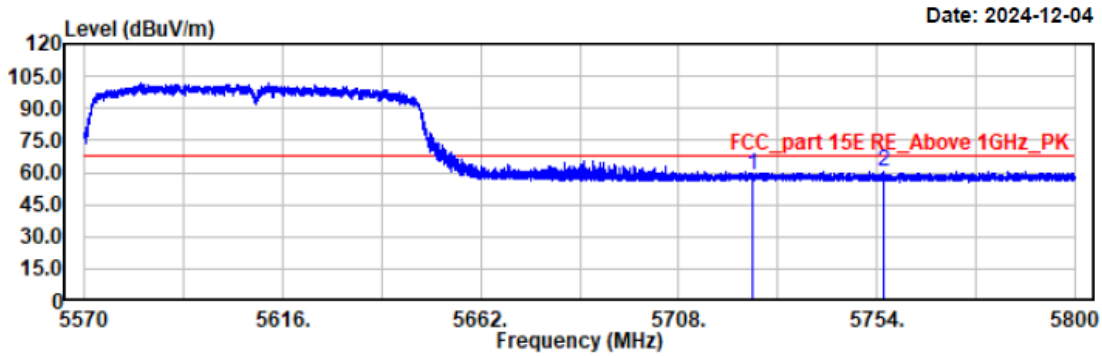
Project No.: XMDN240219-08385E-RF
Test Mode: 11ac80 5610
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE



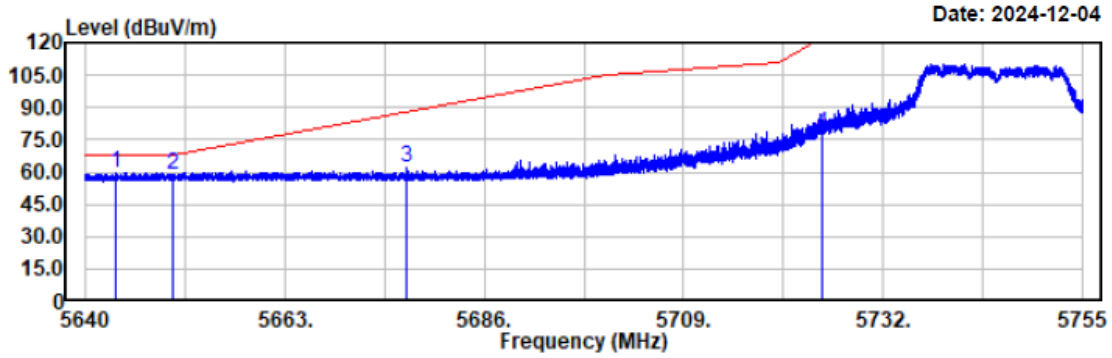
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
5725.00	45.05	13.45	58.50	68.20	9.70	vertical	Peak
5755.56	46.80	13.48	60.28	68.20	7.92	vertical	Peak

Band 4:

Project No.: XMDN240219-08385E-RF
Test Mode: 11a 5745
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE

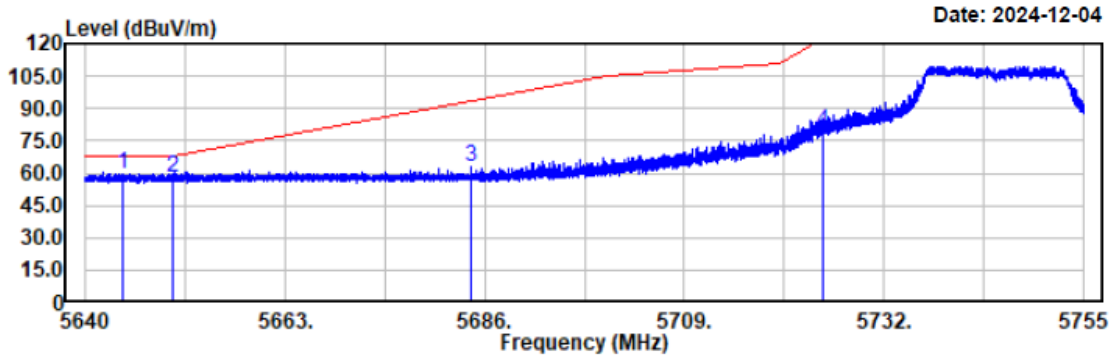


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
5643.40	46.65	13.27	59.92	68.20	8.28	horizontal	Peak
5649.99	45.12	13.28	58.40	68.20	9.80	horizontal	Peak
5676.94	48.58	13.36	61.94	88.13	26.19	horizontal	Peak
5725.00	64.29	13.45	77.74	122.20	44.46	horizontal	Peak

Project No.: XMDN240219-08385E-RF
Test Mode: 11a 5745
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE

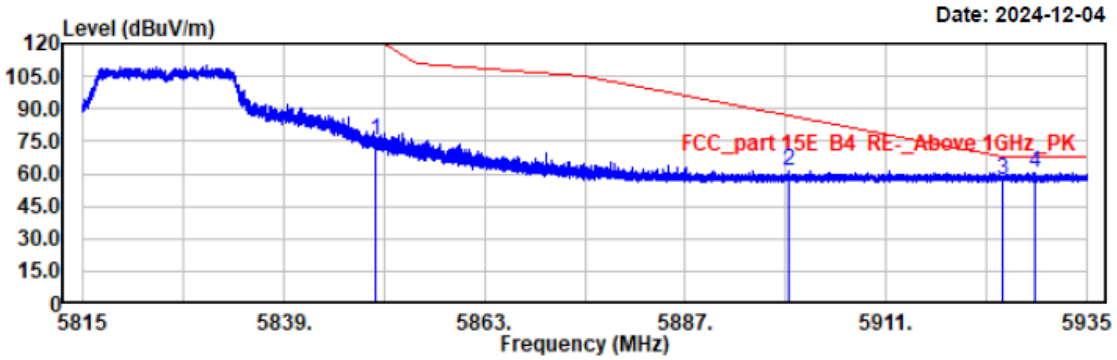


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
5644.20	46.64	13.27	59.91	68.20	8.29	vertical	Peak
5649.99	44.48	13.28	57.76	68.20	10.44	vertical	Peak
5684.42	49.14	13.39	62.53	93.67	31.14	vertical	Peak
5725.00	66.11	13.45	79.56	122.19	42.63	vertical	Peak

Project No.: XMDN240219-08385E-RF
Test Mode: 11a 5825
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE

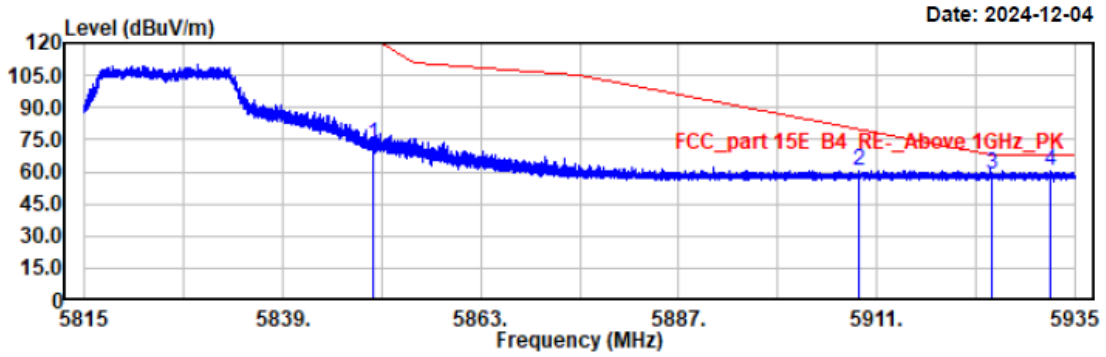


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
5850.00	61.26	13.65	74.91	122.19	47.28	horizontal	Peak
5899.41	47.61	13.69	61.30	87.14	25.84	horizontal	Peak
5925.00	43.73	13.75	57.48	68.20	10.72	horizontal	Peak
5928.78	46.79	13.77	60.56	68.20	7.64	horizontal	Peak

Project No.: XMDN240219-08385E-RF
Test Mode: 11a 5825
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE

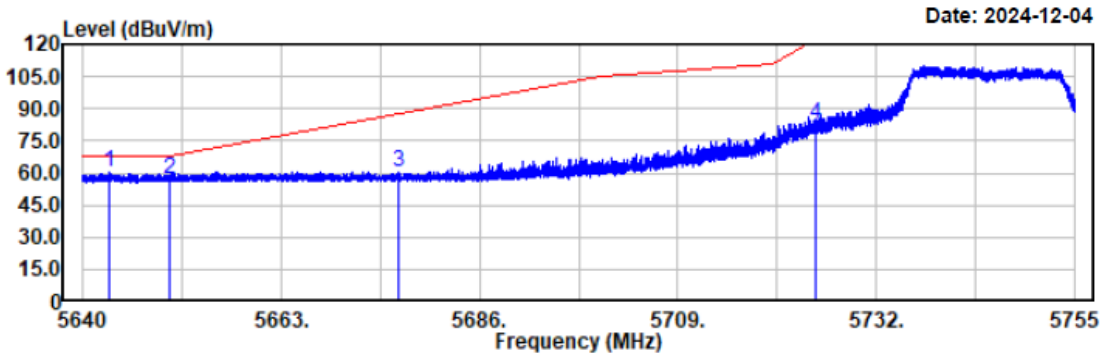


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
5850.00	59.03	13.65	72.68	122.19	49.51	vertical	Peak
5908.80	46.79	13.71	60.50	80.18	19.68	vertical	Peak
5925.00	45.20	13.75	58.95	68.20	9.25	vertical	Peak
5932.13	46.59	13.77	60.36	68.20	7.84	vertical	Peak

Project No.: XMDN240219-08385E-RF
Test Mode: 11n20 5745
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE

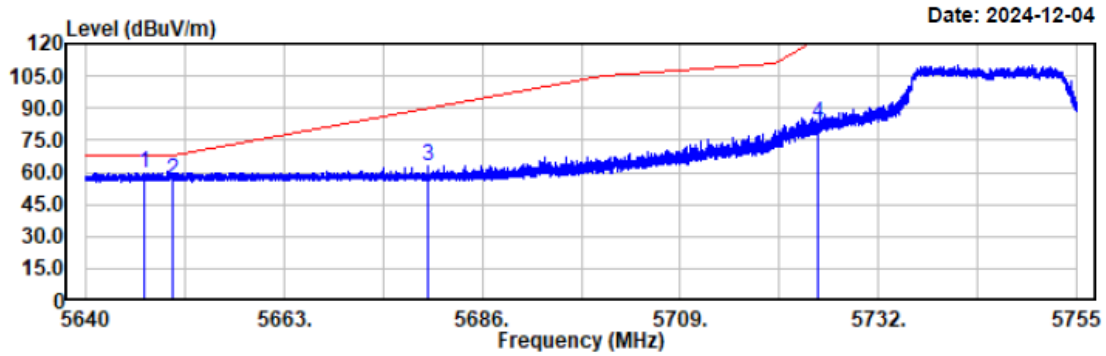


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
5643.13	46.82	13.27	60.09	68.20	8.11	horizontal	Peak
5649.99	43.45	13.28	56.73	68.20	11.47	horizontal	Peak
5676.56	46.70	13.36	60.06	87.85	27.79	horizontal	Peak
5725.00	69.43	13.45	82.88	122.20	39.32	horizontal	Peak

Project No.: XMDN240219-08385E-RF
Test Mode: 11n20 5745
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE

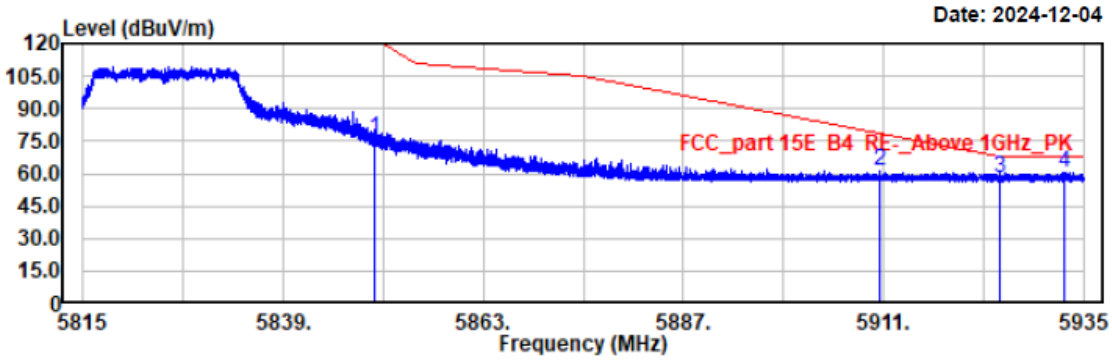


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
5646.83	46.24	13.28	59.52	68.20	8.68	vertical	Peak
5649.99	43.19	13.28	56.47	68.20	11.73	vertical	Peak
5679.71	49.91	13.37	63.28	90.19	26.91	vertical	Peak
5725.00	69.42	13.45	82.87	122.20	39.33	vertical	Peak

Project No.: XMDN240219-08385E-RF
Test Mode: 11n20 5825
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE

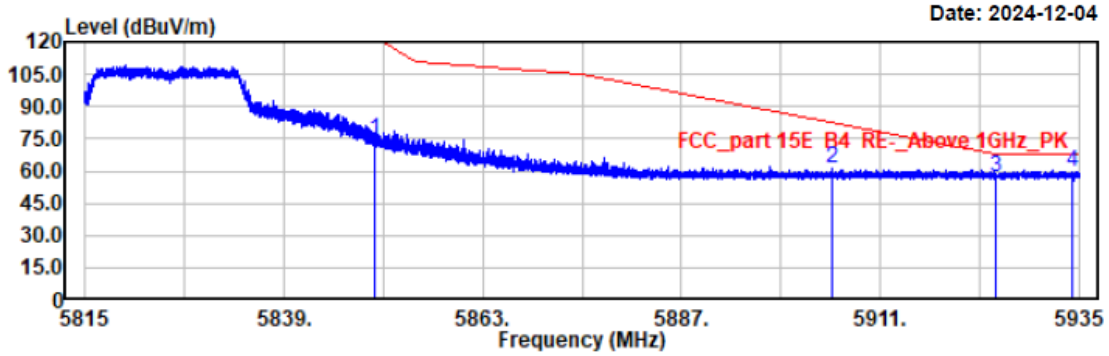


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
5850.00	62.51	13.65	76.16	122.19	46.03	horizontal	Peak
5910.52	47.38	13.72	61.10	78.92	17.82	horizontal	Peak
5925.00	43.82	13.75	57.57	68.20	10.63	horizontal	Peak
5932.73	46.62	13.78	60.40	68.20	7.80	horizontal	Peak

Project No.: XMDN240219-08385E-RF
Test Mode: 11n20 5825
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE

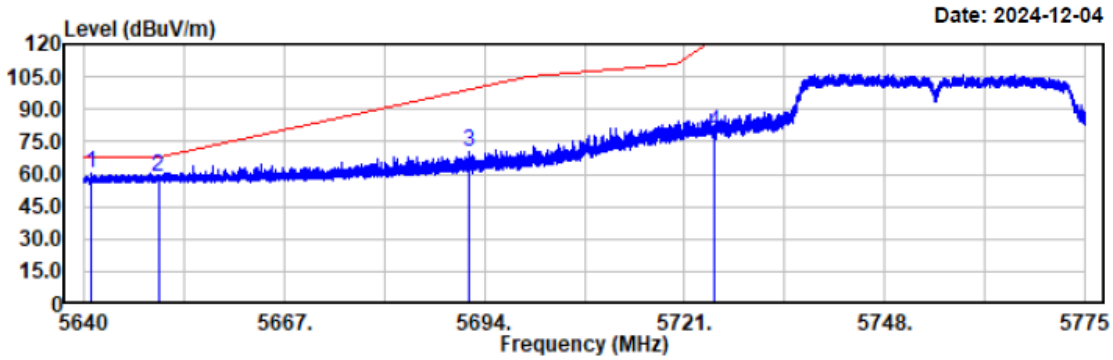


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
5850.00	60.44	13.65	74.09	122.19	48.10	vertical	Peak
5905.19	47.49	13.70	61.19	82.86	21.67	vertical	Peak
5925.00	43.61	13.75	57.36	68.20	10.84	vertical	Peak
5934.15	45.53	13.79	59.32	68.20	8.88	vertical	Peak

Project No.: XMDN240219-08385E-RF
Test Mode: 11n40 5755
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE

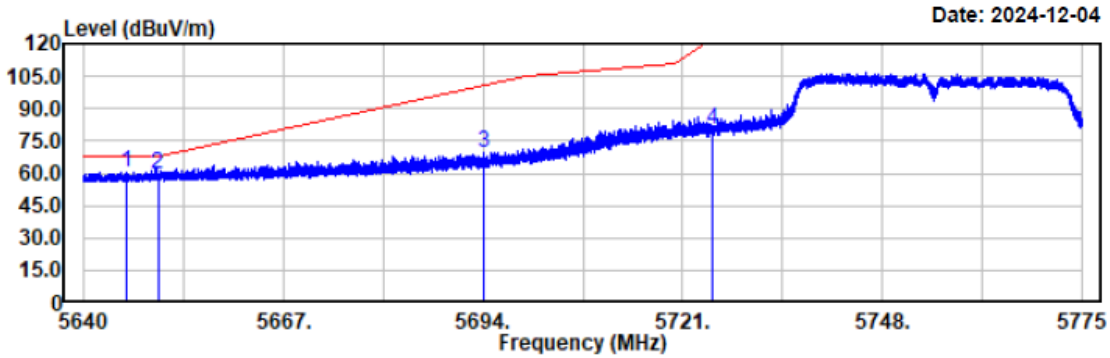


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq	Reading	Factor	Result	Limit	Margin	Polarity	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
5641.00	46.89	13.28	60.17	68.20	8.03	horizontal	Peak
5649.99	45.57	13.28	58.85	68.20	9.35	horizontal	Peak
5692.02	56.54	13.40	69.94	99.29	29.35	horizontal	Peak
5725.00	66.37	13.45	79.82	122.20	42.38	horizontal	Peak

Project No.: XMDN240219-08385E-RF
Test Mode: 11n40 5755
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE

