

Appendix A Conduction Data for 2.4GHz WIFI

A1.Maximum Peak conducted output power

Test Result

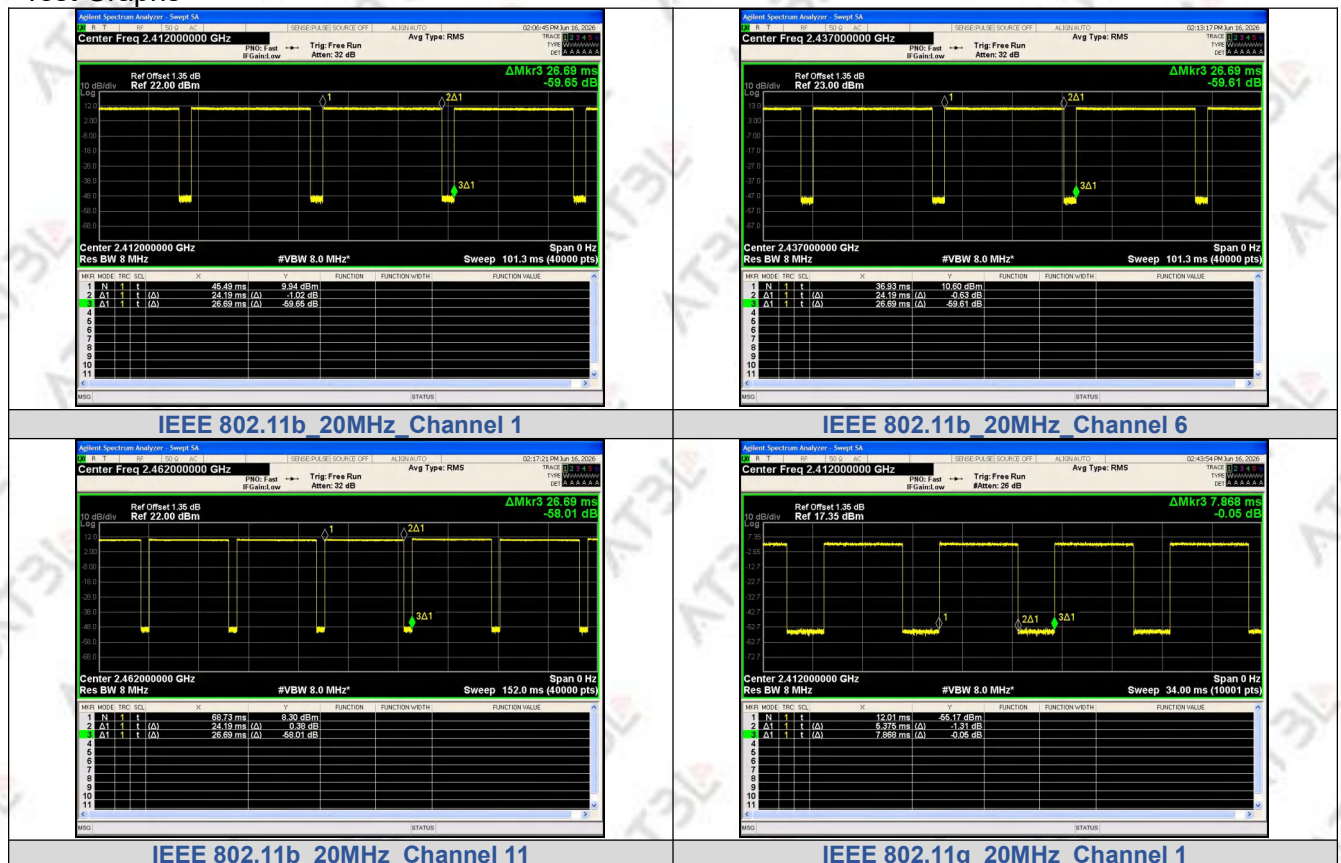
Mode	Channel	Peak Output Power (dBm)			Peak Power Limit (dBm)	Result
		Antenna 1 (dBm)	Antenna 2 (dBm)	Total (Ant.1+Ant.2) (dBm)		
IEEE 802.11b	1	14.54	14.28	N/A	≤30	PASS
	6	15.81	15.58	N/A	≤30	PASS
	11	14.82	14.77	N/A	≤30	PASS
IEEE 802.11g	1	14.02	13.34	N/A	≤30	PASS
	6	14.19	14.19	N/A	≤30	PASS
	11	13.08	10.2	N/A	≤30	PASS
IEEE 802.11n_20	1	15.53	13.92	17.81	≤30	PASS
	6	16.44	14.79	18.70	≤30	PASS
	11	15.64	11.0	16.92	≤30	PASS
IEEE 802.11n_40	3	14.76	13.11	17.02	≤30	PASS
	6	15.56	14.05	17.88	≤30	PASS
	9	15.40	14.21	17.86	≤30	PASS
IEEE 802.11ax_20	1	15.66	14.36	18.07	≤30	PASS
	6	16.61	15.23	18.98	≤30	PASS
	11	15.72	14.46	18.15	≤30	PASS
IEEE 802.11ax_40	3	15.42	13.66	17.64	≤30	PASS
	6	15.88	14.8	18.38	≤30	PASS
	9	15.91	14.78	18.39	≤30	PASS

A2.Duty Cycle

Test Result
Antenna 1:

Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
IEEE 802.11b	1	1	1	24.191	26.691	90.63	0.9063	0.4273
		6		24.191	26.691	90.63	0.9063	0.4273
		11		24.191	26.691	90.63	0.9063	0.4273
IEEE 802.11g	6	1		5.375	7.868	68.32	0.6832	1.6545
		6		5.372	7.864	68.31	0.6831	1.6552
		11		5.372	7.864	68.31	0.6831	1.6552
IEEE 802.11n_20	MCS 0	1		4.485	6.977	64.28	0.6428	1.9192
		6		4.485	6.977	64.28	0.6428	1.9192
		11		4.485	6.977	64.28	0.6428	1.9192
IEEE 802.11n_40		3		2.714	3.211	84.53	0.8453	0.7299
		6		2.714	3.212	84.49	0.8449	0.7319
		9		2.714	3.212	84.49	0.8449	0.7319
IEEE 802.11ax_20		1		3.794	6.287	60.36	0.6036	2.1925
		6		3.788	6.283	60.28	0.6028	2.1983
		11		3.794	6.287	60.36	0.6036	2.1925
IEEE 802.11ax_40		3		2.391	4.887	48.93	0.4893	3.1042
		6		2.391	4.887	48.93	0.4893	3.1042
		9		2.391	4.887	48.93	0.4893	3.1042

