

RF Test Data for BLE (Conducted Measurements)

General Description of EUT	
EUT Name:	Smart Watch
Model:	Noise Alt Watch 1
Sample ID:	HC-C-202507-0179-03-01#
Test Standard:	FCC Part 15.247
Environmental Conditions	
Ambient Temperature:	25°C
Ambient Humidity:	45%RH
Test Power Supply:	DC 5V
Test Engineer:	Kael Li
Note: For a more detailed features description, please refer to the report TBR-C-202507-0179-6.	

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1: DTS Bandwidth

1.1 Test Result

Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.716	2401.624	2402.340	0.5	PASS
BLE_1M	Ant1	2440	0.708	2439.632	2440.340	0.5	PASS
BLE_1M	Ant1	2480	0.692	2479.640	2480.332	0.5	PASS
BLE_2M	Ant1	2402	1.076	2401.440	2402.516	0.5	PASS
BLE_2M	Ant1	2440	1.048	2439.428	2440.476	0.5	PASS
BLE_2M	Ant1	2480	1.100	2479.432	2480.532	0.5	PASS

1.2 Test Graphs



BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2440-PASS



BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS

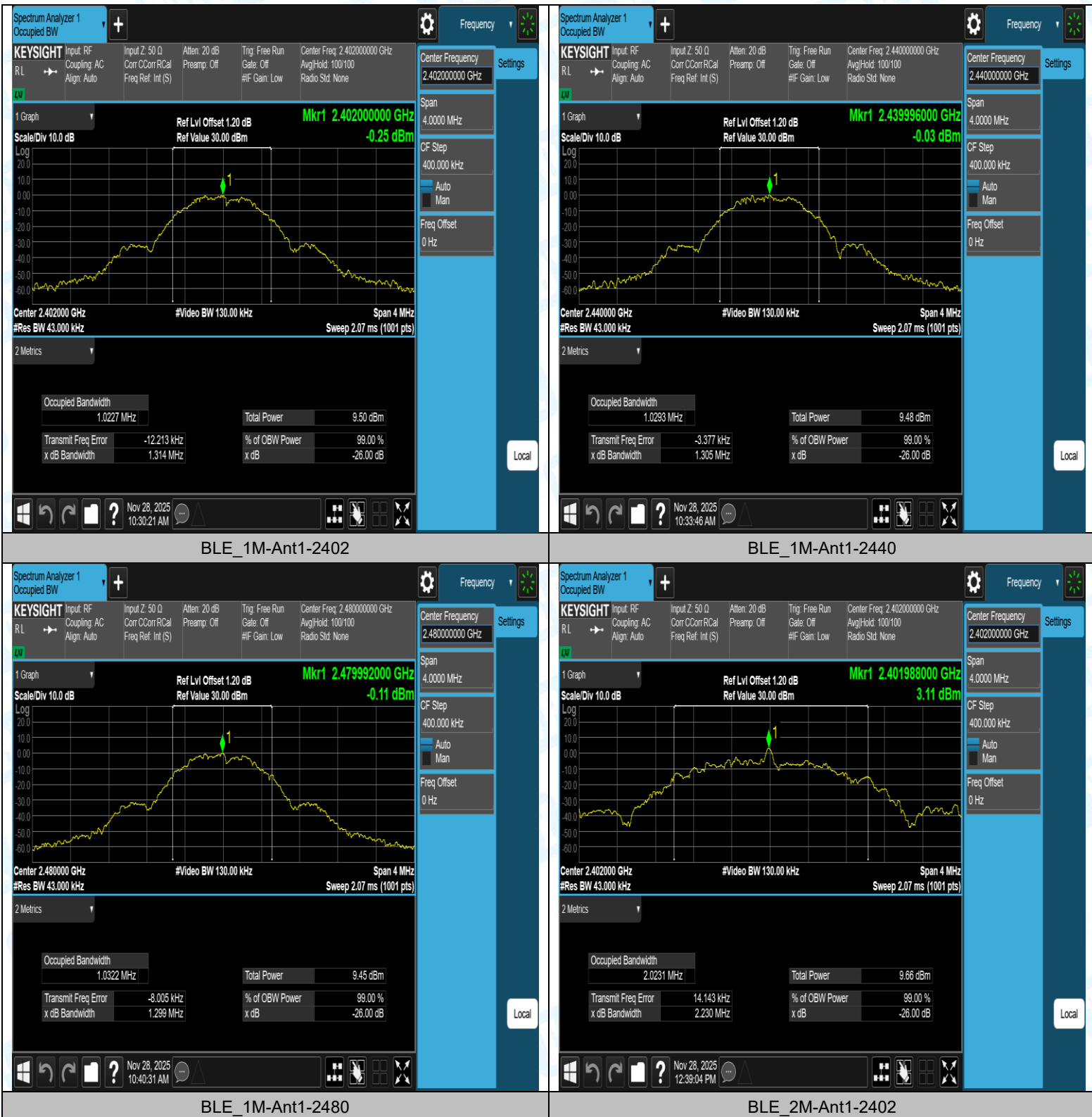


2: Occupied Channel Bandwidth

2.1 Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0227	2401.4764	2402.4991	---	---
BLE_1M	Ant1	2440	1.0293	2439.4820	2440.5113	---	---
BLE_1M	Ant1	2480	1.0322	2479.4759	2480.5081	---	---
BLE_2M	Ant1	2402	2.0231	2401.0026	2403.0257	---	---
BLE_2M	Ant1	2440	2.0225	2438.9989	2441.0214	---	---
BLE_2M	Ant1	2480	1.9864	2478.9967	2480.9831	---	---

