Appendix B): Maximum Conduct Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.407 (a)

Test Method: KDB 789033 D02 II E

Limit:

Frequency band(MHz)	Limit
5150-5250	≤1W(30dBm) for master device
	≤250mW(24dBm) for client device
5250-5350	≤250mW(24dBm) for client device or 11dBm+10logB*
5470-5725	≤250mW(24dBm) for client device or 11dBm+10logB*
5725-5850	≤1W(30dBm)
Remark:	* Where B is the 26dB emission bandwidth in MHz. The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

Test Procedure:

Method SA-2 (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

(1) Set RBW = 1 MHz.

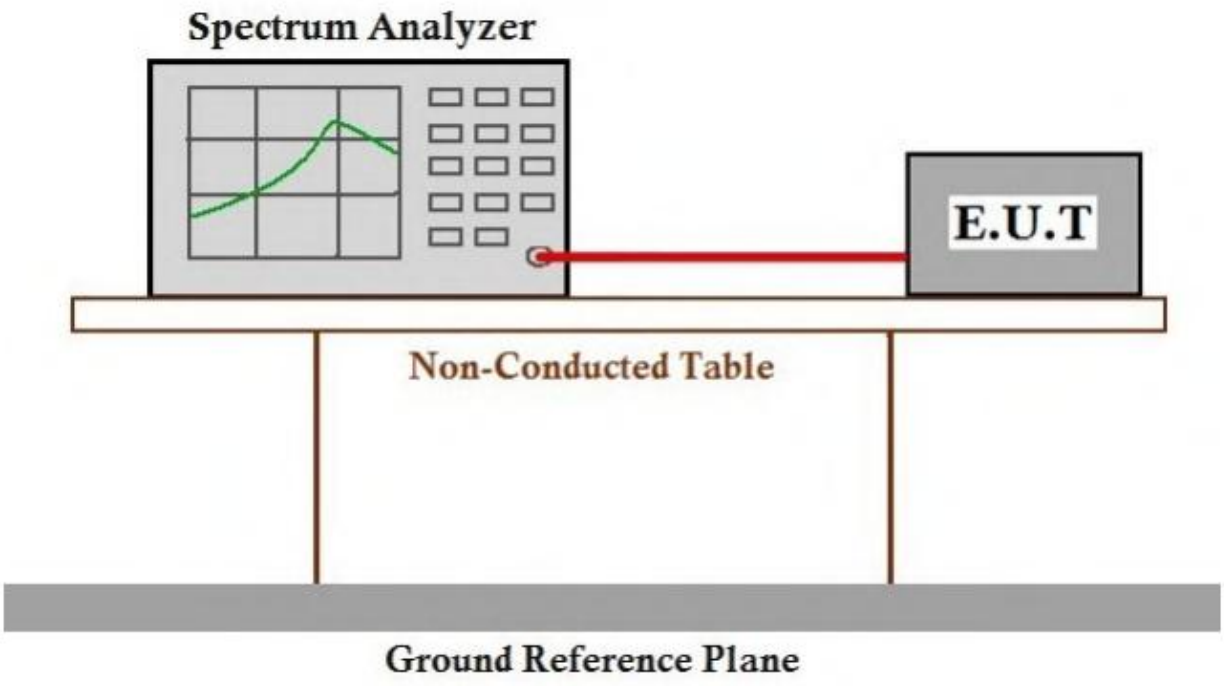
(2) Set VBW ≥ 3 MHz.

(3) Detector = power average

(4) Sweep time = auto.

(5) Add duty cycle to the measured average power.

Test Setup Diagram



Measurement Data

Test Mode	Antenna	Freq(MHz)	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	9.18	≤23.98	PASS
		5200	10.10	≤23.98	PASS
		5240	10.29	≤23.98	PASS
		5745	6.91	≤30.00	PASS
		5785	8.21	≤30.00	PASS
		5825	8.64	≤30.00	PASS
11N20SISO	Ant1	5180	9.83	≤23.98	PASS
		5200	11.11	≤23.98	PASS
		5240	11.12	≤23.98	PASS
		5745	8.55	≤30.00	PASS
		5785	8.96	≤30.00	PASS
		5825	9.49	≤30.00	PASS
11N40SISO	Ant1	5190	9.79	≤23.98	PASS
		5230	9.84	≤23.98	PASS
		5755	4.77	≤30.00	PASS
		5795	7.06	≤30.00	PASS
11AC20SISO	Ant1	5180	9.21	≤23.98	PASS
		5200	9.87	≤23.98	PASS
		5240	10.03	≤23.98	PASS
		5745	6.69	≤30.00	PASS
		5785	7.62	≤30.00	PASS
		5825	8.15	≤30.00	PASS
11AC40SISO	Ant1	5190	8.89	≤23.98	PASS
		5230	10.00	≤23.98	PASS
		5755	6.06	≤30.00	PASS
		5795	7.07	≤30.00	PASS

Remark:
The Duty Cycle Factor is compensated in the graph.

Appendix C): Maximum Power Spectral Density

Test Requirement 47 CFR Part 15, Subpart C 15.407 (a)

Test Method: KDB 789033 D02 II F

Test Procedure:

For 5150-5725MHz:

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on operation frequency individually.
3. Set RBW = 1MHz.
4. Set the VBW ≥3*RBW. Detector = Peak. Trace mode = max hold.

