

TEST REPORT

6 Conducted Unwanted Emission

Test result: Pass

6.1 Limit

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10\log(P)$ dB.

6.2 Measurement Procedure

In accordance with FCC rules, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10\log(P)$ dB.

The spurious emissions from the antenna terminal were measured. The transmitter output power was attenuated using an attenuator and the frequency spectrum investigated from 9kHz to 23GHz. The resolution bandwidth of 1MHz was employed for frequency band 9kHz to 23GHz. The spectrum analyzer detector was set to RMS.

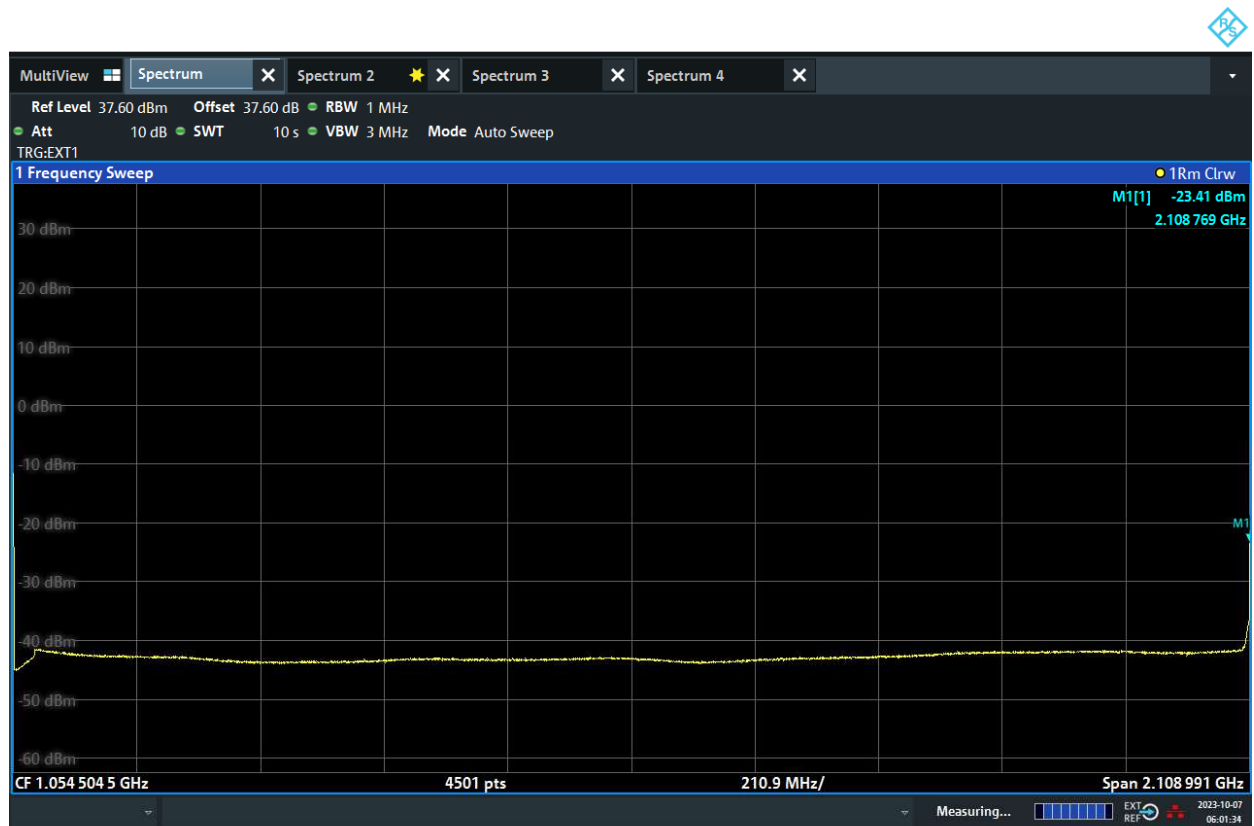
For MIMO mode configurations, the limit was adjusted with a correction of -3.01dB [$10\log(1/2)$] by using the Measure and Add $10\log(N)$ dB technique according to KDB 662911 D01 Multiple Transmitter Output accounting for simultaneous transmission from antenna ports. Then the limit was adjusted to -16.01dBm .

6.3 Measurement result

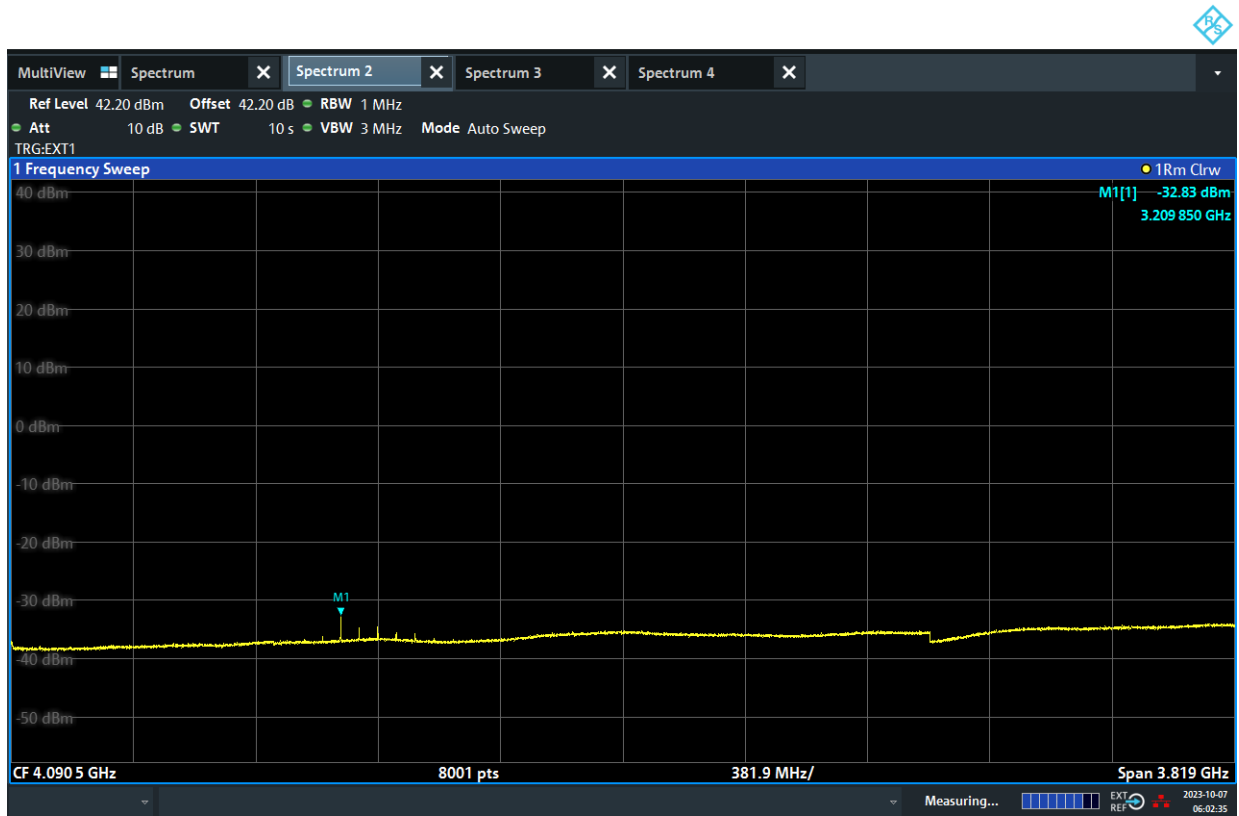
NR-1C

Antenna Port	Channel Position	NR Modulation	NR Channel BW (MHz)	RBW (kHz)	Limit (dBm)
B	B	256QAM	25	1000	-16.01
B	M	256QAM	25	1000	-16.01
B	T	256QAM	25	1000	-16.01

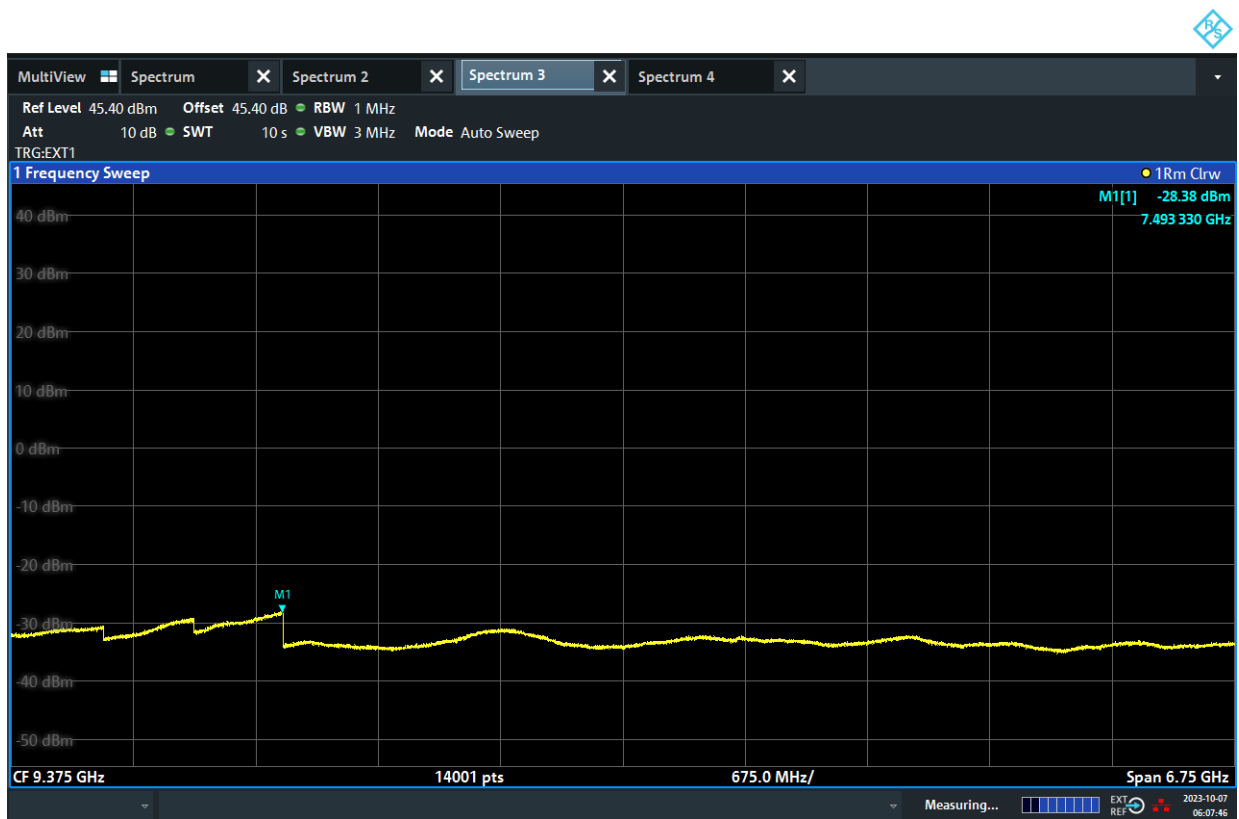
Channel Position B



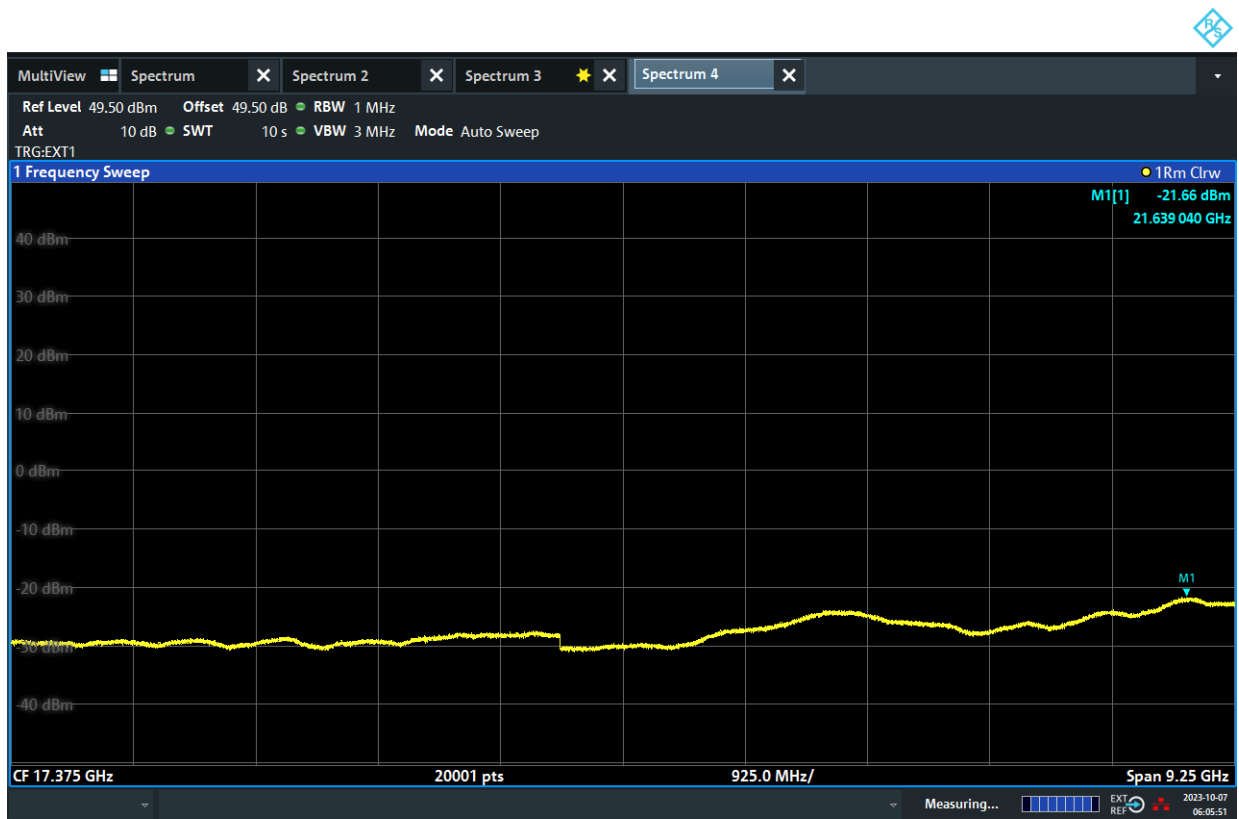
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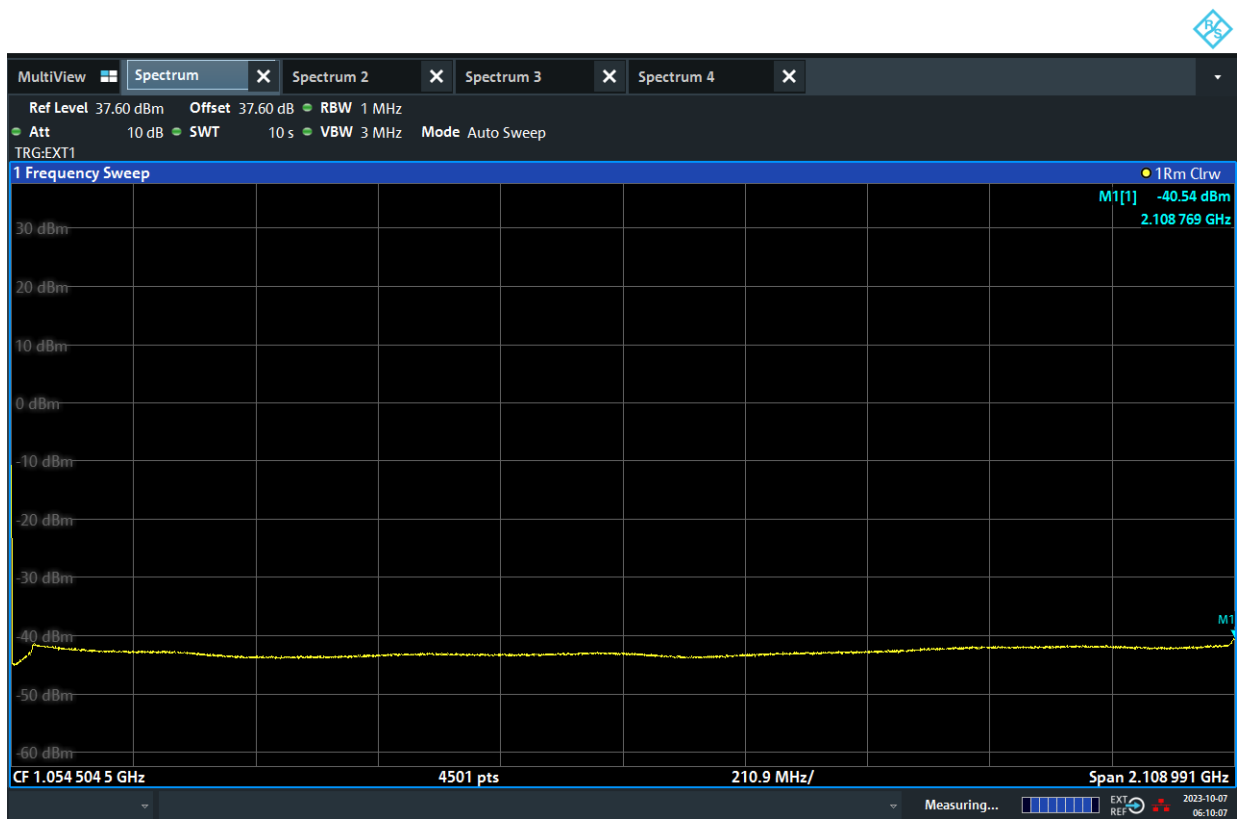


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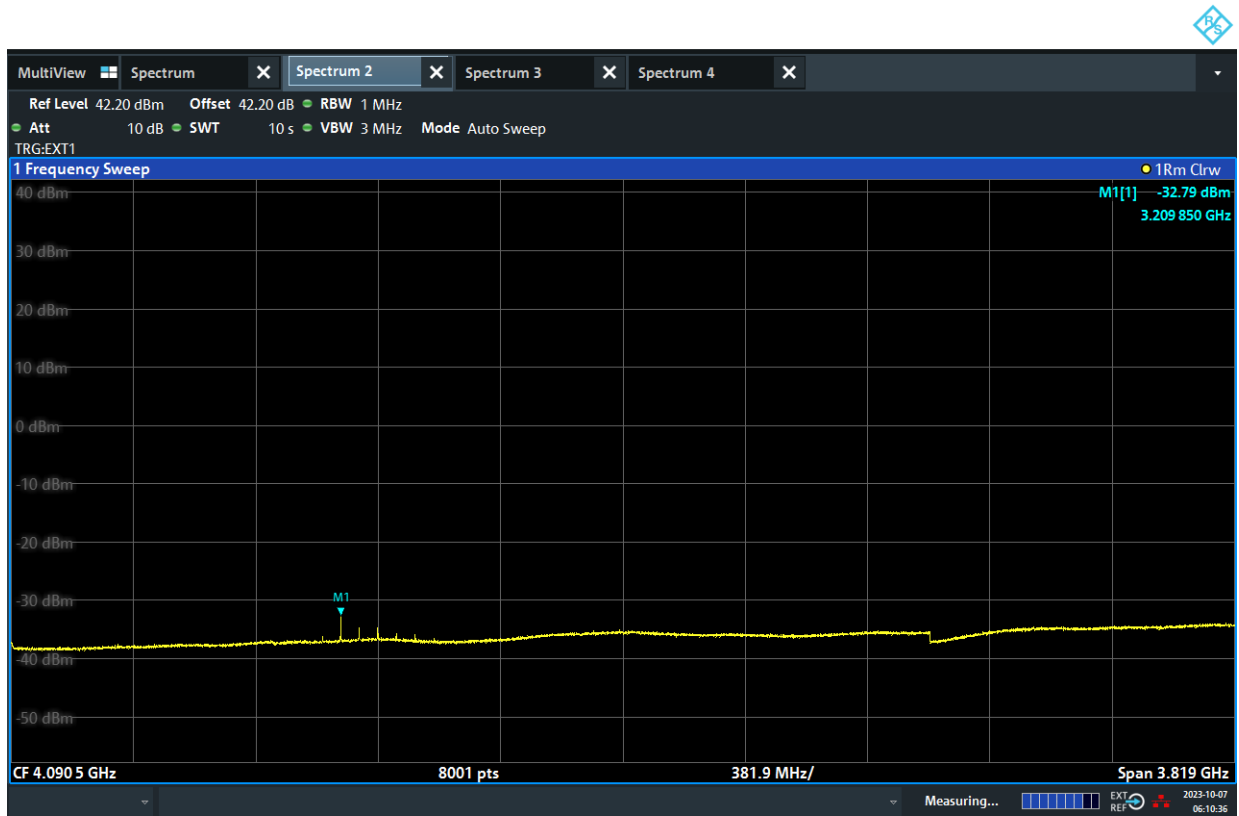