2.2 Test Graphs





BLE_2M-Ant1-2440



BLE_2M-Ant1-2480

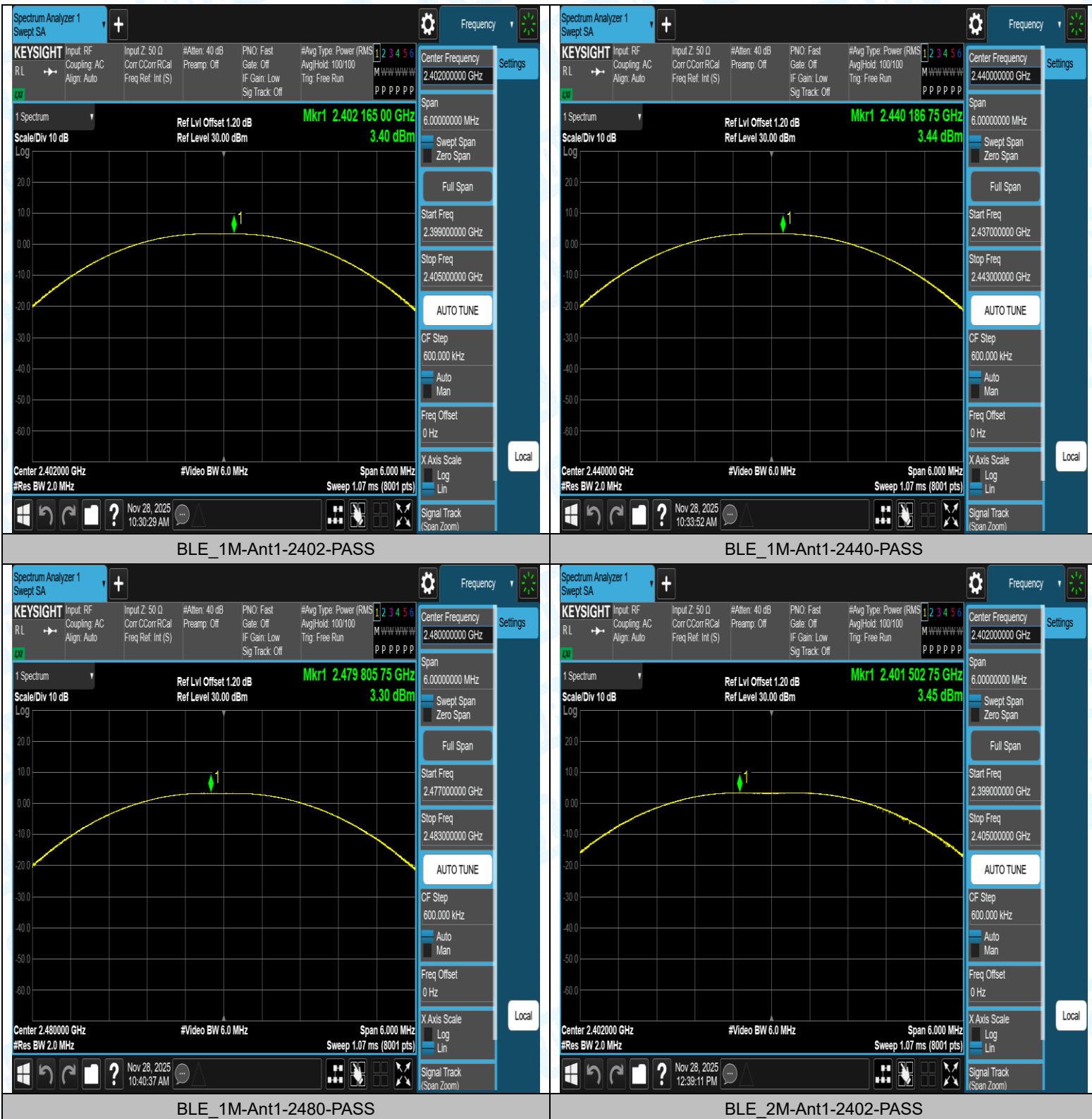
3: Maximum conducted output power

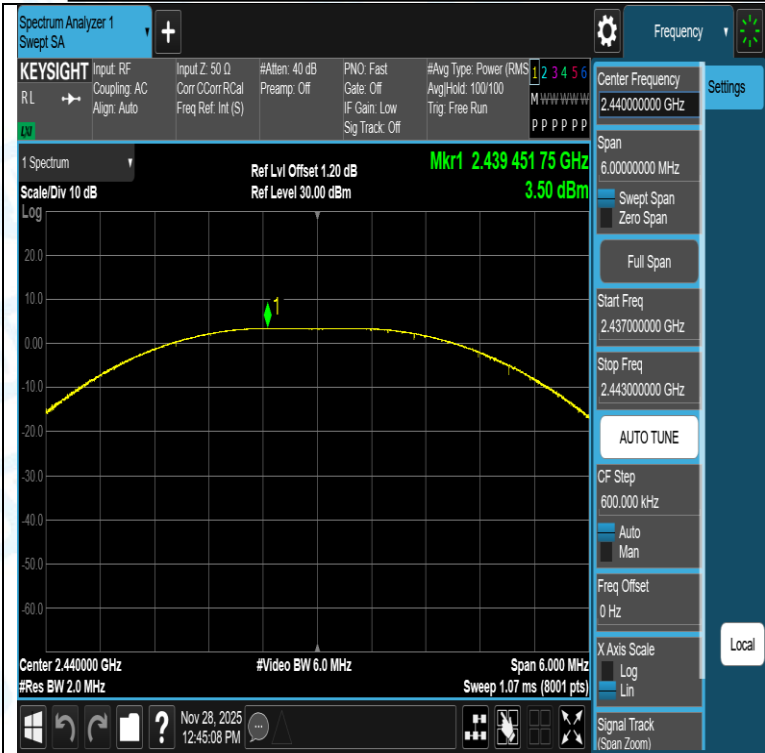
3.1 Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	3.40	≤30	-4.35	≤36	PASS
BLE_1M	Ant1	2440	3.44	≤30	-4.31	≤36	PASS
BLE_1M	Ant1	2480	3.30	≤30	-4.45	≤36	PASS
BLE_2M	Ant1	2402	3.45	≤30	-4.30	≤36	PASS
BLE_2M	Ant1	2440	3.50	≤30	-4.25	≤36	PASS
BLE_2M	Ant1	2480	3.43	≤30	-4.32	≤36	PASS

