

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.4 PK	74.0	-16.6	3.19 H	278	53.8	3.6
2	5460.00	42.9 AV	54.0	-11.1	3.19 H	278	39.3	3.6
3	#5470.00	63.2 PK	68.2	-5.0	3.19 H	278	59.6	3.6
4	*5510.00	104.6 PK			3.19 H	278	101.0	3.6
5	*5510.00	96.3 AV			3.19 H	278	92.7	3.6
6	11020.00	49.0 PK	74.0	-25.0	2.58 H	90	35.1	13.9
7	11020.00	38.0 AV	54.0	-16.0	2.58 H	90	24.1	13.9
8	#16530.00	48.6 PK	68.2	-19.6	2.56 H	293	32.6	16.0

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	51.7 PK	74.0	-22.3	3.08 V	286	48.1	3.6
2	5460.00	39.7 AV	54.0	-14.3	3.08 V	286	36.1	3.6
3	#5470.00	55.2 PK	68.2	-13.0	3.08 V	286	51.6	3.6
4	*5510.00	103.3 PK			3.08 V	286	99.7	3.6
5	*5510.00	95.2 AV			3.08 V	286	91.6	3.6
6	11020.00	51.1 PK	74.0	-22.9	2.05 V	120	37.2	13.9
7	11020.00	37.7 AV	54.0	-16.3	2.05 V	120	23.8	13.9
8	#16530.00	46.4 PK	68.2	-21.8	1.77 V	157	30.4	16.0

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	107.5 PK			3.02 H	274	103.8	3.7
2	*5550.00	98.3 AV			3.02 H	274	94.6	3.7
3	11100.00	48.9 PK	74.0	-25.1	2.58 H	74	35.2	13.7
4	11100.00	37.8 AV	54.0	-16.2	2.58 H	74	24.1	13.7
5	#16650.00	49.3 PK	68.2	-18.9	2.49 H	300	32.6	16.7

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	106.4 PK			3.08 V	290	102.7	3.7
2	*5550.00	96.8 AV			3.08 V	290	93.1	3.7
3	11100.00	51.3 PK	74.0	-22.7	2.10 V	148	37.6	13.7
4	11100.00	37.5 AV	54.0	-16.5	2.10 V	148	23.8	13.7
5	#16650.00	46.2 PK	68.2	-22.0	1.73 V	179	29.5	16.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	107.5 PK			3.03 H	274	103.5	4.0
2	*5670.00	98.6 AV			3.03 H	274	94.6	4.0
3	#5725.00	62.1 PK	68.2	-6.1	3.03 H	274	57.9	4.2
4	11340.00	49.4 PK	74.0	-24.6	2.60 H	63	35.1	14.3
5	11340.00	38.4 AV	54.0	-15.6	2.60 H	63	24.1	14.3
6	#17010.00	49.0 PK	68.2	-19.2	2.58 H	290	31.4	17.6

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	106.4 PK			3.15 V	291	102.4	4.0
2	*5670.00	97.2 AV			3.15 V	291	93.2	4.0
3	#5725.00	55.4 PK	68.2	-12.8	3.15 V	291	51.2	4.2
4	11340.00	51.6 PK	74.0	-22.4	2.02 V	128	37.3	14.3
5	11340.00	37.7 AV	54.0	-16.3	2.02 V	128	23.4	14.3
6	#17010.00	46.4 PK	68.2	-21.8	1.80 V	175	28.8	17.6

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	49.1 PK	74.0	-24.9	3.02 H	270	45.5	3.6
2	5460.00	39.1 AV	54.0	-14.9	3.02 H	270	35.5	3.6
3	#5470.00	52.4 PK	68.2	-15.8	3.02 H	270	48.8	3.6
4	*5710.00	106.3 PK			3.02 H	270	102.1	4.2
5	*5710.00	97.1 AV			3.02 H	270	92.9	4.2
6	#5850.00	50.1 PK	68.2	-18.1	3.02 H	270	45.6	4.5
7	11420.00	48.7 PK	74.0	-25.3	2.60 H	69	34.5	14.2
8	11420.00	37.8 AV	54.0	-16.2	2.60 H	69	23.6	14.2
9	#17130.00	49.2 PK	68.2	-19.0	2.54 H	312	31.7	17.5

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	50.8 PK	74.0	-23.2	3.16 V	295	47.2	3.6
2	5460.00	38.5 AV	54.0	-15.5	3.16 V	295	34.9	3.6
3	#5470.00	50.0 PK	68.2	-18.2	3.16 V	295	46.4	3.6
4	*5710.00	105.1 PK			3.16 V	295	100.9	4.2
5	*5710.00	96.3 AV			3.16 V	295	92.1	4.2
6	#5850.00	51.5 PK	68.2	-16.7	3.16 V	295	47.0	4.5
7	11420.00	51.2 PK	74.0	-22.8	2.12 V	136	37.0	14.2
8	11420.00	37.5 AV	54.0	-16.5	2.12 V	136	23.3	14.2
9	#17130.00	45.7 PK	68.2	-22.5	1.71 V	175	28.2	17.5

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5637.02	51.2 PK	68.2	-17.0	2.51 H	270	47.4	3.8
2	*5755.00	105.9 PK			2.51 H	270	101.7	4.2
3	*5755.00	97.1 AV			2.51 H	270	92.9	4.2
4	#5928.90	50.7 PK	68.2	-17.5	2.51 H	270	46.3	4.4
5	11510.00	59.0 PK	74.0	-15.0	1.56 H	85	44.8	14.2
6	11510.00	43.5 AV	54.0	-10.5	1.56 H	85	29.3	14.2
7	#17265.00	51.5 PK	68.2	-16.7	2.53 H	267	34.1	17.4

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5602.13	51.1 PK	68.2	-17.1	1.49 V	184	47.3	3.8
2	*5755.00	103.1 PK			1.49 V	184	98.9	4.2
3	*5755.00	94.1 AV			1.49 V	184	89.9	4.2
4	#5957.32	51.6 PK	68.2	-16.6	1.49 V	184	47.1	4.5
5	11510.00	59.5 PK	74.0	-14.5	3.49 V	49	45.3	14.2
6	11510.00	44.8 AV	54.0	-9.2	3.49 V	49	30.6	14.2
7	#17265.00	51.0 PK	68.2	-17.2	1.89 V	148	33.6	17.4

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5633.22	51.1 PK	68.2	-17.1	2.47 H	267	47.3	3.8
2	*5795.00	106.5 PK			2.47 H	267	102.2	4.3
3	*5795.00	97.2 AV			2.47 H	267	92.9	4.3
4	#5934.82	52.3 PK	68.2	-15.9	2.47 H	267	47.9	4.4
5	11590.00	59.0 PK	74.0	-15.0	1.57 H	102	44.8	14.2
6	11590.00	43.6 AV	54.0	-10.4	1.57 H	102	29.4	14.2
7	#17385.00	52.0 PK	68.2	-16.2	2.46 H	288	34.3	17.7

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5618.26	50.5 PK	68.2	-17.7	1.50 V	181	46.7	3.8
2	*5795.00	103.8 PK			1.50 V	181	99.5	4.3
3	*5795.00	94.5 AV			1.50 V	181	90.2	4.3
4	#5990.00	50.4 PK	68.2	-17.8	1.50 V	181	45.9	4.5
5	11590.00	58.5 PK	74.0	-15.5	3.54 V	53	44.3	14.2
6	11590.00	44.0 AV	54.0	-10.0	3.54 V	53	29.8	14.2
7	#17385.00	50.8 PK	68.2	-17.4	1.81 V	138	33.1	17.7

REMARKS:

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

802.11ac (VHT80)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.9 PK	74.0	-4.1	1.68 H	275	66.5	3.4
2	5150.00	52.5 AV	54.0	-1.5	1.68 H	275	49.1	3.4
3	*5210.00	102.7 PK			1.68 H	275	99.3	3.4
4	*5210.00	94.1 AV			1.68 H	275	90.7	3.4
5	5350.00	53.5 PK	74.0	-20.5	1.68 H	275	50.1	3.4
6	5350.00	42.5 AV	54.0	-11.5	1.68 H	275	39.1	3.4
7	#10420.00	47.4 PK	68.2	-20.8	2.63 H	63	33.8	13.6
8	15630.00	48.4 PK	74.0	-25.6	2.56 H	292	34.5	13.9
9	15630.00	36.5 AV	54.0	-17.5	2.56 H	292	22.6	13.9

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	70.4 PK	74.0	-3.6	3.13 V	279	67.0	3.4
2	5150.00	52.3 AV	54.0	-1.7	3.13 V	279	48.9	3.4
3	*5210.00	101.6 PK			3.13 V	279	98.2	3.4
4	*5210.00	93.3 AV			3.13 V	279	89.9	3.4
5	5350.00	53.6 PK	74.0	-20.4	3.13 V	279	50.2	3.4
6	5350.00	40.0 AV	54.0	-14.0	3.13 V	279	36.6	3.4
7	#10420.00	49.2 PK	68.2	-19.0	2.07 V	141	35.6	13.6
8	15630.00	45.4 PK	74.0	-28.6	1.76 V	161	31.5	13.9
9	15630.00	34.2 AV	54.0	-19.8	1.76 V	161	20.3	13.9

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	51.1 PK	74.0	-22.9	1.70 H	272	47.7	3.4
2	5150.00	38.5 AV	54.0	-15.5	1.70 H	272	35.1	3.4
3	*5290.00	101.4 PK			1.70 H	272	98.1	3.3
4	*5290.00	93.1 AV			1.70 H	272	89.8	3.3
5	5350.00	69.1 PK	74.0	-4.9	1.70 H	272	65.7	3.4
6	5350.00	52.4 AV	54.0	-1.6	1.70 H	272	49.0	3.4
7	#10580.00	47.0 PK	68.2	-21.2	2.62 H	72	33.4	13.6
8	15870.00	48.2 PK	74.0	-25.8	2.60 H	305	34.8	13.4
9	15870.00	36.1 AV	54.0	-17.9	2.60 H	305	22.7	13.4

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	52.0 PK	74.0	-22.0	3.13 V	290	48.6	3.4
2	5150.00	40.1 AV	54.0	-13.9	3.13 V	290	36.7	3.4
3	*5290.00	100.6 PK			3.13 V	290	97.3	3.3
4	*5290.00	92.1 AV			3.13 V	290	88.8	3.3
5	5350.00	66.8 PK	74.0	-7.2	3.13 V	290	63.4	3.4
6	5350.00	52.3 AV	54.0	-1.7	3.13 V	290	48.9	3.4
7	#10580.00	48.5 PK	68.2	-19.7	2.03 V	142	34.9	13.6
8	15870.00	45.0 PK	74.0	-29.0	1.72 V	160	31.6	13.4
9	15870.00	33.9 AV	54.0	-20.1	1.72 V	160	20.5	13.4

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	61.7 PK	74.0	-12.3	1.58 H	268	58.1	3.6
2	5460.00	47.2 AV	54.0	-6.8	1.58 H	268	43.6	3.6
3	#5470.00	65.7 PK	68.2	-2.5	1.58 H	268	62.1	3.6
4	*5530.00	100.0 PK			1.58 H	268	96.3	3.7
5	*5530.00	90.8 AV			1.58 H	268	87.1	3.7
6	#5725.00	49.8 PK	68.2	-18.4	1.58 H	268	45.6	4.2
7	11060.00	47.8 PK	74.0	-26.2	2.60 H	50	34.0	13.8
8	11060.00	37.2 AV	54.0	-16.8	2.60 H	50	23.4	13.8
9	#16590.00	48.1 PK	68.2	-20.1	2.56 H	301	31.7	16.4

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	56.7 PK	74.0	-17.3	3.10 V	290	53.1	3.6
2	5460.00	42.0 AV	54.0	-12.0	3.10 V	290	38.4	3.6
3	#5470.00	58.7 PK	68.2	-9.5	3.10 V	290	55.1	3.6
4	*5530.00	99.3 PK			3.10 V	290	95.6	3.7
5	*5530.00	89.4 AV			3.10 V	290	85.7	3.7
6	#5725.00	51.2 PK	68.2	-17.0	3.10 V	290	47.0	4.2
7	11060.00	49.5 PK	74.0	-24.5	2.03 V	150	35.7	13.8
8	11060.00	37.2 AV	54.0	-16.8	2.03 V	150	23.4	13.8
9	#16590.00	45.0 PK	68.2	-23.2	1.79 V	167	28.6	16.4

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	102.9 PK			1.65 H	274	99.1	3.8
2	*5610.00	94.1 AV			1.65 H	274	90.3	3.8
3	#5725.00	58.5 PK	68.2	-9.7	1.65 H	274	54.3	4.2
4	11220.00	47.5 PK	74.0	-26.5	2.61 H	54	33.7	13.8
5	11220.00	36.8 AV	54.0	-17.2	2.61 H	54	23.0	13.8
6	#16830.00	48.2 PK	68.2	-20.0	2.57 H	316	31.0	17.2

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	101.4 PK			3.19 V	307	97.6	3.8
2	*5610.00	93.2 AV			3.19 V	307	89.4	3.8
3	#5725.00	52.3 PK	68.2	-15.9	3.19 V	307	48.1	4.2
4	11220.00	49.5 PK	74.0	-24.5	2.13 V	141	35.7	13.8
5	11220.00	36.1 AV	54.0	-17.9	2.13 V	141	22.3	13.8
6	#16830.00	45.5 PK	68.2	-22.7	1.71 V	158	28.3	17.2

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	50.6 PK	74.0	-23.4	1.73 H	276	47.0	3.6
2	5460.00	39.3 AV	54.0	-14.7	1.73 H	276	35.7	3.6
3	#5470.00	50.7 PK	68.2	-17.5	1.73 H	276	47.1	3.6
4	*5690.00	103.7 PK			1.73 H	276	99.5	4.2
5	*5690.00	94.3 AV			1.73 H	276	90.1	4.2
6	#5850.00	50.2 PK	68.2	-18.0	1.73 H	276	45.7	4.5
7	11380.00	47.3 PK	74.0	-26.7	2.55 H	42	33.1	14.2
8	11380.00	37.0 AV	54.0	-17.0	2.55 H	42	22.8	14.2
9	#17070.00	48.0 PK	68.2	-20.2	2.56 H	303	30.4	17.6

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	50.2 PK	74.0	-23.8	3.20 V	280	46.6	3.6
2	5460.00	38.3 AV	54.0	-15.7	3.20 V	280	34.7	3.6
3	#5470.00	51.6 PK	68.2	-16.6	3.20 V	280	48.0	3.6
4	*5690.00	102.4 PK			3.20 V	280	98.2	4.2
5	*5690.00	93.2 AV			3.20 V	280	89.0	4.2
6	#5850.00	52.2 PK	68.2	-16.0	3.20 V	280	47.7	4.5
7	11380.00	49.2 PK	74.0	-24.8	2.15 V	147	35.0	14.2
8	11380.00	36.1 AV	54.0	-17.9	2.15 V	147	21.9	14.2
9	#17070.00	45.1 PK	68.2	-23.1	1.77 V	154	27.5	17.6

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5646.86	54.6 PK	68.2	-13.6	1.72 H	267	50.7	3.9
2	*5775.00	103.5 PK			1.72 H	267	99.2	4.3
3	*5775.00	93.9 AV			1.72 H	267	89.6	4.3
4	#5931.45	51.8 PK	68.2	-16.4	1.72 H	267	47.4	4.4
5	11550.00	48.0 PK	74.0	-26.0	2.60 H	37	33.8	14.2
6	11550.00	37.3 AV	54.0	-16.7	2.60 H	37	23.1	14.2
7	#17325.00	48.1 PK	68.2	-20.1	2.56 H	310	30.6	17.5

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5652.92	54.6 PK	70.4	-15.8	1.64 V	231	50.7	3.9
2	*5775.00	100.3 PK			1.64 V	231	96.0	4.3
3	*5775.00	90.7 AV			1.64 V	231	86.4	4.3
4	#5944.77	51.4 PK	68.2	-16.8	1.64 V	231	47.0	4.4
5	11550.00	50.0 PK	74.0	-24.0	2.14 V	125	35.8	14.2
6	11550.00	36.4 AV	54.0	-17.6	2.14 V	125	22.2	14.2
7	#17325.00	45.9 PK	68.2	-22.3	1.71 V	163	28.4	17.5

REMARKS:

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

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

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

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

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 23, 2019	Oct. 22, 2020
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 23, 2019	Oct. 22, 2020
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 17, 2019	Mar. 16, 2020
50 ohms Terminator	50	3	Oct. 23, 2019	Oct. 22, 2020
RF Cable	5D-FB	COCCAB-001	Sep. 27, 2019	Sep. 26, 2020
Fixed attenuator EMCI	STI02-2200-10	005	Aug. 30, 2019	Aug. 29, 2020
Software BVADT	BVADT_Cond_V7.3.7.4	NA	NA	NA

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
- 3 Tested Date: Mar. 09, 2020

4.2.3 Test Procedure

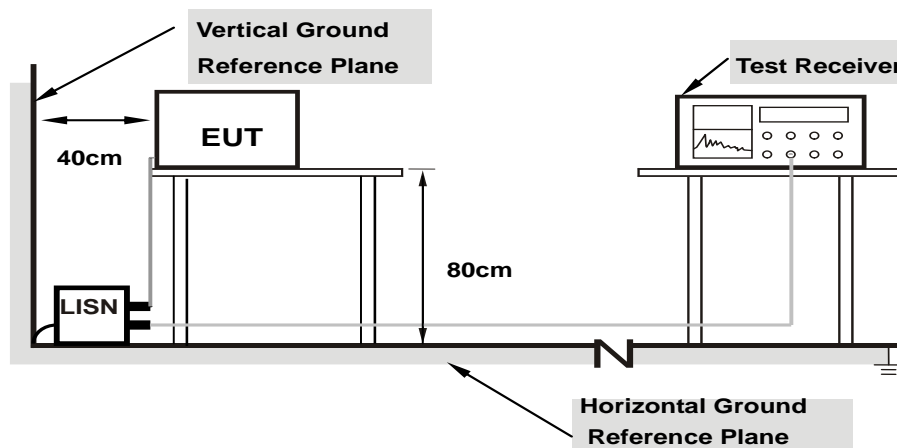
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Condition

Same as 4.1.6.

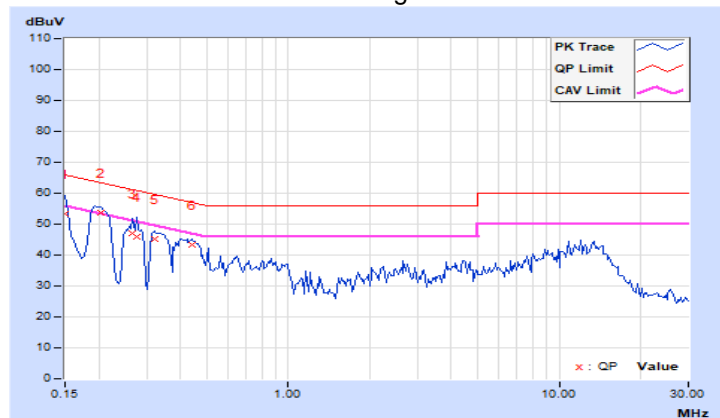
4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.97	43.52	20.58	53.49	30.55	66.00	56.00	-12.51	-25.45
2	0.20469	9.97	43.82	28.41	53.79	38.38	63.42	53.42	-9.63	-15.04
3	0.26719	9.97	37.22	22.77	47.19	32.74	61.20	51.20	-14.01	-18.46
4	0.27500	9.97	36.11	21.34	46.08	31.31	60.97	50.97	-14.89	-19.66
5	0.32188	9.98	35.24	22.01	45.22	31.99	59.66	49.66	-14.44	-17.67
6	0.44297	9.98	33.51	19.03	43.49	29.01	57.01	47.01	-13.52	-18.00

Remarks:

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

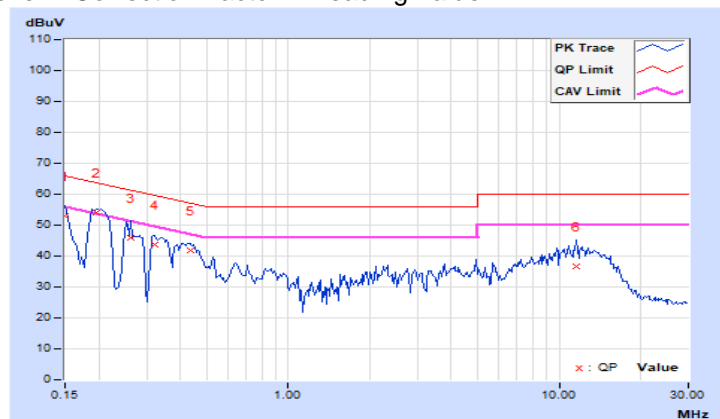


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.97	42.86	19.17	52.83	29.14	66.00	56.00	-13.17	-26.86
2	0.19687	9.97	43.97	27.90	53.94	37.87	63.74	53.74	-9.80	-15.87
3	0.26328	9.97	36.01	21.55	45.98	31.52	61.33	51.33	-15.35	-19.81
4	0.32188	9.98	33.86	21.47	43.84	31.45	59.66	49.66	-15.82	-18.21
5	0.43516	9.98	31.85	15.15	41.83	25.13	57.15	47.15	-15.32	-22.02
6	11.64063	10.46	26.16	16.55	36.62	27.01	60.00	50.00	-23.38	-22.99

Remarks:

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



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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

*B is the 26 dB emission bandwidth in megahertz

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

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

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

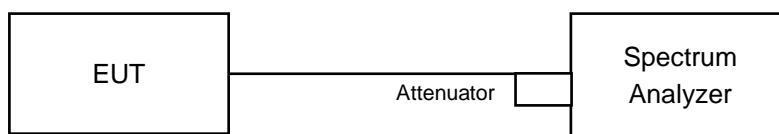
Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

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

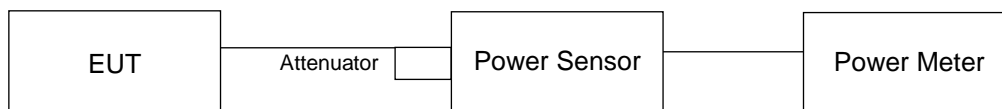
4.3.2 Test Setup

FOR POWER OUTPUT MEASUREMENT

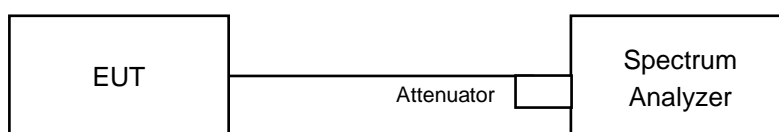
For channel straddling 5725MHz:



For other channels:



FOR 26dB OCCUPIED BANDWIDTH



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

FOR POWER OUTPUT MEASUREMENT

For channel straddling 5725MHz:

Follow FCC KDB 789033 UNII test procedure:

Method SA-1

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

For other channels:

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

FOR 26dB OCCUPIED BANDWIDTH

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

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Condition

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

4.3.7 Test Results (Mode 1)

POWER OUTPUT
CDD Mode
802.11a

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	18.22	19.34	152.276	21.83	24.00	Pass
40	5200	18.39	19.19	152.009	21.82	24.00	Pass
48	5240	18.42	19.15	151.727	21.81	24.00	Pass
52	5260	18.35	19.23	152.144	21.82	24.00	Pass
60	5300	18.77	19.15	157.56	21.97	24.00	Pass
64	5320	18.12	19.46	153.171	21.85	24.00	Pass
100	5500	17.18	18.44	122.063	20.87	23.80	Pass
116	5580	18.01	19.72	156.997	21.96	24.00	Pass
140	5700	16.83	17.07	99.128	19.96	23.75	Pass
*144 (U-NII-2C Band)	5720	14.86	15.76	68.29	18.34	22.93	Pass
*144 (U-NII-3 Band)	5720	8.55	9.28	15.634	11.94	30.00	Pass
149	5745	21.11	20.91	252.432	24.02	30.00	Pass
157	5785	21.03	20.95	251.217	24.00	30.00	Pass
165	5825	20.98	20.93	249.194	23.97	30.00	Pass

