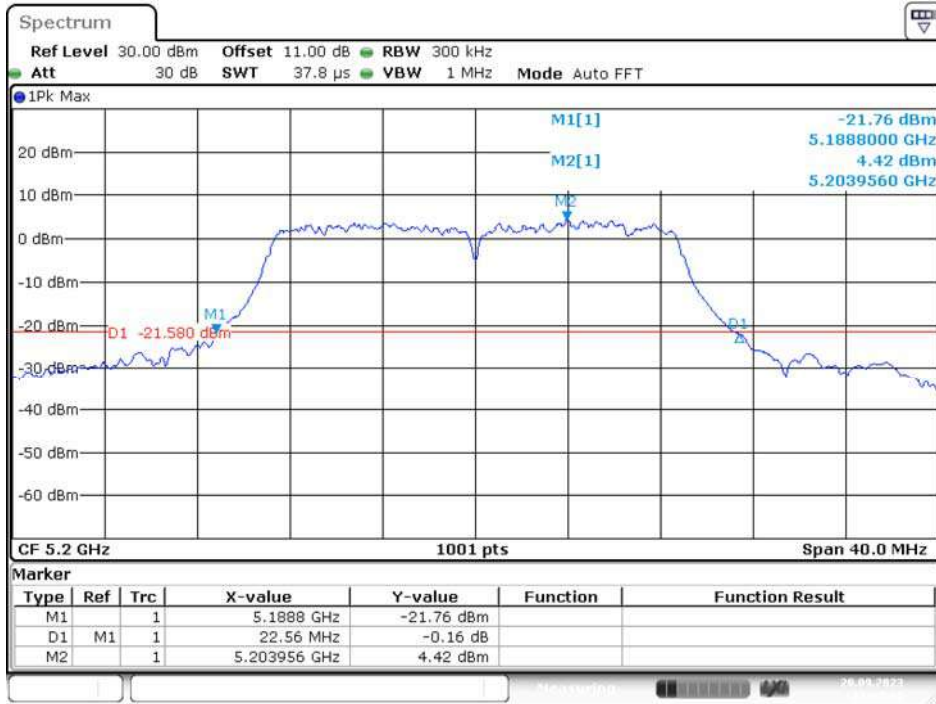
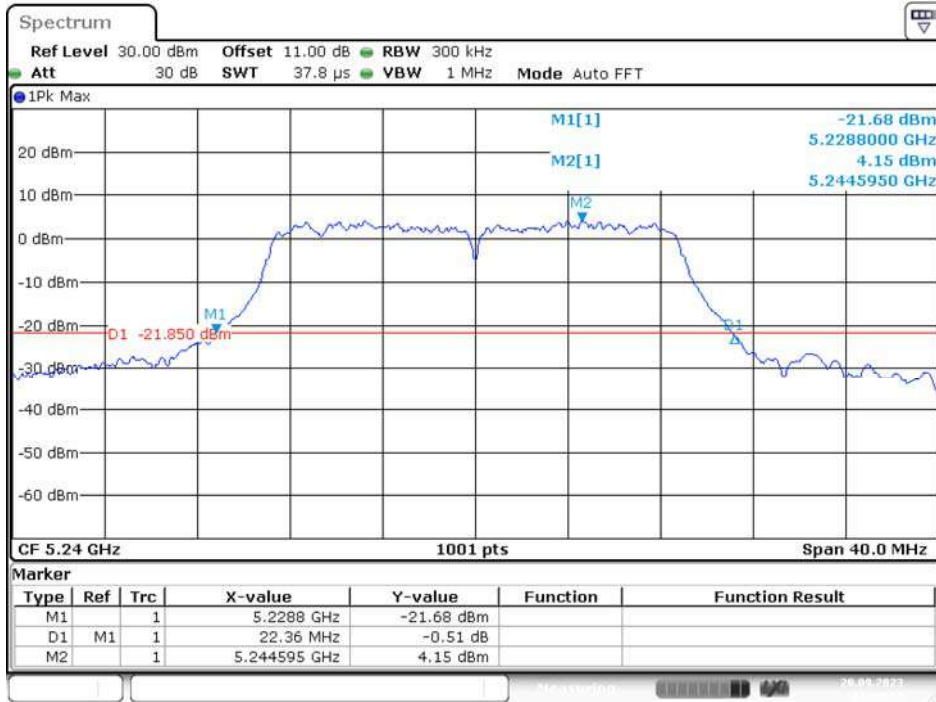


5200MHz



Date: 20.SEP.2023 12:07:43

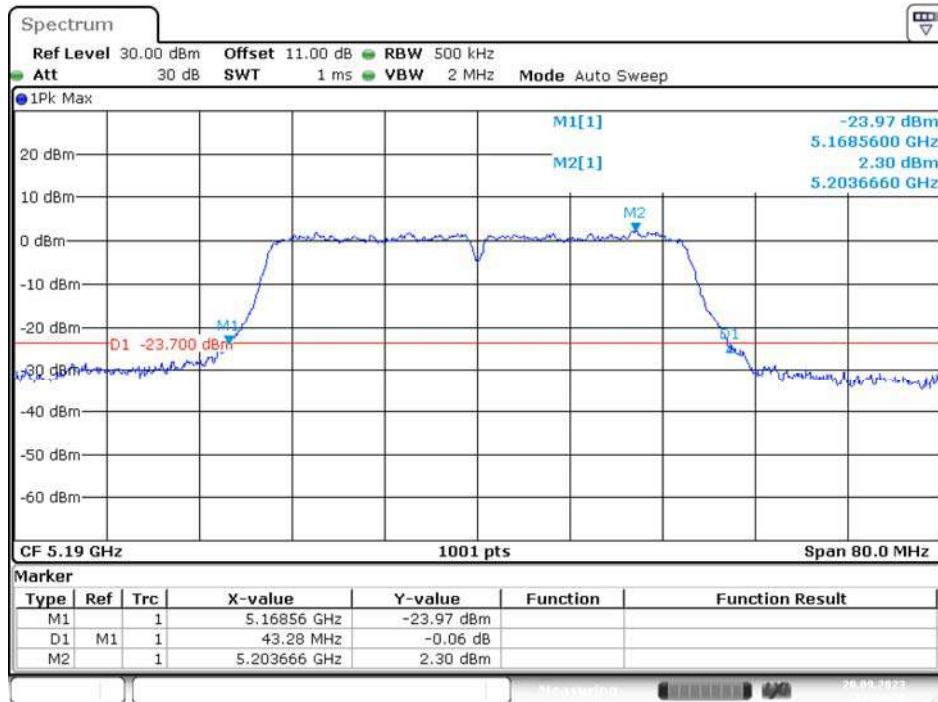
5240MHz



Date: 20.SEP.2023 12:09:48

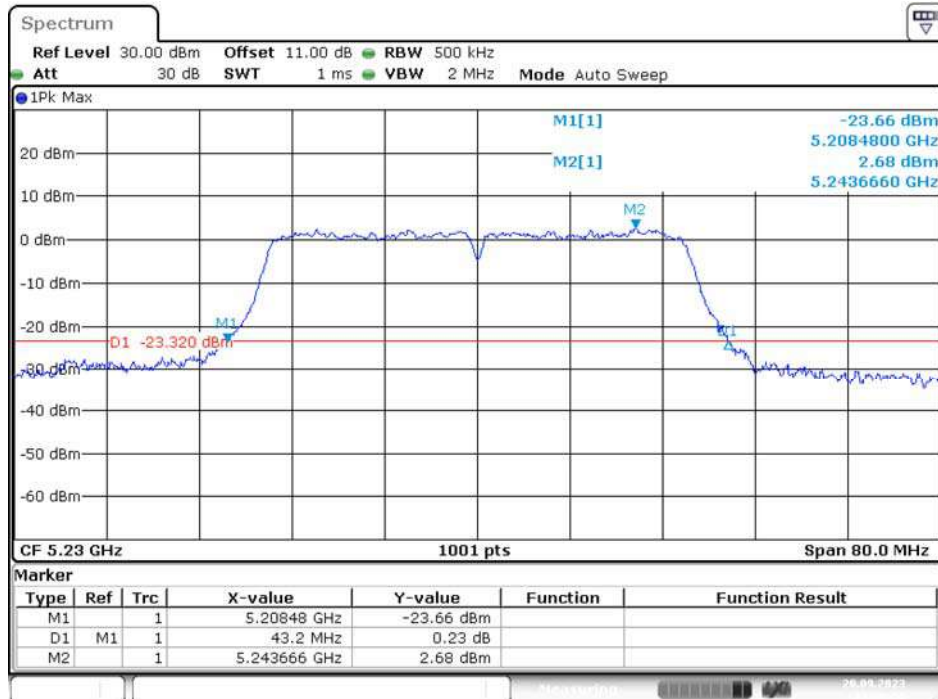
IEEE 802.11ac VHT40 Mode / 5150 ~ 5250MHz

5190MHz



Date: 20.SEP.2023 12:34:27

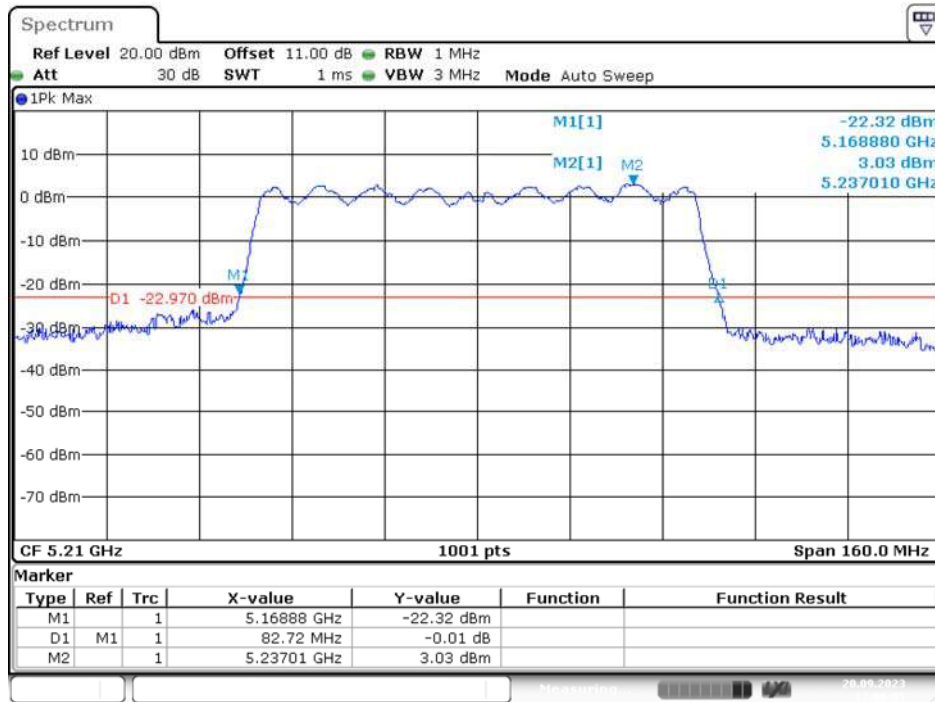
5230MHz



Date: 20.SEP.2023 12:36:37

IEEE 802.11ac VHT80 Mode / 5150 ~ 5250MHz

5210MHz

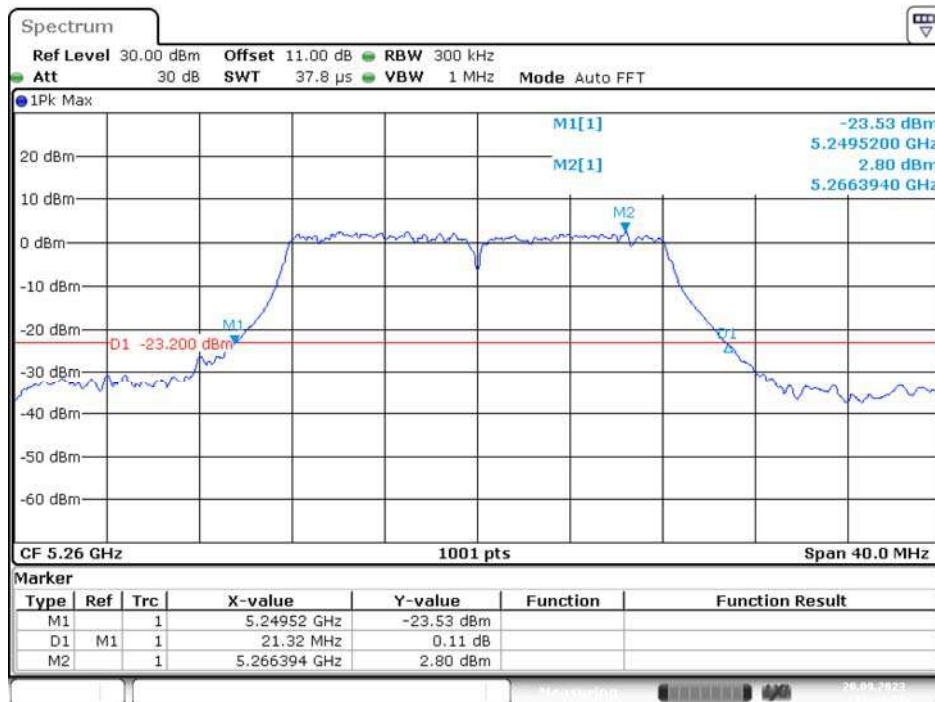


Date: 20.SEP.2023 13:00:05

UNII-2A Band II / BW 26dBc

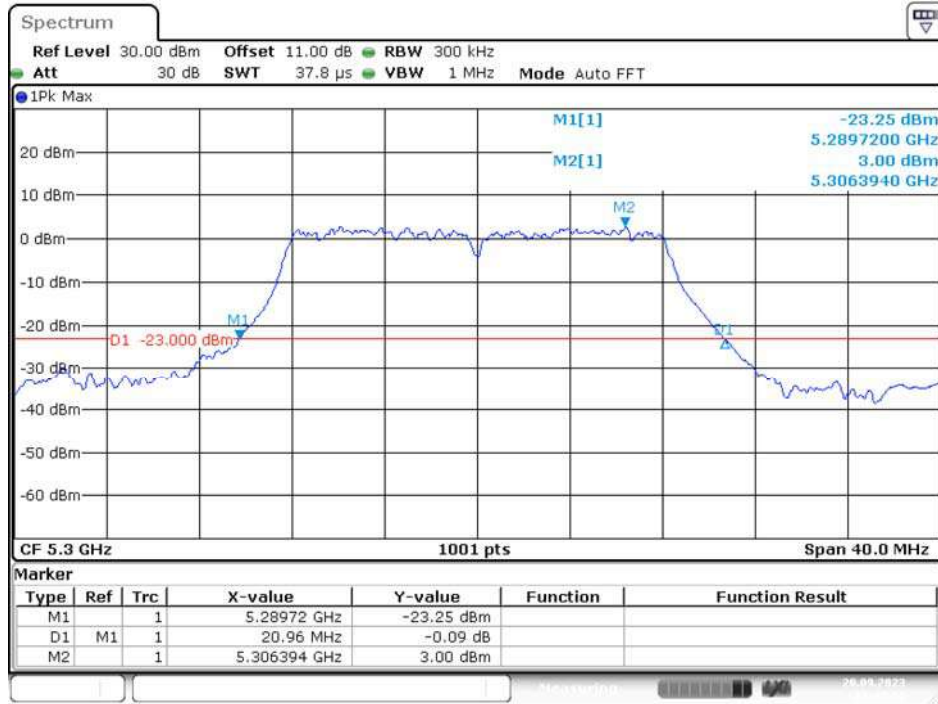
IEEE 802.11a Mode / 5250 ~ 5350MHz

5260MHz



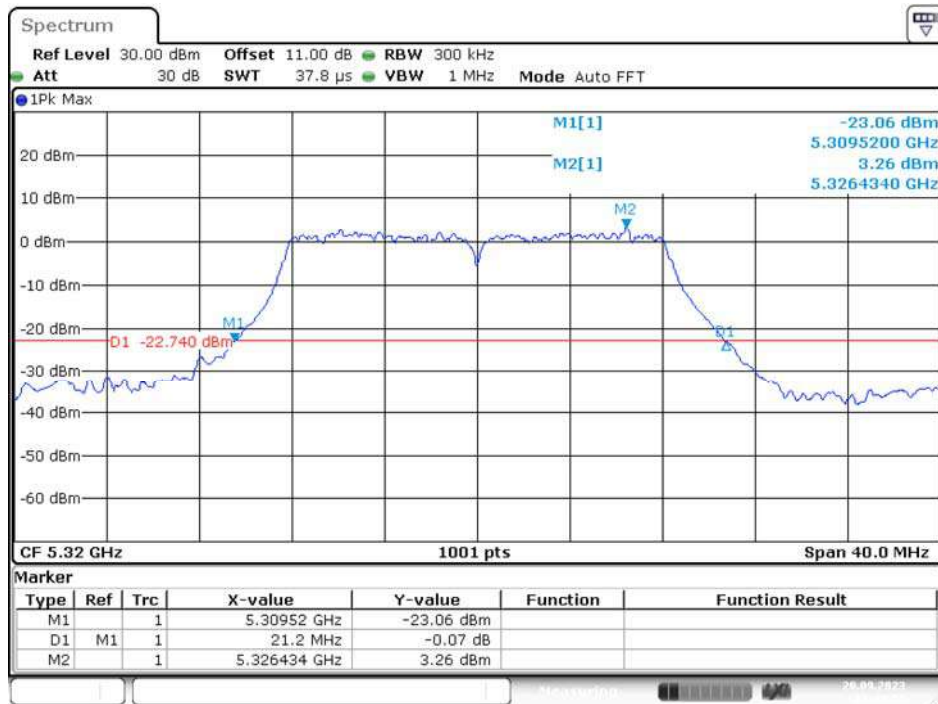
Date: 20.SEP.2023 11:45:00

5300MHz



Date: 20.SEP.2023 11:47:11

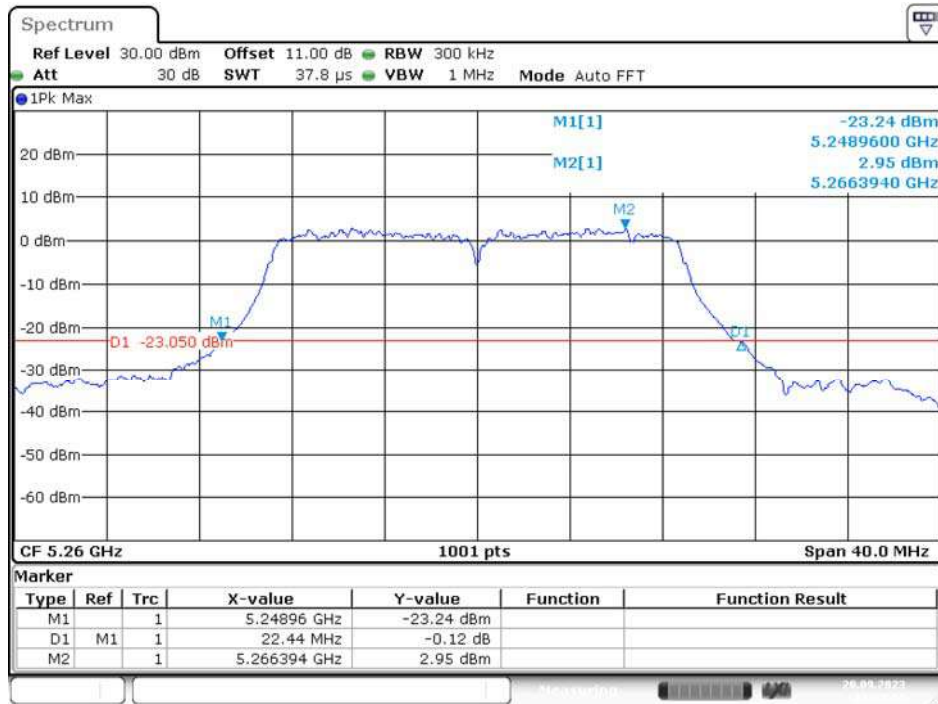
5320MHz



Date: 20.SEP.2023 11:48:57

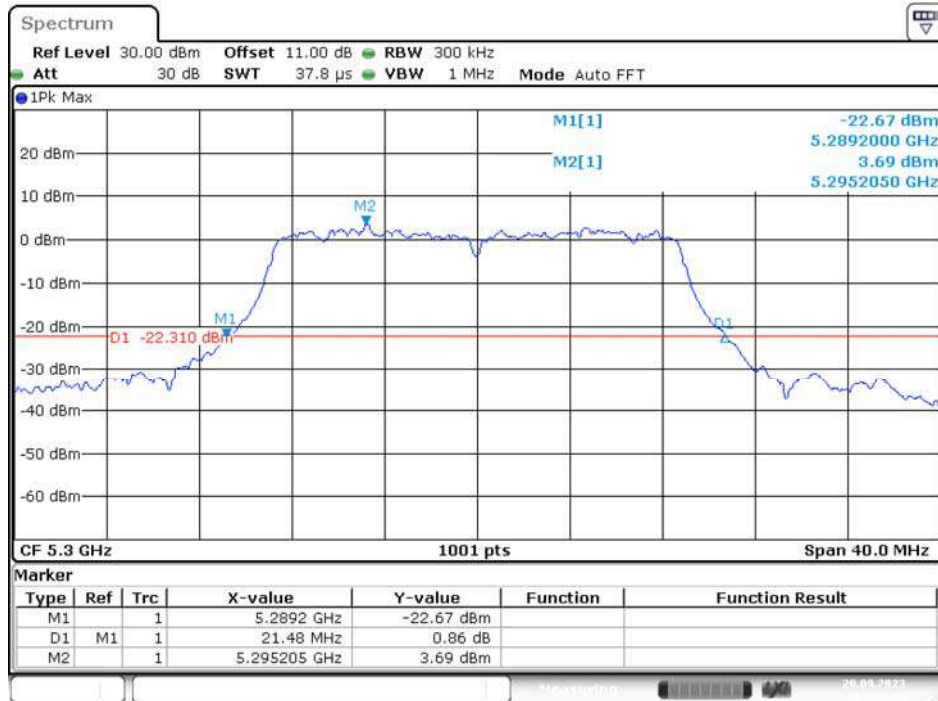
IEEE 802.11ac VHT20 Mode / 5250 ~ 5350MHz

5260MHz



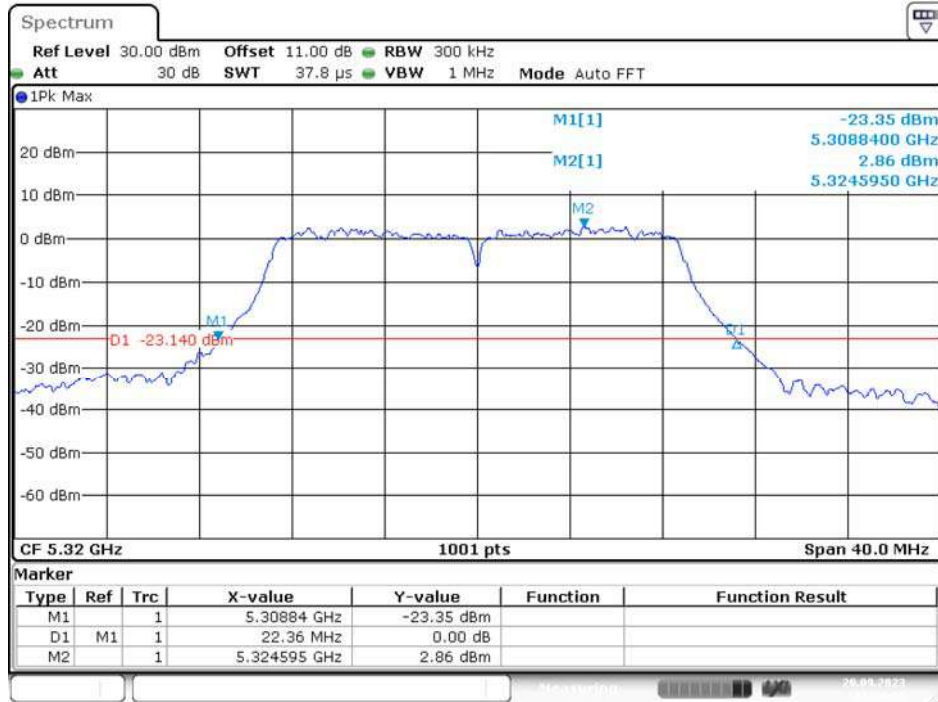
Date: 20.SEP.2023 12:11:17

5300MHz



Date: 20.SEP.2023 12:13:12

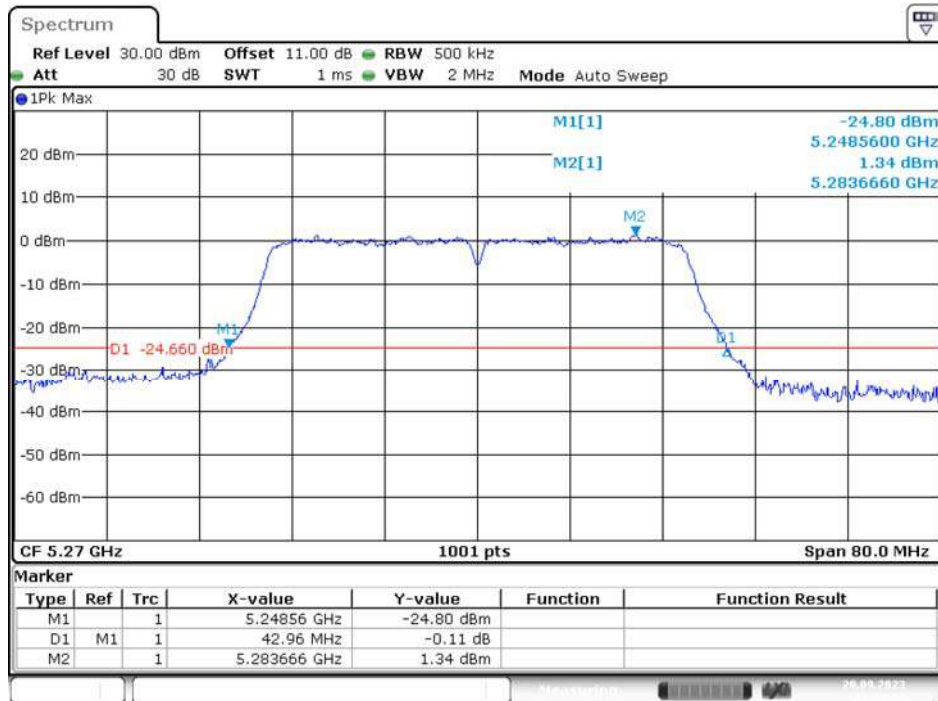
5320MHz



Date: 20.SEP.2023 12:14:49

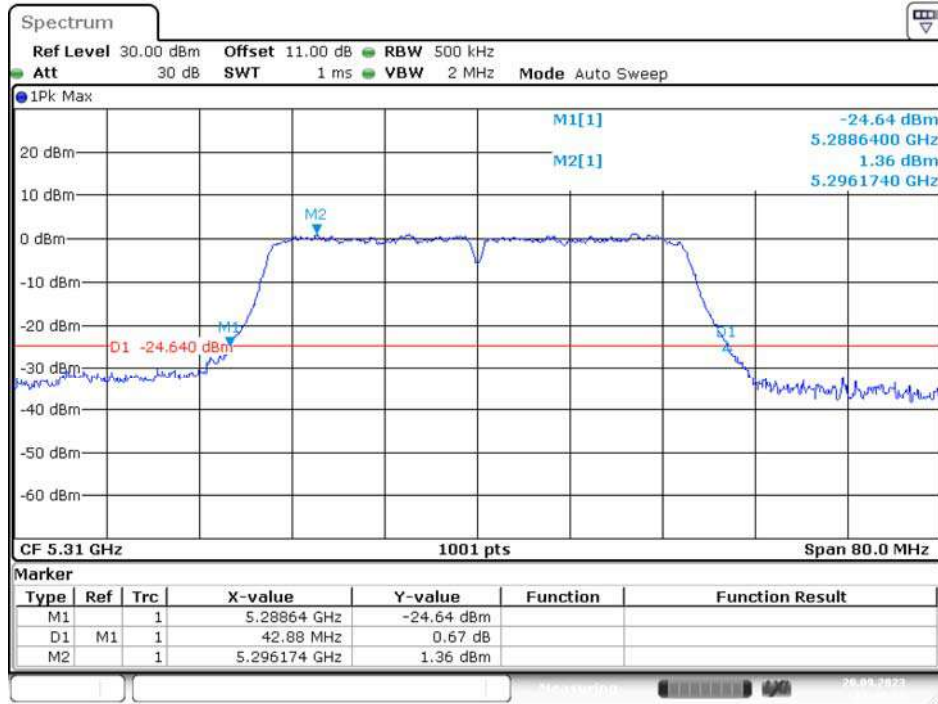
IEEE 802.11ac VHT40 Mode / 5250 ~ 5350MHz

