

RF Test Data for 2.4G WiFi (Conducted Measurements)

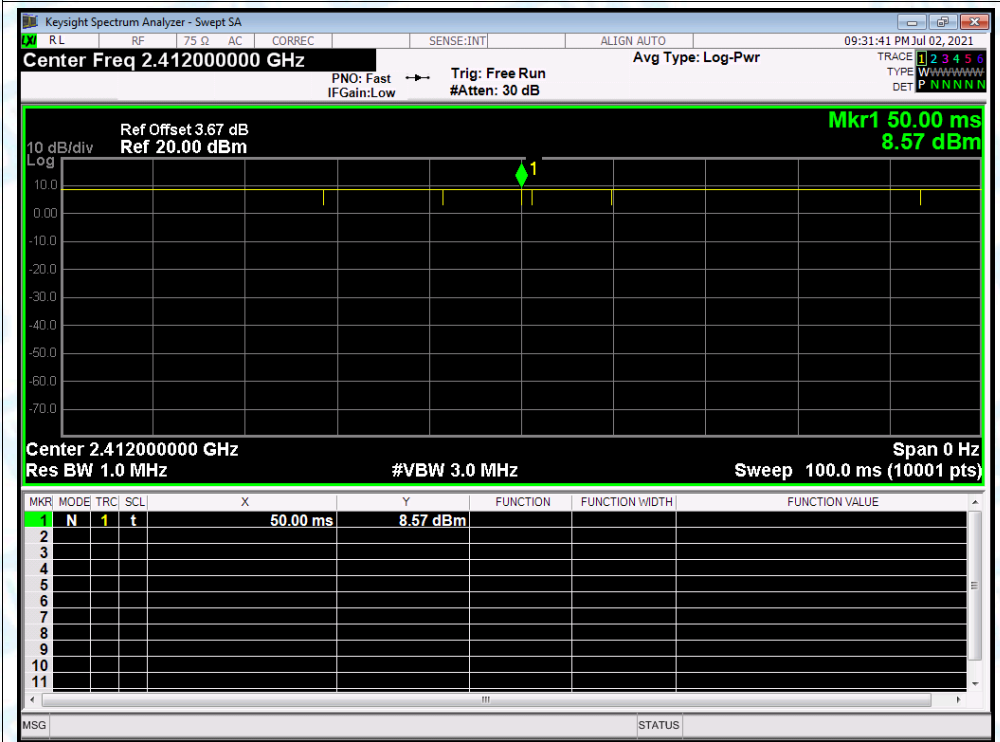
General Description of EUT	
Product Name:	IP Camera
Test Model:	SBD-PTC-20B
Sample ID:	20210615-27-02
Environmental Conditions	
Temperature:	23.8°C
Relative Humidity:	48%
Test Voltage:	DC 12V
Test Engineer:	Huang Jian Ping
Note: For a more detailed features description, please refer to the report TB-FCC182253.	

1. Duty Cycle

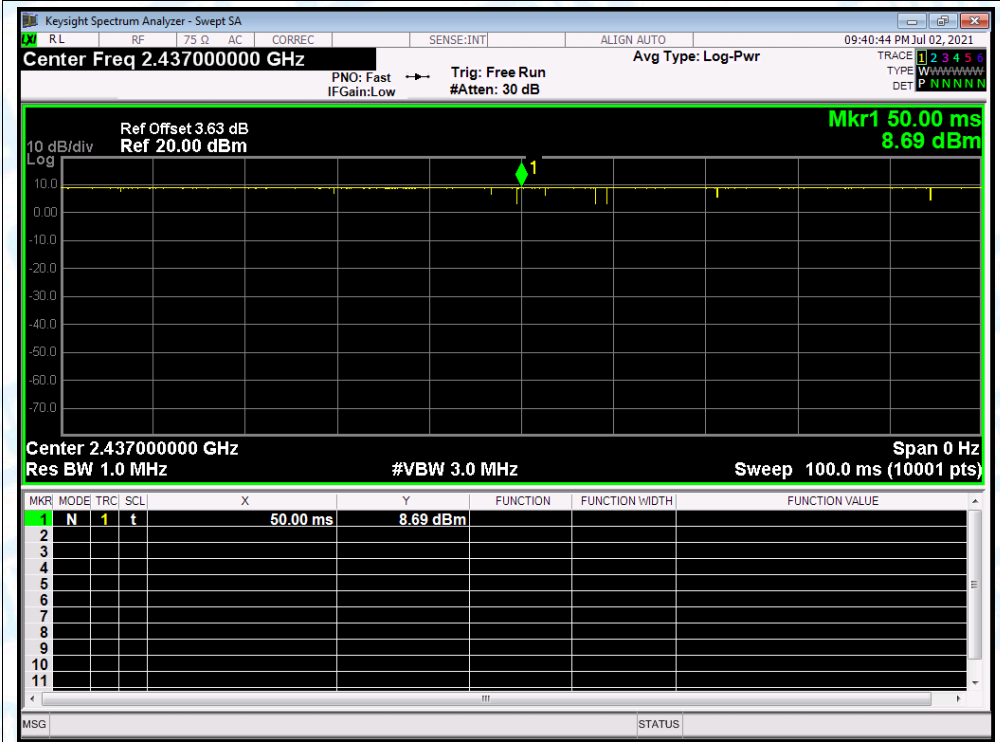
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	100	0	0
NVNT	b	2437	Ant1	100	0	0
NVNT	b	2462	Ant1	100	0	0
NVNT	g	2412	Ant1	100	0	0
NVNT	g	2437	Ant1	100	0	0
NVNT	g	2462	Ant1	100	0	0
NVNT	n(HT20)	2412	Ant1	100	0	0
NVNT	n(HT20)	2437	Ant1	100	0	0
NVNT	n(HT20)	2462	Ant1	100	0	0
NVNT	n(HT40)	2422	Ant1	100	0	0
NVNT	n(HT40)	2437	Ant1	100	0	0
NVNT	n(HT40)	2452	Ant1	100	0	0

