

A2.Duty Cycle

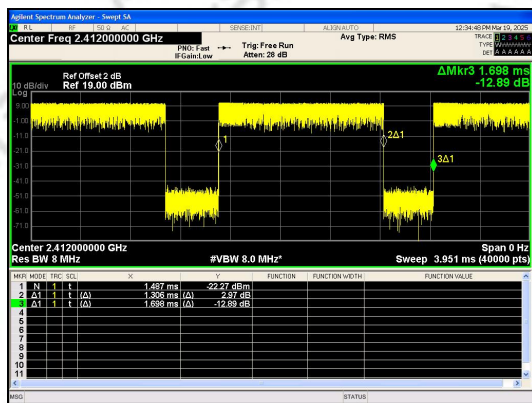
Note:

Only the worst data Antenna 0 is represented in the report.

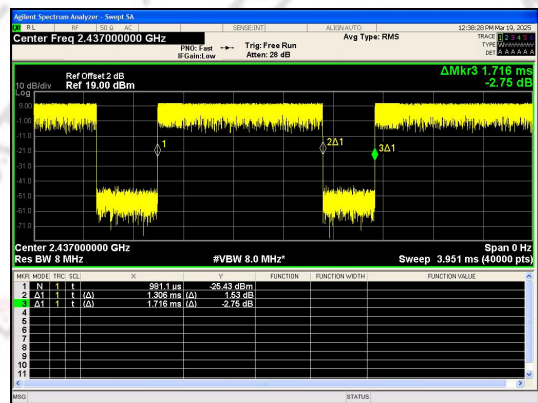
Test Result

Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
IEEE 802.11b	1	1	0	1.306	1.698	76.87	0.7687	1.1424
		6		1.305	1.716	76.06	0.7606	1.1884
		11		1.305	1.761	74.12	0.7412	1.3006
IEEE 802.11g	6	1		0.250	0.452	55.36	0.5536	2.568
		6		0.251	0.434	57.78	0.5778	2.3822
		11		0.251	0.399	62.97	0.6297	2.0087
IEEE 802.11n_20	MCS 0	1		0.230	0.324	71.08	0.7108	1.4825
		6		0.230	0.333	69.12	0.6912	1.604
		11		0.230	0.351	65.60	0.6560	1.831
IEEE 802.11n_40		3		0.130	0.341	38.23	0.3823	4.176
		6		0.130	0.260	50.10	0.5010	3.0016
		9		0.130	0.224	58.14	0.5814	2.3552

