

### 8.3 MAXIMUM PEAK CONDUCTED OUTPUT POWER

#### 8.3.1 Applicable Standard

According to FCC Part 15.247 (b)(3) and KDB 558074 D01 15.247 Meas Guidance v05r02  
 According to RSS-247 5.4(d) 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  $\geq 3 \times$  RBW.
- d) Number of points in sweep  $\geq 2 \times$  span / RBW. (This gives bin-to-bin spacing  $\leq$  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  $\geq 98$  %, 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)

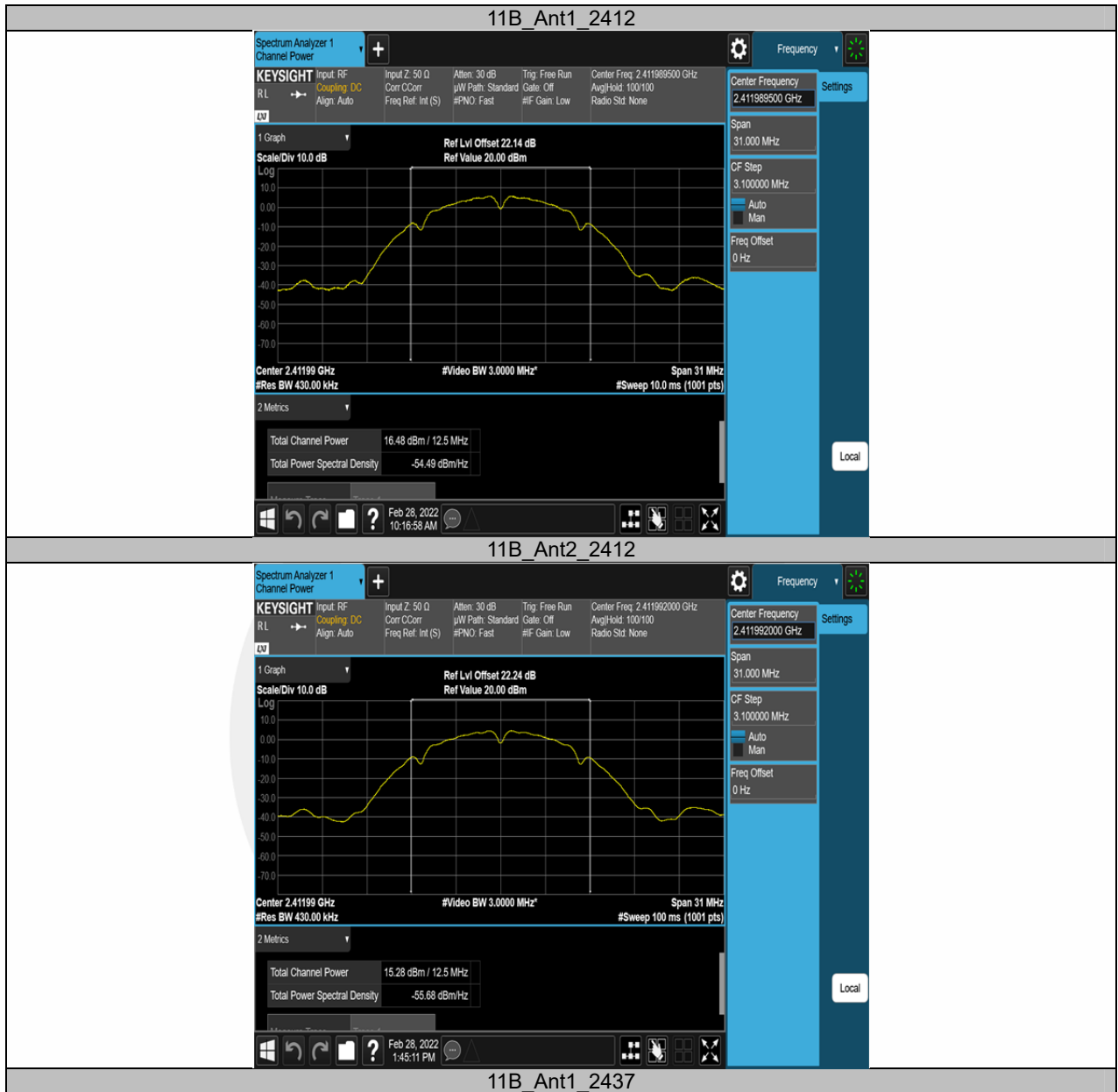
#### 8.3.5 Test Results

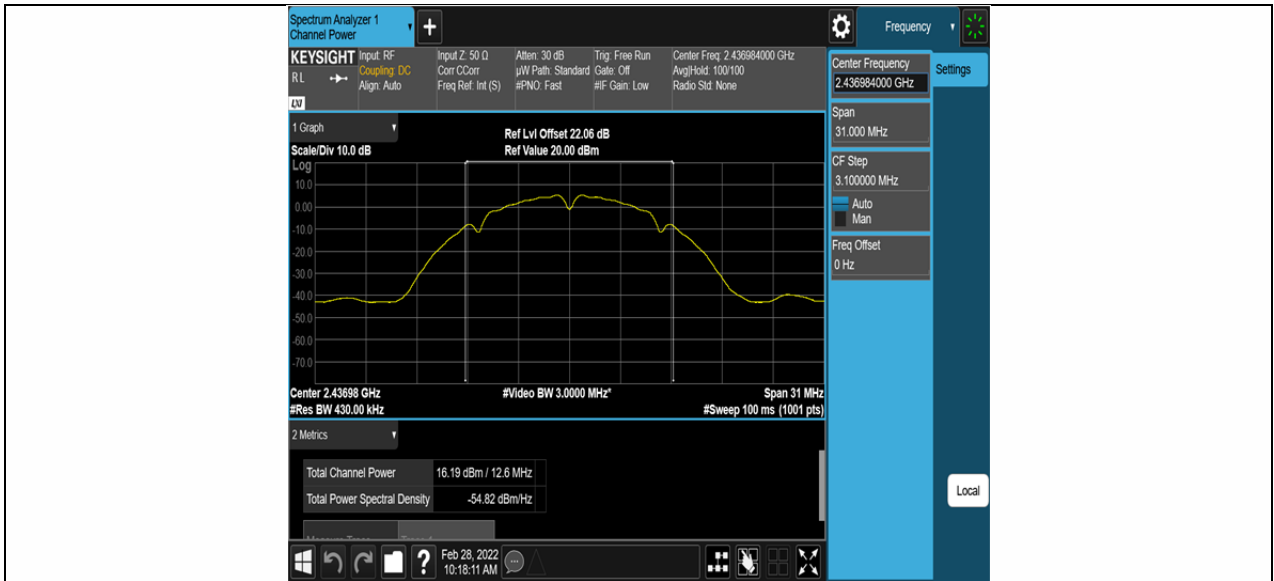
Temperature:	25 °C
Relative Humidity:	45%
ATM Pressure:	1011 mbar

