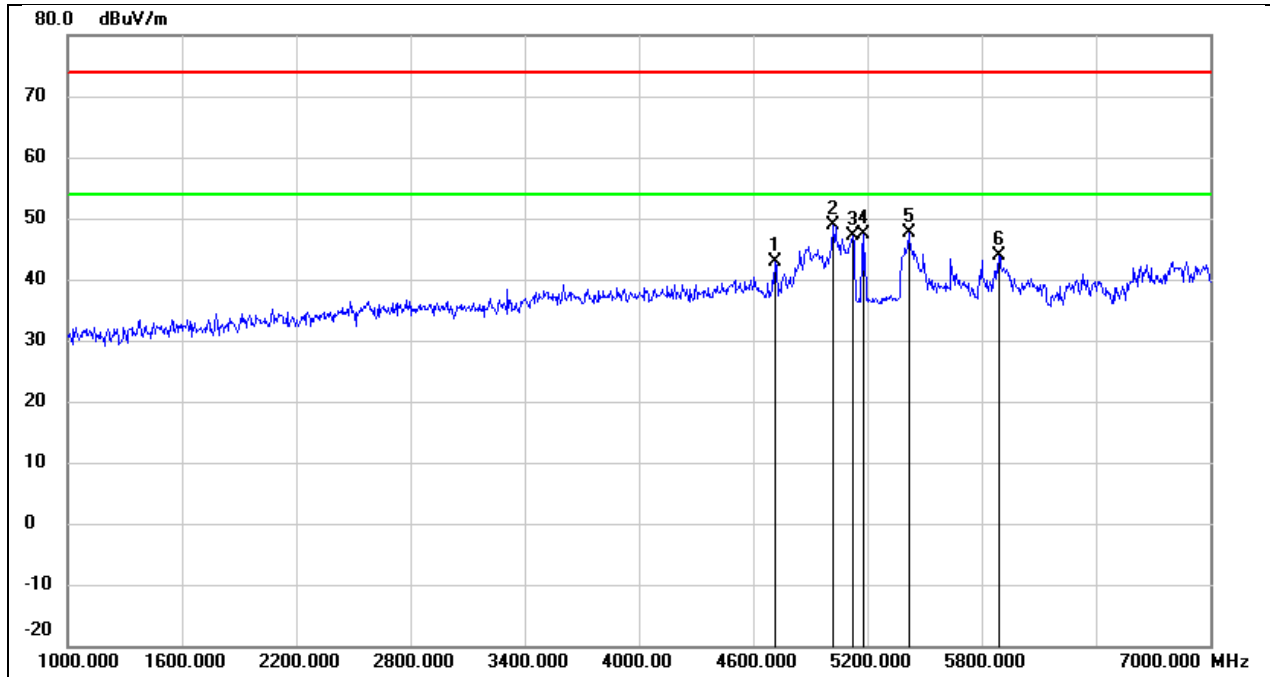




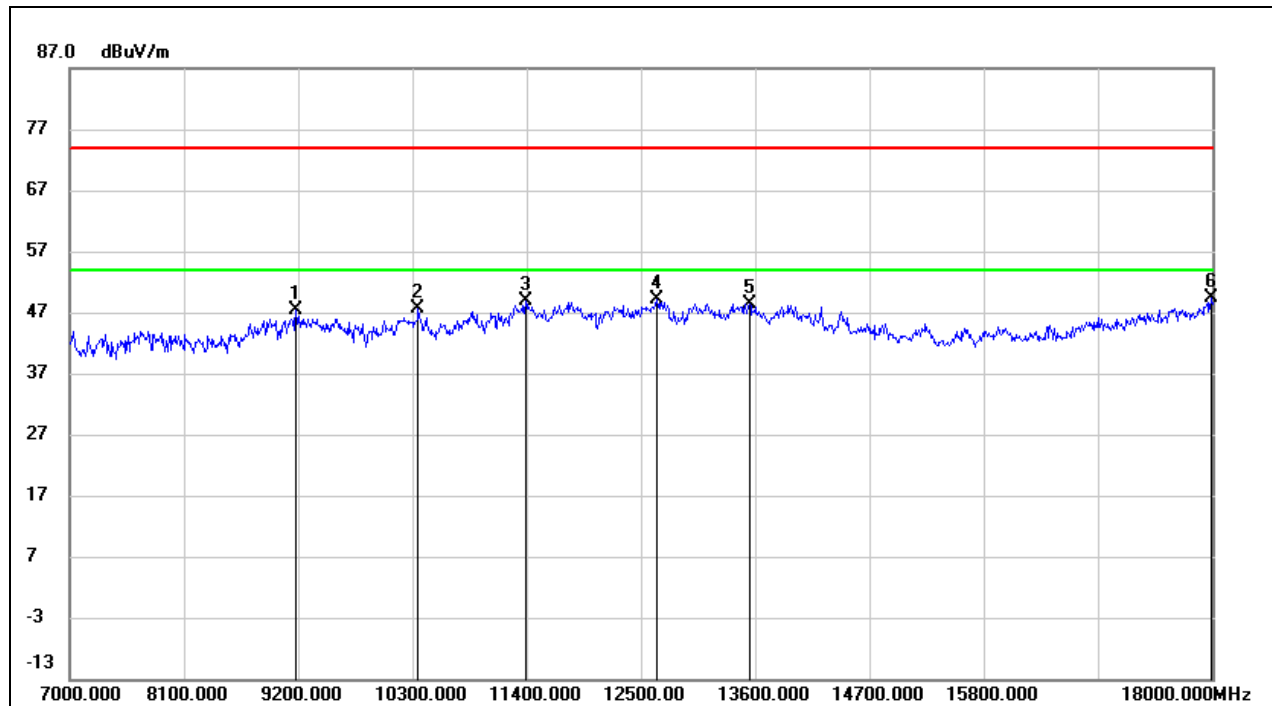
Test Mode:	WIFI 2.4G 802.11b Mode 2437 MHz & WIFI 5G 802.11a Mode 5745 MHz		
Polarity:	Vertical	Test Voltage:	DC 12 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4714.000	44.10	-1.29	42.81	74.00	-31.19	peak
2	5020.000	49.00	-0.13	48.87	74.00	-25.13	peak
3	5122.000	47.06	-0.02	47.04	74.00	-26.96	peak
4	5176.000	47.21	0.05	47.26	74.00	-26.74	peak
5	5416.000	47.23	0.32	47.55	74.00	-26.45	peak
6	5890.000	42.22	1.54	43.76	74.00	-30.24	peak



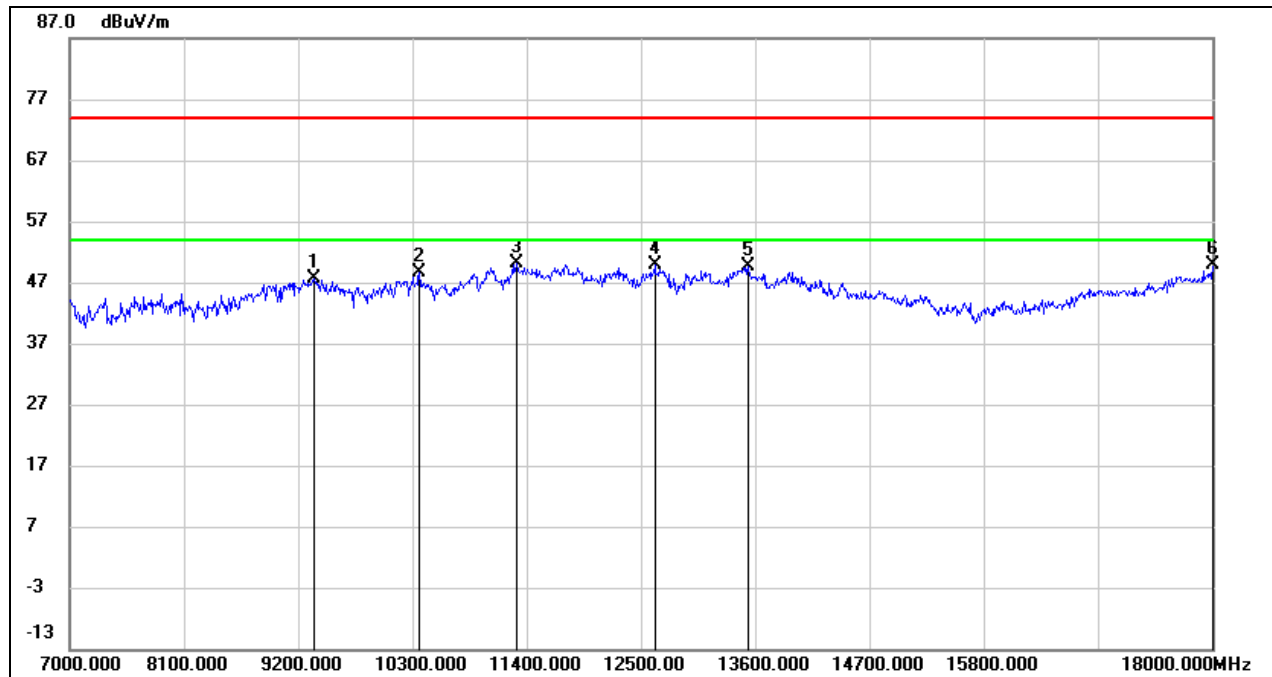
Test Mode:	WIFI 2.4G 802.11b Mode 2437 MHz & WIFI 5G 802.11a Mode 5745 MHz		
Polarity:	Horizontal	Test Voltage:	DC 12 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9178.000	36.83	10.45	47.28	74.00	-26.72	peak
2	10355.000	35.08	12.52	47.60	74.00	-26.40	peak
3	11389.000	32.45	16.31	48.76	74.00	-25.24	peak
4	12654.000	31.21	18.01	49.22	74.00	-24.78	peak
5	13545.000	27.62	20.74	48.36	74.00	-25.64	peak
6	17989.000	23.33	26.04	49.37	74.00	-24.63	peak



Test Mode:	WIFI 2.4G 802.11b Mode 2437 MHz & WIFI 5G 802.11a Mode 5745 MHz		
Polarity:	Vertical	Test Voltage:	DC 12 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9354.000	37.04	10.56	47.60	74.00	-26.40	peak
2	10366.000	35.99	12.54	48.53	74.00	-25.47	peak
3	11301.000	34.24	15.95	50.19	74.00	-23.81	peak
4	12632.000	31.77	17.99	49.76	74.00	-24.24	peak
5	13534.000	28.84	20.73	49.57	74.00	-24.43	peak
6	18000.000	23.75	26.12	49.87	74.00	-24.13	peak

9. AC POWER LINE CONDUCTED EMISSION

LIMITS

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

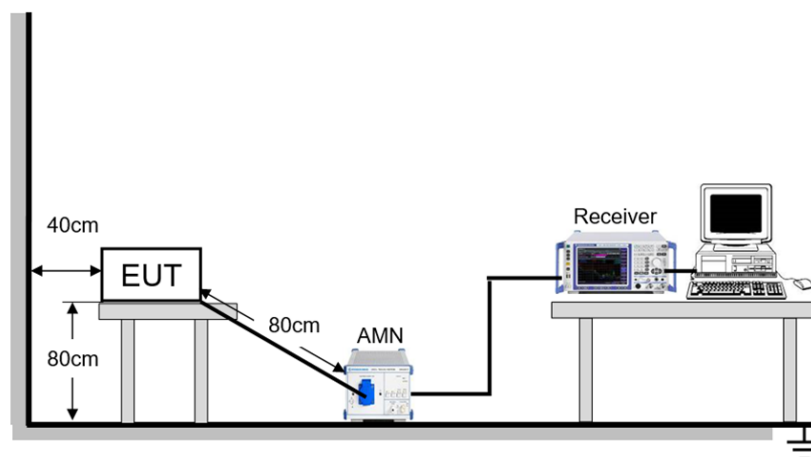
TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 6.2.

The EUT is put on a table of non-conducting material that is 80 cm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST SETUP





TEST ENVIRONMENT

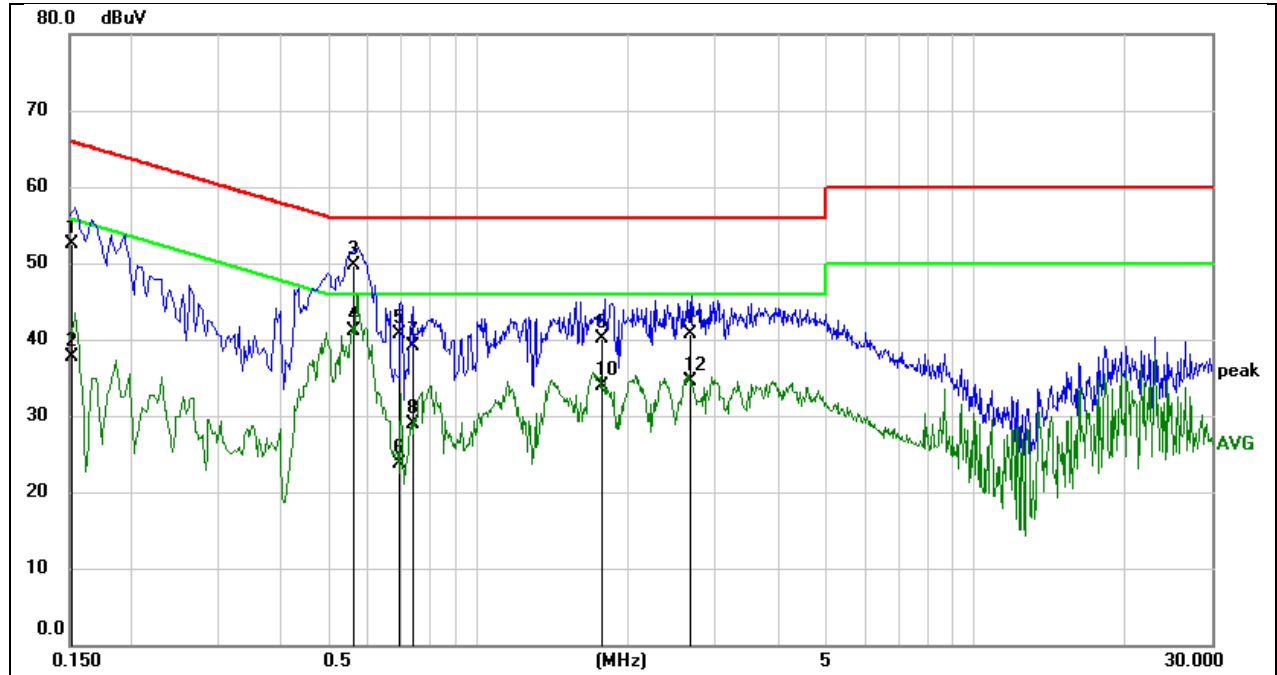
Temperature	22.6°C	Relative Humidity	56.0%
Atmosphere Pressure	101kPa	Test Voltage	AC 120 V, 60 Hz

TEST DATE / ENGINEER

Test Date	March 2, 2023	Test By	Wite Chen
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TEST RESULTS

Test Mode:	802.11a 20	Channel:	5180
Line:	Line	Test Voltage	AC 120 V, 60 Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1516	43.01	9.59	52.60	65.91	-13.31	QP
2	0.1516	28.13	9.59	37.72	55.91	-18.19	AVG
3	0.5601	40.04	9.60	49.64	56.00	-6.36	QP
4	0.5601	31.42	9.60	41.02	46.00	-4.98	AVG
5	0.6933	31.08	9.60	40.68	56.00	-15.32	QP
6	0.6933	14.20	9.60	23.80	46.00	-22.20	AVG
7	0.7415	29.51	9.60	39.11	56.00	-16.89	QP
8	0.7415	19.25	9.60	28.85	46.00	-17.15	AVG
9	1.7704	30.39	9.62	40.01	56.00	-15.99	QP
10	1.7704	24.25	9.62	33.87	46.00	-12.13	AVG
11	2.6572	30.98	9.65	40.63	56.00	-15.37	QP
12	2.6572	24.78	9.65	34.43	46.00	-11.57	AVG

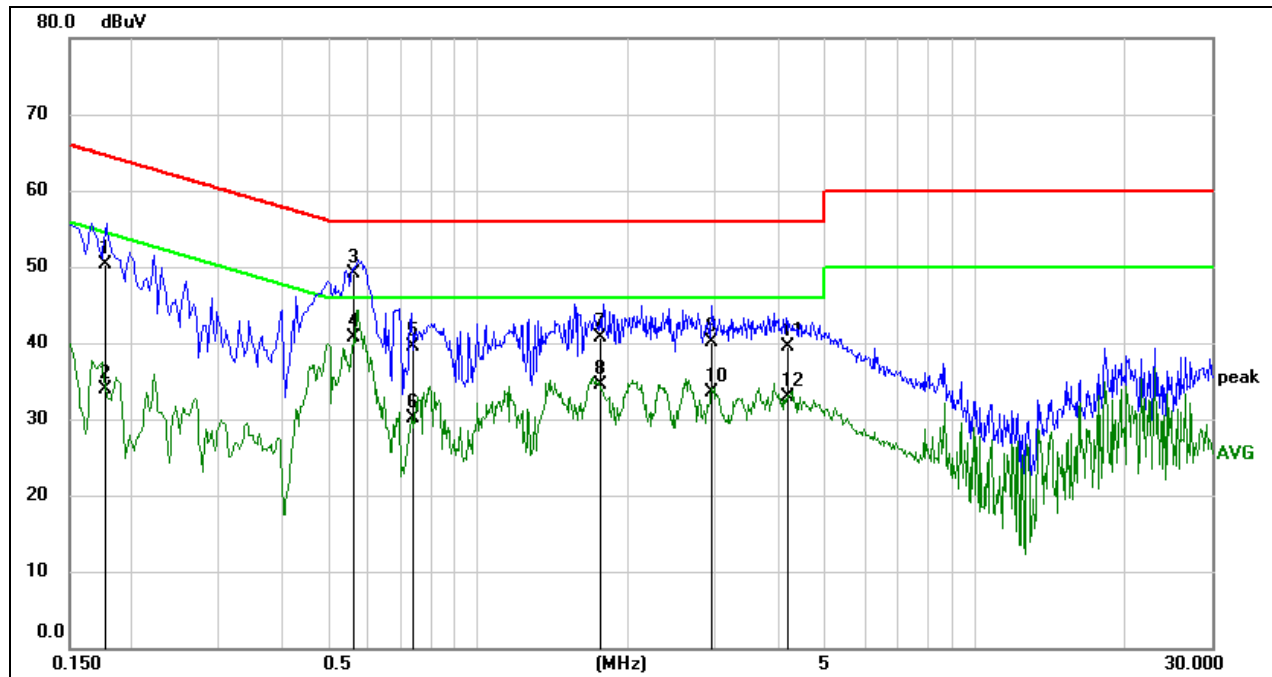
Note:

1. Result = Reading + Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

Note: All the modes have been tested, only the worst data was recorded in the report.



