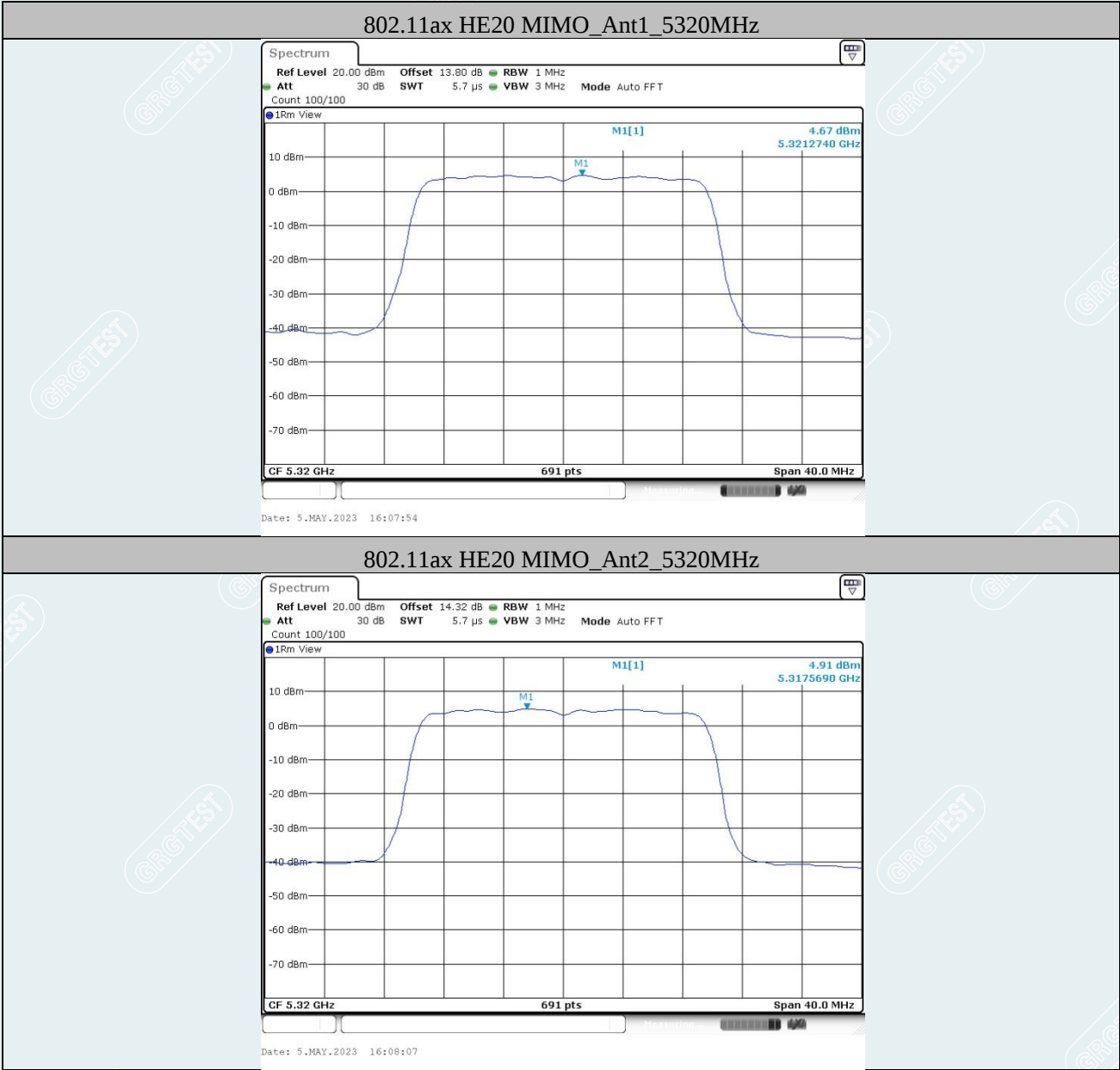
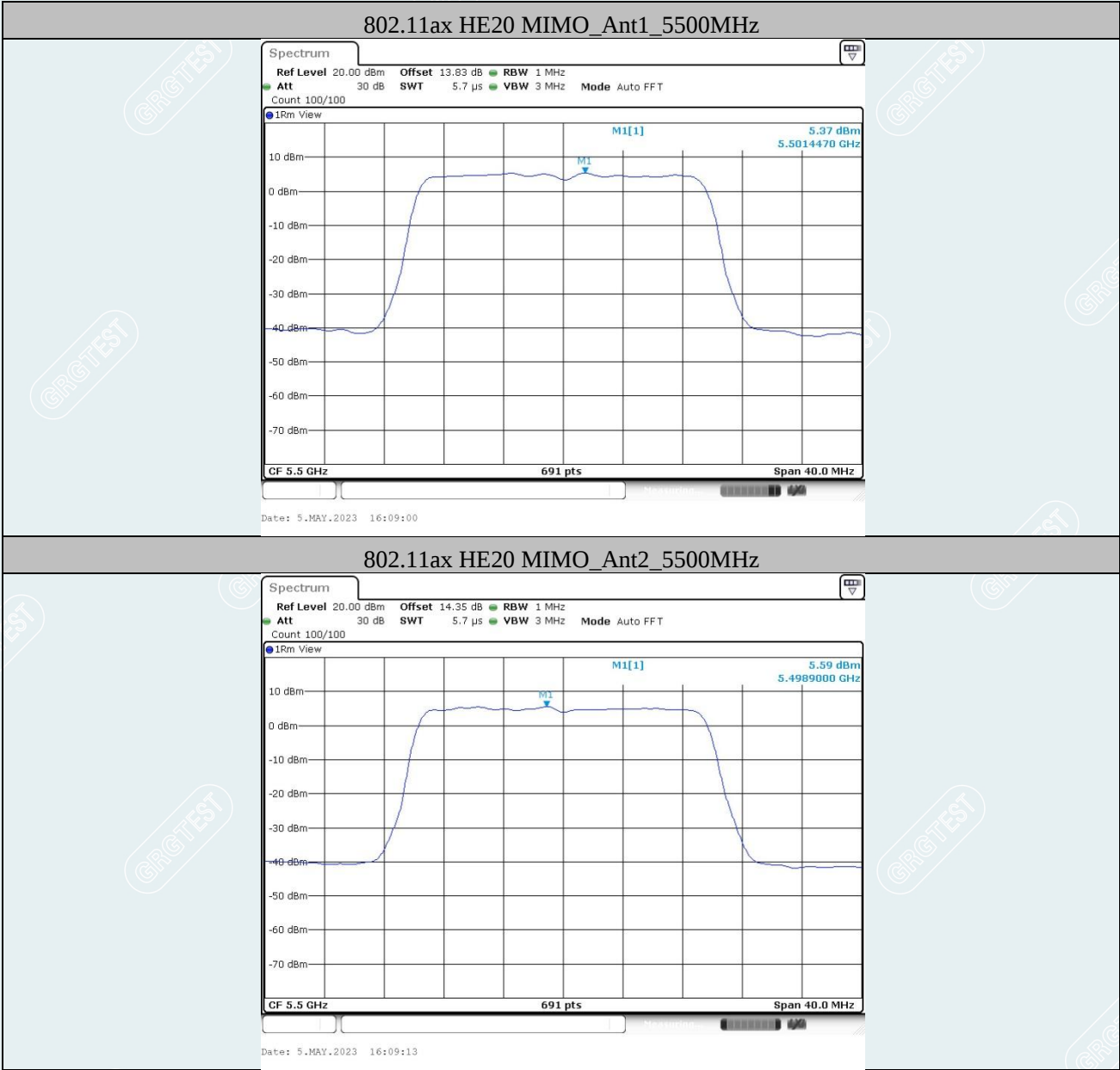
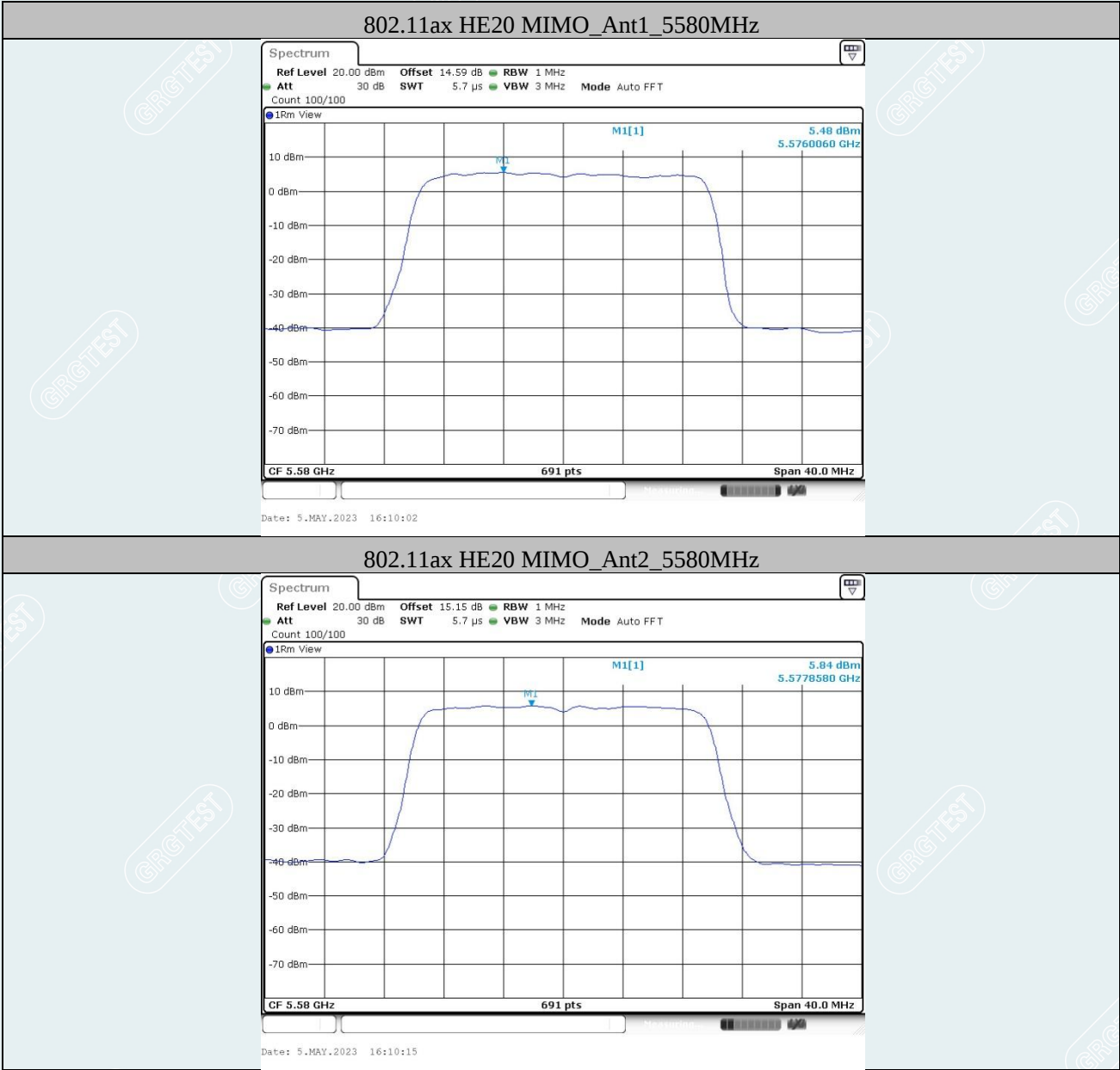
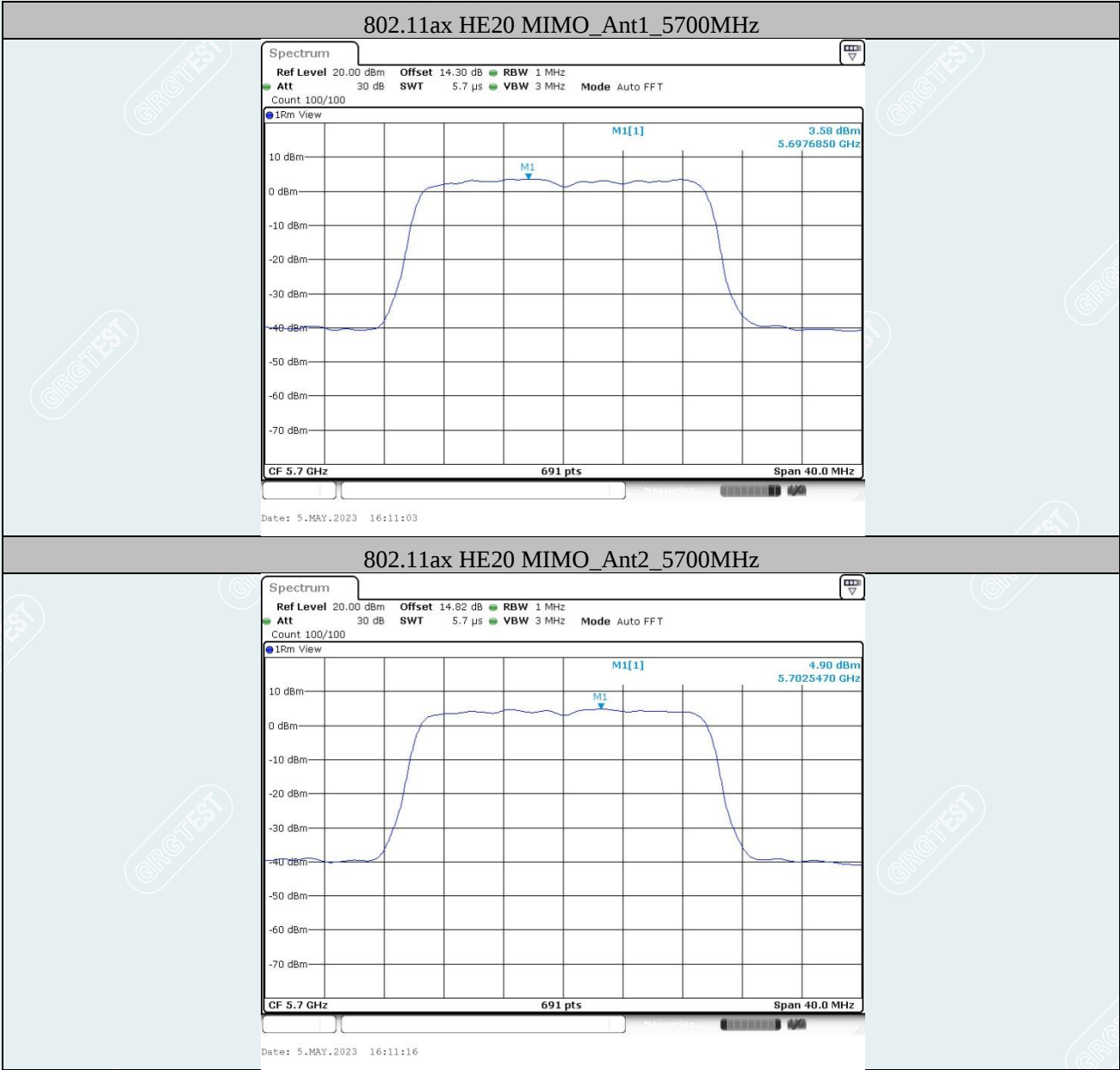