Test Graphs

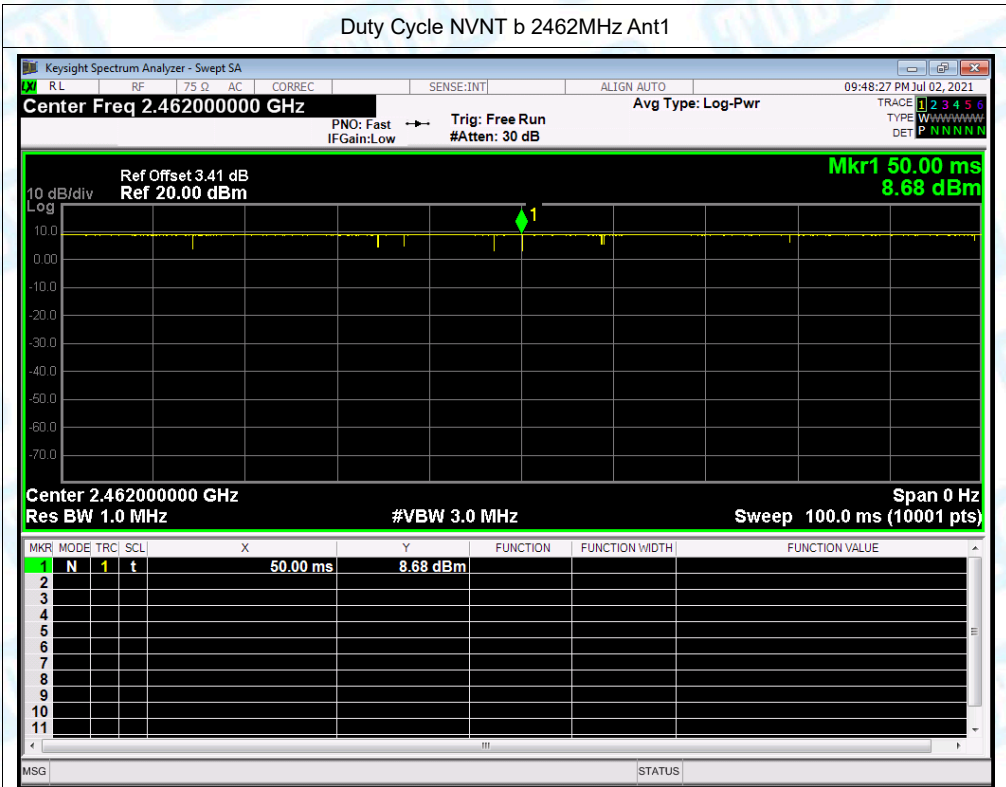
Duty Cycle NVNT b 2412MHz Ant1



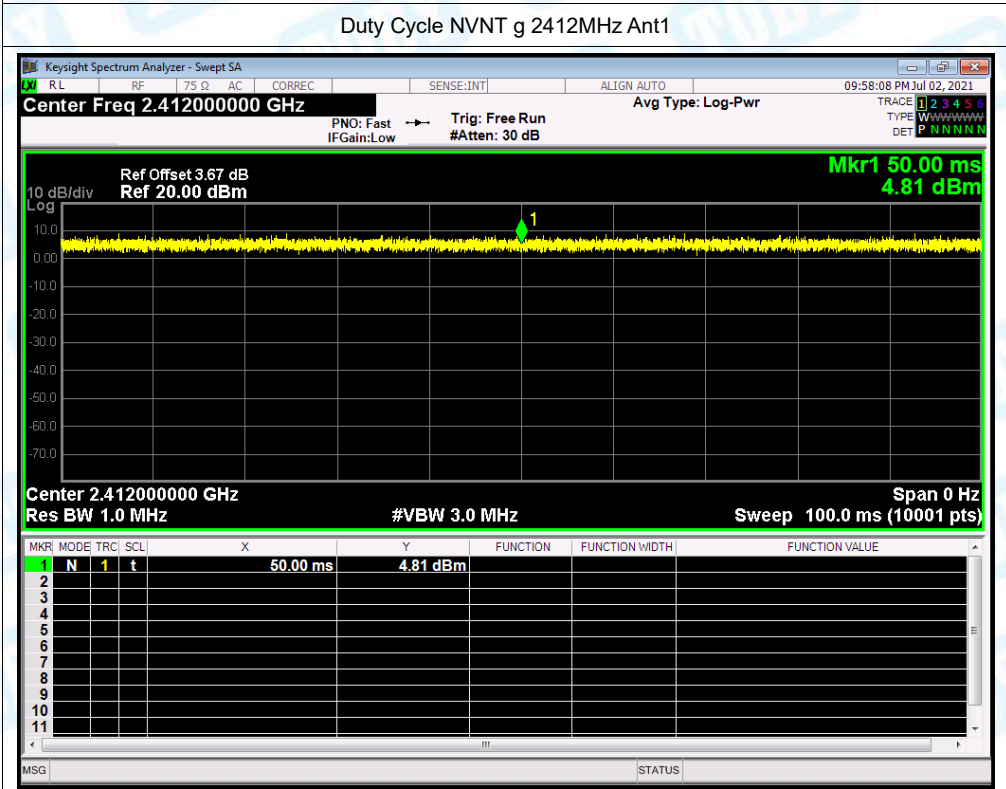
Duty Cycle NVNT b 2437MHz Ant1



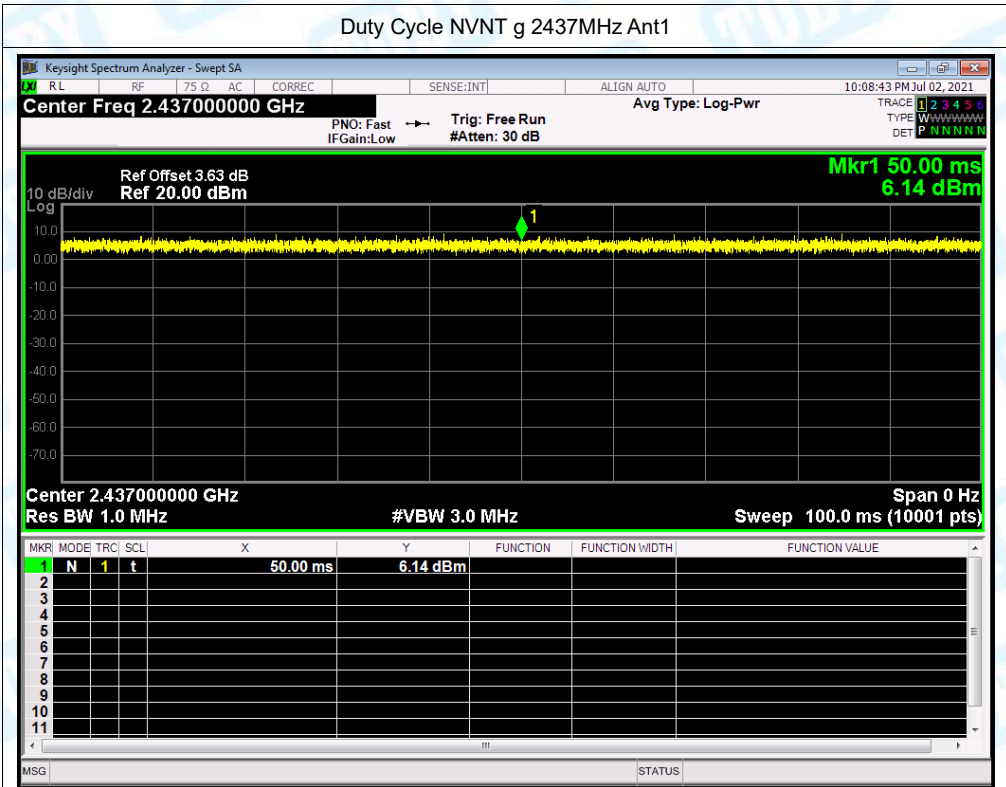
Duty Cycle NVNT b 2462MHz Ant1



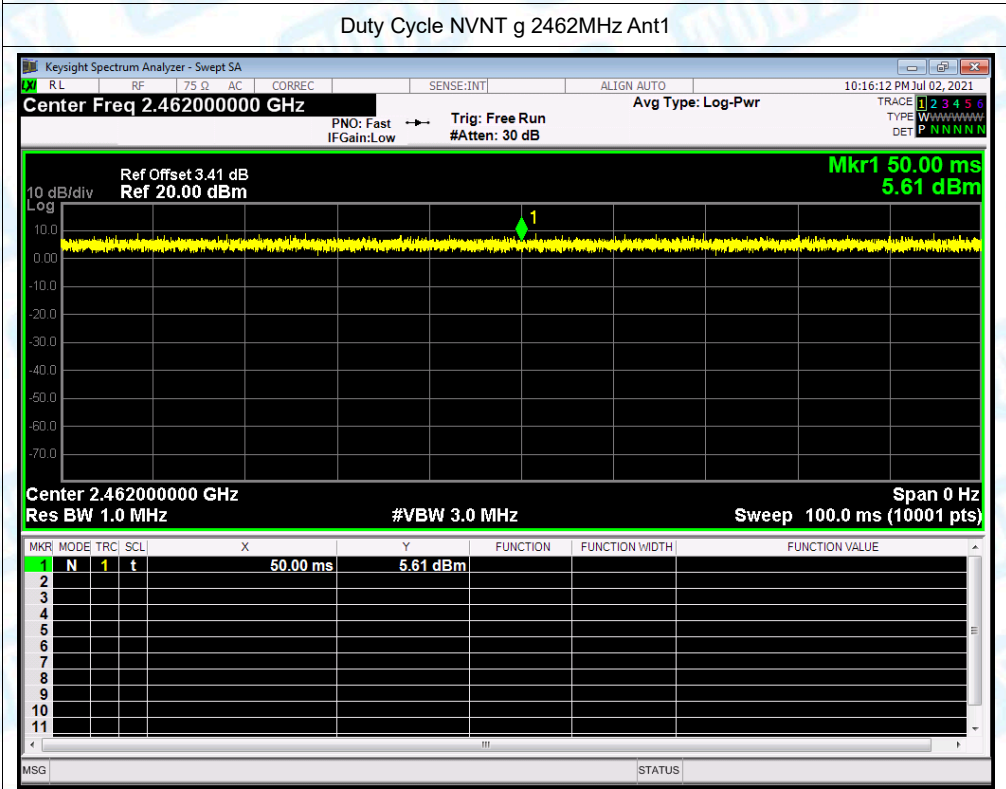
Duty Cycle NVNT g 2412MHz Ant1



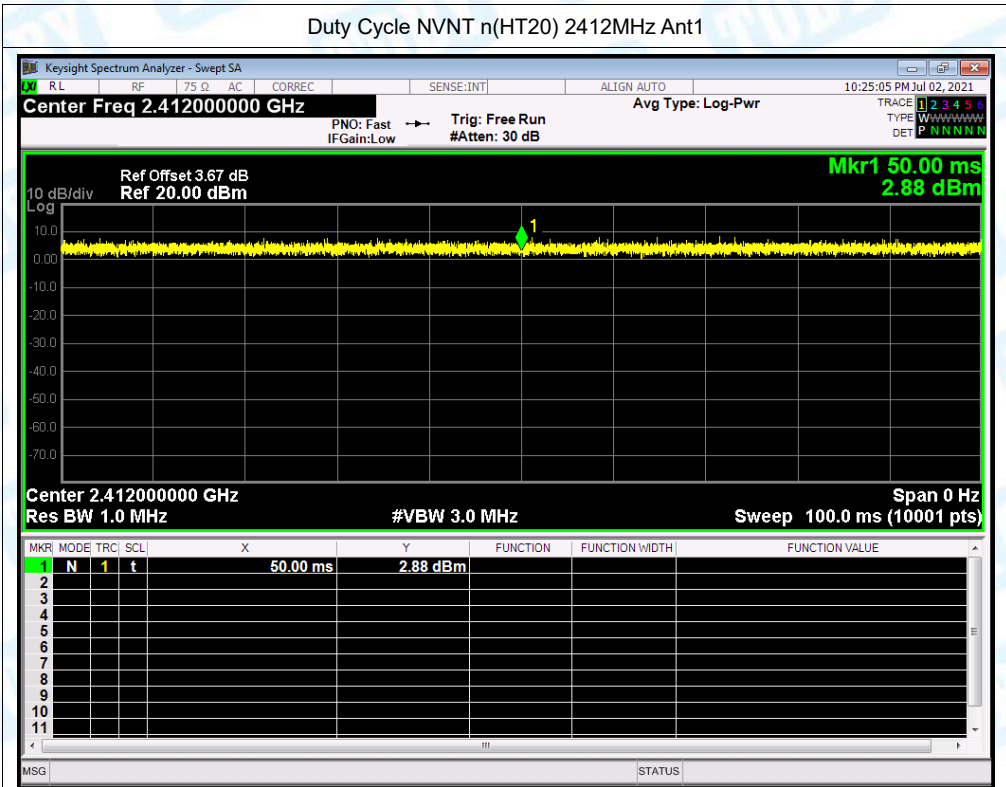
Duty Cycle NVNT g 2437MHz Ant1



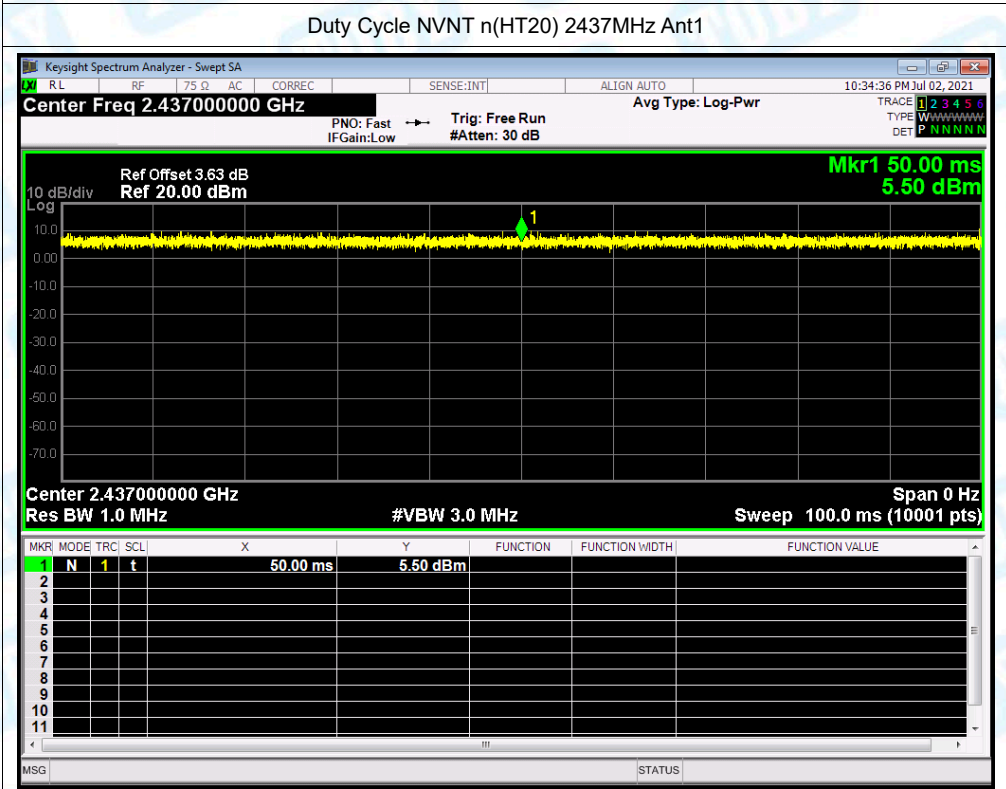
Duty Cycle NVNT g 2462MHz Ant1



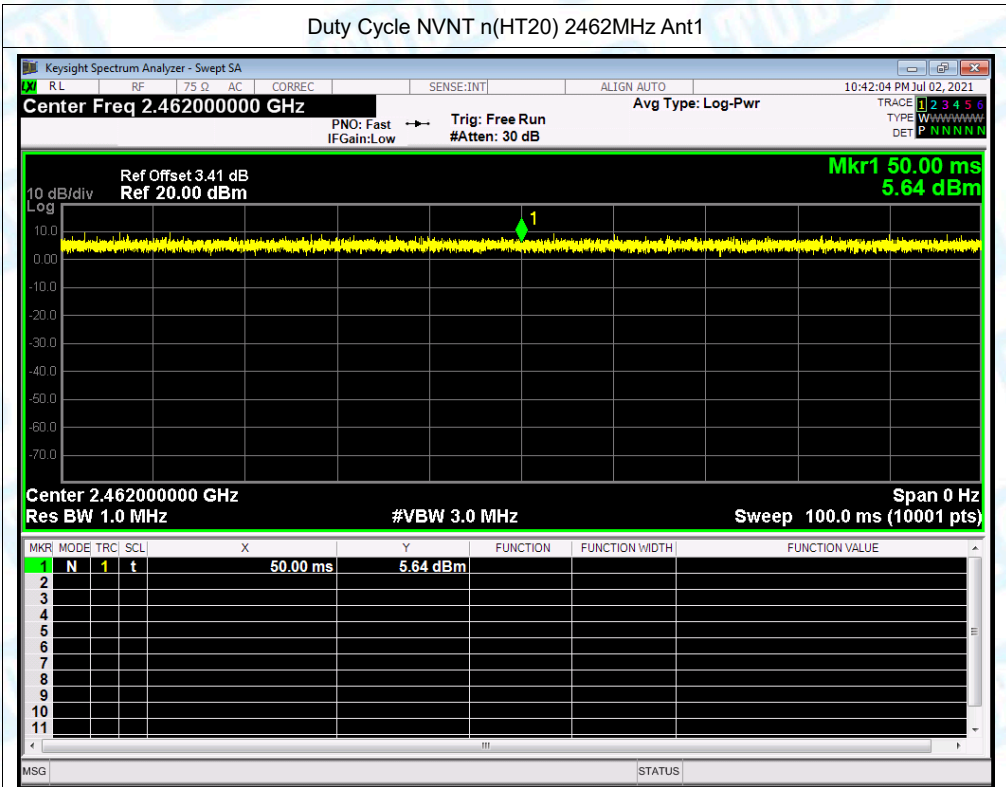
Duty Cycle NVNT n(HT20) 2412MHz Ant1



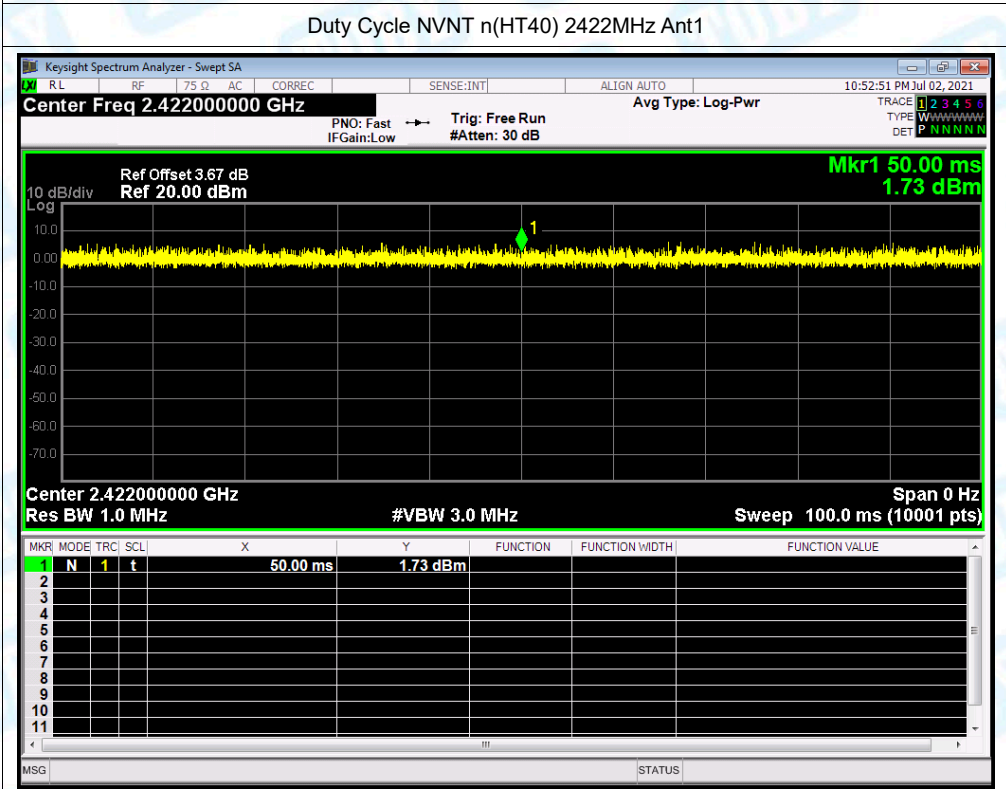
Duty Cycle NVNT n(HT20) 2437MHz Ant1



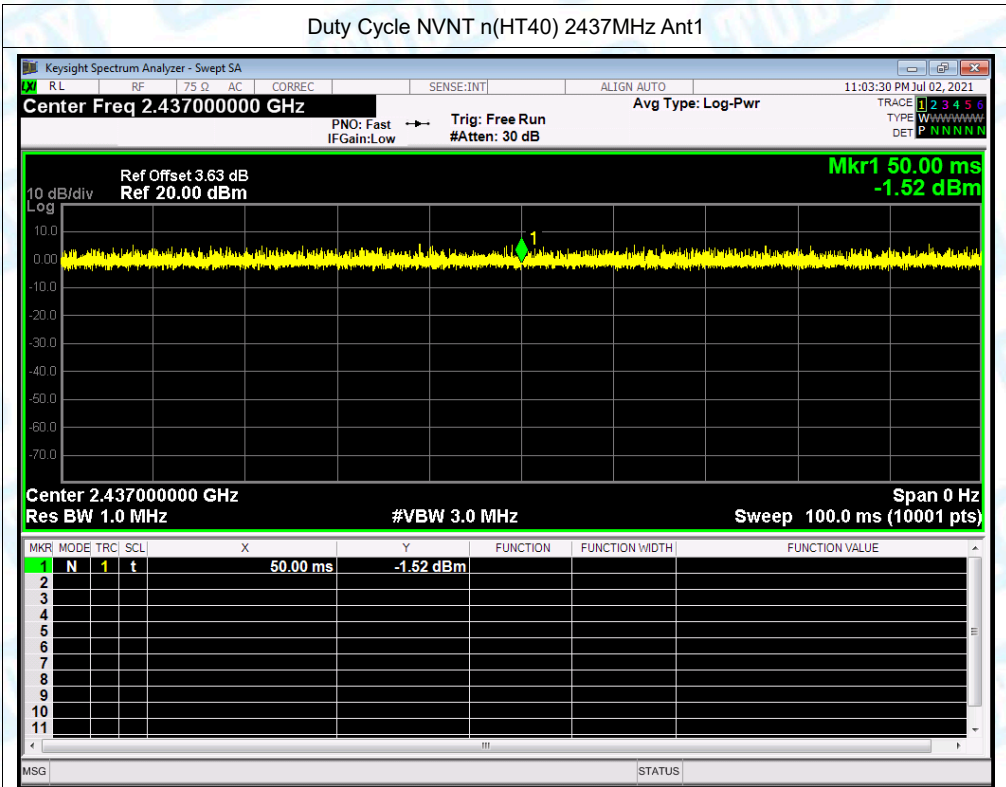
Duty Cycle NVNT n(HT20) 2462MHz Ant1



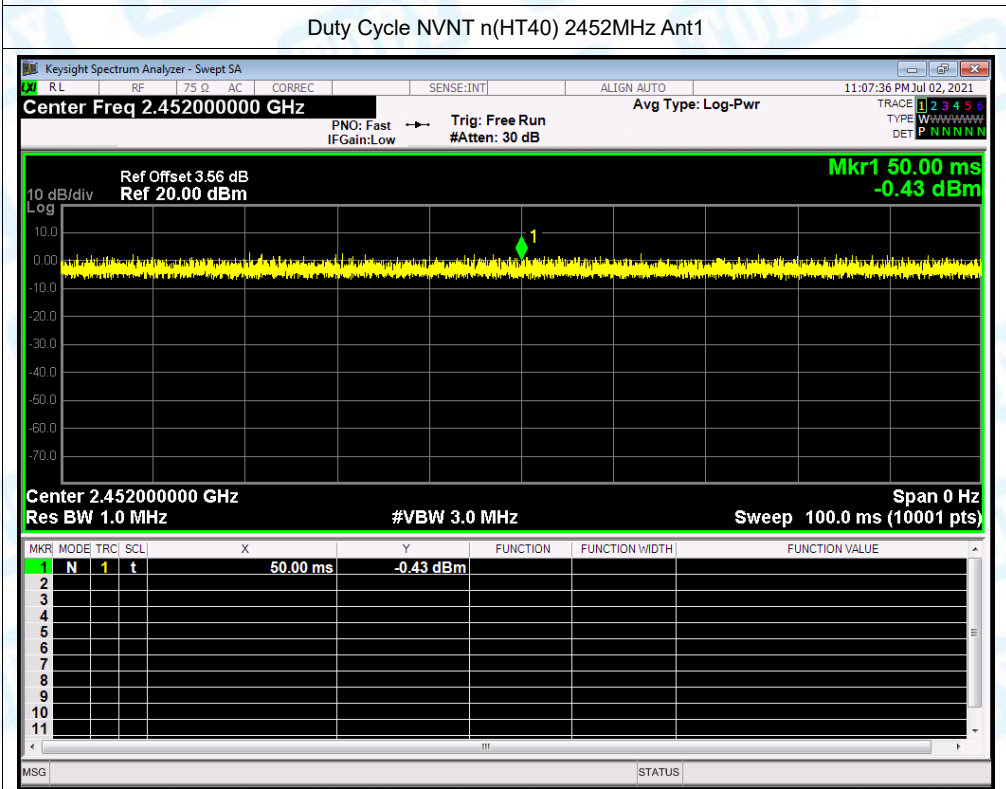
Duty Cycle NVNT n(HT40) 2422MHz Ant1



Duty Cycle NVNT n(HT40) 2437MHz Ant1



Duty Cycle NVNT n(HT40) 2452MHz Ant1



2. Maximum Conducted Output Power

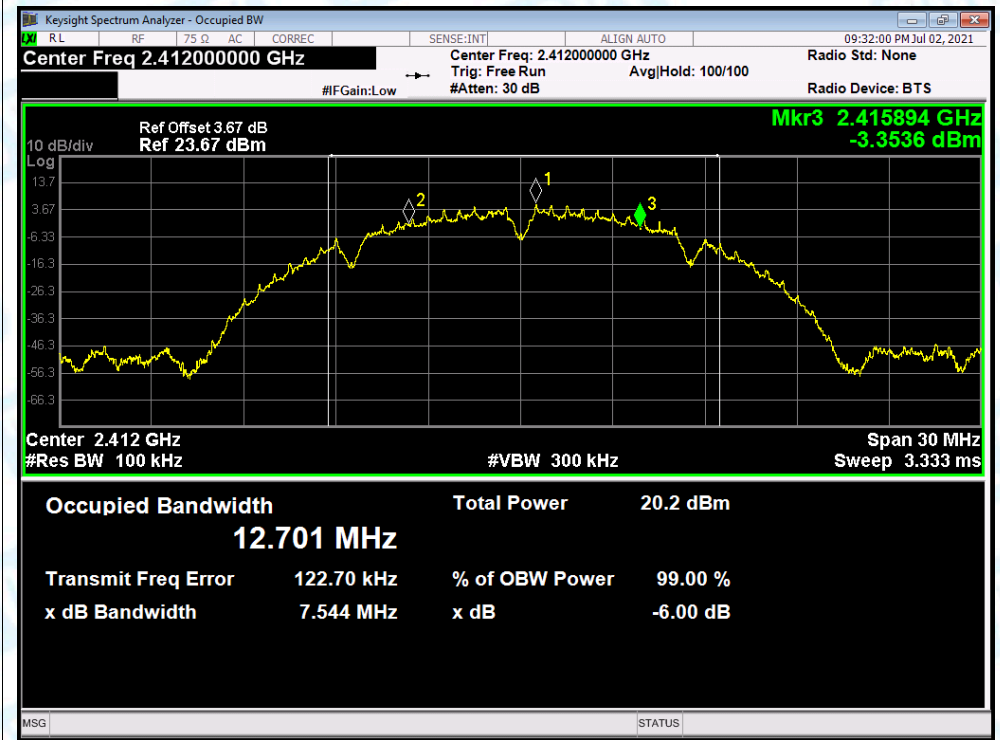
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	15.153	0	15.153	30	Pass
NVNT	b	2437	Ant1	15.212	0	15.212	30	Pass
NVNT	b	2462	Ant1	15.218	0	15.218	30	Pass
NVNT	g	2412	Ant1	15.884	0	15.884	30	Pass
NVNT	g	2437	Ant1	15.832	0	15.832	30	Pass
NVNT	g	2462	Ant1	15.784	0	15.784	30	Pass
NVNT	n(HT20)	2412	Ant1	15.01	0	15.01	30	Pass
NVNT	n(HT20)	2437	Ant1	16.966	0	16.966	30	Pass
NVNT	n(HT20)	2462	Ant1	16.172	0	16.172	30	Pass
NVNT	n(HT40)	2422	Ant1	17.046	0	17.046	30	Pass
NVNT	n(HT40)	2437	Ant1	16.649	0	16.649	30	Pass
NVNT	n(HT40)	2452	Ant1	15.718	0	15.718	30	Pass

3. -6dB Bandwidth

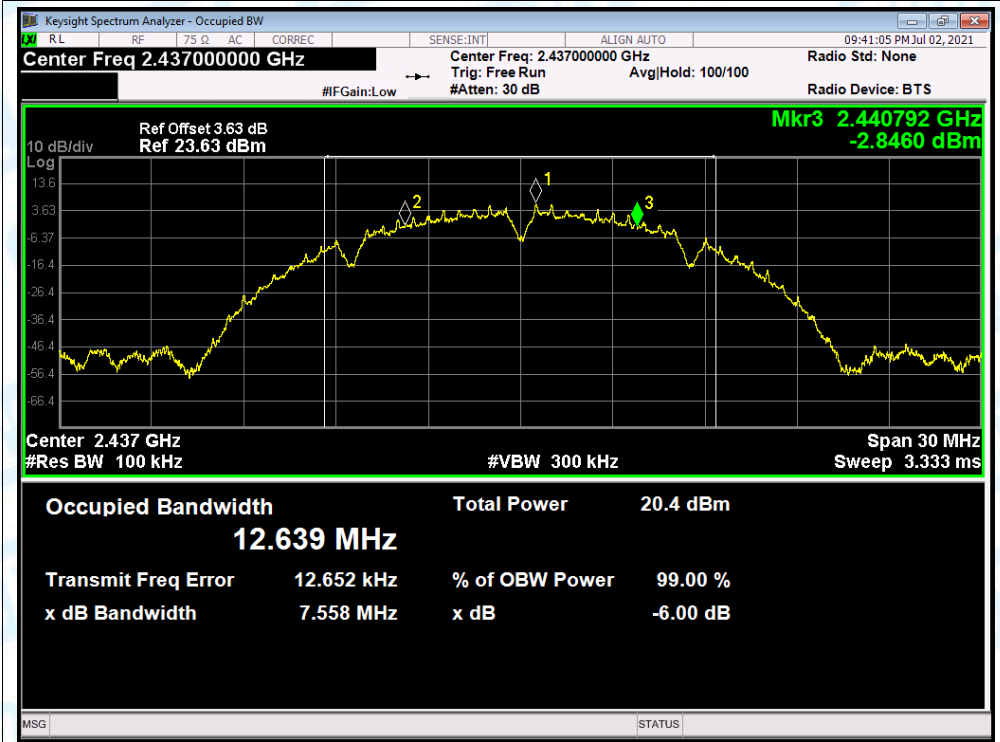
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	7.544	0.5	Pass
NVNT	b	2437	Ant1	7.558	0.5	Pass
NVNT	b	2462	Ant1	8.555	0.5	Pass
NVNT	g	2412	Ant1	16.098	0.5	Pass
NVNT	g	2437	Ant1	16.345	0.5	Pass
NVNT	g	2462	Ant1	16.367	0.5	Pass
NVNT	n(HT20)	2412	Ant1	17.635	0.5	Pass
NVNT	n(HT20)	2437	Ant1	17.579	0.5	Pass
NVNT	n(HT20)	2462	Ant1	17.564	0.5	Pass
NVNT	n(HT40)	2422	Ant1	35.671	0.5	Pass
NVNT	n(HT40)	2437	Ant1	35.825	0.5	Pass
NVNT	n(HT40)	2452	Ant1	34.701	0.5	Pass