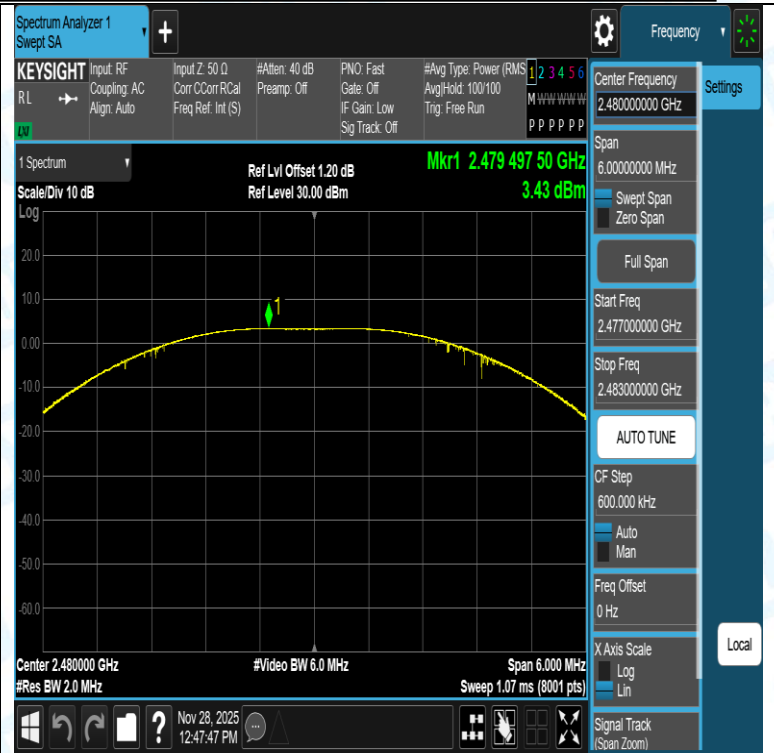
Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	3.40	≤30	PASS
BLE_1M	Ant1	2440	3.44	≤30	PASS
BLE_1M	Ant1	2480	3.30	≤30	PASS
BLE_2M	Ant1	2402	3.45	≤30	PASS
BLE_2M	Ant1	2440	3.50	≤30	PASS
BLE_2M	Ant1	2480	3.43	≤30	PASS