Test Graphs

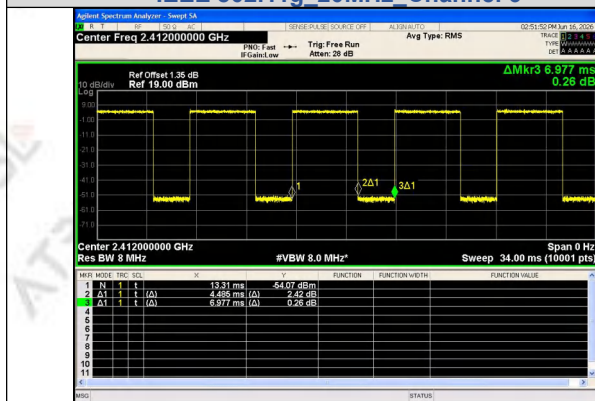




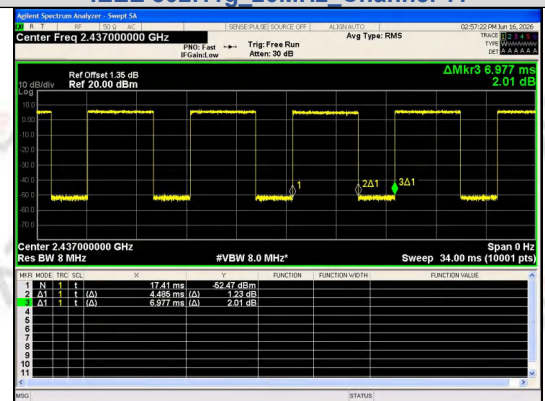
IEEE 802.11g 20MHz Channel 6



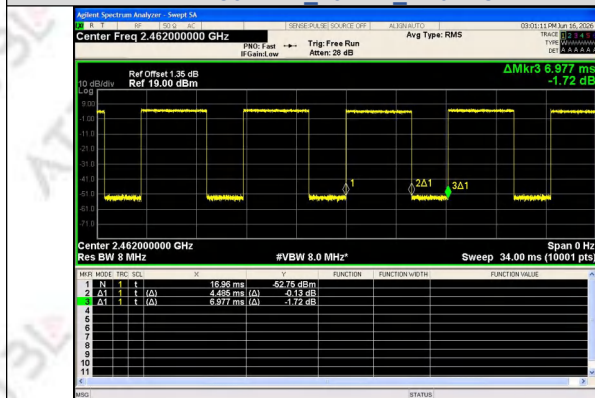
IEEE 802.11g 20MHz Channel 11



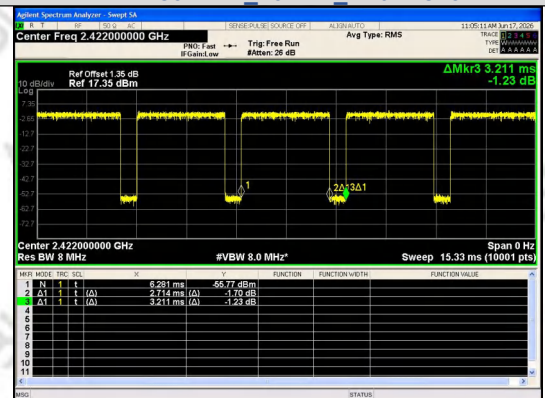
IEEE 802.11n 20MHz Channel 1



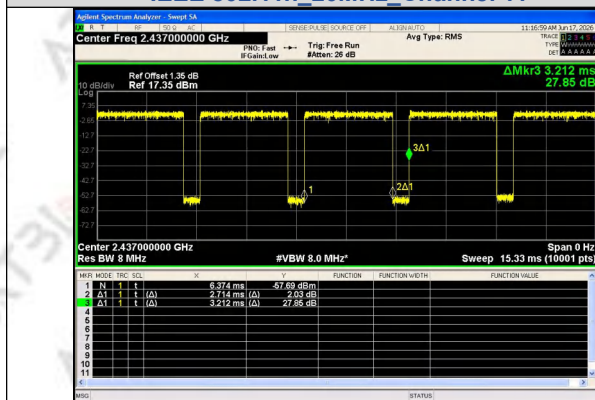
IEEE 802.11n 20MHz Channel 6



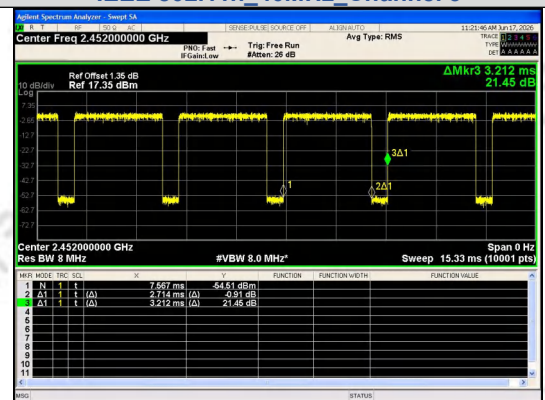
IEEE 802.11n 20MHz Channel 11



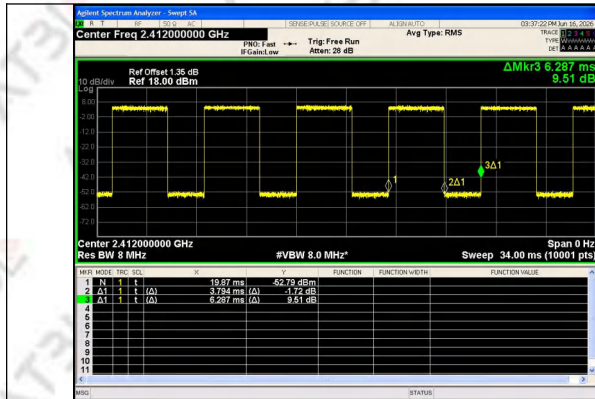
IEEE 802.11n 40MHz Channel 3



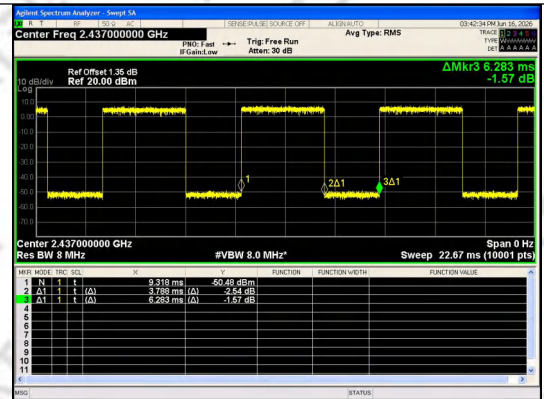
IEEE 802.11n 40MHz Channel 6



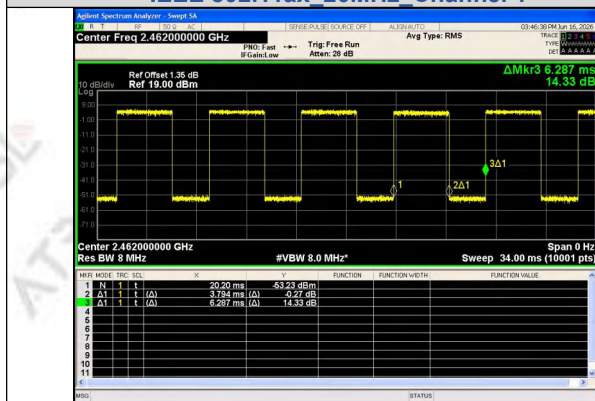
IEEE 802.11n 40MHz Channel 9



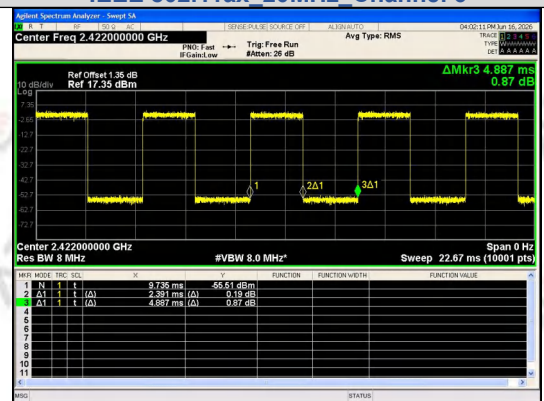
IEEE 802.11ax 20MHz Channel 1



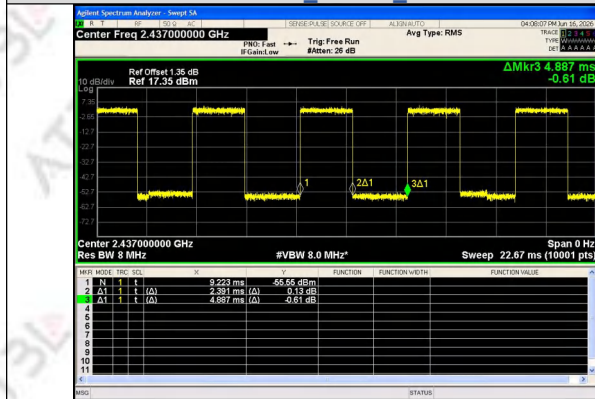
IEEE 802.11ax 20MHz Channel 6



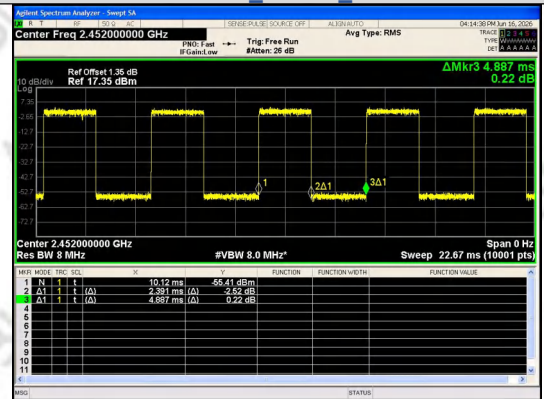
IEEE 802.11ax 20MHz Channel 11



IEEE 802.11ax 40MHz Channel 3



IEEE 802.11ax 40MHz Channel 6

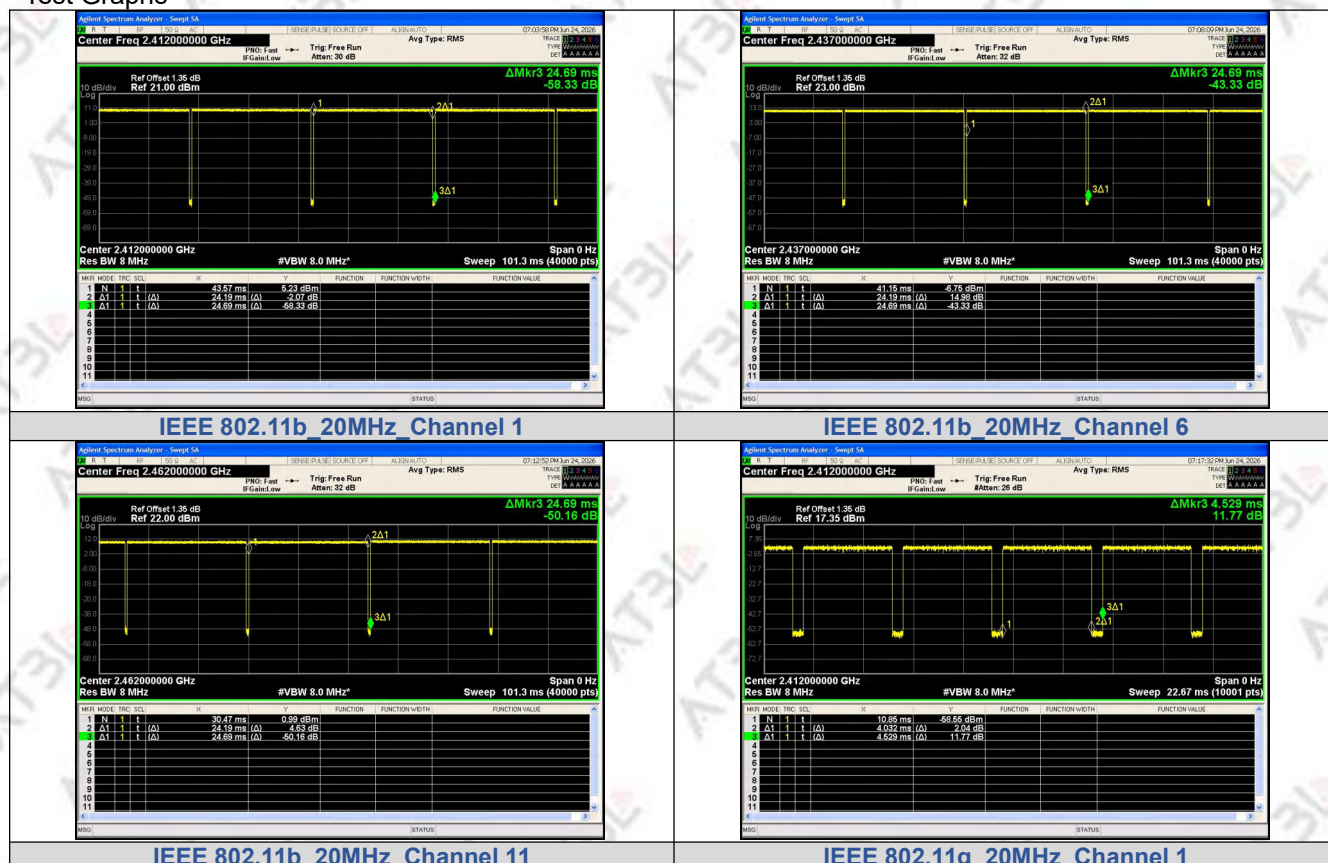