5270MHz



Date: 20.SEP.2023 12:38:58

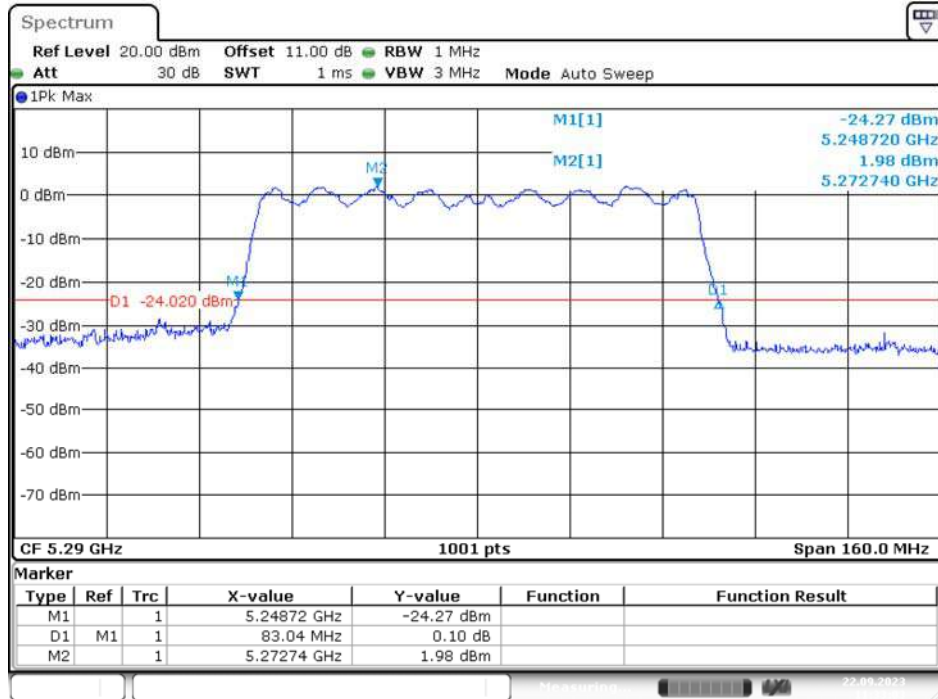
5310MHz



Date: 20.SEP.2023 12:40:34

IEEE 802.11ac VHT80 Mode / 5250 ~ 5350MHz

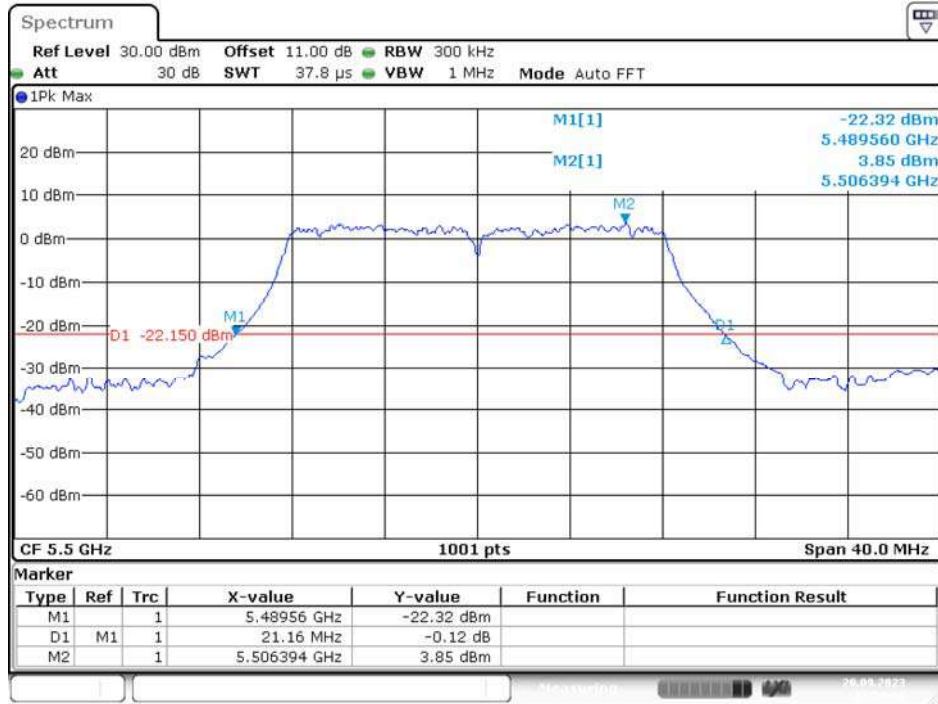
5290MHz



Date: 22.SEP.2023 11:33:03

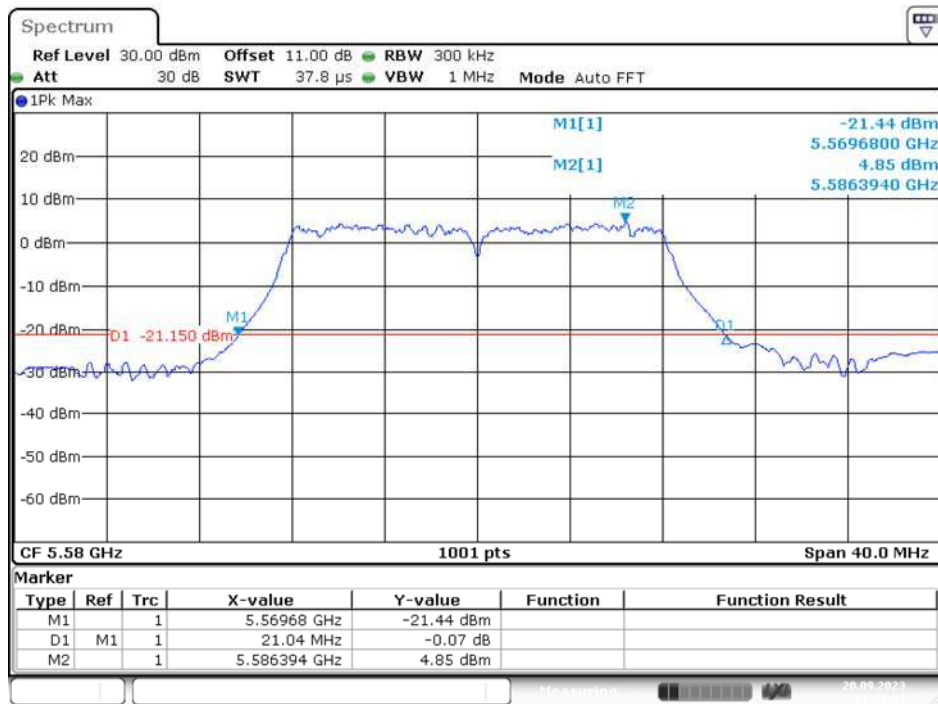
UNII-2C Band III / BW 26dBc
IEEE 802.11a Mode / 5470 ~ 5725MHz

5500MHz



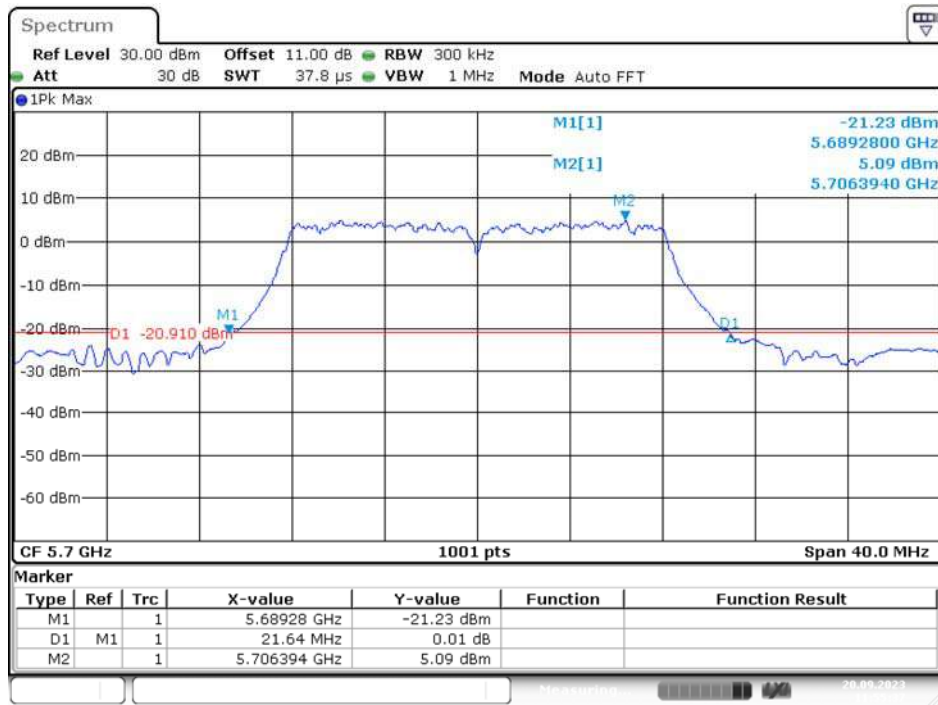
Date: 20.SEP.2023 11:50:40

5580MHz



Date: 20.SEP.2023 11:52:10

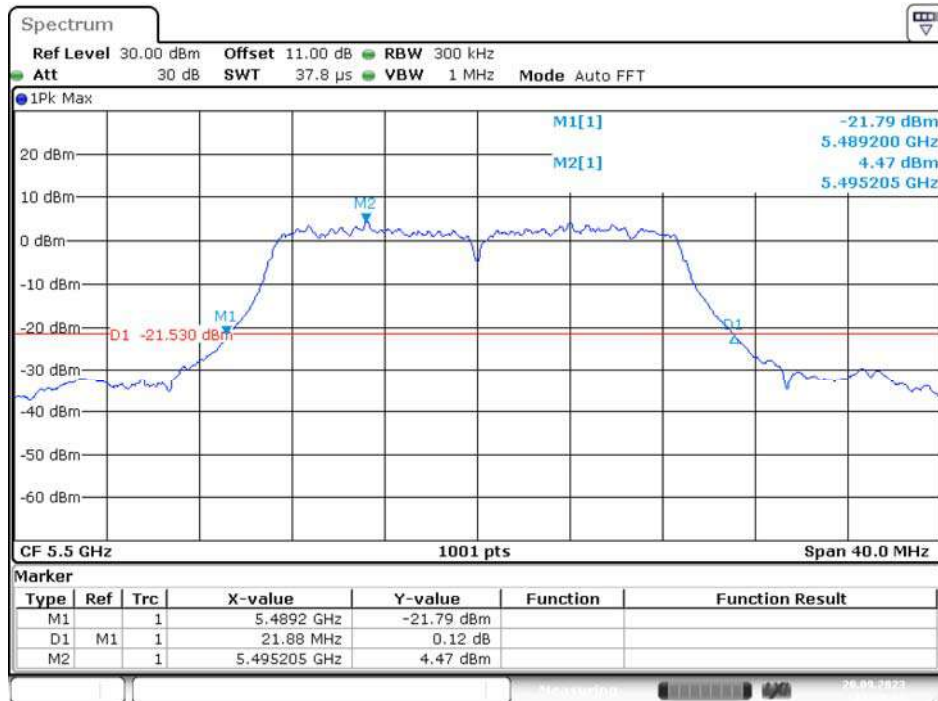
5700MHz



Date: 20.SEP.2023 11:55:38

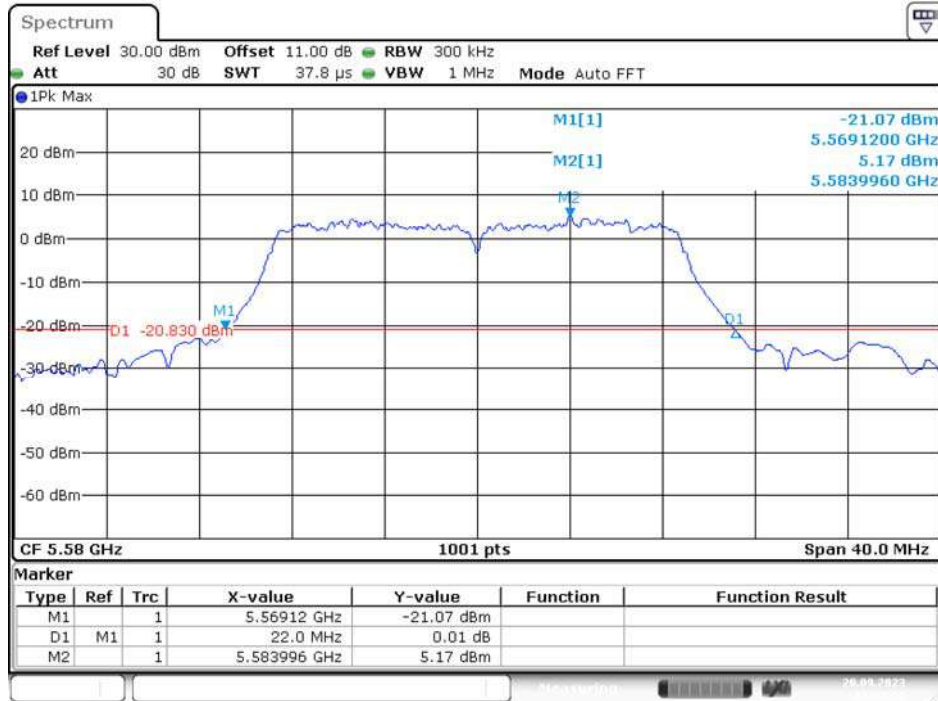
IEEE 802.11ac VHT20 Mode / 5470 ~ 5725MHz

5500MHz



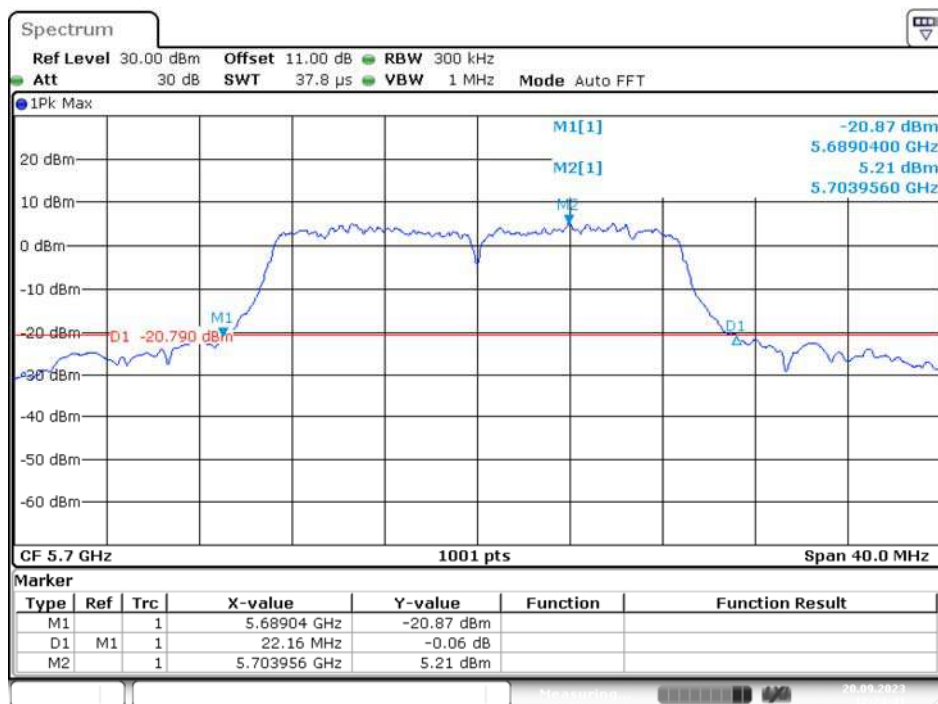
Date: 20.SEP.2023 12:16:43

5580MHz



Date: 20.SEP.2023 12:22:31

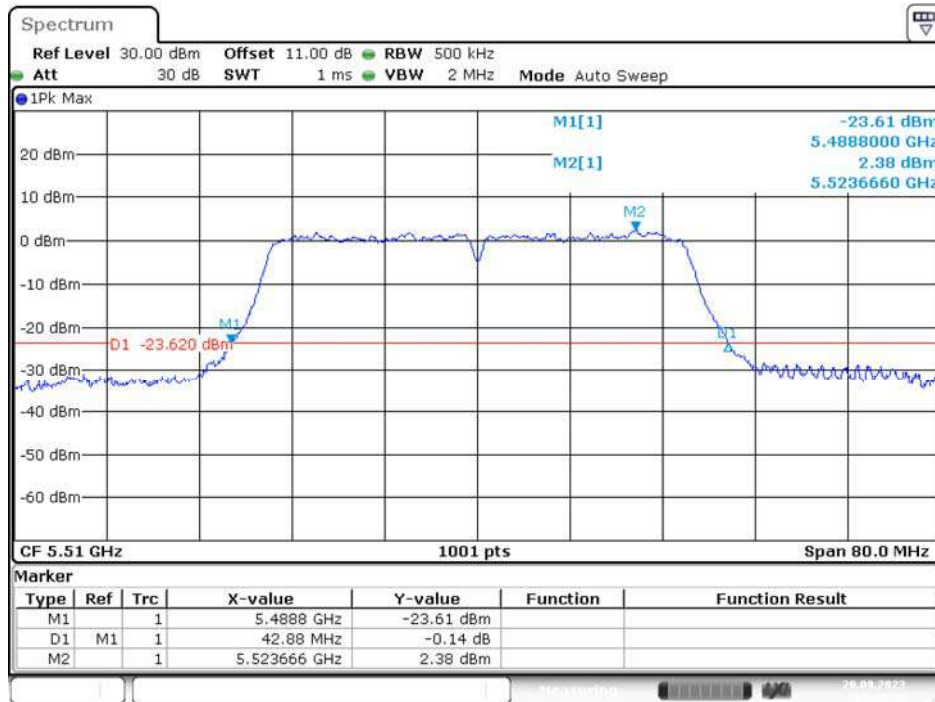
5700MHz



Date: 20.SEP.2023 12:24:42

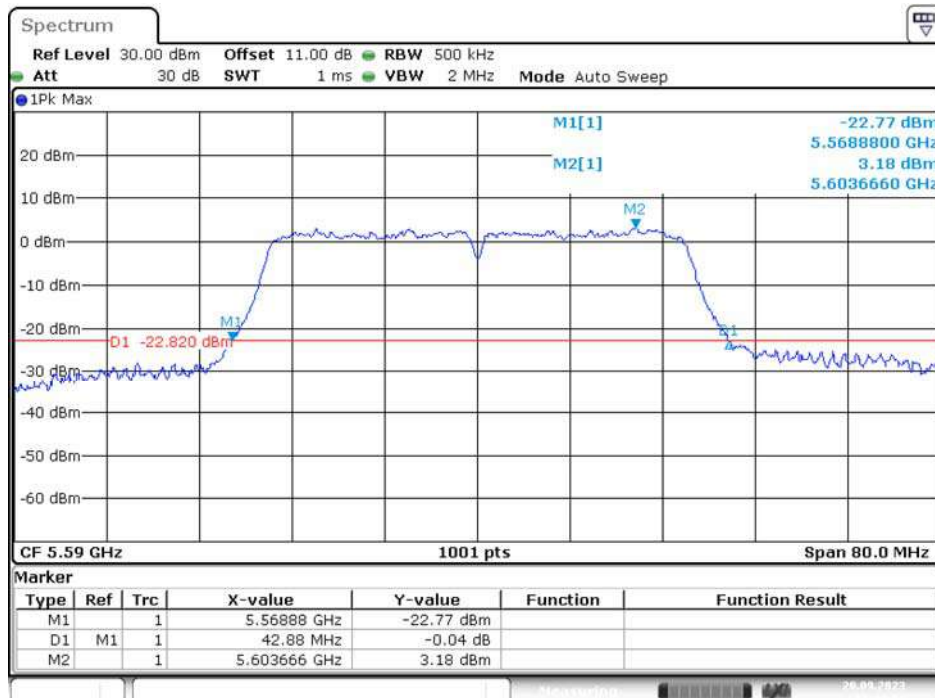
IEEE 802.11ac VHT40 Mode / 5470 ~ 5725MHz

5510MHz



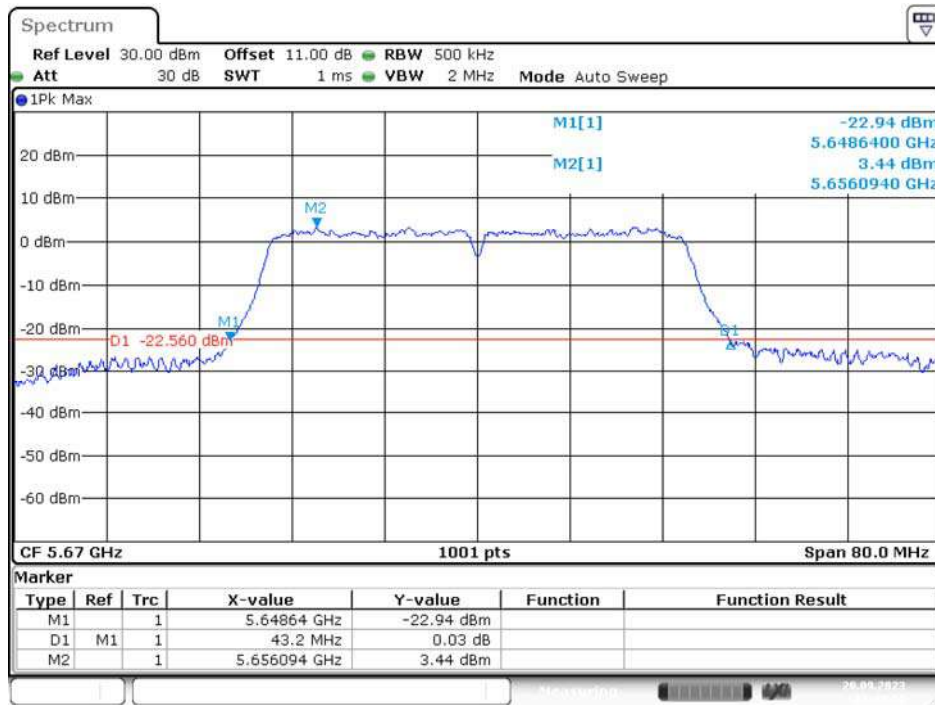
Date: 20.SEP.2023 12:42:27

5590MHz



Date: 20.SEP.2023 12:44:15

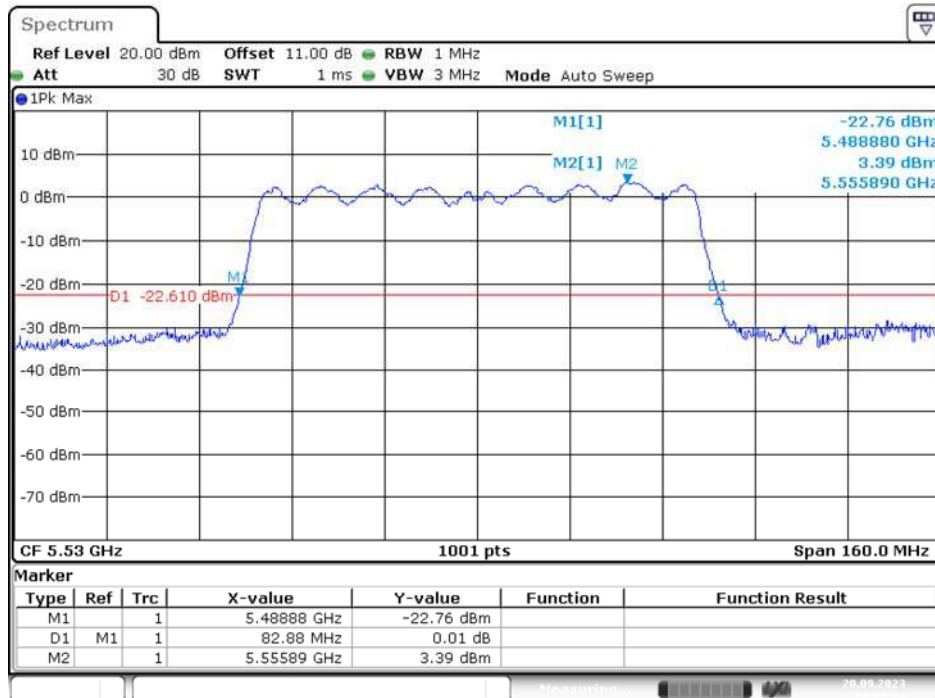
5670MHz



Date: 20.SEP.2023 12:48:16

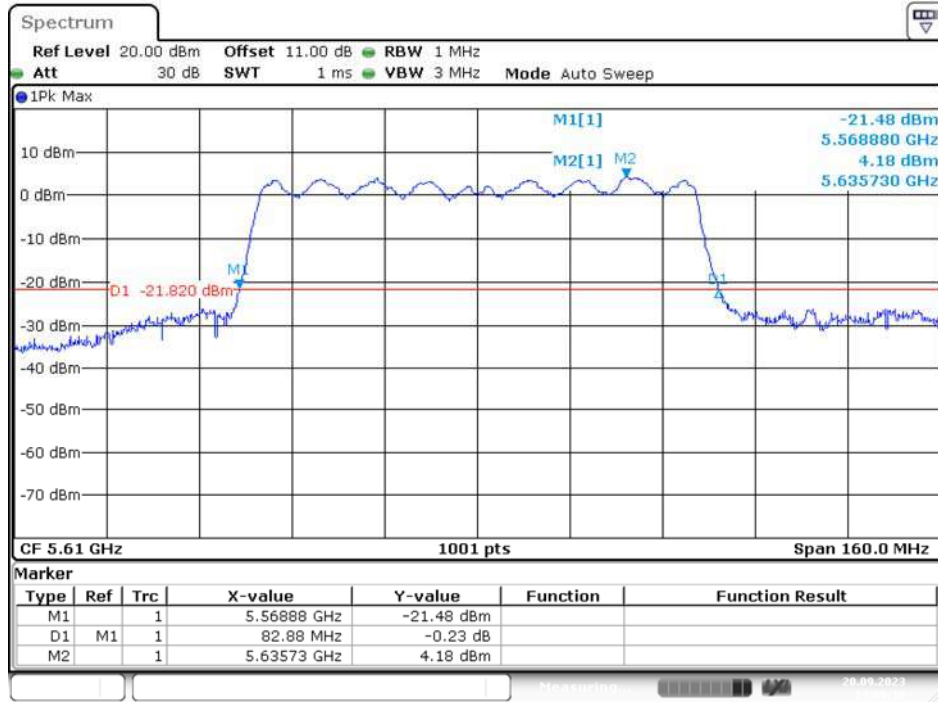
IEEE 802.11ac VHT80 Mode / 5470 ~ 5725MHz

5530MHz



Date: 20.SEP.2023 14:07:25

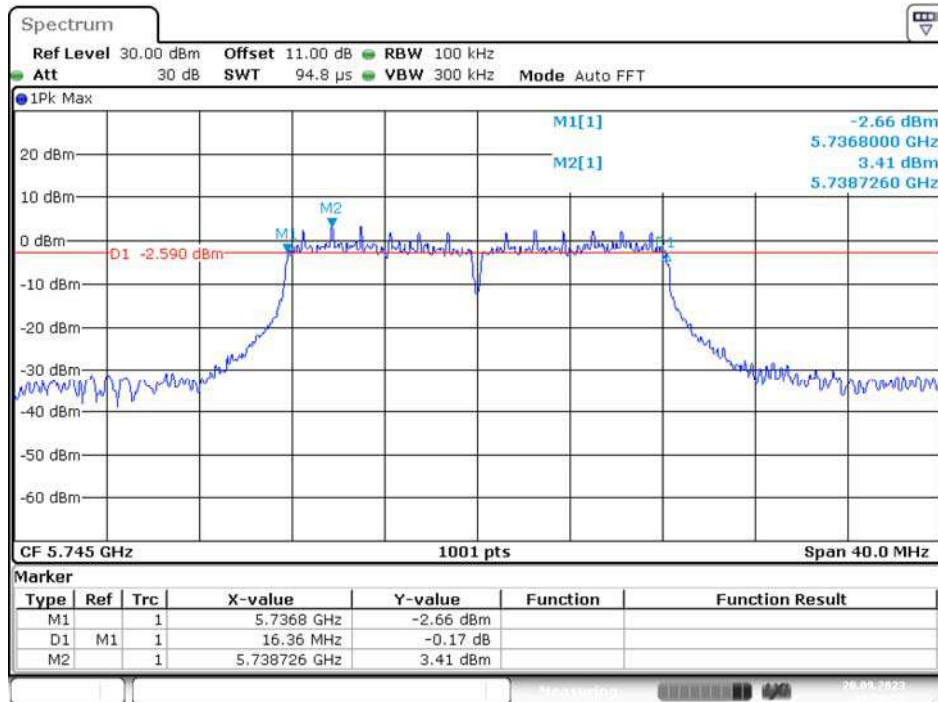
5610MHz



Date: 20.SEP.2023 14:09:10

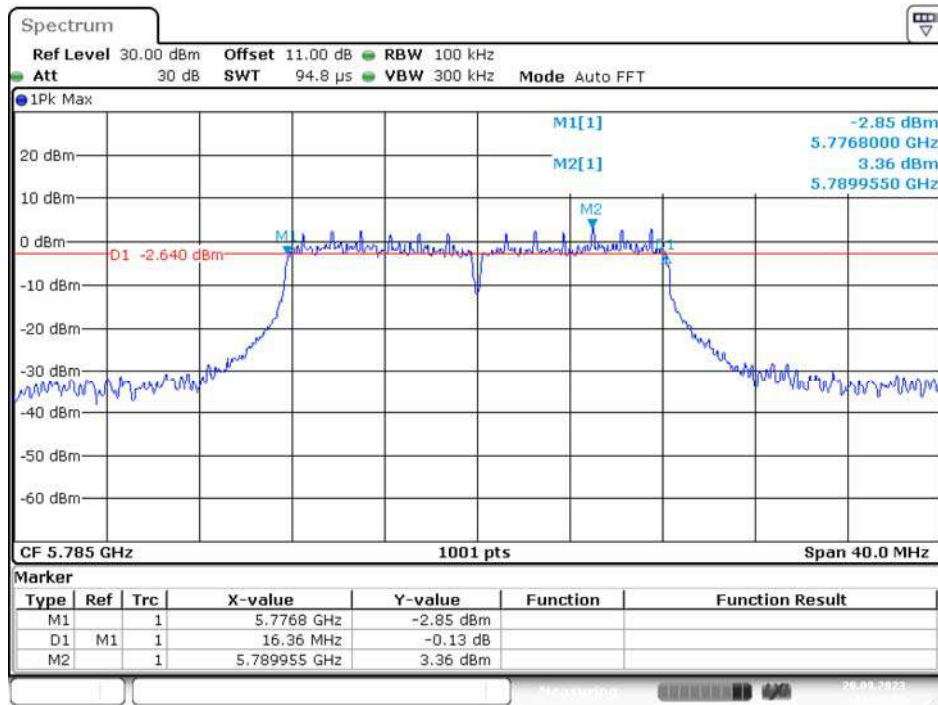
UNII-3 Band IV / BW 6dBc IEEE 802.11a Mode / 5725 ~ 5850MHz