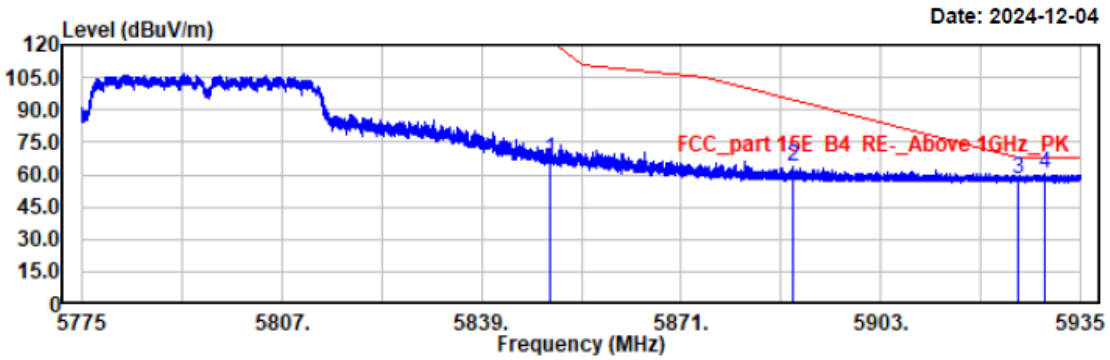


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
5645.74	47.22	13.28	60.50	68.20	7.70	vertical	Peak
5649.99	46.03	13.28	59.31	68.20	8.89	vertical	Peak
5694.14	56.46	13.41	69.87	100.86	30.99	vertical	Peak
5725.00	66.93	13.45	80.38	122.20	41.82	vertical	Peak

Project No.: XMDN240219-08385E-RF
Test Mode: 11n40 5795
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE

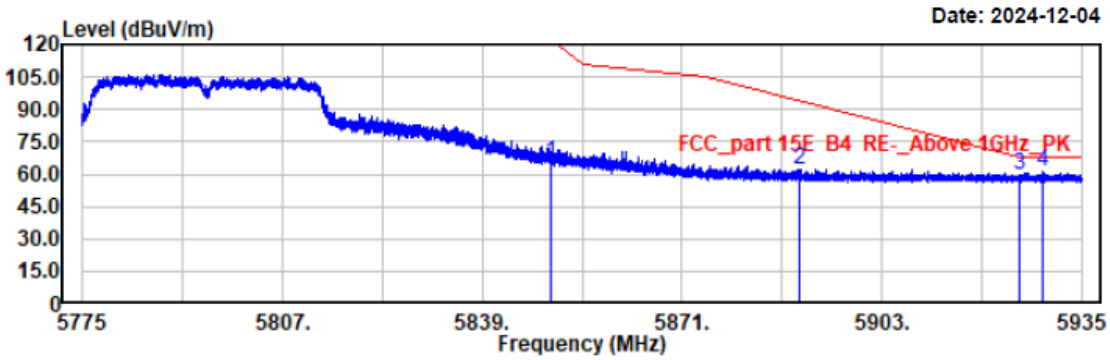


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
5850.00	53.12	13.65	66.77	122.20	55.43	horizontal	Peak
5888.98	49.84	13.68	63.52	94.85	31.33	horizontal	Peak
5925.00	43.89	13.75	57.64	68.20	10.56	horizontal	Peak
5929.38	46.48	13.77	60.25	68.20	7.95	horizontal	Peak

Project No.: XMDN240219-08385E-RF
Test Mode: 11n40 5795
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE

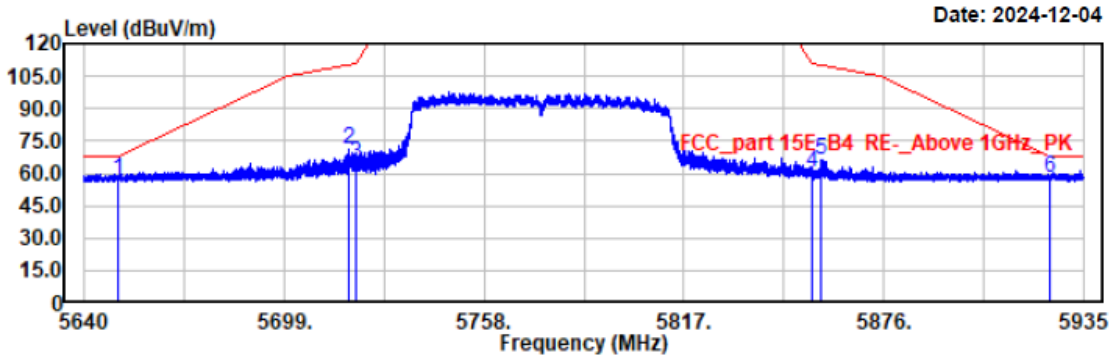


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq	Reading	Factor	Result	Limit	Margin	Polarity	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
5850.01	51.82	13.65	65.47	122.18	56.71	vertical	Peak
5889.90	48.44	13.68	62.12	94.18	32.06	vertical	Peak
5925.00	45.58	13.75	59.33	68.20	8.87	vertical	Peak
5928.74	47.31	13.77	61.08	68.20	7.12	vertical	Peak

Project No.: XMDN240219-08385E-RF
Test Mode: 11ac80 5775
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE

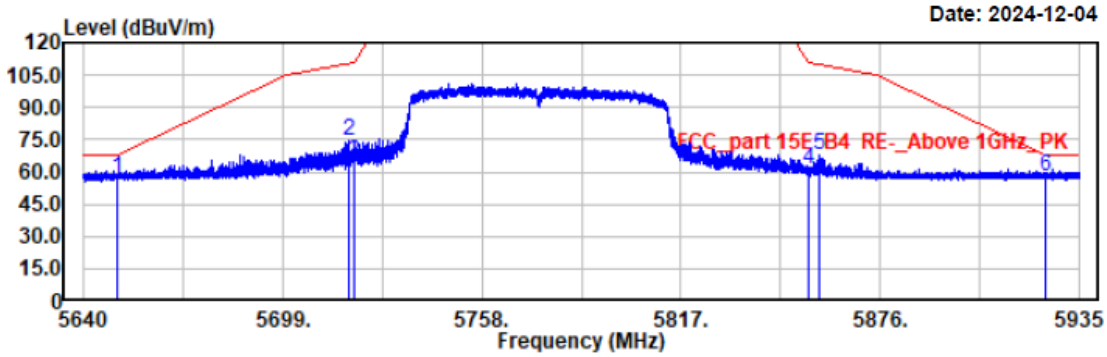


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq	Reading	Factor	Result	Limit	Margin	Polarity	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
5650.00	43.89	13.28	57.17	68.20	11.03	horizontal	Peak
5718.32	57.41	13.44	70.85	110.33	39.48	horizontal	Peak
5720.00	50.72	13.44	64.16	110.80	46.64	horizontal	Peak
5855.00	46.49	13.65	60.14	110.80	50.66	horizontal	Peak
5857.47	52.33	13.66	65.99	110.11	44.12	horizontal	Peak
5925.00	44.08	13.75	57.83	68.20	10.37	horizontal	Peak

Project No.: XMDN240219-08385E-RF
Test Mode: 11ac80 5775
EUT Model: PG71
Test distance: 3m

Temp/Humi/ATM: 21.7℃/49%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 48V from PoE



Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
5650.00	44.21	13.28	57.49	68.20	10.71	vertical	Peak
5718.56	60.82	13.44	74.26	110.40	36.14	vertical	Peak
5720.00	50.88	13.44	64.32	110.80	46.48	vertical	Peak
5855.00	47.83	13.65	61.48	110.80	49.32	vertical	Peak
5858.06	53.85	13.66	67.51	109.94	42.43	vertical	Peak
5925.00	43.91	13.75	57.66	68.20	10.54	vertical	Peak

FCC §15.407(a) &§15.407(e)–EMISSION BANDWIDTH

Applicable Standard

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The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz band is made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Procedure

1. Emission Bandwidth (EBW)

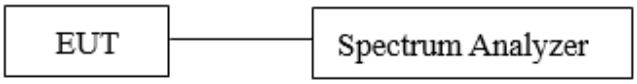
a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

2. **Minimum Emission Bandwidth for the band 5.725-5.85 GHz**

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3 × RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.

g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



Test Data

Test Mode:	Transmitting	Test Engineer:	Jason Hu
Test Date:	2024-06-27	Test Voltage:	DC 12V from Adapter (AC 120V/60Hz)
Test Result:	Compliance	Environment:	Temp.: 24℃ Humi.: 65% Atm :100.2kPa

5150-5250 MHz:

Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180	23.012	16.96
	5200	22.788	16.96
	5240	22.641	16.96
802.11n ht20	5180	23.11	17.96
	5200	23.248	17.96
	5240	23.221	17.96
802.11n ht40	5190	44.285	36.48
	5230	45.484	36.48
802.11ac vht80	5210	85.052	74.72

5250-5350 MHz:

Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5260	23.488	16.96
	5280	24.381	16.96
	5320	22.604	16.96
802.11n ht20	5260	23.285	17.96
	5280	24.186	17.96
	5320	24.084	17.96
802.11n ht40	5270	44.444	36.48
	5310	44.444	36.4
802.11ac vht80	5290	85.052	74.72

5470-5725MHz:

Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5500	22.722	16.92
	5580	23.306	16.96
	5700	25.987	17.04
	5720	28.509	17.04
802.11n ht20	5500	24.326	17.96
	5580	25.154	17.96
	5700	27.496	18.04
	5720	26.316	18.04
802.11n ht40	5510	44.444	36.48
	5550	44.524	36.48
	5670	46.123	36.56
	5710	46.363	36.56
802.11ac vht80	5530	84.412	74.72
	5610	84.253	74.88
	5690	85.532	74.88

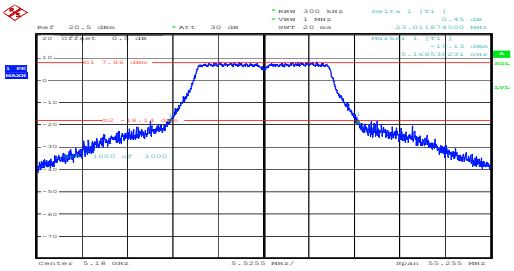
5725-5850 MHz:

Test Modes	Test Frequency (MHz)	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5745	16.427	17.12
	5785	16.467	17.16
	5825	16.427	17.16
802.11n ht20	5745	17.706	18.08
	5785	17.706	18.12
	5825	17.706	18.12
802.11n ht40	5755	35.412	36.56
	5795	35.332	36.64
802.11ac vht80	5775	75.62	74.88
Note:6dB Emission Bandwidth Limit: ≥0.5 MHz			

