



Keyway Testing Technology (Guangdong) Co., Ltd
21 Floor,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China

E.U.T:	Power Pro Plus Control System
Model Number:	WF-3611
Trade Name:	WFCO
Date of Receipt:	May 19, 2025
Date of Test:	May 20~Jun. 05, 2025
FCC ID:	2BDDW-WF3611

A.1 CONDUCTED OUTPUT POWER

Test Result

Conducted Output Power

Mode	Channel	Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	18.25	≤30	PASS
	6	17.73	≤30	PASS
	11	17.50	≤30	PASS
IEEE 802.11g	1	17.53	≤30	PASS
	6	17.01	≤30	PASS
	11	17.73	≤30	PASS
IEEE 802.11n_20	1	16.81	≤30	PASS
	6	16.41	≤30	PASS
	11	16.18	≤30	PASS
IEEE 802.11n_40	3	16.43	≤30	PASS
	6	16.94	≤30	PASS
	9	16.93	≤30	PASS



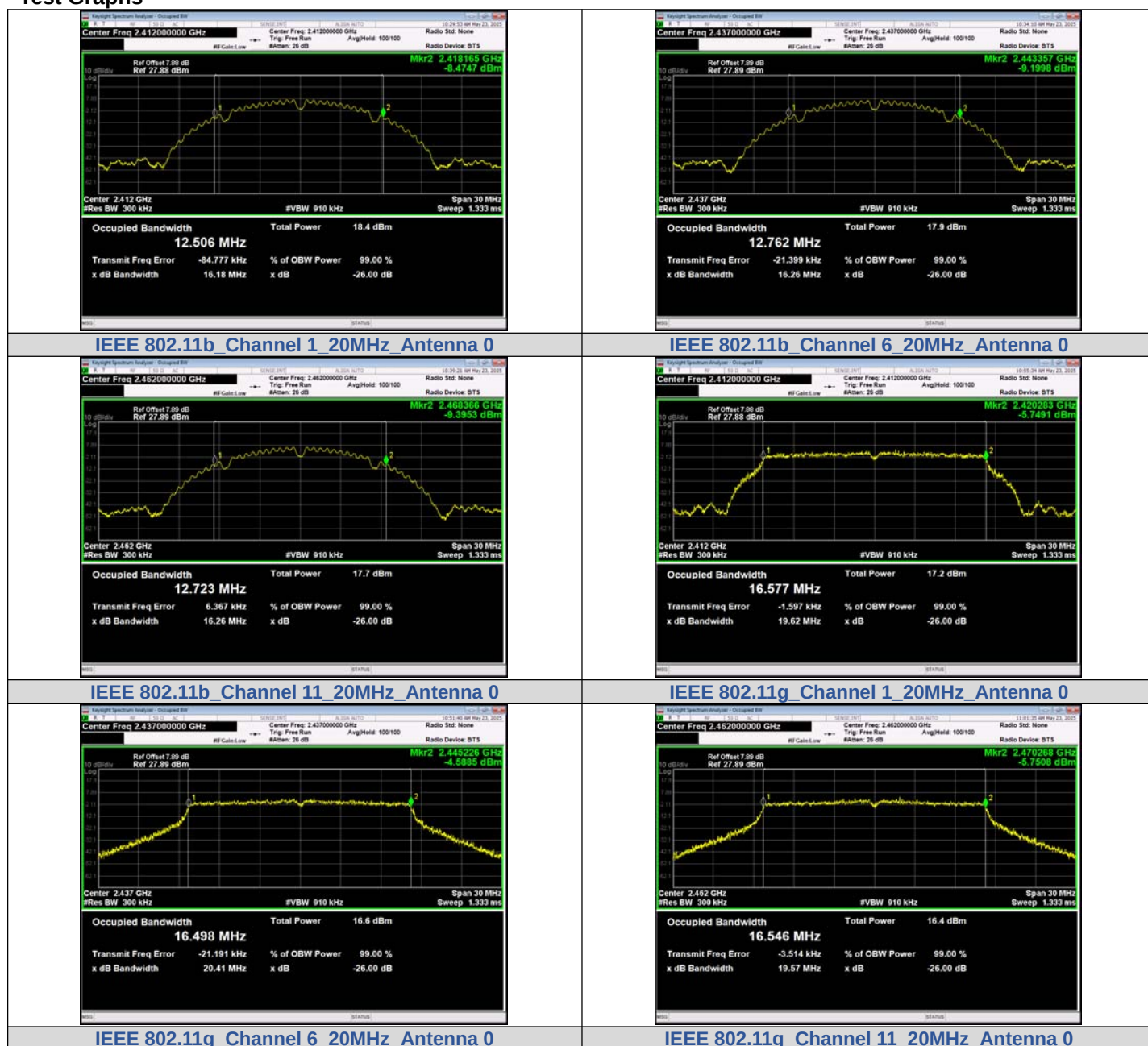
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A.2 99% BANDWIDTH

Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11b	1	0	2412	12.506
	6		2437	12.762
	11		2462	12.723
IEEE 802.11g	1		2412	16.577
	6		2437	16.498
	11		2462	16.546
IEEE 802.11n_20	1		2412	17.669
	6		2437	17.718
	11		2462	17.732
IEEE 802.11n_40	3		2422	35.972
	6		2437	35.968
	9		2452	35.959

Test Graphs





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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



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A.3 6DB BANDWIDTH

Test Result

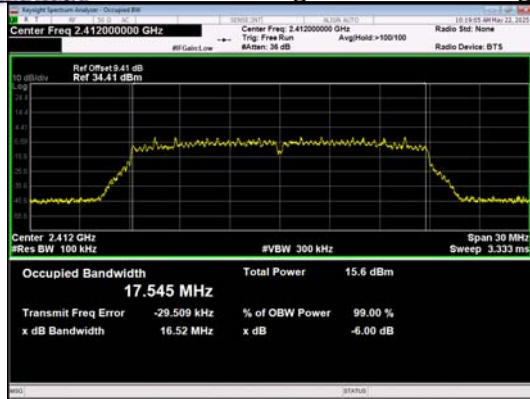
Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	1	0	2412	11.08	≥0.5	PASS
	6		2437	11.09		PASS
	11		2462	11.08		PASS
IEEE 802.11g	1		2412	15.77		PASS
	6		2437	15.79		PASS
	11		2462	15.77		PASS
IEEE 802.11n_20	1		2412	16.52		PASS
	6		2437	16.85		PASS
	11		2462	16.89		PASS
IEEE 802.11n_40	3		2422	36.00		PASS
	6		2437	36.35		PASS
	9		2452	35.26		PASS

