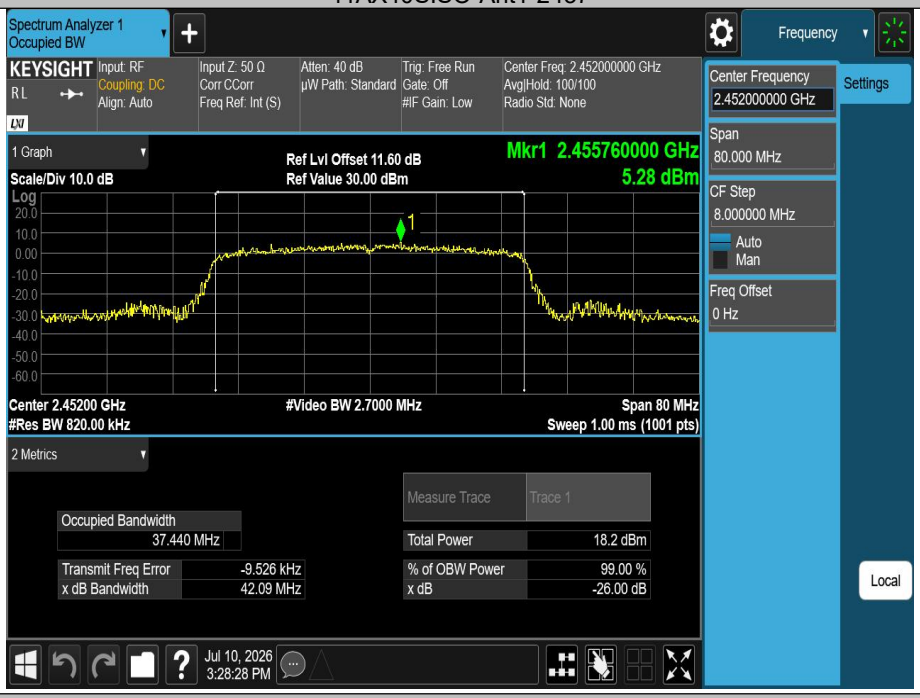
11AX20SISO-Ant1-2462

11AX40SISO-Ant1-2422

11AX40SISO-Ant1-2437



11AX40SISO-Ant1-2452

8.3 MAXIMUM PEAK CONDUCTED OUTPUT POWER

8.3.1 Applicable Standard

According to FCC Part15.247 (b)(3) and KDB 558074 D01 15.247 Meas Guidance v05r02
According to RSS-247 6.3.2 and RSS-Gen 6.12

8.3.2 Conformance Limit

The maximum conducted output power of the intentional radiator for systems using digital modulation in the 2400 - 2483.5 MHz bands shall not exceed: 1 Watt (30dBm).

8.3.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.3.4 Test Procedure

a) Set span to at least 1.5 times the OBW.
b) Set RBW = 1-5% of the OBW, not to exceed 1 MHz.
c) Set VBW ≥ 3 x RBW.
d) Number of points in sweep ≥ 2 × span / RBW. (This gives bin-to-bin spacing ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
e) Sweep time = auto.
f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
g) If transmit duty cycle < 98 %, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle ≥ 98 %, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run".
h) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
i) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

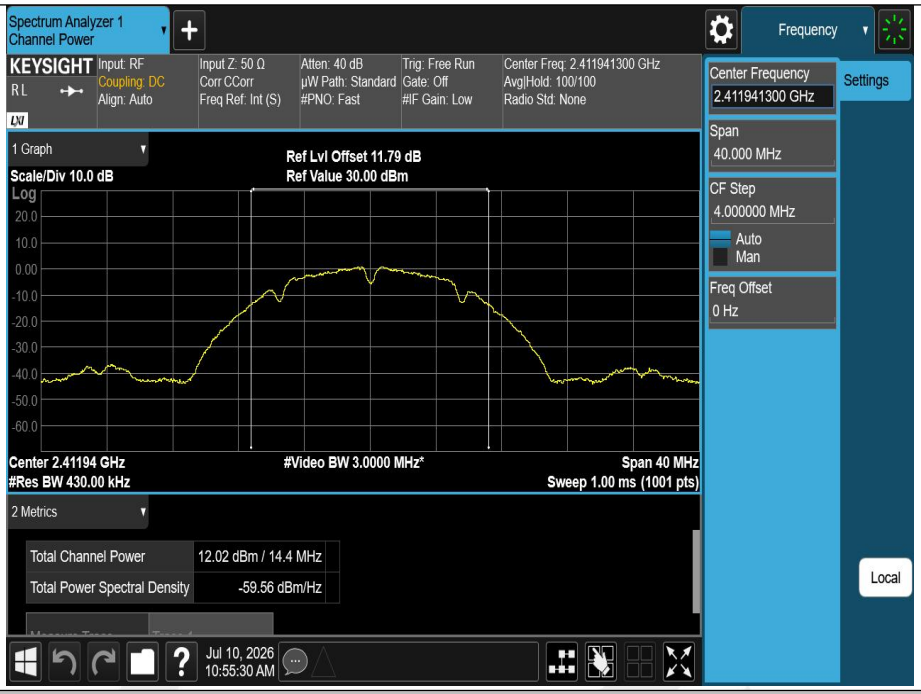
■ According to FCC Part 15.247(b)(4):
Conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
Note: If antenna Gain exceeds 6 dBi, then Output power Limit=30-(Gain- 6)

8.3.5 Test Results

Temperature:	25 ˚C
Relative Humidity:	45%
ATM Pressure:	1011 mbar

Note: N/A

Test Mode	Antenna	Frequency[MHz]	Average power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11B	Ant1	2412	11.97	98.79	0.05	12.02	≤30.00	2.22	14.24	≤36.00	PASS
11B	Ant1	2437	11.41	98.63	0.06	11.47	≤30.00	2.22	13.69	≤36.00	PASS
11B	Ant1	2462	12.26	100.00	0.00	12.26	≤30.00	2.22	14.48	≤36.00	PASS
11G	Ant1	2412	10.77	92.69	0.33	11.10	≤30.00	2.22	13.32	≤36.00	PASS
11G	Ant1	2437	10.07	92.27	0.35	10.42	≤30.00	2.22	12.64	≤36.00	PASS
11G	Ant1	2462	10.05	92.69	0.33	10.38	≤30.00	2.22	12.6	≤36.00	PASS
11N20 SISO	Ant1	2412	10.49	100.00	0.00	10.49	≤30.00	2.22	12.71	≤36.00	PASS
11N20 SISO	Ant1	2437	9.76	92.20	0.35	10.11	≤30.00	2.22	12.33	≤36.00	PASS
11N20 SISO	Ant1	2462	9.96	91.75	0.37	10.33	≤30.00	2.22	12.55	≤36.00	PASS
11N40 SISO	Ant1	2422	10.32	84.55	0.73	11.05	≤30.00	2.22	13.27	≤36.00	PASS
11N40 SISO	Ant1	2437	10.03	85.45	0.68	10.71	≤30.00	2.22	12.93	≤36.00	PASS
11N40 SISO	Ant1	2452	10.12	85.32	0.69	10.81	≤30.00	2.22	13.03	≤36.00	PASS
11AX20SISO	Ant1	2412	10.27	89.57	0.48	10.75	≤30.00	2.22	12.97	≤36.00	PASS
11AX20SISO	Ant1	2437	9.31	90.06	0.45	9.76	≤30.00	2.22	11.98	≤36.00	PASS
11AX20SISO	Ant1	2462	9.83	90.12	0.45	10.28	≤30.00	2.22	12.5	≤36.00	PASS
11AX40SISO	Ant1	2422	9.99	81.72	0.88	10.87	≤30.00	2.22	13.09	≤36.00	PASS
11AX40SISO	Ant1	2437	9.62	82.42	0.84	10.46	≤30.00	2.22	12.68	≤36.00	PASS
11AX40SISO	Ant1	2452	9.82	81.72	0.88	10.70	≤30.00	2.22	12.92	≤36.00	PASS



