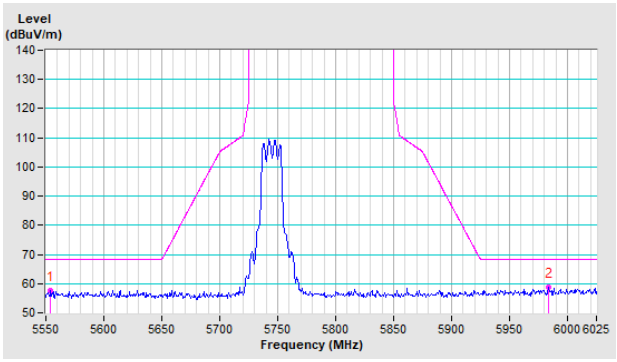
5 Pictures of Test Arrangements

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

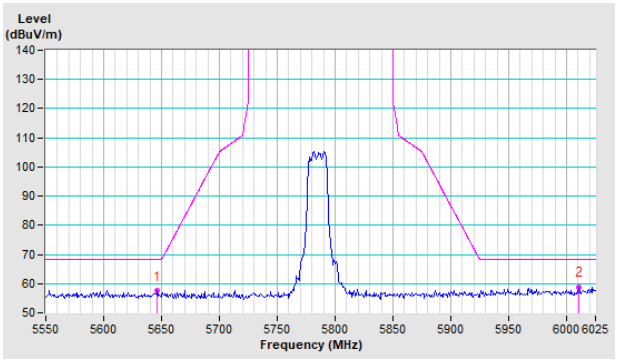
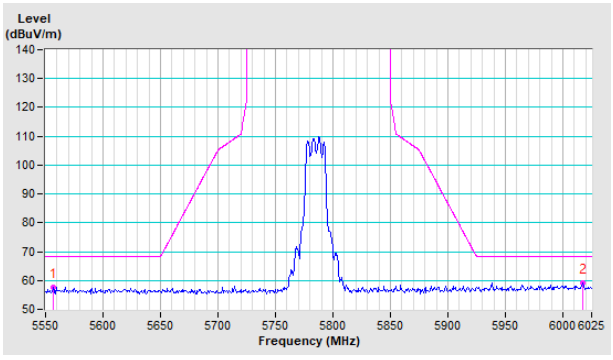
Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

802.11a

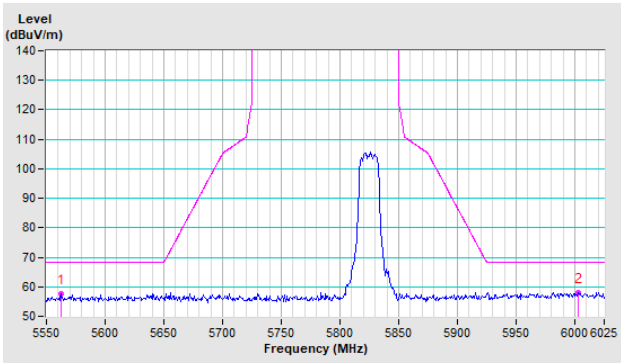
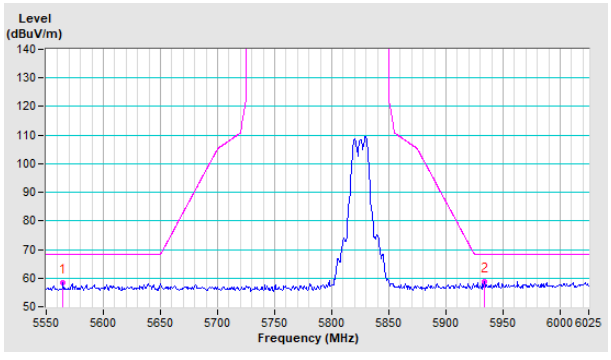
CH 149 5745 MHz

Horizontal	Vertical
	

CH 157 5785 MHz

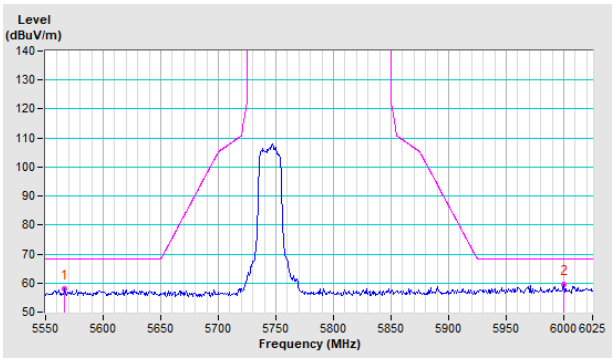
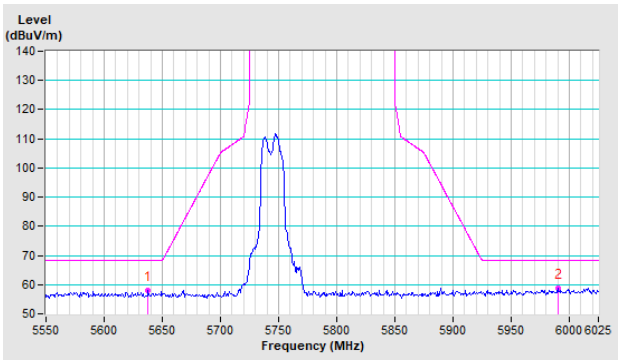
Horizontal	Vertical
	

CH 165 5825 MHz

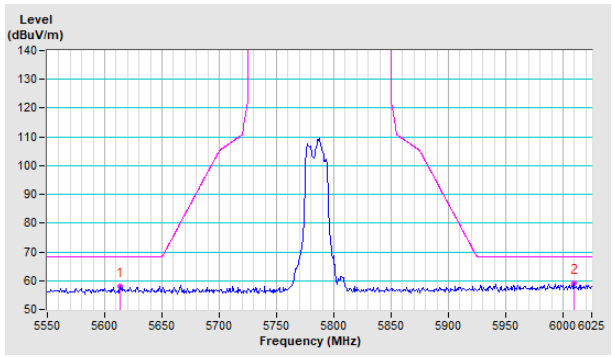
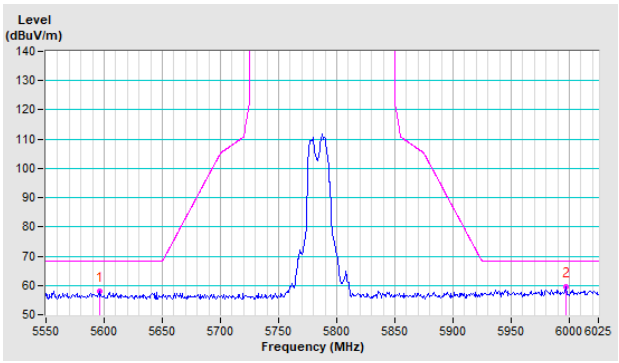
Horizontal	Vertical
	

802.11ax (HE20)

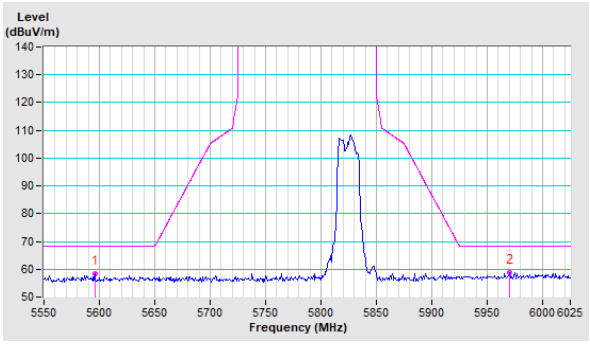
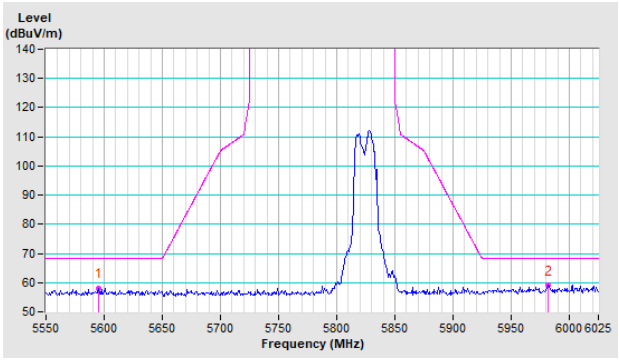
CH 149 5745 MHz

Horizontal	Vertical
	

CH 157 5785 MHz

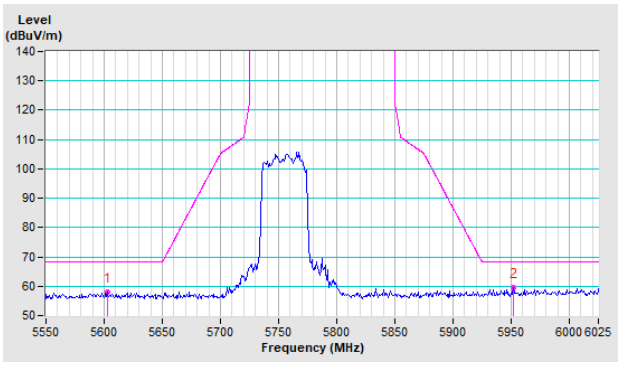
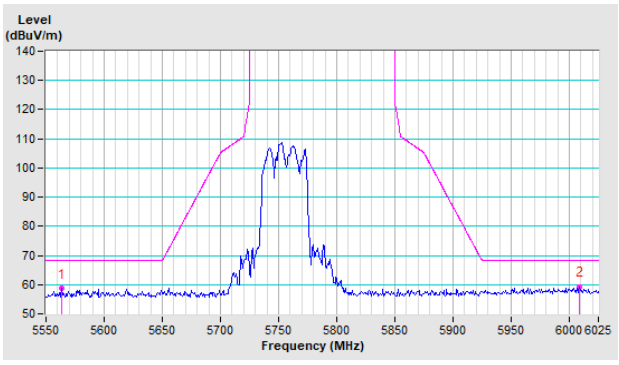
Horizontal	Vertical
	