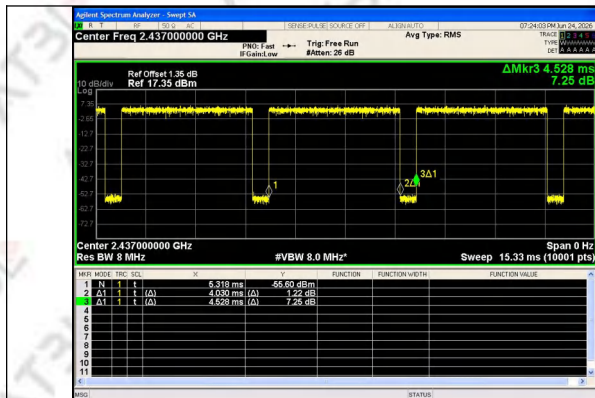
IEEE 802.11ax 40MHz Channel 9

Antenna 2:

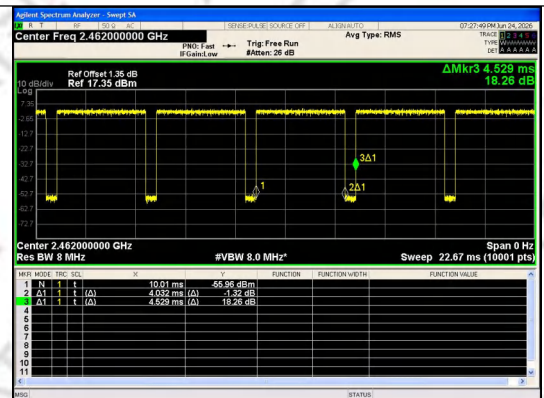
Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
IEEE 802.11b	1	1	2	24.193	24.692	97.98	0.9798	0.0886
		6		24.193	24.692	97.98	0.9798	0.0886
		11		24.193	24.692	97.98	0.9798	0.0886
IEEE 802.11g	6	1		4.032	4.529	89.04	0.8904	0.5041
		6		4.030	4.528	88.99	0.8899	0.5066
		11		4.032	4.529	89.04	0.8904	0.5041
IEEE 802.11n_20	MCS 0	1		3.373	3.869	87.17	0.8717	0.5963
		6		3.369	3.867	87.11	0.8711	0.5993
		11		3.369	3.867	87.11	0.8711	0.5993
IEEE 802.11n_40		3		1.642	2.141	76.69	0.7669	1.1526
		6		1.642	2.142	76.66	0.7666	1.1543
		9		1.642	2.142	76.66	0.7666	1.1543
IEEE 802.11ax_20		1		2.855	3.353	85.14	0.8514	0.6987
		6		2.855	3.353	85.14	0.8514	0.6987
		11		2.857	3.353	85.19	0.8519	0.6961
IEEE 802.11ax_40		3		1.457	1.956	74.49	0.7449	1.279
		6		1.457	1.957	74.45	0.7445	1.2814
		9		1.457	1.956	74.49	0.7449	1.279

