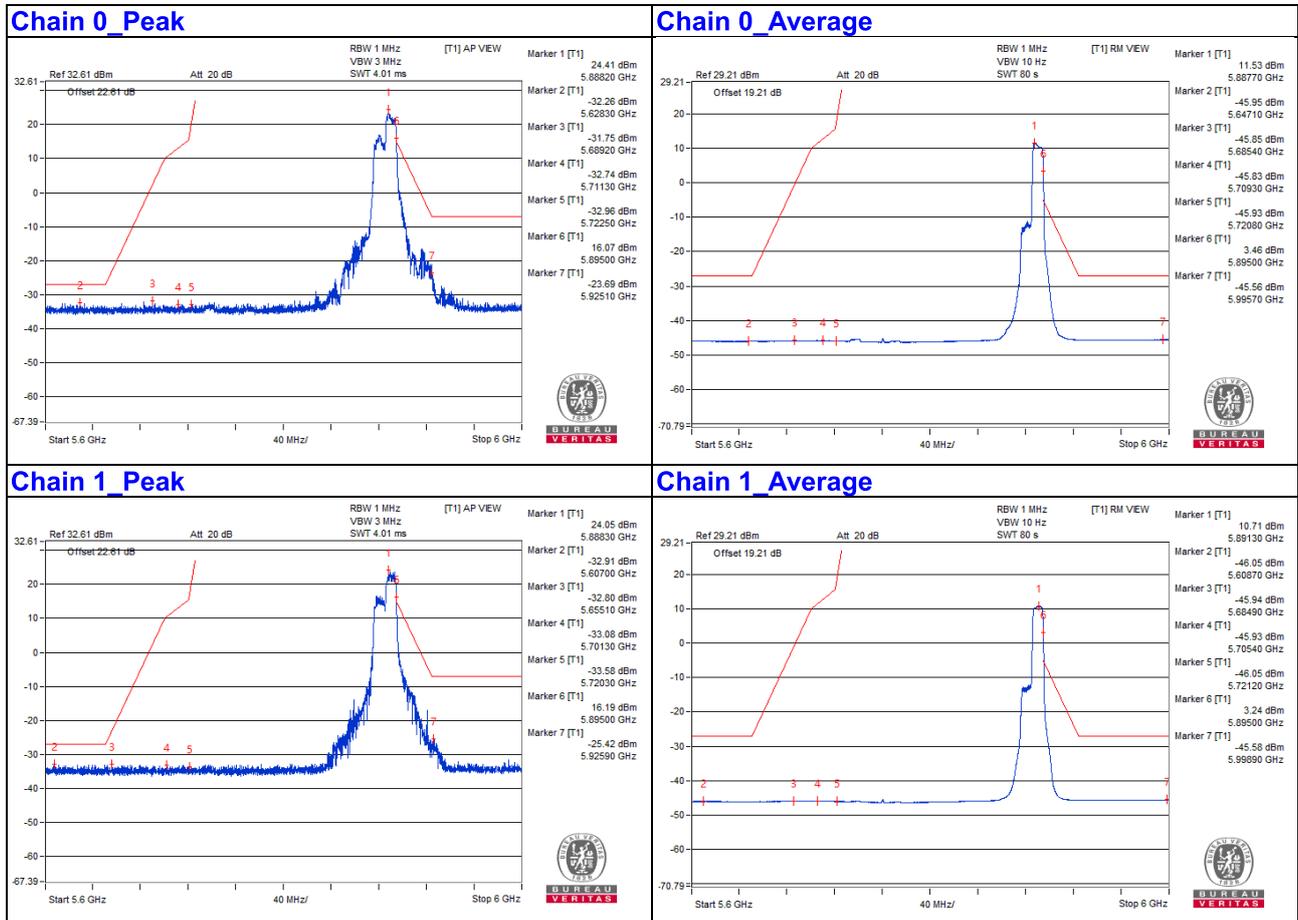


Channel 177

Bandedge



Note:

1. The offset including attenuator (10 dB), cable loss (1.5 dB), directional gain (8.1 dBi) and number of outputs (10 log (2))=3.01 dB).
2. The test results were EIRP.
3. The emission was verified and the test result was passed by radiated measurement. (Please refer Appendix A)

802.11ax (RU242)

Channel 169

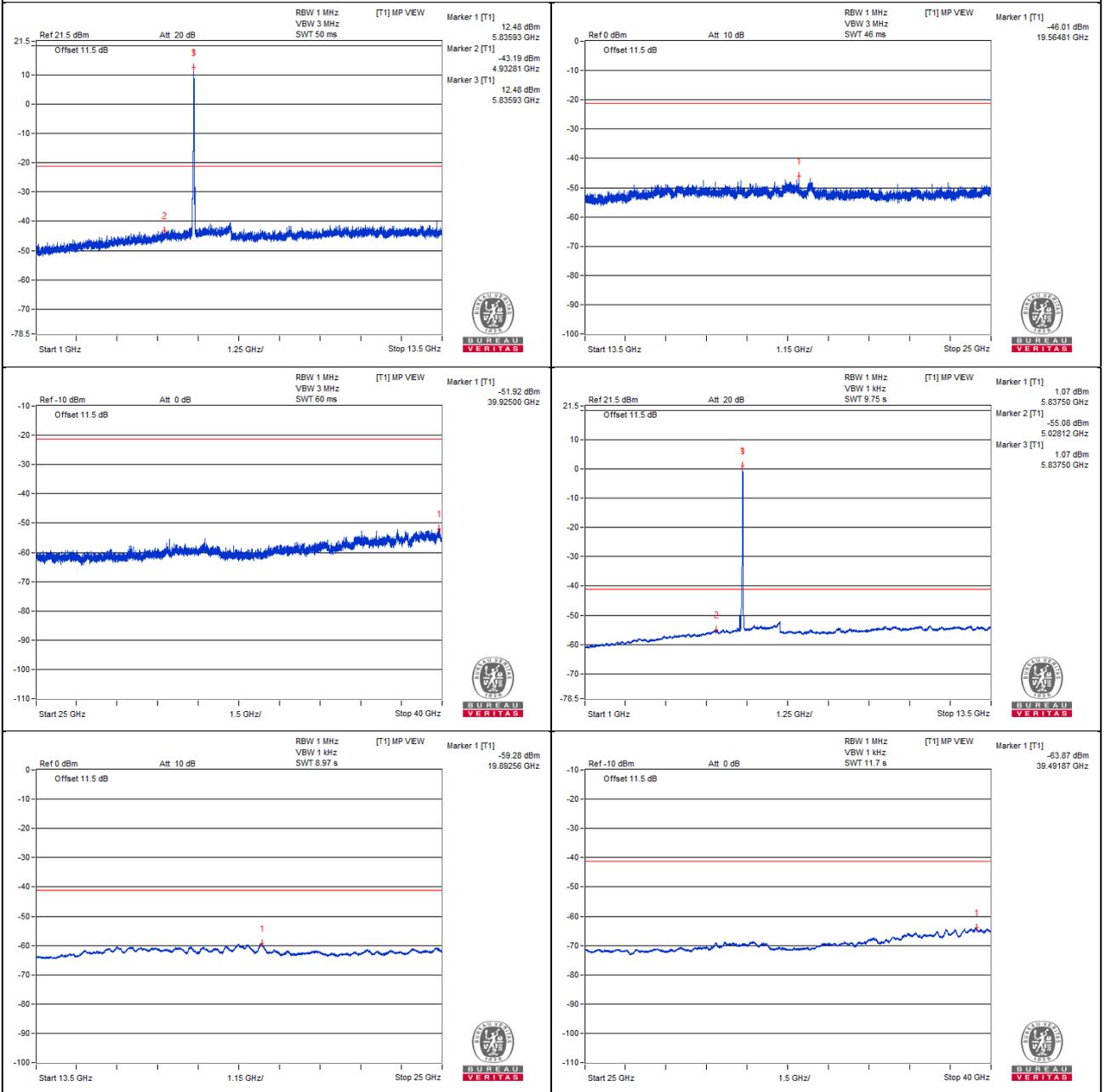
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	3904.68	61.87 PK	74	-12.13	-44.33	-44.82	8.17	-33.39
2	3909.37	49.34 AV	54	-4.66	-57.25	-56.95	8.17	-45.92
3	#7806.25	62.04 PK	68.2	-6.16	-44.2	-44.61	8.17	-33.22
4	11701.56	63.36 PK	74	-10.64	-42.52	-43.73	8.17	-31.90
5	11690.62	52.38 AV	54	-1.62	-54.33	-53.81	8.17	-42.88
6	#17527.87	56.61 PK	68.2	-11.59	-49.58	-50.09	8.17	-38.65

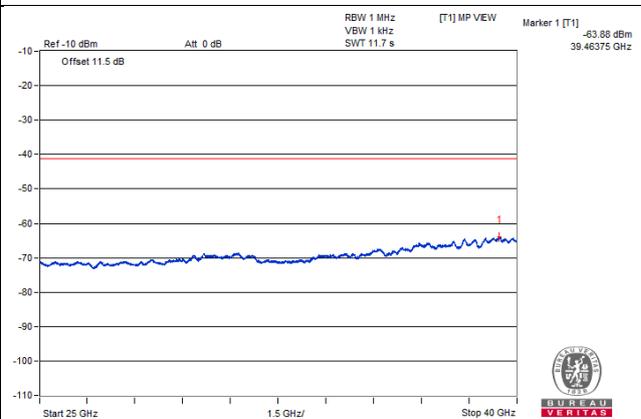
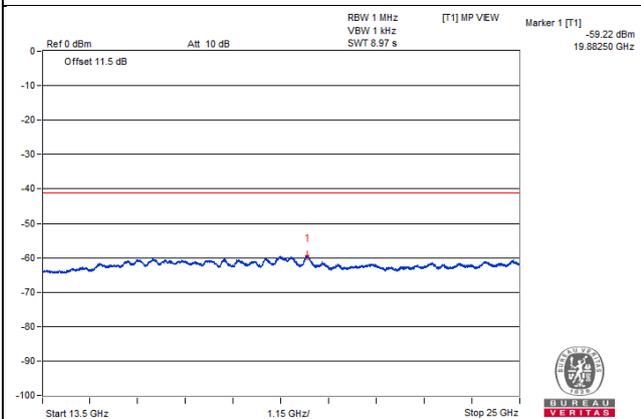
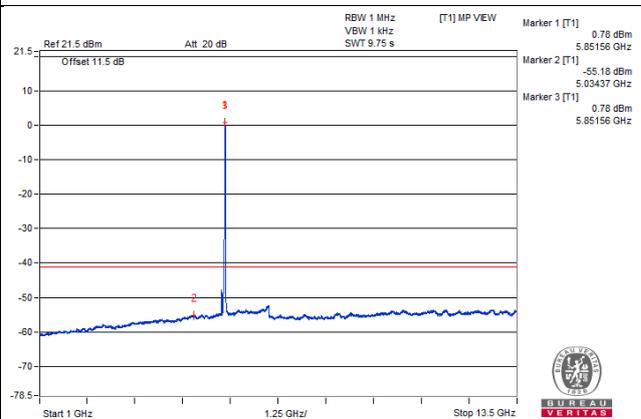
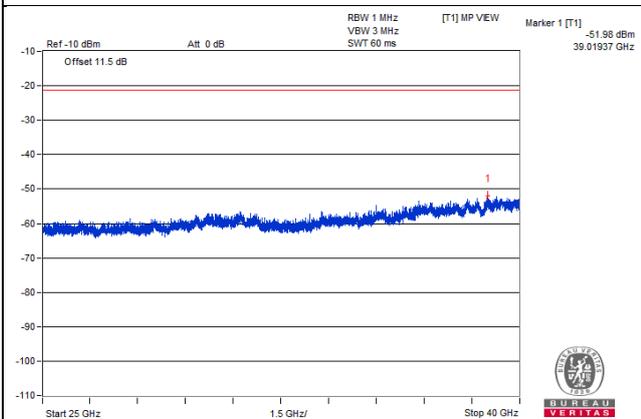
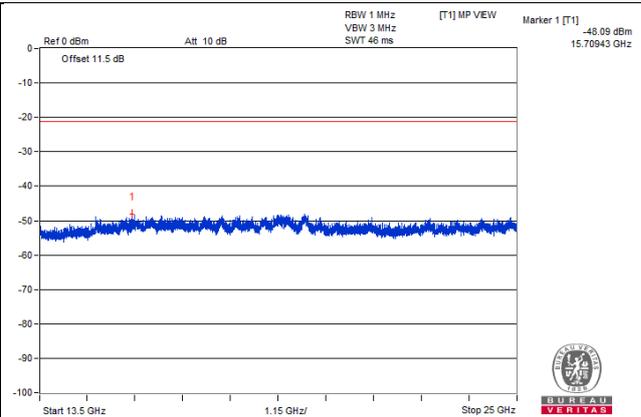
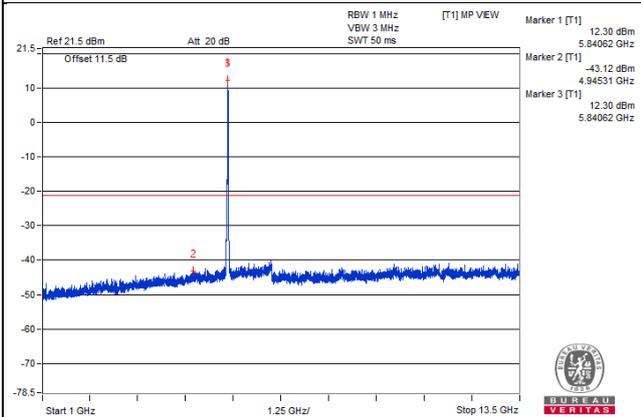
Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. " # " : The frequency is out of the restricted band.

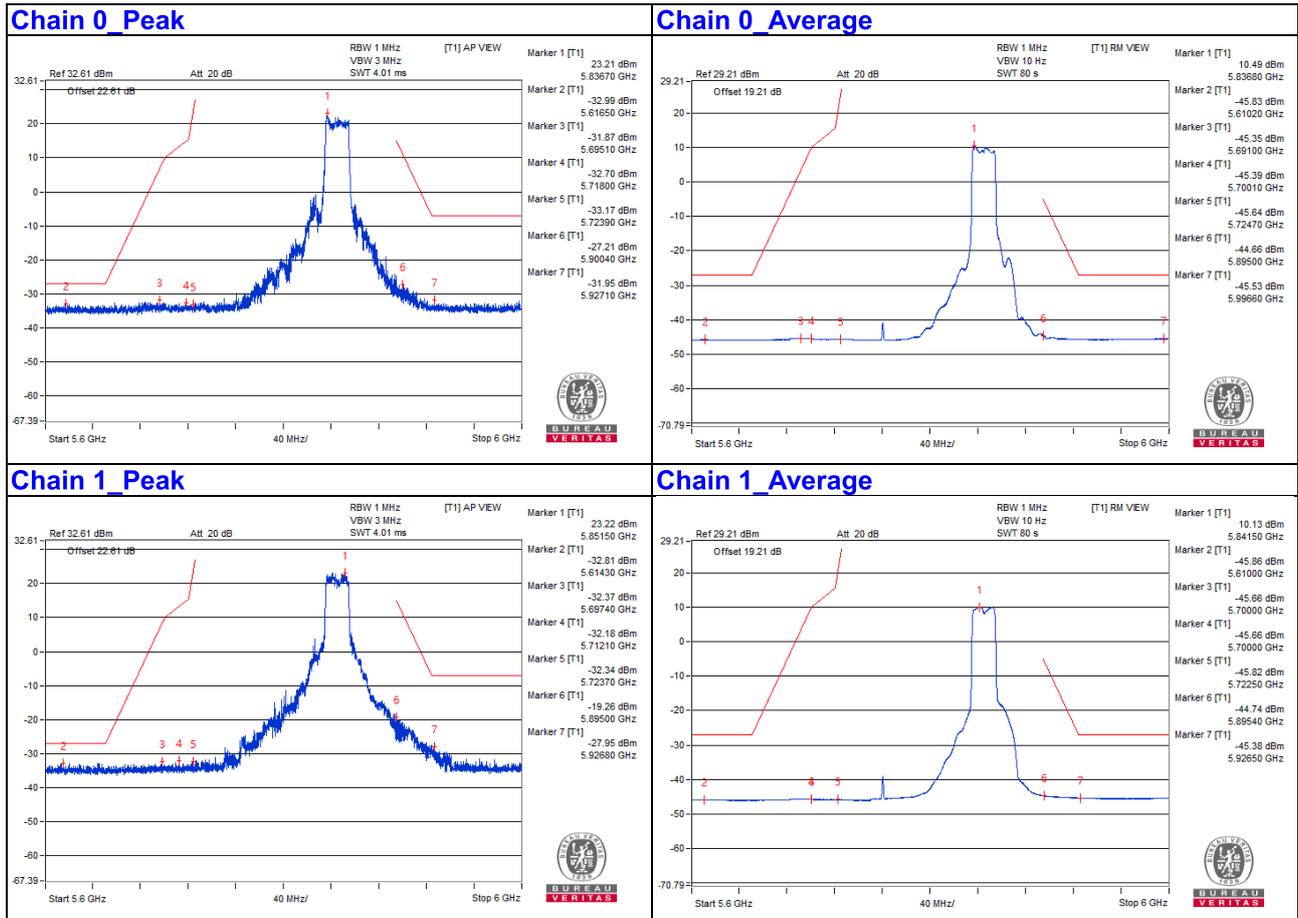
Chain 0



Chain 1



Bandedge



Note:

1. The offset including attenuator (10 dB), cable loss (1.5 dB), directional gain (8.1 dBi) and number of outputs ($10 \log(2) = 3.01$ dB).
2. The test results were EIRP.

Channel 173

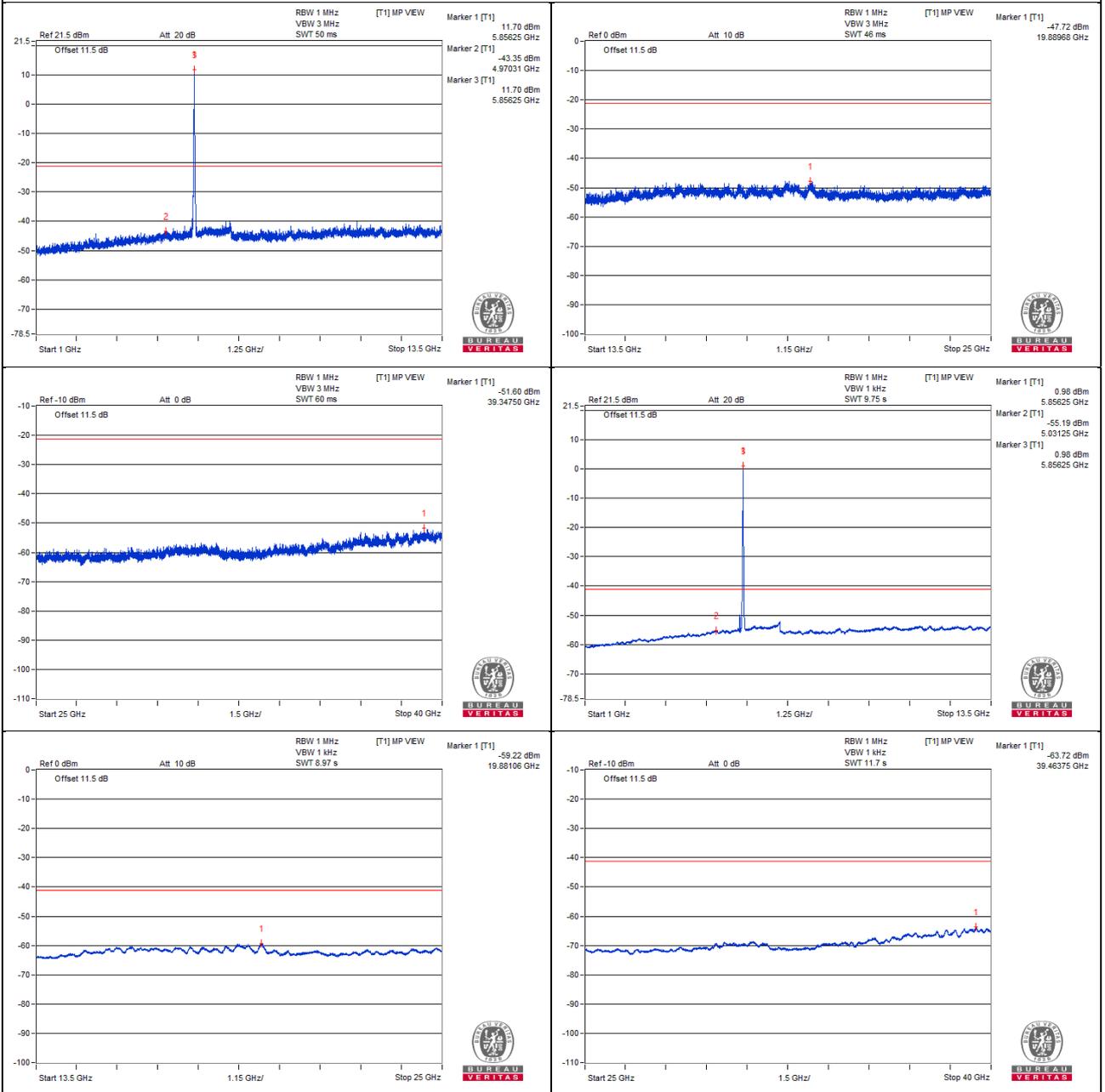
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	3923.43	60.57 PK	74	-13.43	-45.33	-46.49	8.17	-34.69
2	3926.56	49.41 AV	54	-4.59	-56.95	-57.11	8.17	-45.85
3	#7839.06	61.69 PK	68.2	-6.51	-43.9	-45.81	8.17	-33.57
4	11714.06	63.56 PK	74	-10.44	-42.81	-42.95	8.17	-31.70
5	11729.68	51.91 AV	54	-2.09	-54.84	-54.25	8.17	-43.35
6	#17601.18	55.88 PK	68.2	-12.32	-51.43	-49.83	8.17	-39.38

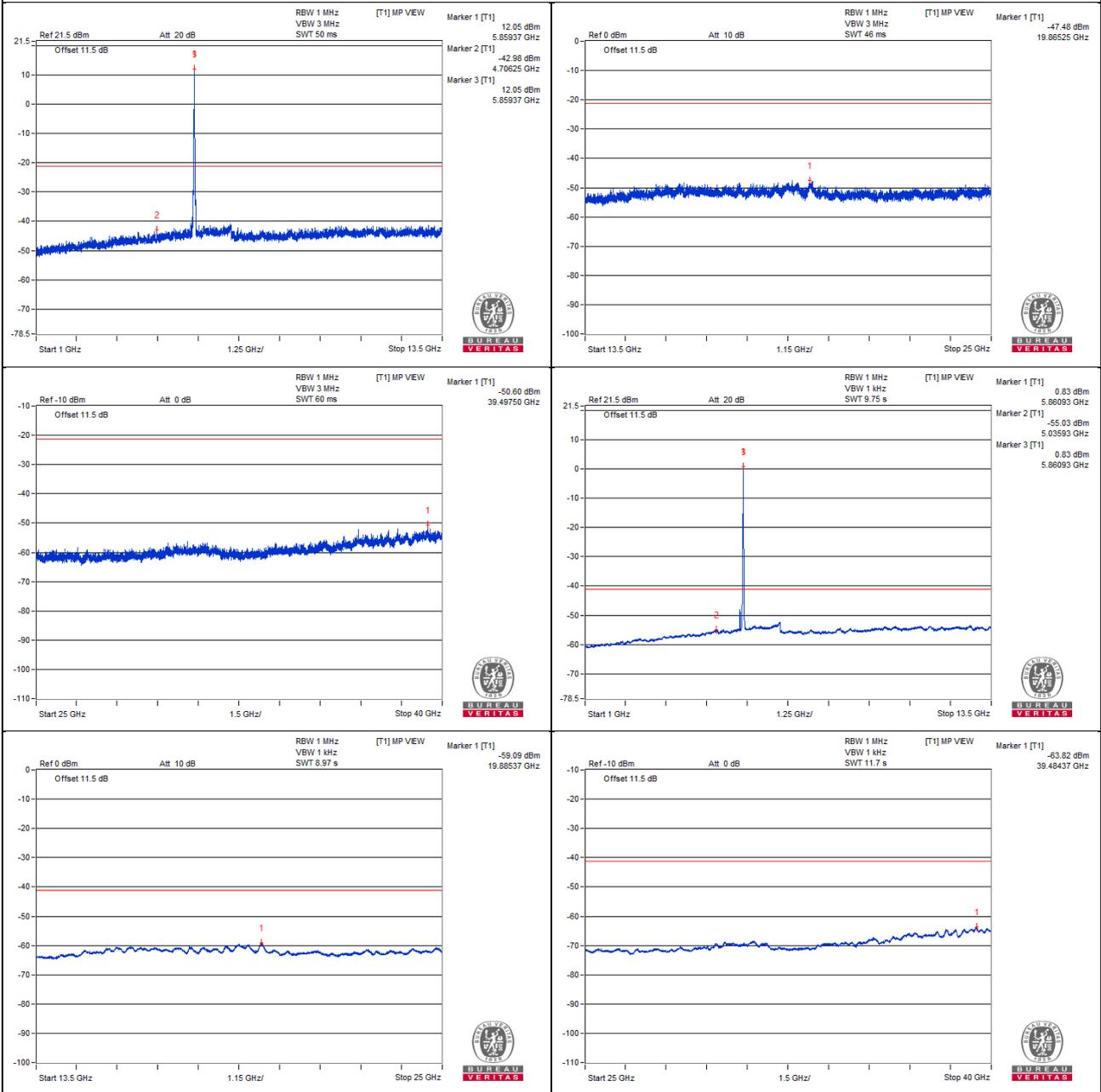
Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. " # " : The frequency is out of the restricted band.