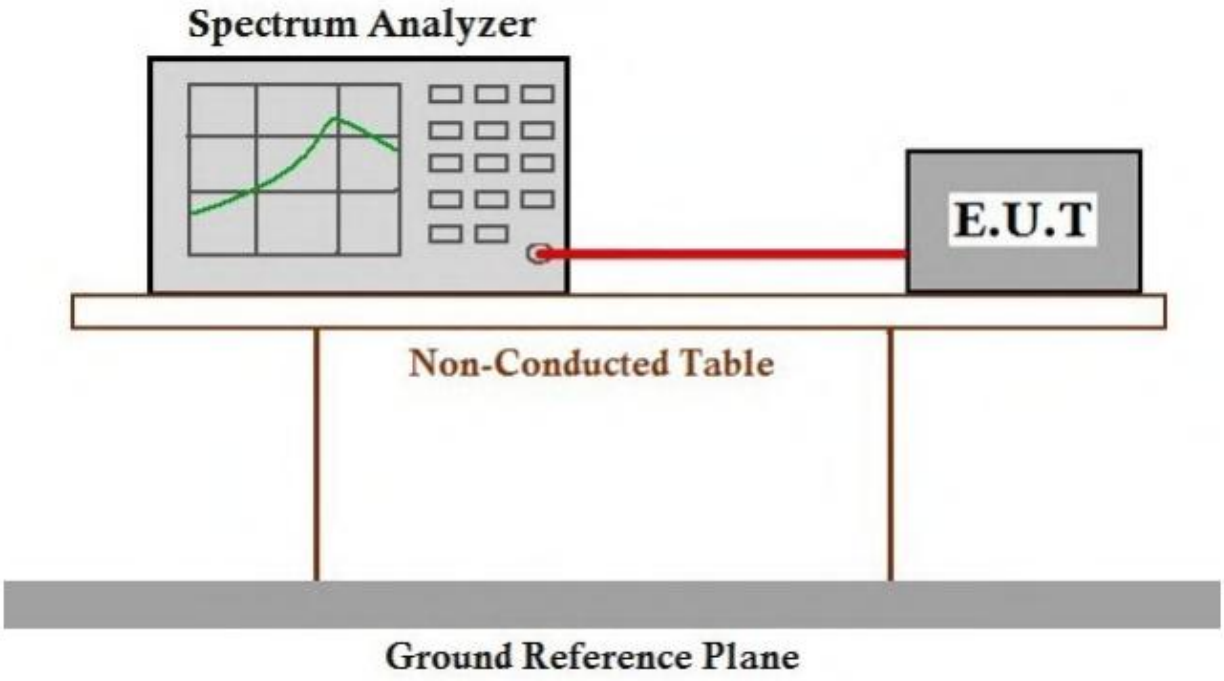
For 5725-5850MHz:

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on operation frequency individually.
3. Set RBW = 500KHz.
4. Set the VBW ≥3*RBW. Detector = Peak. Trace mode = max hold.

Limit:

Frequency band(MHz)	Limit
5150-5250	≤17dBm in 1MHz for master device
	≤11dBm in 1MHz for client device
5250-5350	≤11dBm in 1MHz for client device
5470-5725	≤11dBm in 1MHz for client device
5725-5850	≤30dBm in 500 kHz
Remark:	The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test.

Test Setup Diagram



Result Table

TestMode	Freq(MHz)	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	5180	-1.91	≤11.00	PASS
	5200	-0.36	≤11.00	PASS
	5240	-1.01	≤11.00	PASS
	5745	-6.86	≤30.00	PASS
	5785	-5.97	≤30.00	PASS
	5825	-5.03	≤30.00	PASS
11N20SISO	5180	-1.72	≤11.00	PASS
	5200	0.79	≤11.00	PASS
	5240	0.06	≤11.00	PASS
	5745	-5.11	≤30.00	PASS
	5785	-5.31	≤30.00	PASS
	5825	-5.05	≤30.00	PASS
11N40SISO	5190	-4.12	≤11.00	PASS
	5230	-4.57	≤11.00	PASS
	5755	-12.05	≤30.00	PASS
	5795	-10.14	≤30.00	PASS
11AC20SISO	5180	-2.51	≤11.00	PASS
	5200	-1.6	≤11.00	PASS
	5240	-1.43	≤11.00	PASS
	5745	-7.42	≤30.00	PASS
	5785	-6.62	≤30.00	PASS
	5825	-6.14	≤30.00	PASS
11AC40SISO	5190	-4.73	≤11.00	PASS
	5230	-4.54	≤11.00	PASS
	5755	-11.34	≤30.00	PASS
	5795	-10.23	≤30.00	PASS

Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

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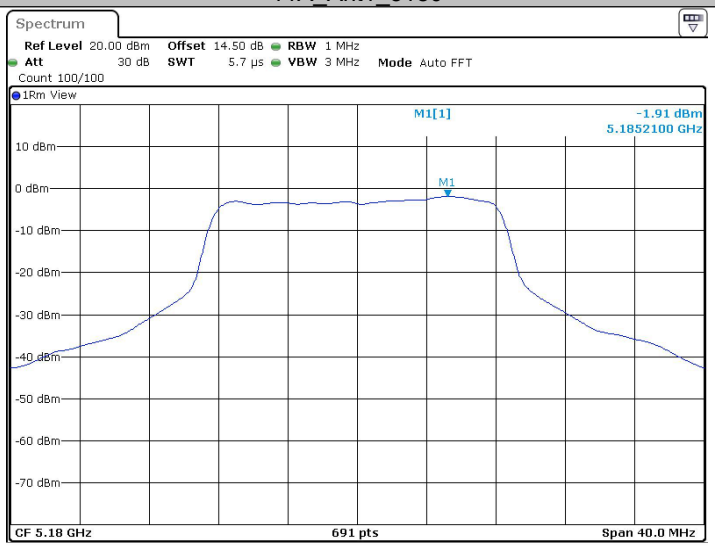