Note: N/A

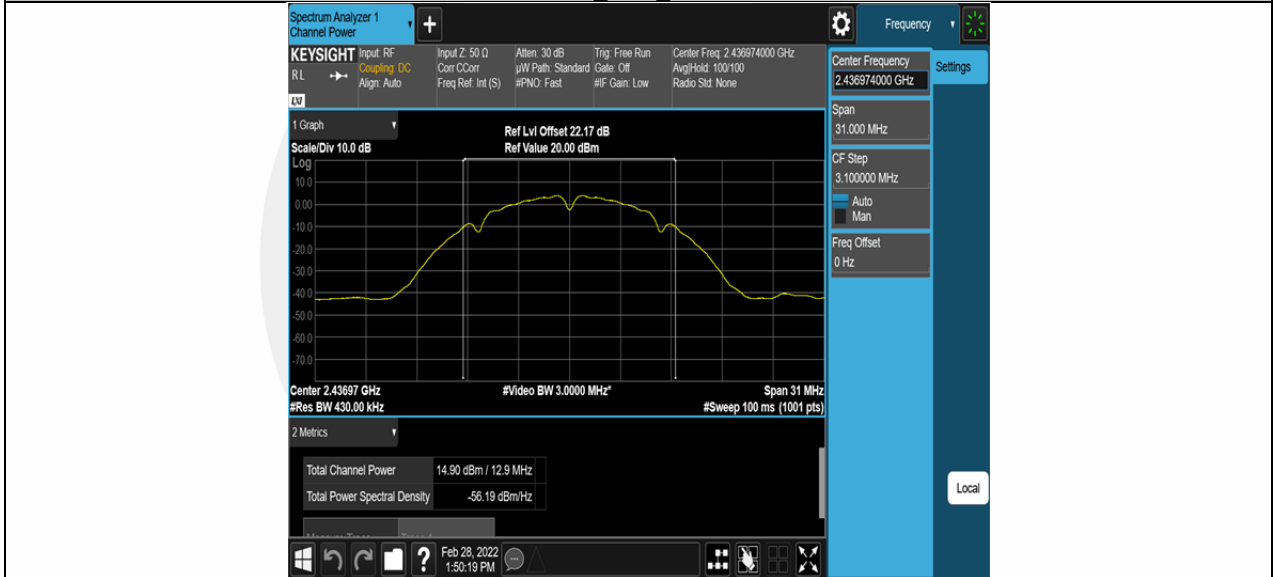
TestMode	Antenna	Frequency [MHz]	Power [dBm]	Conducted Limit [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11B	Ant1	2412	16.48	≤30.00	19.45	≤36.00	PASS
	Ant2	2412	15.28	≤30.00	18.23	≤36.00	PASS
	Ant1	2437	16.19	≤30.00	19.16	≤36.00	PASS
	Ant2	2437	14.90	≤30.00	17.85	≤36.00	PASS
	Ant1	2462	16.16	≤30.00	19.13	≤36.00	PASS
	Ant2	2462	14.76	≤30.00	17.71	≤36.00	PASS
11G	Ant1	2412	15.50	≤30.00	18.47	≤36.00	PASS
	Ant2	2412	14.08	≤30.00	17.03	≤36.00	PASS
	Ant1	2437	15.32	≤30.00	18.29	≤36.00	PASS
	Ant2	2437	14.12	≤30.00	17.07	≤36.00	PASS
	Ant1	2462	15.27	≤30.00	18.24	≤36.00	PASS
	Ant2	2462	13.85	≤30.00	16.80	≤36.00	PASS
11N20SIS O	Ant1	2412	15.32	≤30.00	18.29	≤36.00	PASS
	Ant2	2412	13.92	≤30.00	16.87	≤36.00	PASS
	Ant1	2437	15.25	≤30.00	18.22	≤36.00	PASS
	Ant2	2437	14.03	≤30.00	16.98	≤36.00	PASS
	Ant1	2462	15.11	≤30.00	18.08	≤36.00	PASS
	Ant2	2462	13.78	≤30.00	16.73	≤36.00	PASS
11N40SIS O	Ant1	2422	12.52	≤30.00	15.49	≤36.00	PASS
	Ant2	2422	14.07	≤30.00	17.02	≤36.00	PASS
	Ant1	2437	12.51	≤30.00	15.48	≤36.00	PASS
	Ant2	2437	13.96	≤30.00	16.91	≤36.00	PASS
	Ant1	2452	15.16	≤30.00	18.13	≤36.00	PASS
	Ant2	2452	11.05	≤30.00	14.00	≤36.00	PASS
11AX20SI SO	Ant1	2412	15.54	≤30.00	18.51	≤36.00	PASS
	Ant2	2412	14.37	≤30.00	17.32	≤36.00	PASS
	Ant1	2437	15.48	≤30.00	18.45	≤36.00	PASS
	Ant2	2437	14.16	≤30.00	17.11	≤36.00	PASS
	Ant1	2462	15.34	≤30.00	18.31	≤36.00	PASS
	Ant2	2462	14.25	≤30.00	17.20	≤36.00	PASS
11AX40SI SO	Ant1	2422	15.99	≤30.00	18.96	≤36.00	PASS
	Ant2	2422	11.63	≤30.00	14.58	≤36.00	PASS
	Ant1	2437	15.34	≤30.00	18.31	≤36.00	PASS
	Ant2	2437	14.14	≤30.00	17.09	≤36.00	PASS
	Ant1	2452	12.63	≤30.00	15.60	≤36.00	PASS
	Ant2	2452	11.30	≤30.00	14.25	≤36.00	PASS
11N20MIMO		2412	17.69	≤30.00	23.66	≤36.00	PASS
		2437	17.69	≤30.00	23.66	≤36.00	PASS
		2462	17.51	≤30.00	23.48	≤36.00	PASS
11N40MIMO		2422	16.37	≤30.00	22.34	≤36.00	PASS
		2437	16.31	≤30.00	22.28	≤36.00	PASS
		2452	16.58	≤30.00	22.55	≤36.00	PASS
11AX20MIMO		2412	18.00	≤30.00	23.97	≤36.00	PASS
		2437	17.88	≤30.00	23.85	≤36.00	PASS
		2462	17.84	≤30.00	23.81	≤36.00	PASS
11AX40MIMO		2422	17.35	≤30.00	23.32	≤36.00	PASS
		2437	17.79	≤30.00	23.76	≤36.00	PASS
		2452	15.03	≤30.00	21.00	≤36.00	PASS



