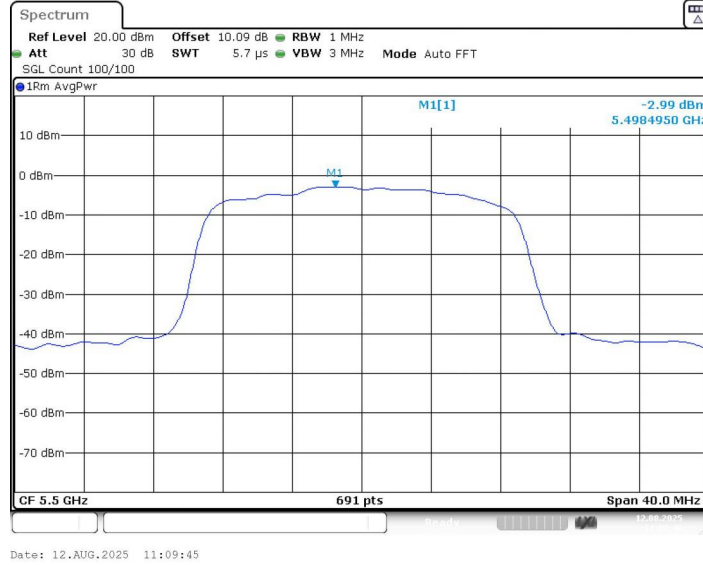
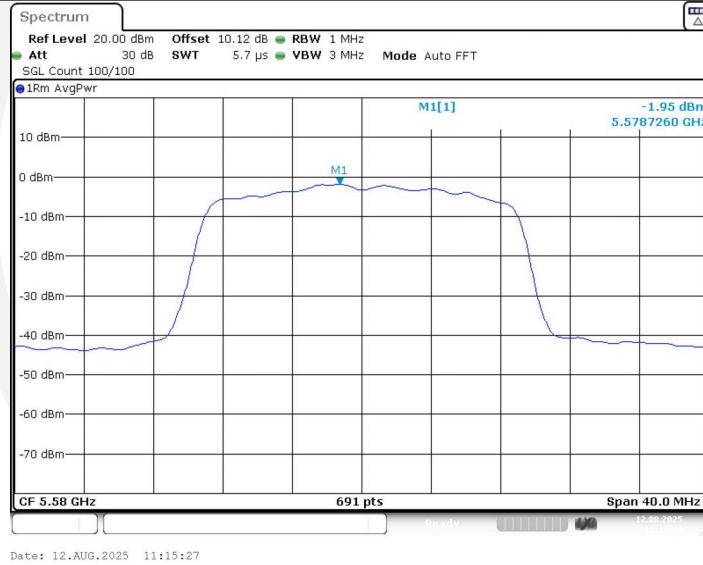


