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4.1.4 Maximum conducted output power spectral density

RESULT: PASS

Test standard : FCC Part 15.247(e)

Requirement : ANSI C63.10-2013, Clause 11.10.2

KDB 558074 D01 v05r02, Clause 8.4

Kind of test site : Shielded room

Test setup

Test Channel : Low/Middle/High

Operation Mode : A.1.a

Ambient temperature : 24.9°C

Relative humidity : 57%

Table 3: maximum conducted output power spectral density

Test Mode	Test Channel (MHz)	Maximum conducted output power spectral density(dBm/3kHz)			
		Chain 1	Chain 2	Total	Limit (dBm/3kHz)
		(dBm/3kHz)	(dBm/3kHz)	(dBm/3kHz)	
802.11b	2412	-9.07	-9.79	N/A	≤8
	2437	-9.15	-10.24	N/A	
	2462	-9.11	-9.75	N/A	
802.11g	2412	-14.19	-14.10	N/A	
	2437	-15.20	-15.63	N/A	
	2462	-14.96	-15.32	N/A	
802.11n(HT20)	2412	-15.04	-14.95	-11.98	
	2437	-15.51	-15.15	-12.32	
	2462	-15.14	-14.68	-11.89	
802.11ax(HE20)	2412	-17.74	-18.55	-15.12	
	2437	-17.90	-18.53	-15.19	
	2462	-17.89	-18.35	-15.10	
802.11n(HT40)	2422	-16.99	-17.89	-14.41	
	2437	-18.09	-18.88	-15.46	
	2452	-18.23	-18.91	-15.55	
802.11ax(HE40)	2422	-17.82	-18.48	-15.13	
	2437	-17.74	-18.41	-15.05	
	2452	-17.67	-18.36	-14.99	

Notes: 802.11b/g support SISO and 802.11n/ax support MIMO.

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Chain 1 Port

Figure 19: The plots of Power Spectral Density, 802.11b, 2412MHz



Figure 20: The plots of Power Spectral Density, 802.11b, 2437MHz

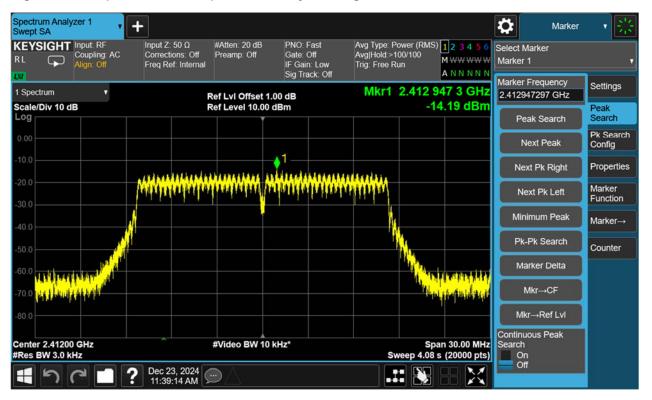


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Figure 21: The plots of Power Spectral Density, 802.11b, 2462MHz



Figure 22: The plots of Power Spectral Density, 802.11g, 2412MHz

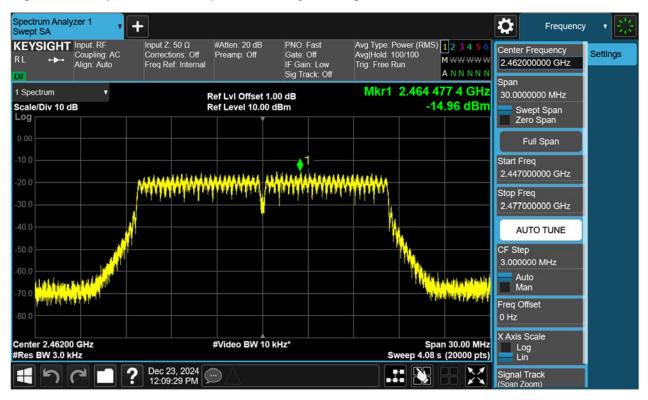


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Figure 23: The plots of Power Spectral Density, 802.11g, 2437MHz



Figure 24: The plots of Power Spectral Density, 802.11g, 2462MHz



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Figure 25: The plots of Power Spectral Density, 802.11n(HT20), 2412MHz



