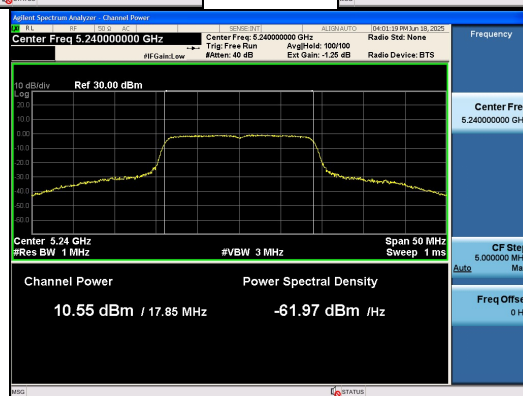
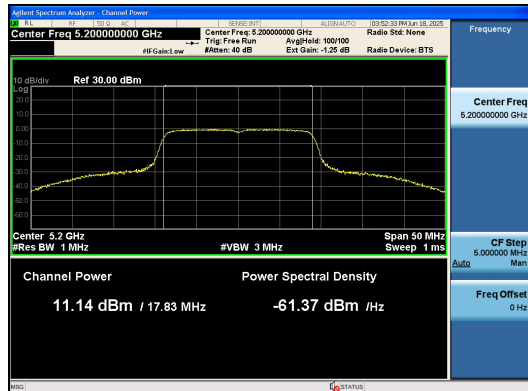
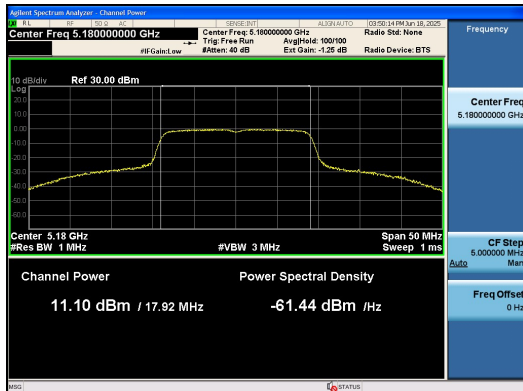




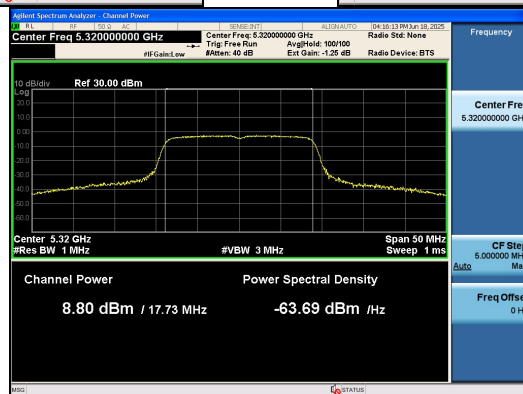
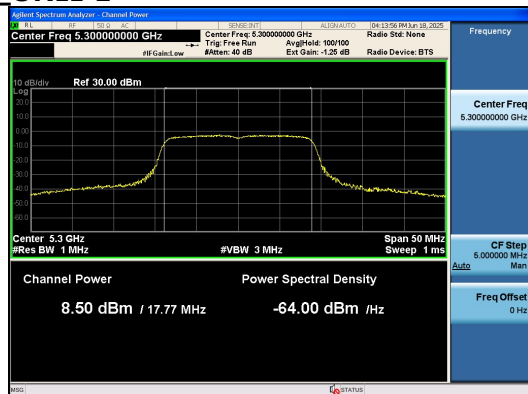
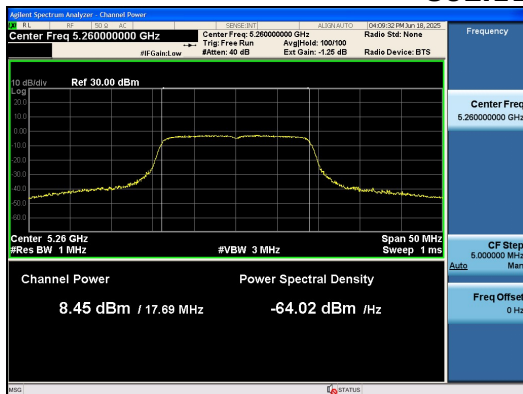
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Report No.:
CTK-2025-01771
Page (23) / (60) Pages