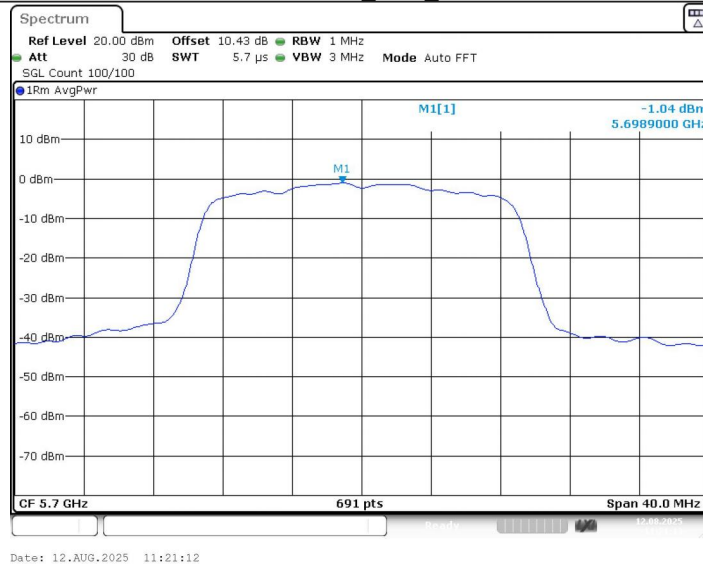
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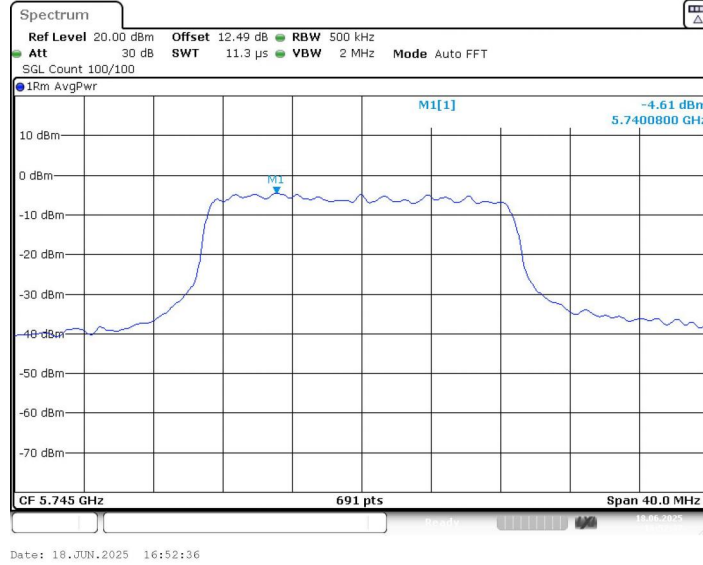
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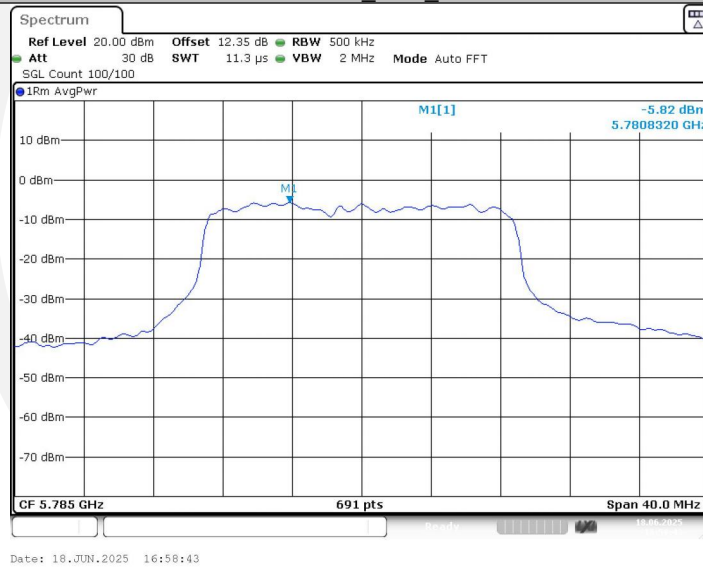
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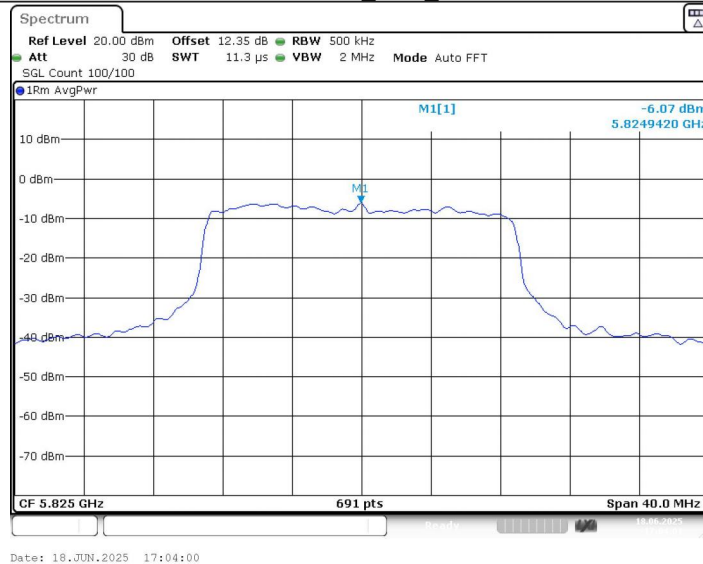
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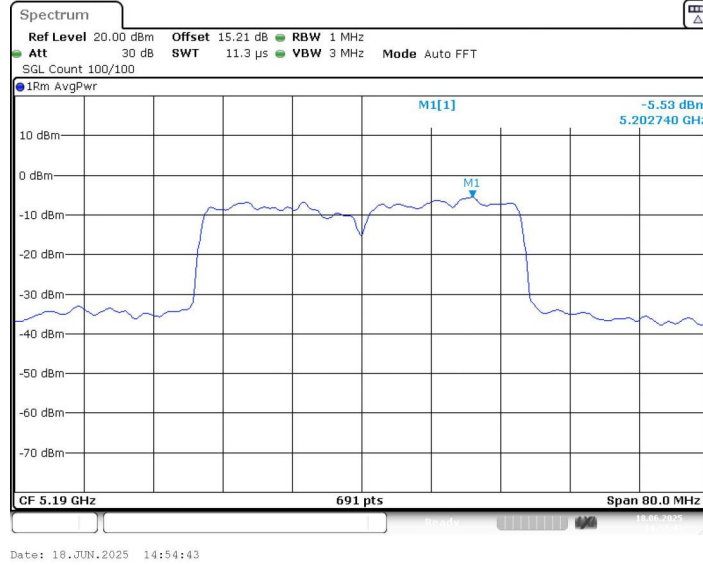
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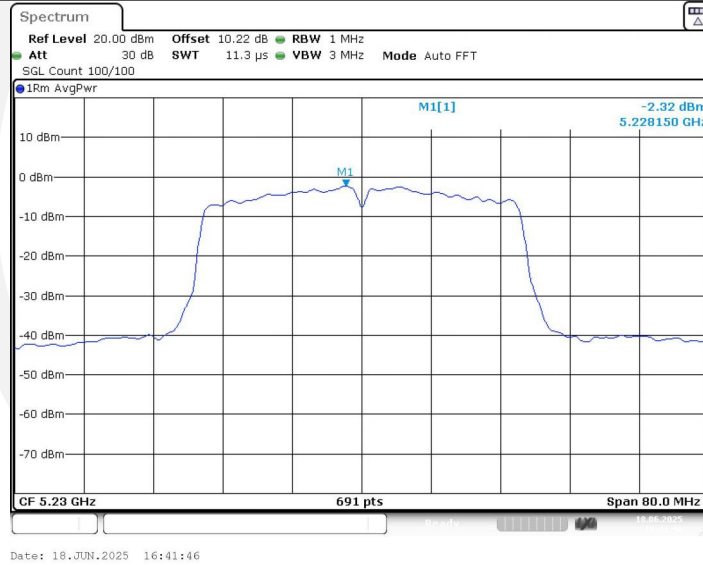
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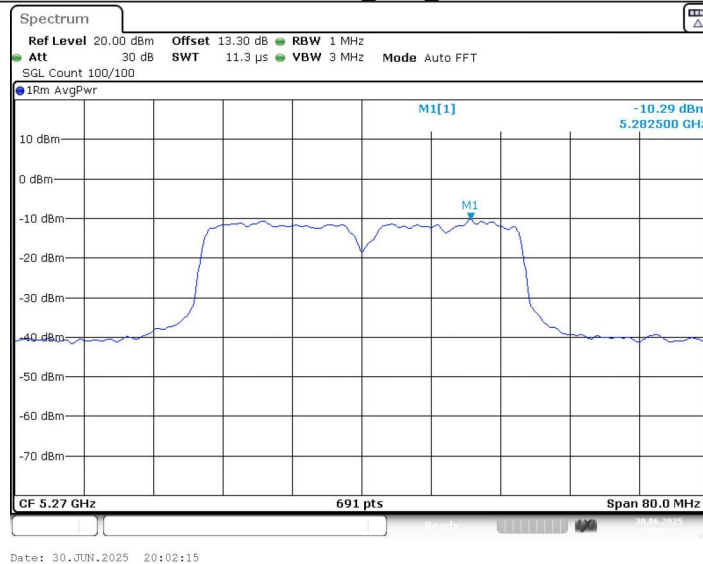