Figure 26: The plots of Power Spectral Density, 802.11n(HT20), 2437MHz

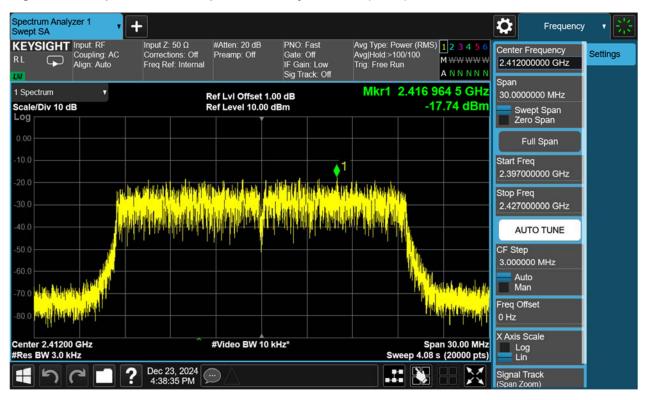


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Figure 27: The plots of Power Spectral Density, 802.11n(HT20), 2462MHz



Figure 28: The plots of Power Spectral Density, 802.11ax(HE20), 2412MHz



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Figure 29: The plots of Power Spectral Density, 802.11ax(HE20), 2437MHz

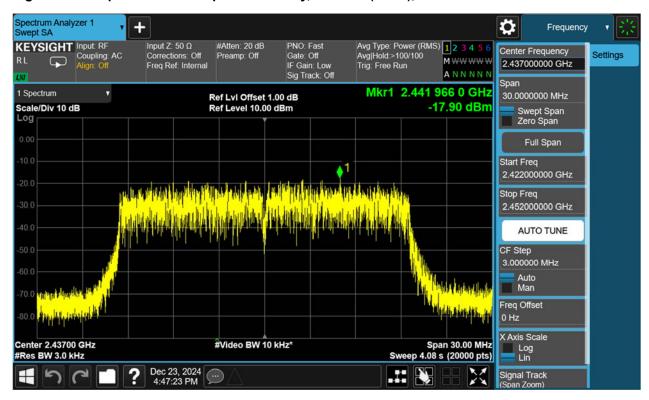
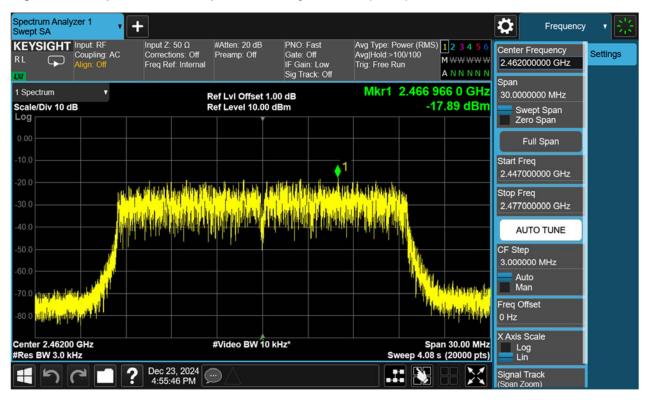


Figure 30: The plots of Power Spectral Density, 802.11ax(HE20), 2462MHz



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Figure 31: The plots of Power Spectral Density, 802.11n(HT40), 2422MHz

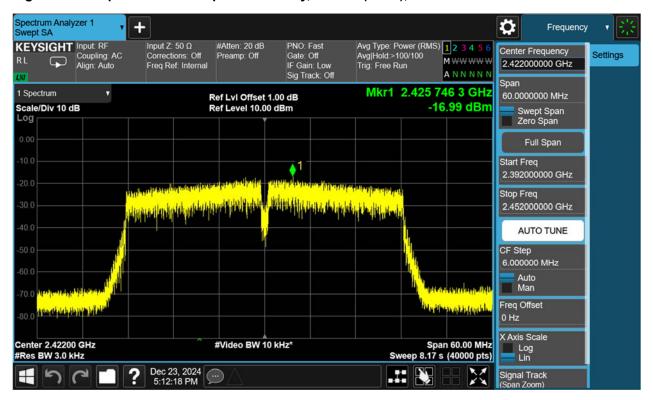
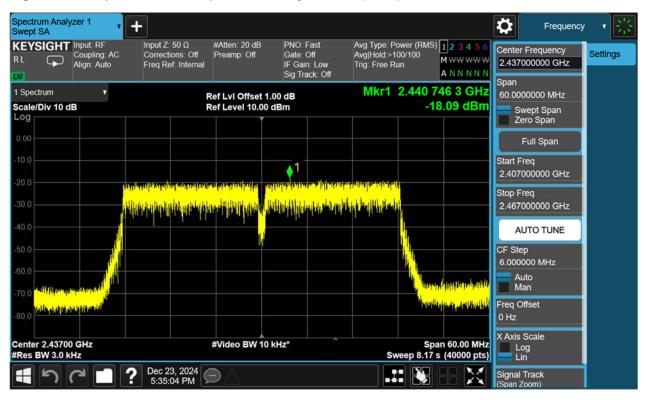