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

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
144	5720	83.924	19.24	18.93	18.86	155.076	21.91

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	25.59	25.08 > 24
60	5300	25.23	25.01 > 24
64	5320	23.71	24.74 > 24
100	5500	19.09	23.8 < 24
116	5580	23.39	24.69 > 24
140	5700	18.84	23.75 < 24
144 (U-NII-2C Band)	5720	15.62	22.93 < 24

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	17.86	18.74	135.911	21.33	24.00	Pass
40	5200	18.36	19.39	155.445	21.92	24.00	Pass
48	5240	18.50	19.36	157.092	21.96	24.00	Pass
52	5260	18.38	19.42	156.364	21.94	24.00	Pass
60	5300	18.27	19.28	151.866	21.81	24.00	Pass
64	5320	18.15	19.09	146.409	21.66	24.00	Pass
100	5500	17.38	17.31	108.529	20.36	23.98	Pass
116	5580	19.07	18.85	157.46	21.97	24.00	Pass
140	5700	16.14	17.13	92.757	19.67	23.98	Pass
*144 (U-NII-2C Band)	5720	14.86	15.55	66.512	18.23	22.76	Pass
*144 (U-NII-3 Band)	5720	8.90	9.60	16.883	12.27	30.00	Pass
149	5745	21.01	20.99	251.786	24.01	30.00	Pass
157	5785	21.02	21.08	254.707	24.06	30.00	Pass
165	5825	20.94	20.99	249.768	23.98	30.00	Pass

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

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
144	5720	83.395	19.21	18.47	19.42	157.806	21.98

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	29.43	25.68 > 24
60	5300	27.25	25.35 > 24
64	5320	25.22	25.01 > 24
100	5500	19.89	23.98 < 24
116	5580	24.76	24.93 > 24
140	5700	19.87	23.98 < 24
144 (U-NII-2C Band)	5720	15	22.76 < 24

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	16.50	17.66	103.013	20.13	24.00	Pass
46	5230	19.95	19.93	197.256	22.95	24.00	Pass
54	5270	19.02	19.24	163.745	22.14	24.00	Pass
62	5310	15.97	16.68	86.095	19.35	24.00	Pass
102	5510	15.44	16.49	79.56	19.01	24.00	Pass
110	5550	20.14	20.20	207.989	23.18	24.00	Pass
134	5670	18.47	19.59	161.299	22.08	24.00	Pass
*142 (U-NII-2C Band)	5710	17.59	17.78	117.391	20.70	24.00	Pass
*142 (U-NII-3 Band)	5710	5.96	6.21	8.123	9.10	30.00	Pass
151	5755	19.86	19.88	194.103	22.88	30.00	Pass
159	5795	19.98	19.95	198.396	22.98	30.00	Pass

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

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
142	5710	125.514	20.99	19.95	19.86	195.683	22.92

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	67.28	29.27 > 24
62	5310	48.49	27.85 > 24
102	5510	43.02	27.33 > 24
110	5550	66.98	29.25 > 24
134	5670	60.55	28.82 > 24
142 (U-NII-2C Band)	5710	48.37	27.84 > 24

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	15.80	16.28	80.481	19.06	24.00	Pass
58	5290	15.07	16.50	76.805	18.85	24.00	Pass
106	5530	13.32	14.04	46.83	16.71	24.00	Pass
122	5610	19.31	20.92	208.905	23.20	24.00	Pass
*138 (U-NII-2C Band)	5690	17.03	17.65	108.676	20.36	24.00	Pass
*138 (U-NII-3 Band)	5690	-0.02	0.59	2.1409	3.31	30.00	Pass
155	5775	19.92	19.96	197.258	22.95	30.00	Pass

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

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
138	5690	110.8169	20.45	19.96	19.98	198.624	22.98

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.2	30.14 > 24
106	5530	82.22	30.14 > 24
122	5610	141.1	32.49 > 24
138 (U-NII-2C Band)	5690	96.73	30.85 > 24

Beamforming Mode

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	17.86	18.74	135.911	21.33	21.99	Pass
40	5200	18.36	19.39	155.445	21.92	21.99	Pass
48	5240	18.50	19.36	157.092	21.96	21.99	Pass
52	5260	18.38	19.42	156.364	21.94	21.99	Pass
60	5300	18.27	19.28	151.866	21.81	21.99	Pass
64	5320	18.15	19.09	146.409	21.66	21.99	Pass
100	5500	17.38	17.31	108.529	20.36	21.97	Pass
116	5580	19.07	18.85	157.46	21.97	21.99	Pass
140	5700	16.14	17.13	92.757	19.67	21.97	Pass
*144 (U-NII-2C Band)	5720	14.86	15.55	66.512	18.23	20.75	Pass
*144 (U-NII-3 Band)	5720	8.90	9.60	16.883	12.27	27.99	Pass
149	5745	21.01	20.99	251.786	24.01	27.99	Pass
157	5785	21.02	21.08	254.707	24.06	27.99	Pass
165	5825	20.94	20.99	249.768	23.98	27.99	Pass

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

1. The directional gain = 5 dBi + 10log(2) = 8.01 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(8.01-6)".

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
144	5720	83.395	19.21	18.47	19.42	157.806	21.98

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	29.43	25.68 > 24
60	5300	27.25	25.35 > 24
64	5320	25.22	25.01 > 24
100	5500	19.89	23.98 < 24
116	5580	24.76	24.93 > 24
140	5700	19.87	23.98 < 24
144 (U-NII-2C Band)	5720	15	22.76 < 24

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	16.50	17.66	103.013	20.13	21.99	Pass
46	5230	18.41	19.45	157.447	21.97	21.99	Pass
54	5270	18.59	19.27	156.805	21.95	21.99	Pass
62	5310	15.97	16.68	86.095	19.35	21.99	Pass
102	5510	15.44	16.49	79.56	19.01	21.99	Pass
110	5550	18.82	19.10	157.491	21.97	21.99	Pass
134	5670	19.02	18.67	153.42	21.86	21.99	Pass
*142 (U-NII-2C Band)	5710	16.54	16.00	84.892	19.29	21.99	Pass
*142 (U-NII-3 Band)	5710	4.76	4.36	5.721	7.57	27.99	Pass
151	5755	19.86	19.88	194.103	22.88	27.99	Pass
159	5795	19.98	19.95	198.396	22.98	27.99	Pass

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

1. The directional gain = 5 dBi + 10log(2) = 8.01 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(8.01-6)".

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
142	5710	90.613	19.57	19.08	18.79	156.593	21.95

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	67.28	29.27 > 24
62	5310	48.49	27.85 > 24
102	5510	43.02	27.33 > 24
110	5550	66.98	29.25 > 24
134	5670	60.55	28.82 > 24
142 (U-NII-2C Band)	5710	48.37	27.84 > 24

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	15.80	16.28	80.481	19.06	21.99	Pass
58	5290	15.07	16.50	76.805	18.85	21.99	Pass
106	5530	13.32	14.04	46.83	16.71	21.99	Pass
122	5610	19.03	18.89	157.43	21.97	21.99	Pass
*138 (U-NII-2C Band)	5690	16.42	16.30	86.511	19.37	21.99	Pass
*138 (U-NII-3 Band)	5690	-0.67	-0.79	1.6907	2.28	27.99	Pass
155	5775	19.92	19.96	197.258	22.95	27.99	Pass

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

1. The directional gain = 5 dBi + 10log(2) = 8.01 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(8.01-6)".

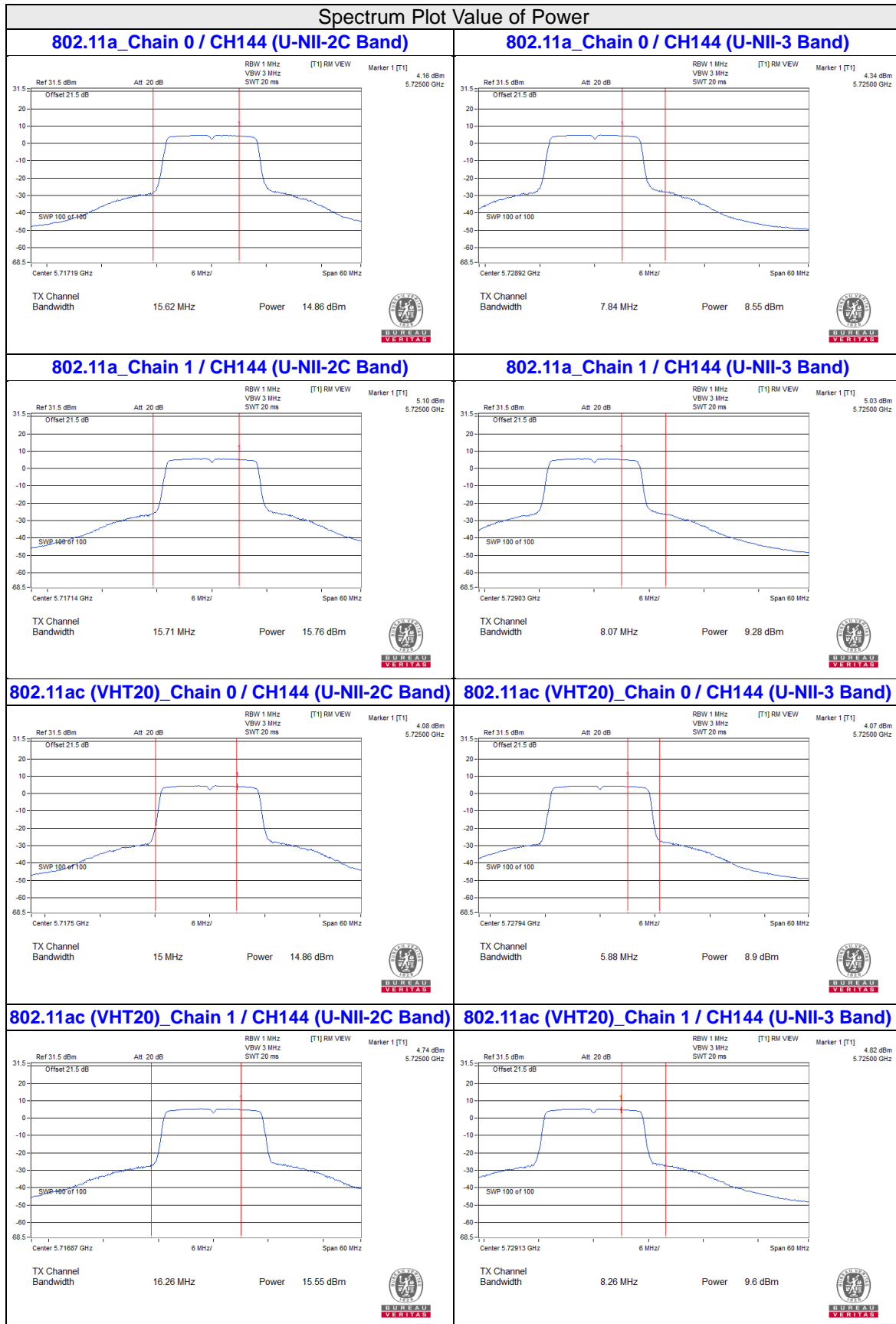
The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1		
138	5690	88.2017	19.45	18.86	18.97	155.799	21.93

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

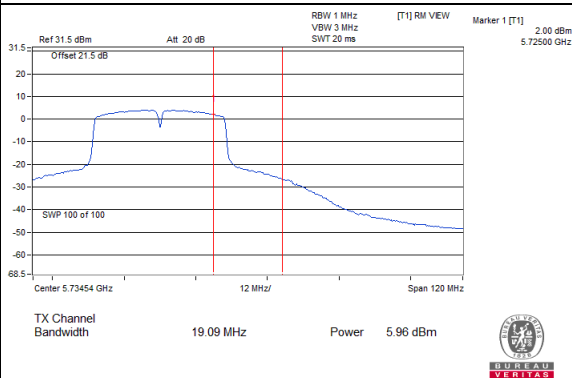
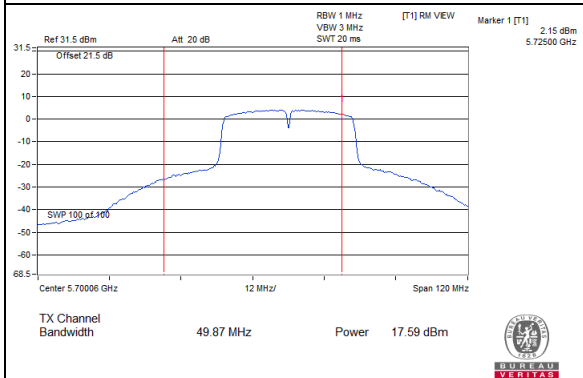
Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.2	30.14 > 24
106	5530	82.22	30.14 > 24
122	5610	141.1	32.49 > 24
138 (U-NII-2C Band)	5690	96.73	30.85 > 24

For channel straddling 5725MHz of Power
CDD Mode

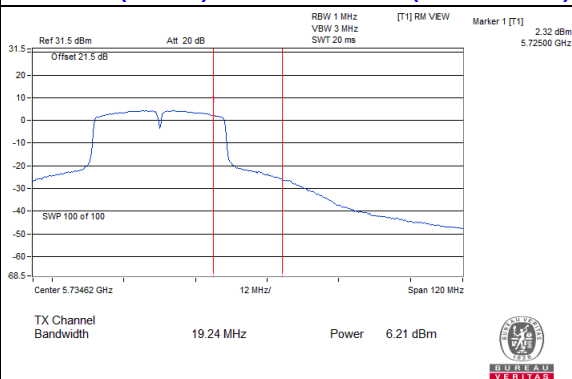
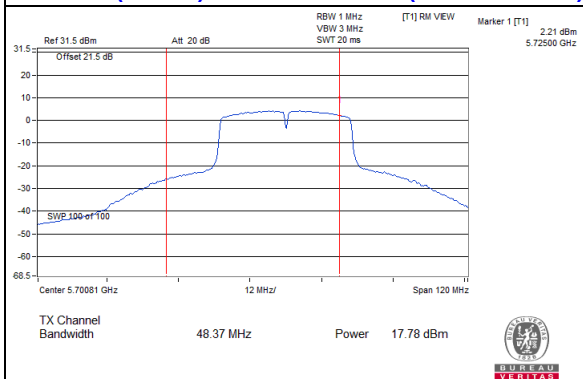


Spectrum Plot Value of Power

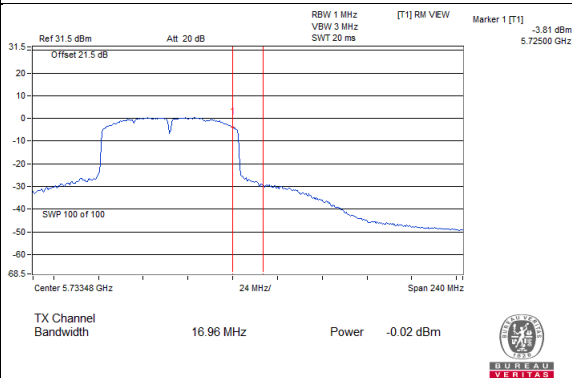
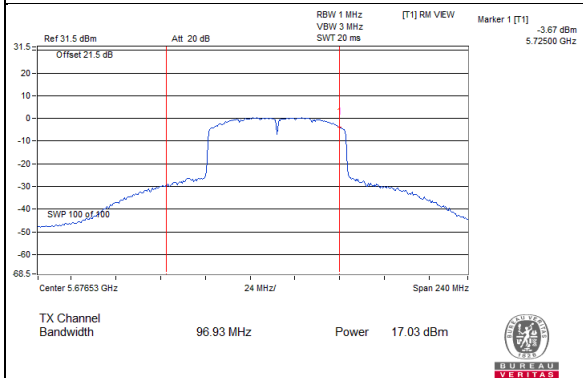
802.11ac (VHT40)_Chain 0 / CH142 (U-NII-2C Band) 802.11ac (VHT40)_Chain 0 / CH142 (U-NII-3 Band)



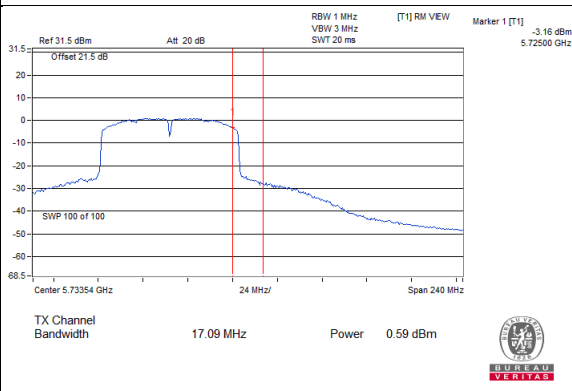
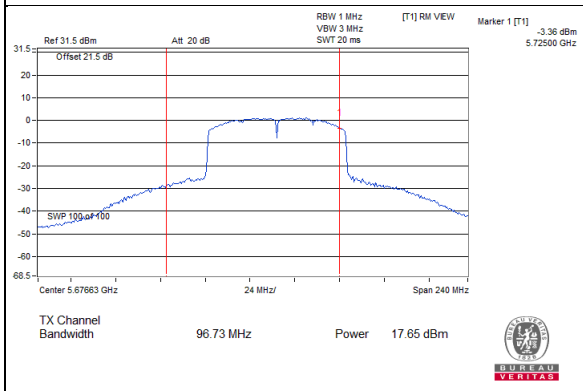
802.11ac (VHT40)_Chain 1 / CH142 (U-NII-2C Band) 802.11ac (VHT40)_Chain 1 / CH142 (U-NII-3 Band)



802.11ac (VHT80)_Chain 0 / CH138 (U-NII-2C Band) 802.11ac (VHT80)_Chain 0 / CH138 (U-NII-3 Band)



802.11ac (VHT80)_Chain 1 / CH138 (U-NII-2C Band) 802.11ac (VHT80)_Chain 1 / CH138 (U-NII-3 Band)

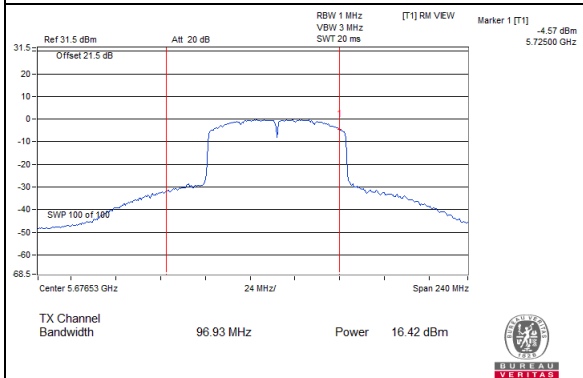


Beamforming Mode

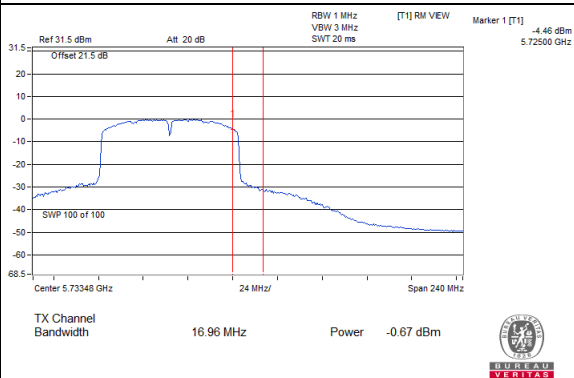


Spectrum Plot Value of Power

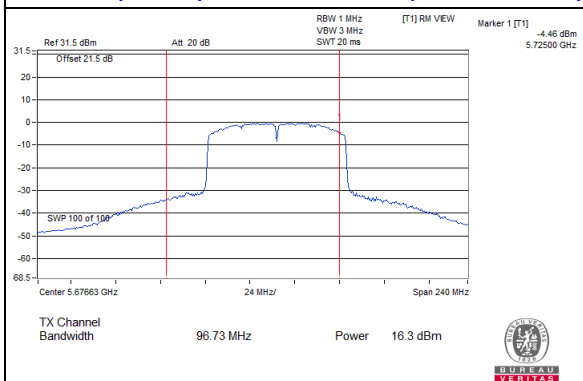
802.11ac (VHT80)_Chain 0 / CH138 (U-NII-2C Band)



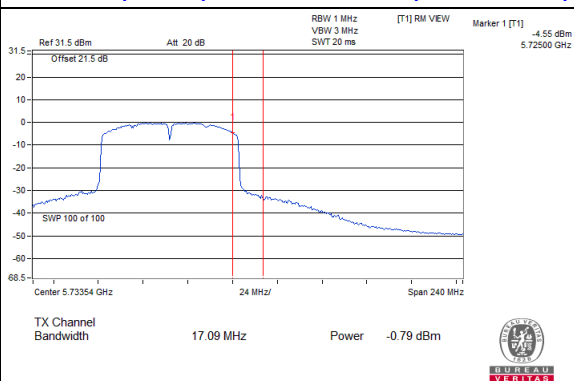
802.11ac (VHT80)_Chain 0 / CH138 (U-NII-3 Band)



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



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



26dB OCCUPIED BANDWIDTH

CDD Mode

802.11a

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	25.59	27.24
60	5300	25.23	27.08
64	5320	23.71	28.36
100	5500	19.09	23.75
116	5580	23.39	24.62
140	5700	18.9	18.84
144 (U-NII-2C Band)	5720	15.62	15.71

802.11ac (VHT20)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	29.43	38.41
60	5300	27.25	38.46
64	5320	25.22	29.42
100	5500	19.89	19.89
116	5580	24.76	25.63
140	5700	19.87	19.95
144 (U-NII-2C Band)	5720	15	16.26

802.11ac (VHT40)

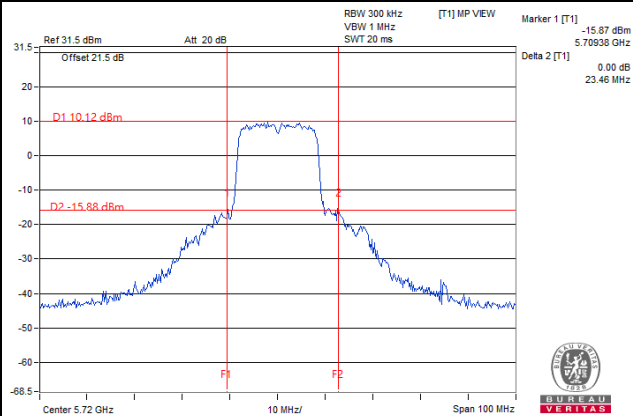
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	73.78	67.28
62	5310	48.49	52.05
102	5510	43.02	43.82
110	5550	66.98	67.21
134	5670	60.55	66.15
142 (U-NII-2C Band)	5710	49.87	48.37

802.11ac (VHT80)

