

8. MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

8.1.Limits of Maximum Conducted Output Power Measurement

CFR 47 (FCC) part 15.407 (a)

For the band 5.15–5.25 GHz.

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz, the maximum antenna gain does not exceed 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

8.2. Test Procedure

(i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied.

The EUT is configured to transmit continuously or to transmit with a constant duty cycle.

At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.

The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

(ii) If the transmitter does not transmit continuously, measure the duty cycle, x , of the transmitter output signal as described in section II.B.

(iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.

(iv) Adjust the measurement in dBm by adding $10 \log (1/x)$ where x is the duty cycle (e.g., $10 \log (1/0.25)$ if the duty cycle is 25%). the measurement result.

8.3. Test Setup



8.4. Test Data

TestMode	Antenna	Channel	Result[dBm]	Limit	Verdict
11A	Ant9	5180	13.35	≤23.98	PASS
		5200	15.57	≤23.98	PASS
		5240	15.32	≤23.98	PASS
		5260	12.92	≤23.98	PASS
		5280	15.37	≤23.90	PASS
		5320	15.08	≤23.92	PASS
		5500	14.61	≤23.82	PASS
		5600	14.98	≤23.98	PASS
		5700	12.72	≤23.71	PASS
		5745	13.36	≤30.00	PASS
		5785	15.38	≤30.00	PASS
		5825	15.38	≤30.00	PASS
11N20	Ant9	5180	12.83	≤23.98	PASS
		5200	15.19	≤23.98	PASS
		5240	14.91	≤23.98	PASS
		5260	12.54	≤23.98	PASS
		5280	14.99	≤23.98	PASS
		5320	14.58	≤23.98	PASS
		5500	14.13	≤23.98	PASS
		5600	14.55	≤23.98	PASS
		5700	11.79	≤23.98	PASS
		5745	12.98	≤30.00	PASS
		5785	15.08	≤30.00	PASS
		5825	15.09	≤30.00	PASS
11N40	Ant9	5190	11.87	≤23.98	PASS
		5230	15.42	≤23.98	PASS
		5270	15.48	≤23.98	PASS
		5310	13.42	≤23.98	PASS
		5510	12.15	≤23.98	PASS
		5590	14.29	≤23.98	PASS
		5670	13.05	≤23.98	PASS
		5755	15.84	≤30.00	PASS
		5795	15.48	≤30.00	PASS
11AC20	Ant9	5180	13.74	≤23.98	PASS
		5200	16.01	≤23.98	PASS
		5240	15.51	≤23.98	PASS
		5260	13.11	≤23.98	PASS
		5280	15.03	≤23.98	PASS
		5320	14.63	≤23.98	PASS
		5500	12.28	≤23.98	PASS
		5600	14.49	≤23.98	PASS
		5700	12.34	≤23.94	PASS
		5745	15.03	≤30.00	PASS
		5785	14.50	≤30.00	PASS
		5825	14.52	≤30.00	PASS
11AC40	Ant9	5190	11.82	≤23.98	PASS
		5230	15.76	≤23.98	PASS
		5270	15.80	≤23.98	PASS
		5310	11.80	≤23.98	PASS
		5510	12.71	≤23.98	PASS
		5590	14.84	≤23.98	PASS
		5670	14.70	≤23.98	PASS
		5755	15.39	≤30.00	PASS
		5795	15.08	≤30.00	PASS
11AC80	Ant9	5210	15.57	≤23.98	PASS
		5290	13.63	≤23.98	PASS
		5530	11.95	≤23.98	PASS
		5610	12.19	≤23.98	PASS
		5775	14.64	≤30.00	PASS
11AC160	Ant9	5250_UNII-1	8.73	≤23.98	PASS
		5250_UNII-2A	9.22	≤23.98	PASS
		5570	12.25	≤23.98	PASS
11AX20	Ant9	5180	13.28	≤23.98	PASS
		5200	15.64	≤23.98	PASS

		5240	15.33	≤23.98	PASS
		5260	12.87	≤23.98	PASS
		5280	15.61	≤23.98	PASS
		5320	15.22	≤23.98	PASS
		5500	12.23	≤23.98	PASS
		5580	14.01	≤23.98	PASS
		5600	14.65	≤23.98	PASS
		5700	14.51	≤23.98	PASS
		5745	15.38	≤30.00	PASS
		5785	15.31	≤30.00	PASS
		5825	15.37	≤30.00	PASS
11AX40	Ant9	5190	11.56	≤23.98	PASS
		5230	15.93	≤23.98	PASS
		5270	15.98	≤23.98	PASS
		5310	11.00	≤23.98	PASS
		5510	10.41	≤23.98	PASS
		5550	14.80	≤23.98	PASS
		5670	12.23	≤23.98	PASS
		5755	15.48	≤30.00	PASS
		5795	15.16	≤30.00	PASS
11AX80	Ant9	5210	10.47	≤23.98	PASS
		5290	13.13	≤23.98	PASS
		5530	11.88	≤23.98	PASS
		5610	14.83	≤23.98	PASS
		5775	14.85	≤30.00	PASS
11AX160	Ant9	5250 UNII-1	8.70	≤23.98	PASS
		5250 UNII-2A	9.17	≤23.98	PASS
		5570	12.31	≤23.98	PASS

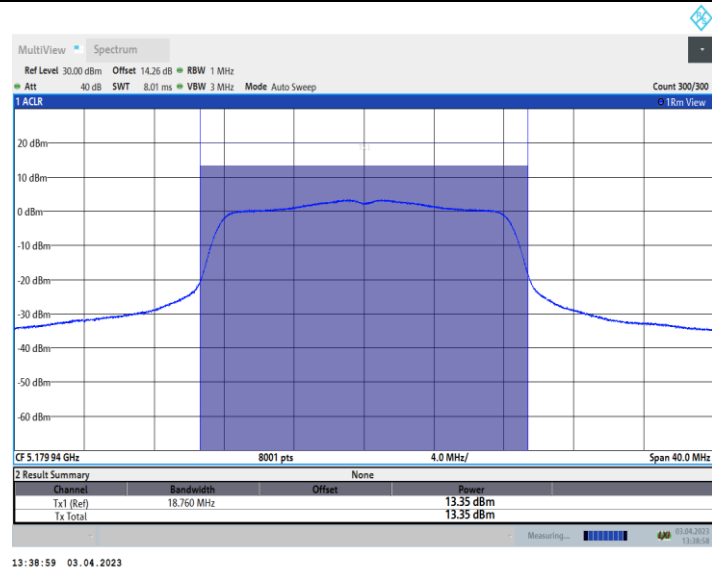
TestMode	Antenna	Channel	Result[dBm]	Limit	Verdict
11A	Ant10	5180	13.54	≤23.98	PASS
		5200	16.22	≤23.98	PASS
		5240	15.99	≤23.98	PASS
		5260	13.47	≤23.70	PASS
		5280	16.68	≤23.71	PASS
		5320	15.88	≤23.68	PASS
		5500	15.49	≤23.70	PASS
		5600	15.85	≤23.70	PASS
		5700	12.55	≤23.98	PASS
		5745	12.86	≤30.00	PASS
		5785	14.37	≤30.00	PASS
		5825	14.47	≤30.00	PASS
11N20	Ant10	5180	13.26	≤23.98	PASS
		5200	15.91	≤23.98	PASS
		5240	15.69	≤23.98	PASS
		5260	13.21	≤23.95	PASS
		5280	15.82	≤23.98	PASS
		5320	15.55	≤23.98	PASS
		5500	15.22	≤23.98	PASS
		5600	15.52	≤23.98	PASS
		5700	15.48	≤23.98	PASS
		5745	12.50	≤30.00	PASS
		5785	14.57	≤30.00	PASS
		5825	14.58	≤30.00	PASS
11N40	Ant10	5190	11.64	≤23.98	PASS
		5230	15.06	≤23.98	PASS
		5270	15.76	≤23.98	PASS
		5310	13.39	≤23.98	PASS
		5510	15.18	≤23.98	PASS
		5590	15.18	≤23.98	PASS
		5670	15.03	≤23.98	PASS
		5755	15.33	≤30.00	PASS
11AC20	Ant10	5795	14.95	≤30.00	PASS
		5180	13.15	≤23.98	PASS
		5200	15.89	≤23.98	PASS
		5240	15.65	≤23.98	PASS
		5260	13.20	≤23.93	PASS
		5280	15.28	≤23.98	PASS
		5320	15.08	≤23.98	PASS
		5500	12.29	≤23.98	PASS
		5600	15.01	≤23.98	PASS
		5700	12.39	≤23.97	PASS
		5745	14.53	≤30.00	PASS
		5785	13.98	≤30.00	PASS
11AC40	Ant10	5825	14.03	≤30.00	PASS
		5190	11.64	≤23.98	PASS
		5230	16.07	≤23.98	PASS
		5270	16.27	≤23.98	PASS
		5310	11.76	≤23.98	PASS
		5510	12.72	≤23.98	PASS
		5590	14.85	≤23.98	PASS
		5670	14.73	≤23.98	PASS
		5755	14.85	≤30.00	PASS
		5795	14.58	≤30.00	PASS
11AC80	Ant10	5210	15.82	≤23.98	PASS
		5290	13.52	≤23.98	PASS
		5530	11.92	≤23.98	PASS
		5610	14.70	≤23.98	PASS
		5775	14.39	≤30.00	PASS
11AC160	Ant10	5250_UNII-1	9.08	≤23.98	PASS
		5250_UNII-2A	9.46	≤23.98	PASS
		5570	14.64	≤23.98	PASS
11AX20	Ant10	5180	13.24	≤23.98	PASS
		5200	15.94	≤23.98	PASS

		5240	15.69	≤23.98	PASS
		5260	13.72	≤23.98	PASS
		5280	16.28	≤23.98	PASS
		5320	15.98	≤23.98	PASS
		5500	15.19	≤23.98	PASS
		5580	15.04	≤23.98	PASS
		5600	15.46	≤23.98	PASS
		5700	13.19	≤23.98	PASS
		5745	15.37	≤30.00	PASS
		5785	14.81	≤30.00	PASS
		5825	14.82	≤30.00	PASS
11AX40	Ant10	5190	11.36	≤23.98	PASS
		5230	16.02	≤23.98	PASS
		5270	16.25	≤23.98	PASS
		5310	10.88	≤23.98	PASS
		5510	10.40	≤23.98	PASS
		5590	15.62	≤23.98	PASS
		5670	12.31	≤23.98	PASS
		5755	15.03	≤30.00	PASS
		5795	14.76	≤30.00	PASS
11AX80	Ant10	5210	10.49	≤23.98	PASS
		5290	12.98	≤23.98	PASS
		5530	11.88	≤23.98	PASS
		5610	15.38	≤23.98	PASS
		5775	14.96	≤30.00	PASS
11AX160	Ant10	5250 UNII-1	9.13	≤23.98	PASS
		5250 UNII-2A	9.54	≤23.98	PASS
		5570	12.64	≤23.98	PASS

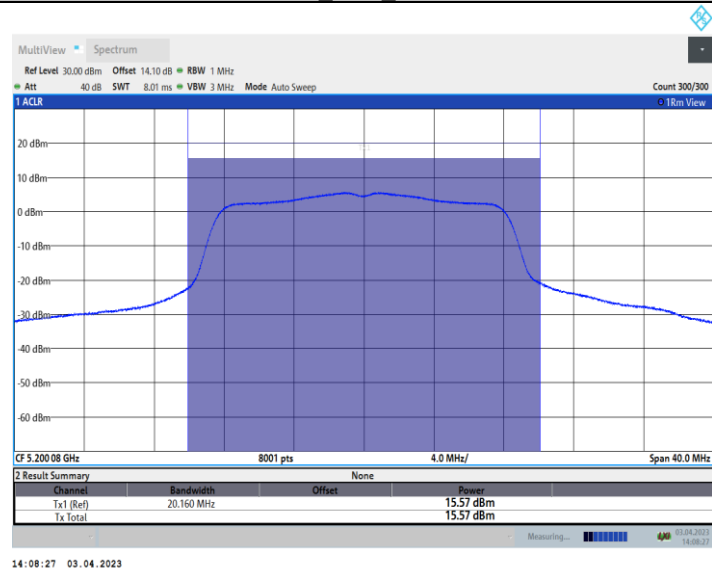
TestMode	Channel	Result[dBm]			Limit	Verdict
		Ant9	Ant10	Total(Ant9+Ant10)		
11A-CDD	5180	13.35	13.54	16.46	≤23.98	PASS
	5200	15.57	16.22	18.92	≤23.98	PASS
	5240	15.32	15.99	18.68	≤23.98	PASS
	5260	12.92	13.47	16.21	≤23.98	PASS
	5280	15.37	16.68	19.08	≤23.90	PASS
	5320	15.08	15.88	18.51	≤23.92	PASS
	5500	14.61	15.49	18.08	≤23.82	PASS
	5600	14.98	15.85	18.45	≤23.98	PASS
	5700	12.72	12.55	15.65	≤23.71	PASS
	5745	13.36	12.86	16.13	≤30.00	PASS
	5785	15.38	14.37	17.91	≤30.00	PASS
	5825	15.38	14.47	17.96	≤30.00	PASS
11N20MIMO	5180	12.83	13.26	16.06	≤23.98	PASS
	5200	15.19	15.91	18.58	≤23.98	PASS
	5240	14.91	15.69	18.33	≤23.98	PASS
	5260	12.54	13.21	15.90	≤23.98	PASS
	5280	14.99	15.82	18.44	≤23.98	PASS
	5320	14.58	15.55	18.10	≤23.98	PASS
	5500	14.13	15.22	17.72	≤23.98	PASS
	5600	14.55	15.52	18.07	≤23.98	PASS
	5700	11.79	15.48	17.03	≤23.98	PASS
	5745	12.98	12.50	15.76	≤30.00	PASS
	5785	15.08	14.57	17.84	≤30.00	PASS
	5825	15.09	14.58	17.85	≤30.00	PASS
11N40MIMO	5190	11.87	11.64	14.77	≤23.98	PASS
	5230	15.42	15.06	18.25	≤23.98	PASS
	5270	15.48	15.76	18.63	≤23.98	PASS
	5310	13.42	13.39	16.42	≤23.98	PASS
	5510	12.15	15.18	16.93	≤23.98	PASS
	5590	14.29	15.18	17.77	≤23.98	PASS
	5670	13.05	15.03	17.16	≤23.98	PASS
	5755	15.84	15.33	18.60	≤30.00	PASS
11AC20MIMO	5180	13.74	13.15	16.47	≤23.98	PASS
	5200	16.01	15.89	18.96	≤23.98	PASS
	5240	15.51	15.65	18.59	≤23.98	PASS
	5260	13.11	13.20	16.17	≤23.98	PASS
	5280	15.03	15.28	18.17	≤23.98	PASS
	5320	14.63	15.08	17.87	≤23.98	PASS
	5500	12.28	12.29	15.30	≤23.98	PASS
	5600	14.49	15.01	17.77	≤23.98	PASS
	5700	12.34	12.39	15.38	≤23.94	PASS
	5745	15.03	14.53	17.80	≤30.00	PASS
	5785	14.50	13.98	17.26	≤30.00	PASS
	5825	14.52	14.03	17.29	≤30.00	PASS
11AC40MIMO	5190	11.82	11.64	14.74	≤23.98	PASS
	5230	15.76	16.07	18.93	≤23.98	PASS
	5270	15.80	16.27	19.05	≤23.98	PASS
	5310	11.80	11.76	14.79	≤23.98	PASS
	5510	12.71	12.72	15.73	≤23.98	PASS
	5590	14.84	14.85	17.86	≤23.98	PASS
	5670	14.70	14.73	17.73	≤23.98	PASS
	5755	15.39	14.85	18.14	≤30.00	PASS
11AC80MIMO	5190	15.57	15.82	18.71	≤23.98	PASS
	5290	13.63	13.52	16.59	≤23.98	PASS
	5530	11.95	11.92	14.95	≤23.98	PASS
	5610	12.19	14.70	16.63	≤23.98	PASS
	5775	14.64	14.39	17.53	≤30.00	PASS
11AC160MIMO	5250_UNII-1	8.73	9.08	11.92	≤23.98	PASS
	5250_UNII-2A	9.22	9.46	12.35	≤23.98	PASS
	5570	12.25	14.64	16.62	≤23.98	PASS
11AX20MIMO	5180	13.28	13.24	16.27	≤23.98	PASS
	5200	15.64	15.94	18.80	≤23.98	PASS