Test Mode:	802.11a 20	Channel:	5180
Line:	Neutral	Test Voltage	AC 120 V, 60 Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1766	40.74	9.59	50.33	64.64	-14.31	QP
2	0.1766	24.27	9.59	33.86	54.64	-20.78	AVG
3	0.5616	39.49	9.60	49.09	56.00	-6.91	QP
4	0.5616	31.12	9.60	40.72	46.00	-5.28	AVG
5	0.7403	30.00	9.60	39.60	56.00	-16.40	QP
6	0.7403	20.42	9.60	30.02	46.00	-15.98	AVG
7	1.7547	30.99	9.62	40.61	56.00	-15.39	QP
8	1.7547	24.98	9.62	34.60	46.00	-11.40	AVG
9	2.9676	30.34	9.67	40.01	56.00	-15.99	QP
10	2.9676	23.88	9.67	33.55	46.00	-12.45	AVG
11	4.2070	29.79	9.70	39.49	56.00	-16.51	QP
12	4.2070	23.19	9.70	32.89	46.00	-13.11	AVG

Note:

1. Result = Reading + Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

Note: All the modes have been tested, only the worst data was recorded in the report.



10. ANTENNA REQUIREMENT

REQUIREMENT

Please refer to FCC part 15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC part 15.407(a)

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DESCRIPTION

Pass



11. TEST DATA

11.1. APPENDIX A: EMISSION BANDWIDTH

11.1.1. Test Result

Test Mode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Verdict
11A-CDD	Ant1	5180	22.40	5168.88	5191.28	PASS
	Ant2	5180	22.20	5168.80	5191.00	PASS
	Ant3	5180	22.20	5169.04	5191.24	PASS
	Ant4	5180	22.40	5168.84	5191.24	PASS
	Ant1	5200	22.44	5188.88	5211.32	PASS
	Ant2	5200	22.44	5189.12	5211.56	PASS
	Ant3	5200	22.44	5188.88	5211.32	PASS
	Ant4	5200	22.60	5188.56	5211.16	PASS
	Ant1	5240	22.36	5229.00	5251.36	PASS
	Ant2	5240	22.68	5228.96	5251.64	PASS
	Ant3	5240	22.44	5228.96	5251.40	PASS
	Ant4	5240	22.56	5228.76	5251.32	PASS
	Ant1	5745	23.04	5733.24	5756.28	PASS
	Ant2	5745	24.16	5732.64	5756.80	PASS
	Ant3	5745	23.84	5733.08	5756.92	PASS
	Ant4	5745	22.88	5733.92	5756.80	PASS
	Ant1	5785	22.40	5773.92	5796.32	PASS
	Ant2	5785	22.52	5773.72	5796.24	PASS
	Ant3	5785	22.48	5773.72	5796.20	PASS
	Ant4	5785	22.48	5773.84	5796.32	PASS
	Ant1	5825	22.40	5813.88	5836.28	PASS
	Ant2	5825	22.64	5814.04	5836.68	PASS
	Ant3	5825	22.36	5813.88	5836.24	PASS
	Ant4	5825	22.56	5813.76	5836.32	PASS
11AX20MIMO	Ant1	5180	22.76	5168.48	5191.24	PASS
	Ant2	5180	22.88	5168.48	5191.36	PASS
	Ant3	5180	22.72	5168.68	5191.40	PASS
	Ant4	5180	22.96	5168.68	5191.64	PASS
	Ant1	5200	22.56	5188.72	5211.28	PASS
	Ant2	5200	22.76	5188.76	5211.52	PASS
	Ant3	5200	22.88	5188.64	5211.52	PASS
	Ant4	5200	23.00	5188.32	5211.32	PASS
	Ant1	5240	22.72	5228.76	5251.48	PASS
	Ant2	5240	22.80	5228.72	5251.52	PASS
	Ant3	5240	23.08	5228.64	5251.72	PASS
	Ant4	5240	23.04	5228.72	5251.76	PASS
	Ant1	5745	22.92	5733.60	5756.52	PASS
	Ant2	5745	22.88	5733.68	5756.56	PASS
	Ant3	5745	22.92	5733.48	5756.40	PASS
	Ant4	5745	23.16	5733.72	5756.88	PASS
	Ant1	5785	22.76	5773.64	5796.40	PASS
	Ant2	5785	22.96	5773.64	5796.60	PASS
	Ant3	5785	22.68	5773.76	5796.44	PASS
	Ant4	5785	22.60	5773.84	5796.44	PASS
	Ant1	5825	22.92	5813.80	5836.72	PASS
	Ant2	5825	23.00	5813.56	5836.56	PASS
	Ant3	5825	23.04	5813.40	5836.44	PASS
	Ant4	5825	23.28	5813.60	5836.88	PASS
11AX40MIMO	Ant1	5190	43.60	5168.32	5211.92	PASS
	Ant2	5190	44.72	5167.68	5212.40	PASS
	Ant3	5190	44.32	5167.60	5211.92	PASS
	Ant4	5190	44.40	5167.92	5212.32	PASS
	Ant1	5230	44.16	5208.08	5252.24	PASS
	Ant2	5230	44.56	5207.68	5252.24	PASS
	Ant3	5230	44.72	5208.24	5252.96	PASS



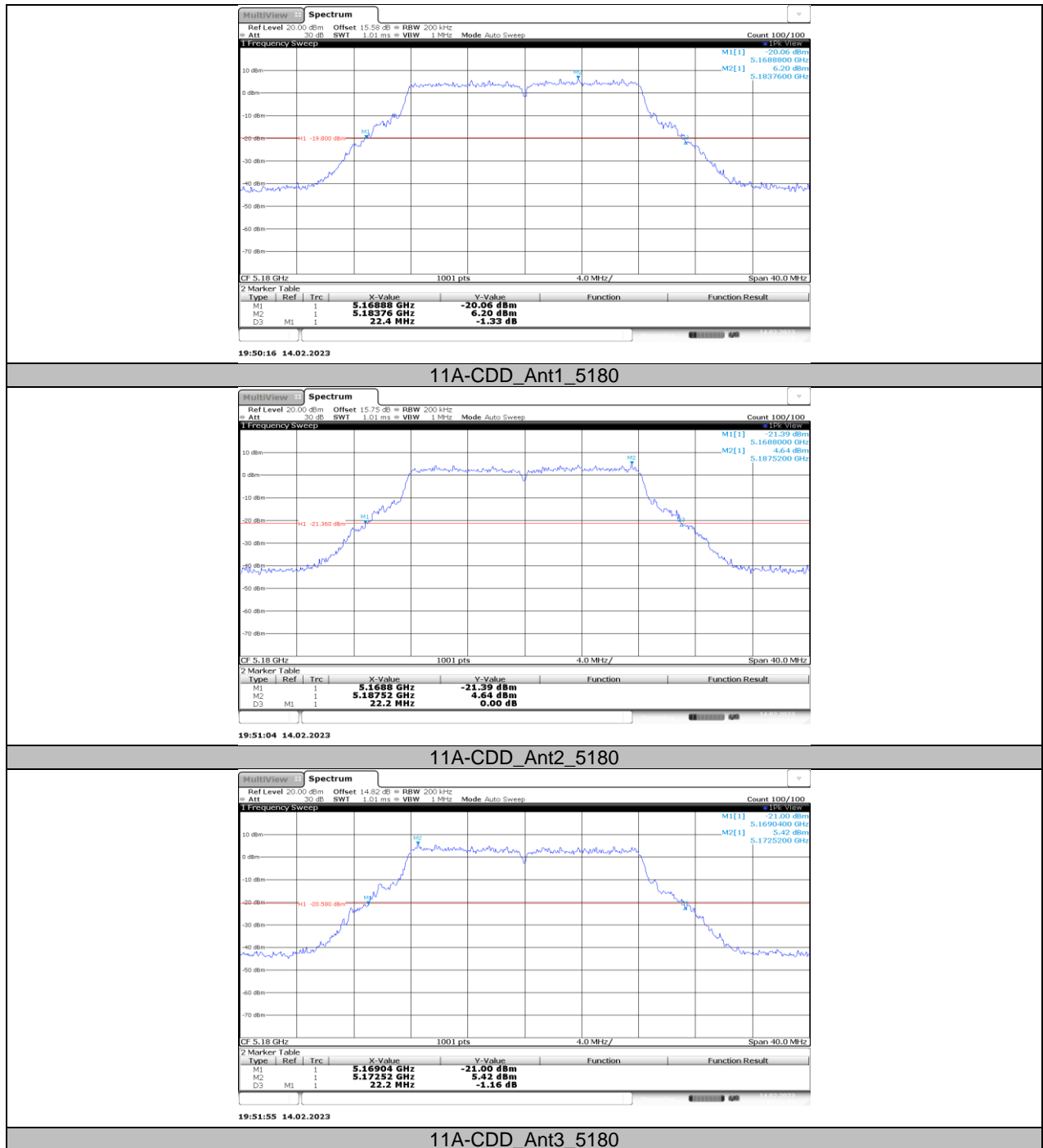
	Ant4	5230	44.00	5208.16	5252.16	PASS
	Ant1	5755	44.48	5732.44	5776.92	PASS
	Ant2	5755	44.08	5733.32	5777.40	PASS
	Ant3	5755	44.56	5732.60	5777.16	PASS
	Ant4	5755	44.16	5733.00	5777.16	PASS
	Ant1	5795	44.64	5772.44	5817.08	PASS
	Ant2	5795	43.68	5773.16	5816.84	PASS
	Ant3	5795	44.48	5772.60	5817.08	PASS
11AX80MIMO	Ant4	5795	43.84	5773.24	5817.08	PASS
	Ant1	5210	89.60	5165.68	5255.28	PASS
	Ant2	5210	88.64	5166.16	5254.80	PASS
	Ant3	5210	88.00	5166.64	5254.64	PASS
	Ant4	5210	88.80	5166.00	5254.80	PASS
	Ant1	5775	90.08	5729.88	5819.96	PASS
	Ant2	5775	87.84	5730.20	5818.04	PASS
	Ant3	5775	88.32	5730.04	5818.36	PASS
11BE20MIMO	Ant4	5775	89.60	5731.32	5820.92	PASS
	Ant1	5180	22.92	5168.76	5191.68	PASS
	Ant2	5180	23.48	5168.24	5191.72	PASS
	Ant3	5180	22.64	5168.64	5191.28	PASS
	Ant4	5180	23.68	5168.40	5192.08	PASS
	Ant1	5200	22.88	5188.64	5211.52	PASS
	Ant2	5200	23.68	5188.28	5211.96	PASS
	Ant3	5200	24.68	5187.64	5212.32	PASS
	Ant4	5200	22.72	5188.92	5211.64	PASS
	Ant1	5240	22.76	5228.64	5251.40	PASS
	Ant2	5240	24.52	5227.48	5252.00	PASS
	Ant3	5240	22.76	5228.60	5251.36	PASS
	Ant4	5240	23.44	5228.64	5252.08	PASS
	Ant1	5745	23.04	5733.08	5756.12	PASS
	Ant2	5745	22.96	5733.84	5756.80	PASS
	Ant3	5745	23.36	5733.64	5757.00	PASS
	Ant4	5745	24.00	5733.08	5757.08	PASS
	Ant1	5785	22.92	5773.56	5796.48	PASS
	Ant2	5785	22.68	5773.60	5796.28	PASS
	Ant3	5785	23.36	5773.60	5796.96	PASS
	Ant4	5785	23.84	5773.24	5797.08	PASS
	Ant1	5825	22.88	5813.48	5836.36	PASS
	Ant2	5825	22.96	5813.84	5836.80	PASS
	Ant3	5825	23.72	5813.24	5836.96	PASS
	Ant4	5825	23.16	5813.72	5836.88	PASS
11BE40MIMO	Ant1	5190	45.52	5167.52	5213.04	PASS
	Ant2	5190	44.32	5168.16	5212.48	PASS
	Ant3	5190	44.48	5167.36	5211.84	PASS
	Ant4	5190	44.32	5167.76	5212.08	PASS
	Ant1	5230	44.48	5207.76	5252.24	PASS
	Ant2	5230	44.00	5208.00	5252.00	PASS
	Ant3	5230	43.52	5208.64	5252.16	PASS
	Ant4	5230	44.32	5207.92	5252.24	PASS
	Ant1	5755	44.96	5732.28	5777.24	PASS
	Ant2	5755	43.92	5733.08	5777.00	PASS
	Ant3	5755	43.84	5732.92	5776.76	PASS
	Ant4	5755	44.08	5732.84	5776.92	PASS
	Ant1	5795	46.88	5771.64	5818.52	PASS
	Ant2	5795	44.32	5772.44	5816.76	PASS
	Ant3	5795	44.00	5772.76	5816.76	PASS
	Ant4	5795	43.44	5773.24	5816.68	PASS
11BE80MIMO	Ant1	5210	90.24	5164.40	5254.64	PASS
	Ant2	5210	90.40	5165.36	5255.76	PASS
	Ant3	5210	91.04	5164.08	5255.12	PASS
	Ant4	5210	89.76	5164.40	5254.16	PASS
	Ant1	5775	89.44	5729.88	5819.32	PASS
	Ant2	5775	99.20	5724.12	5823.32	PASS

