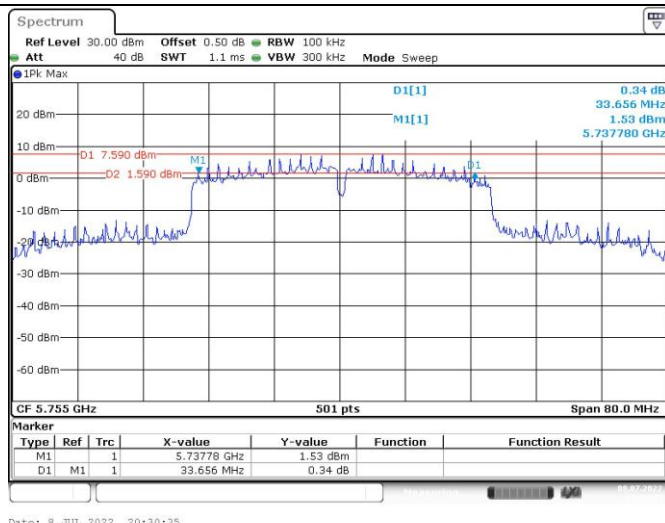
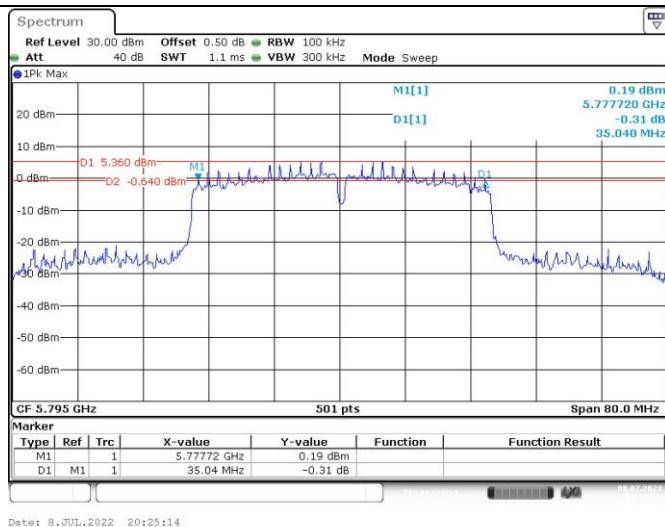
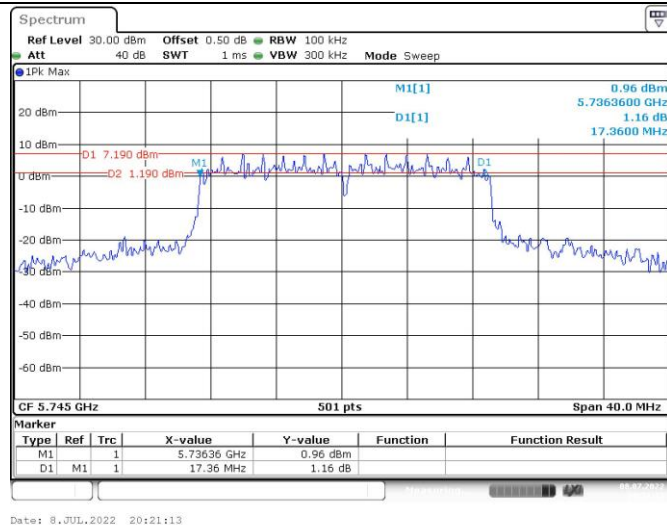
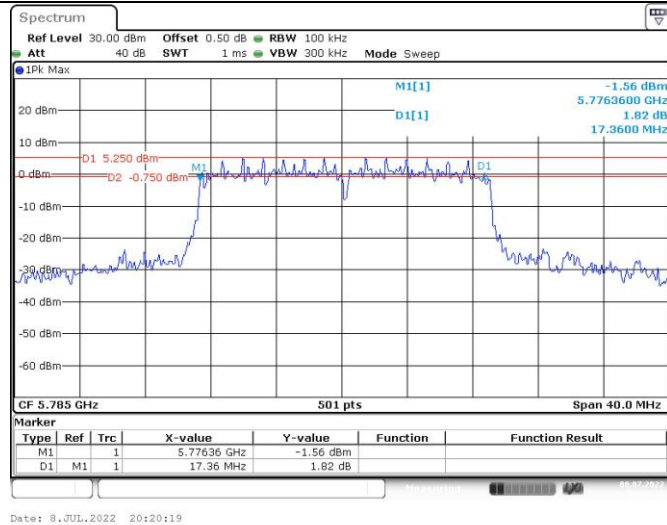
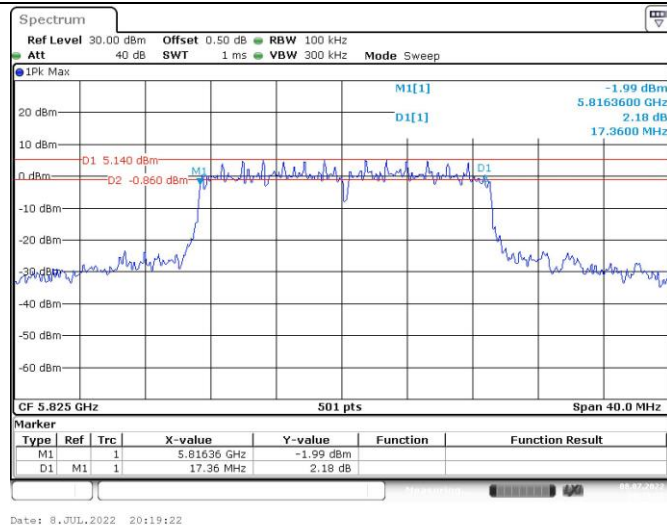


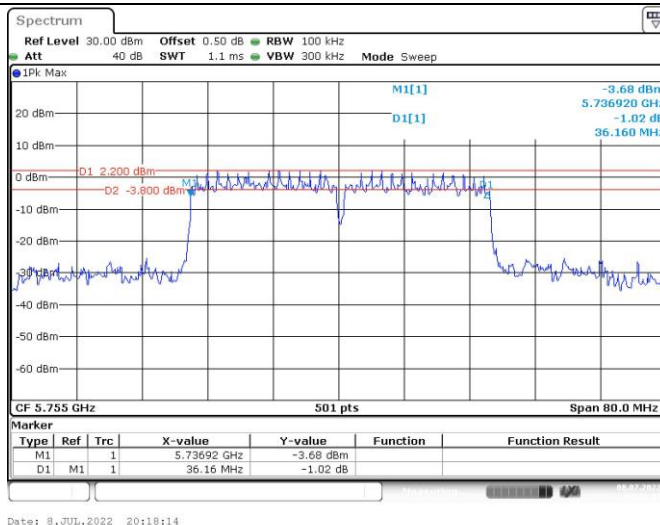
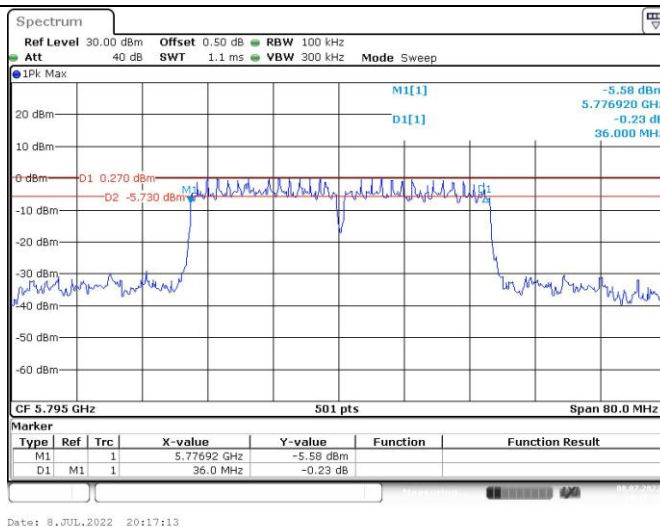
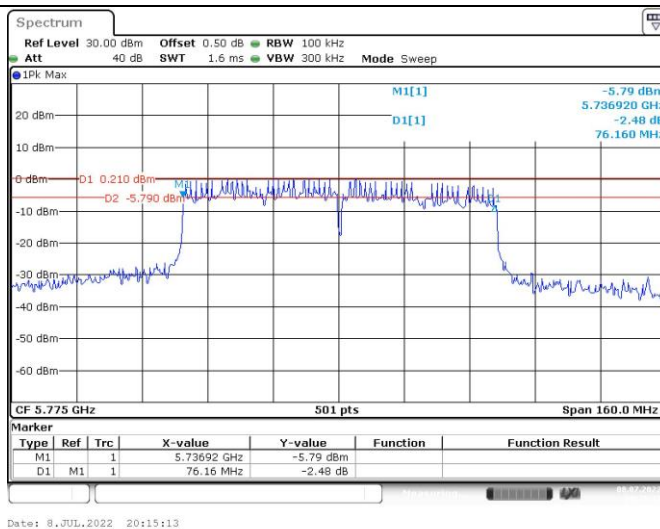
6dB Emission Bandwidth

802.11n ht40
Lowest Channel802.11n ht40
Highest Channel

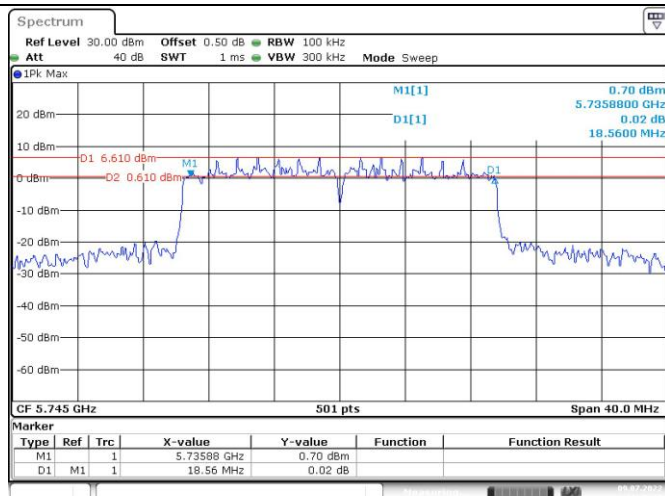
6dB Emission Bandwidth

802.11ac vht20
Lowest Channel802.11ac vht20
Middle Channel802.11ac vht20
Highest Channel

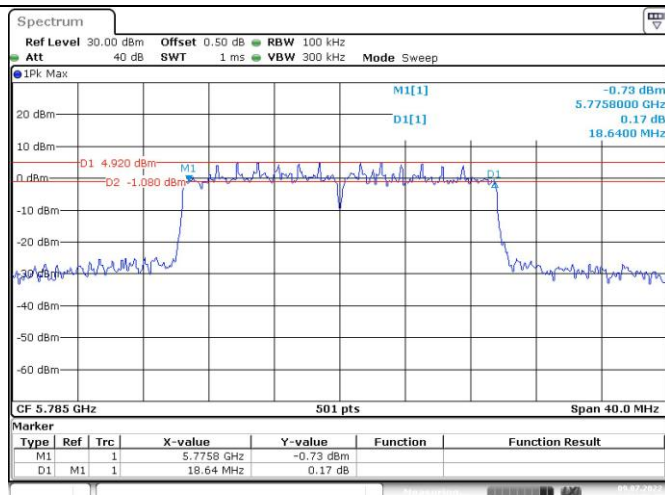
6dB Emission Bandwidth

802.11ac vht40
Lowest Channel802.11ac vht40
Highest Channel802.11ac vht80
Middle Channel