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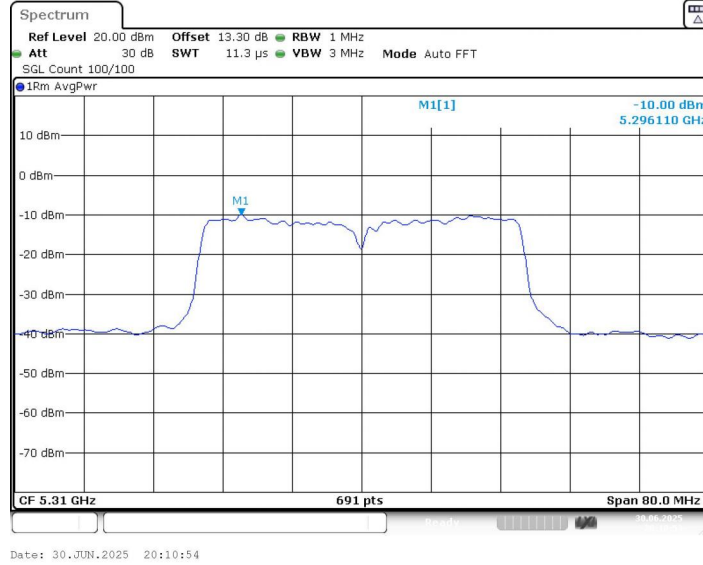
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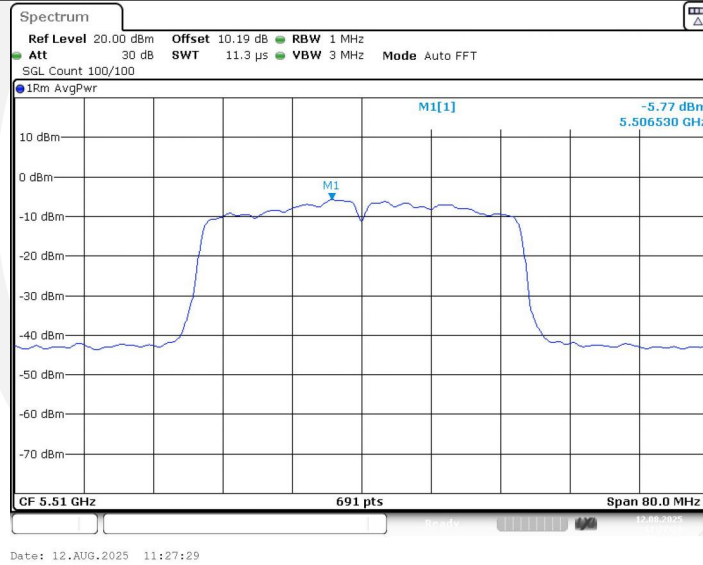
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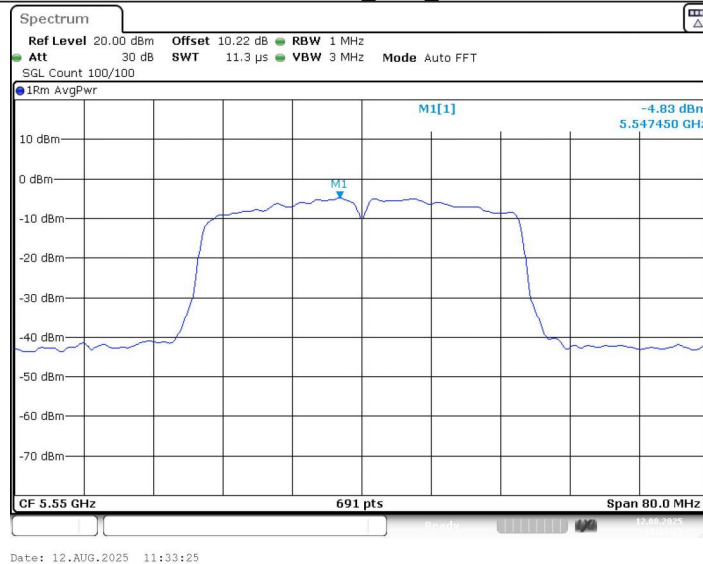
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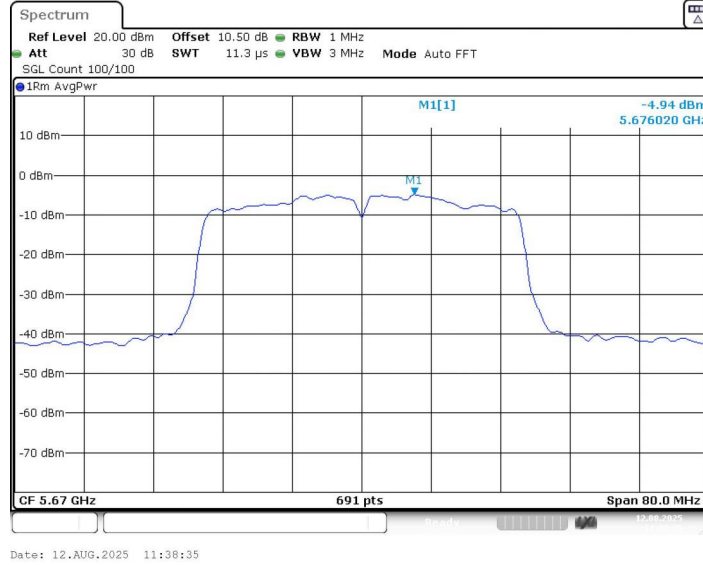
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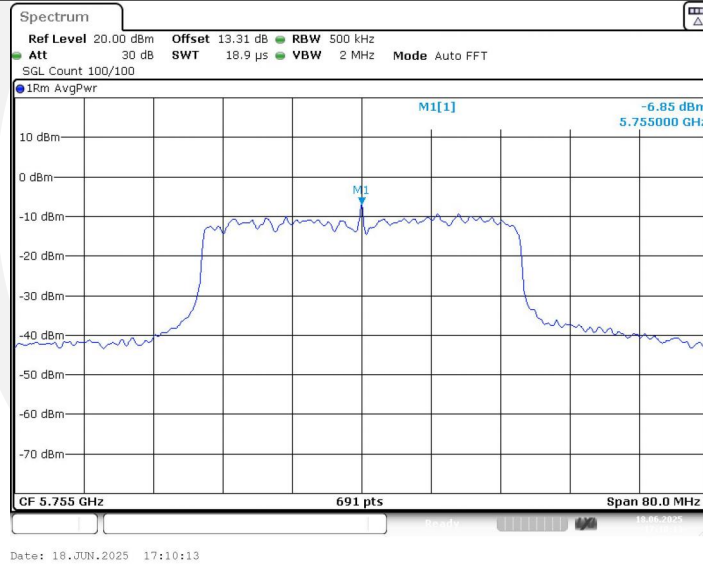
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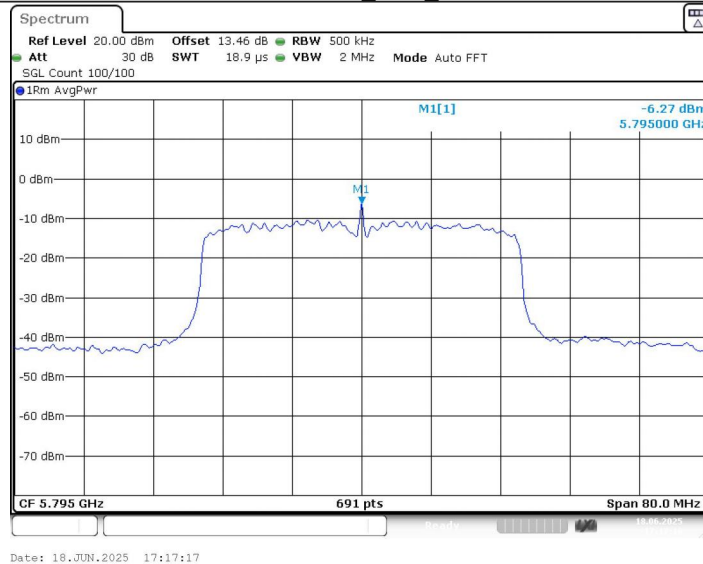
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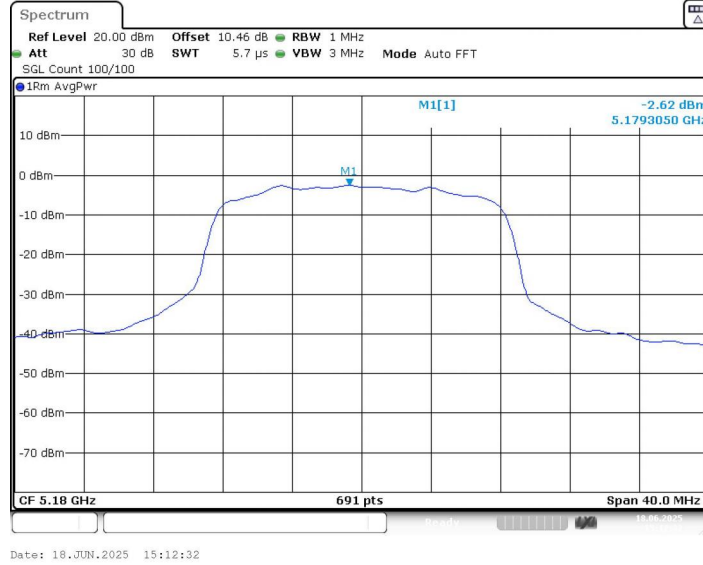
