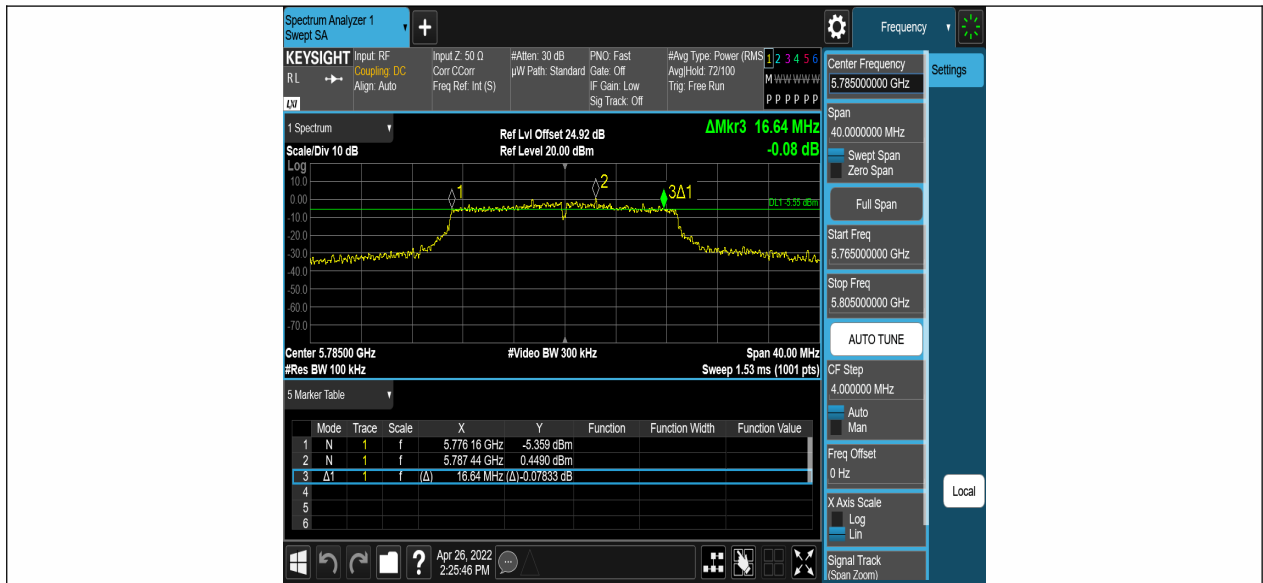




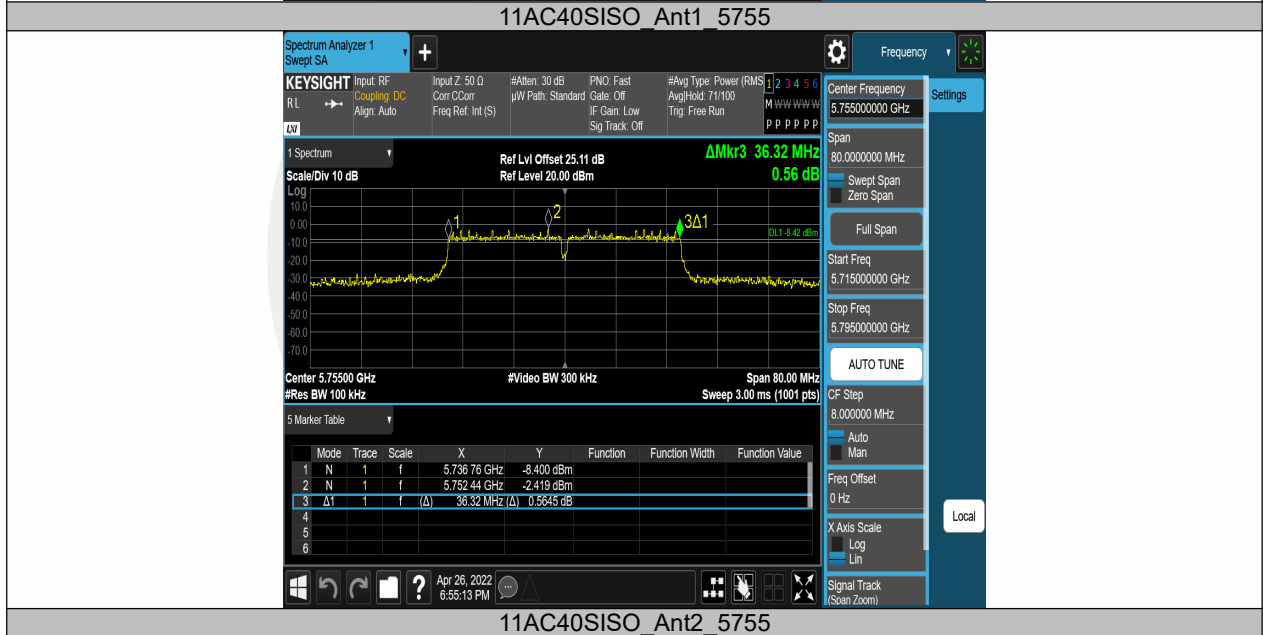
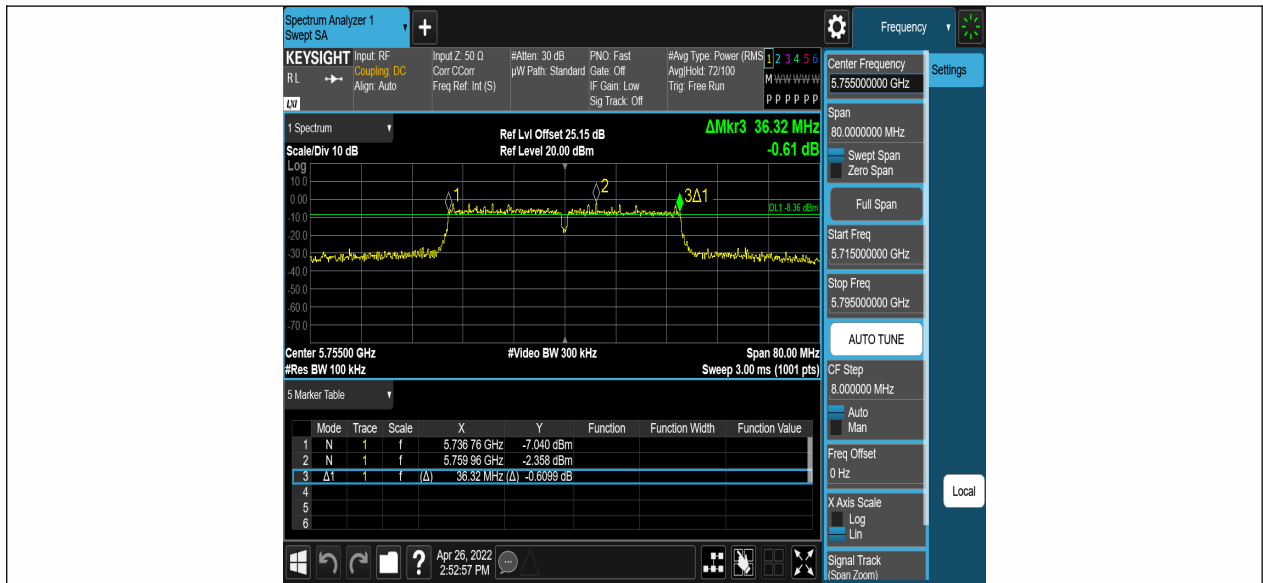
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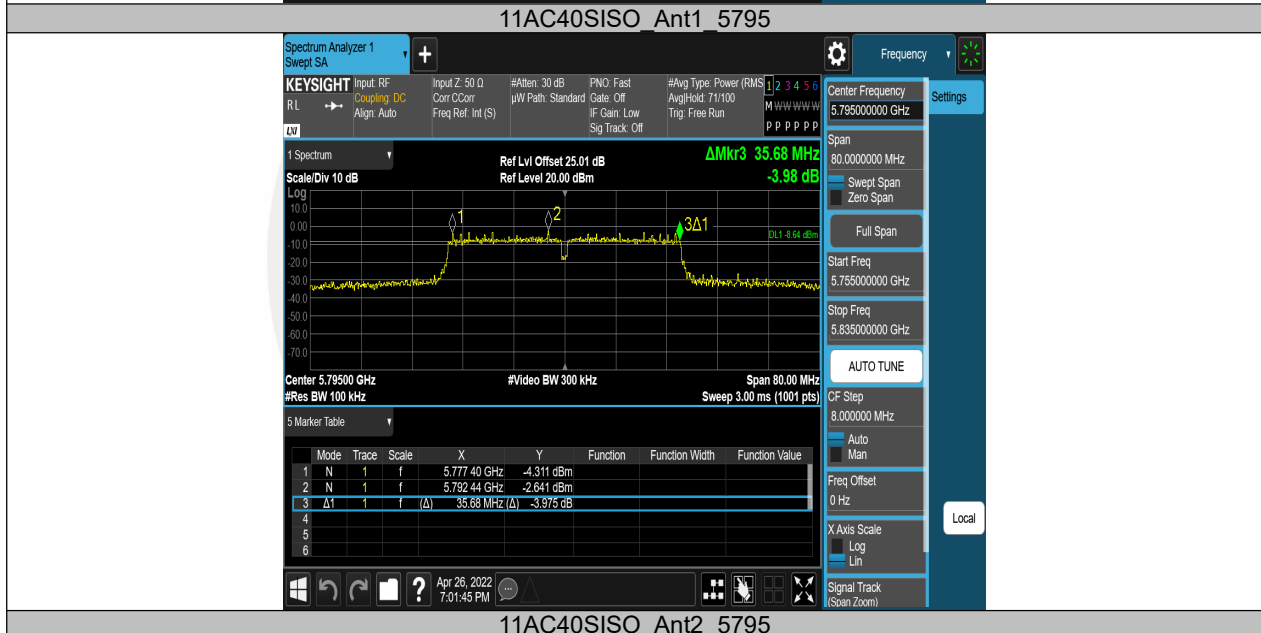
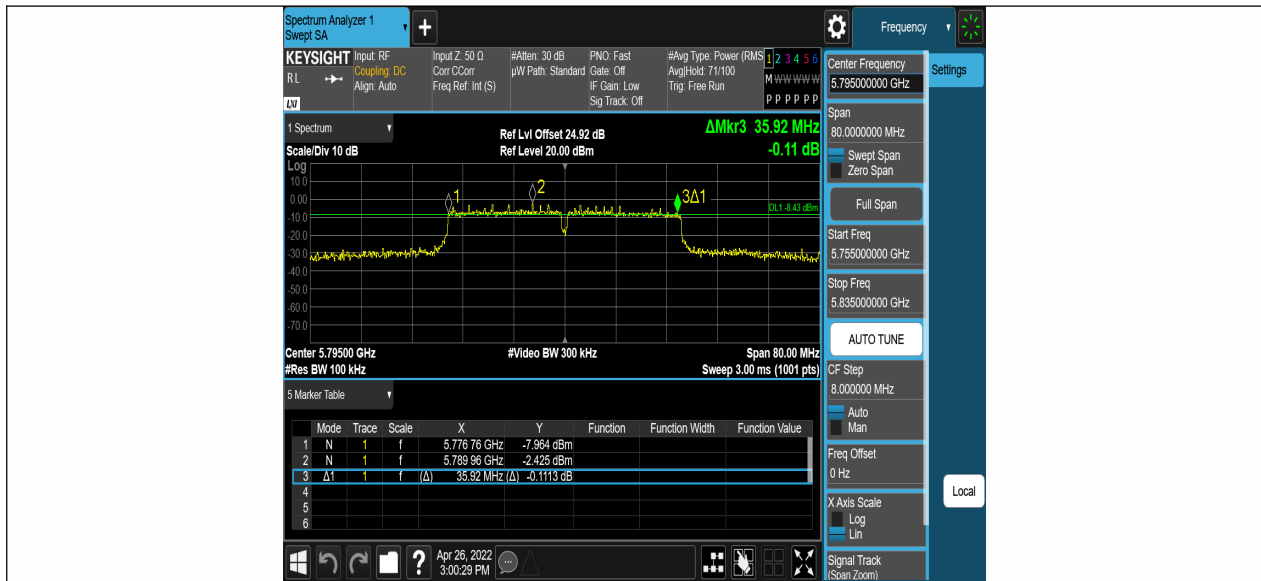


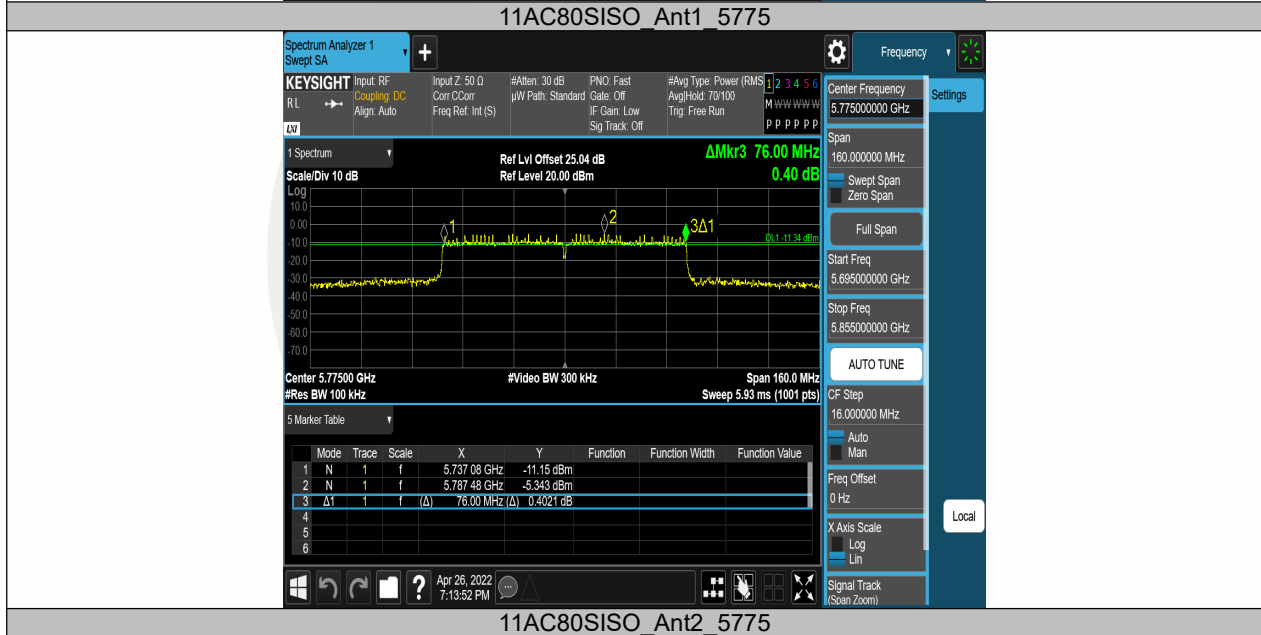
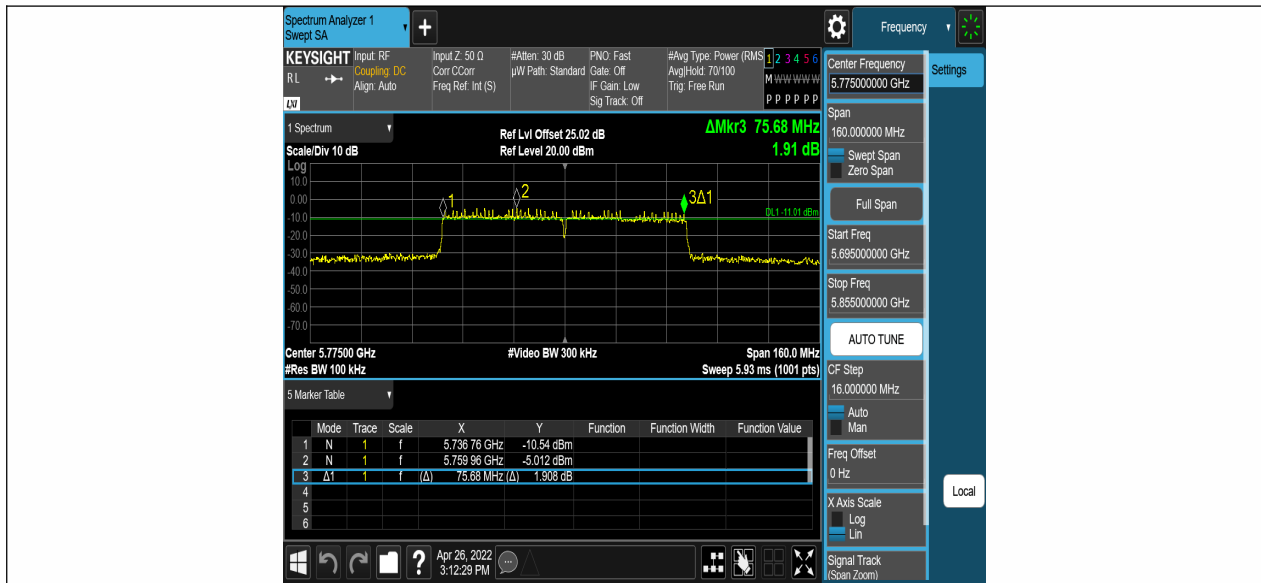
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8.2 MAXIMUM CONDUCTED OUTPUT POWER