802.11n_HT20_UNII 1



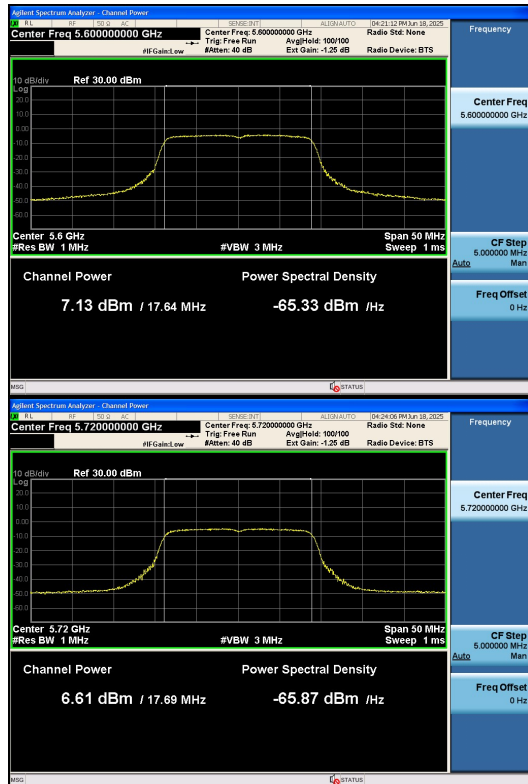
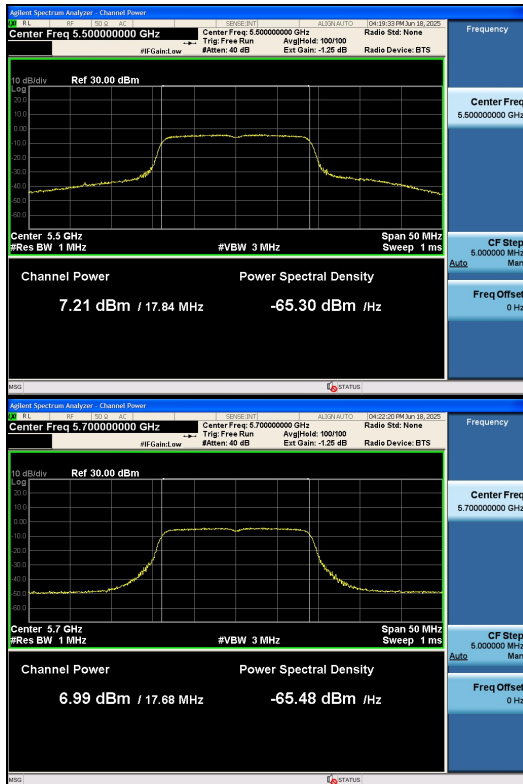
802.11n_HT20_UNII 2A



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Report No.:
CTK-2025-01771
Page (24) / (60) Pages



802.11n_HT20_UNII 2C

4.3 Power Spectral Density

Test Procedures

KDB 789033 – Section F (Method SA-2, Maximum Power Spectral Density)
 ANSI C63.10-2013 – Section 12.5

The peak power density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies.

Test Settings :

Center frequency = the highest, middle and the lowest channels

- a) RBW = 1 MHz, 500 kHz (UNII 3)
- b) VBW = 3 MHz, 1.5 MHz (UNII 3)
- c) Sweep time = auto
- d) Detector = power averaging (rms)
- e) Trace mode = Average at least 100
- f) Duty cycle factor = $10\log(1/x)$

Test mode	Duty Cycle Factor (dB)
802.11a	0.27
802.11n_HT20	0.29

Limit

Operating Mode	Mode	ANT Gain (dBi)	Band	FCC Limit (dBm)	ISED Limit (dBm)
SISO	802.11a/n	2.94	UNII 1	11.00	10.00 (EIRP)
			UNII 2A	11.00	11.00
		3.61	UNII 2C	11.00	11.00