CH 165 5825 MHz

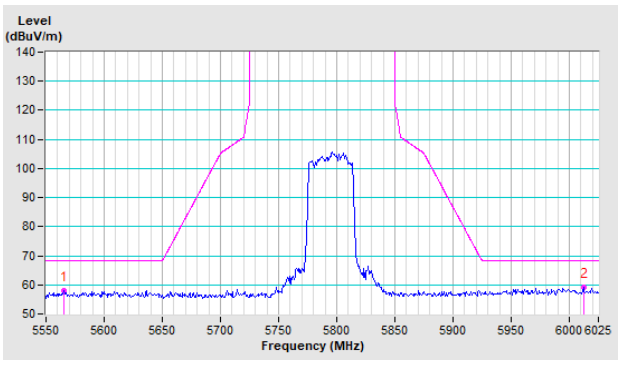
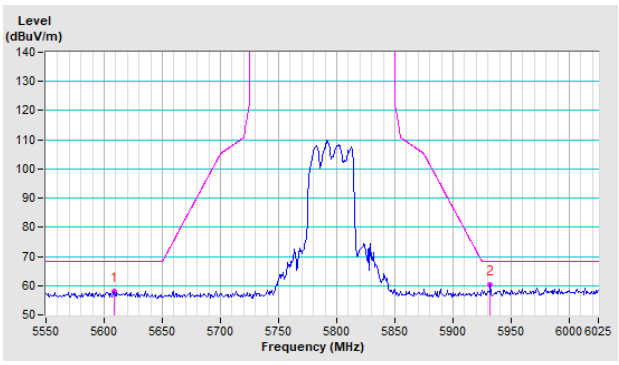
Horizontal	Vertical
	

802.11ax (HE40)

CH 151 5755 MHz

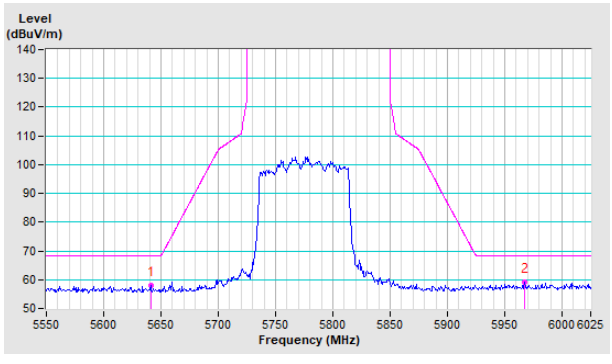
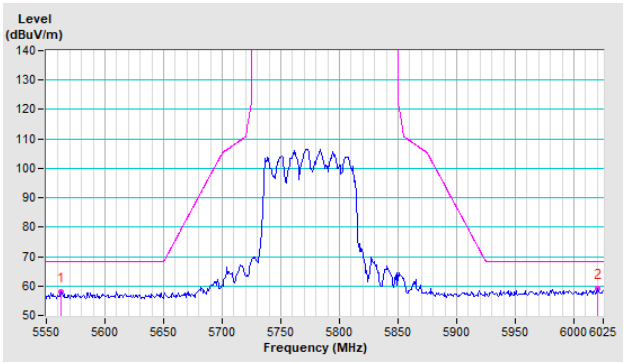
Horizontal	Vertical
	

CH 159 5795 MHz

Horizontal	Vertical
	

802.11ax (HE80)

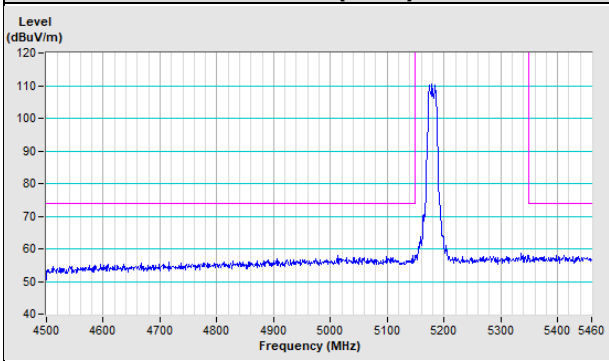
CH 155 5775 MHz

Horizontal	Vertical
	

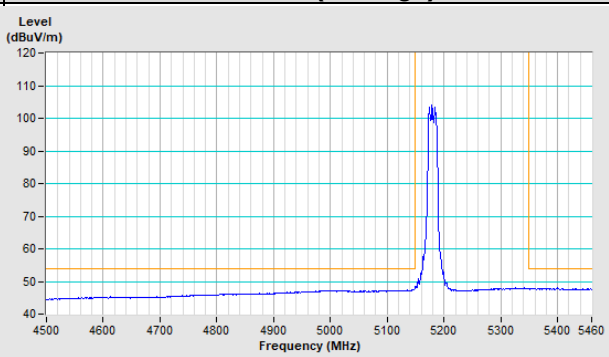
Annex B- Band Edge Measurement

802.11a Channel 36

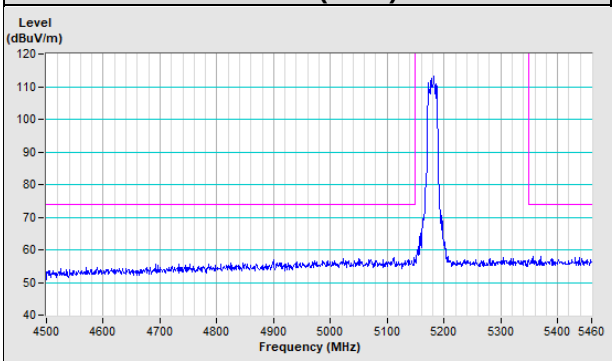
Horizontal (Peak)



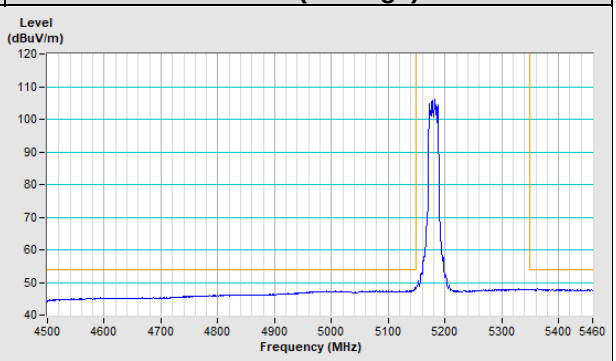
Horizontal (Average)



Vertical (Peak)

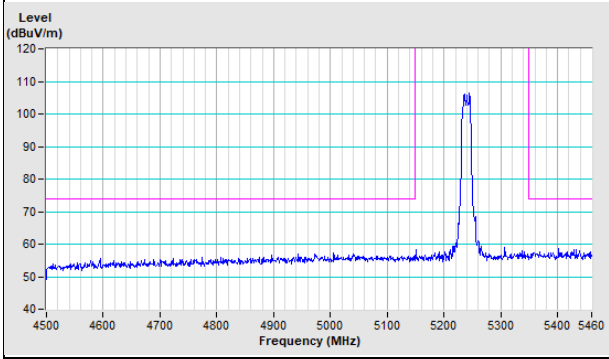


Vertical (Average)

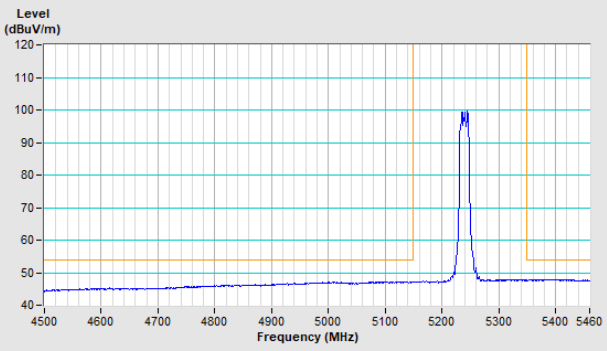


802.11a Channel 48

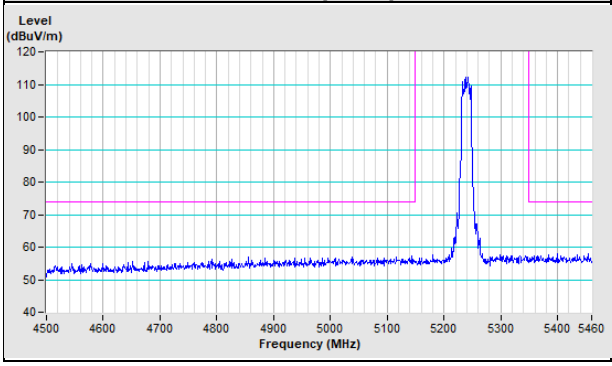
Horizontal (Peak)



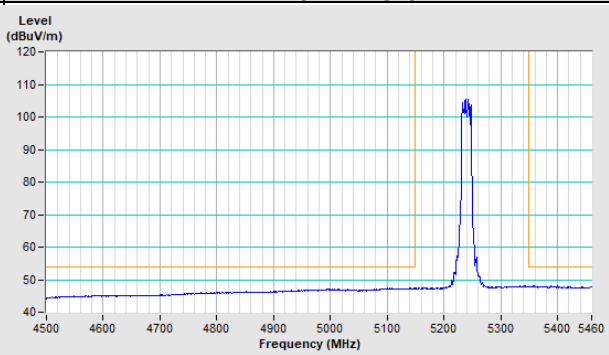
Horizontal (Average)