Chain 0



Chain 1



Channel 177

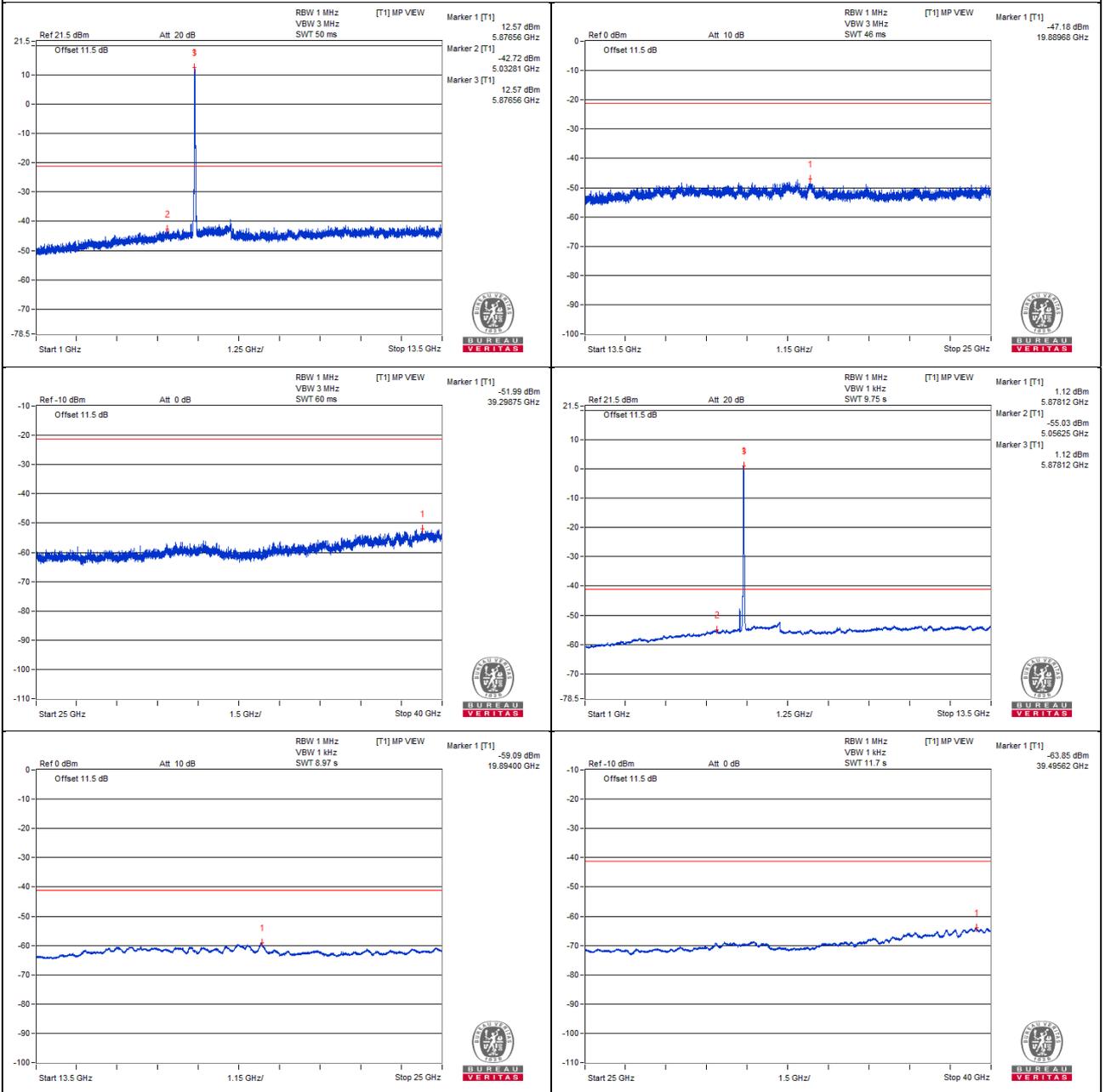
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	3934.37	60.78 PK	74	-13.22	-46.58	-44.91	8.17	-34.48
2	3923.43	49.44 AV	54	-4.56	-56.89	-57.11	8.17	-45.82
3	#7843.75	61.63 PK	68.2	-6.57	-45.17	-44.48	8.17	-33.63
4	11770.31	63.12 PK	74	-10.88	-43.37	-43.27	8.17	-32.14
5	11759.37	51.72 AV	54	-2.28	-54.75	-54.7	8.17	-43.54
6	#17635.68	55.37 PK	68.2	-12.83	-50.63	-51.55	8.17	-39.89

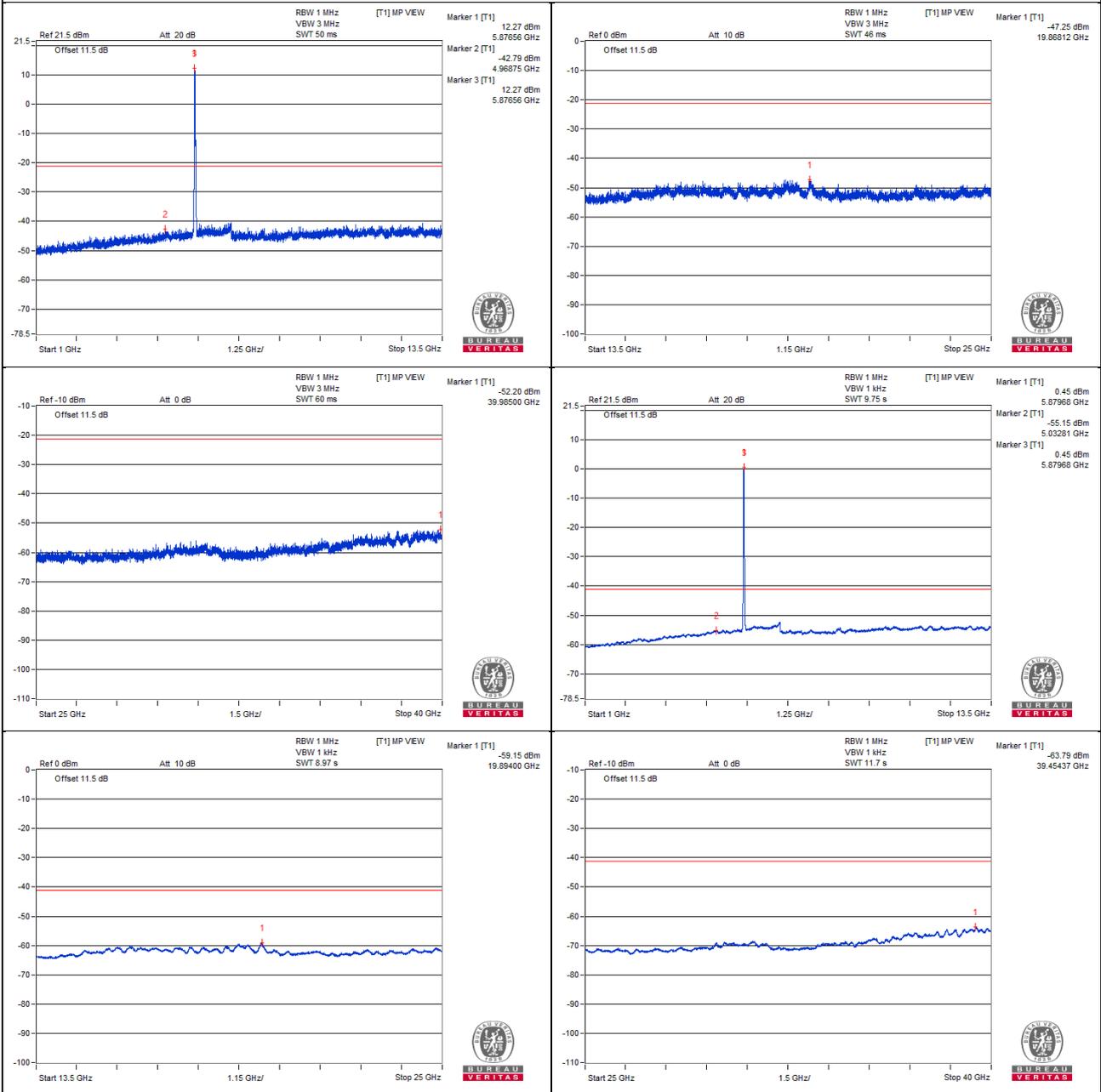
Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. " # " : The frequency is out of the restricted band.

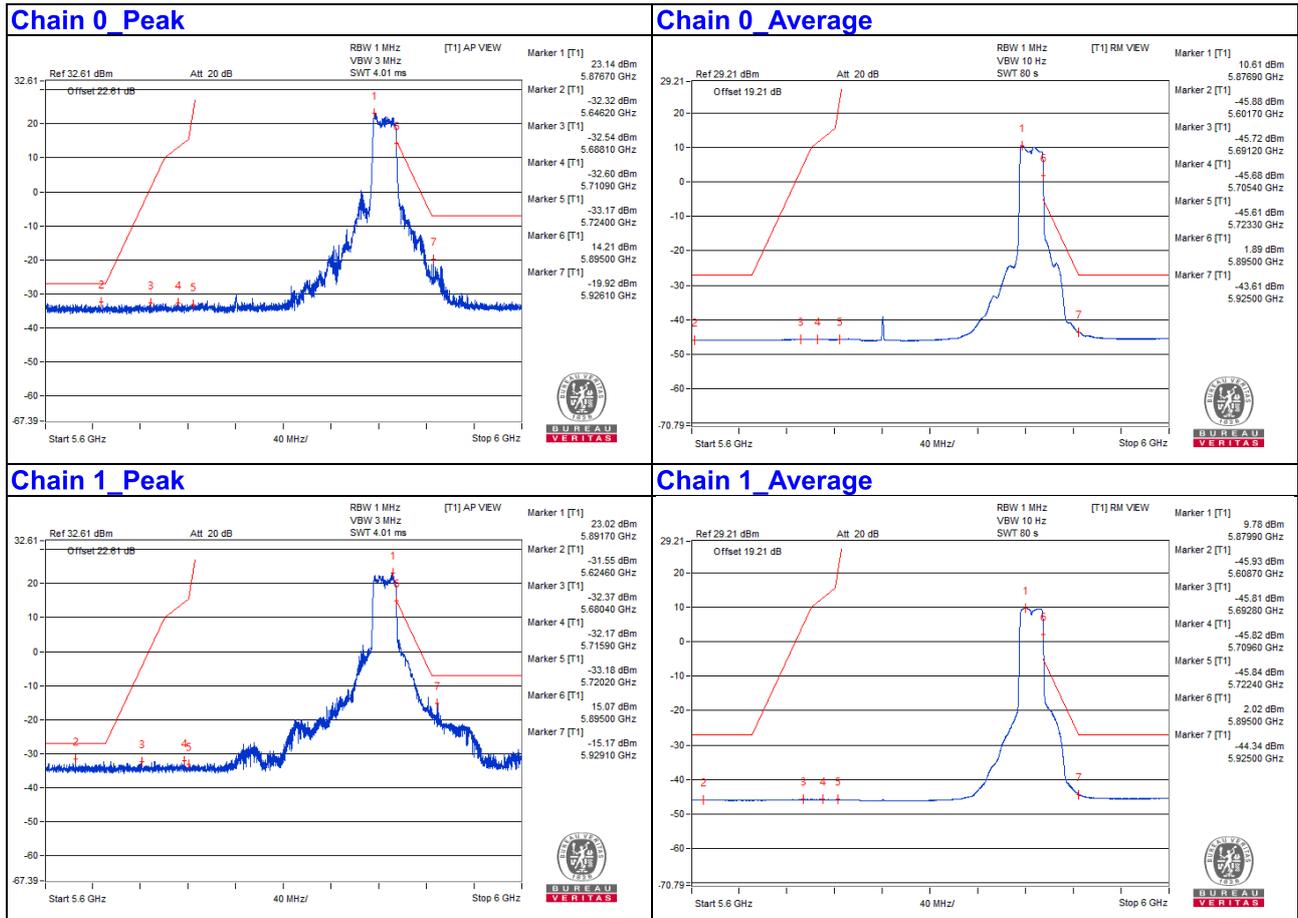
Chain 0



Chain 1



Bandedge



Note:

1. The offset including attenuator (10 dB), cable loss (1.5 dB), directional gain (8.1 dBi) and number of outputs ($10 \log(2) = 3.01$ dB).
2. The test results were EIRP.
3. The emission was verified and the test result was passed by radiated measurement. (Please refer Appendix A)

802.11ax (RU484)

Channel 167

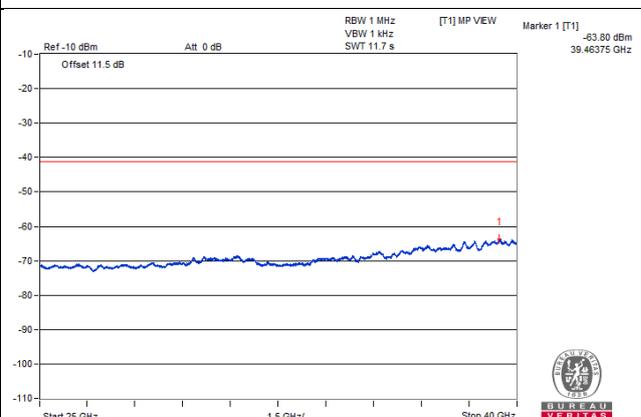
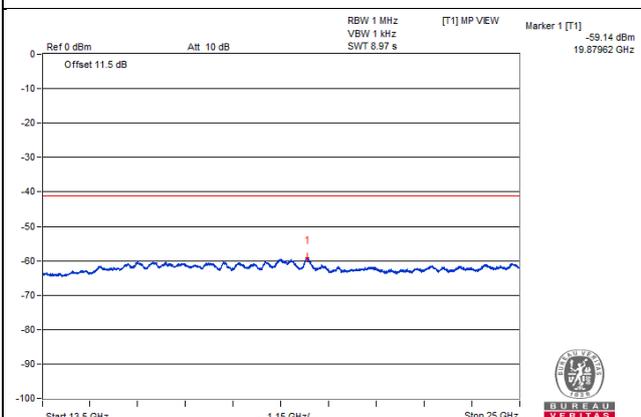
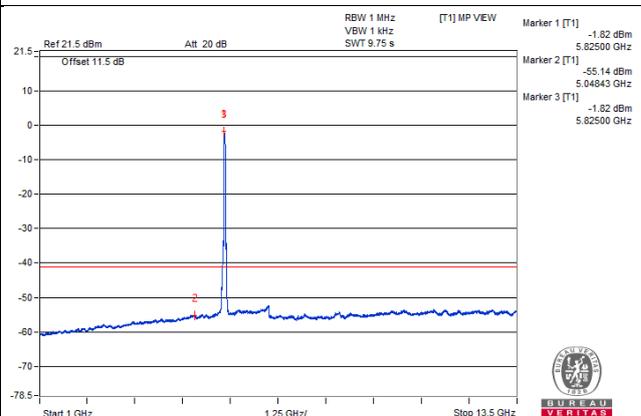
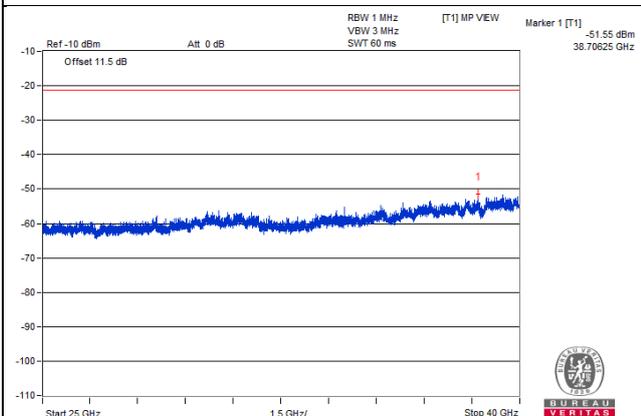
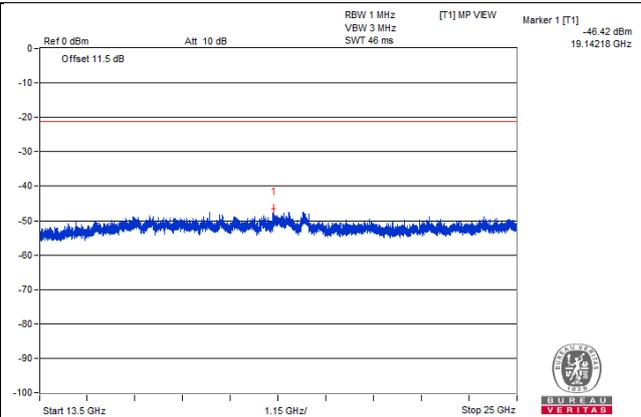
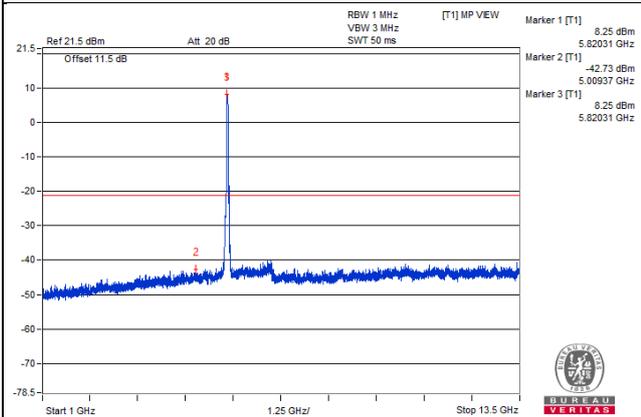
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	3875	60.61 PK	74	-13.39	-45.51	-46.17	8.17	-34.65
2	3892.18	49.38 AV	54	-4.62	-56.93	-57.2	8.17	-45.88
3	#7770.31	61.54 PK	68.2	-6.66	-44.92	-44.88	8.17	-33.72
4	11662.5	64.26 PK	74	-9.74	-43.54	-41.14	8.17	-31.00
5	11650	52.73 AV	54	-1.27	-53.72	-53.71	8.17	-42.53
6	#17517.81	56.39 PK	68.2	-11.81	-49.85	-50.25	8.17	-38.87

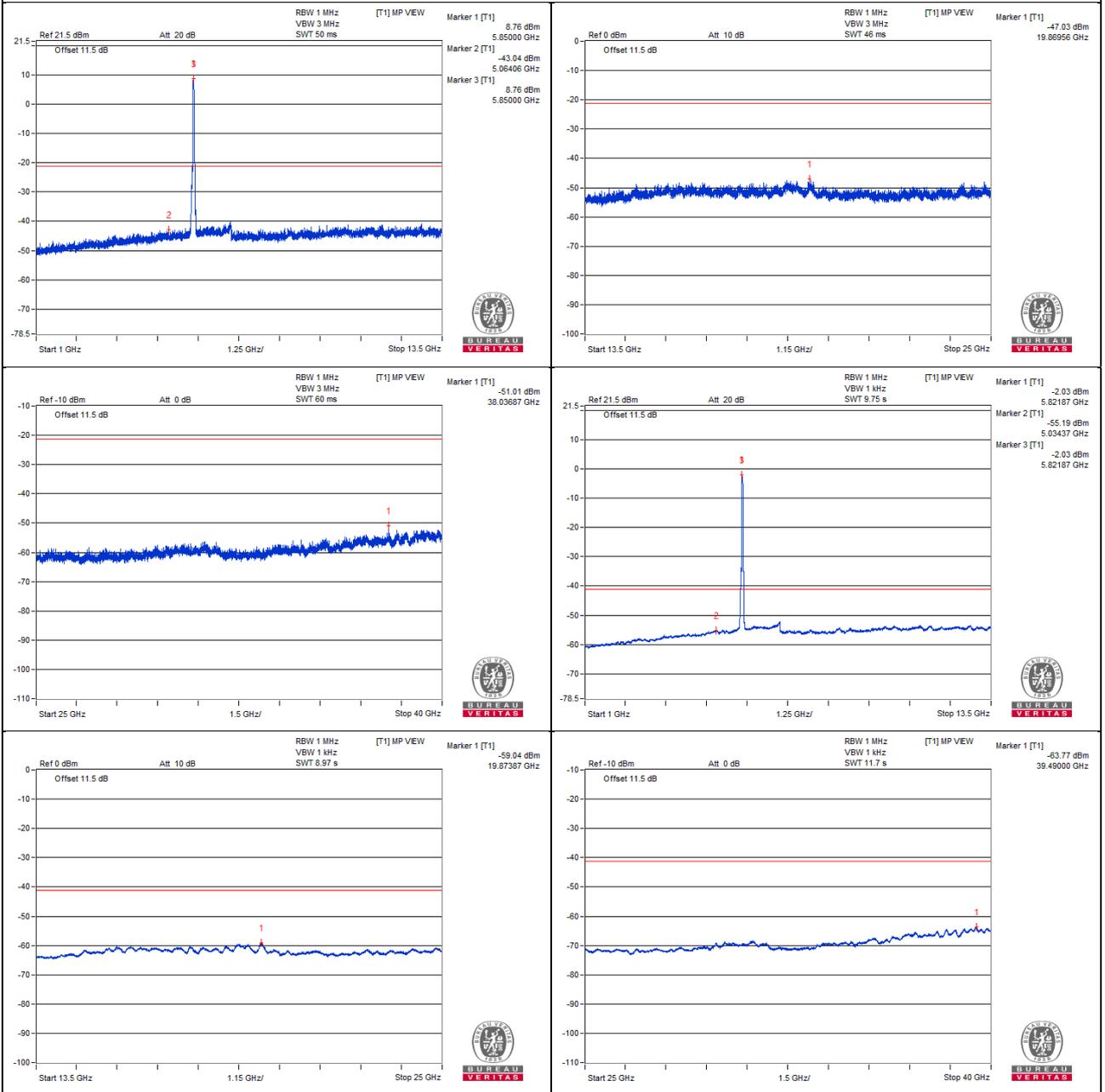
Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. " # " : The frequency is out of the restricted band.