Test Graphs

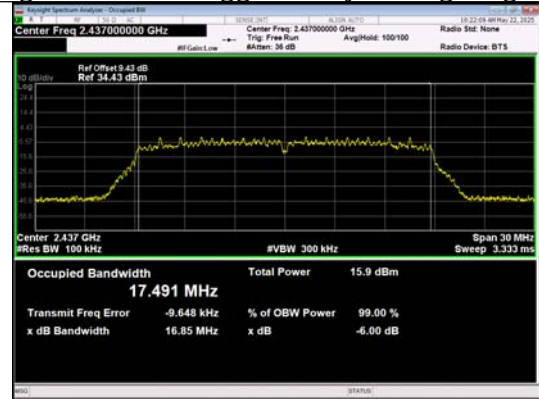




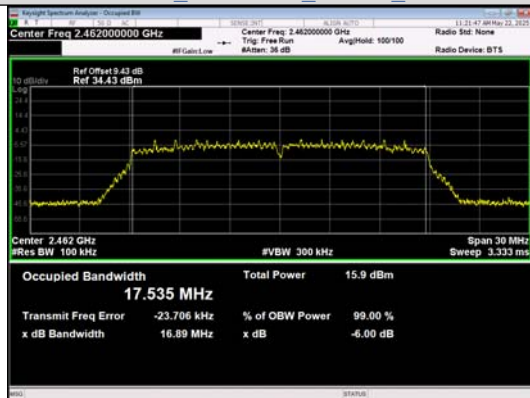
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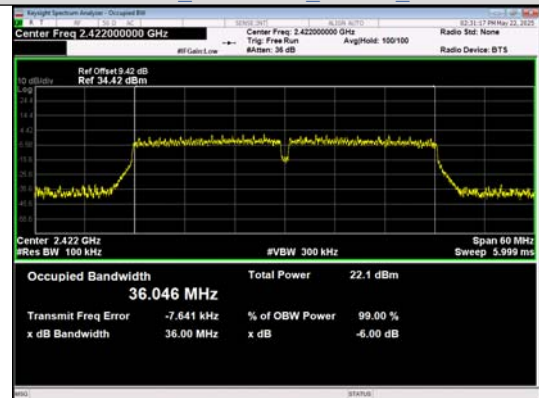
IEEE 802.11n Channel 1 20MHz Antenna 0



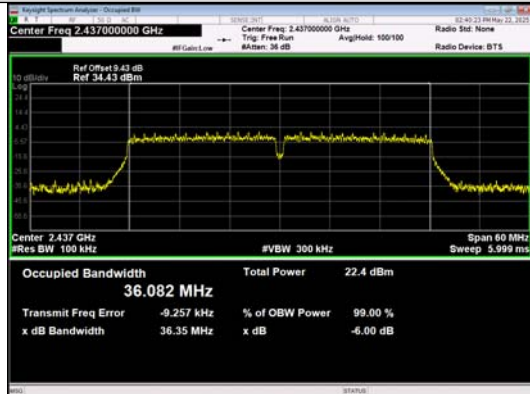
IEEE 802.11n Channel 6 20MHz Antenna 0



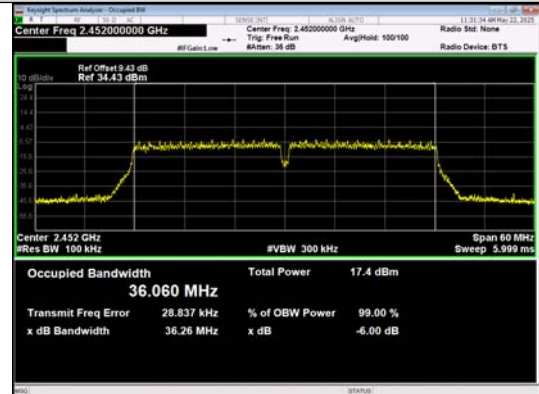
IEEE 802.11n Channel 11 20MHz Antenna 0



IEEE 802.11n Channel 3 40MHz Antenna 0



IEEE 802.11n Channel 6 40MHz Antenna 0



IEEE 802.11n Channel 9 40MHz Antenna 0



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A.4 CONDUCTED OUT OF BAND EMISSION