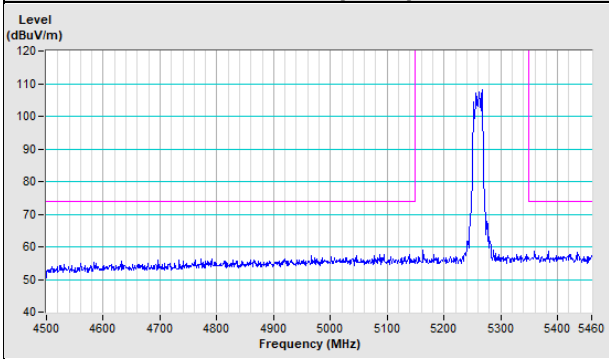
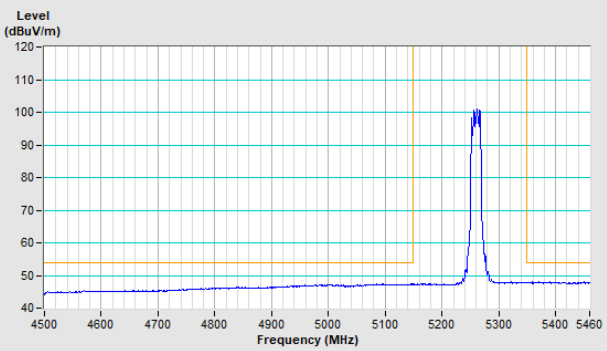
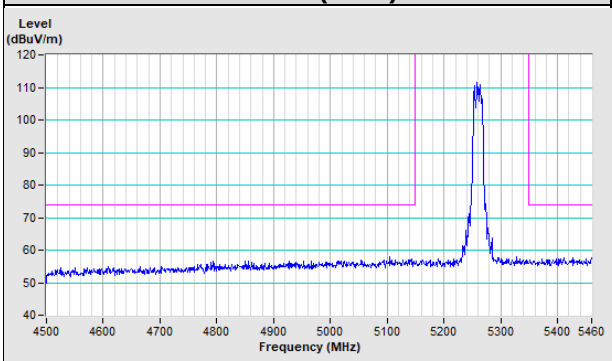
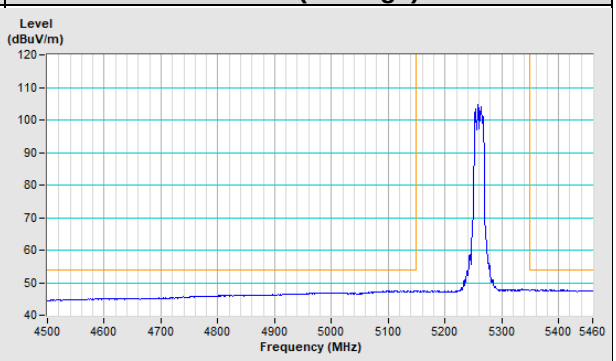
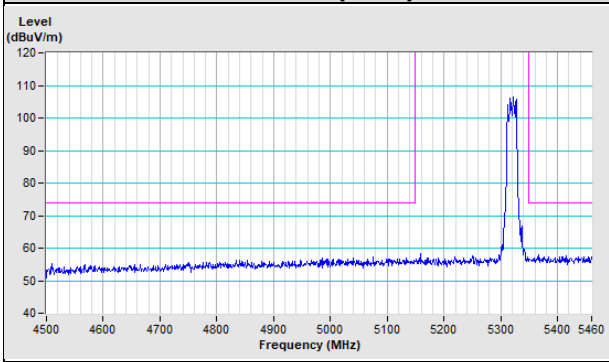
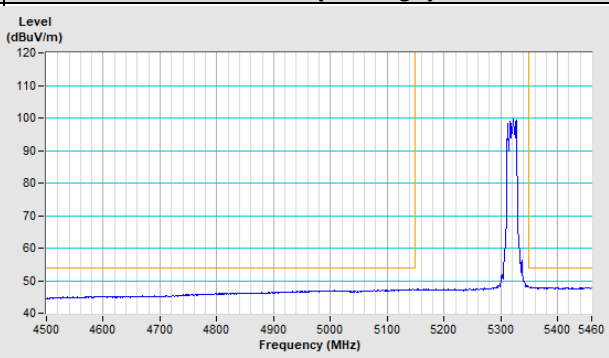
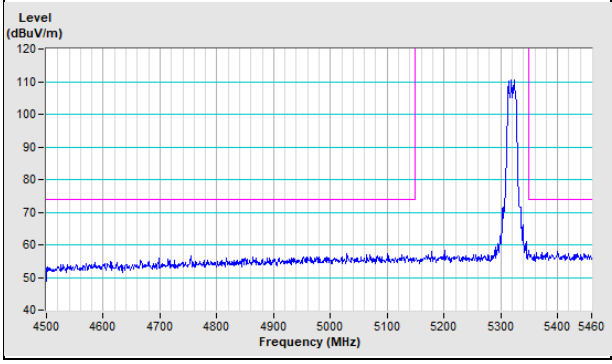
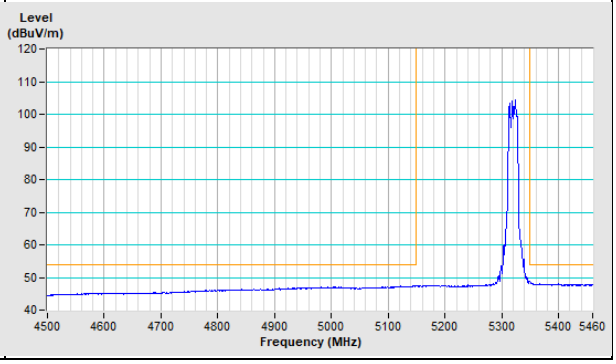


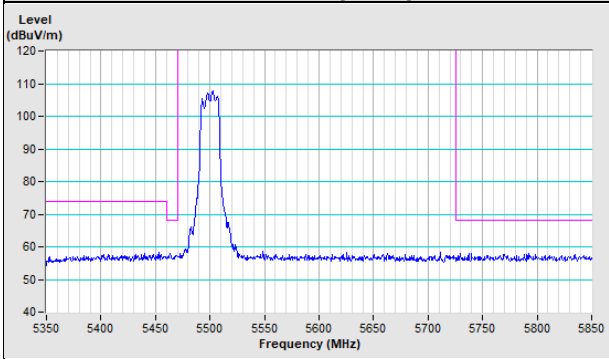
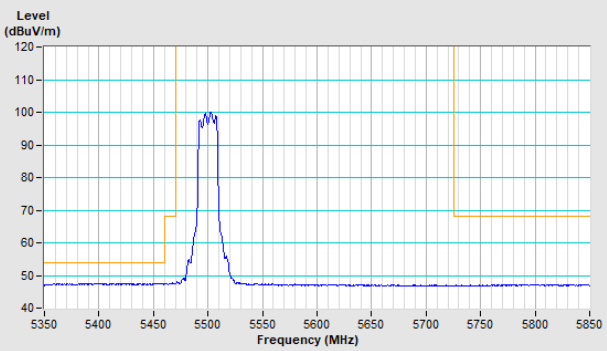
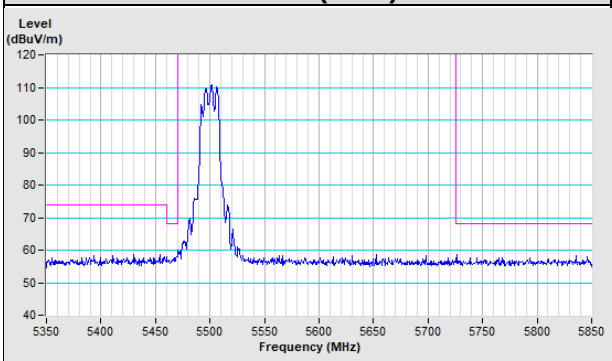
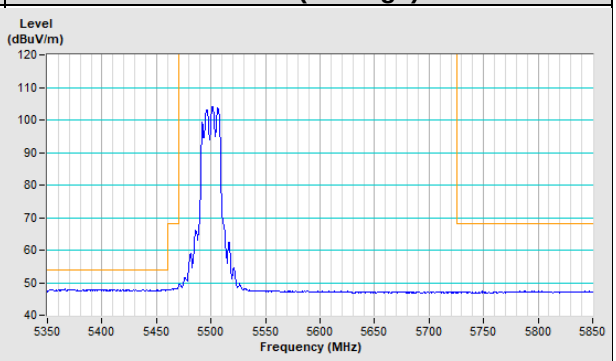
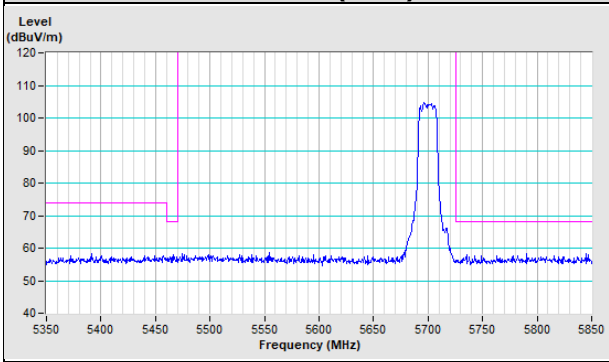
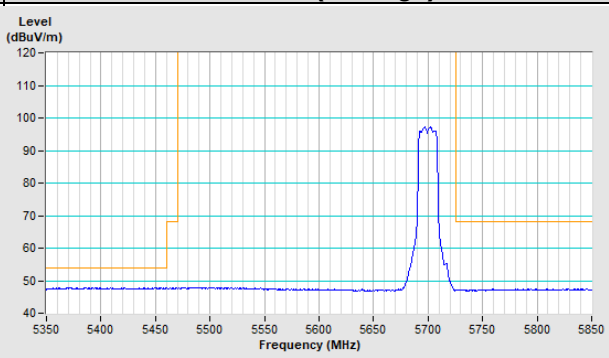
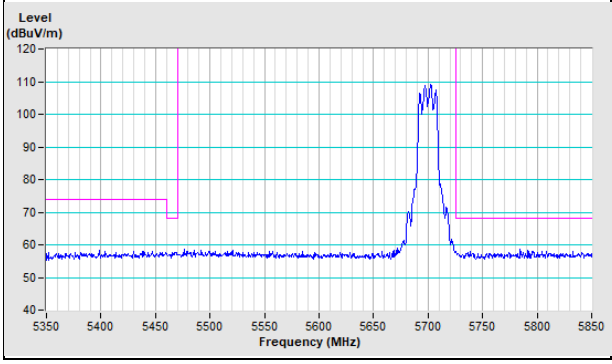
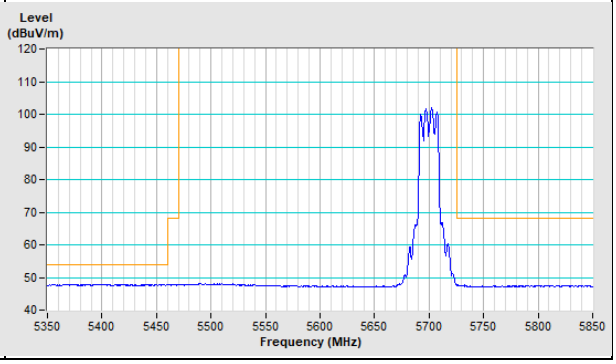
Vertical (Peak)