8.2.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I
According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C
According to FCC Part 15.407(a)(3) for UNII Band III
According to 789033 D02 Section II(E)

8.2.2 Conformance Limit

■ For the band 5.15-5.25 GHz,

(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 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(a) (1) (ii) For an indoor 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.

(a) (1) (iii) For fixed point-to-point access points 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. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. 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.

(a) (1) (iv) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ For the 5.25-5.35 GHz and 5.47-5.725 GHz bands

(a) (2) The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ For the band 5.725-5.85 GHz

(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

8.2.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.2.4 Test Procedure

The maximum average conducted output power can be measured using Method PM-G (Measurement using a gated RF average power meter):

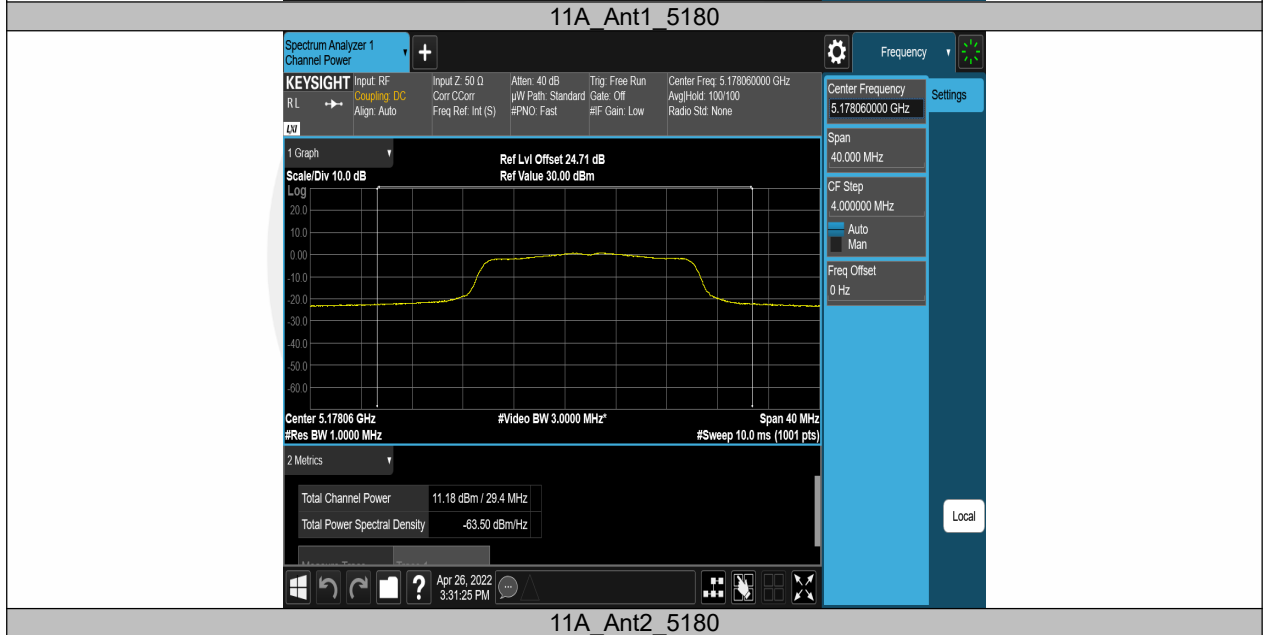
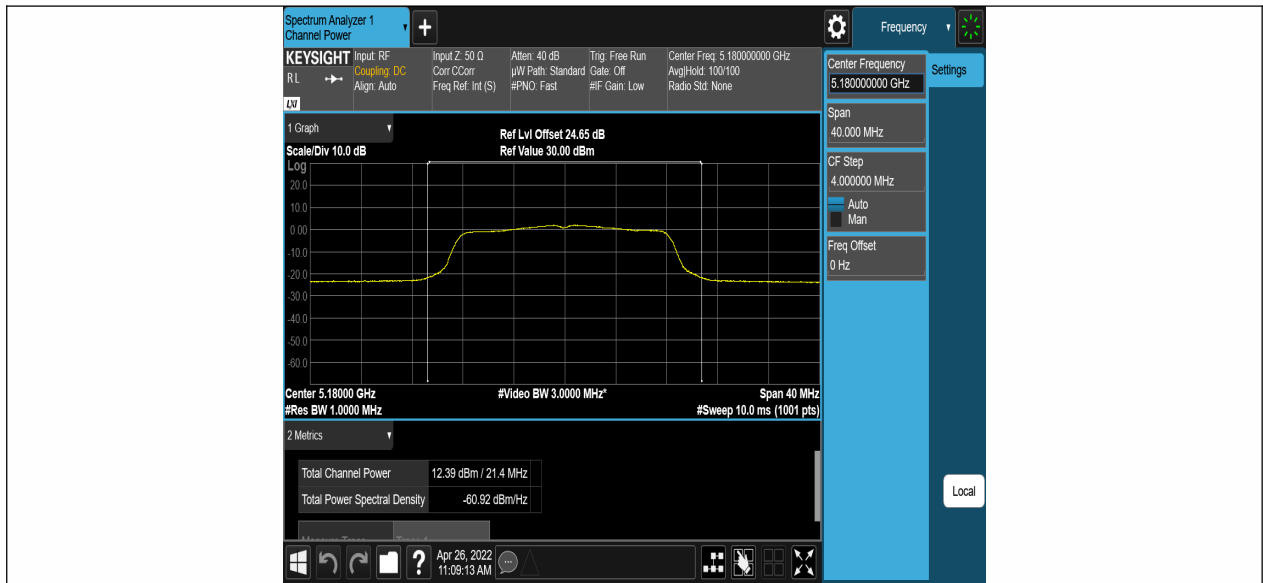
Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle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

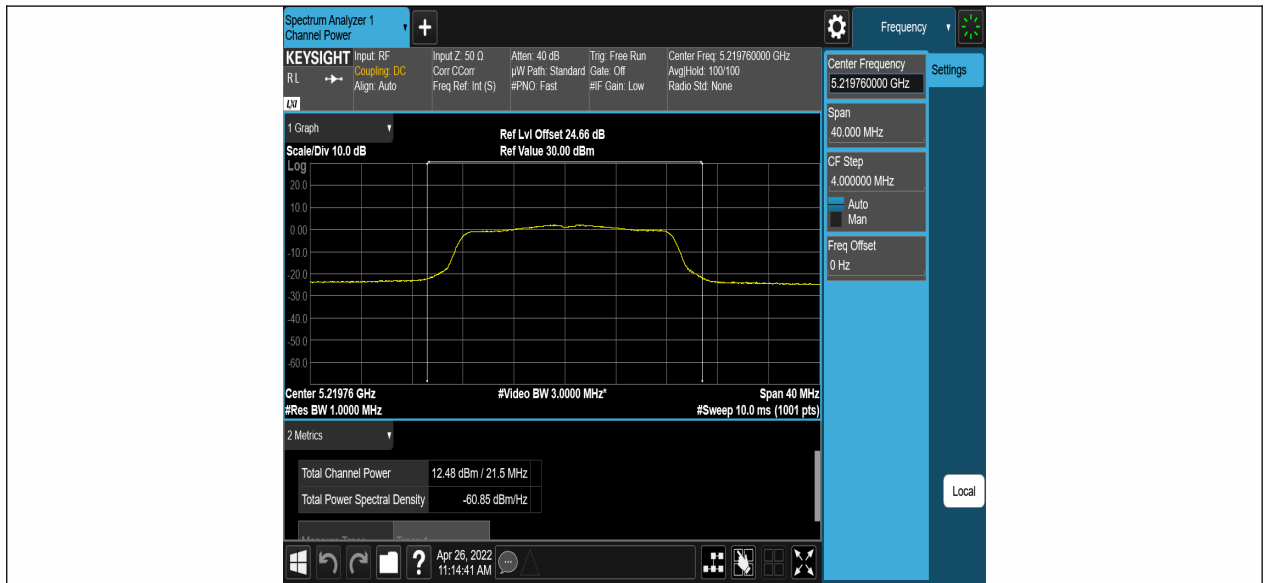
- a. The Transmitter output (antenna port) was connected to the power meter.
- b. Turn on the EUT and power meter and then record the power value.
- c. Repeat above procedures on all channels needed to be tested.

8.2.5 Test Results

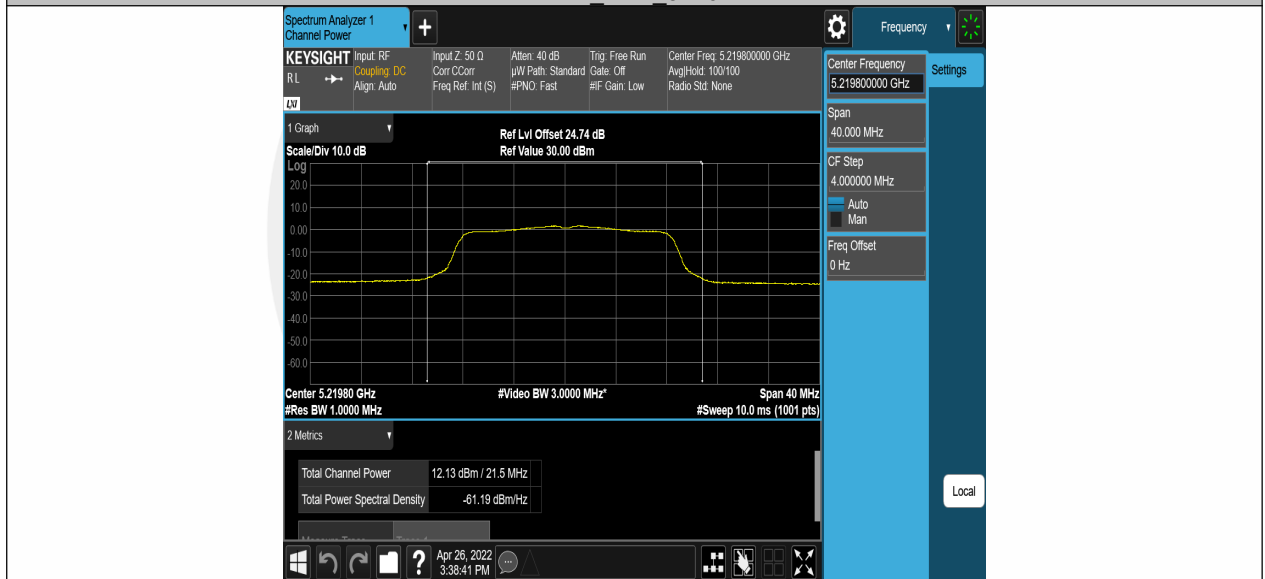
Test Mode	Antenna	Frequency [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	12.39	≤23.98	PASS
	Ant2	5180	11.18	≤23.98	PASS
	Ant1	5220	12.48	≤23.98	PASS
	Ant2	5220	12.13	≤23.98	PASS
	Ant1	5240	12.72	≤23.98	PASS
	Ant2	5240	12.54	≤23.98	PASS
	Ant1	5745	12.30	≤30.00	PASS
	Ant2	5745	12.10	≤30.00	PASS
	Ant1	5785	11.79	≤30.00	PASS
	Ant2	5785	11.50	≤30.00	PASS
	Ant1	5825	11.88	≤30.00	PASS
	Ant2	5825	11.39	≤30.00	PASS
11N20SIS O	Ant1	5180	12.34	≤23.98	PASS
	Ant2	5180	11.13	≤23.98	PASS
	Ant1	5220	12.47	≤23.98	PASS
	Ant2	5220	11.96	≤23.98	PASS
	Ant1	5240	12.80	≤23.98	PASS
	Ant2	5240	12.48	≤23.98	PASS
	Ant1	5745	12.31	≤30.00	PASS
	Ant2	5745	11.90	≤30.00	PASS
	Ant1	5785	11.71	≤30.00	PASS
	Ant2	5785	11.43	≤30.00	PASS
	Ant1	5825	11.73	≤30.00	PASS
	Ant2	5825	11.26	≤30.00	PASS
11N40SIS O	Ant1	5190	12.39	≤23.98	PASS
	Ant2	5190	11.15	≤23.98	PASS