3.2 Test Graphs Peak





BLE_2M-Ant1-2440-PASS



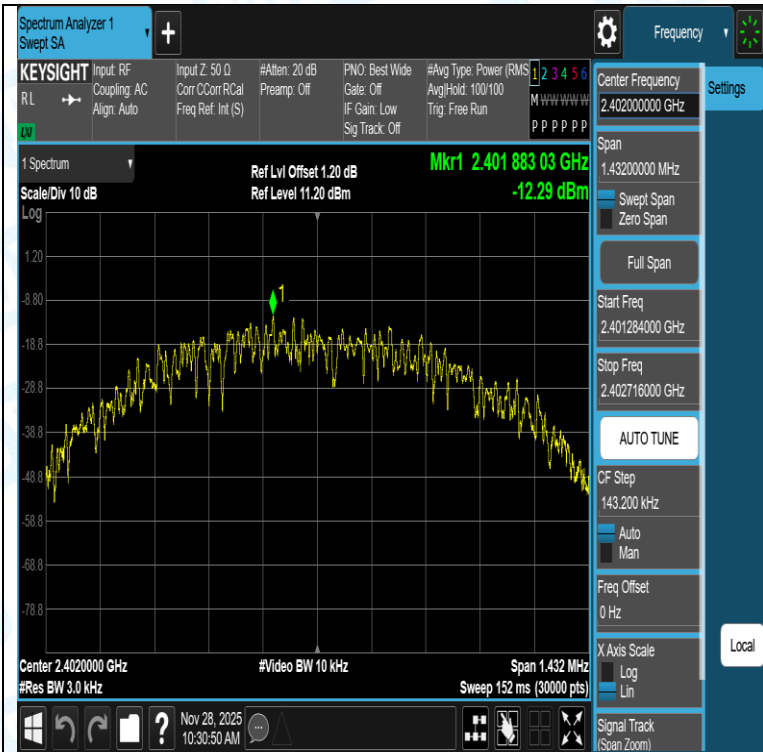
BLE_2M-Ant1-2480-PASS

4: Maximum power spectral density

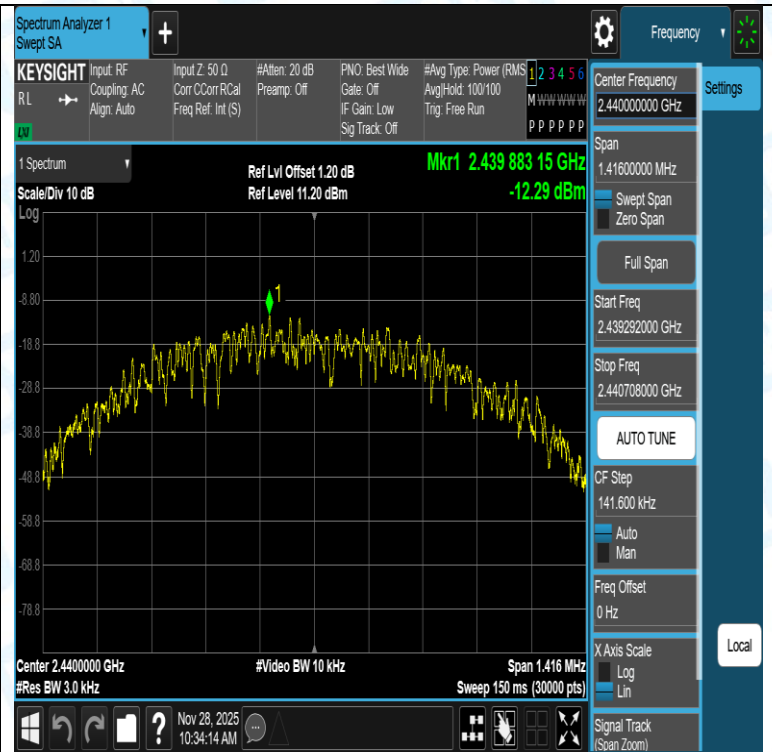
4.1 Test Result

Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-12.29	≤8.00	PASS
BLE_1M	Ant1	2440	-12.29	≤8.00	PASS
BLE_1M	Ant1	2480	-12.44	≤8.00	PASS
BLE_2M	Ant1	2402	-11.11	≤8.00	PASS
BLE_2M	Ant1	2440	-11.05	≤8.00	PASS
BLE_2M	Ant1	2480	-11.08	≤8.00	PASS