Test Graphs

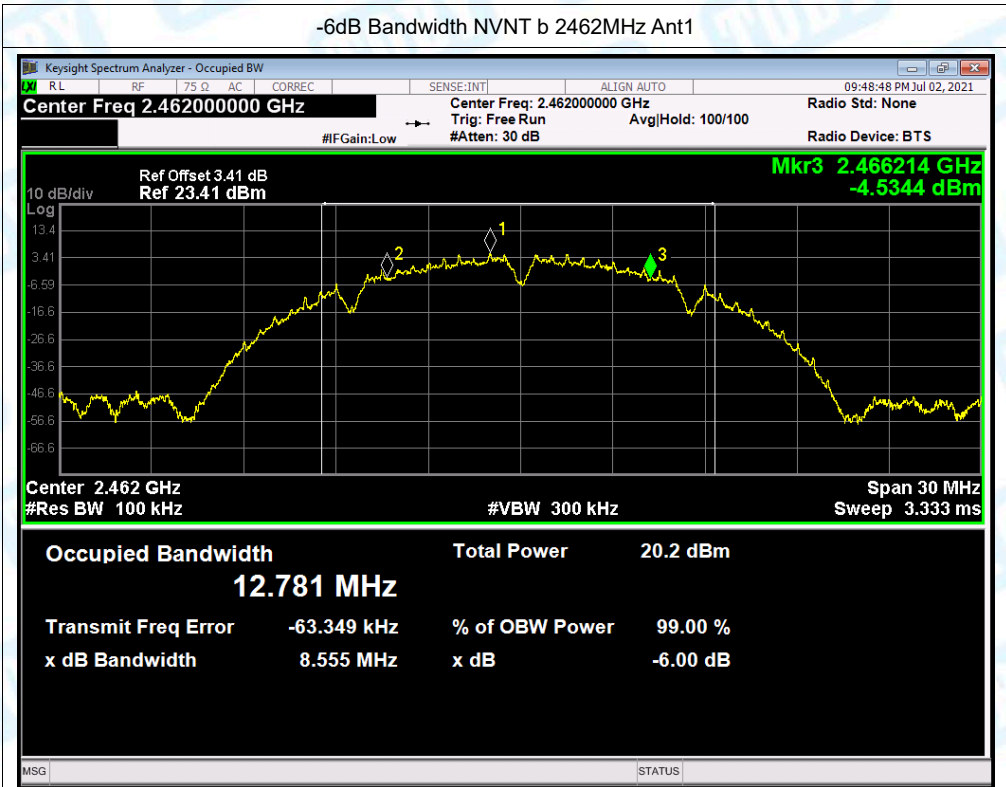
-6dB Bandwidth NVNT b 2412MHz Ant1



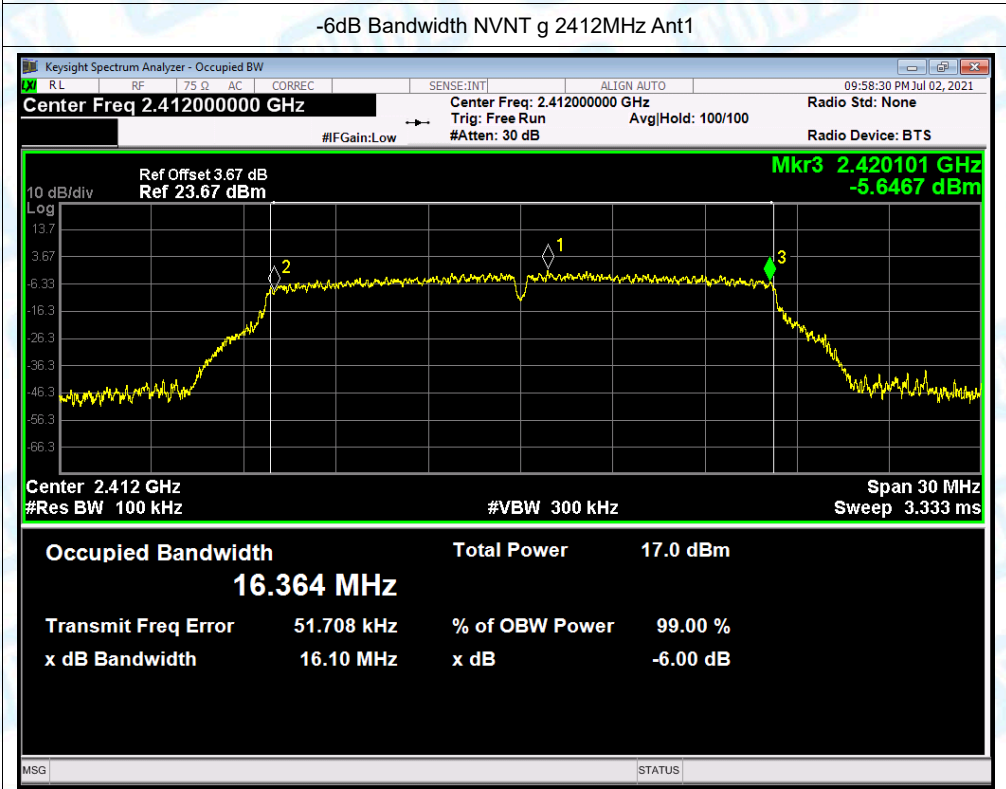
-6dB Bandwidth NVNT b 2437MHz Ant1



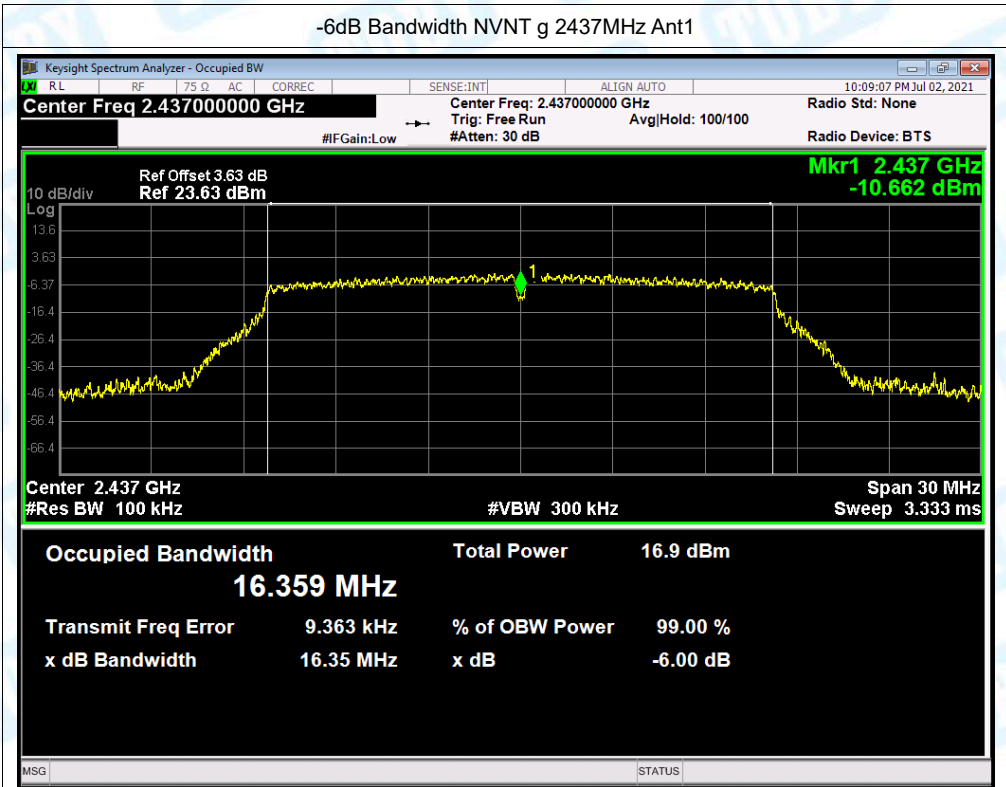
-6dB Bandwidth NVNT b 2462MHz Ant1



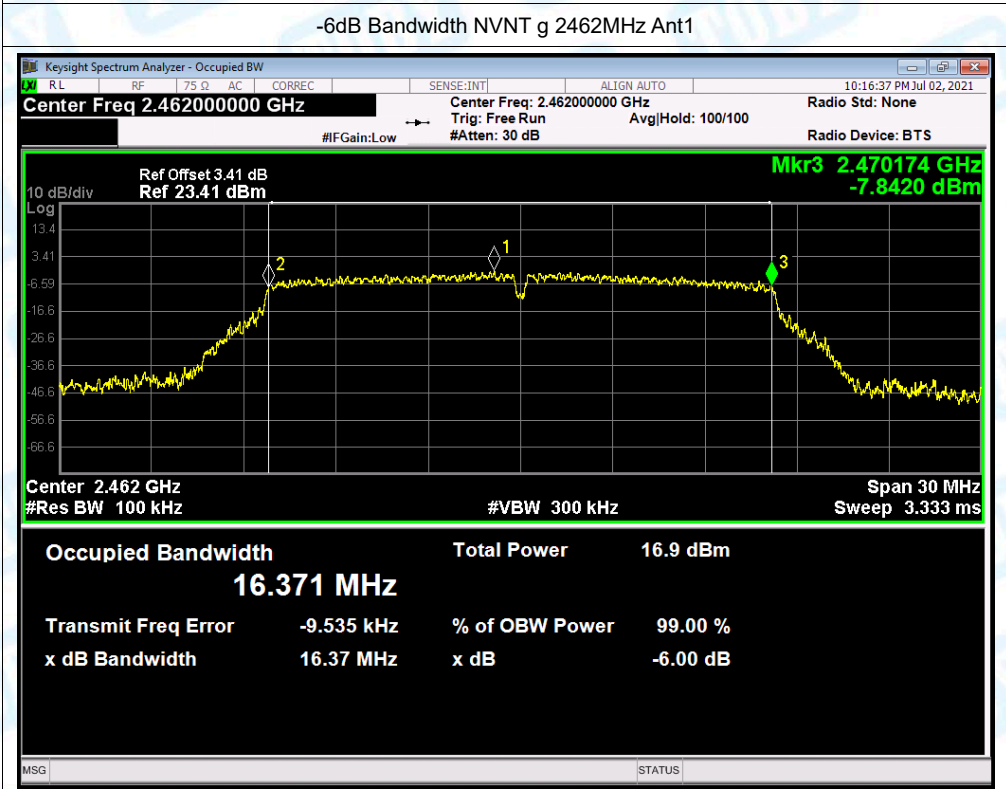
-6dB Bandwidth NVNT g 2412MHz Ant1



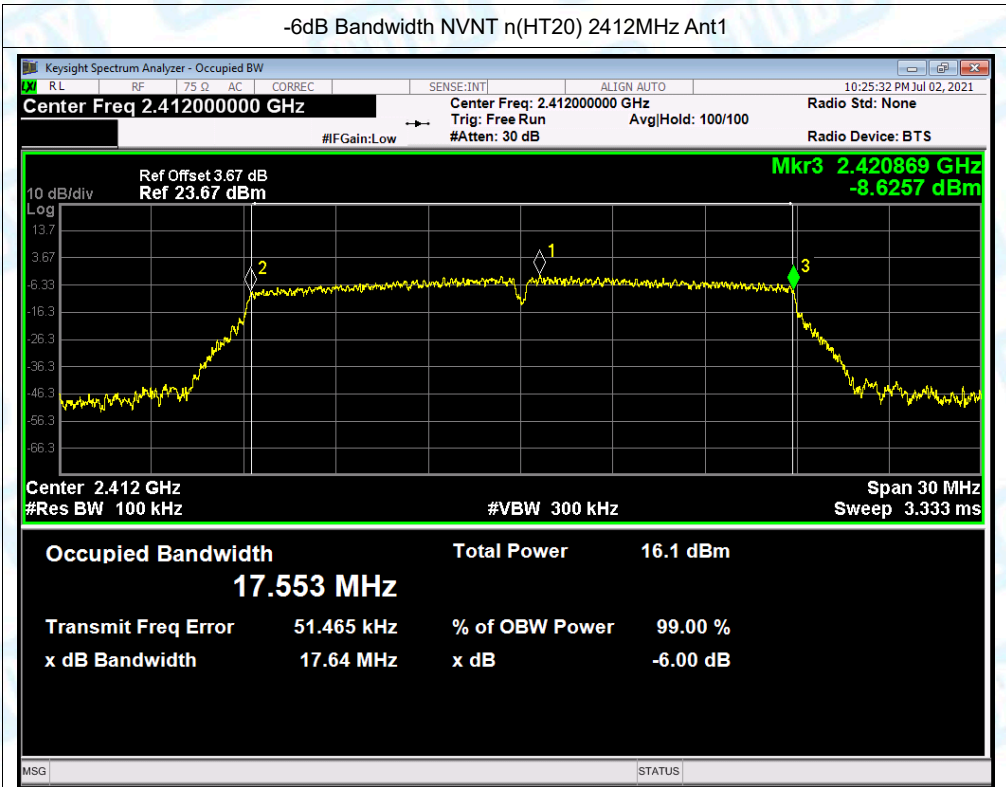
-6dB Bandwidth NVNT g 2437MHz Ant1



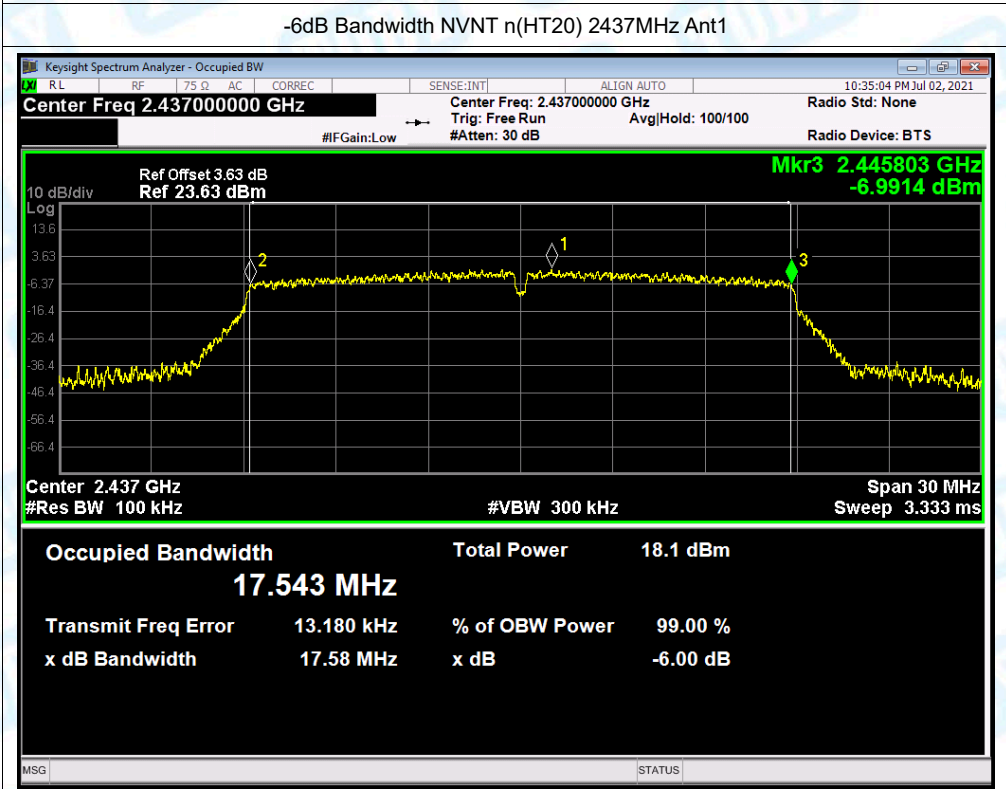
-6dB Bandwidth NVNT g 2462MHz Ant1



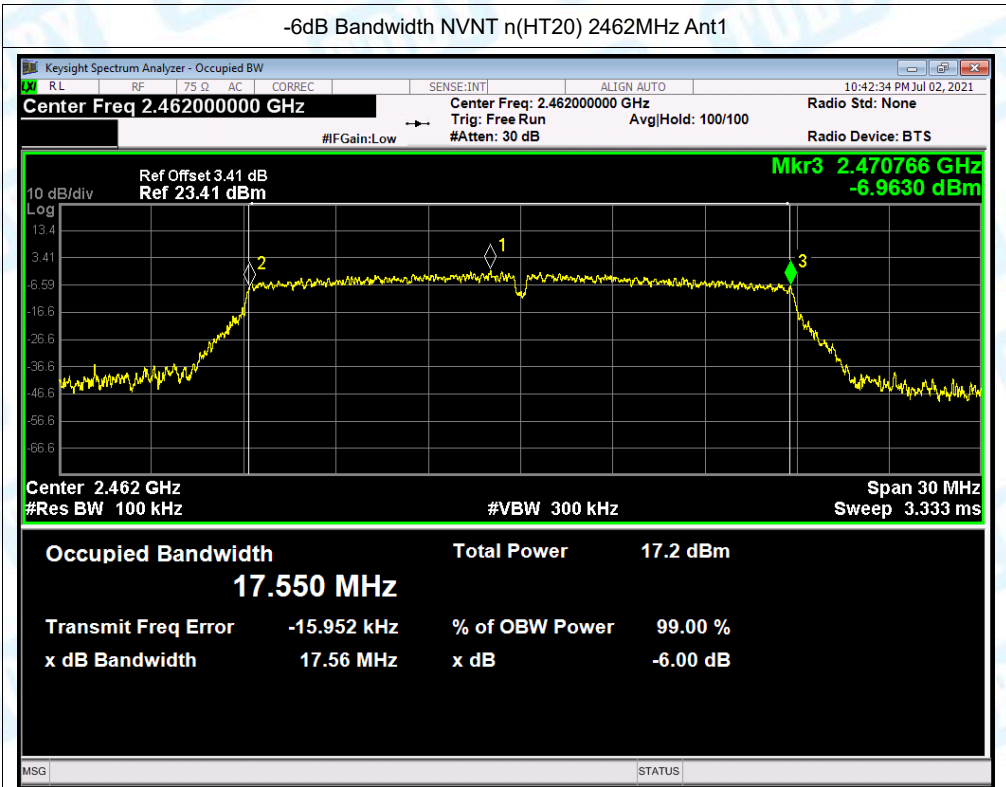
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