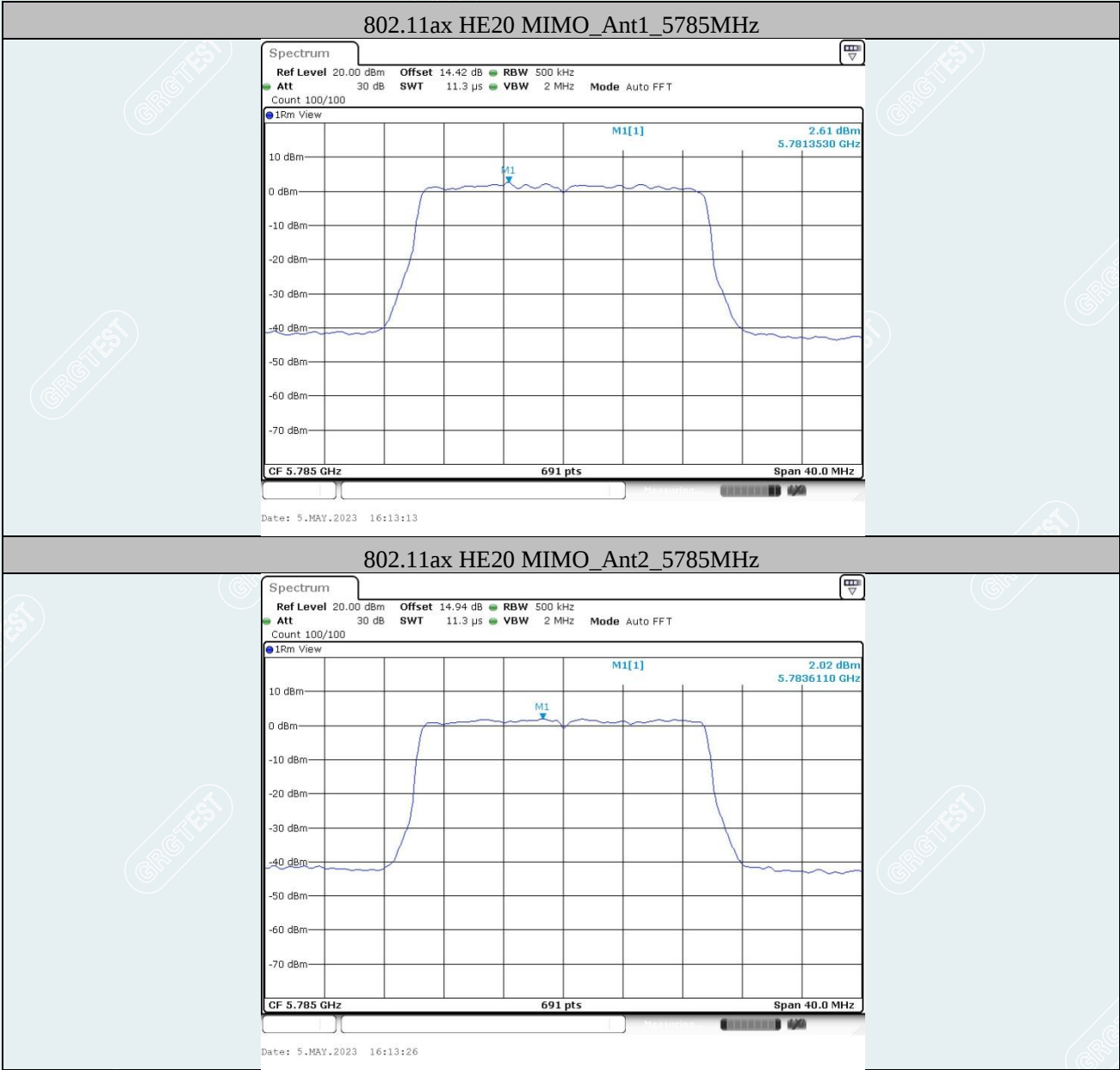


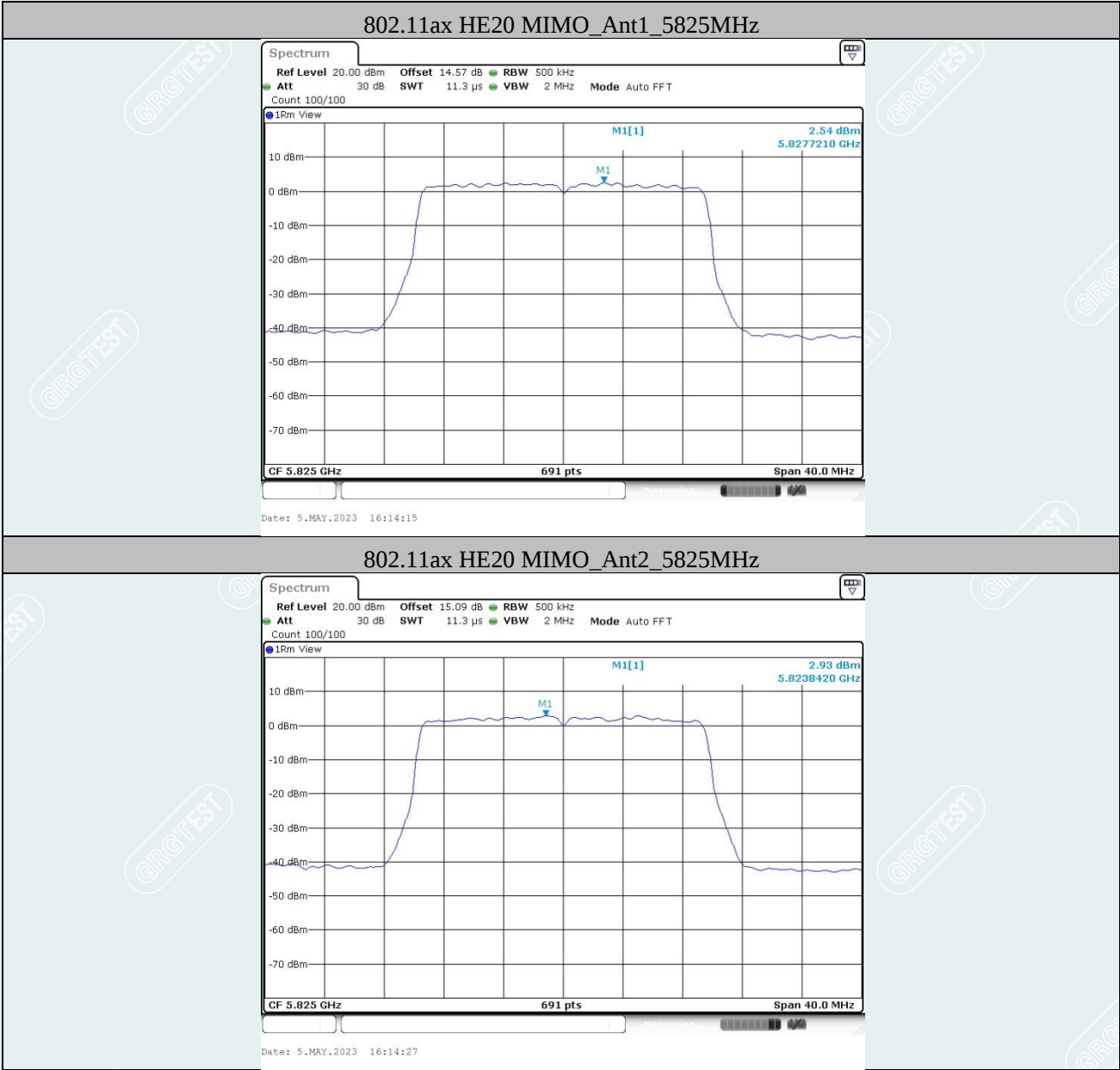


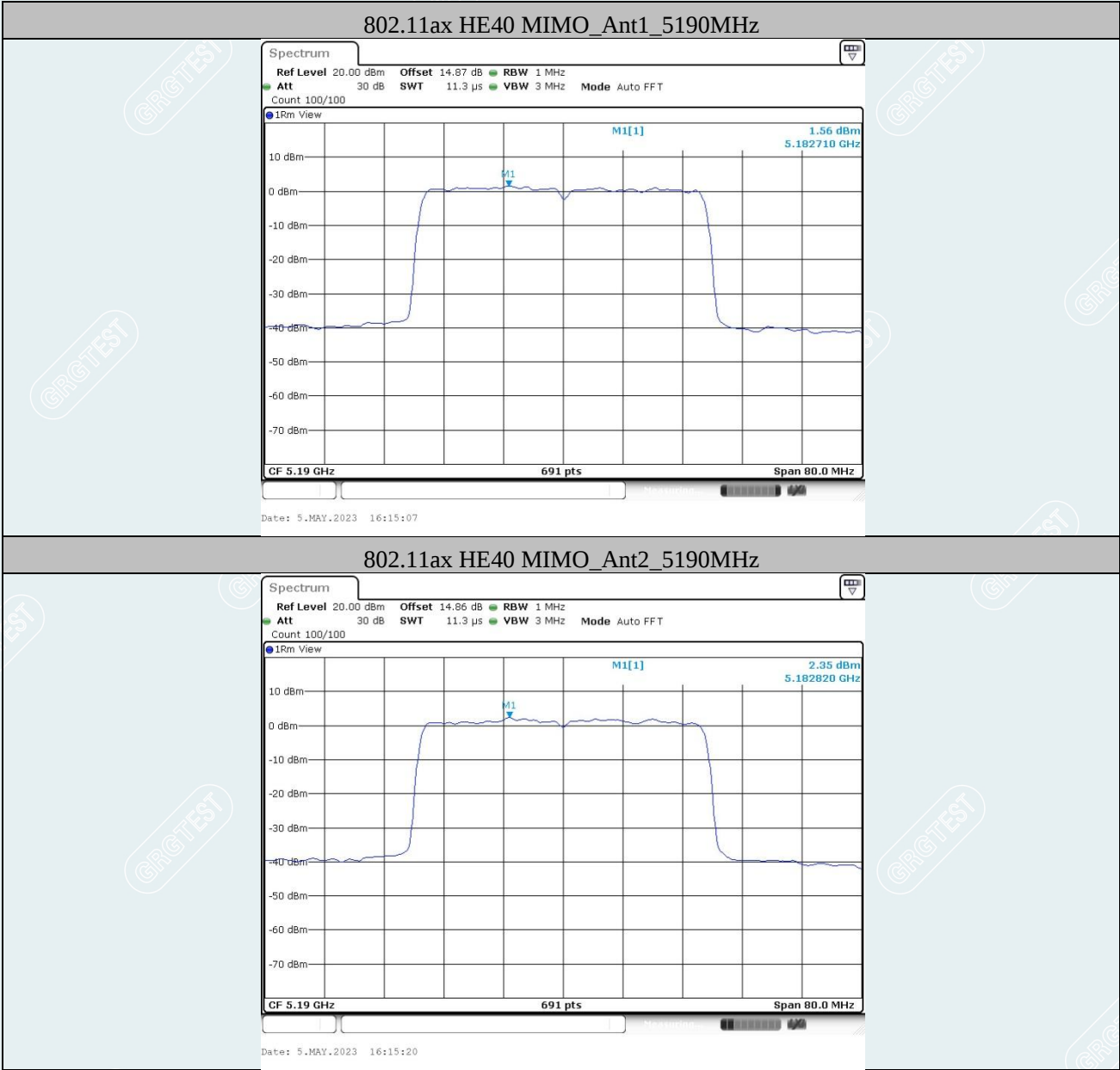


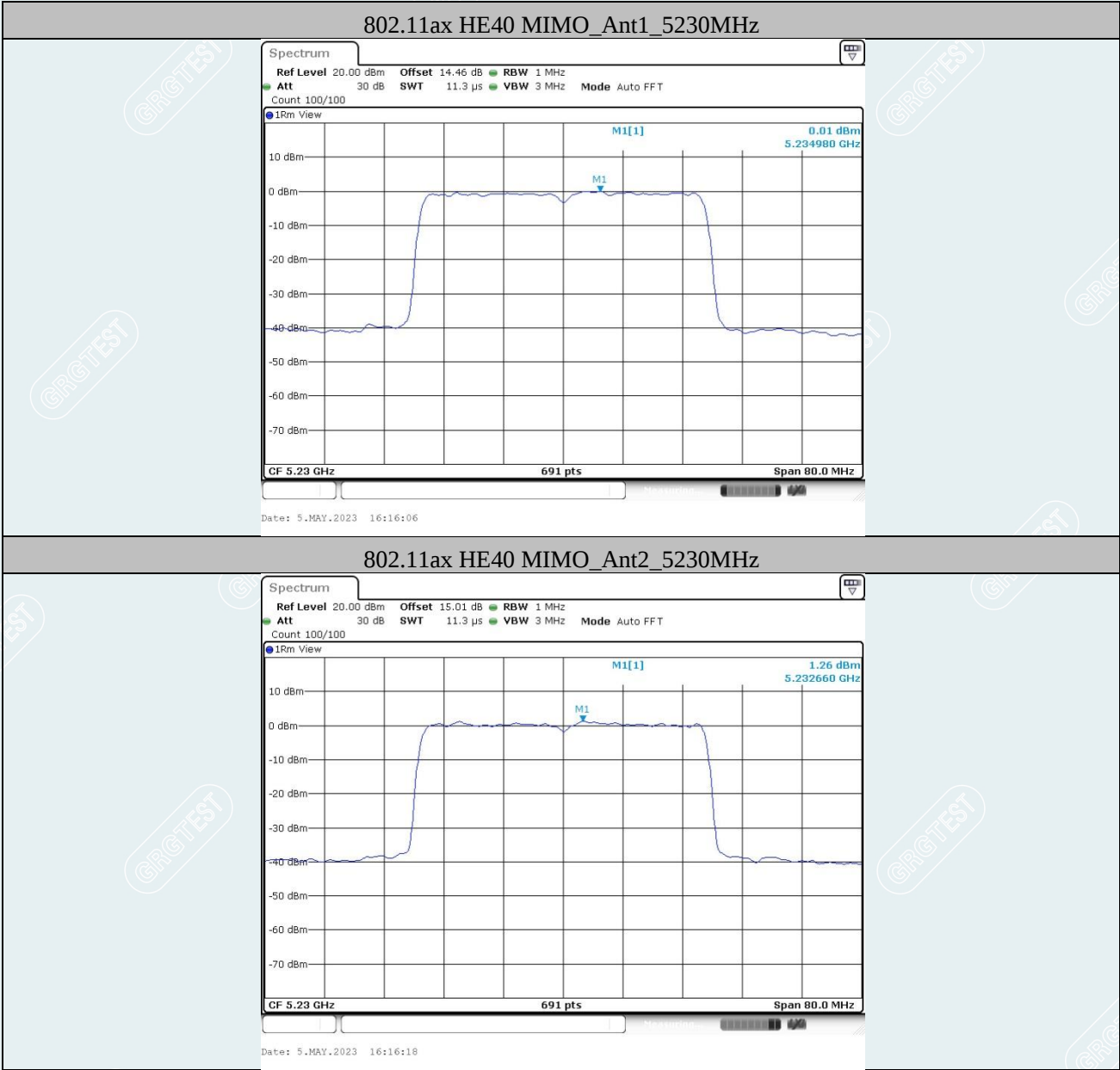


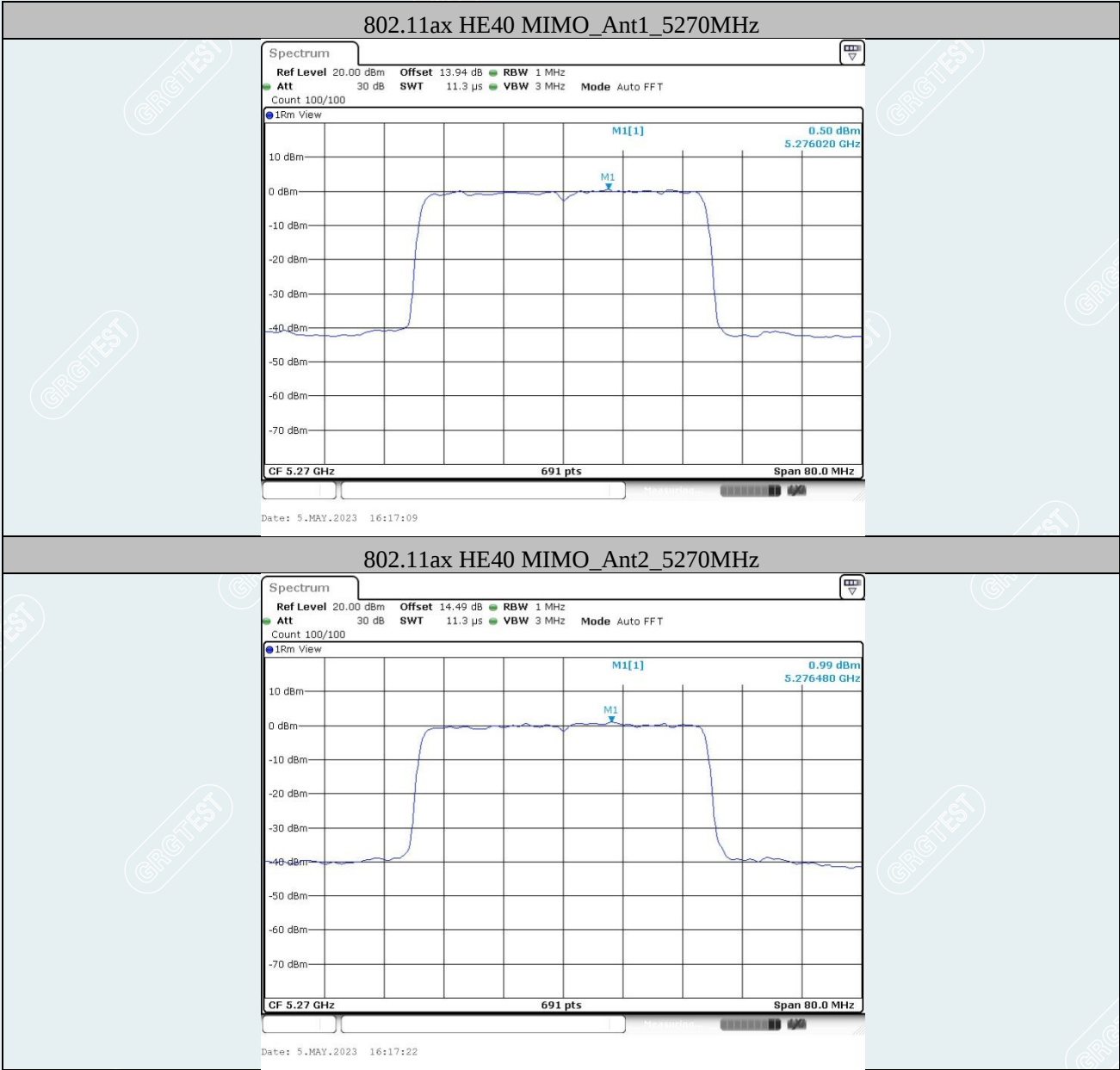


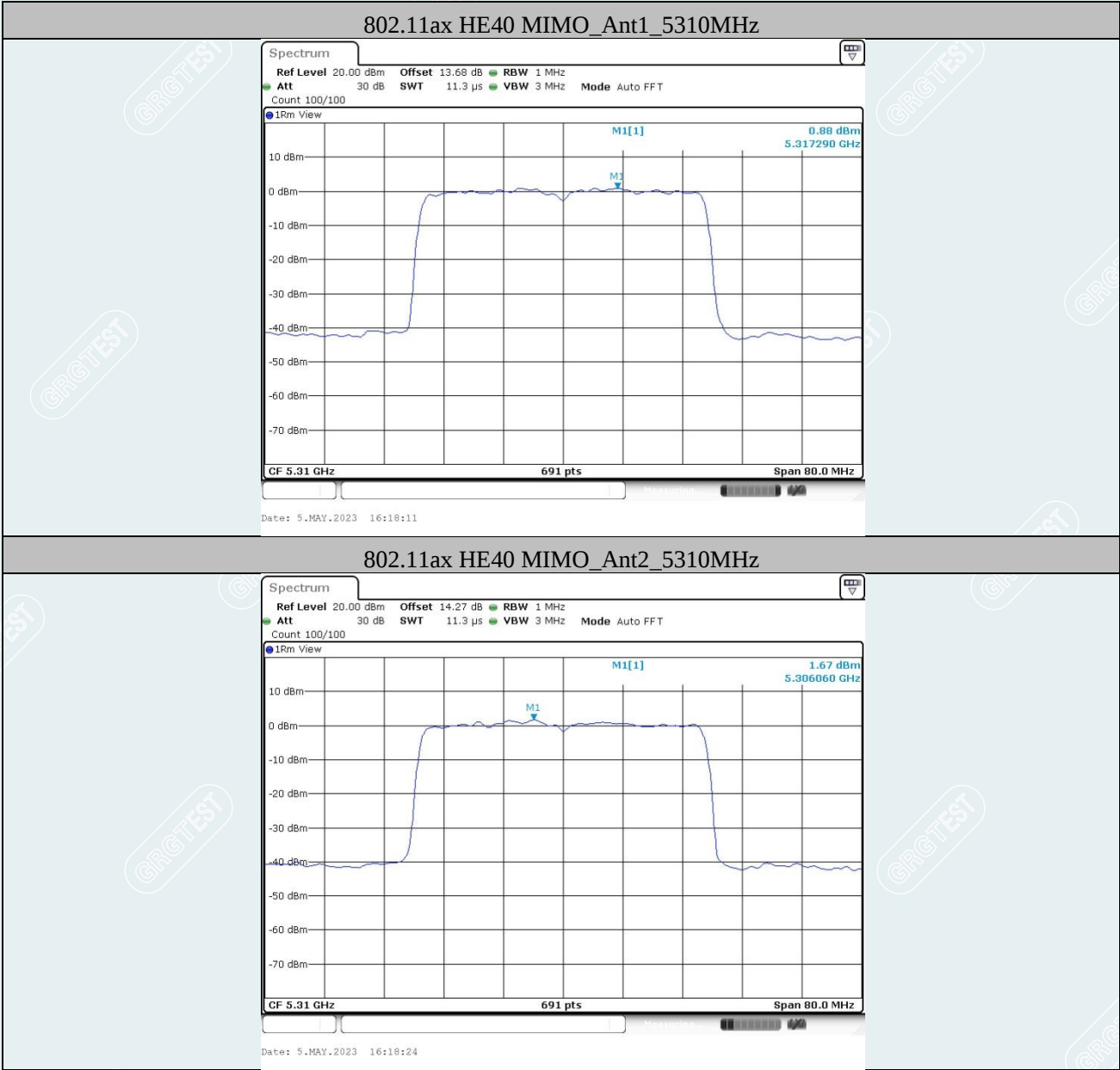


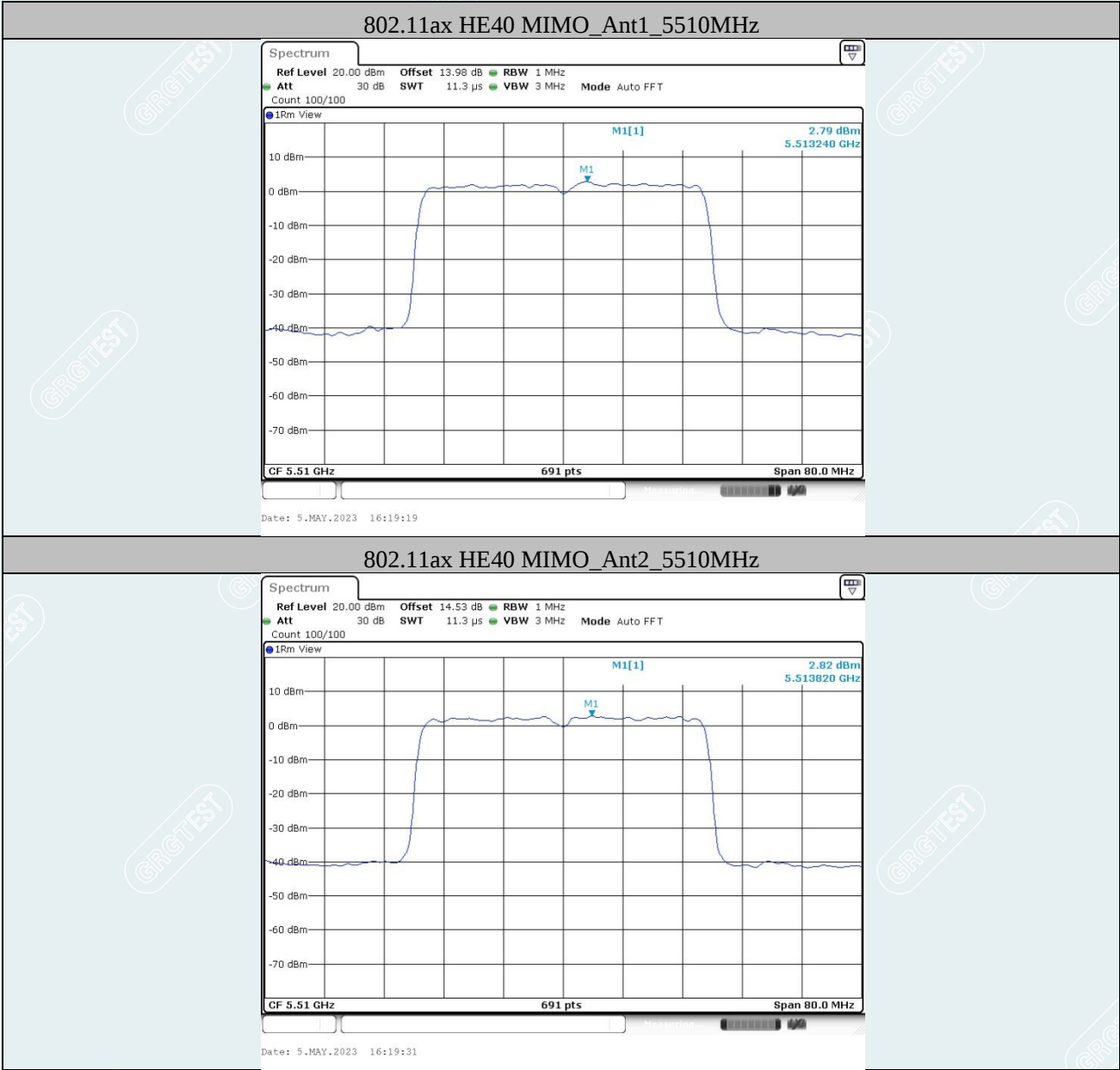


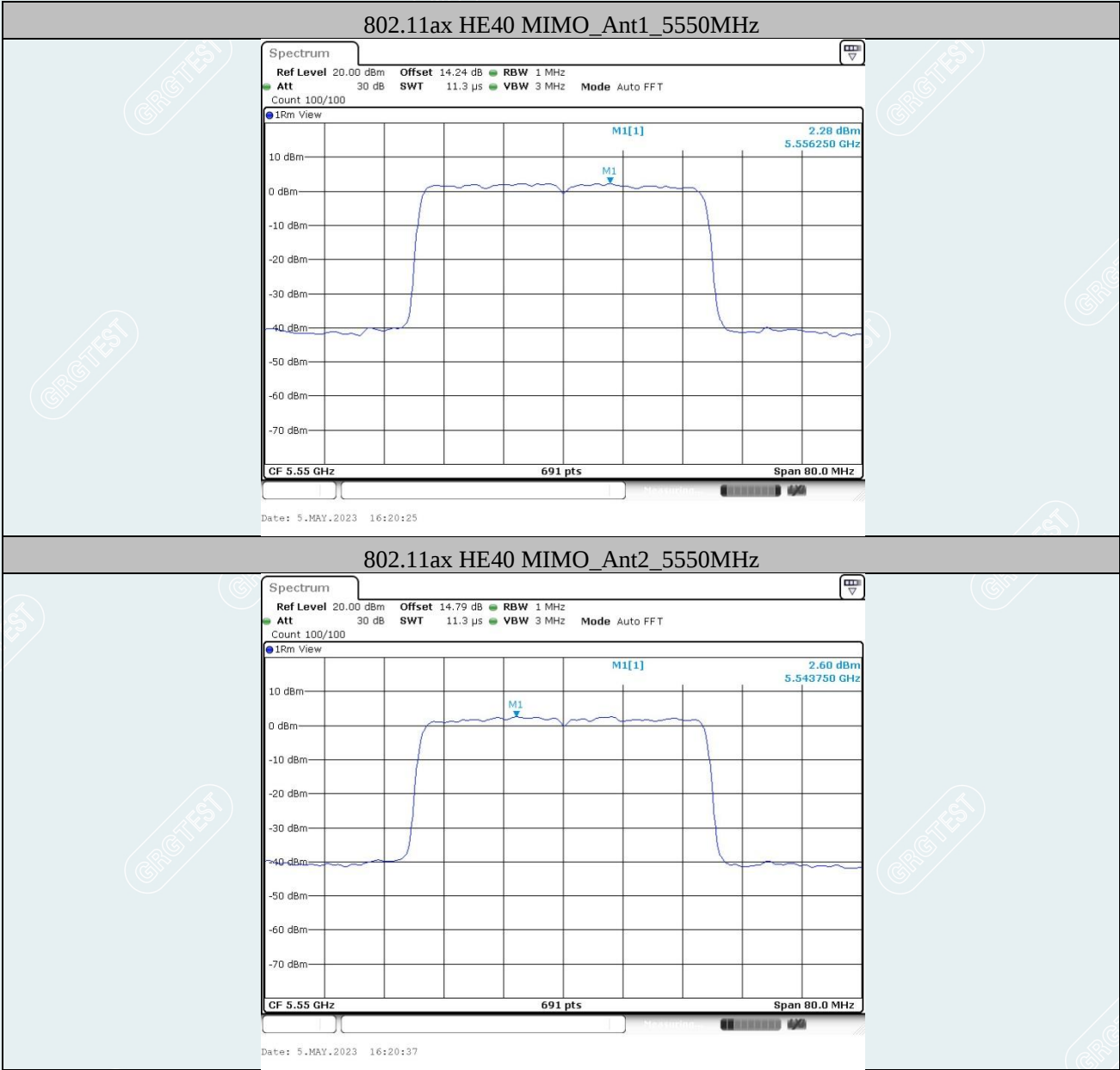


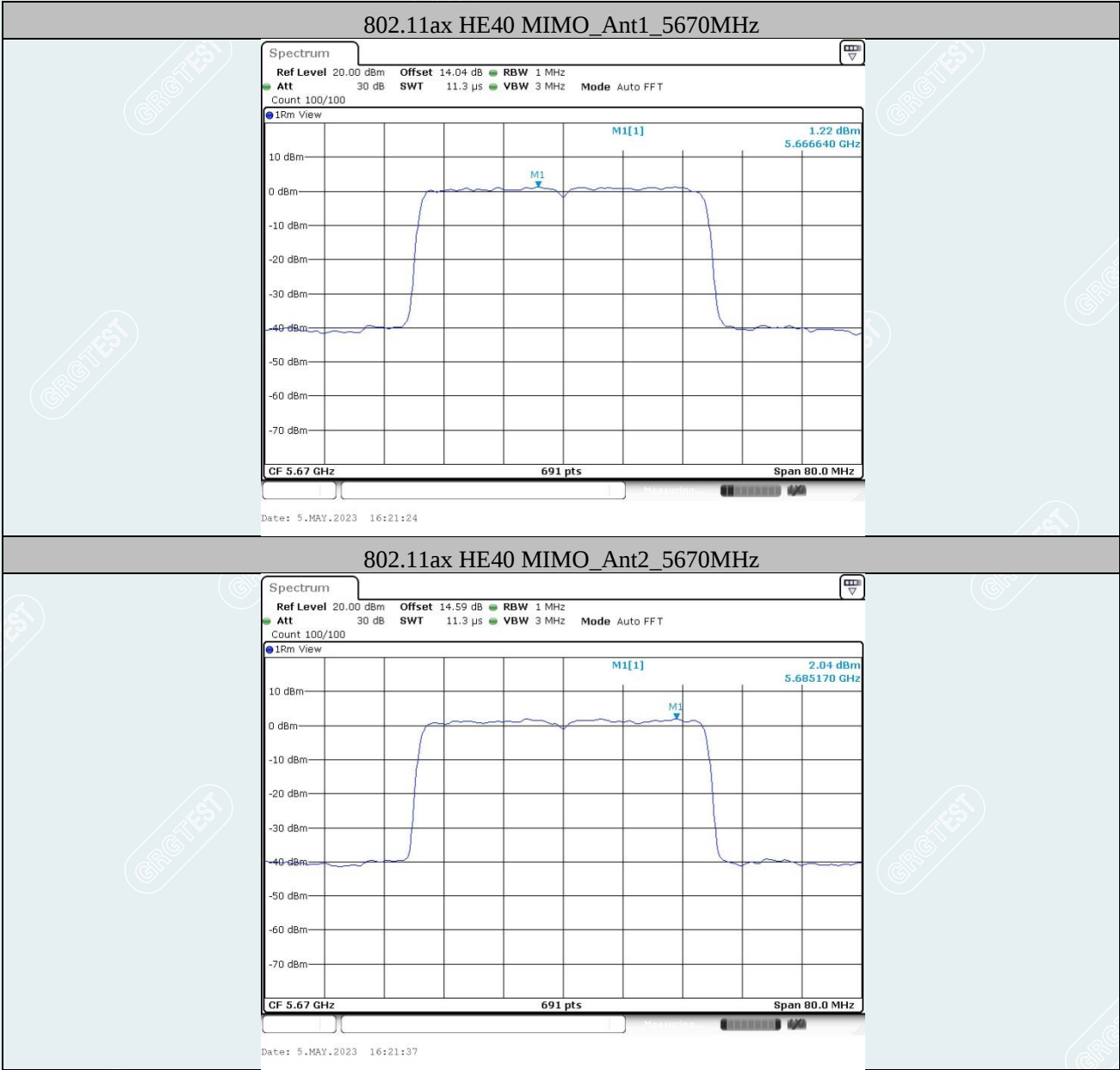


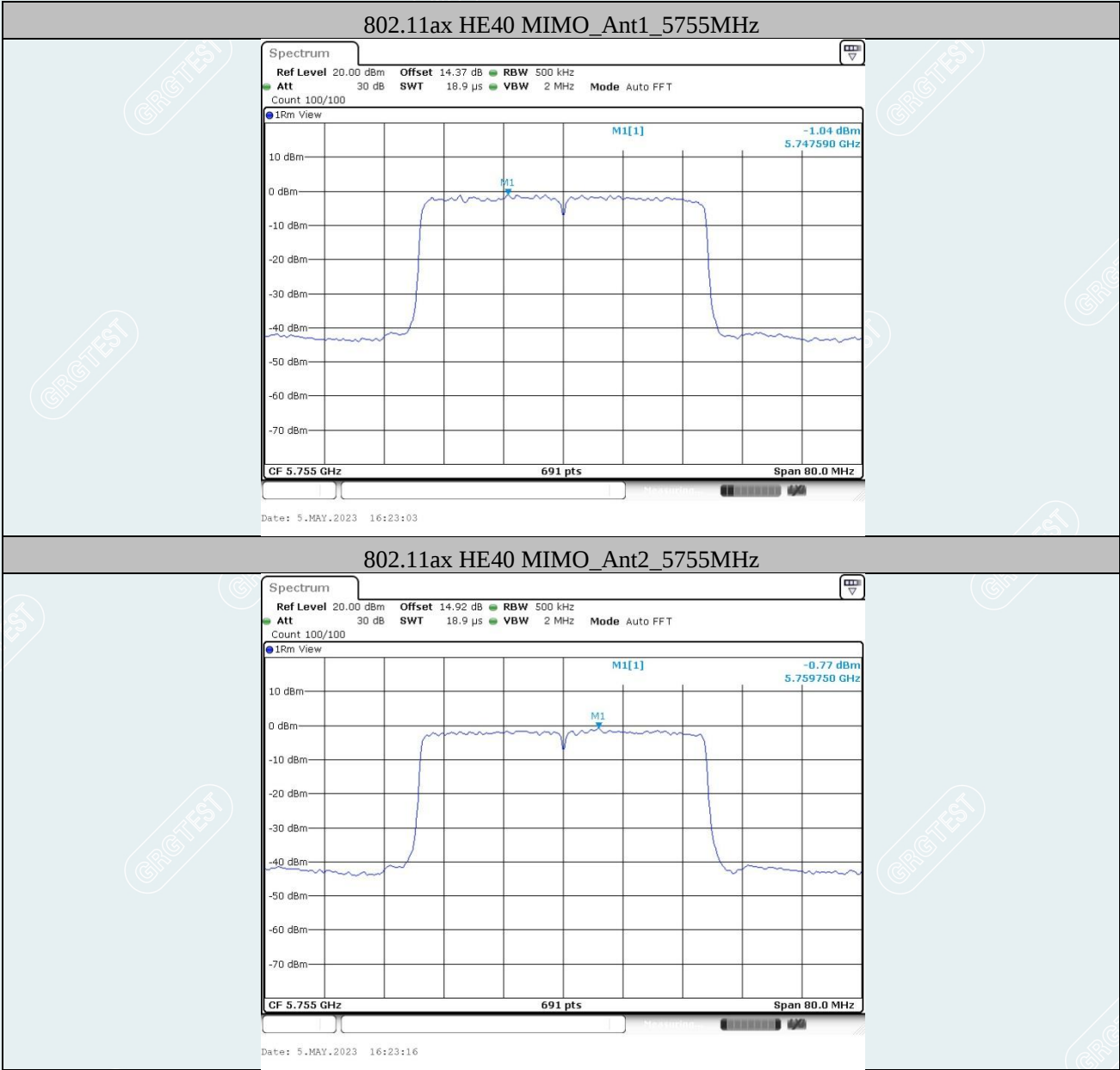


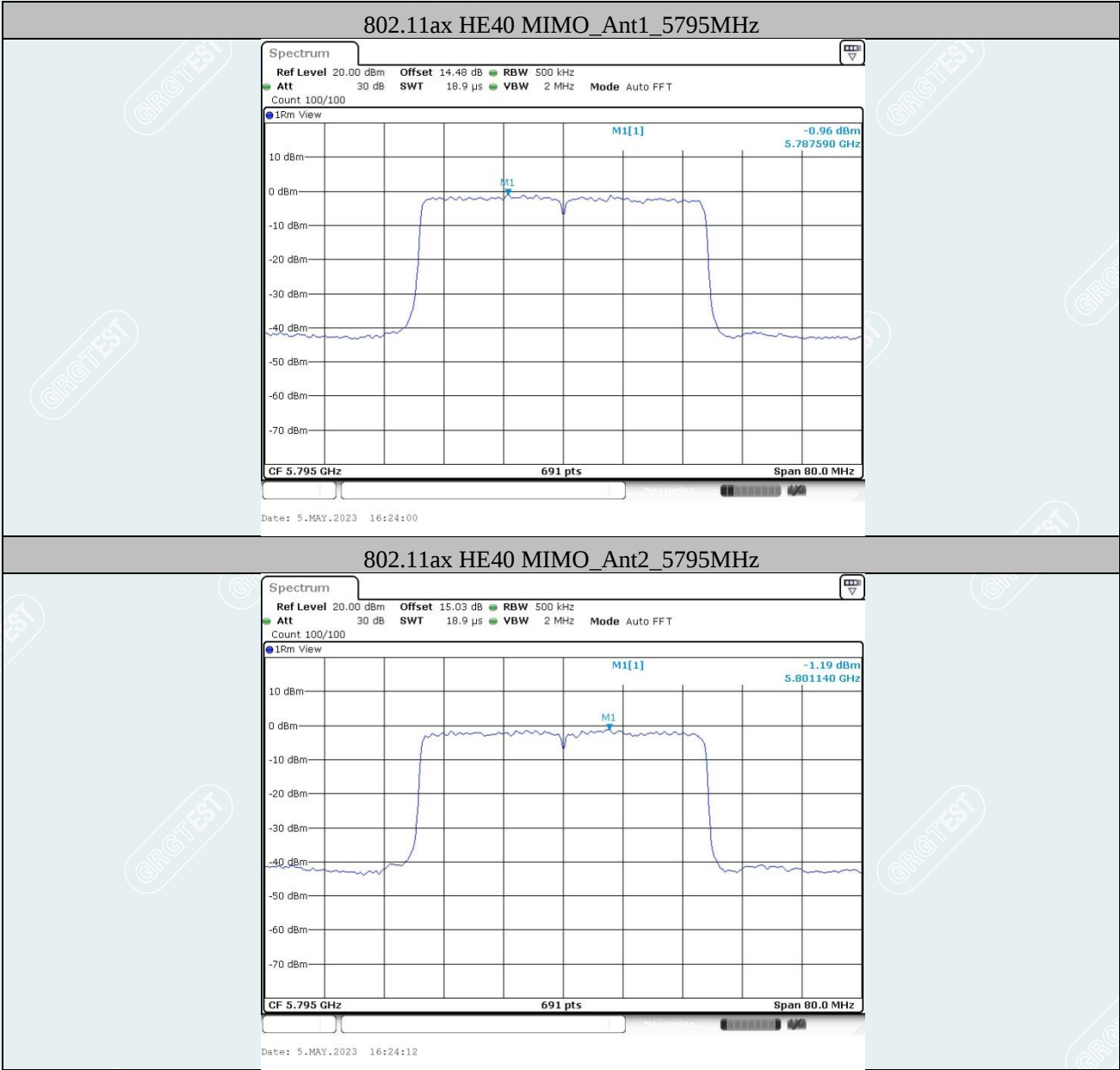


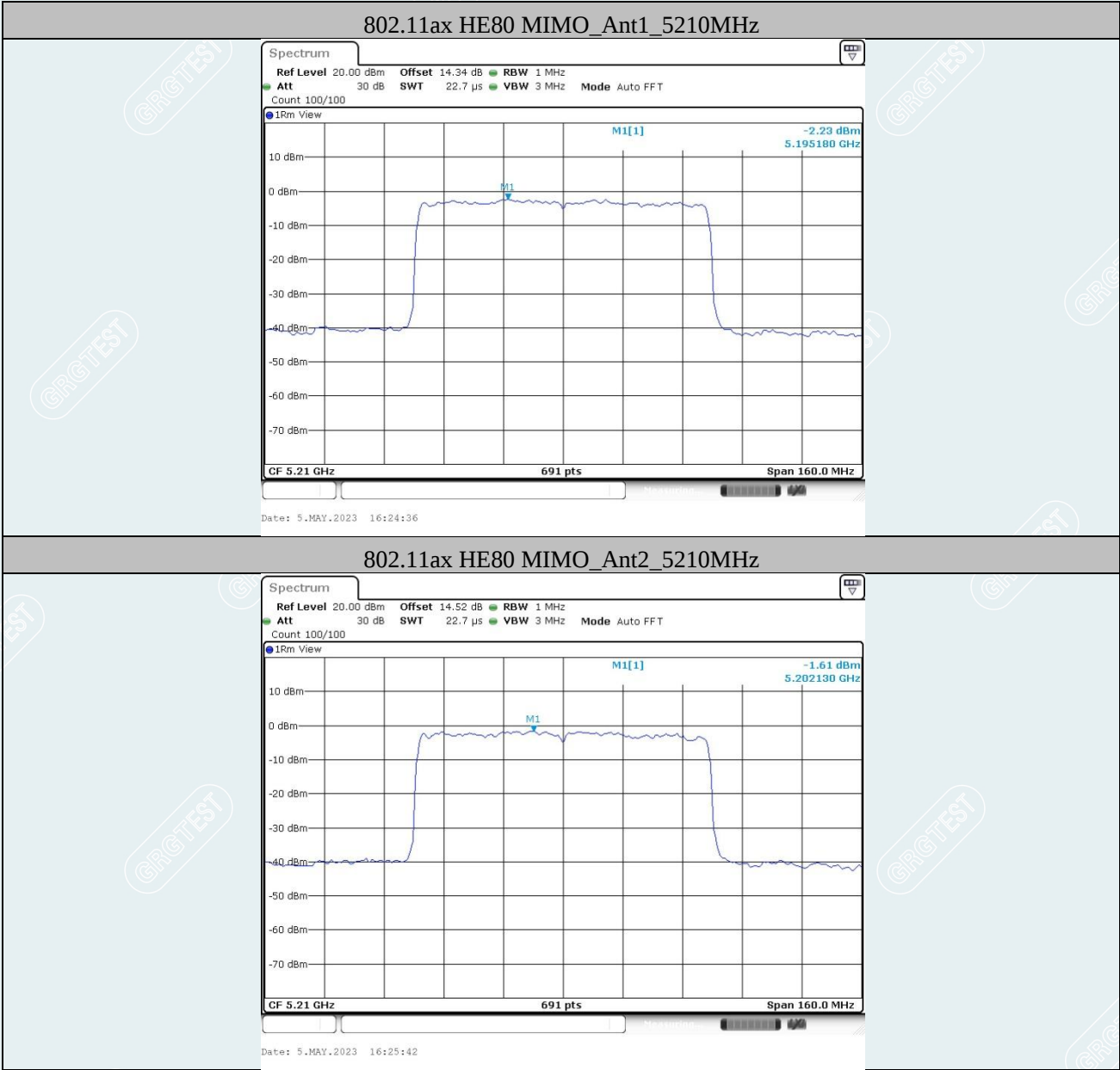


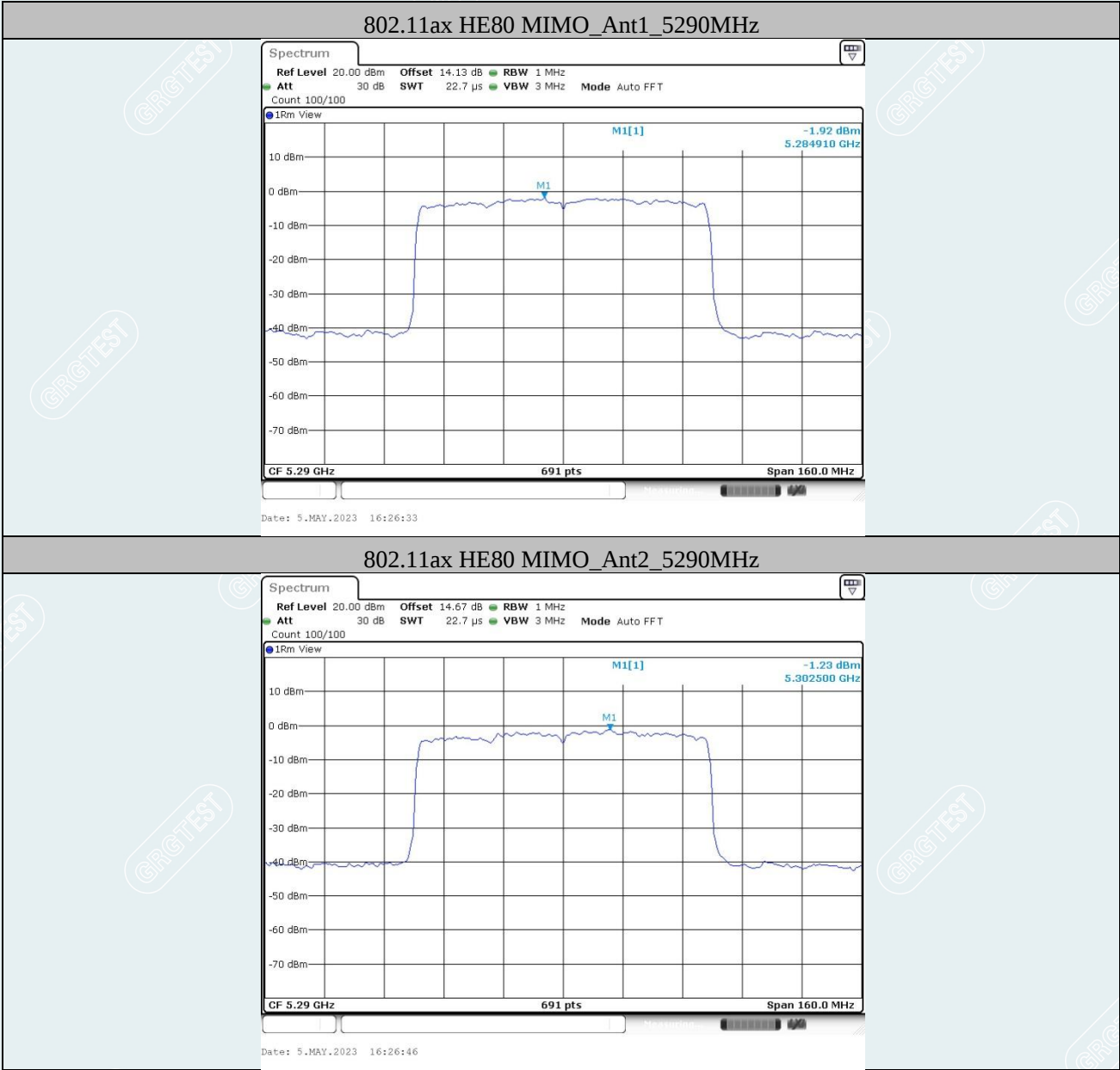


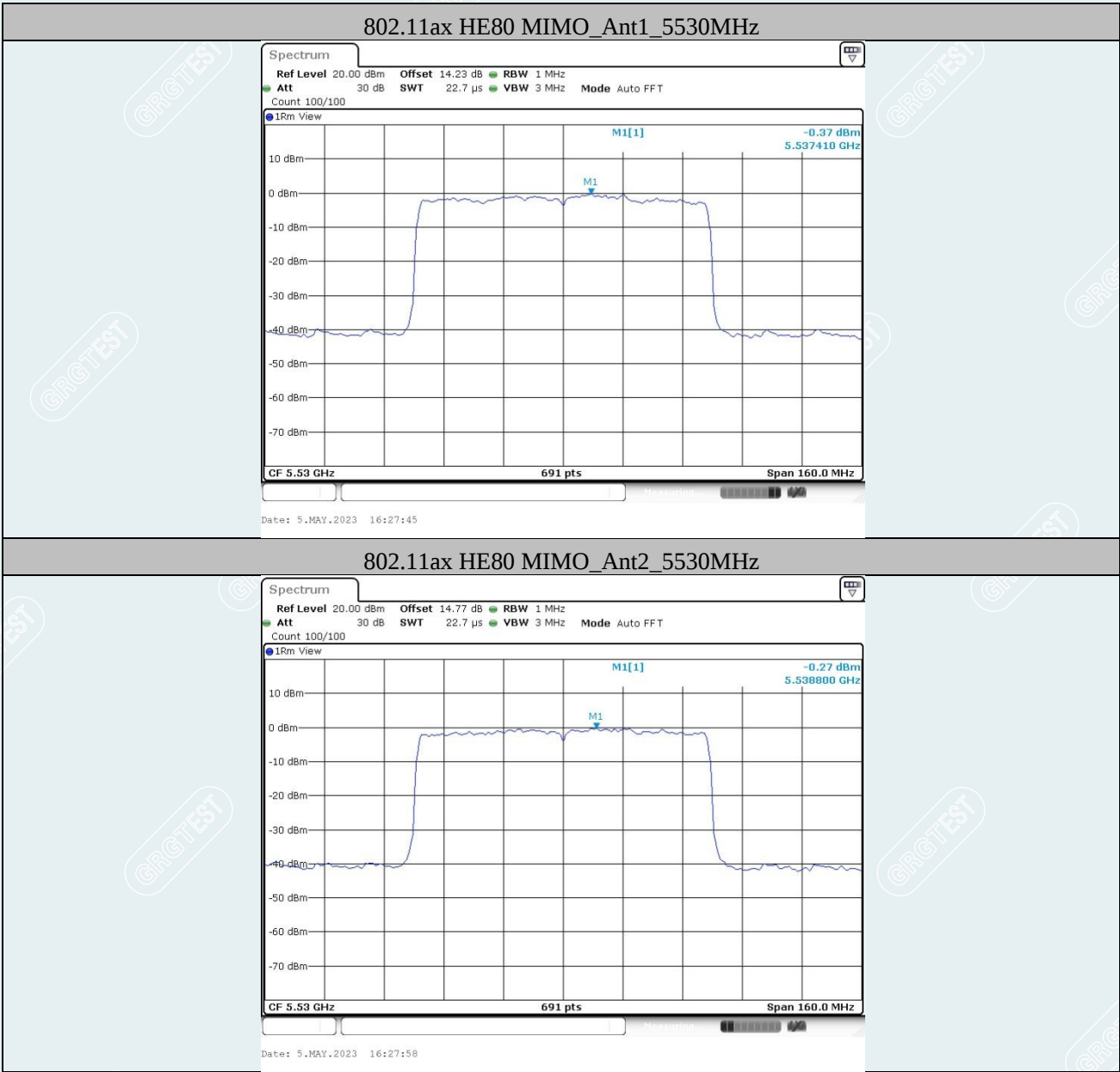




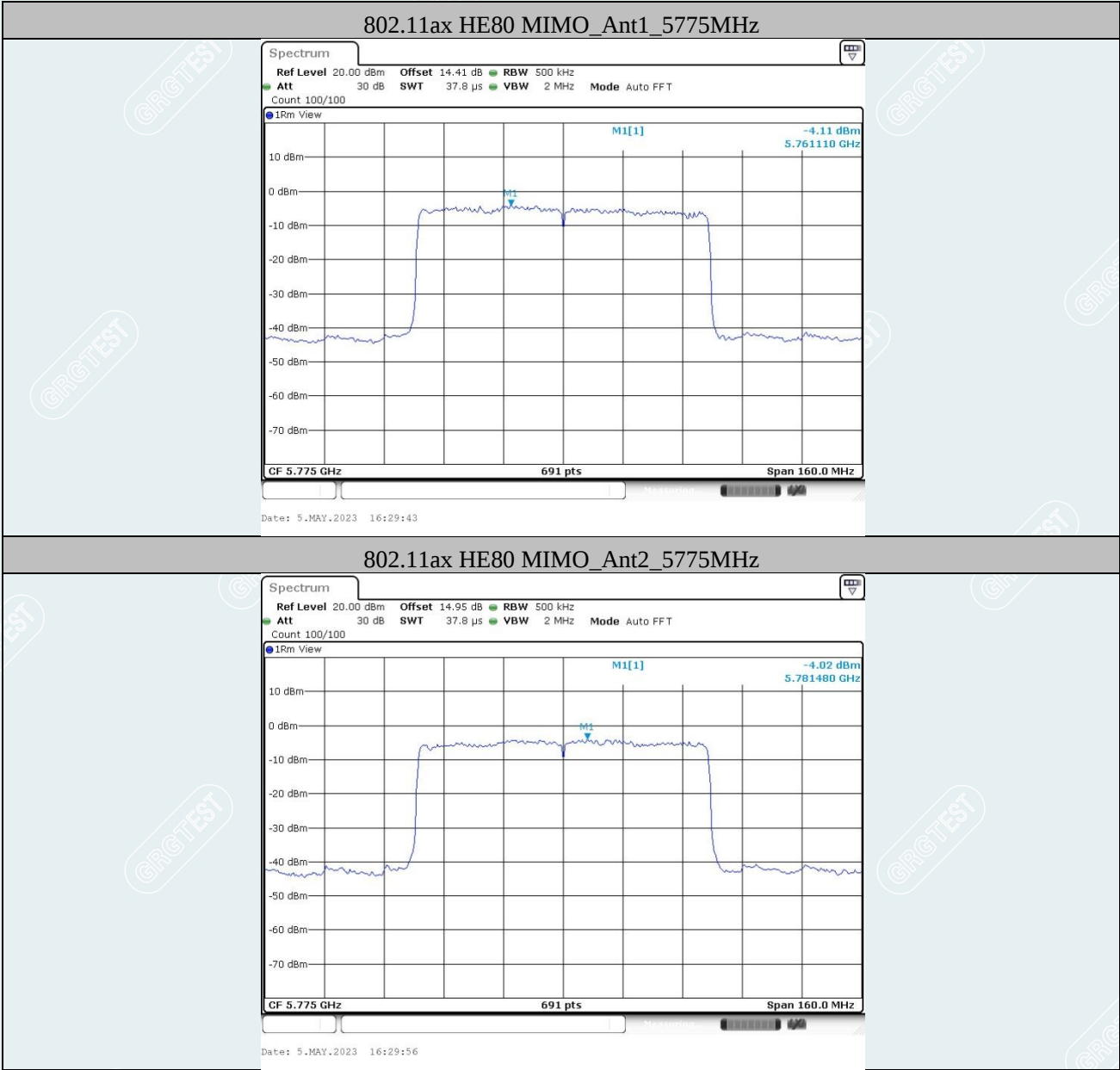