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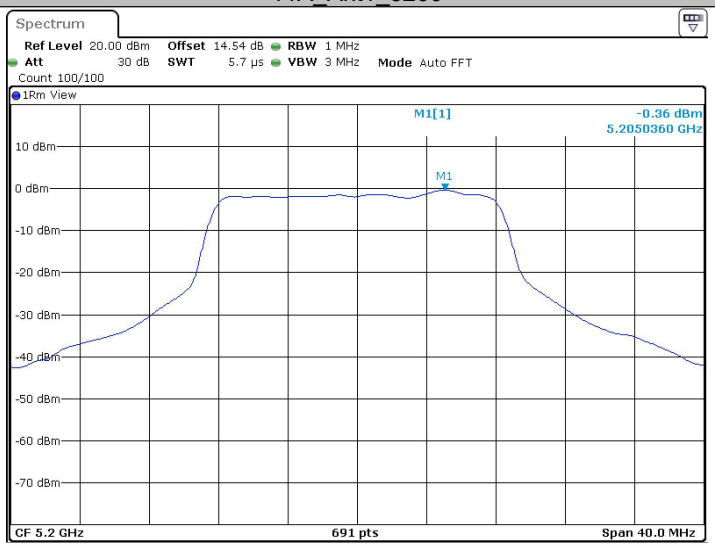

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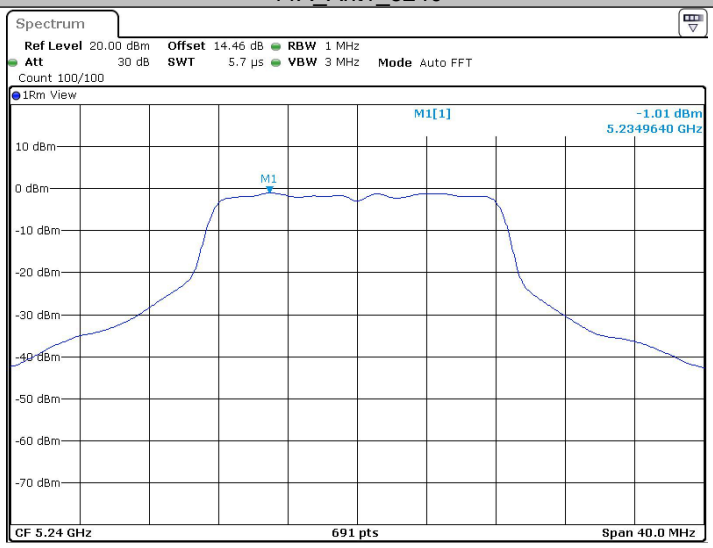

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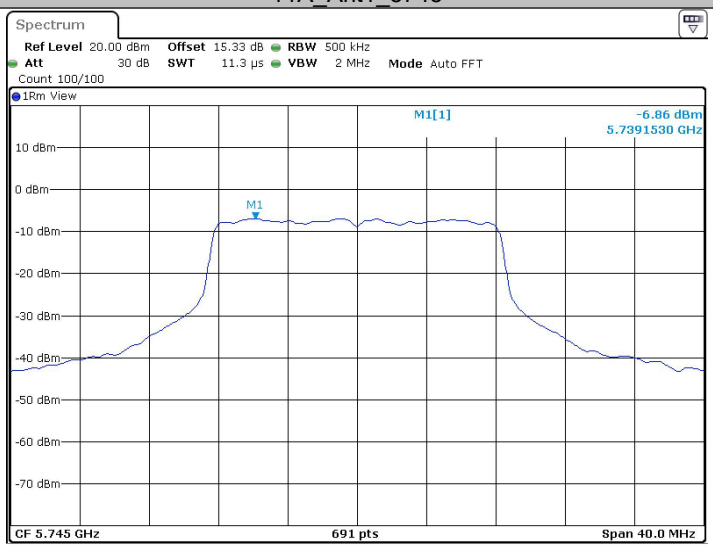

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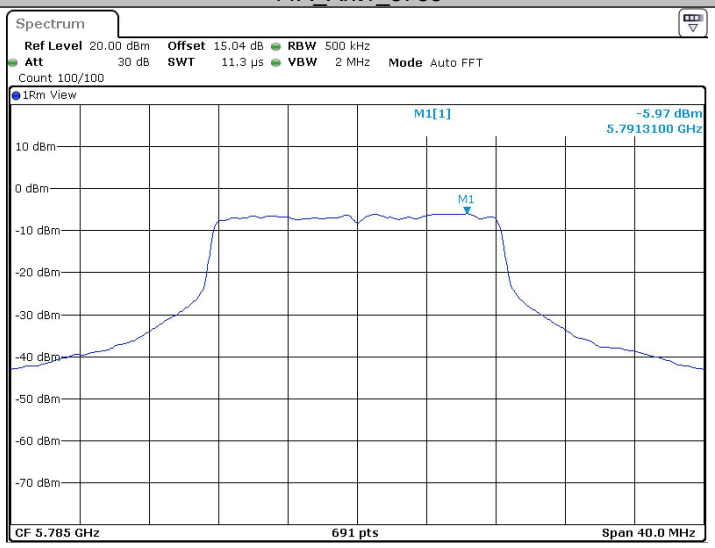