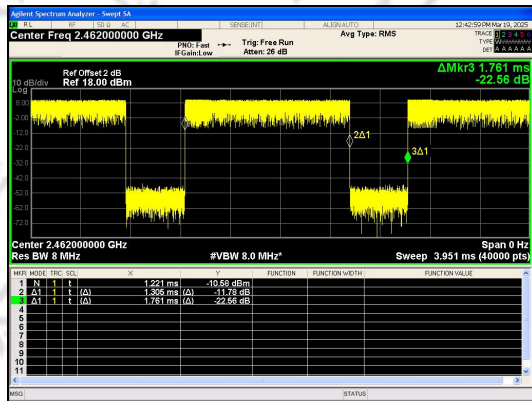
Test Graphs for Ant0



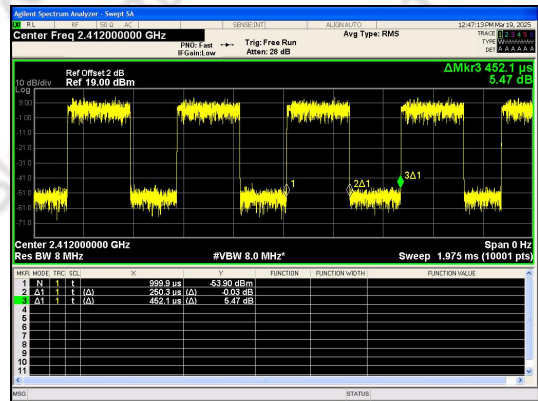
IEEE 802.11b_20MHz_Channel 1



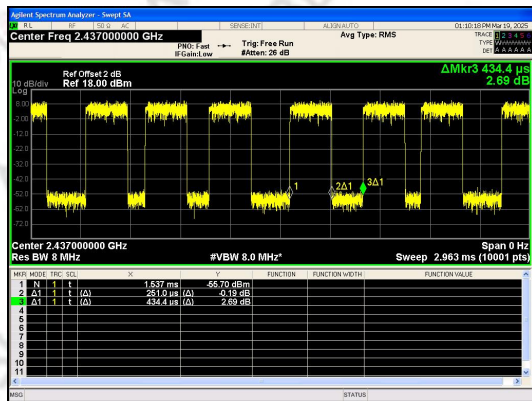
IEEE 802.11b_20MHz_Channel 6



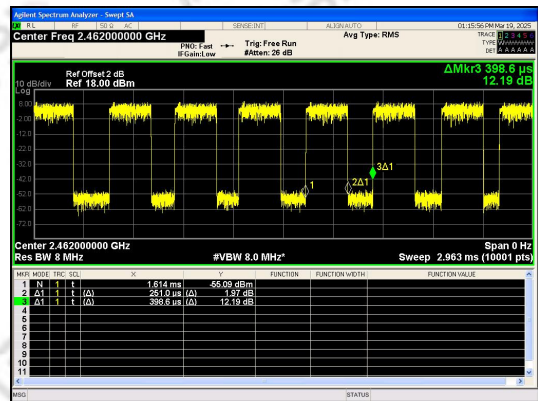
IEEE 802.11b_20MHz_Channel 11



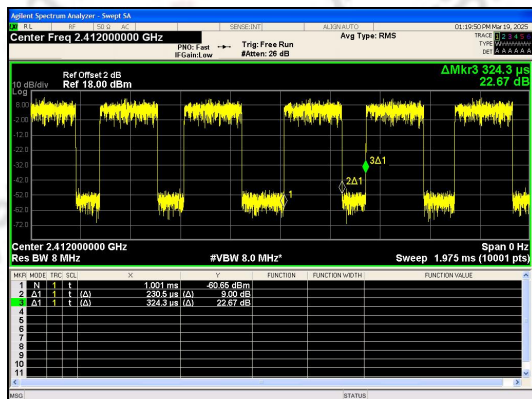
