FCC Test Report (WLAN)

Report No.:	RFBEIH-WTW-P20120866A-1
FCC ID:	P27DG4244
Test Model:	DG4244
Series Model:	DG4244XXXXXXXXXX (the x could be 0 to 9, A to Z, "blank", "-" or "/" , for marketing purpose)
Received Date:	Apr. 9, 2021
Test Date:	May 12 to 28, 2021
Issued Date:	Jun. 15, 2021
Applicant:	Sercomm Corp.
Address:	8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C. (NanKang Software Park)
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

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
RFBEIH-WTW-P20120866A-1	Original release	Jun. 15, 2021

1 Certificate of Conformity

Product:	DOCSIS 3.1 WiFi 6 Gateway
Brand:	Sercomm
Test Model:	DG4244
Series Model:	DG4244XXXXXXXXXX (the x could be 0 to 9, A to Z, "blank", "-" or "/" , for marketing purpose)
Sample Status:	Engineering sample
Applicant:	Sercomm Corp.
Test Date:	May 12 to 28, 2021
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:** Jun. 15, 2021

Jessica Cheng / Senior Specialist

Approved by : Rex. Lai , **Date:** Jun. 15, 2021

Rex Lai / Associate Technical Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -9.56dB at 0.15118MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.20dB 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	N/A	Refer to original test report
15.203	Antenna Requirement	Pass	No antenna connector is used.

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.
4. N/A: Not Applicable

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	2.61 dB
	30MHz ~ 1GHz	5.43 dB
Radiated Emissions above 1 GHz	Above 1GHz	5.42 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	DOCSIS 3.1 WiFi 6 Gateway
Brand	Sercomm
Test Model	DG4244
Series Model	DG4244XXXXXXXXXX (the x could be 0 to 9, A to Z, "blank", "-" or "/" , for marketing purpose)
Model Difference	Marketing Differentiation
Test software Version	DUT_setup.610.32
Sample Status	Engineering sample
Power Supply Rating	12Vdc from Adapter
Modulation Type	802.11a: BPSK, QPSK, 16QAM, 64QAM 802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM 802.11ax: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: up to 54Mbps 802.11n: up to 600Mbps 802.11ac: up to 3466.7Mbps 802.11ax: up to 4083.3Mbps
Operating Frequency	5180~5240MHz, 5260~5320MHz, 5500~5720MHz, 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 5500~5720MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 12 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 6 802.11ac (VHT80), 802.11ax (HE80): 3 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 5150~5720MHz: 802.11ac (VHT160), 802.11ax (HE160): 2
Output Power	5180~5240MHz: 541.765mW 5260~5320MHz: 124.082mW 5500~5720MHz: 121.858mW 5745~5825MHz: 517.533mW
Antenna Type	Refer to note
Antenna Connector	Refer to note
Accessory Device	Adapter
Cable Supplied	Non-shielded LAN cable (1.5m)

Note:

1. This report is prepared for FCC class II permissive change.

2. This report is issued as a supplementary report of original BV CPS report no. RFBEIH-WTW-P20120866-1. The difference compared with original report is adding Beamforming function; therefore the EUT is re-tested in this report.
3. The EUT provides 4 completed transmitters and 4 receivers.

Modulation Mode	TX Function	
	CDD Mode	Beamforming Mode
802.11a	4TX	Not Support
802.11n (HT20)	4TX	Support
802.11n (HT40)	4TX	Support
802.11ac (VHT20)	4TX	Support
802.11ac (VHT40)	4TX	Support
802.11ac (VHT80)	4TX	Support
802.11ac (VHT160)	4TX	Support
802.11ax (HE20)	4TX	Support
802.11ax (HE40)	4TX	Support
802.11ax (HE80)	4TX	Support
802.11ax (HE160)	4TX	Support

* The bandwidth and modulation are similar for HT20/HT40 on 802.11n mode and VHT20/VHT40/VHT80 /VHT160 on 802.11ac mode and HE20/HE40/HE80/HE160 on 802.11ax mode. Therefore the investigated worst case is the representative mode in test report. (Final test mode refer section 3.2.1)

4. The EUT uses following antenna.

Type	Dipole					
Connector	IPEX					
Antenna	Ant 0 (dBi)	Ant 1 (dBi)	Ant 2 (dBi)	Ant 3 (dBi)	Peak Gain(dBi) for each band	Directional Gain with correlated signal(dBi)
2.4G	3.67	3.76	3.60	3.12	3.76	9.56
5G B1	3.52	2.21	2.01	2.17	3.52	8.52
5G B2	3.90	2.92	2.18	2.62	3.90	8.95
5G B3	3.90	2.92	2.18	2.62	3.90	8.95
5G B4	4.17	2.31	2.32	2.26	4.17	8.82

5. WLAN 2.4GHz + WLAN 5GHz technologies can transmit at same time.

6. 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.

7. The EUT consumes power from a switching power adapter, which has several models could be chosen, as the following:

Adapter	Brand	Model No.	Specification
1	ADP	WA-48B12FU	AC I/P: 100-240V, 50/60Hz, 1.5A DC O/P: 12V, 4A AC 2 Pin Non-shielded DC cable (1.5m)
2	LEI	MU48AY120400-A1	AC I/P: 100-120V, 50/60Hz, 1.5A DC O/P: 12V, 4A AC 2 Pin Non-shielded DC cable (1.5m)

The above two adapters were pre-tested, and Adapter 1 was the worst case for final test.

8. Spurious emission of the simultaneous operation (WLAN 2.4GHz and WLAN 5GHz technologies) has been evaluated and no non-compliance was found.

9. 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 802.11n (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 802.11n (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

5500~5720MHz:

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

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

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

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

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

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

5150~5720MHz:

2 channels are provided for 802.11ac (VHT160), 802.11ax (HE160):

Channel	Frequency
50 (for 5150~5250MHz)	5250 MHz
50 (for 5250~5350MHz)	5250 MHz
114	5570 MHz

5745~5825MHz:

5 channels are provided for 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)
Beamforming Mode						
-	802.11ax (HE20)	5180-5240	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
-	802.11ax (HE20)	5260-5320	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
-	802.11ax (HE20)	5500-5720	100 to 144	100, 116, 140, 144	OFDMA	MCS0
	802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	MCS0
	802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	MCS0
-	802.11ax (HE20)	5745-5825	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
-	802.11ax (HE160)	5180-5240 5260-5320 5500-5720	50, 114	50, 114	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)
Beamforming Mode						
-	802.11ax (HE20)	5180-5240	36 to 48	149	OFDMA	MCS0
-	802.11ax (HE20)	5260-5320	52 to 64		OFDMA	MCS0
-	802.11ax (HE20)	5500-5720	100 to 144		OFDMA	MCS0
-	802.11ax (HE20)	5745-5825	149 to 165		OFDMA	MCS0

Power Line Conducted Emission Test:

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

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
Beamforming Mode						
-	802.11ax (HE20)	5180-5240	36 to 48	149	OFDMA	MCS0
-	802.11ax (HE20)	5260-5320	52 to 64		OFDMA	MCS0
-	802.11ax (HE20)	5500-5720	100 to 144		OFDMA	MCS0
-	802.11ax (HE20)	5745-5825	149 to 165		OFDMA	MCS0

Antenna Port Conducted Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

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

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
Beamforming Mode						
-	802.11n (HT20)*	5180-5240	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	6.5
	802.11ac (VHT40)*		38 to 46	38, 46	OFDM	13.5
	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
-	802.11n (HT20)*	5260-5320	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	6.5
	802.11ac (VHT40)*		54 to 62	54, 62	OFDM	13.5
	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
-	802.11n (HT20)*	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.5
	802.11n (HT40)*		102 to 142	102, 110, 134, 142	OFDM	13.5
	802.11ac (VHT20)*		100 to 144	100, 116, 140, 144	OFDM	6.5
	802.11ac (VHT40)*		102 to 142	102, 110, 134, 142	OFDM	13.5
	802.11ac (VHT80)*		106 to 138	106, 122, 138	OFDM	MCS0
	802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	MCS0
	802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	MCS0
	802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	MCS0
-	802.11n (HT20)*	5745-5825	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	6.5
	802.11ac (VHT40)*		151 to 159	151, 159	OFDM	13.5
	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
-	802.11ac (160MHz)	5180-5240 5260-5320 5500-5720	50, 114	50, 114	OFDMA	MCS0
	802.11ax (HE160)	5180-5240 5260-5320 5500-5720	50, 114	50, 114	OFDMA	MCS0
*802.11ac (VHT20), 802.11ac (VHT40), 802.11ac (VHT80) , 802.11ac (160MHz) are for Conducted Output Power Measurement only.						

Test Condition:

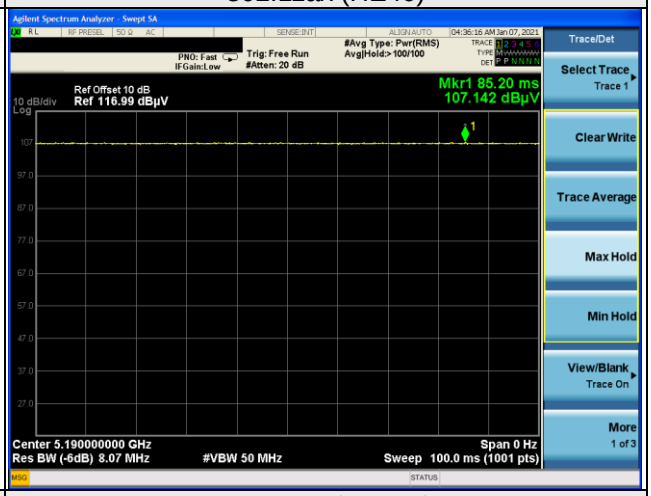
Applicable to	Environmental Conditions	Input Power	Tested by
RE≥1G	21deg. C, 63%RH, 24deg. C, 63%RH	120Vac, 60Hz	Ian Chang
RE<1G	24deg. C, 63%RH	120Vac, 60Hz	Ian Chang
PLC	25deg. C, 75%RH	120Vac, 60Hz	Ian Chang
APCM	25deg. C, 76%RH	120Vac, 60Hz	Pirar Hsieh

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is ≥ 98 %, duty factor is not required.
802.11ax (HE20): Duty cycle = 100%
802.11ax (HE40): Duty cycle = 100%
802.11ax (HE80): Duty cycle = 100%
802.11ax (HE160): Duty cycle = 100%

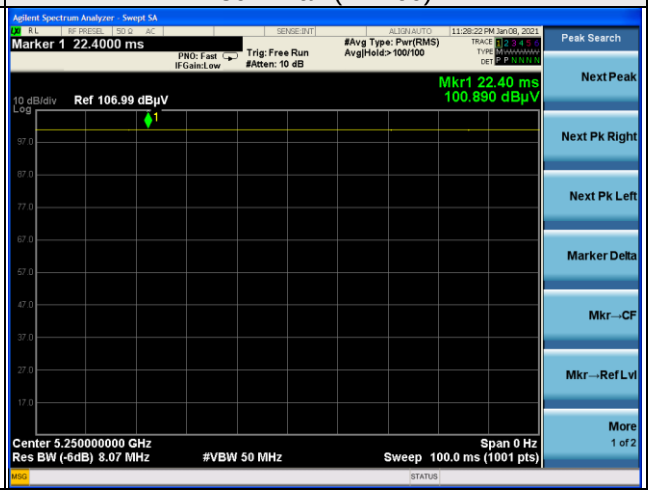
802.11ax (HE20)

802.11ax (HE40)



802.11ax (HE80)

802.11ax (HE160)



3.4 Description of Support Units

The ET 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.

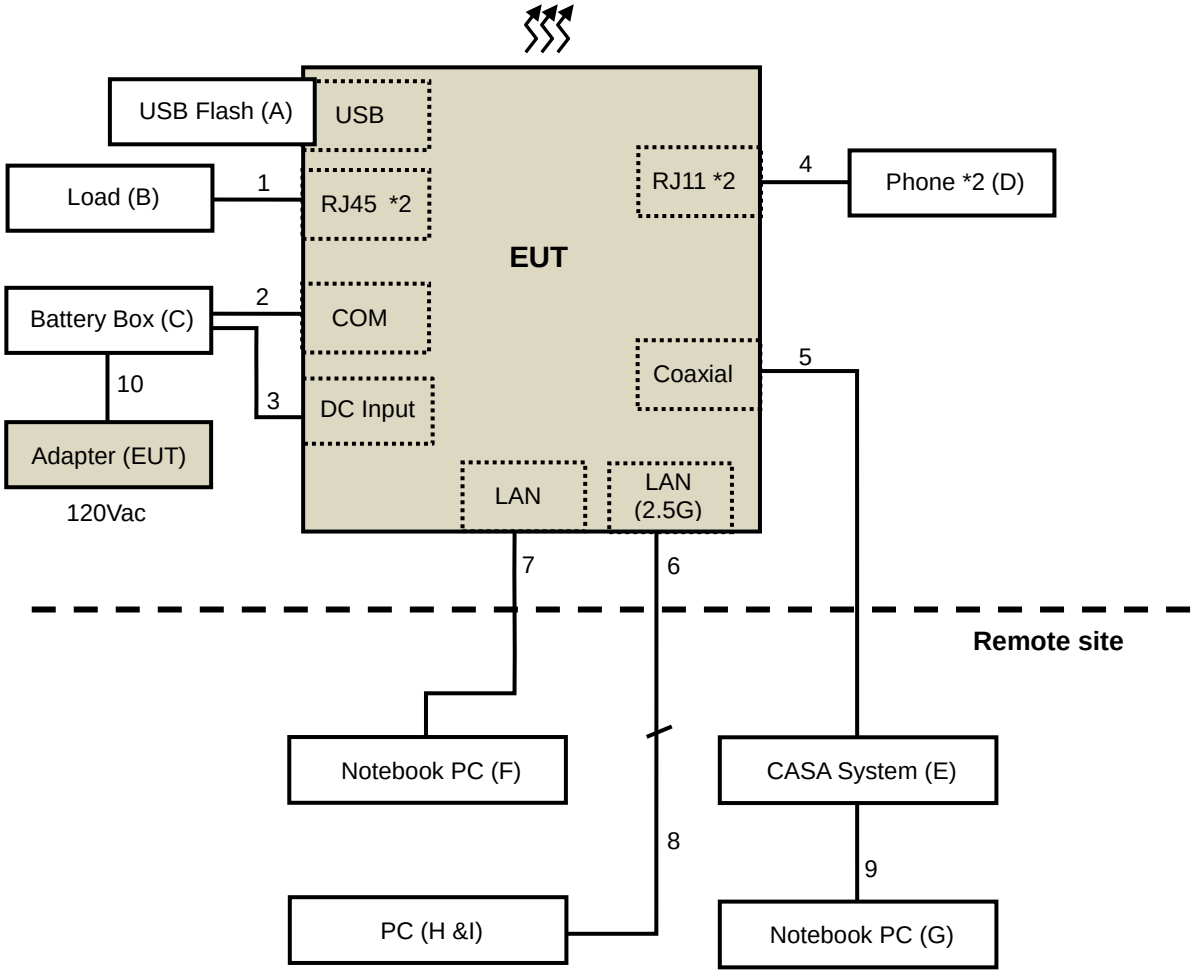
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	USB Flash	SANDISK	16GB	N/A	N/A	Provided by Lab
B.	Load	N/A	N/A	N/A	N/A	Provided by Lab
C.	Battery Box	N/A	N/A	N/A	N/A	Supplied by client
D.	Phone	WONDER	IS-333	06014	N/A	Provided by Lab
	Phone	WONDER	IS-333	06004	N/A	Provided by Lab
E.	CASA System	N/A	C2200	N/A	N/A	Supplied by client
F.	Notebook PC	DELL	P41G	GT4W952	N/A	Provided by Lab
G.	Notebook PC	DELL	E6440	N/A	N/A	Supplied by client
H.	PC	DELL	VOSTRO 470	JTBJYBX	N/A	Provided by Lab
I.	LAN Card	ASUS	XG-C100C	H4QSRT000277	N/A	Provided by Lab

Note:
1. All power cords of the above support units are non-shielded (1.8m).
2. Items E~I acted as communication partners to transfer data.

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	LAN Cable	2	1.8	N	0	Provided by Lab (RJ45,CAT.5e)
2.	COM (Audio) Cable	1	0.2	N	0	Provided by Lab
3.	DC Cable	1	1.8	N	0	Provided by Lab
4.	RJ11 Cable	2	1.8	N	0	Provided by Lab
5.	Coaxial Cable	1	10	Y	0	Provided by Lab
6.	LAN Cable	1	1.5	N	0	Supplied by client (RJ45,CAT.5e)
7.	LAN Cable	1	10	N	0	Provided by Lab (RJ45,CAT.5e)
8.	LAN Cable	1	10	N	0	Provided by Lab (RJ45,CAT.5e)
9.	LAN Cable	1	1.8	N	0	Provided by Lab (RJ45,CAT.5e)
10.	DC Cable	1	1.8	N	0	Supplied by client

Note: The core(s) is(are) originally attached to the cable(s).

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

<table>
<tr><td colspan="3">Applicable To</td><td colspan="2">Limit</td></tr>
<tr><td colspan="3" rowspan="2">789033 D02 General UNII Test Procedure New Rules v02r01</td><td colspan="2">Field Strength at 3m</td></tr>
<tr><td>PK: 74 (dBµV/m)</td><td>AV: 54 (dBµV/m)</td></tr>
<tr><td>Frequency Band</td><td colspan="2">Applicable To</td><td>EIRP Limit</td><td>Equivalent Field Strength at 3m</td></tr>
<tr><td>5150~5250 MHz</td><td colspan="2">15.407(b)(1)</td><td rowspan="3">PK: -27 (dBm/MHz)</td><td rowspan="3">PK: 68.2(dBµV/m)</td></tr>
<tr><td>5250~5350 MHz</td><td colspan="2">15.407(b)(2)</td></tr>
<tr><td>5470~5725 MHz</td><td colspan="2">15.407(b)(3)</td></tr>
<tr><td rowspan="2">5725~5850 MHz</td><td>☒</td><td>15.407(b)(4)(i)</td><td>PK: -27 (dBm/MHz) *1
PK: 10 (dBm/MHz) *2
PK: 15.6 (dBm/MHz) *3
PK: 27 (dBm/MHz) *4</td><td>PK: 68.2(dBµV/m) *1
PK: 105.2 (dBµV/m) *2
PK: 110.8(dBµV/m) *3
PK: 122.2 (dBµV/m) *4</td></tr>
<tr><td>☐</td><td>15.407(b)(4)(ii)</td><td colspan="2">Emission limits in section 15.247(d)</td></tr>
<tr><td colspan="5">*1 beyond 75 MHz or more above of the band edge.
*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.
*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.
*4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.</td></tr>
</table>

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

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

4.1.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
HP Preamplifier	8447D	2432A03504	Feb. 18, 2021	Feb. 17, 2022
HP Preamplifier	8449B	3008A01201	Feb. 19, 2021	Feb. 18, 2022
MITEQ Preamplifier	AMF-6F-260400-33-8P	892164	Feb. 18, 2021	Feb. 17, 2022
Agilent TEST RECEIVER	N9038A	MY51210129	Mar. 12, 2021	Mar. 11, 2022
Schwarzbeck Antenna	VULB 9168	139	Nov. 6, 2020	Nov. 5, 2021
Schwarzbeck Antenna	VHBA 9123	480	Jun. 3, 2019	Jun. 2, 2021
Schwarzbeck Horn Antenna	BBHA-9170	212	Nov. 22, 2020	Nov. 21, 2021
EMCO Horn Antenna	3115	00027024	Nov. 22, 2020	Nov.21, 2021
ADT. Turn Table	TT100	0306	NA	NA
ADT. Tower	AT100	0306	NA	NA
Software	Radiated_V7.6.15.9.5	NA	NA	NA
SUHNER RF cable With 4dB PAD	SF102	Cable-CH6-01	Jul. 9, 2020	Jul. 8, 2021
EMEC RF cable With 3/4dB PAD	EM102-KMKM	01	Aug. 21, 2020	Aug. 20, 2021
KEYSIGHT MIMO Powermeasurement Test set	U2021XA	U2021XA-001	Jun. 16, 2020	Jun. 15, 2021
KEYSIGHT Spectrum Analyzer	N9030A	MY54490260	Jul. 22, 2020	Jul. 21, 2021
Loop Antenna EMCI	LPA600	270	Aug. 23, 2019	Aug. 22, 2021
EMCO Horn Antenna	3115	00028257	Nov. 22, 2020	Nov. 21, 2021
Highpass filter Wainwright Instruments	WHK 3.1/18G-10SS	SN 8	NA	NA
ROHDE & SCHWARZ Spectrum Analyzer	FSV40	101042	Sep. 8, 2020	Sep. 7, 2021
Anritsu Power Sensor	MA2411B	0738404	Apr. 15, 2021	Apr. 14, 2022
Anritsu Power Meter	ML2495A	0842014	Apr. 14, 2021	Apr. 13, 2022

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 Chamber No. 6.

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.
(802.11ax (HE20): RBW = 1MHz, VBW = 10Hz;
802.11ax (HE40): RBW = 1MHz, VBW = 10Hz; 802.11ax (HE80): RBW = 1MHz, VBW = 10Hz; 802.11ax (HE160): RBW = 1MHz, VBW = 10Hz)

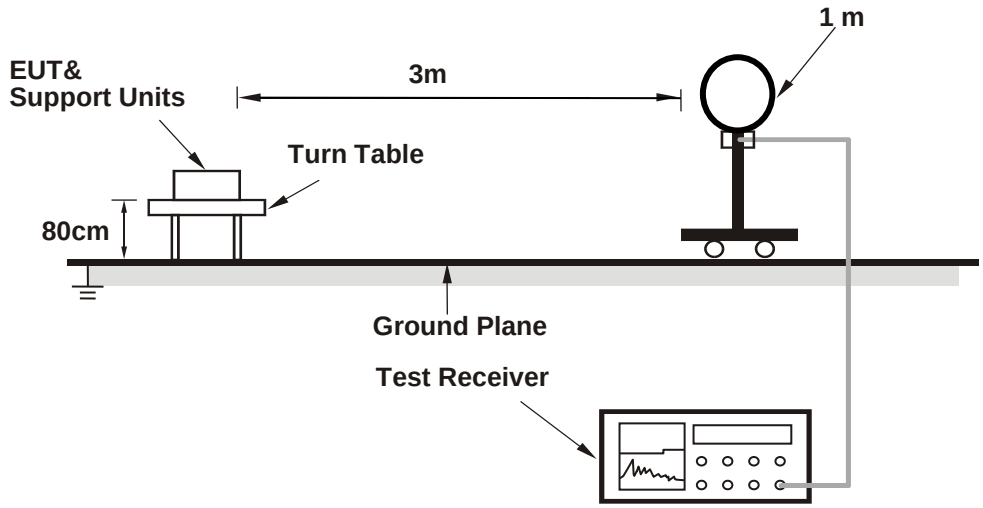
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

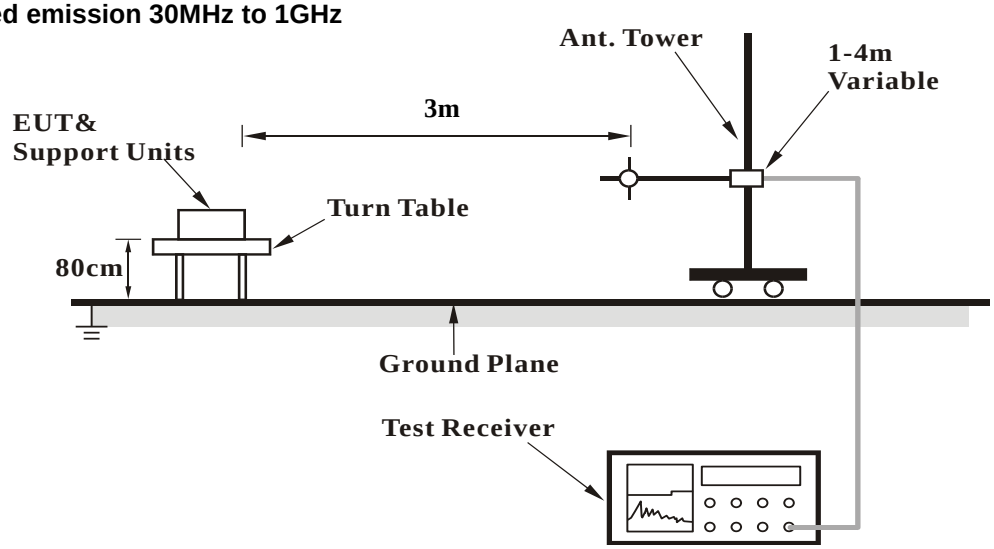
No deviation.

4.1.5 Test Setup

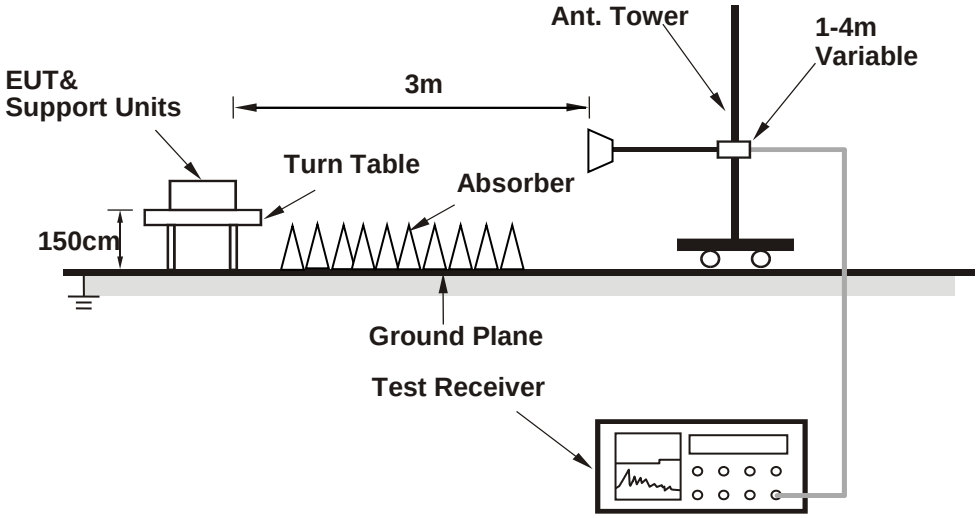
For Radiated emission below 30MHz



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. Prepared a notebook to act as a communication partner and placed it outside of testing area.
c. The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The communication partner sent data to EUT by command "PING".

4.1.7 Test Results

Above 1GHz data:

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	59.29 PK	74.00	-14.71	1.65 H	23	48.24	11.05
2	5150.00	47.38 AV	54.00	-6.62	1.65 H	23	36.33	11.05
3	*5180.00	116.85 PK			1.65 H	23	105.67	11.18
4	*5180.00	108.84 AV			1.65 H	23	97.66	11.18
5	#10360.00	57.14 PK	68.20	-11.06	2.23 H	265	39.35	17.79
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	64.69 PK	74.00	-9.31	2.55 V	281	53.64	11.05
2	5150.00	52.77 AV	54.00	-1.23	2.55 V	281	41.72	11.05
3	*5180.00	118.15 PK			2.55 V	281	106.97	11.18
4	*5180.00	109.74 AV			2.55 V	281	98.56	11.18
5	#10360.00	58.34 PK	68.20	-9.86	1.87 V	46	40.55	17.79

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	119.91 PK			1.59 H	21	108.65	11.26
2	*5200.00	111.78 AV			1.59 H	21	100.52	11.26
3	#10400.00	57.62 PK	68.20	-10.58	2.51 H	241	39.65	17.97
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	121.29 PK			2.51 V	274	110.03	11.26
2	*5200.00	113.62 AV			2.51 V	274	102.36	11.26
3	#10400.00	58.33 PK	68.20	-9.87	1.52 V	189	40.36	17.97

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	120.08 PK			1.58 H	19	108.64	11.44
2	*5240.00	111.76 AV			1.58 H	19	100.32	11.44
3	5350.00	55.44 PK	74.00	-18.56	1.58 H	19	43.34	12.10
4	5350.00	45.95 AV	54.00	-8.05	1.58 H	19	33.85	12.10
5	#10480.00	57.57 PK	68.20	-10.63	1.29 H	265	39.38	18.19
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	122.22 PK			2.83 V	256	110.78	11.44
2	*5240.00	113.82 AV			2.83 V	256	102.38	11.44
3	5350.00	60.90 PK	74.00	-13.10	2.83 V	256	48.80	12.10
4	5350.00	50.56 AV	54.00	-3.44	2.83 V	256	38.46	12.10
5	#10480.00	58.44 PK	68.20	-9.76	1.74 V	125	40.25	18.19

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	54.89 PK	74.00	-19.11	1.42 H	199	43.84	11.05
2	5150.00	43.92 AV	54.00	-10.08	1.42 H	199	32.87	11.05
3	*5260.00	116.40 PK			1.42 H	199	104.85	11.55
4	*5260.00	109.62 AV			1.42 H	199	98.07	11.55
5	#10520.00	57.59 PK	68.20	-10.61	2.31 H	164	39.33	18.26
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	61.48 PK	74.00	-12.52	2.07 V	276	50.43	11.05
2	5150.00	50.11 AV	54.00	-3.89	2.07 V	276	39.06	11.05
3	*5260.00	117.59 PK			2.07 V	276	106.04	11.55
4	*5260.00	110.69 AV			2.07 V	276	99.14	11.55
5	#10520.00	58.80 PK	68.20	-9.40	1.23 V	209	40.54	18.26

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	116.99 PK			1.48 H	203	105.14	11.85
2	*5300.00	110.11 AV			1.48 H	203	98.26	11.85
3	10600.00	57.64 PK	74.00	-16.36	2.25 H	124	39.32	18.32
4	10600.00	46.66 AV	54.00	-7.34	2.25 H	124	28.34	18.32
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	118.08 PK			2.15 V	285	106.23	11.85
2	*5300.00	111.12 AV			2.15 V	285	99.27	11.85
3	10600.00	58.58 PK	74.00	-15.42	2.51 V	148	40.26	18.32
4	10600.00	47.66 AV	54.00	-6.34	2.51 V	148	29.34	18.32

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.
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	117.21 PK			1.51 H	214	105.26	11.95
2	*5320.00	110.29 AV			1.51 H	214	98.34	11.95
3	5350.00	56.33 PK	74.00	-17.67	1.51 H	214	44.23	12.10
4	5350.00	47.34 AV	54.00	-6.66	1.51 H	214	35.24	12.10
5	10640.00	57.65 PK	74.00	-16.35	2.22 H	298	39.34	18.31
6	10640.00	46.64 AV	54.00	-7.36	2.22 H	298	28.33	18.31
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	*5320.00	118.37 PK			2.05 V	261	106.42	11.95
2	*5320.00	111.10 AV			2.05 V	261	99.15	11.95
3	5350.00	61.93 PK	74.00	-12.07	2.05 V	261	49.83	12.10
4	**5350.00**	**52.80 AV**	**54.00**	**-1.20**	**2.05 V**	**261**	**40.70**	**12.10**
5	10640.00	58.55 PK	74.00	-15.45	1.98 V	145	40.24	18.31
6	10640.00	47.62 AV	54.00	-6.38	1.98 V	145	29.31	18.31

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 100：5500 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	57.63 PK	74.00	-16.37	1.68 H	296	45.16	12.47
2	5460.00	46.76 AV	54.00	-7.24	1.68 H	296	34.29	12.47
3	#5470.00	58.85 PK	68.20	-9.35	1.68 H	296	46.35	12.50
4	*5500.00	118.01 PK			1.68 H	296	105.41	12.60
5	*5500.00	109.96 AV			1.68 H	296	97.36	12.60
6	11000.00	58.23 PK	74.00	-15.77	1.15 H	287	39.26	18.97
7	11000.00	47.11 AV	54.00	-6.89	1.15 H	287	28.14	18.97
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	63.14 PK	74.00	-10.86	1.96 V	271	50.67	12.47
2	5460.00	52.76 AV	54.00	-1.24	1.96 V	271	40.29	12.47
3	#5470.00	65.41 PK	68.20	-2.79	1.96 V	271	52.91	12.50
4	*5500.00	119.18 PK			1.96 V	271	106.58	12.60
5	*5500.00	111.03 AV			1.96 V	271	98.43	12.60
6	11000.00	59.23 PK	74.00	-14.77	1.35 V	202	40.26	18.97
7	11000.00	48.13 AV	54.00	-5.87	1.35 V	202	29.16	18.97

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	117.14 PK			1.74 H	306	105.15	11.99
2	*5580.00	109.21 AV			1.74 H	306	97.22	11.99
3	11160.00	59.02 PK	74.00	-14.98	2.88 H	254	39.26	19.76
4	11160.00	48.22 AV	54.00	-5.78	2.88 H	254	28.46	19.76
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	*5580.00	118.53 PK			2.03 V	268	106.54	11.99
2	*5580.00	110.37 AV			2.03 V	268	98.38	11.99
3	11160.00	59.98 PK	74.00	-14.02	1.45 V	214	40.22	19.76
4	11160.00	48.92 AV	54.00	-5.08	1.45 V	214	29.16	19.76

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.

