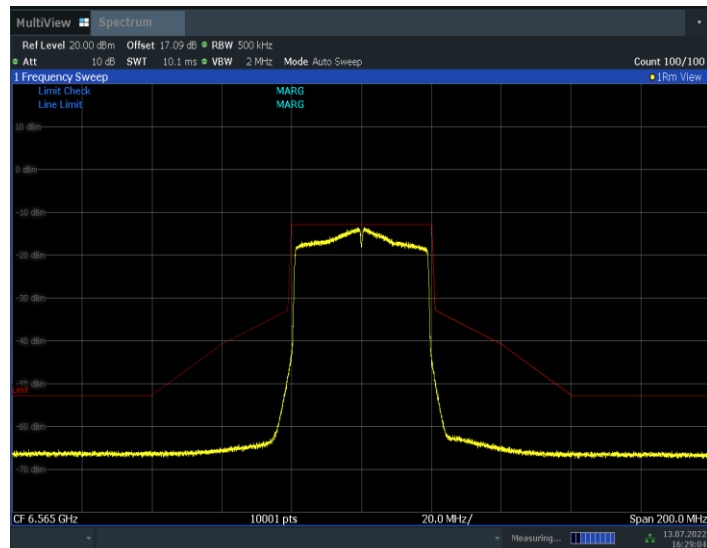


16:25:17 13.07.2022

Fig.150 In-Band Emissions (802.11ax-HE40, 6525MHz)



16:29:04 13.07.2022

Fig.151 In-Band Emissions (802.11ax-HE40, 6565MHz)

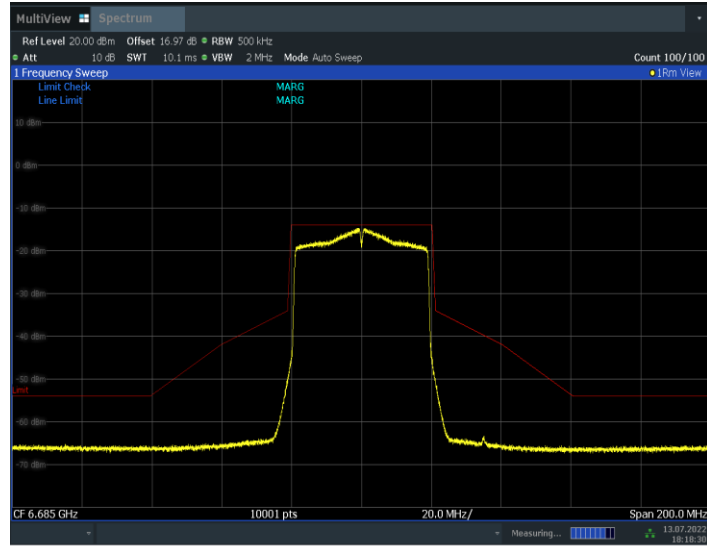


Fig.152 In-Band Emissions (802.11ax-HE40, 6685MHz)

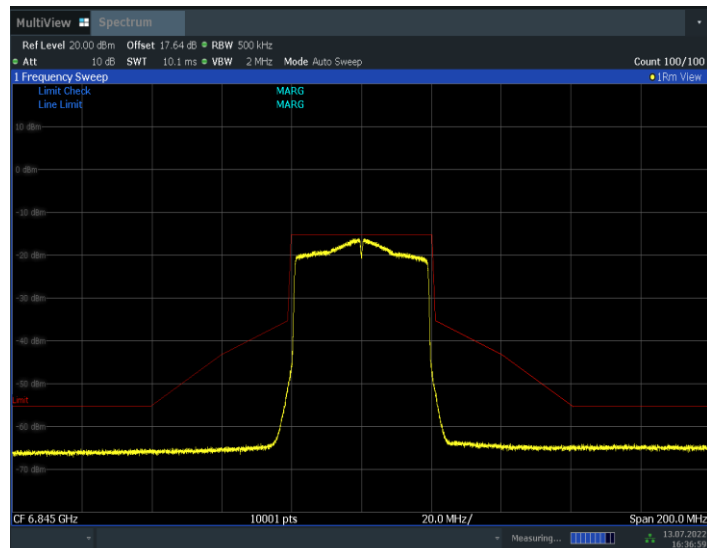


Fig.153 In-Band Emissions (802.11ax-HE40, 6845MHz)

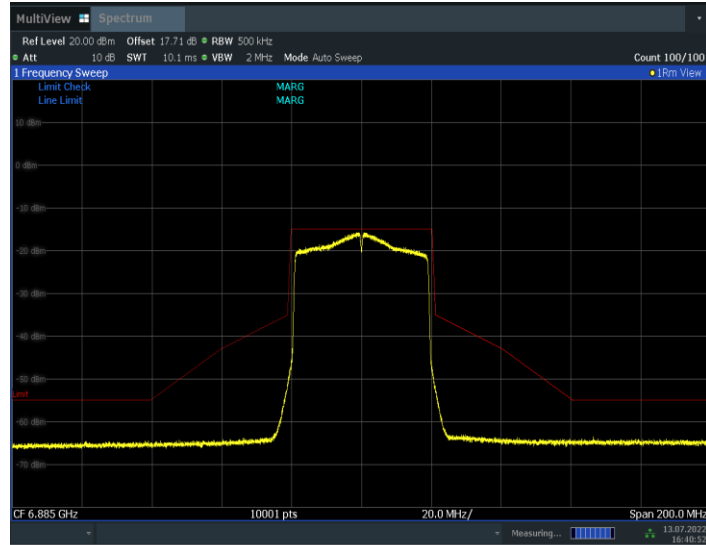


Fig.154 In-Band Emissions (802.11ax-HE40, 6885MHz)

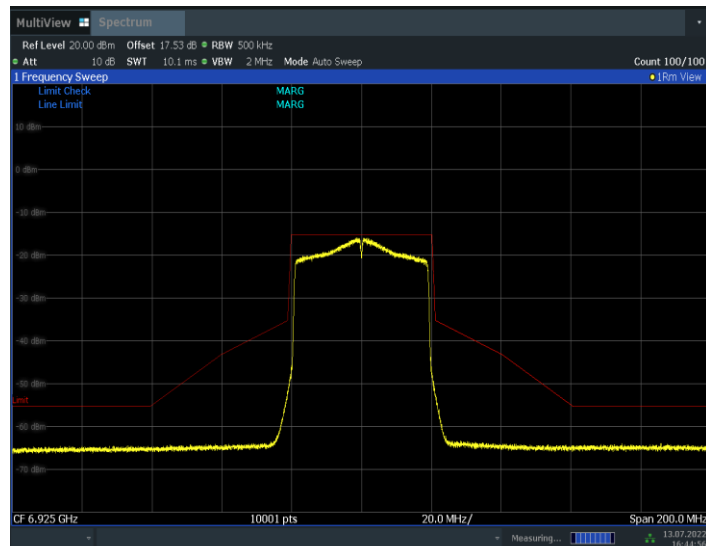
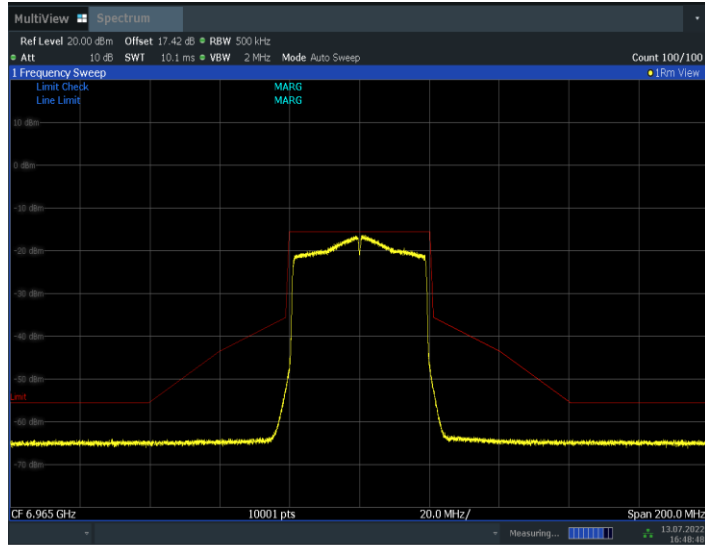
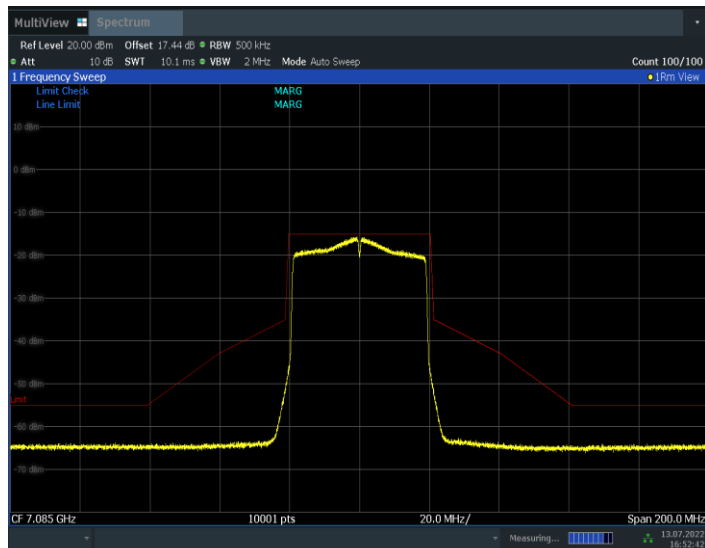


Fig.155 In-Band Emissions (802.11ax-HE40, 6925MHz)



16:48:49 13.07.2022

Fig.156 In-Band Emissions (802.11ax-HE40, 6969MHz)



16:52:42 13.07.2022

Fig.157 In-Band Emissions (802.11ax-HE40, 7085MHz)

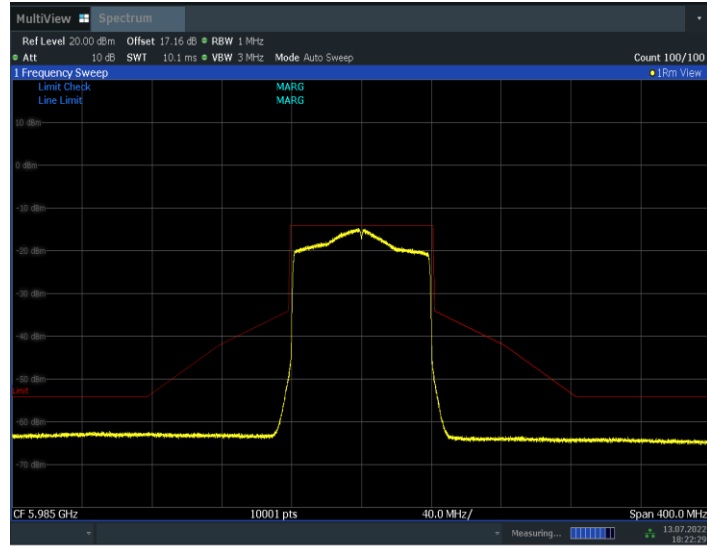


Fig.158 In-Band Emissions (802. 11ax-HE80, 5985MHz)