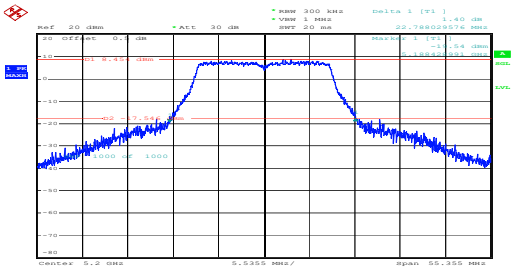
Emission Bandwidth

5.2G

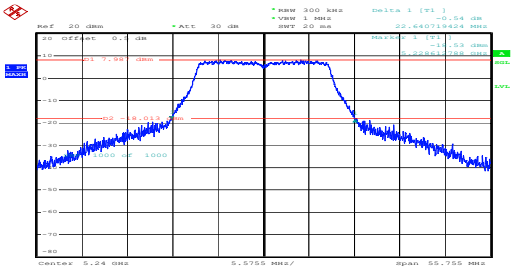
a_5180MHz_Chain 0



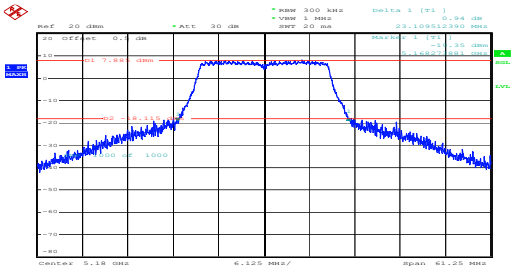
a_5200MHz_Chain 0



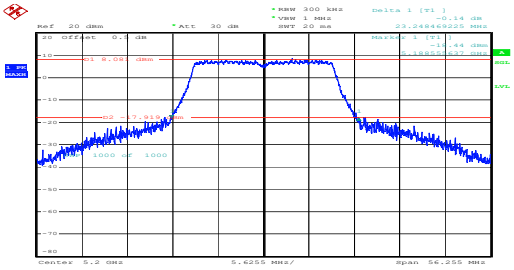
a_5240MHz_Chain 0



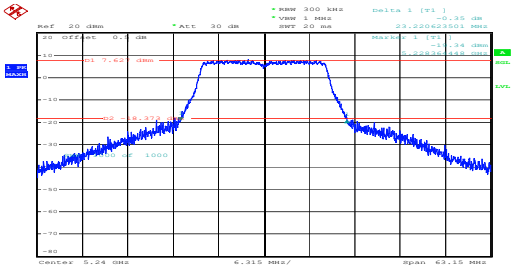
n20_5180MHz_Chain 0



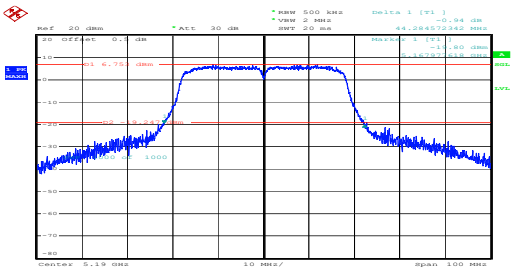
n20_5200MHz_Chain 0



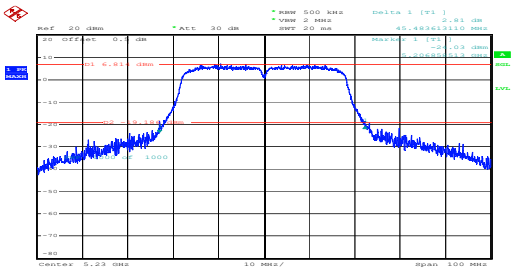
n20_5240MHz_Chain 0



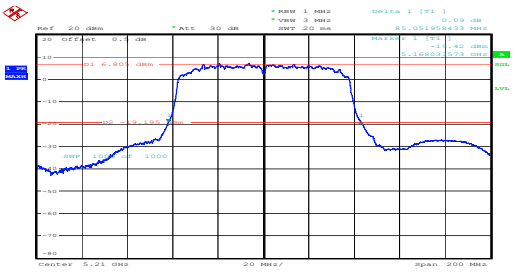
n40_5190MHz_Chain 0



n40_5230MHz_Chain 0

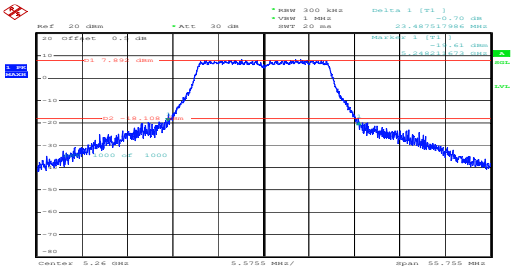


ac80_5210MHz_Chain 0

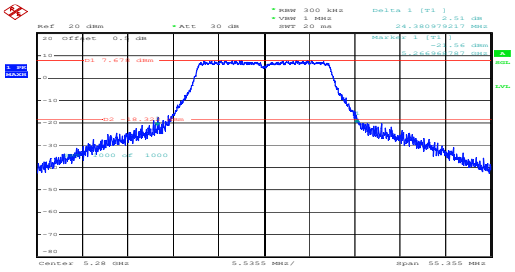


5.3G

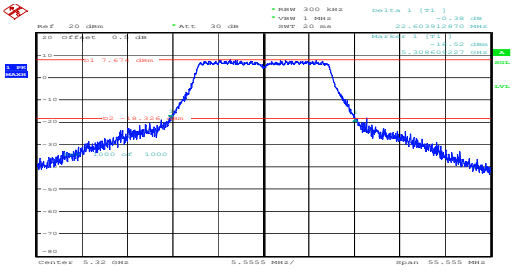
a_5260MHz_Chain 0



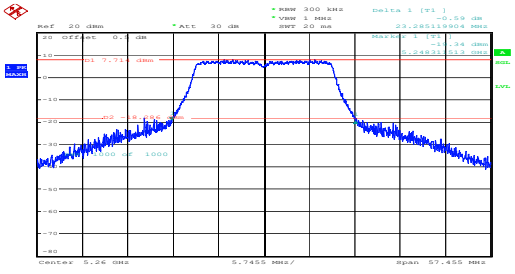
a_5280MHz_Chain 0



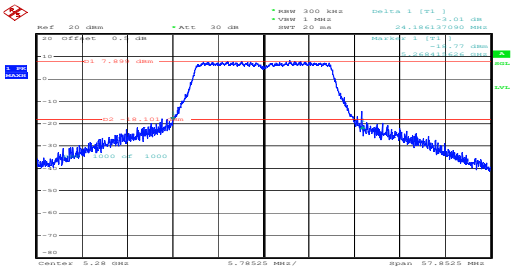
a_5320MHz_Chain 0



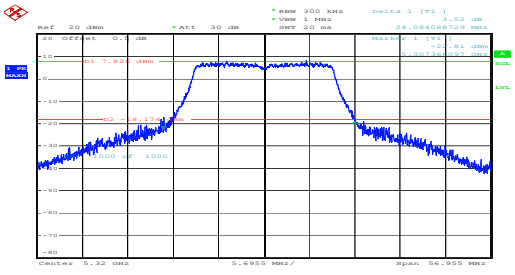
n20_5260MHz_Chain 0



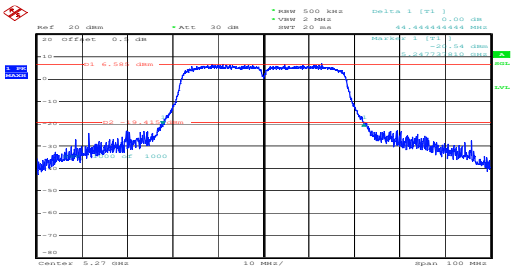
n20_5280MHz_Chain 0



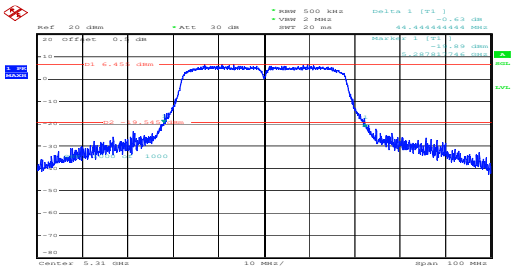
n20_5320MHz_Chain 0



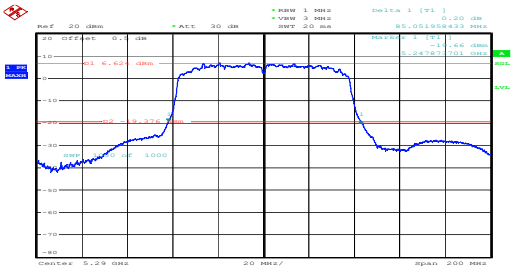
n40_5270MHz_Chain 0



n40_5310MHz_Chain 0

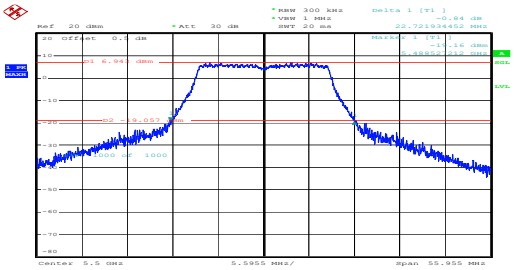


ac80_5290MHz_Chain 0

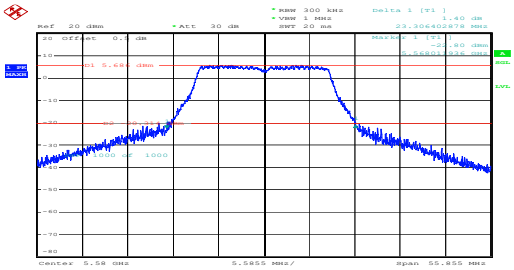


5.6G

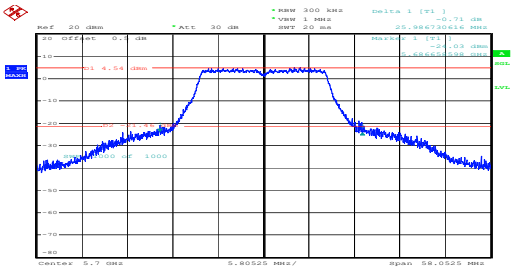
a_5500MHz_Chain 0



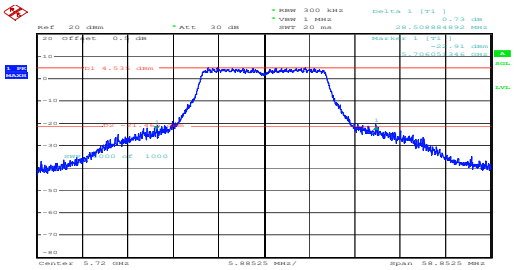
a_5580MHz_Chain 0



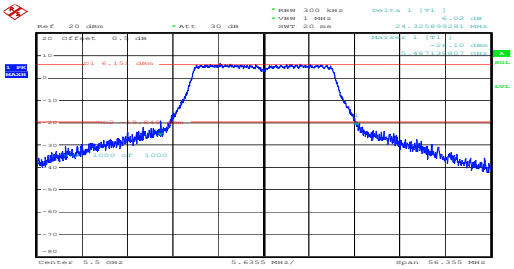
a_5700MHz_Chain 0



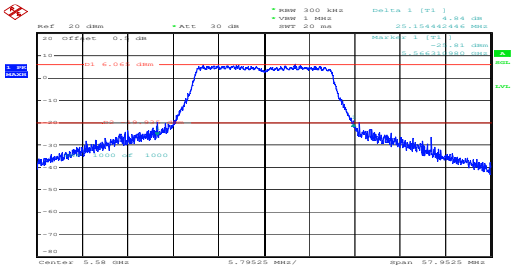
a_5720MHz_Chain 0



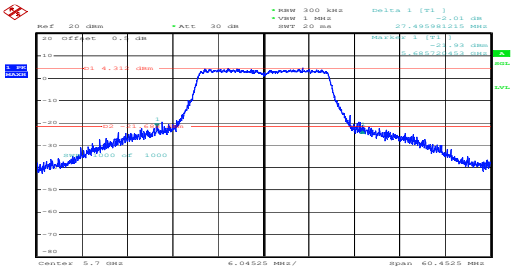
n20_5500MHz_Chain 0



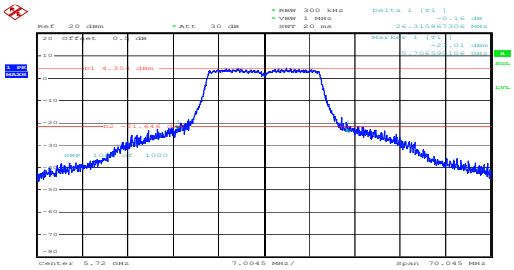
n20_5580MHz_Chain 0



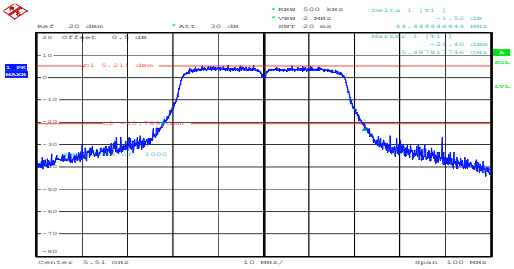
n20_5700MHz_Chain 0



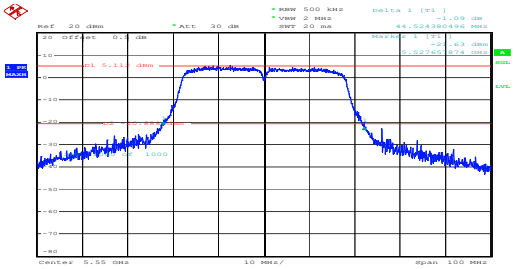
n20_5720MHz_Chain 0



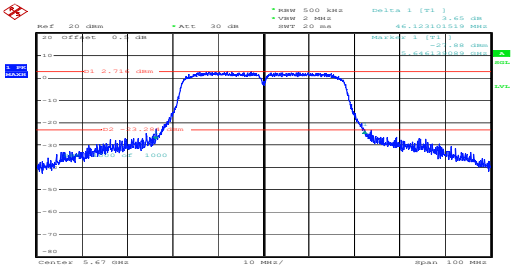
n40_5510MHz_Chain 0



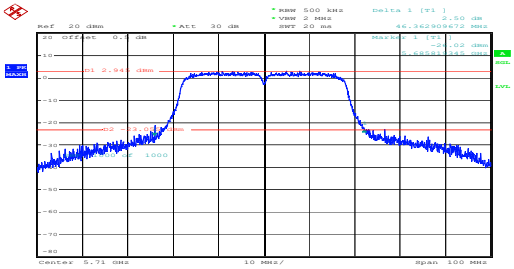
n40_5550MHz_Chain 0



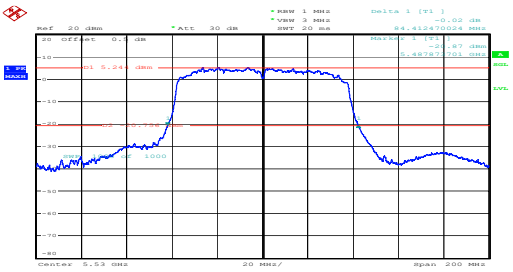
n40_5670MHz_Chain 0



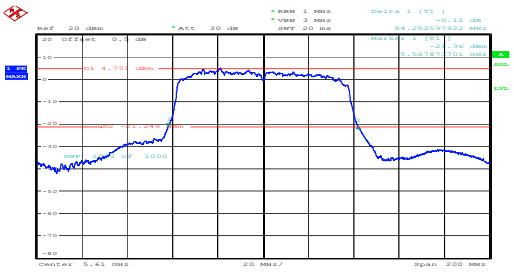
n40_5710MHz_Chain 0



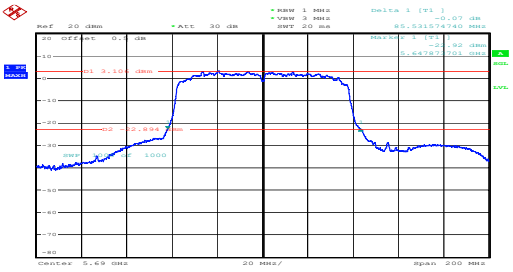
ac80_5530MHz_Chain 0



ac80_5610MHz_Chain 0

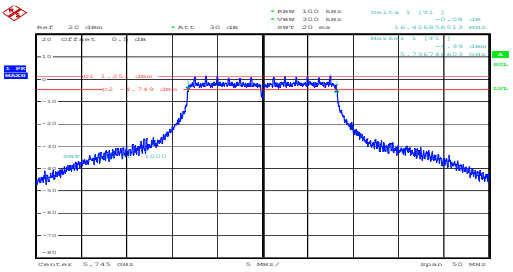


ac80_5690MHz_Chain 0

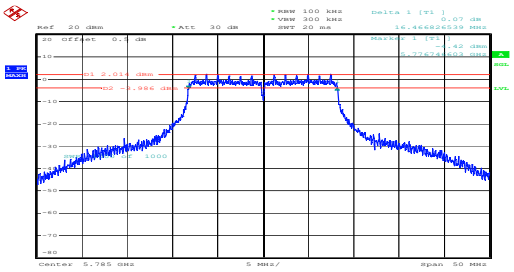


5.8G

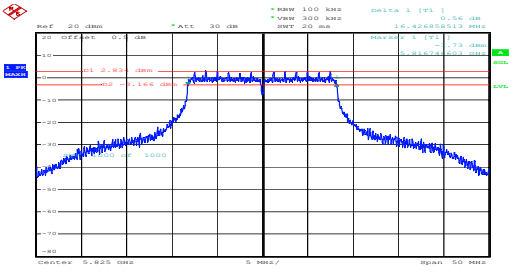
a_5745MHz_Chain 0



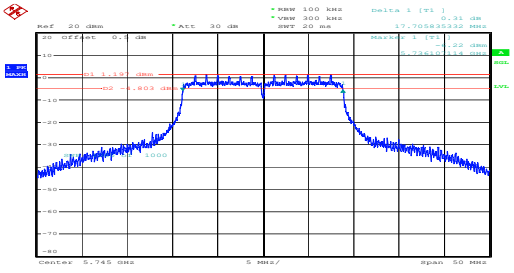
a_5785MHz_Chain 0



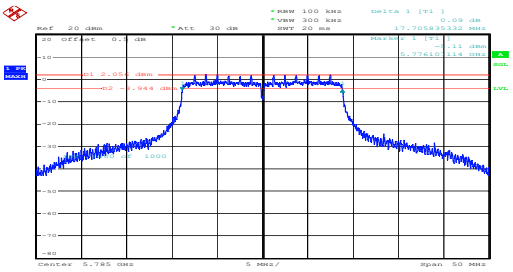
a_5825MHz_Chain 0



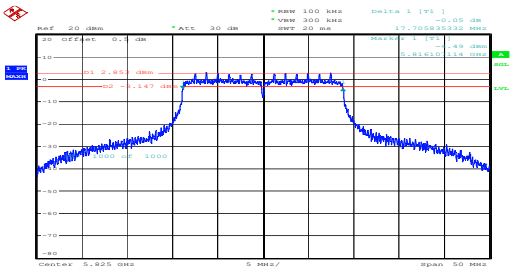
n20_5745MHz_Chain 0



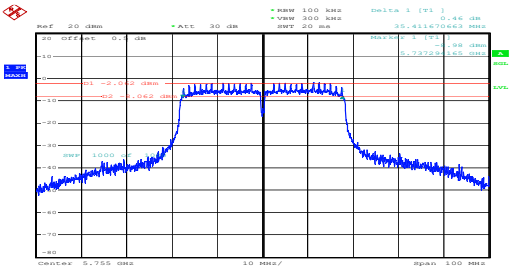
n20_5785MHz_Chain 0



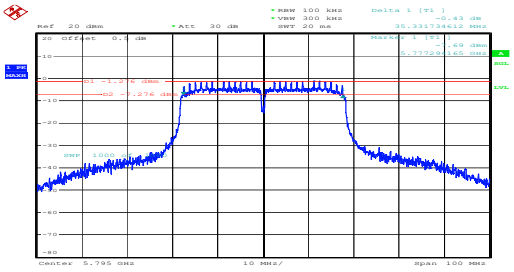
n20_5825MHz_Chain 0



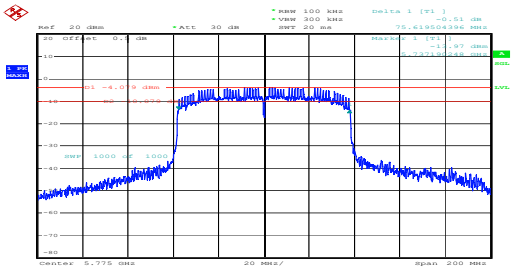
n40_5755MHz_Chain 0



n40_5795MHz_Chain 0



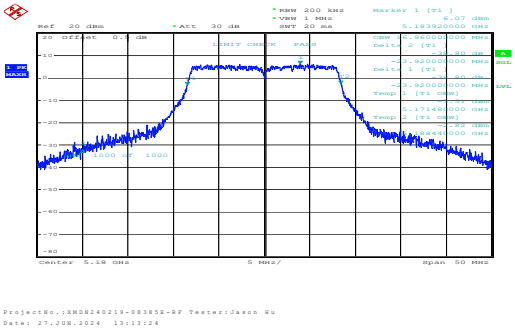
ac80_5775MHz_Chain 0



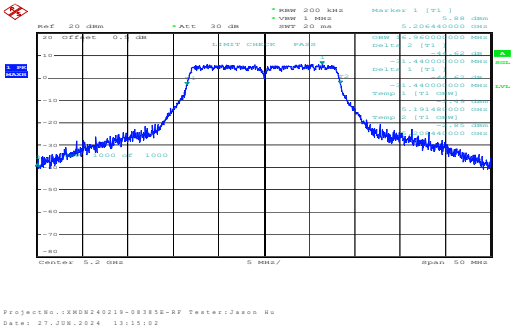
99% Occupied Bandwidth

5.2G

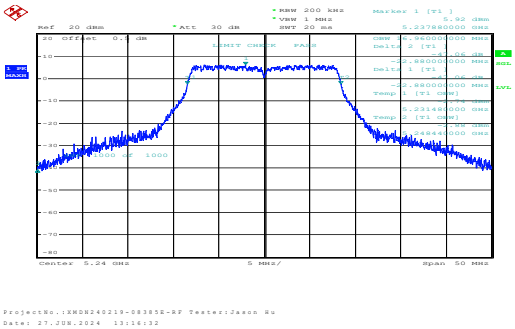
a_5180MHz_Chain 0



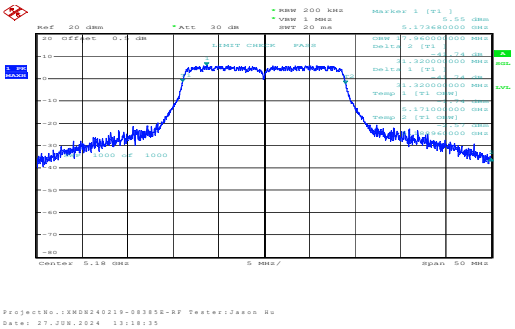
a_5200MHz_Chain 0



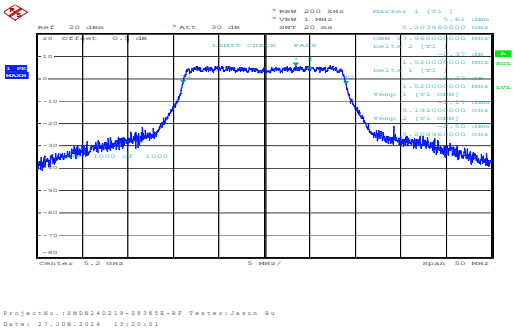
a_5240MHz_Chain 0



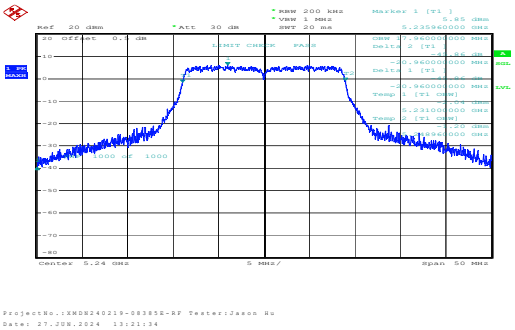
n20_5180MHz_Chain 0



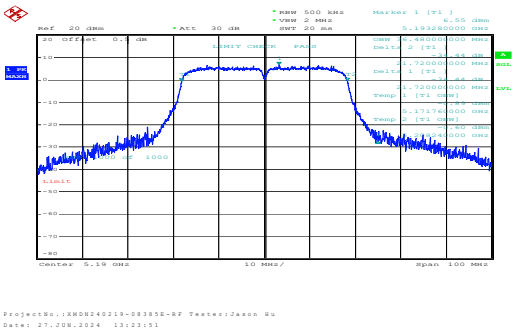
n20_5200MHz_Chain 0



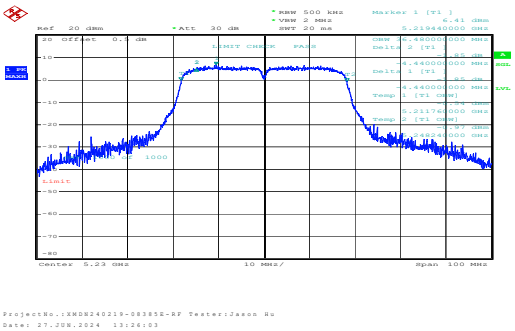
n20_5240MHz_Chain 0



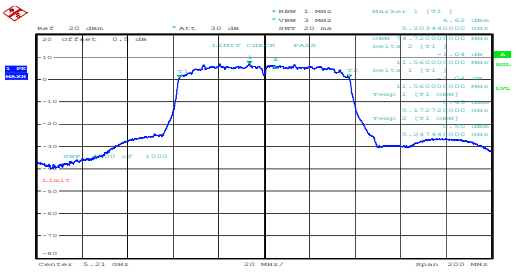
n40_5190MHz_Chain 0



n40_5230MHz_Chain 0

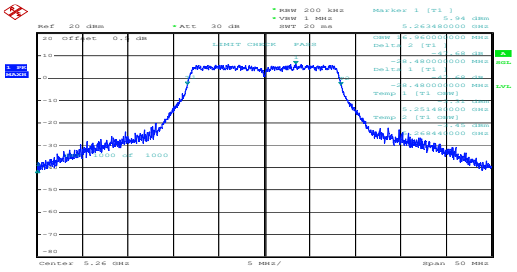


ac80_5210MHz_Chain 0

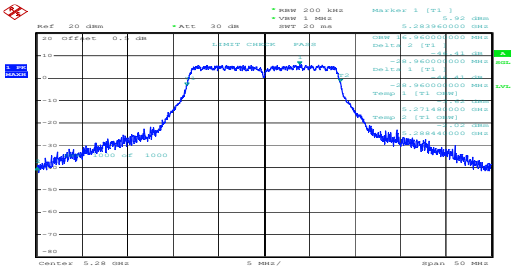


5.3G

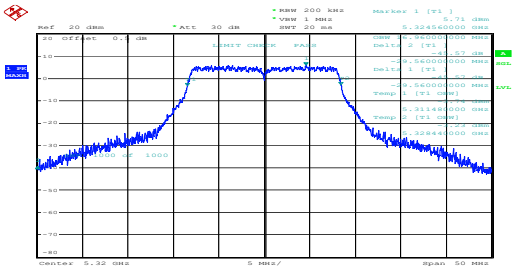
a_5260MHz_Chain 0



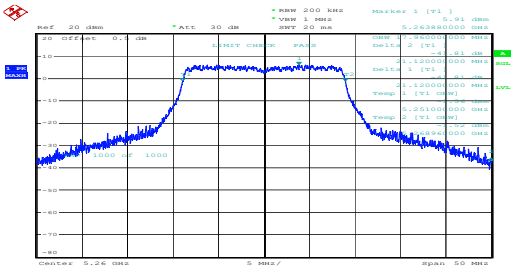
a_5280MHz_Chain 0



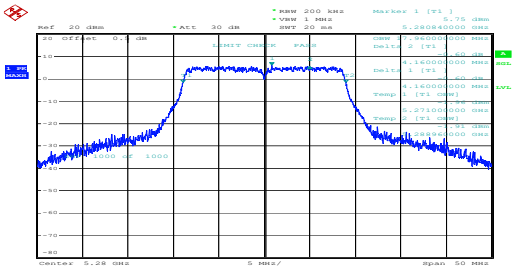
a_5320MHz_Chain 0



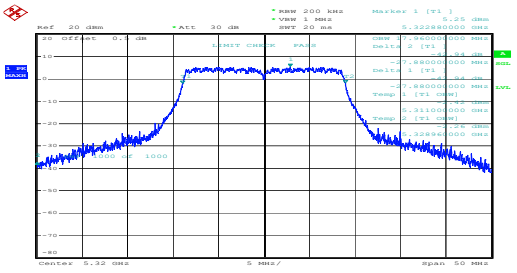
n20_5260MHz_Chain 0



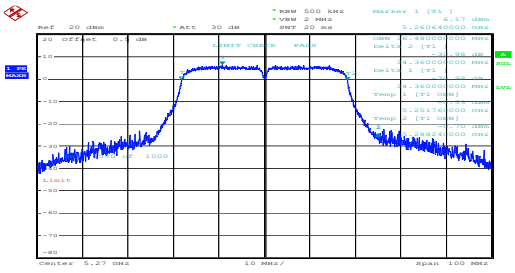
n20_5280MHz_Chain 0



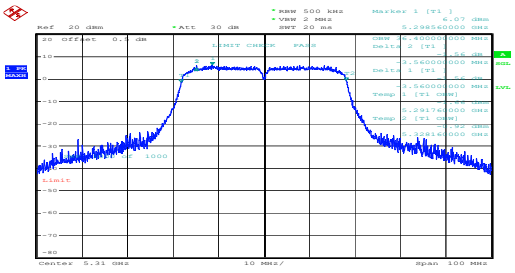
n20_5320MHz_Chain 0



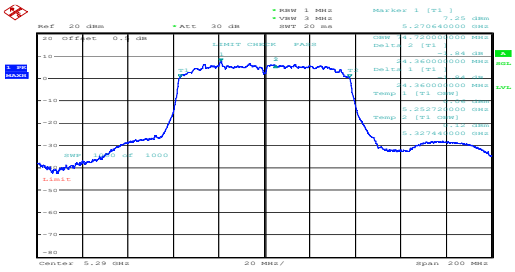
n40_5270MHz_Chain 0



n40_5310MHz_Chain 0

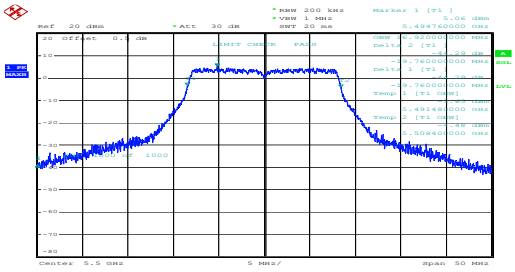


ac80_5290MHz_Chain 0

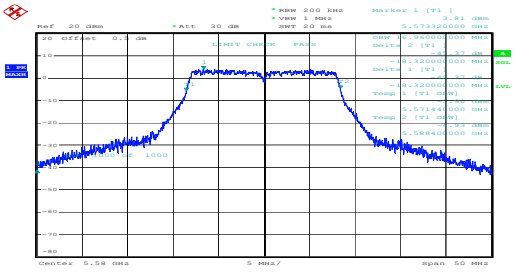


5.6G

a_5500MHz_Chain 0



a_5580MHz_Chain 0



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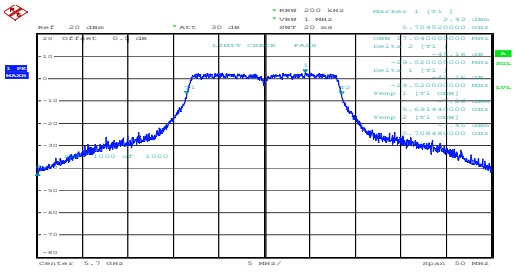