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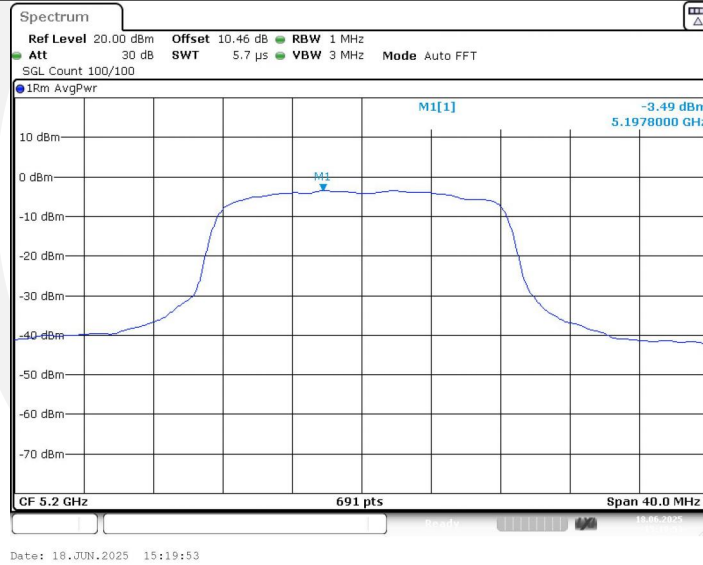
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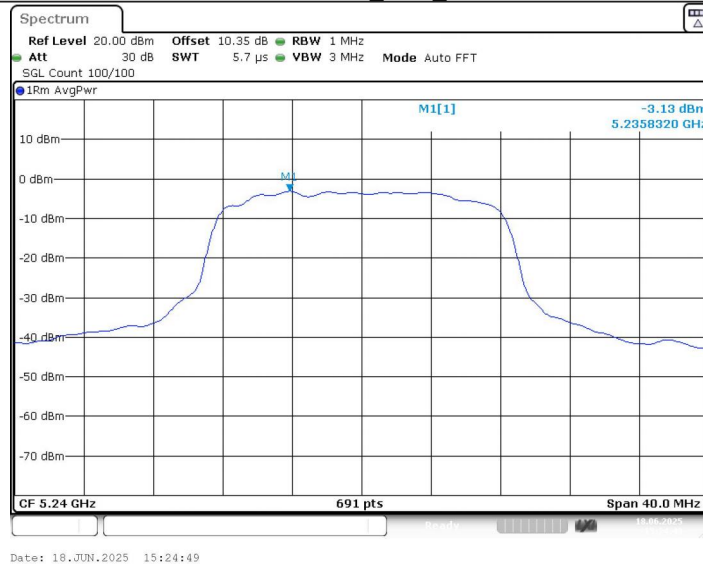
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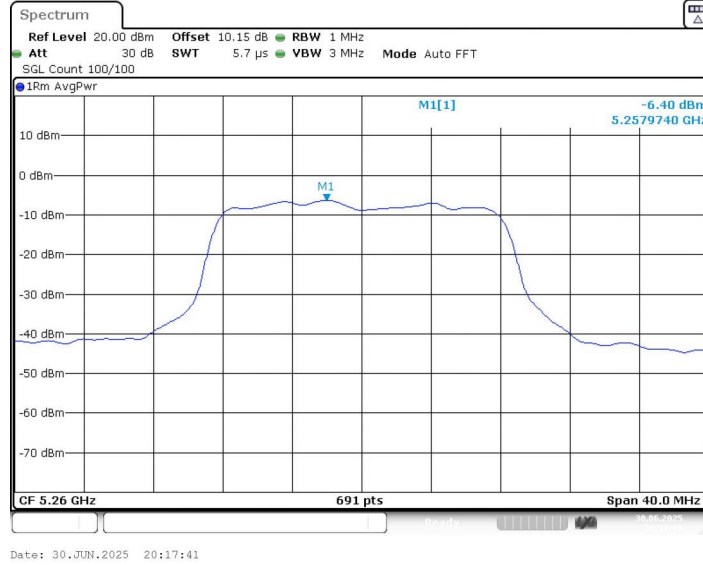
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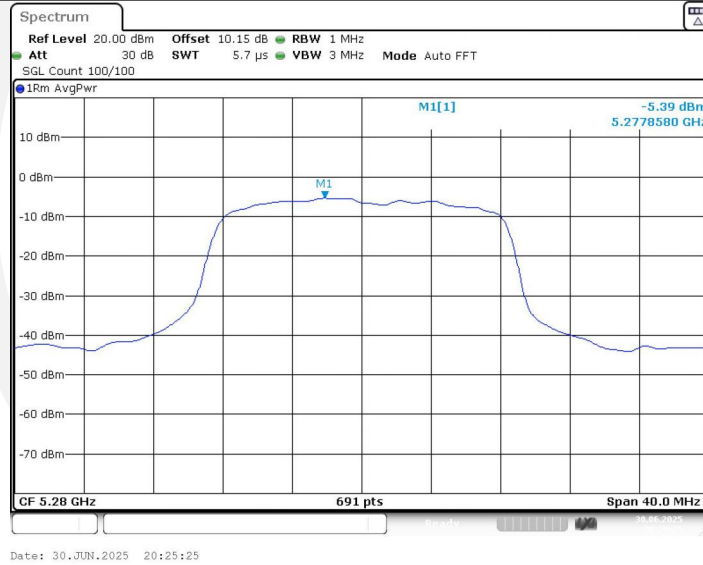
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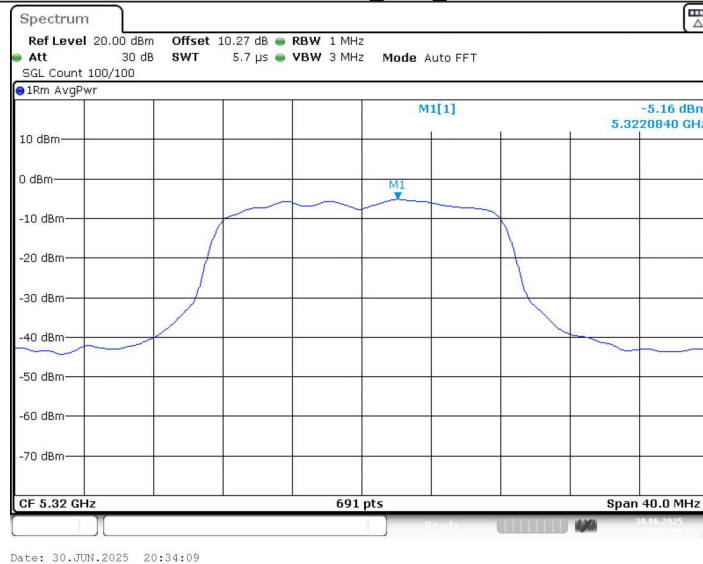
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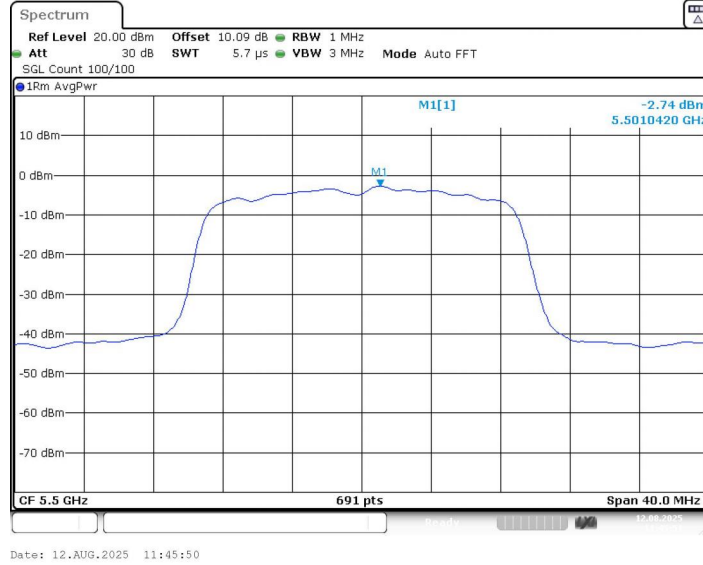
11AC20SISO_Ant1_5280