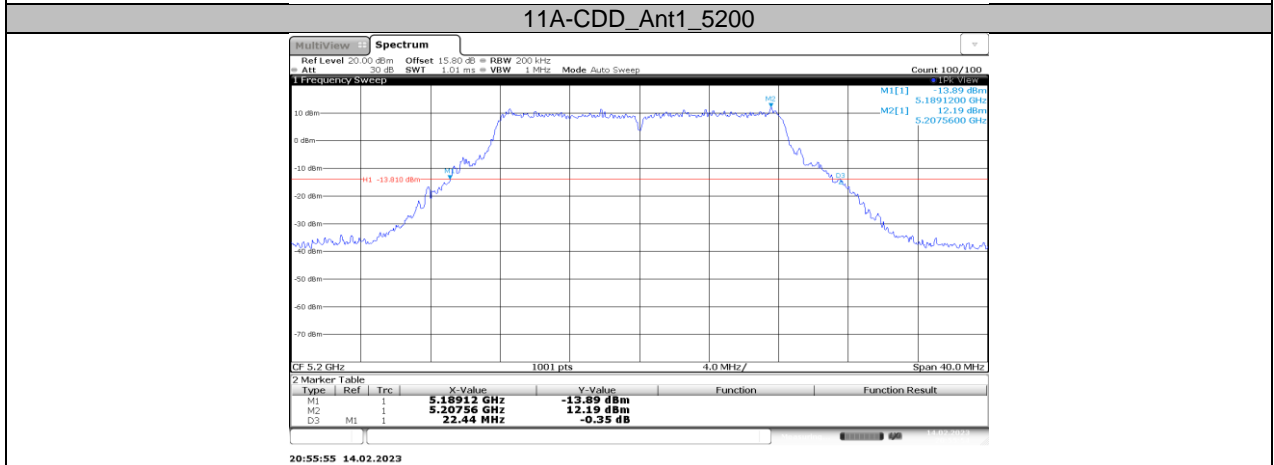
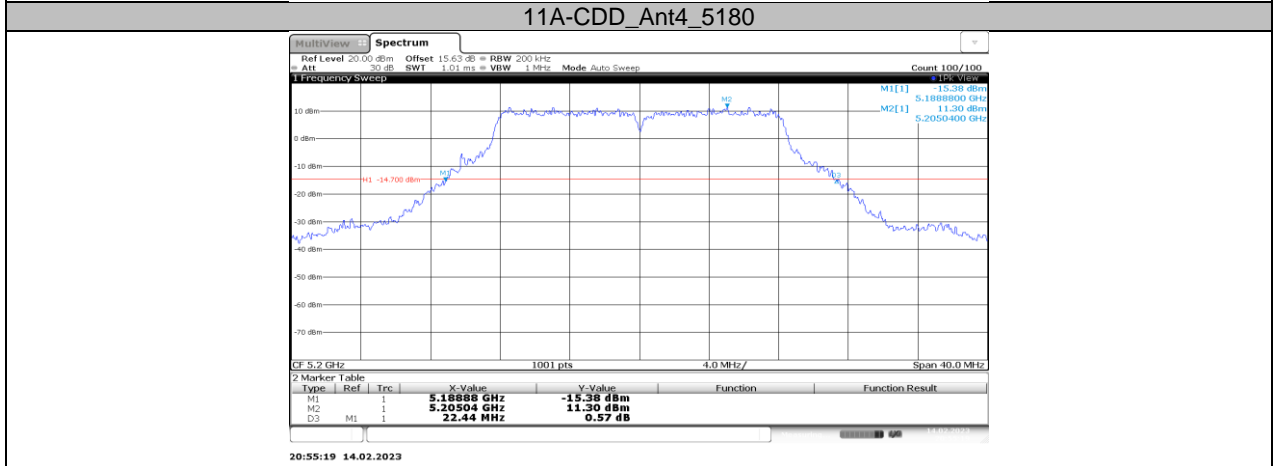
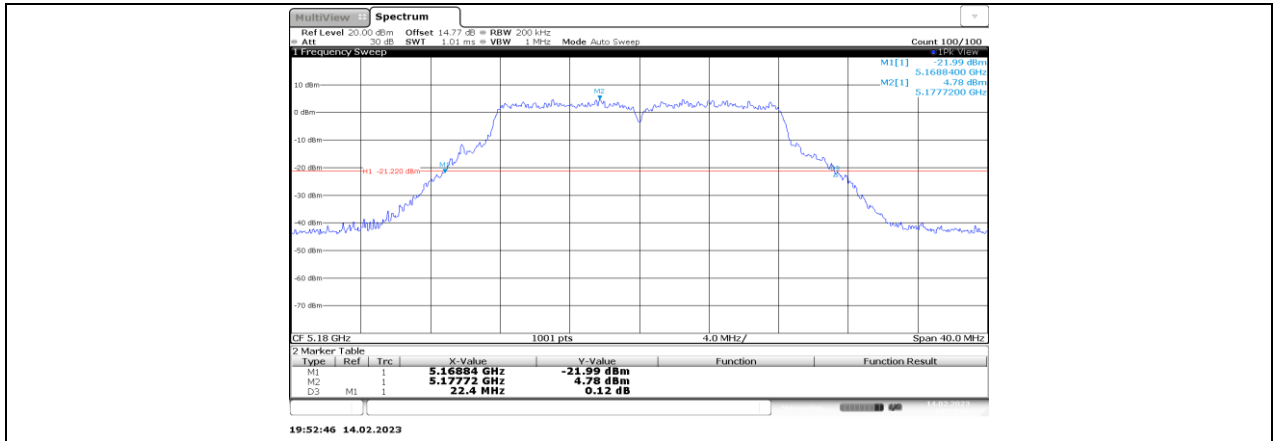


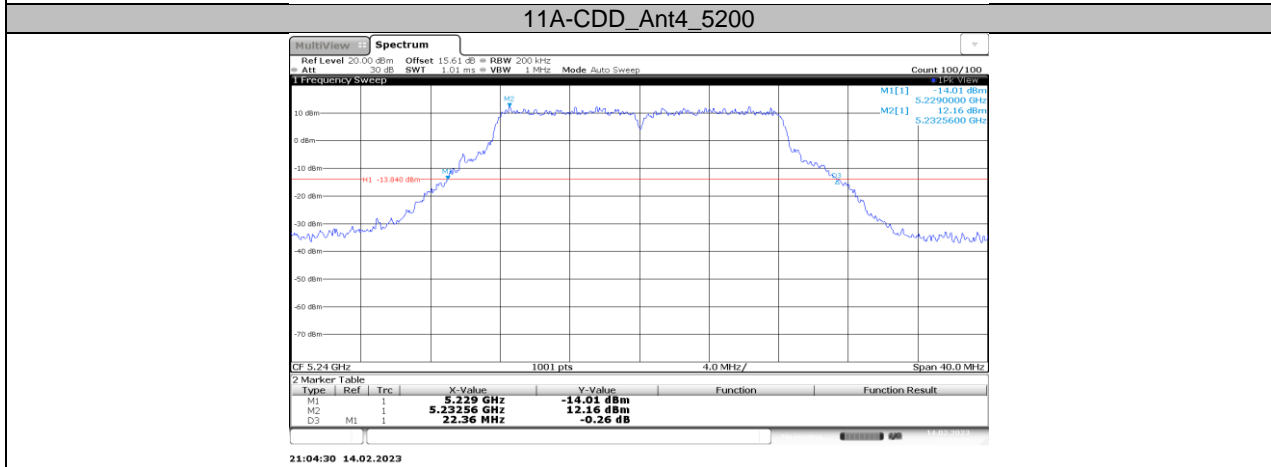
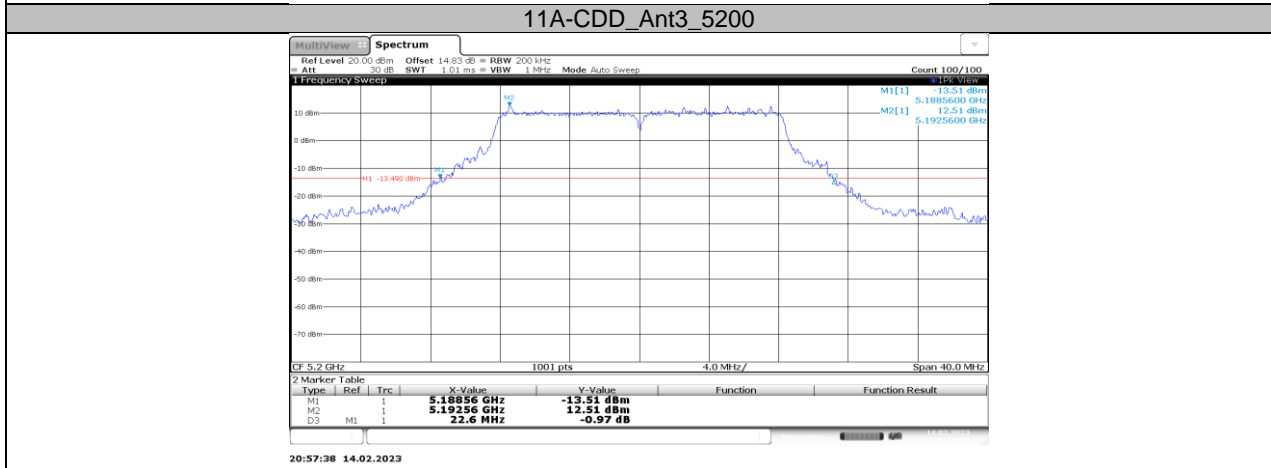
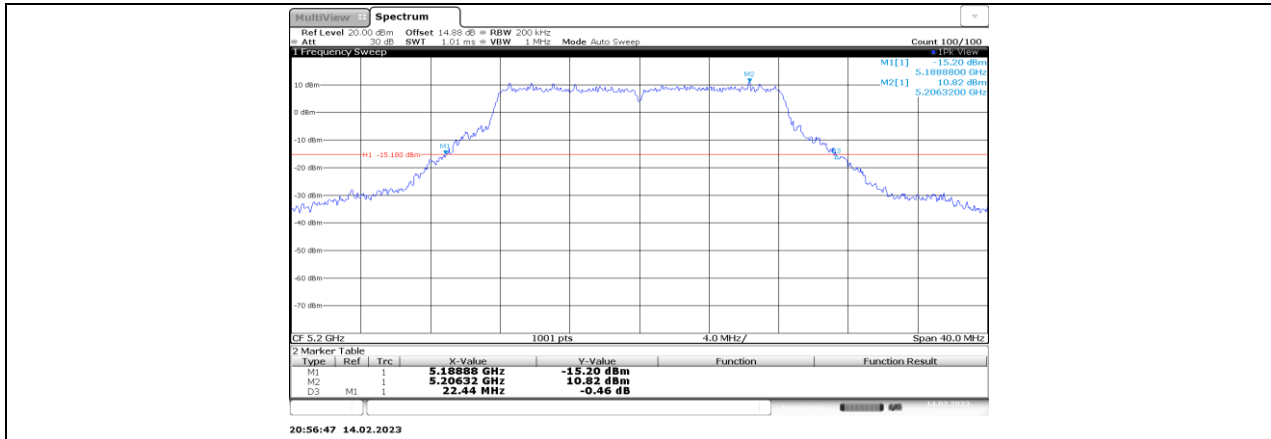
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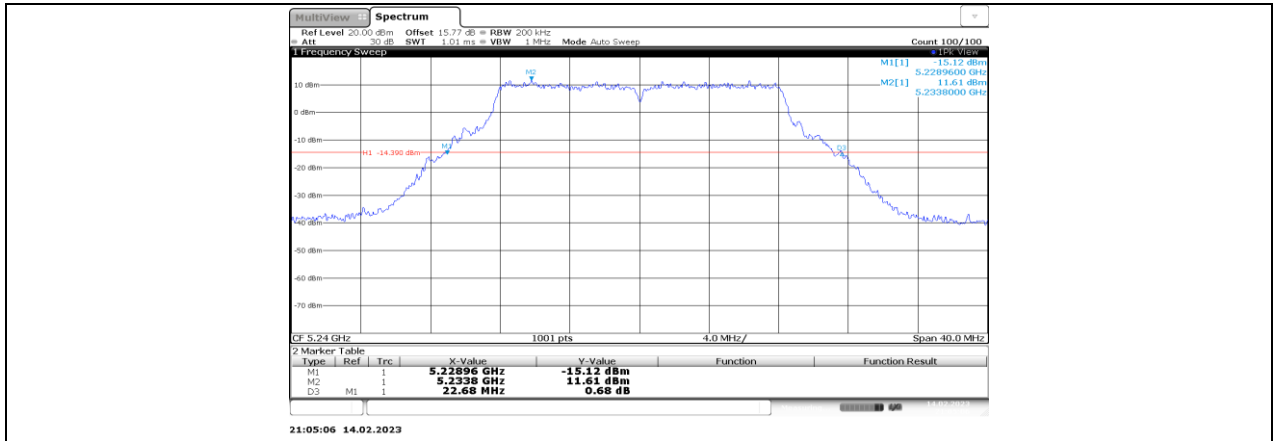