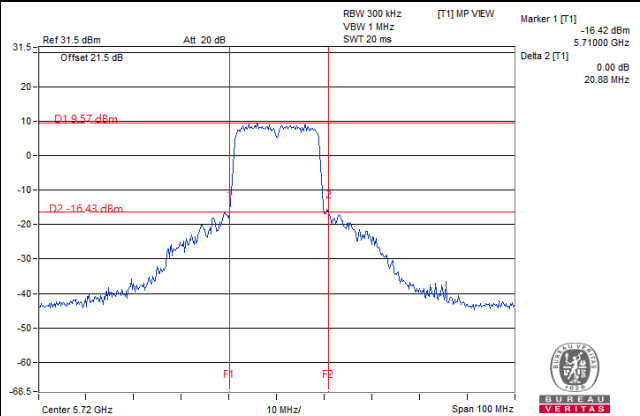
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	82.2	82.58
106	5530	82.23	82.22
122	5610	141.1	149.8
138 (U-NII-2C Band)	5690	96.93	96.73

Spectrum Plot of Worst Value

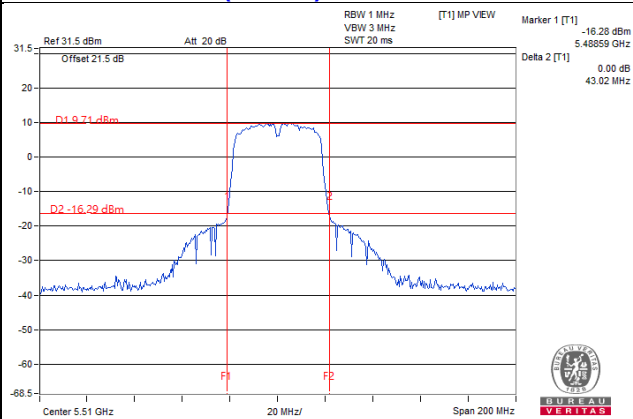
802.11a_Chain 0 / CH144 (U-NII-2C Band)



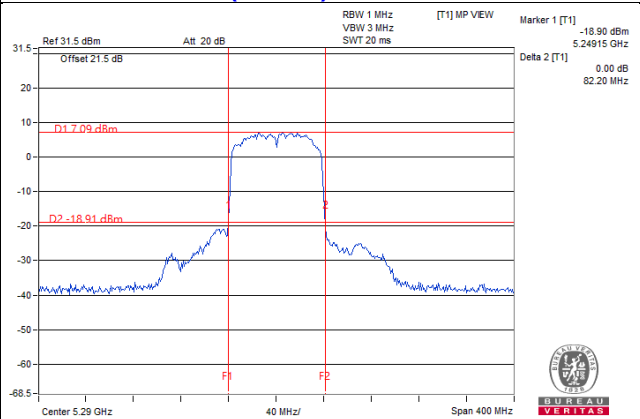
802.11ac (VHT20)_Chain 0 / CH144 (U-NII-2C Band)



802.11ac (VHT40)_Chain 0 / CH102

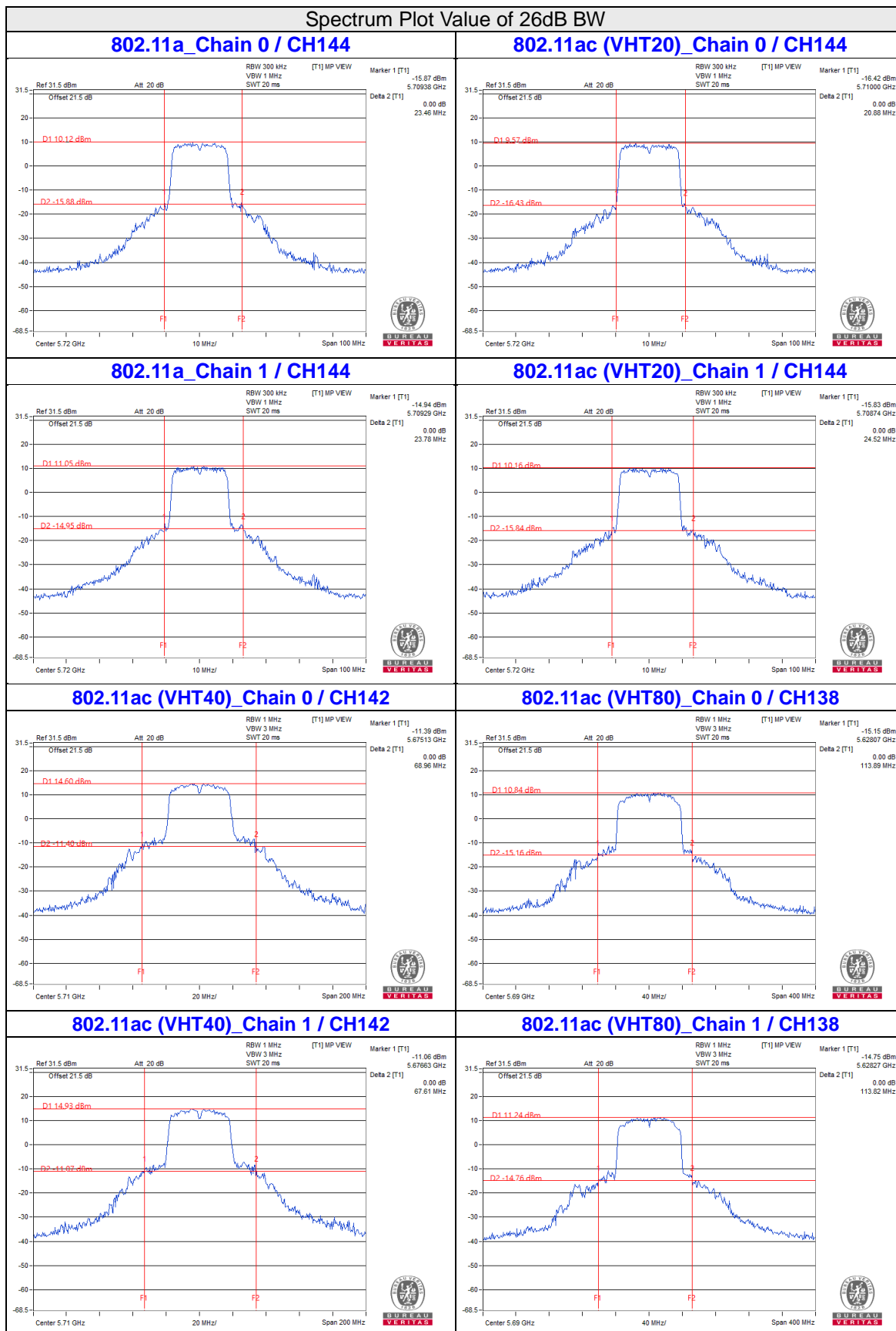


802.11ac (VHT80)_Chain 0 / CH58



Note: For CH144 (U-NII-2C) = 5725MHz - Marker 1

**For channel straddling 5725MHz of 26dB BW
CDD Mode**



4.3.8 Test Results (Mode 2)

POWER OUTPUT
802.11a

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
36	5180	101.391	20.06	24.00	Pass
40	5200	125.893	21.00	24.00	Pass
48	5240	125.893	21.00	24.00	Pass
52	5260	126.474	21.02	24.00	Pass
60	5300	126.765	21.03	24.00	Pass
64	5320	112.98	20.53	24.00	Pass
100	5500	77.625	18.90	23.87	Pass
116	5580	125.603	20.99	24.00	Pass
140	5700	98.855	19.95	24.00	Pass
*144 (U-NII-2C Band)	5720	59.429	17.74	23.70	Pass
*144 (U-NII-3 Band)	5720	13.335	11.25	30.00	Pass
149	5745	128.825	21.10	30.00	Pass
157	5785	125.314	20.98	30.00	Pass
165	5825	125.893	21.00	30.00	Pass

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

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)	Total Average Power (mW)	Total Average Power (dBm)
144	5720	72.764	18.62	21.10	128.825	21.10

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	36.31	26.6 > 24
60	5300	35.86	26.54 > 24
64	5320	36.05	26.56 > 24
100	5500	19.37	23.87 < 24
116	5580	27.41	25.37 > 24
140	5700	23.78	24.76 > 24
144 (U-NII-2C Band)	5720	18.64	23.7 < 24

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
36	5180	86.896	19.39	24.00	Pass
40	5200	125.603	20.99	24.00	Pass
48	5240	127.35	21.05	24.00	Pass
52	5260	131.22	21.18	24.00	Pass
60	5300	124.451	20.95	24.00	Pass
64	5320	86.696	19.38	24.00	Pass
100	5500	63.241	18.01	23.98	Pass
116	5580	128.825	21.10	24.00	Pass
140	5700	65.615	18.17	23.99	Pass
*144 (U-NII-2C Band)	5720	61.66	17.90	23.76	Pass
*144 (U-NII-3 Band)	5720	15.704	11.96	30.00	Pass
149	5745	129.718	21.13	30.00	Pass
157	5785	123.88	20.93	30.00	Pass
165	5825	127.644	21.06	30.00	Pass

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

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)	Total Average Power (mW)	Total Average Power (dBm)
144	5720	77.364	18.89	21.20	131.826	21.20

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	43.65	27.39 > 24
60	5300	37.99	26.79 > 24
64	5320	24.21	24.83 > 24
100	5500	19.89	23.98 < 24
116	5580	29.2	25.65 > 24
140	5700	19.92	23.99 < 24
144 (U-NII-2C Band)	5720	18.88	23.76 < 24

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
38	5190	64.121	18.07	24.00	Pass
46	5230	103.753	20.16	24.00	Pass
54	5270	103.276	20.14	24.00	Pass
62	5310	48.417	16.85	24.00	Pass
102	5510	45.082	16.54	24.00	Pass
110	5550	104.713	20.20	24.00	Pass
134	5670	99.083	19.96	24.00	Pass
*142 (U-NII-2C Band)	5710	51.404	17.11	24.00	Pass
*142 (U-NII-3 Band)	5710	3.467	5.40	30.00	Pass
151	5755	107.895	20.33	30.00	Pass
159	5795	99.541	19.98	30.00	Pass

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

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)	Total Average Power (mW)	Total Average Power (dBm)
142	5710	54.871	17.39	19.96	99.083	19.96

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	67.06	29.26 > 24
62	5310	45.29	27.56 > 24
102	5510	43.13	27.34 > 24
110	5550	62.16	28.93 > 24
134	5670	60.88	28.84 > 24
142 (U-NII-2C Band)	5710	45.03	27.53 > 24

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
42	5210	71.121	18.52	24.00	Pass
58	5290	48.417	16.85	24.00	Pass
106	5530	44.875	16.52	24.00	Pass
122	5610	98.855	19.95	24.00	Pass
*138 (U-NII-2C Band)	5690	49.659	16.96	24.00	Pass
*138 (U-NII-3 Band)	5690	0.9661	-0.15	30.00	Pass
155	5775	103.992	20.17	30.00	Pass

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

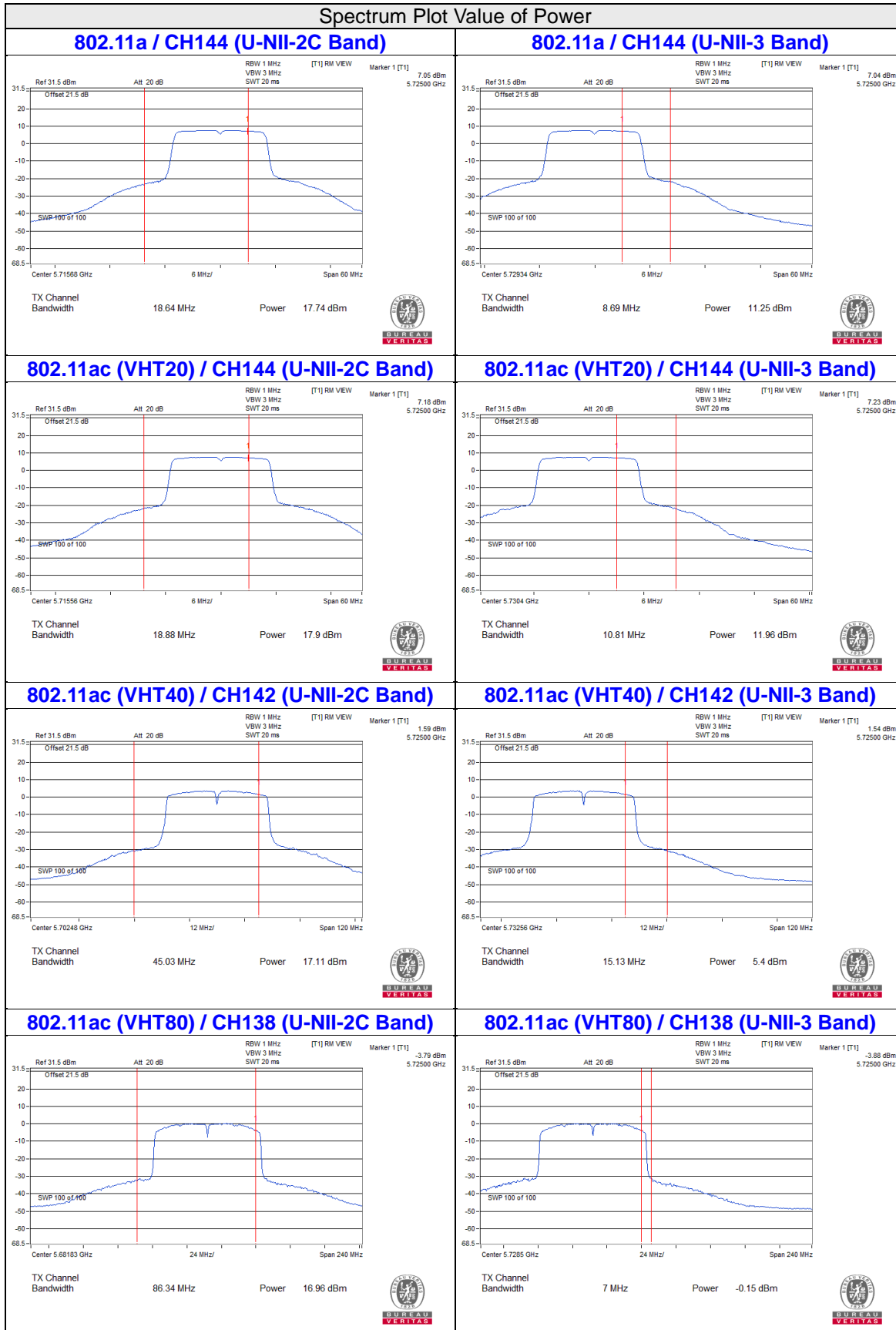
The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)	Total Average Power (mW)	Total Average Power (dBm)
138	5690	50.6251	17.04	19.95	98.855	19.95

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.11	30.14 > 24
106	5530	82.18	30.14 > 24
122	5610	93.1	30.68 > 24
138 (U-NII-2C Band)	5690	86.34	30.36 > 24

For channel straddling 5725MHz of Power



26dB OCCUPIED BANDWIDTH

802.11a

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
52	5260	36.31
60	5300	35.86
64	5320	36.05
100	5500	19.37
116	5580	27.41
140	5700	23.78
144 (U-NII-2C Band)	5720	18.64

802.11ac (VHT20)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
52	5260	43.65
60	5300	37.99
64	5320	24.21
100	5500	19.89
116	5580	29.2
140	5700	19.92
144 (U-NII-2C Band)	5720	18.88

802.11ac (VHT40)

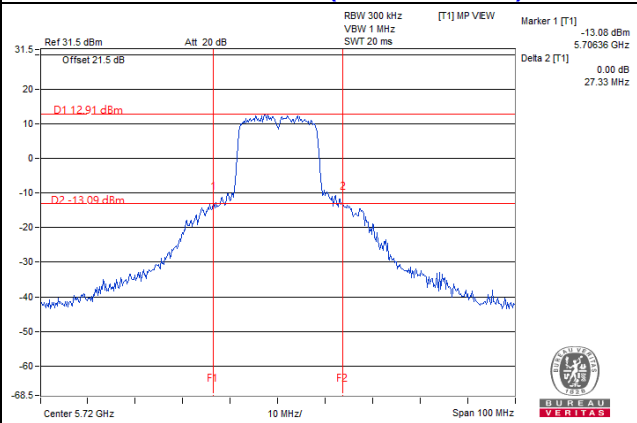
Channel	Frequency (MHz)	26dB Bandwidth (MHz)
54	5270	67.06
62	5310	45.29
102	5510	43.13
110	5550	62.16
134	5670	60.88
142 (U-NII-2C Band)	5710	45.03

802.11ac (VHT80)

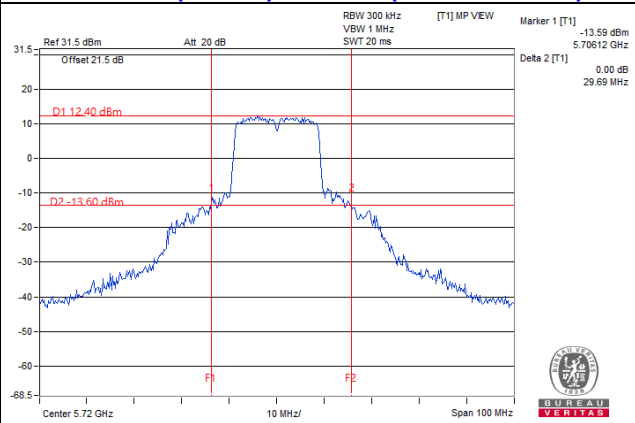
Channel	Frequency (MHz)	26dB Bandwidth (MHz)
58	5290	82.11
106	5530	82.18
122	5610	93.1
138 (U-NII-2C Band)	5690	86.34

Spectrum Plot of Worst Value

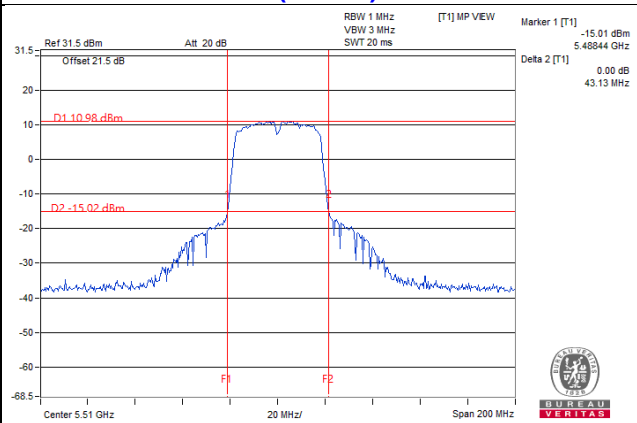
802.11a / CH144 (U-NII-2C Band)



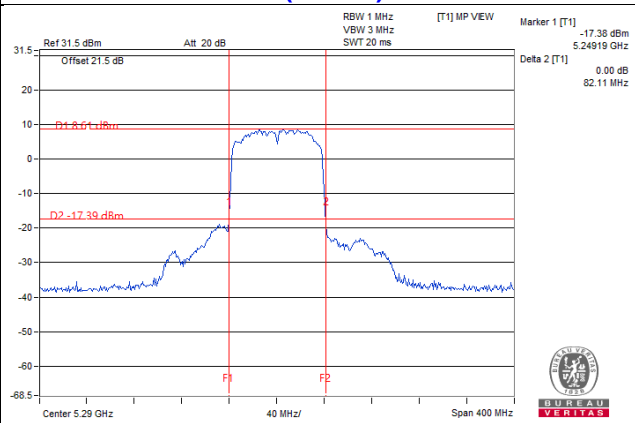
802.11ac (VHT20) / CH144 (U-NII-2C Band)



802.11ac (VHT40) / CH102

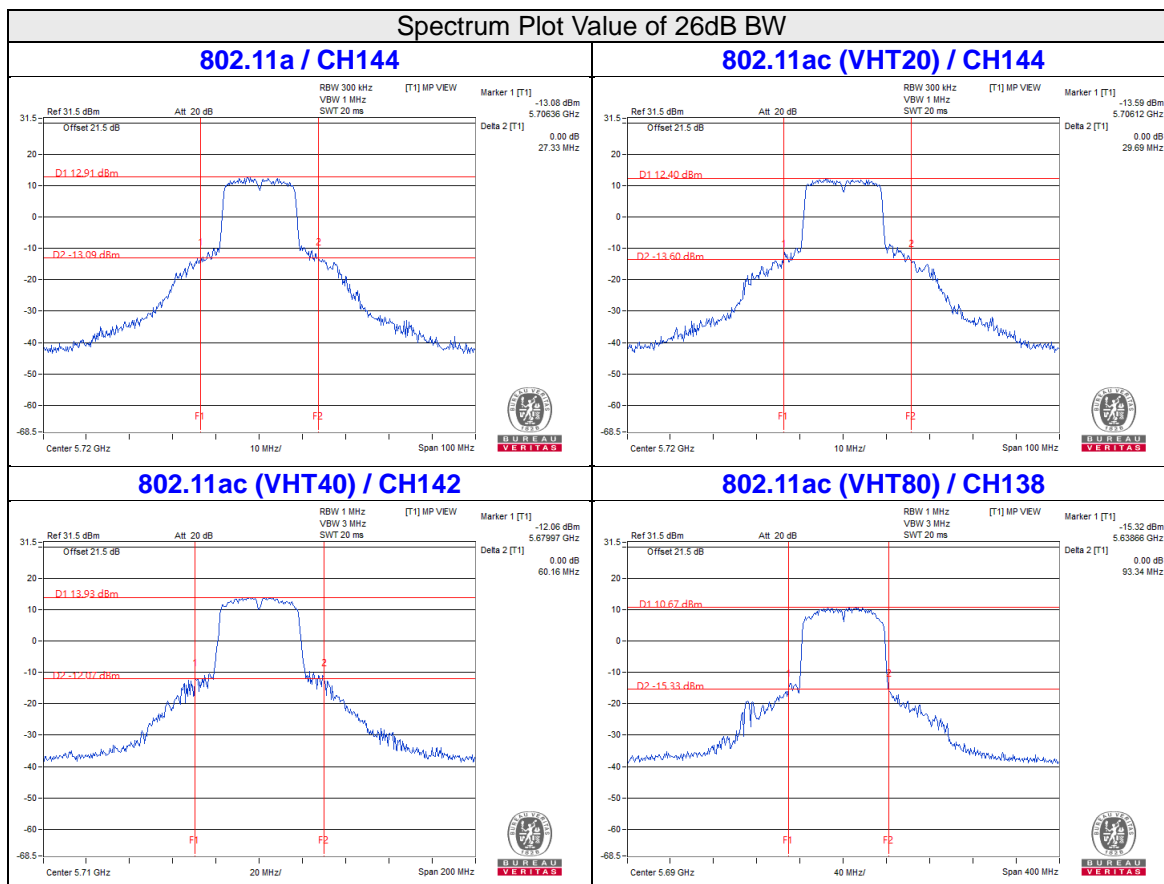


802.11ac (VHT80) / CH58



Note: For CH144 (U-NII-2C) = 5725MHz - Marker 1

For channel straddling 5725MHz of 26dB BW

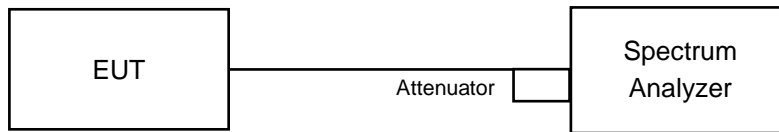


Note:

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

4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

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

4.4.4 Test Results (Mode 1)

CDD Mode

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	16.44	16.56	Pass
40	5200	16.56	16.56	Pass
48	5240	16.44	16.68	Pass
52	5260	16.44	16.56	Pass
60	5300	16.44	16.68	Pass
64	5320	16.44	16.56	Pass
100	5500	16.44	16.44	Pass
116	5580	16.44	16.44	Pass
140	5700	16.56	16.44	Pass
144 (U-NII-2C Band)	5720	13.28	13.28	Pass
144 (U-NII-3 Band)	5720	3.28	3.28	Pass
149	5745	17.4	17.04	Pass
157	5785	17.52	17.04	Pass
165	5825	17.28	16.92	Pass