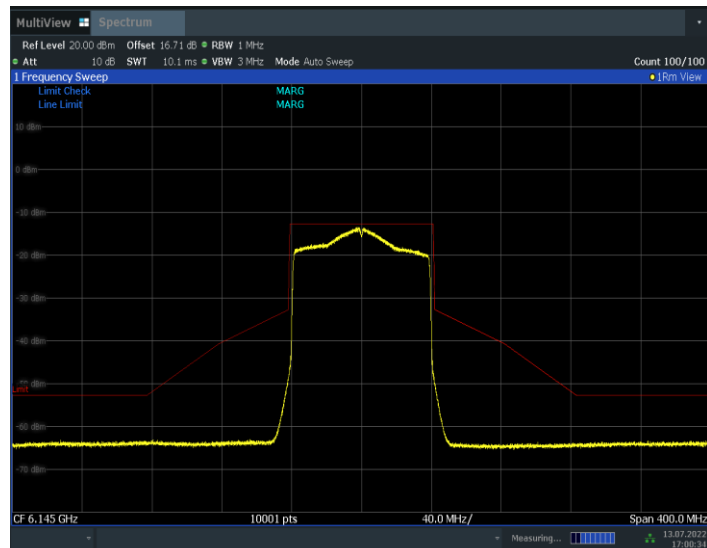


Fig.159 In-Band Emissions (802. 11ax-HE80, 6145MHz)

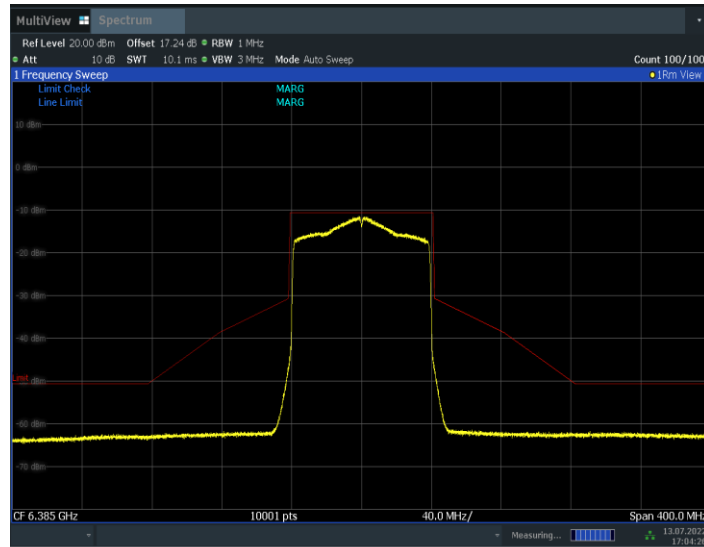


Fig.160 In-Band Emissions (802. 11ax-HE80, 6385MHz)

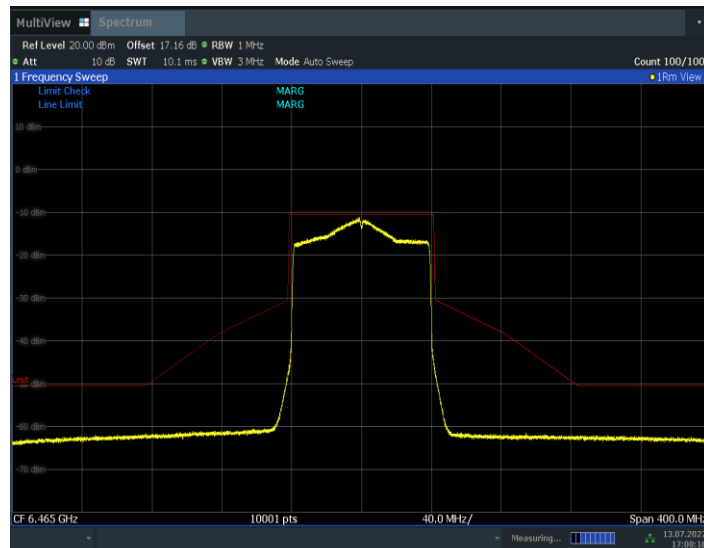
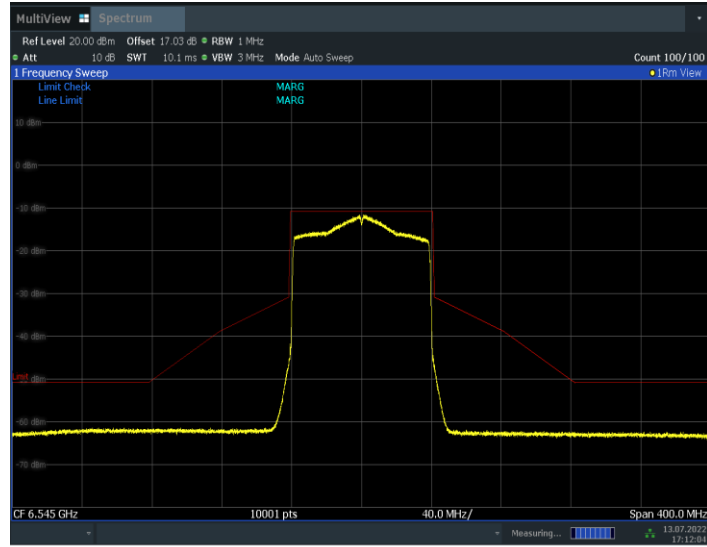
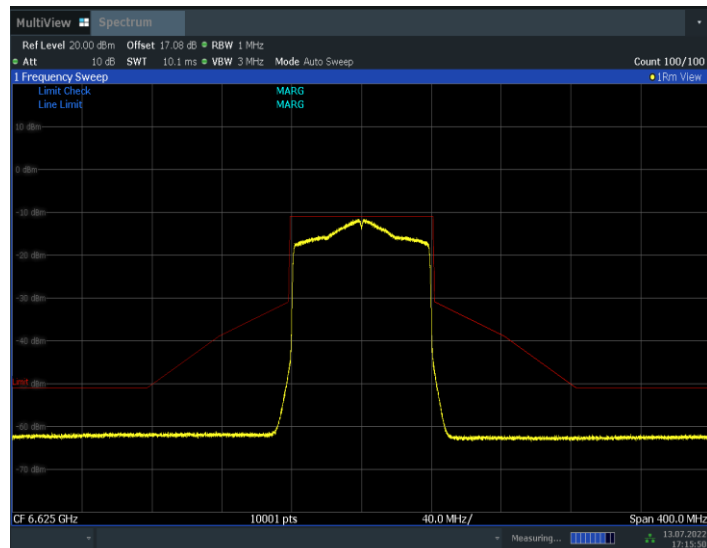


Fig.161 In-Band Emissions (802. 11ax-HE80, 6465MHz)



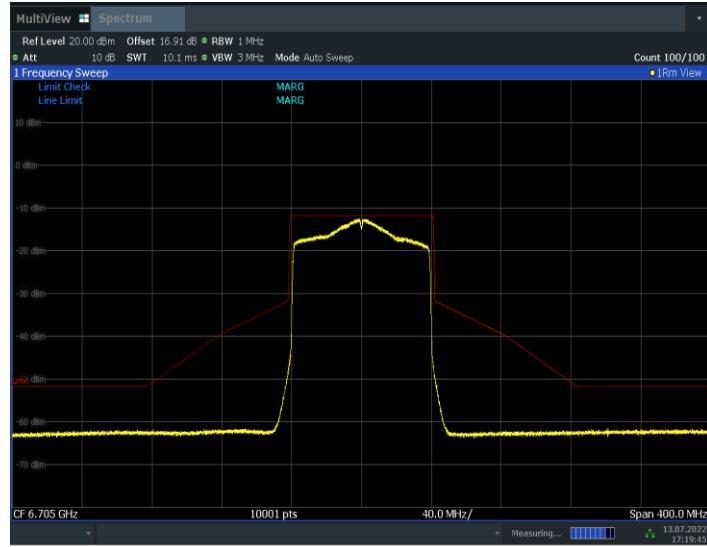
17:12:05 13.07.2022

Fig.162 In-Band Emissions (802. 11ax-HE80, 6545MHz)



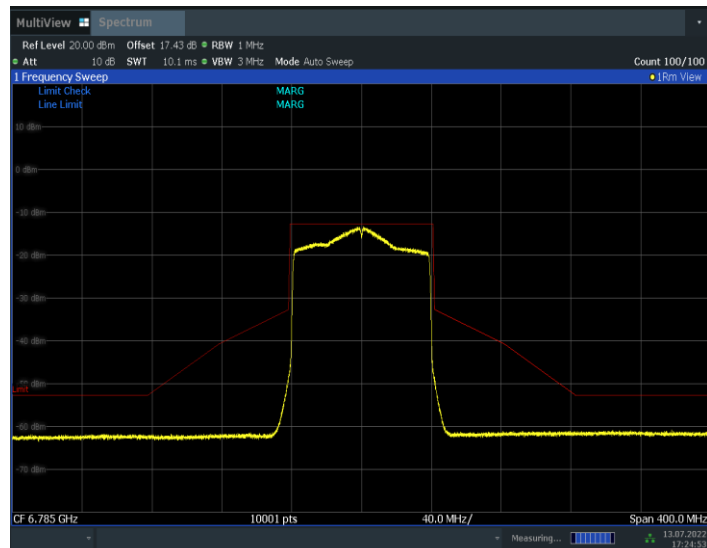
17:15:50 13.07.2022

Fig.163 In-Band Emissions (802. 11ax-HE80, 6625MHz)



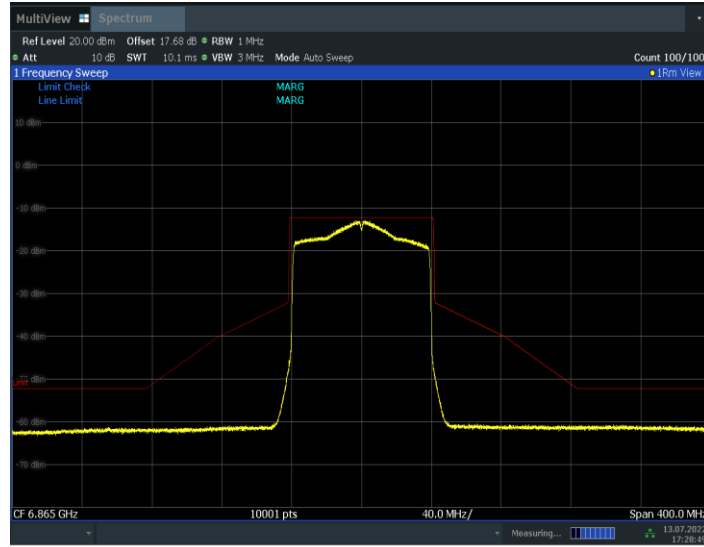
17:19:46 13.07.2022

Fig.164 In-Band Emissions (802. 11ax-HE80, 6705MHz)