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	116.95 PK			1.78 H	288	105.26	11.69
2	*5700.00	109.92 AV			1.78 H	288	98.23	11.69
3	#5725.00	59.98 PK	68.20	-8.22	1.78 H	288	48.26	11.72
4	11400.00	58.95 PK	74.00	-15.05	1.60 H	315	39.32	19.63
5	11400.00	47.78 AV	54.00	-6.22	1.60 H	315	28.15	19.63
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	118.33 PK			2.19 V	261	106.64	11.69
2	*5700.00	111.03 AV			2.19 V	261	99.34	11.69
3	#5725.00	66.48 PK	68.20	-1.72	2.19 V	261	54.76	11.72
4	11400.00	59.89 PK	74.00	-14.11	2.09 V	132	40.26	19.63
5	11400.00	48.79 AV	54.00	-5.21	2.09 V	132	29.16	19.63

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.93 PK	68.20	-9.27	1.58 H	289	46.43	12.50
2	*5720.00	116.81 PK			1.58 H	289	105.09	11.72
3	*5720.00	108.98 AV			1.58 H	289	97.26	11.72
4	11440.00	58.97 PK	74.00	-15.03	1.74 H	152	39.16	19.81
5	11440.00	48.22 AV	54.00	-5.78	1.74 H	152	28.41	19.81
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	#5470.00	61.47 PK	68.20	-6.73	1.94 V	266	48.97	12.50
2	*5720.00	117.98 PK			1.94 V	266	106.26	11.72
3	*5720.00	110.51 AV			1.94 V	266	98.79	11.72
4	11440.00	60.07 PK	74.00	-13.93	1.63 V	222	40.26	19.81
5	11440.00	48.91 AV	54.00	-5.09	1.63 V	222	29.10	19.81

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 (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	#5639.15	58.03 PK	68.20	-10.17	1.67 H	289	46.28	11.75
2	*5745.00	122.99 PK			1.67 H	289	111.23	11.76
3	*5745.00	115.41 AV			1.67 H	289	103.65	11.76
4	#5954.03	56.00 PK	68.20	-12.20	1.67 H	289	43.94	12.06
5	11490.00	59.30 PK	74.00	-14.70	1.28 H	287	39.26	20.04
6	11490.00	48.38 AV	54.00	-5.62	1.28 H	287	28.34	20.04
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	#5642.29	63.23 PK	68.20	-4.97	1.56 V	278	51.48	11.75
2	*5745.00	124.91 PK			1.56 V	278	113.15	11.76
3	*5745.00	117.45 AV			1.56 V	278	105.69	11.76
4	#5928.16	61.38 PK	68.20	-6.82	1.56 V	278	49.52	11.86
5	11490.00	60.27 PK	74.00	-13.73	1.74 V	222	40.23	20.04
6	11490.00	49.20 AV	54.00	-4.80	1.74 V	222	29.16	20.04

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 (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	#5649.20	56.71 PK	68.20	-11.49	1.57 H	278	44.97	11.74
2	*5785.00	123.36 PK			1.57 H	278	111.54	11.82
3	*5785.00	115.40 AV			1.57 H	278	103.58	11.82
4	#5955.54	56.18 PK	68.20	-12.02	1.57 H	278	44.09	12.09
5	11570.00	58.51 PK	74.00	-15.49	2.41 H	218	38.14	20.37
6	11570.00	47.80 AV	54.00	-6.20	2.41 H	218	27.43	20.37
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	#5644.12	62.17 PK	68.20	-6.03	1.54 V	269	50.43	11.74
2	*5785.00	125.09 PK			1.54 V	269	113.27	11.82
3	*5785.00	117.66 AV			1.54 V	269	105.84	11.82
4	#5927.86	63.25 PK	68.20	-4.95	1.54 V	269	51.39	11.86
5	11570.00	59.73 PK	74.00	-14.27	2.36 V	295	39.36	20.37
6	11570.00	49.01 AV	54.00	-4.99	2.36 V	295	28.64	20.37

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	#5634.99	55.84 PK	68.20	-12.36	1.74 H	298	44.07	11.77
2	*5825.00	122.82 PK			1.74 H	298	111.03	11.79
3	*5825.00	114.68 AV			1.74 H	298	102.89	11.79
4	#5928.33	56.13 PK	68.20	-12.07	1.74 H	298	44.27	11.86
5	11650.00	58.95 PK	74.00	-15.05	2.51 H	262	38.41	20.54
6	11650.00	47.77 AV	54.00	-6.23	2.51 H	262	27.23	20.54
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	#5644.09	60.35 PK	68.20	-7.85	1.59 V	269	48.61	11.74
2	*5825.00	125.52 PK			1.59 V	269	113.73	11.79
3	*5825.00	117.38 AV			1.59 V	269	105.59	11.79
4	#5929.32	63.21 PK	68.20	-4.99	1.59 V	269	51.34	11.87
5	11650.00	59.78 PK	74.00	-14.22	1.24 V	125	39.24	20.54
6	11650.00	48.80 AV	54.00	-5.20	1.24 V	125	28.26	20.54

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	58.45 PK	74.00	-15.55	2.33 H	342	47.40	11.05
2	5150.00	48.49 AV	54.00	-5.51	2.33 H	342	37.44	11.05
3	*5190.00	110.86 PK			2.33 H	342	99.63	11.23
4	*5190.00	103.32 AV			2.33 H	342	92.09	11.23
5	#10380.00	57.53 PK	68.20	-10.67	1.69 H	254	39.65	17.88
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	63.46 PK	74.00	-10.54	1.25 V	274	52.41	11.05
2	5150.00	52.76 AV	54.00	-1.24	1.25 V	274	41.71	11.05
3	*5190.00	112.37 PK			1.25 V	274	101.14	11.23
4	*5190.00	104.33 AV			1.25 V	274	93.10	11.23
5	#10380.00	58.43 PK	68.20	-9.77	1.84 V	263	40.55	17.88

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	56.35 PK	74.00	-17.65	2.36 H	351	45.30	11.05
2	5150.00	44.73 AV	54.00	-9.27	2.36 H	351	33.68	11.05
3	*5230.00	115.74 PK			2.36 H	351	104.35	11.39
4	*5230.00	107.13 AV			2.36 H	351	95.74	11.39
5	#10460.00	57.50 PK	68.20	-10.70	2.25 H	167	39.36	18.14
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	64.25 PK	74.00	-9.75	1.25 V	240	53.20	11.05
2	5150.00	52.69 AV	54.00	-1.31	1.25 V	240	41.64	11.05
3	*5230.00	116.86 PK			1.25 V	240	105.47	11.39
4	*5230.00	108.18 AV			1.25 V	240	96.79	11.39
5	#10460.00	58.37 PK	68.20	-9.83	1.87 V	164	40.23	18.14

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	56.33 PK	74.00	-17.67	1.69 H	241	45.28	11.05
2	5150.00	45.68 AV	54.00	-8.32	1.69 H	241	34.63	11.05
3	*5270.00	115.17 PK			1.69 H	241	103.54	11.63
4	*5270.00	107.11 AV			1.69 H	241	95.48	11.63
5	#10540.00	57.64 PK	68.20	-10.56	1.89 H	312	39.36	18.28
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	62.23 PK	74.00	-11.77	2.22 V	284	51.18	11.05
2	5150.00	51.16 AV	54.00	-2.84	2.22 V	284	40.11	11.05
3	*5270.00	116.18 PK			2.22 V	284	104.55	11.63
4	*5270.00	108.53 AV			2.22 V	284	96.90	11.63
5	#10540.00	58.53 PK	68.20	-9.67	1.87 V	146	40.25	18.28

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 (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	111.98 PK			1.74 H	251	100.08	11.90
2	*5310.00	103.16 AV			1.74 H	251	91.26	11.90
3	5350.00	60.27 PK	74.00	-13.73	1.74 H	251	48.17	12.10
4	5350.00	51.36 AV	54.00	-2.64	1.74 H	251	39.26	12.10
5	10620.00	57.58 PK	74.00	-16.42	1.22 H	236	39.26	18.32
6	10620.00	46.51 AV	54.00	-7.49	1.22 H	236	28.19	18.32
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	113.19 PK			1.96 V	253	101.29	11.90
2	*5310.00	104.77 AV			1.96 V	253	92.87	11.90
3	5350.00	61.29 PK	74.00	-12.71	1.96 V	253	49.19	12.10
4	5350.00	52.55 AV	54.00	-1.45	1.96 V	253	40.45	12.10
5	10620.00	58.69 PK	74.00	-15.31	1.85 V	201	40.37	18.32
6	10620.00	47.50 AV	54.00	-6.50	1.85 V	201	29.18	18.32

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.
5. " * ": Fundamental frequency.

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	55.73 PK	74.00	-18.27	1.58 H	208	43.26	12.47
2	5460.00	45.55 AV	54.00	-8.45	1.58 H	208	33.08	12.47
3	#5470.00	62.59 PK	68.20	-5.61	1.58 H	208	50.09	12.50
4	*5510.00	113.09 PK			1.58 H	208	100.57	12.52
5	*5510.00	104.91 AV			1.58 H	208	92.39	12.52
6	11020.00	58.31 PK	74.00	-15.69	1.28 H	26	39.26	19.05
7	11020.00	47.26 AV	54.00	-6.74	1.28 H	26	28.21	19.05
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	5460.00	56.41 PK	74.00	-17.59	2.05 V	269	43.94	12.47
2	5460.00	46.07 AV	54.00	-7.93	2.05 V	269	33.60	12.47
3	#5470.00	66.58 PK	68.20	-1.62	2.05 V	269	54.08	12.50
4	*5510.00	114.00 PK			2.05 V	269	101.48	12.52
5	*5510.00	105.79 AV			2.05 V	269	93.27	12.52
6	11020.00	59.22 PK	74.00	-14.78	2.36 V	298	40.17	19.05
7	11020.00	48.14 AV	54.00	-5.86	2.36 V	298	29.09	19.05

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.
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	114.31 PK			1.62 H	218	102.08	12.23
2	*5550.00	106.40 AV			1.62 H	218	94.17	12.23
3	11100.00	58.65 PK	74.00	-15.35	1.36 H	299	39.26	19.39
4	11100.00	47.50 AV	54.00	-6.50	1.36 H	299	28.11	19.39
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	115.59 PK			2.14 V	278	103.36	12.23
2	*5550.00	107.64 AV			2.14 V	278	95.41	12.23
3	11100.00	59.58 PK	74.00	-14.42	2.98 V	217	40.19	19.39
4	11100.00	48.65 AV	54.00	-5.35	2.98 V	217	29.26	19.39

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	115.88 PK			1.83 H	280	104.16	11.72
2	*5670.00	107.81 AV			1.83 H	280	96.09	11.72
3	#5725.00	61.80 PK	68.20	-6.40	1.66 H	222	50.08	11.72
4	11340.00	58.86 PK	74.00	-15.14	1.77 H	108	39.17	19.69
5	11340.00	47.78 AV	54.00	-6.22	1.77 H	108	28.09	19.69
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	117.13 PK			1.83 V	280	105.41	11.72
2	*5670.00	108.73 AV			1.83 V	280	97.01	11.72
3	#5725.00	65.89 PK	68.20	-2.31	1.83 V	280	54.17	11.72
4	11340.00	59.91 PK	74.00	-14.09	1.22 V	156	40.22	19.69
5	11340.00	48.76 AV	54.00	-5.24	1.22 V	156	29.07	19.69

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	61.53 PK	68.20	-6.67	1.62 H	241	49.03	12.50
2	*5710.00	115.92 PK			1.62 H	241	104.22	11.70
3	*5710.00	107.93 AV			1.62 H	241	96.23	11.70
4	11420.00	58.88 PK	74.00	-15.12	1.79 H	200	39.16	19.72
5	11420.00	48.03 AV	54.00	-5.97	1.79 H	200	28.31	19.72
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	#5470.00	61.66 PK	68.20	-6.54	2.20 V	258	49.16	12.50
2	*5710.00	117.32 PK			2.20 V	258	105.62	11.70
3	*5710.00	108.86 AV			2.20 V	258	97.16	11.70
4	11420.00	60.11 PK	74.00	-13.89	2.32 V	116	40.39	19.72
5	11420.00	48.79 AV	54.00	-5.21	2.32 V	116	29.07	19.72

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 (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	#5654.82	67.98 PK	71.77	-3.79	1.52 H	266	56.25	11.73
2	*5755.00	118.30 PK			1.52 H	266	106.54	11.76
3	*5755.00	109.99 AV			1.52 H	266	98.23	11.76
4	#5934.33	56.75 PK	68.20	-11.45	1.52 H	266	44.84	11.91
5	11510.00	58.35 PK	74.00	-15.65	1.78 H	145	38.22	20.13
6	11510.00	47.78 AV	54.00	-6.22	1.78 H	145	27.65	20.13
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	#5647.97	64.41 PK	68.20	-3.79	1.74 V	293	52.67	11.74
2	*5755.00	120.32 PK			1.74 V	293	108.56	11.76
3	*5755.00	111.99 AV			1.74 V	293	100.23	11.76
4	#5936.41	56.73 PK	68.20	-11.47	1.74 V	293	44.80	11.93
5	11510.00	59.37 PK	74.00	-14.63	1.94 V	261	39.24	20.13
6	11510.00	48.29 AV	54.00	-5.71	1.94 V	261	28.16	20.13

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	#5642.20	57.14 PK	68.20	-11.06	1.61 H	233	45.39	11.75
2	*5795.00	118.47 PK			1.61 H	233	106.64	11.83
3	*5795.00	110.17 AV			1.61 H	233	98.34	11.83
4	#5942.18	59.99 PK	68.20	-8.21	1.61 H	233	48.01	11.98
5	11590.00	57.88 PK	74.00	-16.12	2.36 H	251	37.44	20.44
6	11590.00	46.49 AV	54.00	-7.51	2.36 H	251	26.05	20.44
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	#5651.09	62.72 PK	69.01	-6.29	1.55 V	289	50.99	11.73
2	*5795.00	120.79 PK			1.55 V	289	108.96	11.83
3	*5795.00	112.40 AV			1.55 V	289	100.57	11.83
4	#5931.91	66.25 PK	68.20	-1.95	1.55 V	289	54.36	11.89
5	11590.00	58.68 PK	74.00	-15.32	1.36 V	241	38.24	20.44
6	11590.00	47.75 AV	54.00	-6.25	1.36 V	241	27.31	20.44

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	57.00 PK	74.00	-17.00	2.34 H	168	45.95	11.05
2	5150.00	46.92 AV	54.00	-7.08	2.34 H	168	35.87	11.05
3	*5210.00	104.54 PK			2.34 H	168	93.24	11.30
4	*5210.00	97.49 AV			2.34 H	168	86.19	11.30
5	5350.00	54.25 PK	74.00	-19.75	2.34 H	168	42.15	12.10
6	5350.00	43.38 AV	54.00	-10.62	2.34 H	168	31.28	12.10
7	#10420.00	57.37 PK	68.20	-10.83	1.22 H	298	39.34	18.03
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	5150.00	62.42 PK	74.00	-11.58	2.76 V	254	51.37	11.05
2	5150.00	52.68 AV	54.00	-1.32	2.76 V	254	41.63	11.05
3	*5210.00	106.13 PK			2.76 V	254	94.83	11.30
4	*5210.00	99.20 AV			2.76 V	254	87.90	11.30
5	5350.00	55.32 PK	74.00	-18.68	2.76 V	254	43.22	12.10
6	5350.00	44.75 AV	54.00	-9.25	2.76 V	254	32.65	12.10
7	#10420.00	58.59 PK	68.20	-9.61	1.88 V	231	40.56	18.03

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 (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	55.31 PK	74.00	-18.69	1.87 H	149	44.26	11.05
2	5150.00	44.21 AV	54.00	-9.79	1.87 H	149	33.16	11.05
3	*5290.00	108.41 PK			1.87 H	149	96.63	11.78
4	*5290.00	100.08 AV			1.87 H	149	88.30	11.78
5	5350.00	57.97 PK	74.00	-16.03	1.87 H	149	45.87	12.10
6	5350.00	49.39 AV	54.00	-4.61	1.87 H	149	37.29	12.10
7	#10580.00	57.65 PK	68.20	-10.55	2.96 H	314	39.34	18.31
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	5150.00	55.91 PK	74.00	-18.09	2.39 V	271	44.86	11.05
2	5150.00	44.95 AV	54.00	-9.05	2.39 V	271	33.90	11.05
3	*5290.00	110.42 PK			2.39 V	271	98.64	11.78
4	*5290.00	101.77 AV			2.39 V	271	89.99	11.78
5	5350.00	61.03 PK	74.00	-12.97	2.39 V	271	48.93	12.10
6	5350.00	52.62 AV	54.00	-1.38	2.39 V	271	40.52	12.10
7	#10580.00	58.56 PK	68.20	-9.64	2.06 V	222	40.25	18.31

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.
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	58.73 PK	74.00	-15.27	1.68 H	234	46.26	12.47
2	5460.00	48.64 AV	54.00	-5.36	1.68 H	234	36.17	12.47
3	#5470.00	62.69 PK	68.20	-5.51	1.68 H	234	50.19	12.50
4	*5530.00	108.85 PK			1.68 H	234	96.48	12.37
5	*5530.00	100.01 AV			1.68 H	234	87.64	12.37
6	11060.00	58.46 PK	74.00	-15.54	1.79 H	214	39.24	19.22
7	11060.00	47.39 AV	54.00	-6.61	1.79 H	214	28.17	19.22
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	62.62 PK	74.00	-11.38	2.20 V	268	50.15	12.47
2	5460.00	52.53 AV	54.00	-1.47	2.20 V	268	40.06	12.47
3	#5470.00	66.71 PK	68.20	-1.49	2.20 V	268	54.21	12.50
4	*5530.00	110.90 PK			2.20 V	268	98.53	12.37
5	*5530.00	102.04 AV			2.20 V	268	89.67	12.37
6	11060.00	59.38 PK	74.00	-14.62	1.57 V	241	40.16	19.22
7	11060.00	48.53 AV	54.00	-5.47	1.57 V	241	29.31	19.22

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	112.38 PK			1.58 H	228	100.57	11.81
2	*5610.00	102.43 AV			1.58 H	228	90.62	11.81
3	#5725.00	58.86 PK	68.20	-9.34	1.58 H	228	47.14	11.72
4	11220.00	59.28 PK	74.00	-14.72	1.63 H	201	39.32	19.96
5	11220.00	48.09 AV	54.00	-5.91	1.63 H	201	28.13	19.96
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	114.76 PK			2.16 V	264	102.95	11.81
2	*5610.00	104.67 AV			2.16 V	264	92.86	11.81
3	#5725.00	64.34 PK	68.20	-3.86	2.16 V	264	52.62	11.72
4	11220.00	60.20 PK	74.00	-13.80	1.88 V	217	40.24	19.96
5	11220.00	49.14 AV	54.00	-4.86	1.88 V	217	29.18	19.96

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	59.77 PK	68.20	-8.43	1.55 H	208	47.27	12.50
2	*5690.00	112.33 PK			1.55 H	208	100.64	11.69
3	*5690.00	101.87 AV			1.55 H	208	90.18	11.69
4	11380.00	58.88 PK	74.00	-15.12	1.37 H	201	39.24	19.64
5	11380.00	47.96 AV	54.00	-6.04	1.37 H	201	28.32	19.64
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	61.66 PK	68.20	-6.54	2.23 V	274	49.16	12.50
2	*5690.00	114.53 PK			2.23 V	274	102.84	11.69
3	*5690.00	104.32 AV			2.23 V	274	92.63	11.69
4	11380.00	59.79 PK	74.00	-14.21	1.98 V	271	40.15	19.64
5	11380.00	48.71 AV	54.00	-5.29	1.98 V	271	29.07	19.64

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5642.87	60.63 PK	68.20	-7.57	1.56 H	238	48.88	11.75
2	*5775.00	113.83 PK			1.56 H	238	102.03	11.80
3	*5775.00	106.06 AV			1.56 H	238	94.26	11.80
4	#5921.63	60.24 PK	70.69	-10.45	1.56 H	238	48.44	11.80
5	11550.00	58.54 PK	74.00	-15.46	1.23 H	210	38.26	20.28
6	11550.00	47.69 AV	54.00	-6.31	1.23 H	210	27.41	20.28
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	#5633.74	66.91 PK	68.20	-1.29	1.89 V	288	55.14	11.77
2	*5775.00	116.47 PK			1.89 V	288	104.67	11.80
3	*5775.00	108.38 AV			1.89 V	288	96.58	11.80
4	#5931.59	60.84 PK	68.20	-7.36	1.89 V	288	48.95	11.89
5	11550.00	59.54 PK	74.00	-14.46	1.22 V	130	39.26	20.28
6	11550.00	48.59 AV	54.00	-5.41	1.22 V	130	28.31	20.28

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	56.92 PK	74.00	-17.08	1.58 H	298	45.87	11.05
2	5150.00	47.26 AV	54.00	-6.74	1.58 H	298	36.21	11.05
3	*5250.00	102.59 PK			1.58 H	209	91.11	11.48
4	*5250.00	92.16 AV			1.58 H	209	80.68	11.48
5	5350.00	58.44 PK	74.00	-15.56	1.58 H	298	46.34	12.10
6	5350.00	49.56 AV	54.00	-4.44	1.58 H	298	37.46	12.10
7	#10500.00	57.57 PK	68.20	-10.63	1.68 H	299	39.32	18.25
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	58.72 PK	74.00	-15.28	2.22 V	298	47.67	11.05
2	5150.00	49.58 AV	54.00	-4.42	2.22 V	298	38.53	11.05
3	*5250.00	104.57 PK			2.22 V	289	93.09	11.48
4	*5250.00	94.46 AV			2.22 V	289	82.98	11.48
5	5350.00	61.81 PK	74.00	-12.19	2.22 V	289	49.71	12.10
6	5350.00	52.63 AV	54.00	-1.37	2.22 V	289	40.53	12.10
7	#10500.00	58.50 PK	68.20	-9.70	1.84 V	241	40.25	18.25

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	59.85 PK	74.00	-14.15	1.87 H	146	48.25	11.60
2	5460.00	50.16 AV	54.00	-3.84	1.87 H	146	38.56	11.60
3	#5470.00	57.21 PK	68.20	-10.99	1.87 H	146	45.54	11.67
4	*5570.00	102.30 PK			1.87 H	146	91.08	11.22
5	*5570.00	94.75 AV			1.87 H	146	83.53	11.22
6	#5725.00	61.21 PK	68.20	-6.99	1.87 H	146	50.50	10.71
7	11140.00	57.13 PK	74.00	-16.87	2.31 H	205	39.42	17.71
8	11140.00	46.31 AV	54.00	-7.69	2.31 H	205	28.60	17.71
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	61.03 PK	74.00	-12.97	2.18 V	306	49.43	11.60
2	5460.00	52.78 AV	54.00	-1.22	2.18 V	306	41.18	11.60
3	#5470.00	64.23 PK	68.20	-3.97	2.18 V	306	52.56	11.67
4	*5570.00	105.16 PK			2.18 V	306	93.94	11.22
5	*5570.00	96.97 AV			2.18 V	306	85.75	11.22
6	#5725.00	63.64 PK	68.20	-4.56	2.18 V	306	52.93	10.71
7	11140.00	57.49 PK	74.00	-16.51	1.58 V	247	39.78	17.71
8	11140.00	46.59 AV	54.00	-7.41	1.58 V	247	28.88	17.71

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.

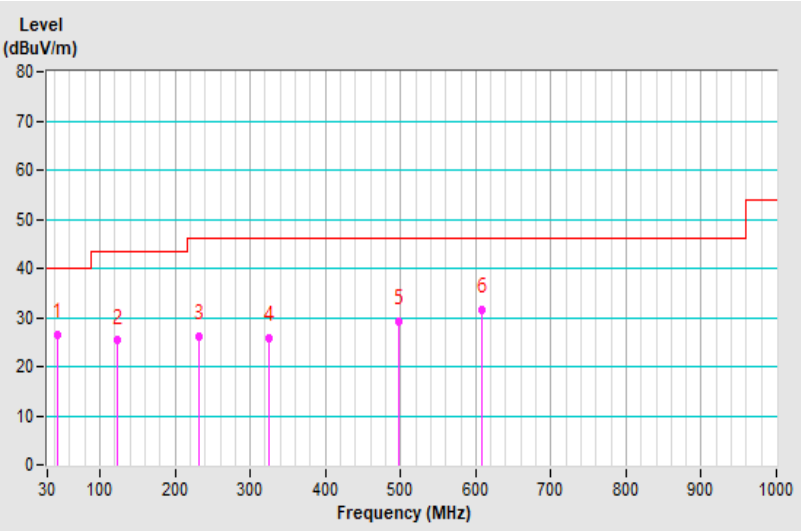
Below 1GHz Worst-Case Data:

RF Mode	TX 802.11ax (HE20)	Channel	CH 149：5745 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	42.61	26.59 QP	40.00	-13.41	1.70 H	120	33.93	-7.34
2	122.15	25.30 QP	43.50	-18.20	2.09 H	158	34.12	-8.82
3	231.76	26.17 QP	46.00	-19.83	2.37 H	186	34.32	-8.15
4	324.88	25.92 QP	46.00	-20.08	2.71 H	220	29.30	-3.38
5	498.51	29.26 QP	46.00	-16.74	3.02 H	250	29.18	0.08
6	608.12	31.66 QP	46.00	-14.34	3.33 H	281	29.12	2.54

Remarks:

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

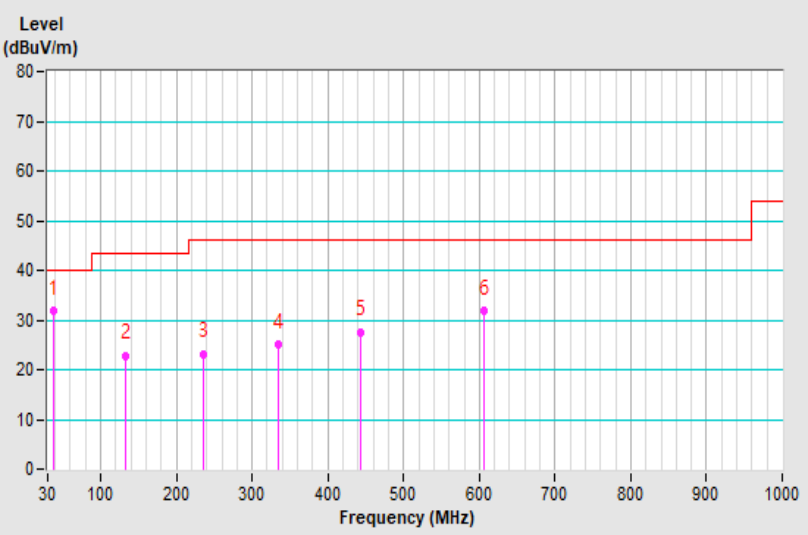


RF Mode	TX 802.11ax (HE20)	Channel	CH 149：5745 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

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	37.76	31.77 QP	40.00	-8.23	1.43 V	190	39.68	-7.91
2	132.82	22.86 QP	43.50	-20.64	1.08 V	156	30.42	-7.56
3	235.64	23.13 QP	46.00	-22.87	1.00 V	110	30.65	-7.52
4	334.58	24.96 QP	46.00	-21.04	1.00 V	65	28.18	-3.22
5	443.22	27.42 QP	46.00	-18.58	1.79 V	225	28.26	-0.84
6	606.18	31.76 QP	46.00	-14.24	2.07 V	253	29.28	2.48

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.	Cal. Date	Cal. Due
ROHDE & SCHWARZ TEST RECEIVER	ESCS 30	100276	Apr. 15, 2021	Apr. 14, 2022
SCHWARZBECK Artificial Mains Network (for EUT)	NSLK 8128	8128-244	Nov. 19, 2020	Nov. 18, 2021
LISN With Adapter (for EUT)	AD10	C05Ada-001	Nov. 19, 2020	Nov. 18, 2021
R&S Artificial Mains Network (for peripheral)	ESH3-Z5	100220	Dec. 1, 2020	Nov. 30, 2021
Software	Cond_V7.3.7.4	NA	NA	NA
RF cable (JYEBAO) With 10dB PAD	5D-FB	Cable-C05.01	Jan. 29, 2021	Jan. 28, 2022
LYNICS Terminator (For R&S LISN)	0900510	E1-01-305	Feb. 17, 2021	Feb. 16, 2022

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 Shielded Room No. 5. (Conduction 5)
3. The VCCI Site Registration No. C-11093.
4. The Industry Canada Reference No. IC 3789-5.

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.

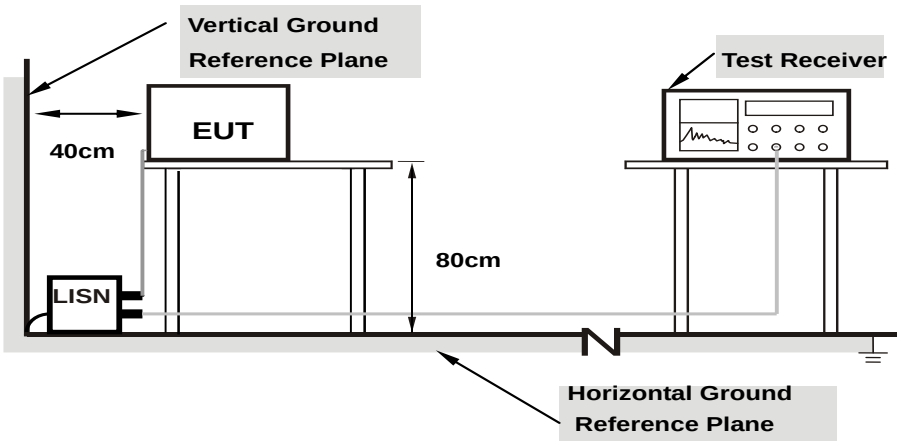
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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 4.1.6.

4.2.7 Test Results

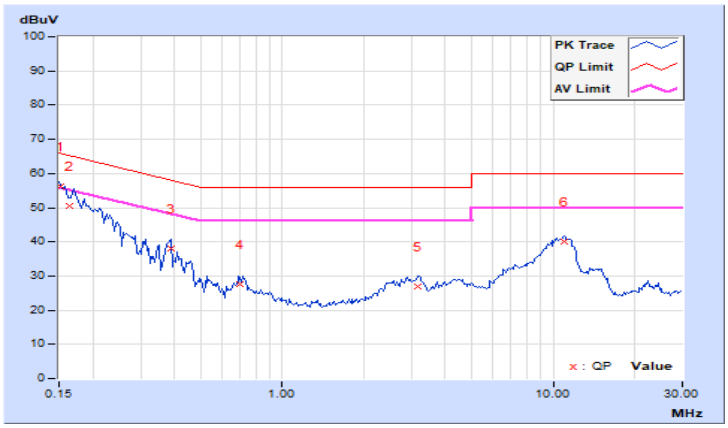
Worst-case data:
802.11ax (HE20)

Channel	TX Channel 149	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Line (L)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.15118**	**10.01**	**46.36**	**28.54**	**56.37**	**38.55**	**65.93**	**55.93**	**-9.56**	**-17.38**
2	0.16374	10.01	40.43	26.38	50.44	36.39	65.27	55.27	-14.83	-18.88
3	0.38911	10.02	28.19	22.44	38.21	32.46	58.08	48.08	-19.87	-15.62
4	0.70126	10.06	17.62	12.38	27.68	22.44	56.00	46.00	-28.32	-23.56
5	3.17858	10.23	16.58	11.76	26.81	21.99	56.00	46.00	-29.19	-24.01
6	10.94744	10.70	29.43	25.55	40.13	36.25	60.00	50.00	-19.87	-13.75

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.