	5240	15.33	15.69	18.52	≤23.98	PASS
	5260	12.87	13.72	16.33	≤23.98	PASS
	5280	15.61	16.28	18.97	≤23.98	PASS
	5320	15.22	15.98	18.63	≤23.98	PASS
	5500	12.23	15.19	16.97	≤23.98	PASS
	5580	14.01	15.04	17.57	≤23.98	PASS
	5600	14.65	15.46	18.08	≤23.98	PASS
	5700	14.51	13.19	16.91	≤23.98	PASS
	5745	15.38	15.37	18.39	≤30.00	PASS
	5785	15.31	14.81	18.08	≤30.00	PASS
11AX40MIMO	5825	15.37	14.82	18.11	≤30.00	PASS
	5190	11.56	11.36	14.47	≤23.98	PASS
	5230	15.93	16.02	18.99	≤23.98	PASS
	5270	15.98	16.25	19.13	≤23.98	PASS
	5310	11.00	10.88	13.95	≤23.98	PASS
	5510	10.41	10.40	13.42	≤23.98	PASS
	5550	14.80	15.62	18.24	≤23.98	PASS
	5670	12.23	12.31	15.28	≤23.98	PASS
11AX80MIMO	5755	15.48	15.03	18.27	≤30.00	PASS
	5795	15.16	14.76	17.97	≤30.00	PASS
	5210	10.47	10.49	13.49	≤23.98	PASS
	5290	13.13	12.98	16.07	≤23.98	PASS
	5530	11.88	11.88	14.89	≤23.98	PASS
11AX160MIMO	5610	14.83	15.38	18.12	≤23.98	PASS
	5775	14.85	14.96	17.92	≤30.00	PASS
	5250 UNII-1	8.70	9.13	11.93	≤23.98	PASS
	5250 UNII-2A	9.17	9.54	12.37	≤23.98	PASS
	5570	12.31	12.64	15.49	≤23.98	PASS

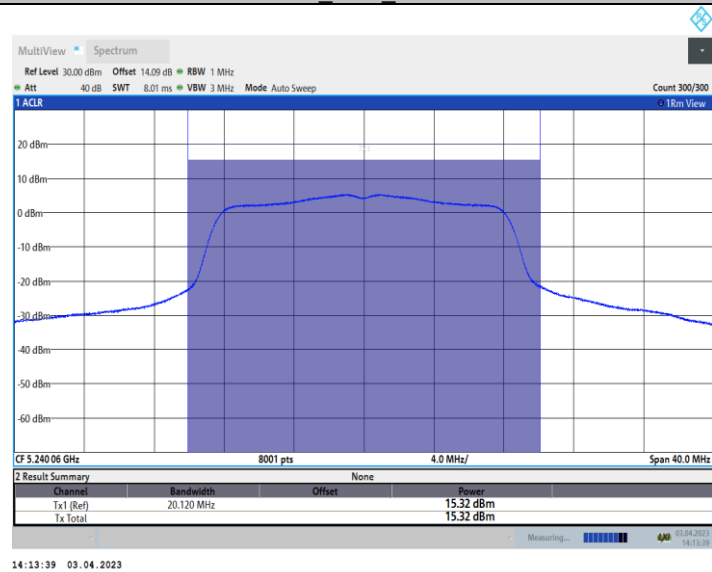
11A_Ant9_5180



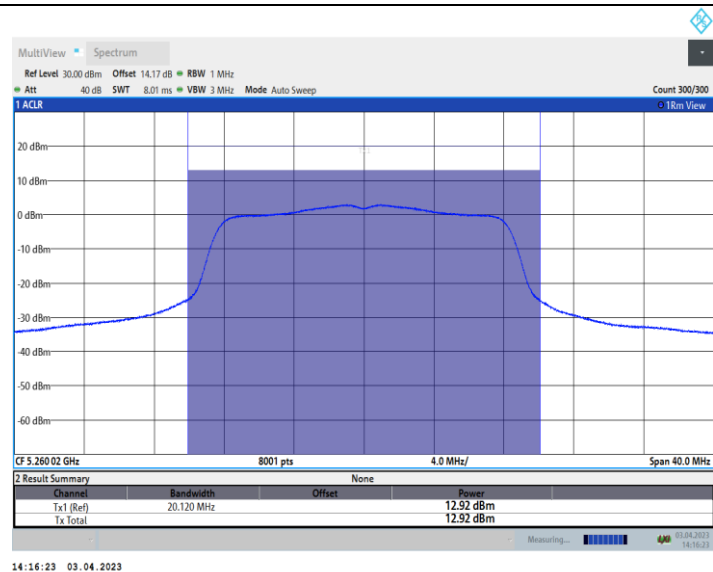
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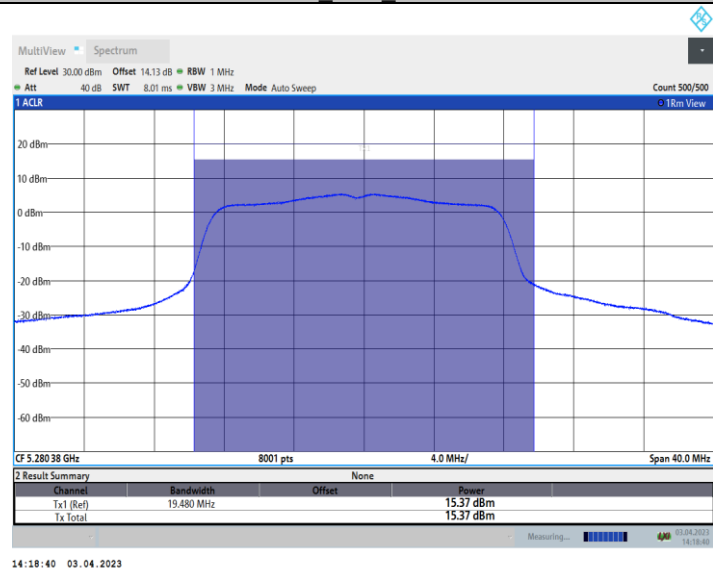
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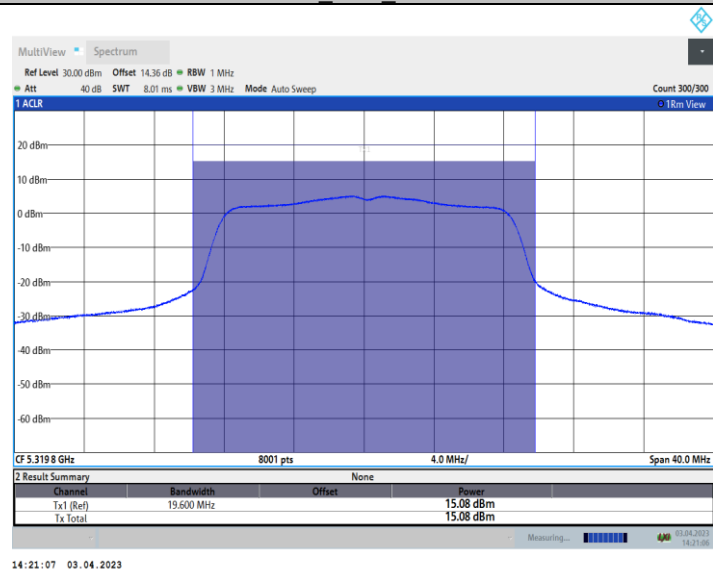
11A_Ant9_5260



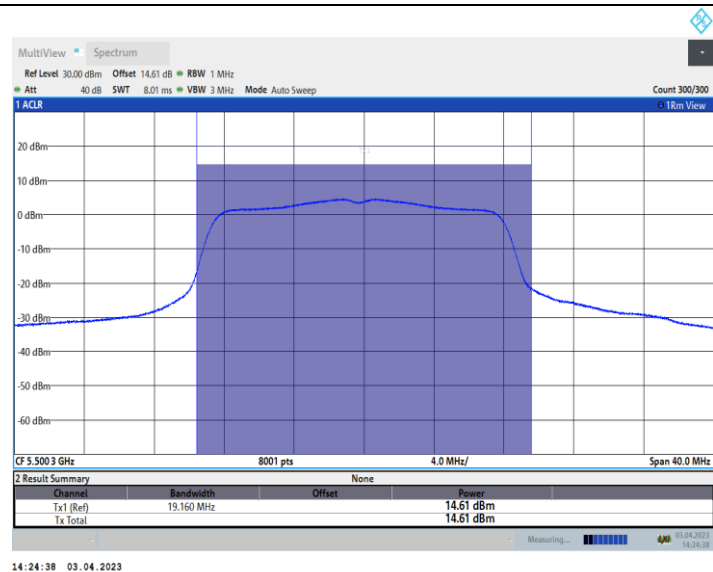
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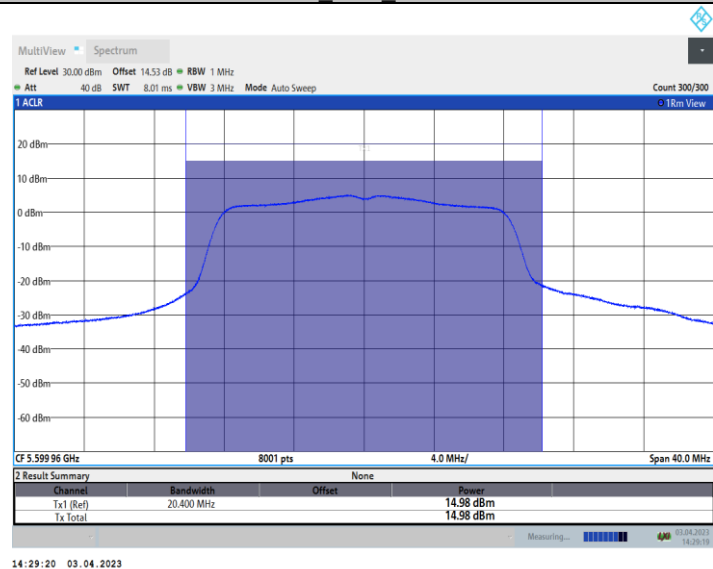
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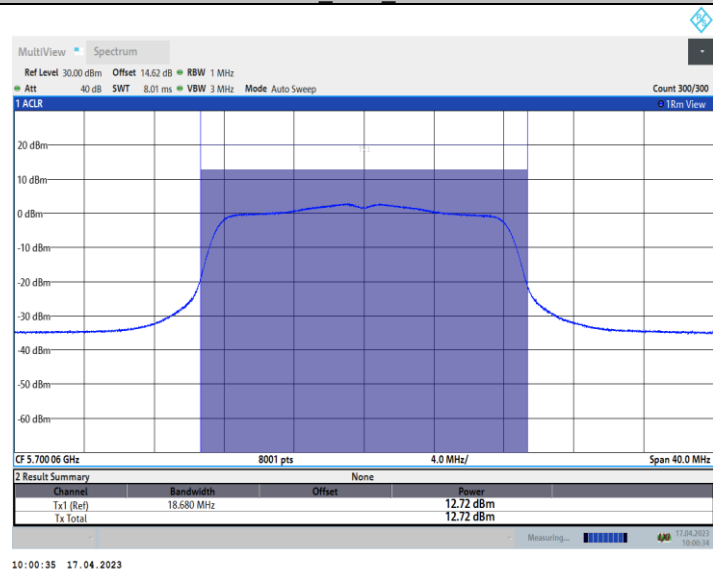
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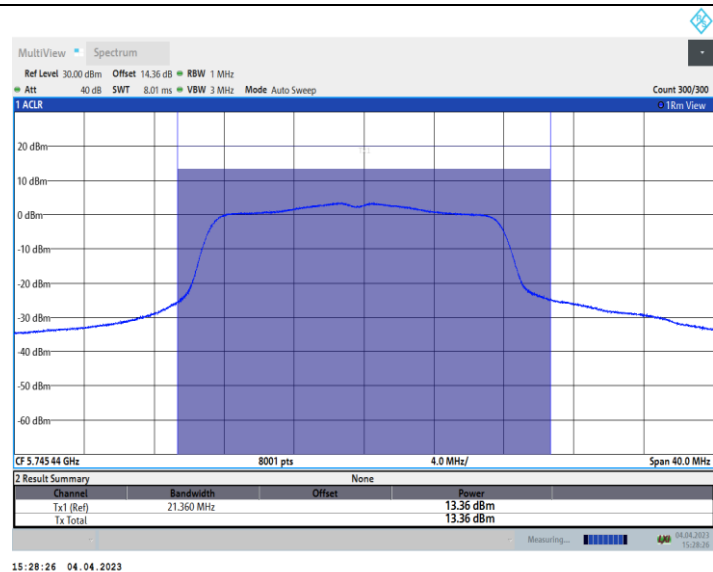
11A_Ant9_5600



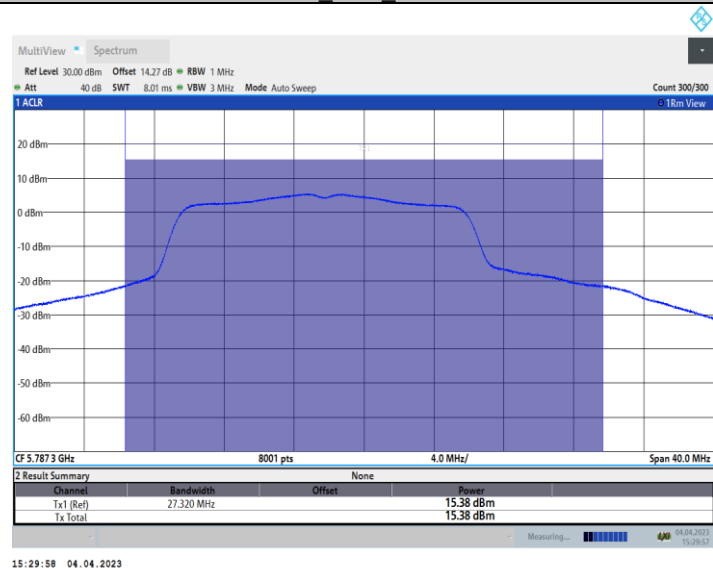
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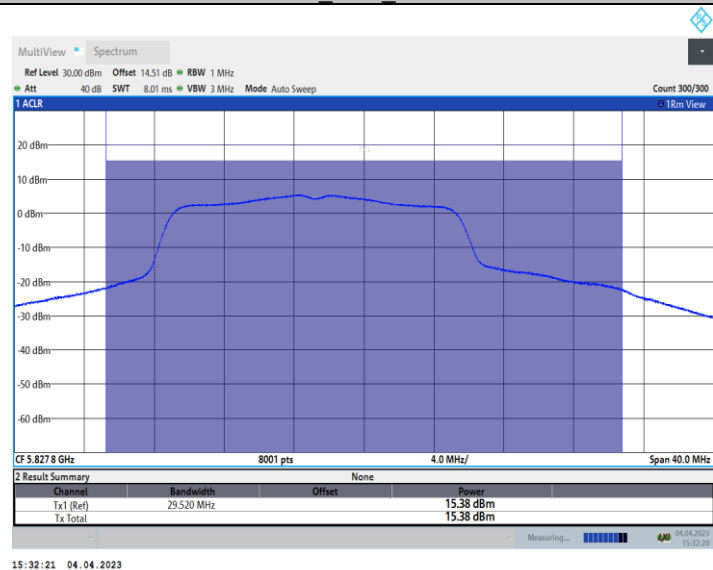
11A_Ant9_5745