Test Result

Mode	Channel	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
IEEE 802.11b	1	0	2398.27	-42.498	-13.09	-29.409	PASS
			2400.00	-42.626	-13.09	-29.536	PASS
			4831.10	-53.078	-13.09	-39.988	PASS
			7255.70	-54.750	-13.09	-41.660	PASS
			9645.30	-56.296	-13.09	-43.206	PASS
	6		21592.8	-42.765	-13.09	-29.675	PASS
			4856.70	-53.735	-13.51	-40.225	PASS
			7309.38	-54.948	-13.51	-41.438	PASS
			9740.83	-55.878	-13.51	-42.368	PASS
			24899.5	-41.996	-13.51	-28.486	PASS
	11		2483.50	-46.088	-13.96	-32.128	PASS
			4925.37	-52.884	-13.96	-38.924	PASS
			7377.42	-54.799	-13.96	-40.839	PASS
			9841.96	-55.180	-13.96	-41.220	PASS
			21168.4	-42.885	-13.96	-28.925	PASS
IEEE 802.11g	1		2400.00	-41.925	-19.15	-22.775	PASS
			4834.23	-52.865	-19.15	-33.715	PASS
			7233.22	-53.758	-19.15	-34.608	PASS
			9642.83	-54.821	-19.15	-35.671	PASS
			21130.3	-43.107	-19.15	-23.957	PASS
	6		4877.93	-52.519	-19.36	-33.159	PASS
			7330.60	-55.079	-19.36	-35.719	PASS
			9739.58	-56.151	-19.36	-36.791	PASS
			21169.6	-41.973	-19.36	-22.613	PASS
			2483.50	-46.006	-19.51	-26.496	PASS
	11		4927.87	-53.712	-19.51	-34.202	PASS
			7378.05	-55.022	-19.51	-35.512	PASS
			9857.57	-55.086	-19.51	-35.576	PASS
			21218.9	-42.513	-19.51	-23.003	PASS
			2400.00	-42.826	-20.61	-22.216	PASS
IEEE 802.11n_20	1		4838.60	-53.006	-20.61	-32.396	PASS
			7236.34	-55.005	-20.61	-34.395	PASS
			9657.18	-56.078	-20.61	-35.468	PASS
			21567.9	-41.468	-20.61	-20.858	PASS
			4873.56	-53.701	-20.77	-32.931	PASS
	6		7314.37	-55.791	-20.77	-35.022	PASS
			9742.08	-55.722	-20.77	-34.953	PASS
			21167.1	-43.131	-20.77	-22.361	PASS
			2483.50	-45.705	-21.08	-24.625	PASS
			4924.74	-53.607	-21.08	-32.527	PASS
	11		7388.03	-55.392	-21.08	-34.312	PASS
			9866.93	-55.319	-21.08	-34.239	PASS
			21591.6	-43.135	-21.08	-22.055	PASS
			2397.62	-42.814	-22.36	-20.454	PASS
			2400.00	-43.805	-22.36	-21.445	PASS
IEEE 802.11n_40	3		4853.00	-52.603	-22.36	-30.243	PASS
			7259.40	-53.949	-22.36	-31.589	PASS
			9710.20	-55.604	-22.36	-33.244	PASS
			21581.0	-42.816	-22.36	-20.456	PASS
			4912.26	-53.401	-15.77	-37.632	PASS
	6		7319.37	-54.574	-15.77	-38.803	PASS
			9774.54	-55.966	-15.77	-40.196	PASS
			21586.0	-42.236	-15.77	-26.466	PASS
			2483.50	-34.818	-15.8	-19.018	PASS
			4871.06	-52.300	-15.8	-36.500	PASS
	9		7354.95	-54.621	-15.8	-38.821	PASS
			9828.23	-55.073	-15.8	-39.273	PASS
			21551.6	-42.856	-15.8	-27.056	PASS

Test Graphs

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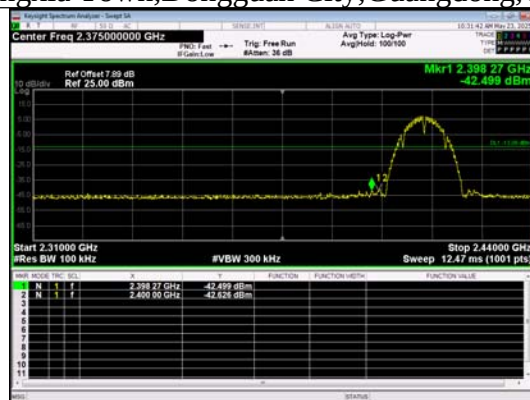
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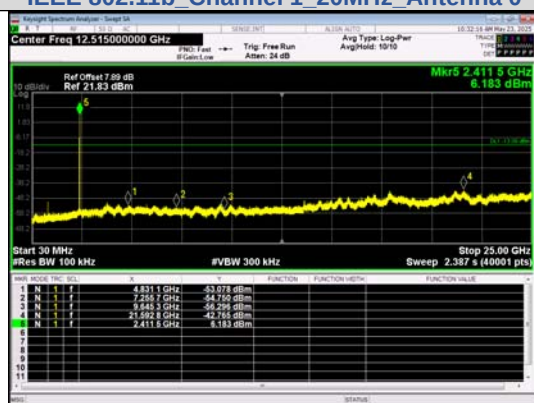
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In-Band Reference Level
IEEE 802.11b Channel 1 20MHz Antenna 0



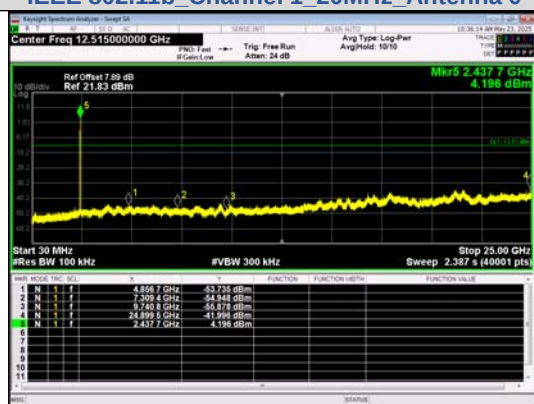
Out Of Band Emission
IEEE 802.11b Channel 1 20MHz Antenna 0



30.0 MHz - 25000.0 MHz
IEEE 802.11b Channel 1 20MHz Antenna 0



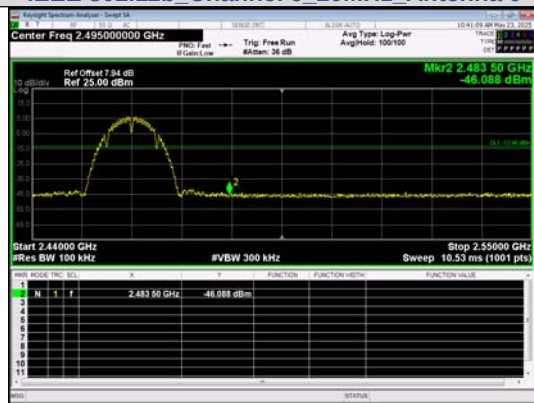
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30.0 MHz - 25000.0 MHz
IEEE 802.11b Channel 6 20MHz Antenna 0



