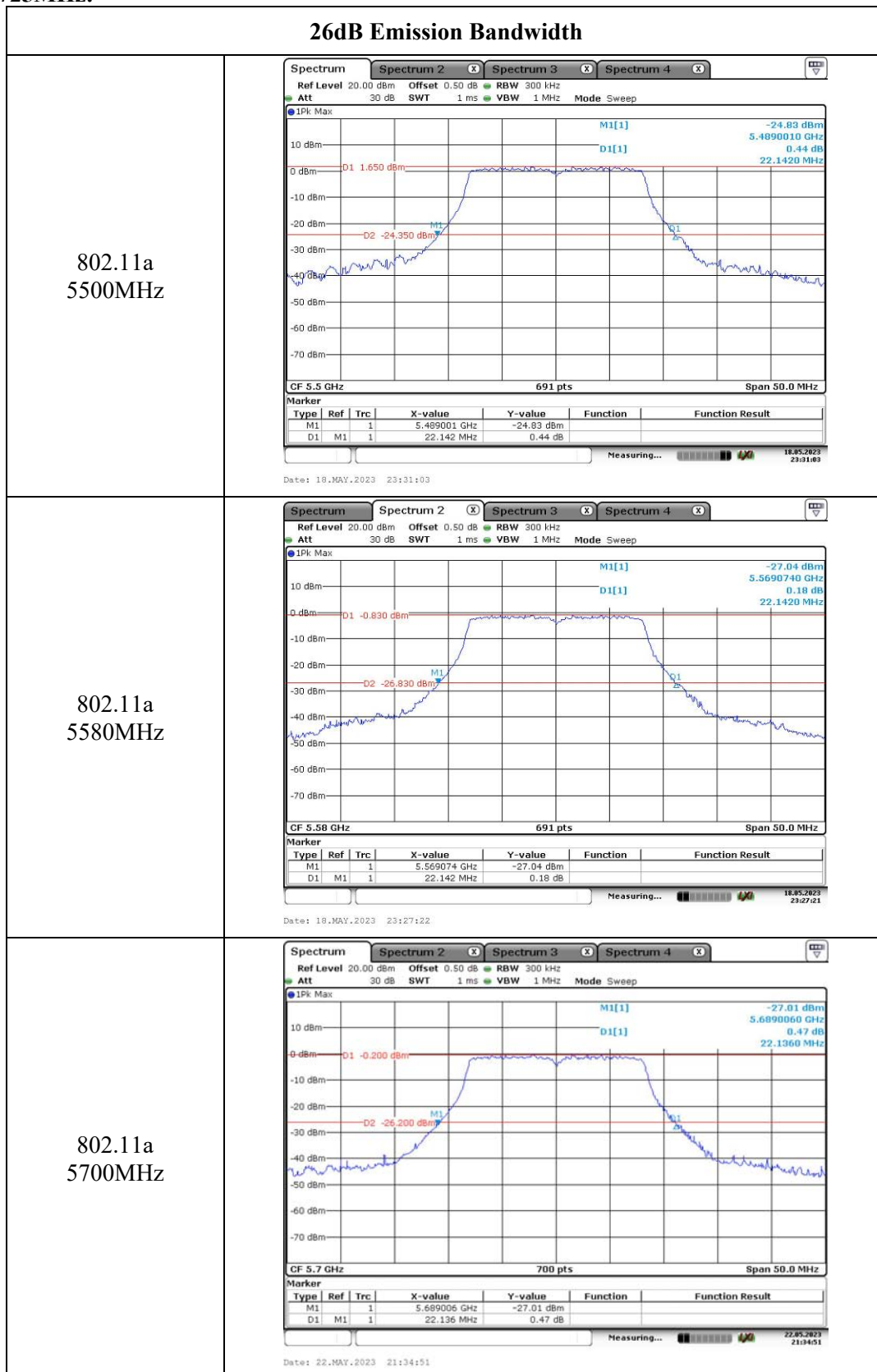
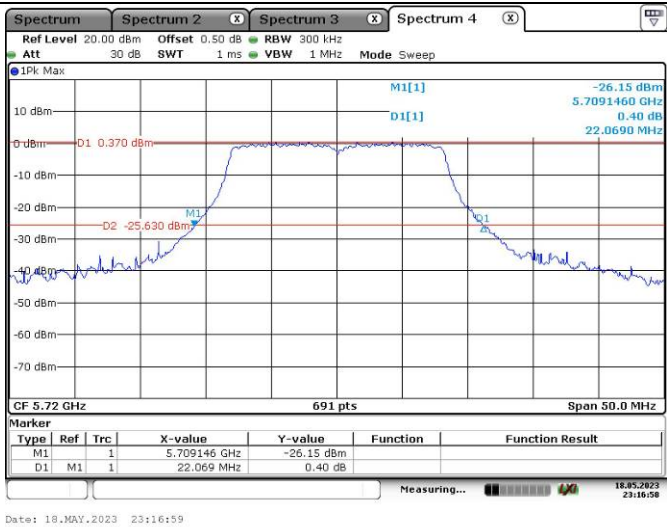


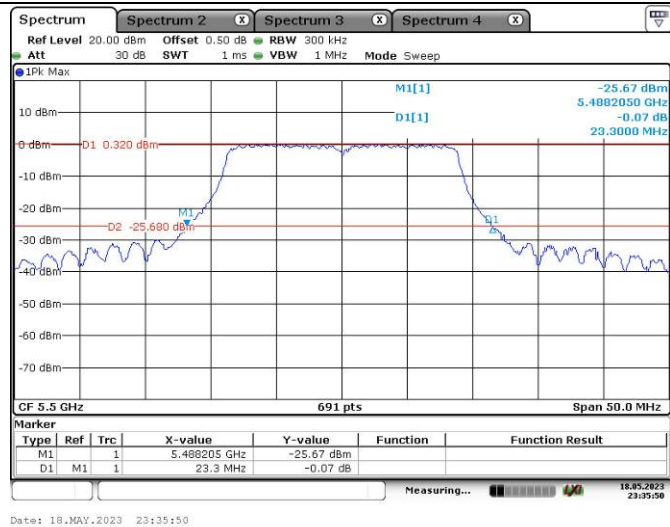
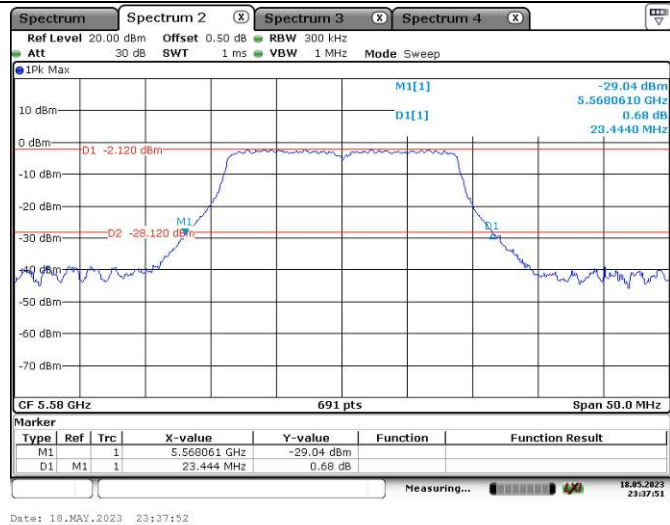
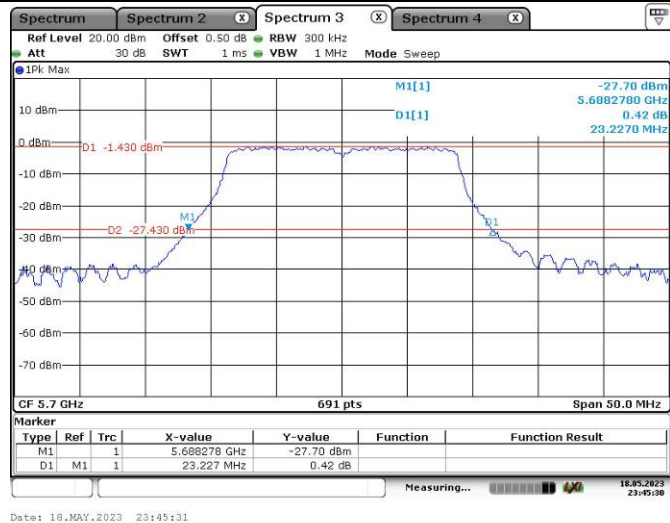
5470-5725MHz:



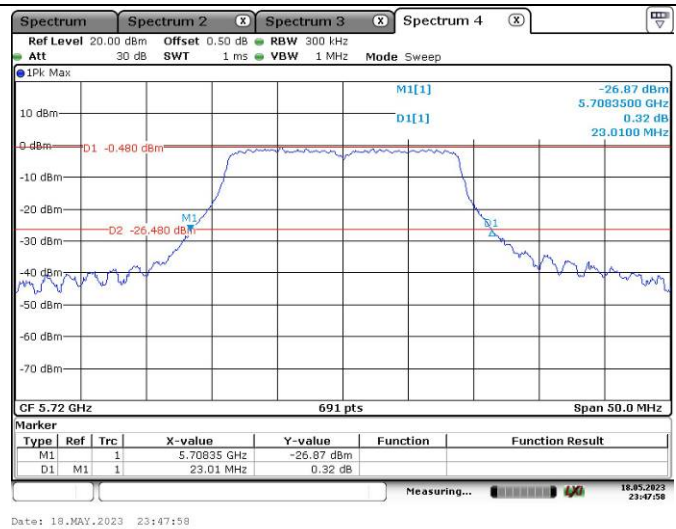
802.11a
5720MHz



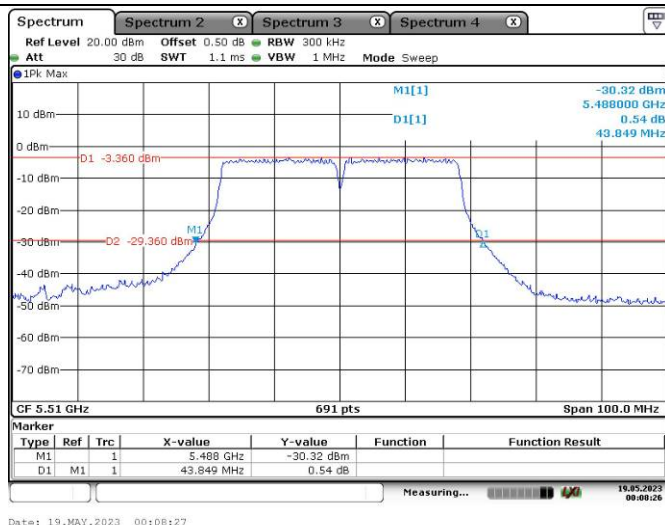
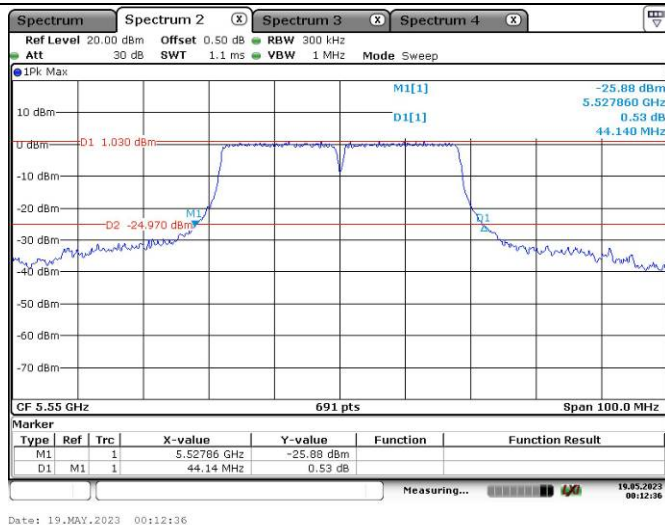
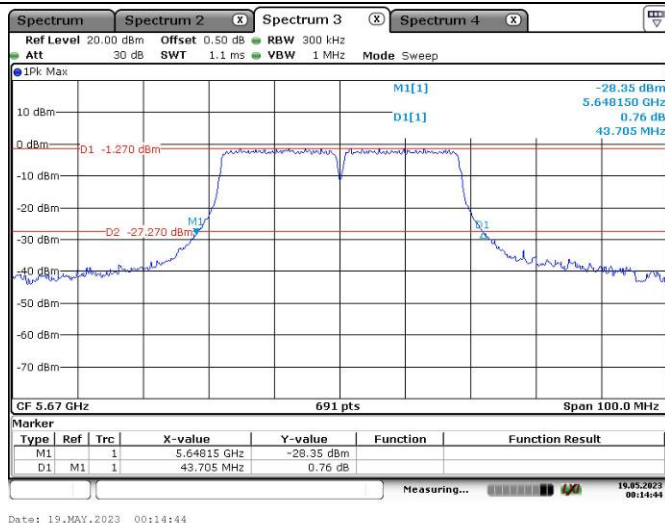
26dB Emission Bandwidth

