

<b>RF Mode</b>	TX 802.11ax (HE80)	<b>Channel</b>	CH 119 : 6545 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6545.00	110.0 PK			1.73 H	316	106.1	3.9
2	*6545.00	100.2 AV			1.73 H	316	96.3	3.9
3	#13090.00	52.4 PK	88.2	-35.8	1.37 H	52	41.1	11.3
4	#13090.00	40.4 AV	68.2	-27.8	1.37 H	52	29.1	11.3
5	19635.00	42.8 PK	74.0	-31.2	1.79 H	57	49.1	-6.3
6	19635.00	34.2 AV	54.0	-19.8	1.79 H	57	40.5	-6.3
7	#26180.00	45.5 PK	88.2	-42.7	2.24 H	157	46.5	-1.0
8	#26180.00	36.3 AV	68.2	-31.9	2.24 H	157	37.3	-1.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6545.00	118.5 PK			2.08 V	188	114.6	3.9
2	*6545.00	106.7 AV			2.08 V	188	102.8	3.9
3	#13090.00	52.2 PK	88.2	-36.0	1.59 V	271	40.9	11.3
4	#13090.00	39.9 AV	68.2	-28.3	1.59 V	271	28.6	11.3
5	19635.00	42.3 PK	74.0	-31.7	1.57 V	223	48.6	-6.3
6	19635.00	33.9 AV	54.0	-20.1	1.57 V	223	40.2	-6.3
7	#26180.00	47.0 PK	88.2	-41.2	1.74 V	190	48.0	-1.0
8	#26180.00	38.2 AV	68.2	-30.0	1.74 V	190	39.2	-1.0

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE80)	<b>Channel</b>	CH 135 : 6625 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6625.00	110.7 PK			1.76 H	314	106.6	4.1
2	*6625.00	100.8 AV			1.76 H	314	96.7	4.1
3	13250.00	53.1 PK	74.0	-20.9	1.34 H	44	41.3	11.8
4	13250.00	41.0 AV	54.0	-13.0	1.34 H	44	29.2	11.8
5	19875.00	42.6 PK	74.0	-31.4	1.80 H	66	48.6	-6.0
6	19875.00	33.8 AV	54.0	-20.2	1.80 H	66	39.8	-6.0
7	#26500.00	45.7 PK	88.2	-42.5	2.31 H	162	46.1	-0.4
8	#26500.00	36.4 AV	68.2	-31.8	2.31 H	162	36.8	-0.4

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6625.00	117.5 PK			2.10 V	187	113.4	4.1
2	*6625.00	106.0 AV			2.10 V	187	101.9	4.1
3	13250.00	51.8 PK	74.0	-22.2	1.60 V	273	40.0	11.8
4	13250.00	39.7 AV	54.0	-14.3	1.60 V	273	27.9	11.8
5	19875.00	42.5 PK	74.0	-31.5	1.52 V	236	48.5	-6.0
6	19875.00	34.3 AV	54.0	-19.7	1.52 V	236	40.3	-6.0
7	#26500.00	46.7 PK	88.2	-41.5	1.75 V	199	47.1	-0.4
8	#26500.00	38.0 AV	68.2	-30.2	1.75 V	199	38.4	-0.4

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE80)	<b>Channel</b>	CH 151 : 6705 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6705.00	110.5 PK			1.69 H	308	106.4	4.1
2	*6705.00	101.1 AV			1.69 H	308	97.0	4.1
3	#13410.00	52.4 PK	88.2	-35.8	1.42 H	54	40.1	12.3
4	#13410.00	40.7 AV	68.2	-27.5	1.42 H	54	28.4	12.3
5	20115.00	42.1 PK	74.0	-31.9	1.79 H	74	47.6	-5.5
6	20115.00	33.5 AV	54.0	-20.5	1.79 H	74	39.0	-5.5
7	#26820.00	45.3 PK	88.2	-42.9	2.31 H	161	46.1	-0.8
8	#26820.00	36.2 AV	68.2	-32.0	2.31 H	161	37.0	-0.8

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6705.00	117.7 PK			2.09 V	195	113.6	4.1
2	*6705.00	106.0 AV			2.09 V	195	101.9	4.1
3	#13410.00	51.7 PK	88.2	-36.5	1.69 V	257	39.4	12.3
4	#13410.00	39.5 AV	68.2	-28.7	1.69 V	257	27.2	12.3
5	20115.00	43.1 PK	74.0	-30.9	1.58 V	228	48.6	-5.5
6	20115.00	34.4 AV	54.0	-19.6	1.58 V	228	39.9	-5.5
7	#26820.00	46.1 PK	88.2	-42.1	1.75 V	198	46.9	-0.8
8	#26820.00	37.5 AV	68.2	-30.7	1.75 V	198	38.3	-0.8

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE80)	<b>Channel</b>	CH 167 : 6785 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6785.00	110.6 PK			1.69 H	304	106.4	4.2
2	*6785.00	100.9 AV			1.69 H	304	96.7	4.2
3	#13570.00	53.0 PK	88.2	-35.2	1.42 H	52	40.0	13.0
4	#13570.00	41.2 AV	68.2	-27.0	1.42 H	52	28.2	13.0
5	20355.00	41.6 PK	74.0	-32.4	1.79 H	76	47.1	-5.5
6	20355.00	33.4 AV	54.0	-20.6	1.79 H	76	38.9	-5.5
7	#27140.00	45.8 PK	88.2	-42.4	2.31 H	167	47.2	-1.4
8	#27140.00	36.6 AV	68.2	-31.6	2.31 H	167	38.0	-1.4

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6785.00	118.5 PK			2.16 V	195	114.3	4.2
2	*6785.00	106.8 AV			2.16 V	195	102.6	4.2
3	#13570.00	50.9 PK	88.2	-37.3	1.67 V	266	37.9	13.0
4	#13570.00	39.1 AV	68.2	-29.1	1.67 V	266	26.1	13.0
5	20355.00	43.1 PK	74.0	-30.9	1.48 V	223	48.6	-5.5
6	20355.00	34.5 AV	54.0	-19.5	1.48 V	223	40.0	-5.5
7	#27140.00	46.8 PK	88.2	-41.4	1.78 V	198	48.2	-1.4
8	#27140.00	37.8 AV	68.2	-30.4	1.78 V	198	39.2	-1.4

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE80)	<b>Channel</b>	CH 183 : 6865 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6865.00	110.2 PK			1.66 H	319	105.6	4.6
2	*6865.00	100.8 AV			1.66 H	319	96.2	4.6
3	#13730.00	53.2 PK	88.2	-35.0	1.42 H	50	40.0	13.2
4	#13730.00	41.0 AV	68.2	-27.2	1.42 H	50	27.8	13.2
5	20595.00	42.0 PK	74.0	-32.0	1.86 H	74	46.9	-4.9
6	20595.00	33.5 AV	54.0	-20.5	1.86 H	74	38.4	-4.9
7	#27460.00	45.2 PK	88.2	-43.0	2.31 H	143	46.7	-1.5
8	#27460.00	36.2 AV	68.2	-32.0	2.31 H	143	37.7	-1.5

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6865.00	117.8 PK			2.06 V	164	113.2	4.6
2	*6865.00	106.2 AV			2.06 V	164	101.6	4.6
3	#13730.00	51.2 PK	88.2	-37.0	1.69 V	248	38.0	13.2
4	#13730.00	39.5 AV	68.2	-28.7	1.69 V	248	26.3	13.2
5	20595.00	42.1 PK	74.0	-31.9	1.52 V	244	47.0	-4.9
6	20595.00	33.9 AV	54.0	-20.1	1.52 V	244	38.8	-4.9
7	#27460.00	46.5 PK	88.2	-41.7	1.74 V	184	48.0	-1.5
8	#27460.00	37.5 AV	68.2	-30.7	1.74 V	184	39.0	-1.5

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE80)	<b>Channel</b>	CH 199 : 6945 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6945.00	110.0 PK			1.77 H	317	104.8	5.2
2	*6945.00	100.3 AV			1.77 H	317	95.1	5.2
3	#13890.00	52.9 PK	88.2	-35.3	1.34 H	45	39.6	13.3
4	#13890.00	40.9 AV	68.2	-27.3	1.34 H	45	27.6	13.3
5	20835.00	42.1 PK	74.0	-31.9	1.79 H	66	46.9	-4.8
6	20835.00	33.8 AV	54.0	-20.2	1.79 H	66	38.6	-4.8
7	#27780.00	45.7 PK	88.2	-42.5	2.29 H	145	47.4	-1.7
8	#27780.00	36.7 AV	68.2	-31.5	2.29 H	145	38.4	-1.7

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6945.00	117.7 PK			2.13 V	193	112.5	5.2
2	*6945.00	106.2 AV			2.13 V	193	101.0	5.2
3	#13890.00	52.0 PK	88.2	-36.2	1.66 V	260	38.7	13.3
4	#13890.00	39.8 AV	68.2	-28.4	1.66 V	260	26.5	13.3
5	20835.00	42.4 PK	74.0	-31.6	1.53 V	233	47.2	-4.8
6	20835.00	33.9 AV	54.0	-20.1	1.53 V	233	38.7	-4.8
7	#27780.00	46.7 PK	88.2	-41.5	1.78 V	199	48.4	-1.7
8	#27780.00	38.0 AV	68.2	-30.2	1.78 V	199	39.7	-1.7

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE80)	<b>Channel</b>	CH 215 : 7025 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7025.00	109.6 PK			1.59 H	111	103.8	5.8
2	*7025.00	100.1 AV			1.59 H	111	94.3	5.8
3	#7126.30	69.3 PK	88.2	-18.9	1.59 H	111	63.0	6.3
4	#7126.30	56.5 AV	68.2	-11.7	1.59 H	111	50.2	6.3
5	#14050.00	52.3 PK	88.2	-35.9	1.39 H	35	38.7	13.6
6	#14050.00	40.3 AV	68.2	-27.9	1.39 H	35	26.7	13.6
7	21075.00	41.8 PK	74.0	-32.2	1.85 H	72	46.2	-4.4
8	21075.00	33.4 AV	54.0	-20.6	1.85 H	72	37.8	-4.4
9	#28100.00	45.3 PK	88.2	-42.9	2.28 H	146	47.0	-1.7
10	#28100.00	36.3 AV	68.2	-31.9	2.28 H	146	38.0	-1.7

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7025.00	117.2 PK			2.05 V	5	111.4	5.8
2	*7025.00	105.9 AV			2.05 V	5	100.1	5.8
3	#7131.10	72.5 PK	88.2	-15.7	2.05 V	5	66.2	6.3
4	#7131.10	60.6 AV	68.2	-7.6	2.05 V	5	54.3	6.3
5	#14050.00	51.4 PK	88.2	-36.8	1.60 V	242	37.8	13.6
6	#14050.00	39.5 AV	68.2	-28.7	1.60 V	242	25.9	13.6
7	21075.00	43.0 PK	74.0	-31.0	1.47 V	221	47.4	-4.4
8	21075.00	34.4 AV	54.0	-19.6	1.47 V	221	38.8	-4.4
9	#28100.00	46.7 PK	88.2	-41.5	1.72 V	185	48.4	-1.7
10	#28100.00	37.7 AV	68.2	-30.5	1.72 V	185	39.4	-1.7

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE160)	<b>Channel</b>	CH 47 : 6185 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5921.50	49.3 PK	88.2	-38.9	1.62 H	299	47.5	1.8
2	#5921.50	37.5 AV	68.2	-30.7	1.62 H	299	35.7	1.8
3	*6185.00	108.5 PK			1.62 H	299	106.1	2.4
4	*6185.00	97.8 AV			1.62 H	299	95.4	2.4
5	12370.00	53.0 PK	74.0	-21.0	1.38 H	32	42.6	10.4
6	12370.00	40.9 AV	54.0	-13.1	1.38 H	32	30.5	10.4
7	18555.00	42.7 PK	74.0	-31.3	1.85 H	72	49.3	-6.6
8	18555.00	34.2 AV	54.0	-19.8	1.85 H	72	40.8	-6.6
9	#24740.00	46.0 PK	88.2	-42.2	2.30 H	145	48.1	-2.1
10	#24740.00	36.8 AV	68.2	-31.4	2.30 H	145	38.9	-2.1

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5921.50	52.7 PK	88.2	-35.5	2.26 V	191	50.9	1.8
2	#5921.50	39.6 AV	68.2	-28.6	2.26 V	191	37.8	1.8
3	*6185.00	115.3 PK			2.26 V	191	112.9	2.4
4	*6185.00	104.3 AV			2.26 V	191	101.9	2.4
5	12370.00	51.6 PK	74.0	-22.4	1.61 V	258	41.2	10.4
6	12370.00	39.8 AV	54.0	-14.2	1.61 V	258	29.4	10.4
7	18555.00	42.6 PK	74.0	-31.4	1.54 V	223	49.2	-6.6
8	18555.00	34.1 AV	54.0	-19.9	1.54 V	223	40.7	-6.6
9	#24740.00	46.7 PK	88.2	-41.5	1.73 V	191	48.8	-2.1
10	#24740.00	38.1 AV	68.2	-30.1	1.73 V	191	40.2	-2.1

**Remarks:**

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



<b>RF Mode</b>	TX 802.11ax (HE160)	<b>Channel</b>	CH 79 : 6345 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6345.00	108.2 PK			1.62 H	310	105.2	3.0
2	*6345.00	97.6 AV			1.62 H	310	94.6	3.0
3	12690.00	52.5 PK	74.0	-21.5	1.39 H	27	41.7	10.8
4	12690.00	40.6 AV	54.0	-13.4	1.39 H	27	29.8	10.8
5	19035.00	42.8 PK	74.0	-31.2	1.74 H	53	49.1	-6.3
6	19035.00	34.2 AV	54.0	-19.8	1.74 H	53	40.5	-6.3
7	#25380.00	45.3 PK	88.2	-42.9	2.30 H	162	46.9	-1.6
8	#25380.00	36.0 AV	68.2	-32.2	2.30 H	162	37.6	-1.6

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6345.00	115.7 PK			2.28 V	183	112.7	3.0
2	*6345.00	104.4 AV			2.28 V	183	101.4	3.0
3	12690.00	51.2 PK	74.0	-22.8	1.66 V	251	40.4	10.8
4	12690.00	39.1 AV	54.0	-14.9	1.66 V	251	28.3	10.8
5	19035.00	42.5 PK	74.0	-31.5	1.53 V	235	48.8	-6.3
6	19035.00	33.9 AV	54.0	-20.1	1.53 V	235	40.2	-6.3
7	#25380.00	46.4 PK	88.2	-41.8	1.78 V	203	48.0	-1.6
8	#25380.00	37.7 AV	68.2	-30.5	1.78 V	203	39.3	-1.6

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE160)	<b>Channel</b>	CH 111 : 6505 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6505.00	108.6 PK			1.59 H	299	104.9	3.7
2	*6505.00	97.7 AV			1.59 H	299	94.0	3.7
3	#13010.00	52.4 PK	88.2	-35.8	1.31 H	53	41.4	11.0
4	#13010.00	40.6 AV	68.2	-27.6	1.31 H	53	29.6	11.0
5	19515.00	42.6 PK	74.0	-31.4	1.79 H	62	48.9	-6.3
6	19515.00	34.0 AV	54.0	-20.0	1.79 H	62	40.3	-6.3
7	#26020.00	45.4 PK	88.2	-42.8	2.25 H	136	46.4	-1.0
8	#26020.00	36.2 AV	68.2	-32.0	2.25 H	136	37.2	-1.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6505.00	115.3 PK			2.21 V	198	111.6	3.7
2	*6505.00	104.6 AV			2.21 V	198	100.9	3.7
3	#13010.00	51.6 PK	88.2	-36.6	1.58 V	266	40.6	11.0
4	#13010.00	39.5 AV	68.2	-28.7	1.58 V	266	28.5	11.0
5	19515.00	42.4 PK	74.0	-31.6	1.54 V	232	48.7	-6.3
6	19515.00	33.8 AV	54.0	-20.2	1.54 V	232	40.1	-6.3
7	#26020.00	47.0 PK	88.2	-41.2	1.72 V	190	48.0	-1.0
8	#26020.00	38.4 AV	68.2	-29.8	1.72 V	190	39.4	-1.0

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE160)	<b>Channel</b>	CH 143 : 6665 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6665.00	108.2 PK			1.63 H	293	104.2	4.0
2	*6665.00	97.3 AV			1.63 H	293	93.3	4.0
3	13330.00	52.1 PK	74.0	-21.9	1.42 H	41	40.1	12.0
4	13330.00	40.3 AV	54.0	-13.7	1.42 H	41	28.3	12.0
5	19995.00	42.4 PK	74.0	-31.6	1.82 H	75	48.3	-5.9
6	19995.00	34.0 AV	54.0	-20.0	1.82 H	75	39.9	-5.9
7	#26660.00	44.9 PK	88.2	-43.3	2.25 H	153	45.2	-0.3
8	#26660.00	36.1 AV	68.2	-32.1	2.25 H	153	36.4	-0.3

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6665.00	115.8 PK			2.24 V	198	111.8	4.0
2	*6665.00	104.8 AV			2.24 V	198	100.8	4.0
3	13330.00	51.1 PK	74.0	-22.9	1.58 V	247	39.1	12.0
4	13330.00	39.3 AV	54.0	-14.7	1.58 V	247	27.3	12.0
5	19995.00	42.6 PK	74.0	-31.4	1.50 V	237	48.5	-5.9
6	19995.00	34.3 AV	54.0	-19.7	1.50 V	237	40.2	-5.9
7	#26660.00	47.3 PK	88.2	-40.9	1.72 V	211	47.6	-0.3
8	#26660.00	38.2 AV	68.2	-30.0	1.72 V	211	38.5	-0.3

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE160)	<b>Channel</b>	CH 175 : 6825 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6825.00	108.0 PK			1.63 H	297	103.6	4.4
2	*6825.00	97.4 AV			1.63 H	297	93.0	4.4
3	#13650.00	53.2 PK	88.2	-35.0	1.38 H	37	40.0	13.2
4	#13650.00	41.0 AV	68.2	-27.2	1.38 H	37	27.8	13.2
5	20475.00	42.1 PK	74.0	-31.9	1.77 H	69	47.4	-5.3
6	20475.00	33.6 AV	54.0	-20.4	1.77 H	69	38.9	-5.3
7	#27300.00	45.5 PK	88.2	-42.7	2.27 H	165	46.9	-1.4
8	#27300.00	36.4 AV	68.2	-31.8	2.27 H	165	37.8	-1.4

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6825.00	115.5 PK			2.20 V	194	111.1	4.4
2	*6825.00	104.6 AV			2.20 V	194	100.2	4.4
3	#13650.00	51.1 PK	88.2	-37.1	1.66 V	270	37.9	13.2
4	#13650.00	39.3 AV	68.2	-28.9	1.66 V	270	26.1	13.2
5	20475.00	43.0 PK	74.0	-31.0	1.53 V	238	48.3	-5.3
6	20475.00	34.5 AV	54.0	-19.5	1.53 V	238	39.8	-5.3
7	#27300.00	46.4 PK	88.2	-41.8	1.75 V	208	47.8	-1.4
8	#27300.00	37.8 AV	68.2	-30.4	1.75 V	208	39.2	-1.4

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE160)	<b>Channel</b>	CH 207 : 6985 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6985.00	109.8 PK			1.54 H	104	104.3	5.5
2	*6985.00	98.1 AV			1.54 H	104	92.6	5.5
3	#7126.70	75.9 PK	88.2	-12.3	1.54 H	104	69.6	6.3
4	#7126.70	60.5 AV	68.2	-7.7	1.54 H	104	54.2	6.3
5	#13970.00	52.8 PK	88.2	-35.4	1.36 H	47	39.4	13.4
6	#13970.00	40.5 AV	68.2	-27.7	1.36 H	47	27.1	13.4
7	20955.00	42.2 PK	74.0	-31.8	1.84 H	47	46.7	-4.5
8	20955.00	33.5 AV	54.0	-20.5	1.84 H	47	38.0	-4.5
9	#27940.00	45.9 PK	88.2	-42.3	2.30 H	161	47.5	-1.6
10	#27940.00	36.7 AV	68.2	-31.5	2.30 H	161	38.3	-1.6

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6985.00	114.9 PK			2.05 V	1	109.4	5.5
2	*6985.00	103.8 AV			2.05 V	1	98.3	5.5
3	#7131.50	83.2 PK	88.2	-5.0	2.05 V	1	76.9	6.3
4	<b>#7131.50</b>	<b>66.6 AV</b>	<b>68.2</b>	<b>-1.6</b>	<b>2.05 V</b>	<b>1</b>	<b>60.3</b>	<b>6.3</b>
5	#13970.00	50.9 PK	88.2	-37.3	1.65 V	260	37.5	13.4
6	#13970.00	39.1 AV	68.2	-29.1	1.65 V	260	25.7	13.4
7	20955.00	42.4 PK	74.0	-31.6	1.53 V	246	46.9	-4.5
8	20955.00	34.2 AV	54.0	-19.8	1.53 V	246	38.7	-4.5
9	#27940.00	47.1 PK	88.2	-41.1	1.74 V	206	48.7	-1.6
10	#27940.00	38.0 AV	68.2	-30.2	1.74 V	206	39.6	-1.6

**Remarks:**

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

## 4.2 In-Band Emission (Mask) Measurement

### 4.2.1 Limits of In-Band Emission (Mask) Measurement

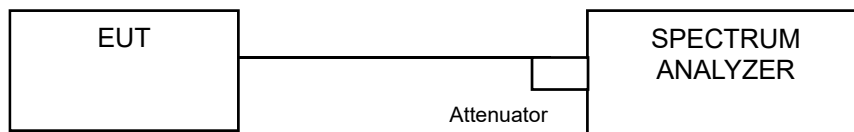
Test Item	Frequencies (MHz)	(X) dBc <sup>*1</sup>
Emission Mask	At 1 MHz outside of channel edge	20
	At one channel bandwidth from the channel center <sup>*2</sup>	28
	At one- and one-half times the channel bandwidth away from channel center <sup>*3</sup>	40
	More than one- and one-half times the channel bandwidth	40

\*1 :The power spectral density must be suppressed by “x” dB

\*2 : At frequencies between one megahertz outside an unlicensed device’s channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression,

\*3 : At frequencies between one and one- and one-half times an unlicensed device’s channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression.