11.1.2. Test Graphs

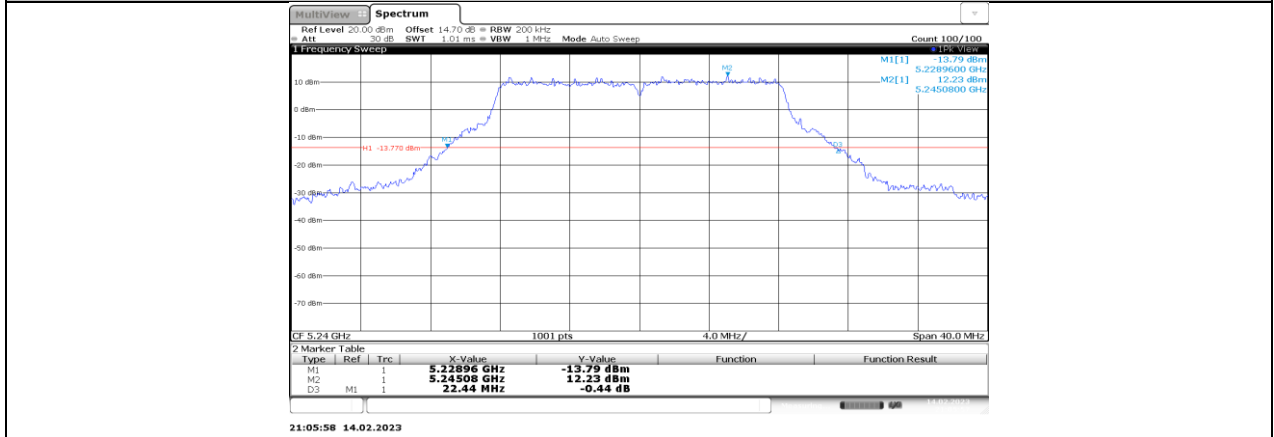




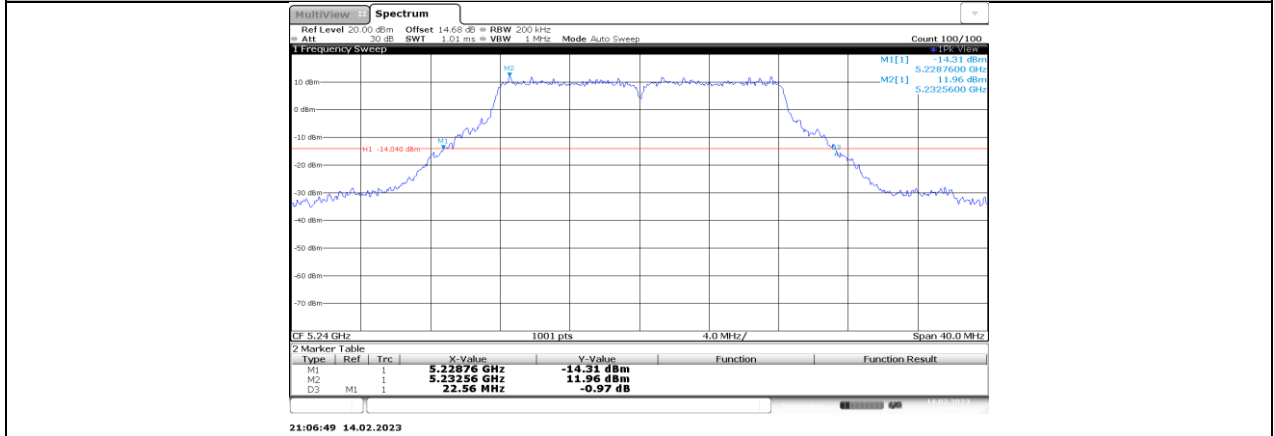




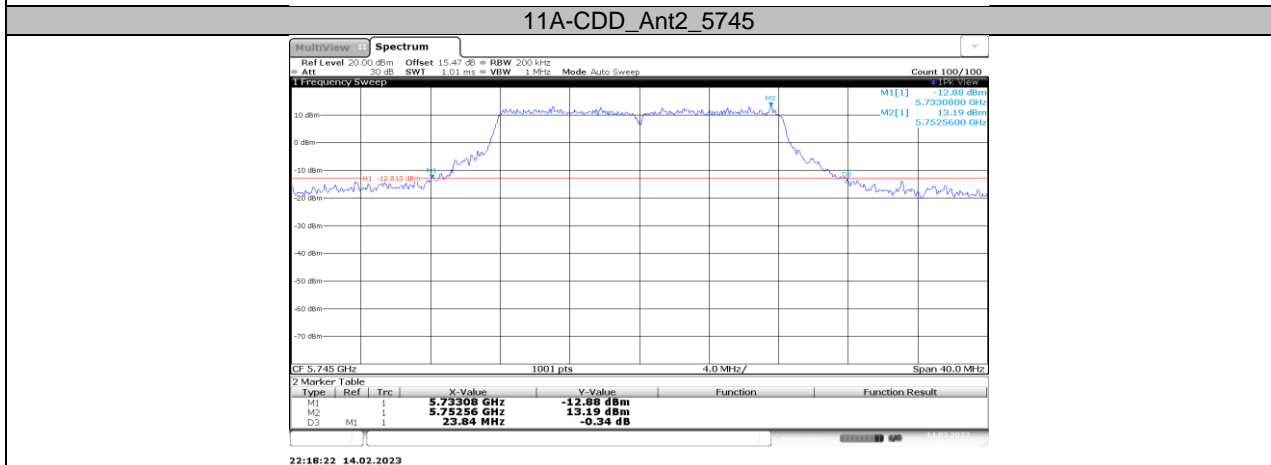
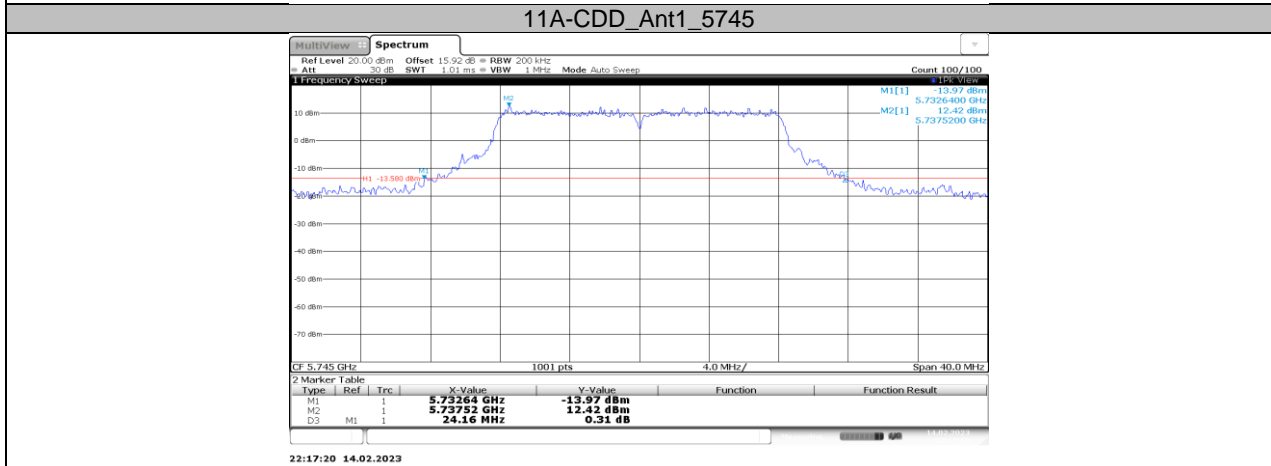
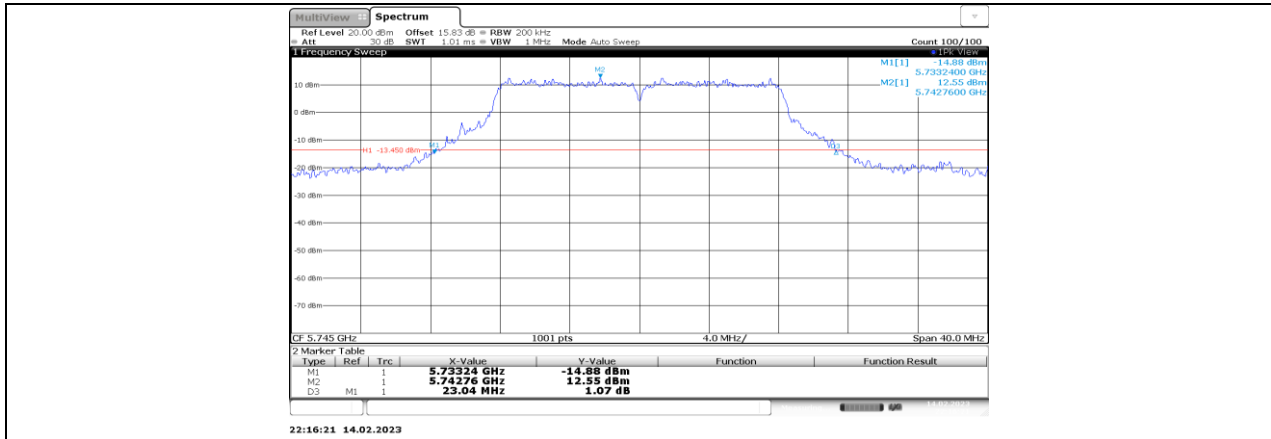
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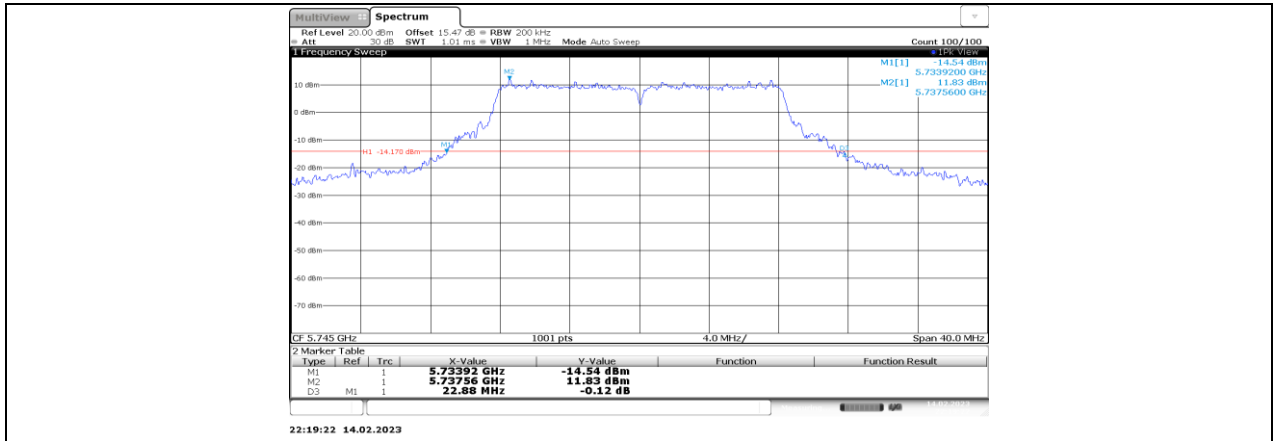


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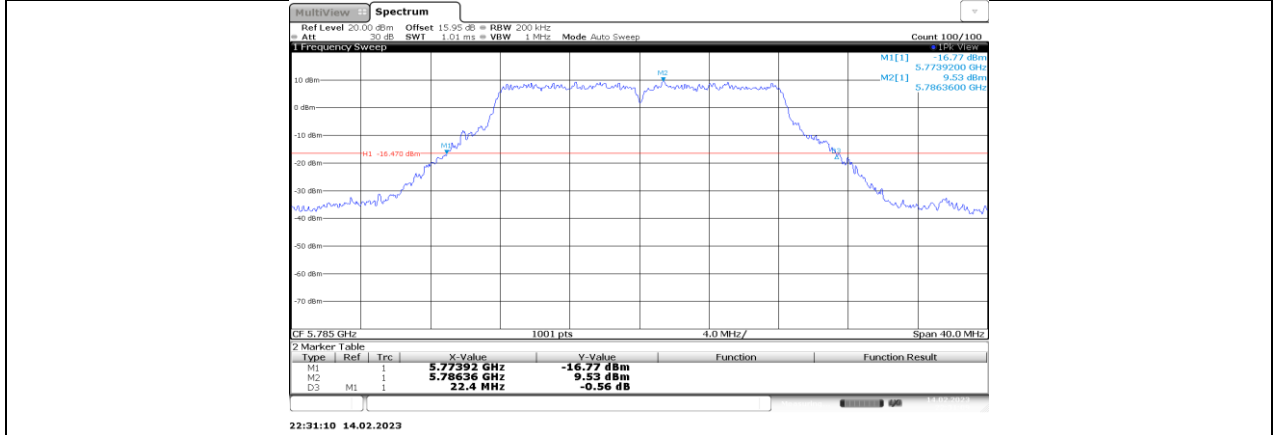


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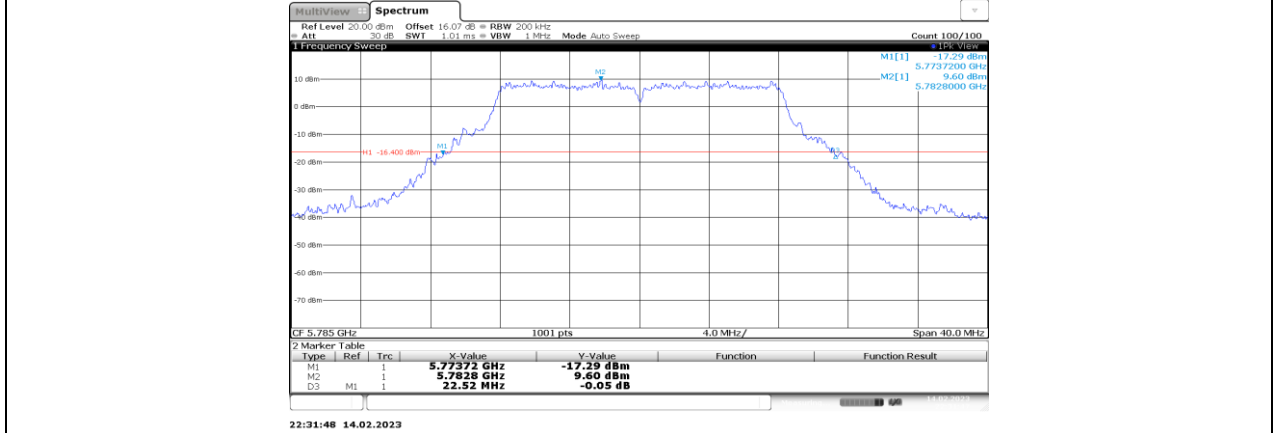




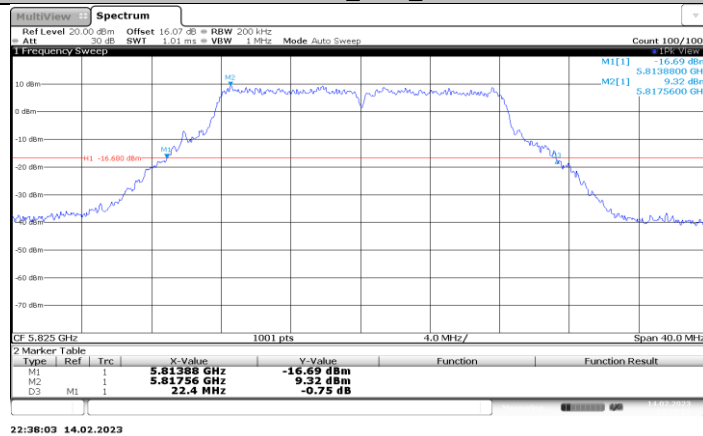
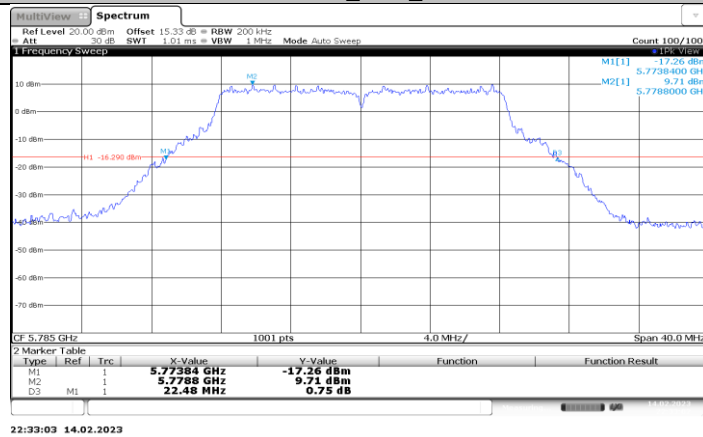
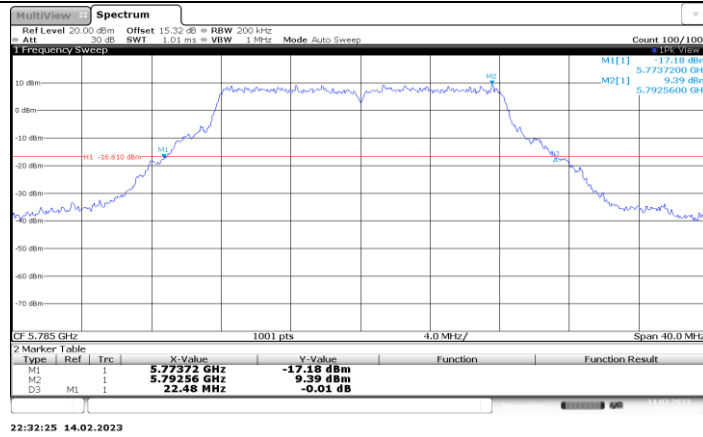
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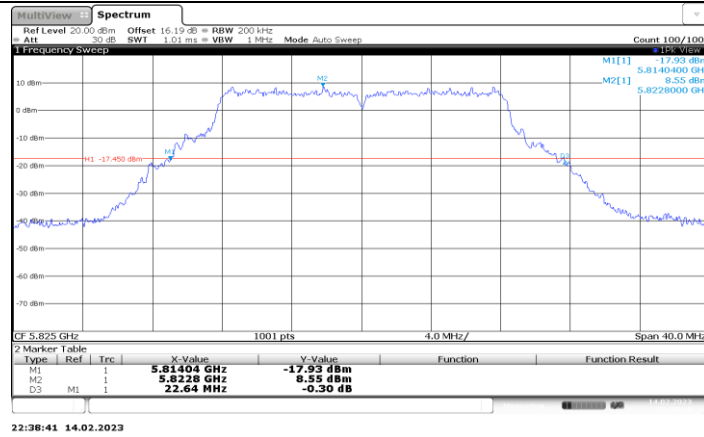


11A-CDD_Ant1_5785

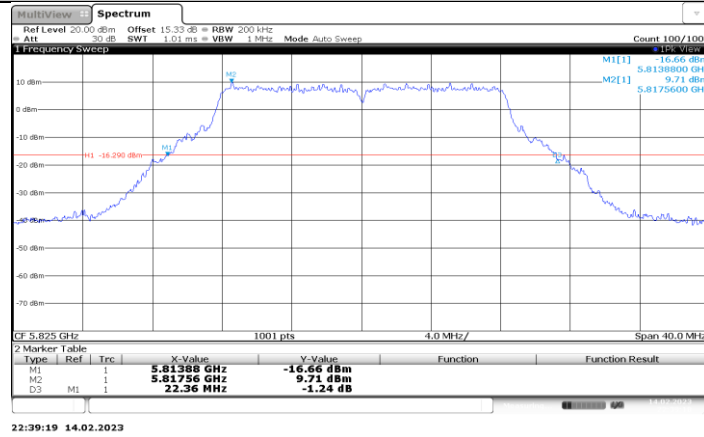


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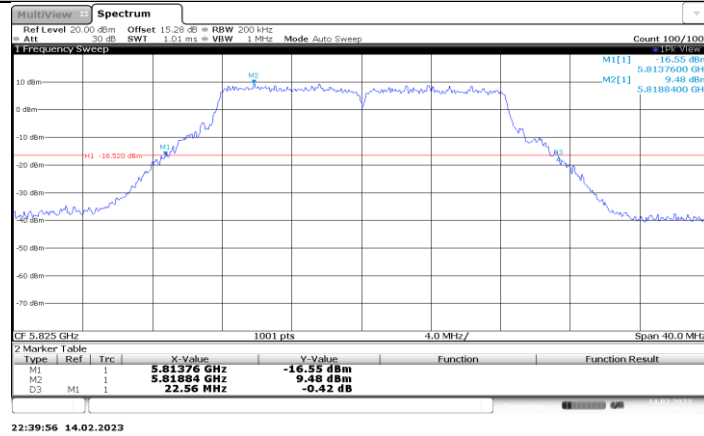