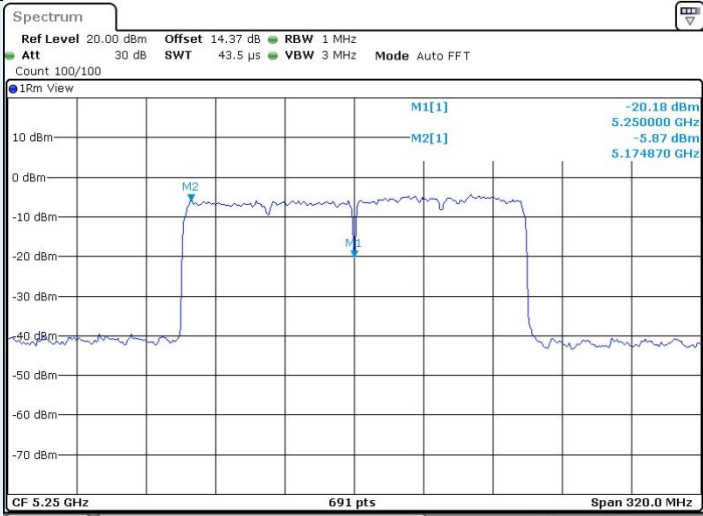






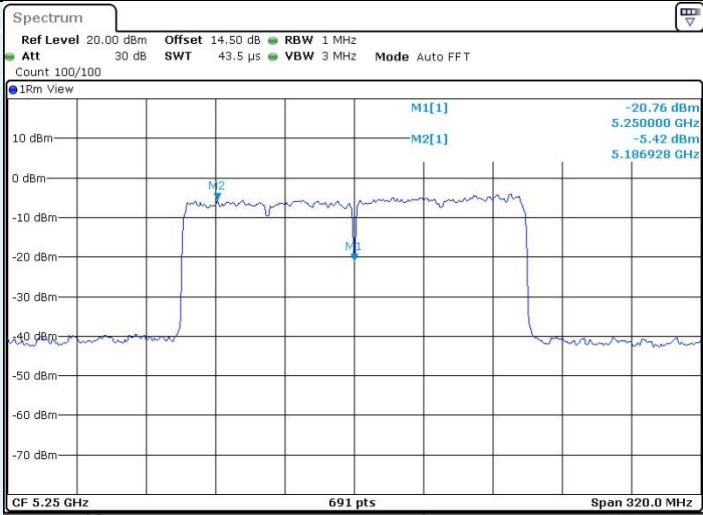


802.11ax HE160 MIMO_Ant1_5250MHz_UNII-1

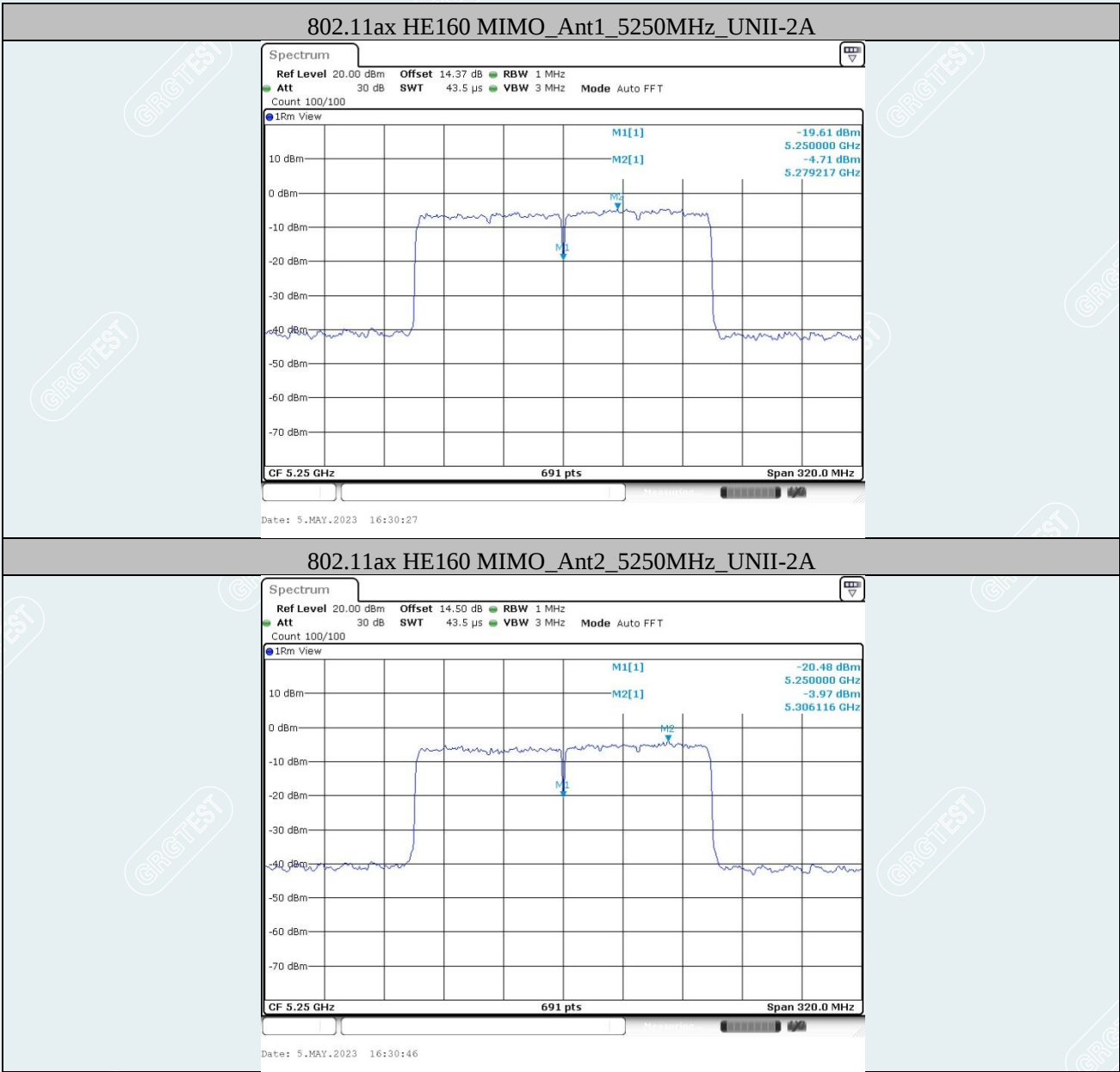


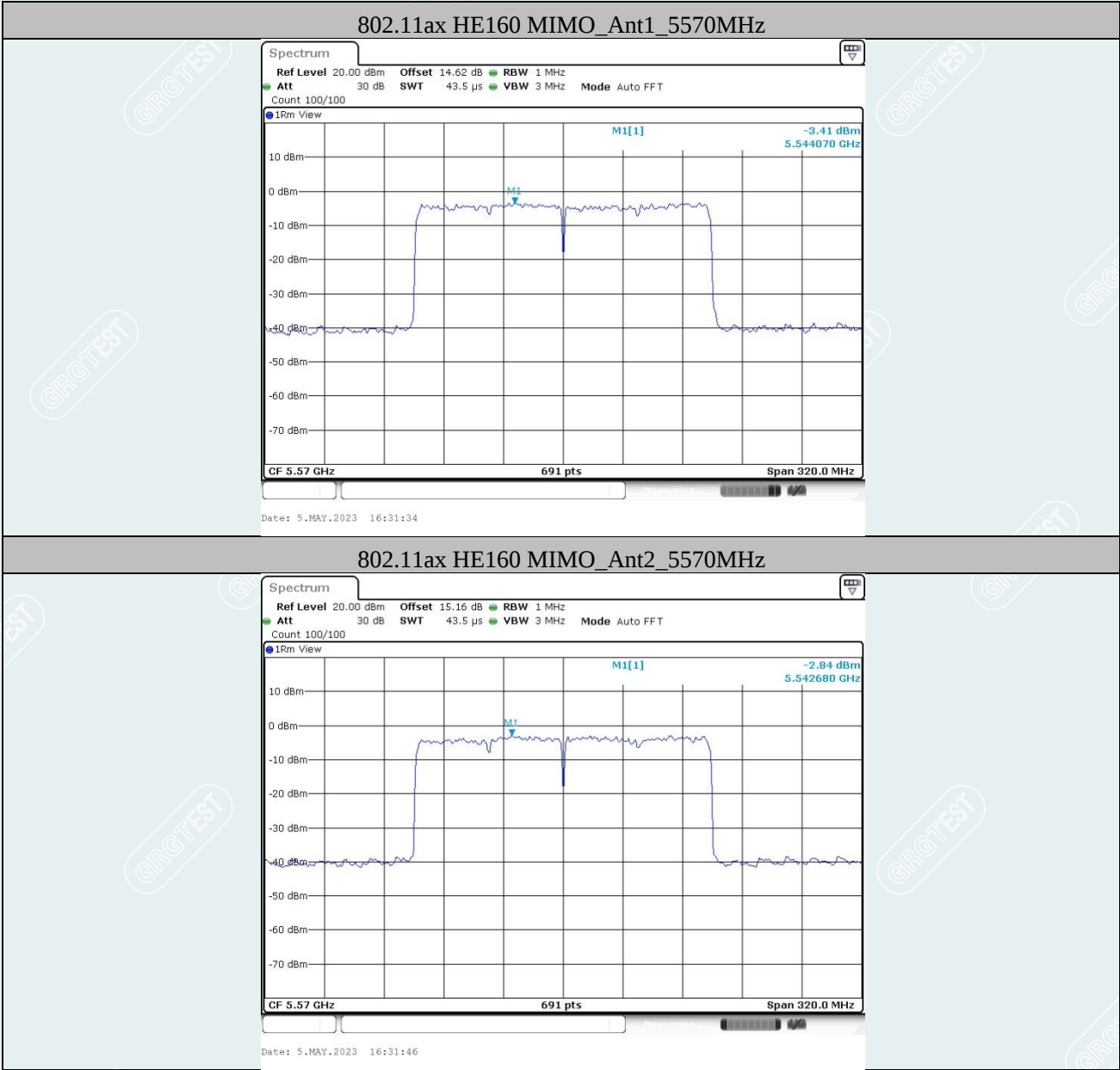
Date: 5.MAY.2023 16:30:22

802.11ax HE160 MIMO_Ant2_5250MHz_UNII-1



Date: 5.MAY.2023 16:30:40





11. FREQUENCY STABILITY

11.1. LIMITS

According to §15.407(g), manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

11.2. TEST PROCEDURES

(1) Frequency stability with respect to ambient temperature

- a) Supply the EUT with a nominal ac voltage or install a new or fully charged battery in the EUT. If possible, a