Chain 0

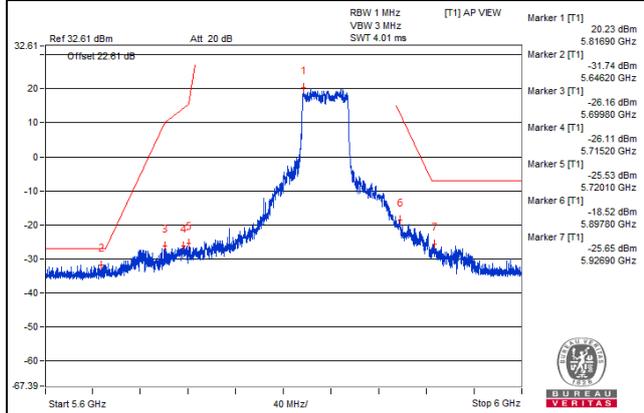


Chain 1

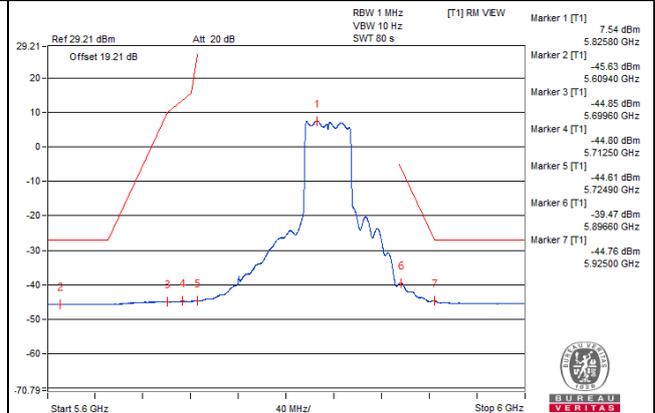


Bandedge

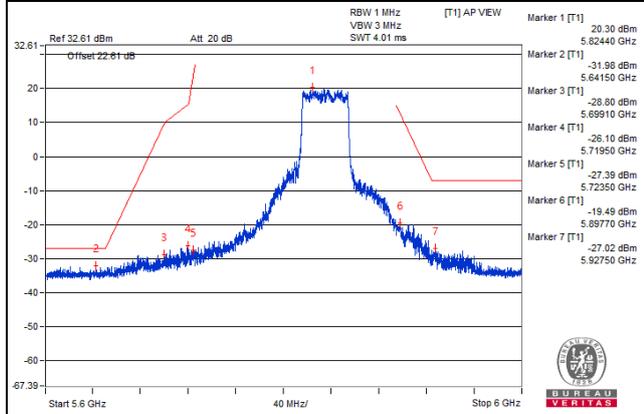
Chain 0_Peak



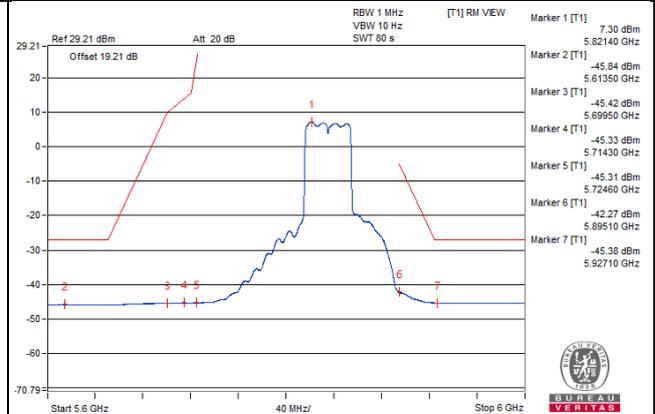
Chain 0_Average



Chain 1_Peak



Chain 1_Average



Note:

1. The offset including attenuator (10 dB), cable loss (1.5 dB), directional gain (8.1 dBi) and number of outputs ($10 \log(2) = 3.01$ dB).
2. The test results were EIRP.

Channel 175

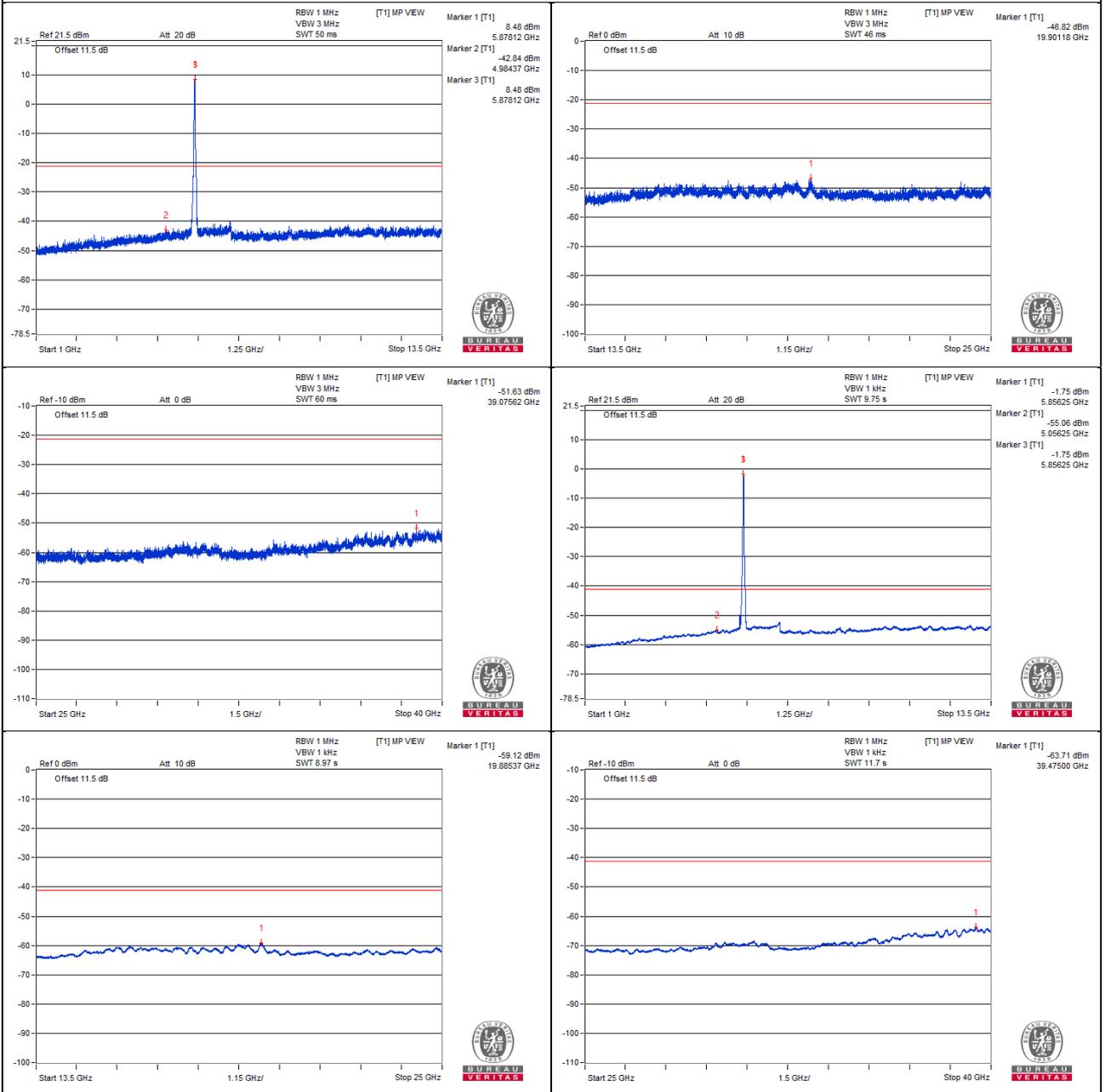
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	3926.56	61.19 PK	74	-12.81	-45.31	-45.19	8.17	-34.07
2	3929.68	49.38 AV	54	-4.62	-57.17	-56.95	8.17	-45.88
3	#7834.37	61.98 PK	68.2	-6.22	-44.21	-44.73	8.17	-33.28
4	11732.81	63.18 PK	74	-10.82	-43.42	-43.1	8.17	-32.08
5	11742.18	51.64 AV	54	-2.36	-54.89	-54.71	8.17	-43.62
6	#17609.81	56.62 PK	68.2	-11.58	-50	-49.64	8.17	-38.64

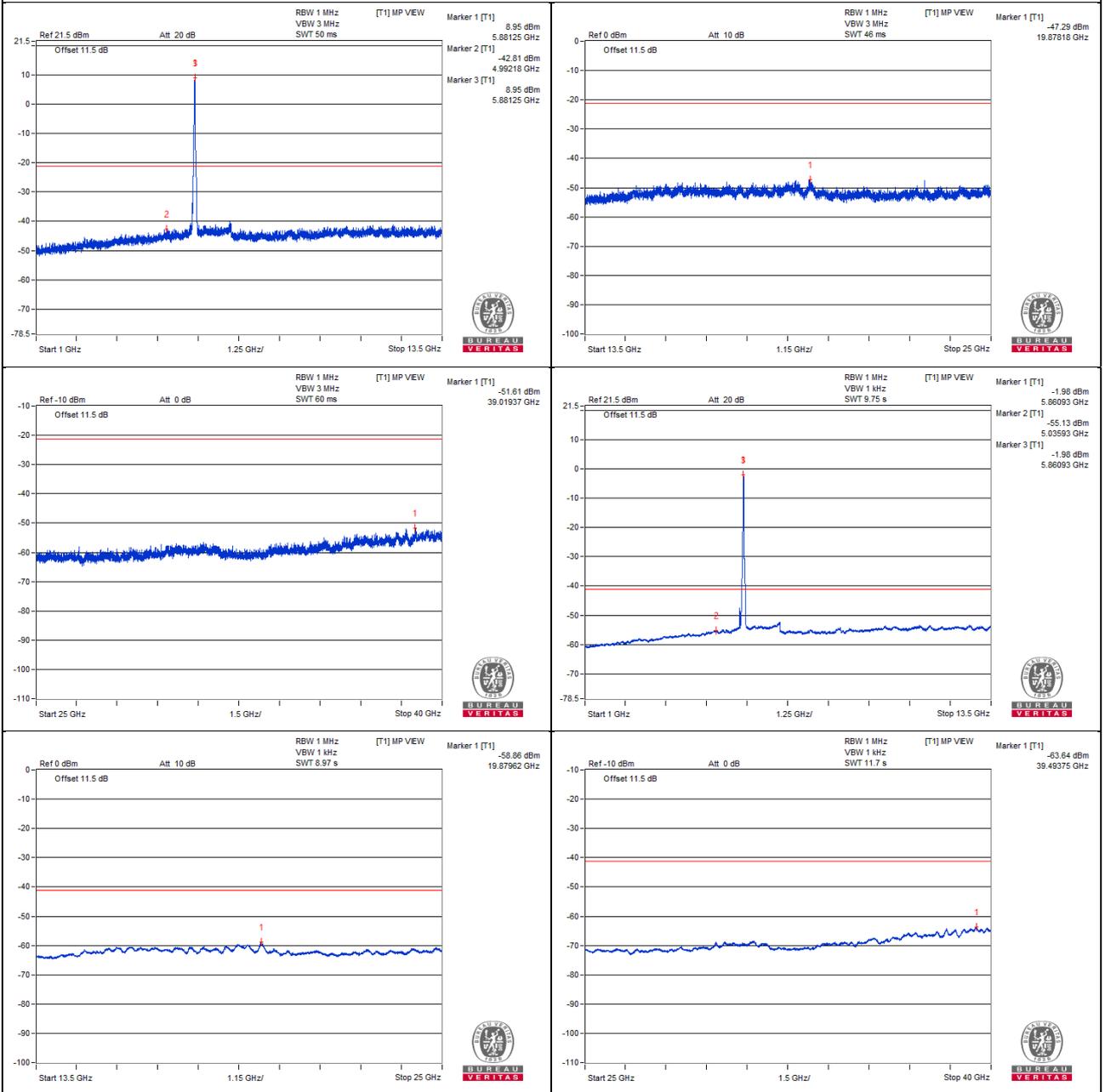
Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. " # " : The frequency is out of the restricted band.

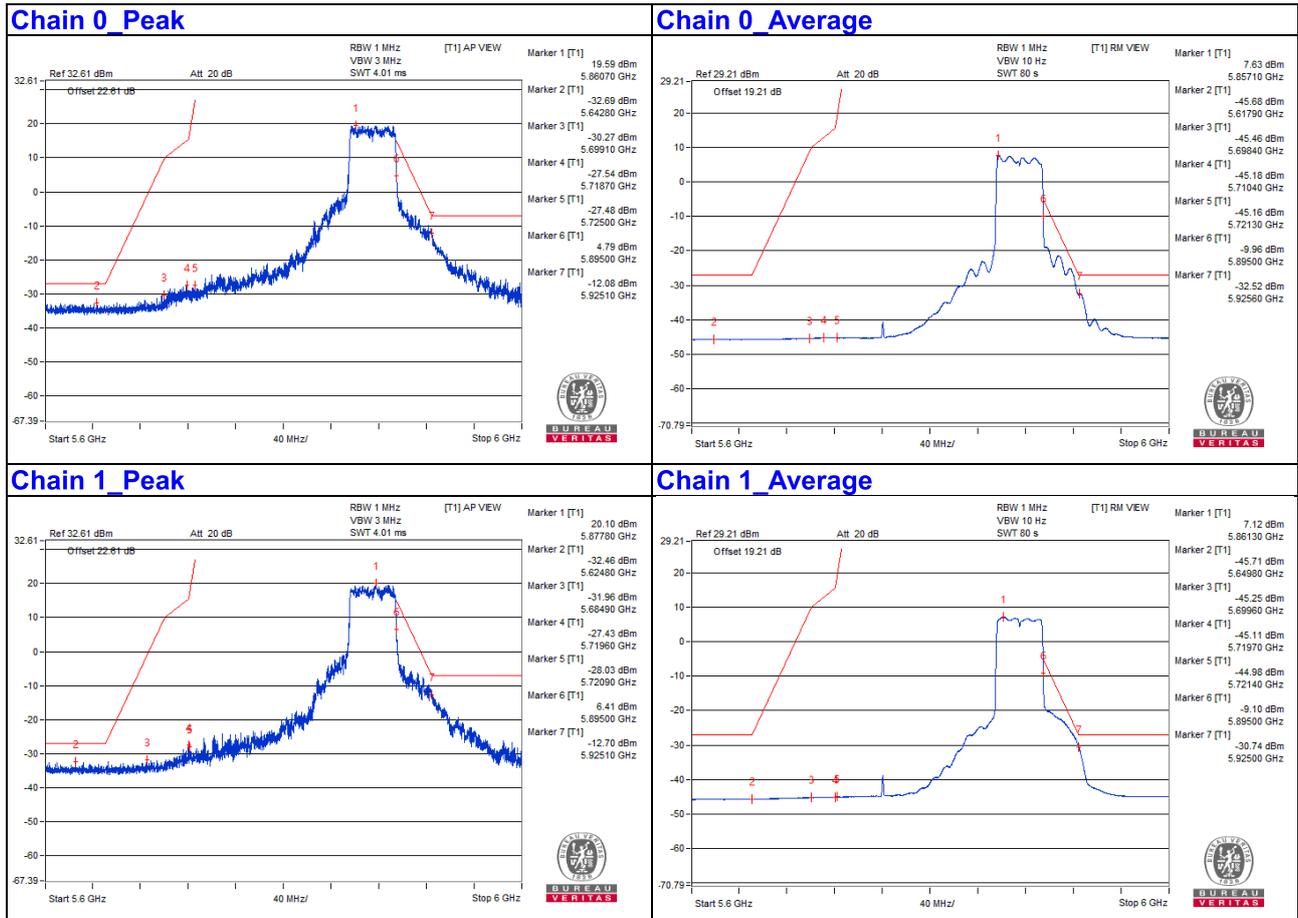
Chain 0



Chain 1



Bandedge



Note:

1. The offset including attenuator (10 dB), cable loss (1.5 dB), directional gain (8.1 dBi) and number of outputs ($10 \log(2) = 3.01$ dB).
2. The test results were EIRP.

802.11ax (RU996)

Channel 171

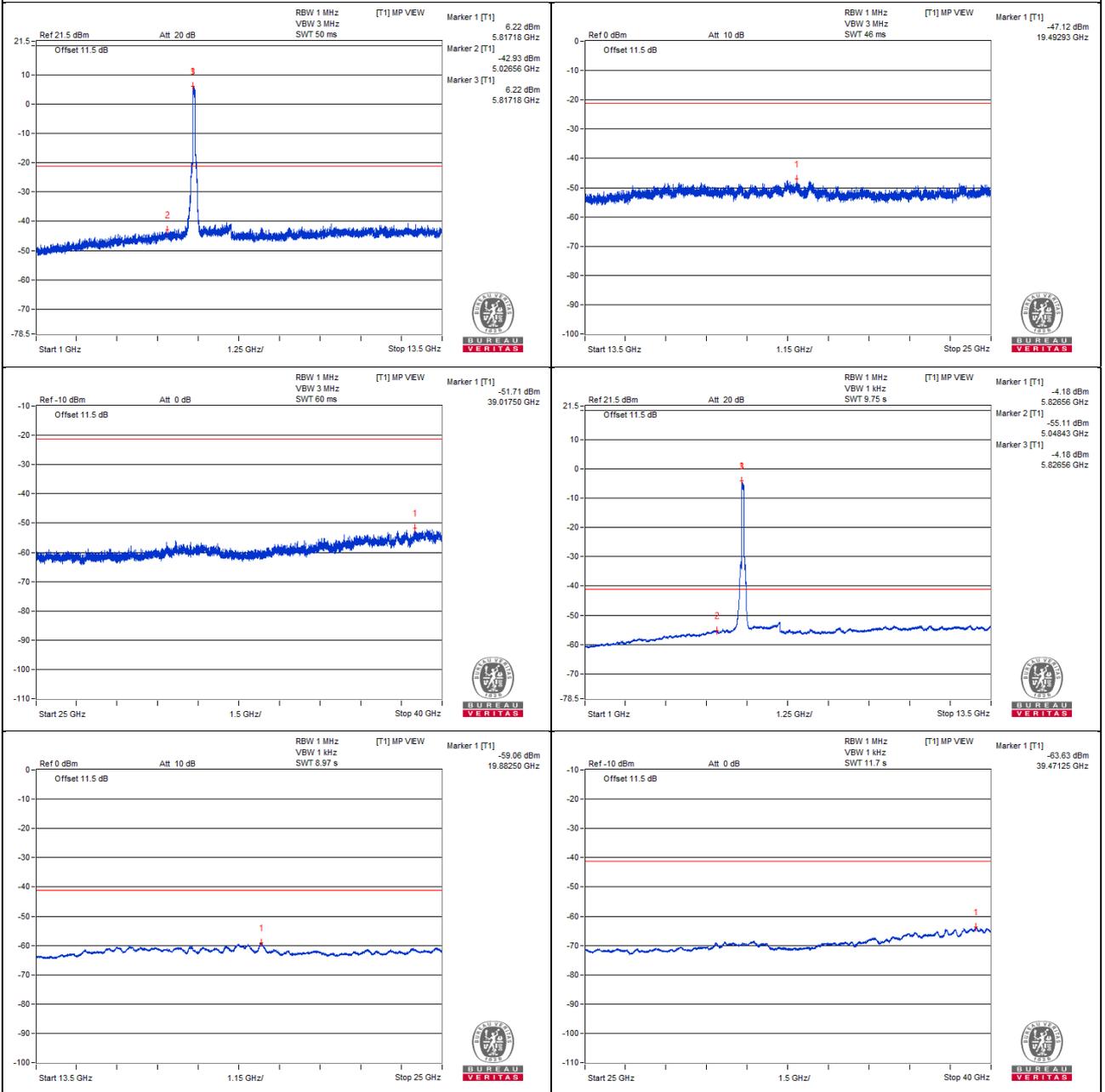
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	3917.18	60.65 PK	74	-13.35	-46.24	-45.38	8.17	-34.61
2	3917.18	49.47 AV	54	-4.53	-57.2	-56.76	8.17	-45.79
3	#7790.62	62.15 PK	68.2	-6.05	-44	-44.6	8.17	-33.11
4	11690.62	63.49 PK	74	-10.51	-43.2	-42.72	8.17	-31.77
5	11690.62	52.29 AV	54	-1.71	-53.99	-54.32	8.17	-42.97
6	#17575.31	56.3 PK	68.2	-11.9	-49.34	-51.12	8.17	-38.96

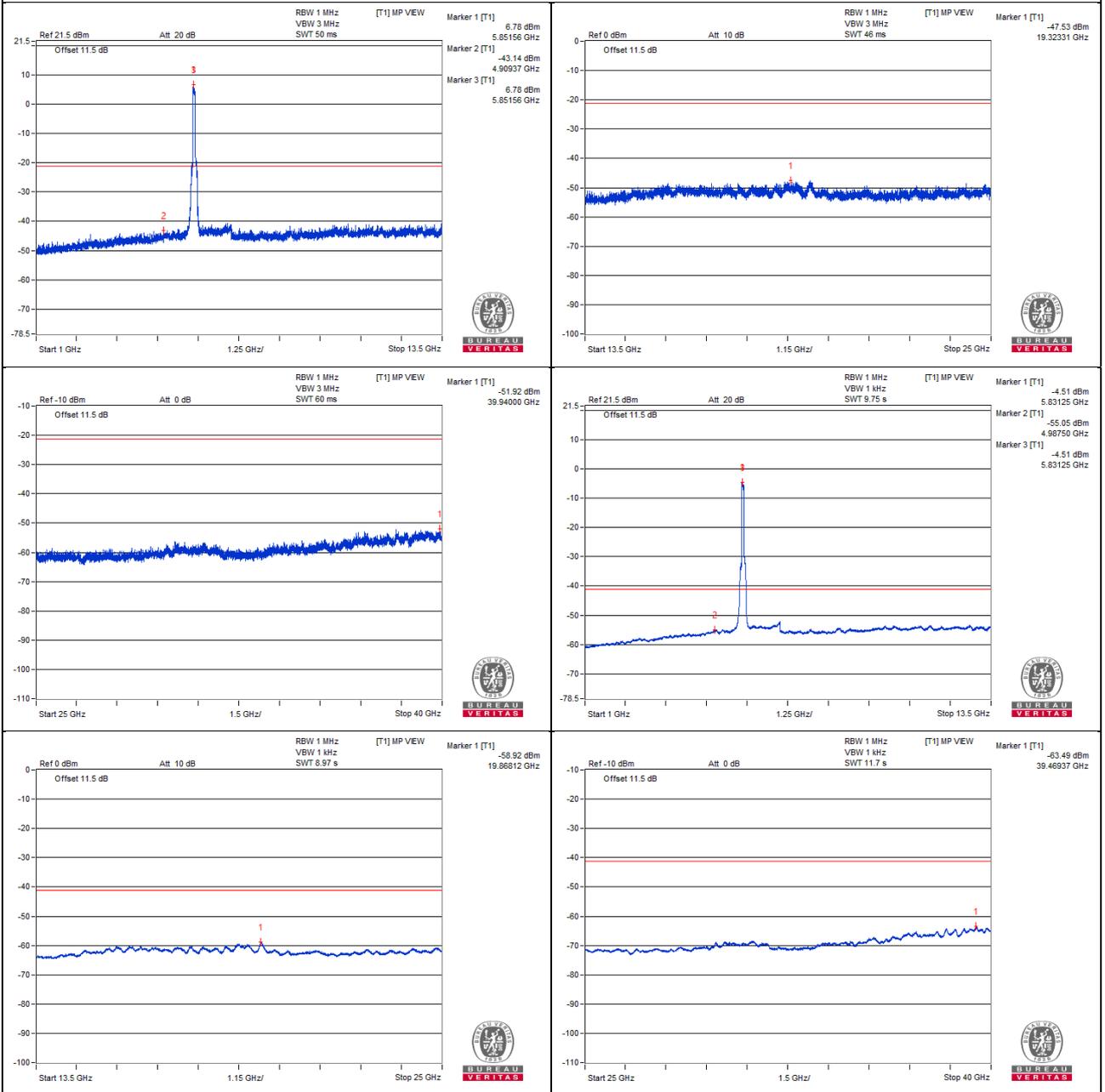
Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. " # " : The frequency is out of the restricted band.