### 4.2.2 Test Setup



### 4.2.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

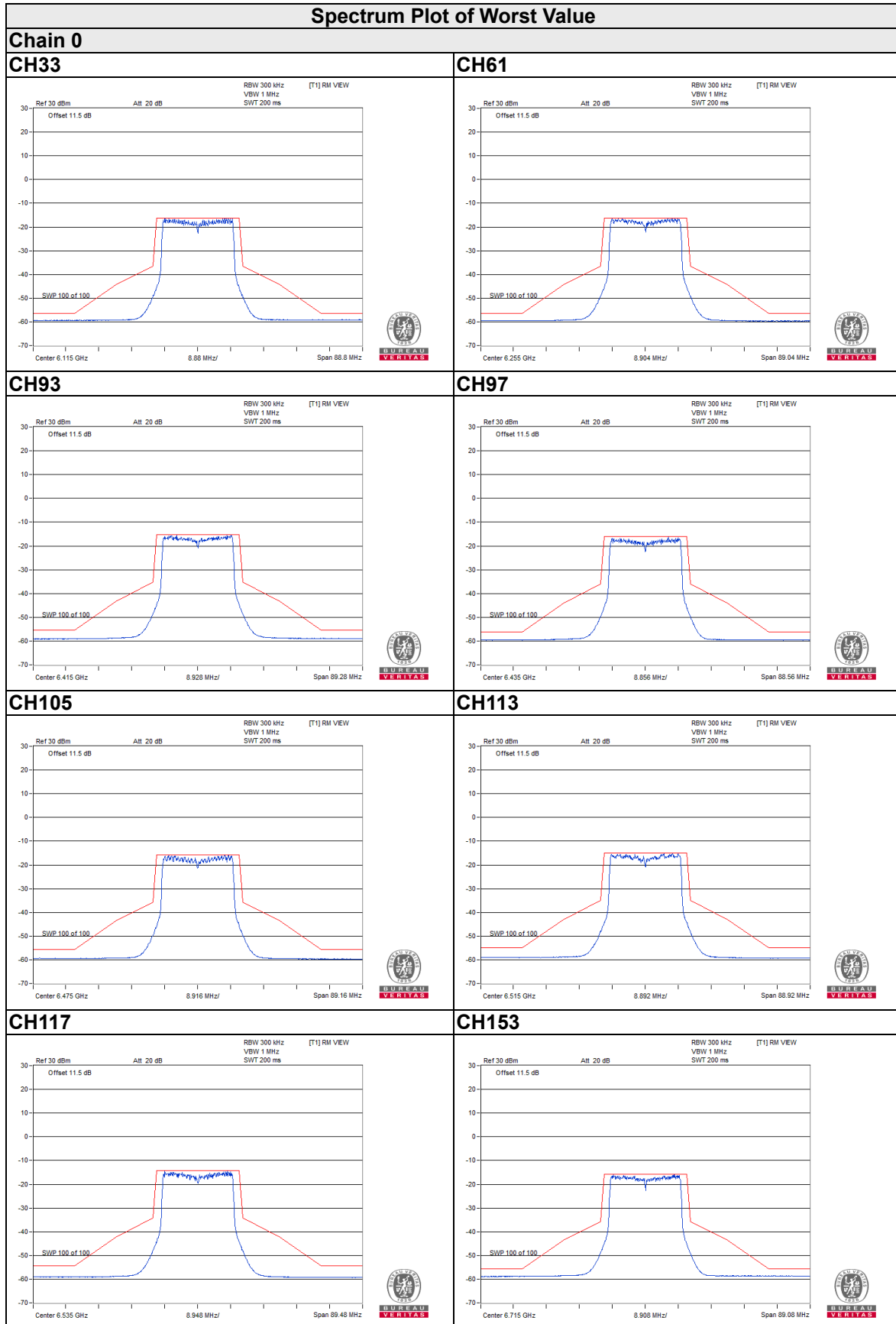
#### 4.2.4 Test Procedure

- a. Connect output of the antenna port to a spectrum analyzer and adjust appropriate attenuation.
- b. Measure the 26 dB EBW using the test procedure 12.4.1 of ANSI C63.10-2013. (Determine the channel edge.)
- c. Measure the power spectral density ( for emissions mask reference) using the following procedure:
  - a) Set the span to encompass the entire 26 dB EBW of the signal.
  - b) Set RBW = same RBW used for 26 dB EBW measurement.
  - c) Set VBW  $\geq 3 \times$  RBW
  - d) Number of points in sweep  $\geq [2 \times \text{span} / \text{RBW}]$ .
  - e) Sweep time = auto.
  - f) Detector = RMS (i.e., power averaging)
  - g) Trace average at least 100 traces in power averaging (rms) mode.
  - h) Use the peak search function on the instrument to find the peak of the spectrum.
- d. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:
  - a) Suppressed by 20 dB at 1 MHz outside of the channel edge. (The channel edge is defined as the 26-dB point on either side of the carrier center frequency.)
  - b) Suppressed by 28 dB at one channel bandwidth from the channel center.
  - c) Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.
- e. Adjust the span to encompass the entire mask as necessary and clear trace.
- f. Trace average at least 100 traces in power averaging (rms) mode.
- g. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask

#### 4.2.5 EUT Operating Condition

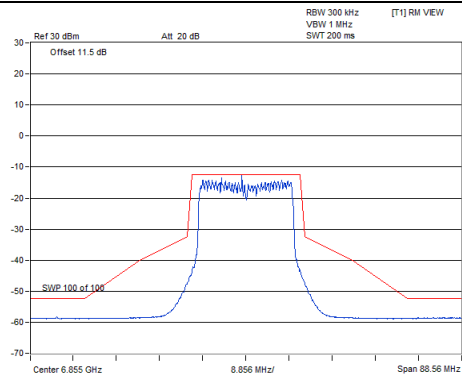
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.2.6 Test Results  
802.11ax (HE20)

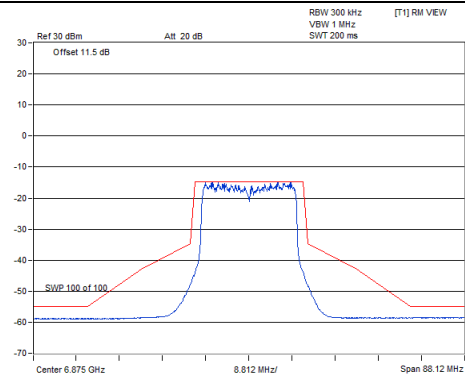




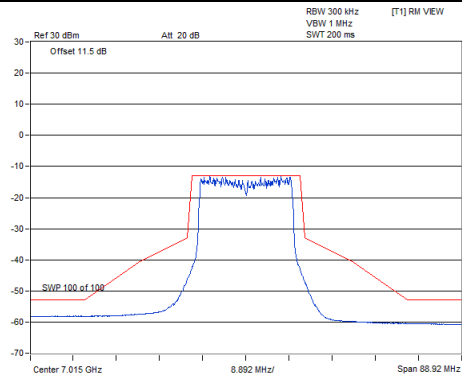
### CH181



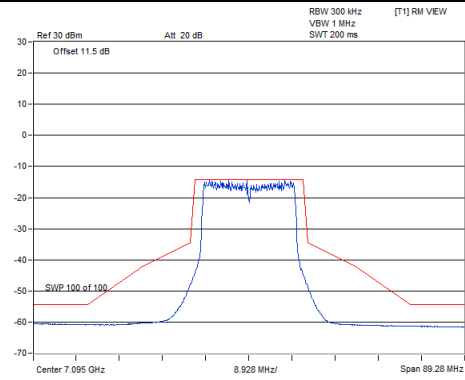
### CH185



### CH213



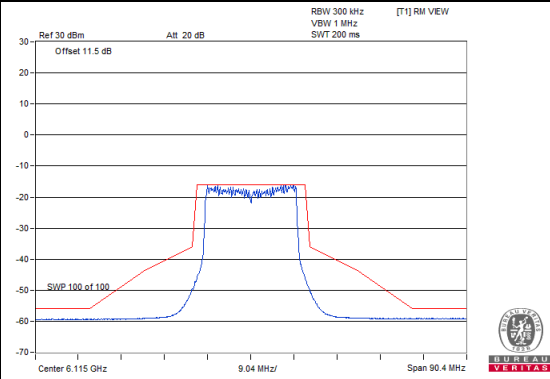
### CH229



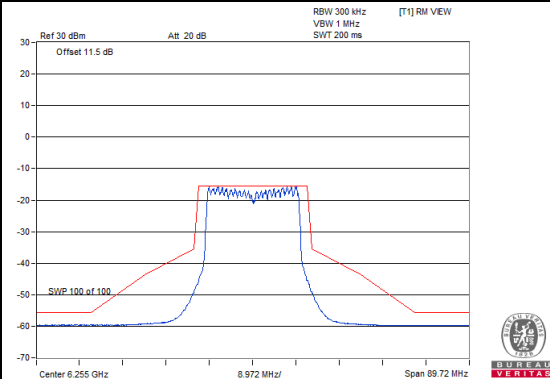
### Spectrum Plot of Worst Value

#### Chain 1

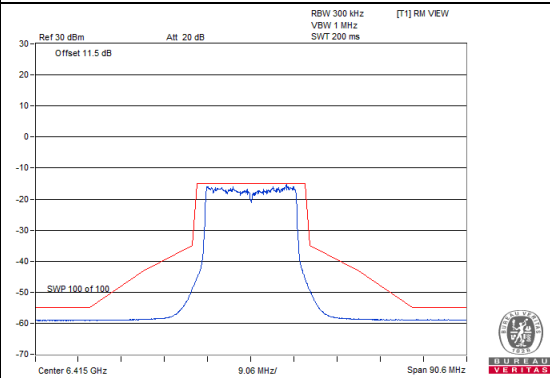
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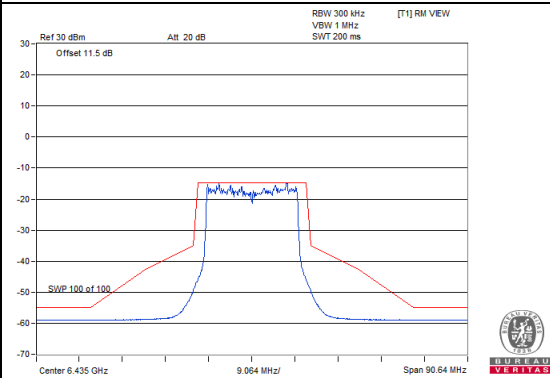
#### CH61



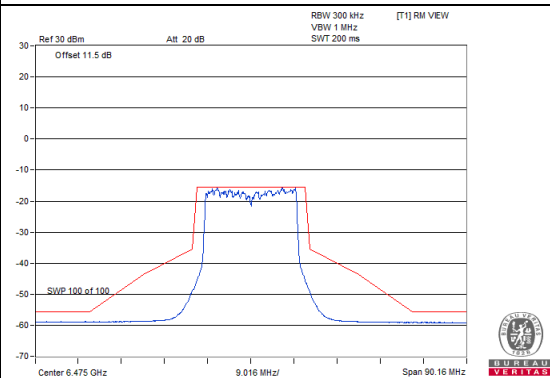
#### CH93



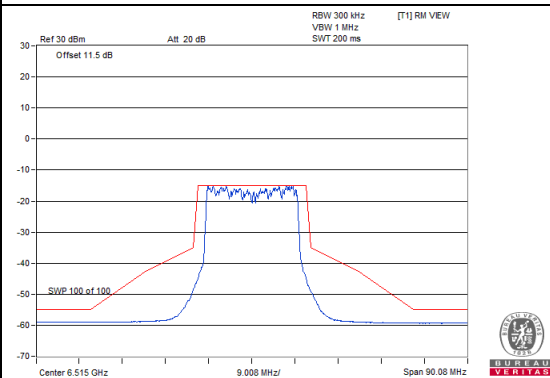
#### CH97



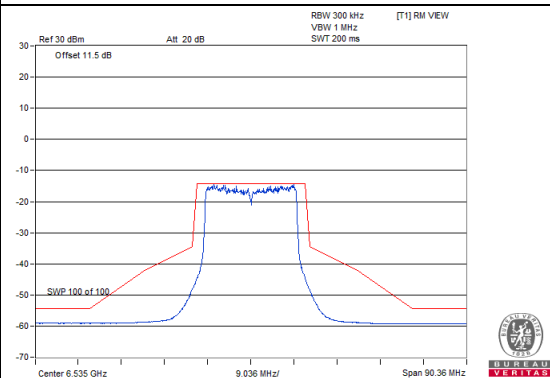
#### CH105



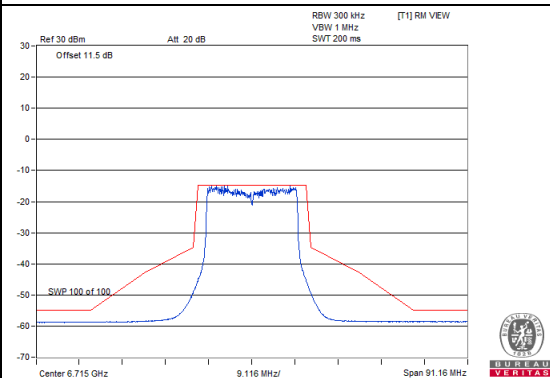
#### CH113



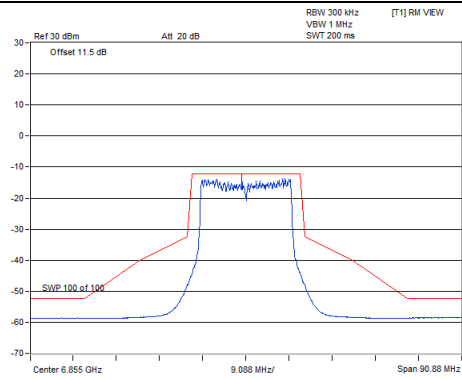
#### CH117



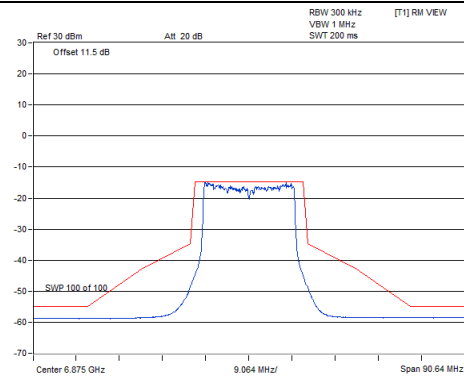
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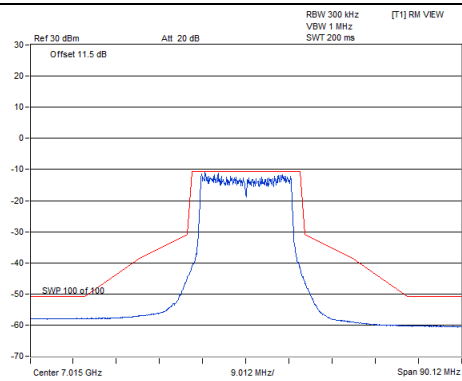
### CH181



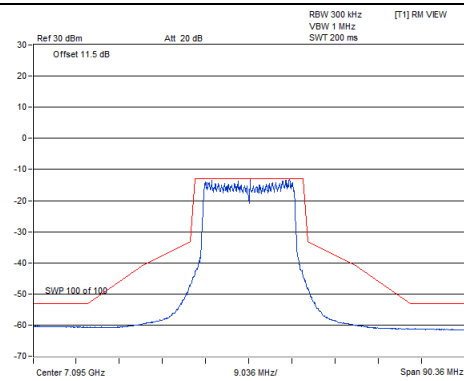
### CH185



### CH213



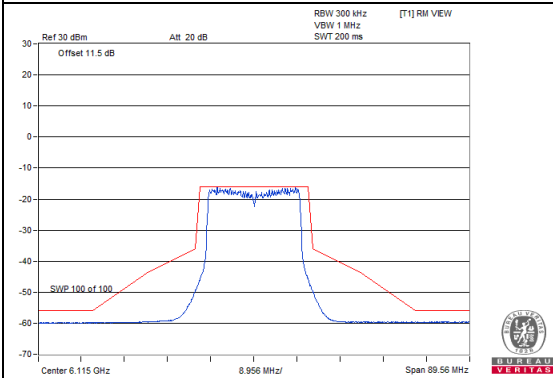
### CH229



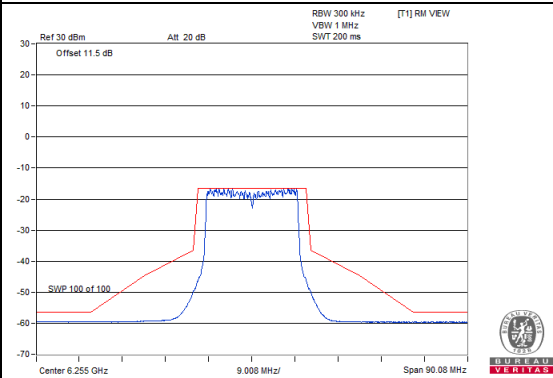
## Spectrum Plot of Worst Value

### Chain 2

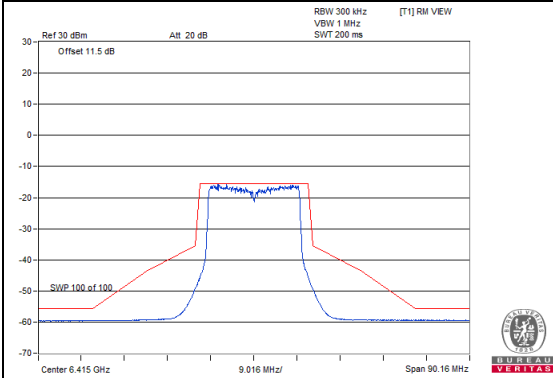
#### CH33



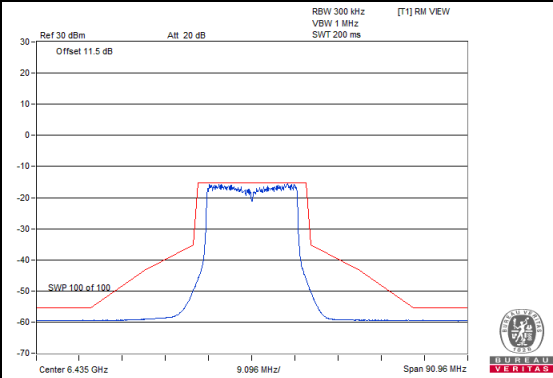
#### CH61



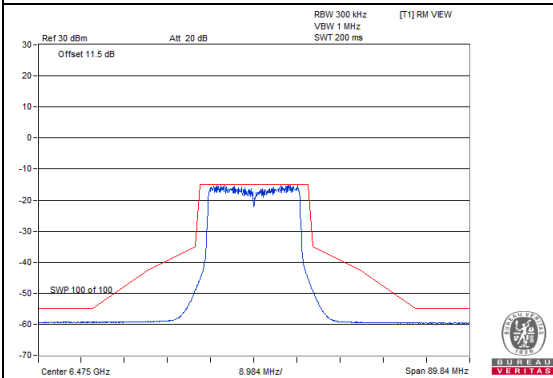
#### CH93



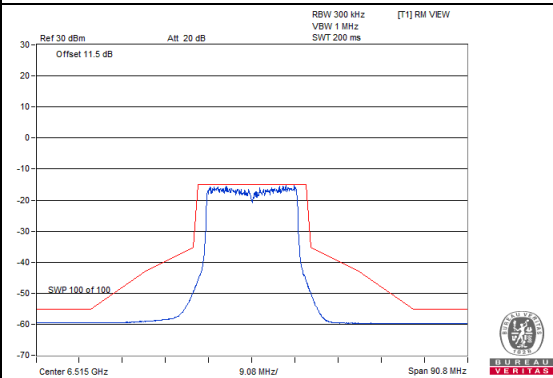
#### CH97



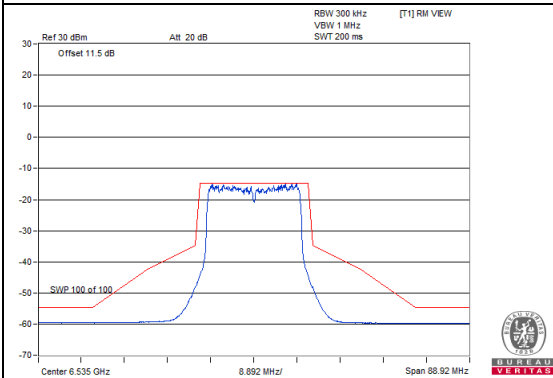
#### CH105



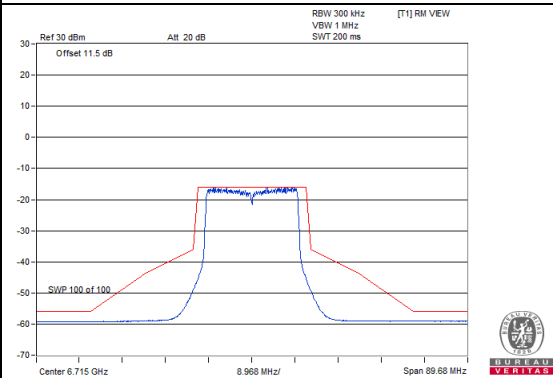
#### CH113



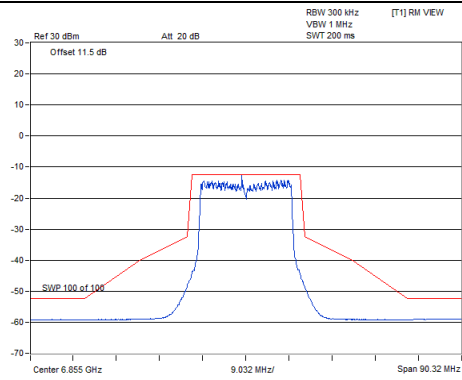
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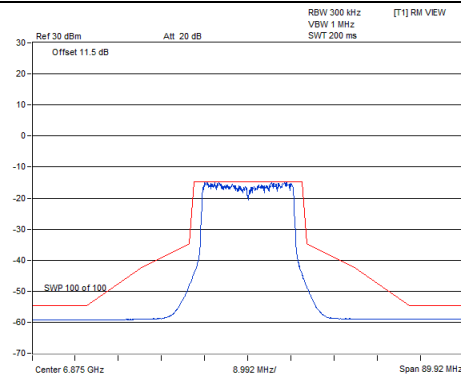
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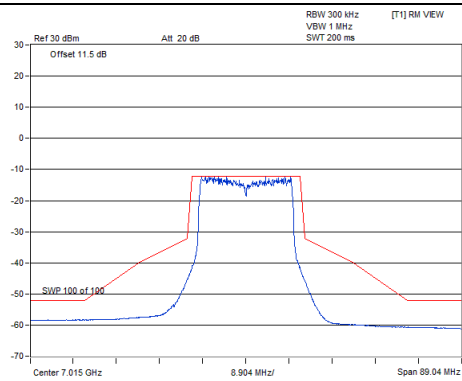
### CH181