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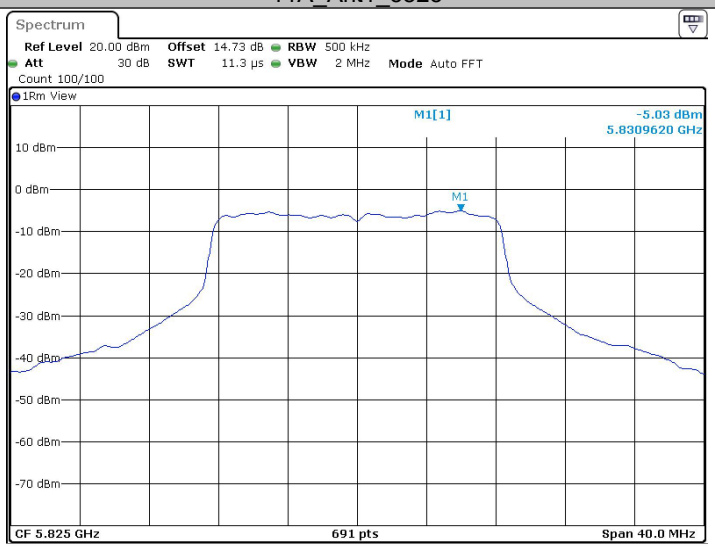

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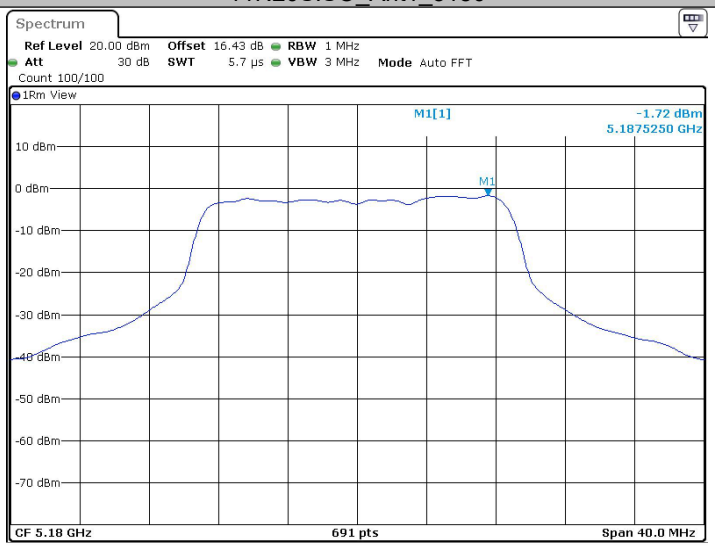

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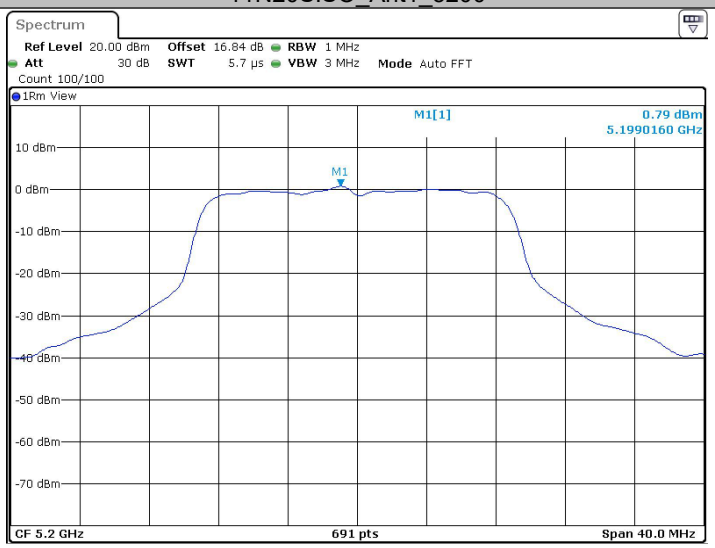

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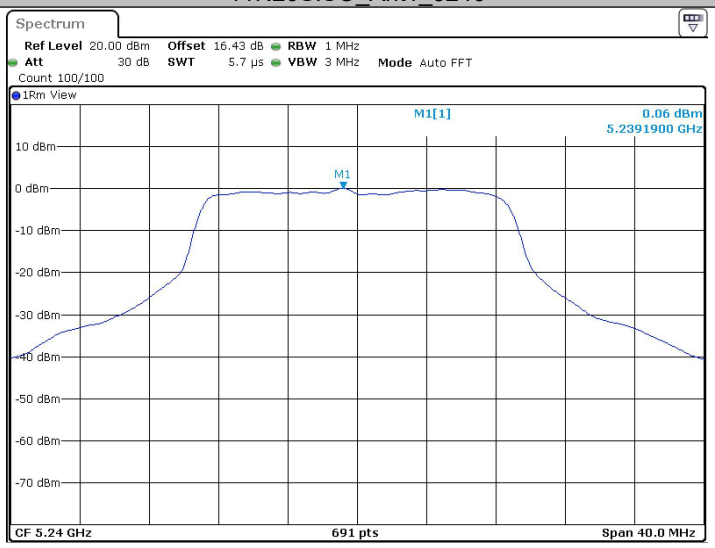

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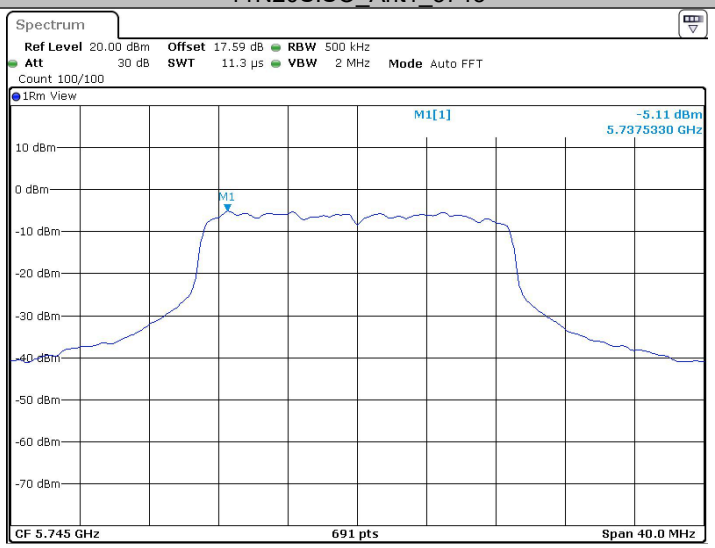