Figure 32: The plots of Power Spectral Density, 802.11n(HT40), 2437MHz



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Figure 33: The plots of Power Spectral Density, 802.11n(HT40), 2452MHz

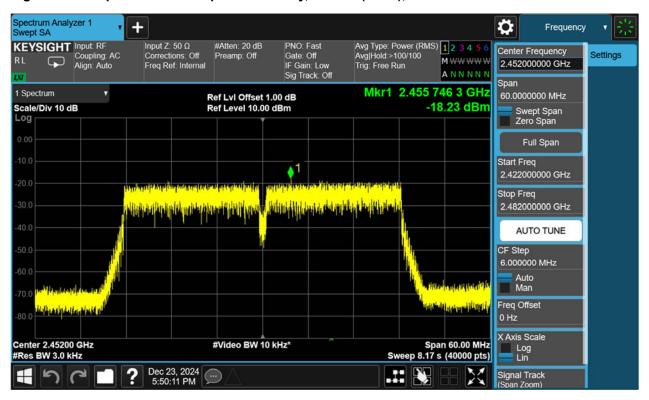


Figure 34: The plots of Power Spectral Density, 802.11ax(HE40), 2422MHz



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Figure 35: The plots of Power Spectral Density, 802.11ax(HE40), 2437MHz

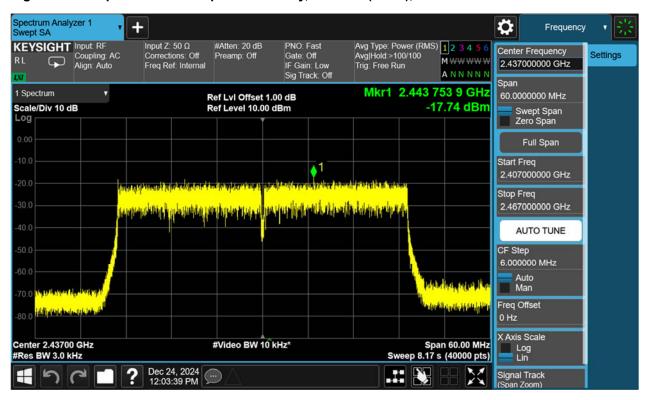


Figure 36: The plots of Power Spectral Density, 802.11ax(HE40), 2452MHz



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Chain 2 Port

Figure 37: The plots of Power Spectral Density, 802.11b, 2412MHz



Figure 38: The plots of Power Spectral Density, 802.11b, 2437MHz

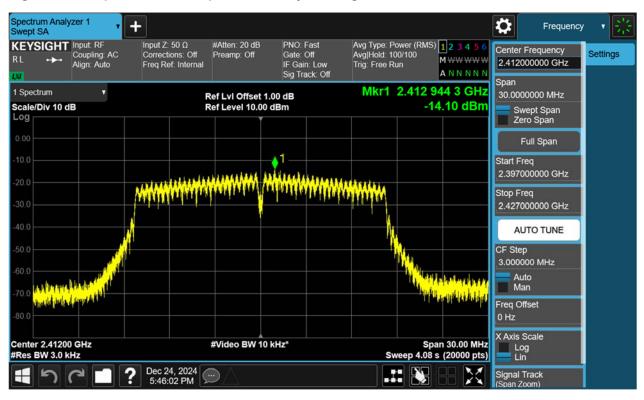


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Figure 39: The plots of Power Spectral Density, 802.11b, 2462MHz



Figure 40: The plots of Power Spectral Density, 802.11g, 2412MHz

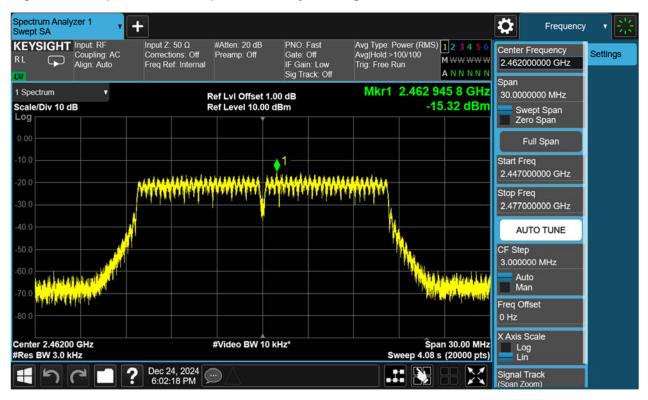


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Figure 41: The plots of Power Spectral Density, 802.11g, 2437MHz



