

Appendix D of data

D1.Emission Bandwidth

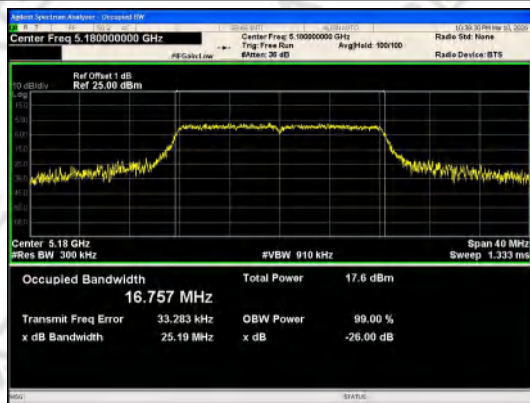
26dB Bandwidth

Test Result

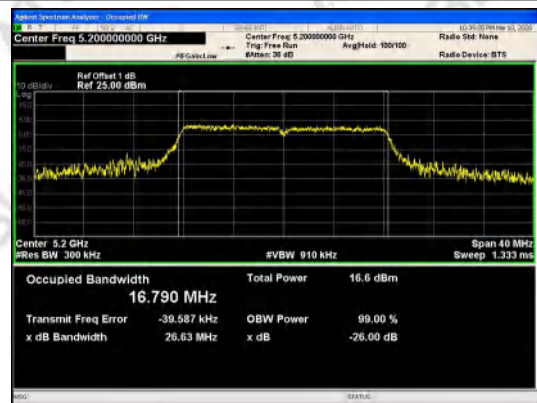
Mode	Channel	Ant.	Center Frequency (MHz)	26 dB Bandwidth (MHz)
IEEE 802.11a	36	0	5180	25.19
	40		5200	26.63
	48		5240	26.71
	52		5260	29.68
	60		5300	26.94
	64		5320	27.72
	100		5500	27.11
	120		5600	27.75
	140		5700	27.36
IEEE 802.11n_20	36		5180	26.57
	40		5200	30.73
	48		5240	23.51
	52		5260	30.05
	60		5300	28.13
	64		5320	27.79
	100		5500	29.68
	120		5600	27.01
	140		5700	25.86
IEEE 802.11n_40	38		5190	43.20
	46		5230	46.10
	54		5270	52.56
	62		5310	51.54
	102		5510	43.54
	118		5590	51.30
	134		5670	43.14
IEEE 802.11ac_20	36		5180	26.48
	40		5200	30.42
	48		5240	25.70
	52		5260	29.99
	60		5300	22.08
	64		5320	29.51
	100		5500	30.84
	120		5600	28.43
	140		5700	27.02
IEEE 802.11ac_40	38		5190	43.14
	46		5230	43.82

	54		5270	52.62
	62		5310	46.05
	102		5510	43.84
	118		5590	52.36
	134		5670	42.87
IEEE 802.11ac_80	42		5210	84.83
	58		5290	82.99
	106		5530	84.04
	122		5610	82.46

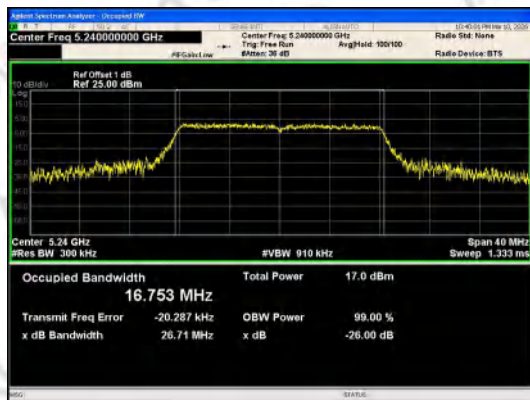
Test Graphs



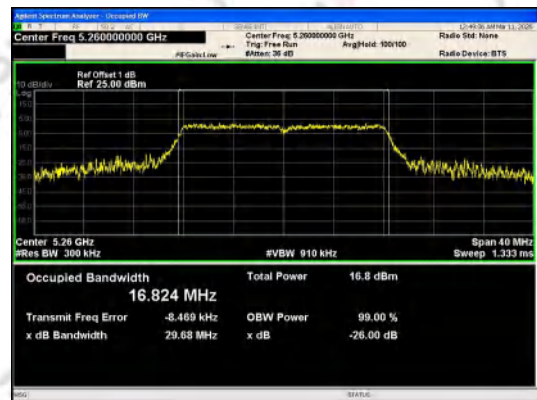
IEEE 802.11a_Channel 36_20MHz_Antenna 0



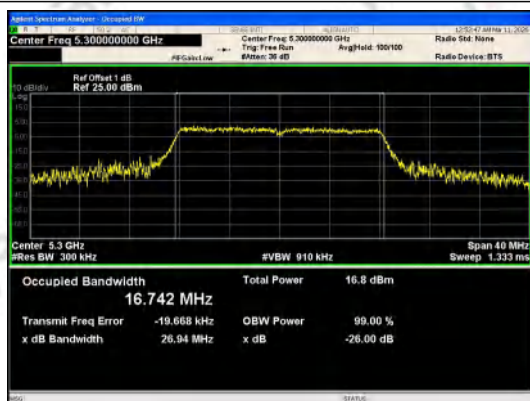
IEEE 802.11a_Channel 40_20MHz_Antenna 0



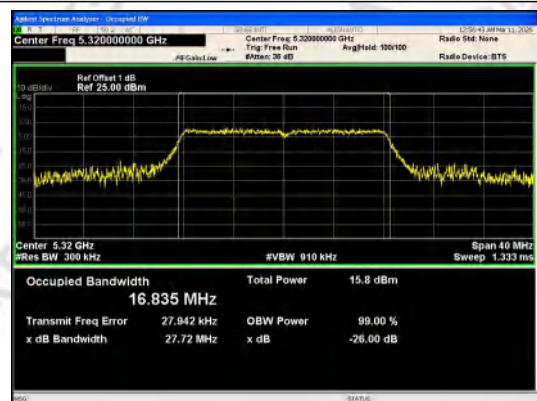
IEEE 802.11a_Channel 48_20MHz_Antenna 0



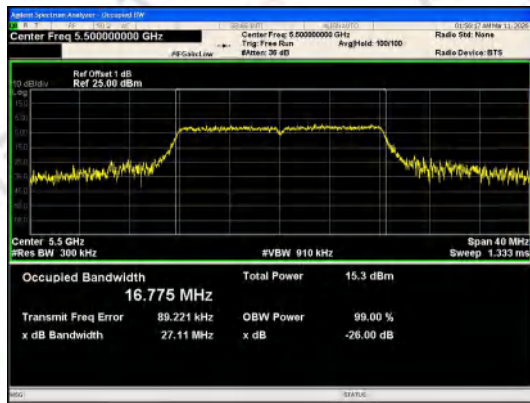
IEEE 802.11a_Channel 52_20MHz_Antenna 0



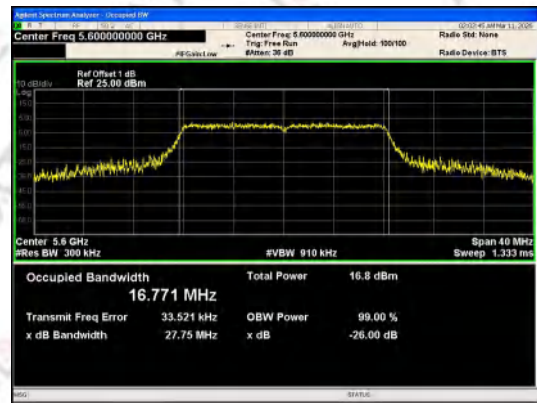
IEEE 802.11a_Channel 60_20MHz_Antenna 0



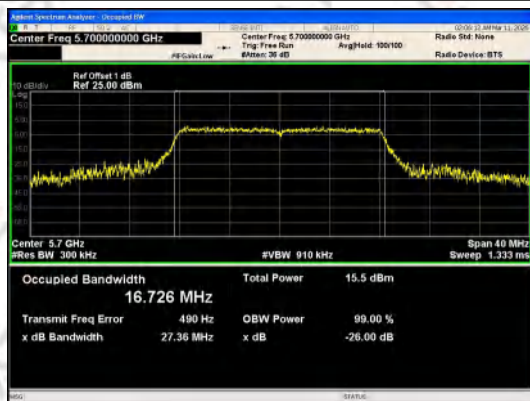
IEEE 802.11a_Channel 64_20MHz_Antenna 0



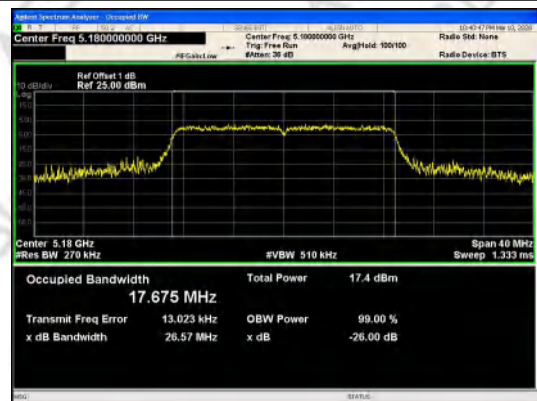
IEEE 802.11a_Channel 100_20MHz_Antenna 0



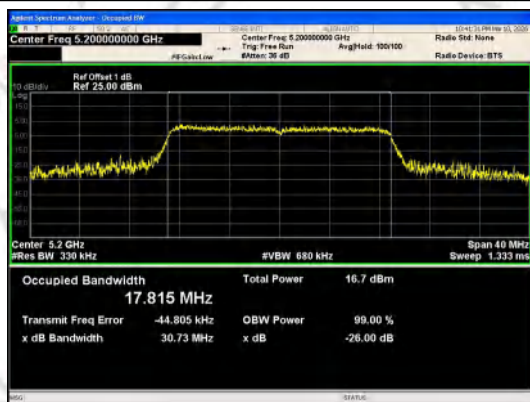
IEEE 802.11a_Channel 120_20MHz_Antenna 0



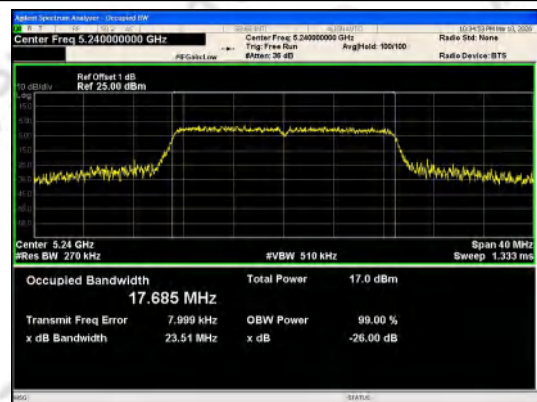
IEEE 802.11a_Channel 140_20MHz_Antenna 0