IEEE 802.11g_20MHz_Channel 1



IEEE 802.11g_20MHz_Channel 6



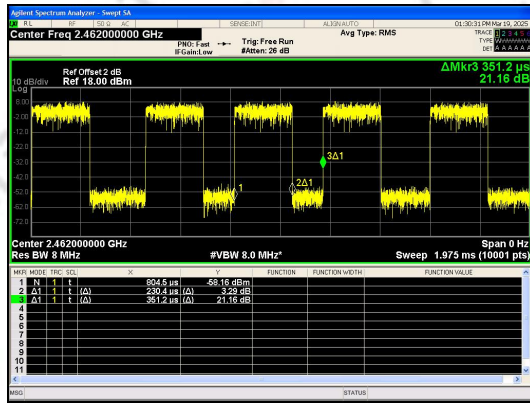
IEEE 802.11g_20MHz_Channel 11



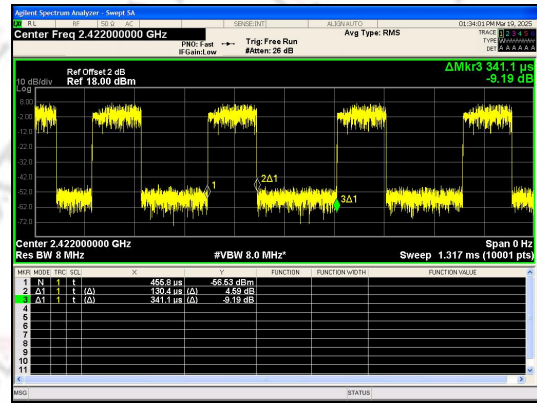
IEEE 802.11n_20MHz_Channel 1



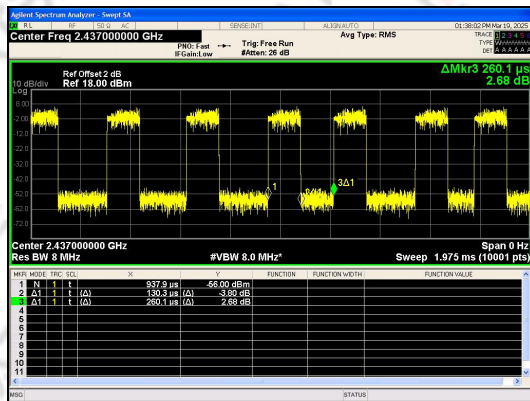
IEEE 802.11n_20MHz_Channel 6



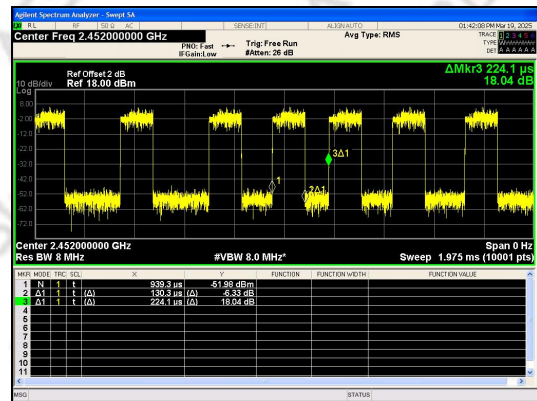