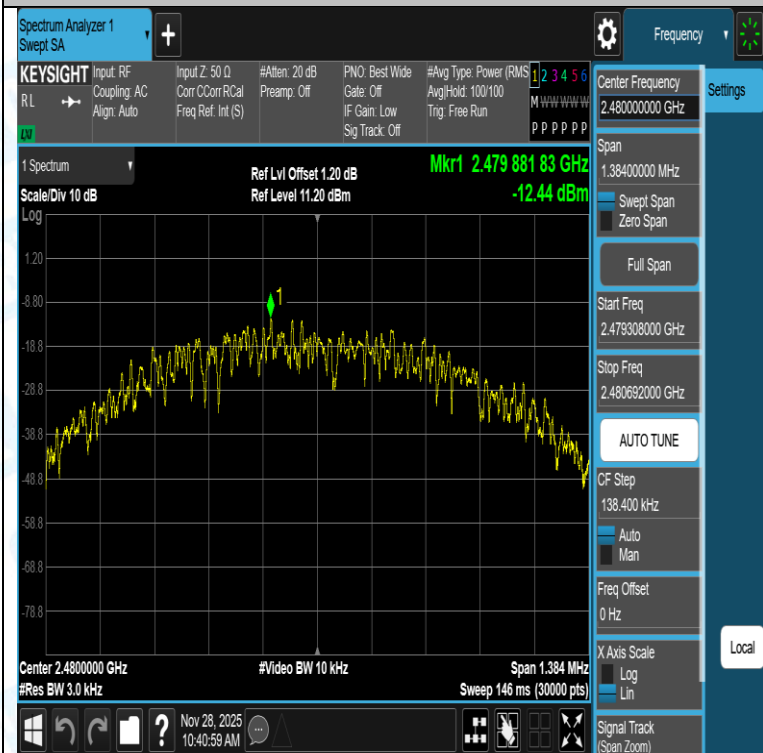
4.2 Test Graphs



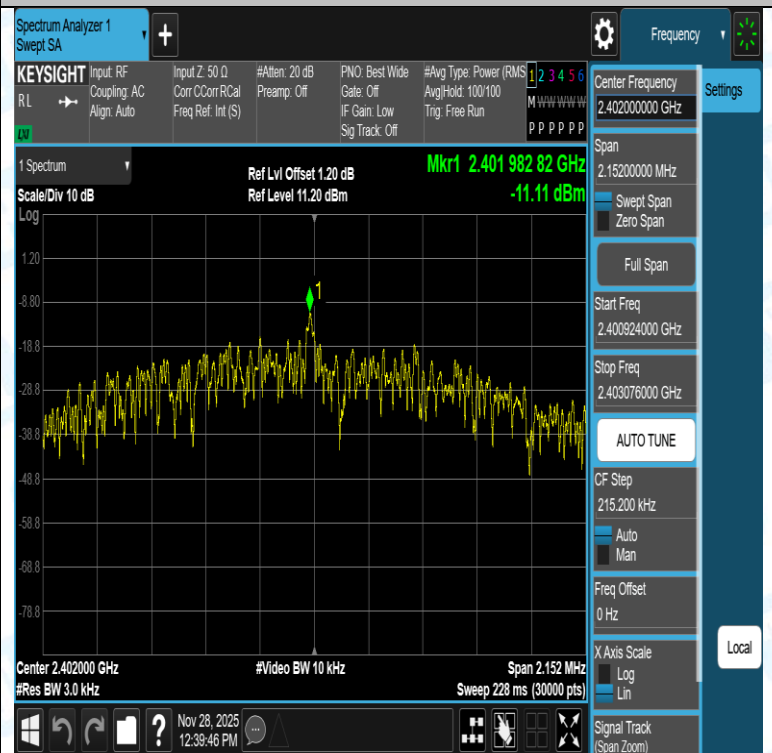
BLE_1M-Ant1-2402-PASS



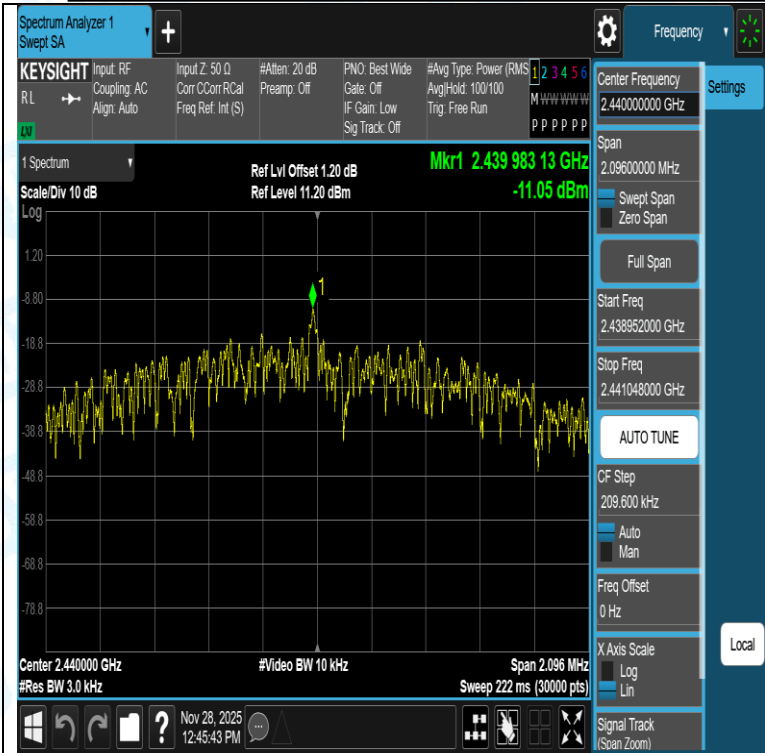
BLE_1M-Ant1-2440-PASS



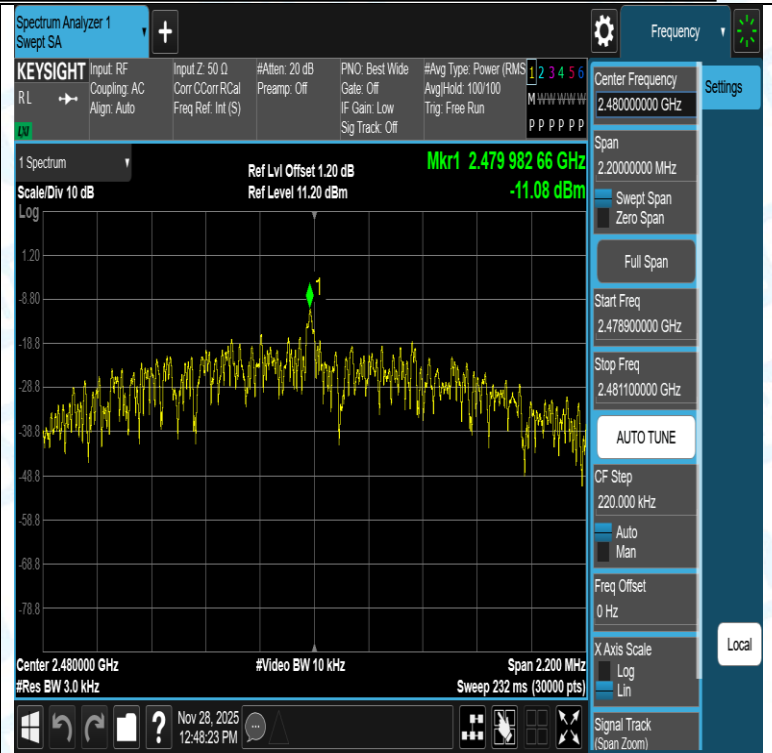
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



BLE_2M-Ant1-2480-PASS

5: Band edge measurements

5.1 Test Result

Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	2.80	-48.92	≤-17.2	PASS
BLE_1M	Ant1	High	2480	2.50	-50.56	≤-17.5	PASS
BLE_2M	Ant1	Low	2402	3.36	-29.99	≤-16.64	PASS
BLE_2M	Ant1	High	2480	3.14	-45.48	≤-16.86	PASS