	Ant1	5230	12.69	≤23.98	PASS
	Ant2	5230	12.14	≤23.98	PASS
	Ant1	5755	12.05	≤30.00	PASS
	Ant2	5755	11.81	≤30.00	PASS
	Ant1	5795	11.54	≤30.00	PASS
	Ant2	5795	11.36	≤30.00	PASS
11AC20SI SO	Ant1	5180	12.49	≤23.98	PASS
	Ant2	5180	11.25	≤23.98	PASS
	Ant1	5220	12.53	≤23.98	PASS
	Ant2	5220	11.94	≤23.98	PASS
	Ant1	5240	12.86	≤23.98	PASS
	Ant2	5240	12.47	≤23.98	PASS
	Ant1	5745	12.31	≤30.00	PASS
	Ant2	5745	11.88	≤30.00	PASS
	Ant1	5785	11.79	≤30.00	PASS
	Ant2	5785	11.40	≤30.00	PASS
	Ant1	5825	11.93	≤30.00	PASS
	Ant2	5825	11.29	≤30.00	PASS
11AC40SI SO	Ant1	5190	12.41	≤23.98	PASS
	Ant2	5190	11.17	≤23.98	PASS
	Ant1	5230	12.74	≤23.98	PASS
	Ant2	5230	12.11	≤23.98	PASS
	Ant1	5755	12.06	≤30.00	PASS
	Ant2	5755	11.75	≤30.00	PASS
	Ant1	5795	11.49	≤30.00	PASS
	Ant2	5795	11.40	≤30.00	PASS
11AC80SI SO	Ant1	5210	12.78	≤23.98	PASS
	Ant2	5210	11.70	≤23.98	PASS
	Ant1	5775	11.71	≤30.00	PASS
	Ant2	5775	11.83	≤30.00	PASS
11N20MIMO		5180	14.79	≤23.98	PASS
		5220	15.23	≤23.98	PASS
		5240	15.65	≤23.98	PASS
		5745	15.12	≤30.00	PASS
		5785	14.58	≤30.00	PASS
		5825	14.51	≤30.00	PASS
11N40MIMO		5190	14.82	≤23.98	PASS
		5230	15.43	≤23.98	PASS
		5755	14.94	≤30.00	PASS
		5795	14.46	≤30.00	PASS
11AC20MIMO		5180	14.92	≤23.98	PASS
		5220	15.26	≤23.98	PASS
		5240	15.68	≤23.98	PASS
		5745	15.11	≤30.00	PASS
		5785	14.61	≤30.00	PASS
		5825	14.63	≤30.00	PASS
11AC40MIMO		5190	14.84	≤23.98	PASS
		5230	15.45	≤23.98	PASS
		5755	14.92	≤30.00	PASS
		5795	14.46	≤30.00	PASS
11AC80MIMO		5210	15.28	≤23.98	PASS
		5775	14.78	≤30.00	PASS

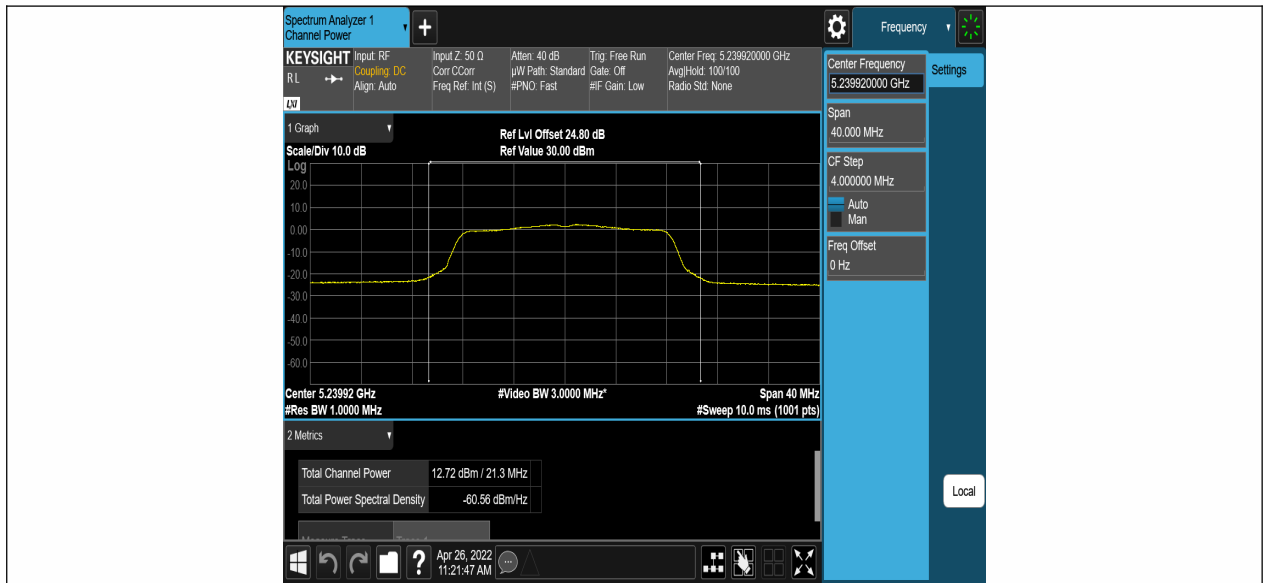




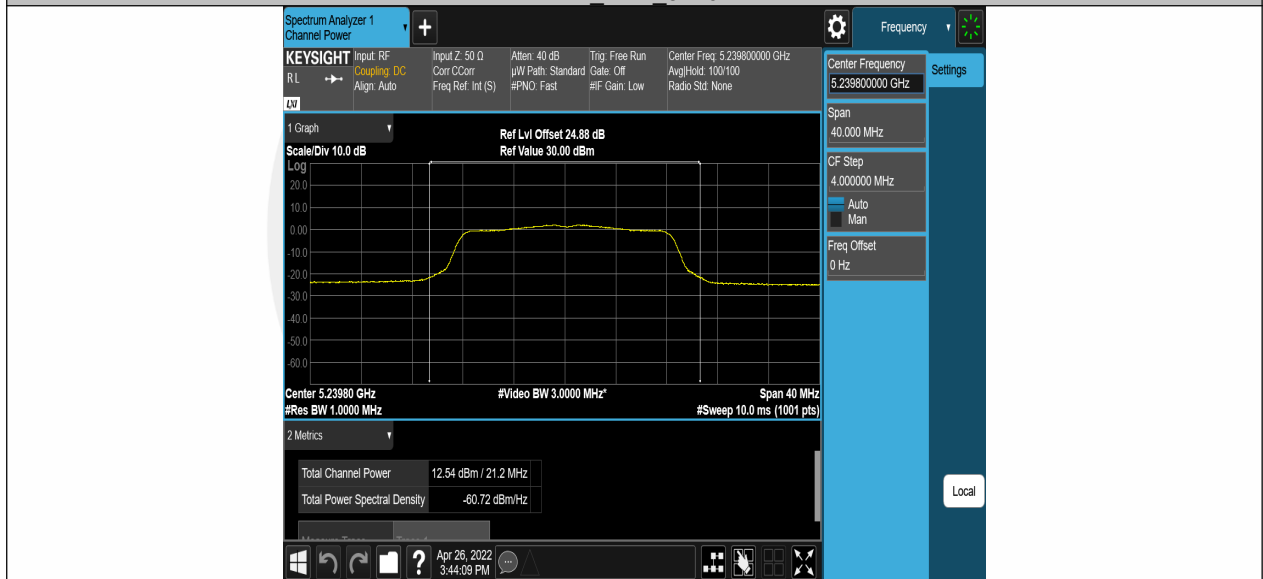
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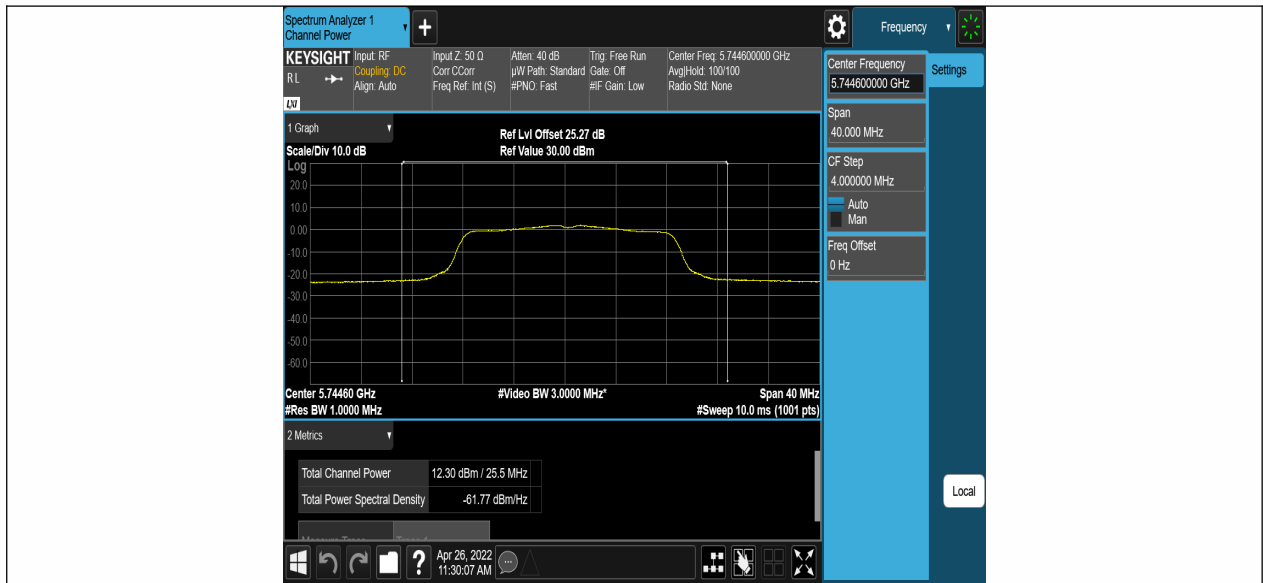
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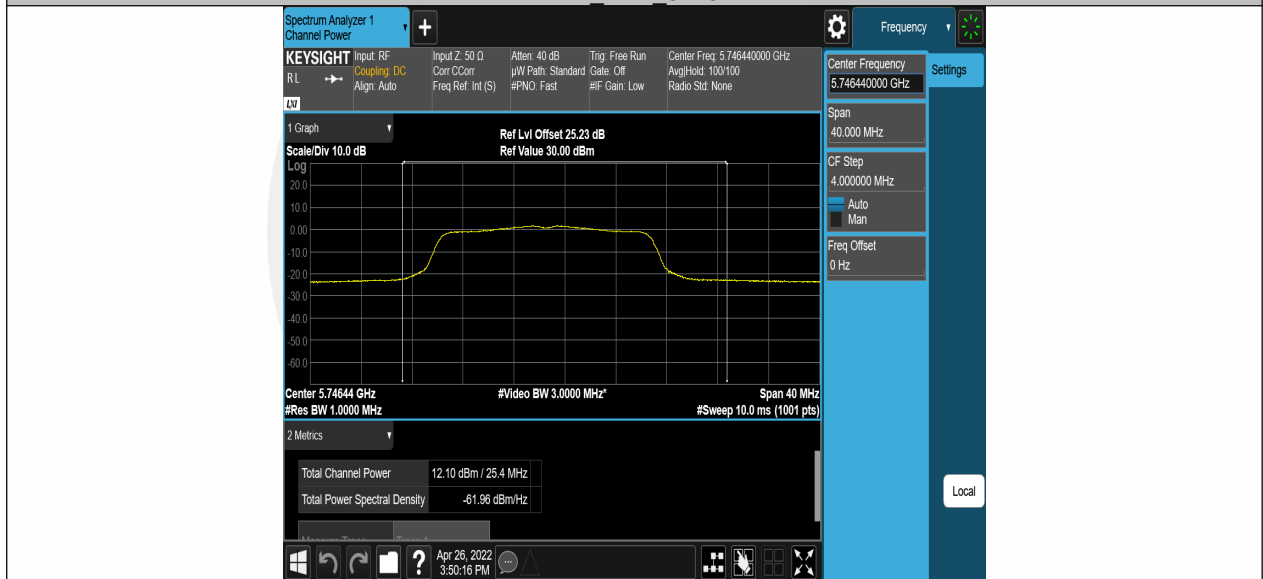
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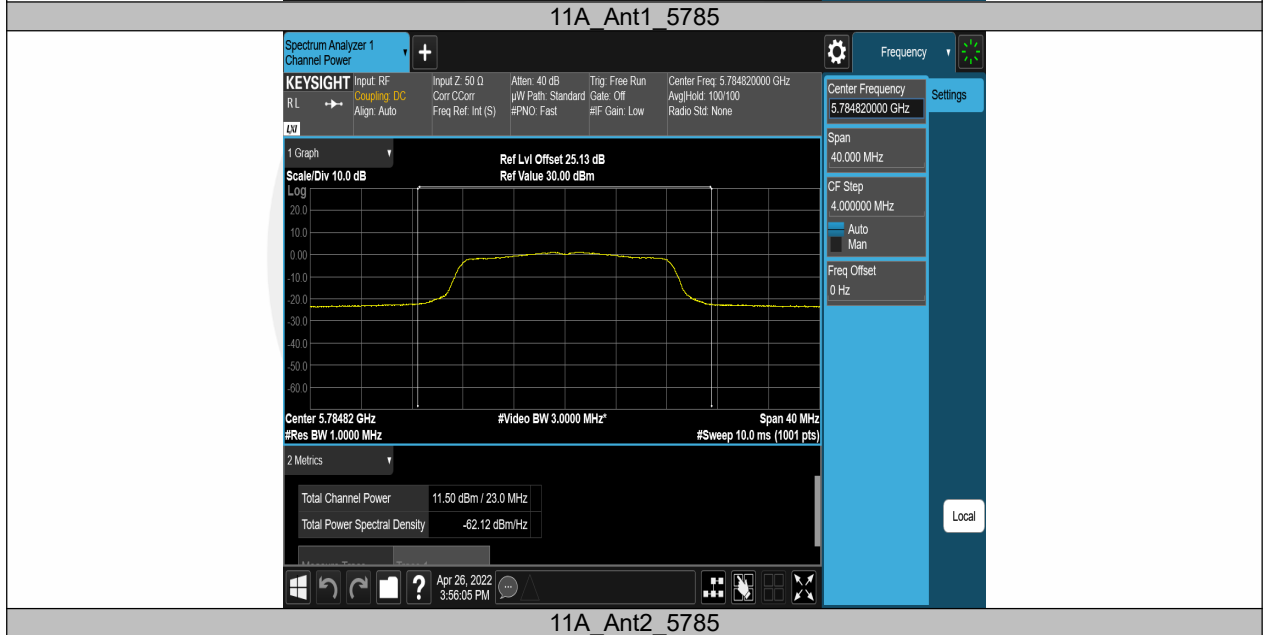
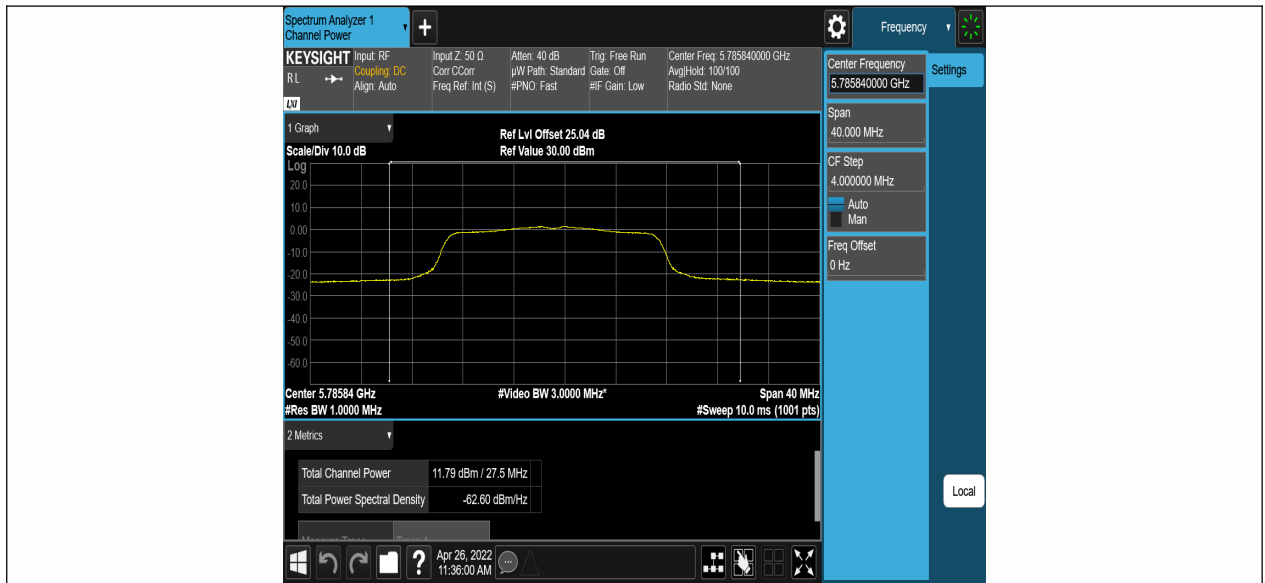
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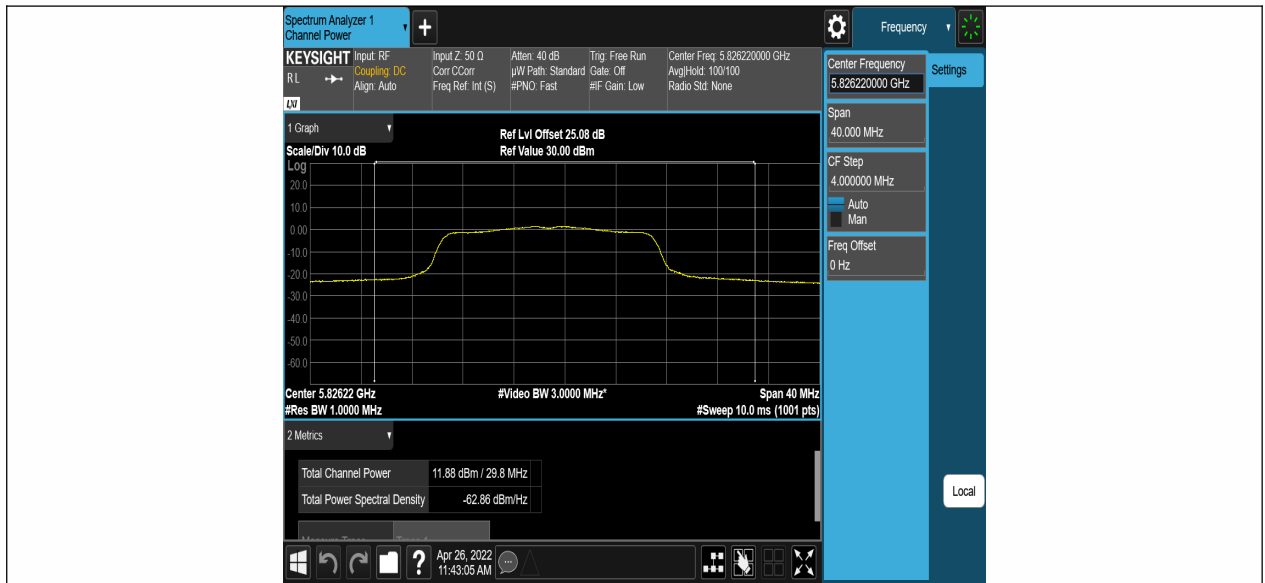


