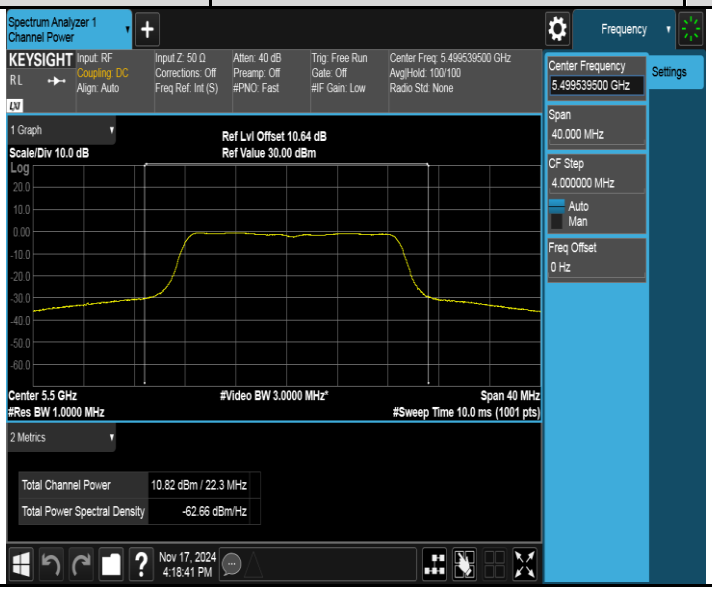
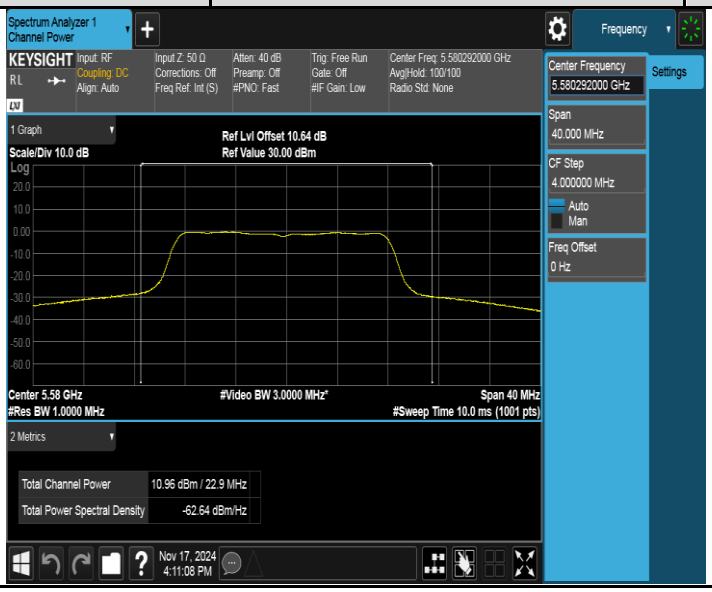
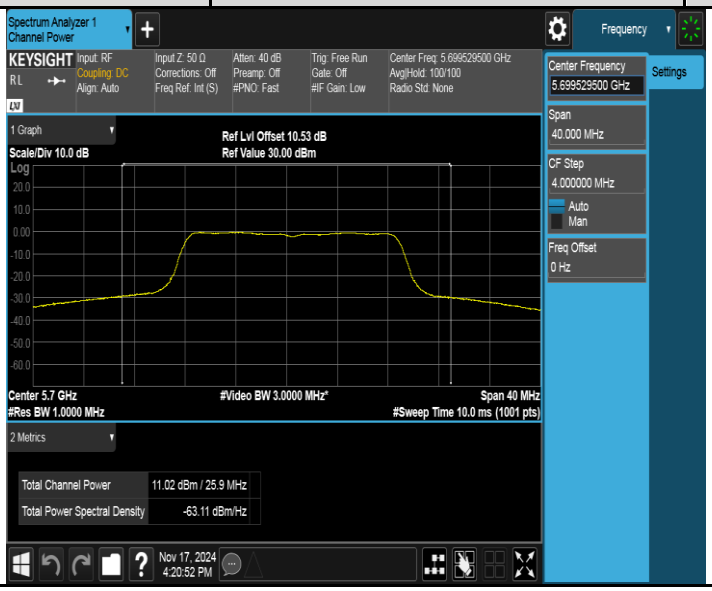
Test Mode	Test Channel	Verdict
11a	5500	PASS



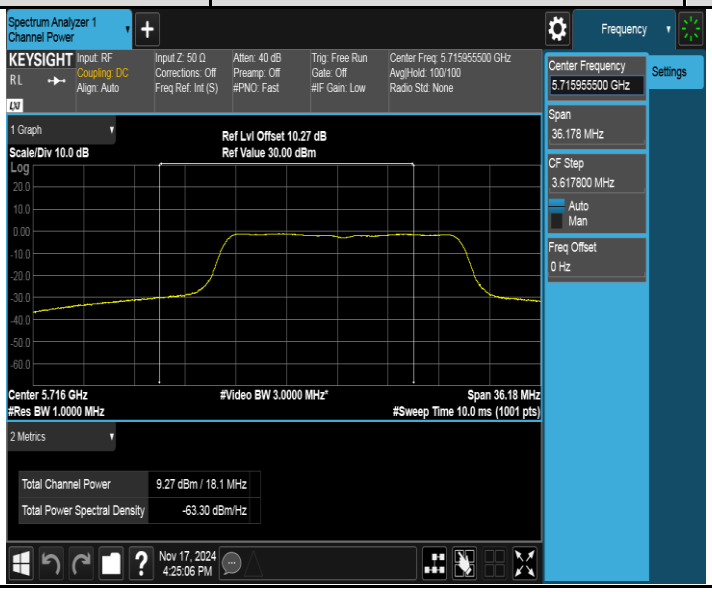
Test Mode	Test Channel	Verdict
11a	5580	PASS



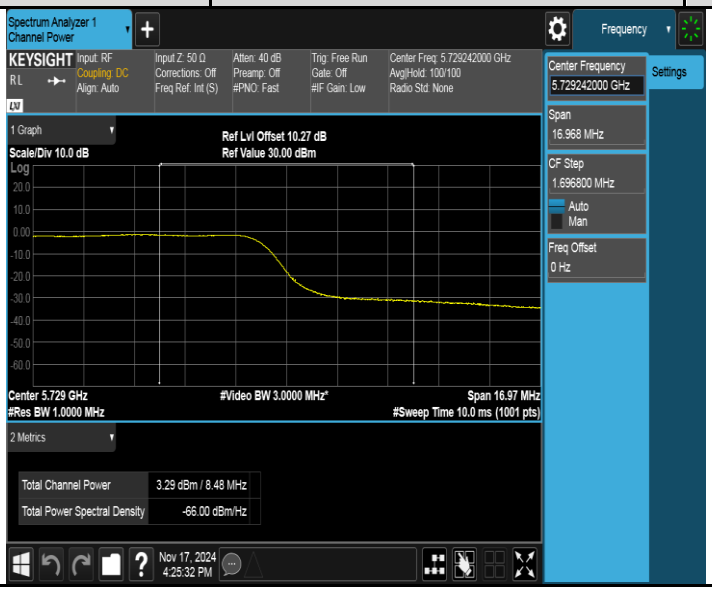
Test Mode	Test Channel	Verdict
11a	5700	PASS



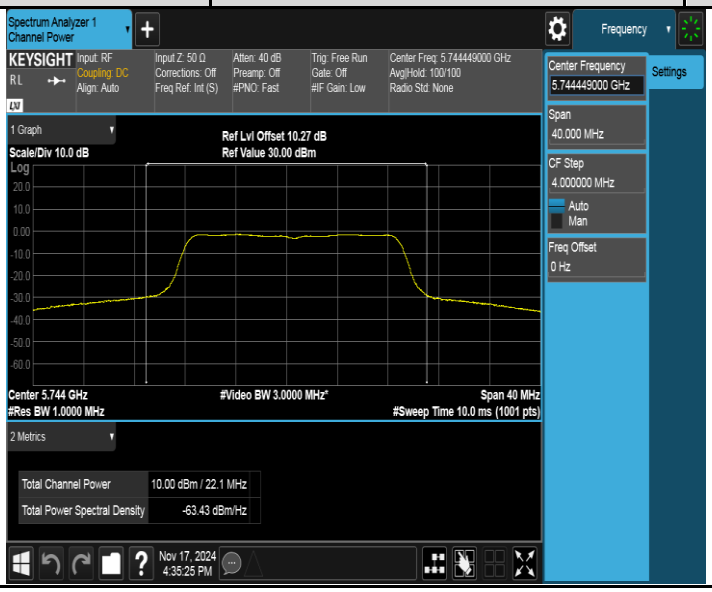
Test Mode	Test Channel	Verdict
11a	5720_UNII-2C	PASS



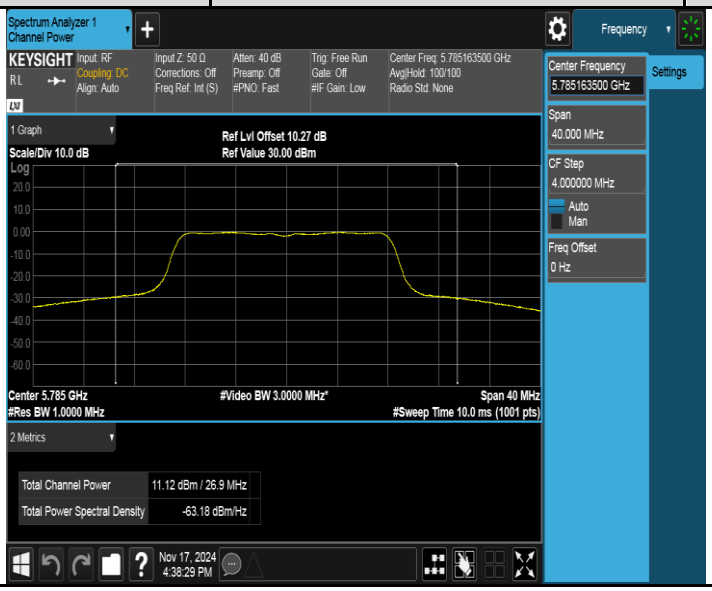
Test Mode	Test Channel	Verdict
11a	5720_UNII-3	PASS



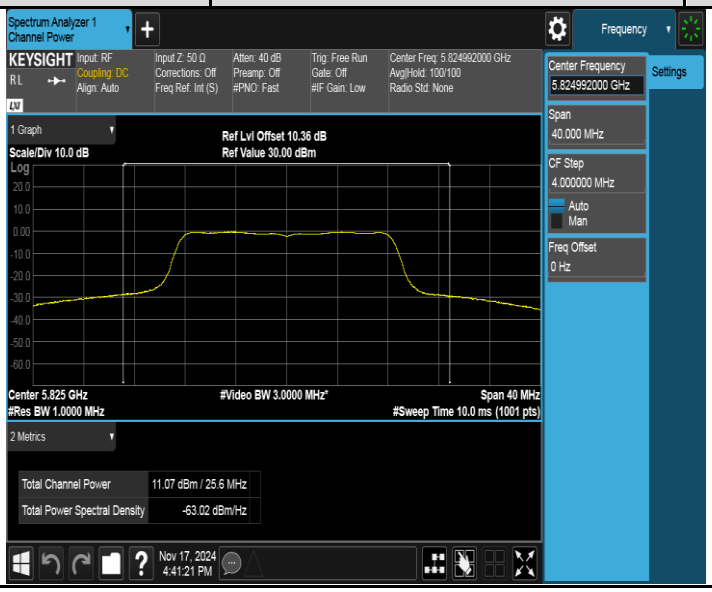
Test Mode	Test Channel	Verdict
11a	5745	PASS