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Report No.:

CTK-2025-01771

Page (26) / (60) Pages

Test Data**[FCC]**

Test Mode	Frequency (MHz)	Measured Power Density (dBm)	Duty cycle Factor (dB)	Result Power Density (dBm)	Limit (dBm)	Margin (dB)
802.11a	5 180	0.04	0.27	0.31	11	10.69
	5 200	0.01	0.27	0.28	11	10.72
	5 240	-0.29	0.27	-0.02	11	11.02
	5 260	-1.76	0.27	-1.49	11	12.49
	5 300	-1.80	0.27	-1.53	11	12.53
	5 320	-1.86	0.27	-1.59	11	12.59
	5 500	-2.50	0.27	-2.23	11	13.23
	5 600	-2.68	0.27	-2.41	11	13.41
	5 700	-2.57	0.27	-2.30	11	13.30
	5 720	-2.97	0.27	-2.70	11	13.70
802.11n _HT20	5 180	-0.10	0.29	0.19	11	10.81
	5 200	-0.05	0.29	0.24	11	10.76
	5 240	-0.74	0.29	-0.45	11	11.45
	5 260	-2.72	0.29	-2.43	11	13.43
	5 300	-2.60	0.29	-2.31	11	13.31
	5 320	-2.41	0.29	-2.12	11	13.12
	5 500	-4.02	0.29	-3.73	11	14.73
	5 600	-4.12	0.29	-3.83	11	14.83
	5 700	-4.22	0.29	-3.93	11	14.93
	5 720	-4.62	0.29	-4.33	11	15.33
Measurement uncertainty		± 1.5 dB				

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Report No.:
CTK-2025-01771
Page (27) / (60) Pages

[ISED]

Test Mode	Frequency (MHz)	Measured Power Density (dBm)	Duty cycle Factor (dB)	Result Power Density (dBm)	Limit (dBm)	Margin (dB)
802.11a	5 180	0.04	0.27	3.25*	11	7.75
	5 200	0.01	0.27	3.22*	11	7.78
	5 240	-0.29	0.27	2.92*	11	8.08
	5 260	-1.76	0.27	-1.49	11	12.49
	5 300	-1.80	0.27	-1.53	11	12.53
	5 320	-1.86	0.27	-1.59	11	12.59
	5 500	-2.50	0.27	-2.23	11	13.23
	5 600	-2.68	0.27	-2.41	11	13.41
	5 700	-2.57	0.27	-2.30	11	13.30
	5 720	-2.97	0.27	-2.70	11	13.70
802.11n _HT20	5 180	-0.10	0.29	3.13*	11	7.87
	5 200	-0.05	0.29	3.18*	11	7.82
	5 240	-0.74	0.29	2.49*	11	8.51
	5 260	-2.72	0.29	-2.43	11	13.43
	5 300	-2.60	0.29	-2.31	11	13.31
	5 320	-2.41	0.29	-2.12	11	13.12
	5 500	-4.02	0.29	-3.73	11	14.73
	5 600	-4.12	0.29	-3.83	11	14.83
	5 700	-4.22	0.29	-3.93	11	14.93
	5 720	-4.62	0.29	-4.33	11	15.33
Measurement uncertainty		± 1.5 dB				

* Note :

UNII 1 Result Power Density = Measured Power Density + Duty cycle Factor + Antenna gain