Test Graphs

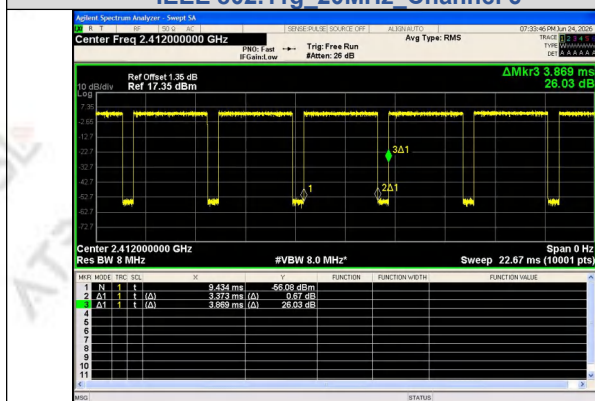




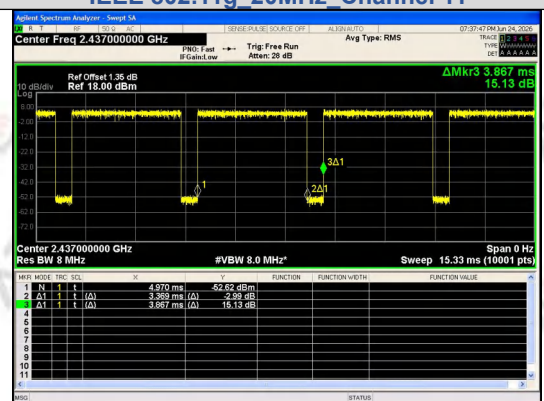
IEEE 802.11g 20MHz Channel 6



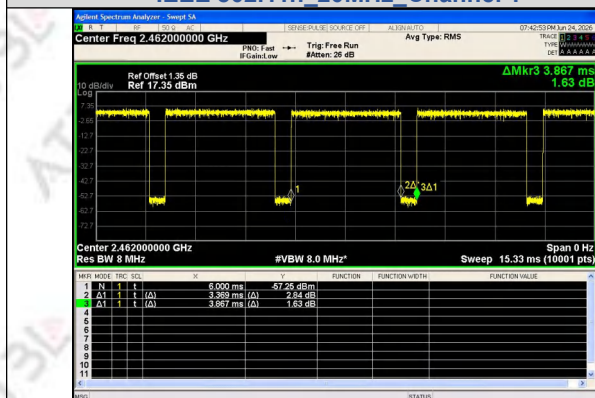
IEEE 802.11g 20MHz Channel 11



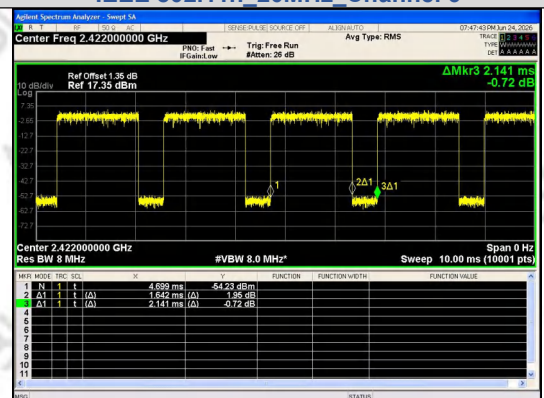
IEEE 802.11n 20MHz Channel 1



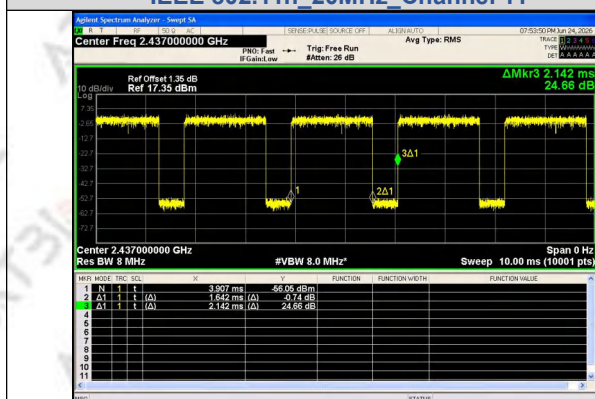
IEEE 802.11n 20MHz Channel 6



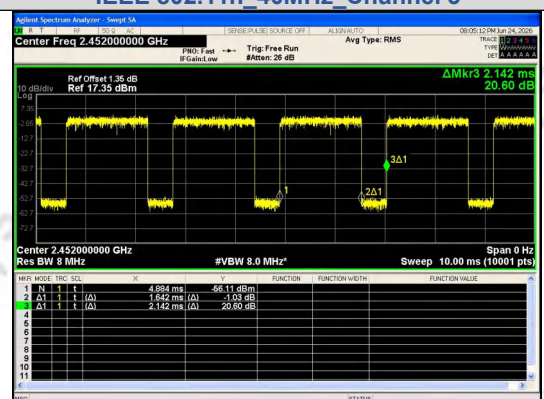
IEEE 802.11n 20MHz Channel 11



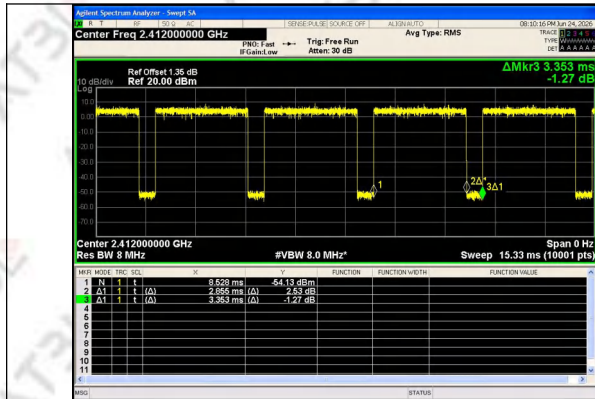
IEEE 802.11n 40MHz Channel 3



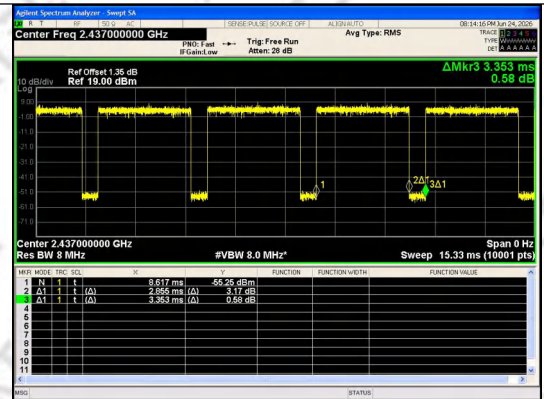
IEEE 802.11n 40MHz Channel 6



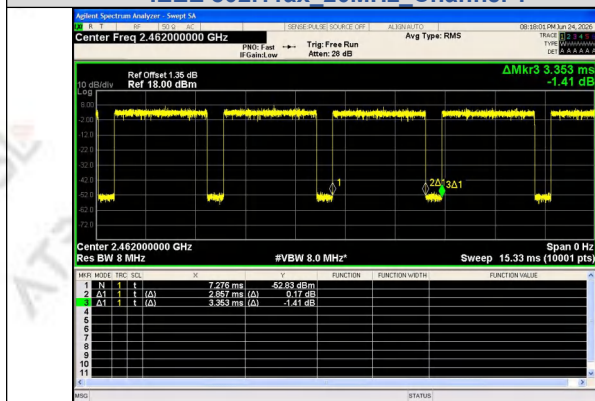
IEEE 802.11n 40MHz Channel 9



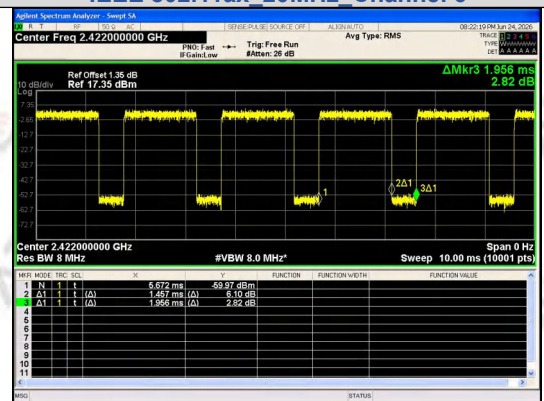
IEEE 802.11ax 20MHz Channel 1



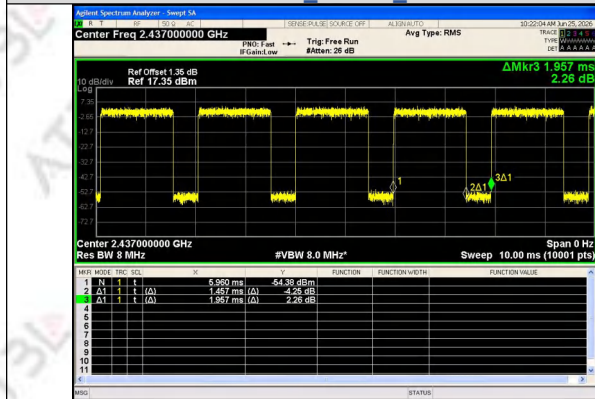
IEEE 802.11ax 20MHz Channel 6



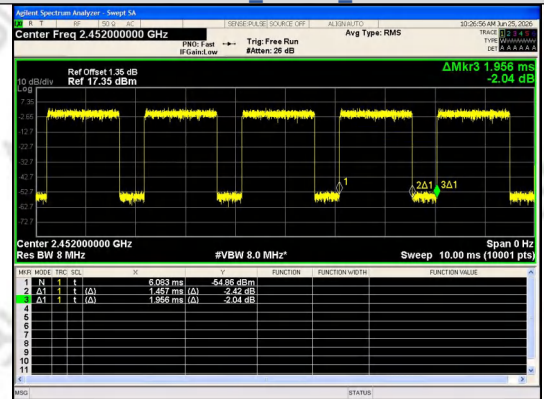