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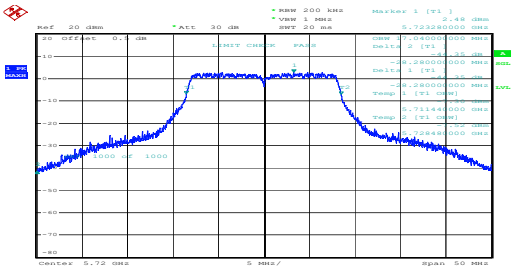

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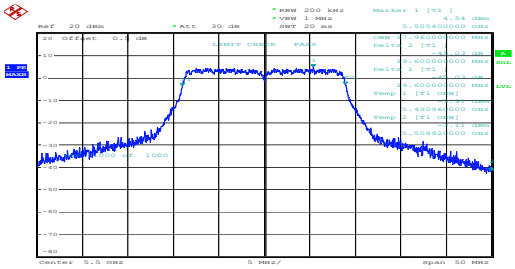

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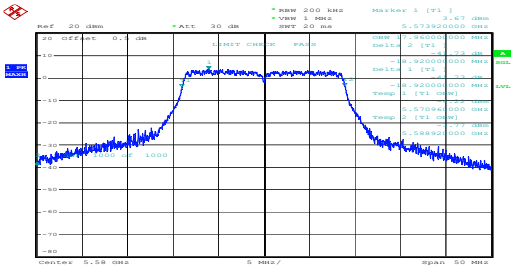

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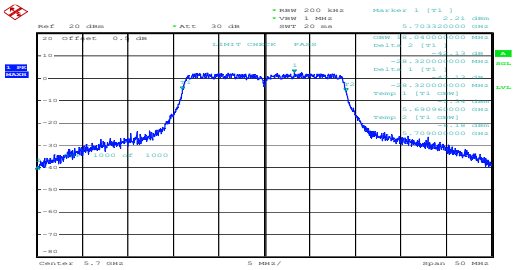

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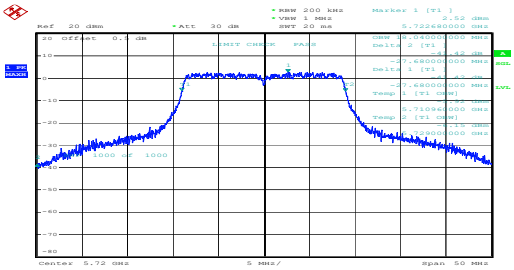

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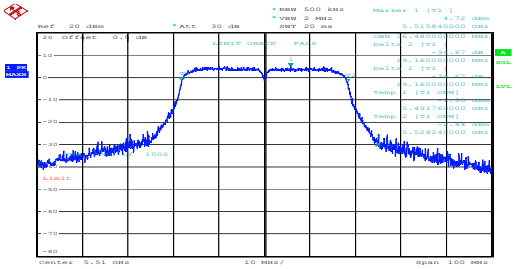

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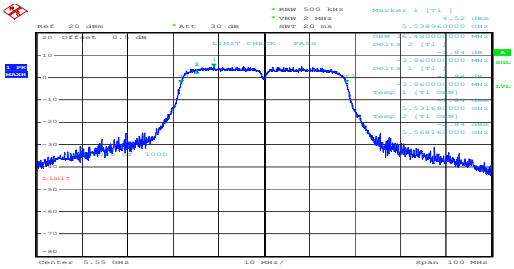

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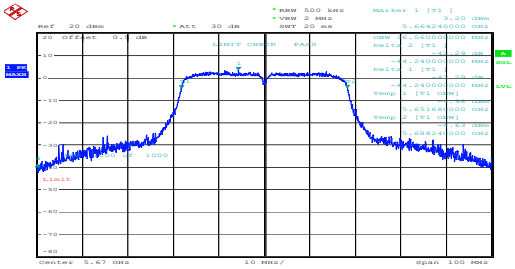

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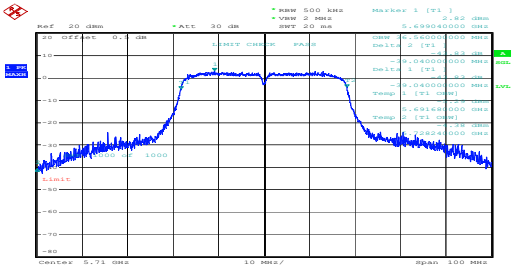

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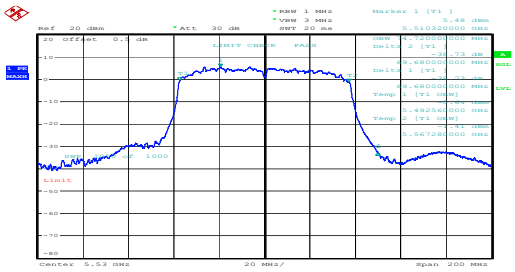

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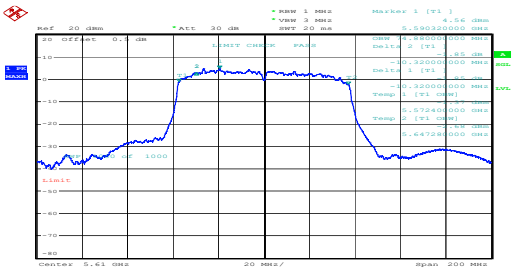
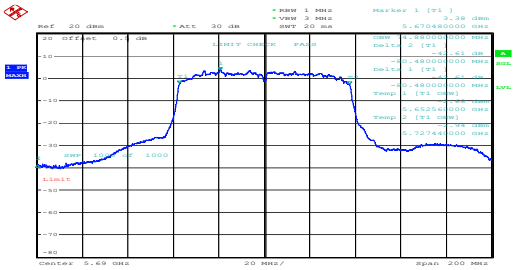
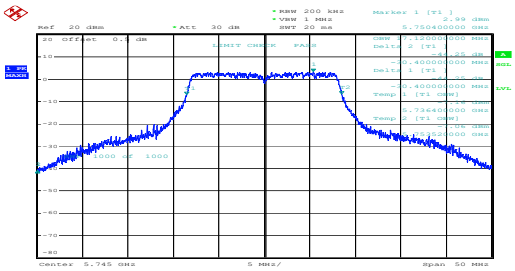


ac80_5690MHz_Chain 0

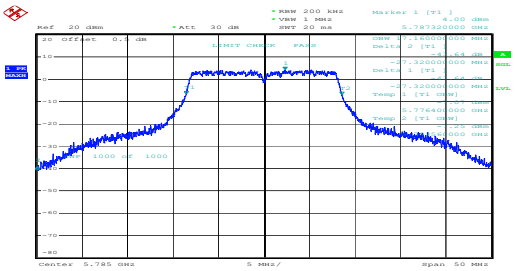


5.8G

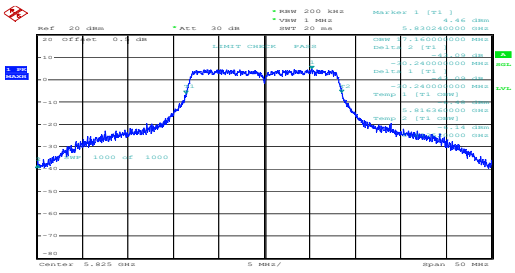
a_5745MHz_Chain 0



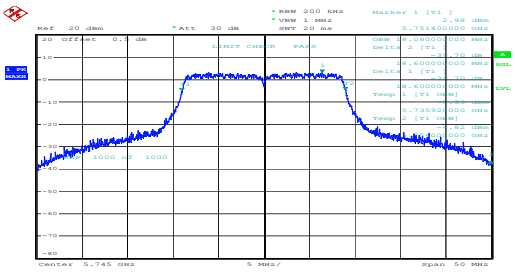
a_5785MHz_Chain 0



a_5825MHz_Chain 0



n20_5745MHz_Chain 0



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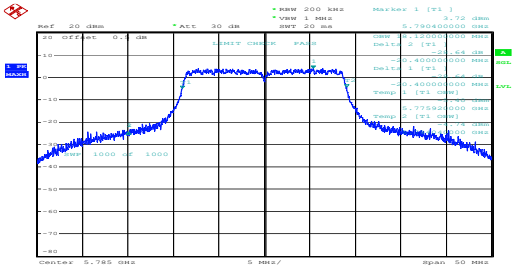

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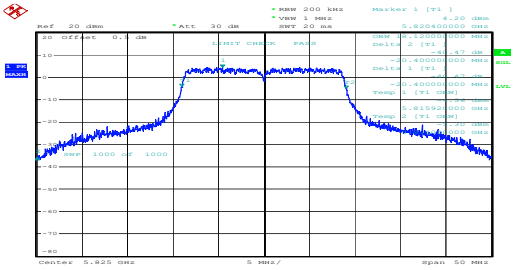

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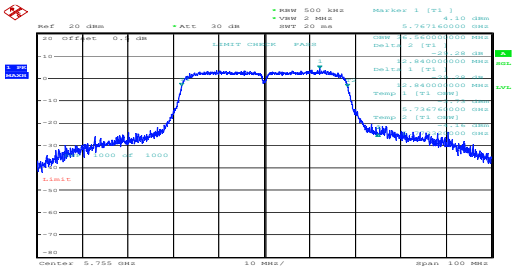
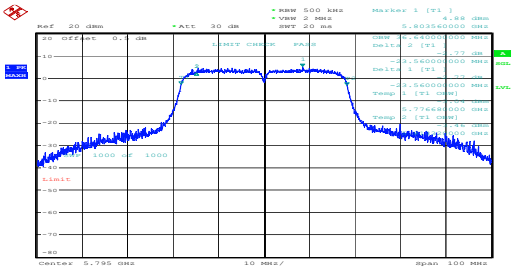
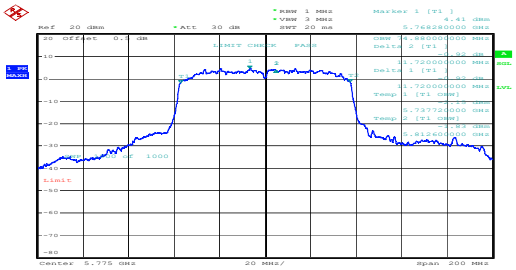


n40_5795MHz_Chain 0



ac80_5775MHz_Chain 0



FCC §15.407(a) (3) – CONDUCTED TRANSMITTER OUTPUT POWER

Applicable Standard

According to §15.407(a) (1)(i)

For an outdoor access point operating in the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30degrees as measured from the horizon must not exceed 125 mW (21 dBm).

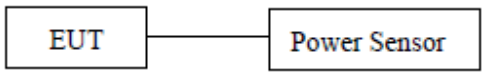
According to §15.407(a) (2)

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 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.

According to §15.407(a) (3)

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.

Test Procedure



Method PM-G is measurement using a gated RF average power meter.

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Because the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

Test Data

Test Mode:	Transmitting	Test Engineer:	Jason Hu
Test Date:	2024-06-27	Test Voltage:	DC 12V from Adapter (AC 120V/60Hz)
Test Result:	Compliance	Environment:	Temp.: 24℃ Humi.: 65% Atm :100.2kPa

5150-5250 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power(dBm)	
		Reading	Limit
802.11a	5180	14.70	24
	5200	16.79	24
	5240	16.67	24
802.11n ht20	5180	14.95	24
	5200	15.95	24
	5240	15.70	24
802.11n ht40	5190	11.97	24
	5230	12.62	24
802.11ac vht80	5210	10.43	24

5250-5350 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power(dBm)	
		Reading	Limit
802.11a	5260	16.59	24
	5280	16.40	24
	5320	16.19	24
802.11n ht20	5260	15.58	24
	5280	15.48	24
	5320	15.09	24
802.11n ht40	5270	13.41	24
	5310	13.09	24
802.11ac vht80	5290	9.99	24

5470-5725MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power(dBm)	
		Reading	Limit
802.11a	5500	13.83	24
	5580	13.06	24
	5700	10.12	24
	5720	12.01	24
802.11n ht20	5500	12.73	24
	5580	11.87	24
	5700	10.78	24
	5720	10.72	24
802.11n ht40	5510	11.14	24
	5550	11.63	24
	5670	10.41	24
	5710	10.24	24
802.11ac vht80	5530	8.15	24
	5610	8.54	24
	5690	7.77	24

5725-5850 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power(dBm)	
		Reading	Limit
802.11a	5745	14.92	30
	5785	15.28	30
	5825	15.92	30
802.11n ht20	5745	14.36	30
	5785	14.64	30
	5825	15.15	30
802.11n ht40	5755	11.96	30
	5795	12.41	30
802.11ac vht80	5775	9.41	30

FCC §15.407(a) (3) - POWER SPECTRAL DENSITY

Applicable Standard

According to §15.407(a) (3)

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.