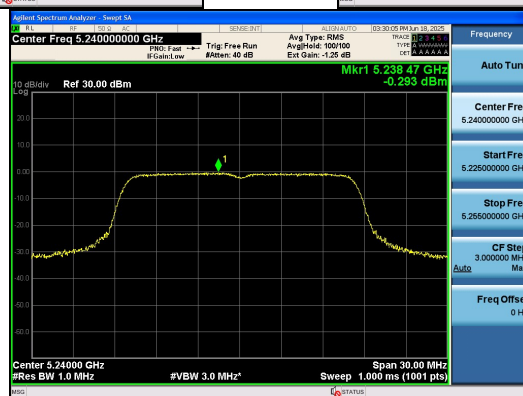
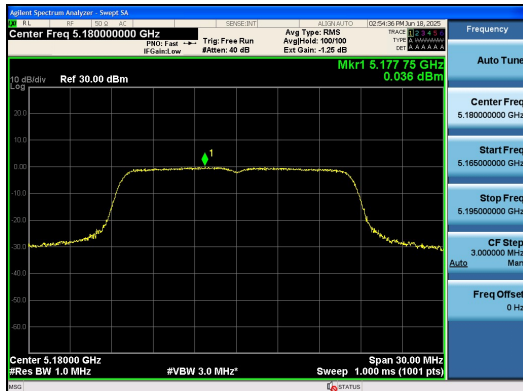
See next pages for actual measured spectrum plots.



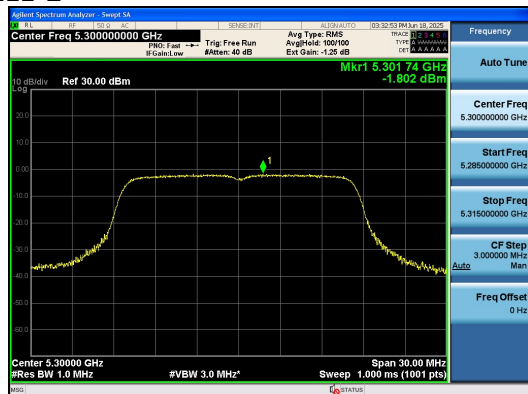
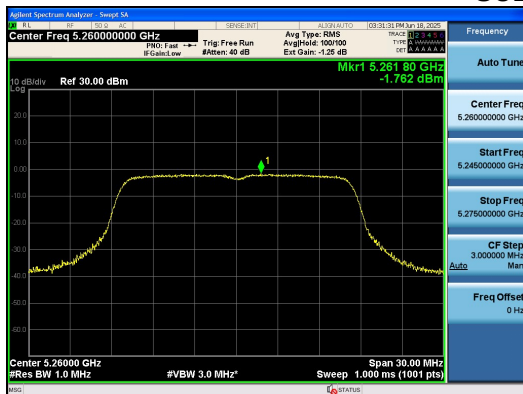
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Report No.:
CTK-2025-01771
Page (28) / (60) Pages



802.11a_UNII 1



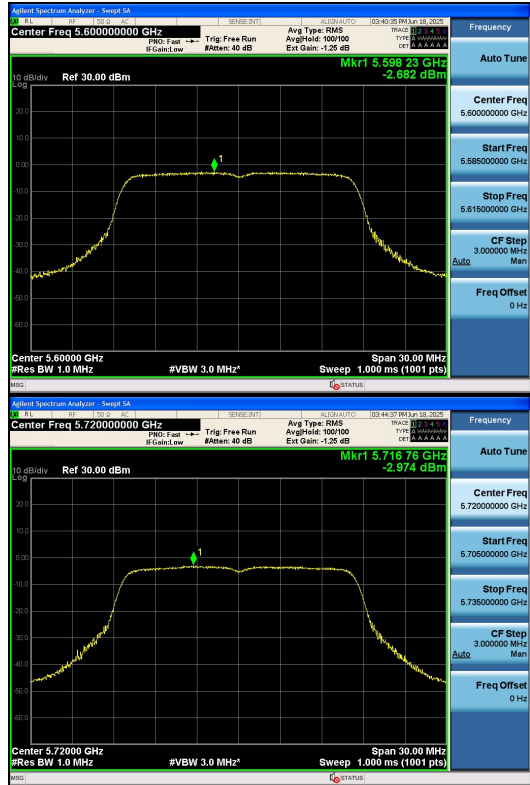
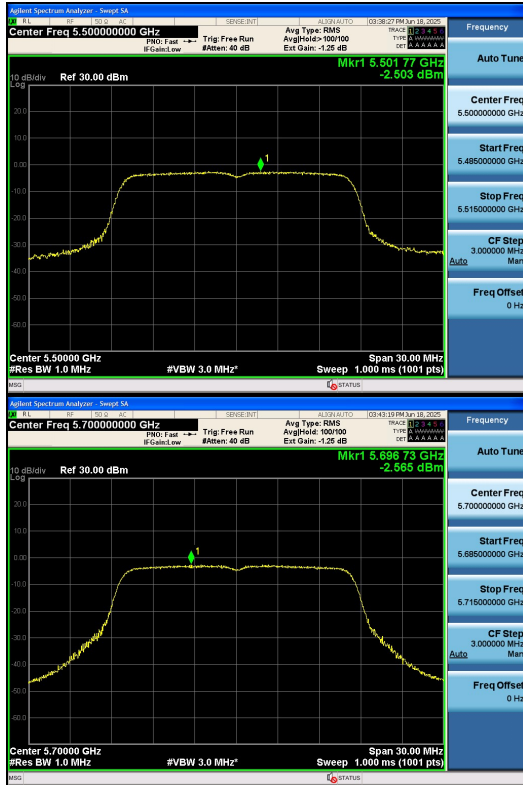
802.11a_UNII 2A