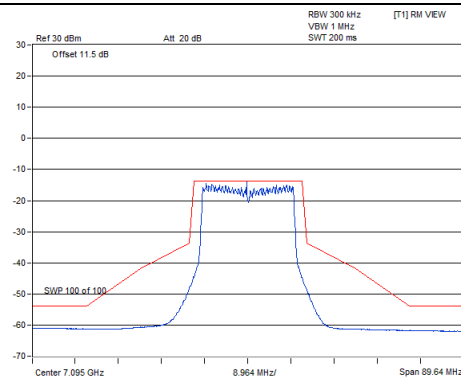
### CH185



### CH213



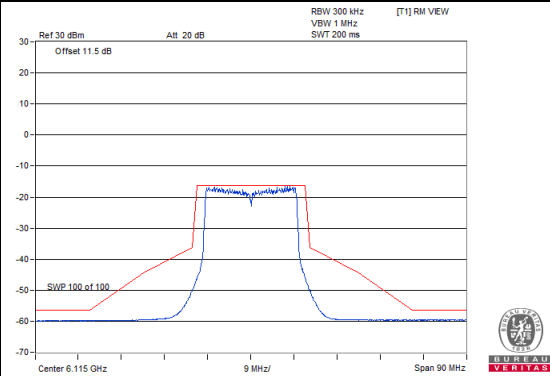
### CH229



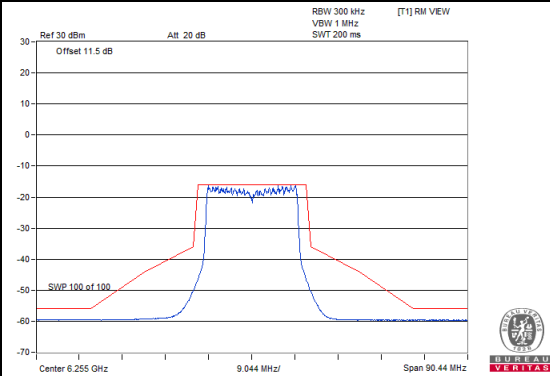
### Spectrum Plot of Worst Value

#### Chain 3

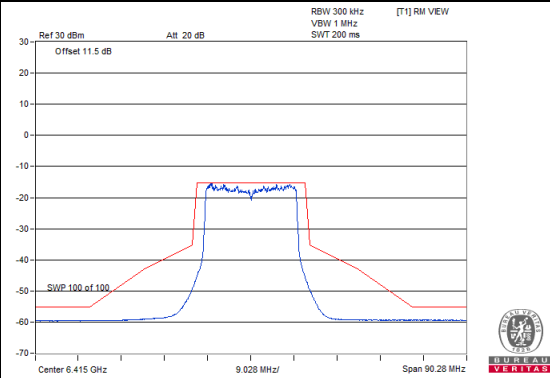
#### CH33



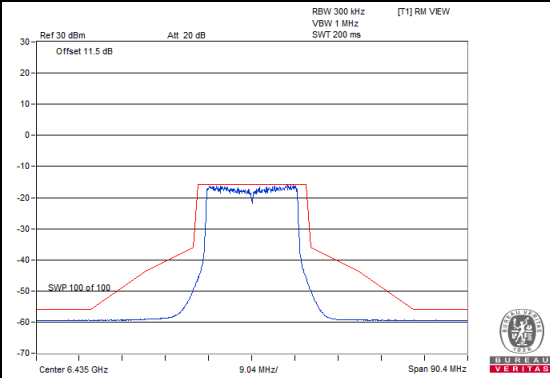
#### CH61



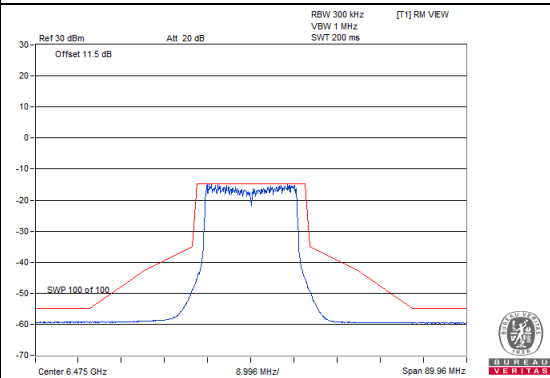
#### CH93



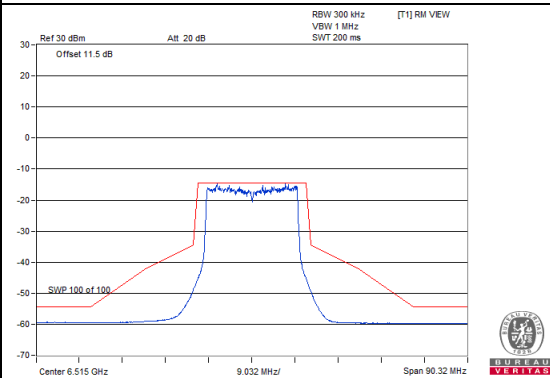
#### CH97



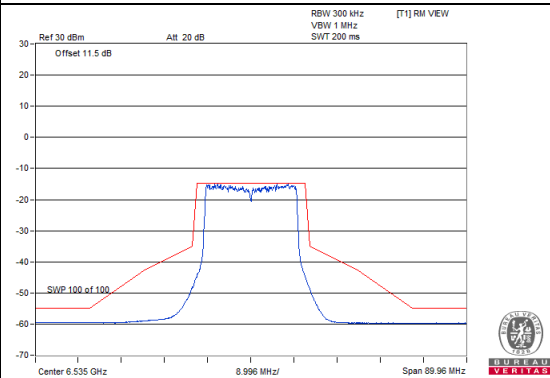
#### CH105



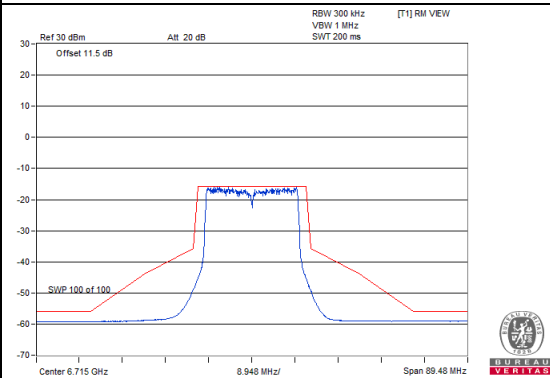
#### CH113



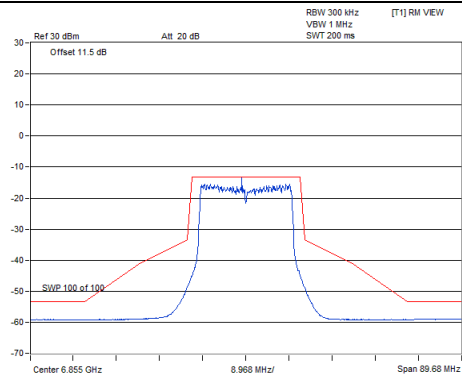
#### CH117



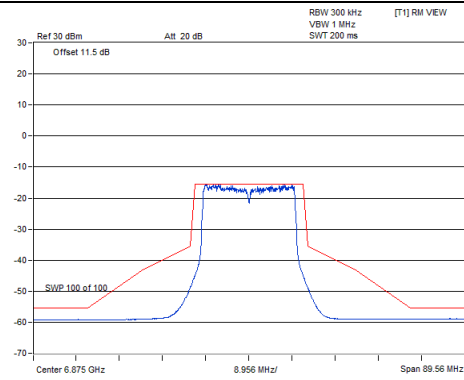
#### CH153



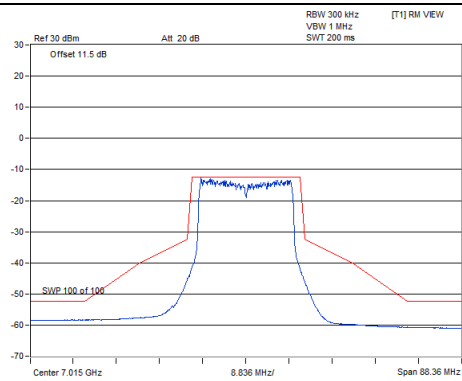
### CH181



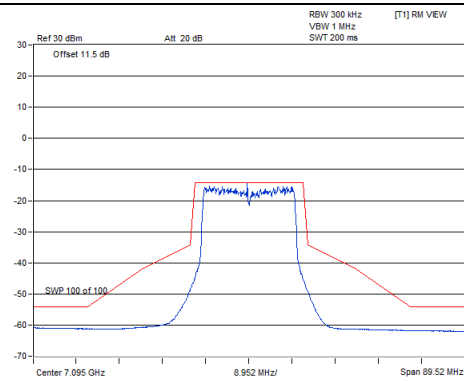
### CH185



### CH213



### CH229

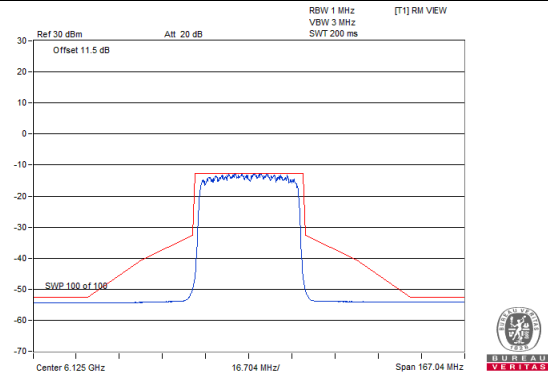


# 802.11ax (HE40)

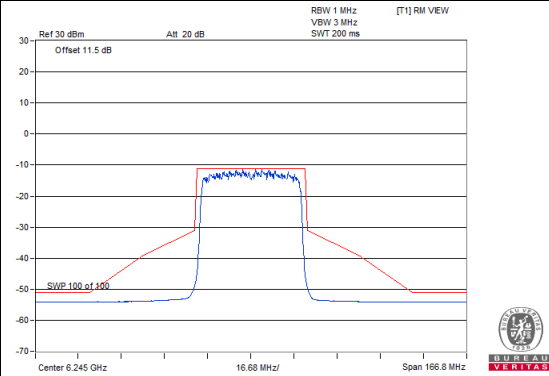
## Spectrum Plot of Worst Value

### Chain 0

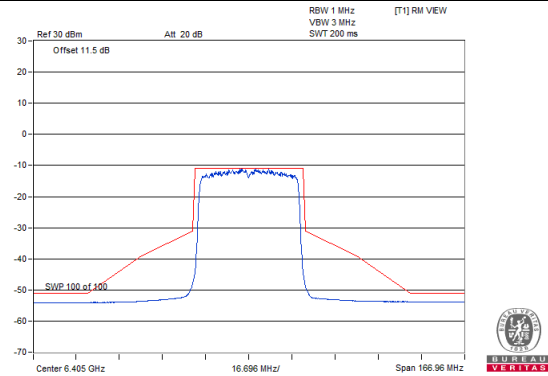
#### CH35



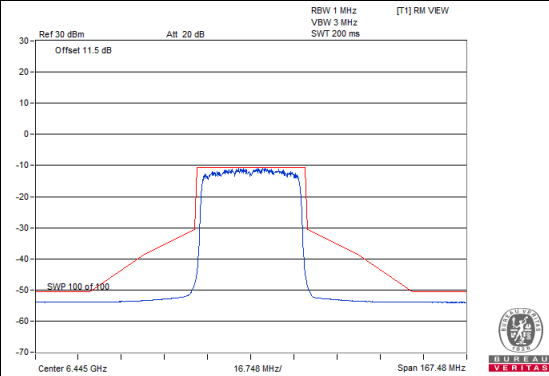
#### CH59



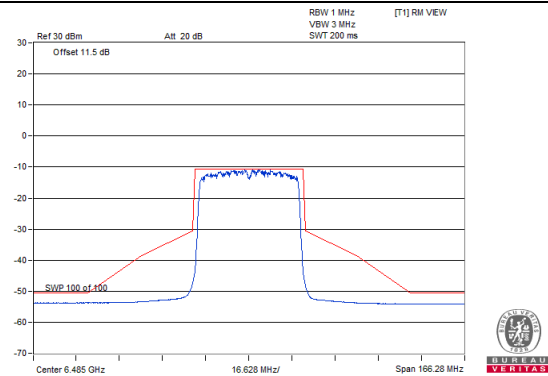
#### CH91



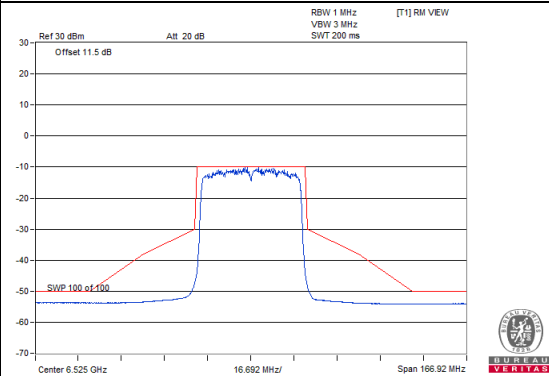
#### CH99



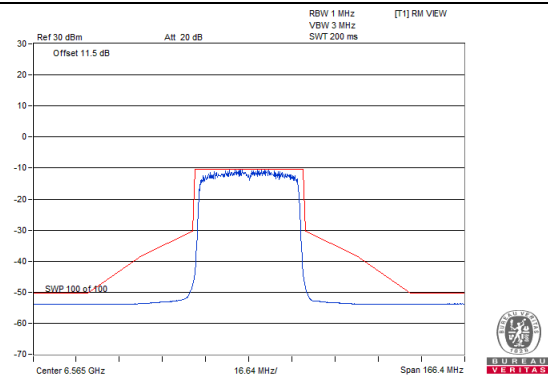
#### CH107



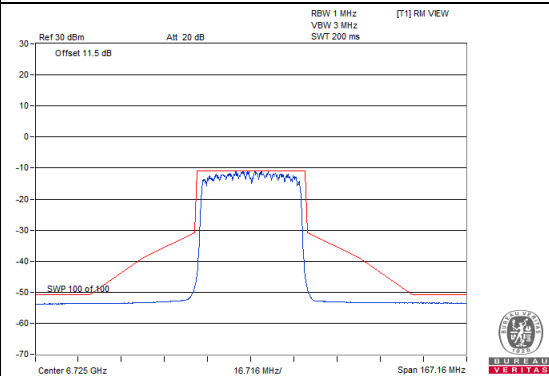
#### CH115



#### CH123

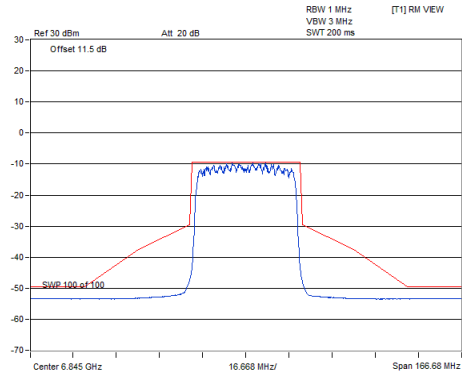


#### CH155

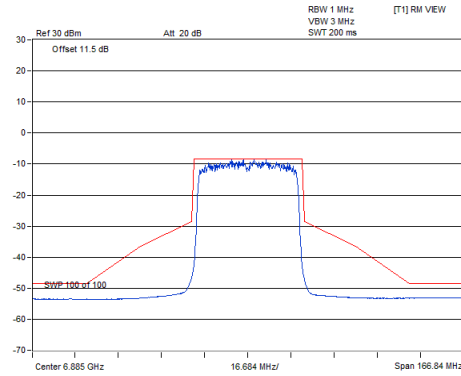




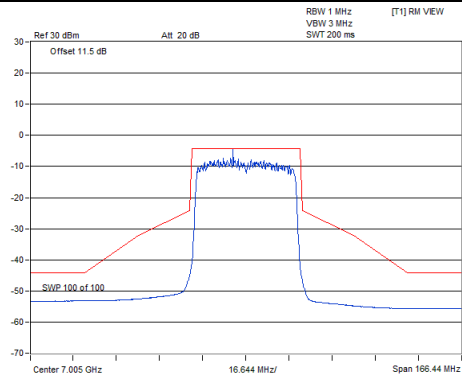
### CH179



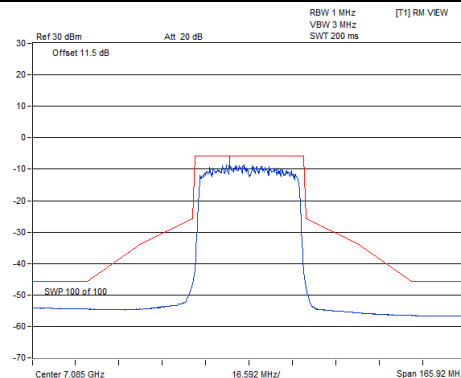
### CH187



### CH211



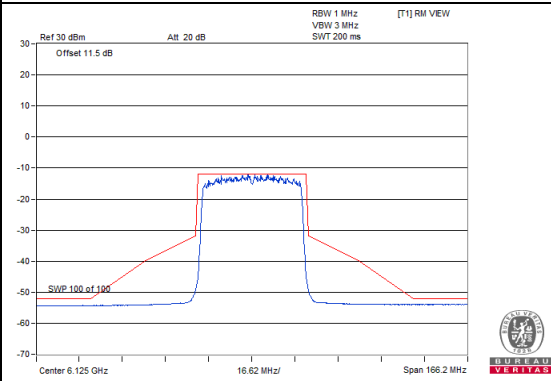
### CH227



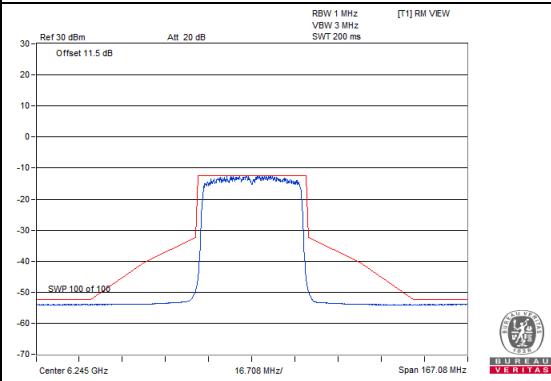
### Spectrum Plot of Worst Value

#### Chain 1

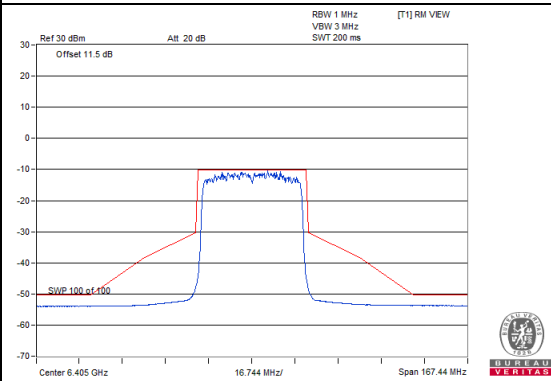
#### CH35



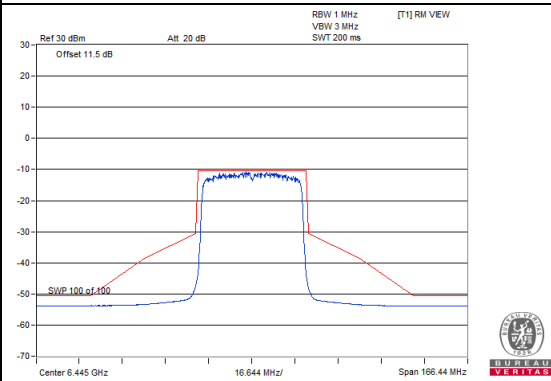
#### CH59



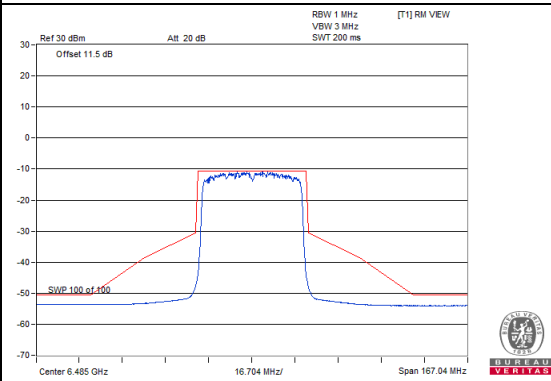
#### CH91



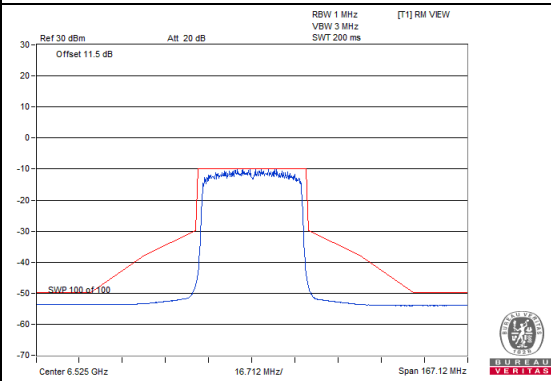
#### CH99



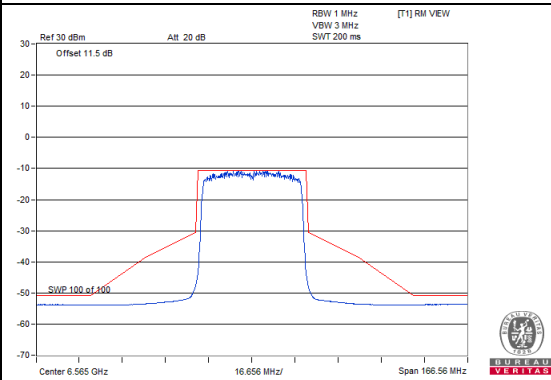
#### CH107



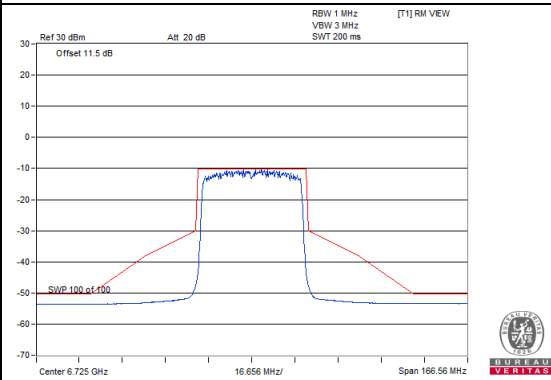