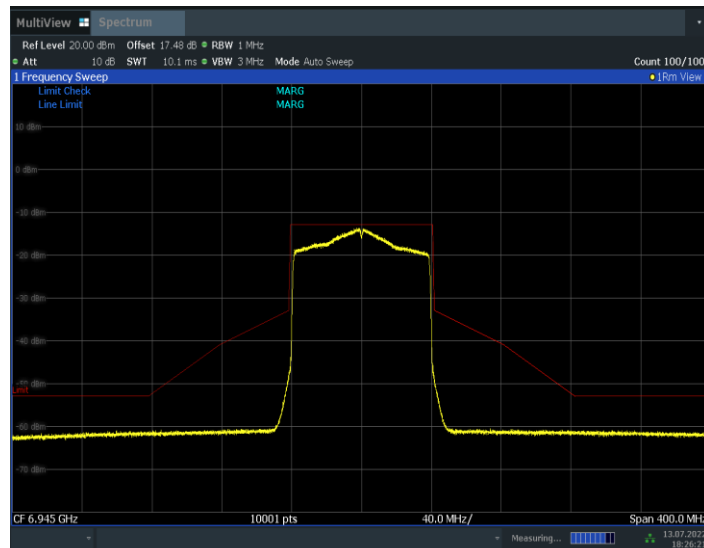
17:24:53 13.07.2022

Fig.165 In-Band Emissions (802. 11ax-HE80, 6785MHz)



17:28:49 13.07.2022

Fig.166 In-Band Emissions (802. 11ax-HE80, 6865MHz)



18:26:22 13.07.2022

Fig.167 In-Band Emissions (802. 11ax-HE80, 6945MHz)

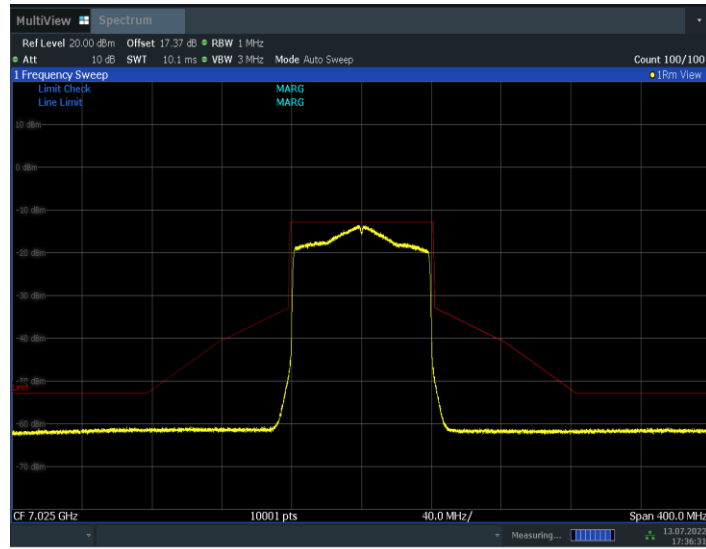


Fig.168 In-Band Emissions (802. 11ax-HE80, 7025MHz)

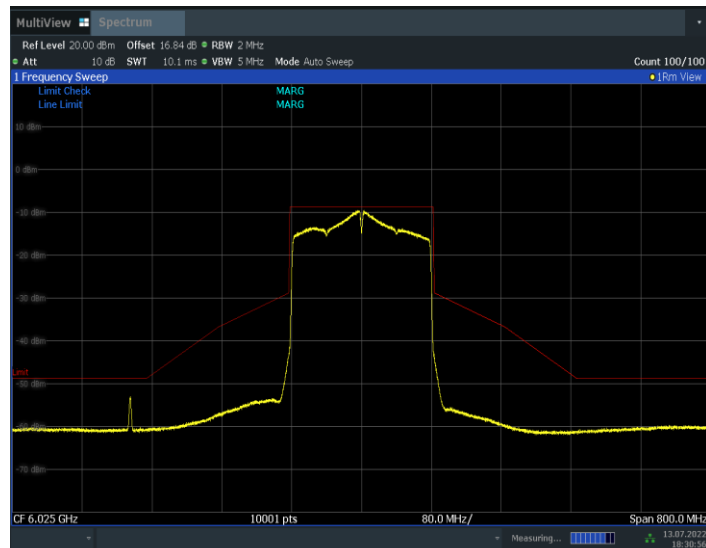
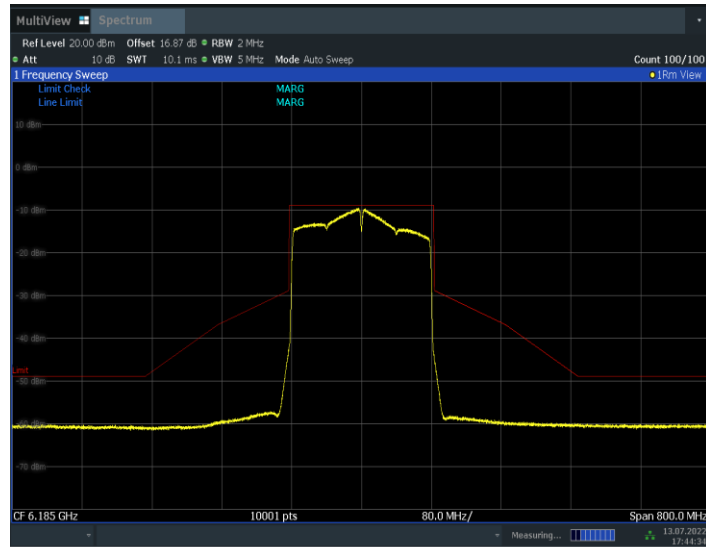
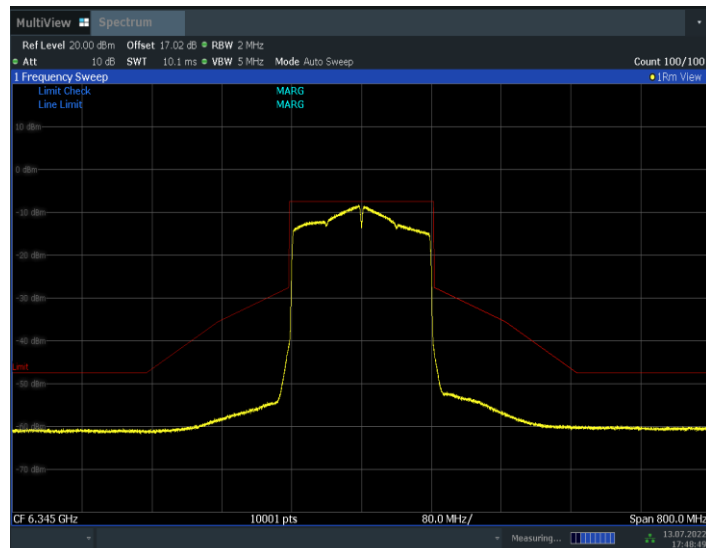


Fig.169 In-Band Emissions (802. 11ax-HE160, 6025MHz)



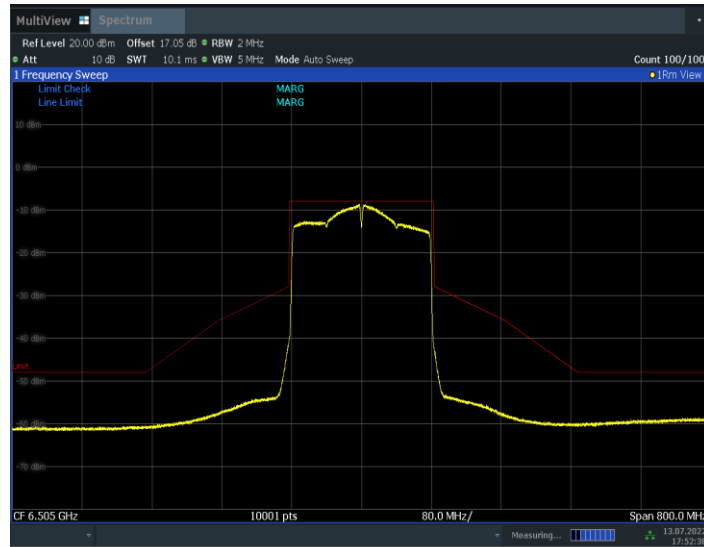
17:44:34 13.07.2022

Fig.170 In-Band Emissions (802. 11ax-HE160, 6185MHz)



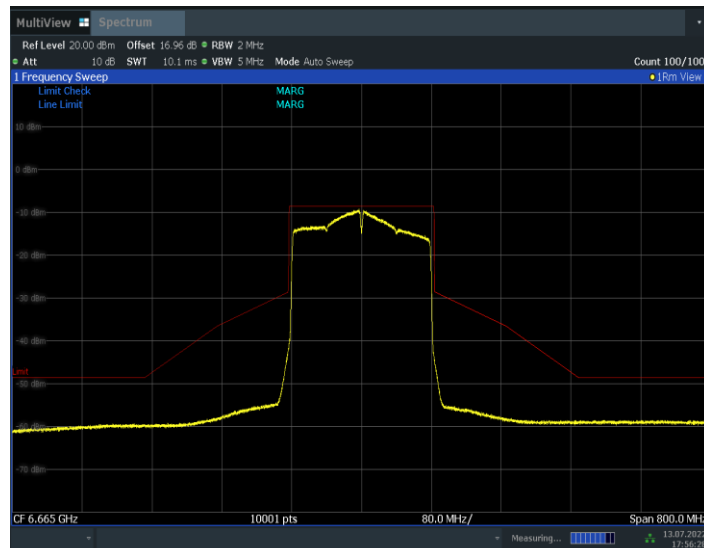
17:48:49 13.07.2022

Fig.171 In-Band Emissions (802. 11ax-HE160, 6345MHz)



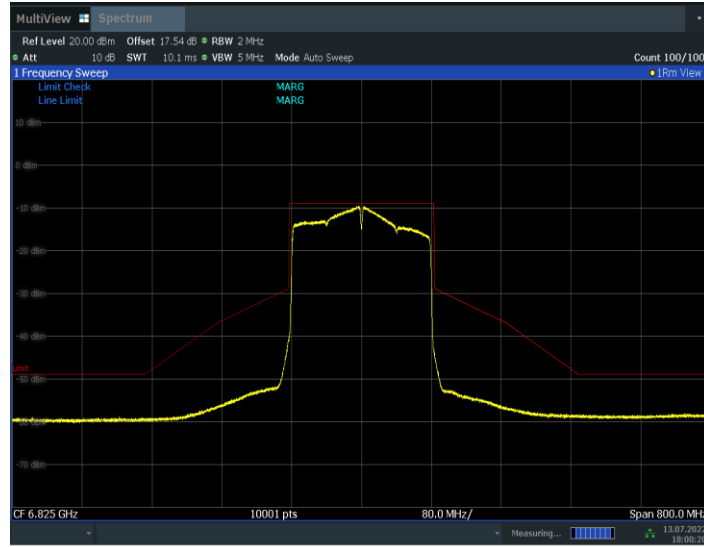
17:52:38 13.07.2022

Fig.172 In-Band Emissions (802. 11ax-HE160, 6505MHz)