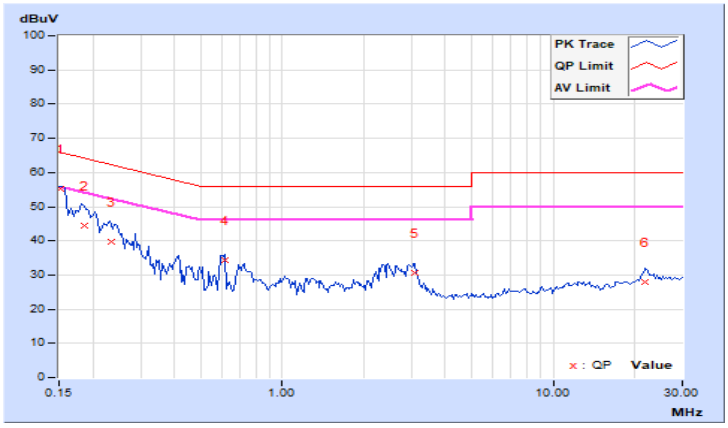


Channel	TX Channel 149	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Neutral (N)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15123	9.93	45.28	29.08	55.21	39.01	65.93	55.93	-10.72	-16.92
2	0.18615	9.94	34.39	22.47	44.33	32.41	64.21	54.21	-19.88	-21.80
3	0.23436	9.94	29.91	17.74	39.85	27.68	62.29	52.29	-22.44	-24.61
4	0.61185	9.98	24.24	15.63	34.22	25.61	56.00	46.00	-21.78	-20.39
5	3.08166	10.13	20.58	9.28	30.71	19.41	56.00	46.00	-25.29	-26.59
6	21.94274	11.25	16.55	11.64	27.80	22.89	60.00	50.00	-32.20	-27.11

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 (24 dBm)
U-NII-2A	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3	√		1 Watt (30 dBm)

*B is the 26 dB emission bandwidth in megahertz

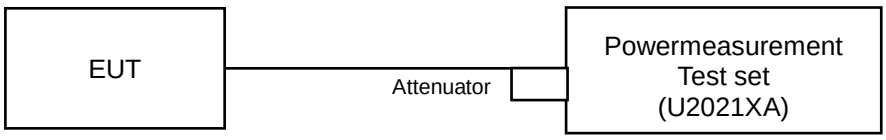
Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

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

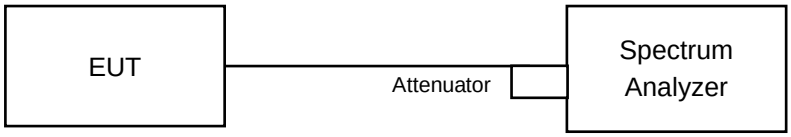
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

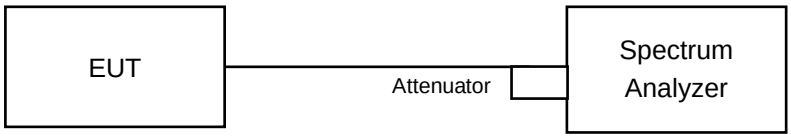
For Power Output Measurement



For Straddle Chanel:



For 26dB Bandwidth Measurement



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

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 Straddle Chanel:

a) Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
b) Set sweep trigger to “free run”.
c) Set RBW = 1 MHz.
d) Set VBW ≥ 3 MHz
e) Number of points in sweep ≥ 2 Span / RBW.
f) Sweep time ≤ (number of points in sweep) * T
g) Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
h) Detector = RMS.
i) Trace mode = max hold.
j) Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
k) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument’s band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

For 26dB Bandwidth Measurement

1. Set RBW = approximately 1% to 5% of the emission bandwidth.
2. Set the VBW ≧ 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:

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	15.86	15.71	16.00	15.98	155.226	21.91	27.48	Pass
40	5200	19.75	19.49	20.13	20.17	390.357	25.91	27.48	Pass
48	5240	20.59	18.80	20.48	19.70	395.421	25.97	27.48	Pass
52	5260	13.94	13.76	13.54	13.45	93.268	19.70	21.05	Pass
60	5300	13.67	14.29	13.20	13.65	94.201	19.74	21.05	Pass
64	5320	13.82	13.99	13.44	12.81	90.339	19.56	21.05	Pass
100	5500	13.57	13.29	13.59	13.60	89.846	19.53	21.05	Pass
116	5580	13.31	12.98	13.66	13.71	88.014	19.45	21.05	Pass
140	5700	13.37	13.20	13.77	13.84	90.653	19.57	21.05	Pass
144	5720 For U-NII-2C	12.30	12.49	12.17	12.28	68.11	18.33	19.94	Pass
144	5720 For U-NII-3	6.88	6.91	7.37	7.47	20.827	13.19	27.18	Pass
149	5745	19.70	19.78	19.84	19.36	371.067	25.69	27.18	Pass
157	5785	20.03	19.02	19.88	19.30	362.881	25.60	27.18	Pass
165	5825	20.17	18.90	19.66	19.32	359.593	25.56	27.18	Pass

For U-NII-1 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.52dBi > 6dBi, so the power limit shall be reduced to 30-(8.52-6) = 27.48dBm.
For U-NII-2A & U-NII-2C Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.95dBi > 6dBi, so the power limit shall be reduced to 24-(8.95-6) = 21.05dBm.
For U-NII-2C Band (CH 144): Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.95dBi > 6dBi, so the power limit shall be reduced to 22.89-(8.95-6) = 19.94dBm.
For U-NII-3 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.82dBi > 6dBi, so the power limit shall be reduced to 30-(8.82-6) = 27.18dBm.

NOTE:

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

Chain 0

1. 11dBm + 10log(22.12) = 24.65 dBm > 24dBm.
2. 11dBm + 10log(21.83) = 24.96 dBm > 24dBm.
3. 11dBm + 10log(22.06) = 24.48 dBm > 24dBm.
4. 11dBm + 10log(23.07) = 24.83 dBm > 24dBm.
5. 11dBm + 10log(24.18) = 24.78 dBm > 24dBm.
6. 11dBm + 10log(23.55) = 24.65 dBm > 24dBm.
7. 11dBm + 10log(5725.00 -5707.93) =23.32 dBm<24dBm.

Chain 1

1. 11dBm + 10log(22.14) = 24.45 dBm > 24dBm.
2. 11dBm + 10log(21.82) = 24.39 dBm > 24dBm.
3. 11dBm + 10log(22.04) = 24.43 dBm > 24dBm.
4. 11dBm + 10log(23.04) = 24.62 dBm > 24dBm.
5. 11dBm + 10log(24.18) = 24.83 dBm > 24dBm.
6. 11dBm + 10log(23.5) = 24.71 dBm > 24dBm.
7. 11dBm + 10log(5725.00 -5707.95) =23.32 dBm<24dBm.

Chain 2

1. 11dBm + 10log(23.44) = 24.70 dBm > 24dBm.
2. 11dBm + 10log(22.92) = 24.60 dBm > 24dBm.
3. 11dBm + 10log(24.73) = 24.93 dBm > 24dBm.
4. 11dBm + 10log(21.45) = 24.31 dBm > 24dBm.
5. 11dBm + 10log(22.52) = 24.53 dBm > 24dBm.
6. 11dBm + 10log(23.47) = 24.71 dBm > 24dBm.
7. 11dBm + 10log(5725.00 -5709.52) =22.90dBm<24dBm.

Chain 3

1. 11dBm + 10log(23.35) = 24.68 dBm > 24dBm.
2. 11dBm + 10log(22.91) = 24.60 dBm > 24dBm.
3. 11dBm + 10log(24.75) = 24.94 dBm > 24dBm.
4. 11dBm + 10log(22.1) = 24.44 dBm > 24dBm.
5. 11dBm + 10log(22.5) = 24.52 dBm > 24dBm.
6. 11dBm + 10log(23.42) = 24.70 dBm > 24dBm.
7. 11dBm + 10log(5725.00 -5709.52) =22.90 dBm<24dBm.

For Reference only-Power meter value

The power value was measured by power meter with average sensor

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)
144	5720	88.937	144

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	Chain 2	Chain 3				
38	5190	15.25	14.94	15.22	14.95	129.212	21.11	27.48	Pass
46	5230	18.74	18.46	18.59	18.84	293.799	24.68	27.48	Pass
54	5270	14.39	13.87	13.38	13.09	94.005	19.73	21.05	Pass
62	5310	12.43	11.11	11.93	10.70	57.755	17.62	21.05	Pass
102	5510	12.44	11.38	11.89	11.13	59.704	17.76	21.05	Pass
110	5550	13.97	13.41	13.40	14.08	94.337	19.75	21.05	Pass
134	5670	13.82	13.39	13.45	13.99	93.118	19.69	21.05	Pass
142	5710 For U-NII-2C	13.88	13.68	13.39	13.37	91.323	19.61	21.05	Pass
142	5710 For U-NII-3	4.22	4.29	3.62	3.79	10.023	10.01	27.18	Pass
151	5755	20.69	19.21	19.84	20.06	398.362	26.00	27.18	Pass
159	5795	20.77	19.51	19.47	19.49	386.161	25.87	27.18	Pass

For U-NII-1 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.52dBi > 6dBi, so the power limit shall be reduced to 30-(8.52-6) = 27.48dBm.
For U-NII-2A & U-NII-2C Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.95dBi > 6dBi, so the power limit shall be reduced to 24-(8.95-6) = 21.05dBm.
For U-NII-3 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.82dBi > 6dBi, so the power limit shall be reduced to 30-(8.82-6) = 27.18dBm.

NOTE:

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

Chain 0

1. 11dBm + 10log(43.13) = 27.35 dBm > 24dBm.
2. 11dBm + 10log(43.84) = 27.42 dBm > 24dBm.
3. 11dBm + 10log(42.29) = 27.26 dBm > 24dBm.
4. 11dBm + 10log(44.07) = 27.44 dBm > 24dBm.
5. 11dBm + 10log(43.71) = 27.41 dBm > 24dBm.
6. 11dBm + 10log(5725.00 -5688.13) =26.67 dBm>24dBm.

Chain 1

1. 11dBm + 10log(44.35) = 27.47 dBm > 24dBm.
2. 11dBm + 10log(42.95) = 27.33 dBm > 24dBm.
3. 11dBm + 10log(42.29) = 27.26 dBm > 24dBm.
4. 11dBm + 10log(43.04) = 27.34 dBm > 24dBm.
5. 11dBm + 10log(44.06) = 27.44 dBm > 24dBm.
6. 11dBm + 10log(5725.00 -5688.16) =26.66 dBm>24dBm.

Chain 2

1. 11dBm + 10log(40.38) = 27.06 dBm > 24dBm.
2. 11dBm + 10log(42.2) = 27.25 dBm > 24dBm.
3. 11dBm + 10log(44.18) = 27.45 dBm > 24dBm.
4. 11dBm + 10log(43.74) = 27.41 dBm > 24dBm.
5. 11dBm + 10log(46.11) = 27.64 dBm > 24dBm.
6. 11dBm + 10log(5725.00 -5688.57) =26.61 dBm>24dBm.

Chain 3

1. 11dBm + 10log(41.96) = 27.23 dBm > 24dBm.
2. 11dBm + 10log(41.19) = 27.15 dBm > 24dBm.
3. 11dBm + 10log(44.14) = 27.45 dBm > 24dBm.
4. 11dBm + 10log(43) = 27.33 dBm > 24dBm.
5. 11dBm + 10log(42.25) = 27.26 dBm > 24dBm.
6. 11dBm + 10log(5725.00 -5688.58) =26.61 dBm>24dBm.

For Reference only-Power meter value

The power value was measured by power meter with average sensor

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)
142	5710	101.346	20.06

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	Chain 2	Chain 3				
36	5180	16.27	16.21	16.31	16.41	170.656	22.32	27.48	Pass
40	5200	20.24	19.98	20.47	20.53	429.631	26.33	27.48	Pass
48	5240	21.04	19.14	20.87	20.02	431.734	26.35	27.48	Pass
52	5260	14.30	14.25	13.94	13.81	102.34	20.10	21.05	Pass
60	5300	14.01	14.67	13.53	14.01	102.205	20.09	21.05	Pass
64	5320	14.32	14.38	13.93	13.31	100.601	20.03	21.05	Pass
100	5500	13.93	13.63	14.04	14.06	98.604	19.94	21.05	Pass
116	5580	13.72	13.48	14.07	14.05	96.772	19.86	21.05	Pass
140	5700	13.83	13.63	14.22	14.24	100.192	20.01	21.05	Pass
144	5720 For U-NII-2C	12.80	12.90	12.66	12.60	75.2	18.76	19.94	Pass
144	5720 For U-NII-3	7.29	7.34	7.79	7.93	22.998	13.62	27.18	Pass
149	5745	20.07	20.12	20.28	19.84	407.469	26.10	27.18	Pass
157	5785	20.51	19.52	20.25	19.72	401.679	26.04	27.18	Pass
165	5825	20.61	19.37	20.07	19.79	398.481	26.00	27.18	Pass

For U-NII-1 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.52dBi > 6dBi, so the power limit shall be reduced to 30-(8.52-6) = 27.48dBm.
For U-NII-2A & U-NII-2C Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.95dBi > 6dBi, so the power limit shall be reduced to 24-(8.95-6) = 21.05dBm.
For U-NII-2C Band (CH 144): Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.95dBi > 6dBi, so the power limit shall be reduced to 22.89-(8.95-6) = 19.94dBm.
For U-NII-3 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.82dBi > 6dBi, so the power limit shall be reduced to 30-(8.82-6) = 27.18dBm.

NOTE:

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

Chain 0

1. 11dBm + 10log(22.12) = 24.65 dBm > 24dBm.
2. 11dBm + 10log(21.83) = 24.96 dBm > 24dBm.
3. 11dBm + 10log(22.06) = 24.48 dBm > 24dBm.
4. 11dBm + 10log(23.07) = 24.83 dBm > 24dBm.
5. 11dBm + 10log(24.18) = 24.78 dBm > 24dBm.
6. 11dBm + 10log(23.55) = 24.65 dBm > 24dBm.
7. 11dBm + 10log(5725.00 -5707.93) =23.32 dBm<24dBm.

Chain 1

1. 11dBm + 10log(22.14) = 24.45 dBm > 24dBm.
2. 11dBm + 10log(21.82) = 24.39 dBm > 24dBm.
3. 11dBm + 10log(22.04) = 24.43 dBm > 24dBm.
4. 11dBm + 10log(23.04) = 24.62 dBm > 24dBm.
5. 11dBm + 10log(24.18) = 24.83 dBm > 24dBm.
6. 11dBm + 10log(23.5) = 24.71 dBm > 24dBm.
7. 11dBm + 10log(5725.00 -5707.95) =23.32 dBm<24dBm.

Chain 2

1. 11dBm + 10log(23.44) = 24.70 dBm > 24dBm.
2. 11dBm + 10log(22.92) = 24.60 dBm > 24dBm.
3. 11dBm + 10log(24.73) = 24.93 dBm > 24dBm.
4. 11dBm + 10log(21.45) = 24.31 dBm > 24dBm.
5. 11dBm + 10log(22.52) = 24.53 dBm > 24dBm.
6. 11dBm + 10log(23.47) = 24.71 dBm > 24dBm.
7. 11dBm + 10log(5725.00 -5709.52) =22.90dBm<24dBm.

Chain 3

1. 11dBm + 10log(23.35) = 24.68 dBm > 24dBm.
2. 11dBm + 10log(22.91) = 24.60 dBm > 24dBm.
3. 11dBm + 10log(24.75) = 24.94 dBm > 24dBm.
4. 11dBm + 10log(22.1) = 24.44 dBm > 24dBm.
5. 11dBm + 10log(22.5) = 24.52 dBm > 24dBm.
6. 11dBm + 10log(23.42) = 24.70 dBm > 24dBm.
7. 11dBm + 10log(5725.00 -5709.52) =22.90 dBm<24dBm.

For Reference only-Power meter value

The power value was measured by power meter with average sensor

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)
144	5720	98.198	19.92

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	Chain 2	Chain 3				
38	5190	15.74	15.24	15.58	15.41	141.811	21.52	27.48	Pass
46	5230	19.14	18.79	18.98	19.22	320.347	25.06	27.48	Pass
54	5270	14.84	14.36	13.86	13.51	104.53	20.19	21.05	Pass
62	5310	12.79	11.56	12.39	11.10	63.553	18.03	21.05	Pass
102	5510	12.84	11.70	12.32	11.51	65.241	18.15	21.05	Pass
110	5550	14.42	13.73	13.79	14.45	103.069	20.13	21.05	Pass
134	5670	14.12	13.71	13.77	14.33	100.244	20.01	21.05	Pass
142	5710 For U-NII-2C	14.36	14.07	13.77	13.78	100.518	20.02	21.05	Pass
142	5710 For U-NII-3	4.60	4.76	4.10	4.22	11.089	10.45	27.18	Pass
151	5755	21.09	19.57	20.28	20.43	436.169	26.40	27.18	Pass
159	5795	21.26	19.90	19.90	19.91	427.056	26.30	27.18	Pass

For U-NII-1 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.52dBi > 6dBi, so the power limit shall be reduced to 30-(8.52-6) = 27.48dBm.
For U-NII-2A & U-NII-2C Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.95dBi > 6dBi, so the power limit shall be reduced to 24-(8.95-6) = 21.05dBm.
For U-NII-3 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.82dBi > 6dBi, so the power limit shall be reduced to 30-(8.82-6) = 27.18dBm.

NOTE:

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

Chain 0

1. 11dBm + 10log(43.13) = 27.35 dBm > 24dBm.
2. 11dBm + 10log(43.84) = 27.42 dBm > 24dBm.
3. 11dBm + 10log(42.29) = 27.26 dBm > 24dBm.
4. 11dBm + 10log(44.07) = 27.44 dBm > 24dBm.
5. 11dBm + 10log(43.71) = 27.41 dBm > 24dBm.
6. 11dBm + 10log(5725.00 -5688.13) =26.67 dBm>24dBm.

Chain 1

1. 11dBm + 10log(44.35) = 27.47 dBm > 24dBm.
2. 11dBm + 10log(42.95) = 27.33 dBm > 24dBm.
3. 11dBm + 10log(42.29) = 27.26 dBm > 24dBm.
4. 11dBm + 10log(43.04) = 27.34 dBm > 24dBm.
5. 11dBm + 10log(44.06) = 27.44 dBm > 24dBm.
6. 11dBm + 10log(5725.00 -5688.16) =26.66 dBm>24dBm.

Chain 2

1. 11dBm + 10log(40.38) = 27.06 dBm > 24dBm.
2. 11dBm + 10log(42.2) = 27.25 dBm > 24dBm.
3. 11dBm + 10log(44.18) = 27.45 dBm > 24dBm.
4. 11dBm + 10log(43.74) = 27.41 dBm > 24dBm.
5. 11dBm + 10log(46.11) = 27.64 dBm > 24dBm.
6. 11dBm + 10log(5725.00 -5688.57) =26.61 dBm>24dBm.

Chain 3

1. 11dBm + 10log(41.96) = 27.23 dBm > 24dBm.
2. 11dBm + 10log(41.19) = 27.15 dBm > 24dBm.
3. 11dBm + 10log(44.14) = 27.45 dBm > 24dBm.
4. 11dBm + 10log(43) = 27.33 dBm > 24dBm.
5. 11dBm + 10log(42.25) = 27.26 dBm > 24dBm.
6. 11dBm + 10log(5725.00 -5688.58) =26.61 dBm>24dBm.

For Reference only-Power meter value

The power value was measured by power meter with average sensor

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)
142	5710	111.607	20.48

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	Chain 2	Chain 3				
42	5210	12.57	11.43	10.42	10.68	54.682	17.38	27.48	Pass
58	5290	12.32	10.84	10.51	10.65	52.055	17.16	21.05	Pass
106	5530	12.86	14.86	14.25	14.26	103.215	20.14	21.05	Pass
122	5610	13.68	14.07	13.90	13.66	96.636	19.85	21.05	Pass
138	5690 For U-NII-2C	14.04	14.02	13.94	13.88	99.795	19.99	21.05	Pass
138	5690 For U-NII-3	0.74	1.02	0.55	0.54	4.718	6.74	27.18	Pass
155	5775	17.97	17.68	18.29	18.18	254.494	24.06	27.18	Pass

For U-NII-1 Band: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/4]=8.52dBi > 6dBi, so the power limit shall be reduced to 30-(8.52-6) = 27.48dBm.
For U-NII-2A & U-NII-2C Band: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/4]=8.95dBi > 6dBi, so the power limit shall be reduced to 24-(8.95-6) = 21.05dBm.
For U-NII-3 Band: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/4]=8.82dBi > 6dBi, so the power limit shall be reduced to 30-(8.82-6) = 27.18dBm.

NOTE:

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

Chain 0

1. 11dBm + 10log(83.11) = 30.20 dBm > 24dBm.
2. 11dBm + 10log(84.01) = 30.24 dBm > 24dBm.
3. 11dBm + 10log(81.72) = 30.12 dBm > 24dBm.
4. 11dBm + 10log(5725.00 -5648.34) =29.85 dBm>24dBm.

Chain 1

1. 11dBm + 10log(83.71) = 30.23 dBm > 24dBm.
2. 11dBm + 10log(84.39) = 30.26 dBm > 24dBm.
3. 11dBm + 10log(82.48) = 30.16 dBm > 24dBm.
4. 11dBm + 10log(5725.00 -5648.30) =29.85 dBm>24dBm.

Chain 2

1. 11dBm + 10log(83.02) = 30.19 dBm > 24dBm.
2. 11dBm + 10log(82.24) = 30.15 dBm > 24dBm.
3. 11dBm + 10log(82.51) = 30.17 dBm > 24dBm.
4. 11dBm + 10log(5725.00 -5647.86) =29.87 dBm>24dBm.

Chain 3

1. 11dBm + 10log(83.27) = 30.20 dBm > 24dBm.
2. 11dBm + 10log(83.44) = 30.21 dBm > 24dBm.
3. 11dBm + 10log(81.77) = 30.13 dBm > 24dBm.
4. 11dBm + 10log(5725.00 -5647.82) =29.88 dBm>24dBm.

For Reference only-Power meter value
The power value was measured by power meter with average sensor

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)
138	5690	104.513	20.19

802.11ac (VHT160)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
50	5250 For U-NII-1	7.25	6.95	6.93	6.97	20.172	13.05	27.48	Pass
50	5250 For U-NII-2A	6.80	6.73	6.86	6.75	19.08	12.81	21.05	Pass
114	5570	9.90	9.85	10.03	10.23	40.046	16.03	21.05	Pass

For U-NII-1 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.52dBi > 6dBi, so the power limit shall be reduced to 30-(8.52-6) = 27.48dBm.
For U-NII-2A & U-NII-2C Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.95dBi > 6dBi, so the power limit shall be reduced to 24-(8.95-6) = 21.05dBm.

NOTE:

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

Chain 0

1. 11dBm + 10log(85.39) = 30.31 dBm > 24dBm.
2. 11dBm + 10log(84.56) = 30.27 dBm > 24dBm.

Chain 1

1. 11dBm + 10log(84.85) = 30.29 dBm > 24dBm.
2. 11dBm + 10log(84.33) = 30.26 dBm > 24dBm.

Chain 2

1. 11dBm + 10log(84.5) = 30.27 dBm > 24dBm.
2. 11dBm + 10log(84.67) = 30.28 dBm > 24dBm.

Chain 3

1. 11dBm + 10log(84.87) = 30.29 dBm > 24dBm.
2. 11dBm + 10log(84.42) = 30.26 dBm > 24dBm.

For Reference only-Power meter value
The power value was measured by power meter with average sensor

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)
50	5250	39.252	15.94

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	Chain 2	Chain 3				
36	5180	17.22	17.01	17.25	17.28	209.502	23.21	27.48	Pass
40	5200	21.08	20.84	21.30	21.26	518.128	27.14	27.48	Pass
48	5240	21.77	20.95	21.65	20.82	**541.765**	27.34	27.48	Pass
52	5260	15.22	15.06	14.73	14.62	124.019	20.93	21.05	Pass
60	5300	14.80	15.54	14.37	14.80	123.561	20.92	21.05	Pass
64	5320	15.05	15.15	14.69	14.25	120.774	20.82	21.05	Pass
100	5500	14.67	14.49	14.93	14.87	119.235	20.76	21.05	Pass
116	5580	14.50	14.28	14.87	14.77	115.657	20.63	21.05	Pass
140	5700	14.76	14.51	15.07	14.99	**121.858**	20.86	21.05	Pass
144	5720 For U-NII-2C	13.65	13.71	13.55	13.52	91.807	19.63	19.94	Pass
144	5720 For U-NII-3	8.19	8.20	8.64	8.63	27.805	14.44	27.18	Pass
149	5745	21.00	20.84	21.12	20.66	493.064	26.93	27.18	Pass
157	5785	21.30	20.25	20.98	20.62	481.481	26.83	27.18	Pass
165	5825	21.43	20.21	20.93	20.57	481.854	26.83	27.18	Pass

For U-NII-1 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.52dBi > 6dBi, so the power limit shall be reduced to 30-(8.52-6) = 27.48dBm.
For U-NII-2A & U-NII-2C Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.95dBi > 6dBi, so the power limit shall be reduced to 24-(8.95-6) = 21.05dBm.
For U-NII-2C Band (CH 144): Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.95dBi > 6dBi, so the power limit shall be reduced to 22.89-(8.95-6) = 19.94dBm.
For U-NII-3 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.82dBi > 6dBi, so the power limit shall be reduced to 30-(8.82-6) = 27.18dBm.

NOTE:

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

Chain 0

1. 11dBm + 10log(22.12) = 24.65 dBm > 24dBm.
2. 11dBm + 10log(21.83) = 24.96 dBm > 24dBm.
3. 11dBm + 10log(22.06) = 24.48 dBm > 24dBm.
4. 11dBm + 10log(23.07) = 24.83 dBm > 24dBm.
5. 11dBm + 10log(24.18) = 24.78 dBm > 24dBm.
6. 11dBm + 10log(23.55) = 24.65 dBm > 24dBm.
7. 11dBm + 10log(5725.00 -5707.93) =23.32 dBm<24dBm.

Chain 1

1. 11dBm + 10log(22.14) = 24.45 dBm > 24dBm.
2. 11dBm + 10log(21.82) = 24.39 dBm > 24dBm.
3. 11dBm + 10log(22.04) = 24.43 dBm > 24dBm.
4. 11dBm + 10log(23.04) = 24.62 dBm > 24dBm.
5. 11dBm + 10log(24.18) = 24.83 dBm > 24dBm.
6. 11dBm + 10log(23.5) = 24.71 dBm > 24dBm.
7. 11dBm + 10log(5725.00 -5707.95) =23.32 dBm<24dBm.

Chain 2

1. 11dBm + 10log(23.44) = 24.70 dBm > 24dBm.
2. 11dBm + 10log(22.92) = 24.60 dBm > 24dBm.
3. 11dBm + 10log(24.73) = 24.93 dBm > 24dBm.
4. 11dBm + 10log(21.45) = 24.31 dBm > 24dBm.
5. 11dBm + 10log(22.52) = 24.53 dBm > 24dBm.
6. 11dBm + 10log(23.47) = 24.71 dBm > 24dBm.
7. 11dBm + 10log(5725.00 -5709.52) =22.90dBm<24dBm.

Chain 3

1. 11dBm + 10log(23.35) = 24.68 dBm > 24dBm.
2. 11dBm + 10log(22.91) = 24.60 dBm > 24dBm.
3. 11dBm + 10log(24.75) = 24.94 dBm > 24dBm.
4. 11dBm + 10log(22.1) = 24.44 dBm > 24dBm.
5. 11dBm + 10log(22.5) = 24.52 dBm > 24dBm.
6. 11dBm + 10log(23.42) = 24.70 dBm > 24dBm.
7. 11dBm + 10log(5725.00 -5709.52) =22.90 dBm<24dBm.

For Reference only-Power meter value

The power value was measured by power meter with average sensor

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)
144	5720	119.612	20.78

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	Chain 2	Chain 3				
38	5190	16.52	16.18	16.32	16.28	171.687	22.35	27.48	Pass
46	5230	19.98	19.65	19.71	19.95	384.194	25.85	27.48	Pass
54	5270	15.55	15.05	14.62	14.35	**124.082**	20.94	21.05	Pass
62	5310	13.82	12.71	13.08	11.98	78.863	18.97	21.05	Pass
102	5510	13.79	12.55	13.05	12.14	78.474	18.95	21.05	Pass
110	5550	15.17	14.38	14.43	15.20	121.147	20.83	21.05	Pass
134	5670	14.99	14.34	14.68	15.15	120.825	20.82	21.05	Pass
142	5710 For U-NII-2C	15.00	14.94	14.58	14.58	120.227	20.80	21.05	Pass
142	5710 For U-NII-3	5.39	5.38	4.87	4.88	13.056	11.16	27.18	Pass
151	5755	21.90	20.48	20.90	21.07	**517.533**	27.14	27.18	Pass
159	5795	22.00	20.72	20.62	20.85	513.485	27.11	27.18	Pass

For U-NII-1 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.52dBi > 6dBi, so the power limit shall be reduced to 30-(8.52-6) = 27.48dBm.
For U-NII-2A & U-NII-2C Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.95dBi > 6dBi, so the power limit shall be reduced to 24-(8.95-6) = 21.05dBm.
For U-NII-3 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.82dBi > 6dBi, so the power limit shall be reduced to 30-(8.82-6) = 27.18dBm.

NOTE:

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

Chain 0

1. 11dBm + 10log(43.13) = 27.35 dBm > 24dBm.
2. 11dBm + 10log(43.84) = 27.42 dBm > 24dBm.
3. 11dBm + 10log(42.29) = 27.26 dBm > 24dBm.
4. 11dBm + 10log(44.07) = 27.44 dBm > 24dBm.
5. 11dBm + 10log(43.71) = 27.41 dBm > 24dBm.
6. 11dBm + 10log(5725.00 -5688.13) =26.67 dBm>24dBm.

Chain 1

1. 11dBm + 10log(44.35) = 27.47 dBm > 24dBm.
2. 11dBm + 10log(42.95) = 27.33 dBm > 24dBm.
3. 11dBm + 10log(42.29) = 27.26 dBm > 24dBm.
4. 11dBm + 10log(43.04) = 27.34 dBm > 24dBm.
5. 11dBm + 10log(44.06) = 27.44 dBm > 24dBm.
6. 11dBm + 10log(5725.00 -5688.16) =26.66 dBm>24dBm.

Chain 2

1. 11dBm + 10log(40.38) = 27.06 dBm > 24dBm.
2. 11dBm + 10log(42.2) = 27.25 dBm > 24dBm.
3. 11dBm + 10log(44.18) = 27.45 dBm > 24dBm.
4. 11dBm + 10log(43.74) = 27.41 dBm > 24dBm.
5. 11dBm + 10log(46.11) = 27.64 dBm > 24dBm.
6. 11dBm + 10log(5725.00 -5688.57) =26.61 dBm>24dBm.

Chain 3

1. 11dBm + 10log(41.96) = 27.23 dBm > 24dBm.
2. 11dBm + 10log(41.19) = 27.15 dBm > 24dBm.
3. 11dBm + 10log(44.14) = 27.45 dBm > 24dBm.
4. 11dBm + 10log(43) = 27.33 dBm > 24dBm.
5. 11dBm + 10log(42.25) = 27.26 dBm > 24dBm.
6. 11dBm + 10log(5725.00 -5688.58) =26.61 dBm>24dBm.

For Reference only-Power meter value

The power value was measured by power meter with average sensor

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)
142	5710	133.283	21.25

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	Chain 2	Chain 3				
42	5210	13.35	12.12	11.52	11.42	65.978	18.19	27.48	Pass
58	5290	13.29	11.99	11.45	11.38	64.847	18.12	21.05	Pass
106	5530	13.61	15.52	14.99	14.95	121.417	20.84	21.05	Pass
122	5610	14.37	14.89	14.70	14.39	115.176	20.61	21.05	Pass
138	5690 For U-NII-2C	14.72	14.80	14.84	14.78	120.388	20.81	21.05	Pass
138	5690 For U-NII-3	1.53	1.76	1.18	1.23	5.562	7.45	27.18	Pass
155	5775	18.73	18.46	19.14	18.90	304.45	24.84	27.18	Pass

For U-NII-1 Band: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/4]=8.52dBi > 6dBi, so the power limit shall be reduced to 30-(8.52-6) = 27.48dBm.
For U-NII-2A & U-NII-2C Band: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/4]=8.95dBi > 6dBi, so the power limit shall be reduced to 24-(8.95-6) = 21.05dBm.
For U-NII-3 Band: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/4]=8.82dBi > 6dBi, so the power limit shall be reduced to 30-(8.82-6) = 27.18dBm.

NOTE:

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

Chain 0

1. 11dBm + 10log(83.11) = 30.20 dBm > 24dBm.
2. 11dBm + 10log(84.01) = 30.24 dBm > 24dBm.
3. 11dBm + 10log(81.72) = 30.12 dBm > 24dBm.
4. 11dBm + 10log(5725.00 -5648.34) =29.85 dBm>24dBm.

Chain 1

1. 11dBm + 10log(83.71) = 30.23 dBm > 24dBm.
2. 11dBm + 10log(84.39) = 30.26 dBm > 24dBm.
3. 11dBm + 10log(82.48) = 30.16 dBm > 24dBm.
4. 11dBm + 10log(5725.00 -5648.30) =29.85 dBm>24dBm.

Chain 2

1. 11dBm + 10log(83.02) = 30.19 dBm > 24dBm.
2. 11dBm + 10log(82.24) = 30.15 dBm > 24dBm.
3. 11dBm + 10log(82.51) = 30.17 dBm > 24dBm.
4. 11dBm + 10log(5725.00 -5647.86) =29.87 dBm>24dBm.