IEEE 802.11n_20MHz_Channel 11



IEEE 802.11n_40MHz_Channel 3



IEEE 802.11n_40MHz_Channel 6



IEEE 802.11n_40MHz_Channel 9

A3.6dB Bandwidth and 99% Bandwidth

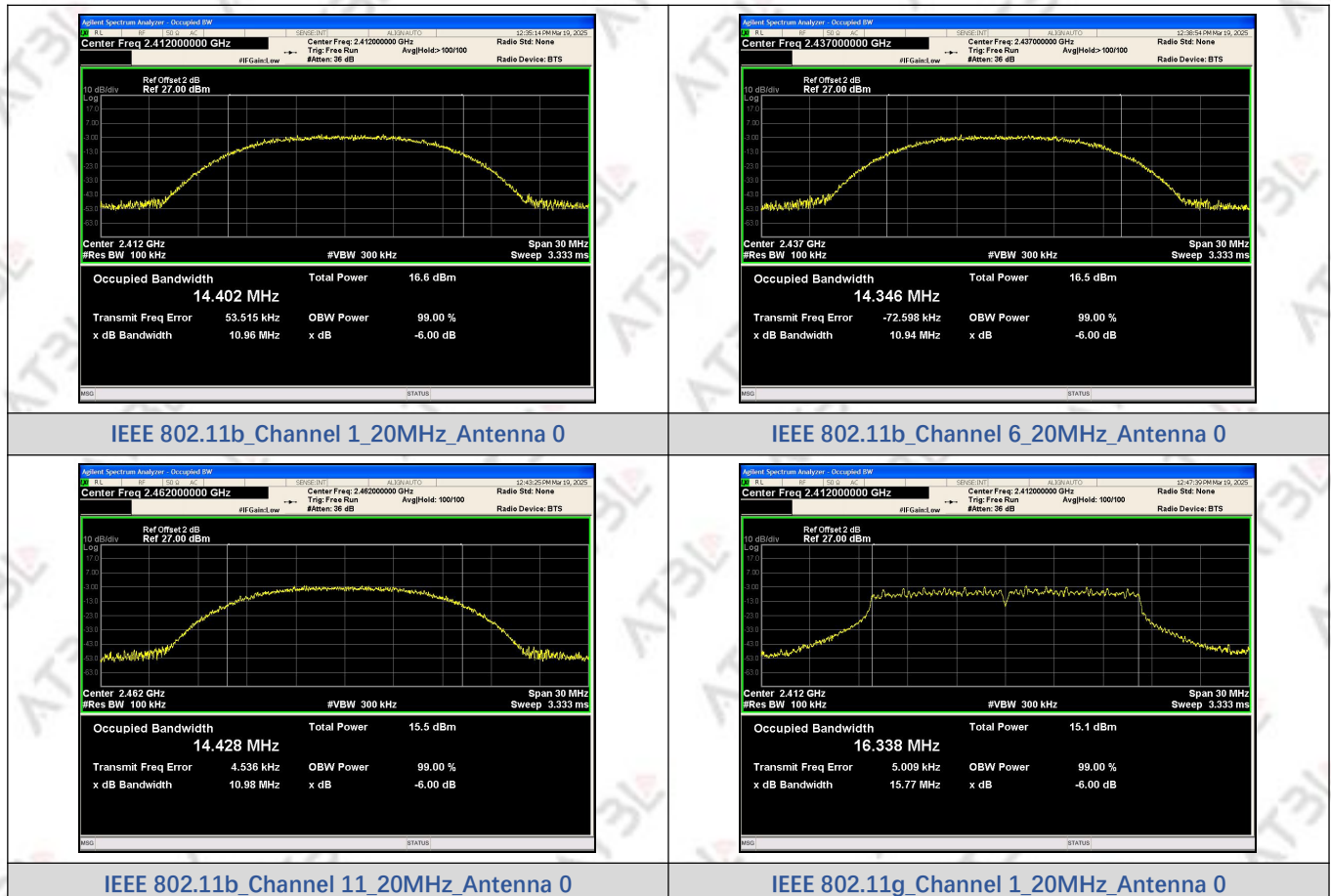
6dB Bandwidth

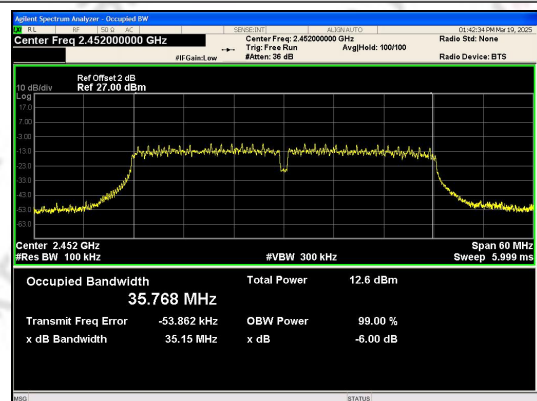
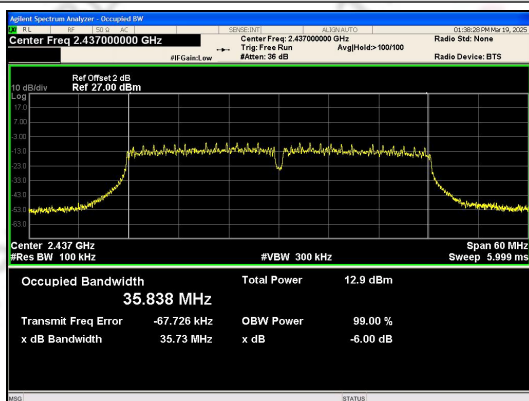