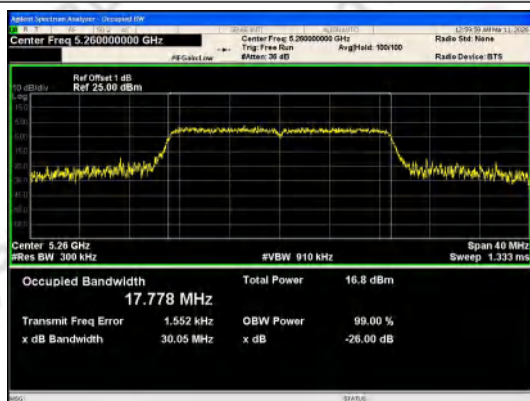
IEEE 802.11n_Channel 36_20MHz_Antenna 0



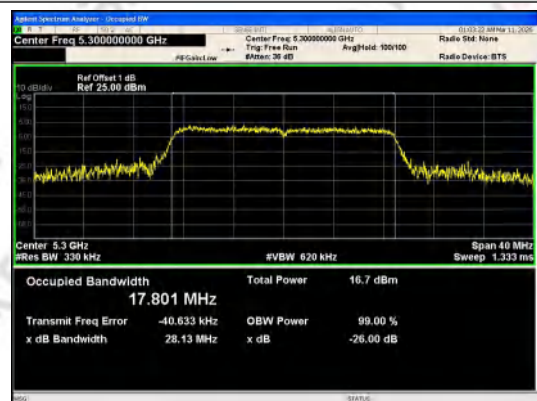
IEEE 802.11n_Channel 40_20MHz_Antenna 0



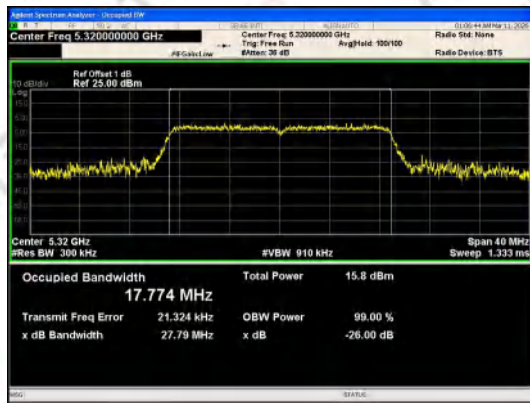
IEEE 802.11n_Channel 48_20MHz_Antenna 0



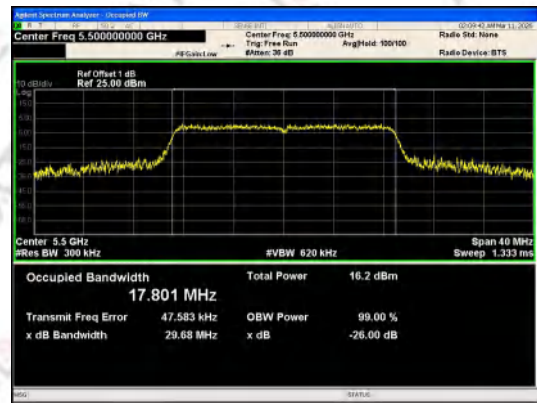
IEEE 802.11n_Channel 52_20MHz_Antenna 0



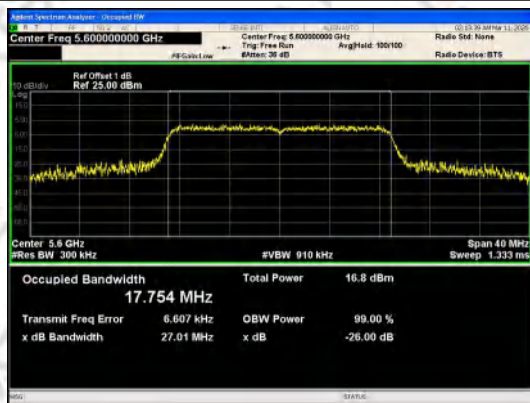
IEEE 802.11n_Channel 60_20MHz_Antenna 0



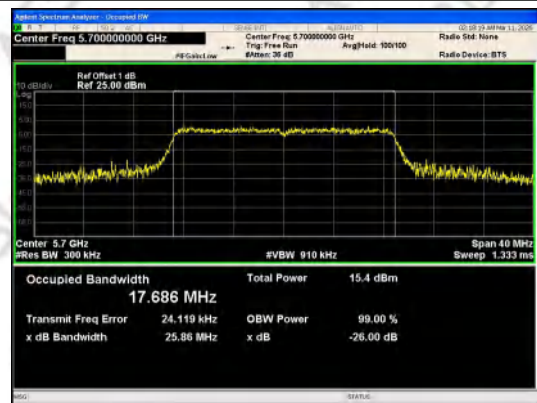
IEEE 802.11n_Channel 64_20MHz_Antenna 0



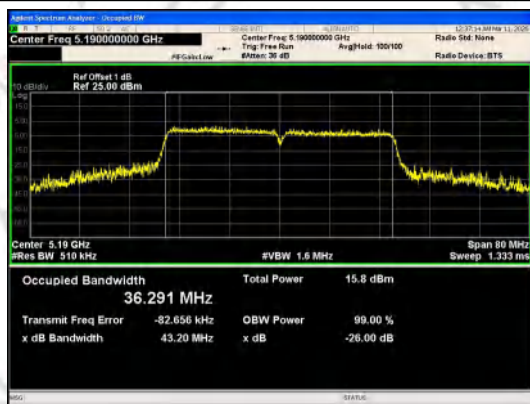
IEEE 802.11n_Channel 100_20MHz_Antenna 0



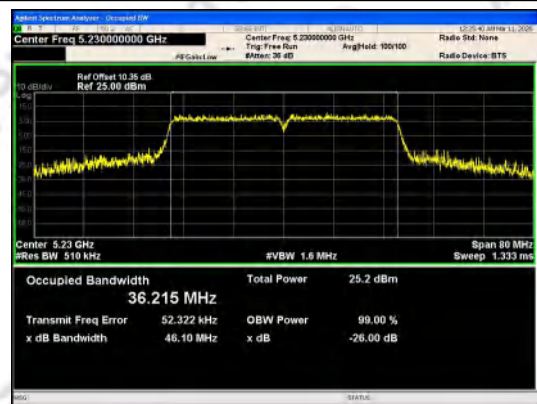
IEEE 802.11n_Channel 120_20MHz_Antenna 0



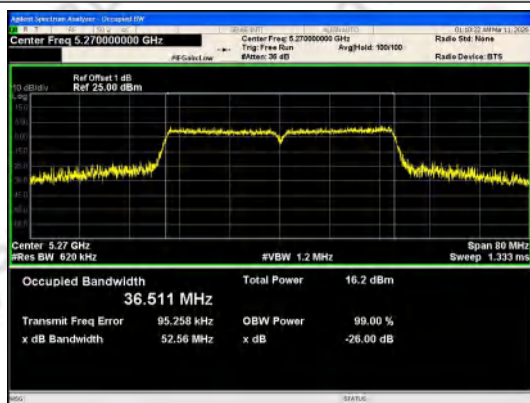
IEEE 802.11n_Channel 140_20MHz_Antenna 0



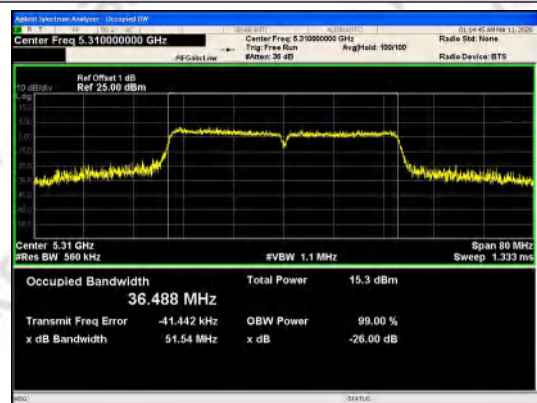
IEEE 802.11n_Channel 38_40MHz_Antenna 0



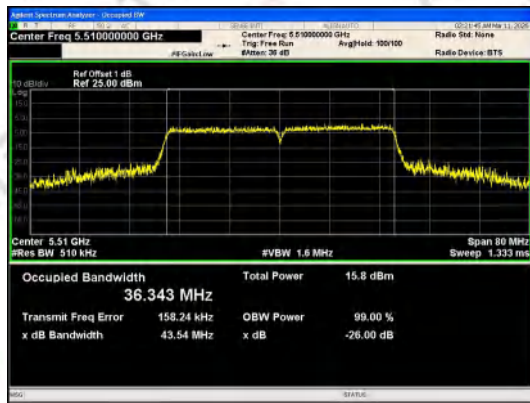
IEEE 802.11n_Channel 46_40MHz_Antenna 0



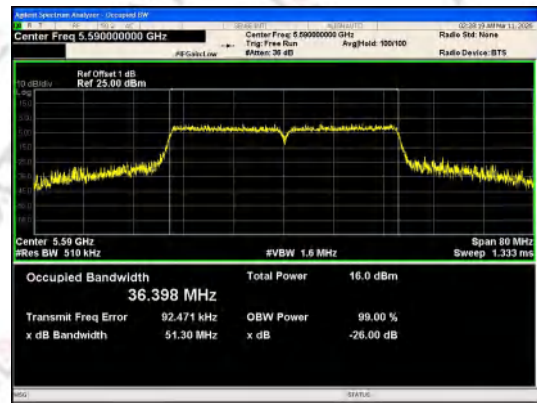
IEEE 802.11n_Channel 54_40MHz_Antenna 0



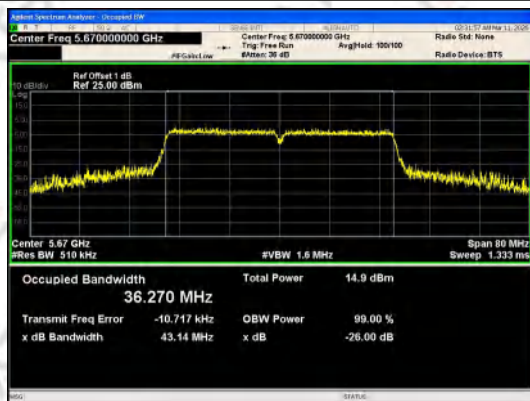
IEEE 802.11n_Channel 62_40MHz_Antenna 0



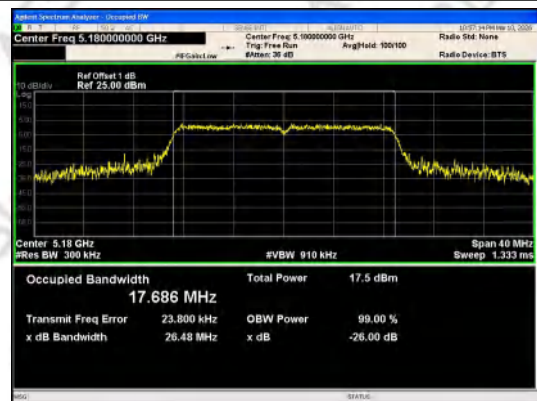
IEEE 802.11n_Channel 102_40MHz_Antenna 0