11AC20SISO_Ant1_5320



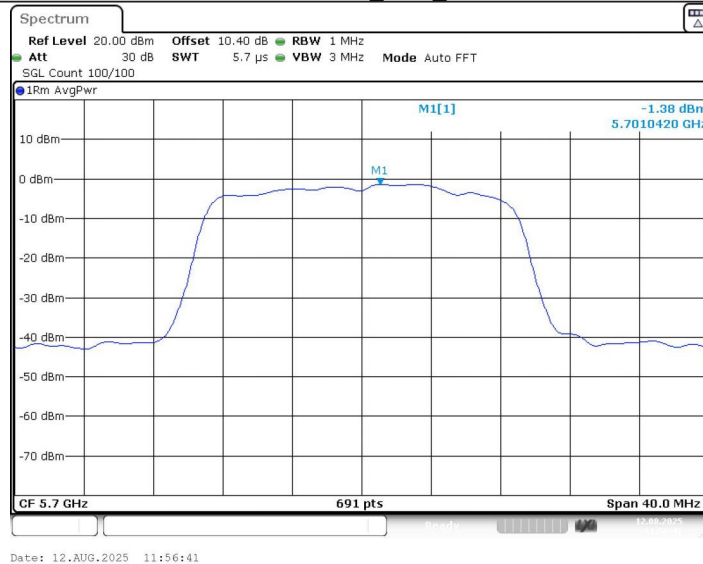
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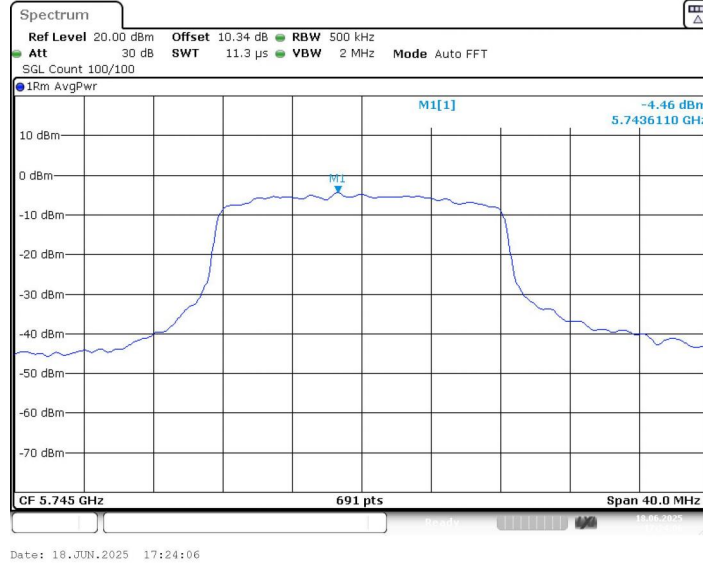
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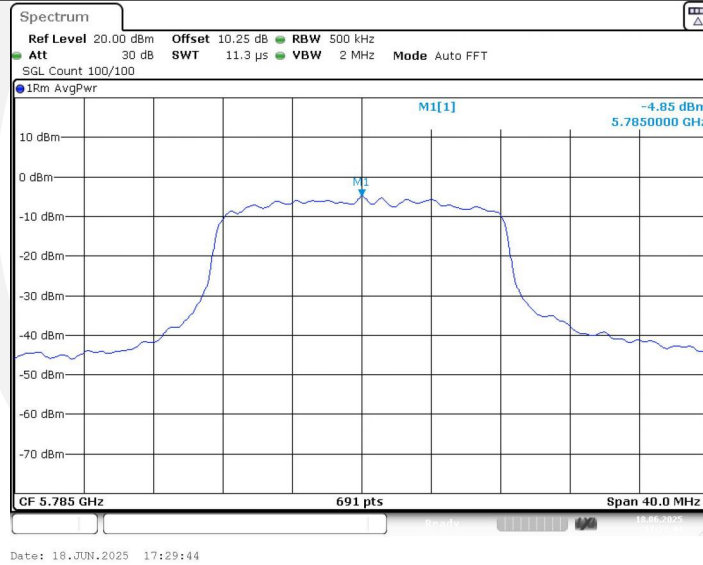
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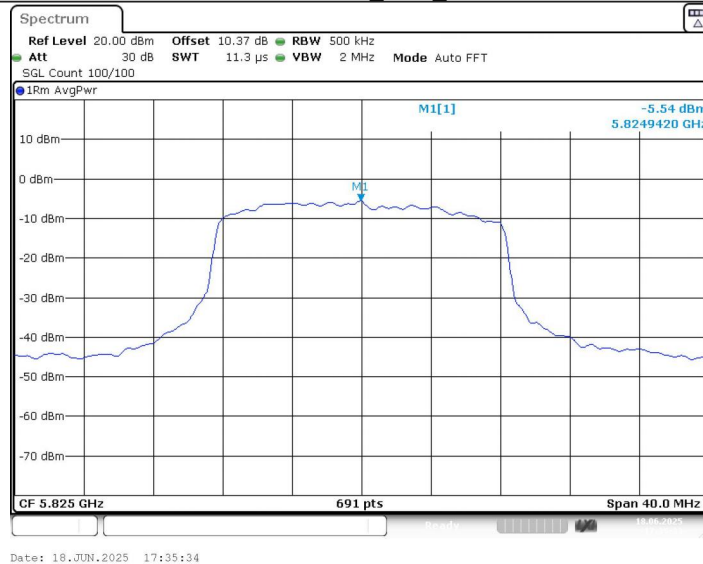
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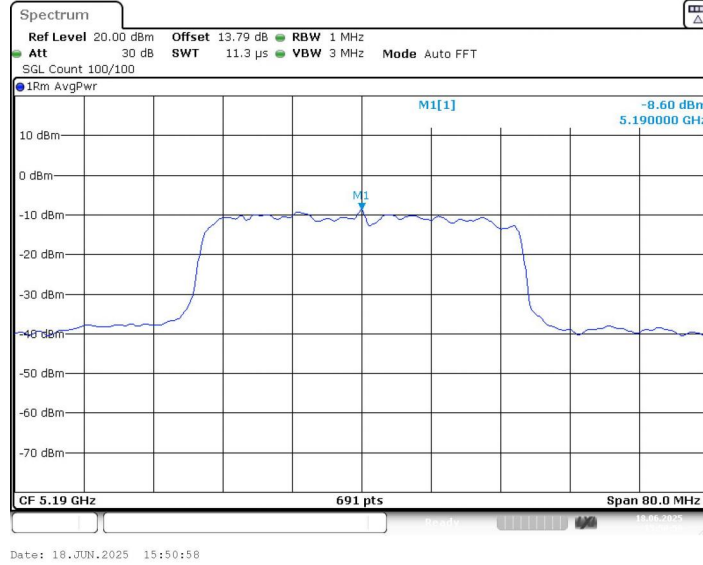
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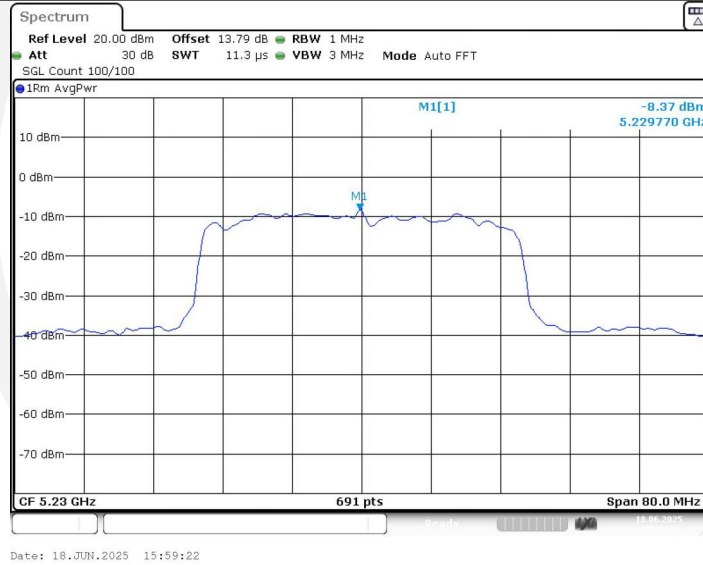
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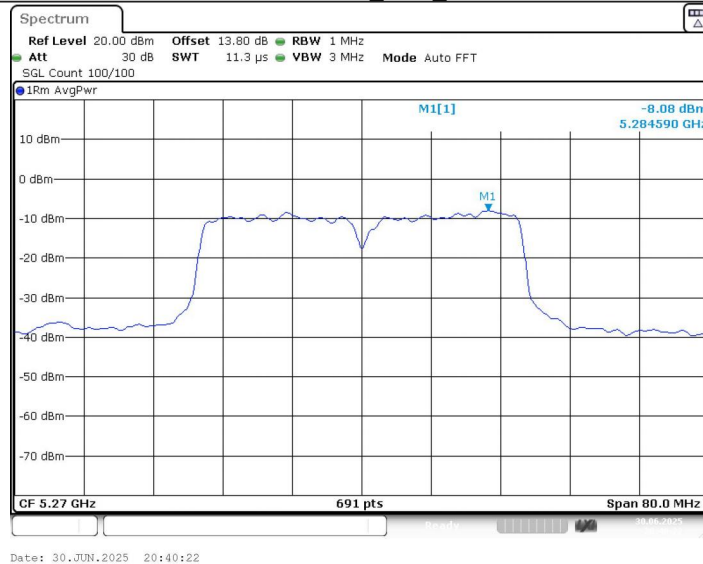