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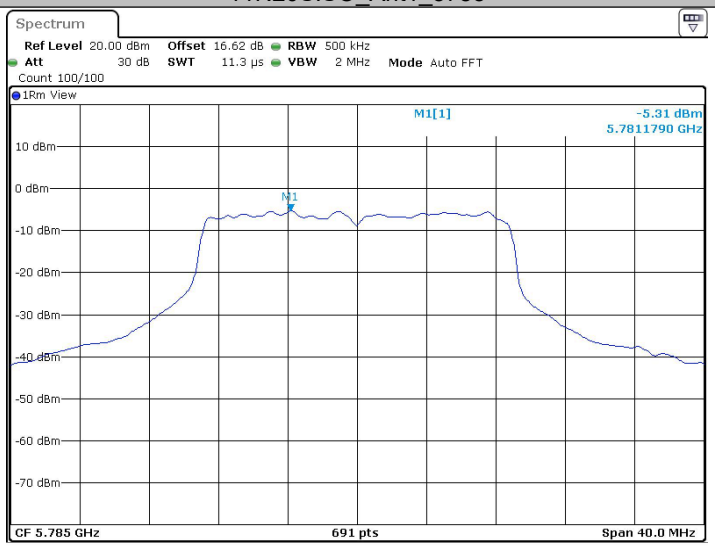

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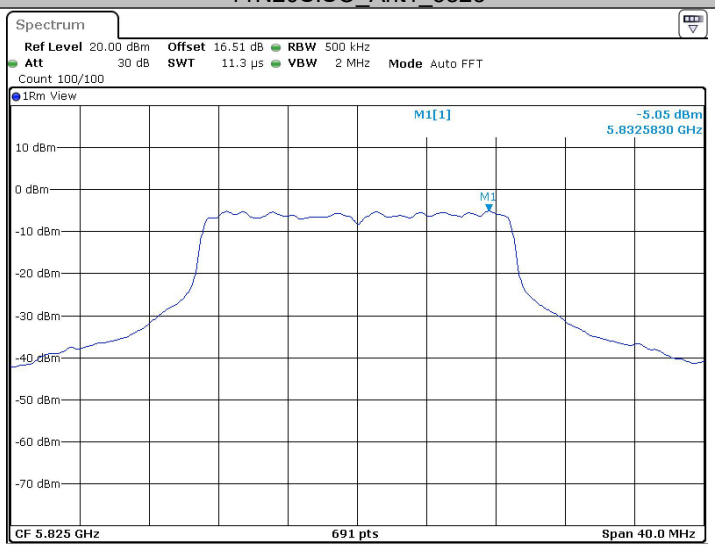

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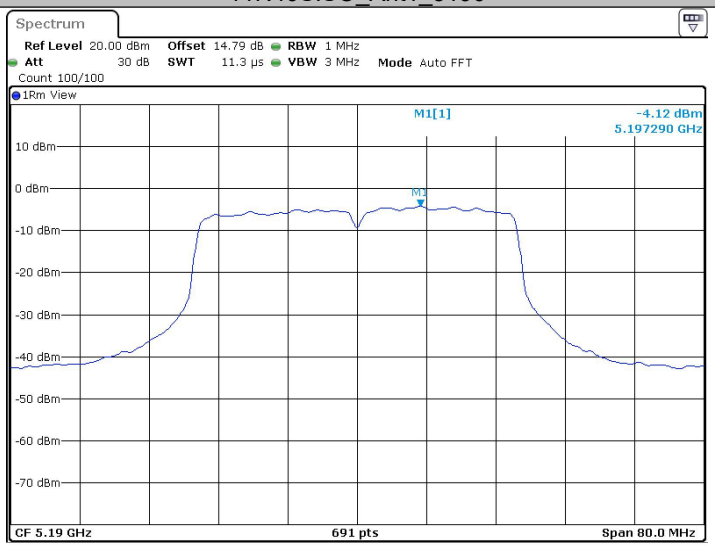

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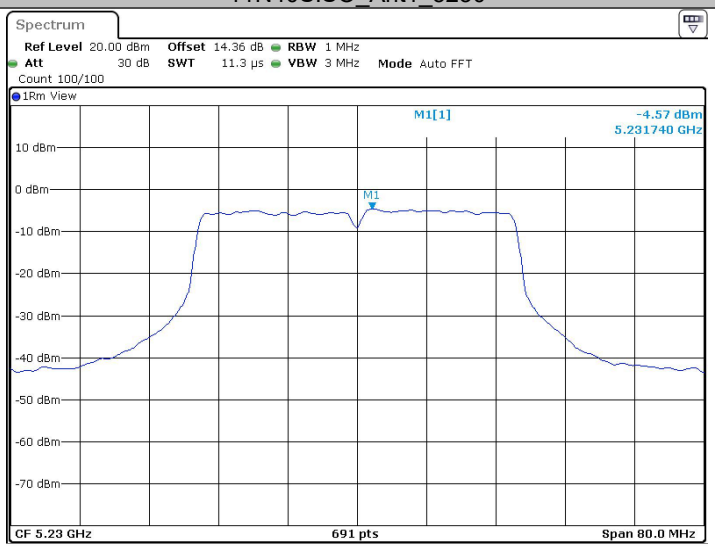

