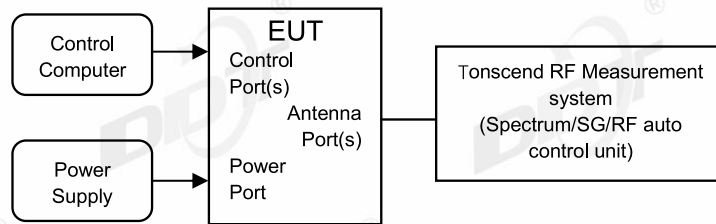


8. Maximum Output Power

8.1. Block diagram of test setup



8.2. Limits

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
Maximum Output Power	For FCC: outdoor access point: 1 W(30 dBm) indoor access point: 1 W(30 dBm) fixed point-to-point access points1 W(30 dBm) client devices: 250 mW (24 dBm)	5150-5250
	For RSS: e.i.r.p. power: not exceed 200 mW (23 dBm) or $10 + 10 \log_{10} B$	
	For FCC: 250 mW (24 dBm) or $11 + 10 \log_{10} B$	
	For RSS: For conducted output power: 250 mW (24 dBm) or $11 + 10 \log_{10} B$	5250-5350
	For RSS: e.i.r.p. power: not exceed 1.0 W (30 dBm) or $17 + 10 \log_{10} B$	
	For FCC: 250 mW (24 dBm) or $11 + 10 \log_{10} B$	
	For RSS: For conducted output power: 250 mW (24 dBm) or $11 + 10 \log_{10} B$	For FCC:5470 - 5725 For IC:5470 - 5600 5650 - 5725
	For RSS: e.i.r.p. power: not exceed 1.0 W (30 dBm) or $17 + 10 \log_{10} B$	
	1 Watt (30 dBm)	5725-5850
Note : For FCC: B=26 bandwidth; For ISDE: B=99% bandwidth.		

8.3. Test procedure

Connect each EUT's antenna output to power sensor by RF cable and attenuator
Measure the output power of each antenna port by power sensor.

8.4. Test result channel power

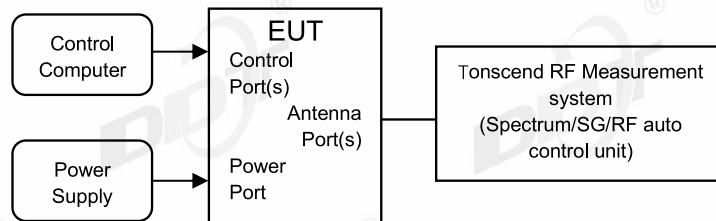
Test Engineer:	Haofeng	Test Site:	RF Measurement System 4#
Ambient Condition:	26.9℃,45.5%RH	Test Date:	2024.08.06-2024.08.08
Test Power Supply:	DC 5V	Sample Number:	S24071734-003

Test Mode	Antenna	Frequency [MHz]	Duty Cycle [%]	DC Factor [dB]	Result [dBm]	Limit [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11A	Ant1	5180	96.53	0.15	14.12	≤23.98	17.62	≤22.41	PASS
		5200	97.22	0.12	13.98	≤23.98	17.48	≤22.41	PASS
		5240	97.22	0.12	13.39	≤23.98	16.89	≤22.41	PASS
		5260	96.53	0.15	13.28	≤23.98	16.78	≤28.41	PASS
		5280	97.22	0.12	12.97	≤23.98	16.47	≤28.41	PASS
		5320	97.22	0.12	11.94	≤23.98	15.44	≤28.41	PASS
		5500	93.33	0.30	8.14	≤23.98	11.64	≤28.41	PASS
		5580	97.22	0.12	6.91	≤23.98	10.41	≤28.41	PASS
		5700	97.22	0.12	7.07	≤23.98	10.57	≤28.41	PASS
		5720	97.22	0.12	7.37	≤23.98	10.87	≤28.41	PASS
		5745	97.22	0.12	10.55	≤30.00	14.05	--	PASS
		5785	96.53	0.15	11.43	≤30.00	14.93	--	PASS
11N20SISO	Ant1	5825	97.22	0.12	12.16	≤30.00	15.66	--	PASS
		5180	97.04	0.13	13.76	≤23.98	17.26	≤22.41	PASS
		5200	97.04	0.13	13.70	≤23.98	17.2	≤22.41	PASS
		5240	97.04	0.13	13.18	≤23.98	16.68	≤22.41	PASS
		5260	97.04	0.13	12.84	≤23.98	16.34	≤28.41	PASS
		5280	97.04	0.13	12.52	≤23.98	16.02	≤28.41	PASS
		5320	96.30	0.16	11.58	≤23.98	15.08	≤28.41	PASS
		5500	96.30	0.16	7.46	≤23.98	10.96	≤28.41	PASS
		5580	97.04	0.13	6.50	≤23.98	10	≤28.41	PASS
		5700	97.04	0.13	6.70	≤23.98	10.2	≤28.41	PASS
		5720	97.04	0.13	6.96	≤23.98	10.46	≤28.41	PASS
		5745	97.04	0.13	10.16	≤30.00	13.66	--	PASS
11N40SISO	Ant1	5785	97.04	0.13	10.93	≤30.00	14.43	--	PASS
		5825	96.32	0.16	11.83	≤30.00	15.33	--	PASS
		5190	94.20	0.26	13.89	≤23.98	17.39	≤22.41	PASS
		5230	94.20	0.26	13.41	≤23.98	16.91	≤22.41	PASS
		5270	94.20	0.26	12.95	≤23.98	16.45	≤28.41	PASS
		5310	94.20	0.26	12.07	≤23.98	15.57	≤28.41	PASS
		5510	94.20	0.26	7.51	≤23.98	11.01	≤28.41	PASS
		5550	92.75	0.33	7.06	≤23.98	10.56	≤28.41	PASS
		5670	94.20	0.26	6.48	≤23.98	9.98	≤28.41	PASS
		5710	94.20	0.26	7.23	≤23.98	10.73	≤28.41	PASS
		5755	94.20	0.26	10.45	≤30.00	13.95	--	PASS
		5795	94.20	0.26	11.57	≤30.00	15.07	--	PASS
11AC20SISO	Ant1	5180	96.32	0.16	13.82	≤23.98	17.32	≤22.41	PASS
		5200	97.06	0.13	13.61	≤23.98	17.11	≤22.41	PASS
		5240	97.06	0.13	13.08	≤23.98	16.58	≤22.41	PASS
		5260	97.06	0.13	12.90	≤23.98	16.4	≤28.41	PASS
		5280	97.06	0.13	12.69	≤23.98	16.19	≤28.41	PASS
		5320	97.06	0.13	11.62	≤23.98	15.12	≤28.41	PASS
		5500	97.06	0.13	7.50	≤23.98	11	≤28.41	PASS
		5580	97.06	0.13	6.51	≤23.98	10.01	≤28.41	PASS
		5700	97.06	0.13	6.66	≤23.98	10.16	≤28.41	PASS
		5720	97.06	0.13	7.01	≤23.98	10.51	≤28.41	PASS
		5745	97.06	0.13	10.13	≤30.00	13.63	--	PASS
		5785	97.06	0.13	10.88	≤30.00	14.38	--	PASS
11AC40SISO	Ant1	5825	97.06	0.13	11.78	≤30.00	15.28	--	PASS
		5190	92.86	0.32	13.95	≤23.98	17.45	≤22.41	PASS
		5230	92.86	0.32	13.50	≤23.98	17	≤22.41	PASS
		5270	94.29	0.26	12.91	≤23.98	16.41	≤28.41	PASS
		5310	94.29	0.26	12.06	≤23.98	15.56	≤28.41	PASS
		5510	94.29	0.26	7.64	≤23.98	11.14	≤28.41	PASS

		5550	94.29	0.26	7.00	≤23.98	10.5	≤28.41	PASS
		5670	92.86	0.32	6.75	≤23.98	10.25	≤28.41	PASS
		5710	94.29	0.26	7.25	≤23.98	10.75	≤28.41	PASS
		5755	92.86	0.32	10.54	≤30.00	14.04	--	PASS
		5795	94.29	0.26	11.47	≤30.00	14.97	--	PASS
11AC80SISO	Ant1	5210	88.89	0.51	13.61	≤23.98	17.11	≤22.41	PASS
		5290	86.49	0.63	12.51	≤23.98	16.01	≤28.41	PASS
		5530	86.49	0.63	7.20	≤23.98	10.7	≤28.41	PASS
		5610	88.89	0.51	6.63	≤23.98	10.13	≤28.41	PASS
		5690	86.49	0.63	6.98	≤23.98	10.48	≤28.41	PASS
		5775	88.89	0.51	10.77	≤30.00	14.27	--	PASS

9. Power Spectral Density

9.1. Block diagram of test setup



9.2. Limits

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	For FCC: Other than Mobile and portable:17 dBm/MHz Mobile and portable client devices:11 dBm/MHz	5150-5250
	For RSS eirp: 10 dBm/MHz	
	11 dBm/MHz	5250-5350
	11 dBm/MHz	For FCC: 5470 - 5725 For ISDE: 5470 - 5600 5650 - 5725
	30 dBm/500 kHz	5725-5850

9.3. Test procedure

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW.

Connect the UUT to the spectrum analyser and use the following settings:

5150 MHz~5250 MHz, 5250 MHz~5350 MHz, 5470 MHz~5725 MHz

Center Frequency	The centre frequency of the channel under test
Detector	RMS
RBW	1MHz
VBW	$\geq 3 \times \text{RBW}$
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

5725 MHz-5850 MHz

Center Frequency	The centre frequency of the channel under test
Detector	RMS
RBW	500 kHz

VBW	$\geq 3 \times \text{RBW}$
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

9.4. Test result

Test Engineer:	Haofeng	Test Site:	RF Measurement System 4#
Ambient Condition:	26.9℃,45.5%RH	Test Date:	2024.08.06-2024.08.08
Test Power Supply:	DC 5V	Sample Number:	S24071734-003

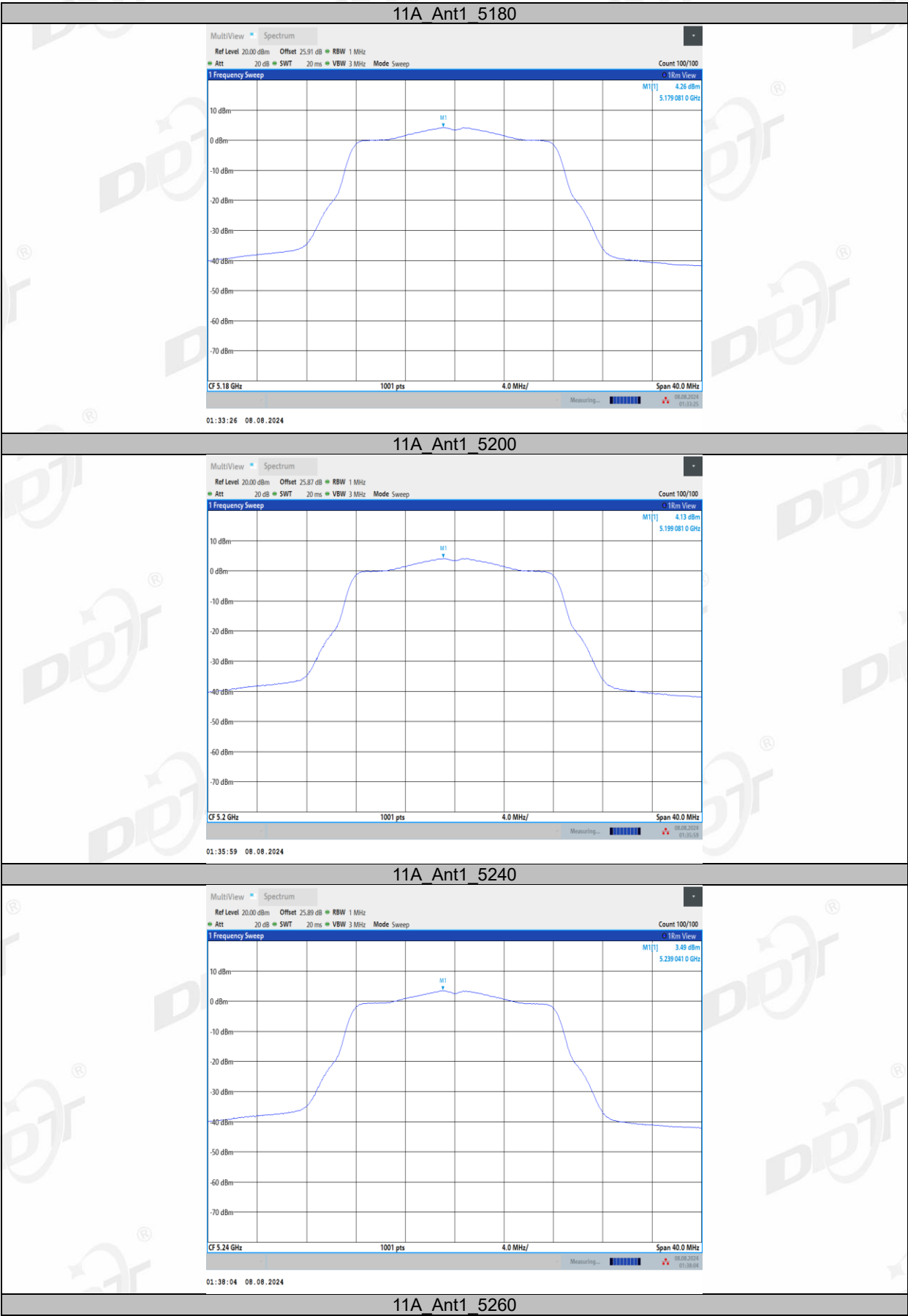
Test Mode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	4.26	≤11.00	PASS
		5200	4.13	≤11.00	PASS
		5240	3.49	≤11.00	PASS
		5260	3.34	≤11.00	PASS
		5280	3.16	≤11.00	PASS
		5320	2.22	≤11.00	PASS
		5500	-1.81	≤11.00	PASS
		5580	-3.10	≤11.00	PASS
		5700	-2.99	≤11.00	PASS
		5720 UNII-2C	-2.49	≤11.00	PASS
		5720 UNII-3	-9.09	≤30.00	PASS
		5745	-1.92	≤30.00	PASS
		5785	-0.98	≤30.00	PASS
		5825	-0.54	≤30.00	PASS
11N20SISO	Ant1	5180	3.64	≤11.00	PASS
		5200	3.70	≤11.00	PASS
		5240	3.00	≤11.00	PASS
		5260	2.66	≤11.00	PASS
		5280	2.48	≤11.00	PASS
		5320	1.57	≤11.00	PASS
		5500	-2.65	≤11.00	PASS
		5580	-3.80	≤11.00	PASS
		5700	-3.58	≤11.00	PASS
		5720 UNII-2C	-3.26	≤11.00	PASS
		5720 UNII-3	-9.88	≤30.00	PASS
		5745	-2.53	≤30.00	PASS
		5785	-1.65	≤30.00	PASS
		5825	-1.16	≤30.00	PASS
11N40SISO	Ant1	5190	0.74	≤11.00	PASS
		5230	0.03	≤11.00	PASS
		5270	0.00	≤11.00	PASS
		5310	-1.16	≤11.00	PASS
		5510	-5.62	≤11.00	PASS
		5550	-5.96	≤11.00	PASS
		5670	-6.87	≤11.00	PASS
		5710 UNII-2C	-6.19	≤11.00	PASS
		5710 UNII-3	-12.79	≤30.00	PASS
		5755	-5.78	≤30.00	PASS
		5795	-4.42	≤30.00	PASS
11AC20SISO	Ant1	5180	3.60	≤11.00	PASS
		5200	3.54	≤11.00	PASS
		5240	2.93	≤11.00	PASS
		5260	2.78	≤11.00	PASS
		5280	2.75	≤11.00	PASS
		5320	1.68	≤11.00	PASS
		5500	-2.51	≤11.00	PASS
		5580	-3.75	≤11.00	PASS
		5700	-3.59	≤11.00	PASS
		5720 UNII-2C	-3.13	≤11.00	PASS
		5720 UNII-3	-9.55	≤30.00	PASS
		5745	-2.63	≤30.00	PASS
		5785	-1.77	≤30.00	PASS
		5825	-1.25	≤30.00	PASS
11AC40SISO	Ant1	5190	0.60	≤11.00	PASS
		5230	0.10	≤11.00	PASS

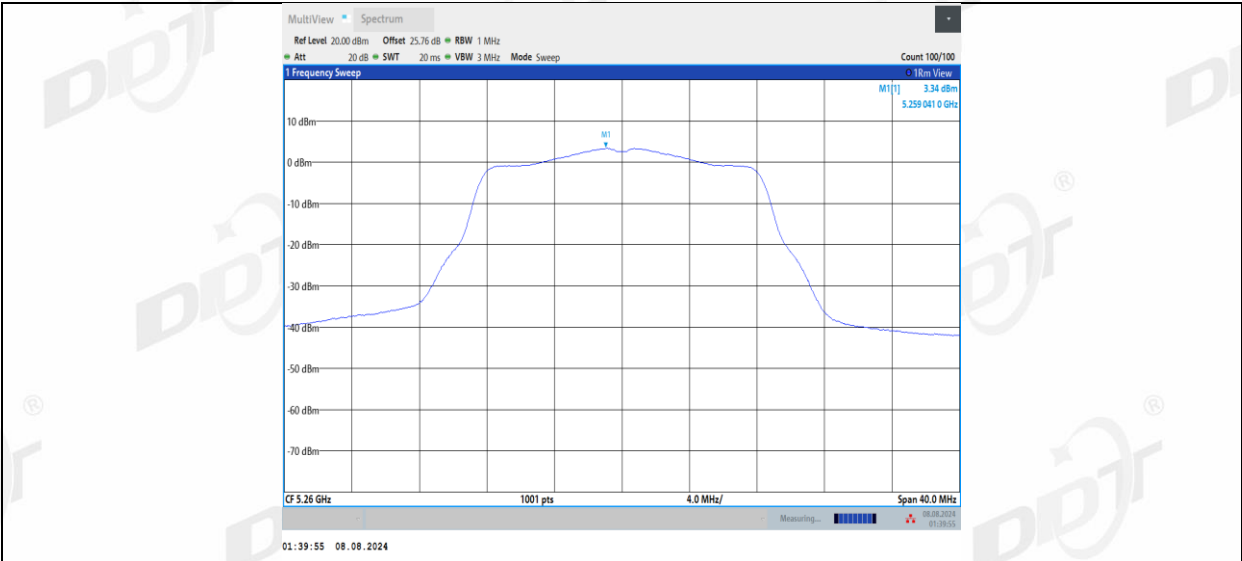
		5270	-0.18	≤11.00	PASS
		5310	-1.20	≤11.00	PASS
		5510	-5.69	≤11.00	PASS
		5550	-6.10	≤11.00	PASS
		5670	-6.50	≤11.00	PASS
		5710 UNII-2C	-6.07	≤11.00	PASS
		5710 UNII-3	-12.63	≤30.00	PASS
		5755	-5.64	≤30.00	PASS
		5795	-4.30	≤30.00	PASS
11AC80SISO	Ant1	5210	-2.47	≤11.00	PASS
		5290	-3.57	≤11.00	PASS
		5530	-8.98	≤11.00	PASS
		5610	-9.38	≤11.00	PASS
		5690 UNII-2C	-9.24	≤11.00	PASS
		5690 UNII-3	-15.79	≤30.00	PASS
		5775	-8.44	≤30.00	PASS

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

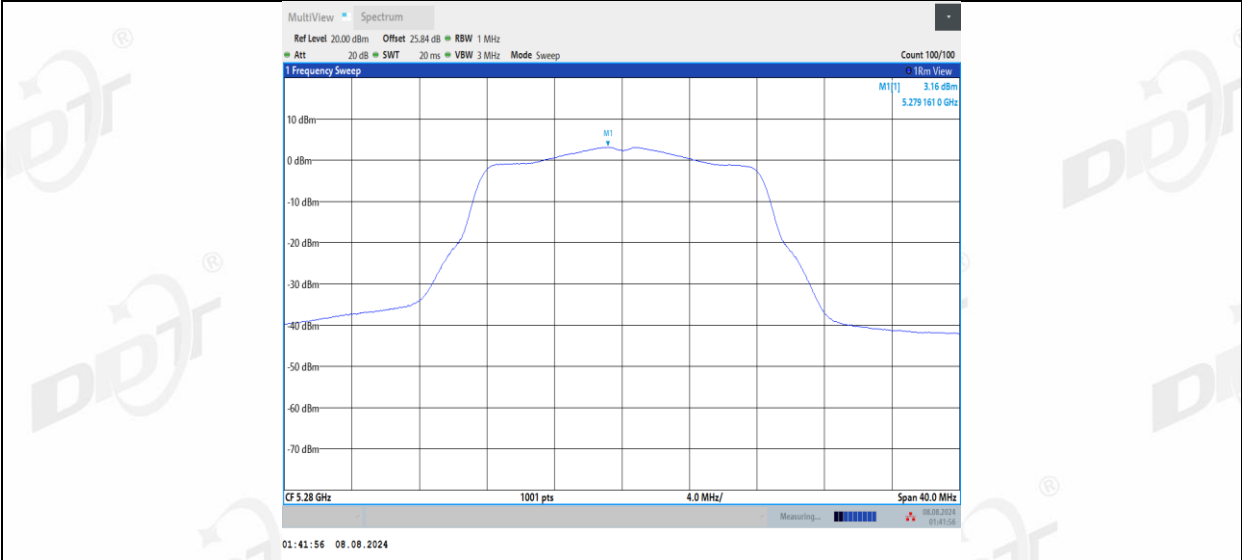
2.The Duty Cycle Factor is compensated in the graph.