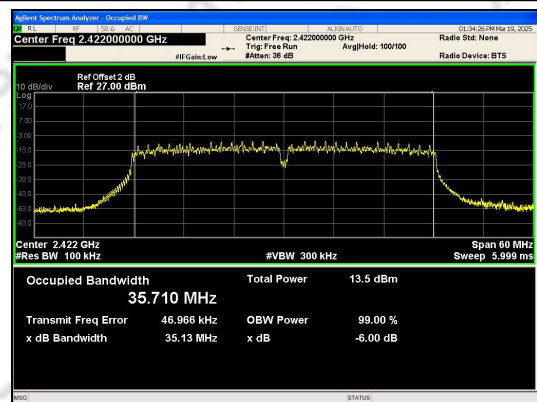
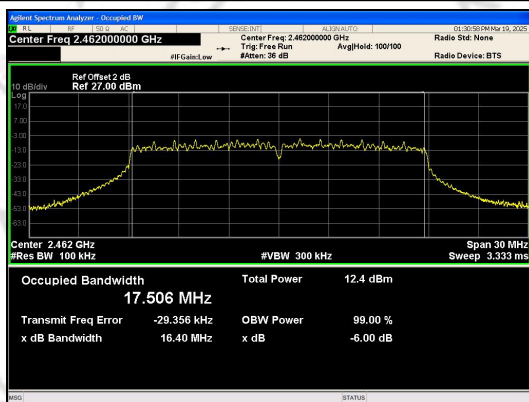
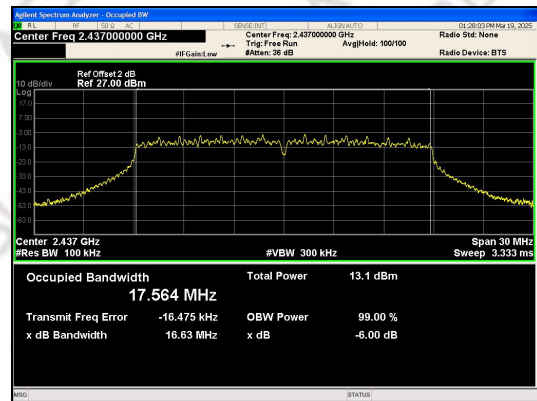
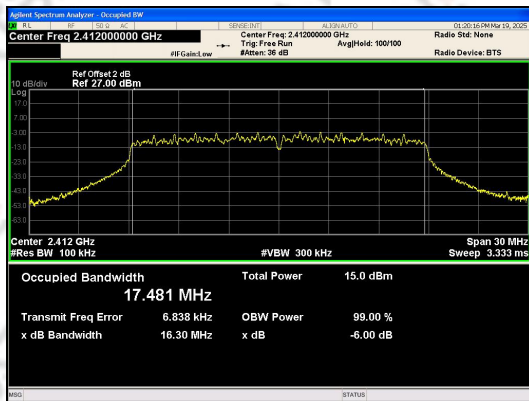
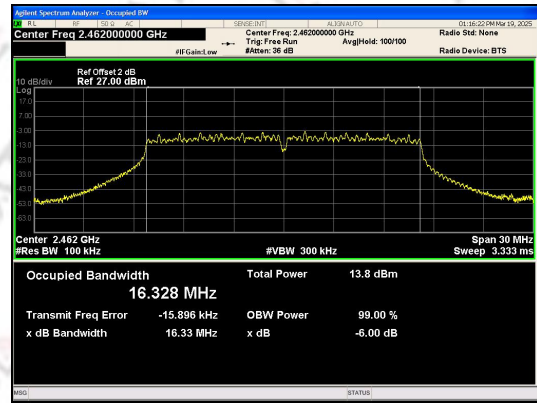
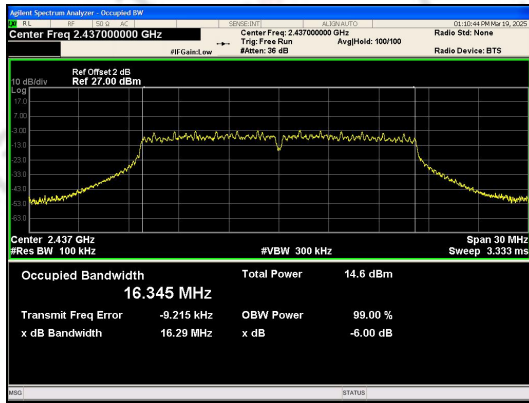
Note:

Only the worst data Antenna 0 is represented in the report.

Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	10.96	≥ 0.5	PASS
	6		2437	10.94		PASS
	11		2462	10.98		PASS
IEEE 802.11g	1		2412	15.77		PASS
	6		2437	16.29		PASS
	11		2462	16.33		PASS
IEEE 802.11n_20	1		2412	16.30		PASS
	6		2437	16.63		PASS
	11		2462	16.40		PASS
IEEE 802.11n_40	3		2422	35.13		PASS
	6		2437	35.73		PASS
	9		2452	35.15		PASS

Test Graphs for Ant0





99% Bandwidth

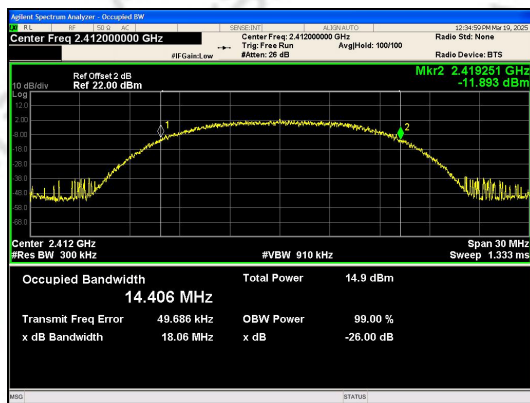
Note:

Only the worst data Antenna 0 is represented in the report.

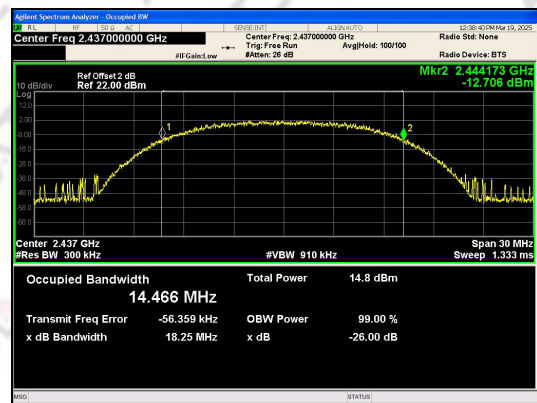
Test Graphs

Mode	Channel	Ant.	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11b	1	0	2412	14.406
	6		2437	14.466
	11		2462	14.493
IEEE 802.11g	1		2412	16.408
	6		2437	16.476
	11		2462	16.496
IEEE 802.11n_20	1		2412	17.630
	6		2437	17.639
	11		2462	17.571
IEEE 802.11n_40	3		2422	35.946
	6		2437	36.037
	9		2452	36.009