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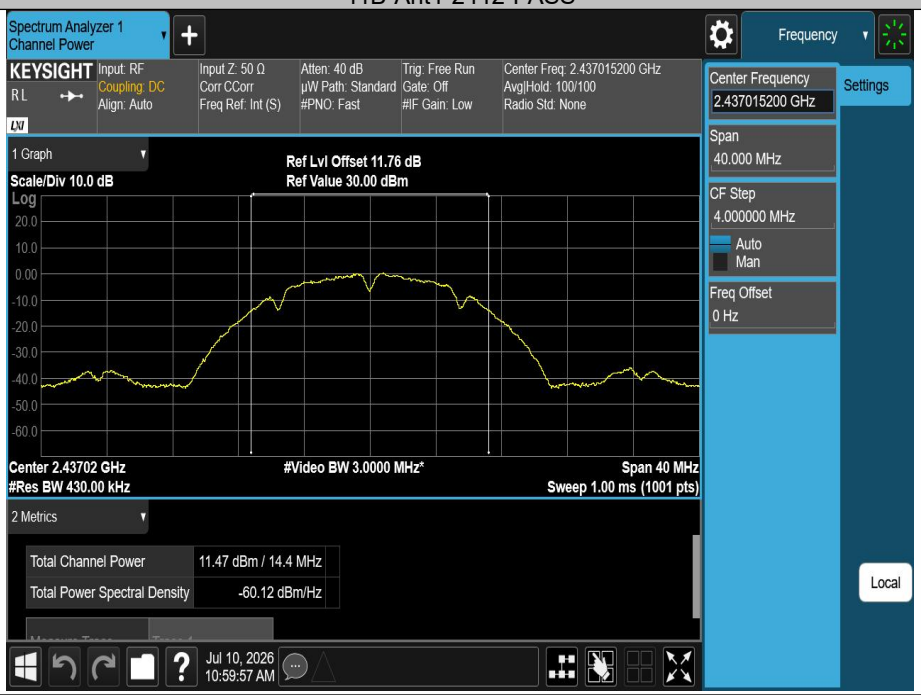

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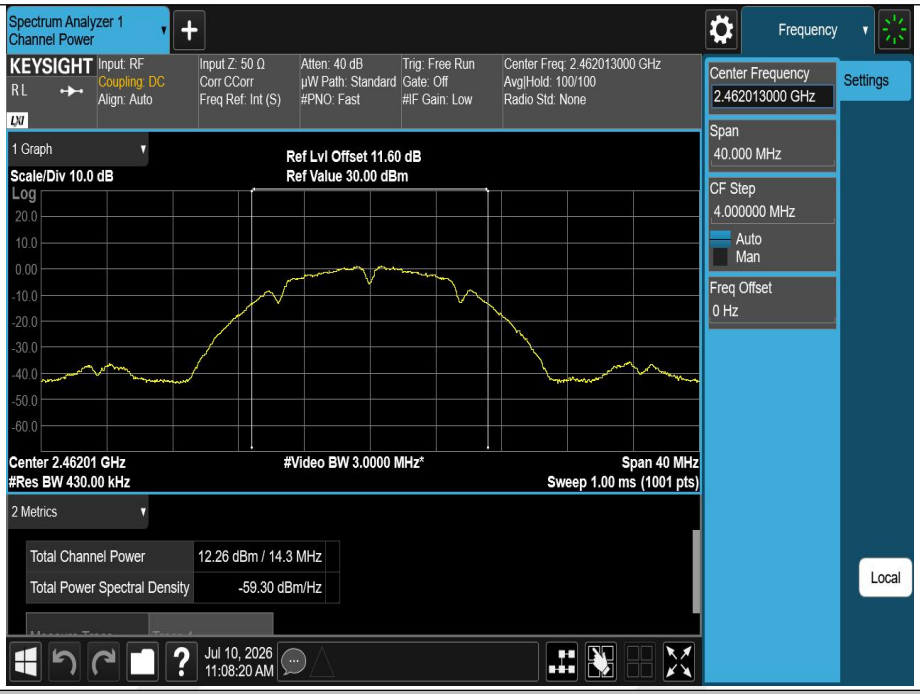

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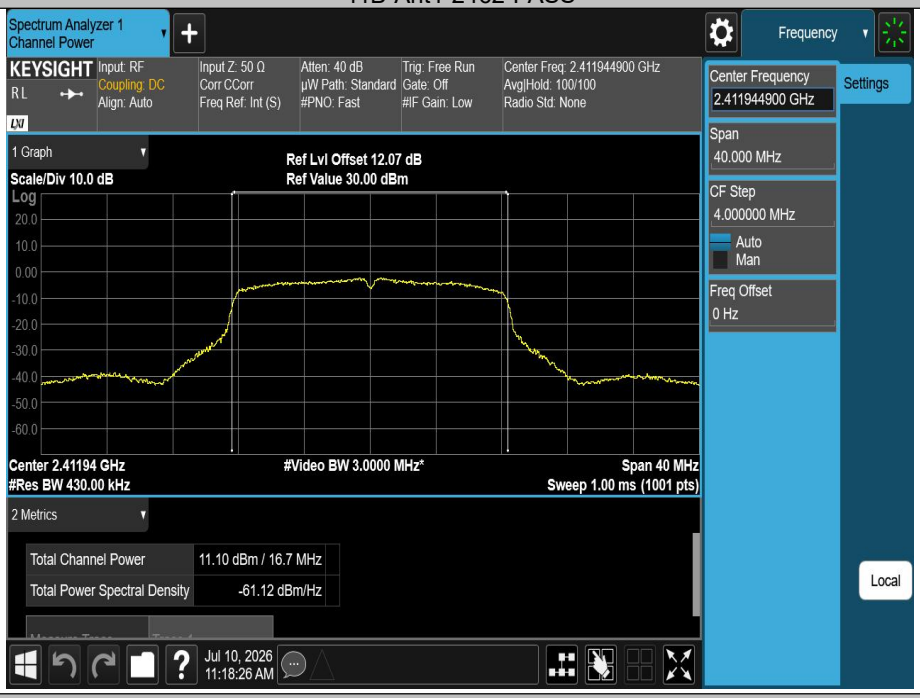

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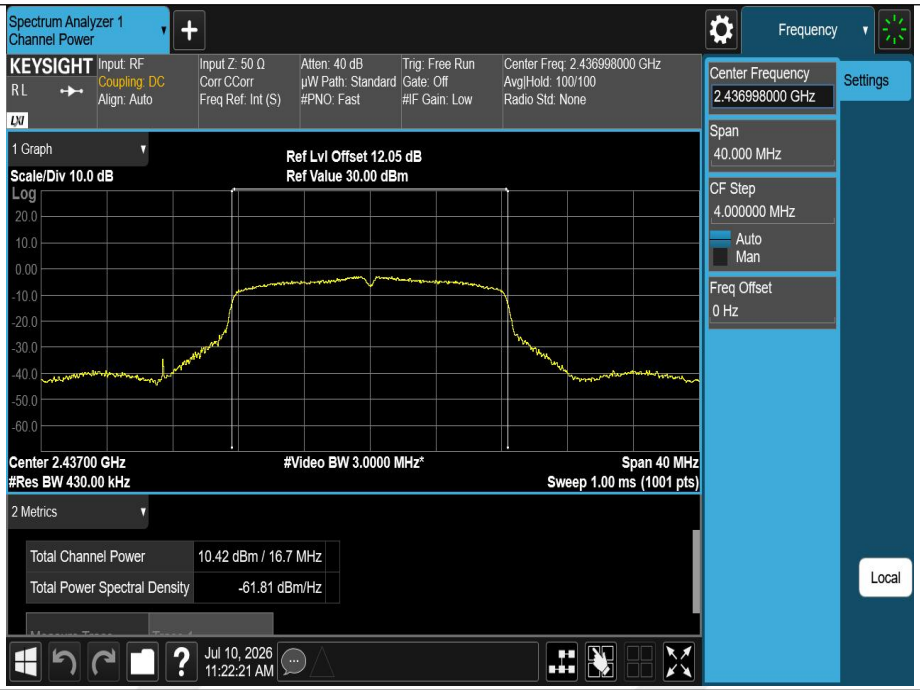