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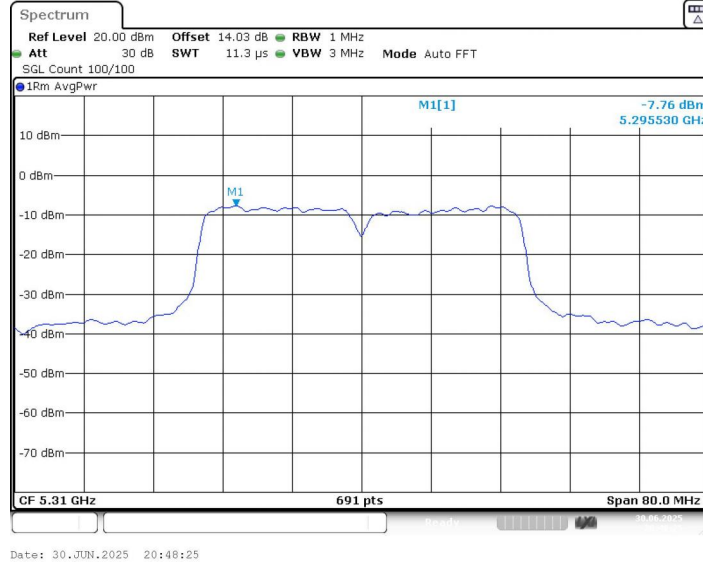
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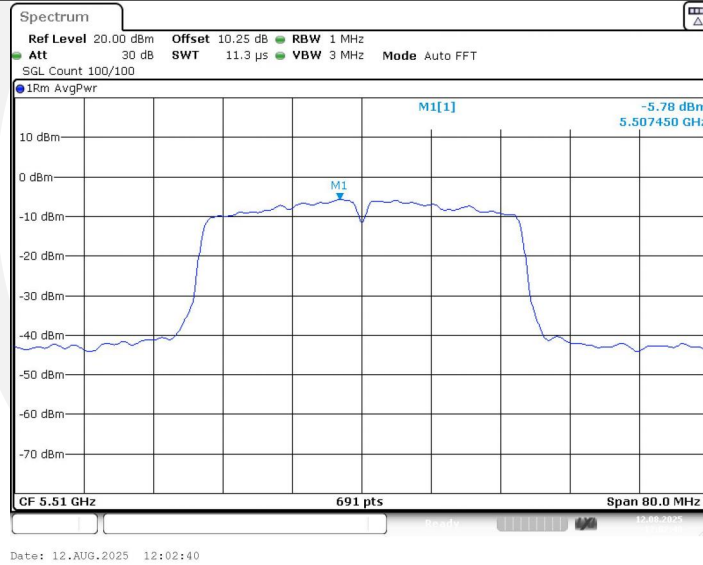
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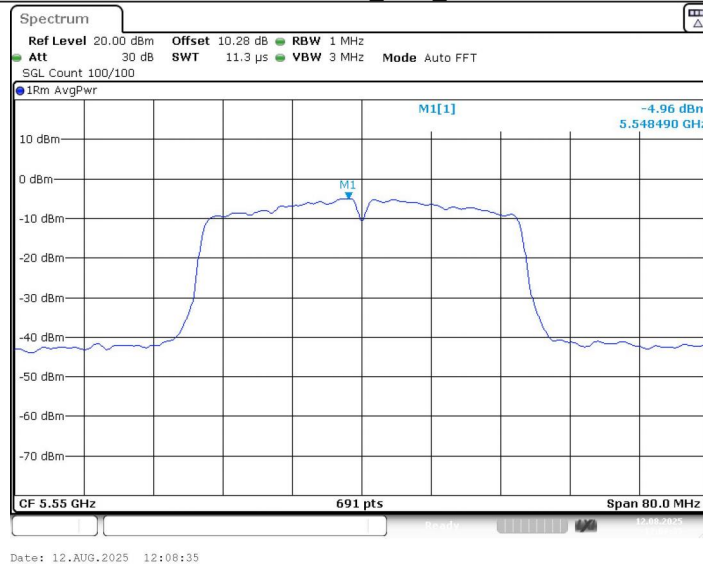
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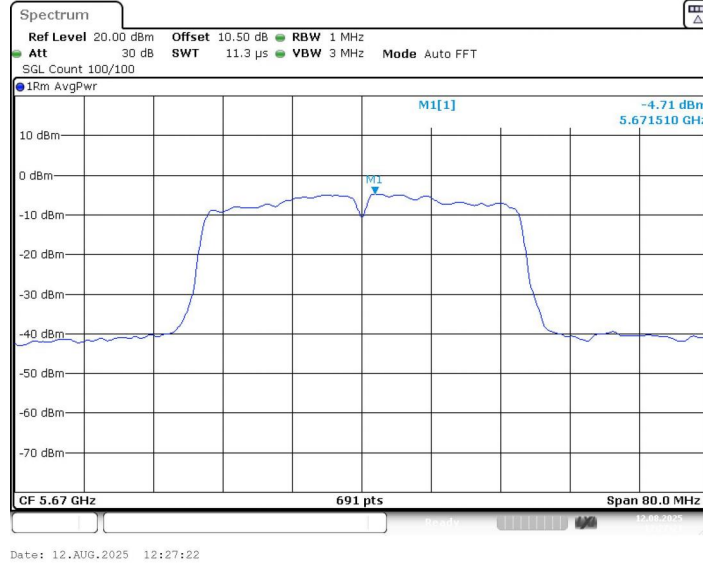
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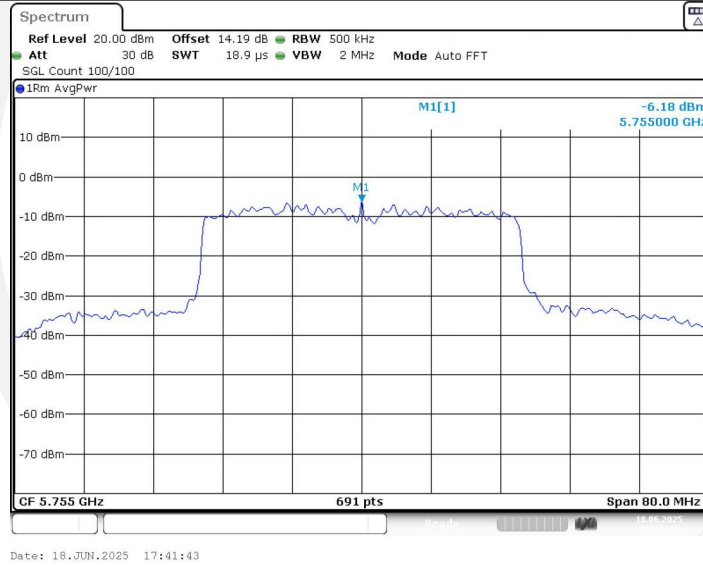
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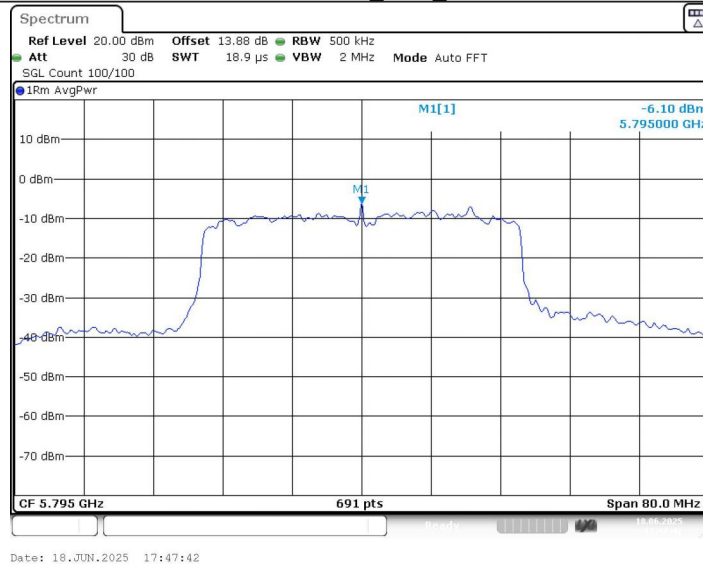