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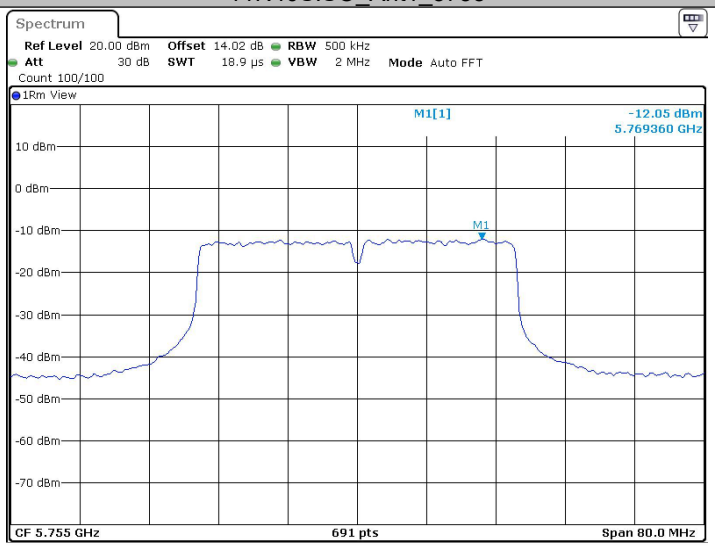

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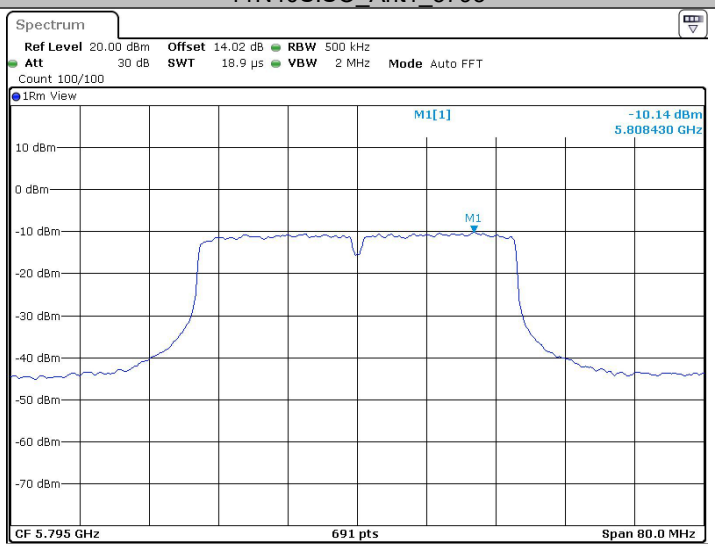

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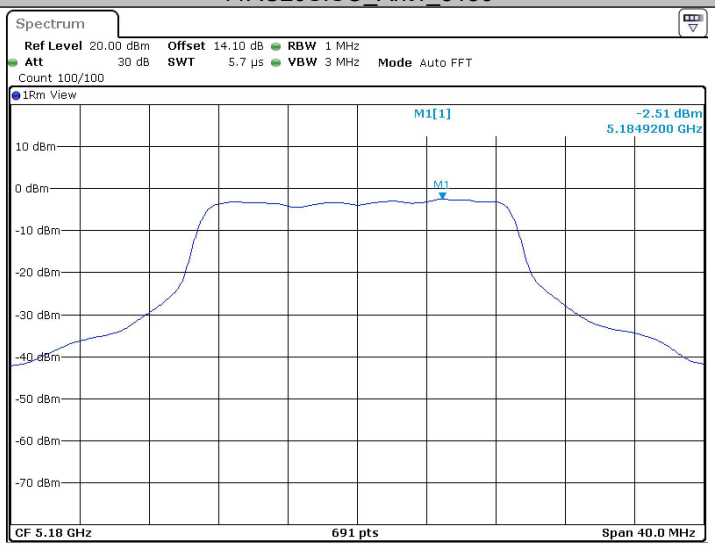

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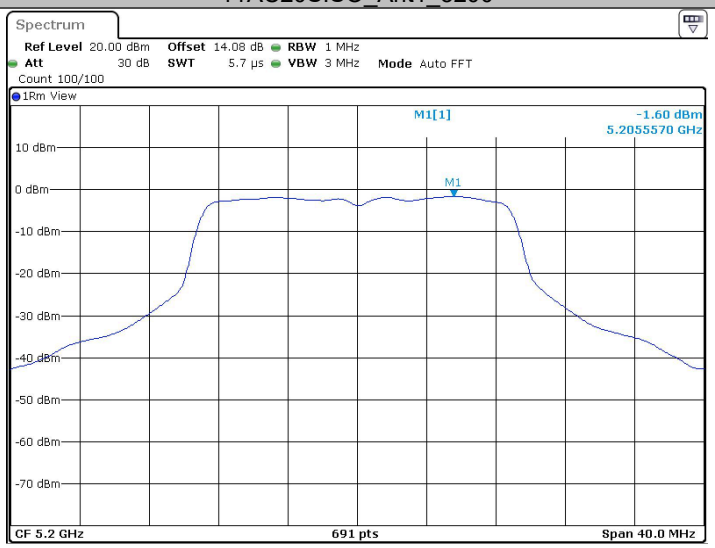