802.11n ht20
5500MHz802.11n ht20
5580MHz802.11n ht20
5700MHz

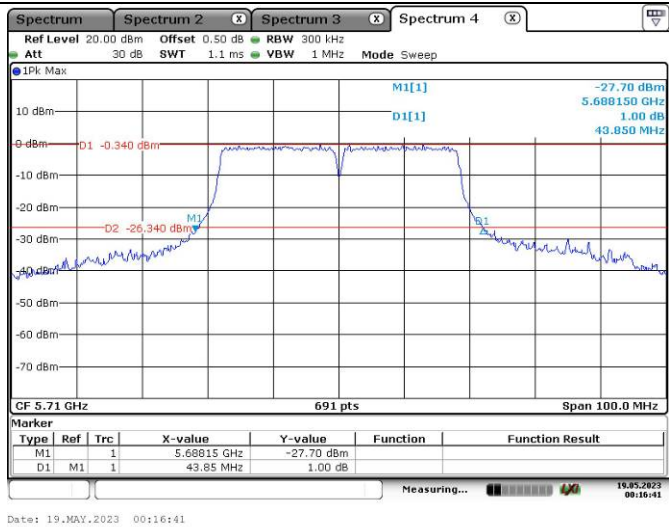
802.11n ht20
5720MHz



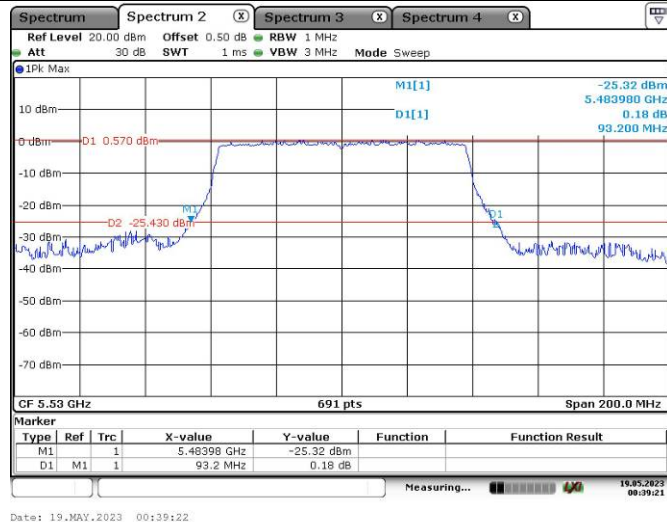
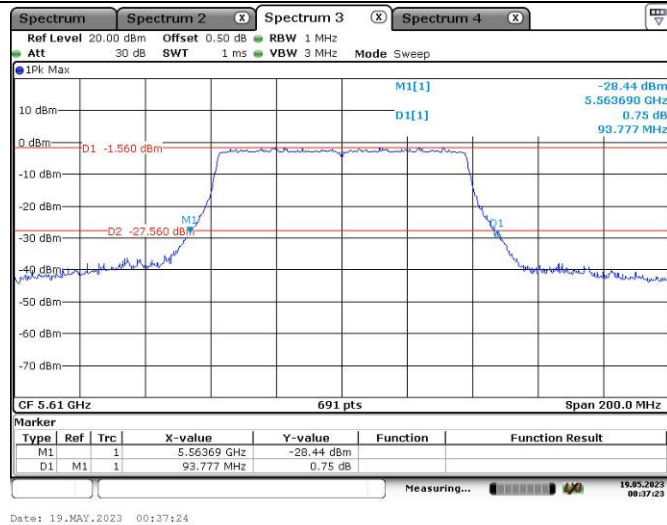
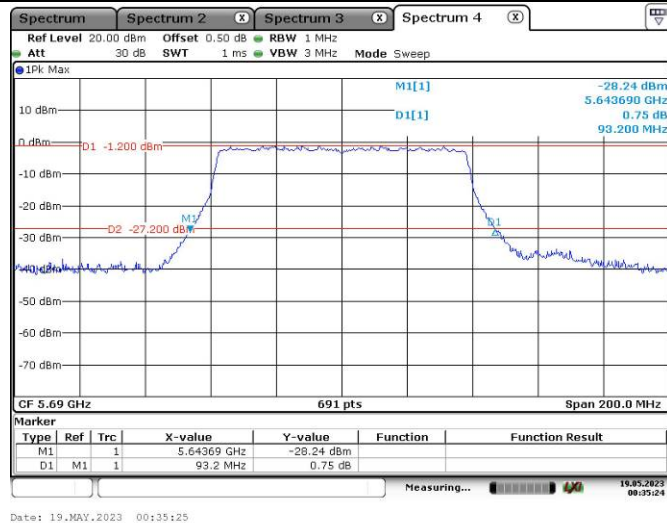
26dB Emission Bandwidth

802.11n ht40
5510MHz802.11n ht40
5550MHz802.11n ht40
5670MHz

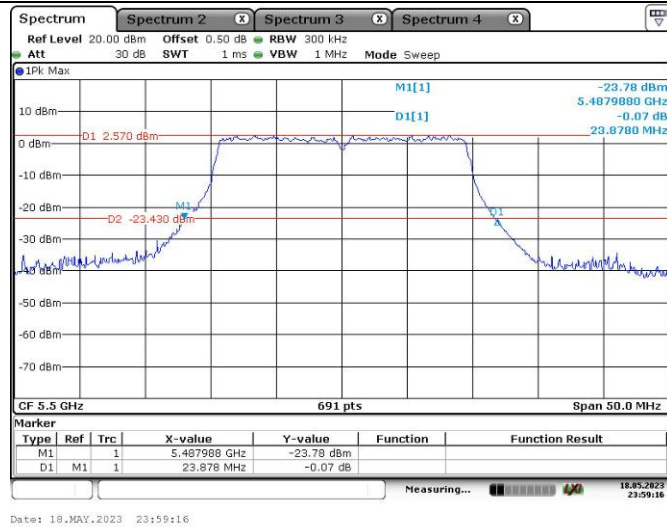
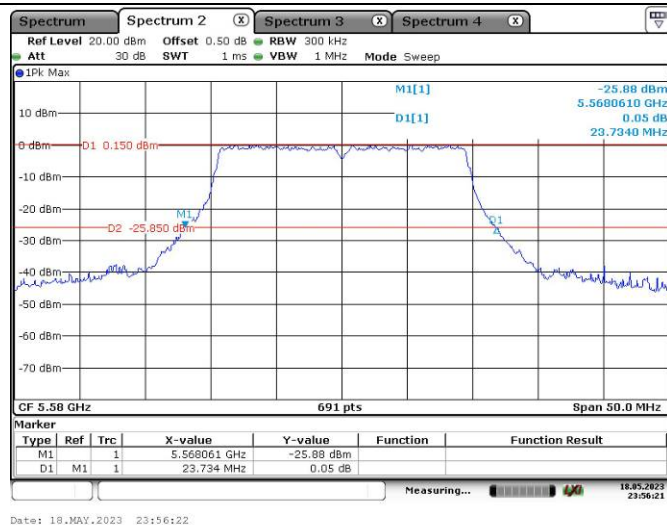
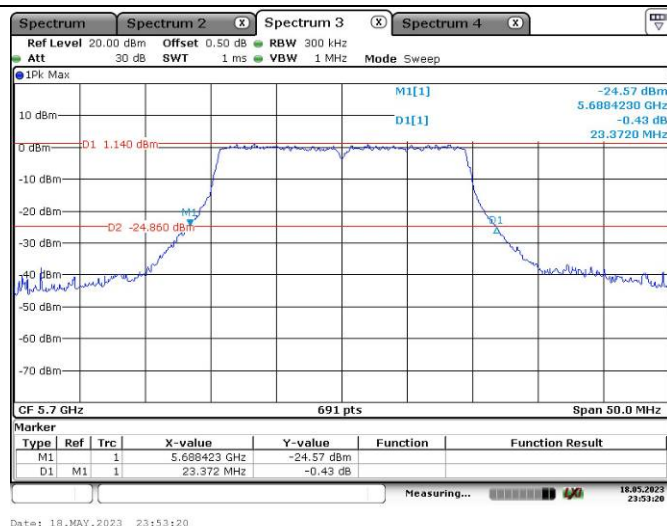
802.11n ht40
5710MHz

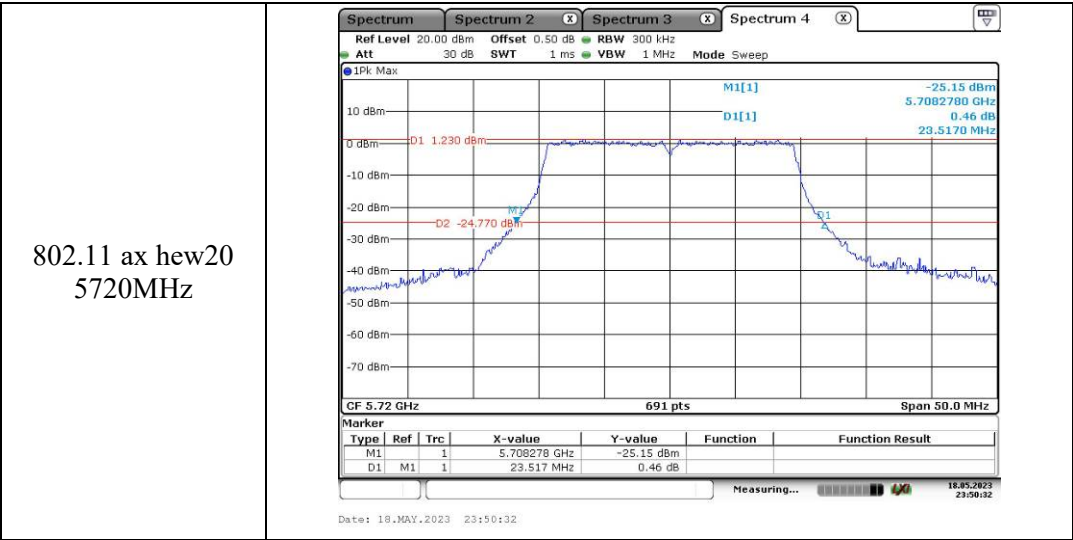


26dB Emission Bandwidth

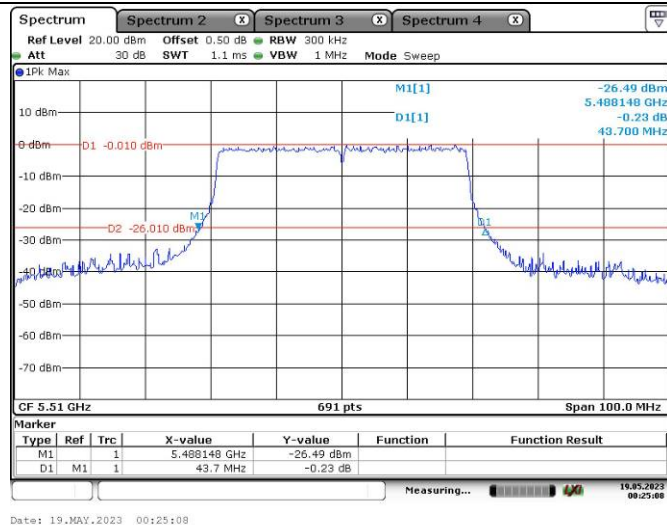
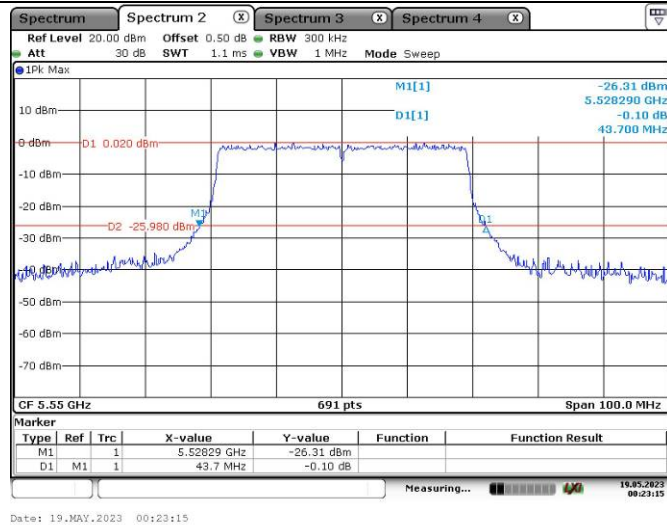
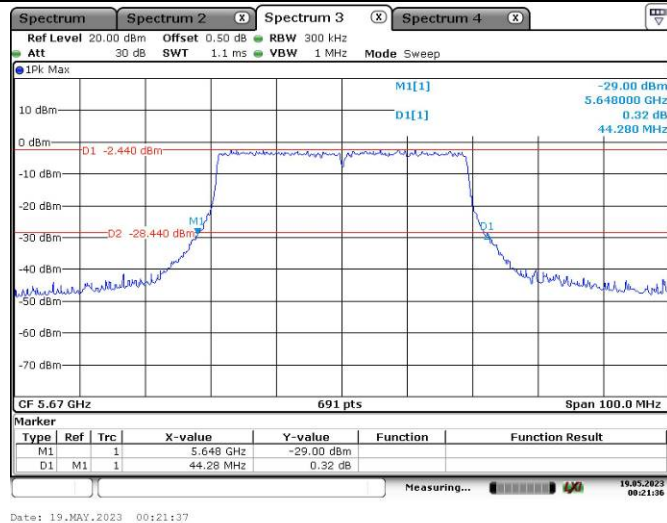
802.11ac vht80
5530MHz802.11ac vht80
5610MHz802.11ac vht80
5690MHz