5.2 Test Graphs



BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2480-PASS

6: Conducted Spurious Emission

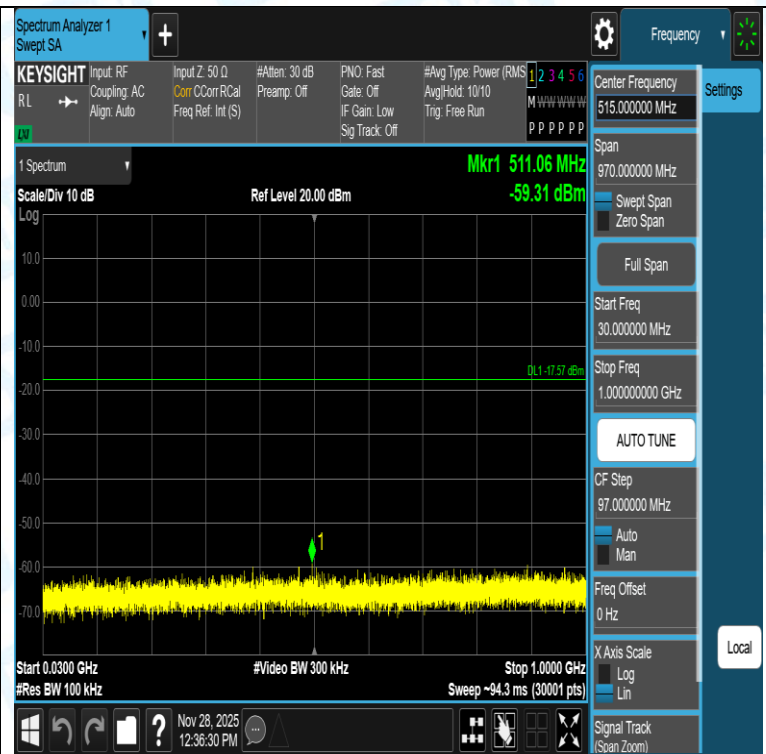
6.1 Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	2.43	2.43	---	PASS
BLE_1M	Ant1	2402	30~1000	2.43	-59.31	≤-17.57	PASS
BLE_1M	Ant1	2402	1000~26500	2.43	-41.69	≤-17.57	PASS
BLE_1M	Ant1	2440	0~Reference	1.67	1.67	---	PASS
BLE_1M	Ant1	2440	30~1000	1.67	-59.86	≤-18.33	PASS
BLE_1M	Ant1	2440	1000~26500	1.67	-43.82	≤-18.33	PASS
BLE_1M	Ant1	2480	0~Reference	2.06	2.06	---	PASS
BLE_1M	Ant1	2480	30~1000	2.06	-59.67	≤-17.94	PASS
BLE_1M	Ant1	2480	1000~26500	2.06	-43.85	≤-17.94	PASS
BLE_2M	Ant1	2402	0~Reference	3.00	3.00	---	PASS
BLE_2M	Ant1	2402	30~1000	3.00	-59.62	≤-17	PASS
BLE_2M	Ant1	2402	1000~26500	3.00	-43.6	≤-17	PASS
BLE_2M	Ant1	2440	0~Reference	2.26	2.26	---	PASS
BLE_2M	Ant1	2440	30~1000	2.26	-60.07	≤-17.74	PASS
BLE_2M	Ant1	2440	1000~26500	2.26	-43.55	≤-17.74	PASS
BLE_2M	Ant1	2480	0~Reference	3.19	3.19	---	PASS
BLE_2M	Ant1	2480	30~1000	3.19	-59.62	≤-16.81	PASS
BLE_2M	Ant1	2480	1000~26500	3.19	-43.63	≤-16.81	PASS