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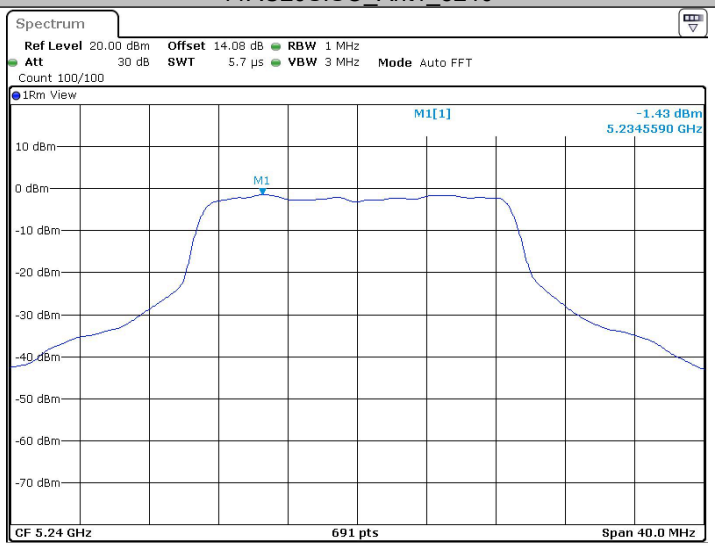

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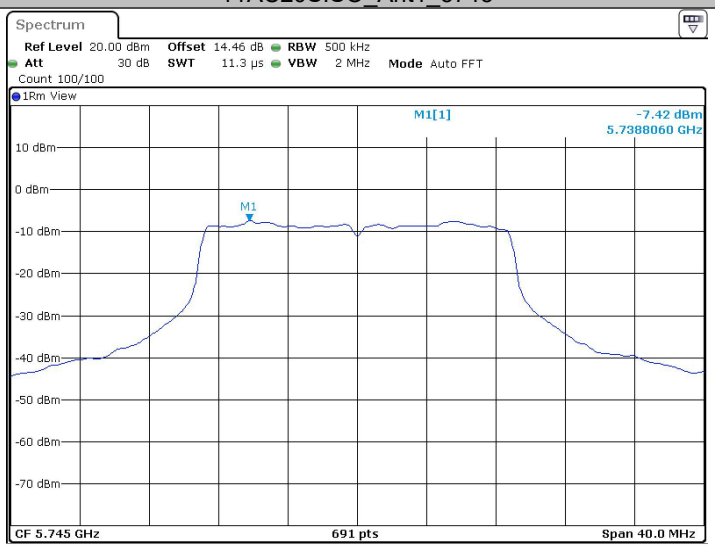

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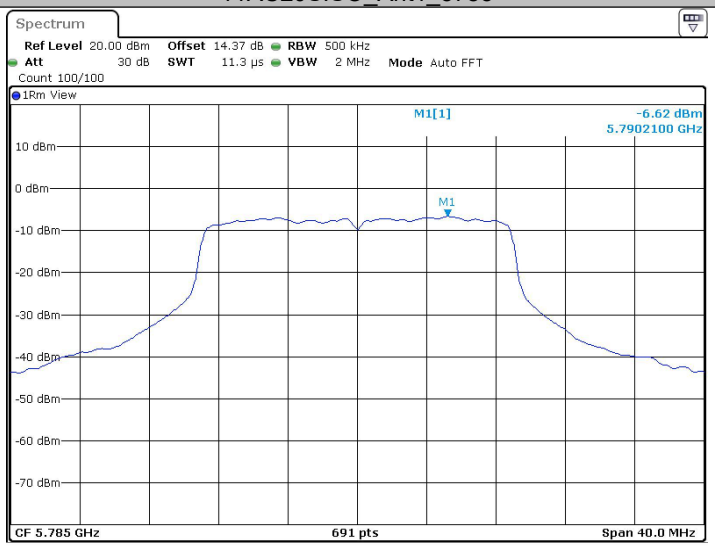

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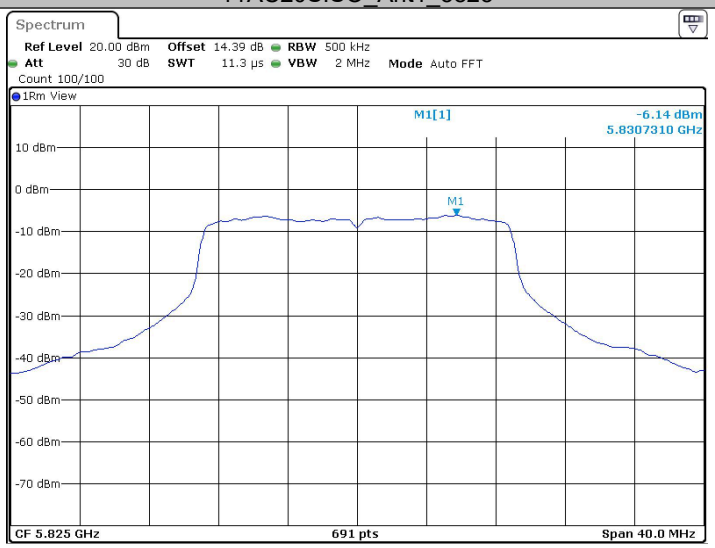