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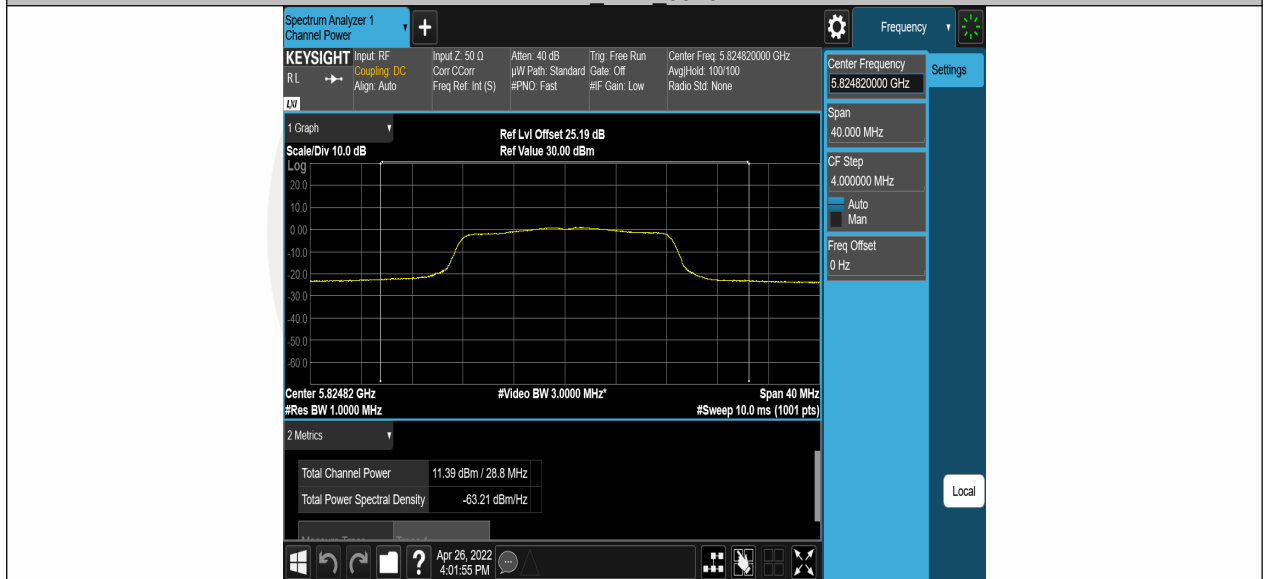


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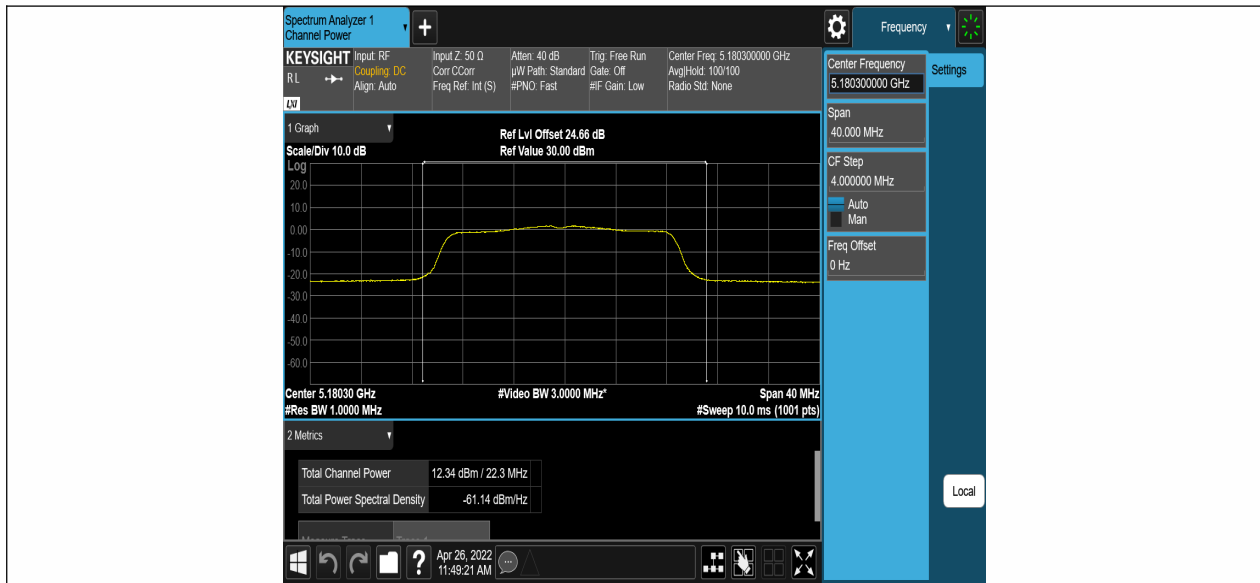




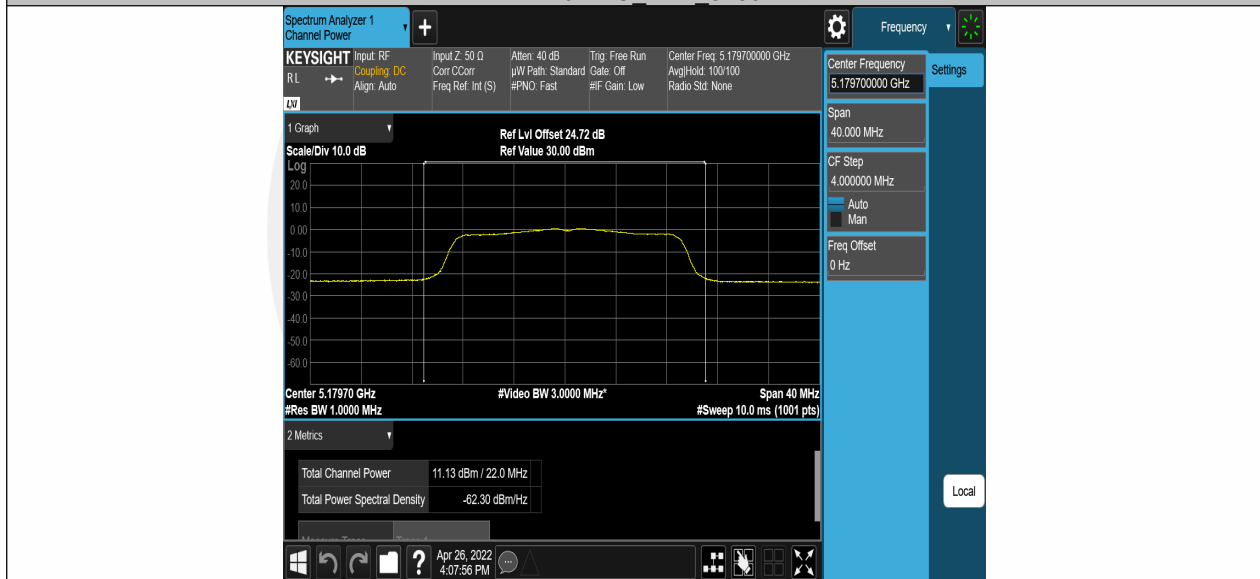
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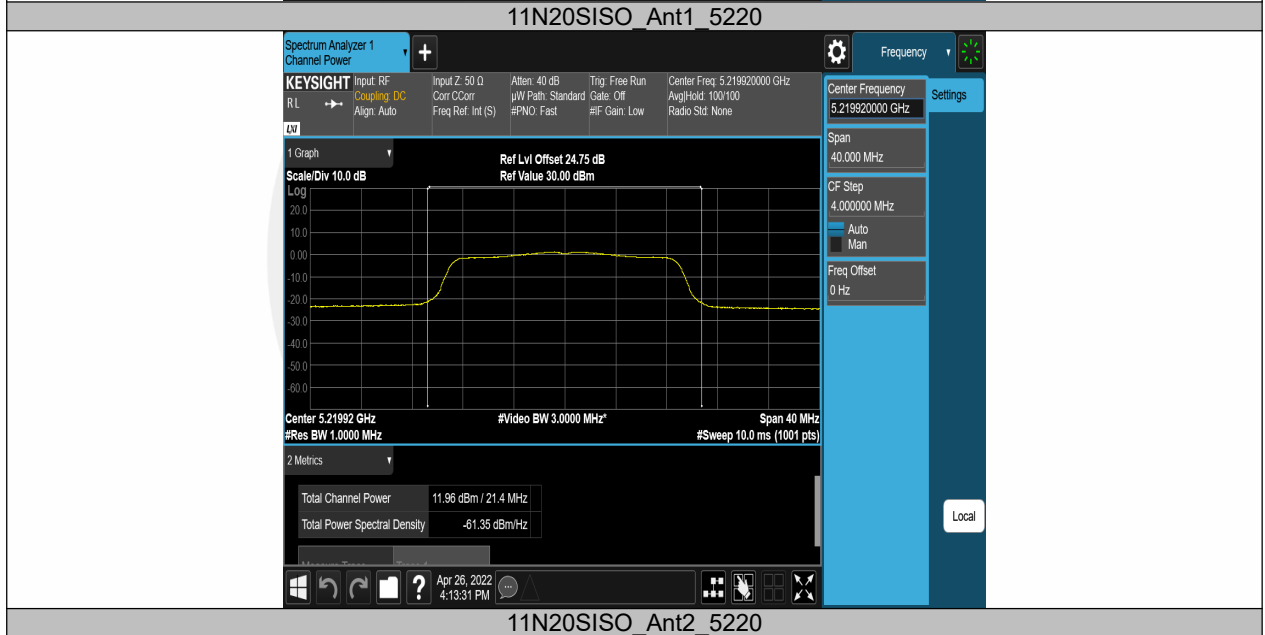
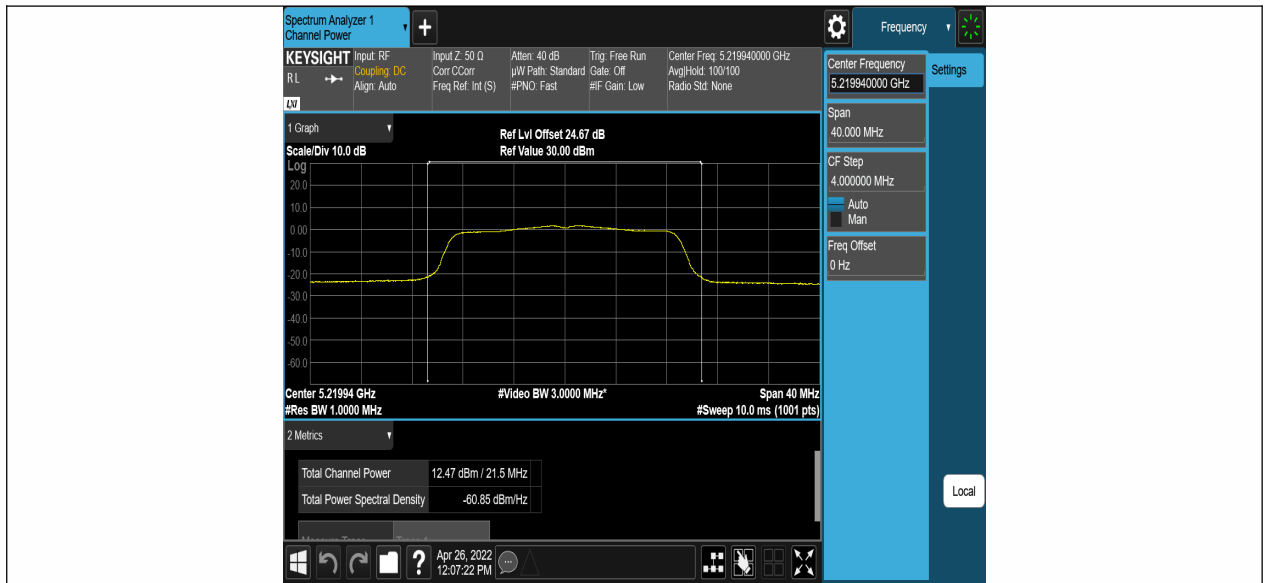
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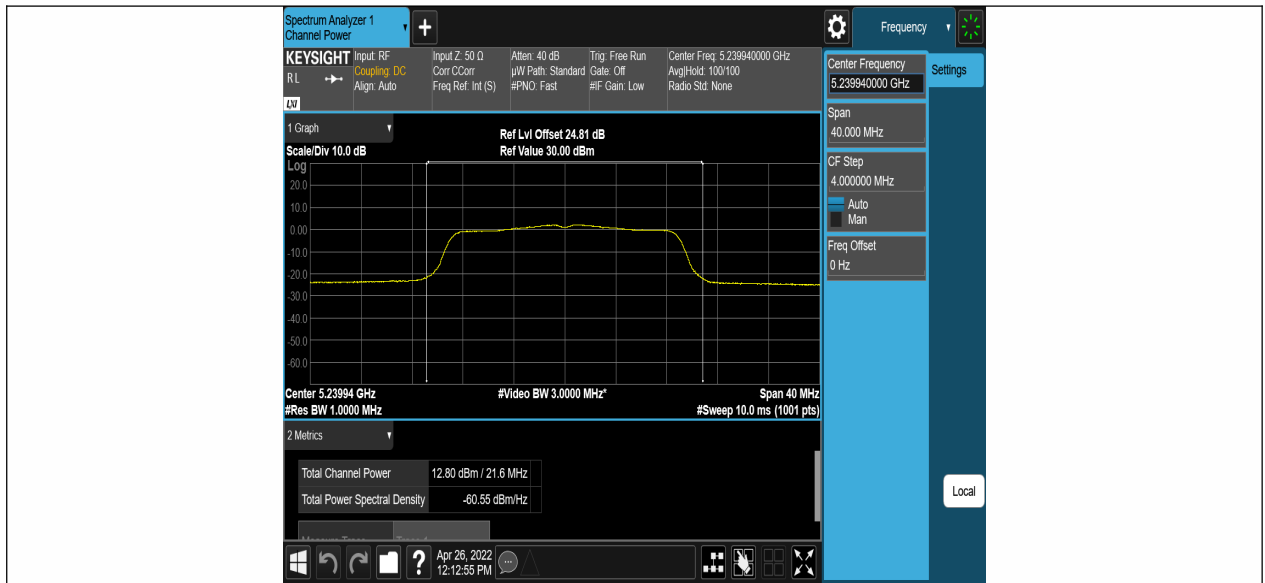