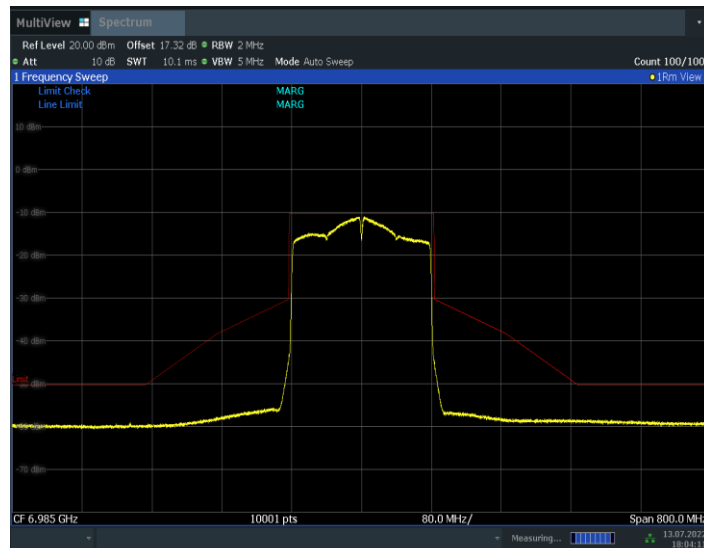
17:56:29 13.07.2022

Fig.173 In-Band Emissions (802. 11ax-HE160, 6665MHz)



18:00:21 13.07.2022

Fig.174 In-Band Emissions (802. 11ax-HE160, 6825MHz)



18:04:12 13.07.2022

Fig.175 In-Band Emissions (802. 11ax-HE160 6985MHz)

A.8. Duty Cycle

Mode	Frequency	Duty Cycle	Conclusion
802.11a	5955MHz (Ch1)	94.79	P
	6175MHz (Ch45)	94.76	P
	6415MHz (Ch93)	94.76	P
	6435MHz (Ch97)	94.79	P
	6475MHz (Ch105)	94.79	P
	6515MHz (Ch113)	94.79	P
	6535MHz (Ch117)	94.79	P

	6695MHz (Ch149)	94.76	P
	6855MHz (Ch181)	94.79	P
	6875MHz (Ch185)	94.76	P
	6895MHz (ch189)	94.79	P
	6995MHz (Ch209)	95.24	P
	7115MHz (Ch233)	94.76	P
802.11ax HE20	5955MHz (Ch1)	96.45	P
	6175MHz (Ch45)	96.45	P
	6415MHz (Ch93)	96.44	P
	6435MHz (Ch97)	96.45	P
	6475MHz (Ch105)	96.45	P
	6515MHz (Ch113)	96.44	P
	6535MHz (Ch117)	96.45	P
	6695MHz (Ch149)	96.45	P
	6855MHz (Ch181)	96.44	P
	6875MHz (Ch185)	96.45	P
	6895MHz (ch189)	96.62	P
	6995MHz (Ch209)	96.44	P
	7115MHz (Ch233)	96.45	P
802.11ax HE40	5965MHz (Ch3)	97.97	P
	6165MHz (Ch43)	97.97	P
	6405MHz (Ch91)	97.97	P
	6445MHz (Ch99)	97.96	P
	6485MHz (Ch107)	97.97	P
	6525MHz (Ch115)	97.97	P
	6565MHz (Ch123)	97.97	P
	6685MHz (Ch147)	97.97	P
	6845MHz (Ch179)	97.76	P
	6885MHz (Ch187)	97.97	P
	6925MHz (ch195)	97.97	P
	6965MHz (Ch203)	97.96	P
	7085MHz (Ch227)	97.97	P
802.11ax HE80	5985MHz (Ch7)	98.08	P
	6145MHz(Ch39)	97.70	P
	6385MHz (Ch87)	98.08	P
	6465MHz (Ch103)	98.08	P
	6545MHz (Ch119)	98.08	P
	6625MHz (Ch135)	98.08	P
	6705MHz (Ch151)	98.08	P
	6785MHz (Ch167)	98.08	P
	6865MHz (Ch183)	98.08	P
	6945MHz (Ch199)	98.08	P

	7025MHz (Ch215)	98.08	P
802.11ax HE160	6025MHz (Ch15)	98.62	P
	6185MHz (Ch47)	98.62	P
	6345MHz (Ch79)	98.17	P
	6505MHz (Ch111)	98.17	P
	6665MHz (Ch143)	98.62	P
	6825MHz (Ch175)	98.62	P
	6985MHz (Ch207)	98.17	P

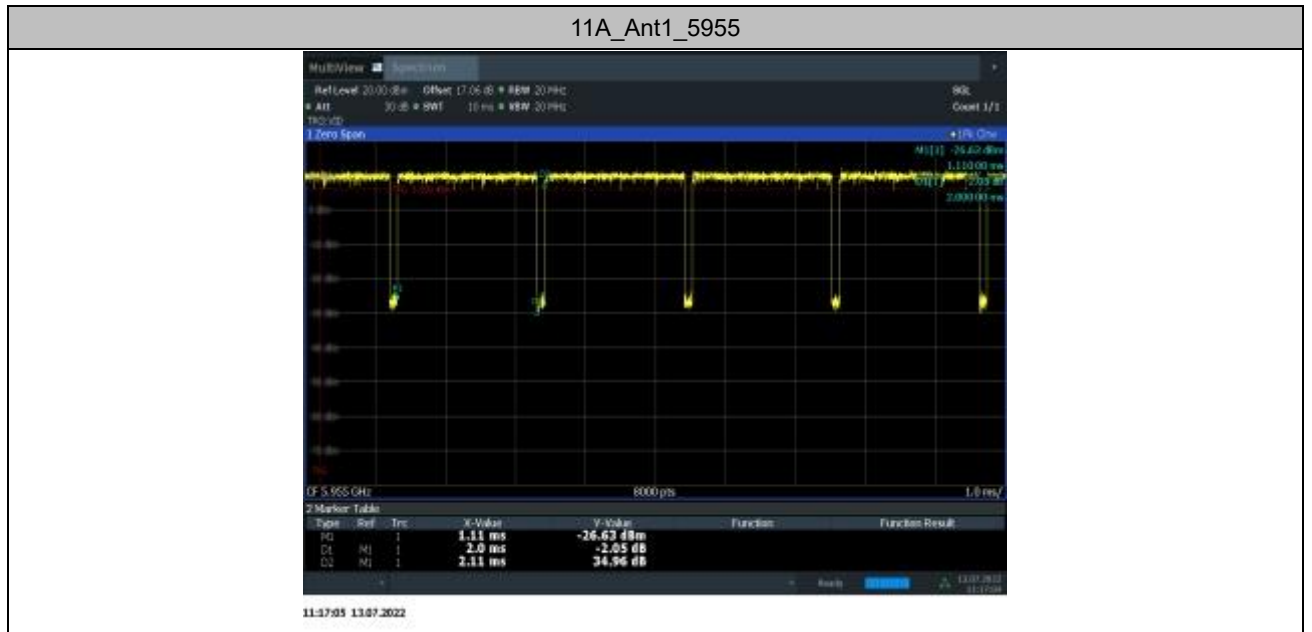


Fig.176 Duty Cycle

A.9. Transmitter Spurious Emission

A.9.1 Transmitter Spurious Emission - Radiated

Measurement Limit:

Standard	Limit	
FCC 47 CFR Part 15.407	outside of the 5.925-7.125 GHz band	-27dBm/MHz

For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.

The measurement is made according to KDB 789033 and 987594

Measurement Results:

802.11a mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11a	1, 97, 185	1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P
	45, 105, 117, 149, 209	9kHz ~ 30 MHz	---	P
		30 MHz ~1 GHz	---	P
		1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P
	93, 113, 233	1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P

802.11ax mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11ax 20 MHz BW	1, 97, 185	1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P
	45, 105, 117, 149, 209	9kHz ~ 30 MHz	---	P
		30 MHz ~1 GHz	---	P
		1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P
	93, 113, 233	1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11ax 40 MHz BW	3, 99, 187	1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P
	43,107,115,147,203	9kHz ~ 30 MHz	---	P
		30 MHz ~1 GHz	---	P
		1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
	91, 227	26.5 GHz~ 40 GHz	---	P
		1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11ax 80 MHz BW	7,103,183	1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P
	39, 119, 151	9kHz ~ 30 MHz	---	P
		30 MHz ~1 GHz	---	P
		1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
	215	26.5 GHz~ 40 GHz	---	P
		1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11ax 160 MHz BW	15,175	1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P
	47,111,143	9kHz ~ 30 MHz	---	P
		30 MHz ~1 GHz	---	P
		1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
	79, 207	26.5 GHz~ 40 GHz	---	P
		1 GHz ~ 9 GHz	---	P
		9 GHz ~ 18 GHz	---	P

Conclusion: PASS

Note:

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

P_{Mea} is the field strength recorded from the instrument.

Average Results:
802.11a

Channel 1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17922.15	43.02	-25.5	46.66	21.86	54	10.98	H
17857.35	42.55	-25.5	46.66	21.39	54	11.45	V
15965.1	41.5	-27.35	38.54	30.31	54	12.5	H
15952.05	41.49	-27.35	38.54	30.3	54	12.51	V
5921.921	43	-27.1	34.4	35.767	68.2	25.2	H
5921.627	42.3	-27.1	34.4	35.067	68.2	25.9	V

Channel 117

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17880.75	42.72	-25.5	46.66	21.56	54	11.28	V
17942.4	42.71	-25.5	46.66	21.55	54	11.29	V
15961.05	41.86	-27.35	38.54	30.67	54	12.14	V
15949.8	41.85	-27.35	38.54	30.66	54	12.15	H
12567.6	39.2	-31.05	38.99	31.26	54	14.8	H
12519.9	39.16	-31.22	38.91	31.47	54	14.84	H

Channel 233

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17947.35	43.26	-25.5	46.66	22.1	54	10.74	H
17930.7	42.94	-25.5	46.66	21.78	54	11.06	H
15953.4	42.06	-27.35	38.54	30.87	54	11.94	H
16033.5	41.63	-27.35	38.54	30.44	54	12.37	H
7132.692	36.9	-26.4	36.2	27.069	68.2	31.3	V
7134.096	36.5	-26.4	36.2	26.669	68.2	31.7	H

802.11ax-20 MHz BW

Channel 1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17936.55	43.04	-25.5	46.66	21.88	54	10.96	H
17959.05	42.97	-25.5	46.66	21.81	54	11.03	V
16040.25	41.83	-27.35	38.54	30.64	54	12.17	H
15974.1	41.66	-27.35	38.54	30.47	54	12.34	V
5919.968	42.6	-27.1	34.4	35.367	68.2	25.6	H
5922.278	2.3	-27.1	34.4	-4.933	68.2	65.9	V

Channel 117

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17946	43.44	-25.5	46.66	22.28	54	10.56	H
17815.95	43.05	-25.5	46.66	21.89	54	10.95	H
15963.75	42.04	-27.35	38.54	30.85	54	11.96	H
15957.45	41.68	-27.35	38.54	30.49	54	12.32	H
12560.85	39.01	-31.05	38.99	31.07	54	14.99	V
12338.1	39	-31.1	38.94	31.16	54	15	H