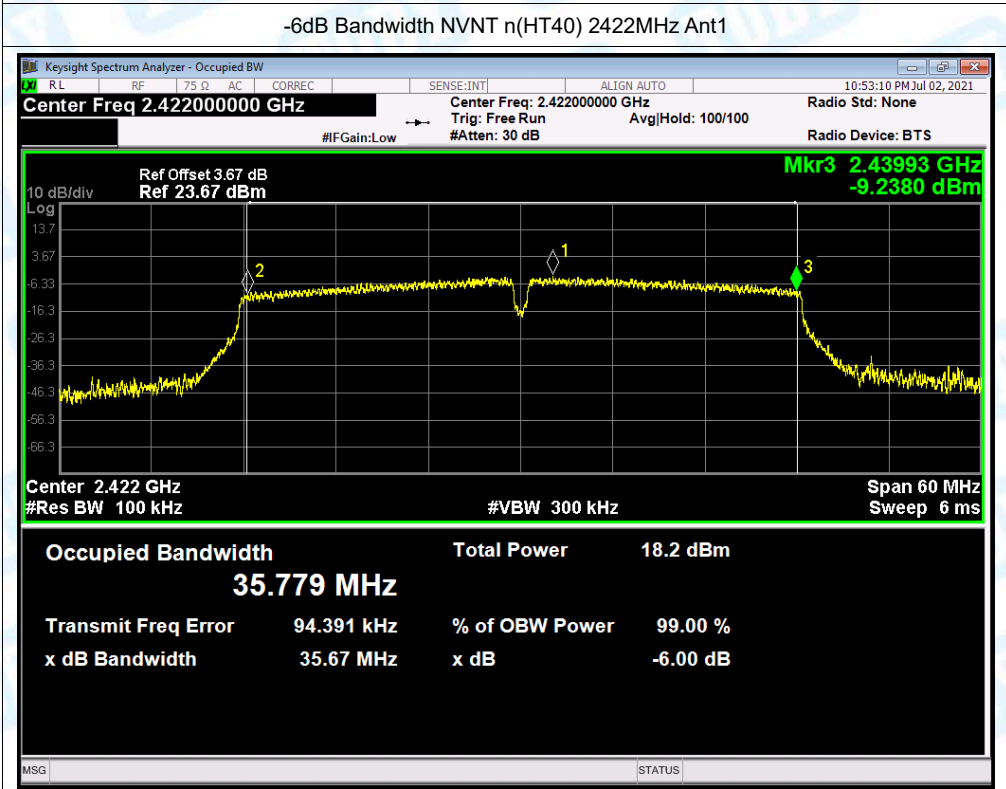
-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



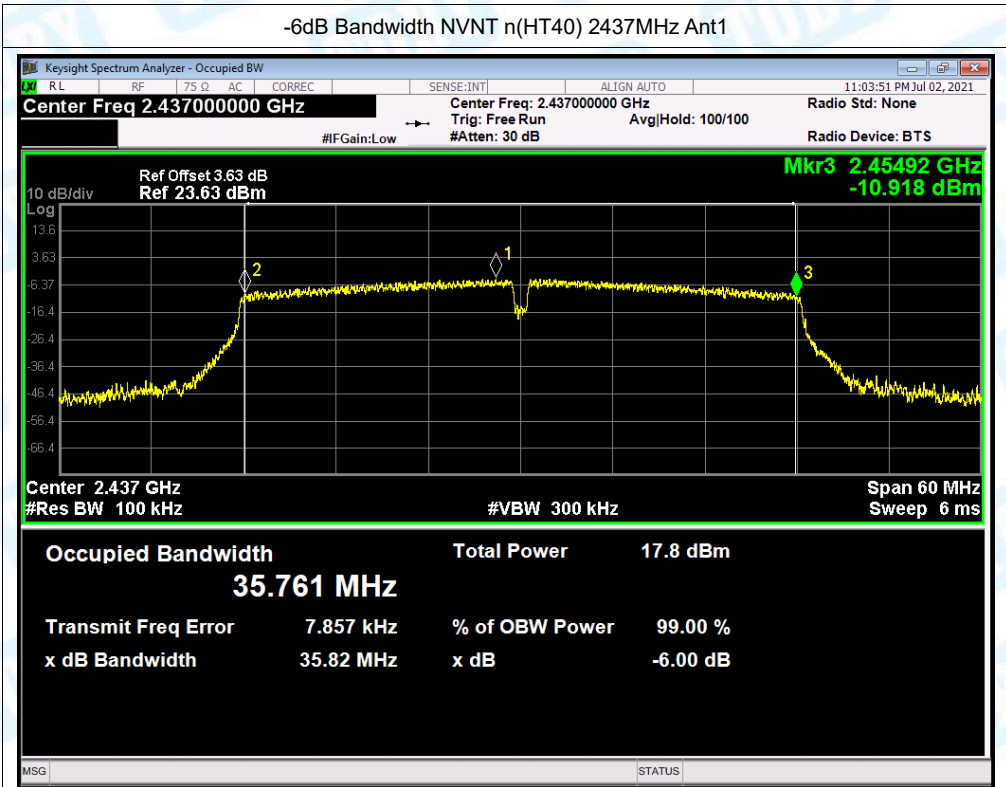
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



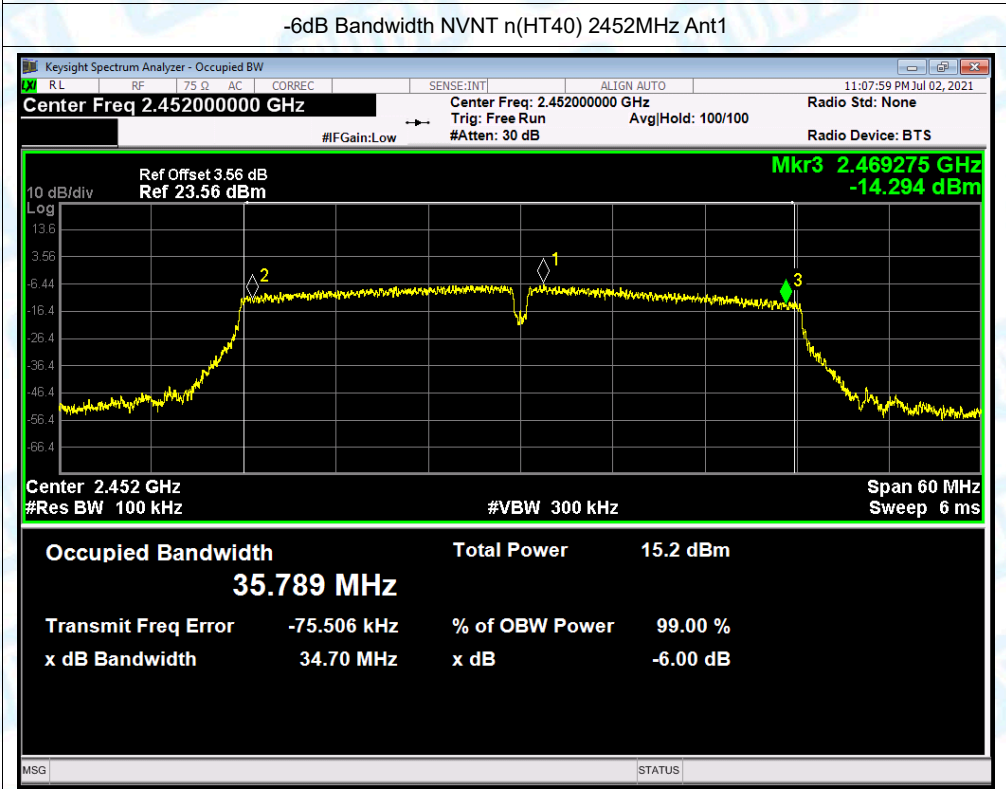
-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1



-6dB Bandwidth NVNT n(HT40) 2437MHz Ant1

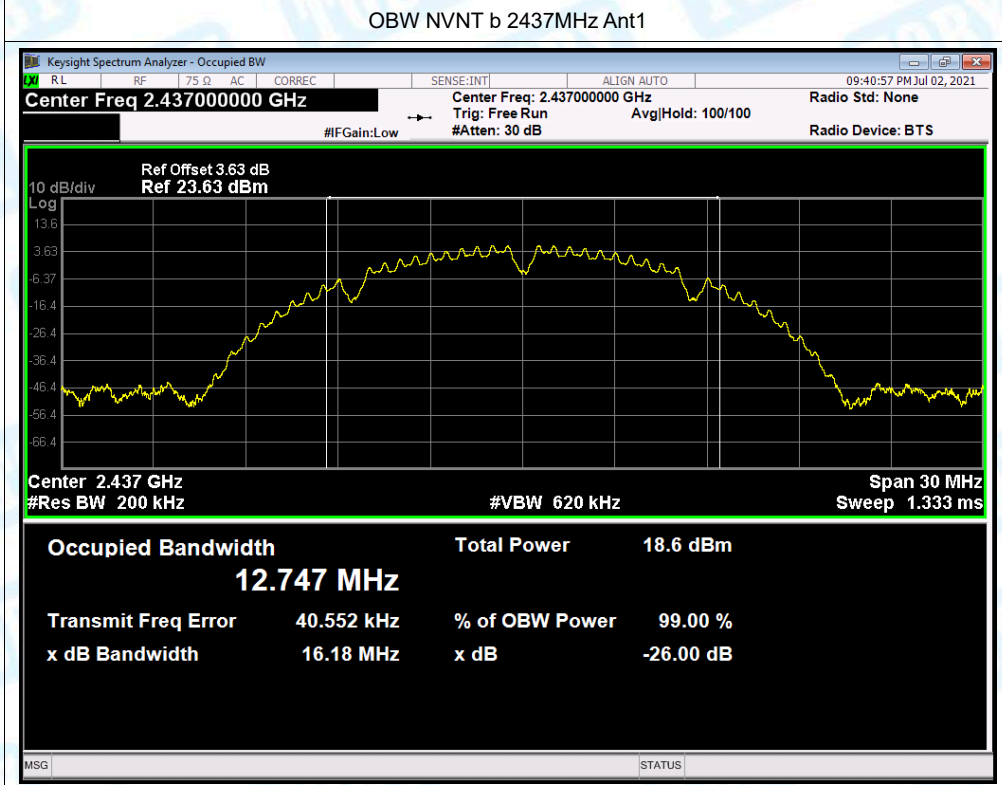
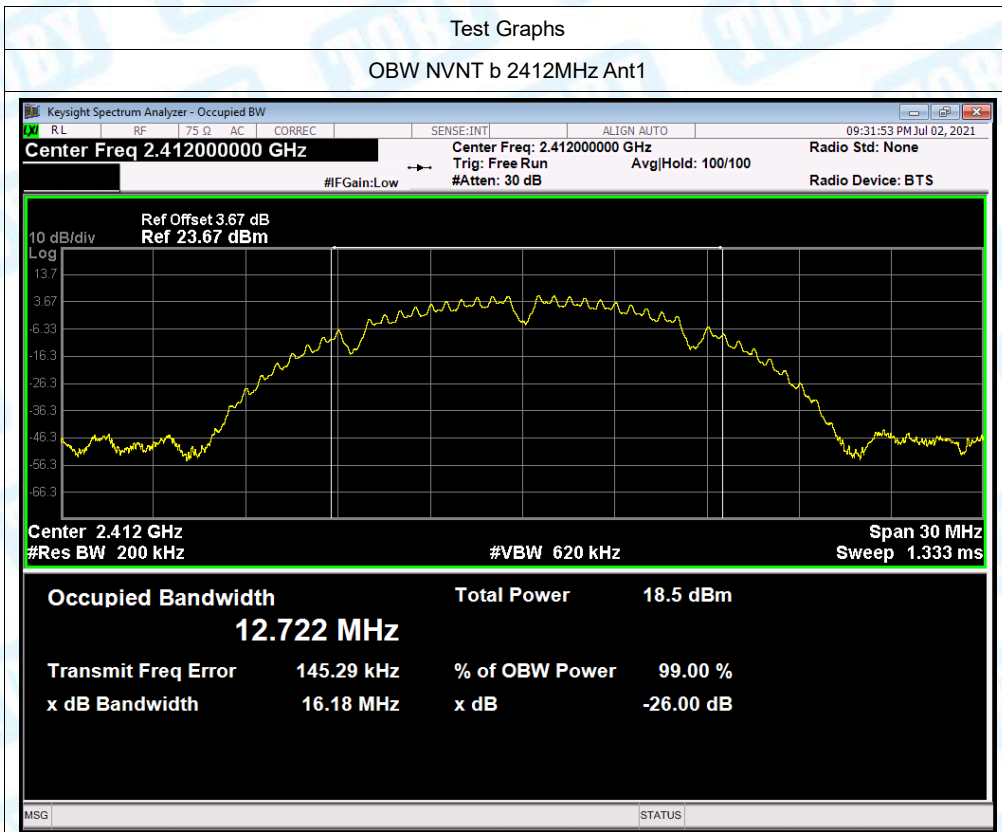


-6dB Bandwidth NVNT n(HT40) 2452MHz Ant1

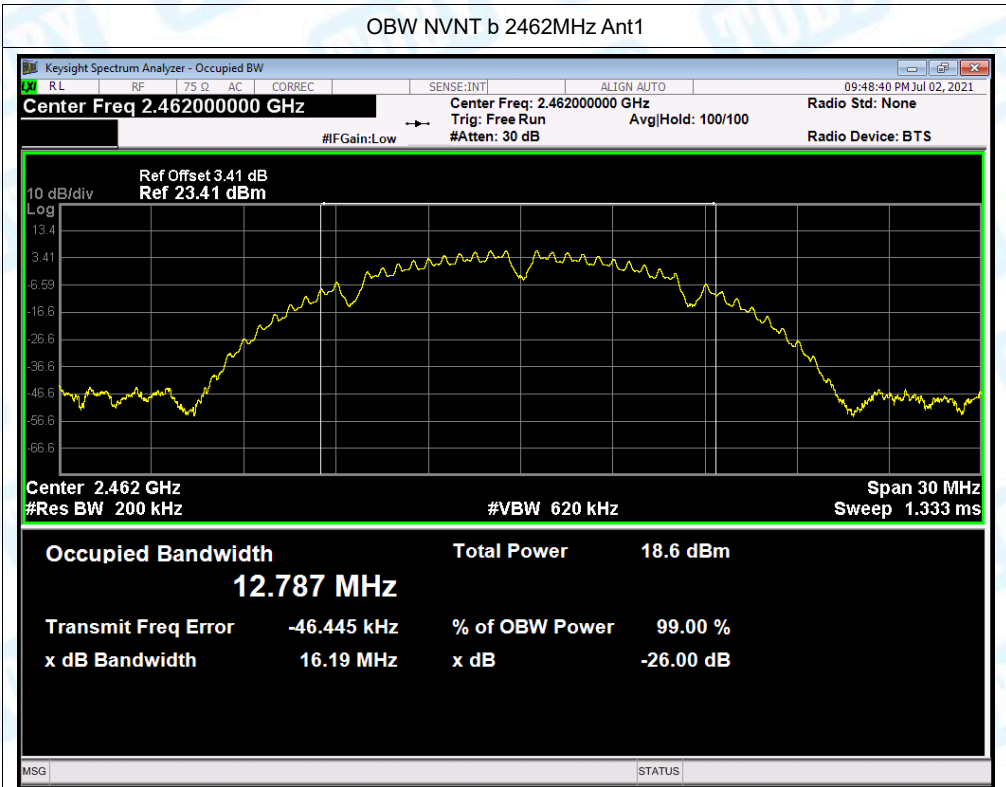


4. Occupied Channel Bandwidth

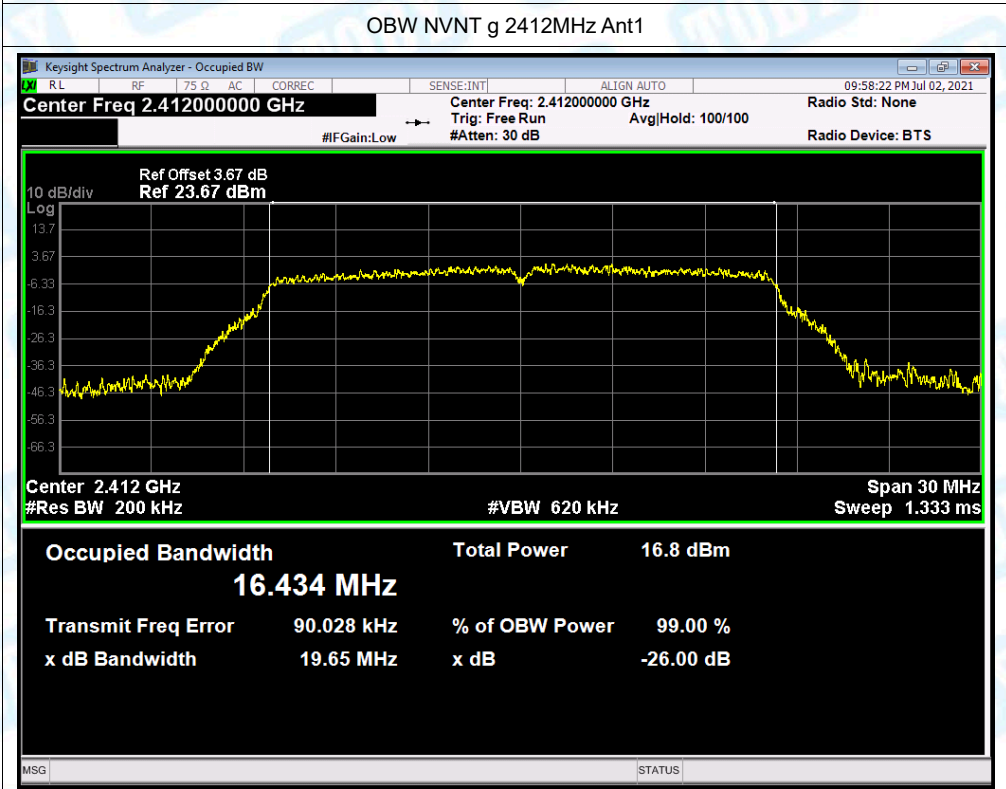
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	12.72224729
NVNT	b	2437	Ant1	12.7472646
NVNT	b	2462	Ant1	12.78745305
NVNT	g	2412	Ant1	16.43353365
NVNT	g	2437	Ant1	16.42220878
NVNT	g	2462	Ant1	16.42507023
NVNT	n(HT20)	2412	Ant1	17.5774898
NVNT	n(HT20)	2437	Ant1	17.55344203
NVNT	n(HT20)	2462	Ant1	17.58070712
NVNT	n(HT40)	2422	Ant1	35.88837673
NVNT	n(HT40)	2437	Ant1	35.85611488
NVNT	n(HT40)	2452	Ant1	35.85859178