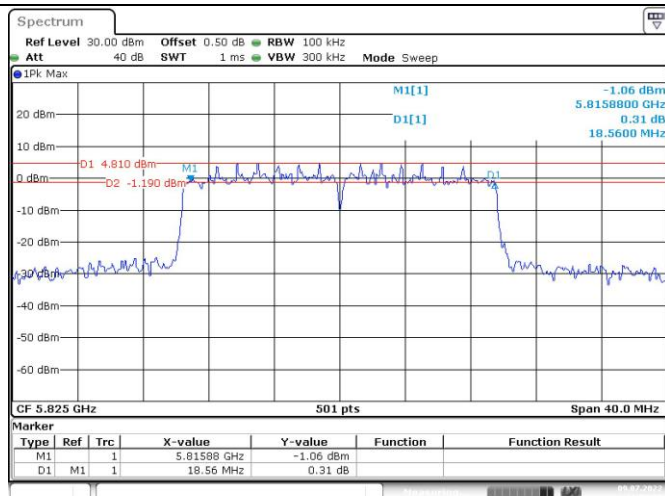
6dB Emission Bandwidth

802.11ax hew20
Lowest Channel

Date: 9.JUL.2022 11:46:11

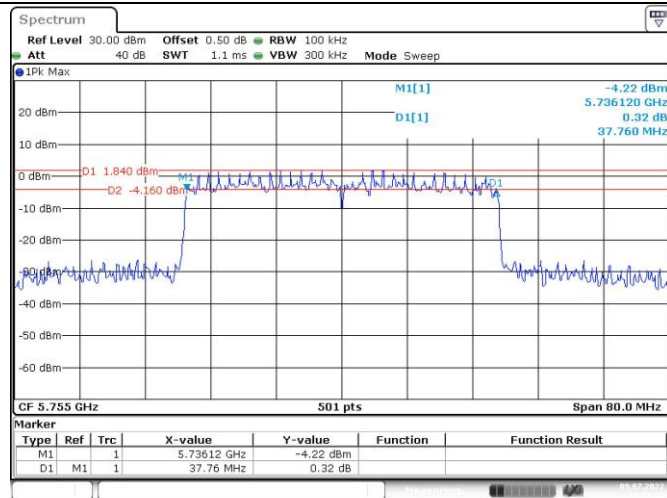
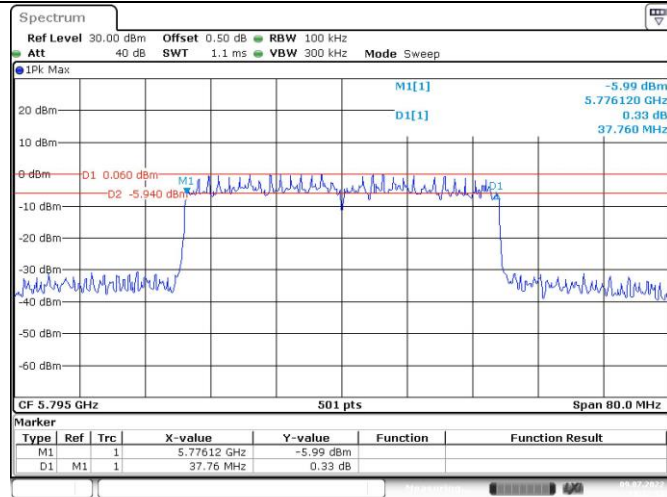
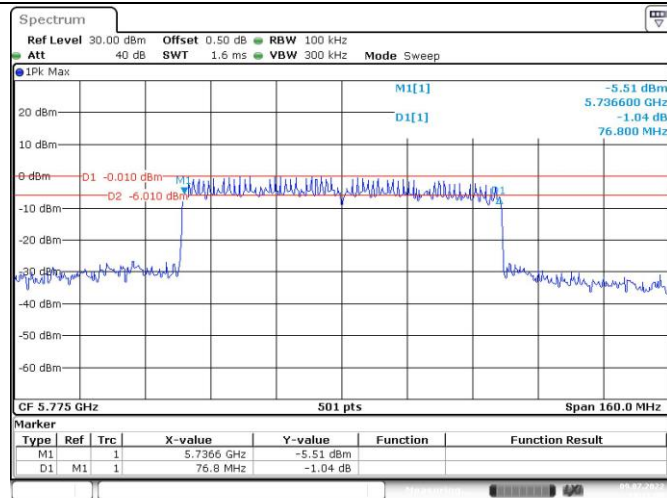
802.11ax hew20
Middle Channel

Date: 9.JUL.2022 11:49:41

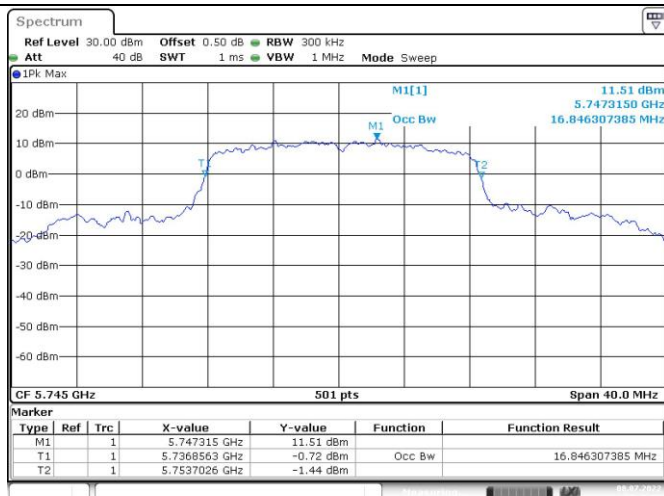
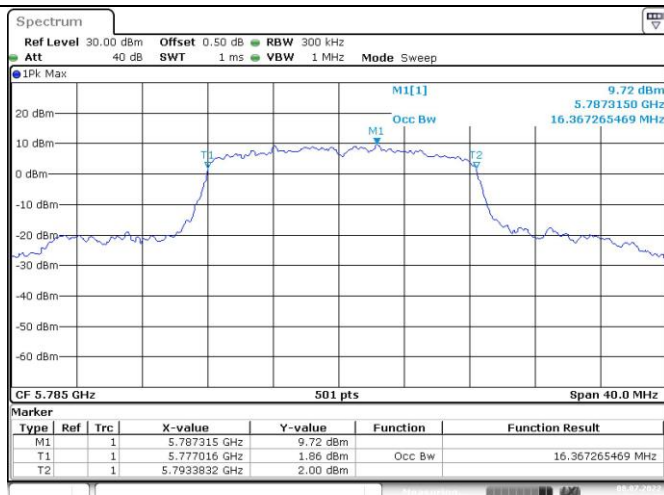
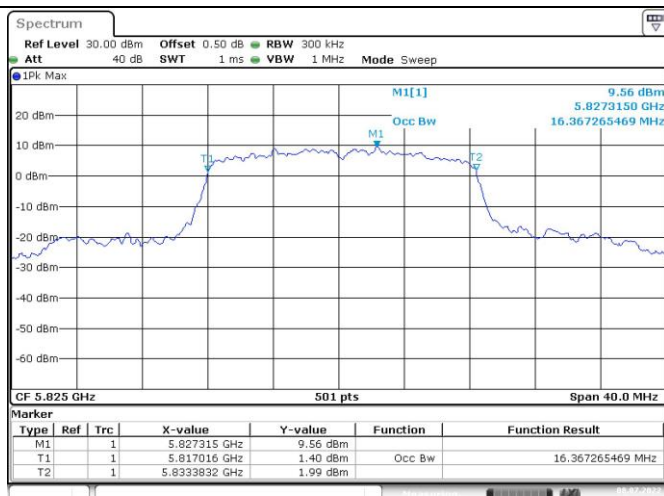
802.11ax hew20
Highest Channel

Date: 9.JUL.2022 11:50:40

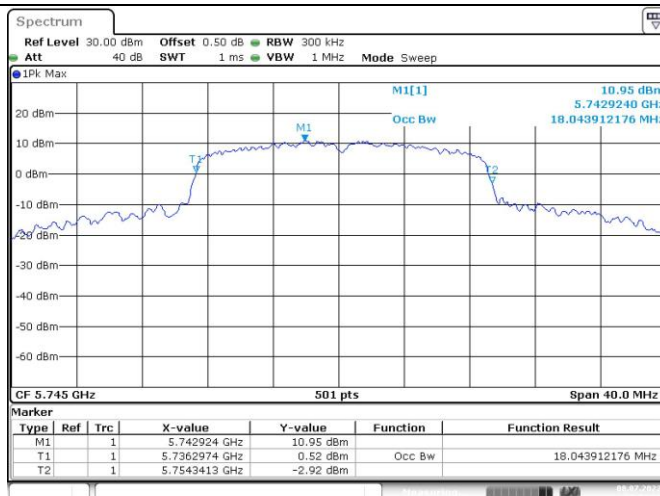
6dB Emission Bandwidth

802.11ax hew40
Lowest Channel802.11ax hew40
Highest Channel802.11ax hew80
Middle Channel

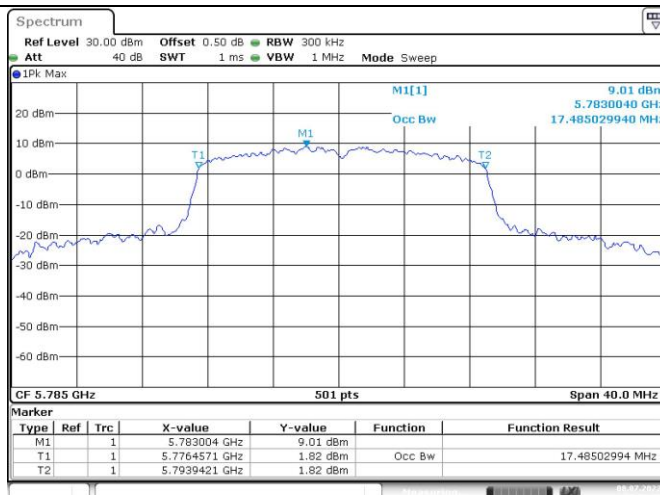
99% Emission Bandwidth

802.11a
Lowest Channel802.11a
Middle Channel802.11a
Highest Channel

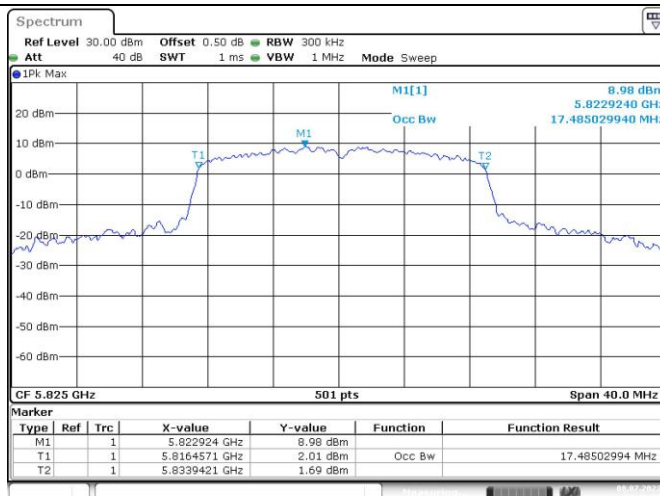
99% Emission Bandwidth

802.11n ht20
Lowest Channel

Date: 8.JUL.2022 20:33:32

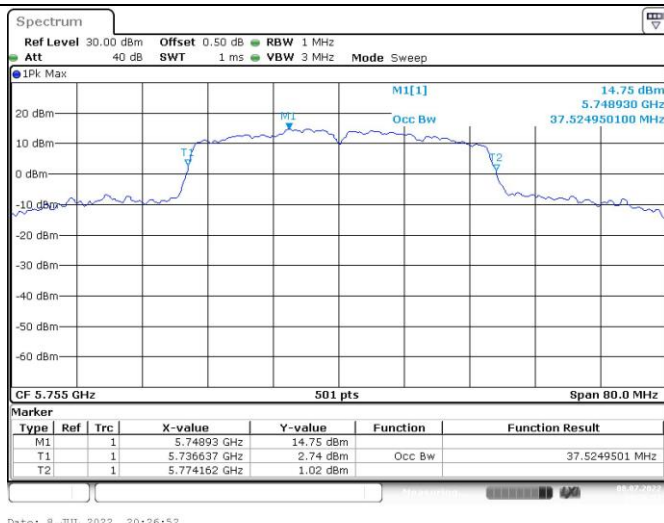
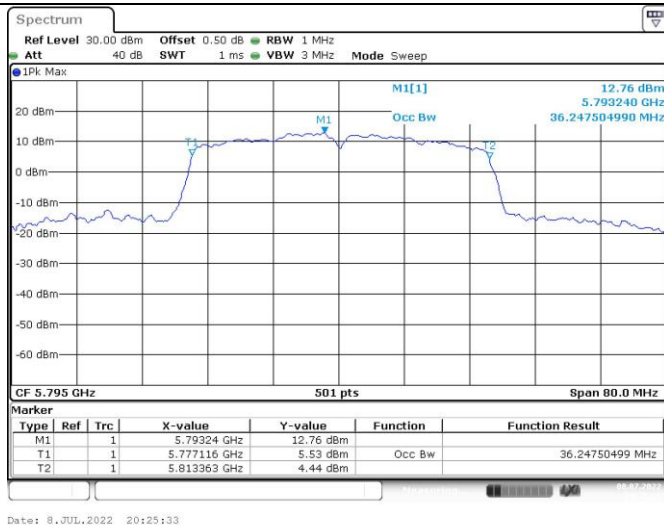
802.11n ht20
Middle Channel