IEEE 802.11ax 20MHz Channel 11



IEEE 802.11ax 40MHz Channel 3



IEEE 802.11ax 40MHz Channel 6



IEEE 802.11ax 40MHz Channel 9

A3.6dB Bandwidth

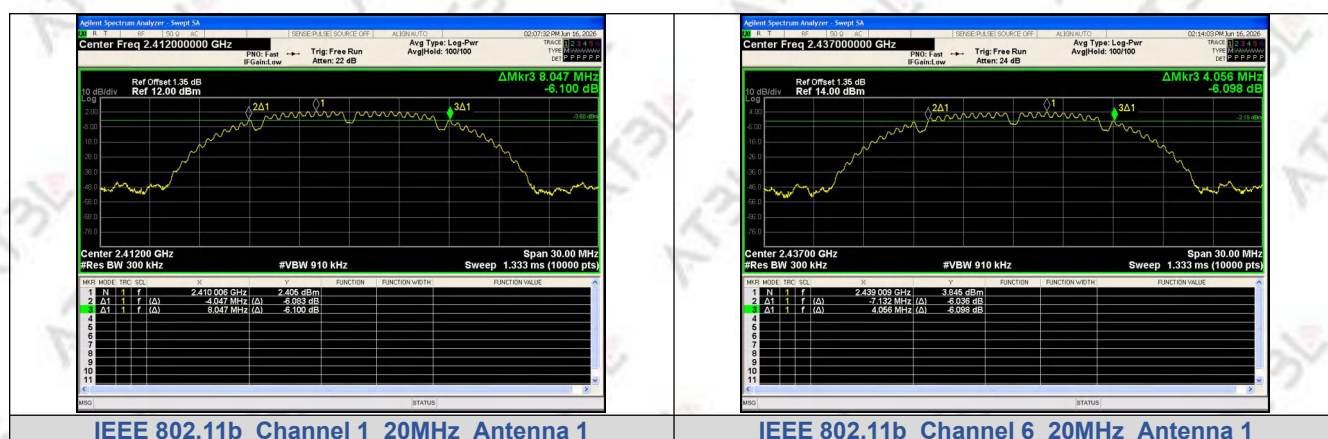
Test Result

Note:

Only the worst data Antenna 1 is represented in the report.

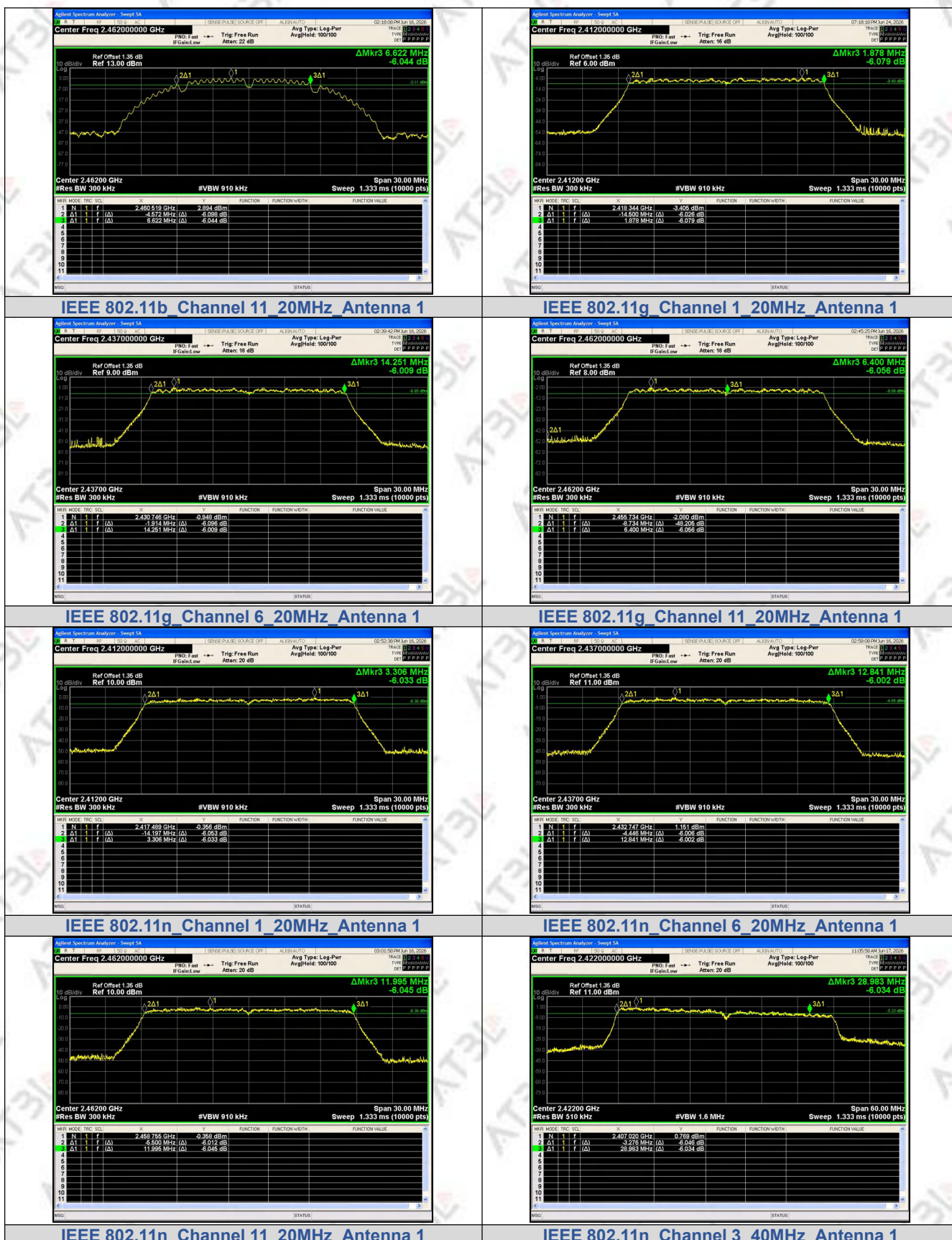
Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	1	2412	12.09	≥0.5	PASS
	6		2437	11.19		PASS
	11		2462	11.19		PASS
IEEE 802.11g	1		2412	16.38		PASS
	6		2437	16.17		PASS
	11		2462	15.13		PASS
IEEE 802.11n_20	1		2412	17.51		PASS
	6		2437	17.29		PASS
	11		2462	17.49		PASS
IEEE 802.11n_40	3		2422	32.26		PASS
	6		2437	35.75		PASS
	9		2452	36.15		PASS
IEEE 802.11ax_20	1		2412	17.06		PASS
	6		2437	18.85		PASS
	11		2462	18.89		PASS
IEEE 802.11ax_40	3		2422	37.67		PASS
	6		2437	37.53		PASS
	9		2452	37.95		PASS