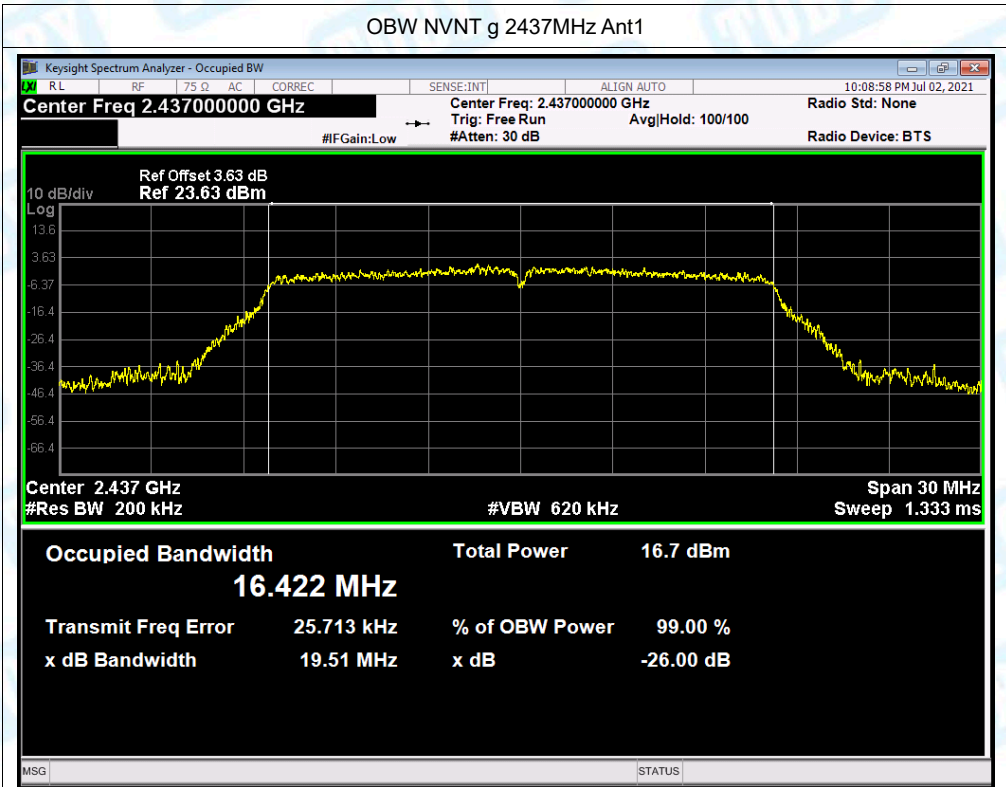
OBW NVNT b 2462MHz Ant1



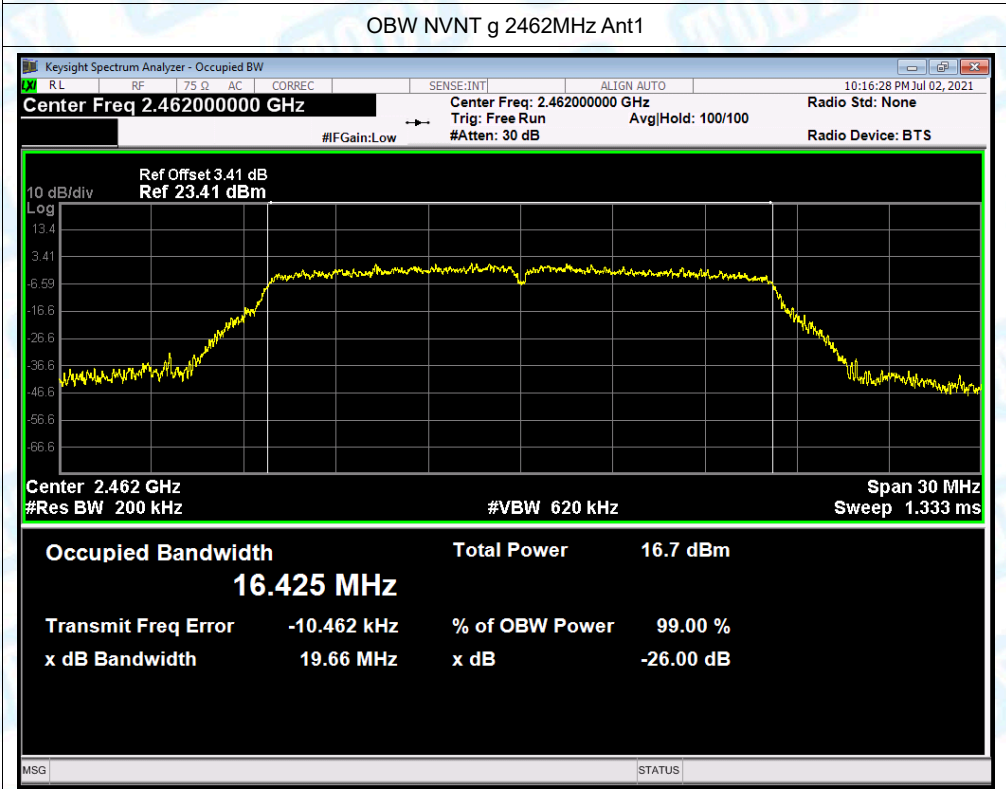
OBW NVNT g 2412MHz Ant1



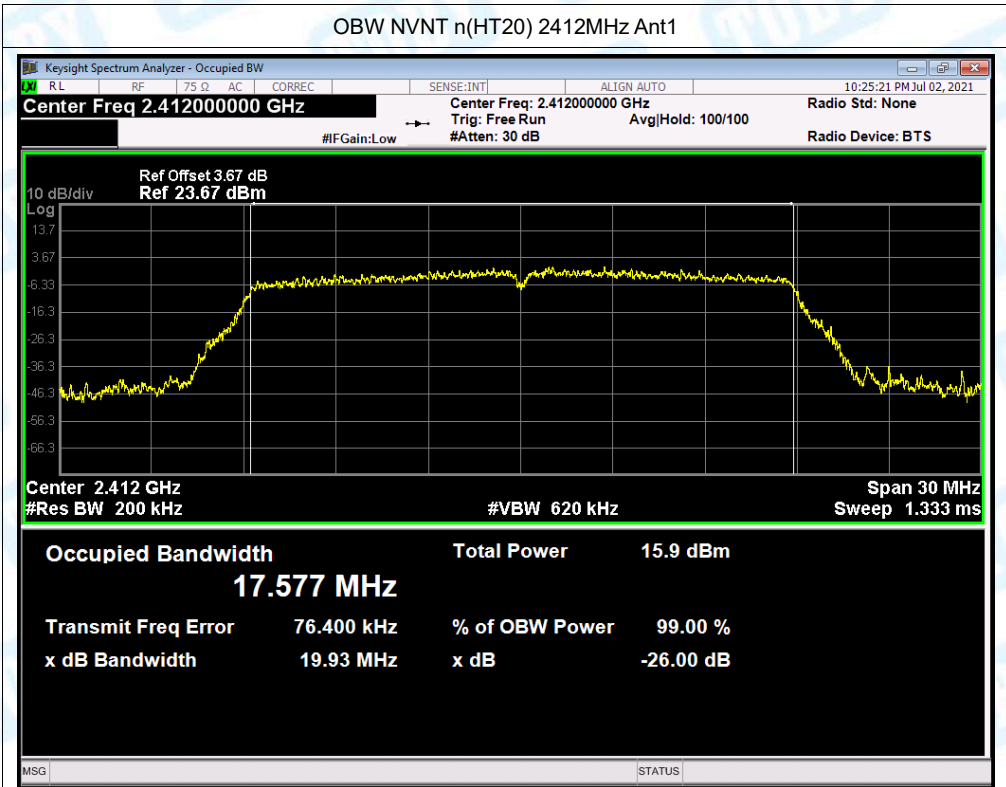
OBW NVNT g 2437MHz Ant1



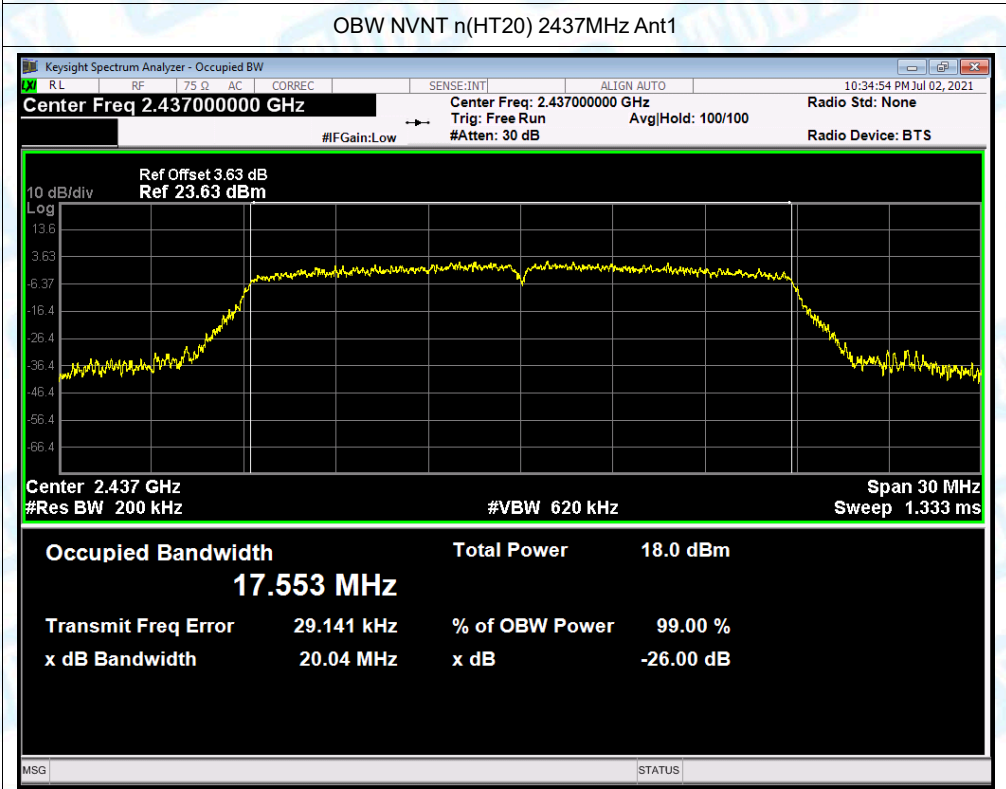
OBW NVNT g 2462MHz Ant1



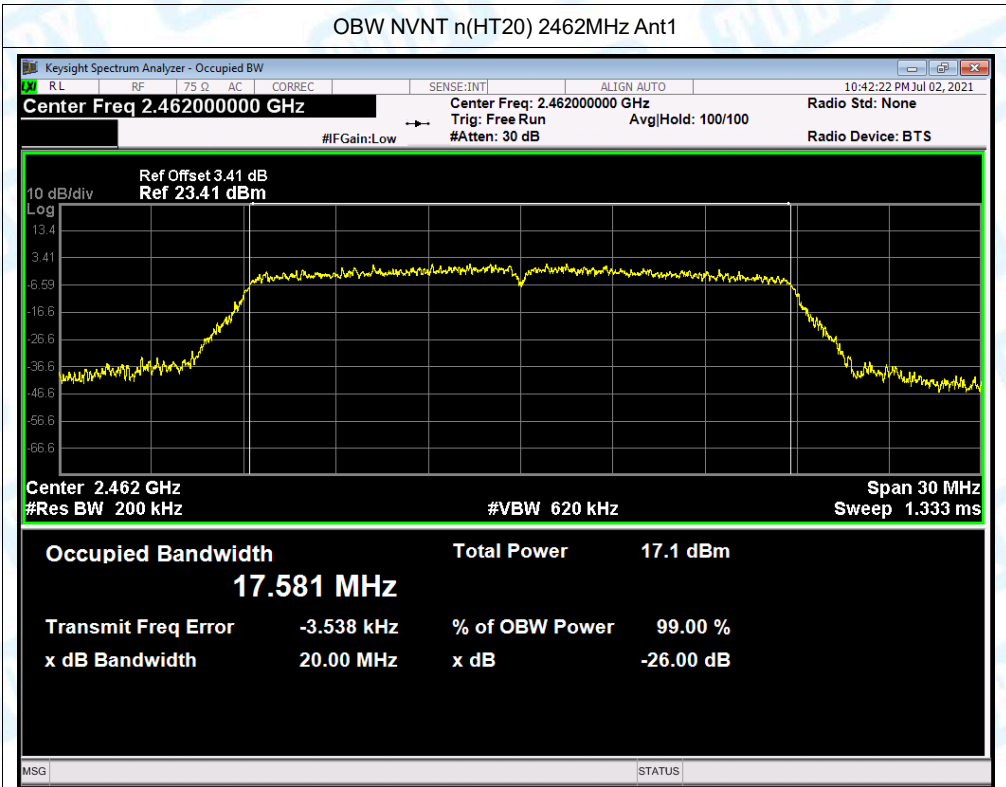
OBW NVNT n(HT20) 2412MHz Ant1



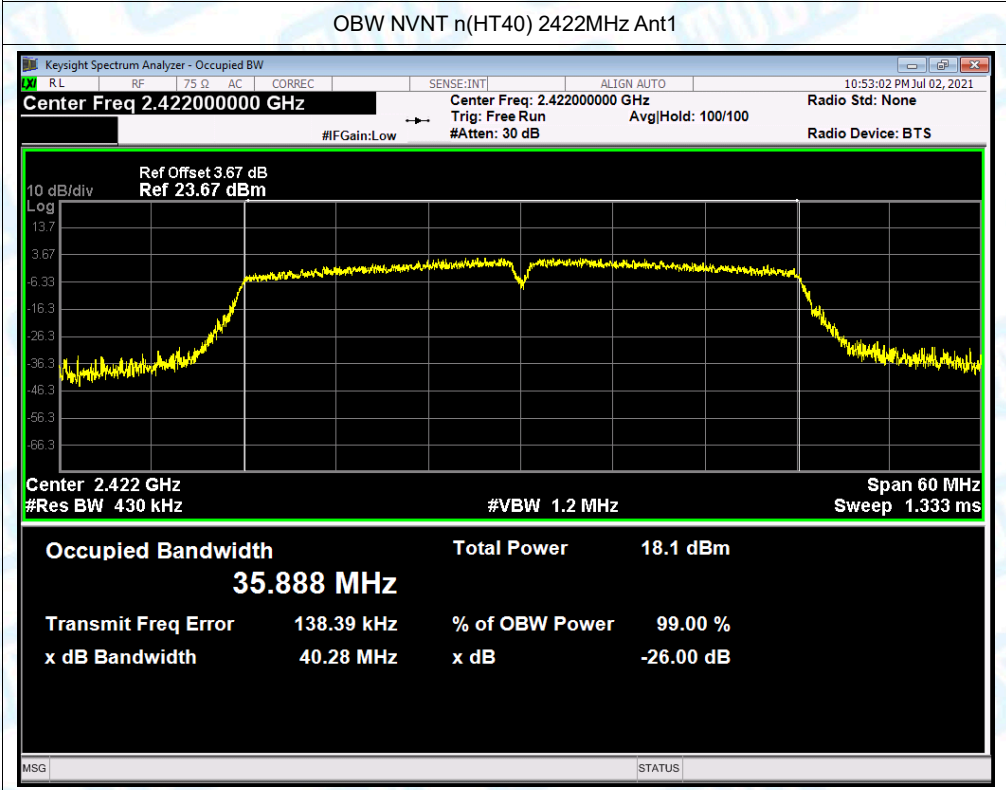
OBW NVNT n(HT20) 2437MHz Ant1