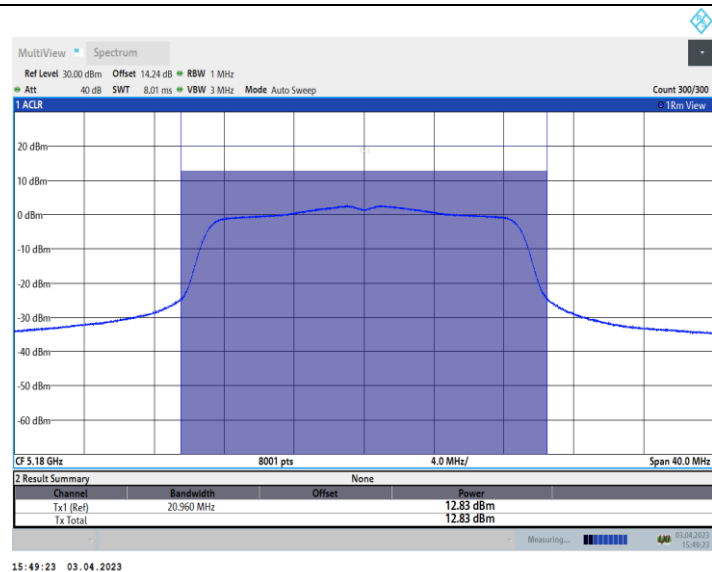
11A_Ant9_5785



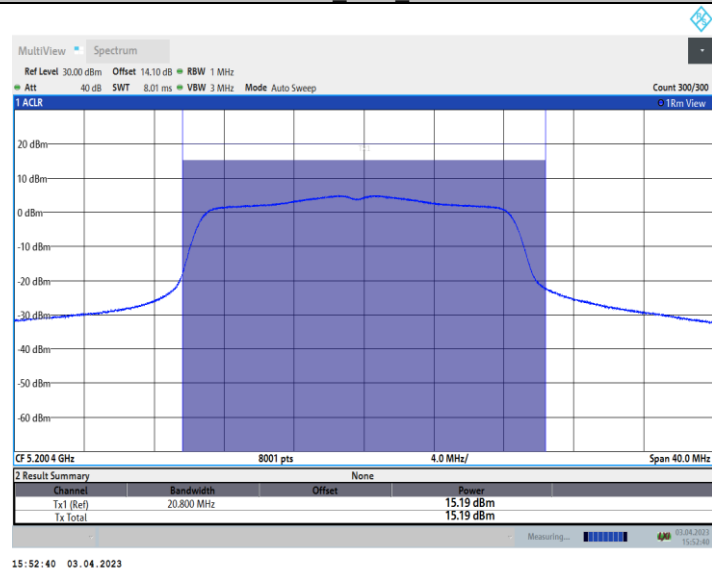
11A_Ant9_5825



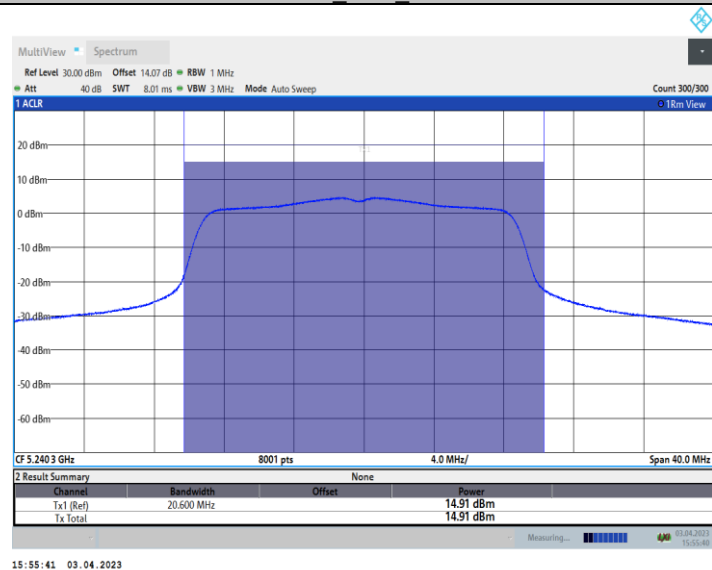
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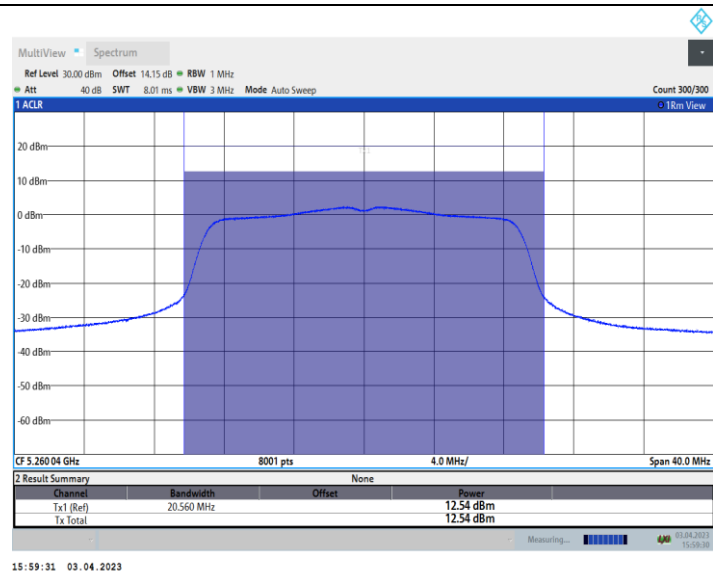
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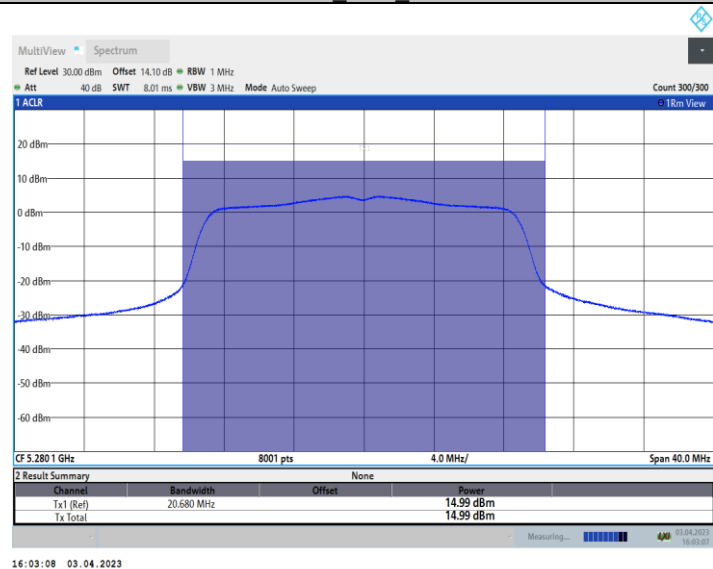
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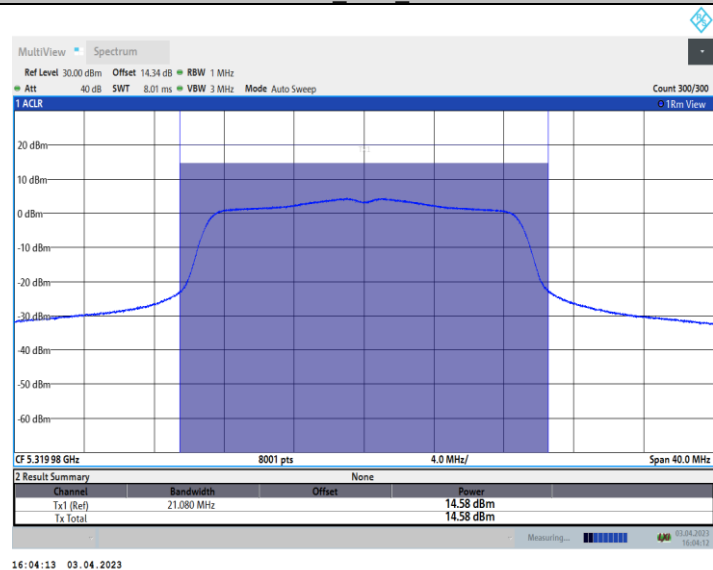
11N20_Ant9_5260



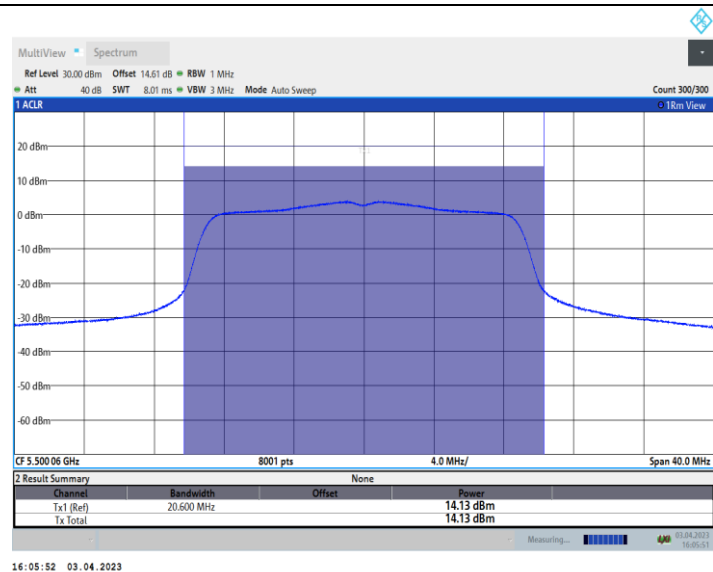
11N20_Ant9_5280



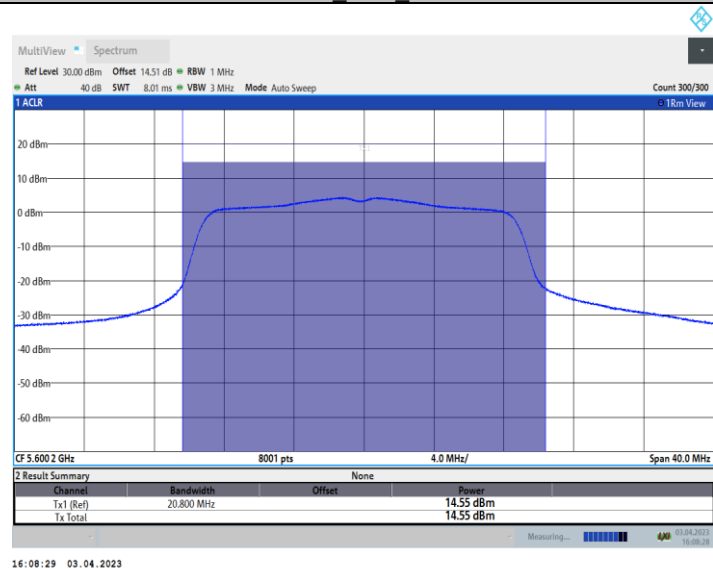
11N20_Ant9_5320



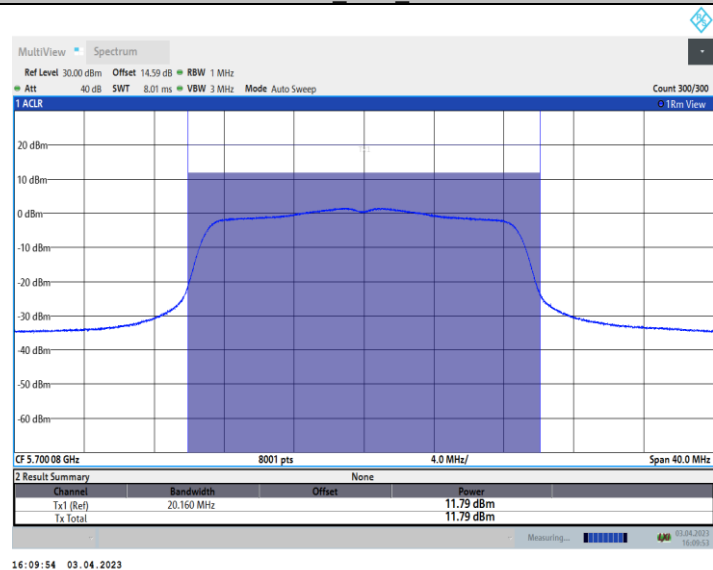
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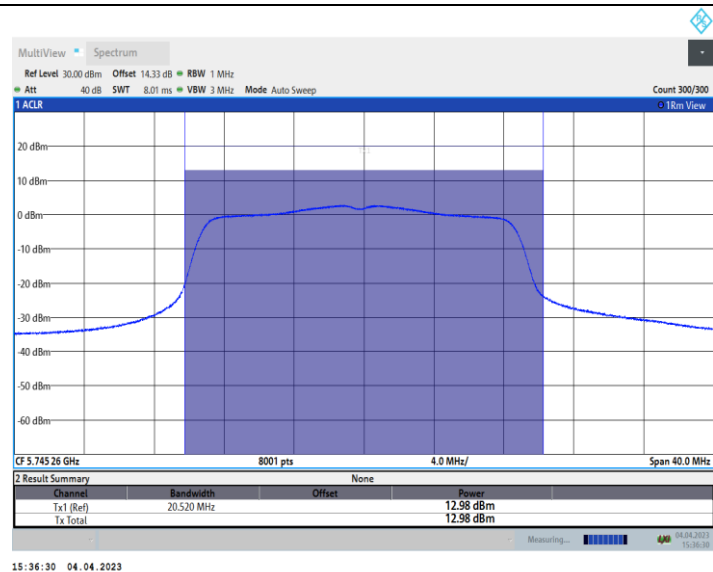
11N20_Ant9_5600



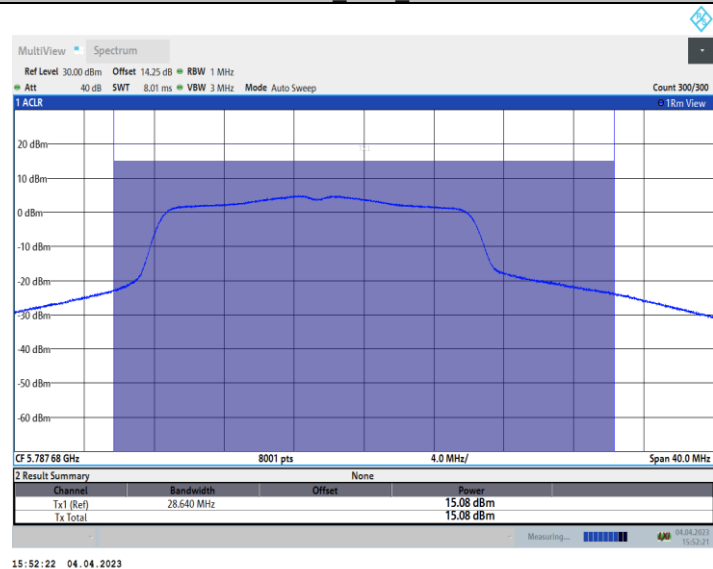
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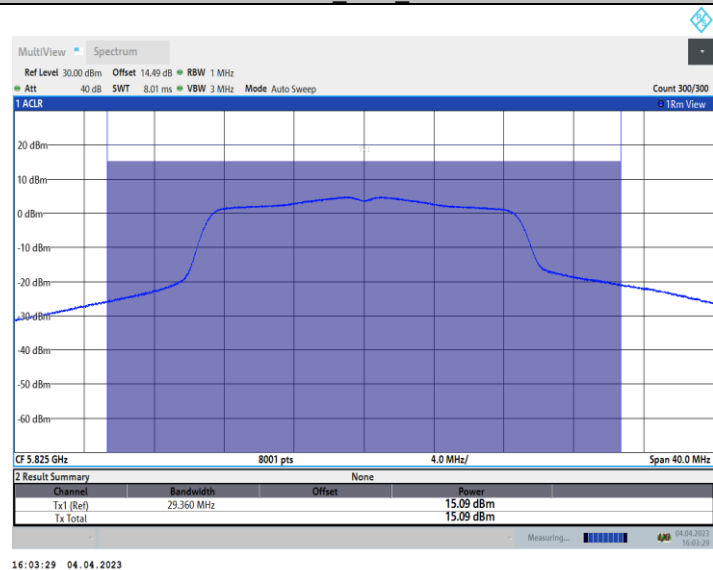
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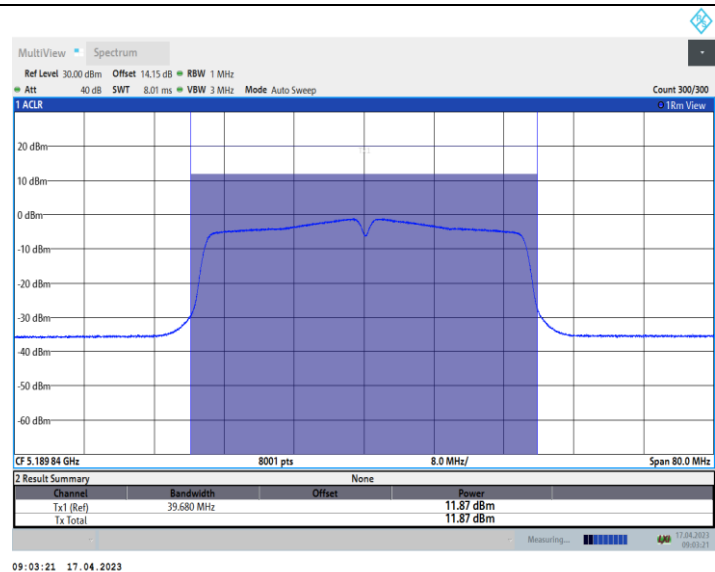
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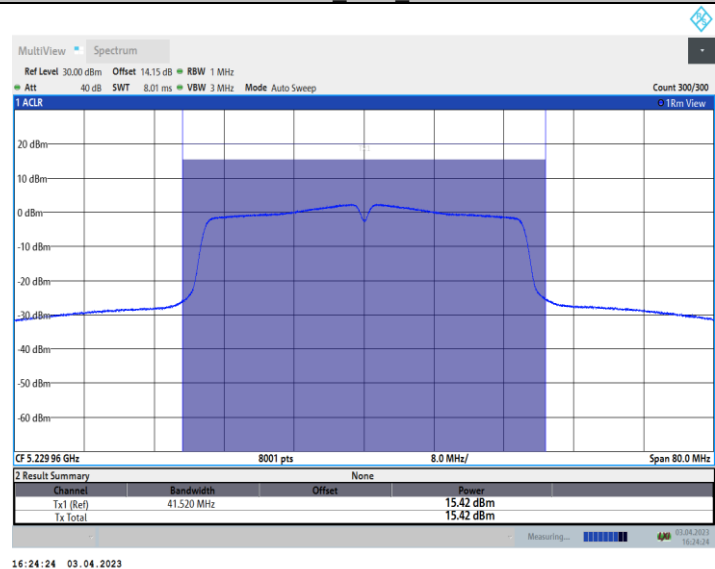
11N20_Ant9_5825