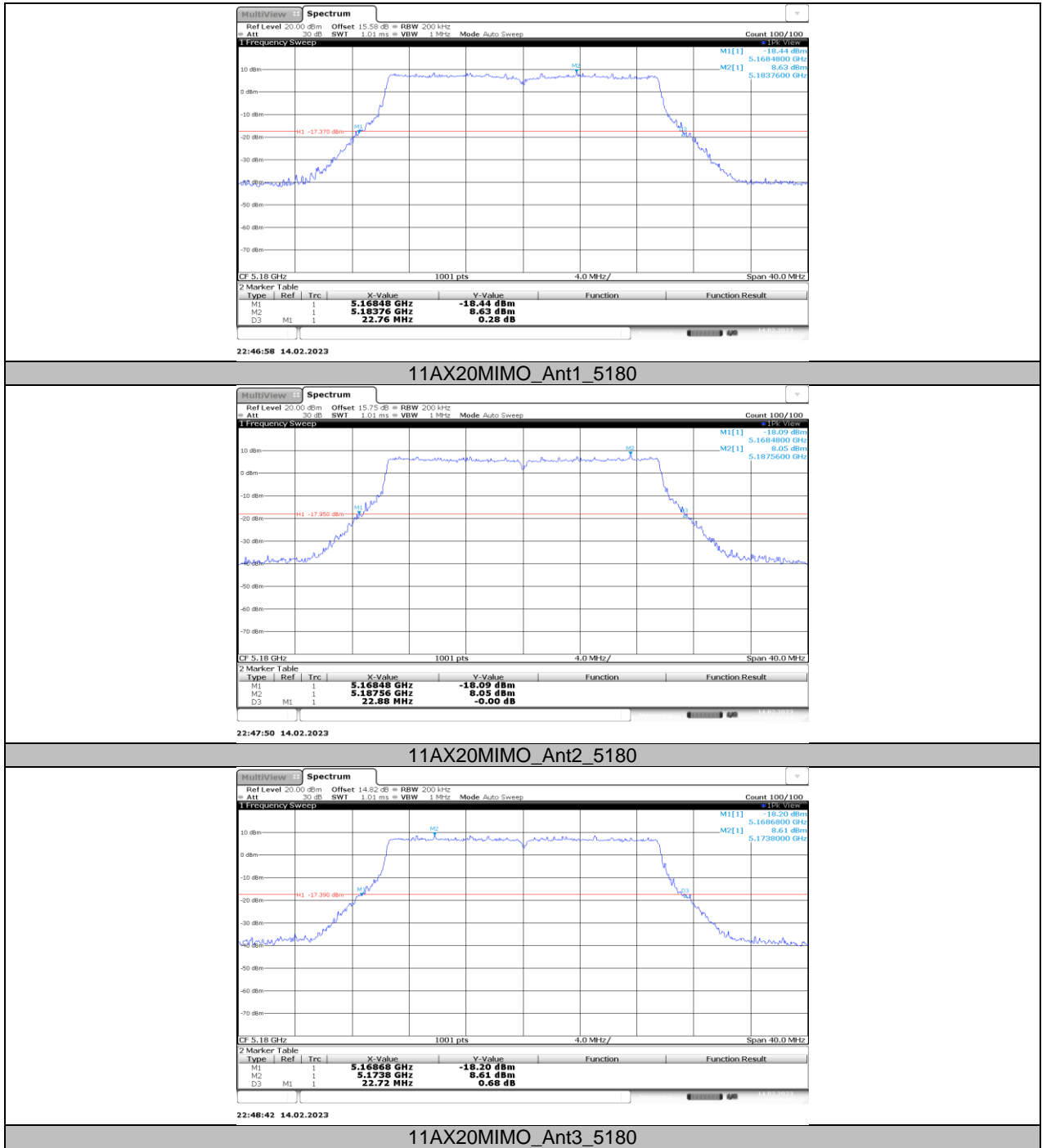
11A-CDD_Ant2_5825

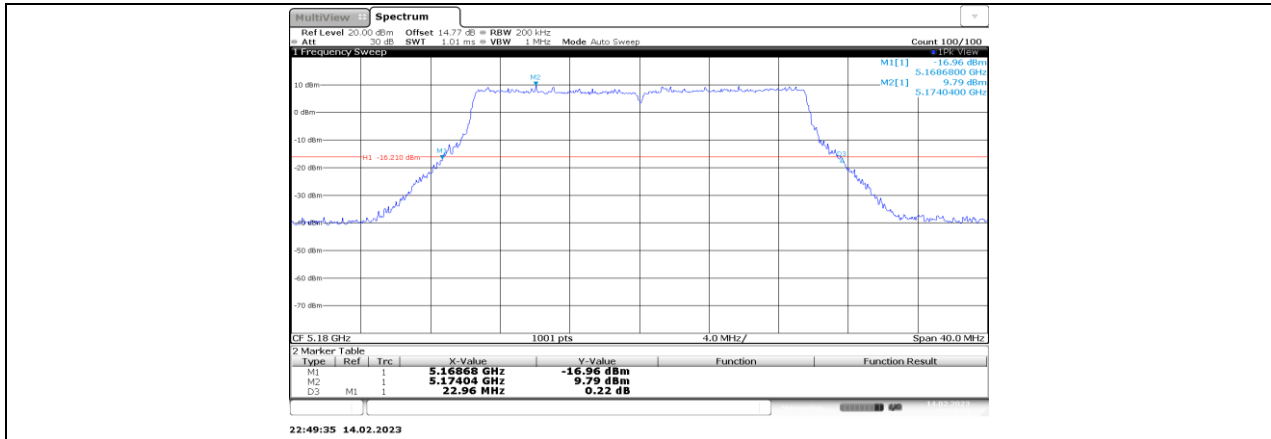


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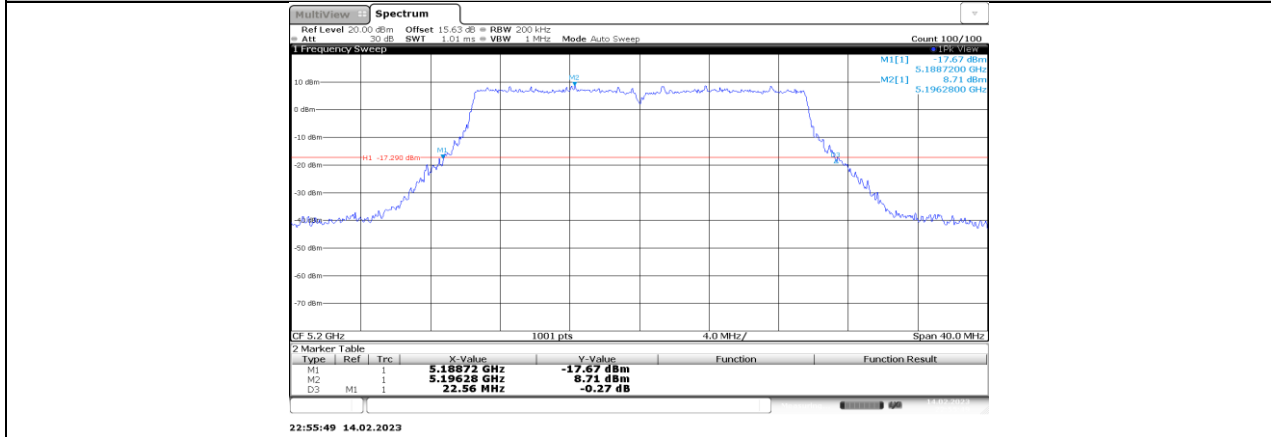


11A-CDD_Ant4_5825

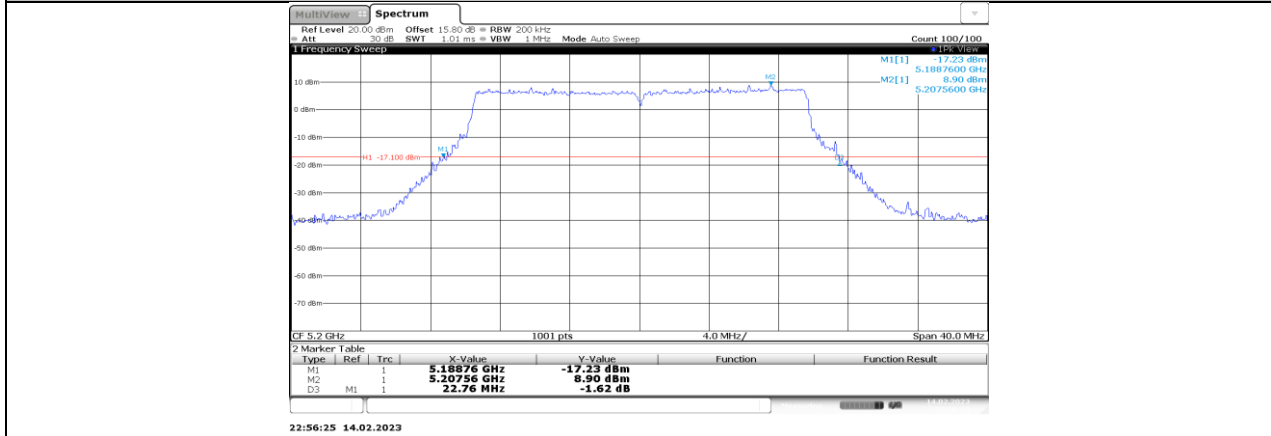




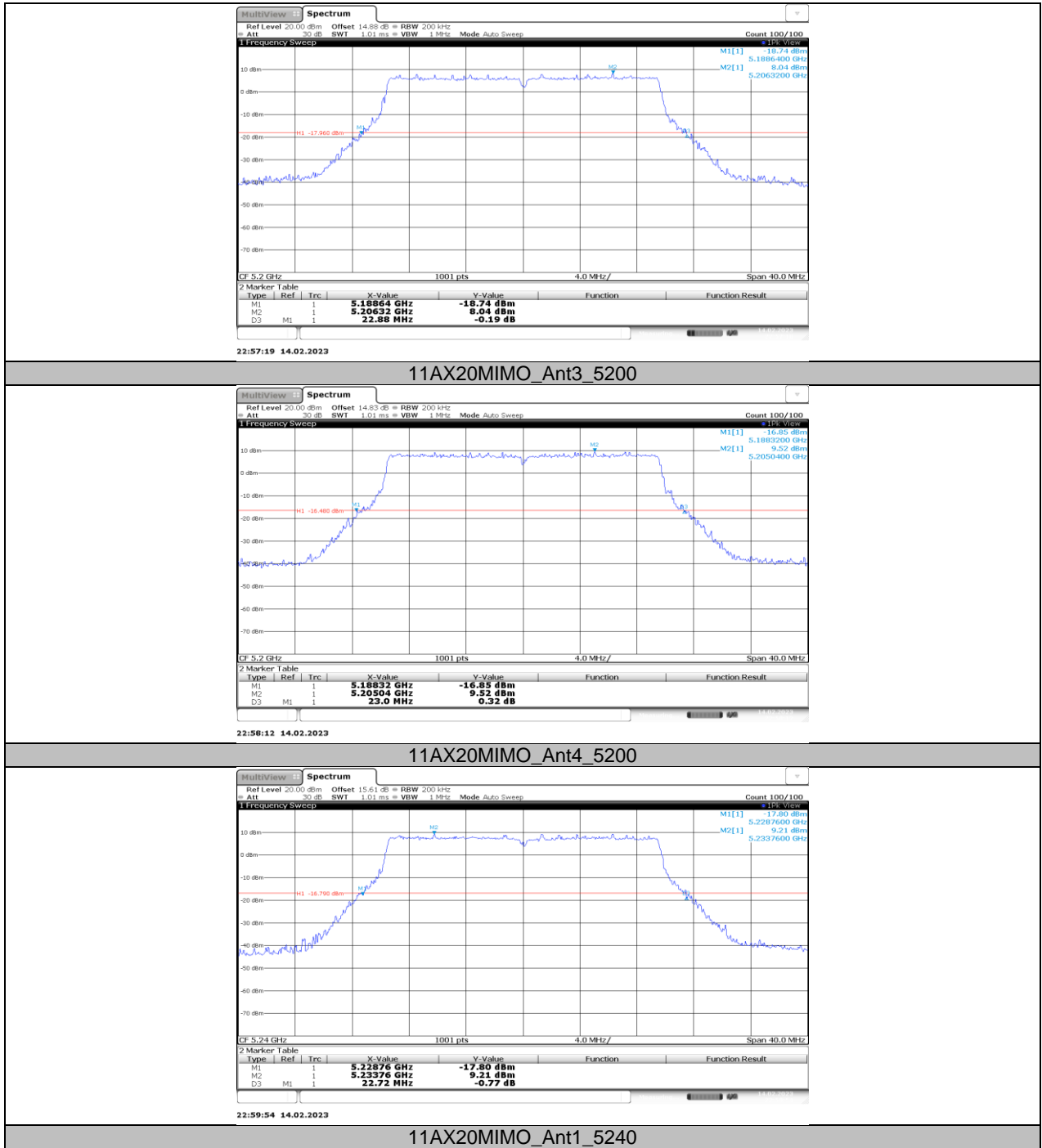
11AX20MIMO_Ant4_5180

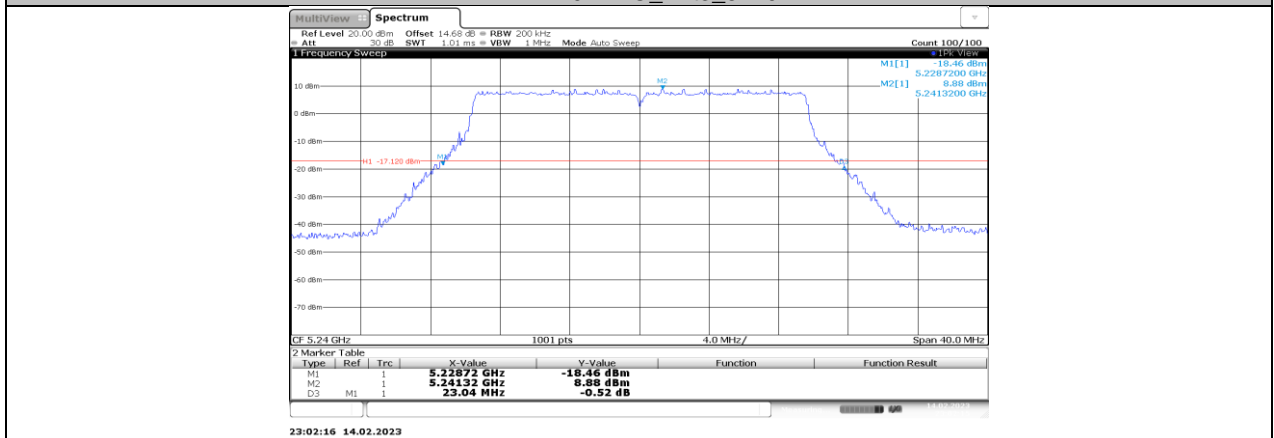
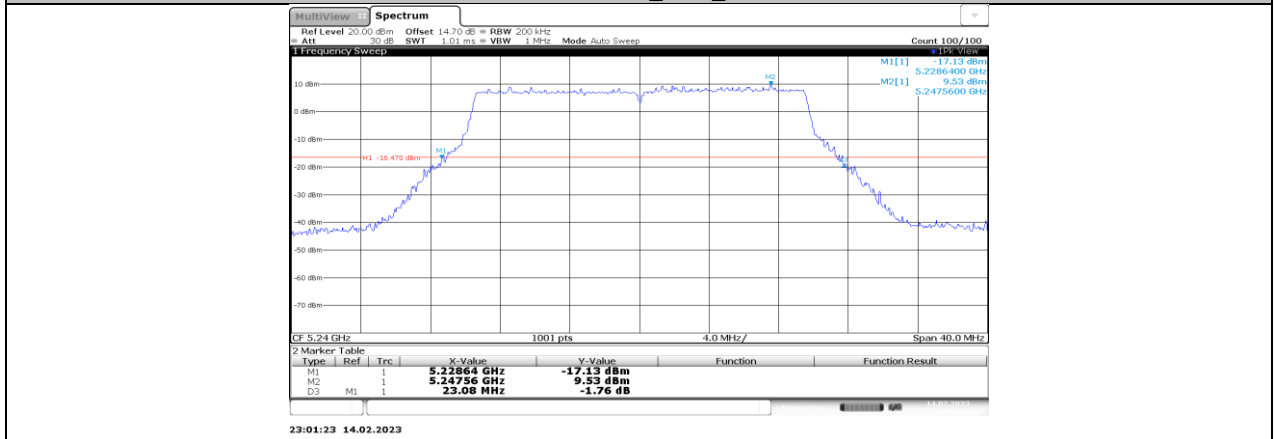
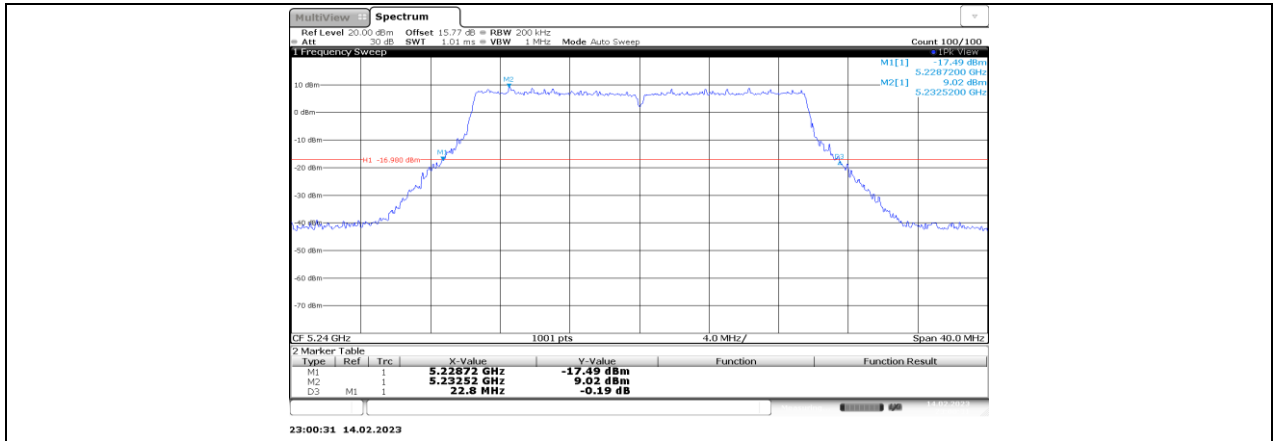