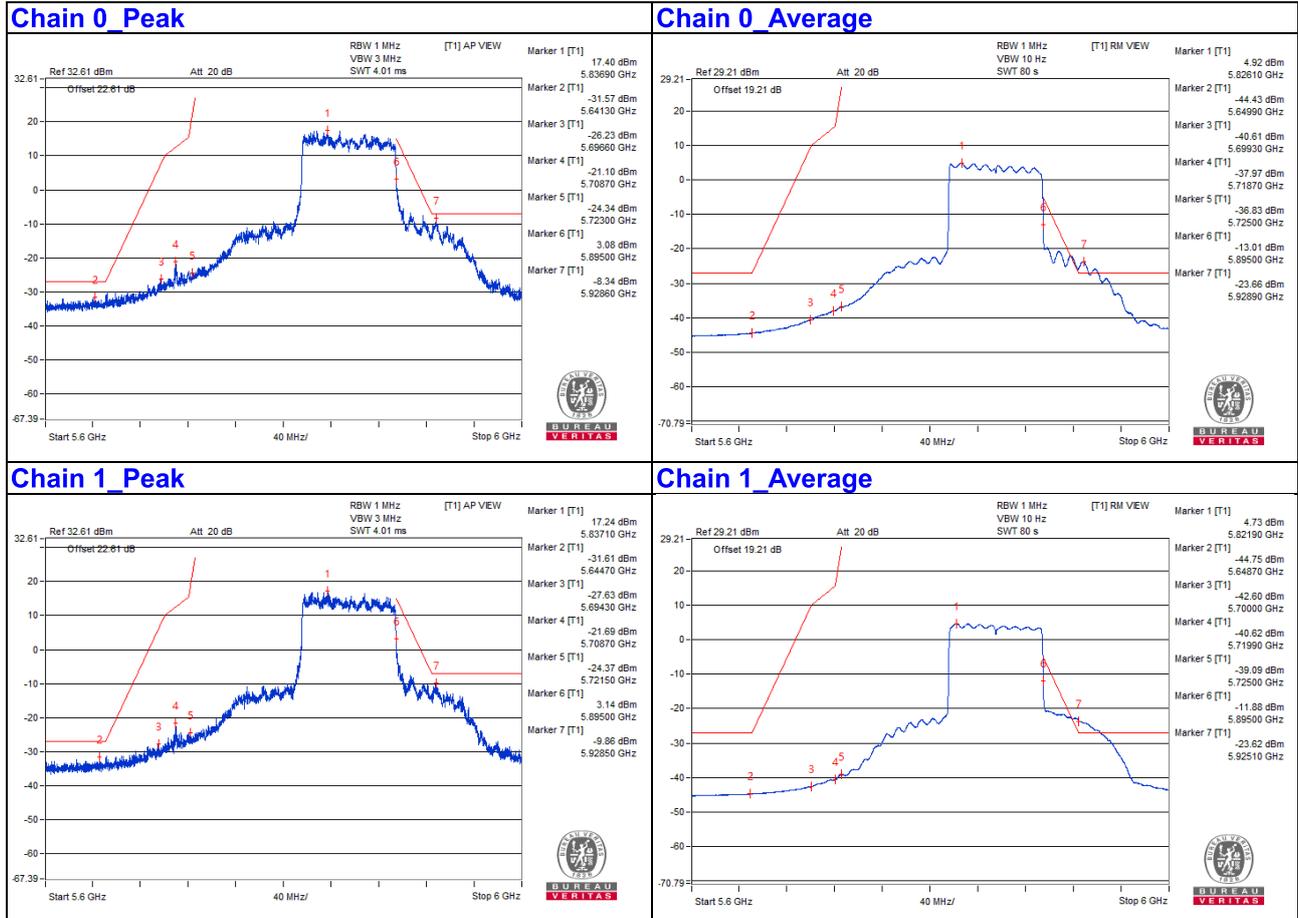
Chain 0



Chain 1



Bandedge



Note:

1. The offset including attenuator (10 dB), cable loss (1.5 dB), directional gain (8.1 dBi) and number of outputs ($10 \log(2) = 3.01$ dB).
2. The test results were EIRP.
3. The emission was verified and the test result was passed by radiated measurement. (Please refer Appendix A)

802.11ax (RU1992)

Channel 163

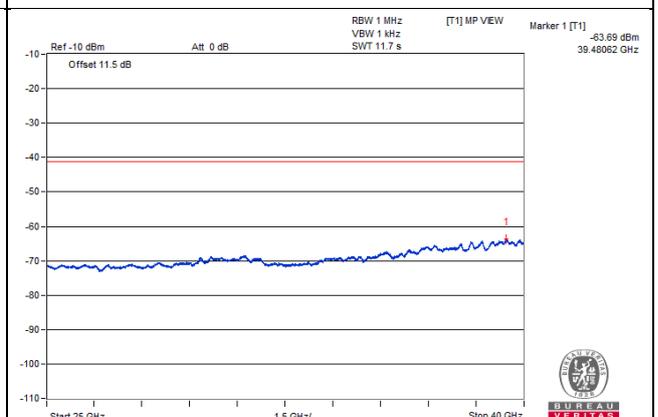
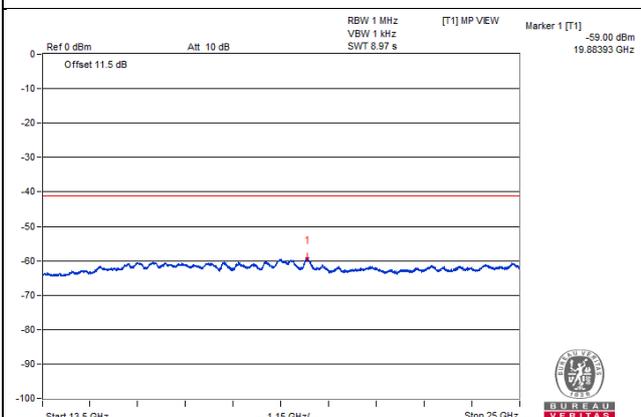
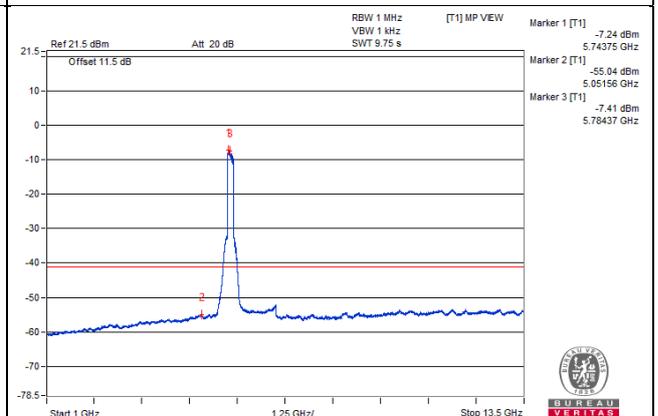
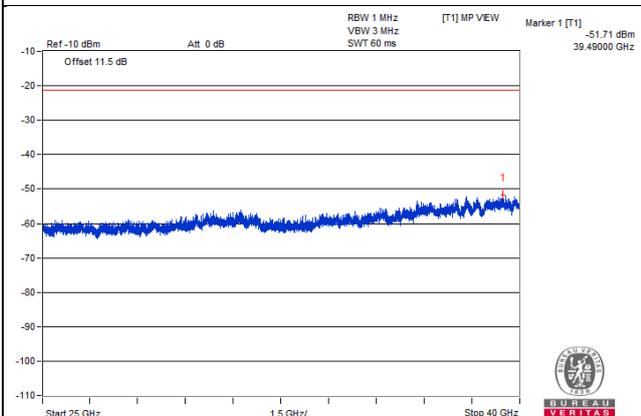
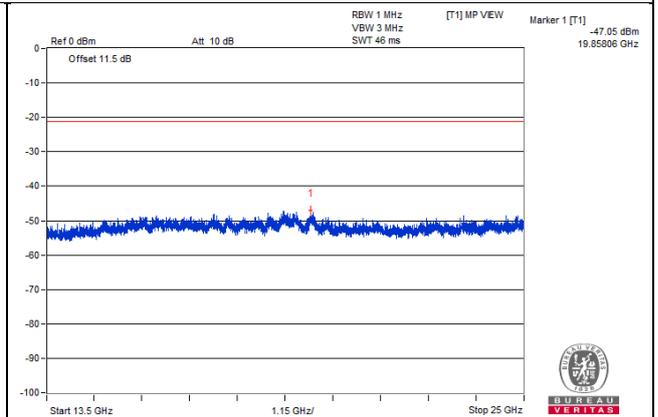
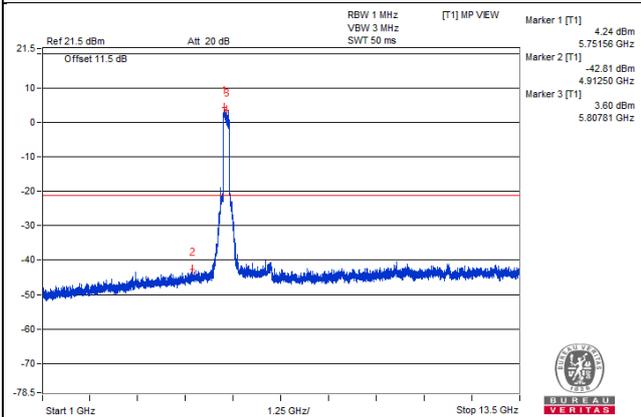
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	3864.06	60.49 PK	74	-13.51	-45.42	-46.55	8.17	-34.77
2	3889.06	49.47 AV	54	-4.53	-57.01	-56.93	8.17	-45.79
3	#7771.87	62.78 PK	68.2	-5.42	-43.77	-43.56	8.17	-32.48
4	11635.93	64.55 PK	74	-9.45	-41.66	-42.13	8.17	-30.71
5	11628.12	52.95 AV	54	-1.05	-53.58	-53.41	8.17	-42.31
6	#17441.62	56.63 PK	68.2	-11.57	-51.28	-48.72	8.17	-38.63

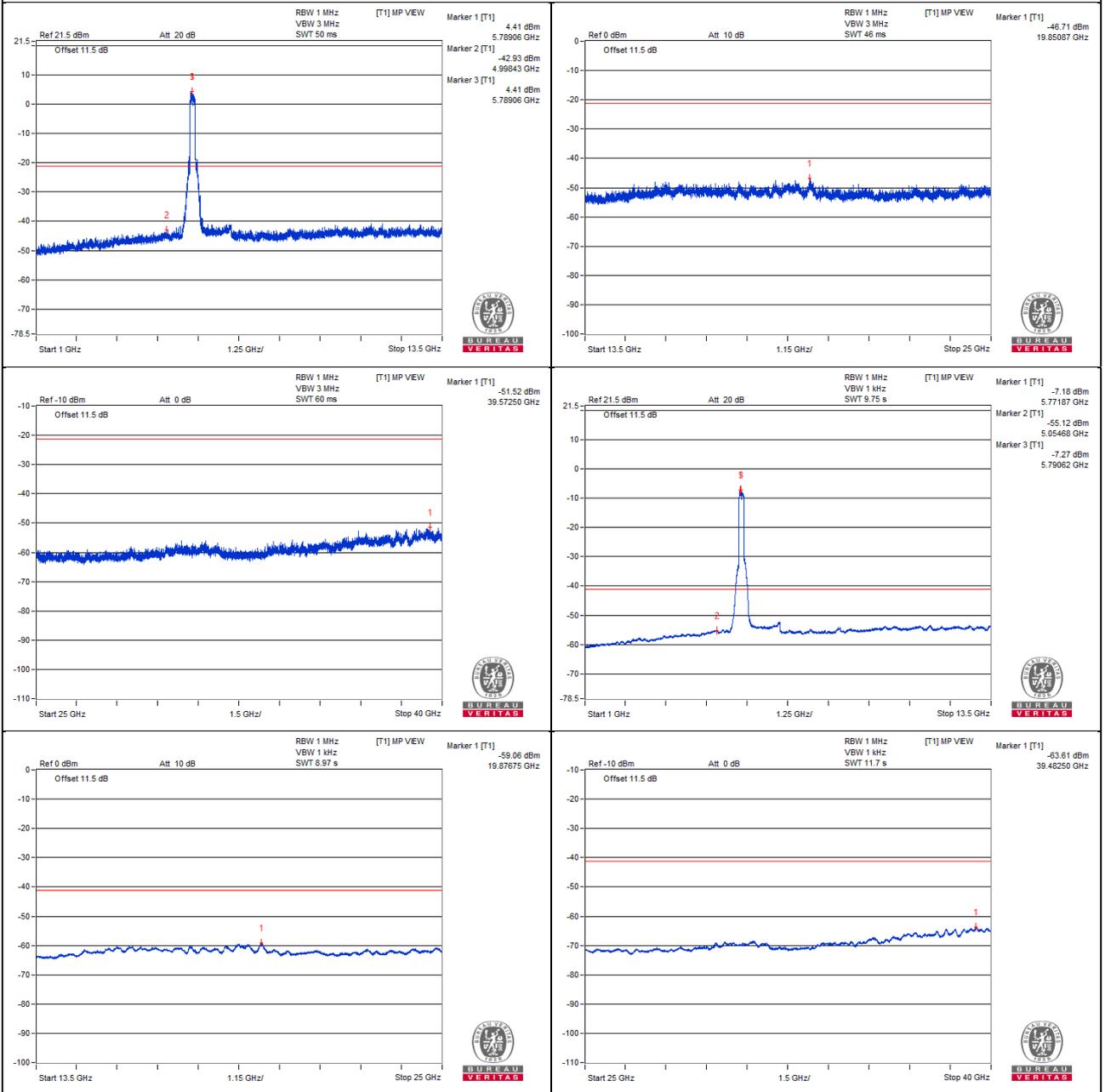
Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. " # " : The frequency is out of the restricted band.

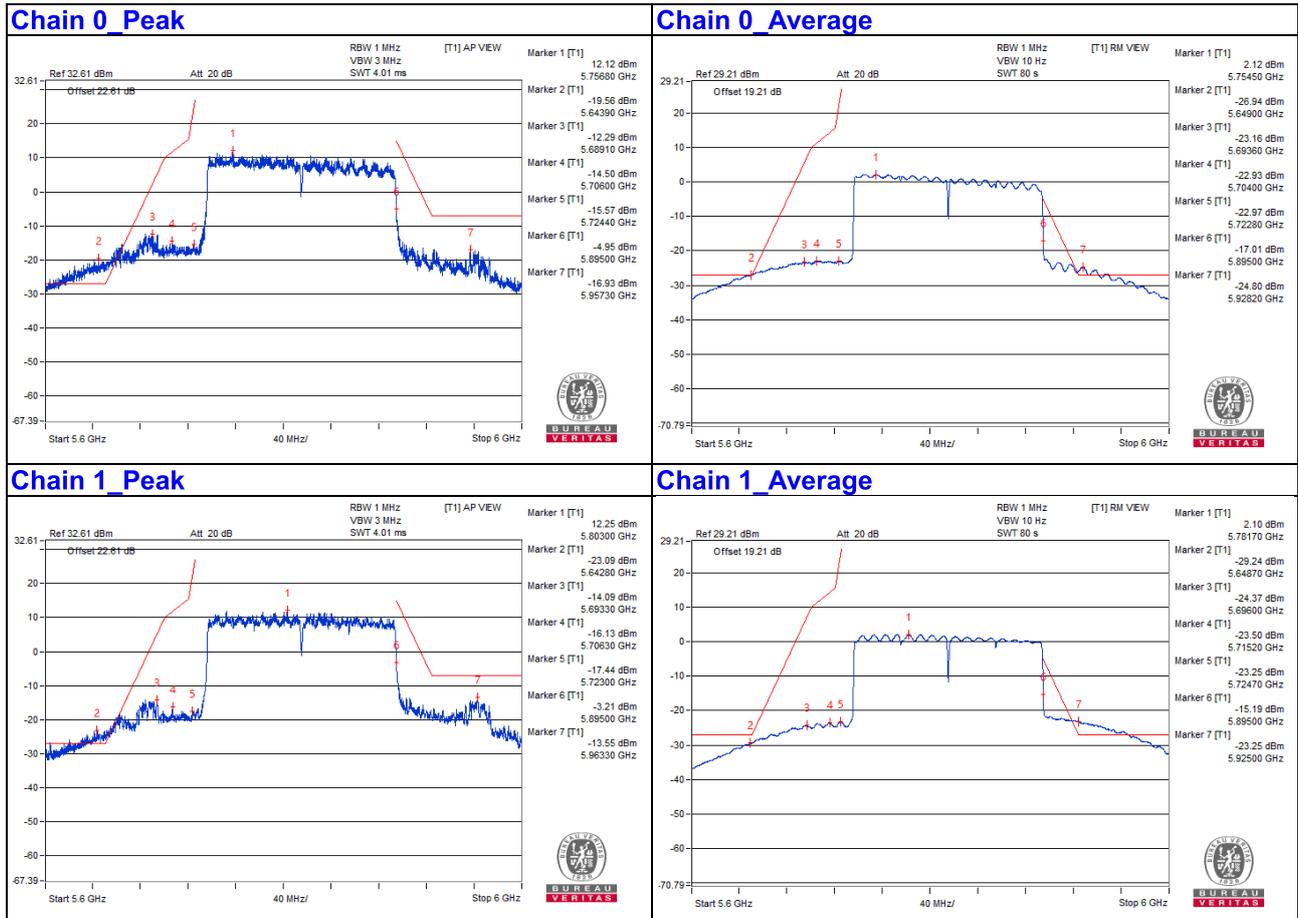
Chain 0



Chain 1



Bandedge



Note:

1. The offset including attenuator (10 dB), cable loss (1.5 dB), directional gain (8.1 dBi) and number of outputs (10 log (2))=3.01 dB).
2. The test results were EIRP.
3. The emission was verified and the test result was passed by radiated measurement. (Please refer Appendix A)

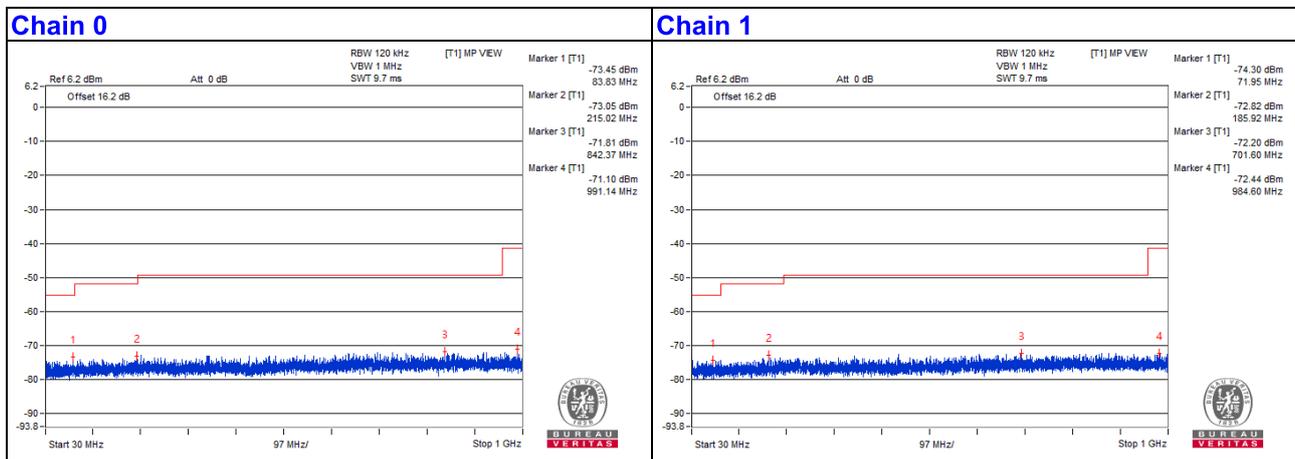
Below 1GHz Data:

802.11ax (HE40) - Channel 175

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	51.94	31.34	40	-8.66	-74.67	-75.57	8.17	-63.92
2	188.35	32.17	43.5	-11.33	-74.78	-73.81	8.17	-63.09
3	356.28	32.27	46	-13.73	-73.14	-75.52	8.17	-62.99
4	557.68	32.8	46	-13.2	-72.86	-74.6	8.17	-62.46
5	798.36	33.66	46	-12.34	-72.25	-73.39	8.17	-61.60
6	928.58	33.7	46	-12.3	-72.01	-73.61	8.17	-61.56

Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

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

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

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 20, 2020	Oct. 19, 2021
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 27, 2020	Oct. 26, 2021
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 26, 2021	Mar. 25, 2022
50 ohms Terminator	50	3	Oct. 26, 2020	Oct. 25, 2021
RF Cable	5D-FB	COCCAB-001	Sep. 26, 2020	Sep. 25, 2021
Fixed attenuator EMCI	STI02-2200-10	005	Aug. 29, 2020	Aug. 28, 2021
Software BVADT	BVADT_Cond_V7.3.7.4	NA	NA	NA

Note:

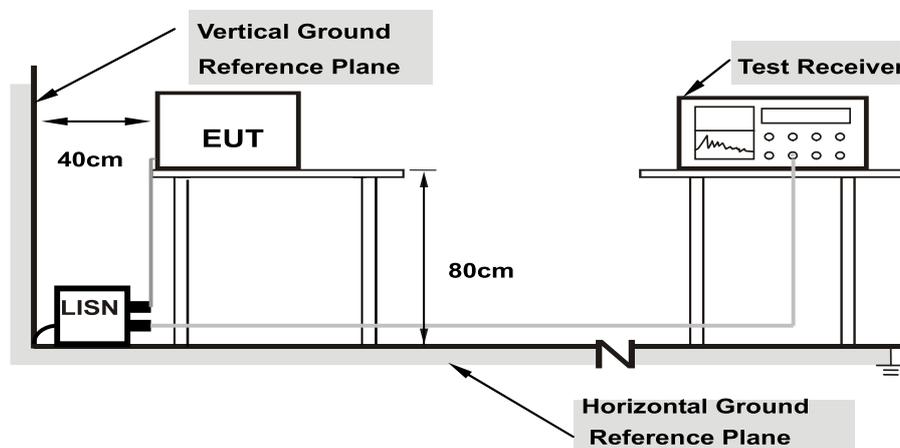
1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
- 3 Tested Date: Aug. 04, 2021

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 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).

4.2.5 EUT Operating Condition

Same as 4.1.5.

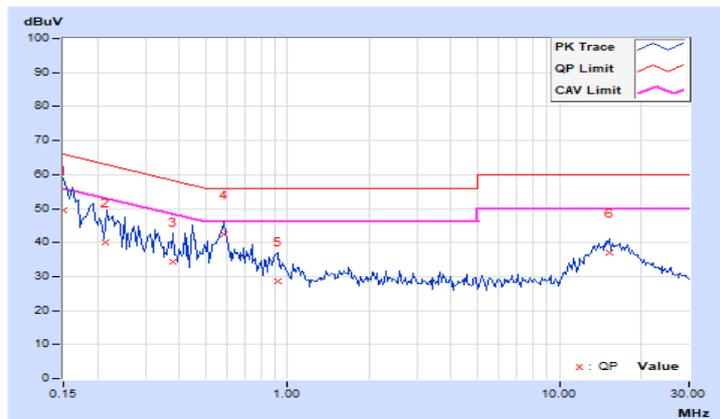
4.2.6 Test Results

RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5875 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15048	9.95	39.54	25.49	49.49	35.44	65.97	55.97	-16.48	-20.53
2	0.21464	9.97	30.24	15.71	40.21	25.68	63.02	53.02	-22.81	-27.34
3	0.38140	9.99	24.50	8.71	34.49	18.70	58.25	48.25	-23.76	-29.55
4	0.58547	10.00	32.48	24.36	42.48	34.36	56.00	46.00	-13.52	-11.64
5	0.91980	10.02	18.54	14.27	28.56	24.29	56.00	46.00	-27.44	-21.71
6	15.20527	10.84	26.26	20.71	37.10	31.55	60.00	50.00	-22.90	-18.45

Remarks:

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

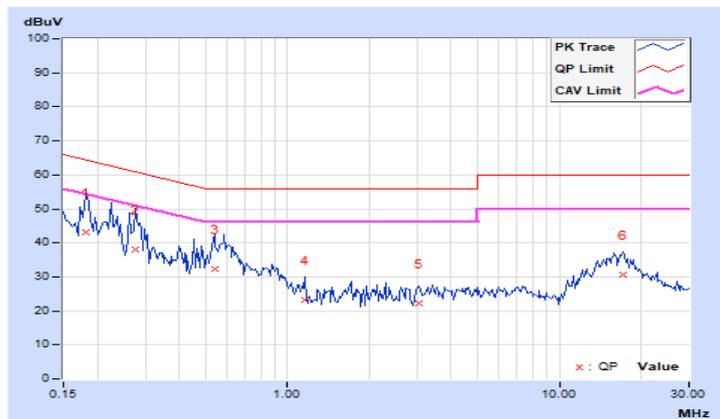


RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5875 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.18147	9.94	33.28	18.28	43.22	28.22	64.42	54.42	-21.20	-26.20
2	0.27526	9.95	28.01	10.29	37.96	20.24	60.96	50.96	-23.00	-30.72
3	0.54018	9.97	22.23	12.72	32.20	22.69	56.00	46.00	-23.80	-23.31
4	1.16039	10.01	13.29	4.30	23.30	14.31	56.00	46.00	-32.70	-31.69
5	3.05884	10.08	12.24	1.75	22.32	11.83	56.00	46.00	-33.68	-34.17
6	17.05442	10.72	20.01	13.31	30.73	24.03	60.00	50.00	-29.27	-25.97

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

Device Category		Limit (Max Average Power)
<input type="checkbox"/>	Indoor access point	EIRP 36 dBm
<input type="checkbox"/>	Subordinate device	EIRP 36 dBm
<input checked="" type="checkbox"/>	Client device	EIRP 30 dBm

Note: For all U-NII-4 and U-NII-3 & -4 span channels shall met above EIRP values.