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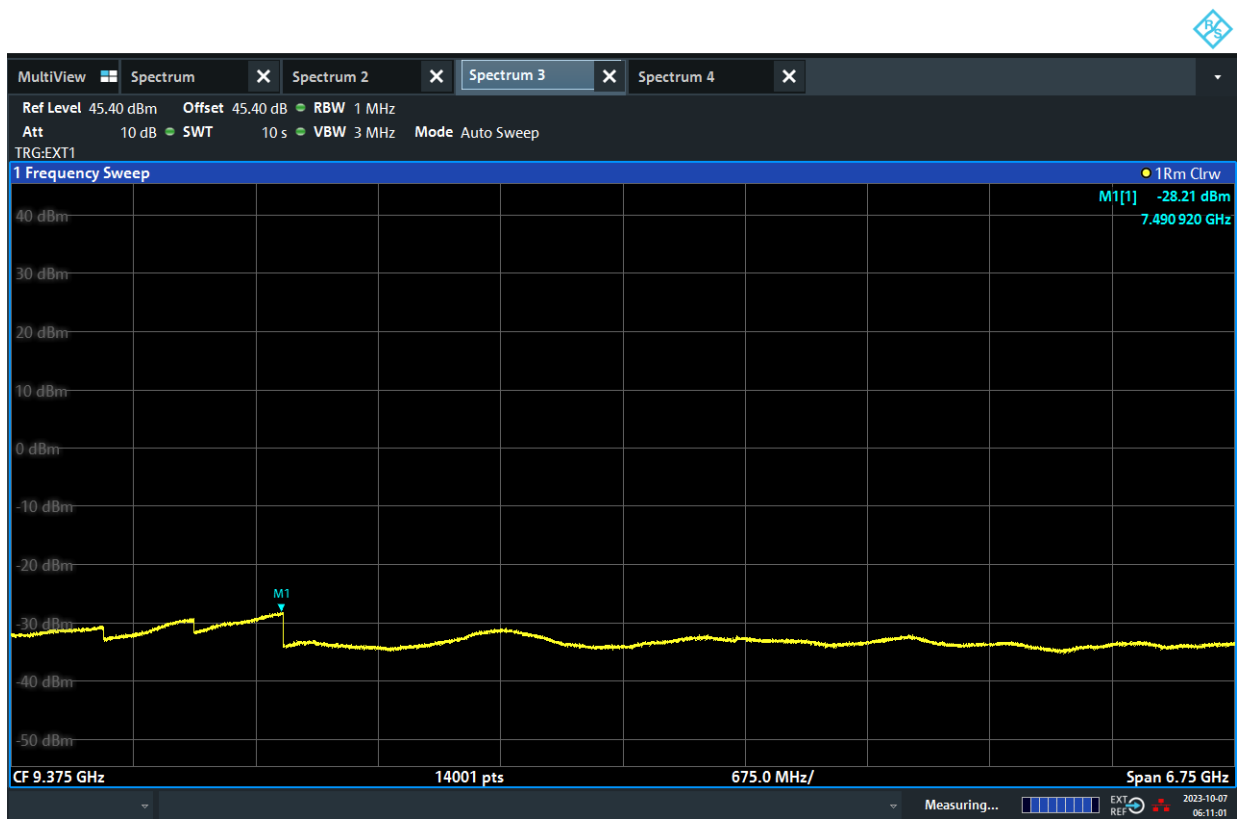
Channel Position M



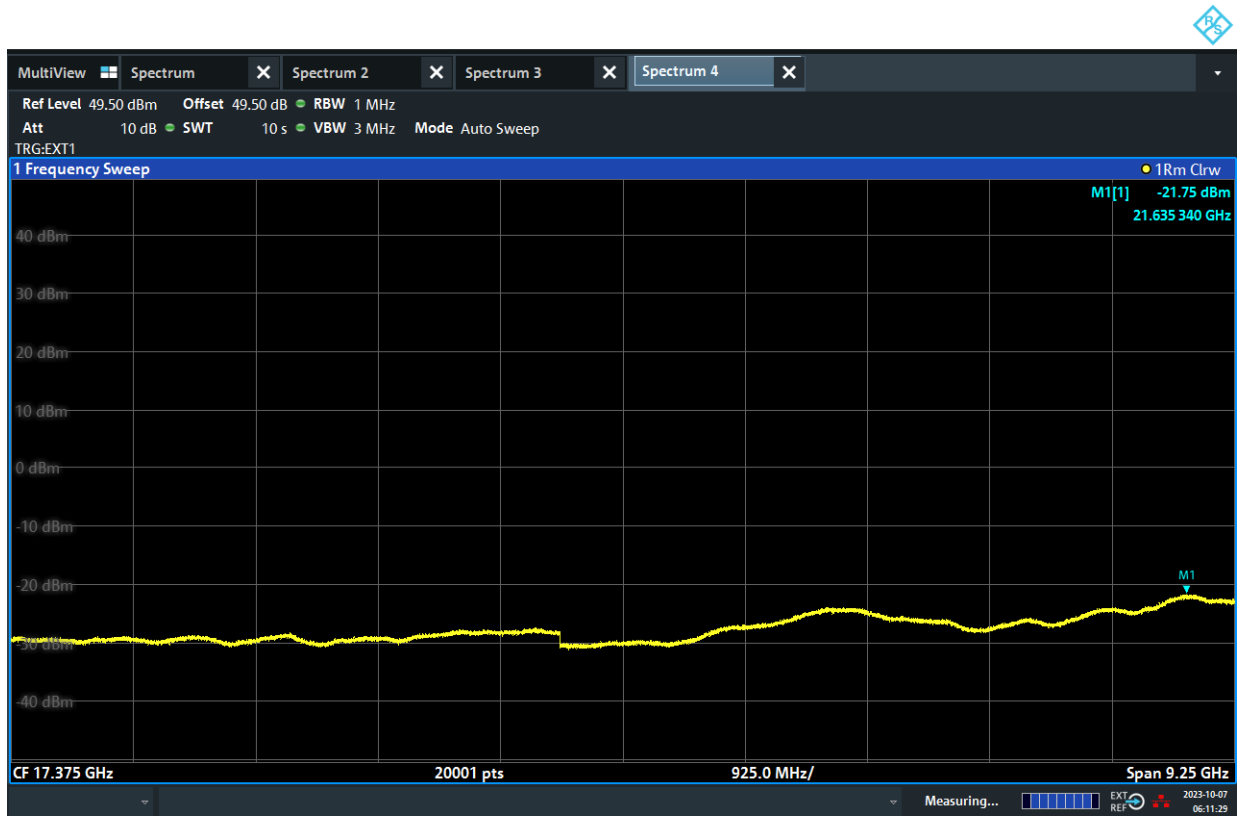
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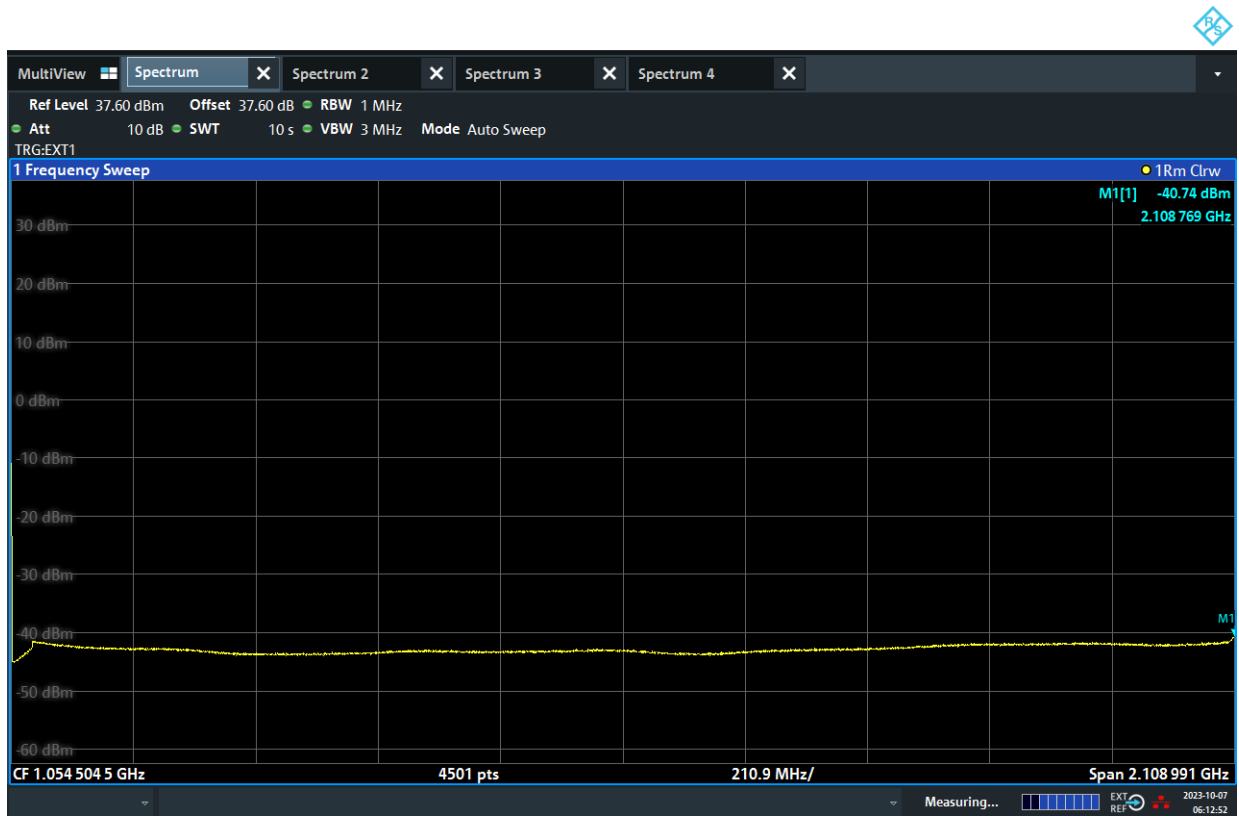


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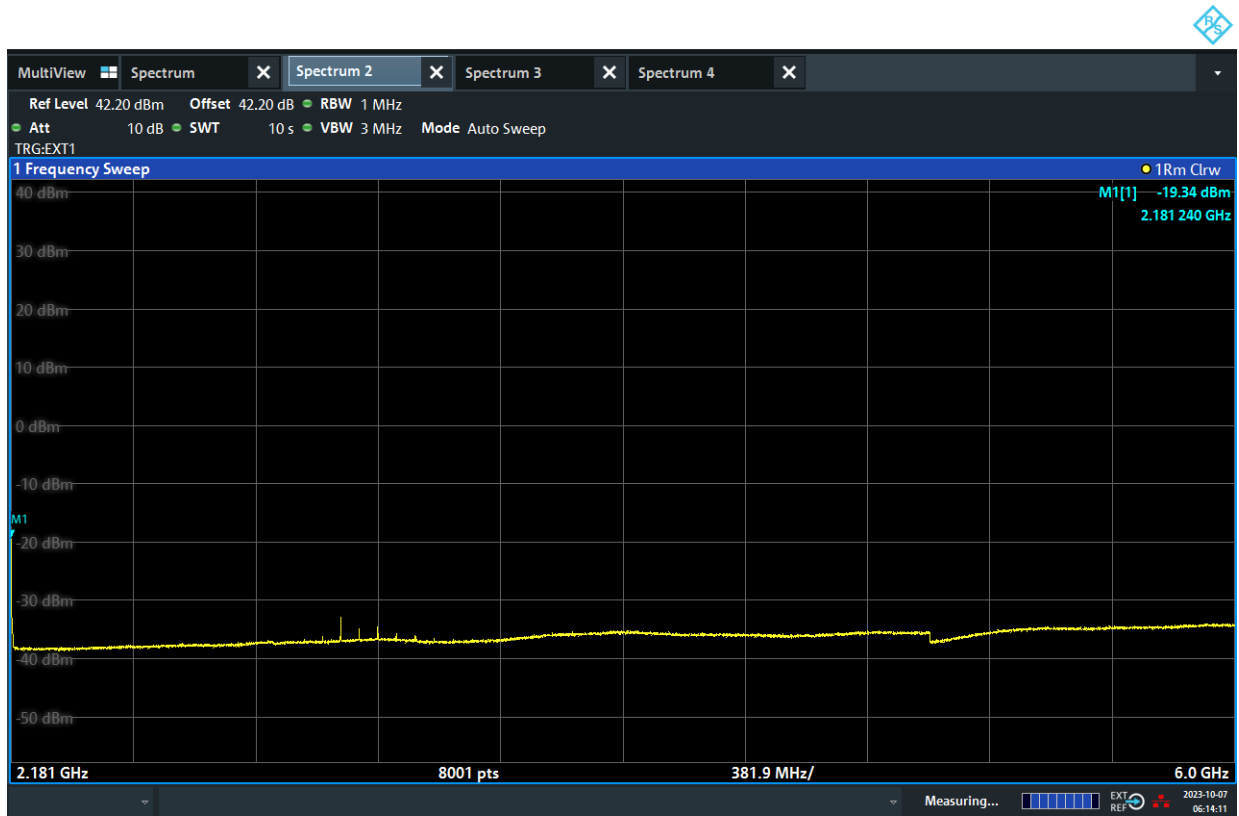


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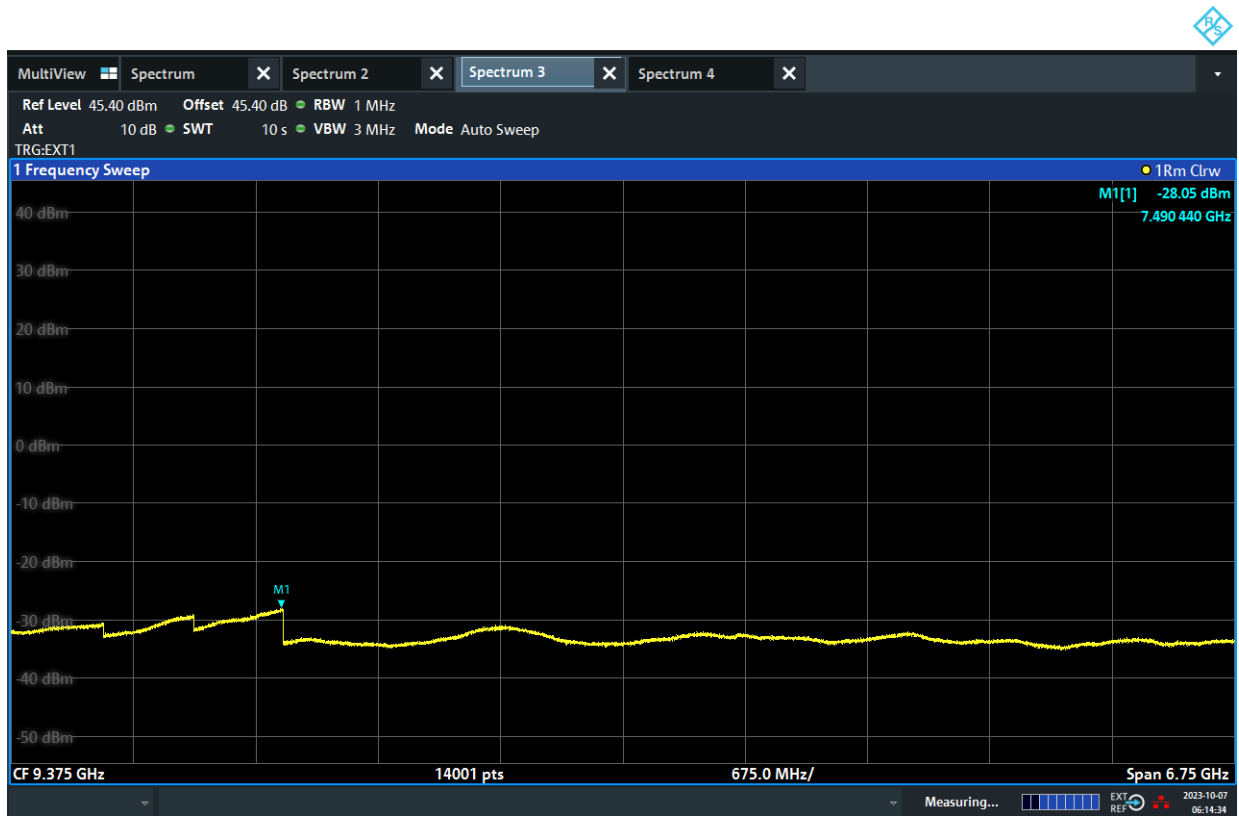
Channel Position T