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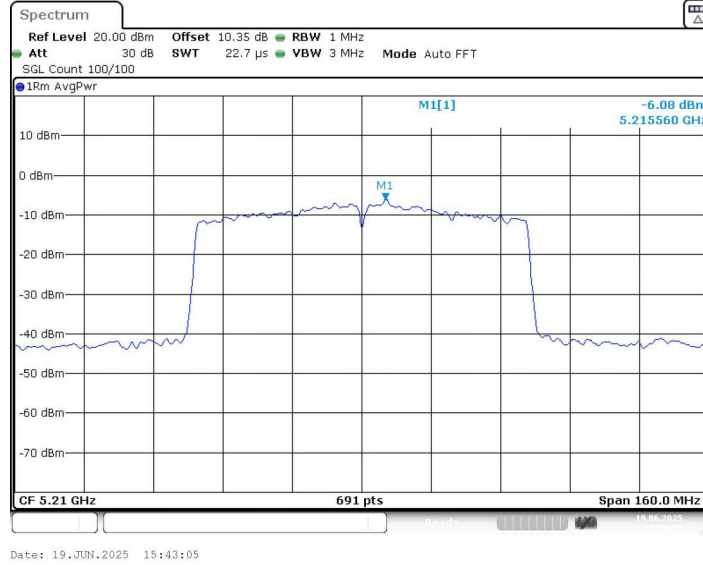
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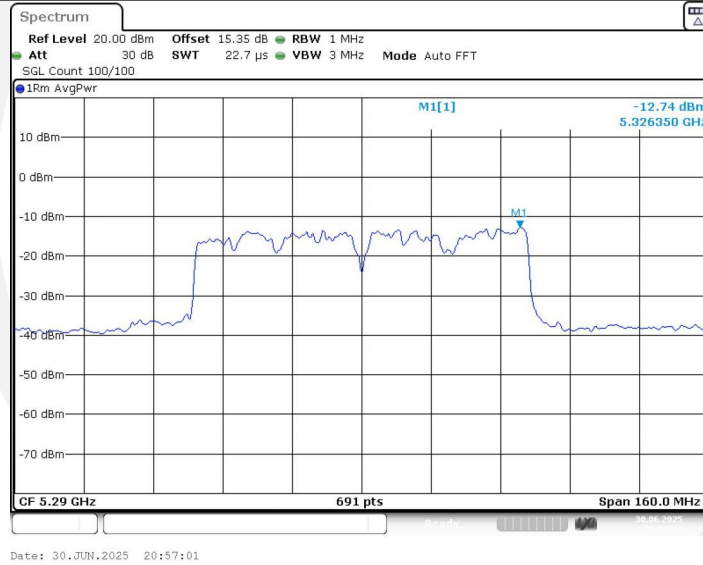
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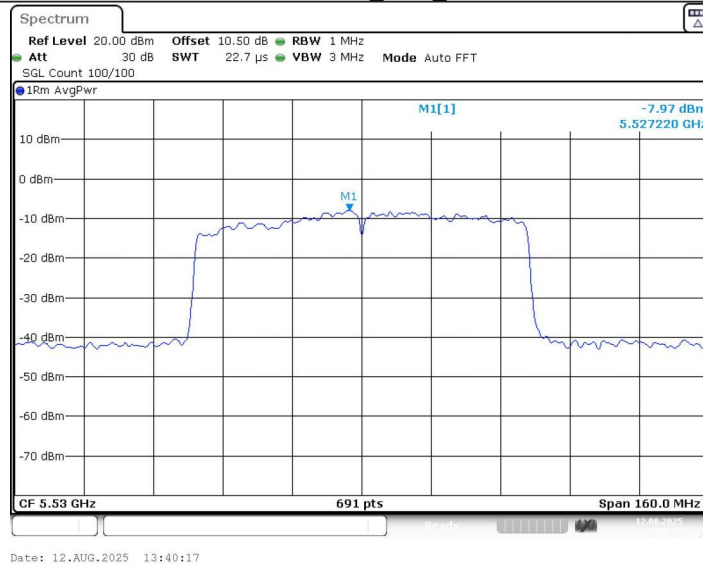
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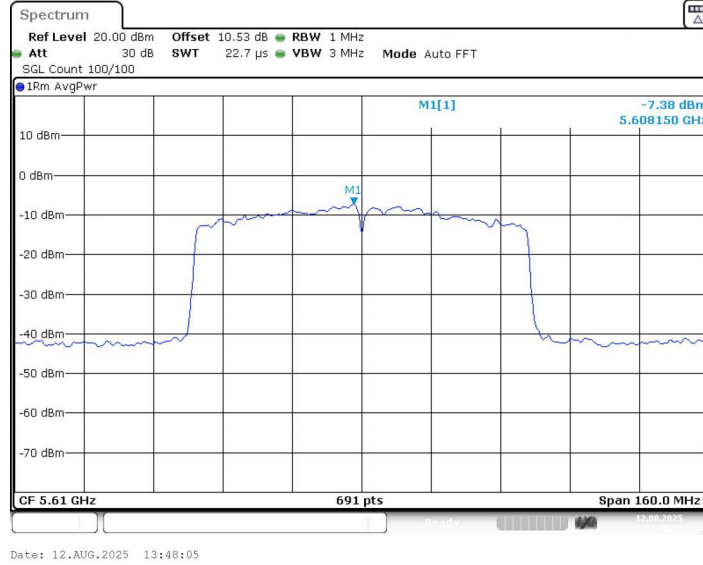
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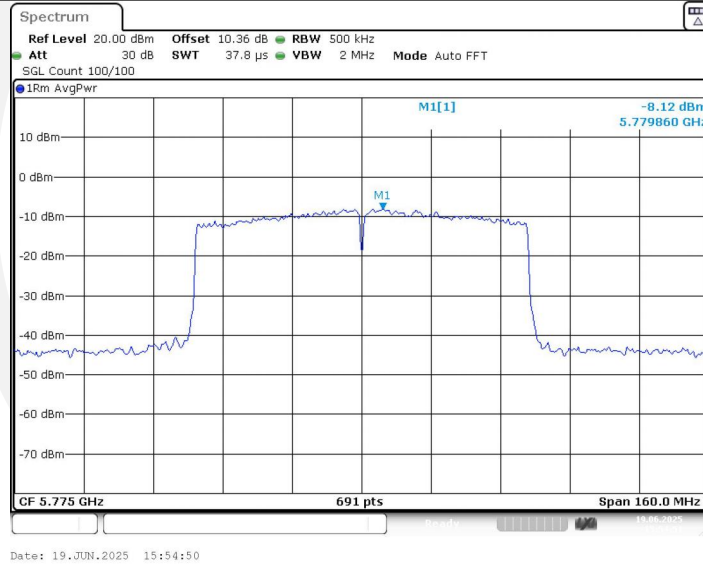
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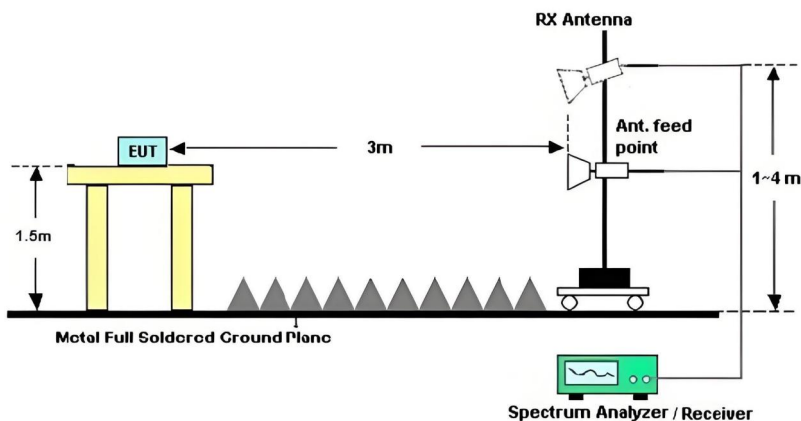