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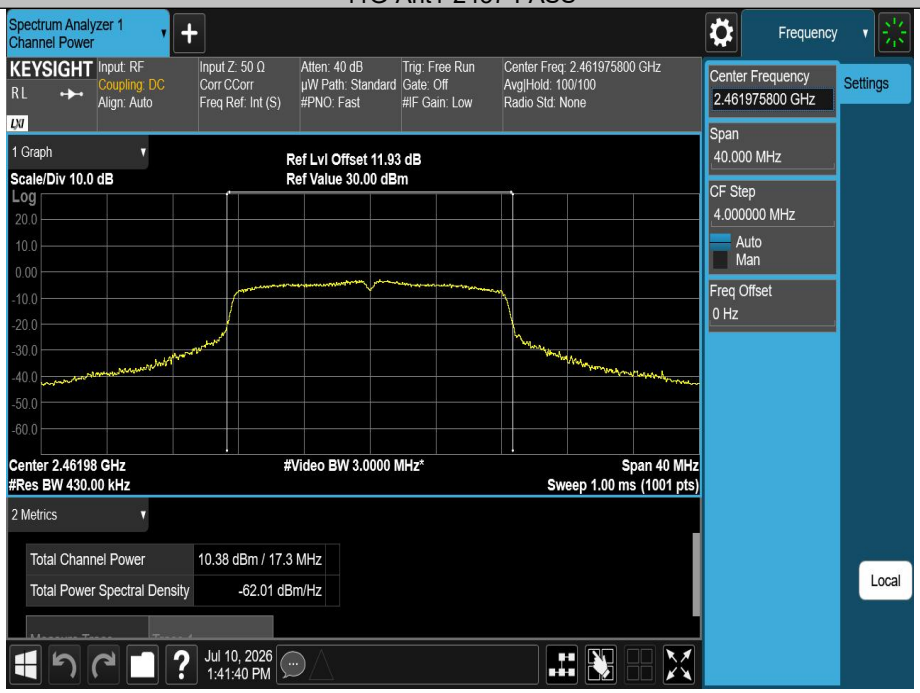

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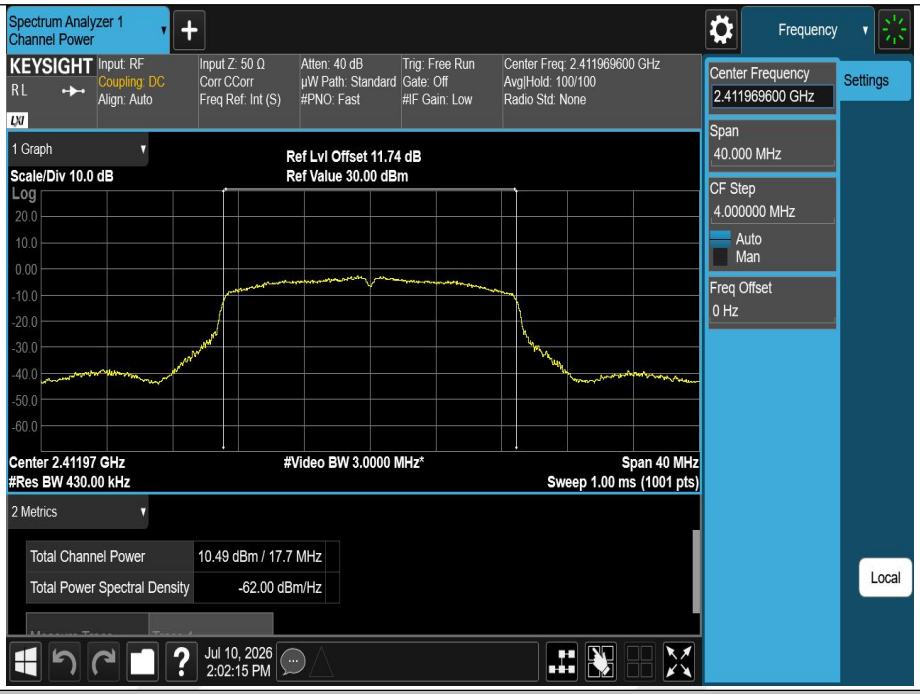

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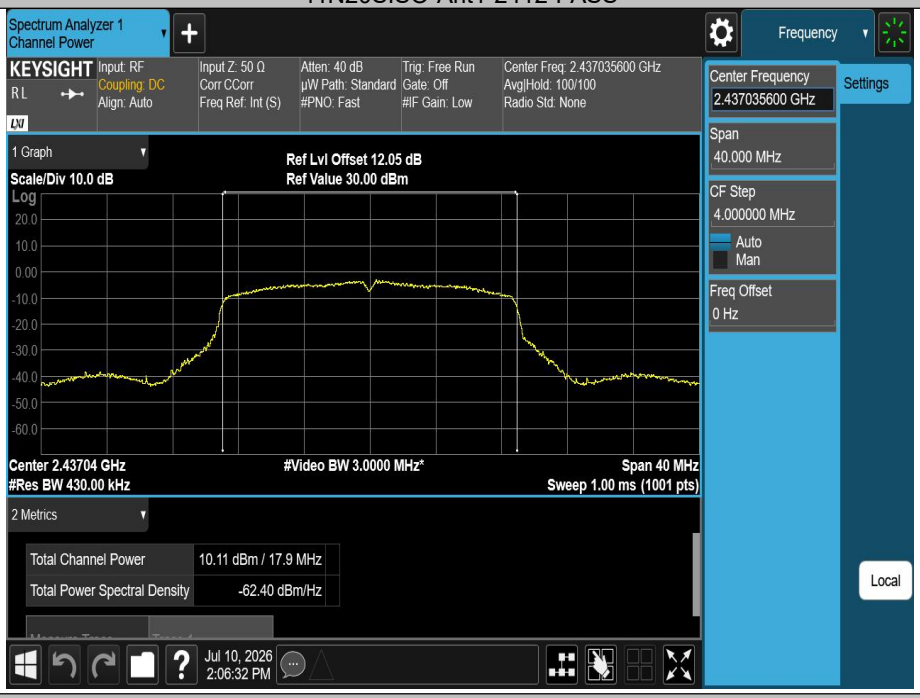

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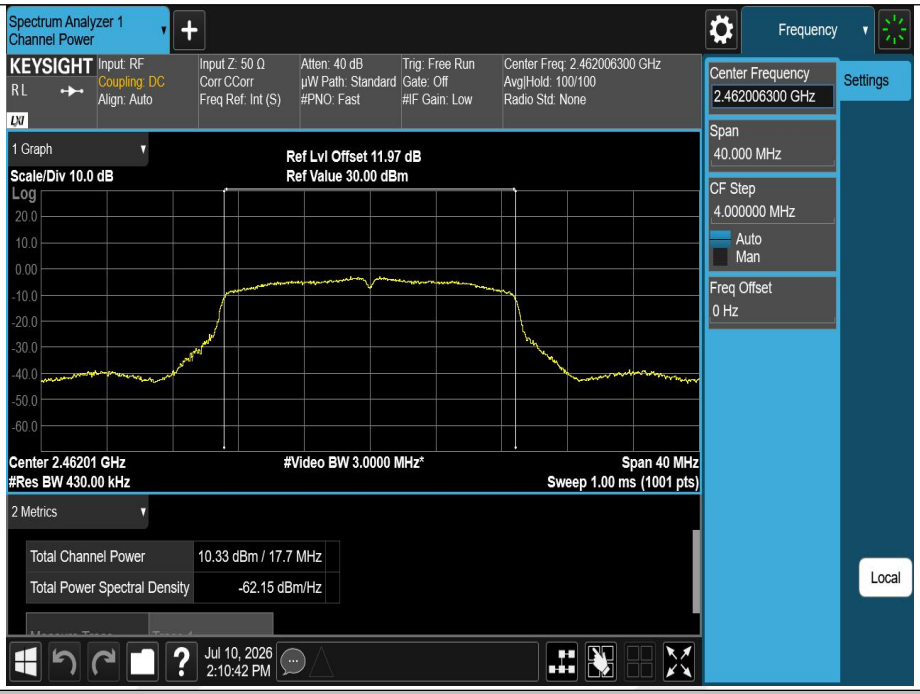