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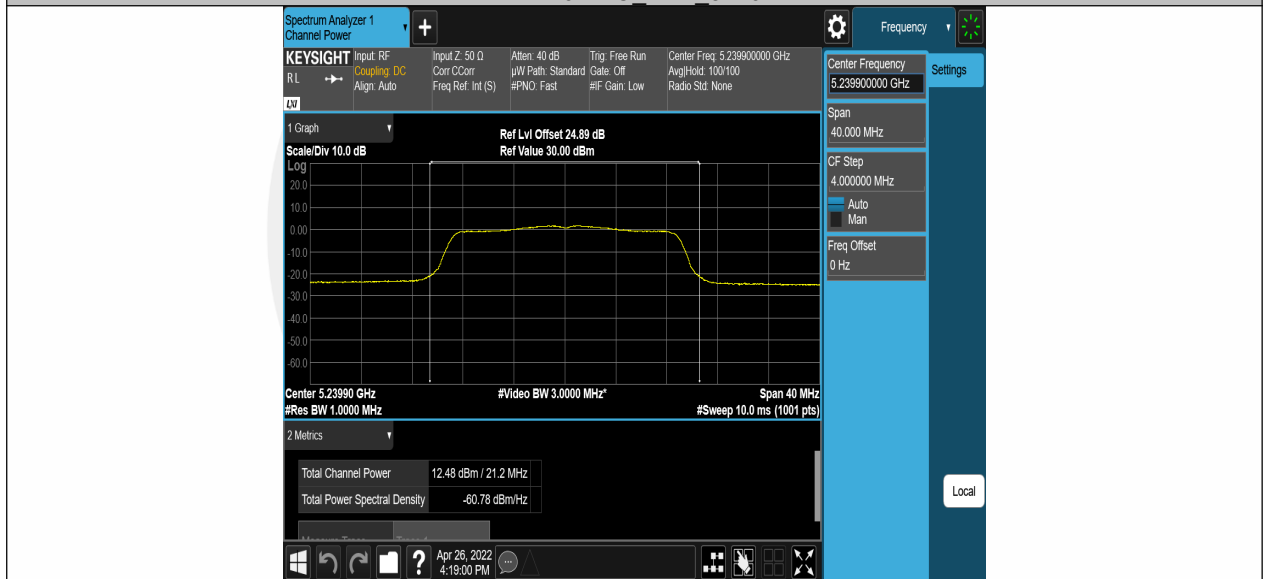


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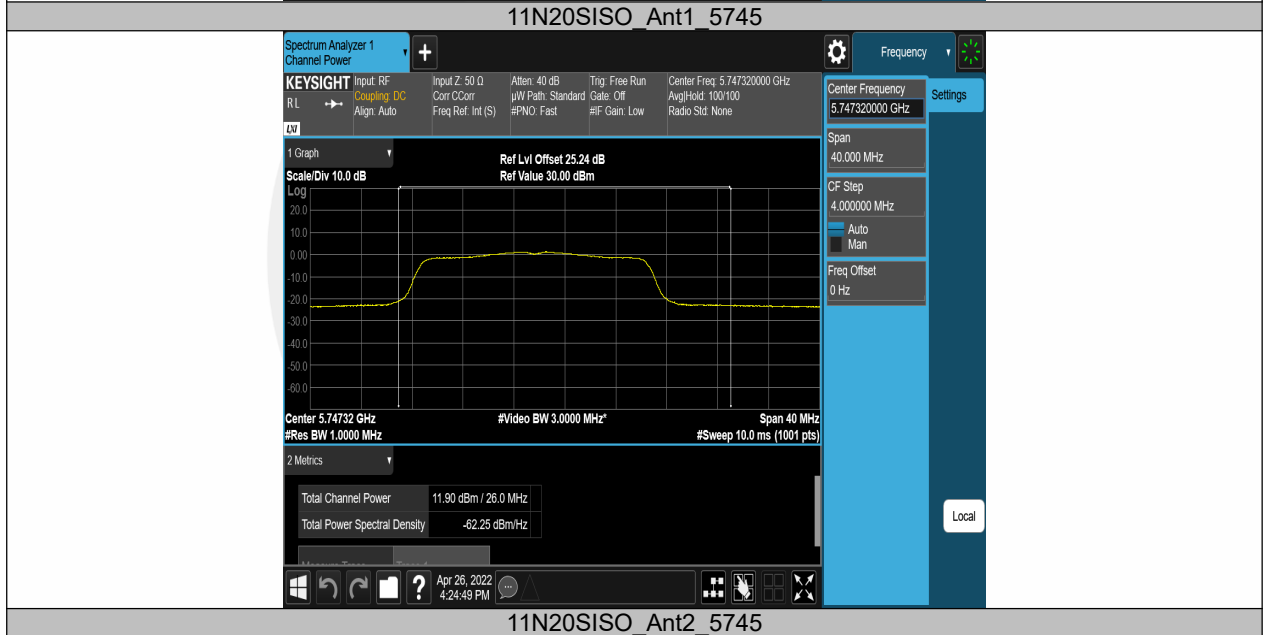
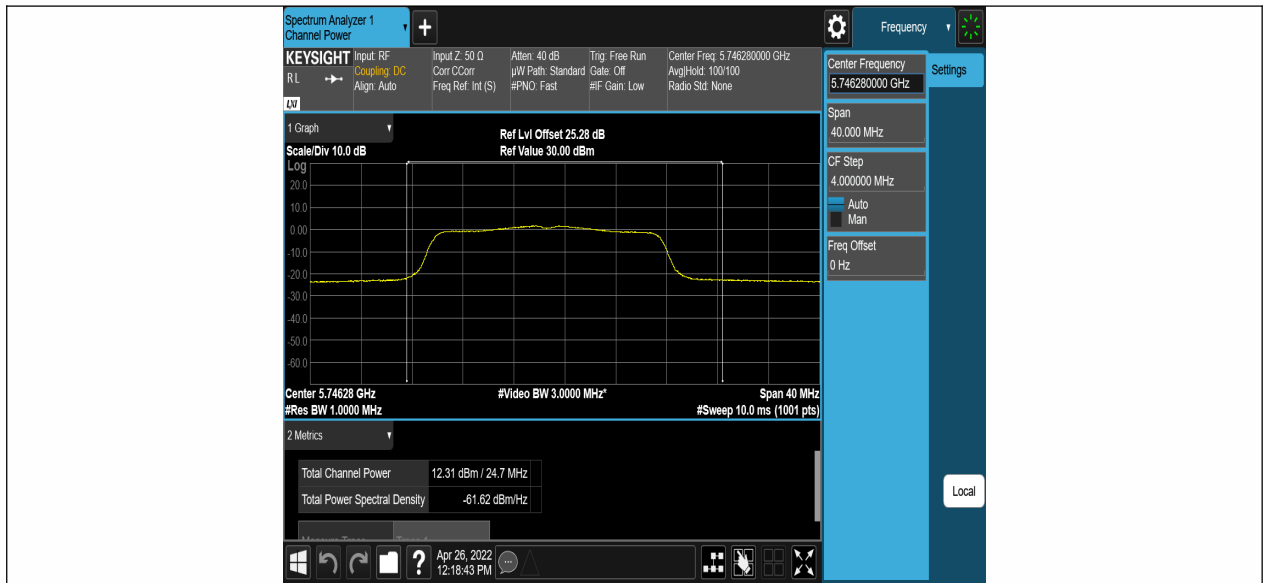


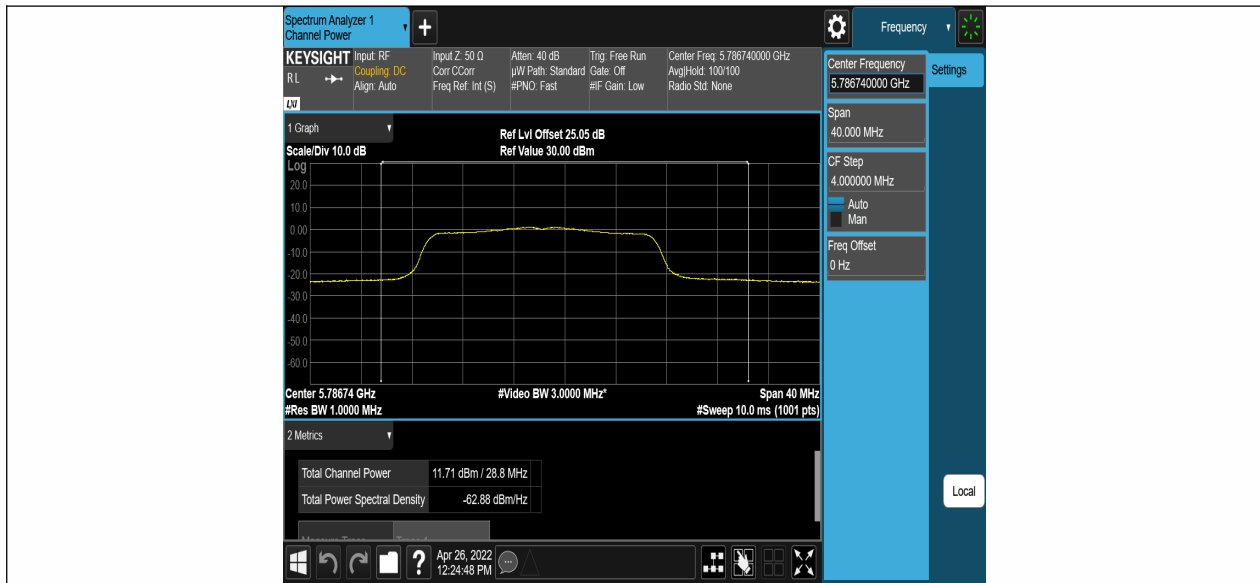


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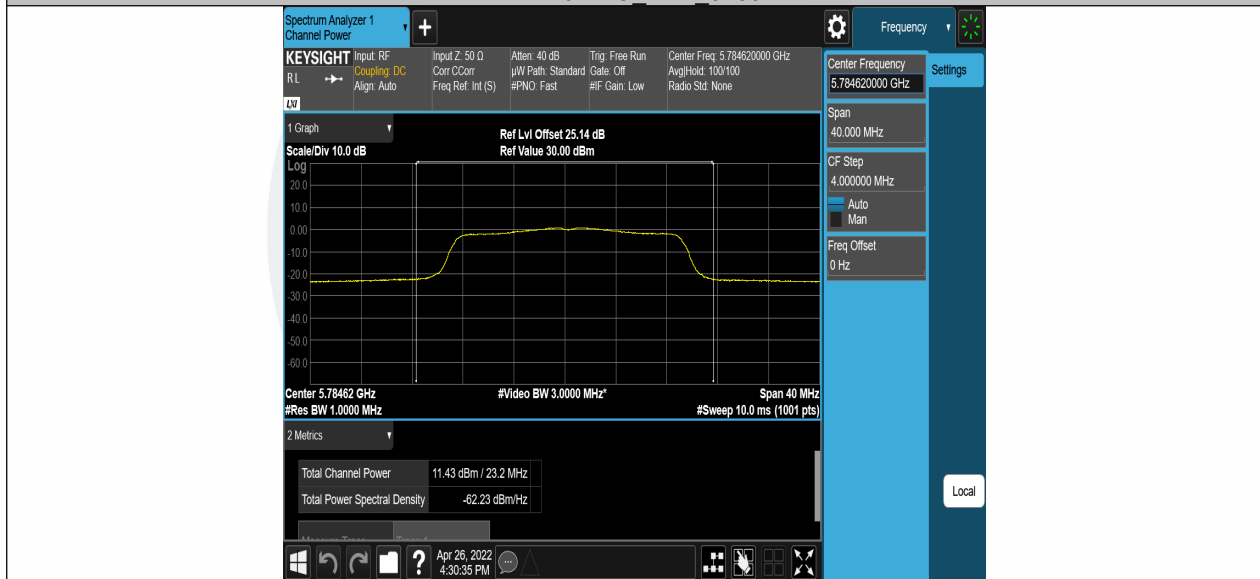