Channel 233

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17975.7	42.89	-25.5	46.66	21.73	54	11.11	H
17943.75	42.7	-25.5	46.66	21.54	54	11.3	H
15983.1	41.93	-27.35	38.54	30.74	54	12.07	V
15942.6	41.91	-27.35	38.54	30.72	54	12.09	H
7131.423	41.9	-26.4	36.2	32.069	68.2	26.3	H
7132.098	41.7	-26.4	36.2	31.869	68.2	26.5	V

802.11ax-40 MHz BW

Channel 3

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17817.3	43.43	-25.5	46.66	22.27	54	10.57	H
17959.5	42.93	-25.5	46.66	21.77	54	11.07	V
15952.05	41.76	-27.35	38.54	30.57	54	12.24	V
15954.3	41.64	-27.35	38.54	30.45	54	12.36	V
5902.874	42.3	-27.1	34.4	35.067	68.2	25.9	V
5903.567	43.1	-27.1	34.4	35.867	68.2	25.1	H

Channel 115

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17955.9	43.01	-25.5	46.66	21.85	54	10.99	H
17976.15	42.99	-25.5	46.66	21.83	54	11.01	H
15964.2	41.67	-27.35	38.54	30.48	54	12.33	V
15999.3	41.59	-27.35	38.54	30.4	54	12.41	V
12556.35	39.42	-31.05	38.99	31.48	54	14.58	H
12332.7	39.33	-31.1	38.94	31.49	54	14.67	H

Channel 227

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17892	42.59	-25.5	46.66	21.43	54	11.41	V
17928.45	42.5	-25.5	46.66	21.34	54	11.5	V
15960.15	41.85	-27.35	38.54	30.66	54	12.15	H
15997.5	41.75	-27.35	38.54	30.56	54	12.25	H
7139.523	43.5	-26.4	36.2	33.669	68.2	24.7	H
7141.359	43.8	-26.4	36.2	33.969	68.2	24.4	H

802.11ax-80 MHz BW

Channel 7

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17928.9	43.28	-25.5	46.66	22.12	54	10.72	H
17891.55	43.01	-25.5	46.66	21.85	54	10.99	V
15950.7	41.83	-27.35	38.54	30.64	54	12.17	V
16025.85	41.66	-27.35	38.54	30.47	54	12.34	H
5899.094	47.3	-27.7	34.4	40.599	68.2	20.9	V
5900.9	48.5	-27.1	34.4	41.267	68.2	19.7	V

Channel 119

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17926.2	42.8	-25.5	46.66	21.64	54	11.2	V
17950.95	42.8	-25.5	46.66	21.64	54	11.2	H
15951.15	42.37	-27.35	38.54	31.18	54	11.63	V
15960.6	41.83	-27.35	38.54	30.64	54	12.17	V
12566.7	39.58	-31.05	38.99	31.64	54	14.42	V
12546	39.07	-31.05	38.99	31.13	54	14.93	H

Channel 215

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17958.15	43.5	-25.5	46.66	22.34	54	10.5	H
17878.05	43.03	-25.5	46.66	21.87	54	10.97	H
16004.25	42.36	-27.35	38.54	31.17	54	11.64	H
15976.35	41.7	-27.35	38.54	30.51	54	12.3	H
7138.578	43.5	-26.4	36.2	33.669	68.2	24.7	V
7140.603	43.3	-26.4	36.2	33.469	68.2	24.9	V

802.11ax-160MHz BW

Channel 15

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17966.25	43.02	-25.5	46.66	21.86	54	10.98	V
17952.75	42.89	-25.5	46.66	21.73	54	11.11	V
15957.9	41.82	-27.35	38.54	30.63	54	12.18	V
16048.35	41.76	-27.35	38.54	30.57	54	12.24	H
5895.545	49.5	-27.7	34.4	42.799	68.2	18.7	V
5897.813	49.6	-27.7	34.4	42.899	68.2	18.6	H

Channel 111

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17940.15	42.7	-25.5	46.66	21.54	54	11.3	V
17932.05	42.69	-25.5	46.66	21.53	54	11.31	V
15922.8	42.32	-27.35	38.54	31.13	54	11.68	V
15942.6	41.74	-27.35	38.54	30.55	54	12.26	H
12542.85	39.64	-31.05	38.99	31.7	54	14.36	H
12473.1	39.27	-31.22	38.91	31.58	54	14.73	V

Channel 207

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17960.4	42.96	-25.5	46.66	21.8	54	11.04	H
17939.25	42.71	-25.5	46.66	21.55	54	11.29	H
16002.45	41.82	-27.35	38.54	30.63	54	12.18	V
15949.8	41.77	-27.35	38.54	30.58	54	12.23	V
7131.045	47.2	-26.4	36.2	37.369	68.2	21	H
7132.854	47.5	-26.4	36.2	37.669	68.2	20.7	H

Note: the results of worse case channels were provided.

Peak Results:
802.11a

Channel 1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17851.05	52.25	-25.5	46.66	31.09	74	21.75	V
17913.6	52.11	-25.5	46.66	30.95	74	21.89	H
16498.35	51.78	-26.96	39.82	38.92	88.2	36.42	V
15918.75	51.46	-27.35	38.54	40.27	74	22.54	V
5921.963	54.4	-27.1	34.4	47.167	88.2	33.8	V
5922.131	53.2	-27.1	34.4	45.967	88.2	35	H

Channel 117

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17849.25	52.78	-25.5	46.66	31.62	74	21.22	H
17961.75	52.51	-25.5	46.66	31.35	74	21.49	H
16971.75	51.72	-26.32	42.36	35.67	88.2	36.48	H
16946.1	51.42	-26.32	42.36	35.37	88.2	36.78	V
12525.3	48.86	-31.05	38.99	40.92	74	25.14	H
12312.9	48.75	-31.1	38.94	40.91	74	25.25	H

Channel 233

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17951.85	53	-25.5	46.66	31.84	74	21	H
16976.25	52.63	-26.32	42.36	36.58	88.2	35.57	V
17827.65	52.25	-25.5	46.66	31.09	74	21.75	H
16978.95	51.95	-26.32	42.36	35.9	88.2	36.25	V
7139.253	44	-26.4	36.2	34.169	88.2	44.2	H
7131.504	44.8	-26.4	36.2	34.969	88.2	43.4	H

802.11ax-20MHz BW

Channel 1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17910.45	52.09	-25.5	46.66	30.93	74	21.91	V
17943.3	52.06	-25.5	46.66	30.9	74	21.94	V
17007.75	52.02	-26.32	42.36	35.97	88.2	36.18	H
16861.05	51.85	-26.62	41.49	36.98	88.2	36.35	V
5921.144	53	-27.1	34.4	45.767	88.2	35.2	V
5920.703	52.1	-27.1	34.4	44.867	88.2	36.1	V

Channel 117

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
16818.75	52.36	-26.62	41.49	37.49	88.2	35.84	H
17957.25	52.2	-25.5	46.66	31.04	74	21.8	H
17957.7	52.16	-25.5	46.66	31	74	21.84	H
16406.1	51.79	-26.96	39.82	38.93	88.2	36.41	H
12353.4	48.81	-31.1	38.94	40.97	74	25.19	V
12353.85	48.37	-31.1	38.94	40.53	74	25.63	V

Channel 233

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17973.45	52.92	-25.5	46.66	31.76	74	21.08	H
17889.3	52.17	-25.5	46.66	31.01	74	21.83	H
16990.65	51.95	-26.32	42.36	35.9	88.2	36.25	V
15965.1	51.56	-27.35	38.54	40.37	74	22.44	V
7130.262	48.1	-26.4	36.2	38.269	88.2	40.1	H
7130.586	48.9	-26.4	36.2	39.069	88.2	39.3	V

802.11ax-40 MHz BW

Channel 3

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17951.85	52.2	-25.5	46.66	31.04	74	21.8	V
17950.95	52	-25.5	46.66	30.84	74	22	H
16825.5	51.88	-26.62	41.49	37.01	88.2	36.32	V
17049.15	51.71	-26.6	43.36	34.95	88.2	36.49	H
5903.084	55.1	-27.1	34.4	47.867	88.2	33.1	V
5903.399	53.2	-27.1	34.4	45.967	88.2	35	H

Channel 115

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17847	52.26	-25.5	46.66	31.1	74	21.74	H
17849.7	52.21	-25.5	46.66	31.05	74	21.79	V
15991.2	51.89	-27.35	38.54	40.7	74	22.11	V
16539.3	51.86	-26.96	39.82	39	88.2	36.34	H
12559.95	48.7	-31.05	38.99	40.76	74	25.3	H
12847.95	48.24	-30.69	39.14	39.79	88.2	39.96	H

Channel 227

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17951.4	52.3	-25.5	46.66	31.14	74	21.7	V
17957.25	52.23	-25.5	46.66	31.07	74	21.77	V
16977.6	52.18	-26.32	42.36	36.13	88.2	36.02	V
17097.3	52.02	-26.6	43.36	35.26	88.2	36.18	V
7137.39	54.4	-26.4	36.2	44.569	88.2	33.8	V
7137.903	54.1	-26.4	36.2	44.269	88.2	34.1	H

802.11ac-80 MHz BW

Channel 7

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
15937.65	52.5	-27.35	38.54	41.31	74	21.5	V
17620.65	52.1	-25.74	45.95	31.89	88.2	36.1	V
17927.1	52.05	-25.5	46.66	30.89	74	21.95	H
16930.35	52.01	-26.32	42.36	35.96	88.2	36.19	H
5899.01	58.1	-27.7	34.4	51.399	88.2	30.1	H
5900.459	58.2	-27.1	34.4	50.967	88.2	30	V

Channel 119

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17911.35	52.38	-25.5	46.66	31.22	74	21.62	V
17845.65	52.15	-25.5	46.66	30.99	74	21.85	H
17019	51.95	-26.32	42.36	35.9	88.2	36.25	V
17064.45	51.82	-26.6	43.36	35.06	88.2	36.38	H
12545.55	49.56	-31.05	38.99	41.62	74	24.44	V
12571.65	49.23	-31.05	38.99	41.29	74	24.77	H

Channel 215

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
16544.7	53.02	-26.87	40.65	39.24	88.2	35.18	H
17962.65	52.32	-25.5	46.66	31.16	74	21.68	H
17964.9	52.3	-25.5	46.66	31.14	74	21.7	V
15953.85	51.79	-27.35	38.54	40.6	74	22.21	H
7140.279	54	-26.4	36.2	44.169	88.2	34.2	H
7138.389	54.8	-26.4	36.2	44.969	88.2	33.4	H

802.11ax-160 MHz BW

Channel 15

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17967.15	52.35	-25.5	46.66	31.19	74	21.65	V
15952.05	52.11	-27.35	38.54	40.92	74	21.89	V
17923.5	52.06	-25.5	46.66	30.9	74	21.94	H
15937.2	52.02	-27.35	38.54	40.83	74	21.98	V
5895.398	59	-27.7	34.4	52.299	88.2	29.2	V
5897.939	59.2	-27.7	34.4	52.499	88.2	29	H

Channel 111

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17938.8	53.01	-25.5	46.66	31.85	74	20.99	H
17933.4	52.06	-25.5	46.66	30.9	74	21.94	V
17003.25	51.97	-26.32	42.36	35.92	88.2	36.23	H
16546.95	51.93	-26.87	40.65	38.15	88.2	36.27	H
12336.3	49.13	-31.1	38.94	41.29	74	24.87	V
12351.15	48.75	-31.1	38.94	40.91	74	25.25	H

Channel 207

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17149.05	52.14	-26.6	43.36	35.38	88.2	36.06	V
17885.7	51.8	-25.5	46.66	30.64	74	22.2	V
17942.4	51.57	-25.5	46.66	30.41	74	22.43	V
17001.45	51.5	-26.32	42.36	35.45	88.2	36.7	H
7130.91	59.7	-26.4	36.2	49.869	88.2	28.5	V
7132.368	57.4	-26.4	36.2	47.569	88.2	30.8	V

Note: the results of worse case channels were provided.

