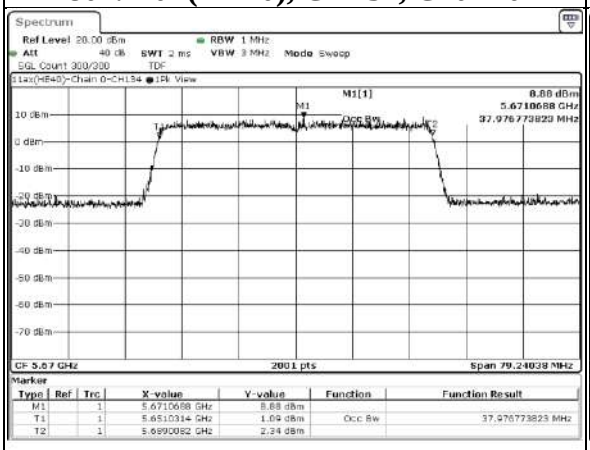
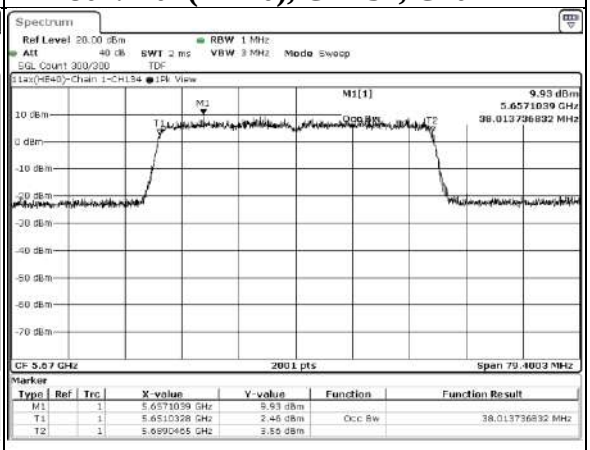
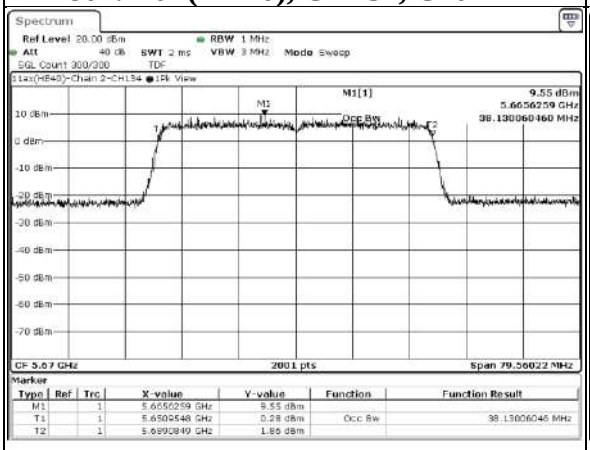
802.11ax(HE40), CH134, Chain 0



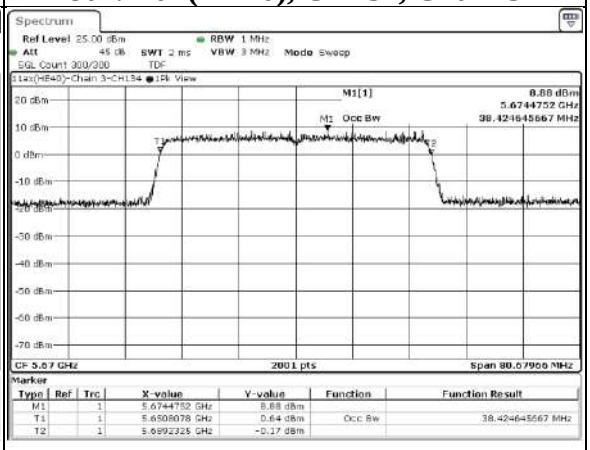
802.11ax(HE40), CH134, Chain 1



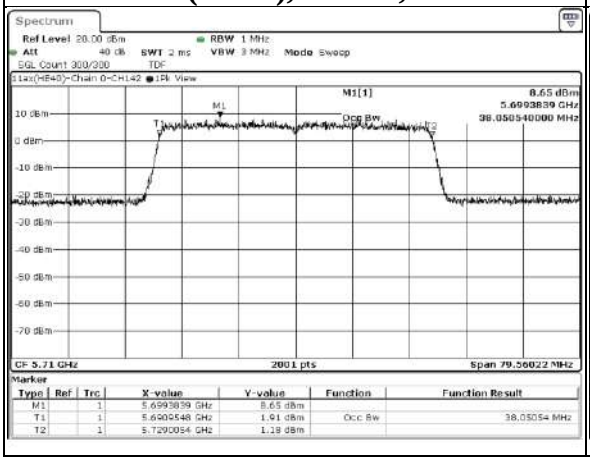
802.11ax(HE40), CH134, Chain 2



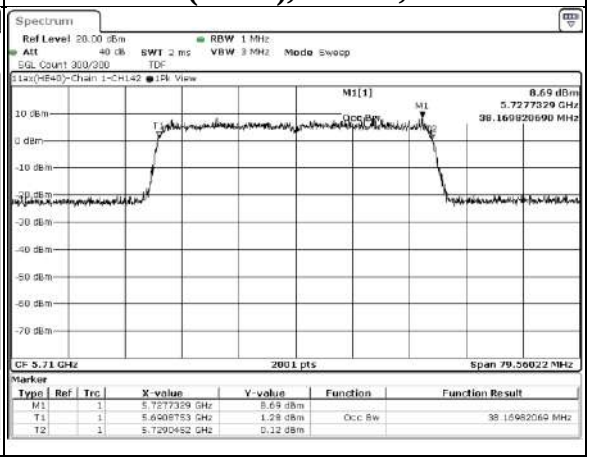
802.11ax(HE40), CH134, Chain 3



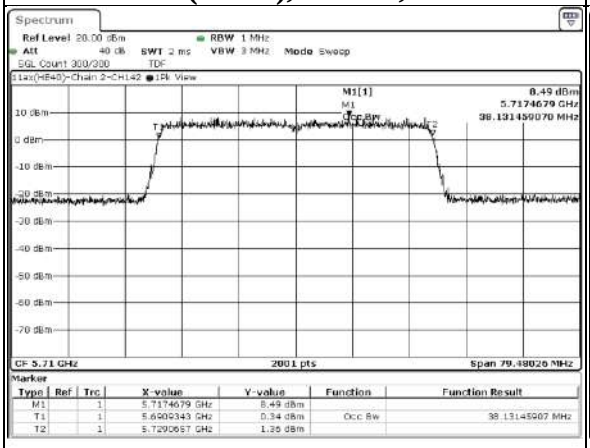
802.11ax(HE40), CH142, Chain 0



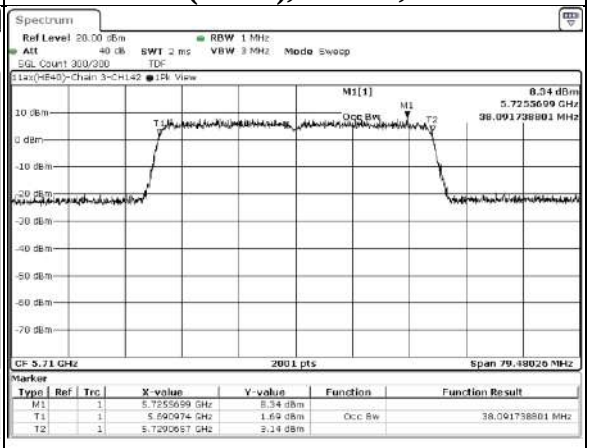
802.11ax(HE40), CH142, Chain 1



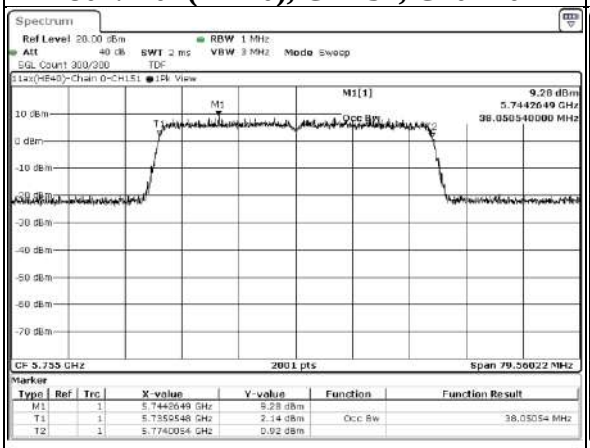
802.11ax(HE40), CH142, Chain 2



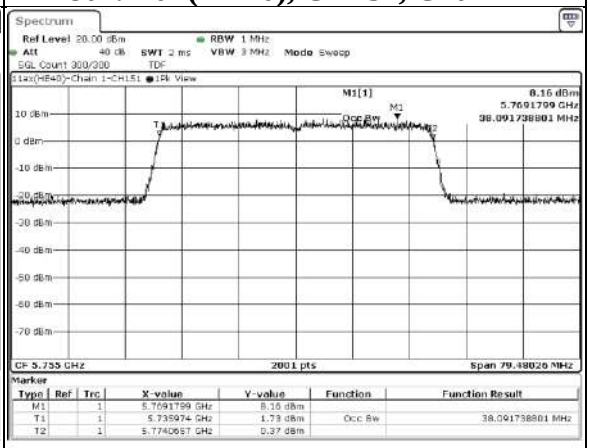
802.11ax(HE40), CH142, Chain 3



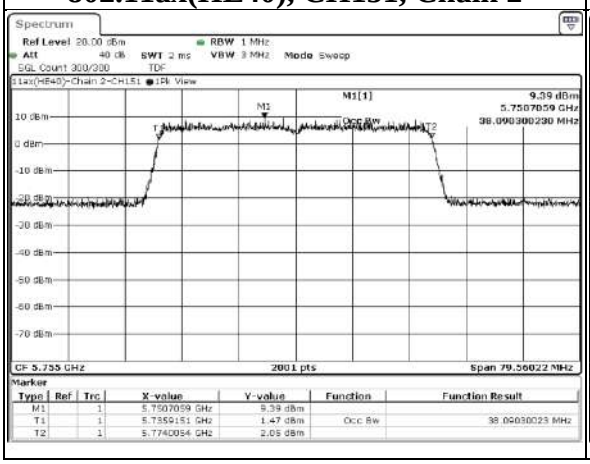
802.11ax(HE40), CH151, Chain 0



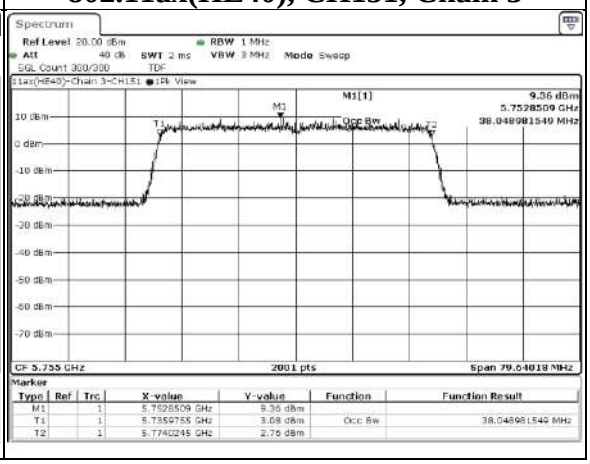
802.11ax(HE40), CH151, Chain 1

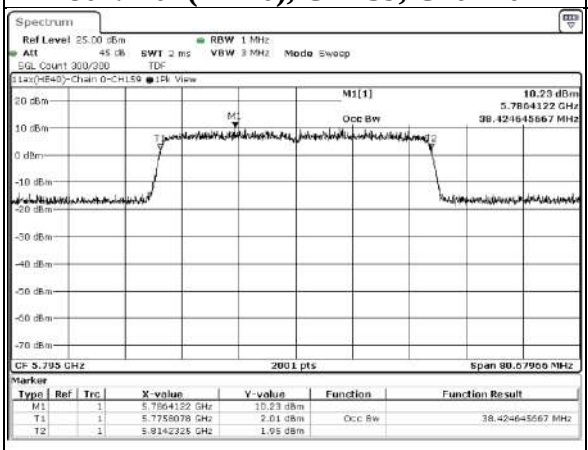
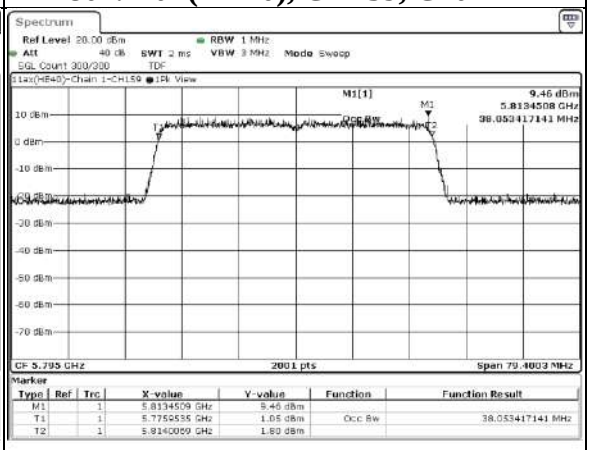
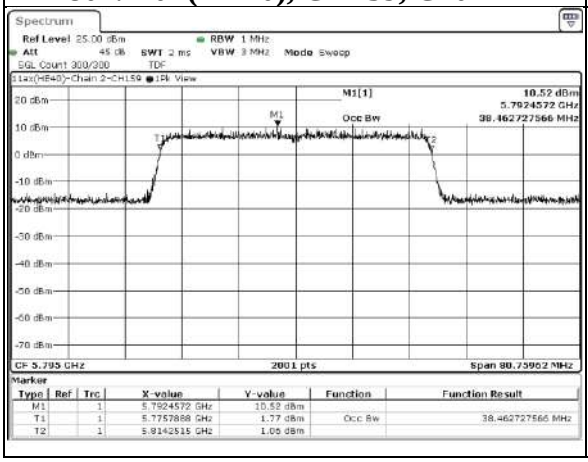
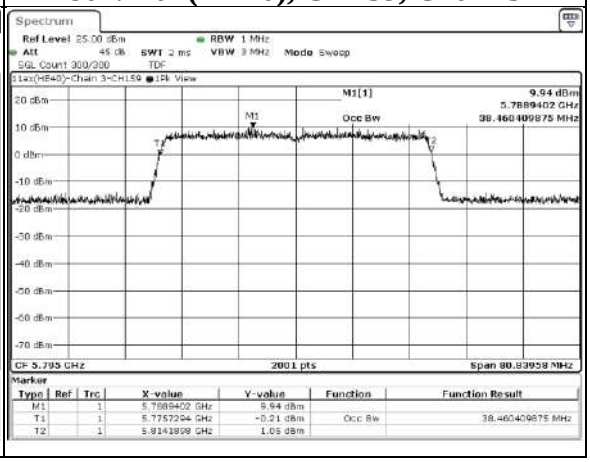


802.11ax(HE40), CH151, Chain 2



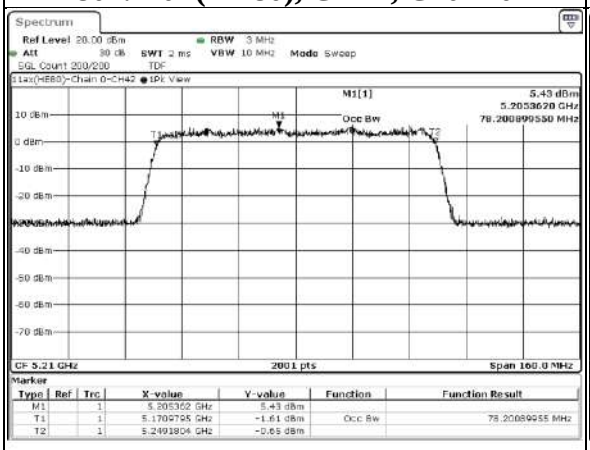
802.11ax(HE40), CH151, Chain 3



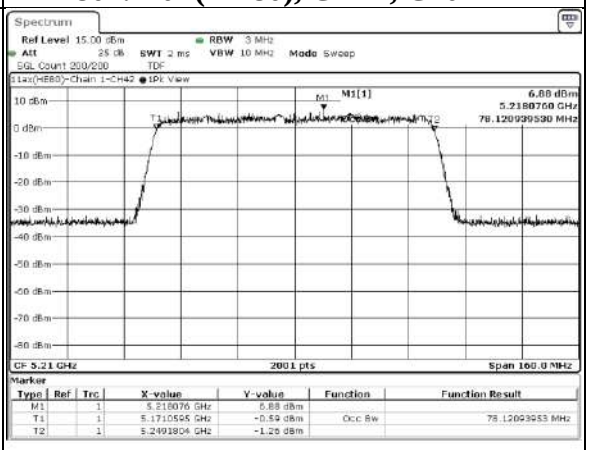
802.11ax(HE40), CH159, Chain 0	802.11ax(HE40), CH159, Chain 1
	
802.11ax(HE40), CH159, Chain 2	**802.11ax(HE40), CH159, Chain 3**
	

Mode	CH	Freq (MHz)	OBW (MHz)				Limit (MHz)	Result
			Chain 0	Chain 1	Chain 2	Chain 3		
802.11ax (HE80)	42	5210	78.201	78.121	78.121	78.041	N/A	PASS
	58	5290	78.121	78.201	78.201	78.121	N/A	PASS
	106	5530	78.201	78.121	78.201	78.281	N/A	PASS
	122	5610	79.08	79.16	79.32	79.24	N/A	PASS
	138 (U-NII-2C)	5690	74.58	74.66	74.58	74.66	N/A	PASS
	138 (U-NII-2C+U-NII-3)	5690	79.4	79.48	79.56	79.64	N/A	PASS
	138 (U-NII-3)	5690	4.82	4.82	4.98	4.98	N/A	PASS
	155	5775	79.64	80.04	79.8	79.8	N/A	PASS