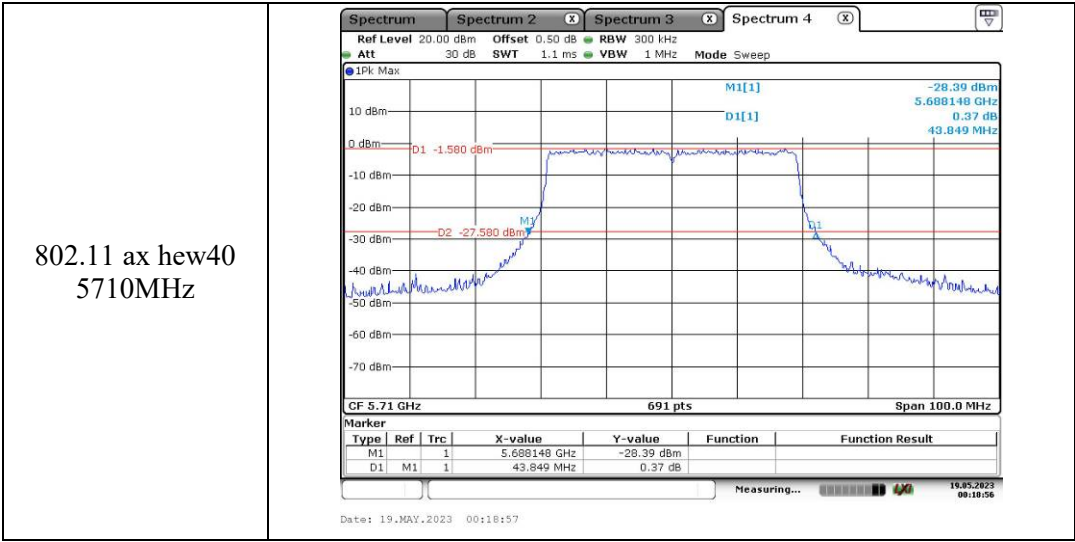
26dB Emission Bandwidth

802.11ax hew20
5500MHz802.11 ax hew20
5580MHz802.11 ax hew20
5700MHz

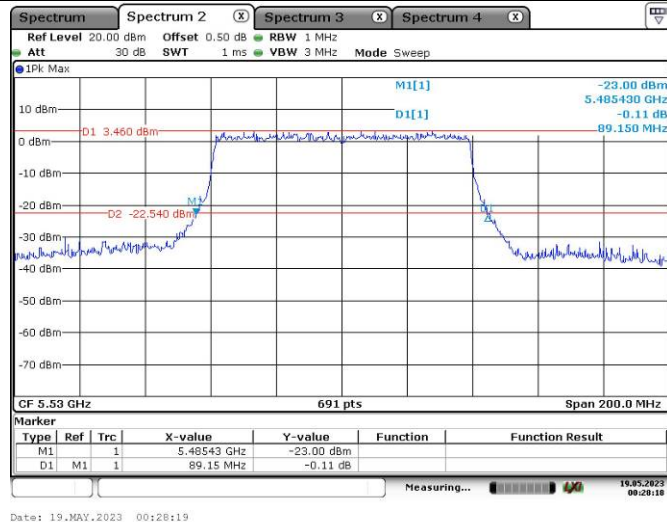
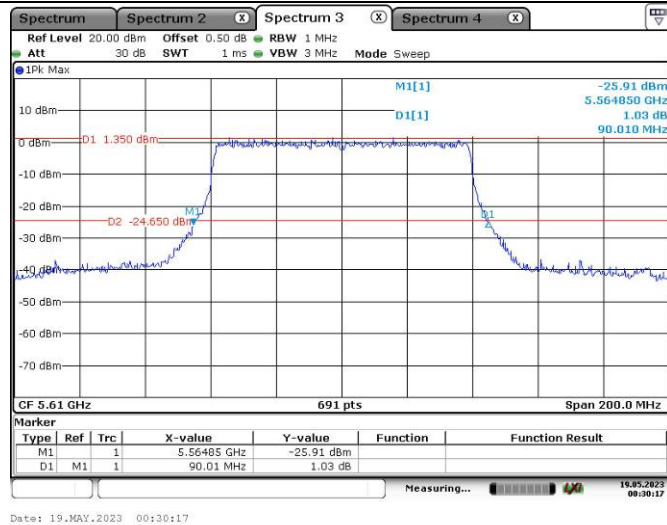
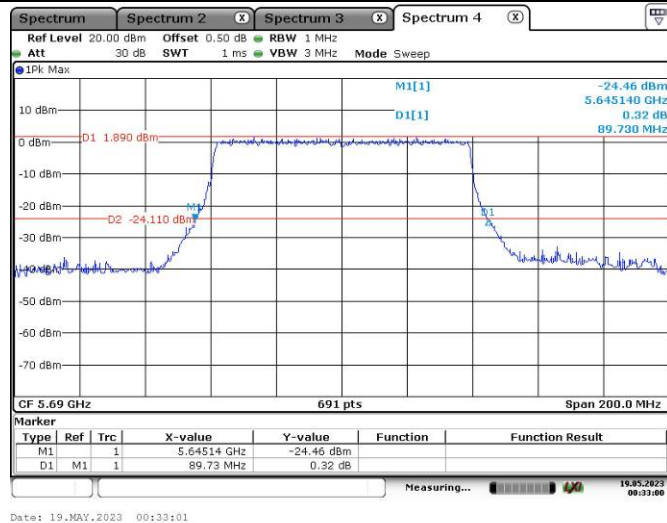


26dB Emission Bandwidth

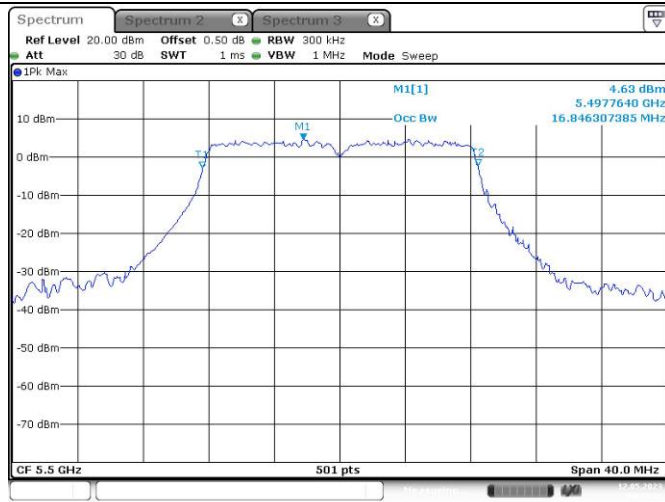
802.11ax hew40
5510MHz802.11 ax hew40
5550MHz802.11 ax hew40
5670MHz



26dB Emission Bandwidth

802.11 ax hew80
5530MHz802.11 ax hew80
5610MHz802.11 ax hew80
5690MHz

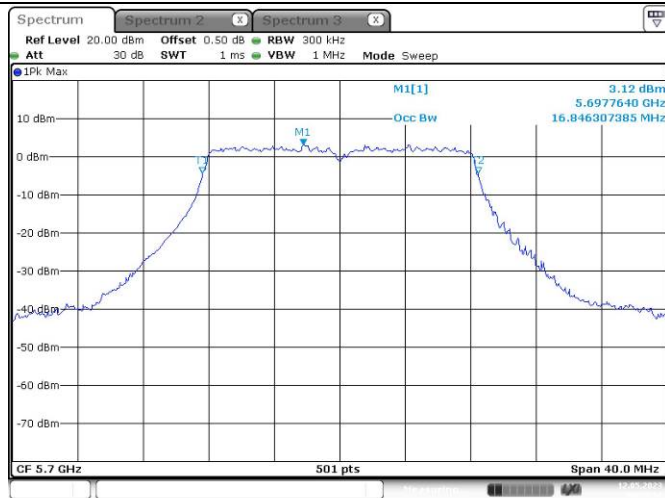
99% Emission Bandwidth

802.11a
5500MHz

Date: 12.MAY.2023 00:54:32

802.11a
5580MHz

Date: 12.MAY.2023 00:56:42

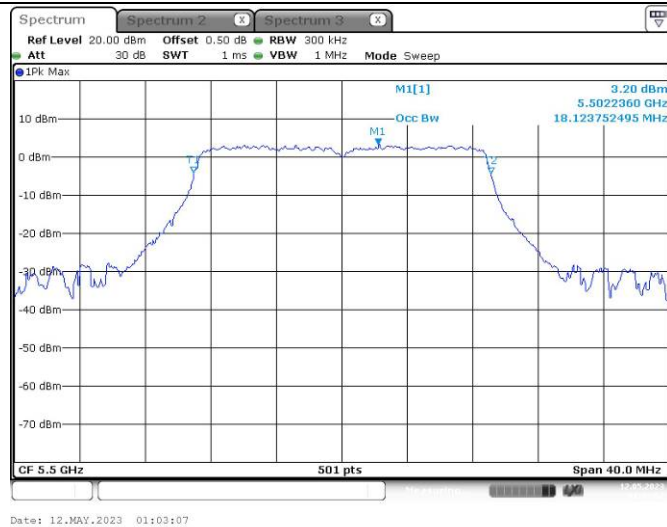
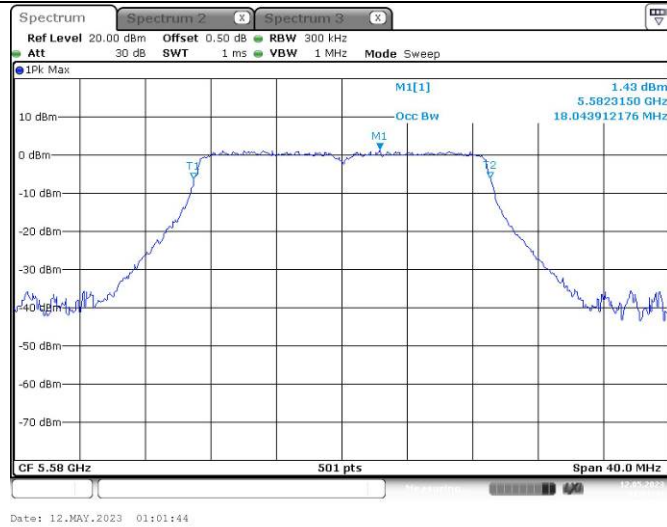
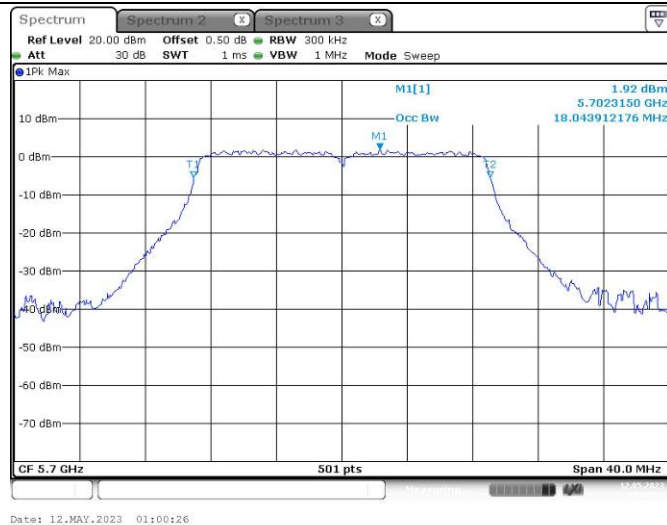
802.11a
5700MHz

Date: 12.MAY.2023 00:58:35

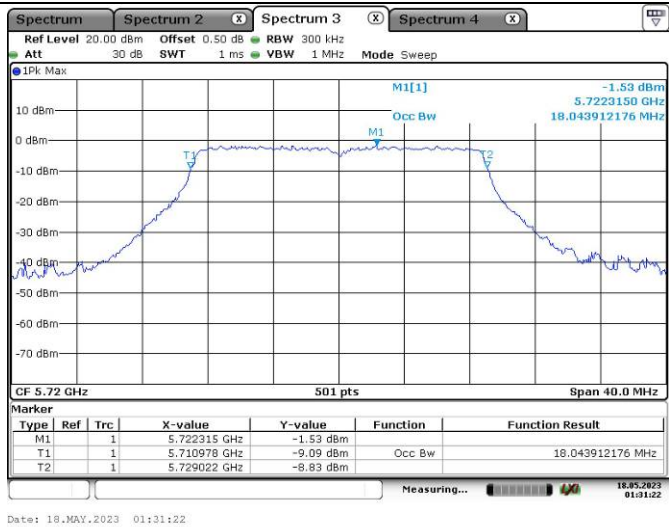
802.11a
5720MHz

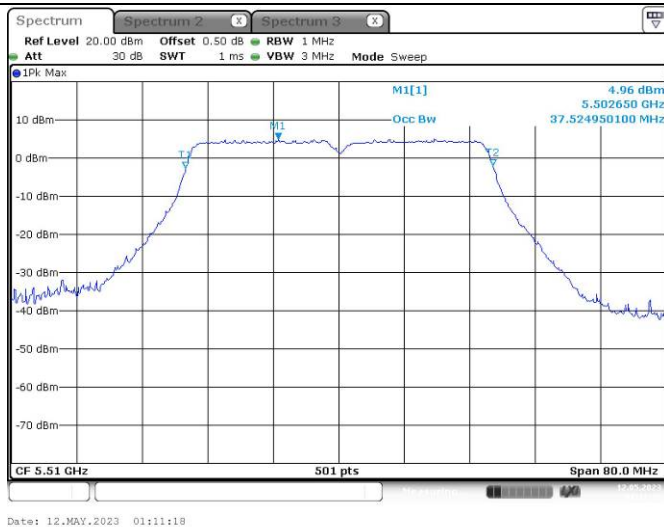
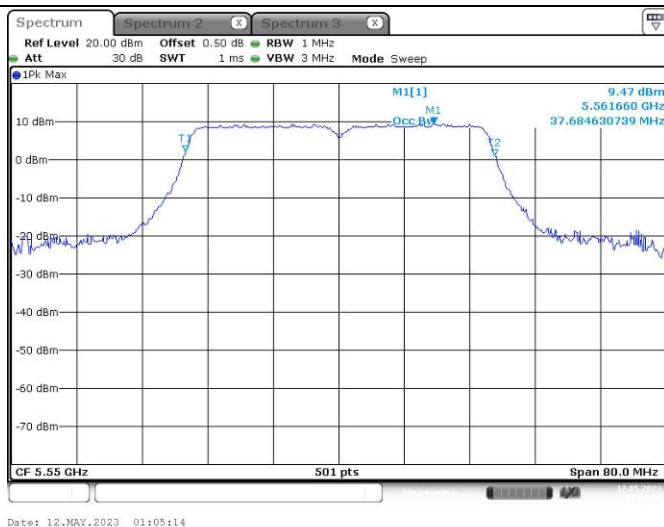
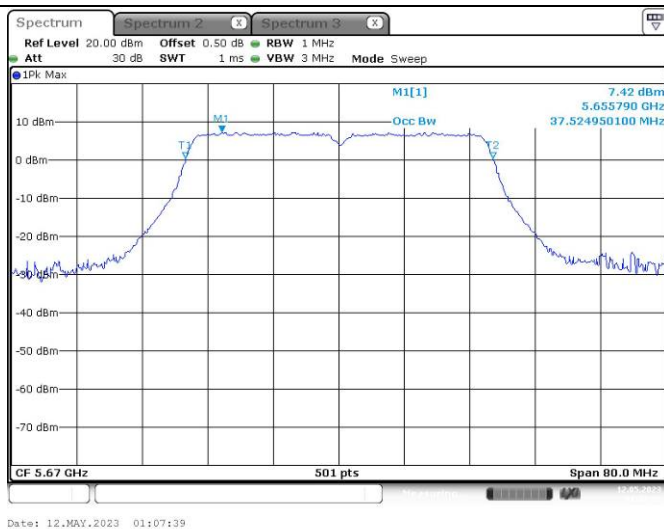