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

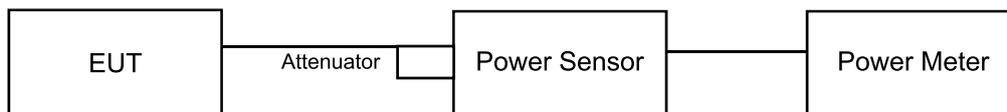
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

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



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

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

4.3.5 EUT Operating Condition

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

4.3.6 Test Result

Directional Gain Calculation	
Directional gain = 5.09 dBi + 10log(2) = 8.1 dBi (Antenna Model: 260-25083)	
Directional gain = 4.71 dBi + 10log(2) = 7.72 dBi (Antenna Model: 260-25084)	
The highest directional gain used for EIRP calculation.	

802.11a

Conducted Power:

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
169	5845	12.68	12.91	38.079	15.81
173	5865	12.56	12.97	37.845	15.78
177	5885	12.96	12.54	37.717	15.77

EIRP:

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
169	5845	15.81	8.1	246.037	23.91	30	Pass
173	5865	15.78	8.1	244.343	23.88	30	Pass
177	5885	15.77	8.1	243.781	23.87	30	Pass

802.11ac (VHT20)

Conducted Power:

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
169	5845	13.01	13.15	40.652	16.09
173	5865	12.84	13.14	39.837	16.00
177	5885	13.01	12.73	38.749	15.88

EIRP:

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
169	5845	16.09	8.1	262.422	24.19	30	Pass
173	5865	16.00	8.1	257.04	24.10	30	Pass
177	5885	15.88	8.1	250.035	23.98	30	Pass

802.11ac (VHT40)

Conducted Power:

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
167	5835	15.08	15.41	66.964	18.26
175	5875	15.19	15.31	66.999	18.26

EIRP:

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
167	5835	18.26	8.1	432.514	26.36	30	Pass
175	5875	18.26	8.1	432.514	26.36	30	Pass

802.11ac (VHT80)

Conducted Power:

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
171	5855	14.62	14.88	59.734	17.76

EIRP:

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
171	5855	17.76	8.1	385.478	25.86	30	Pass

802.11ac (VHT160)

Conducted Power:

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
163	5815	13.28	13.97	46.227	16.65

EIRP:

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
163	5815	16.65	8.1	298.538	24.75	30	Pass

802.11ax (HE20)

Conducted Power:

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
169	5845	13.08	13.37	42.051	16.24
173	5865	13.06	13.38	42.007	16.23
177	5885	13.24	12.96	40.856	16.11

EIRP:

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
169	5845	16.24	8.1	271.644	24.34	30	Pass
173	5865	16.23	8.1	271.019	24.33	30	Pass
177	5885	16.11	8.1	263.633	24.21	30	Pass

802.11ax (HE40)

Conducted Power:

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
167	5835	15.17	15.45	67.96	18.32
175	5875	15.29	15.39	68.4	18.35

EIRP:

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
167	5835	18.32	8.1	438.531	26.42	30	Pass
175	5875	18.35	8.1	441.57	26.45	30	Pass

802.11ax (HE80)

Conducted Power:

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
171	5855	14.69	14.94	60.633	17.83

EIRP:

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
171	5855	17.83	8.1	391.742	25.93	30	Pass

802.11ax (HE160)

Conducted Power:

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
163	5815	13.33	14.06	46.996	16.72

EIRP:

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
163	5815	16.72	8.1	303.389	24.82	30	Pass

802.11ax (RU26)

Conducted Power:

RU Configuration	Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
			Chain 0	Chain 1		
26/0	169	5845	6.45	5.53	7.988	9.02
26/4	173	5865	6.30	6.09	8.33	9.21
26/8	177	5885	5.72	6.23	7.93	8.99

EIRP:

RU Configuration	Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
26/0	169	5845	9.02	8.1	51.523	17.12	30	Pass
26/4	173	5865	9.21	8.1	53.827	17.31	30	Pass
26/8	177	5885	8.99	8.1	51.168	17.09	30	Pass

802.11ax (RU52)

Conducted Power:

RU Configuration	Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
			Chain 0	Chain 1		
52/37	169	5845	9.02	9.14	16.183	12.09
52/38	173	5865	8.15	9.98	16.485	12.17
52/40	177	5885	8.26	9.43	15.469	11.89

EIRP:

RU Configuration	Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
52/37	169	5845	12.09	8.1	104.472	20.19	30	Pass
52/38	173	5865	12.17	8.1	106.414	20.27	30	Pass
52/40	177	5885	11.89	8.1	99.77	19.99	30	Pass

802.11ax (RU106)

Conducted Power:

RU Configuration	Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
			Chain 0	Chain 1		
106/53	169	5845	11.68	12.29	31.667	15.01
106/53	173	5865	11.72	12.14	31.228	14.95
106/54	177	5885	12.21	12.10	32.852	15.17

EIRP:

RU Configuration	Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
106/53	169	5845	15.01	8.1	204.644	23.11	30	Pass
106/53	173	5865	14.95	8.1	201.837	23.05	30	Pass
106/54	177	5885	15.17	8.1	212.324	23.27	30	Pass

802.11ax (RU242)

Conducted Power:

RU Configuration	Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
			Chain 0	Chain 1		
242/61	169	5845	14.35	14.60	56.067	17.49
242/61	173	5865	14.26	14.65	55.843	17.47
242/61	177	5885	14.48	14.28	54.846	17.39

EIRP:

RU Configuration	Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
242/61	169	5845	17.49	8.1	362.243	25.59	30	Pass
242/61	173	5865	17.47	8.1	360.579	25.57	30	Pass
242/61	177	5885	17.39	8.1	353.997	25.49	30	Pass

802.11ax (RU484)

Conducted Power:

RU Configuration	Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
			Chain 0	Chain 1		
484/65	167	5835	14.68	14.58	58.084	17.64
484/65	175	5875	14.59	14.77	58.766	17.69

EIRP:

RU Configuration	Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
484/65	167	5835	17.64	8.1	374.973	25.74	30	Pass
484/65	175	5875	17.69	8.1	379.315	25.79	30	Pass

802.11ax (RU996)

Conducted Power:

RU Configuration	Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
			Chain 0	Chain 1		
996/67	171	5855	14.39	14.41	55.085	17.41

EIRP:

RU Configuration	Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
996/67	171	5855	17.41	8.1	355.631	25.51	30	Pass

802.11ax (RU1992)

Conducted Power:

RU Configuration	Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
			Chain 0	Chain 1		
1992/68	163	5815	11.69	11.74	29.685	14.73

EIRP:

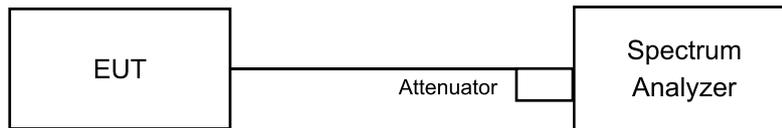
RU Configuration	Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
1992/68	163	5815	14.73	8.1	191.867	22.83	30	Pass

4.4 6dB Bandwidth Measurement

4.4.1 Limits of Emission Bandwidth Measurement

Within the 5.725-5.850 GHz and 5.850-5.895 GHz bands, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

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

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

4.4.5 EUT Operating Condition

Same as Item 4.3.5.

4.4.6 Test Results

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
169	5845	15.14	15.18	0.5	Pass
173	5865	15.14	15.17	0.5	Pass
177	5885	15.17	15.16	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
169	5845	15.34	15.23	0.5	Pass
173	5865	16.07	15.81	0.5	Pass
177	5885	16.11	16.16	0.5	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
167	5835	35.62	35.25	0.5	Pass
175	5875	34.31	36.14	0.5	Pass

802.11ax (HE80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
171	5855	67.81	74.05	0.5	Pass

802.11ax (HE160)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
163	5815	130.54	109.18	0.5	Pass

802.11ax (RU26)

RU Configuration	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
			Chain 0	Chain 1		
26/0	169	5845	2.1	17.06	0.5	Pass
26/4	173	5865	2.67	15.01	0.5	Pass
26/8	177	5885	14.57	2.12	0.5	Pass

802.11ax (RU52)

RU Configuration	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
			Chain 0	Chain 1		
52/37	169	5845	15.86	17.12	0.5	Pass
52/38	173	5865	15.1	15.15	0.5	Pass
52/40	177	5885	17.15	17.13	0.5	Pass

802.11ax (RU106)

RU Configuration	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
			Chain 0	Chain 1		
106/53	169	5845	17.21	18.11	0.5	Pass
106/53	173	5865	17.22	18.18	0.5	Pass
106/54	177	5885	17.17	17.41	0.5	Pass

802.11ax (RU242)

RU Configuration	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
			Chain 0	Chain 1		
242/61	169	5845	19.08	19.04	0.5	Pass
242/61	173	5865	19.14	19.11	0.5	Pass
242/61	177	5885	19.13	19.12	0.5	Pass

802.11ax (RU484)

RU Configuration	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
			Chain 0	Chain 1		
484/65	167	5835	38.18	38.28	0.5	Pass
484/65	175	5875	38.18	38.33	0.5	Pass

802.11ax (RU996)

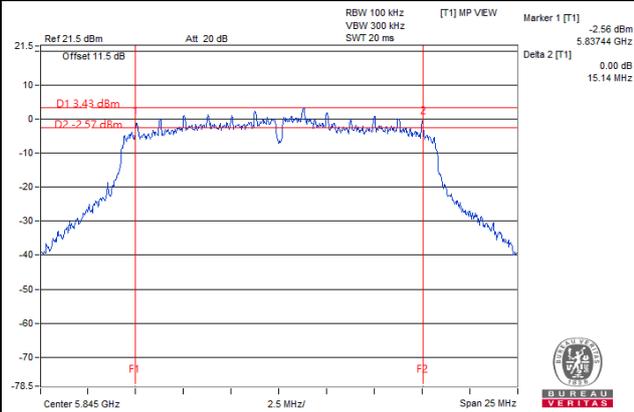
RU Configuration	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
			Chain 0	Chain 1		
996/67	171	5855	76.92	78.07	0.5	Pass

802.11ax (RU1992)

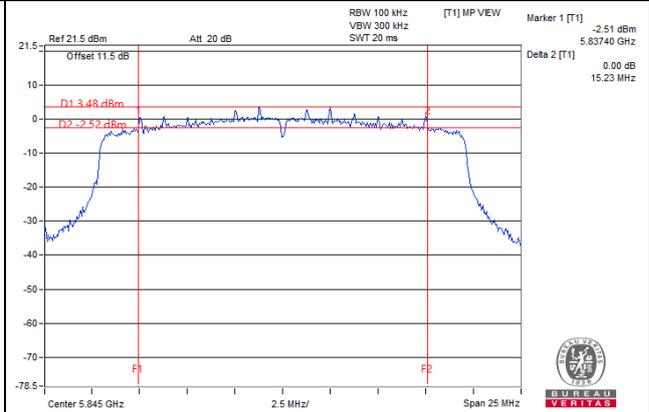
RU Configuration	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
			Chain 0	Chain 1		
1992/68	163	5815	157.07	158.29	0.5	Pass

Spectrum Plot of Worst Value

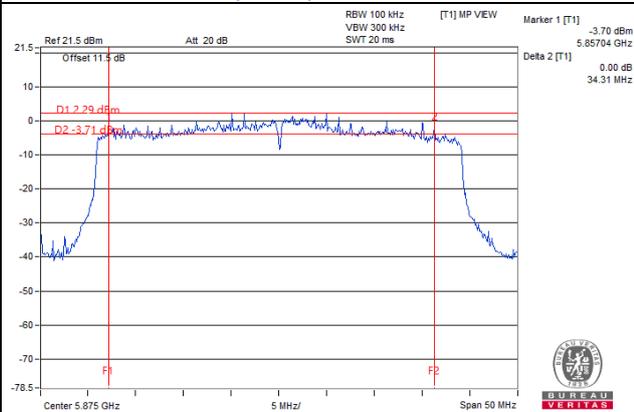
802.11a_Chain 0 / CH169



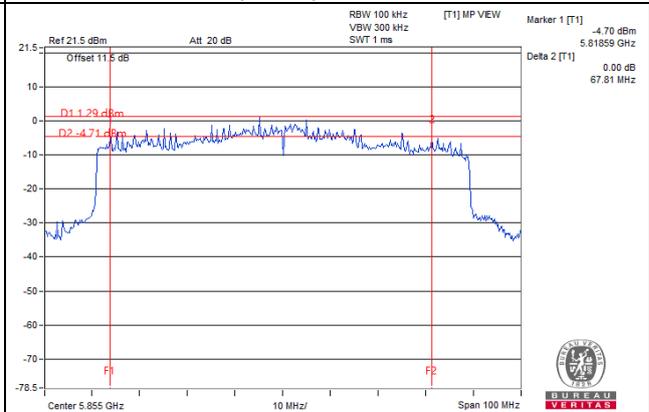
802.11ax (HE20)_Chain 1 / CH169



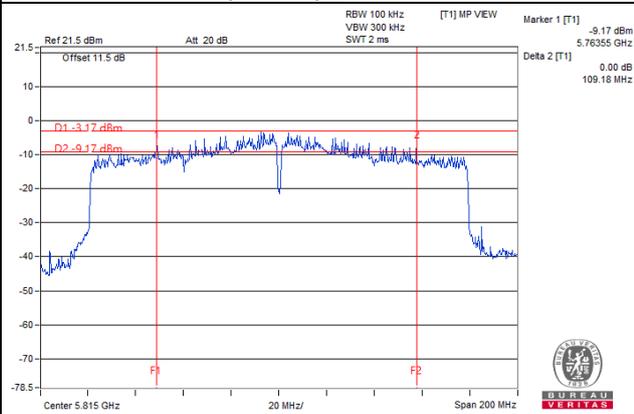
802.11ax (HE40)_Chain 0 / CH175



802.11ax (HE80)_Chain 0 / CH171

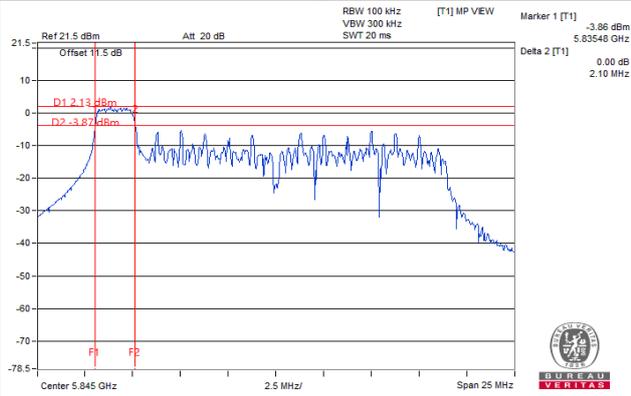


802.11ax (HE160)_Chain 1 / CH163

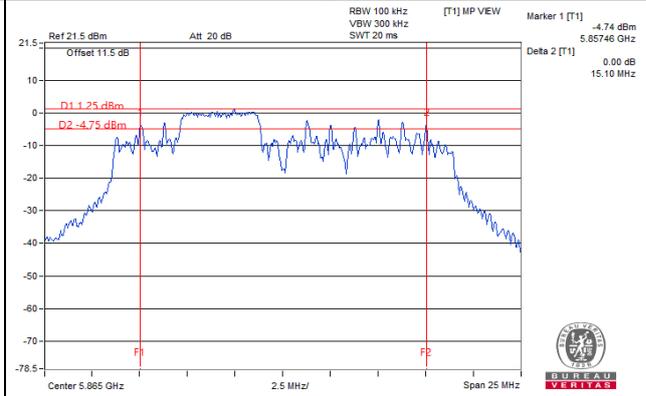


Spectrum Plot of Worst Value

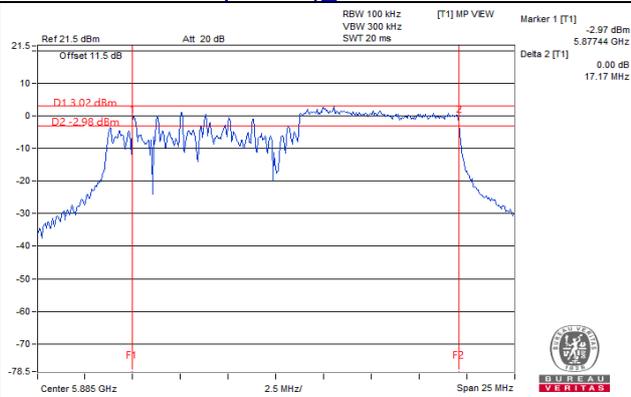
802.11ax (RU26)_Chain 0 / CH169



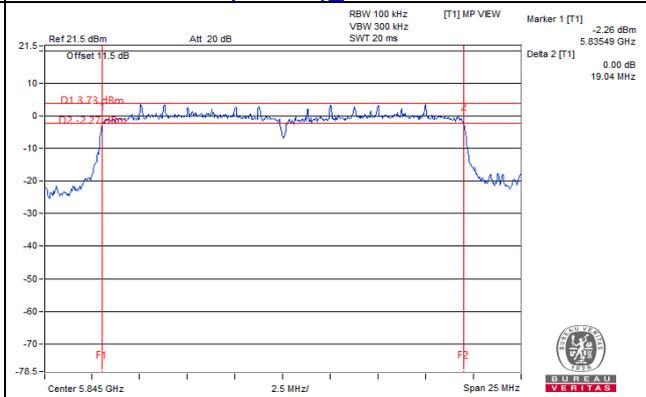
802.11ax (RU52)_Chain 0 / CH173



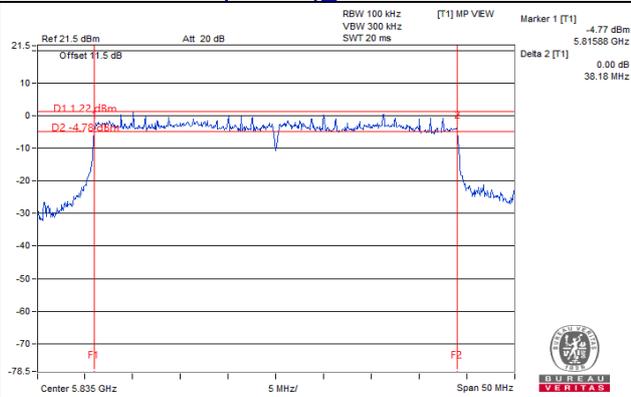
802.11ax (RU106)_Chain 0 / CH177



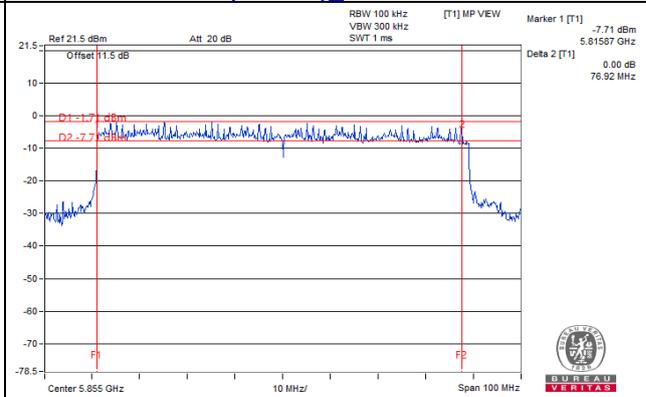
802.11ax (RU242)_Chain 1 / CH169



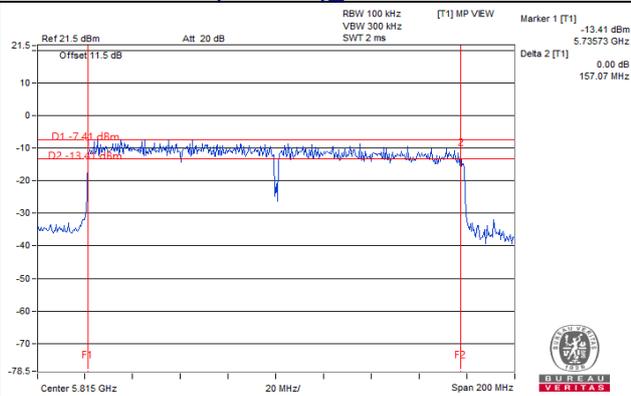
802.11ax (RU484)_Chain 0 / CH167



802.11ax (RU996)_Chain 0 / CH171



802.11ax (RU1992)_Chain 0 / CH163



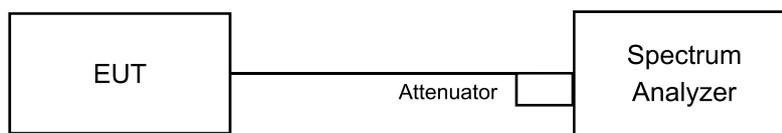
4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

Device Category		Limit
<input type="checkbox"/>	Indoor access point	EIRP 20 dBm/MHz
<input type="checkbox"/>	Subordinate device	EIRP 20 dBm/MHz
<input checked="" type="checkbox"/>	Client device	EIRP 14 dBm/MHz

Note: For all U-NII-4 and U-NII-3 & -4 span channels shall met above EIRP values.

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-3 & -4 span channels:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 300 kHz, Set VBW \geq 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 1 MHz by adjusting (increasing) the measured power by a bandwidth correction factor (BWCF) where $BWCF = 10\log(1 \text{ MHz}/300\text{kHz})$
5. Sweep time = auto, trigger set to "free run".

For fall within U-NII-4 channels:

Using method SA-1

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

4.5.5 EUT Operating Condition

Same as Item 4.3.5.

4.5.6 Test Results

Directional Gain Calculation									
Directional gain = 5.09 dBi + 10log(2) = 8.1 dBi (Antenna Model: 260-25083)									
Directional gain = 4.71 dBi + 10log(2) = 7.72 dBi (Antenna Model: 260-25084)									
The highest directional gain used for EIRP PSD calculation.									

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1						
169	5845	-2.19	-2.73	0.56	5.79	8.10	13.89	14.00	Pass

Note: Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1					
173	5865	3.09	2.46	5.80	8.10	13.90	14.00	Pass
177	5885	3.40	2.00	5.77	8.10	13.87	14.00	Pass

Note: 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.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1						
169	5845	-2.31	-2.93	0.40	5.63	8.10	13.73	14.00	Pass

Note: Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1					
173	5865	3.16	2.42	5.82	8.10	13.92	14.00	Pass
177	5885	3.13	2.06	5.64	8.10	13.74	14.00	Pass

Note: 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.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1						
167	5835	-2.63	-3.19	0.11	5.34	8.10	13.44	14.00	Pass

Note: Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1					
175	5875	2.51	1.69	5.13	8.10	13.23	14.00	Pass

Note: 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.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1						
171	5855	-5.50	-5.71	-2.59	2.64	8.10	10.74	14.00	Pass

Note: Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.

802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1						
163	5815	-9.85	-9.28	-6.55	-1.32	8.10	6.78	14.00	Pass

Note: Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.

802.11ax (RU26)

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
			Chain 0	Chain 1						
26/0	169	5845	-2.69	-2.19	0.58	5.81	8.10	13.91	14.00	Pass

Note: Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
			Chain 0	Chain 1					
26/4	173	5865	2.67	2.79	5.74	8.10	13.84	14.00	Pass
26/8	177	5885	2.60	2.88	5.75	8.10	13.85	14.00	Pass

Note: 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.