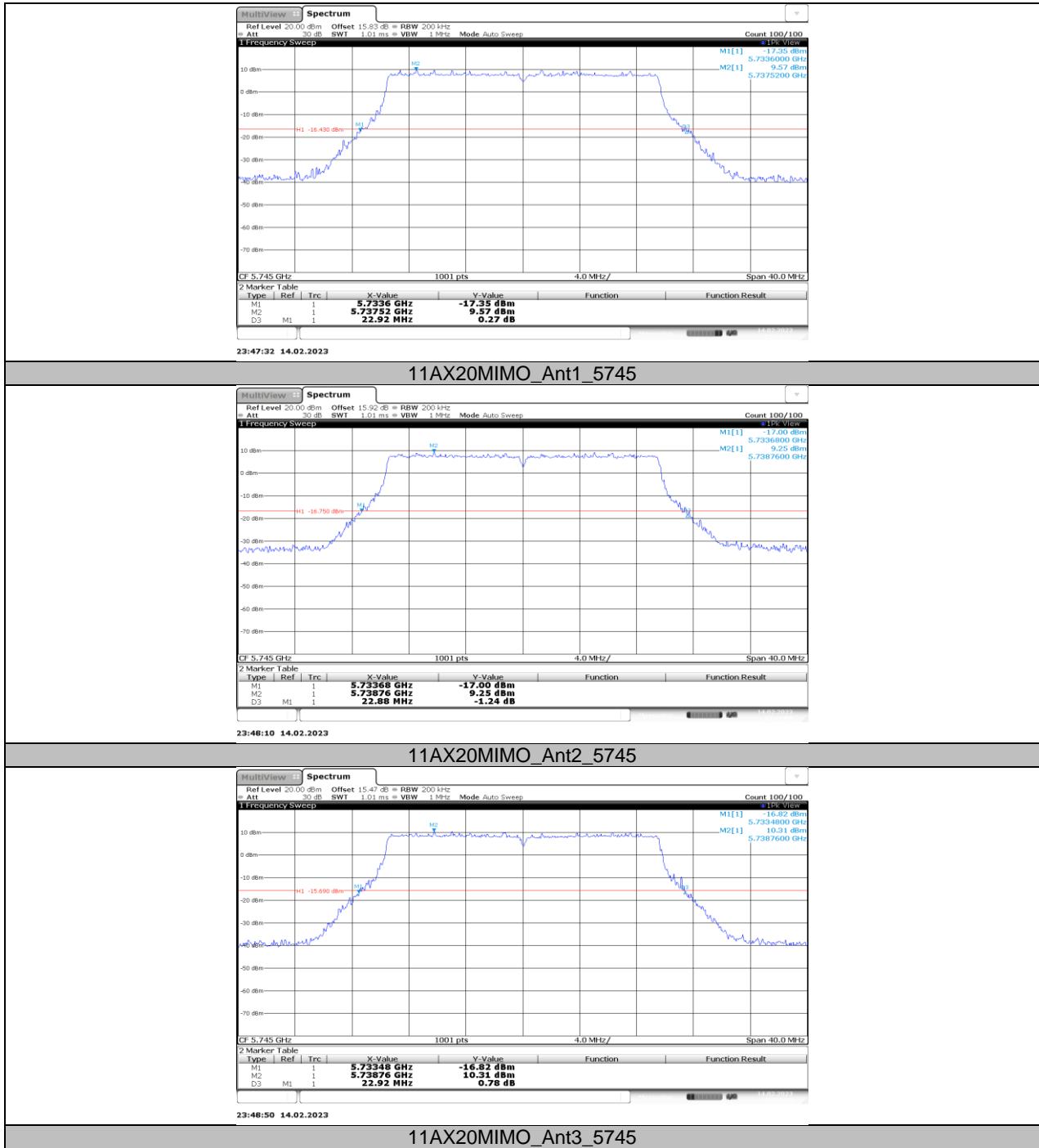
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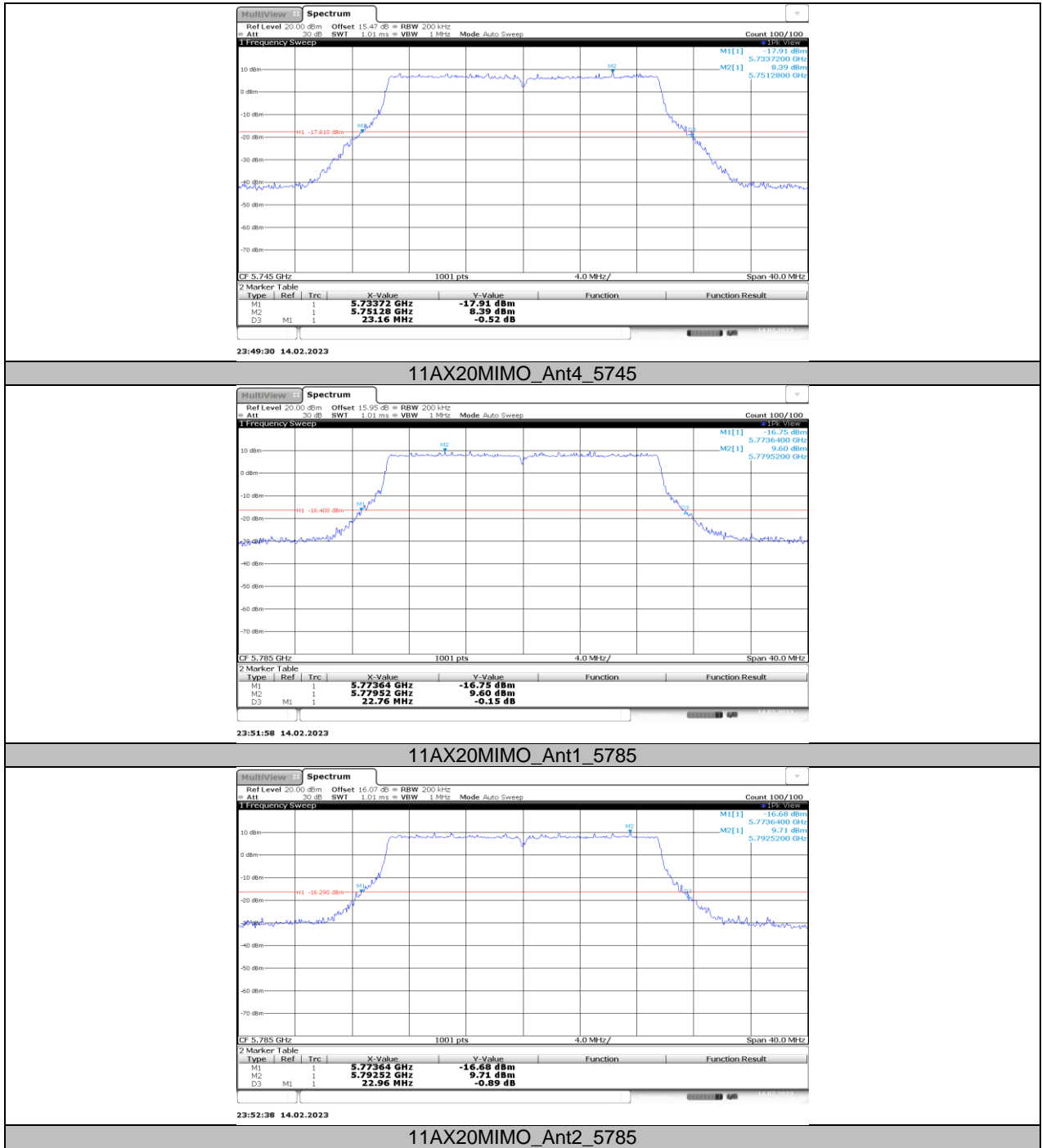


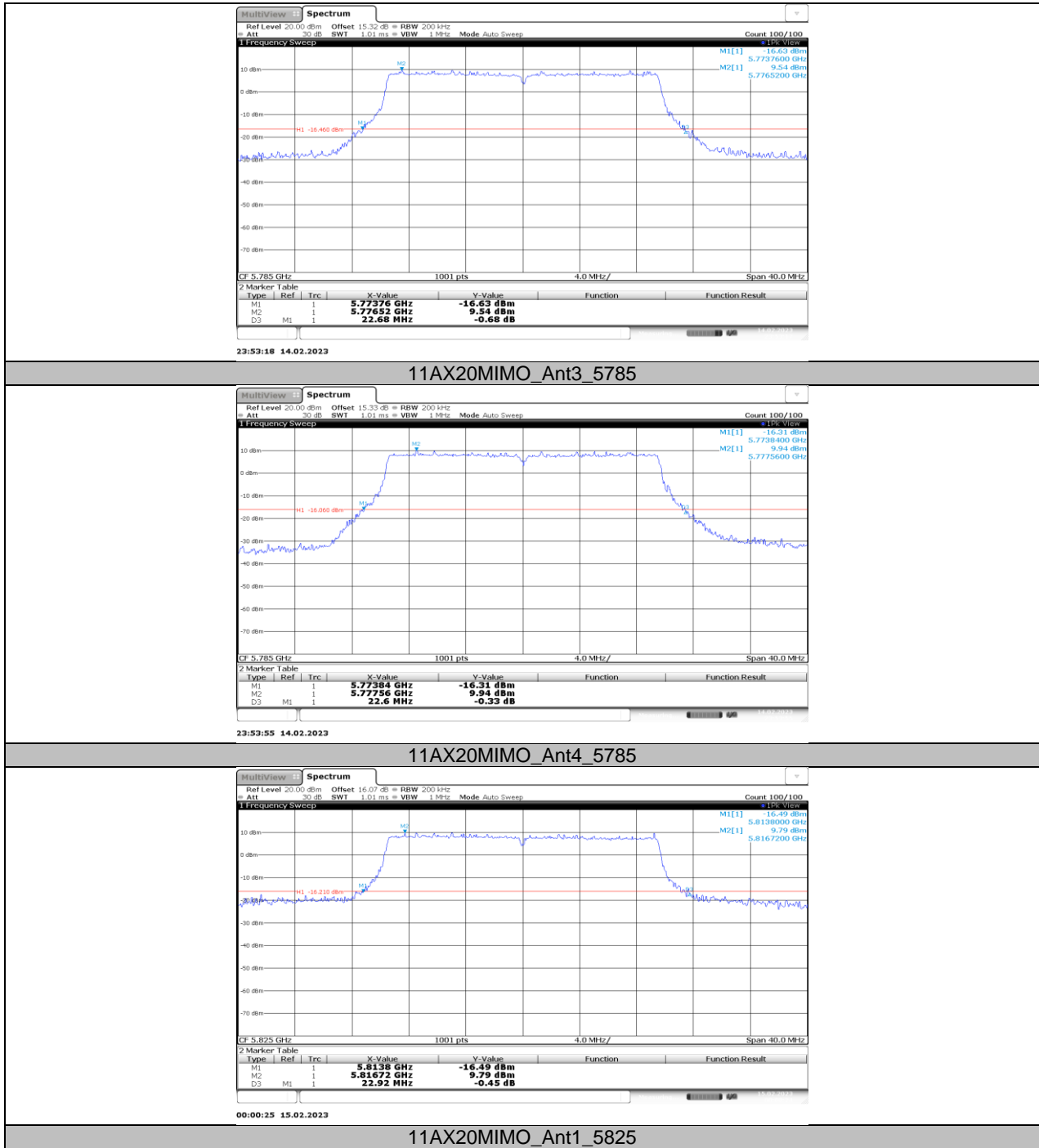
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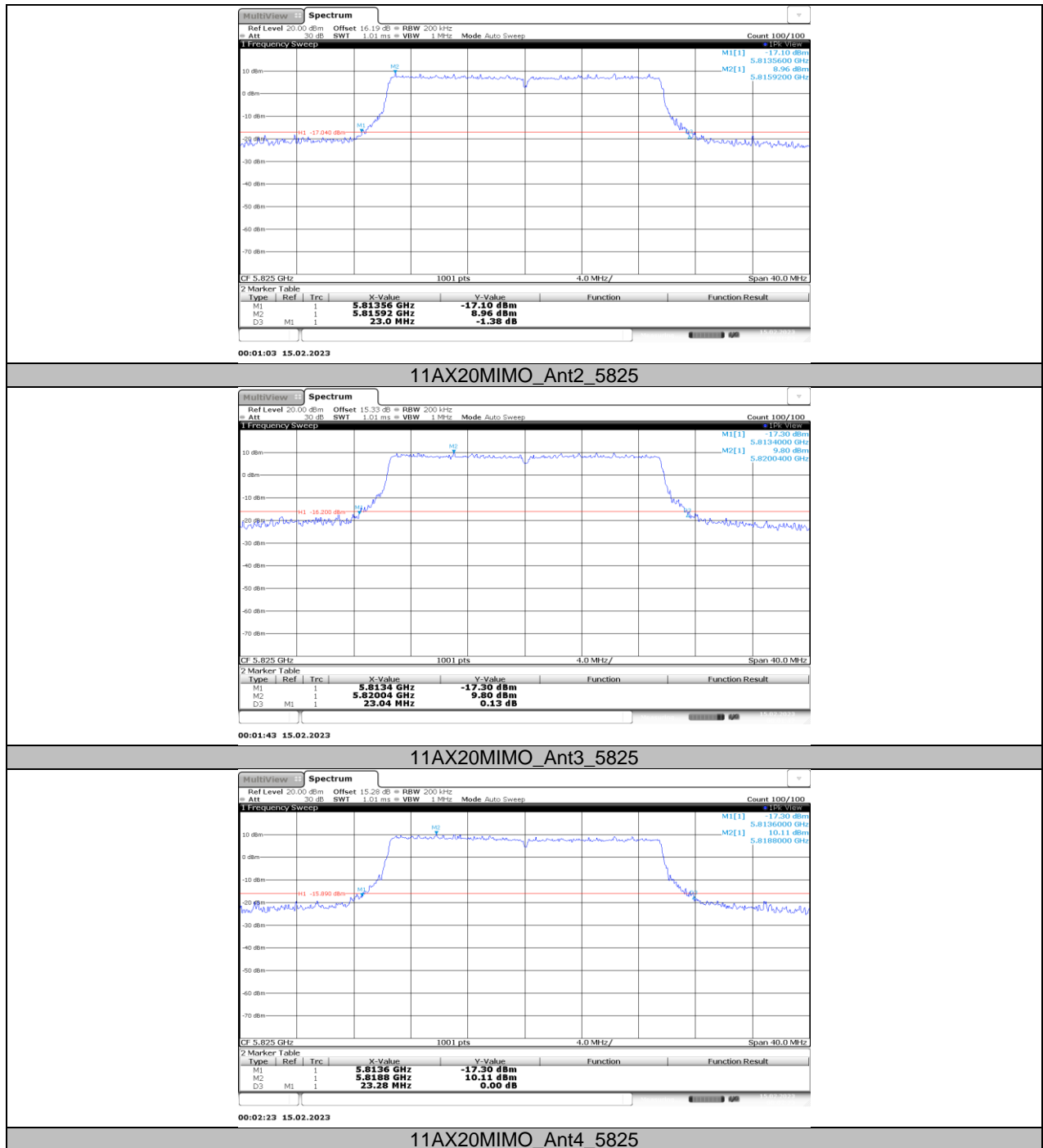


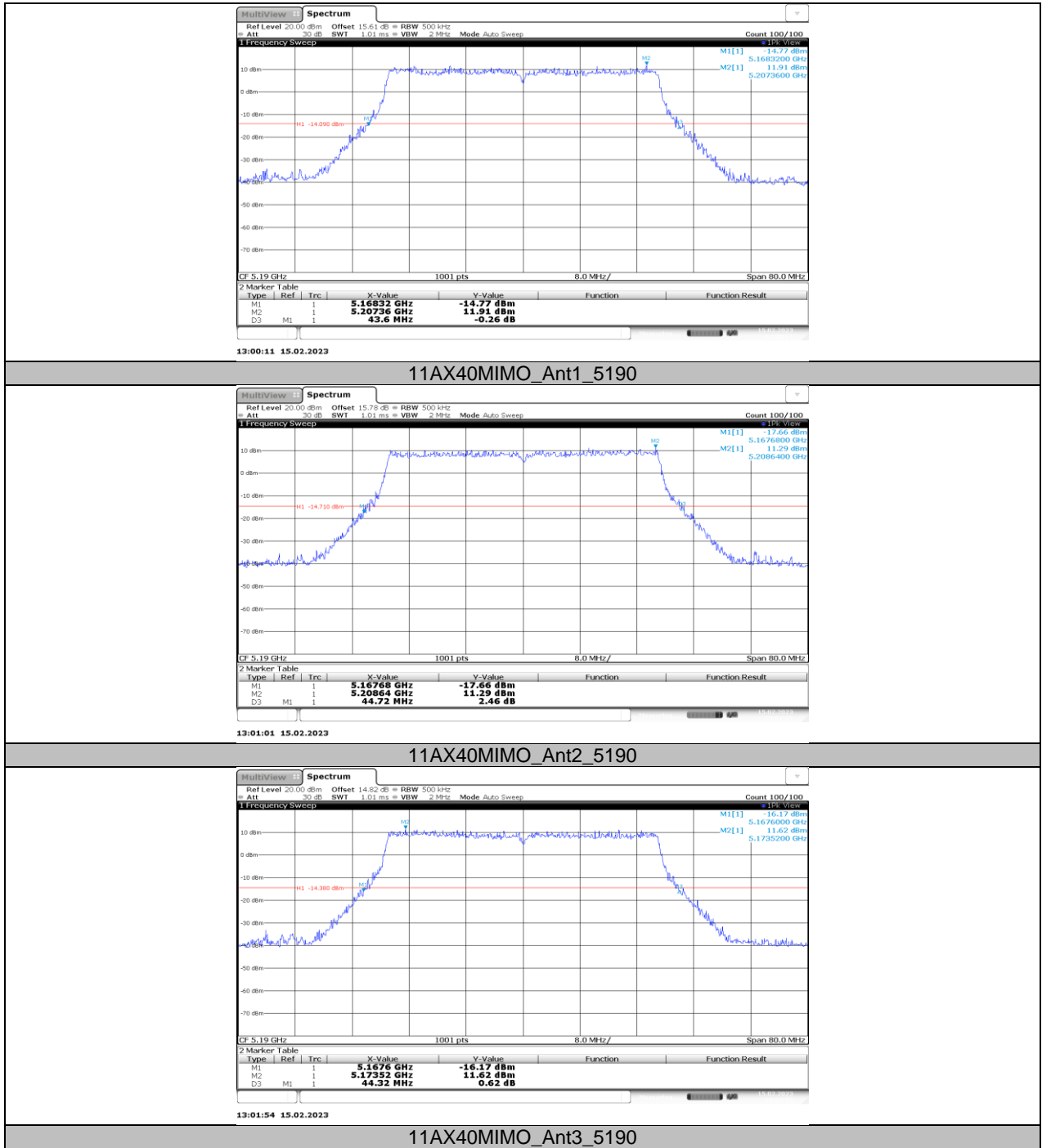


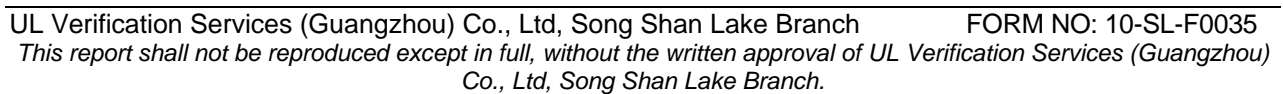
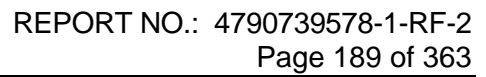