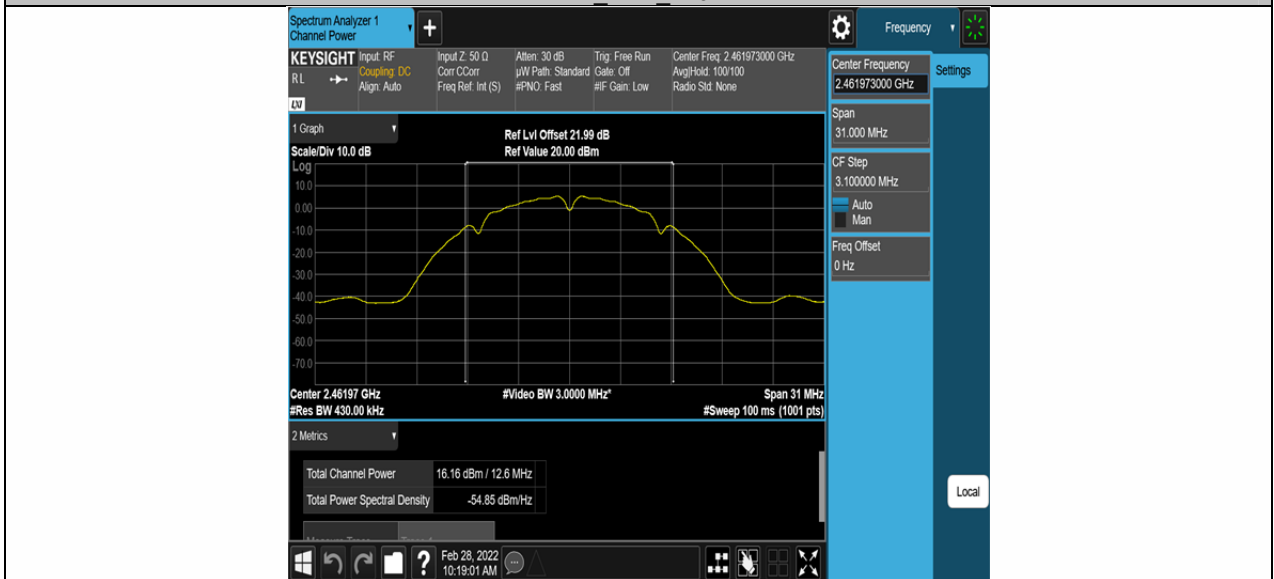


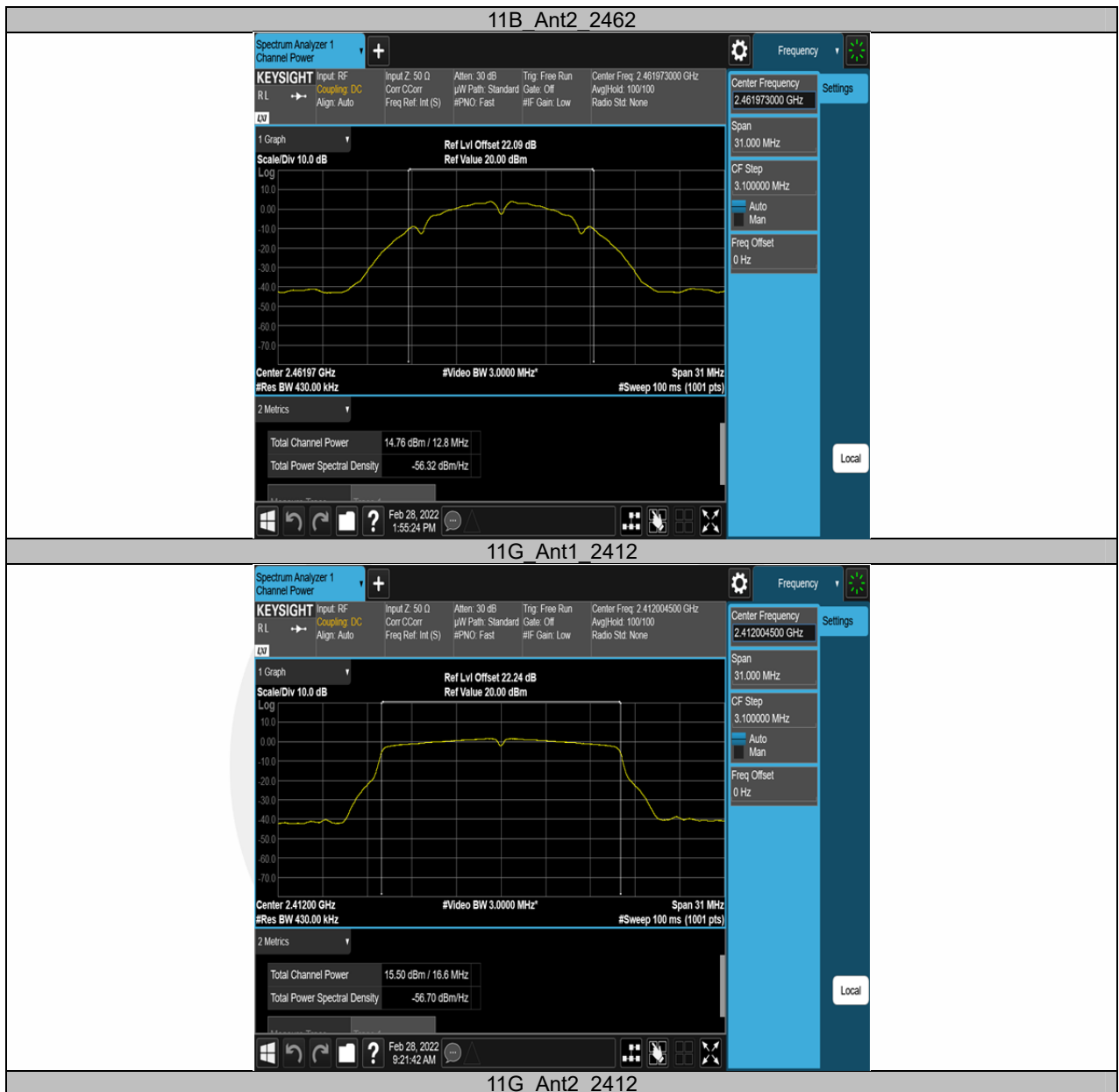