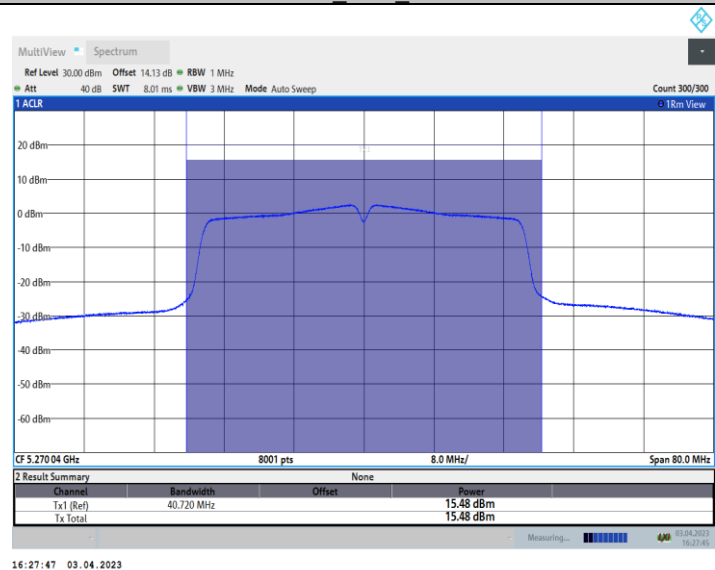
11N40_Ant9_5190



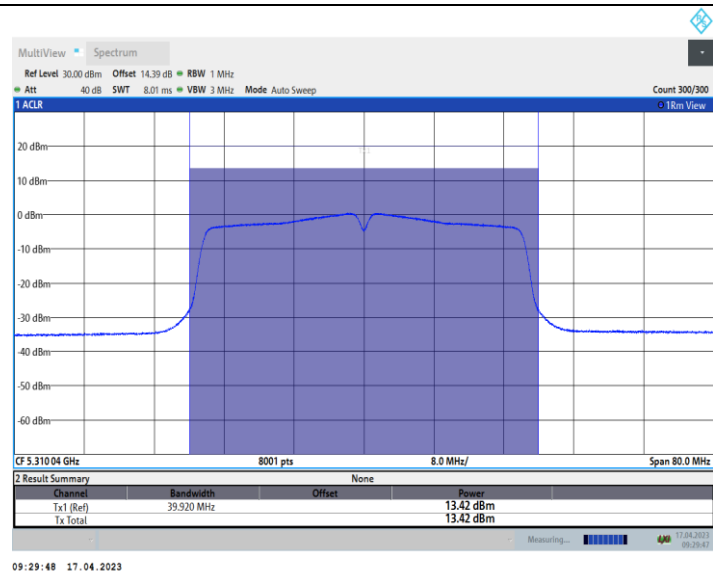
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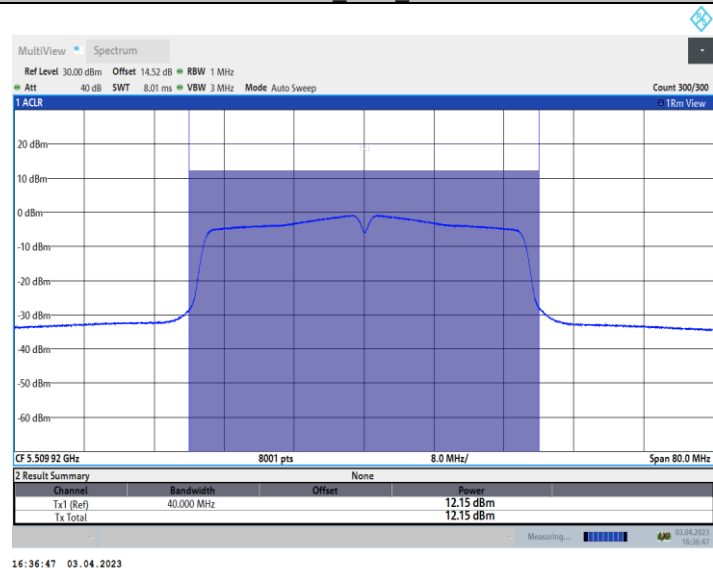
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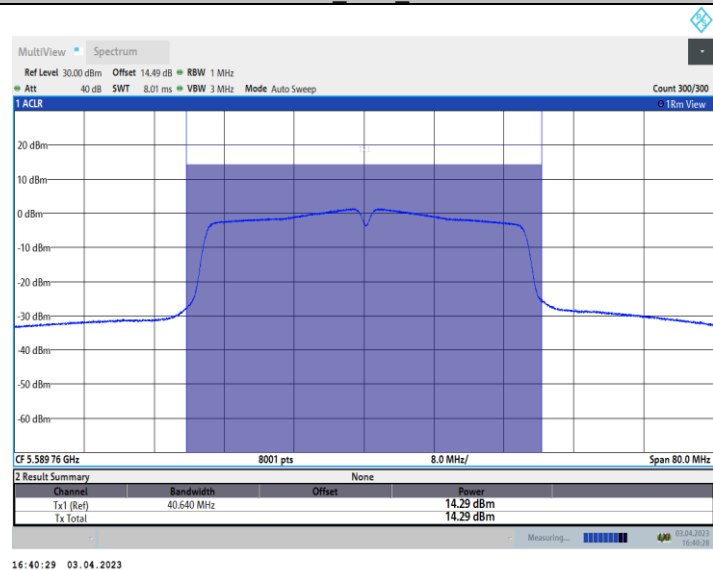
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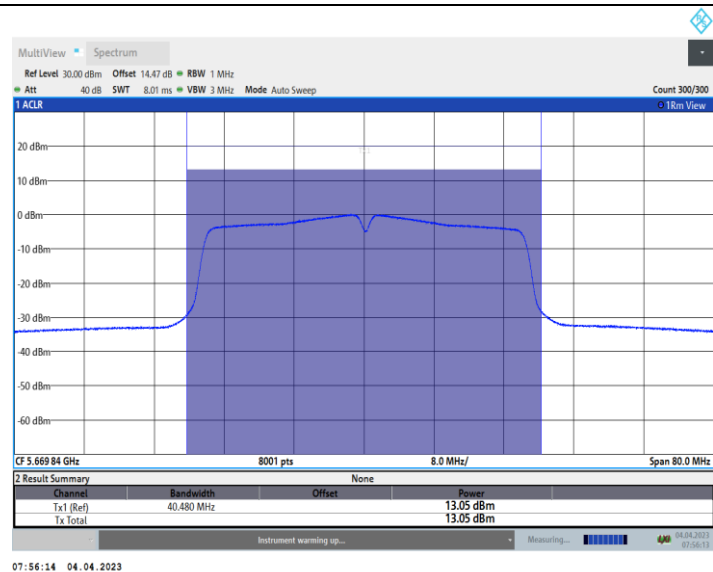
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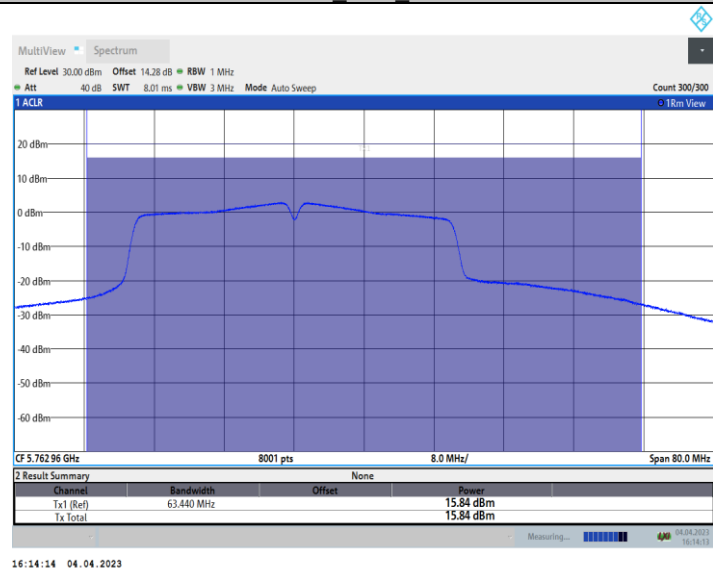
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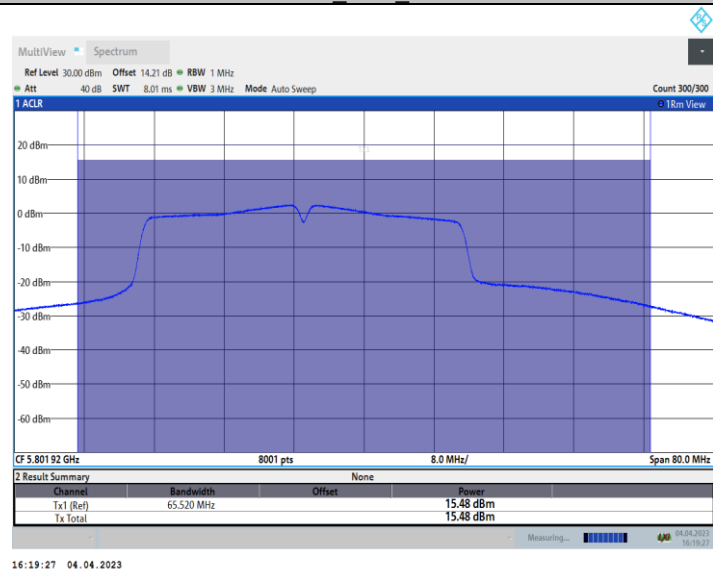
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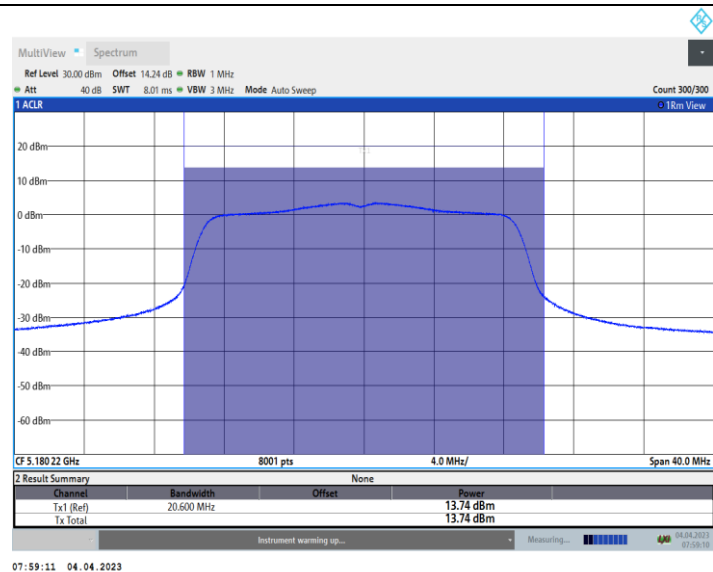
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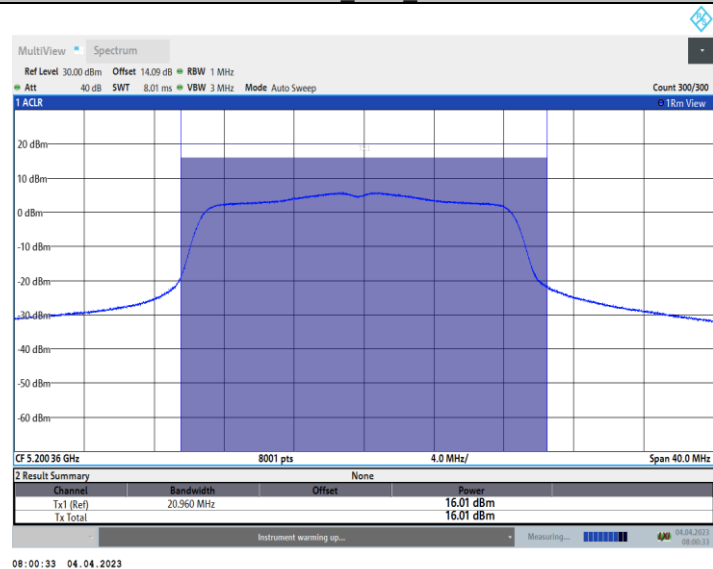
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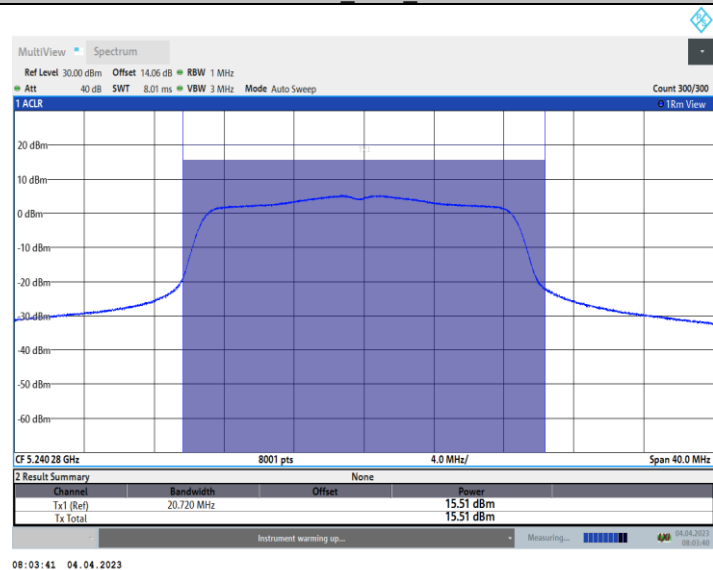
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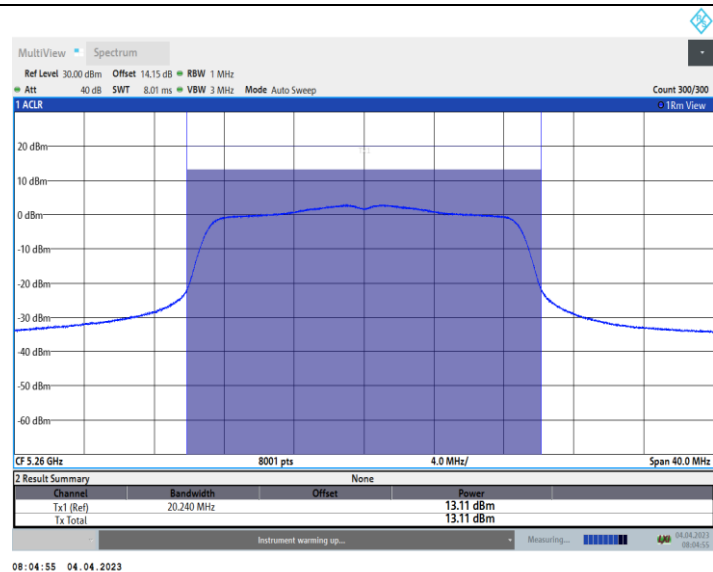
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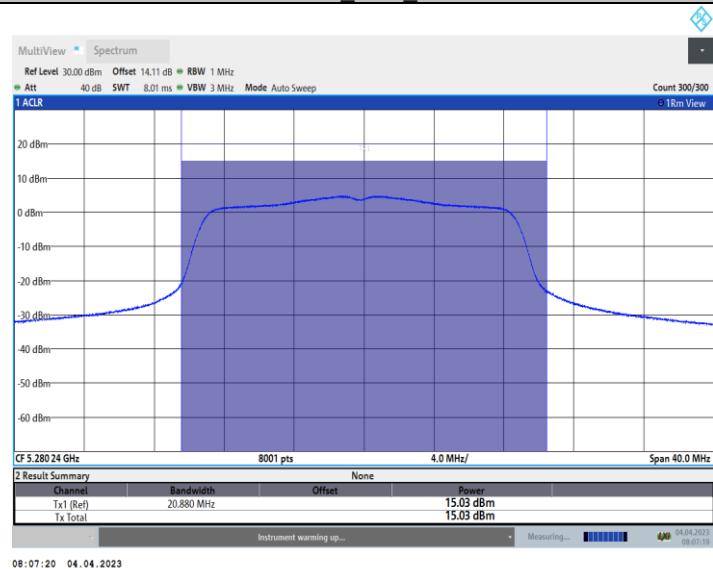
11AC20 Ant9 5240