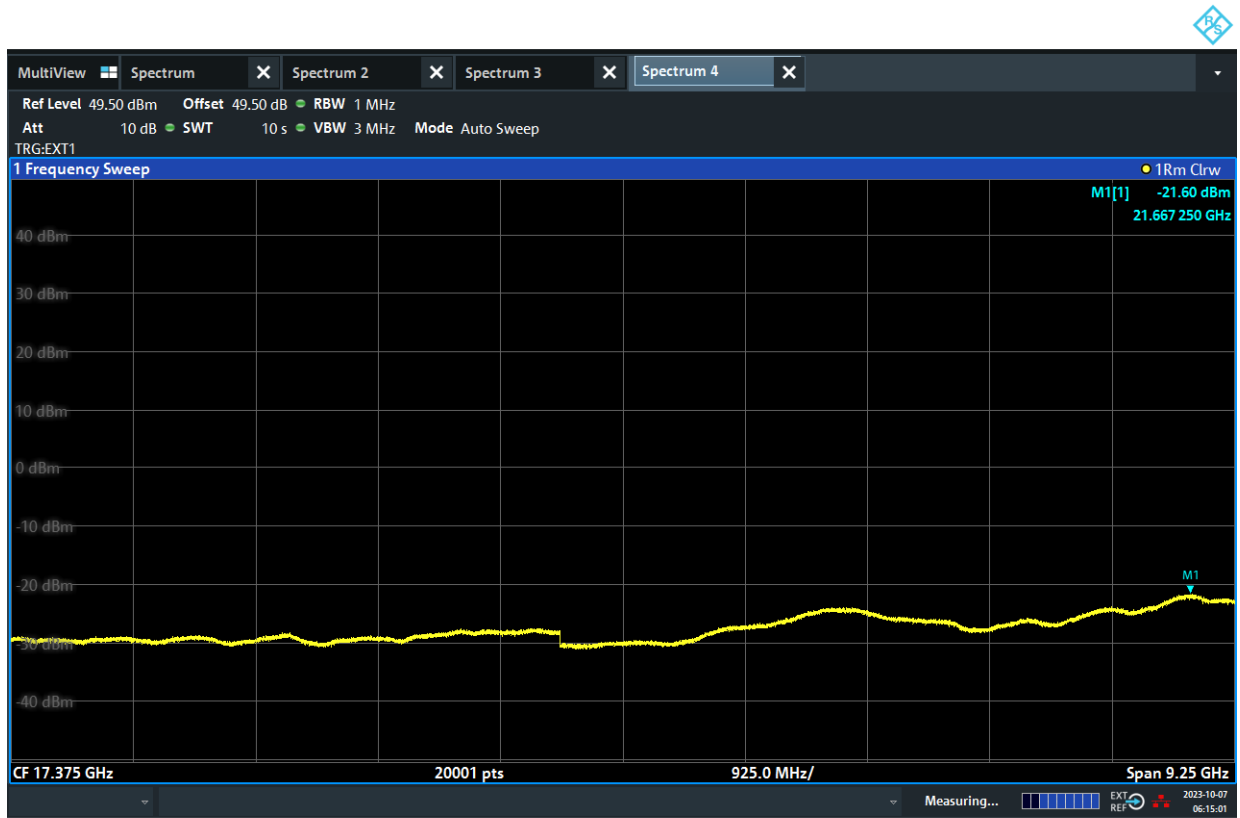
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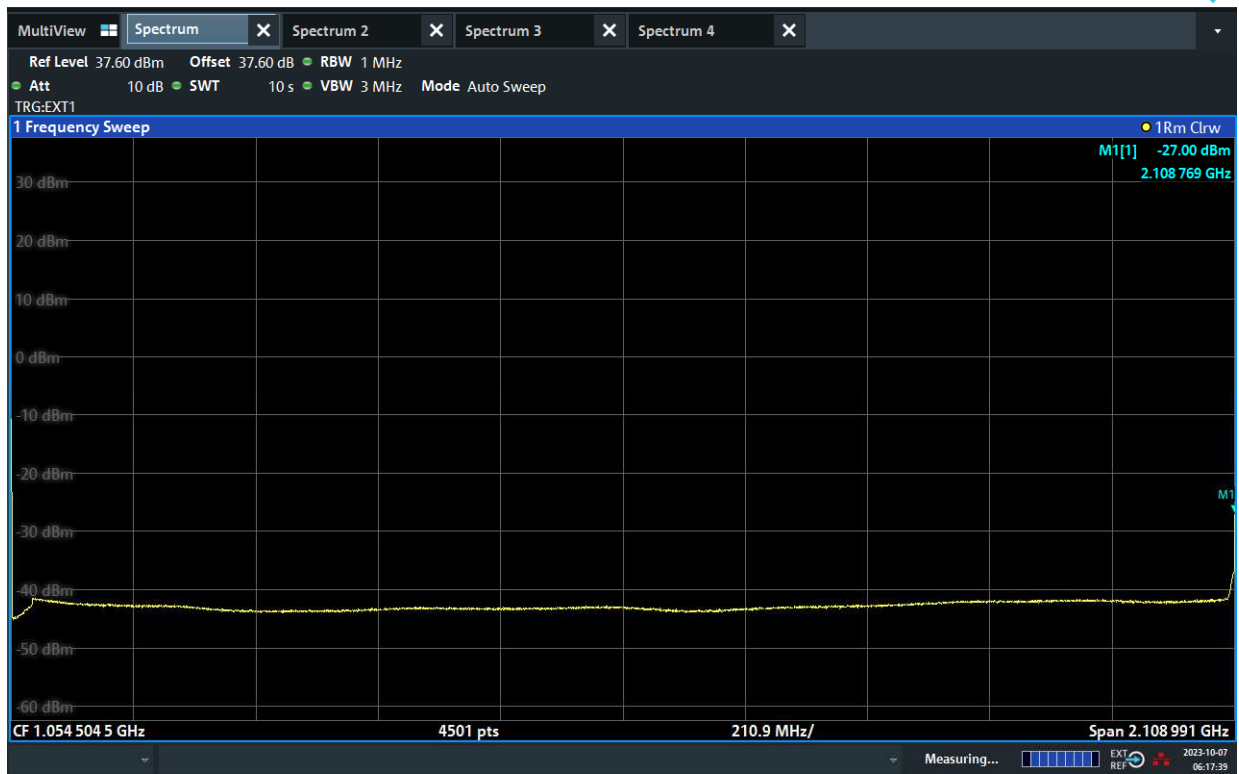
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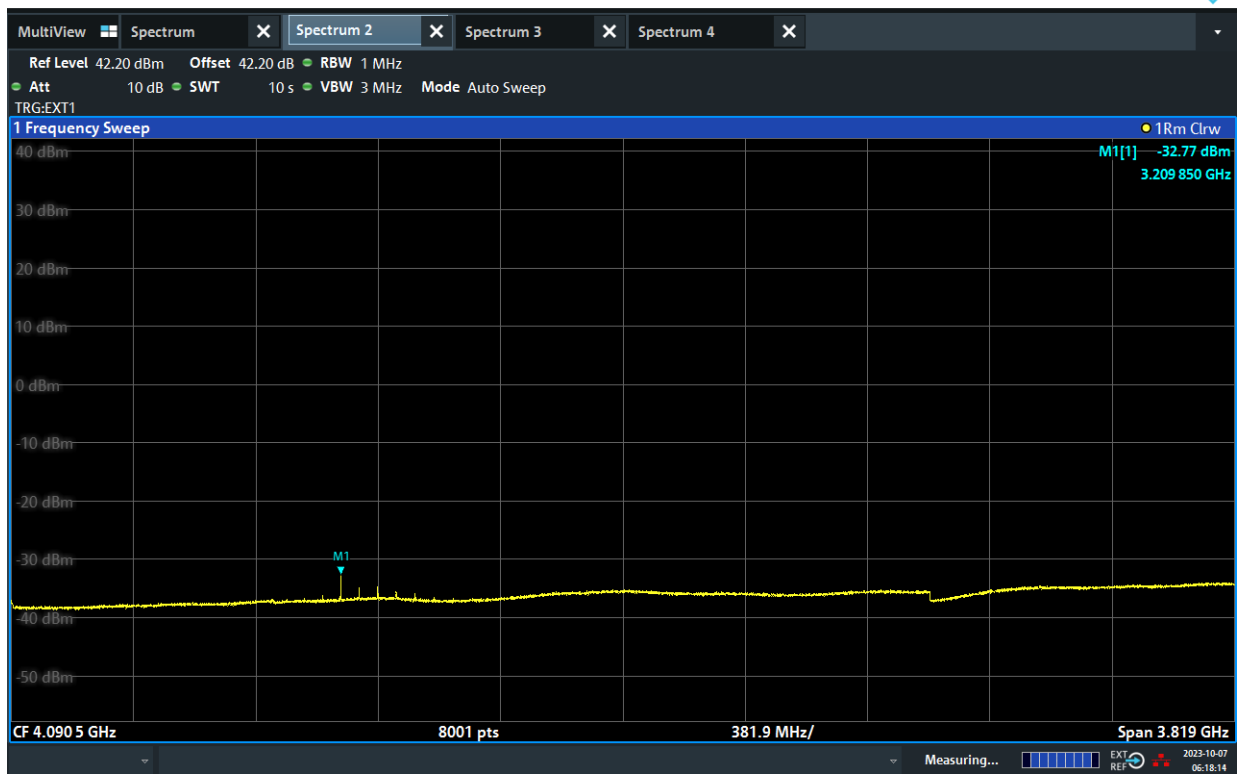
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Antenna Port	Channel Position	NR Modulation	NR Channel BW (MHz)	RBW (kHz)	Limit (dBm)
B	B	256QAM	30	1000	-16.01
B	M	256QAM	30	1000	-16.01
B	T	256QAM	30	1000	-16.01

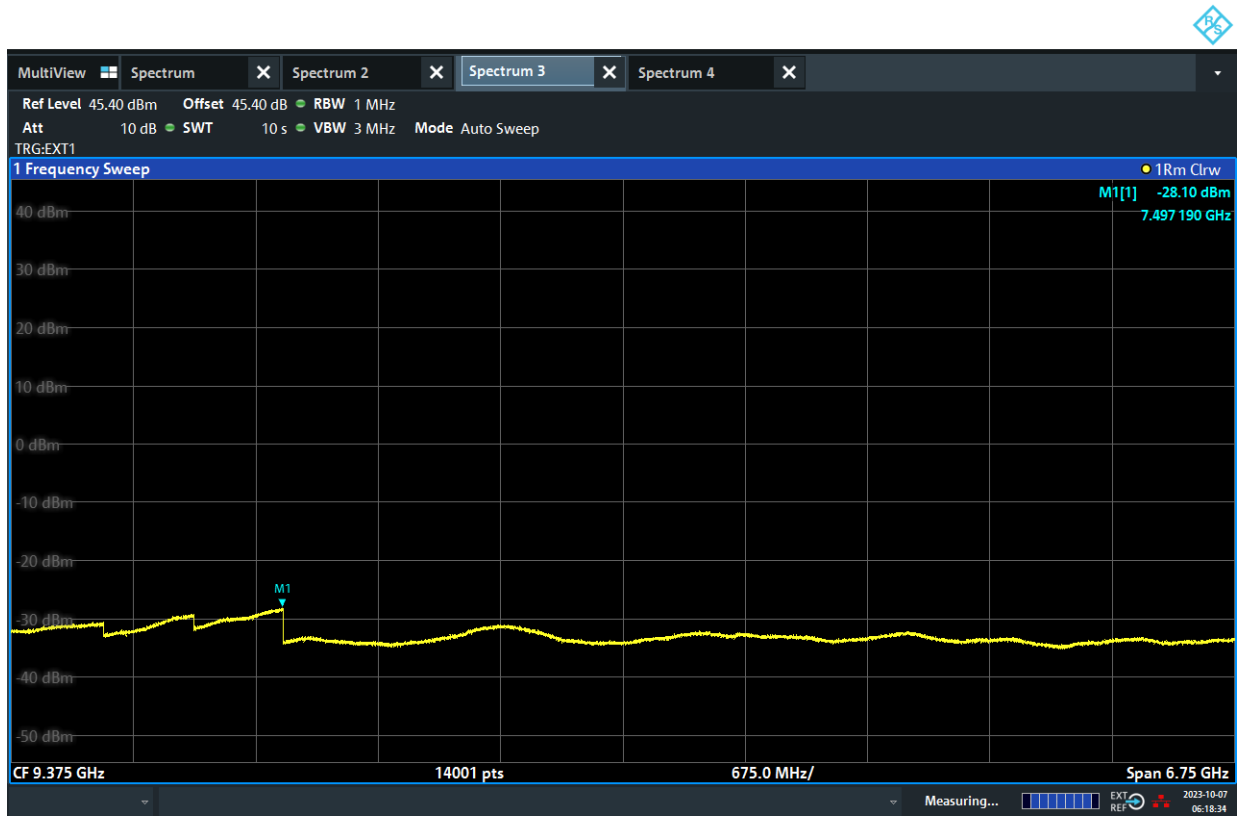
Channel Position B



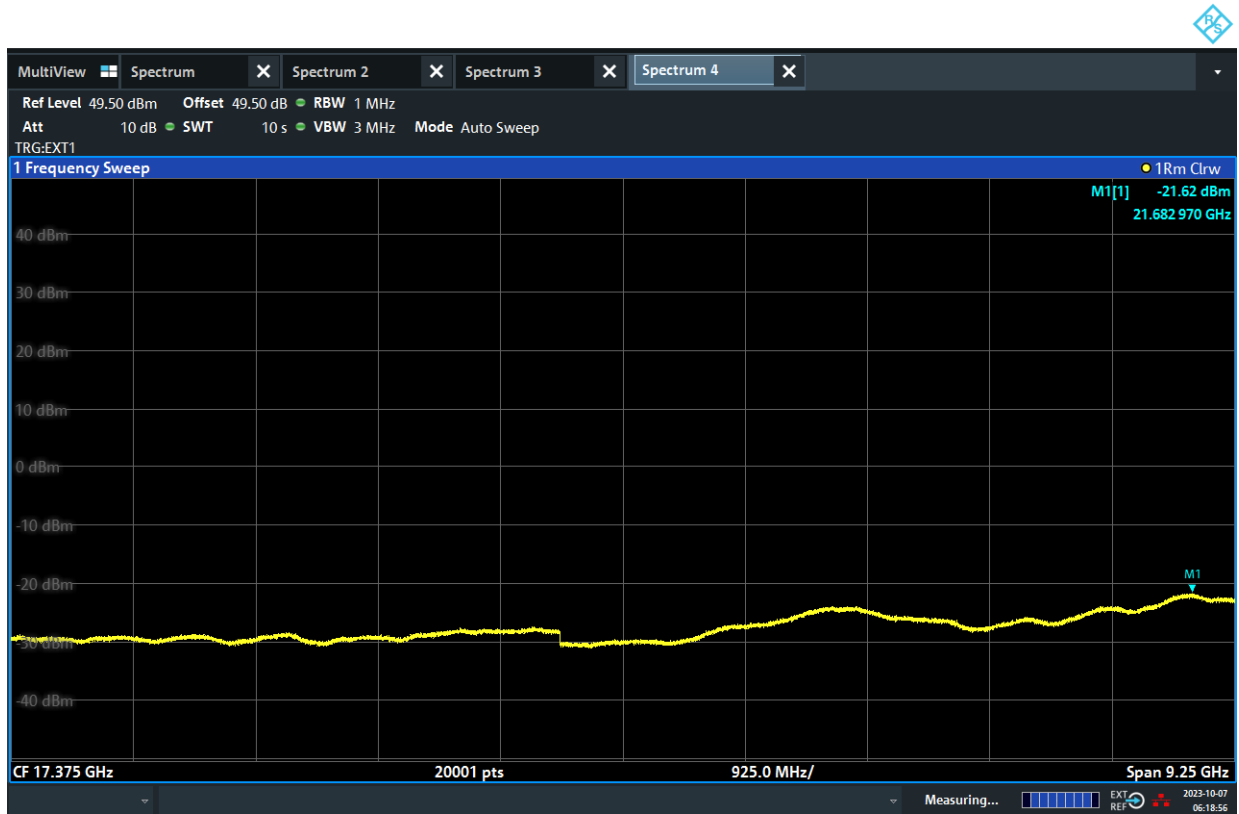
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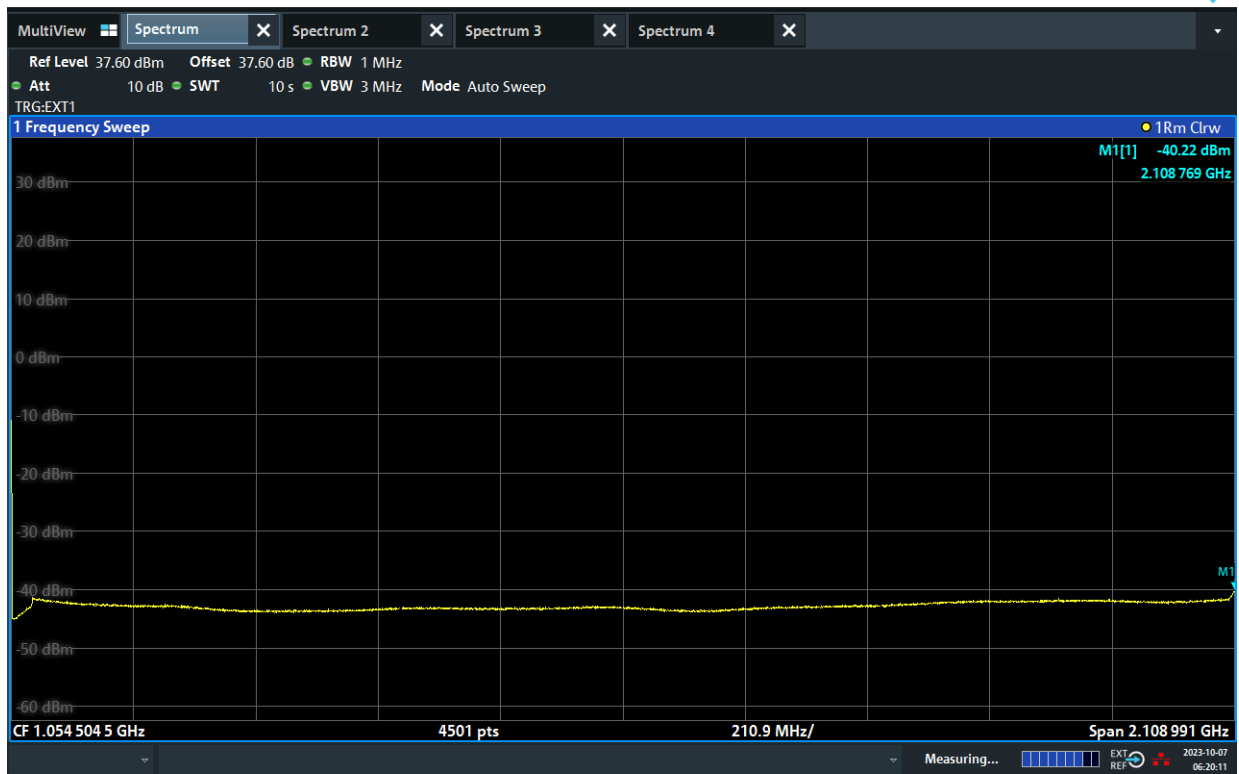


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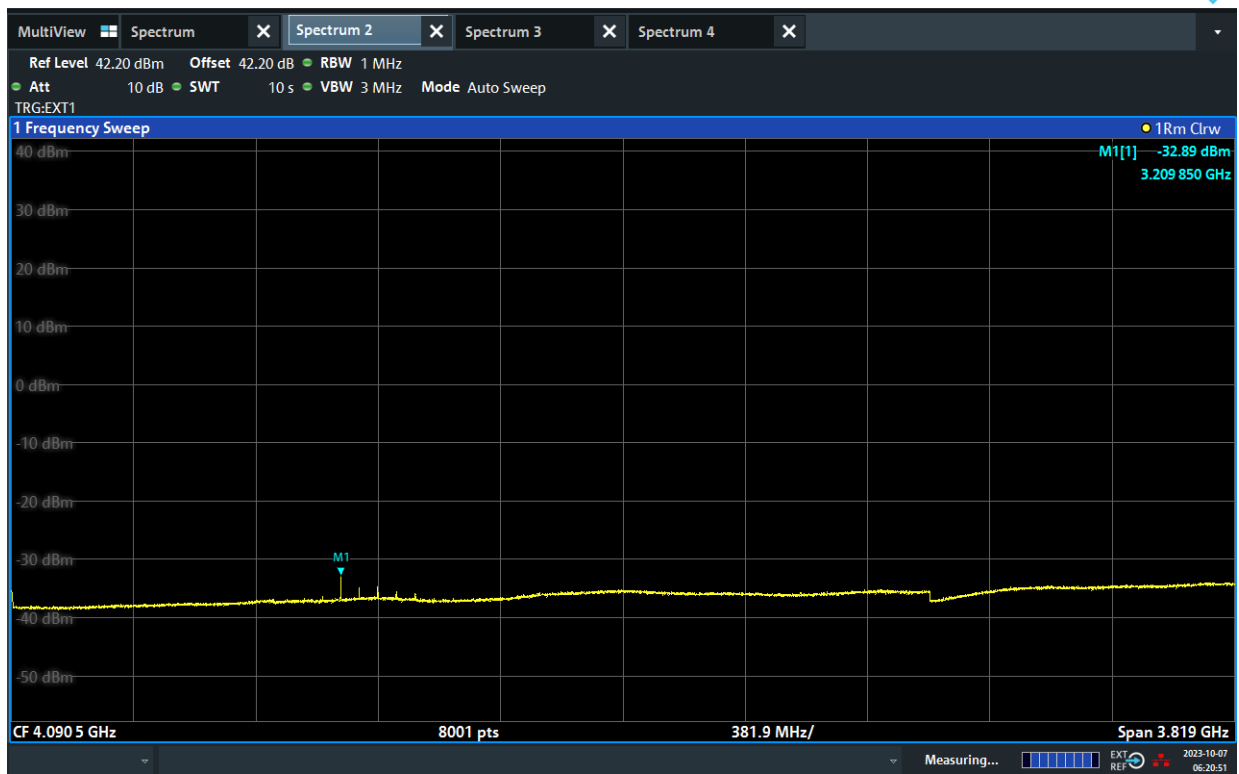