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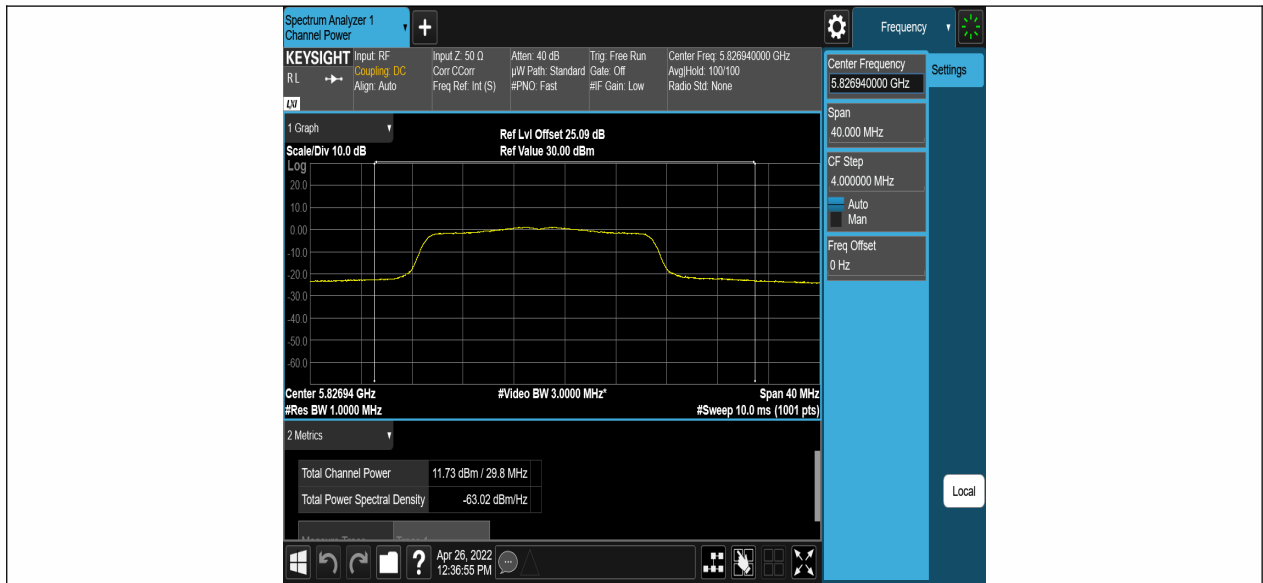