5745MHz



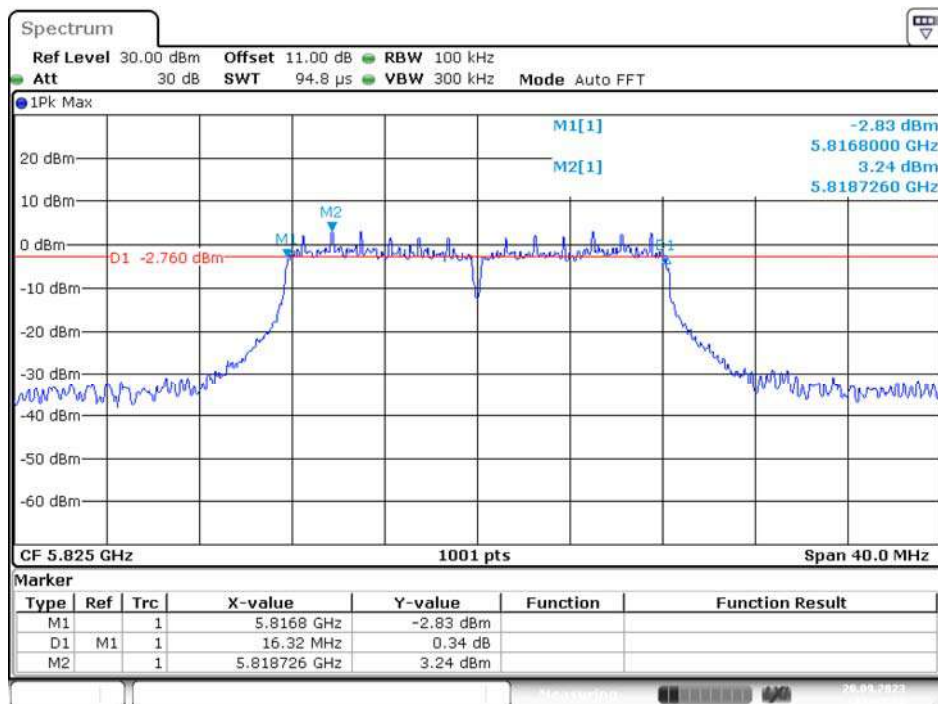
Date: 20.SEP.2023 11:56:57

5785MHz



Date: 20.SEP.2023 12:00:26

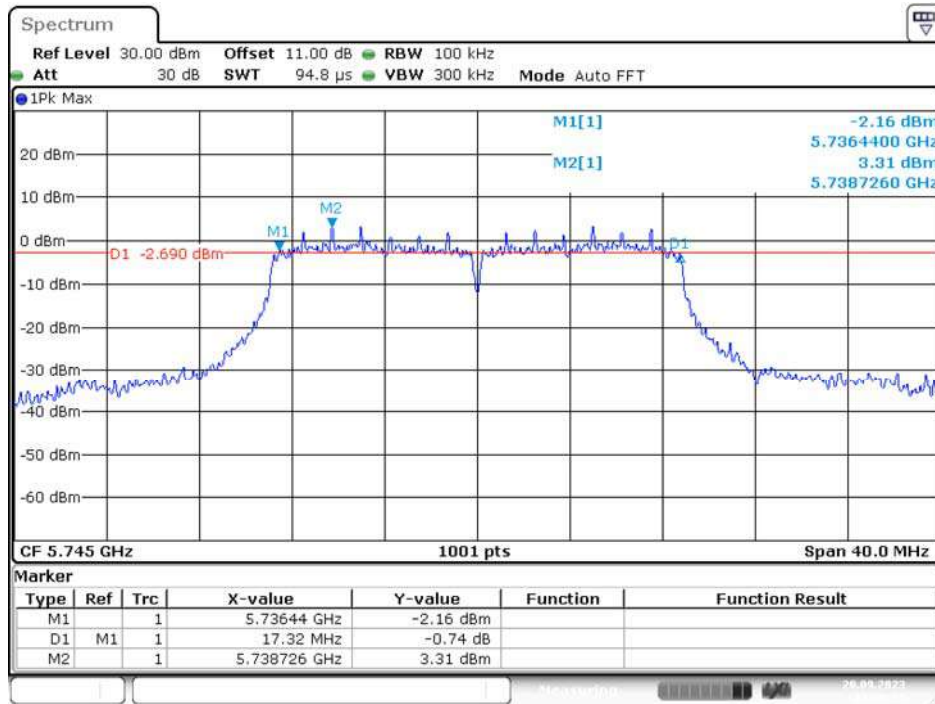
5825MHz



Date: 20.SEP.2023 12:02:32

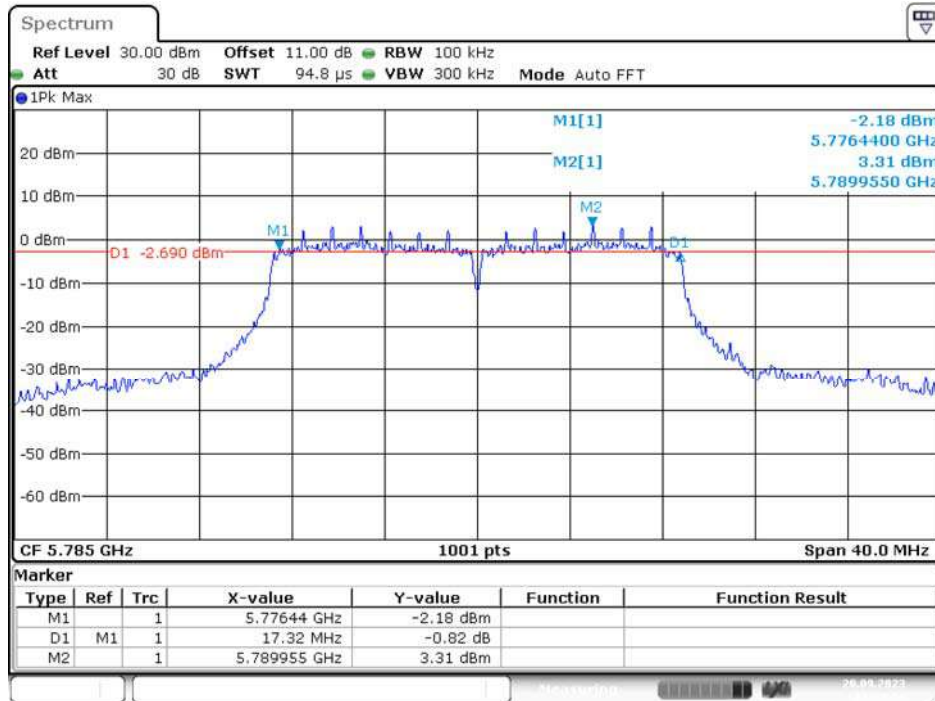
IEEE 802.11ac VHT20 Mode / 5725 ~ 5850MHz

5745MHz



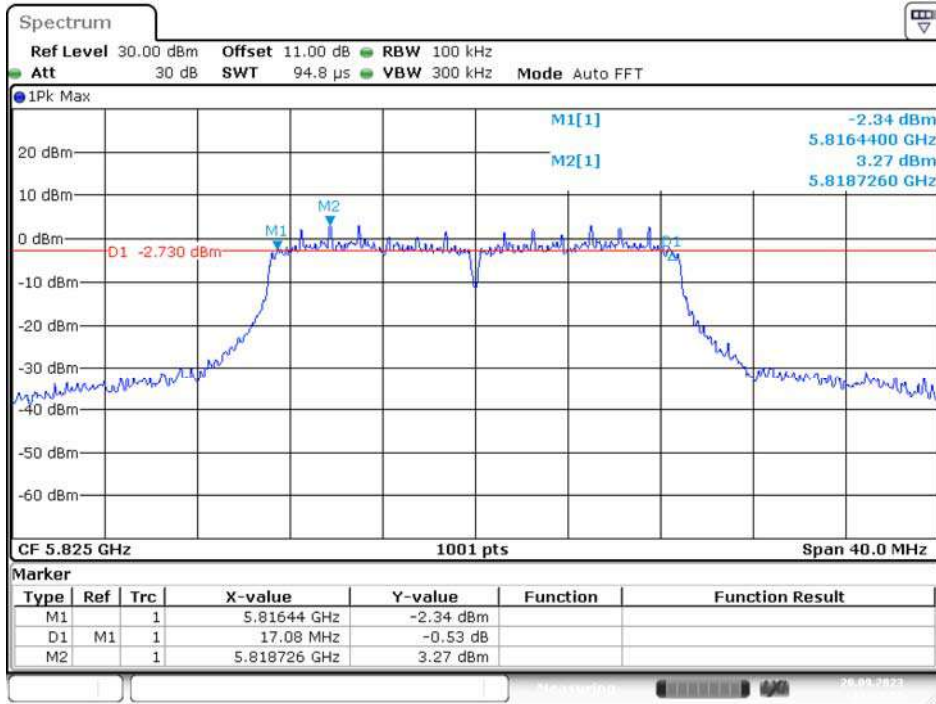
Date: 20.SEP.2023 12:26:27

5785MHz



Date: 20.SEP.2023 12:29:25

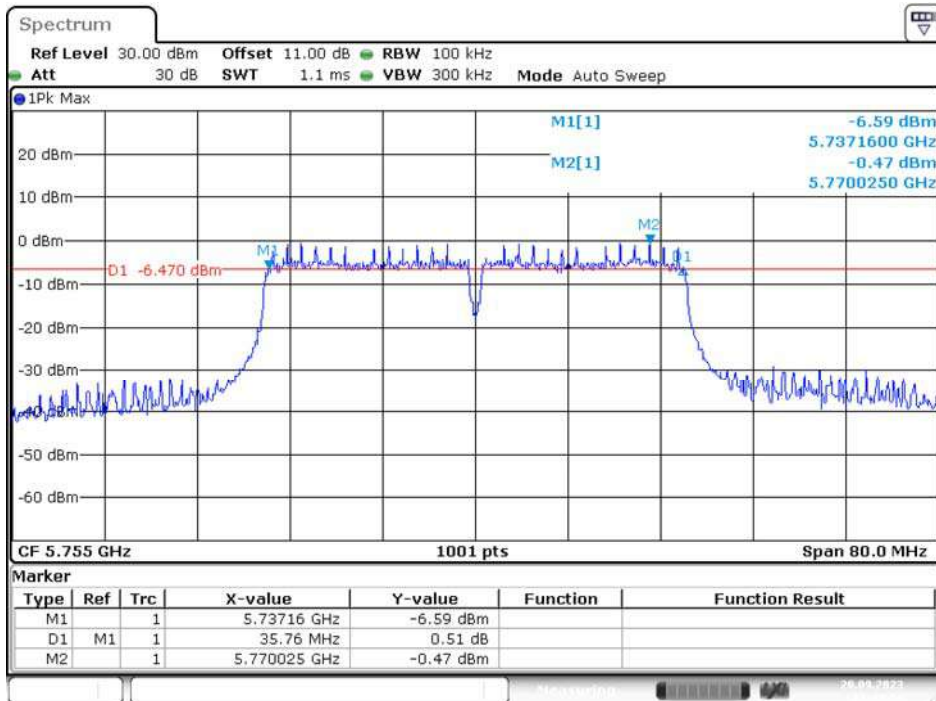
5825MHz



Date: 20.SEP.2023 12:31:52

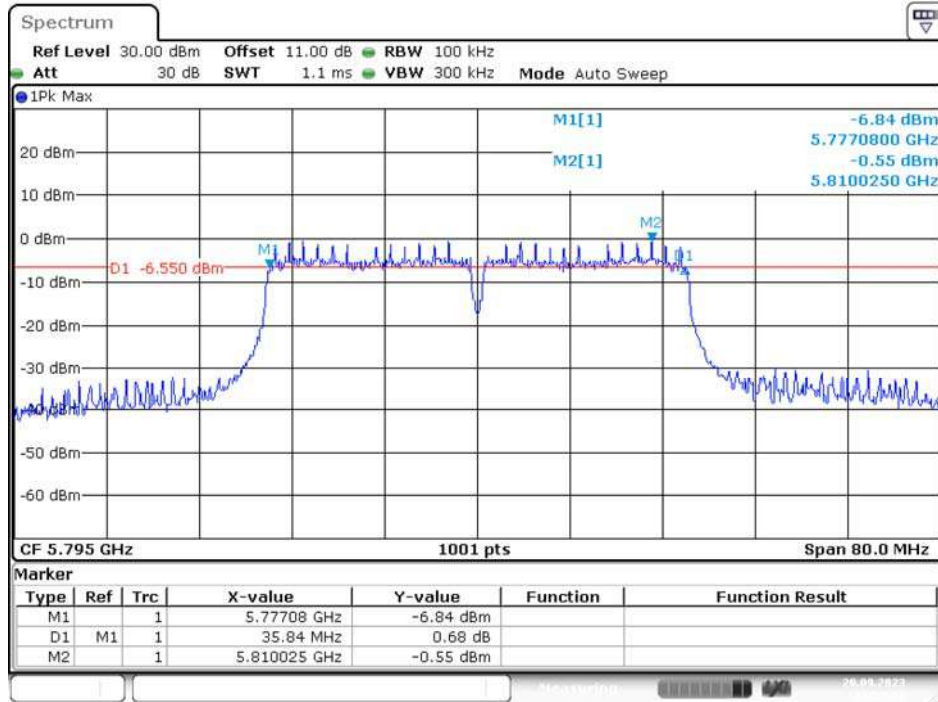
IEEE 802.11ac VHT40 Mode / 5725 ~ 5850MHz

5755MHz



Date: 20.SEP.2023 12:49:54

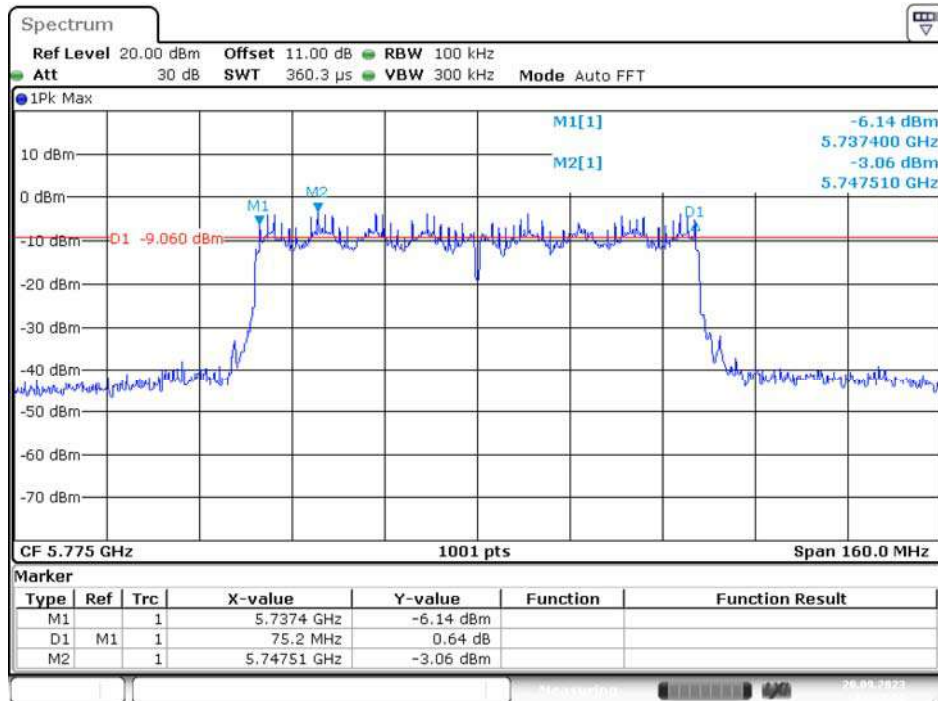
5795MHz



Date: 20.SEP.2023 12:53:02

IEEE 802.11ac VHT80 Mode / 5725 ~ 5850MHz

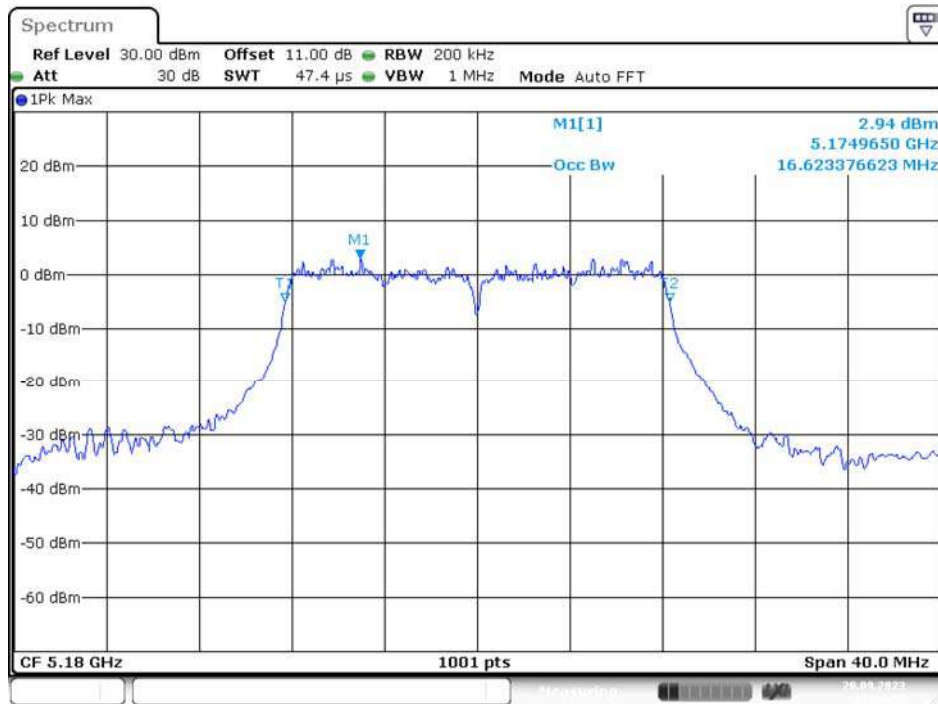
5775MHz



Date: 20.SEP.2023 14:11:10

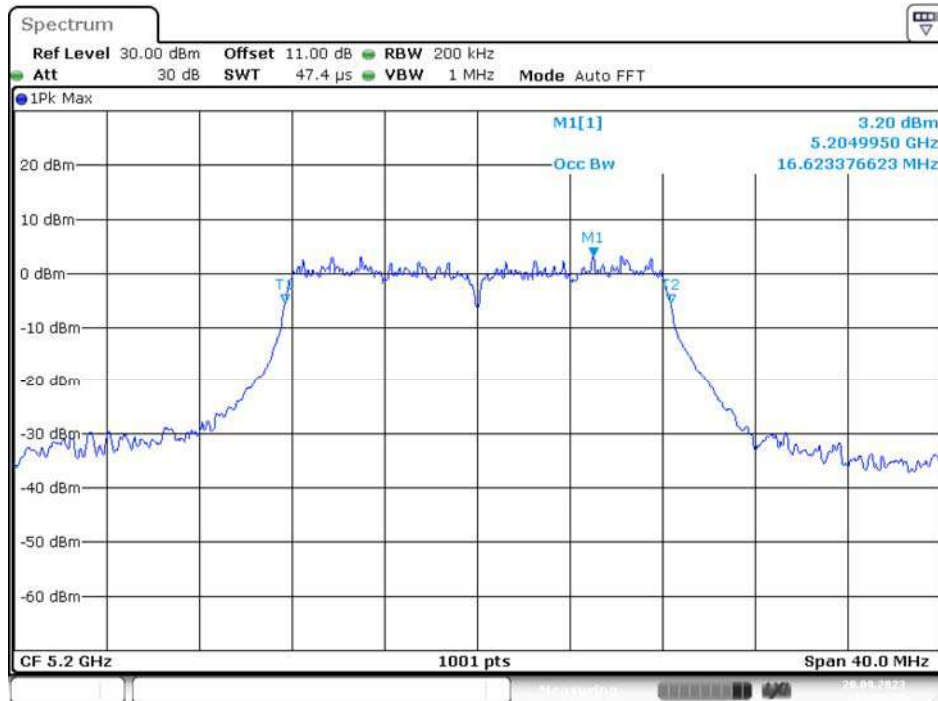
UNII-1 Band I / OBW 99%
IEEE 802.11a Mode / 5150 ~ 5250MHz

5180MHz



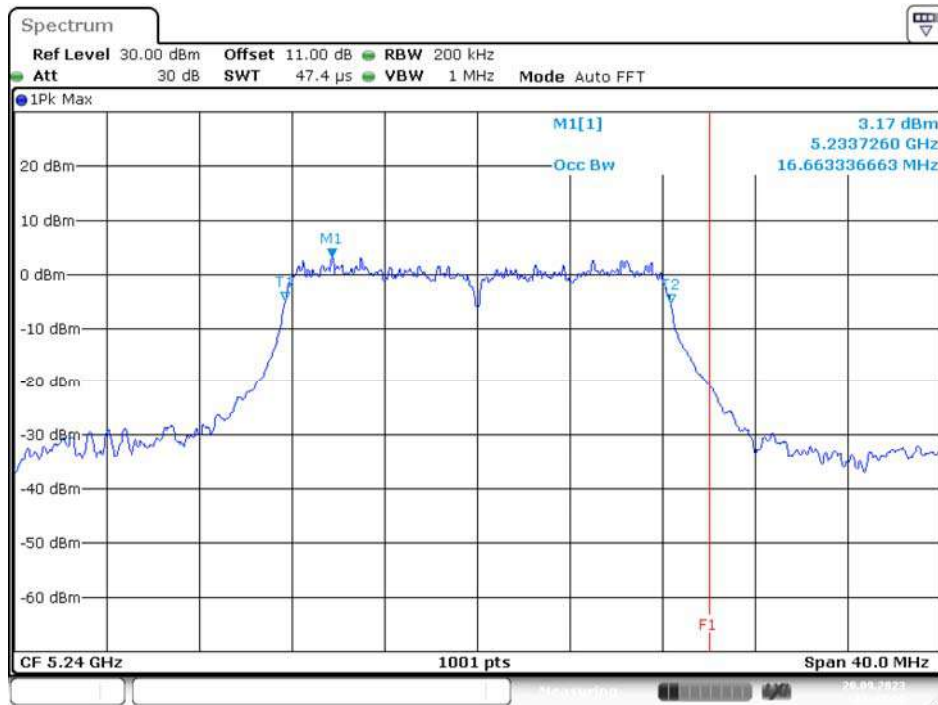
Date: 20.SEP.2023 11:34:08

5200MHz



Date: 20.SEP.2023 11:35:51

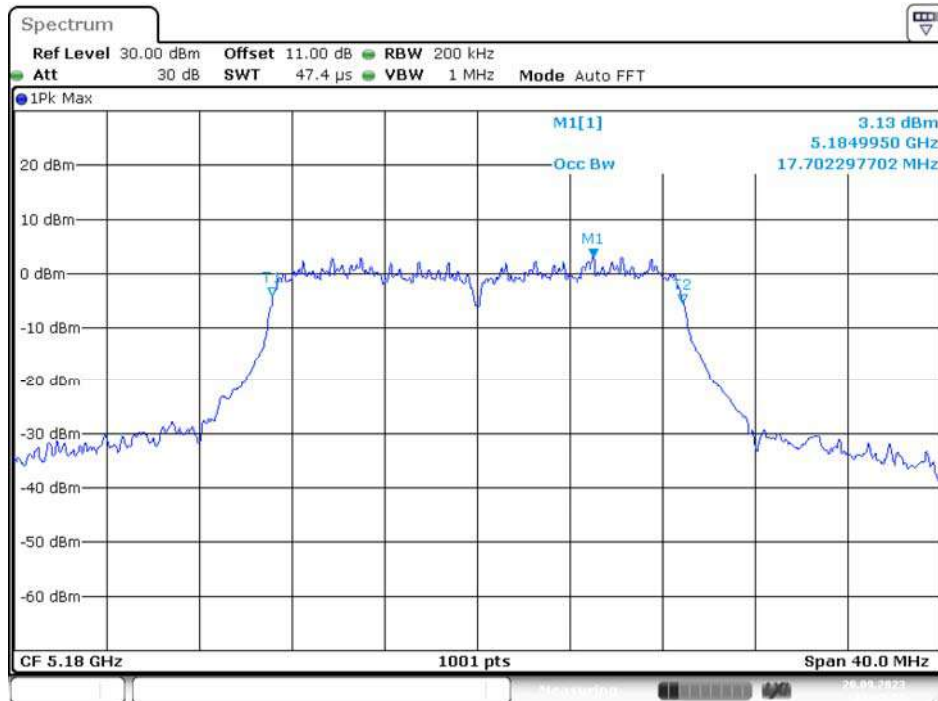
5240MHz



Date: 20.SEP.2023 11:43:40

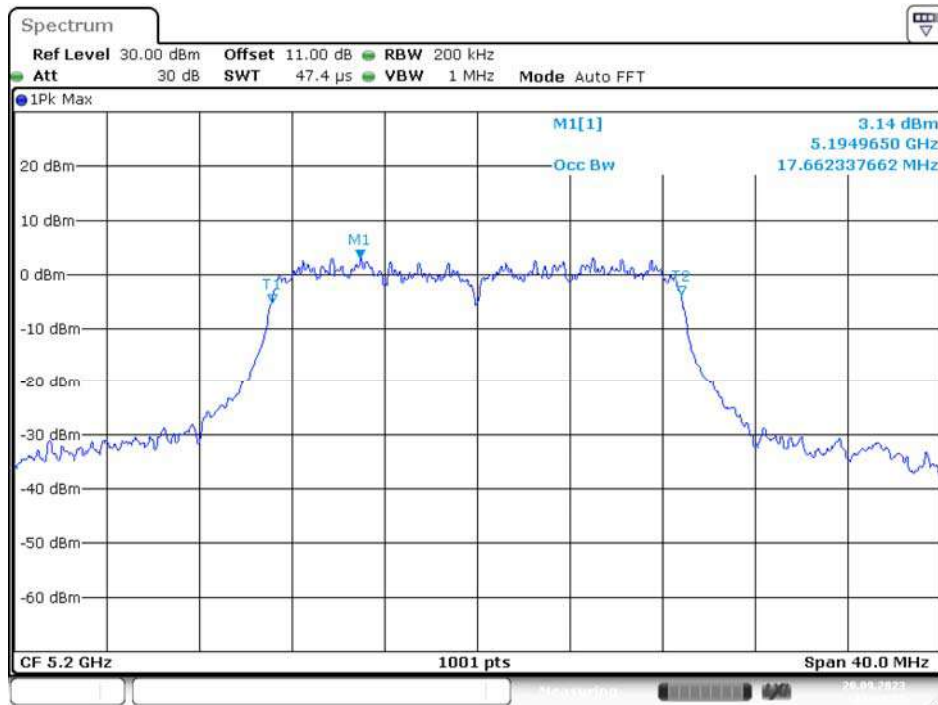
IEEE 802.11ac VHT20 Mode / 5150 ~ 5250MHz