#### CH115



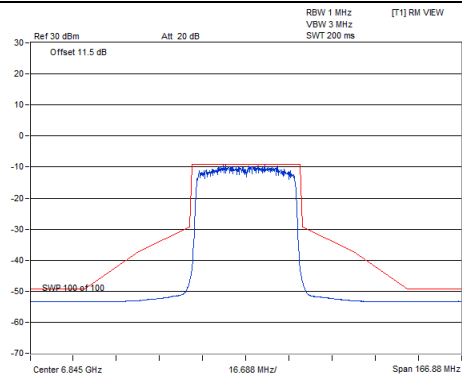
#### CH123



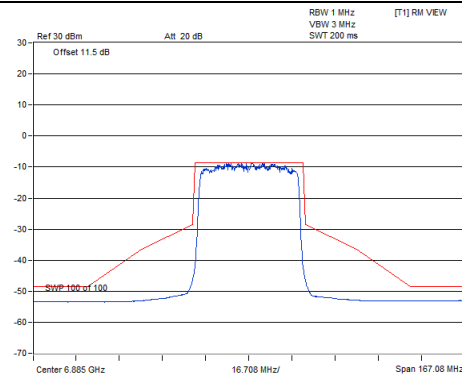
#### CH155



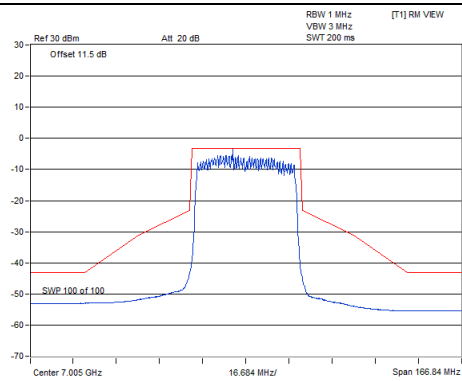
### CH179



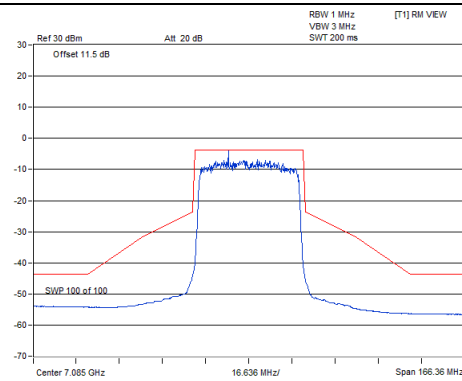
### CH187



### CH211



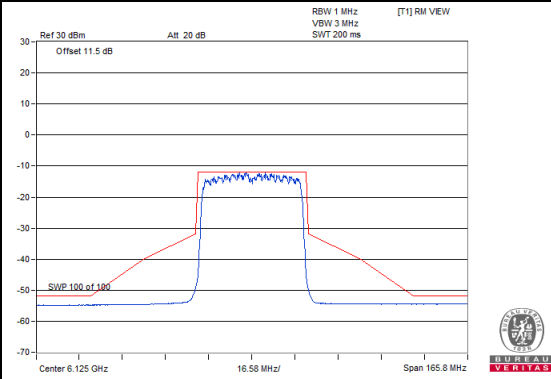
### CH227



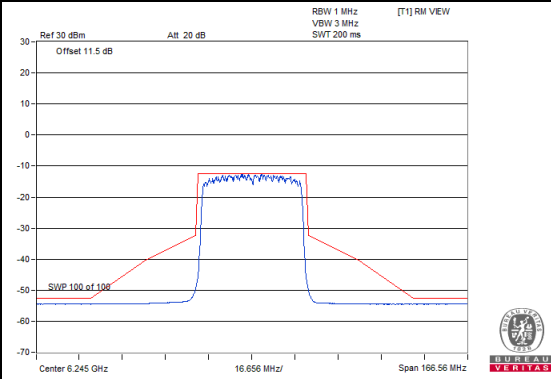
### Spectrum Plot of Worst Value

#### Chain 2

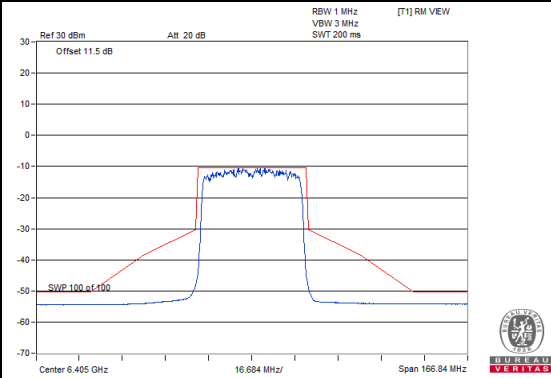
#### CH35



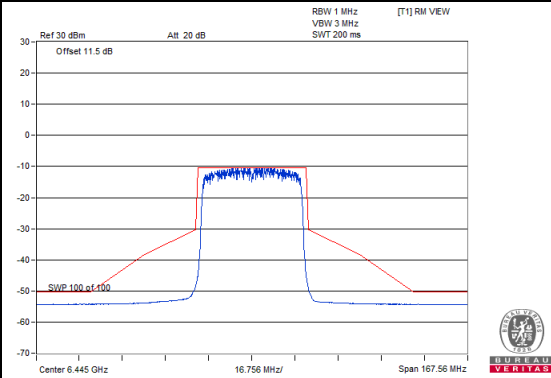
#### CH59



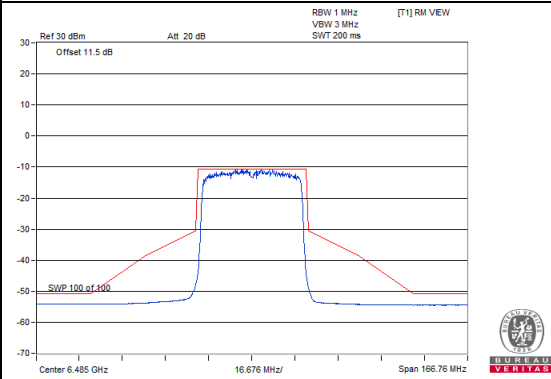
#### CH91



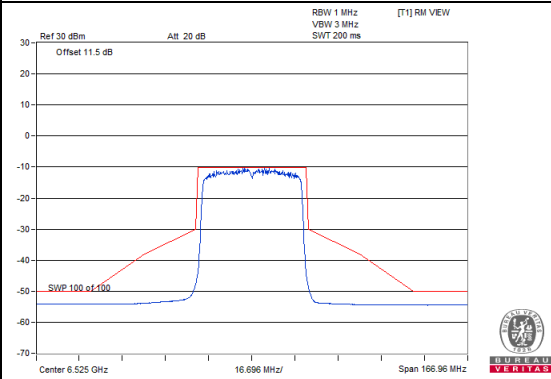
#### CH99



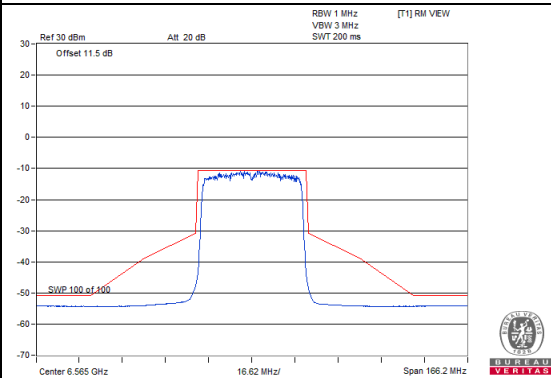
#### CH107



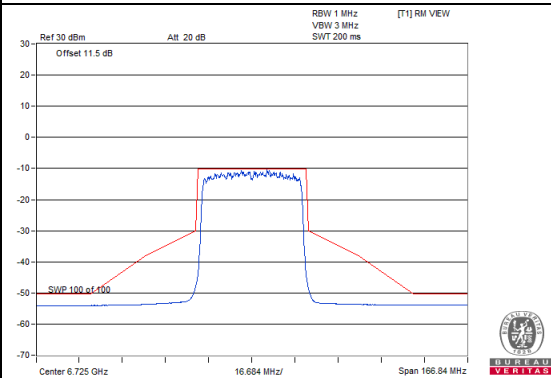
#### CH115



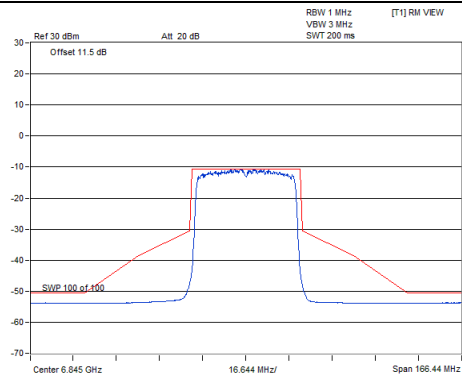
#### CH123



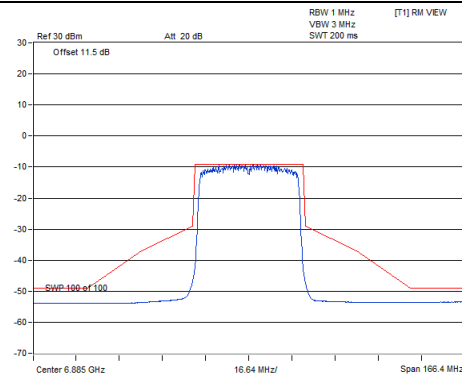
#### CH155



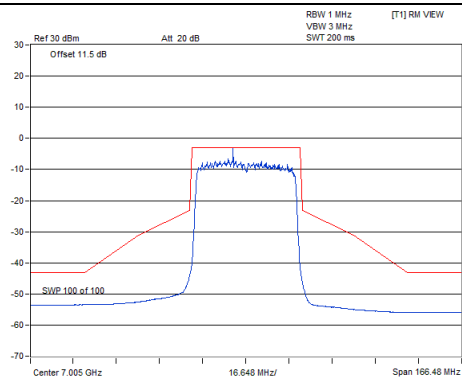
### CH179



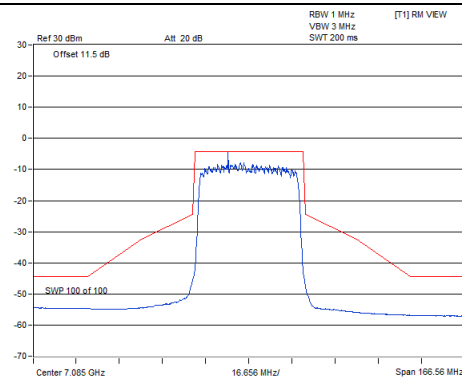
### CH187



### CH211



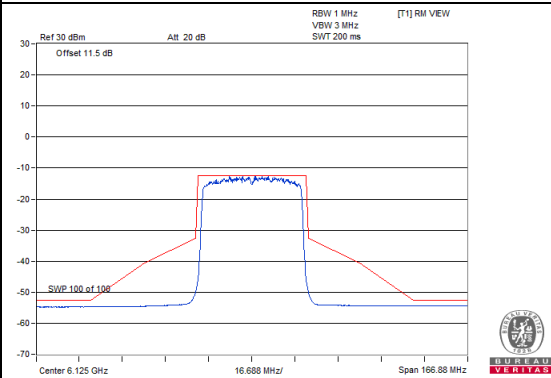
### CH227



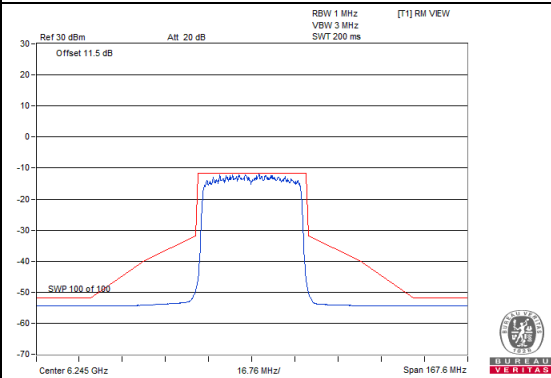
### Spectrum Plot of Worst Value

#### Chain 3

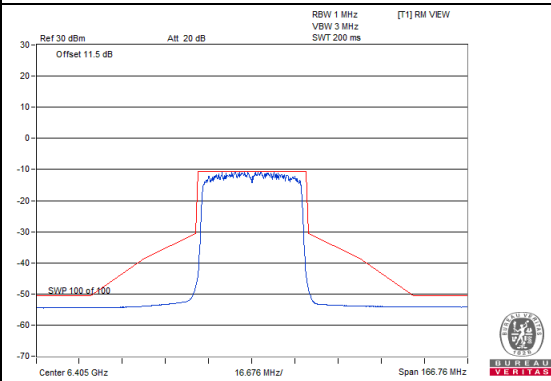
#### CH35



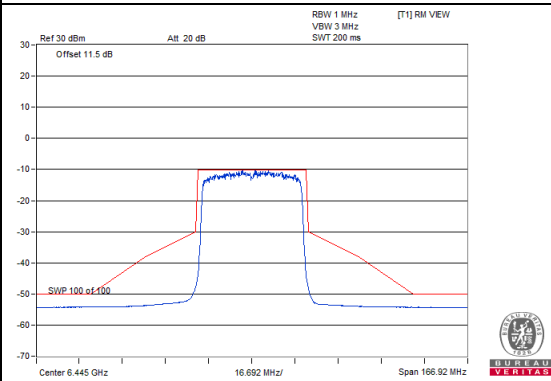
#### CH59



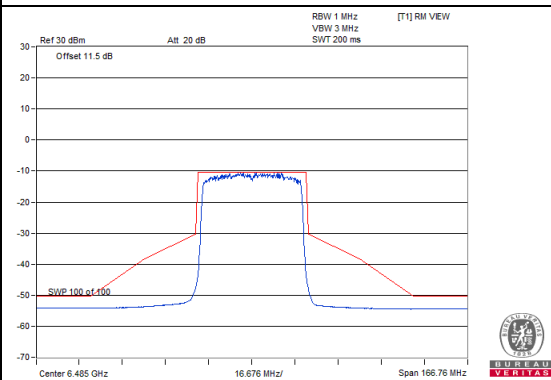
#### CH91



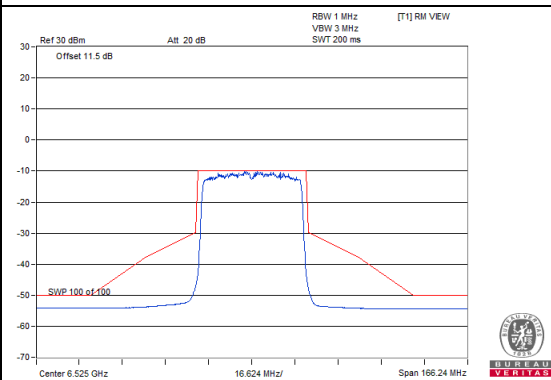
#### CH99



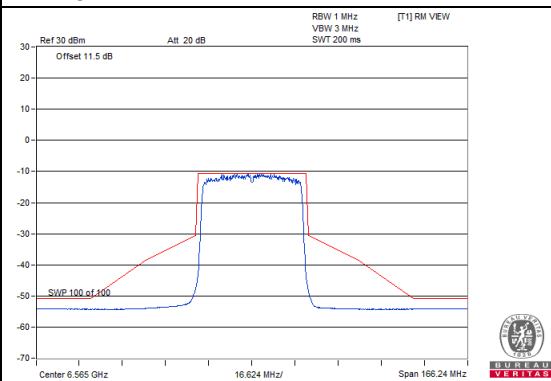
#### CH107



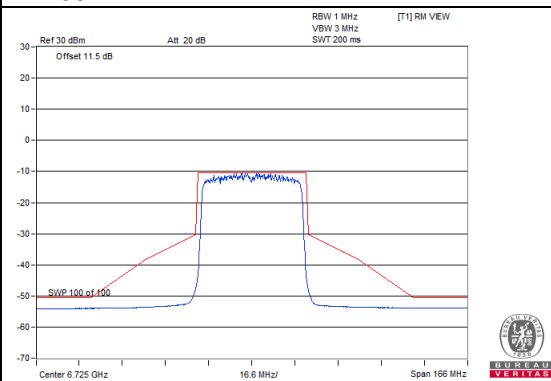
#### CH115



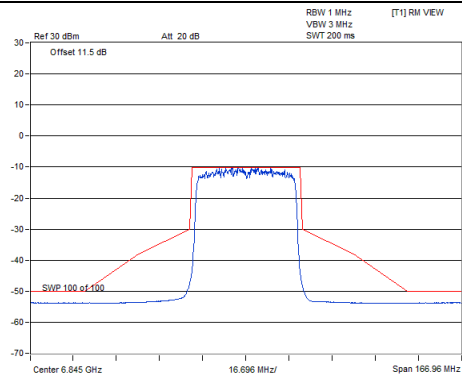
#### CH123



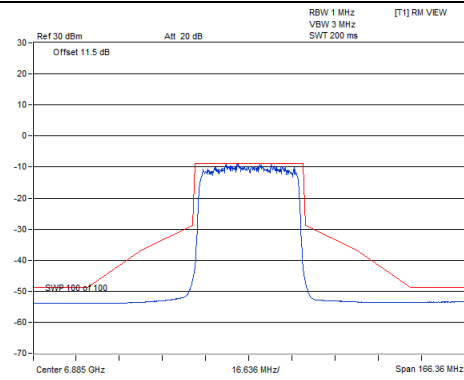
#### CH155



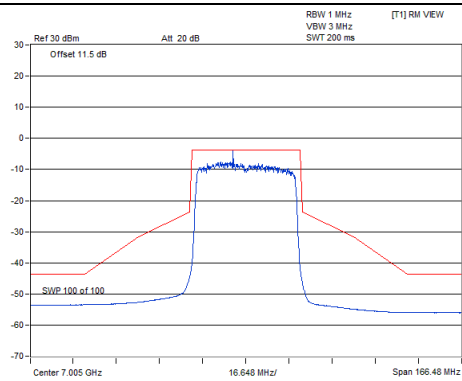
### CH179



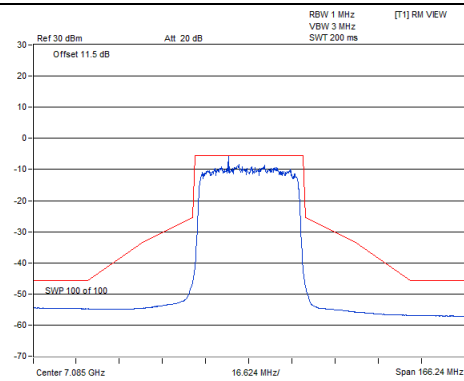
### CH187



### CH211



### CH227

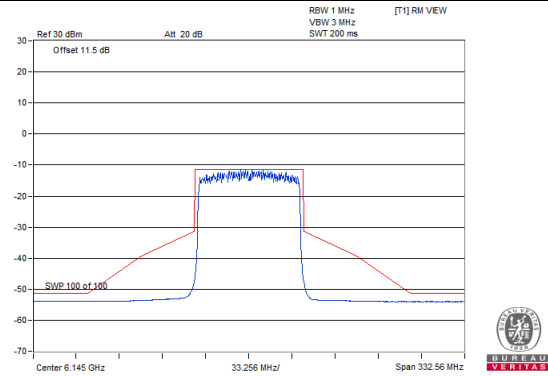


# 802.11ax (HE80)

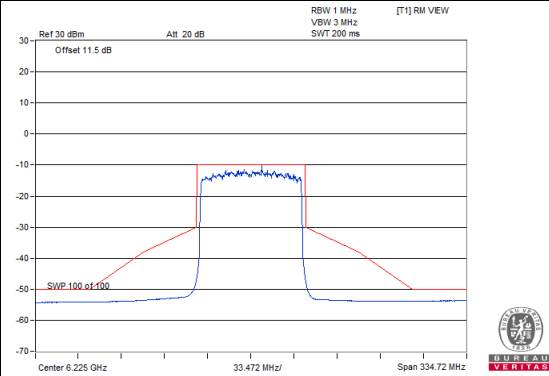
## Spectrum Plot of Worst Value

### Chain 0

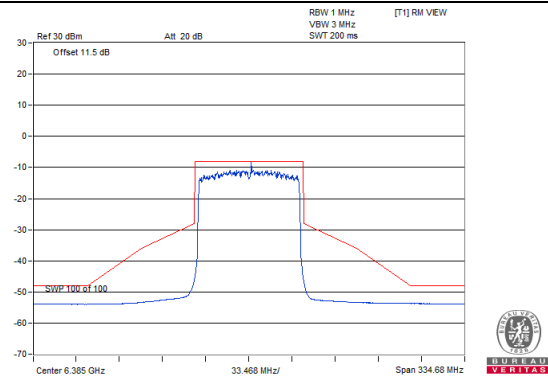
#### CH39



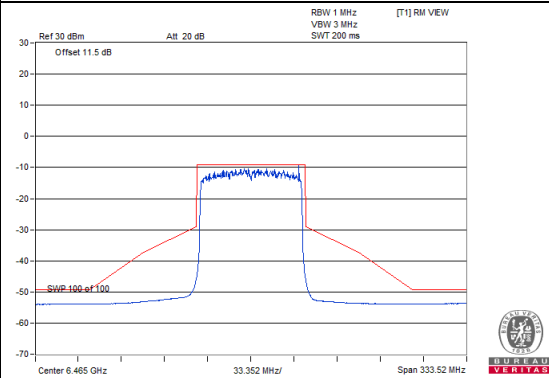