Date: 8.JUL.2022 20:39:11

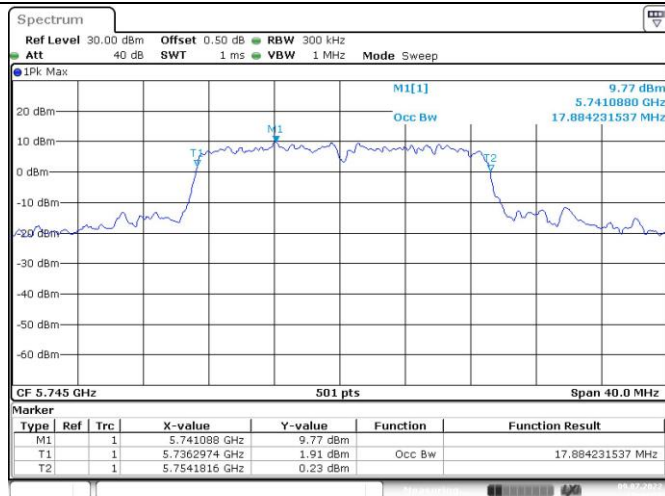
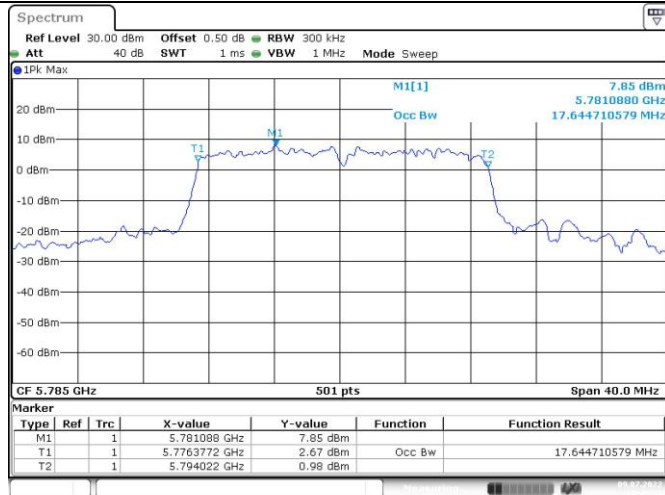
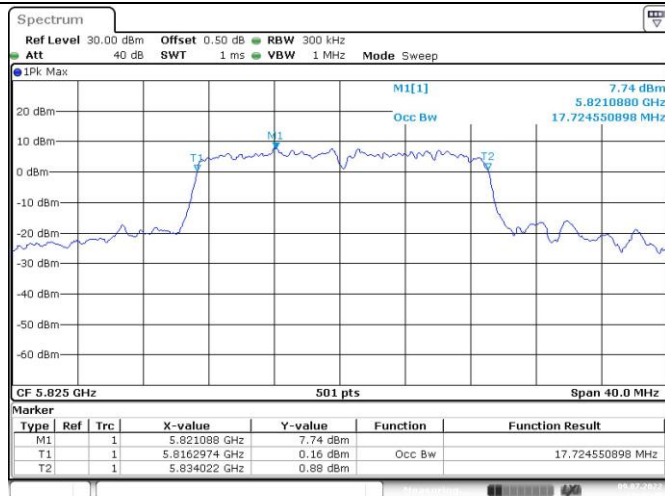
802.11n ht20
Highest Channel

Date: 8.JUL.2022 20:41:02

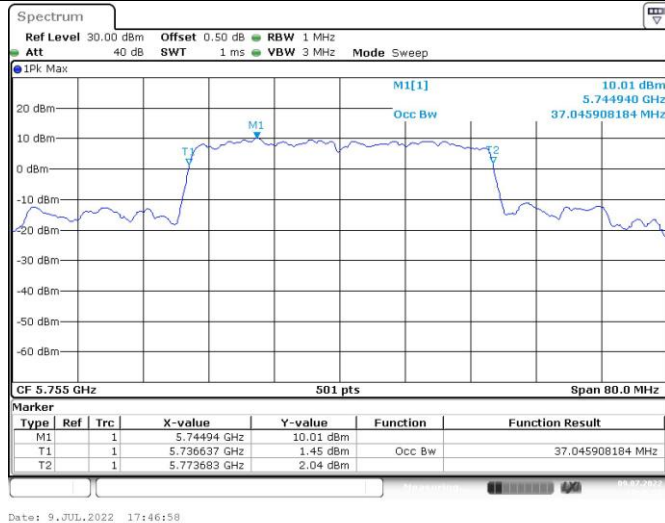
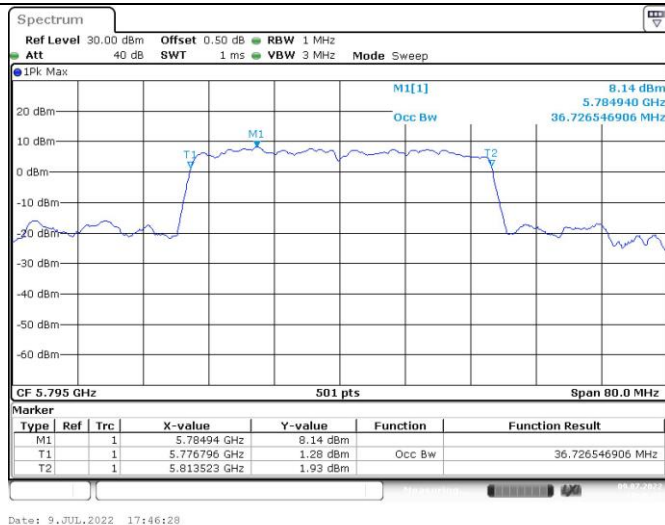
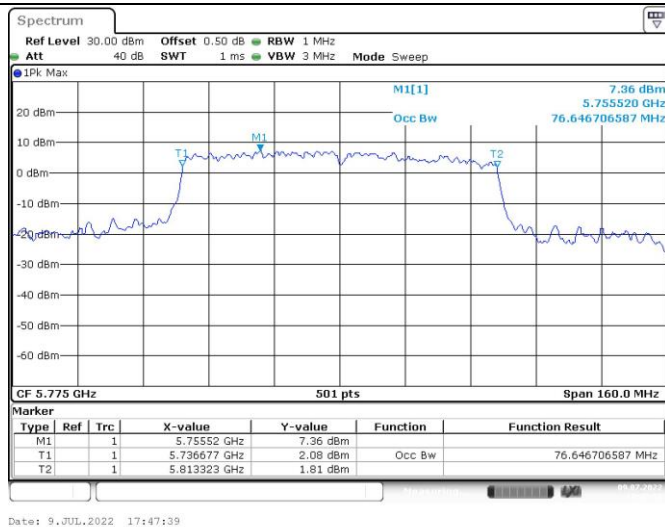
99% Emission Bandwidth

802.11n ht40
Lowest Channel802.11n ht40
Highest Channel

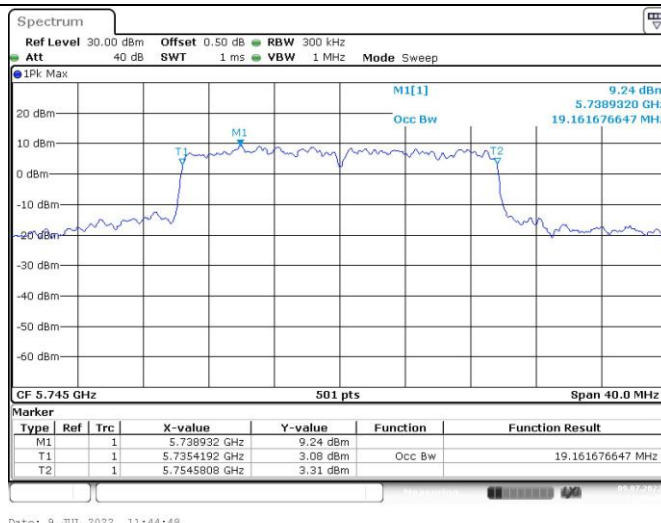
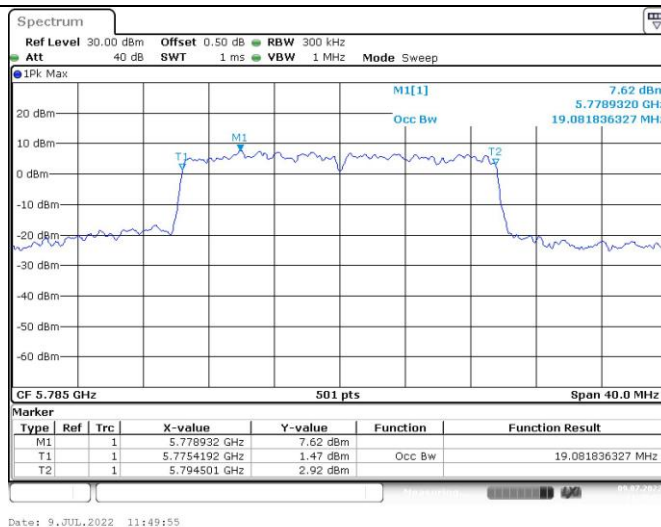
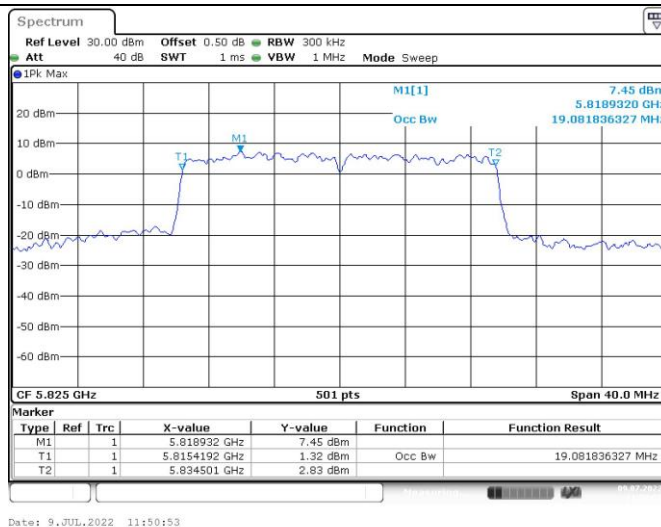
99% Emission Bandwidth

802.11ac vht20
Lowest Channel802.11ac vht20
Middle Channel802.11ac vht20
Highest Channel

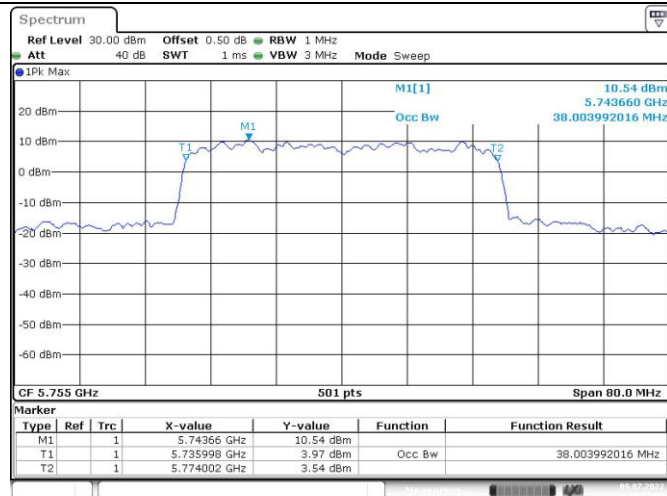
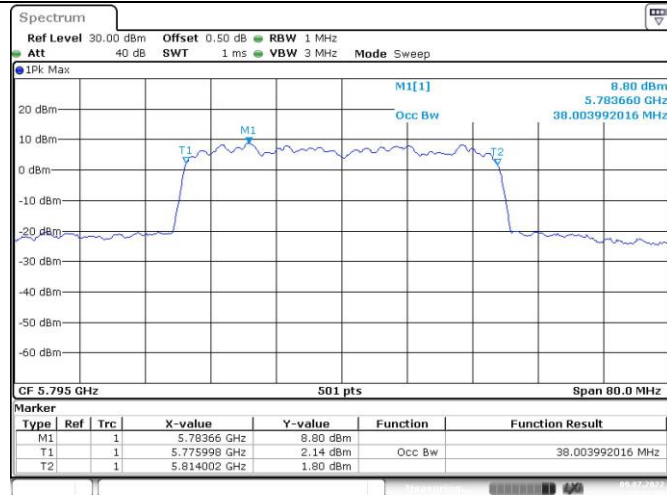
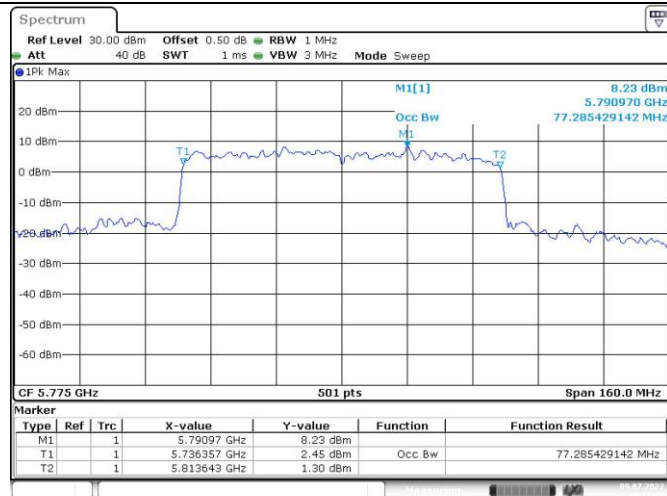
99% Emission Bandwidth