In-Band Reference Level
IEEE 802.11b Channel 11 20MHz Antenna 0



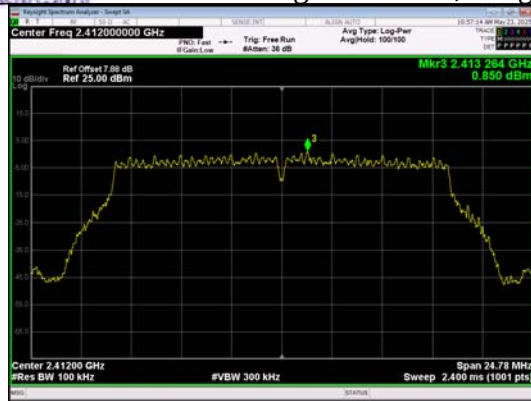
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IEEE 802.11b Channel 11 20MHz Antenna 0



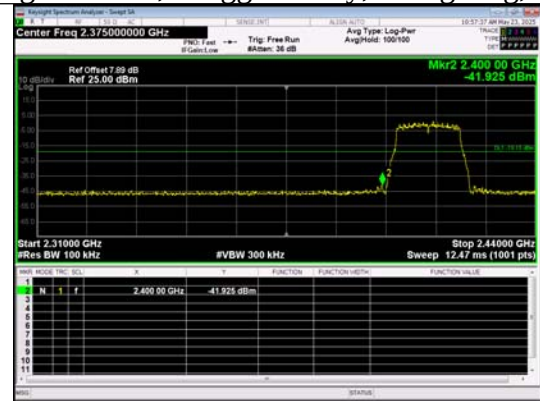
30.0 MHz - 25000.0 MHz
IEEE 802.11b Channel 11 20MHz Antenna 0



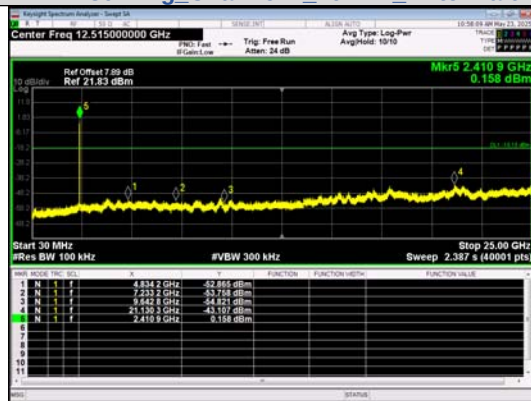
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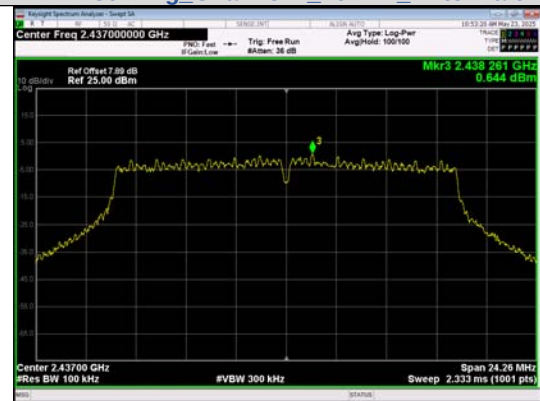
In-Band Reference Level
IEEE 802.11g Channel 1 20MHz Antenna 0



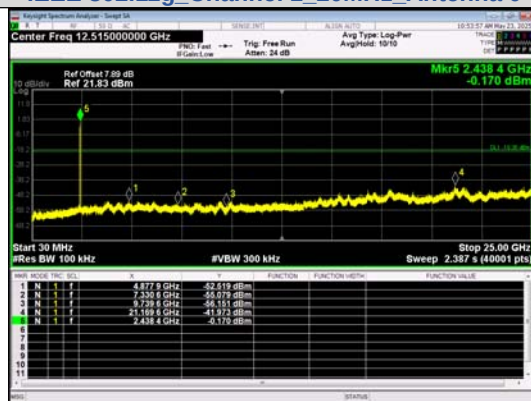
Out Of Band Emission
IEEE 802.11g Channel 1 20MHz Antenna 0



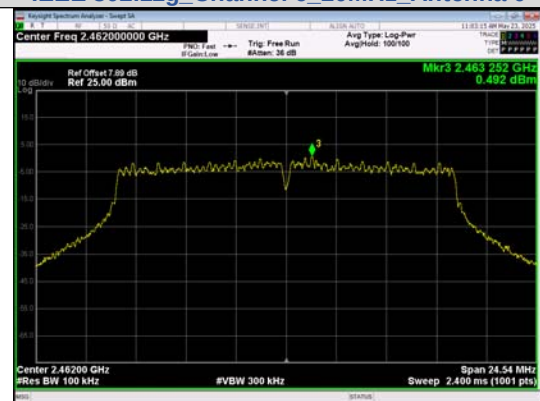
30.0 MHz - 25000.0 MHz
IEEE 802.11g Channel 1 20MHz Antenna 0



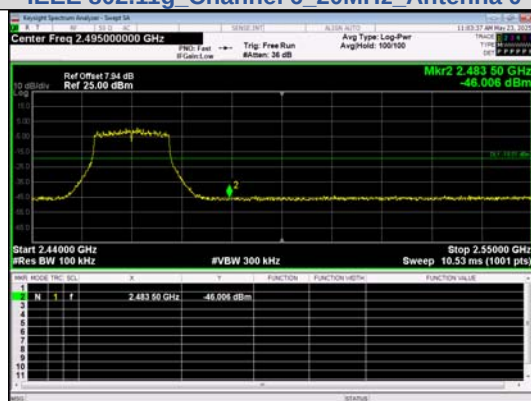
In-Band Reference Level
IEEE 802.11g Channel 6 20MHz Antenna 0



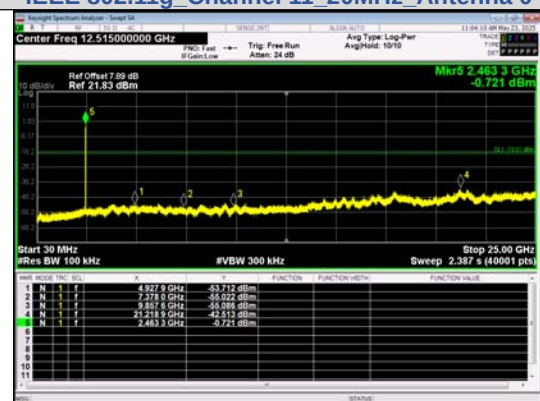
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IEEE 802.11g Channel 6 20MHz Antenna 0