#### CH55



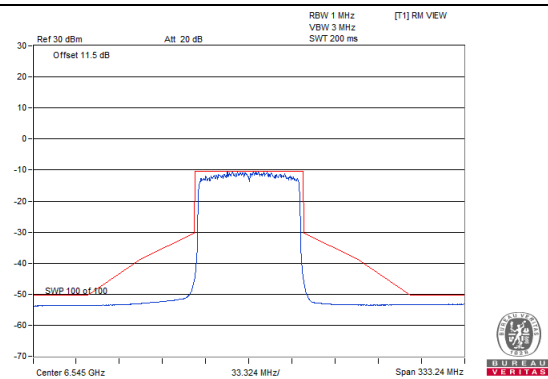
#### CH87



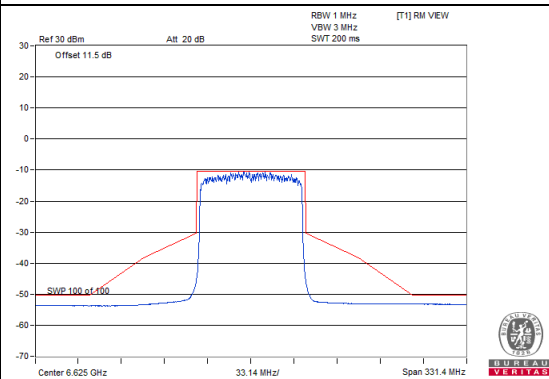
#### CH103



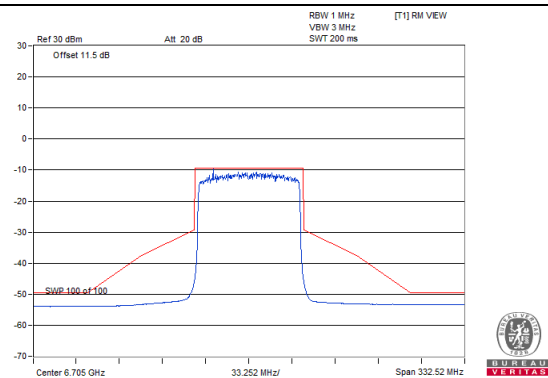
#### CH119



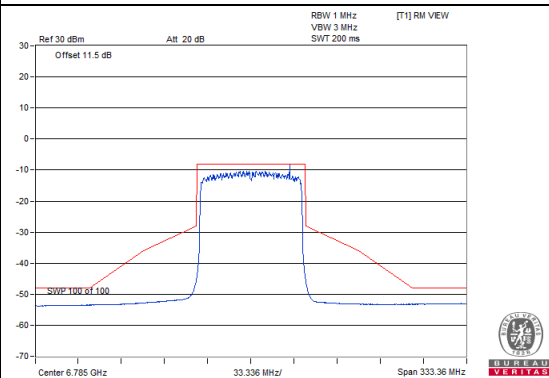
#### CH135



#### CH151

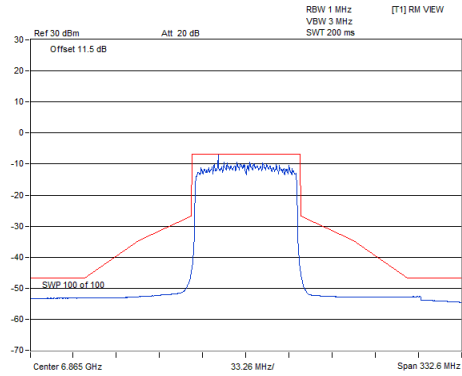


#### CH167

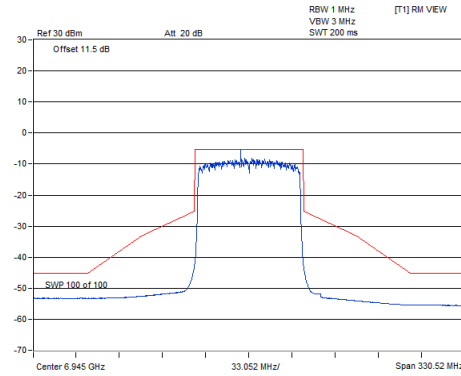




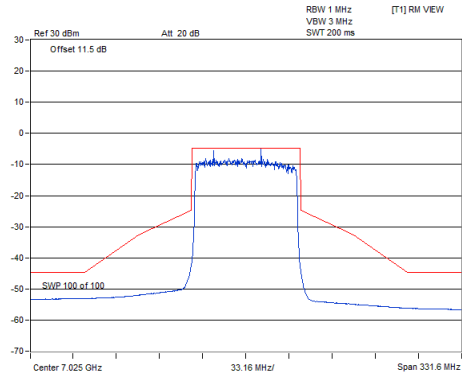
### CH183



### CH199



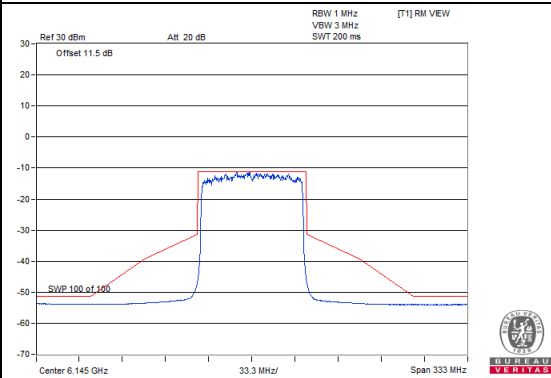
### CH215



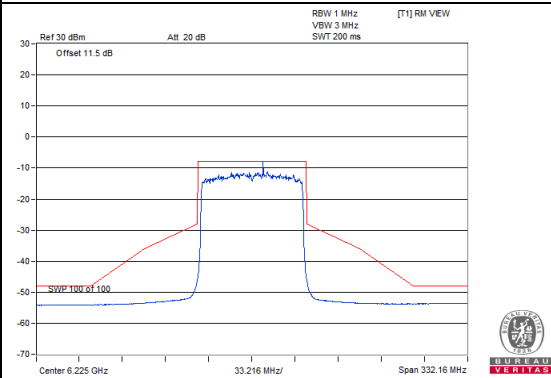
### Spectrum Plot of Worst Value

#### Chain 1

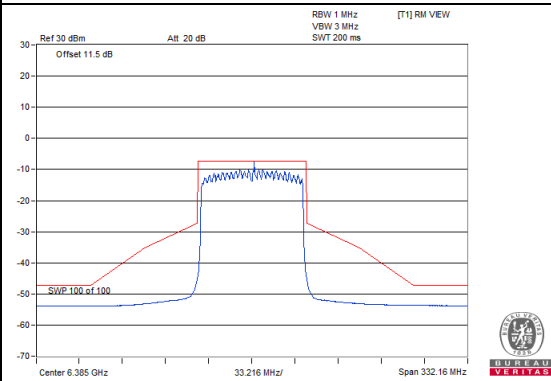
#### CH39



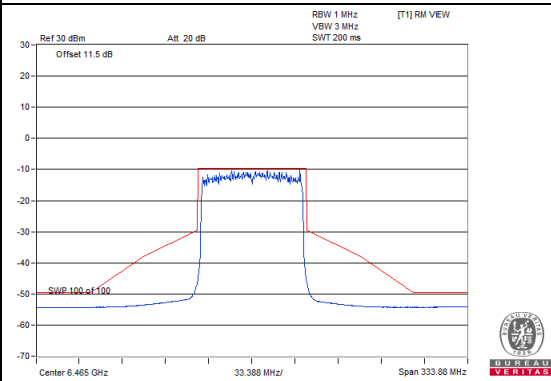
#### CH55



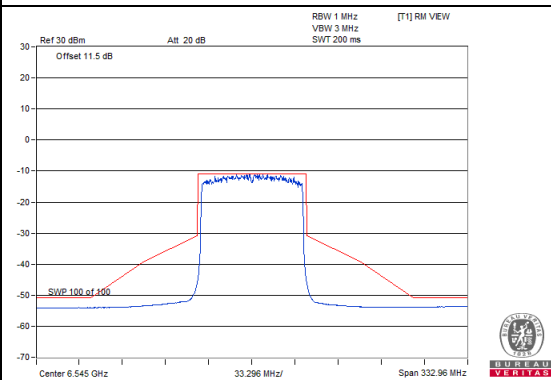
#### CH87



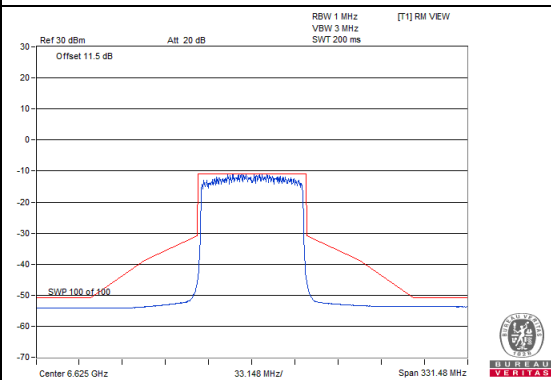
#### CH103



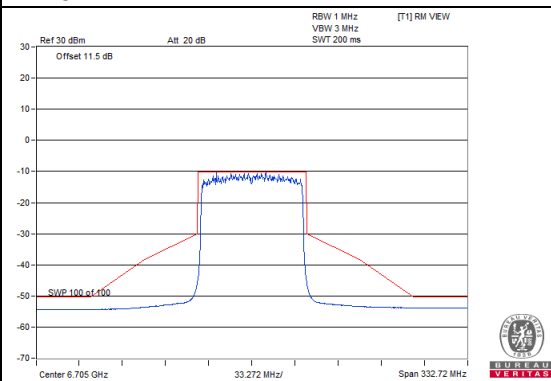
#### CH119



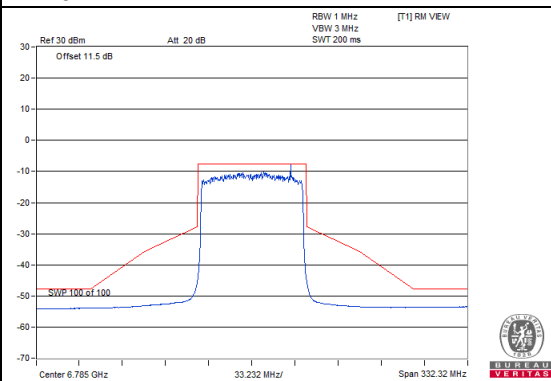
#### CH135



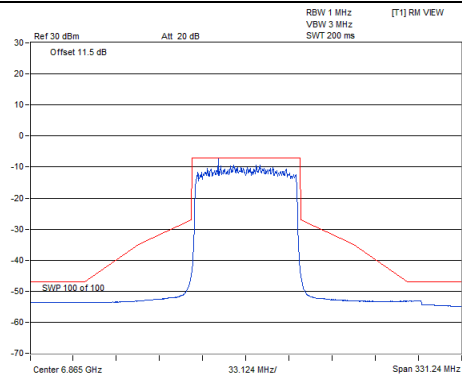
#### CH151



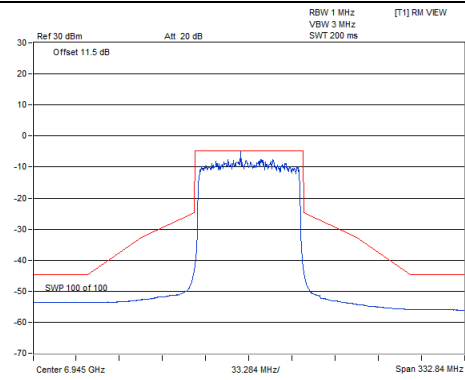
#### CH167



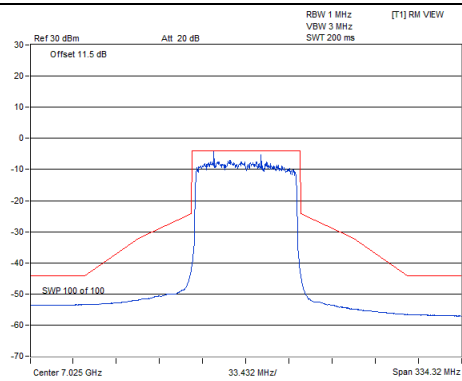
### CH183



### CH199



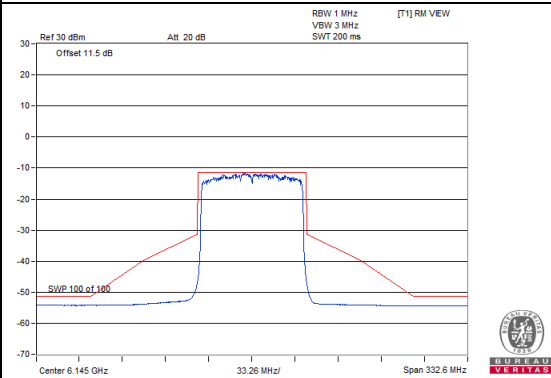
### CH215



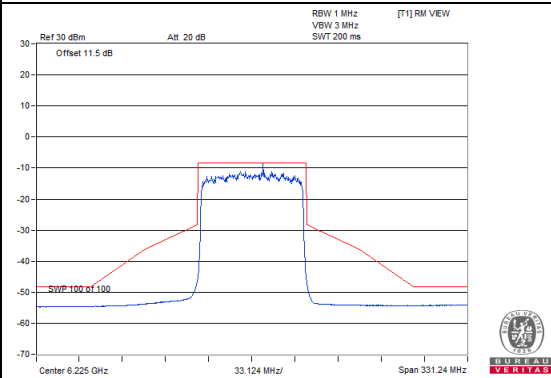
## Spectrum Plot of Worst Value

### Chain 2

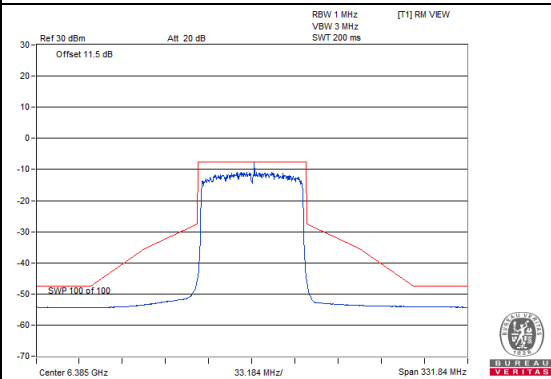
#### CH39



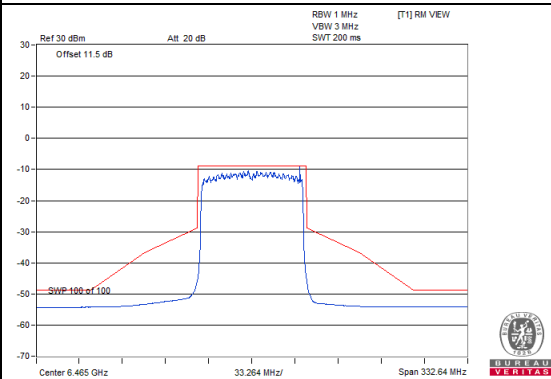
#### CH55



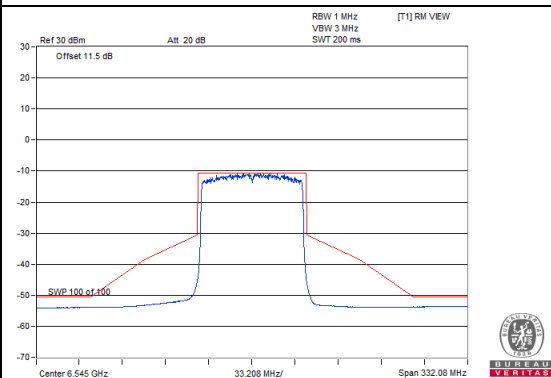
#### CH87



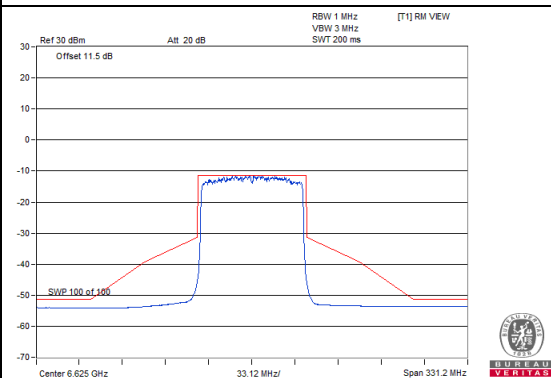
#### CH103



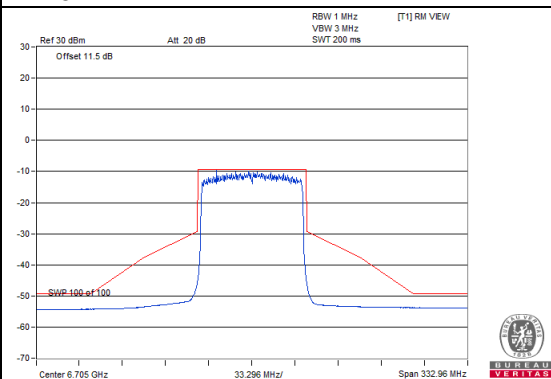
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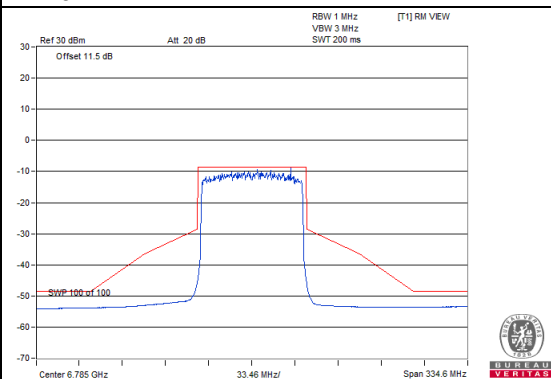
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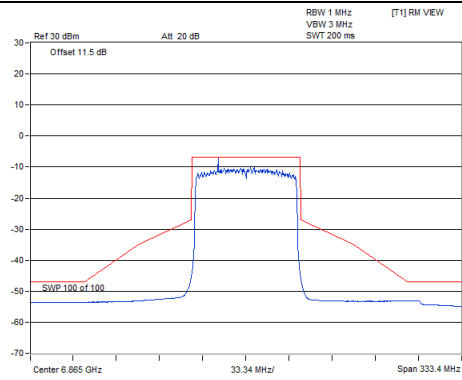
#### CH151



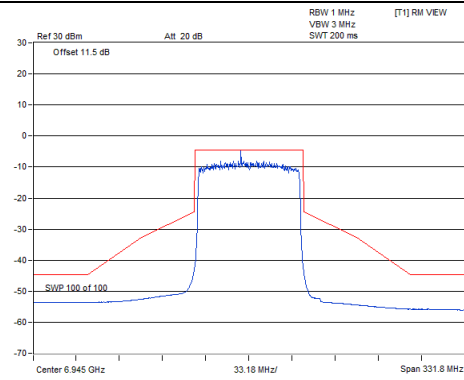
#### CH167



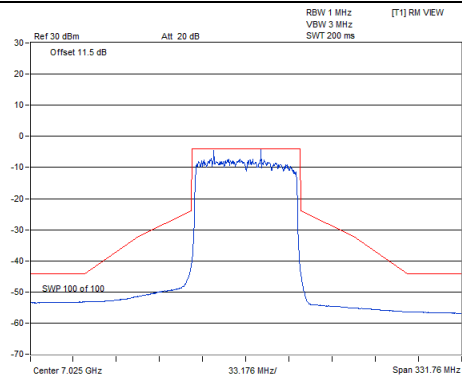
### CH183



### CH199



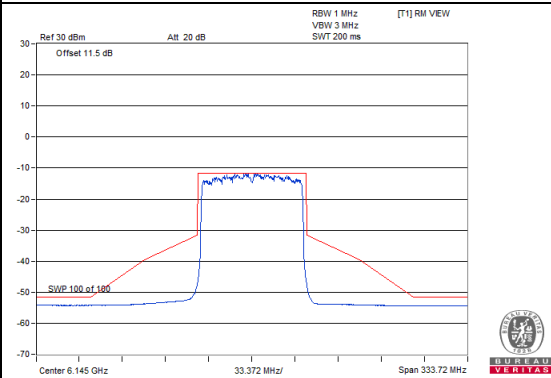
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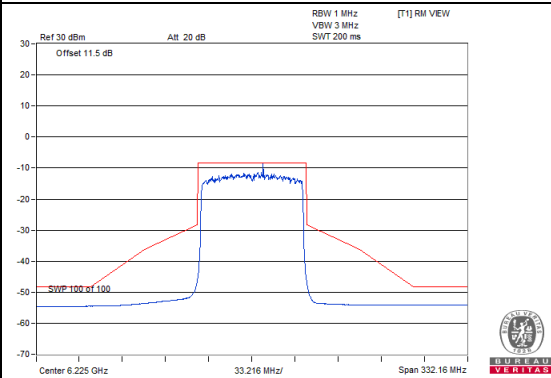
### Spectrum Plot of Worst Value