802.11ac (VHT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	17.64	17.76	Pass
40	5200	17.76	17.76	Pass
48	5240	17.76	17.64	Pass
52	5260	17.64	17.76	Pass
60	5300	17.64	17.76	Pass
64	5320	17.64	17.76	Pass
100	5500	17.64	17.64	Pass
116	5580	17.64	17.64	Pass
140	5700	17.64	17.64	Pass
144 (U-NII-2C Band)	5720	13.88	13.88	Pass
144 (U-NII-3 Band)	5720	3.76	3.76	Pass
149	5745	18	18	Pass
157	5785	18.36	18.24	Pass
165	5825	18	18	Pass

802.11ac (VHT40)

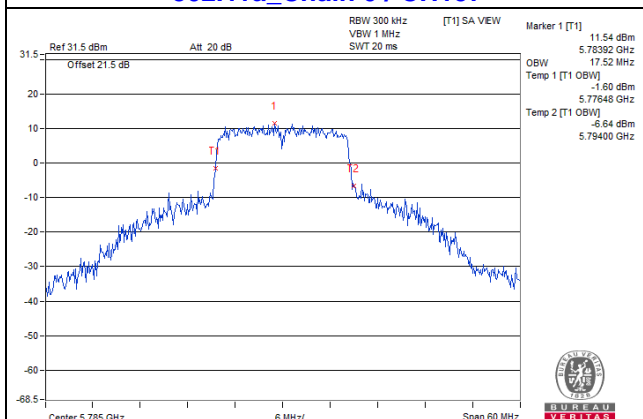
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
38	5190	36.24	36.24	Pass
46	5230	36.72	36.96	Pass
54	5270	36.96	36.72	Pass
62	5310	36.72	36.48	Pass
102	5510	36.24	36.24	Pass
110	5550	36.48	36.72	Pass
134	5670	36.72	36.72	Pass
142 (U-NII-2C Band)	5710	33.48	33.48	Pass
142 (U-NII-3 Band)	5710	3.48	3.24	Pass
151	5755	36.72	36.72	Pass
159	5795	37.2	36.72	Pass

802.11ac (VHT80)

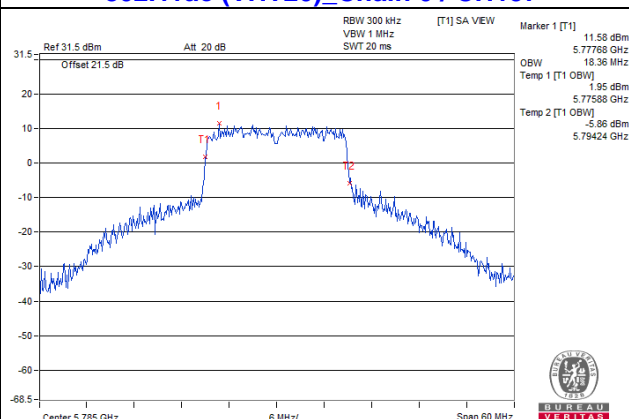
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
42	5210	74.4	74.88	Pass
58	5290	75.36	74.88	Pass
106	5530	75.36	74.4	Pass
122	5610	74.88	75.36	Pass
138 (U-NII-2C Band)	5690	72.92	72.92	Pass
138 (U-NII-3 Band)	5690	2.44	2.44	Pass
155	5775	75.36	75.36	Pass

Spectrum Plot of Max. Value

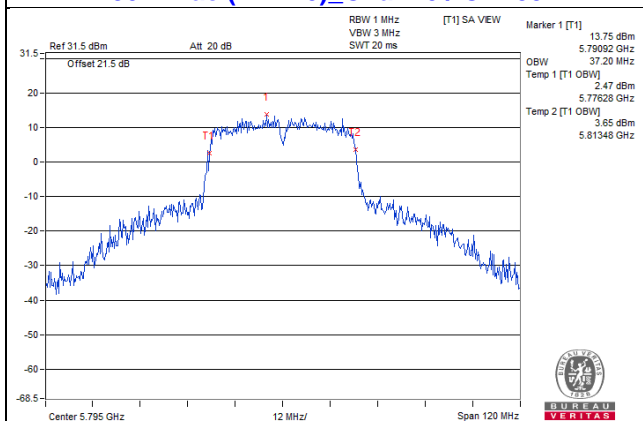
802.11a_Chain 0 / CH157



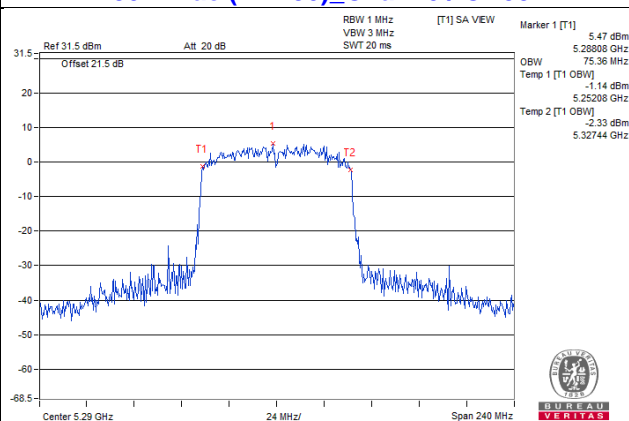
802.11ac (VHT20)_Chain 0 / CH157



802.11ac (VHT40)_Chain 0 / CH159



802.11ac (VHT80)_Chain 0 / CH58



4.4.5 Test Results (Mode 2)

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	Pass / Fail
36	5180	16.56	Pass
40	5200	16.92	Pass
48	5240	16.8	Pass
52	5260	16.92	Pass
60	5300	16.68	Pass
64	5320	16.68	Pass
100	5500	16.44	Pass
116	5580	16.56	Pass
140	5700	16.44	Pass
144 (U-NII-2C Band)	5720	13.4	Pass
144 (U-NII-3 Band)	5720	3.28	Pass
149	5745	16.68	Pass
157	5785	16.56	Pass
165	5825	16.8	Pass

802.11ac (VHT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	Pass / Fail
36	5180	17.64	Pass
40	5200	18	Pass
48	5240	18	Pass
52	5260	18	Pass
60	5300	17.88	Pass
64	5320	17.64	Pass
100	5500	17.64	Pass
116	5580	17.76	Pass
140	5700	17.64	Pass
144 (U-NII-2C Band)	5720	13.88	Pass
144 (U-NII-3 Band)	5720	3.76	Pass
149	5745	17.76	Pass
157	5785	17.64	Pass
165	5825	17.76	Pass

802.11ac (VHT40)

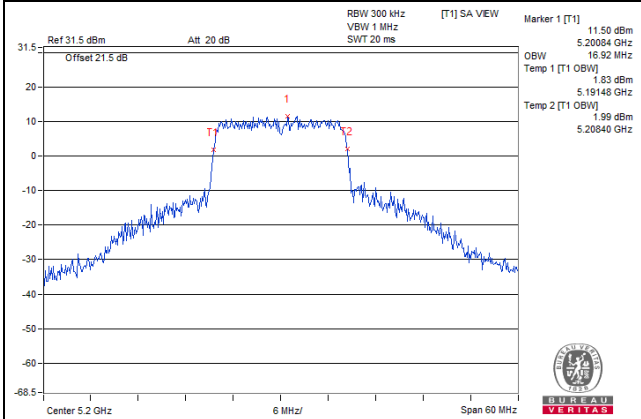
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	Pass / Fail
38	5190	36.48	Pass
46	5230	36.72	Pass
54	5270	36.72	Pass
62	5310	36.48	Pass
102	5510	36.24	Pass
110	5550	36.48	Pass
134	5670	36.48	Pass
142 (U-NII-2C Band)	5710	33.48	Pass
142 (U-NII-3 Band)	5710	3.24	Pass
151	5755	36.48	Pass
159	5795	36.72	Pass

802.11ac (VHT80)

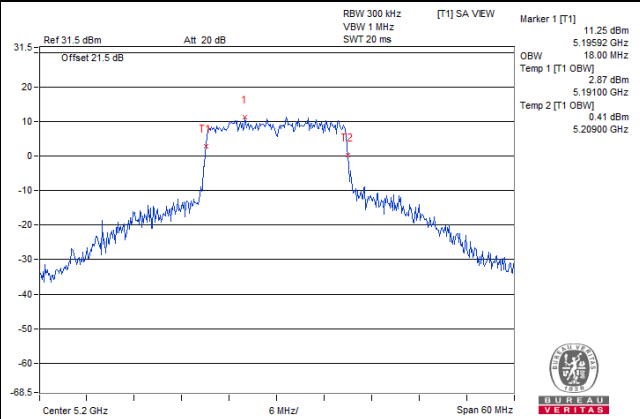
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	Pass / Fail
42	5210	74.88	Pass
58	5290	74.4	Pass
106	5530	74.88	Pass
122	5610	74.88	Pass
138 (U-NII-2C Band)	5690	72.44	Pass
138 (U-NII-3 Band)	5690	2.44	Pass
155	5775	75.36	Pass

Spectrum Plot of Max. Value

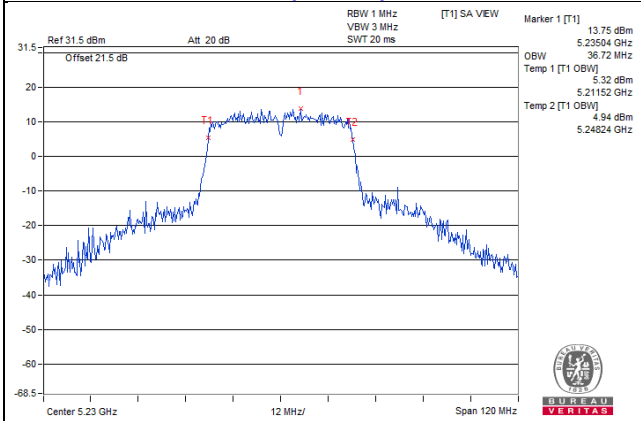
802.11a / CH40



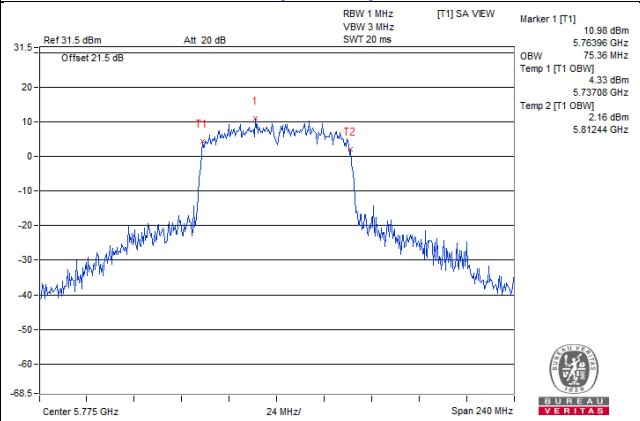
802.11ac (VHT20) / CH40



802.11ac (VHT40) / CH46



802.11ac (VHT80) / CH155

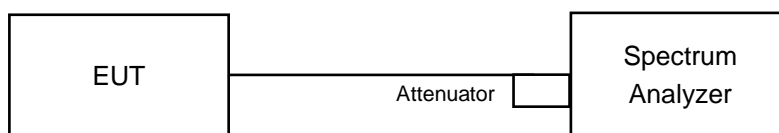


4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

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

Using method SA-1

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

For U-NII-3 band:

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

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

Same as Item 4.3.6.

4.5.7 Test Results (Mode 1)

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

CDD Mode

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
36	5180	3.43	5.54	7.62	8.99	Pass
40	5200	3.90	5.53	7.80	8.99	Pass
48	5240	3.86	5.29	7.64	8.99	Pass
52	5260	4.45	5.85	8.22	8.99	Pass
60	5300	4.61	5.77	8.24	8.99	Pass
64	5320	4.22	6.17	8.31	8.99	Pass
100	5500	3.57	5.44	7.62	8.99	Pass
116	5580	4.30	5.83	8.14	8.99	Pass
140	5700	2.53	3.54	6.07	8.99	Pass
144 (U-NII-2C Band)	5720	4.50	5.33	7.95	8.99	Pass

- Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. The directional gain is $5 \text{ dBi} + 10\log(2) = 8.01 \text{ dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(8.01-6) = 8.99 \text{ dBm}$.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
36	5180	3.79	5.13	7.52	8.99	Pass
40	5200	4.65	5.38	8.04	8.99	Pass
48	5240	4.40	5.54	8.02	8.99	Pass
52	5260	4.77	5.88	8.37	8.99	Pass
60	5300	4.82	5.84	8.37	8.99	Pass
64	5320	4.42	5.51	8.01	8.99	Pass
100	5500	3.58	3.58	6.59	8.99	Pass
116	5580	4.95	5.68	8.34	8.99	Pass
140	5700	2.11	3.26	5.73	8.99	Pass
144 (U-NII-2C Band)	5720	4.12	5.17	7.69	8.99	Pass

- Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. The directional gain is $5 \text{ dBi} + 10\log(2) = 8.01 \text{ dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(8.01-6) = 8.99 \text{ dBm}$.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
38	5190	-0.11	1.53	3.80	8.99	Pass
46	5230	3.07	3.83	6.48	8.99	Pass
54	5270	2.95	3.19	6.08	8.99	Pass
62	5310	-0.43	0.99	3.35	8.99	Pass
102	5510	-1.19	0.38	2.68	8.99	Pass
110	5550	3.69	4.06	6.89	8.99	Pass
134	5670	1.60	2.72	5.21	8.99	Pass
142 (U-NII-2C Band)	5710	3.84	3.99	6.93	8.99	Pass

- Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. The directional gain is $5 \text{ dBi} + 10\log(2) = 8.01 \text{ dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(8.01-6) = 8.99 \text{ dBm}$.

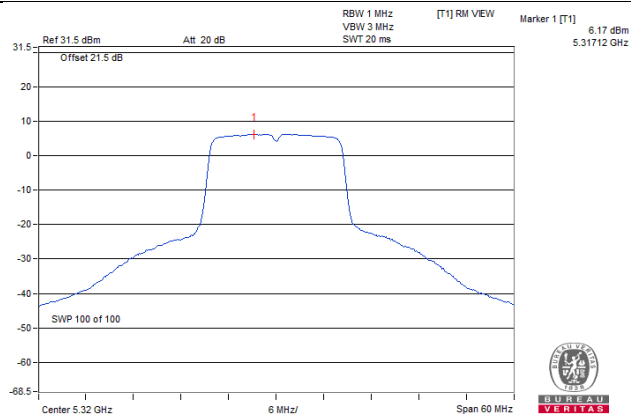
802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
42	5210	-3.27	-2.92	-0.08	8.99	Pass
58	5290	-3.52	-2.20	0.20	8.99	Pass
106	5530	-6.29	-5.04	-2.61	8.99	Pass
122	5610	-0.50	1.04	3.35	8.99	Pass
138 (U-NII-2C Band)	5690	0.17	0.82	3.52	8.99	Pass

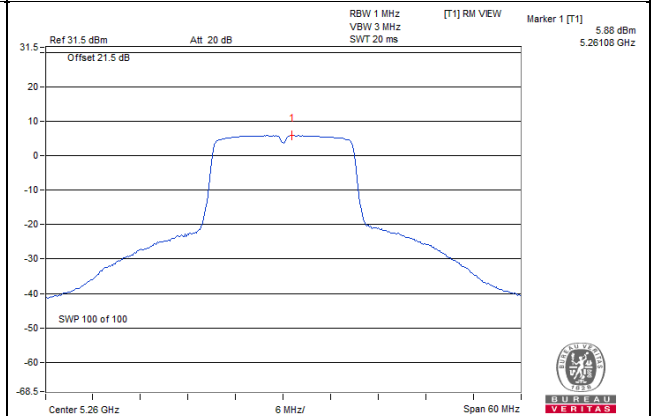
- Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. The directional gain is $5 \text{ dBi} + 10\log(2) = 8.01 \text{ dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(8.01-6) = 8.99 \text{ dBm}$.

Spectrum Plot of Worst Value

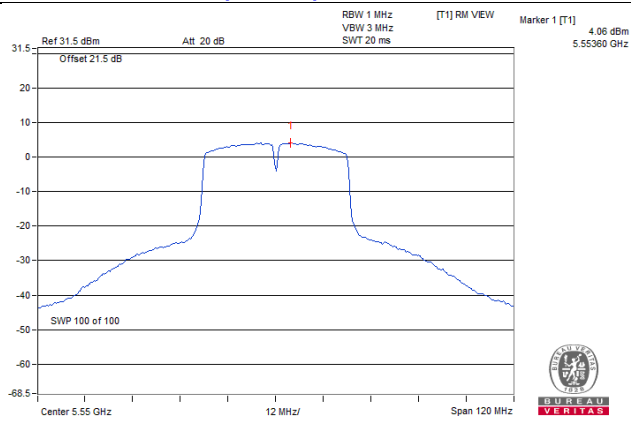
802.11a_Chain 1 / CH64



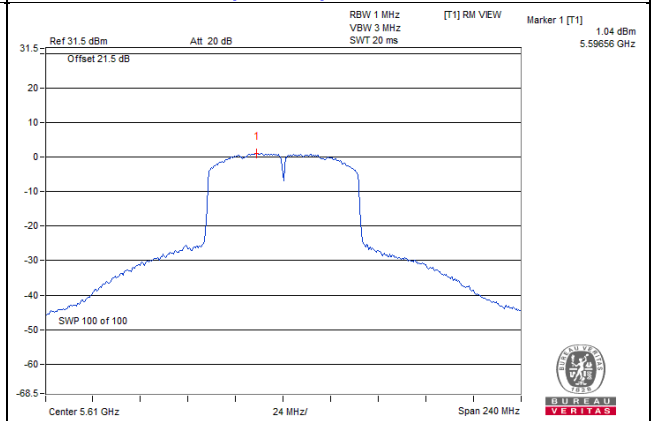
802.11ac (VHT20)_Chain 1 / CH52



802.11ac (VHT40)_Chain 1 / CH110



802.11ac (VHT80)_Chain 1 / CH122



For U-NII-3 band:

CDD Mode

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1				
144 (U-NII-3 Band)	5720	-3.85	-2.91	-0.34	1.88	27.99	Pass
149	5745	-0.34	-0.11	2.79	5.01	27.99	Pass
157	5785	-0.20	-0.07	2.88	5.10	27.99	Pass
165	5825	-0.25	-0.37	2.70	4.92	27.99	Pass

- Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. The directional gain is 5 dBi + 10log(2) = 8.01 dBi > 6dBi, so the power density limit shall be reduced to 30-(8.01-6) = 27.99 dBm.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1				
144 (U-NII-3 Band)	5720	-4.08	-3.49	-0.76	1.46	27.99	Pass
149	5745	-0.62	-0.20	2.61	4.83	27.99	Pass
157	5785	-0.02	-0.41	2.80	5.02	27.99	Pass
165	5825	-0.87	-0.09	2.55	4.77	27.99	Pass

- Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. The directional gain is 5 dBi + 10log(2) = 8.01 dBi > 6dBi, so the power density limit shall be reduced to 30-(8.01-6) = 27.99 dBm.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1				
142 (U-NII-3 Band)	5710	-6.40	-6.08	-3.23	-1.01	27.99	Pass
151	5755	-4.63	-4.96	-1.78	0.44	27.99	Pass
159	5795	-4.56	-4.42	-1.48	0.74	27.99	Pass

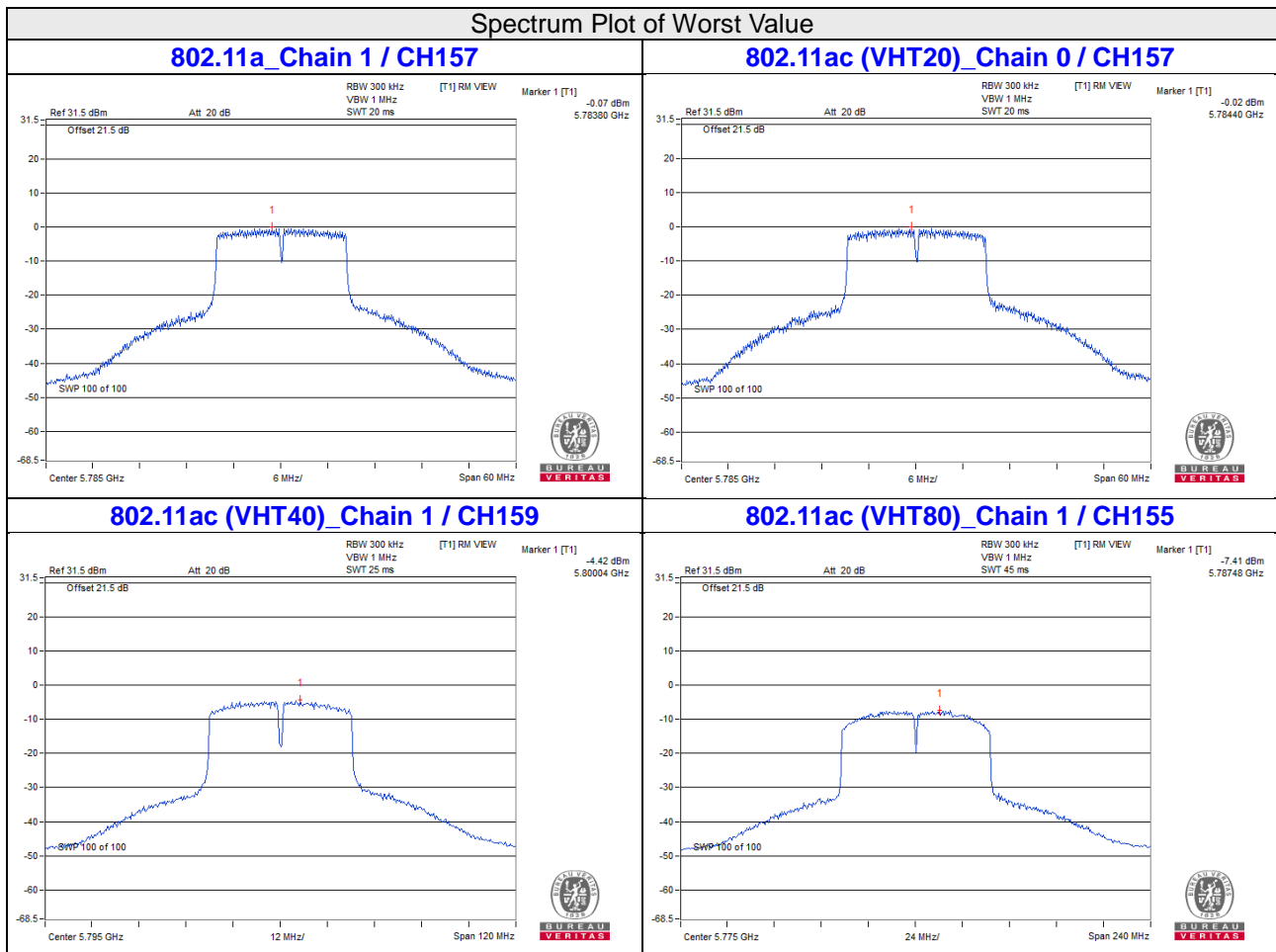
- Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. The directional gain is 5 dBi + 10log(2) = 8.01 dBi > 6dBi, so the power density limit shall be reduced to 30-(8.01-6) = 27.99 dBm.