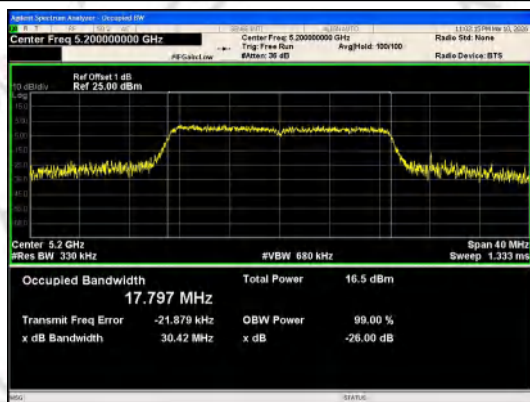
IEEE 802.11n_Channel 118_40MHz_Antenna 0



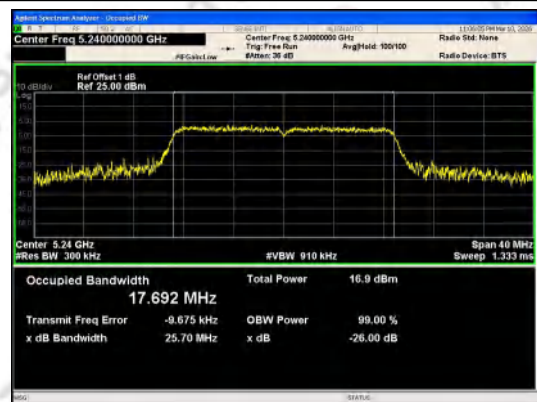
IEEE 802.11n_Channel 134_40MHz_Antenna 0



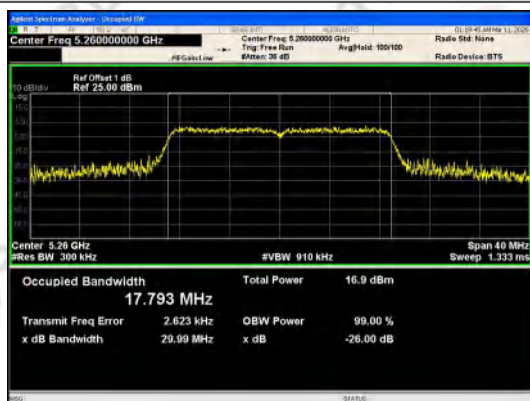
IEEE 802.11ac_Channel 36_20MHz_Antenna 0



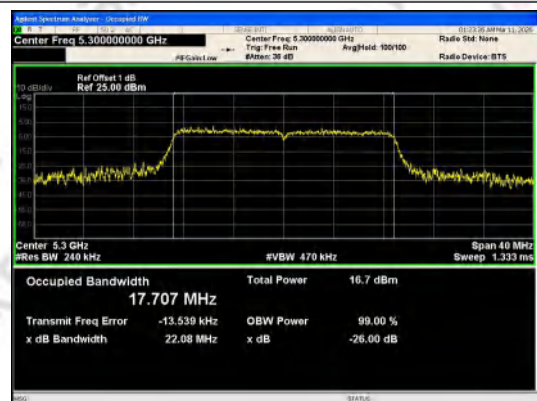
IEEE 802.11ac_Channel 40_20MHz_Antenna 0



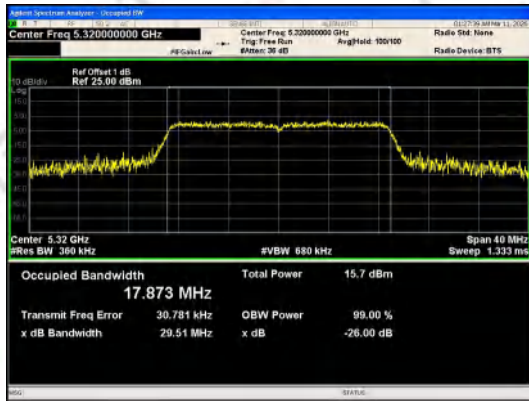
IEEE 802.11ac_Channel 48_20MHz_Antenna 0



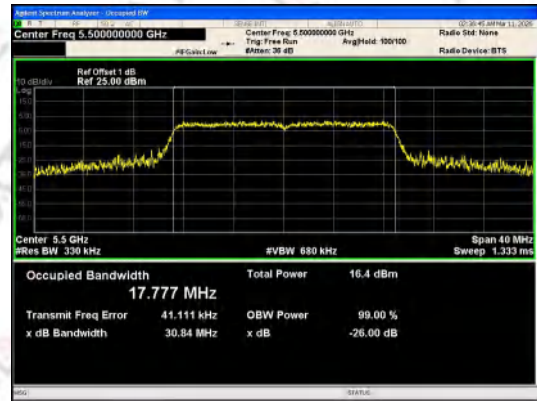
IEEE 802.11ac_Channel 52_20MHz_Antenna 0



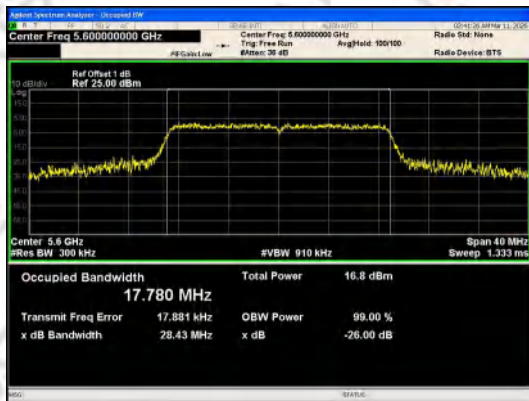
IEEE 802.11ac_Channel 60_20MHz_Antenna 0



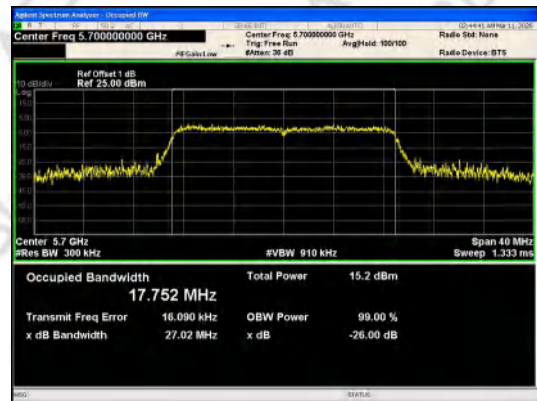
IEEE 802.11ac_Channel 64_20MHz_Antenna 0



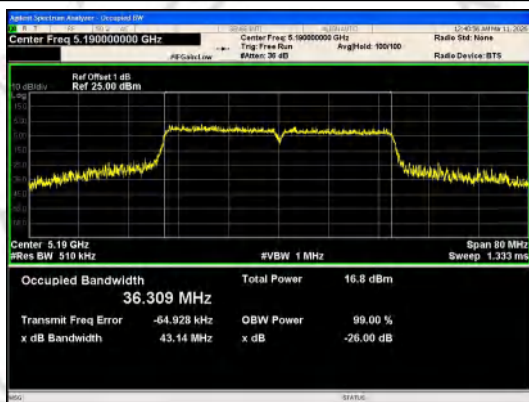
IEEE 802.11ac_Channel 100_20MHz_Antenna 0



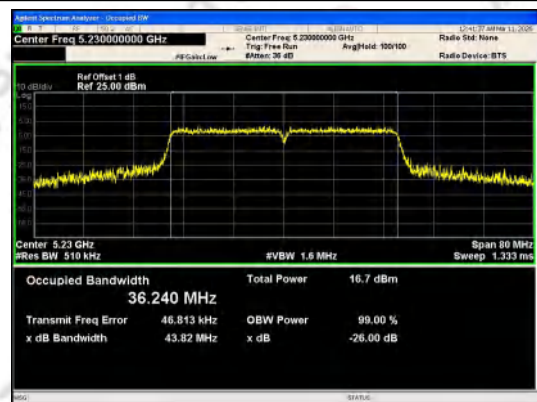
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IEEE 802.11ac_Channel 140_20MHz_Antenna 0



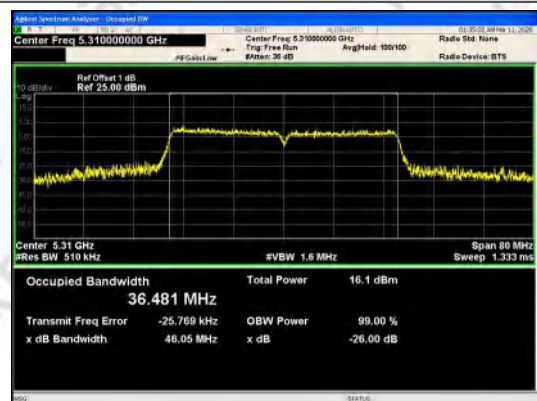
IEEE 802.11ac_Channel 38_40MHz_Antenna 0



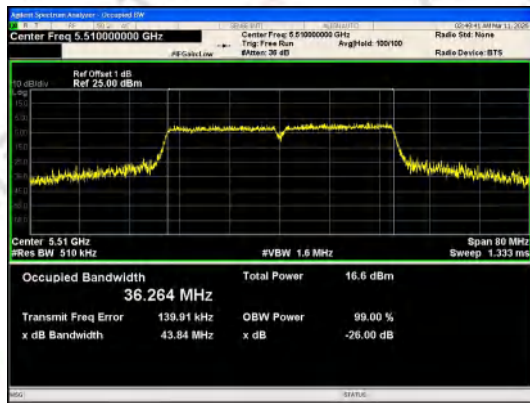
IEEE 802.11ac_Channel 46_40MHz_Antenna 0



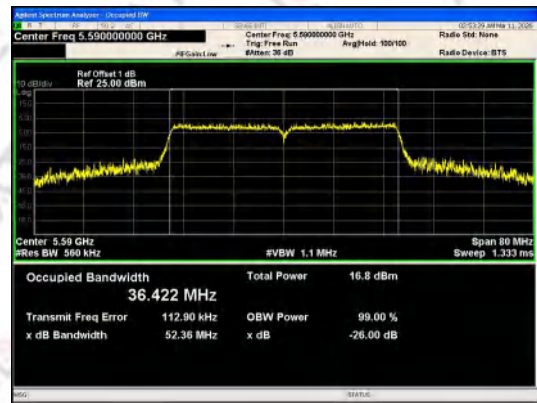
IEEE 802.11ac_Channel 54_40MHz_Antenna 0