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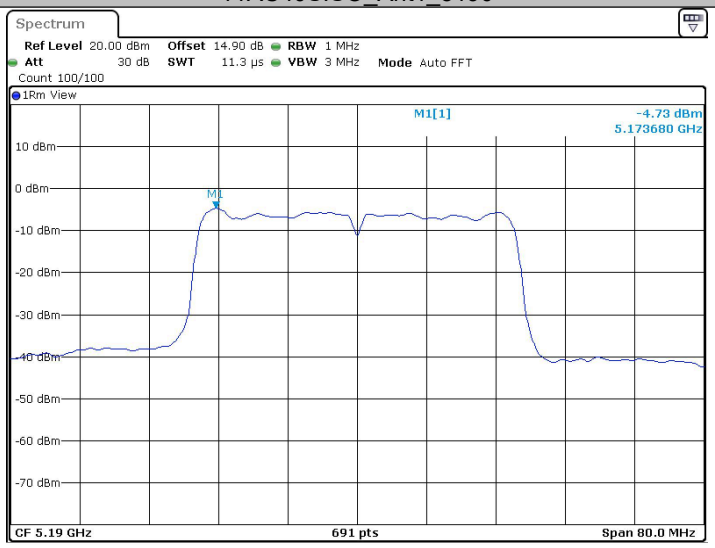

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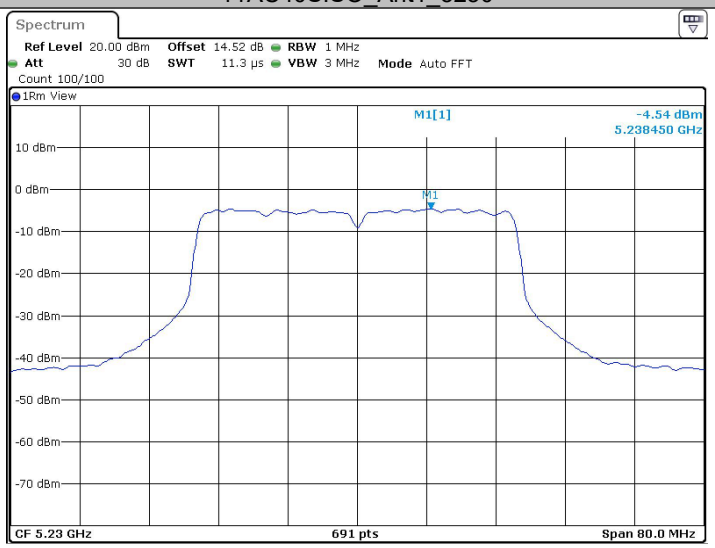

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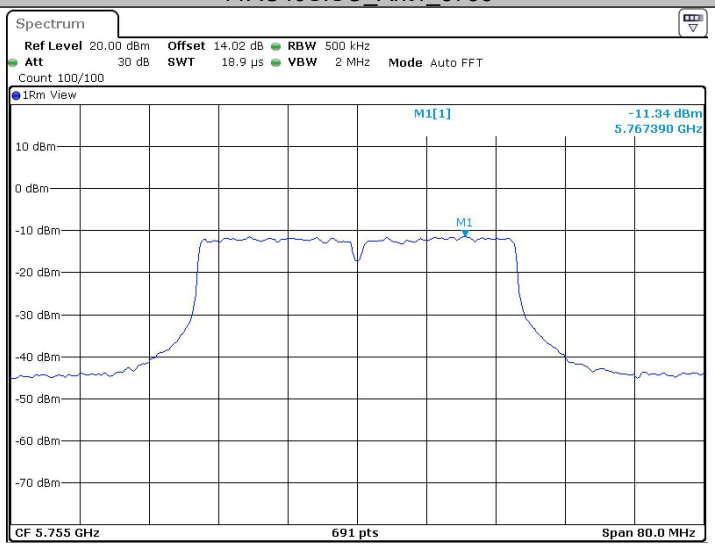

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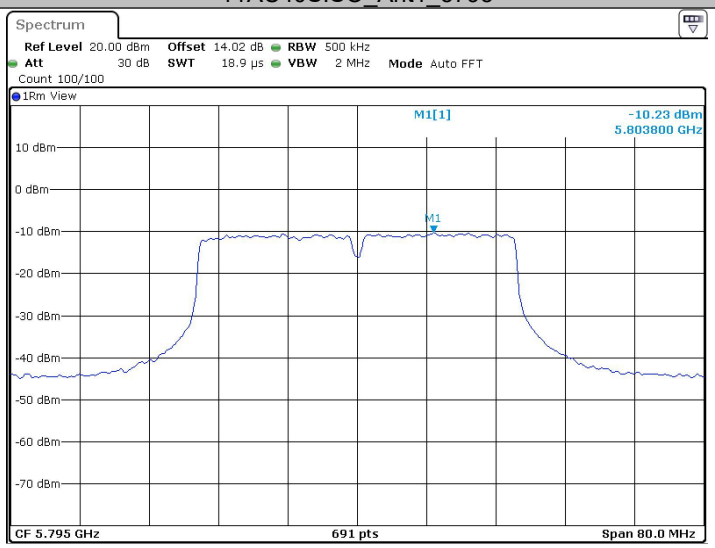

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Appendix D): Band Edge Measurements

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.407(b)

Test Method: KDB 789033 D02 II G

Test Procedure:

1. The EUT operates at transmitting mode. The operate channel is tested to verify the largest transmission and spurious emissions power at the continuous transmission mode.

2. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

(a) PEAK: RBW=VBW=1MHz / Sweep=AUTO

(b) AVERAGE: RBW=1MHz ; VBW=1/on time(1KHz) / Sweep=AUTO

Limit:

For transmitters operating in the 5.15-5.25 GHz band:	All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz (68.2dBuV/m).
For transmitters operating in the 5.25-5.35 GHz band:	All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz (68.2dBuV/m).
For transmitters operating in the 5.47-5.725 GHz band:	All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz (68.2dBuV/m).
For transmitters operating in the 5.725-5.85 GHz band:	(i) All emissions shall be limited to a level of −27 dBm/MHz (68.2dBuV/m) at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz (105.2dBuV/m) at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz (110.8dBuV/m) at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz (122.2dBuV/m) at the band edge.