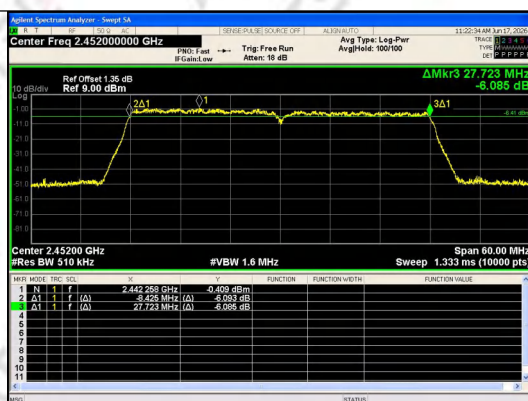
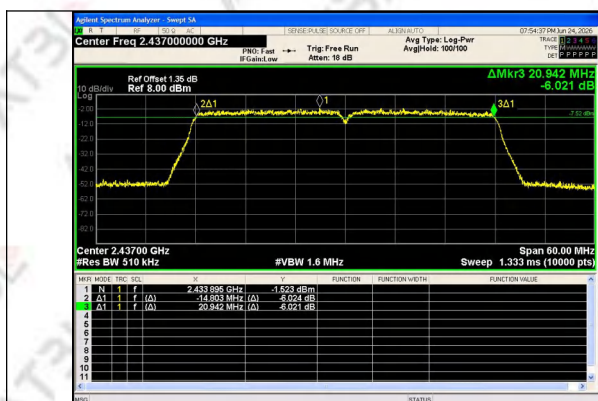
Test Graphs



IEEE 802.11b Channel 1_20MHz_Antenna 1

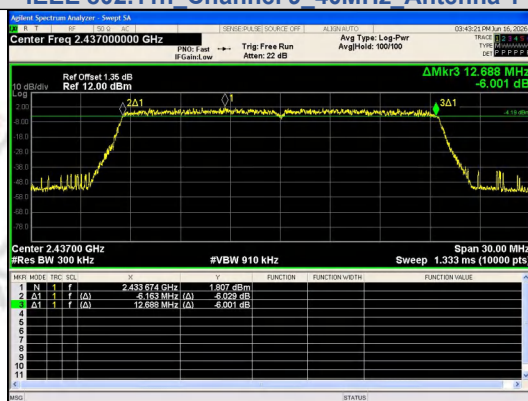
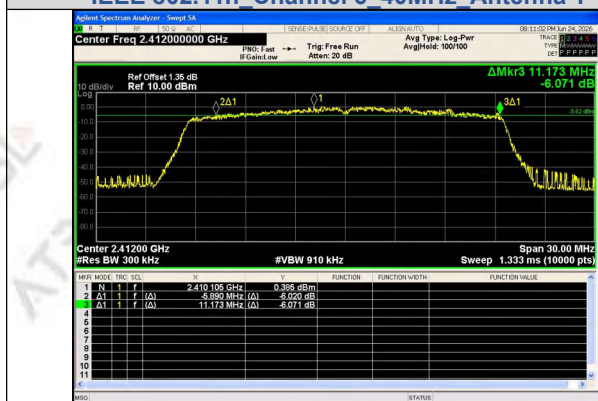
IEEE 802.11b Channel 6_20MHz_Antenna 1





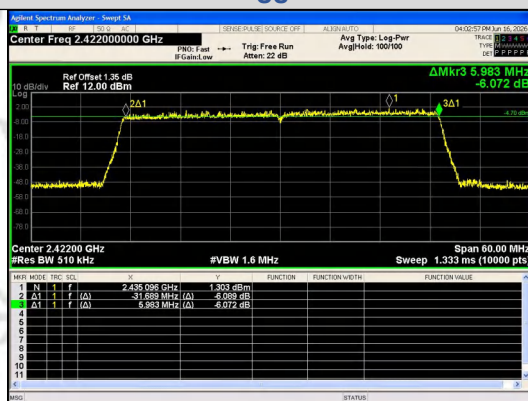
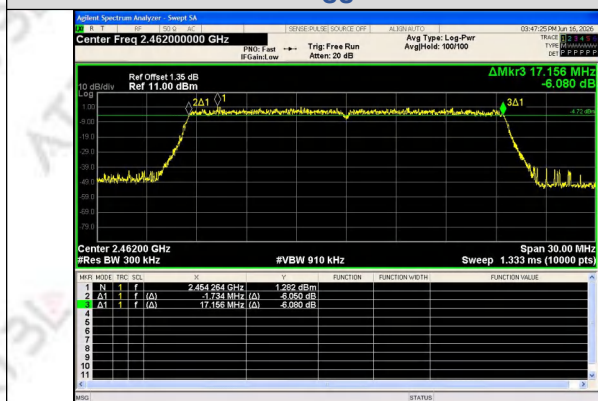
IEEE 802.11n Channel 6 40MHz Antenna 1

IEEE 802.11n Channel 9 40MHz Antenna 1



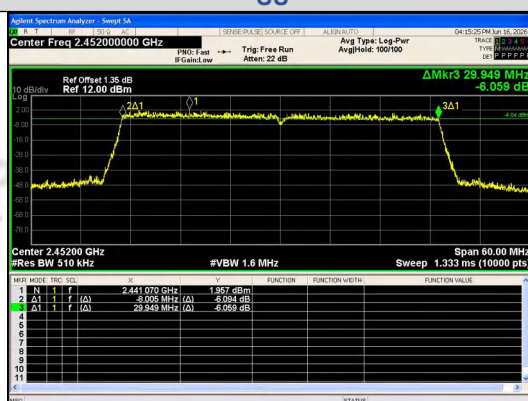
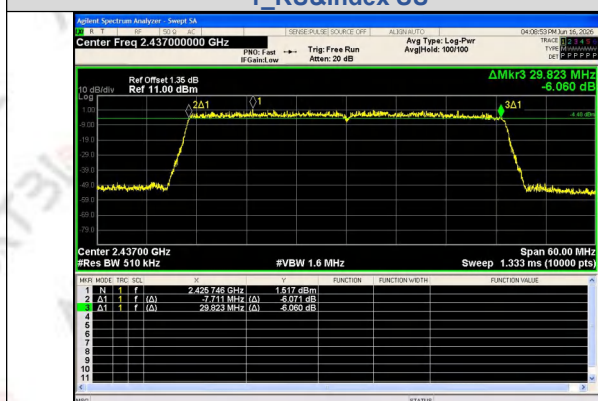
IEEE 802.11ax_Channel 1_20MHz_Antenna 1_RU&Index SU