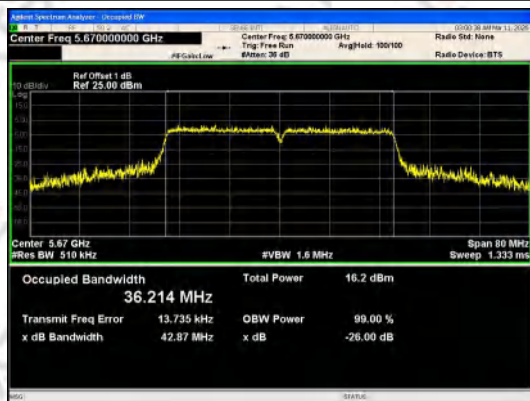
IEEE 802.11ac_Channel 62_40MHz_Antenna 0



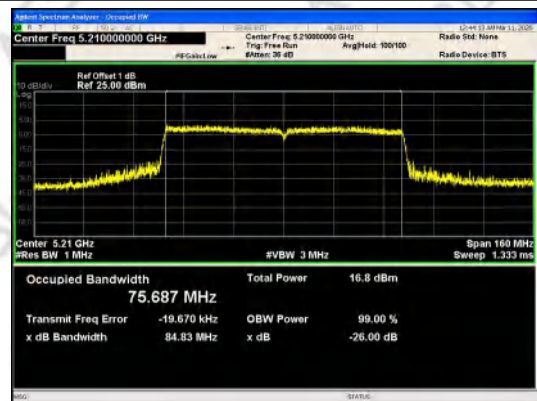
IEEE 802.11ac_Channel 102_40MHz_Antenna 0



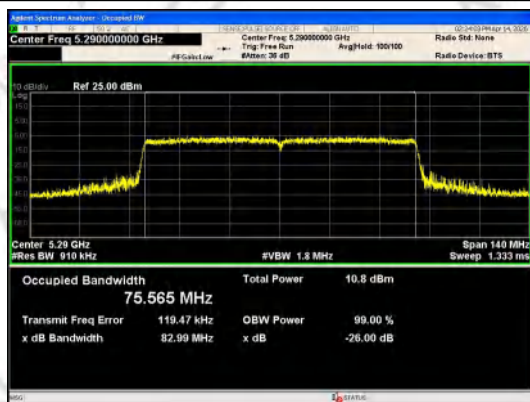
IEEE 802.11ac_Channel 118_40MHz_Antenna 0



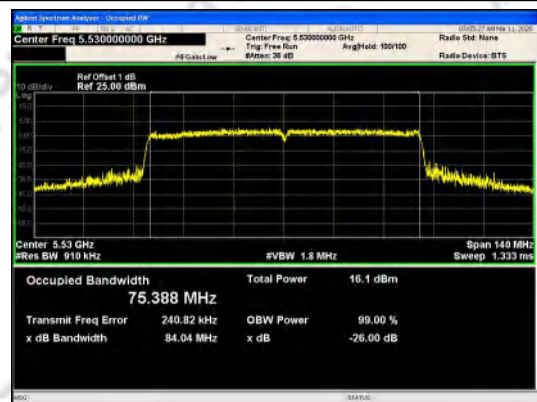
IEEE 802.11ac_Channel 134_40MHz_Antenna 0



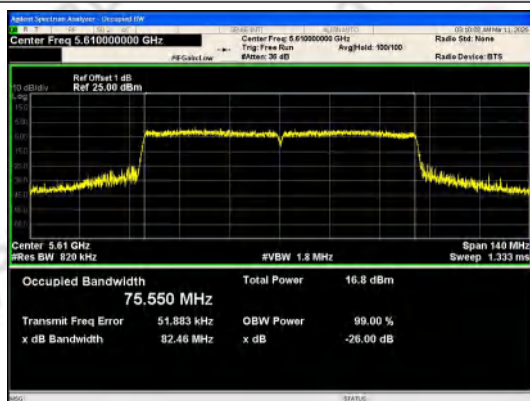
IEEE 802.11ac_Channel 42_80MHz_Antenna 0



IEEE 802.11ac_Channel 58_80MHz_Antenna 0



IEEE 802.11ac_Channel 106_80MHz_Antenna 0



IEEE 802.11ac_Channel 122_80MHz_Antenna 0

D2.Maximum Conducted Average Output Power and TPC

Test Result

For 5180~5250MHz test data:

Mode	Channel	Average Output Power(dBm)	Limit (dBm)	Result
802.11a	36	8.73	≤23.97	PASS
	40	7.96	≤23.97	PASS
	48	8.47	≤23.97	PASS
802.11n20	36	8.55	≤23.97	PASS
	40	7.44	≤23.97	PASS
	48	8.19	≤23.97	PASS
802.11n40	38	5.7	≤23.97	PASS
	46	6.18	≤23.97	PASS
802.11ac20	36	8.39	≤23.97	PASS
	40	7.64	≤23.97	PASS
	48	8.07	≤23.97	PASS
802.11ac40	38	7.11	≤23.97	PASS
	46	7.26	≤23.97	PASS
802.11ac80	42	3.67	≤23.97	PASS

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands test data:

Mode	Channel	Average Output Power(dBm)	Limit (dBm)	Result
802.11a	52	7.89	≤23.97	PASS
	60	7.82	≤23.97	PASS
	64	6.83	≤23.97	PASS
	100	6.31	≤23.97	PASS
	120	7.09	≤23.97	PASS
	140	5.32	≤23.97	PASS
802.11n20	52	8.15	≤23.97	PASS
	60	8	≤23.97	PASS
	64	6.71	≤23.97	PASS
	100	6.55	≤23.97	PASS
	120	6.95	≤23.97	PASS
	140	5.17	≤23.97	PASS
802.11n40	54	6.46	≤23.97	PASS
	62	5.75	≤23.97	PASS
	102	5.21	≤23.97	PASS
	118	5.41	≤23.97	PASS
	134	4.06	≤23.97	PASS
802.11ac20	52	7.98	≤23.97	PASS
	60	8.01	≤23.97	PASS
	64	6.78	≤23.97	PASS

	100	7.46	≤ 23.97	PASS
	120	7.21	≤ 23.97	PASS
	140	5.18	≤ 23.97	PASS
802.11ac40	54	7.56	≤ 23.97	PASS
	62	6.14	≤ 23.97	PASS
	102	5.92	≤ 23.97	PASS
	118	6.3	≤ 23.97	PASS
	134	5.43	≤ 23.97	PASS
802.11ac80	58	5.31	≤ 23.97	PASS
	106	4.49	≤ 23.97	PASS
	122	5.05	≤ 23.97	PASS

Transmit Power Control (TPC):

Mode	Channel	Average Output Power (dBm)	Max. Antenna Gain (dBi)	TPC Low Power (dBm)	TPC Low Power Limit (dBm)	Result
802.11a	52	8.56	3.86	12.42	≤ 24	PASS
	60	8.43	3.86	12.29	≤ 24	PASS
	64	7.85	3.86	11.71	≤ 24	PASS
	100	7.25	3.86	11.11	≤ 24	PASS
	120	8.54	3.86	12.4	≤ 24	PASS
	140	7.92	3.86	11.78	≤ 24	PASS
802.11n20	52	8.43	3.86	12.29	≤ 24	PASS
	60	8.27	3.86	12.13	≤ 24	PASS
	64	7.62	3.86	11.48	≤ 24	PASS
	100	7.95	3.86	11.81	≤ 24	PASS
	120	7.88	3.86	11.74	≤ 24	PASS
	140	7.68	3.86	11.54	≤ 24	PASS
802.11n40	54	7.43	3.86	11.29	≤ 24	PASS
	62	6.97	3.86	10.83	≤ 24	PASS
	102	7.33	3.86	11.19	≤ 24	PASS
	118	7.18	3.86	11.04	≤ 24	PASS
	134	6.57	3.86	10.43	≤ 24	PASS
802.11ac20	52	7.29	3.86	11.15	≤ 24	PASS
	60	8.61	3.86	12.47	≤ 24	PASS
	64	7.85	3.86	11.71	≤ 24	PASS
	100	8.61	3.86	12.47	≤ 24	PASS
	120	8.54	3.86	12.4	≤ 24	PASS
	140	7.57	3.86	11.43	≤ 24	PASS
802.11ac40	54	7.96	3.86	11.82	≤ 24	PASS
	62	7.02	3.86	10.88	≤ 24	PASS
	102	7.26	3.86	11.12	≤ 24	PASS

	118	7.98	3.86	11.84	≤24	PASS
	134	7.24	3.86	11.1	≤24	PASS
802.11ac80	58	7.02	3.86	10.88	≤24	PASS
	106	7.06	3.86	10.92	≤24	PASS
	122	7.39	3.86	11.25	≤24	PASS

D3.Power Spectral Density

Test Result

For 5180~5250MHz test data:

Mode	Channel	Meas PSD (dBm/MHz)	Duty Cycle Factor	Corr'd PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11a	36	1.135	0.3929	1.53	11	PASS
	40	0.539	0.3934	0.93		PASS
	48	0.971	0.3948	1.37		PASS
802.11n20	36	0.648	0.4701	1.12		PASS
	40	0.449	0.4552	0.90		PASS
	48	0.456	0.4658	0.92		PASS
802.11n40	38	-3.849	1.1109	-2.74		PASS
	46	-4.586	1.0885	-3.50		PASS
802.11ac20	36	0.681	0.4643	1.15		PASS
	40	0.156	0.4518	0.61		PASS
	48	0.278	0.4542	0.73		PASS
802.11ac40	38	-2.496	0.9034	-1.59		PASS
	46	-4.028	0.9034	-3.12		PASS
802.11ac80	42	-7.223	1.6871	-5.54		PASS

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands test data:

Mode	Channel	Meas PSD (dBm/MHz)	Duty Cycle Factor	Corr'd PSD (dBm/MHz)	Limit (dBm/MHz)	Result
IEEE 802.11a	52	0.342	0.4254	0.77	11	PASS
	60	0.213	0.4254	0.64		PASS
	64	-1.095	0.3934	-0.70		PASS
	100	-0.512	0.4254	-0.09		PASS
	120	-0.050	0.3934	0.34		PASS
	140	-1.192	0.4254	-0.77		PASS
IEEE 802.11n_20	52	-0.123	0.4915	0.37		PASS
	60	0.333	0.4677	0.80		PASS
	64	-1.181	0.4682	-0.71		PASS
	100	-0.652	0.4658	-0.19		PASS
	120	-0.058	0.4784	0.42		PASS
	140	-1.471	0.4677	-1.00		PASS
IEEE 802.11n_40	54	-3.744	0.9539	-2.79		PASS
	62	-3.589	0.9082	-2.68		PASS
	102	-4.317	0.9082	-3.41		PASS
	118	-3.931	1.0919	-2.84		PASS
	134	-5.334	0.8879	-4.45		PASS
IEEE 802.11ac_20	52	-0.076	0.4668	0.39		PASS
	60	0.344	0.4668	0.81		PASS
	64	-1.124	0.4542	-0.67		PASS
	100	0.056	0.4643	0.52		PASS