802.11ac vht40
Lowest Channel802.11ac vht40
Highest Channel802.11ac vht80
Middle Channel

6dB Emission Bandwidth

802.11ax hew20
Lowest Channel802.11ax hew20
Middle Channel802.11ax hew20
Highest Channel

6dB Emission Bandwidth

802.11ax hew40
Lowest Channel802.11ax hew40
Highest Channel802.11ax hew80
Middle Channel

4.4 Maximum Conducted Output Power:

Serial Number:	CR22060027-RF-S1	Test Date:	2022/7/8-2022/7/9
Test Site:	RF	Test Mode:	Transmitting
Tester:	Julie Tan	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.9~26.5	Relative Humidity: (%)	44-60	ATM Pressure: (kPa)	100.0-100.2
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	USB Wideband Power Sensor	U2021XA	MY54080015	2021-07-22	2022-07-21
YINSAIGE	Coaxial Cable	SS402	SJ0100004	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:**5150-5250 MHz:****802.11a/n/ac modes:**

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)				
		Chain 0	Chain 1	Total	Limit For Non- beamforming	Limit For Beamforming
802.11a	5180	18.12	18.3	/	30	/
	5200	18.25	18.24	/	30	/
	5240	18.26	18.21	/	30	/
802.11n ht20	5180	15.04	15.16	18.11	30	28
	5200	15.07	15.11	18.10	30	28
	5240	15.03	14.99	18.02	30	28
802.11n ht40	5190	17.33	17.41	20.38	30	28
	5230	17.28	17.31	20.31	30	28
802.11ac vht20	5180	15.39	15.42	18.42	30	28
	5200	15.35	15.34	18.36	30	28
	5240	15.74	15.94	18.85	30	28
802.11ac vht40	5190	15.83	15.93	18.89	30	28
	5230	15.69	15.82	18.77	30	28
802.11ac vht80	5210	14.62	14.51	17.58	30	28

802.11ax modes:

Test Modes	Test Frequency (MHz)	RU Config.	Max. Conducted Average Output Power (dBm)				
			Chain 0	Chain 1	Total	Limit For Non-beamforming	Limit For Beamforming
802.11ax hew20	5180	26/0	5.77	5.78	8.79	30	28
		52/37	8.97	9.02	12.01	30	28
		106/53	12.10	12.14	15.13	30	28
		242/61	15.23	15.42	18.34	30	28
	5200	26/0	5.82	5.89	8.87	30	28
		52/37	8.97	9.14	12.07	30	28
		106/53	12.10	12.25	15.19	30	28
		242/61	15.2	15.3	18.26	30	28
	5240	26/0	5.75	5.59	8.68	30	28
		52/37	8.97	8.84	11.92	30	28
		106/53	12.11	12.01	15.07	30	28
		242/61	15.18	15.17	18.19	30	28
802.11ax hew40	5190	26/0	4.65	4.59	7.63	30	28
		52/37	7.87	7.84	10.87	30	28
		106/53	10.98	10.99	14.00	30	28
		242/61	14.00	14.21	17.12	30	28
		484/65	17.05	17.26	20.17	30	28
	5230	26/0	4.25	4.08	7.18	30	28
		52/37	7.41	7.25	10.34	30	28
		106/53	10.57	10.57	13.58	30	28
		242/61	13.87	13.87	16.88	30	28
		484/65	16.97	17.08	20.04	30	28
802.11ax hew80	5210	26/0	-1.25	-0.99	1.89	30	28
		52/37	2.74	2.98	5.87	30	28
		106/53	5.87	6.02	8.96	30	28
		242/61	9.01	9.24	12.14	30	28
		484/65	12.35	12.39	15.38	30	28
		996/67	15.51	15.5	18.52	30	28

Note:

The duty cycle factor has been calculated into the result.

The device is an indoor AP. The maximum antenna gain is 5.0dBi in 5GHz band. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices:

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

So:

For Non-beamforming mode:

Directional gain = 5dBi

For Beamforming mode:

Directional gain = 5+3 = 8 dBi

5725-5850 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)				
		Chain 0	Chain 1	Total	Limit For Non-beamforming	Limit For Beamforming
802.11a	5745	20.46	22.26	/	30	/
	5785	19.29	21.09	/	30	/
	5825	19.48	20.9	/	30	/
802.11n ht20	5745	20.75	22.52	24.73	30	28
	5785	19.48	21.37	23.54	30	28
	5825	19.73	21.14	23.50	30	28
802.11n ht40	5755	21.09	22.97	25.14	30	28
	5795	19.93	21.62	23.87	30	28
802.11ac vht20	5745	19.43	21.38	23.52	30	28
	5785	18.29	20.27	22.40	30	28
	5825	18.58	19.91	22.31	30	28
802.11ac vht40	5755	16.9	18.92	21.04	30	28
	5795	15.7	17.77	19.87	30	28
802.11ac vht80	5775	16.3	18.14	20.33	30	28

802.11ax mode:

Test Modes	Test Frequency (MHz)	RU Config.	Max. Conducted Average Output Power (dBm)				
			Chain 0	Chain 1	Total	Limit For Non-beamforming	Limit For Beamforming
802.11ax hew20	5745	26/0	9.87	11.98	14.06	30	28
		52/37	13.01	15.17	17.23	30	28
		106/53	16.21	18.22	20.34	30	28
		242/61	19.39	21.52	23.59	30	28
	5785	26/0	9.87	10.98	13.47	30	28
		52/37	13.01	14.05	16.57	30	28
		106/53	15.11	17.25	19.32	30	28
		242/61	18.23	20.35	22.43	30	28
	5825	26/8	8.97	10.28	12.68	30	28
		52/40	12.04	13.58	15.89	30	28
		106/54	15.27	16.87	19.15	30	28
		242/61	18.56	19.99	22.34	30	28
802.11ax hew40	5755	26/0	4.25	6.58	8.58	30	28
		52/37	7.58	9.81	11.85	30	28
		106/53	10.87	12.87	14.99	30	28
		242/61	14.01	16.01	18.13	30	28
		484/65	17.08	19.2	21.28	30	28
	5795	26/0	3.33	5.14	7.34	30	28
		52/37	6.57	8.62	10.73	30	28
		106/53	9.74	11.74	13.86	30	28
		242/61	12.81	14.98	17.04	30	28
		484/65	15.93	18.04	20.12	30	28
802.11ax hew80	5775	26/0	0.14	3.25	4.98	30	28
		52/37	3.69	6.58	8.38	30	28
		106/53	6.87	9.77	11.57	30	28
		242/61	10.22	12.98	14.83	30	28
		484/65	13.25	16.01	17.86	30	28
		996/67	16.55	19.15	21.05	30	28

Note:

The duty cycle factor has been calculated into the result.

The device is an indoor AP. The maximum antenna gain is 5.0dBi in 5GHz band. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices:

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

So:

For Non-beamforming mode:

Directional gain =5dBi

For Beamforming mode:

Directional gain = 5+3 =8 dBi

4.5 Maximum power spectral density:

Serial Number:	CR22060027-RF-S1	Test Date:	2022/7/8-2022/7/9
Test Site:	RF	Test Mode:	Transmitting
Tester:	Julie Tan	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.926.5	Relative Humidity: (%)	44-60	ATM Pressure: (kPa)	100.0-100.2
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101474	2021-07-22	2022-07-21
YINSAIGE	Coaxial Cable	SS402	SJ0100004	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554403	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

5150-5250 MHz:

Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/MHz)			
		Chain 0	Chain 1	Total	Limit
802.11a	5180	11.78	10.73	/	17
	5200	11.73	10.62	/	17
	5240	10.90	10.42	/	17
802.11n ht20	5180	8.12	8.93	11.55	12
	5200	8.19	8.97	11.61	12
	5240	7.47	9.12	11.38	12
802.11n ht40	5190	8.36	8.28	11.32	12
	5230	7.62	7.90	10.77	12
802.11ac vht20	5180	8.11	6.99	10.59	12
	5200	8.01	7.22	10.64	12
	5240	8.62	8.40	11.52	12
802.11ac vht40	5190	5.91	5.45	8.70	12
	5230	4.98	5.39	8.20	12
802.11ac vht80	5210	2.88	1.88	5.42	12
802.11ax hew20	5180	8.97	7.75	11.41	12
	5200	8.47	7.58	11.06	12
	5240	7.98	7.69	10.85	12
802.11ax hew40	5190	8.62	7.21	10.98	12
	5230	7.72	7.11	10.44	12
802.11ax hew80	5210	3.96	3.28	6.64	12

Note:

The maximum antenna gain is 5 dBi. And beamforming gain is 3dBi. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices:

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

So:

Directional gain = $G_{\text{ANT}} + \text{Array Gain} = 5 + 10 \cdot \log(2/1) = 8 \text{ dBi}$ for Non-beamforming mode

Directional gain = $G_{\text{ANT}} + \text{Array Gain} = 5 + 3 + 10 \cdot \log(2/1) = 11 \text{ dBi}$ for Beamforming mode

The worst limit Beamforming mode was used in the table.

Method SA-3 in KDB 789033 D02 General UNII Test Procedures New Rules v02r01 was used for PSD test.

5725-5850 MHz:

Test Modes	Test Frequency (MHz)	Reading (dBm/300kHz)		Maximum Power Spectral Density (dBm/500kHz)			
		Chain 0	Chain 1	Chain 0	Chain 1	Total	Limit
802.11a	5745	10.60	11.59	12.82	13.81	/	30.00
	5785	9.02	11.07	11.24	13.29	/	30.00
	5825	8.52	11.28	10.74	13.5	/	30.00
802.11n ht20	5745	10.59	12.02	12.81	14.24	16.59	25.00
	5785	8.62	11.25	10.84	13.47	15.36	25.00
	5825	8.57	11.68	10.79	13.9	15.63	25.00
802.11n ht40	5755	8.72	9.71	10.94	11.93	14.47	25.00
	5795	6.71	8.70	8.93	10.92	13.05	25.00
802.11ac vht20	5745	9.04	9.52	11.26	11.74	14.52	25.00
	5785	6.90	8.90	9.12	11.12	13.24	25.00
	5825	6.71	9.26	8.93	11.48	13.40	25.00
802.11ac vht40	5755	3.69	4.64	5.91	6.86	9.42	25.00
	5795	2.14	4.23	4.36	6.45	8.54	25.00
802.11ac vht80	5775	0.40	2.14	2.62	4.36	6.59	25.00
802.11ax hew20	5745	8.29	9.56	10.51	11.78	14.20	25.00
	5785	6.59	8.61	8.81	10.83	12.95	25.00
	5825	6.40	9.02	8.62	11.24	13.13	25.00
802.11ax hew40	5755	4.11	5.16	6.33	7.38	9.90	25.00
	5795	2.40	4.49	4.62	6.71	8.80	25.00
802.11ax hew80	5775	0.35	1.99	2.57	4.21	6.48	25.00

Note:

The maximum antenna gain is 5 dBi. And beamforming gain is 3dBi. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices:

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

So:

Directional gain = $G_{\text{ANT}} + \text{Array Gain} = 5 + 10 \cdot \log(2/1) = 8 \text{ dBi}$ for Non-beamforming mode

Directional gain = $G_{\text{ANT}} + \text{Array Gain} = 5 + 3 + 10 \cdot \log(2/1) = 11 \text{ dBi}$ for Beamforming mode

The worst limit Beamforming mode was used in the table.

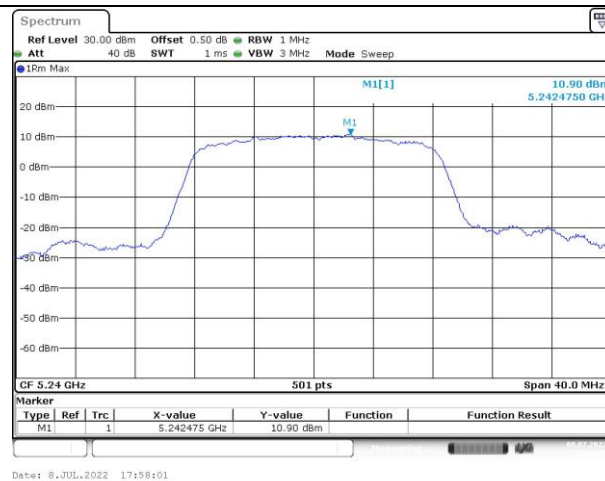
Method SA-3 in KDB 789033 D02 General UNII Test Procedures New Rules v02r01 was used for PSD test.