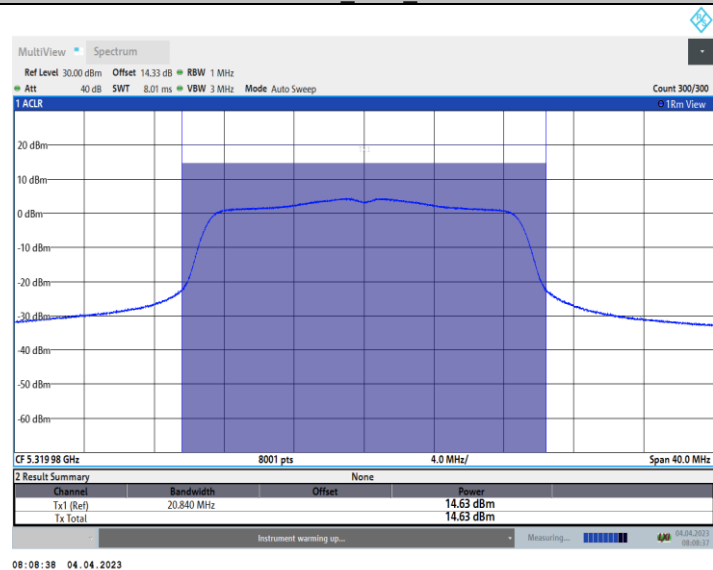
11AC20 Ant9 5260



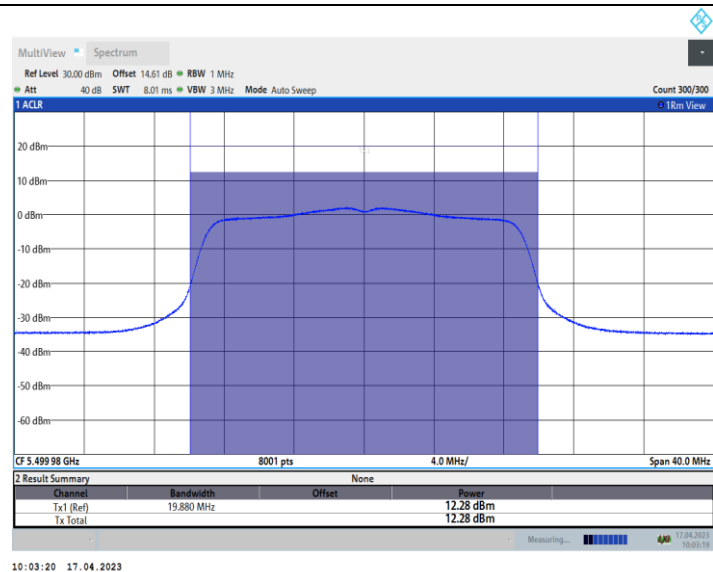
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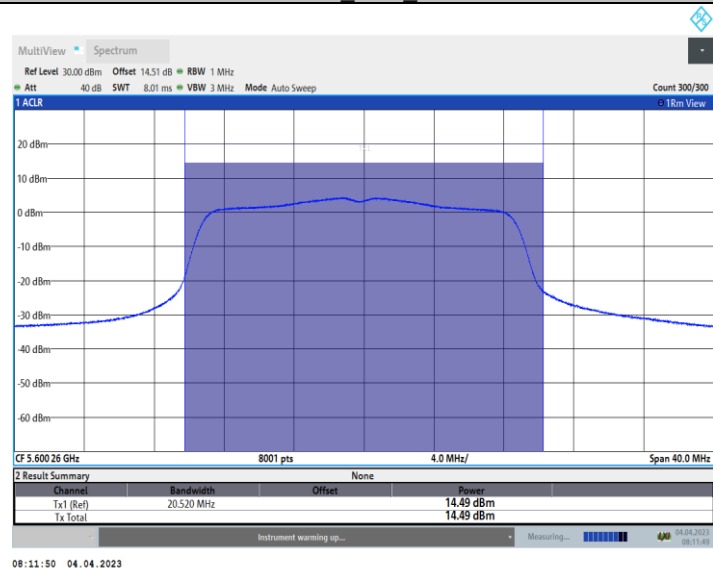
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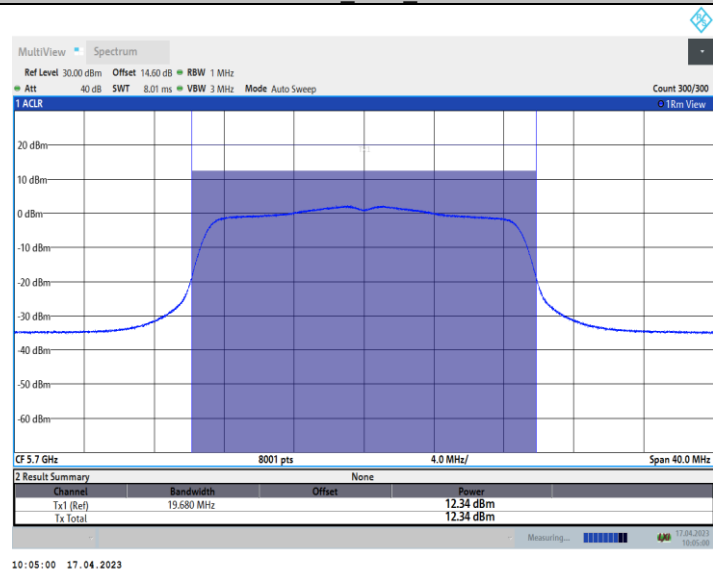
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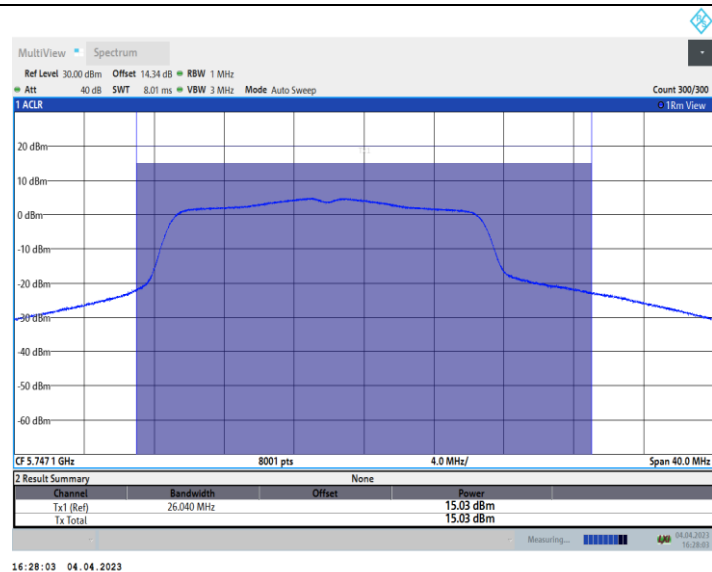
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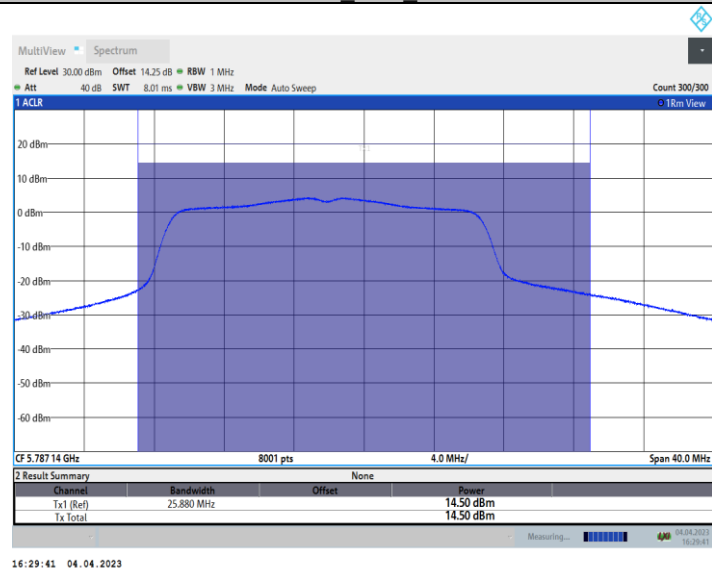
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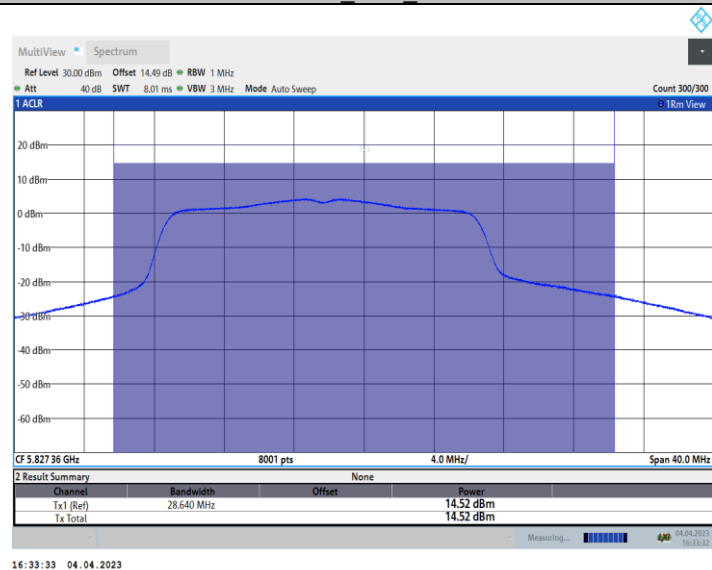
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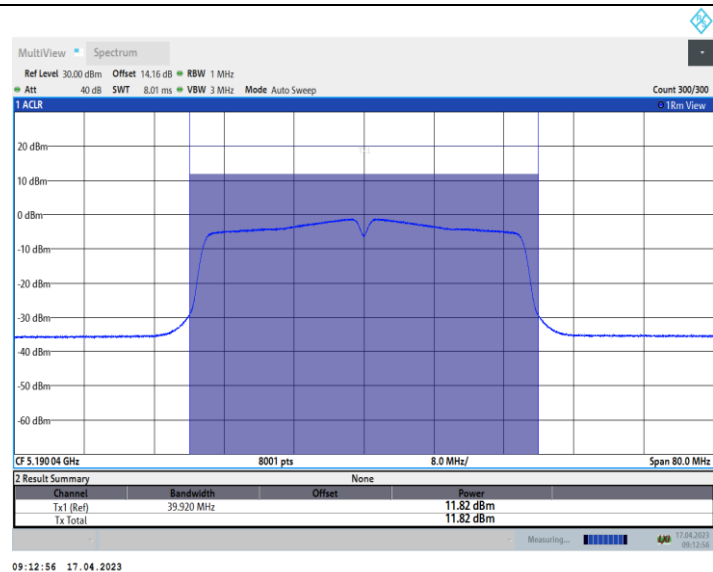
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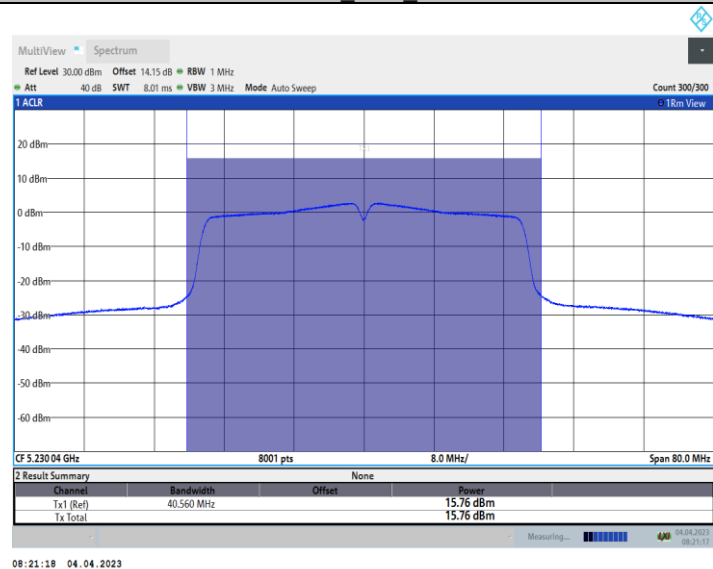
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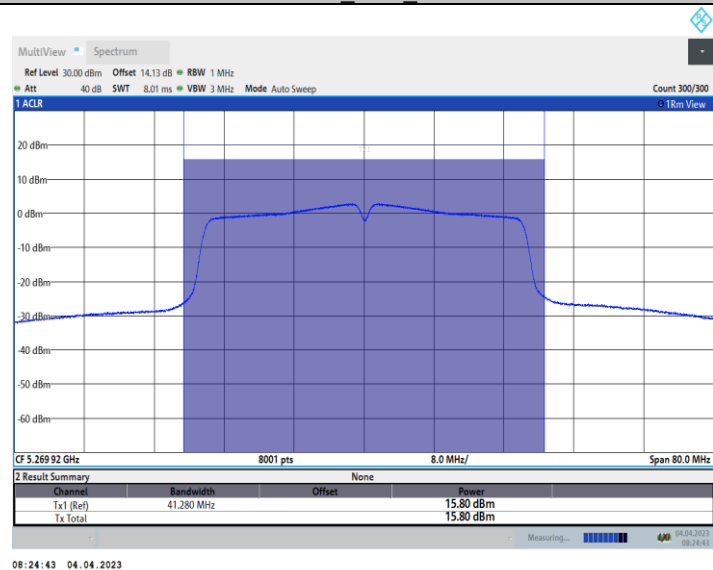
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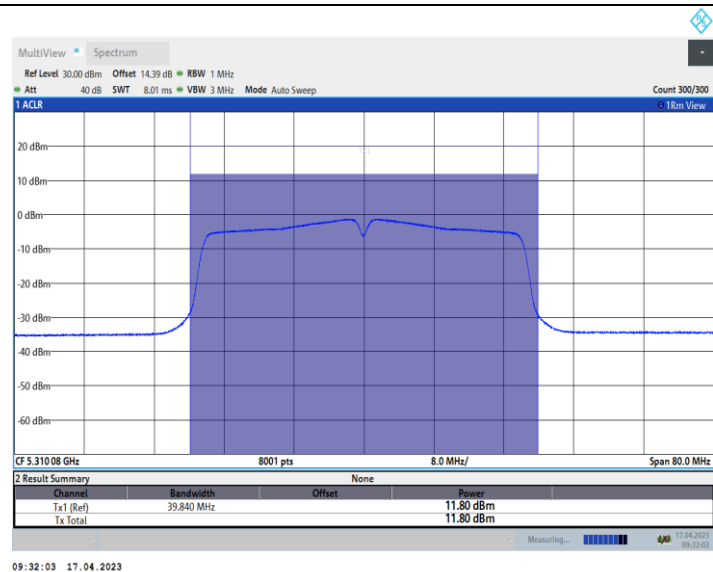
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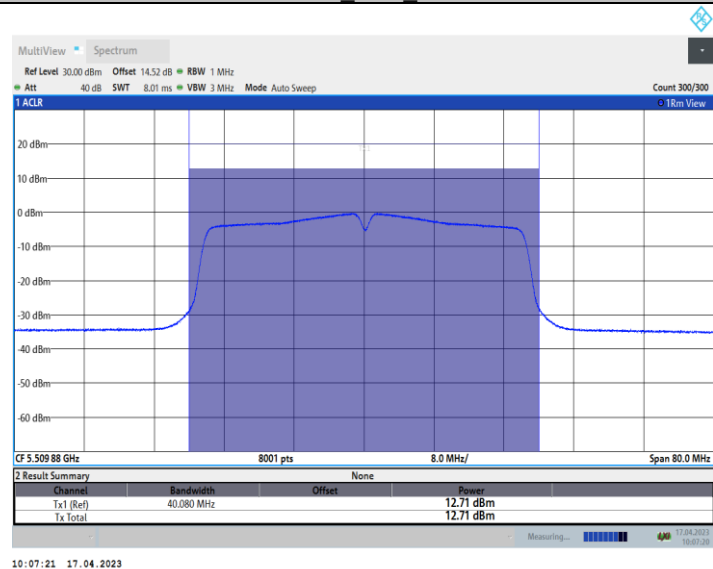
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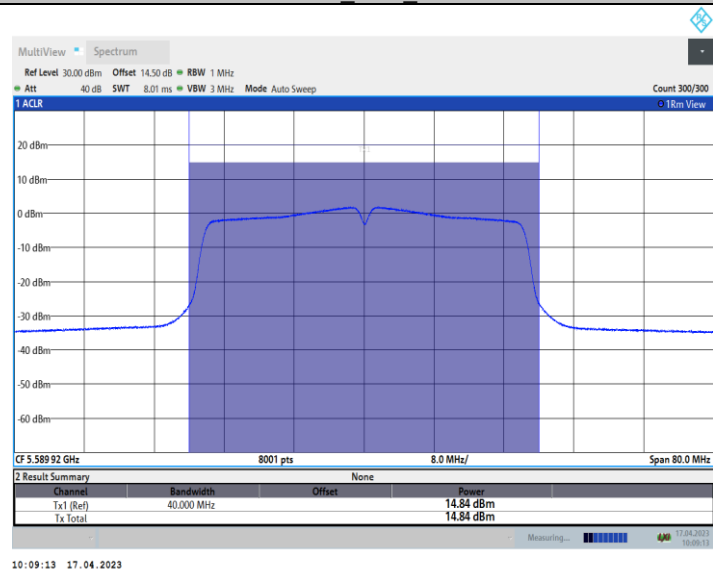
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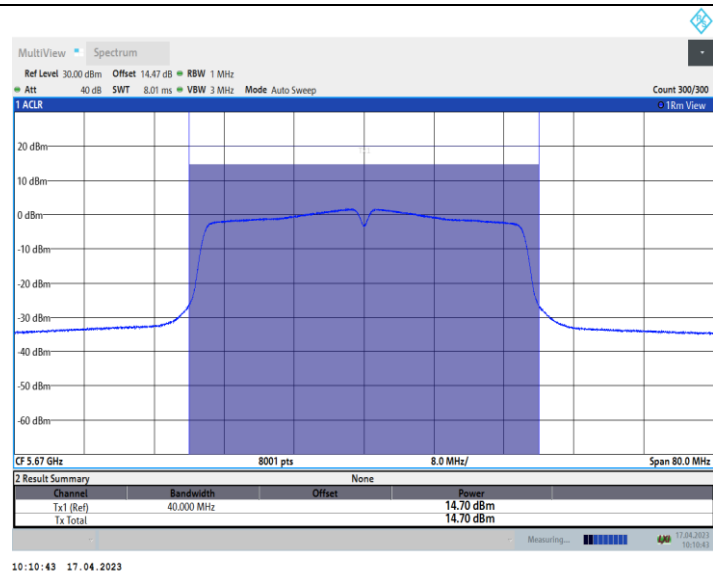
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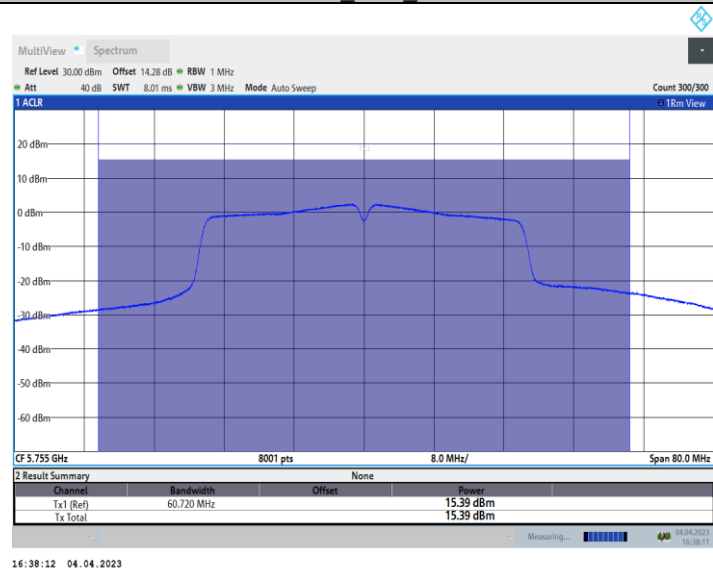