802.11ax (RU52)

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
			Chain 0	Chain 1						
52/37	169	5845	-2.49	-2.47	0.53	5.76	8.10	13.86	14.00	Pass

Note: Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
			Chain 0	Chain 1					
52/38	173	5865	1.39	3.70	5.71	8.10	13.81	14.00	Pass
52/40	177	5885	2.05	3.58	5.89	8.10	13.99	14.00	Pass

Note: 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.

802.11ax (RU106)

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
			Chain 0	Chain 1						
106/53	169	5845	-2.70	-2.50	0.41	5.64	8.10	13.74	14.00	Pass

Note: Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
			Chain 0	Chain 1					
106/53	173	5865	3.03	2.48	5.77	8.10	13.87	14.00	Pass
106/54	177	5885	3.09	2.34	5.74	8.10	13.84	14.00	Pass

Note: 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.

802.11ax (RU242)

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
			Chain 0	Chain 1						
242/61	169	5845	-2.30	-2.45	0.64	5.87	8.10	13.97	14.00	Pass

Note: Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
			Chain 0	Chain 1					
242/61	173	5865	2.79	1.93	5.39	8.10	13.49	14.00	Pass
242/61	177	5885	2.94	1.69	5.37	8.10	13.47	14.00	Pass

Note: 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.

802.11ax (RU484)

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
			Chain 0	Chain 1						
484/65	167	5835	-4.87	-5.01	-1.93	3.30	8.10	11.40	14.00	Pass

Note: Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
			Chain 0	Chain 1					
484/65	175	5875	0.11	-0.94	2.63	8.10	10.73	14.00	Pass

Note: 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.

802.11ax (RU996)

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
			Chain 0	Chain 1						
996/67	171	5855	-8.02	-8.22	-5.11	0.12	8.10	8.22	14.00	Pass

Note: Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.

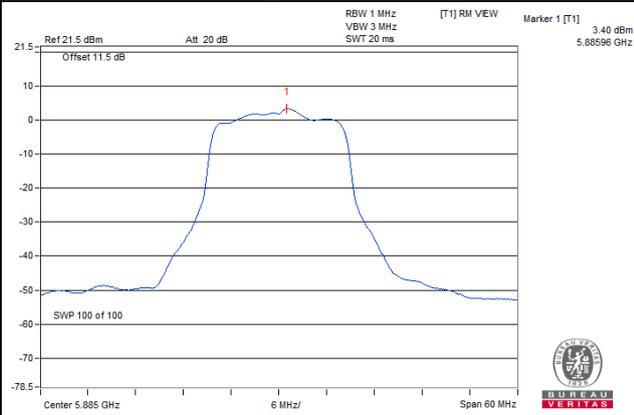
802.11ax (RU1992)

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
			Chain 0	Chain 1						
1992/68	163	5815	-13.64	-13.80	-10.71	-5.48	8.10	2.62	14.00	Pass

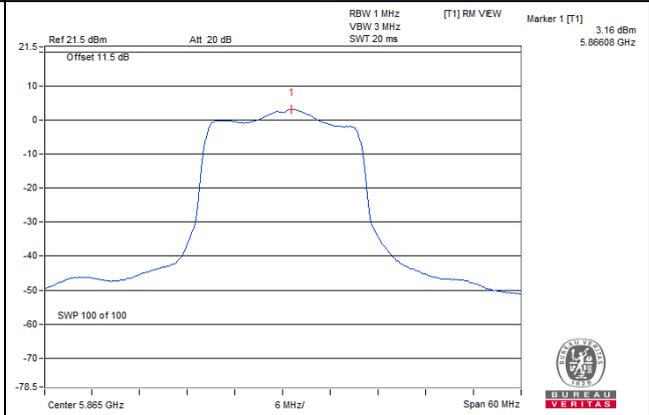
Note: Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.

Spectrum Plot of Worst Value

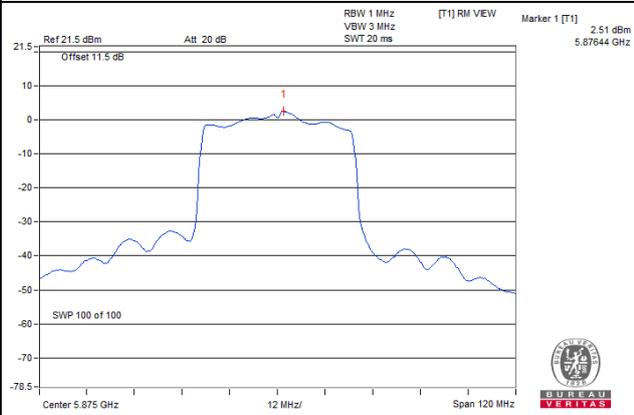
802.11a_Chain 0 / CH177



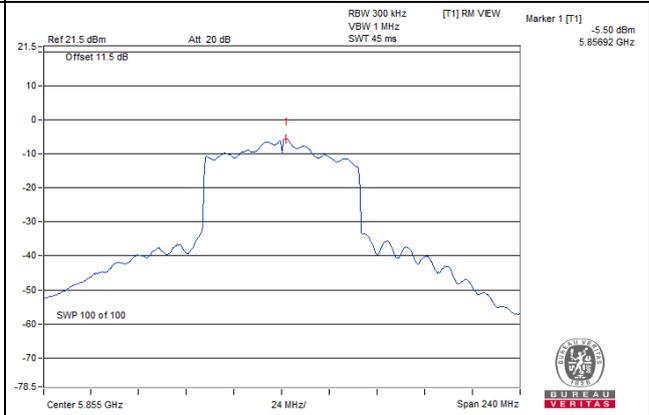
802.11ax (HE20)_Chain 0 / CH173



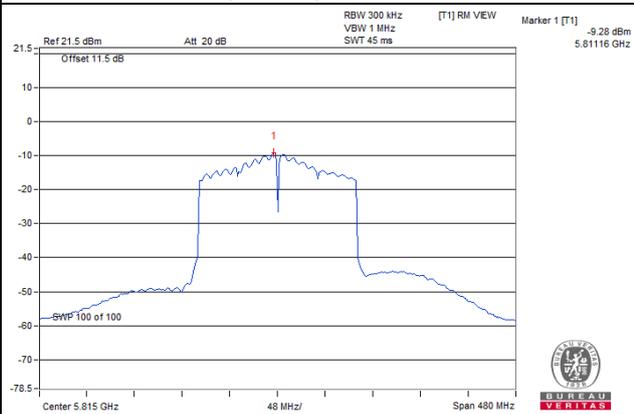
802.11ax (HE40)_Chain 0 / CH175



802.11ax (HE80)_Chain 0 / CH171

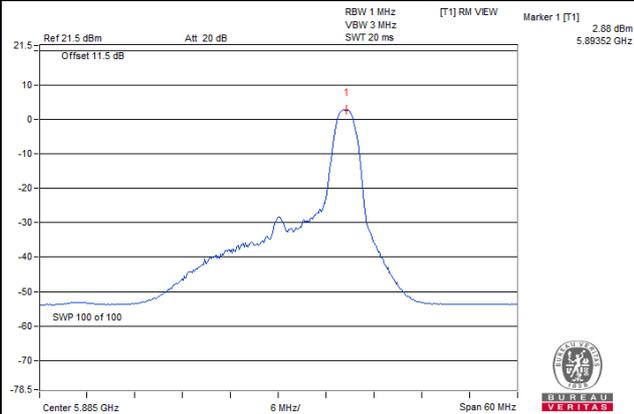


802.11ax (HE160)_Chain 1 / CH163

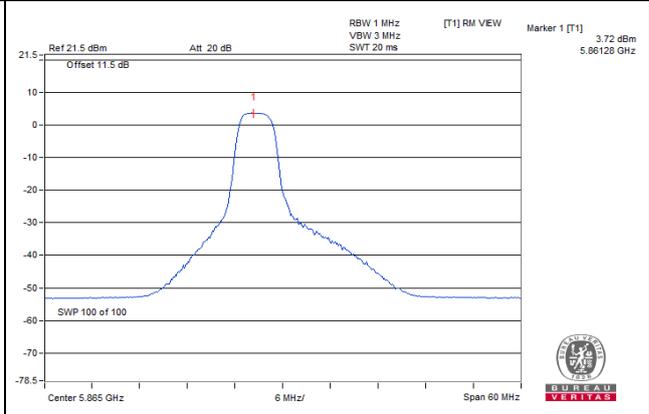


Spectrum Plot of Worst Value

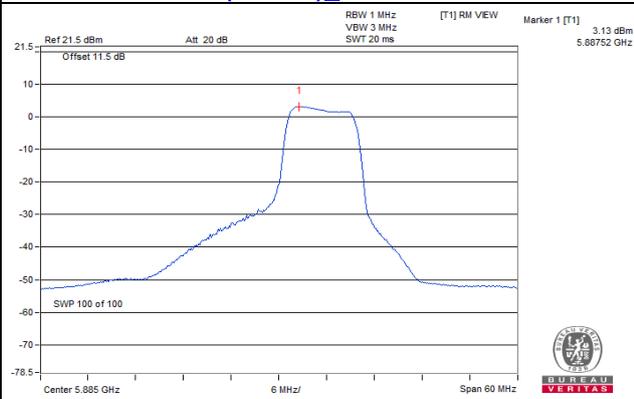
802.11ax (RU26)_Chain 1 / CH177



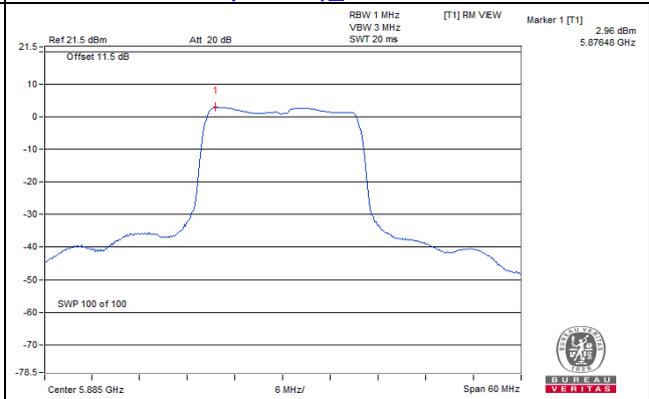
802.11ax (RU52)_Chain 1 / CH173



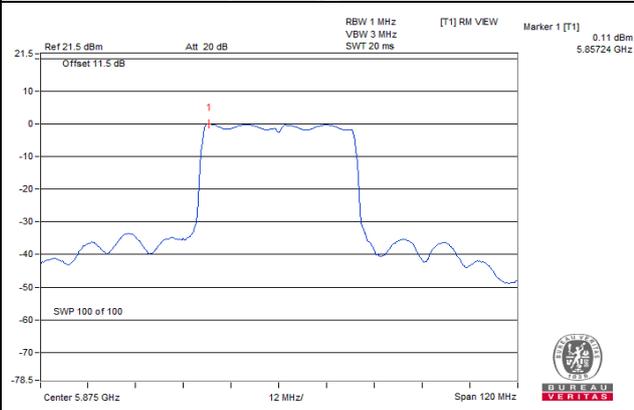
802.11ax (RU106)_Chain 0 / CH177



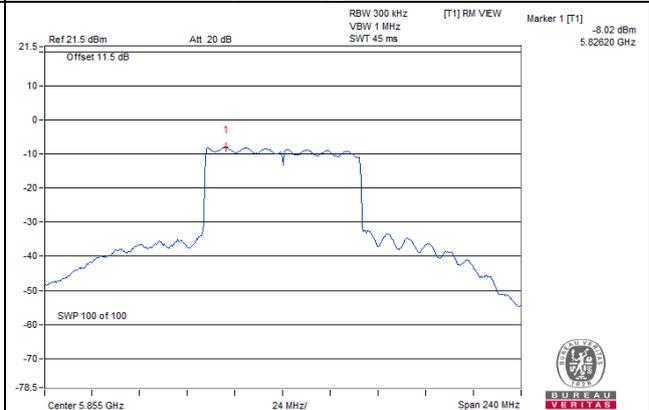
802.11ax (RU242)_Chain 0 / CH177



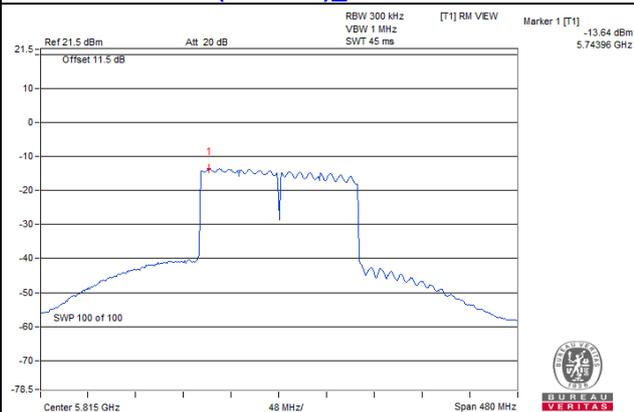
802.11ax (RU484)_Chain 0 / CH175



802.11ax (RU996)_Chain 0 / CH171



802.11ax (RU1992)_Chain 0 / CH163

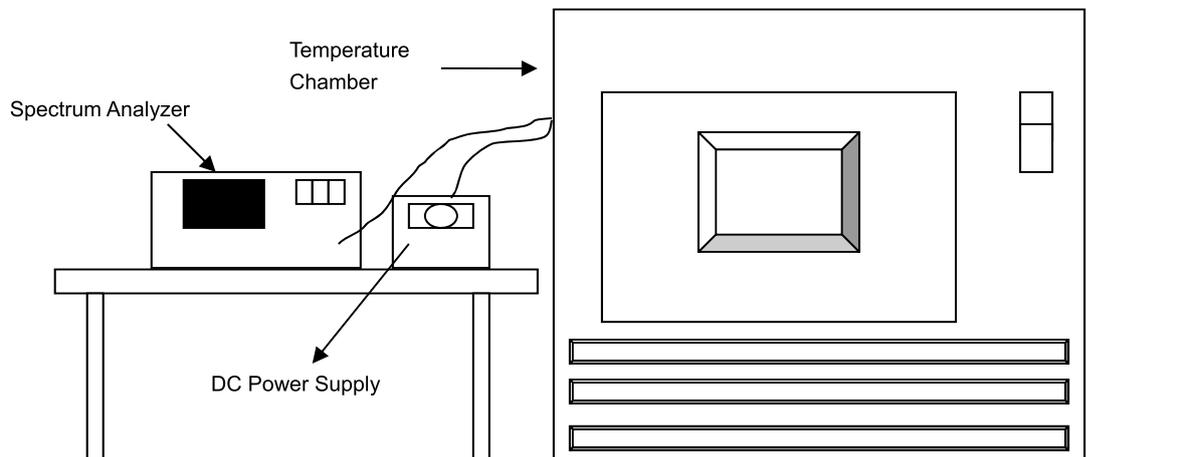


4.6 Frequency Stability Measurement

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 EUT Operating Condition

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

4.6.6 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5885MHz									
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	5885.0095	Pass	5885.0079	Pass	5885.0114	Pass	5885.0086	Pass
60	3.3	5885.015	Pass	5885.0125	Pass	5885.0111	Pass	5885.0123	Pass
50	3.3	5885.0076	Pass	5885.0051	Pass	5885.0049	Pass	5885.0058	Pass
40	3.3	5884.9815	Pass	5884.9815	Pass	5884.9824	Pass	5884.9799	Pass
30	3.3	5884.9842	Pass	5884.9832	Pass	5884.9822	Pass	5884.9833	Pass
20	3.3	5884.9709	Pass	5884.973	Pass	5884.9718	Pass	5884.9713	Pass
10	3.3	5884.9755	Pass	5884.9802	Pass	5884.9788	Pass	5884.9759	Pass
0	3.3	5885.0157	Pass	5885.0152	Pass	5885.0156	Pass	5885.0144	Pass
-10	3.3	5885.0175	Pass	5885.0179	Pass	5885.0184	Pass	5885.0215	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5885MHz									
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	5884.9718	Pass	5884.9726	Pass	5884.9718	Pass	5884.9712	Pass
	3.3	5884.9709	Pass	5884.973	Pass	5884.9718	Pass	5884.9713	Pass
	2.805	5884.9721	Pass	5884.972	Pass	5884.9716	Pass	5884.9717	Pass

4.7 Operational Restrictions for U-NII 4 Devices

4.7.1 Limits of Operational Restrictions for U-NII 4 Devices

(1) *Indoor Access Point.*

An access point that operates in the 5.850-5.895 GHz, is supplied power from a wired connection, has an integrated antenna, is not battery powered, and does not have a weatherized enclosure. Indoor access point devices must bear the following statement in a conspicuous location on the device and in the user's manual: FCC regulations restrict operation of this device to indoor use only.

(2) *Subordinate Device.*

A subordinate device that operates in the 5.850-5.895 GHz band under the control of an Indoor Access Point, is supplied power from a wired connection, has an integrated antenna, is not battery powered, does not have a weatherized enclosure, and does not have a direct connection to the internet. Subordinate devices must not be used to connect devices between separate buildings or structures. Subordinate devices must be authorized under certification procedures in part 2 of this chapter. Modules may not be certified as subordinate devices.

(3) *Client Device.*

A client device whose transmissions are generally under the control of an access point and is not capable of initiating a network

4.7.2 Test Setup

N/A

4.7.3 Test Instruments

N/A

4.7.4 Test Procedure

N/A.

4.7.5 Test Results

Device is a client device, all restrictions are meet the §15.403 requirements. Please refer to the Attestation letter exhibit supplied within this application.

5 Pictures of Test Arrangements

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

6 Appendix A – Radiated Emission Measurement

6.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

NOTE:

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

Limits of unwanted emission out of the restricted bands

- (i) For an indoor access point or subordinate device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of 15 dBm/MHz and shall decrease linearly to an e.i.r.p. of -7 dBm/MHz at or above 5.925 GHz.
- (ii) For a client device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of -5 dBm/MHz and shall decrease linearly to an e.i.r.p. of -27 dBm/MHz at or above 5.925 GHz.
- (iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.

Note:

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

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

6.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Test Receiver Agilent	N9038A	MY51210202	Dec. 1, 2020	Nov. 30, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA
Horn Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Nov. 22, 2020	Nov. 21, 2021
Pre_Amplifier EMCI	EMC 12630 SE	980638	Apr. 7, 2021	Apr. 6, 2022
RF Cable-Frequency Range : 1-26.5GHz EMCI	EMC104-SM-SM-1200	160922	Dec. 25, 2020	Dec. 24, 2021
RF Coaxial Cable EMCI	EMC104-SM-SM-2000	180502	Apr. 26, 2021	Apr. 25, 2022
RF Coaxial Cable EMCI	EMC104-SM-SM-6000	180418	Apr. 26, 2021	Apr. 25, 2022
Pre_Amplifier EMCI	EMC184045SE	980387	Jan. 11, 2021	Jan. 10, 2022
Horn Antenna Schwarzbeck	BBHA 9170	BBHA9170519	Nov. 22, 2020	Nov. 21, 2021
RF Cable-Frequency range: 1-40GHz EMCI	EMC102-KM-KM-1200	160924	Jan. 11, 2021	Jan. 10, 2022
RF cable (40GHz) EMCI	EMC-KM-KM-4000	200214	Mar. 10, 2021	Mar. 9, 2022

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 4.
3. Tested Date: Sep. 22 to 27, 2021

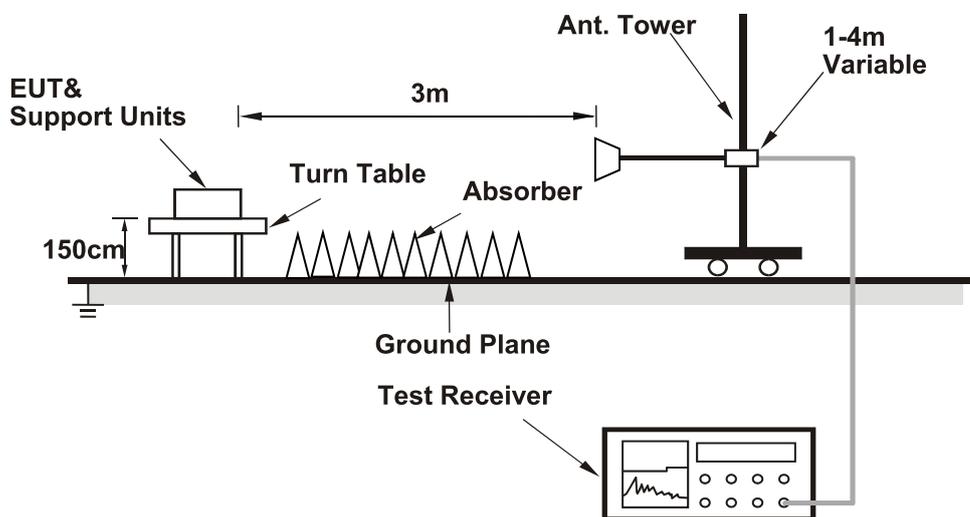
6.1.3 Test Procedure

- 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.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
- All modes of operation were investigated and the worst-case emissions are reported.

6.1.4 Test Setup



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

6.1.5 EUT Operating Condition

Same as 4.1.5.

6.1.6 Test Results

Radiated test with Antenna Set 2 (Model: 260-25083)

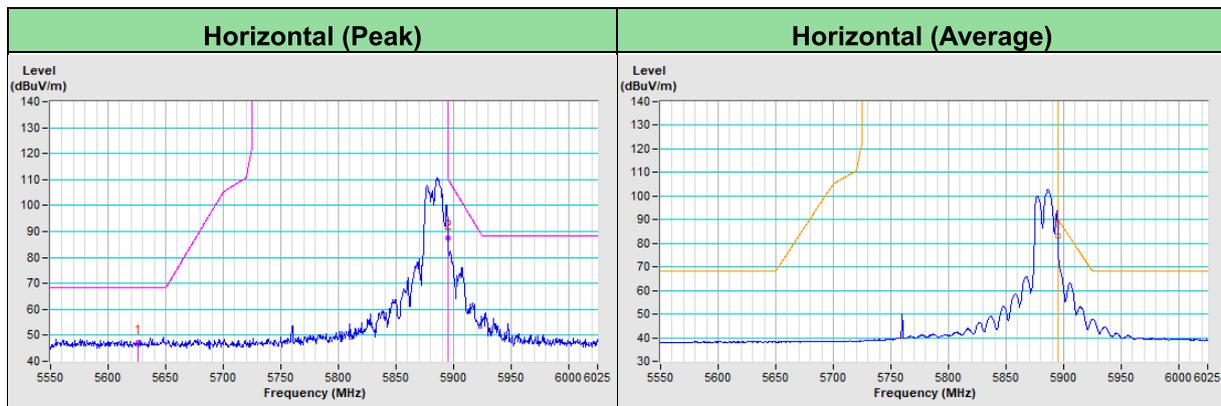
The EUT's antenna had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.