If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10 \log(500 \text{ kHz} / \text{RBW})$ to the measured result, whereas RBW (< 500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement

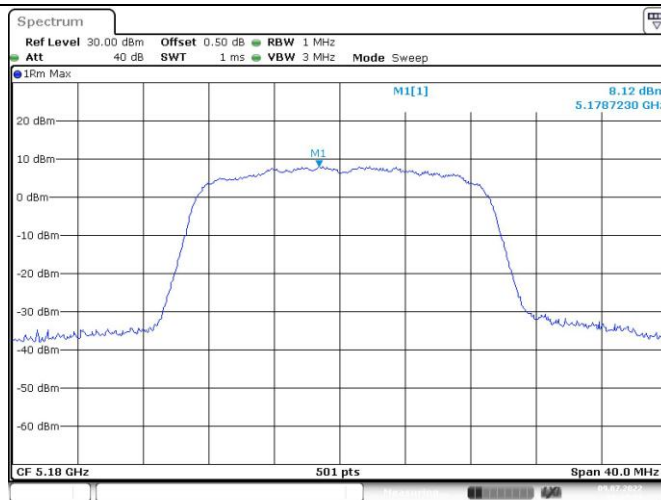
5150-5250MHz:

Chain0:

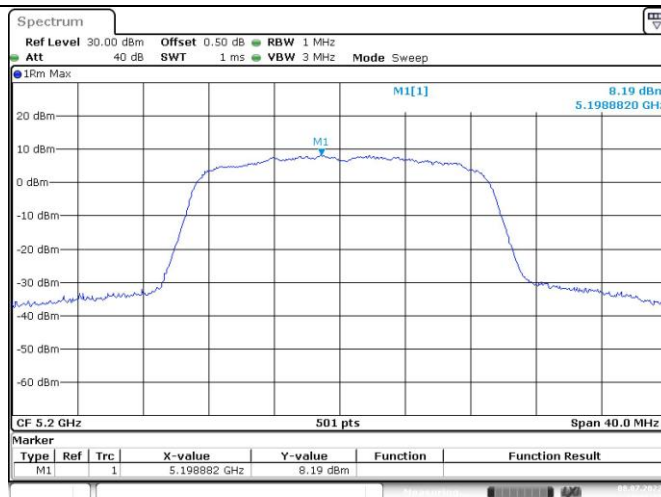
Maximum power spectral density

802.11a
Lowest Channel802.11a
Middle Channel802.11a
Highest Channel

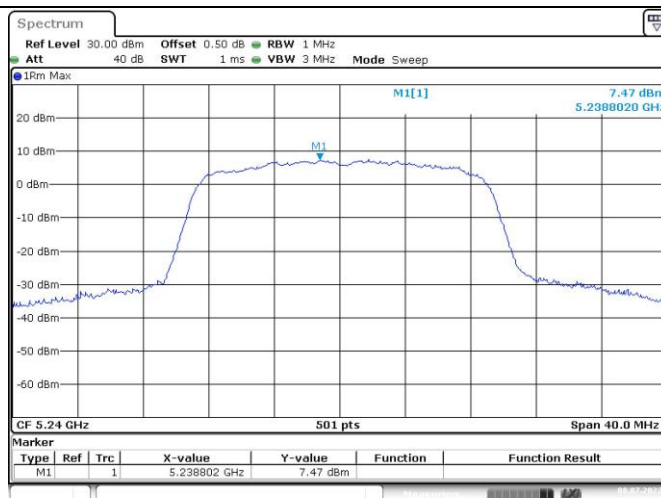
Maximum power spectral density

802.11n ht20
Lowest Channel

Date: 9, JUL, 2022 09:22:24

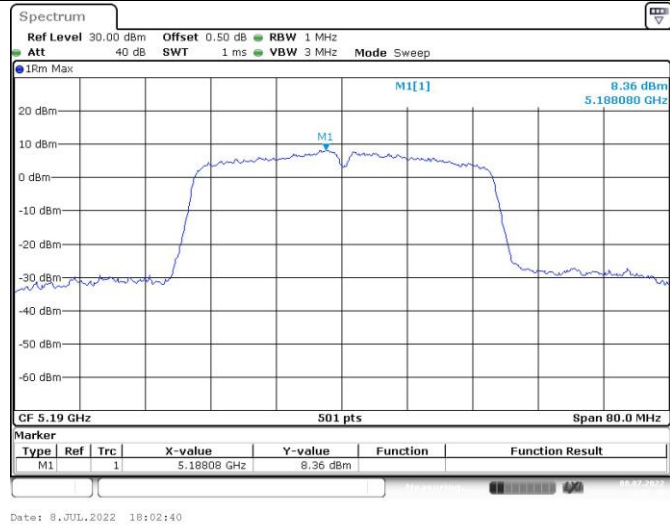
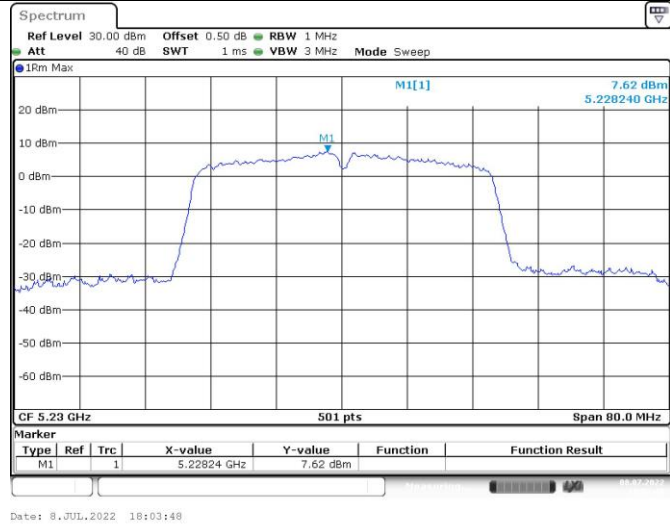
802.11n ht20
Middle Channel

Date: 8, JUL, 2022 18:01:15

802.11n ht20
Highest Channel

Date: 8, JUL, 2022 17:59:50

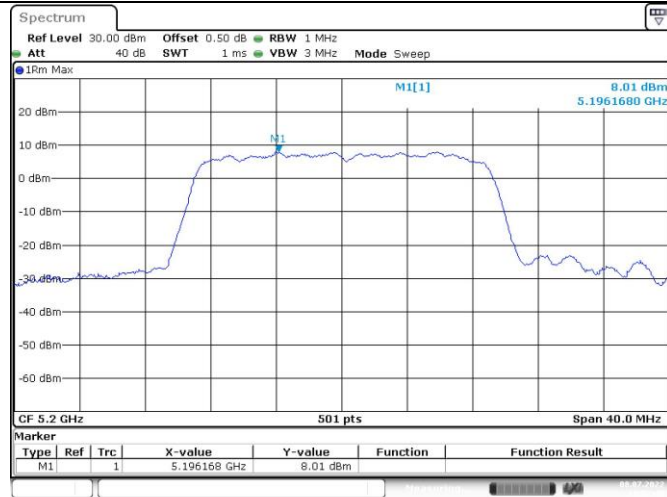
Maximum power spectral density

802.11n ht40
Lowest Channel802.11n ht40
Highest Channel

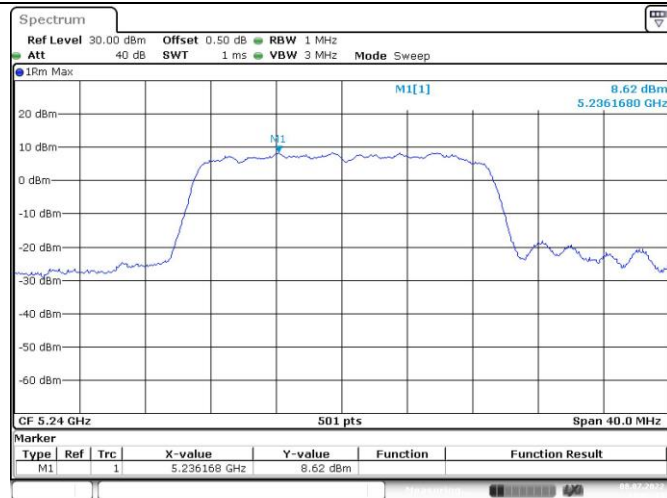
Maximum power spectral density

802.11ac vht20
Lowest Channel

Date: 9, JUL, 2022 09:24:48

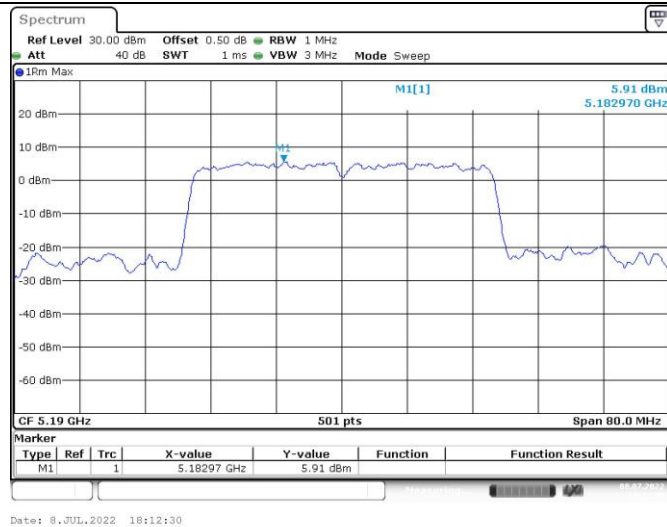
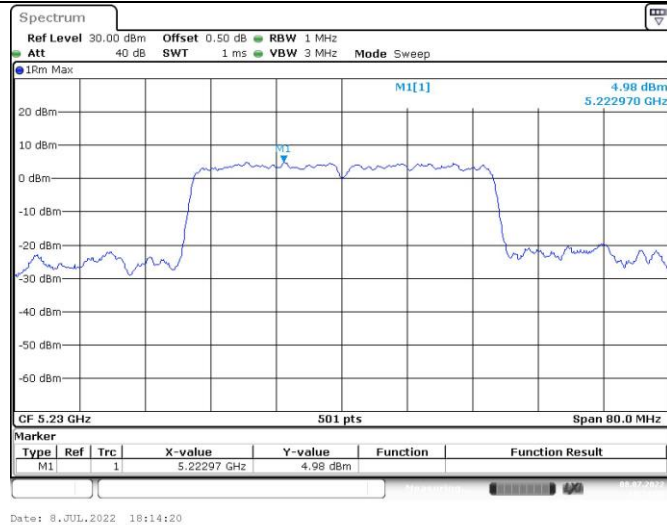
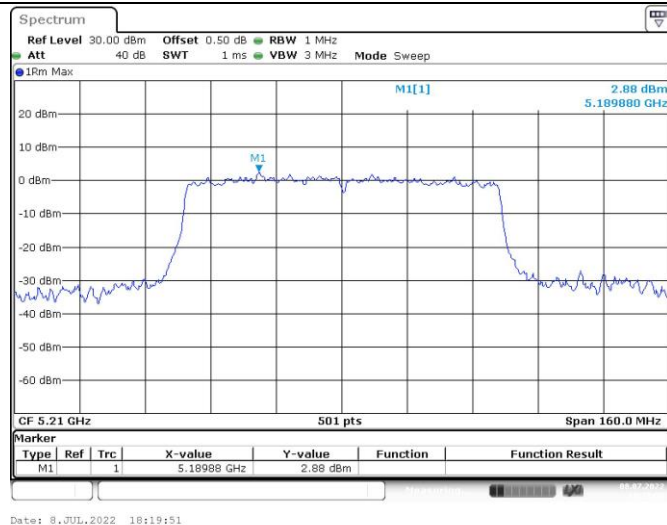
802.11ac vht20
Middle Channel

Date: 8, JUL, 2022 18:08:40

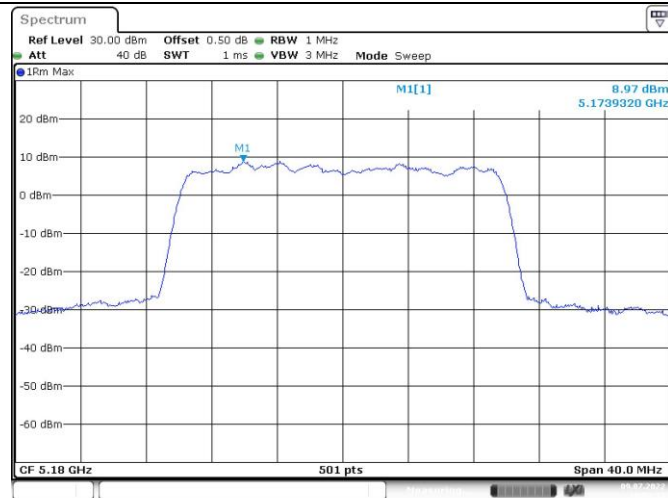
802.11ac vht20
Highest Channel

Date: 8, JUL, 2022 18:06:15

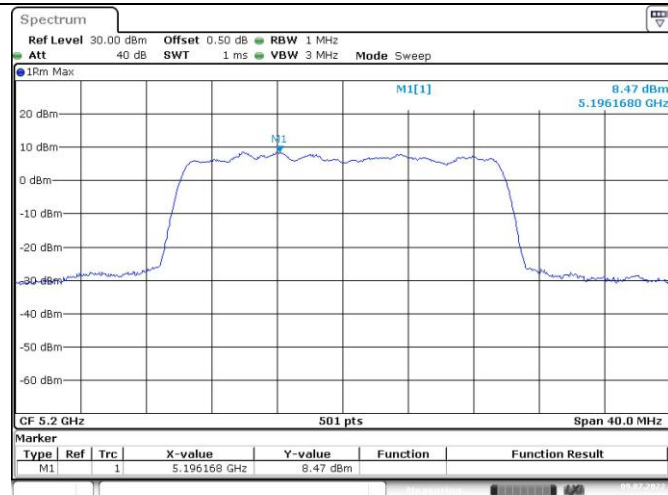
Maximum power spectral density

802.11ac vht40
Lowest Channel802.11ac vht40
Highest Channel802.11ac vht80
Middle Channel