#### Chain 3

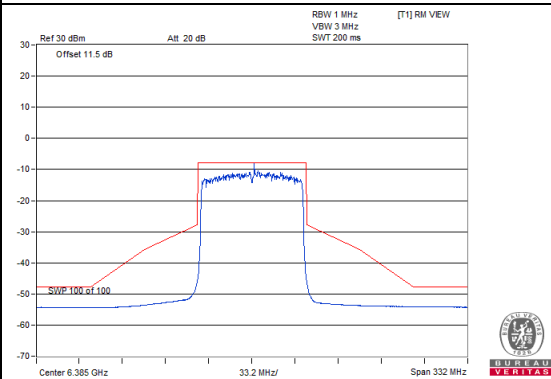
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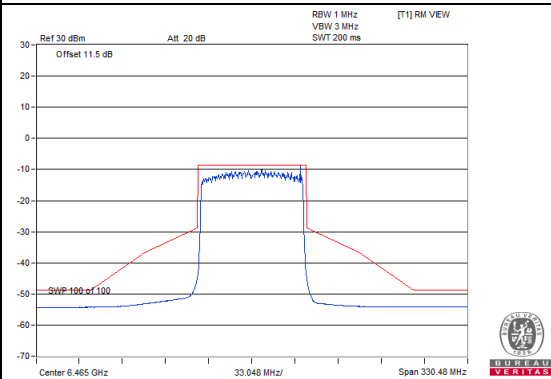
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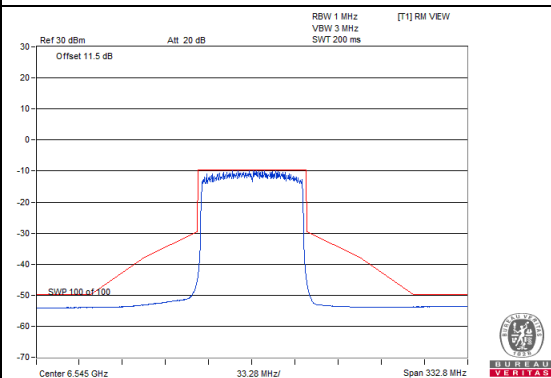
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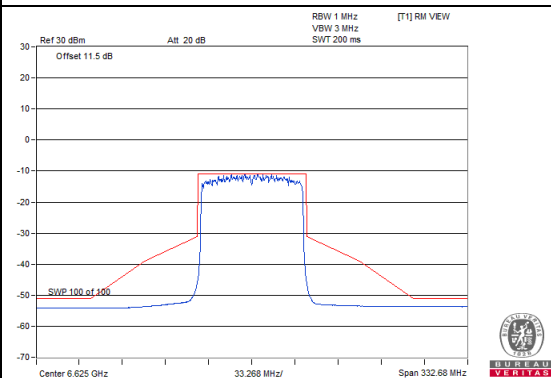
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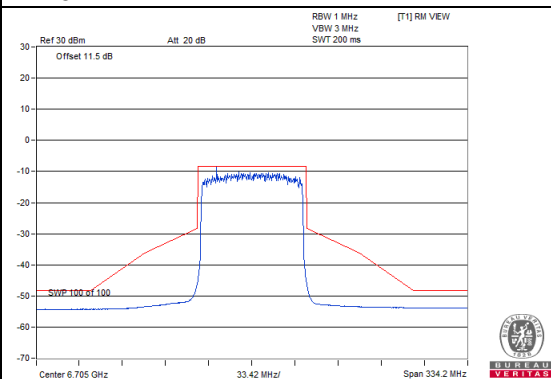
#### CH119



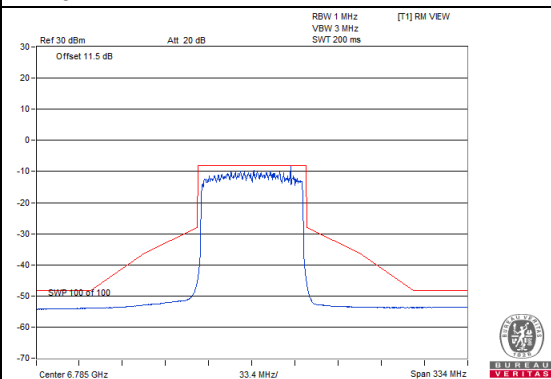
#### CH135



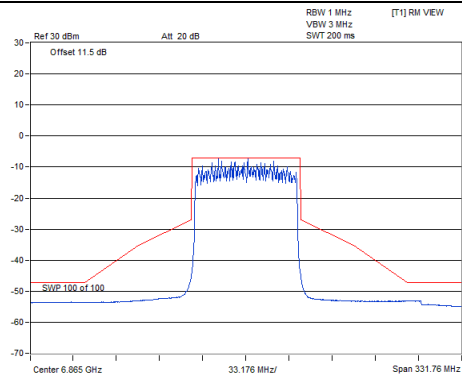
#### CH151



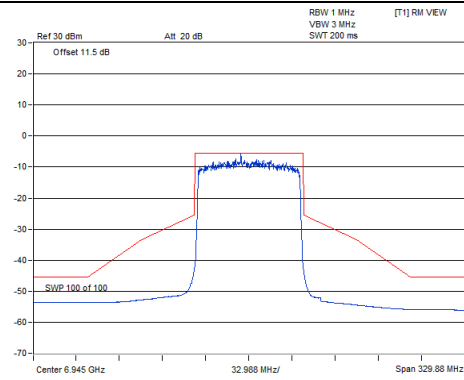
#### CH167



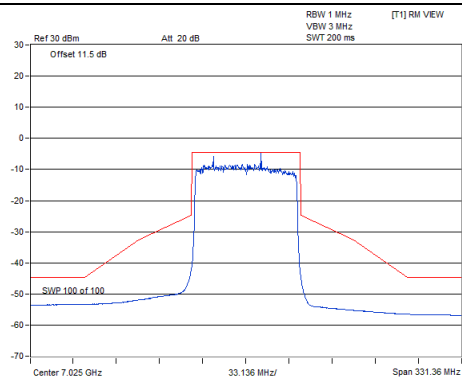
### CH183



### CH199



### CH215

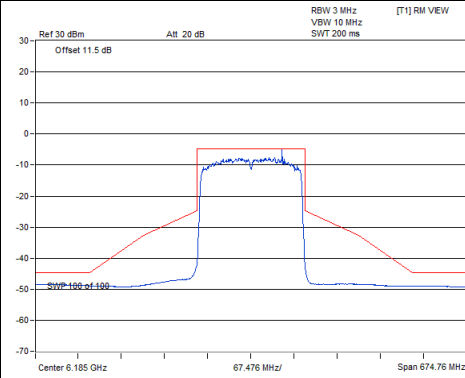


# 802.11ax (HE160)

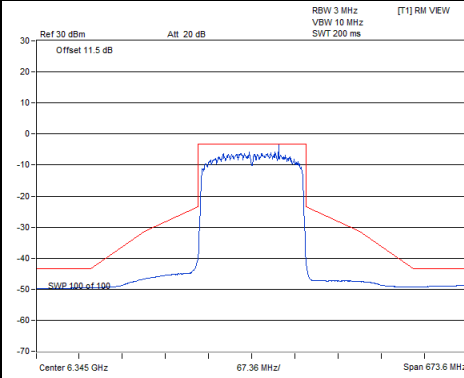
## Spectrum Plot of Worst Value

### Chain 0

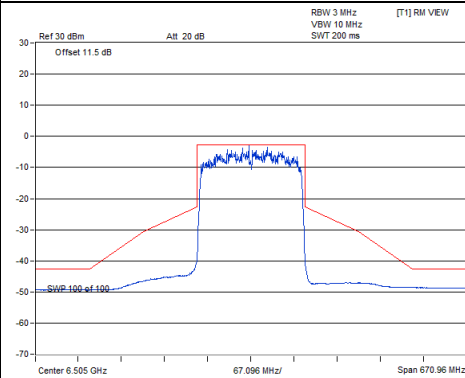
#### CH47



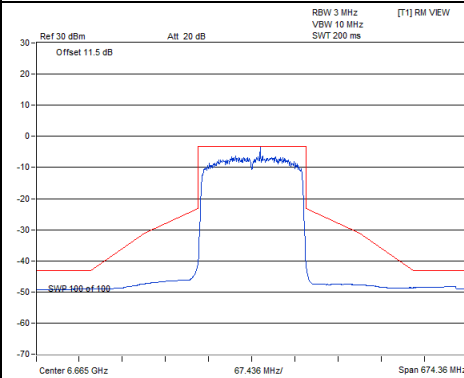
#### CH79



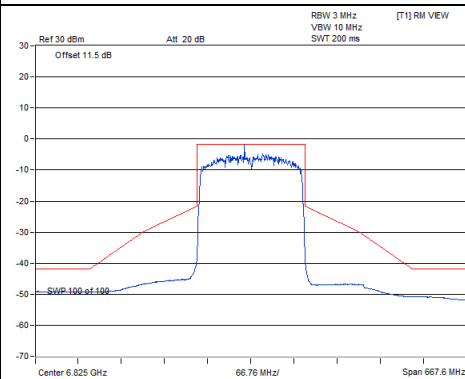
#### CH111



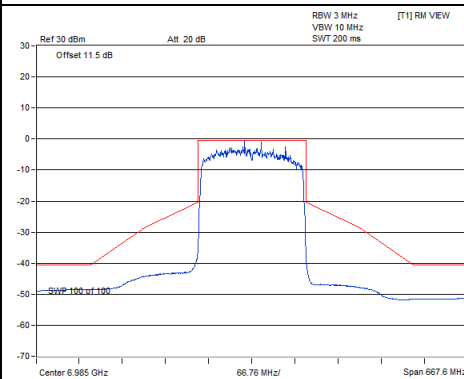
#### CH143



#### CH175



#### CH207

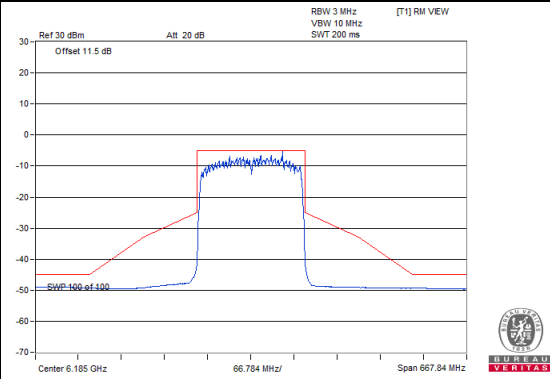




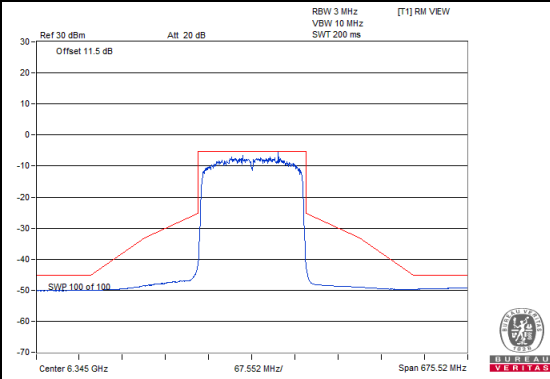
### Spectrum Plot of Worst Value

#### Chain 1

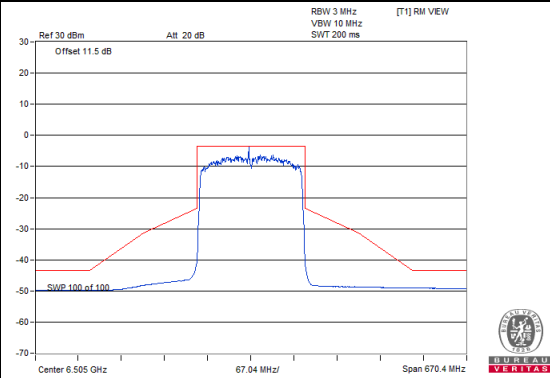
#### CH47



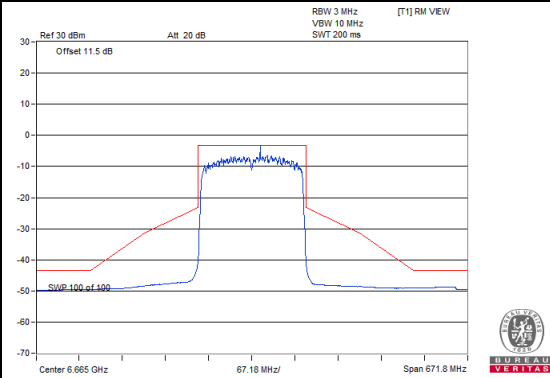
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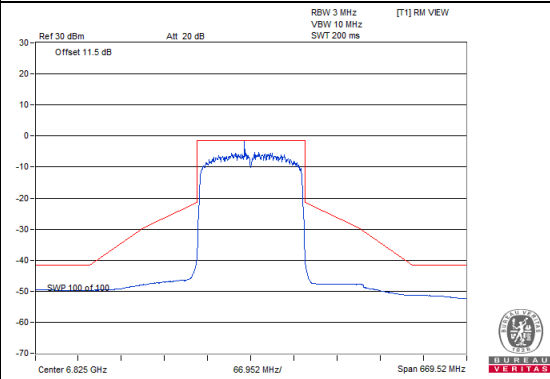
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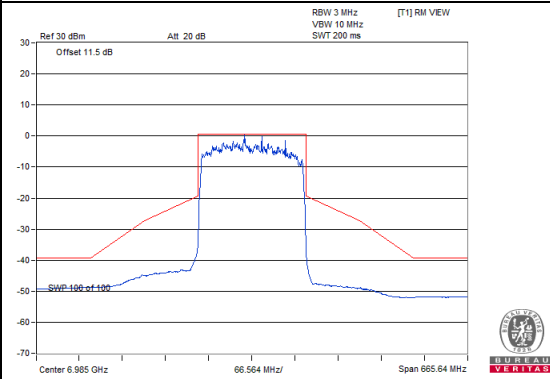
#### CH143



#### CH175



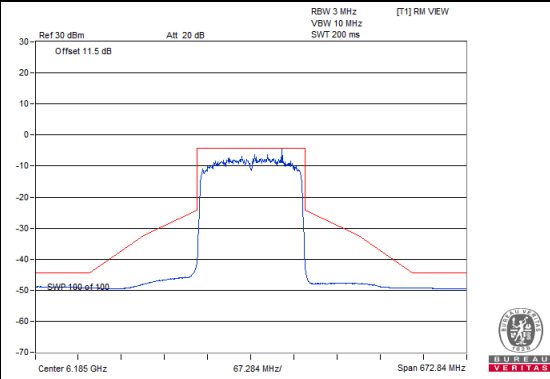
#### CH207



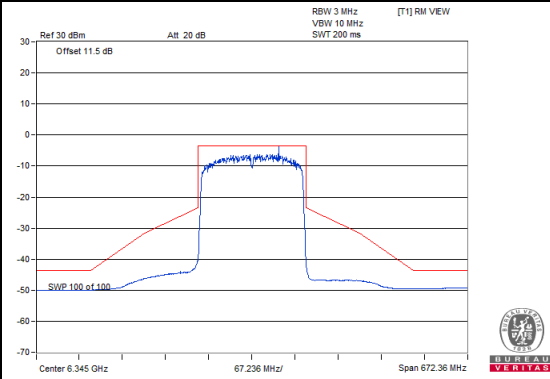
## Spectrum Plot of Worst Value

### Chain 2

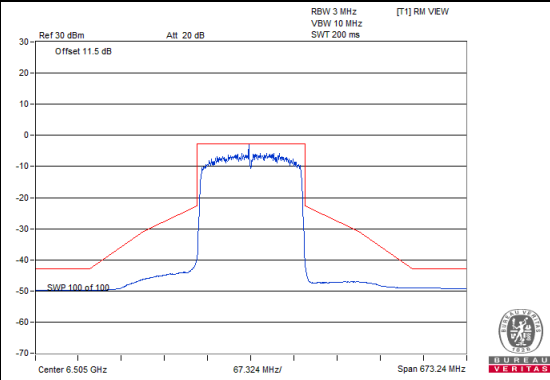
#### CH47



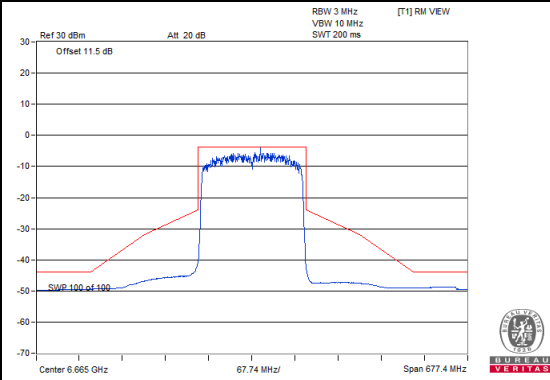
#### CH79



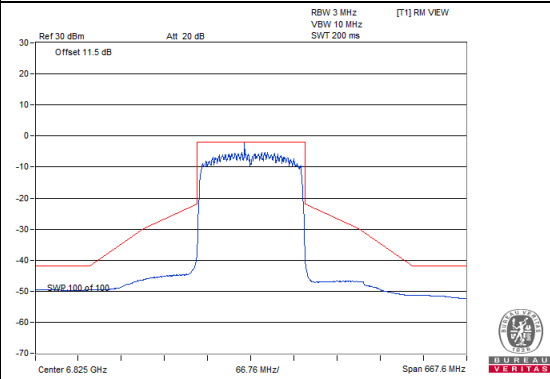
#### CH111



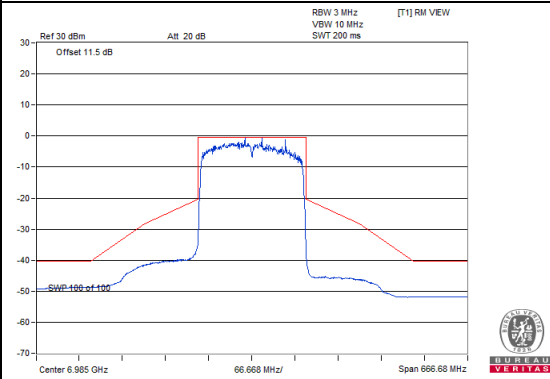
#### CH143



#### CH175



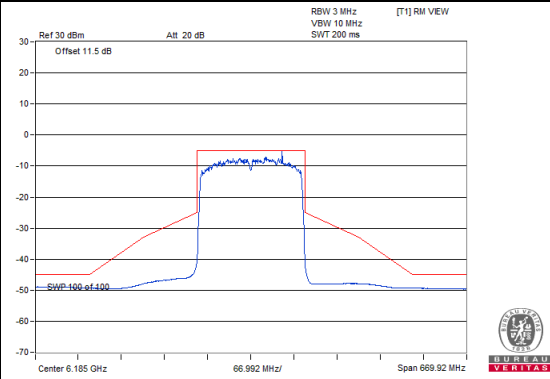
#### CH207



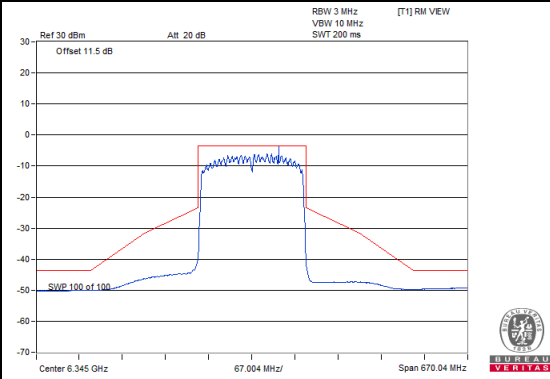
### Spectrum Plot of Worst Value

#### Chain 3

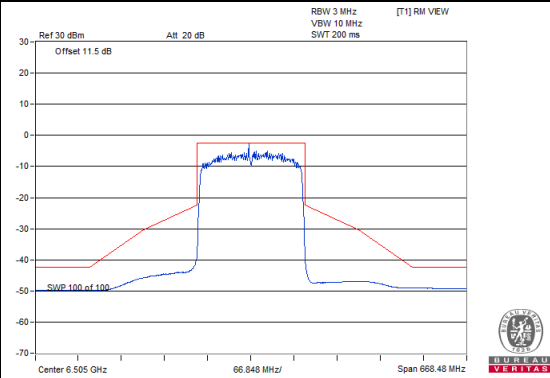
#### CH47



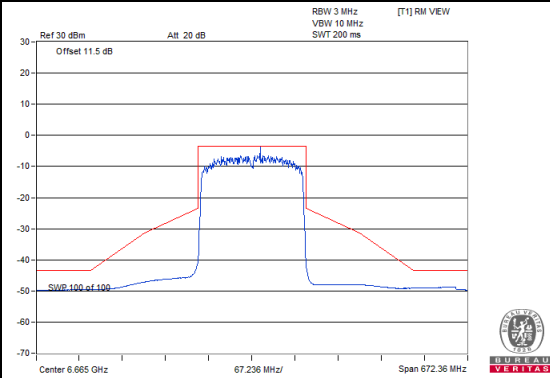
#### CH79



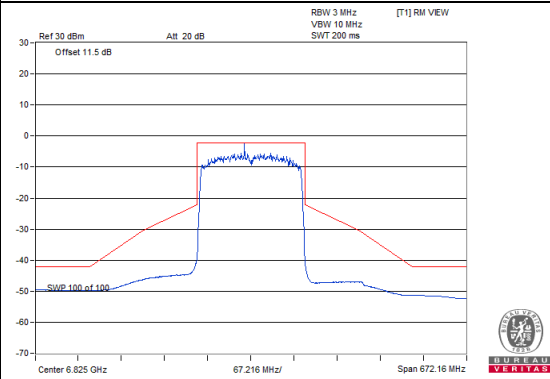
#### CH111



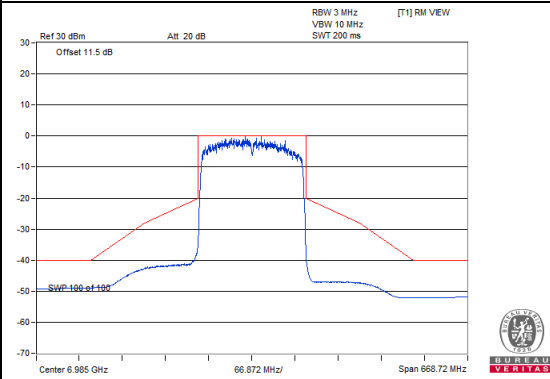
#### CH143



#### CH175



#### CH207



### 4.3 Conducted Emission Measurement

#### 4.3.1 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.

#### 4.3.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	2020/10/20	2021/10/19
LISN R&S	ESH3-Z5	848773/004	2020/10/27	2021/10/26
LISN R & S	ESH3-Z5	835239/001	2021/3/26	2022/3/25
50 ohms Terminator	50	3	2020/10/26	2021/10/25
RF Coaxial Cable JYEBO	5D-FB	COCCAB-001	2020/9/26	2021/9/25
Fixed attenuator STI	STI02-2200-10	005	2021/8/27	2022/8/26
Software BVADT	BVADT_Cond_V7.3.7.4	NA	NA	NA

**Note:**

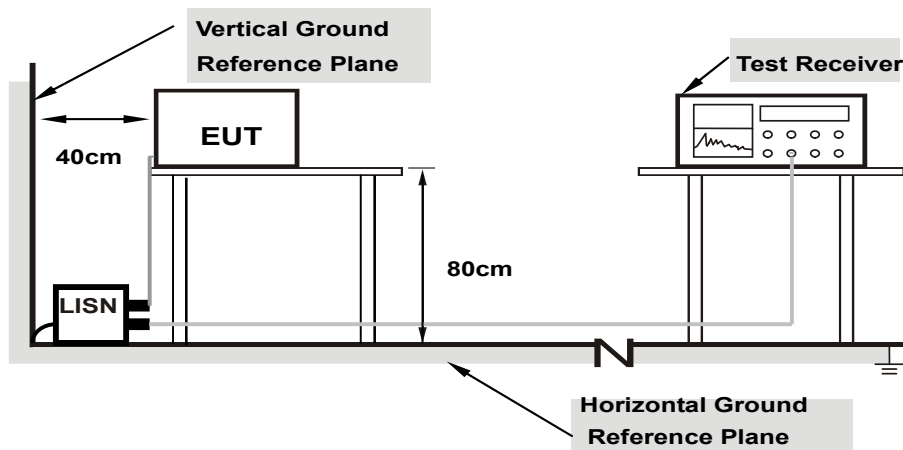
1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
- 3 Tested Date: 2021/8/31

#### 4.3.3 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.

#### 4.3.4 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).

#### 4.3.5 EUT Operating Condition

Same as 4.1.6.