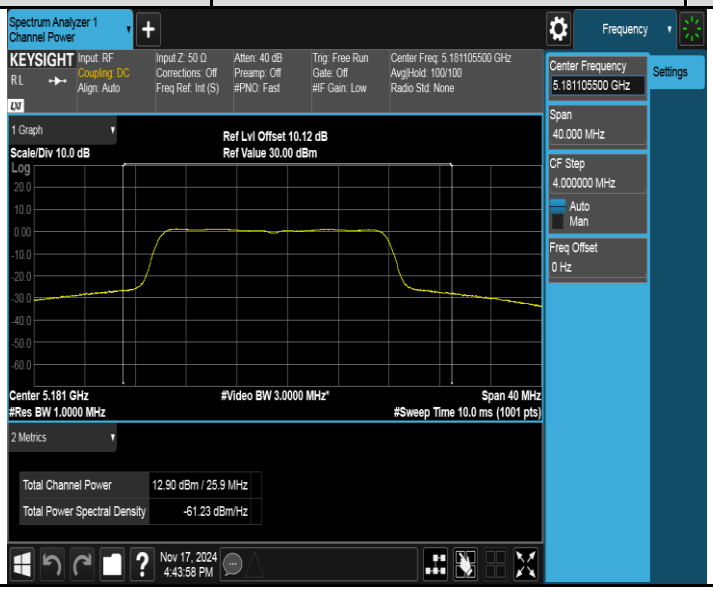
Test Mode	Test Channel	Verdict
11a	5785	PASS



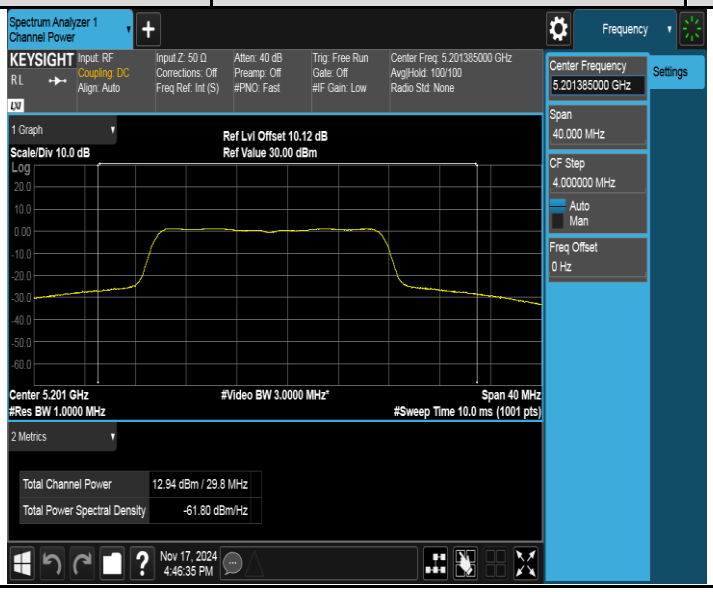
Test Mode	Test Channel	Verdict
11a	5825	PASS



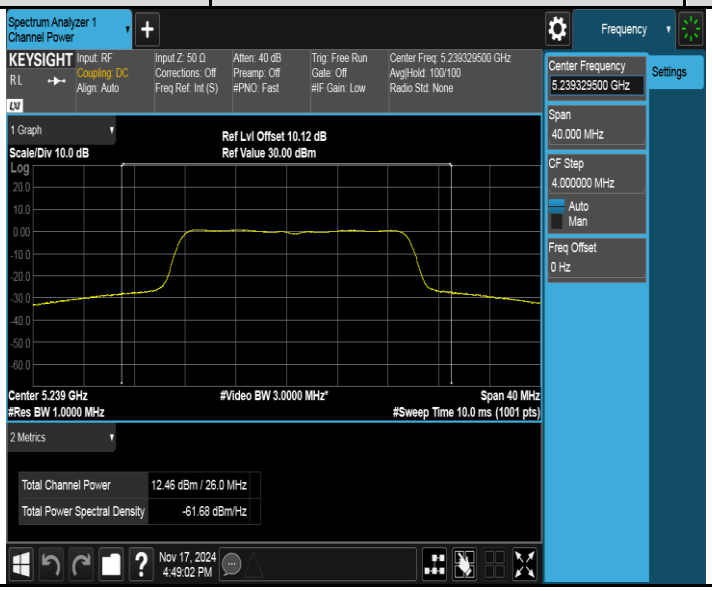
Test Mode	Test Channel	Verdict
11ac VHT20	5180	PASS



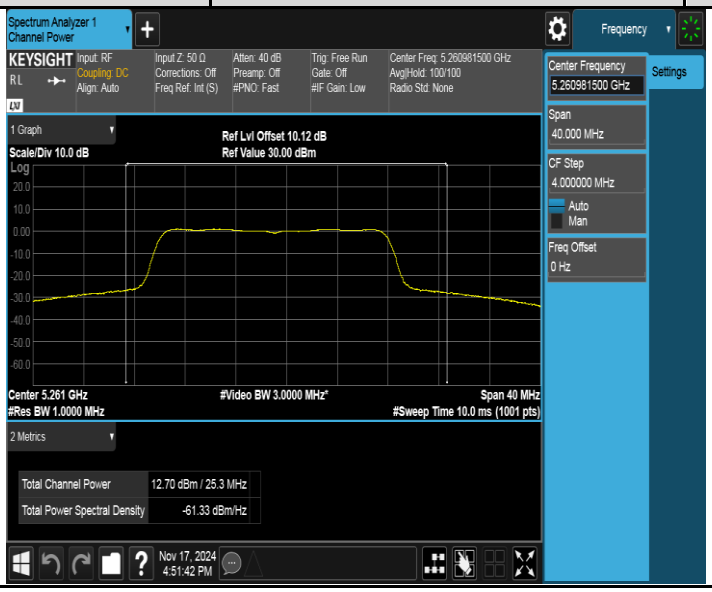
Test Mode	Test Channel	Verdict
11ac VHT20	5200	PASS



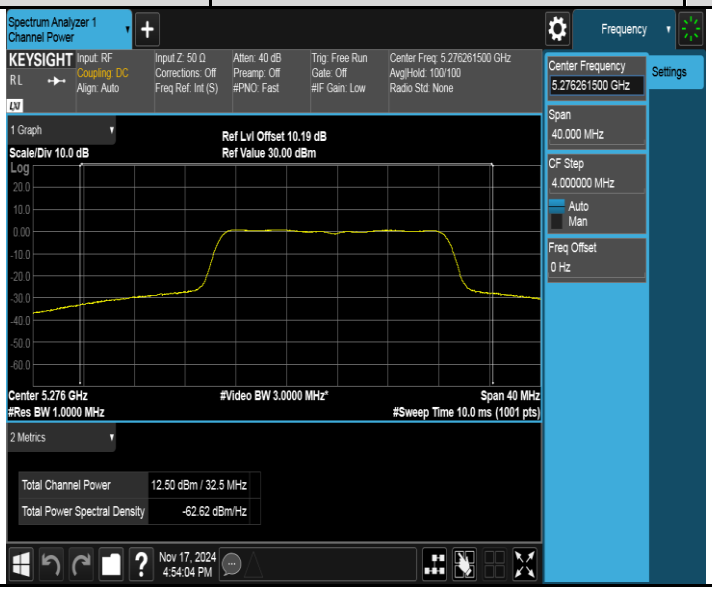
Test Mode	Test Channel	Verdict
11ac VHT20	5240	PASS



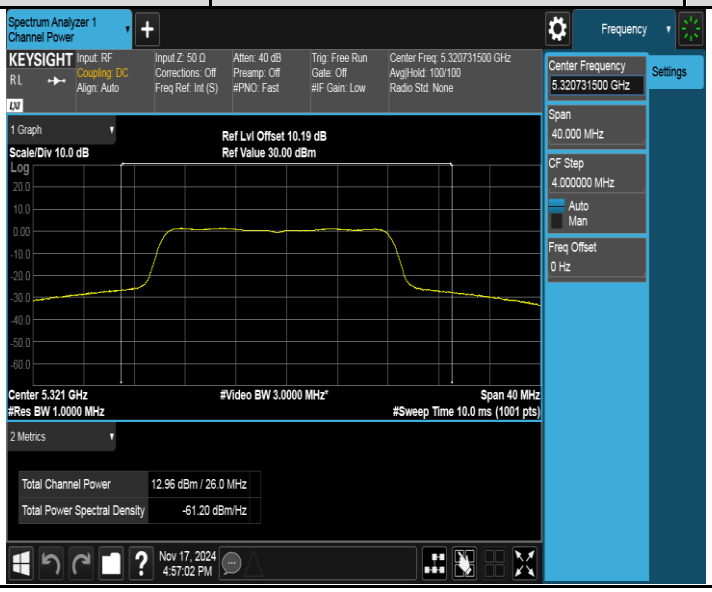
Test Mode	Test Channel	Verdict
11ac VHT20	5260	PASS



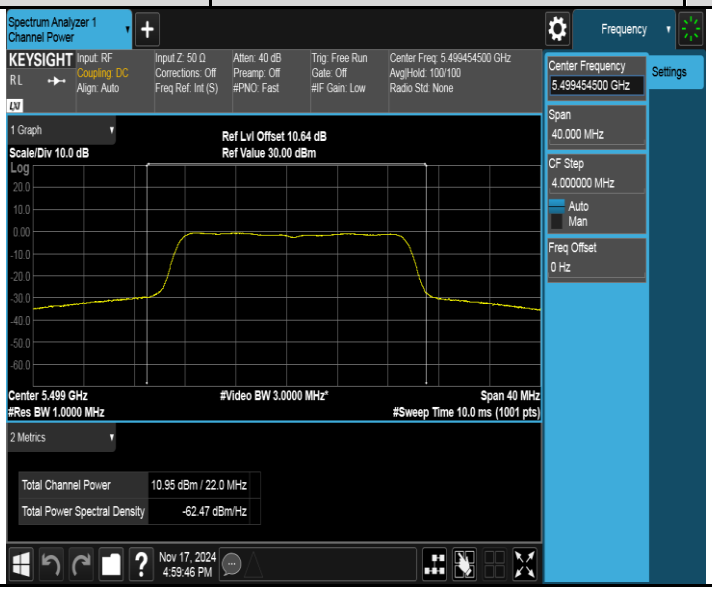
Test Mode	Test Channel	Verdict
11ac VHT20	5280	PASS