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1				
138 (U-NII-3 Band)	5690	-12.44	-11.76	-9.08	-6.86	27.99	Pass
155	5775	-7.99	-7.41	-4.68	-2.46	27.99	Pass

- Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. The directional gain is $5 \text{ dBi} + 10\log(2) = 8.01 \text{ dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30 - (8.01 - 6) = 27.99 \text{ dBm}$.

Spectrum Plot of Worst Value



4.5.8 Test Results (Mode 2)

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

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
36	5180	5.84	11.00	Pass
40	5200	7.66	11.00	Pass
48	5240	7.87	11.00	Pass
52	5260	7.97	11.00	Pass
60	5300	7.43	11.00	Pass
64	5320	7.87	11.00	Pass
100	5500	5.89	11.00	Pass
116	5580	7.59	11.00	Pass
140	5700	6.21	11.00	Pass
144 (U-NII-2C Band)	5720	7.59	11.00	Pass

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
36	5180	5.58	11.00	Pass
40	5200	7.41	11.00	Pass
48	5240	7.38	11.00	Pass
52	5260	7.49	11.00	Pass
60	5300	6.88	11.00	Pass
64	5320	5.55	11.00	Pass
100	5500	4.66	11.00	Pass
116	5580	7.43	11.00	Pass
140	5700	4.32	11.00	Pass
144 (U-NII-2C Band)	5720	7.41	11.00	Pass

802.11ac (VHT40)

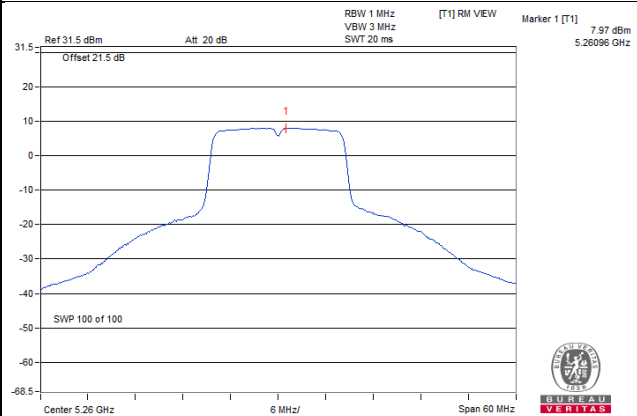
Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
38	5190	1.67	11.00	Pass
46	5230	3.99	11.00	Pass
54	5270	3.75	11.00	Pass
62	5310	0.84	11.00	Pass
102	5510	0.29	11.00	Pass
110	5550	3.86	11.00	Pass
134	5670	3.08	11.00	Pass
142 (U-NII-2C Band)	5710	3.54	11.00	Pass

802.11ac (VHT80)

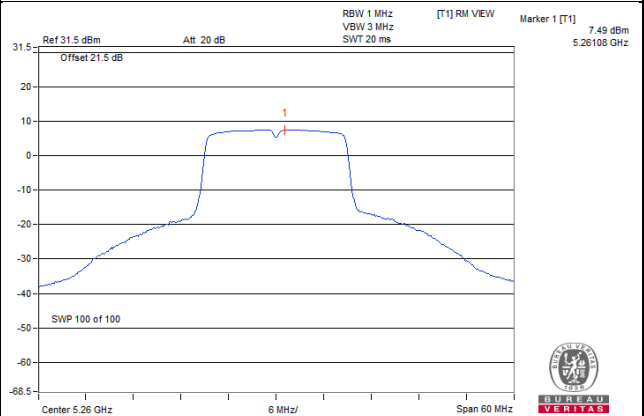
Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
42	5210	-0.74	11.00	Pass
58	5290	-2.03	11.00	Pass
106	5530	-2.57	11.00	Pass
122	5610	0.33	11.00	Pass
138 (U-NII-2C Band)	5690	0.18	11.00	Pass

Spectrum Plot of Worst Value

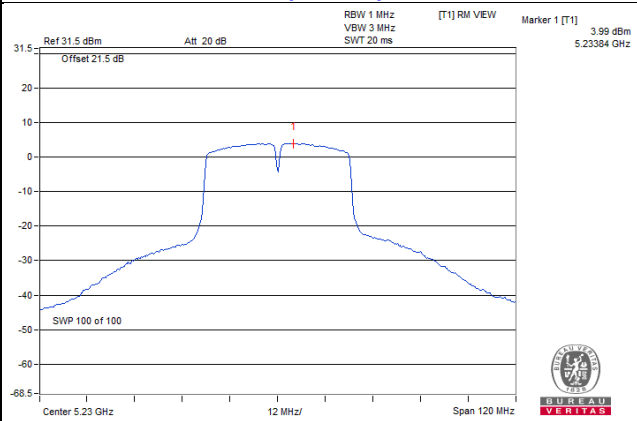
802.11a / CH52



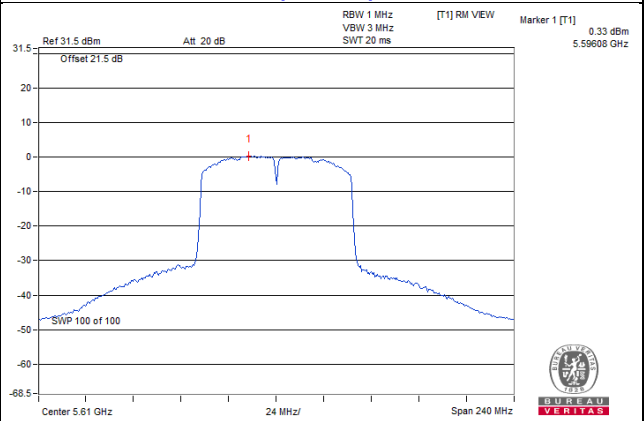
802.11ac (VHT20) / CH52



802.11ac (VHT40) / CH46



802.11ac (VHT80) / CH122



For U-NII-3 band:

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
144 (U-NII-3 Band)	5720	-1.17	1.05	30.00	Pass
149	5745	-0.54	1.68	30.00	Pass
157	5785	-0.84	1.38	30.00	Pass
165	5825	-0.29	1.93	30.00	Pass

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
144 (U-NII-3 Band)	5720	-1.55	0.67	30.00	Pass
149	5745	-0.62	1.60	30.00	Pass
157	5785	-0.88	1.34	30.00	Pass
165	5825	-0.26	1.96	30.00	Pass

802.11ac (VHT40)

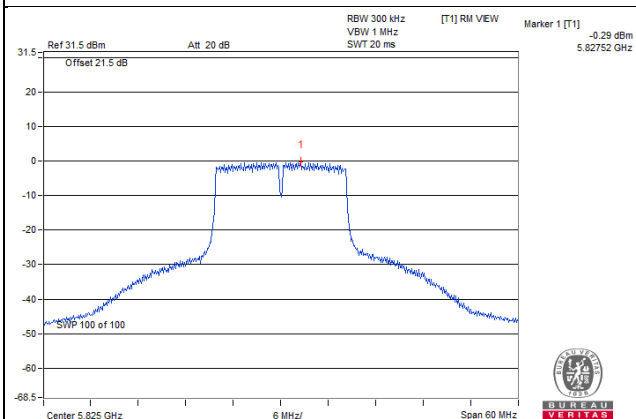
Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
142 (U-NII-3 Band)	5710	-7.06	-4.84	30.00	Pass
151	5755	-4.85	-2.63	30.00	Pass
159	5795	-4.96	-2.74	30.00	Pass

802.11ac (VHT80)

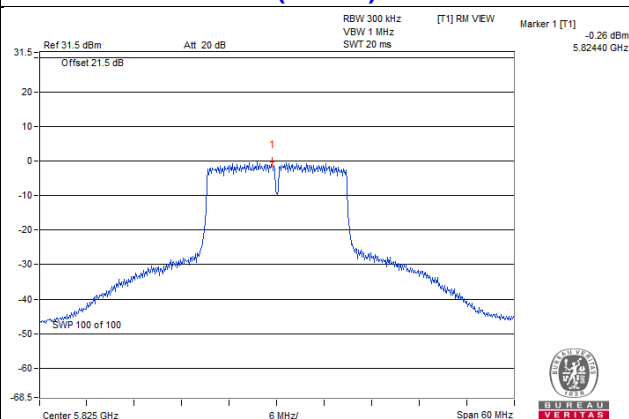
Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
138 (U-NII-3 Band)	5690	-12.97	-10.75	30.00	Pass
155	5775	-7.77	-5.55	30.00	Pass

Spectrum Plot of Worst Value

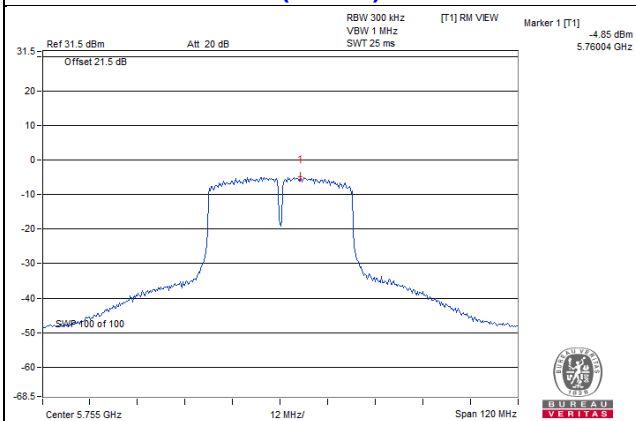
802.11a / CH165



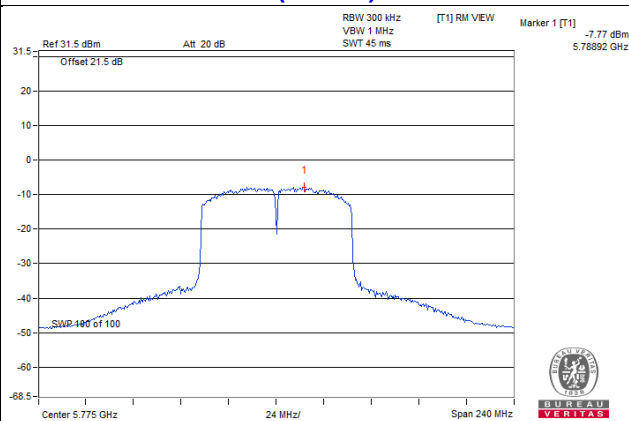
802.11ac (VHT20) / CH165



802.11ac (VHT40) / CH151



802.11ac (VHT80) / CH155

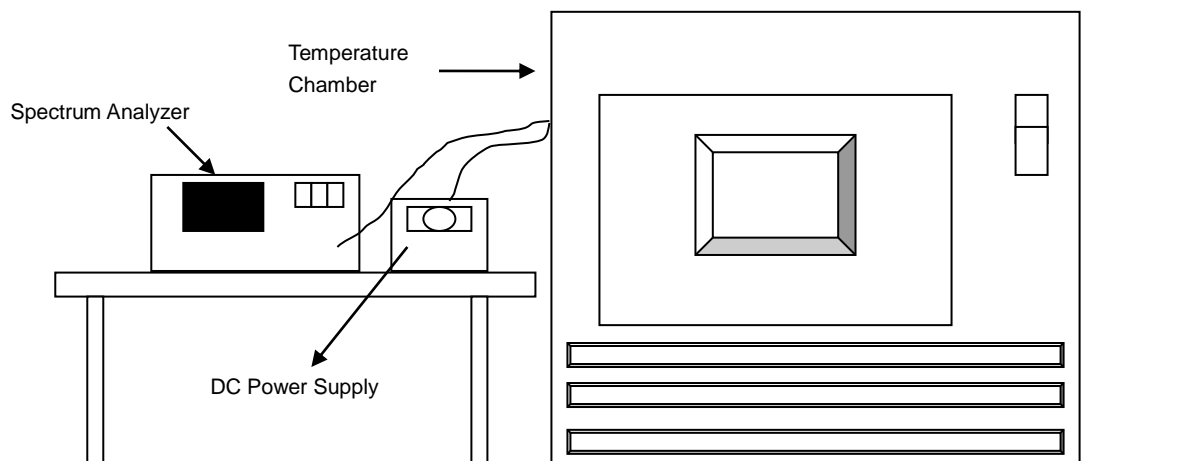


4.6 Frequency Stability Measurement

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
70	3.3	5180.0227	Pass	5180.0207	Pass	5180.0189	Pass	5180.0194	Pass
60	3.3	5179.9965	Pass	5179.9964	Pass	5179.9993	Pass	5179.9967	Pass
50	3.3	5179.9876	Pass	5179.9859	Pass	5179.9858	Pass	5179.9856	Pass
40	3.3	5180.0225	Pass	5180.0227	Pass	5180.0264	Pass	5180.0236	Pass
30	3.3	5180.008	Pass	5180.0072	Pass	5180.0057	Pass	5180.0036	Pass
20	3.3	5180.0244	Pass	5180.0229	Pass	5180.0228	Pass	5180.0253	Pass
10	3.3	5180.0178	Pass	5180.019	Pass	5180.0209	Pass	5180.0197	Pass
0	3.3	5180.0052	Pass	5180.0031	Pass	5180.0052	Pass	5180.0019	Pass
-10	3.3	5180.0124	Pass	5180.0113	Pass	5180.0089	Pass	5180.0096	Pass
-20	3.3	5180.0002	Pass	5179.9983	Pass	5180.0033	Pass	5179.9992	Pass

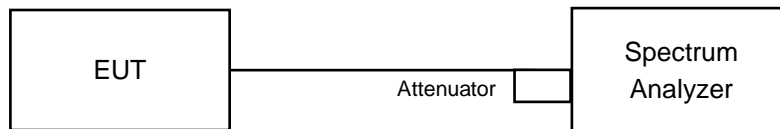
Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
20	3.795	5180.0239	Pass	5180.0219	Pass	5180.0228	Pass	5180.0246	Pass
	3.3	5180.0244	Pass	5180.0229	Pass	5180.0228	Pass	5180.0253	Pass
	2.805	5180.0239	Pass	5180.0237	Pass	5180.0225	Pass	5180.0253	Pass

4.7 6dB Bandwidth Measurement

4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 Test Procedure

MEASUREMENT PROCEDURE REF

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

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

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

4.7.7 Test Results (Mode 1)

CDD Mode
802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
144 (U-NII-3 Band)	5720	3.17	3.18	Pass
149	5745	16.34	16.35	Pass
157	5785	16.37	16.37	Pass
165	5825	16.33	16.37	Pass

802.11ac (VHT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
144 (U-NII-3 Band)	5720	3.8	3.8	Pass
149	5745	17.04	16.95	Pass
157	5785	17.32	17.22	Pass
165	5825	17.33	17.36	Pass

802.11ac (VHT40)

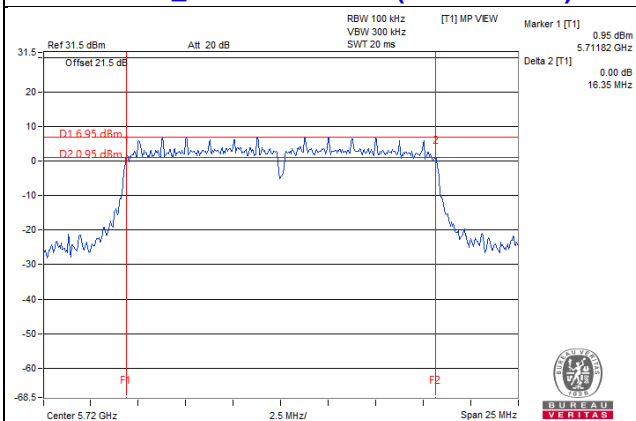
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
142 (U-NII-3 Band)	5710	2.64	2.64	Pass
151	5755	35.27	35.27	Pass
159	5795	35.2	35.25	Pass

802.11ac (VHT80)

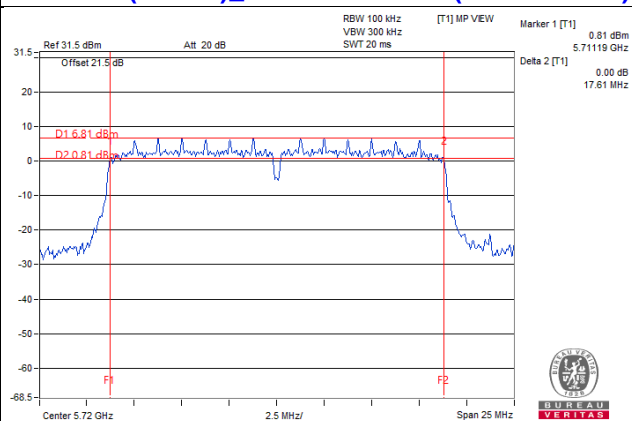
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
138 (U-NII-3 Band)	5690	1.42	2.6	Pass
155	5775	74.05	75.25	Pass

Spectrum Plot of Worst Value

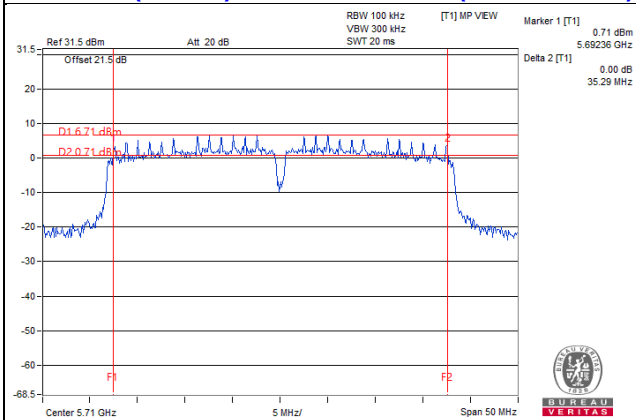
802.11a_Chain 0 / CH144 (U-NII-3 Band)



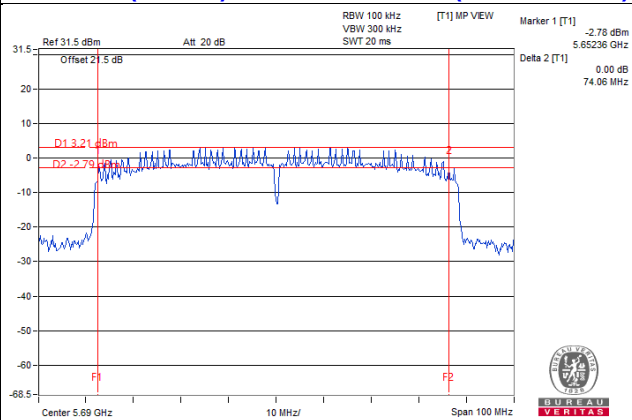
802.11ac (VHT20)_Chain 0 / CH144 (U-NII-3 Band)



802.11ac (VHT40)_Chain 0 / CH142 (U-NII-3 Band)



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



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

4.7.8 Test Results (Mode 2)

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Pass / Fail
144 (U-NII-3 Band)	5720	3.15	Pass
149	5745	16.36	Pass
157	5785	16.36	Pass
165	5825	16.36	Pass

802.11ac (VHT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Pass / Fail
144 (U-NII-3 Band)	5720	3.76	Pass
149	5745	17.6	Pass
157	5785	17.57	Pass
165	5825	17.34	Pass

802.11ac (VHT40)

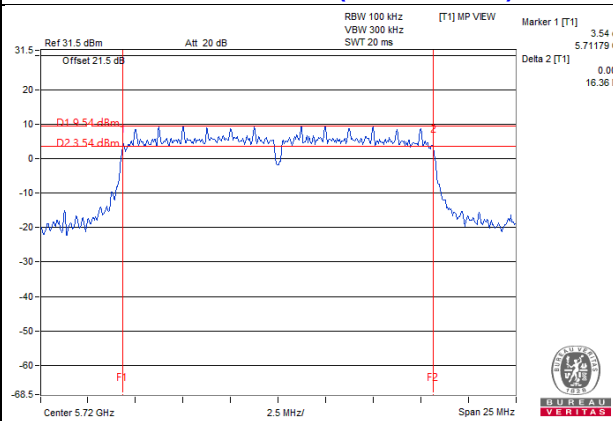
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Pass / Fail
142 (U-NII-3 Band)	5710	2.64	Pass
151	5755	35.3	Pass
159	5795	35.3	Pass

802.11ac (VHT80)

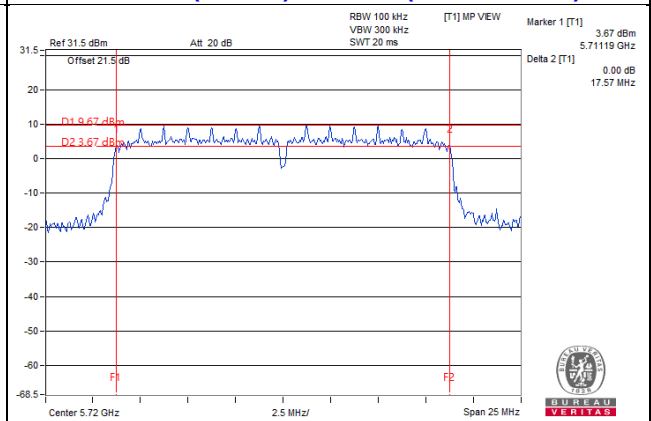
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Pass / Fail
138 (U-NII-3 Band)	5690	2.64	Pass
155	5775	75.28	Pass

Spectrum Plot of Worst Value

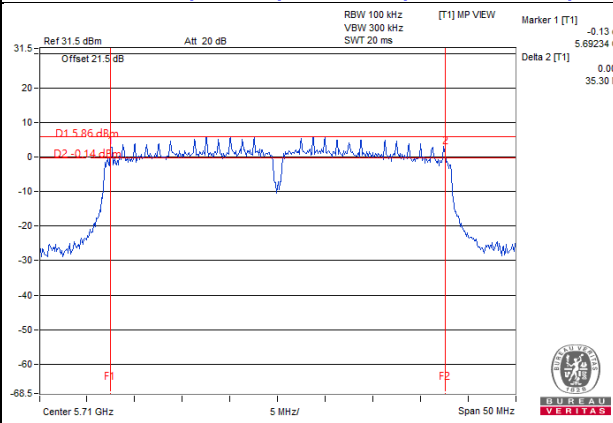
802.11a / CH144 (U-NII-3 Band)



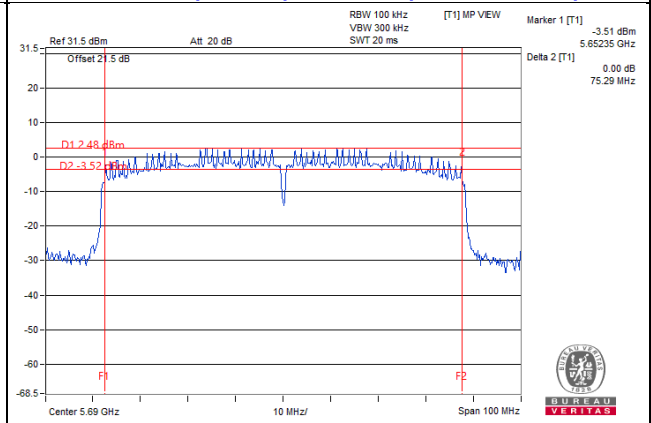
802.11ac (VHT20) / CH144 (U-NII-3 Band)



802.11ac (VHT40) / CH142 (U-NII-3 Band)