Chain 3

1. 11dBm + 10log(83.27) = 30.20 dBm > 24dBm.
2. 11dBm + 10log(83.44) = 30.21 dBm > 24dBm.
3. 11dBm + 10log(81.77) = 30.13 dBm > 24dBm.
4. 11dBm + 10log(5725.00 -5647.82) =29.88 dBm>24dBm.

For Reference only-Power meter value
The power value was measured by power meter with average sensor

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)
138	5690	125.95	21.00

802.11ax (HE160)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
50	5250 For U-NII-1	8.10	8.07	8.08	8.12	25.782	14.11	27.48	Pass
50	5250 For U-NII-2A	7.86	7.92	7.84	7.91	24.565	13.90	21.05	Pass
114	5570	10.85	10.58	10.54	10.79	46.91	16.71	21.05	Pass

For U-NII-1 Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.52dBi > 6dBi, so the power limit shall be reduced to 30-(8.52-6) = 27.48dBm.
For U-NII-2A & U-NII-2C Band: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.95dBi > 6dBi, so the power limit shall be reduced to 24-(8.95-6) = 21.05dBm.

NOTE:

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

Chain 0

1. 11dBm + 10log(85.39) = 30.31 dBm > 24dBm.
2. 11dBm + 10log(84.56) = 30.27 dBm > 24dBm.

Chain 1

1. 11dBm + 10log(84.85) = 30.29 dBm > 24dBm.
2. 11dBm + 10log(84.33) = 30.26 dBm > 24dBm.

Chain 2

1. 11dBm + 10log(84.5) = 30.27 dBm > 24dBm.
2. 11dBm + 10log(84.67) = 30.28 dBm > 24dBm.

Chain 3

1. 11dBm + 10log(84.87) = 30.29 dBm > 24dBm.
2. 11dBm + 10log(84.42) = 30.26 dBm > 24dBm.

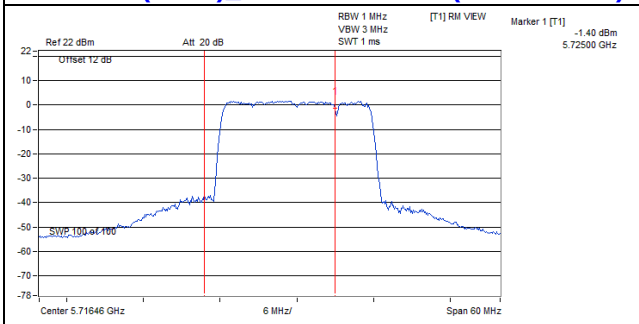
For Reference only-Power meter value

The power value was measured by power meter with average sensor

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)
50	5250	50.347	17.02

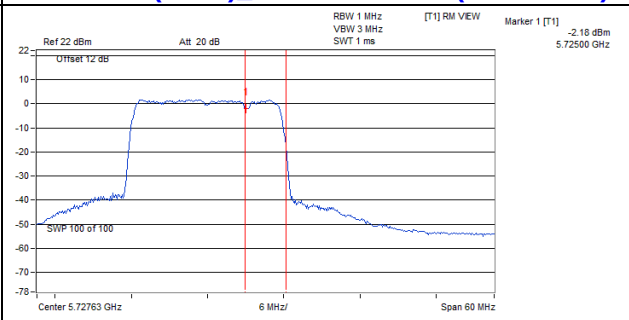
Spectrum Plot of Straddle channel

802.11ax (HE20)_Chain 0: CH 144 (For U-NII-2C)



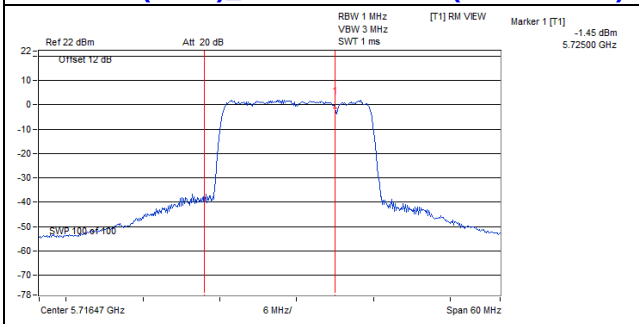
TX Channel Bandwidth 17.07 MHz Power 13.65 dBm

802.11ax (HE20)_Chain 0: CH 144(For U-NII-3)



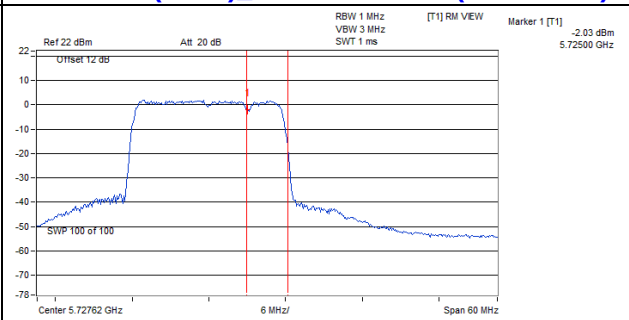
TX Channel Bandwidth 5.26 MHz Power 8.19 dBm

802.11ax (HE20)_Chain 1: CH 144 (For U-NII-2C)



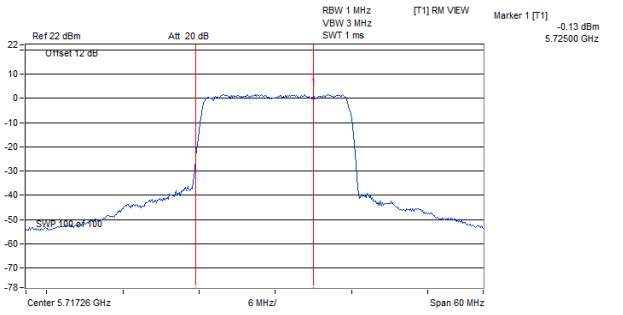
TX Channel Bandwidth 17.05 MHz Power 13.71 dBm

802.11ax (HE20)_Chain 1: CH 144(For U-NII-3)



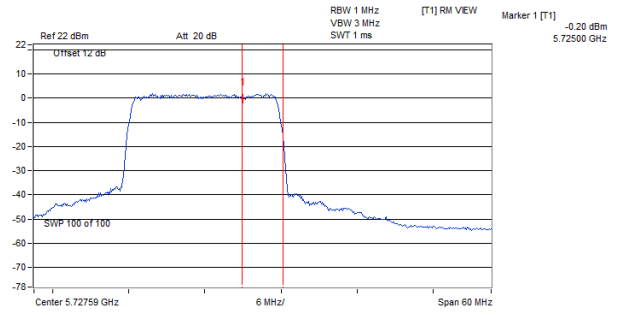
TX Channel Bandwidth 5.25 MHz Power 8.2 dBm

802.11ax (HE20)_Chain 2: CH 144 (For U-NII-2C)



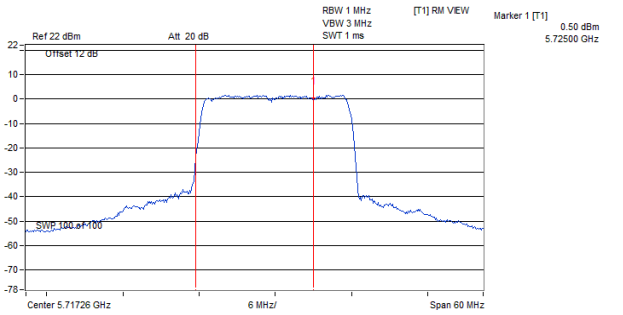
TX Channel Bandwidth 15.48 MHz Power 13.55 dBm

802.11ax (HE20)_Chain 2: CH 144(For U-NII-3)



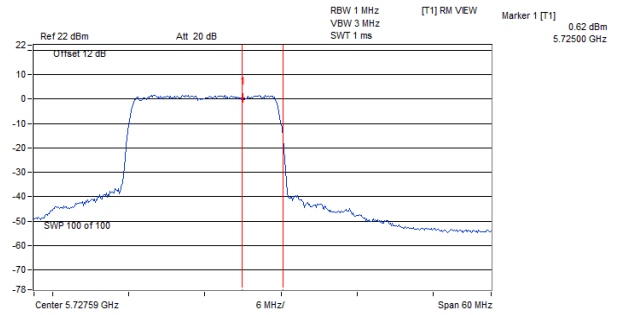
TX Channel Bandwidth 5.18 MHz Power 8.64 dBm

802.11ax (HE20)_Chain 3: CH 144 (For U-NII-2C)



TX Channel Bandwidth 15.48 MHz Power 13.52 dBm

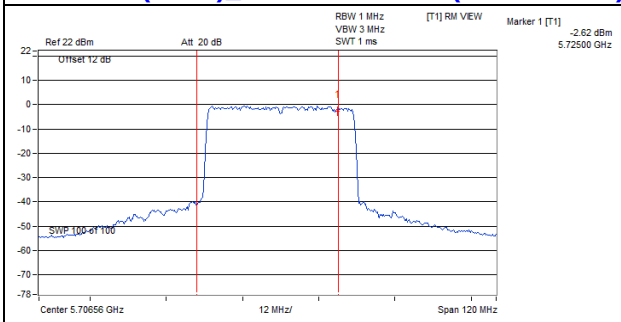
802.11ax (HE20)_Chain 3: CH 144(For U-NII-3)



TX Channel Bandwidth 5.18 MHz Power 8.63 dBm

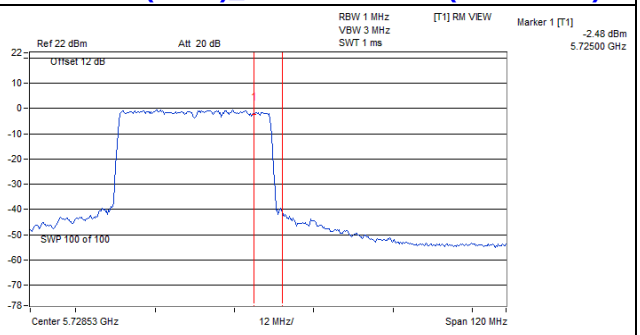
Spectrum Plot of Straddle channel

802.11ax (HE40)_Chain 0: CH 142 (For U-NII-2C)



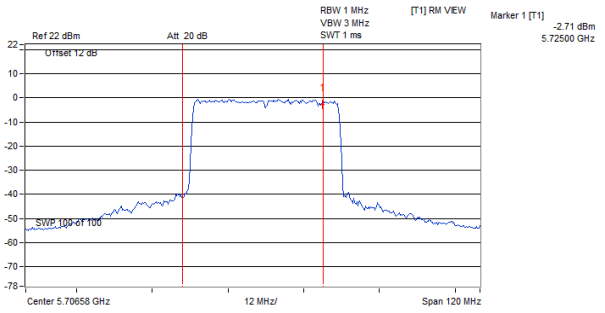
TX Channel Bandwidth 36.87 MHz Power 15 dBm

802.11ax (HE40)_Chain 0: CH 142(For U-NII-3)



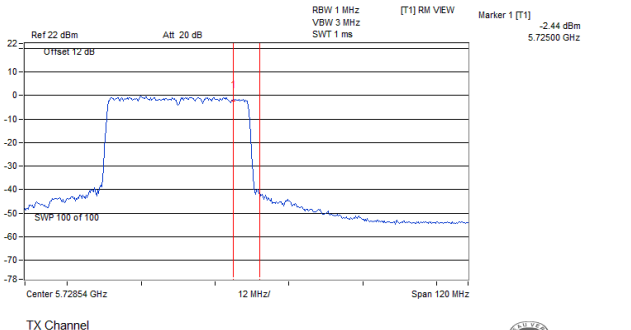
TX Channel Bandwidth 7.07 MHz Power 5.39 dBm

802.11ax (HE40)_Chain 1: CH 142 (For U-NII-2C)



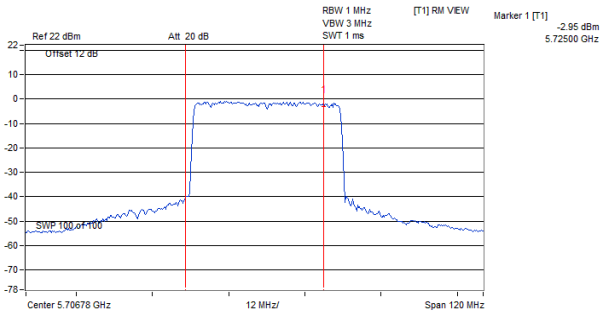
TX Channel Bandwidth 36.84 MHz Power 14.94 dBm

802.11ax (HE40)_Chain 1: CH 142(For U-NII-3)



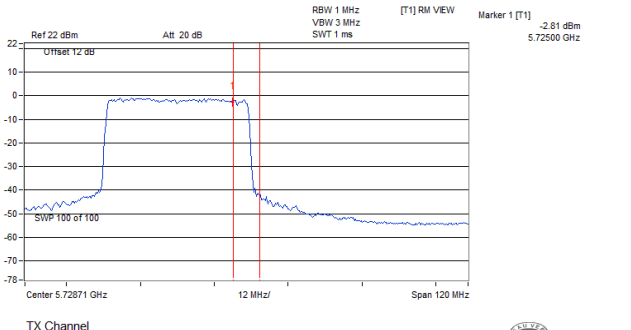
TX Channel Bandwidth 7.08 MHz Power 5.38 dBm

802.11ax (HE40)_Chain 2: CH 142 (For U-NII-2C)



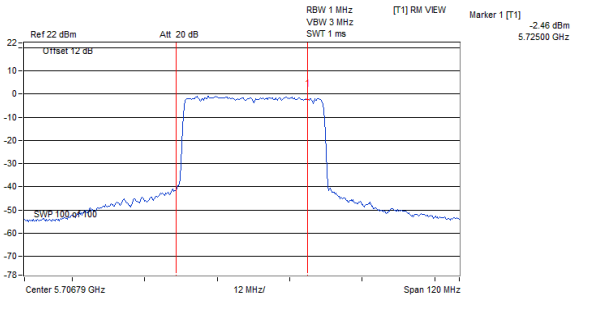
TX Channel Bandwidth 36.43 MHz Power 14.58 dBm

802.11ax (HE40)_Chain 2: CH 142(For U-NII-3)



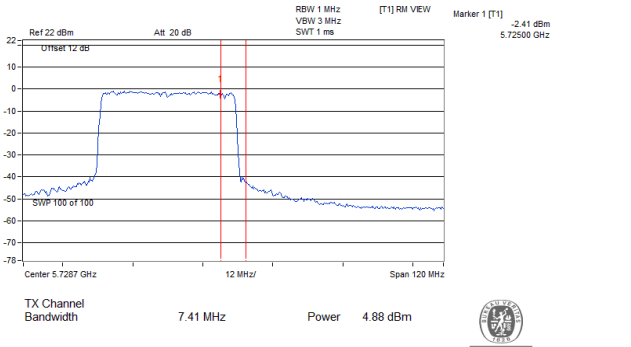
TX Channel Bandwidth 7.42 MHz Power 4.87 dBm

802.11ax (HE40)_Chain 3: CH 142 (For U-NII-2C)



TX Channel Bandwidth 36.42 MHz Power 14.58 dBm

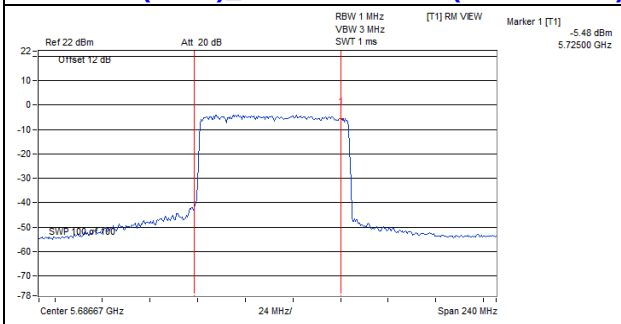
802.11ax (HE40)_Chain 3: CH 142(For U-NII-3)



TX Channel Bandwidth 7.41 MHz Power 4.88 dBm

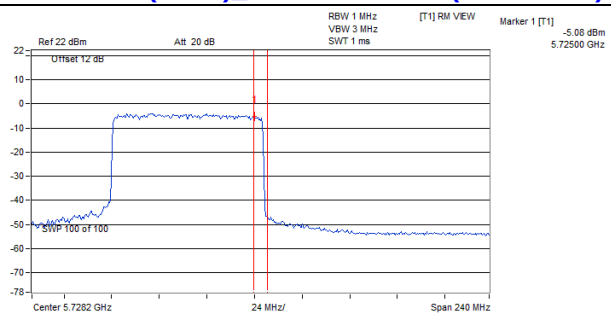
Spectrum Plot of Straddle channel

802.11ax (HE80)_Chain 0: CH 138 (For U-NII-2C)



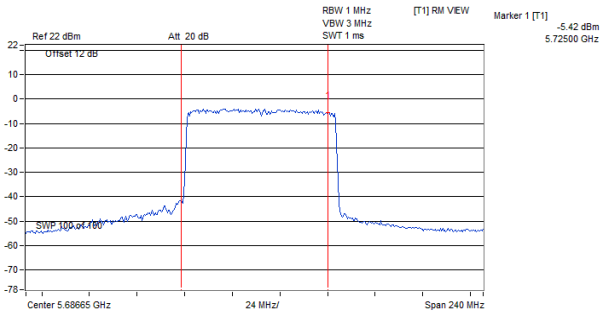
TX Channel Bandwidth 76.66 MHz Power 14.72 dBm

802.11ax (HE80)_Chain 0: CH 138(For U-NII-3)



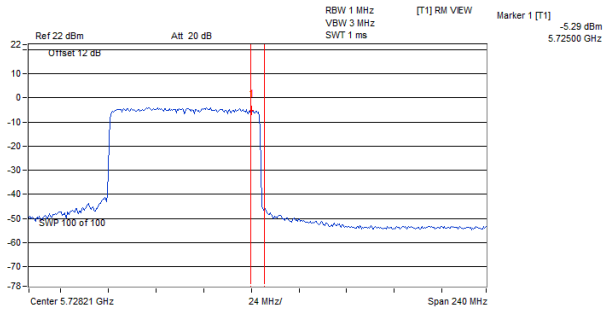
TX Channel Bandwidth 6.41 MHz Power 1.53 dBm

802.11ax (HE80)_Chain 1: CH 138 (For U-NII-2C)



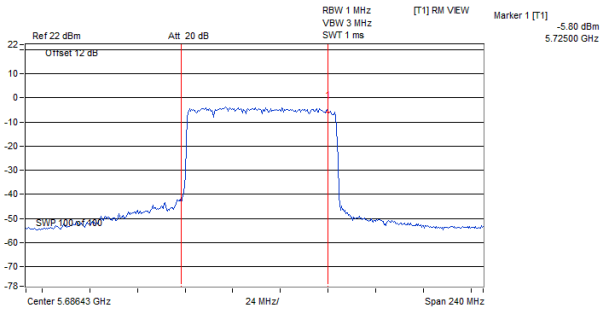
TX Channel Bandwidth 76.7 MHz Power 14.8 dBm

802.11ax (HE80)_Chain 1: CH 138(For U-NII-3)



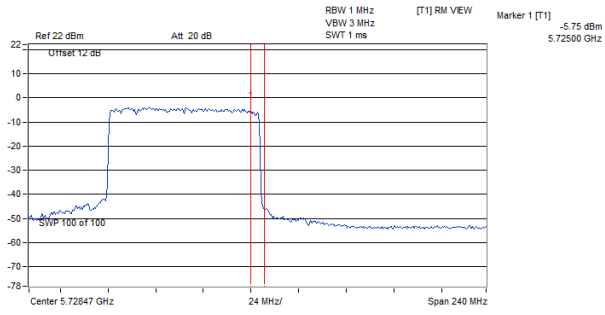
TX Channel Bandwidth 6.42 MHz Power 1.76 dBm

802.11ax (HE80)_Chain 2: CH 138 (For U-NII-2C)



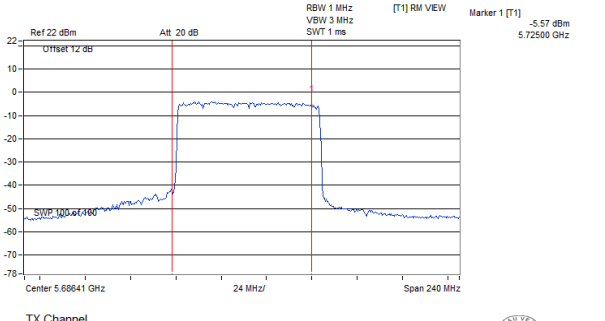
TX Channel Bandwidth 77.14 MHz Power 14.84 dBm

802.11ax (HE80)_Chain 2: CH 138(For U-NII-3)



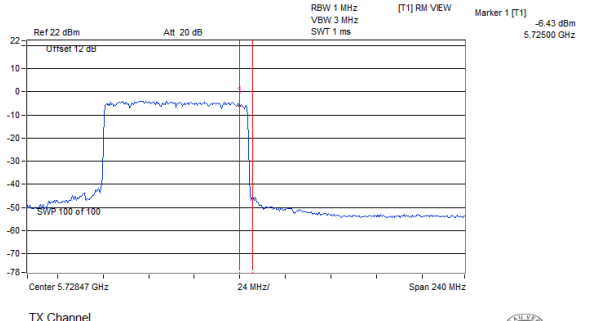
TX Channel Bandwidth 6.94 MHz Power 1.18 dBm

802.11ax (HE80)_Chain 3: CH 138 (For U-NII-2C)



TX Channel Bandwidth 77.18 MHz Power 14.78 dBm

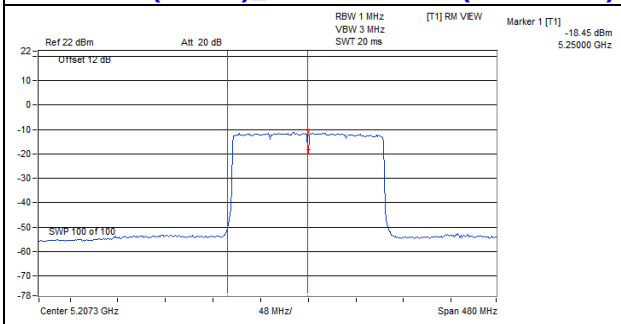
802.11ax (HE80)_Chain 3: CH 138(For U-NII-3)



TX Channel Bandwidth 6.95 MHz Power 1.23 dBm

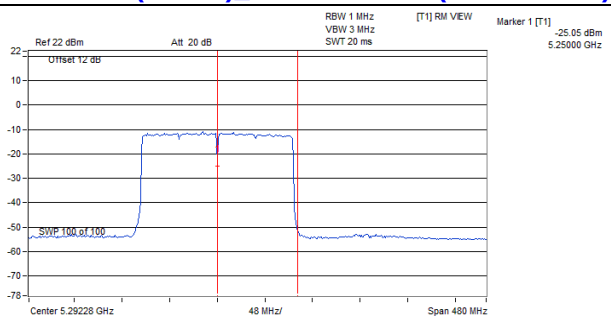
Spectrum Plot of Straddle channel

802.11ax (HE160)_Chain 0: CH 50 (For U-NII-1)



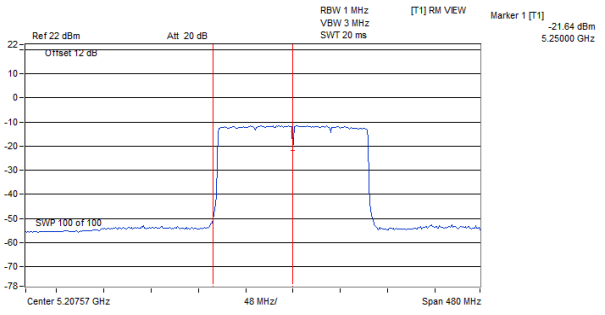
TX Channel Bandwidth 85.39 MHz Power 8.1 dBm

802.11ax (HE160)_Chain 0: CH 50(For U-NII-2A)



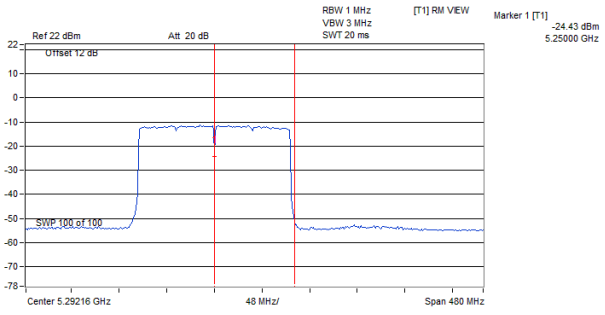
TX Channel Bandwidth 84.56 MHz Power 7.86 dBm

802.11ax (HE160)_Chain 1: CH 50 (For U-NII-1)



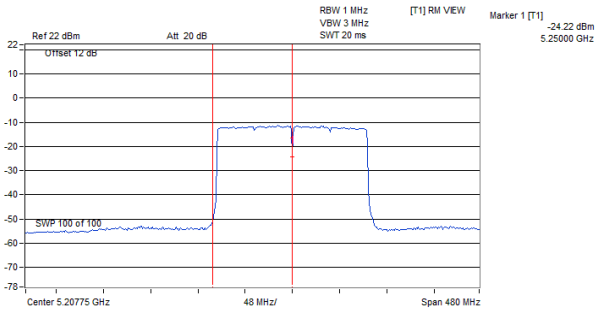
TX Channel Bandwidth 84.85 MHz Power 8.07 dBm

802.11ax (HE160)_Chain 1: CH 50(For U-NII-2A)



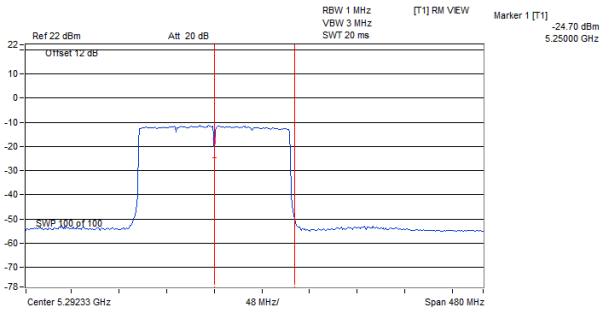
TX Channel Bandwidth 84.33 MHz Power 7.92 dBm

802.11ax (HE160)_Chain 2: CH 50 (For U-NII-1)



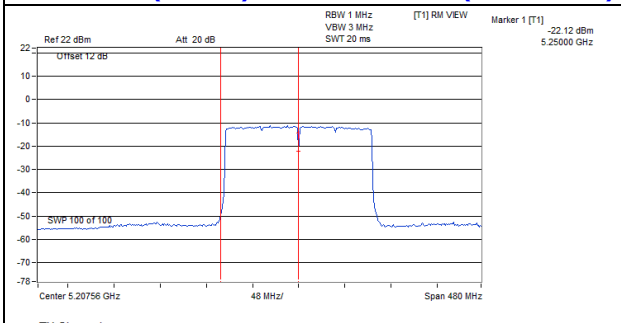
TX Channel Bandwidth 84.5 MHz Power 8.08 dBm

802.11ax (HE160)_Chain 2: CH 50(For U-NII-2A)



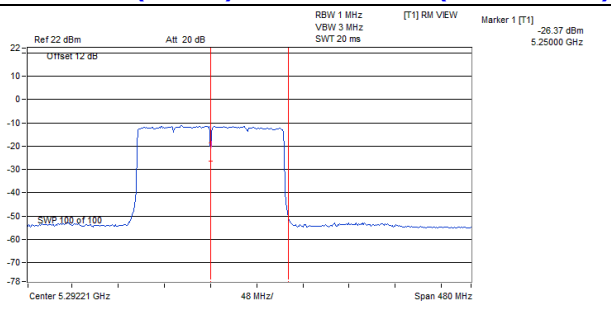
TX Channel Bandwidth 84.67 MHz Power 7.84 dBm

802.11ax (HE160)_Chain 3: CH 50 (For U-NII-1)



TX Channel Bandwidth 84.87 MHz Power 8.12 dBm

802.11ax (HE160)_Chain 3: CH 50(For U-NII-2A)



TX Channel Bandwidth 84.42 MHz Power 7.91 dBm

26dB Bandwidth:

802.11ax (HE20)

Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	23.02	23.09	22.73	21.81
40	5200	27.07	27.09	33.85	33.8
48	5240	38.51	38.51	45.5	43.2
52	5260	22.12	22.14	23.44	23.35
60	5300	21.83	21.82	22.92	22.91
64	5320	22.06	22.04	24.73	24.75
100	5500	23.07	23.04	21.45	22.1
116	5580	24.18	24.18	22.52	22.5
140	5700	23.55	23.5	23.47	23.42
144	5720 For U-NII-2C	17.07	17.05	15.48	15.48
144	5720 For U-NII-3	5.26	5.25	5.18	5.18

802.11ax (HE40)

Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	41.67	42.92	42.92	44.07
46	5230	43.34	42.97	42.27	40.95
54	5270	43.13	44.35	40.38	41.96
62	5310	43.84	42.95	42.2	41.19
102	5510	42.29	42.29	44.18	44.14
110	5550	44.07	43.04	43.74	43
134	5670	43.71	44.06	46.11	42.25
142	5710 For U-NII-2C	36.87	36.84	36.43	36.42
142	5710 For U-NII-3	7.07	7.08	7.42	7.41

802.11ax (HE80)

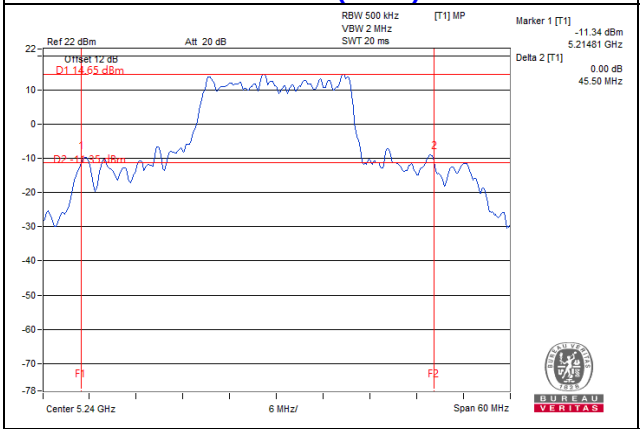
Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	83.82	82.26	84	83.18
58	5290	83.11	83.71	83.02	83.27
106	5530	84.01	84.39	82.24	83.44
122	5610	81.72	82.48	82.51	81.77
138	5690 For U-NII-2C	76.66	76.7	77.14	77.18
138	5690 For U-NII-3	6.41	6.42	6.94	6.95

802.11ax (HE160)

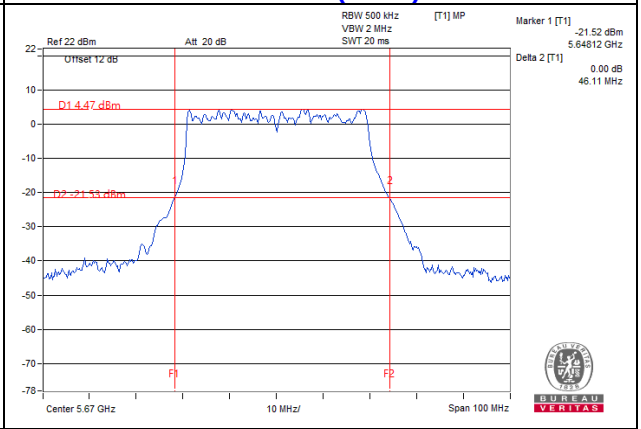
Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50	5250 For 5150~5250MHz	85.39	84.85	84.5	84.87
50	5250 For 5250~5350MHz	84.56	84.33	84.67	84.42
114	5570	171.07	168.82	169.58	170.19

Spectrum Plot of Worst Value

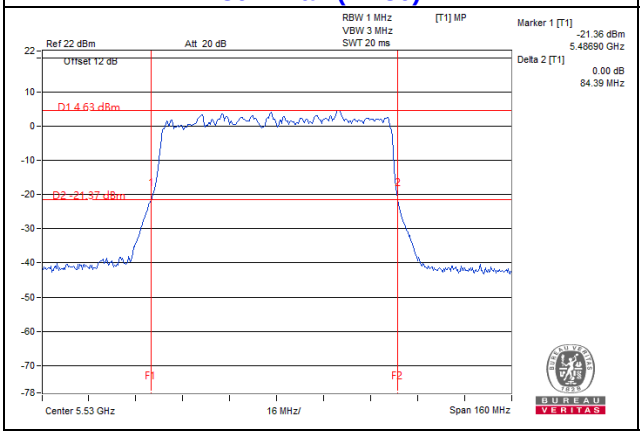
802.11ax (HE20)