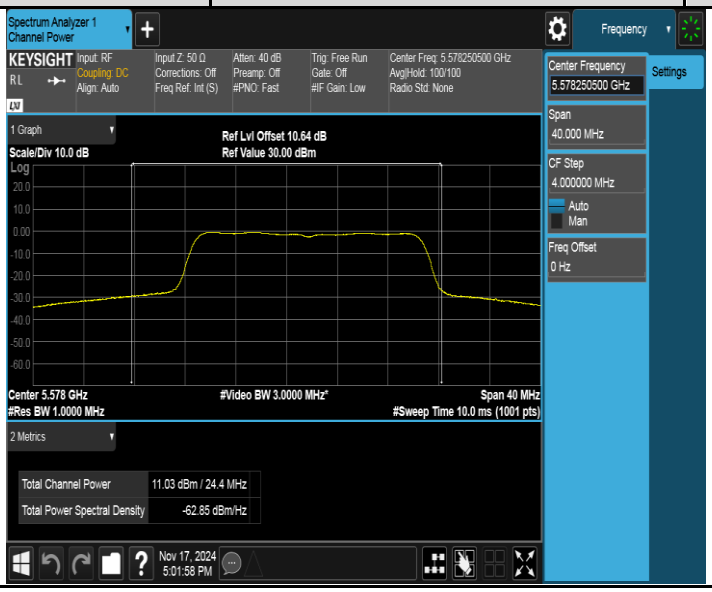
Test Mode	Test Channel	Verdict
11ac VHT20	5320	PASS



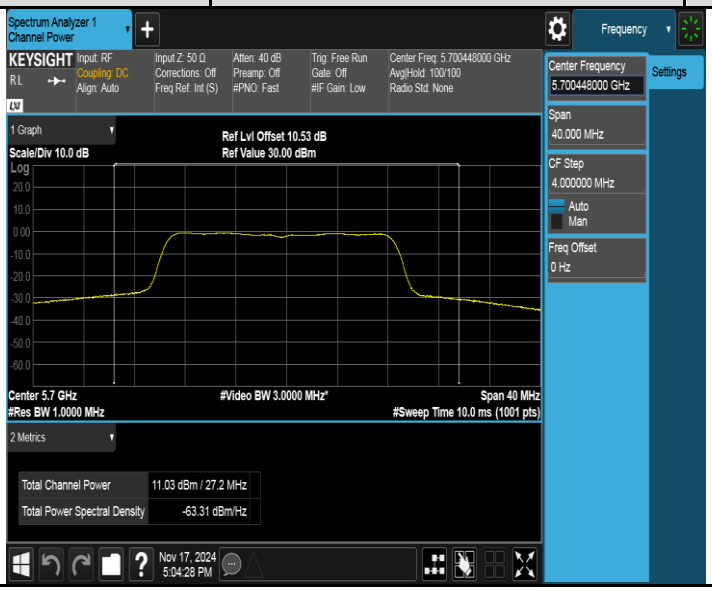
Test Mode	Test Channel	Verdict
11ac VHT20	5500	PASS



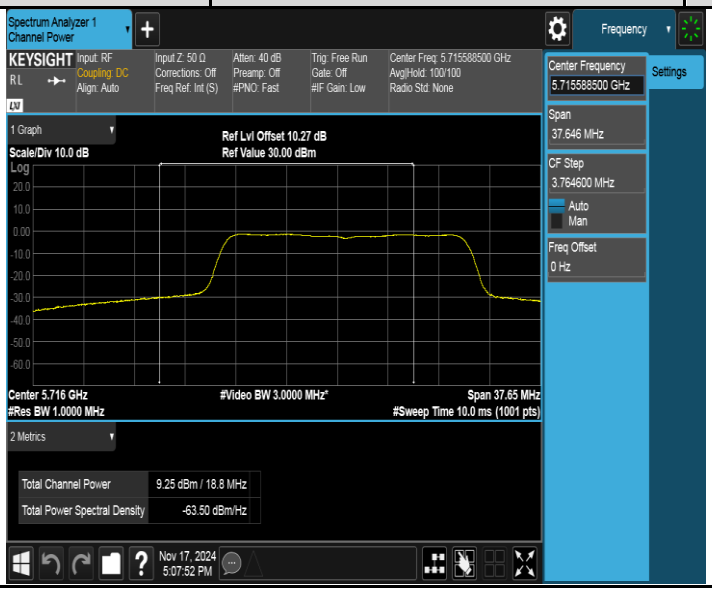
Test Mode	Test Channel	Verdict
11ac VHT20	5580	PASS



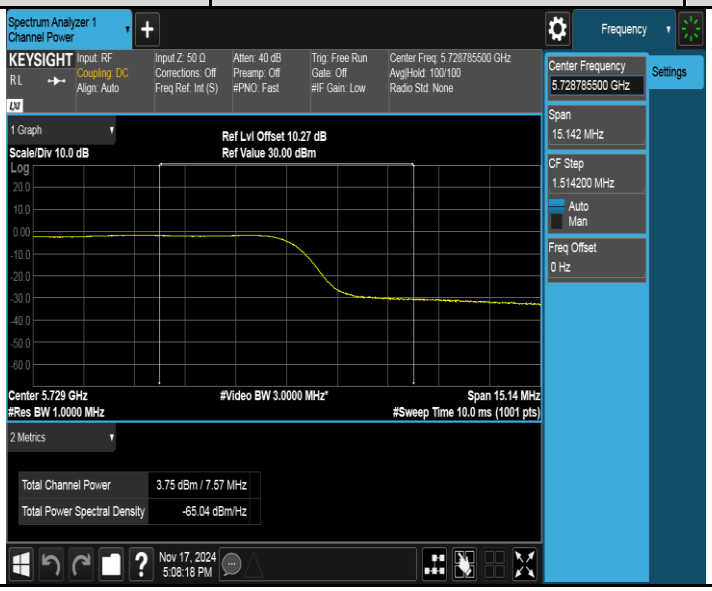
Test Mode	Test Channel	Verdict
11ac VHT20	5700	PASS



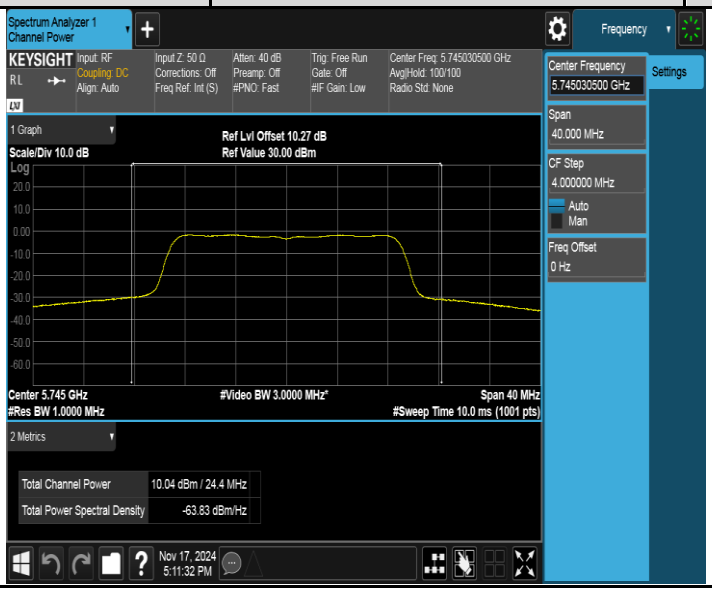
Test Mode	Test Channel	Verdict
11ac VHT20	5720_UNII-2C	PASS



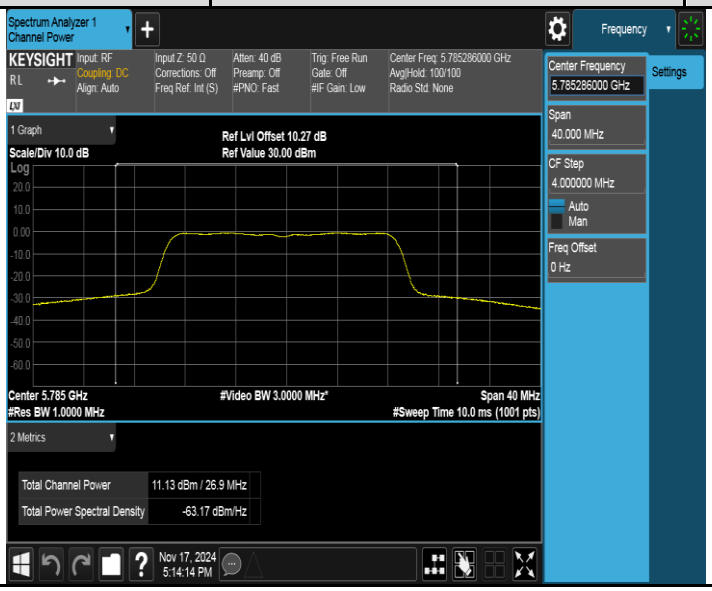
Test Mode	Test Channel	Verdict
11ac VHT20	5720_UNII-3	PASS



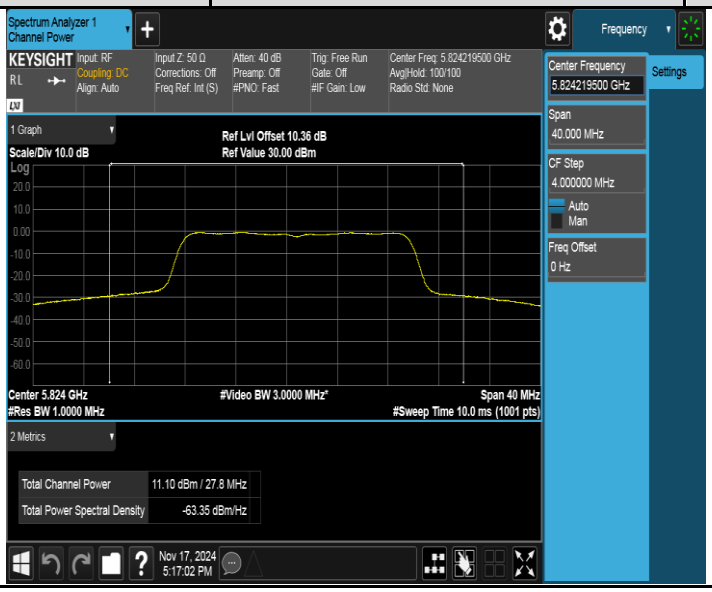
Test Mode	Test Channel	Verdict
11ac VHT20	5745	PASS



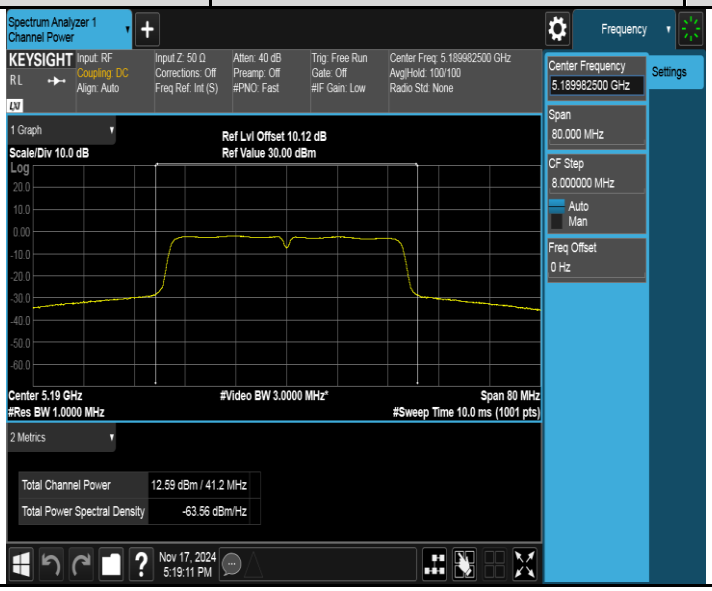
Test Mode	Test Channel	Verdict
11ac VHT20	5785	PASS