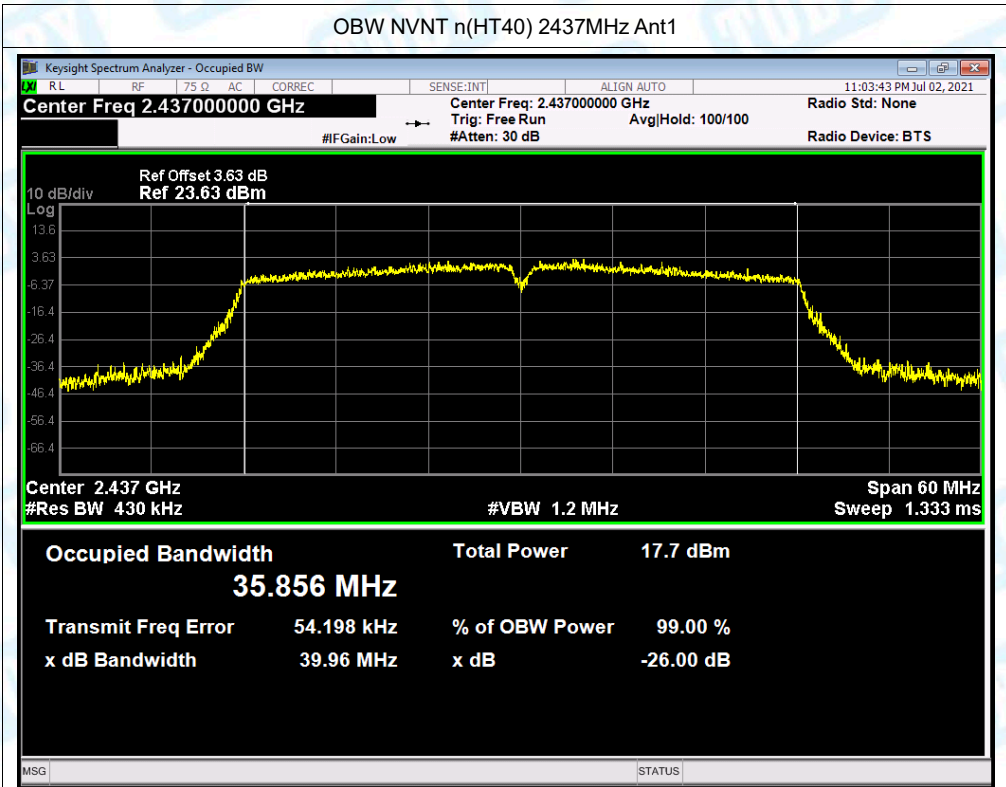
OBW NVNT n(HT20) 2462MHz Ant1



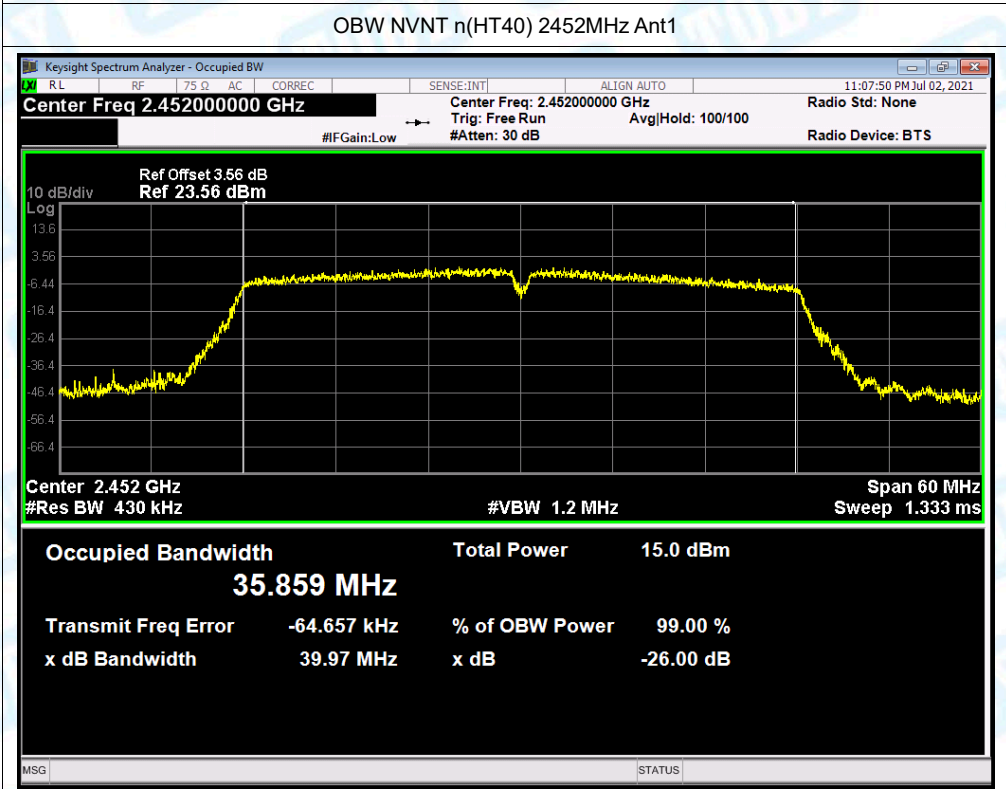
OBW NVNT n(HT40) 2422MHz Ant1



OBW NVNT n(HT40) 2437MHz Ant1

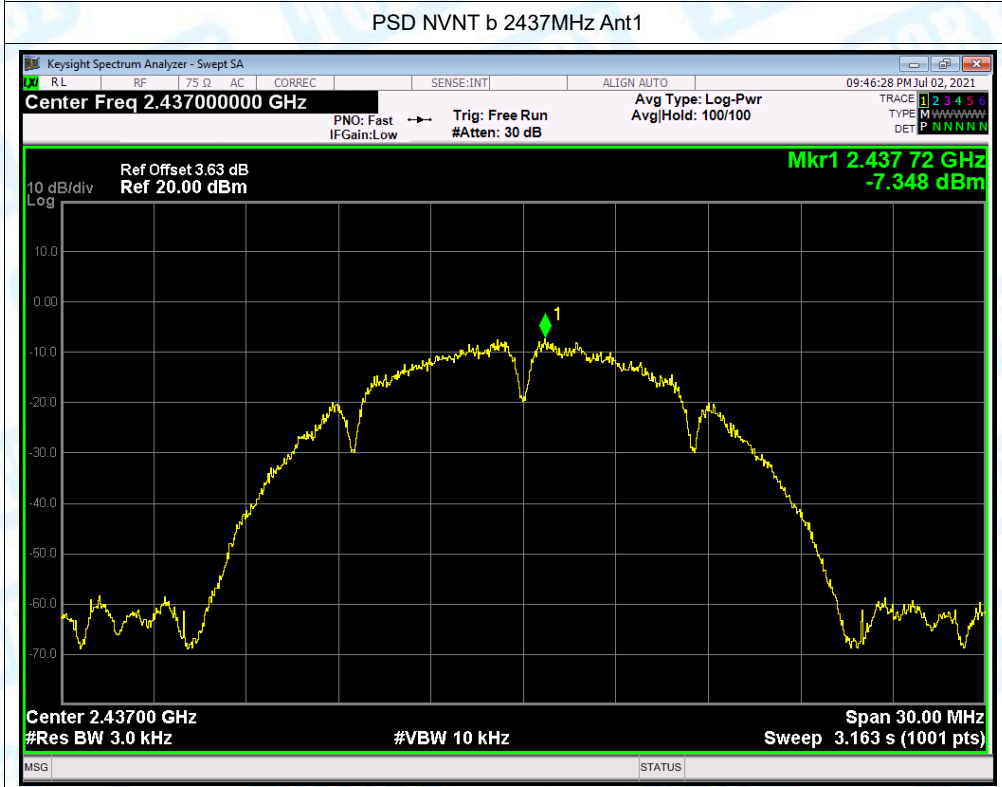
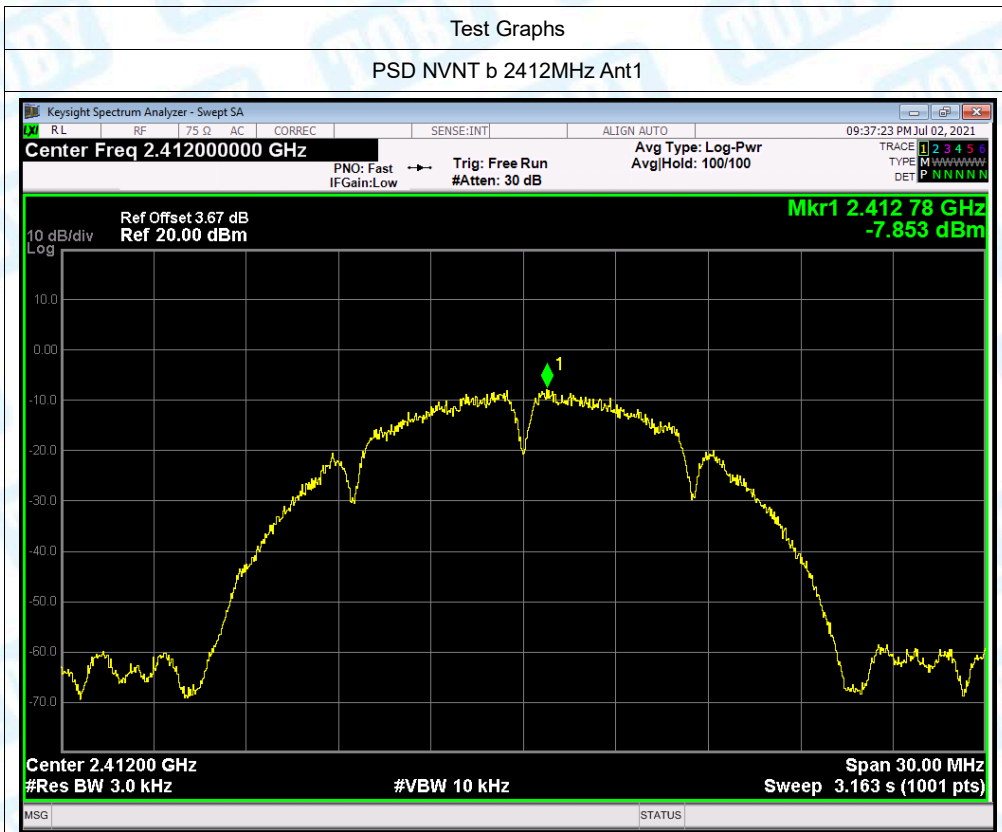


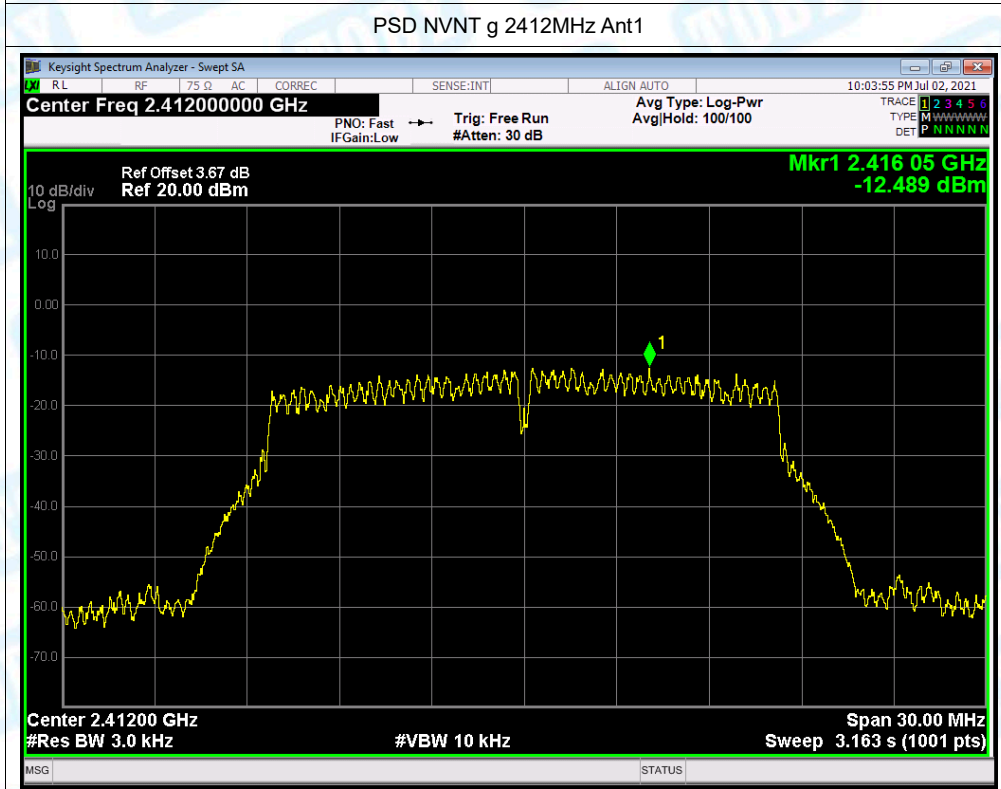
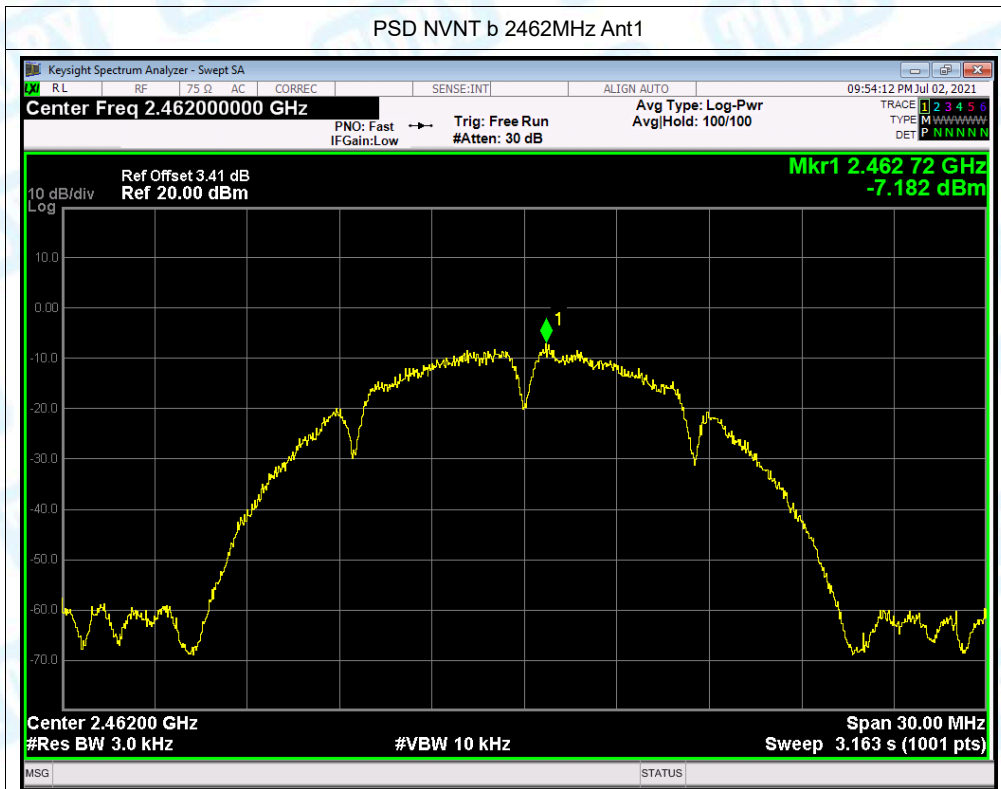
OBW NVNT n(HT40) 2452MHz Ant1

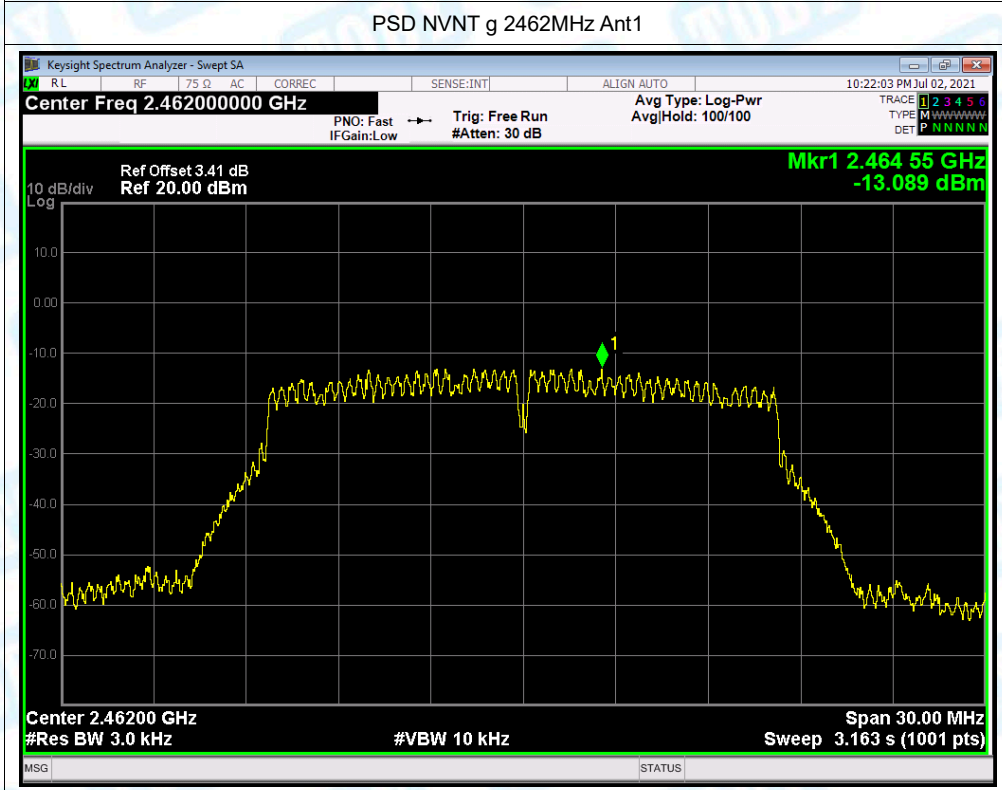
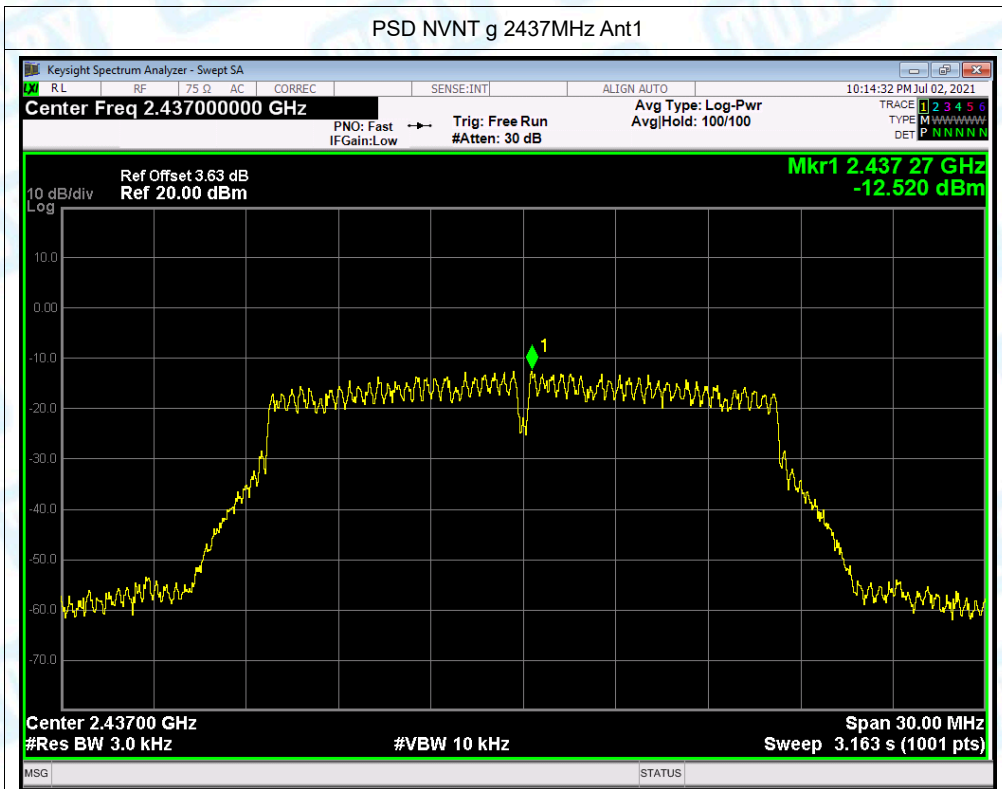