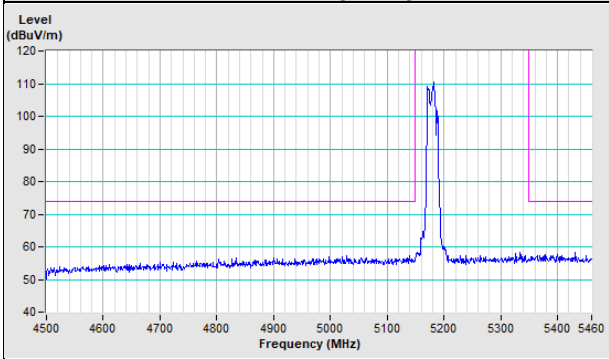
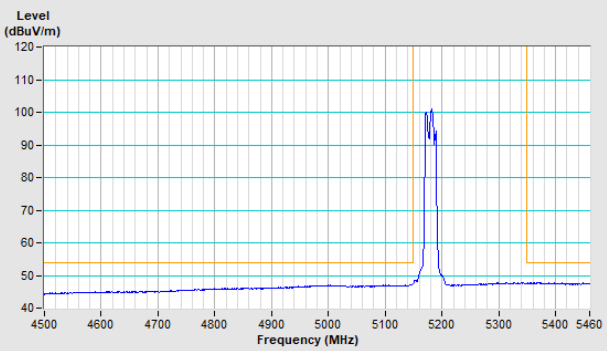
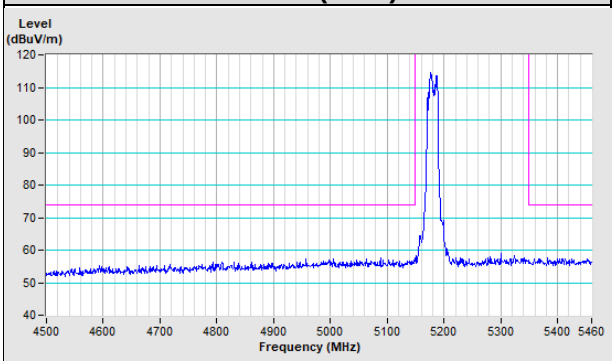
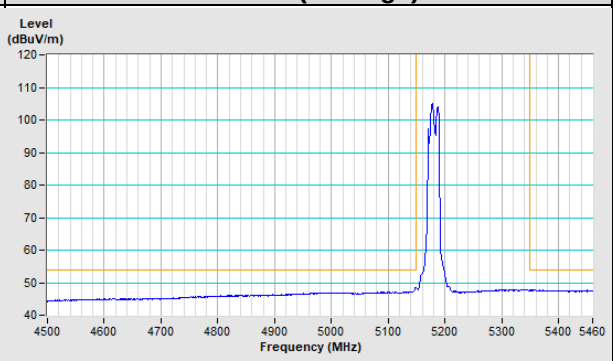
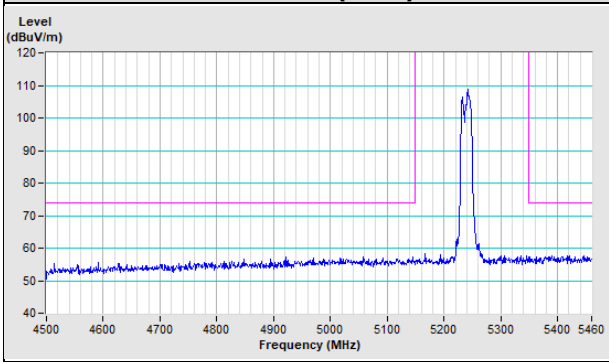
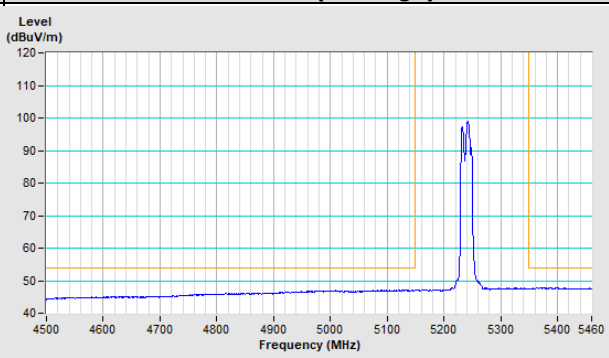
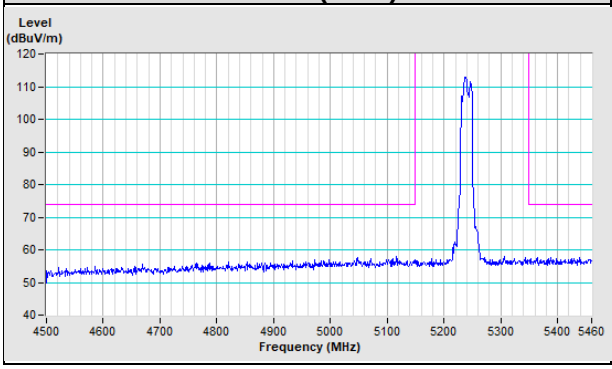
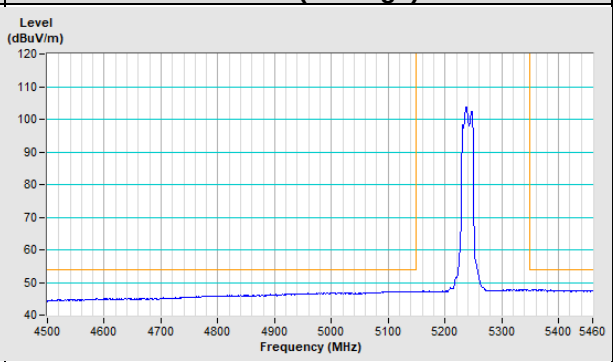