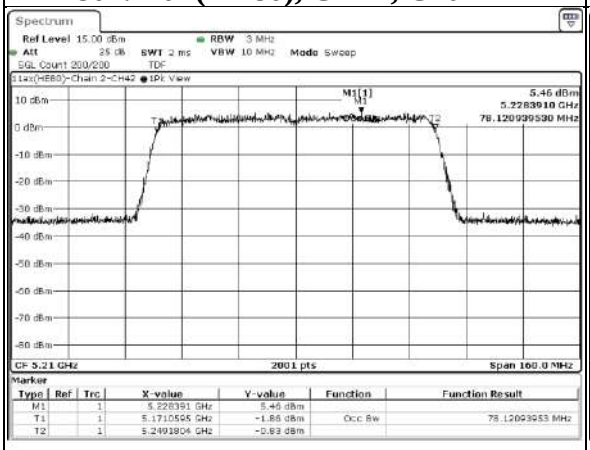
802.11ax(HE80), CH42, Chain 0



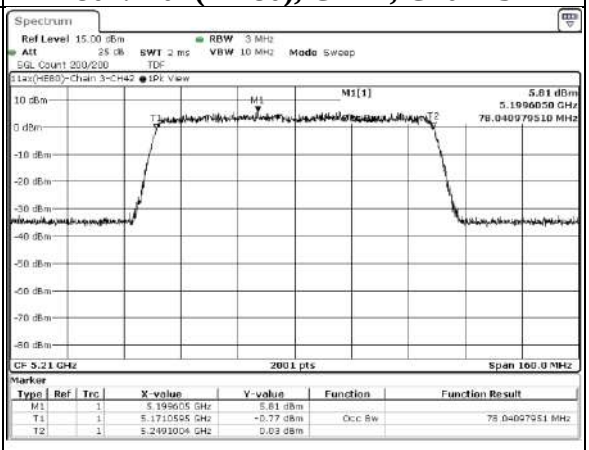
802.11ax(HE80), CH42, Chain 1



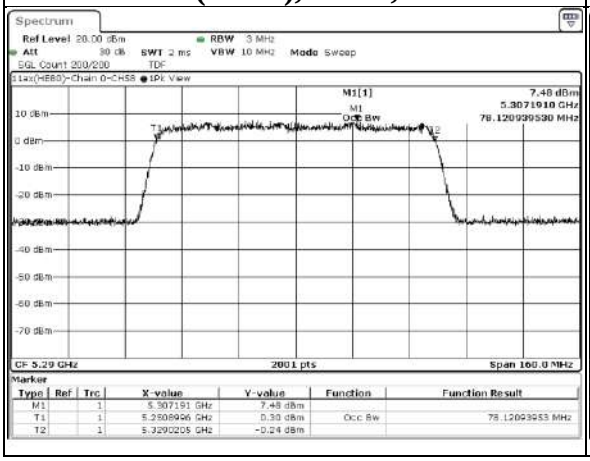
802.11ax(HE80), CH42, Chain 2



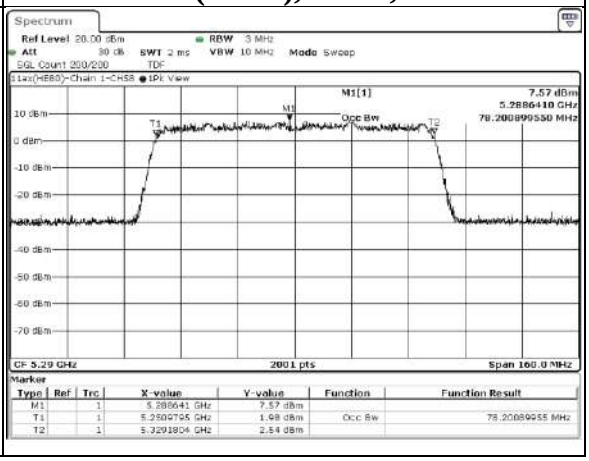
802.11ax(HE80), CH42, Chain 3



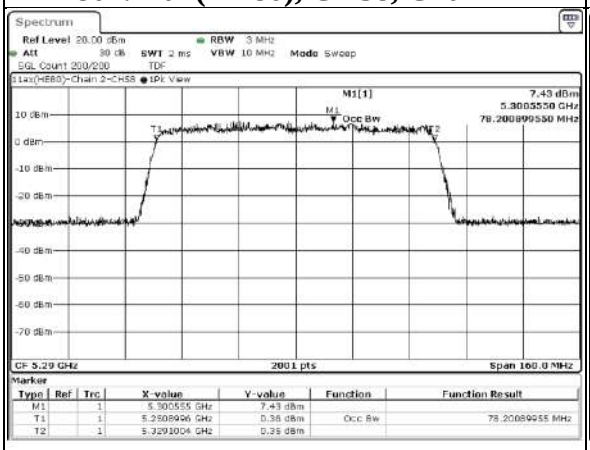
802.11ax(HE80), CH58, Chain 0



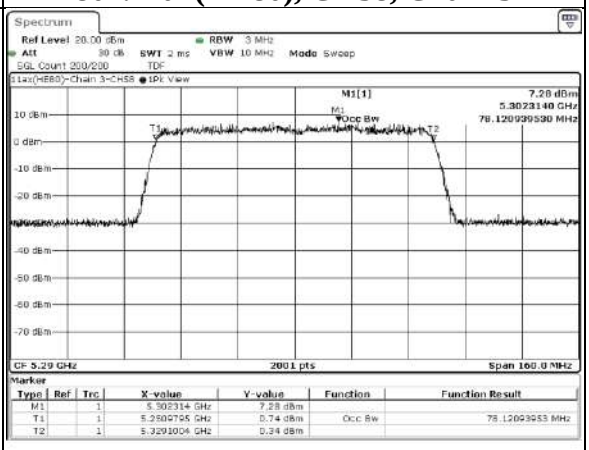
802.11ax(HE80), CH58, Chain 1



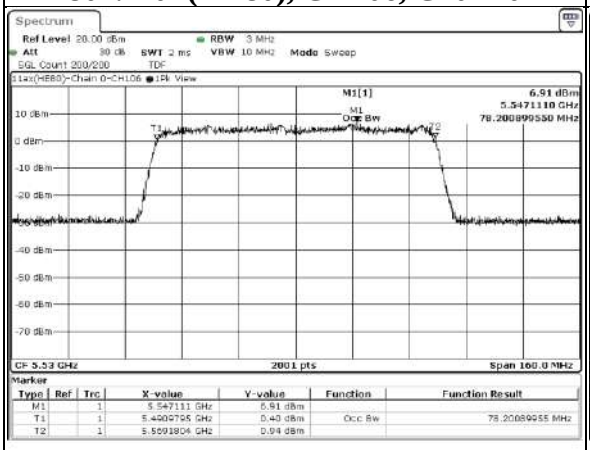
802.11ax(HE80), CH58, Chain 2



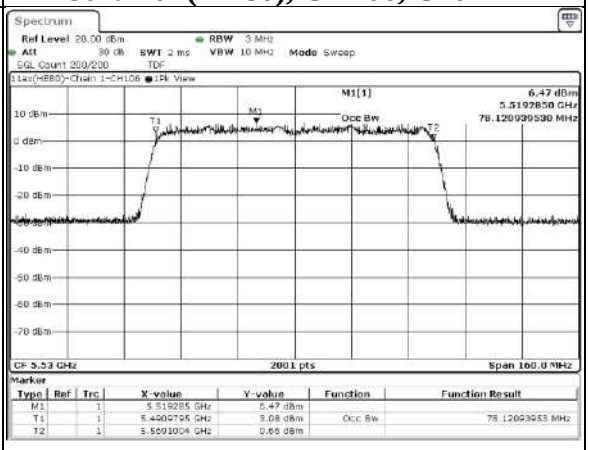
802.11ax(HE80), CH58, Chain 3



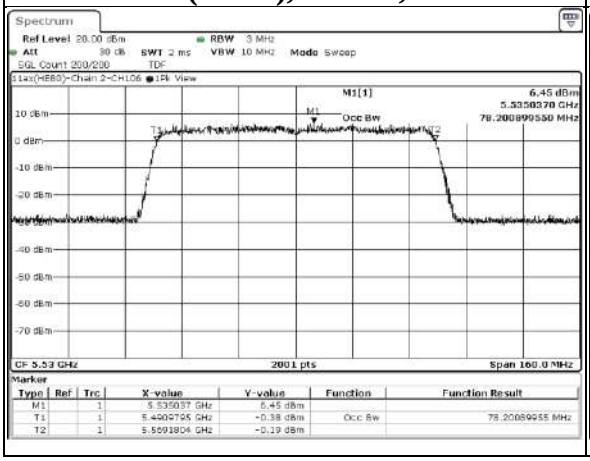
802.11ax(HE80), CH106, Chain 0



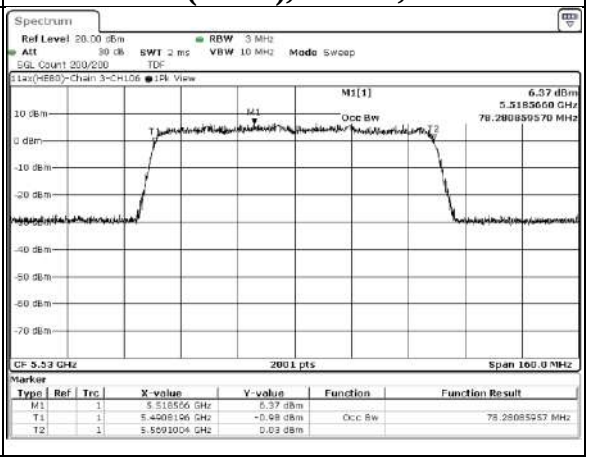
802.11ax(HE80), CH106, Chain 1



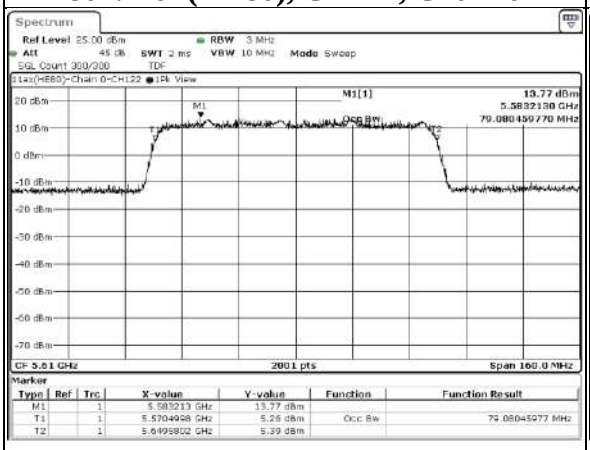
802.11ax(HE80), CH106, Chain 2



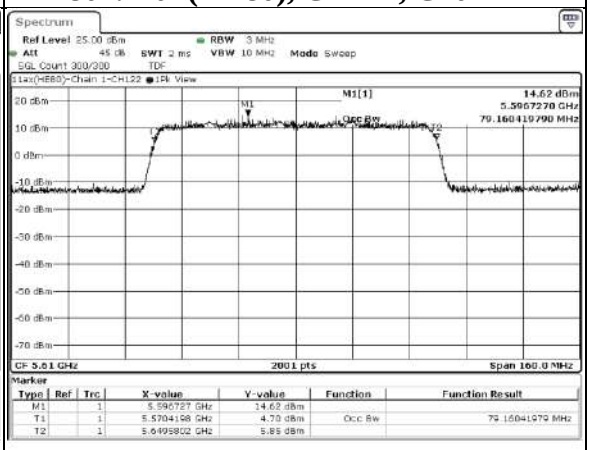
802.11ax(HE80), CH106, Chain 3



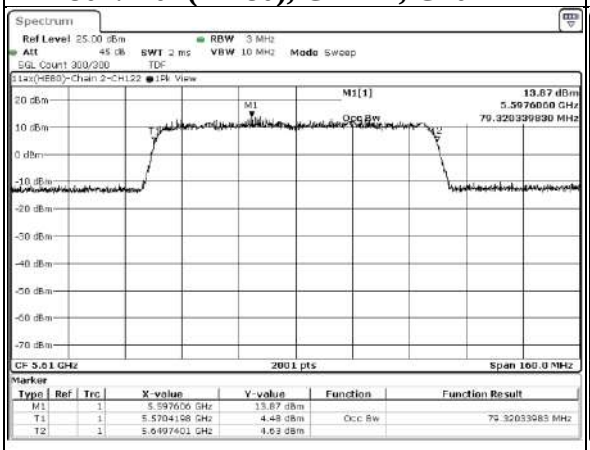
802.11ax(HE80), CH122, Chain 0



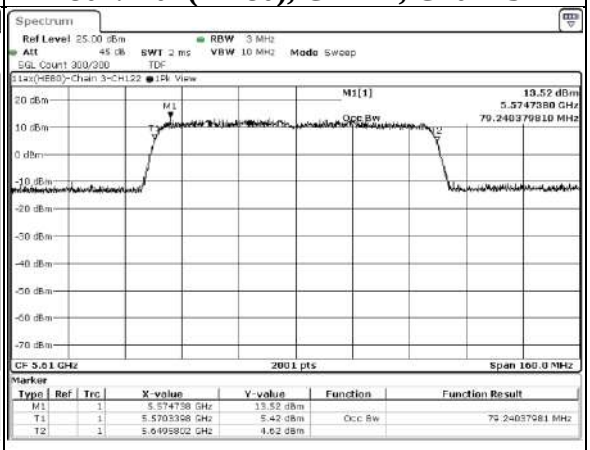
802.11ax(HE80), CH122, Chain 1



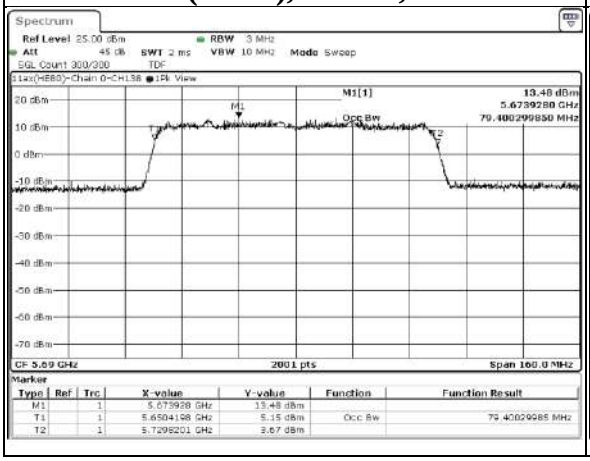
802.11ax(HE80), CH122, Chain 2



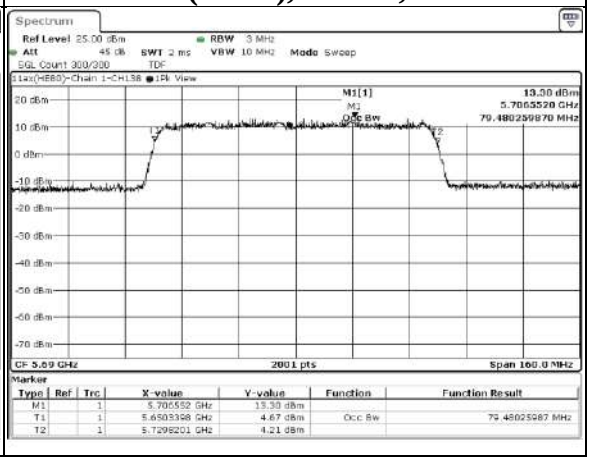
802.11ax(HE80), CH122, Chain 3



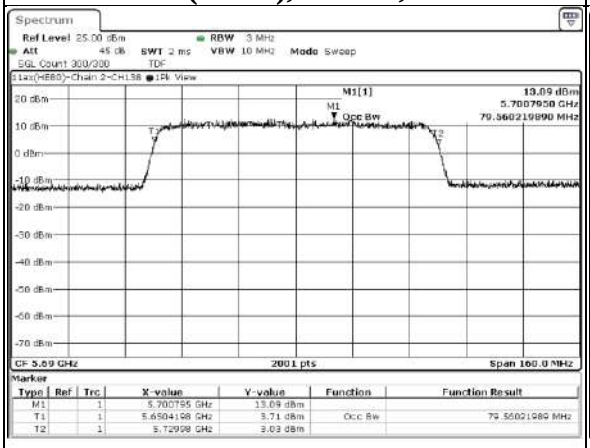
802.11ax(HE80), CH138, Chain 0



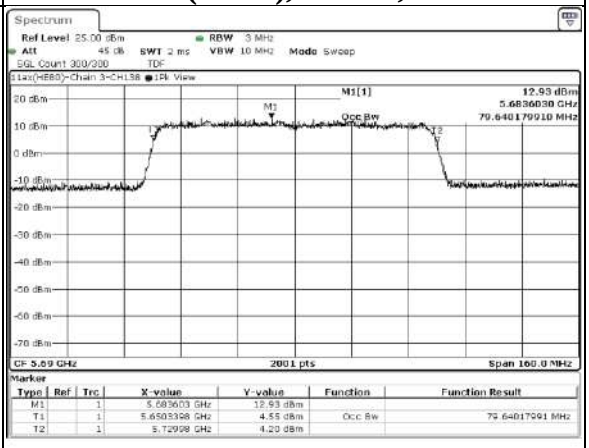
802.11ax(HE80), CH138, Chain 1



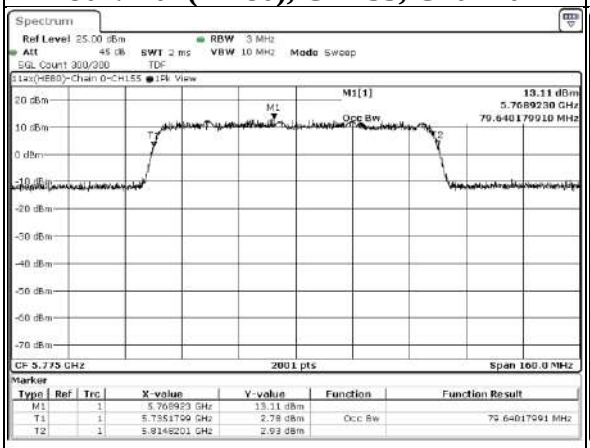
802.11ax(HE80), CH138, Chain 2



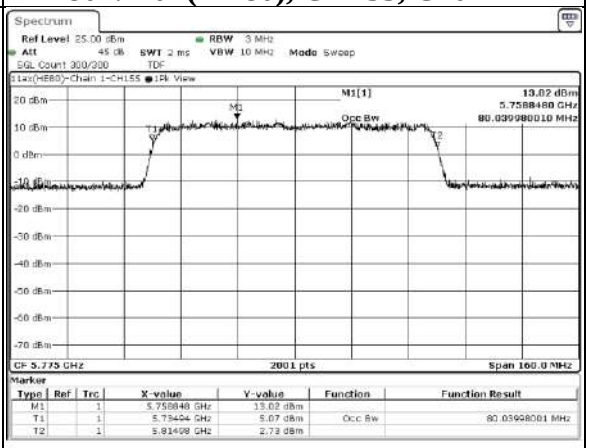
802.11ax(HE80), CH138, Chain 3



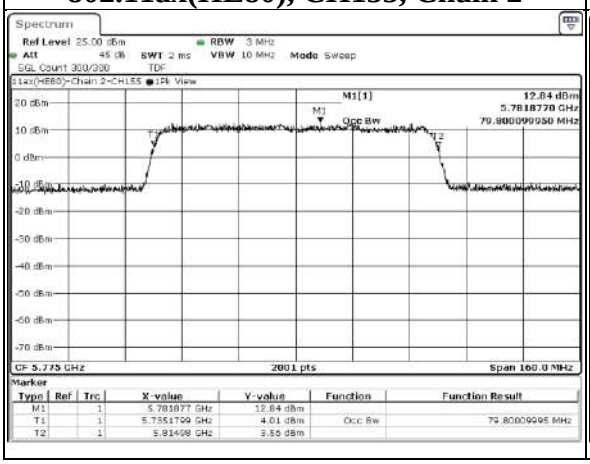
802.11ax(HE80), CH155, Chain 0



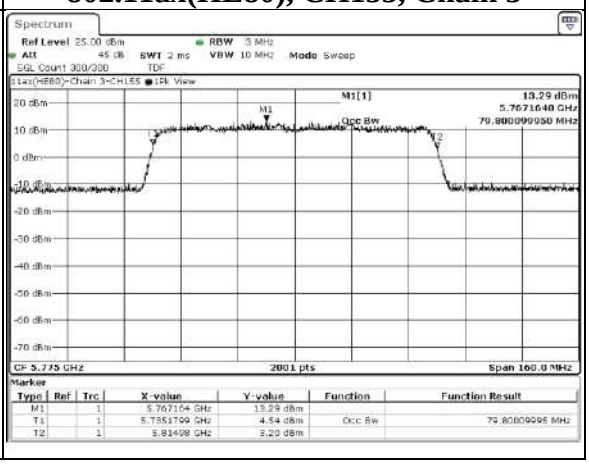
802.11ax(HE80), CH155, Chain 1



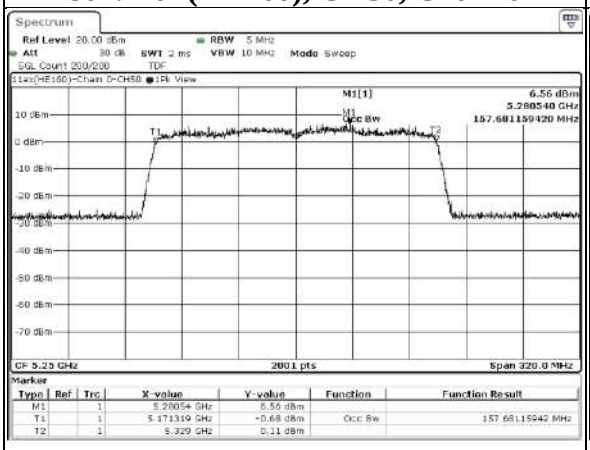
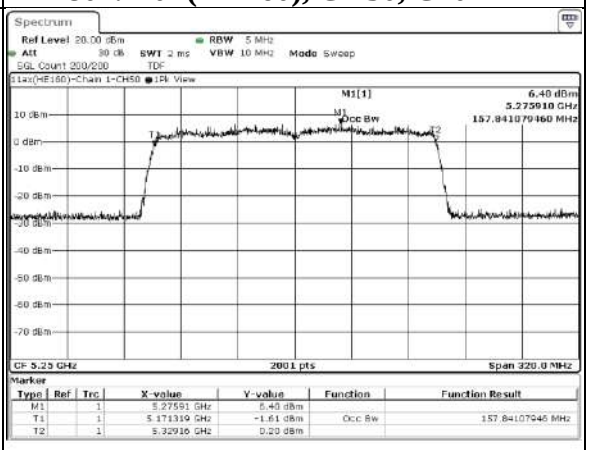
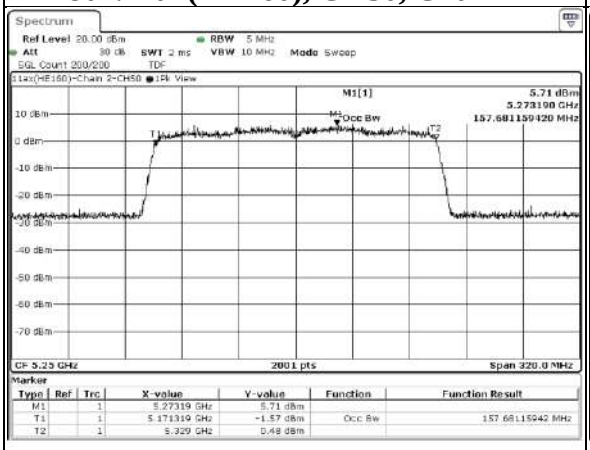
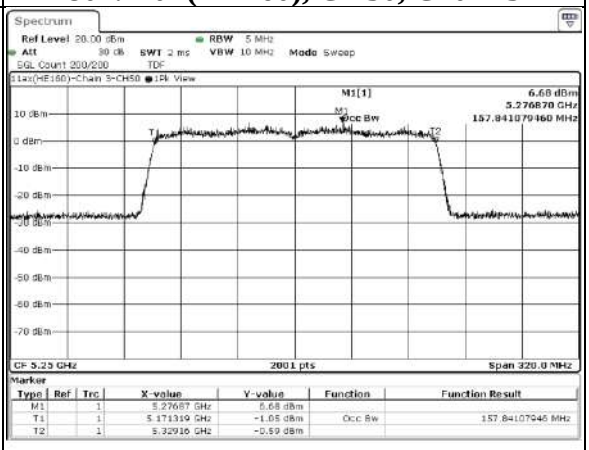
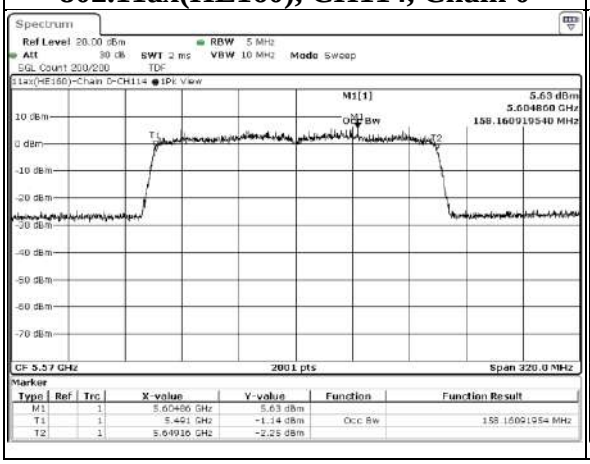
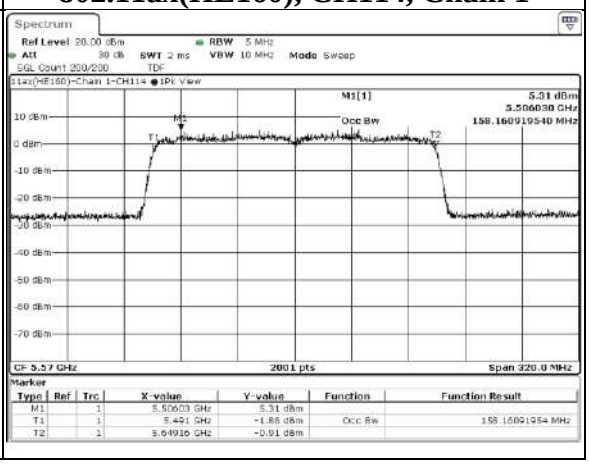
802.11ax(HE80), CH155, Chain 2

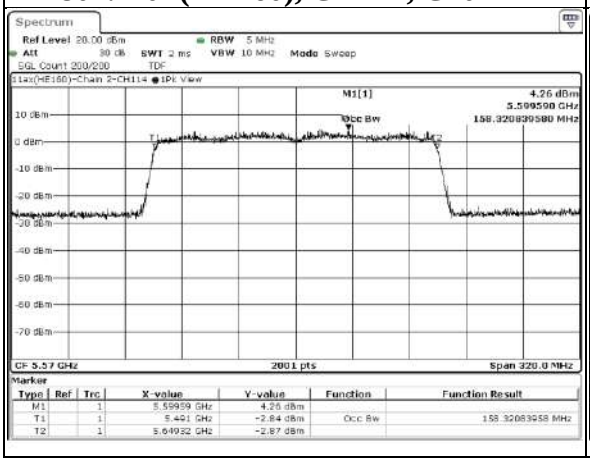
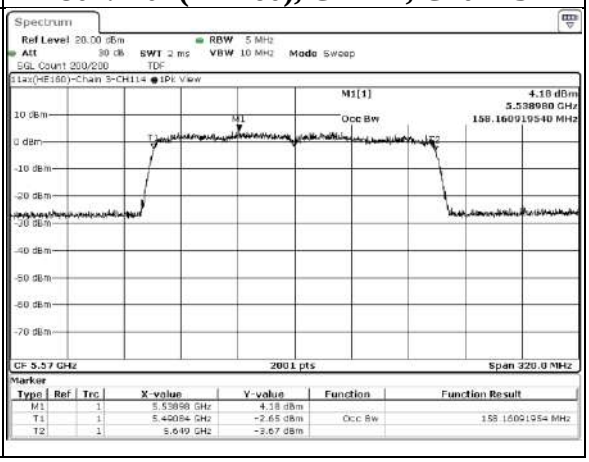


802.11ax(HE80), CH155, Chain 3



Mode	CH	Freq (MHz)	OBW (MHz)				Limit (MHz)	Result
			Chain 0	Chain 1	Chain 2	Chain 3		
802.11ax (HE160)	50 (U-NII-1)	5250	78.681	78.681	78.681	78.681	N/A	PASS
	50 (U-NII-1+U-NII-2A)	5250	157.681	157.841	157.681	157.841	N/A	PASS
	50 (U-NII-2A)	5250	79	79.16	79	79.16	N/A	PASS
	114	5570	158.161	158.161	158.321	158.161	N/A	PASS

802.11ax(HE160), CH50, Chain 0	802.11ax(HE160), CH50, Chain 1
	
802.11ax(HE160), CH50, Chain 2	**802.11ax(HE160), CH50, Chain 3**
	
802.11ax(HE160), CH114, Chain 0	**802.11ax(HE160), CH114, Chain 1**
	

802.11ax(HE160), CH114, Chain 2	802.11ax(HE160), CH114, Chain 3
	

9.4. Conducted output power

Requirements

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)
		Fixed point-to-point Access Point	1 Watt (30 dBm) If G_{TX} > 23 dBi, then P_{Out} = 30 – (G_{TX} – 23)
	√	Indoor Access Point	1 Watt (30 dBm) If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)
		Client device	250mW (24 dBm) If G_{TX} > 6 dBi, then P_{Out} = 23.98 – (G_{TX} – 6)
U-NII-2A	√		250mW (24 dBm) or 11 dBm+10 log B* If G_{TX} > 6 dBi, then P_{Out} = 23.98 – (G_{TX} – 6)
U-NII-2C	√		250mW (24 dBm) or 11 dBm+10 log B* If G_{TX} > 6 dBi, then P_{Out} = 23.98 – (G_{TX} – 6)
U-NII-3	√		For Point-to-multipoint systems (P2M): 1 Watt (30 dBm). If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6) For Point-to-point systems (P2P): 1 Watt (30 dBm)

Note:

1. P_{Out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi, B is the 26 dB emission bandwidth in megahertz
2. Directional Gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{Gn/20})^2$ / Nant] dBi.
   Nant: Number of Transmit Antennas
   G1, G2,..., Gn: Gain of Individual Antennas
   Example: four antennas and gain 3.9 dBi / 4.6 dBi / 5.1 dBi / 3.2 dBi, so if it was used for TxBF power measurement, Directional Gain = 10 log[$(10^{3.9/20} + 10^{4.6/20} + 10^{5.1/20} + 10^{3.2/20})^2$ /4] dBi = 10.25 dBi
3. Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices, CDD
   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 $N_{ANT} \geq 5$.
   Example: Maximum antenna gain = 5.1 dBi and $N_{ANT} \leq 4$, so if it was used for CDD power measurement
   Directional Gain = 5.1 dBi + Array Gain = 5.1 dBi + 0 dB = 5.1 dBi
4. For power measurement of KDB 662911 is used with multiple transmitter output. Total conducted power is the sum of the conducted power levels measured at the various output ports.
5. Straddle Channel Power in each band = Straddle Channel Total Power * (Each band EBW / Straddle Channel Total EBW).
   Example: if CH144 EBW (Total) = 20MHz, within UNII-2C Band is 15MHz, within UNII-3 Band is 5MHz, Total Power = 20dBm.
   Calculation for UNII-2C Band Power= 20dBm * (5/20) = 13.97 dBm
   Calculation for UNII-3 Band Power= 20dBm * (15/20) = 18.75 dBm.

Test Procedure

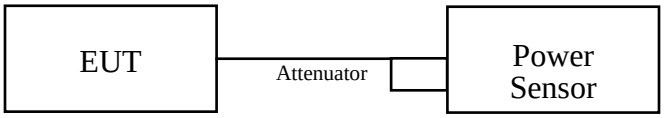
For Average Power Measurement

Test method PM

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

Test Setup

For Average Power Measurement



The loss between RF output port of the EUT and the input port of the Power Meter has been taken into consideration.

Test Data

Non-Beamforming mode

802.11a

FOR 1TX USE

Channel	Channel Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass/Fail
36	5180	139.637	21.45	30	PASS
44	5220	363.915	25.61	30	PASS
48	5240	215.774	23.34	30	PASS
52	5260	220.8	23.44	23.98	PASS
60	5300	223.357	23.49	23.98	PASS
64	5320	174.985	22.43	23.98	PASS
100	5500	105.439	20.23	23.98	PASS
116	5580	60.954	17.85	23.98	PASS
140	5700	48.641	16.87	23.98	PASS
144*	5720	39.994	16.02	23.98	PASS
144 (U-NII-2c Band)	5720	29.242	14.66	22.95	PASS
144 (U-NII-3 Band)	5720	10.765	10.32	30	PASS
149	5745	48.865	16.89	30	PASS
157	5785	60.395	17.81	30	PASS
165	5825	53.088	17.25	30	PASS

Note:
1. Record the total power CH144* value for reference only.

802.11ax (HE20)

FOR 4TX USE

Channel	Channel Frequency (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass/Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	19.06	18.78	18.99	18.78	310.456	24.92	30	PASS
44	5220	20.75	20.41	20.43	20.69	456.037	26.59	30	PASS
48	5240	20.47	20.49	20.22	20.03	429.536	26.33	30	PASS
52	5260	14.77	14.27	14.35	14.29	110.917	20.45	23.98	PASS
60	5300	14.40	14.33	13.98	14.21	105.925	20.25	23.98	PASS
64	5320	14.37	14.19	13.97	14.31	105.439	20.23	23.98	PASS
100	5500	14.38	13.90	14.34	14.02	104.472	20.19	23.98	PASS
116	5580	13.25	12.53	12.80	12.84	77.268	18.88	23.98	PASS
140	5700	12.22	11.44	11.54	11.84	60.117	17.79	23.98	PASS
144*	5720	11.63	11.03	11.27	11.25	53.951	17.32	23.98	PASS
144 (U-NII-2c Band)	5720	10.28	9.67	9.91	9.89	39.446	15.96	22.95	PASS
144 (U-NII-3 Band)	5720	5.90	5.33	5.56	5.54	14.488	11.61	30	PASS
149	5745	11.16	11.38	11.17	11.01	52.481	17.20	30	PASS
157	5785	12.47	12.57	12.53	12.03	69.663	18.43	30	PASS
165	5825	13.21	13.06	13.23	13.10	82.604	19.17	30	PASS

Note:
1. The directional gain = 5.1 dBi < 6 dBi, so the power limit shall not be reduced.
2. Record the total power CH144* value for reference only.

802.11ax (HE40)

FOR 4TX USE

Channel	Channel Frequency (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass/Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	11.30	10.92	10.94	11.12	51.168	17.09	30	PASS
46	5230	19.51	19.37	19.31	19.37	347.536	25.41	30	PASS
54	5270	17.81	17.23	17.15	17.61	222.844	23.48	23.98	PASS
62	5310	12.11	12.34	12.42	11.80	65.917	18.19	23.98	PASS
102	5510	11.75	11.89	11.74	10.98	57.81	17.62	23.98	PASS
110	5550	15.64	15.33	15.48	15.55	141.906	21.52	23.98	PASS
134	5670	14.07	14.22	14.33	14.22	105.439	20.23	23.98	PASS
142*	5710	13.92	13.73	13.67	13.55	94.189	19.74	23.98	PASS
142 (U-NII-2c Band)	5710	13.32	13.12	13.06	12.93	81.846	19.13	23.98	PASS
142 (U-NII-3 Band)	5710	5.04	4.91	4.87	4.79	12.388	10.93	30	PASS
151	5755	13.10	13.27	12.80	13.35	82.414	19.16	30	PASS
159	5795	13.83	13.71	13.80	14.00	96.828	19.86	30	PASS

Note:
1. The directional gain = 5.1 dBi < 6 dBi, so the power limit shall not be reduced.
2. Record the total power CH142* value for reference only.

802.11ax (HE80)

FOR 4TX USE

Channel	Channel Frequency (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass/Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	10.12	10.12	10.14	10.05	41.02	16.13	30	PASS
58	5290	11.38	11.48	11.56	11.48	56.234	17.50	23.98	PASS
106	5530	11.01	11.03	11.09	11.10	51.05	17.08	23.98	PASS
122	5610	16.73	16.41	16.78	16.52	183.231	22.63	23.98	PASS
138*	5690	15.97	15.67	15.88	16.20	156.675	21.95	23.98	PASS
138 (U-NII-2c Band)	5690	15.65	15.32	15.53	15.85	144.877	21.61	23.98	PASS
138 (U-NII-3 Band)	5690	4.55	4.51	4.82	5.12	11.967	10.78	30	PASS
155	5775	15.82	15.61	15.91	15.68	150.661	21.78	30	PASS

Note:
1. The directional gain = 5.1 dBi < 6 dBi, so the power limit shall not be reduced.
2. Record the total power CH138* value for reference only.

802.11ax (H160)

FOR 4TX USE

Channel	Channel Frequency (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass/Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
50	5250	10.95	11.15	11.15	11.10	51.404	17.11	23.98	PASS
U-NII 1-50	5250	7.92	8.13	8.12	8.10	25.645	14.09	30	PASS
U-NII 2a-50	5250	7.96	8.14	8.16	8.07	25.763	14.11	23.98	PASS
114	5570	9.98	9.81	9.33	9.23	36.475	15.62	23.98	PASS

Beamforming mode

802.11ax (HE20)

FOR 4TX USE

Channel	Channel Frequency (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass/Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	19.06	18.78	18.99	18.78	310.456	24.92	25.75	PASS
44	5220	19.75	19.51	19.65	19.70	368.978	25.67	25.75	PASS
48	5240	19.64	19.45	19.43	19.30	353.183	25.48	25.75	PASS
52	5260	13.63	13.24	13.13	13.40	86.497	19.37	19.73	PASS
60	5300	13.41	13.48	13.05	13.40	86.298	19.36	19.73	PASS
64	5320	13.56	13.40	13.21	13.34	87.096	19.40	19.73	PASS
100	5500	13.68	13.23	13.52	13.36	88.512	19.47	19.73	PASS
116	5580	13.25	12.53	12.80	12.84	77.268	18.88	19.73	PASS
140	5700	12.22	11.44	11.54	11.84	60.117	17.79	19.73	PASS
144*	5720	11.63	11.03	11.27	11.25	53.951	17.32	19.73	PASS
144 (U-NII-2c Band)	5720	10.28	9.67	9.91	9.89	39.446	15.96	18.7	PASS
144 (U-NII-3 Band)	5720	5.90	5.33	5.56	5.54	14.488	11.61	25.75	PASS
149	5745	11.16	11.38	11.17	11.01	52.481	17.20	25.75	PASS
157	5785	12.47	12.57	12.53	12.03	69.663	18.43	25.75	PASS
165	5825	13.21	13.06	13.23	13.10	82.604	19.17	25.75	PASS

Note:
1. The directional gain = 10.25 dBi > 6 dBi, so the power limit shall be reduced.
2. Record the total power CH144* value for reference only.

802.11ax (HE40)

FOR 4TX USE

Channel	Channel Frequency (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass/Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	11.30	10.92	10.94	11.12	51.168	17.09	25.75	PASS
46	5230	19.51	19.37	19.31	19.37	347.536	25.41	25.75	PASS
54	5270	13.54	13.17	13.00	13.34	84.918	19.29	19.73	PASS
62	5310	12.11	12.34	12.42	11.80	65.917	18.19	19.73	PASS
102	5510	11.75	11.89	11.74	10.98	57.81	17.62	19.73	PASS
110	5550	13.43	13.39	13.24	13.47	87.096	19.40	19.73	PASS
134	5670	13.41	13.31	13.29	13.47	86.896	19.39	19.73	PASS
142*	5710	13.54	13.24	13.14	13.28	85.507	19.32	19.73	PASS
142 (U-NII-2c Band)	5710	12.94	12.63	12.53	12.66	74.302	18.71	19.73	PASS
142 (U-NII-3 Band)	5710	4.66	4.42	4.34	4.52	11.246	10.51	25.75	PASS
151	5755	13.10	13.27	12.80	13.35	82.414	19.16	25.75	PASS
159	5795	13.83	13.71	13.80	14.00	96.828	19.86	25.75	PASS

Note:
1. The directional gain = 10.25 dBi > 6 dBi, so the power limit shall be reduced.
2. Record the total power CH142* value for reference only.

802.11ax (HE80)

FOR 4TX USE

Channel	Channel Frequency (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass/Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	10.12	10.12	10.14	10.05	41.02	16.13	25.75	PASS
58	5290	11.38	11.48	11.56	11.48	56.234	17.50	19.73	PASS
106	5530	11.01	11.03	11.09	11.10	51.05	17.08	19.73	PASS
122	5610	13.37	13.09	13.22	13.35	84.723	19.28	19.73	PASS
138*	5690	13.39	13.24	13.17	13.42	85.704	19.33	19.73	PASS
138 (U-NII-2c Band)	5690	13.07	12.89	12.82	13.07	79.068	18.98	19.73	PASS
138 (U-NII-3 Band)	5690	1.97	2.08	2.11	2.34	6.531	8.15	25.75	PASS
155	5775	15.82	15.61	15.91	15.68	150.661	21.78	25.75	PASS

Note:
1. The directional gain = 10.25 dBi > 6 dBi, so the power limit shall be reduced.
2. Record the total power CH138* value for reference only.

802.11ax (HE160)

FOR 4TX USE

Channel	Channel Frequency (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass/Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
50	5250	10.95	11.15	11.15	11.10	51.404	17.11	19.73	PASS
U-NII 1-50	5250	7.92	8.13	8.12	8.10	25.645	14.09	25.75	PASS
U-NII 2a-50	5250	7.96	8.14	8.16	8.07	25.763	14.11	19.73	PASS
114	5570	9.98	9.81	9.33	9.23	36.475	15.62	19.73	PASS

Note:

1. The directional gain = 10.25 dBi > 6 dBi, so the power limit shall be reduced.

9.5. Power Spectral Density

Requirements

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	17dBm/ MHz If G_{TX} > 6 dBi, then PSD = 17 – (G_{TX} – 6)
		Fixed point-to-point Access Point	17dBm/ MHz If G_{TX} > 23 dBi, then PSD = 17 – (G_{TX} – 23)
	√	Indoor Access Point	17dBm/ MHz If G_{TX} > 6 dBi, then PSD = 17 – (G_{TX} – 6)
		Client device	11dBm/ MHz If G_{TX} > 6 dBi, then PSD = 11 – (G_{TX} – 6)
U-NII-2A	√		11dBm/ MHz If G_{TX} > 6 dBi, then PSD = 11 – (G_{TX} – 6)
U-NII-2C	√		11dBm/ MHz If G_{TX} > 6 dBi, then PSD = 11 – (G_{TX} – 6)
U-NII-3	√		For Point-to-multipoint systems (P2M): 30dBm/ 500kHz. If G_{TX} > 6 dBi, then PSD = 30 – (G_{TX} – 6) For Point-to-point systems (P2P): 30dBm/ 500kHz

Note:
1. PSD = power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz
2. G_{TX} = the maximum transmitting antenna directional gain in dBi.
3. Directional Gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{Gn/20})^2$ / Nant] dBi.
   N*a*nt: Number of Transmit Antennas
   G1, G2,..., Gn: Gain of Individual Antennas
   Example: four antennas and gain 3.9 dBi / 4.6 dBi / 5.1 dBi / 3.2 dBi, so if it was used for power density measurement, Directional Gain = 10 log[$(10^{3.9/20} + 10^{4.6/20} + 10^{5.1/20} + 10^{3.2/20})^2$ /4] dBi = 10.25 dBi
4. "PSD per chain" of the report shown is maximum value for each chain, at the "Total PSD" is summing entire spectra across corresponding frequency bins on the various outputs by computer, refer KDB 662911 Method a) for calculating total power density.
5. Method a) of power density measurement of KDB 662911 is used for calculating total power density with multiple transmitter output. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
6. Refer to section 6.6 for duty cycle spectrum plot. (If duty cycle<98%)

Test procedure

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

Using method as below:

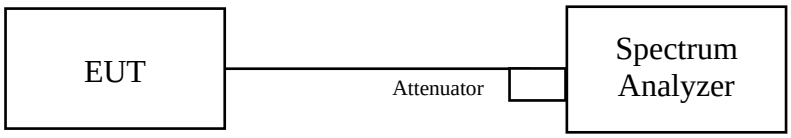
a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 1 MHz, Set VBW ≥ 3 RBW, Detector = RMS
c. Sweep time = auto, trigger set to "free run".
d. Trace average at least 100 traces in power averaging mode.
e. Record the max value. (if Duty cycle <98 %, add 10 log (1/duty cycle))

For U-NII-3 band:

Using method as below:

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
c. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
d. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10 log (500 kHz/300kHz)
e. Sweep time = auto, trigger set to "free run".
f. Trace average at least 100 traces in power averaging mode.
g. Record the max value. (if Duty cycle <98 %, add 10 log (1/duty cycle))

Test Setup



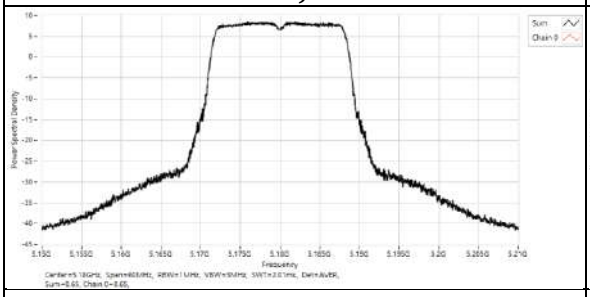
The loss between RF output port of the EUT and the input port of the Spectrum Analyzer has been taken into consideration.

Test Data

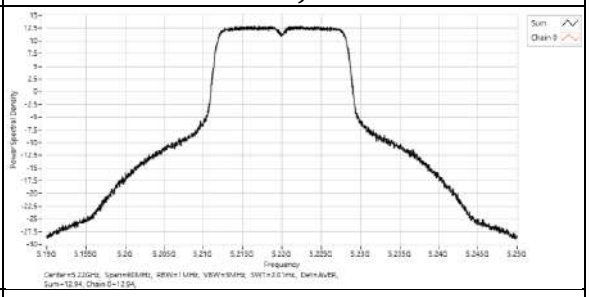
Mode (U-NII-1)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11a	36	5180	3.9	8.65	17	PASS
	44	5220	3.9	12.94	17	PASS
	48	5240	3.9	10.91	17	PASS

Mode (U-NII-1)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)
			Chain 0
802.11a	36	5180	8.653
	44	5220	12.939
	48	5240	10.912

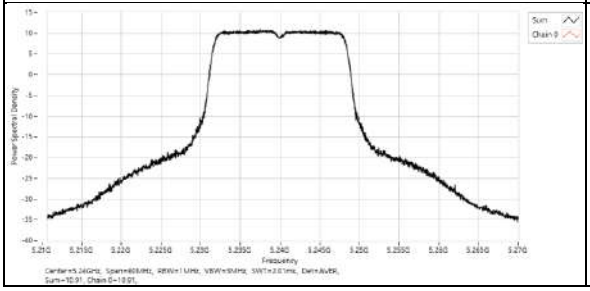
802.11a, CH36



802.11a, CH44



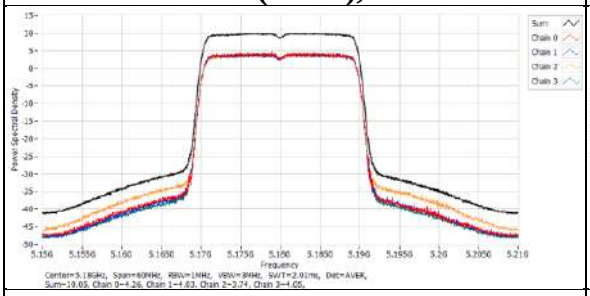
802.11a, CH48



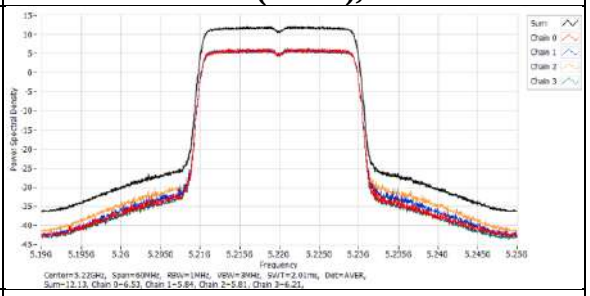
Mode (U-NII-1)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11ax(HE20)	36	5180	10.25	10.05	12.75	PASS
	44	5220	10.25	12.13	12.75	PASS
	48	5240	10.25	12.11	12.75	PASS

Mode (U-NII-1)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE20)	36	5180	4.686	4.341	4.27	4.359
	44	5220	6.529	6.519	6.331	6.454
	48	5240	6.756	6.141	6.37	6.319

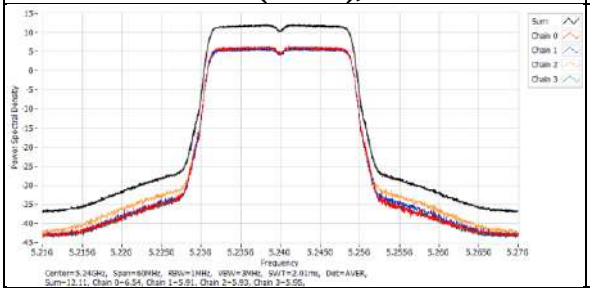
802.11ax(HE20), CH36



802.11ax(HE20), CH44

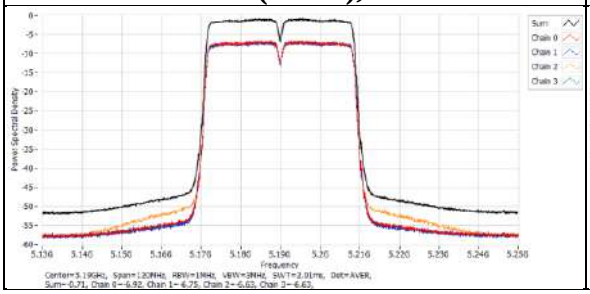
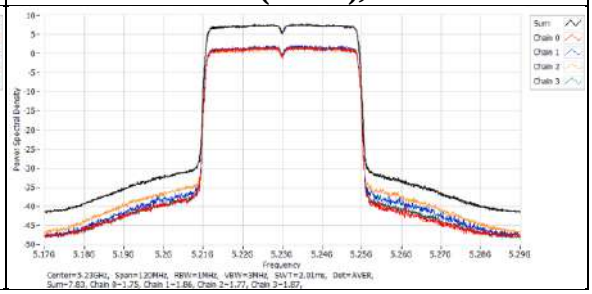


802.11ax(HE20), CH48



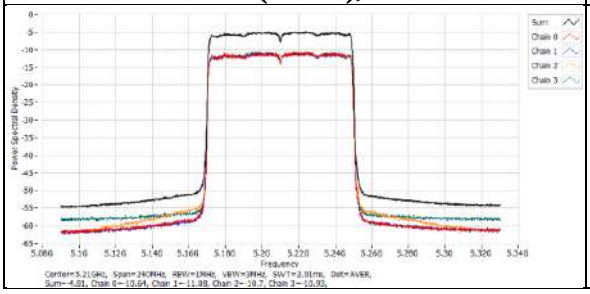
Mode (U-NII-1)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11ax(HE40)	38	5190	10.25	-0.71	12.75	PASS
	46	5230	10.25	7.83	12.75	PASS

Mode (U-NII-1)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE40)	38	5190	-6.473	-6.687	-6.559	-6.515
	46	5230	2.089	2.262	1.969	1.957

802.11ax(HE40), CH38	802.11ax(HE40), CH46
	

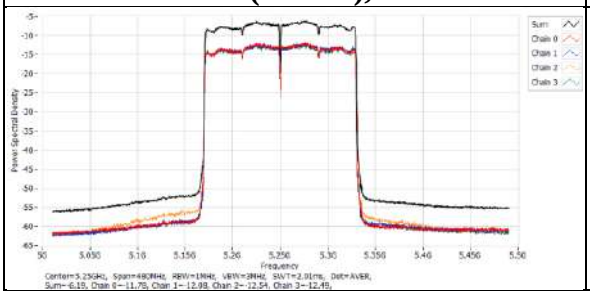
Mode (U-NII-1)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11ax(HE80)	42	5210	10.25	-4.81	12.75	PASS

Mode (U-NII-1)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE80)	42	5210	-10.608	-10.645	-10.577	-10.448

802.11ax(HE80), CH42	
	

Mode (U-NII-1)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11ax(HE160)	50	5250	10.25	-6.19	12.75	PASS

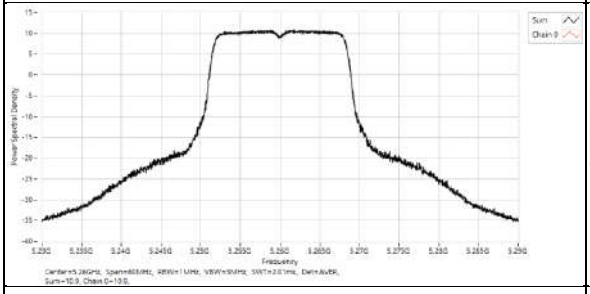
Mode (U-NII-1)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE160)	50	5250	-11.78	-11.962	-11.821	-12.397

802.11ax(HE160), CH50	
	

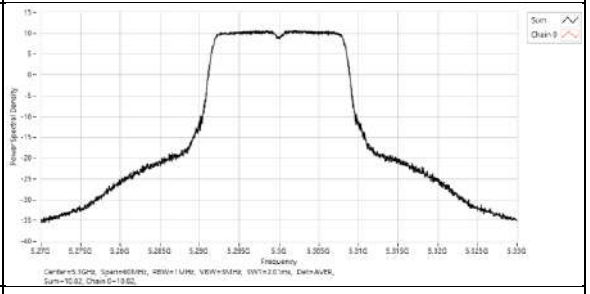
Mode (U-NII-2A)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11a	52	5260	3.9	10.9	11	PASS
	60	5300	3.9	10.82	11	PASS
	64	5320	3.9	9.89	11	PASS

Mode (U-NII-2A)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)
			Chain 0
802.11a	52	5260	10.898
	60	5300	10.818
	64	5320	9.891

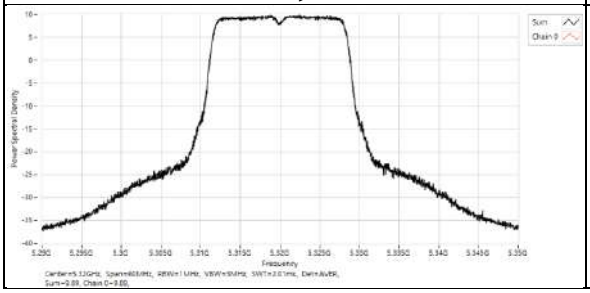
802.11a, CH52



802.11a, CH60



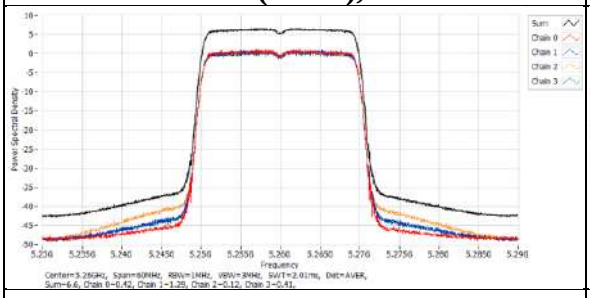
802.11a, CH64



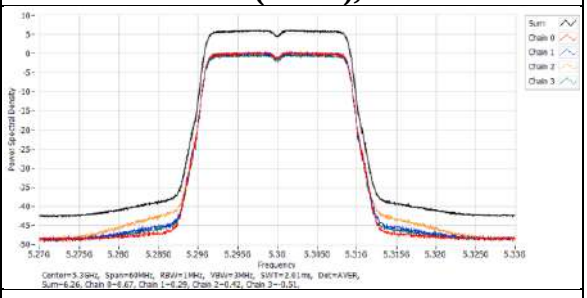
Mode (U-NII-2A)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11ax(HE20)	52	5260	10.25	6.6	6.75	PASS
	60	5300	10.25	6.26	6.75	PASS
	64	5320	10.25	6.38	6.75	PASS

Mode (U-NII-2A)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE20)	52	5260	1.142	1.288	1.105	0.602
	60	5300	0.671	0.624	0.571	0.022
	64	5320	0.957	0.692	0.711	0.219

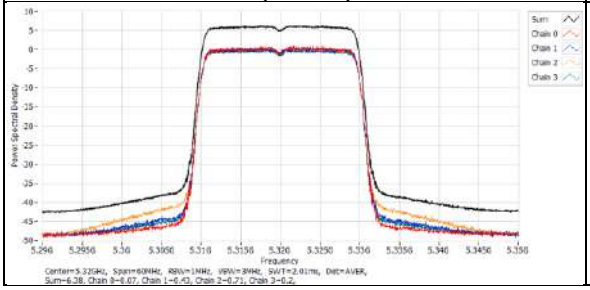
802.11ax(HE20), CH52



802.11ax(HE20), CH60

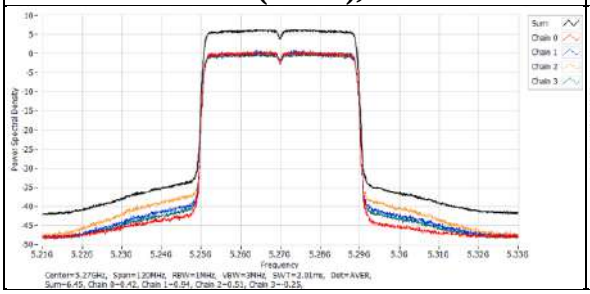
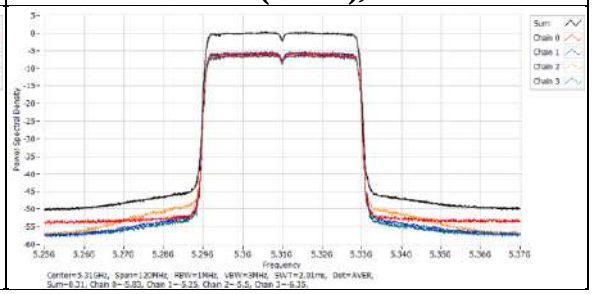