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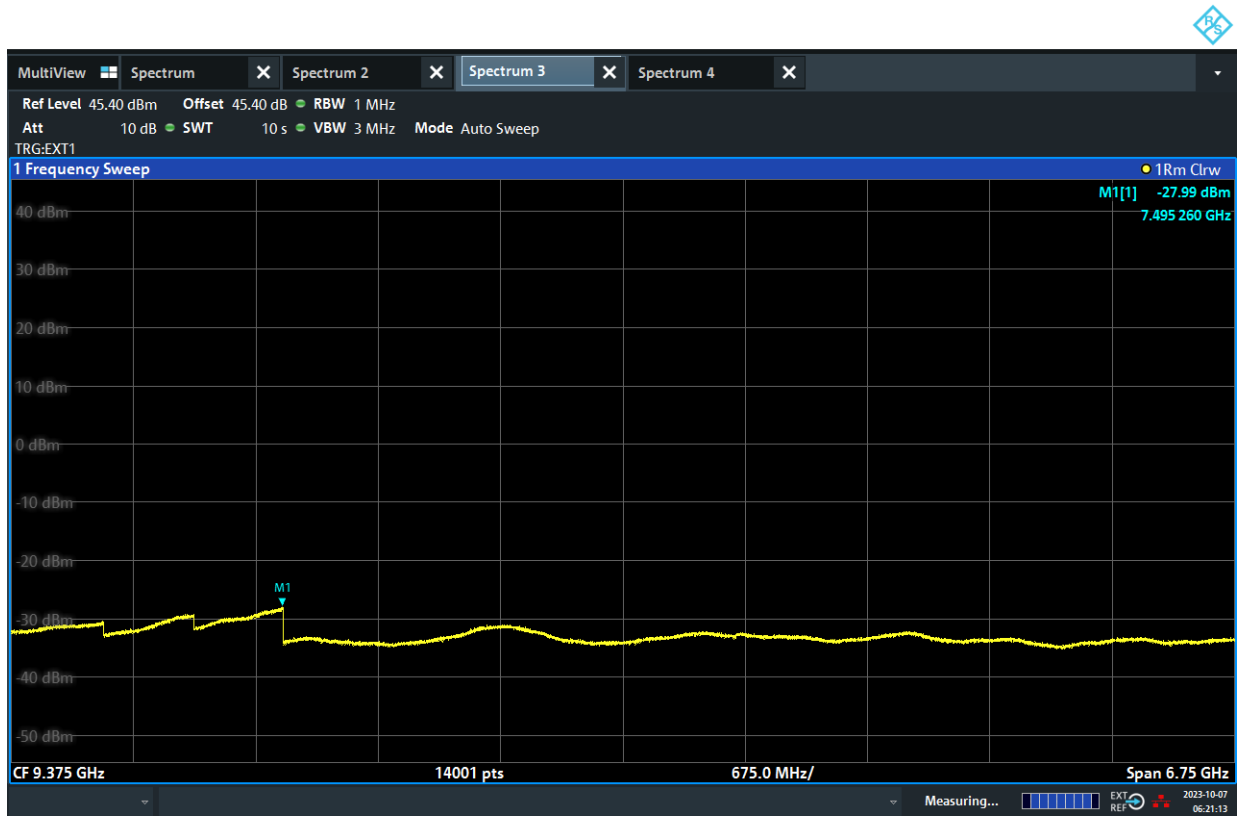
Channel Position M



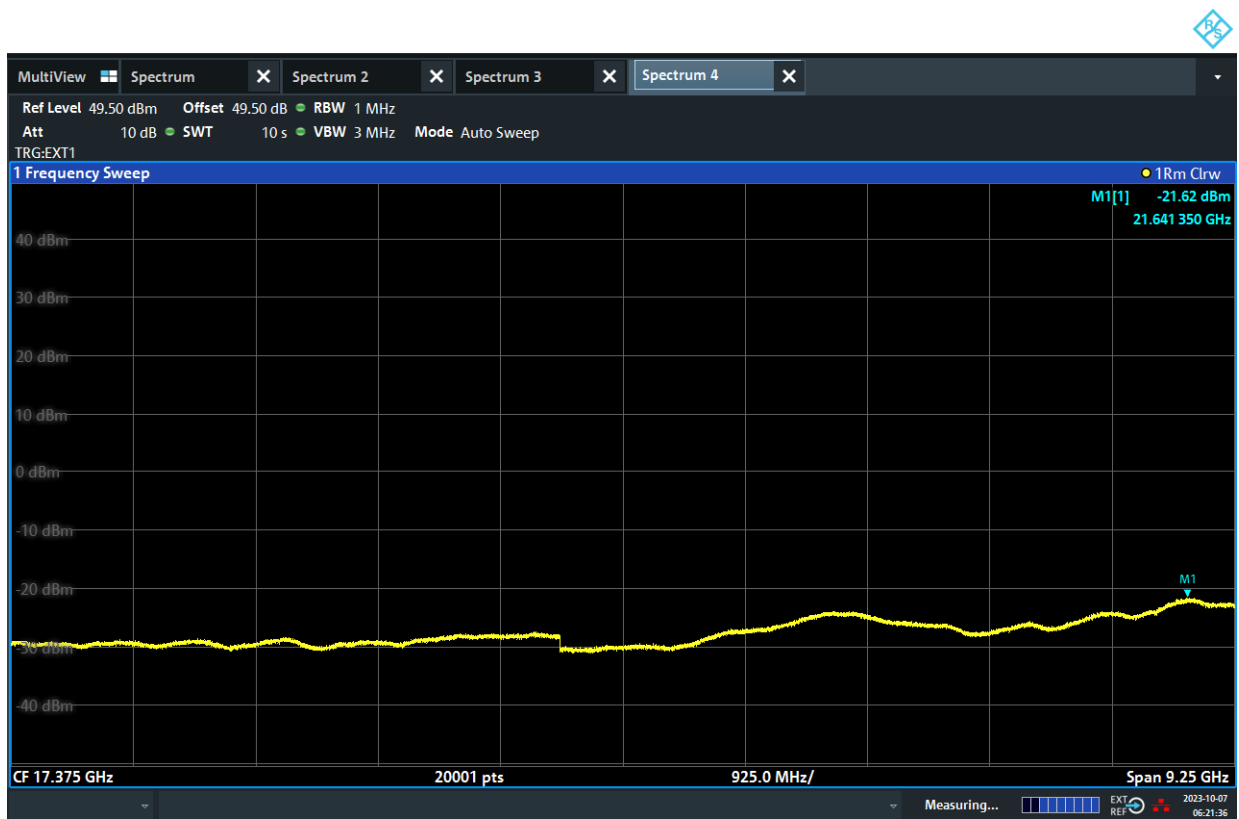
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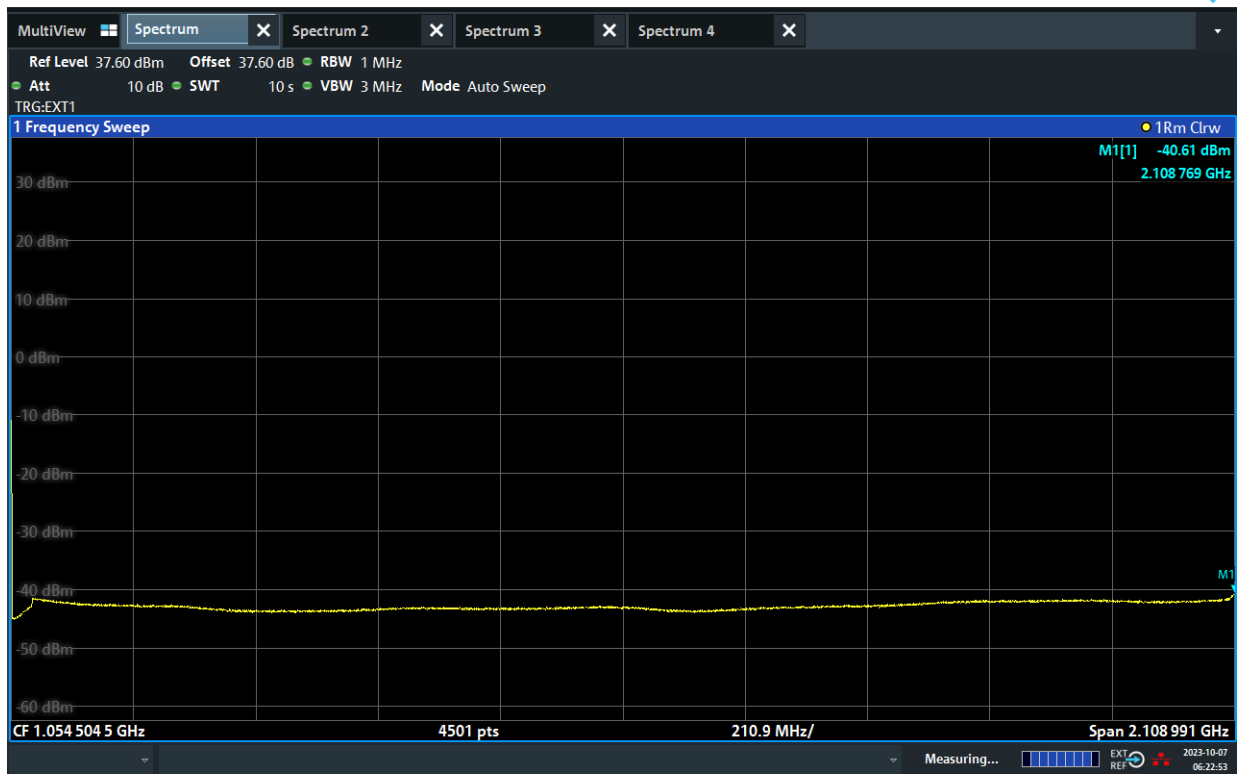


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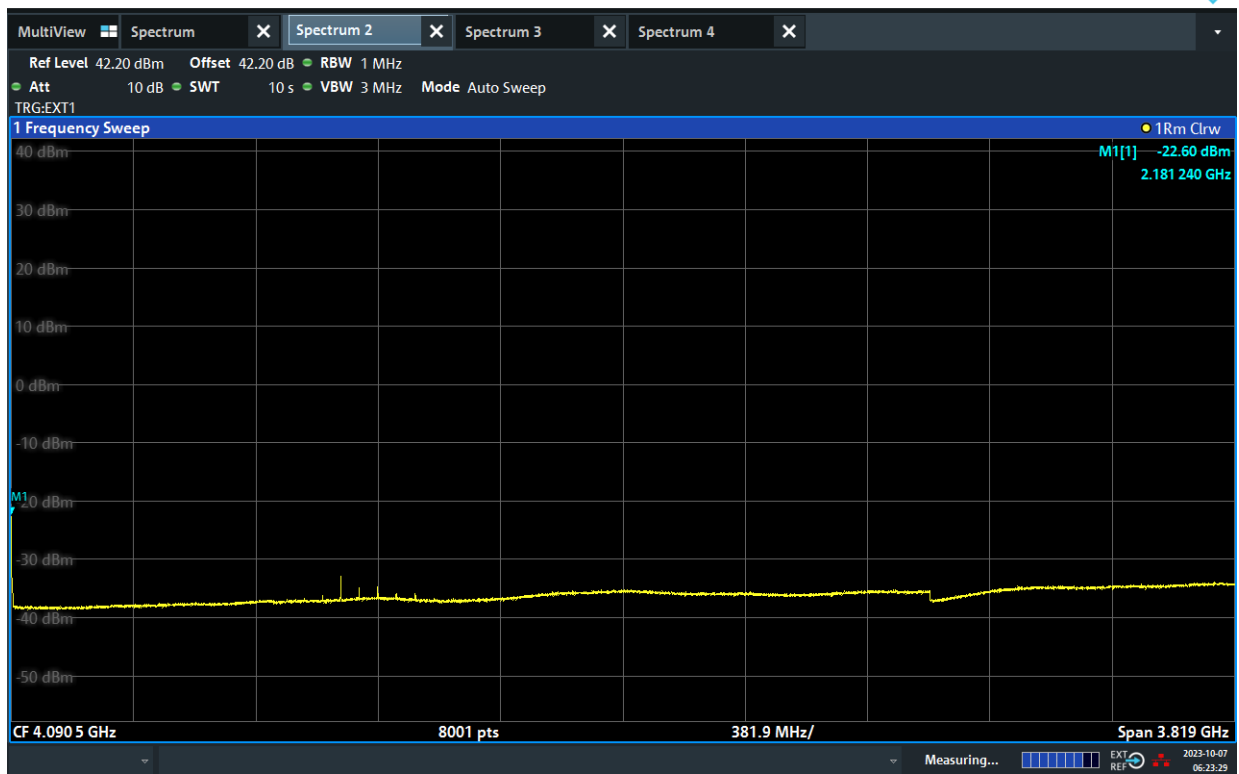


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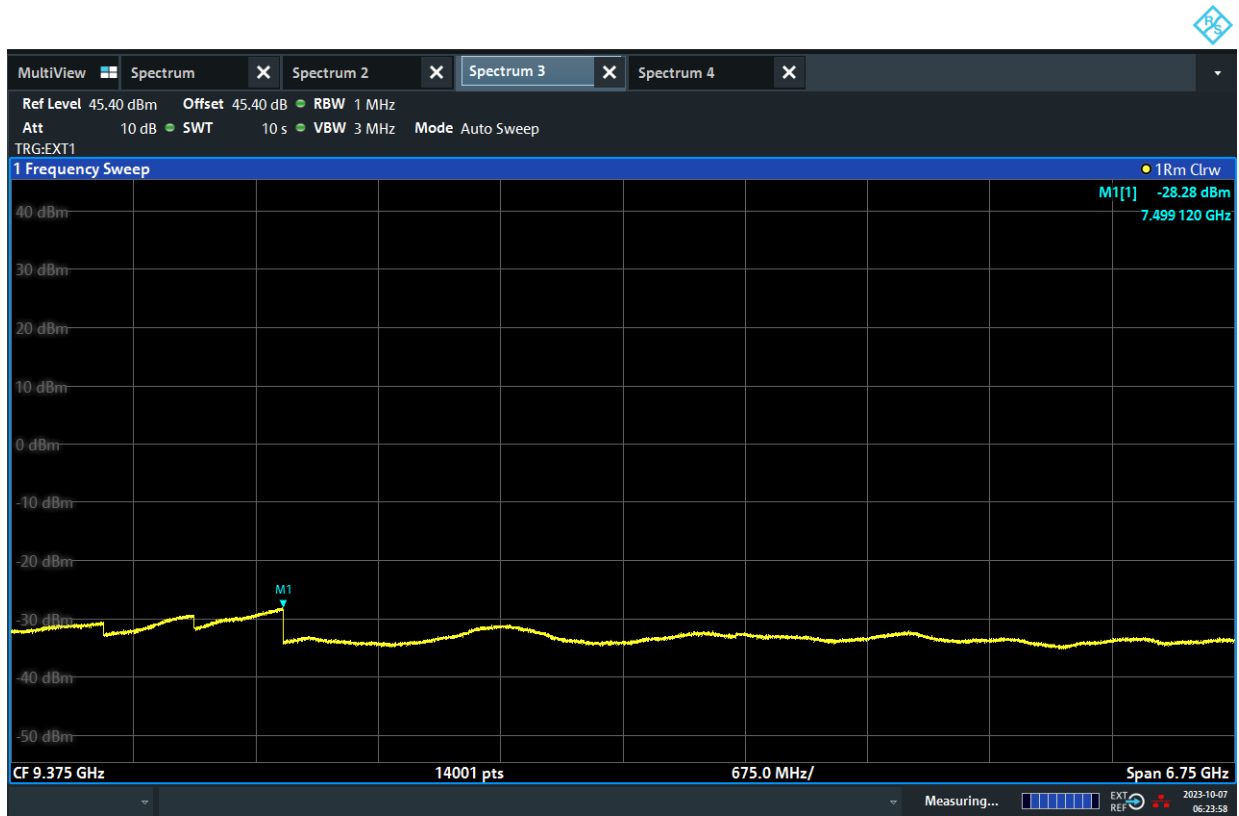
Channel Position T



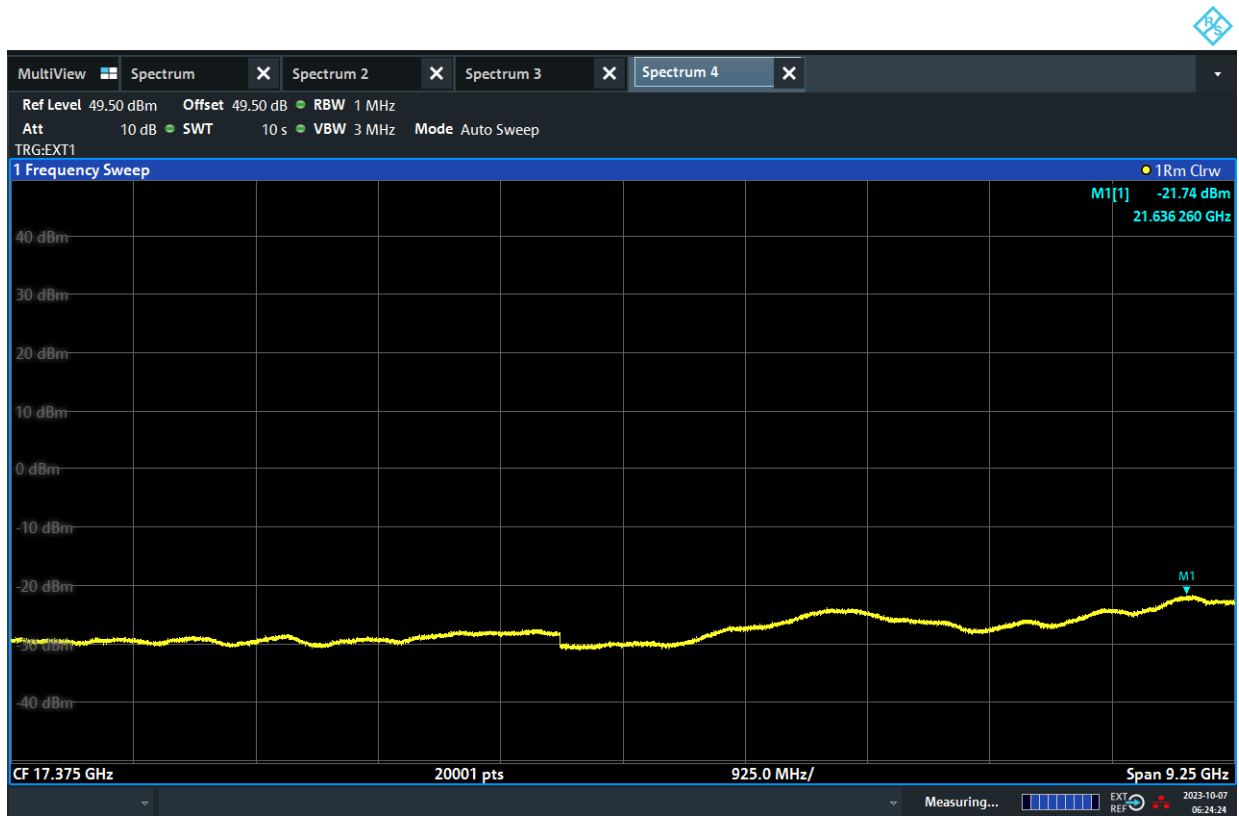
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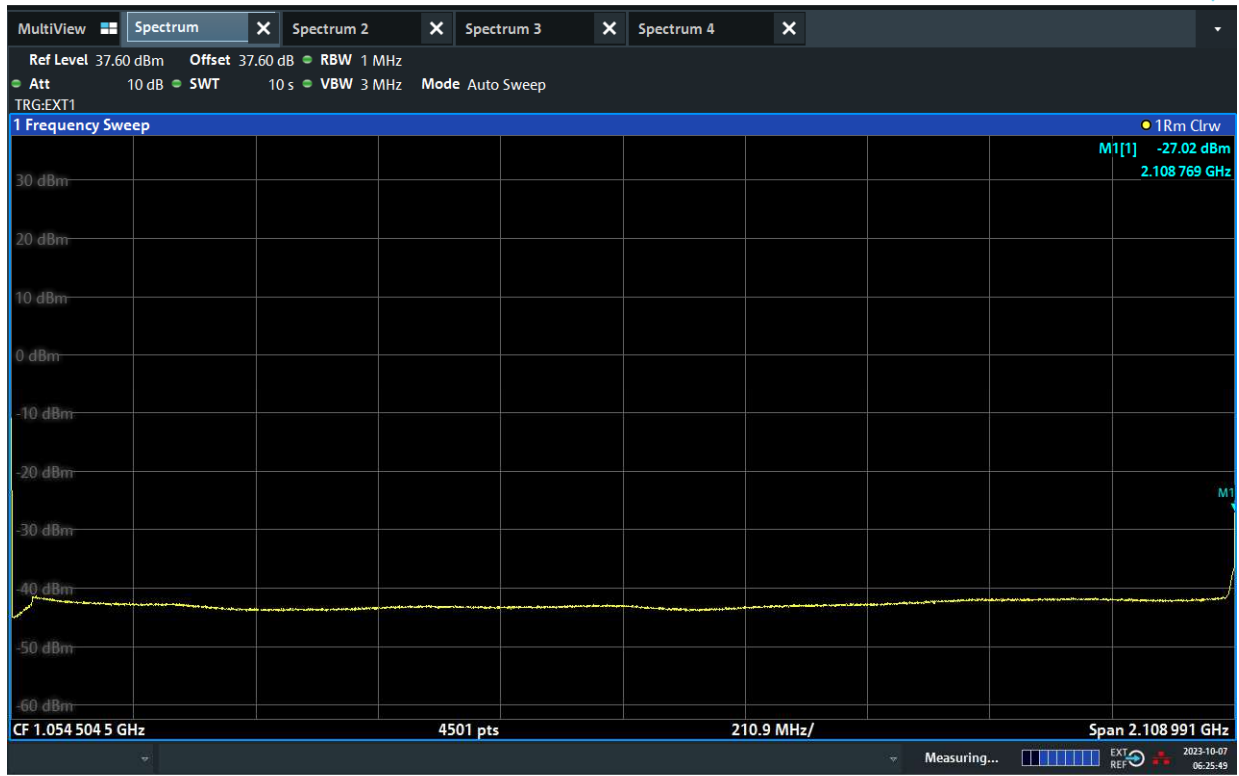