99% Emission Bandwidth

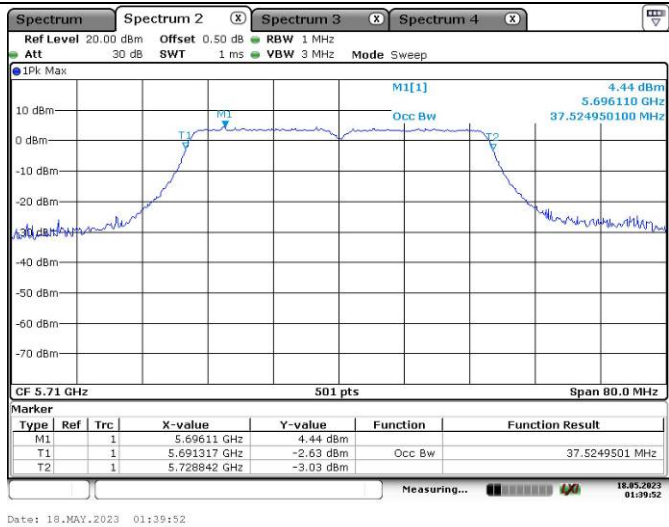
802.11n ht20
5500MHz802.11n ht20
5580MHz802.11n ht20
5700MHz

802.11n ht20
5720MHz

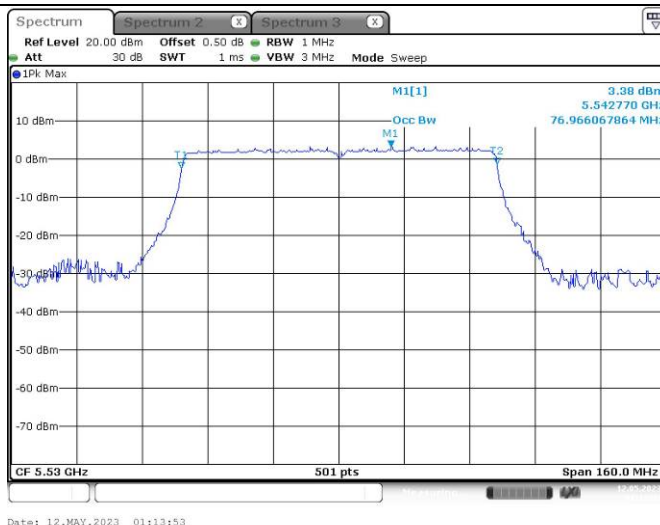
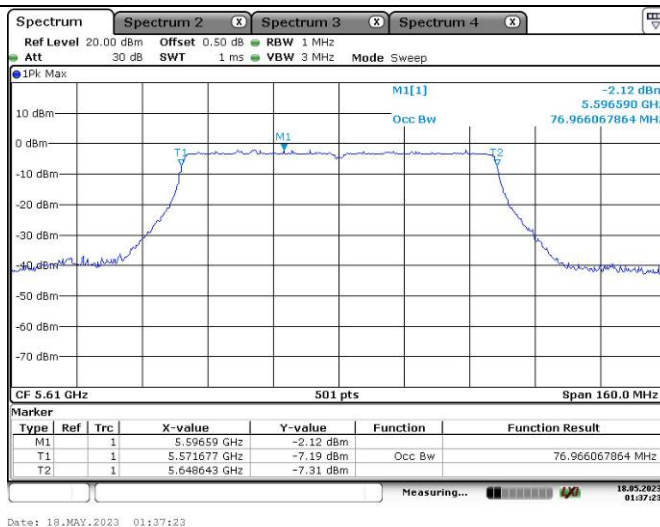
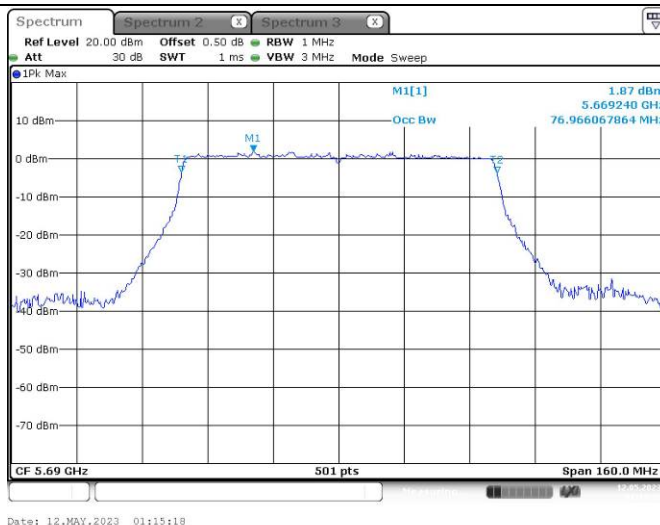


99% Emission Bandwidth802.11n ht40
5510MHz802.11n ht40
5550MHz802.11n ht40
5670MHz

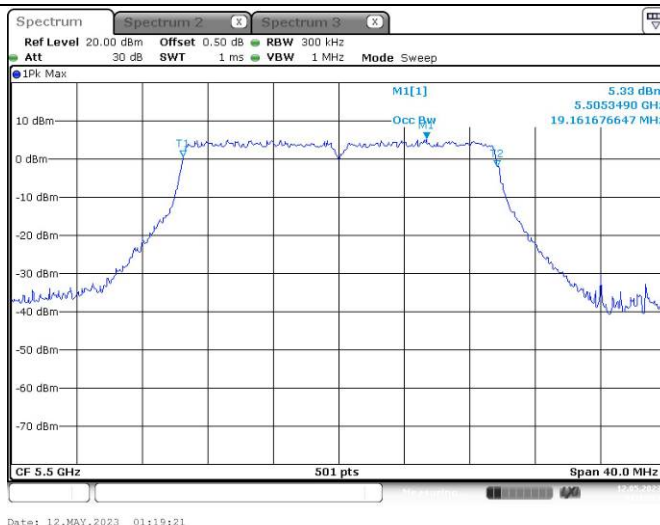
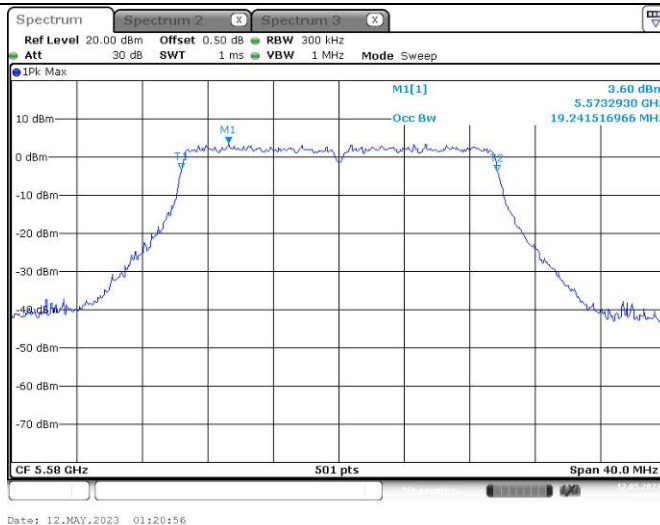
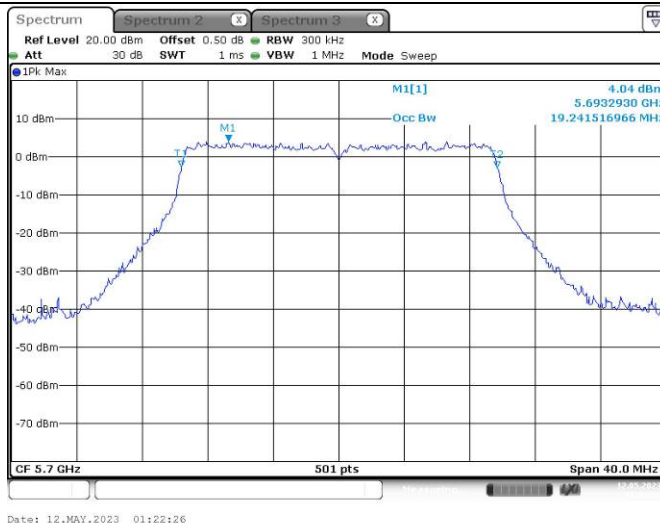
8802.11n ht40
5710MHz



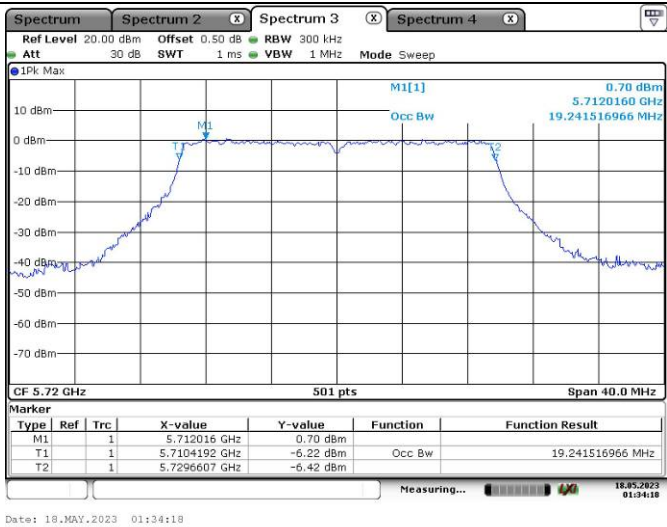
99% Emission Bandwidth

802.11ac vht80
5530MHz802.11ac vht80
5610MHz802.11ac vht80
5690MHz

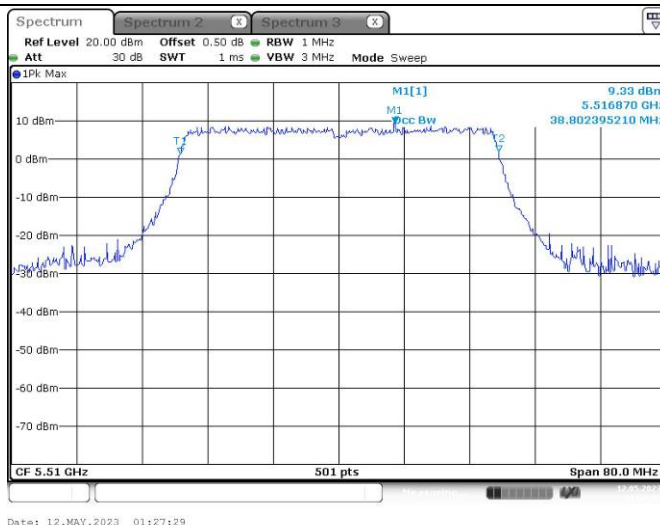
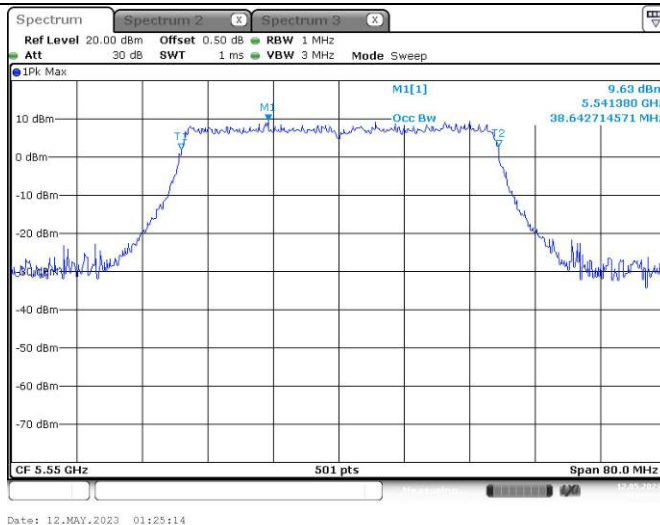
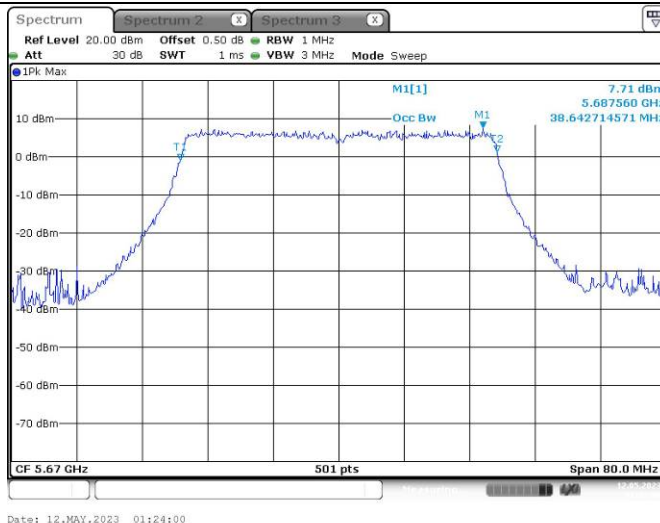
99% Emission Bandwidth