9.5. Test graphs

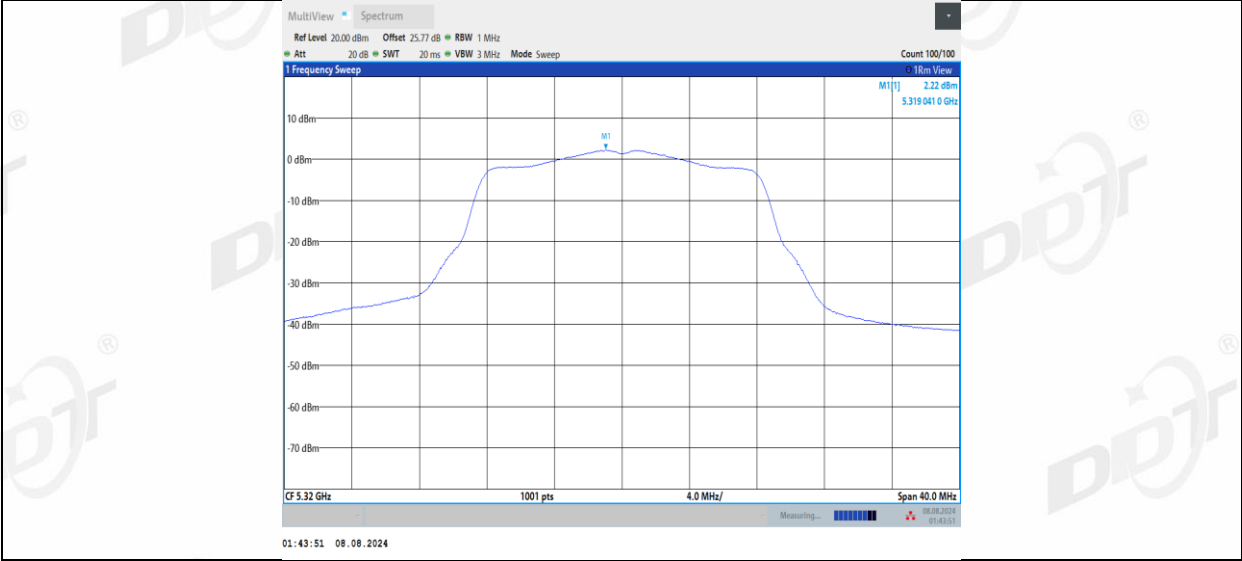




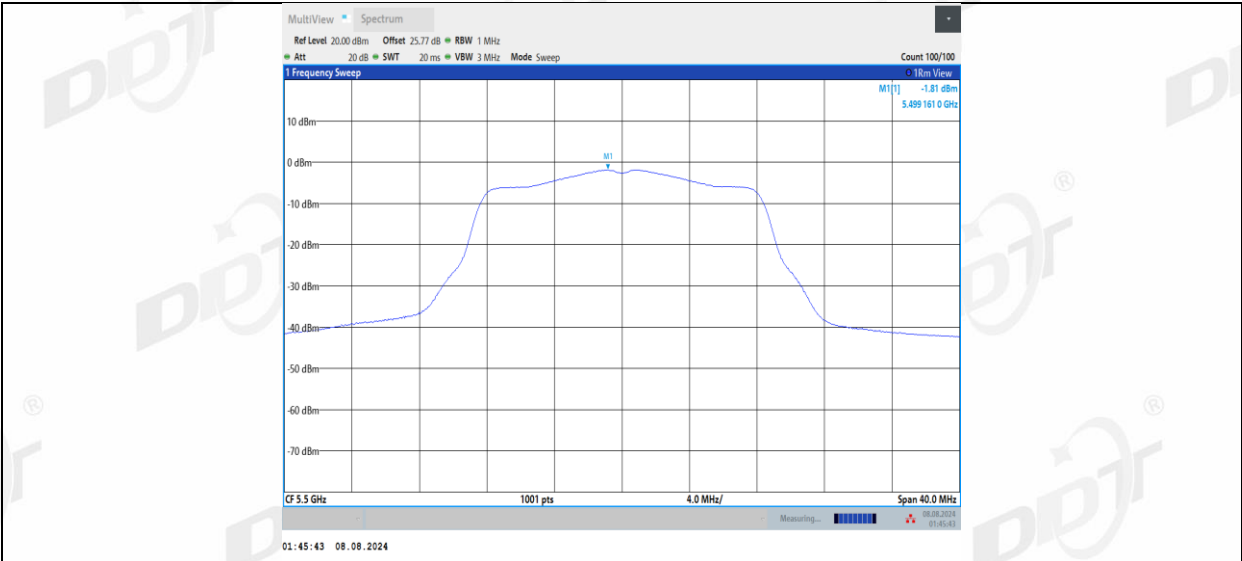
11A_Ant1_5280



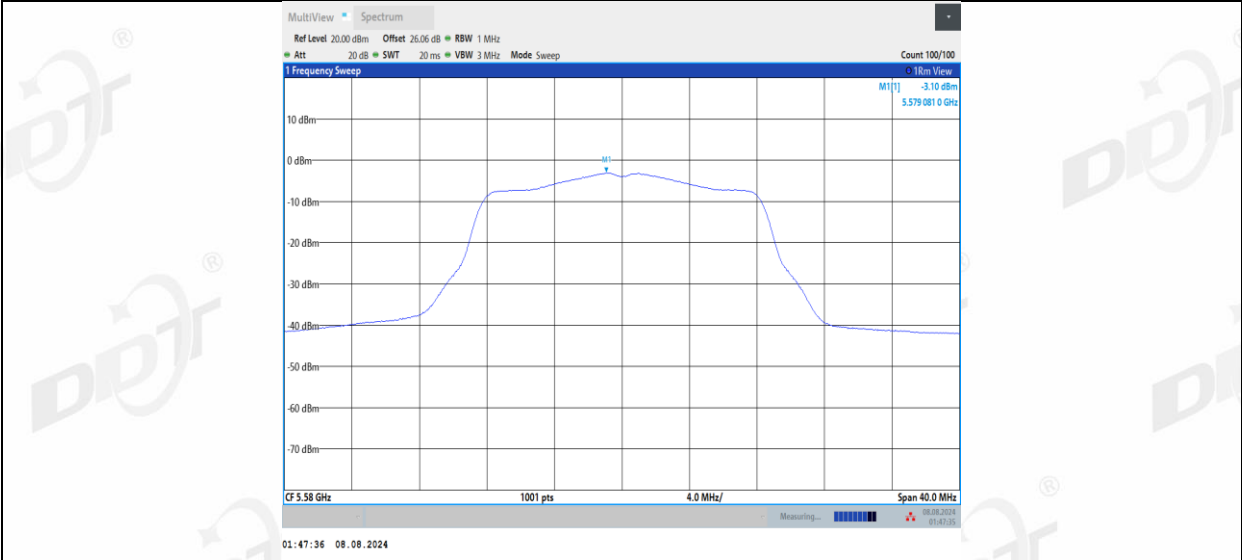
11A_Ant1_5320



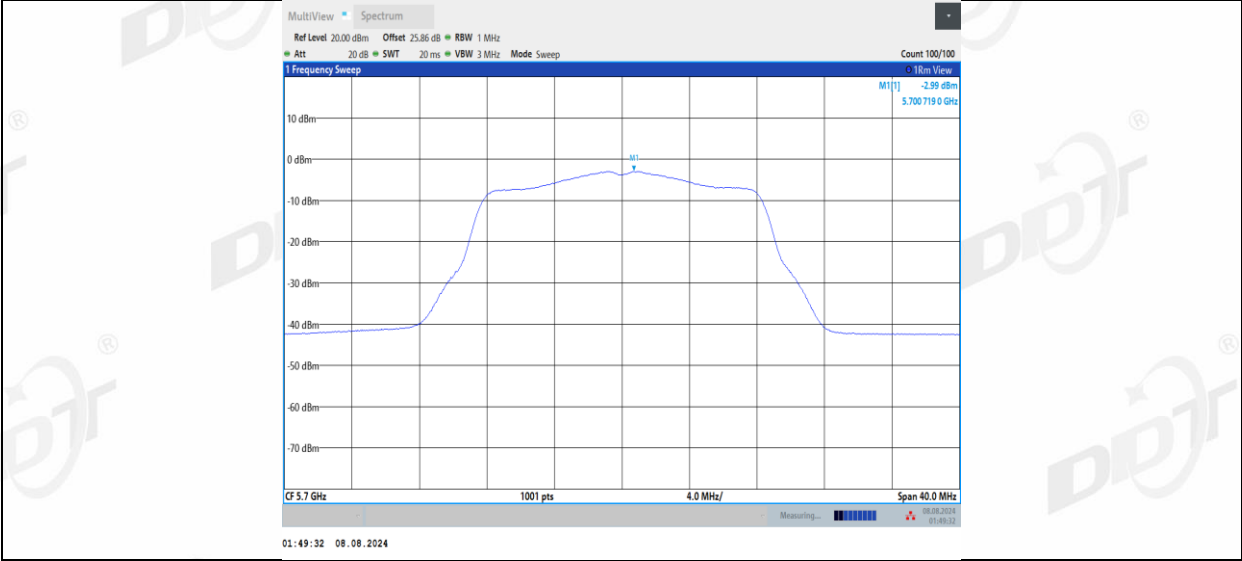
11A_Ant1_5500



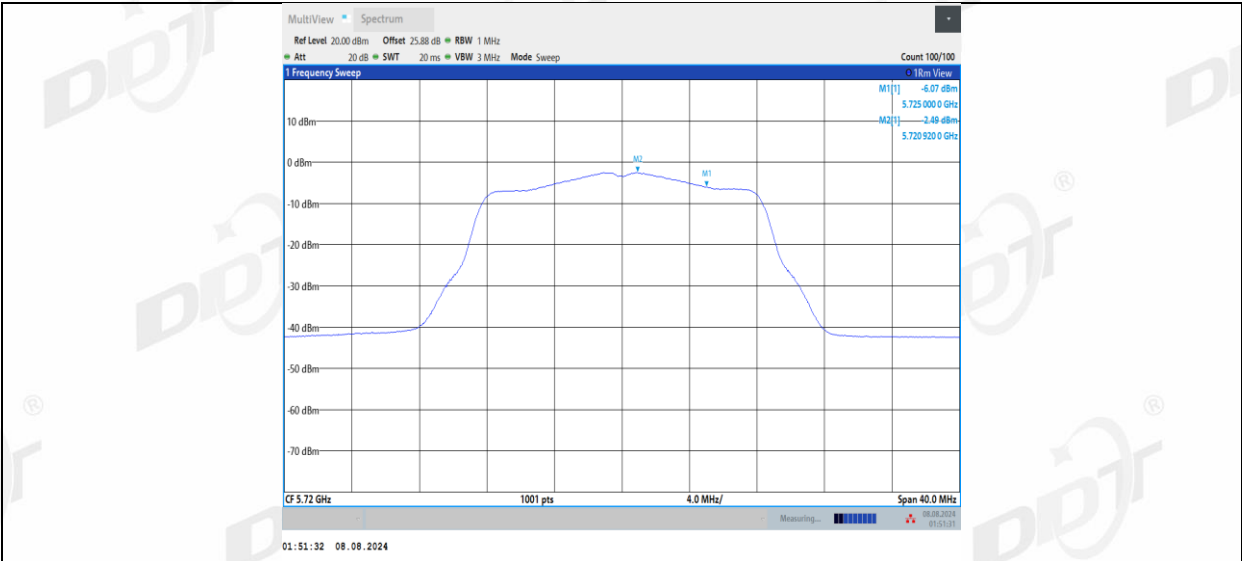
11A_Ant1_5580



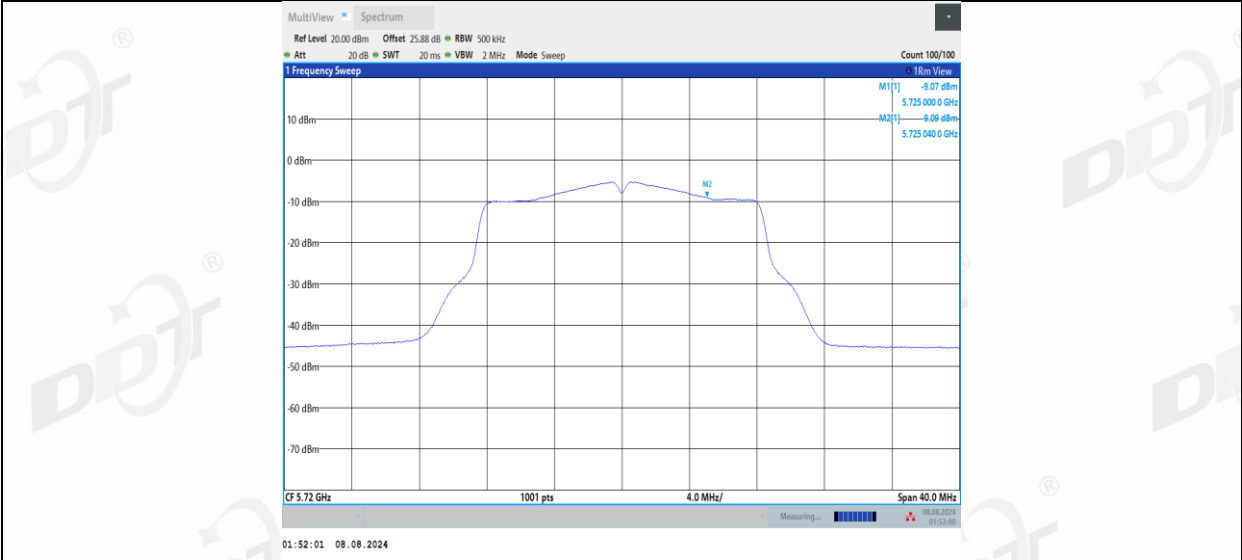
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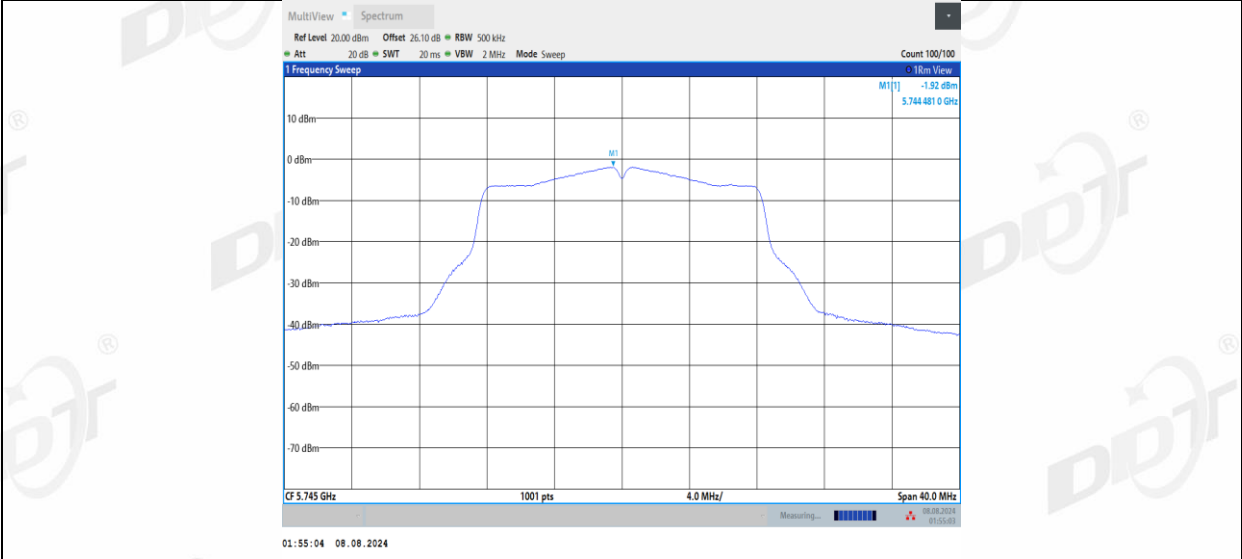
11A_Ant1_5720_UNII-2C