802.11ax(HE20), CH64



Mode (U-NII-2A)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11ax(HE40)	54	5270	10.25	6.45	6.75	PASS
	62	5310	10.25	0.31	6.75	PASS

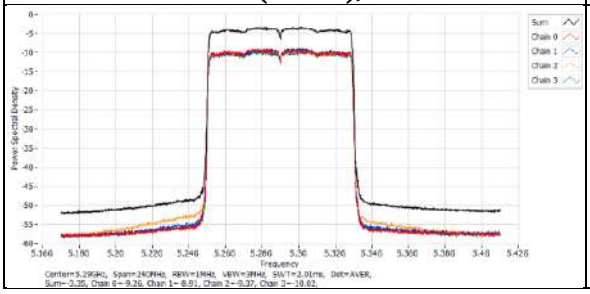
Mode (U-NII-2A)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE40)	54	5270	0.658	0.943	0.889	0.427
	62	5310	-5.358	-5.188	-5.073	-5.885

802.11ax(HE40), CH54	802.11ax(HE40), CH62
	

Mode (U-NII-2A)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11ax(HE80)	58	5290	10.25	-3.35	6.75	PASS

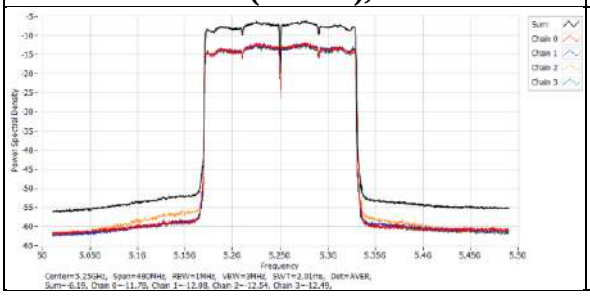
Mode (U-NII-2A)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE80)	58	5290	-8.931	-8.879	-8.959	-9.477

802.11ax(HE80), CH58



Mode (U-NII-2A)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11ax(HE160)	50	5250	10.25	-6.19	6.75	PASS

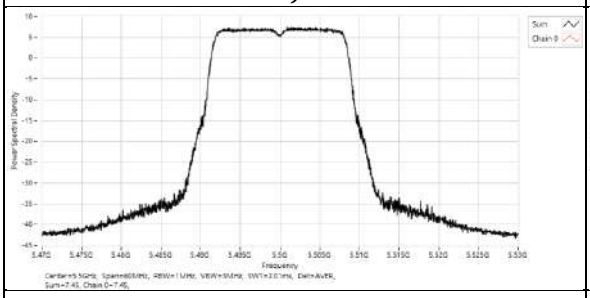
Mode (U-NII-2A)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE160)	50	5250	-11.78	-11.962	-11.821	-12.397

802.11ax(HE160), CH50	
	

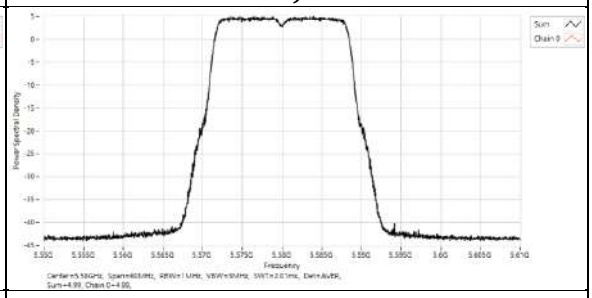
Mode (U-NII-2C)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11a	100	5500	3.9	7.45	11	PASS
	116	5580	3.9	4.99	11	PASS
	140	5700	3.9	4.27	11	PASS
	144	5720	3.9	3.94	11	PASS

Mode (U-NII-2C)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)
			Chain 0
802.11a	100	5500	7.451
	116	5580	4.991
	140	5700	4.273
	144	5720	3.944

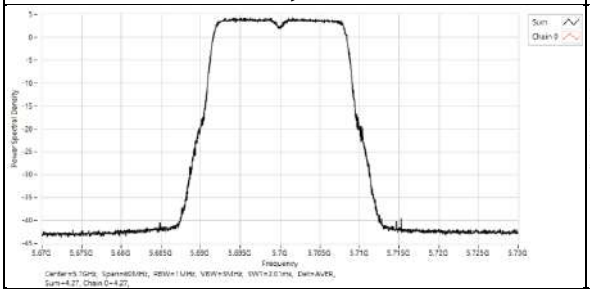
802.11a, CH100



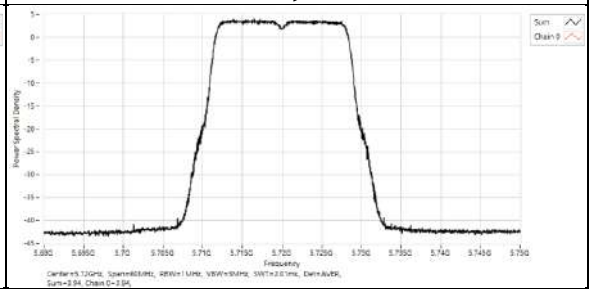
802.11a, CH116



802.11a, CH140



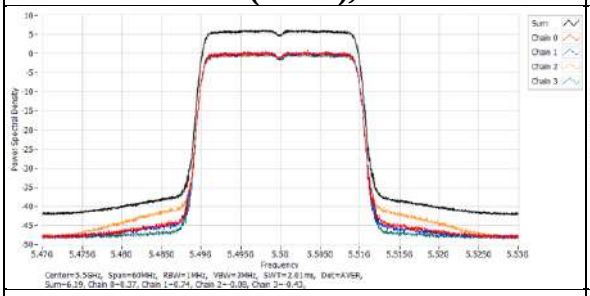
802.11a, CH144



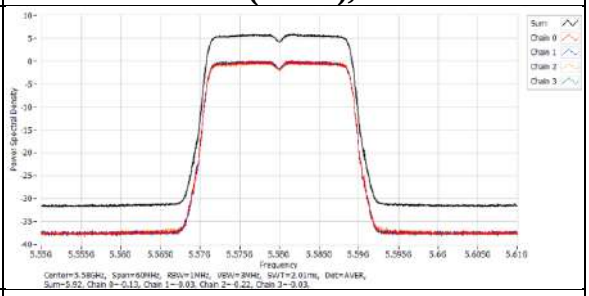
Mode (U-NII-2C)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11ax(HE20)	100	5500	10.25	6.19	6.75	PASS
	116	5580	10.25	5.92	6.75	PASS
	140	5700	10.25	4	6.75	PASS
	144	5720	10.25	3.5	6.75	PASS

Mode (U-NII-2C)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE20)	100	5500	0.806	0.74	0.443	0.237
	116	5580	0.126	0.078	-0.169	0.189
	140	5700	-1.751	-1.736	-1.57	-1.807
	144	5720	-2.383	-2.571	-2.114	-1.988

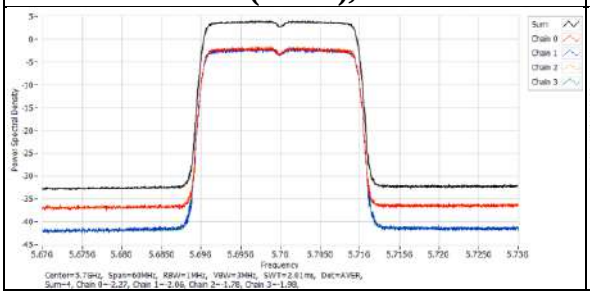
802.11ax(HE20), CH100



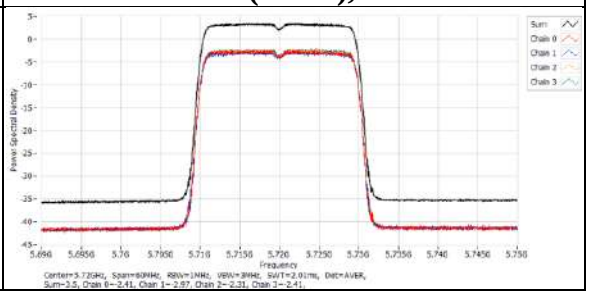
802.11ax(HE20), CH116



802.11ax(HE20), CH140



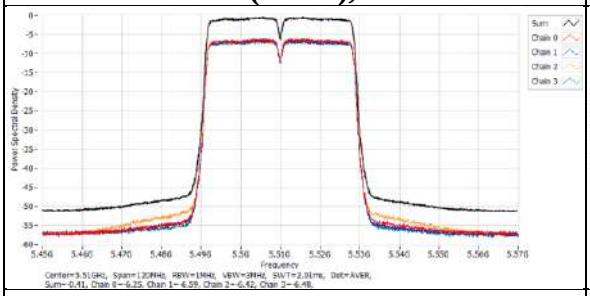
802.11ax(HE20), CH144



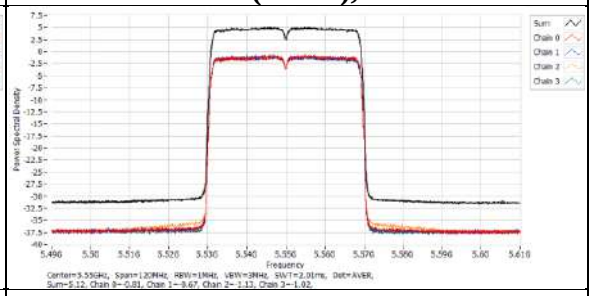
Mode (U-NII-2C)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11ax(HE40)	102	5510	10.25	-0.41	6.75	PASS
	110	5550	10.25	5.12	6.75	PASS
	134	5670	10.25	3.04	6.75	PASS
	142	5710	10.25	2.7	6.75	PASS

Mode (U-NII-2C)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE40)	102	5510	-6.01	-6.189	-6.076	-6.479
	110	5550	-0.566	-0.667	-0.836	-0.705
	134	5670	-2.694	-2.622	-2.973	-2.7
	142	5710	-3.221	-3.119	-3.063	-3.089

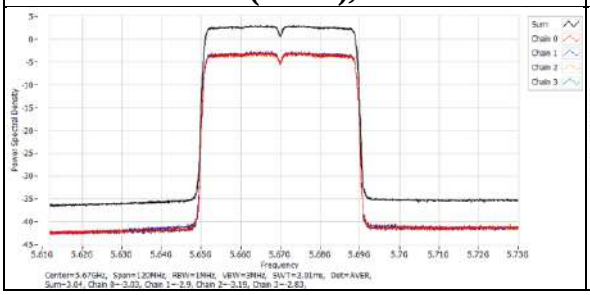
802.11ax(HE40), CH102



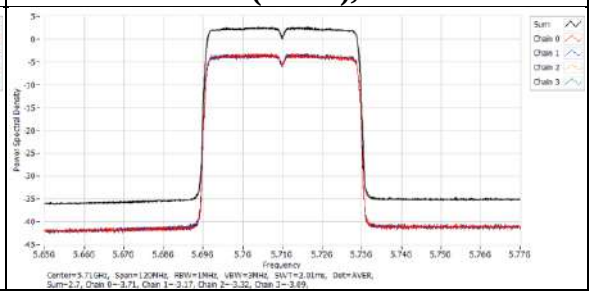
802.11ax(HE40), CH110



802.11ax(HE40), CH134



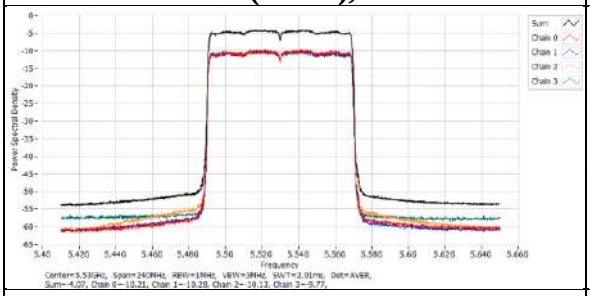
802.11ax(HE40), CH142



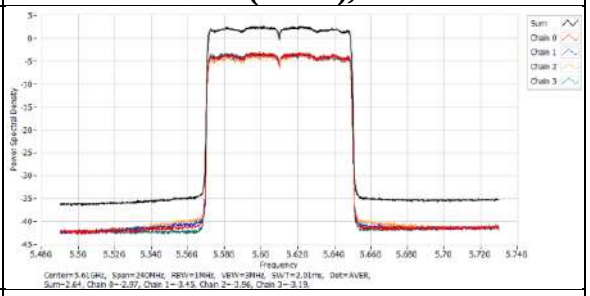
Mode (U-NII-2C)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11ax(HE80)	106	5530	10.25	-4.07	6.75	PASS
	122	5610	10.25	2.64	6.75	PASS
	138	5690	10.25	2.25	6.75	PASS

Mode (U-NII-2C)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE80)	106	5530	-9.677	-9.885	-9.705	-9.488
	122	5610	-2.97	-3.182	-3.392	-2.927
	138	5690	-3.47	-3.425	-3.489	-3.575

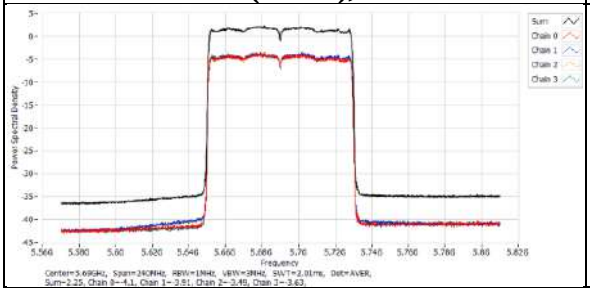
802.11ax(HE80), CH106



802.11ax(HE80), CH122

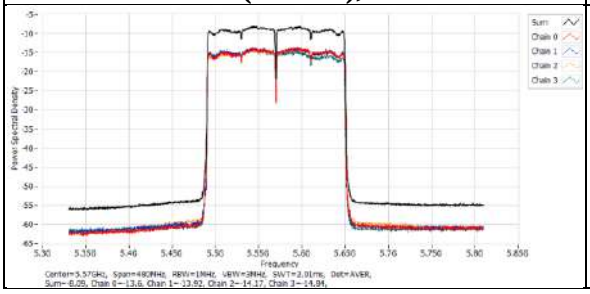


802.11ax(HE80), CH138



Mode (U-NII-2C)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11ax(HE160)	114	5570	10.25	-8.09	6.75	PASS

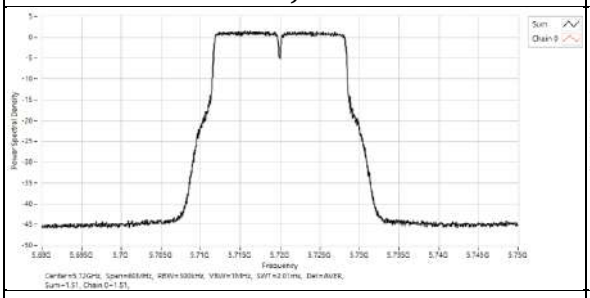
Mode (U-NII-2C)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE160)	114	5570	-13.598	-13.761	-13.992	-13.801

802.11ax(HE160), CH114	
	

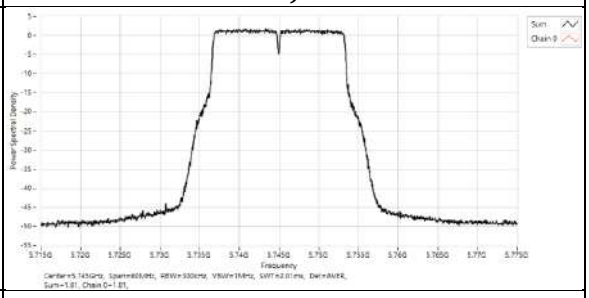
Mode (U-NII-3)	CH	Freq (MHz)	BWCF	Directional Gain (dBi)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
802.11a	144	5720	2.22	3.9	3.73	30	PASS
	149	5745	2.22	3.9	4.03	30	PASS
	157	5785	2.22	3.9	5.17	30	PASS
	165	5825	2.22	3.9	4.43	30	PASS

Mode (U-NII-3)	CH	Freq (MHz)	PSD per Chain (dBm/500kHz)
			Chain 0
802.11a	144	5720	1.513
	149	5745	1.809
	157	5785	2.955
	165	5825	2.216

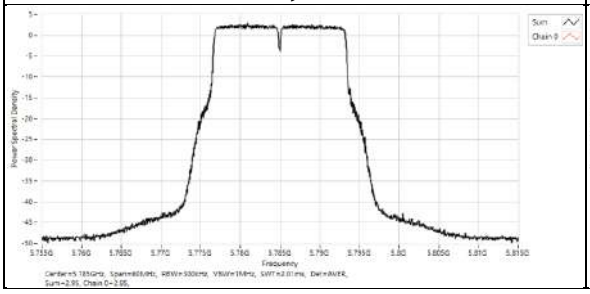
802.11a, CH144



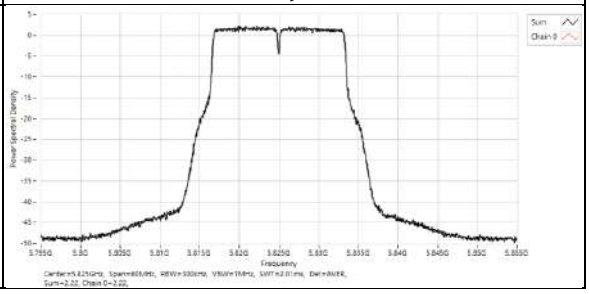
802.11a, CH149



802.11a, CH157



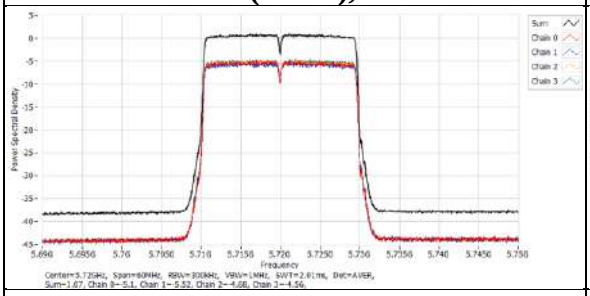
802.11a, CH165



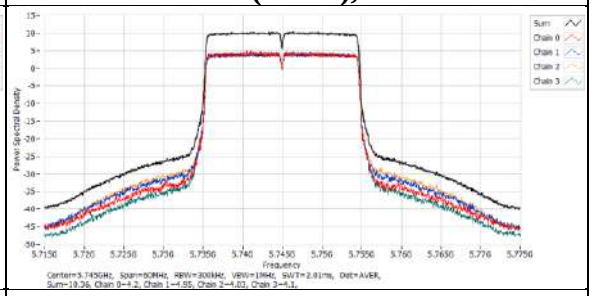
Mode (U-NII-3)	CH	Freq (MHz)	BWCF	Directional Gain (dBi)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
802.11ax(HE20)	144	5720	2.22	10.25	3.29	25.75	PASS
	149	5745	2.22	10.25	12.58	25.75	PASS
	157	5785	2.22	10.25	12.65	25.75	PASS
	165	5825	2.22	10.25	12.67	25.75	PASS

Mode (U-NII-3)	CH	Freq (MHz)	PSD per Chain (dBm/500kHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE20)	144	5720	-4.957	-4.929	-4.685	-4.476
	149	5745	4.993	4.949	4.687	4.834
	157	5785	4.885	4.713	4.9	4.827
	165	5825	4.686	4.397	4.796	4.691

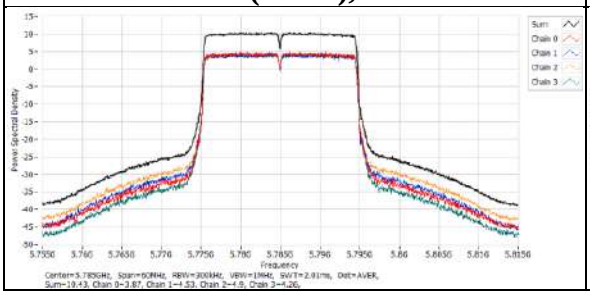
802.11ax(HE20), CH144



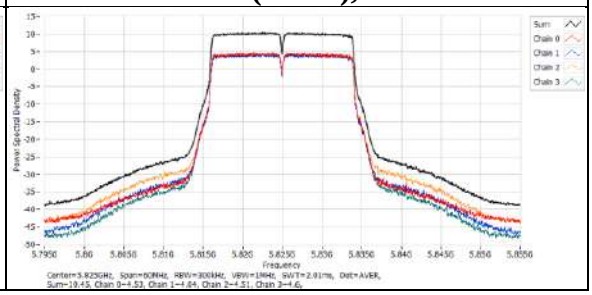
802.11ax(HE20), CH149



802.11ax(HE20), CH157



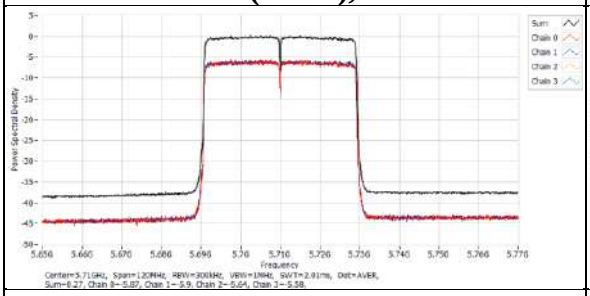
802.11ax(HE20), CH165



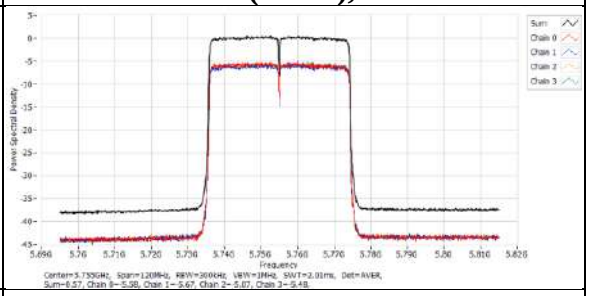
Mode (U-NII-3)	CH	Freq (MHz)	BWCF	Directional Gain (dBi)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
802.11ax(HE40)	142	5710	2.22	10.25	2.49	25.75	PASS
	151	5755	2.22	10.25	2.79	25.75	PASS
	159	5795	2.22	10.25	3.62	25.75	PASS

Mode (U-NII-3)	CH	Freq (MHz)	PSD per Chain (dBm/500kHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE40)	142	5710	-5.628	-5.455	-5.642	-5.584
	151	5755	-5.051	-5.472	-5.074	-5.187
	159	5795	-4.107	-4.732	-4.39	-4.29

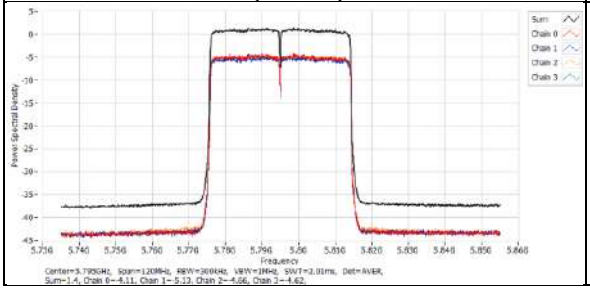
802.11ax(HE40), CH142



802.11ax(HE40), CH151

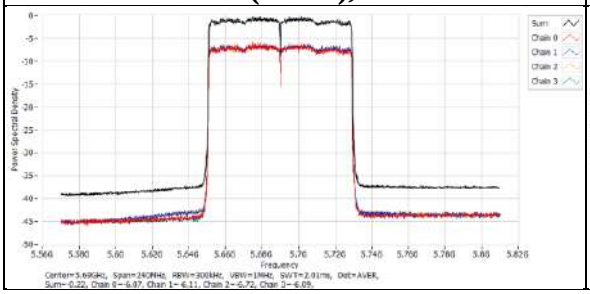
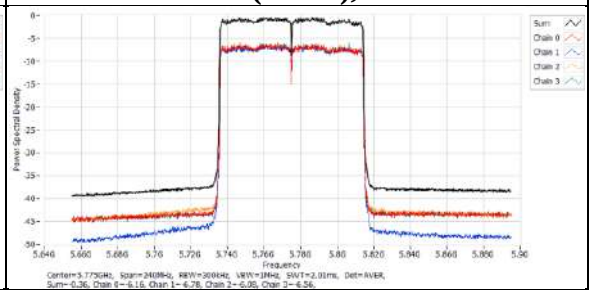


802.11ax(HE40), CH159



Mode (U-NII-3)	CH	Freq (MHz)	BWCF	Directional Gain (dBi)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
802.11ax(HE80)	138	5690	2.22	10.25	2	25.75	PASS
	155	5775	2.22	10.25	1.85	25.75	PASS

Mode (U-NII-3)	CH	Freq (MHz)	PSD per Chain (dBm/500kHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11ax(HE80)	138	5690	-5.897	-6.012	-5.982	-5.975
	155	5775	-6.1	-6.477	-6.024	-6

802.11ax(HE80), CH138	802.11ax(HE80), CH155
	

9.6. Frequency Stability

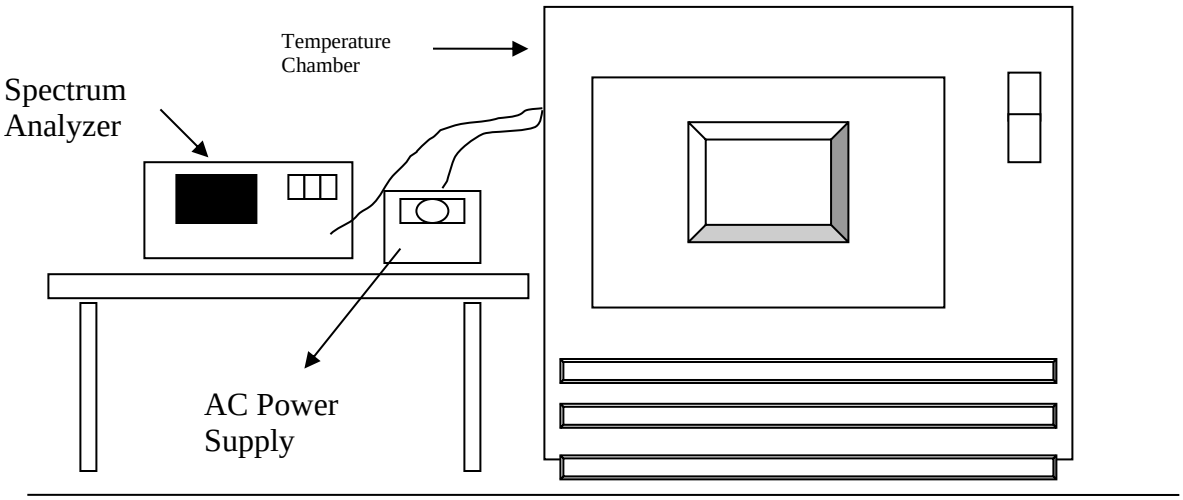
Requirements

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

Test procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
b. Turn the EUT on and couple its output to a spectrum analyzer.
c. Turn the EUT off and set the chamber to the highest temperature specified.
d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes.
e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

Test Setup



Test Data

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
TEMP. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)
50	120	5180.0087	1.68	5180.0073	1.41	5180.0069	1.33	5180.0051	0.98
40	120	5179.9782	-4.21	5179.9798	-3.90	5179.978	-4.25	5179.9798	-3.90
30	120	5179.9741	-5.00	5179.977	-4.44	5179.9762	-4.59	5179.9767	-4.50
20	120	5180.018	3.47	5180.0224	4.32	5180.018	3.47	5180.0226	4.36
10	120	5180.0221	4.27	5180.0187	3.61	5180.0218	4.21	5180.0214	4.13
0	120	5180.0113	2.18	5180.0087	1.68	5180.011	2.12	5180.01	1.93
-10	120	5179.9795	-3.96	5179.9791	-4.03	5179.9801	-3.84	5179.9789	-4.07
-20	120	5180.0089	1.72	5180.011	2.12	5180.0118	2.28	5180.0111	2.14
-30	120	5180.0105	2.03	5180.0088	1.70	5180.0118	2.28	5180.0122	2.36
TEMP. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)
20	138	5180.0189	3.65	5180.0224	4.32	5180.0186	3.59	5180.0227	4.38
20	120	5180.018	3.47	5180.0224	4.32	5180.018	3.47	5180.0226	4.36
20	102	5180.0172	3.32	5180.0216	4.17	5180.0179	3.46	5180.0231	4.46

9.7. Radiated Spurious Emission

Requirements

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

Frequency(MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

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

Limits of unwanted emission out of the restricted bands

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

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

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

Test Procedures

[For 9 kHz ~ 30 MHz]

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. For measurement below 30MHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

NOTE:
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

[For above 30 MHz]

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
f. 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:

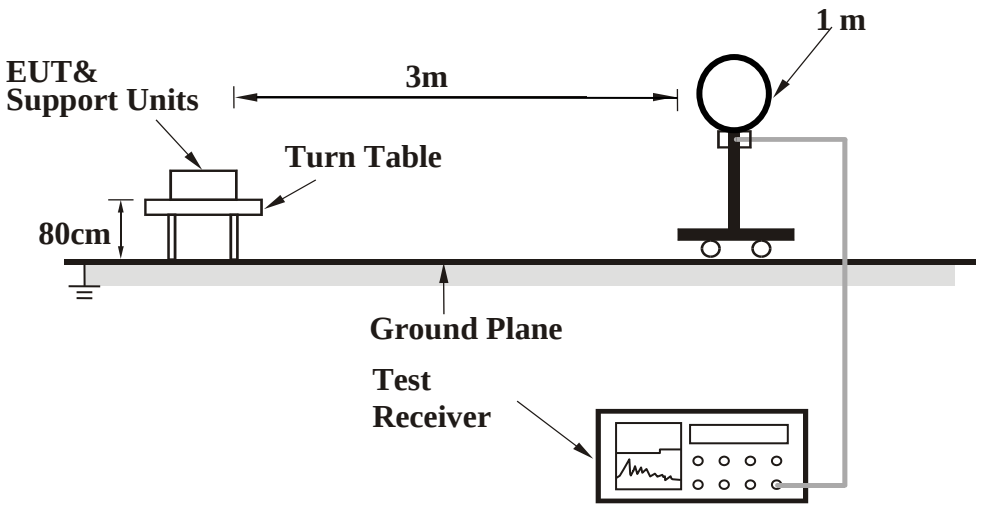
a. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
b. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
c. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.

Configuration	Average	
	RBW	VBW
802.11a	1MHz	Refer to section 6.6 for duty cycle.
802.11ax (HE20)		
802.11ax (HE40)		
802.11ax (HE80)		
802.11ax (HE160)		

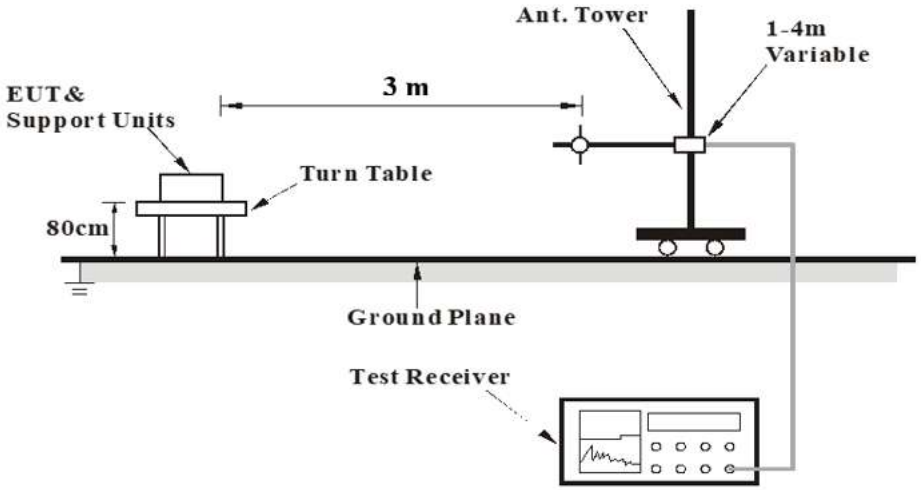
d. All modes of operation were investigated (includes all external accessories) and the worst-case emissions are reported, the other emission levels were low against the limit.
e. Test data of Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
f. Test data of Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
g. Test data of Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
h. Test data of Notation "@" = Fundamental Frequency
i. Test data of Notation " * " = Only required peak limit or the peak result under 20 dB above and complies with AVG limit, AVG result is deemed to comply with AVG limit.

Test Setup

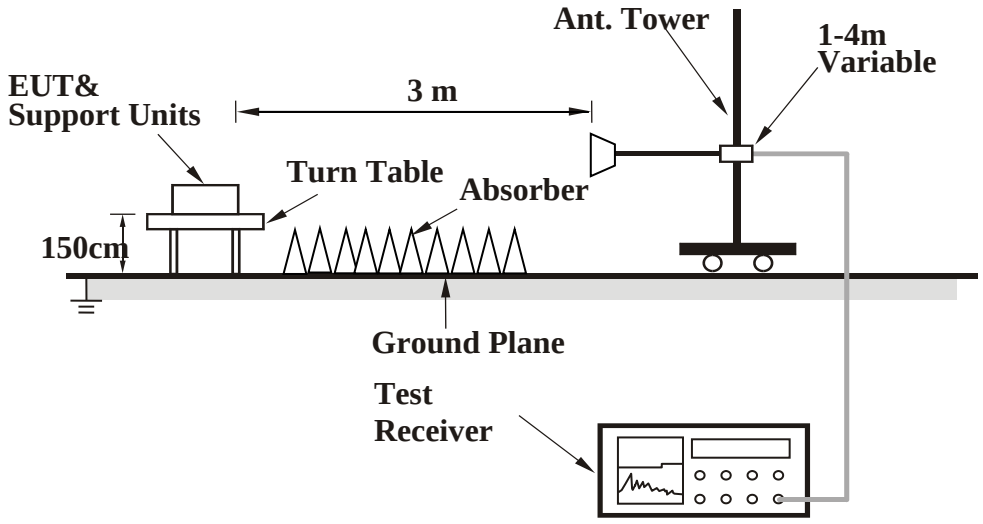
<Frequency Range 9 kHz ~ 30 MHz>



<Frequency Range 30 MHz ~ 1 GHz >



<Frequency Range above 1 GHz>



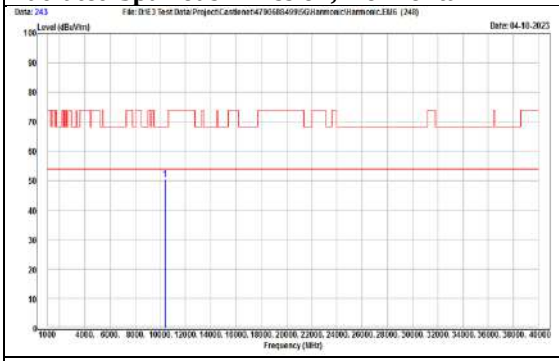
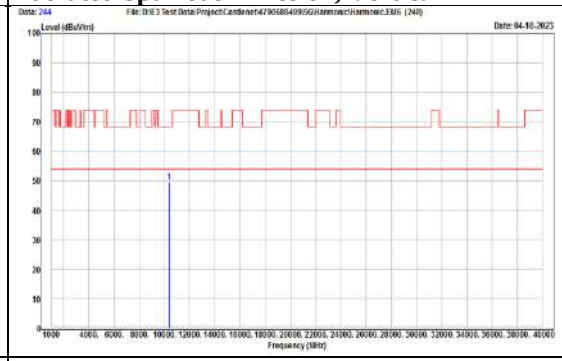
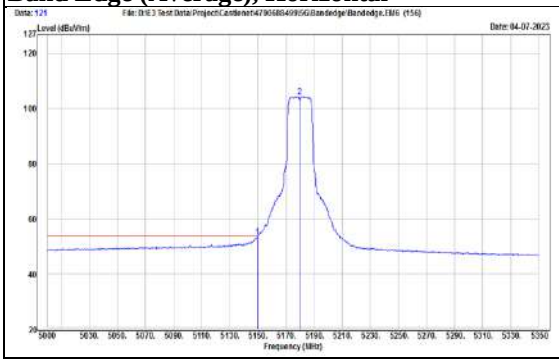
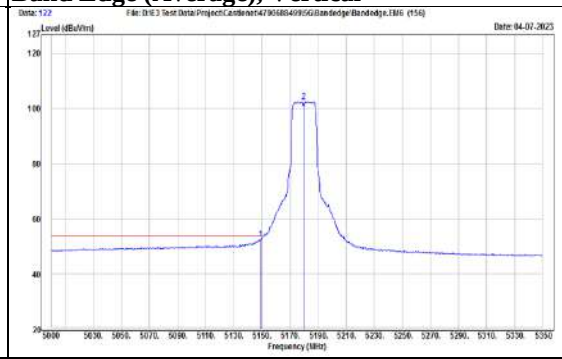
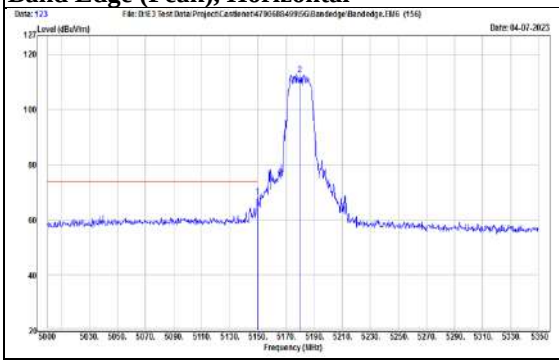
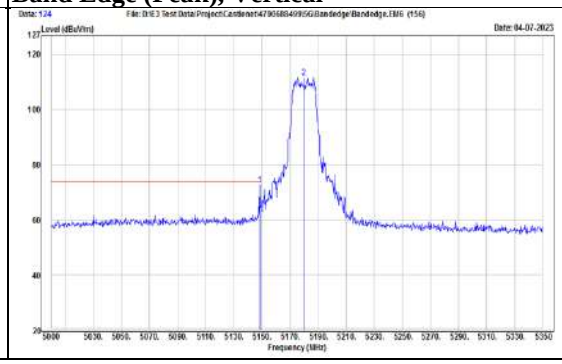
For the actual test configuration, please refer to the Setup Configurations.