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



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

5 Pictures of Test Arrangements

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

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

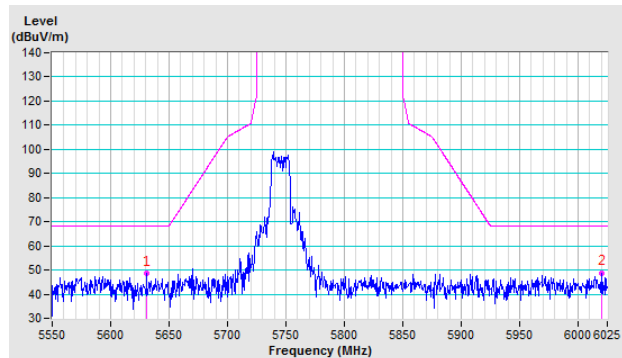
Annex A.1 - Test Results (Mode 1)

Dipole Antenna

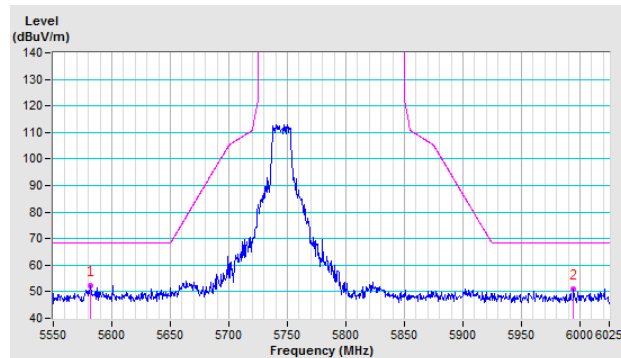
802.11a

CH 149 5745 MHz

Horizontal

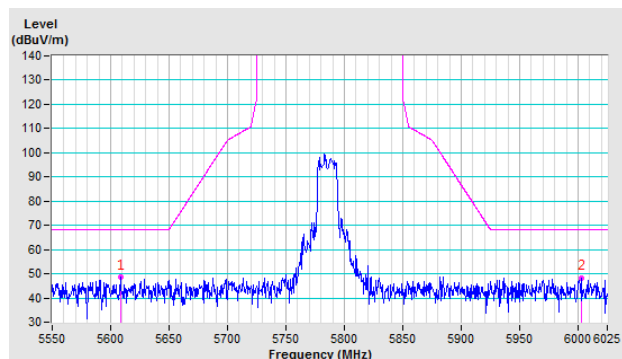


Vertical

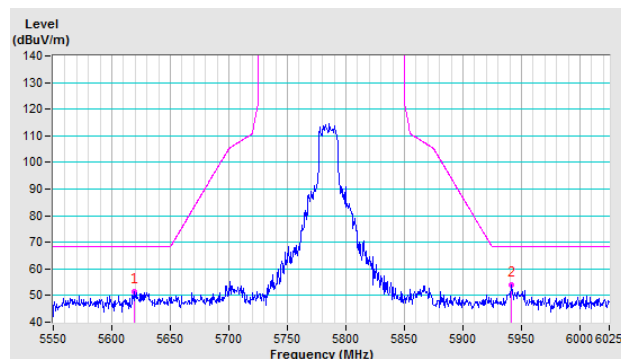


CH 157 5785 MHz

Horizontal

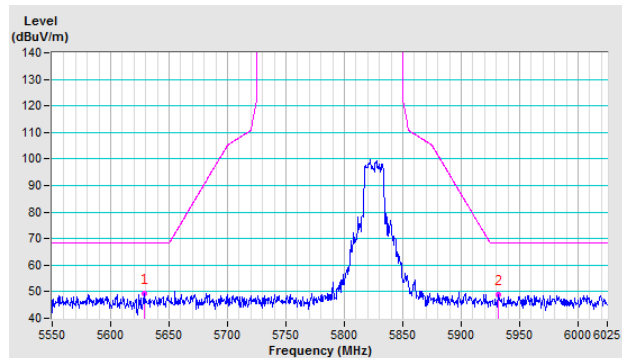


Vertical

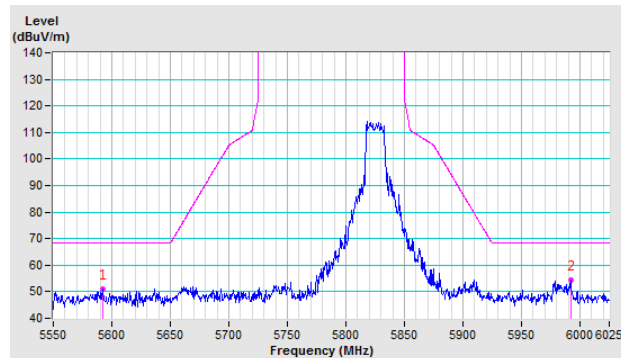


CH 165 5825 MHz

Horizontal



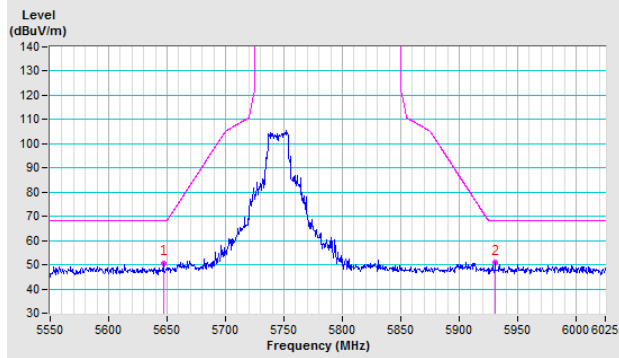
Vertical



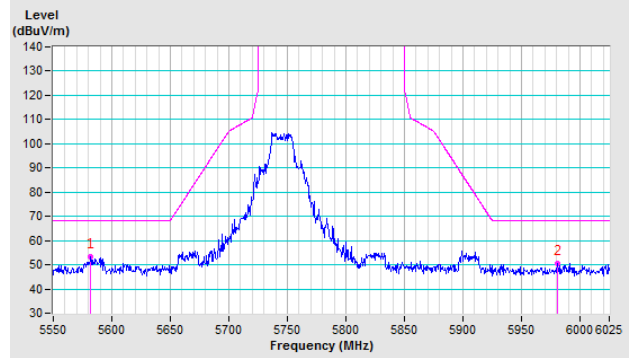
802.11ac (VHT20)

CH 149 5745 MHz

Horizontal

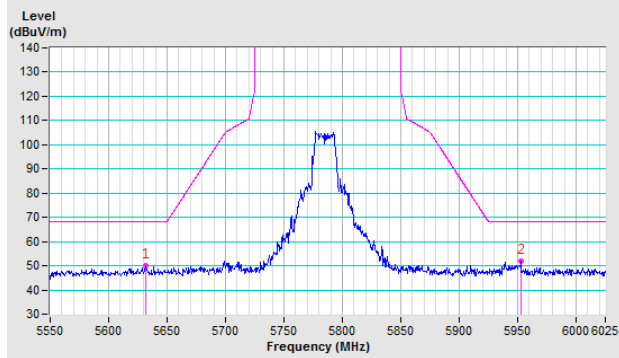


Vertical

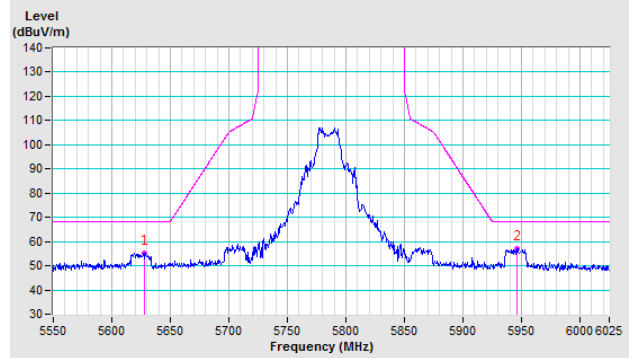


CH 157 5785 MHz

Horizontal

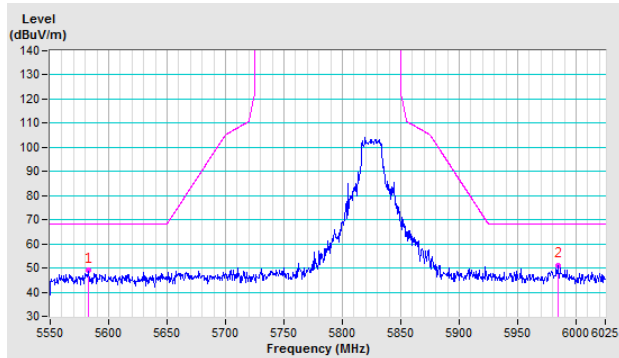


Vertical

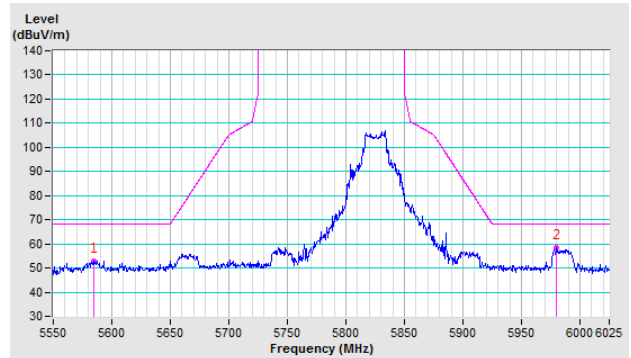


CH 165 5825 MHz

Horizontal



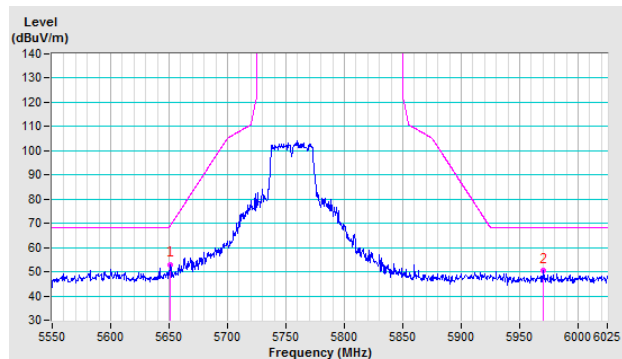
Vertical



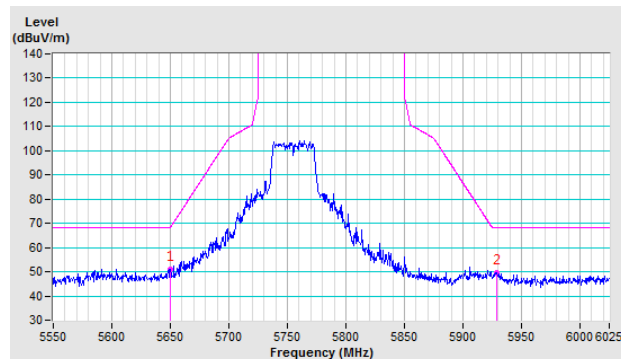
802.11ac (VHT40)

CH 151 5755 MHz

Horizontal

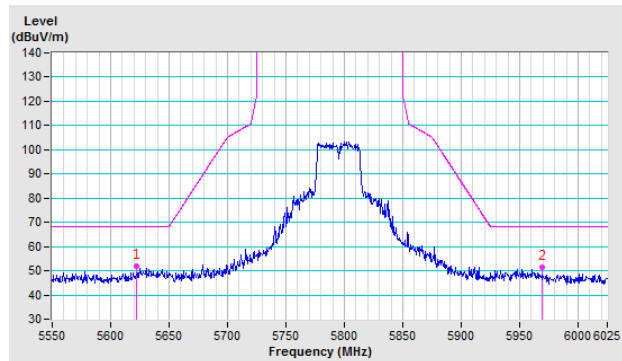


Vertical

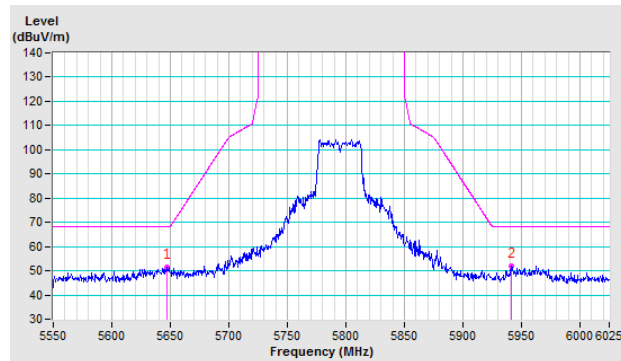


CH 159 5795 MHz

Horizontal



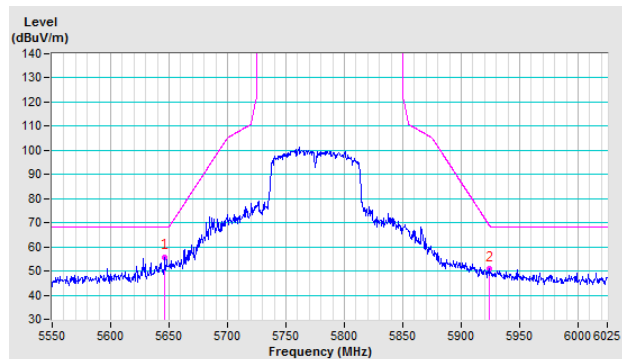
Vertical



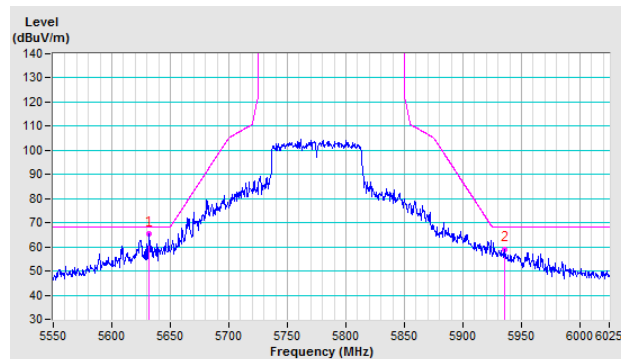
802.11ac (VHT80)

CH 155 5775 MHz

Horizontal



Vertical

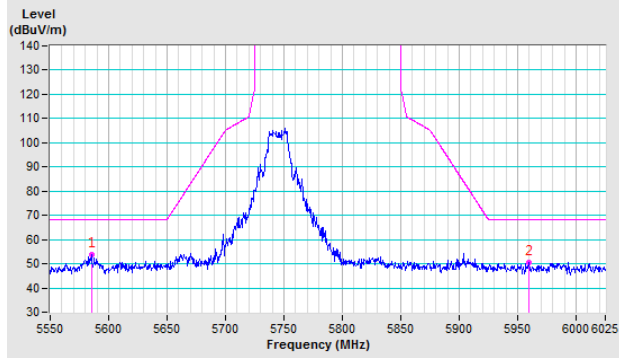


PIFA Antenna

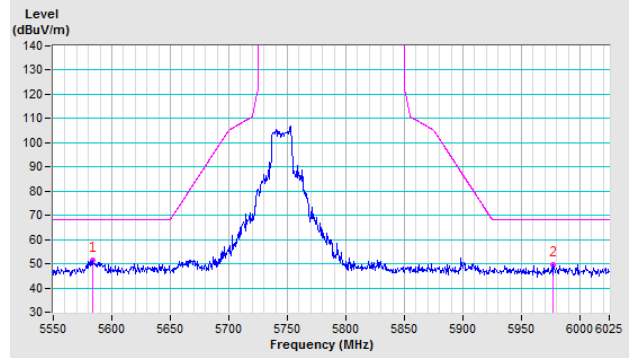
802.11a

CH 149 5745 MHz

Horizontal

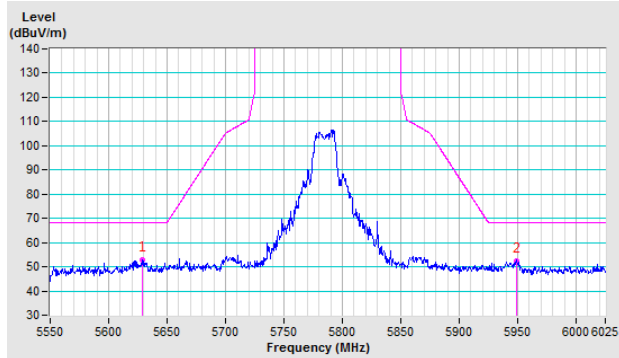


Vertical

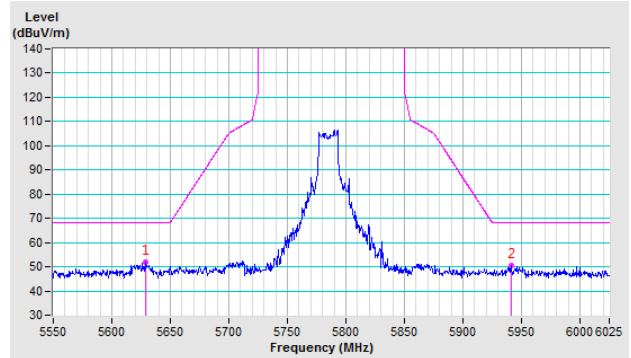


CH 157 5785 MHz

Horizontal

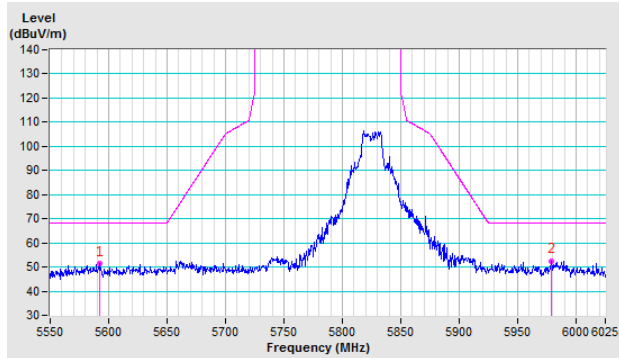


Vertical

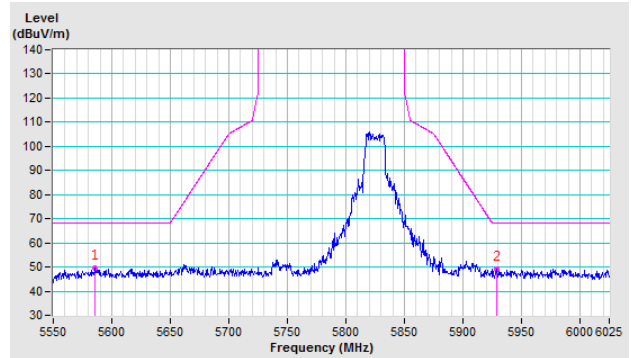


CH 165 5825 MHz

Horizontal



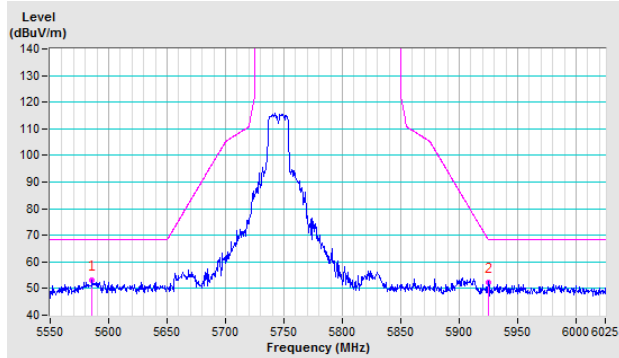
Vertical



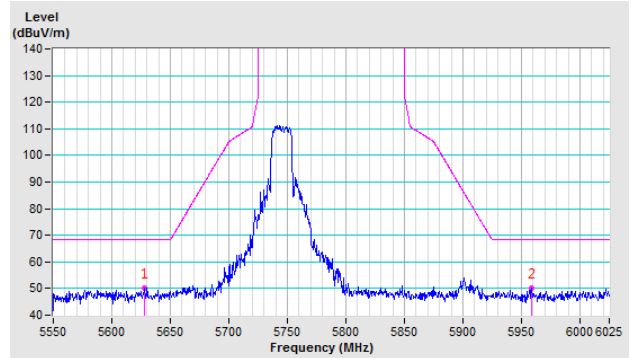
802.11ac (VHT20)

CH 149 5745 MHz

Horizontal

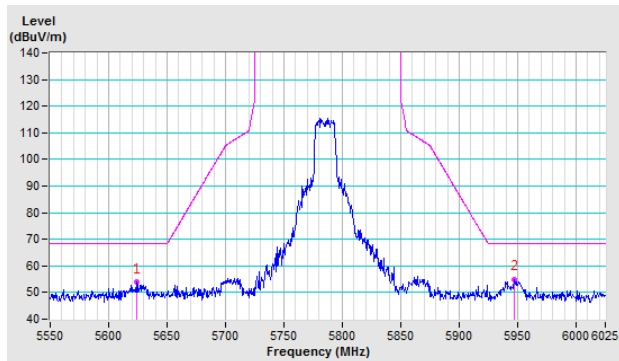


Vertical

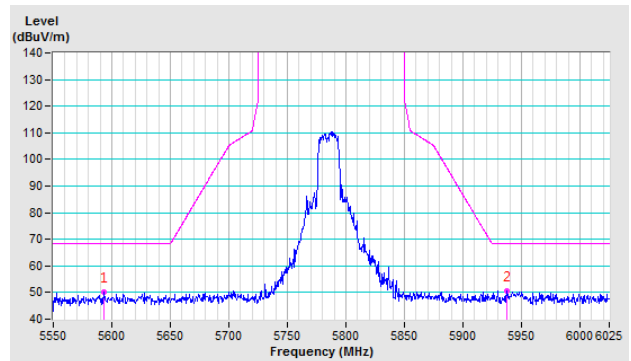


CH 157 5785 MHz

Horizontal

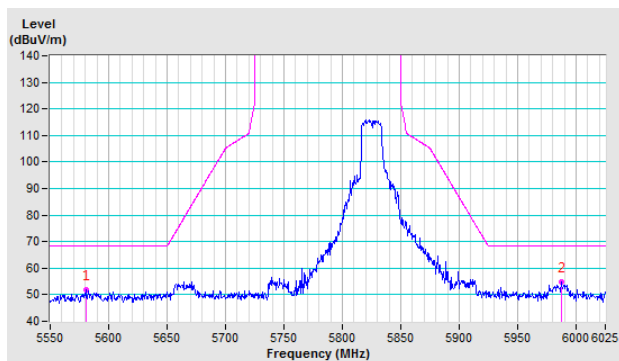


Vertical

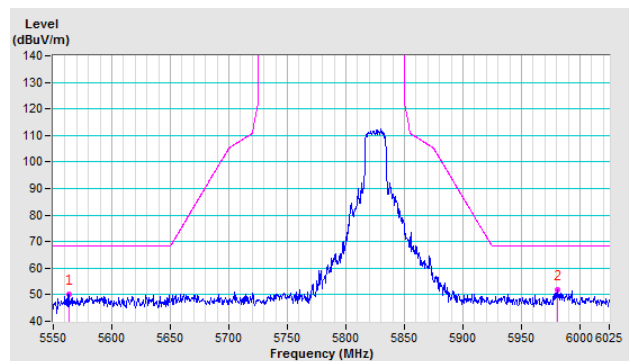


CH 165 5825 MHz

Horizontal



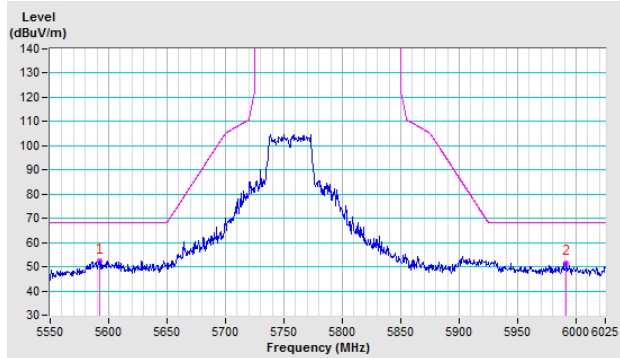
Vertical



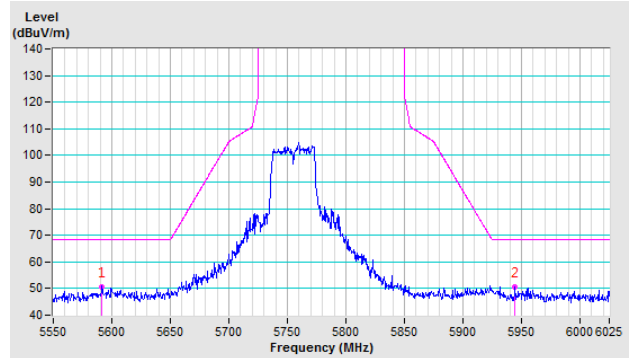
802.11ac (VHT40)