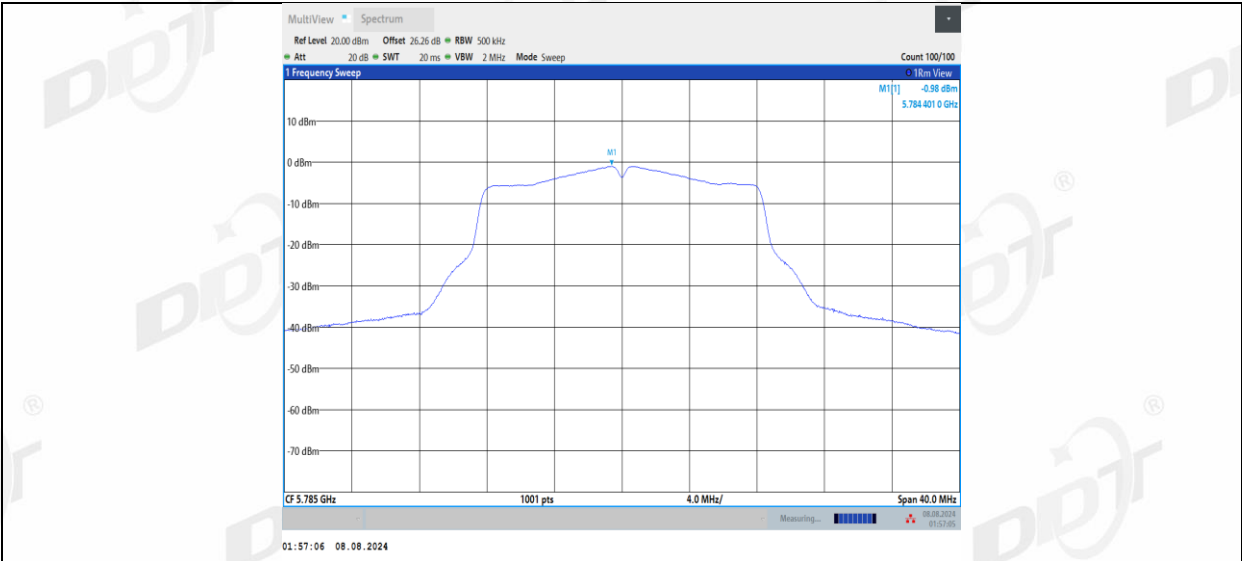
11A_Ant1_5720_UNII-3



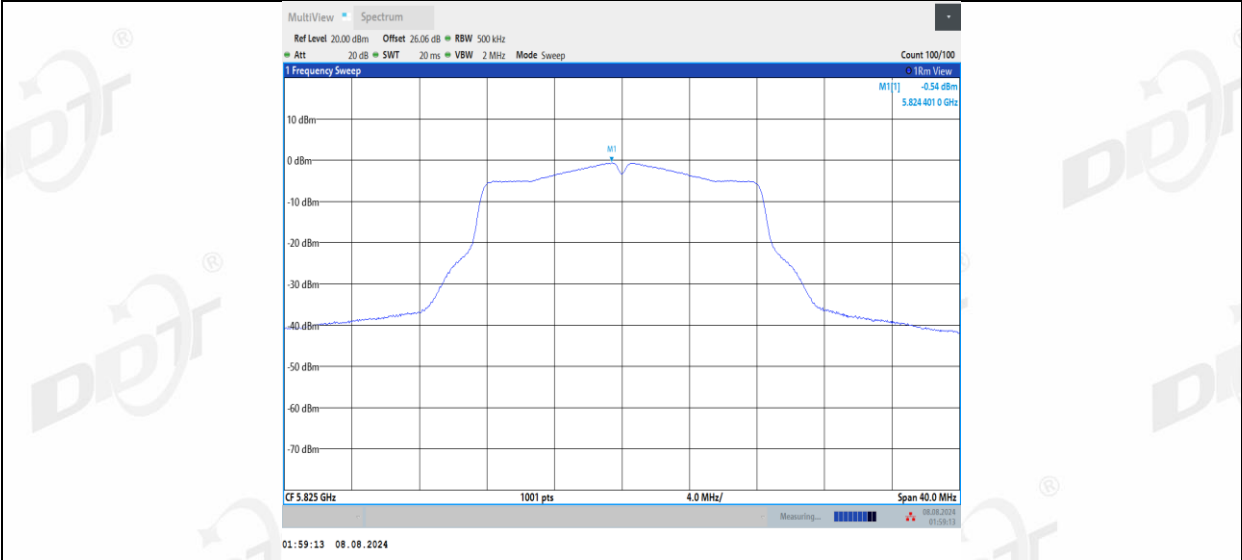
11A_Ant1_5745



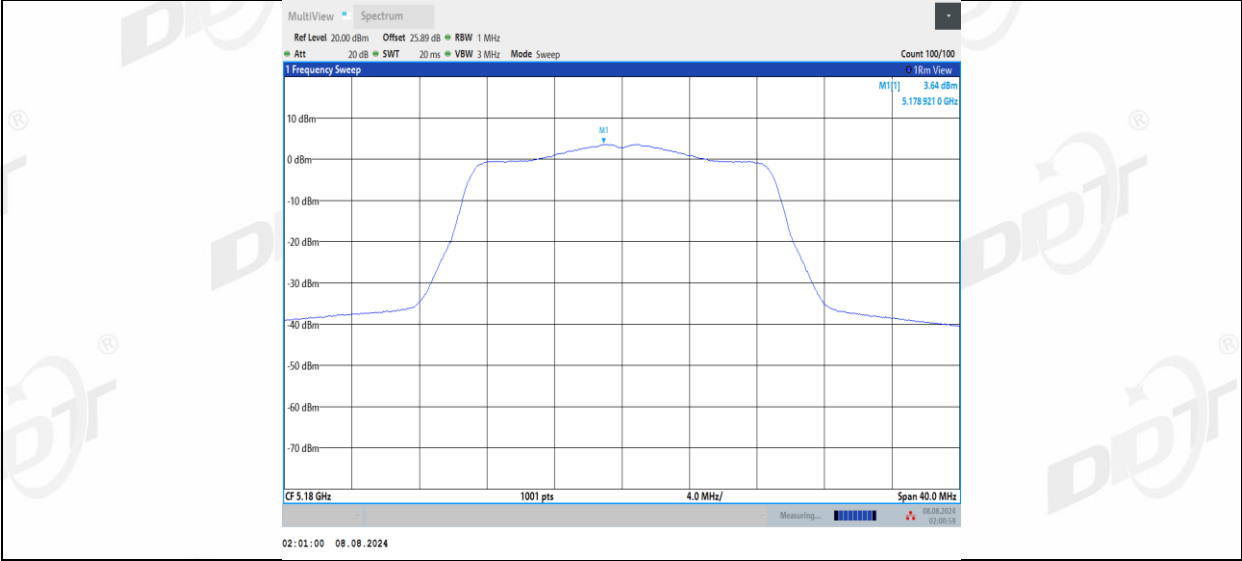
11A_Ant1_5785



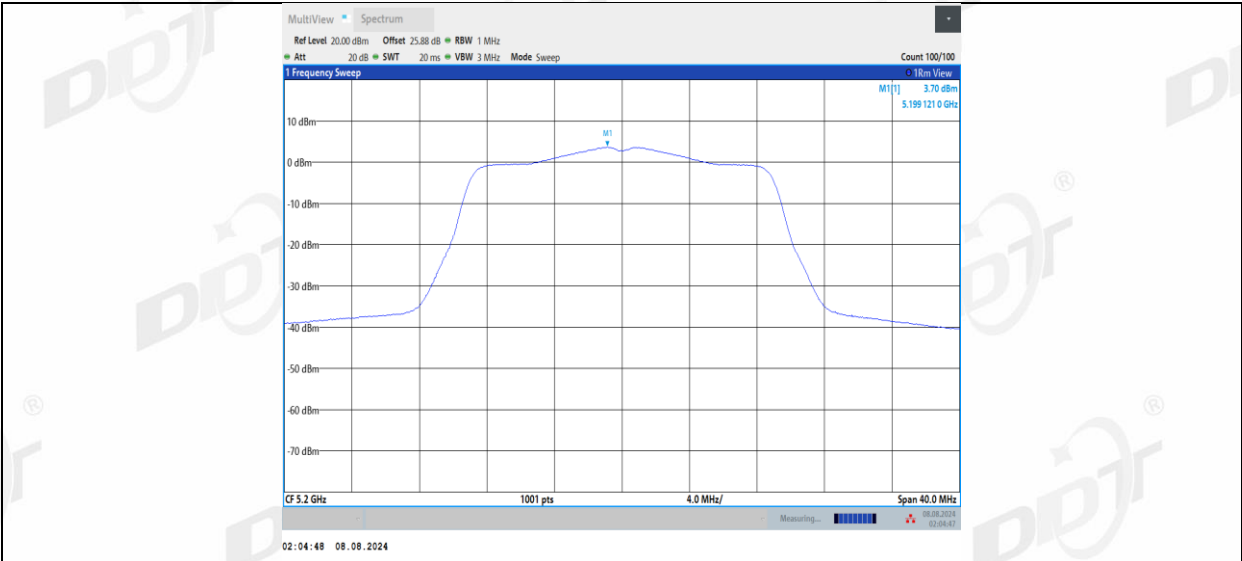
11A_Ant1_5825



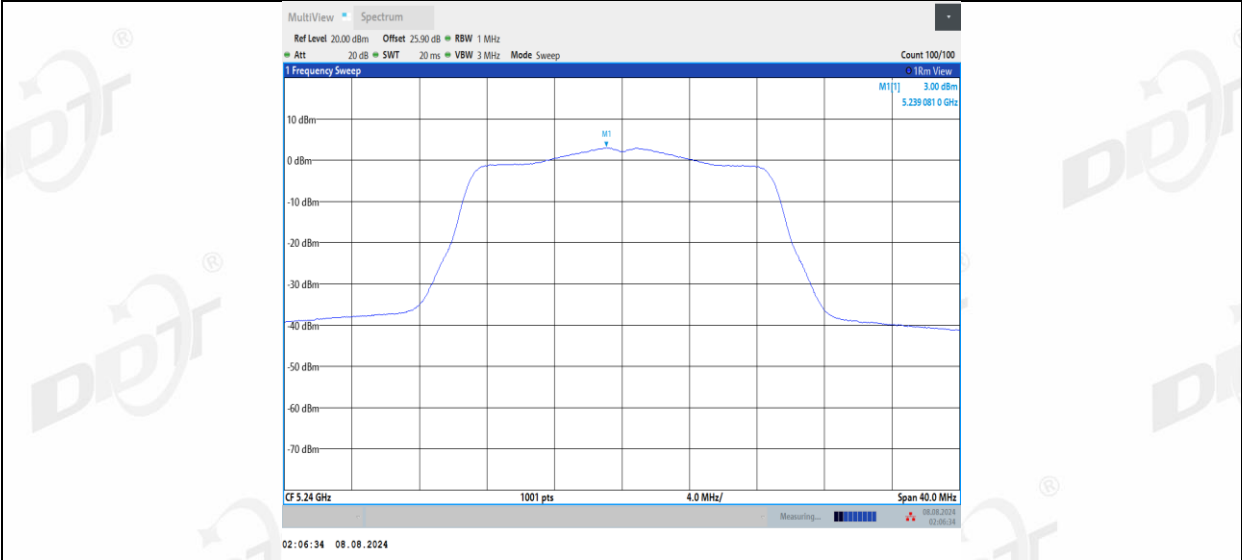
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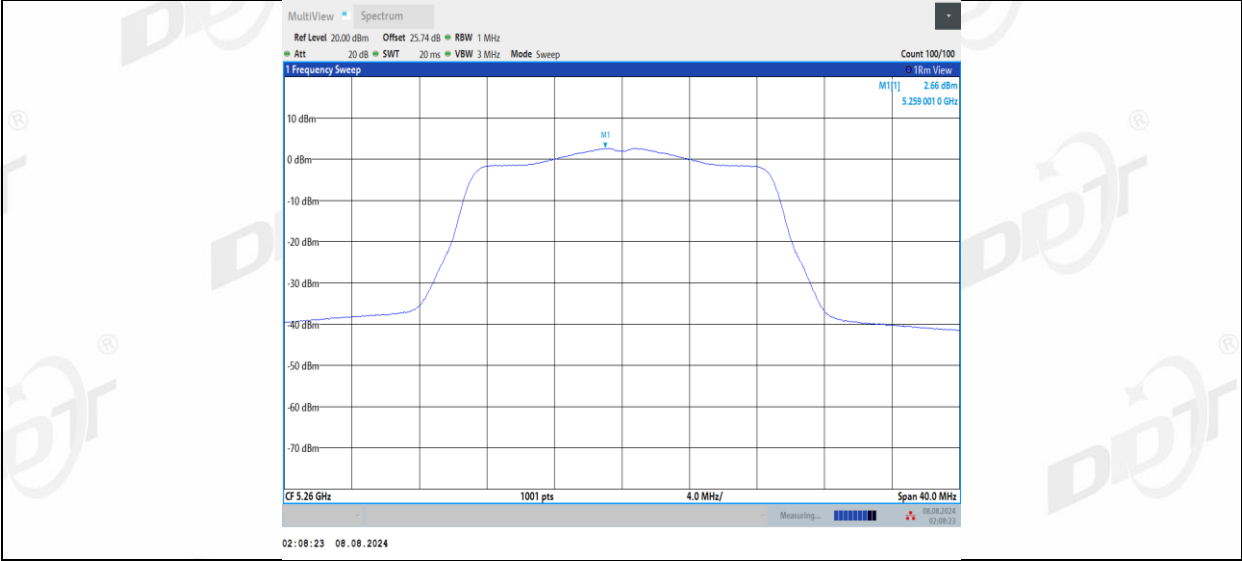
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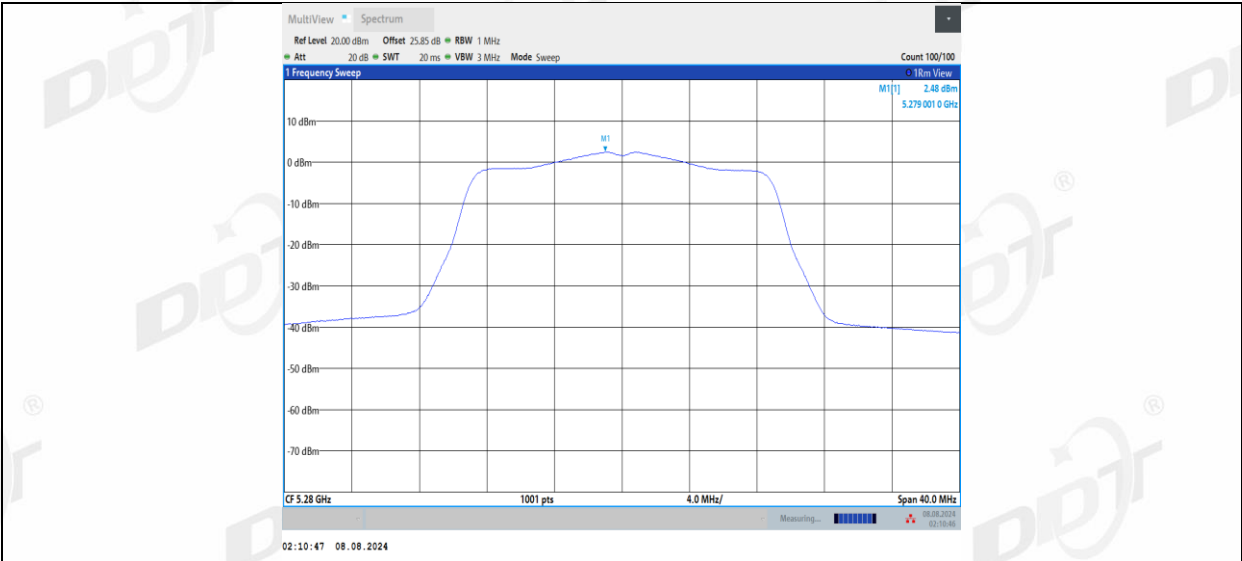
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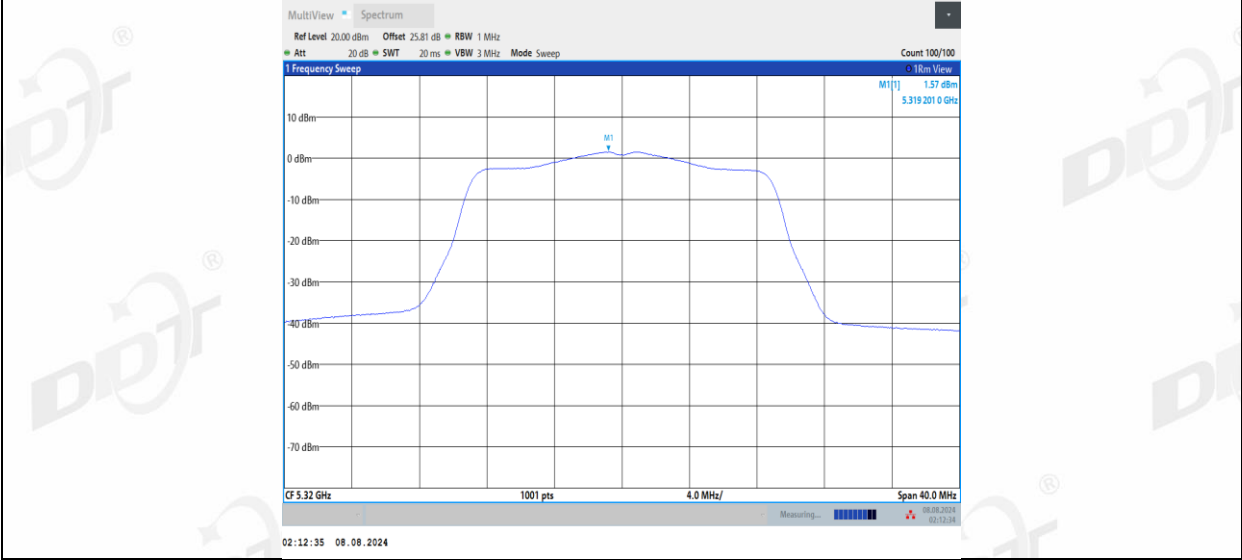
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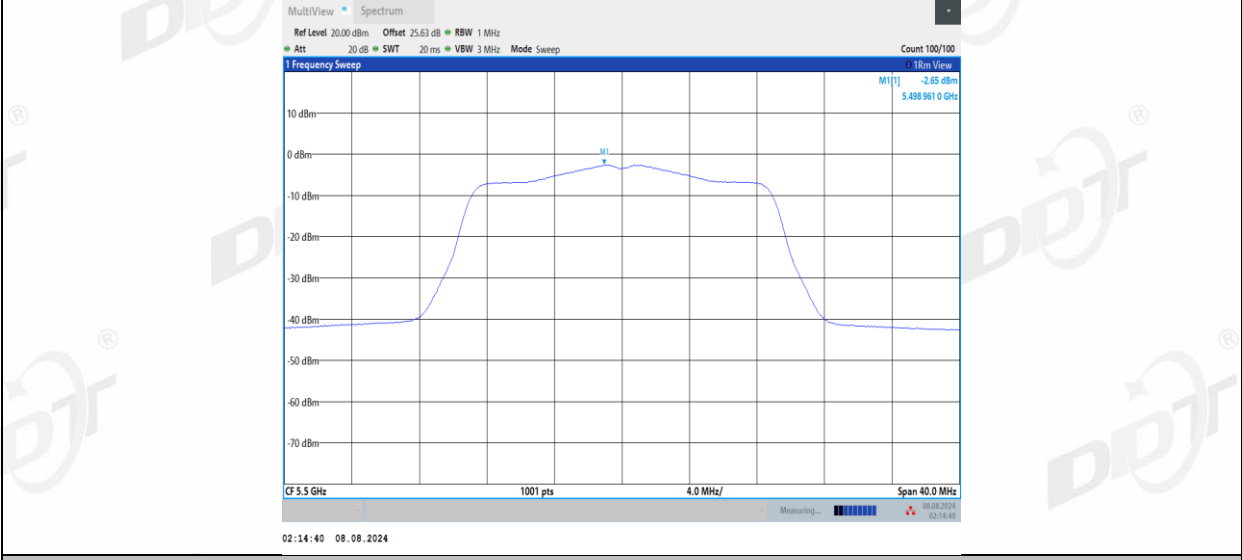
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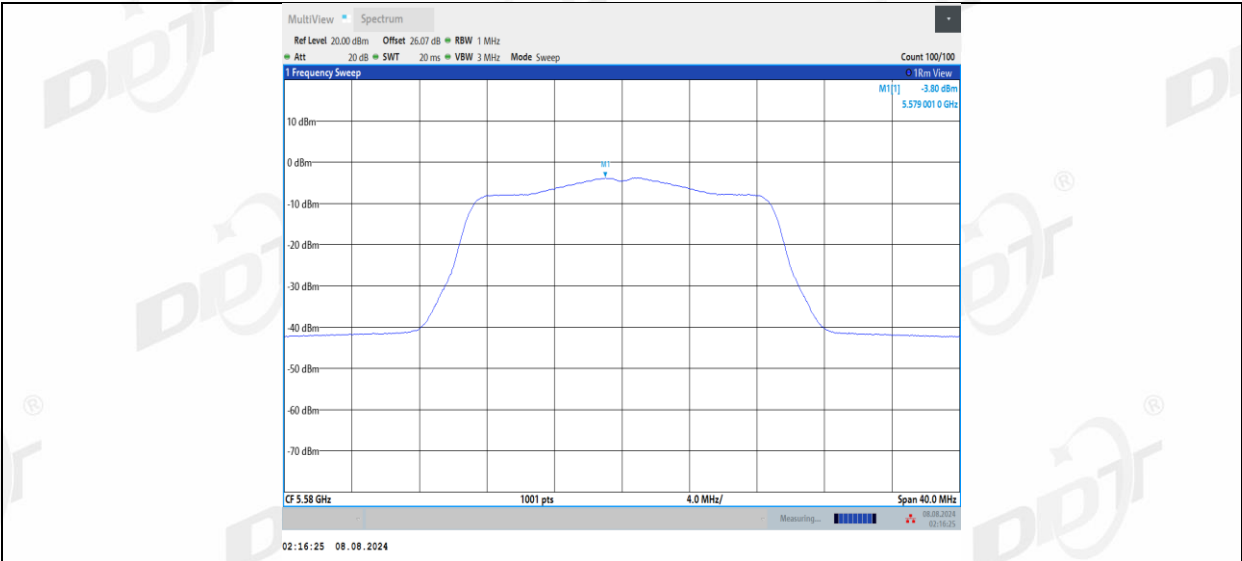
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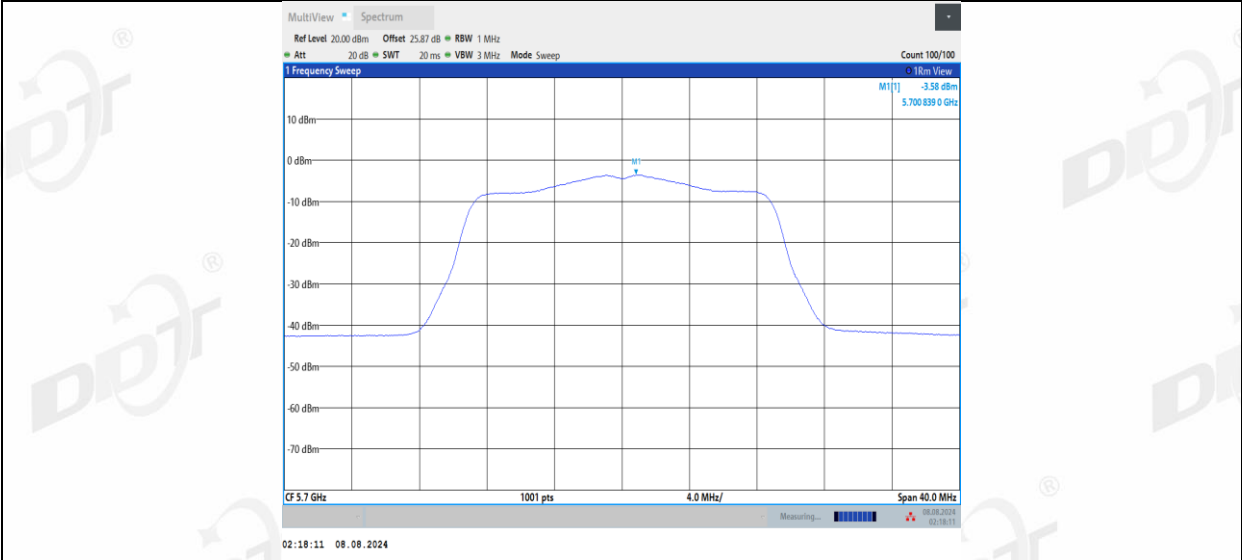
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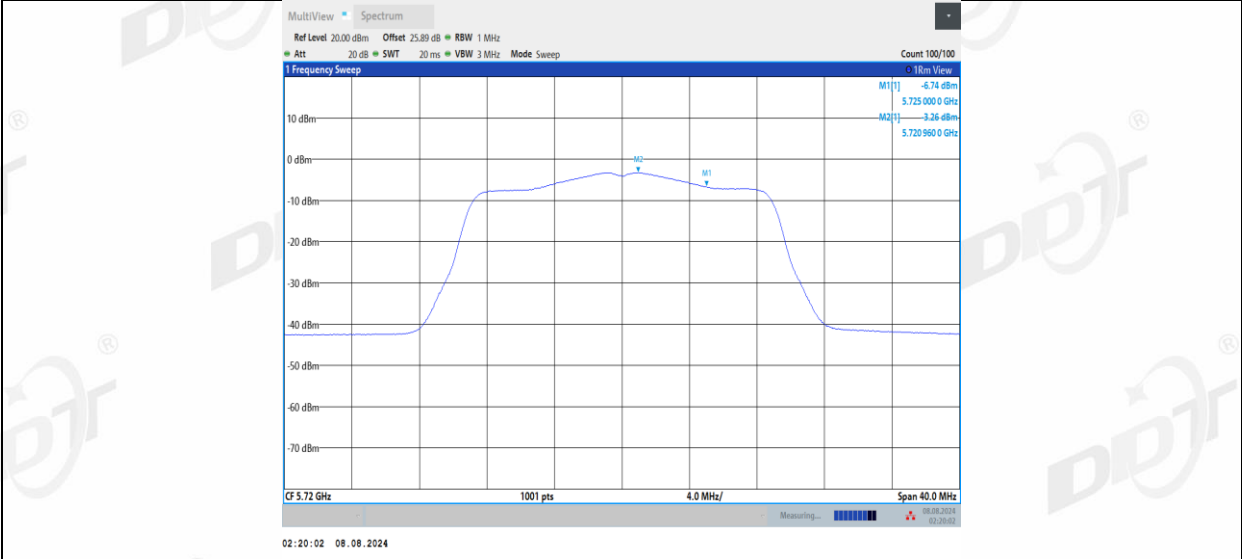
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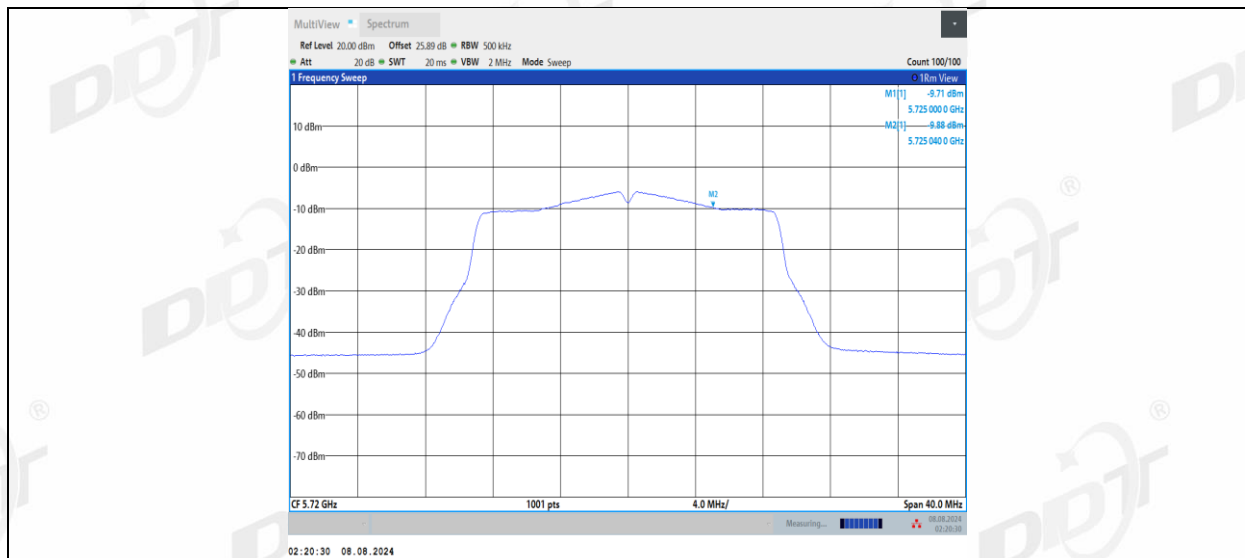
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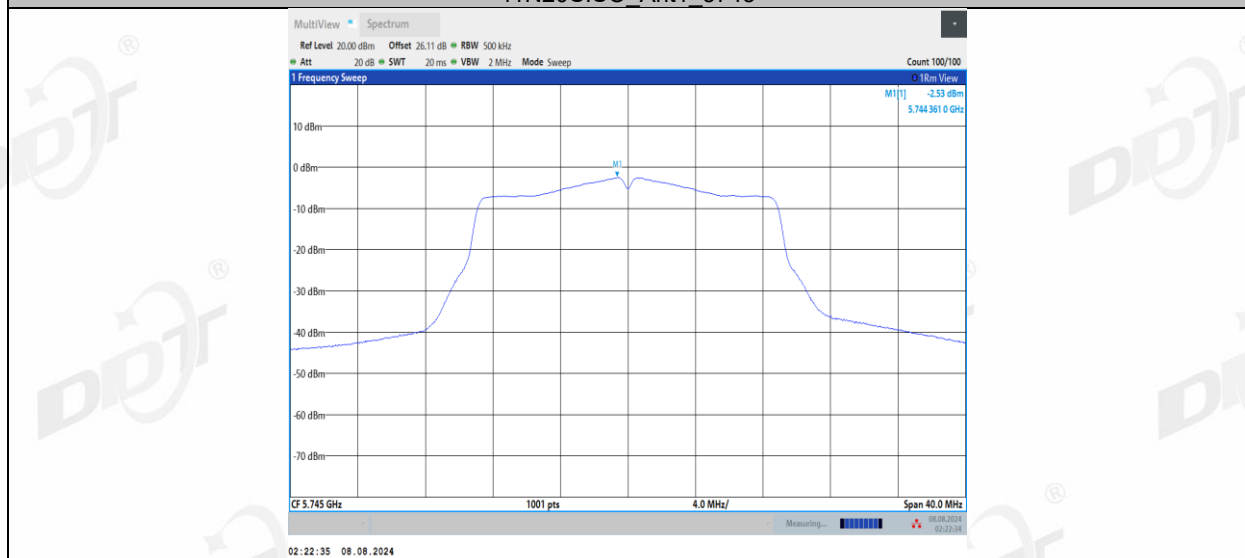
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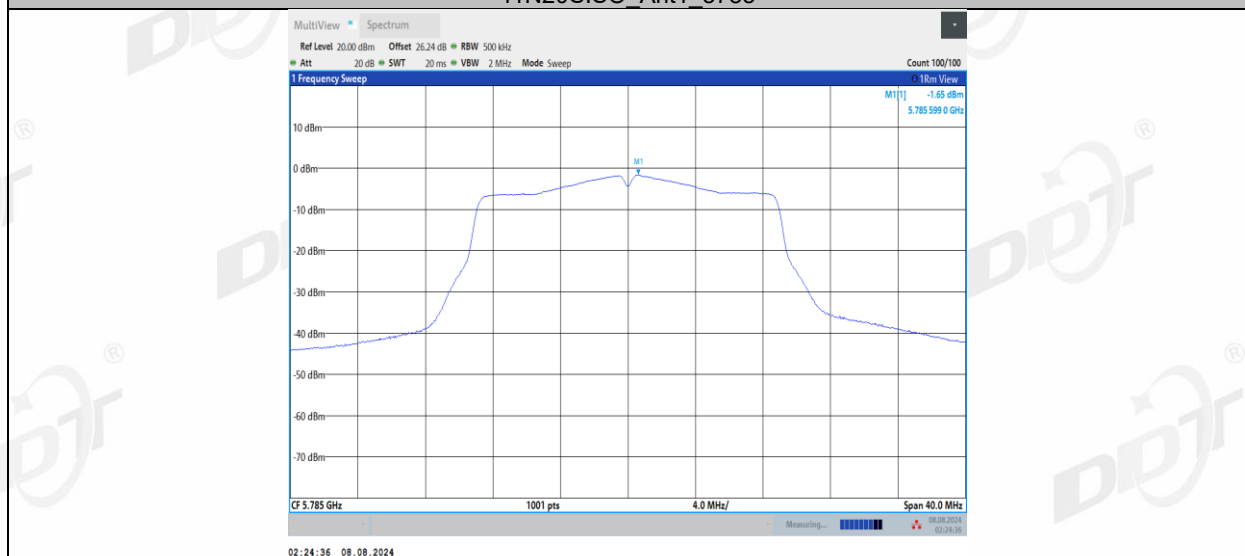
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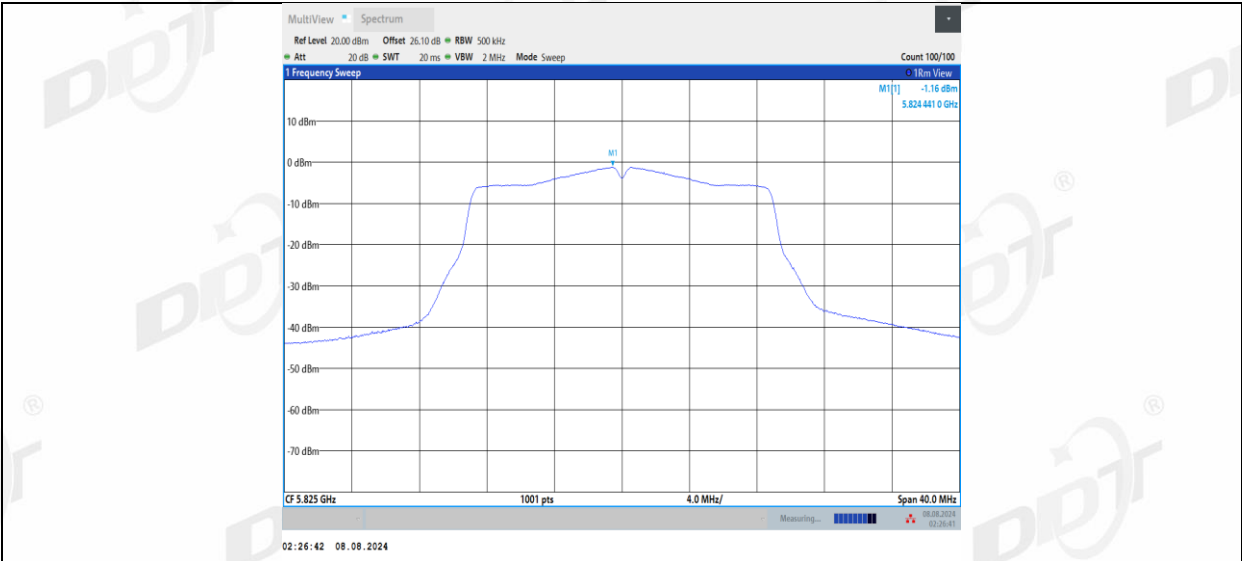
11N20SISO_Ant1_5745