Test Procedure

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

Test Data

Test Mode:	Transmitting	**Test Engineer:**	Jason Hu
Test Date:	2024-06-28	**Test Voltage:**	DC 12V from Adapter (AC 120V/60Hz)
Test Result:	Compliance	**Environment:**	Temp.: 24℃ Humi.: 65% Atm :100.2kPa

5150-5250 MHz:

Test Modes	Test Frequency (MHz)	Reading (dBm/MHz)	Duty Cycle Factor (dB)	Maximum Power Spectral Density (dBm/MHz)	
				Result	Limit
802.11a	5180	4.52	0.59	5.11	11
	5200	6.98	0.59	7.57	11
	5240	6.51	0.59	7.10	11
802.11n ht20	5180	3.91	0.63	4.54	11
	5200	5.52	0.63	6.15	11
	5240	5.33	0.63	5.96	11
802.11n ht40	5190	-1.7	1.19	-0.51	11
	5230	-0.19	1.19	1.00	11
802.11ac vht80	5210	-5.42	2.62	-2.80	11

5250-5350 MHz:

Test Modes	Test Frequency (MHz)	Reading (dBm/MHz)	Duty Cycle Factor (dB)	Maximum Power Spectral Density (dBm/MHz)	
				Result	Limit
802.11a	5260	6.41	0.76	7.17	11
	5280	6.46	0.76	7.22	11
	5320	6.04	0.76	6.80	11
802.11n ht20	5260	5.38	0.81	6.19	11
	5280	5.11	0.81	5.92	11
	5320	4.82	0.81	5.63	11
802.11n ht40	5270	1.17	1.50	2.67	11
	5310	0.54	1.50	2.04	11
802.11ac vht80	5290	-5.8	2.67	-3.13	11

5470-5725MHz:

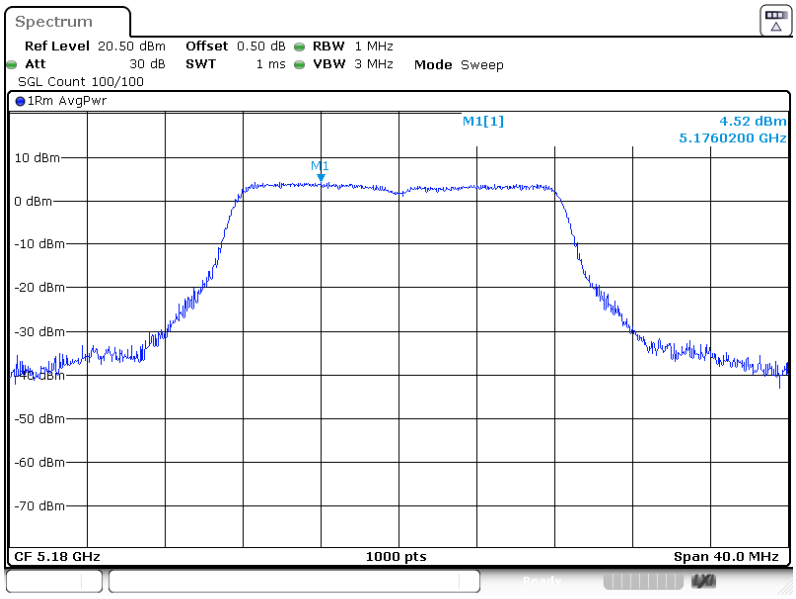
Test Modes	Test Frequency (MHz)	Reading (dBm/MHz)	Duty Cycle Factor (dB)	Maximum Power Spectral Density (dBm/MHz)	
				Result	Limit
802.11a	5500	5.24	0.76	6.00	11
	5580	4.08	0.76	4.84	11
	5700	1.19	0.76	1.95	11
	5720	2.64	0.76	3.40	11
802.11n ht20	5500	2.78	0.81	3.59	11
	5580	1.63	0.81	2.44	11
	5700	-0.59	0.81	0.22	11
	5720	-1.02	0.81	-0.21	11
802.11n ht40	5510	-0.44	1.52	1.08	11
	5550	0.1	1.52	1.62	11
	5670	-1.56	1.52	-0.04	11
	5710	-1.62	1.52	-0.10	11
802.11ac vht80	5530	-7.39	2.62	-4.77	11
	5610	-7.35	2.62	-4.73	11
	5690	-7.26	2.62	-4.64	11

5725-5850 MHz:

Test Modes	Test Frequency (MHz)	Reading (dBm/500kHz)	Duty Cycle Factor (dB)	Maximum Power Spectral Density (dBm/500kHz)	
				Result	Limit
802.11a	5745	2.45	0.76	3.21	30
	5785	2.81	0.76	3.57	30
	5825	3.73	0.76	4.49	30
802.11n ht20	5745	1.57	0.81	2.38	30
	5785	1.88	0.81	2.69	30
	5825	2.22	0.81	3.03	30
802.11n ht40	5755	-3.38	1.50	-1.88	30
	5795	-3.07	1.50	-1.57	30
802.11ac vht80	5775	-8.06	2.62	-5.44	30

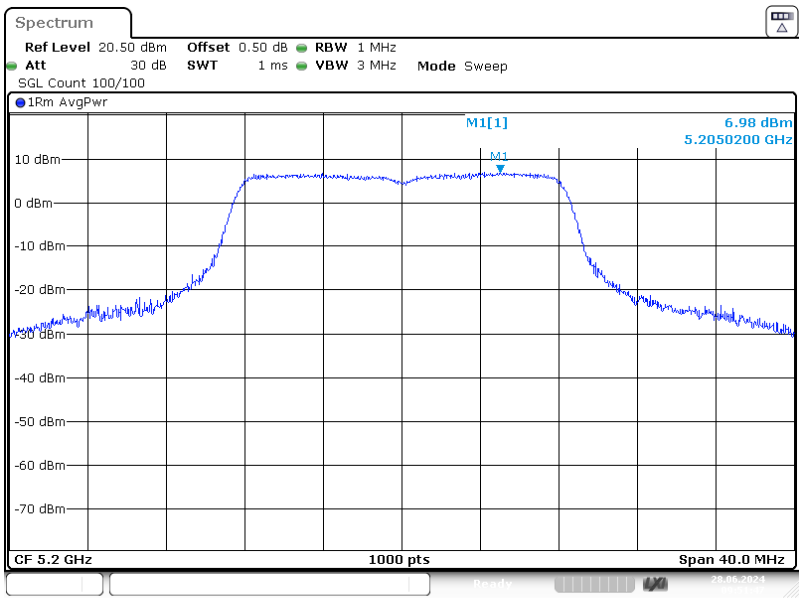
5.2G

a_5180MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 13:24:54

a_5200MHz_Chain 0



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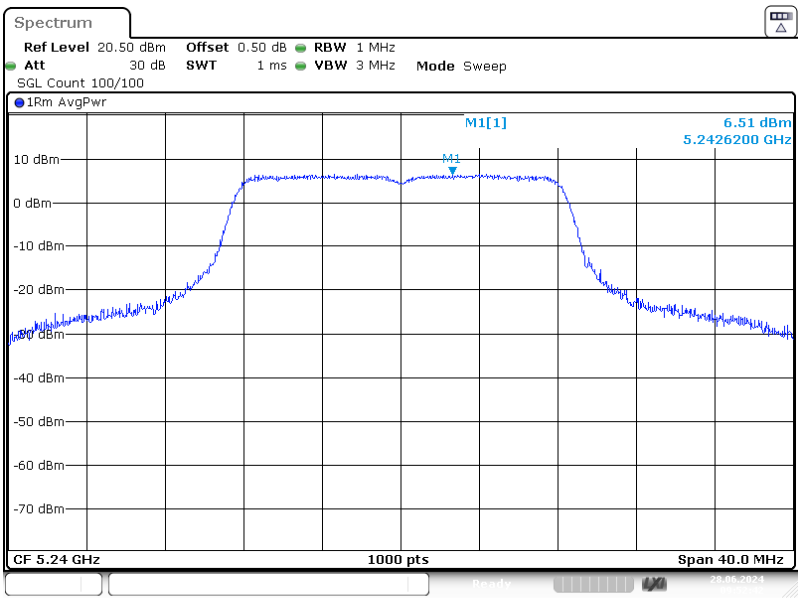
Date: 28.JUN.2024 09:51:47

a_5240MHz_Chain 0



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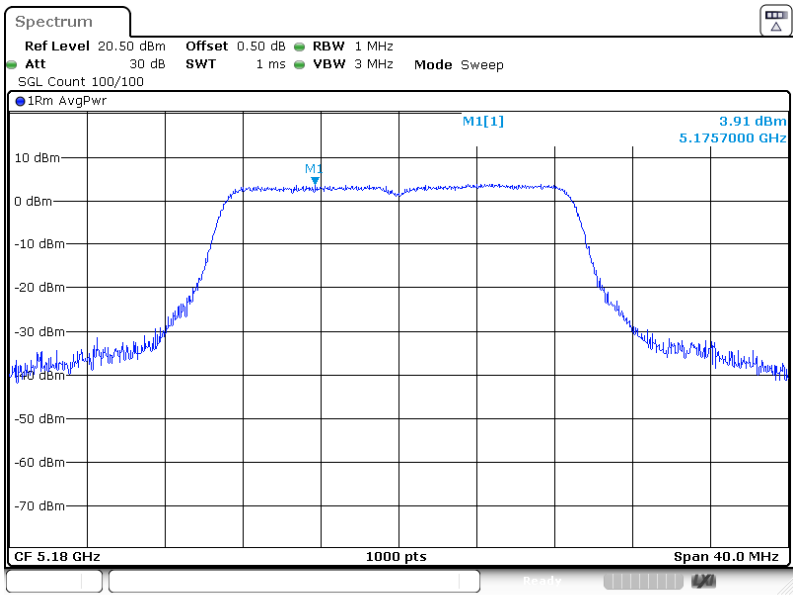
Date: 28.JUN.2024 09:52:41

n20_5180MHz_Chain 0



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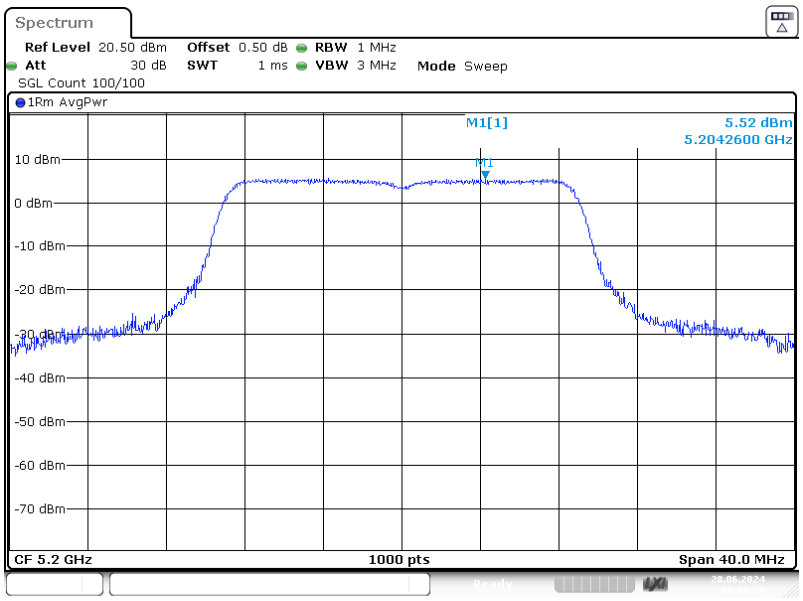
Date: 28.JUN.2024 13:30:37

n20_5200MHz_Chain 0



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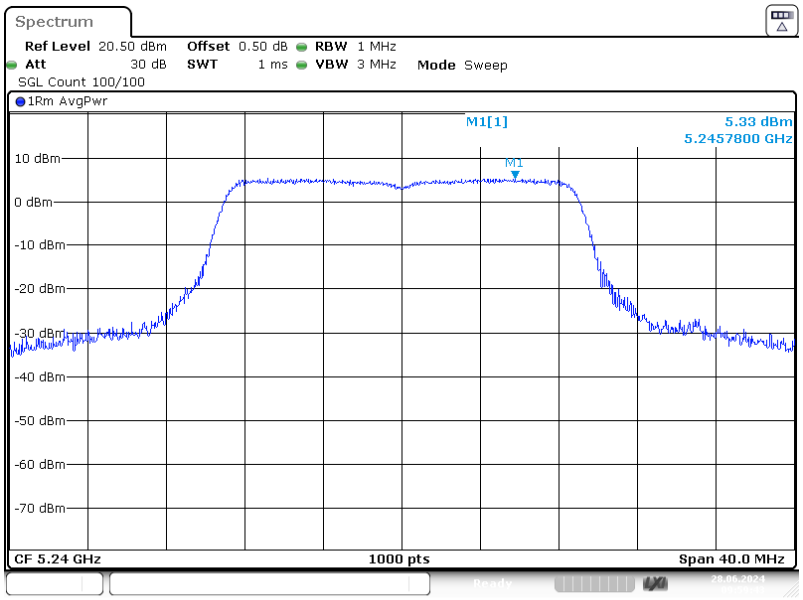
Date: 28.JUN.2024 09:59:20

n20_5240MHz_Chain 0



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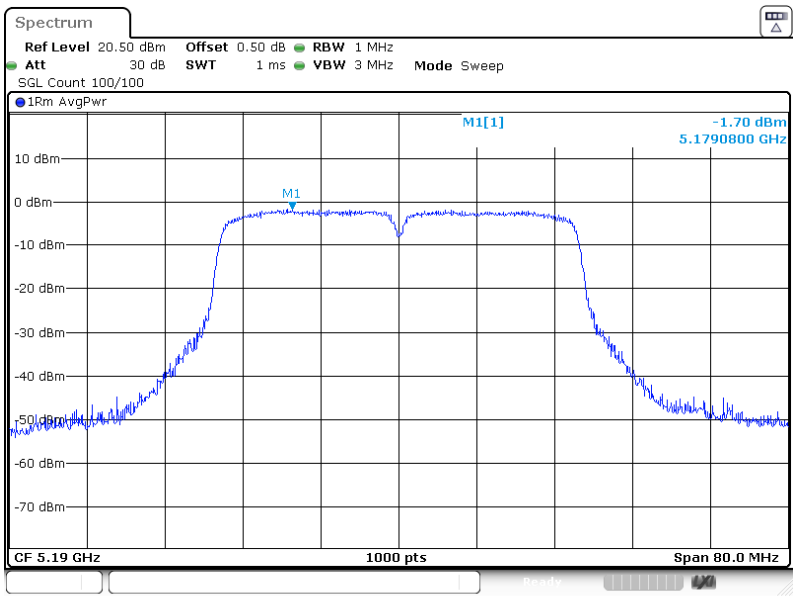
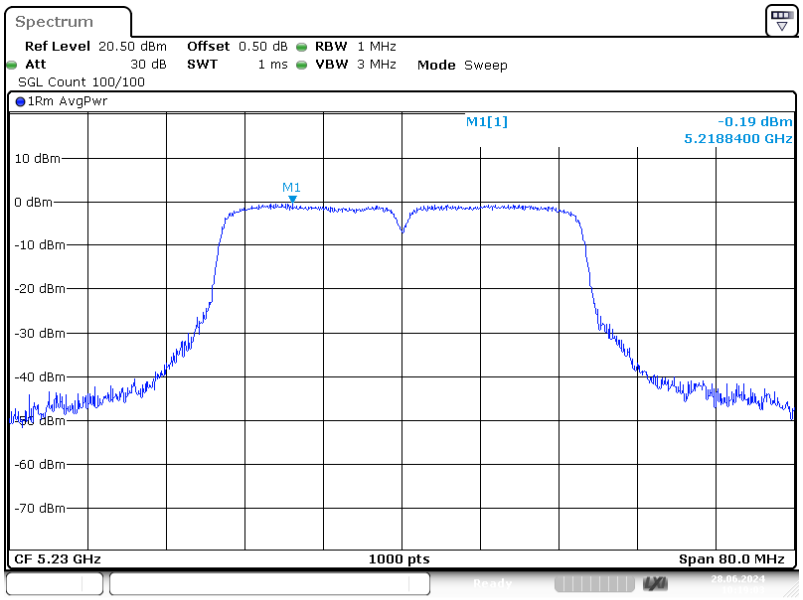
Date: 28.JUN.2024 09:59:42

n40_5190MHz_Chain 0



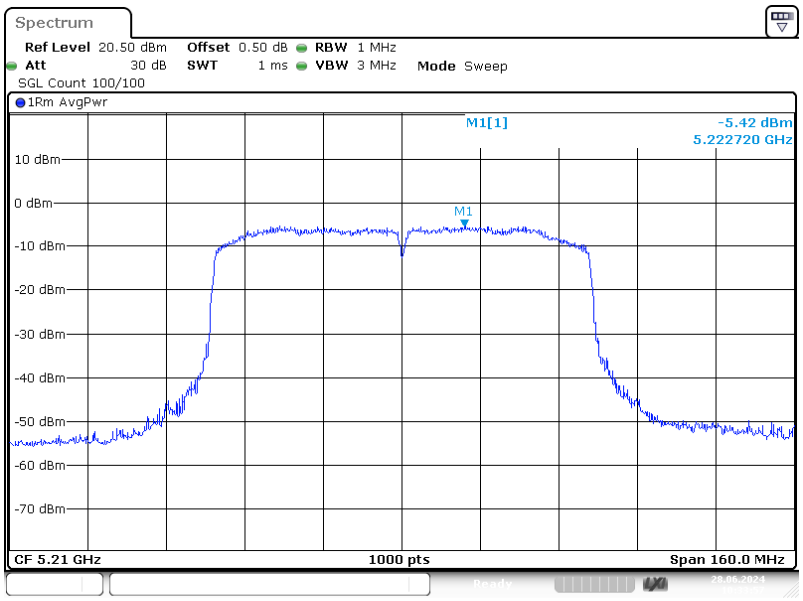
ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 13:36:04