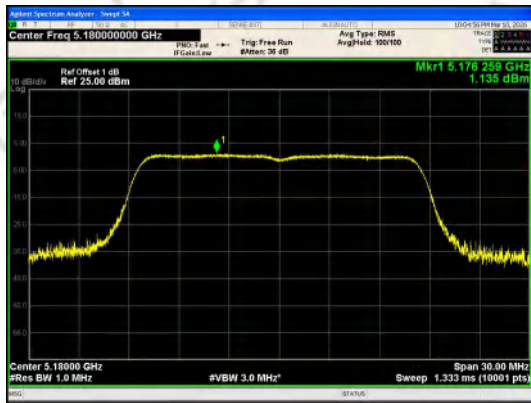
	120	-0.206	0.4518	0.25	PASS
	140	-1.609	0.5046	-1.10	PASS
IEEE 802.11ac_40	54	-3.358	0.9291	-2.43	PASS
	62	-3.975	0.8836	-3.09	PASS
	102	-3.422	0.8804	-2.54	PASS
	118	-3.393	0.8836	-2.51	PASS
	134	-4.256	0.9066	-3.35	PASS
IEEE 802.11ac_80	58	-8.224	1.8013	-6.42	PASS
	106	-8.387	1.6845	-6.70	PASS
	122	-7.966	1.6819	-6.28	PASS

Note:

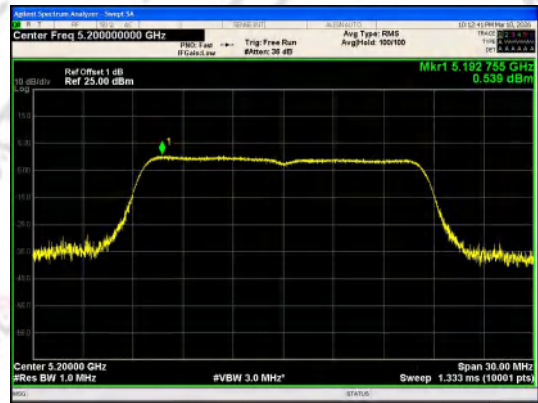
Corr'd PSD=Meas PSD+Duty Cycle Factor (dB).

Duty cycle factor=10*log (1/duty cycle)

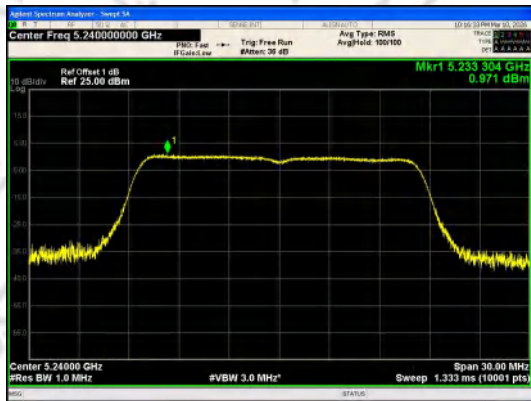
Test Graphs



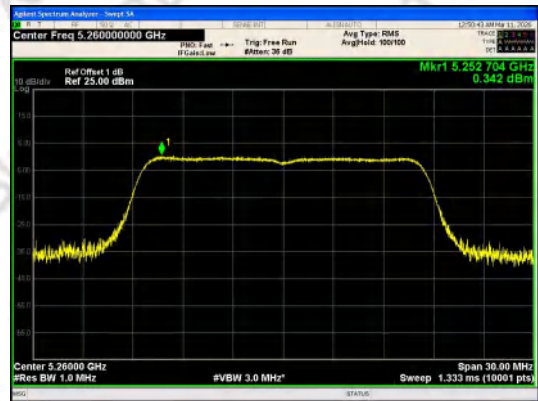
IEEE 802.11a_Channel 36_20MHz_Antenna 0



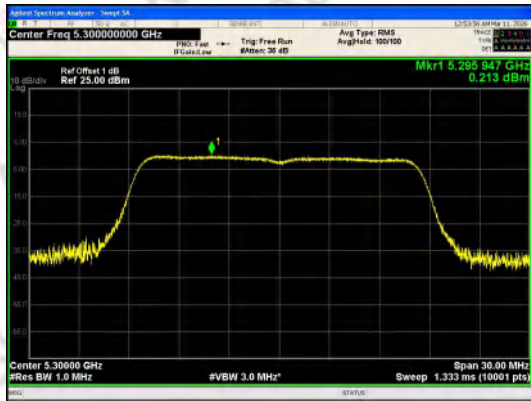
IEEE 802.11a_Channel 40_20MHz_Antenna 0



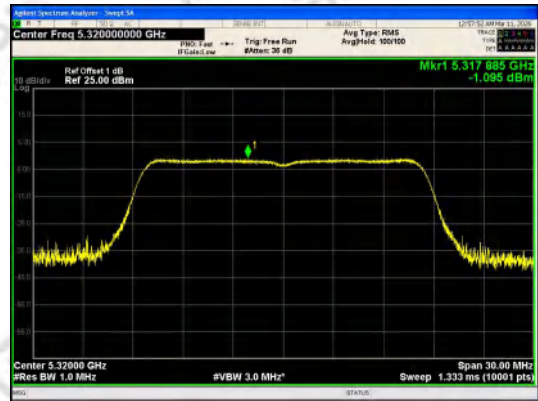
IEEE 802.11a_Channel 48_20MHz_Antenna 0



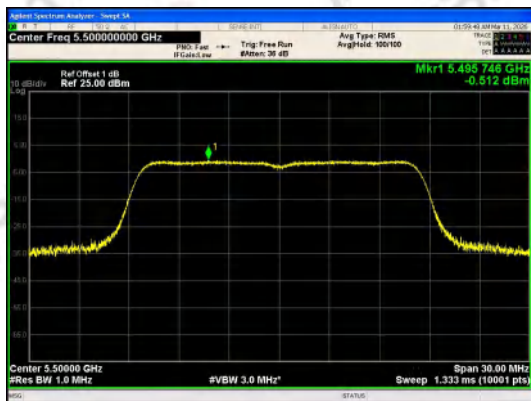
IEEE 802.11a_Channel 52_20MHz_Antenna 0



IEEE 802.11a_Channel 60_20MHz_Antenna 0



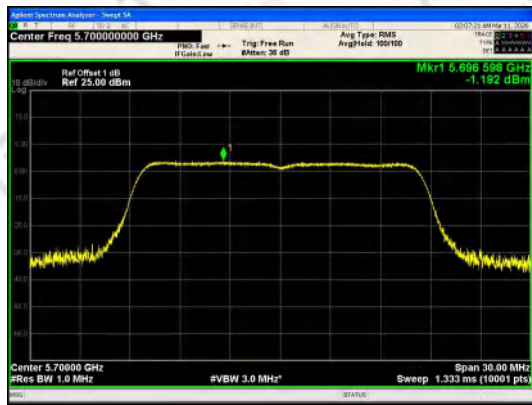
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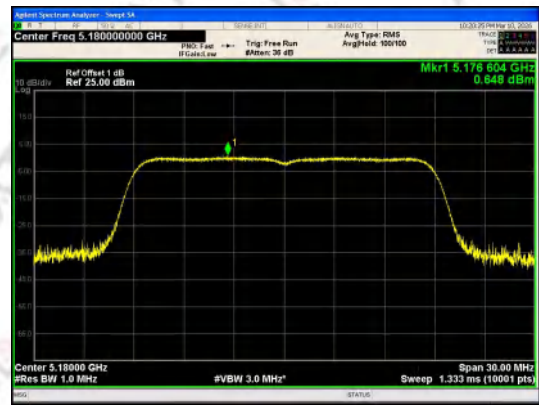
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IEEE 802.11a_Channel 120_20MHz_Antenna 0



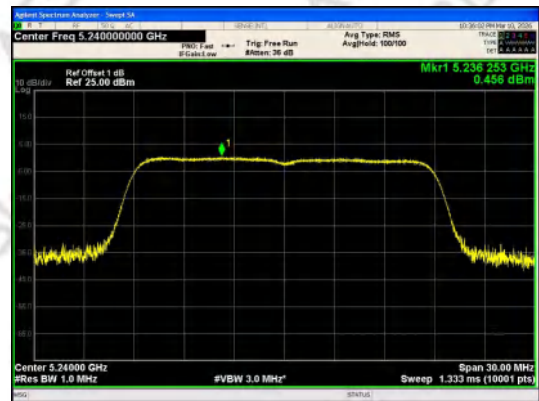
IEEE 802.11a_Channel 140_20MHz_Antenna 0



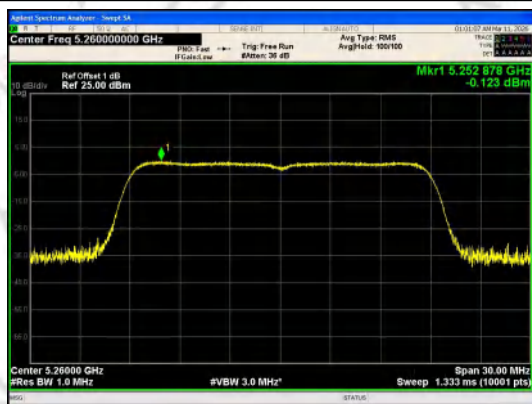
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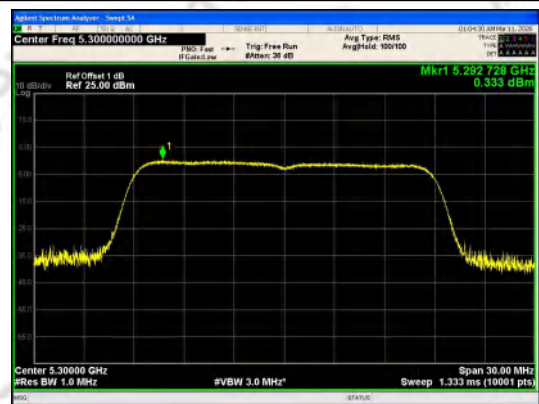
IEEE 802.11n_Channel 40_20MHz_Antenna 0