Test Data

Above 1 GHz

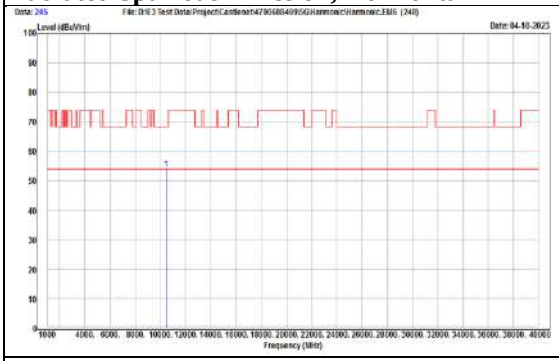
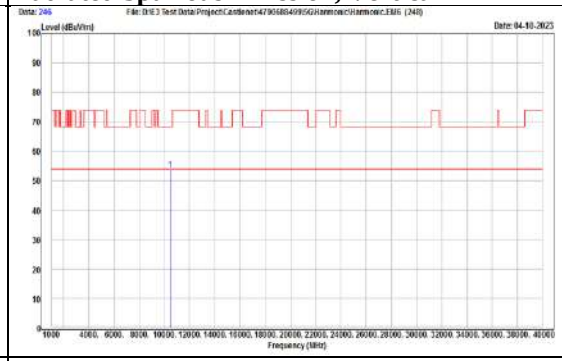
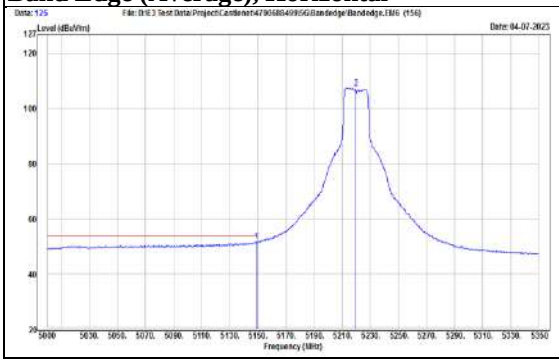
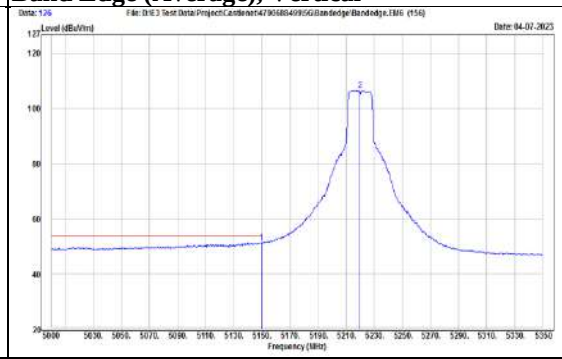
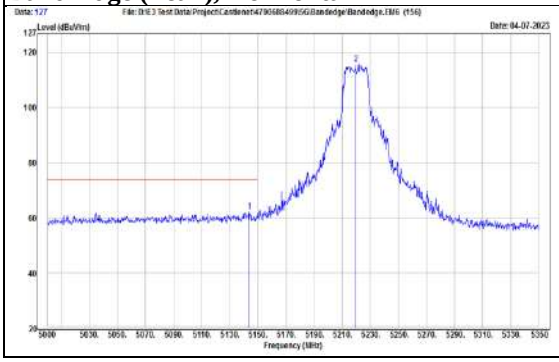
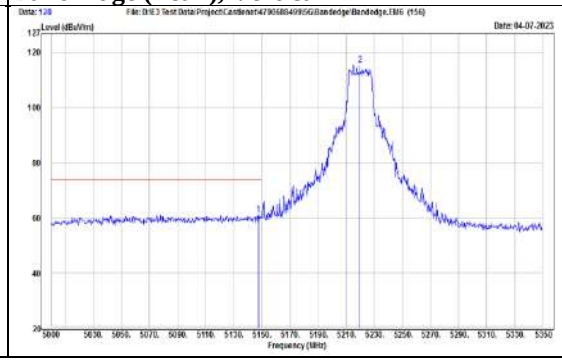
Mode	802.11a	Channel	36

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5149.8	49.06	19.22	68.28	74	-5.72	PK
		5149.8	34.19	19.22	53.41	54	-0.59	AVG
	@	5180	93.53	19.14	112.67	N/A	N/A	PK
	@	5180	85.23	19.14	104.37	N/A	N/A	AVG
	*	10360	33.43	17.03	50.46	68.2	-17.74	PK
Vertical		5148.75	53.41	19.22	72.63	74	-1.37	PK
		5149.45	33.51	19.22	52.73	54	-1.27	AVG
	@	5180	92.43	19.14	111.57	N/A	N/A	PK
	@	5180	83.4	19.14	102.54	N/A	N/A	AVG
	*	10360	32.54	17.03	49.57	68.2	-18.63	PK

TX, 802.11a (Ch 36) **Radiated Spurious Emission, Horizontal**	**TX, 802.11a (Ch 36)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11a (Ch 36) **Band Edge (Average), Horizontal**	**TX, 802.11a (Ch 36)** **Band Edge (Average), Vertical**
	
TX, 802.11a (Ch 36) **Band Edge (Peak), Horizontal**	**TX, 802.11a (Ch 36)** **Band Edge (Peak), Vertical**
	

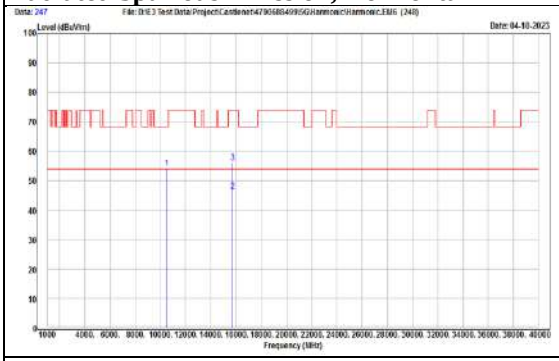
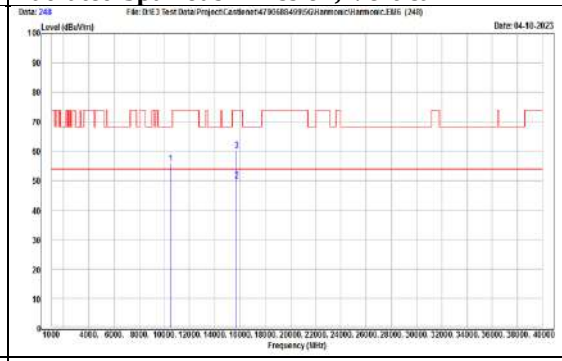
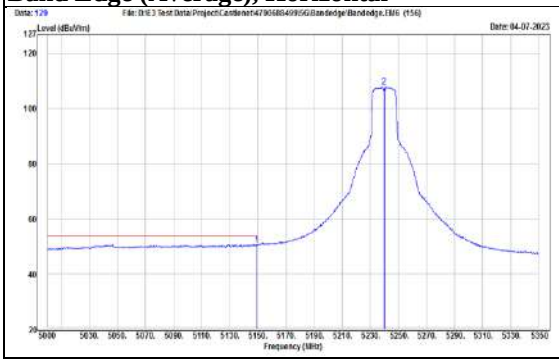
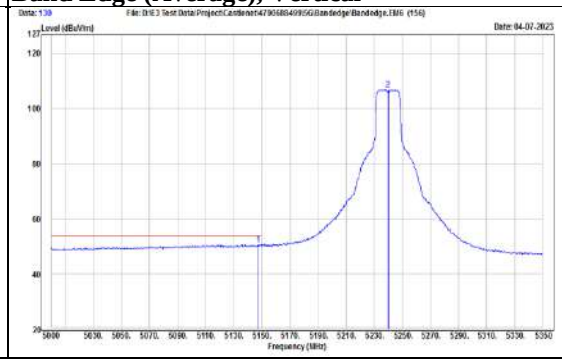
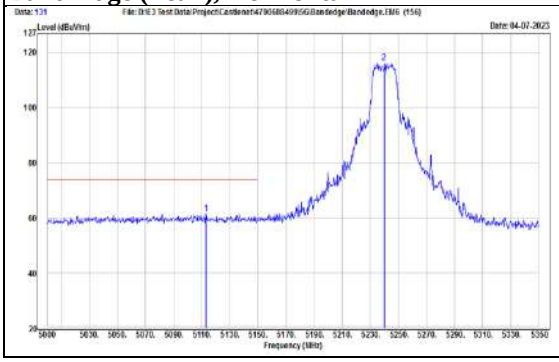
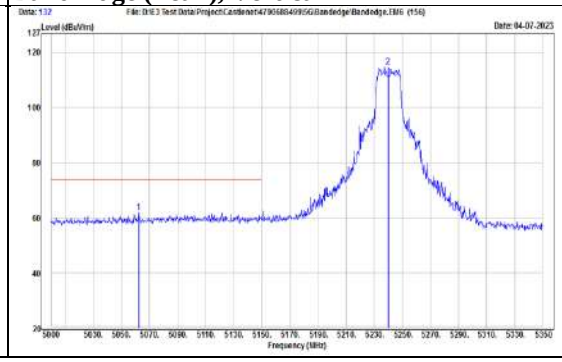
Mode	802.11a	Channel	44

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5143.85	43	19.22	62.22	74	-11.78	PK
		5149.45	32.57	19.22	51.79	54	-2.21	AVG
	@	5220	96.75	19.04	115.79	N/A	N/A	PK
	@	5220	88.49	19.04	107.53	N/A	N/A	AVG
	*	10440	36.55	17.45	54	68.2	-14.2	PK
Vertical		5147.7	42	19.22	61.22	74	-12.78	PK
		5149.8	32.15	19.22	51.37	54	-2.63	AVG
	@	5220	96.35	19.04	115.39	N/A	N/A	PK
	@	5220	87.49	19.04	106.53	N/A	N/A	AVG
	*	10440	36.2	17.45	53.65	68.2	-14.55	PK

TX, 802.11a (Ch 44) **Radiated Spurious Emission, Horizontal**	**TX, 802.11a (Ch 44)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11a (Ch 44) **Band Edge (Average), Horizontal**	**TX, 802.11a (Ch 44)** **Band Edge (Average), Vertical**
	
TX, 802.11a (Ch 44) **Band Edge (Peak), Horizontal**	**TX, 802.11a (Ch 44)** **Band Edge (Peak), Vertical**
	

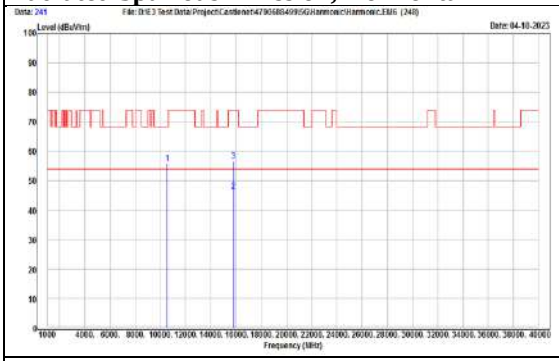
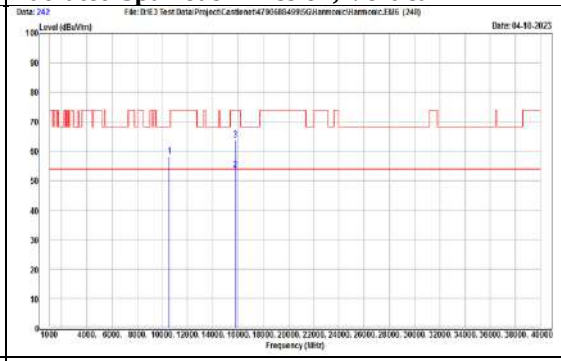
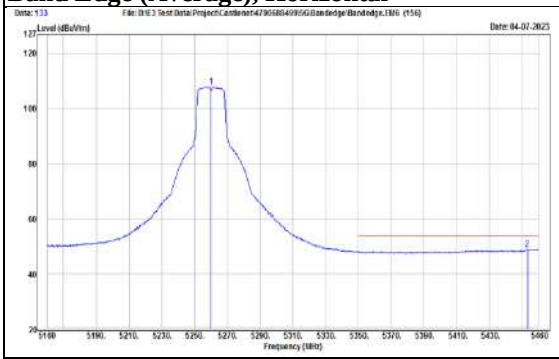
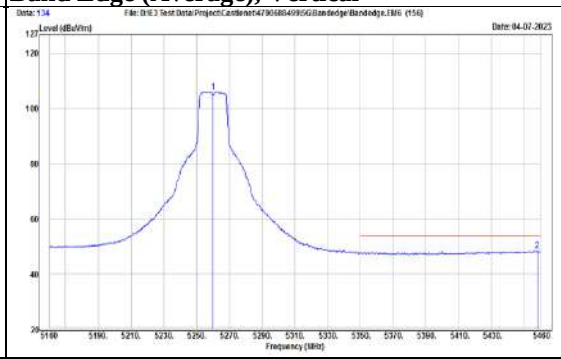
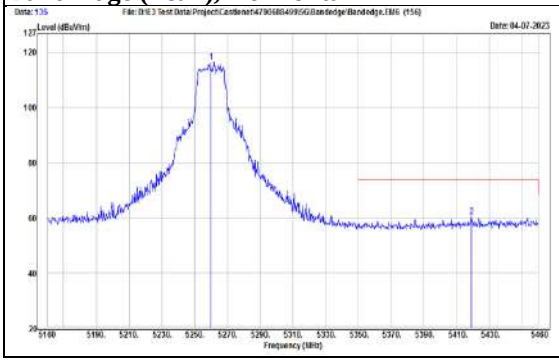
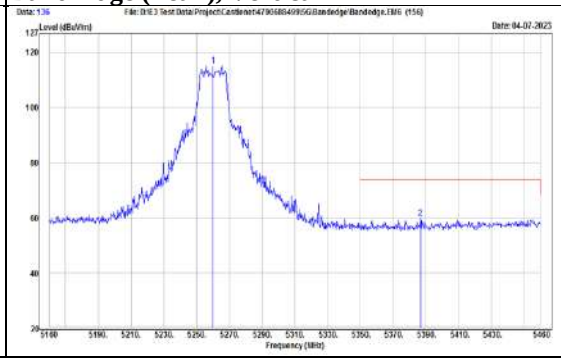
Mode	802.11a	Channel	48

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5113.05	42.26	19.24	61.5	74	-12.5	PK
		5149.1	31.39	19.22	50.61	54	-3.39	AVG
	@	5240	97.35	18.99	116.34	N/A	N/A	PK
	@	5240	88.85	18.99	107.84	N/A	N/A	AVG
	*	10480	36.6	17.55	54.15	68.2	-14.05	PK
		15720	34.23	21.99	56.22	74	-17.78	PK
		15720	24.25	21.99	46.24	54	-7.76	AVG
Vertical		5062.3	43.02	19.05	62.07	74	-11.93	PK
		5147.35	31.37	19.23	50.6	54	-3.4	AVG
	@	5240	95.69	18.99	114.68	N/A	N/A	PK
	@	5240	87.92	18.99	106.91	N/A	N/A	AVG
	*	10480	38.32	17.55	55.87	68.2	-12.33	PK
		15720	38.33	21.99	60.32	74	-13.68	PK
		15720	28.13	21.99	50.12	54	-3.88	AVG

TX, 802.11a (Ch 48) **Radiated Spurious Emission, Horizontal**	**TX, 802.11a (Ch 48)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11a (Ch 48) **Band Edge (Average), Horizontal**	**TX, 802.11a (Ch 48)** **Band Edge (Average), Vertical**
	
TX, 802.11a (Ch 48) **Band Edge (Peak), Horizontal**	**TX, 802.11a (Ch 48)** **Band Edge (Peak), Vertical**
	

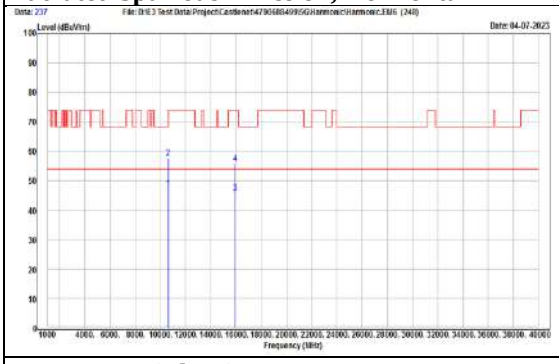
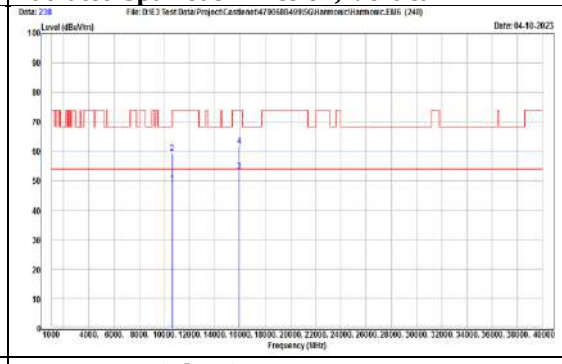
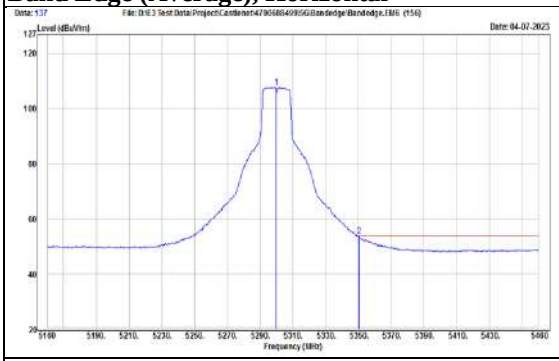
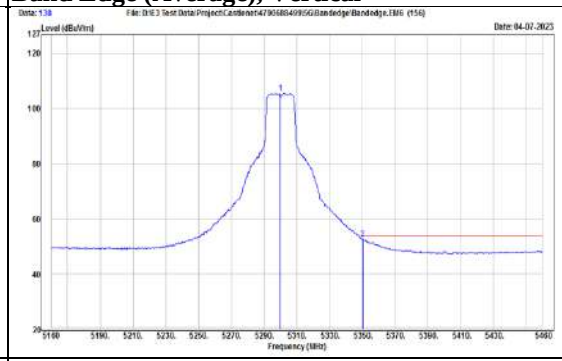
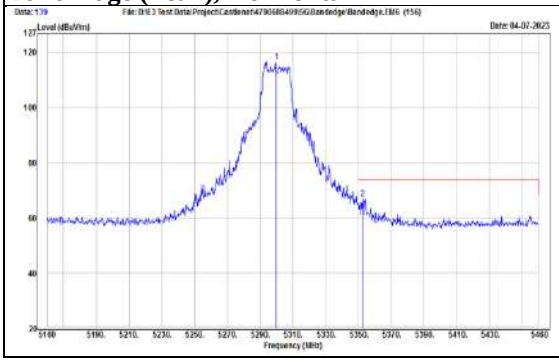
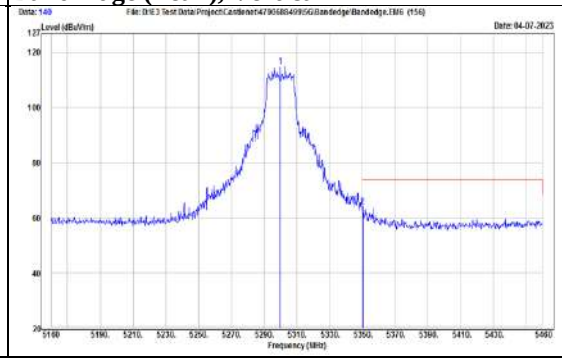
Mode	802.11a	Channel	52

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5260	97.73	18.91	116.64	N/A	N/A	PK
	@	5260	88.95	18.91	107.86	N/A	N/A	AVG
		5418.9	41.17	19.33	60.5	74	-13.5	PK
		5453.1	29.34	19.63	48.97	54	-5.03	AVG
	*	10520	38.32	17.63	55.95	68.2	-12.25	PK
		15790	34.87	21.74	56.61	74	-17.39	PK
		15790	24.66	21.74	46.4	54	-7.6	AVG
Vertical	@	5260	96.37	18.91	115.28	N/A	N/A	PK
	@	5260	87.16	18.91	106.07	N/A	N/A	AVG
		5386.8	40.9	19.03	59.93	74	-14.07	PK
		5457.9	28.84	19.63	48.47	54	-5.53	AVG
	*	10520	40.73	17.63	58.36	68.2	-9.84	PK
		15790	42.15	21.74	63.89	74	-10.11	PK
		15790	31.82	21.74	53.56	54	-0.44	AVG

TX, 802.11a (Ch 52) **Radiated Spurious Emission, Horizontal**	**TX, 802.11a (Ch 52)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11a (Ch 52) **Band Edge (Average), Horizontal**	**TX, 802.11a (Ch 52)** **Band Edge (Average), Vertical**
	
TX, 802.11a (Ch 52) **Band Edge (Peak), Horizontal**	**TX, 802.11a (Ch 52)** **Band Edge (Peak), Vertical**
	

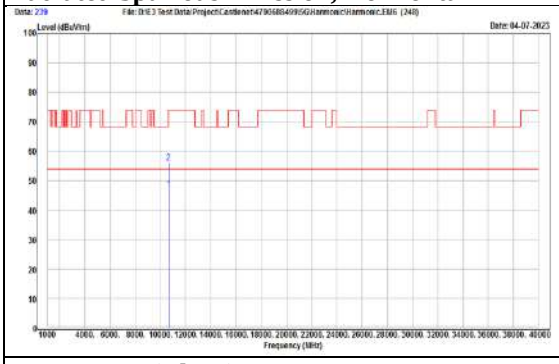
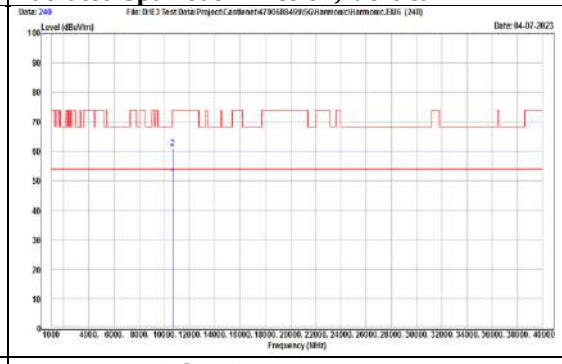
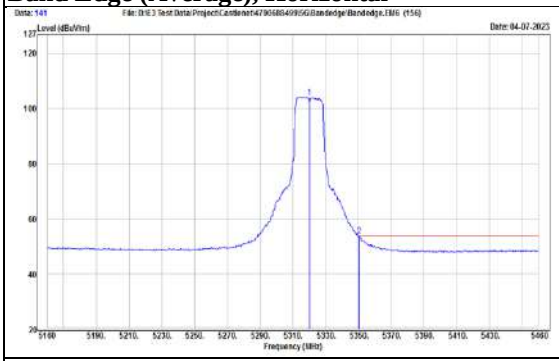
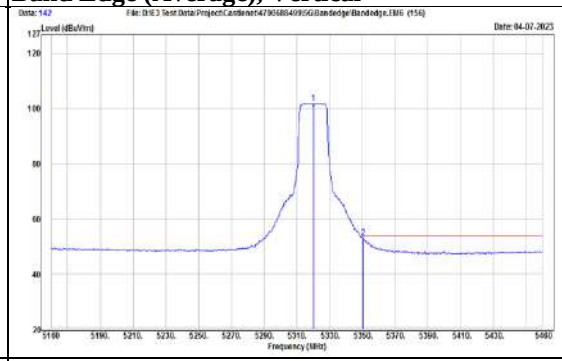
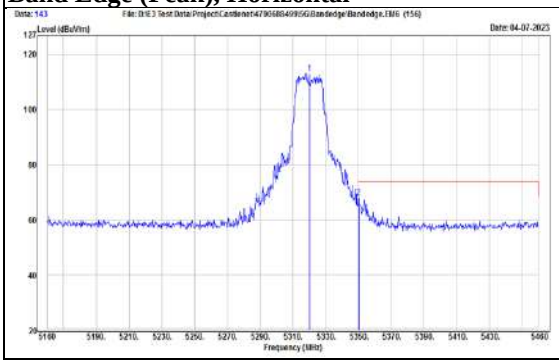
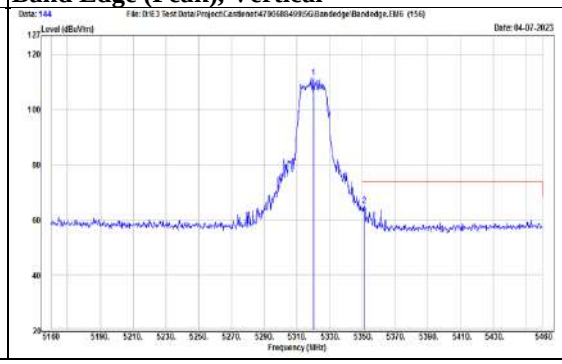
Mode	802.11a	Channel	60

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5300	97.9	18.73	116.63	N/A	N/A	PK
	@	5300	89	18.73	107.73	N/A	N/A	AVG
		5350.5	34.89	18.7	53.59	54	-0.41	AVG
		5352.6	48.26	18.72	66.98	74	-7.02	PK
		10600	39.74	17.71	57.45	74	-16.55	PK
		10600	29.64	17.71	47.35	54	-6.65	AVG
		15900	34.46	21.45	55.91	74	-18.09	PK
		15900	24.39	21.45	45.84	54	-8.16	AVG
Vertical	@	5300	96.16	18.73	114.89	N/A	N/A	PK
	@	5300	86.84	18.73	105.57	N/A	N/A	AVG
		5350.2	45.33	18.7	64.03	74	-9.97	PK
		5350.2	33.95	18.7	52.65	54	-1.35	AVG
		10600	41.45	17.71	59.16	74	-14.84	PK
		10600	31.2	17.71	48.91	54	-5.09	AVG
		15900	40.18	21.45	61.63	74	-12.37	PK
		15900	31.74	21.45	53.19	54	-0.81	AVG

TX, 802.11a (Ch 60) **Radiated Spurious Emission, Horizontal**	**TX, 802.11a (Ch 60)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11a (Ch 60) **Band Edge (Average), Horizontal**	**TX, 802.11a (Ch 60)** **Band Edge (Average), Vertical**
	
TX, 802.11a (Ch 60) **Band Edge (Peak), Horizontal**	**TX, 802.11a (Ch 60)** **Band Edge (Peak), Vertical**
	

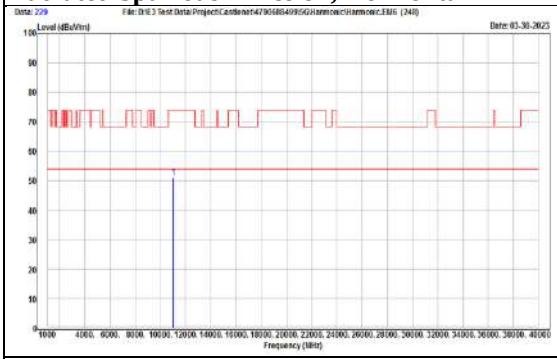
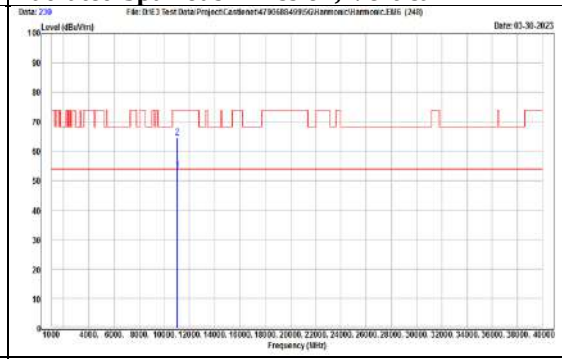
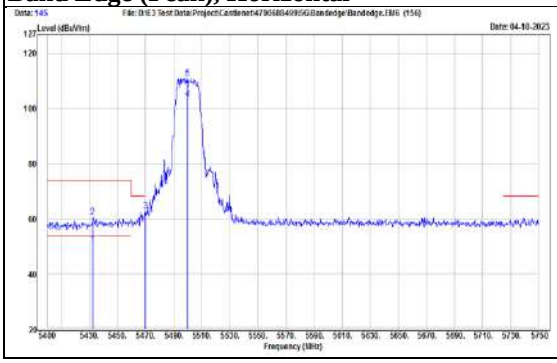
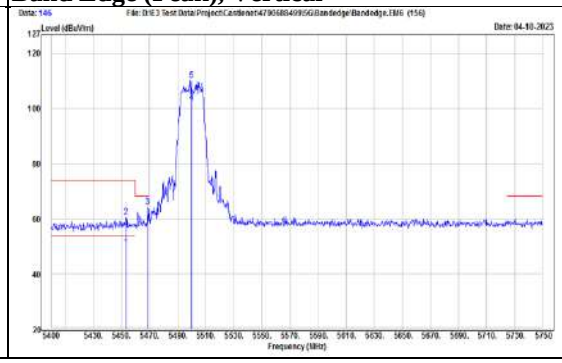
Mode	802.11a	Channel	64

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5320	94.53	18.72	113.25	N/A	N/A	PK
	@	5320	85.44	18.72	104.16	N/A	N/A	AVG
		5350.2	49.27	18.7	67.97	74	-6.03	PK
		5350.5	34.89	18.7	53.59	54	-0.41	AVG
		10640	38.5	17.67	56.17	74	-17.83	PK
		10640	29.36	17.67	47.03	54	-6.97	AVG
Vertical	@	5320	92.8	18.72	111.52	N/A	N/A	PK
	@	5320	83.34	18.72	102.06	N/A	N/A	AVG
		5350.5	34.46	18.7	53.16	54	-0.84	AVG
		5351.1	46.45	18.71	65.16	74	-8.84	PK
		10640	43.26	17.67	60.93	74	-13.07	PK
		10640	33.28	17.67	50.95	54	-3.05	AVG

TX, 802.11a (Ch 64) **Radiated Spurious Emission, Horizontal**	**TX, 802.11a (Ch 64)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11a (Ch 64) **Band Edge (Average), Horizontal**	**TX, 802.11a (Ch 64)** **Band Edge (Average), Vertical**
	
TX, 802.11a (Ch 64) **Band Edge (Peak), Horizontal**	**TX, 802.11a (Ch 64)** **Band Edge (Peak), Vertical**
	

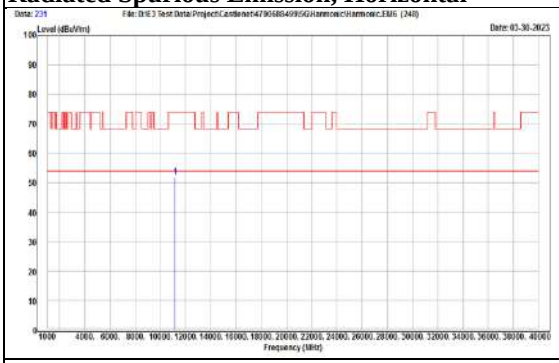
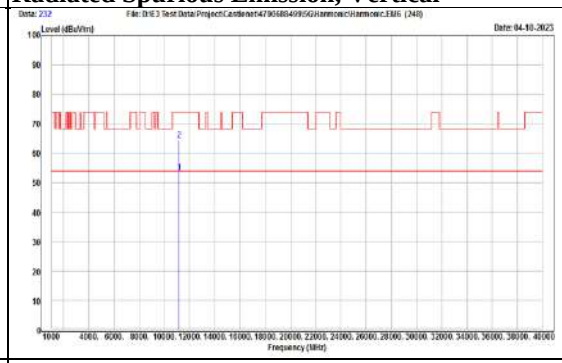
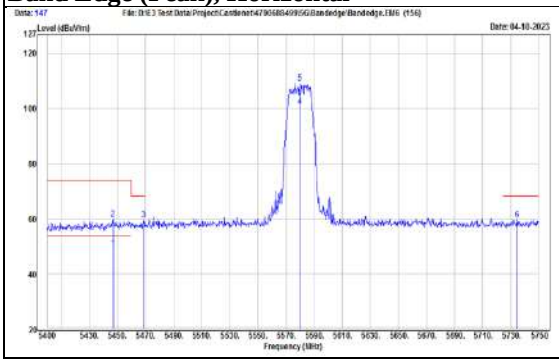
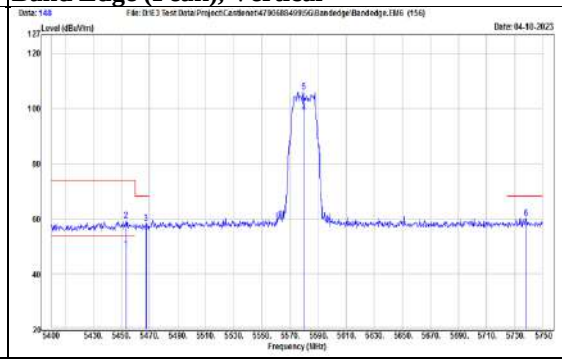
Mode	802.11a	Channel	100

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5432.55	41.24	19.47	60.71	74	-13.29	PK
		5432.55	31.45	19.47	50.92	54	-3.08	AVG
		5470	43.21	19.65	62.86	68.2	-5.34	PK
	@	5500	91.43	19.69	111.12	N/A	N/A	PK
	@	5500	83.7	19.69	103.39	N/A	N/A	AVG
	*	11000	33.1	17.88	50.98	74	-23.02	PK
Vertical		5453.55	41.13	19.63	60.76	74	-13.24	PK
		5453.55	30.01	19.63	49.64	54	-4.36	AVG
		5468.95	44.75	19.65	64.4	68.2	-3.8	PK
	@	5500	90.73	19.69	110.42	N/A	N/A	PK
	@	5500	82.39	19.69	102.08	N/A	N/A	AVG
		11000	46.84	17.88	64.72	74	-9.28	PK
		11000	35.66	17.88	53.54	54	-0.46	AVG

TX, 802.11a (Ch 100) Radiated Spurious Emission, Horizontal	TX, 802.11a (Ch 100) Radiated Spurious Emission, Vertical
	
TX, 802.11a (Ch 100) Band Edge (Peak), Horizontal	**TX, 802.11a (Ch 100) Band Edge (Peak), Vertical**
	

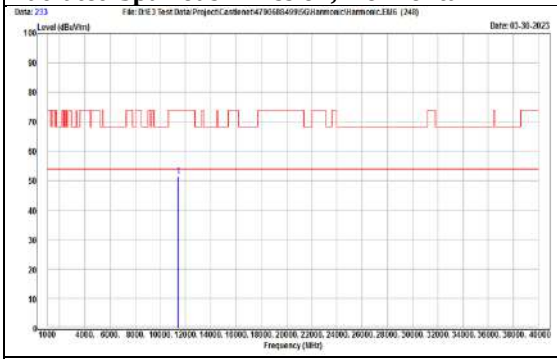
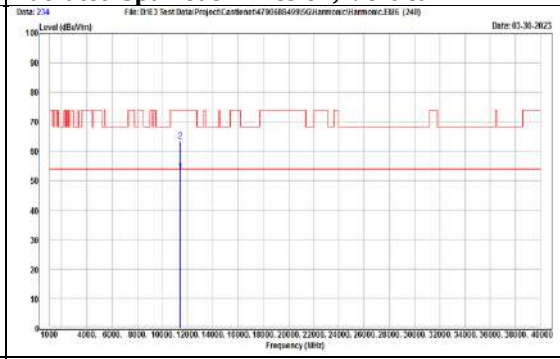
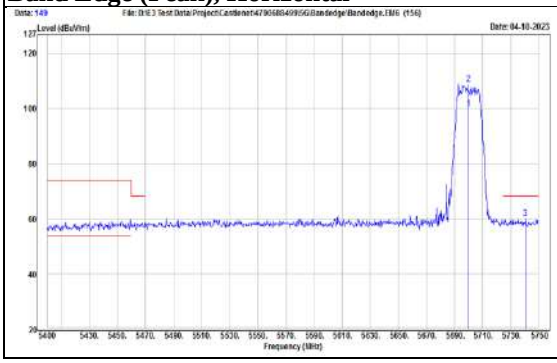
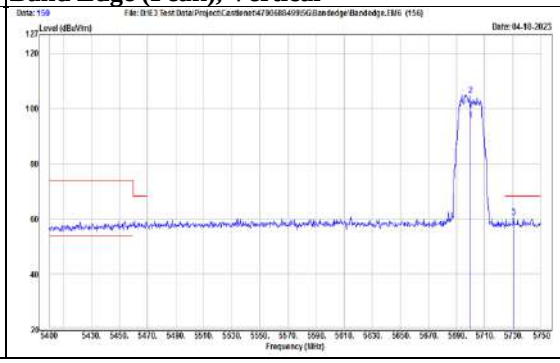
Mode	802.11a	Channel	116

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5446.9	40.38	19.6	59.98	74	-14.02	PK
		5446.9	29.63	19.6	49.23	54	-4.77	AVG
		5468.95	40.08	19.65	59.73	68.2	-8.47	PK
	@	5580	89.79	19.58	109.37	N/A	N/A	PK
	@	5580	81.28	19.58	100.86	N/A	N/A	AVG
		5734.6	39.67	19.92	59.59	68.2	-8.61	PK
	*	11160	33.89	18.05	51.94	74	-22.06	PK
Vertical		5453.55	39.68	19.63	59.31	74	-14.69	PK
		5453.55	29.44	19.63	49.07	54	-4.93	AVG
		5467.55	38.75	19.65	58.4	68.2	-9.8	PK
	@	5580	86.52	19.58	106.1	N/A	N/A	PK
	@	5580	78.9	19.58	98.48	N/A	N/A	AVG
		5738.1	40.28	19.94	60.22	68.2	-7.98	PK
		11160	46.45	18.05	64.5	74	-9.5	PK
		11160	35.29	18.05	53.34	54	-0.66	AVG