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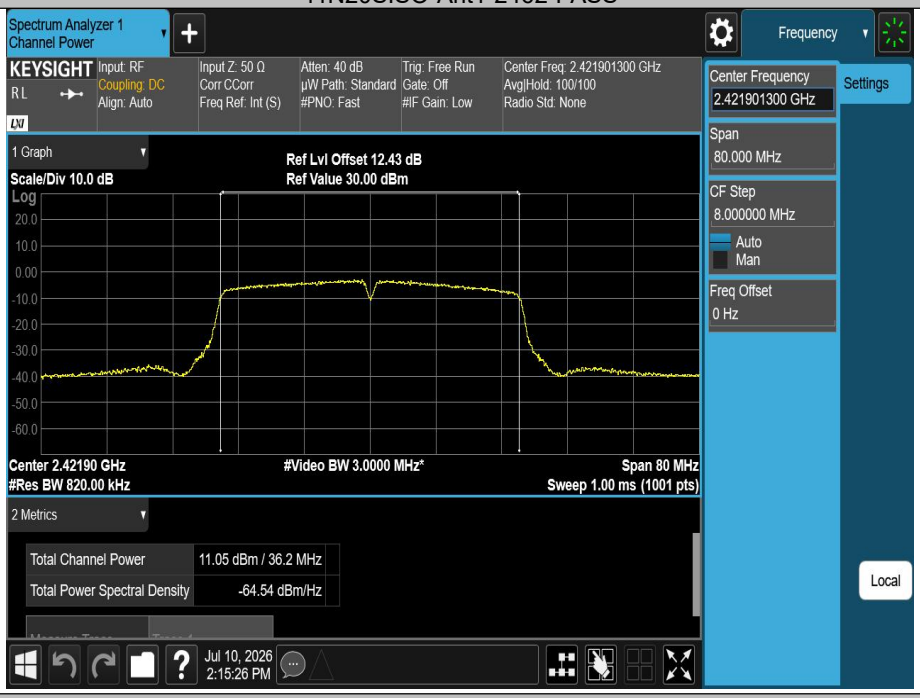

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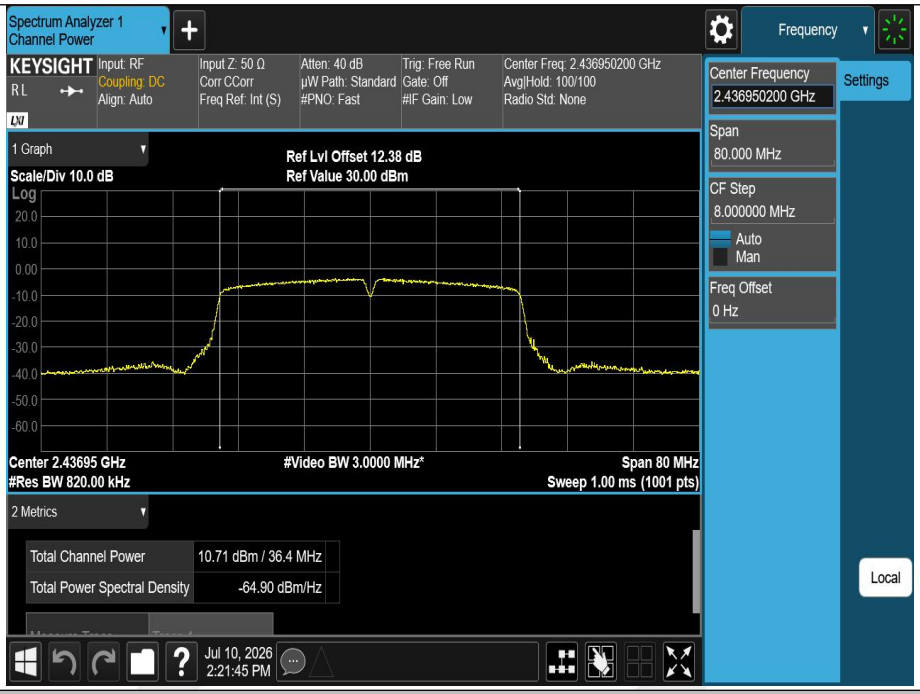

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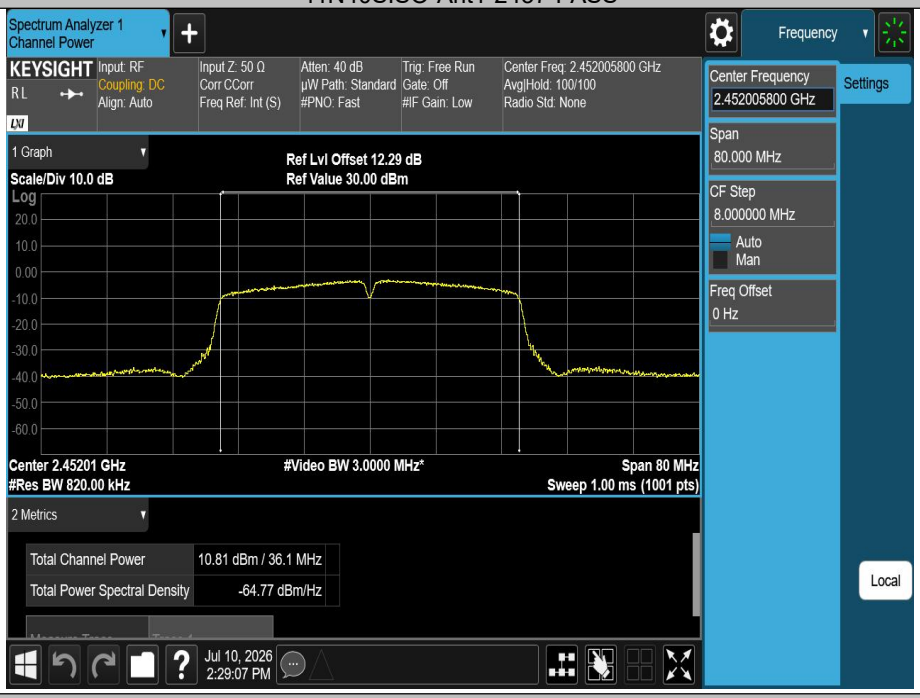

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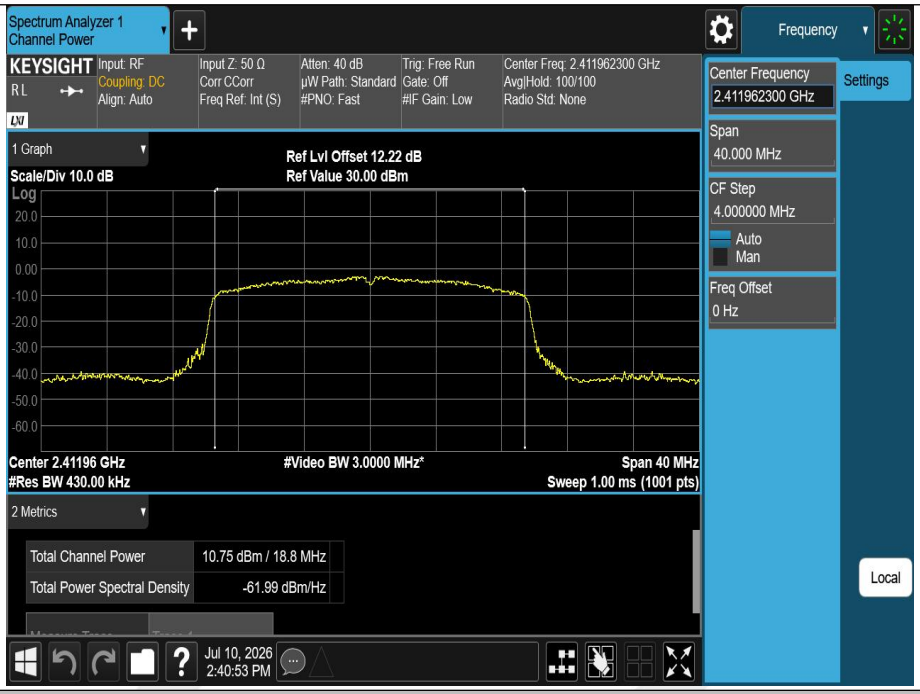