11AC80SISO_Ant1_5775



4.6 Band Edge

Test Requirement:	FCC Part15 E Section 15.407 and 15.205, 15.209																								
Test Method:	ANSIC63.10-2020+Cor. 1-2023+C63.10a-2024 +Errata to C63.10a-2024																								
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)																								
Receiver setup:	<table><tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr><tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>100KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr><tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr><tr><td>AV</td><td>1MHz</td><td>3MHz</td><td>Average Value</td></tr></table>					Frequency	Detector	RBW	VBW	Remark	30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value	Above 1GHz	Peak	1MHz	3MHz	Peak Value	AV	1MHz	3MHz	Average Value	
Frequency	Detector	RBW	VBW	Remark																					
30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value																					
Above 1GHz	Peak	1MHz	3MHz	Peak Value																					
	AV	1MHz	3MHz	Average Value																					
Limit:	<table><tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr><tr><td>30MHz-88MHz</td><td>40.0</td><td>Quasi-peak Value</td></tr><tr><td>88MHz-216MHz</td><td>43.5</td><td>Quasi-peak Value</td></tr><tr><td>216MHz-960MHz</td><td>46.0</td><td>Quasi-peak Value</td></tr><tr><td>960MHz-1GHz</td><td>54.0</td><td>Quasi-peak Value</td></tr><tr><td rowspan="2">Above 1GHz</td><td>54.0</td><td>Average Value</td></tr><tr><td>68.2</td><td>Peak Value</td></tr></table> Undesirable emission limits: (1) 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 EIRP of -27 dBm/MHz. (2) 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 EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band. (3) 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 EIRP of -27 dBm/MHz. (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz 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 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 at the band edge.					Frequency	Limit (dBuV/m @3m)	Remark	30MHz-88MHz	40.0	Quasi-peak Value	88MHz-216MHz	43.5	Quasi-peak Value	216MHz-960MHz	46.0	Quasi-peak Value	960MHz-1GHz	54.0	Quasi-peak Value	Above 1GHz	54.0	Average Value	68.2	Peak Value
Frequency	Limit (dBuV/m @3m)	Remark																							
30MHz-88MHz	40.0	Quasi-peak Value																							
88MHz-216MHz	43.5	Quasi-peak Value																							
216MHz-960MHz	46.0	Quasi-peak Value																							
960MHz-1GHz	54.0	Quasi-peak Value																							
Above 1GHz	54.0	Average Value																							
	68.2	Peak Value																							
Test Procedure:	a. The EUT was placed on the top of a rotating table 1.5 m above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values																								

	of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Test setup:	Above 1GHz 
Test Instruments:	Refer to section 3.0 for details
Test mode:	Refer to section 2.2 for details
Test results:	Pass

Remark:

According to KDB 789033 D02 v02r01 section G) 1) (d), for For measurements above 1000 MHz @ 3m distance, the limit of field strength is computed as follows:

$$E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2,$$

For example, if EIRP = -27dBm

$$E[\text{dBuV/m}] = -27 + 95.2 = 68.2\text{dBuV/m}.$$

Measurement Data:

During the test, pre-scan 802.11a/n/ac modulation mode, found 802.11ac modulation was worse case mode. The report only reflects the test data of worst mode.

Mode:		802.11ac 20		Frequency:		5180MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150	40.27	12.01	52.28	68.2	-15.92	PK
V	5150	39.12	12.01	51.13	68.2	-17.07	PK
Mode:		802.11ac 20		Frequency:		5180MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150	26.88	12.01	38.89	54	-15.11	AV
V	5150	27.26	12.01	39.27	54	-14.73	AV
Mode:		802.11ac20		Frequency:		5240MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350	40.92	13.86	54.78	68.2	-13.42	PK
V	5350	39.18	13.86	53.04	68.2	-15.16	PK
Mode:		802.11ac20		Frequency:		5240MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350	26.51	13.86	40.37	54	-13.63	AV
V	5350	27.32	13.86	41.18	54	-12.82	AV

Mode:		802.11ac 20		Frequency:		5260MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150	35.73	17.19	52.92	68.2	-15.28	PK
V	5150	33.55	17.19	50.74	68.2	-17.46	PK
Mode:		802.11ac 20		Frequency:		5260MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150	26.61	17.19	43.80	54	-10.20	AV
V	5150	26.00	17.19	43.19	54	-10.81	AV
Mode:		802.11ac 20		Frequency:		5320MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350	35.81	17.19	53.00	68.2	-15.20	PK
V	5350	34.82	17.19	52.01	68.2	-16.19	PK
Mode:		802.11ac 20		Frequency:		5320MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350	26.45	17.19	43.64	54	-10.36	AV
V	5350	23.70	17.19	40.89	54	-13.11	AV

Mode:		802.11ac20		Frequency:		5500MHz	
Antenna Pol.	Frequency (MHz)	Reading Level	Factor	Measure Level	Limit (dBuV/m)	Over limit(dB)	Detector
		(dBuV)	(dB/m)	(dBuV/m)			
H	5470	40.67	14.52	55.19	68.2	-13.01	PK
V	5470	39.36	14.52	53.88	68.2	-14.32	PK
Mode:		802.11ac20		Frequency:		5500MHz	
Antenna Pol.	Frequency (MHz)	Reading Level	Factor	Measure Level	Limit (dBuV/m)	Over limit(dB)	Detector
		(dBuV)	(dB/m)	(dBuV/m)			
H	5470	27.10	14.52	41.62	54	-12.38	AV
V	5470	28.03	14.52	42.55	54	-11.45	AV
Mode:		802.11ac20		Frequency:		5700MHz	
Antenna Pol.	Frequency (MHz)	Reading Level	Factor	Measure Level	Limit (dBuV/m)	Over limit(dB)	Detector
		(dBuV)	(dB/m)	(dBuV/m)			
H	5725	41.38	17.13	58.51	68.2	-9.69	PK
V	5725	38.64	17.13	55.77	68.2	-12.43	PK
Mode:		802.11ac20		Frequency:		5700MHz	
Antenna Pol.	Frequency (MHz)	Reading Level	Factor	Measure Level	Limit (dBuV/m)	Over limit(dB)	Detector
		(dBuV)	(dB/m)	(dBuV/m)			
H	5725	26.79	17.13	43.92	54	-10.08	AV
V	5725	26.58	17.13	43.71	54	-10.29	AV

Mode:		802.11ac20		Frequency:		5725MHz	
Antenna Pol.	Frequency (MHz)	Reading Level	Factor	Measure Level	Limit (dBuV/m)	Over limit(dB)	Detector
		(dBuV)	(dB/m)	(dBuV/m)			
H	5609	40.06	17.94	58.00	68.2	-10.20	PK
V	5632	38.65	17.5	56.15	68.2	-12.05	PK
H	5957	41.07	17	58.07	68.2	-10.13	PK
V	5976	38.68	16.94	55.62	68.2	-12.58	PK
Mode:		802.11ac20		Frequency:		5850MHz	
Antenna Pol.	Frequency (MHz)	Reading Level	Factor	Measure Level	Limit (dBuV/m)	Over limit(dB)	Detector
		(dBuV)	(dB/m)	(dBuV/m)			
H	5604	40.31	17.56	57.87	68.2	-10.33	PK
V	5964	38.53	17.89	56.42	68.2	-11.78	PK
H	5625	41.05	16.95	58.00	68.2	-10.20	PK
V	5982	38.85	16.94	55.79	68.2	-12.41	PK