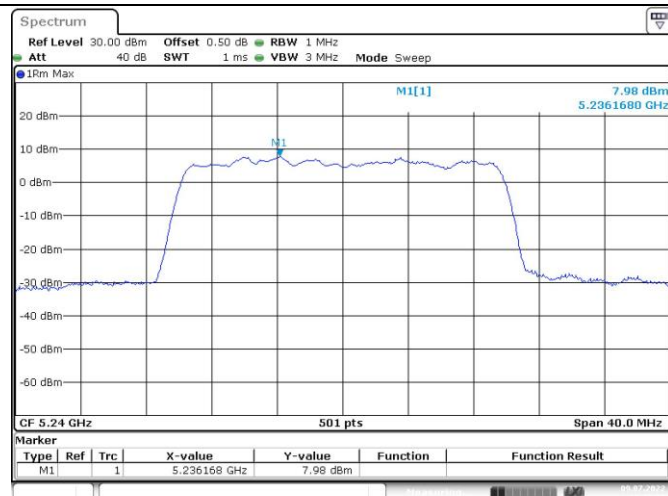
Maximum power spectral density

802.11ax hew20
Lowest Channel

Date: 9.JUL.2022 10:09:13

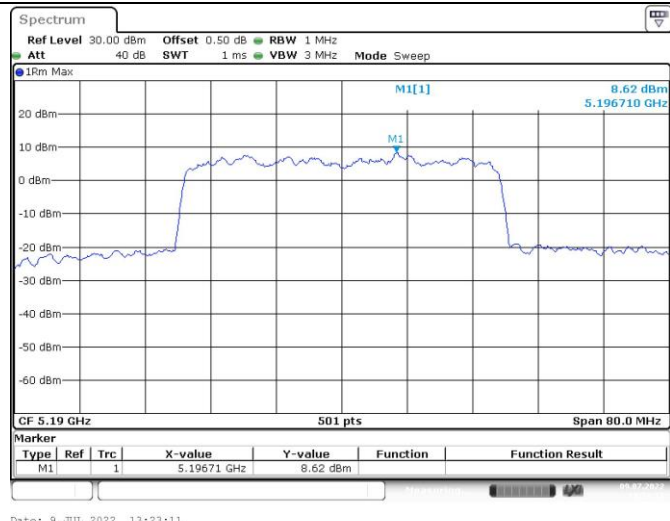
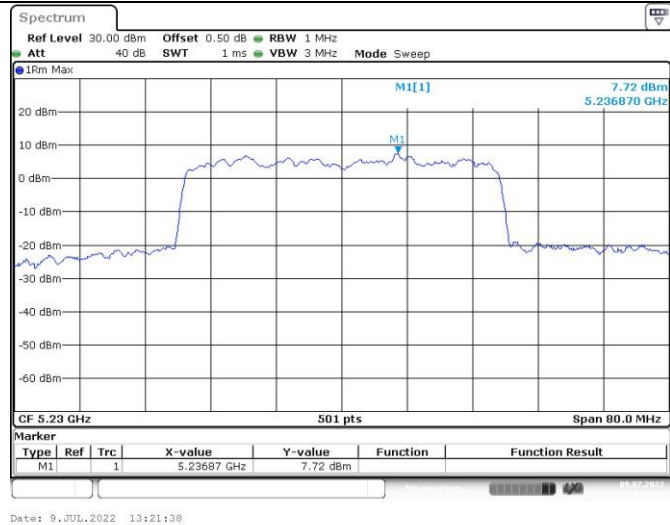
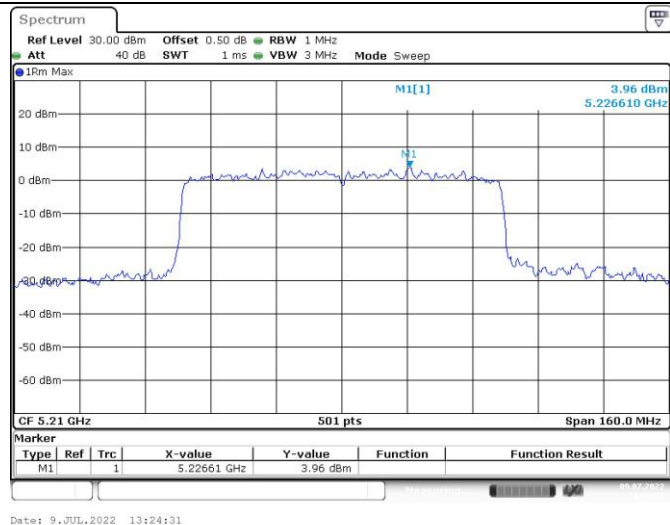
802.11ax hew20
Middle Channel

Date: 9.JUL.2022 13:18:29

802.11ax hew20
Highest Channel

Date: 9.JUL.2022 13:19:39

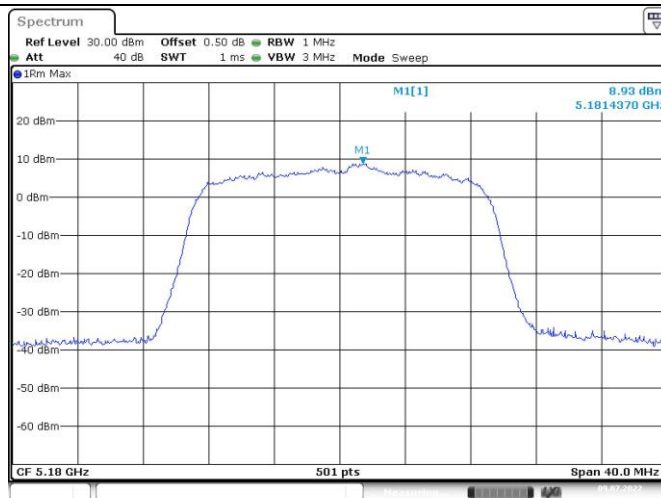
Maximum power spectral density

802.11ax hew40
Lowest Channel802.11ax hew40
Highest Channel802.11ax hew80
Middle Channel

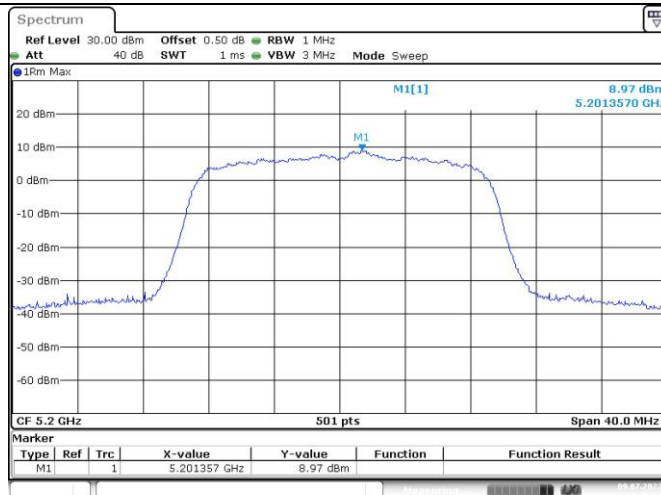
Chain1:

Maximum power spectral density802.11a
Lowest Channel802.11a
Middle Channel802.11a
Highest Channel

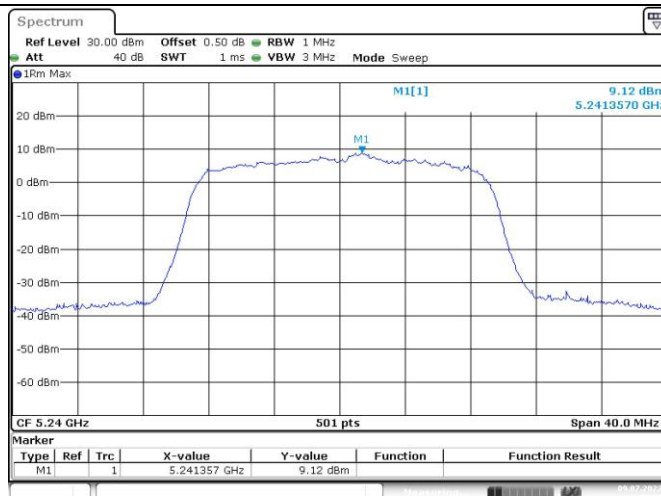
Maximum power spectral density

802.11n ht20
Lowest Channel

Date: 9.JUL.2022 09:30:18

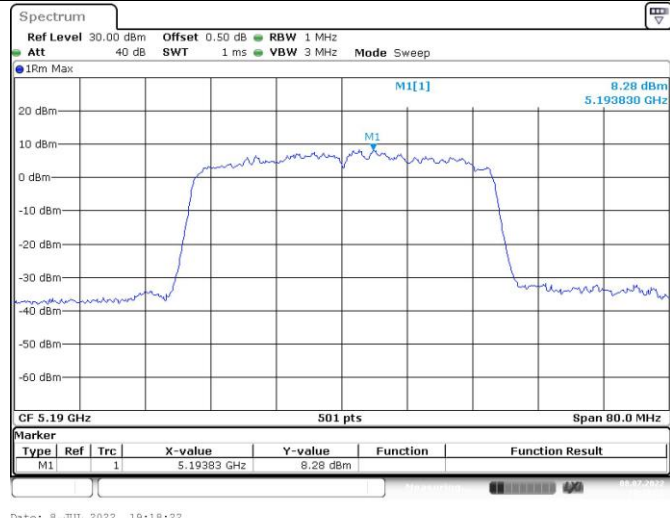
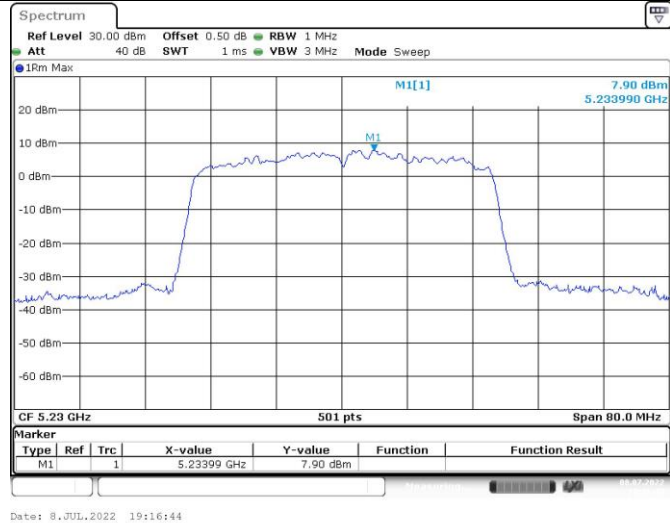
802.11n ht20
Middle Channel