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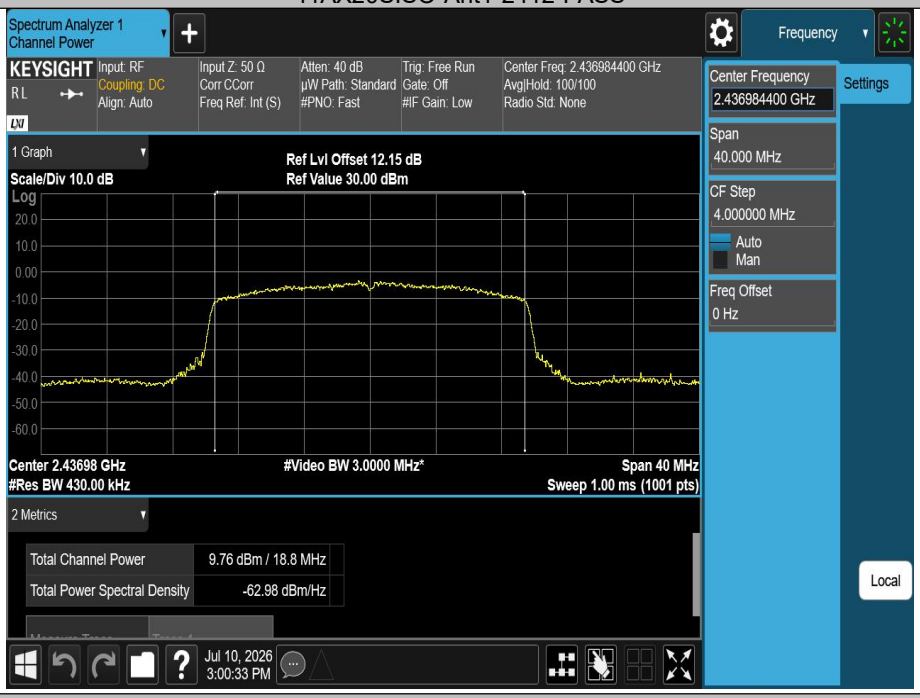

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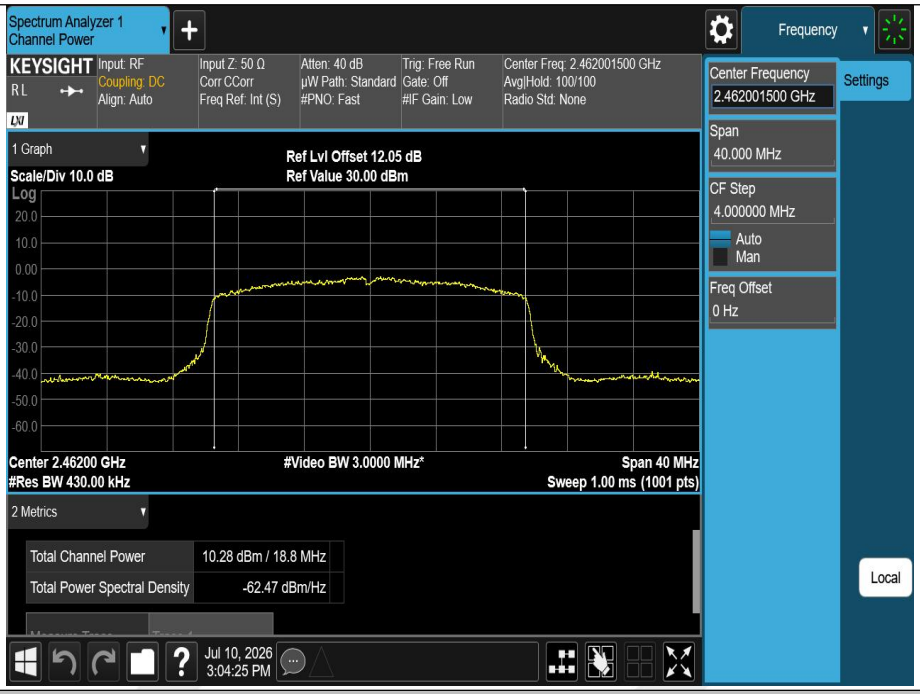

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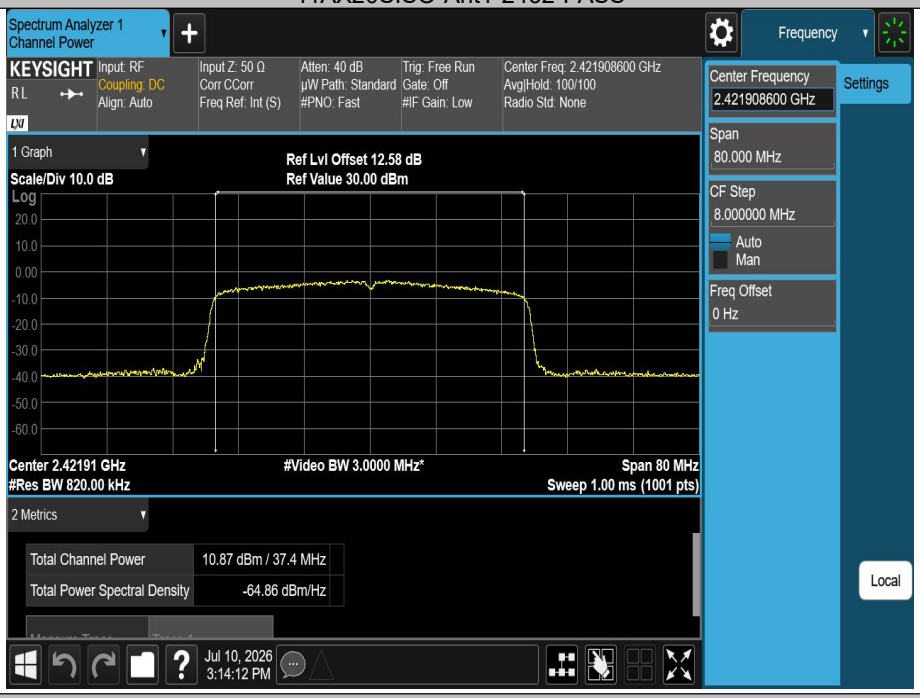

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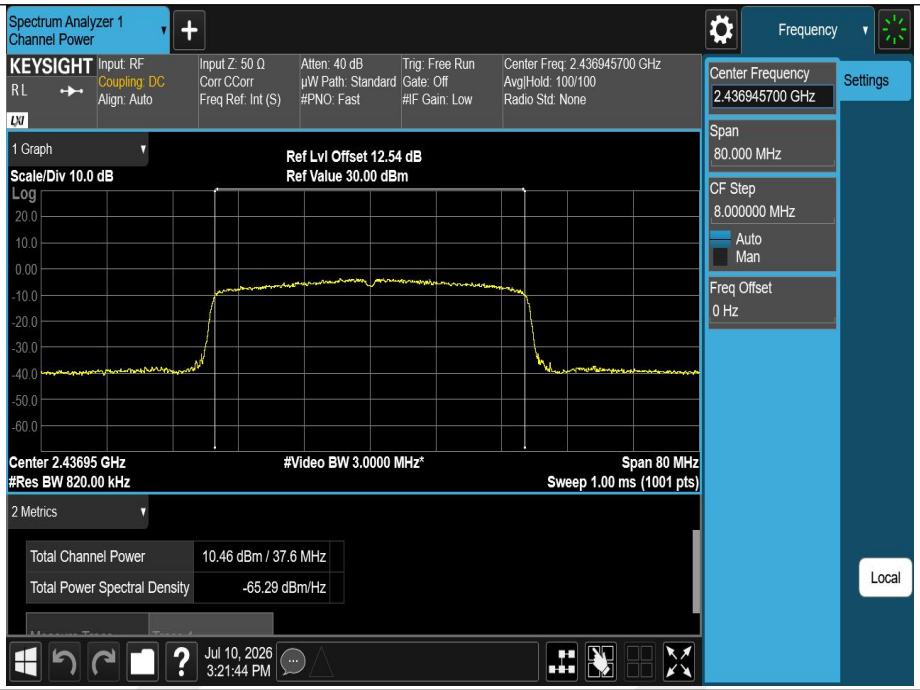