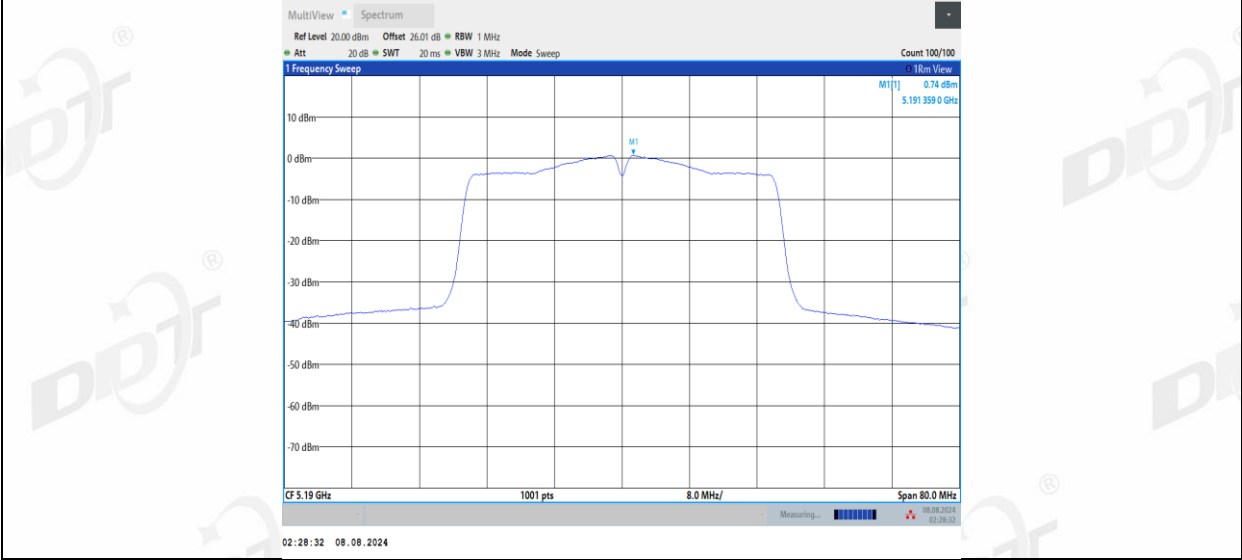
11N20SISO_Ant1_5785



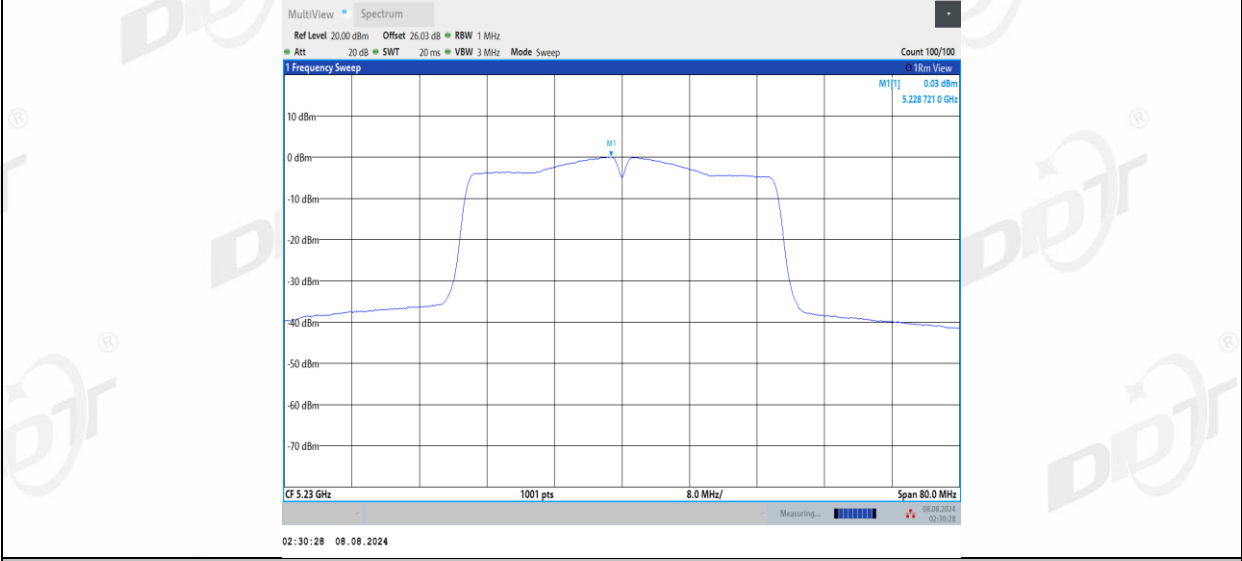
11N20SISO_Ant1_5825



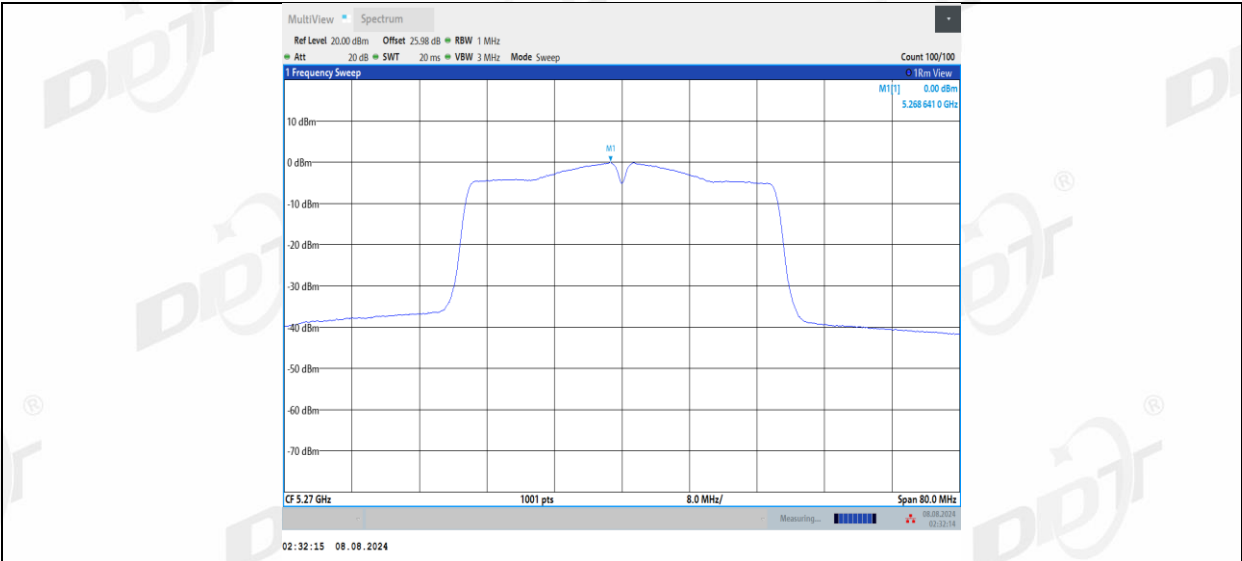
11N40SISO_Ant1_5190



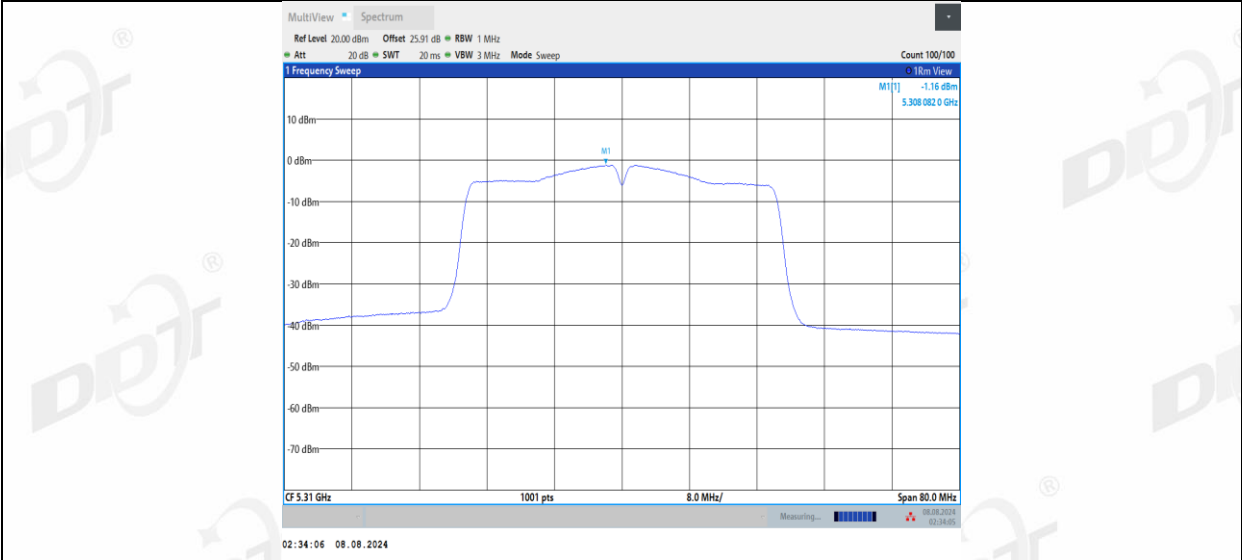
11N40SISO_Ant1_5230



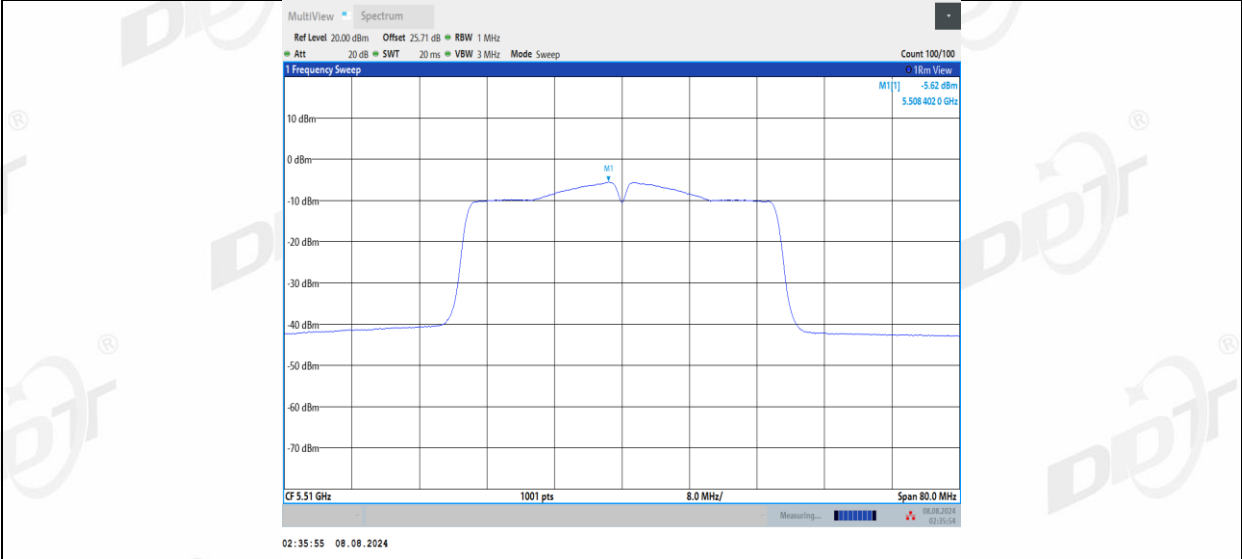
11N40SISO_Ant1_5270



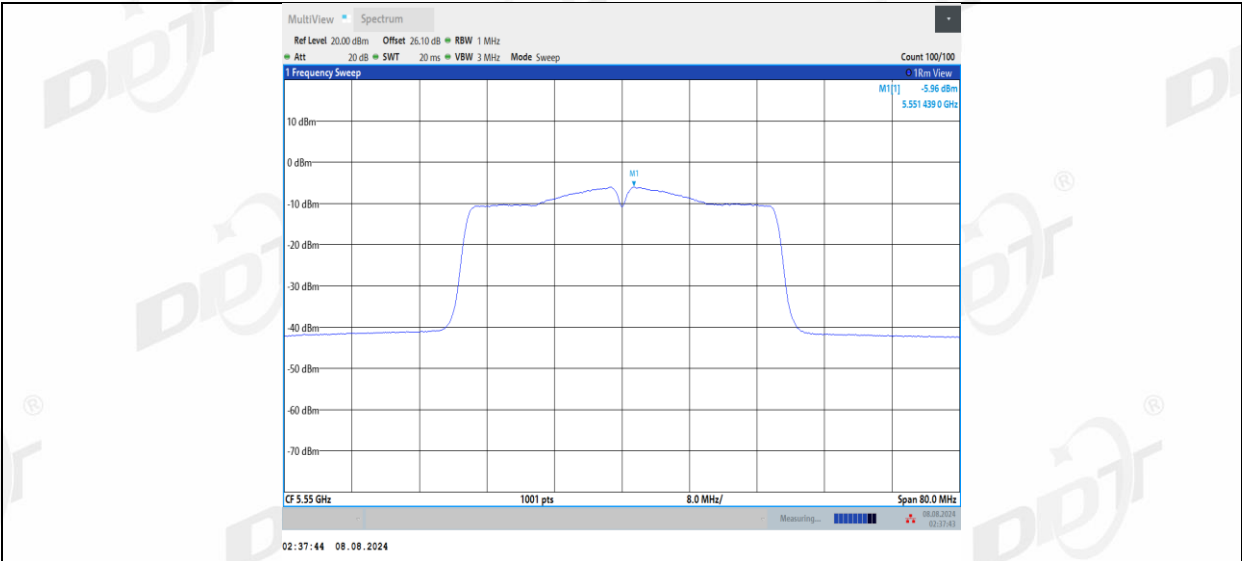
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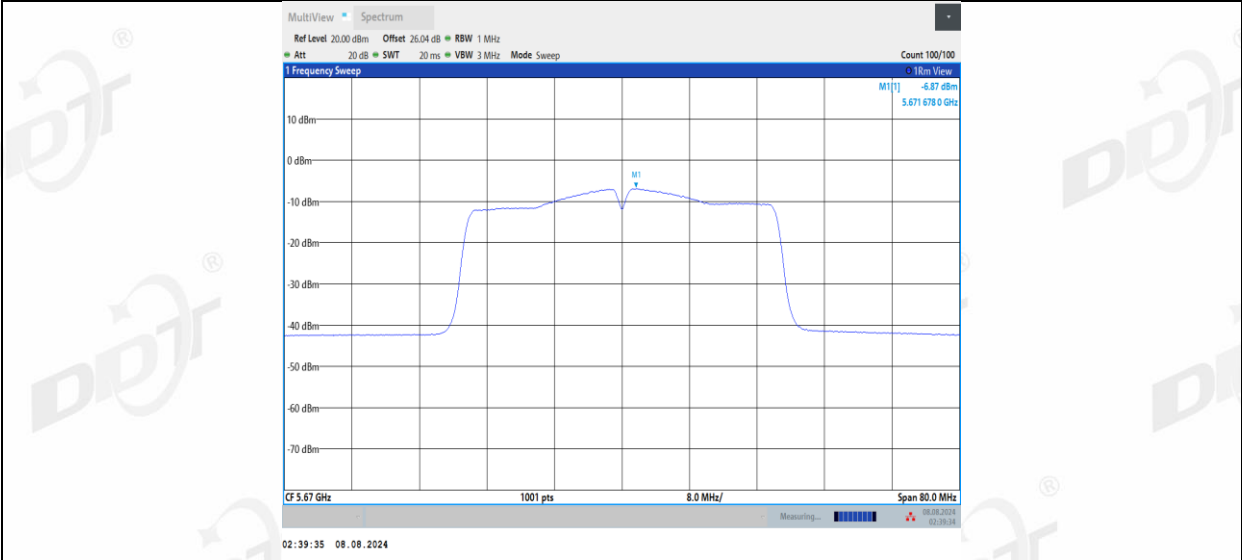
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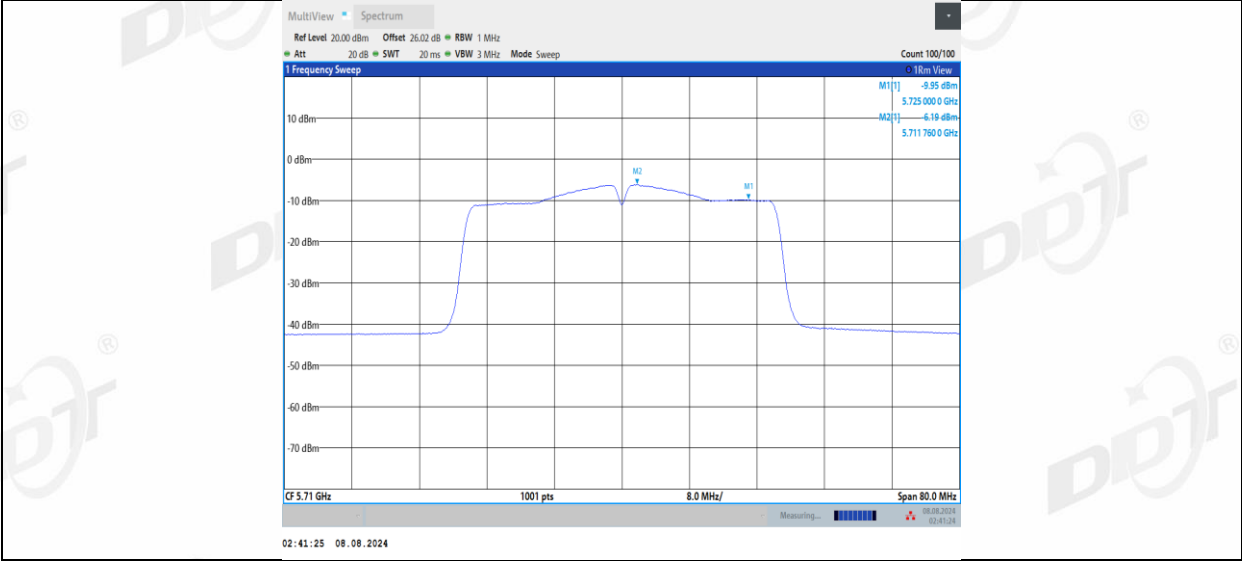
11N40SISO_Ant1_5550