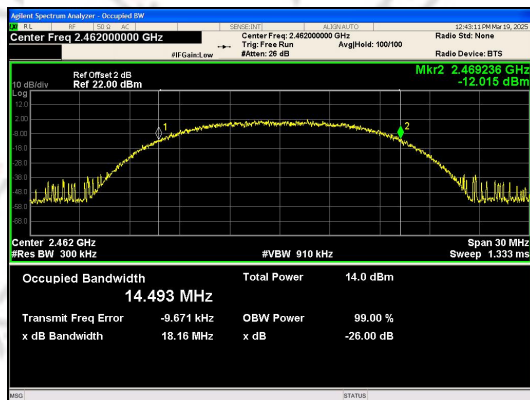
Test Graphs for Ant0



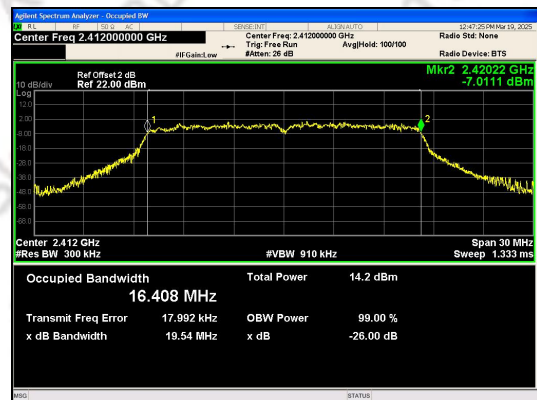
IEEE 802.11b_Channel 1_20MHz_Antenna 0



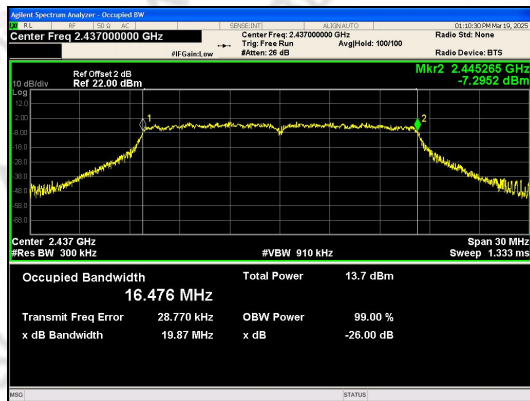
IEEE 802.11b_Channel 6_20MHz_Antenna 0



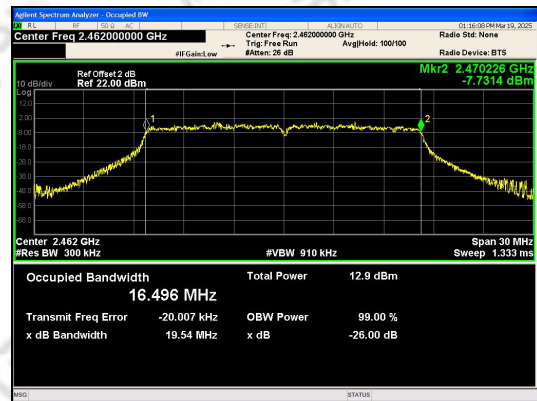
IEEE 802.11b_Channel 11_20MHz_Antenna 0



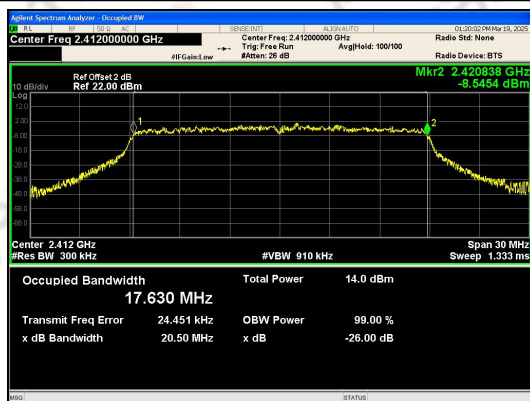
IEEE 802.11g_Channel 1_20MHz_Antenna 0



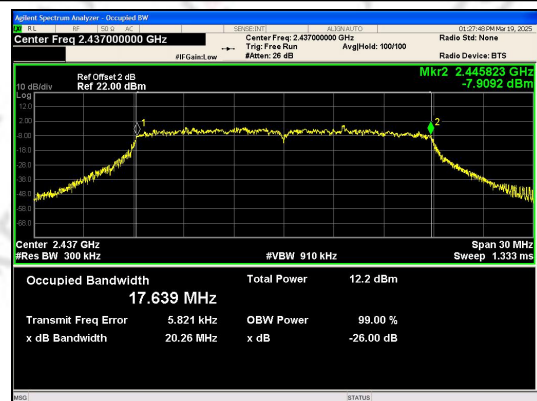
IEEE 802.11g_Channel 6_20MHz_Antenna 0



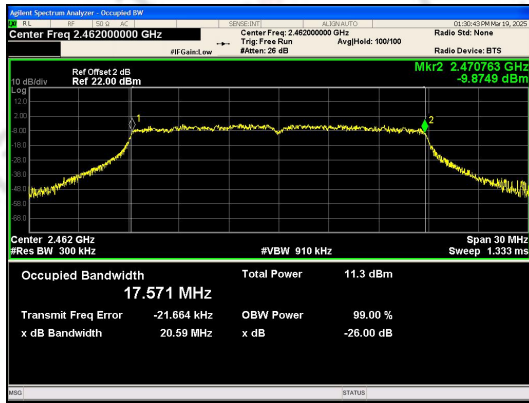
IEEE 802.11g_Channel 11_20MHz_Antenna 0



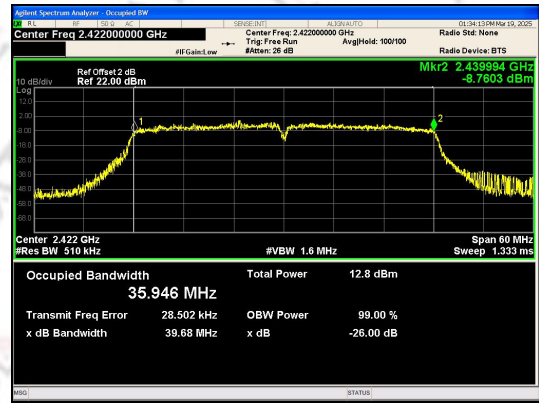
IEEE 802.11n_Channel 1_20MHz_Antenna 0



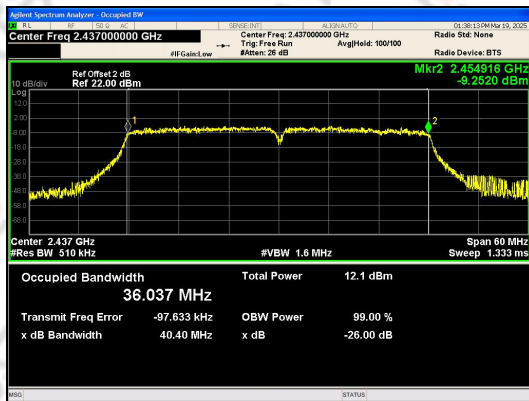
IEEE 802.11n_Channel 6_20MHz_Antenna 0



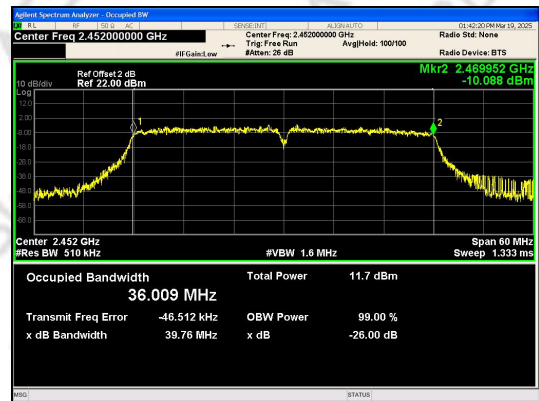
IEEE 802.11n_Channel 11_20MHz_Antenna 0



IEEE 802.11n_Channel 3_40MHz_Antenna 0



IEEE 802.11n_Channel 6_40MHz_Antenna 0



IEEE 802.11n_Channel 9_40MHz_Antenna 0