CH 151 5755 MHz

Horizontal

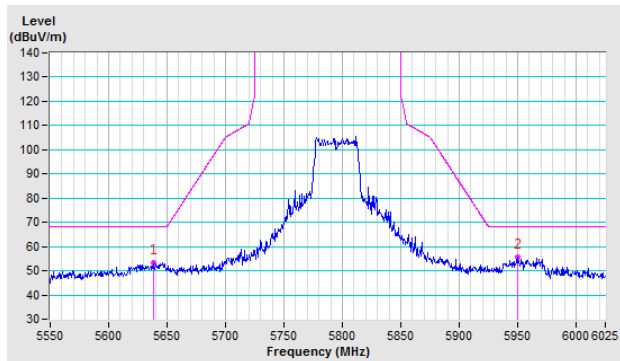


Vertical

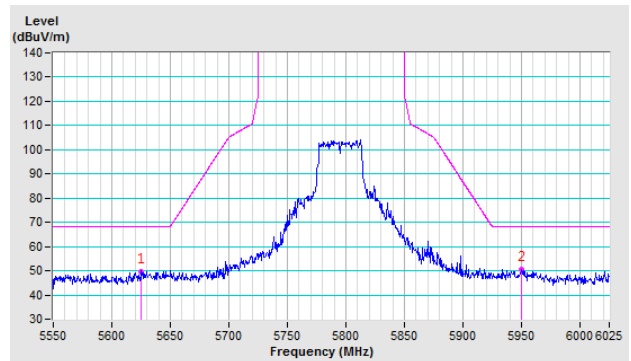


CH 159 5795 MHz

Horizontal



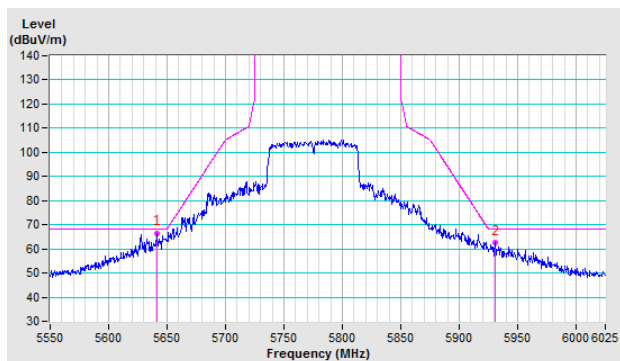
Vertical



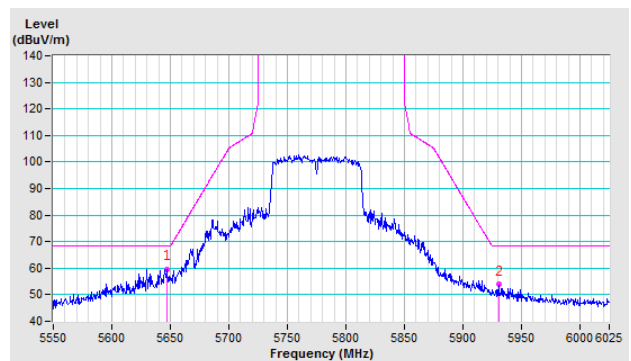
802.11ac (VHT80)

CH 155 5775 MHz

Horizontal



Vertical



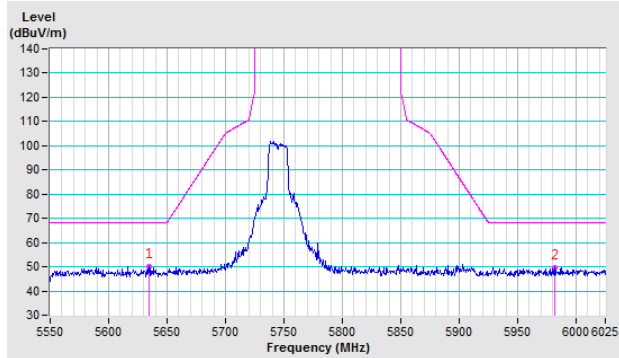
Annex A.2 - Test Results (Mode 2)

Dipole Antenna

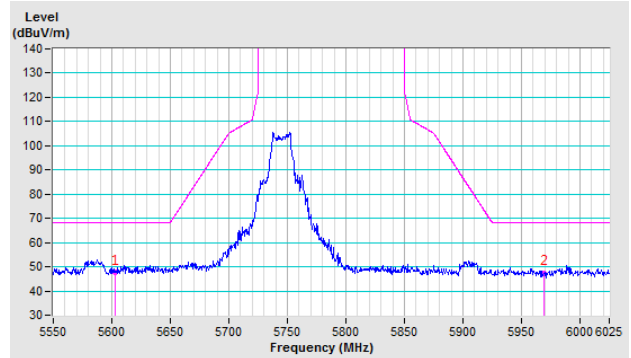
802.11a

CH 149 5745 MHz

Horizontal

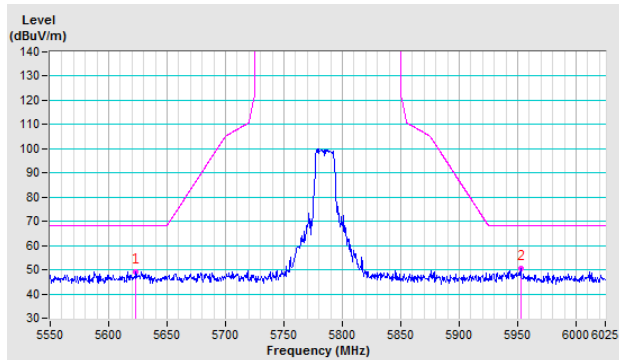


Vertical

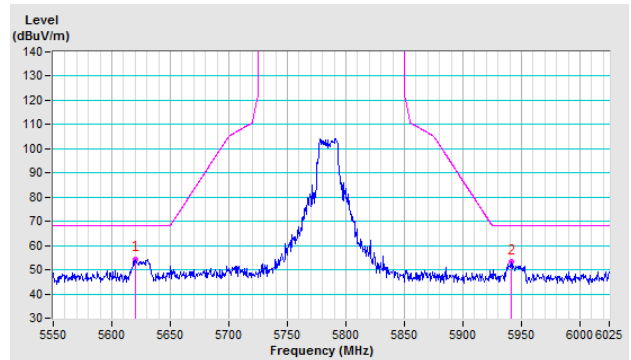


CH 157 5785 MHz

Horizontal

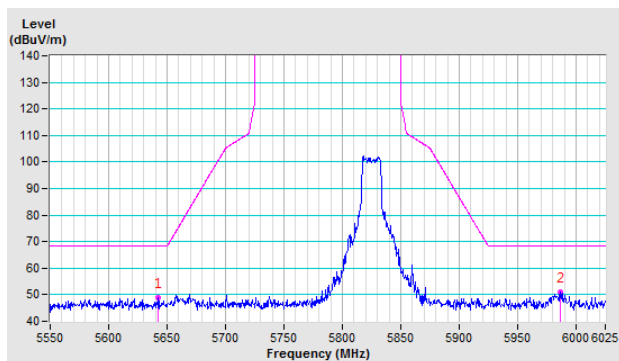


Vertical

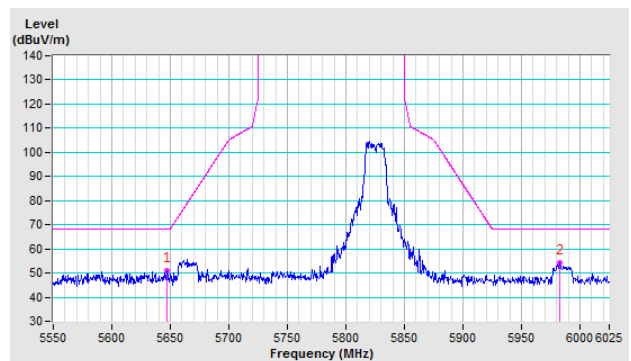


CH 165 5825 MHz

Horizontal



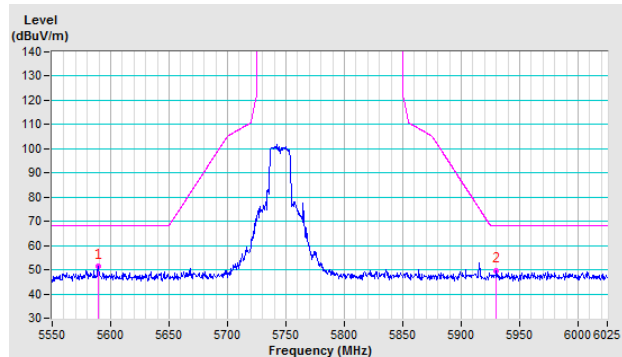
Vertical



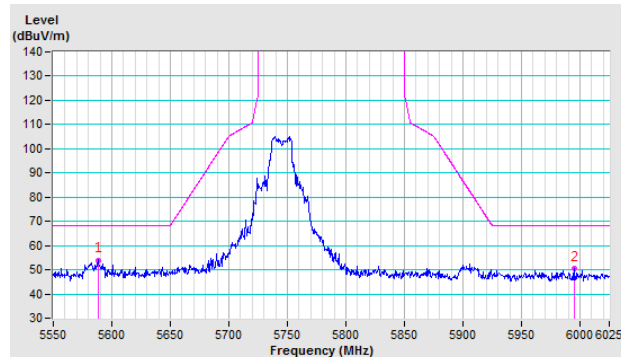
802.11ac (VHT20)

CH 149 5745 MHz

Horizontal

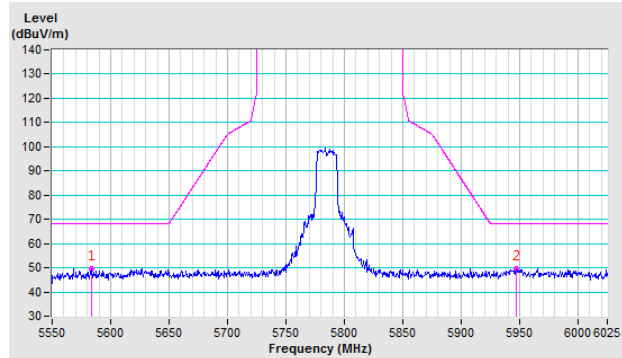


Vertical

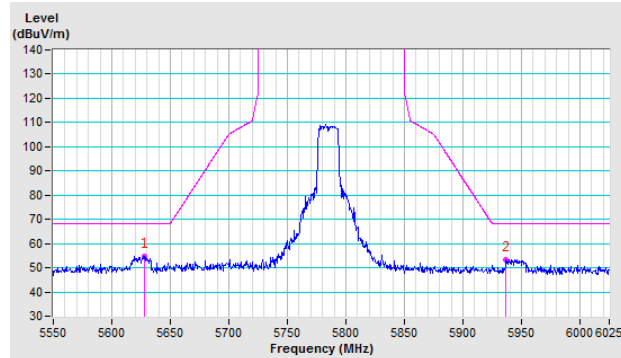


CH 157 5785 MHz

Horizontal

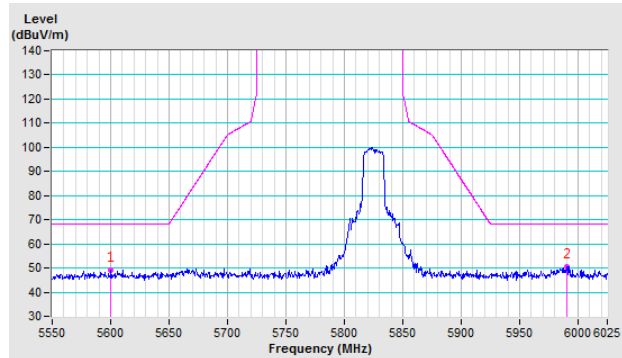


Vertical

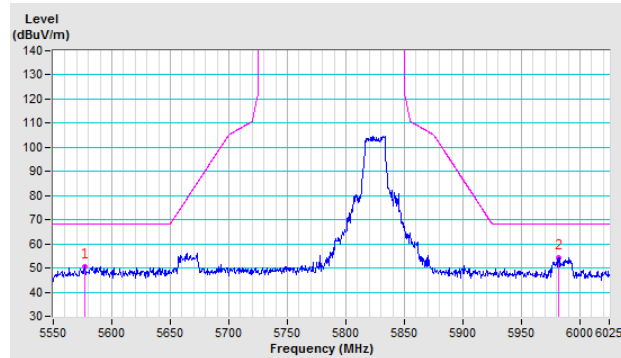


CH 165 5825 MHz

Horizontal



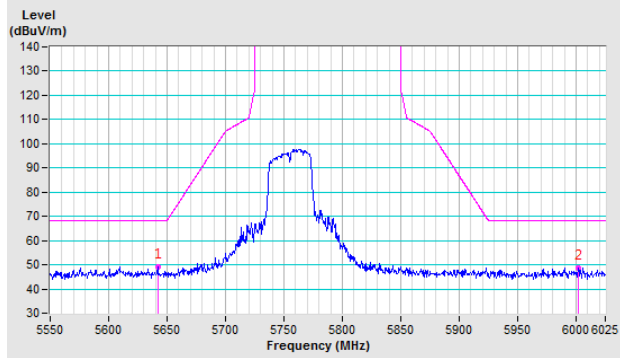
Vertical



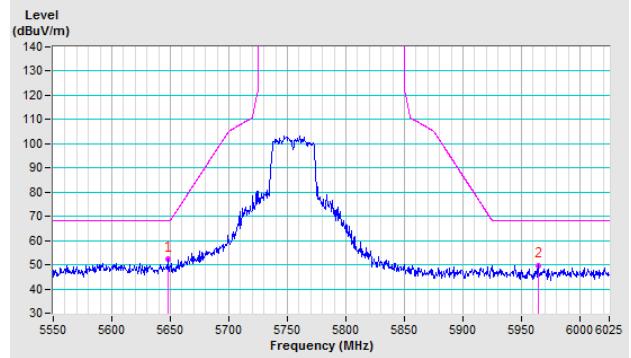
802.11ac (VHT40)

CH 151 5755 MHz

Horizontal

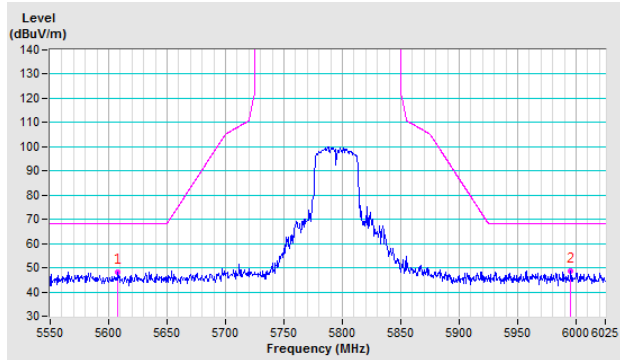


Vertical

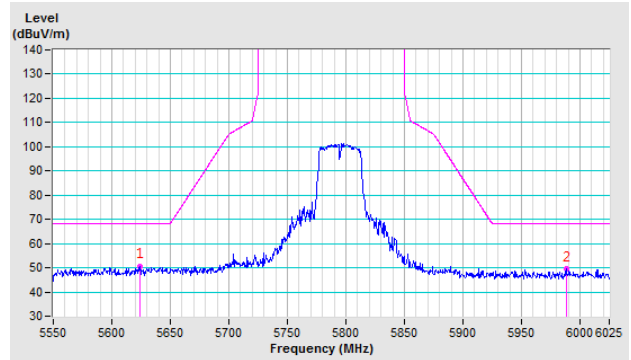


CH 159 5795 MHz

Horizontal



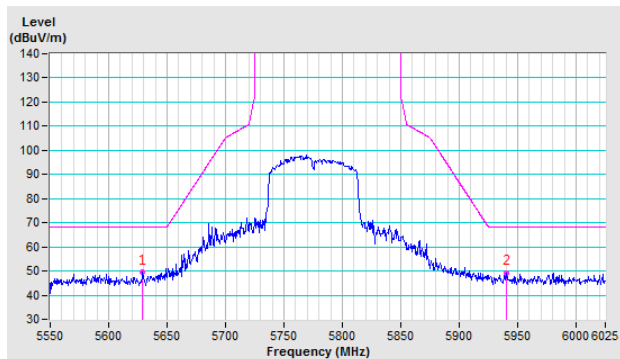
Vertical



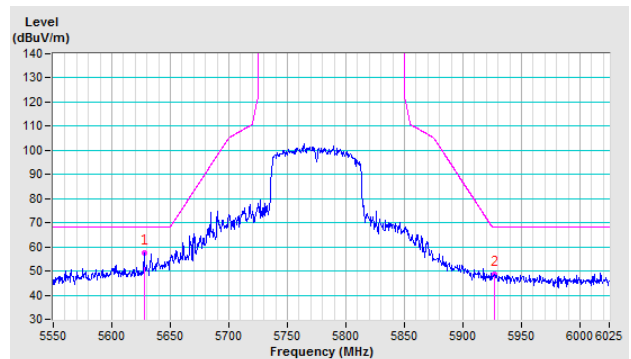
802.11ac (VHT80)

CH 155 5775 MHz

Horizontal



Vertical

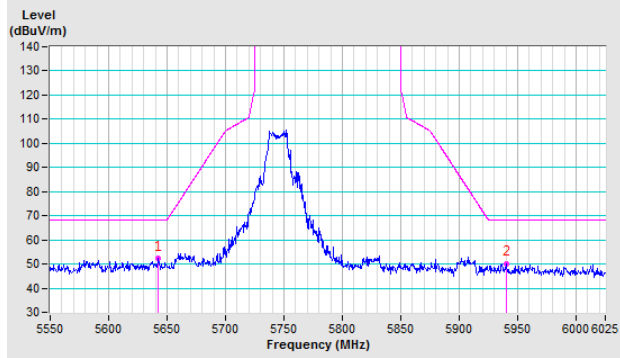


PIFA Antenna

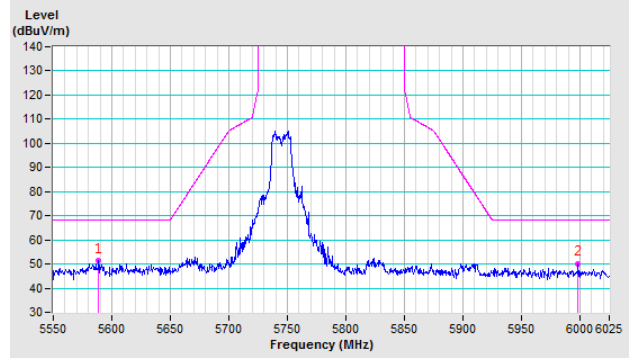
802.11a

CH 149 5745 MHz

Horizontal

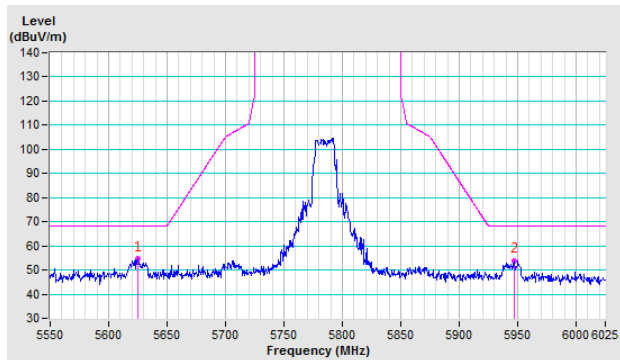


Vertical

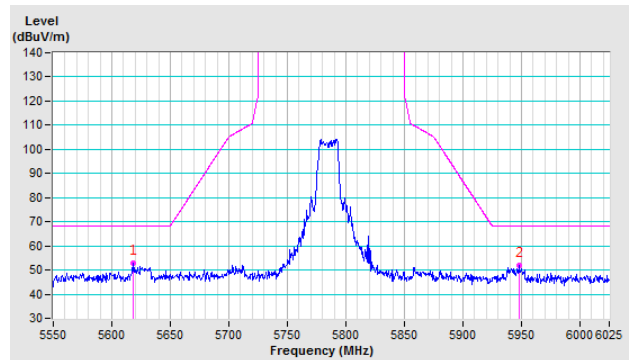


CH 157 5785 MHz

Horizontal

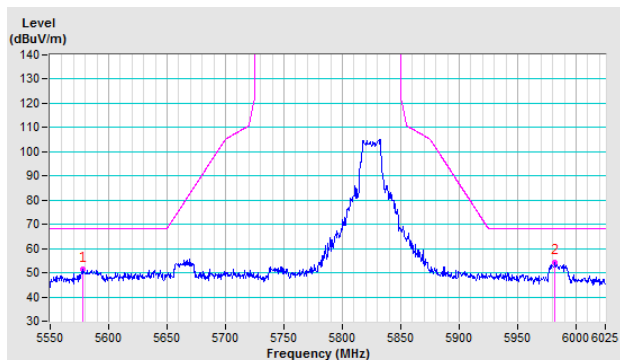


Vertical

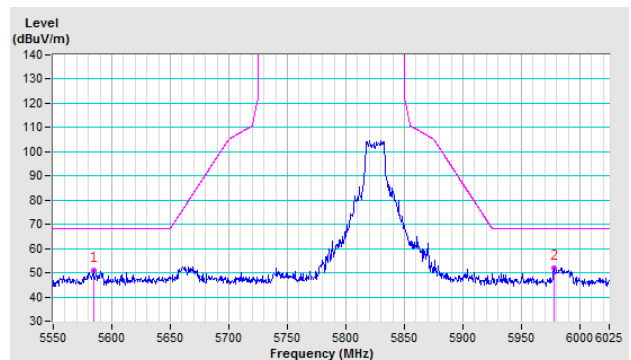


CH 165 5825 MHz

Horizontal



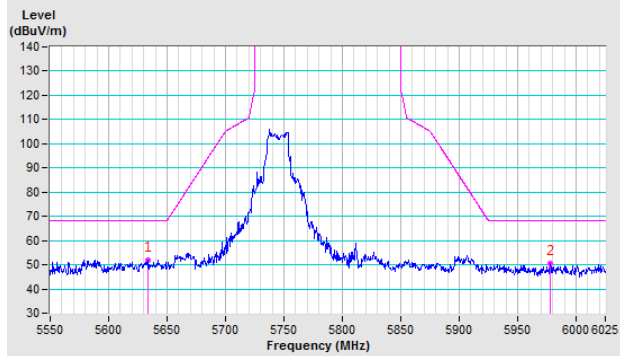
Vertical



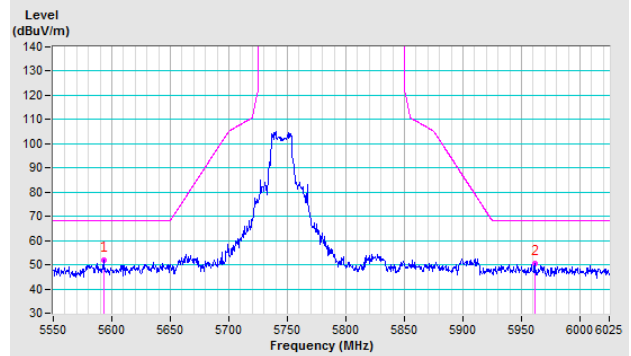
802.11ac (VHT20)