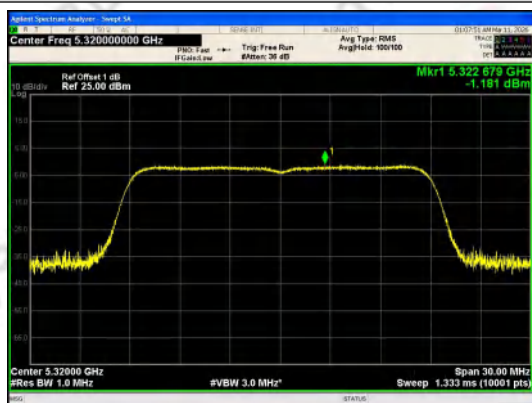
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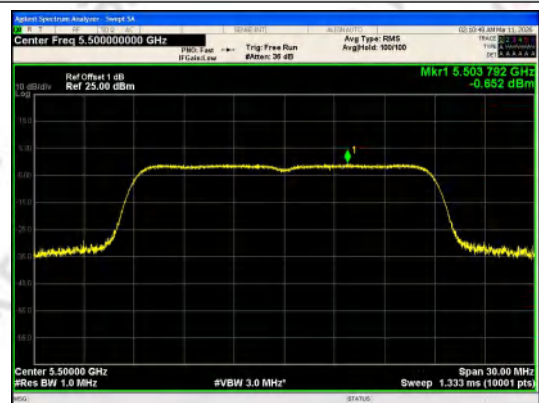
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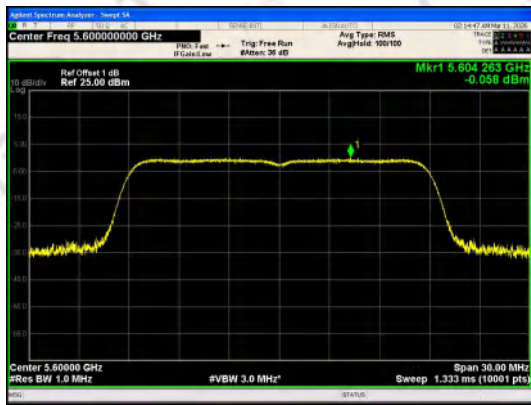
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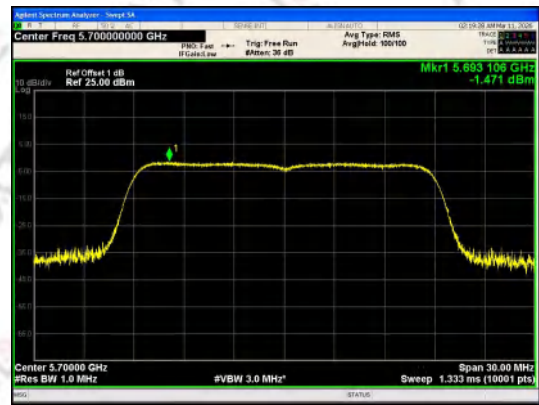
IEEE 802.11n_Channel 64_20MHz_Antenna 0



IEEE 802.11n_Channel 100_20MHz_Antenna 0



IEEE 802.11n_Channel 120_20MHz_Antenna 0



IEEE 802.11n_Channel 140_20MHz_Antenna 0



IEEE 802.11n_Channel 38_40MHz_Antenna 0



IEEE 802.11n_Channel 46_40MHz_Antenna 0



IEEE 802.11n_Channel 54_40MHz_Antenna 0



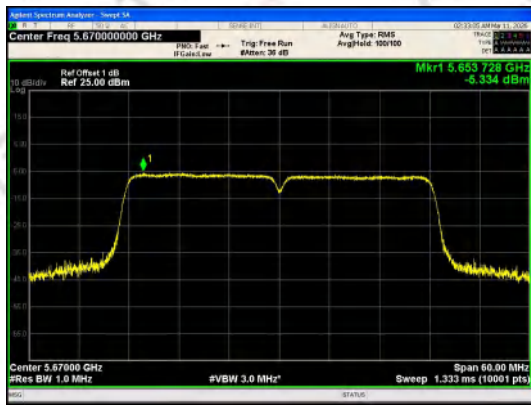
IEEE 802.11n_Channel 62_40MHz_Antenna 0



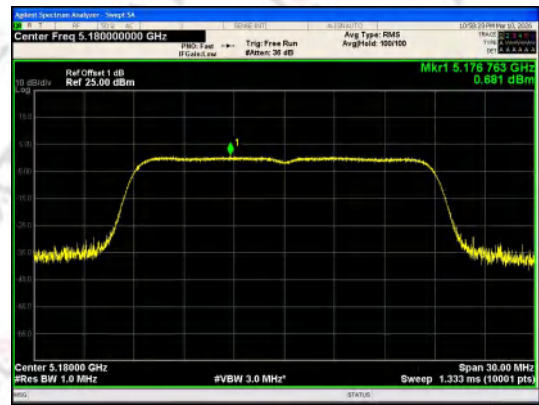
IEEE 802.11n_Channel 102_40MHz_Antenna 0



IEEE 802.11n_Channel 118_40MHz_Antenna 0



IEEE 802.11n_Channel 134_40MHz_Antenna 0



IEEE 802.11ac_Channel 36_20MHz_Antenna 0



IEEE 802.11ac_Channel 40_20MHz_Antenna 0



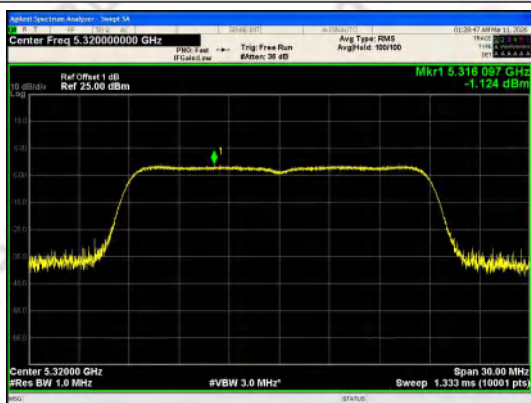
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IEEE 802.11ac_Channel 52_20MHz_Antenna 0



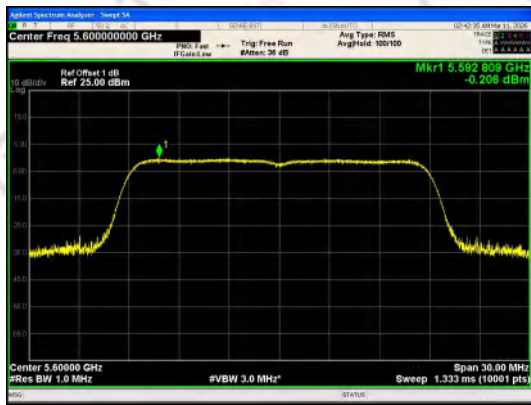
IEEE 802.11ac_Channel 60_20MHz_Antenna 0



IEEE 802.11ac_Channel 64_20MHz_Antenna 0



IEEE 802.11ac_Channel 100_20MHz_Antenna 0



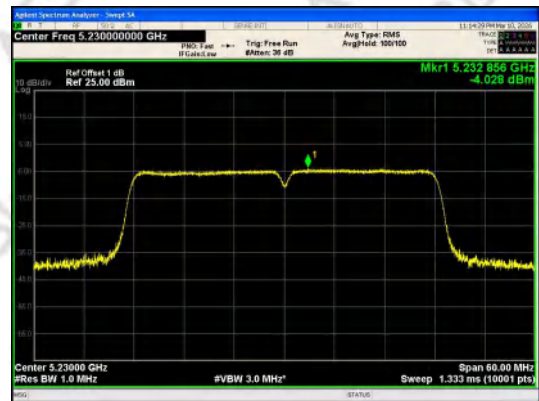
IEEE 802.11ac_Channel 120_20MHz_Antenna 0



IEEE 802.11ac_Channel 140_20MHz_Antenna 0



IEEE 802.11ac_Channel 38_40MHz_Antenna 0



IEEE 802.11ac_Channel 46_40MHz_Antenna 0



IEEE 802.11ac_Channel 54_40MHz_Antenna 0



IEEE 802.11ac_Channel 62_40MHz_Antenna 0



IEEE 802.11ac_Channel 102_40MHz_Antenna 0



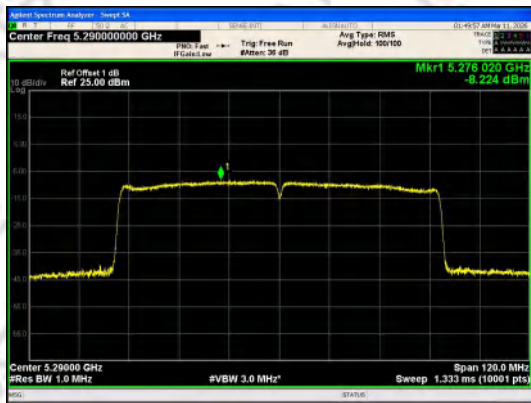
IEEE 802.11ac_Channel 118_40MHz_Antenna 0



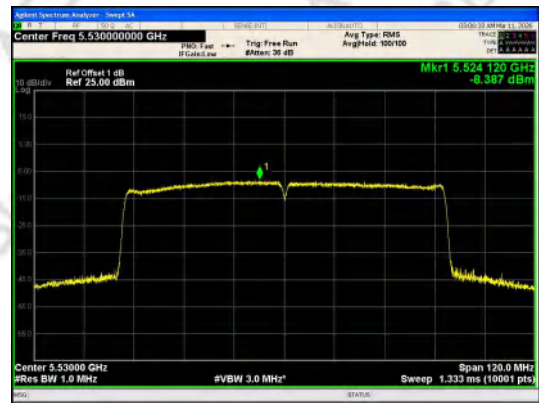
IEEE 802.11ac_Channel 134_40MHz_Antenna 0



IEEE 802.11ac_Channel 42_80MHz_Antenna 0



IEEE 802.11ac_Channel 58_80MHz_Antenna 0



IEEE 802.11ac_Channel 106_80MHz_Antenna 0



IEEE 802.11ac_Channel 122_80MHz_Antenna 0

D4.Duty Cycle

Test Result

Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
IEEE 802.11a	6	36	0	3.367	3.686	91.35	0.9135	0.3929
		40		3.366	3.685	91.34	0.9134	0.3934
		48		3.366	3.686	91.31	0.9131	0.3948
		52		3.366	3.712	90.67	0.9067	0.4254
		60		3.366	3.712	90.67	0.9067	0.4254
		64		3.366	3.685	91.34	0.9134	0.3934
		100		3.366	3.712	90.67	0.9067	0.4254
		120		3.366	3.685	91.34	0.9134	0.3934
		140		3.366	3.712	90.67	0.9067	0.4254
IEEE 802.11n_20		36	0	2.815	3.137	89.74	0.8974	0.4701
		40		2.817	3.128	90.05	0.9005	0.4552
		48		2.818	3.137	89.83	0.8983	0.4658
		52		2.817	3.154	89.30	0.8930	0.4915
		60		2.818	3.139	89.79	0.8979	0.4677
		64		2.817	3.137	89.78	0.8978	0.4682
		100		2.818	3.137	89.83	0.8983	0.4658
		120		2.818	3.146	89.57	0.8957	0.4784
		140		2.818	3.139	89.79	0.8979	0.4677
IEEE 802.11n_40	MCS 0	38	0	1.376	1.777	77.43	0.7743	1.1109
		46		1.376	1.768	77.83	0.7783	1.0885
		54		1.376	1.714	80.28	0.8028	0.9539
		62		1.376	1.696	81.13	0.8113	0.9082
		102		1.376	1.696	81.13	0.8113	0.9082
		118		1.375	1.768	77.77	0.7777	1.0919
		134		1.375	1.687	81.51	0.8151	0.8879
IEEE 802.11ac_20		36	0	2.826	3.145	89.86	0.8986	0.4643
		40		2.826	3.136	90.12	0.9012	0.4518
		48		2.824	3.136	90.07	0.9007	0.4542
		52		2.824	3.145	89.81	0.8981	0.4668
		60		2.824	3.145	89.81	0.8981	0.4668
		64		2.824	3.136	90.07	0.9007	0.4542
		100		2.826	3.145	89.86	0.8986	0.4643
		120		2.826	3.136	90.12	0.9012	0.4518
		140		2.823	3.171	89.03	0.8903	0.5046
IEEE 802.11ac_40		38	0	1.384	1.704	81.22	0.8122	0.9034
		46		1.384	1.704	81.22	0.8122	0.9034
		54		1.383	1.713	80.74	0.8074	0.9291
		62		1.383	1.695	81.59	0.8159	0.8836
		102		1.384	1.695	81.65	0.8165	0.8804