A.10. Band Edges Compliance

A10.1 Band Edges - Radiated

Measurement Limit:

Standard	Limit	
FCC 47 CFR Part 15.407	outside of the 5.925-7.125 GHz band	-27dBm/MHz

For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.

Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11a	5955 MHz	Fig.177	P
	7115 MHz	Fig.178	P
802.11ax 20 MHz BW	5955 MHz	Fig.179	P
	7115 MHz	Fig.180	P
802.11ax 40 MHz BW	5965 MHz	Fig.181	P
	7085 MHz	Fig.182	P
802.11ax 80 MHz BW	5985 MHz	Fig.183	P
	7025 MHz	Fig.184	P
802.11ax 160 MHz BW	6025 MHz	Fig.185	P
	6985 MHz	Fig.186	P

Conclusion: PASS

Test graphs as below:

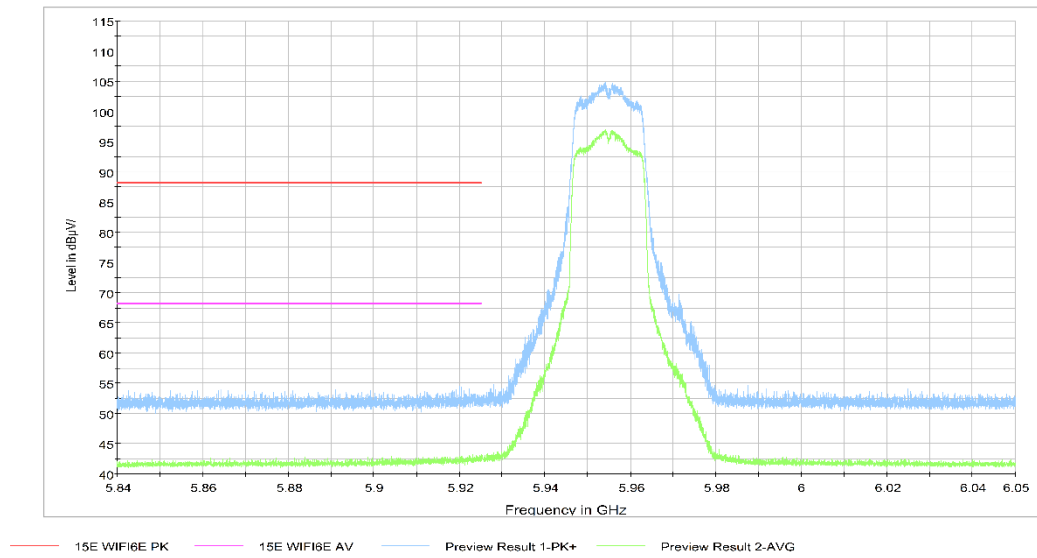


Fig. 177 Band Edges (802.11a Ch1,5955MHz)

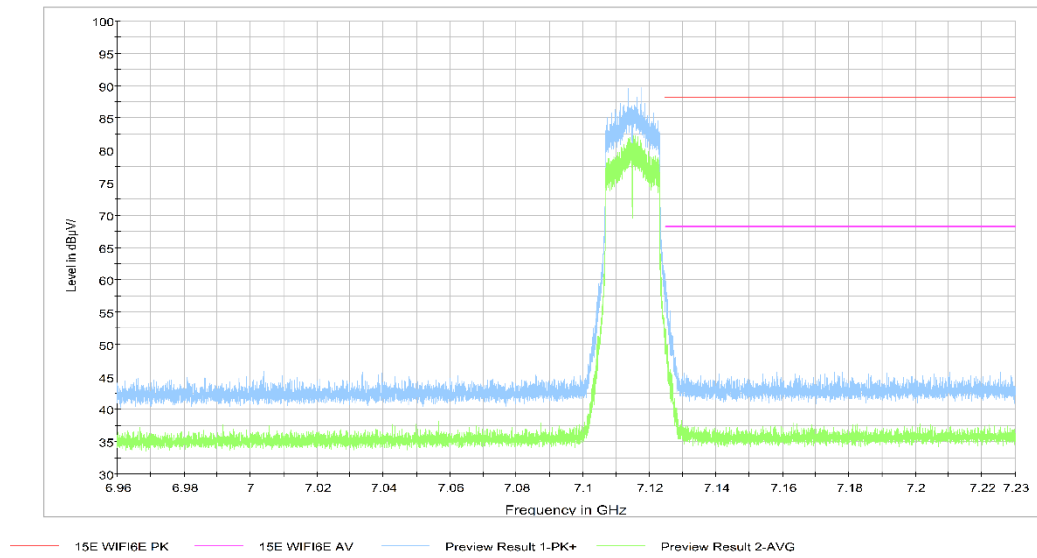


Fig. 178 Band Edges (802.11a, Ch233, 7115MHz)

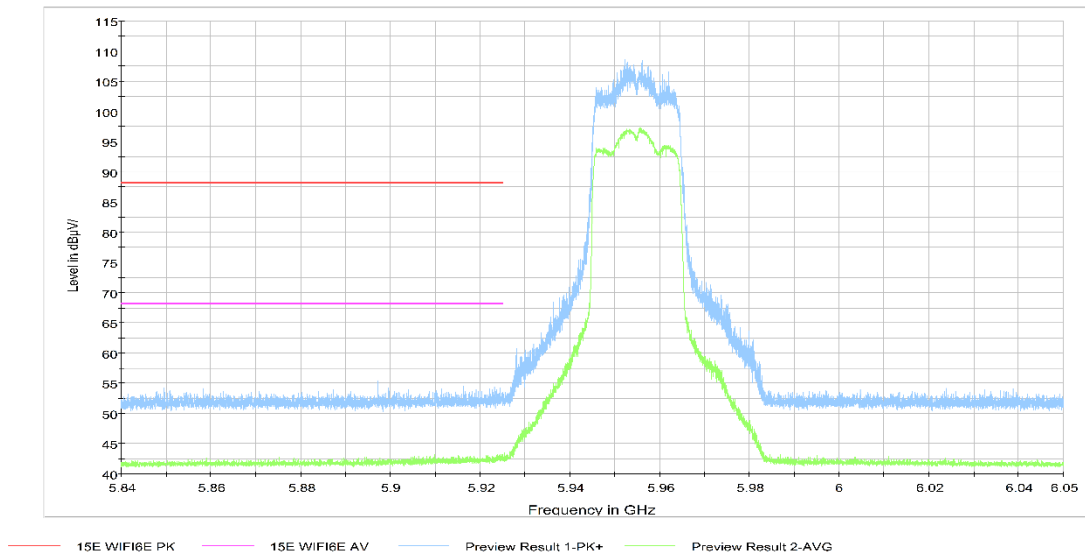


Fig. 179 Band Edges (802.11ax, 20MHz Bandwidth, Ch1, 5955MHz)

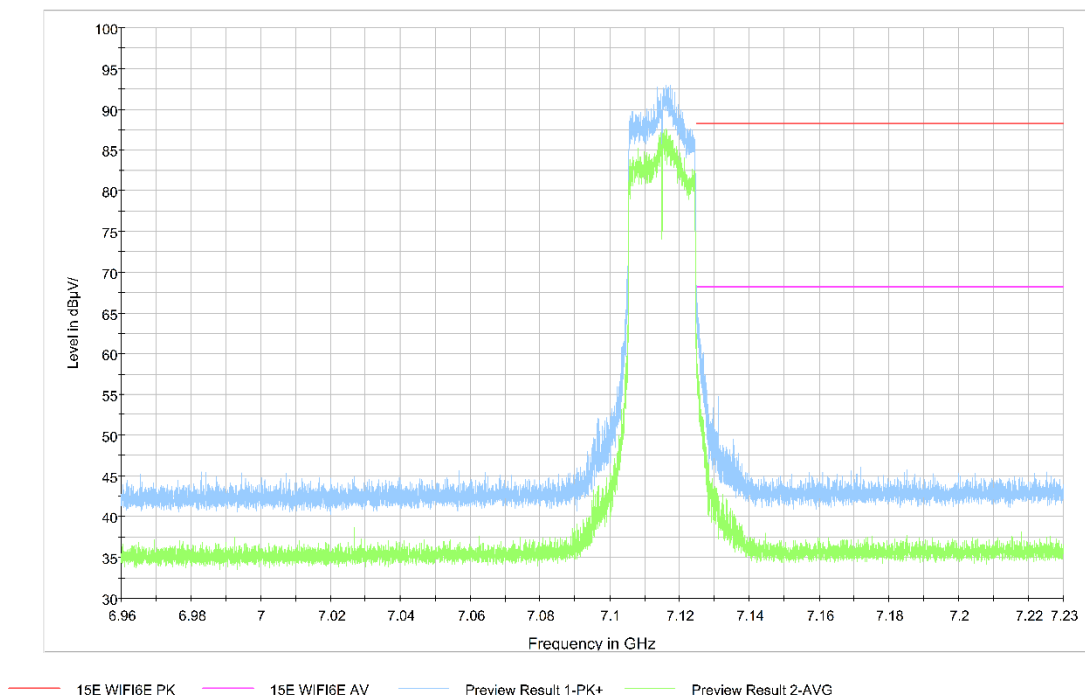


Fig. 180 Band Edges (802.11ax, 20MHz Bandwidth, Ch233, 7115MHz)