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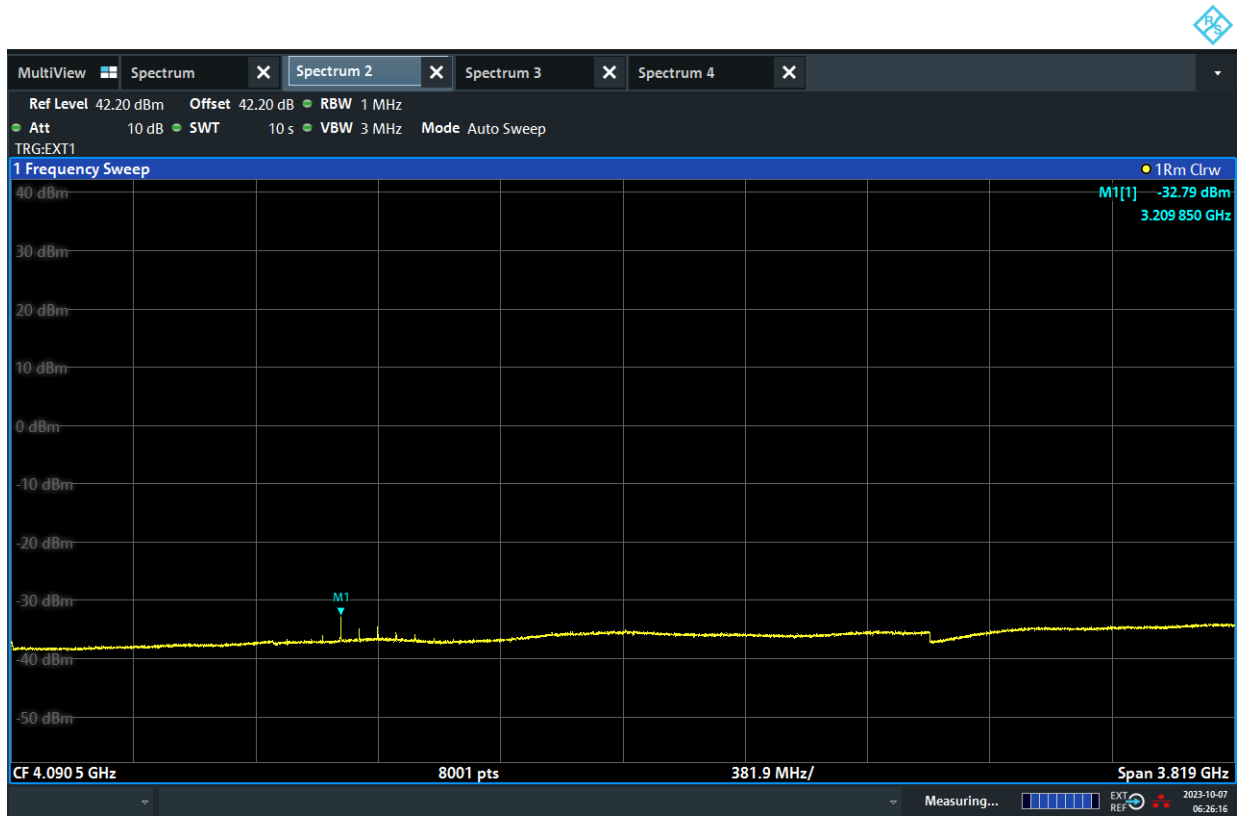
TEST REPORT

Antenna Port	Channel Position	NR Modulation	NR Channel BW (MHz)	RBW (kHz)	Limit (dBm)
B	B	256QAM	35	1000	-16.01
B	M	256QAM	35	1000	-16.01
B	T	256QAM	35	1000	-16.01

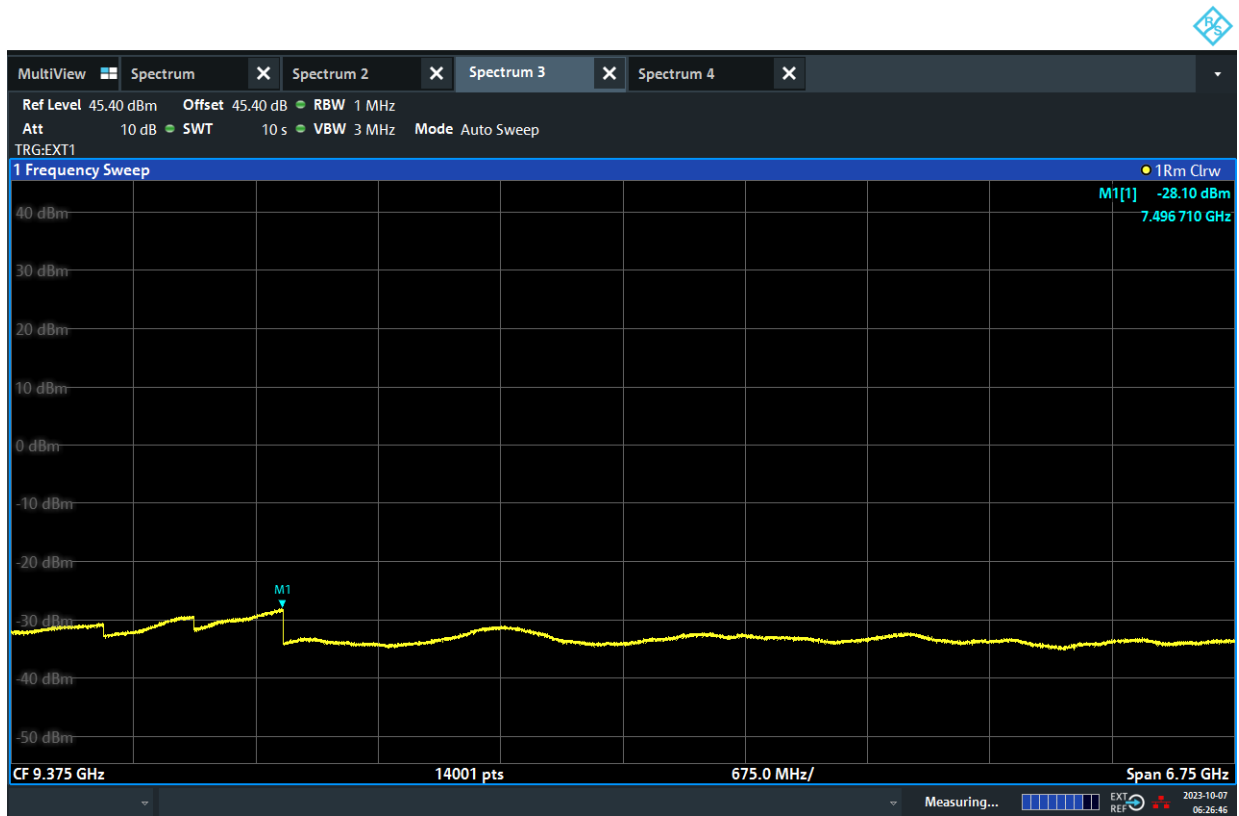
Channel Position B



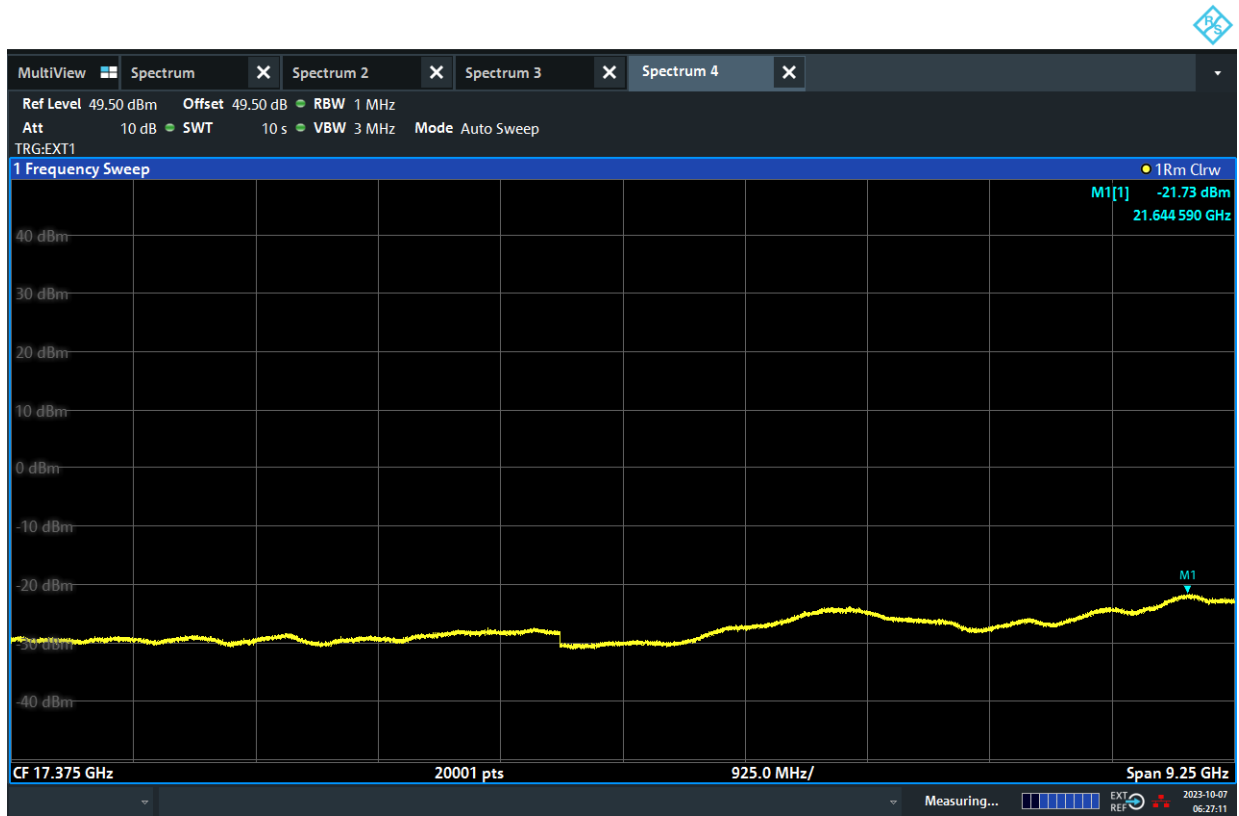
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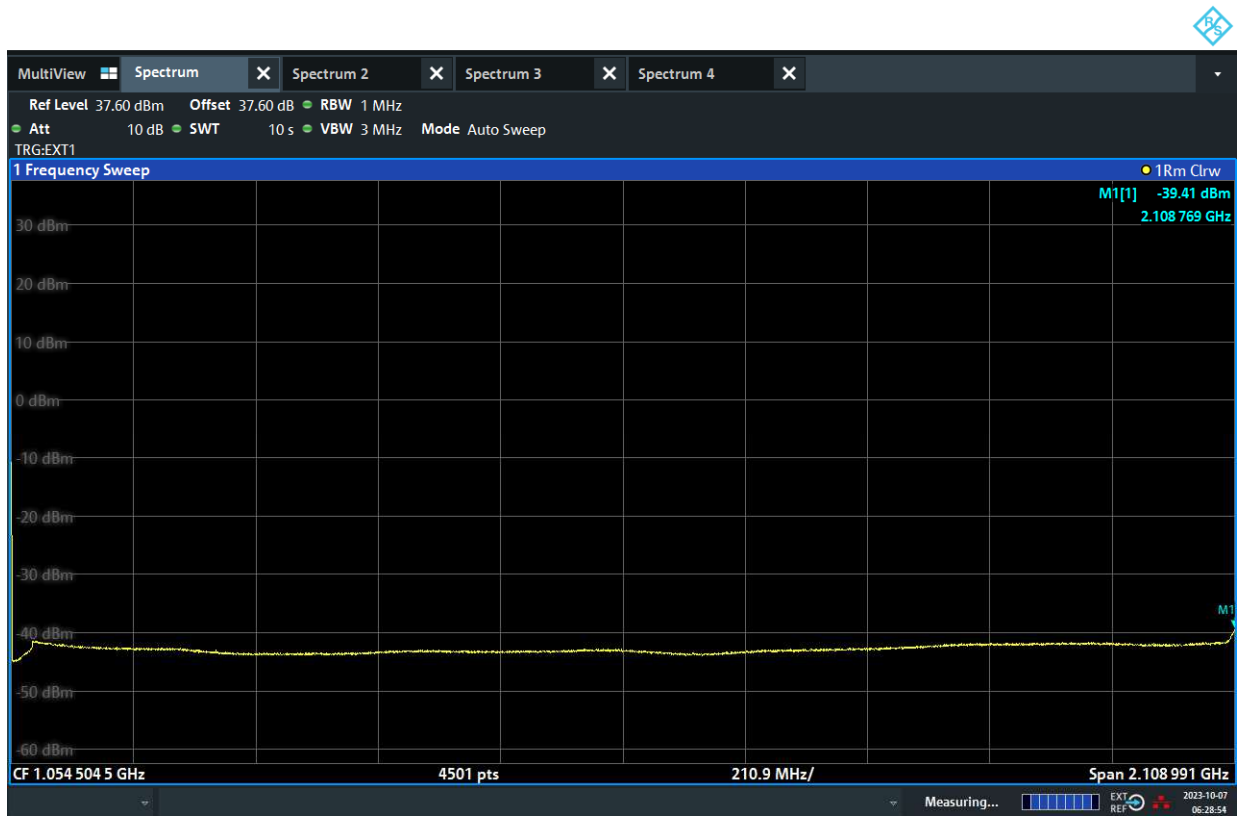


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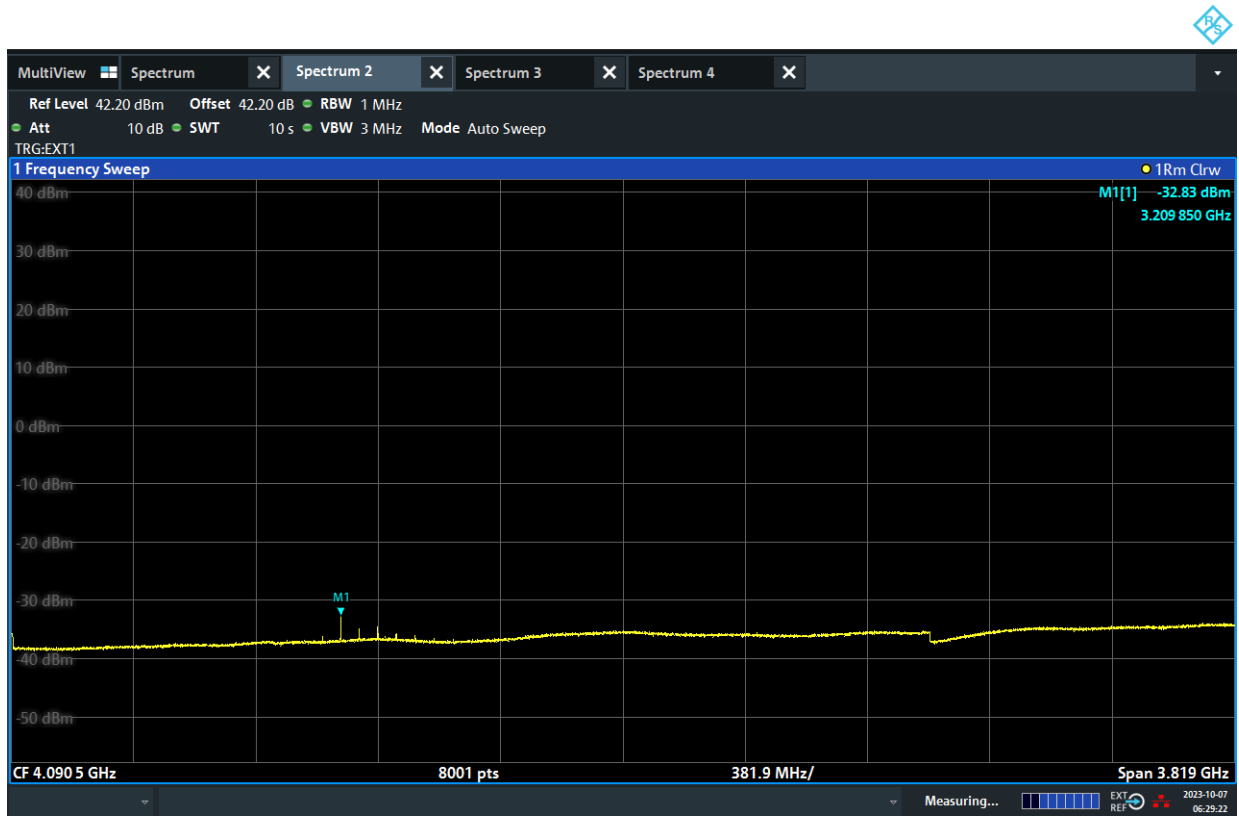