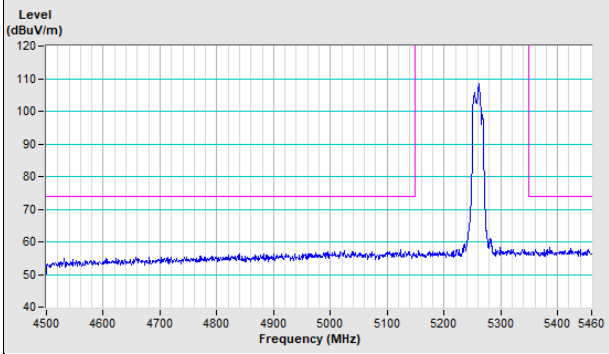
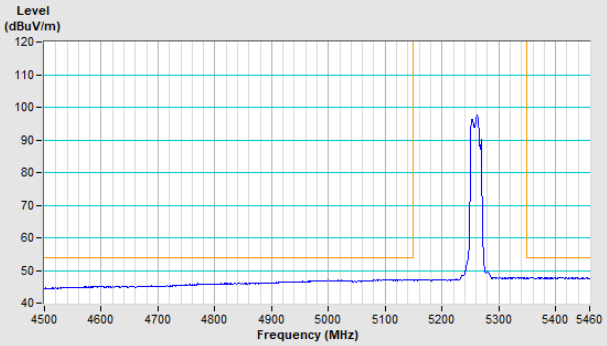
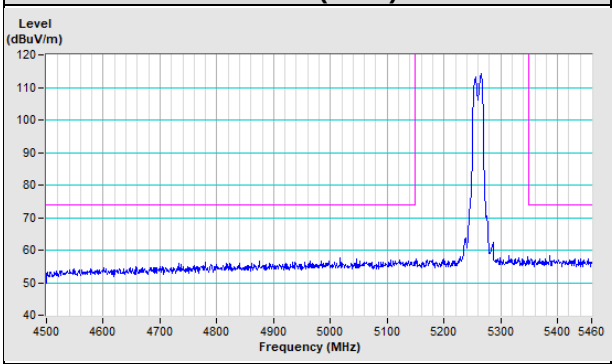
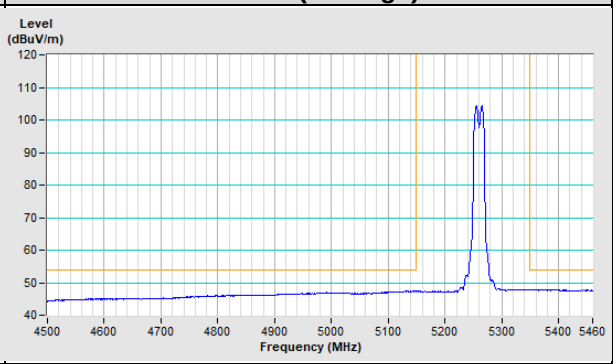
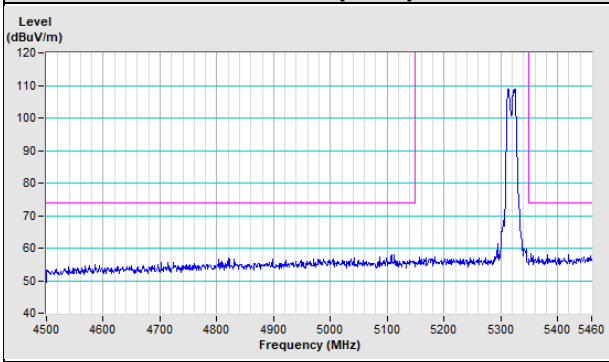
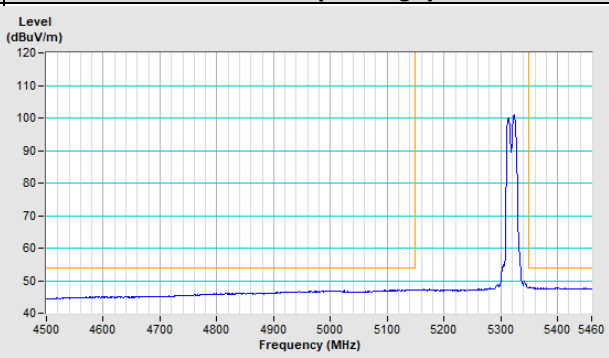
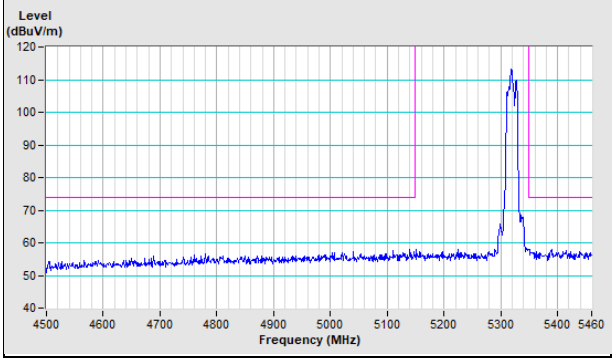
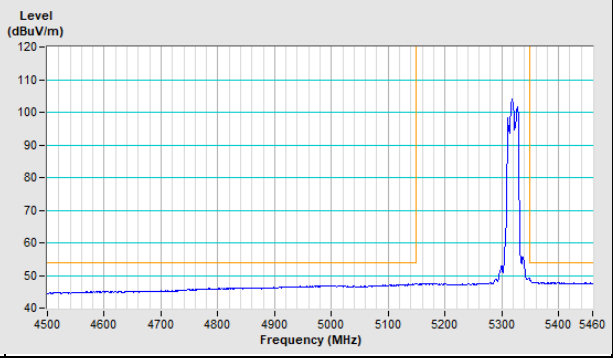
Vertical (Average)



802.11a Channel 52	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11a Channel 64	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

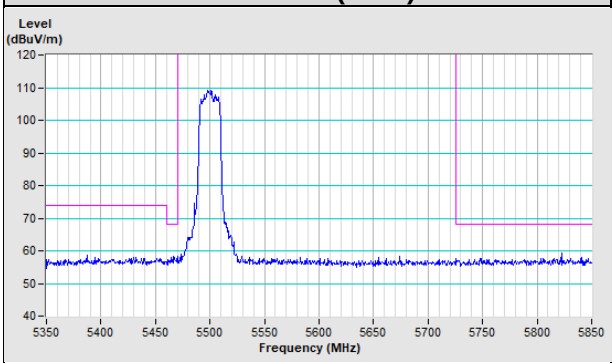
802.11a Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11a Channel 140	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE20) Channel 36	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE20) Channel 48	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

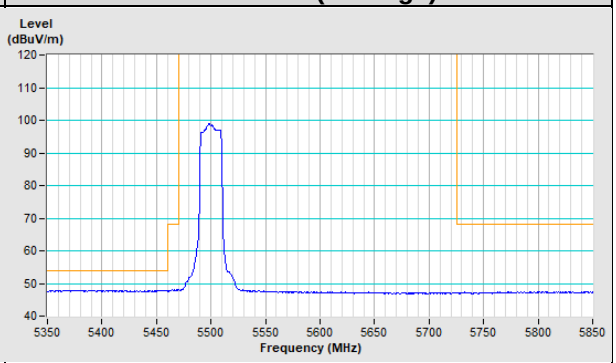
802.11ax (HE20) Channel 52	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE20) Channel 64	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE20) Channel 100

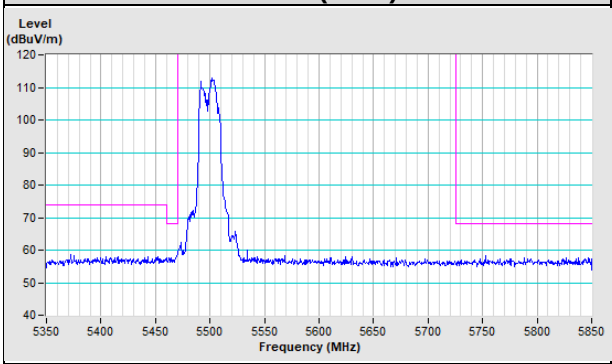
Horizontal (Peak)



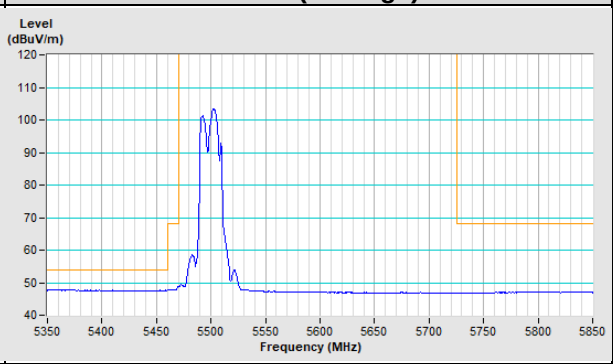
Horizontal (Average)



Vertical (Peak)

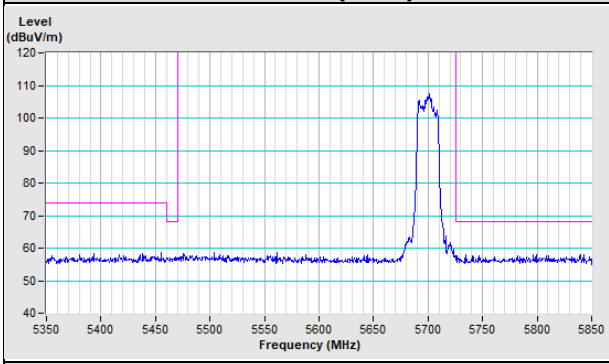


Vertical (Average)

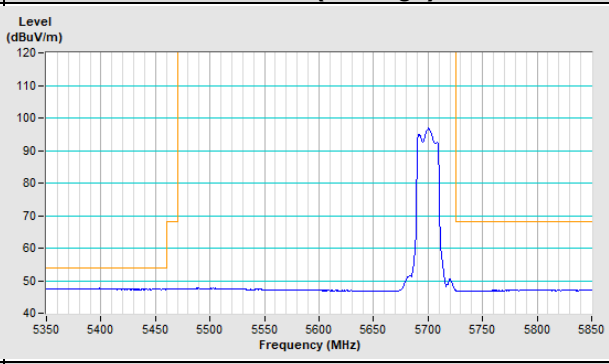


802.11ax (HE20) Channel 140

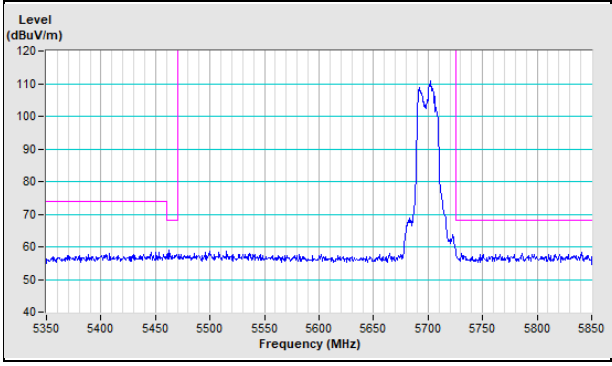
Horizontal (Peak)



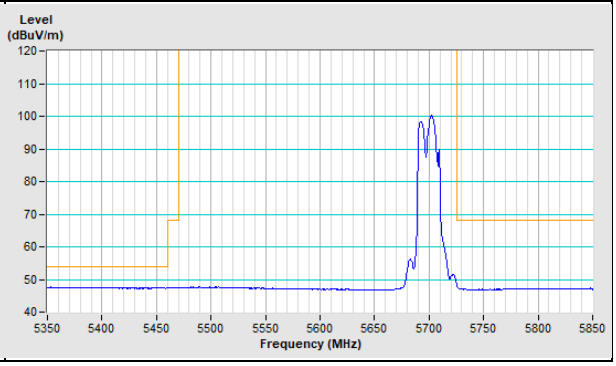
Horizontal (Average)