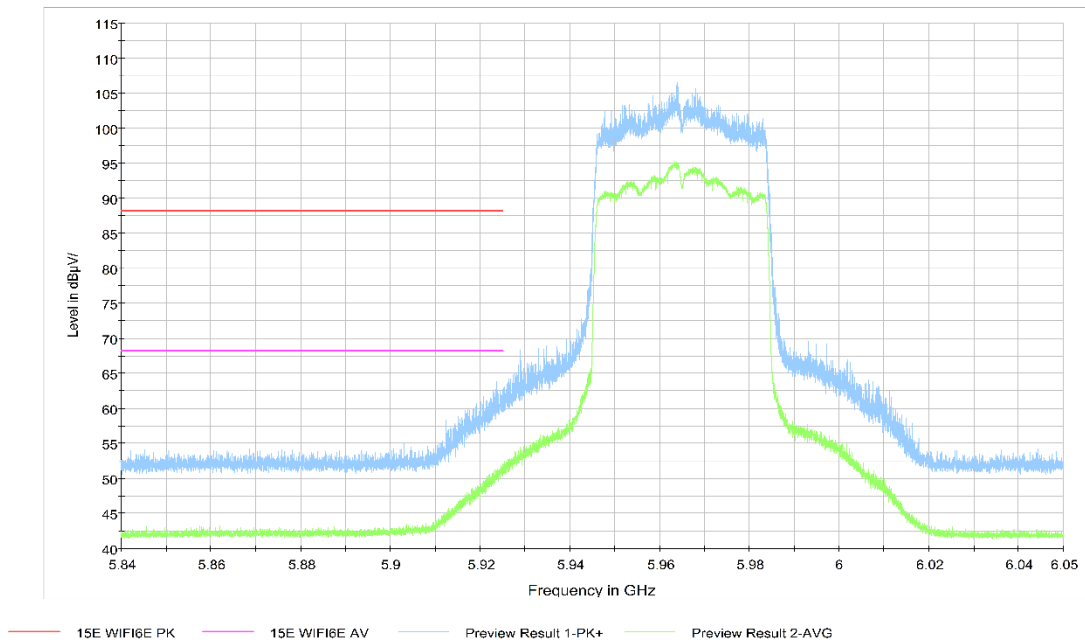


Fig. 181 Band Edges (802.11ax,40MHz Bandwidth, Ch3, 5965MHz)

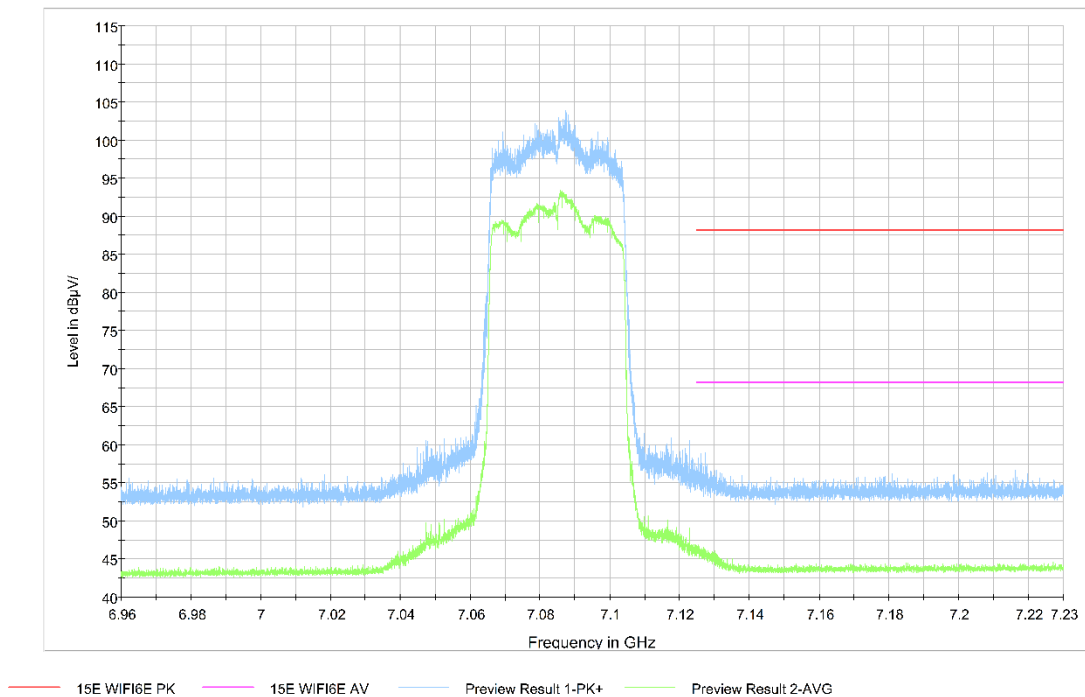
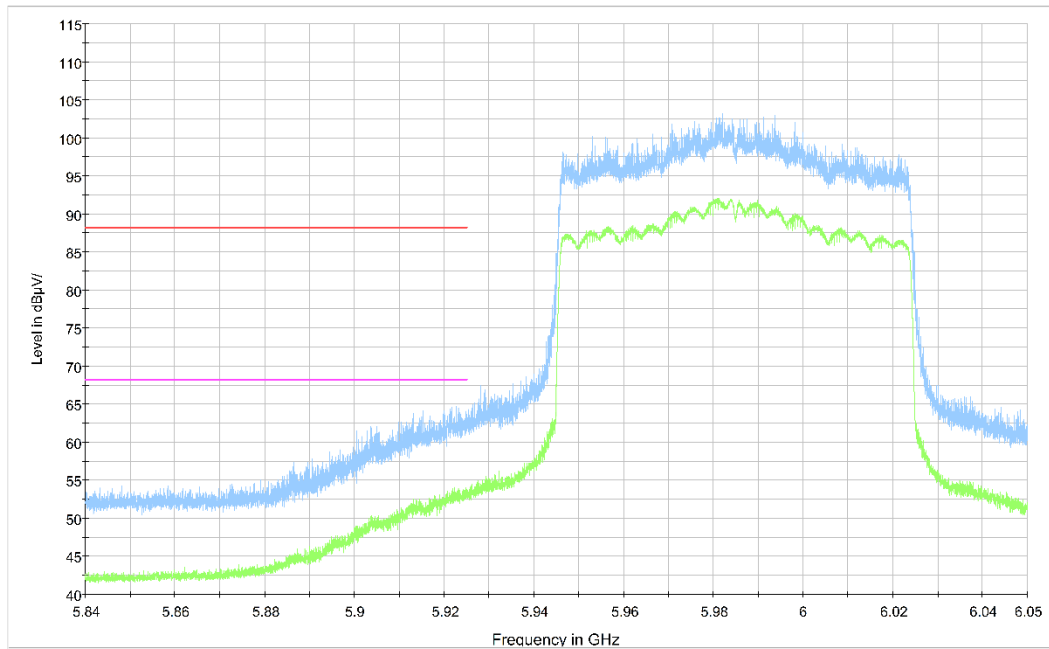
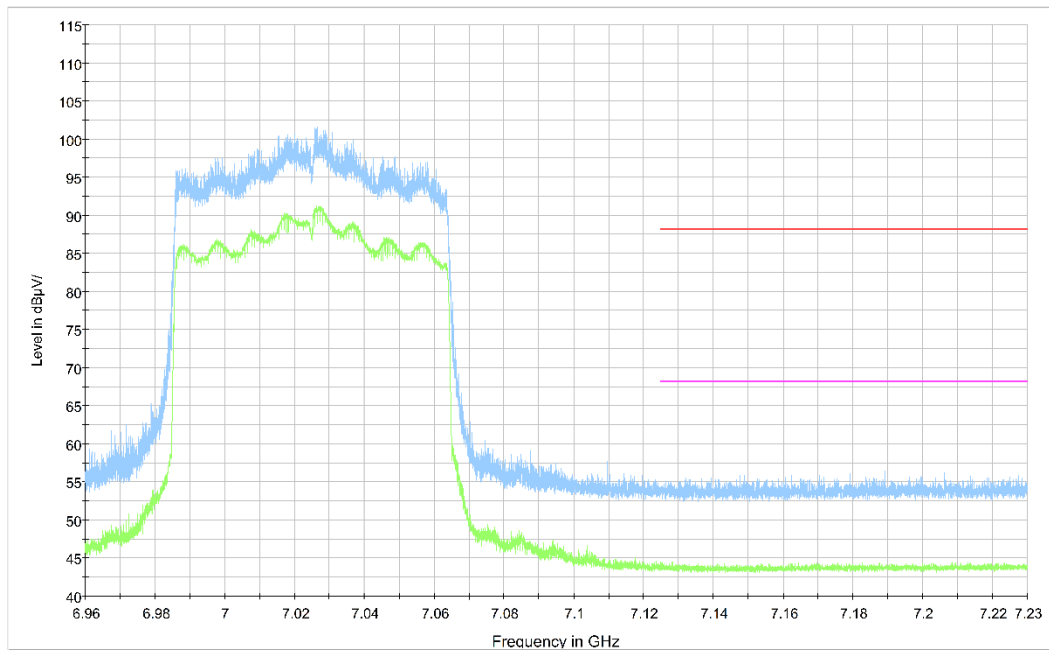


Fig. 182 Band Edges (802.11ax,40MHz Bandwidth, Ch227, 7085MHz)



— 15E WIFI6E PK — 15E WIFI6E AV — Preview Result 1-PK+ — Preview Result 2-AVG

Fig. 183 Band Edges (802.11ax, 80MHz Bandwidth, Ch7, 5985MHz)



— 15E WIFI6E PK — 15E WIFI6E AV — Preview Result 1-PK+ — Preview Result 2-AVG

Fig. 184 Band Edges (802.11ax, 80MHz Bandwidth, Ch215, 7025MHz)

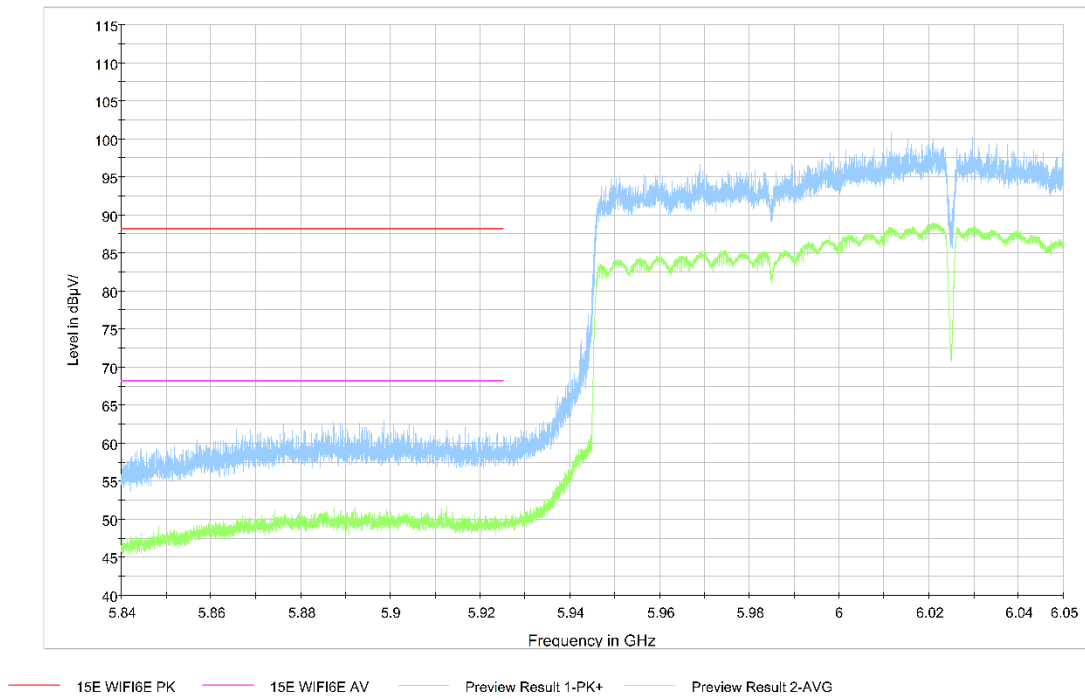


Fig. 185 Band Edges (802.11ac, 160MHz Bandwidth, Ch15, 6025MHz)