5180MHz



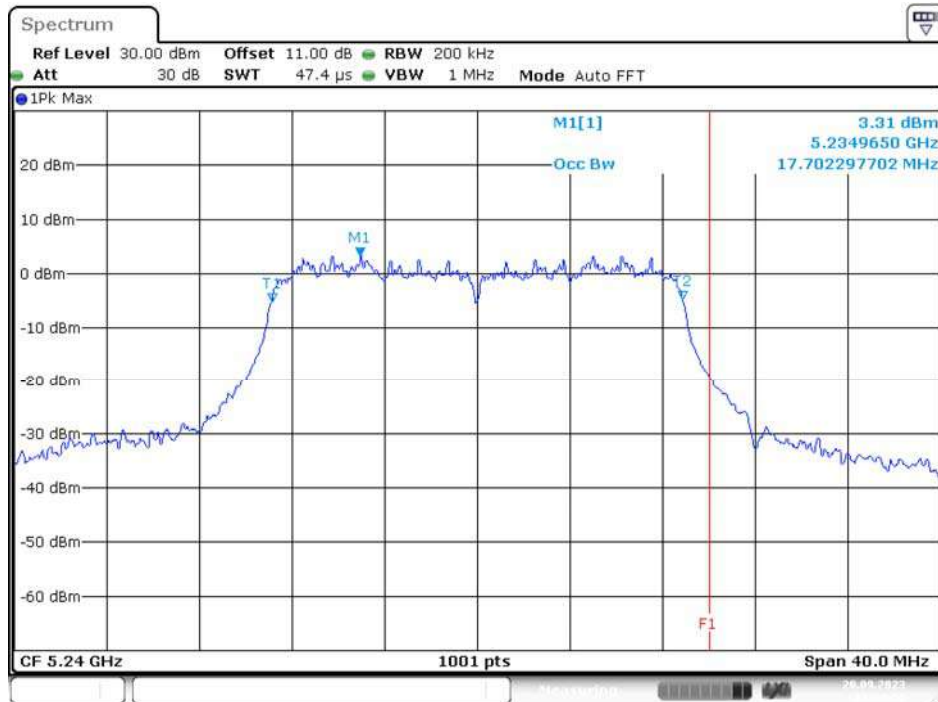
Date: 20.SEP.2023 12:05:51

5200MHz



Date: 20.SEP.2023 12:08:25

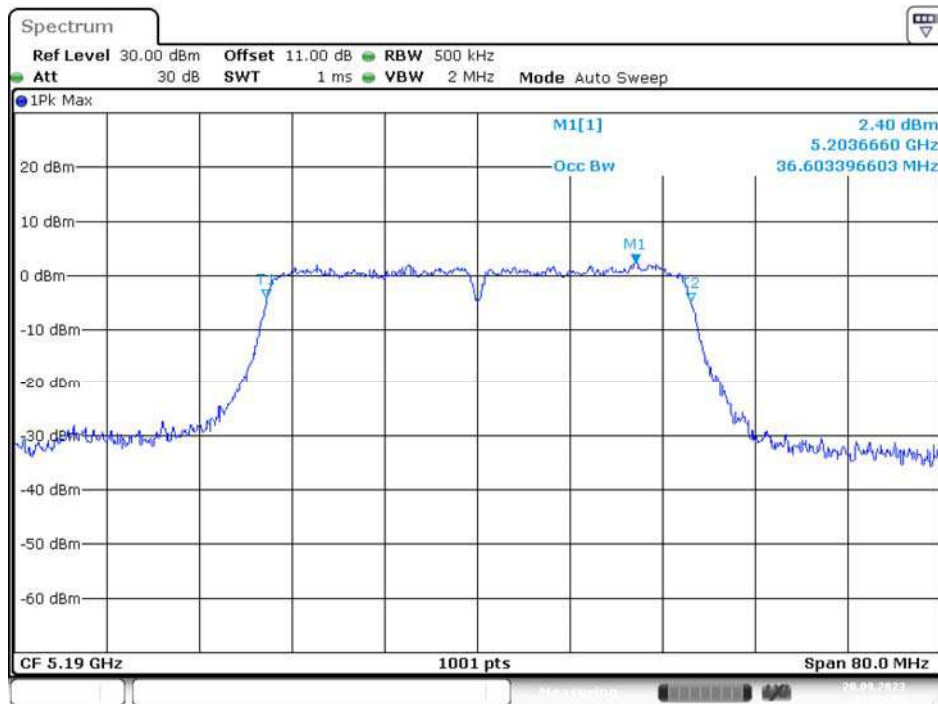
5240MHz



Date: 20.SEP.2023 12:10:30

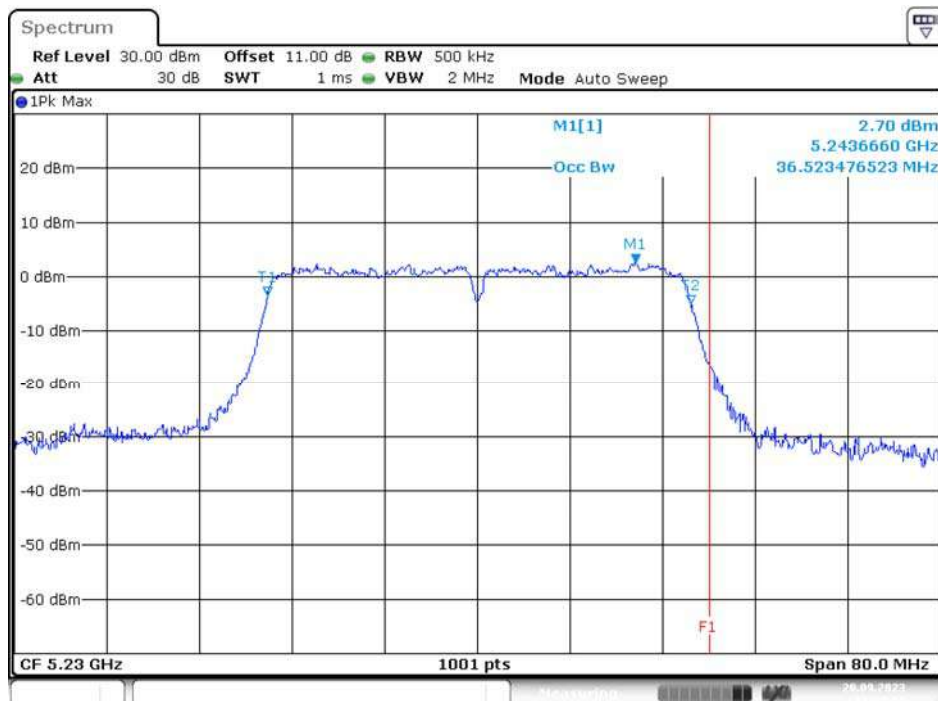
IEEE 802.11ac VHT40 Mode / 5150 ~ 5250MHz

5190MHz



Date: 20.SEP.2023 12:35:09

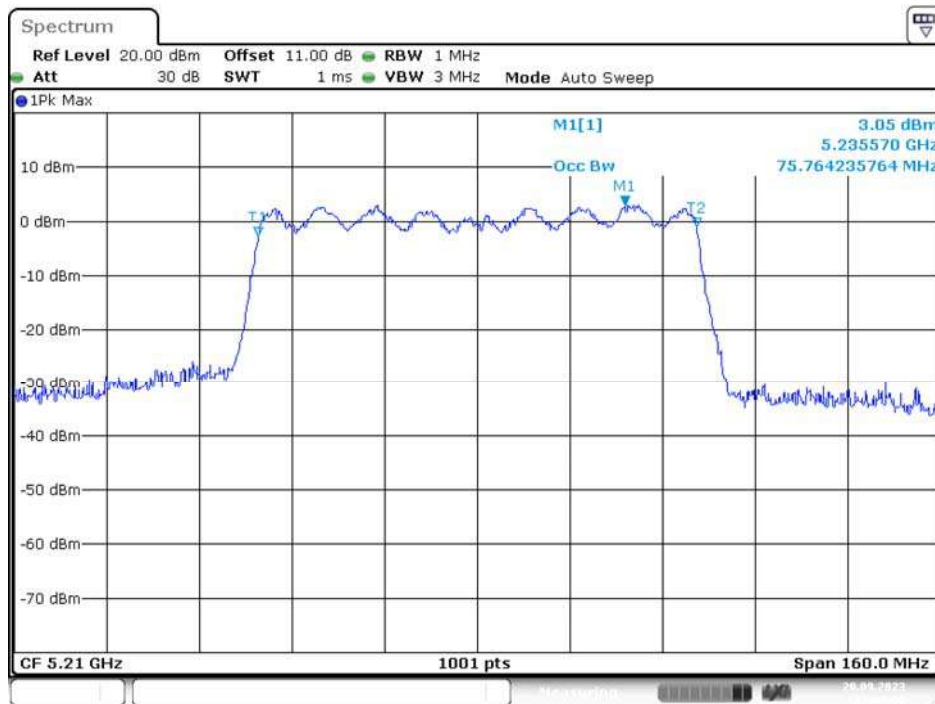
5230MHz



Date: 20.SEP.2023 12:37:19

IEEE 802.11ac VHT80 Mode / 5150 ~ 5250MHz

5210MHz

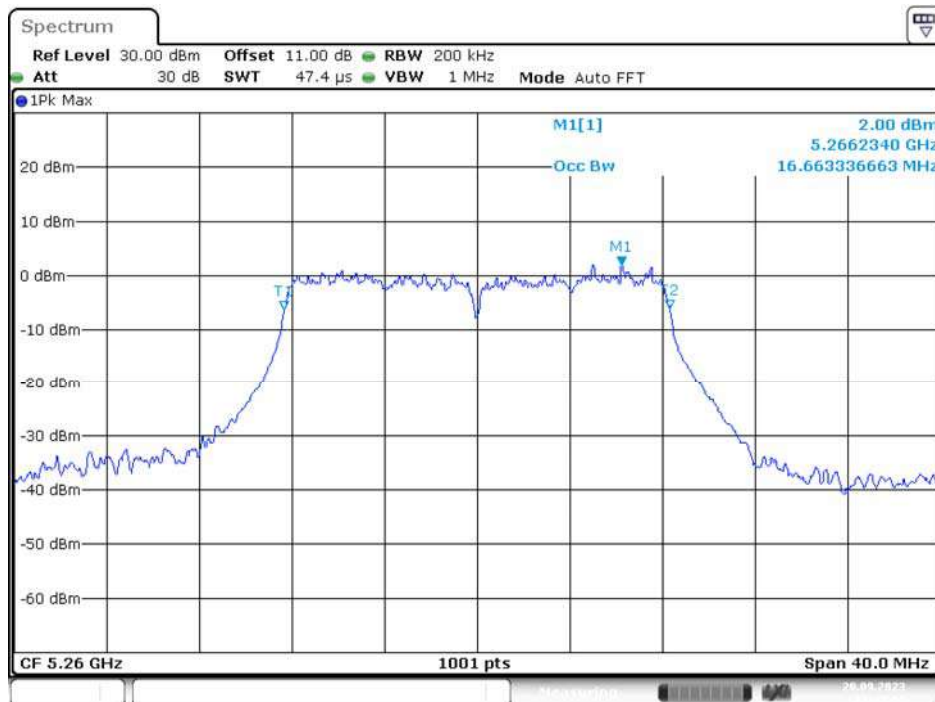


Date: 20.SEP.2023 13:00:47

UNII-2A Band II / OBW 99%

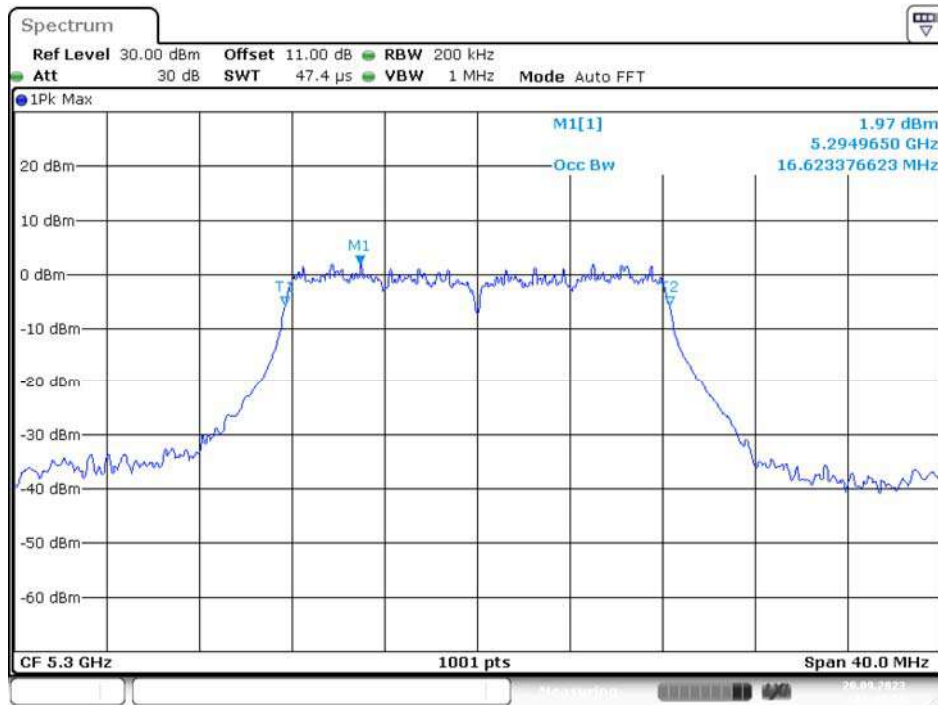
IEEE 802.11a Mode / 5250 ~ 5350MHz

5260MHz



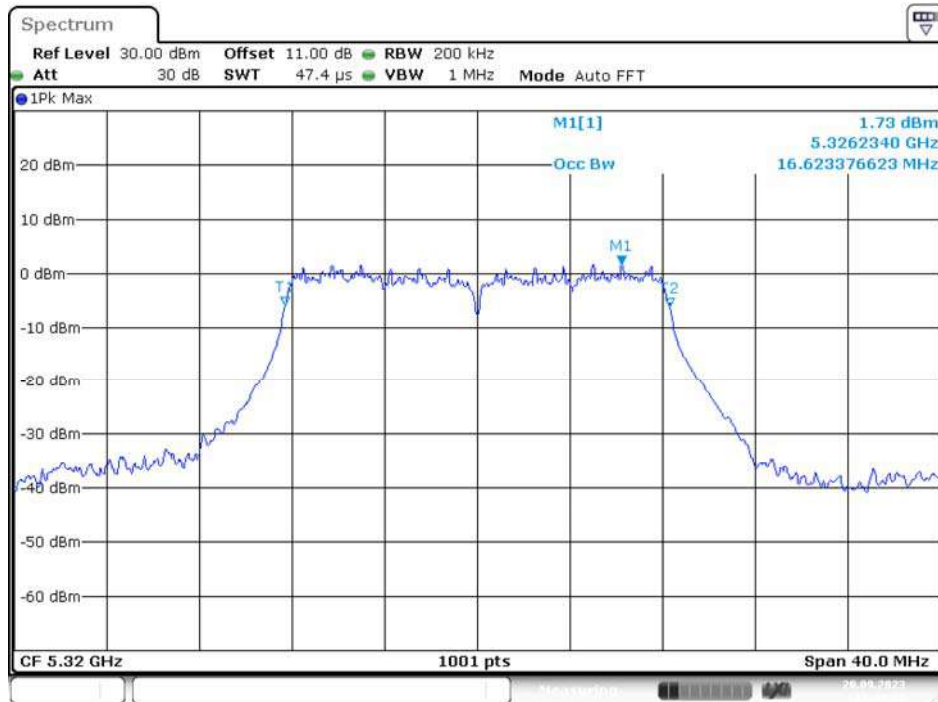
Date: 20.SEP.2023 11:45:42

5300MHz



Date: 20.SEP.2023 11:47:53

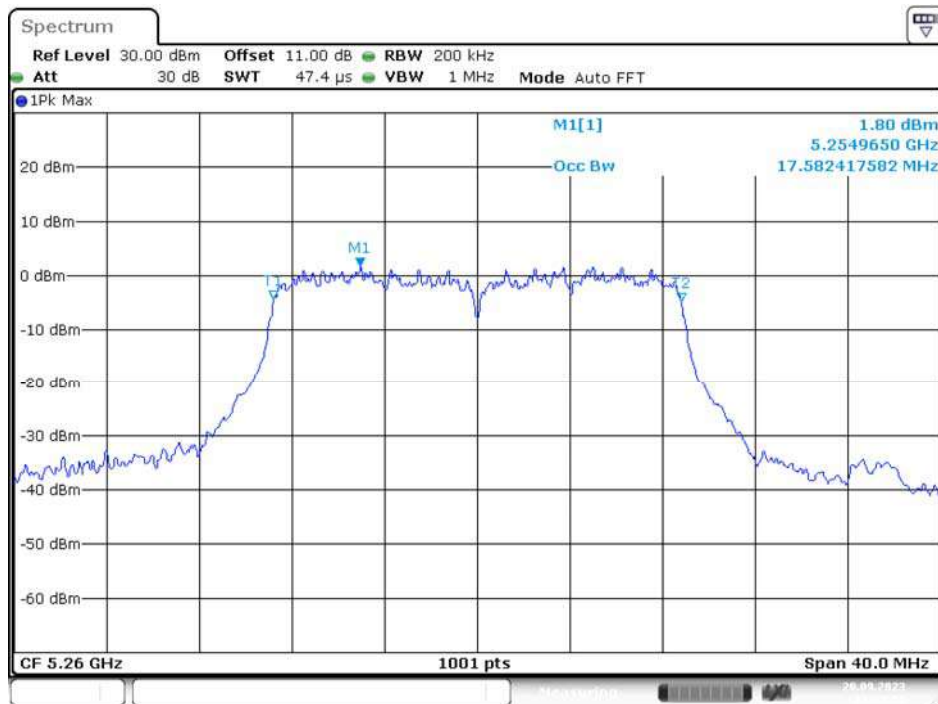
5320MHz



Date: 20.SEP.2023 11:49:39

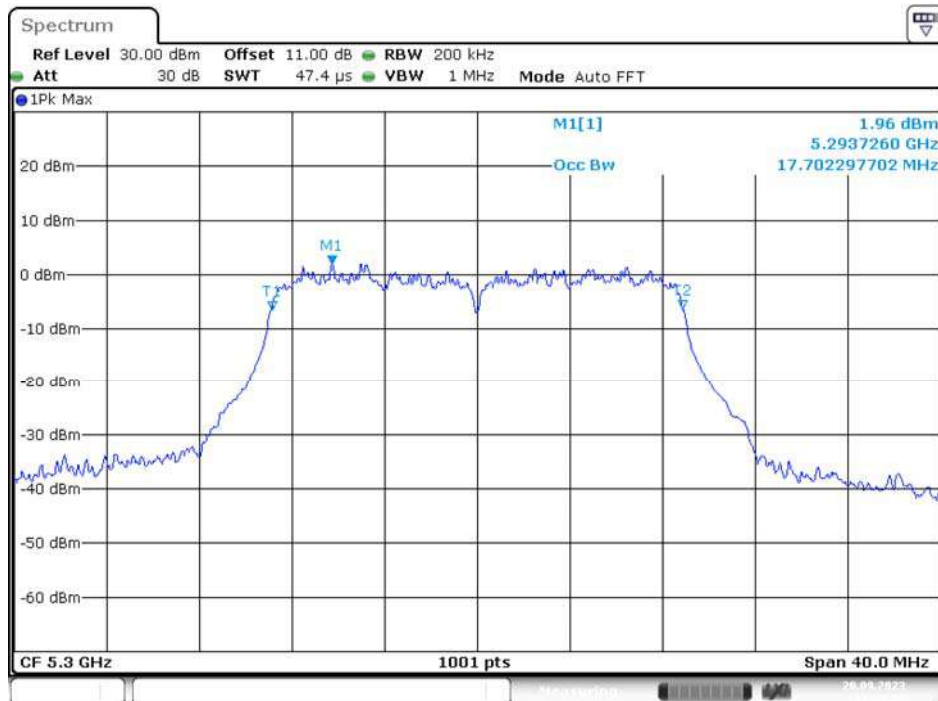
IEEE 802.11ac VHT20 Mode / 5250 ~ 5350MHz

5260MHz



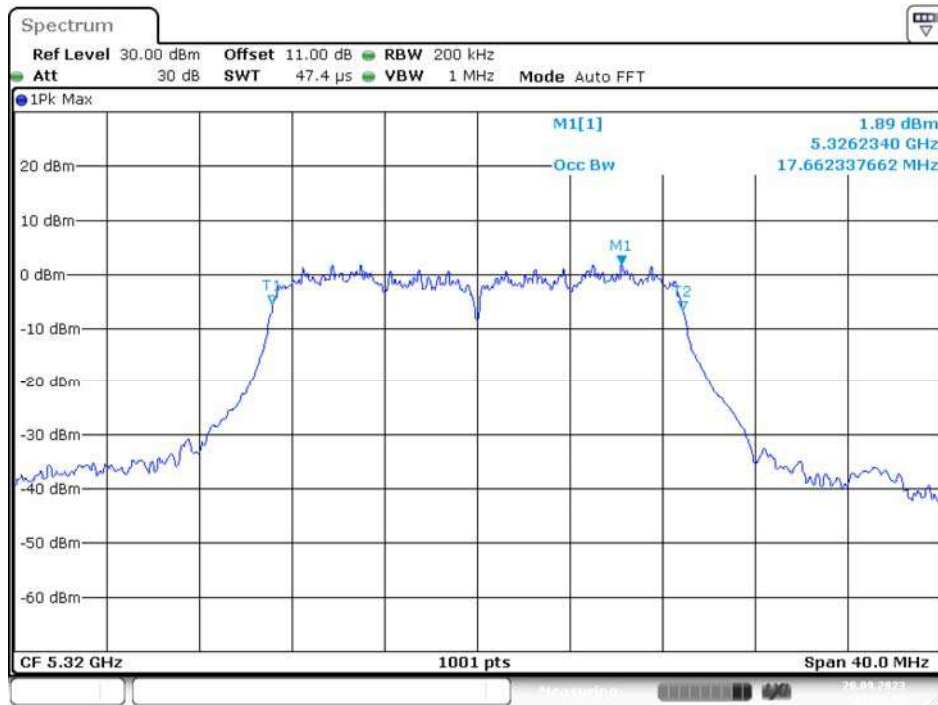
Date: 20.SEP.2023 12:11:59

5300MHz



Date: 20.SEP.2023 12:13:53

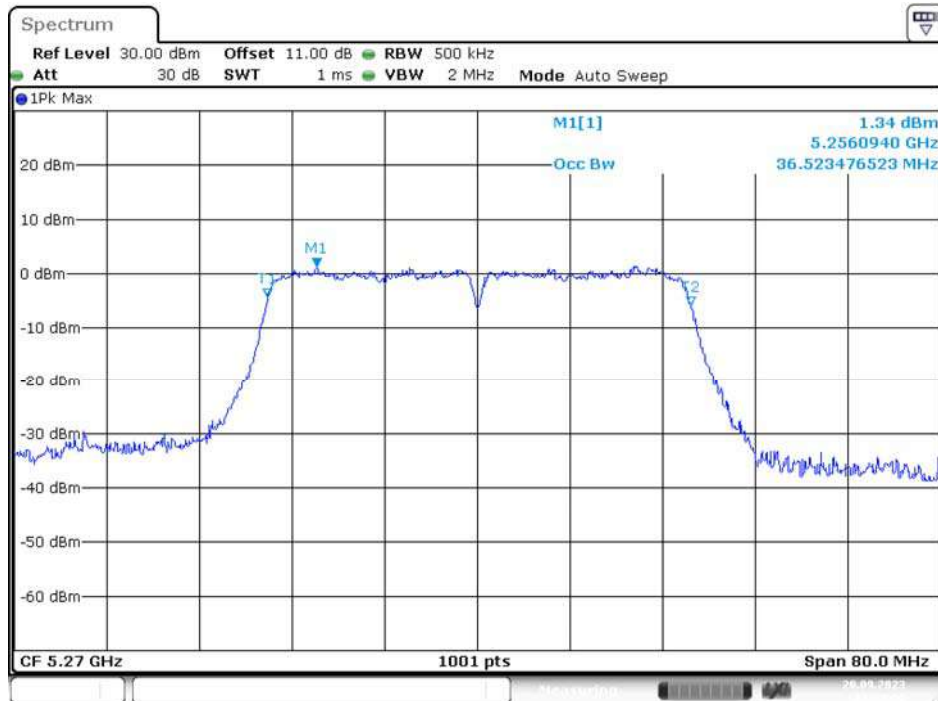
5320MHz



Date: 20.SEP.2023 12:15:31

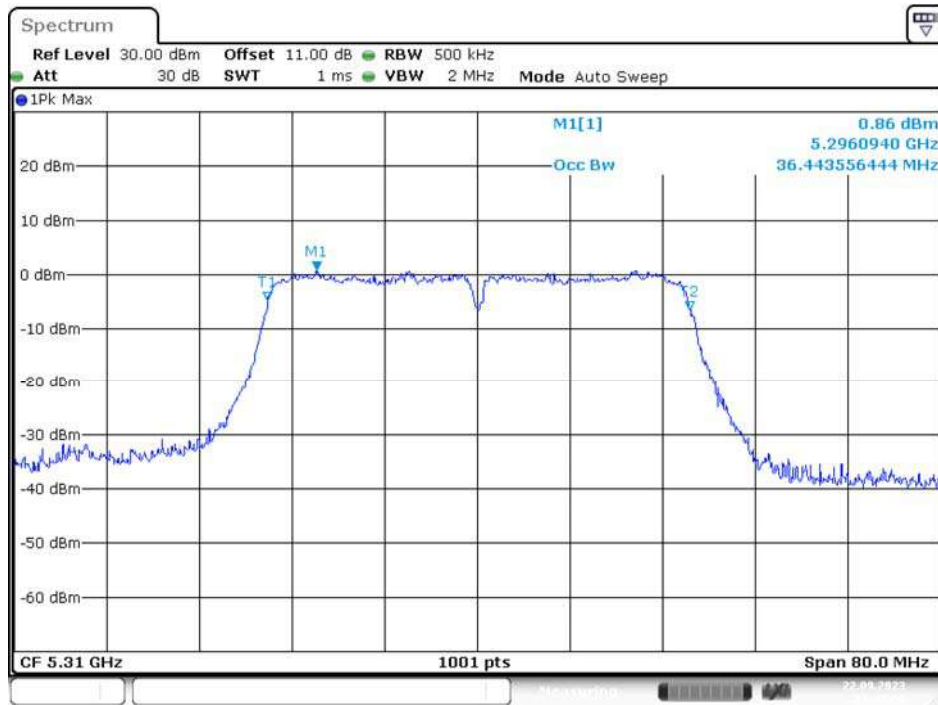
IEEE 802.11ac VHT40 Mode / 5250 ~ 5350MHz

5270MHz



Date: 20.SEP.2023 12:39:40

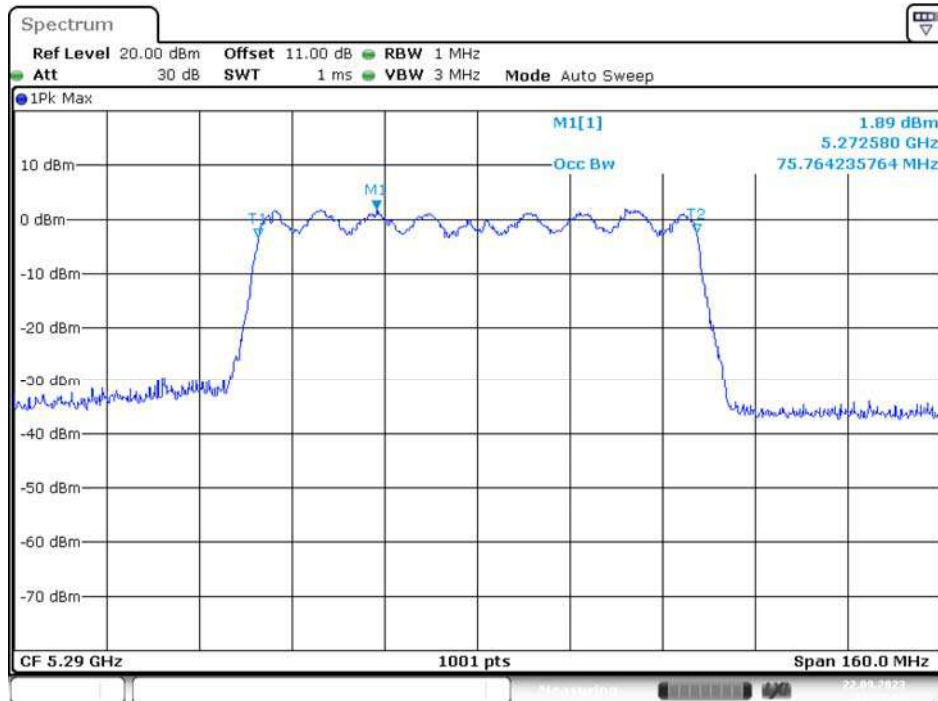
5310MHz



Date: 22.SEP.2023 11:43:50

IEEE 802.11ac VHT80 Mode / 5250 ~ 5350MHz

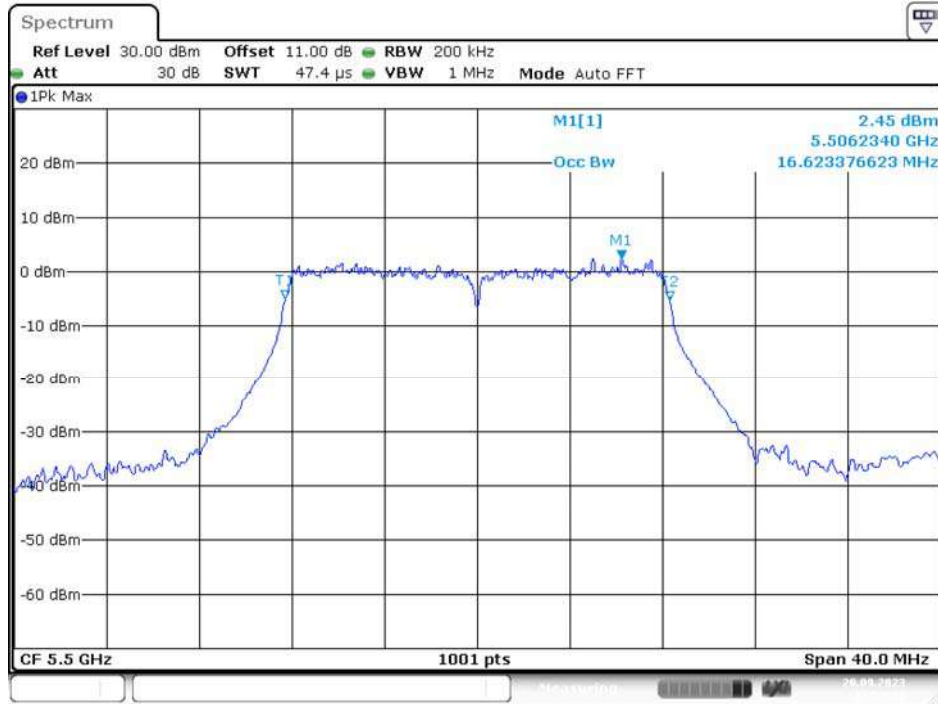
5290MHz



Date: 22.SEP.2023 11:33:45

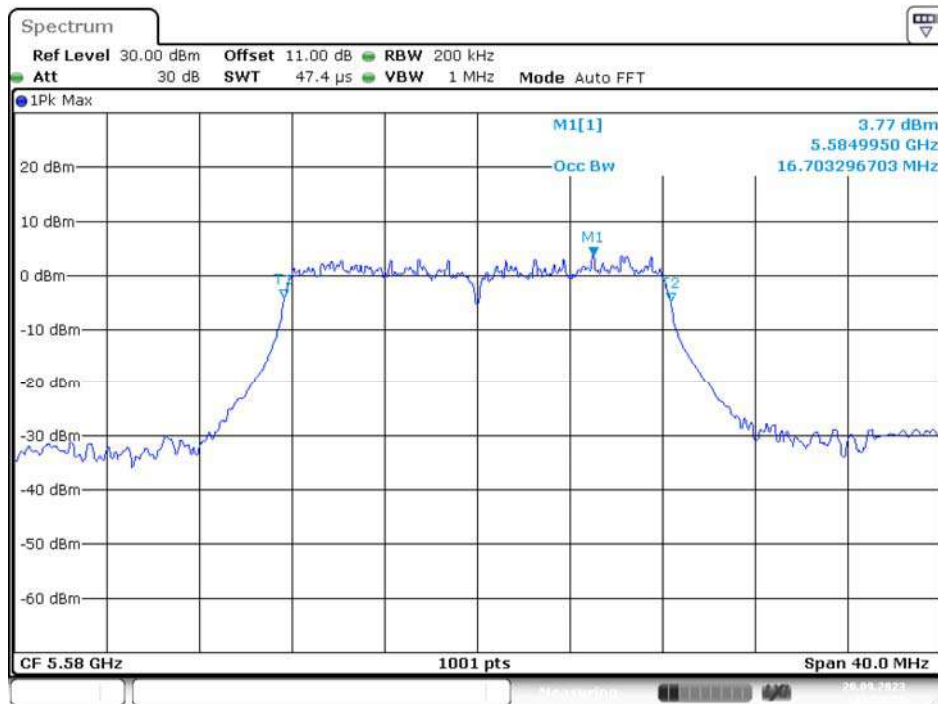
UNII-2C Band III / OBW 99%
IEEE 802.11a Mode / 5470 ~ 5725MHz