TX, 802.11a (Ch 116) Radiated Spurious Emission, Horizontal	TX, 802.11a (Ch 116) Radiated Spurious Emission, Vertical
	
TX, 802.11a (Ch 116) Band Edge (Peak), Horizontal	**TX, 802.11a (Ch 116) Band Edge (Peak), Vertical**
	

Mode	802.11a	Channel	140

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5700	89.32	19.6	108.92	N/A	N/A	PK
	@	5700	80.6	19.6	100.2	N/A	N/A	AVG
		5740.55	40.31	19.97	60.28	68.2	-7.92	PK
	*	11400	32.91	18.46	51.37	74	-22.63	PK
Vertical	@	5700	85.3	19.6	104.9	N/A	N/A	PK
	@	5700	76.13	19.6	95.73	N/A	N/A	AVG
		5730.75	40.59	19.88	60.47	68.2	-7.73	PK
		11400	44.98	18.46	63.44	74	-10.56	PK
		11400	34.82	18.46	53.28	54	-0.72	AVG

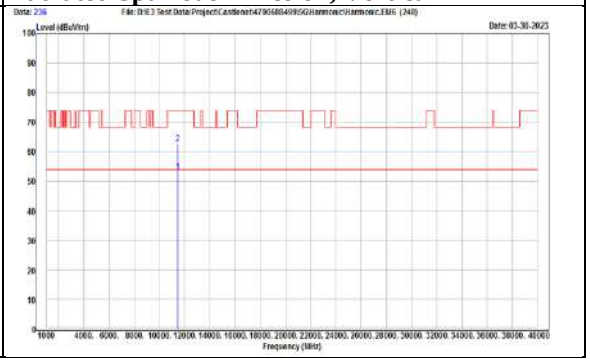
TX, 802.11a (Ch 140) Radiated Spurious Emission, Horizontal	TX, 802.11a (Ch 140) Radiated Spurious Emission, Vertical
	
TX, 802.11a (Ch 140) Band Edge (Peak), Horizontal	**TX, 802.11a (Ch 140) Band Edge (Peak), Vertical**
	

Mode	802.11a	Channel	144

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	*	11440	33.08	18.63	51.71	74	-22.29	PK
Vertical		11440	43.97	18.63	62.6	74	-11.4	PK
		11440	34.51	18.63	53.14	54	-0.86	AVG

TX, 802.11a (Ch 144)
Radiated Spurious Emission, Horizontal

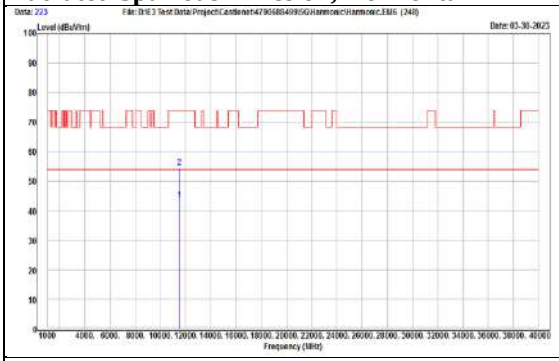
TX, 802.11a (Ch 144)
Radiated Spurious Emission, Vertical



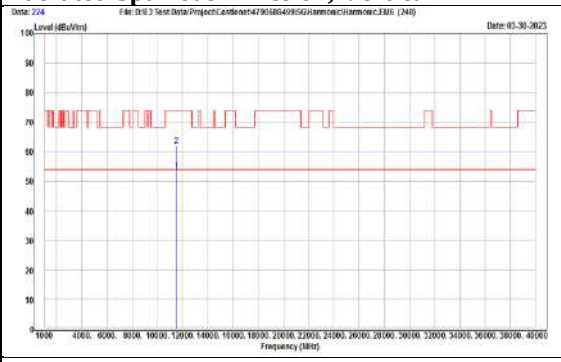
Mode	802.11a	Channel	149

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5609	40.76	19.6	60.36	68.2	-7.84	PK
		5685	41.11	19.61	60.72	94.13	-33.41	PK
	@	5745	89.66	20.01	109.67	N/A	N/A	PK
		11490	35.76	18.86	54.62	74	-19.38	PK
		11490	24.87	18.86	43.73	54	-10.27	AVG
Vertical		5575	41.06	19.57	60.63	68.2	-7.57	PK
		5685.5	40.75	19.61	60.36	94.5	-34.14	PK
	@	5745	86.08	20.01	106.09	N/A	N/A	PK
		11490	43.19	18.86	62.05	74	-11.95	PK
		11490	34.46	18.86	53.32	54	-0.68	AVG

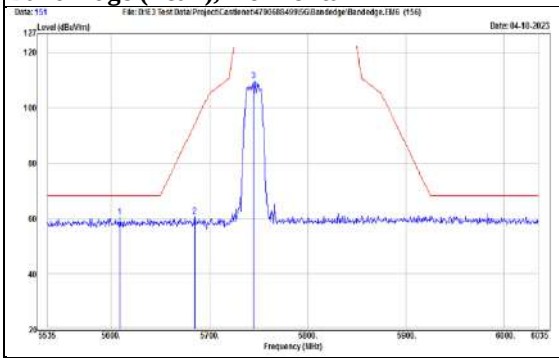
TX, 802.11a (Ch 149)
Radiated Spurious Emission, Horizontal



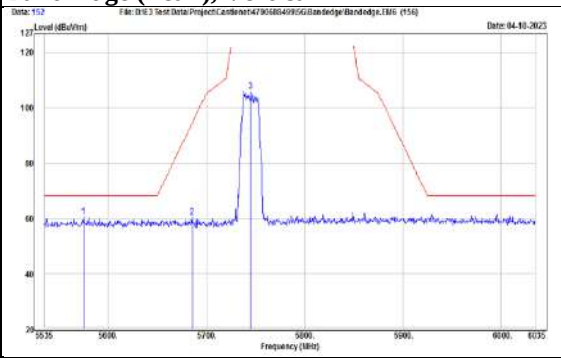
TX, 802.11a (Ch 149)
Radiated Spurious Emission, Vertical



TX, 802.11a (Ch 149)
Band Edge (Peak), Horizontal



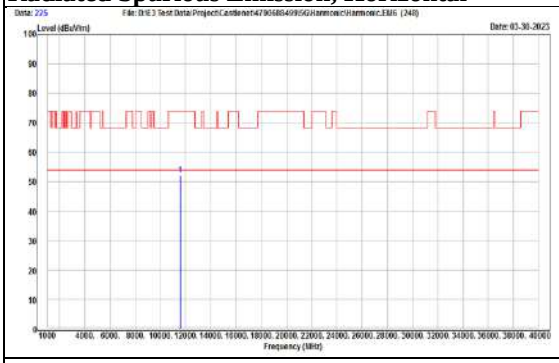
TX, 802.11a (Ch 149)
Band Edge (Peak), Vertical



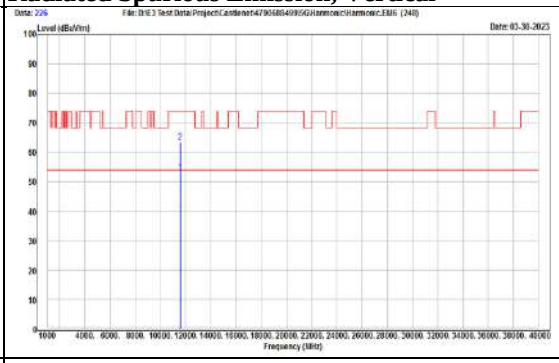
Mode	802.11a	Channel	157

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5559	42.02	19.55	61.57	68.2	-6.63	PK
		5677.5	40.65	19.63	60.28	88.59	-28.31	PK
	@	5785	91.06	20.37	111.43	N/A	N/A	PK
		5917.5	40.3	20.72	61.02	73.73	-12.71	PK
		5967.5	40.6	20.76	61.36	68.2	-6.84	PK
	*	11570	33.62	18.65	52.27	74	-21.73	PK
Vertical		5602.5	40.82	19.6	60.42	68.2	-7.78	PK
		5664	40.67	19.64	60.31	78.59	-18.28	PK
	@	5785	85.68	20.37	106.05	N/A	N/A	PK
		5881	40.47	20.69	61.16	100.74	-39.58	PK
		5970	40.76	20.77	61.53	68.2	-6.67	PK
		11570	44.73	18.65	63.38	74	-10.62	PK
		11570	34.64	18.65	53.29	54	-0.71	AVG

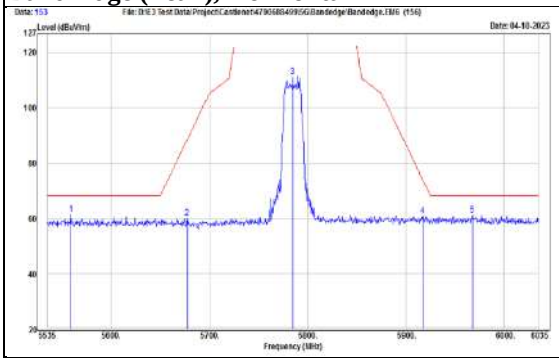
TX, 802.11a (Ch 157)
Radiated Spurious Emission, Horizontal



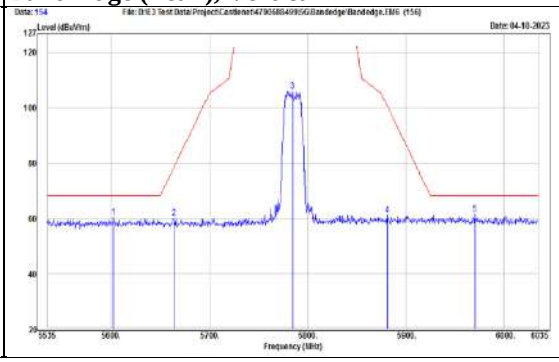
TX, 802.11a (Ch 157)
Radiated Spurious Emission, Vertical



TX, 802.11a (Ch 157)
Band Edge (Peak), Horizontal



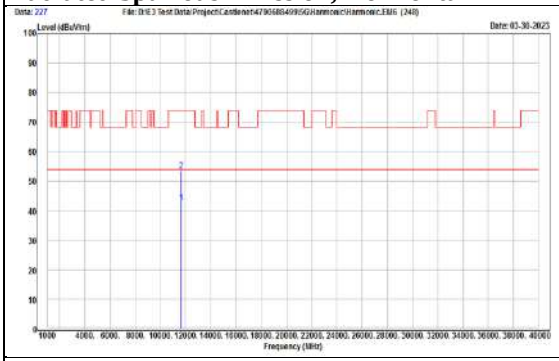
TX, 802.11a (Ch 157)
Band Edge (Peak), Vertical



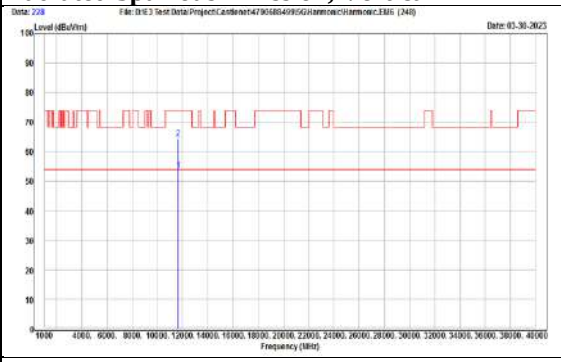
Mode	802.11a	Channel	165

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5825	89.9	20.57	110.47	N/A	N/A	PK
		5923	40.59	20.72	61.31	69.67	-8.36	PK
		5939	40.36	20.74	61.1	68.2	-7.1	PK
		11650	34.95	18.38	53.33	74	-20.67	PK
		11650	24.39	18.38	42.77	54	-11.23	AVG
Vertical	@	5825	85.44	20.57	106.01	N/A	N/A	PK
		5892	40.09	20.7	60.79	92.58	-31.79	PK
		5930	40.02	20.73	60.75	68.2	-7.45	PK
		11650	46.13	18.38	64.51	74	-9.49	PK
		11650	35.2	18.38	53.58	54	-0.42	AVG

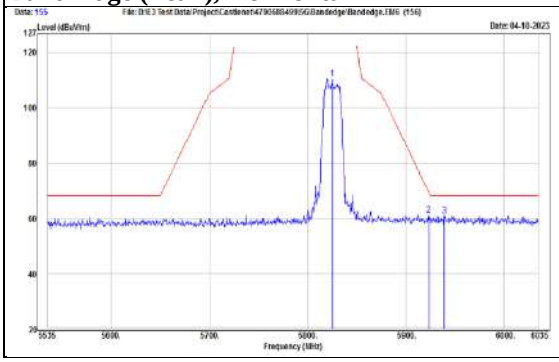
TX, 802.11a (Ch 165)
Radiated Spurious Emission, Horizontal



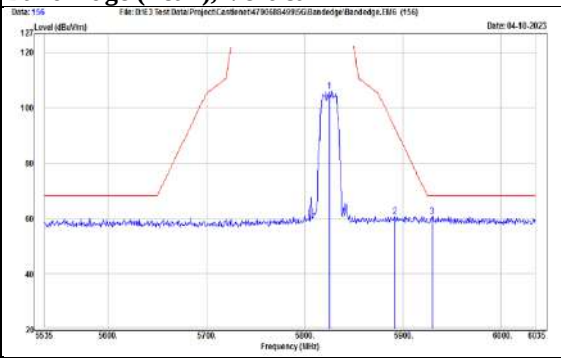
TX, 802.11a (Ch 165)
Radiated Spurious Emission, Vertical



TX, 802.11a (Ch 165)
Band Edge (Peak), Horizontal

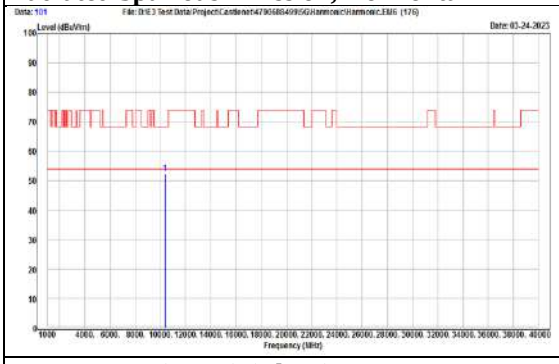
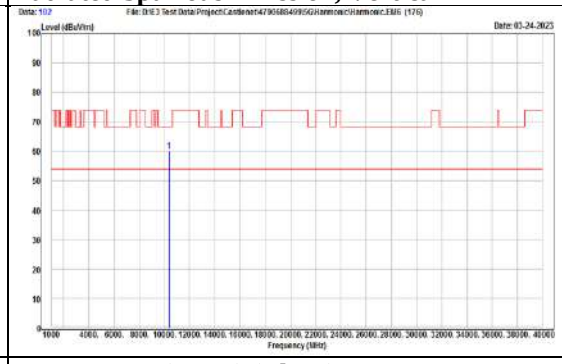
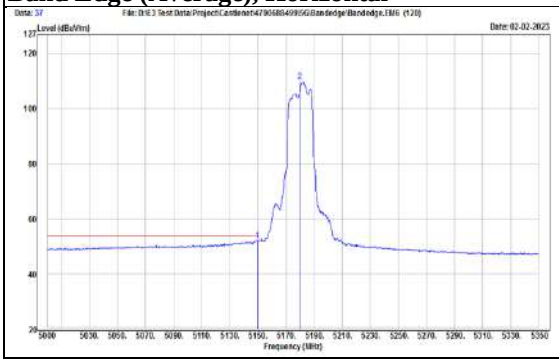
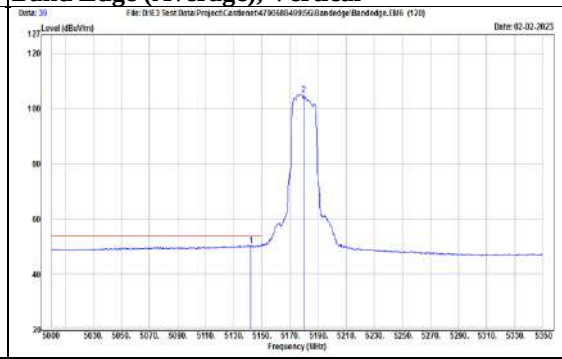
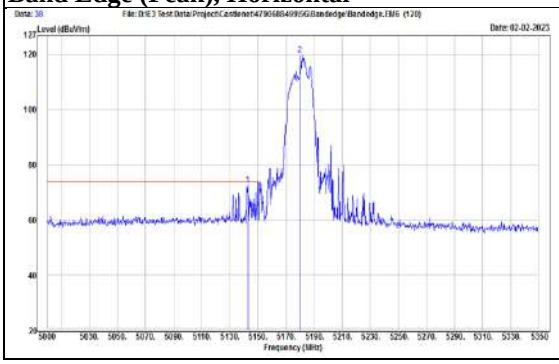
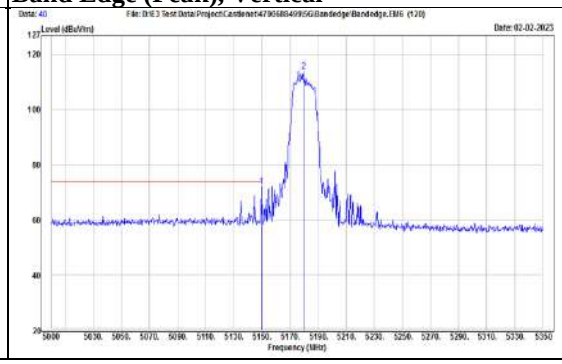


TX, 802.11a (Ch 165)
Band Edge (Peak), Vertical



Mode	802.11ax(HE20)	Channel	36

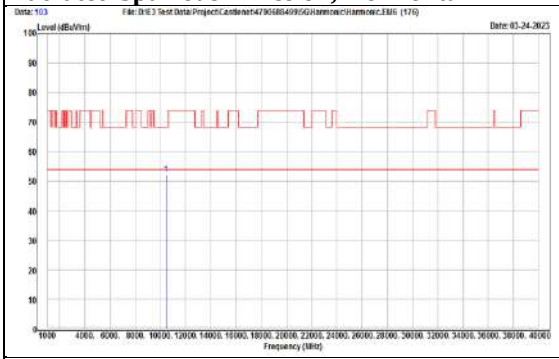
Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5142.8	53.2	19.45	72.65	74	-1.35	PK
		5149.8	32.59	19.45	52.04	54	-1.96	AVG
	@	5180	100.47	19.37	119.84	N/A	N/A	PK
	@	5180	90.34	19.37	109.71	N/A	N/A	AVG
	*	10360	35.41	17.03	52.44	68.2	-15.76	PK
Vertical		5142.1	30.82	19.46	50.28	54	-3.72	AVG
		5149.8	52.65	19.45	72.1	74	-1.9	PK
	@	5180	94.56	19.37	113.93	N/A	N/A	PK
	@	5180	85.8	19.37	105.17	N/A	N/A	AVG
	*	10360	43.06	17.03	60.09	68.2	-8.11	PK

TX, 802.11ax(HE20) (Ch 36) **Radiated Spurious Emission, Horizontal**	**TX, 802.11ax(HE20) (Ch 36)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11ax(HE20) (Ch 36) **Band Edge (Average), Horizontal**	**TX, 802.11ax(HE20) (Ch 36)** **Band Edge (Average), Vertical**
	
TX, 802.11ax(HE20) (Ch 36) **Band Edge (Peak), Horizontal**	**TX, 802.11ax(HE20) (Ch 36)** **Band Edge (Peak), Vertical**
	

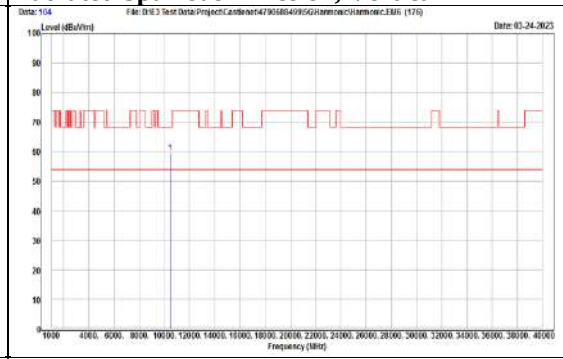
Mode	802.11ax(HE20)	Channel	44

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5149.8	34.08	19.45	53.53	54	-0.47	AVG
	@	5220	96.43	19.19	115.62	N/A	N/A	AVG
	*	10440	34.83	17.45	52.28	68.2	-15.92	PK
Vertical		5140.35	32.44	19.46	51.9	54	-2.1	AVG
		5147.35	45.52	19.46	64.98	74	-9.02	PK
	@	5220	100.6	19.19	119.79	N/A	N/A	PK
	@	5220	93.04	19.19	112.23	N/A	N/A	AVG
	*	10440	41.98	17.45	59.43	68.2	-8.77	PK

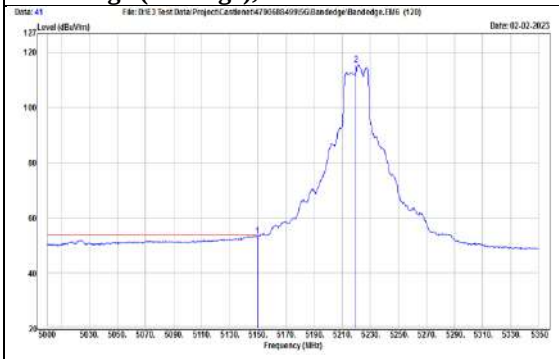
TX, 802.11ax(HE20) (Ch 44)
Radiated Spurious Emission, Horizontal



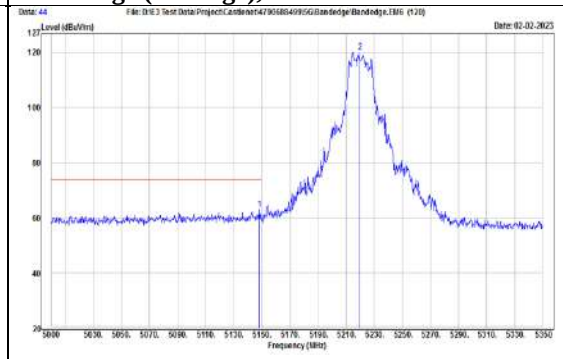
TX, 802.11ax(HE20) (Ch 44)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE20) (Ch 44)
Band Edge (Average), Horizontal



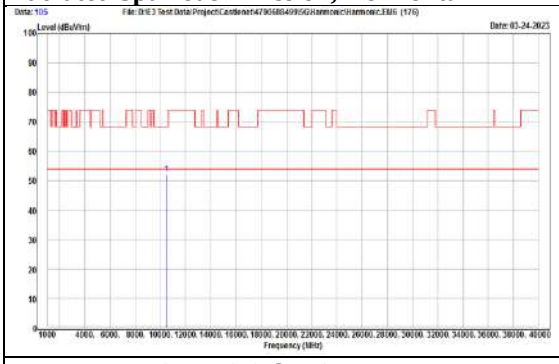
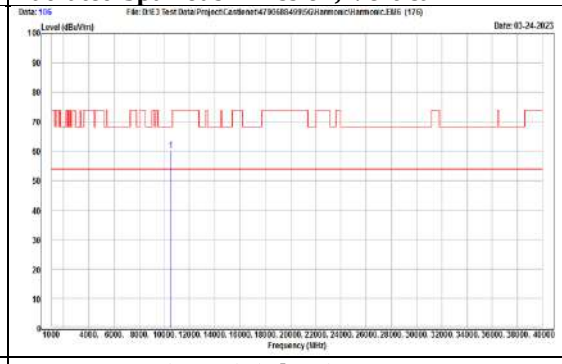
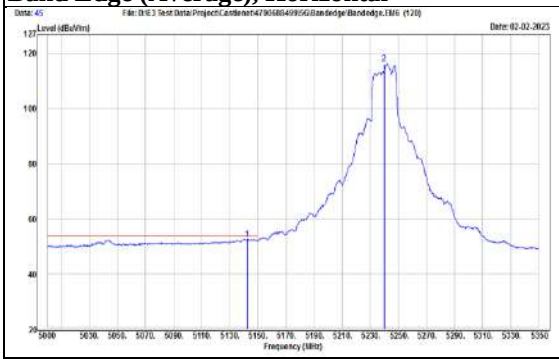
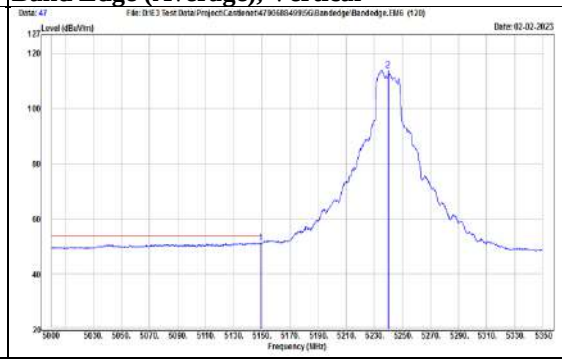
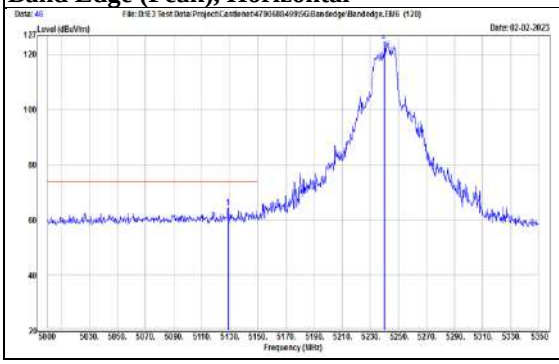
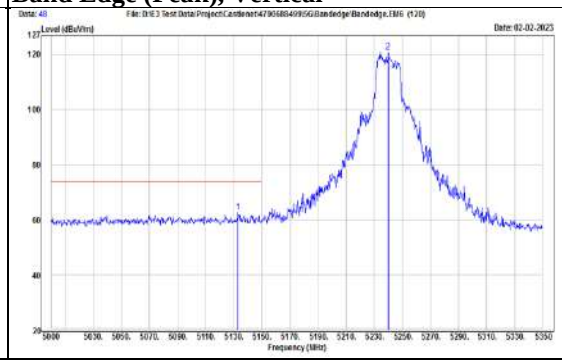
TX, 802.11ax(HE20) (Ch 44)
Band Edge (Average), Vertical



TX, 802.11ax(HE20) (Ch 44)
Band Edge (Peak), Vertical

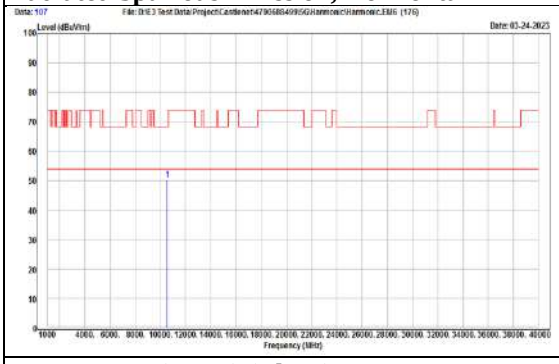
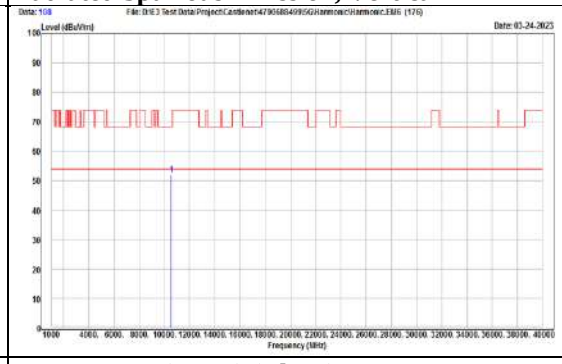
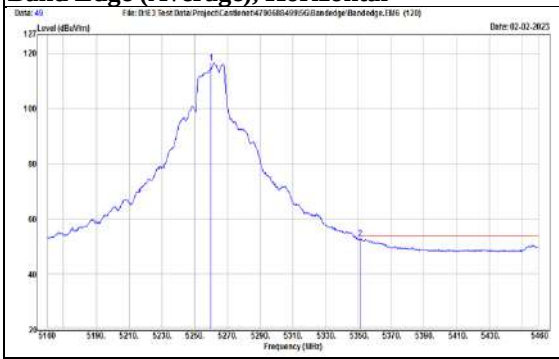
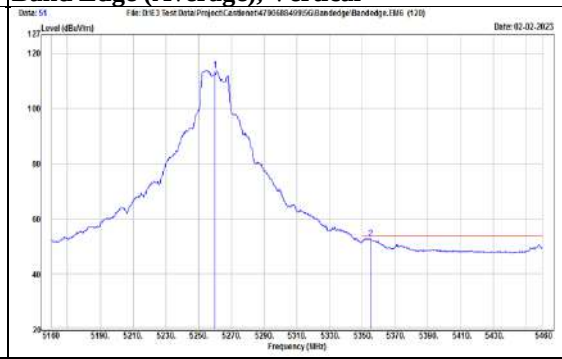
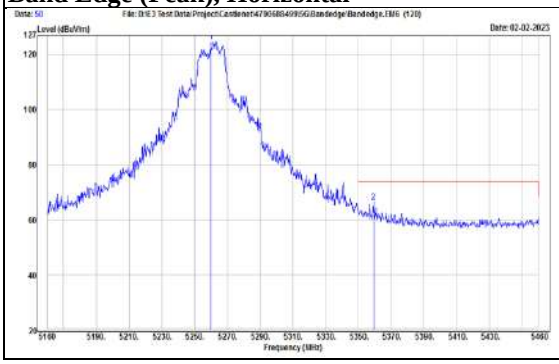
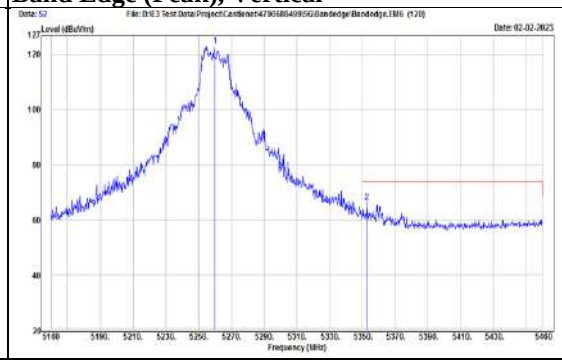
Mode	802.11ax(HE20)	Channel	48

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5128.8	44.91	19.46	64.37	74	-9.63	PK
		5142.45	33.14	19.46	52.6	54	-1.4	AVG
	@	5240	105.74	19.05	124.79	N/A	N/A	PK
	@	5240	97.23	19.05	116.28	N/A	N/A	AVG
	*	10480	34.6	17.55	52.15	68.2	-16.05	PK
Vertical		5133	43.38	19.45	62.83	74	-11.17	PK
		5149.45	31.79	19.45	51.24	54	-2.76	AVG
	@	5240	102.06	19.05	121.11	N/A	N/A	PK
	@	5240	94.78	19.05	113.83	N/A	N/A	AVG
	*	10480	42.63	17.55	60.18	68.2	-8.02	PK

TX, 802.11ax(HE20) (Ch 48) **Radiated Spurious Emission, Horizontal**	**TX, 802.11ax(HE20) (Ch 48)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11ax(HE20) (Ch 48) **Band Edge (Average), Horizontal**	**TX, 802.11ax(HE20) (Ch 48)** **Band Edge (Average), Vertical**
	
TX, 802.11ax(HE20) (Ch 48) **Band Edge (Peak), Horizontal**	**TX, 802.11ax(HE20) (Ch 48)** **Band Edge (Peak), Vertical**
	

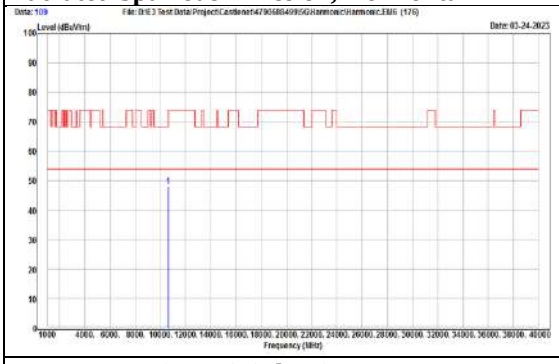
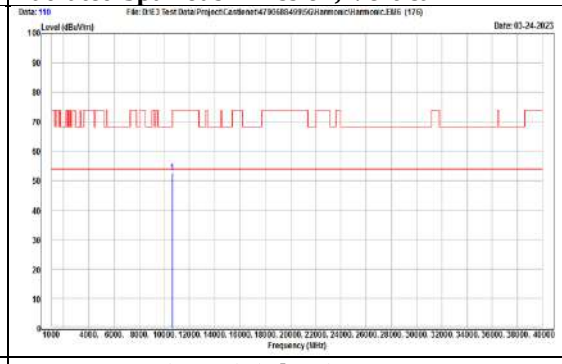
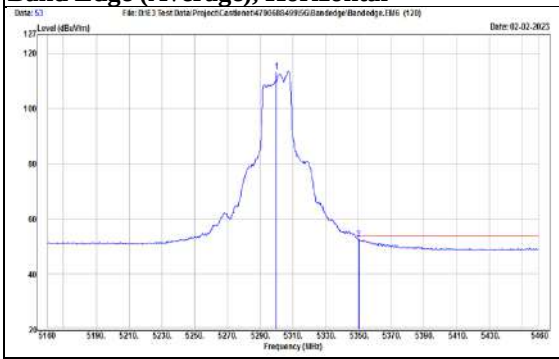
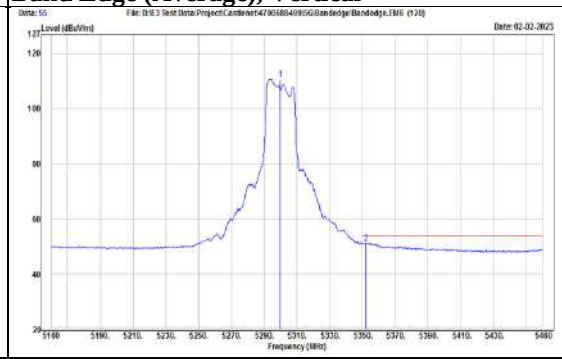
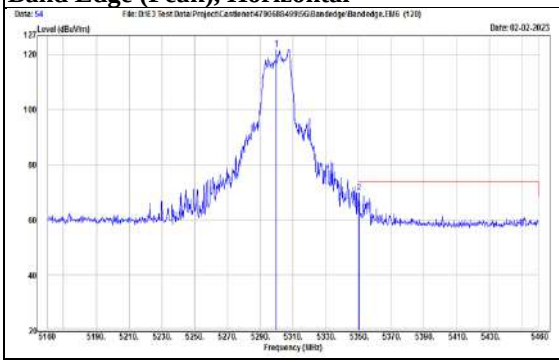
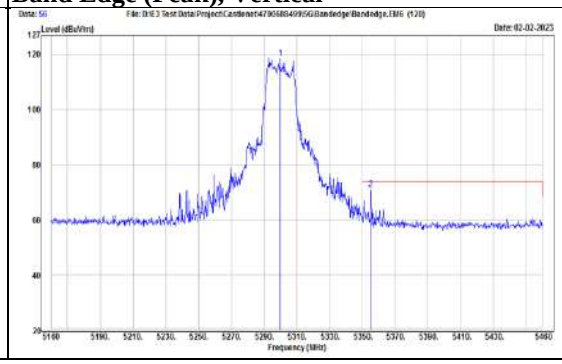
Mode	802.11ax(HE20)	Channel	52

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5260	105.71	18.96	124.67	N/A	N/A	PK
	@	5260	97.5	18.96	116.46	N/A	N/A	AVG
		5351.4	33.75	19.13	52.88	54	-1.12	AVG
		5359.2	47.31	19.17	66.48	74	-7.52	PK
	*	10520	32.5	17.63	50.13	68.2	-18.07	PK
Vertical	@	5260	104.06	18.96	123.02	N/A	N/A	PK
	@	5260	95.06	18.96	114.02	N/A	N/A	AVG
		5352.9	47.37	19.13	66.5	74	-7.5	PK
		5355	33.84	19.14	52.98	54	-1.02	AVG
	*	10520	34.26	17.63	51.89	68.2	-16.31	PK

TX, 802.11ax(HE20) (Ch 52) **Radiated Spurious Emission, Horizontal**	**TX, 802.11ax(HE20) (Ch 52)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11ax(HE20) (Ch 52) **Band Edge (Average), Horizontal**	**TX, 802.11ax(HE20) (Ch 52)** **Band Edge (Average), Vertical**
	
TX, 802.11ax(HE20) (Ch 52) **Band Edge (Peak), Horizontal**	**TX, 802.11ax(HE20) (Ch 52)** **Band Edge (Peak), Vertical**
	