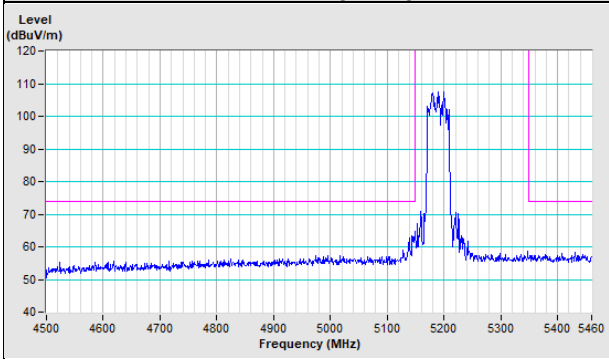
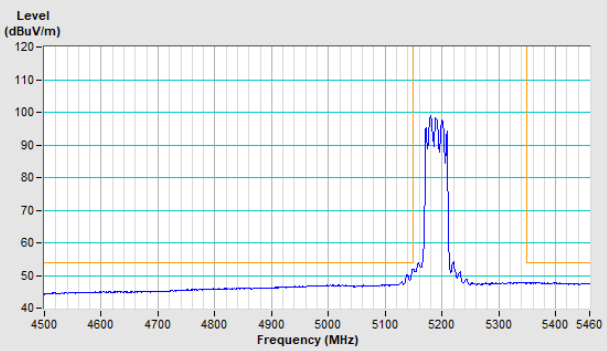
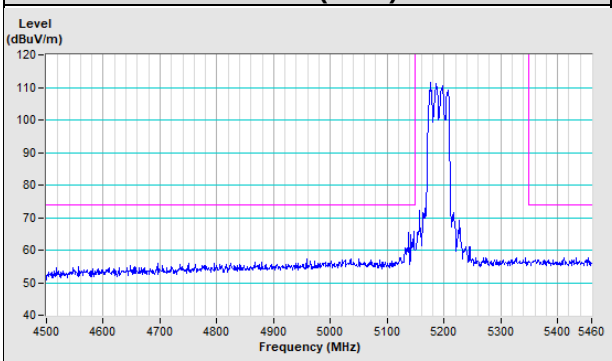
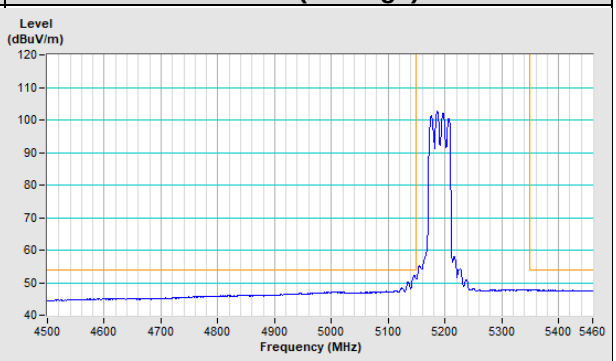
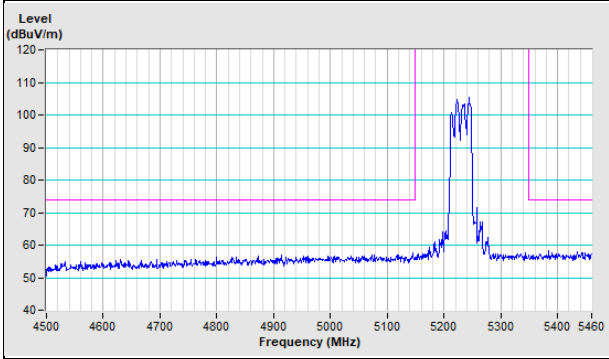
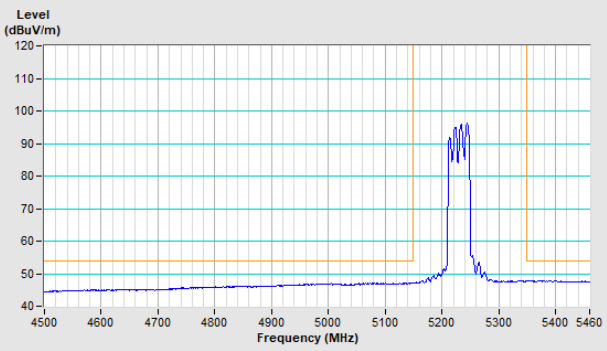
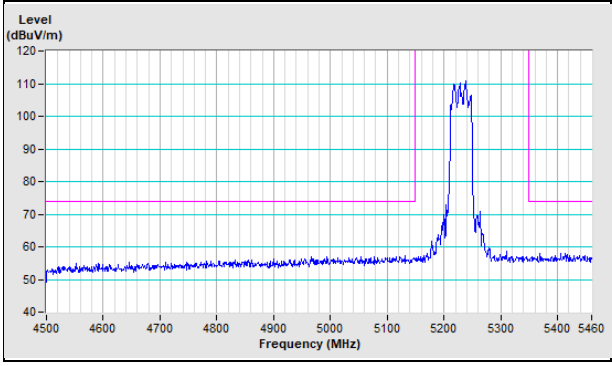
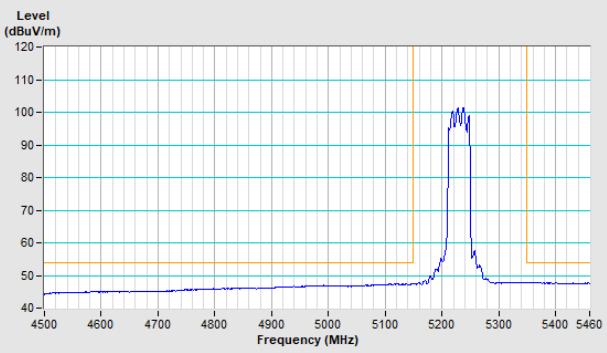


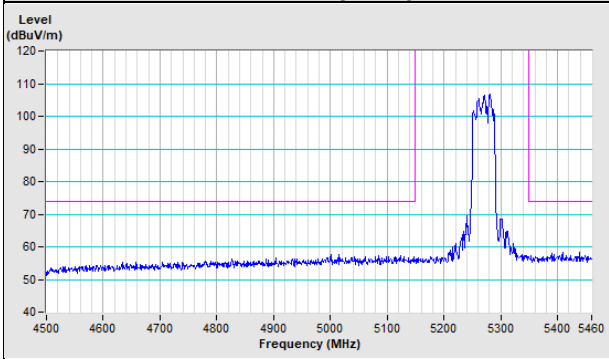
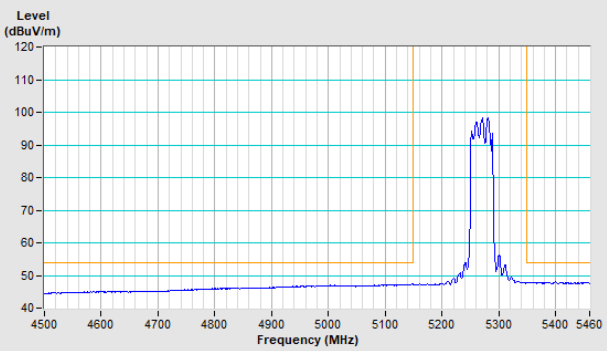
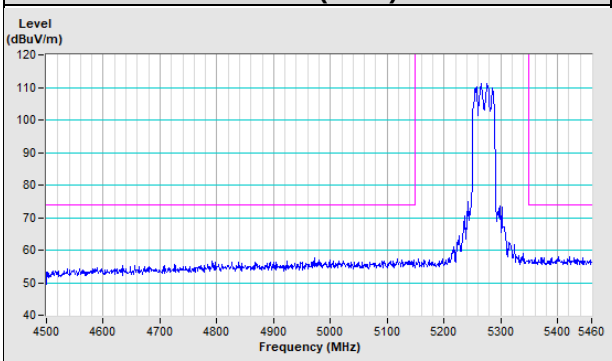
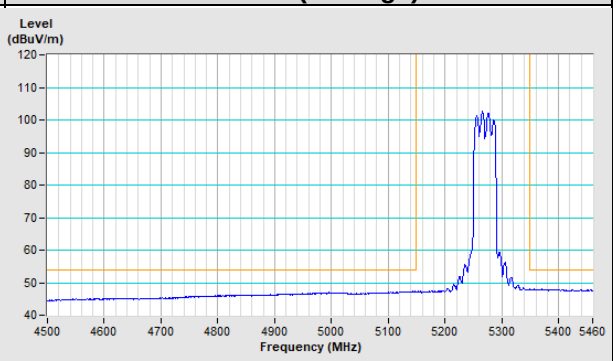
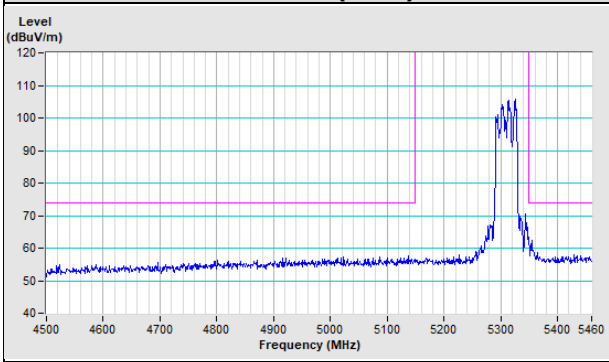
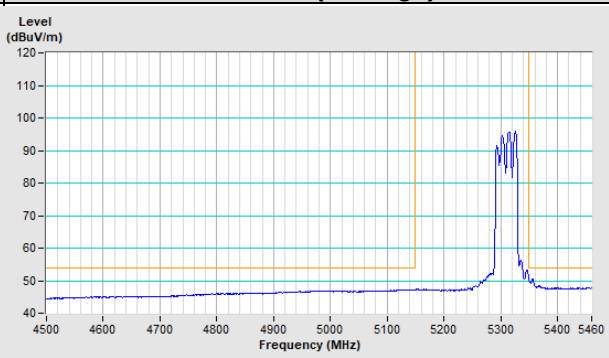
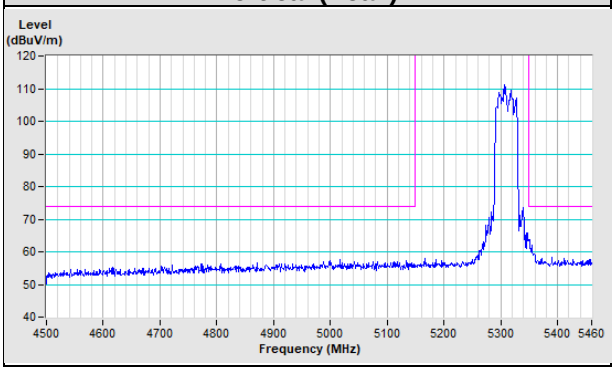
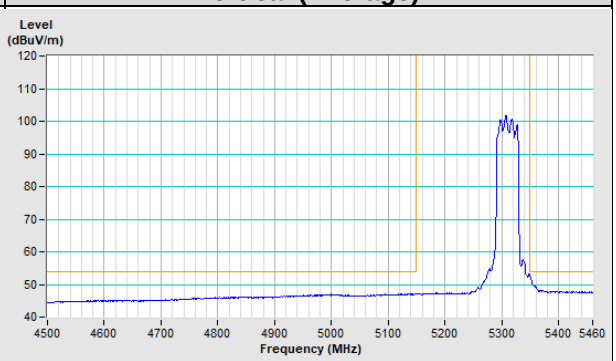
Vertical (Peak)