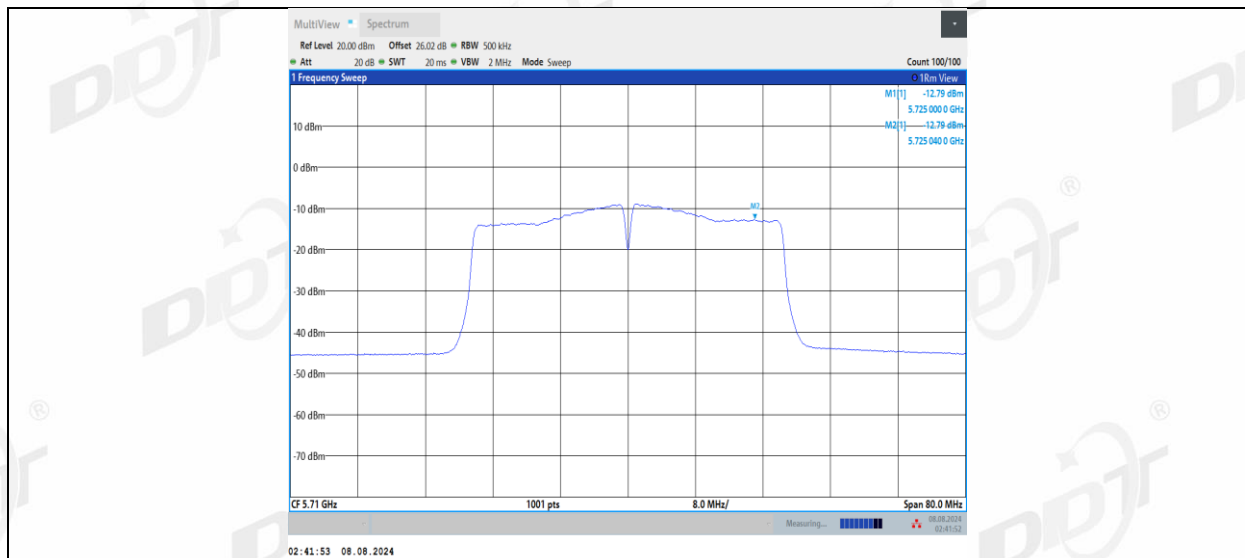
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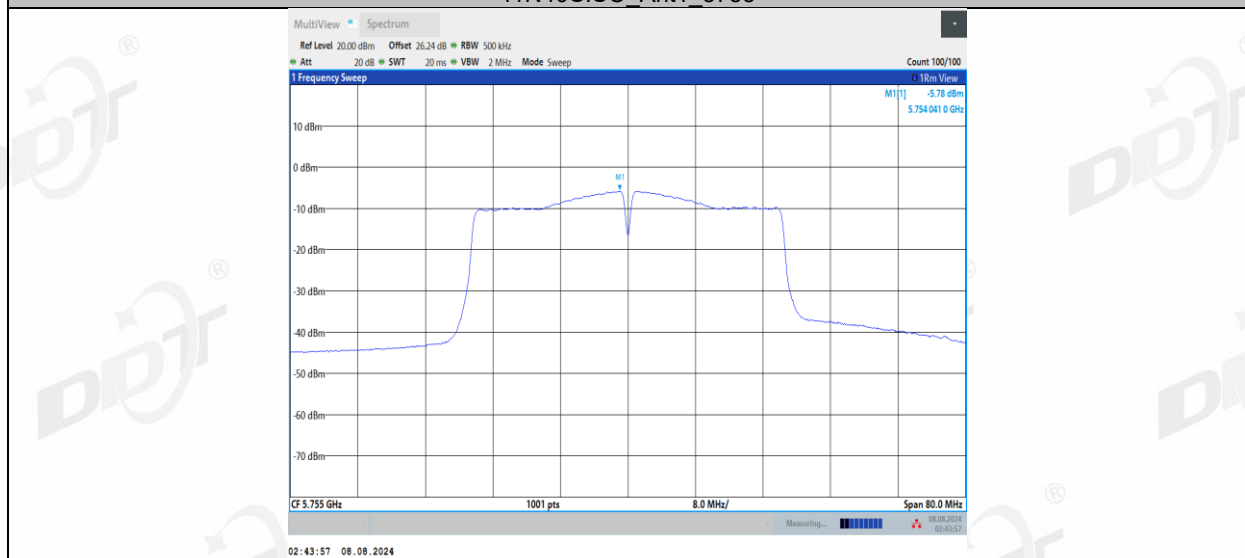
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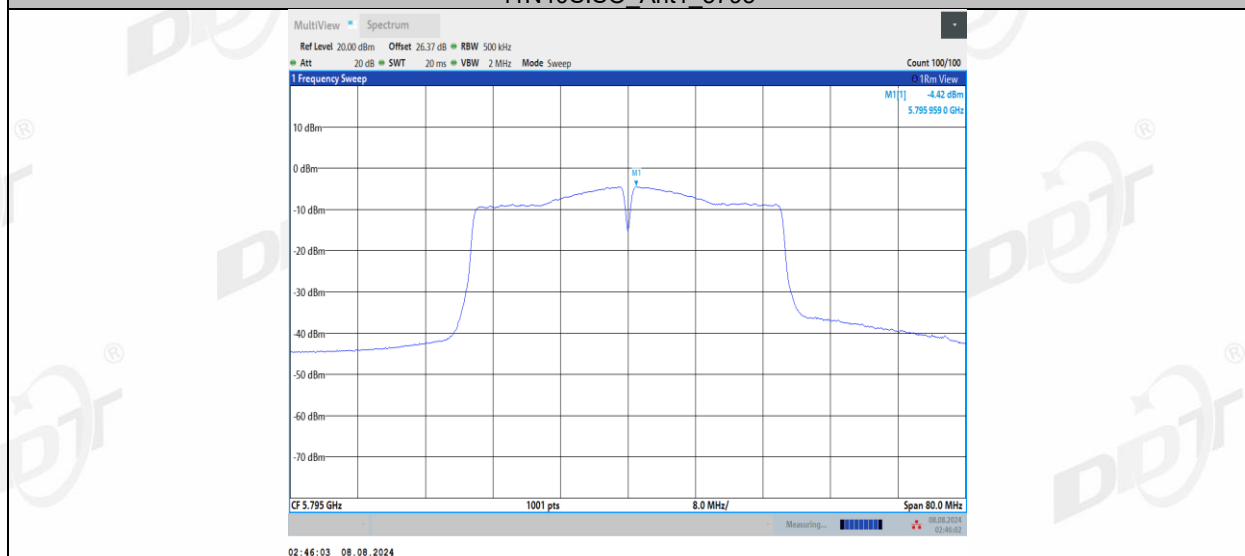
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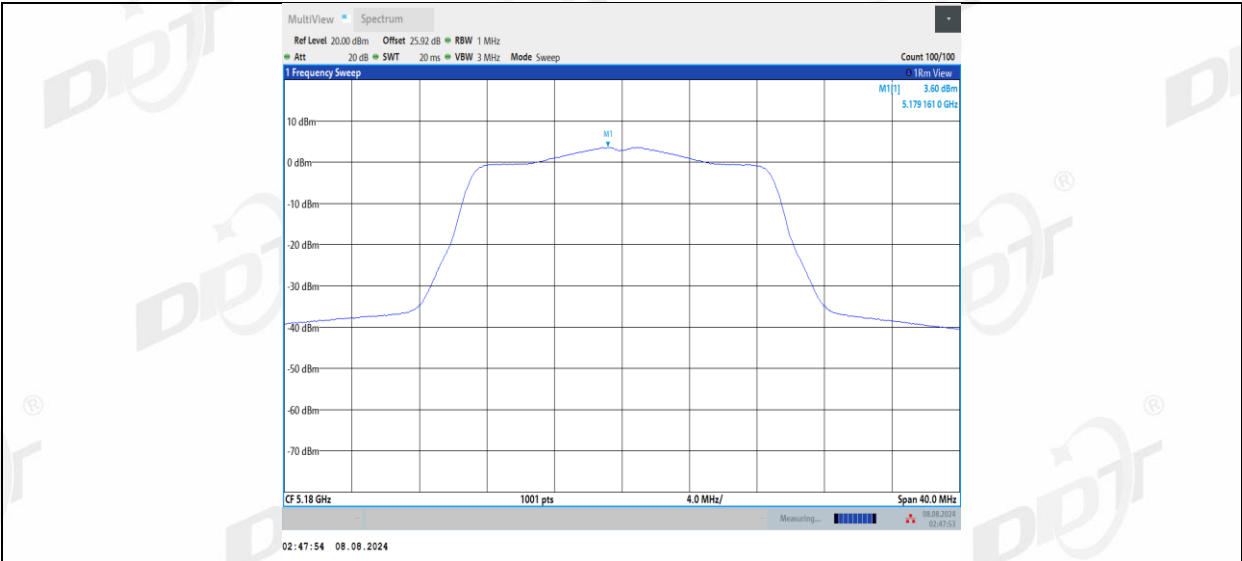
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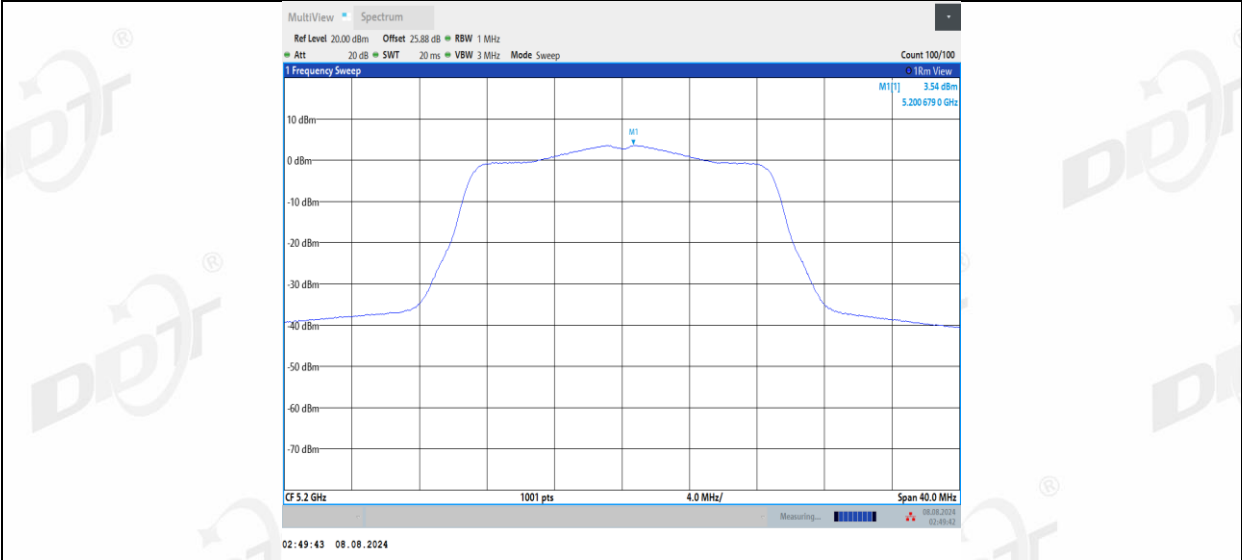
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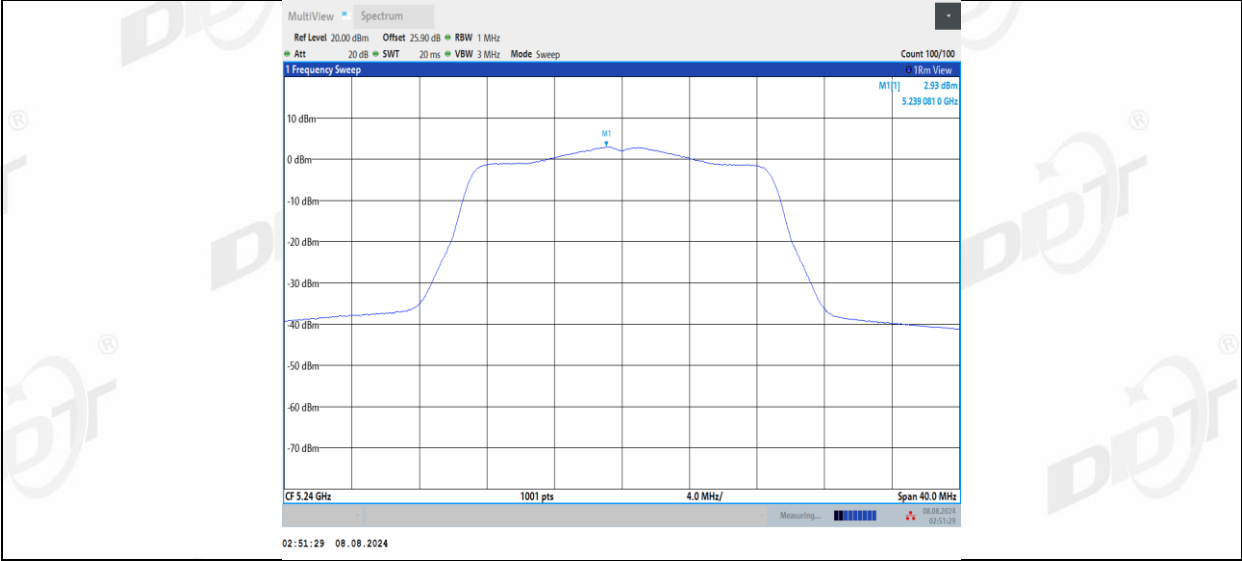
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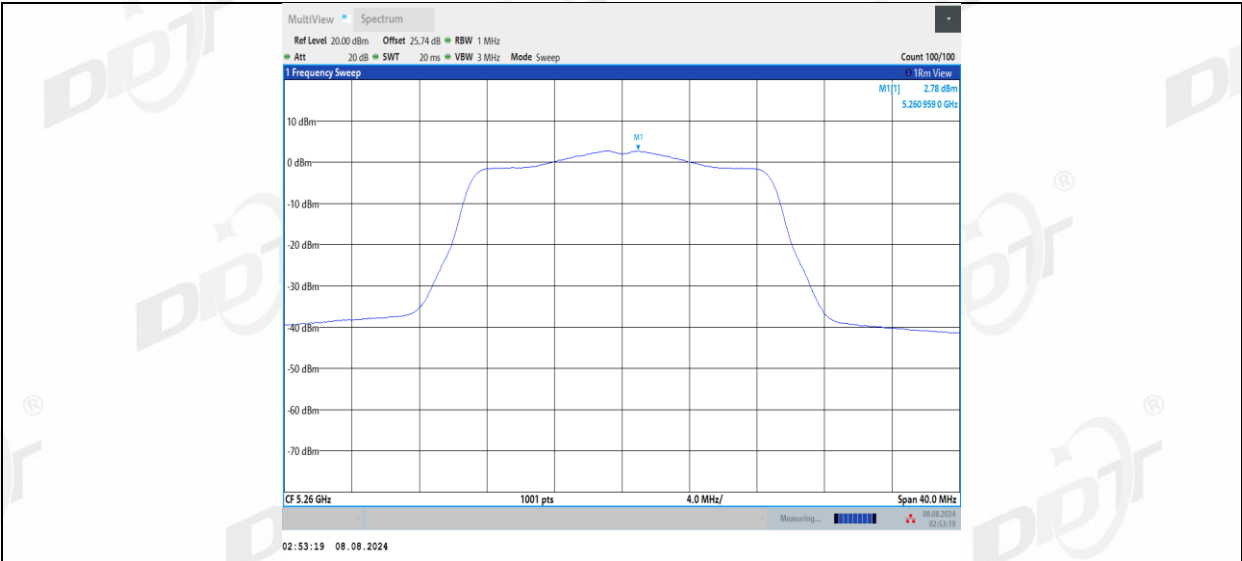
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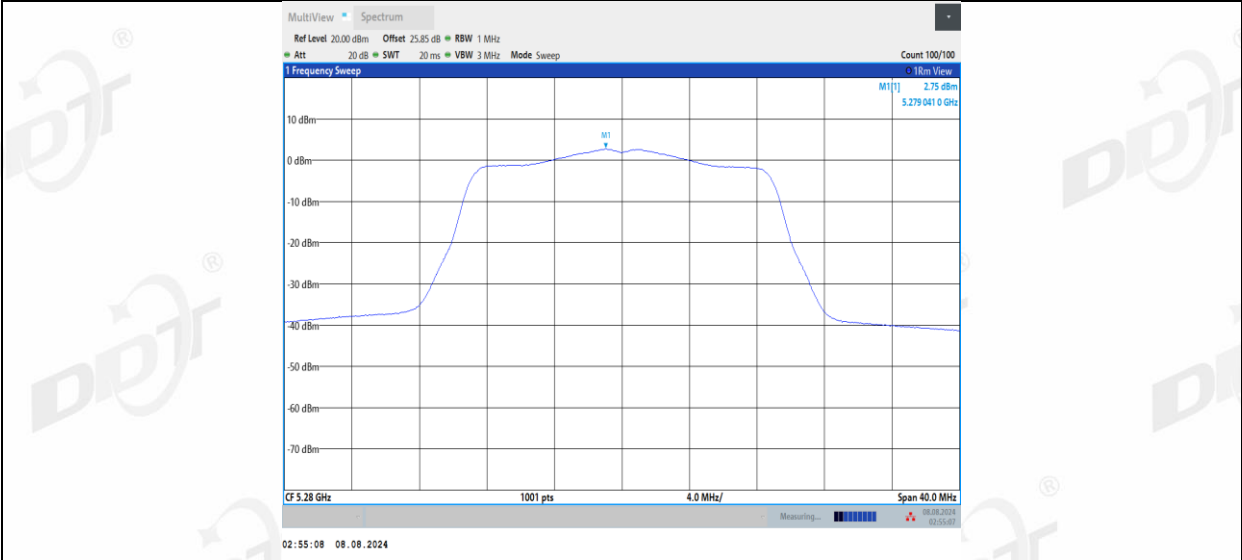
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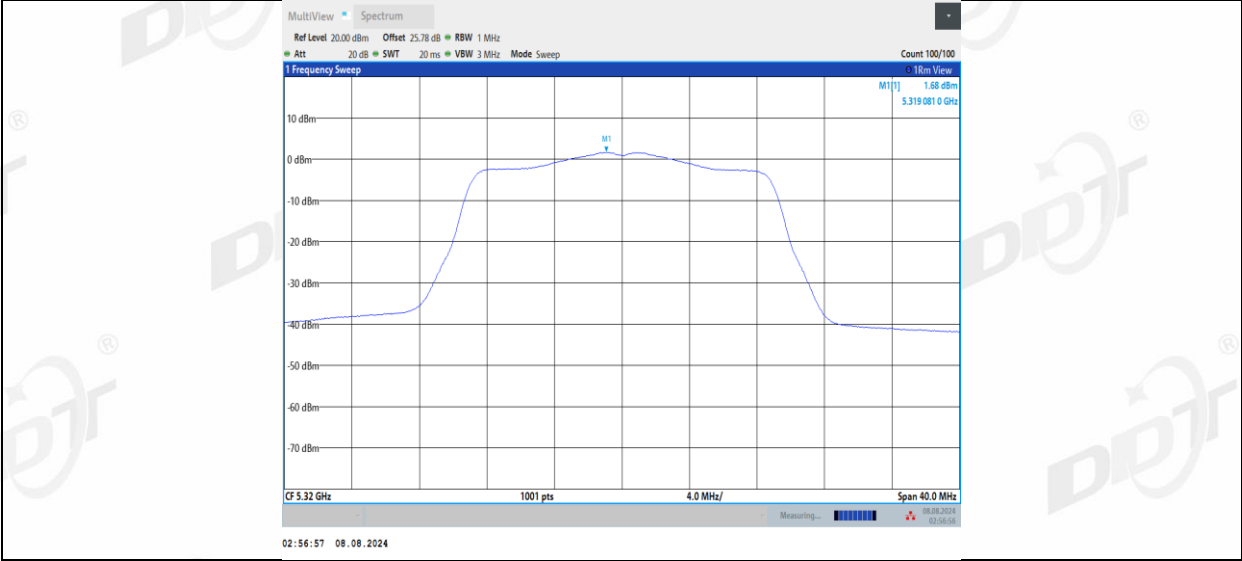
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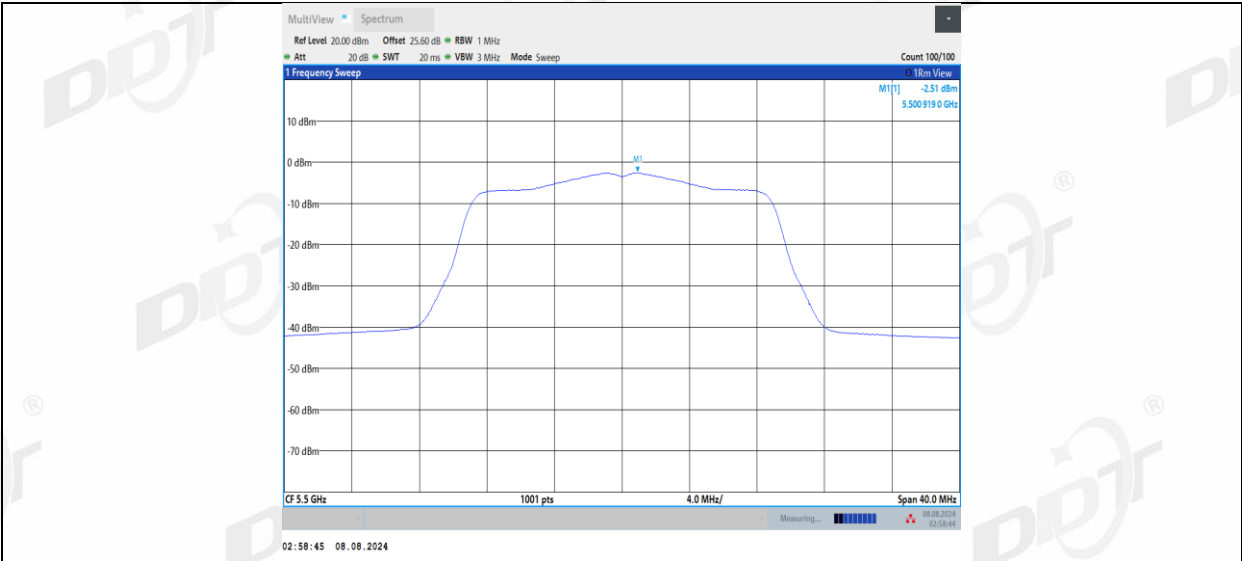
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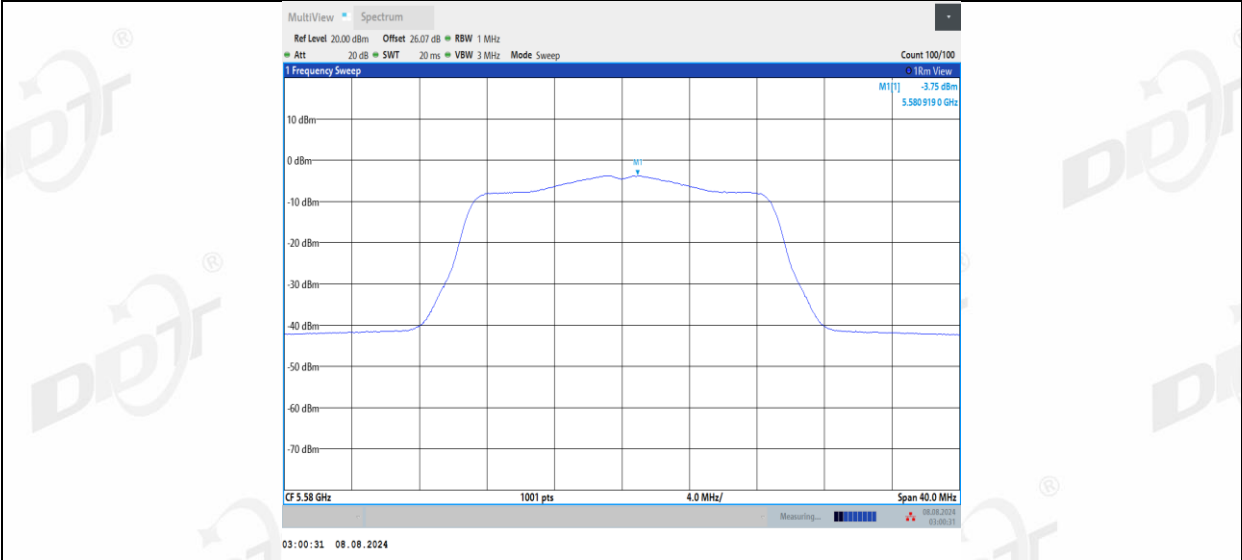
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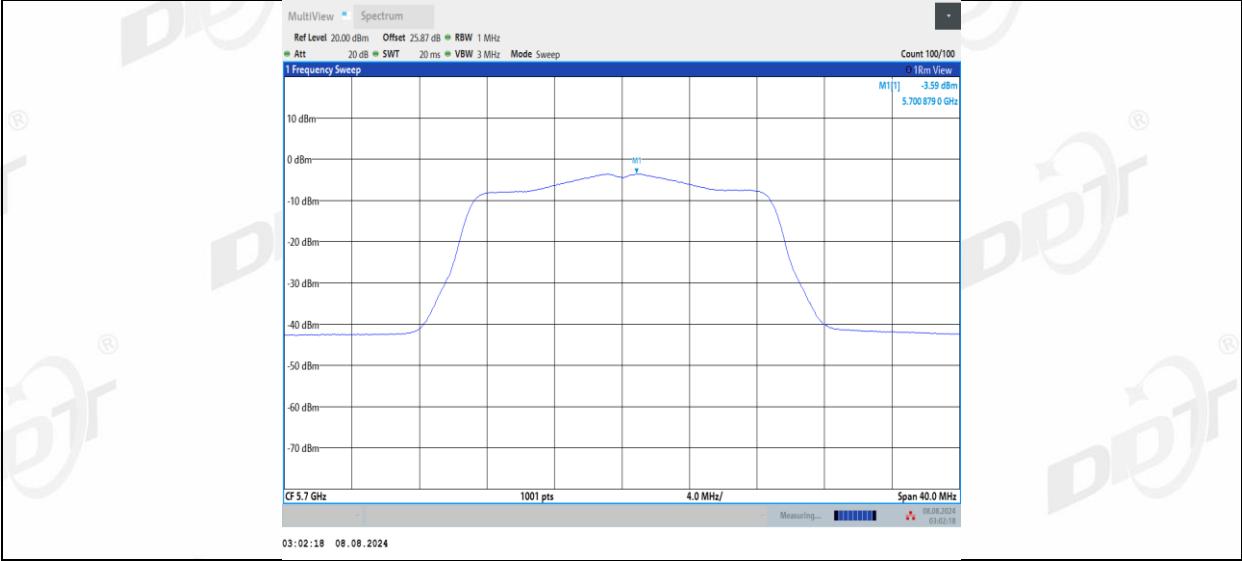
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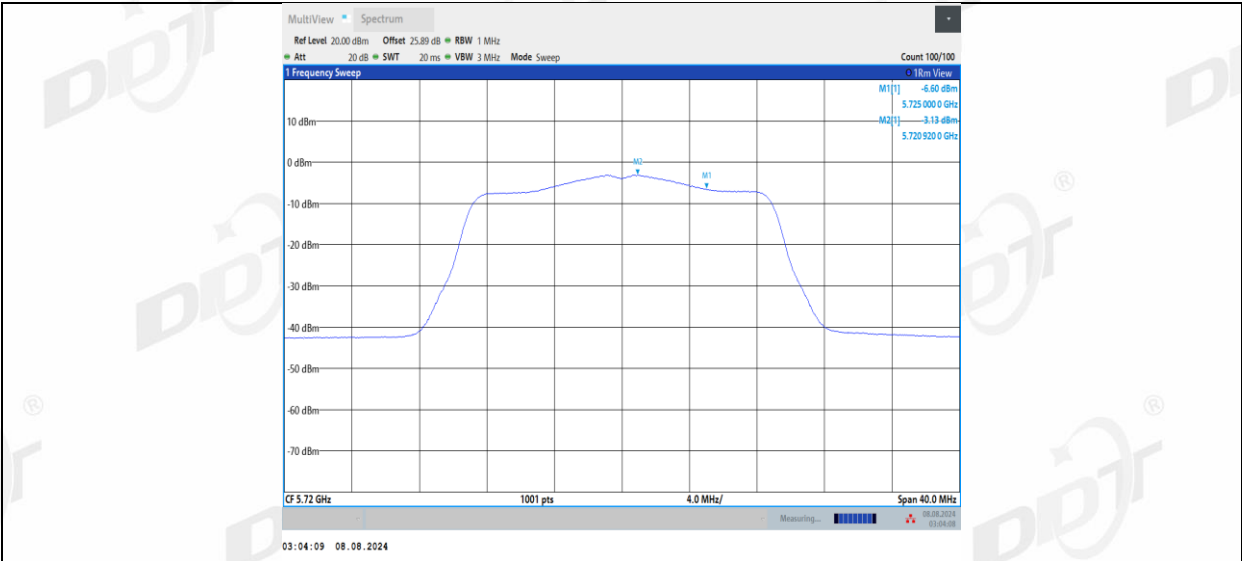
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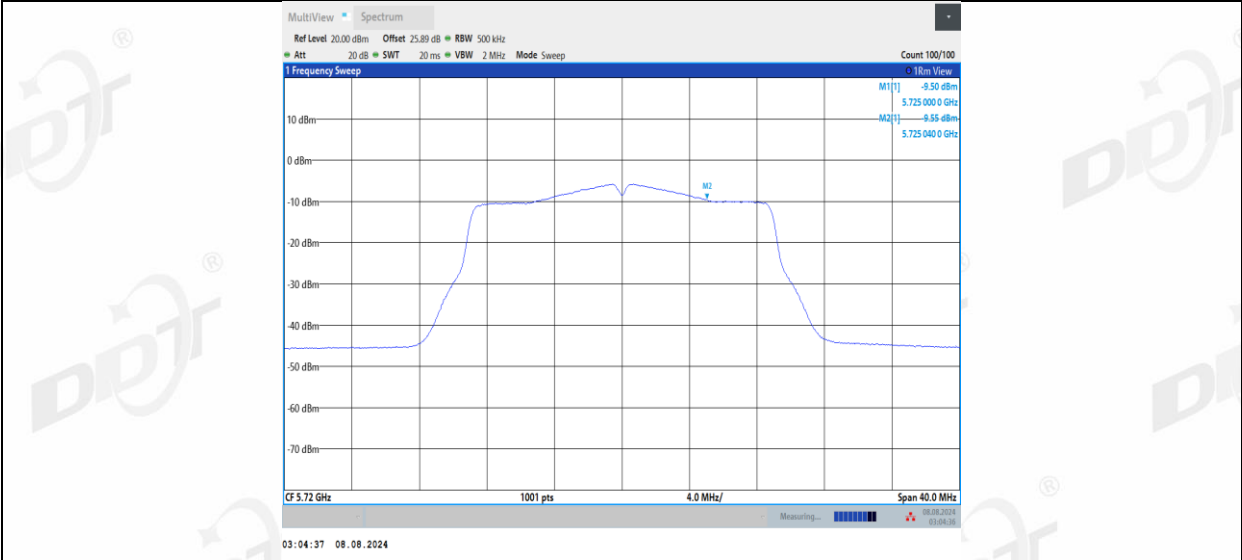
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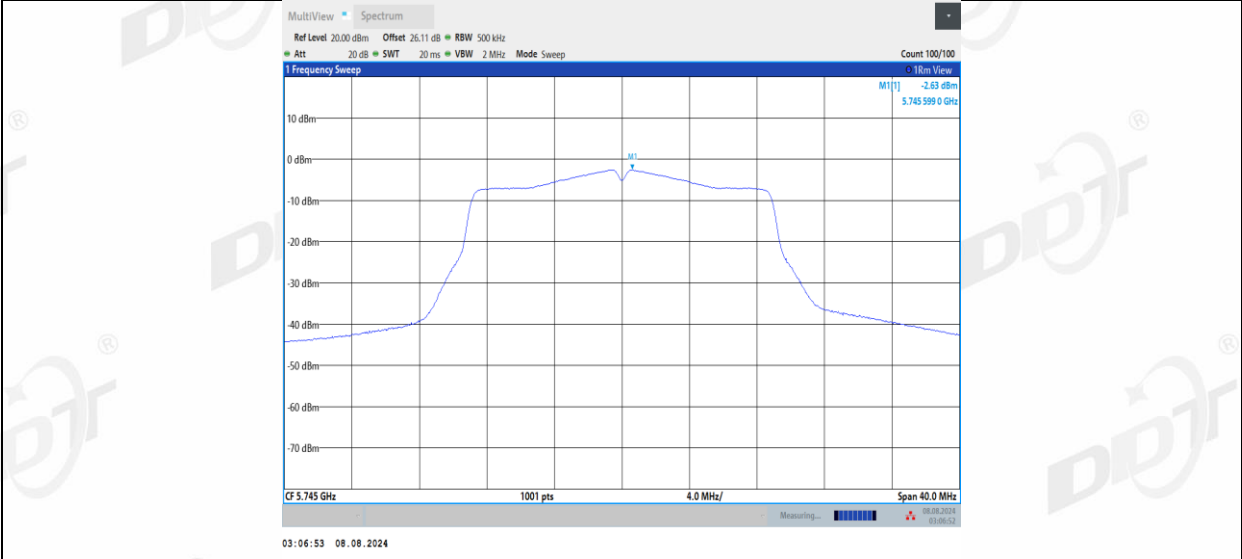