In-Band Reference Level
IEEE 802.11g Channel 11 20MHz Antenna 0



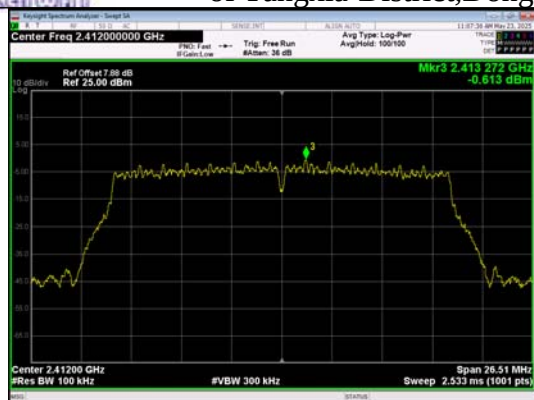
Out Of Band Emission
IEEE 802.11g Channel 11 20MHz Antenna 0



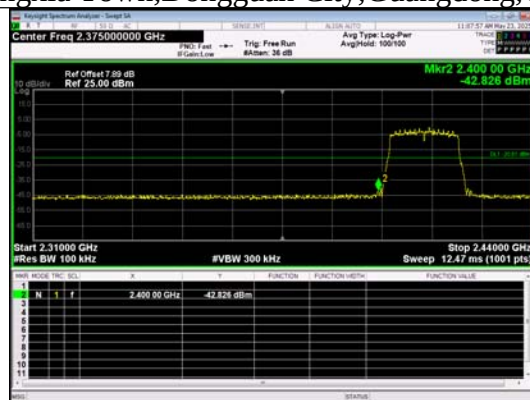
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IEEE 802.11g Channel 11 20MHz Antenna 0



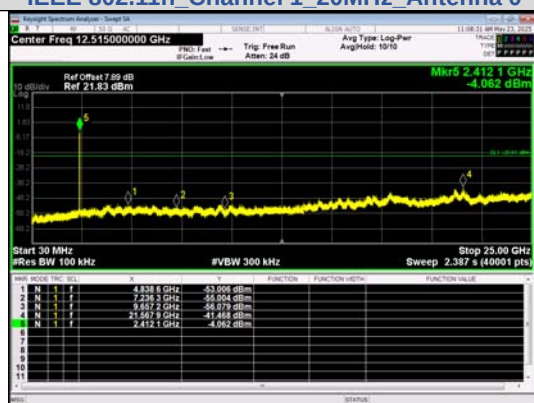
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In-Band Reference Level
IEEE 802.11n Channel 1 20MHz Antenna 0



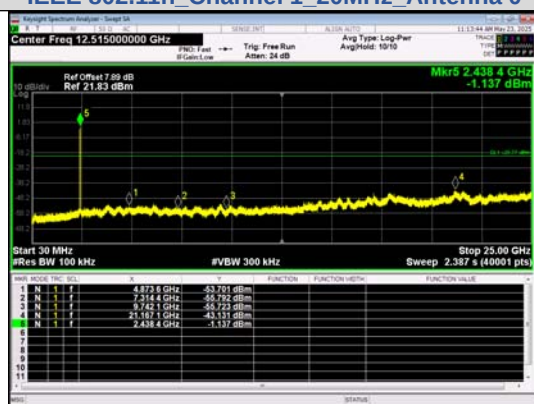
Out Of Band Emission
IEEE 802.11n Channel 1 20MHz Antenna 0



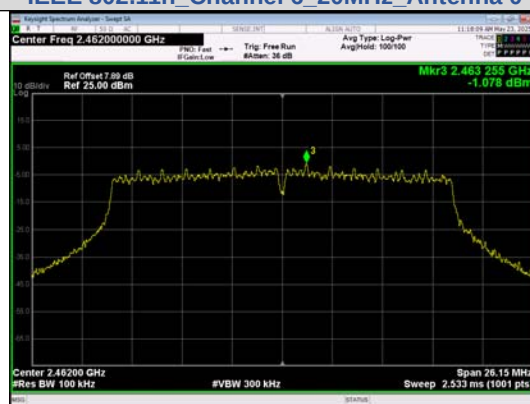
30.0 MHz - 25000.0 MHz
IEEE 802.11n Channel 1 20MHz Antenna 0



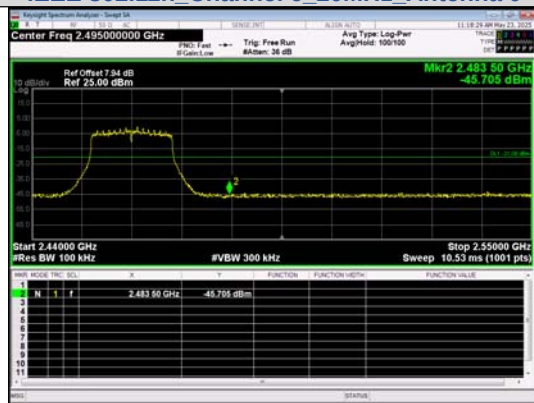
In-Band Reference Level
IEEE 802.11n Channel 6 20MHz Antenna 0



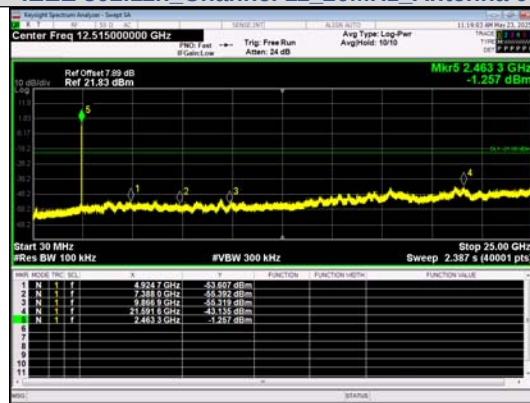
30.0 MHz - 25000.0 MHz
IEEE 802.11n Channel 6 20MHz Antenna 0