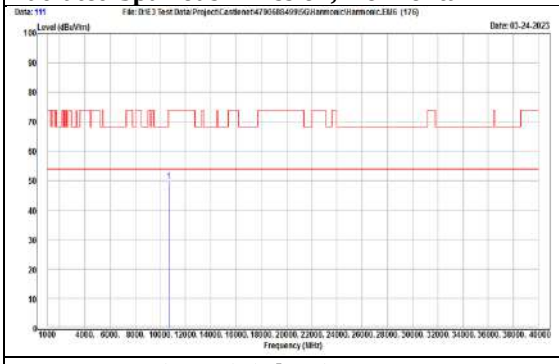
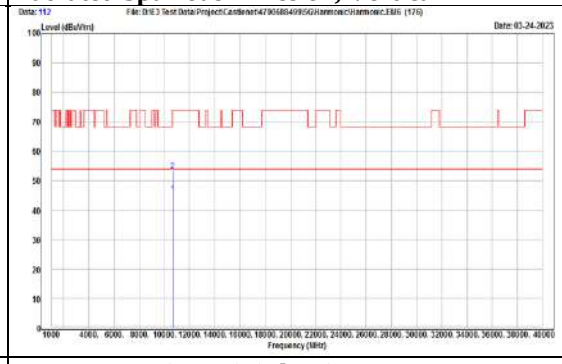
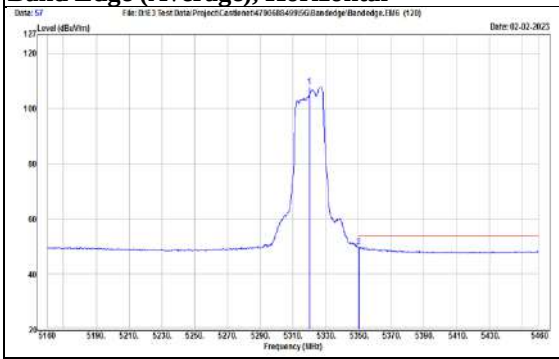
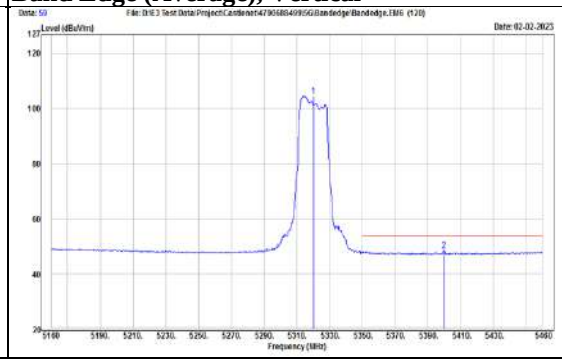
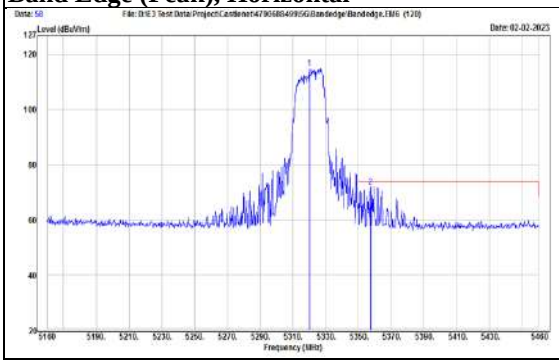
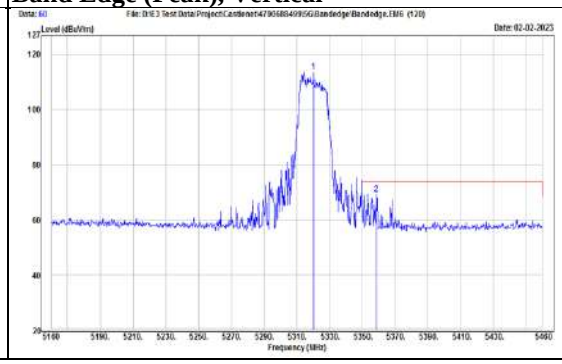
Mode	802.11ax(HE20)	Channel	60

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5300	103.11	18.86	121.97	N/A	N/A	PK
	@	5300	94.62	18.86	113.48	N/A	N/A	AVG
		5350.2	33.47	19.12	52.59	54	-1.41	AVG
		5350.5	50.68	19.12	69.8	74	-4.2	PK
	*	10600	30.34	17.71	48.05	74	-25.95	PK
Vertical	@	5300	99.81	18.86	118.67	N/A	N/A	PK
	@	5300	91.81	18.86	110.67	N/A	N/A	AVG
		5352.3	31.99	19.13	51.12	54	-2.88	AVG
		5355	51.97	19.14	71.11	74	-2.89	PK
	*	10600	34.87	17.71	52.58	74	-21.42	PK

TX, 802.11ax(HE20) (Ch 60) **Radiated Spurious Emission, Horizontal**	**TX, 802.11ax(HE20) (Ch 60)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11ax(HE20) (Ch 60) **Band Edge (Average), Horizontal**	**TX, 802.11ax(HE20) (Ch 60)** **Band Edge (Average), Vertical**
	
TX, 802.11ax(HE20) (Ch 60) **Band Edge (Peak), Horizontal**	**TX, 802.11ax(HE20) (Ch 60)** **Band Edge (Peak), Vertical**
	

Mode	802.11ax(HE20)	Channel	64

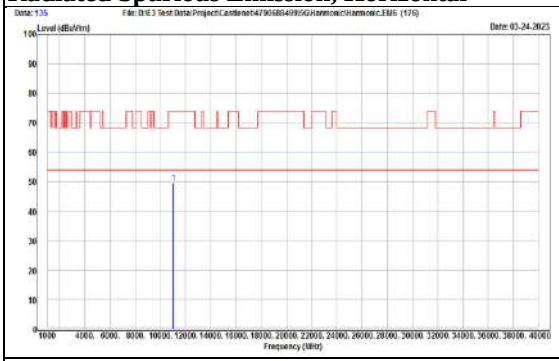
Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5320	96.11	18.96	115.07	N/A	N/A	PK
	@	5320	88.96	18.96	107.92	N/A	N/A	AVG
		5350.2	30.68	19.12	49.8	54	-4.2	AVG
		5357.4	52.74	19.16	71.9	74	-2.1	PK
	*	10640	32.06	17.67	49.73	74	-24.27	PK
Vertical	@	5320	94.63	18.96	113.59	N/A	N/A	PK
	@	5320	85.48	18.96	104.44	N/A	N/A	AVG
		5358.6	50.28	19.16	69.44	74	-4.56	PK
		5400	29.06	19.38	48.44	54	-5.56	AVG
		10640	35.53	17.67	53.2	74	-20.8	PK
		10640	27.75	17.67	45.42	54	-8.58	AVG

TX, 802.11ax(HE20) (Ch 64) **Radiated Spurious Emission, Horizontal**	**TX, 802.11ax(HE20) (Ch 64)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11ax(HE20) (Ch 64) **Band Edge (Average), Horizontal**	**TX, 802.11ax(HE20) (Ch 64)** **Band Edge (Average), Vertical**
	
TX, 802.11ax(HE20) (Ch 64) **Band Edge (Peak), Horizontal**	**TX, 802.11ax(HE20) (Ch 64)** **Band Edge (Peak), Vertical**
	

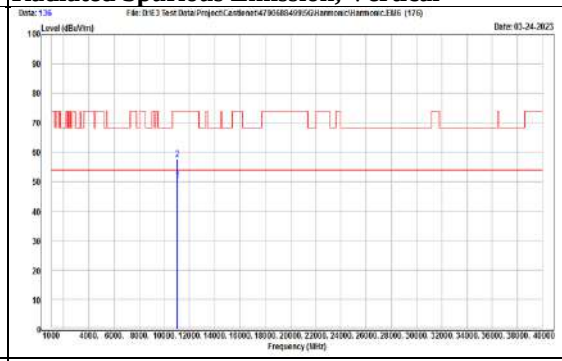
Mode	802.11ax(HE20)	Channel	100

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5459.15	41.74	19.7	61.44	74	-12.56	PK
		5459.15	30.71	19.7	50.41	54	-3.59	AVG
		5461.25	43.42	19.7	63.12	68.2	-5.08	PK
	@	5500	97.84	19.91	117.75	N/A	N/A	PK
	@	5500	87.72	19.91	107.63	N/A	N/A	AVG
	*	11000	31.71	17.88	49.59	74	-24.41	PK
Vertical		5458.45	40.69	19.69	60.38	74	-13.62	PK
		5458.45	29.77	19.69	49.46	54	-4.54	AVG
		5467.2	42.76	19.74	62.5	68.2	-5.7	PK
	@	5500	96.09	19.91	116	N/A	N/A	PK
	@	5500	86.74	19.91	106.65	N/A	N/A	AVG
		11000	39.72	17.88	57.6	74	-16.4	PK
		11000	32.72	17.88	50.6	54	-3.4	AVG

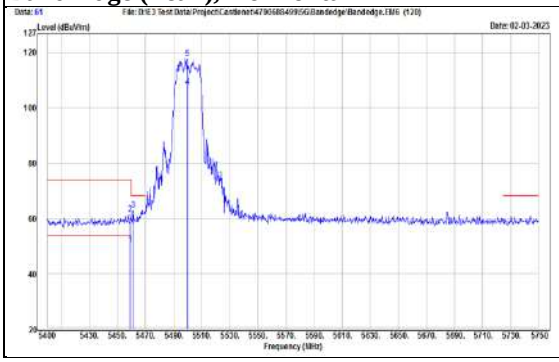
TX, 802.11ax(HE20) (Ch 100)
Radiated Spurious Emission, Horizontal



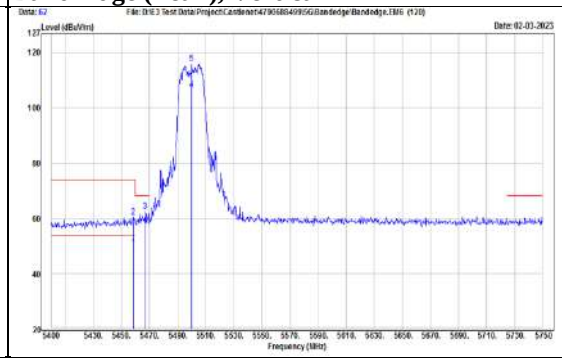
TX, 802.11ax(HE20) (Ch 100)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE20) (Ch 100)
Band Edge (Peak), Horizontal



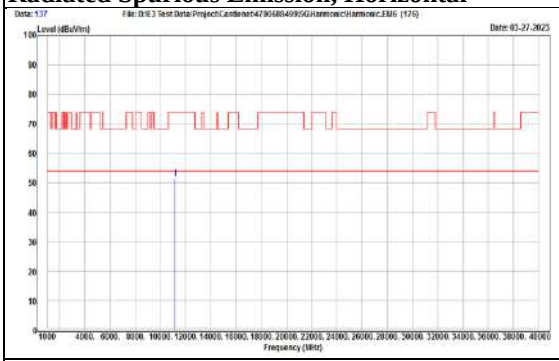
TX, 802.11ax(HE20) (Ch 100)
Band Edge (Peak), Vertical



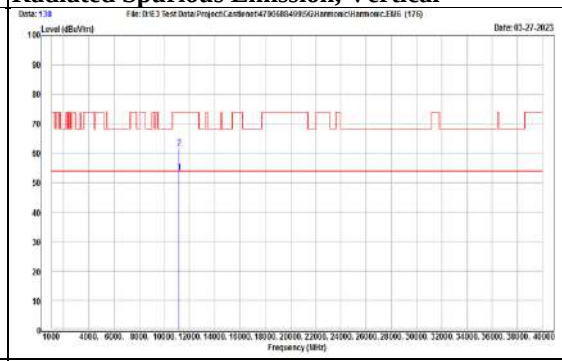
Mode	802.11ax(HE20)	Channel	116

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5450.4	40.43	19.64	60.07	74	-13.93	PK
		5450.4	28.3	19.64	47.94	54	-6.06	AVG
		5463.35	39.77	19.71	59.48	68.2	-8.72	PK
	@	5580	96.27	19.88	116.15	N/A	N/A	PK
	@	5580	70.24	19.88	90.12	N/A	N/A	AVG
		5735.3	40.87	20.14	61.01	68.2	-7.19	PK
	*	11160	33.34	18.05	51.39	74	-22.61	PK
Vertical		5443.4	40.38	19.61	59.99	74	-14.01	PK
		5443.4	27.93	19.61	47.54	54	-6.46	AVG
		5468.6	39.59	19.74	59.33	68.2	-8.87	PK
	@	5580	91.58	19.88	111.46	N/A	N/A	PK
	@	5580	68.47	19.88	88.35	N/A	N/A	AVG
		5743.7	41.2	20.22	61.42	68.2	-6.78	PK
		11160	43.67	18.05	61.72	74	-12.28	PK
		11160	35.42	18.05	53.47	54	-0.53	AVG

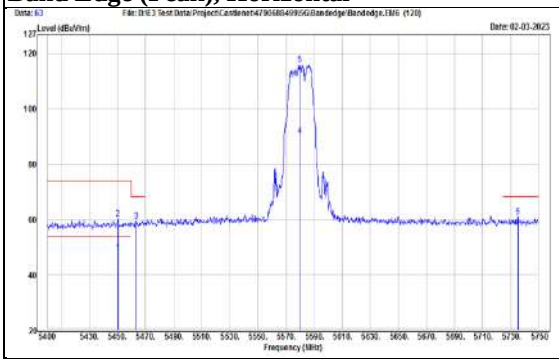
TX, 802.11ax(HE20) (Ch 116)
Radiated Spurious Emission, Horizontal



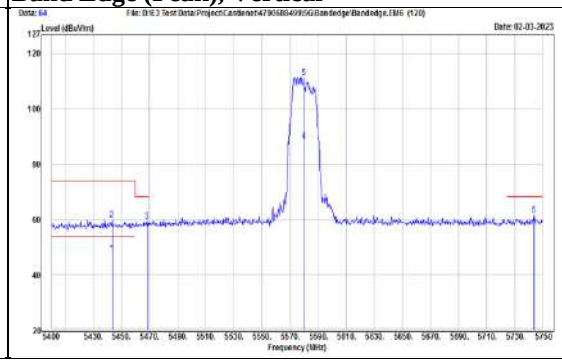
TX, 802.11ax(HE20) (Ch 116)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE20) (Ch 116)
Band Edge (Peak), Horizontal



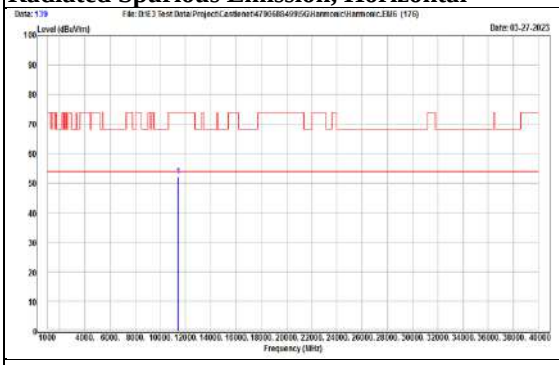
TX, 802.11ax(HE20) (Ch 116)
Band Edge (Peak), Vertical



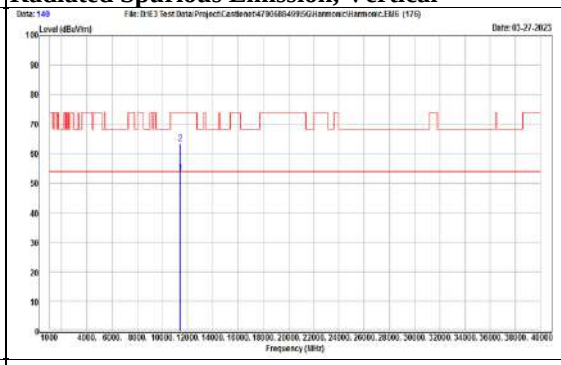
Mode	802.11ax(HE20)	Channel	140

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5700	96.44	19.82	116.26	N/A	N/A	PK
	@	5700	86.05	19.82	105.87	N/A	N/A	AVG
		5725.15	45.33	20.05	65.38	68.2	-2.82	PK
	*	11400	33.8	18.46	52.26	74	-21.74	PK
Vertical	@	5700	90.74	19.82	110.56	N/A	N/A	PK
	@	5700	81.12	19.82	100.94	N/A	N/A	AVG
		5725.15	40.89	20.05	60.94	68.2	-7.26	PK
		11400	45.07	18.46	63.53	74	-10.47	PK
		11400	34.99	18.46	53.45	54	-0.55	AVG

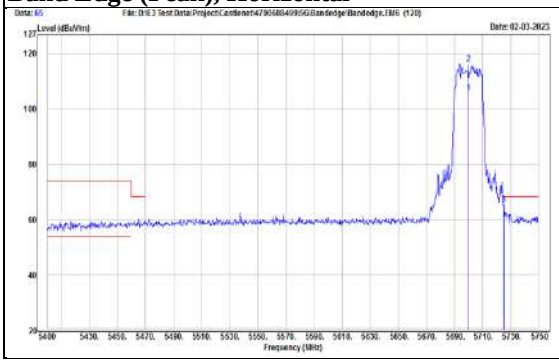
TX, 802.11ax(HE20) (Ch 140)
Radiated Spurious Emission, Horizontal



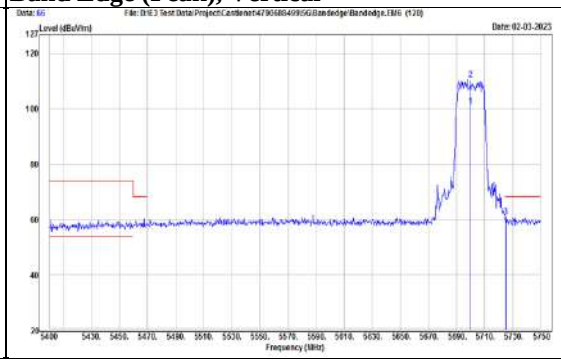
TX, 802.11ax(HE20) (Ch 140)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE20) (Ch 140)
Band Edge (Peak), Horizontal



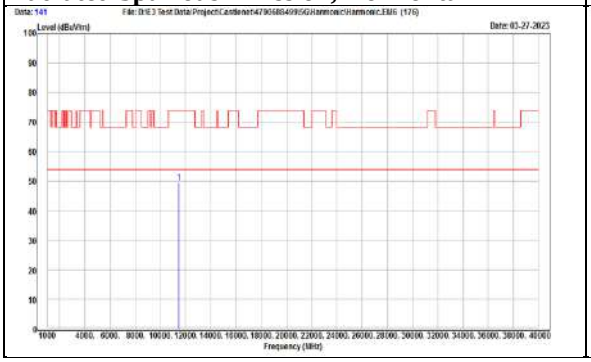
TX, 802.11ax(HE20) (Ch 140)
Band Edge (Peak), Vertical



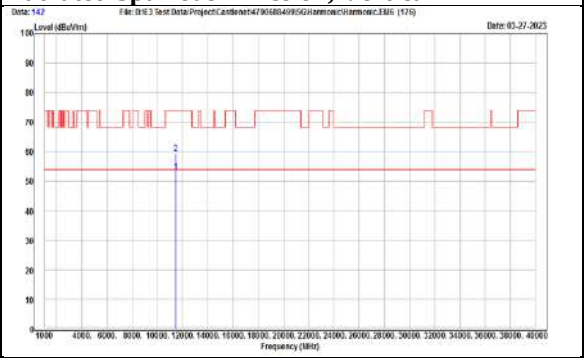
Mode	802.11ax(HE20)	Channel	144

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	*	11440	30.89	18.63	49.52	74	-24.48	PK
Vertical		11440	40.57	18.63	59.2	74	-14.8	PK
		11440	34.63	18.63	53.26	54	-0.74	AVG

TX, 802.11ax(HE20) (Ch 144)
Radiated Spurious Emission, Horizontal



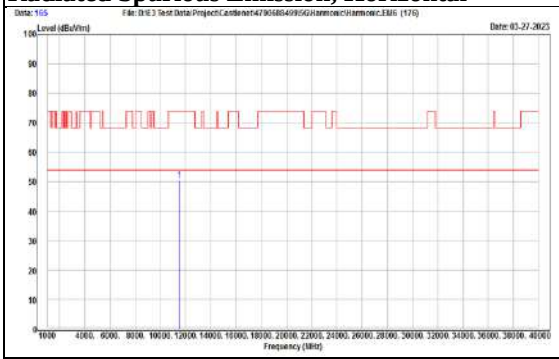
TX, 802.11ax(HE20) (Ch 144)
Radiated Spurious Emission, Vertical



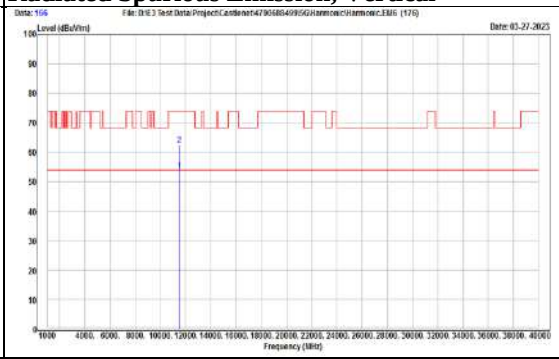
Mode	802.11ax(HE20)	Channel	149

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5538.5	42.35	19.95	62.3	68.2	-5.9	PK
		5698.5	46.75	19.82	66.57	104.09	-37.52	PK
	@	5745	101.99	20.23	122.22	N/A	N/A	PK
	@	5745	91.27	20.23	111.5	N/A	N/A	AVG
	*	11490	31.56	18.86	50.42	74	-23.58	PK
Vertical		5635.5	41.13	19.78	60.91	68.2	-7.29	PK
		5699.5	43.23	19.82	63.05	104.83	-41.78	PK
	@	5745	96.72	20.23	116.95	N/A	N/A	PK
	@	5745	88.51	20.23	108.74	N/A	N/A	AVG
		11490	43.47	18.86	62.33	74	-11.67	PK
		11490	34.73	18.86	53.59	54	-0.41	AVG

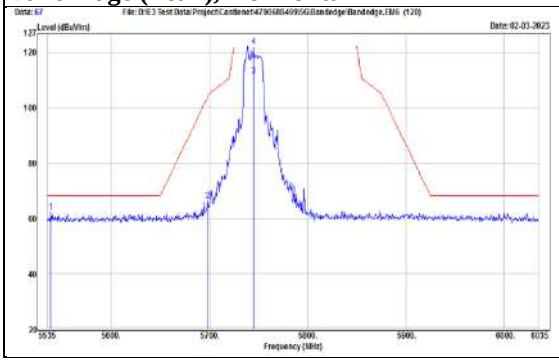
TX, 802.11ax(HE20) (Ch 149)
Radiated Spurious Emission, Horizontal



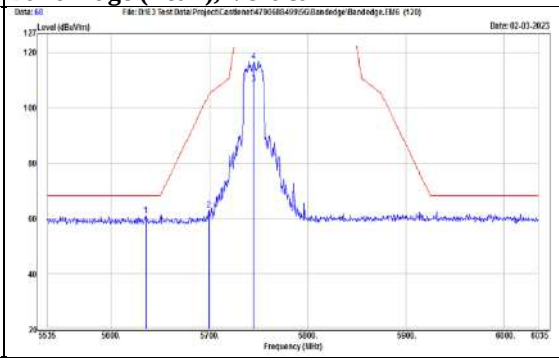
TX, 802.11ax(HE20) (Ch 149)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE20) (Ch 149)
Band Edge (Peak), Horizontal



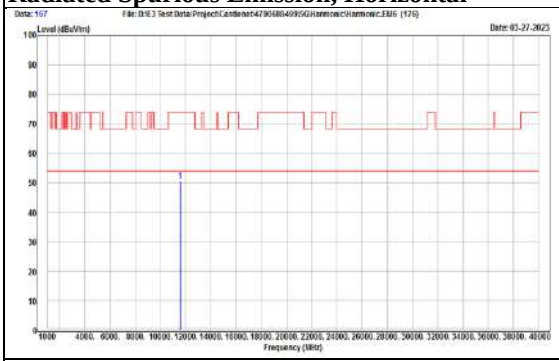
TX, 802.11ax(HE20) (Ch 149)
Band Edge (Peak), Vertical



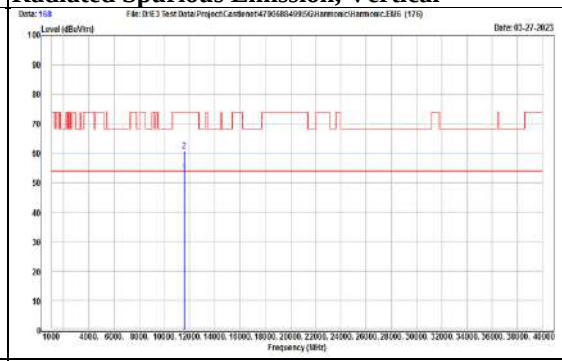
Mode	802.11ax(HE20)	Channel	157

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5597.5	42.42	19.83	62.25	68.2	-5.95	PK
		5672	41.95	19.8	61.75	84.52	-22.77	PK
	@	5785	100.9	20.52	121.42	N/A	N/A	PK
	@	5785	90.83	20.52	111.35	N/A	N/A	AVG
		5882.5	41.85	20.9	62.75	99.63	-36.88	PK
		6008	41.34	21.01	62.35	68.2	-5.85	PK
	*	11570	31.8	18.65	50.45	74	-23.55	PK
Vertical		5618	42.13	19.79	61.92	68.2	-6.28	PK
		5653	41.28	19.77	61.05	70.43	-9.38	PK
	@	5785	97.33	20.52	117.85	N/A	N/A	PK
	@	5785	88.14	20.52	108.66	N/A	N/A	AVG
		5924	41.03	21	62.03	68.94	-6.91	PK
		5996	40.94	21.02	61.96	68.2	-6.24	PK
		11570	42.11	18.65	60.76	74	-13.24	PK
		11570	34.76	18.65	53.41	54	-0.59	AVG

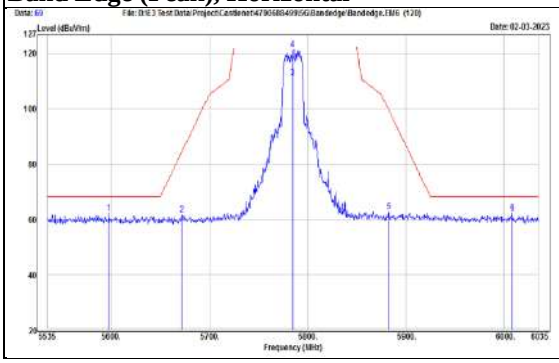
TX, 802.11ax(HE20) (Ch 157)
Radiated Spurious Emission, Horizontal



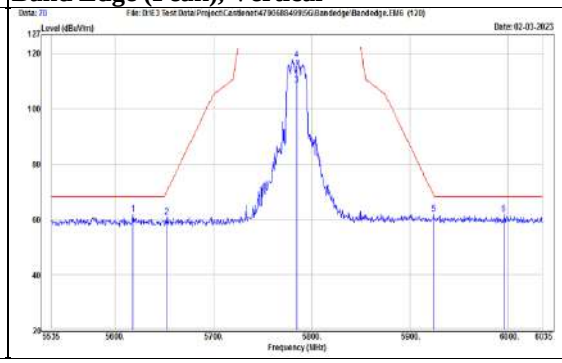
TX, 802.11ax(HE20) (Ch 157)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE20) (Ch 157)
Band Edge (Peak), Horizontal



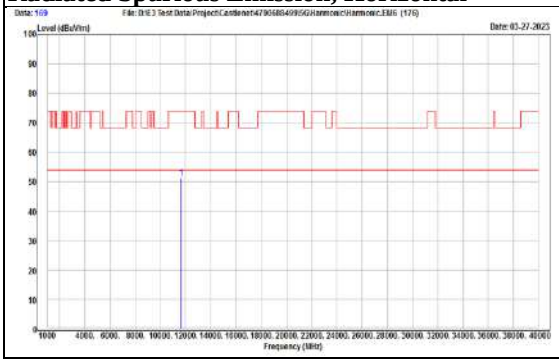
TX, 802.11ax(HE20) (Ch 157)
Band Edge (Peak), Vertical



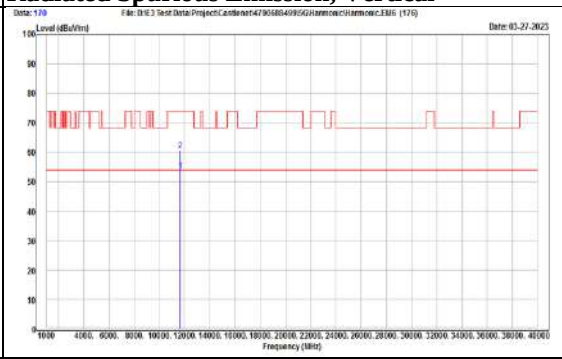
Mode	802.11ax(HE20)	Channel	165

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5825	101.48	20.64	122.12	N/A	N/A	PK
	@	5825	90.78	20.64	111.42	N/A	N/A	AVG
		5875.5	46.47	20.85	67.32	104.83	-37.51	PK
		6011	41.56	21.02	62.58	68.2	-5.62	PK
	*	11650	32.95	18.38	51.33	74	-22.67	PK
Vertical	@	5825	95.9	20.64	116.54	N/A	N/A	PK
	@	5825	87.09	20.64	107.73	N/A	N/A	AVG
		5875.5	44.04	20.85	64.89	104.83	-39.94	PK
		5937	40.58	20.99	61.57	68.2	-6.63	PK
		11650	42.16	18.38	60.54	74	-13.46	PK
		11650	35.16	18.38	53.54	54	-0.46	AVG

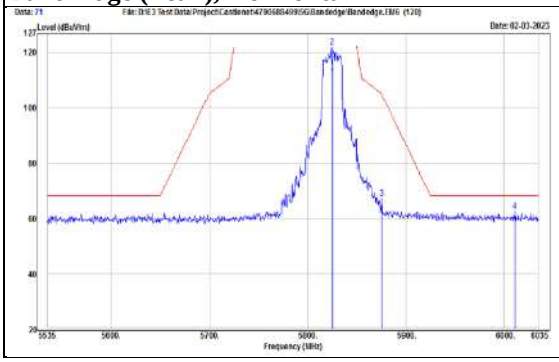
TX, 802.11ax(HE20) (Ch 165)
Radiated Spurious Emission, Horizontal



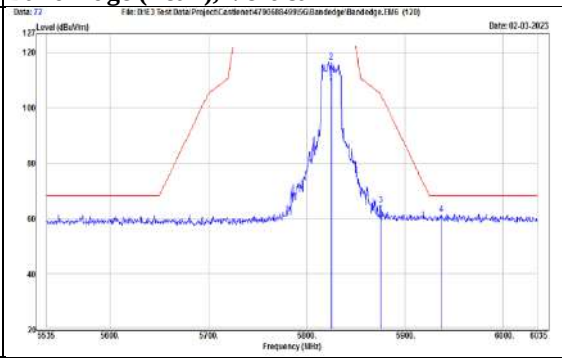
TX, 802.11ax(HE20) (Ch 165)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE20) (Ch 165)
Band Edge (Peak), Horizontal

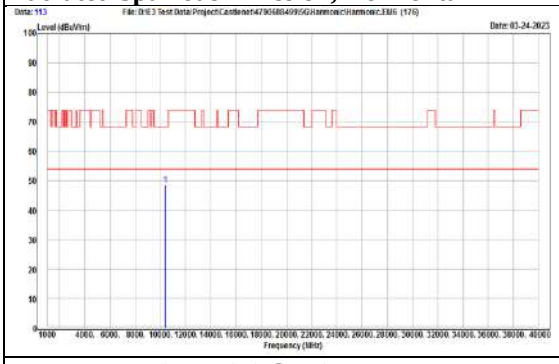
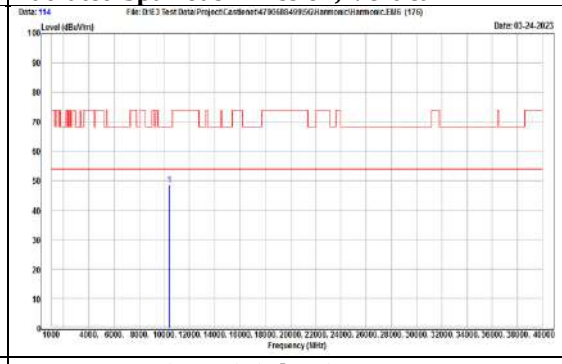
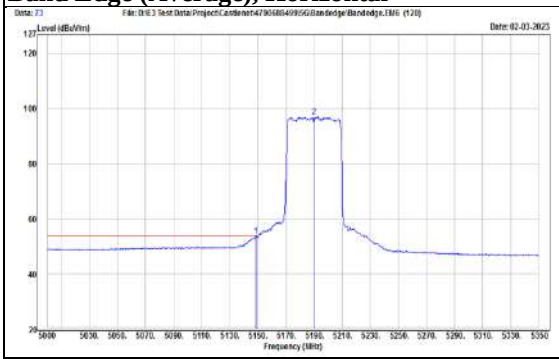
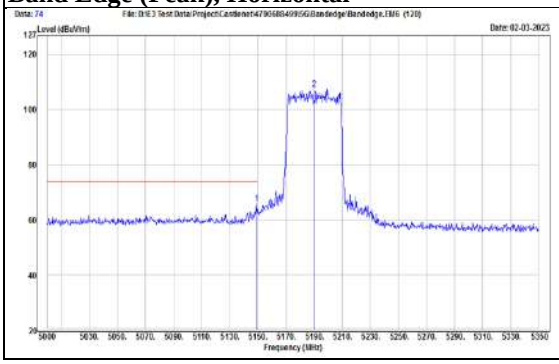
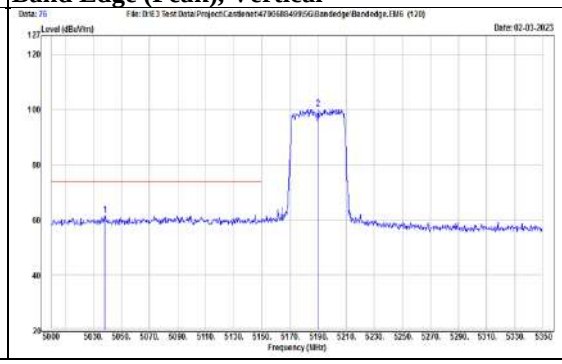


TX, 802.11ax(HE20) (Ch 165)
Band Edge (Peak), Vertical



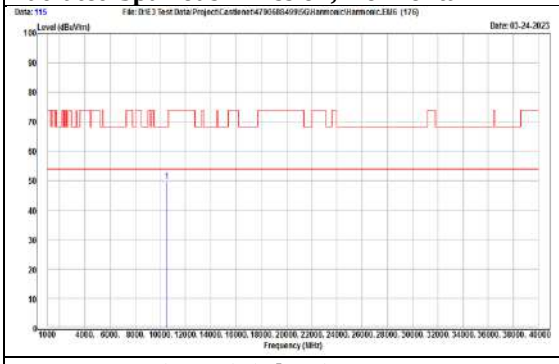
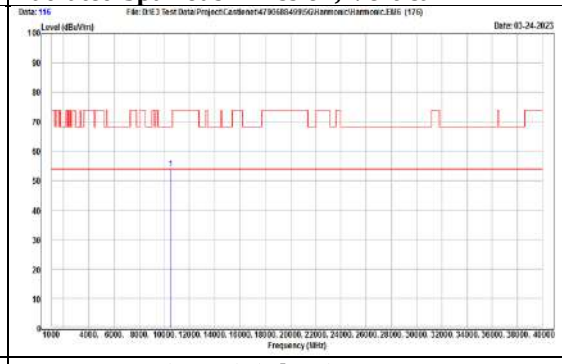
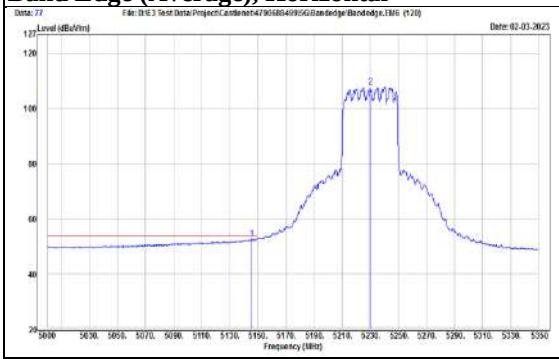
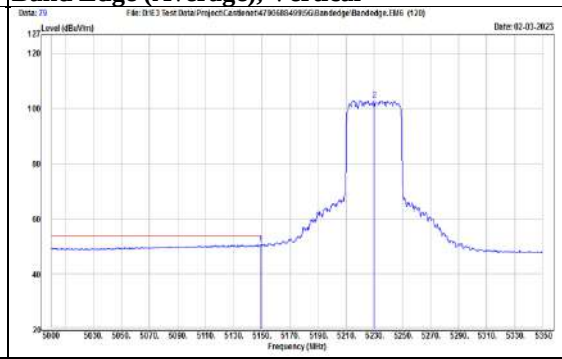
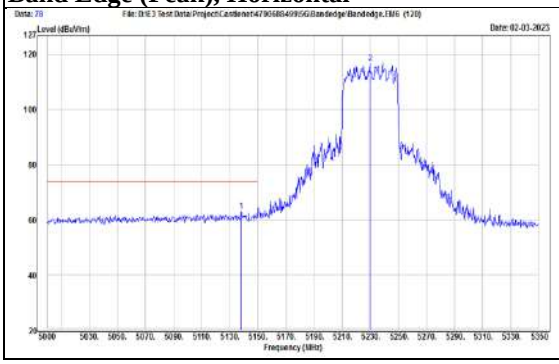
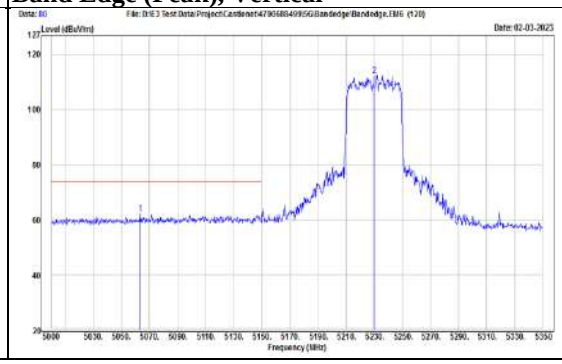
Mode	802.11ax(HE40)	Channel	38

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5148.75	34.2	19.45	53.65	54	-0.35	AVG
		5149.1	46.56	19.45	66.01	74	-7.99	PK
	@	5190	88.12	19.35	107.47	N/A	N/A	PK
	@	5190	77.6	19.35	96.95	N/A	N/A	AVG
	*	10380	31.34	17.19	48.53	68.2	-19.67	PK
Vertical		5038.5	42.87	19.01	61.88	74	-12.12	PK
		5146.65	30.44	19.46	49.9	54	-4.1	AVG
	@	5190	81.05	19.35	100.4	N/A	N/A	PK
	@	5190	72.73	19.35	92.08	N/A	N/A	AVG
	*	10380	31.33	17.19	48.52	68.2	-19.68	PK