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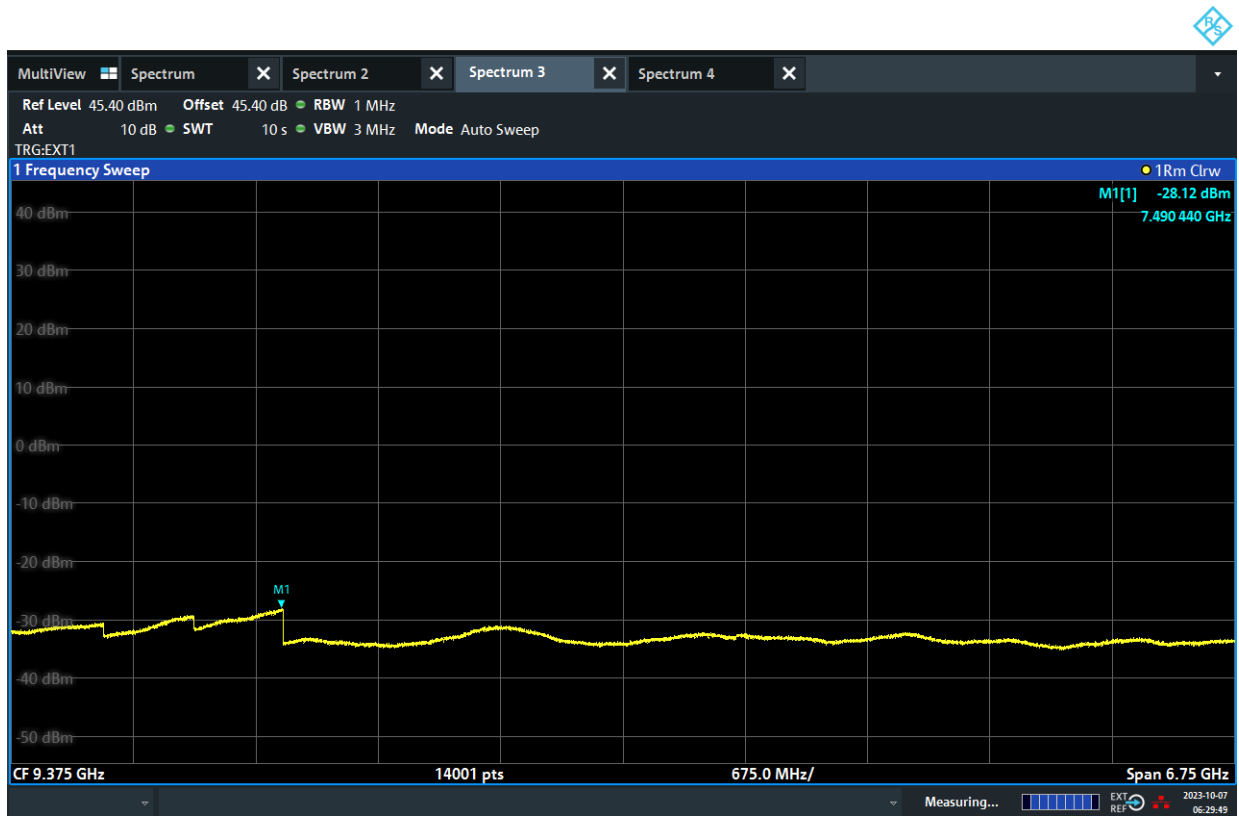
Channel Position M



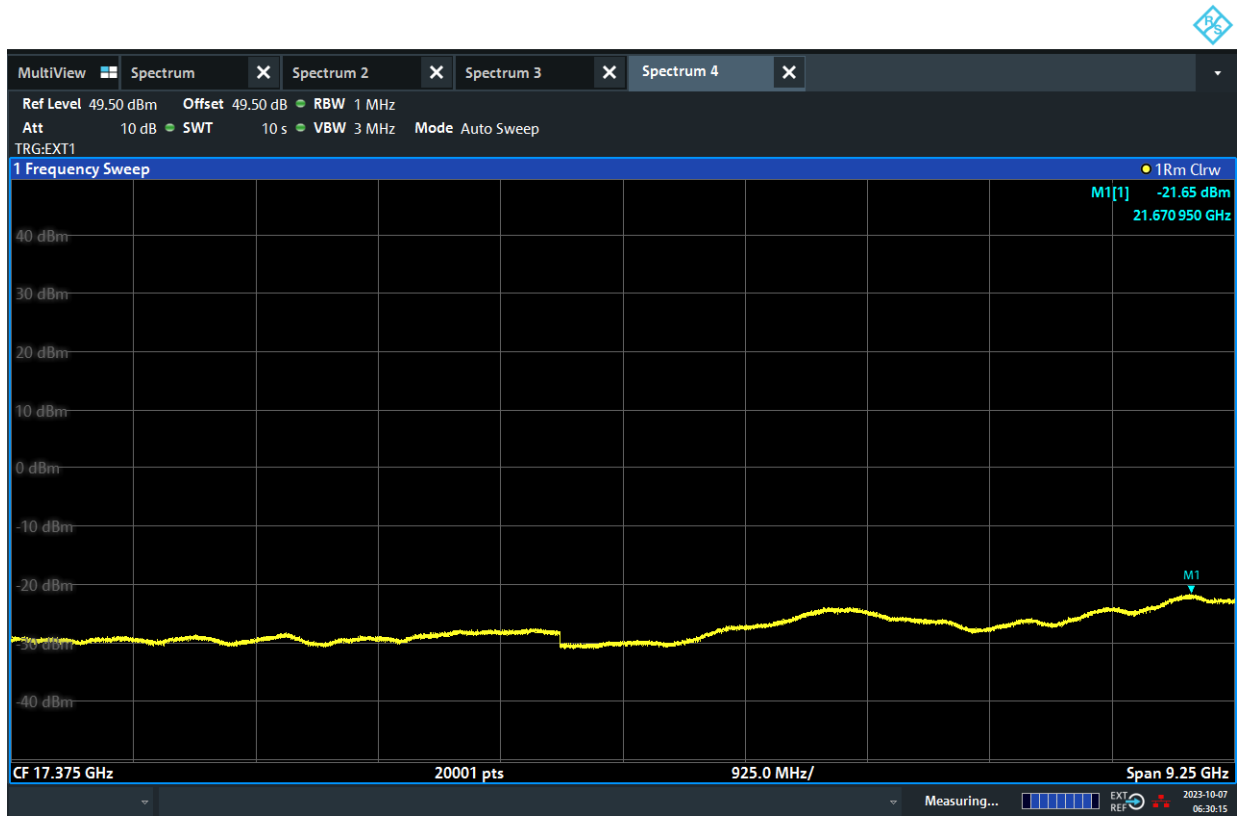
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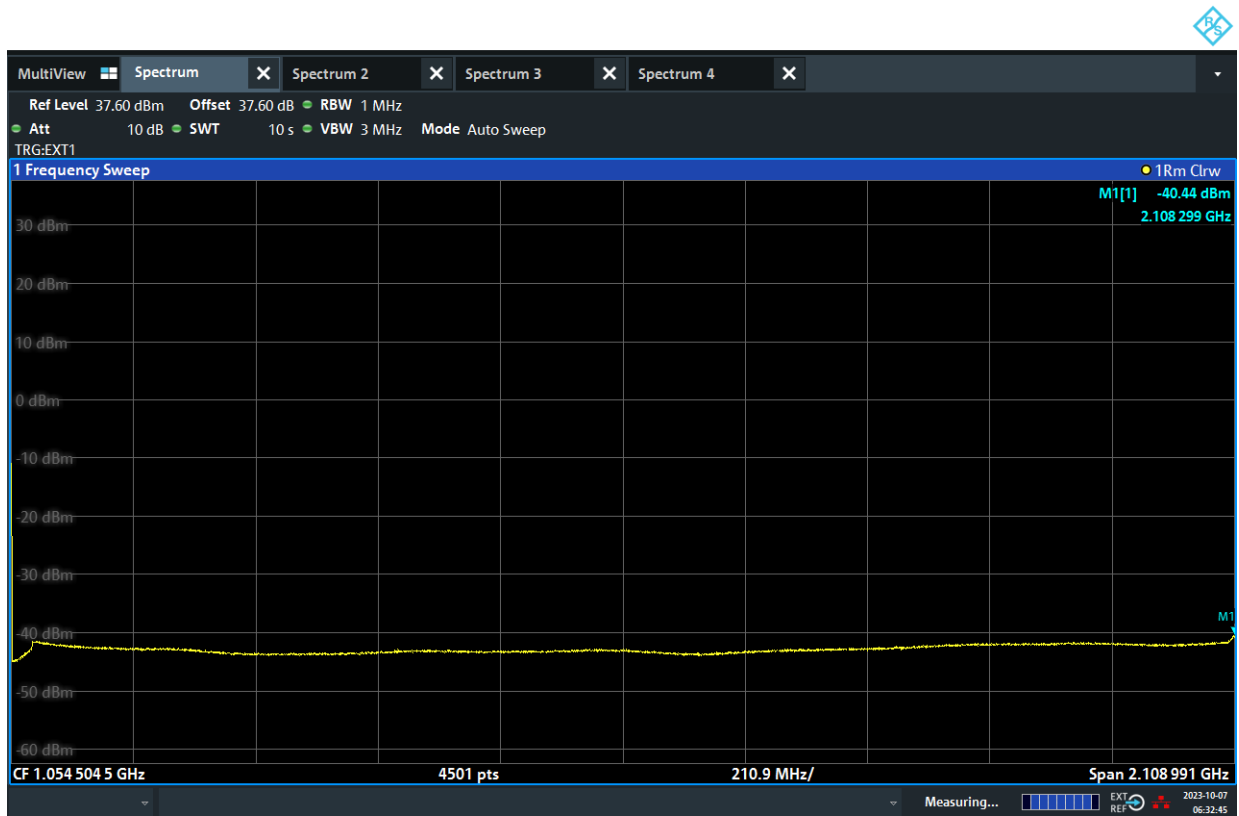


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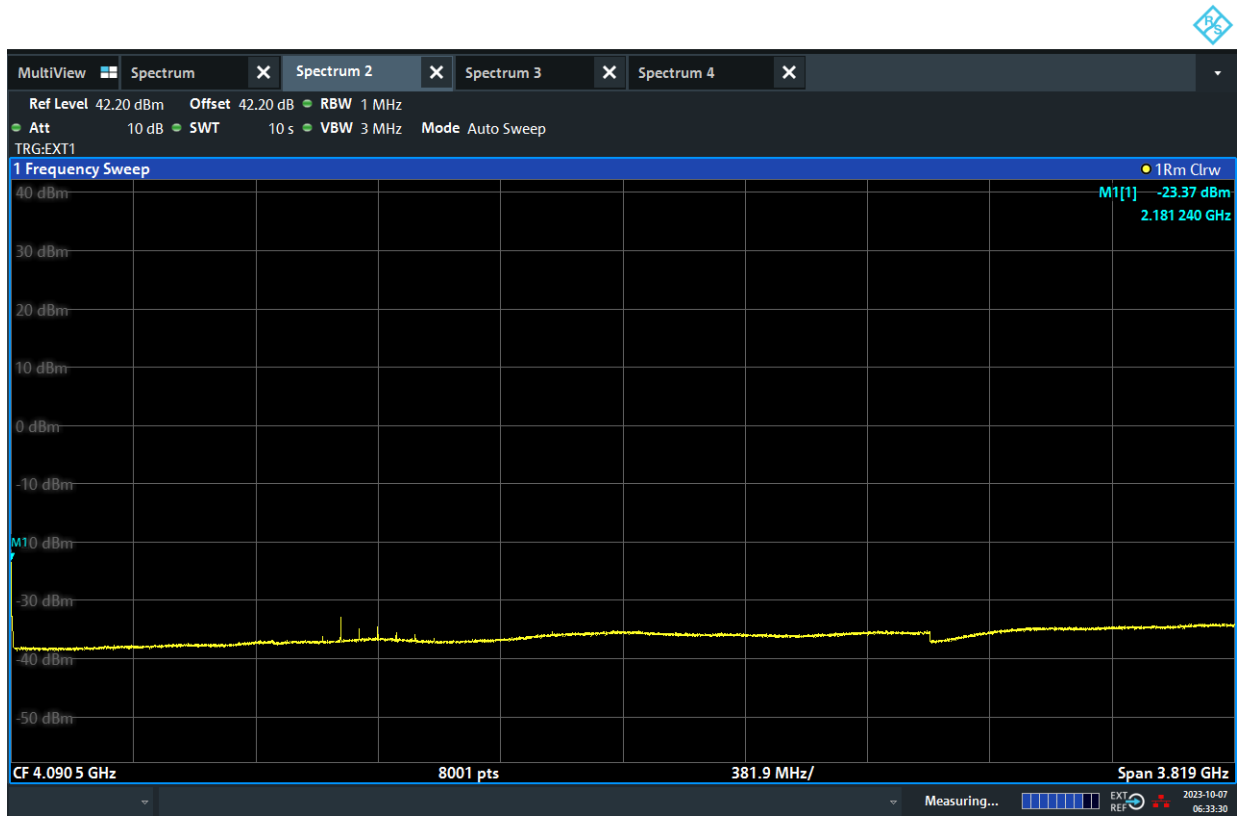


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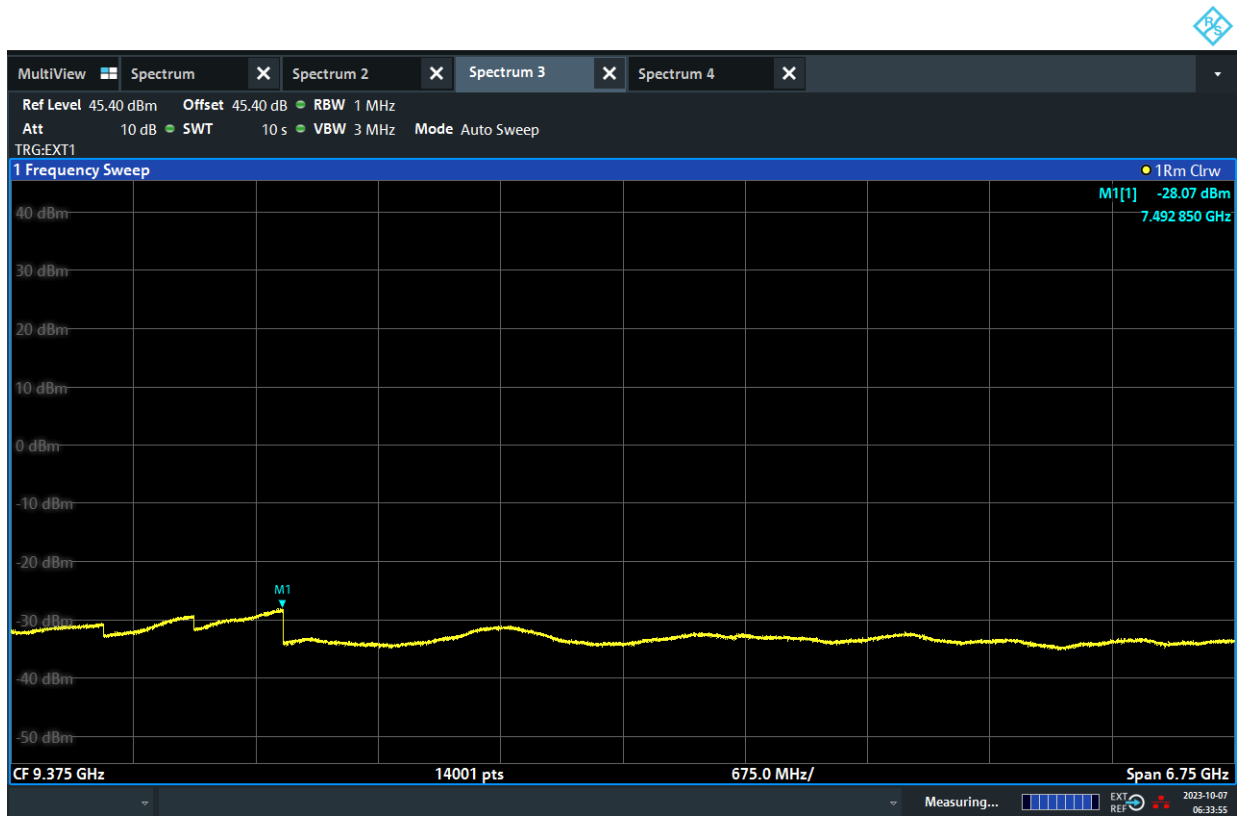
Channel Position T



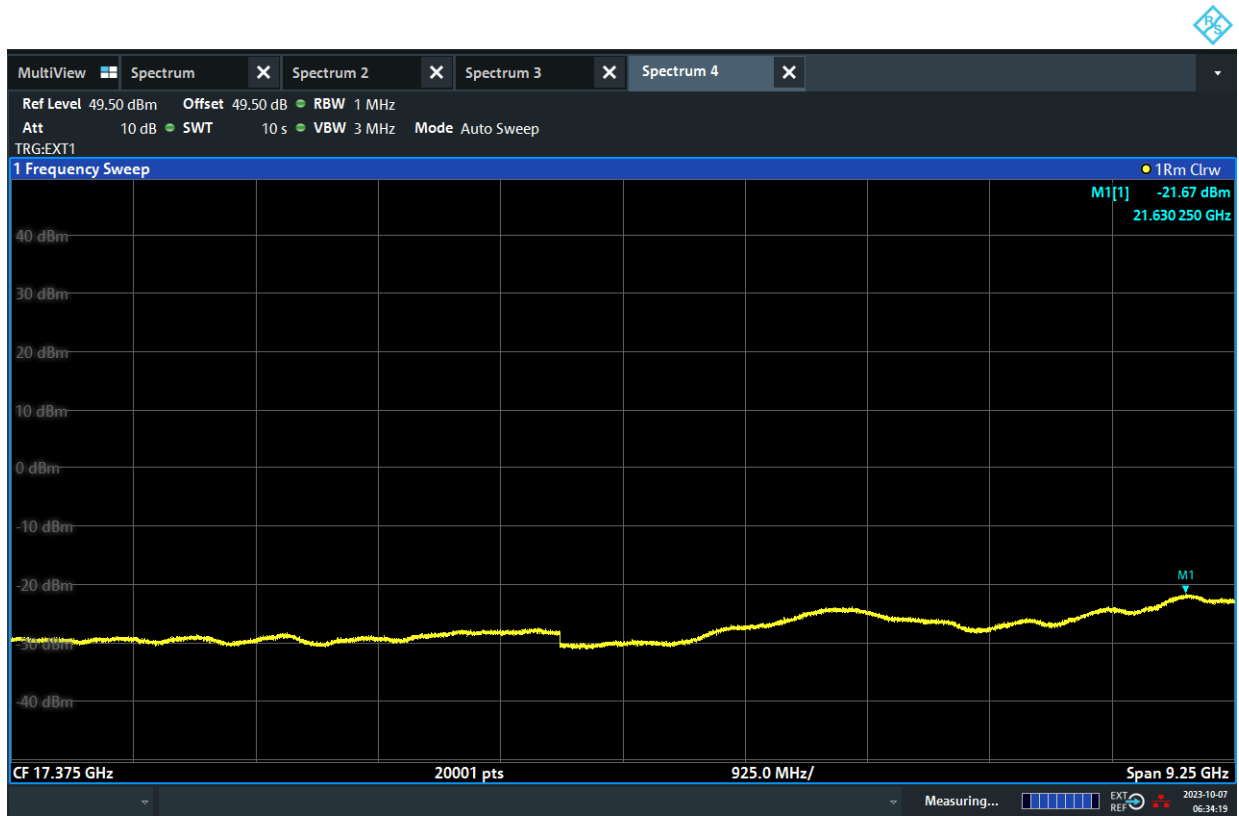
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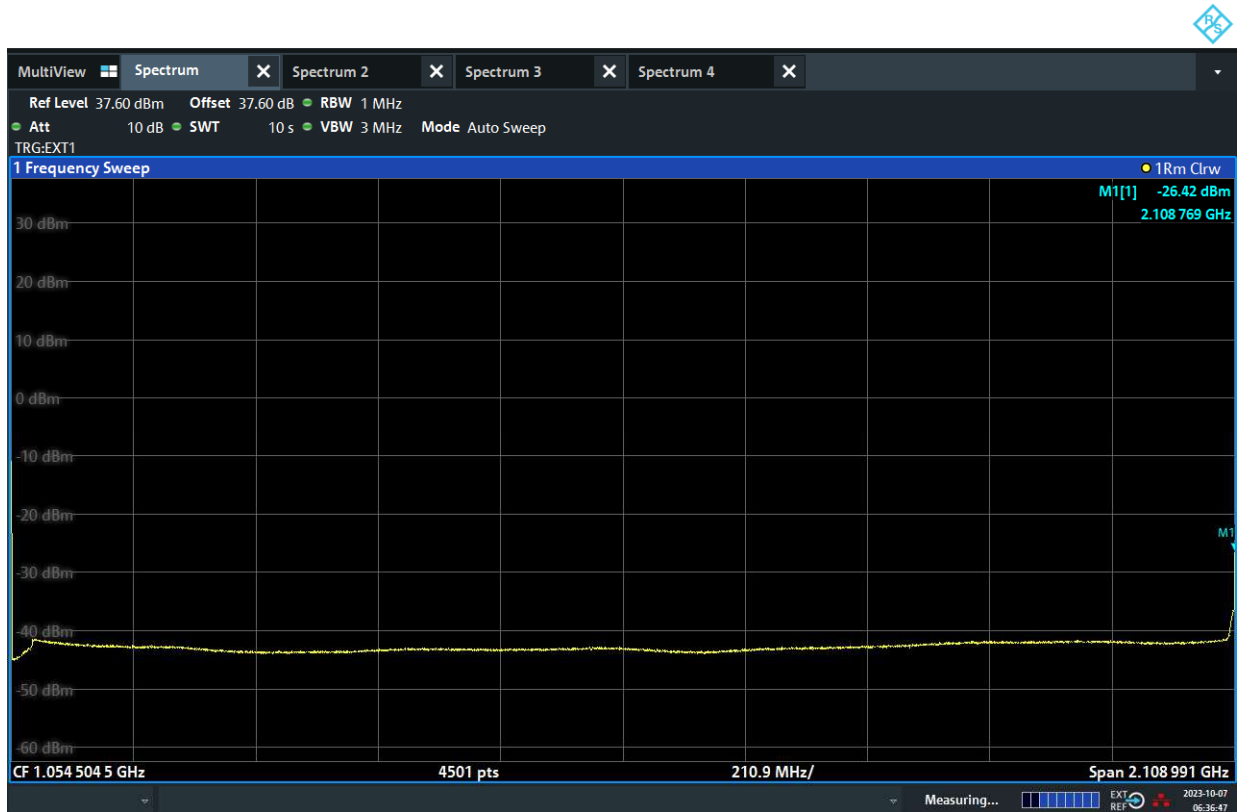