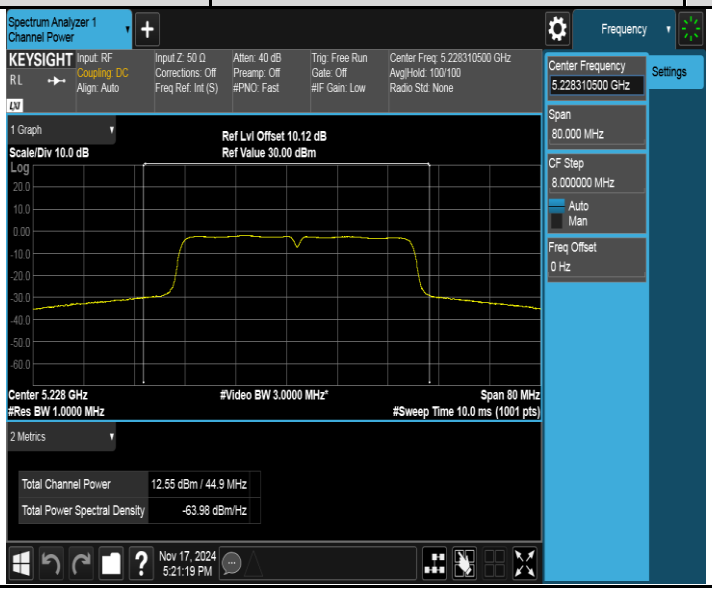
Test Mode	Test Channel	Verdict
11ac VHT20	5825	PASS



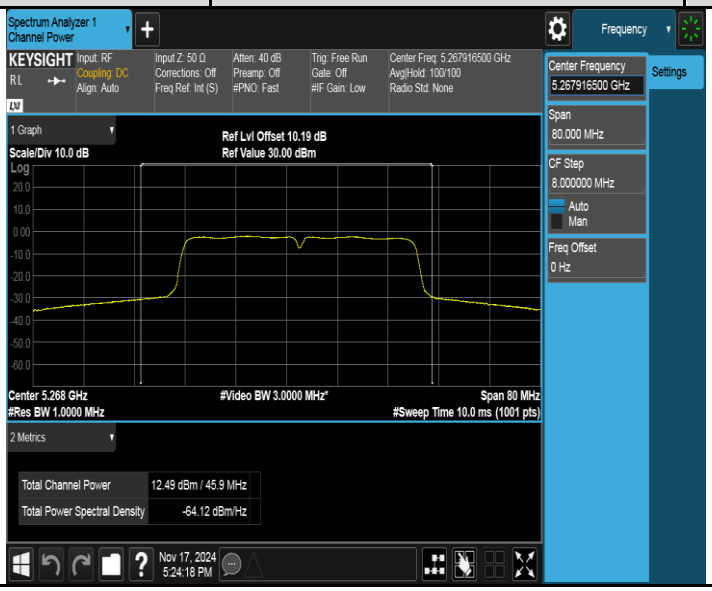
Test Mode	Test Channel	Verdict
11ac VHT40	5190	PASS



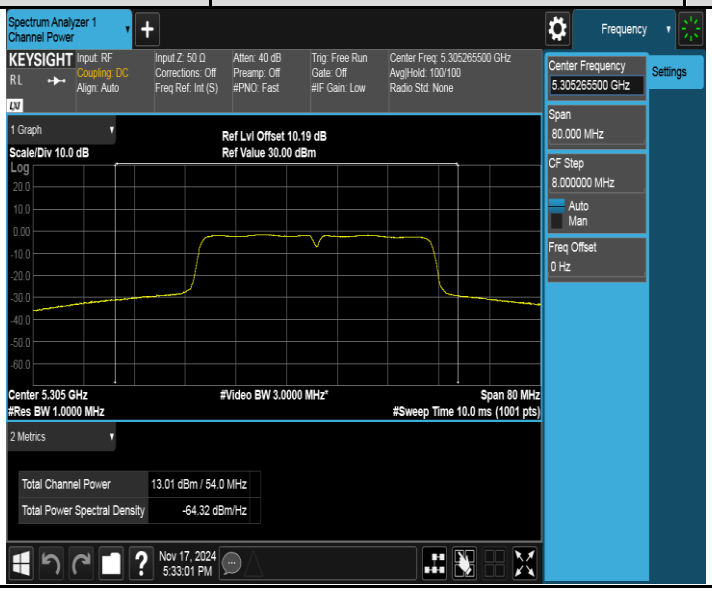
Test Mode	Test Channel	Verdict
11ac VHT40	5230	PASS



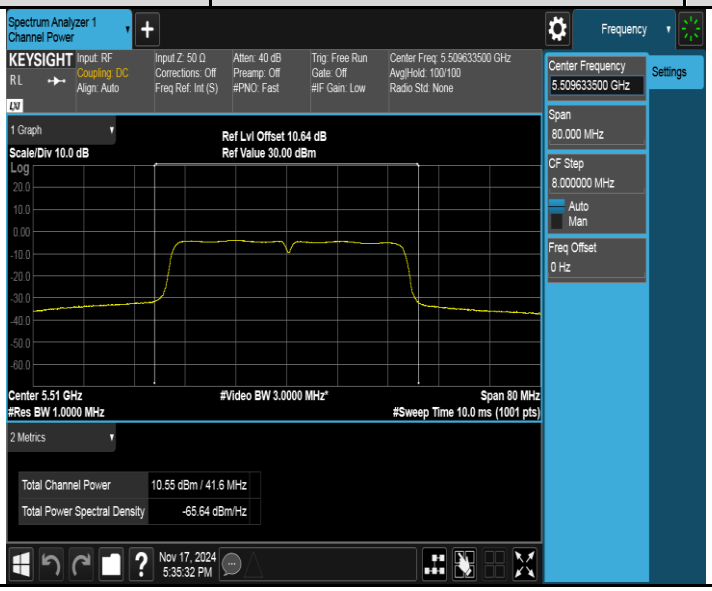
Test Mode	Test Channel	Verdict
11ac VHT40	5270	PASS



Test Mode	Test Channel	Verdict
11ac VHT40	5310	PASS

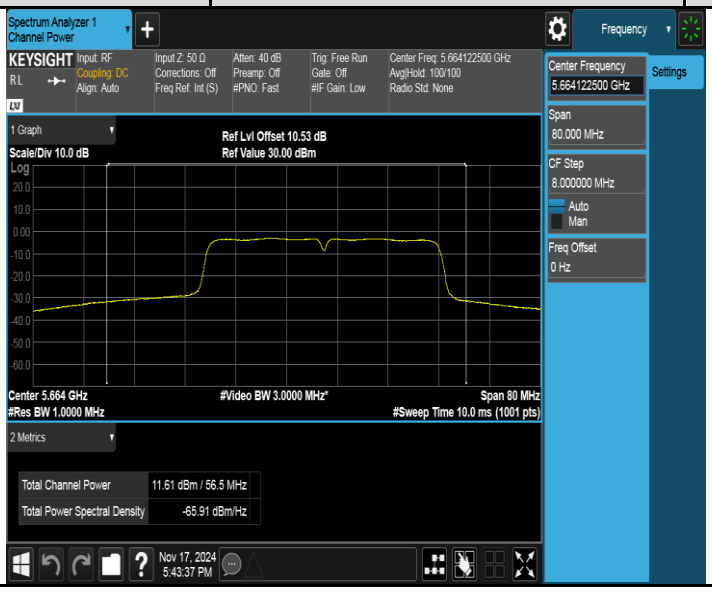


Test Mode	Test Channel	Verdict
11ac VHT40	5510	PASS

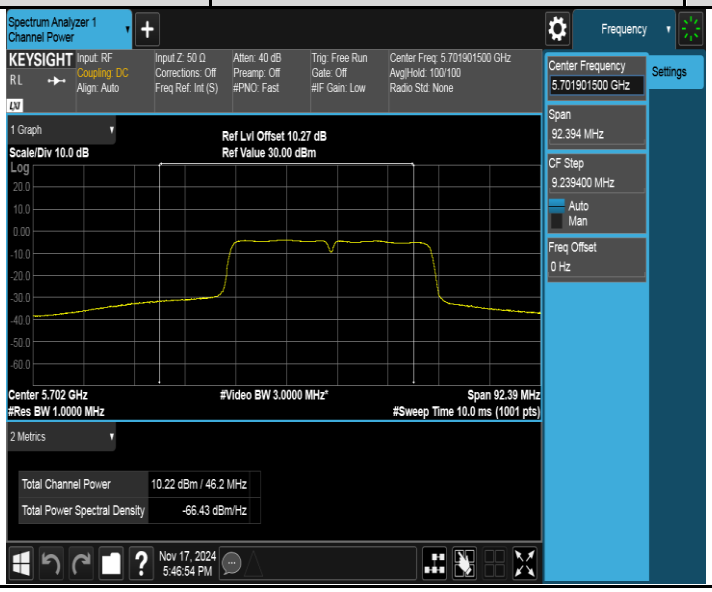


Test Mode	Test Channel	Verdict
11ac VHT40	5550	PASS

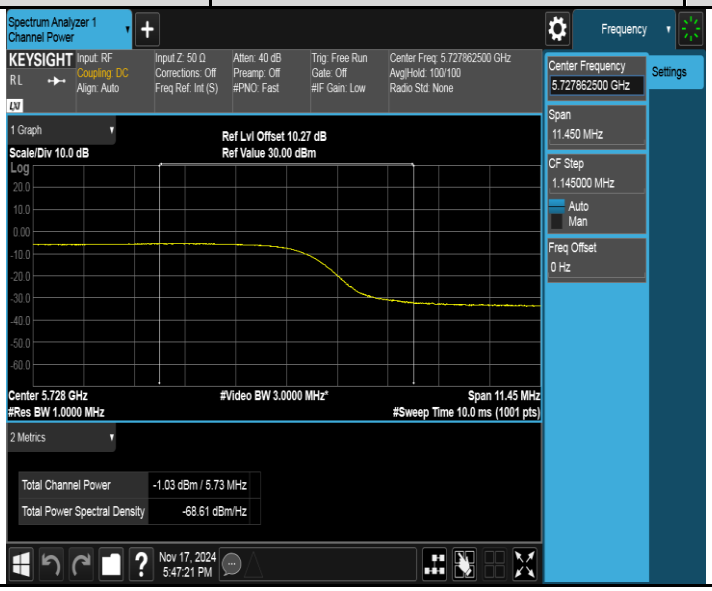
Test Mode	Test Channel	Verdict
11ac VHT40	5670	PASS