5500MHz



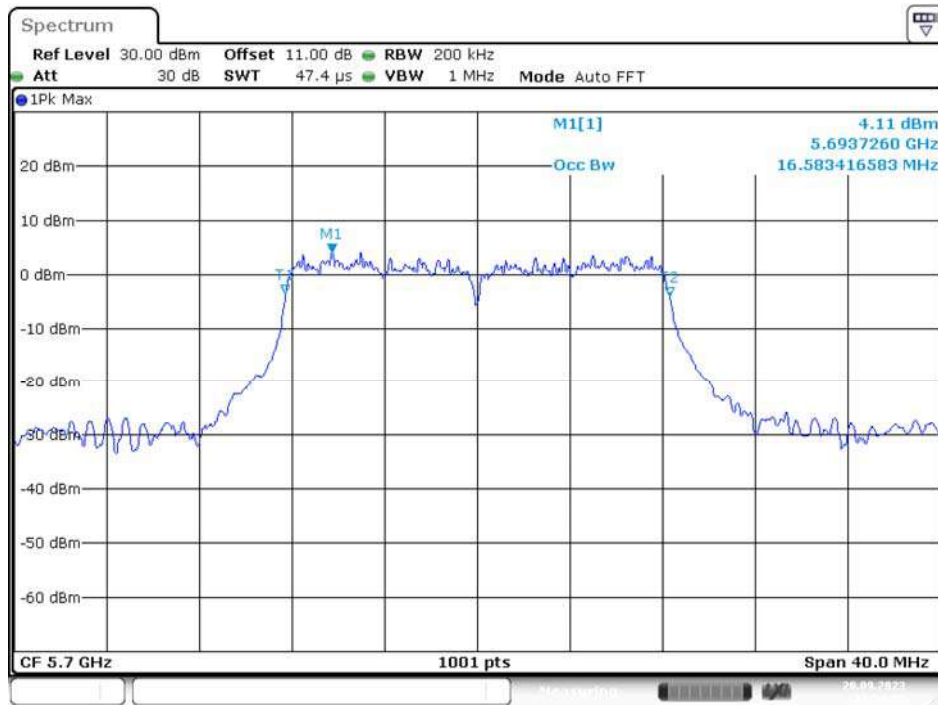
Date: 20.SEP.2023 11:51:22

5580MHz



Date: 20.SEP.2023 11:52:52

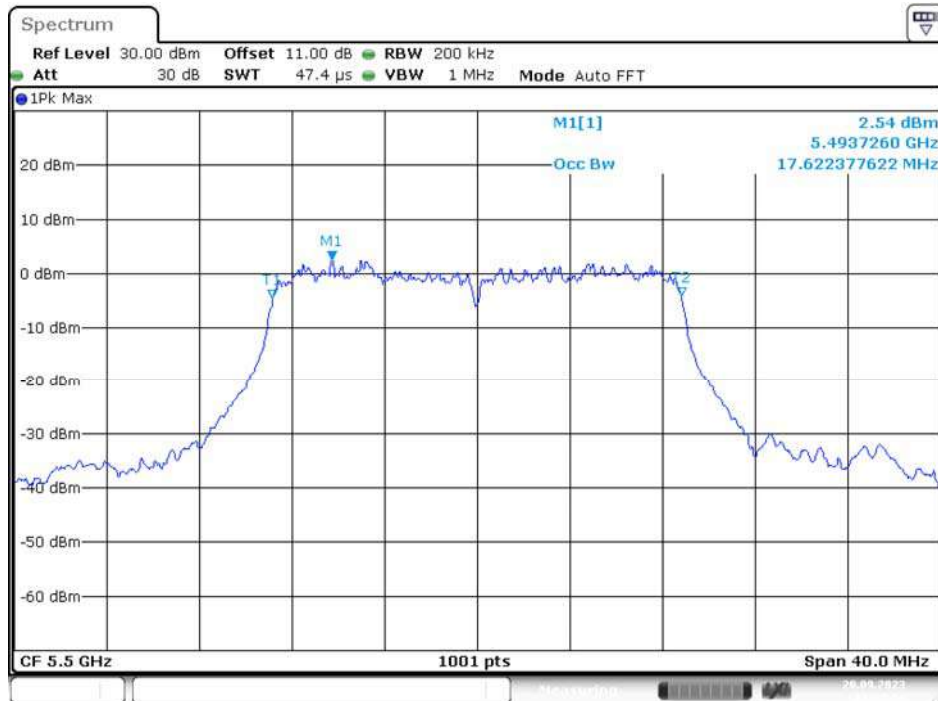
5700MHz



Date: 20.SEP.2023 11:54:26

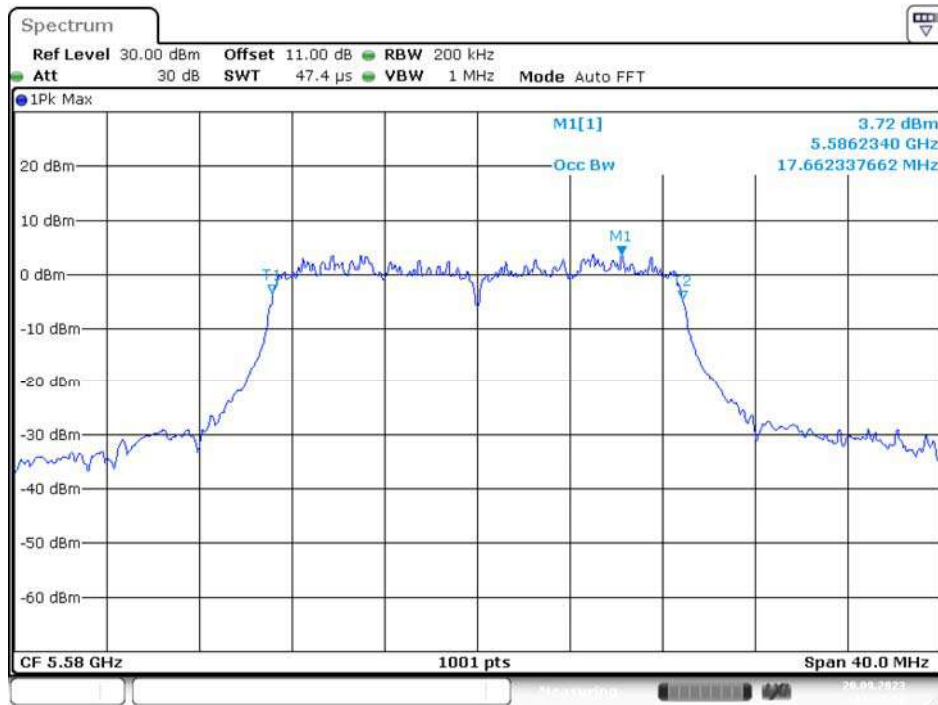
IEEE 802.11ac VHT20 Mode / 5470 ~ 5725MHz

5500MHz



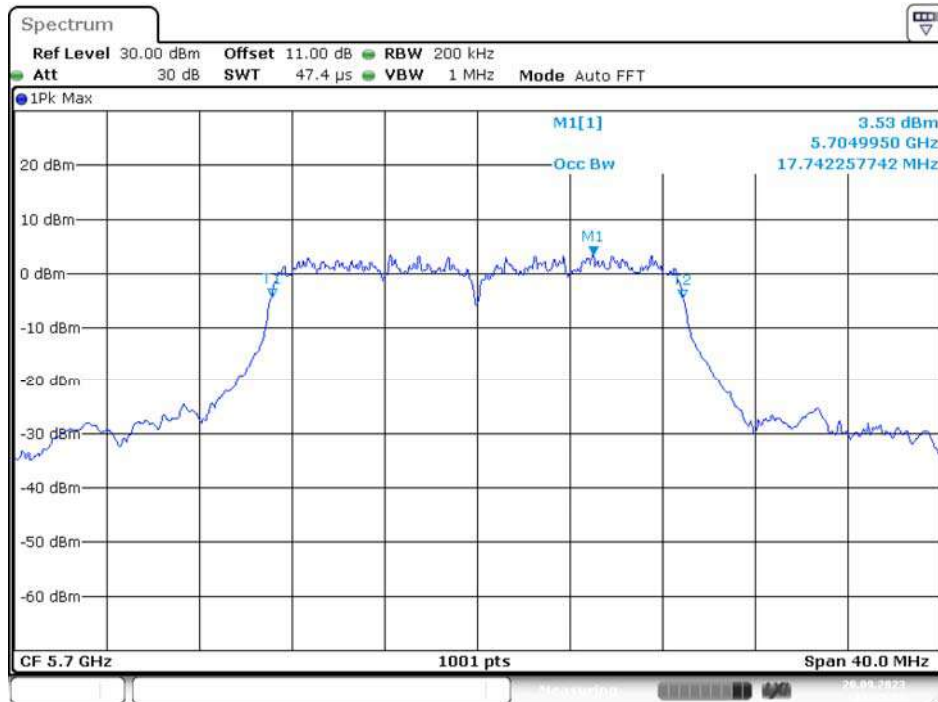
Date: 20.SEP.2023 12:17:25

5580MHz



Date: 20.SEP.2023 12:23:12

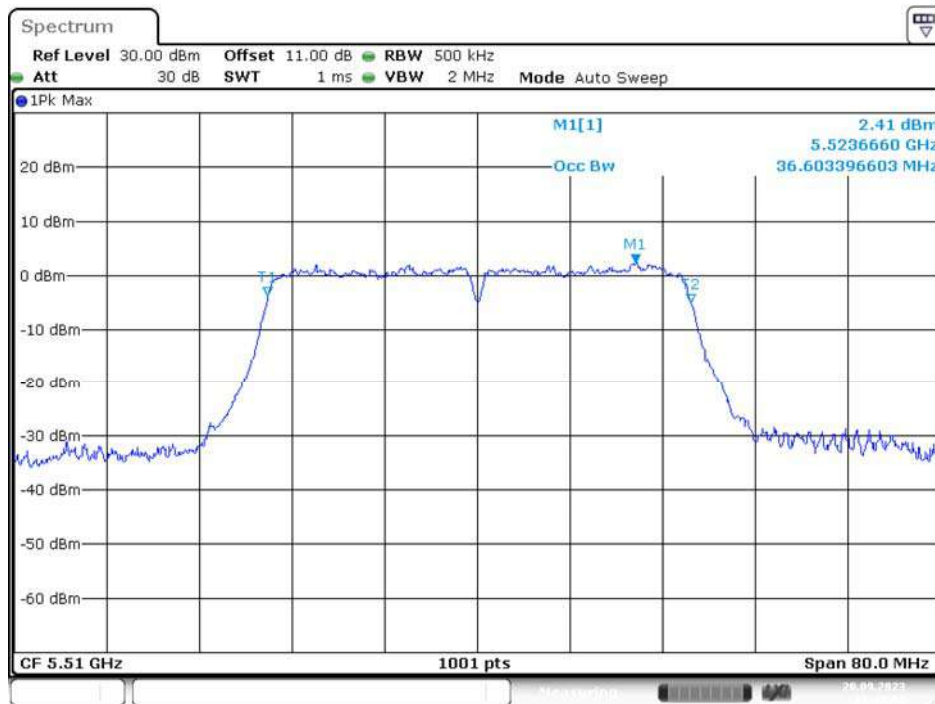
5700MHz



Date: 20.SEP.2023 12:25:24

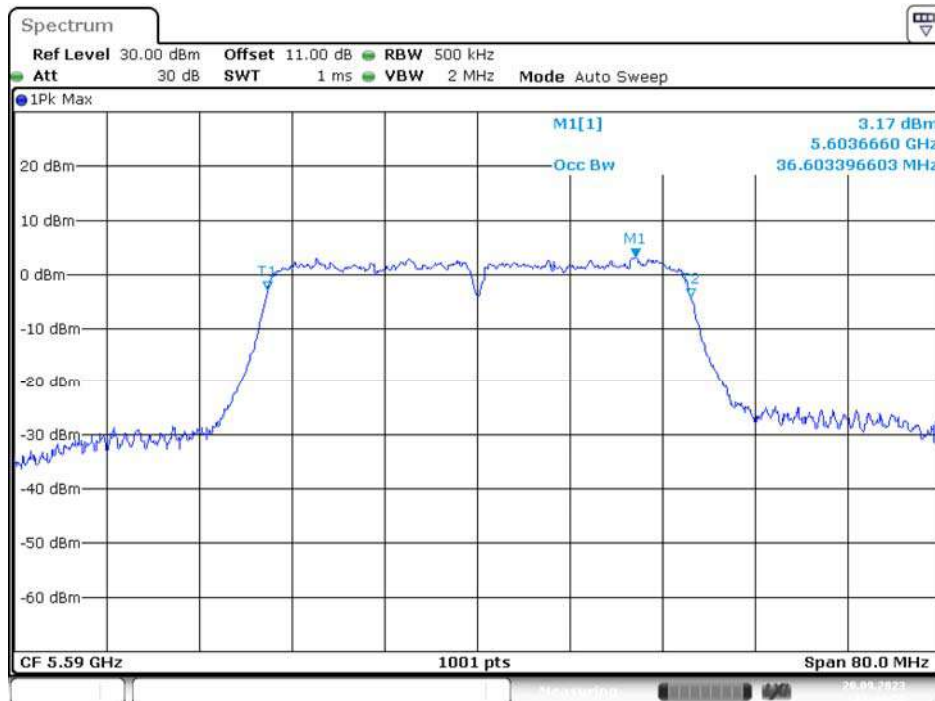
IEEE 802.11ac VHT40 Mode / 5470 ~ 5725MHz

5510MHz



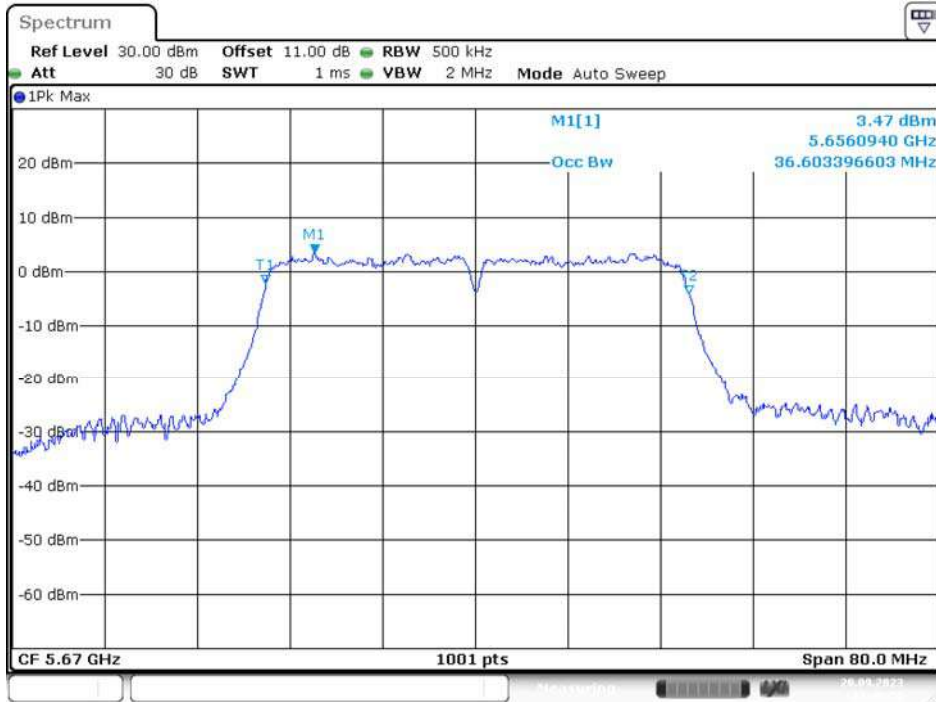
Date: 20.SEP.2023 12:43:09

5590MHz



Date: 20.SEP.2023 12:44:57

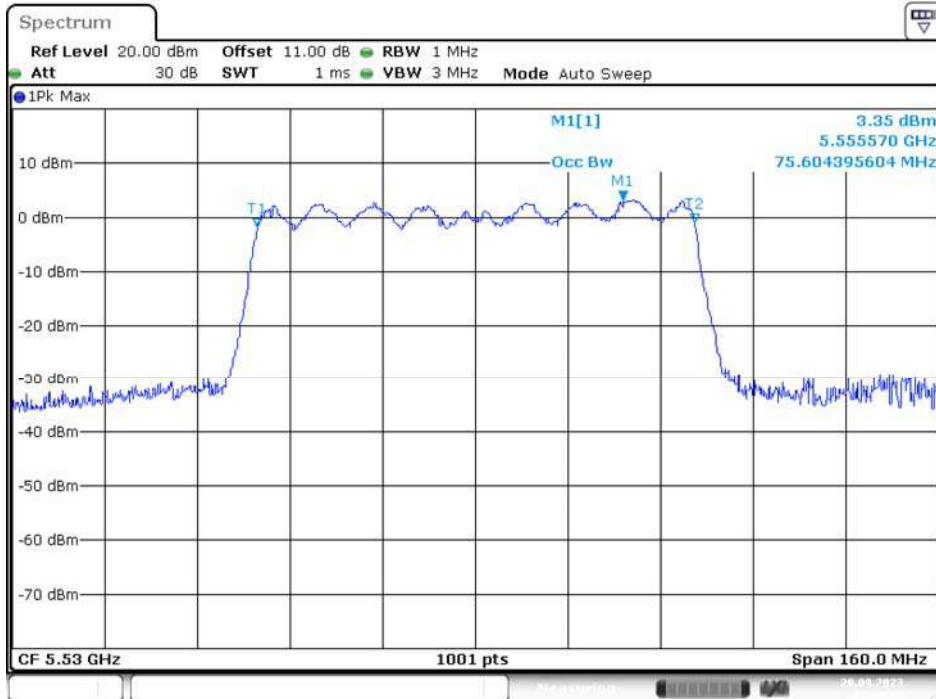
5670MHz



Date: 20.SEP.2023 12:46:50

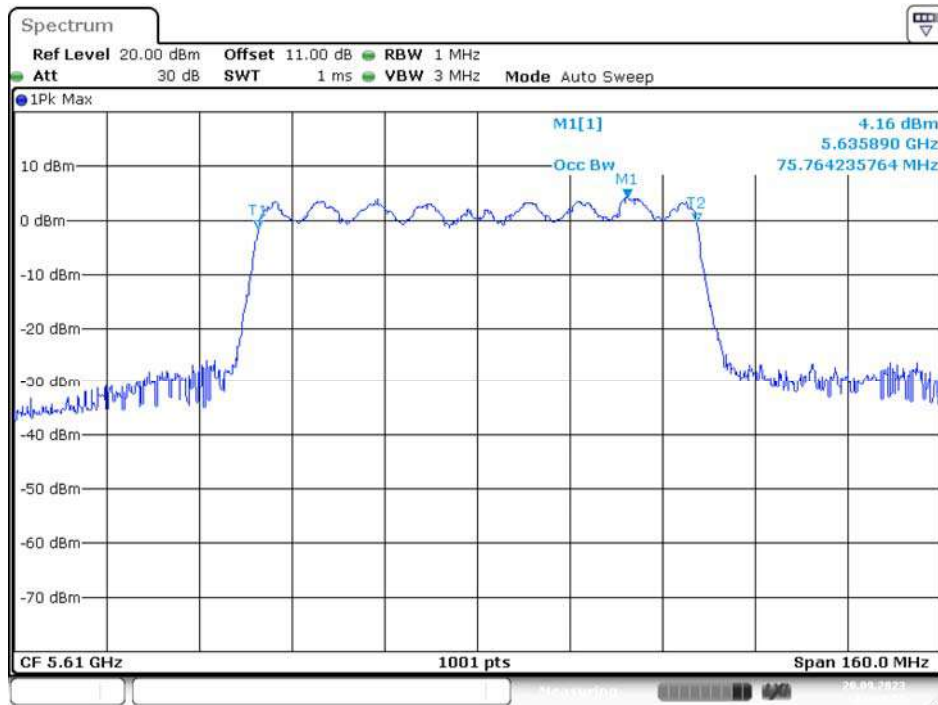
IEEE 802.11ac VHT80 Mode / 5470 ~ 5725MHz

5530MHz



Date: 20.SEP.2023 14:08:07

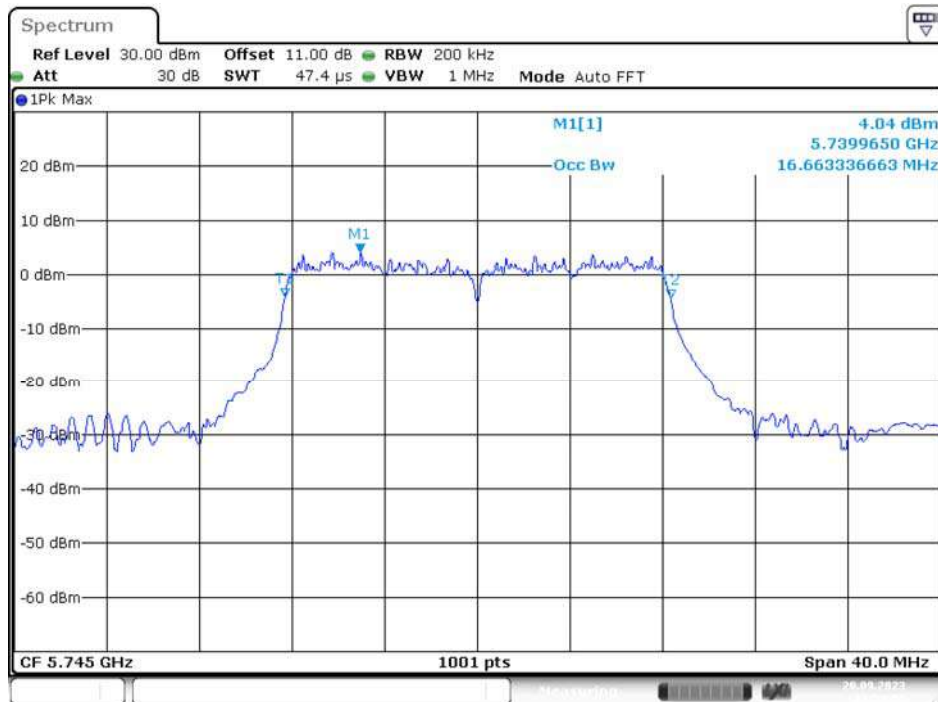
5610MHz



Date: 20.SEP.2023 14:09:52

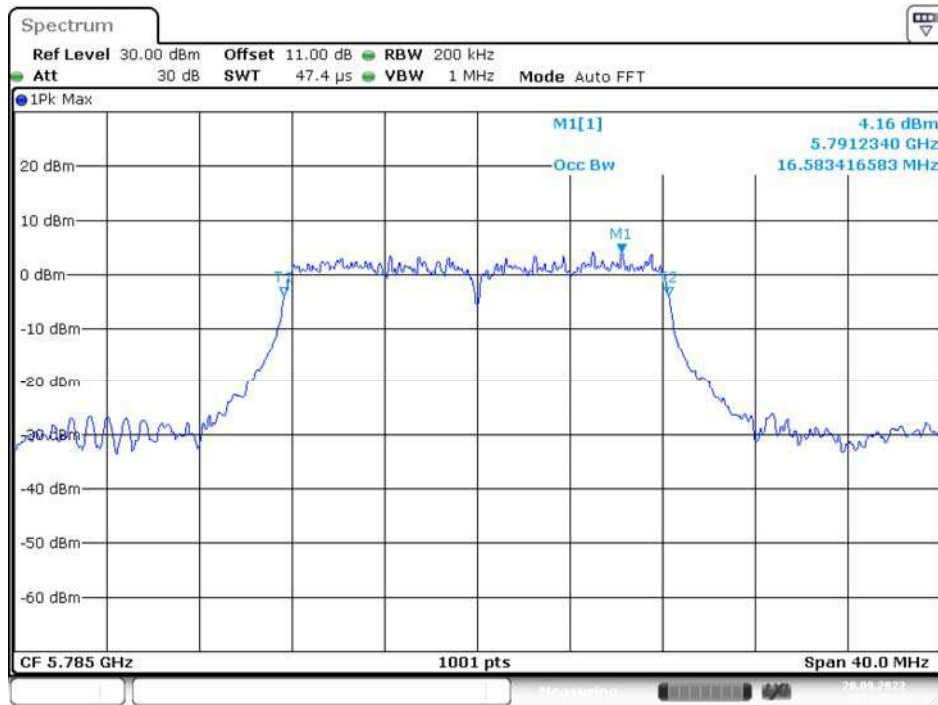
UNII-3 Band IV / OBW 99% IEEE 802.11a Mode / 5725 ~ 5850MHz

5745MHz



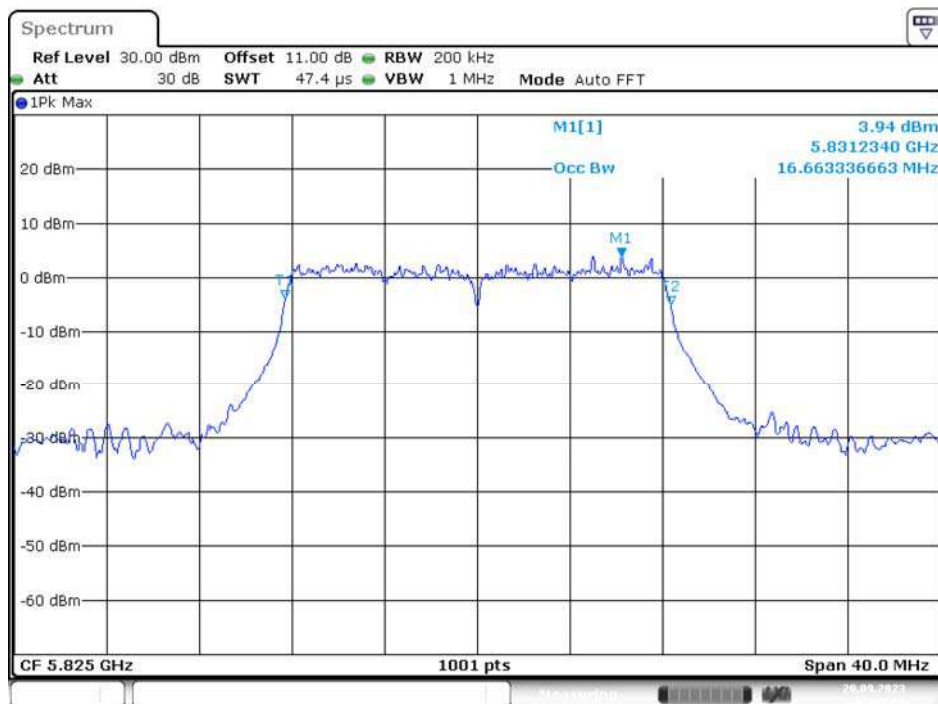
Date: 20.SEP.2023 11:58:06

5785MHz



Date: 20.SEP.2023 12:01:35

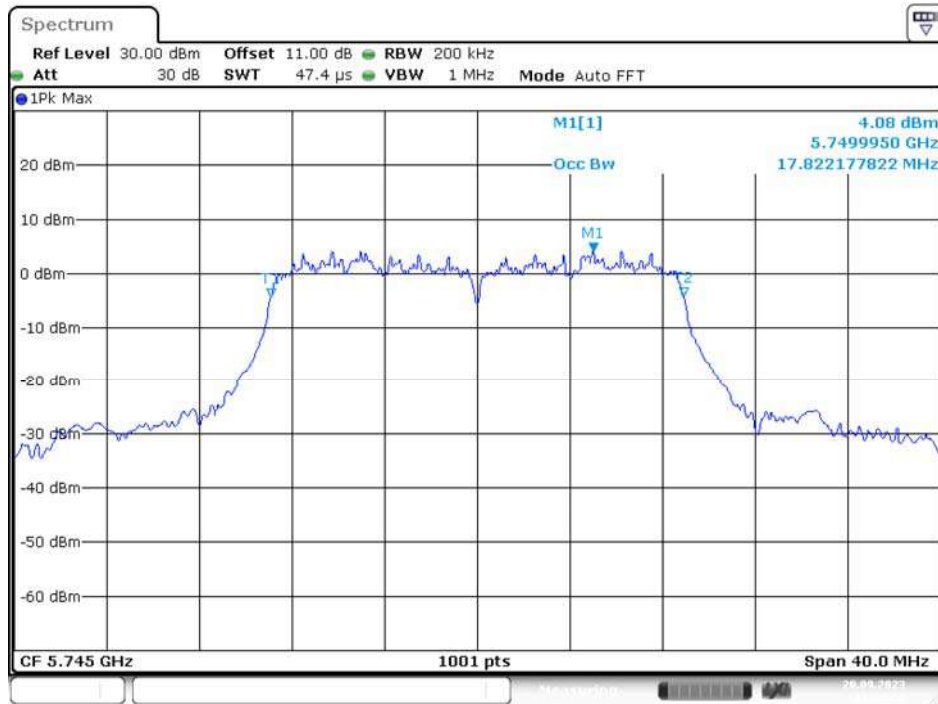
5825MHz



Date: 20.SEP.2023 12:03:42

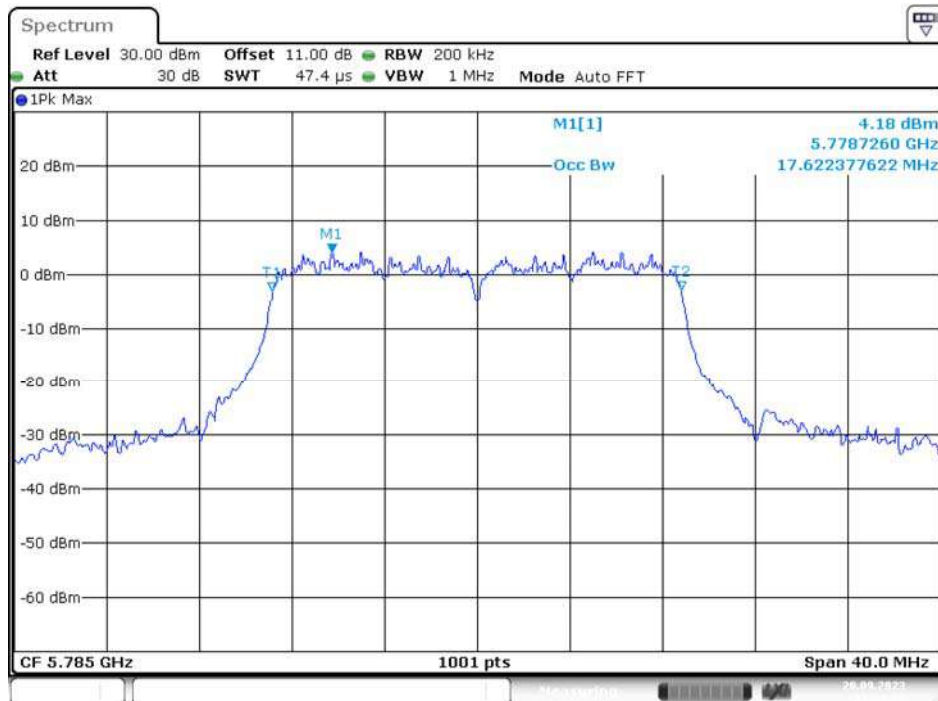
IEEE 802.11ac VHT20 Mode / 5725 ~ 5850MHz