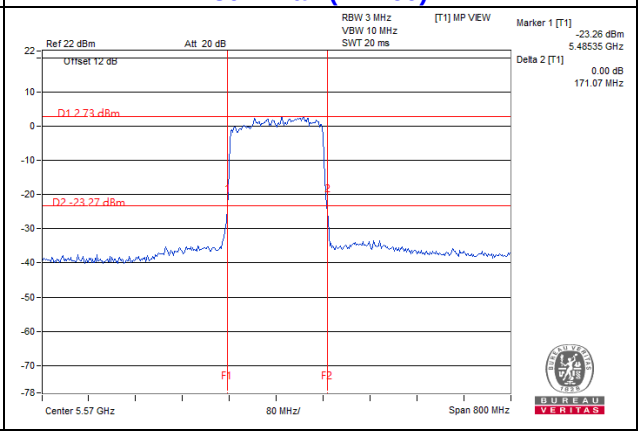
802.11ax (HE40)



802.11ax (HE80)

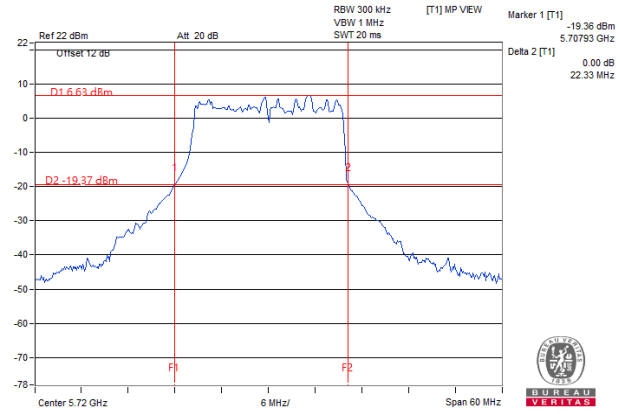


802.11ax (HE160)

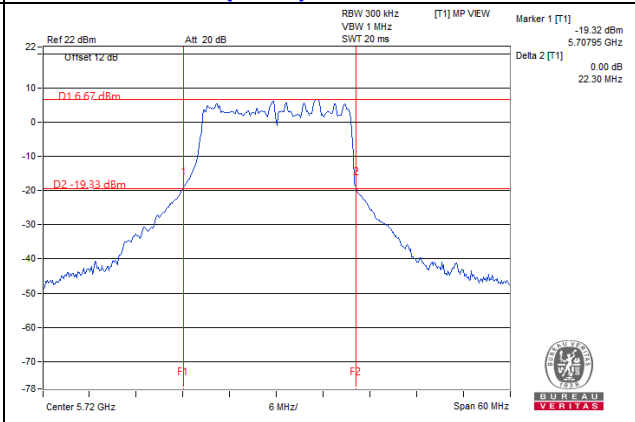


Spectrum Plot of Straddle Channels

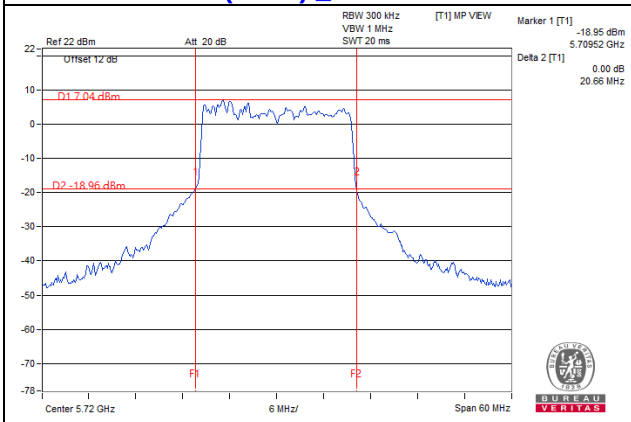
802.11ax (HE20) _Chain 0: CH 144



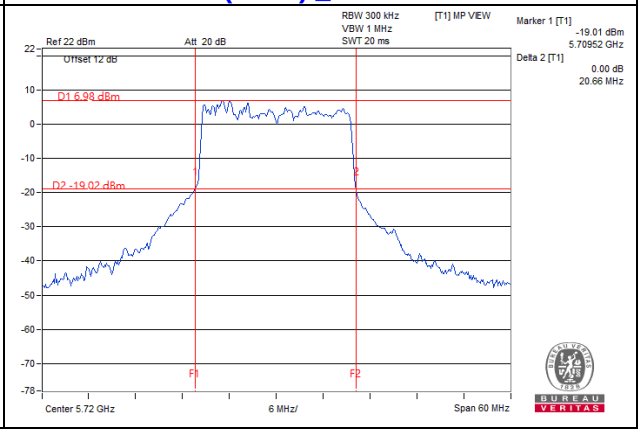
802.11ax (HE20) _Chain 1: CH 144



802.11ax (HE20) _Chain 2: CH 144

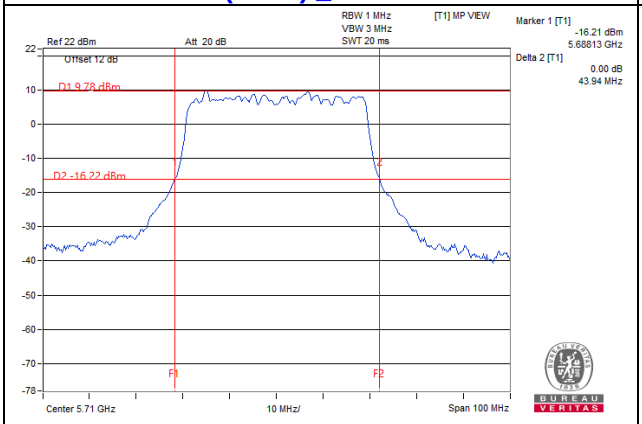


802.11ax (HE20) _Chain 3: CH 144

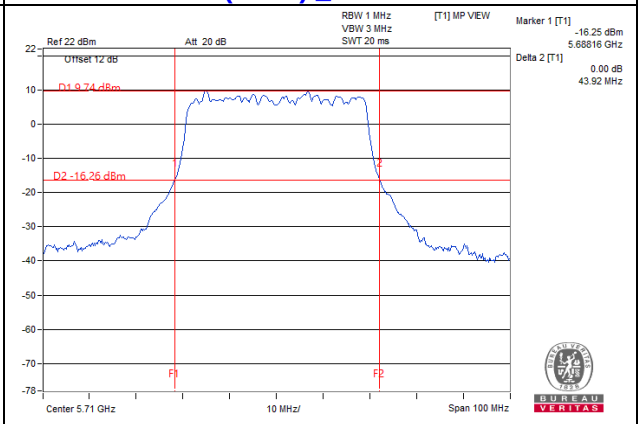


Spectrum Plot of Straddle Channels

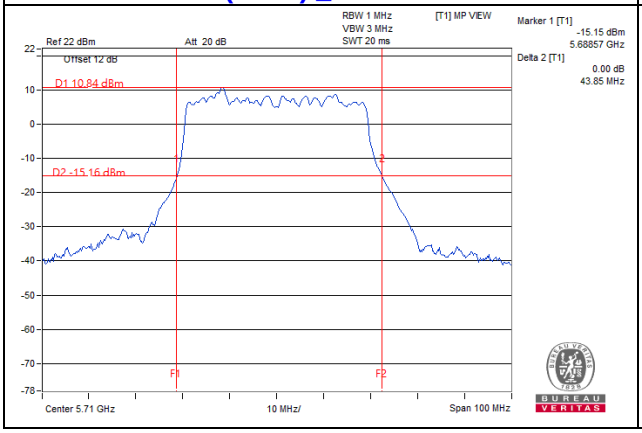
802.11ax (HE40) _Chain 0: CH 142



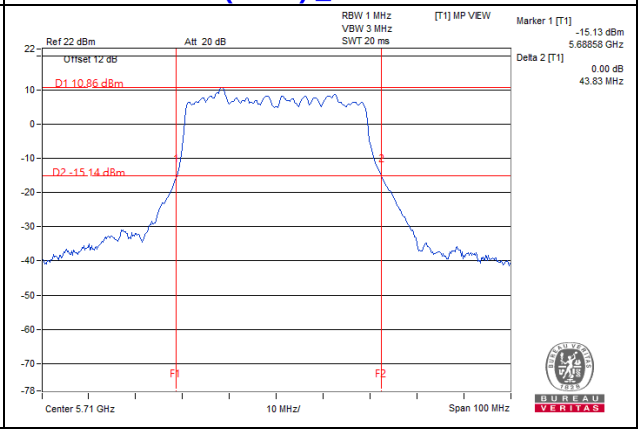
802.11ax (HE40) _Chain 1: CH 142



802.11ax (HE40) _Chain 2: CH 142

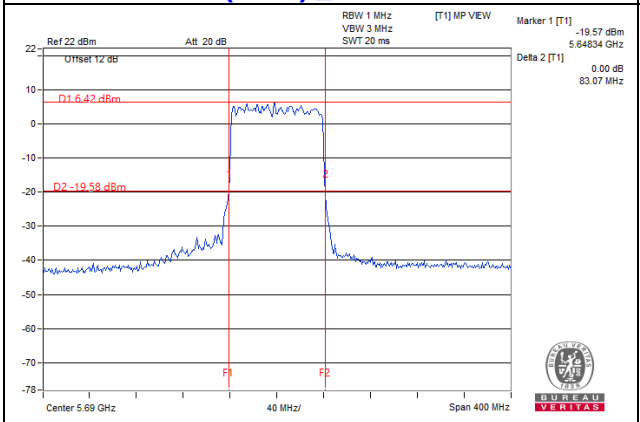


802.11ax (HE40) _Chain 3: CH 142

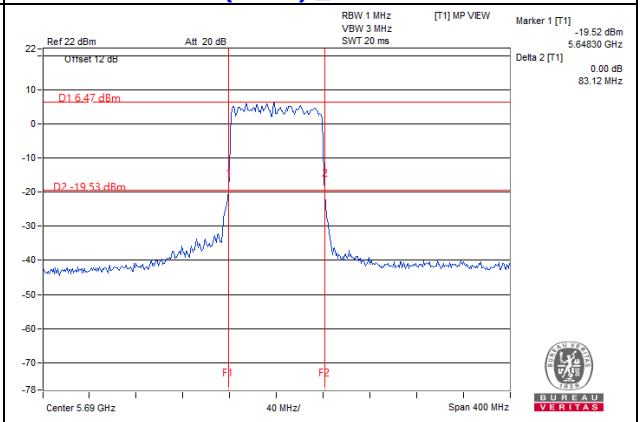


Spectrum Plot of Straddle Channels

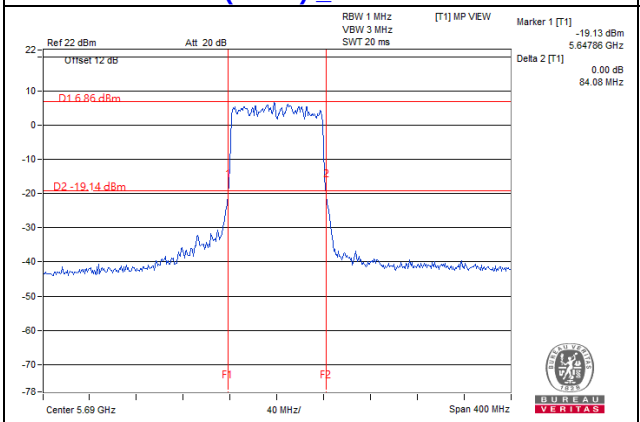
802.11ax (HE80) _Chain 0: CH 138



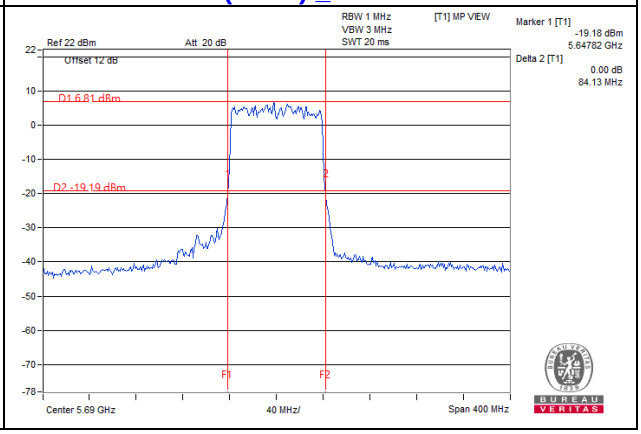
802.11ax (HE80) _Chain 1: CH 138



802.11ax (HE80) _Chain 2: CH 138



802.11ax (HE80) _Chain 3: CH 138



EUT Maximum Conducted Power

802.11ax (HE20)

Frequency Band (MHz)	MAX. Power	
	Output Power(dBm)	Output Power(mW)
5250~5350	**20.93**	**124.019**
5470~5725	**20.86**	**121.858**

802.11ax (40MHz)

Frequency Band (MHz)	MAX. Power	
	Output Power(dBm)	Output Power(mW)
5250~5350	**20.94**	**124.082**
5470~5725	**20.83**	**121.147**

802.11ax (80MHz)

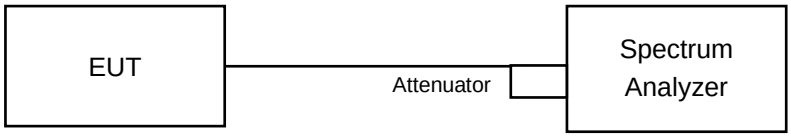
Frequency Band (MHz)	MAX. Power	
	Output Power(dBm)	Output Power(mW)
5250~5350	**18.12**	**64.847**
5470~5725	**20.84**	**121.417**

802.11ax (160MHz)

Frequency Band (MHz)	MAX. Power	
	Output Power(dBm)	Output Power(mW)
5470~5725	**16.71**	**46.91**

4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

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

4.4.4 Test Result

802.11ax (HE20)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	19.08	19.08	18.96	19.08
40	5200	19.68	19.68	19.44	19.44
48	5240	19.44	19.44	19.44	19.44
52	5260	19.08	19.08	19.44	19.44
60	5300	18.96	18.96	19.08	19.08
64	5320	19.08	19.08	19.44	19.44
100	5500	19.2	19.2	19.08	19.08
116	5580	19.44	19.44	19.08	19.08
140	5700	19.2	19.2	19.2	19.2
144	5720 For U-NII-2C	14.6	14.6	14.6	14.6
144	5720 For U-NII-3	4.48	4.48	4.48	4.48
149	5745	19.74	19.7	19.7	19.7
157	5785	19.3	19.3	19.3	19.3
165	5825	19	19	19	19

802.11ax (HE40)

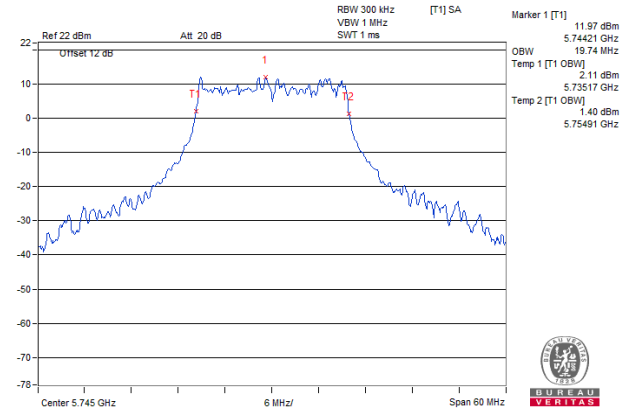
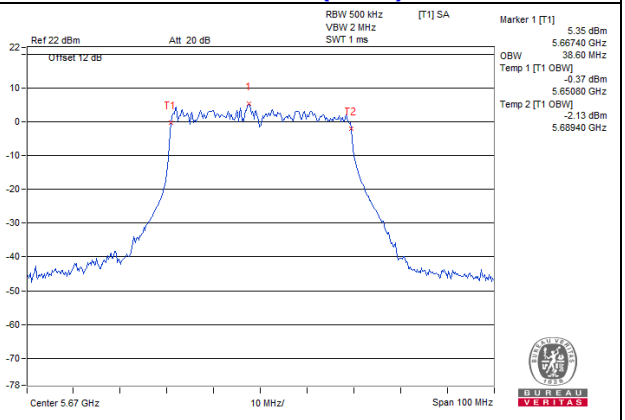
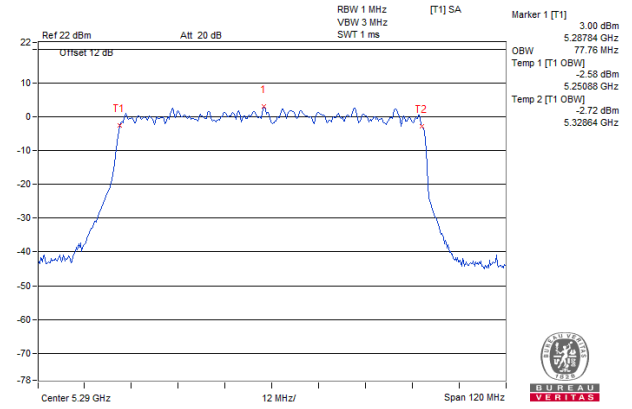
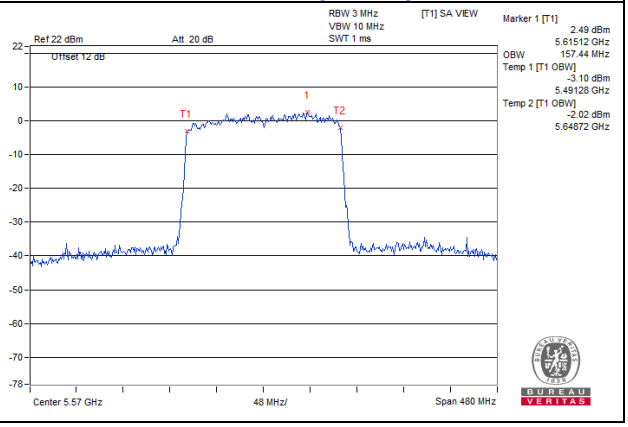
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	38	38	38	38
46	5230	38.2	38	38.2	37.8
54	5270	38	38	38	38
62	5310	38	38	38	37.8
102	5510	38.2	38.2	38.2	38.2
110	5550	38.2	38	38	38
134	5670	38.6	38.4	38.6	38.2
142	5710 For U-NII-2C	34.2	34.2	34.2	34.2
142	5710 For U-NII-3	4.2	4.2	3.96	3.96
151	5755	38.12	38	38	38
159	5795	38.17	38.17	38.17	38.17

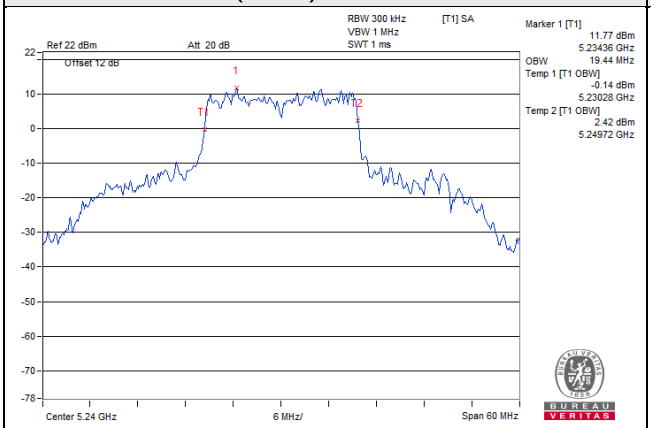
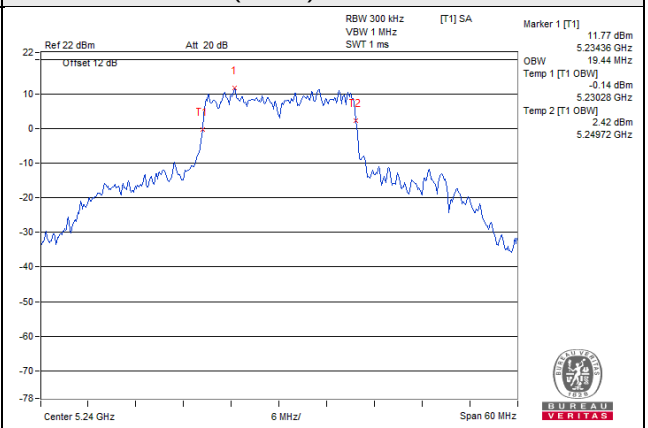
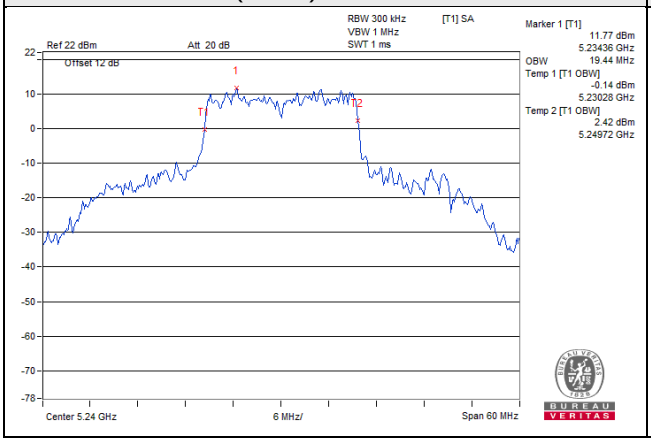
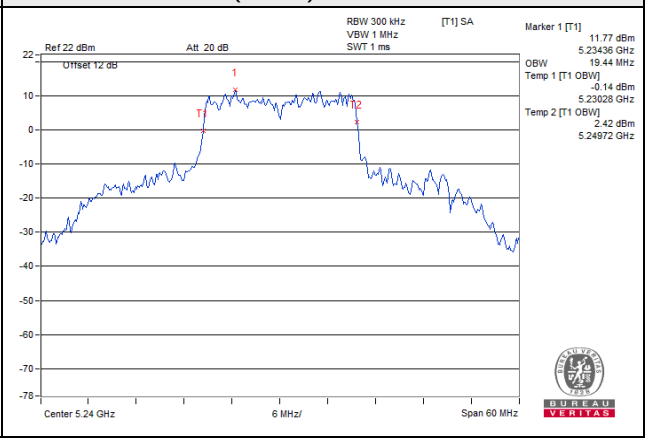
802.11ax (HE80)

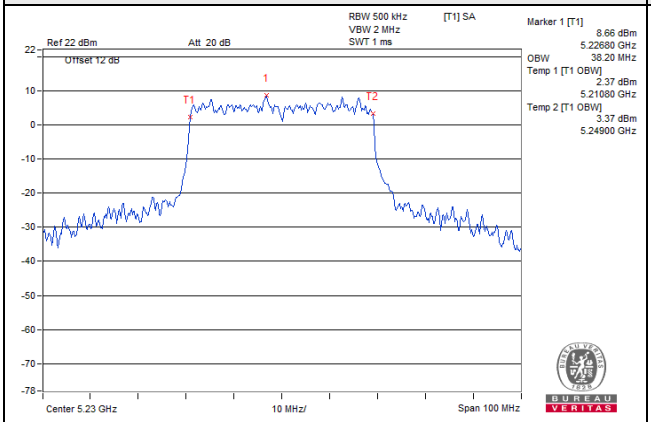
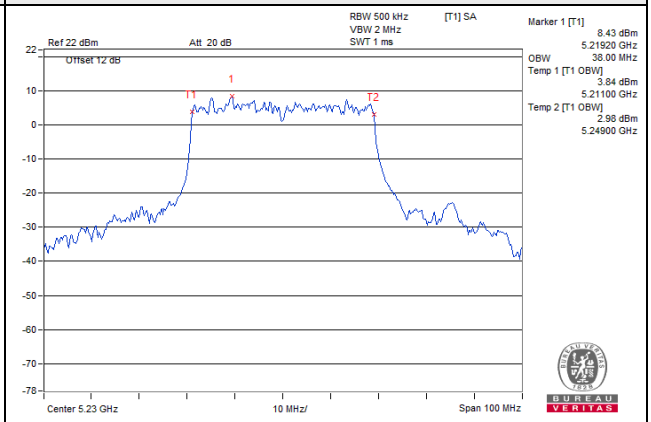
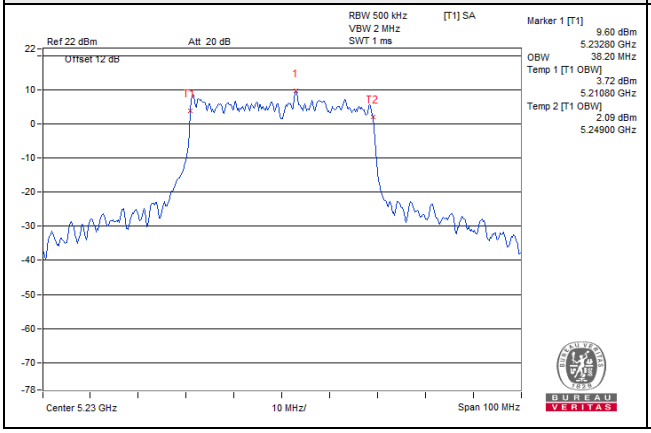
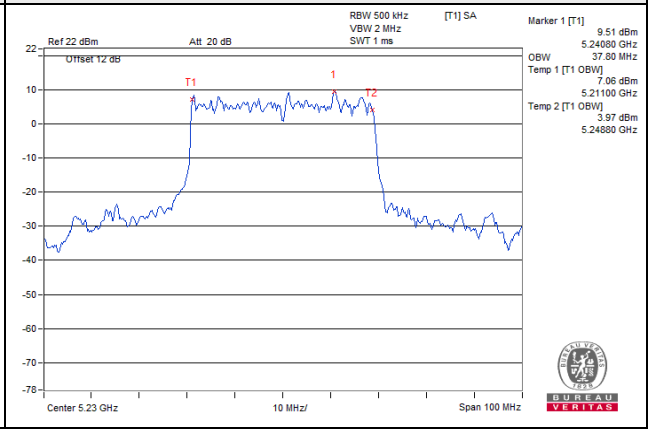
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	77.28	77.28	78	77.52
58	5290	77.76	77.76	77.52	77.52
106	5530	77.52	77.52	77.76	77.76
122	5610	77.28	77.52	77.76	77.52
138	5690 For U-NII-2C	73.88	73.88	73.88	73.88
138	5690 For U-NII-3	3.4	3.4	3.4	3.4
155	5775	77.51	77.28	77.28	77.28

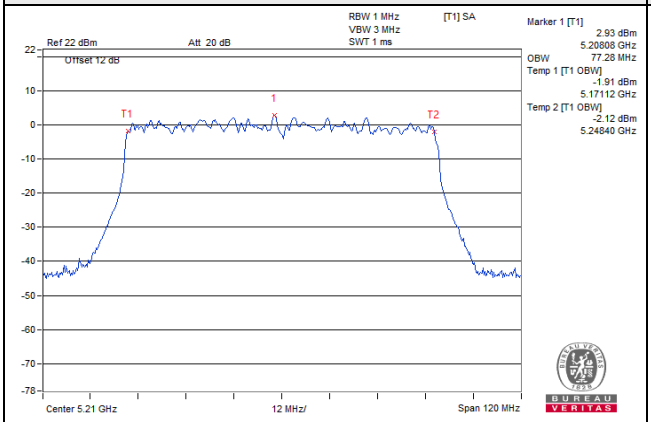
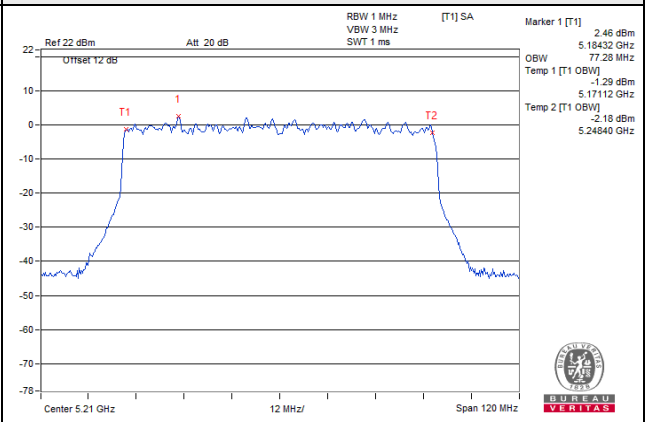
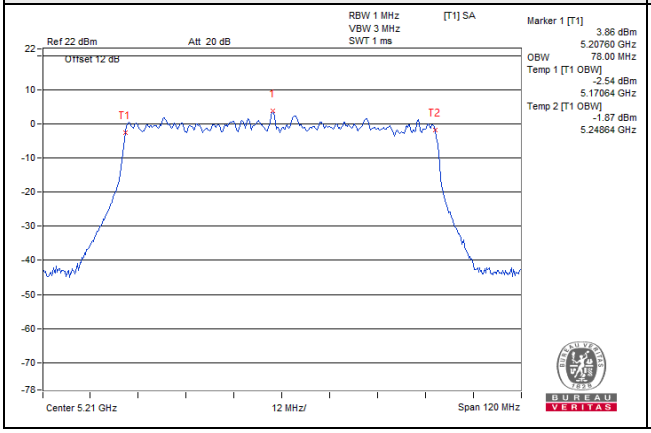
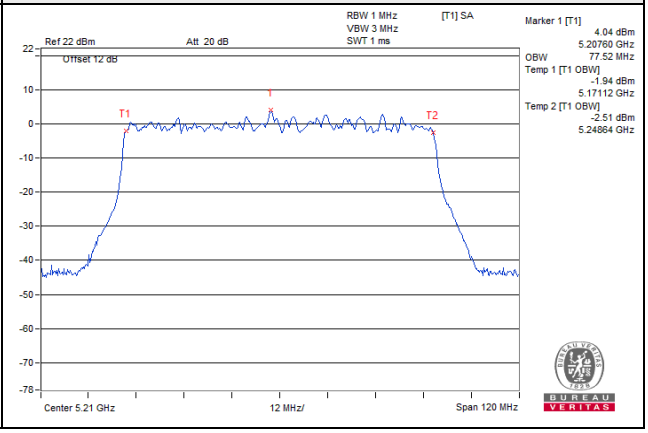
802.11ax (HE160)

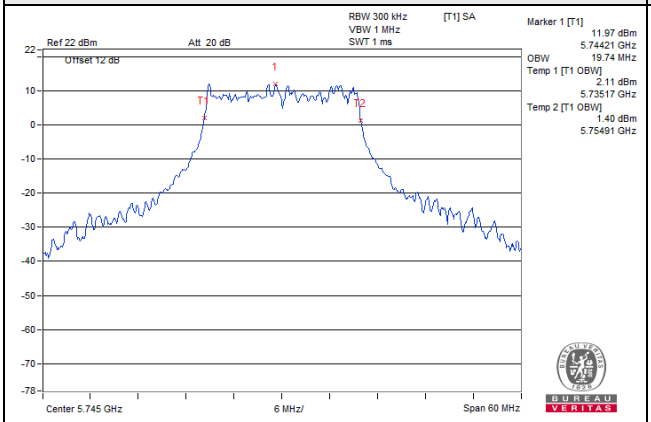
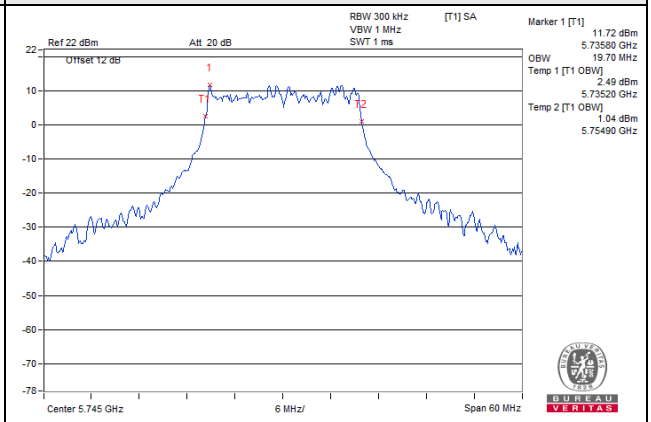
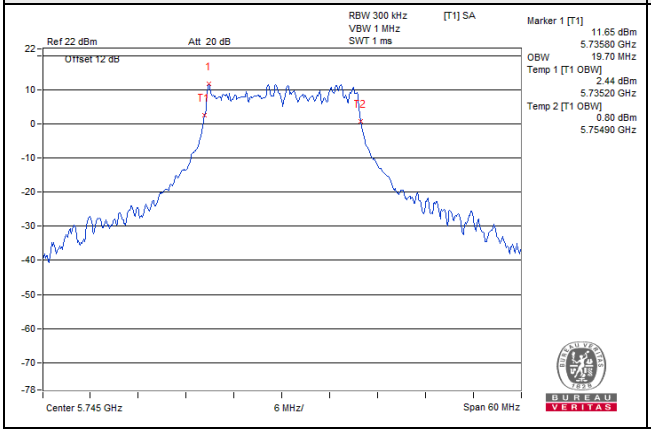
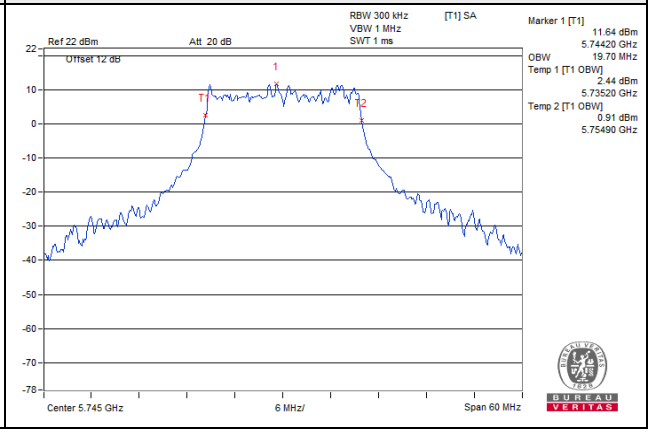
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50	5250 For 5150~5250MHz	78.72	78.72	78.72	78.72
50	5250 For 5250~5350MHz	77.76	77.76	77.76	77.76
114	5570	157.44	157.44	155.52	157.44