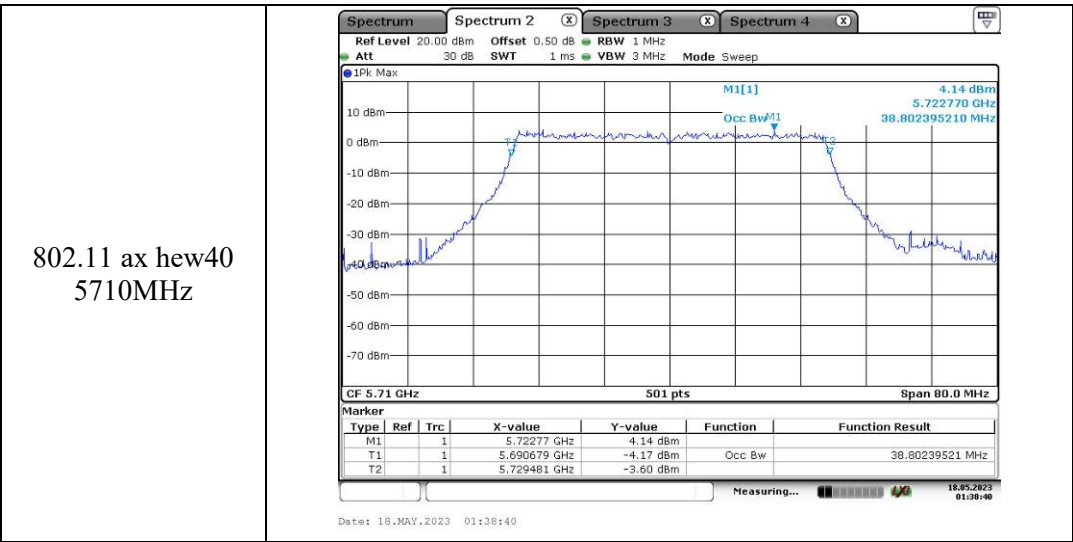
802.11ax hew20
5500MHz802.11 ax hew20
5580MHz802.11 ax hew20
5700MHz

802.11 ax hew20
5720MHz

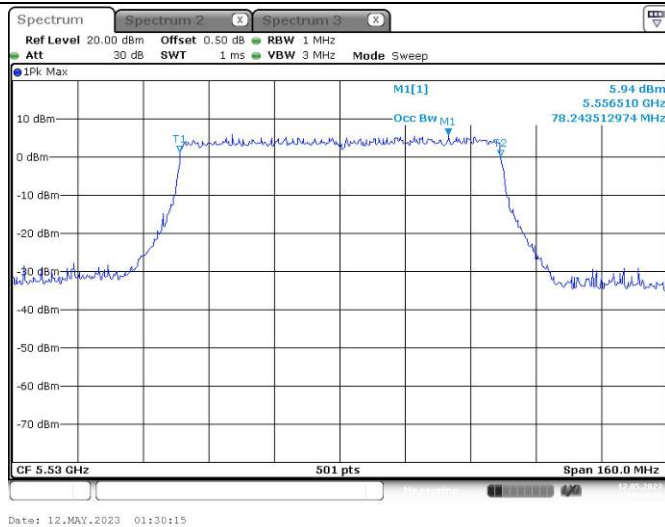
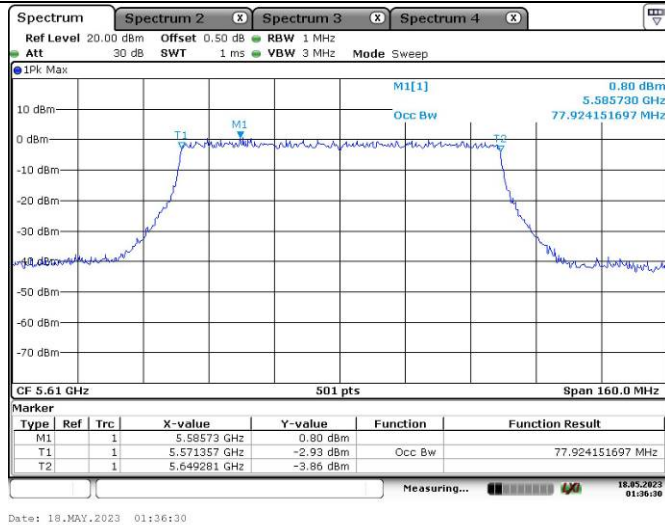
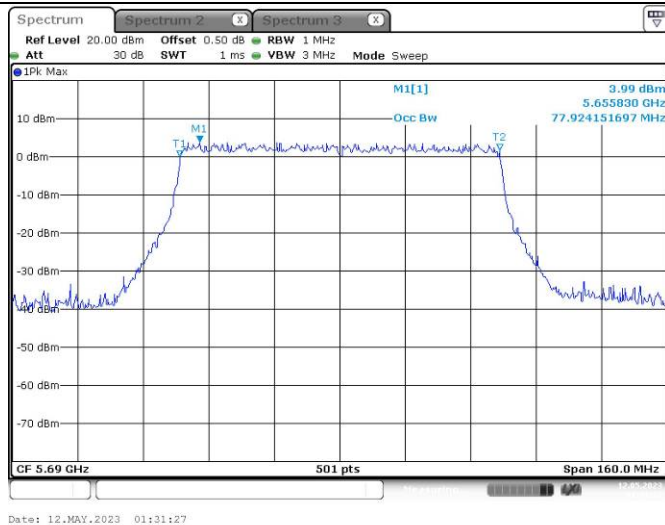


99% Emission Bandwidth

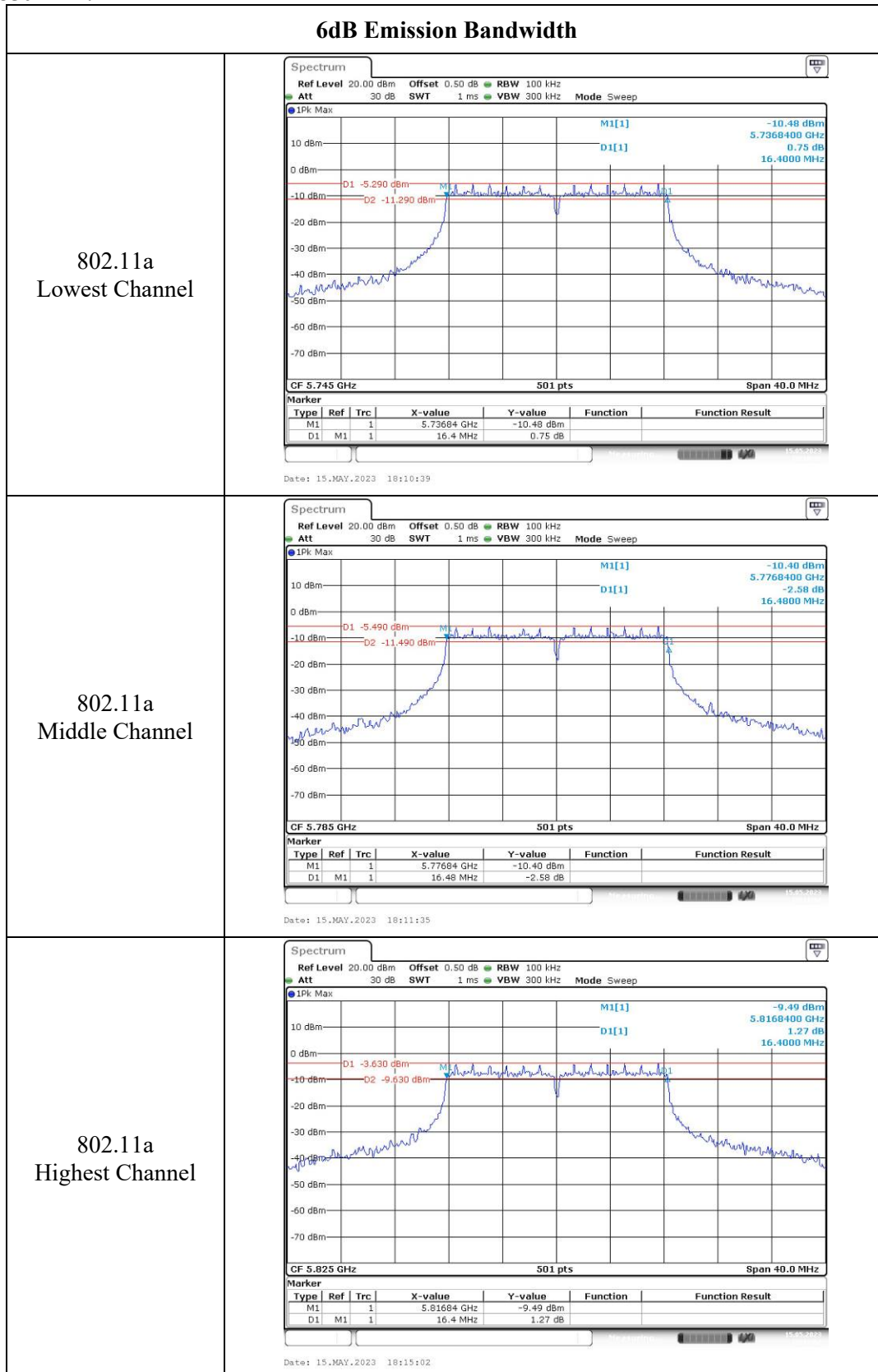
802.11ax hew40
5510MHz802.11 ax hew40
5550MHz802.11 ax hew40
5670MHz



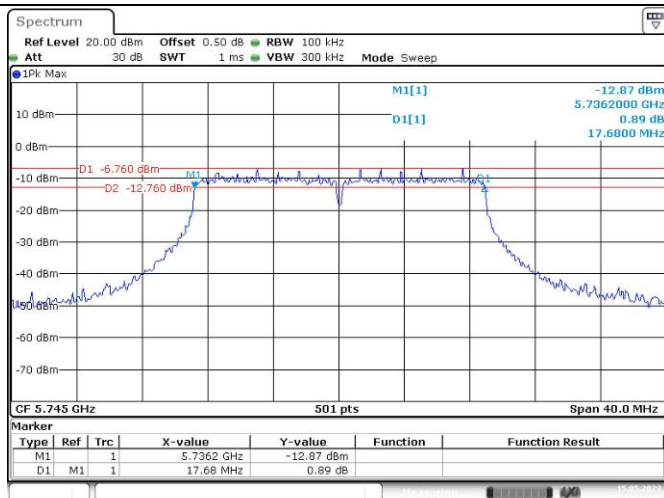
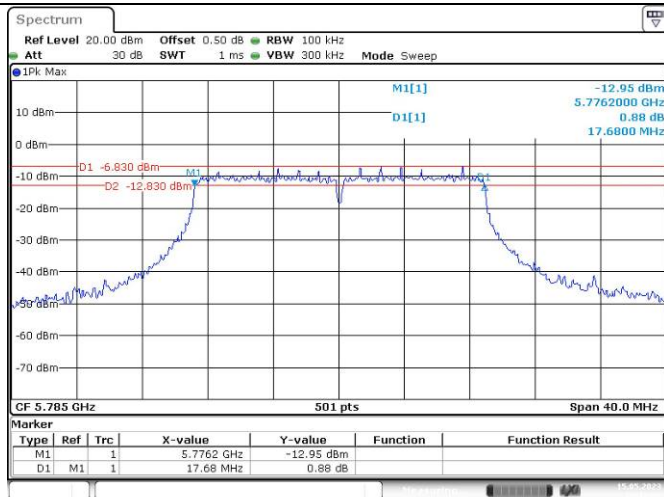
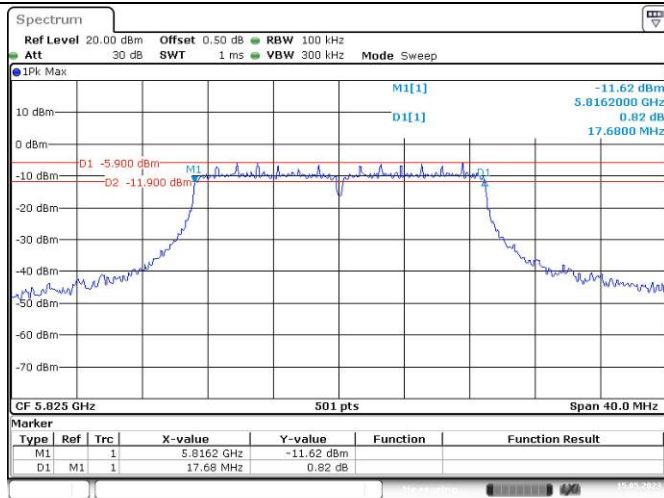
99% Emission Bandwidth

802.11 ax hew80
5530MHz802.11 ax hew80
5610MHz802.11 ax hew80
5690MHz

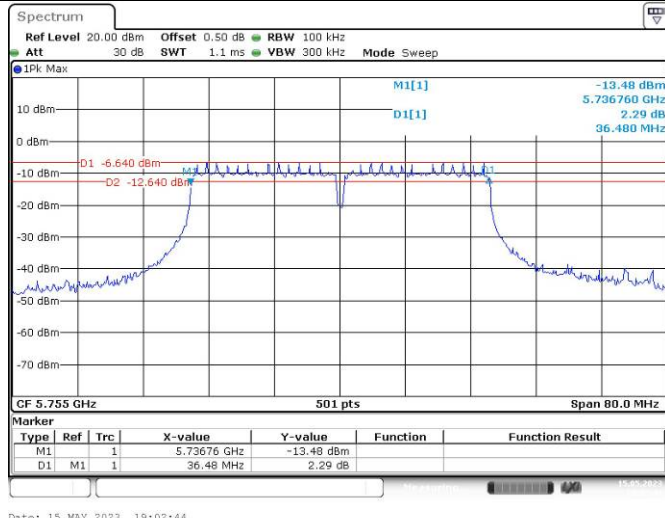
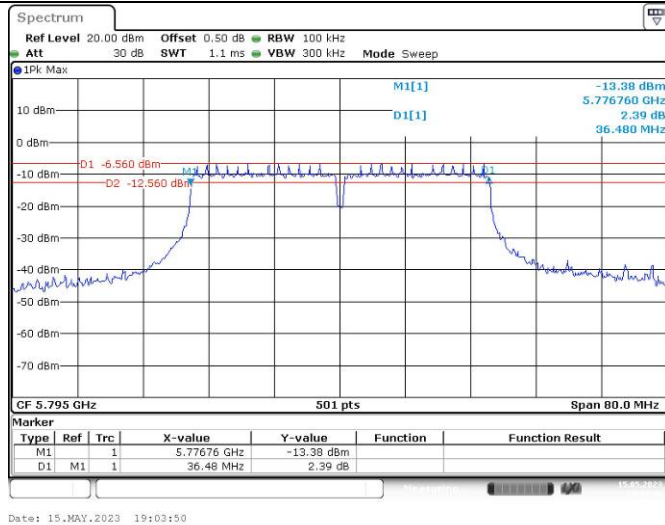
5725-5850MHz:



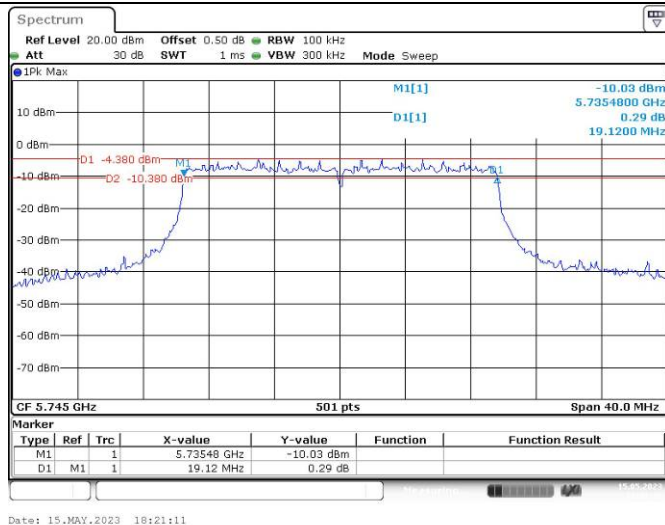
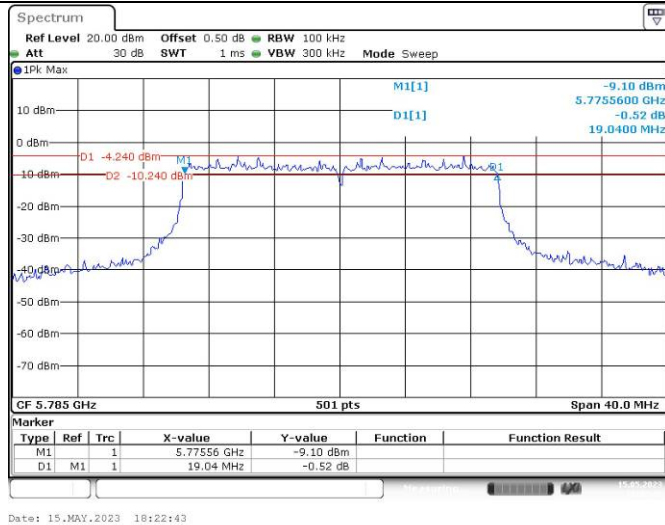
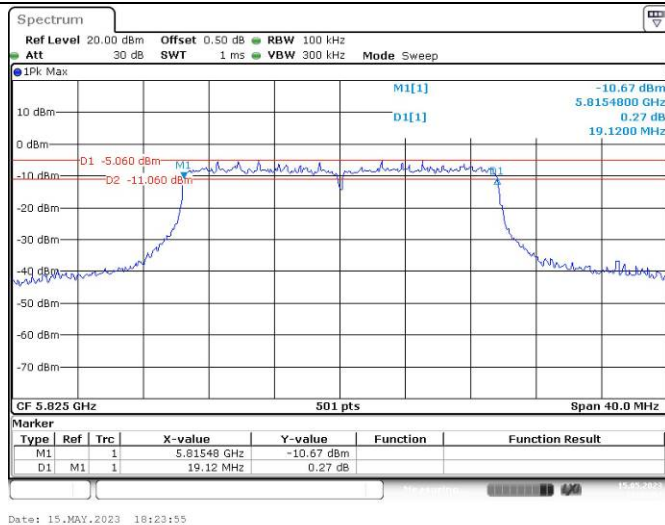
6dB Emission Bandwidth

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

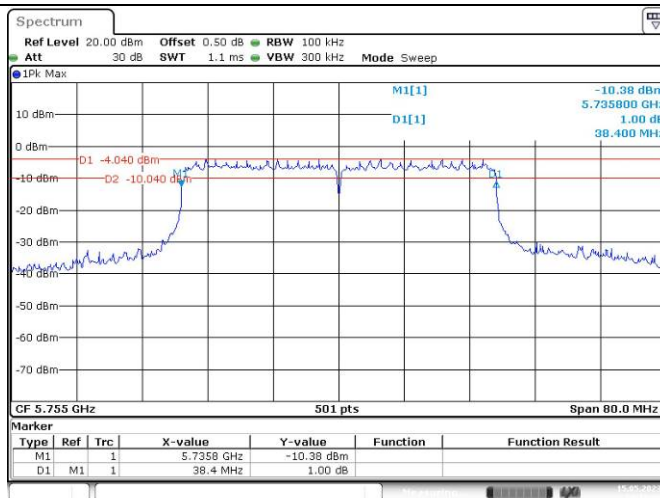
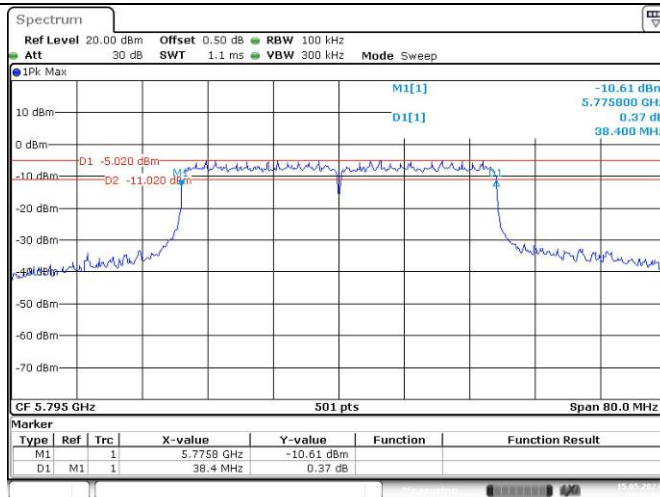
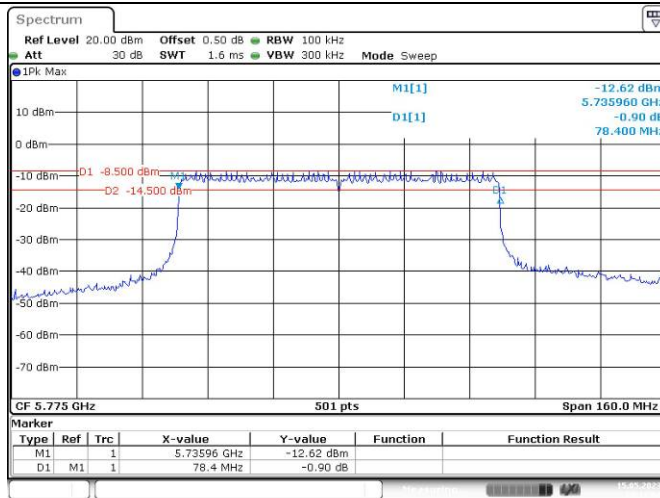
6dB Emission Bandwidth

802.11n ht40
Lowest Channel802.11n ht40
Highest Channel802.11ac vht80
Middle Channel

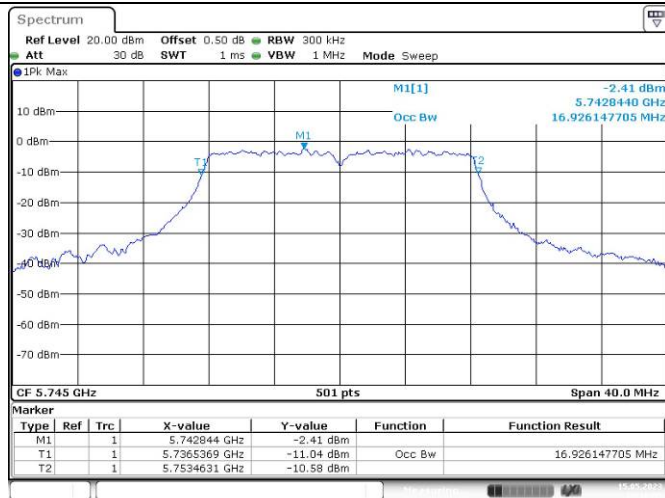
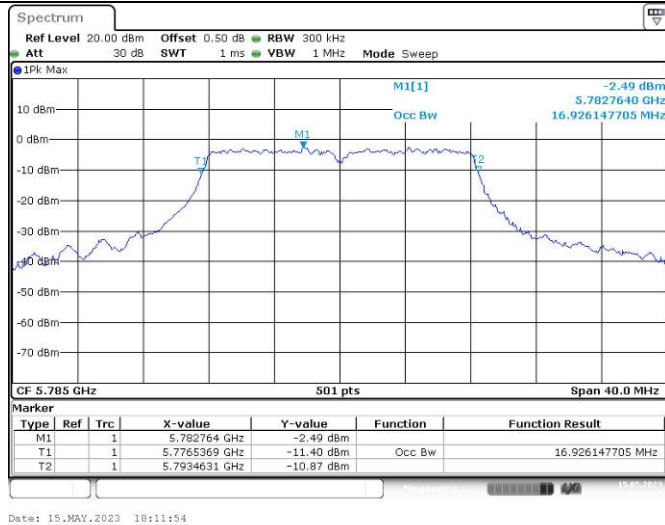
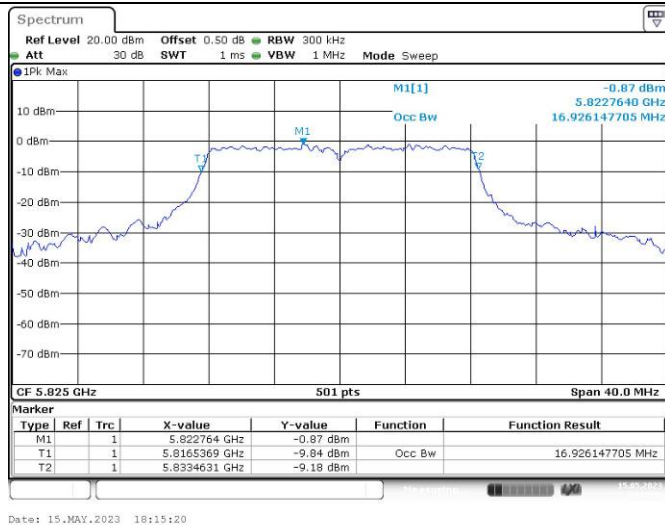
6dB Emission Bandwidth

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

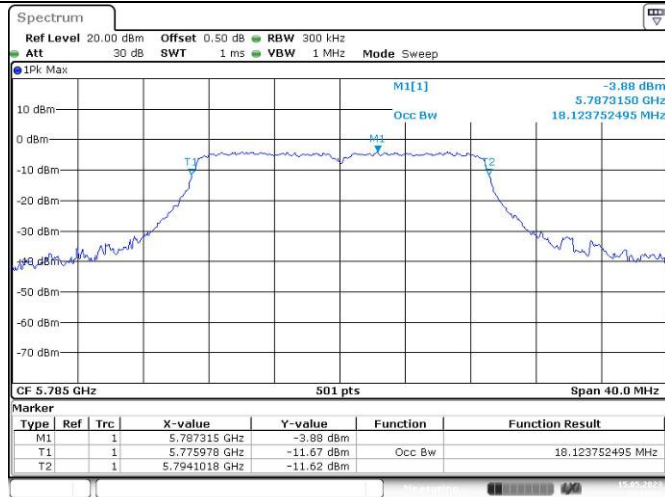
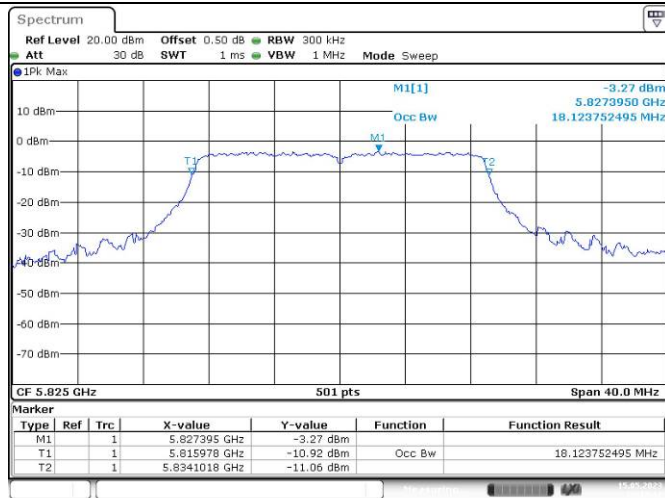
6dB Emission Bandwidth

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

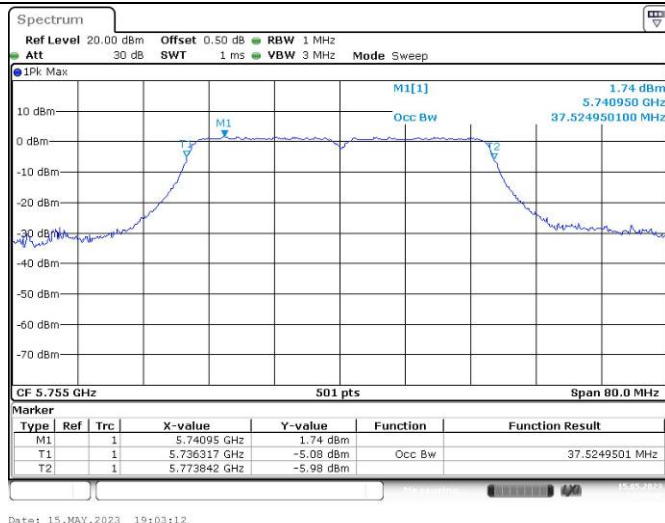
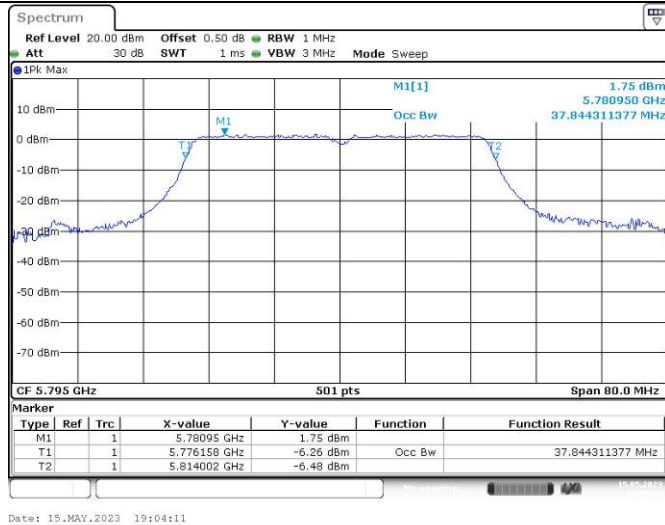
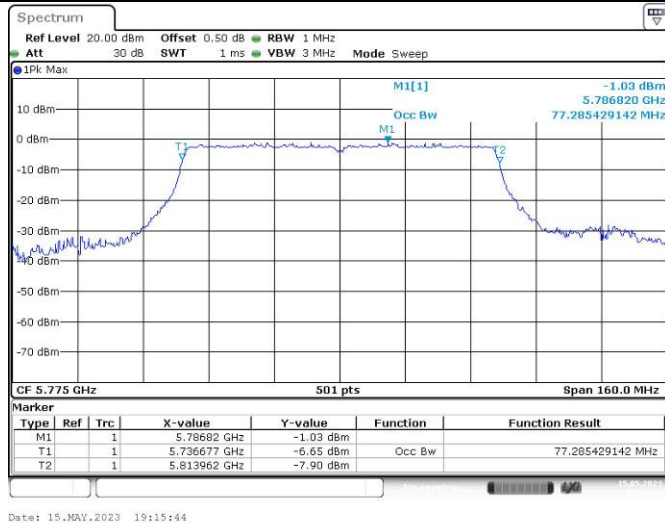
99% Emission Bandwidth