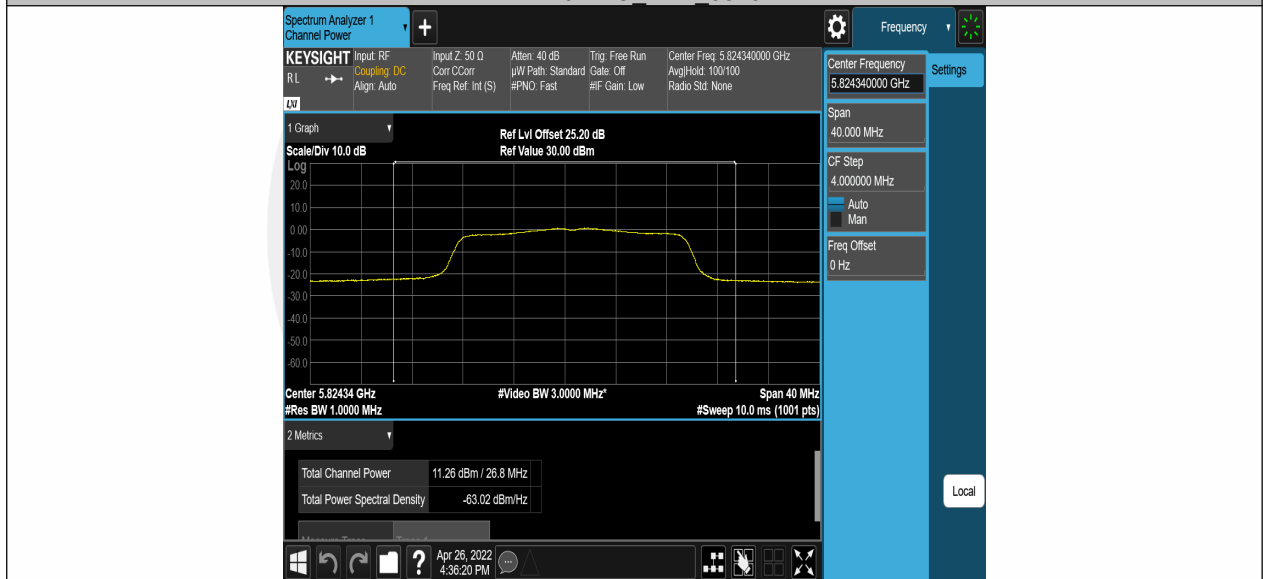
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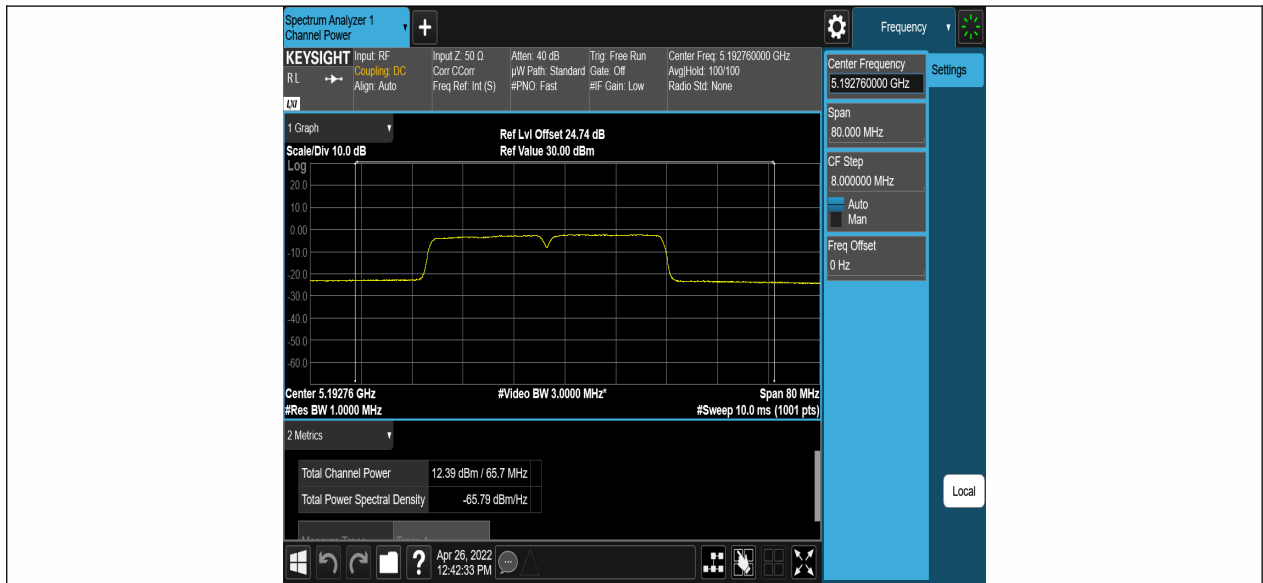
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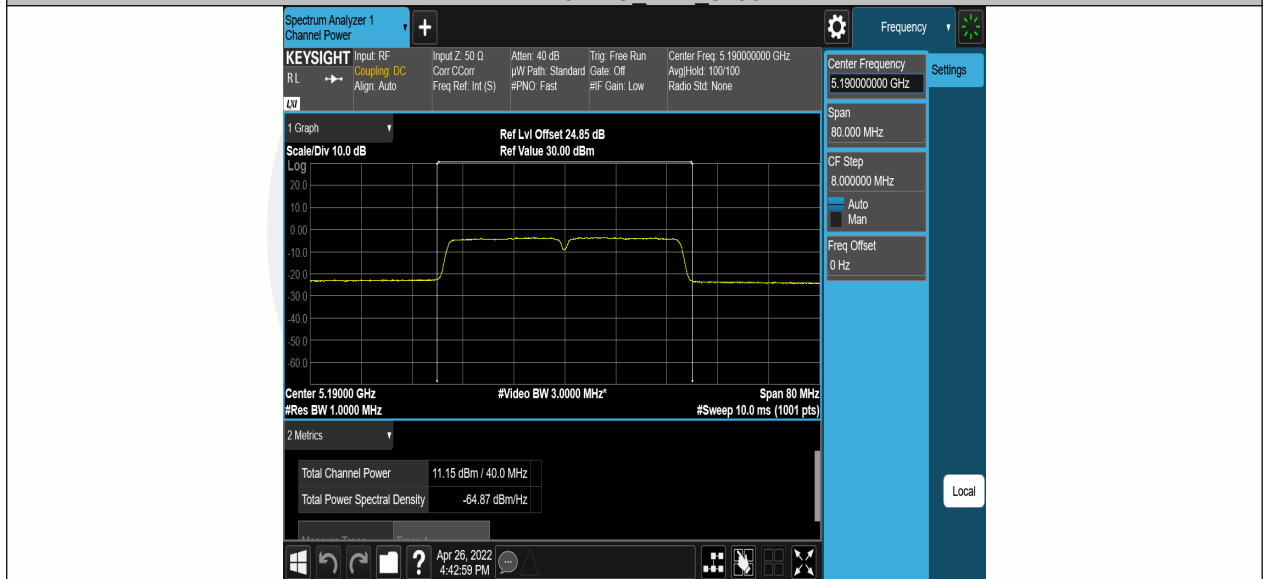
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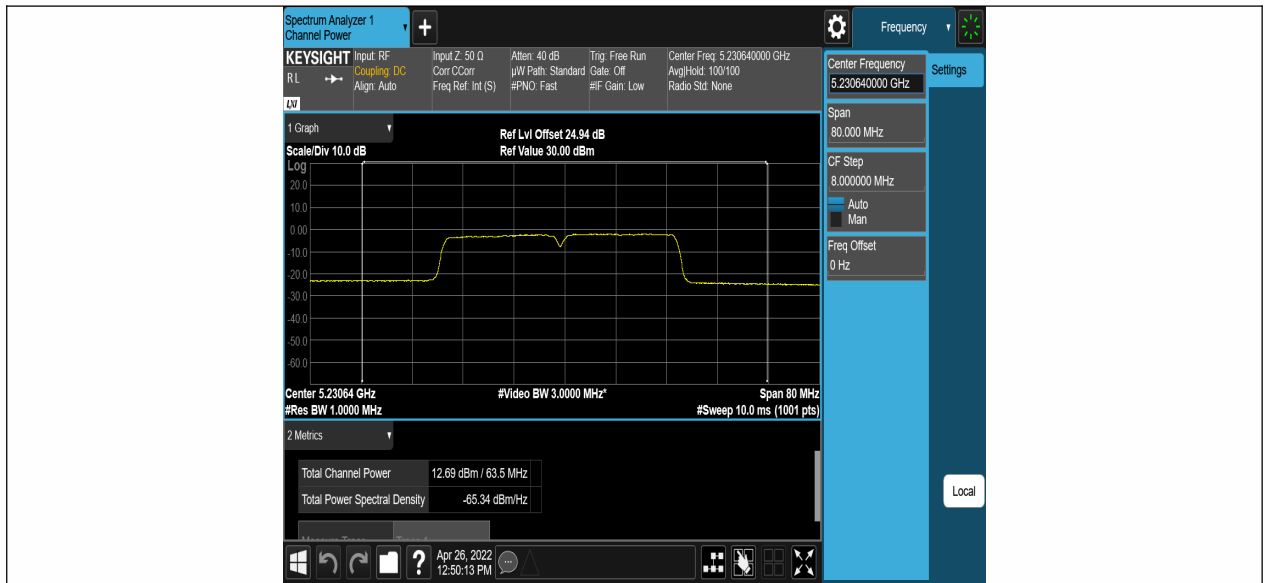
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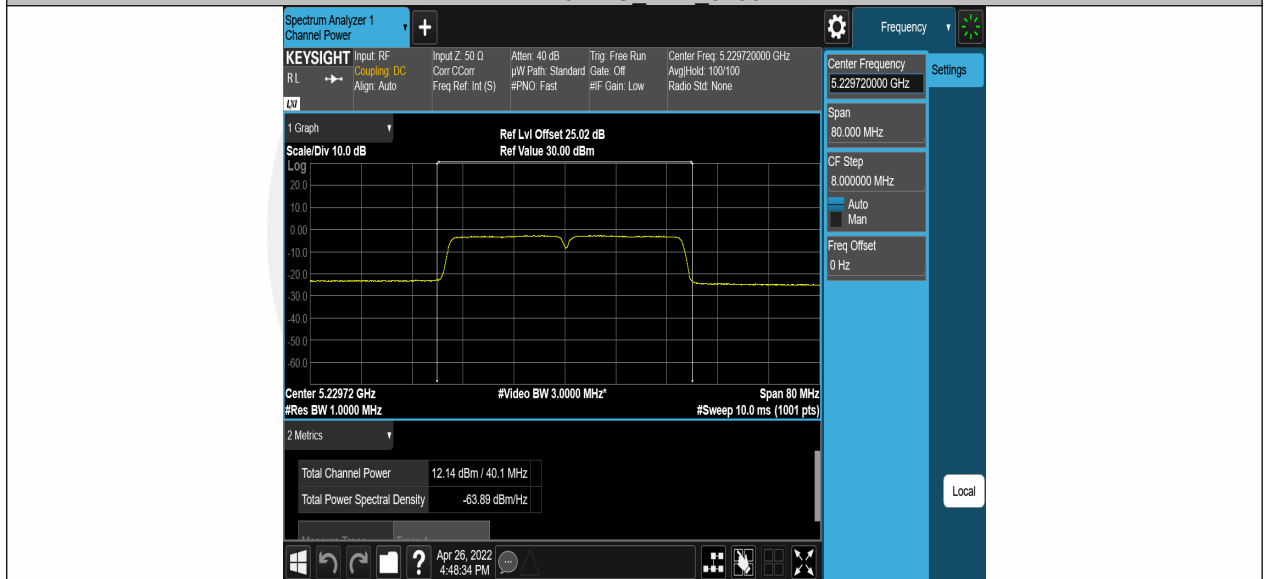
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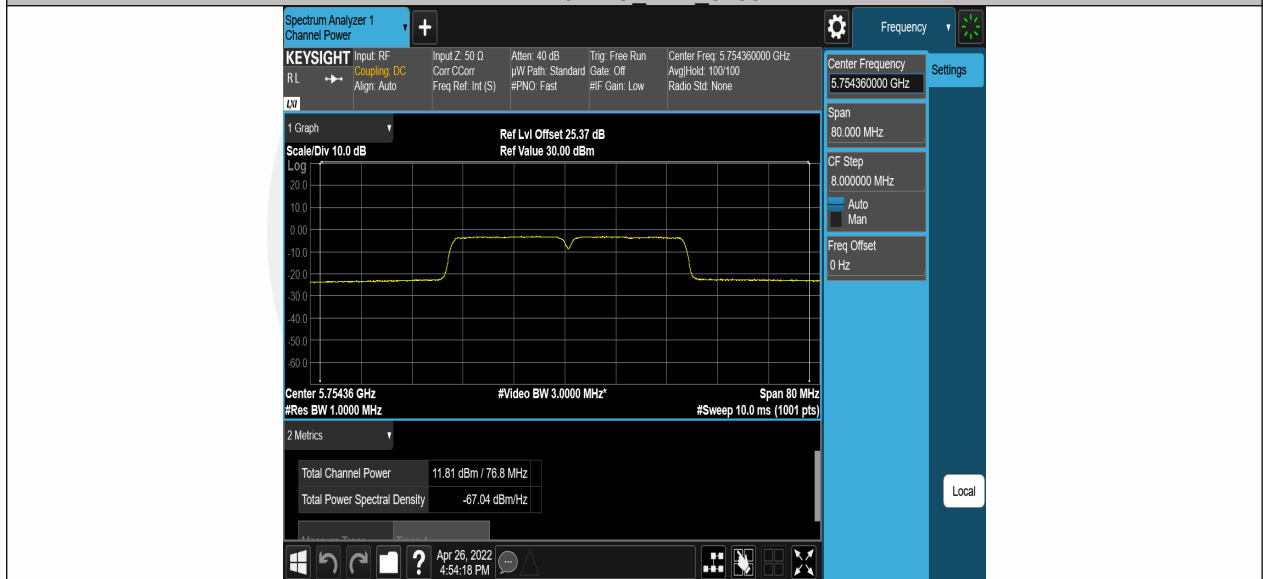
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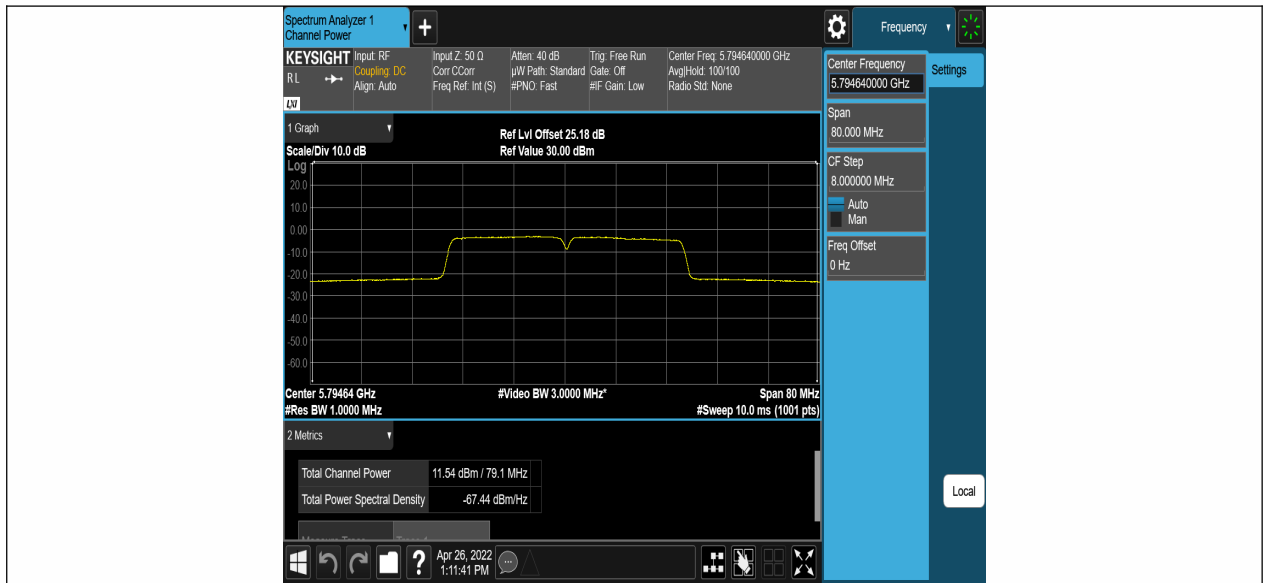
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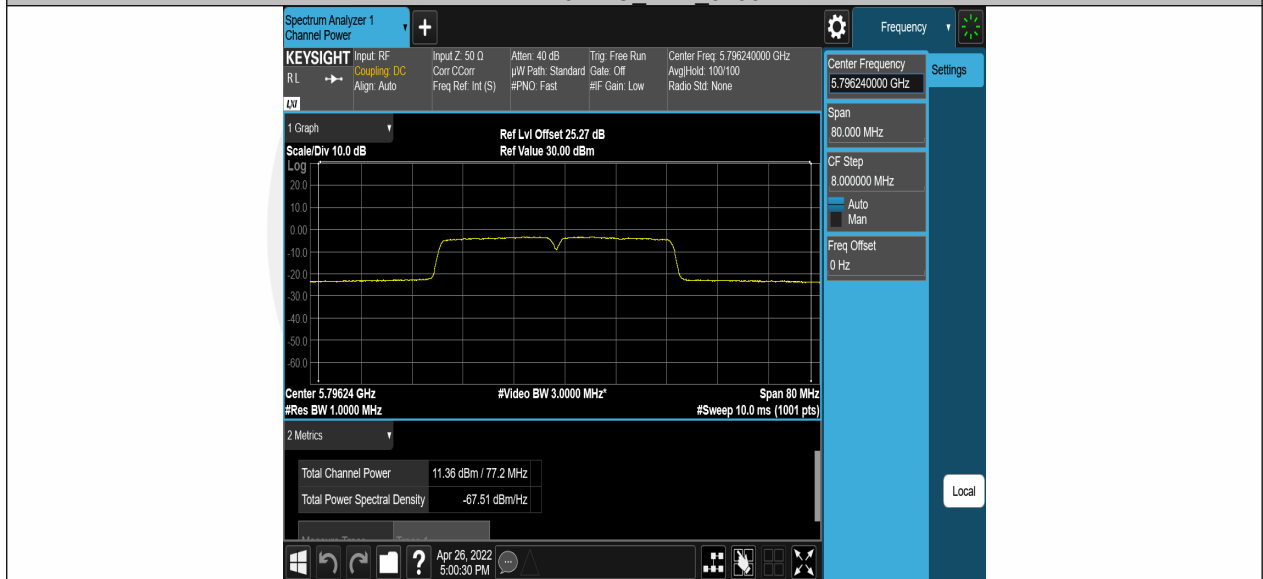
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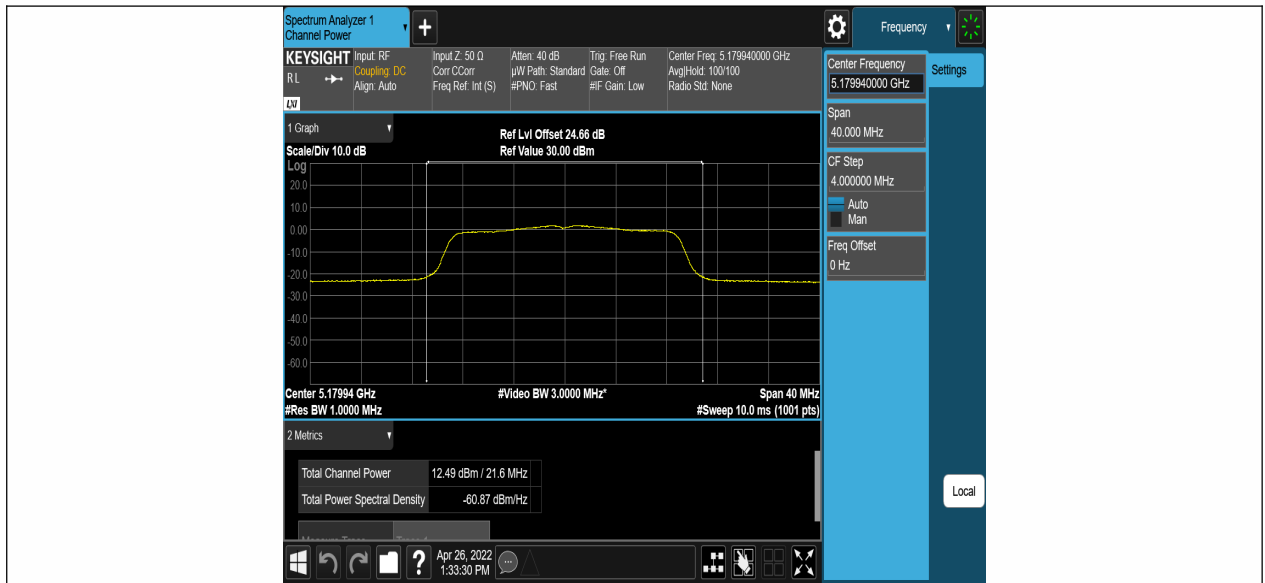
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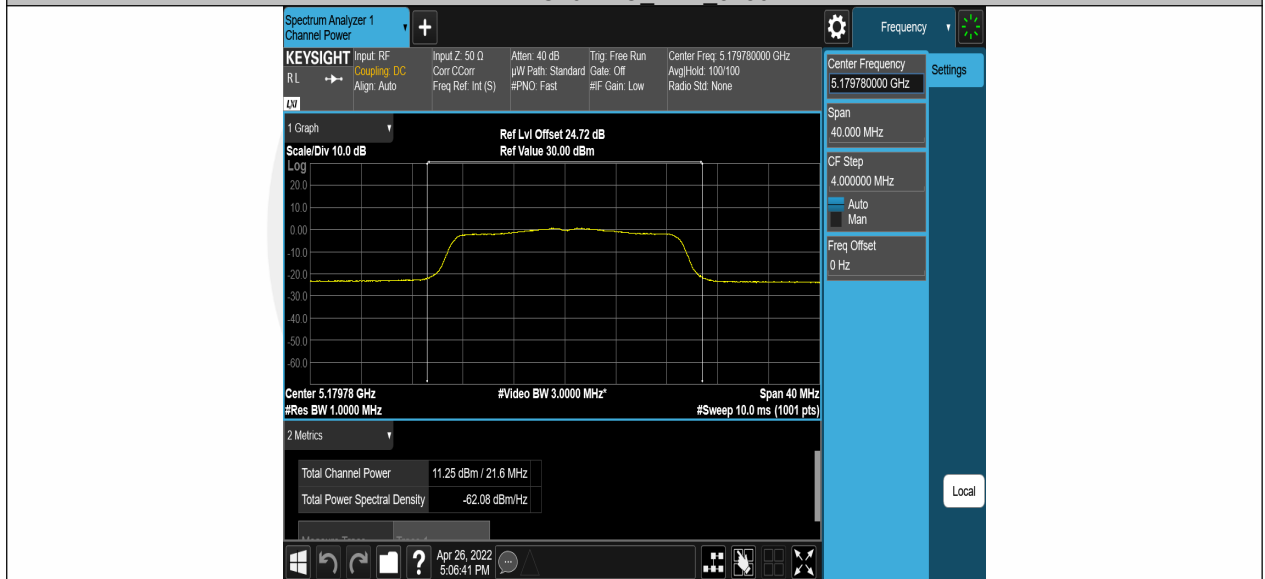