5745MHz



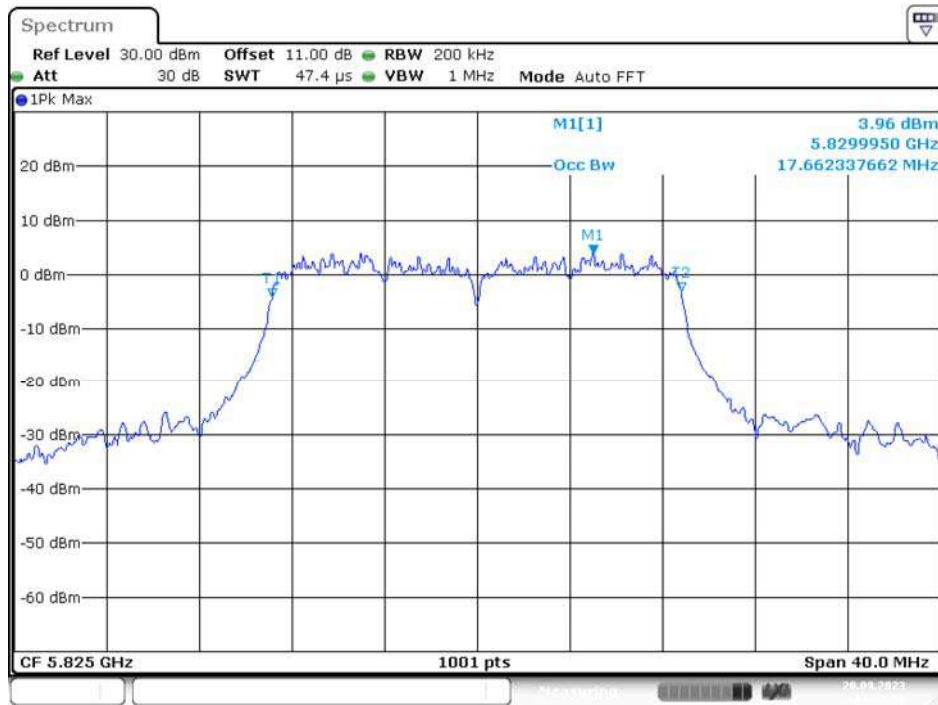
Date: 20.SEP.2023 12:27:36

5785MHz



Date: 20.SEP.2023 12:30:34

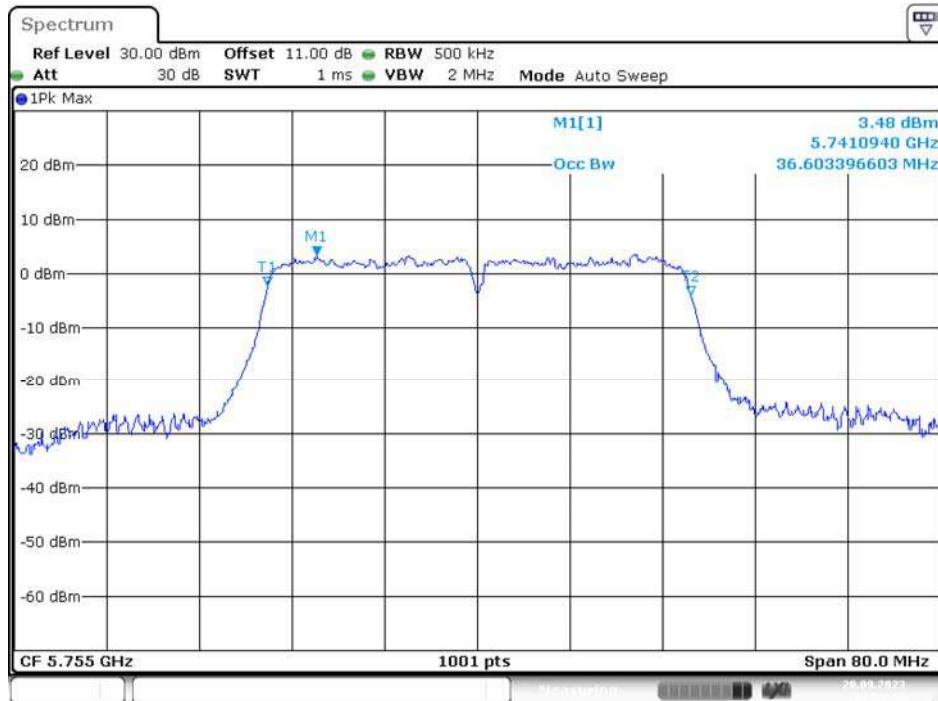
5825MHz



Date: 20.SEP.2023 12:33:01

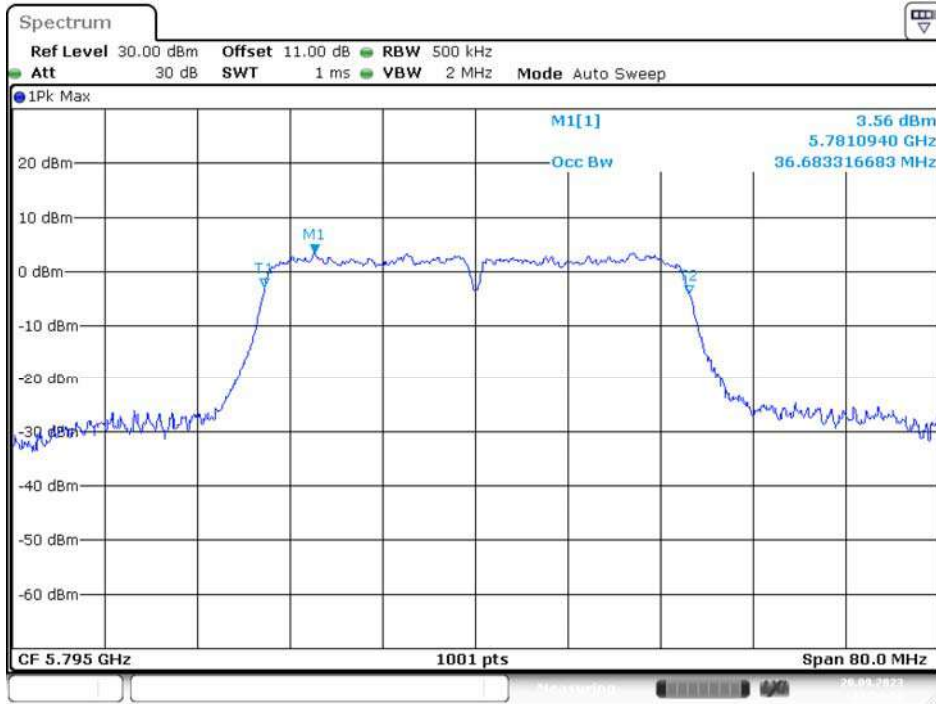
IEEE 802.11ac VHT40 Mode / 5725 ~ 5850MHz

5755MHz



Date: 20.SEP.2023 12:51:04

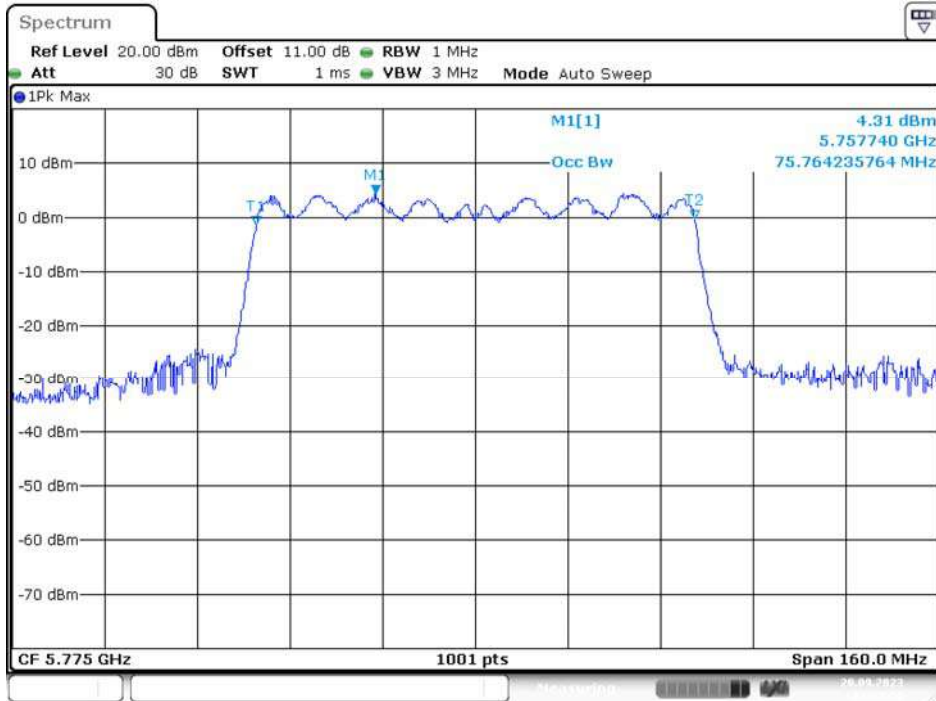
5795MHz



Date: 20.SEP.2023 12:54:12

IEEE 802.11ac VHT80 Mode / 5725 ~ 5850MHz

5775MHz



Date: 20.SEP.2023 14:12:20

12 FCC §15.407(a) & RSS-247 §6.2 – Maximum Output Power

12.1 Applicable Standard

According to FCC §15.407(a):

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 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.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 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.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

According to RSS-247 §6.2:

For the 5.15-5.25 GHz band

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log_{10} B$, dBm, whichever is less. Devices shall implement transmitter power control (TPC) in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

For other devices, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

For the 5.25-5.35 GHz band

Devices, other than devices installed in vehicles, shall comply with the following:

- a) The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band;
- b) The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

For the 5.47-5.725 GHz bands

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

For the 5.725-5.85 GHz bands

The maximum conducted output power shall not exceed 1 W. The output power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the output power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint Footnote3 systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

12.2 Test Procedure

According to ANSI C63.10-2013 Section 12.3.3.1

The use Power Meter

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to a Power sensor.

12.3 Test Results

Test Mode: Transmitting

5150-5250MHz

Test Modes	Channel	Frequency (MHz)	Maximum Conducted Average Output Power (dBm)	Duty Factor (dB)	Total Maximum Conducted Average Output Power With Duty Factor (dBm)	FCC Limit (dBm)	EIRP Power (dBm)	RSS-247 EIRP Limit (dBm)
802.11a	36	5180	12.78	1.80	14.58	24	14.55	22.21
	40	5200	12.77	1.80	14.57	24	14.54	22.21
	48	5240	12.90	1.80	14.70	24	14.67	22.22
802.11ac VHT20	36	5180	12.27	1.94	14.21	24	14.18	22.48
	40	5200	12.37	1.94	14.31	24	14.28	22.47
	48	5240	12.53	1.94	14.47	24	14.44	22.48
802.11ac VHT40	38	5190	9.89	3.28	13.17	24	13.14	23
	46	5230	10.15	3.28	13.43	24	13.40	23
802.11ac VHT80	42	5210	7.13	5.09	12.22	24	12.19	23

5250-5350MHz

Test Modes	Channel	Frequency (MHz)	Maximum Conducted Average Output Power (dBm)	Duty Factor (dB)	Total Maximum Conducted Average Output Power With Duty Factor (dBm)	FCC Limit (dBm)	RSS-247 Limit (dBm)	EIRP Power (dBm)	RSS-247 EIRP Limit (dBm)
802.11a	52	5260	11.58	1.80	13.38	24	23.22	13.30	29.22
	60	5300	11.53	1.80	13.33	24	23.21	13.25	29.21
	64	5320	11.38	1.80	13.18	24	23.21	13.10	29.21
802.11ac VHT20	52	5260	11.26	1.94	13.20	24	23.45	13.12	29.45
	60	5300	11.22	1.94	13.16	24	23.48	13.08	29.48
	64	5320	11.15	1.94	13.09	24	23.47	13.01	29.47
802.11ac VHT40	54	5270	8.93	3.28	12.21	24	24	12.13	30
	62	5310	8.53	3.28	11.81	24	24	11.73	30
802.11ac VHT80	58	5290	5.65	5.09	10.74	24	24	10.66	30

5470-5725MHz

Test Modes	Channel	Frequency (MHz)	Maximum Conducted Average Output Power (dBm)	Duty Factor (dB)	Total Maximum Conducted Average Output Power With Duty Factor (dBm)	FCC Limit (dBm)	RSS-247 Limit (dBm)	EIRP Power (dBm)	RSS-247 EIRP Limit (dBm)
802.11a	100	5500	12.24	1.80	14.04	24	23.21	16.07	29.21
	116	5580	13.17	1.80	14.97	24	23.23	17.00	29.23
	140	5700	13.52	1.80	15.32	24	23.20	17.35	29.20
802.11ac VHT20	100	5500	12.02	1.94	13.96	24	23.46	15.99	29.46
	116	5580	12.98	1.94	14.92	24	23.47	16.95	29.47
	140	5700	13.34	1.94	15.28	24	23.49	17.31	29.49
802.11ac VHT40	102	5510	9.78	3.28	13.06	24	24	15.09	30
	118	5590	10.69	3.28	13.97	24	24	16.00	30
	134	5670	10.98	3.28	14.26	24	24	16.29	30
802.11ac VHT80	106	5530	6.92	5.09	12.01	24	24	14.04	30
	122	5610	7.79	5.09	12.88	24	24	14.91	30

5725-5850MHz

Test Modes	Channel	Frequency (MHz)	Maximum Conducted Average Output Power (dBm)	Duty Factor (dB)	Total Maximum Conducted Average Output Power With Duty Factor (dBm)	FCC / RSS-247 Limit (dBm)
802.11a	149	5745	13.55	1.80	15.35	30
	157	5785	13.52	1.80	15.32	30
	165	5825	13.46	1.80	15.26	30
802.11ac VHT20	149	5745	13.43	1.94	15.37	30
	157	5785	13.41	1.94	15.35	30
	165	5825	13.28	1.94	15.22	30
802.11ac VHT40	151	5755	11.15	3.28	14.43	30
	159	5795	11.17	3.28	14.45	30
802.11ac VHT80	155	5775	8.11	5.09	13.20	30

13 FCC §15.407(a) & RSS-247 §6.2 – Power Spectral Density

13.1 Applicable Standard

According to FCC §15.407(a):

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 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.

For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 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.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6dBi 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 6dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

According to RSS-247 §6.2:

For the 5.15-5.25 GHz band

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log 10B$, dBm, whichever is less. Devices shall implement transmitter power control (TPC) in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

For other devices, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log 10B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

For the 5.25-5.35 GHz band

Devices, other than devices installed in vehicles, shall comply with the following:

- a) The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band;
- b) The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

For the 5.47-5.725 GHz bands

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

For the 5.725-5.85 GHz bands

The maximum conducted output power shall not exceed 1 W. The output power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the output power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint Footnote3 systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

13.2 Test Procedure

The measurements are base on FCC KDB 789033 D02 General UNII Test Proceidyres New Rules v02r01: Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices section F: Maximum power spectral density.

Duty cycle <98%, duty cycle variations exceed $\pm 2\%$

Method SA-3 was used.

13.3 Test Results

Test Mode: Transmitting

5150-5250MHz

UNII Band	Mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)	Duty Factor (dB)	Power Spectral Density with duty factor (dBm/MHz)	Limit (dBm/MHz)	EIRP Power Spectral Density (dBm/MHz)	
								Result	Limit
UNII-1	802.11a	36	5180	2.70	1.80	4.50	11	4.47	10
		40	5200	2.90	1.80	4.70	11	4.67	10
		48	5240	2.96	1.80	4.76	11	4.73	10
	802.11ac 20	36	5180	2.68	1.94	4.62	11	4.59	10
		40	5200	2.78	1.94	4.72	11	4.69	10
		48	5240	2.87	1.94	4.81	11	4.78	10
	802.11ac 40	38	5190	-1.34	3.28	1.94	11	1.91	10
		46	5230	-1.04	3.28	2.24	11	2.21	10
	802.11ac 80	42	5210	-3.62	5.09	1.47	11	1.44	10

5250-5350MHz

UNII Band	Mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)	Duty Factor (dB)	Power Spectral Density with duty factor (dBm/MHz)	Limit (dBm/MHz)
UNII-2A	802.11a	52	5260	1.71	1.80	3.51	11
		60	5300	1.61	1.80	3.41	11
		64	5320	1.49	1.80	3.29	11
	802.11ac 20	52	5260	1.68	1.94	3.62	11
		60	5300	1.59	1.94	3.53	11
		64	5320	1.54	1.94	3.48	11
	802.11ac 40	54	5270	-2.17	3.28	1.11	11
		62	5310	-2.52	3.28	0.76	11
	802.11ac 80	58	5290	-4.93	5.09	0.16	11

5470-5725MHz

UNII Band	Mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)	Duty Factor (dB)	Power Spectral Density with duty factor (dBm/MHz)	Limit (dBm/MHz)
UNII-2C	802.11a	100	5500	2.65	1.80	4.45	11
		116	5580	3.55	1.80	5.35	11
		140	5700	3.81	1.80	5.61	11
	802.11ac 20	100	5500	2.32	1.94	4.26	11
		116	5580	3.41	1.94	5.35	11
		140	5700	3.69	1.94	5.63	11
	802.11ac 40	102	5510	-1.13	3.28	2.15	11
		118	5590	-0.53	3.28	2.75	11
		134	5670	0.01	3.28	3.29	11
	802.11ac 80	106	5530	-3.48	5.09	1.61	11
		122	5610	-2.58	5.09	2.51	11

5725-5850MHz

UNII Band	Mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/500kHz)	Duty Factor (dB)	Power Spectral Density with duty factor (dBm/500kHz)	Limit (dBm/500kHz)
UNII-3	802.11a	149	5745	2.59	1.80	4.39	30
		157	5785	2.12	1.80	3.92	30
		165	5825	1.90	1.80	3.70	30
	802.11ac 20	149	5745	1.87	1.94	3.81	30
		157	5785	2.07	1.94	4.01	30
		165	5825	2.00	1.94	3.94	30
	802.11ac 40	151	5755	-1.87	3.28	1.41	30
		159	5795	-1.95	3.28	1.33	30
	802.11ac 80	155	5775	-4.15	5.09	0.94	30

According to FCC KDB 662911 D01 Multiple Transmitter Output v02r01

The device is a Client device. the device have one antenna, maximum antenna gain are 2.03 dBi,

For Power spectral density (PSD) measurements on the devices:

Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

So:

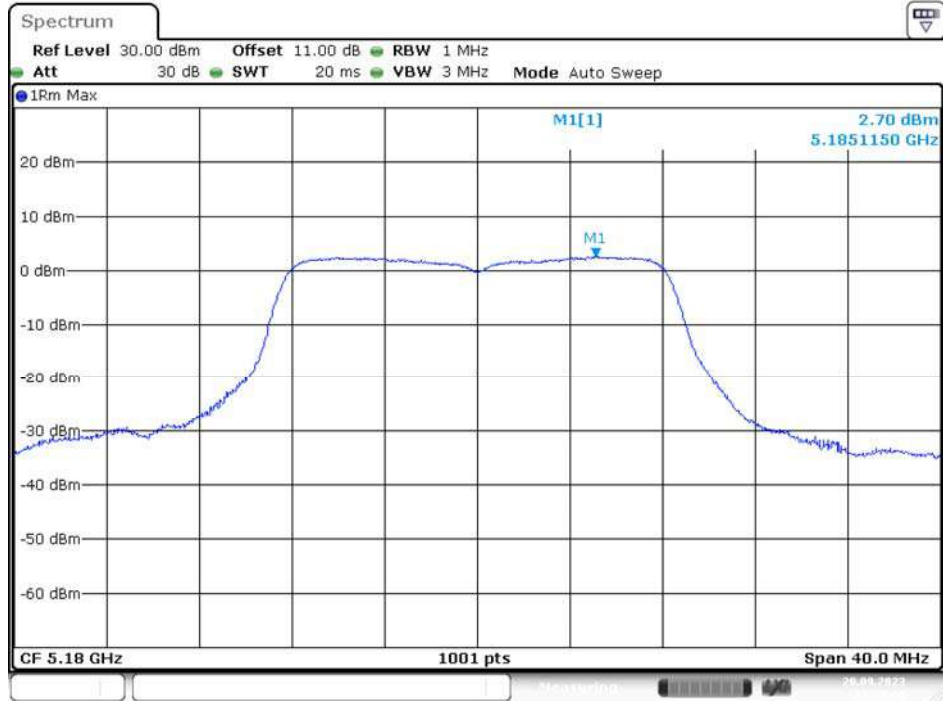
Directional gain = G_{ANT} + Array Gain = 2.03 dBi

The Power density Limits was reduce 0 dB.

Please refer to the following plots

UNII-1 Band I / PSD
IEEE 802.11a Mode / 5150 ~ 5250MHz

5180MHz



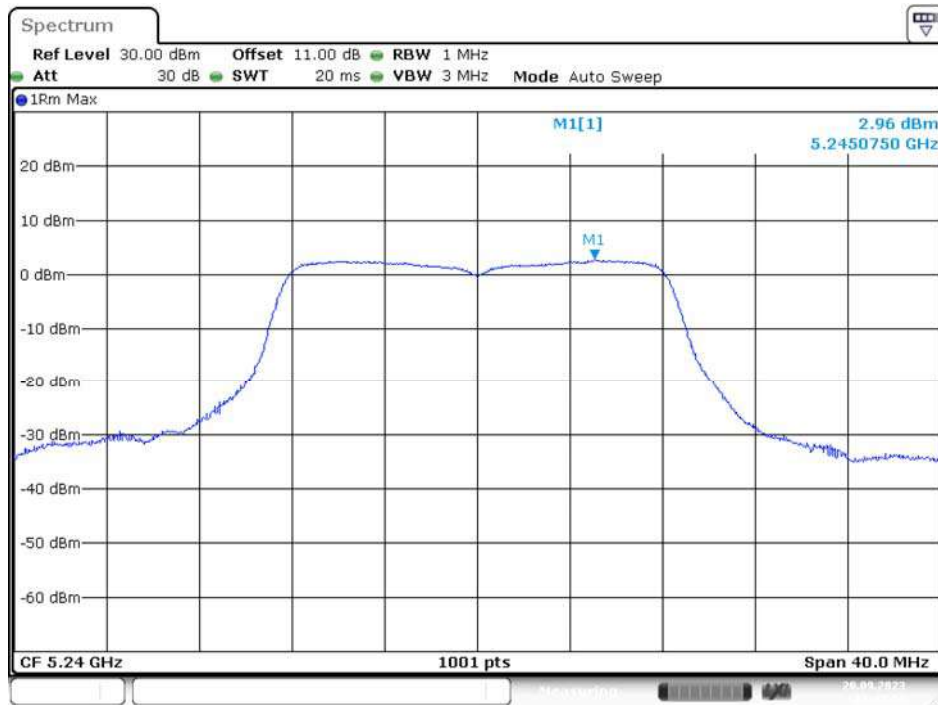
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5200MHz



Date: 20.SEP.2023 11:35:23

5240MHz



Date: 20.SEP.2023 11:43:13

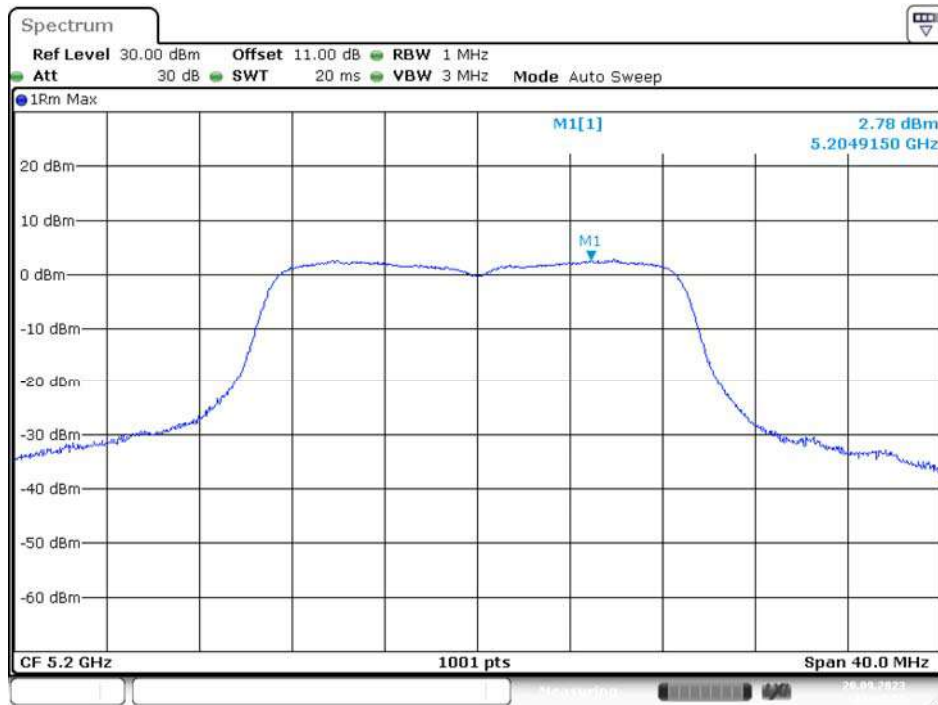
IEEE 802.11ac VHT20 Mode / 5150 ~ 5250MHz

5180MHz



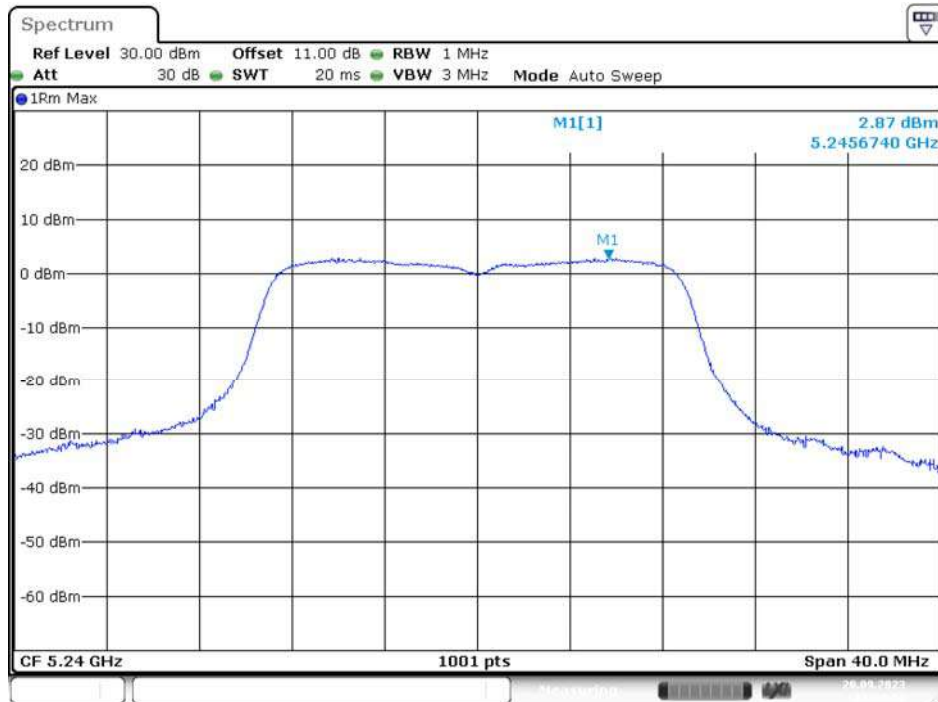
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5200MHz