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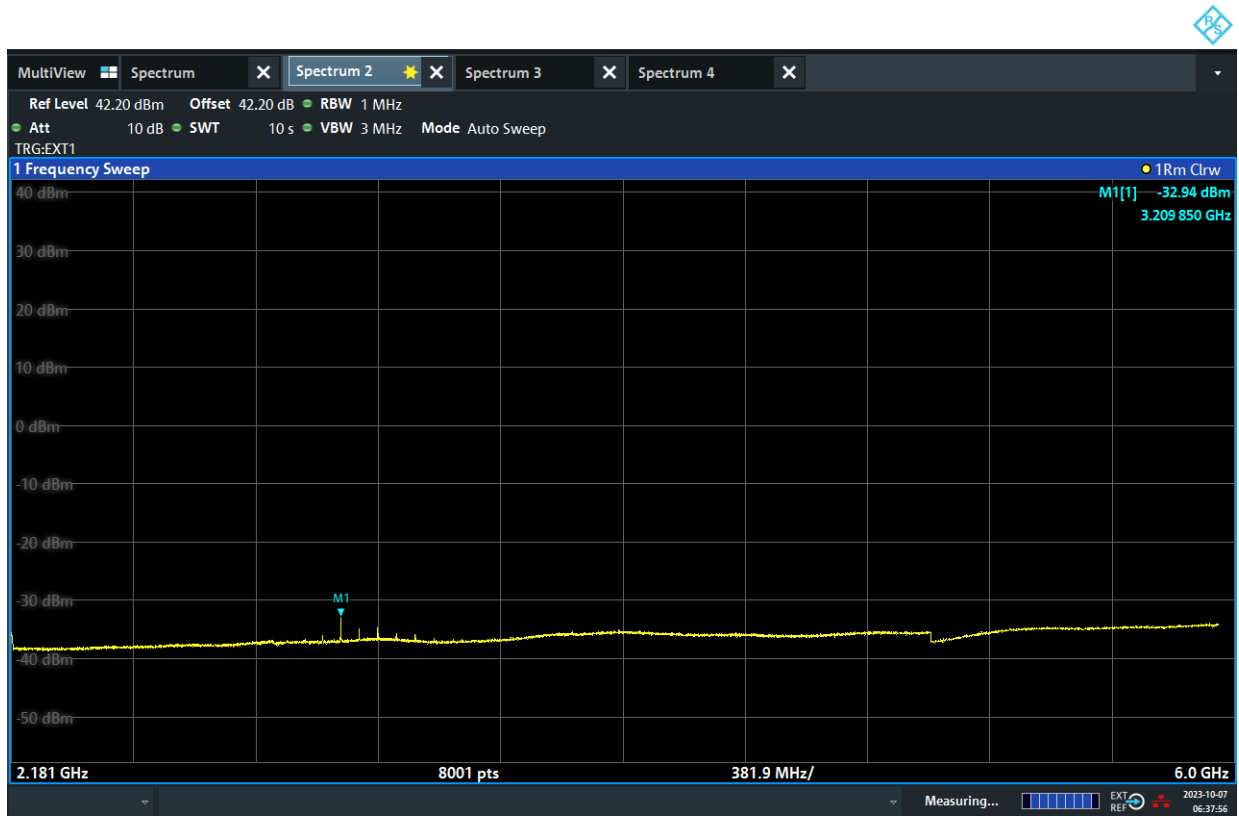
TEST REPORT

Antenna Port	Channel Position	NR Modulation	NR Channel BW (MHz)	RBW (kHz)	Limit (dBm)
B	B	256QAM	40	1000	-16.01
B	M	256QAM	40	1000	-16.01
B	T	256QAM	40	1000	-16.01

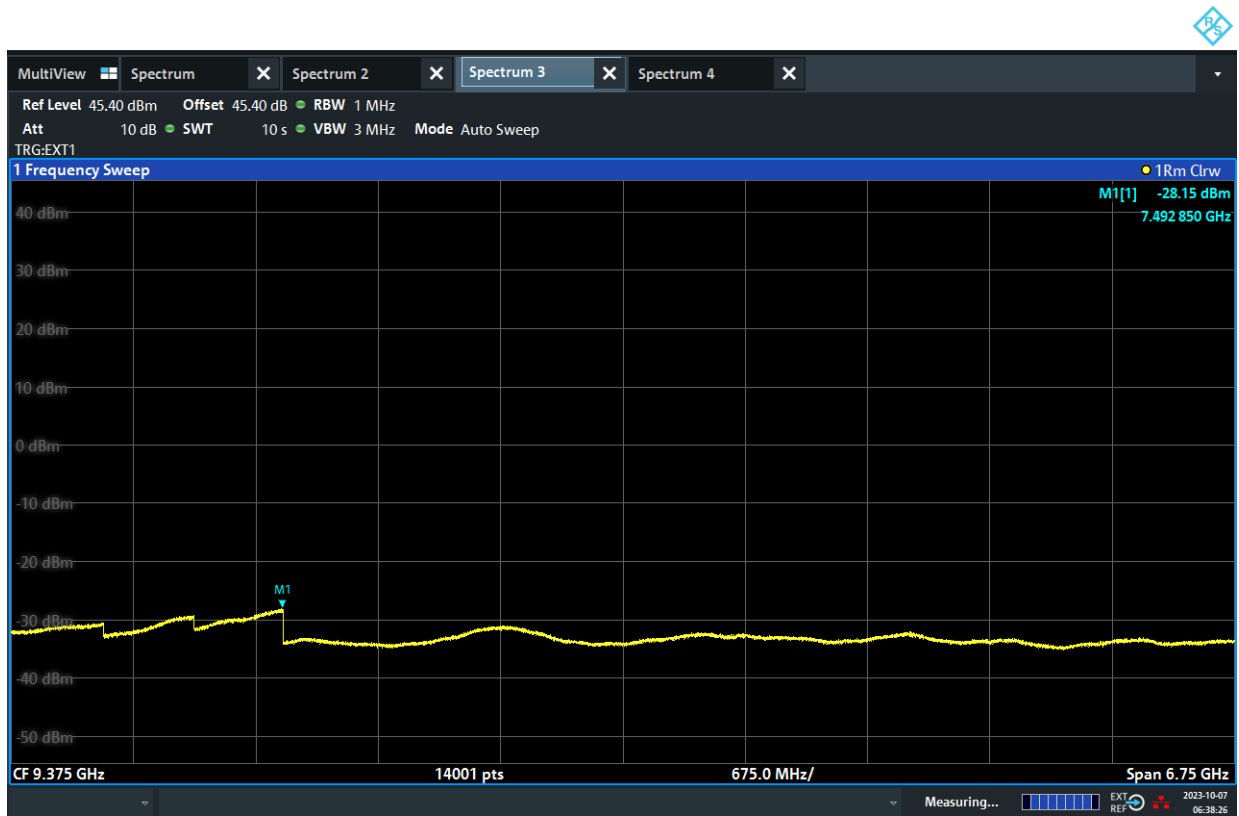
Channel Position B



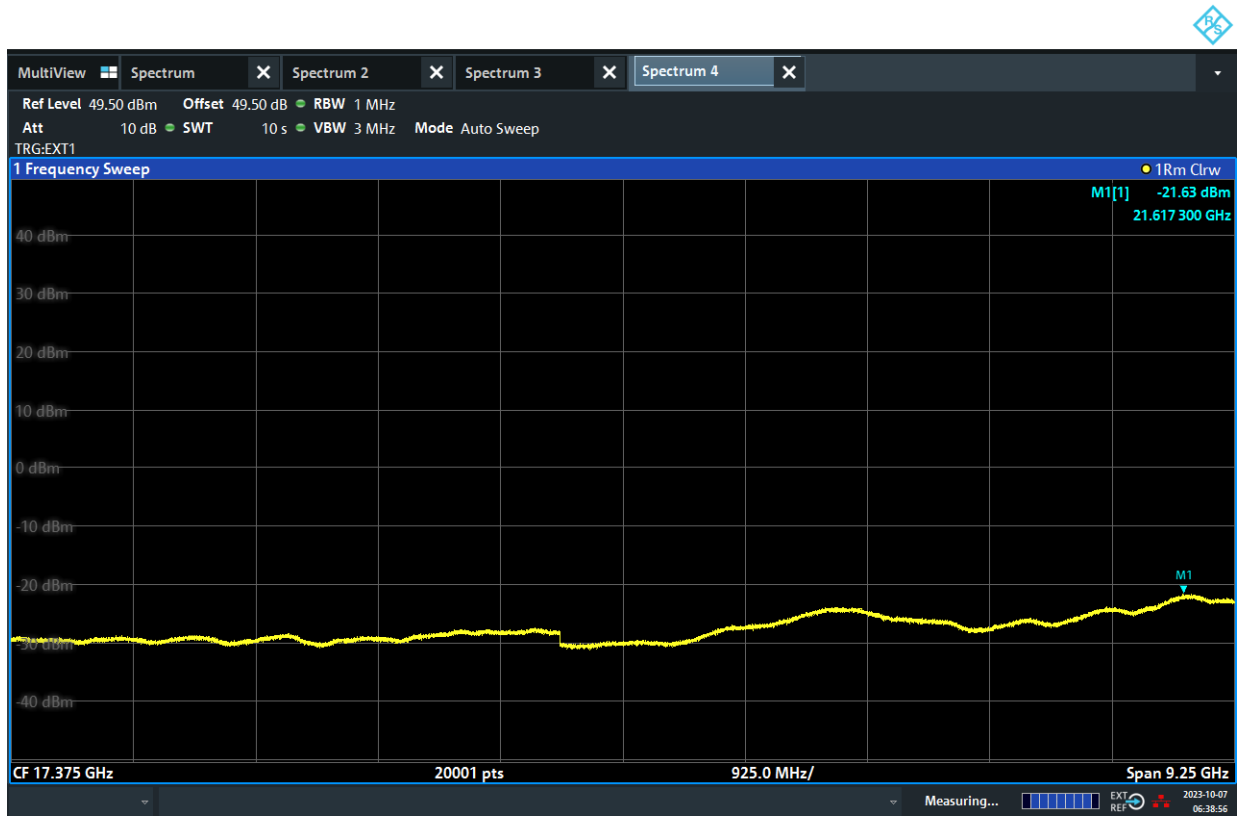
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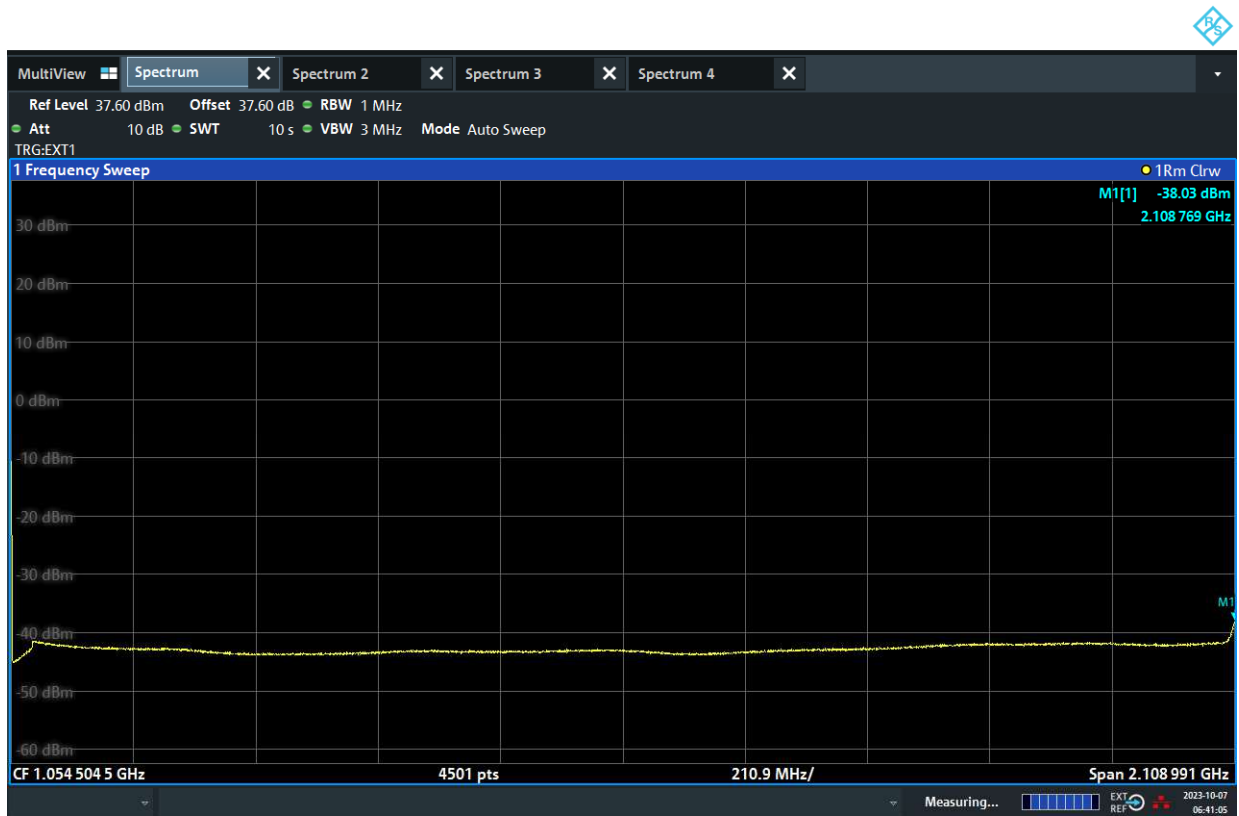


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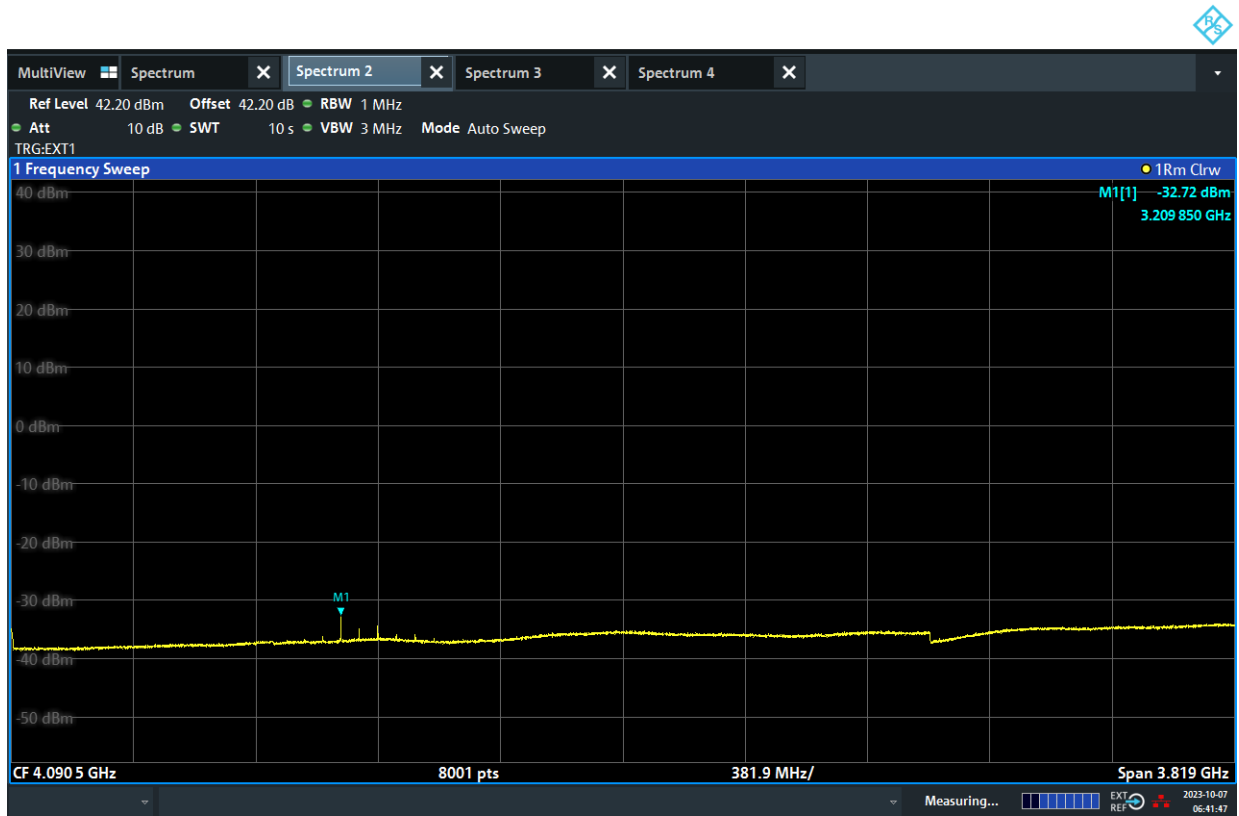