IEEE 802.11ax_Channel 9_20MHz_Antenna 1_RU&Index SU



IEEE 802.11ax_Channel 11_20MHz_Antenna 1_RU&Index SU

IEEE 802.11ax_Channel 3_40MHz_Antenna 1_RU&Index SU



IEEE 802.11ax_Channel 6_40MHz_Antenna 1_RU&Index SU

IEEE 802.11ax_Channel 9_40MHz_Antenna 1_RU&Index SU

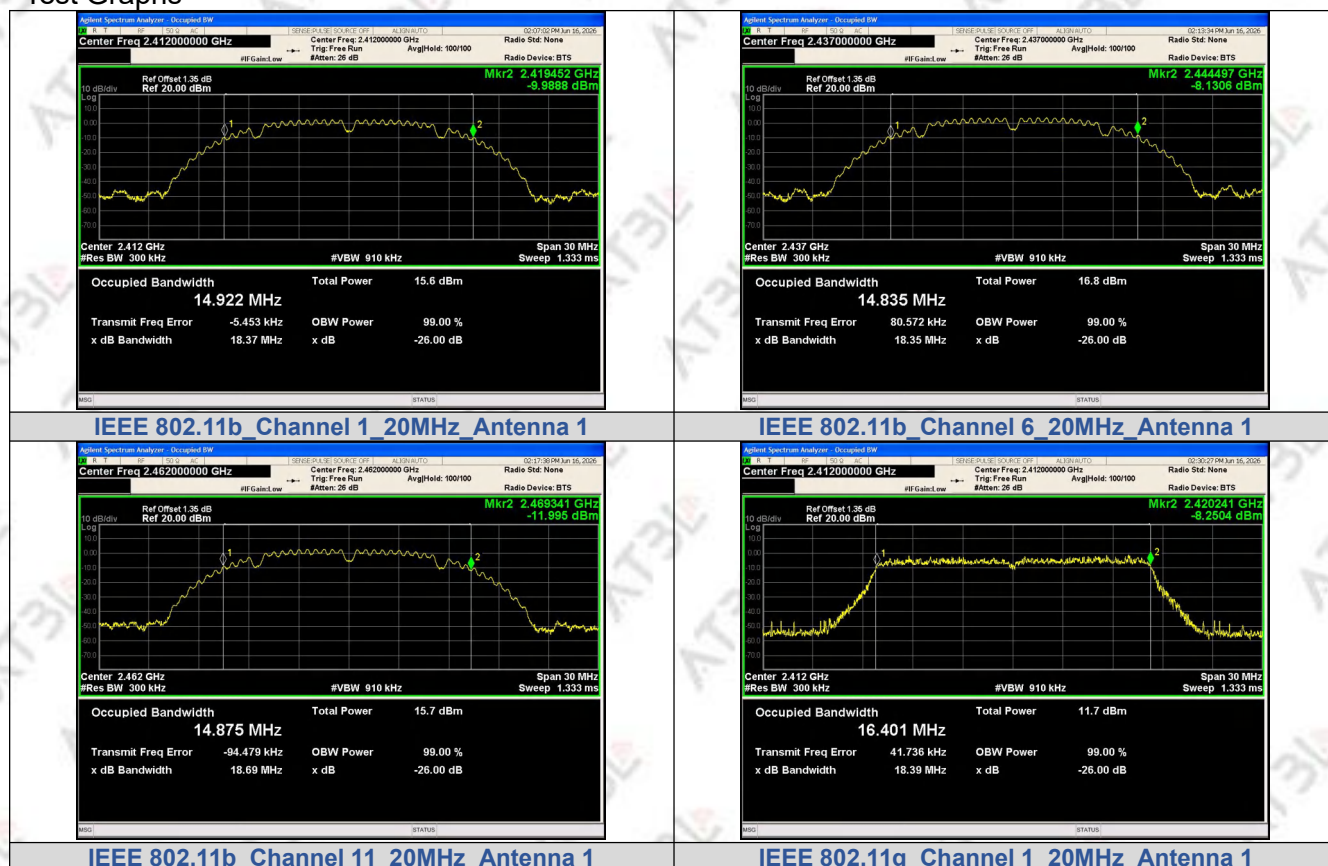
99%dB Bandwidth

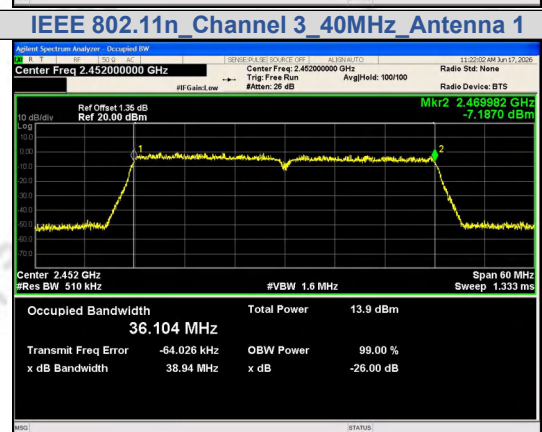
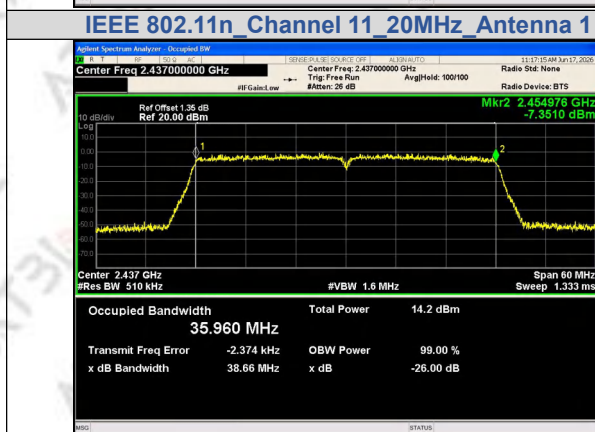
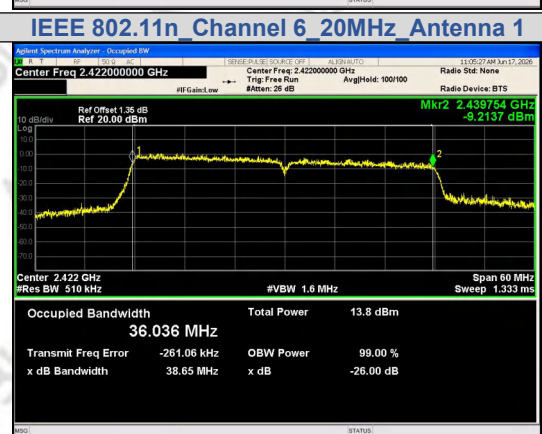
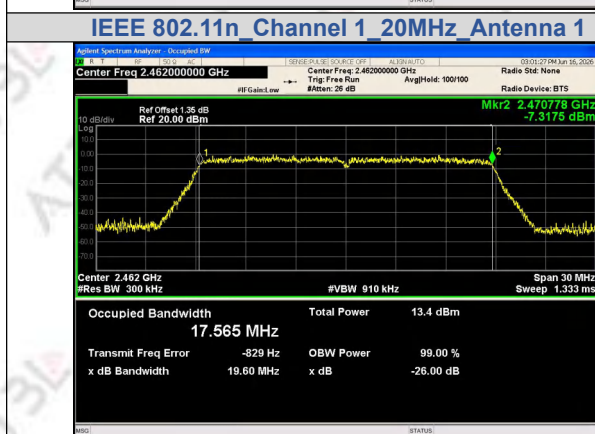
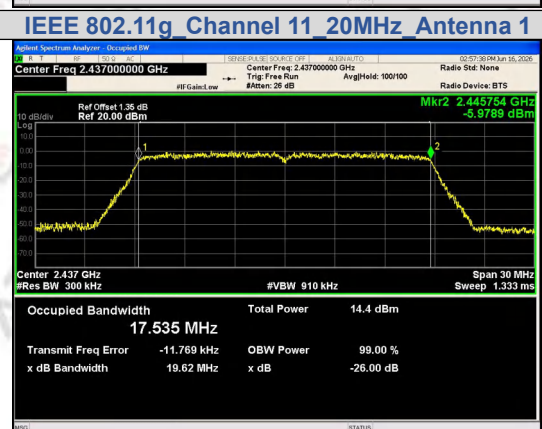
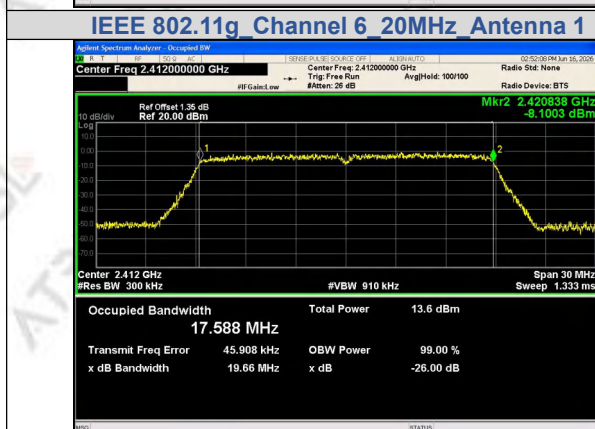
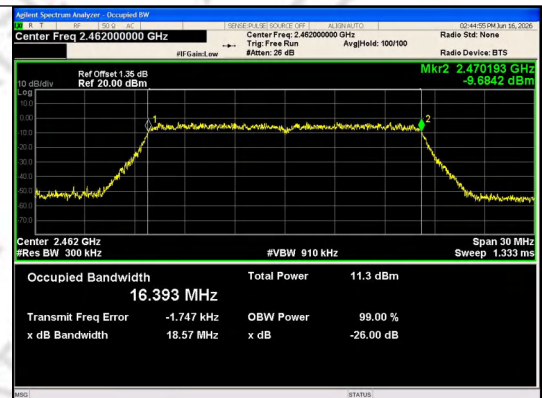
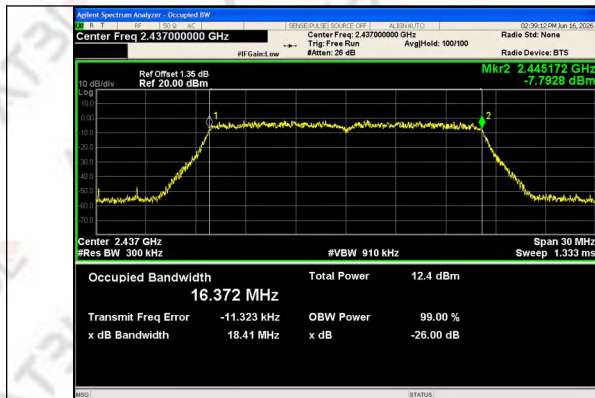
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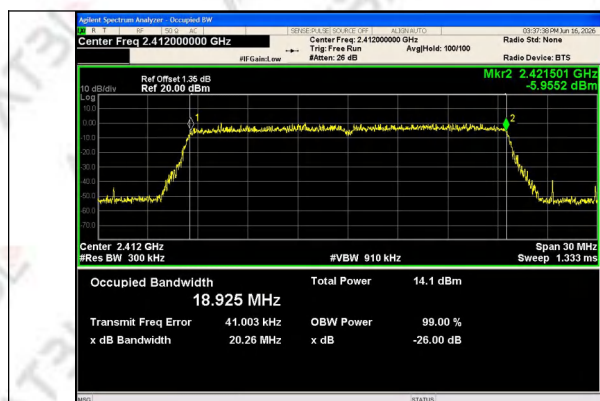
Only the worst data Antenna 1 is represented in the report.