Date: 9.JUL.2022 13:46:11

802.11n ht20
Highest Channel

Date: 9.JUL.2022 13:43:05

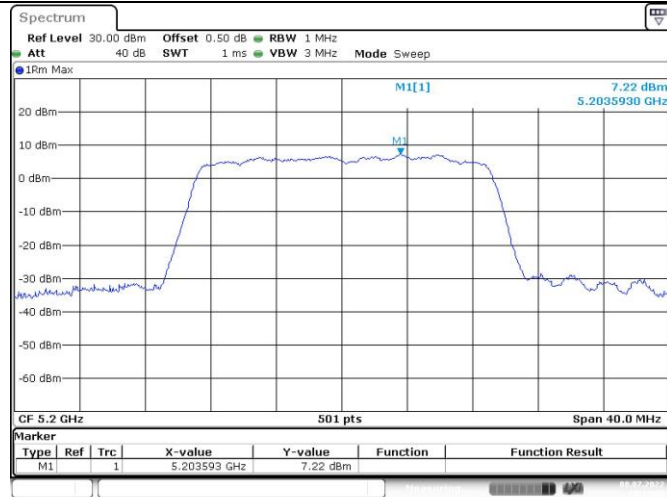
Maximum power spectral density

802.11n ht40
Lowest Channel802.11n ht40
Highest Channel

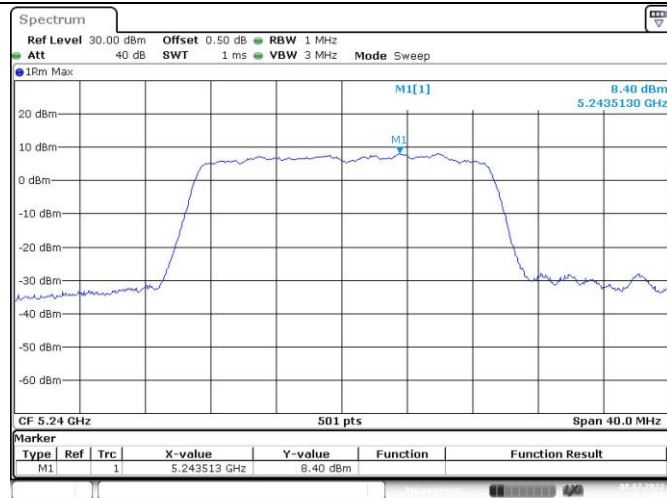
Maximum power spectral density

802.11ac vht20
Lowest Channel

Date: 9.JUL.2022 09:27:28

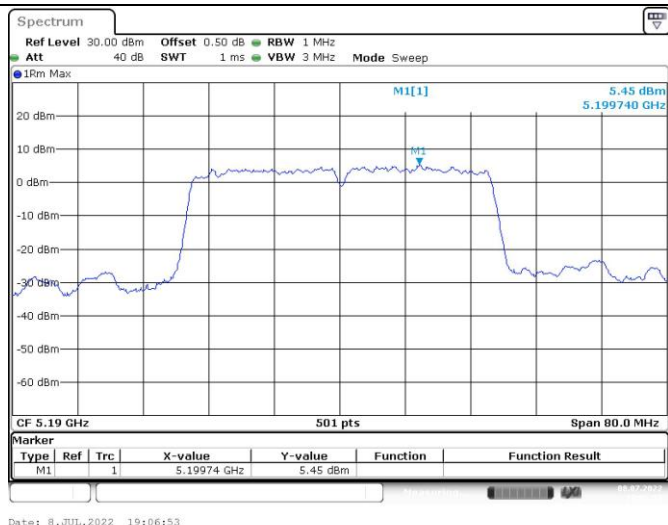
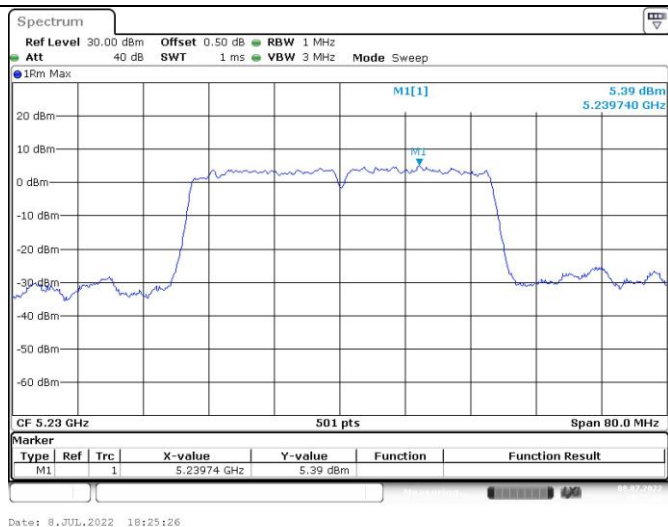
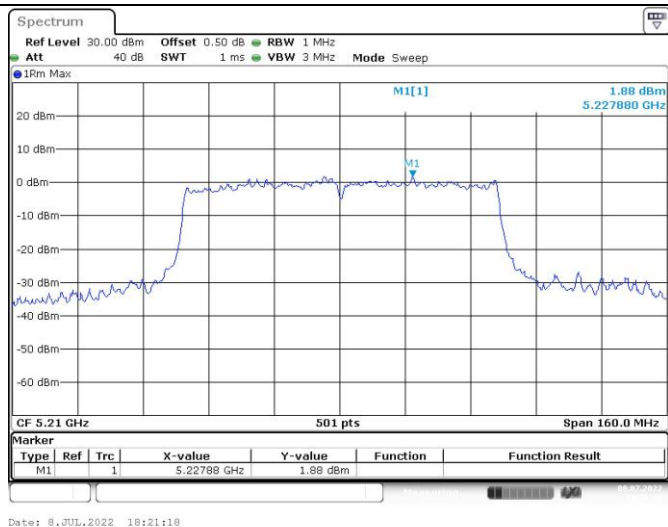
802.11ac vht20
Middle Channel

Date: 8.JUL.2022 19:13:09

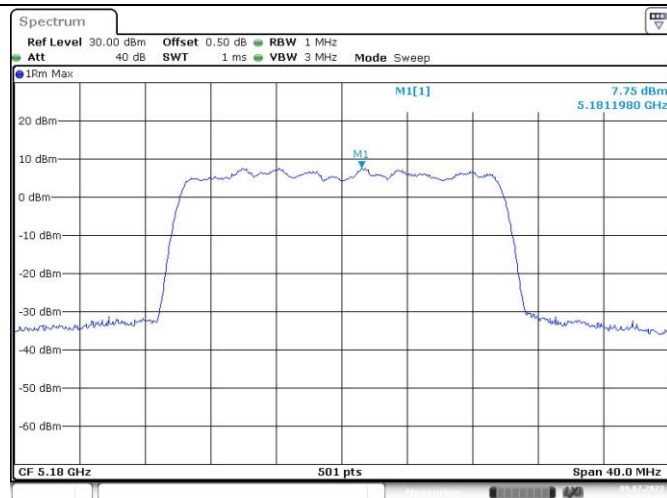
802.11ac vht20
Highest Channel

Date: 8.JUL.2022 19:14:38

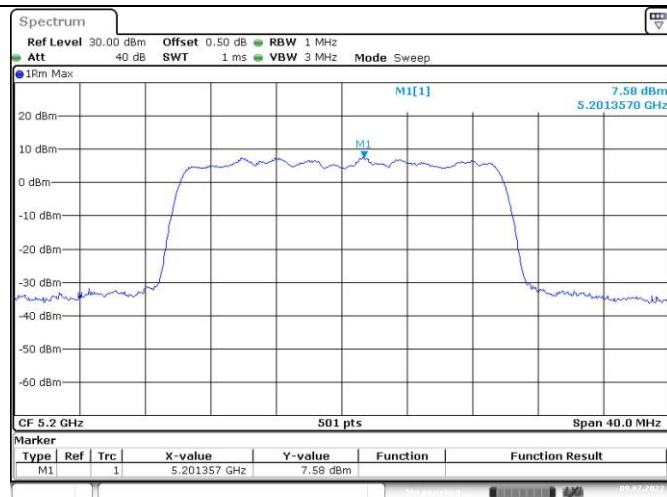
Maximum power spectral density

802.11ac vht40
Lowest Channel802.11ac vht40
Highest Channel802.11ac vht80
Middle Channel