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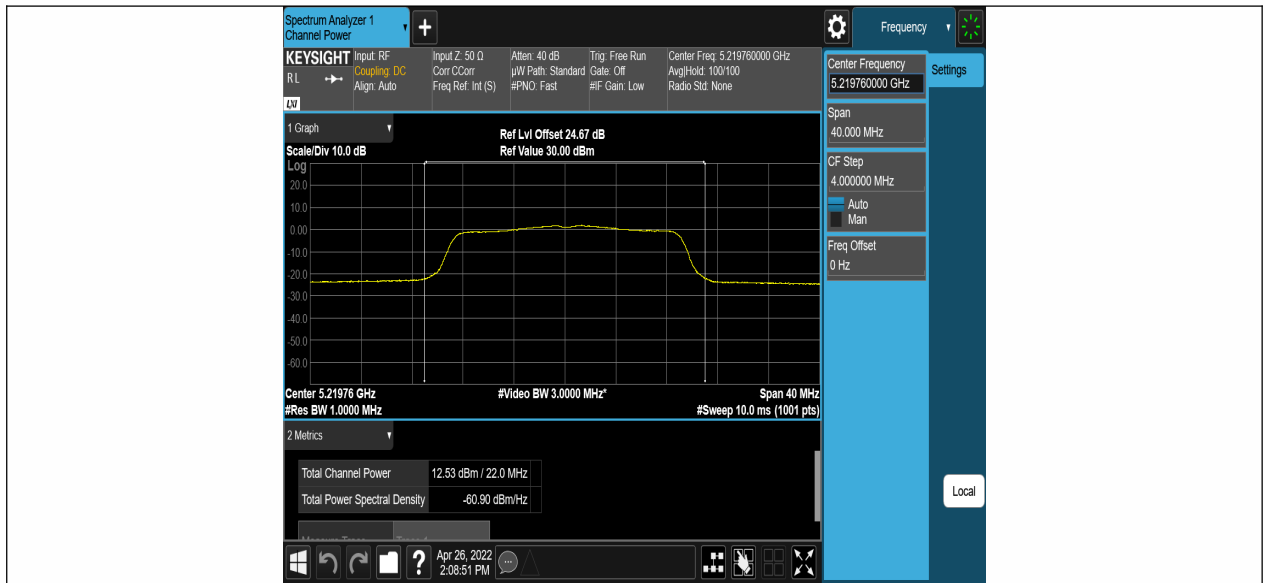
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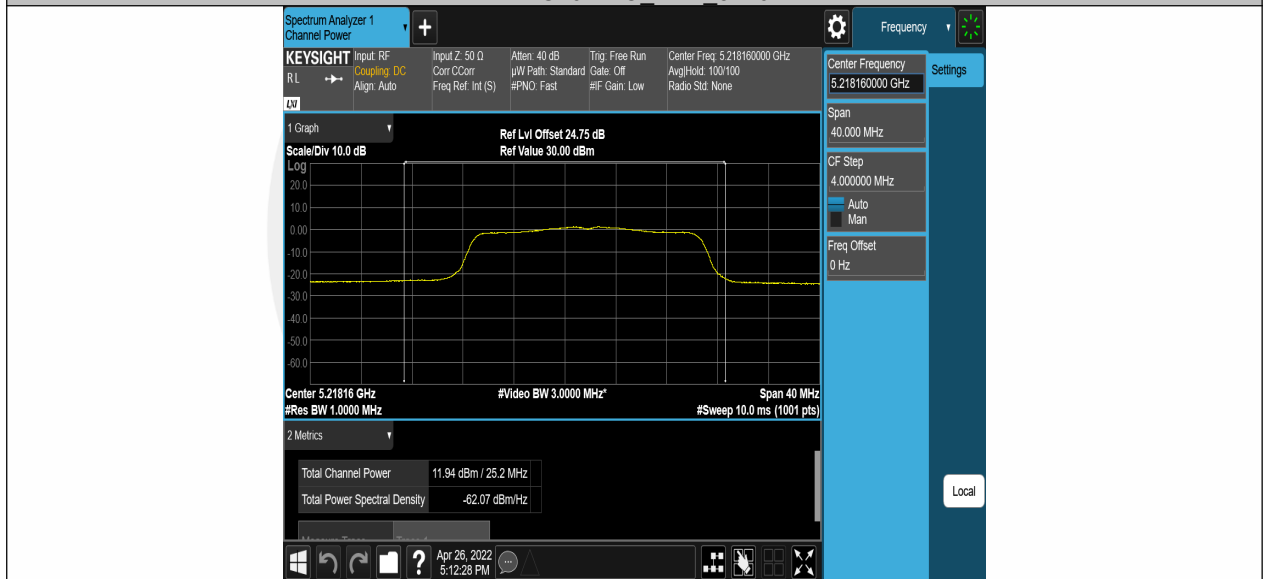
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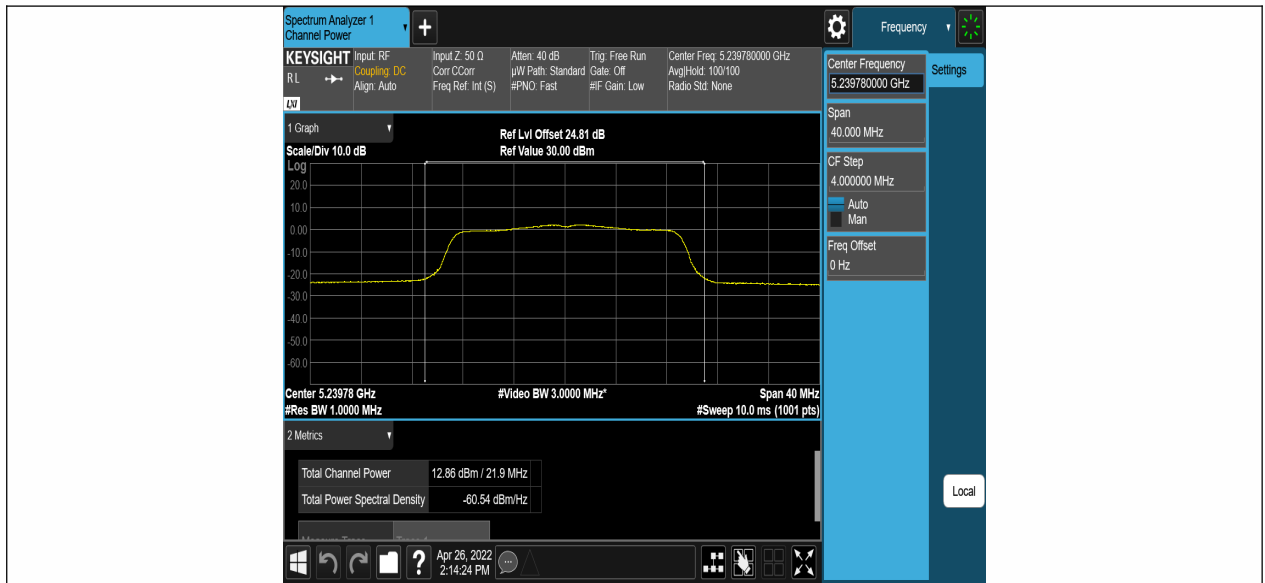
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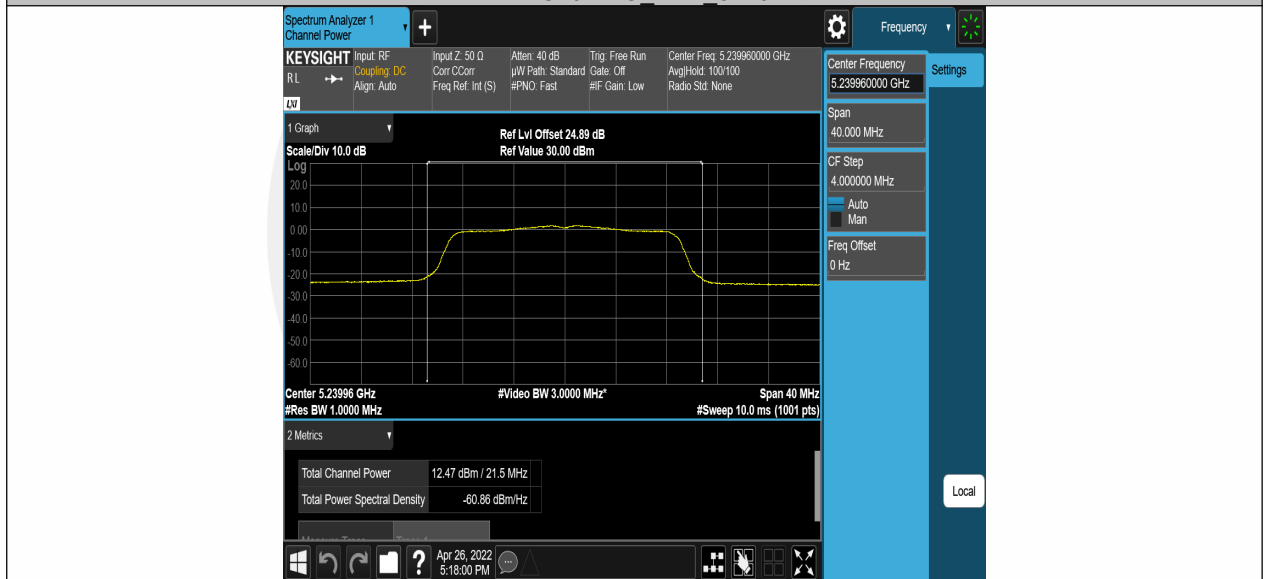
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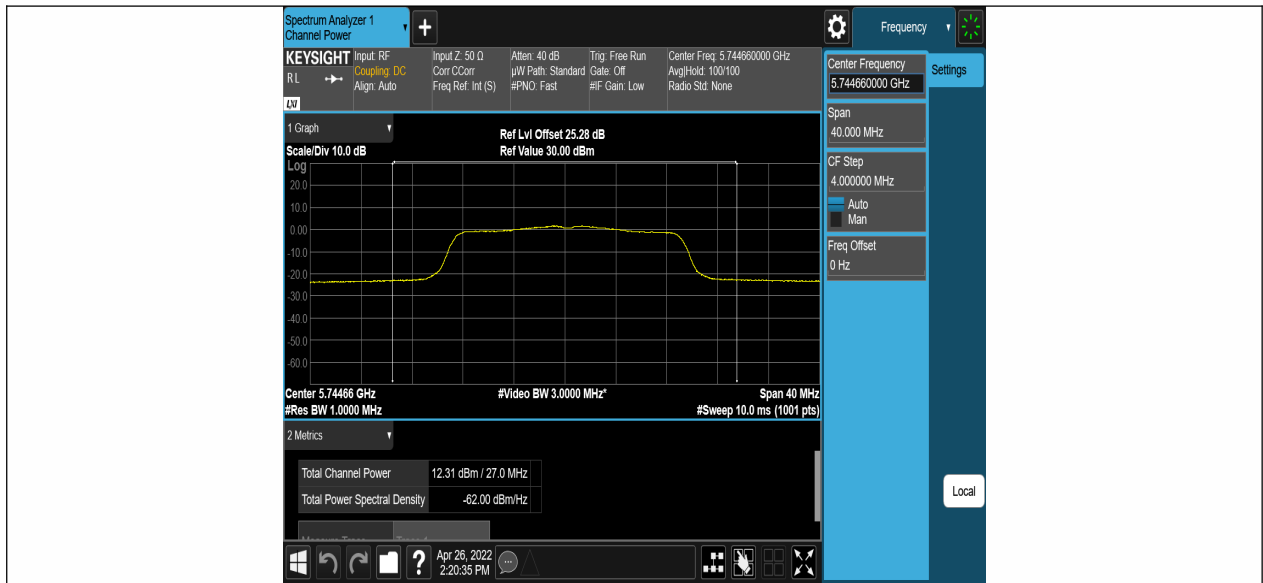
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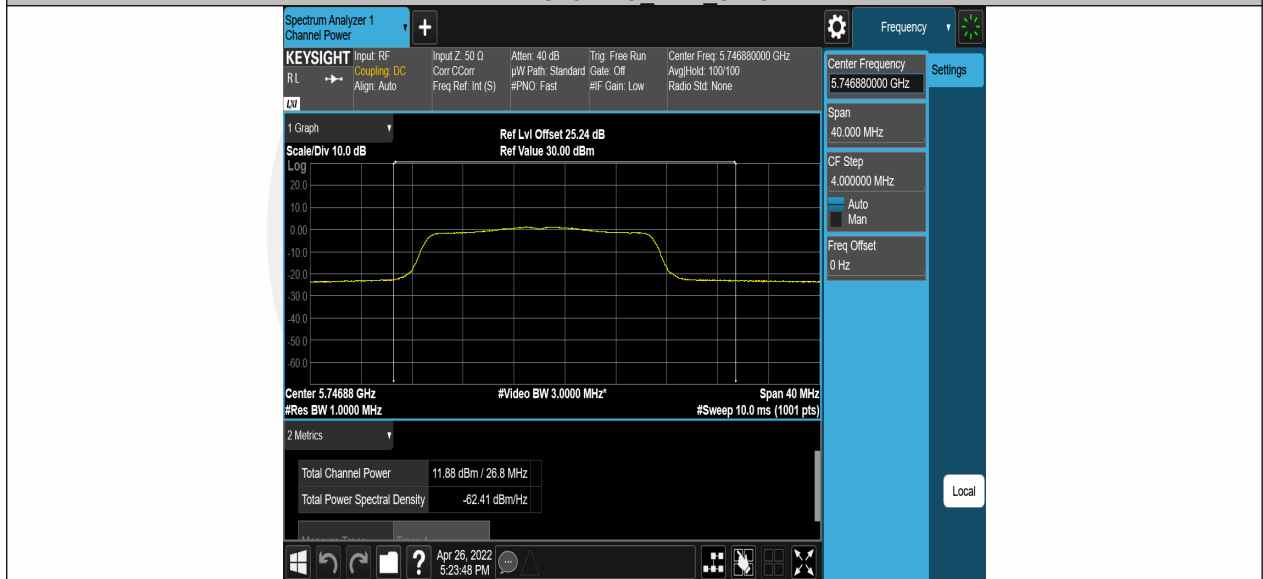
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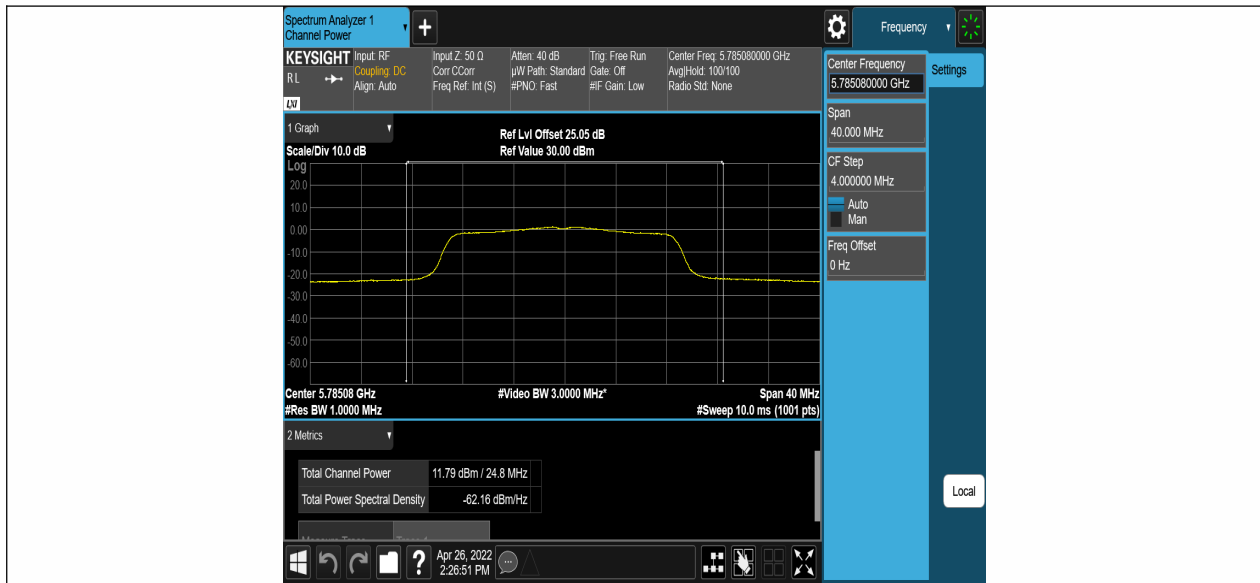
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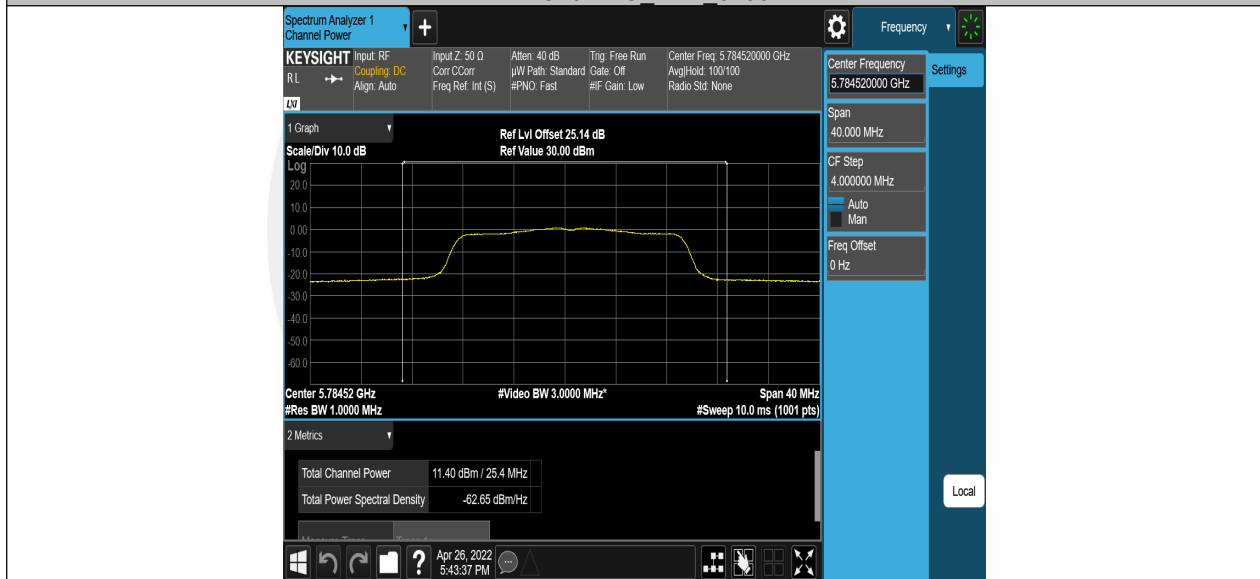
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11AC20SISO_Ant2_5745



11AC20SISO_Ant1_5785



11AC20SISO_Ant2_5785