TX, 802.11ax(HE40) (Ch 38) **Radiated Spurious Emission, Horizontal**	**TX, 802.11ax(HE40) (Ch 38)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11ax(HE40) (Ch 38) **Band Edge (Average), Horizontal**	**TX, 802.11ax(HE40) (Ch 38)** **Band Edge (Average), Vertical**
	
TX, 802.11ax(HE40) (Ch 38) **Band Edge (Peak), Horizontal**	**TX, 802.11ax(HE40) (Ch 38)** **Band Edge (Peak), Vertical**
	

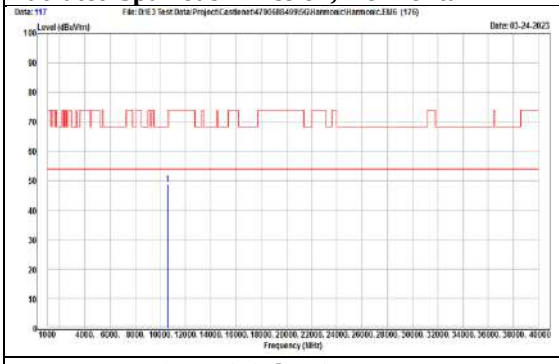
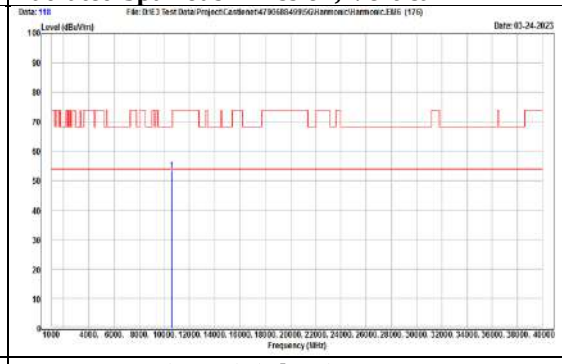
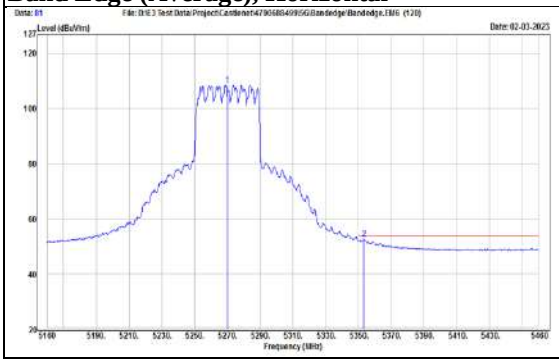
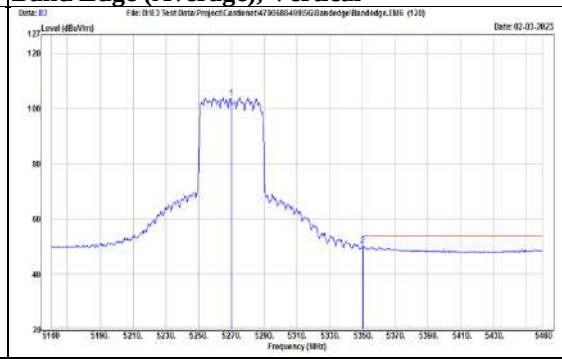
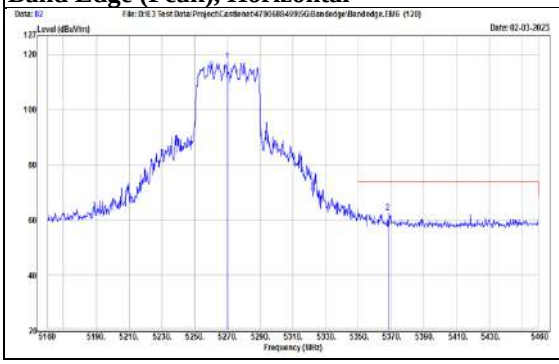
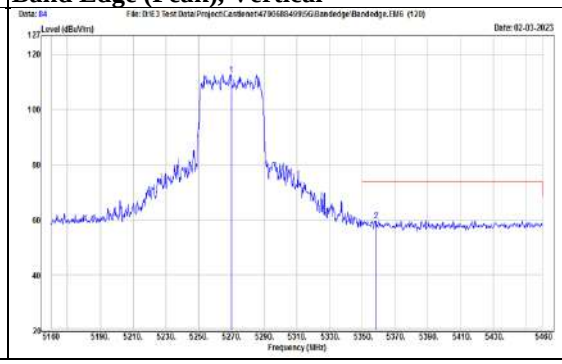
Mode	802.11ax(HE40)	Channel	46

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5138.25	43.52	19.45	62.97	74	-11.03	PK
		5145.6	33.44	19.45	52.89	54	-1.11	AVG
	@	5230	97.61	19.12	116.73	N/A	N/A	PK
	@	5230	88.72	19.12	107.84	N/A	N/A	AVG
	*	10460	32.27	17.5	49.77	68.2	-18.43	PK
Vertical		5063.35	42.98	19.21	62.19	74	-11.81	PK
		5149.45	31.1	19.45	50.55	54	-3.45	AVG
	@	5230	93.38	19.12	112.5	N/A	N/A	PK
	@	5230	83.92	19.12	103.04	N/A	N/A	AVG
	*	10460	36.45	17.5	53.95	68.2	-14.25	PK

TX, 802.11ax(HE40) (Ch 46) **Radiated Spurious Emission, Horizontal**	**TX, 802.11ax(HE40) (Ch 46)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11ax(HE40) (Ch 46) **Band Edge (Average), Horizontal**	**TX, 802.11ax(HE40) (Ch 46)** **Band Edge (Average), Vertical**
	
TX, 802.11ax(HE40) (Ch 46) **Band Edge (Peak), Horizontal**	**TX, 802.11ax(HE40) (Ch 46)** **Band Edge (Peak), Vertical**
	

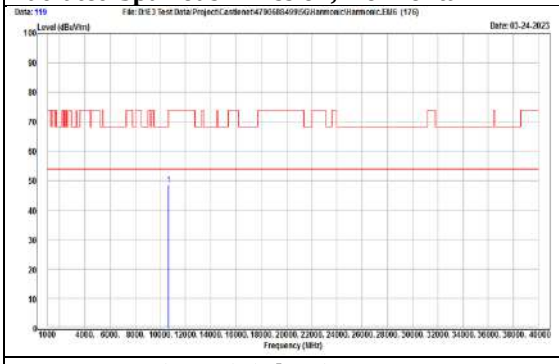
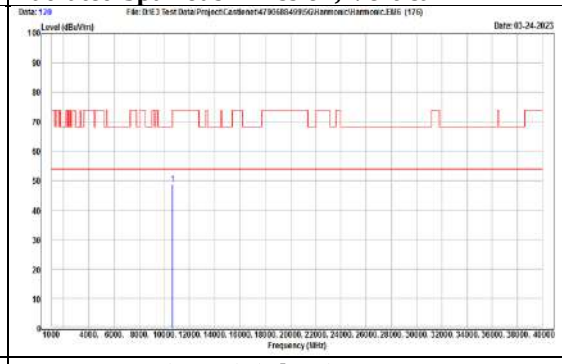
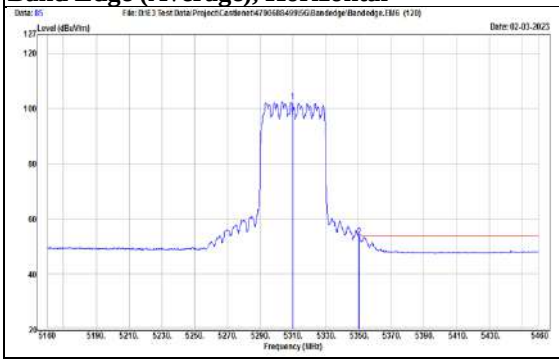
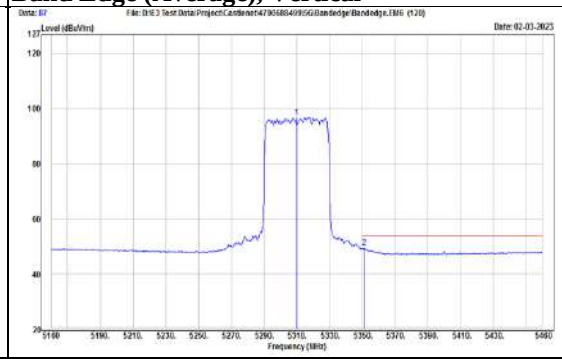
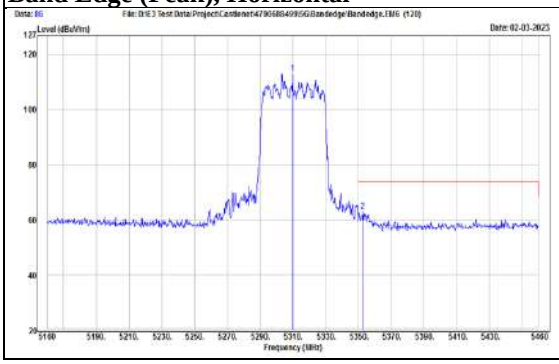
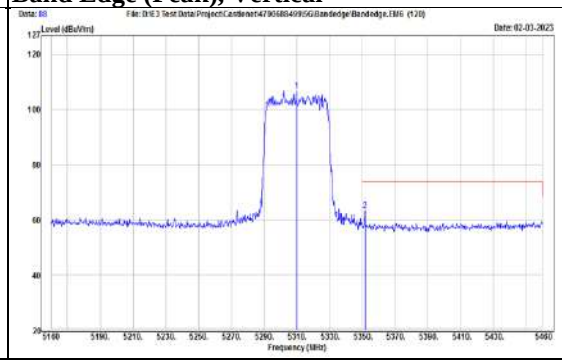
Mode	802.11ax(HE40)	Channel	54

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5270	98.71	18.93	117.64	N/A	N/A	PK
	@	5270	89.59	18.93	108.52	N/A	N/A	AVG
		5353.5	33.62	19.13	52.75	54	-1.25	AVG
		5367.9	43.38	19.21	62.59	74	-11.41	PK
	*	10540	31.07	17.65	48.72	68.2	-19.48	PK
Vertical	@	5270	93.63	18.93	112.56	N/A	N/A	PK
	@	5270	84.92	18.93	103.85	N/A	N/A	AVG
		5350.2	31.15	19.12	50.27	54	-3.73	AVG
		5358.3	40.49	19.16	59.65	74	-14.35	PK
	*	10540	35.67	17.65	53.32	68.2	-14.88	PK

TX, 802.11ax(HE40) (Ch 54) **Radiated Spurious Emission, Horizontal**	**TX, 802.11ax(HE40) (Ch 54)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11ax(HE40) (Ch 54) **Band Edge (Average), Horizontal**	**TX, 802.11ax(HE40) (Ch 54)** **Band Edge (Average), Vertical**
	
TX, 802.11ax(HE40) (Ch 54) **Band Edge (Peak), Horizontal**	**TX, 802.11ax(HE40) (Ch 54)** **Band Edge (Peak), Vertical**
	

Mode	802.11ax(HE40)	Channel	62

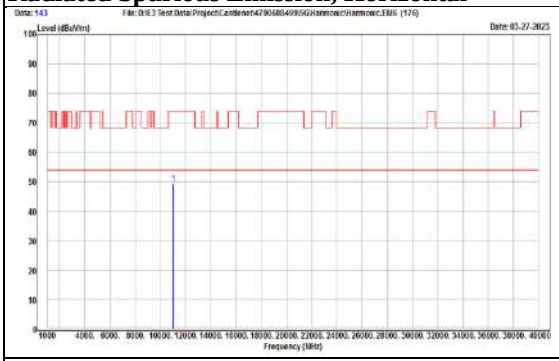
Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5310	94.14	18.9	113.04	N/A	N/A	PK
	@	5310	83.61	18.9	102.51	N/A	N/A	AVG
		5350.5	34.4	19.12	53.52	54	-0.48	AVG
		5352.9	43.96	19.13	63.09	74	-10.91	PK
	*	10620	30.96	17.68	48.64	74	-25.36	PK
Vertical	@	5310	88.01	18.9	106.91	N/A	N/A	PK
	@	5310	77.87	18.9	96.77	N/A	N/A	AVG
		5351.4	30.32	19.13	49.45	54	-4.55	AVG
		5351.7	44.18	19.13	63.31	74	-10.69	PK
	*	10620	31.01	17.68	48.69	74	-25.31	PK

TX, 802.11ax(HE40) (Ch 62) **Radiated Spurious Emission, Horizontal**	**TX, 802.11ax(HE40) (Ch 62)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11ax(HE40) (Ch 62) **Band Edge (Average), Horizontal**	**TX, 802.11ax(HE40) (Ch 62)** **Band Edge (Average), Vertical**
	
TX, 802.11ax(HE40) (Ch 62) **Band Edge (Peak), Horizontal**	**TX, 802.11ax(HE40) (Ch 62)** **Band Edge (Peak), Vertical**
	

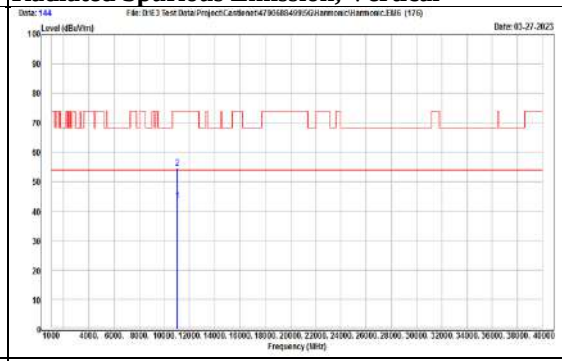
Mode	802.11ax(HE40)	Channel	102

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5459.15	41.43	19.7	61.13	74	-12.87	PK
		5459.15	33.16	19.7	52.86	54	-1.14	AVG
		5465.45	47.5	19.73	67.23	68.2	-0.97	PK
	@	5510	92.19	19.92	112.11	N/A	N/A	PK
	@	5510	82.69	19.92	102.61	N/A	N/A	AVG
	*	11020	31.29	17.97	49.26	74	-24.74	PK
Vertical		5454.25	40.16	19.67	59.83	74	-14.17	PK
		5454.25	29.62	19.67	49.29	54	-4.71	AVG
		5466.85	43.9	19.74	63.64	68.2	-4.56	PK
	@	5510	90.82	19.92	110.74	N/A	N/A	PK
	@	5510	80.7	19.92	100.62	N/A	N/A	AVG
		11020	36.67	17.97	54.64	74	-19.36	PK
		11020	25.8	17.97	43.77	54	-10.23	AVG

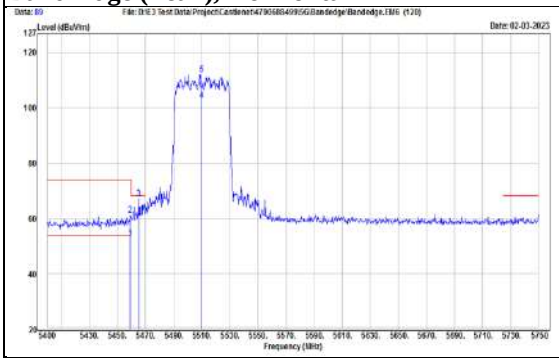
TX, 802.11ax(HE40) (Ch 102)
Radiated Spurious Emission, Horizontal



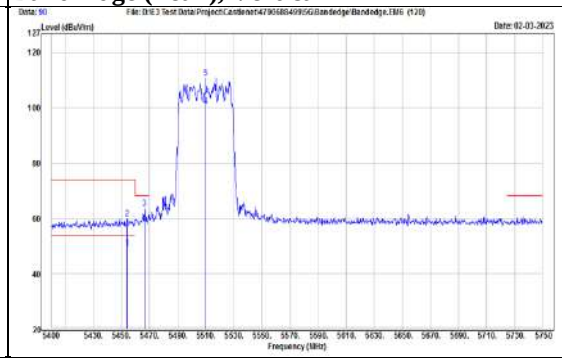
TX, 802.11ax(HE40) (Ch 102)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE40) (Ch 102)
Band Edge (Peak), Horizontal



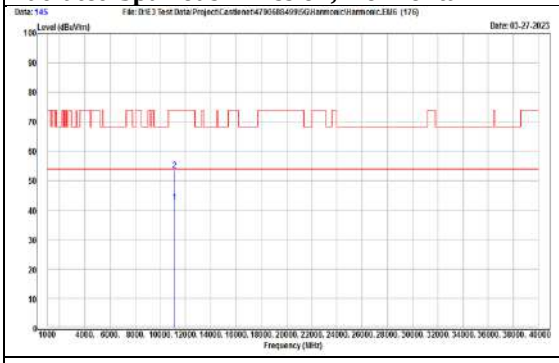
TX, 802.11ax(HE40) (Ch 102)
Band Edge (Peak), Vertical



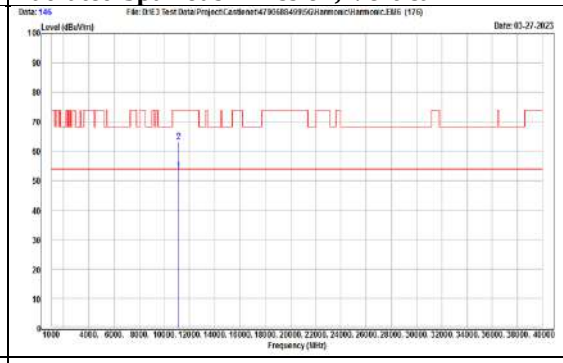
Mode	802.11ax(HE40)	Channel	110

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5459.85	44.72	19.7	64.42	74	-9.58	PK
		5459.85	33.39	19.7	53.09	54	-0.91	AVG
		5467.55	46.56	19.74	66.3	68.2	-1.9	PK
	@	5550	99.11	19.96	119.07	N/A	N/A	PK
	@	5550	89.93	19.96	109.89	N/A	N/A	AVG
		5740.2	42.67	20.18	62.85	68.2	-5.35	PK
		11100	35.11	18.32	53.43	74	-20.57	PK
		11100	24.38	18.32	42.7	54	-11.3	AVG
Vertical		5458.1	42.52	19.69	62.21	74	-11.79	PK
		5458.1	31.38	19.69	51.07	54	-2.93	AVG
		5470	45.21	19.75	64.96	68.2	-3.24	PK
	@	5550	95.6	19.96	115.56	N/A	N/A	PK
	@	5550	86.22	19.96	106.18	N/A	N/A	AVG
		5741.25	41.09	20.2	61.29	68.2	-6.91	PK
		11100	44.95	18.32	63.27	74	-10.73	PK
		11100	35.21	18.32	53.53	54	-0.47	AVG

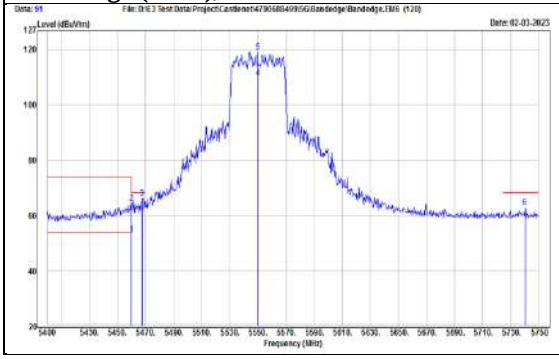
TX, 802.11ax(HE40) (Ch 110)
Radiated Spurious Emission, Horizontal



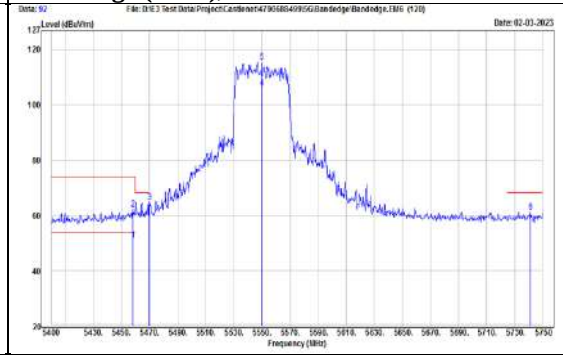
TX, 802.11ax(HE40) (Ch 110)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE40) (Ch 110)
Band Edge (Peak), Horizontal



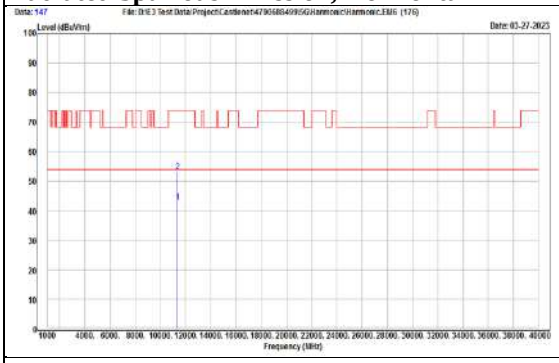
TX, 802.11ax(HE40) (Ch 110)
Band Edge (Peak), Vertical



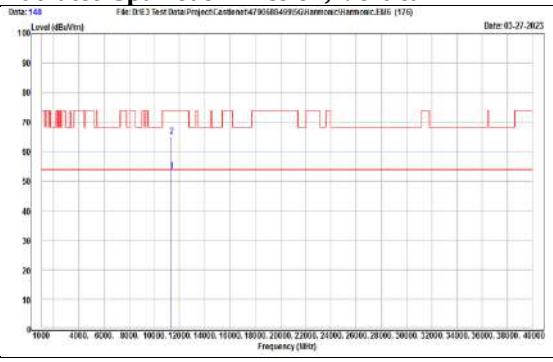
Mode	802.11ax(HE40)	Channel	134

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5670	95.4	19.75	115.15	N/A	N/A	PK
	@	5670	85.45	19.75	105.2	N/A	N/A	AVG
		5725.5	46.45	19.95	66.4	68.2	-1.8	PK
		11340	34.97	18.26	53.23	74	-20.77	PK
		11340	24.66	18.26	42.92	54	-11.08	AVG
Vertical	@	5670	93.7	19.75	113.45	N/A	N/A	PK
	@	5670	83.08	19.75	102.83	N/A	N/A	AVG
		5725.15	42.5	19.95	62.45	68.2	-5.75	PK
		11340	46.79	18.26	65.05	74	-8.95	PK
		11340	35.23	18.26	53.49	54	-0.51	AVG

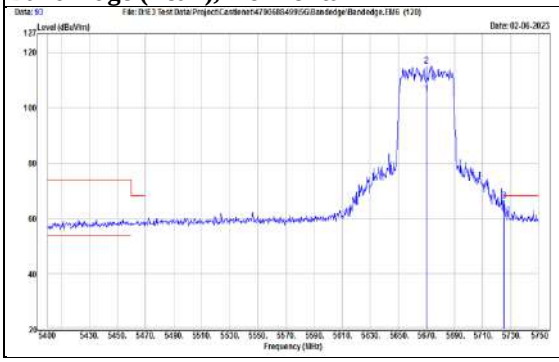
TX, 802.11ax(HE40) (Ch 134)
Radiated Spurious Emission, Horizontal



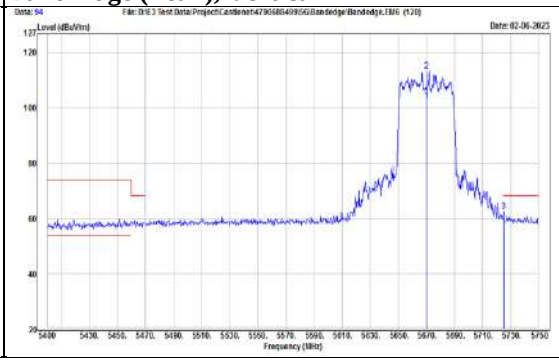
TX, 802.11ax(HE40) (Ch 134)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE40) (Ch 134)
Band Edge (Peak), Horizontal



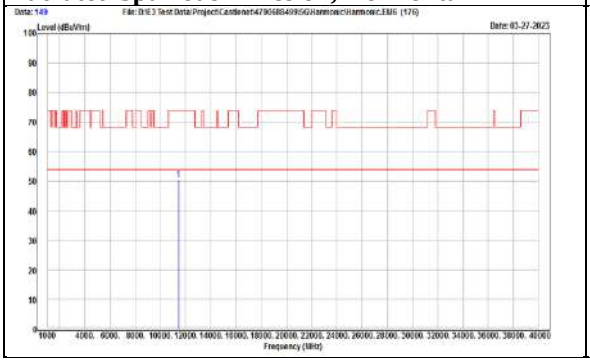
TX, 802.11ax(HE40) (Ch 134)
Band Edge (Peak), Vertical



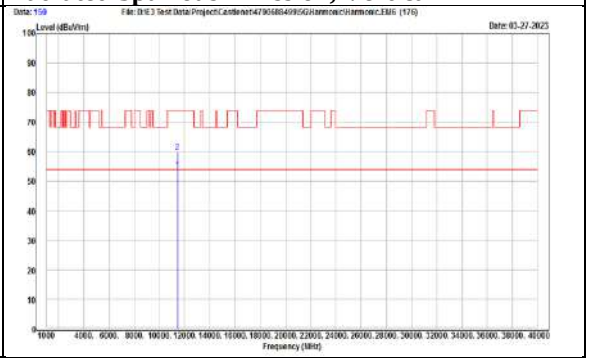
Mode	802.11ax(HE40)	Channel	142

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	*	11420	31.95	18.55	50.5	74	-23.5	PK
Vertical		11420	41.29	18.55	59.84	74	-14.16	PK
		11420	35.14	18.55	53.69	54	-0.31	AVG

TX, 802.11ax(HE40) (Ch 142)
Radiated Spurious Emission, Horizontal



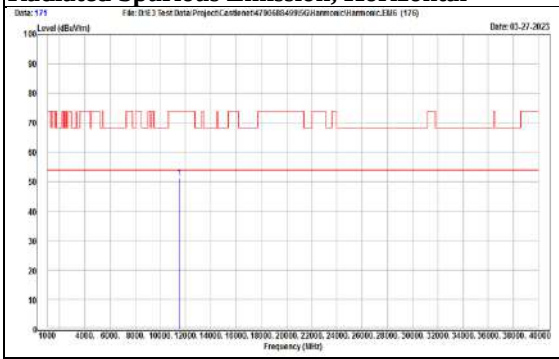
TX, 802.11ax(HE40) (Ch 142)
Radiated Spurious Emission, Vertical



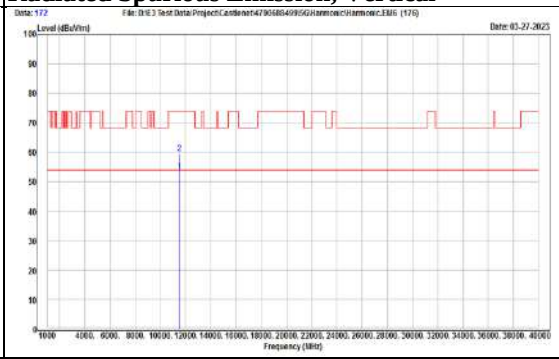
Mode	802.11ax(HE40)	Channel	151

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5644.5	45.68	19.76	65.44	68.2	-2.76	PK
		5700	61.51	19.72	81.23	105.2	-23.97	PK
	@	5755	98.49	20.21	118.7	N/A	N/A	PK
	@	5755	90.28	20.21	110.49	N/A	N/A	AVG
	*	11510	32.35	18.87	51.22	74	-22.78	PK
Vertical		5635	44.62	19.75	64.37	68.2	-3.83	PK
		5698.5	57.06	19.72	76.78	104.09	-27.31	PK
	@	5755	97.92	20.21	118.13	N/A	N/A	PK
	@	5755	86.77	20.21	106.98	N/A	N/A	AVG
		11510	40.57	18.87	59.44	74	-14.56	PK
		11510	34.58	18.87	53.45	54	-0.55	AVG

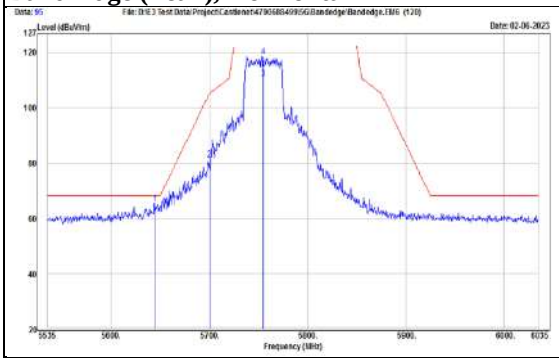
TX, 802.11ax(HE40) (Ch 151)
Radiated Spurious Emission, Horizontal



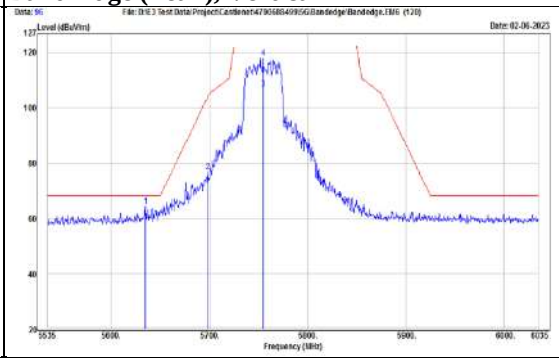
TX, 802.11ax(HE40) (Ch 151)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE40) (Ch 151)
Band Edge (Peak), Horizontal



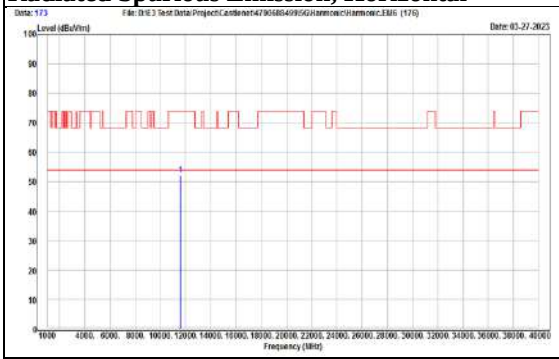
TX, 802.11ax(HE40) (Ch 151)
Band Edge (Peak), Vertical



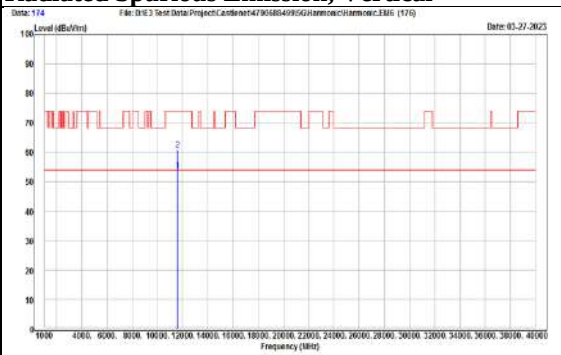
Mode	802.11ax(HE40)	Channel	159

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5795	100.92	20.58	121.5	N/A	N/A	PK
	@	5795	90.87	20.58	111.45	N/A	N/A	AVG
		5877.5	58.14	20.8	78.94	103.34	-24.4	PK
		5925	46.24	20.85	67.09	68.2	-1.11	PK
	*	11590	33.55	18.58	52.13	74	-21.87	PK
Vertical	@	5795	98.41	20.58	118.99	N/A	N/A	PK
	@	5795	89.96	20.58	110.54	N/A	N/A	AVG
		5876	57.13	20.8	77.93	104.46	-26.53	PK
		5934	44.62	20.86	65.48	68.2	-2.72	PK
		11590	42.07	18.58	60.65	74	-13.35	PK
		11590	34.97	18.58	53.55	54	-0.45	AVG

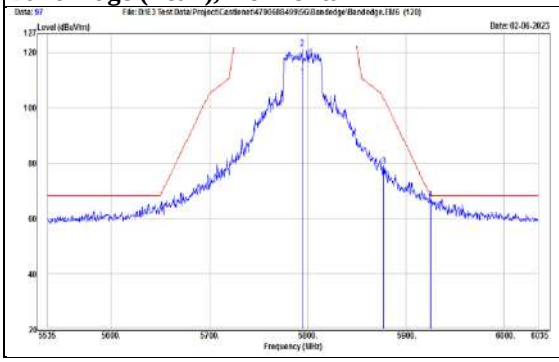
TX, 802.11ax(HE40) (Ch 159)
Radiated Spurious Emission, Horizontal



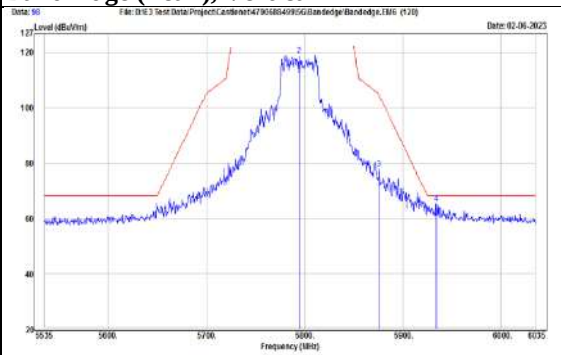
TX, 802.11ax(HE40) (Ch 159)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE40) (Ch 159)
Band Edge (Peak), Horizontal

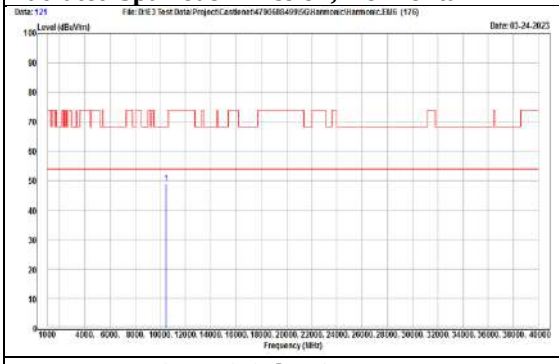
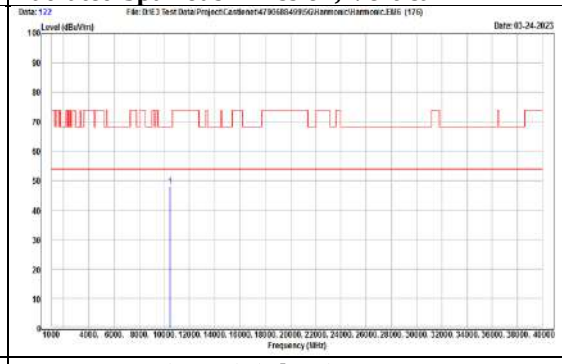
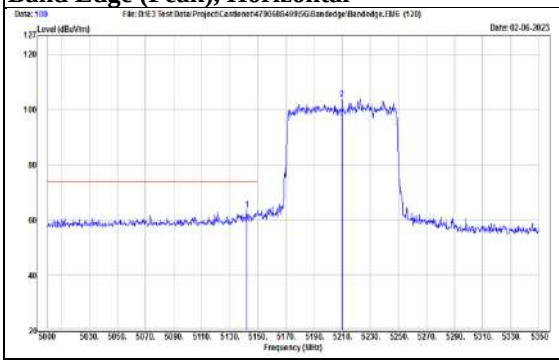
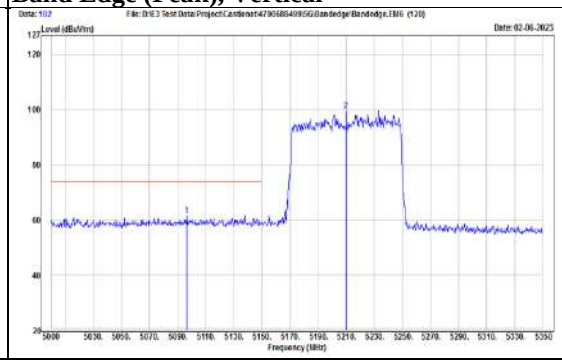


TX, 802.11ax(HE40) (Ch 159)
Band Edge (Peak), Vertical



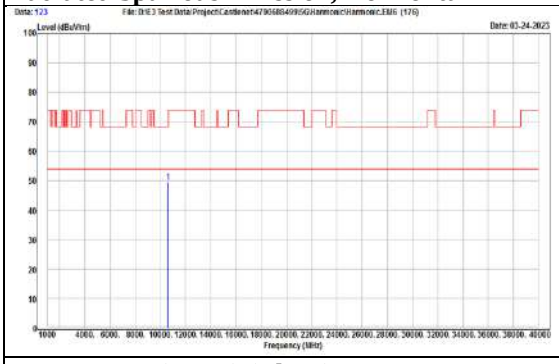
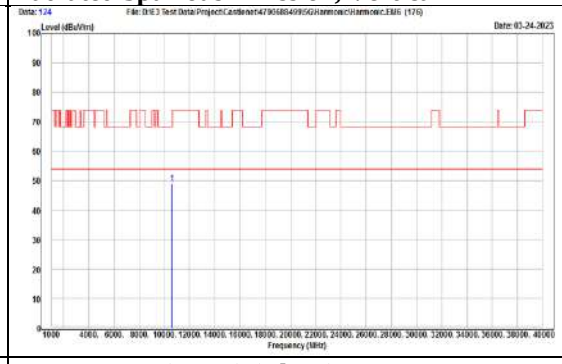
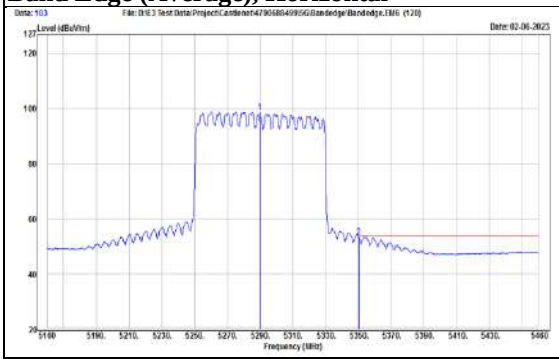
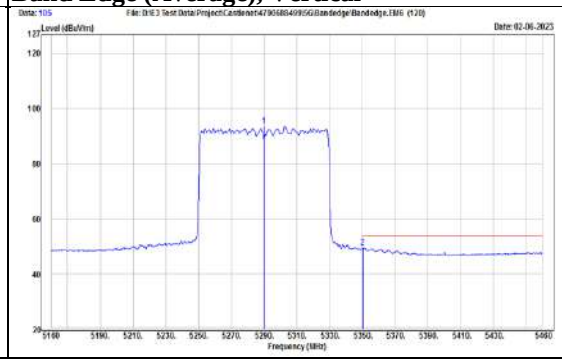
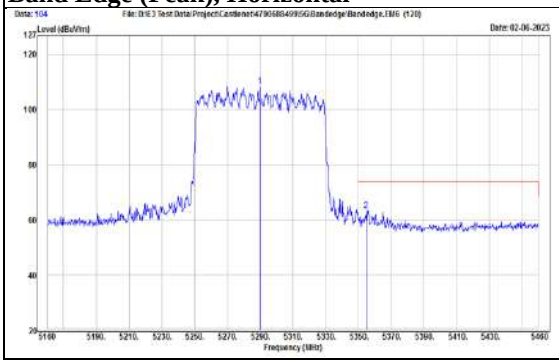
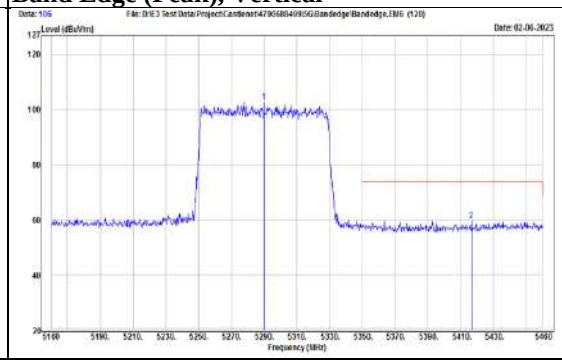
Mode	802.11ax(HE80)	Channel	42