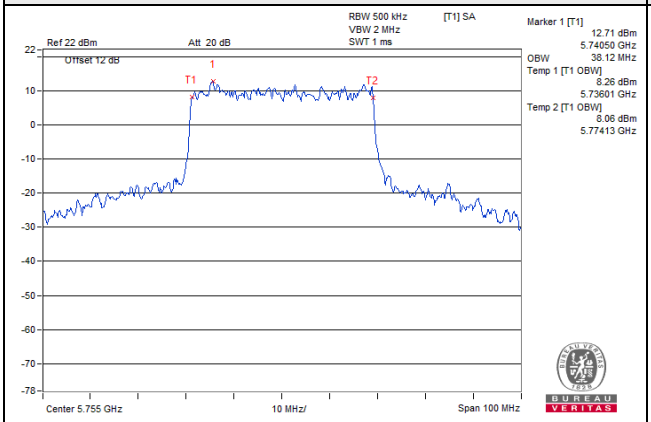
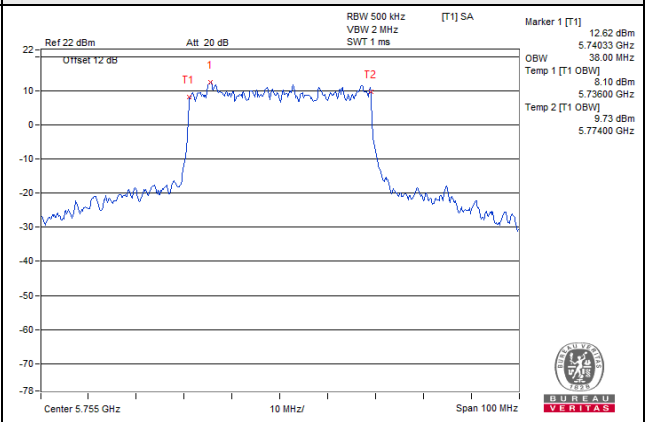
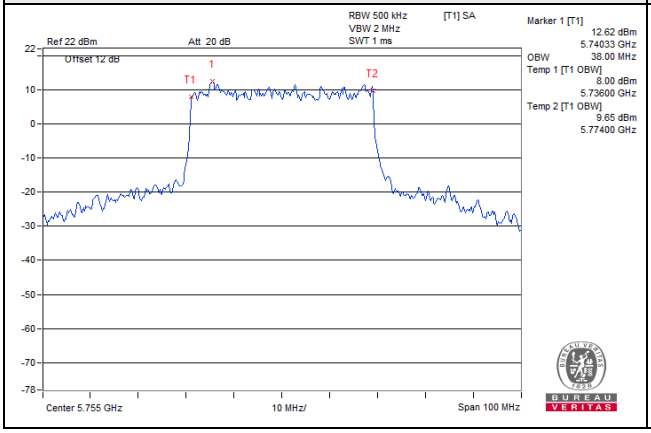
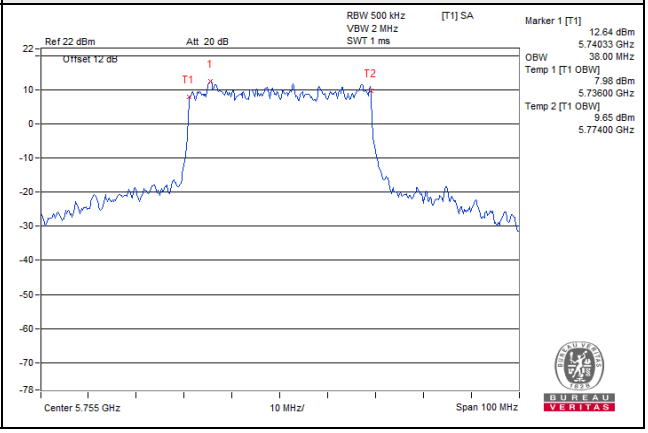
Spectrum Plot of Worst Value	
802.11ax (HE20)	802.11ax (HE40)
	
802.11ax (HE80)	802.11ax (HE160)
	

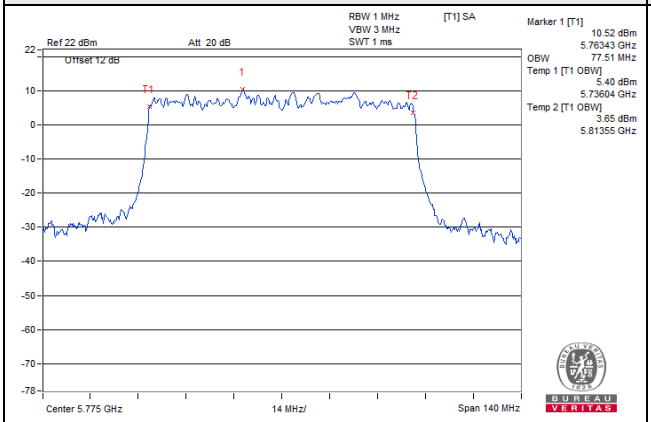
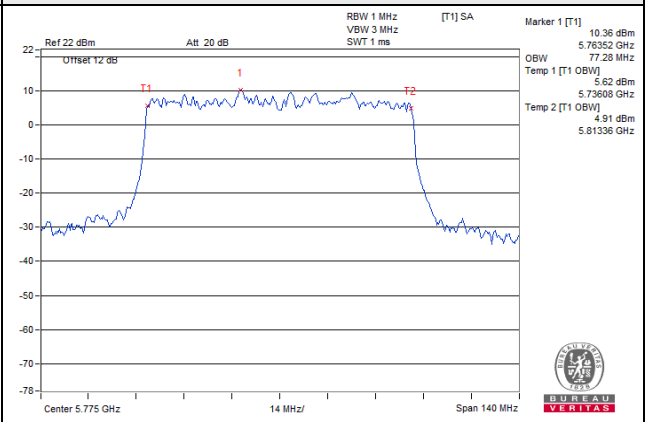
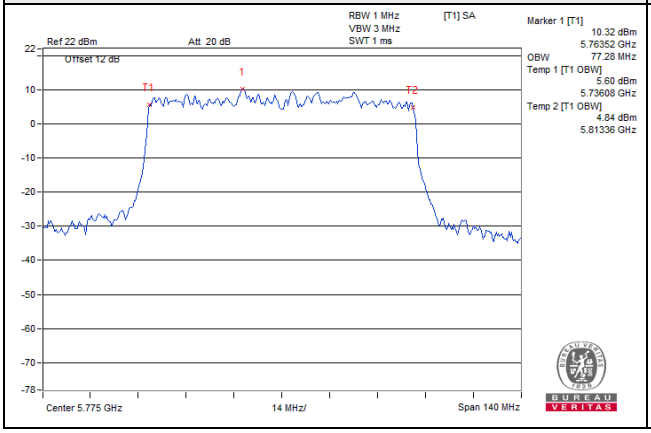
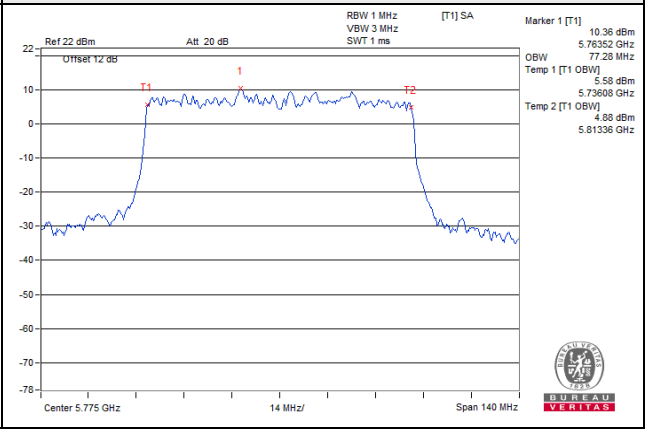
Spectrum Plot for near By DFS Band	
802.11ax (HE20) / Chain 0 / CH 48	802.11ax (HE20) / Chain 1 / CH 48
	
802.11ax (HE20) / Chain 2 / CH 48	802.11ax (HE20) / Chain 3 / CH 48
	

Spectrum Plot for near By DFS Band	
802.11ax (HE40) / Chain 0 / CH 46	802.11ax (HE40) / Chain 1 / CH 46
	
802.11ax (HE40) / Chain 2 / CH 46	802.11ax (HE40) / Chain 3 / CH 46
	

Spectrum Plot for near By DFS Band	
802.11ax (HE80) / Chain 0 / CH 42	802.11ax (HE80) / Chain 1 / CH 42
	
802.11ax (HE80) / Chain 2 / CH 42	802.11ax (HE80) / Chain 3 / CH 42
	

Spectrum Plot for near By DFS Band	
802.11ax (HE20) / Chain 0 / CH 149	802.11ax (HE20) / Chain 1 / CH 149
	
802.11ax (HE20) / Chain 2 / CH 149	802.11ax (HE20) / Chain 3 / 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 (HE40) / Chain 2 / CH 151	802.11ax (HE40) / Chain 3 / CH 151
	

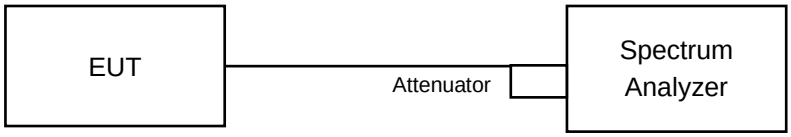
Spectrum Plot for near By DFS Band	
802.11ax (HE80) / Chain 0 / CH 155	802.11ax (HE80) / Chain 1 / CH 155
	
802.11ax (HE80) / Chain 2 / CH 155	802.11ax (HE80) / Chain 3 / CH 155
	

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 4.1.2 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

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 1MHz, Set VBW ≥ 3 MHz, Detector = RMS
c. Set Channel power measure = 1MHz
d. Sweep time = auto, trigger set to “free run”.
e. Trace average at least 100 traces in power averaging mode.

For U-NII-3 band:

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 500 kHz, Set VBW ≥ 1 MHz, Detector = RMS
c. Use the peak marker function to determine the maximum power level in any 500 kHz band segment within the fundamental EBW.
d. Sweep time = auto, trigger set to “free run”.
e. Trace average at least 100 traces in power averaging mode.

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:

802.11ax (HE20)

Chan.	Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
36	5180	4.26	4.17	4.27	3.93	10.18	14.48	Pass
40	5200	7.22	7.23	7.55	7.50	13.40	14.48	Pass
48	5240	7.16	7.15	7.27	7.52	13.30	14.48	Pass
52	5260	1.59	1.56	1.48	1.45	7.54	8.05	Pass
60	5300	0.92	0.93	1.10	1.07	7.03	8.05	Pass
64	5320	1.57	1.57	1.20	1.18	7.40	8.05	Pass
100	5500	1.58	1.58	1.27	1.43	7.49	8.05	Pass
116	5580	1.56	1.59	1.45	1.40	7.52	8.05	Pass
140	5700	1.45	1.38	1.04	0.99	7.24	8.05	Pass
144	5720 For U-NII-2C	1.93	1.94	1.89	1.91	7.94	8.05	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. 5180~5240MHz Directional gain =8.52dBi > 6dBi, so the power density limit shall be reduced to 17-(8.52-6) = 14.48dBm.
   5260~5320MHz Directional gain = 8.95dBi > 6dBi, so the power density limit shall be reduced to 11-(8.95-6) = 8.05dBm.
   5500~5720MHz Directional gain = 8.95dBi > 6dBi, so the power density limit shall be reduced to 11-(8.95-6) = 8.05dBm

802.11ax (HE40)

Chan.	Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
38	5190	0.20	0.13	0.39	0.28	6.27	14.48	Pass
46	5230	4.11	4.28	3.91	4.07	10.12	14.48	Pass
54	5270	-0.01	0.10	-0.10	-0.19	5.97	8.05	Pass
62	5310	-1.59	-1.68	-1.81	-1.86	4.29	8.05	Pass
102	5510	-2.77	-2.79	-2.73	-2.76	3.26	8.05	Pass
110	5550	-0.75	-0.89	-0.69	-0.78	5.24	8.05	Pass
134	5670	-1.50	-1.43	-1.05	-1.06	4.77	8.05	Pass
142	5710 For U-NII-2C	-0.31	-0.37	-0.30	-0.32	5.70	8.05	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. 5180~5240MHz Directional gain =8.52dBi > 6dBi, so the power density limit shall be reduced to 17-(8.52-6) = 14.48dBm.
   5260~5320MHz Directional gain = 8.95dBi > 6dBi, so the power density limit shall be reduced to 11-(8.95-6) = 8.05dBm.
   5500~5720MHz Directional gain = 8.95dBi > 6dBi, so the power density limit shall be reduced to 11-(8.95-6) = 8.05dBm

802.11ax (HE80)

Chan.	Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
42	5210	-4.95	-4.78	-4.84	-5.06	1.11	14.48	Pass
58	5290	-5.73	-6.25	-6.39	-6.34	-0.15	8.05	Pass
106	5530	-4.92	-4.73	-4.72	-4.97	1.19	8.05	Pass
122	5610	-4.06	-3.90	-4.16	-3.94	2.01	8.05	Pass
138	5690 For U-NII-2C	-3.69	-3.63	-3.58	-3.65	2.38	8.05	Pass

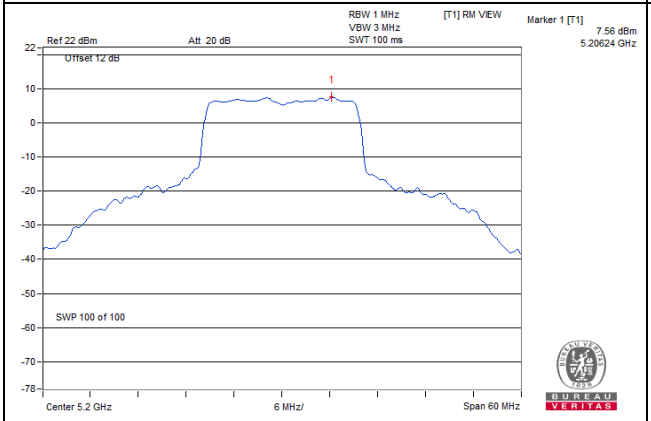
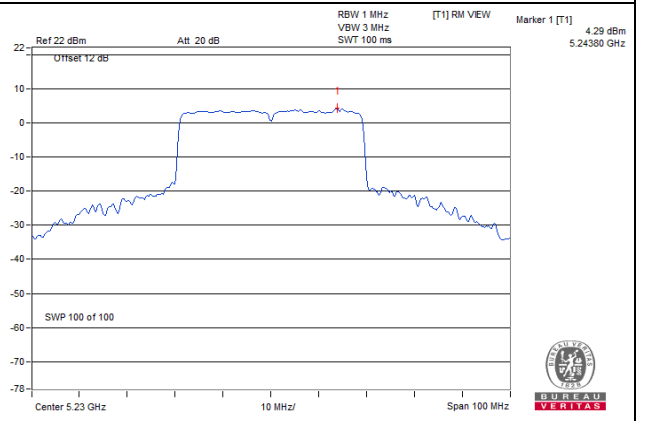
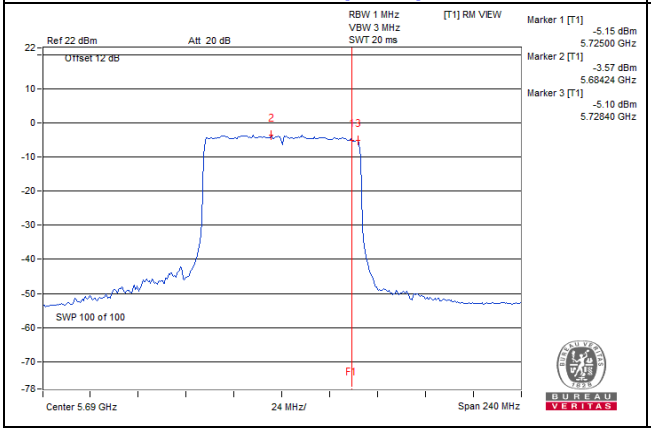
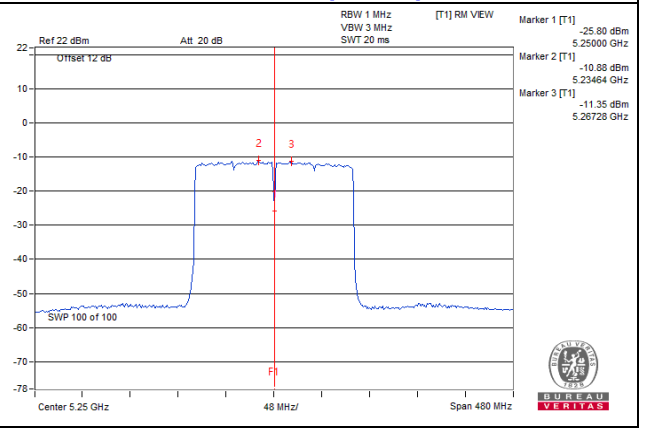
Note:
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5180~5240MHz Directional gain =8.52dBi > 6dBi, so the power density limit shall be reduced to 17-(8.52-6) = 14.48dBm.
   5260~5320MHz Directional gain = 8.95dBi > 6dBi, so the power density limit shall be reduced to 11-(8.95-6) = 8.05dBm.
   5500~5720MHz Directional gain = 8.95dBi > 6dBi, so the power density limit shall be reduced to 11-(8.95-6) = 8.05dBm

802.11ax (HE160)

Chan.	Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
50	5250 For 5150~5250MHz	-10.89	-11.33	-11.11	-11.29	-5.13	14.48	Pass
50	5250 For 5250~5350MHz	-11.36	-11.52	-11.58	-11.43	-5.45	8.05	Pass
114	5570	-11.28	-11.05	-11.38	-11.13	-5.19	8.05	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. 5180~5240MHz Directional gain =8.52dBi > 6dBi, so the power density limit shall be reduced to 17-(8.52-6) = 14.48dBm.
   5260~5320MHz Directional gain = 8.95dBi > 6dBi, so the power density limit shall be reduced to 11-(8.95-6) = 8.05dBm.
   5500~5720MHz Directional gain = 8.95dBi > 6dBi, so the power density limit shall be reduced to 11-(8.95-6) = 8.05dBm

Spectrum Plot of Worst Value	
802.11ax (HE20)	**802.11ax (HE40)**
	
802.11ax (HE80)	**802.11ax (HE160)**
	

For U-NII-3 band:

802.11ax (HE20)

Chan.	Freq. (MHz)	PSD (dBm/500kHz)				Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
144	5720 For U-NII-3	-6.65	-6.61	-5.80	-5.85	-0.19	27.18	Pass
149	5745	0.90	0.84	0.82	0.76	6.85	27.18	Pass
157	5785	0.43	0.47	0.46	0.44	6.47	27.18	Pass
165	5825	1.35	1.36	1.35	1.31	7.36	27.18	Pass

Note:
1. Method E) 2) b) of power density measurement of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.82dBi > 6dBi, so the power density shall be reduced to 30-(8.82-6) = 27.18dBm.

802.11ax (HE40)

Chan.	Freq. (MHz)	PSD (dBm/500kHz)				Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
142	5710 For U-NII-3	-9.19	-9.22	-10.22	-10.23	-3.66	27.18	Pass
151	5755	-2.49	-2.78	-2.89	-2.86	3.27	27.18	Pass
159	5795	-2.29	-2.25	-2.25	-2.17	3.78	27.18	Pass

Note:
1. Method E) 2) b) of power density measurement of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.82dBi > 6dBi, so the power density shall be reduced to 30-(8.82-6) = 27.18dBm.

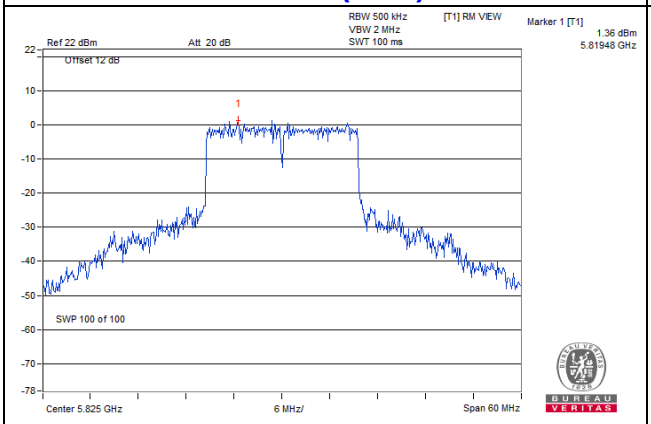
802.11ax (HE80)

Chan.	Freq. (MHz)	PSD (dBm/500kHz)				Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
138	5690 For U-NII-3	-14.07	-14.04	-14.02	-14.09	-8.03	27.18	Pass
155	5775	-8.53	-8.61	-8.62	-8.59	-2.57	27.18	Pass

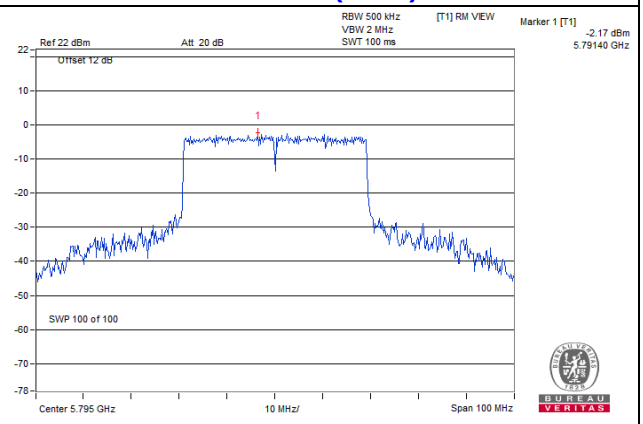
Note:
1. Method E) 2) b) of power density measurement of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/4$]=8.82dBi > 6dBi, so the power density shall be reduced to 30-(8.82-6) = 27.18dBm.

Spectrum Plot of Worst Value

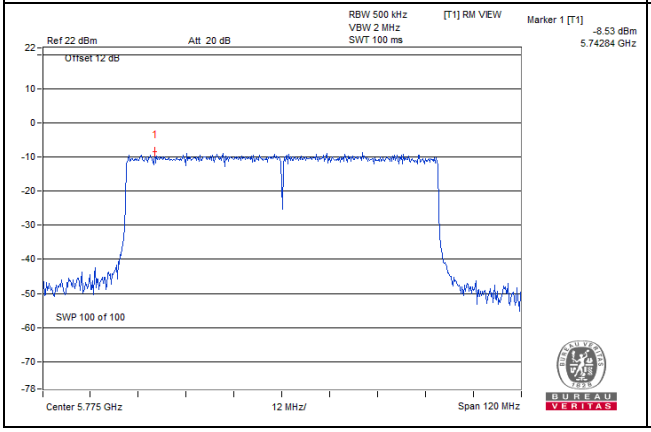
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)

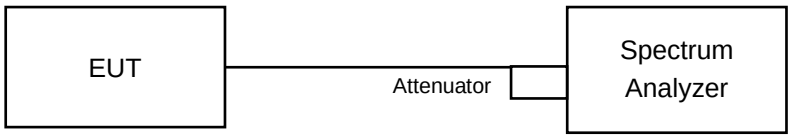


4.6 6dB Bandwidth Measurement

4.6.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

a. 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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

802.11ax (HE20)

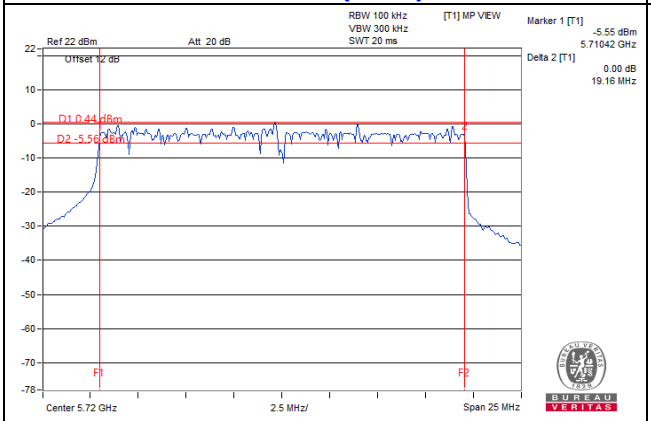
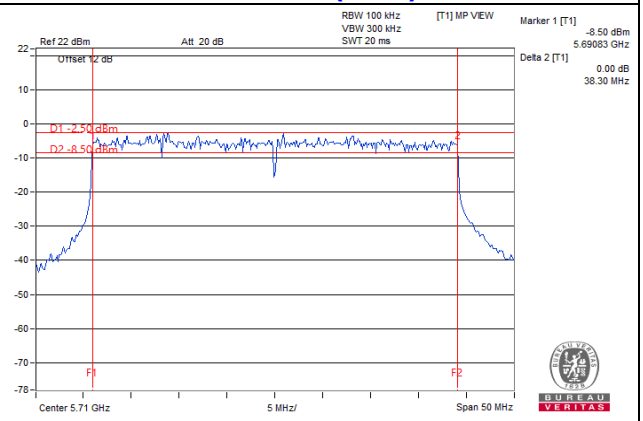
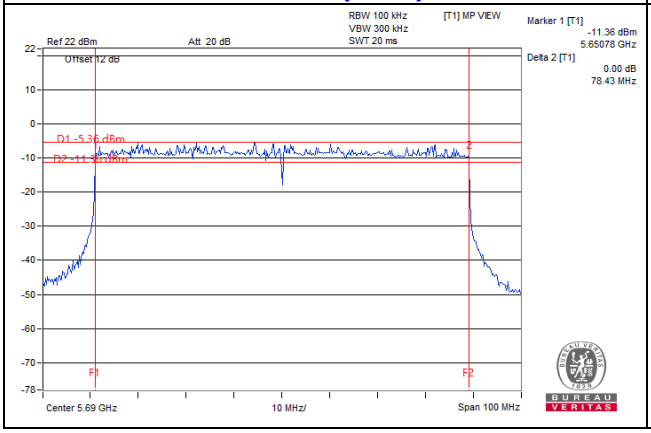
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
144	5720 For U-NII-3	4.58	4.58	4.58	4.58	0.5	Pass
149	5745	19.14	19.15	19.15	19.15	0.5	Pass
157	5785	19.2	19.2	19.2	19.2	0.5	Pass
165	5825	19.13	19.13	19.13	19.12	0.5	Pass

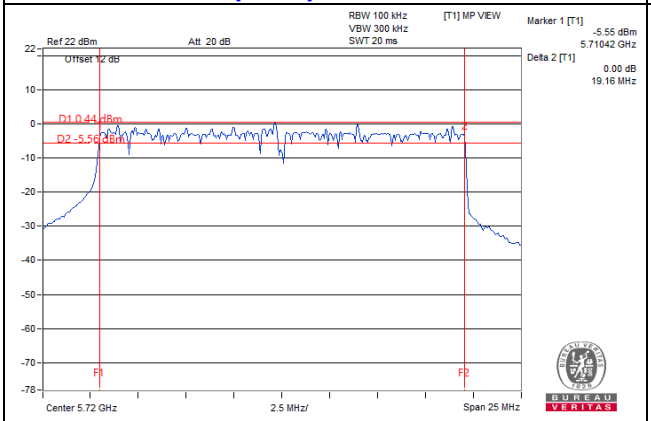
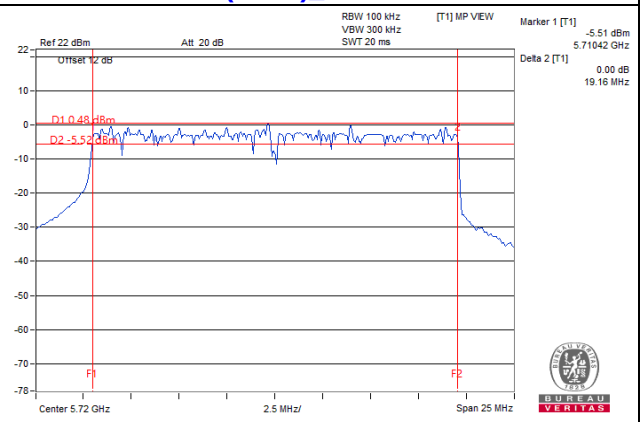
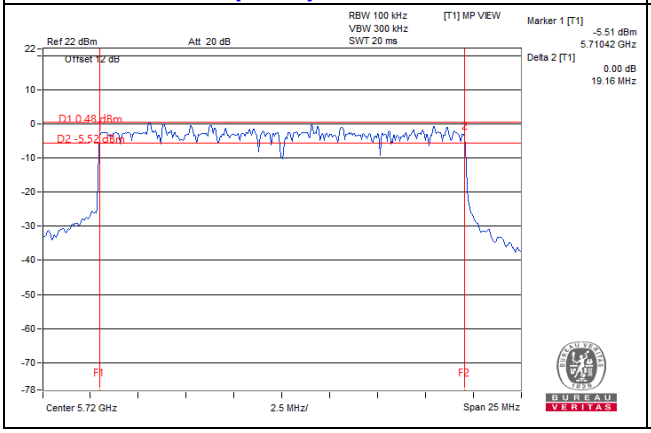
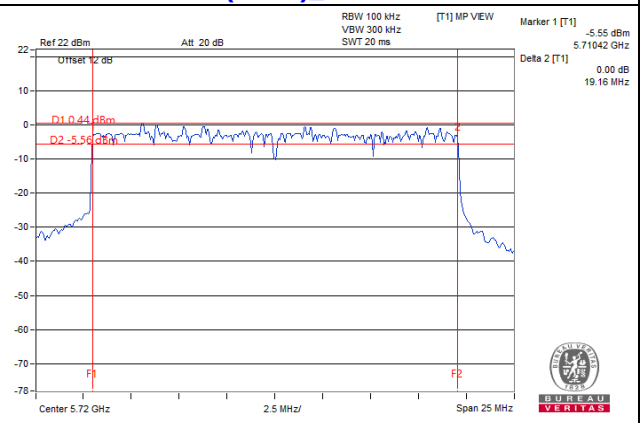
802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
142	5710 For U-NII-3	4.21	4.21	4.13	4.13	0.5	Pass
151	5755	38.24	38.25	38.24	38.24	0.5	Pass
159	5795	38.25	38.25	38.25	38.25	0.5	Pass

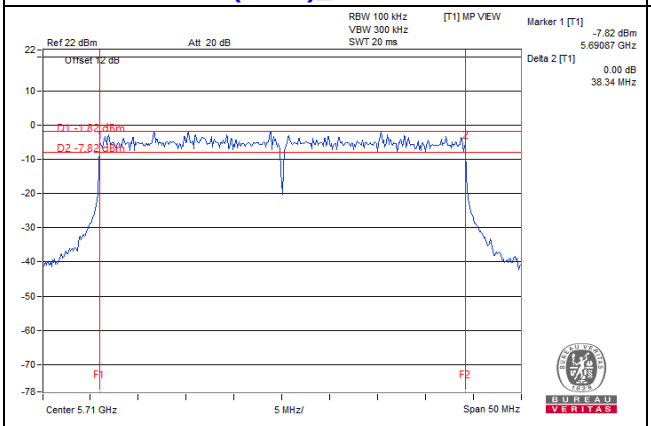
802.11ax (HE80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
138	5690 For U-NII-3	4.23	4.23	4.21	4.21	0.5	Pass
155	5775	78.3	78.43	78.43	78.43	0.5	Pass

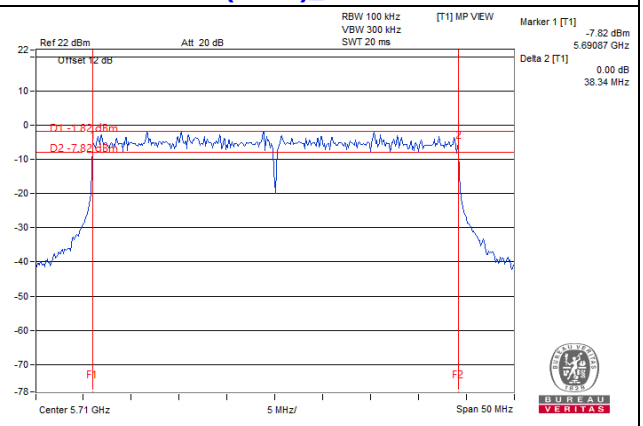
Spectrum Plot of Worst Value	
802.11ax (HE20)	**802.11ax (HE40)**
	