IEEE 802.11ac_80		118	1.383	1.695	81.59	0.8159	0.8836
		134	1.383	1.704	81.16	0.8116	0.9066
		42	0.661	0.975	67.81	0.6781	1.6871
		58	0.661	1.001	66.05	0.6605	1.8013
		106	0.661	0.975	67.85	0.6785	1.6845
		122	0.662	0.975	67.89	0.6789	1.6819

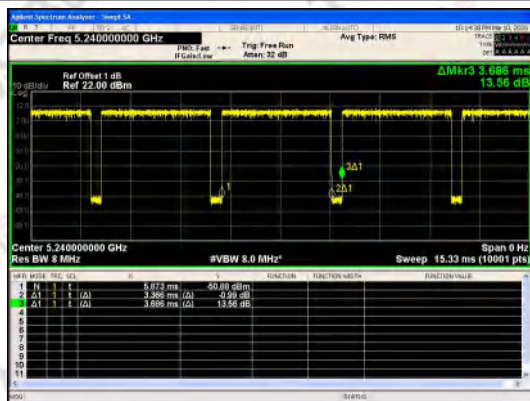
Test Graphs



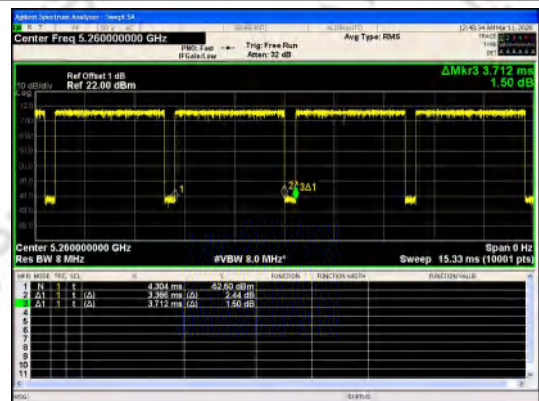
IEEE 802.11a_20MHz_Channel 36



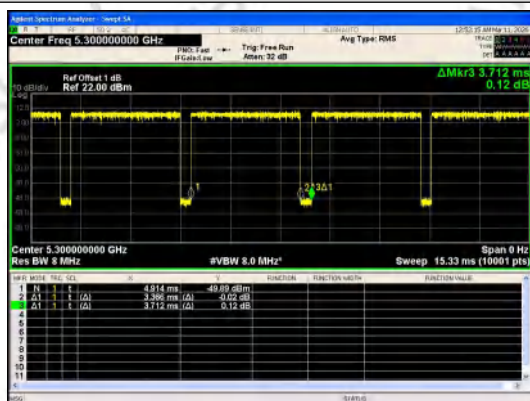
IEEE 802.11a_20MHz_Channel 40



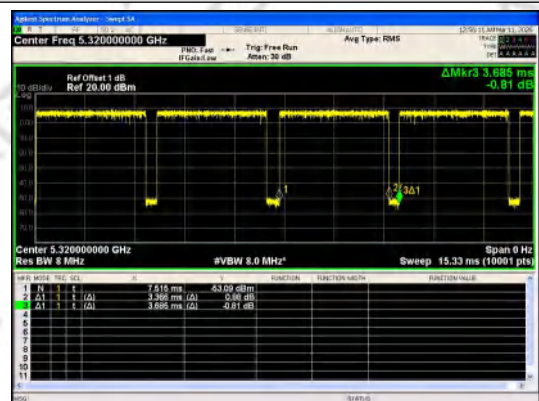
IEEE 802.11a_20MHz_Channel 48



IEEE 802.11a_20MHz_Channel 52



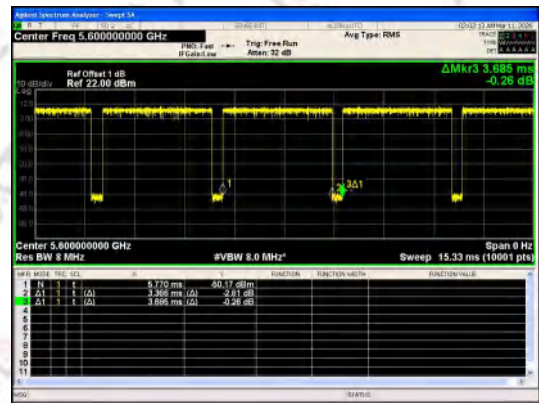
IEEE 802.11a_20MHz_Channel 60



IEEE 802.11a_20MHz_Channel 64



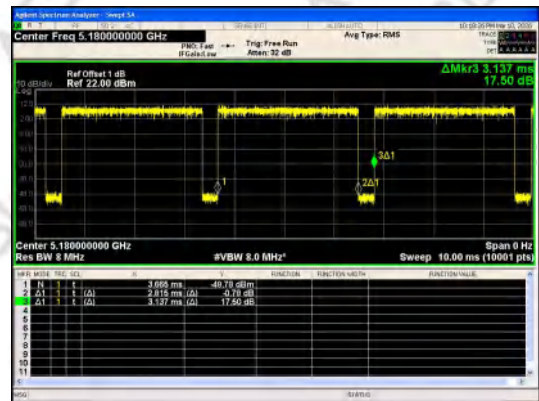
IEEE 802.11a 20MHz_Channel 100



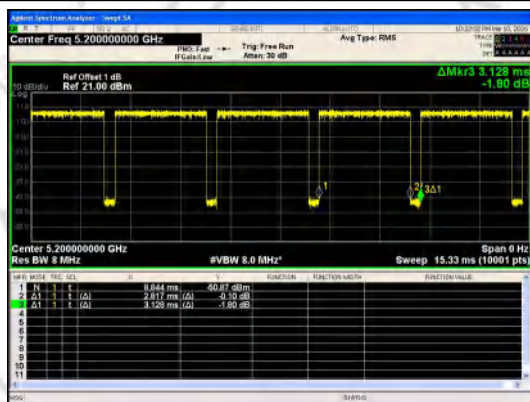
IEEE 802.11a 20MHz_Channel 120



IEEE 802.11a 20MHz_Channel 140



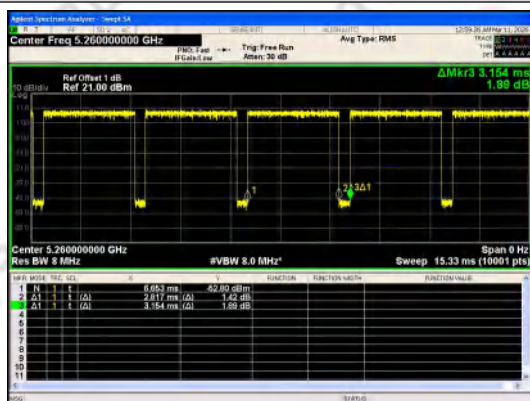
IEEE 802.11n 20MHz_Channel 36



IEEE 802.11n 20MHz_Channel 40



IEEE 802.11n 20MHz_Channel 48



IEEE 802.11n 20MHz_Channel 52



IEEE 802.11n 20MHz_Channel 60



IEEE 802.11n_20MHz_Channel 64



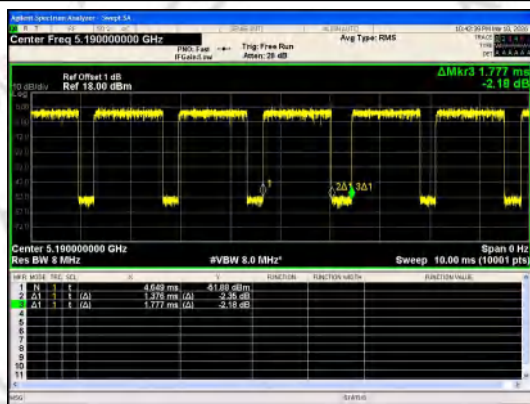
IEEE 802.11n_20MHz_Channel 100



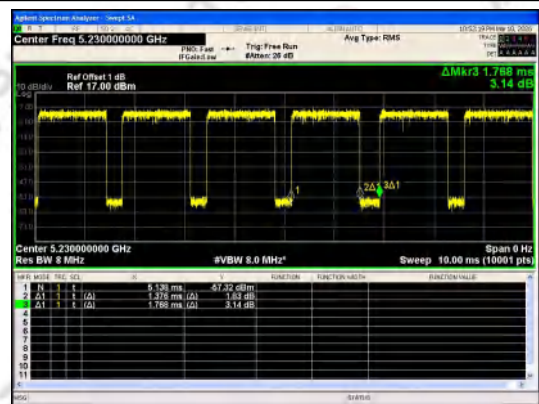
IEEE 802.11n_20MHz_Channel 120



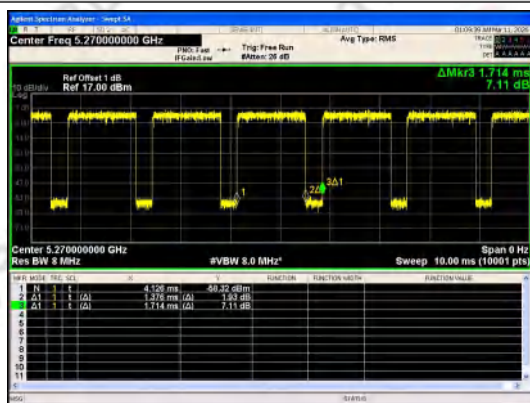
IEEE 802.11n_20MHz_Channel 140



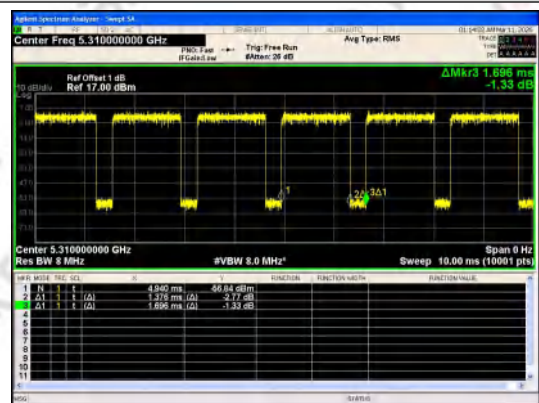
IEEE 802.11n_40MHz_Channel 38



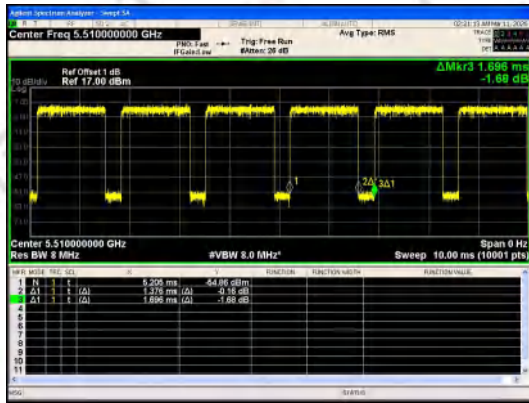