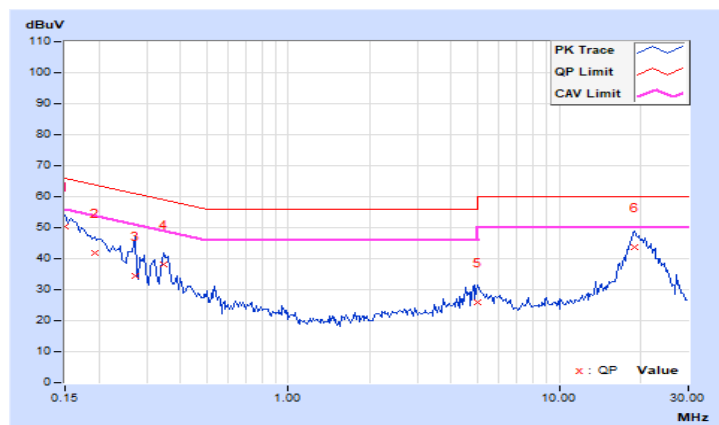
## 4.3.6 Test Results

<b>RF Mode</b>	TX 802.11ax (HE160)	<b>Channel</b>	CH 111 : 6505 MHz
<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9kHz

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.97	40.34	26.56	50.31	36.53	66.00	56.00	-15.69	-19.47
2	0.19297	10.00	31.89	19.21	41.89	29.21	63.91	53.91	-22.02	-24.70
3	0.27109	10.01	24.58	11.41	34.59	21.42	61.08	51.08	-26.49	-29.66
4	0.34531	10.02	28.30	21.29	38.32	31.31	59.07	49.07	-20.75	-17.76
5	5.01563	10.33	15.68	6.76	26.01	17.09	60.00	50.00	-33.99	-32.91
<b>6</b>	<b>18.98828</b>	<b>11.39</b>	<b>32.48</b>	<b>25.70</b>	<b>43.87</b>	<b>37.09</b>	<b>60.00</b>	<b>50.00</b>	<b>-16.13</b>	<b>-12.91</b>

## 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

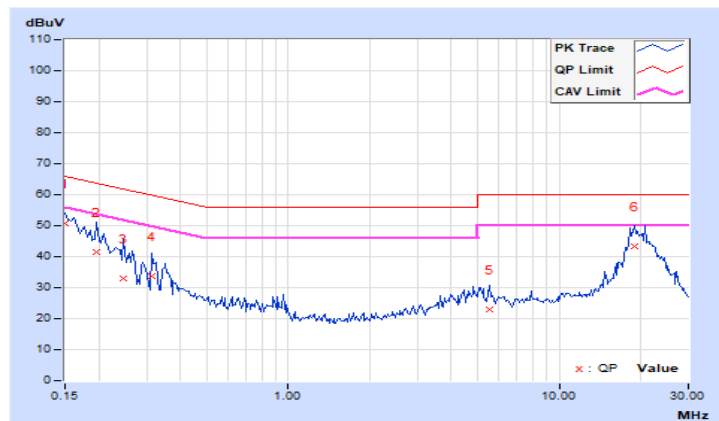


<b>RF Mode</b>	TX 802.11ax (HE160)	<b>Channel</b>	CH 111 : 6505 MHz
<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9kHz

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.95	40.97	27.00	50.92	36.95	66.00	56.00	-15.08	-19.05
2	0.19687	10.00	31.55	17.07	41.55	27.07	63.74	53.74	-22.19	-26.67
3	0.24766	10.00	23.06	9.10	33.06	19.10	61.84	51.84	-28.78	-32.74
4	0.31406	10.01	23.53	13.12	33.54	23.13	59.86	49.86	-26.32	-26.73
5	5.56250	10.33	12.70	5.35	23.03	15.68	60.00	50.00	-36.97	-34.32
6	19.06641	11.13	32.25	25.65	43.38	36.78	60.00	50.00	-16.62	-13.22

**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



#### 4.4 Transmit Power Measurement

##### 4.4.1 Limits of Transmit Power Measurement

Operation Band	EUT Category	Limit
		Max Average Power
U-NII-5 U-NII-6 U-NII-7 U-NII-8	Indoor AP / Subordinate Device	EIRP 30 dBm

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

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

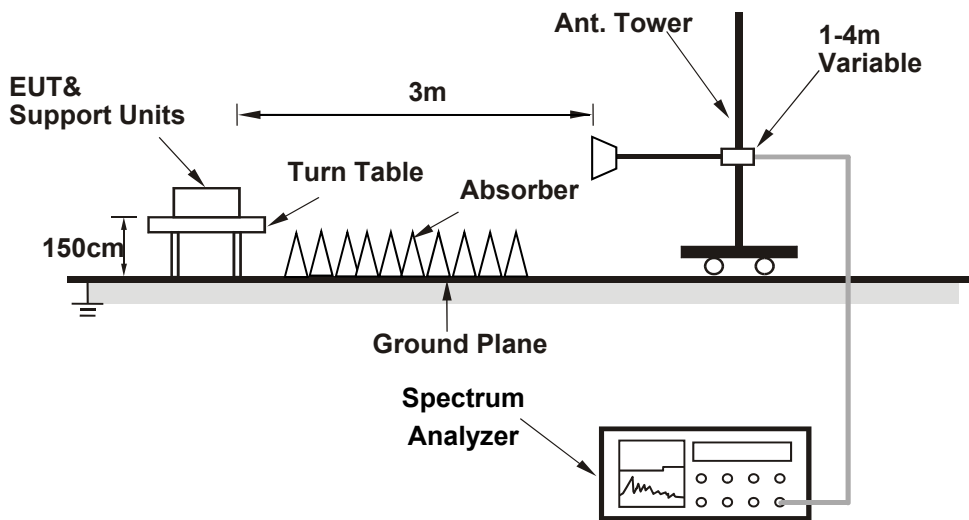
Array Gain = 0 dB (i.e., no array gain) for channel widths  $\geq 40$  MHz for any  $N_{ANT}$ ;

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.



#### 4.4.2 Test Setup



#### 4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

#### 4.4.4 Test Procedure

- The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP level.
- Follow ANSI 63.10 and KDB 412172 D01 v01r01,  $EIRP \text{ Value (dBm)} = \text{Field Strength Value (dB}\mu\text{V/m)} + \text{Correction Factor @ 3m}$ .
- $\text{Correction Factor (dB) @ 3m} = 20\log(D) - 104.7$ ; where D is the measurement distance @3m=95.15dB

Note: Spectrum analyzer setting as below:

**Method SA-1**

1. Set span to encompass the entire 99% occupied bandwidth of the signal.
2. Set RBW =1MHz.
3. Set the VBW  $\geq 3 \times$  RBW.
4. Number of points in sweep  $\geq 2$  Span / RBW.
5. Sweep time = auto.
6. Set trigger to free run (duty cycle  $\geq 98$  percent) ; Set video trigger (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 99% occupied bandwidth of the signal.

4.4.5 EUT Operating Condition

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

## 4.4.6 Test Result

**CDD Mode**
**802.11ax (HE20)**

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
33	6115	108.30	-95.15	20.654	13.15	30	Pass
61	6255	108.60	-95.15	22.131	13.45	30	Pass
93	6415	107.90	-95.15	18.836	12.75	30	Pass
97	6435	107.80	-95.15	18.408	12.65	30	Pass
105	6475	107.50	-95.15	17.179	12.35	30	Pass
113	6515	107.70	-95.15	17.989	12.55	30	Pass
117	6535	108.20	-95.15	20.184	13.05	30	Pass
153	6715	108.40	-95.15	21.135	13.25	30	Pass
181	6855	108.50	-95.15	21.627	13.35	30	Pass
185	6875	108.20	-95.15	20.184	13.05	30	Pass
213	7015	108.00	-95.15	19.275	12.85	30	Pass
229	7095	107.70	-95.15	17.989	12.55	30	Pass

**802.11ax (HE40)**

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
35	6125	109.90	-95.15	29.854	14.75	30	Pass
59	6245	110.20	-95.15	31.989	15.05	30	Pass
91	6405	109.90	-95.15	29.854	14.75	30	Pass
99	6445	110.30	-95.15	32.734	15.15	30	Pass
107	6485	110.00	-95.15	30.549	14.85	30	Pass
115	6525	110.40	-95.15	33.497	15.25	30	Pass
123	6565	110.40	-95.15	33.497	15.25	30	Pass
155	6725	110.30	-95.15	32.734	15.15	30	Pass
179	6845	110.10	-95.15	31.261	14.95	30	Pass
187	6885	110.20	-95.15	31.989	15.05	30	Pass
211	7005	110.30	-95.15	32.734	15.15	30	Pass
227	7085	110.40	-95.15	33.497	15.25	30	Pass

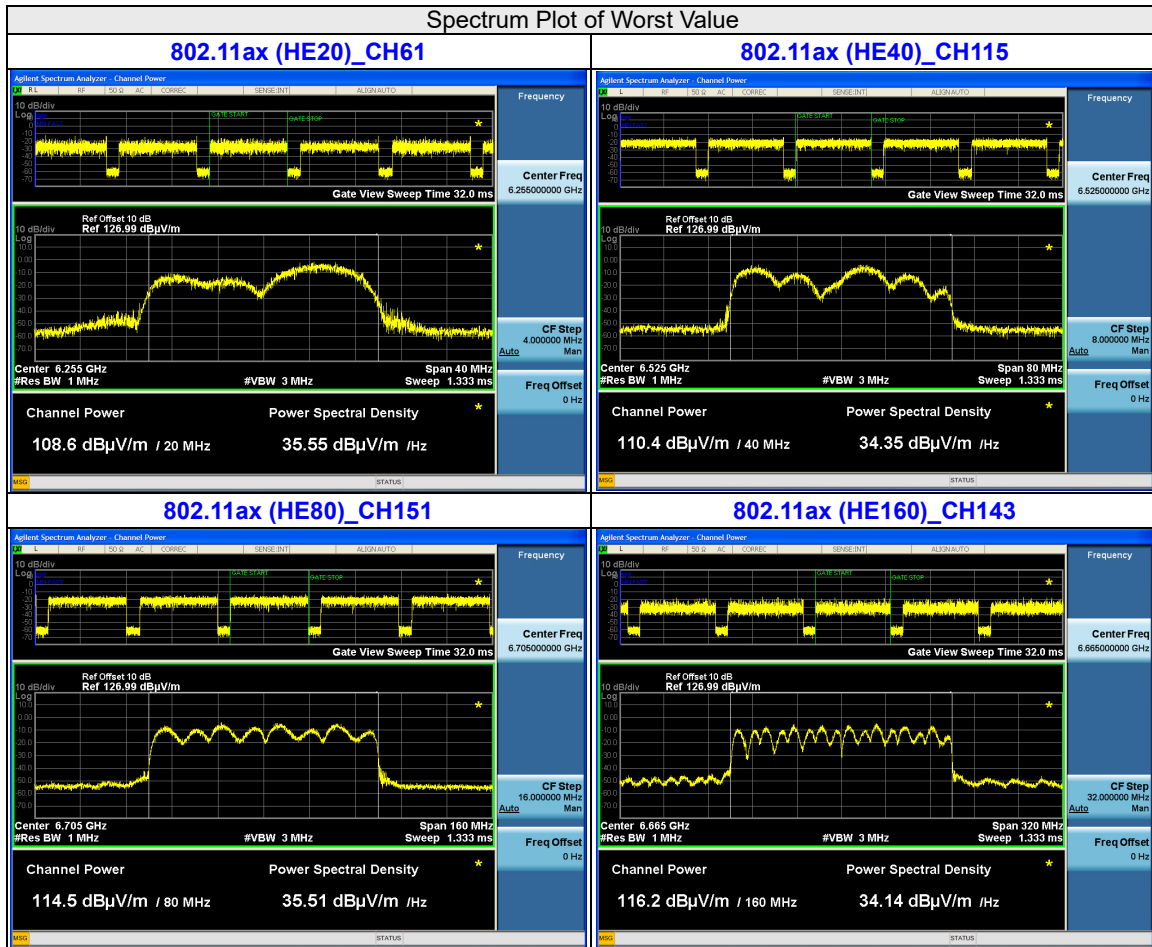
**802.11ax (HE80)**

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
39	6145	114.30	-95.15	82.224	19.15	30	Pass
55	6225	114.00	-95.15	76.736	18.85	30	Pass
87	6385	113.80	-95.15	73.282	18.65	30	Pass
103	6465	113.60	-95.15	69.984	18.45	30	Pass
119	6545	113.90	-95.15	74.989	18.75	30	Pass
135	6625	114.40	-95.15	84.14	19.25	30	Pass
151	6705	114.50	-95.15	86.099	19.35	30	Pass
167	6785	114.20	-95.15	80.353	19.05	30	Pass
183	6865	114.10	-95.15	78.524	18.95	30	Pass
199	6945	114.00	-95.15	76.736	18.85	30	Pass
215	7025	113.60	-95.15	69.984	18.45	30	Pass

**802.11ax (HE160)**

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
47	6185	115.90	-95.15	118.85	20.75	30	Pass
79	6345	116.00	-95.15	121.619	20.85	30	Pass
111	6505	115.80	-95.15	116.145	20.65	30	Pass
143	6665	116.20	-95.15	127.35	21.05	30	Pass
175	6825	115.80	-95.15	116.145	20.65	30	Pass
207	6985	116.00	-95.15	121.619	20.85	30	Pass

Spectrum Plot of Worst Value



## Beamforming Mode

### 802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
33	6115	109.60	-95.15	27.861	14.45	30	Pass
61	6255	109.70	-95.15	28.51	14.55	30	Pass
93	6415	109.80	-95.15	29.174	14.65	30	Pass
97	6435	108.50	-95.15	21.627	13.35	30	Pass
105	6475	108.80	-95.15	23.174	13.65	30	Pass
113	6515	108.90	-95.15	23.714	13.75	30	Pass
117	6535	108.30	-95.15	20.654	13.15	30	Pass
153	6715	108.00	-95.15	19.275	12.85	30	Pass
181	6855	108.50	-95.15	21.627	13.35	30	Pass
185	6875	108.50	-95.15	21.627	13.35	30	Pass
213	7015	108.60	-95.15	22.131	13.45	30	Pass
229	7095	108.50	-95.15	21.627	13.35	30	Pass

### 802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
35	6125	110.60	-95.15	35.075	15.45	30	Pass
59	6165	110.70	-95.15	35.892	15.55	30	Pass
91	6405	110.70	-95.15	35.892	15.55	30	Pass
99	6445	111.00	-95.15	38.459	15.85	30	Pass
107	6485	111.20	-95.15	40.272	16.05	30	Pass
115	6525	111.10	-95.15	39.355	15.95	30	Pass
123	6565	110.60	-95.15	35.075	15.45	30	Pass
155	6725	110.90	-95.15	37.584	15.75	30	Pass
179	6845	110.60	-95.15	35.075	15.45	30	Pass
187	6885	110.40	-95.15	33.497	15.25	30	Pass
211	7005	110.50	-95.15	34.277	15.35	30	Pass
227	7085	110.40	-95.15	33.497	15.25	30	Pass

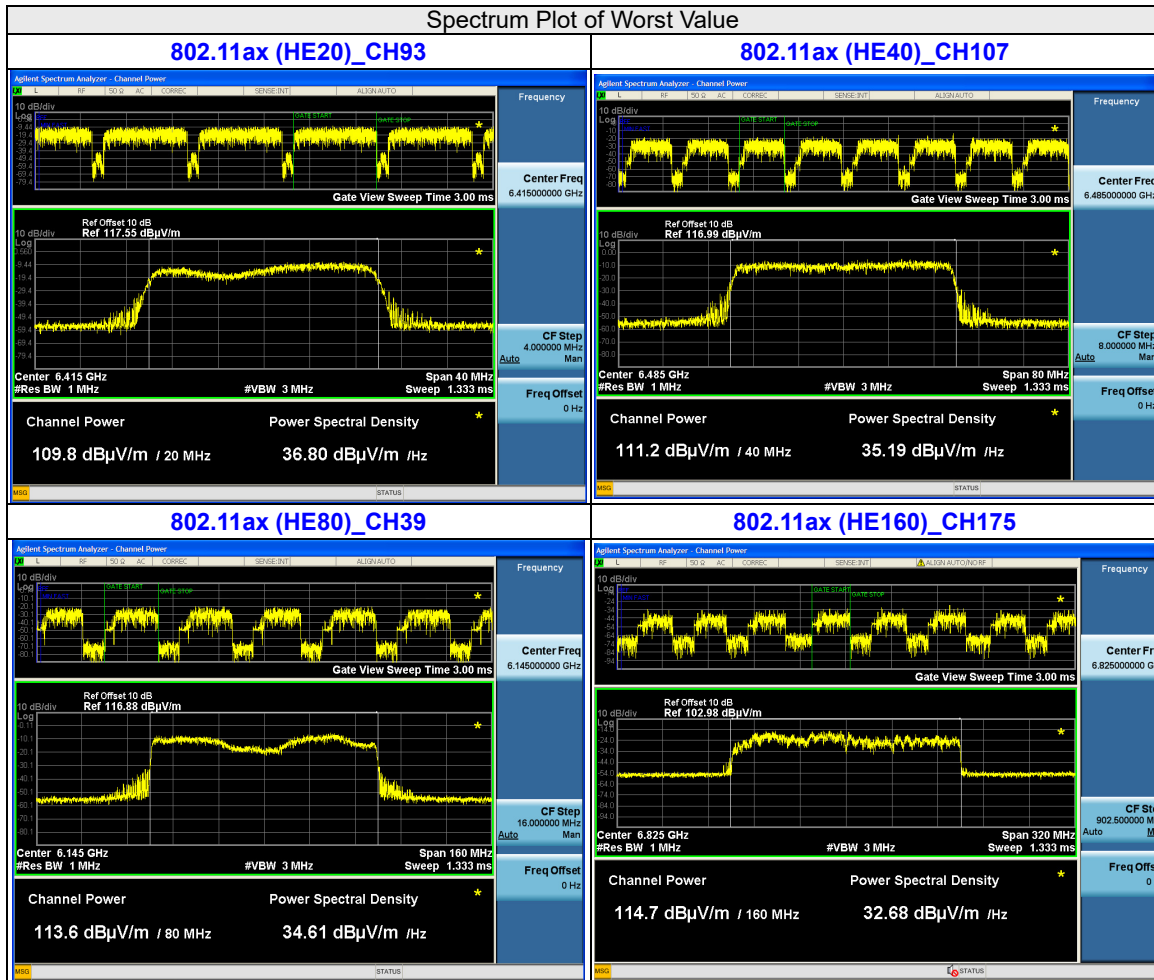
**802.11ax (HE80)**

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
39	6145	113.60	-95.15	69.984	18.45	30	Pass
55	6225	113.60	-95.15	69.984	18.45	30	Pass
87	6385	113.60	-95.15	69.984	18.45	30	Pass
103	6465	113.40	-95.15	66.834	18.25	30	Pass
119	6545	113.50	-95.15	68.391	18.35	30	Pass
135	6625	113.50	-95.15	68.391	18.35	30	Pass
151	6705	113.60	-95.15	69.984	18.45	30	Pass
167	6785	113.10	-95.15	62.373	17.95	30	Pass
183	6865	113.20	-95.15	63.826	18.05	30	Pass
199	6945	113.00	-95.15	60.954	17.85	30	Pass
215	7025	113.30	-95.15	65.313	18.15	30	Pass

**802.11ax (HE160)**

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
47	6185	114.00	-95.15	76.736	18.85	30	Pass
79	6345	114.60	-95.15	88.105	19.45	30	Pass
111	6505	114.10	-95.15	78.524	18.95	30	Pass
143	6665	114.60	-95.15	88.105	19.45	30	Pass
175	6825	114.70	-95.15	90.157	19.55	30	Pass
207	6985	114.00	-95.15	76.736	18.85	30	Pass

Spectrum Plot of Worst Value



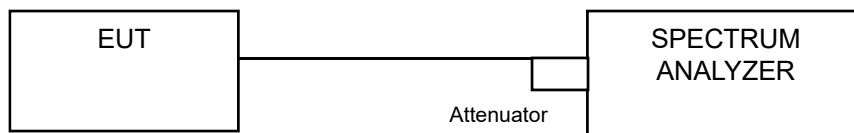


## 4.5 Emission Bandwidth Measurement

### 4.5.1 Limits of Emission Bandwidth Measurement

The fundamental bandwidth shall be less than 320MHz.