5. Maximum Power Spectral Density Level

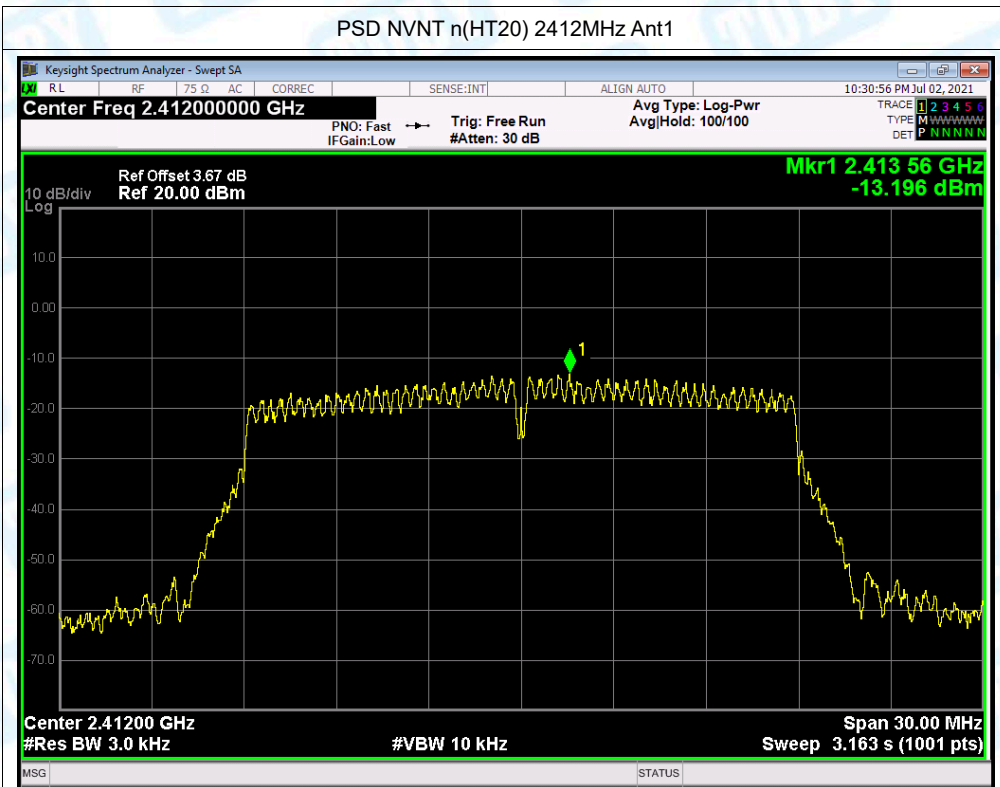
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	-7.853	8	Pass
NVNT	b	2437	Ant1	-7.348	8	Pass
NVNT	b	2462	Ant1	-7.182	8	Pass
NVNT	g	2412	Ant1	-12.489	8	Pass
NVNT	g	2437	Ant1	-12.52	8	Pass
NVNT	g	2462	Ant1	-13.089	8	Pass
NVNT	n(HT20)	2412	Ant1	-13.196	8	Pass
NVNT	n(HT20)	2437	Ant1	-9.836	8	Pass
NVNT	n(HT20)	2462	Ant1	-11.916	8	Pass
NVNT	n(HT40)	2422	Ant1	-12.328	8	Pass
NVNT	n(HT40)	2437	Ant1	-13.566	8	Pass
NVNT	n(HT40)	2452	Ant1	-15.826	8	Pass