n40_5230MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 10:19:03

ac80_5210MHz_Chain 0

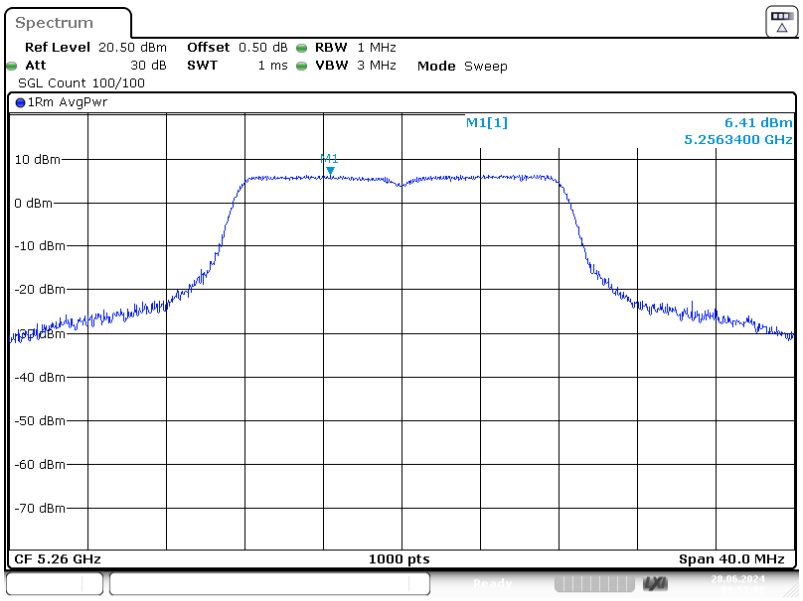


ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu

Date: 28.JUN.2024 10:33:57

5.3G

a_5260MHz_Chain 0 6



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu

Date: 28.JUN.2024 09:53:08

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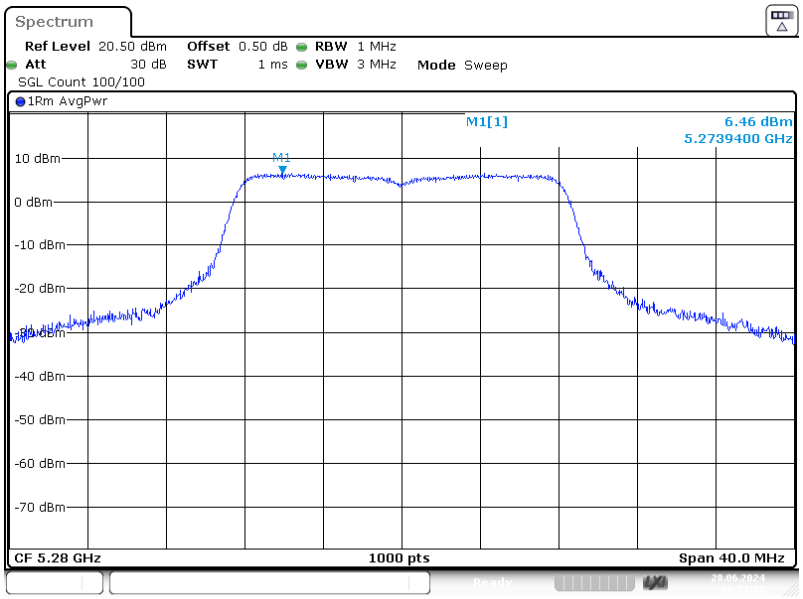
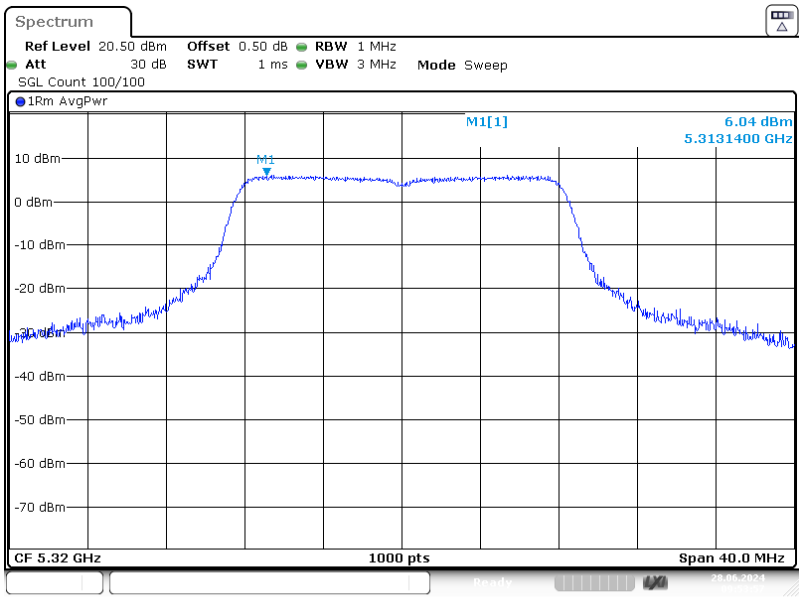


ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu

Date: 28.JUN.2024 09:53:32

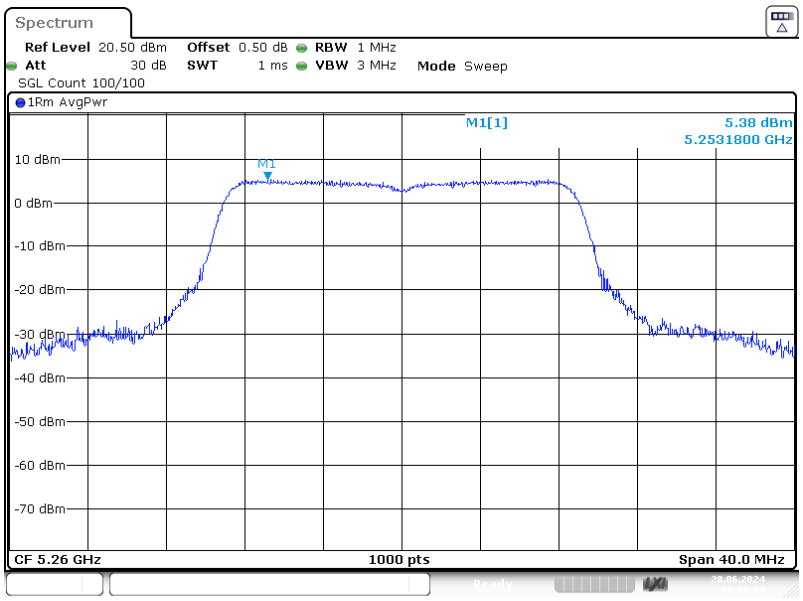
a_5320MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu

Date: 28.JUN.2024 09:53:57

n20_5260MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 10:00:04

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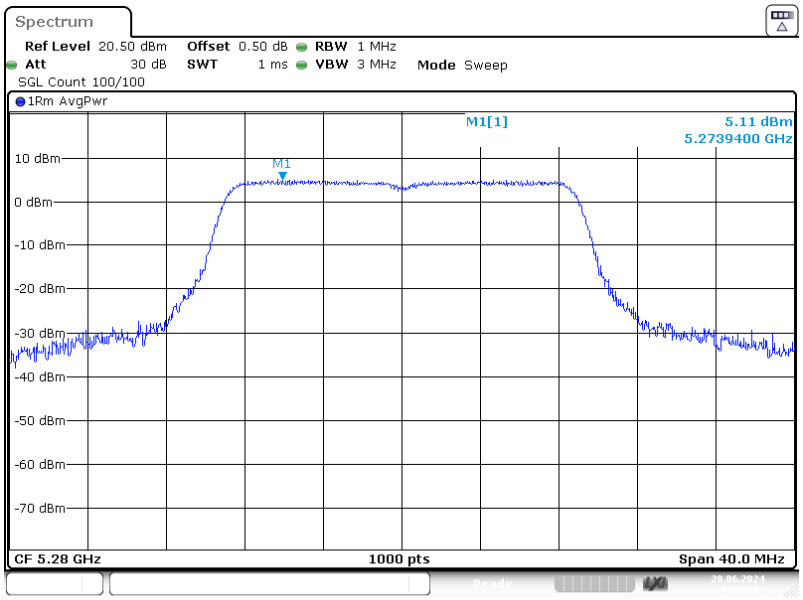

ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 10:00:32

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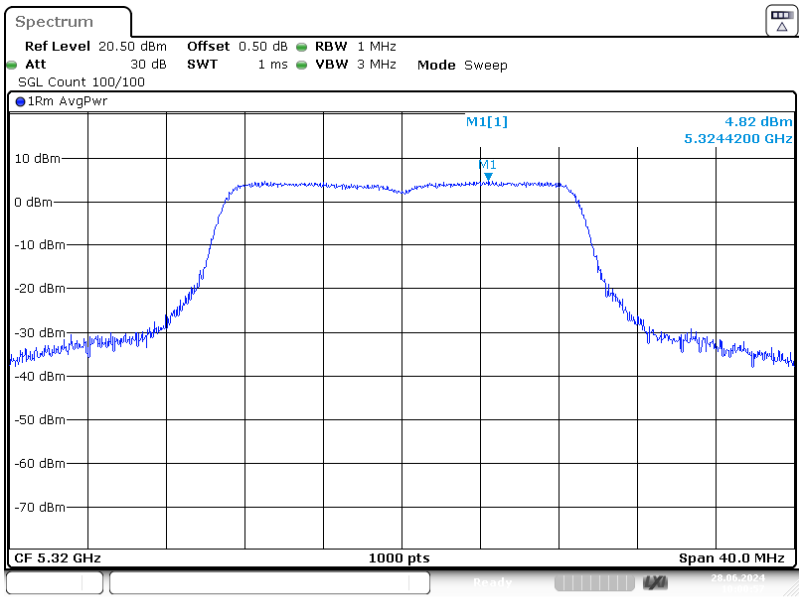

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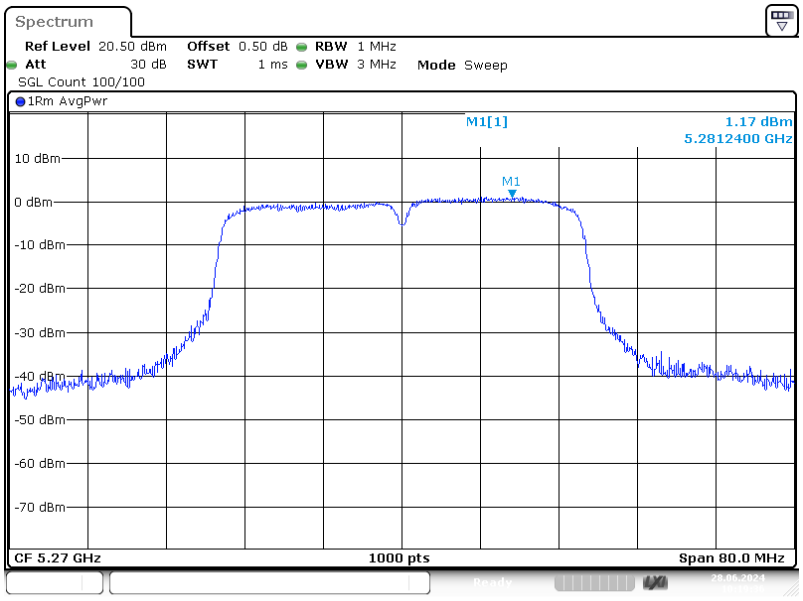
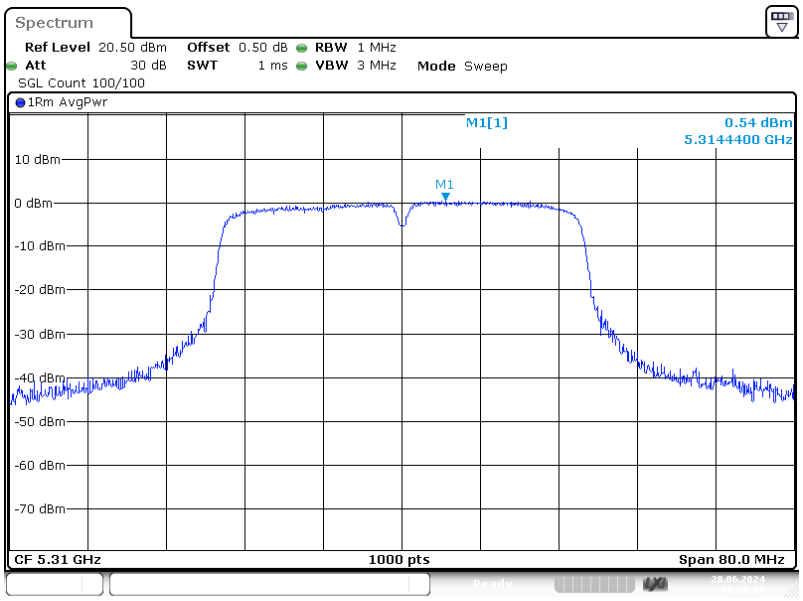
Date: 28.JUN.2024 10:00:58

n40_5270MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 10:19:37

n40_5310MHz_Chain 0



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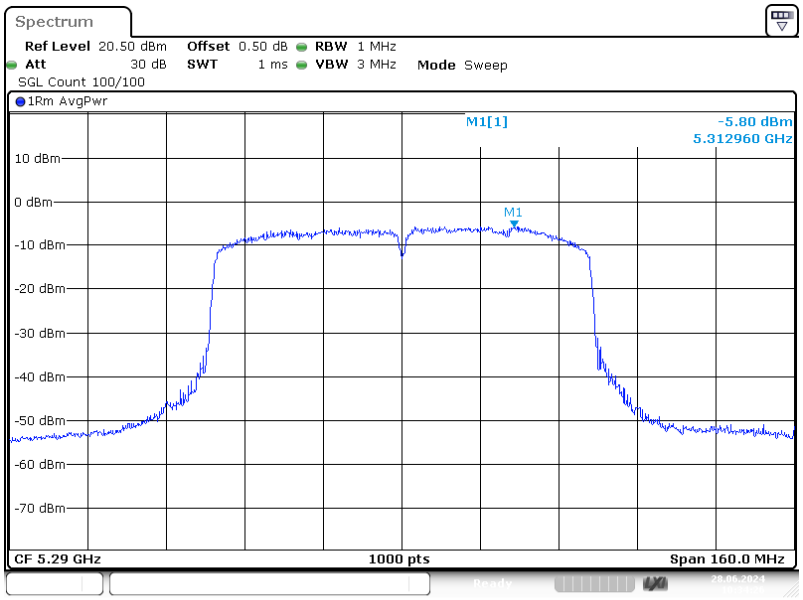
Date: 28.JUN.2024 10:20:08

ac80_5290MHz_Chain 0

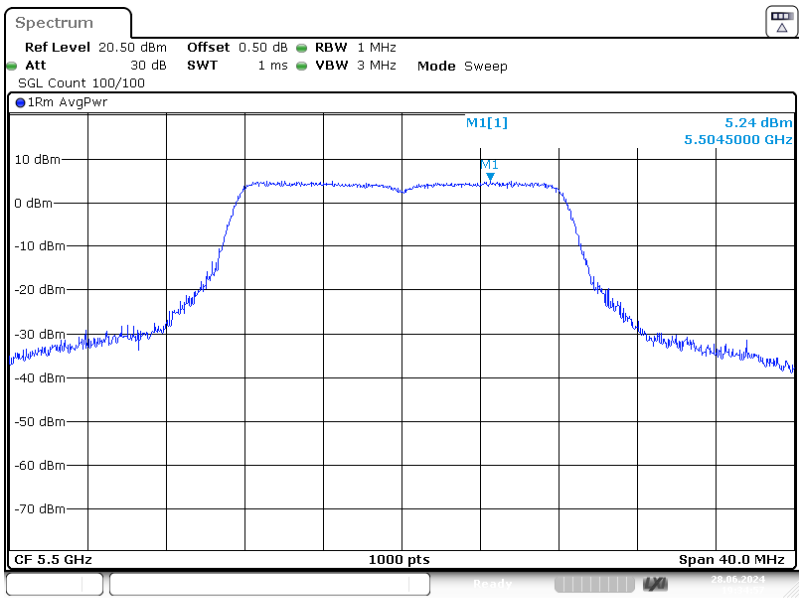


ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu

Date: 28.JUN.2024 10:34:27

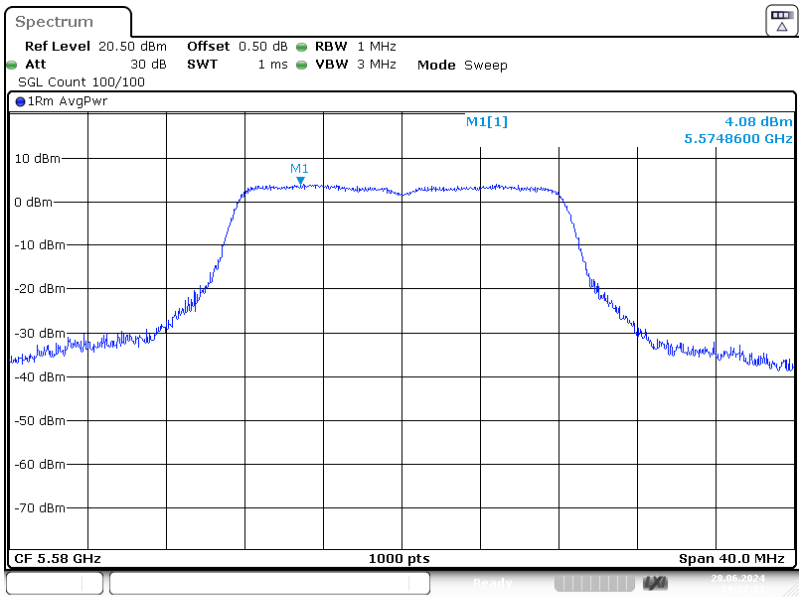
5.6G

a_5500MHz_Chain 0



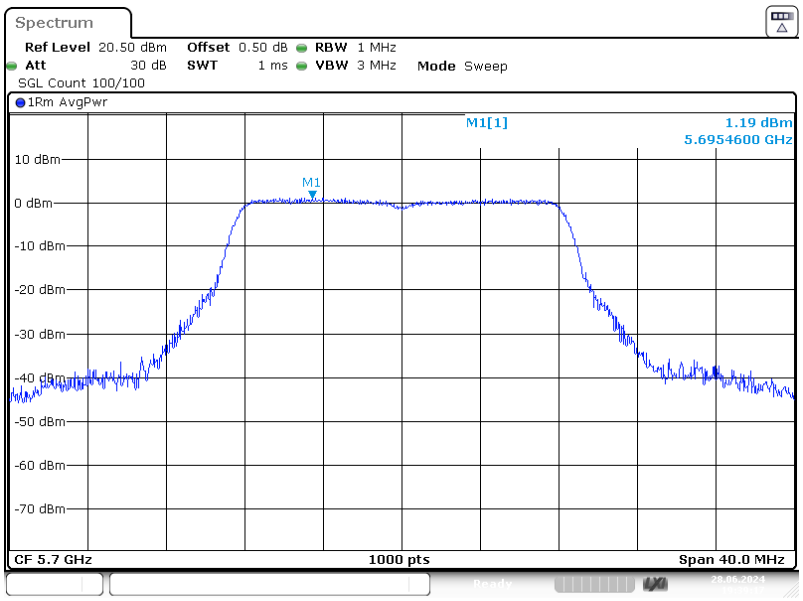
ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 19:34:56