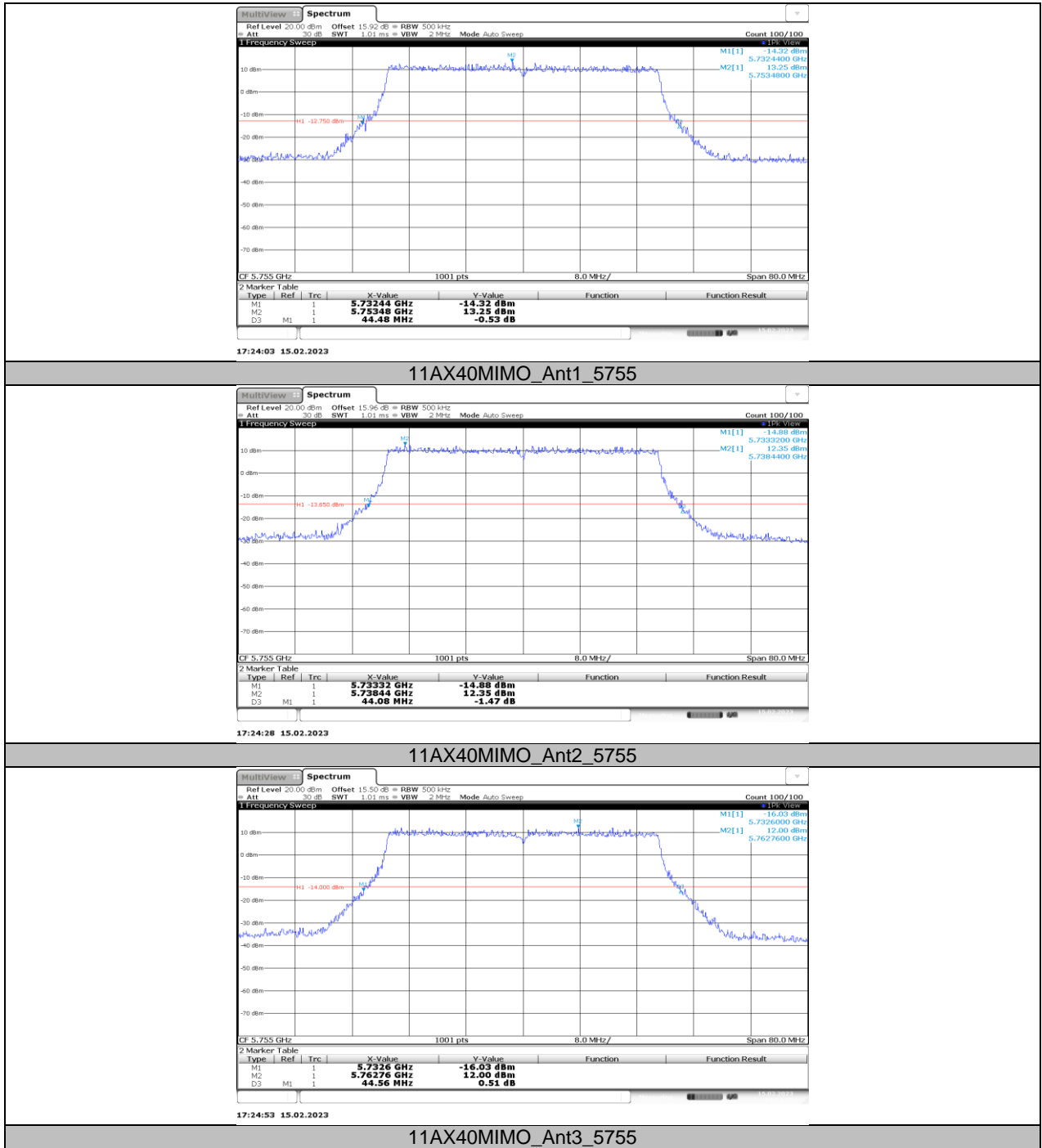


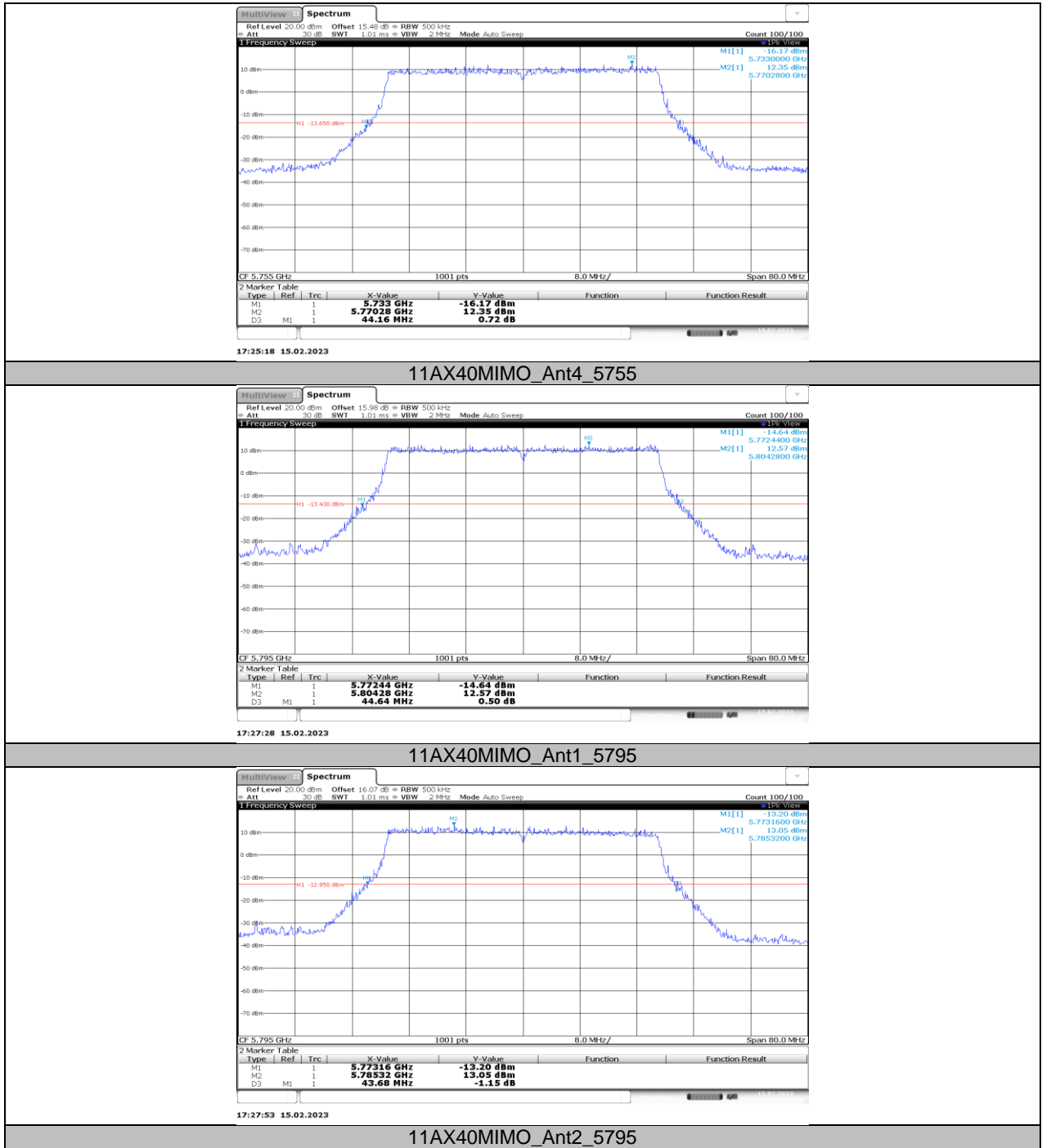


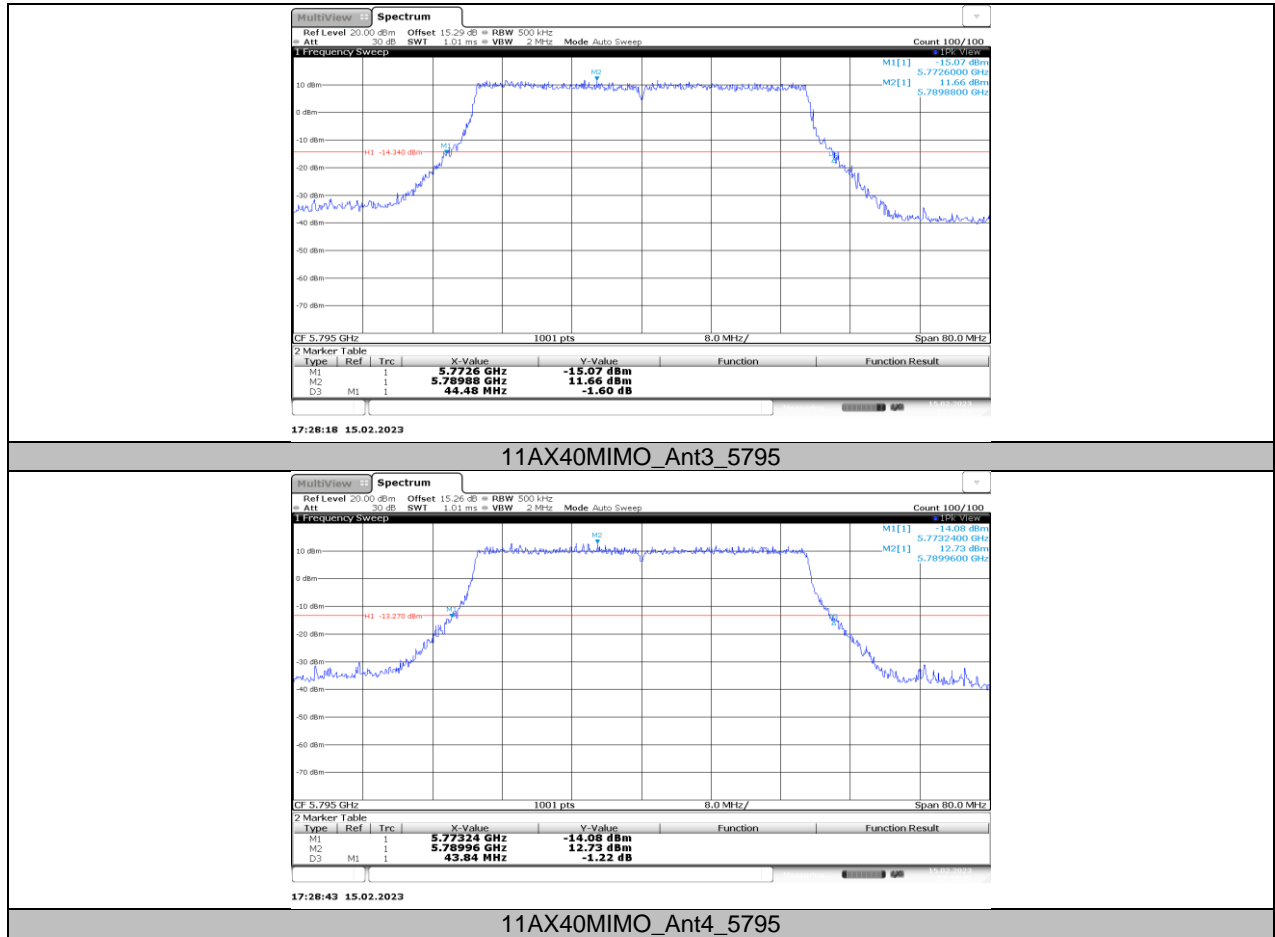


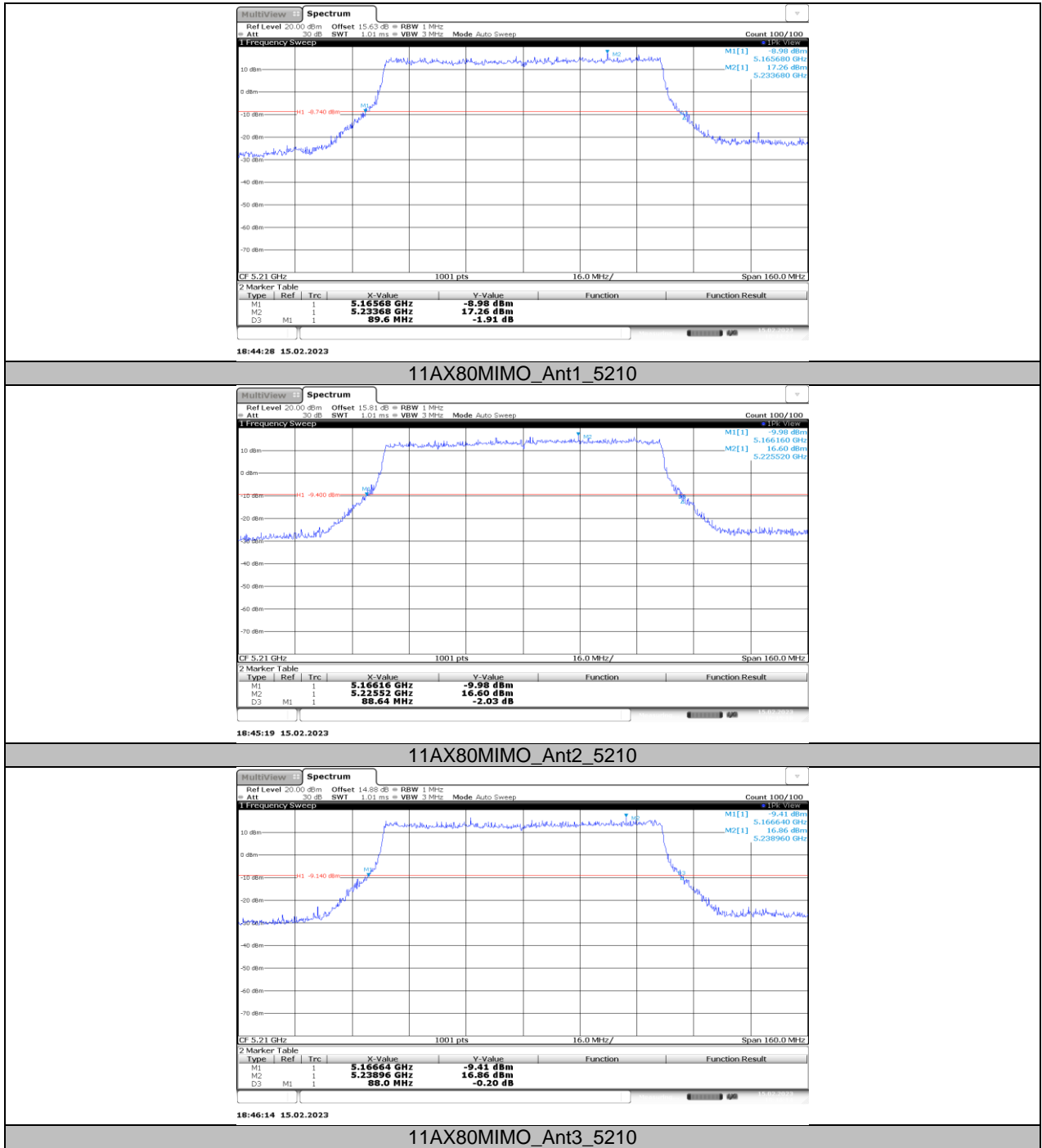


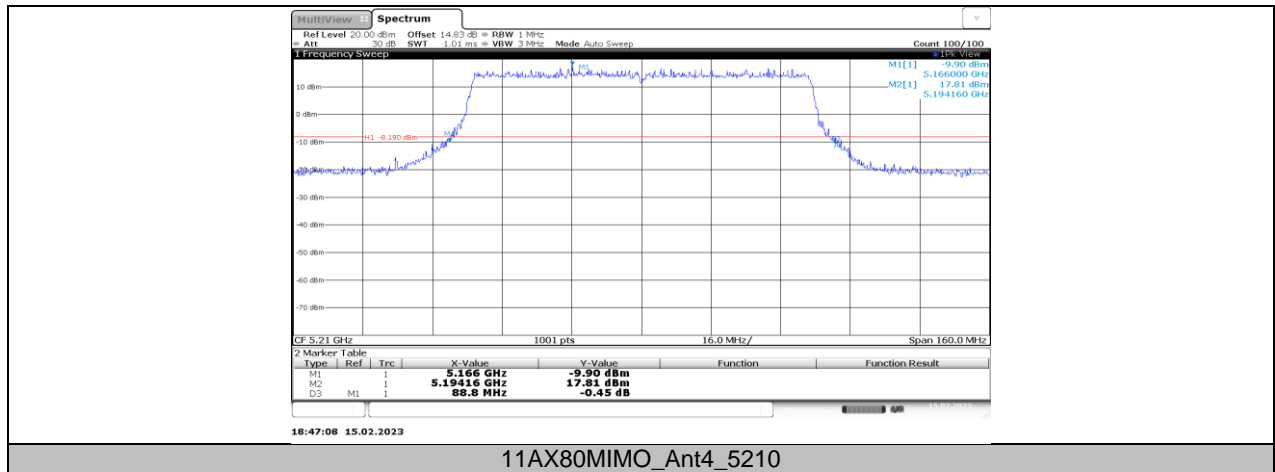


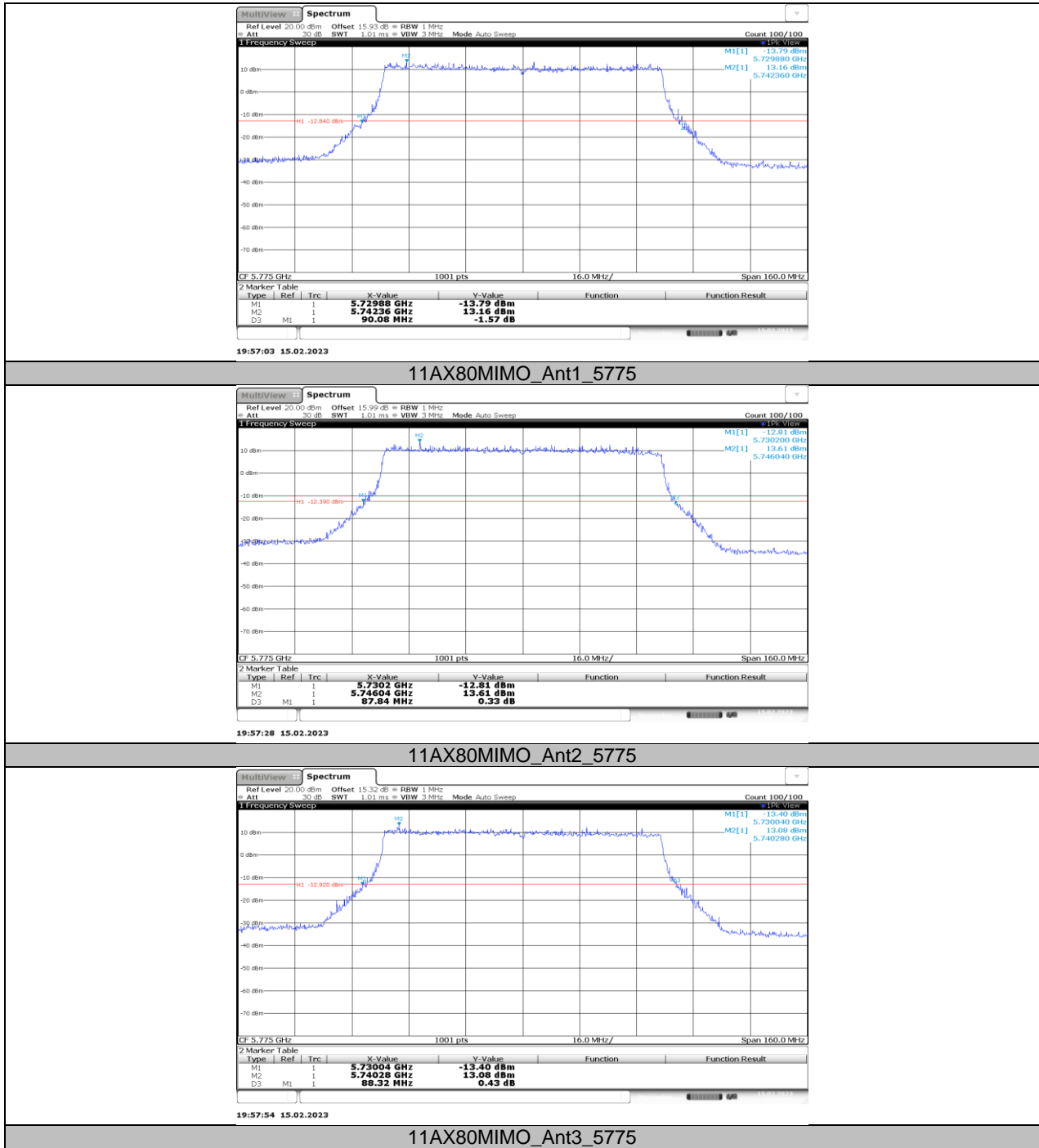