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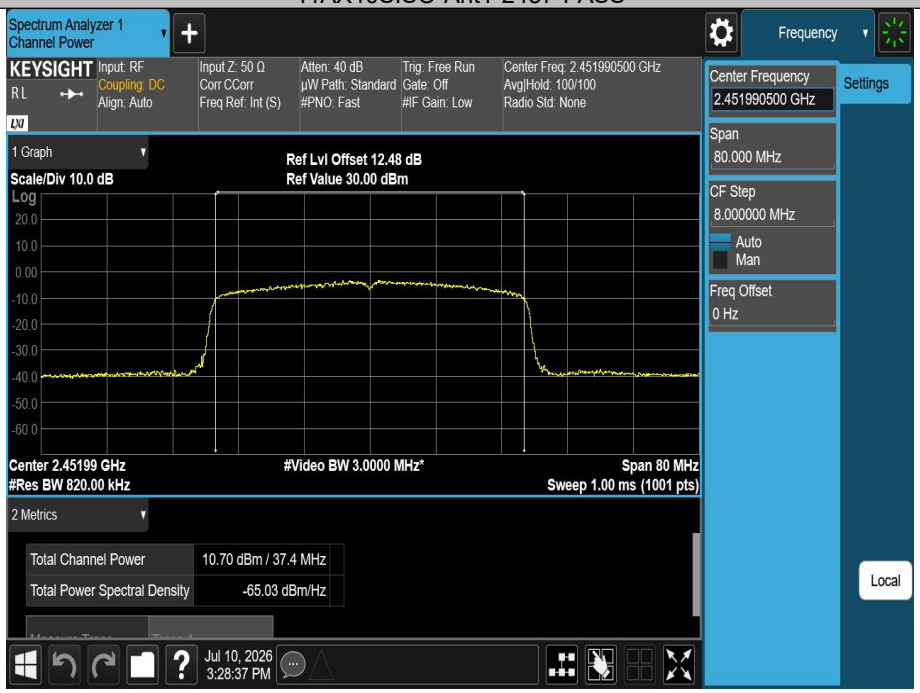


11AX40SISO-Ant1-2452-PASS

8.4 MAXIMUM POWER SPECTRAL DENSITY

8.4.1 Applicable Standard

According to FCC Part15.247(e) and KDB 558074 D01 15.247 Meas Guidance v05r02
According to RSS-247 6.3.1 and RSS-Gen 6.12

8.4.2 Conformance Limit

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of section 5.4(d), (i.e. the power spectral density shall be determined using the same method as is used to determine the conducted output power).

8.4.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.4.4 Test Procedure

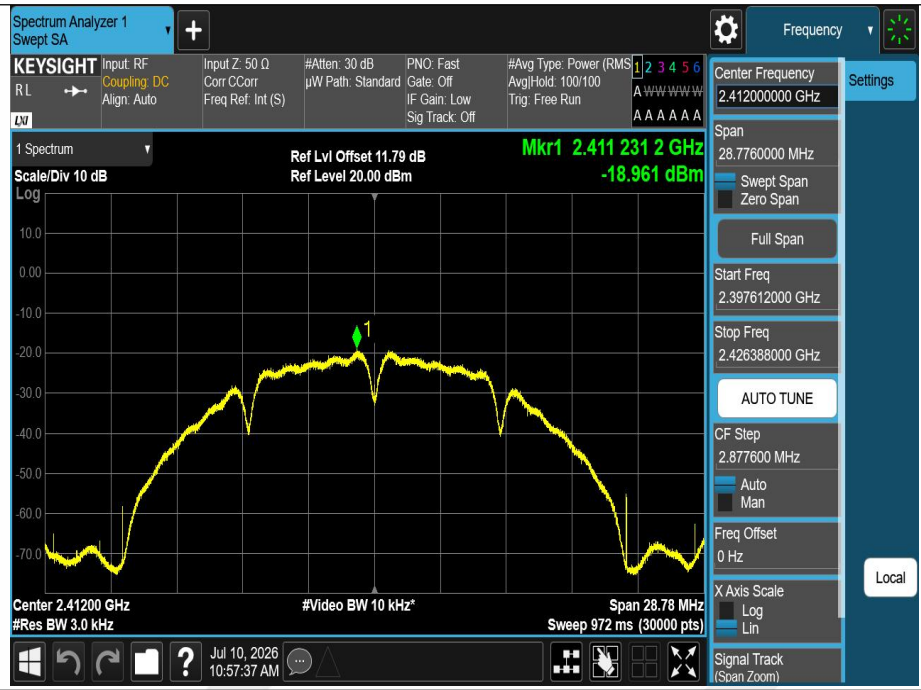
This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance
The transmitter output (antenna port) was connected to the spectrum analyzer
Set analyzer center frequency to DTS channel center frequency.
Set the span to 1.5 times the DTS bandwidth.
Set the RBW to: 3 kHz
Set the VBW to: 10 kHz.
Set Detector = peak.
Set Sweep time = auto couple.
Set Trace mode = max hold.
Allow trace to fully stabilize.
Use the peak marker function to determine the maximum amplitude level within the RBW.

8.4.5 Test Results

Temperature:	25 ˚C
Relative Humidity:	45%
ATM Pressure:	1011 mbar

Note: N/A

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-18.96	≤8.00	PASS
11B	Ant1	2437	-19.71	≤8.00	PASS
11B	Ant1	2462	-18.91	≤8.00	PASS
11G	Ant1	2412	-21.33	≤8.00	PASS
11G	Ant1	2437	-22.38	≤8.00	PASS
11G	Ant1	2462	-22.50	≤8.00	PASS
11N20SISO	Ant1	2412	-22.02	≤8.00	PASS
11N20SISO	Ant1	2437	-22.54	≤8.00	PASS
11N20SISO	Ant1	2462	-22.33	≤8.00	PASS
11N40SISO	Ant1	2422	-23.99	≤8.00	PASS
11N40SISO	Ant1	2437	-24.62	≤8.00	PASS
11N40SISO	Ant1	2452	-23.75	≤8.00	PASS
11AX20SISO	Ant1	2412	-21.34	≤8.00	PASS
11AX20SISO	Ant1	2437	-21.98	≤8.00	PASS
11AX20SISO	Ant1	2462	-22.15	≤8.00	PASS
11AX40SISO	Ant1	2422	-23.42	≤8.00	PASS
11AX40SISO	Ant1	2437	-23.69	≤8.00	PASS
11AX40SISO	Ant1	2452	-22.81	≤8.00	PASS