a_5580MHz_Chain 0



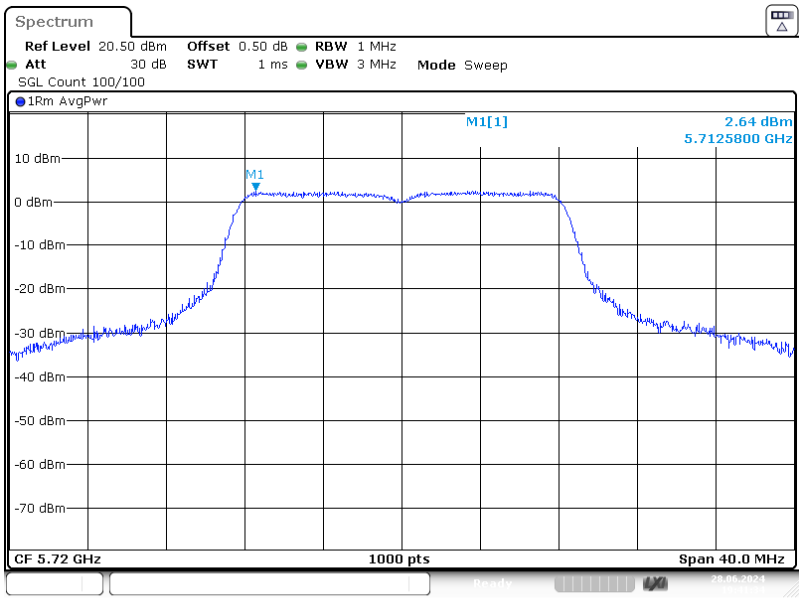
ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 19:37:11

a_5700MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 19:39:17

a_5720MHz_Chain 0



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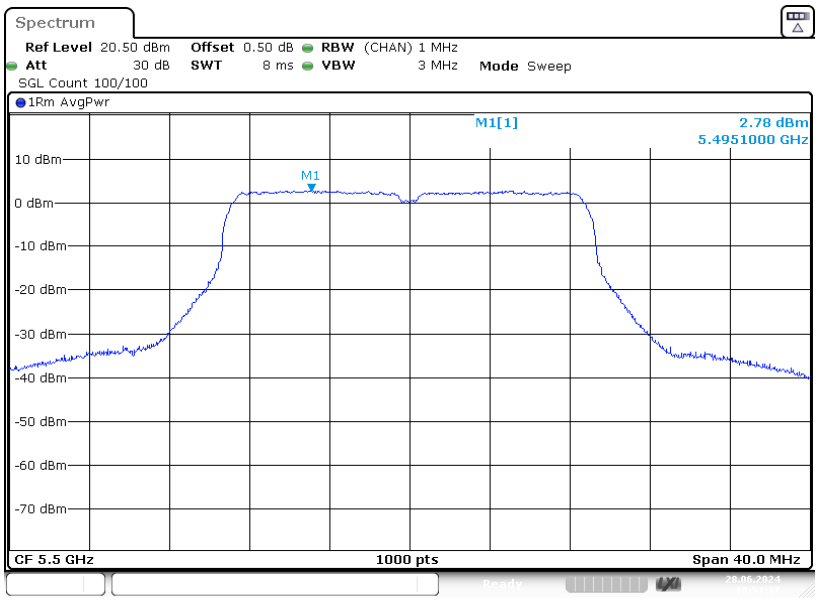
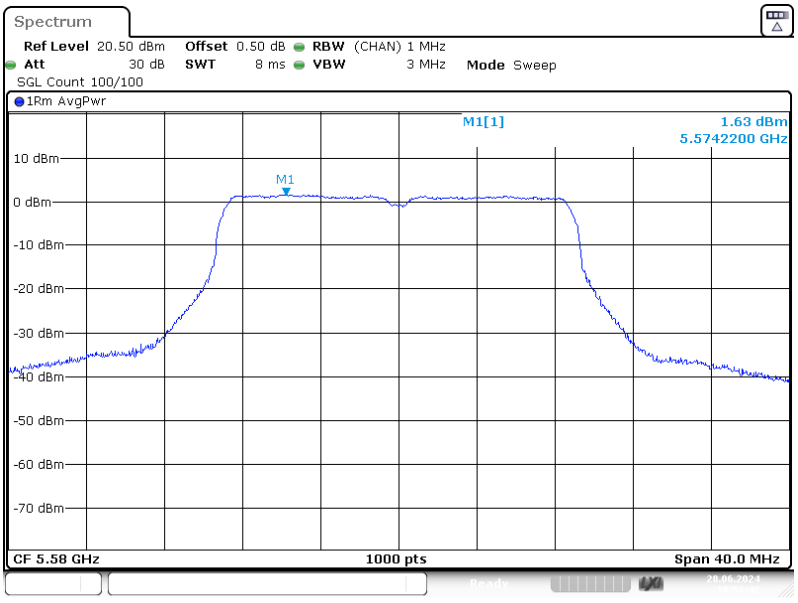
Date: 28.JUN.2024 19:41:35

n20_5500MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 19:51:17

n20_5580MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 19:51:42

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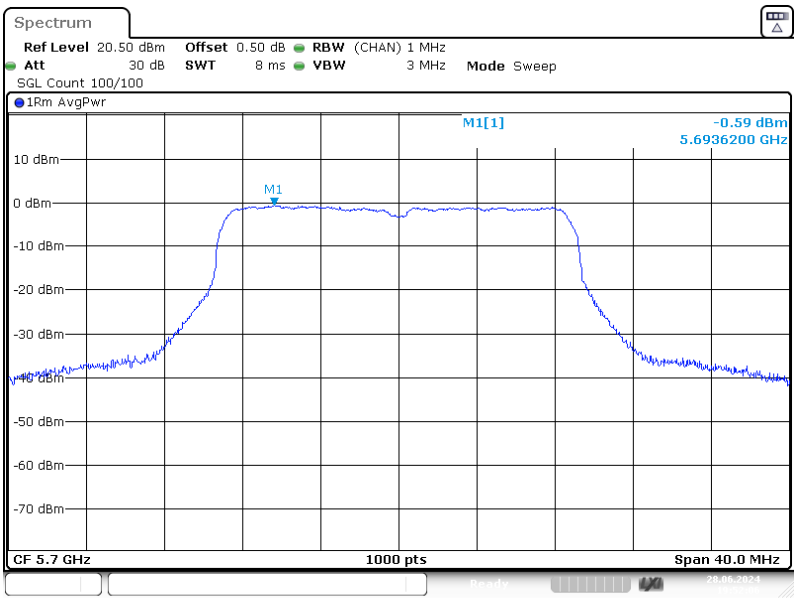
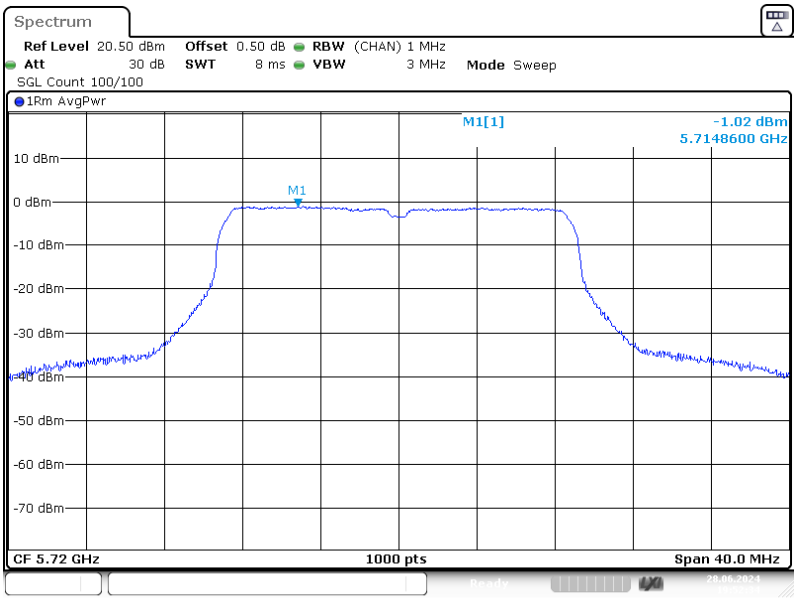


ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu

Date: 28.JUN.2024 19:52:07

n20_5720MHz_Chain 0



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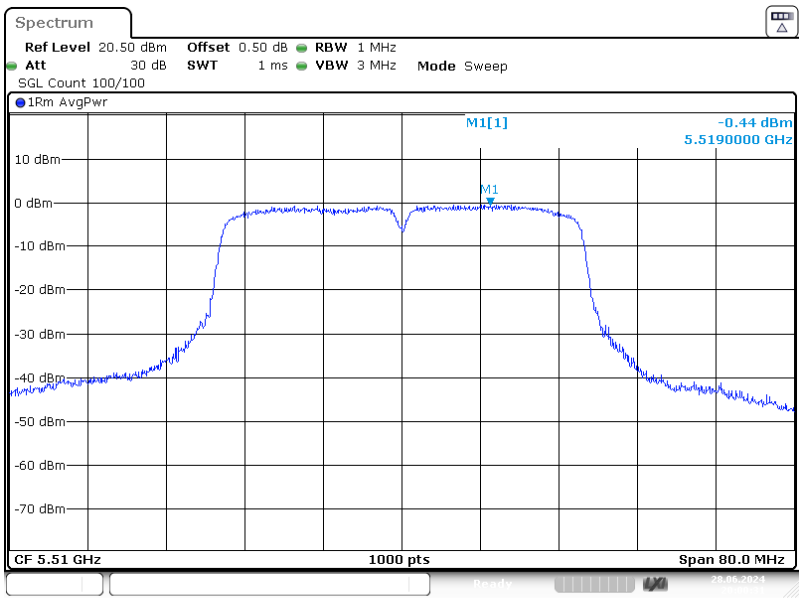
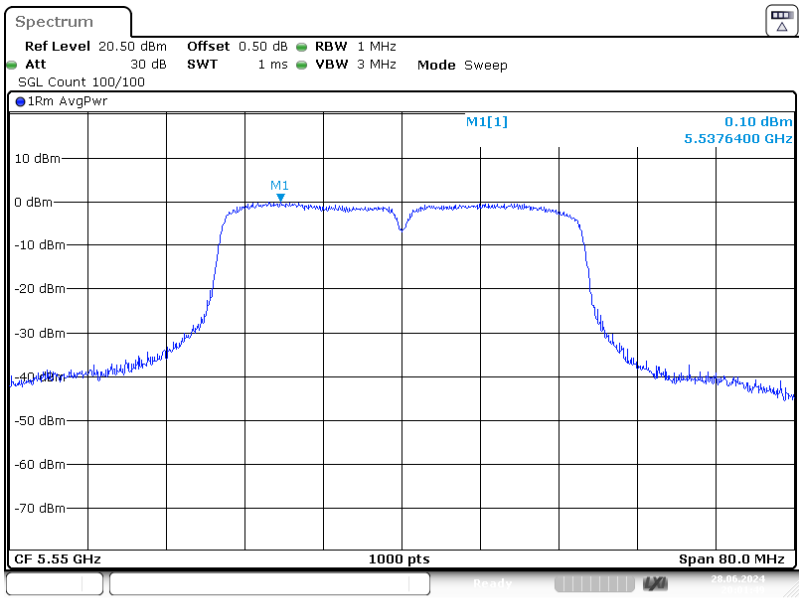
n40_5510MHz_Chain 0



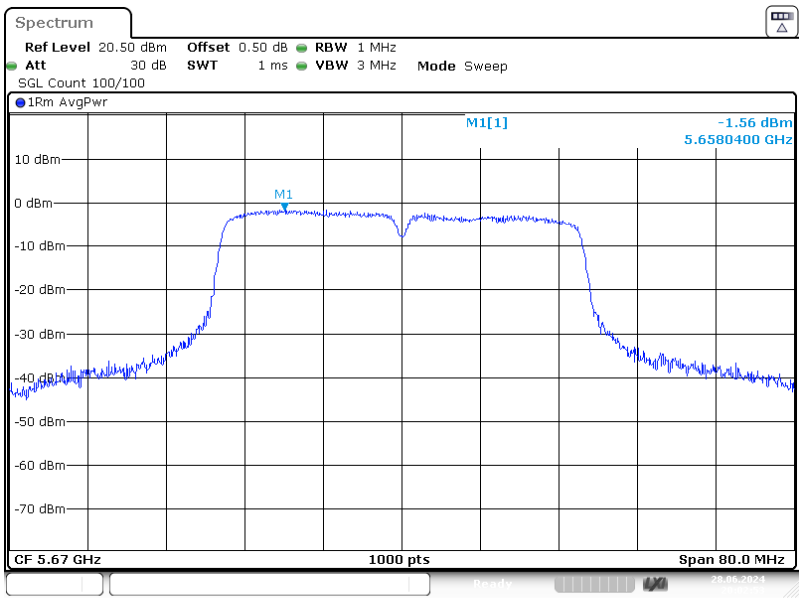
ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 20:00:30

n40_5550MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 20:01:49

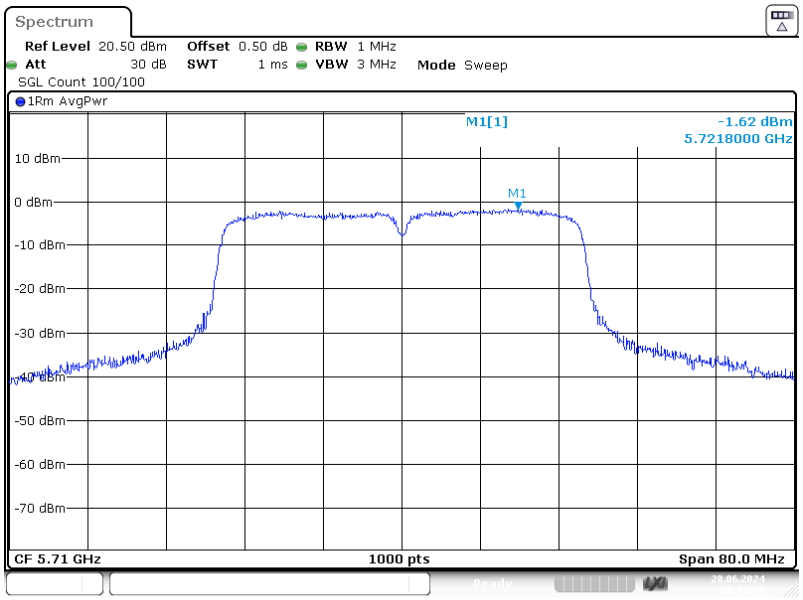
n40_5670MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu

Date: 28.JUN.2024 20:02:53

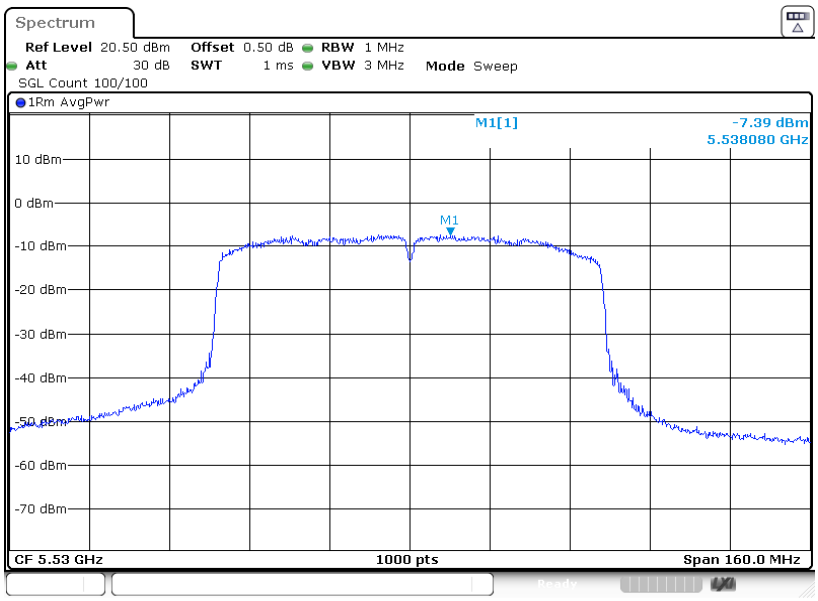
n40_5710MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu