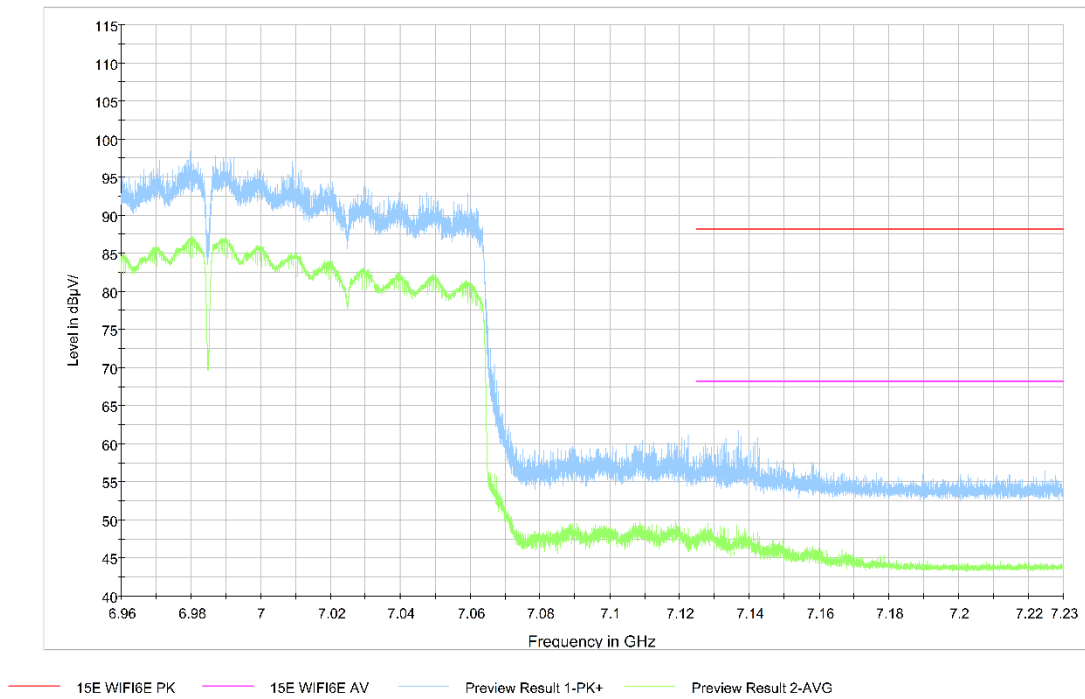


Fig. 186 Band Edges (802.11ax, 160MHz Bandwidth, Ch207, 6985MHz)

A.11. AC Powerline Conducted Emission (150kHz- 30MHz)

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement uncertainty:

Expanded measurement uncertainty for this test item is $U = 3.08\text{dB}$, $k=2$.

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		With charger AE1		
		802.11a	Idle	
0.15 to 0.5	66 to 56	Fig.187	Fig.188	P
0.5 to 5	56			
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dB μ V)	Result (dB μ V)		Conclusion
		With charger AE1		
		802.11a	Idle	
0.15 to 0.5	56 to 46	Fig.187	Fig.188	P
0.5 to 5	46			
5 to 30	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

The measurement is made according to ANSI C63.10 .

Conclusion: PASS

Test graphs as below:

Traffic:

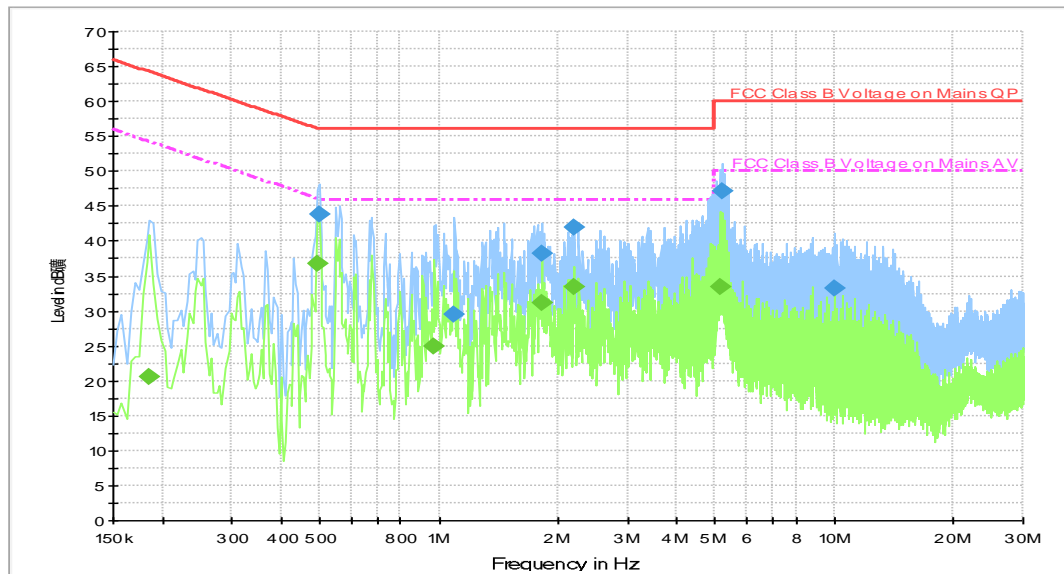


Fig. 187 AC Power line Conducted Emission-802.11a

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.498000	43.9	5000.	9.000	On	L1	19.8	12.1	56.0
1.094000	29.4	5000.	9.000	On	L1	19.7	26.6	56.0
1.818000	38.3	5000.	9.000	On	N	19.7	17.7	56.0
2.198000	42.0	5000.	9.000	On	L1	19.6	14.0	56.0
5.194000	47.2	5000.	9.000	On	L1	19.6	12.8	60.0
9.998000	33.1	5000.	9.000	On	L1	19.6	26.9	60.0

Final Result 2

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.186000	20.6	5000.	9.000	On	L1	19.8	33.6	54.2
0.494000	36.8	5000.	9.000	On	N	19.8	9.3	46.1
0.974000	24.8	5000.	9.000	On	N	19.6	21.2	46.0
1.818000	31.2	5000.	9.000	On	N	19.7	14.8	46.0
2.198000	33.4	5000.	9.000	On	L1	19.6	12.6	46.0
5.122000	33.4	5000.	9.000	On	L1	19.6	16.6	50.0

Note2: The measurement results showed here are worst cases of the combinations of different cables and chargers if applicable.

Idle:

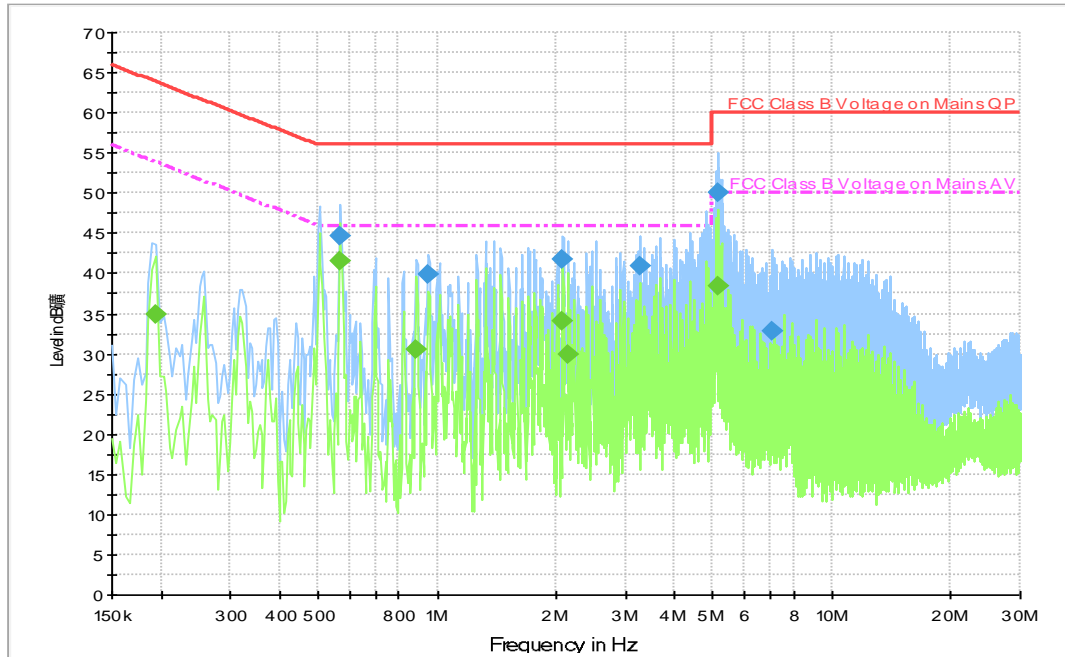


Fig. 188 AC Power line Conducted Emission-Idle

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.570000	44.7	5000.	9.000	On	L1	19.7	11.3	56.0
0.950000	39.9	5000.	9.000	On	L1	19.7	16.1	56.0
2.082000	41.7	5000.	9.000	On	N	19.7	14.3	56.0
3.282000	41.0	5000.	9.000	On	L1	19.6	15.0	56.0
5.170000	50.1	5000.	9.000	On	L1	19.6	9.9	60.0
7.046000	32.8	5000.	9.000	On	N	19.7	27.2	60.0

Final Result 2

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.194000	35.0	5000.0	9.000	On	L1	19.8	18.9	53.9
0.566000	41.6	5000.0	9.000	On	N	19.8	4.4	46.0
0.886000	30.6	5000.0	9.000	On	L1	19.7	15.4	46.0
2.082000	34.0	5000.0	9.000	On	N	19.7	12.0	46.0
2.142000	29.9	5000.0	9.000	On	N	19.7	16.1	46.0
5.170000	38.5	5000.0	9.000	On	L1	19.6	11.5	50.0

Note2: The measurement results showed here are worst cases of the combinations of different cables and chargers if applicable.

ANNEX B: EUT parameters

Disclaimer: The antenna gain and worse case provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

ANNEX C: Accreditation Certificate

United States Department of Commerce National Institute of Standards and Technology	
	
<hr/> Certificate of Accreditation to ISO/IEC 17025:2017 <hr/>	
NVLAP LAB CODE: 600118-0	
Telecommunication Technology Labs, CAICT Beijing China	
<i>is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:</i>	
Electromagnetic Compatibility & Telecommunications	
<i>This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).</i>	
2021-09-29 through 2022-09-30 <i>Effective Dates</i>	 For the National Voluntary Laboratory Accreditation Program

*** END OF REPORT BODY ***