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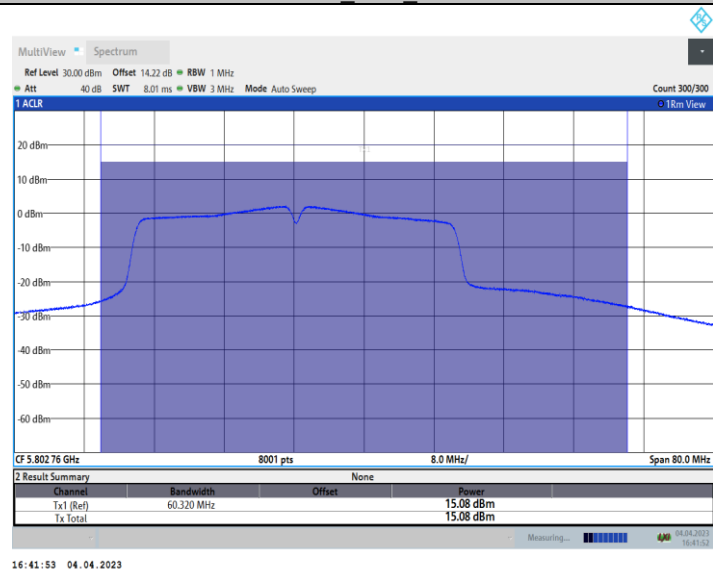
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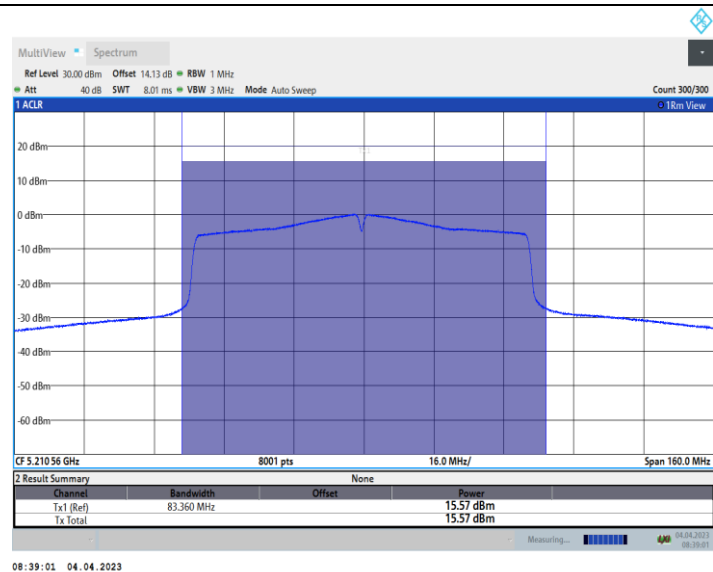
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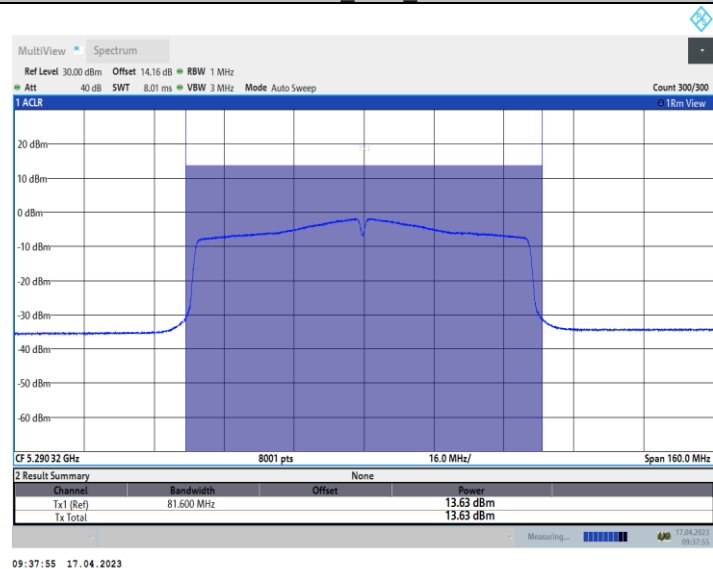
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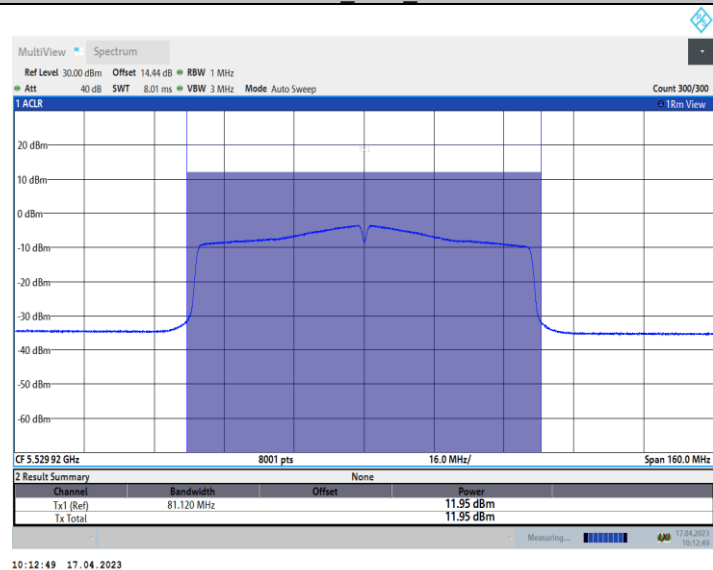
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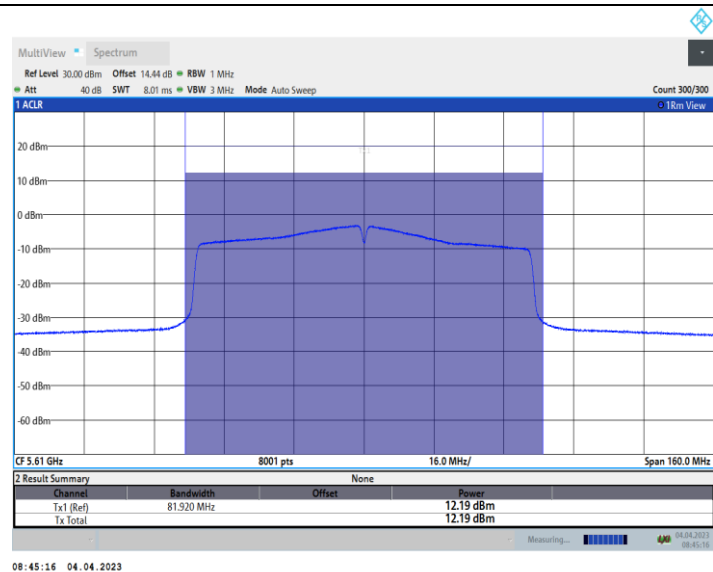
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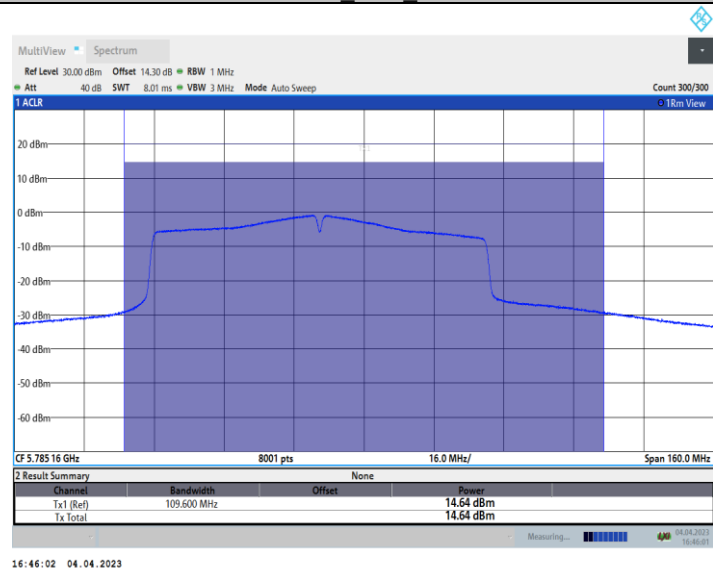
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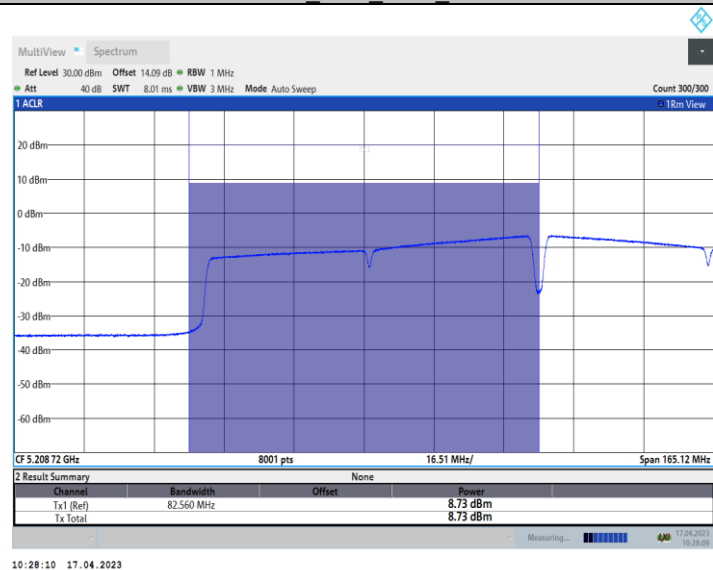
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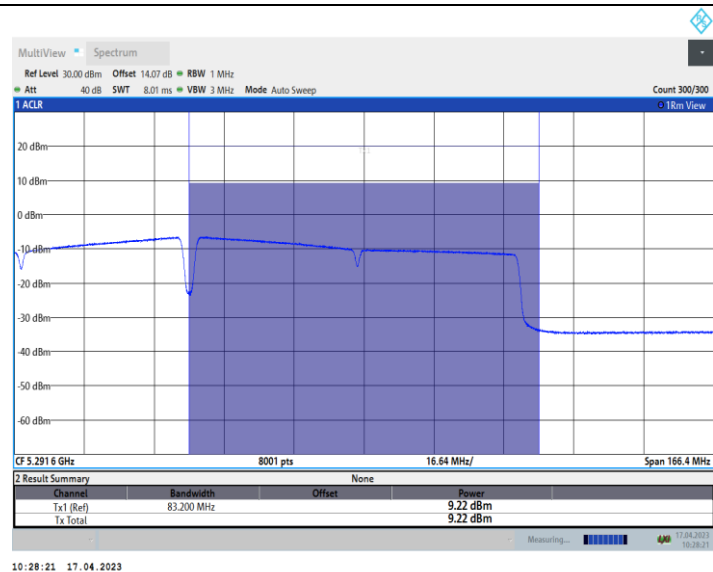
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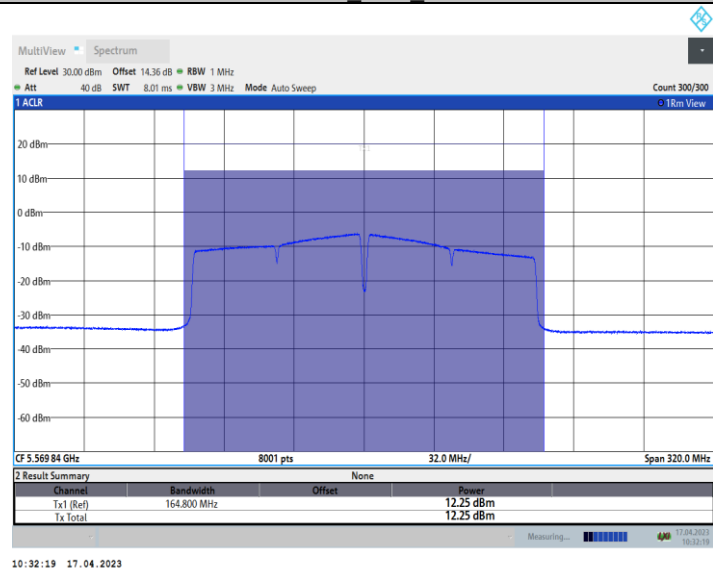
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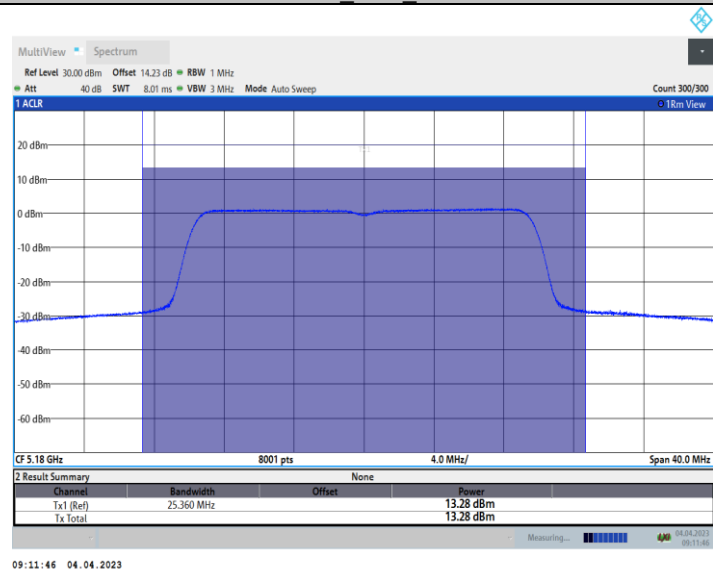
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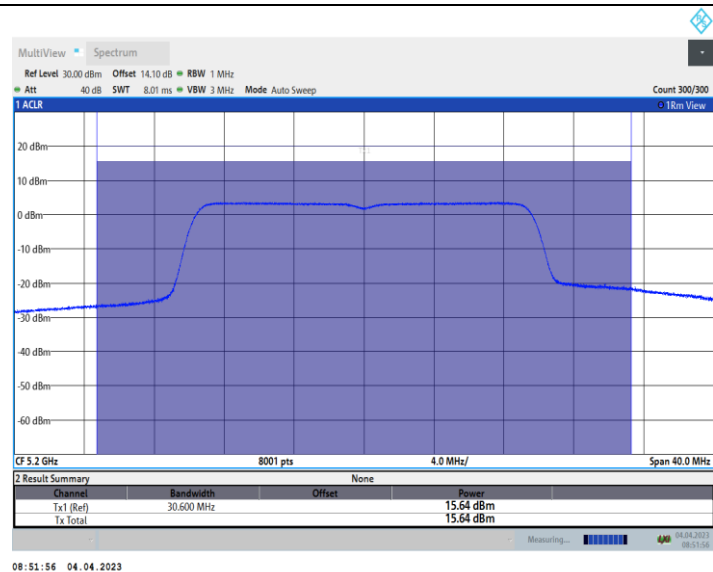
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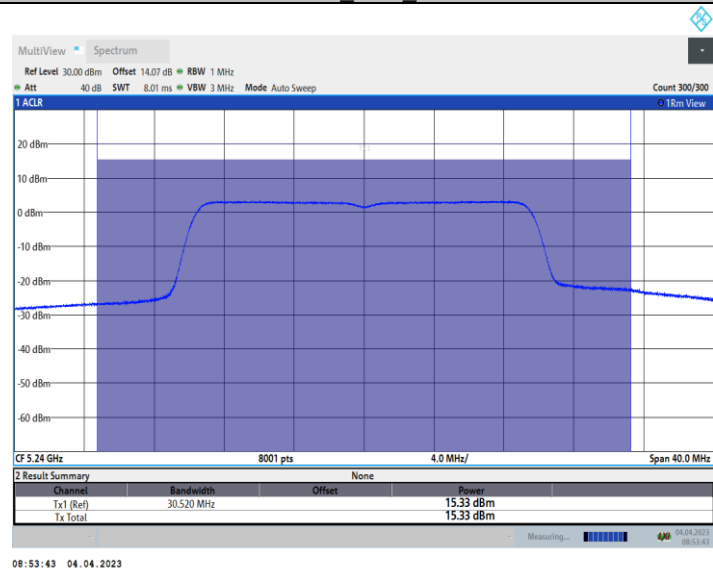
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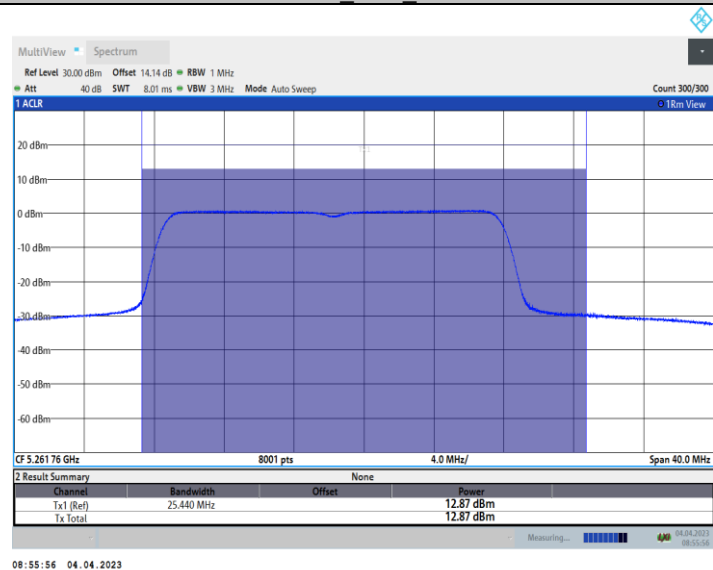
11AX20_Ant9_5200