Date: 28.JUN.2024 20:04:00

ac80_5530MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
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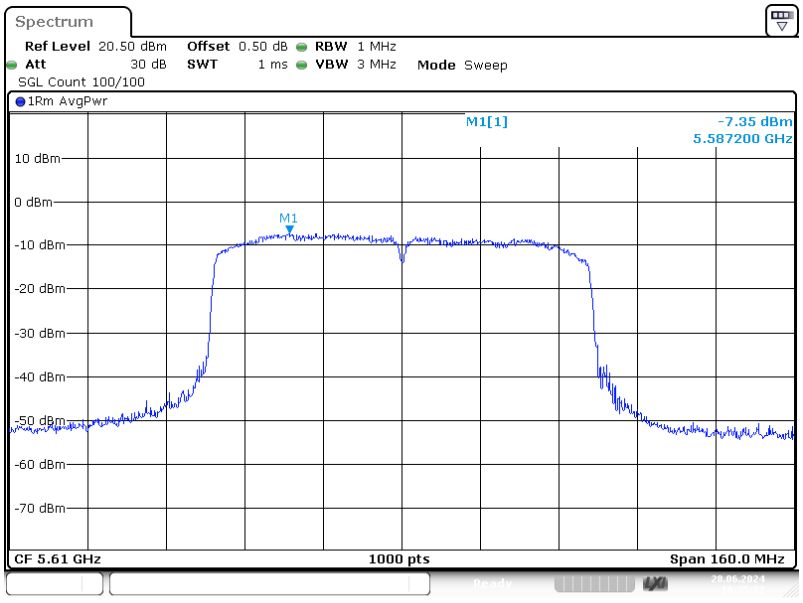
ac80_5610MHz_Chain 0



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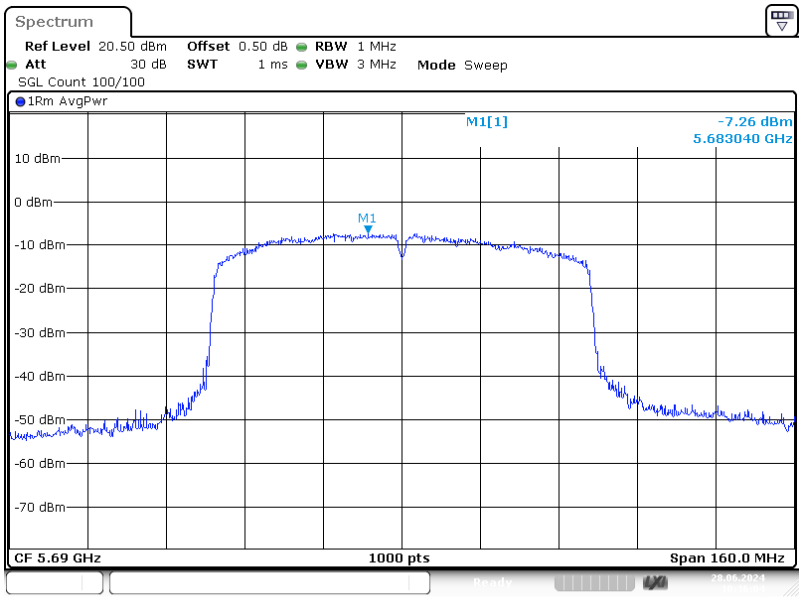
Date: 28.JUN.2024 10:35:32

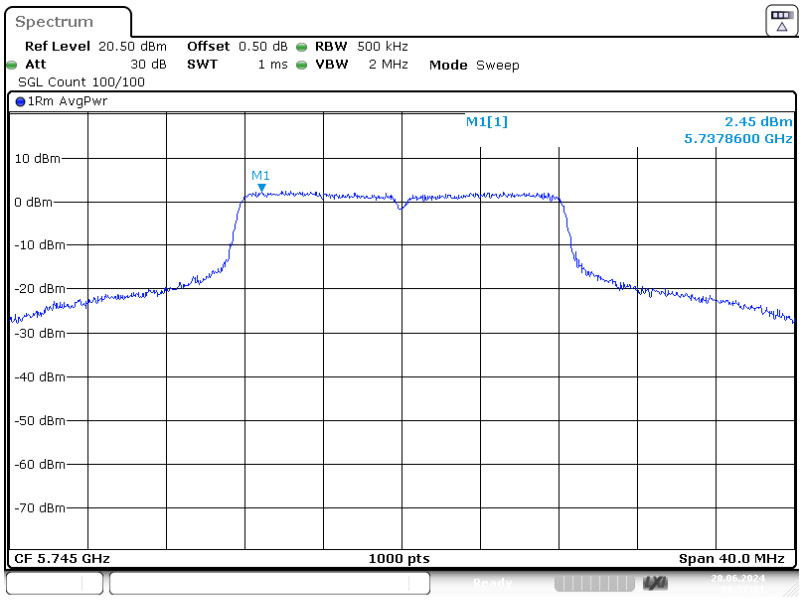
ac80_5690MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 10:36:05

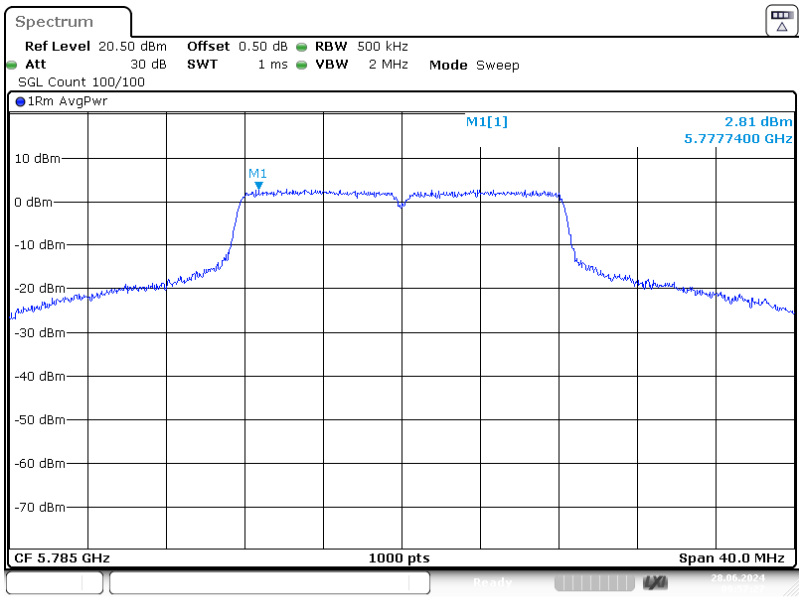
5.8G

a_5745MHz_Chain 0



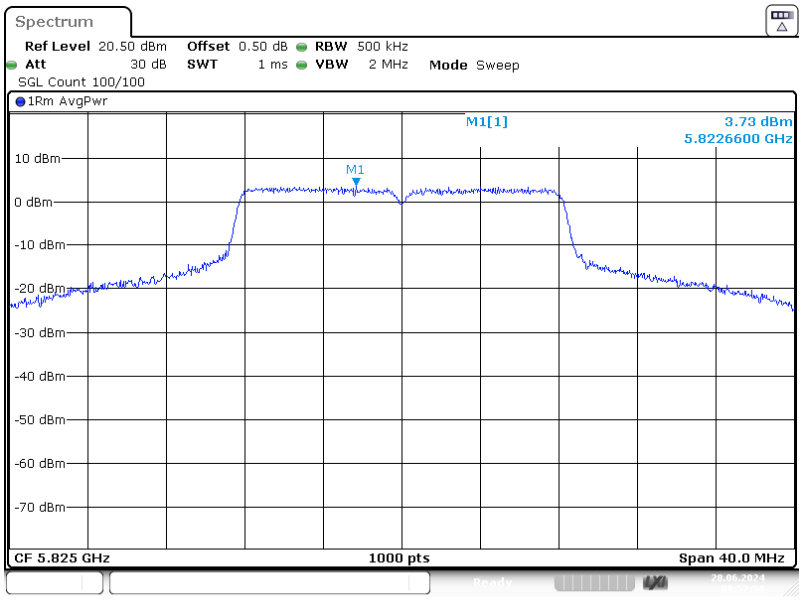
ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 09:57:01

a_5785MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 09:57:27

a_5825MHz_Chain 0



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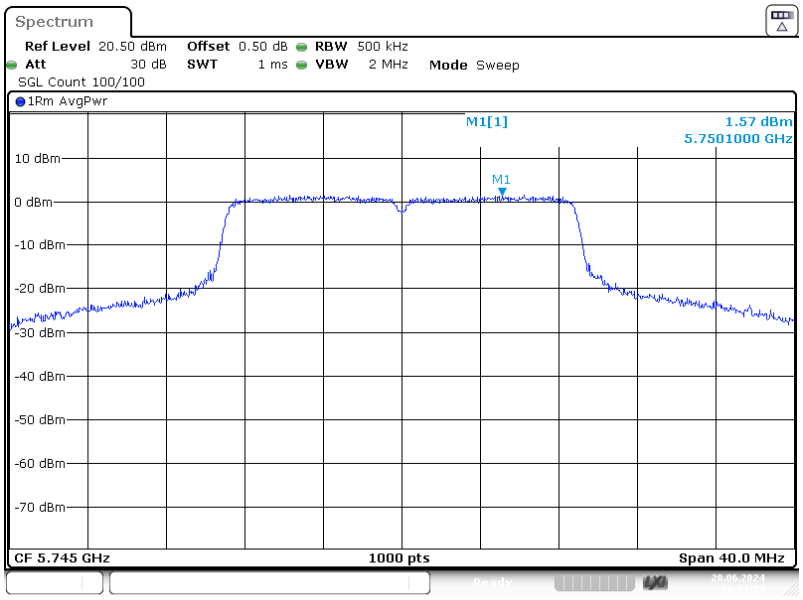
Date: 28.JUN.2024 09:57:50

n20_5745MHz_Chain 0



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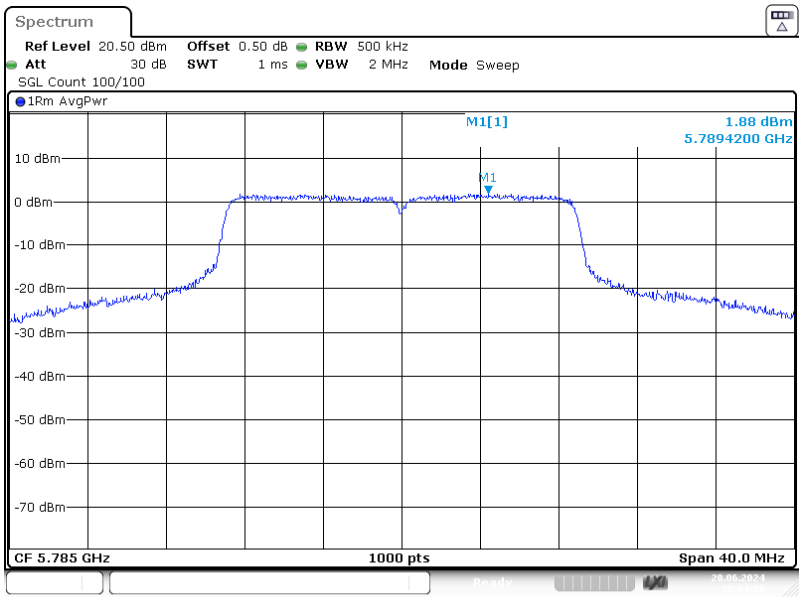
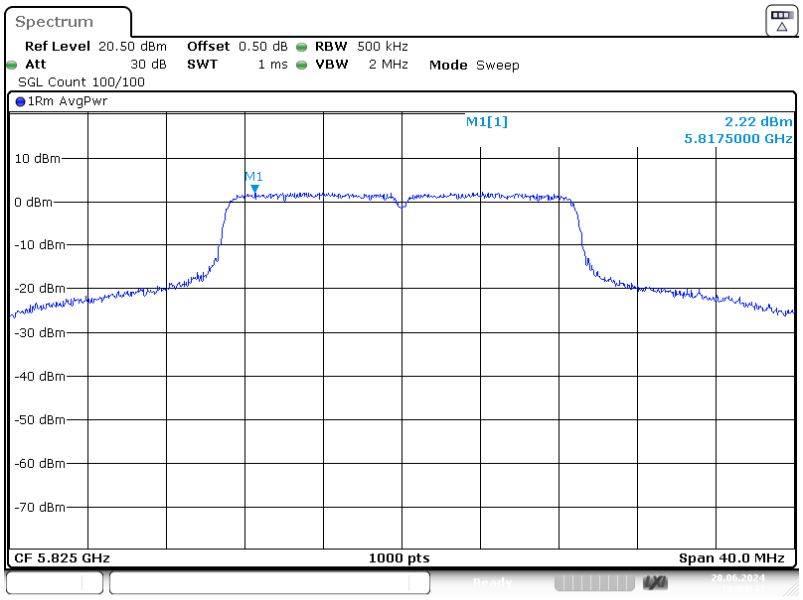
Date: 28.JUN.2024 10:03:54

n20_5785MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 10:04:20

n20_5825MHz_Chain 0



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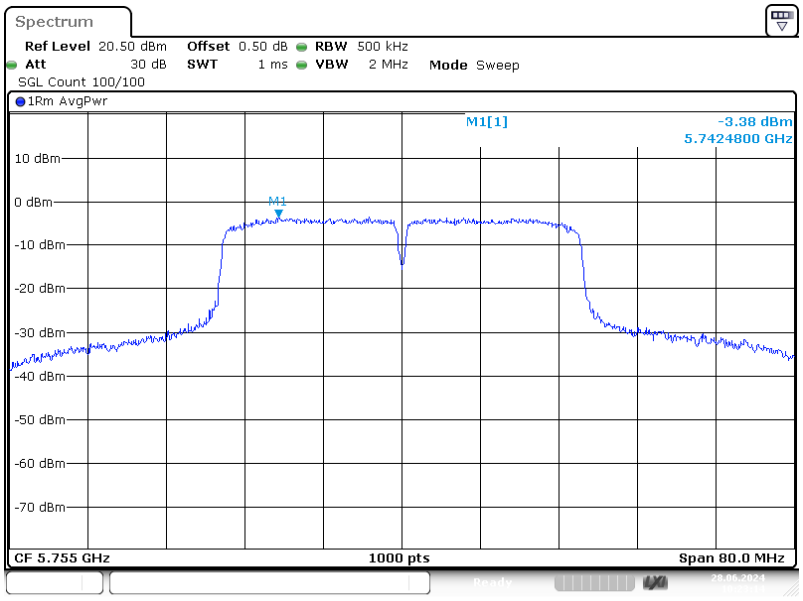
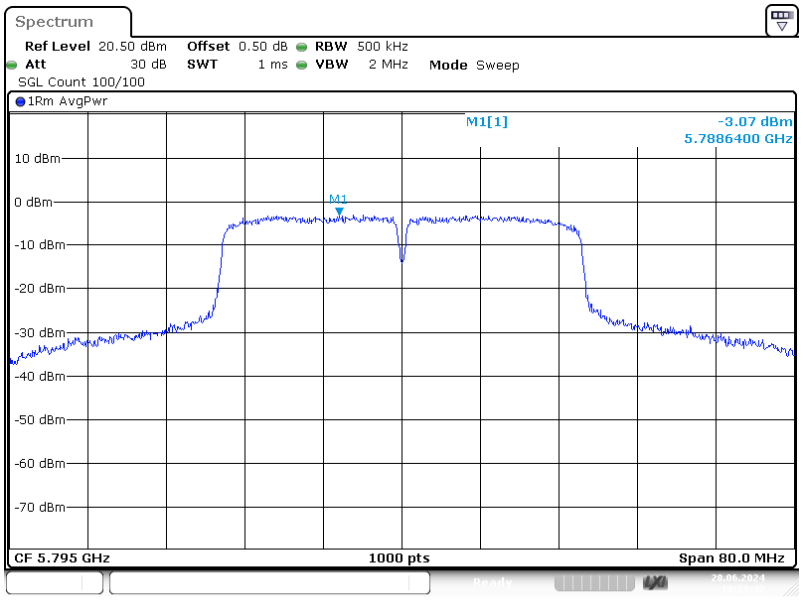
Date: 28.JUN.2024 10:04:44

n40_5755MHz_Chain 0



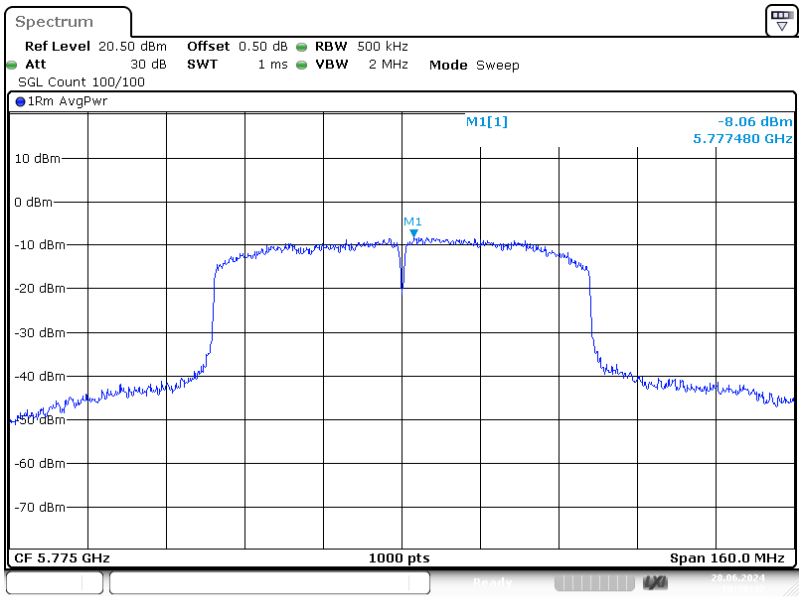
ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 10:23:15

n40_5795MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 10:23:42

ac80_5775MHz_Chain 0



ProjectNo.:XMDN240219-08385E-RF Tester:Jason Hu
Date: 28.JUN.2024 10:36:43

EUT PHOTOGRAPHS

Please refer to the attachment EXHIBIT A_EUT EXTERNAL PHOTOGRAPHS and EXHIBIT B_EUT INTERNAL PHOTOGRAPHS.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment EXHIBIT C_TEST SETUP PHOTOGRAPHS.

Declarations

1. Bay Area Compliance Laboratories Corp. (Xiamen) is not responsible for authenticity of any information provided by the applicant. Information from the applicant that may affect test results are marked with an asterisk "★".

2. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.

3. Unless required by the rule provided by the applicant or product regulations, then decision rule in this report did not consider the uncertainty.

4. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor k=2 with the 95% confidence interval.

5. This report cannot be reproduced except in full, without prior written approval of Bay Area Compliance Laboratories Corp. (Xiamen).

6. This report is valid only with a valid digital signature. The digital signature may be available only under the adobe software above version 7.0.

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