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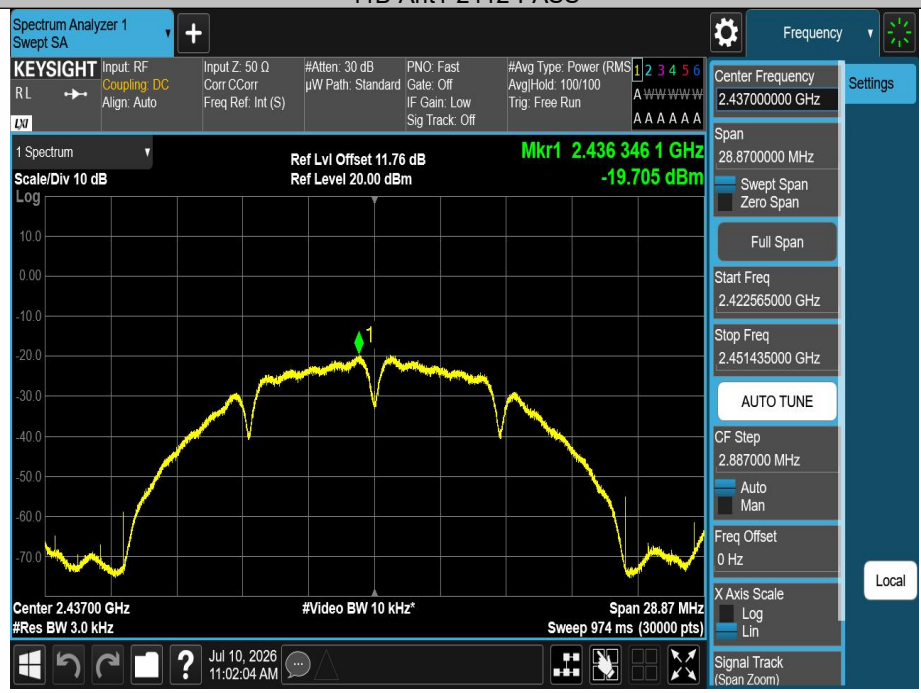

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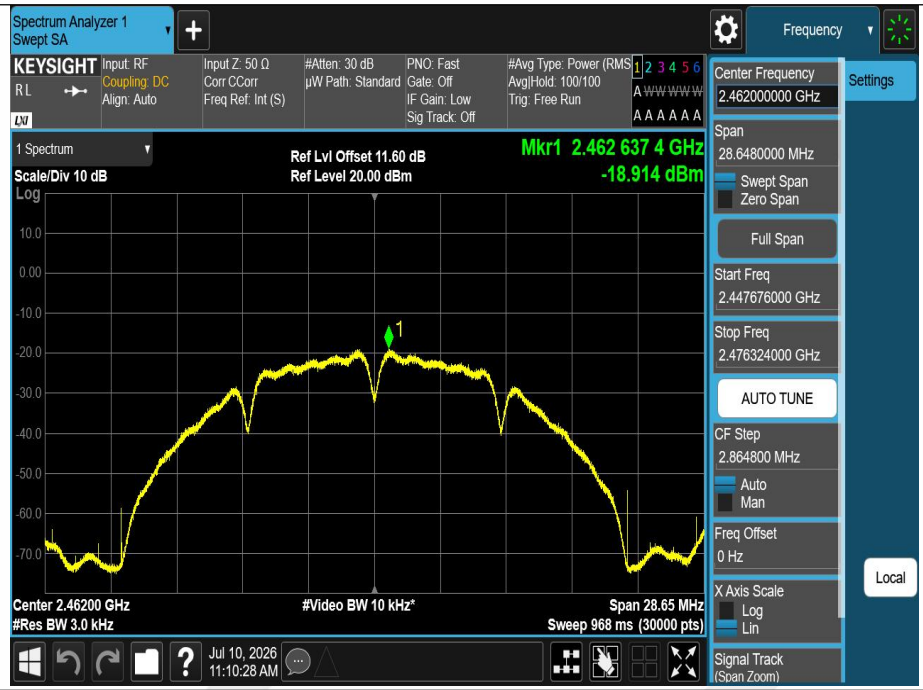
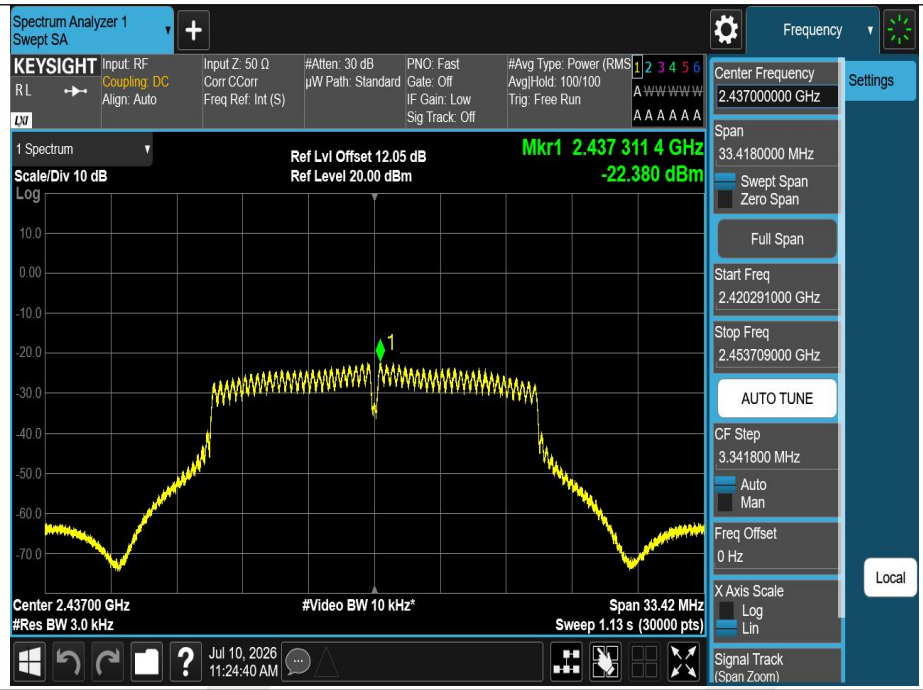


11B-Ant1-2462-PASS

11G-Ant1-2412-PASS



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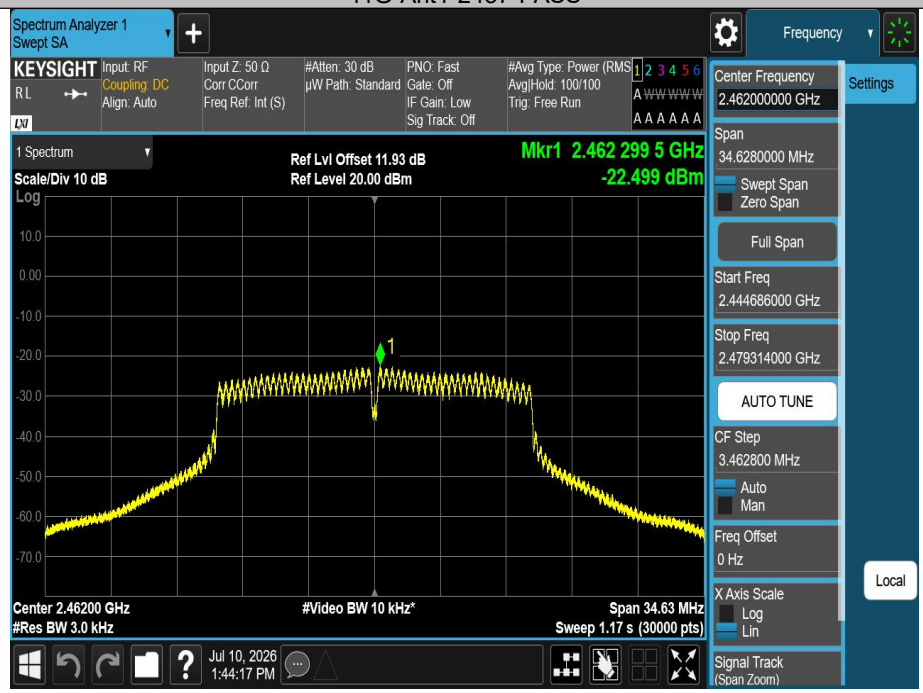