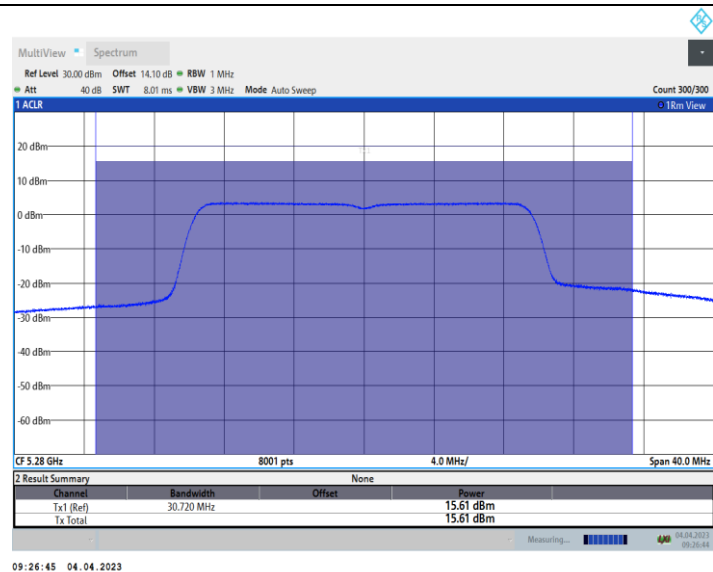
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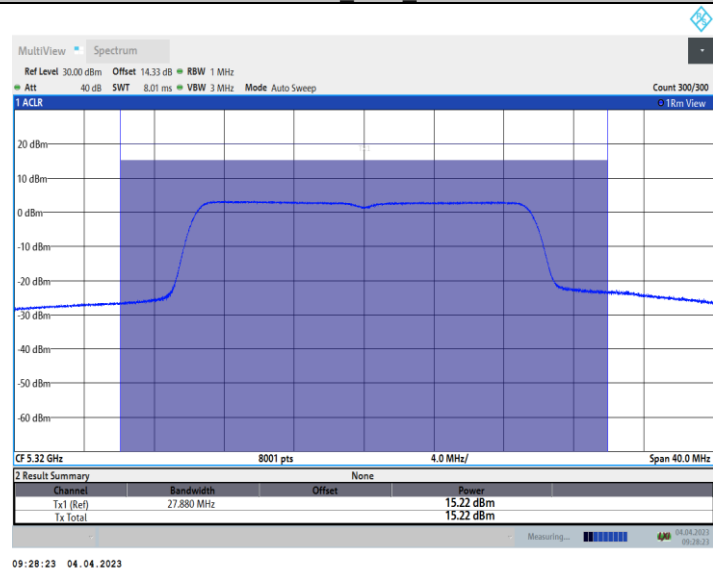
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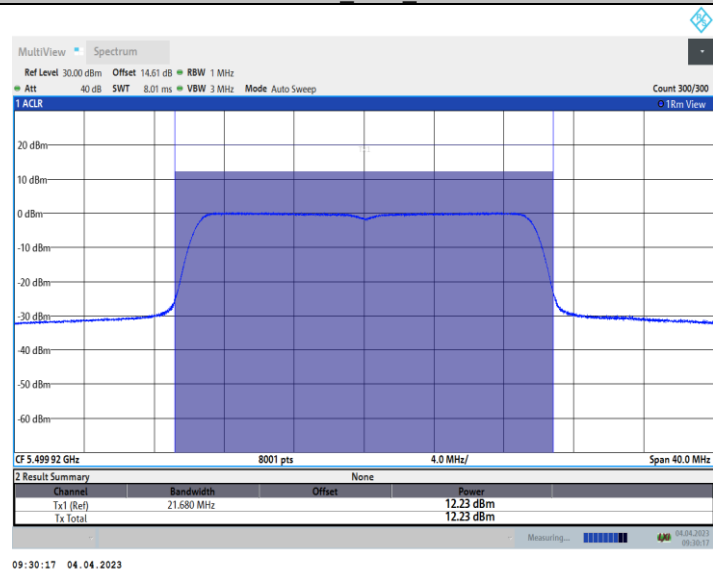
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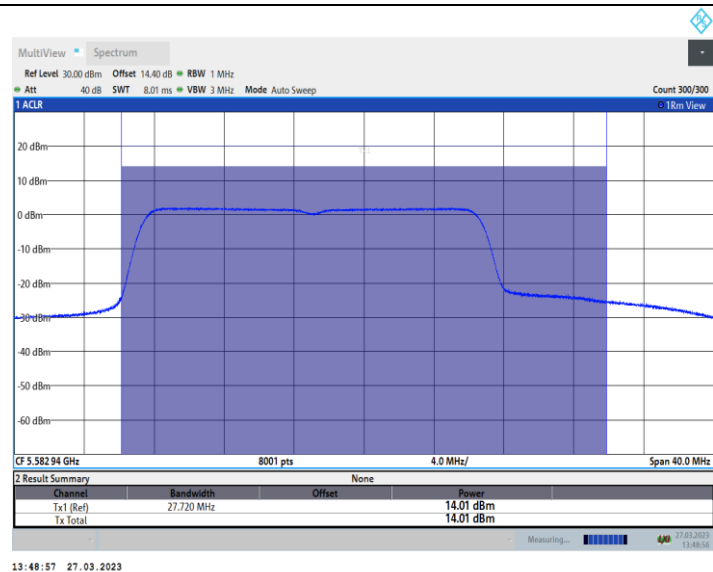
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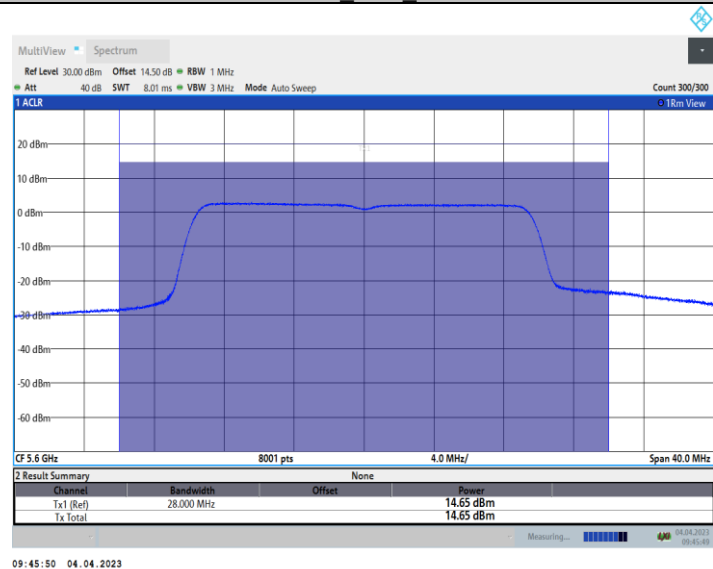
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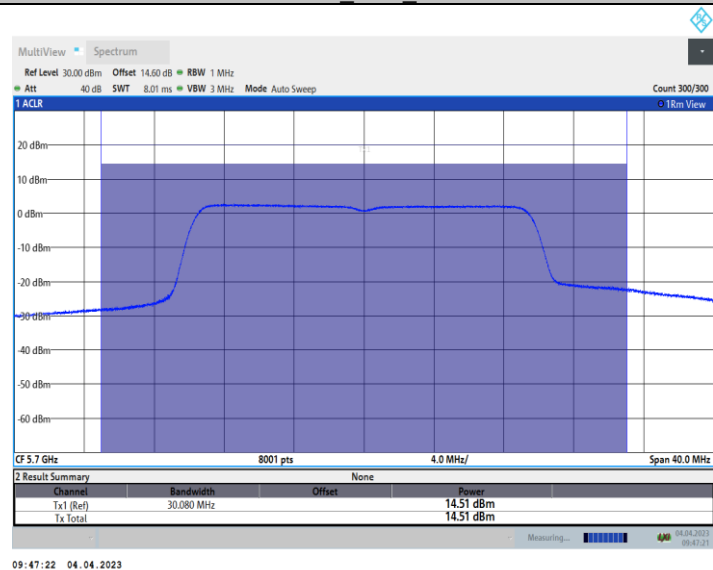
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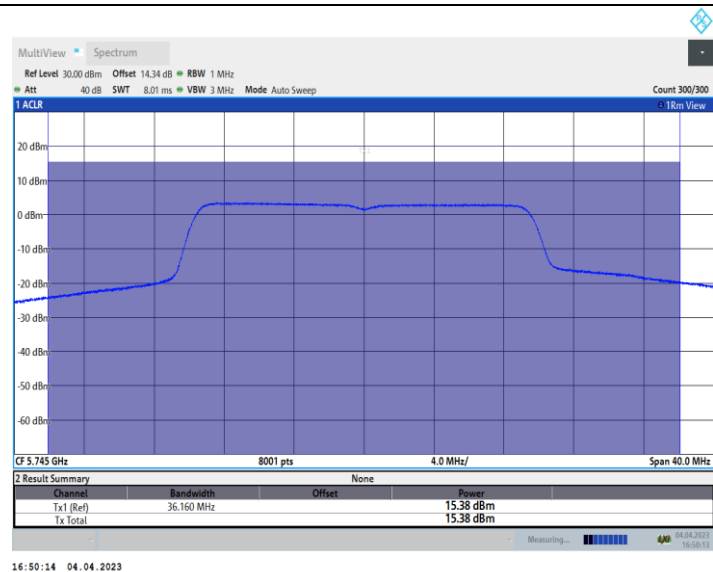
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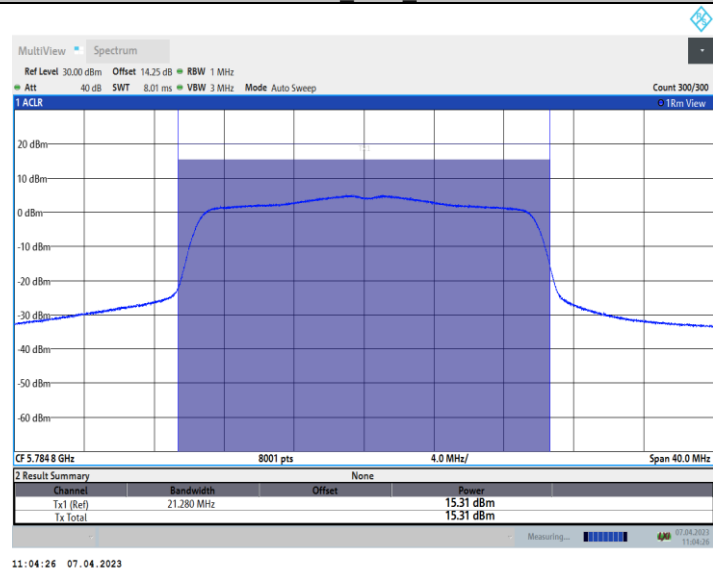
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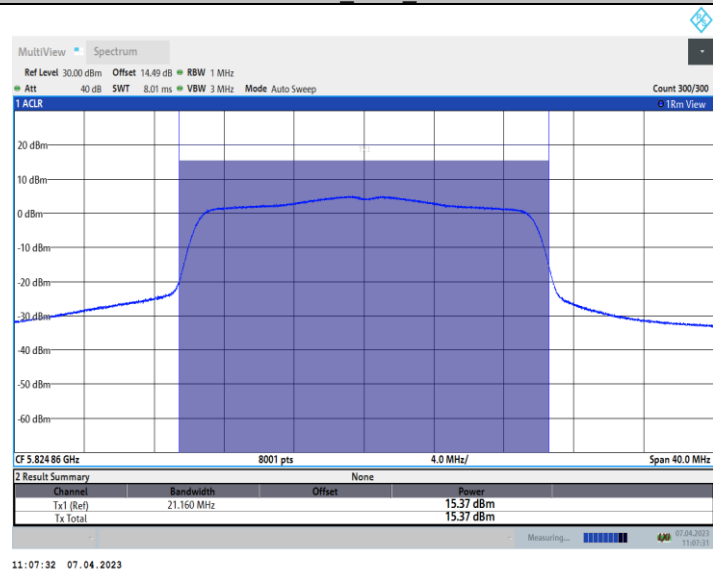
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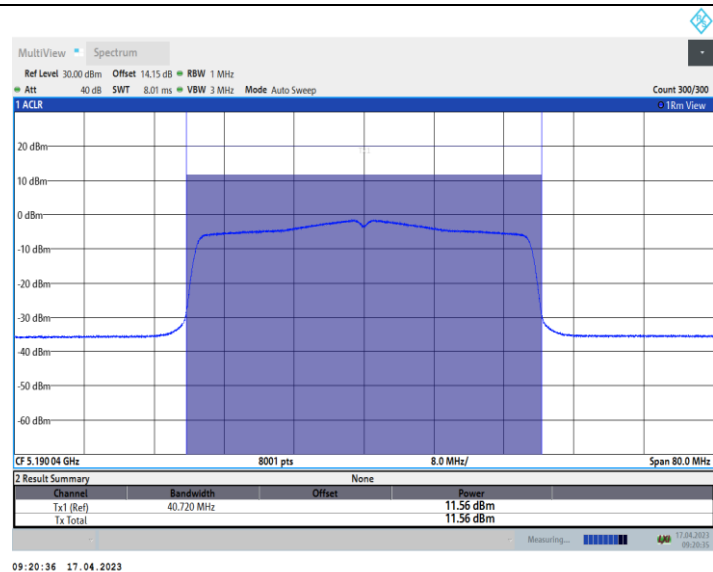
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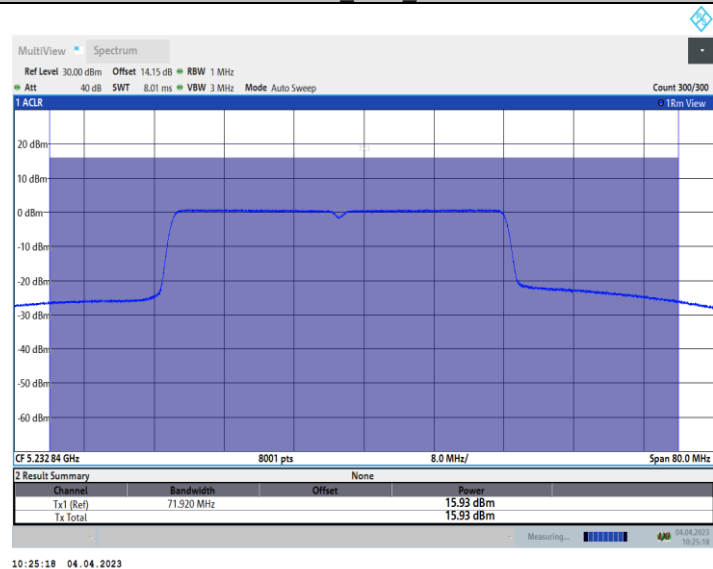
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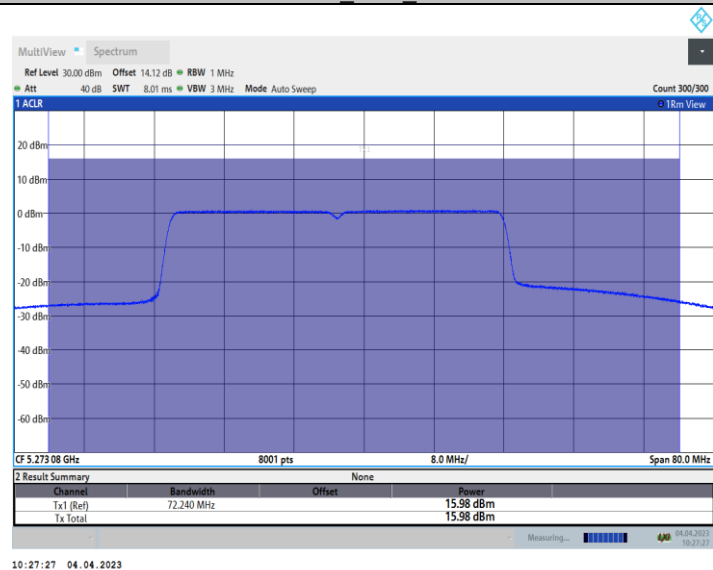
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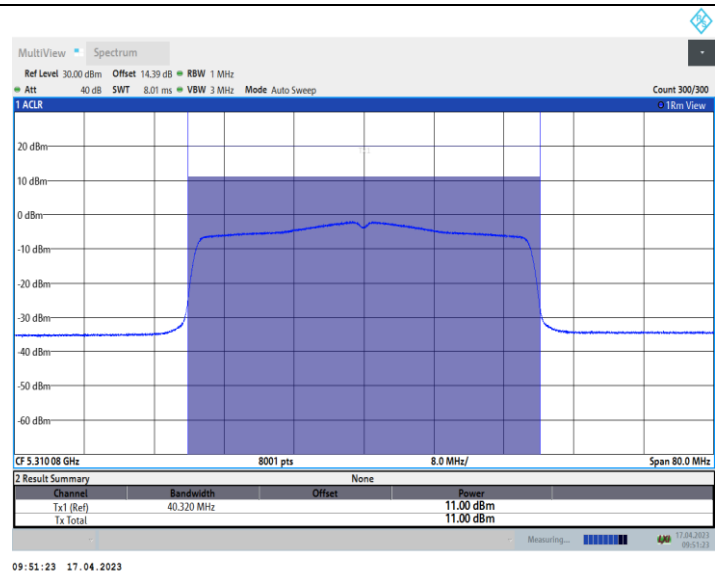