802.11ax (HE80)	
	

Spectrum Plot of Straddle channel	
802.11ax (HE20)_Chain 0: CH 144	**802.11ax (HE20)_Chain 1: CH 144**
	
802.11ax (HE20)_Chain 2: CH 144	**802.11ax (HE20)_Chain 3: CH 144**
	

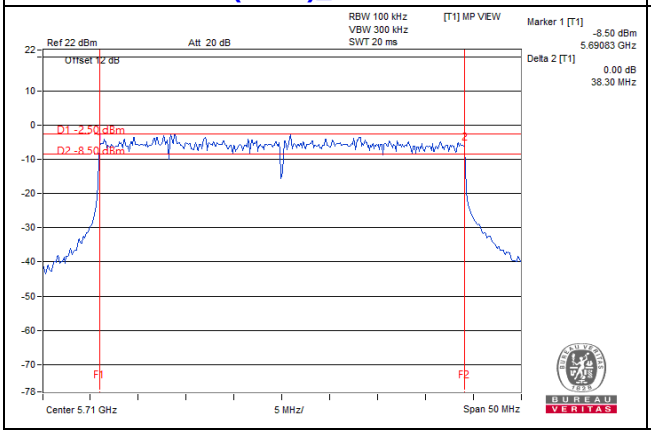
802.11ax (HE40)_Chain 0: CH 142



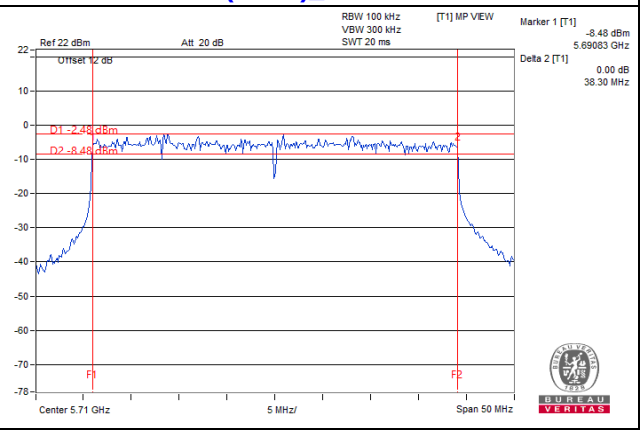
802.11ax (HE40)_Chain 1: CH 142

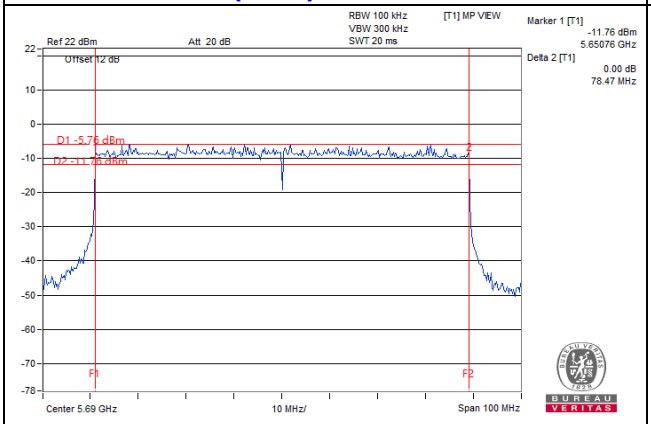
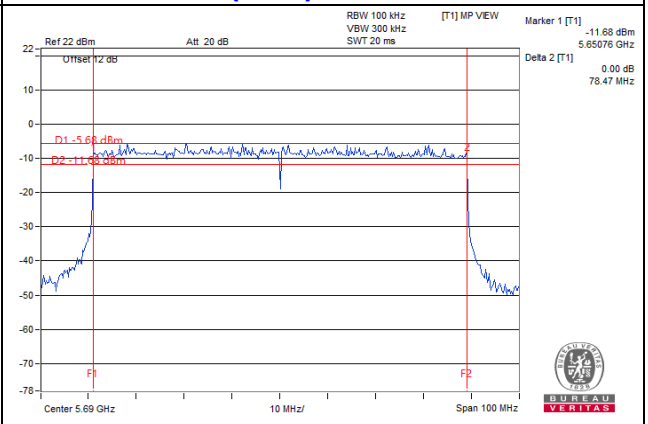
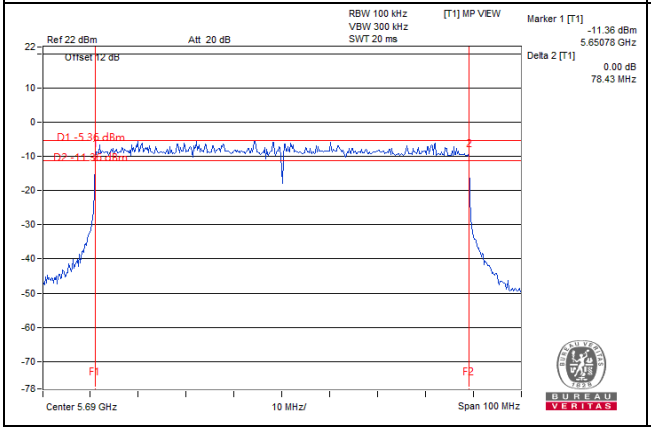
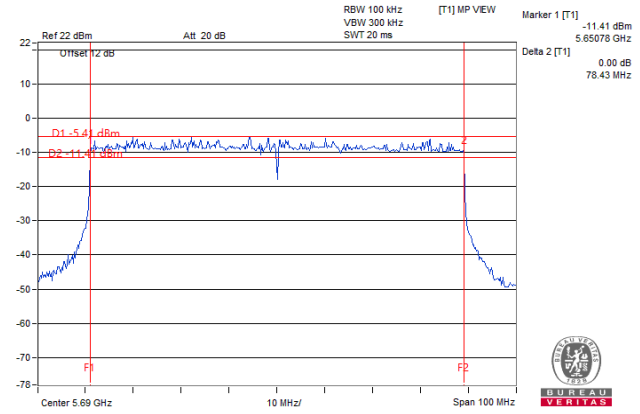


802.11ax (HE40)_Chain 2: CH 142



802.11ax (HE40)_Chain 3: CH 142



802.11ax (HE80)_Chain 0: CH 138	802.11ax (HE80)_Chain 1: CH 138
	
802.11ax (HE80)_Chain 2: CH 138	**802.11ax (HE80)_Chain 3: CH 138**
	

Note:

For CH144 (For 5745-5825MHz): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

For CH142 (For 5745-5825MHz): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

For CH138 (For 5745-5825MHz): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

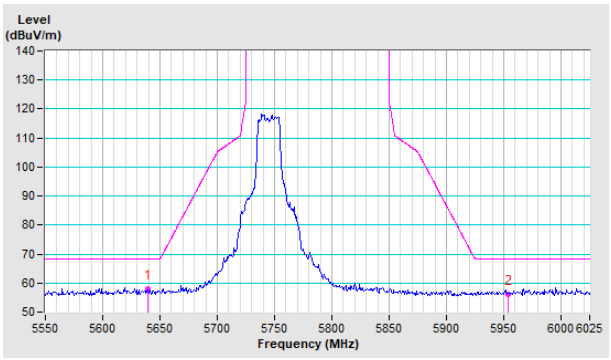
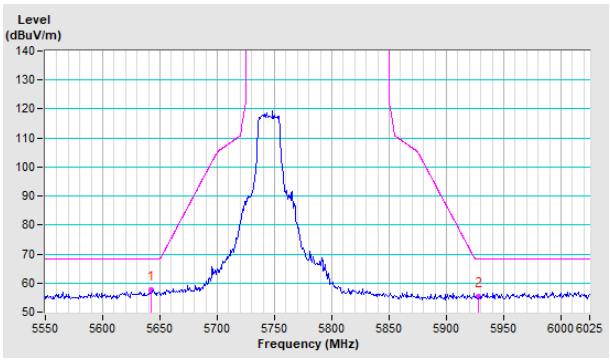
5 Pictures of Test Arrangements

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

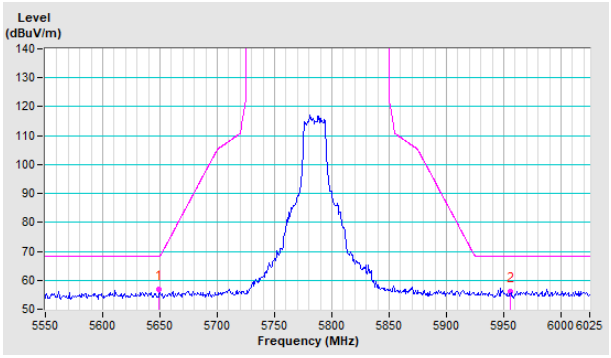
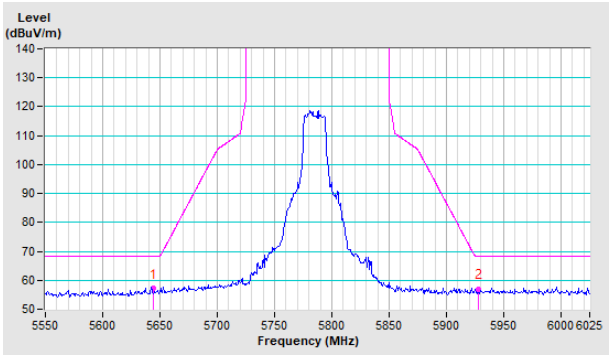
Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

802.11AX (HE20)

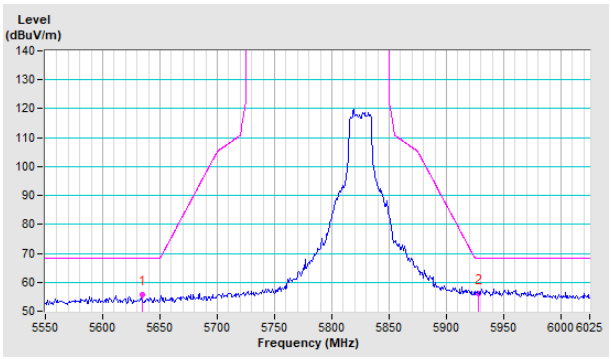
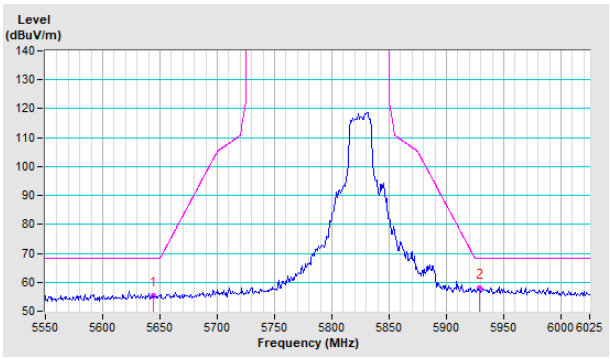
CH 149 5745 MHZ

HORIZONTAL	VERTICAL
	

CH 157 5785 MHZ

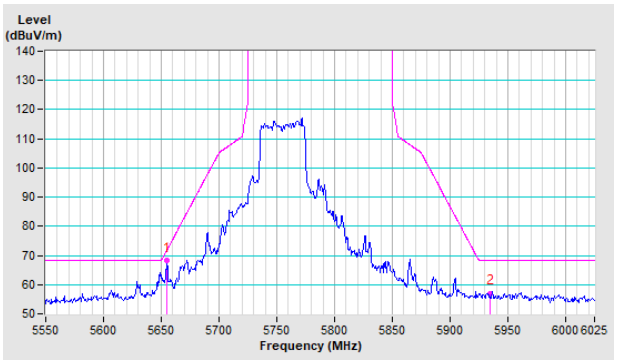
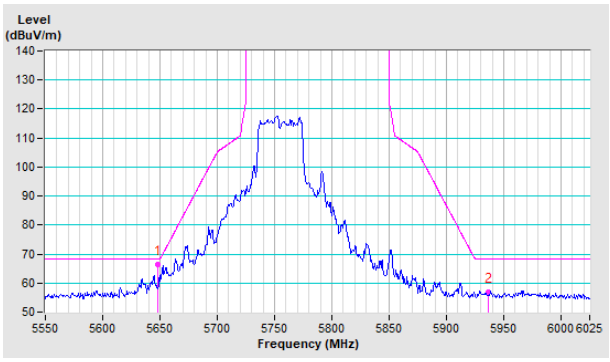
HORIZONTAL	VERTICAL
	

CH 165 5825 MHZ

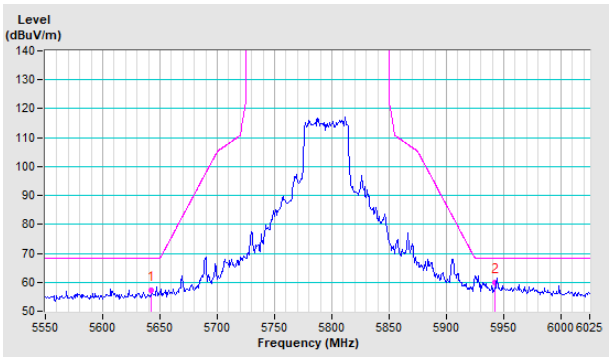
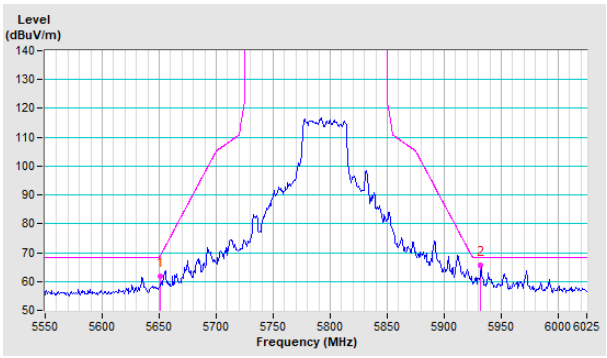
HORIZONTAL	VERTICAL
	

802.11AX (HE40)

CH 151 5755 MHZ

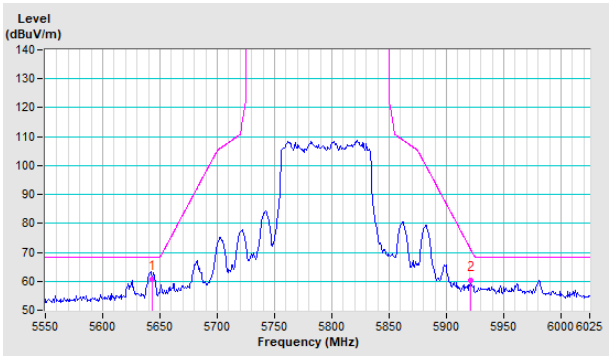
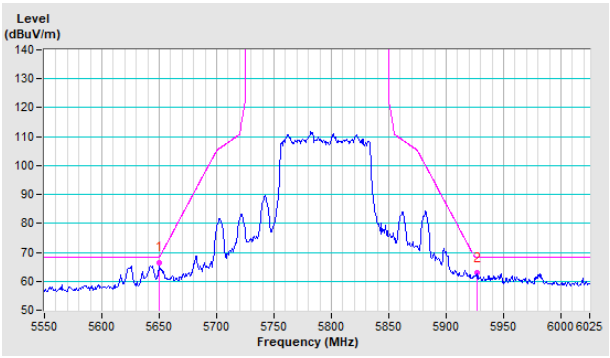
HORIZONTAL	VERTICAL
	

CH 159 5795 MHZ

HORIZONTAL	VERTICAL
	

802.11AX (HE80)

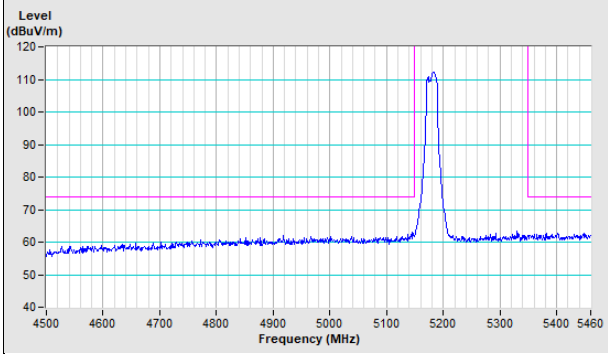
CH 155 5775 MHZ

HORIZONTAL	VERTICAL
	

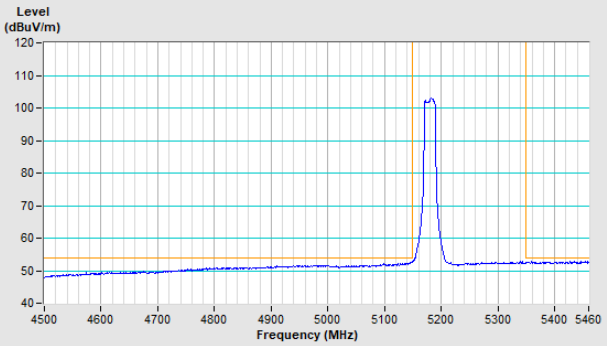
Annex B- Band Edge Measurement

802.11ax (HE20) Channel 36

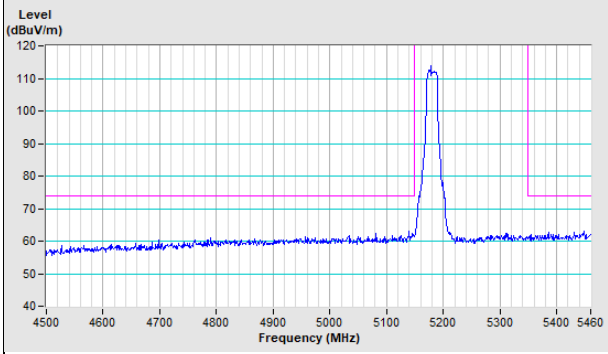
Horizontal (Peak)



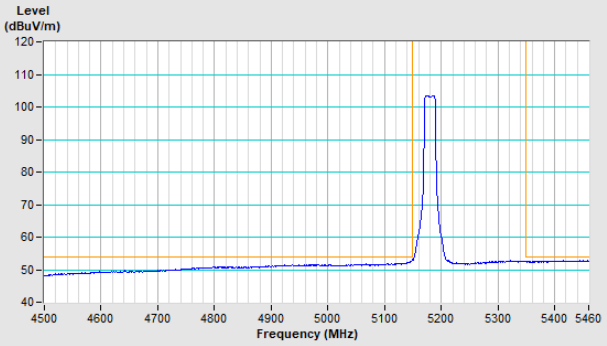
Horizontal (Average)



Vertical (Peak)

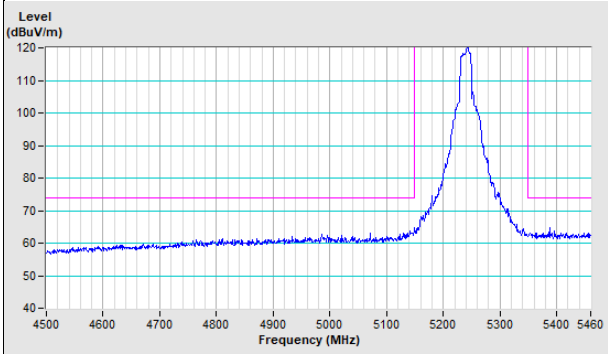


Vertical (Average)

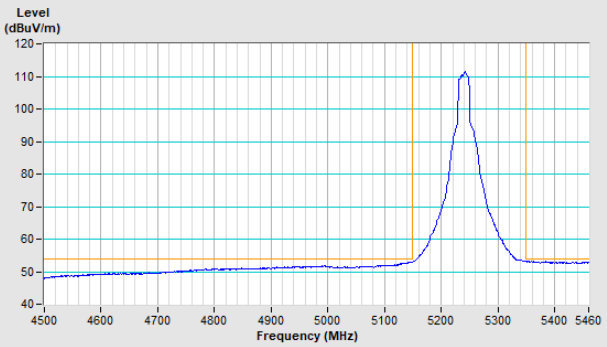


802.11ax (HE20) Channel 48

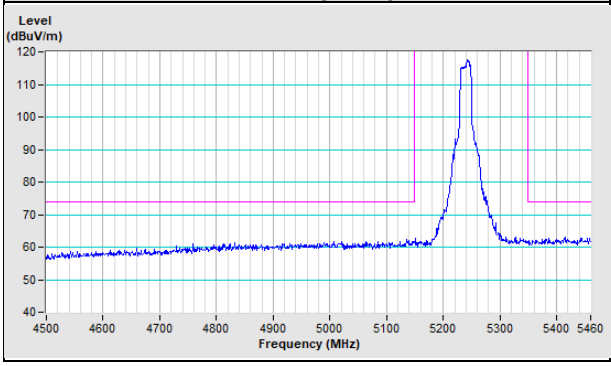
Horizontal (Peak)



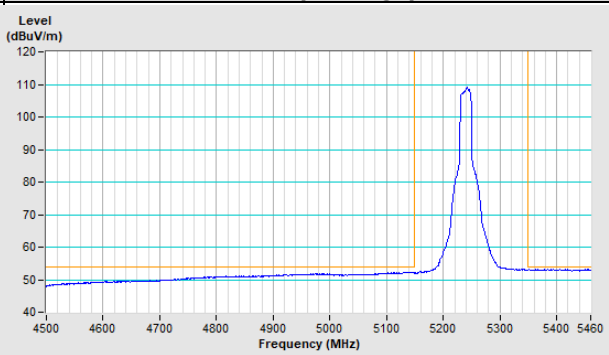
Horizontal (Average)

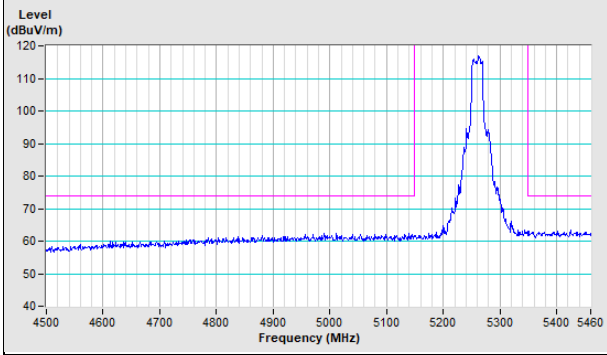
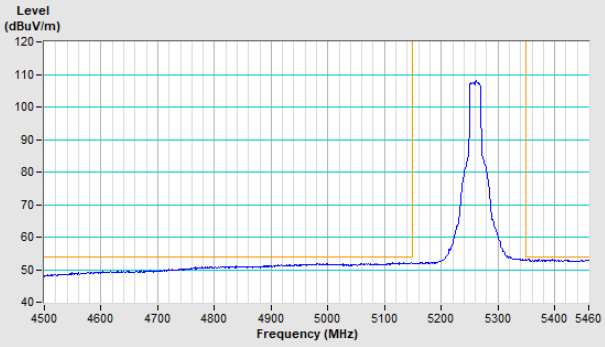
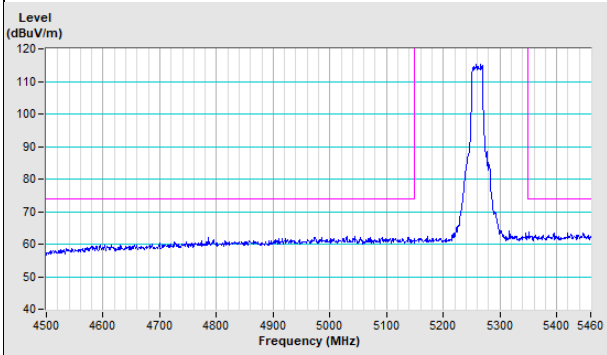
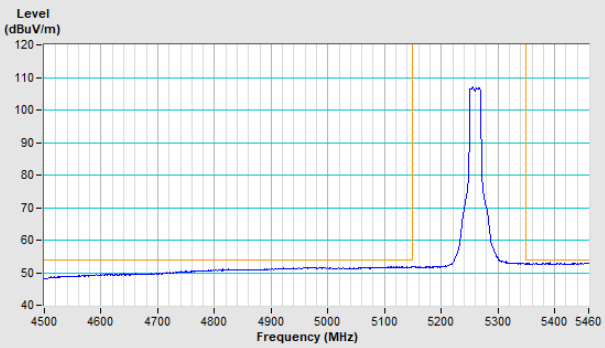
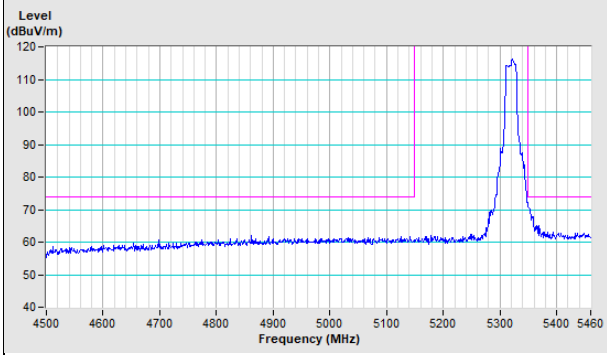
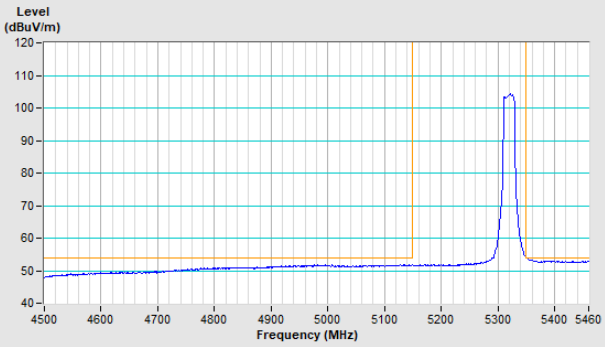
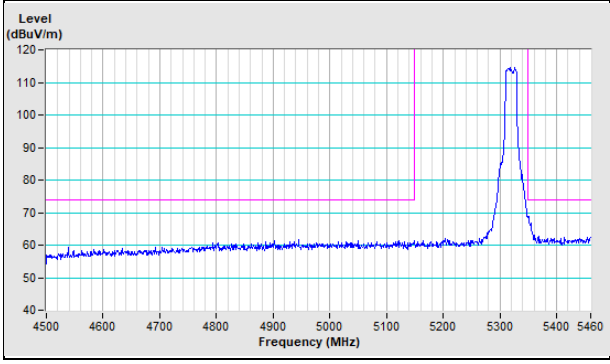
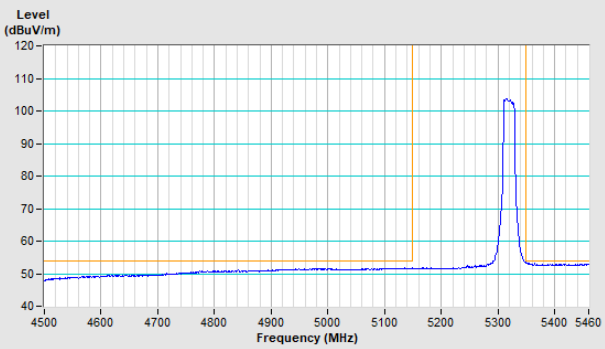


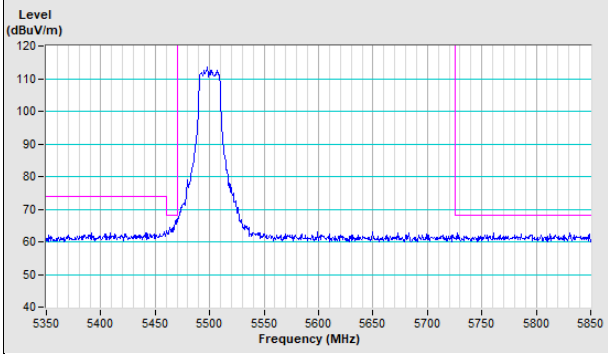
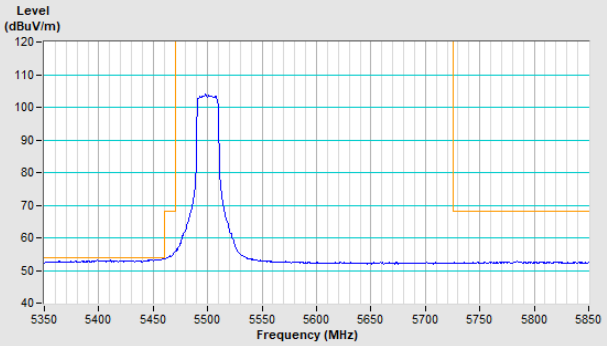
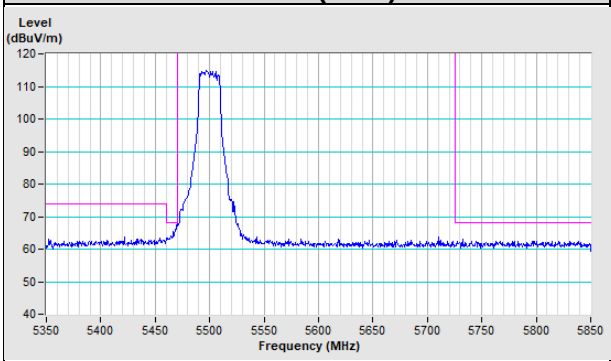
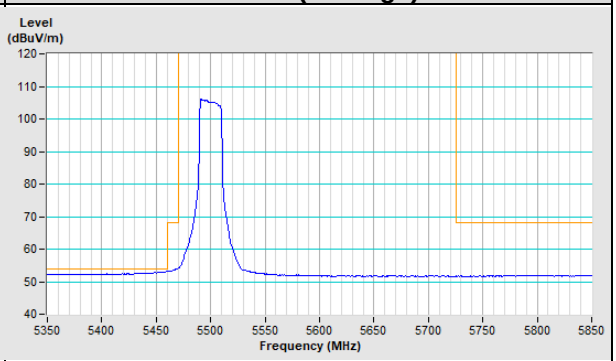
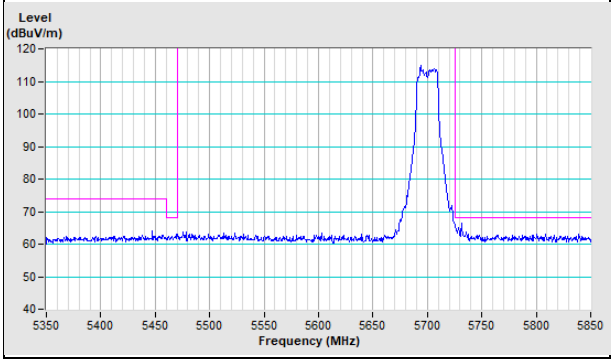
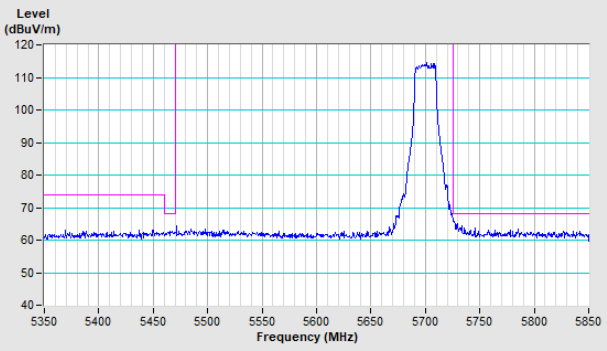
Vertical (Peak)



Vertical (Average)

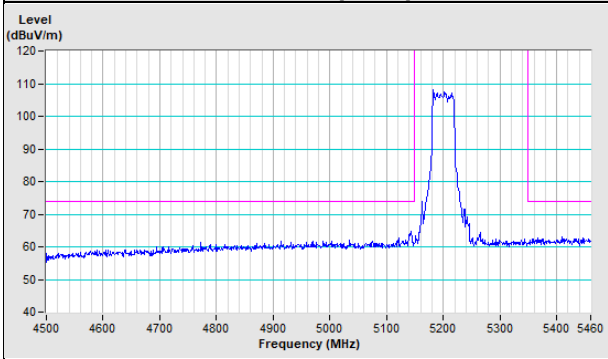


802.11ax (HE20) Channel 52	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE20) Channel 64	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

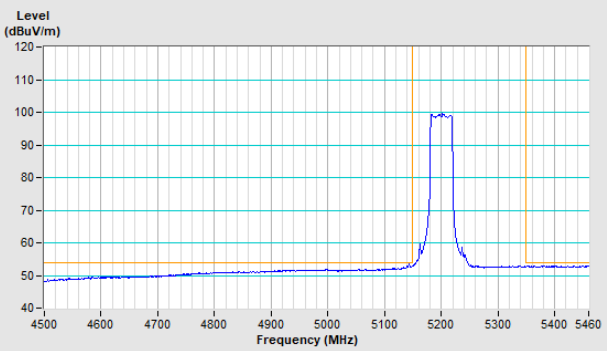
802.11ax (HE20) Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE20) Channel 140	
Horizontal (Peak)	Vertical (Peak)
	