6.2 Test Graphs



BLE_1M-Ant1-2402-0~Reference-PASS



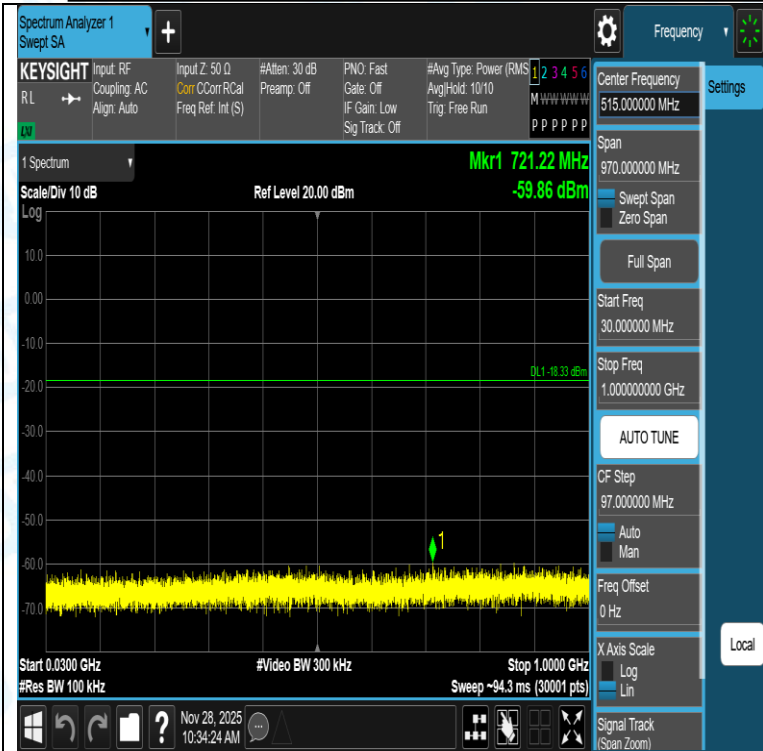
BLE_1M-Ant1-2402-30~1000-PASS



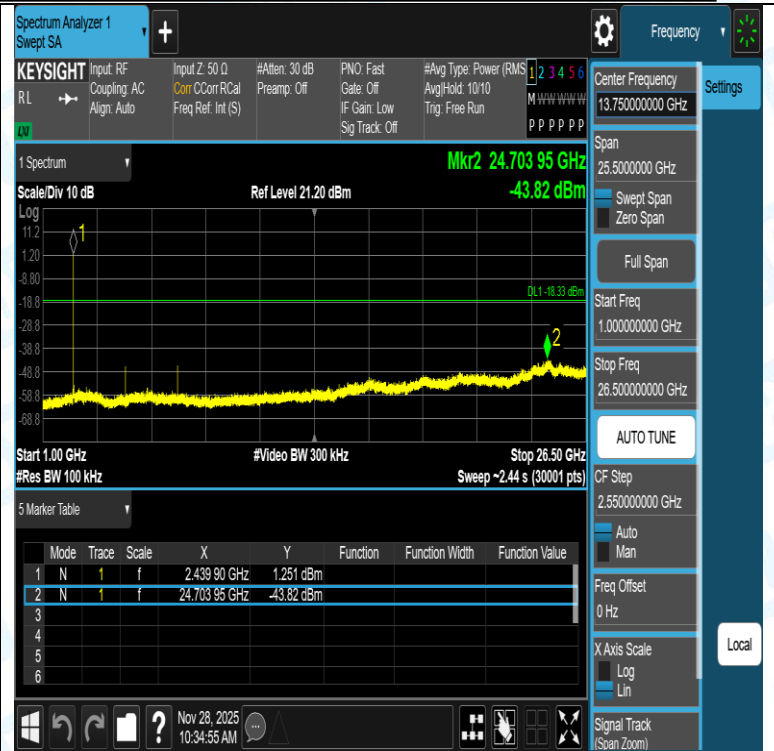
BLE_1M-Ant1-2402-1000~26500-PASS



BLE_1M-Ant1-2440-0~Reference-PASS



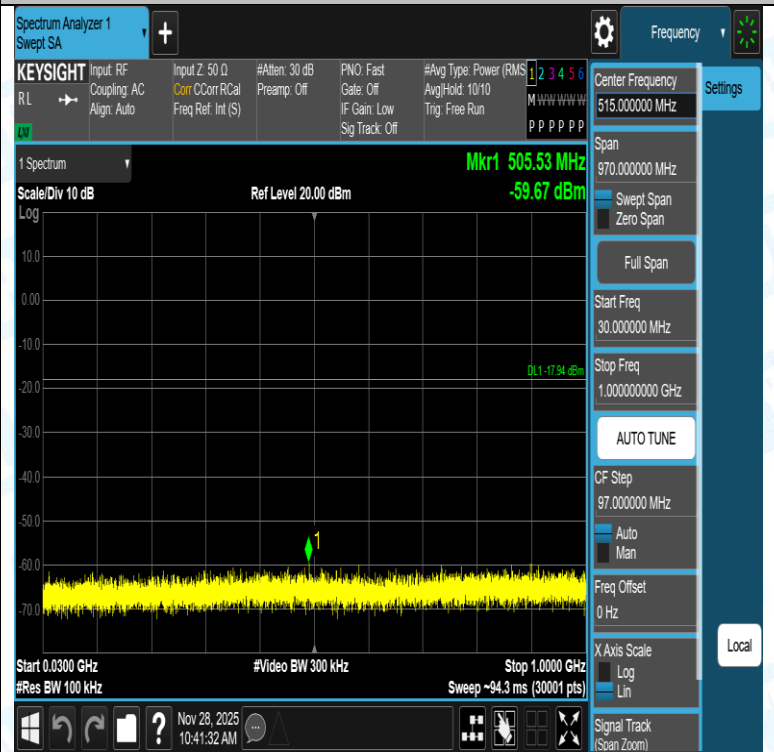
BLE_1M-Ant1-2440-30~1000-PASS



BLE_1M-Ant1-2440-1000~26500-PASS



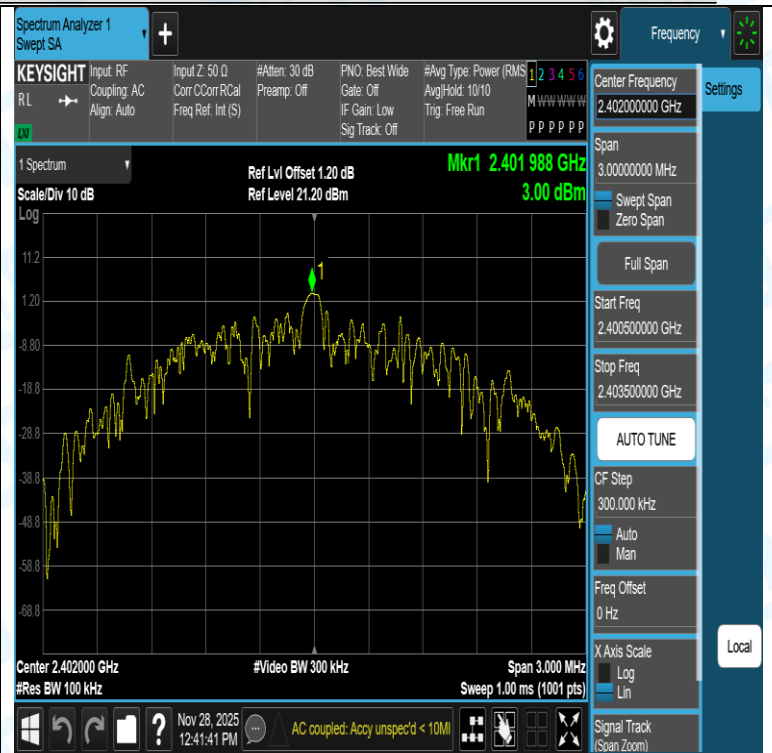
BLE_1M-Ant1-2480-0~Reference-PASS