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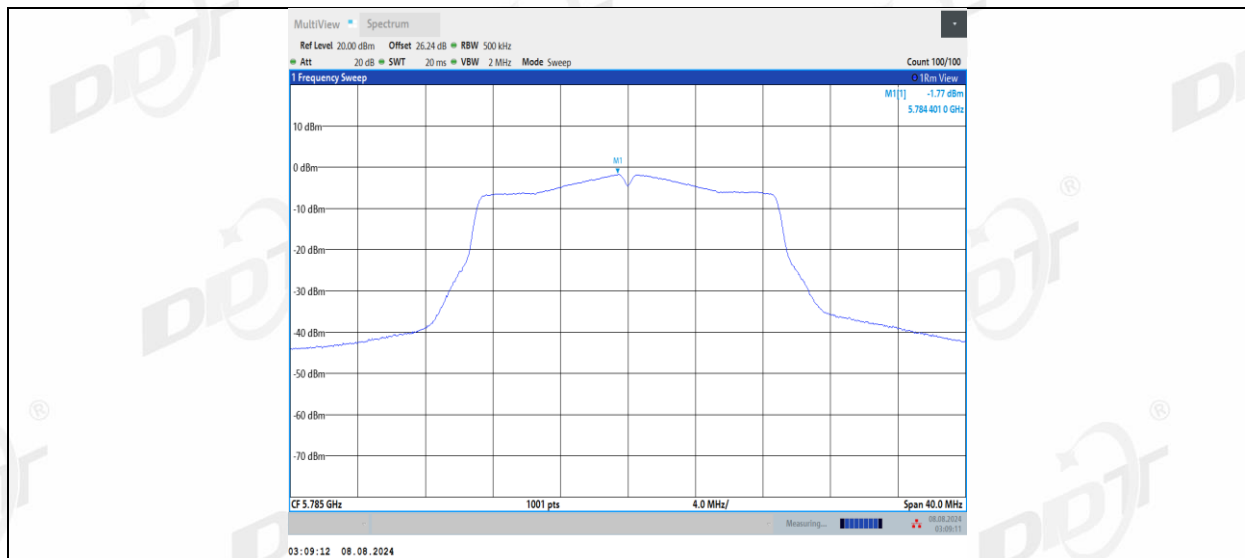
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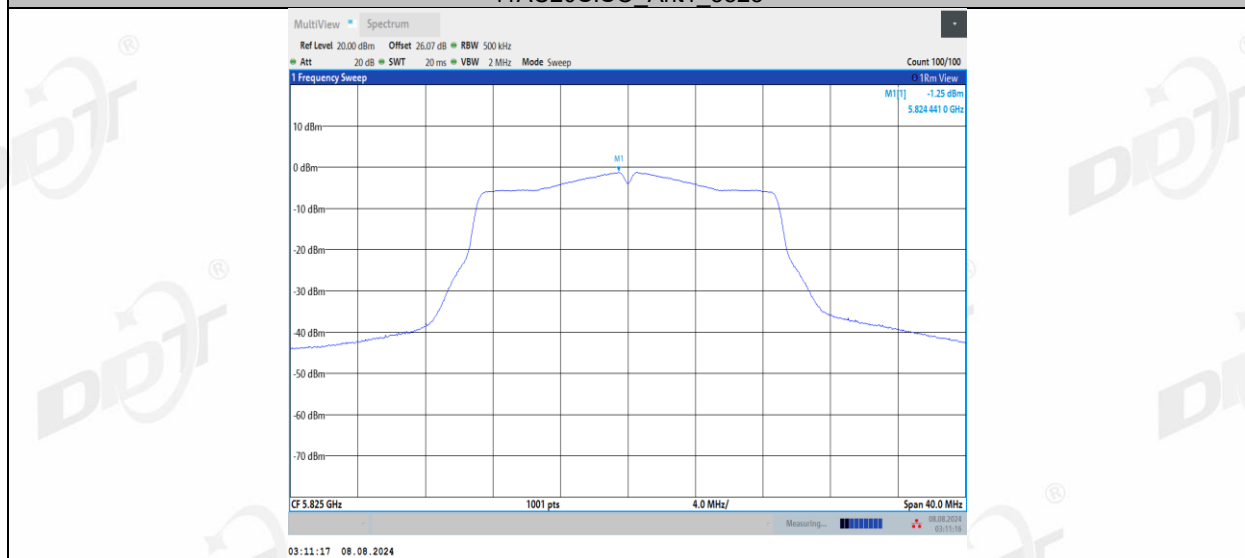
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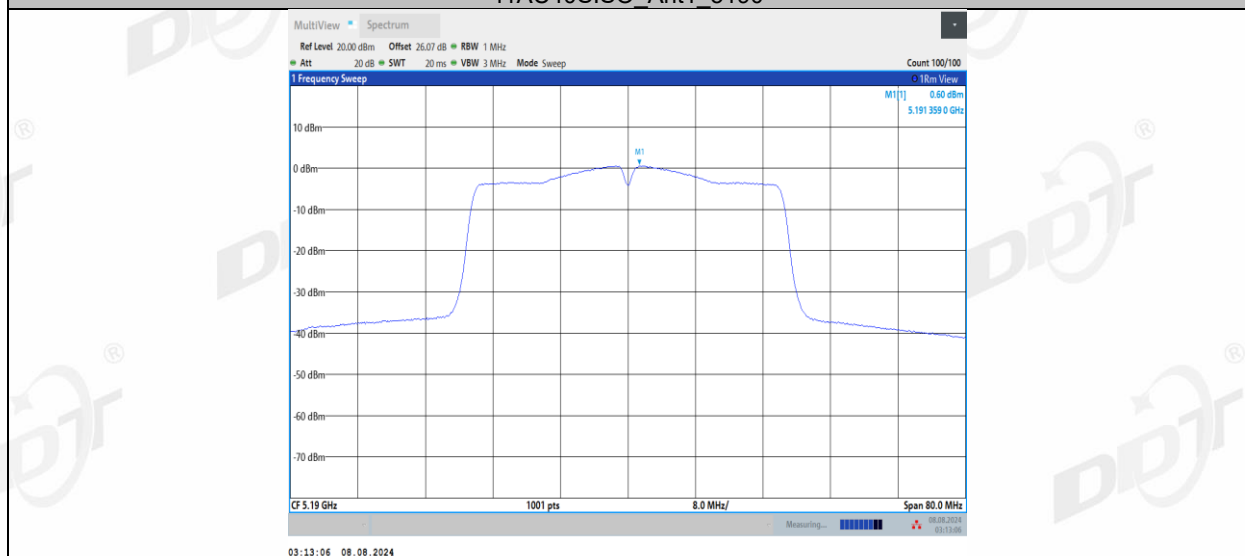
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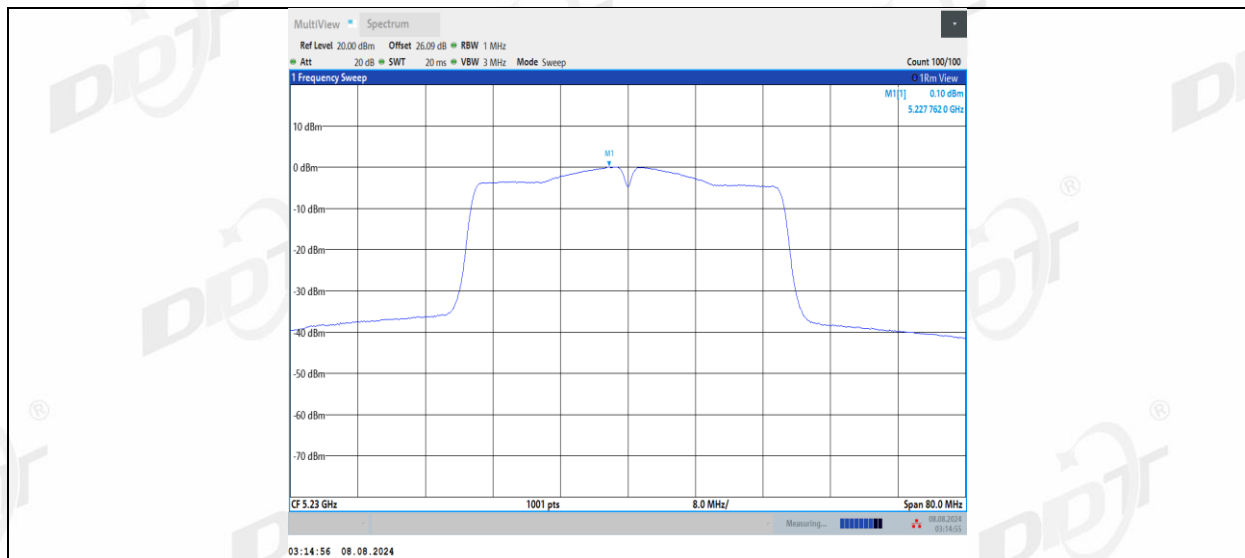
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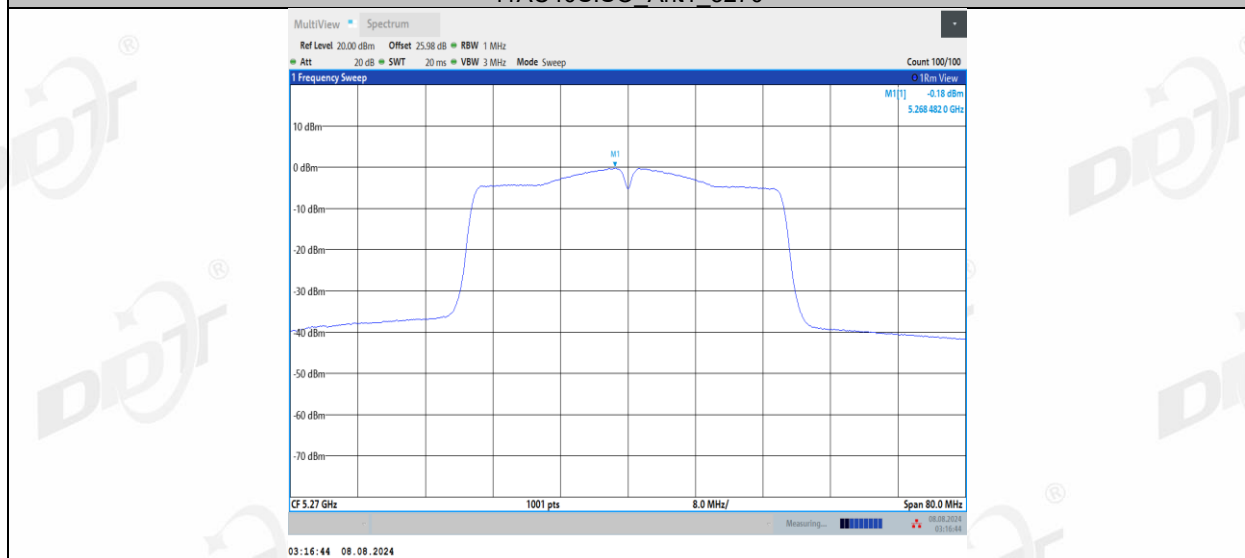
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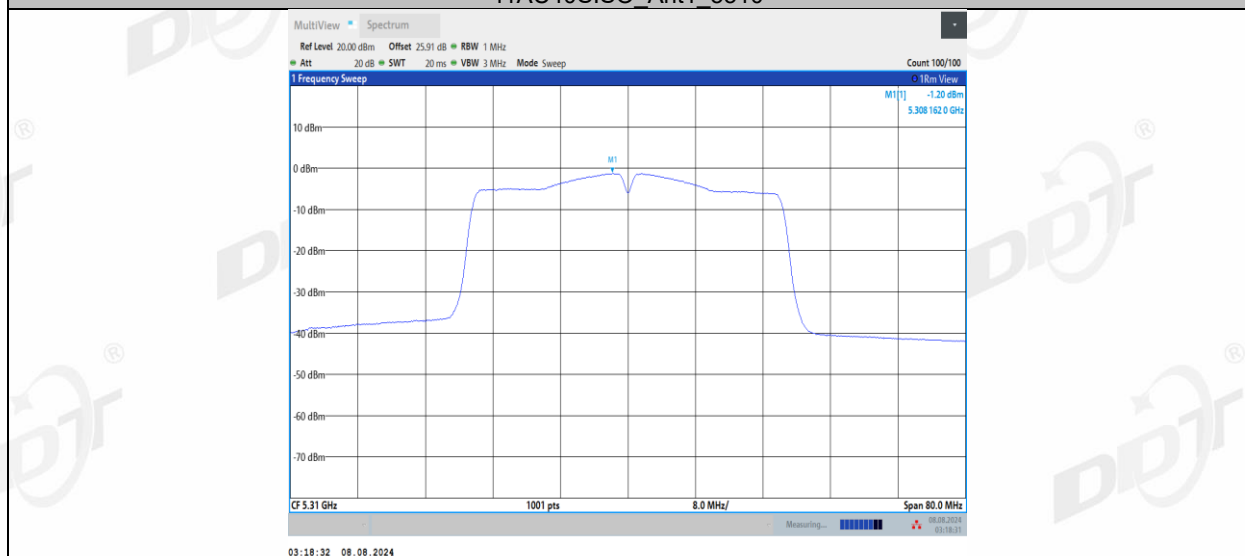
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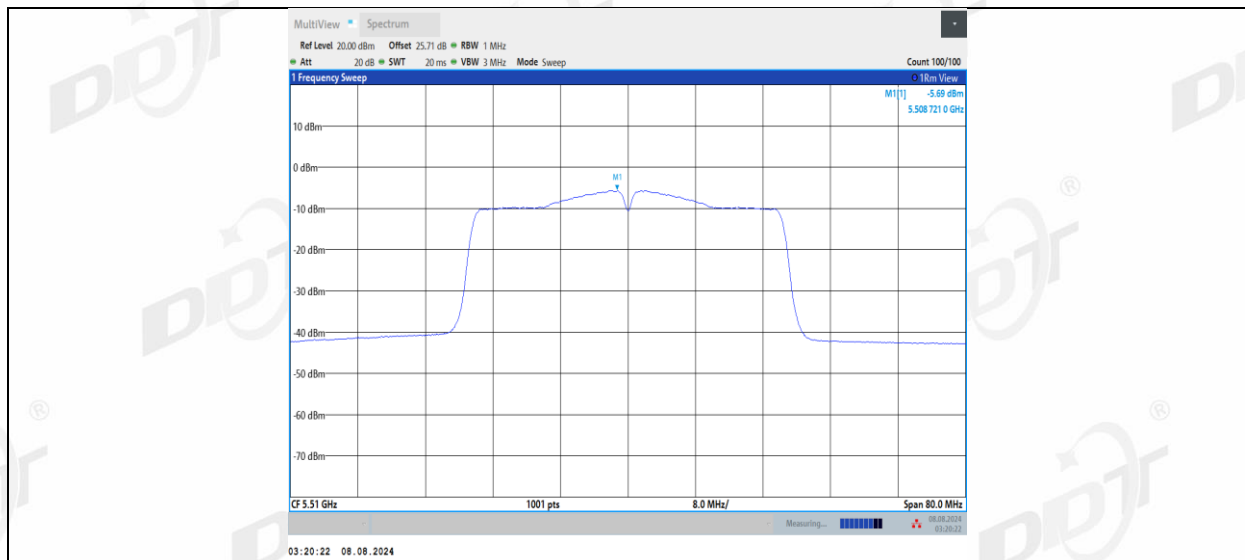
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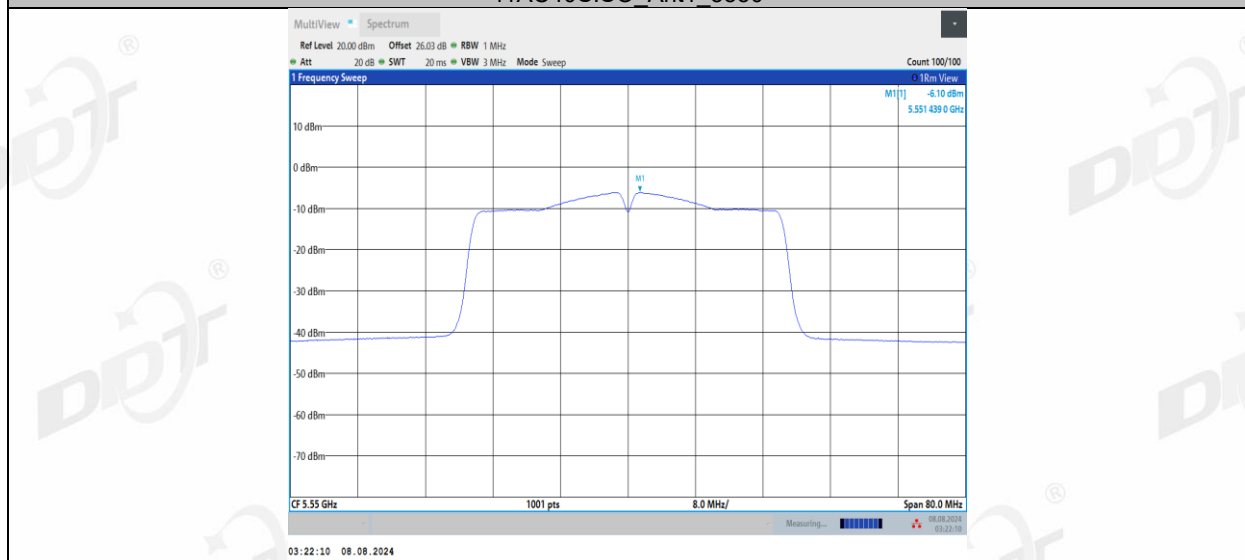
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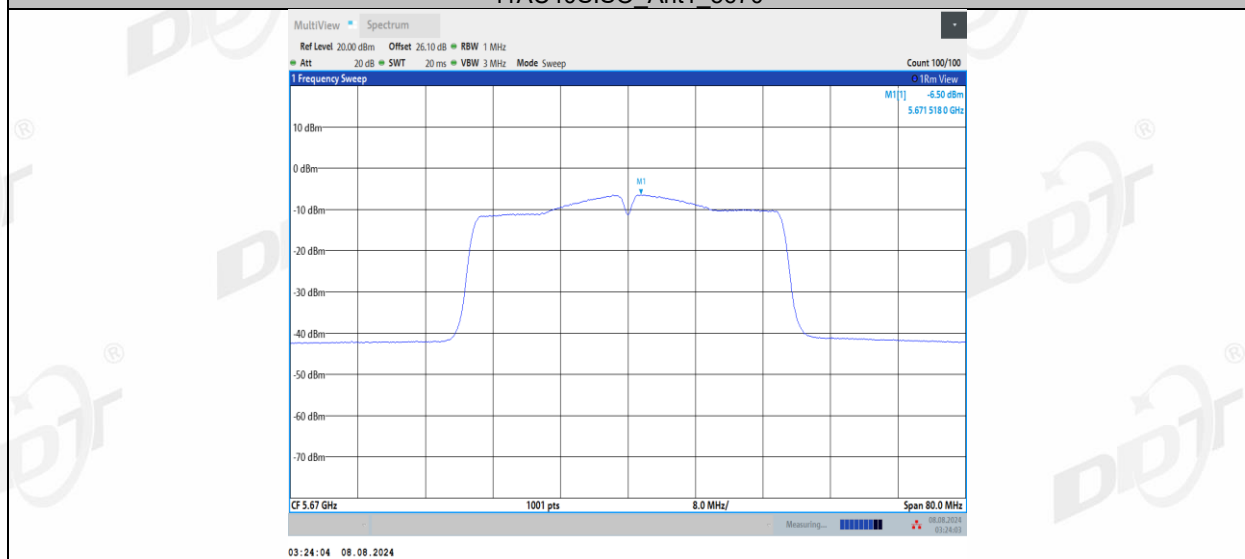
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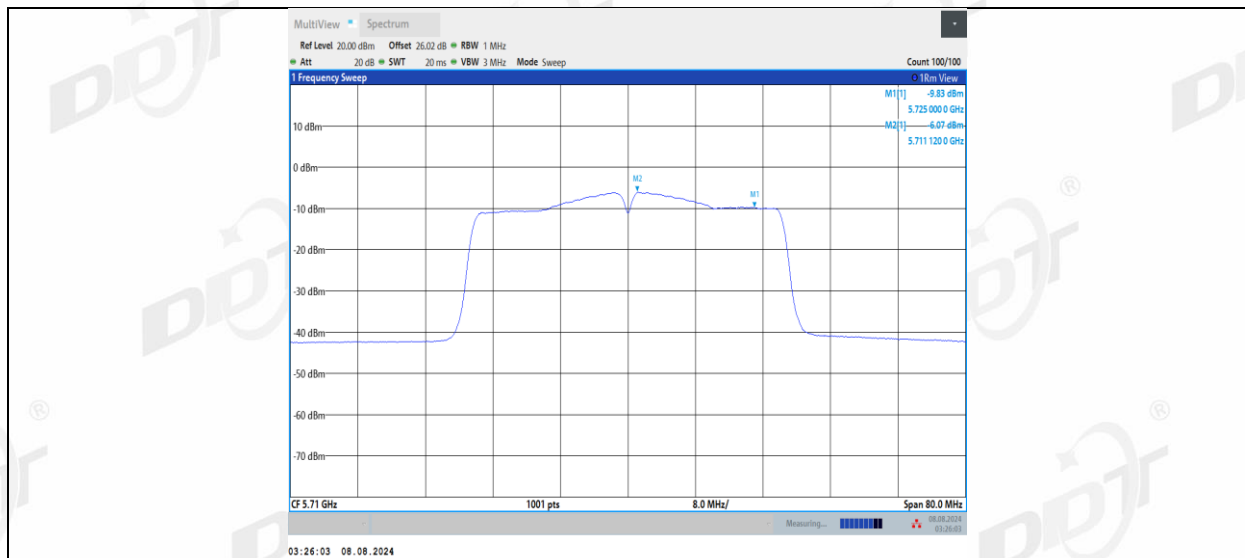
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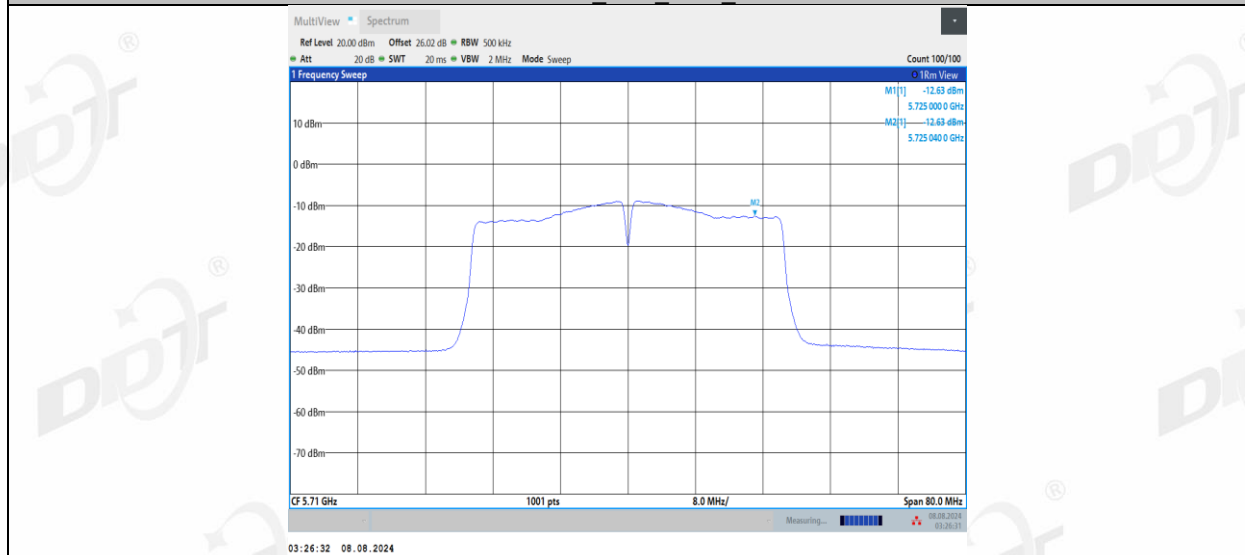
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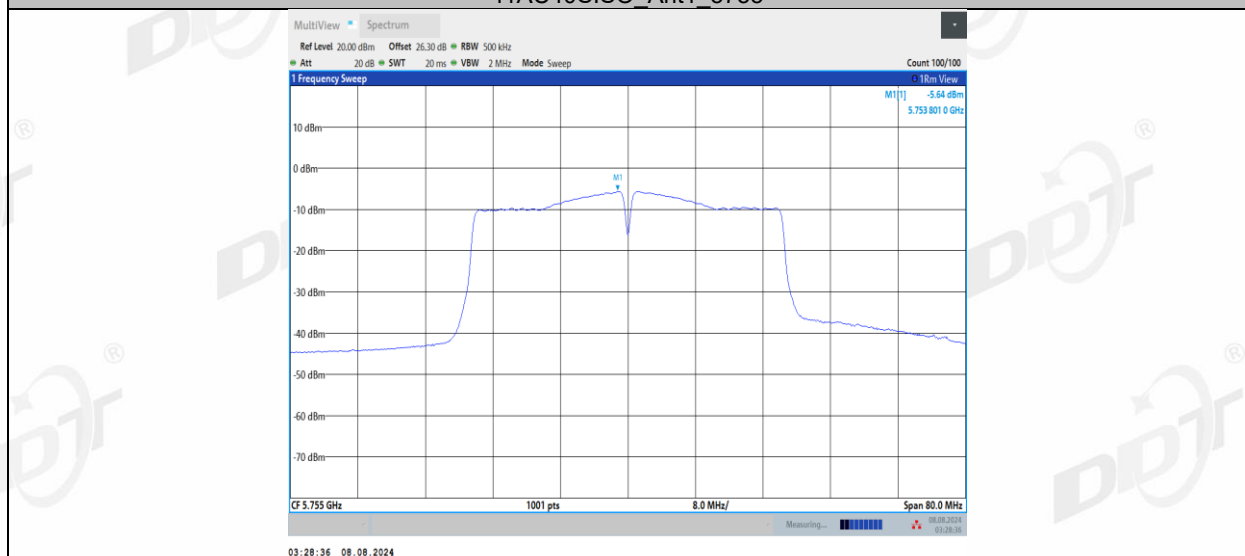
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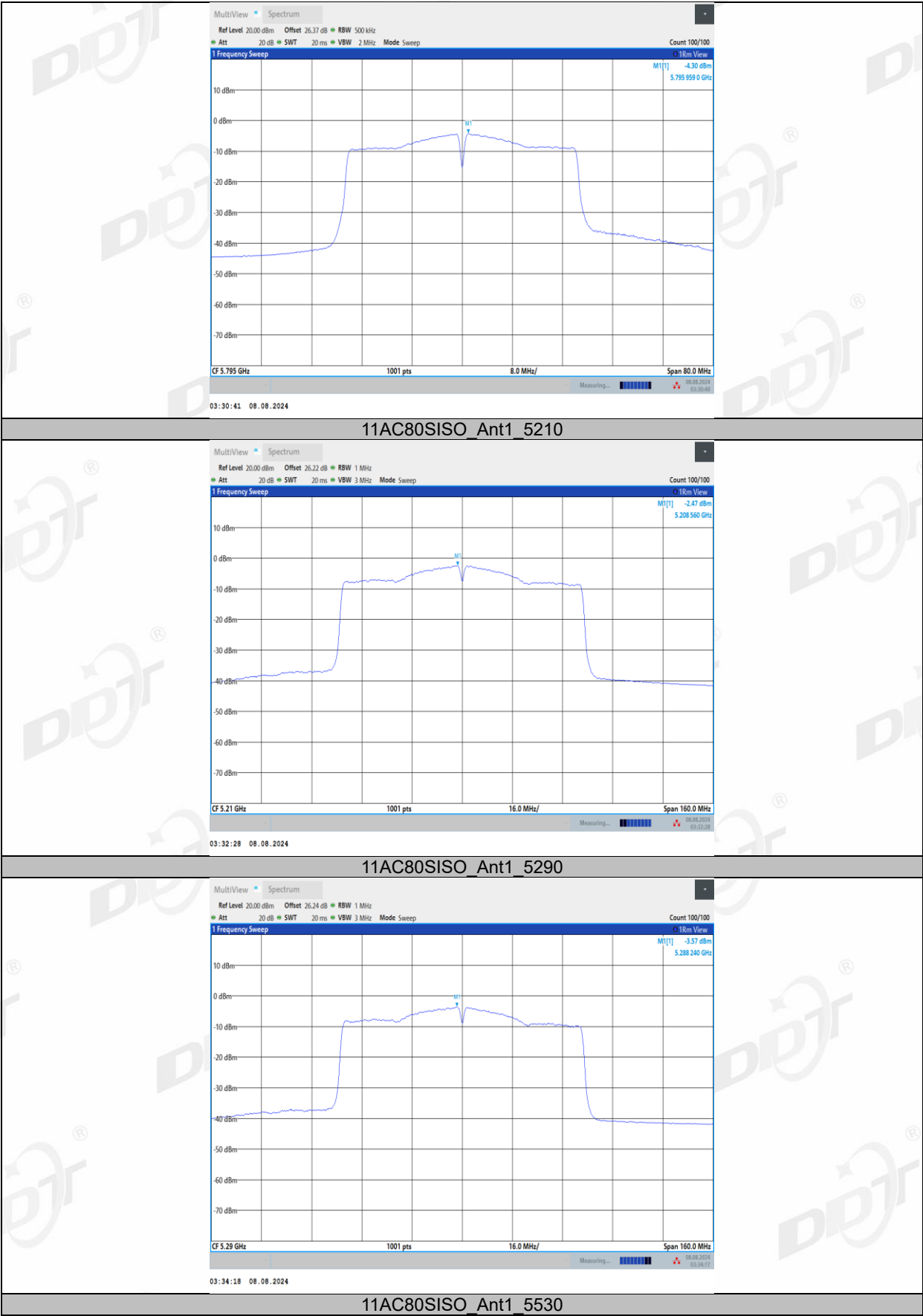
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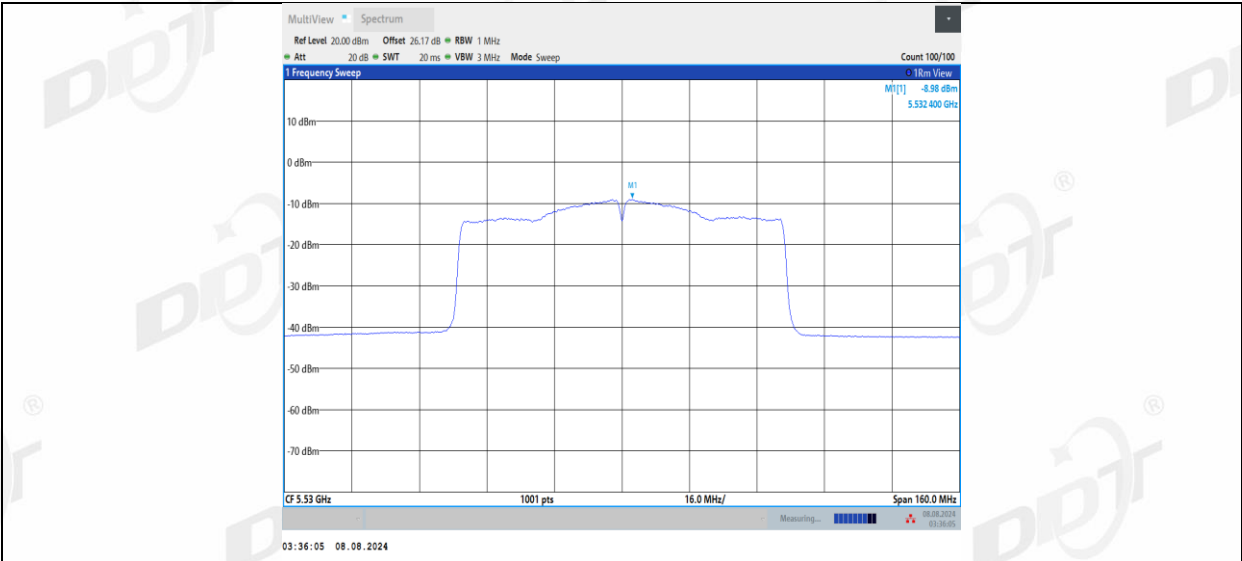