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Report No.:
CTK-2025-01771
Page (29) / (60) Pages



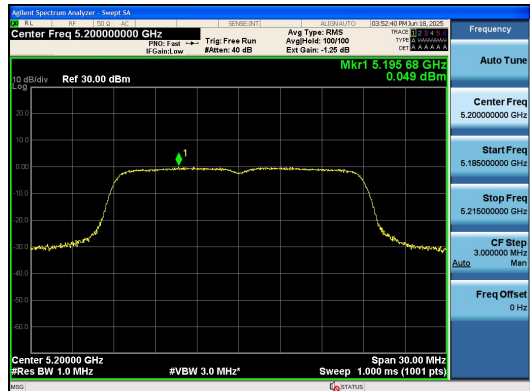
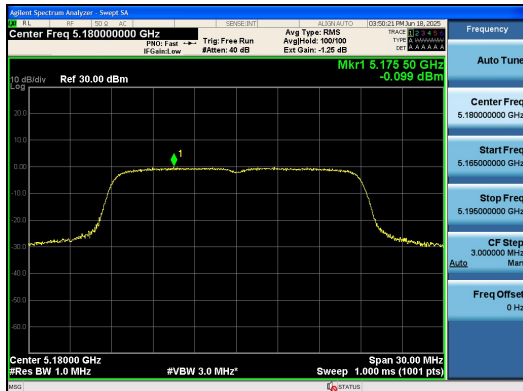
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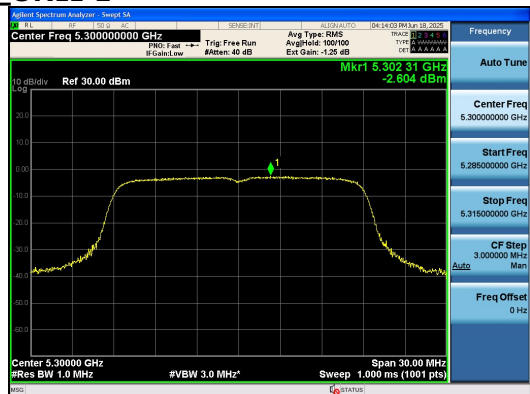
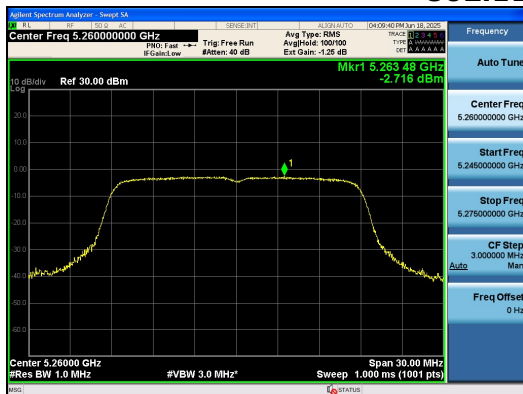
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Report No.:
CTK-2025-01771
Page (30) / (60) Pages



802.11n_HT20_UNII 1



802.11n_HT20_UNII 2A