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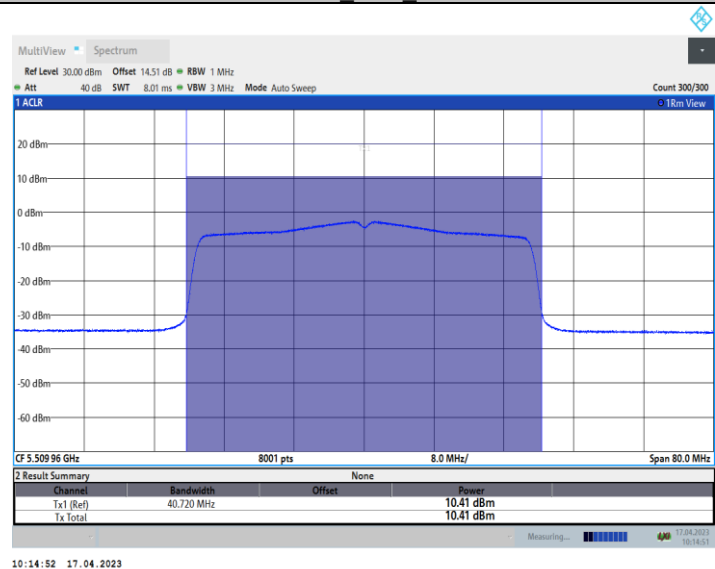
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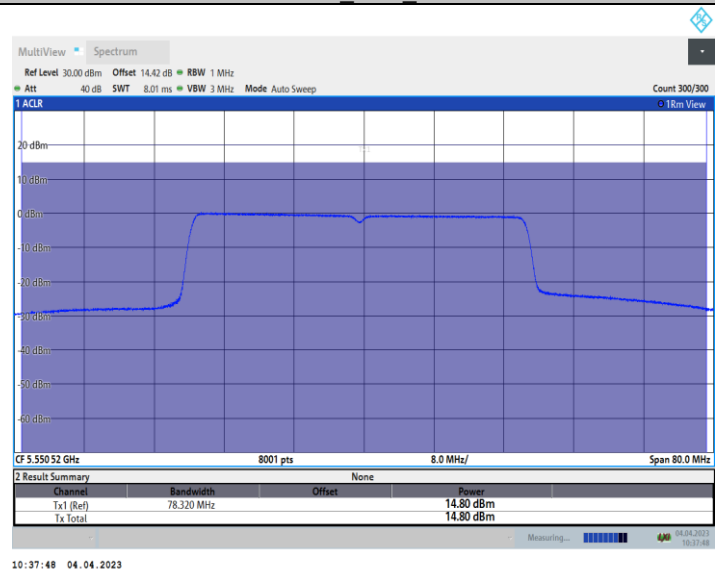
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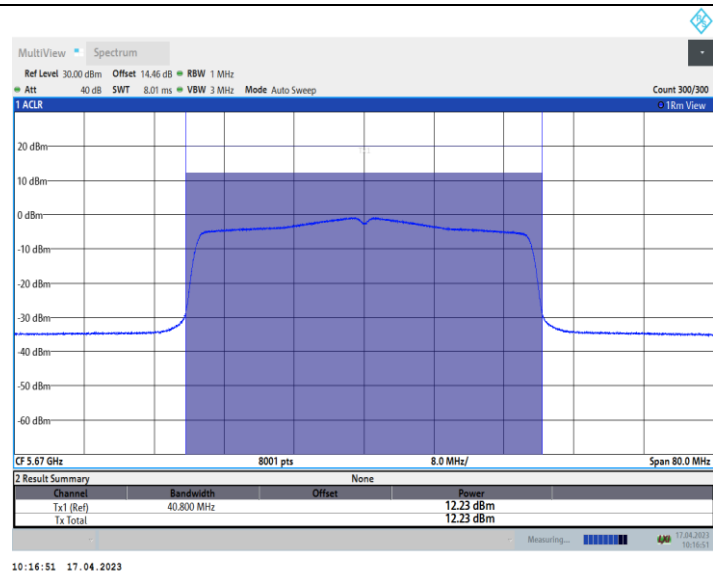
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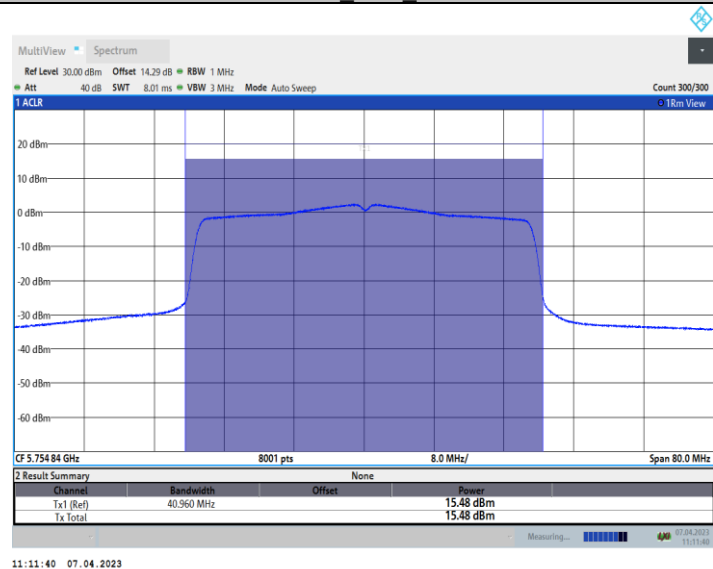
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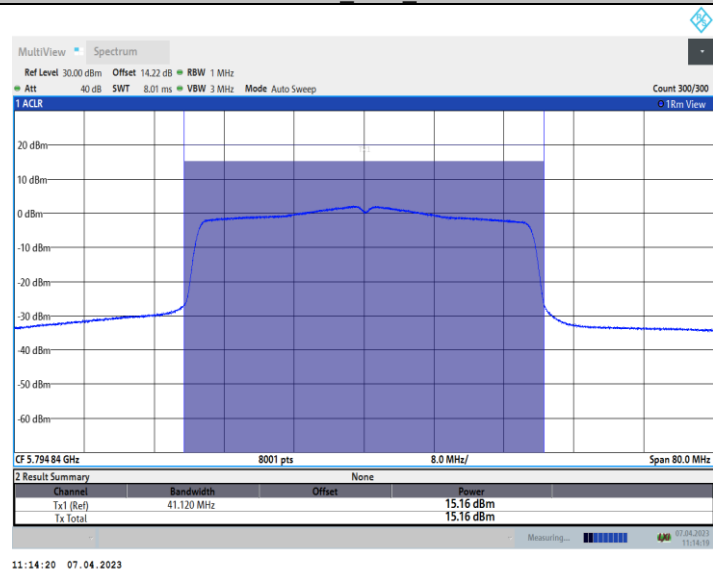
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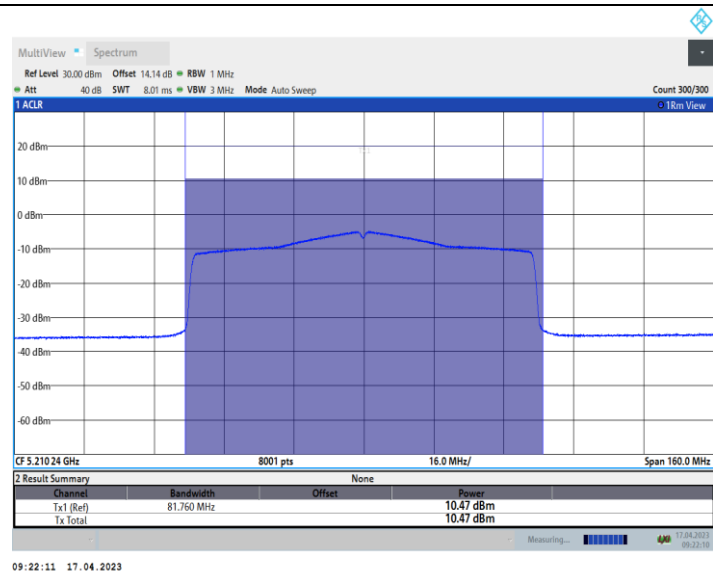
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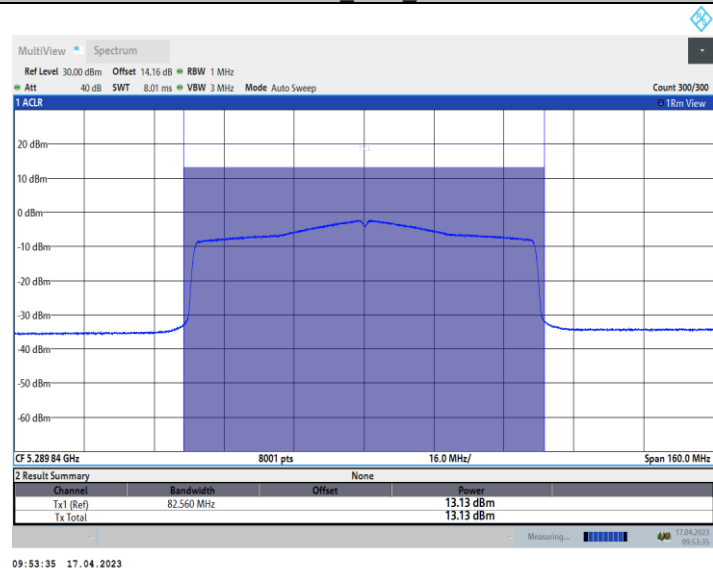
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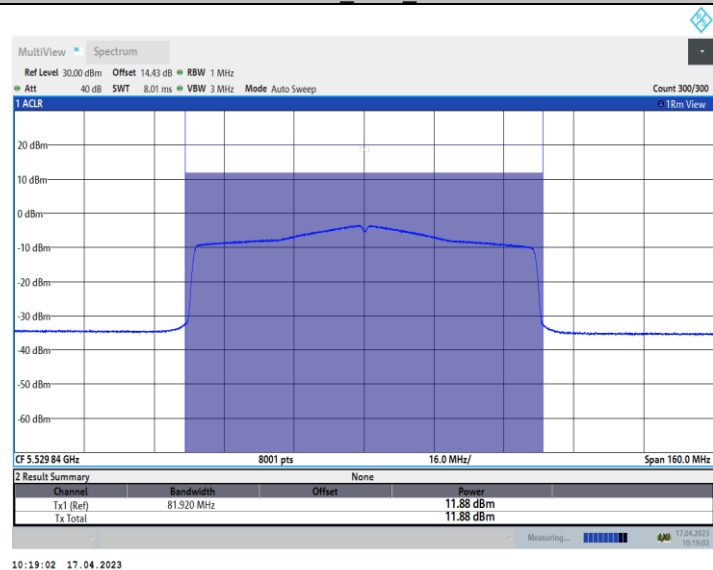
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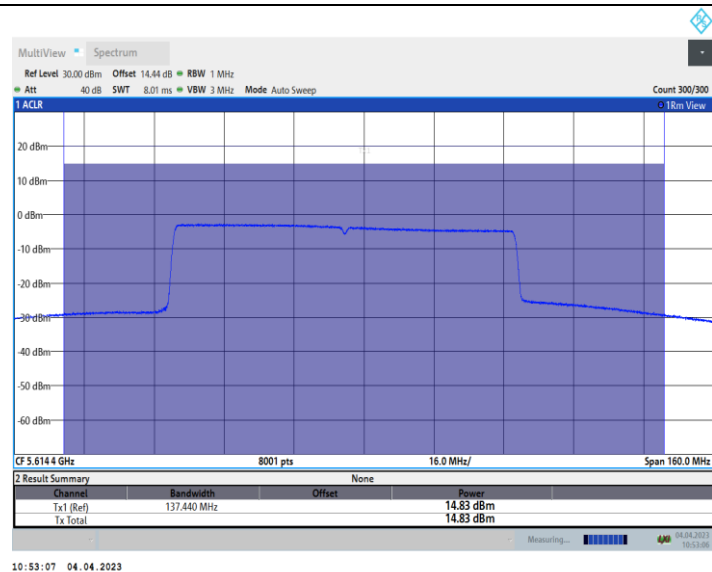
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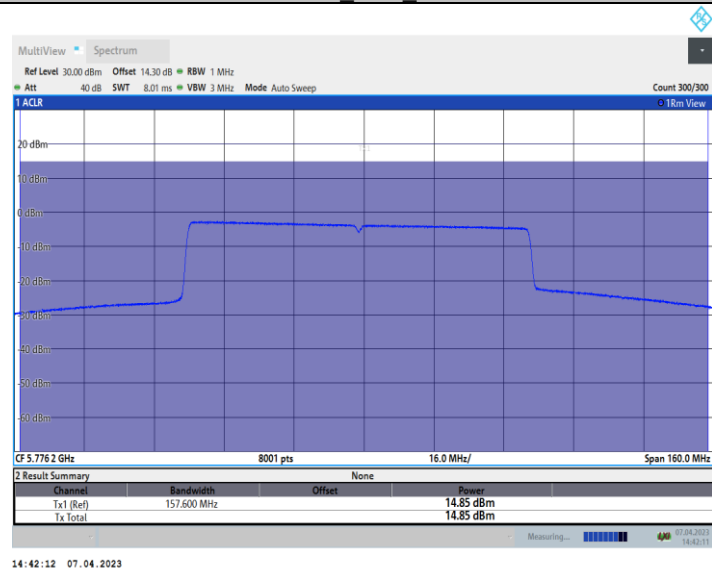
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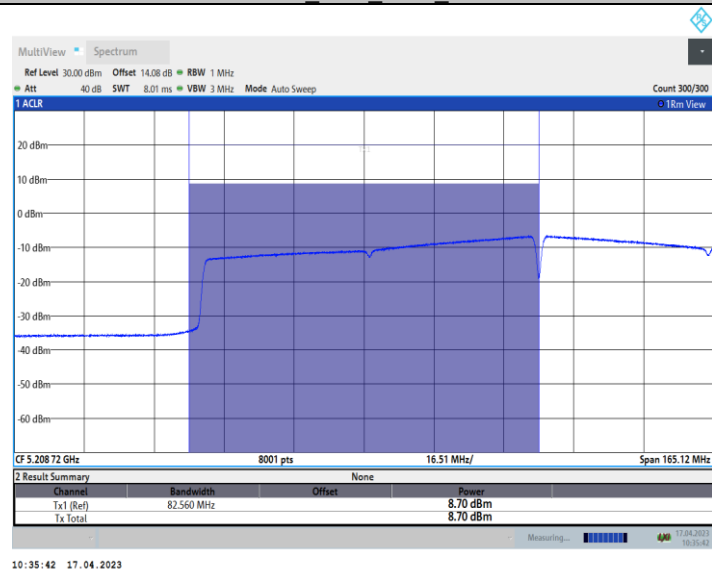
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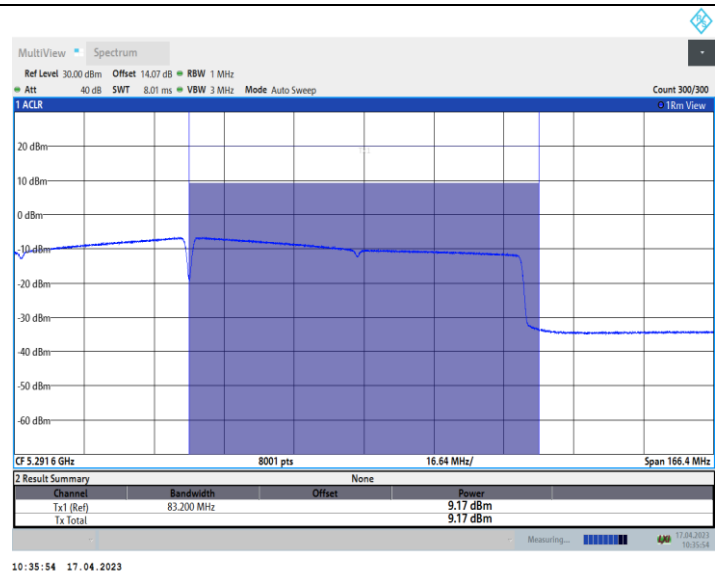
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11AX160 Ant9 5250 UNII-1



11AX160 Ant9 5250 UNII-2A



11AX160_Ant9_5570