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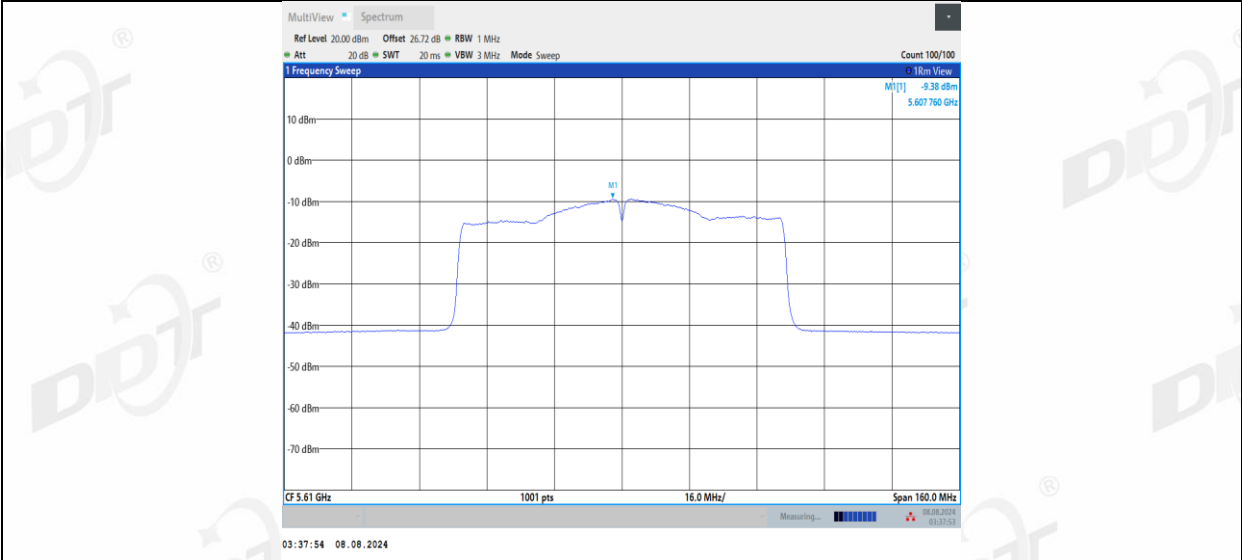