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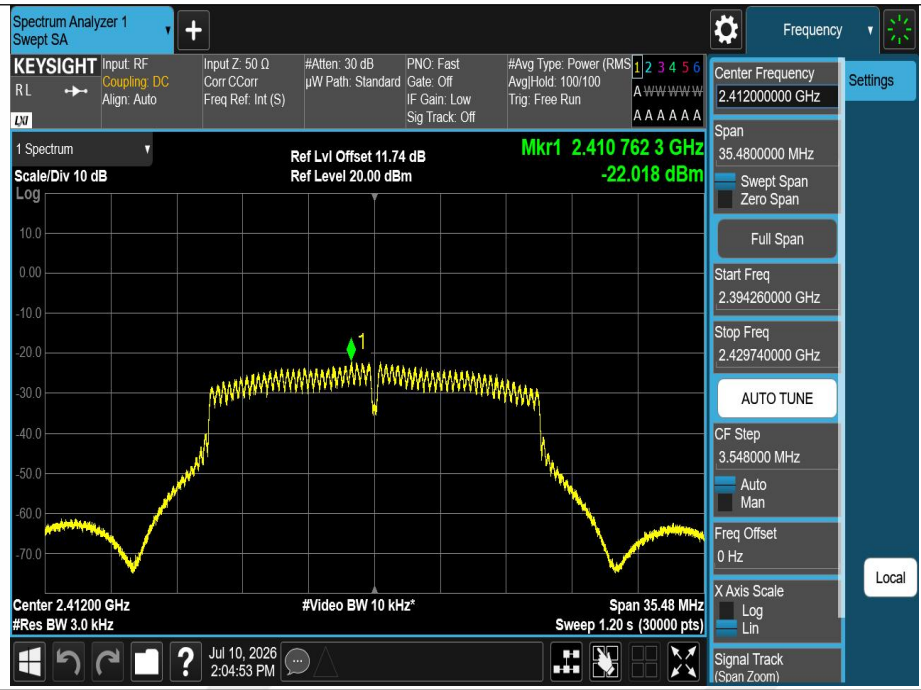

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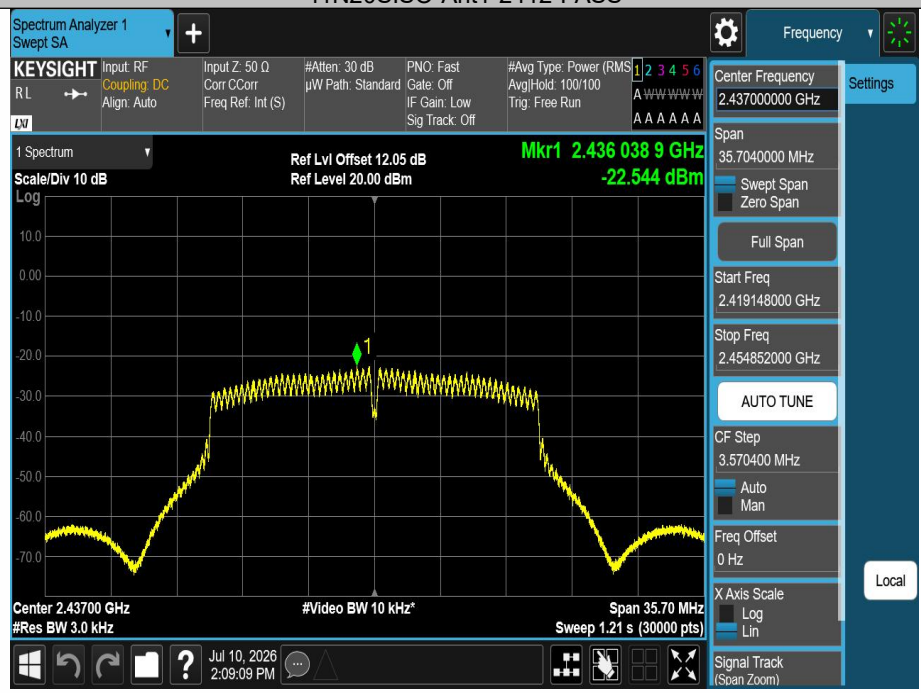

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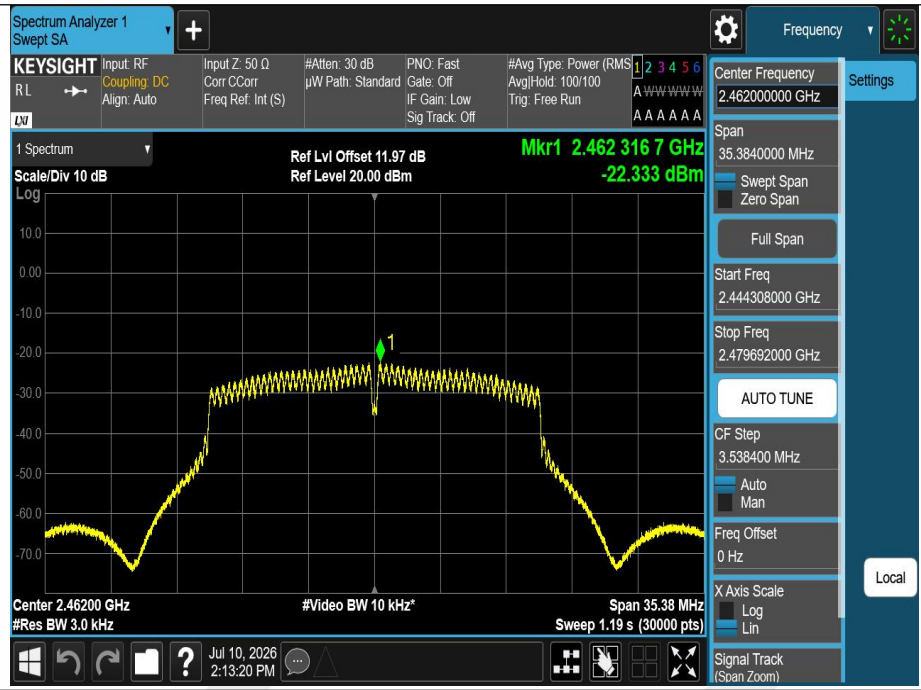

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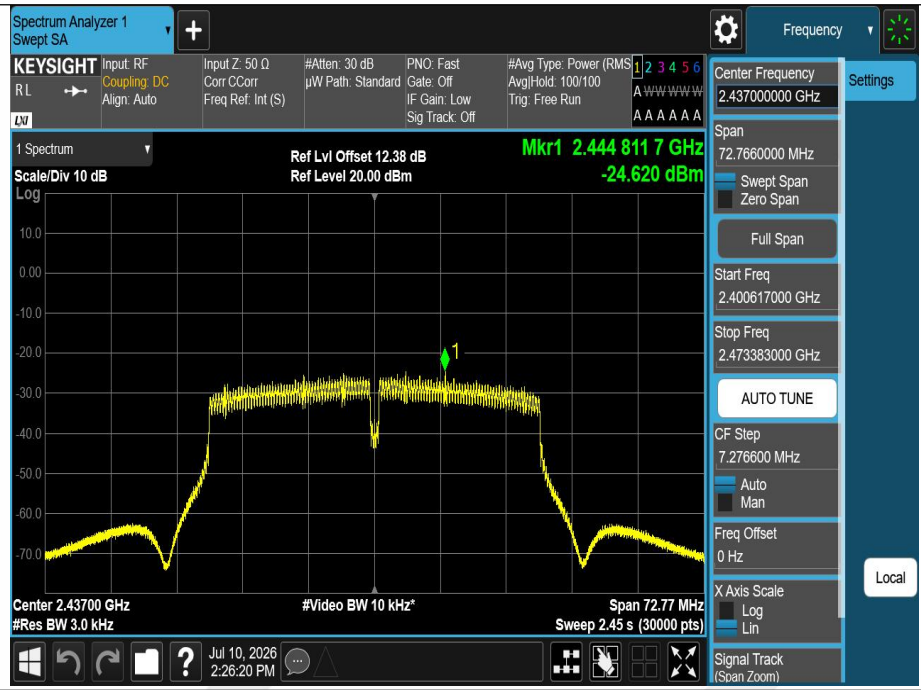

11N40SISO-Ant1-2437-PASS

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