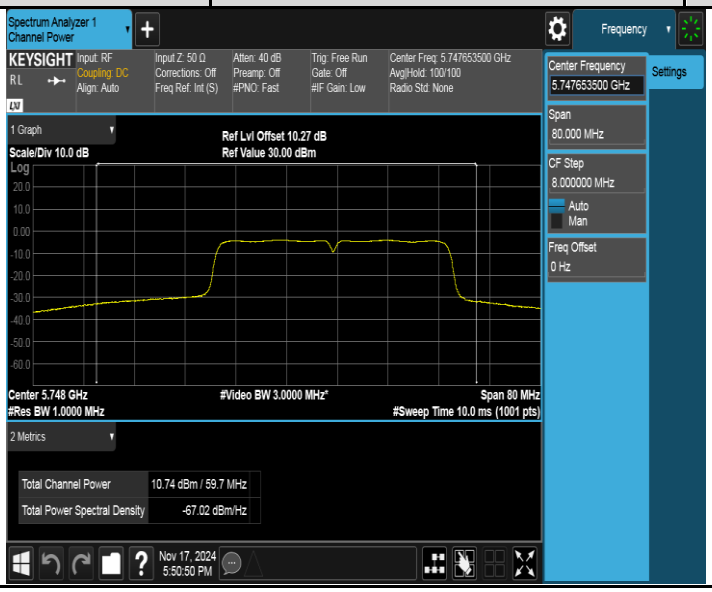
Test Mode	Test Channel	Verdict
11ac VHT40	5710_UNII-2C	PASS



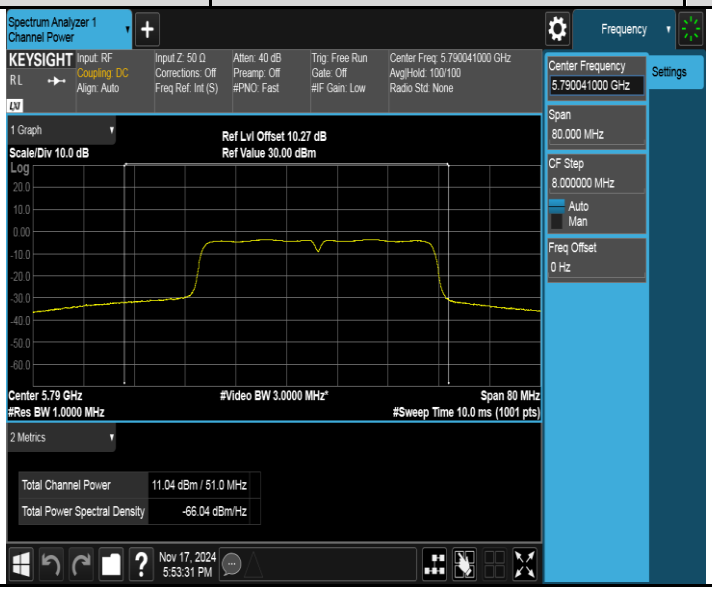
Test Mode	Test Channel	Verdict
11ac VHT40	5710_UNII-3	PASS



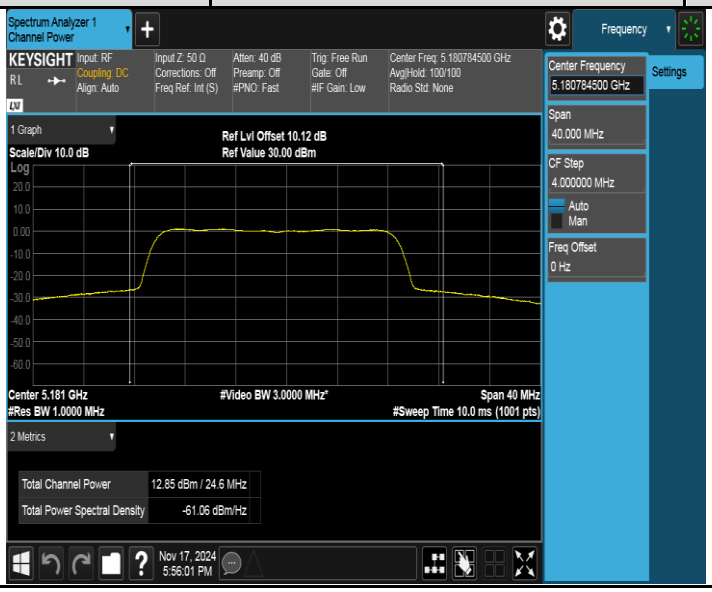
Test Mode	Test Channel	Verdict
11ac VHT40	5755	PASS



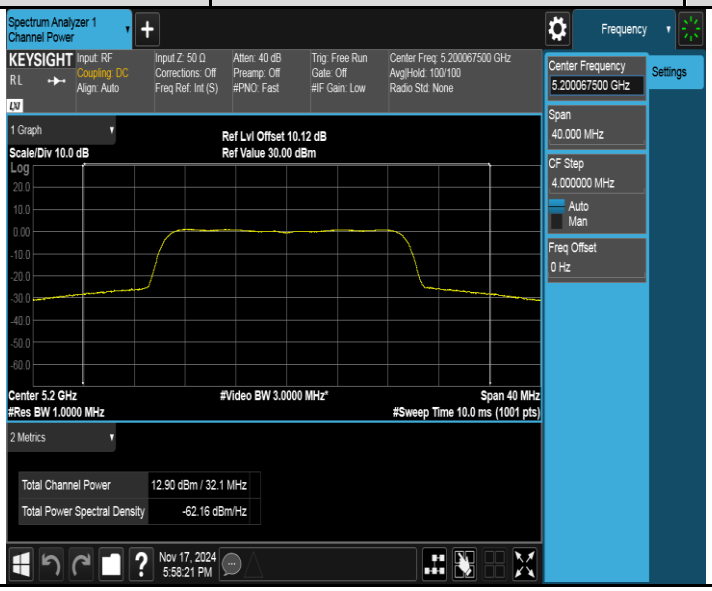
Test Mode	Test Channel	Verdict
11ac VHT40	5795	PASS



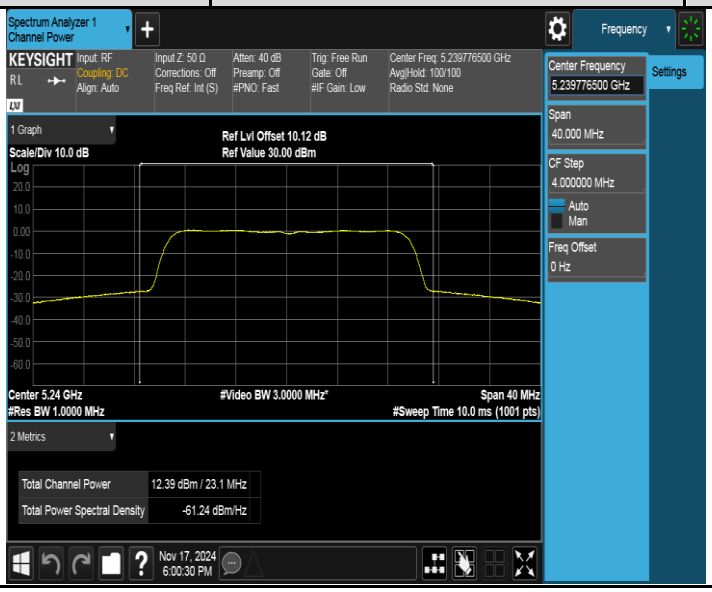
Test Mode	Test Channel	Verdict
11ax HE20	5180	PASS



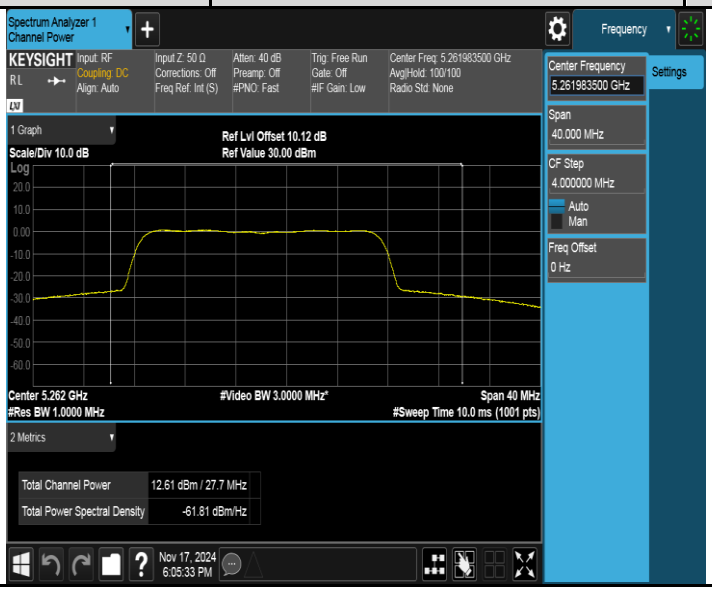
Test Mode	Test Channel	Verdict
11ax HE20	5200	PASS



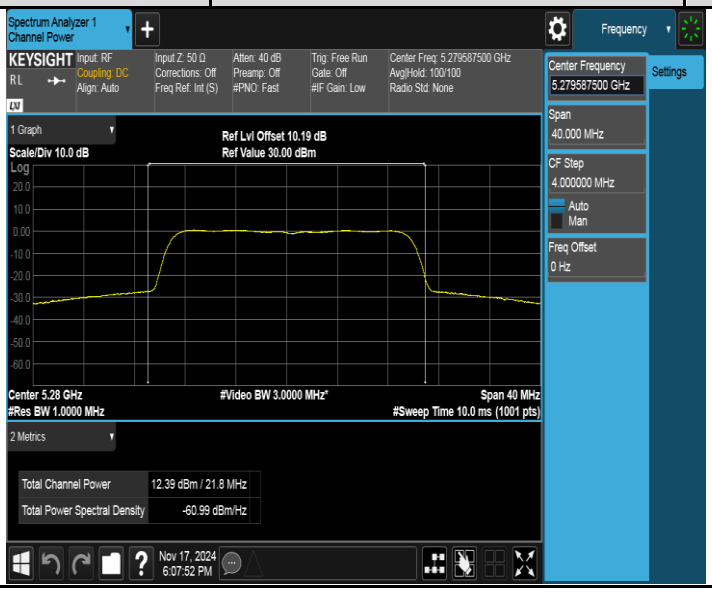
Test Mode	Test Channel	Verdict
11ax HE20	5240	PASS



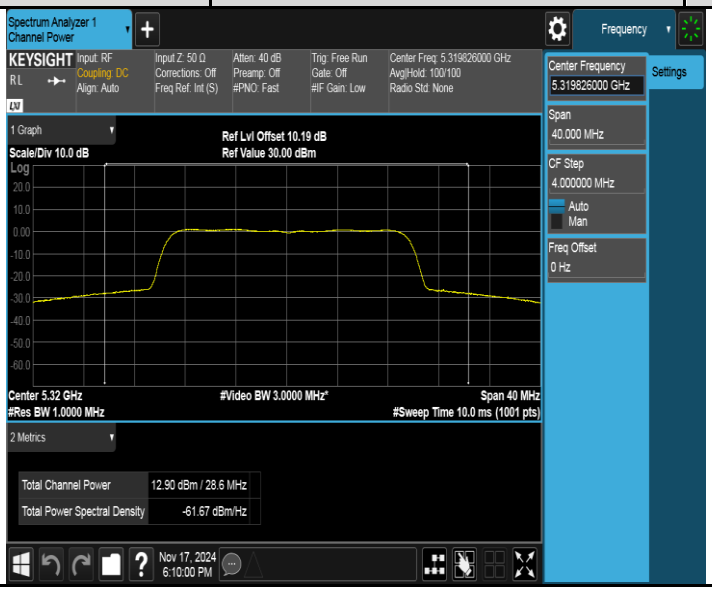
Test Mode	Test Channel	Verdict
11ax HE20	5260	PASS