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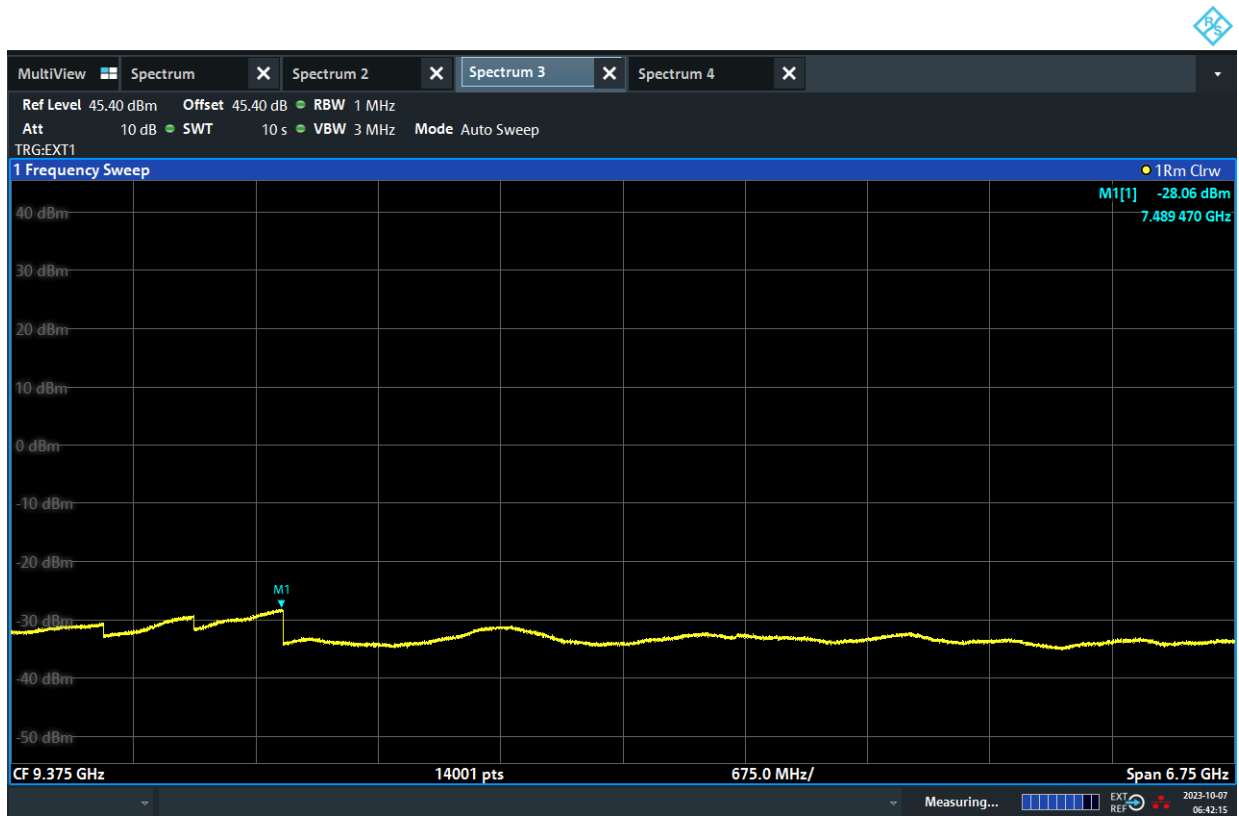
Channel Position M



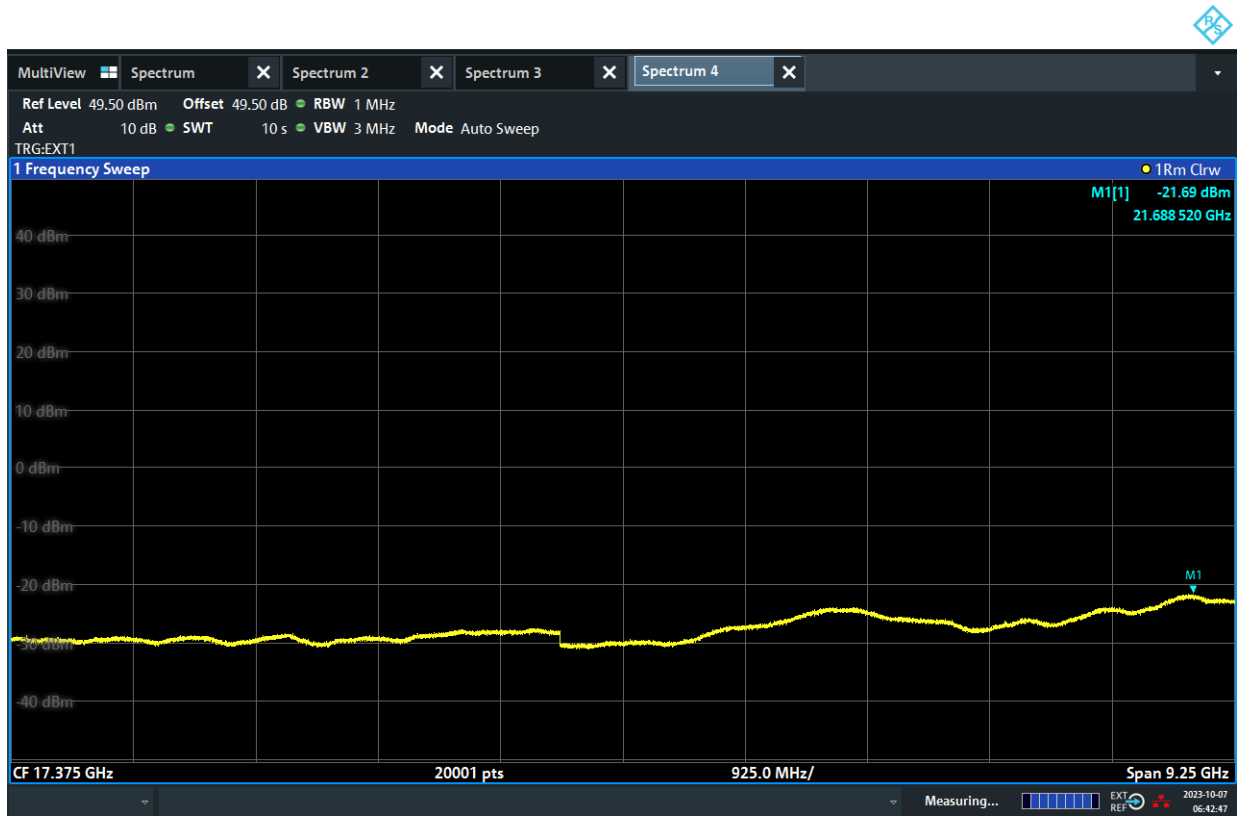
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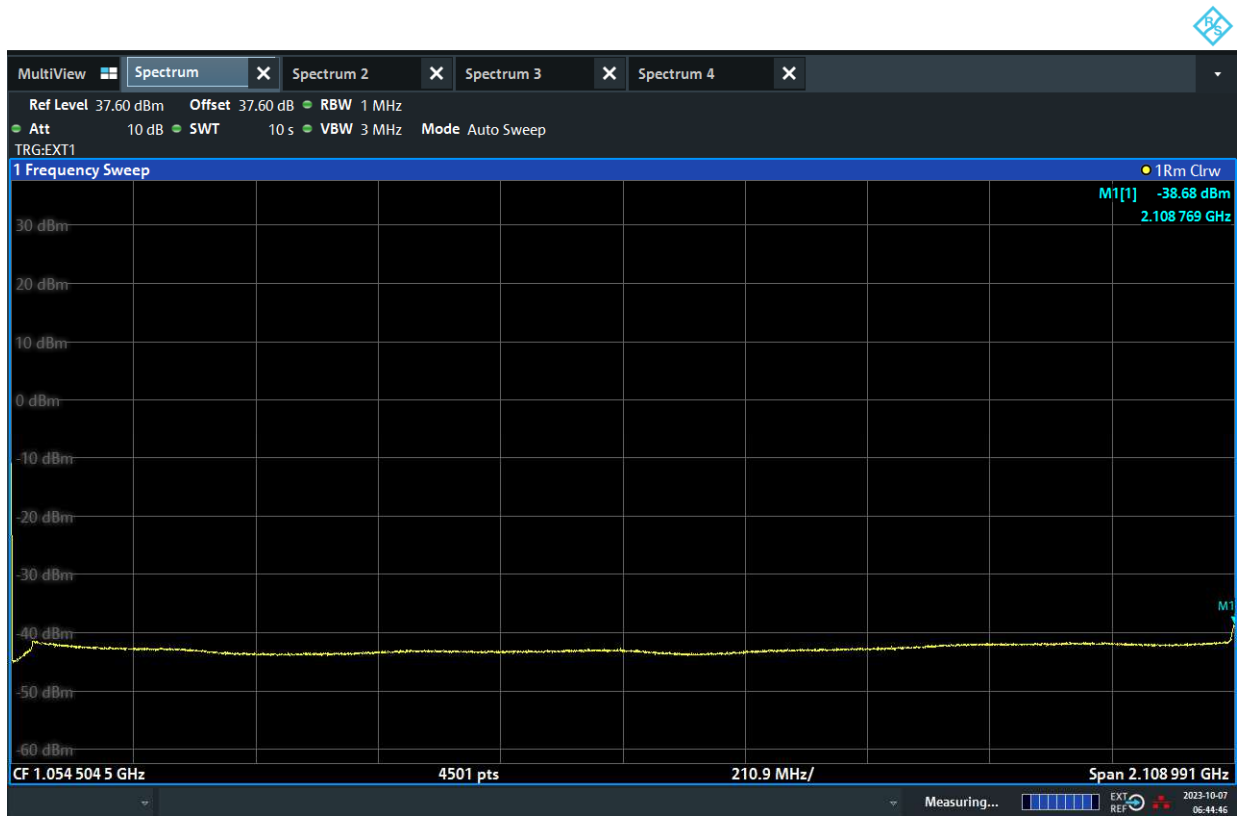


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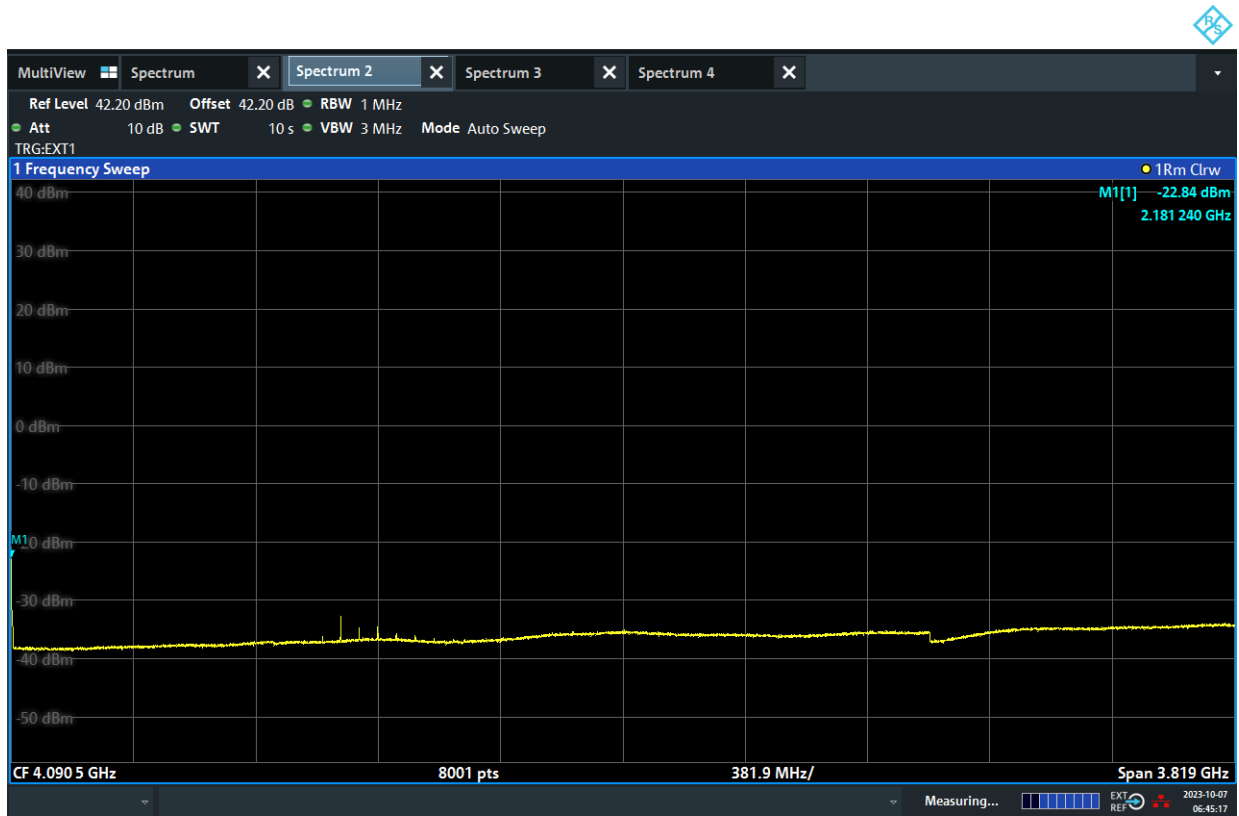


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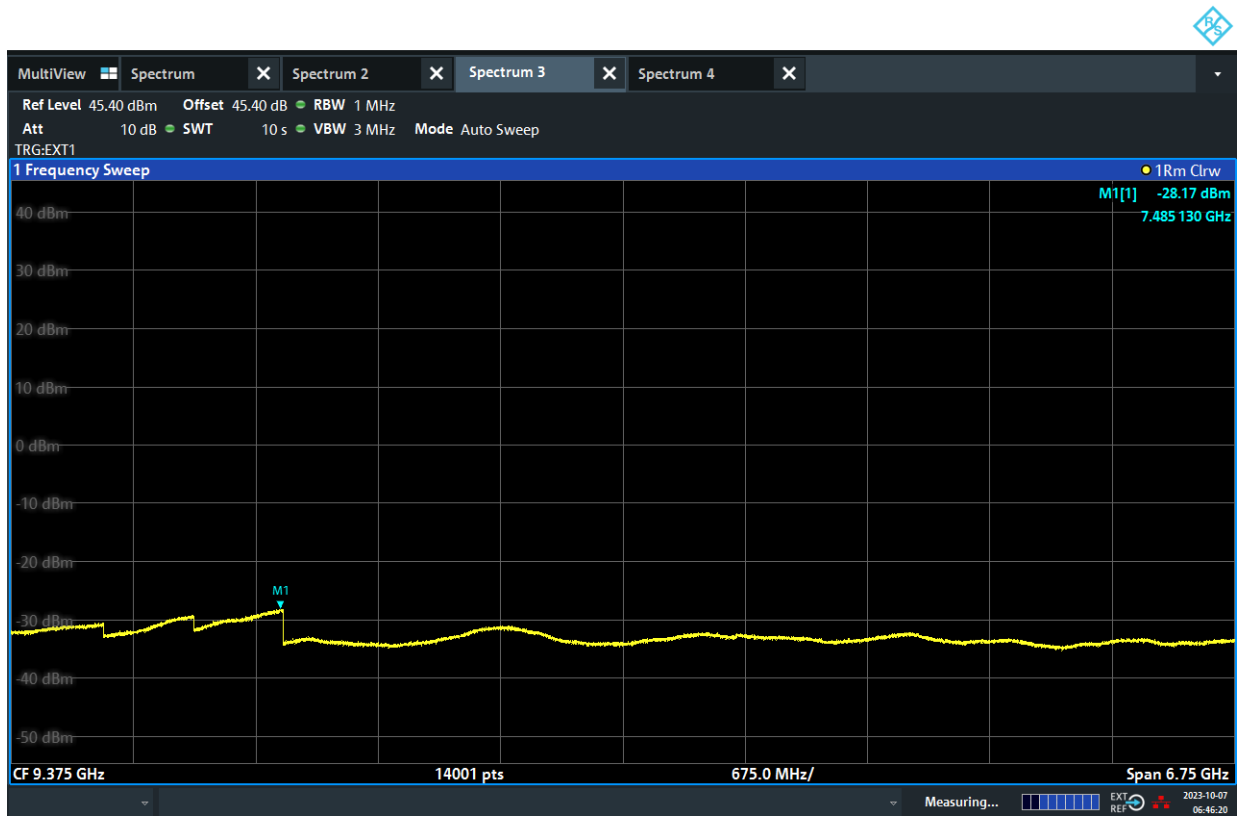
Channel Position T



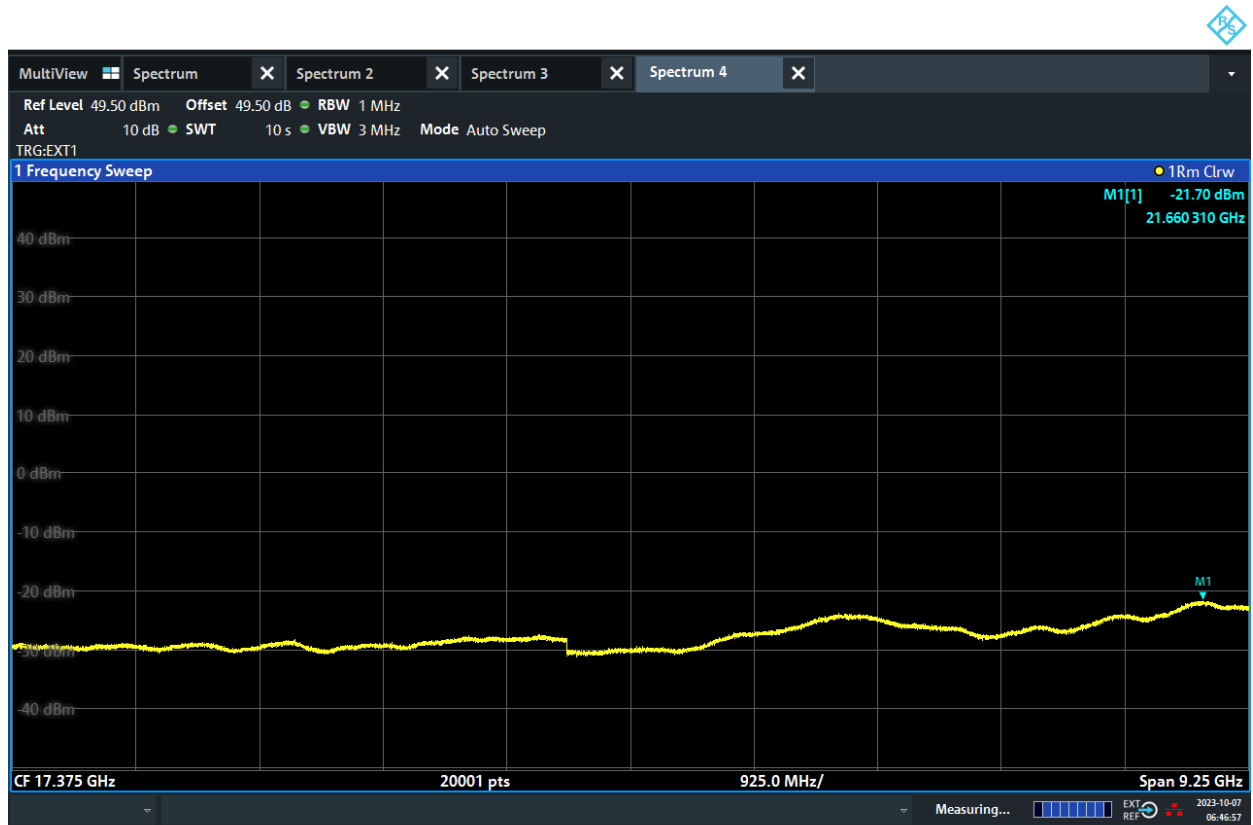
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06:45:18 AM 10/07/2023



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06:46:58 AM 10/07/2023

TEST REPORT**7 Frequency Stability****Test result:** **Tested****7.1 Limit**

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

7.2 Measurement Procedure**Temperature Variation**

The EUT was tested over the temperature range -40°C to +55°C in 10°C steps with -48 VDC Power Supply. At each temperature step, the Base Station was configured to transmit at maximum power on the middle channel of the operating band.

Voltage Variation

The EUT was tested at the supplied voltages varied from 85 to 115 percent of the nominal values of -48 VDC. At +20°C, the Base Station was configured to transmit at maximum power on the middle channel of the frequency block.

TEST REPORT

7.3 Measurement result

Frequency Error – Temperature Variation

Configuration NR-1C, Channel Bandwidth: 40MHz

Antenna Port	Modulation	Temperature (°C)	Frequency Stability (Hz)		
			Channel Position B	Channel Position M	Channel Position T
B	256QAM	-40	-0.34	0.08	0.16
		-30	-0.74	0.23	-0.03
		-20	0	-0.03	0.47
		-10	0.41	0.06	-0.16
		0	0.09	-0.38	0.05
		10	0.39	0.05	0.37
		20	-0.97	0	-0.66
		30	0.36	0.48	-0.71
		40	-0.32	-0.29	-0.58
		50	-0.73	-0.16	0.41
		55	-0.53	-1.07	-0.72

Frequency Error – Voltage Variation

Configuration NR-1C, Channel Bandwidth: 40MHz

Antenna Port	Modulation	Temperature (°C)	Supply Voltage (V)	Frequency Stability (Hz)		
				Channel Position B	Channel Position M	Channel Position T
B	256QAM	20	-40.8	1.18	-0.22	0.04
			-48.0	-0.97	0	-0.66
			-55.2	-0.16	0.47	0.25

***** END *****