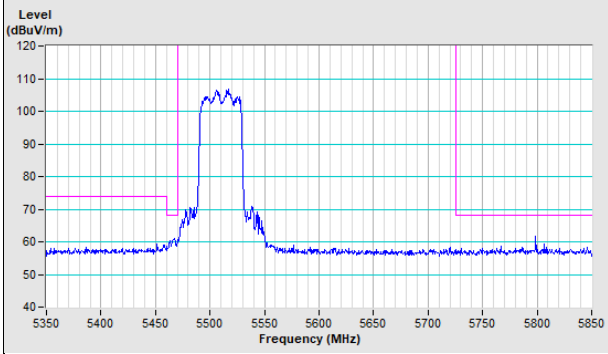
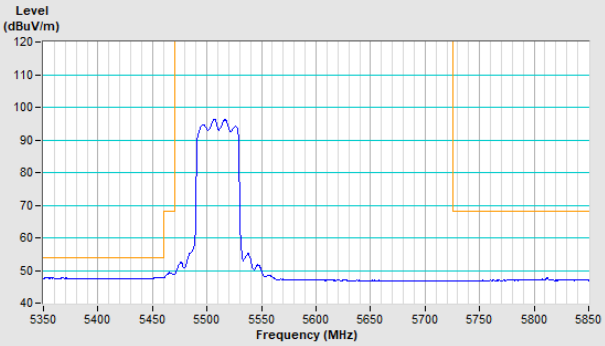
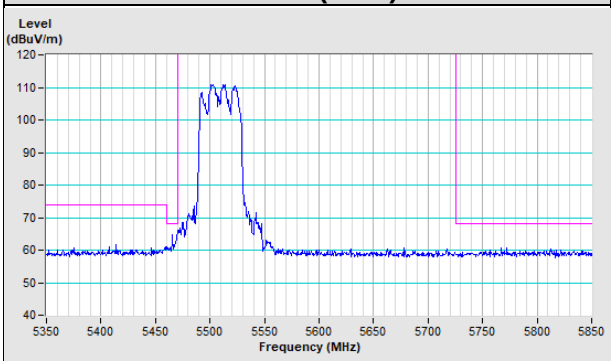
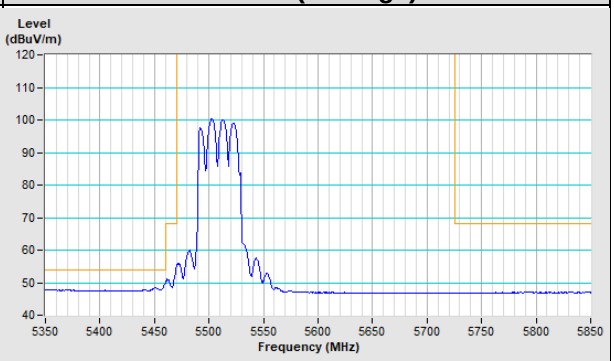
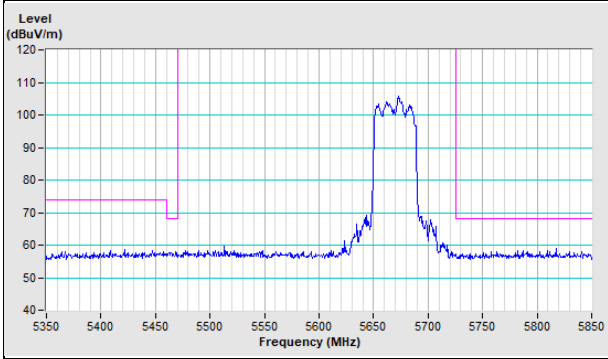
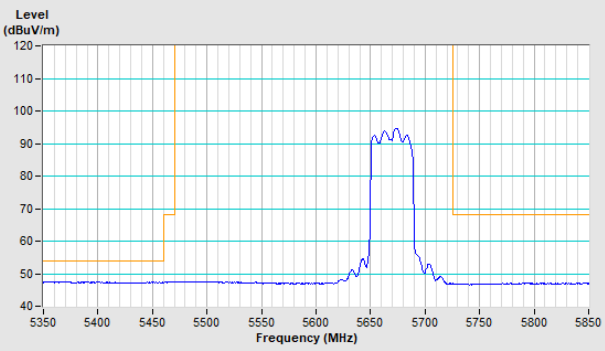
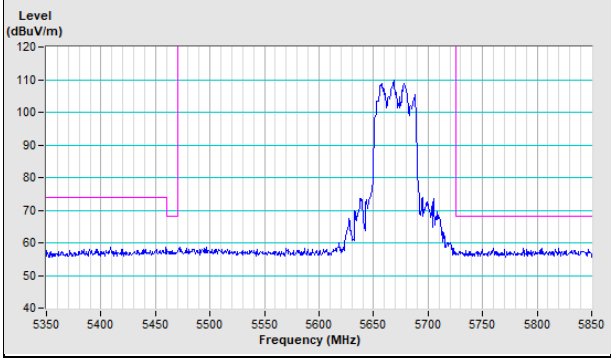
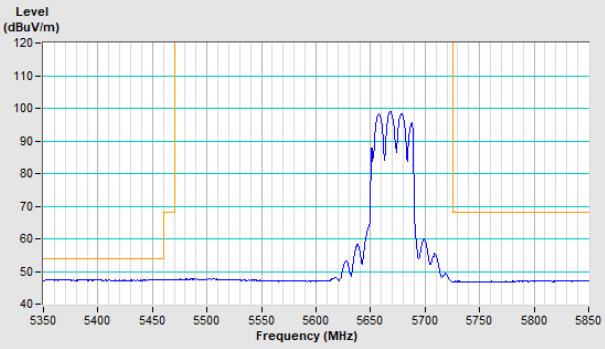