Test Mode	Test Channel	Verdict
11ax HE20	5280	PASS

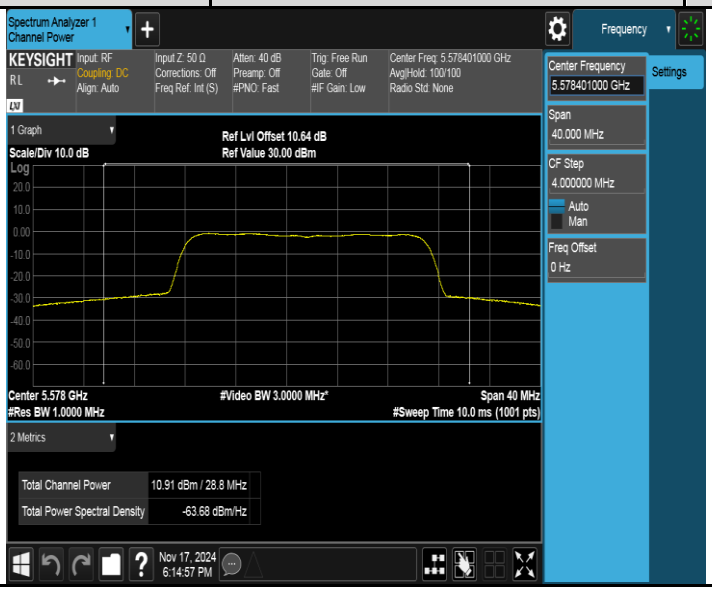


Test Mode	Test Channel	Verdict
11ax HE20	5320	PASS



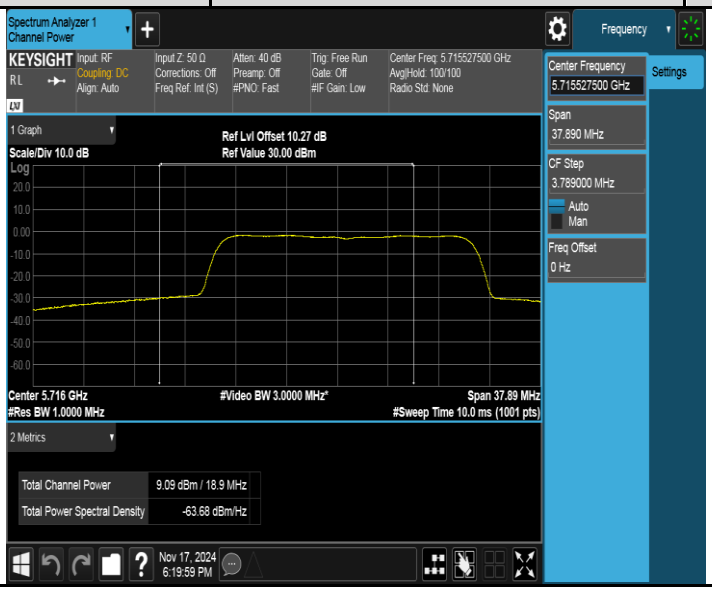
Test Mode	Test Channel	Verdict
11ax HE20	5500	PASS

Test Mode	Test Channel	Verdict
11ax HE20	5580	PASS

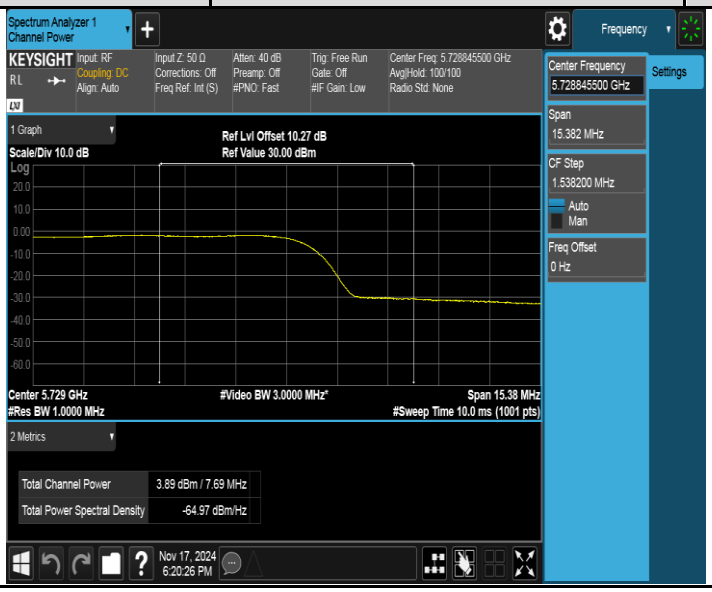


Test Mode	Test Channel	Verdict
11ax HE20	5700	PASS

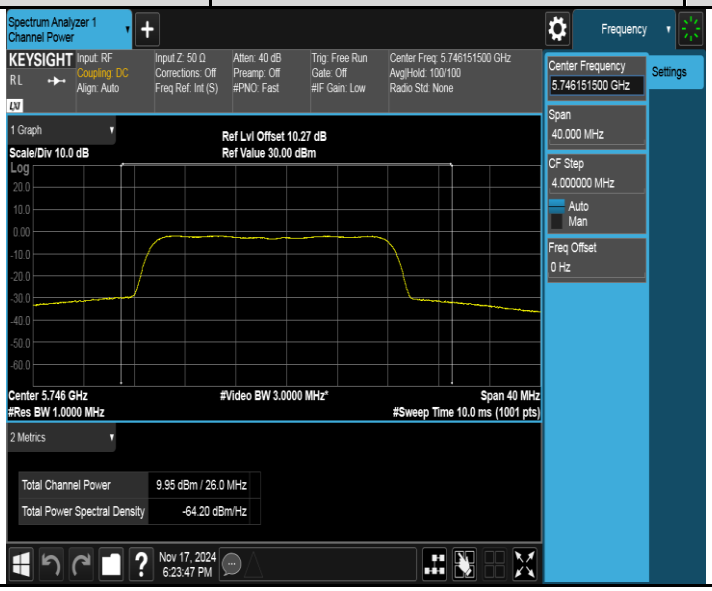
Test Mode	Test Channel	Verdict
11ax HE20	5720_UNII-2C	PASS



Test Mode	Test Channel	Verdict
11ax HE20	5720_UNII-3	PASS



Test Mode	Test Channel	Verdict
11ax HE20	5745	PASS

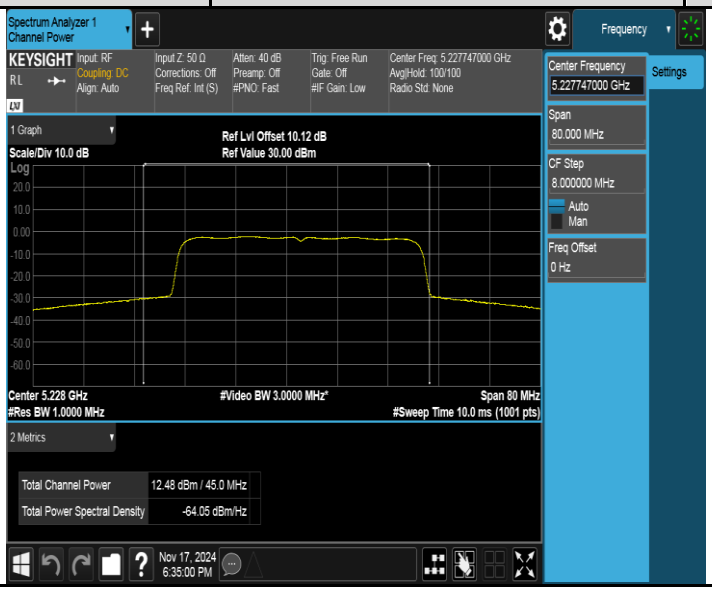


Test Mode	Test Channel	Verdict
11ax HE20	5785	PASS

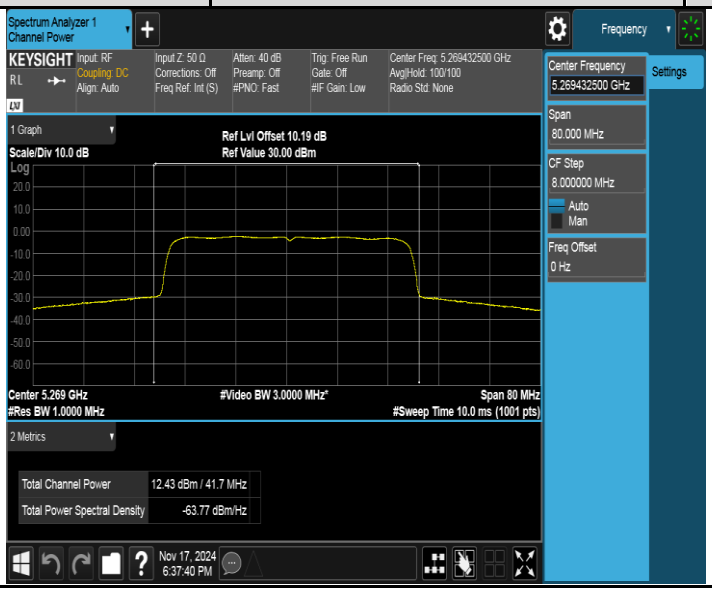
Test Mode	Test Channel	Verdict
11ax HE20	5825	PASS

Test Mode	Test Channel	Verdict
11ax HE40	5190	PASS

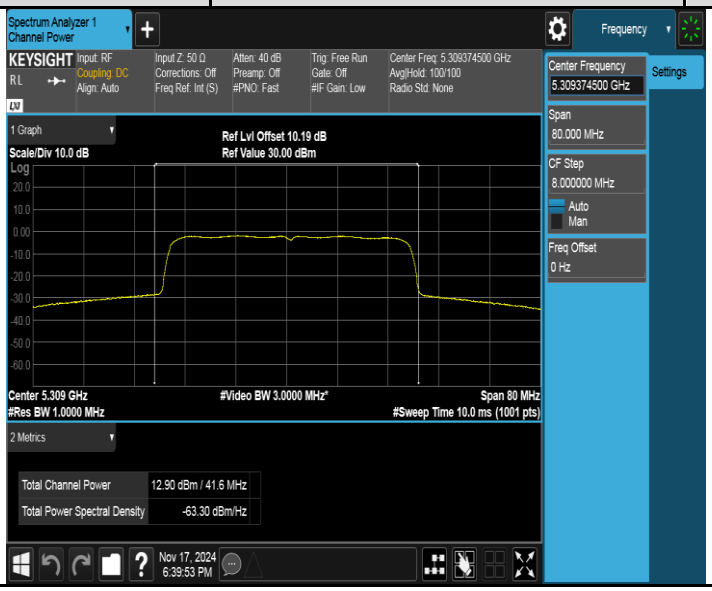
Test Mode	Test Channel	Verdict
11ax HE40	5230	PASS