11AC40SISO_Ant1_5795

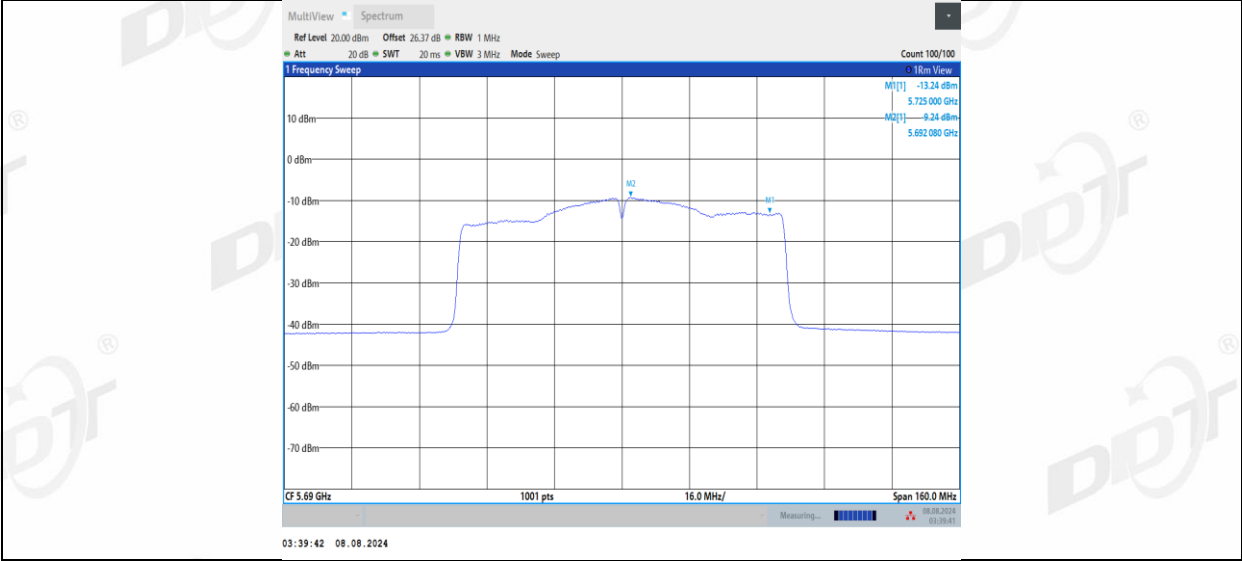




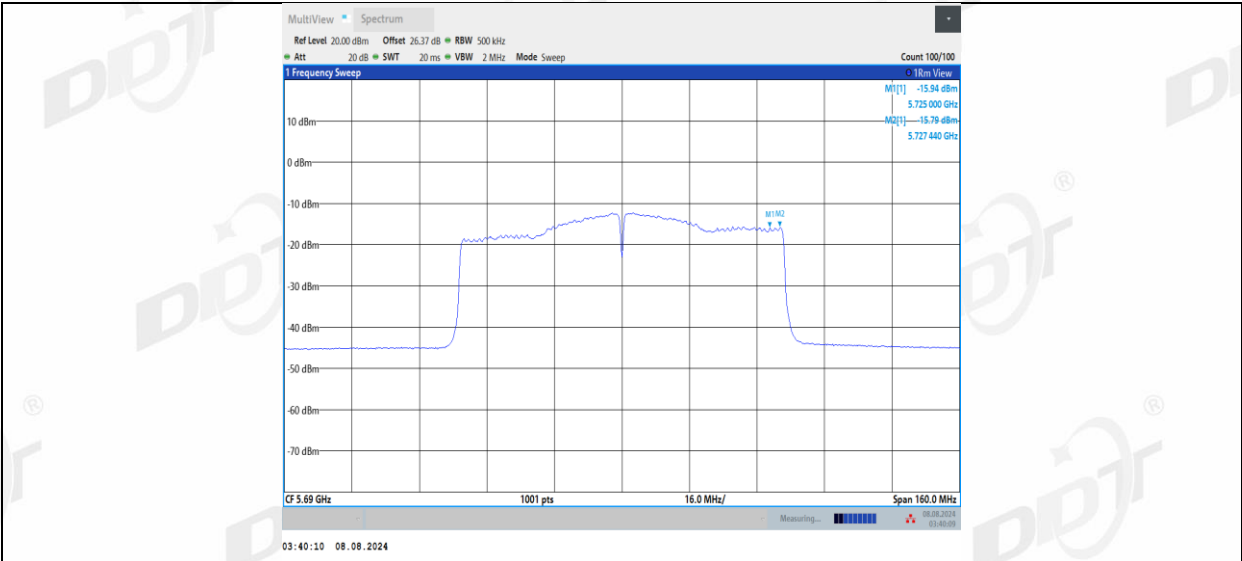
11AC80SISO_Ant1_5610



11AC80SISO_Ant1_5690_UNII-2C



11AC80SISO_Ant1_5690_UNII-3



11AC80SISO_Ant1_5775