Figure 42: The plots of Power Spectral Density, 802.11g, 2462MHz



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Figure 43: The plots of Power Spectral Density, 802.11n(HT20), 2412MHz

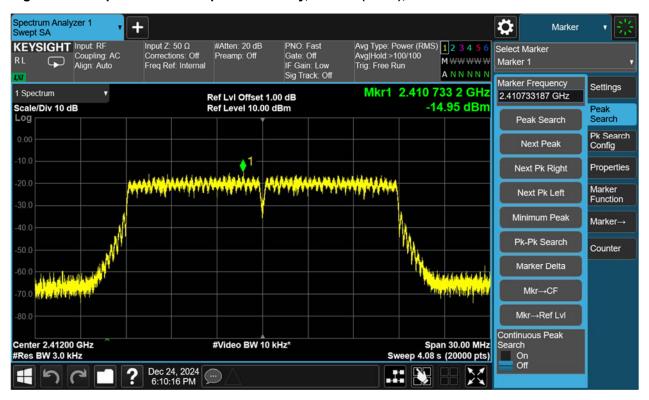
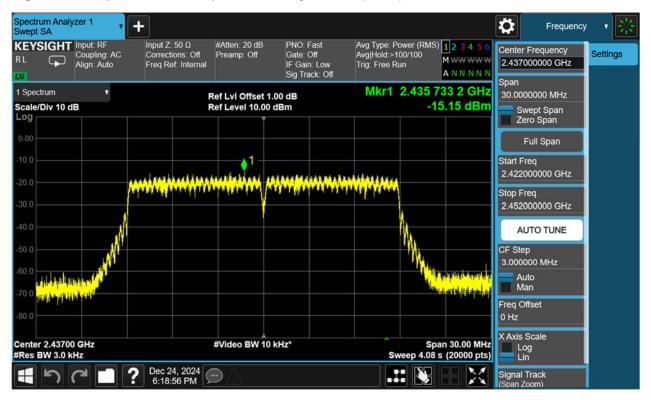


Figure 44: The plots of Power Spectral Density, 802.11n(HT20), 2437MHz



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Figure 45: The plots of Power Spectral Density, 802.11n(HT20), 2462MHz

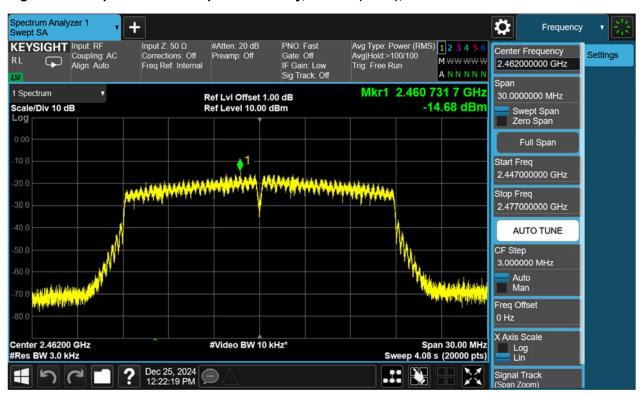


Figure 46: The plots of Power Spectral Density, 802.11ax(HE20), 2412MHz



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Figure 47: The plots of Power Spectral Density, 802.11ax(HE20), 2437MHz