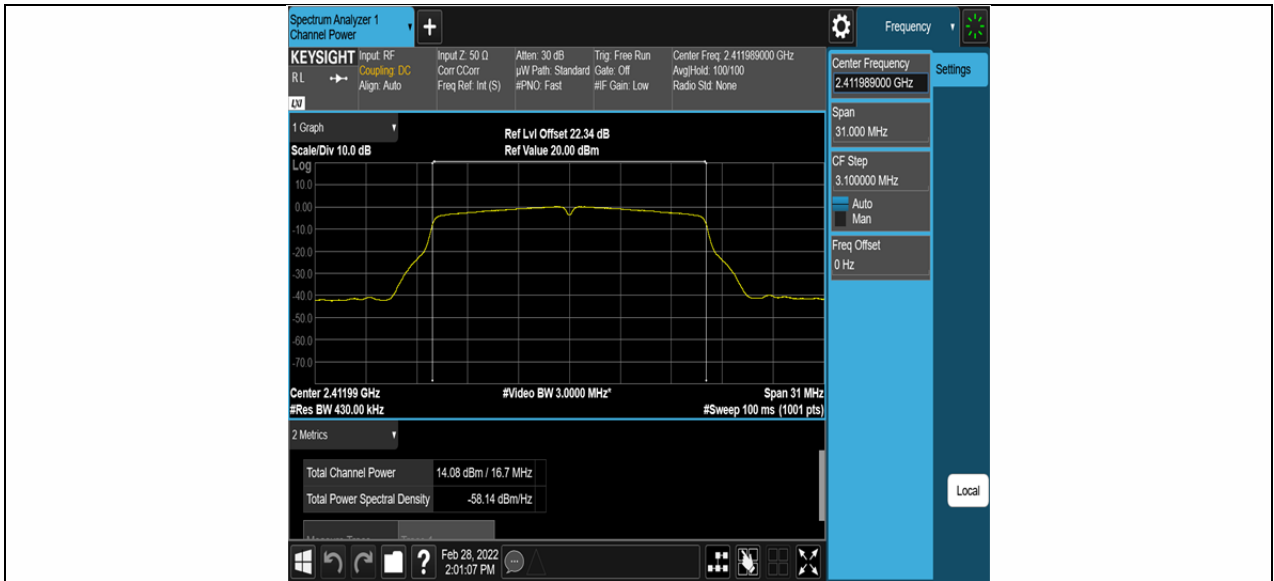
11B\_Ant2\_2437