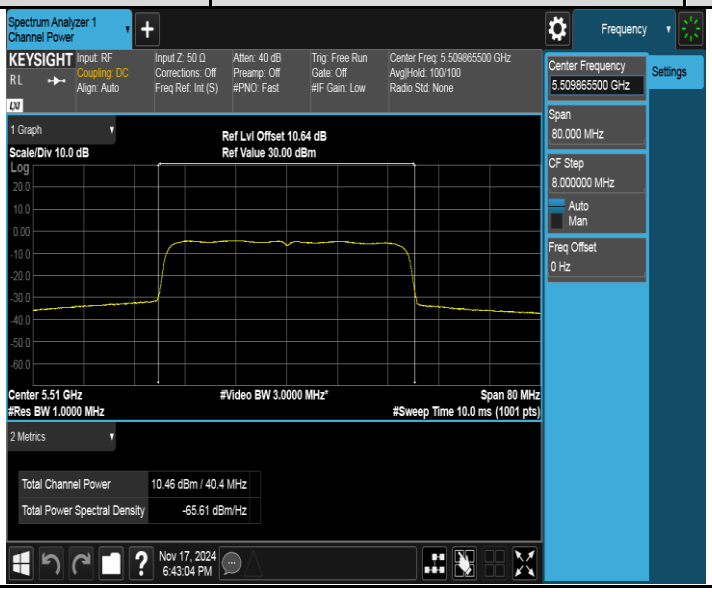
Test Mode	Test Channel	Verdict
11ax HE40	5270	PASS



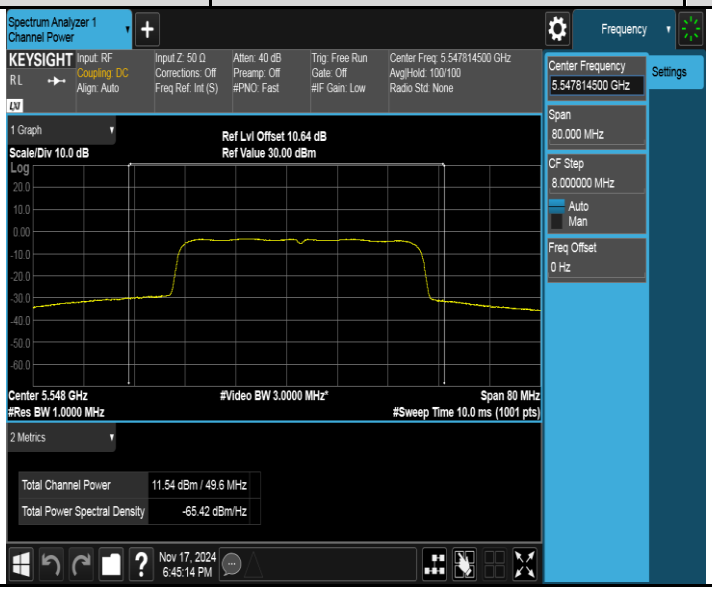
Test Mode	Test Channel	Verdict
11ax HE40	5310	PASS



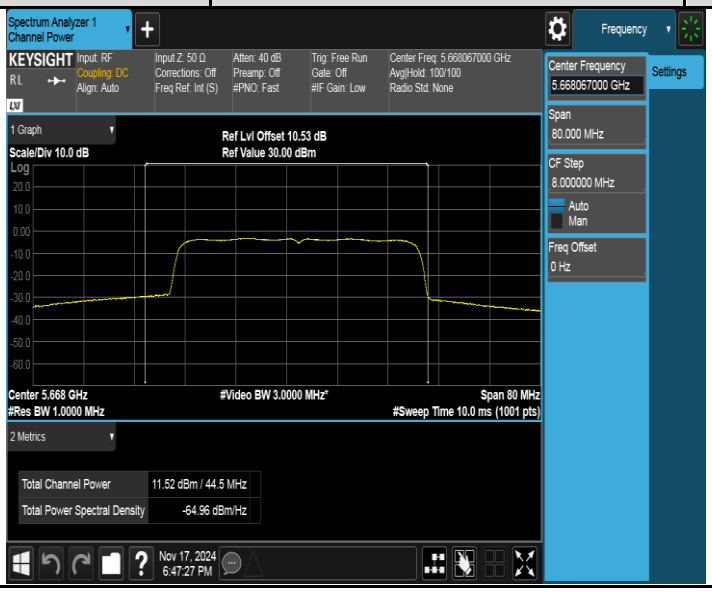
Test Mode	Test Channel	Verdict
11ax HE40	5510	PASS



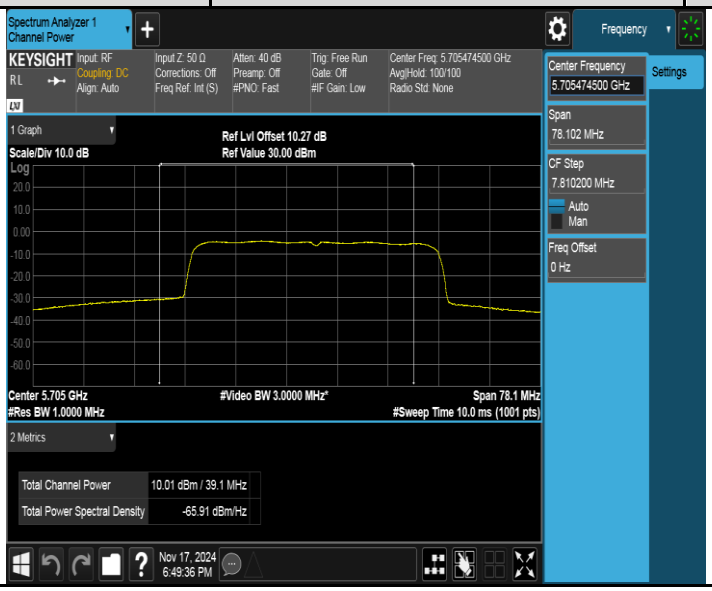
Test Mode	Test Channel	Verdict
11ax HE40	5550	PASS



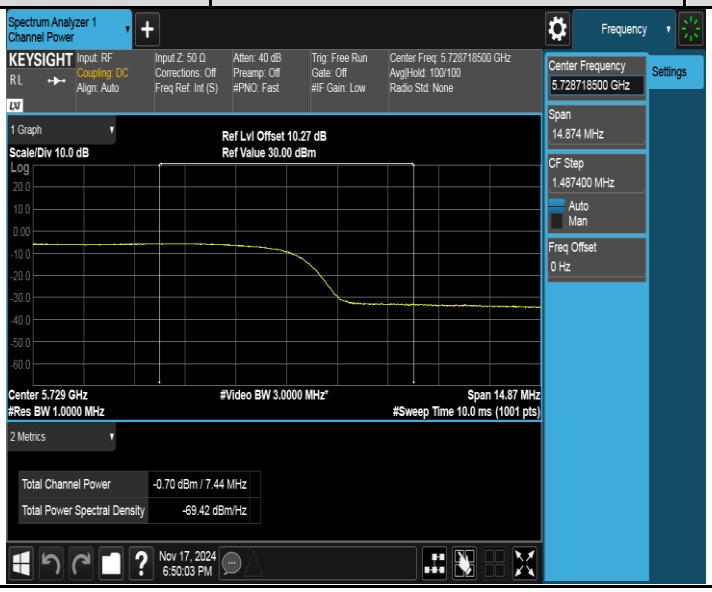
Test Mode	Test Channel	Verdict
11ax HE40	5670	PASS



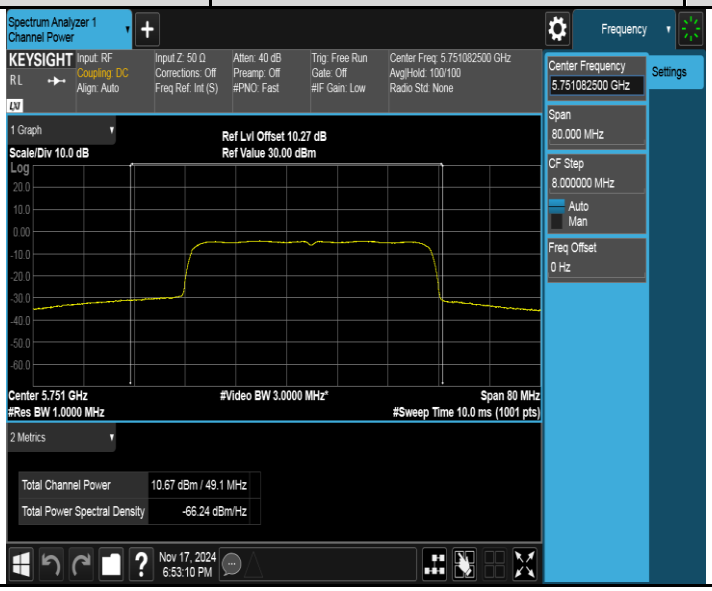
Test Mode	Test Channel	Verdict
11ax HE40	5710_UNII-2C	PASS



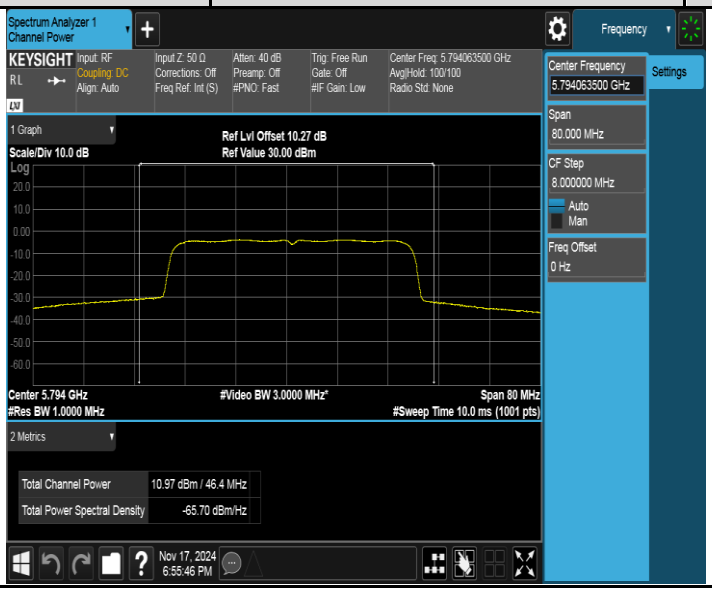
Test Mode	Test Channel	Verdict
11ax HE40	5710_UNII-3	PASS



Test Mode	Test Channel	Verdict
11ax HE40	5755	PASS



Test Mode	Test Channel	Verdict
11ax HE40	5795	PASS



6.4. POWER SPECTRAL DENSITY

LIMITS

CFR 47 FCC Part15, Subpart E RSS-247 Clause 6.2		
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	☐ Outdoor Access Point: 17 dBm/MHz ☐ Indoor Access Point: 17 dBm/MHz ☐ Fixed Point-To-Point Access Points: 17 dBm/MHz ☒ Client Devices: 11 dBm/MHz	5150 ~ 5250
	11 dBm/MHz	5250 ~ 5350 5470 ~ 5725
	30 dBm/500kHz	5725 ~ 5850

Remark:
The above limits are based upon the maximum antenna gain does not exceed 6 dBi.
If transmitting antennas of directional gain greater than 6 dBi are used, maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

Refer to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.F.