RF Mode	TX 802.11ax (HE20)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5625.79	47.3 PK	68.2	-20.9	4.00 H	213	45.6	1.7
PK.2	#5895.00	87.4 PK	110.2	-22.8	4.00 H	213	85.2	2.2
AV.1	#5895.00	83.2 AV	90.2	-7.0	4.00 H	213	81.0	2.2

Remarks:

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

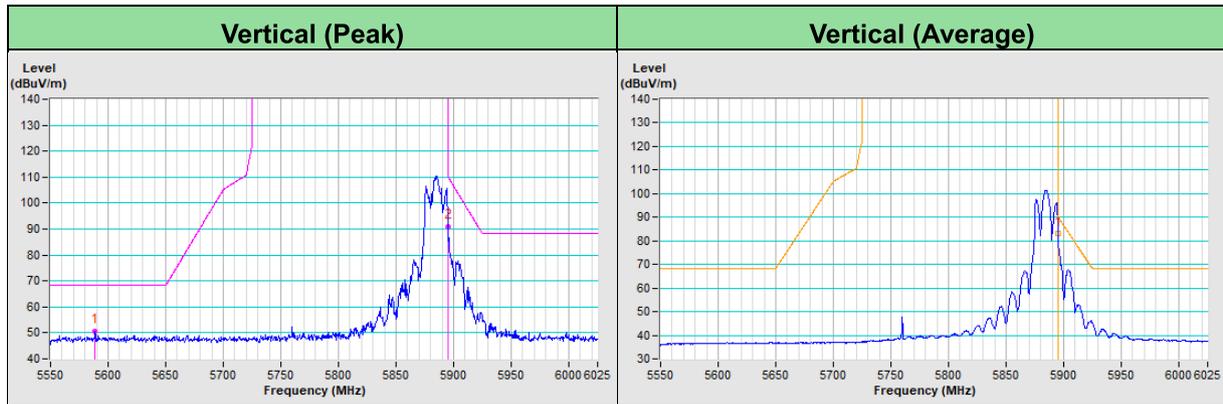


RF Mode	TX 802.11ax (HE20)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5588.87	50.5 PK	68.2	-17.7	2.45 V	223	48.8	1.7
PK.2	#5895.00	91.0 PK	110.2	-19.2	2.45 V	223	88.8	2.2
AV.1	#5895.00	83.3 AV	90.2	-6.9	2.45 V	223	81.1	2.2

Remarks:

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

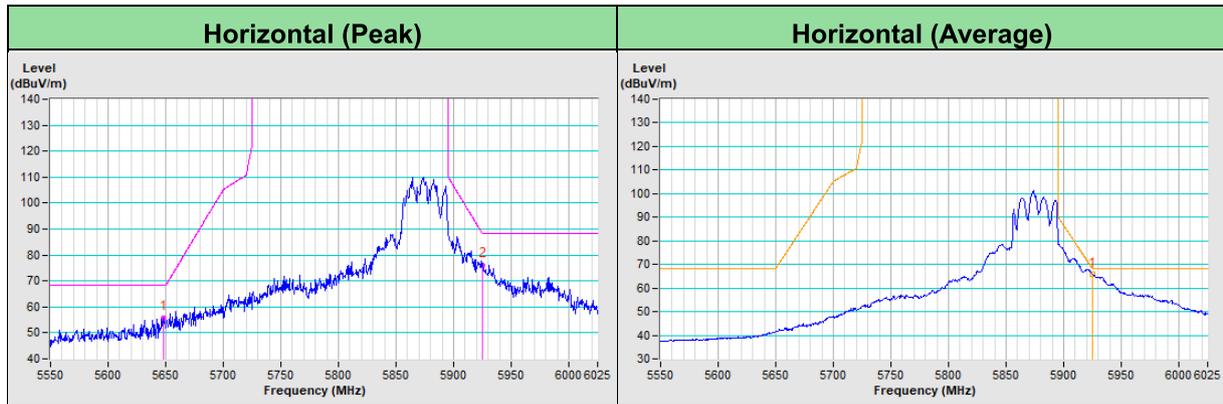


RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5875 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5648.36	55.8 PK	68.2	-12.4	4.00 H	226	54.0	1.8
PK.2	#5925.00	76.0 PK	88.2	-12.2	4.00 H	226	73.8	2.2
AV.1	#5925.00	65.8 AV	68.2	-2.4	4.00 H	226	63.6	2.2

Remarks:

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

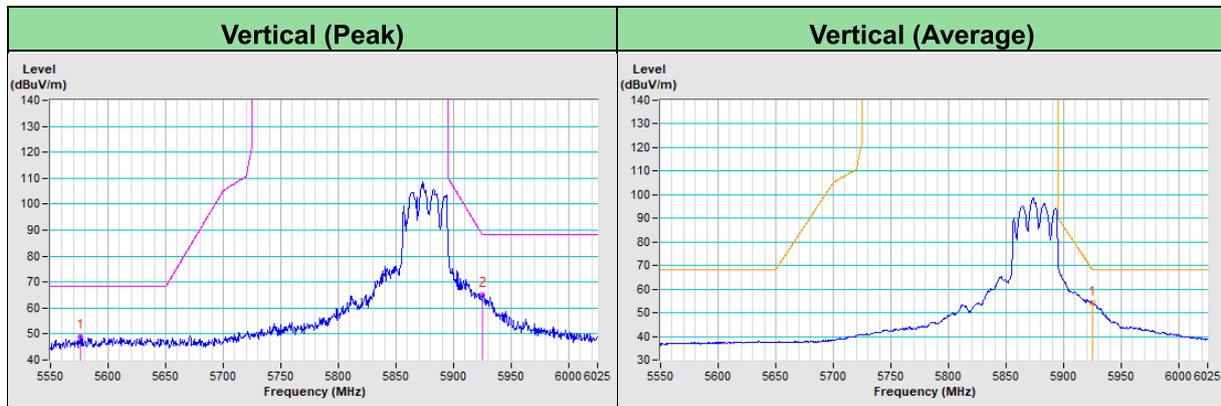


RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5875 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5576.33	49.0 PK	68.2	-19.2	2.42 V	213	47.3	1.7
PK.2	#5925.00	65.0 PK	88.2	-23.2	2.42 V	213	62.8	2.2
AV.1	#5925.00	54.3 AV	68.2	-13.9	2.42 V	213	52.1	2.2

Remarks:

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

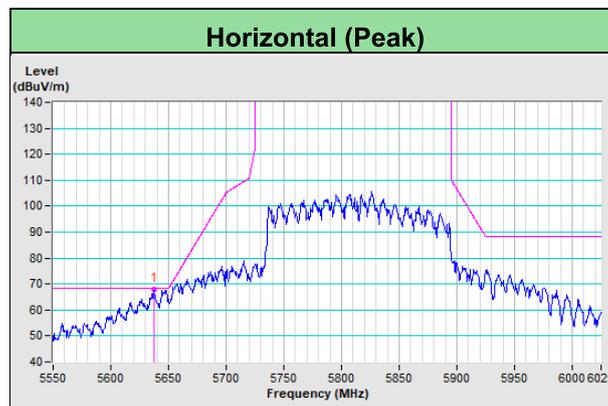


RF Mode	TX 802.11ax (HE160)	Channel	CH 163 : 5815 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5637.44	67.8 PK	68.2	-0.4	1.86 H	220	66.0	1.8

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. " # ": The radiated frequency is out of the restricted band.

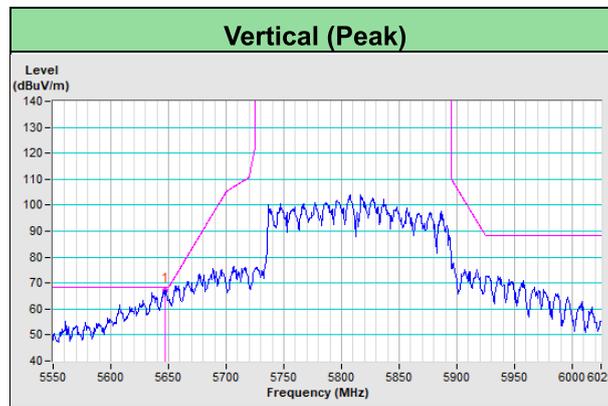


RF Mode	TX 802.11ax (HE160)	Channel	CH 163 : 5815 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5647.54	67.3 PK	68.2	-0.9	2.06 V	223	65.5	1.8

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. " # ": The radiated frequency is out of the restricted band.

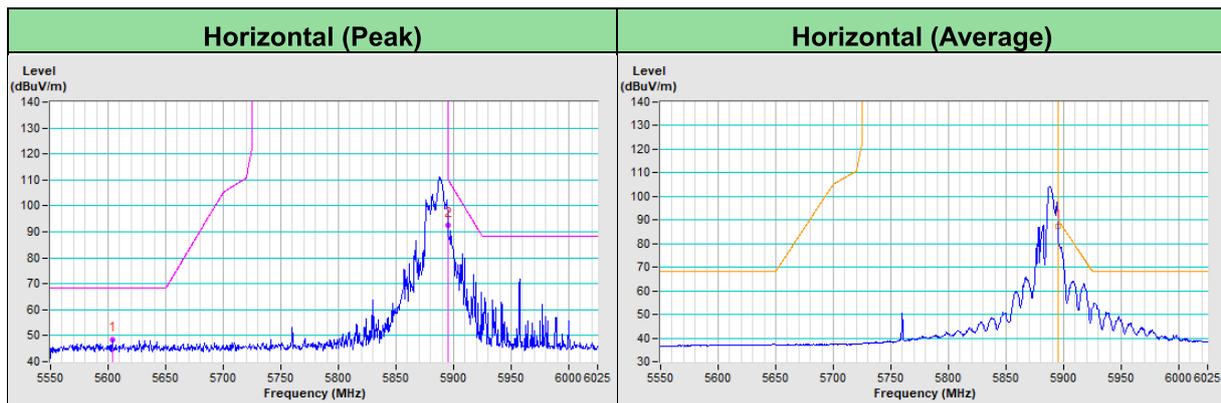


RF Mode	TX 20MHz Preamble 802.11ax (RU106)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5604.08	48.6 PK	68.2	-19.6	3.86 H	65	46.9	1.7
PK.2	#5895.00	92.7 PK	110.2	-17.5	3.86 H	65	90.5	2.2
AV.1	#5895.00	87.4 AV	90.2	-2.8	3.86 H	65	85.2	2.2

Remarks:

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

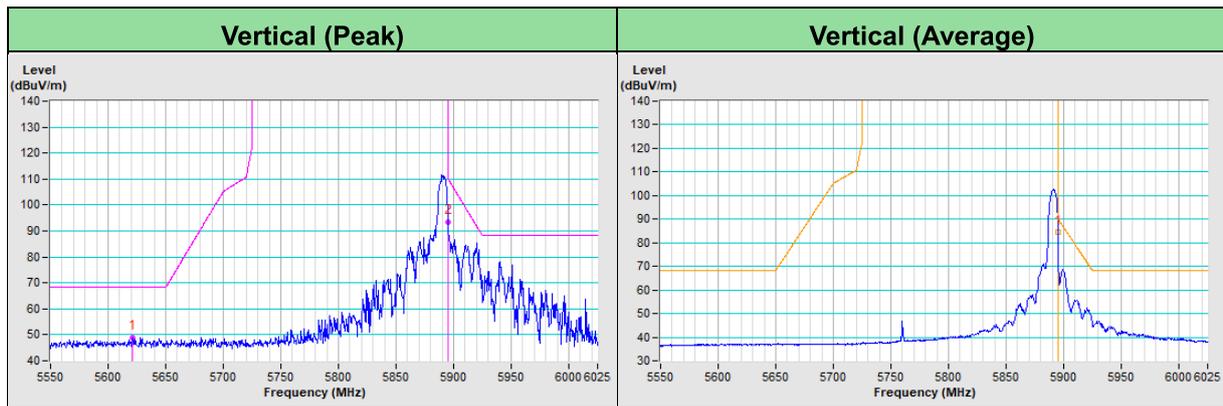


RF Mode	TX 20MHz Preamble 802.11ax (RU106)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5621.15	49.0 PK	68.2	-19.2	3.18 V	184	47.2	1.8
PK.2	#5895.00	93.4 PK	110.2	-16.8	3.18 V	184	91.2	2.2
AV.1	#5895.00	84.5 AV	90.2	-5.7	3.18 V	184	82.3	2.2

Remarks:

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

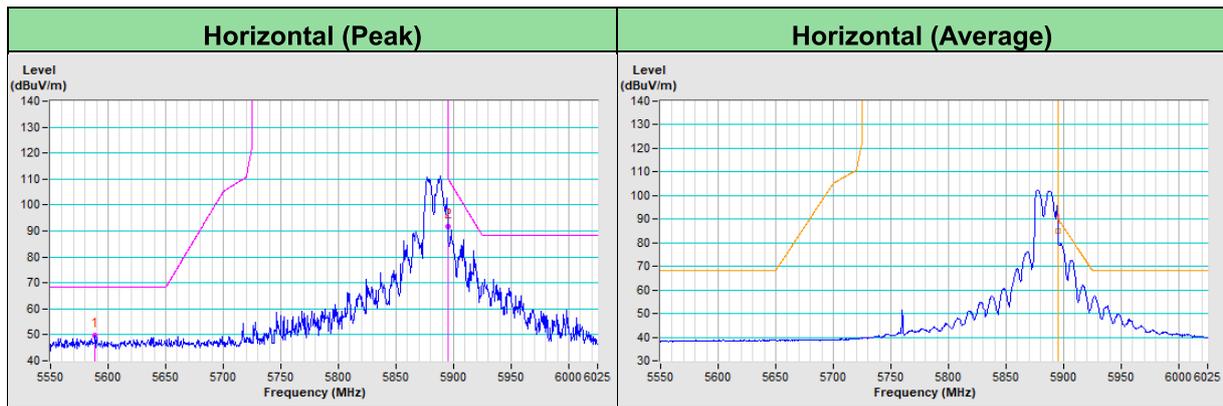


RF Mode	TX 20MHz Preamble 802.11ax (RU242)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5588.66	49.8 PK	68.2	-18.4	3.89 H	72	48.1	1.7
PK.2	#5895.00	91.9 PK	110.2	-18.3	3.89 H	72	89.7	2.2
AV.1	#5895.00	85.2 AV	90.2	-5.0	3.89 H	72	83.0	2.2

Remarks:

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

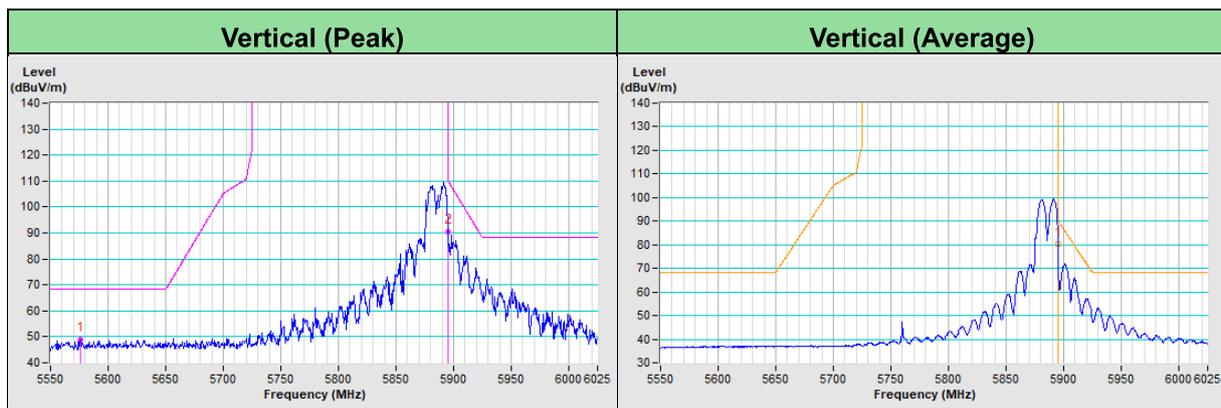


RF Mode	TX 20MHz Preamble 802.11ax (RU242)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5575.73	48.8 PK	68.2	-19.4	3.14 V	197	47.1	1.7
PK.2	#5895.00	90.4 PK	110.2	-19.8	3.14 V	197	88.2	2.2
AV.1	#5895.00	80.4 AV	90.2	-9.8	3.14 V	197	78.2	2.2

Remarks:

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

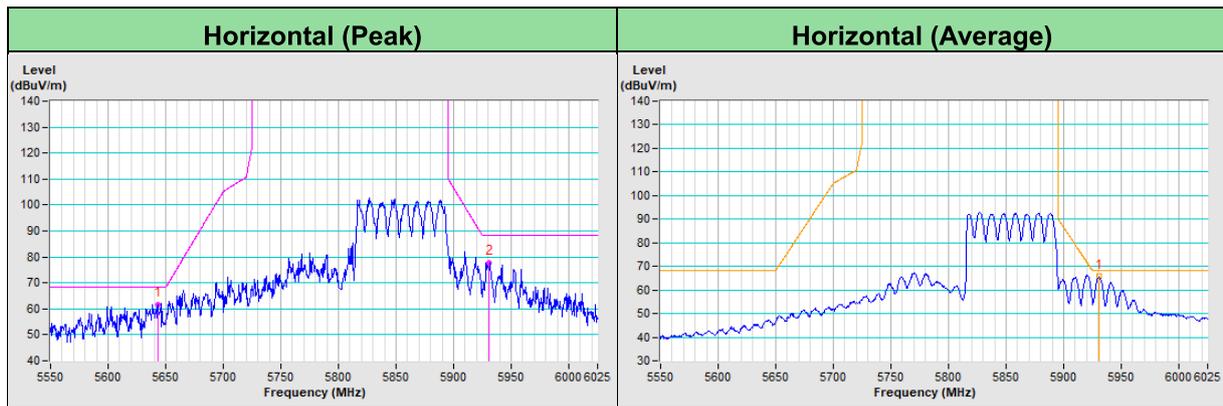


RF Mode	TX 80MHz Preamble 802.11ax (RU996)	Channel	CH 171 : 5855 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5643.42	61.8 PK	68.2	-6.4	3.93 H	64	60.0	1.8
PK.2	#5931.09	77.6 PK	88.2	-10.6	3.93 H	64	75.4	2.2
AV.1	#5931.09	65.8 AV	68.2	-2.4	3.93 H	64	63.6	2.2

Remarks:

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

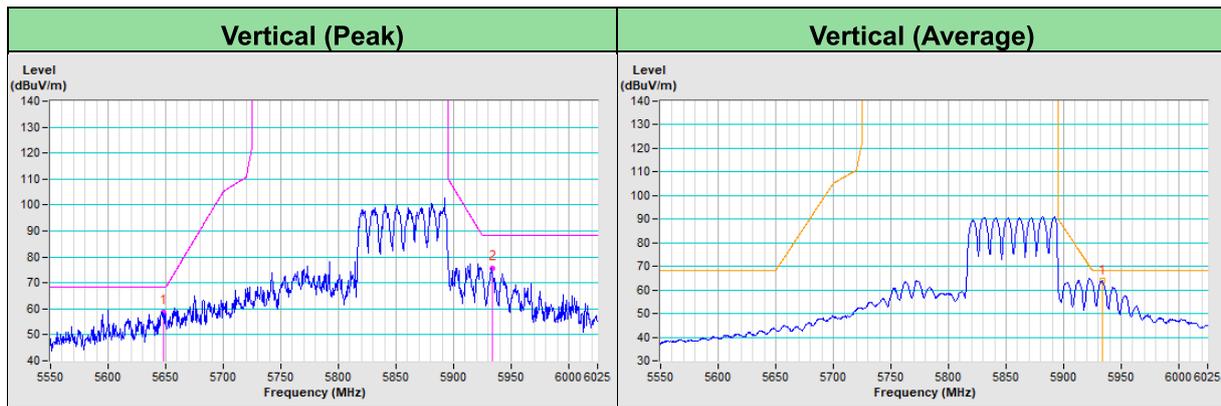


RF Mode	TX 80MHz Preamble 802.11ax (RU996)	Channel	CH 171 : 5855 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5648.23	58.8 PK	68.2	-9.4	3.18 V	194	57.0	1.8
PK.2	#5933.46	75.6 PK	88.2	-12.6	3.18 V	194	73.4	2.2
AV.1	#5933.46	63.8 AV	68.2	-4.4	3.18 V	194	61.6	2.2

Remarks:

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

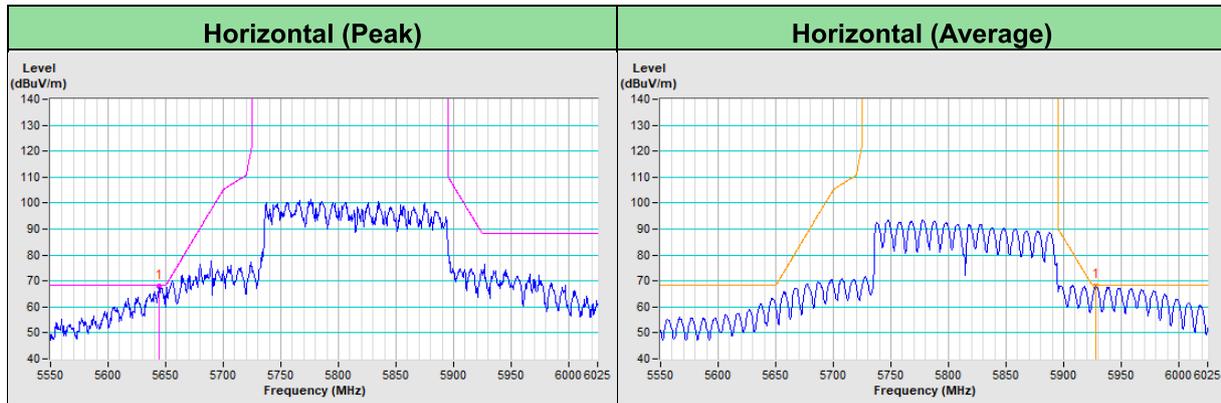


RF Mode	TX 160MHz Preamble 802.11ax (RU1992)	Channel	CH 163 : 5815 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5643.97	67.8 PK	68.2	-0.4	1.91 H	223	66.0	1.8
AV.1	#5928.05	68.0 AV	68.2	-0.2	3.94 H	91	65.8	2.2

Remarks:

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

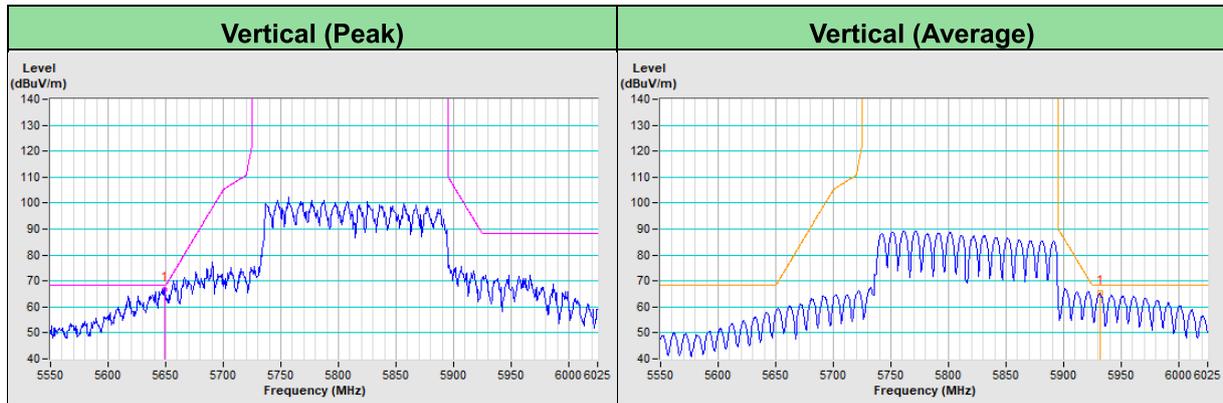


RF Mode	TX 160MHz Preamble 802.11ax (RU1992)	Channel	CH 163 : 5815 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5649.26	66.9 PK	68.2	-1.3	3.19 V	199	65.1	1.8
AV.1	#5931.51	65.4 AV	68.2	-2.8	3.10 V	192	63.2	2.2

Remarks:

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



Radiated test with Antenna Set 3 (Model: 260-25084)

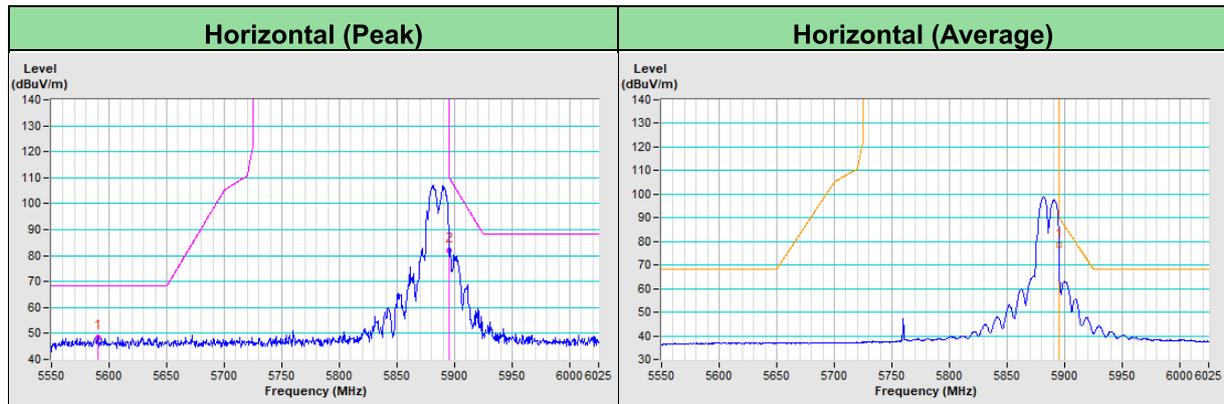
The EUT's antenna had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.