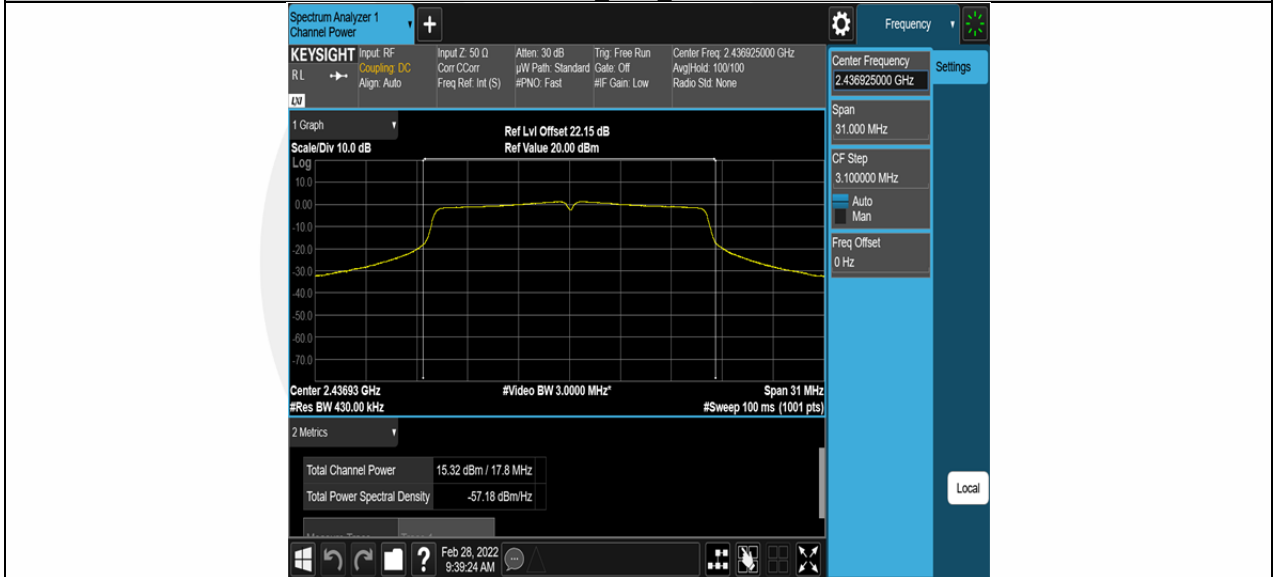
11B\_Ant1\_2462







11G\_Ant1\_2437



11G\_Ant2\_2437