In-Band Reference Level
IEEE 802.11n Channel 11 20MHz Antenna 0



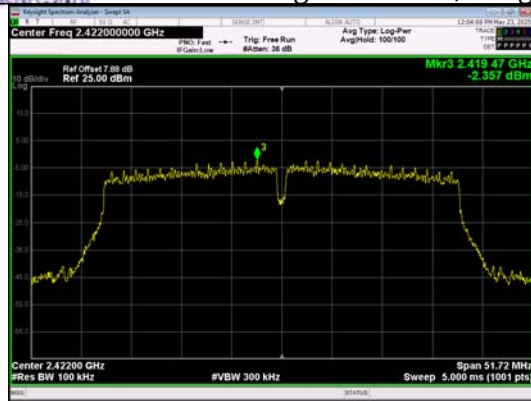
Out Of Band Emission
IEEE 802.11n Channel 11 20MHz Antenna 0



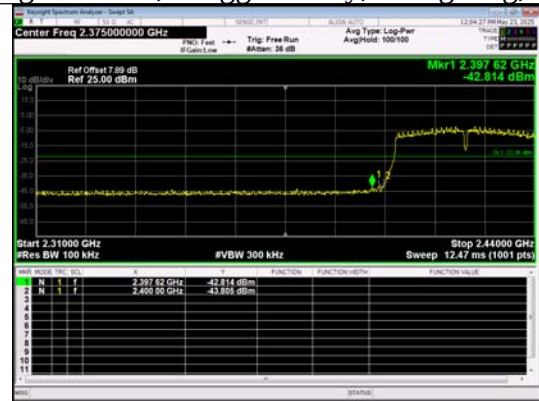
30.0 MHz - 25000.0 MHz
IEEE 802.11n Channel 11 20MHz Antenna 0



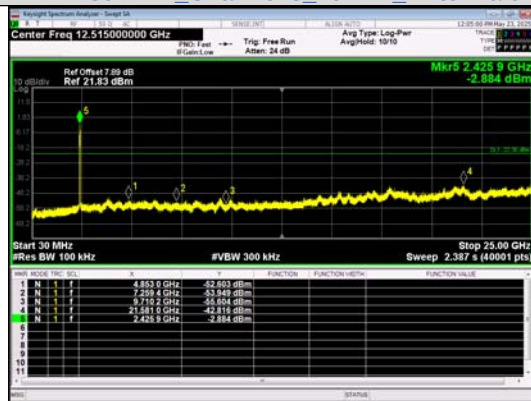
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In-Band Reference Level
IEEE 802.11n Channel 3 40MHz Antenna 0



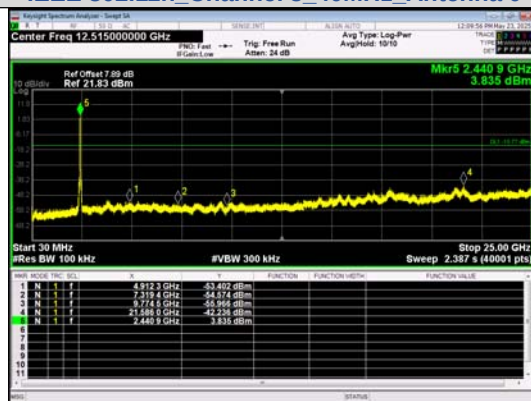
Out Of Band Emission
IEEE 802.11n Channel 3 40MHz Antenna 0



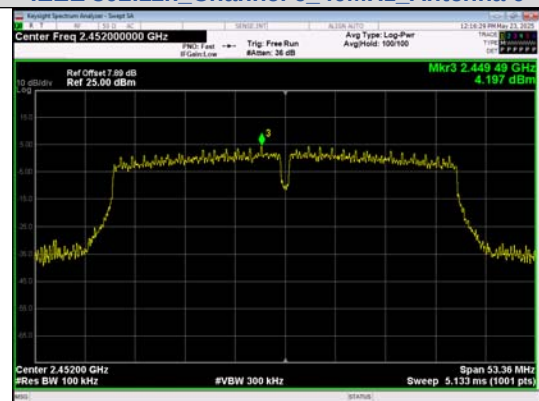
30.0 MHz - 25000.0 MHz
IEEE 802.11n Channel 3 40MHz Antenna 0



In-Band Reference Level
IEEE 802.11n Channel 6 40MHz Antenna 0



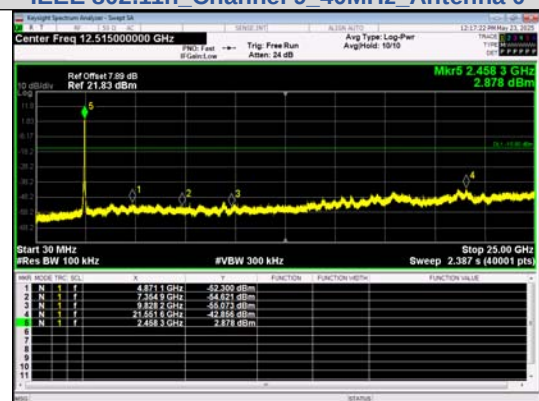
30.0 MHz - 25000.0 MHz
IEEE 802.11n Channel 6 40MHz Antenna 0