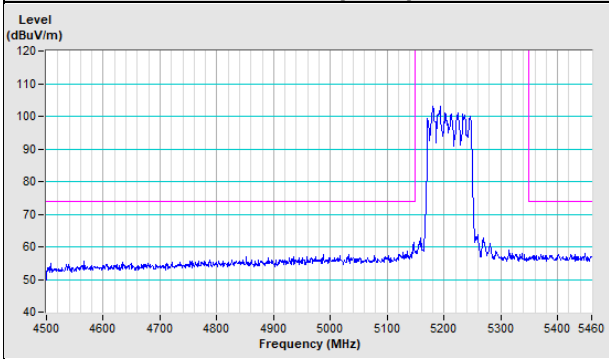
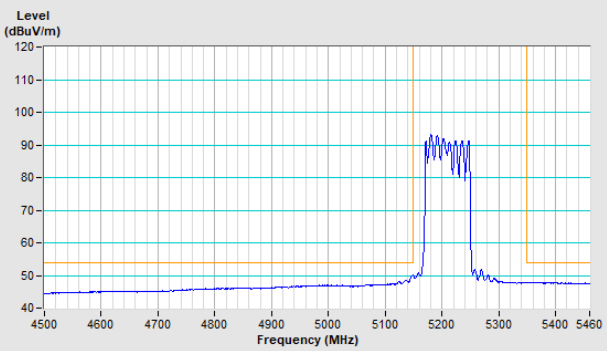
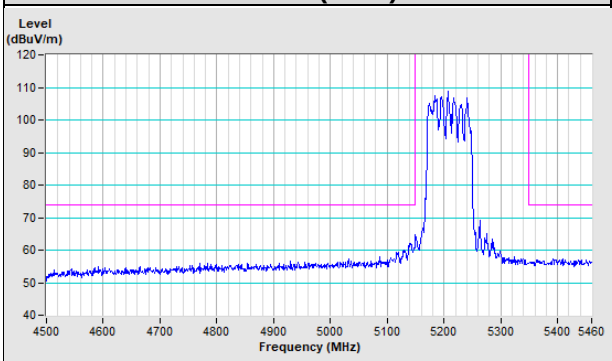
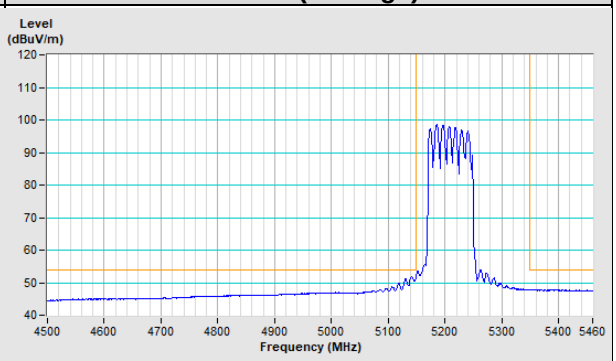
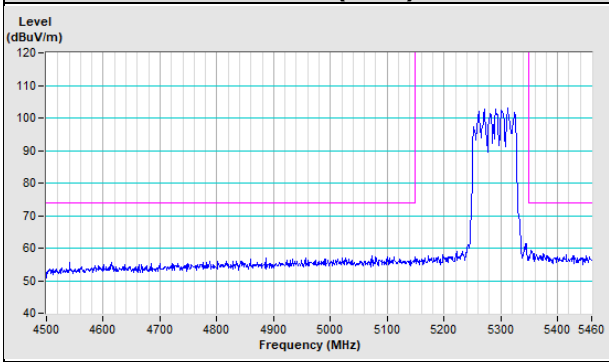
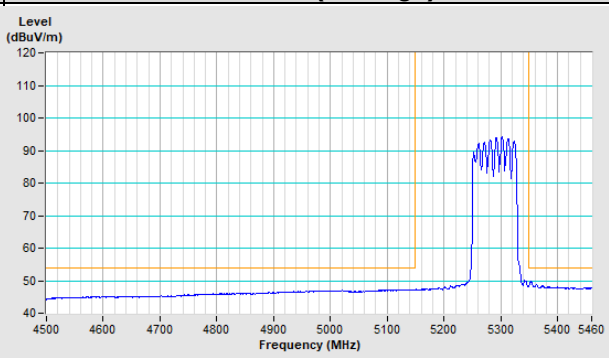
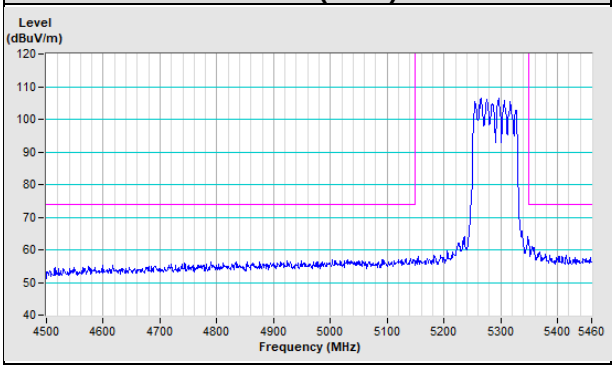
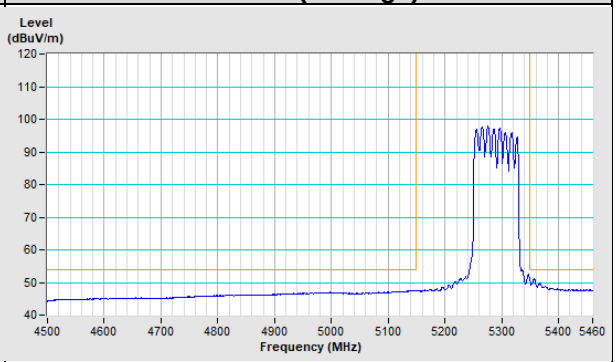
Vertical (Average)

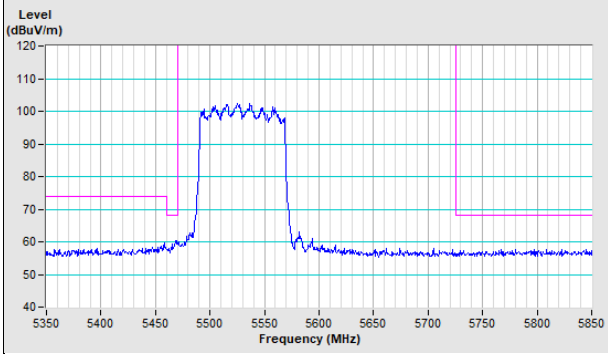
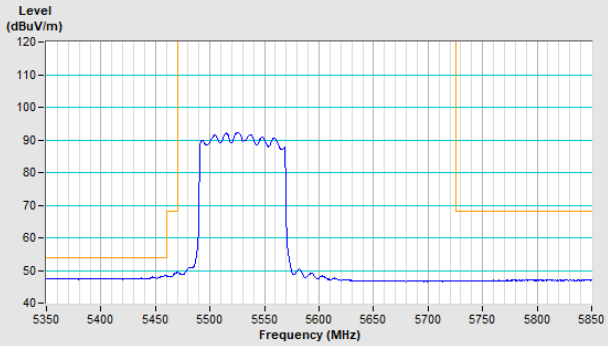
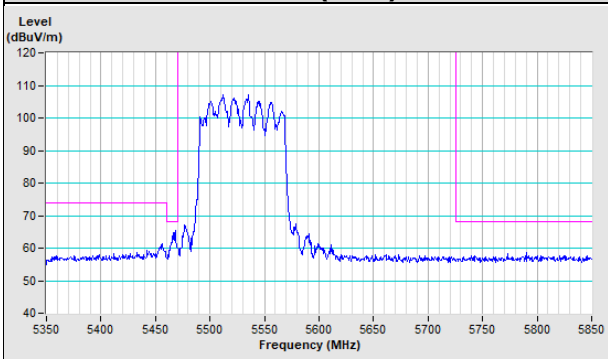
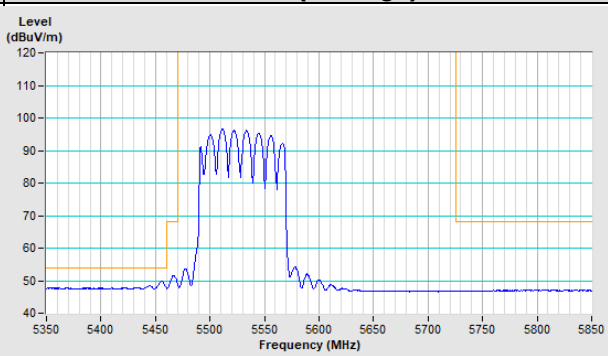
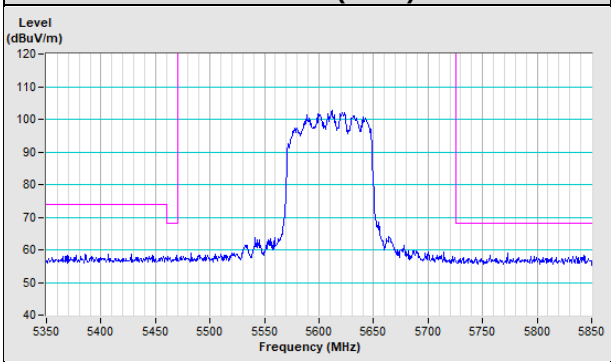
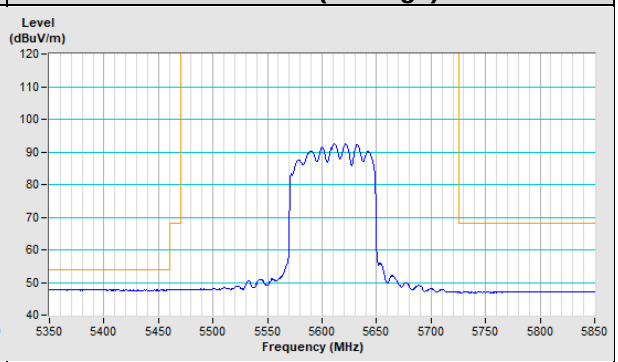
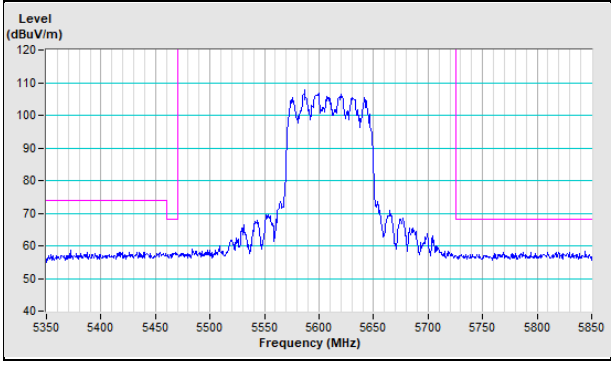
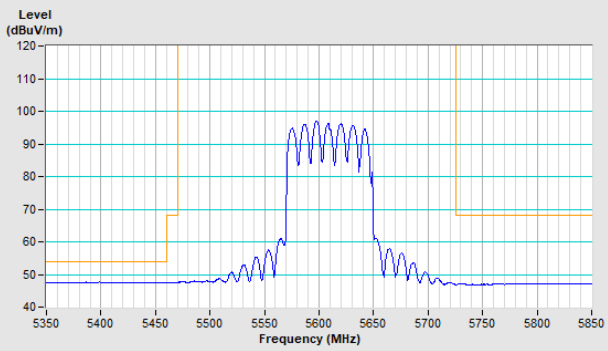


802.11ax (HE40) Channel 38	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE40) Channel 46	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE40) Channel 54	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE40) Channel 62	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE40) Channel 102	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE40) Channel 134	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE80) Channel 42	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE80) Channel 58	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE80) Channel 106	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE80) Channel 122	
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 and approved according to ISO/IEC 17025.

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Web Site: www.bureauveritas-adt.com

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

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