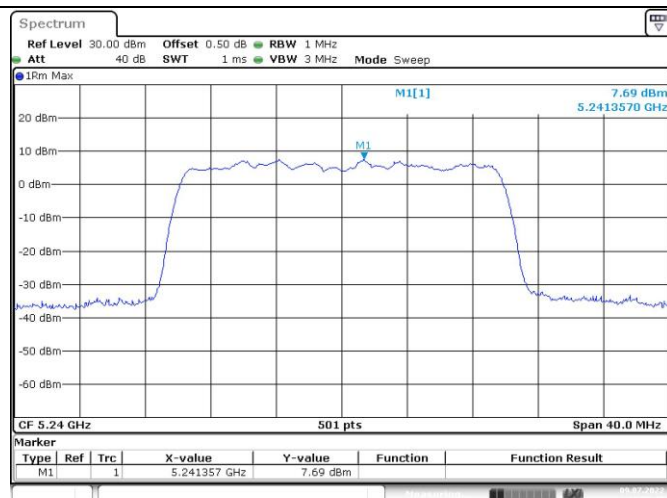
Maximum power spectral density

802.11ax hew20
Lowest Channel

Date: 9.JUL.2022 10:15:01

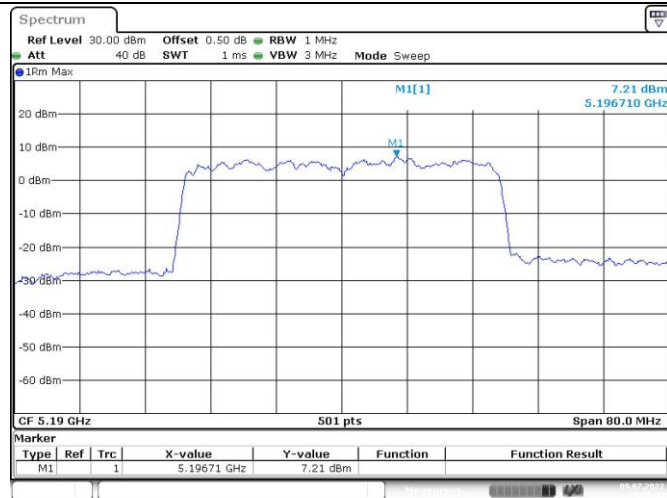
802.11ax hew20
Middle Channel

Date: 9.JUL.2022 13:31:12

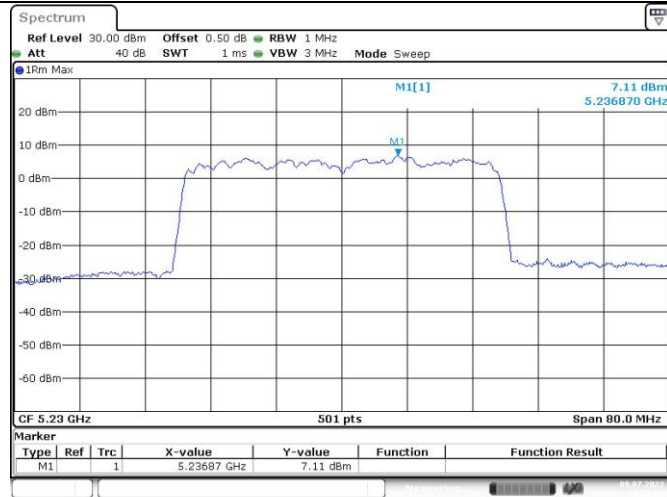
802.11ax hew20
Highest Channel

Date: 9.JUL.2022 13:29:48

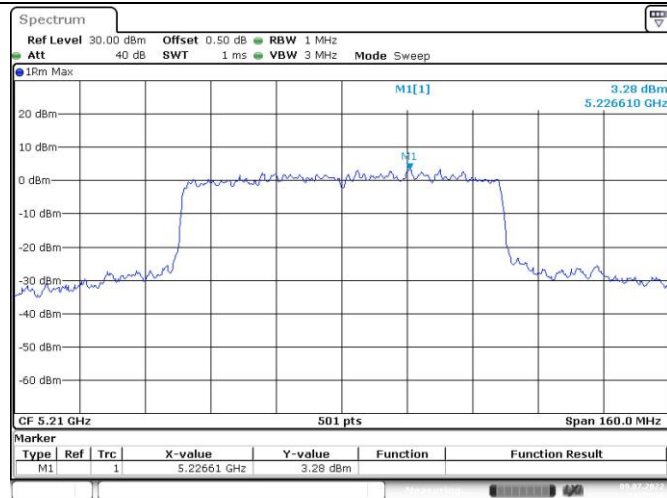
Maximum power spectral density

802.11ax hew40
Lowest Channel

Date: 9, JUL, 2022 13:27:19

802.11ax hew40
Highest Channel

Date: 9, JUL, 2022 13:28:27

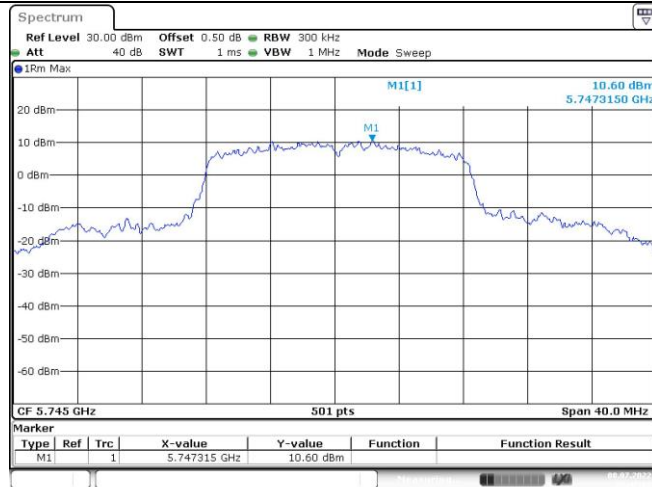
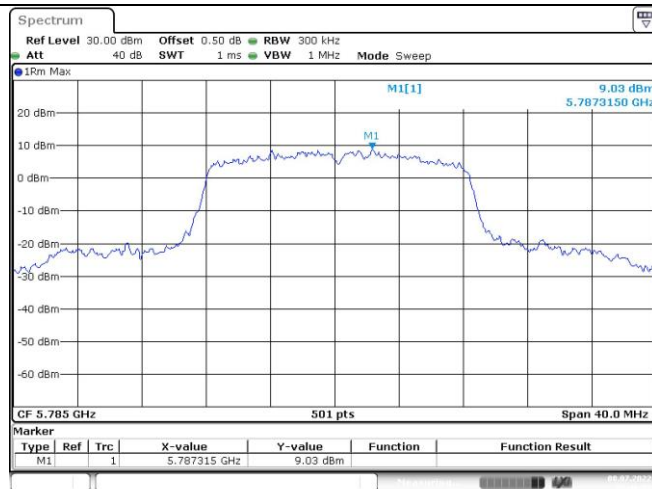
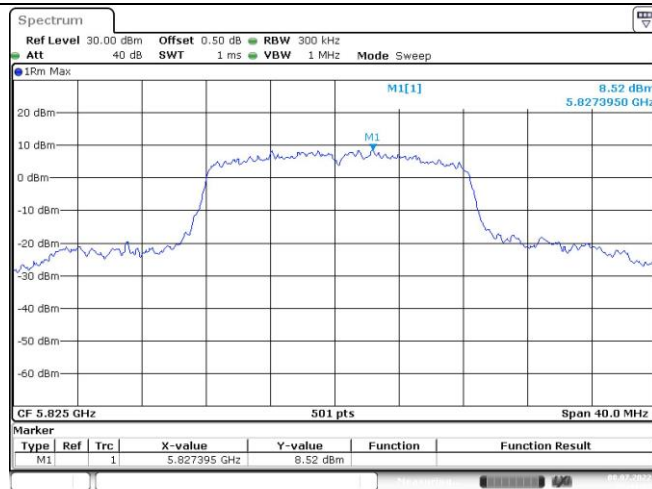
802.11ax hew80
Middle Channel

Date: 9, JUL, 2022 13:25:59

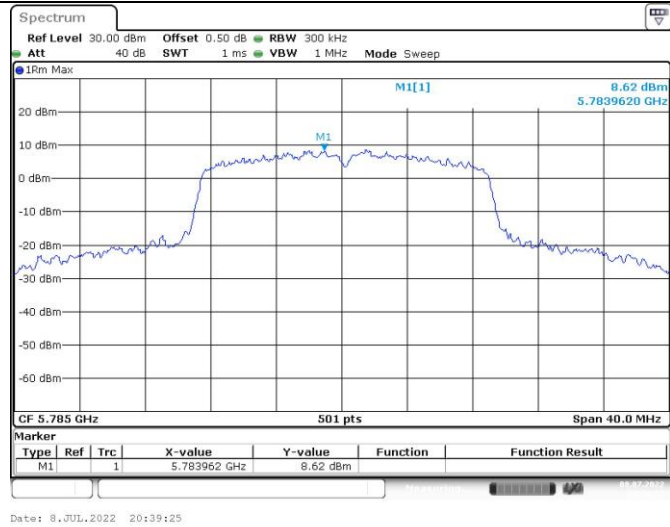
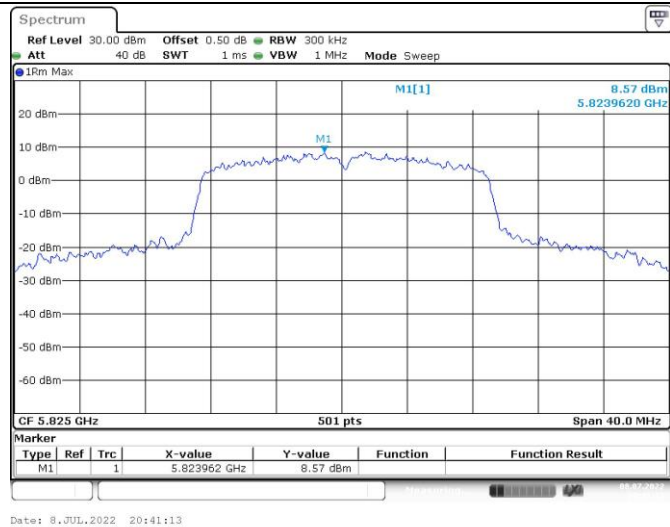
5725-5850MHz

Chain0:

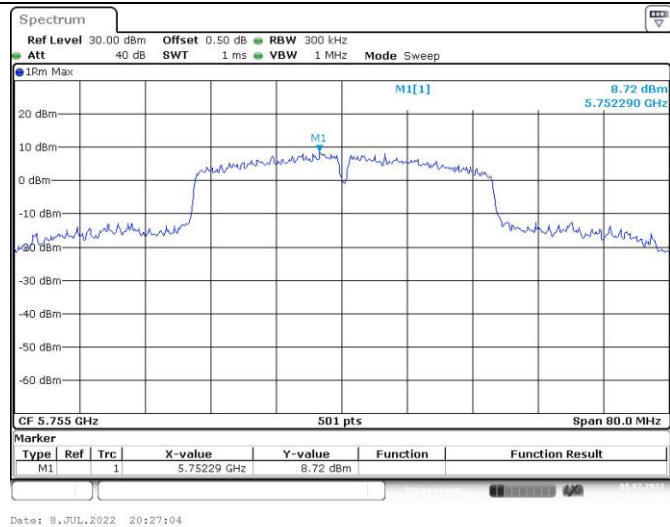
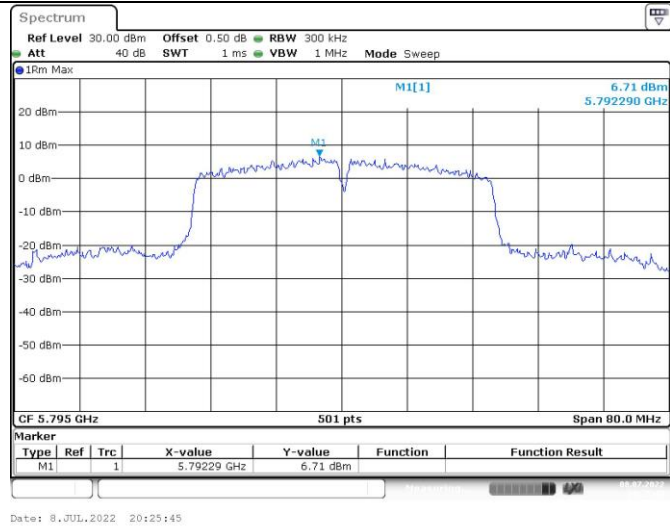
Maximum power spectral density

802.11a
Lowest Channel802.11a
Middle Channel802.11a
Highest Channel

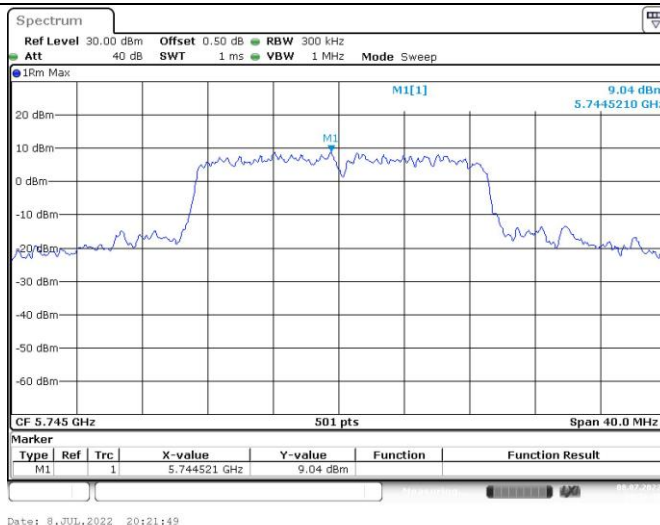
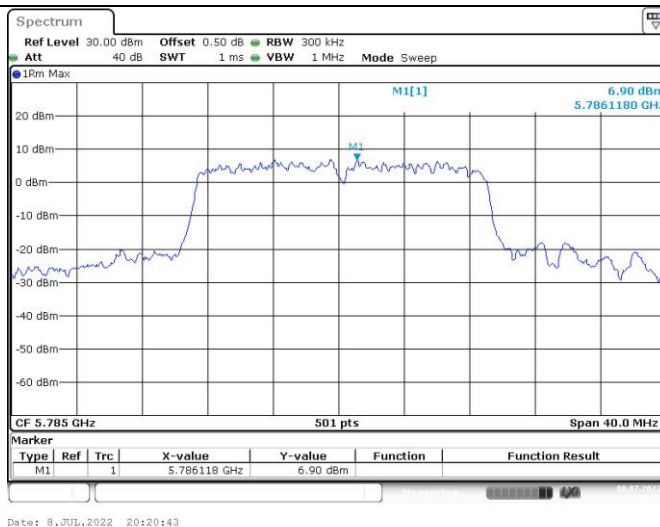
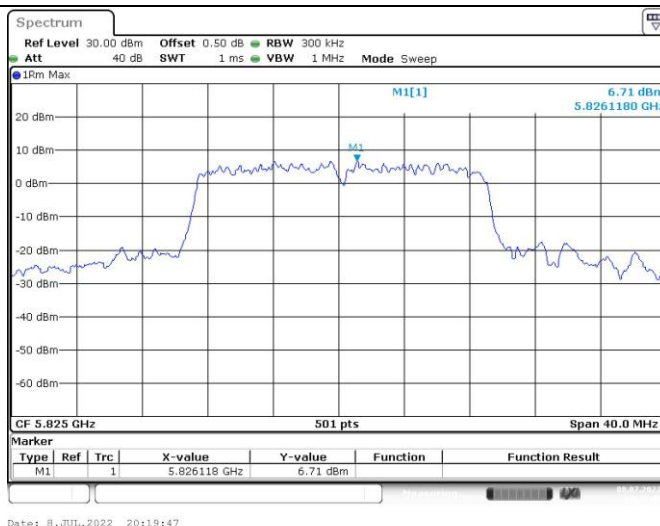
Maximum power spectral density

802.11n ht20
Lowest Channel802.11n ht20
Middle Channel802.11n ht20
Highest Channel

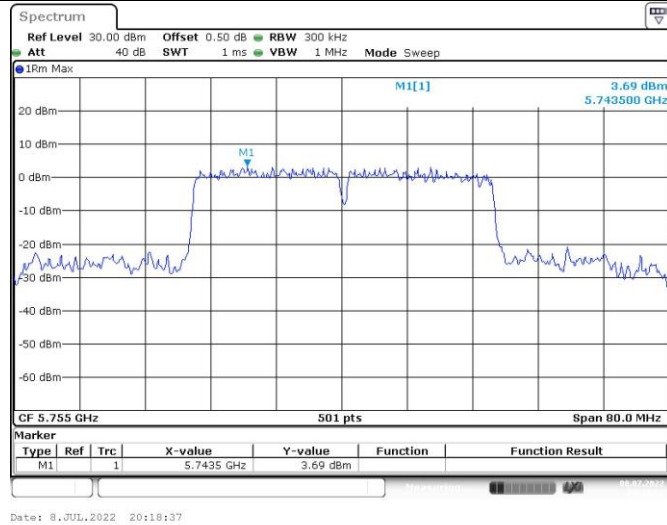
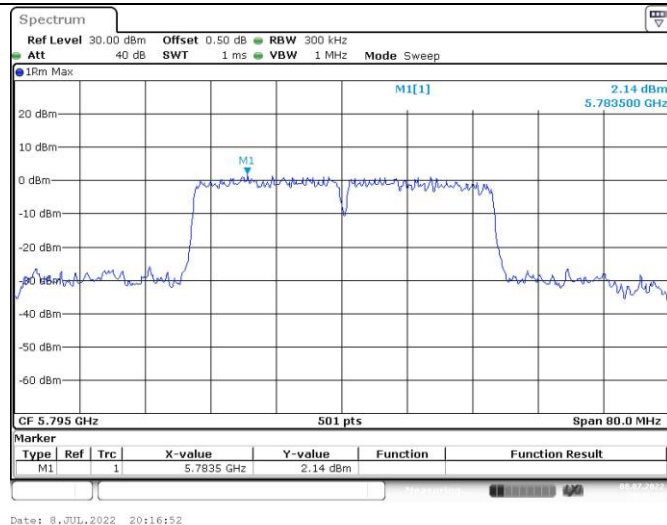
Maximum power spectral density

802.11n ht40
Lowest Channel802.11n ht40
Highest Channel

Maximum power spectral density

802.11ac vht20
Lowest Channel802.11ac vht20
Middle Channel802.11ac vht20
Highest Channel

Maximum power spectral density

802.11ac vht40
Lowest Channel802.11ac vht40
Highest Channel802.11ac vht80
Middle Channel