dummy load shall be connected to the EUT because an antenna near the metallic walls of an environmental test chamber could affect the output frequency of the EUT. If the EUT is equipped with a permanently attached, adjustable-length antenna, then the EUT shall be placed in the center of the chamber with the antenna adjusted to the shortest length possible. Turn ON the EUT and tune it to one of the number of frequencies shown in §ANSI C63.10-2013(5.6).
- b) Couple the unlicensed wireless device output to the measuring instrument by connecting an antenna to the measuring instrument with a suitable length of coaxial cable and placing the measuring antenna near the EUT (e.g., 15 cm away), or by connecting a dummy load to the measuring instrument, through an attenuator if necessary.

NOTE—An instrument that has an adequate level of accuracy as specified by the procuring or regulatory agency is the recommended measuring instrument.

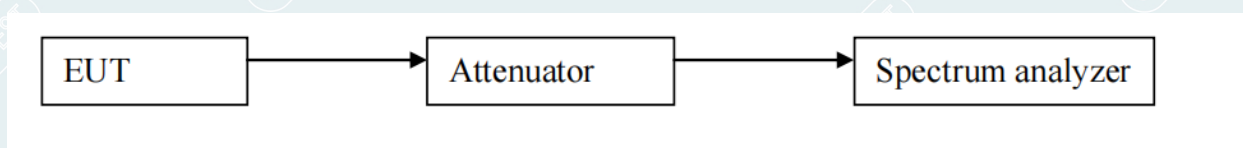
- c) Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).
- d) Turn the EUT OFF and place it inside the environmental temperature chamber. For devices that have oscillator heaters, energize only the heater circuit.
- e) Set the temperature control on the chamber to the highest specified in the regulatory requirements for the type of device and allow the oscillator heater and the chamber temperature to stabilize.
- f) While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.
- g) Measure the frequency at each of frequencies specified in §ANSI C63.10-2013(5.6).
- h) Switch OFF the EUT but do not switch OFF the oscillator heater.
- i) Lower the chamber temperature by not more than 10°C, and allow the temperature inside the chamber to stabilize.
- j) Repeat step f) through step i) down to the lowest specified temperature.

(2) Frequency stability when varying supply voltage

- a) Supply the EUT with nominal voltage or install a new or fully charged battery in the EUT. Turn ON the EUT and couple its output to a frequency counter or other frequency-measuring instrument.

NOTE—An instrument that has an adequate level of accuracy as specified by the procuring or regulatory agency is the recommended measuring instrument.

- b) Tune the EUT to one of the number of frequencies required in §ANSI C63.10-2013(5.6). Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).
- c) Measure the frequency at each of the frequencies specified in §ANSI C63.10-2013(5.6).
- d) Repeat the above procedure at 85% and 115% of the nominal supply voltage as described in §ANSI C63.10-2013(5.13).