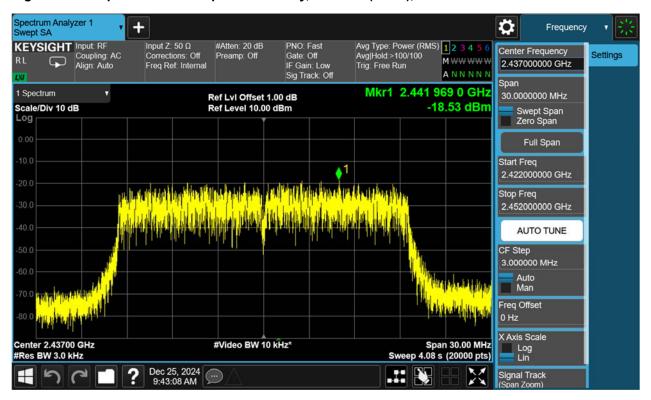
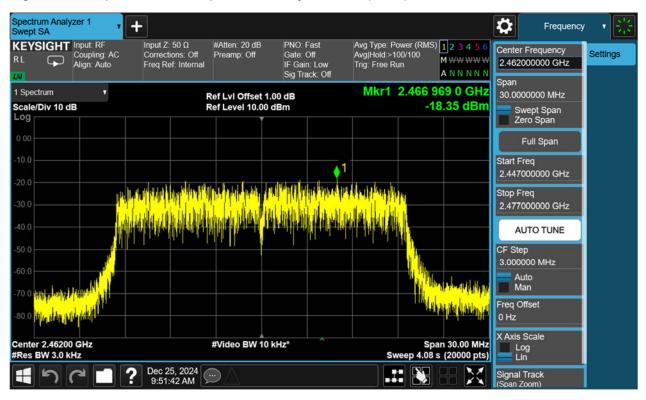


Figure 48: The plots of Power Spectral Density, 802.11ax(HE20), 2462MHz

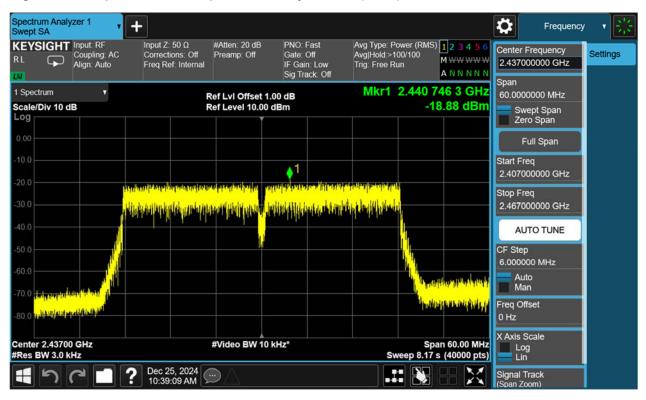


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Figure 49: The plots of Power Spectral Density, 802.11n(HT40), 2422MHz



Figure 50: The plots of Power Spectral Density, 802.11n(HT40), 2437MHz



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Figure 51: The plots of Power Spectral Density, 802.11n(HT40), 2452MHz



Figure 52: The plots of Power Spectral Density, 802.11ax(HE40), 2422MHz



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Figure 53: The plots of Power Spectral Density, 802.11ax(HE40), 2437MHz

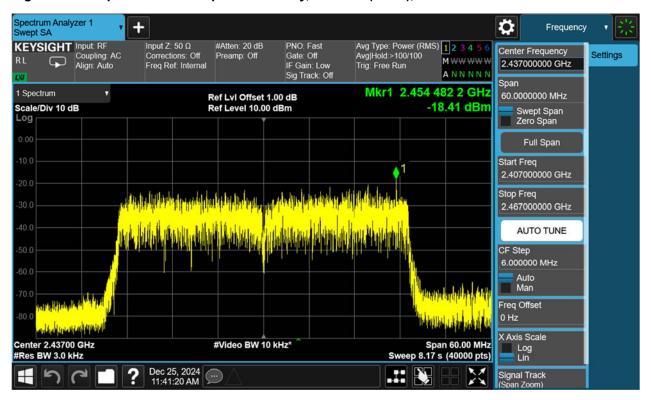


Figure 54: The plots of Power Spectral Density, 802.11ax(HT40), 2452MHz



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4.1.5 Conducted Spurious Emission & Authorized-band band-edge

RESULT: PASS

Test standard : FCC Part 15.247(d), 15.209

Requirement : ANSI C63.10-2013, Clause 11.11.1(b)

KDB 558074 D01 v05r02, Clause 8.5

Kind of test site : Shielded room

Test setup

Test Channel : Low/Middle/High for spurious, Low/High for Band

Edge

Operation Mode : A.1.a

Ambient temperature : 24.9°C

Relative humidity : 57%

Notes

- 1. Two transmit chains (chain 1 and chain 2) had been tested, the chain 1 was the worst case and record in the test report.
- 2. The spurious emission at chain 1 is more than 3dB below the limits, so the MIMO results for the spurious emissions are comply with the requirement.

For details refer to following test plot.

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Figure 55: Conducted Spurious Emission & Authorized-band band-edge, 802.11b, 2412MHz Carrier Level



Band Edge