Connect the EUT to the spectrum analyser and use the following settings:

For U-NII-1, U-NII-2A and U-NII-2C band:

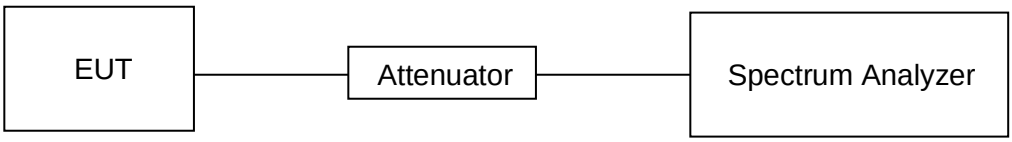
Center Frequency	The center frequency of the channel under test
Detector	RMS
RBW	1 MHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

For U-NII-3:

Center Frequency	The center frequency of the channel under test
Detector	RMS
RBW	500 kHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

Allow trace to fully stabilize and Use the peak search function on the instrument to find the peak of the spectrum and record its value.
Add 10 log (1/x), where x is the duty cycle, to the peak of the spectrum, the result is the Maximum PSD over 1 MHz / 500 kHz reference bandwidth.

TEST SETUP



TEST ENVIRONMENT

Environment Parameter	Selected Values During Tests
Relative Humidity	60%
Atmospheric Pressure:	101kPa
Temperature	22.2°C
Test Voltage	AC 120V
Test Date	11/17/2024

RESULTS

Band 1 & Band 2:

Mode	Channel	Measurement Value	Duty Cycle Correction Factor	PSD /MHz	FCC PSD Limit	ISED PSD Limit	Antenna Gain	EIRP PSD	ISED EIRP PSD Limit
	MHz	dBm	dB	dBm	dBm	dBm	dBi	dBm	dBm
11a	5180	2.05	0	2.05	11	/	1.08	3.13	10
	5200	1.99	0	1.99	11	/	1.08	3.07	10
	5240	1.46	0	1.46	11	/	1.08	2.54	10
	5260	1.68	0	1.68	11	11	1.08	2.76	/
	5280	1.58	0	1.58	11	11	1.08	2.66	/
	5320	1.90	0	1.90	11	11	1.08	2.98	/
	5500	-0.07	0	-0.07	11	11	1.08	1.01	/
	5580	0.03	0	0.03	11	11	1.08	1.11	/
	5700	-0.01	0	-0.01	11	11	1.08	1.07	/
	5720_ UNII-2C	-0.80	0	-0.80	11	11	1.08	0.28	/

Mode	Channel	Measurement Value	Duty Cycle Correction Factor	PSD /MHz	FCC PSD Limit	ISED PSD Limit	Antenna Gain	EIRP PSD	ISED EIRP PSD Limit
	MHz	dBm	dB	dBm	dBm	dBm	dBi	dBm	dBm
11ac VHT20	5180	1.60	0	1.60	11	/	1.08	2.68	10
	5200	1.64	0	1.64	11	/	1.08	2.72	10
	5240	1.14	0	1.14	11	/	1.08	2.22	10
	5260	1.41	0	1.41	11	11	1.08	2.49	/
	5280	1.28	0	1.28	11	11	1.08	2.36	/
	5320	1.66	0	1.66	11	11	1.08	2.74	/
	5500	-0.28	0	-0.28	11	11	1.08	0.80	/
	5580	-0.21	0	-0.21	11	11	1.08	0.87	/
	5700	-0.34	0	-0.34	11	11	1.08	0.74	/
	5720_ UNII-2C	-0.92	0	-0.92	11	11	1.08	0.16	/

Mode	Channel	Measurement Value	Duty Cycle Correction Factor	PSD /MHz	FCC PSD Limit	ISED PSD Limit	Antenna Gain	EIRP PSD	ISED EIRP PSD Limit
	MHz	dBm	dB	dBm	dBm	dBm	dBi	dBm	dBm
11ac VHT40	5190	-1.54	0	-1.54	11	/	1.08	-0.46	10
	5230	-1.60	0	-1.60	11	/	1.08	-0.52	10
	5270	-1.67	0	-1.67	11	/	1.08	-0.59	/
	5310	-1.35	0	-1.35	11	11	1.08	-0.27	/
	5510	-3.62	0	-3.62	11	11	1.08	-2.54	/
	5550	-2.64	0	-2.64	11	11	1.08	-1.56	/
	5670	-2.73	0	-2.73	11	11	1.08	-1.65	/
	5710_ UNII-2C	-3.98	0	-3.98	11	11	1.08	-2.90	/

Mode	Channel	Measurement Value	Duty Cycle Correction Factor	PSD /MHz	FCC PSD Limit	ISED PSD Limit	Antenna Gain	EIRP PSD	ISED EIRP PSD Limit
	MHz	dBm	dB	dBm	dBm	dBm	dBi	dBm	dBm
11ax HE20	5180	1.71	0	1.71	11	/	1.08	2.79	10
	5200	1.60	0	1.60	11	/	1.08	2.68	10
	5240	1.08	0	1.08	11	/	1.08	2.16	10
	5260	1.27	0	1.27	11	11	1.08	2.35	/
	5280	1.06	0	1.06	11	11	1.08	2.14	/
	5320	1.52	0	1.52	11	11	1.08	2.60	/
	5500	-0.38	0	-0.38	11	11	1.08	0.70	/
	5580	-0.23	0	-0.23	11	11	1.08	0.85	/
	5700	-0.45	0	-0.45	11	11	1.08	0.63	/
	5720_ UNII-2C	-1.13	0	-1.13	11	11	1.08	-0.05	/

Mode	Channel	Measurement Value	Duty Cycle Correction Factor	PSD /MHz	FCC PSD Limit	ISED PSD Limit	Antenna Gain	EIRP PSD	ISED EIRP PSD Limit
	MHz	dBm	dB	dBm	dBm	dBm	dBi	dBm	dBm
11ax HE40	5190	-1.66	0	-1.66	11	/	1.08	-0.58	10
	5230	-1.48	0	-1.48	11	/	1.08	-0.40	10
	5270	-1.83	0	-1.83	11	/	1.08	-0.75	/
	5310	-1.36	0	-1.36	11	11	1.08	-0.28	/
	5510	-3.70	0	-3.70	11	11	1.08	-2.62	/
	5550	-2.70	0	-2.70	11	11	1.08	-1.62	/
	5670	-2.89	0	-2.89	11	11	1.08	-1.81	/
	5710_ UNII-2C	-3.87	0	-3.87	11	11	1.08	-2.79	/

Band 3:

Mode	Channel	Measurement Value	Duty Cycle Correction Factor	PSD/300 kHz	Correct Factor	PSD/500 kHz	Limit
	MHz	dBm	dBm	dBm	dB	dBm	dBm
11a	5720_UNII-3	-3.91	0	-2.55	2.22	-0.33	30.00
	5745	-3.85	0	-1.02	2.22	1.20	30.00
	5785	-2.69	0	-0.47	2.22	1.75	30.00
	5825	-2.72	0	-1.17	2.22	1.05	30.00

Mode	Channel	Measurement Value	Duty Cycle Correction Factor	PSD/300 kHz	Correct Factor	PSD/500 kHz	Limit
	MHz	dBm	dBm	dBm	dB	dBm	dBm
11ac VHT20	5720_UNII-3	-4.08	0	-2.86	2.22	-0.64	30.00
	5745	-4.05	0	-1.28	2.22	0.94	30.00
	5785	-2.97	0	-0.83	2.22	1.39	30.00
	5825	-3.03	0	-1.57	2.22	0.65	30.00

Mode	Channel	Measurement Value	Duty Cycle Correction Factor	PSD/300 kHz	Correct Factor	PSD/500 kHz	Limit
	MHz	dBm	dBm	dBm	dB	dBm	dBm
11ac VHT40	5710_UNII-3	-7.96	0	-7.02	2.22	-4.80	30.00
	5755	-6.51	0	-3.76	2.22	-1.54	30.00
	5795	-6.13	0	-3.96	2.22	-1.74	30.00

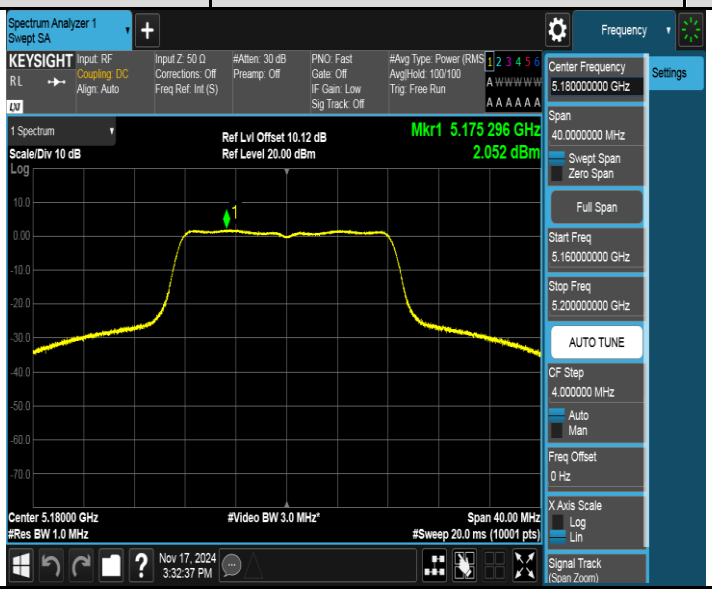
Mode	Channel	Measurement Value	Duty Cycle Correction Factor	PSD/300 kHz	Correct Factor	PSD/500 kHz	Limit
	MHz	dBm	dBm	dBm	dB	dBm	dBm
11ax HE20	5720_UNII-3	-4.23	0	-4.23	2.22	-2.01	30.00
	5745	-4.15	0	-4.15	2.22	-1.93	30.00
	5785	-3.05	0	-3.05	2.22	-0.83	30.00
	5825	-3.18	0	-3.18	2.22	-0.96	30.00

Mode	Channel	Measurement Value	Duty Cycle Correction Factor	PSD/300 kHz	Correct Factor	PSD/500 kHz	Limit
	MHz	dBm	dBm	dBm	dB	dBm	dBm
11ax HE40	5710_UNII-3	-8.01	0	-8.01	2.22	-5.79	30.00
	5755	-6.42	0	-6.42	2.22	-4.20	30.00
	5795	-6.09	0	-6.09	2.22	-3.87	30.00

Note:
1. The Result and Limit Unit is dBm/500 kHz in the band 5.725 - 5.85 GHz.
2. PSD/500 kHz = 10*log (10^ ((PSD/300 kHz)/10)/300*500)
   = PSD/300 kHz + 2.2 dB

TEST GRAPHS

Test Mode	Test Channel	Verdict
11a	5180	PASS



Test Mode	Test Channel	Verdict
11a	5200	PASS