### 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 99% OCCUPIED BANDWIDTH

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.

#### FOR 26dB BANDWIDTH

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- 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%.

## 4.5.5 Test Results

**99% Occupied Bandwidth:**
**802.11ax (HE20)**

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
33	6115	19.08	19.2	19.08	19.2
61	6255	19.2	19.2	19.08	19.08
93	6415	19.08	19.08	19.2	19.2
97	6435	19.08	19.08	19.08	19.08
105	6475	19.08	19.08	19.2	19.2
113	6515	19.08	19.2	19.08	19.2
117	6535	19.08	19.2	19.08	19.2
153	6715	19.08	19.2	19.08	19.08
181	6855	19.08	19.08	19.08	19.2
185	6875	19.08	19.08	19.08	19.08
213	7015	19.08	19.2	19.08	19.08
229	7095	19.08	19.08	19.08	19.08

**802.11ax (HE40)**

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
35	6125	38.4	37.92	37.68	37.92
59	6245	38.4	37.92	37.92	37.92
91	6405	37.92	37.92	37.92	37.92
99	6445	37.92	37.92	37.92	37.92
107	6485	37.92	37.68	37.92	37.92
115	6525	38.4	37.92	37.92	37.92
123	6565	37.92	37.68	37.92	37.92
155	6725	37.92	37.92	37.92	37.92
179	6845	37.92	37.92	37.92	37.92
187	6885	38.4	37.92	37.92	38.16
211	7005	37.92	37.92	37.92	37.92
227	7085	37.92	37.68	37.92	37.68

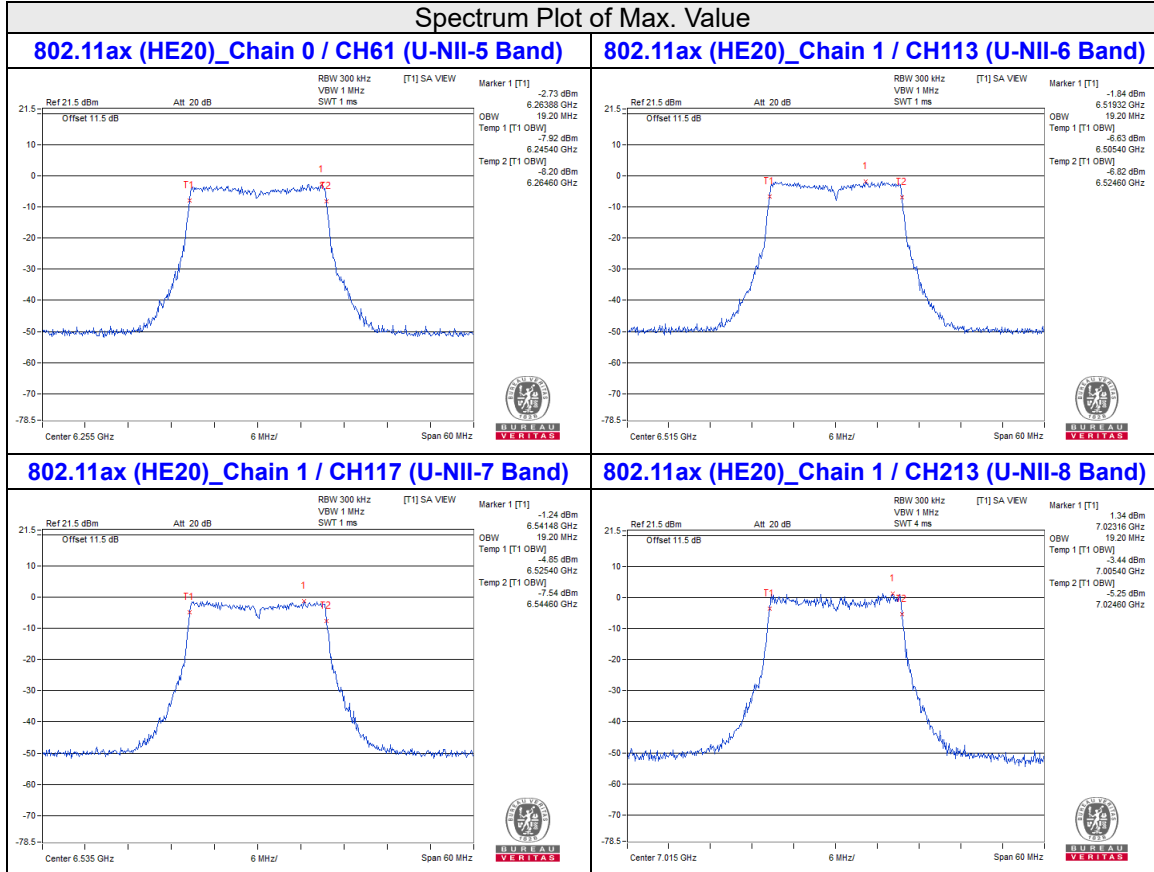
**802.11ax (HE80)**

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
39	6145	78.24	77.28	76.8	77.28
55	6225	77.28	76.8	76.8	77.28
87	6385	76.8	77.28	78.24	77.76
103	6465	76.8	78.24	76.8	77.28
119	6545	77.28	77.28	76.8	77.28
135	6625	77.28	77.28	77.28	76.8
151	6705	76.8	77.28	76.8	77.28
167	6785	77.28	77.28	77.28	77.28
183	6865	77.28	77.28	77.28	77.76
199	6945	77.28	77.76	76.8	77.28
215	7025	77.28	77.28	77.28	77.28

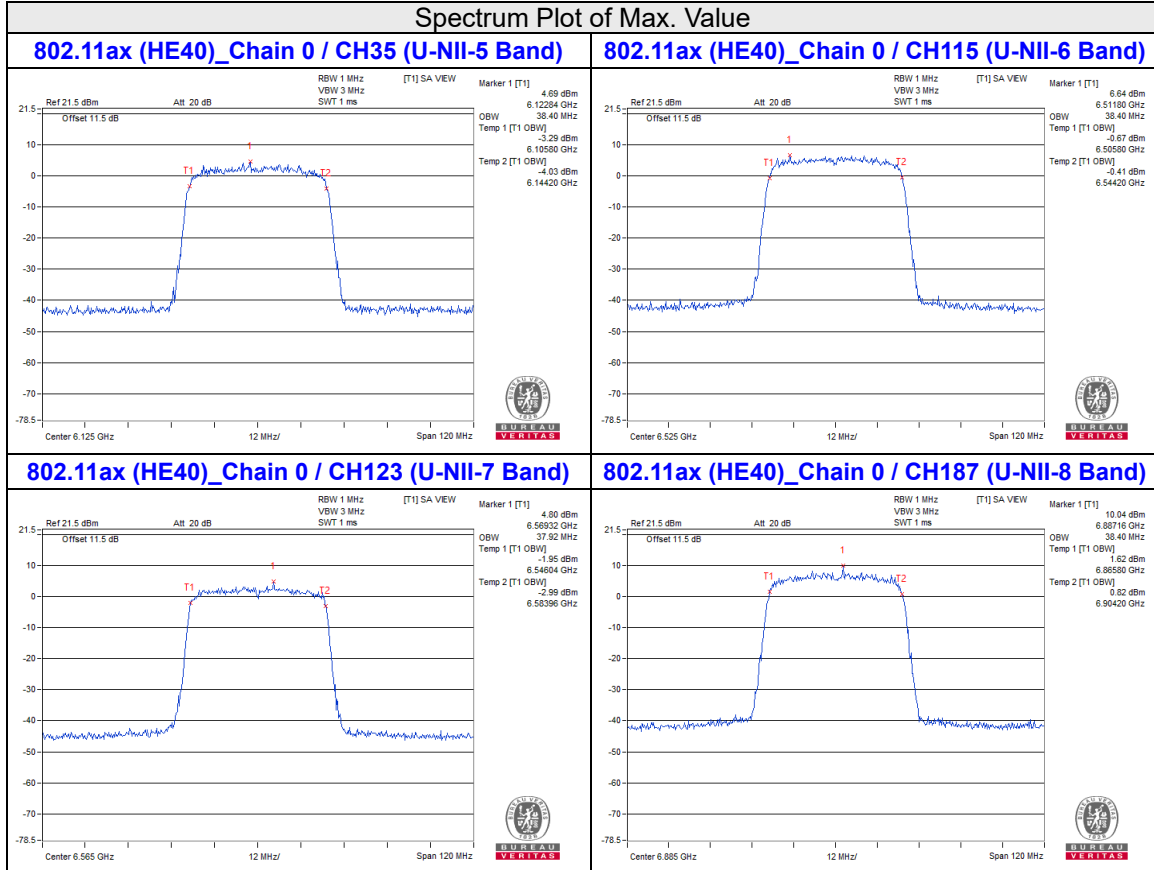
**802.11ax (HE160)**

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
47	6185	154.56	154.56	154.56	154.56
79	6345	155.52	155.52	154.56	155.52
111	6505	155.52	154.56	154.56	155.52
143	6665	154.56	155.52	155.52	155.52
175	6825	155.52	156.48	154.56	156.48
207	6985	155.52	153.6	154.56	152.64

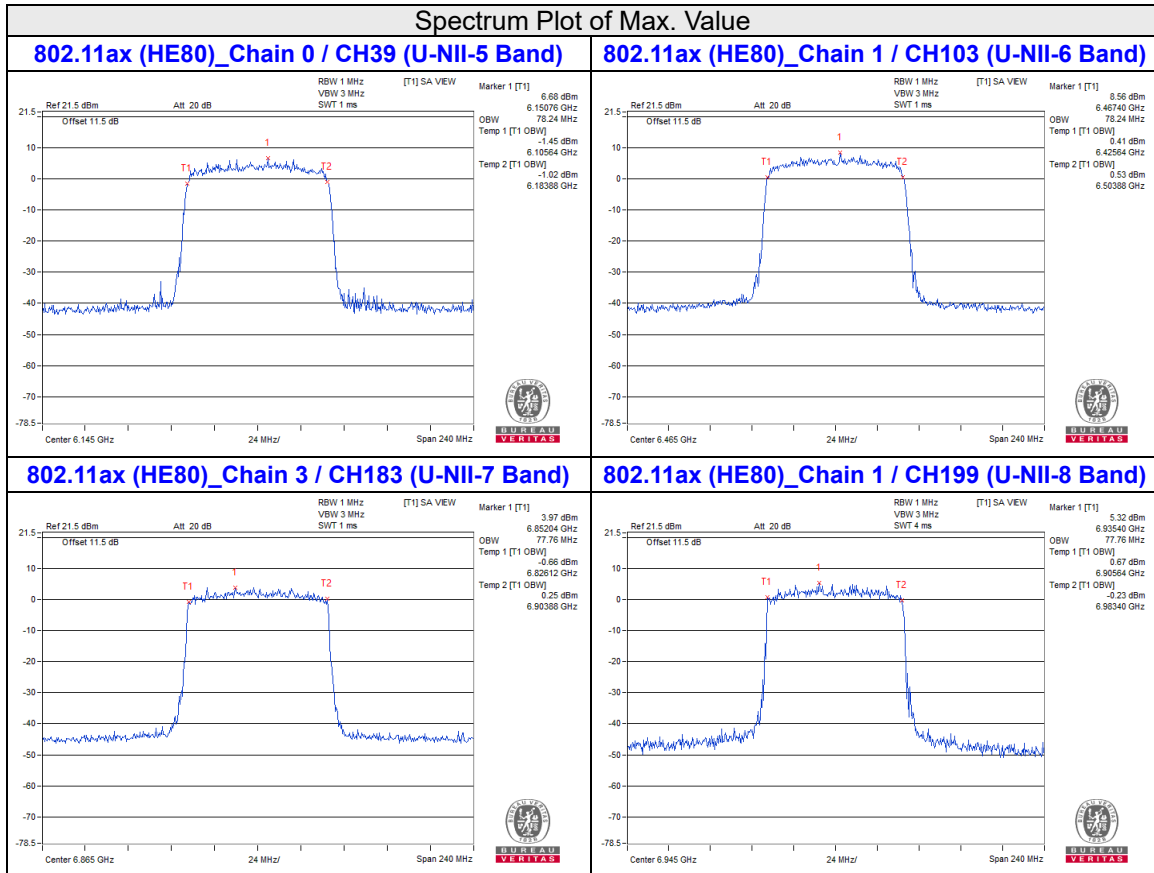
### Spectrum Plot of Max. Value



Spectrum Plot of Max. Value

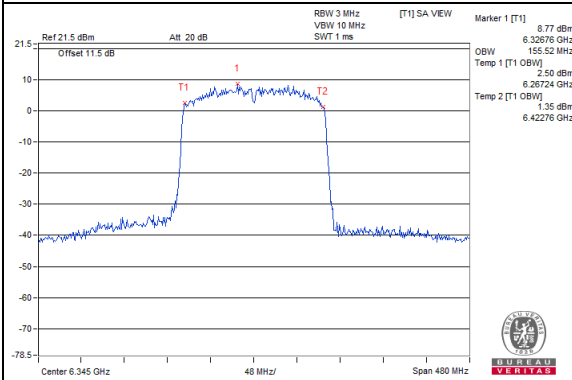


### Spectrum Plot of Max. Value

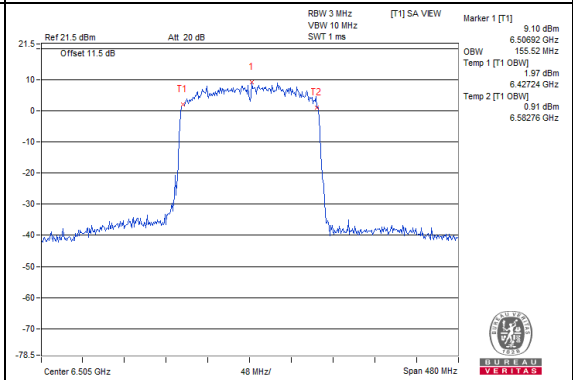


### Spectrum Plot of Max. Value

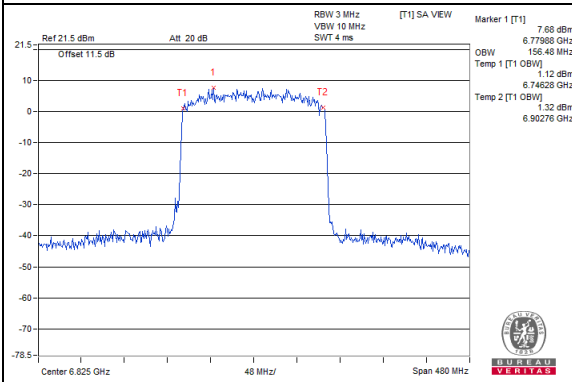
**802.11ax (HE160)\_Chain 0 / CH79 (U-NII-5 Band)**



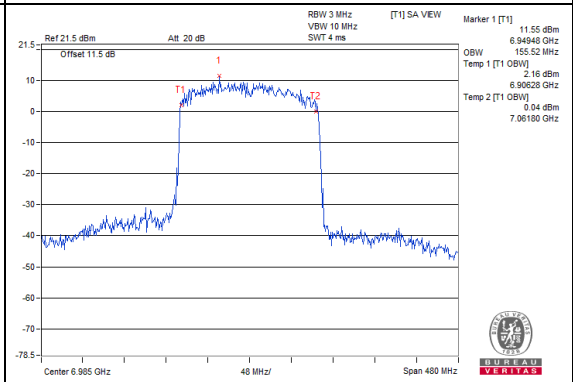
**802.11ax (HE160)\_Chain 0 / CH111 (U-NII-6 Band)**



**802.11ax (HE160)\_Chain 1 / CH175 (U-NII-7 Band)**



**802.11ax (HE160)\_Chain 0 / CH207 (U-NII-8 Band)**



**26dB Bandwidth:**
**802.11ax (HE20)**

Channel	Frequency (MHz)	26dB Bandwidth (MHz)				Limit (MHz)
		Chain0	Chain1	Chain2	Chain3	
33	6115	22.2	22.6	22.39	22.5	320
61	6255	22.26	22.43	22.52	22.61	320
93	6415	22.32	22.65	22.54	22.57	320
97	6435	22.14	22.66	22.74	22.6	320
105	6475	22.29	22.54	22.46	22.49	320
113	6515	22.23	22.52	22.7	22.58	320
117	6535	22.37	22.59	22.23	22.49	320
153	6715	22.27	22.79	22.42	22.37	320
181	6855	22.14	22.72	22.58	22.42	320
185	6875	22.03	22.66	22.48	22.39	320
213	7015	22.23	22.53	22.26	22.09	320
229	7095	22.32	22.59	22.41	22.38	320

**802.11ax (HE40)**

Channel	Frequency (MHz)	26dB Bandwidth (MHz)				Limit (MHz)
		Chain0	Chain1	Chain2	Chain3	
35	6125	41.76	41.55	41.45	41.72	320
59	6165	41.7	41.77	41.64	41.9	320
91	6405	41.74	41.86	41.71	41.69	320
99	6445	41.87	41.61	41.89	41.73	320
107	6485	41.57	41.76	41.69	41.69	320
115	6525	41.73	41.78	41.74	41.56	320
123	6565	41.6	41.64	41.55	41.56	320
155	6725	41.79	41.64	41.71	41.5	320
179	6845	41.67	41.72	41.61	41.74	320
187	6885	41.71	41.77	41.6	41.59	320
211	7005	41.61	41.71	41.62	41.62	320
227	7085	41.48	41.59	41.64	41.56	320



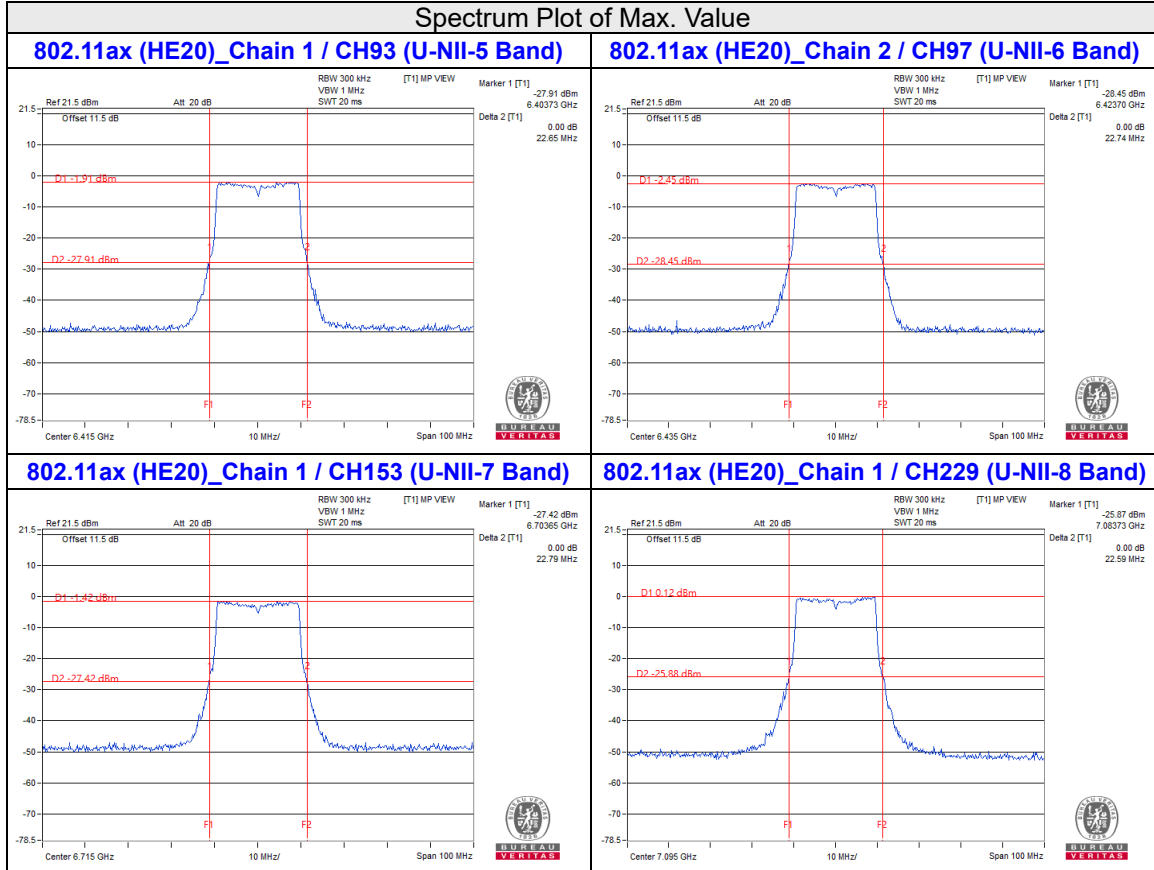
**802.11ax (HE80)**

Channel	Frequency (MHz)	26dB Bandwidth (MHz)				Limit (MHz)
		Chain0	Chain1	Chain2	Chain3	
39	6145	83.14	83.25	83.15	83.43	320
55	6225	83.68	83.04	82.81	83.04	320
87	6385	83.67	83.04	82.96	83	320
103	6465	83.38	83.47	83.16	82.62	320
119	6545	83.31	83.24	83.02	83.2	320
135	6625	82.85	82.87	82.8	83.17	320
151	6705	83.13	83.18	83.24	83.55	320
167	6785	83.34	83.08	83.65	83.5	320
183	6865	83.15	82.81	83.35	82.94	320
199	6945	82.63	83.21	82.95	82.47	320
215	7025	82.9	83.58	82.94	82.84	320

**802.11ax (HE160)**

Channel	Frequency (MHz)	26dB Bandwidth (MHz)				Limit (MHz)
		Chain0	Chain1	Chain2	Chain3	
47	6185	168.69	166.96	168.21	167.48	320
79	6345	168.4	168.88	168.09	167.51	320
111	6505	167.74	167.6	168.31	167.12	320
143	6665	168.59	167.95	169.35	168.09	320
175	6825	166.9	167.38	166.9	168.04	320
207	6985	166.9	166.41	166.67	167.18	320

### Spectrum Plot of Max. Value



Spectrum Plot of Max. Value