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

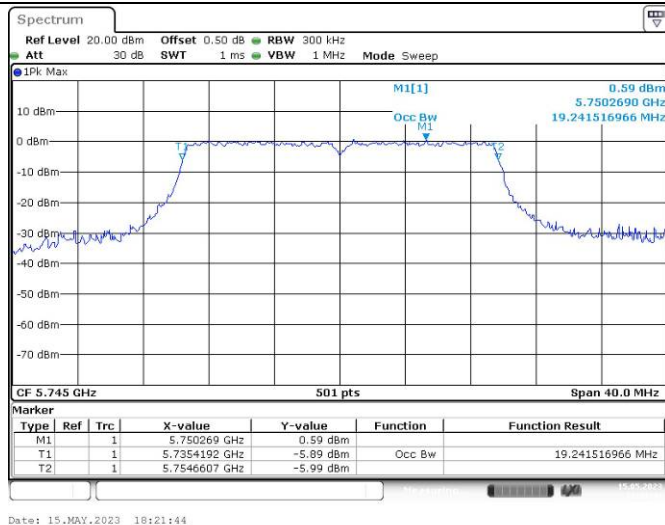
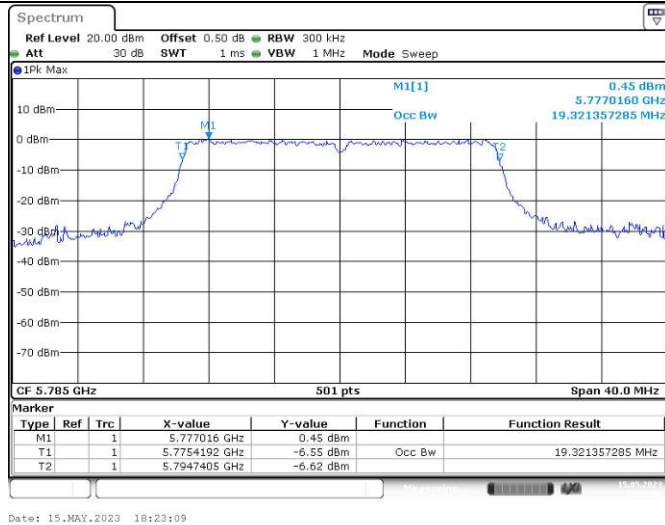
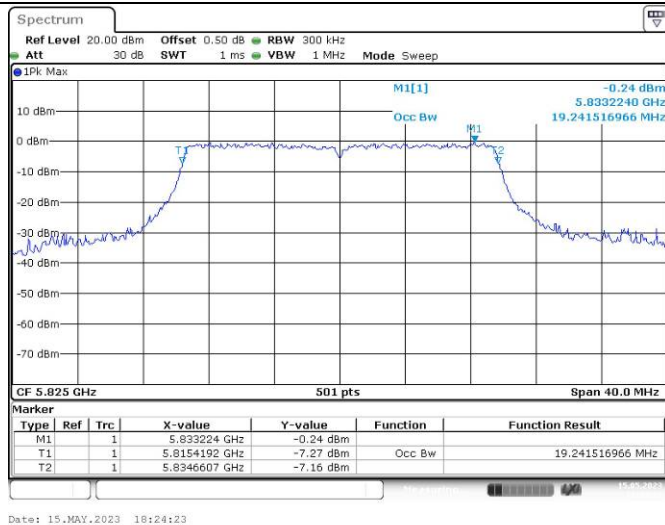
99% Emission Bandwidth

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

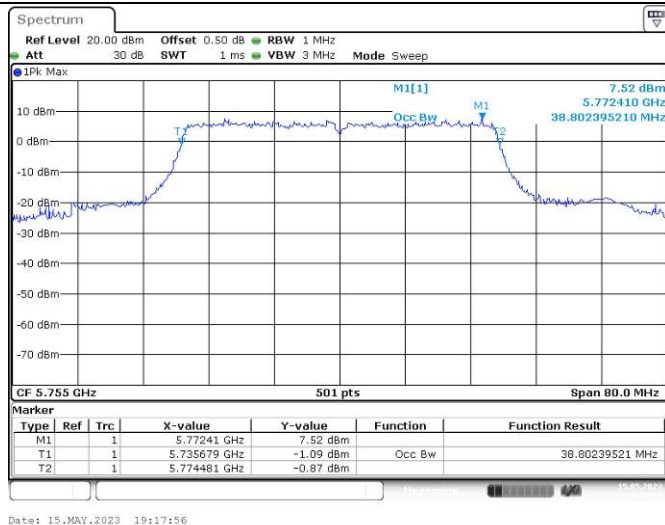
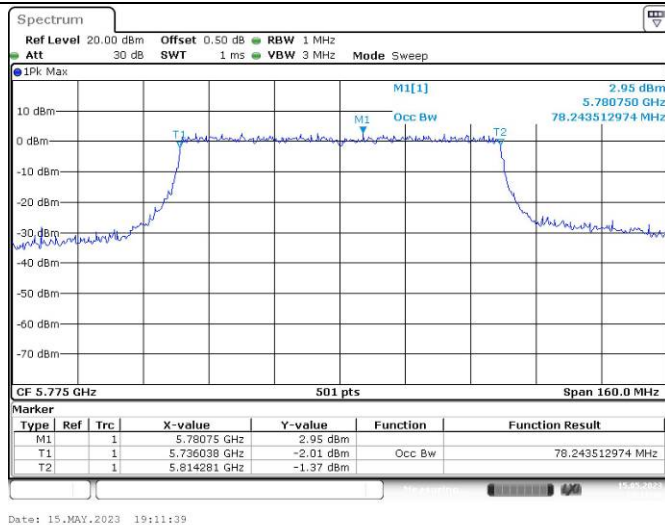
99% Emission Bandwidth

802.11n ht40
Lowest Channel802.11n ht40
Highest Channel802.11ac vht80
Middle Channel

99% Emission Bandwidth

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

99% Emission Bandwidth

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

4.5 Maximum Conducted Output Power:

Serial Number:	23N0-1	Test Date:	2023/05/15~2023/05/23
Test Site:	RF	Test Mode:	Transmitting
Tester:	Jim Wei	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	23.4~27.7	Relative Humidity: (%)	63~71	ATM Pressure: (kPa)	100.1~100.4
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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	2022/07/15	2023/07/14
zhuoxiang	Coaxial Cable	SMA-178	211001	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 Conducted Average Output Power (dBm)				Maximum EIRP (dBm)	
		Chain 0	Chain 1	Total	FCC Limit	Result	RSS-247 Limit
802.11a	5180	4.55	4.35	/	26.9	13.65	22.27
	5200	4.36	4.38	/	26.9	13.48	22.27
	5240	4.44	4.23	/	26.9	13.54	22.27
802.11n ht20	5180	8.07	9.37	11.78	26.9	20.88	22.56
	5200	7.95	9.63	11.88	26.9	20.98	22.58
	5240	8.61	10.71	12.80	26.9	21.9	22.56
802.11n ht40	5190	7.02	6.38	9.72	26.9	18.82	23.00
	5230	7.95	7.61	10.79	26.9	19.89	23.00
802.11ac vht80	5210	8.4	8.45	11.44	26.9	20.54	23.00
802.11ax hew20	5180	8.11	9.38	11.80	26.9	20.9	22.84
	5200	7.95	9.61	11.87	26.9	20.97	22.84
	5240	8.67	10.68	12.80	26.9	21.9	22.84
802.11ax hew40	5190	9.85	6.48	11.49	26.9	20.59	23.00
	5230	10.65	7.59	12.39	26.9	21.49	23.00
802.11ax hew80	5210	7.09	7.36	10.24	26.9	19.34	23.00

Note:

The device is an indoor AP.

The antenna gain is 9.1dBi

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 $N_{\text{ANT}} \leq 4$

Directional gain= 9.1dBi

5250-5350 MHz:

Test Modes	Test Frequency (MHz)	Maximum Conducted Average Output Power (dBm)					Maximum EIRP (dBm)	
		Chain 0	Chain 1	Total	FCC Limit	RSS-247 Limit	Result	RSS-247 Limit
802.11a	5260	8.84	16.64	/	20.9	23.26	25.74	29.26
	5280	9.13	14.49	/	20.9	23.26	23.59	29.26
	5320	9.57	15.26	/	20.9	23.26	24.36	29.26
802.11n ht20	5260	7.70	10.57	12.38	20.9	23.56	21.48	29.56
	5280	8.03	10.45	12.42	20.9	23.56	21.52	29.56
	5320	8.55	10.59	12.70	20.9	23.56	21.8	29.56
802.11n ht40	5270	11.64	12.10	14.89	20.9	24.00	23.99	30.00
	5310	11.95	11.81	14.89	20.9	24.00	23.99	30.00
802.11ac vht80	5290	11.25	11.20	14.24	20.9	24.00	23.34	30.00
802.11ax hew20	5260	13.11	14.12	16.65	20.9	23.86	25.75	29.86
	5280	13.16	14.15	16.69	20.9	23.84	25.79	29.84
	5320	13.32	14.49	16.95	20.9	23.84	26.05	29.84
802.11ax hew40	5270	11.72	11.94	14.84	20.9	24.00	23.94	30.00
	5310	11.94	11.90	14.93	20.9	24.00	24.03	30.00
802.11ax hew80	5290	13.32	11.08	15.35	20.9	24.00	24.45	30.00

Note:

The device is an indoor AP.

The antenna gain is 9.1dBi

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 $N_{ANT} \leq 4$

Directional gain= 9.1dBi

5470-5725 MHz:

Test Modes	Test Frequency (MHz)	Maximum Conducted Average Output Power (dBm)					Maximum EIRP (dBm)	
		Chain 0	Chain 1	Total	FCC Limit	RSS-247 Limit	Result	RSS-247 Limit
802.11a	5500	11.84	9.37	/	20.9	23.26	20.94	29.26
	5580	9.01	7.40	/	20.9	23.26	18.11	29.26
	5700	9.74	8.76	/	20.9	23.26	18.84	29.26
	5720	9.89	8.49	/	20.9	23.26	18.99	29.26
802.11n ht20	5500	8.84	7.61	11.28	20.9	23.58	20.38	29.58
	5580	6.15	6.35	9.26	20.9	23.56	18.36	29.56
	5700	6.62	8.16	10.47	20.9	23.56	19.57	29.56
	5720	6.86	8.08	10.52	20.9	23.56	19.62	29.56
802.11n ht40	5510	7.77	6.58	10.23	20.9	24.00	19.33	30
	5550	11.93	10.28	14.19	20.9	24.00	23.29	30
	5670	9.51	11.44	13.59	20.9	24.00	22.69	30
	5710	10.18	11.60	13.96	20.9	24.00	23.06	30
802.11ac vht80	5530	8.73	7.35	11.10	20.9	24.00	20.2	30
	5610	6.68	6.56	9.63	20.9	24.00	18.73	30
	5690	6.87	8.21	10.60	20.9	24.00	19.7	30
802.11ax hew20	5500	8.82	7.50	11.22	20.9	23.82	20.32	29.82
	5580	6.14	6.11	9.14	20.9	23.84	18.24	29.84
	5700	6.66	4.71	8.80	20.9	23.84	17.9	29.84
	5720	6.88	4.39	8.82	20.9	23.84	17.92	29.84
802.11ax hew40	5510	8.88	7.29	11.17	20.9	24.00	20.27	30
	5550	8.70	7.01	10.95	20.9	24.00	20.05	30
	5670	6.35	5.93	9.16	20.9	24.00	18.26	30
	5710	6.94	5.85	9.44	20.9	24.00	18.54	30
802.11ax hew80	5530	8.64	5.85	10.48	20.9	24.00	19.58	30
	5610	6.61	4.05	8.53	20.9	24.00	17.63	30
	5690	6.79	5.00	9.00	20.9	24.00	18.1	30

Note:

The antenna gain is 9.1dBi

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 $N_{ANT} \leq 4$

Directional gain= 9.1dBi

5725-5850 MHz:

Test Modes	Test Frequency (MHz)	Maximum Conducted Average Output Power (dBm)			
		Chain 0	Chain 1	Total	Limit
802.11a	5745	11.17	8.77	/	26.9
	5785	10.85	8.98	/	26.9
	5825	11.90	9.96	/	26.9
802.11n ht20	5745	10.31	7.80	12.24	26.9
	5785	10.18	8.22	12.32	26.9
	5825	10.05	8.13	12.21	26.9
802.11n ht40	5755	11.61	9.27	13.61	26.9
	5795	11.50	9.84	13.76	26.9
802.11ac vht80	5775	11.11	9.24	13.29	26.9
802.11ax hew20	5745	12.65	9.65	14.41	26.9
	5785	12.32	10.03	14.33	26.9
	5825	11.10	12.00	14.58	26.9
802.11ax hew40	5755	13.85	14.92	17.43	26.9
	5795	12.64	14.05	16.41	26.9
802.11ax hew80	5775	12.18	11.22	14.74	26.9