Date: 20.SEP.2023 12:07:58

5240MHz



Date: 20.SEP.2023 12:10:02

IEEE 802.11ac VHT40 Mode / 5150 ~ 5250MHz

5190MHz



Date: 20.SEP.2023 12:34:41

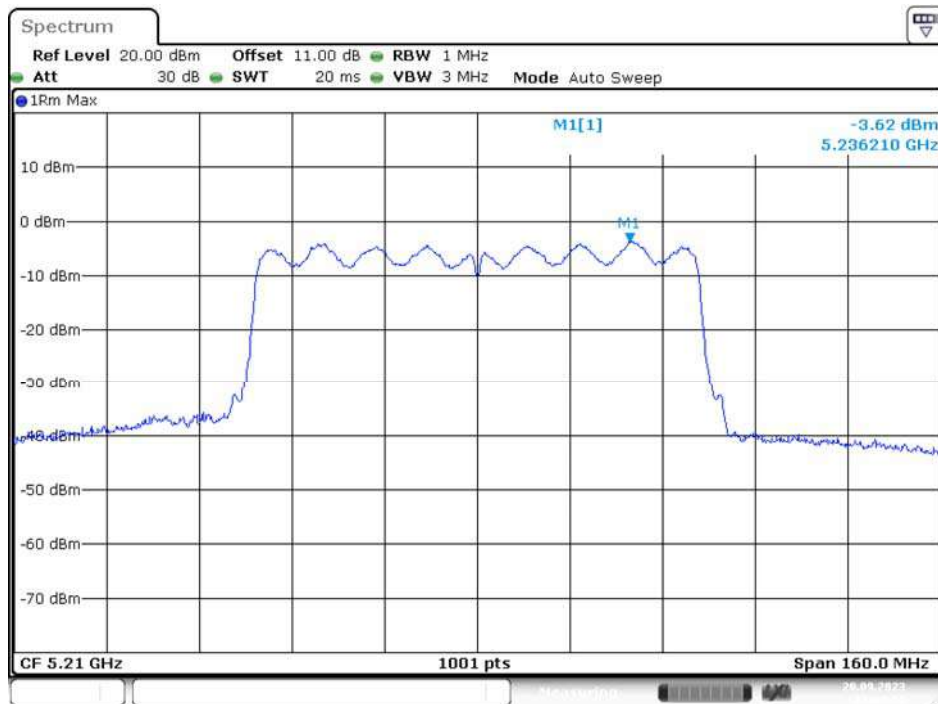
5230MHz



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IEEE 802.11ac VHT80 Mode / 5150 ~ 5250MHz

5210MHz

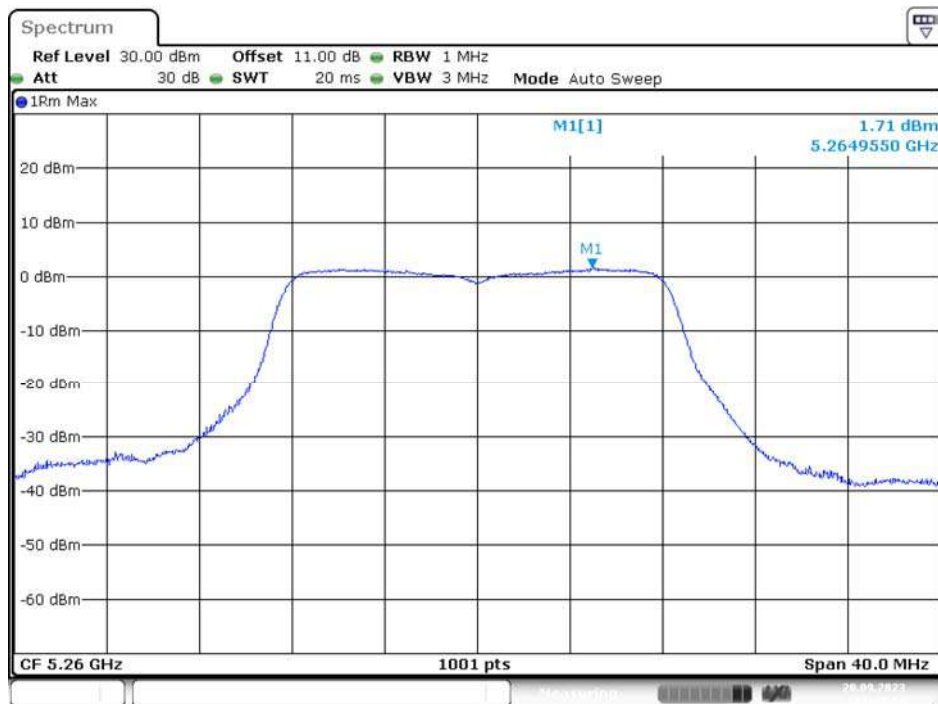


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UNII-2A Band II / PSD

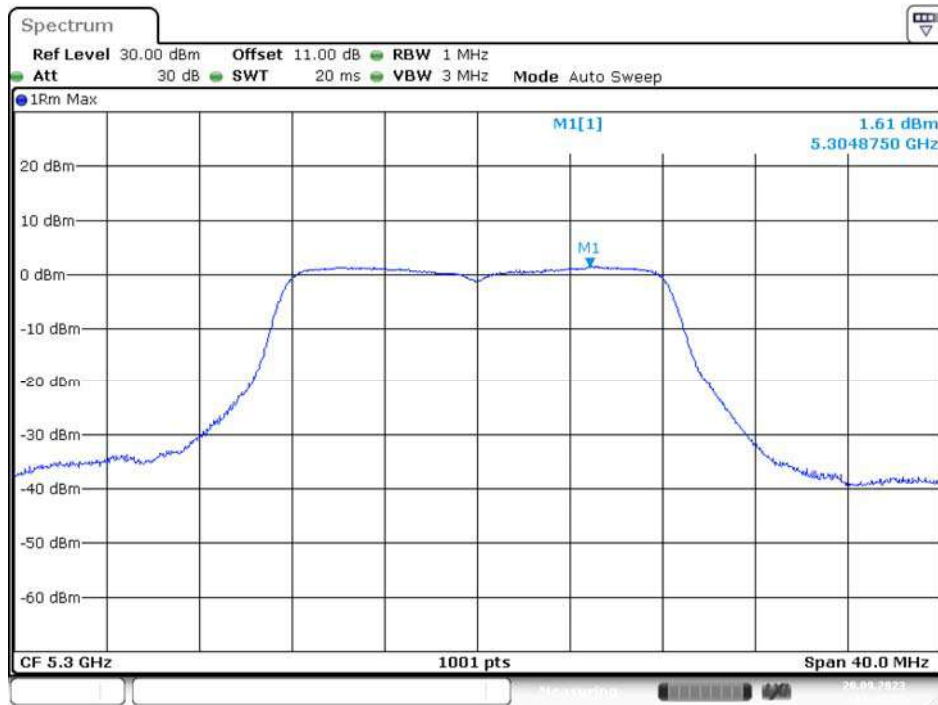
IEEE 802.11a Mode / 5250 ~ 5350MHz

5260MHz



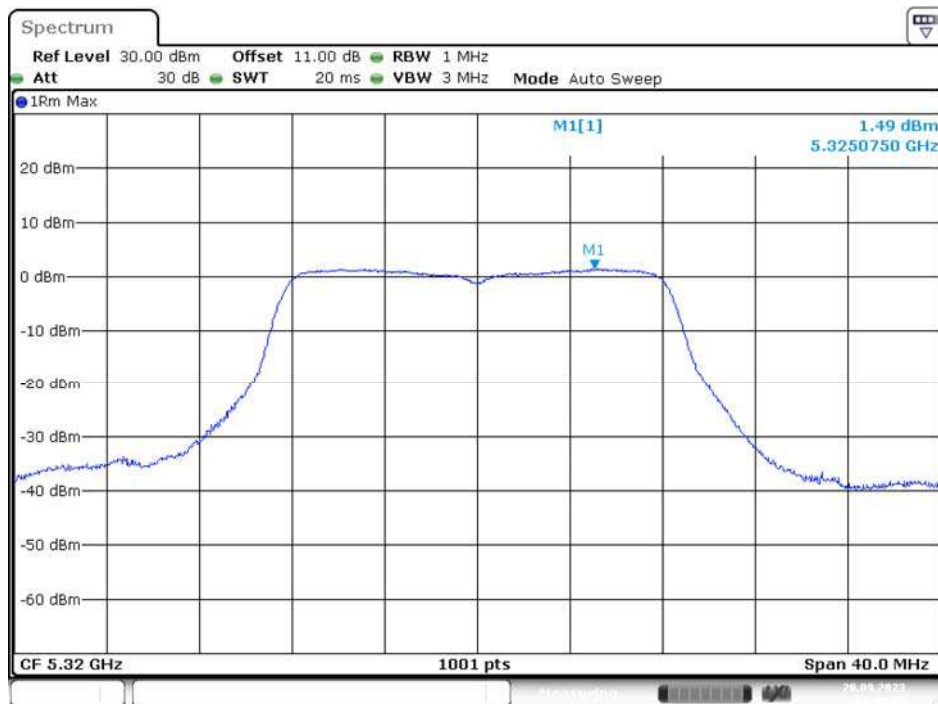
Date: 20.SEP.2023 11:45:14

5300MHz



Date: 20.SEP.2023 11:47:26

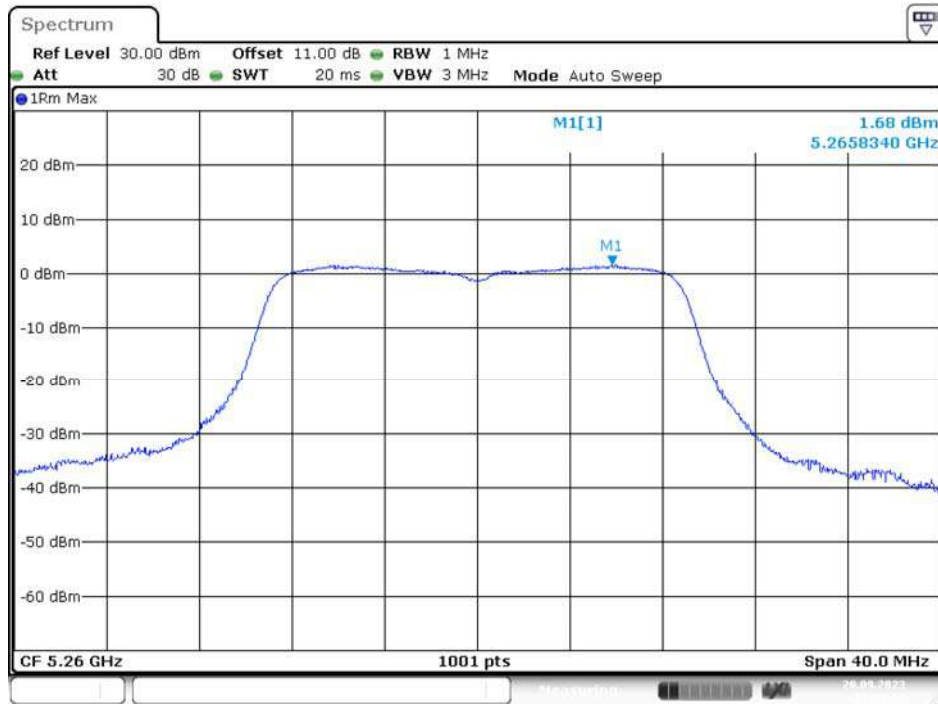
5320MHz



Date: 20.SEP.2023 11:49:12

IEEE 802.11ac VHT20 Mode / 5250 ~ 5350MHz

5260MHz



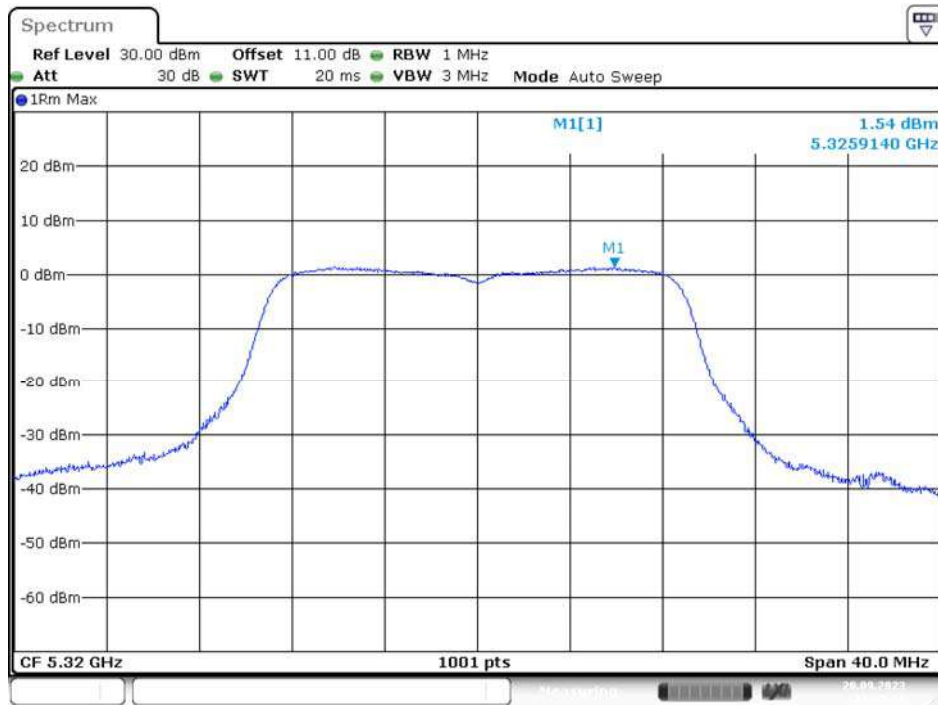
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5300MHz



Date: 20.SEP.2023 12:13:26

5320MHz



Date: 20.SEP.2023 12:15:04

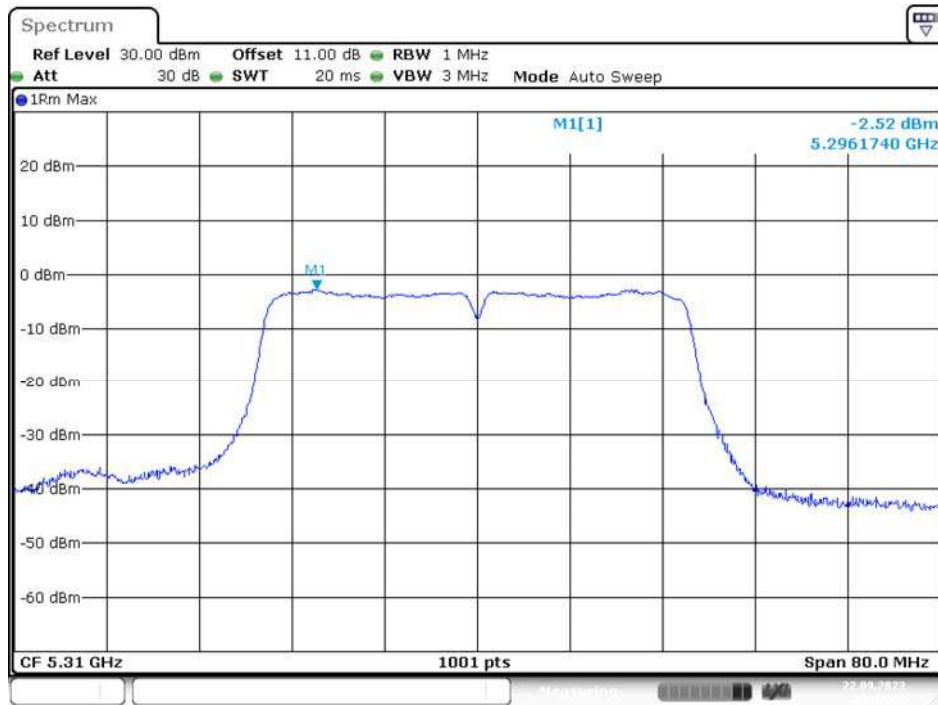
IEEE 802.11ac VHT40 Mode / 5250 ~ 5350MHz

5270MHz



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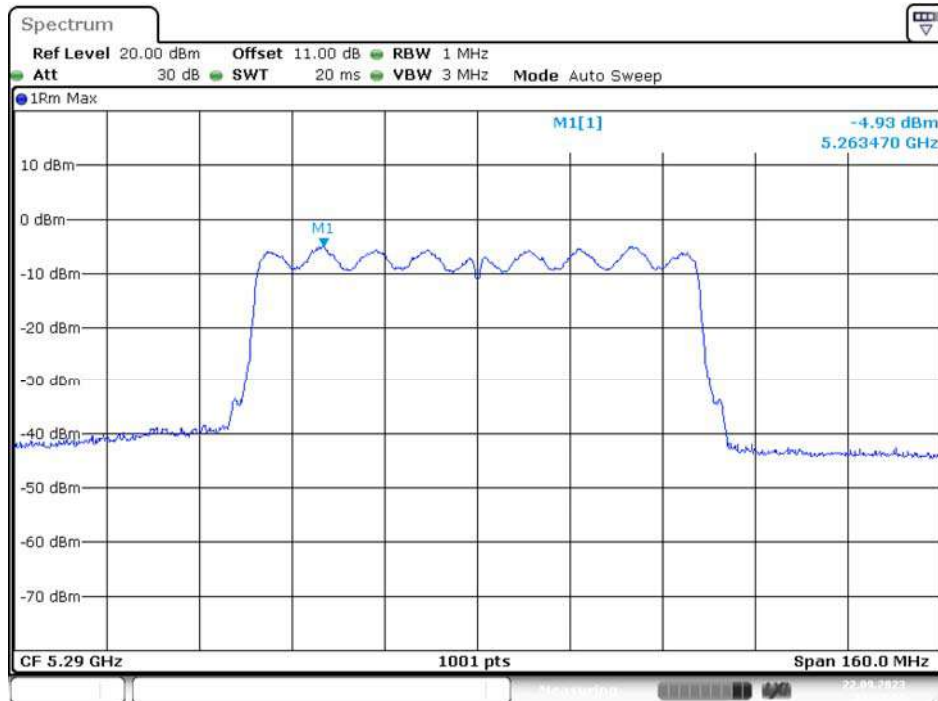
5310MHz



Date: 22.SEP.2023 11:43:22

IEEE 802.11ac VHT80 Mode / 5250 ~ 5350MHz

5290MHz



Date: 22.SEP.2023 11:33:18

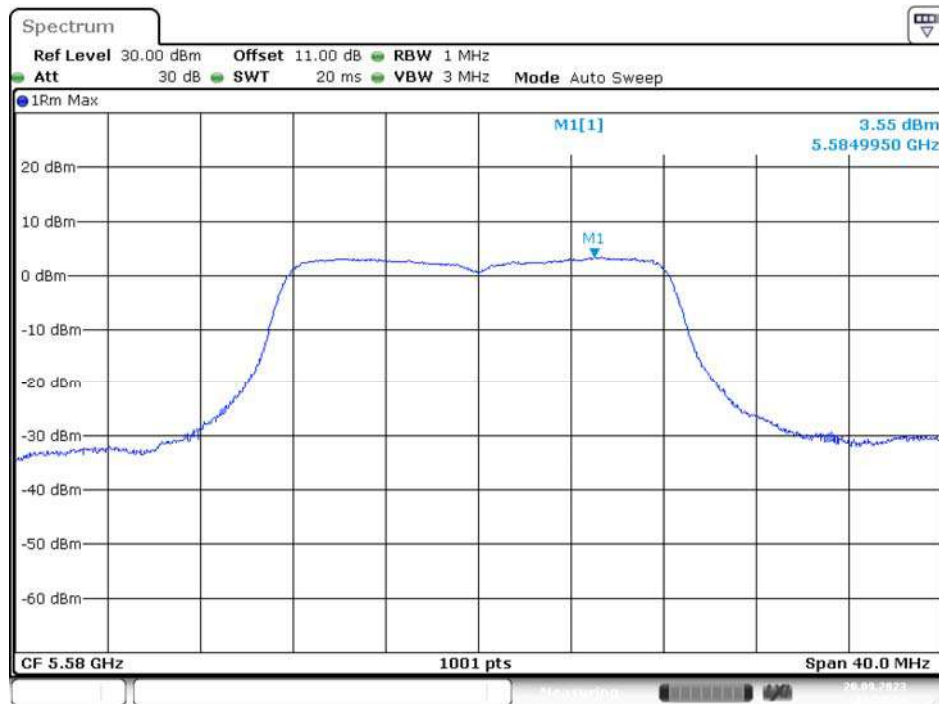
UNII-2C Band III / PSD
IEEE 802.11a Mode / 5470 ~ 5725MHz

5500MHz



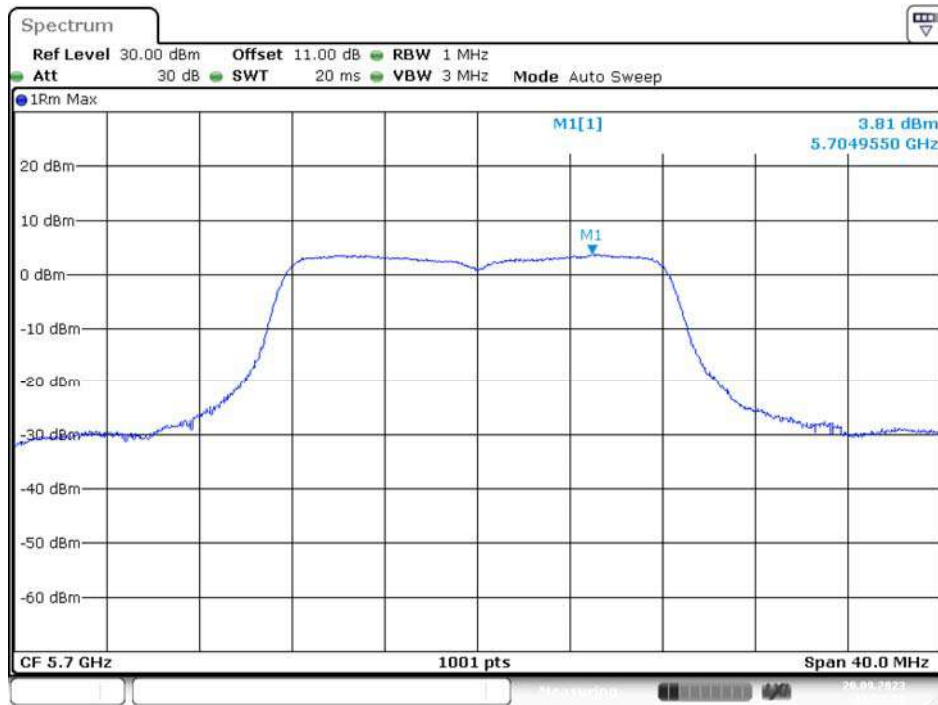
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5580MHz



Date: 20.SEP.2023 11:52:24

5700MHz



Date: 20.SEP.2023 11:53:59

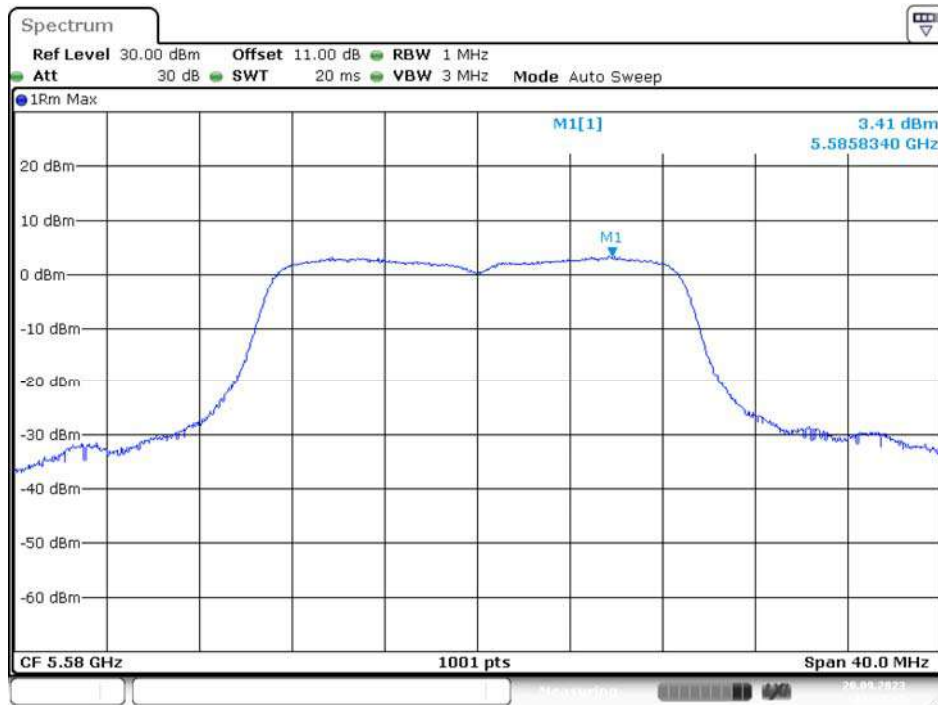
IEEE 802.11ac VHT20 Mode / 5470 ~ 5725MHz

5500MHz



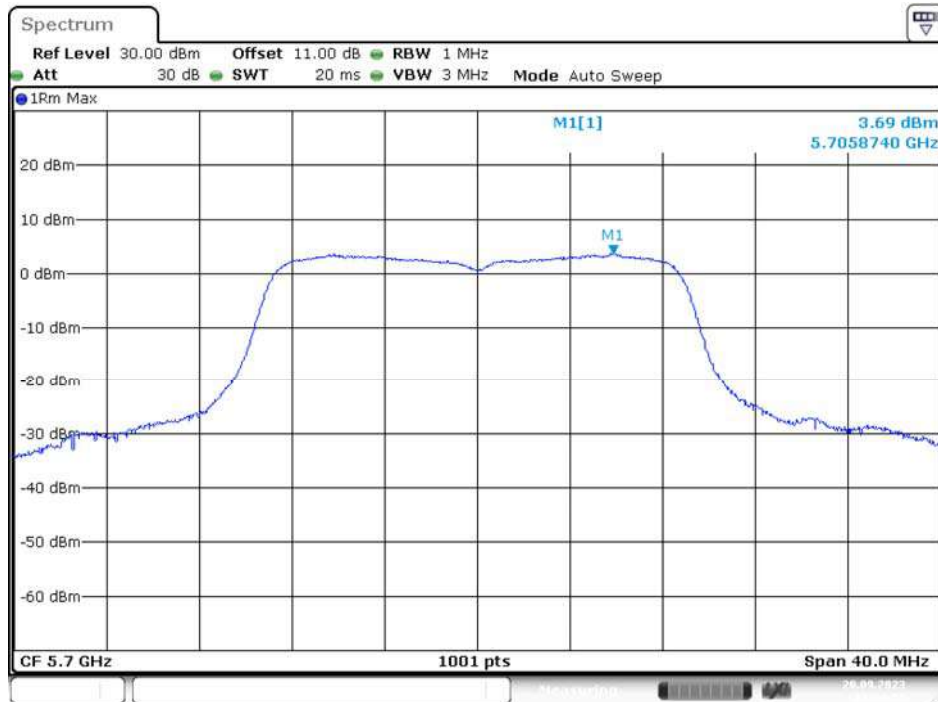
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5580MHz



Date: 20.SEP.2023 12:22:45

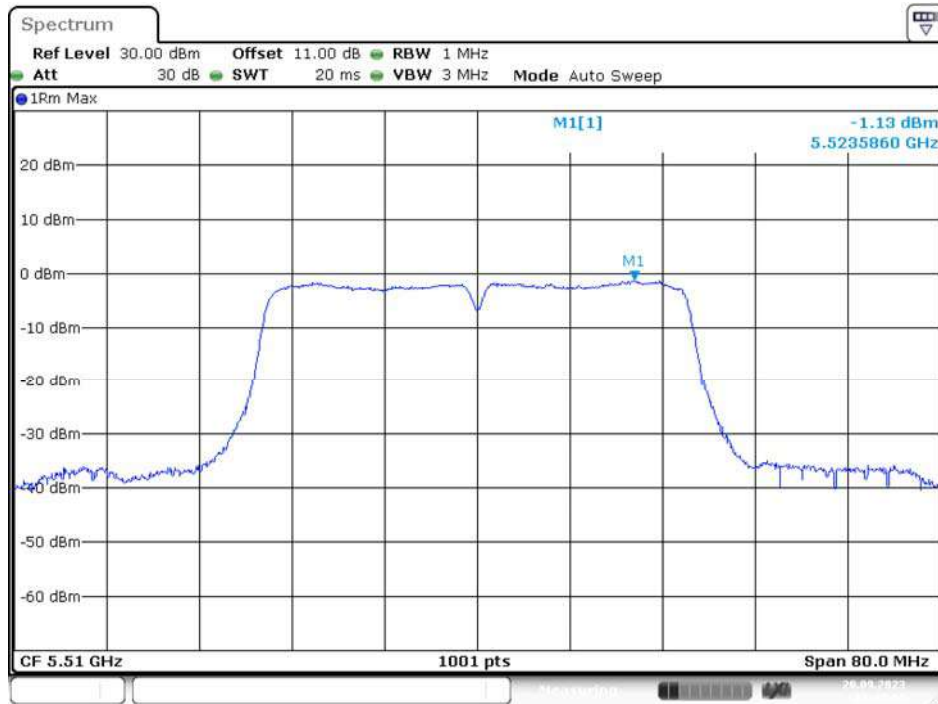
5700MHz



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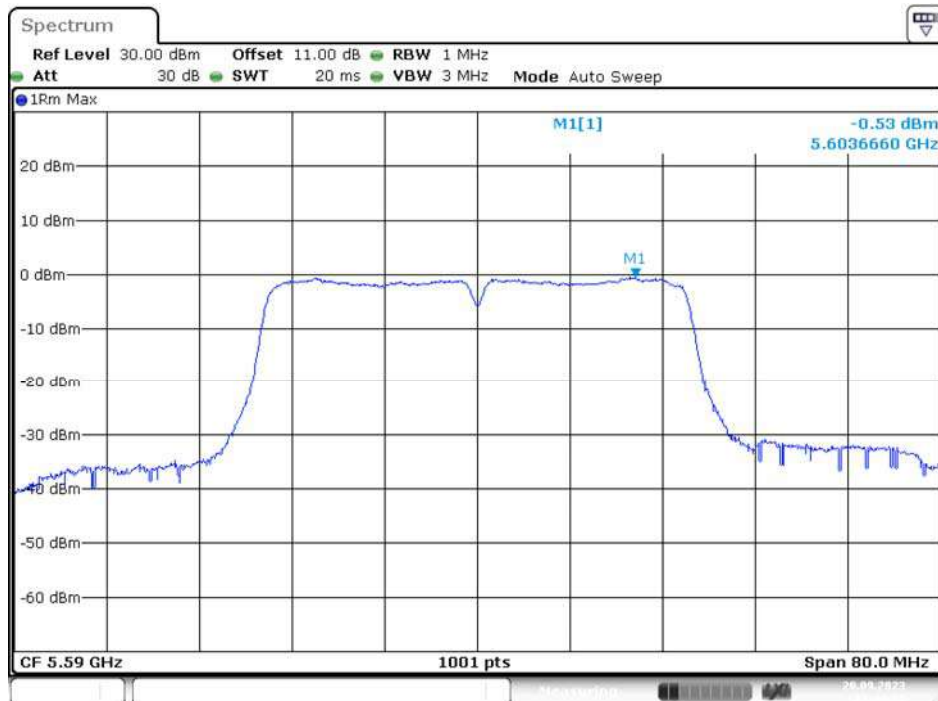
IEEE 802.11ac VHT40 Mode / 5470 ~ 5725MHz