IEEE 802.11n_40MHz_Channel 46



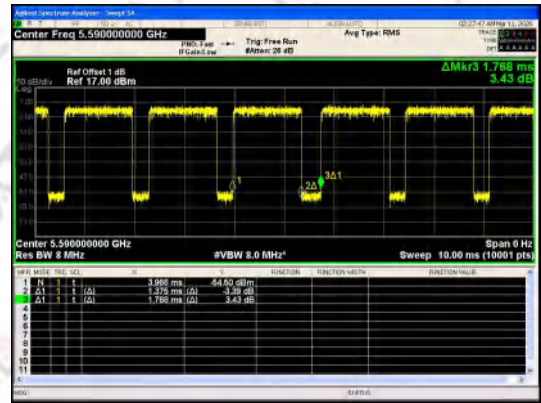
IEEE 802.11n_40MHz_Channel 54



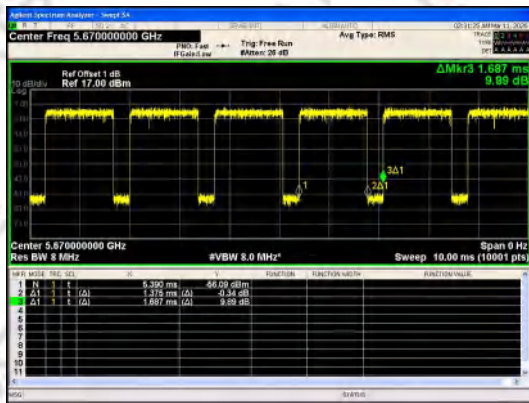
IEEE 802.11n_40MHz_Channel 62



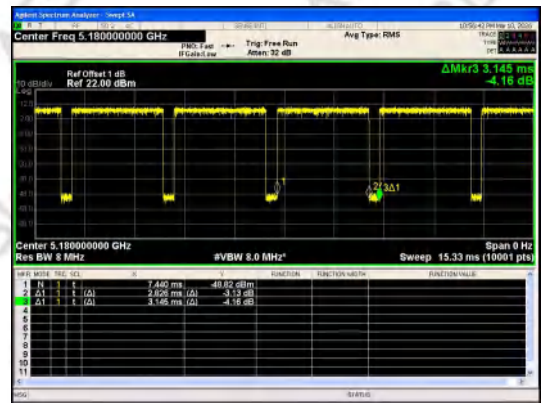
IEEE 802.11n 40MHz_Channel 102



IEEE 802.11n 40MHz_Channel 118



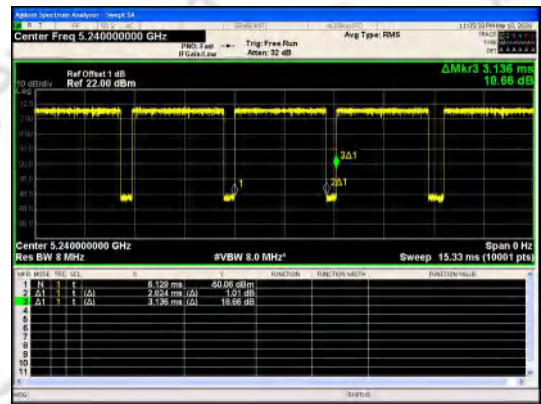
IEEE 802.11n 40MHz_Channel 134



IEEE 802.11ac 20MHz_Channel 36



IEEE 802.11ac 20MHz_Channel 40



IEEE 802.11ac 20MHz_Channel 48



IEEE 802.11ac 20MHz_Channel 52



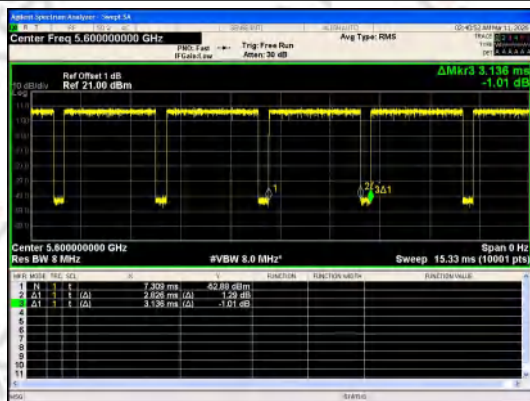
IEEE 802.11ac 20MHz_Channel 60



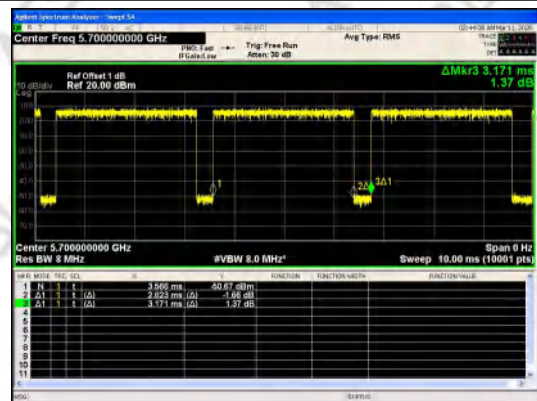
IEEE 802.11ac_20MHz_Channel 64



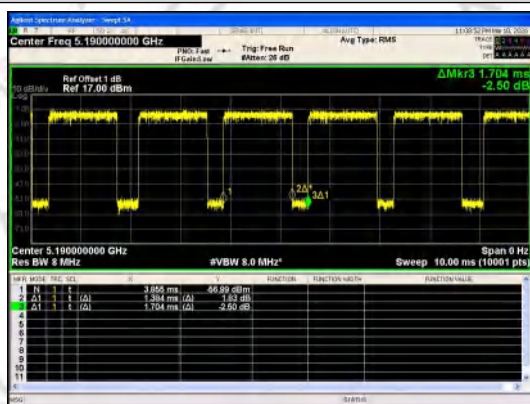
IEEE 802.11ac_20MHz_Channel 100



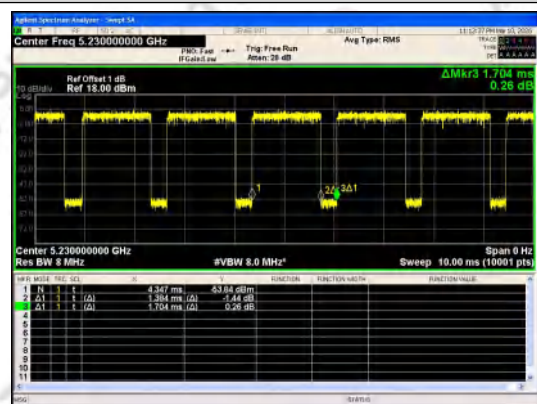
IEEE 802.11ac 20MHz Channel 120



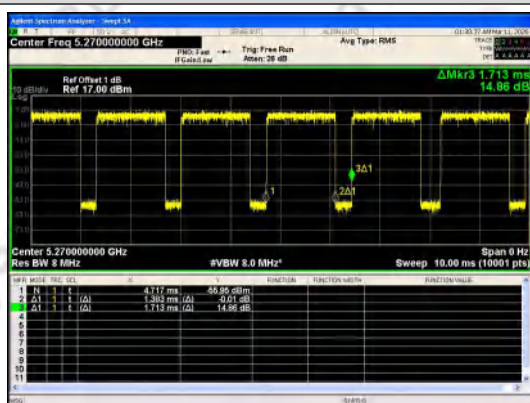
IEEE 802.11ac_20MHz_Channel 140



IEEE 802.11ac 40MHz Channel 38



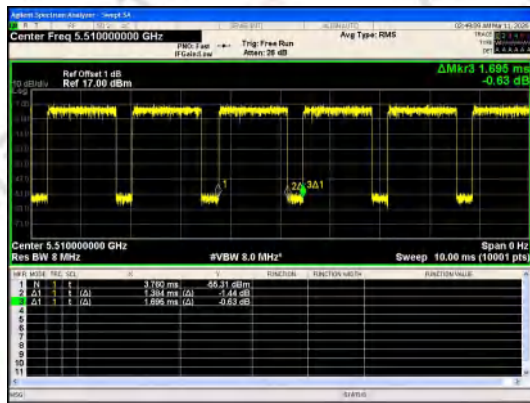
IEEE 802.11ac 40MHz Channel 46



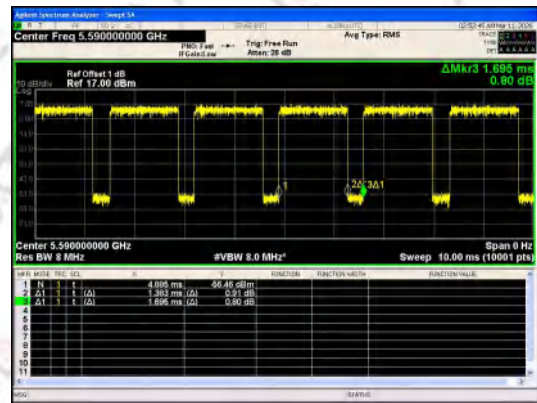
IEEE 802.11ac_40MHz_Channel 54



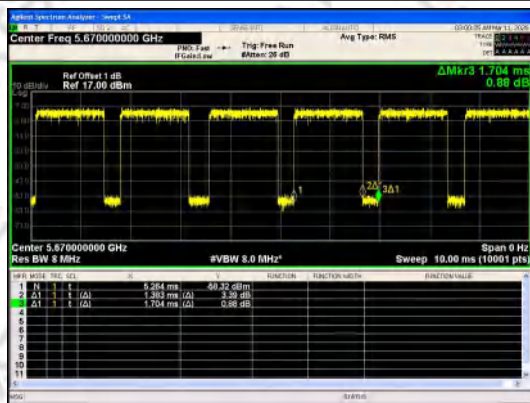
IEEE 802.11ac_40MHz_Channel 62



IEEE 802.11ac_40MHz_Channel 102



IEEE 802.11ac_40MHz_Channel 118



IEEE 802.11ac_40MHz_Channel 134



IEEE 802.11ac_80MHz_Channel 42



IEEE 802.11ac_80MHz_Channel 58



IEEE 802.11ac_80MHz_Channel 106



IEEE 802.11ac_80MHz_Channel 122

*****END*****