Note:

The antenna gain is 9.1dBi

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 $N_{\text{ANT}} \leq 4$

Directional gain= 9.1dBi

4.6 Maximum power spectral density:

Serial Number:	23N0-1	Test Date:	2023/05/16~2023/05/23
Test Site:	RF	Test Mode:	Transmitting
Tester:	Jim Wei	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	23.9~27.7	Relative Humidity: (%)	63~71	ATM Pressure: (kPa)	100.1~100.3
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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	2022/07/15	2023/07/14
zhuoxiang	Coaxial Cable	SMA-178	211001	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 Conducted Power Spectral Density (dBm/MHz)				Maximum EIRP Power Spectral Density	
		Chain 0	Chain 1	Total	FCC Limit	Result	RSS-247 Limit
802.11a	5180	-7.02	-7.3	/	13.9	2.08	10.00
	5200	-7.29	-7.33	/	13.9	1.81	10.00
	5240	-7.23	-7.49	/	13.9	1.87	10.00
802.11n ht20	5180	-3.82	-2.50	-0.10	10.9	9.00	10.00
	5200	-4.01	-2.29	-0.06	10.9	9.04	10.00
	5240	-3.33	-1.23	0.86	10.9	9.96	10.00
802.11n ht40	5190	-7.93	-8.57	-5.23	10.9	3.87	10.00
	5230	-6.99	-7.35	-4.16	10.9	4.94	10.00
802.11ac vht80	5210	-9.84	-9.56	-6.69	10.9	2.41	10.00
802.11ax hew20	5180	-4.08	-2.81	-0.39	10.9	8.71	10.00
	5200	-4.28	-2.61	-0.35	10.9	8.75	10.00
	5240	-3.59	-1.55	0.56	10.9	9.66	10.00
802.11ax hew40	5190	-5.35	-8.72	-3.71	10.9	5.39	10.00
	5230	-4.65	-7.58	-2.86	10.9	6.24	10.00
802.11ax hew80	5210	-10.61	-10.80	-7.69	10.9	1.41	10.00

Note:

Duty cycle <98%, duty cycle variations exceed $\pm 2\%$, KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-3 should be applied.

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:

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

Directional gain = $G_{\text{ANT}} + \text{Array Gain} = 9.1 + 10 * \log(2/1) = 12.1$ dBi

5250-5350 MHz:

Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/MHz)			
		Chain 0	Chain 1	Total	Limit
802.11a	5260	-0.95	2.59	/	7.9
	5280	-0.73	2.59	/	7.9
	5320	-0.70	2.98	/	7.9
802.11n ht20	5260	-0.58	-1.38	2.05	4.9
	5280	-0.37	-1.53	2.10	4.9
	5320	-0.36	-1.37	2.17	4.9
802.11n ht40	5270	-3.17	-3.01	-0.08	4.9
	5310	-3.16	-3.28	-0.21	4.9
802.11ac vht80	5290	-6.87	-7.07	-3.96	4.9
802.11ax hew20	5260	0.93	1.98	4.50	4.9
	5280	0.92	1.88	4.44	4.9
	5320	1.09	2.27	4.73	4.9
802.11ax hew40	5270	-3.61	-3.43	-0.51	4.9
	5310	-3.42	-3.46	-0.43	4.9
802.11ax hew80	5290	-5.17	-7.29	-3.09	4.9

Note:

Duty cycle <98%, duty cycle variations exceed $\pm 2\%$, KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-3 should be applied.

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:

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

Directional gain = $G_{\text{ANT}} + \text{Array Gain} = 9.1 + 10 * \log(2/1) = 12.1$ dBi

5470-5725 MHz:

Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/MHz)			
		Chain 0	Chain 1	Total	Limit
802.11a	5500	-0.58	-3.43	/	7.9
	5580	-3.07	-5.44	/	7.9
	5700	-5.55	-3.97	/	7.9
	5720	-5.53	-0.31	/	7.9
802.11n ht20	5500	-3.09	-4.27	-0.63	4.9
	5580	-5.84	-5.59	-2.70	4.9
	5700	-5.27	-3.77	-1.45	4.9
	5720	-5.06	-3.85	-1.40	4.9
802.11n ht40	5510	-7.33	-8.39	-4.82	4.9
	5550	-3.20	-4.64	-0.85	4.9
	5670	-5.57	-3.53	-1.42	4.9
	5710	-4.89	-3.42	-1.08	4.9
802.11ac vht80	5530	-9.67	-10.85	-7.21	4.9
	5610	-11.74	-11.59	-8.65	4.9
	5690	-11.41	-9.95	-7.61	4.9
802.11ax hew20	5500	-3.44	-4.81	-1.06	4.9
	5580	-6.15	-8.28	-4.08	4.9
	5700	-5.52	-7.39	-3.34	4.9
	5720	-5.32	-7.72	-3.35	4.9
802.11ax hew40	5510	-6.46	-7.86	-4.09	4.9
	5550	-6.68	-8.21	-4.37	4.9
	5670	-9.03	-6.99	-4.88	4.9
	5710	-8.34	-9.26	-5.77	4.9
802.11ax hew80	5530	-9.83	-11.90	-7.73	4.9
	5610	-11.97	-13.92	-9.83	4.9
	5690	-11.63	-13.05	-9.27	4.9

Note:

Duty cycle <98%, duty cycle variations exceed $\pm 2\%$, KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-3 should be applied.

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:

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

Directional gain = $G_{\text{ANT}} + \text{Array Gain} = 9.1 + 10 * \log(2/1) = 12.1$ dBi

5725-5850 MHz:

Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/500kHz)			
		Chain 0	Chain 1	Total	Limit
802.11a	5745	-3.47	-5.80	/	26.9
	5785	-3.71	-5.55	/	26.9
	5825	-2.64	-4.62	/	26.9
802.11n ht20	5745	-5.00	-7.18	-2.94	23.9
	5785	-5.14	-6.76	-2.86	23.9
	5825	-5.15	-6.85	-2.91	23.9
802.11n ht40	5755	-6.55	-8.82	-4.53	23.9
	5795	-6.62	-8.31	-4.37	23.9
802.11ac vht80	5775	-10.30	-12.11	-8.10	23.9
802.11ax hew20	5745	-2.94	-5.64	-1.07	23.9
	5785	-2.93	-5.28	-0.94	23.9
	5825	-4.05	-3.15	-0.57	23.9
802.11ax hew40	5755	-4.53	-5.74	-2.08	23.9
	5795	-5.78	-4.19	-1.90	23.9
802.11ax hew80	5775	-9.33	-10.14	-6.71	23.9

Note:

Duty cycle <98%, duty cycle variations exceed $\pm 2\%$, KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-3 should be applied.

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:

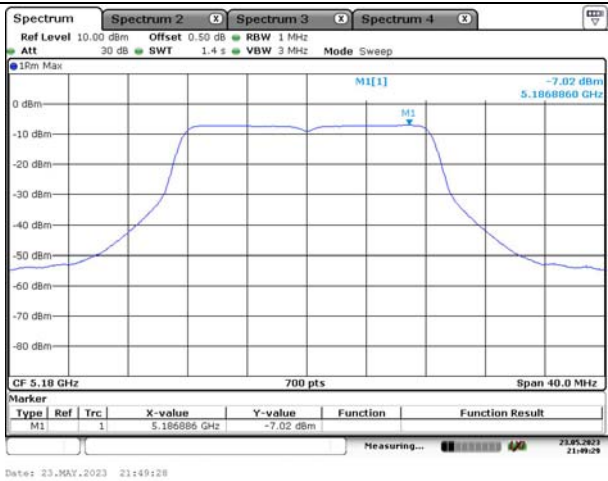
Array Gain = $10 \log(N_{\text{ANT}}/N_{\text{SS}})$ dB

Directional gain = $G_{\text{ANT}} + \text{Array Gain} = 9.1 + 10 * \log(2/1) = 12.1$ dBi

Chain 0:
5150-5250MHz:

Maximum power spectral density

802.11a
Lowest Channel



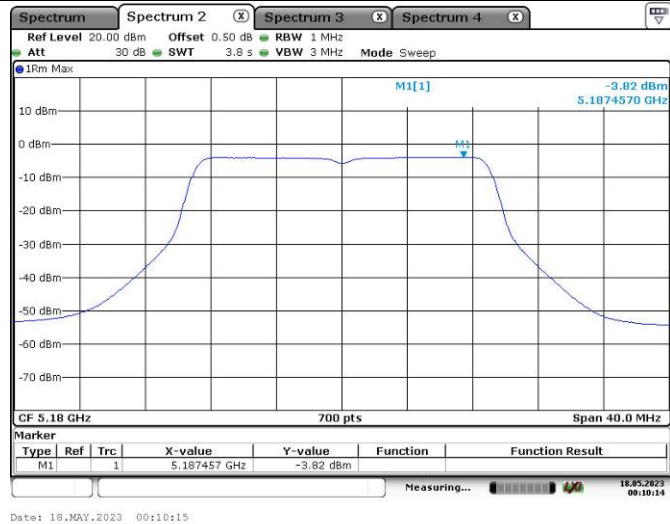
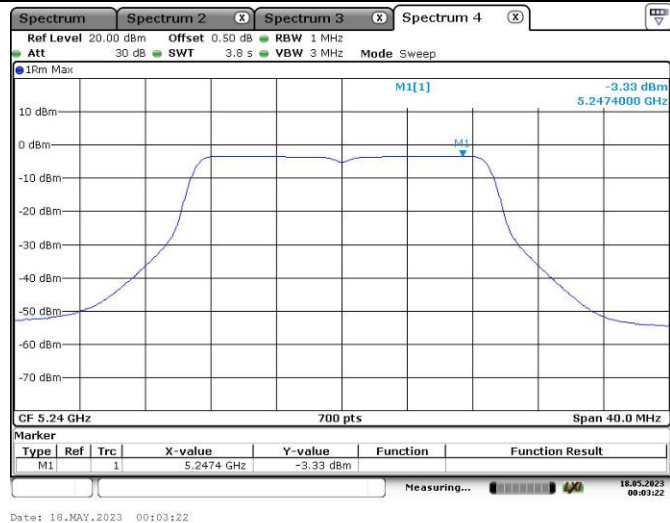
802.11a
Middle Channel



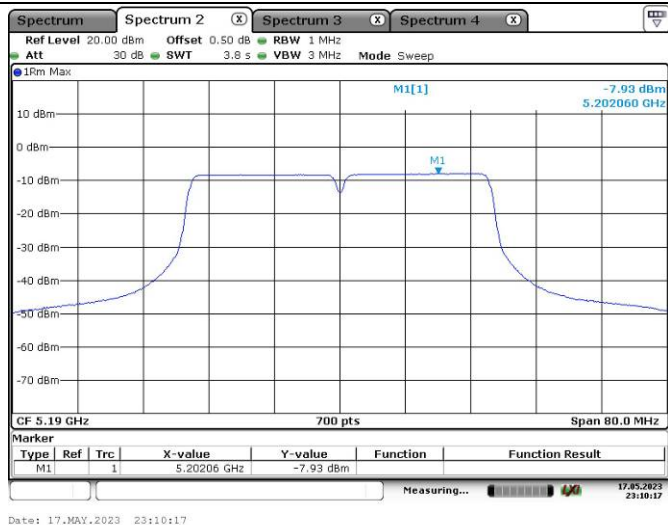
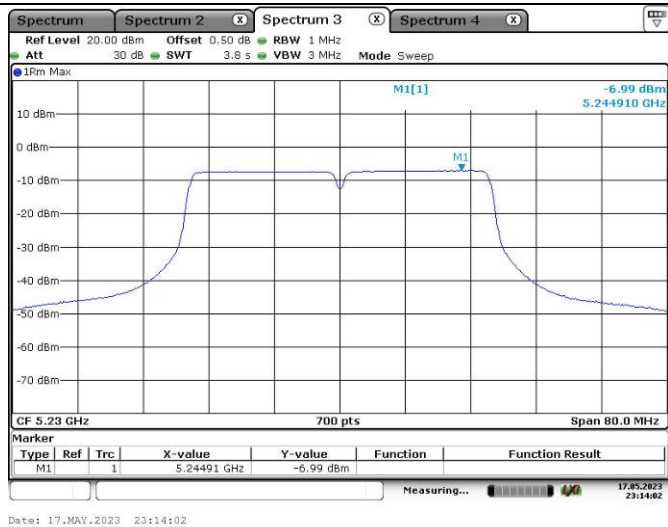
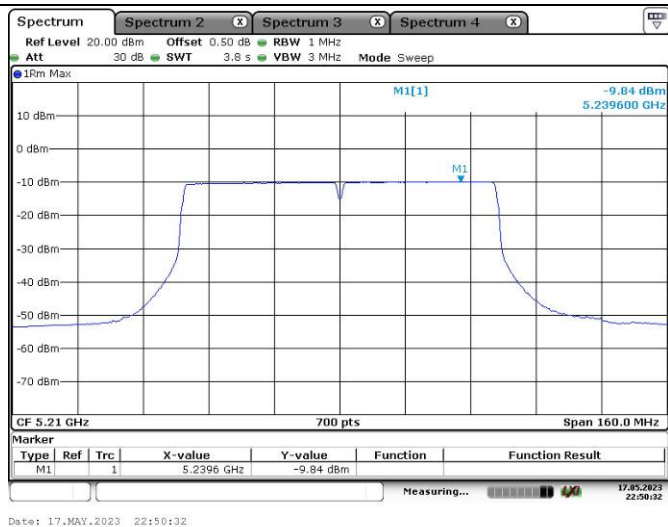
802.11a
Highest Channel



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 Channel802.11ac vht80
Middle Channel

Maximum power spectral density

802.11ax he20
Lowest Channel802.11ax he20
Middle Channel802.11ax he20
Highest Channel