802.11ax (HE40) Channel 38

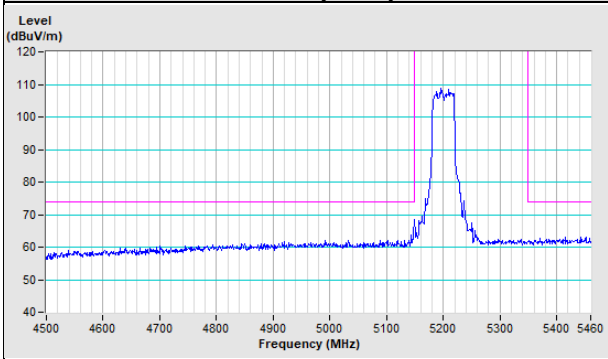
Horizontal (Peak)



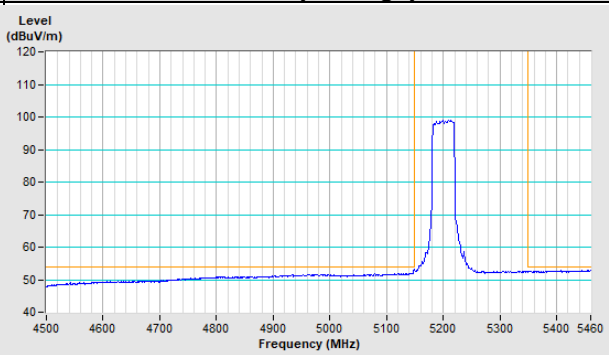
Horizontal (Average)



Vertical (Peak)

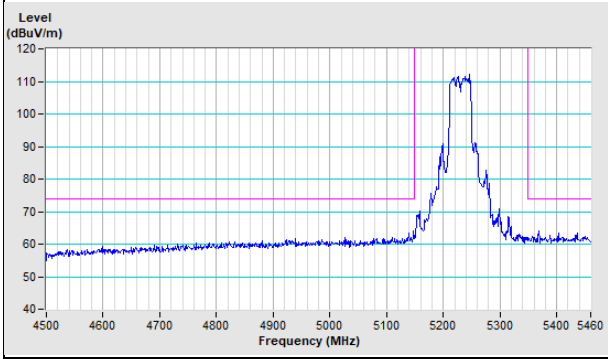


Vertical (Average)

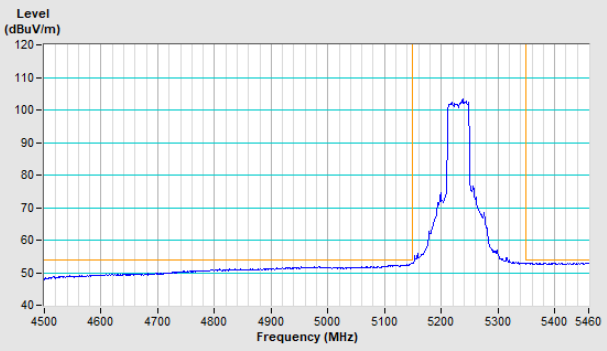


802.11ax (HE40) Channel 46

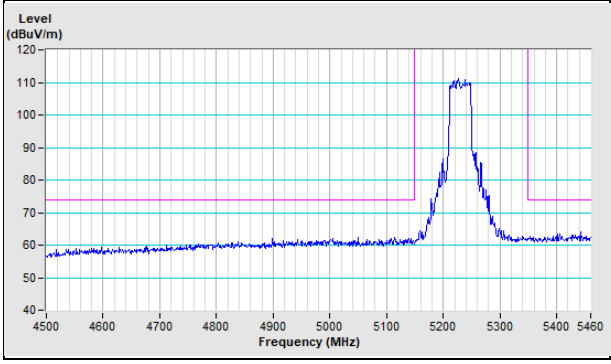
Horizontal (Peak)



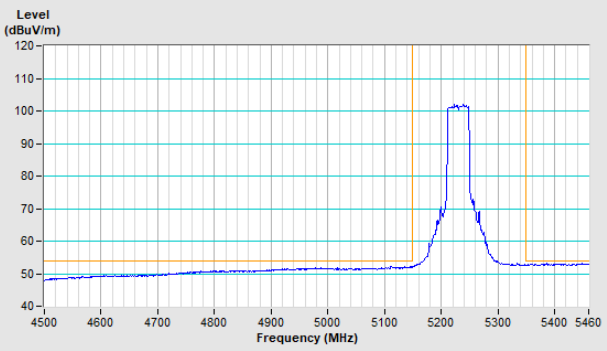
Horizontal (Average)

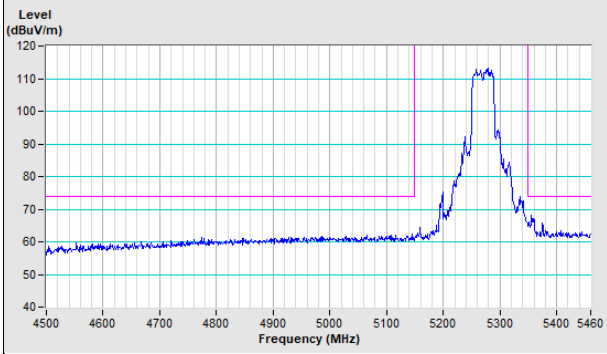
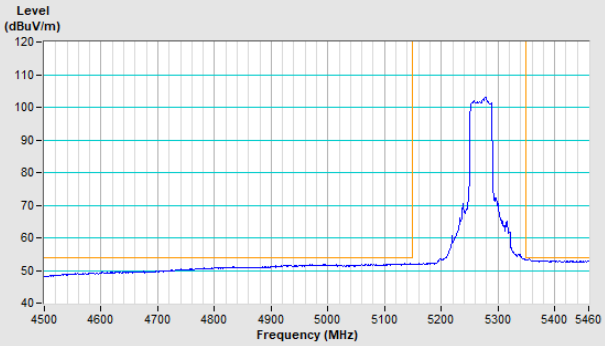
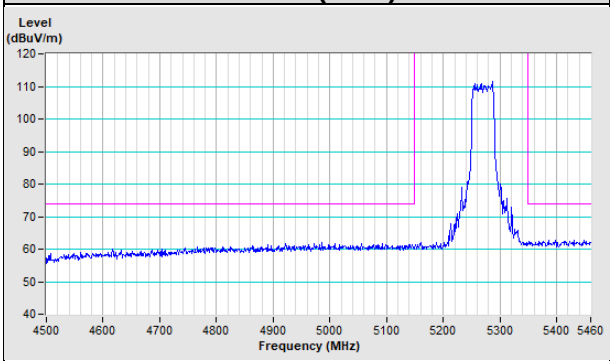
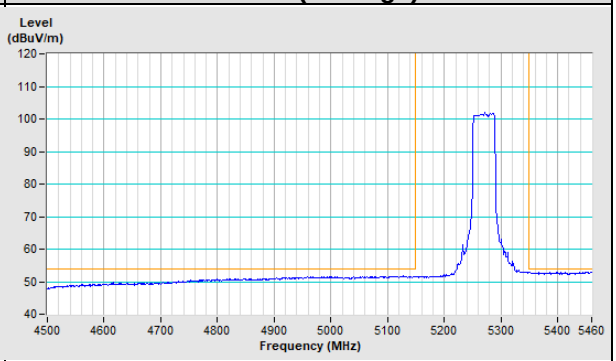
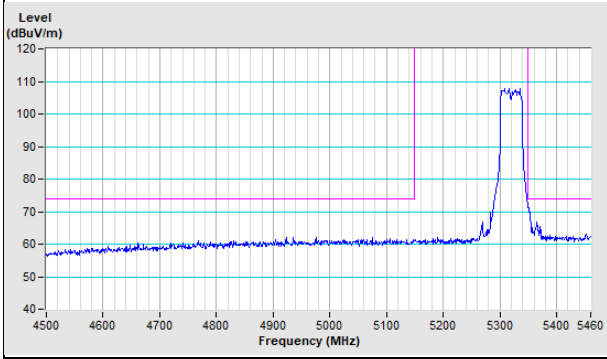
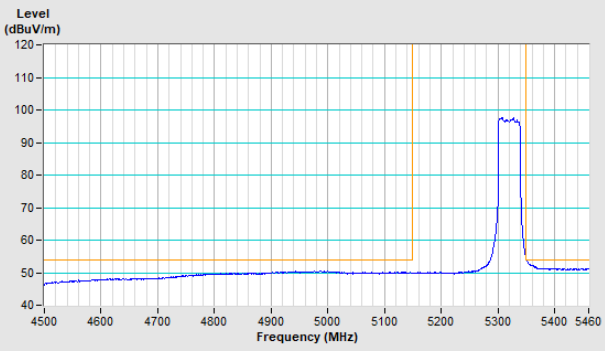
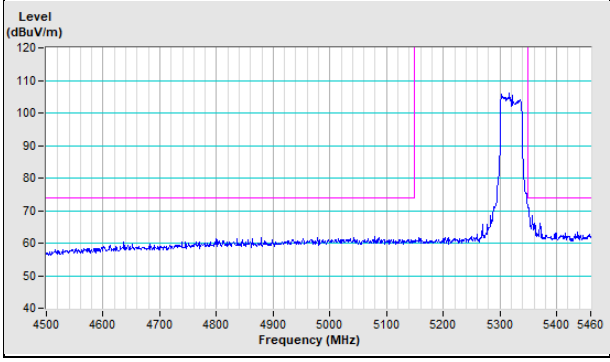
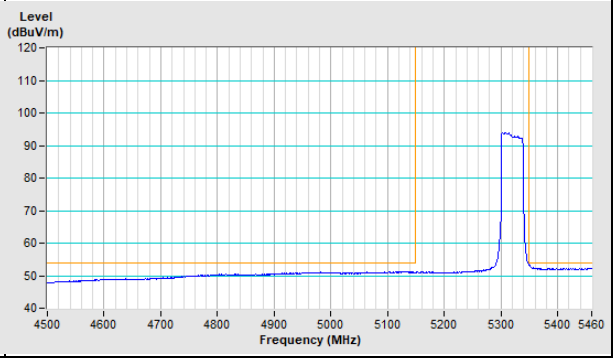


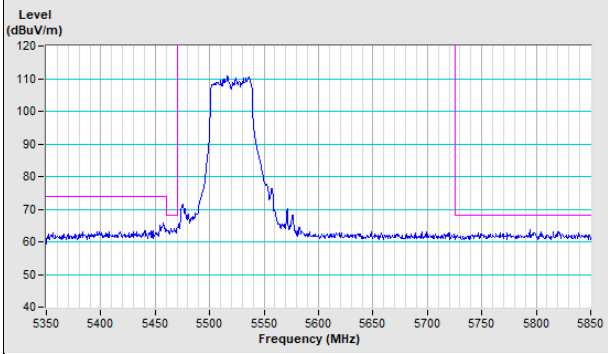
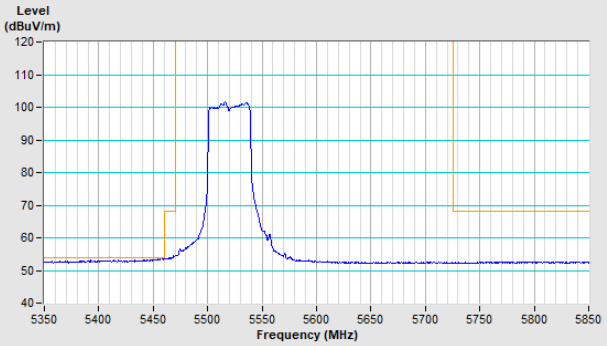
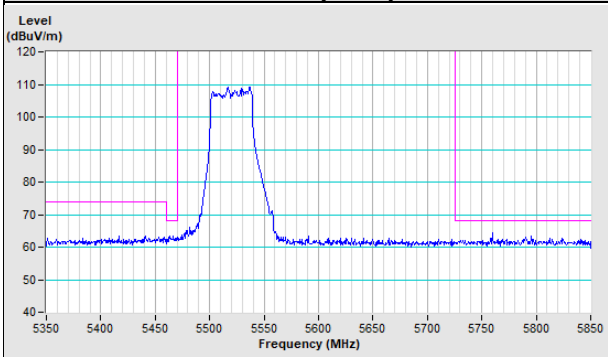
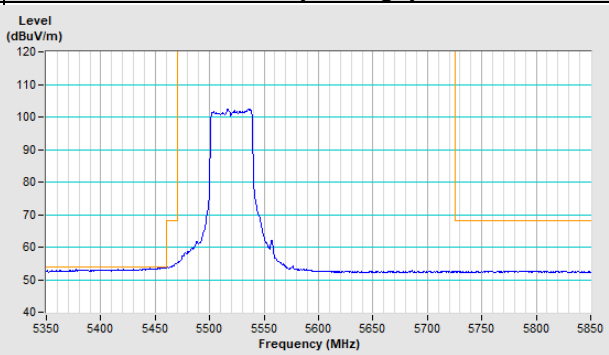
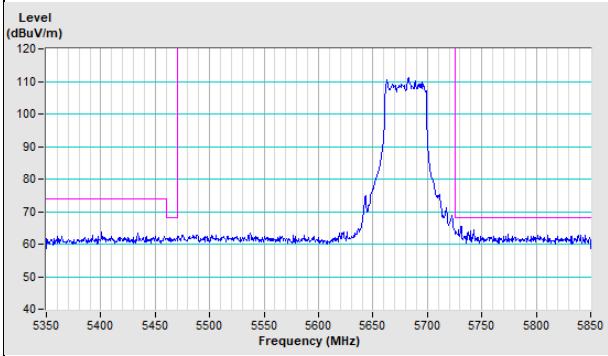
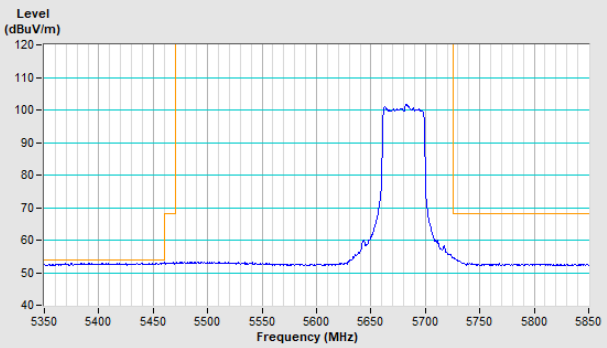
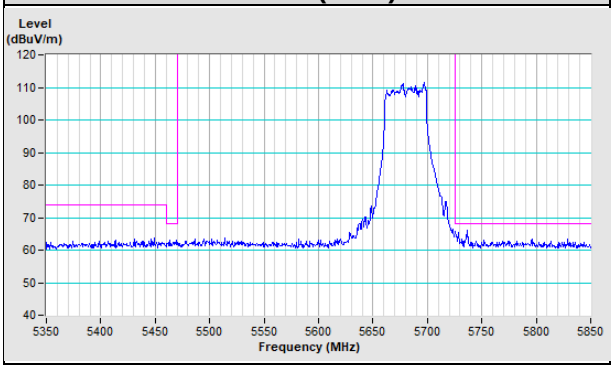
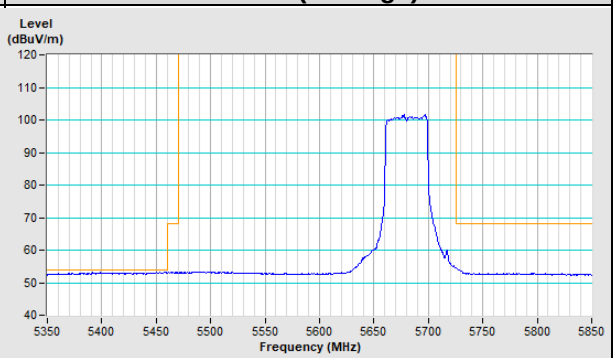
Vertical (Peak)

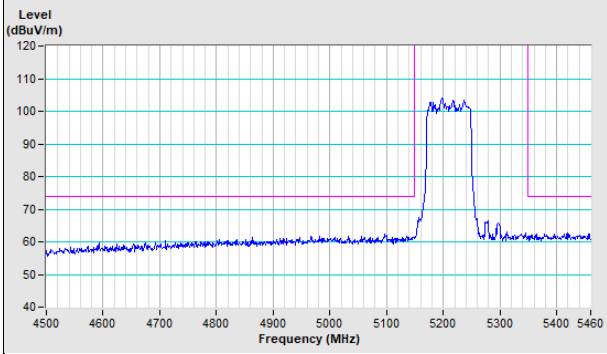
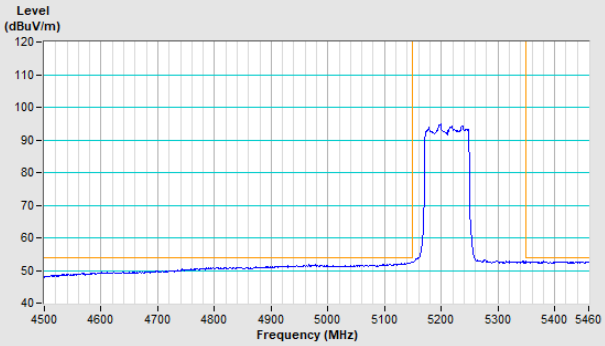
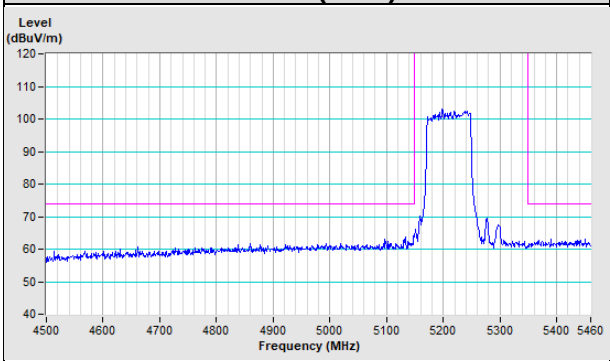
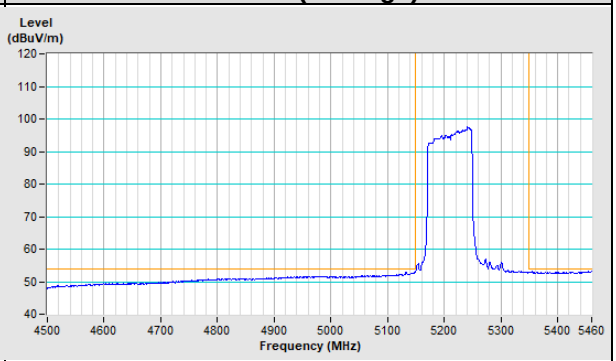
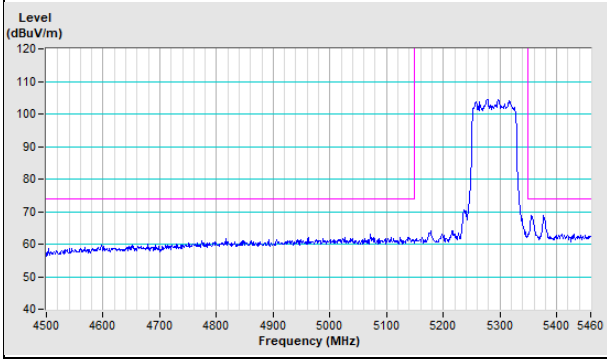
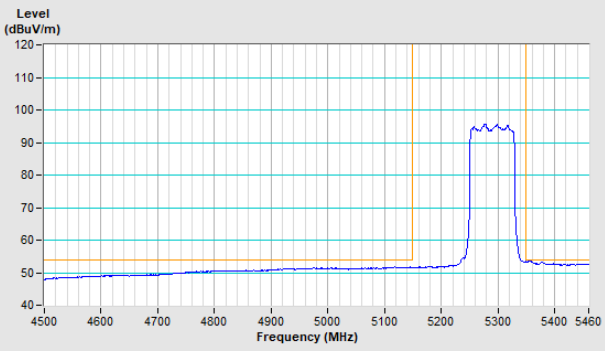
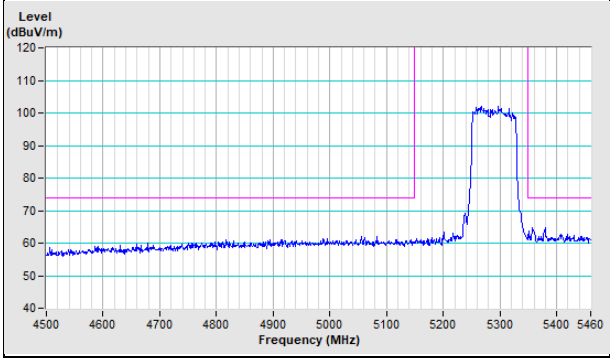
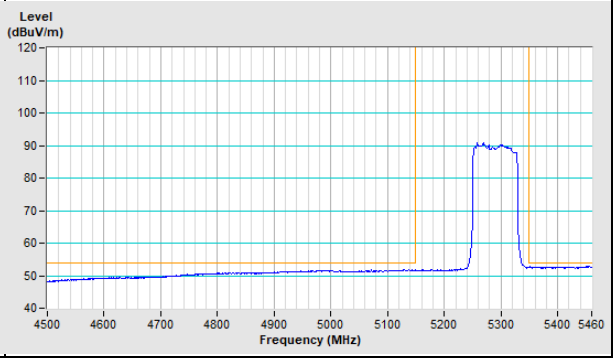


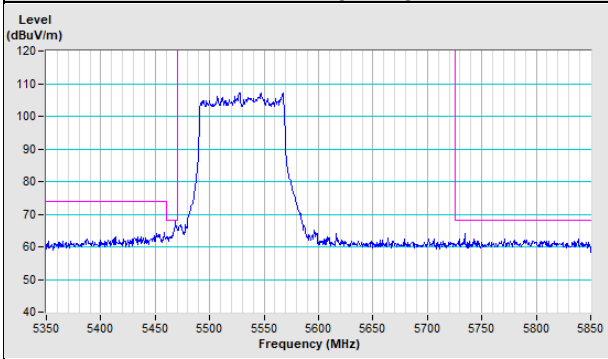
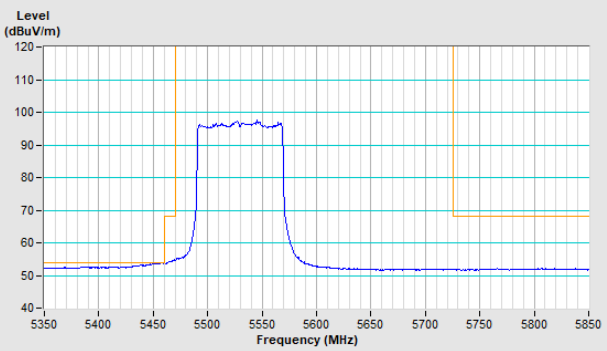
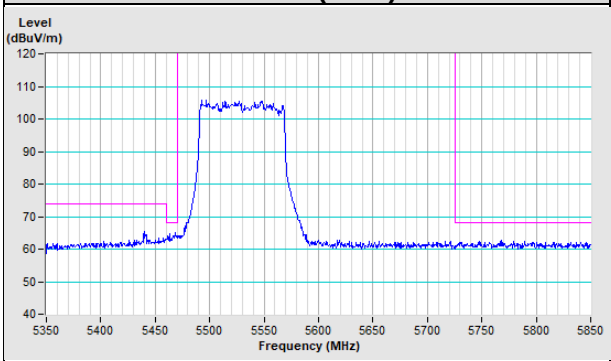
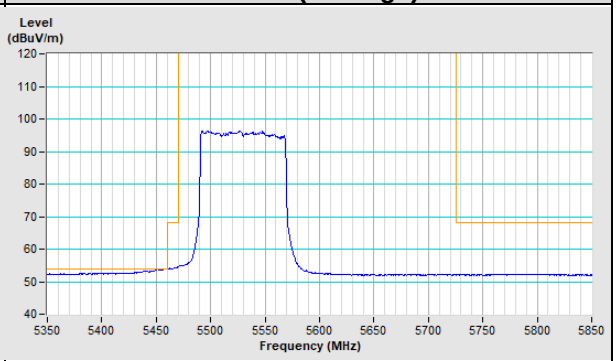
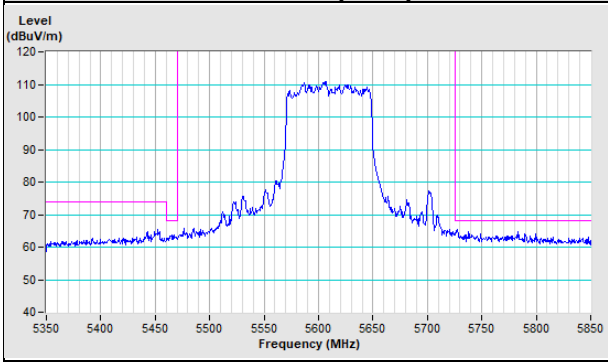
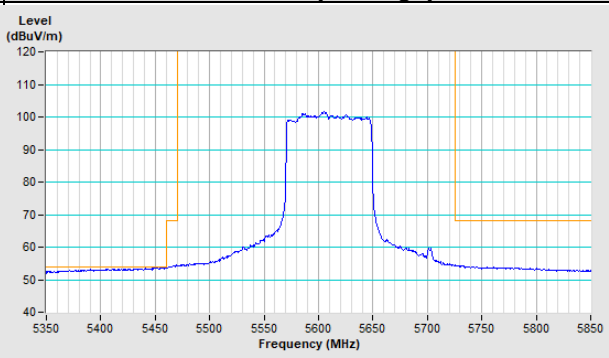
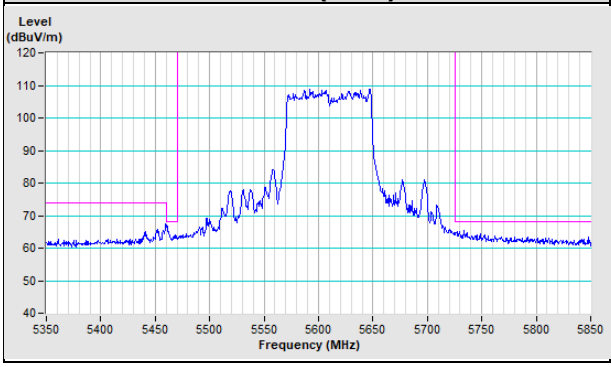
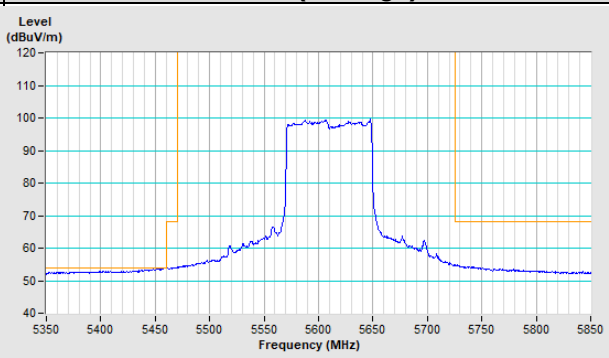
Vertical (Average)

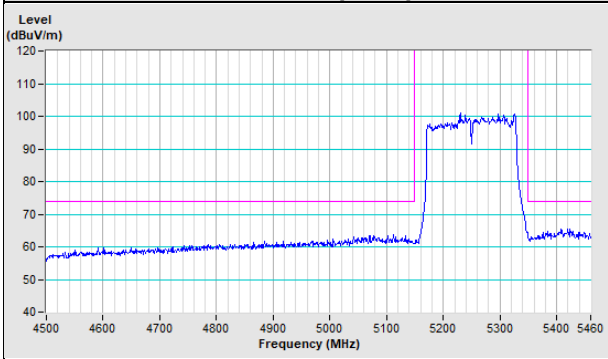
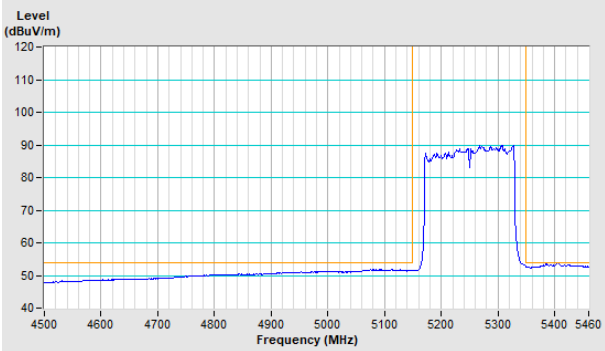
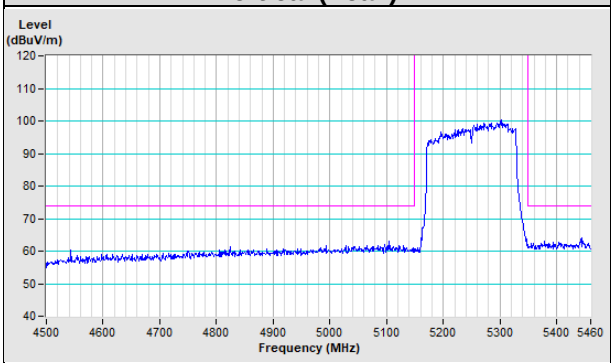
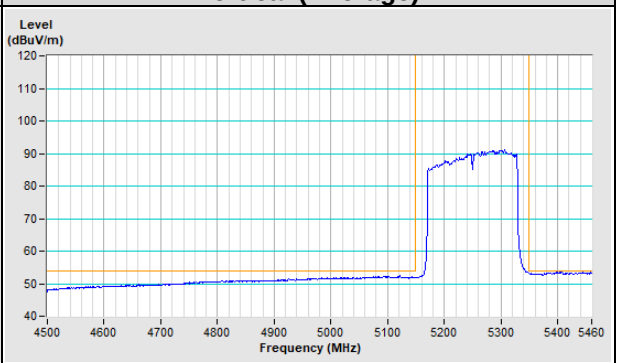
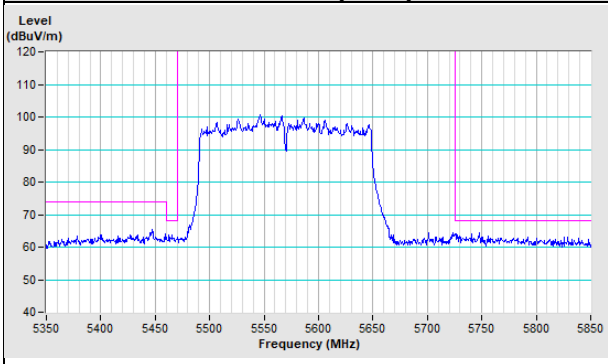
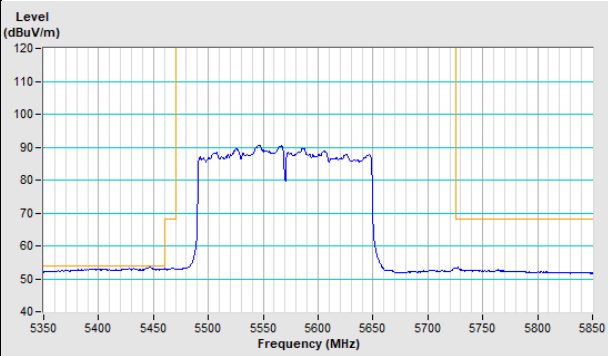
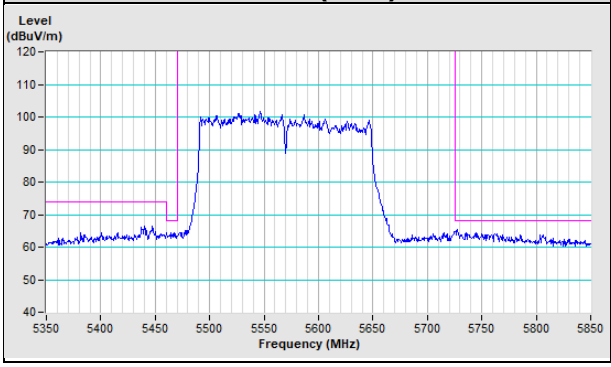
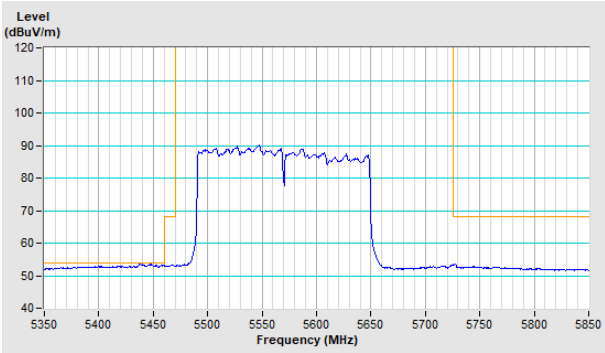


802.11ax (HE40) Channel 54	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE40) Channel 62	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

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)
	

802.11ax (HE160) Channel 50	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE160) Channel 114	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

Appendix – Information of the Testing Laboratories

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

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

Lin Kou EMC/RF Lab
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab
Tel: 886-3-6668565
Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab
Tel: 886-3-3183232
Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

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

--- END ---