RF Mode	TX 802.11ax (HE20)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5590.54	48.4 PK	68.2	-19.8	1.26 H	134	46.7	1.7
PK.2	#5895.00	82.1 PK	110.2	-28.1	1.26 H	134	79.9	2.2
AV.1	#5895.00	78.4 AV	90.2	-11.8	1.26 H	134	76.2	2.2

Remarks:

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

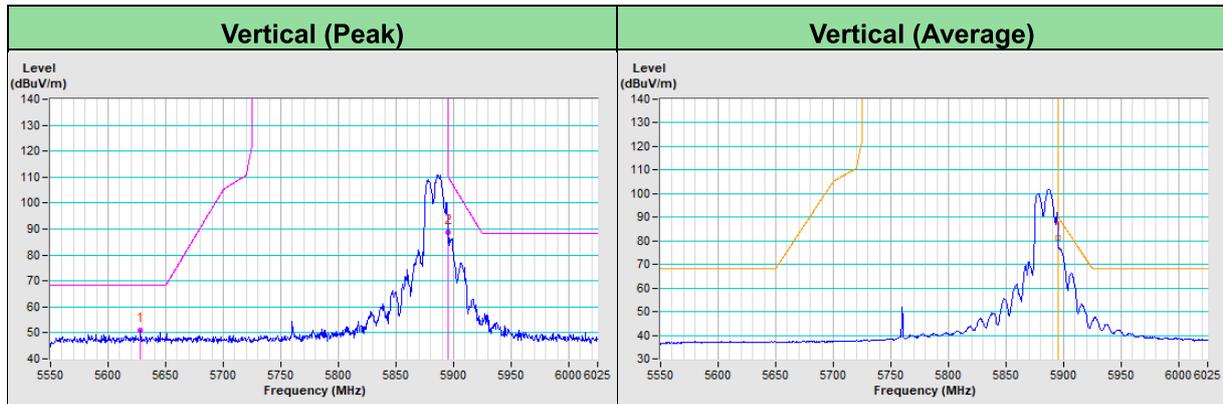


RF Mode	TX 802.11ax (HE20)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5628.13	50.9 PK	68.2	-17.3	1.50 V	171	49.1	1.8
PK.2	#5895.00	88.9 PK	110.2	-21.3	1.50 V	171	86.7	2.2
AV.1	#5895.00	81.5 AV	90.2	-8.7	1.50 V	171	79.3	2.2

Remarks:

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

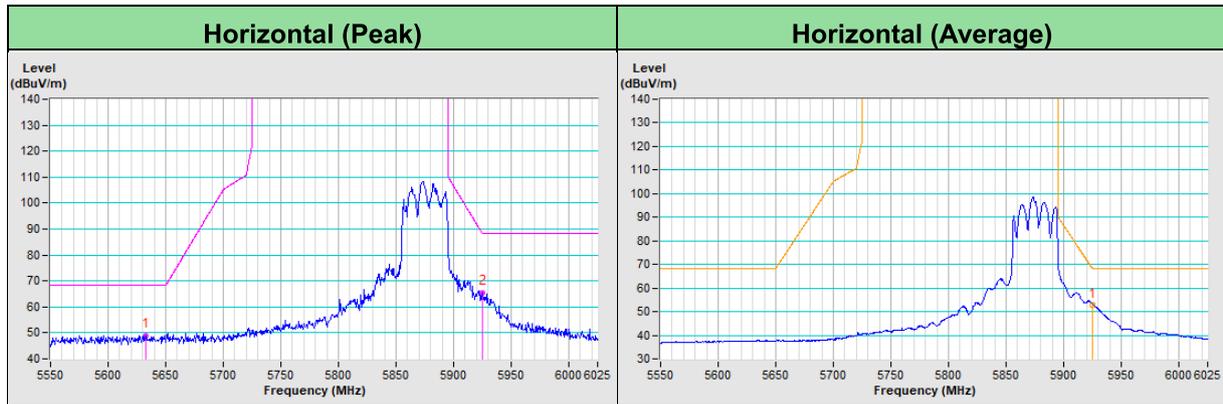


RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5875 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5633.01	49.1 PK	68.2	-19.1	1.27 H	146	47.3	1.8
PK.2	#5925.00	65.4 PK	88.2	-22.8	1.27 H	146	63.2	2.2
AV.1	#5925.00	53.0 AV	68.2	-15.2	1.27 H	146	50.8	2.2

Remarks:

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

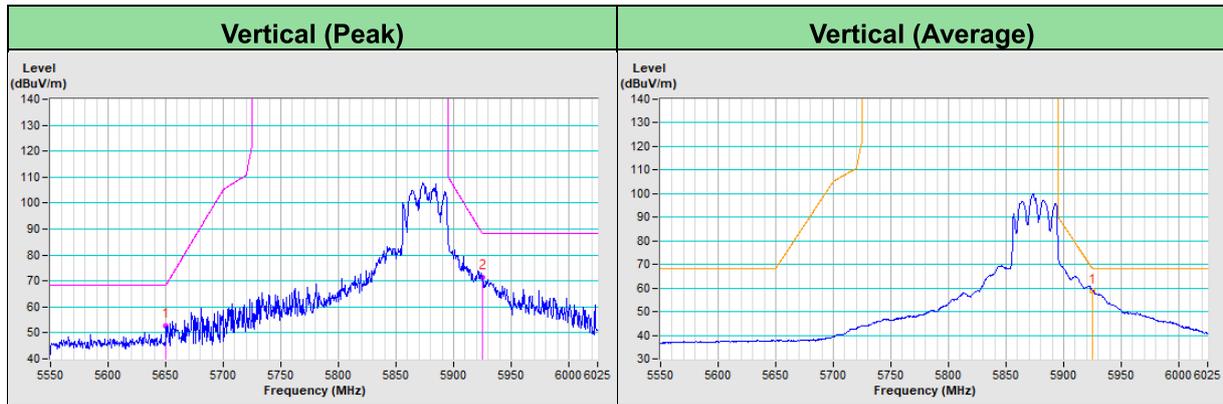


RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5875 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5650.00	52.8 PK	68.2	-15.4	1.47 V	179	51.0	1.8
PK.2	#5925.00	71.5 PK	88.2	-16.7	1.47 V	179	69.3	2.2
AV.1	#5925.00	59.0 AV	68.2	-9.2	1.47 V	179	56.8	2.2

Remarks:

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

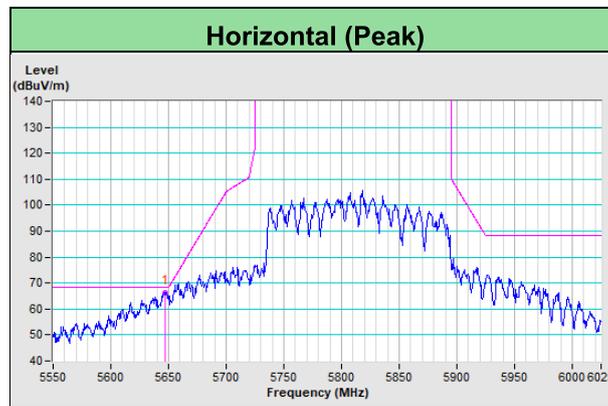


RF Mode	TX 802.11ax (HE160)	Channel	CH 163 : 5815 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5646.70	66.4 PK	68.2	-1.8	1.31 H	140	64.6	1.8

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. " # ": The radiated frequency is out of the restricted band.

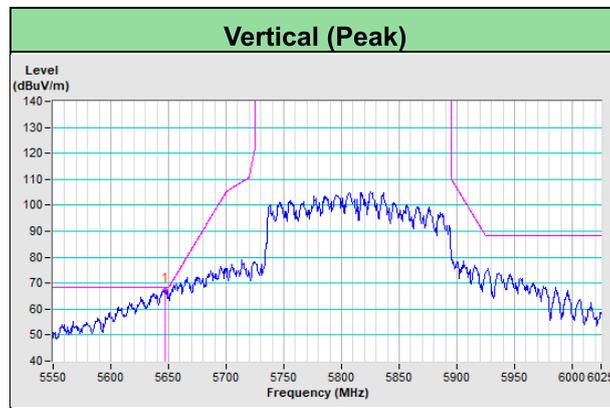


RF Mode	TX 802.11ax (HE160)	Channel	CH 163 : 5815 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5647.47	67.3 PK	68.2	-0.9	1.48 V	177	65.5	1.8

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. " # ": The radiated frequency is out of the restricted band.

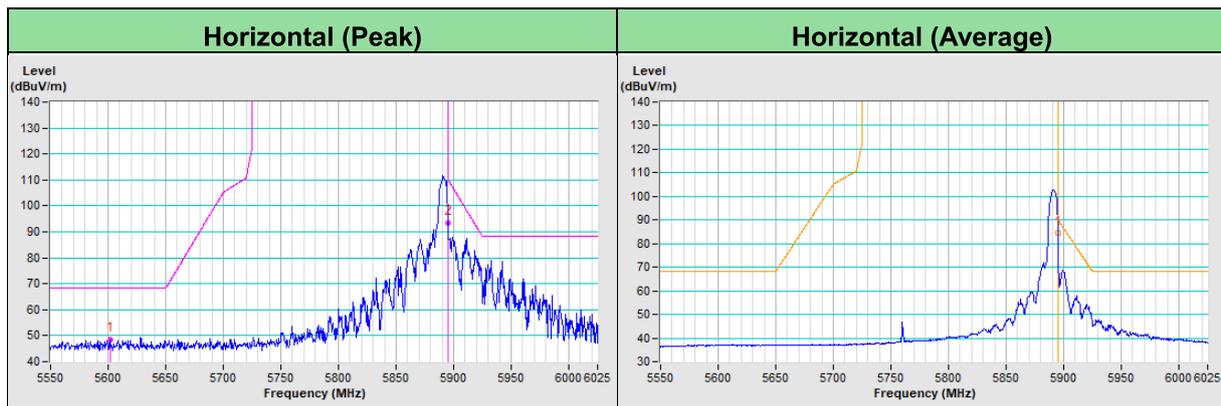


RF Mode	TX 20MHz Preamble 802.11ax (RU106)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5601.68	48.4 PK	68.2	-19.8	1.19 H	185	46.7	1.7
PK.2	#5895.00	93.5 PK	110.2	-16.7	1.19 H	185	91.3	2.2
AV.1	#5895.00	84.6 AV	90.2	-5.6	1.19 H	185	82.4	2.2

Remarks:

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

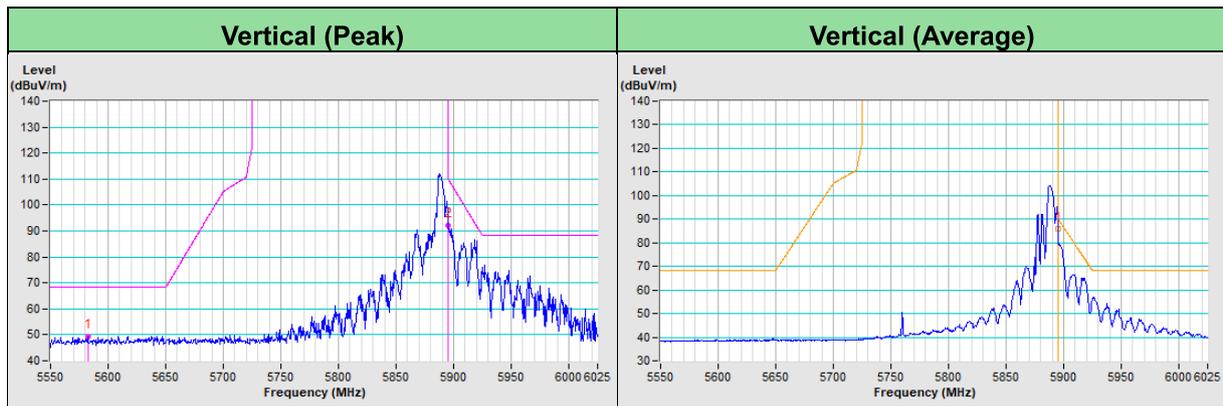


RF Mode	TX 20MHz Preamble 802.11ax (RU106)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5582.28	49.3 PK	68.2	-18.9	2.25 V	240	47.6	1.7
PK.2	#5895.00	92.3 PK	110.2	-17.9	2.25 V	240	90.1	2.2
AV.1	#5895.00	86.1 AV	90.2	-4.1	2.25 V	240	83.9	2.2

Remarks:

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

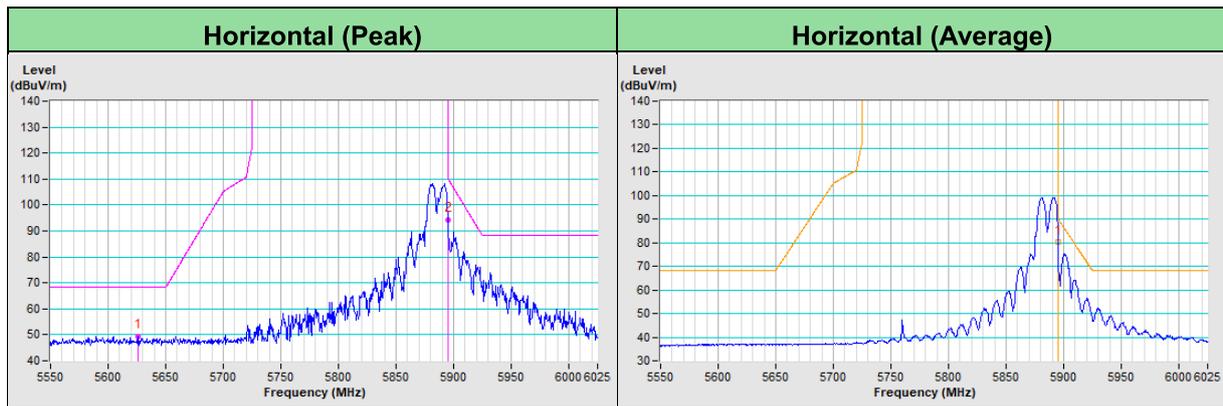


RF Mode	TX 20MHz Preamble 802.11ax (RU242)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5625.93	49.3 PK	68.2	-18.9	1.20 H	189	47.6	1.7
PK.2	#5895.00	94.2 PK	110.2	-16.0	1.20 H	189	92.0	2.2
AV.1	#5895.00	80.5 AV	90.2	-9.7	1.20 H	189	78.3	2.2

Remarks:

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

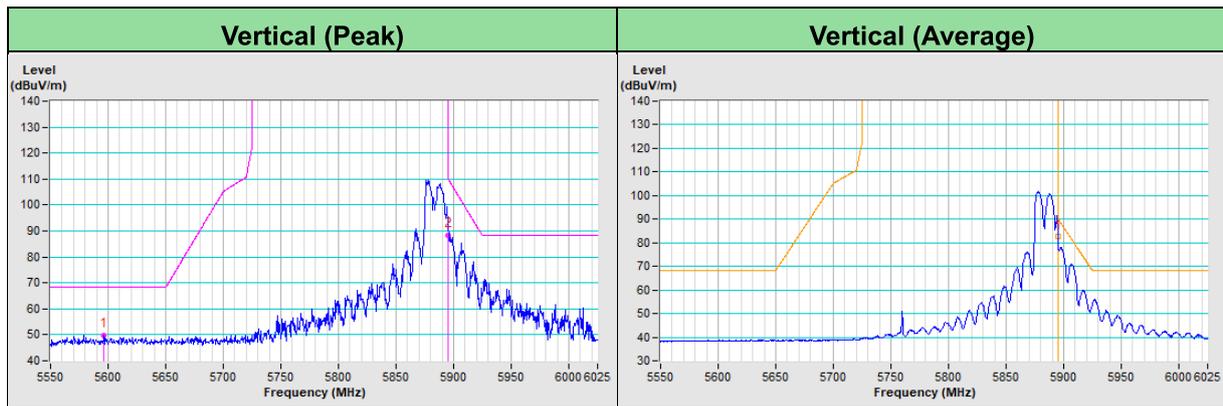


RF Mode	TX 20MHz Preamble 802.11ax (RU242)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5596.45	49.7 PK	68.2	-18.5	2.25 V	237	48.0	1.7
PK.2	#5895.00	88.5 PK	110.2	-21.7	2.25 V	237	86.3	2.2
AV.1	#5895.00	82.6 AV	90.2	-7.6	2.25 V	237	80.4	2.2

Remarks:

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

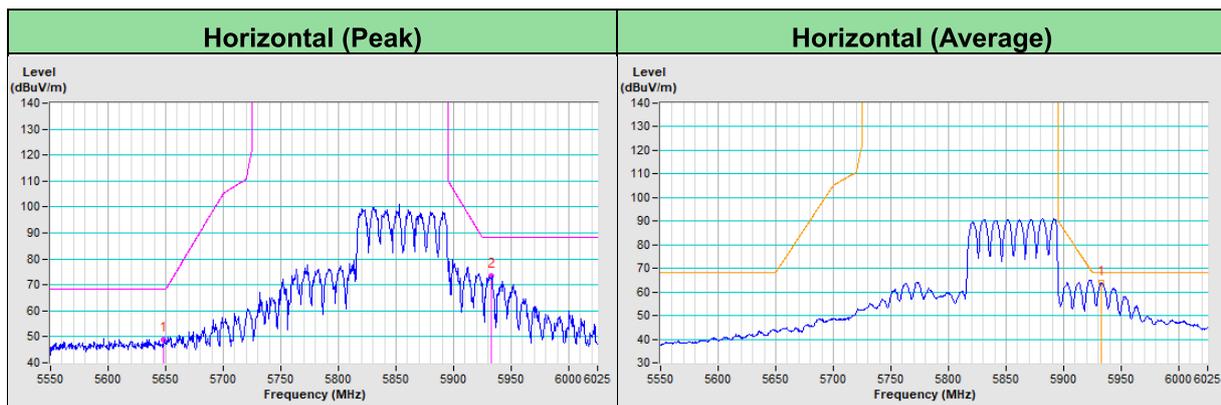


RF Mode	TX 80MHz Preamble 802.11ax (RU996)	Channel	CH 171 : 5855 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5648.02	48.9 PK	68.2	-19.3	1.18 H	181	47.1	1.8
PK.2	#5932.73	73.6 PK	88.2	-14.6	1.18 H	181	71.4	2.2
AV.1	#5932.73	64.0 AV	68.2	-4.2	1.18 H	181	61.8	2.2

Remarks:

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

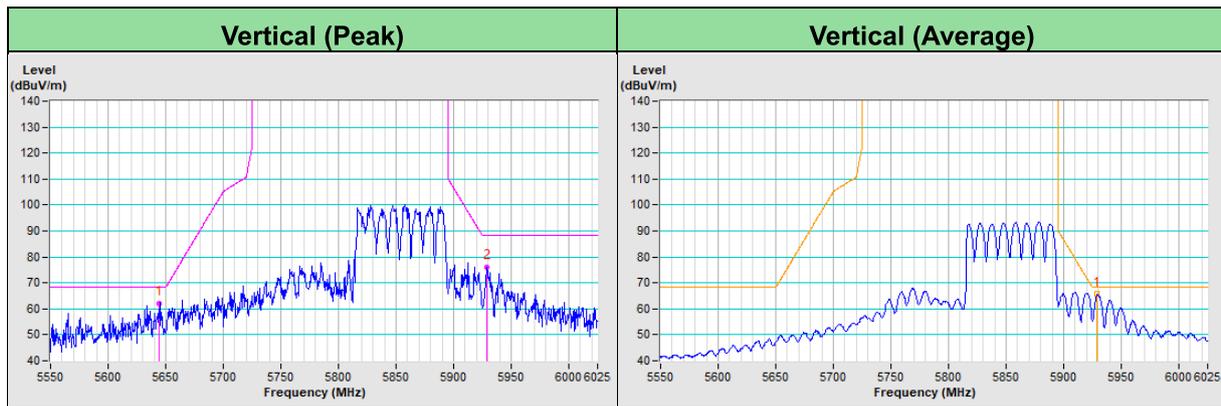


RF Mode	TX 80MHz Preamble 802.11ax (RU996)	Channel	CH 171 : 5855 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5644.53	62.2 PK	68.2	-6.0	2.22 V	238	60.4	1.8
PK.2	#5929.07	76.1 PK	88.2	-12.1	2.22 V	238	73.9	2.2
AV.1	#5929.07	65.7 AV	68.2	-2.5	2.22 V	238	63.5	2.2

Remarks:

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

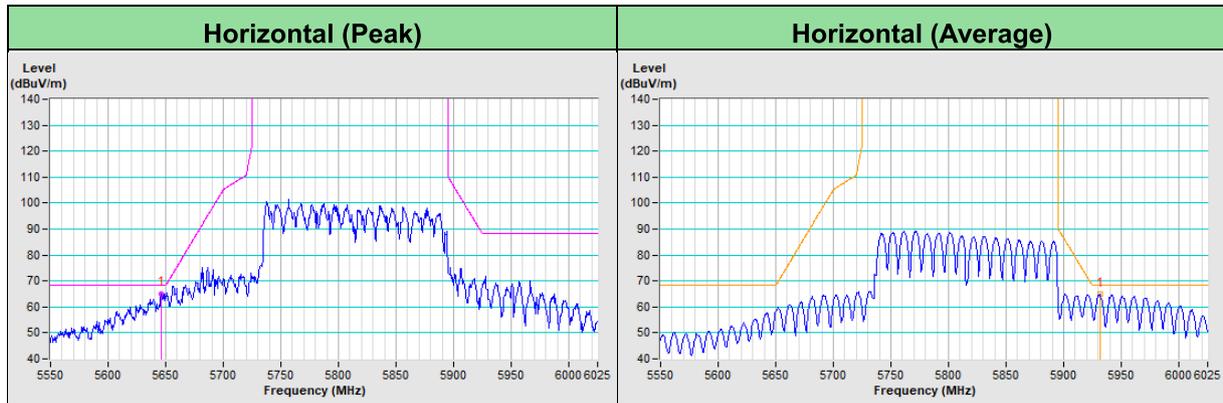


RF Mode	TX 160MHz Preamble 802.11ax (RU1992)	Channel	CH 163 : 5815 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5646.13	65.0 PK	68.2	-3.2	1.31 H	173	63.2	1.8
AV.1	#5931.47	64.8 AV	68.2	-3.4	1.31 H	173	62.6	2.2

Remarks:

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

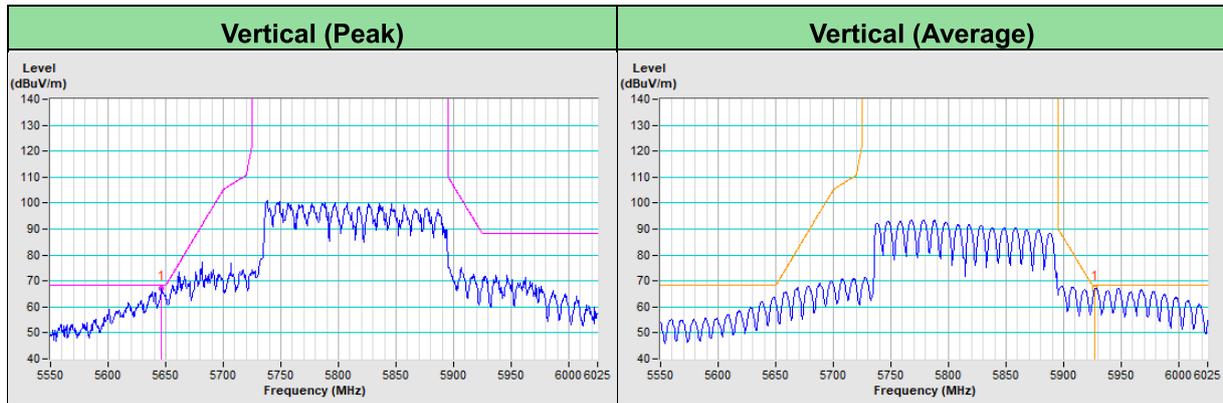


RF Mode	TX 160MHz Preamble 802.11ax (RU1992)	Channel	CH 163 : 5815 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
PK.1	#5646.25	67.0 PK	68.2	-1.2	2.31 V	244	65.2	1.8
AV.1	#5927.33	67.3 AV	68.2	-0.9	2.31 V	244	65.1	2.2

Remarks:

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



Appendix – Information of the Testing Laboratories

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

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

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Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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