In-Band Reference Level
IEEE 802.11n Channel 9 40MHz Antenna 0



Out Of Band Emission
IEEE 802.11n Channel 9 40MHz Antenna 0



30.0 MHz - 25000.0 MHz
IEEE 802.11n Channel 9 40MHz Antenna 0



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A.5 DUTY CYCLE

Test Result

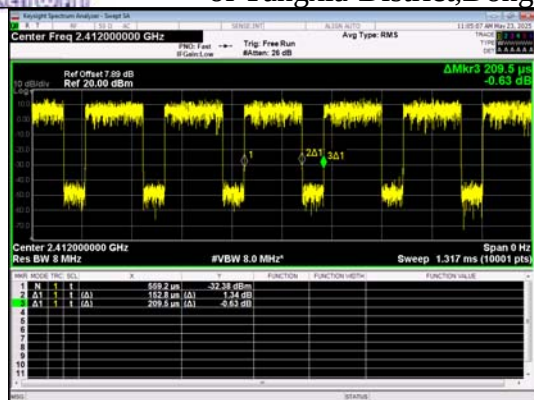
Mode	Data rates	Channel	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
IEEE 802.11b	1	1	1	8.417	8.472	99.35	0.9935	0.0283	0.1188
		6		8.416	8.472	99.34	0.9934	0.0288	0.1188
		11		8.416	8.472	99.34	0.9934	0.0288	0.1188
IEEE 802.11g		1		0.177	0.233	75.63	0.7563	1.2131	5.6497
		6		0.177	0.233	75.82	0.7582	1.2022	5.6497
		11		0.177	0.233	75.88	0.7588	1.1987	5.6497
IEEE 802.11n_20	MCS 0	1		0.153	0.210	72.91	0.7291	1.3721	6.5359
		6		0.153	0.209	73.05	0.7305	1.3638	6.5359
		11		0.153	0.209	73.03	0.7303	1.365	6.5359
IEEE 802.11n_40		3		0.089	0.146	60.64	0.6064	2.1724	11.2360
		6		0.089	0.144	61.44	0.6144	2.1155	11.2360
		9		0.088	0.144	61.33	0.6133	2.1233	11.3636

Test Graphs

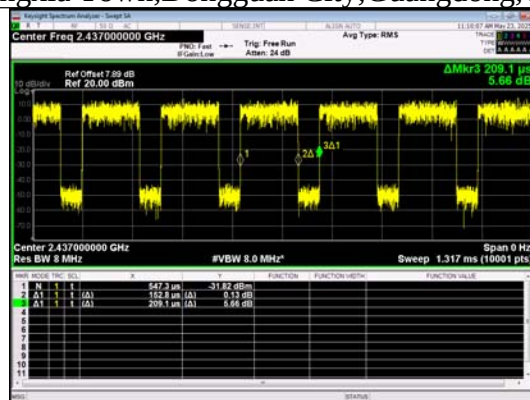




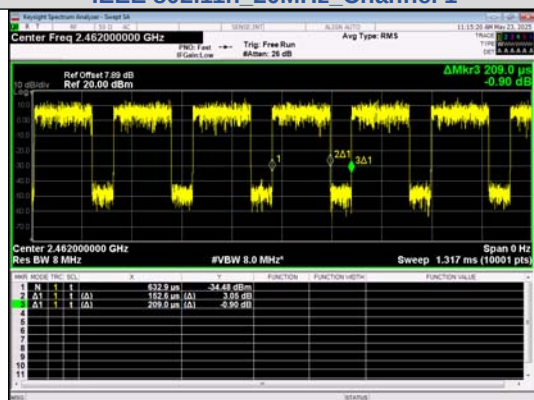
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IEEE 802.11n 20MHz Channel 1