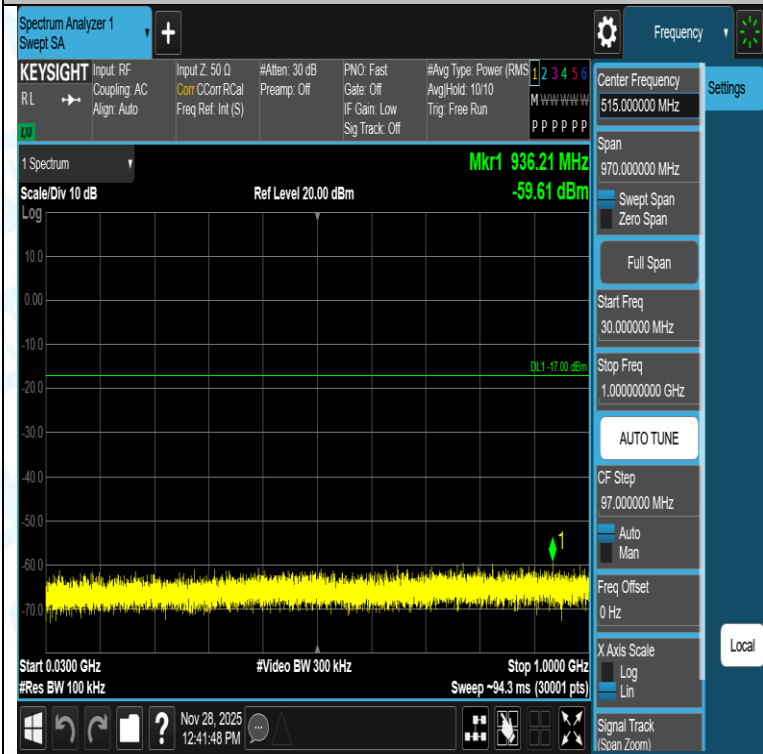
BLE_1M-Ant1-2480-30~1000-PASS



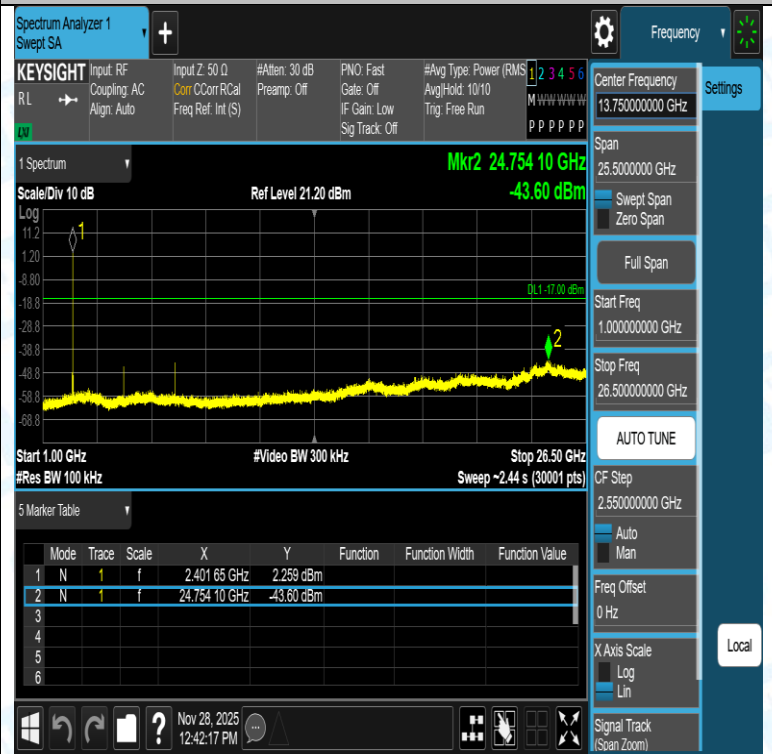
BLE_1M-Ant1-2480-1000~26500-PASS



BLE_2M-Ant1-2402-0~Reference-PASS



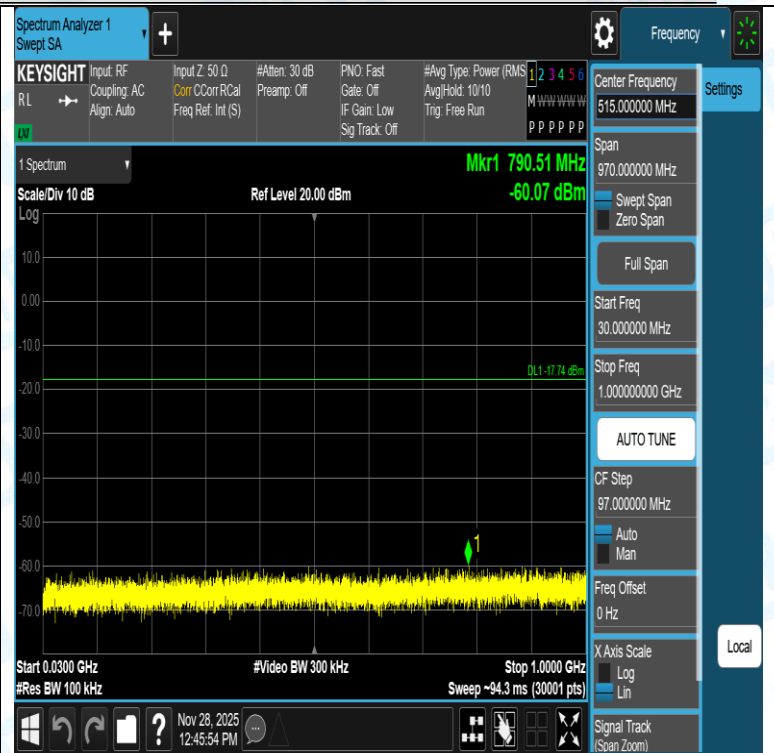
BLE_2M-Ant1-2402-30~1000-PASS



BLE_2M-Ant1-2402-1000~26500-PASS



BLE_2M-Ant1-2440-0~Reference-PASS



BLE_2M-Ant1-2440-30~1000-PASS



BLE_2M-Ant1-2440-1000~26500-PASS



BLE_2M-Ant1-2480-0~Reference-PASS