A4.Power Spectral Density

Test Result

Mode	Channel	PSD (dBm/3kHz) Ant. 0	PSD (dBm/3kHz) Ant. 1	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-14.362	-16.063	N/A	8	PASS
	6	-15.120	-18.896	N/A		PASS
	11	-16.334	-19.736	N/A		PASS
IEEE 802.11g	1	-17.587	-18.296	N/A		PASS
	6	-18.064	-19.219	N/A		PASS
	11	-19.137	-19.688	N/A		PASS
IEEE 802.11n_20	1	-19.727	-20.182	-16.938	5.99	PASS
	6	-20.537	-23.559	-18.780		PASS
	11	-21.031	-23.519	-19.089		PASS
IEEE 802.11n_40	3	-22.668	-24.315	-20.404		PASS
	6	-22.640	-25.226	-20.733		PASS
	9	-24.504	-24.990	-21.730		PASS

Note:

- The power density of antenna 0 and antenna 1 is converted into milliwatt units, and the added power density is taken logarithmically and multiplied by 10.
- For 802.11n : Directional gain = $G_{ANT} + 10 \log(N_{ANT}) \text{ dBi} = 5 + 10 \log(2) = 8.01 > 6 \text{ dBi}$, so the power limit shall be reduced to $8 - (8.01 - 6) = 5.99 \text{ dBm}$

Test Graphs for Ant0