IEEE 802.11n 20MHz Channel 6



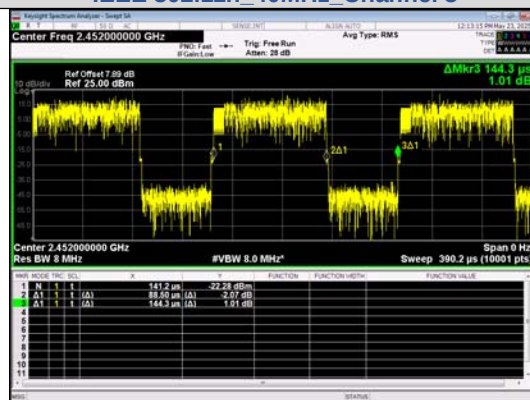
IEEE 802.11n 20MHz Channel 11



IEEE 802.11n 40MHz Channel 3



IEEE 802.11n 40MHz Channel 6



IEEE 802.11n 40MHz Channel 9

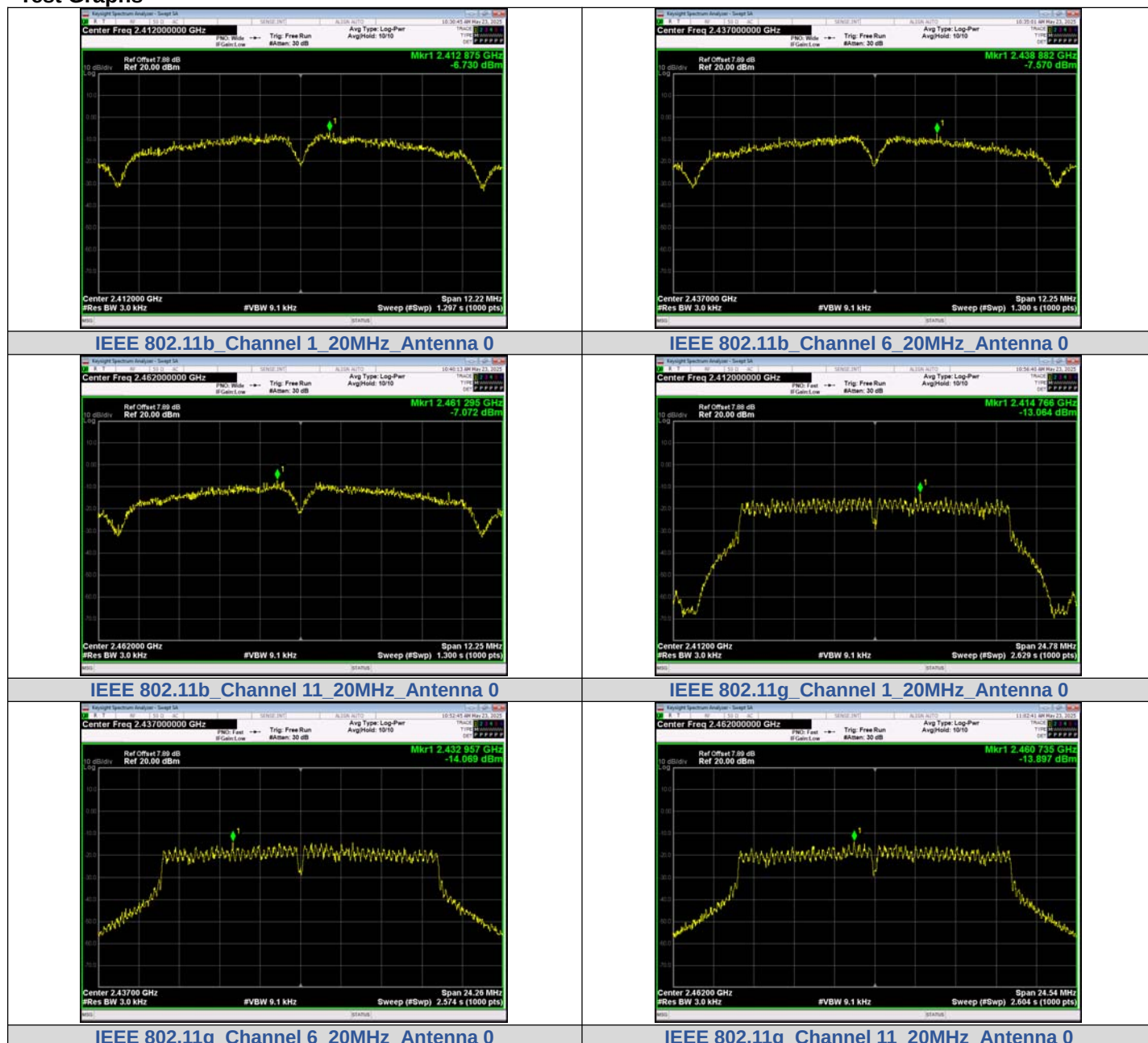


A.6 POWER SPECTRAL DENSITY

Test Result

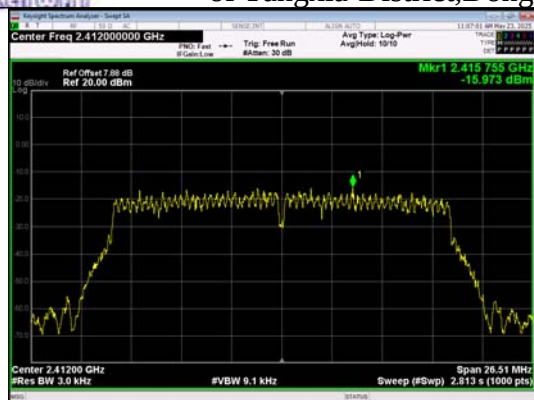
Mode	Channel	PSD (dBm/3kHz) Ant. 0	Limit (dBm/3kHz)	Result
IEEE 802.11b	1	-6.730	≤8	PASS
	6	-7.570		PASS
	11	-7.072		PASS
IEEE 802.11g	1	-13.064		PASS
	6	-14.069		PASS
	11	-13.897		PASS
IEEE 802.11n_20	1	-15.973		PASS
	6	-16.309		PASS
	11	-15.617		PASS
IEEE 802.11n_40	3	-17.505		PASS
	6	-10.677		PASS
	9	-11.172		PASS

Test Graphs

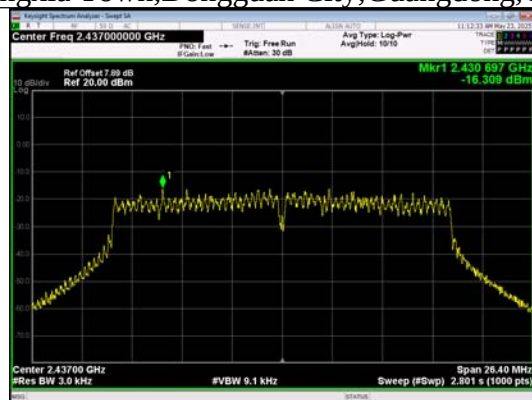




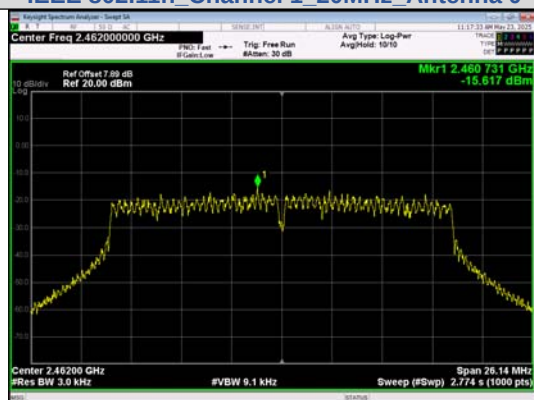
Keyway Testing Technology (Guangdong) Co., Ltd
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of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



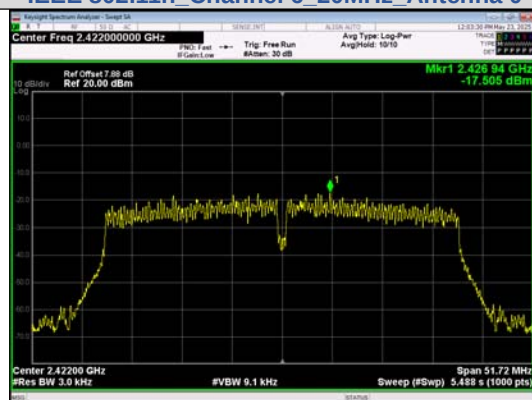
IEEE 802.11n Channel 1 20MHz Antenna 0



IEEE 802.11n Channel 6 20MHz Antenna 0



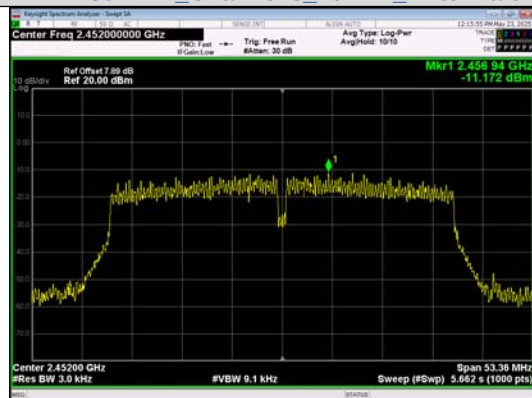
IEEE 802.11n Channel 11 20MHz Antenna 0



IEEE 802.11n Channel 3 40MHz Antenna 0



IEEE 802.11n Channel 6 40MHz Antenna 0



IEEE 802.11n Channel 9 40MHz Antenna 0