Mode	Channel	Ant.	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11b	1	1	2412	14.922
	6		2437	14.835
	11		2462	14.875
IEEE 802.11g	1		2412	16.401
	6		2437	16.372
	11		2462	16.393
IEEE 802.11n_20	1		2412	17.588
	6		2437	17.535
	11		2462	17.565
IEEE 802.11n_40	3		2422	36.036
	6		2437	35.960
	9		2452	36.104
IEEE 802.11ax_20	1		2412	18.925
	6		2437	18.879
	11		2462	18.919
IEEE 802.11ax_40	3		2422	37.741
	6		2437	37.637
	9		2452	37.813

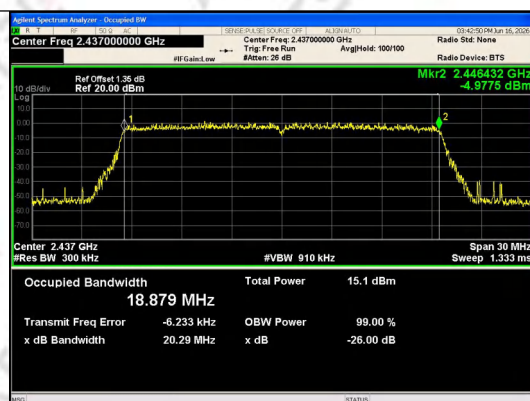
Test Graphs



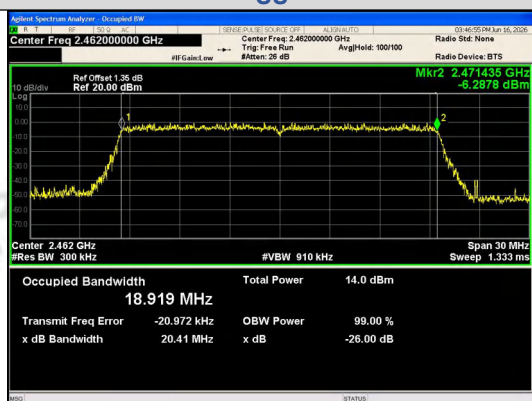




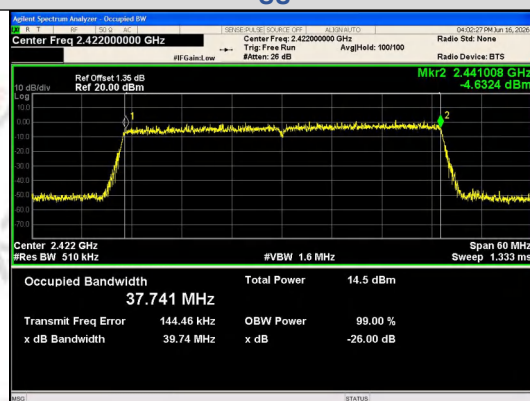
IEEE 802.11ax_Channel 1_20MHz_Antenna 1_RU&Index SU



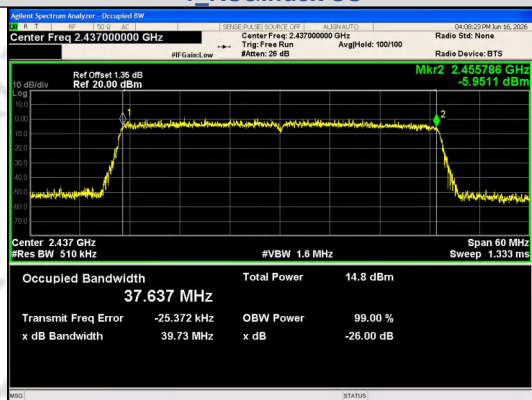
IEEE 802.11ax_Channel 6_20MHz_Antenna 1_RU&Index SU



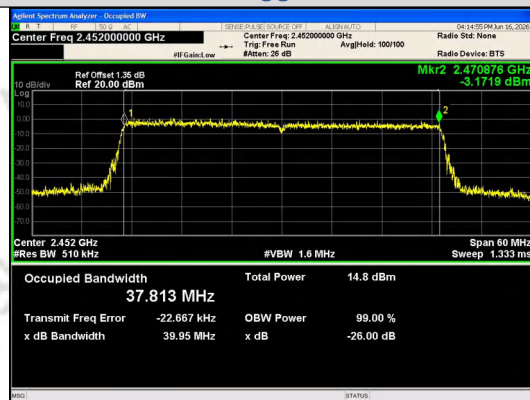
IEEE 802.11ax_Channel 11_20MHz_Antenna 1_RU&Index SU



IEEE 802.11ax_Channel 3_40MHz_Antenna 1_RU&Index SU



IEEE 802.11ax_Channel 6_40MHz_Antenna 1_RU&Index SU



IEEE 802.11ax_Channel 9_40MHz_Antenna 1_RU&Index SU