CH 149 5745 MHz

Horizontal

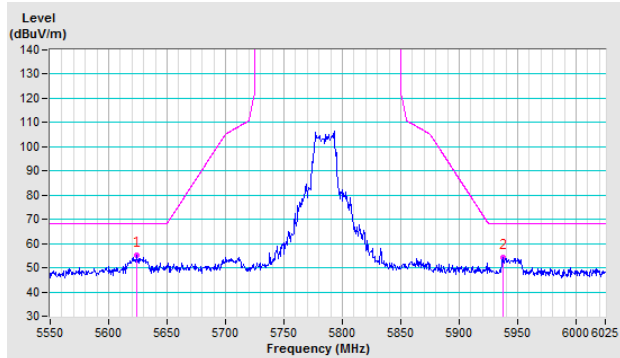


Vertical

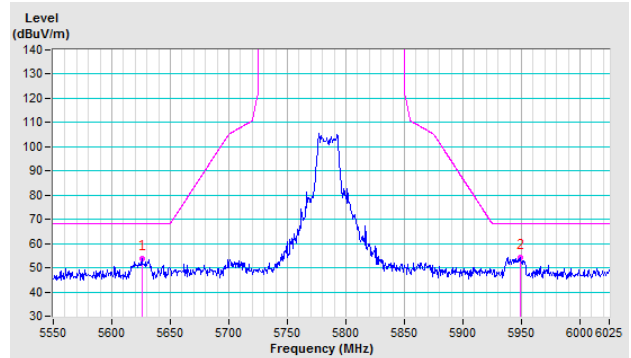


CH 157 5785 MHz

Horizontal

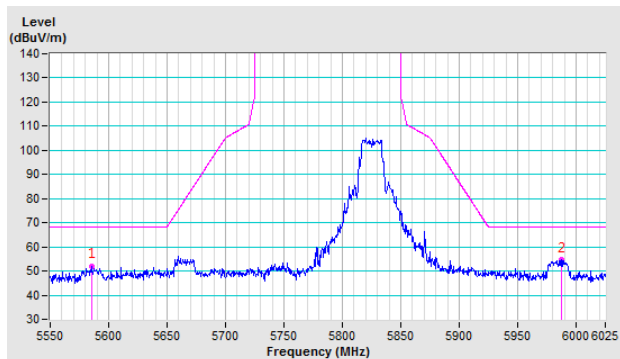


Vertical

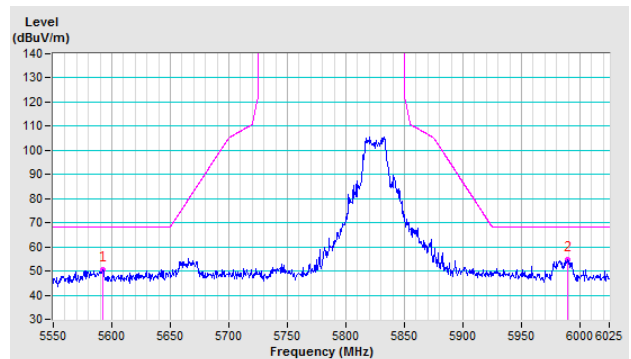


CH 165 5825 MHz

Horizontal



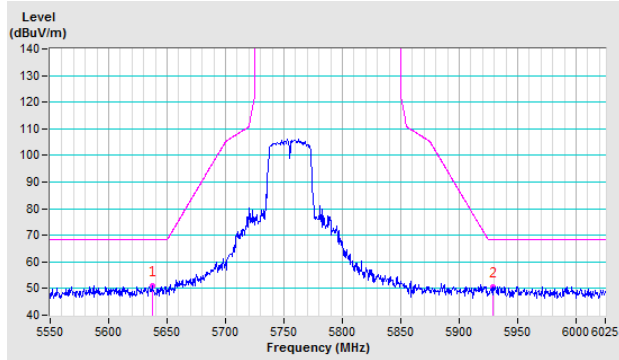
Vertical



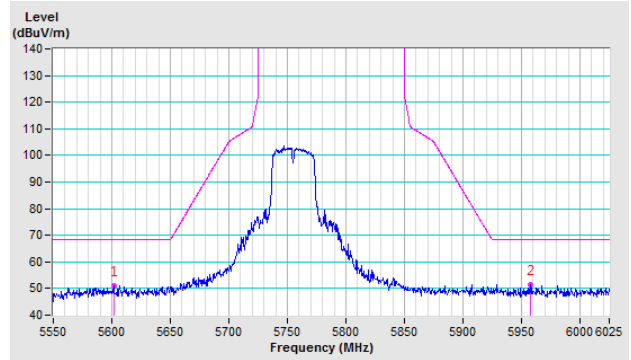
802.11ac (VHT40)

CH 151 5755 MHz

Horizontal

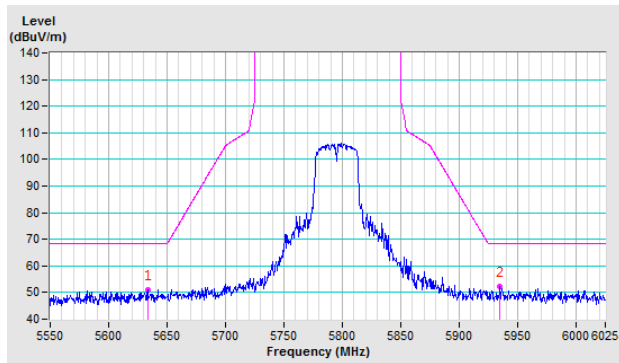


Vertical

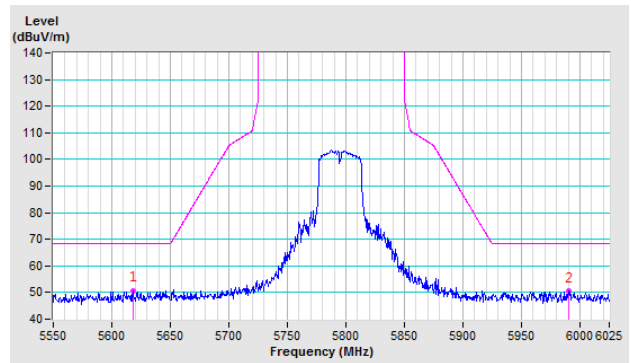


CH 159 5795 MHz

Horizontal



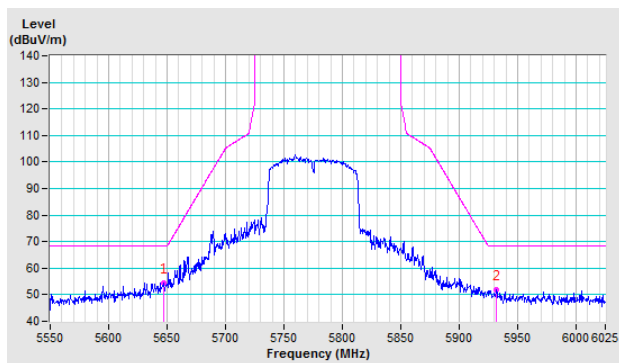
Vertical



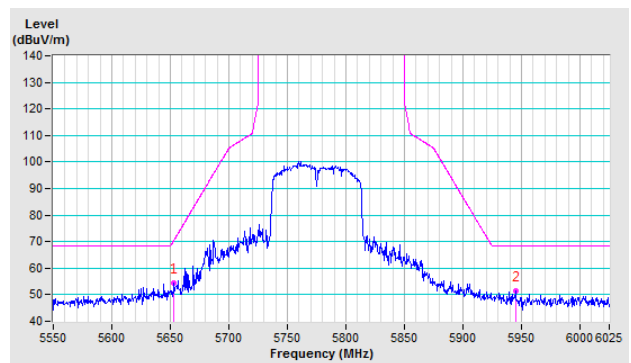
802.11ac (VHT80)

CH 155 5775 MHz

Horizontal



Vertical

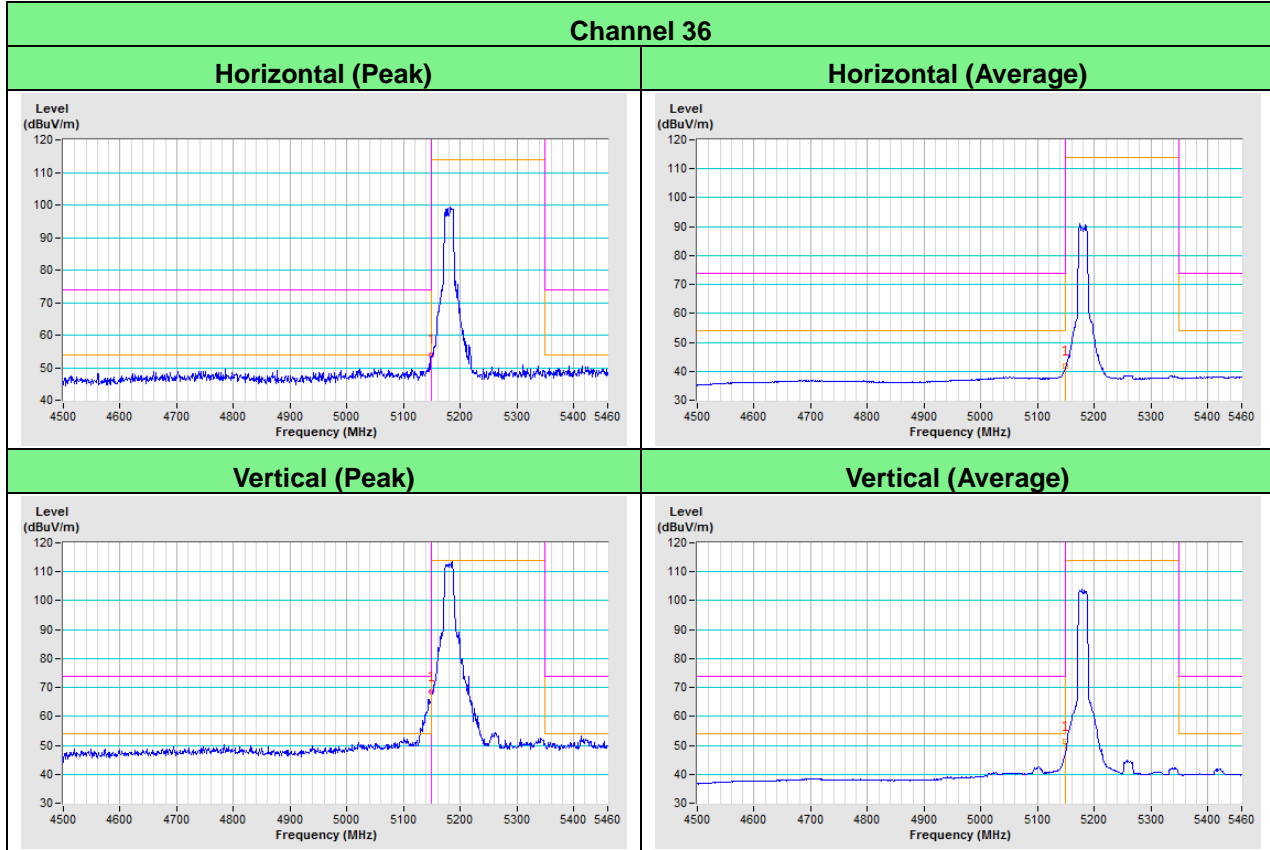


Annex B - Band-Edge Measurement (For U-NII-1, U-NII-2A, U-NII-2C band)

Annex B.1 - Test Results (Mode 1)

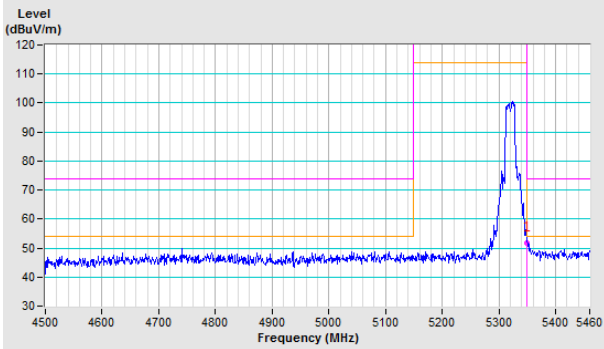
Dipole Antenna

802.11a

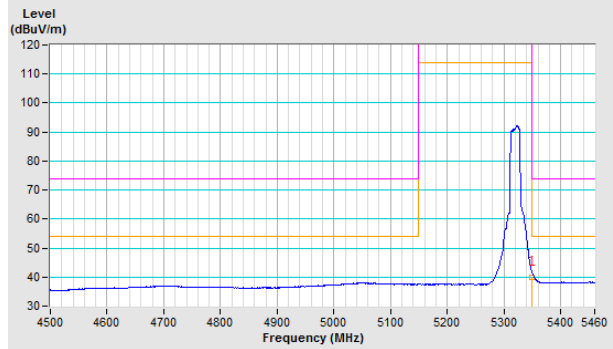


Channel 64

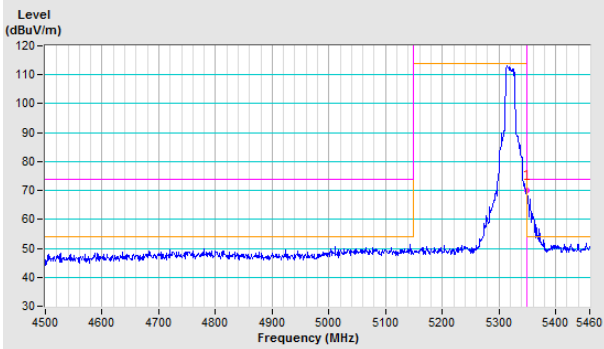
Horizontal (Peak)



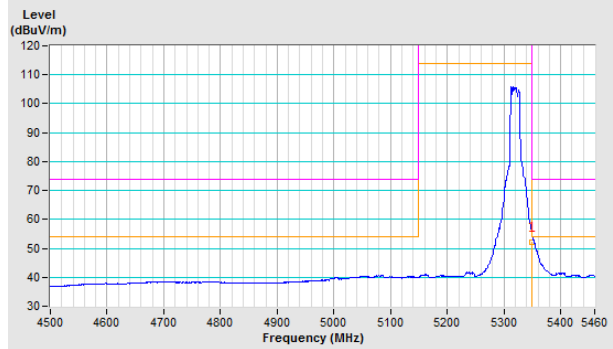
Horizontal (Average)



Vertical (Peak)

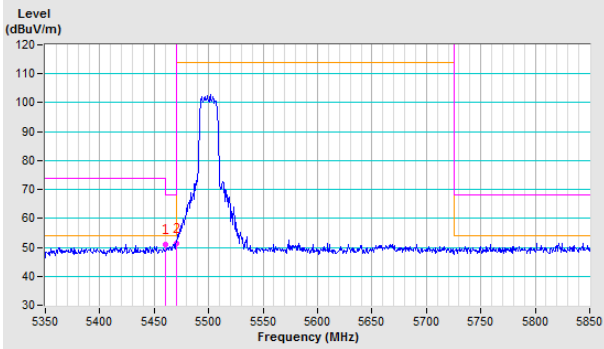


Vertical (Average)

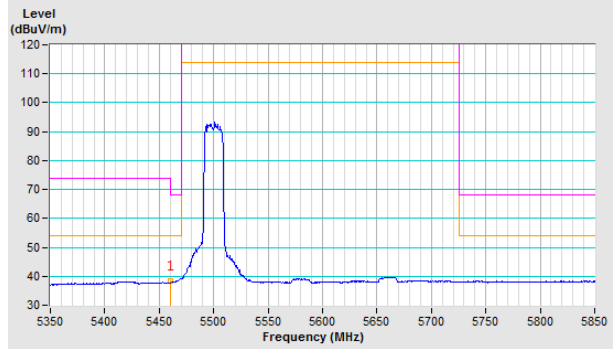


Channel 100

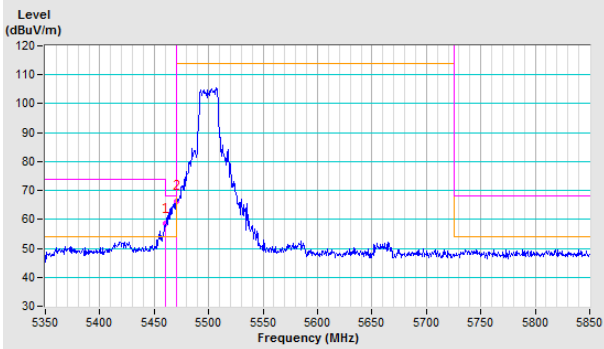
Horizontal (Peak)



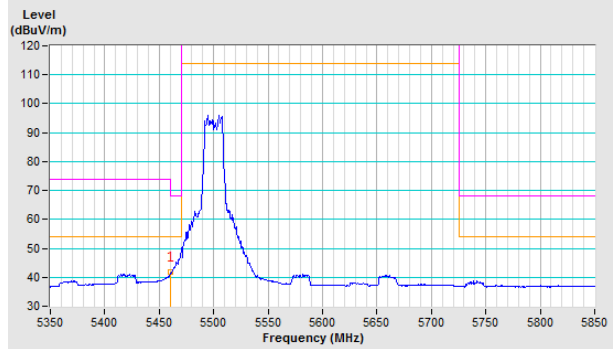
Horizontal (Average)



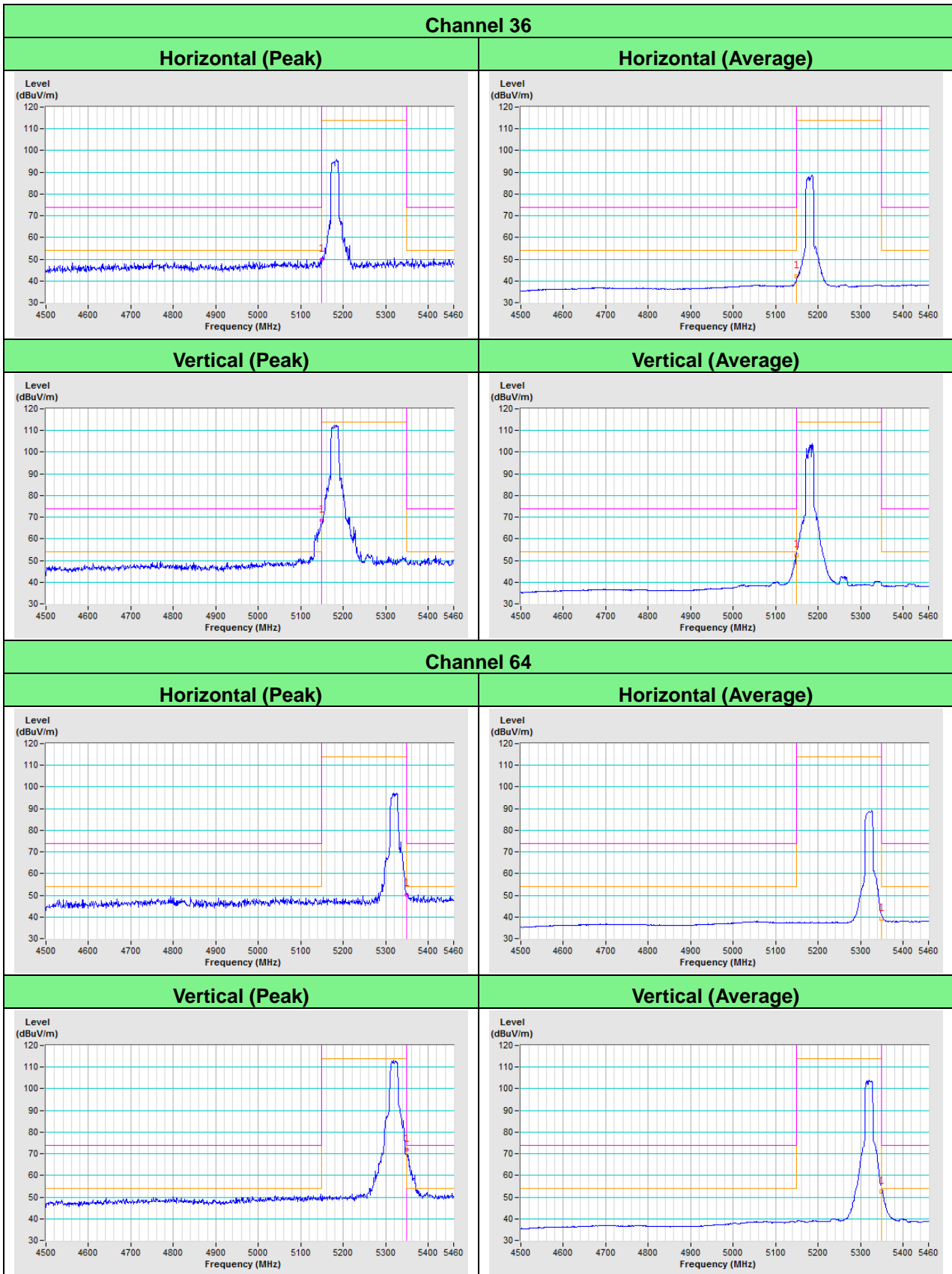
Vertical (Peak)



Vertical (Average)

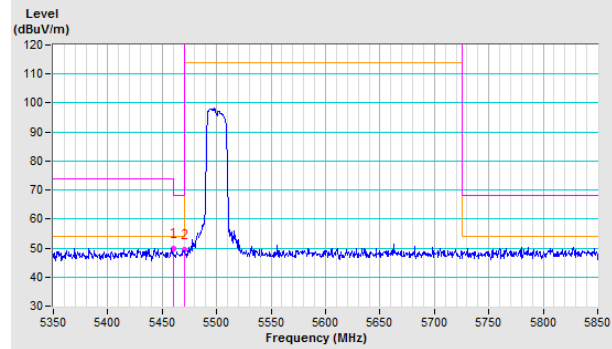


802.11ac (VHT20)

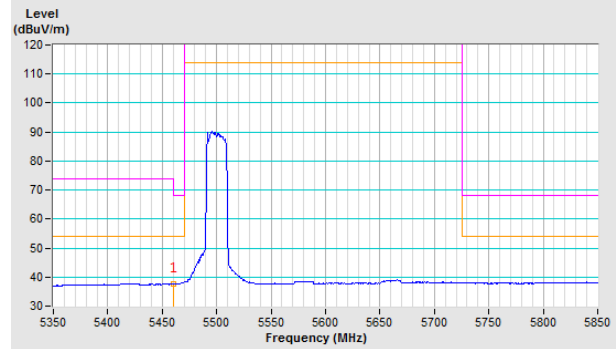


Channel 100

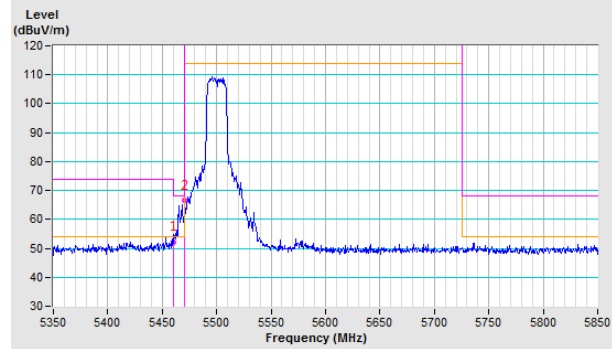
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)



Vertical (Average)