5510MHz



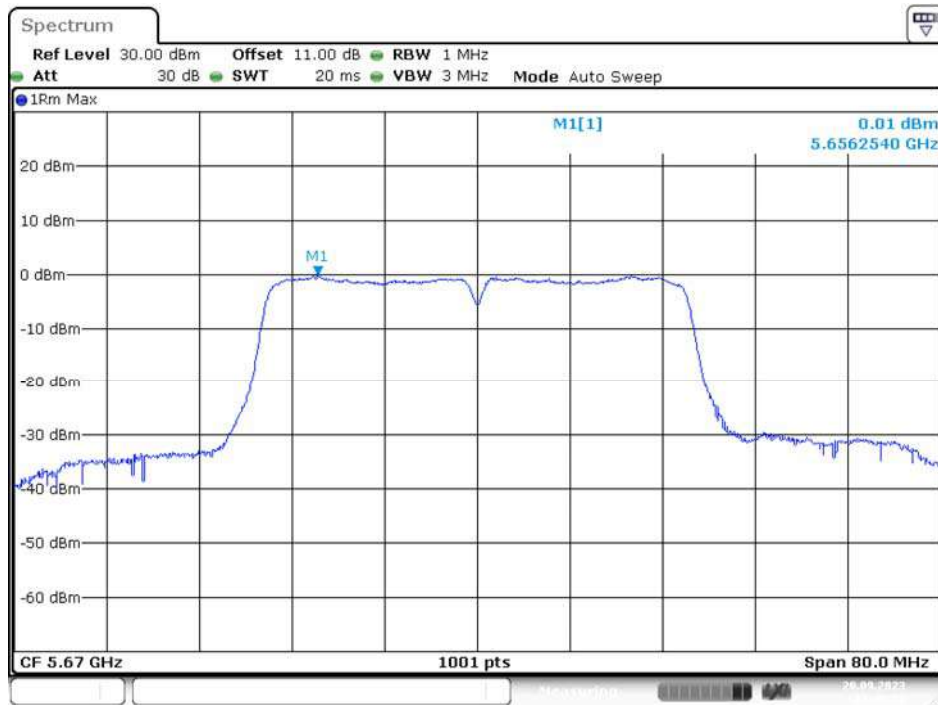
Date: 20.SEP.2023 12:42:42

5590MHz



Date: 20.SEP.2023 12:44:30

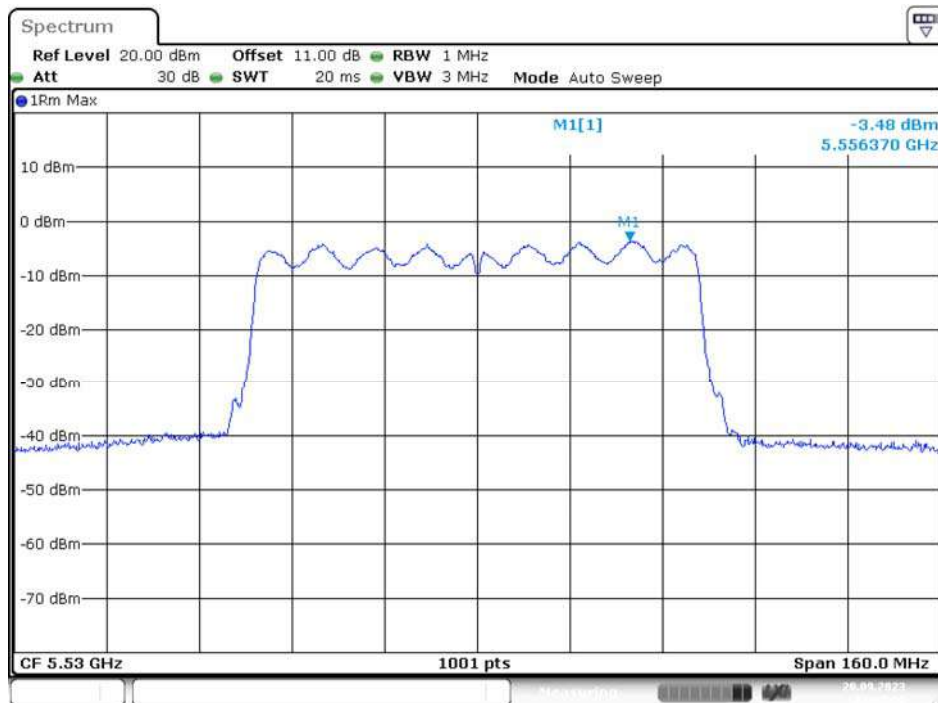
5670MHz



Date: 20.SEP.2023 12:46:22

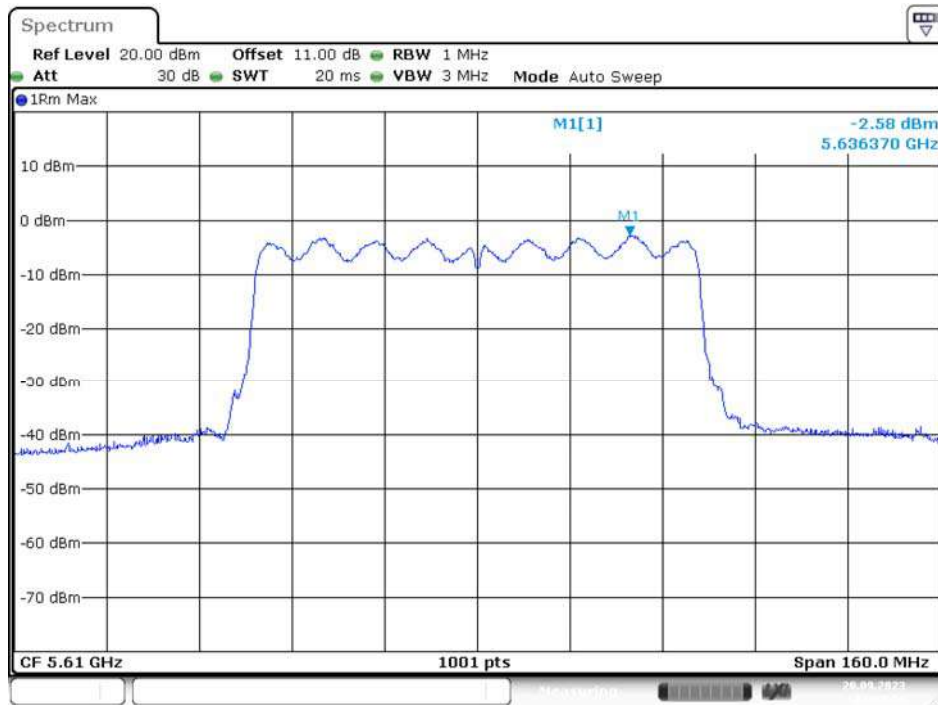
IEEE 802.11ac VHT80 Mode / 5470 ~ 5725MHz

5530MHz



Date: 20.SEP.2023 14:07:40

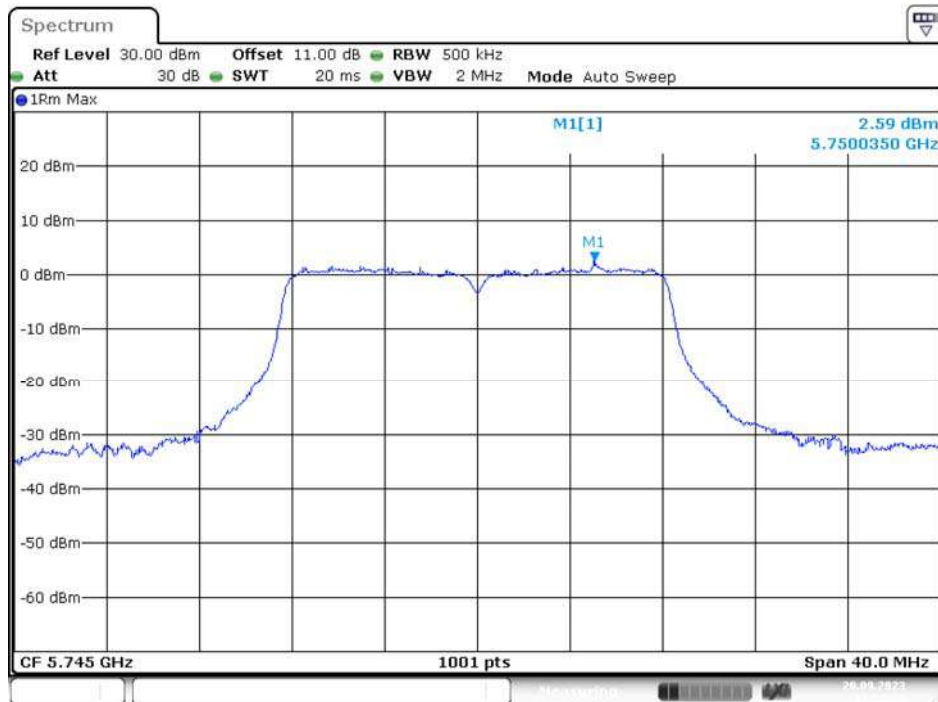
5610MHz



Date: 20.SEP.2023 14:09:25

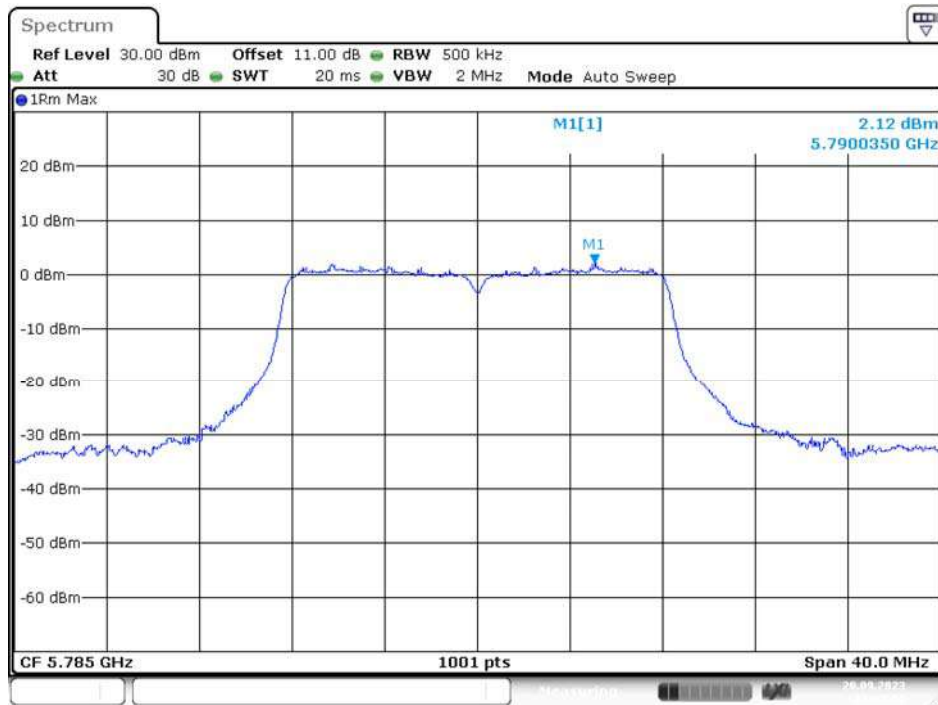
UNII-3 Band IV / PSD IEEE 802.11a Mode / 5725 ~ 5850MHz

5745MHz



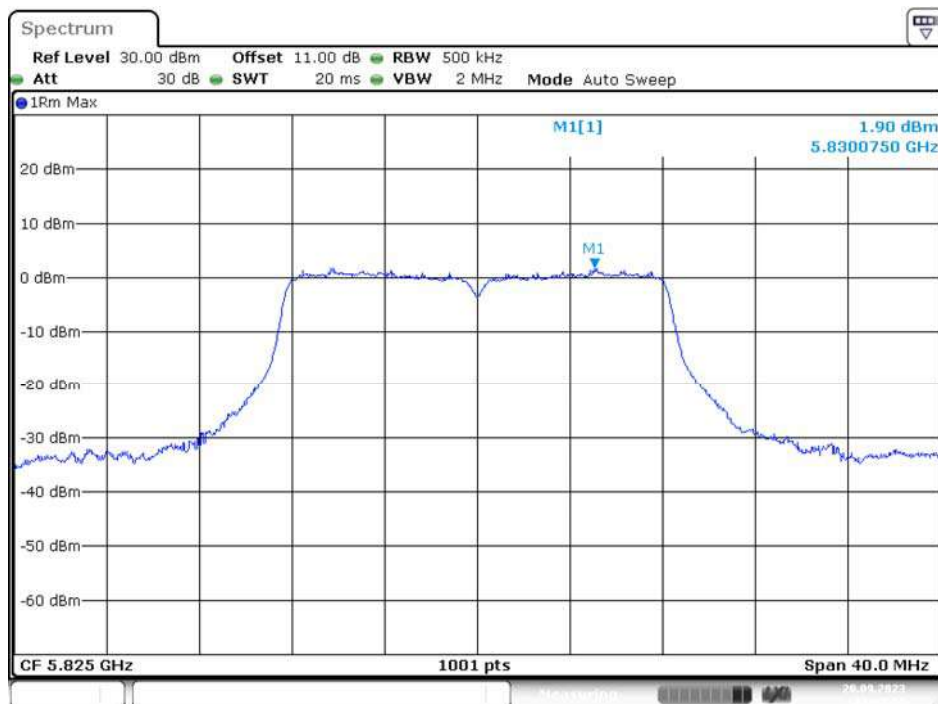
Date: 20.SEP.2023 11:57:39

5785MHz



Date: 20.SEP.2023 12:01:08

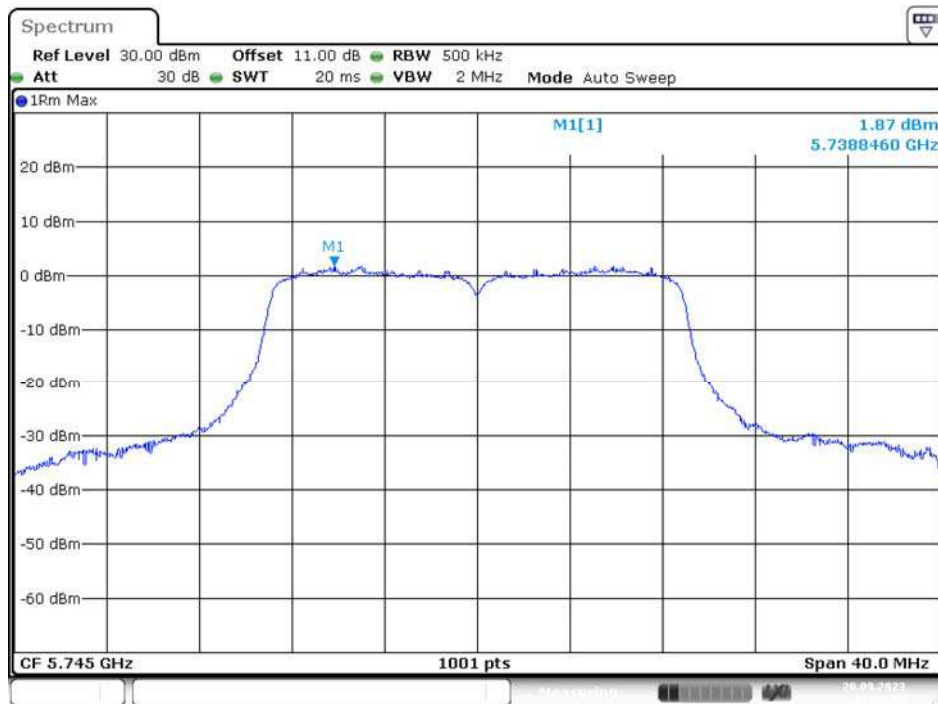
5825MHz



Date: 20.SEP.2023 12:03:15

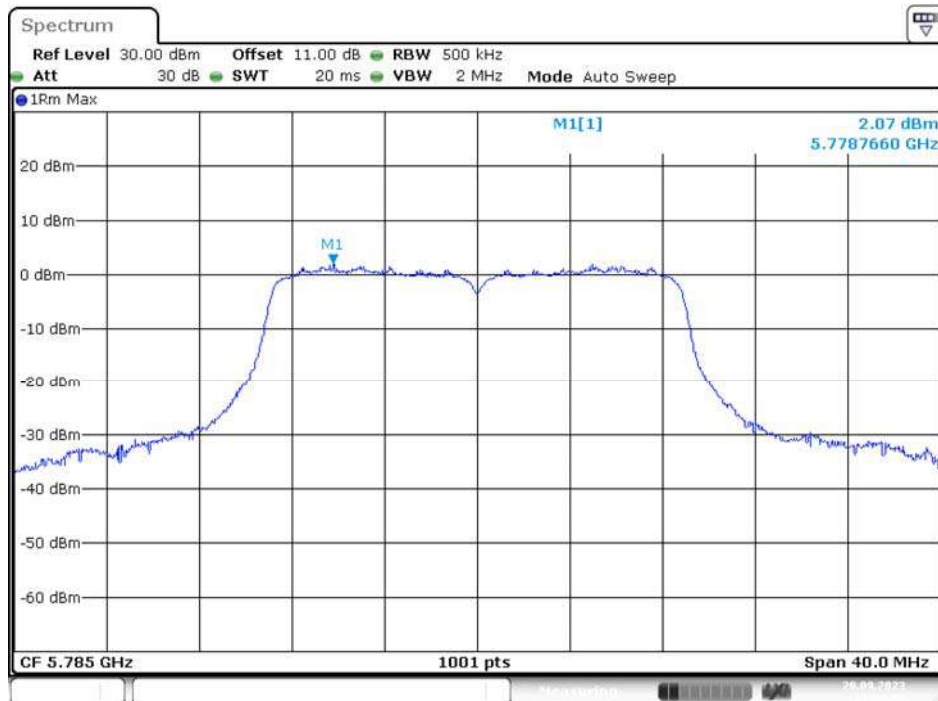
IEEE 802.11ac VHT20 Mode / 5725 ~ 5850MHz

5745MHz



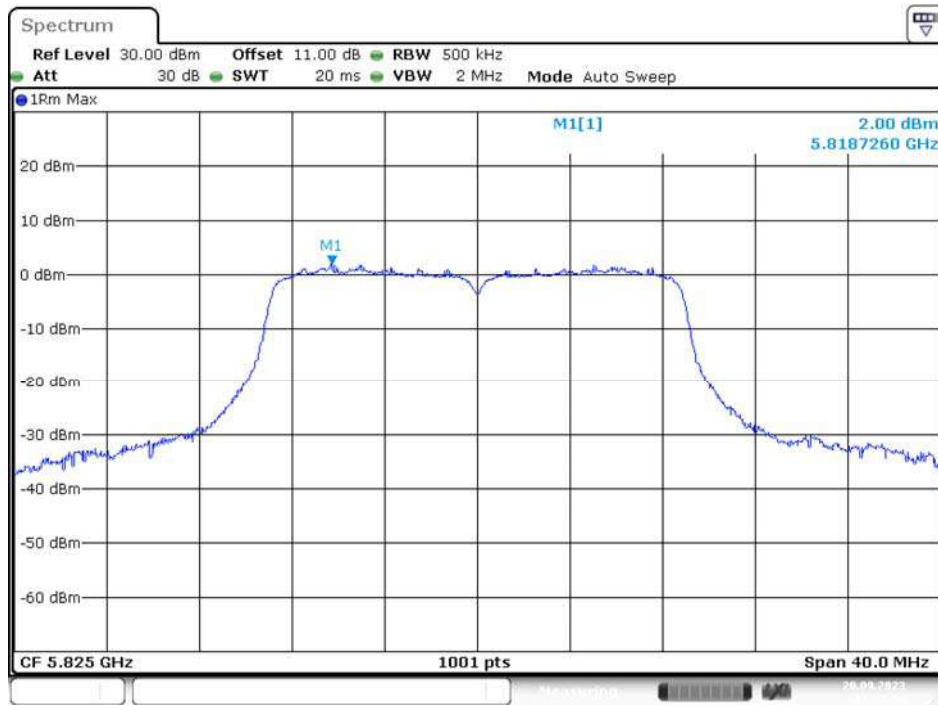
Date: 20.SEP.2023 12:27:09

5785MHz



Date: 20.SEP.2023 12:30:07

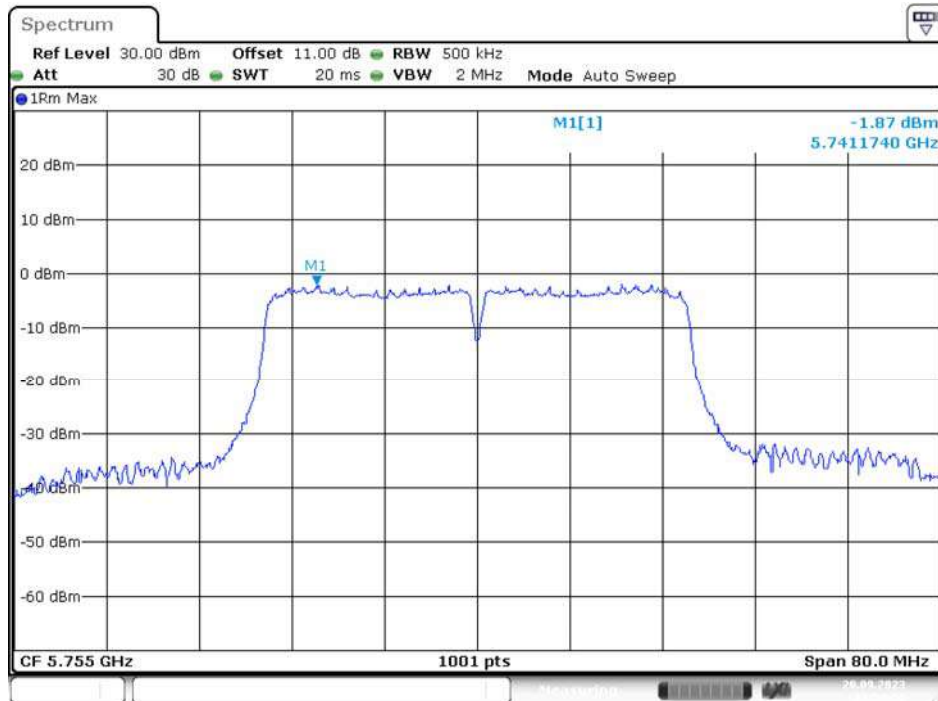
5825MHz



Date: 20.SEP.2023 12:32:34

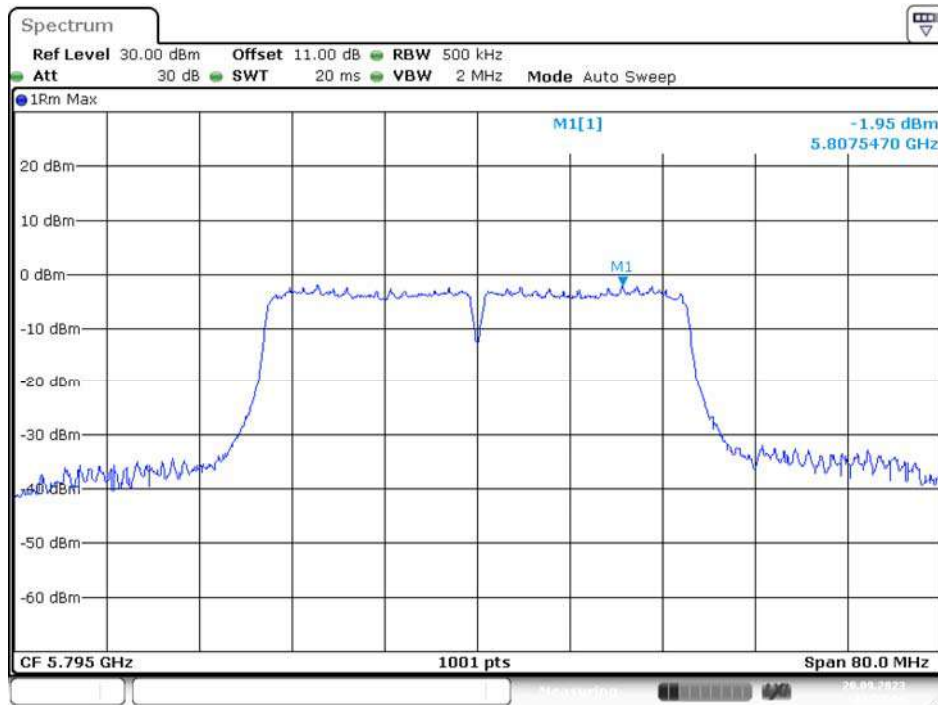
IEEE 802.11ac VHT40 Mode / 5725 ~ 5850MHz

5755MHz



Date: 20.SEP.2023 12:50:36

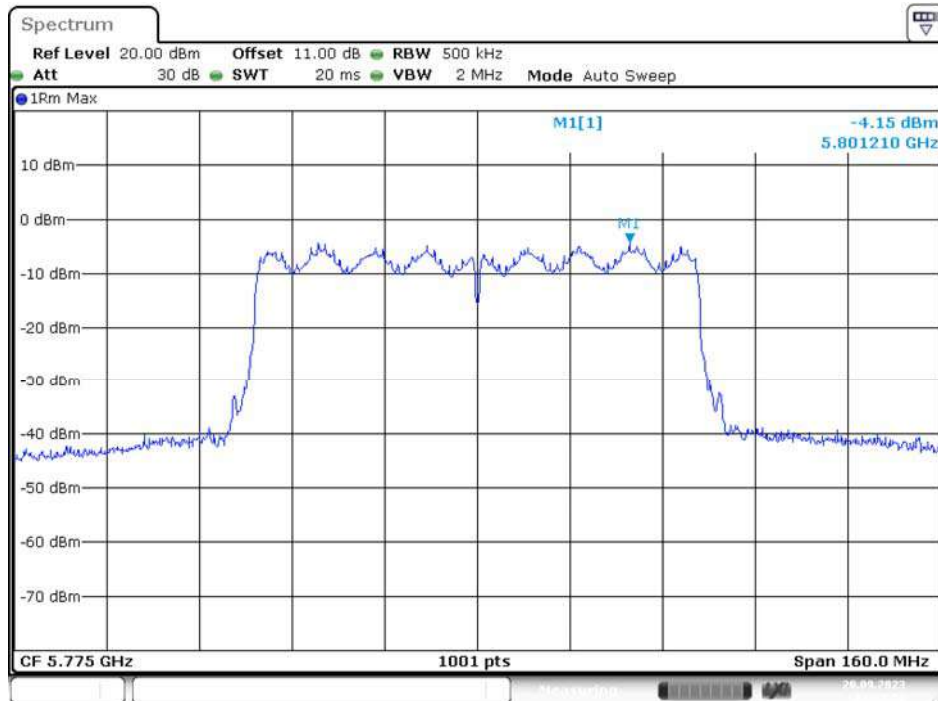
5795MHz



Date: 20.SEP.2023 12:53:45

IEEE 802.11ac VHT80 Mode / 5725 ~ 5850MHz

5775MHz



Date: 20.SEP.2023 14:11:53

14 RSS-247 §6.4 – Additional requirements

14.1 Applicable Standard

According to RSS-247 Clause 6.4 Additional requirement

The following requirements shall apply:

- a. The device shall automatically discontinue transmission in cases of absence of information to transmit, or operational failure. A description on how this is done shall accompany the application for equipment certification. Note that this is not intended to prohibit transmission of control or signalling information or the use of repetitive codes where required by the technology.
- b. All LE-LAN devices must contain security features to protect against modification of software by unauthorized parties.

Manufacturers must implement security features in any digitally modulated devices capable of operating in any of the frequency ranges within the 5 GHz band, so that third parties are not able to reprogram the device to operate outside the parameters for which the device was certified. The software must prevent the user from operating the transmitter with operating frequencies, output power, modulation types or other radio frequency parameters outside those that were approved for the device. Manufacturers may use various means, including the use of a private network that allows only authenticated users to download software, electronic signatures in software or coding in hardware that is decoded by software to verify that new software can be legally loaded into a device to meet these requirements and must describe the methods in their application for equipment certification.

Manufacturers must take steps to ensure that DFS functionality cannot be disabled by the operator of the LE-LAN device.

- c. The user manual for LE-LAN devices shall contain instructions related to the restrictions mentioned in the above sections, namely that:
 - i. the device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;Footnote4
 - ii. for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;
 - iii. for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits as appropriate; and
 - iv. where applicable, antenna type(s), antenna models(s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 6.2.2.3 shall be clearly indicated.

14.2 Judgment

RSS-247 Clause 6.4 a):

The device shall automatically discontinue transmission in cases of absence of information to transmit, or operational failure. Please refer to the declaration

RSS-247 Clause 6.4 b):

The devices must contain security features to protect against modification of software by unauthorized parties. Please refer to the declaration

RSS-247 Clause 6.4 c):

i). The device operates on 5150-5250MHz is only for indoor use.

ii). The device operates on 5250-5350MHz/5470-5725MHz complies with the e.i.r.p. limit.

iii). The antenna is not detachable, and all the EIPR compliance with RSS-247 requirement. Please refer to the conducted output power test result.

iv). Not Applicable.

******* END OF REPORT *******