11.3. TEST SETUP

----- The following blanks -----

11.4. TEST RESULTS

Tested By	Huang Tianmei	Tested Date	2023/05/03
Environmental Conditions	23.9℃/47%RH	Test Voltage	AC120V/60Hz

Voltage								
TestMode	Antenna	Freq(MHz)	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
/	Ant1	5180	NV	NT	32000.00	6.177606	20	PASS
			LV	NT	32000.00	6.177606	20	PASS
			HV	NT	31000.00	5.984556	20	PASS
	Ant2	5180	NV	NT	17000.00	3.281853	20	PASS
			LV	NT	17000.00	3.281853	20	PASS
			HV	NT	17000.00	3.281853	20	PASS
	Ant1	5200	NV	NT	26000.00	5.000000	20	PASS
			LV	NT	25000.00	4.807692	20	PASS
			HV	NT	26000.00	5.000000	20	PASS
	Ant2	5200	NV	NT	17000.00	3.269231	20	PASS
			LV	NT	17000.00	3.269231	20	PASS
			HV	NT	16000.00	3.076923	20	PASS
	Ant1	5240	NV	NT	23000.00	4.389313	20	PASS
			LV	NT	22000.00	4.198473	20	PASS
			HV	NT	22000.00	4.198473	20	PASS
	Ant2	5240	NV	NT	17000.00	3.244275	20	PASS
			LV	NT	17000.00	3.244275	20	PASS
			HV	NT	16000.00	3.053435	20	PASS
	Ant1	5260	NV	NT	21000.00	3.992395	20	PASS
			LV	NT	21000.00	3.992395	20	PASS
			HV	NT	21000.00	3.992395	20	PASS
	Ant2	5260	NV	NT	17000.00	3.231939	20	PASS
			LV	NT	16000.00	3.041825	20	PASS
			HV	NT	17000.00	3.231939	20	PASS
	Ant1	5280	NV	NT	19000.00	3.598485	20	PASS
			LV	NT	19000.00	3.598485	20	PASS
			HV	NT	19000.00	3.598485	20	PASS
	Ant2	5280	NV	NT	17000.00	3.219697	20	PASS
			LV	NT	17000.00	3.219697	20	PASS
			HV	NT	17000.00	3.219697	20	PASS
	Ant1	5320	NV	NT	19000.00	3.571429	20	PASS
			LV	NT	19000.00	3.571429	20	PASS
			HV	NT	19000.00	3.571429	20	PASS
	Ant2	5320	NV	NT	17000.00	3.195489	20	PASS
			LV	NT	17000.00	3.195489	20	PASS
			HV	NT	17000.00	3.195489	20	PASS
	Ant1	5500	NV	NT	19000.00	3.454545	20	PASS
			LV	NT	19000.00	3.454545	20	PASS
			HV	NT	19000.00	3.454545	20	PASS
	Ant2	5500	NV	NT	18000.00	3.272727	20	PASS
			LV	NT	17000.00	3.090909	20	PASS
			HV	NT	17000.00	3.090909	20	PASS

	Ant1	5580	NV	NT	19000.00	3.405018	20	PASS
			LV	NT	19000.00	3.405018	20	PASS
			HV	NT	19000.00	3.405018	20	PASS
	Ant2	5580	NV	NT	18000.00	3.225806	20	PASS
			LV	NT	18000.00	3.225806	20	PASS
			HV	NT	18000.00	3.225806	20	PASS
	Ant1	5700	NV	NT	19000.00	3.333333	20	PASS
			LV	NT	19000.00	3.333333	20	PASS
			HV	NT	19000.00	3.333333	20	PASS
	Ant2	5700	NV	NT	18000.00	3.157895	20	PASS
			LV	NT	18000.00	3.157895	20	PASS
			HV	NT	18000.00	3.157895	20	PASS
	Ant1	5720	NV	NT	-5000.00	-0.874126	20	PASS
			LV	NT	-5000.00	-0.874126	20	PASS
			HV	NT	-6000.00	-1.048951	20	PASS
	Ant2	5720	NV	NT	-7000.00	-1.223776	20	PASS
			LV	NT	-7000.00	-1.223776	20	PASS
			HV	NT	-8000.00	-1.398601	20	PASS
	Ant1	5745	NV	NT	19000.00	3.307224	20	PASS
			LV	NT	19000.00	3.307224	20	PASS
			HV	NT	19000.00	3.307224	20	PASS
	Ant2	5745	NV	NT	18000.00	3.133159	20	PASS
			LV	NT	18000.00	3.133159	20	PASS
			HV	NT	18000.00	3.133159	20	PASS
	Ant1	5785	NV	NT	19000.00	3.284356	20	PASS
			LV	NT	19000.00	3.284356	20	PASS
			HV	NT	19000.00	3.284356	20	PASS
	Ant2	5785	NV	NT	18000.00	3.111495	20	PASS
			LV	NT	18000.00	3.111495	20	PASS
			HV	NT	18000.00	3.111495	20	PASS
	Ant1	5825	NV	NT	19000.00	3.261803	20	PASS
			LV	NT	19000.00	3.261803	20	PASS
			HV	NT	19000.00	3.261803	20	PASS
	Ant2	5825	NV	NT	19000.00	3.261803	20	PASS
			LV	NT	19000.00	3.261803	20	PASS
			HV	NT	19000.00	3.261803	20	PASS

Temperature								
TestMode	Antenna	Freq(MHz)	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
/	Ant1	5180	NV	0	29000.00	5.598456	20	PASS
			NV	10	29000.00	5.598456	20	PASS
			NV	20	29000.00	5.598456	20	PASS
			NV	30	28000.00	5.405405	20	PASS
			NV	40	28000.00	5.405405	20	PASS
	Ant2	5180	NV	0	17000.00	3.281853	20	PASS
			NV	10	17000.00	3.281853	20	PASS
			NV	20	16000.00	3.088803	20	PASS
			NV	30	17000.00	3.281853	20	PASS
			NV	40	16000.00	3.088803	20	PASS
	Ant1	5200	NV	0	24000.00	4.615385	20	PASS
			NV	10	24000.00	4.615385	20	PASS
			NV	20	24000.00	4.615385	20	PASS
			NV	30	23000.00	4.423077	20	PASS
			NV	40	23000.00	4.423077	20	PASS
	Ant2	5200	NV	0	17000.00	3.269231	20	PASS
			NV	10	16000.00	3.076923	20	PASS
			NV	20	16000.00	3.076923	20	PASS
			NV	30	16000.00	3.076923	20	PASS
			NV	40	16000.00	3.076923	20	PASS
	Ant1	5240	NV	0	22000.00	4.198473	20	PASS
			NV	10	21000.00	4.007634	20	PASS
			NV	20	21000.00	4.007634	20	PASS
			NV	30	21000.00	4.007634	20	PASS
			NV	40	21000.00	4.007634	20	PASS
	Ant2	5240	NV	0	16000.00	3.053435	20	PASS
			NV	10	17000.00	3.244275	20	PASS
			NV	20	16000.00	3.053435	20	PASS
			NV	30	16000.00	3.053435	20	PASS
			NV	40	17000.00	3.244275	20	PASS
	Ant1	5260	NV	0	20000.00	3.802281	20	PASS
			NV	10	20000.00	3.802281	20	PASS
			NV	20	20000.00	3.802281	20	PASS
			NV	30	20000.00	3.802281	20	PASS
			NV	40	20000.00	3.802281	20	PASS
	Ant2	5260	NV	0	16000.00	3.041825	20	PASS
			NV	10	17000.00	3.231939	20	PASS
			NV	20	16000.00	3.041825	20	PASS
			NV	30	16000.00	3.041825	20	PASS
			NV	40	16000.00	3.041825	20	PASS
	Ant1	5280	NV	0	19000.00	3.598485	20	PASS
			NV	10	19000.00	3.598485	20	PASS
			NV	20	19000.00	3.598485	20	PASS
			NV	30	19000.00	3.598485	20	PASS
			NV	40	19000.00	3.598485	20	PASS
	Ant2	5280	NV	0	17000.00	3.219697	20	PASS
			NV	10	17000.00	3.219697	20	PASS
			NV	20	17000.00	3.219697	20	PASS
			NV	30	17000.00	3.219697	20	PASS
			NV	40	16000.00	3.030303	20	PASS

	Ant1	5320	NV	0	18000.00	3.383459	20	PASS
			NV	10	18000.00	3.383459	20	PASS
			NV	20	18000.00	3.383459	20	PASS
			NV	30	18000.00	3.383459	20	PASS
			NV	40	18000.00	3.383459	20	PASS
	Ant2	5320	NV	0	17000.00	3.195489	20	PASS
			NV	10	17000.00	3.195489	20	PASS
			NV	20	17000.00	3.195489	20	PASS
			NV	30	17000.00	3.195489	20	PASS
			NV	40	17000.00	3.195489	20	PASS
	Ant1	5500	NV	0	18000.00	3.272727	20	PASS
			NV	10	19000.00	3.454545	20	PASS
			NV	20	19000.00	3.454545	20	PASS
			NV	30	18000.00	3.272727	20	PASS
			NV	40	18000.00	3.272727	20	PASS
	Ant2	5500	NV	0	17000.00	3.090909	20	PASS
			NV	10	17000.00	3.090909	20	PASS
			NV	20	17000.00	3.090909	20	PASS
			NV	30	18000.00	3.272727	20	PASS
			NV	40	17000.00	3.090909	20	PASS
	Ant1	5580	NV	0	18000.00	3.225806	20	PASS
			NV	10	19000.00	3.405018	20	PASS
			NV	20	18000.00	3.225806	20	PASS
			NV	30	18000.00	3.225806	20	PASS
			NV	40	18000.00	3.225806	20	PASS
	Ant2	5580	NV	0	17000.00	3.046595	20	PASS
			NV	10	18000.00	3.225806	20	PASS
			NV	20	17000.00	3.046595	20	PASS
			NV	30	18000.00	3.225806	20	PASS
			NV	40	17000.00	3.046595	20	PASS
	Ant1	5700	NV	0	19000.00	3.333333	20	PASS
			NV	10	19000.00	3.333333	20	PASS
			NV	20	19000.00	3.333333	20	PASS
			NV	30	19000.00	3.333333	20	PASS
			NV	40	19000.00	3.333333	20	PASS
	Ant2	5700	NV	0	18000.00	3.157895	20	PASS
			NV	10	18000.00	3.157895	20	PASS
			NV	20	18000.00	3.157895	20	PASS
			NV	30	18000.00	3.157895	20	PASS
			NV	40	18000.00	3.157895	20	PASS
	Ant1	5720	NV	0	-6000.00	-1.048951	20	PASS
			NV	10	-6000.00	-1.048951	20	PASS
			NV	20	-7000.00	-1.223776	20	PASS
			NV	30	-7000.00	-1.223776	20	PASS
			NV	40	-7000.00	-1.223776	20	PASS
	Ant2	5720	NV	0	-8000.00	-1.398601	20	PASS
			NV	10	-8000.00	-1.398601	20	PASS
			NV	20	-8000.00	-1.398601	20	PASS
			NV	30	-8000.00	-1.398601	20	PASS
			NV	40	-8000.00	-1.398601	20	PASS
	Ant1	5745	NV	0	19000.00	3.307224	20	PASS
			NV	10	19000.00	3.307224	20	PASS
			NV	20	19000.00	3.307224	20	PASS
			NV	30	19000.00	3.307224	20	PASS

	Ant2	5745	NV	40	19000.00	3.307224	20	PASS
			NV	0	18000.00	3.133159	20	PASS
			NV	10	18000.00	3.133159	20	PASS
			NV	20	18000.00	3.133159	20	PASS
			NV	30	18000.00	3.133159	20	PASS
			NV	40	18000.00	3.133159	20	PASS
	Ant1	5785	NV	0	19000.00	3.284356	20	PASS
			NV	10	19000.00	3.284356	20	PASS
			NV	20	19000.00	3.284356	20	PASS
			NV	30	19000.00	3.284356	20	PASS
			NV	40	19000.00	3.284356	20	PASS
	Ant2	5785	NV	0	19000.00	3.284356	20	PASS
			NV	10	18000.00	3.111495	20	PASS
			NV	20	18000.00	3.111495	20	PASS
			NV	30	18000.00	3.111495	20	PASS
			NV	40	18000.00	3.111495	20	PASS
	Ant1	5825	NV	0	19000.00	3.261803	20	PASS
			NV	10	19000.00	3.261803	20	PASS
			NV	20	19000.00	3.261803	20	PASS
			NV	30	19000.00	3.261803	20	PASS
			NV	40	19000.00	3.261803	20	PASS
	Ant2	5825	NV	0	18000.00	3.090129	20	PASS
			NV	10	19000.00	3.261803	20	PASS
			NV	20	18000.00	3.090129	20	PASS
			NV	30	19000.00	3.261803	20	PASS
			NV	40	18000.00	3.090129	20	PASS

Note: 1.This report records the worst case of temperature change test observation time 0/2/5/10min .

2.Test Voltage-NV: AC120V/60Hz, Test Voltage-LV: AC102V/60Hz, Test Voltage-HV: AC138V/60Hz.

3.Temperature Range: 0℃~40℃, Temperature-NT: 24℃.

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APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM

Please refer to the attached document E20230322442901-6 Test setup photo.

APPENDIX B. PHOTOGRAPH OF THE EUT

Please refer to the attached document E20230322442901-7 EUT Photo.

----- End of Report -----