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5142.1	44.18	19.36	63.54	74	-10.46	PK
		5148.4	33.34	19.35	52.69	54	-1.31	AVG
	@	5210	84.5	19.19	103.69	N/A	N/A	PK
	@	5210	73.13	19.19	92.32	N/A	N/A	AVG
	*	10420	31.61	17.4	49.01	68.2	-19.19	PK
Vertical		5096.6	42.16	19.36	61.52	74	-12.48	PK
		5148.75	30.38	19.35	49.73	54	-4.27	AVG
	@	5210	80.51	19.19	99.7	N/A	N/A	PK
	@	5210	69.37	19.19	88.56	N/A	N/A	AVG
	*	10420	30.76	17.4	48.16	68.2	-20.04	PK

TX, 802.11ax(HE80) (Ch 42) **Radiated Spurious Emission, Horizontal**	**TX, 802.11ax(HE80) (Ch 42)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11ax(HE80) (Ch 42) **Band Edge (Average), Horizontal**	**TX, 802.11ax(HE80) (Ch 42)** **Band Edge (Average), Vertical**
TX, 802.11ax(HE80) (Ch 42) **Band Edge (Peak), Horizontal**	**TX, 802.11ax(HE80) (Ch 42)** **Band Edge (Peak), Vertical**
	

Mode	802.11ax(HE80)	Channel	58

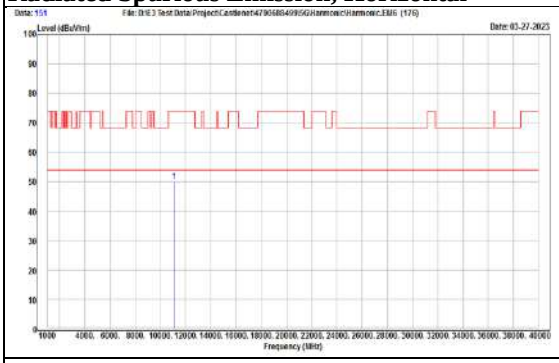
Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5290	89.47	18.9	108.37	N/A	N/A	PK
	@	5290	79.84	18.9	98.74	N/A	N/A	AVG
		5350.2	34.71	18.82	53.53	54	-0.47	AVG
		5354.7	44.56	18.86	63.42	74	-10.58	PK
	*	10580	31.74	17.68	49.42	68.2	-18.78	PK
Vertical	@	5290	83.89	18.9	102.79	N/A	N/A	PK
	@	5290	74.67	18.9	93.57	N/A	N/A	AVG
		5350.2	30.79	18.82	49.61	54	-4.39	AVG
		5416.5	40.25	19.43	59.68	74	-14.32	PK
	*	10580	31.37	17.68	49.05	68.2	-19.15	PK

TX, 802.11ax(HE80) (Ch 58) **Radiated Spurious Emission, Horizontal**	**TX, 802.11ax(HE80) (Ch 58)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11ax(HE80) (Ch 58) **Band Edge (Average), Horizontal**	**TX, 802.11ax(HE80) (Ch 58)** **Band Edge (Average), Vertical**
	
TX, 802.11ax(HE80) (Ch 58) **Band Edge (Peak), Horizontal**	**TX, 802.11ax(HE80) (Ch 58)** **Band Edge (Peak), Vertical**
	

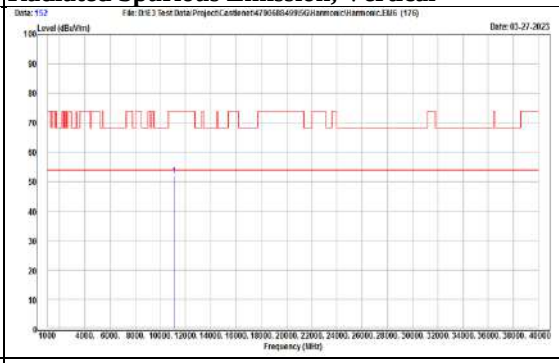
Mode	802.11ax(HE80)	Channel	106

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5447.95	46.29	19.72	66.01	74	-7.99	PK
		5447.95	33.21	19.72	52.93	54	-1.07	AVG
		5460.2	46.89	19.76	66.65	68.2	-1.55	PK
	@	5530	89.28	19.73	109.01	N/A	N/A	PK
	@	5530	79.36	19.73	99.09	N/A	N/A	AVG
	*	11060	31.74	18.15	49.89	74	-24.11	PK
Vertical		5449.35	46.51	19.73	66.24	74	-7.76	PK
		5449.35	33.83	19.73	53.56	54	-0.44	AVG
		5469.65	45.33	19.77	65.1	68.2	-3.1	PK
	@	5530	89.36	19.73	109.09	N/A	N/A	PK
	@	5530	77.44	19.73	97.17	N/A	N/A	AVG
	*	11060	33.89	18.15	52.04	74	-21.96	PK

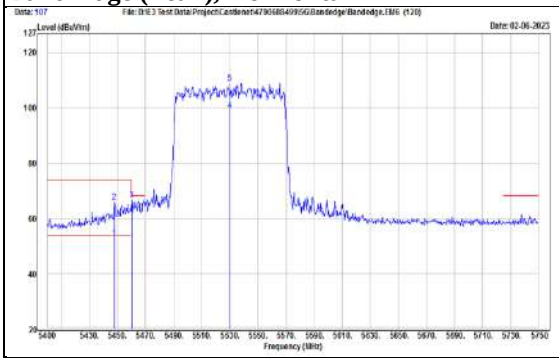
TX, 802.11ax(HE80) (Ch 106)
Radiated Spurious Emission, Horizontal



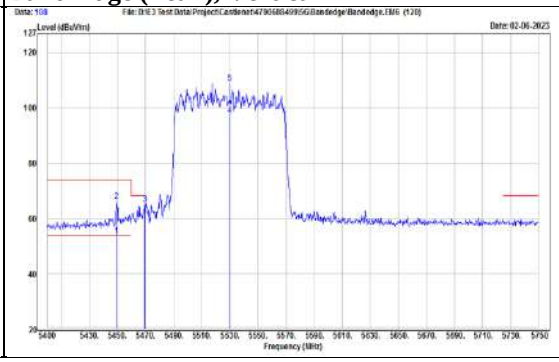
TX, 802.11ax(HE80) (Ch 106)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE80) (Ch 106)
Band Edge (Peak), Horizontal



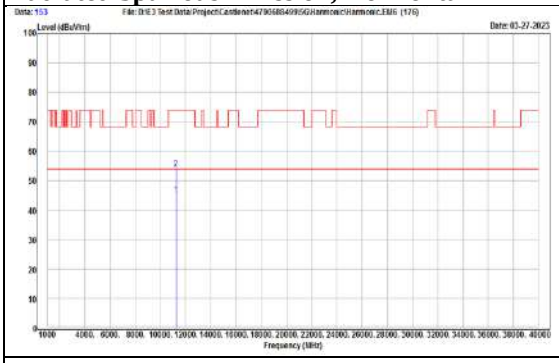
TX, 802.11ax(HE80) (Ch 106)
Band Edge (Peak), Vertical



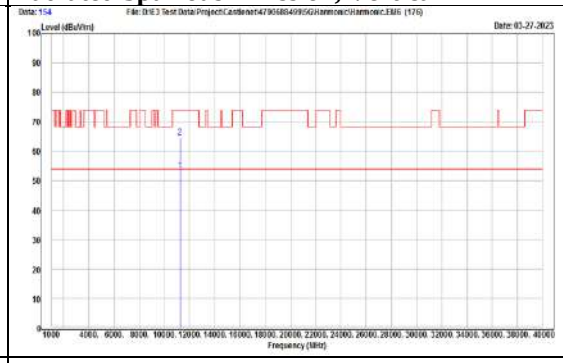
Mode	802.11ax(HE80)	Channel	122

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5451.45	43.57	19.74	63.31	74	-10.69	PK
		5451.45	31.82	19.74	51.56	54	-2.44	AVG
		5468.95	43.93	19.77	63.7	68.2	-4.5	PK
	@	5610	97.2	19.72	116.92	N/A	N/A	PK
	@	5610	85.38	19.72	105.1	N/A	N/A	AVG
		5725	46.11	19.95	66.06	68.2	-2.14	PK
		11220	36.1	17.92	54.02	74	-19.98	PK
		11220	27.13	17.92	45.05	54	-8.95	AVG
Vertical		5437.45	40.69	19.63	60.32	74	-13.68	PK
		5437.45	30.95	19.63	50.58	54	-3.42	AVG
		5463.35	42.14	19.76	61.9	68.2	-6.3	PK
	@	5610	93.18	19.72	112.9	N/A	N/A	PK
	@	5610	83.27	19.72	102.99	N/A	N/A	AVG
		5726.2	44.2	19.96	64.16	68.2	-4.04	PK
		11220	46.82	17.92	64.74	74	-9.26	PK
		11220	35.59	17.92	53.51	54	-0.49	AVG

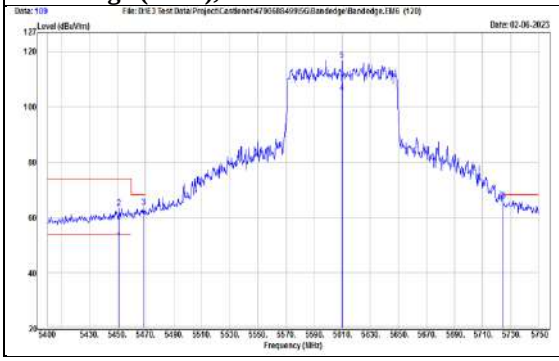
TX, 802.11ax(HE80) (Ch 122)
Radiated Spurious Emission, Horizontal



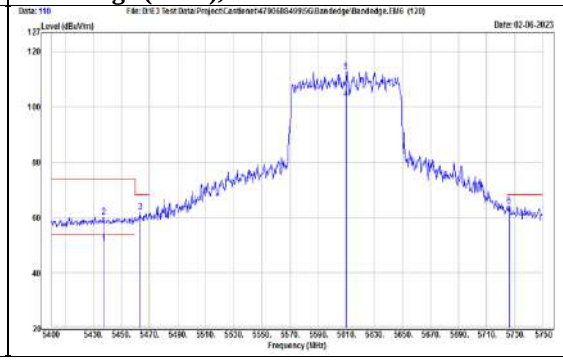
TX, 802.11ax(HE80) (Ch 122)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE80) (Ch 122)
Band Edge (Peak), Horizontal



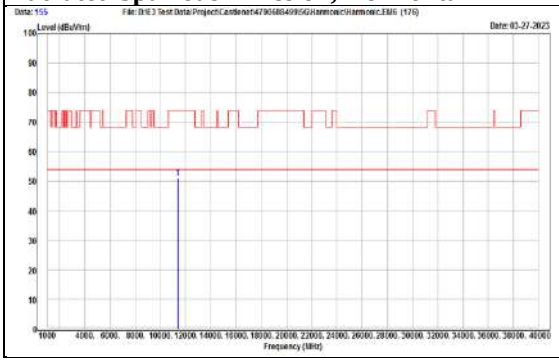
TX, 802.11ax(HE80) (Ch 122)
Band Edge (Peak), Vertical



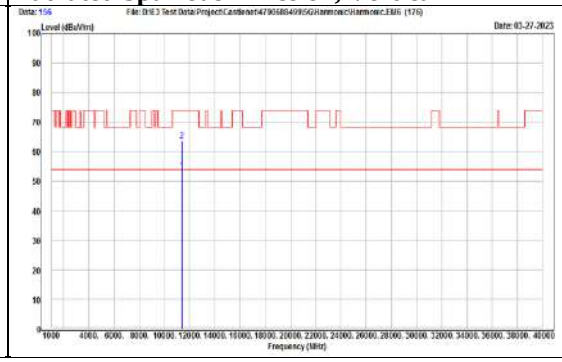
Mode	802.11ax(HE80)	Channel	138

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	*	11380	32.52	18.39	50.91	74	-23.09	PK
Vertical		11380	45.3	18.39	63.69	74	-10.31	PK
		11380	35.18	18.39	53.57	54	-0.43	AVG

TX, 802.11ax(HE80) (Ch 138)
Radiated Spurious Emission, Horizontal



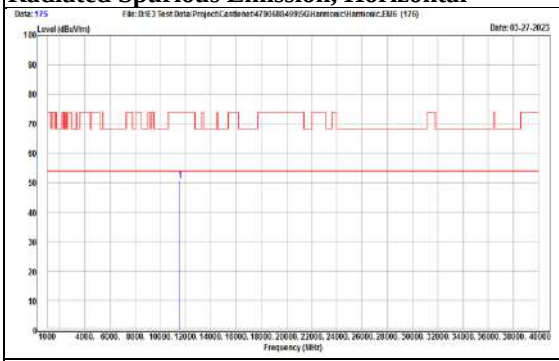
TX, 802.11ax(HE80) (Ch 138)
Radiated Spurious Emission, Vertical



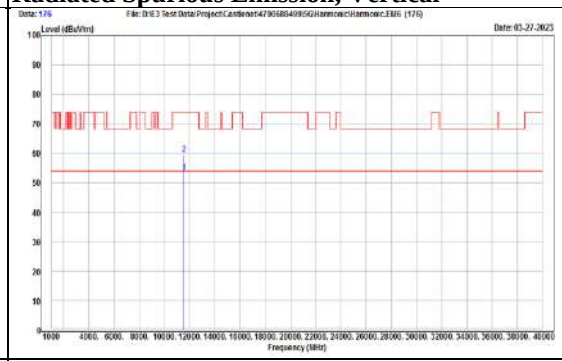
Mode	802.11ax(HE80)	Channel	155

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5645.5	45.22	19.76	64.98	68.2	-3.22	PK
		5693.5	56.85	19.72	76.57	100.41	-23.84	PK
	@	5775	92.79	20.4	113.19	N/A	N/A	PK
	@	5775	81.66	20.4	102.06	N/A	N/A	AVG
		5878	48.8	20.8	69.6	102.97	-33.37	PK
		5939	41.27	20.86	62.13	68.2	-6.07	PK
	*	11550	31.95	18.73	50.68	74	-23.32	PK
Vertical		5649.5	43.35	19.77	63.12	68.2	-5.08	PK
		5697	52.7	19.72	72.42	102.99	-30.57	PK
	@	5775	91.42	20.4	111.82	N/A	N/A	PK
	@	5775	81.97	20.4	102.37	N/A	N/A	AVG
		5875	44.37	20.8	65.17	105.2	-40.03	PK
		5953.5	40.53	20.88	61.41	68.2	-6.79	PK
		11550	40.76	18.73	59.49	74	-14.51	PK
		11550	34.67	18.73	53.4	54	-0.6	AVG

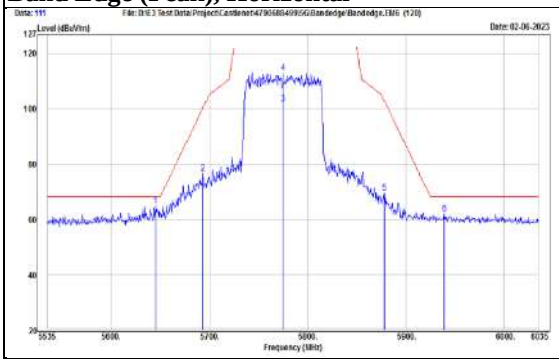
TX, 802.11ax(HE80) (Ch 155)
Radiated Spurious Emission, Horizontal



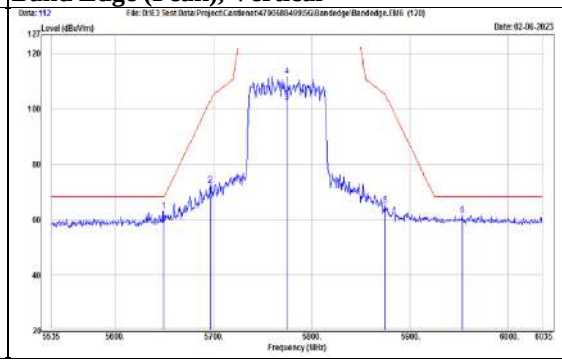
TX, 802.11ax(HE80) (Ch 155)
Radiated Spurious Emission, Vertical



TX, 802.11ax(HE80) (Ch 155)
Band Edge (Peak), Horizontal

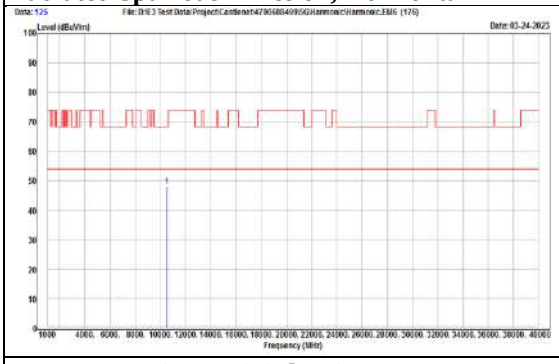
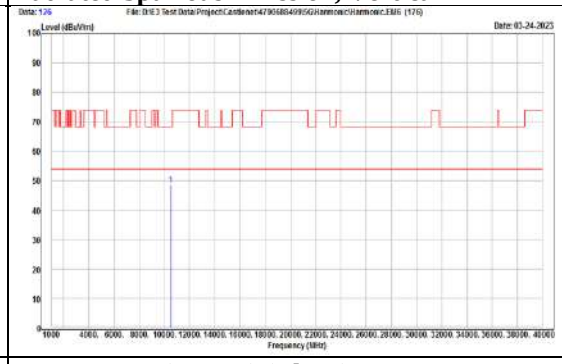
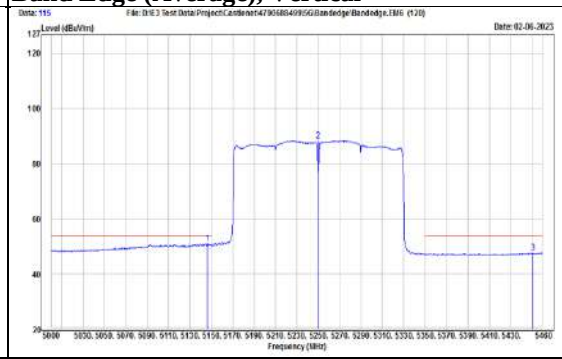
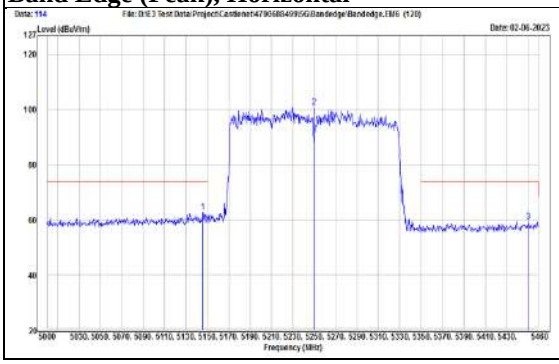
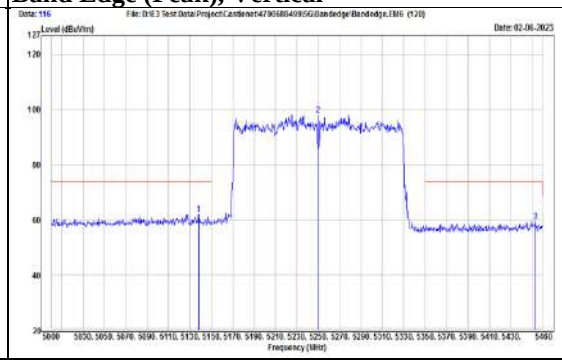


TX, 802.11ax(HE80) (Ch 155)
Band Edge (Peak), Vertical



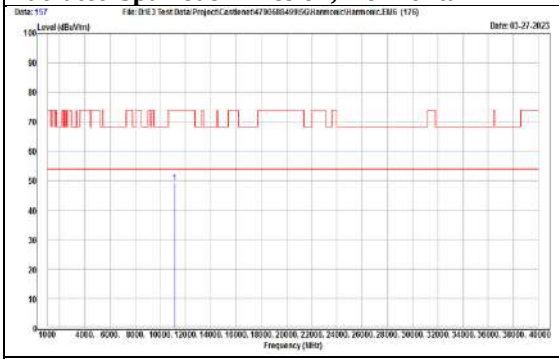
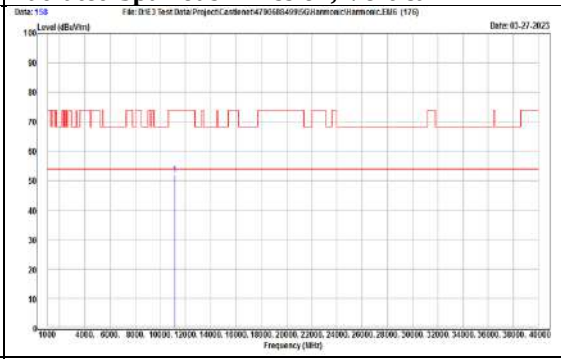
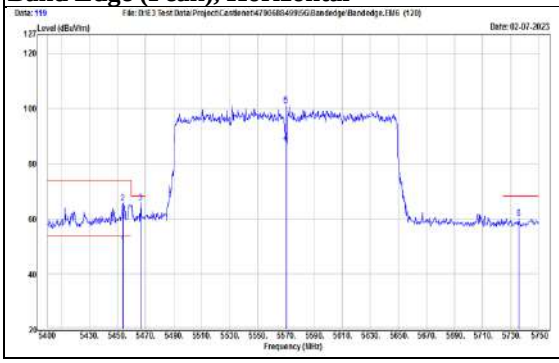
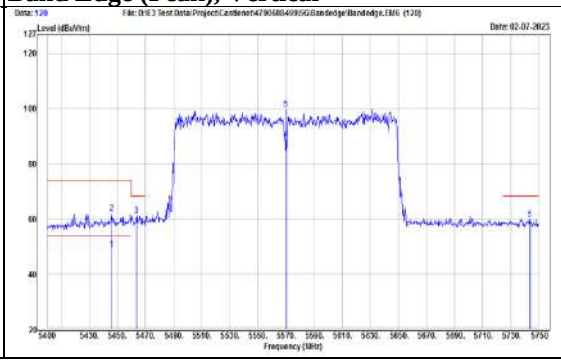
Mode	802.11ax(HE160)	Channel	50

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5145.82	43.43	19.35	62.78	74	-11.22	PK
		5145.82	32.78	19.35	52.13	54	-1.87	AVG
	@	5250	81.77	19.08	100.85	N/A	N/A	PK
	@	5250	71.04	19.08	90.12	N/A	N/A	AVG
		5355.58	29.31	18.86	48.17	54	-5.83	AVG
		5450.34	39.69	19.74	59.43	74	-14.57	PK
	*	10500	30.53	17.61	48.14	68.2	-20.06	PK
Vertical		5138	42.79	19.35	62.14	74	-11.86	PK
		5146.28	31.62	19.36	50.98	54	-3.02	AVG
	@	5250	78.96	19.08	98.04	N/A	N/A	PK
	@	5250	69.33	19.08	88.41	N/A	N/A	AVG
		5450.8	27.88	19.74	47.62	54	-6.38	AVG
		5453.1	39.71	19.75	59.46	74	-14.54	PK
	*	10500	30.92	17.61	48.53	68.2	-19.67	PK

TX, 802.11ax(HE160) (Ch 50) **Radiated Spurious Emission, Horizontal**	**TX, 802.11ax(HE160) (Ch 50)** **Radiated Spurious Emission, Vertical**
	
TX, 802.11ax(HE160) (Ch 50) **Band Edge (Average), Horizontal**	**TX, 802.11ax(HE160) (Ch 50)** **Band Edge (Average), Vertical**
	
TX, 802.11ax(HE160) (Ch 50) **Band Edge (Peak), Horizontal**	**TX, 802.11ax(HE160) (Ch 50)** **Band Edge (Peak), Vertical**
	

Mode	802.11ax(HE160)	Channel	114

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5453.9	45.94	19.75	65.69	74	-8.31	PK
		5453.9	30.78	19.75	50.53	54	-3.47	AVG
		5466.85	46.15	19.77	65.92	68.2	-2.28	PK
	@	5570	81.43	19.68	101.11	N/A	N/A	PK
	@	5570	68.04	19.68	87.72	N/A	N/A	AVG
		5736	40.23	20.05	60.28	68.2	-7.92	PK
	*	11140	31.13	18.14	49.27	74	-24.73	PK
Vertical		5445.85	42.39	19.72	62.11	74	-11.89	PK
		5445.85	29.29	19.72	49.01	54	-4.99	AVG
		5463.7	41.53	19.76	61.29	68.2	-6.91	PK
	@	5570	80.28	19.68	99.96	N/A	N/A	PK
	@	5570	69.21	19.68	88.89	N/A	N/A	AVG
		5743.7	39.9	20.12	60.02	68.2	-8.18	PK
	*	11140	33.9	18.14	52.04	74	-21.96	PK

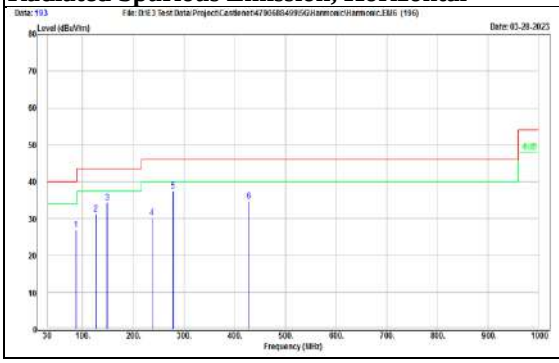
TX, 802.11ax(HE160) (Ch 114) Radiated Spurious Emission, Horizontal	TX, 802.11ax(HE160) (Ch 114) Radiated Spurious Emission, Vertical
	
TX, 802.11ax(HE160) (Ch 114) Band Edge (Peak), Horizontal	**TX, 802.11ax(HE160) (Ch 114) Band Edge (Peak), Vertical**
	

Below 1 GHz

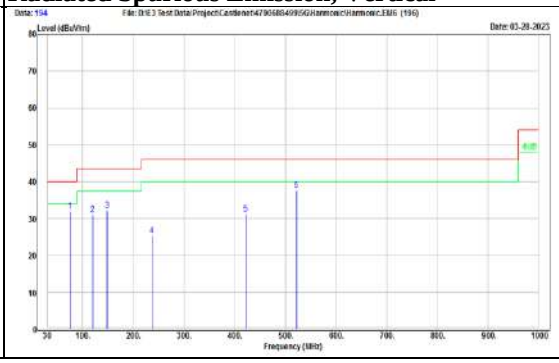
Mode	802.11ax(HE20)	Channel	44

Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		87.23	44.76	-17.75	27.01	40	-12.99	PK
		126.03	44.88	-13.57	31.31	43.5	-12.19	PK
		148.34	46.31	-11.95	34.36	43.5	-9.14	PK
		236.61	42.97	-12.82	30.15	46	-15.85	PK
		278.32	48.85	-11.3	37.55	46	-8.45	PK
		427.7	41.9	-7.12	34.78	46	-11.22	PK
Vertical		74.62	46.84	-14.83	32.01	40	-7.99	PK
		120.21	45.05	-14.02	31.03	43.5	-12.47	PK
		148.34	44.14	-11.95	32.19	43.5	-11.31	PK
		236.61	38.17	-12.82	25.35	46	-20.65	PK
		421.88	38.58	-7.32	31.26	46	-14.74	PK
		521.79	42.4	-4.82	37.58	46	-8.42	PK

TX, 802.11ax(HE20) (Ch 44)
Radiated Spurious Emission, Horizontal



TX, 802.11ax(HE20) (Ch 44)
Radiated Spurious Emission, Vertical



Below 30MHz

9 kHz ~ 30 MHz Data:

For 9 kHz to 30 MHz radiated emission have performed all modes of operation were investigated. The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

No non-compliance noted:

KDB 414788 D01 OATS and Chamber Correlation Justification

- Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

- OATs and chamber correlation testing had been performed and chamber measured test results is the worst case test result.

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30m open area test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

9.8. AC Power Line Conducted Emission

Requirements

Frequency (MHz)	Conducted limit (dBµV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

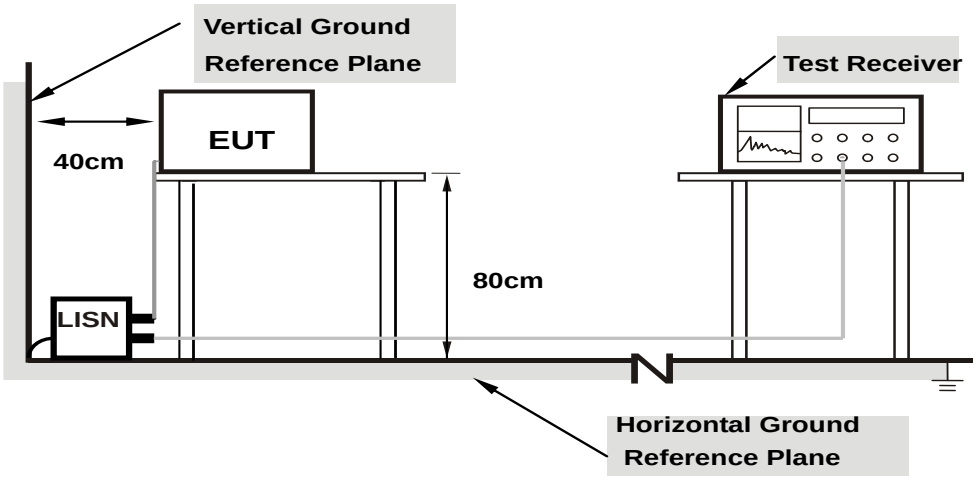
Note:
1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

Test Procedures

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

NOTE:
1. The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.
2. All modes of operation were investigated (includes all external accessories) and the worst-case emissions are reported, the other emission levels were low against the limit.
3. Test data of Result value (dBuV) = Reading value (dBuV) + Correction Factor (dB).
4. Test data of Margin(dB) = Result value (dBuV) - Limit value (dBuV).
5. Test data of Correction Factor (dB) = Insertion loss(dB) + Cable loss(dB).

Test Setup



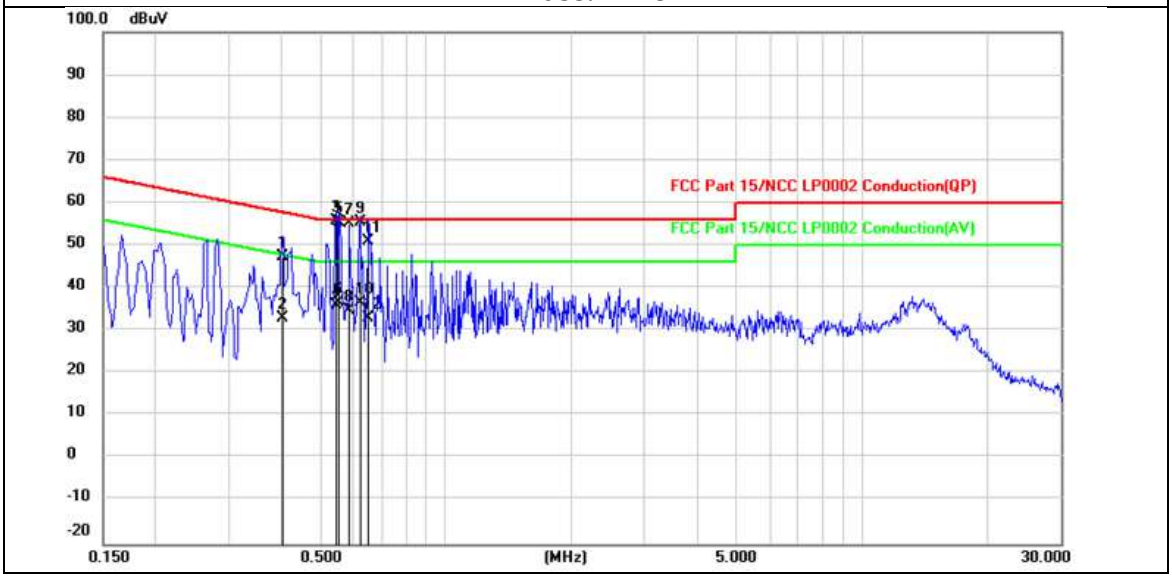
Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the Setup Configurations.

Test Data

Mode	11ax20_TX5220	Channel	44

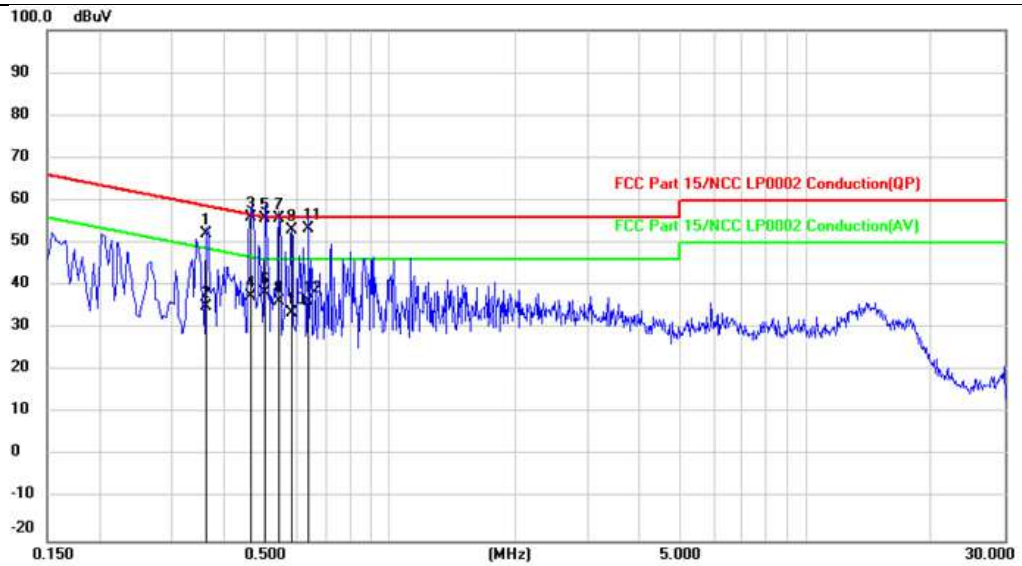
Phase: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.4060	37.24	10.01	47.25	57.73	-10.48	QP
2	0.4060	22.82	10.01	32.83	47.73	-14.90	AVG
3	0.5460	45.73	10.01	55.74	56.00	-0.26	QP
4	0.5460	26.03	10.01	36.04	46.00	-9.96	AVG
5	0.5540	45.32	10.01	55.33	56.00	-0.67	QP
6	0.5540	26.45	10.01	36.46	46.00	-9.54	AVG
7	0.5860	45.29	10.01	55.30	56.00	-0.70	QP
8	0.5860	24.77	10.01	34.78	46.00	-11.22	AVG
9	0.6220	45.38	10.01	55.39	56.00	-0.61	QP
10	0.6220	26.67	10.01	36.68	46.00	-9.32	AVG
11	0.6540	40.96	10.01	50.97	56.00	-5.03	QP
12	0.6540	22.95	10.01	32.96	46.00	-13.04	AVG

Mode	11ax20_TX5220	Channel	44

Phase: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.3620	42.05	10.01	52.06	58.68	-6.62	QP
2	0.3620	24.99	10.01	35.00	48.68	-13.68	AVG
3	0.4660	45.98	10.01	55.99	56.58	-0.59	QP
4	0.4660	27.56	10.01	37.57	46.58	-9.01	AVG
5	0.5020	45.71	10.01	55.72	56.00	-0.28	QP
6	0.5020	28.34	10.01	38.35	46.00	-7.65	AVG
7	0.5420	45.74	10.01	55.75	56.00	-0.25	QP
8	0.5420	26.12	10.01	36.13	46.00	-9.87	AVG
9	0.5820	43.16	10.01	53.17	56.00	-2.83	QP
10	0.5820	23.44	10.01	33.45	46.00	-12.55	AVG
11	0.6380	43.37	10.01	53.38	56.00	-2.62	QP
12	0.6380	26.18	10.01	36.19	46.00	-9.81	AVG

END OF REPORT