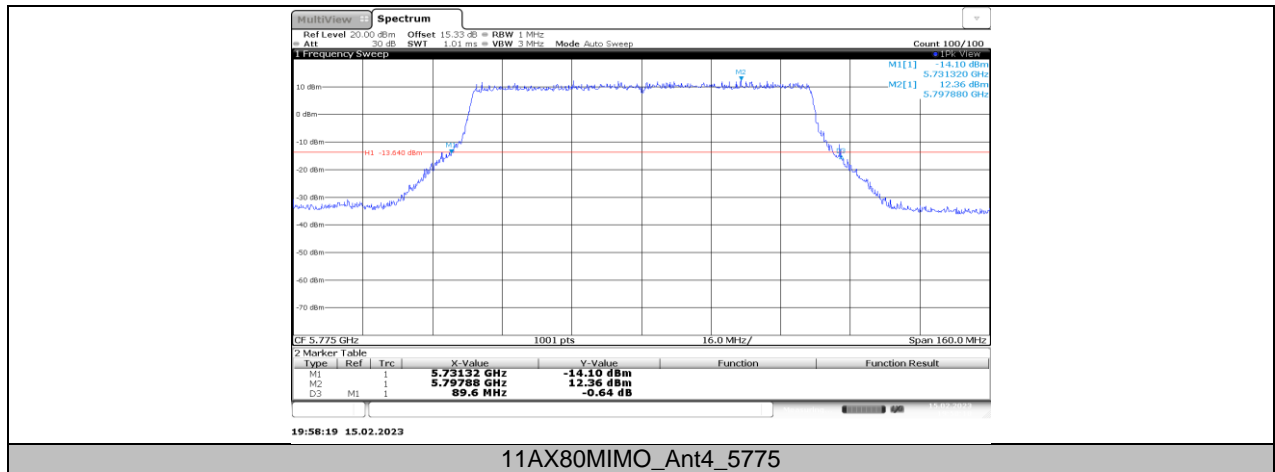


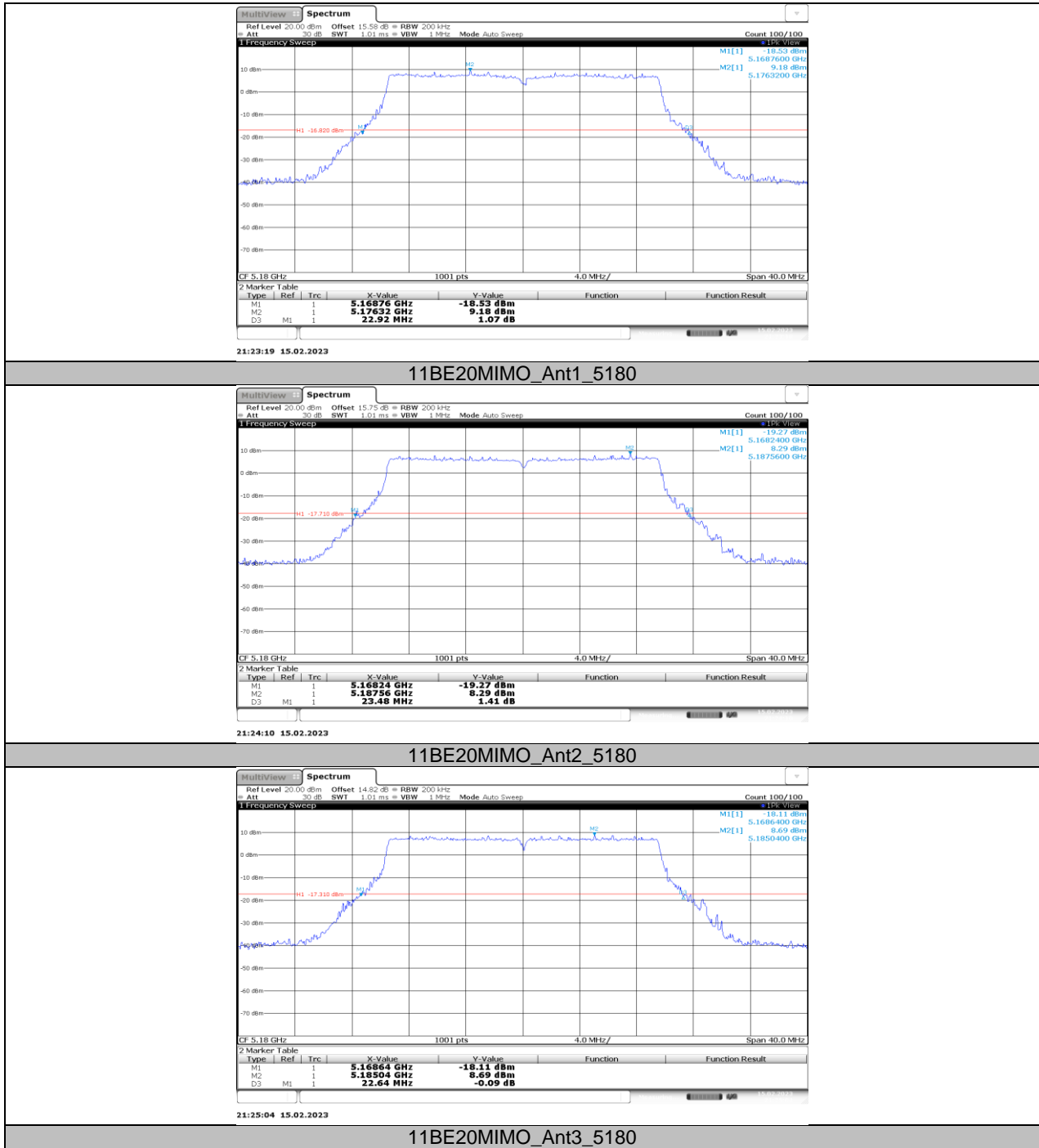


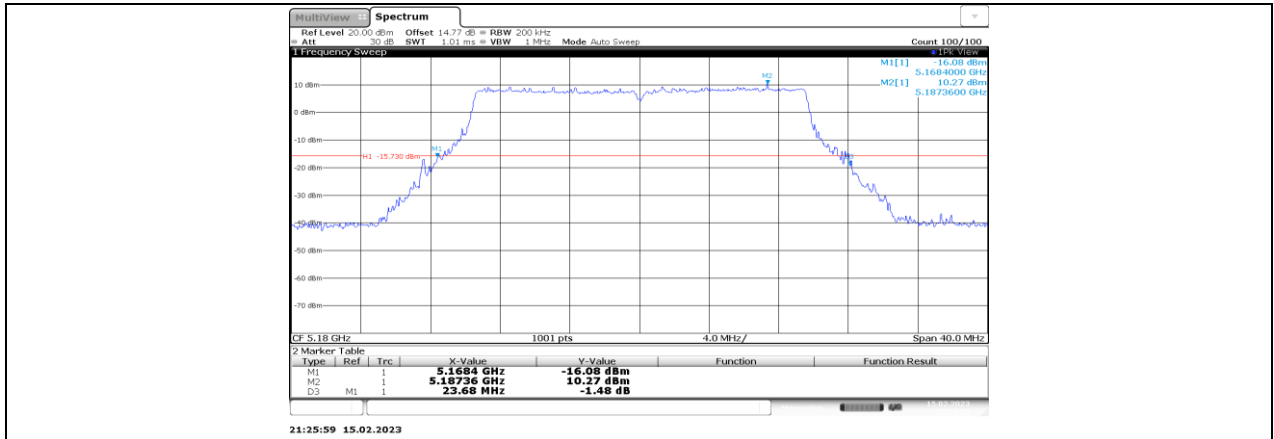




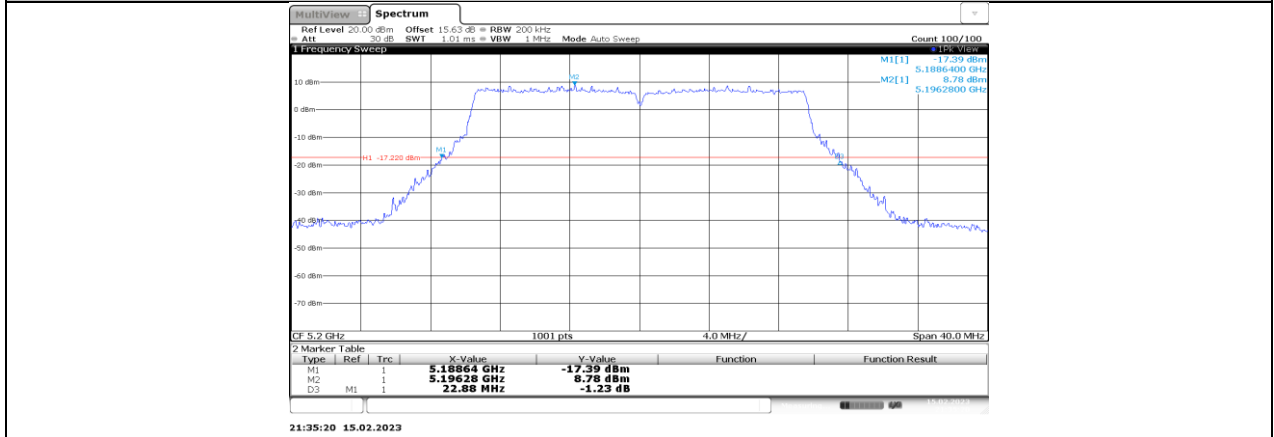




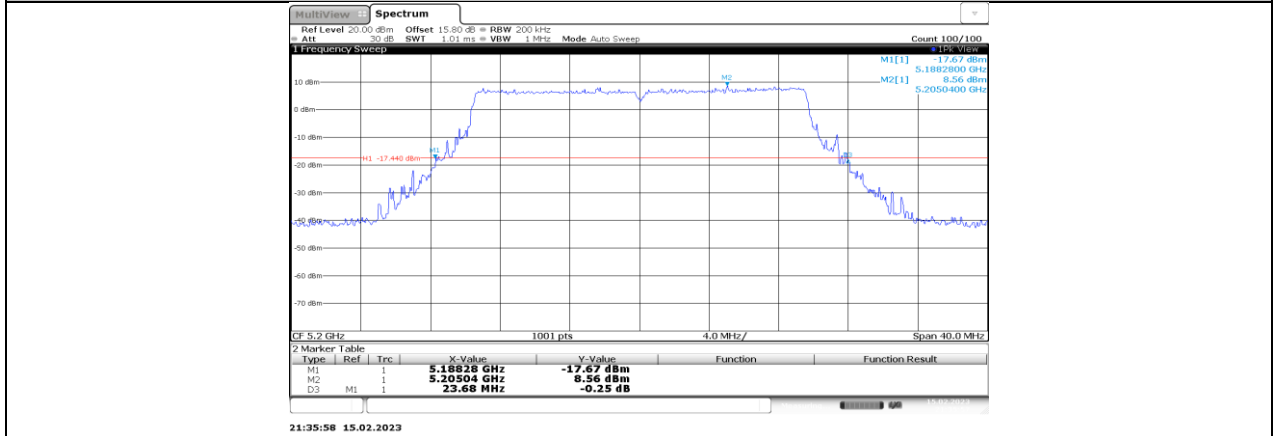




11BE20MIMO_Ant4_5180



11BE20MIMO_Ant1_5200



11BE20MIMO_Ant2_5200