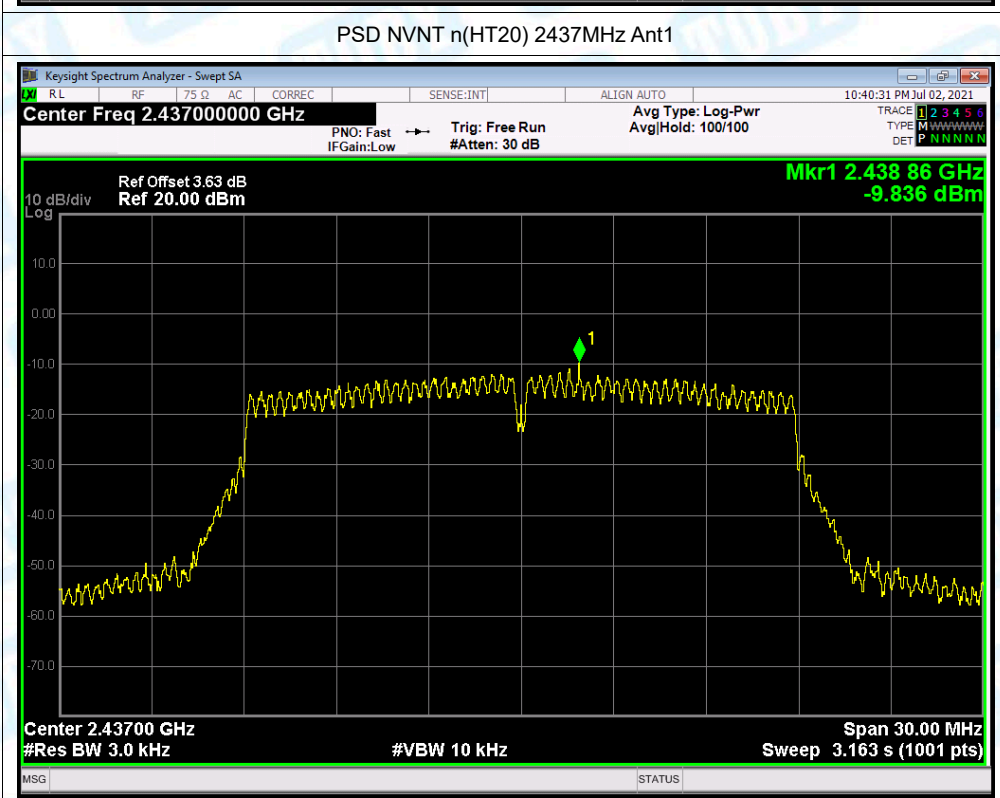




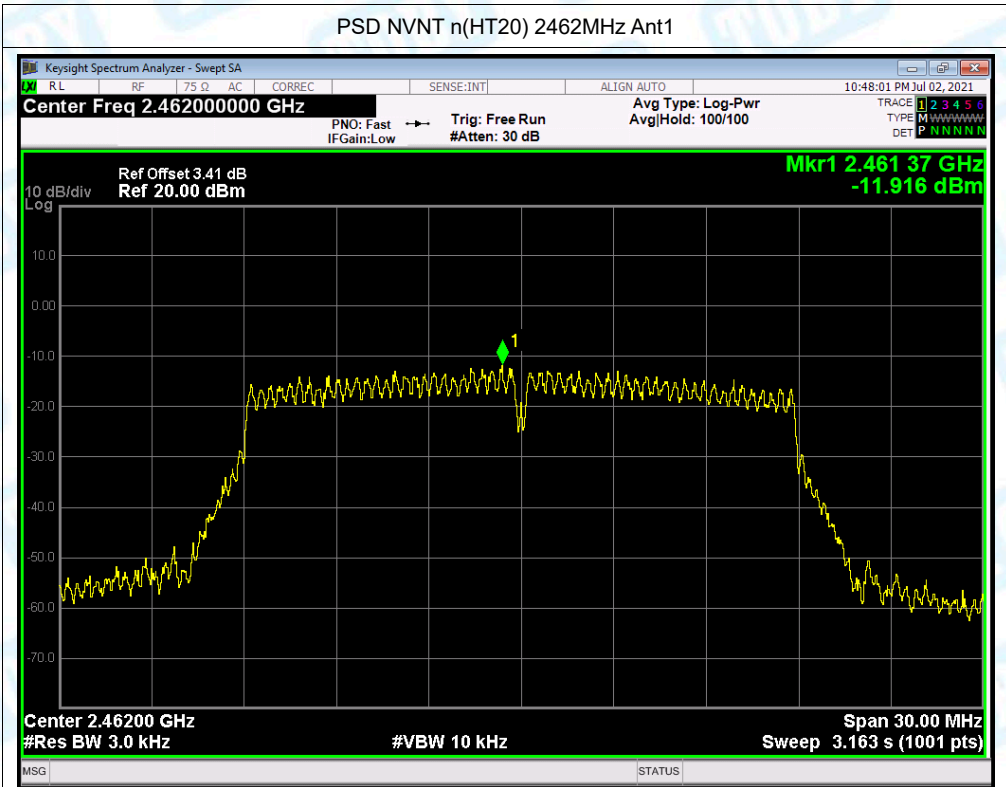
PSD NVNT n(HT20) 2412MHz Ant1



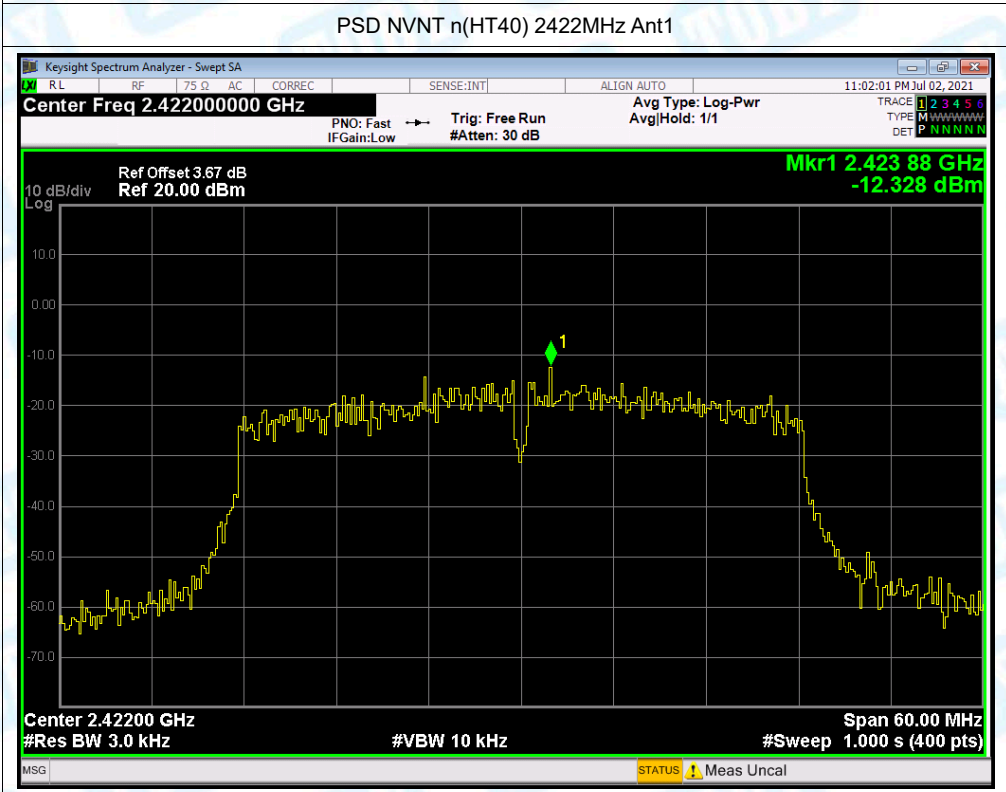
PSD NVNT n(HT20) 2437MHz Ant1



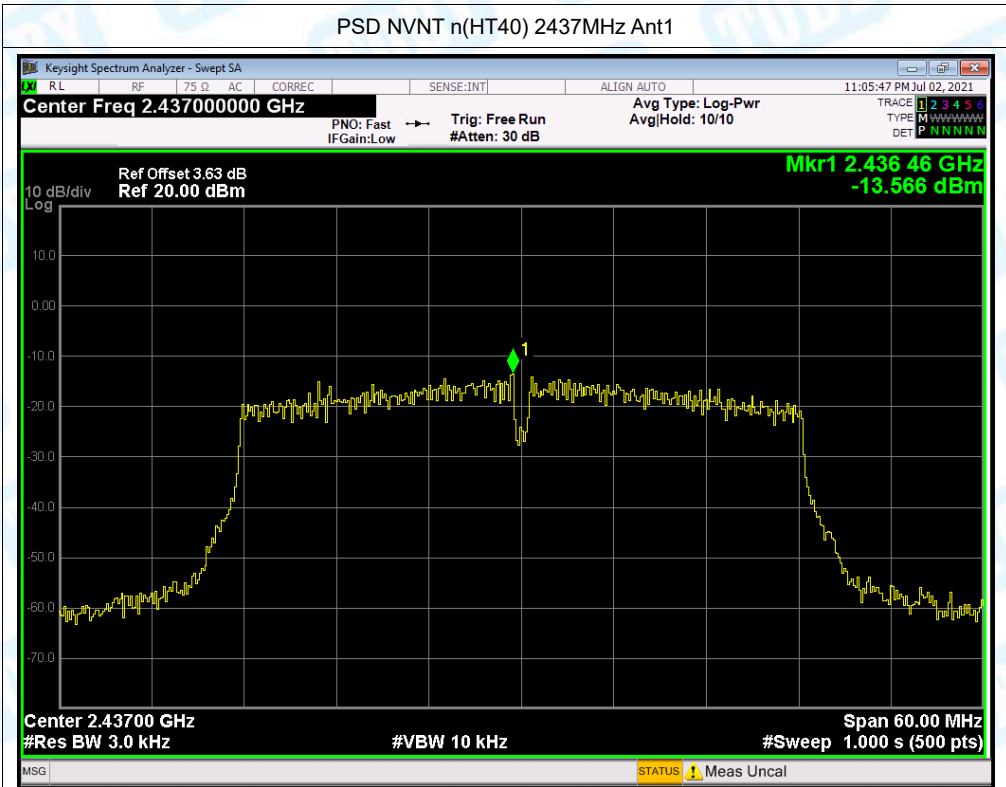
PSD NVNT n(HT20) 2462MHz Ant1



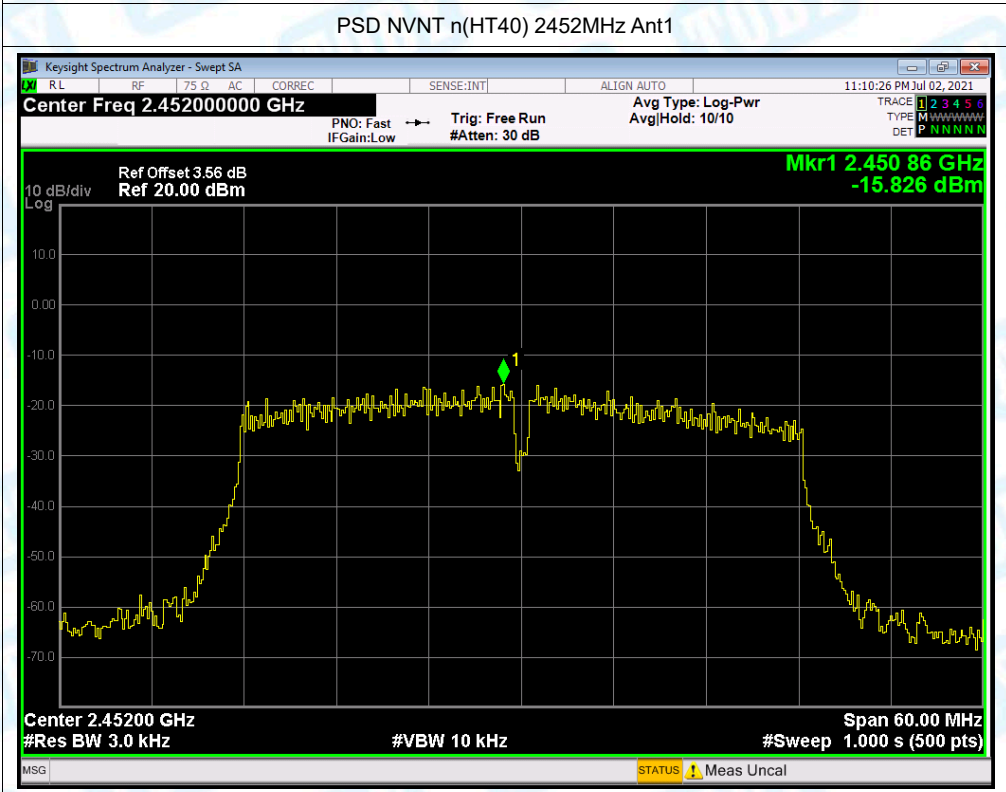
PSD NVNT n(HT40) 2422MHz Ant1



PSD NVNT n(HT40) 2437MHz Ant1

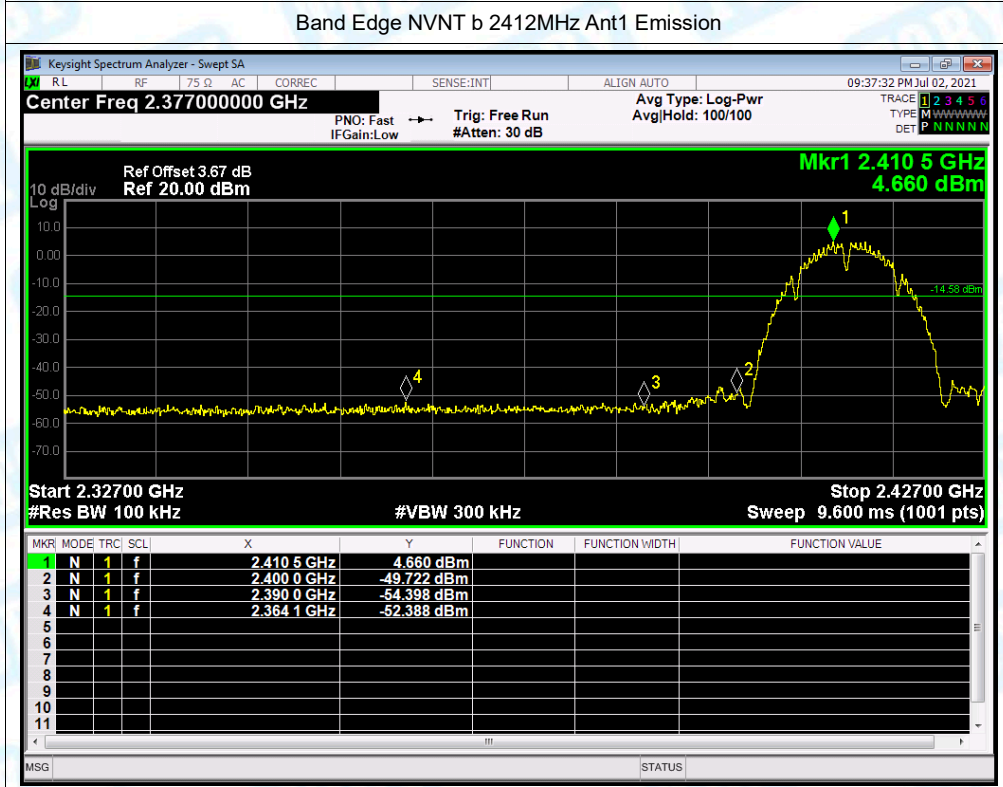


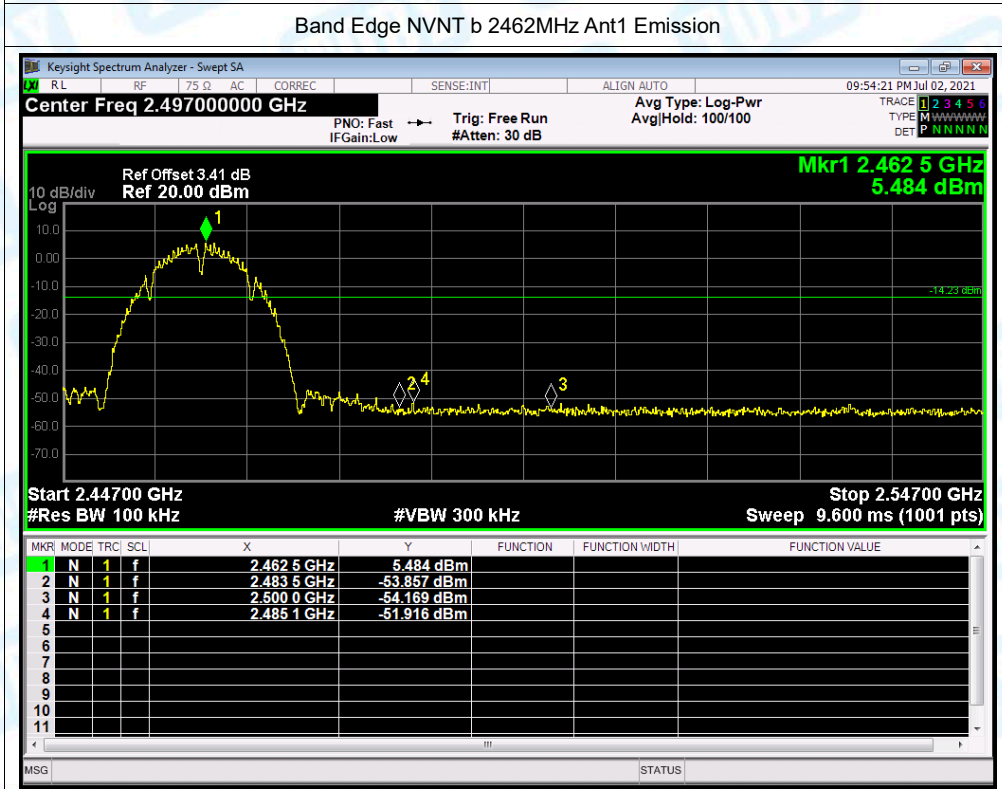
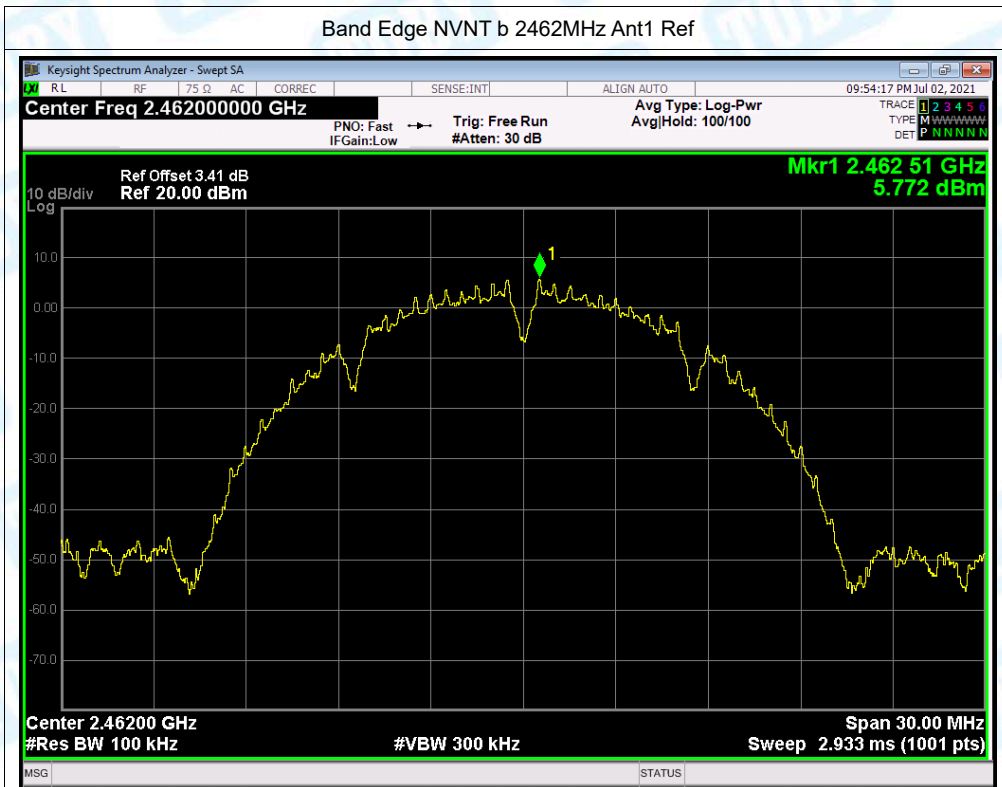
PSD NVNT n(HT40) 2452MHz Ant1

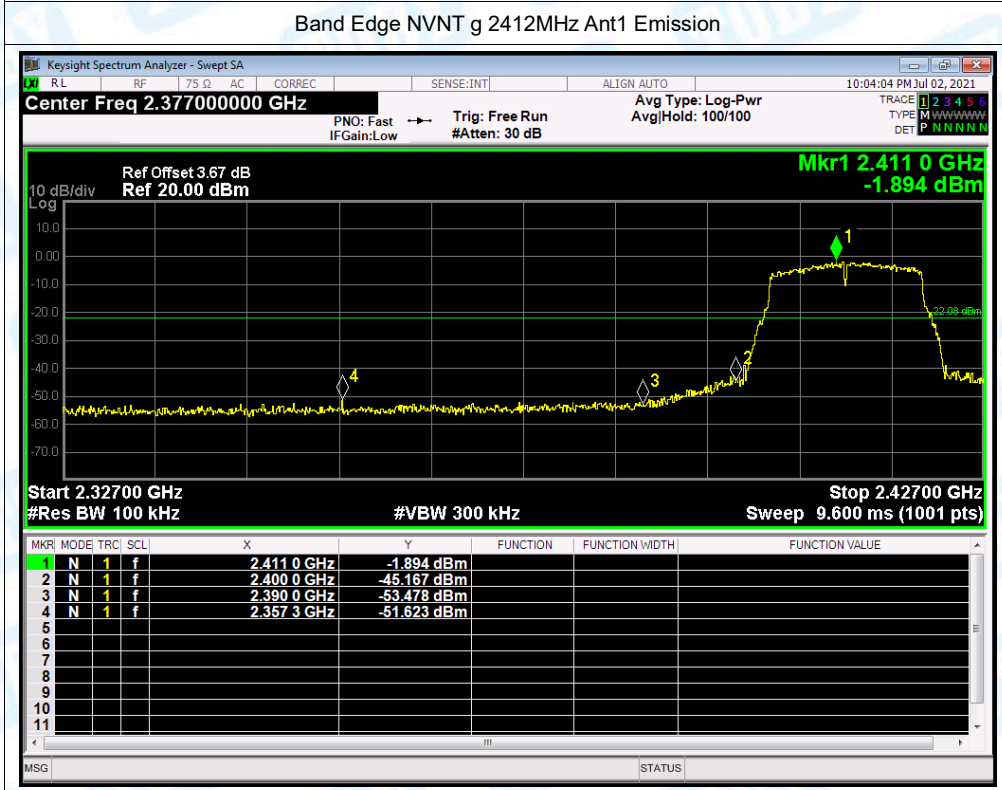
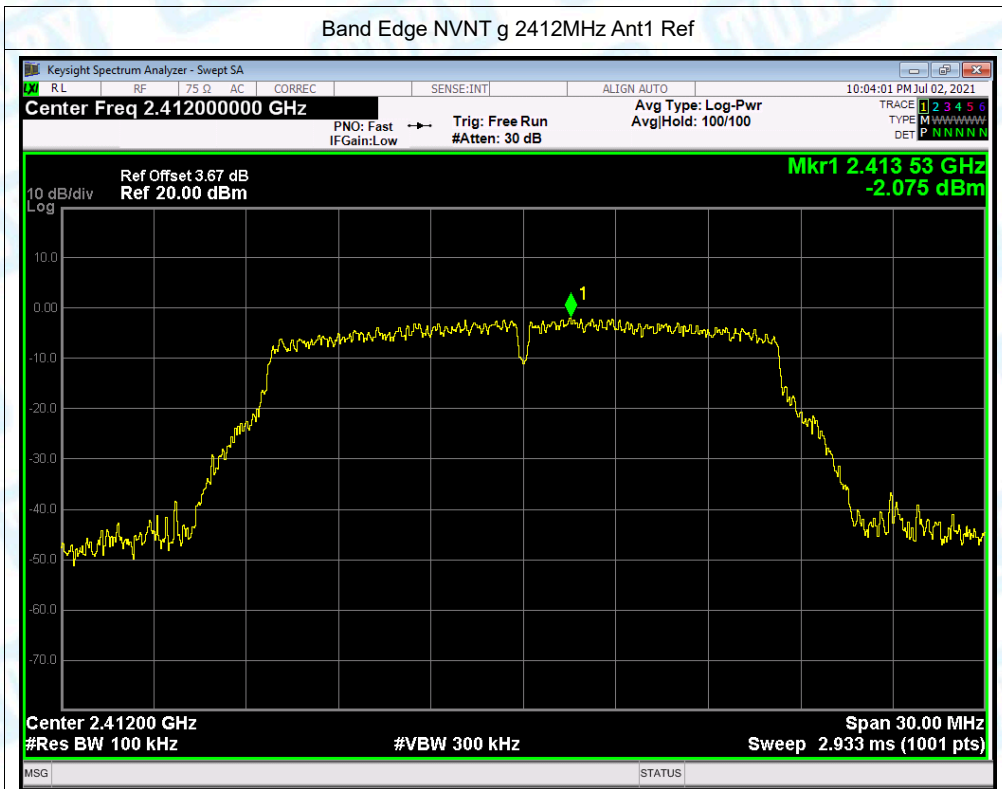


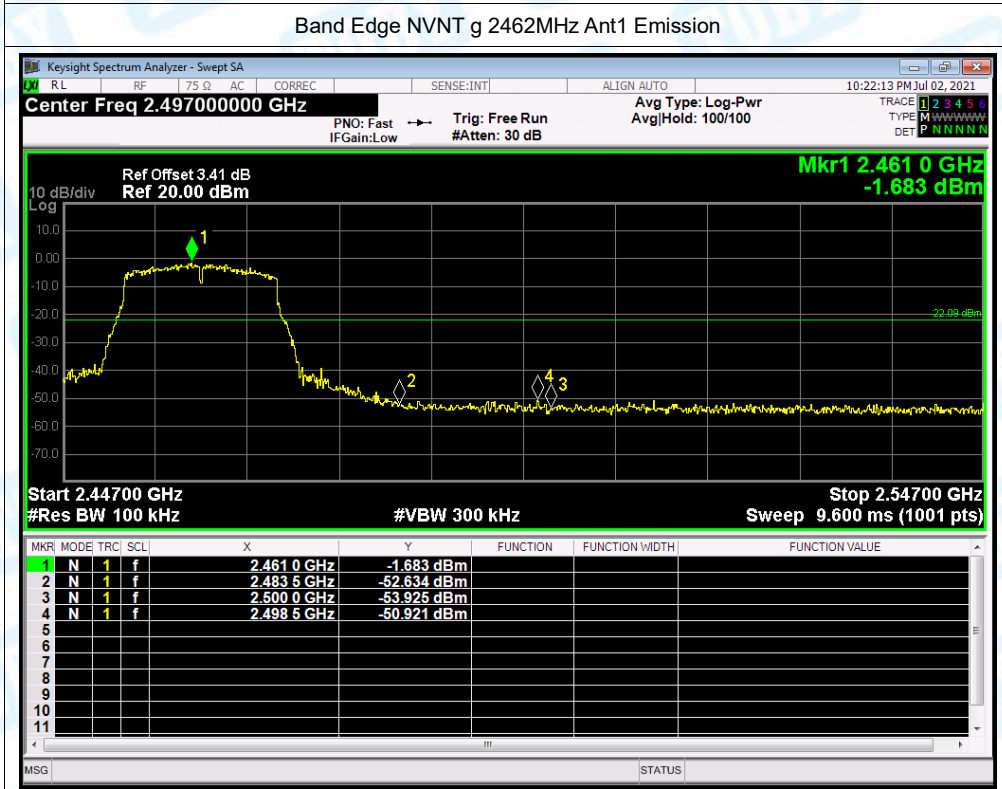
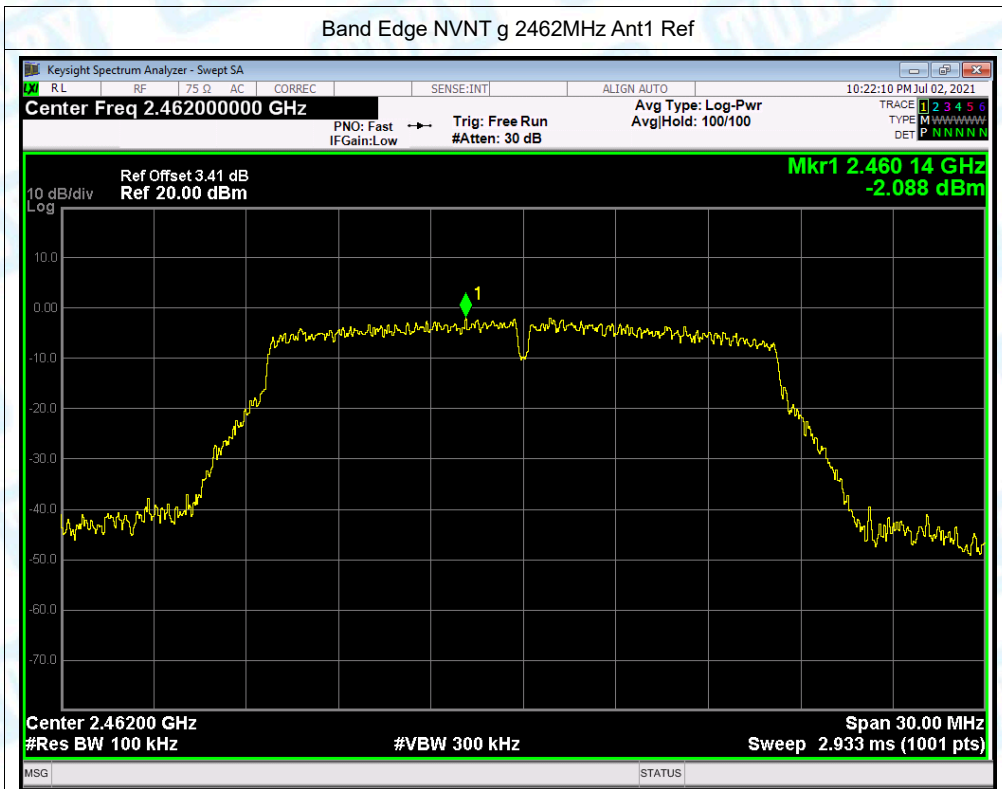
6. Band Edge

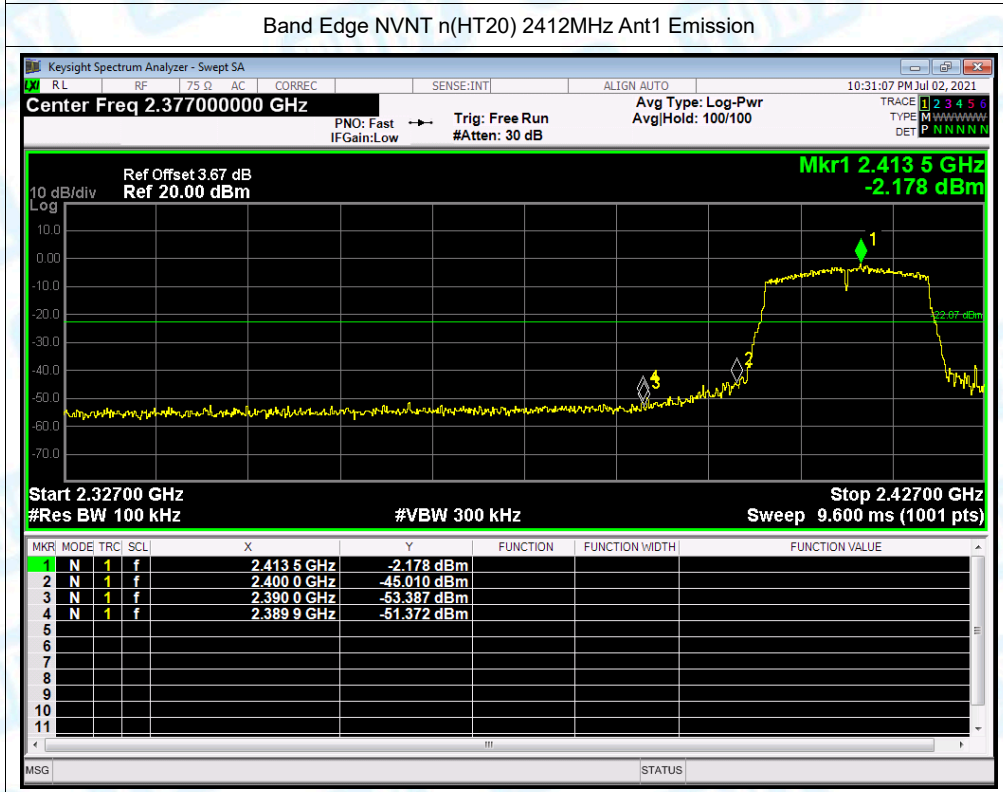
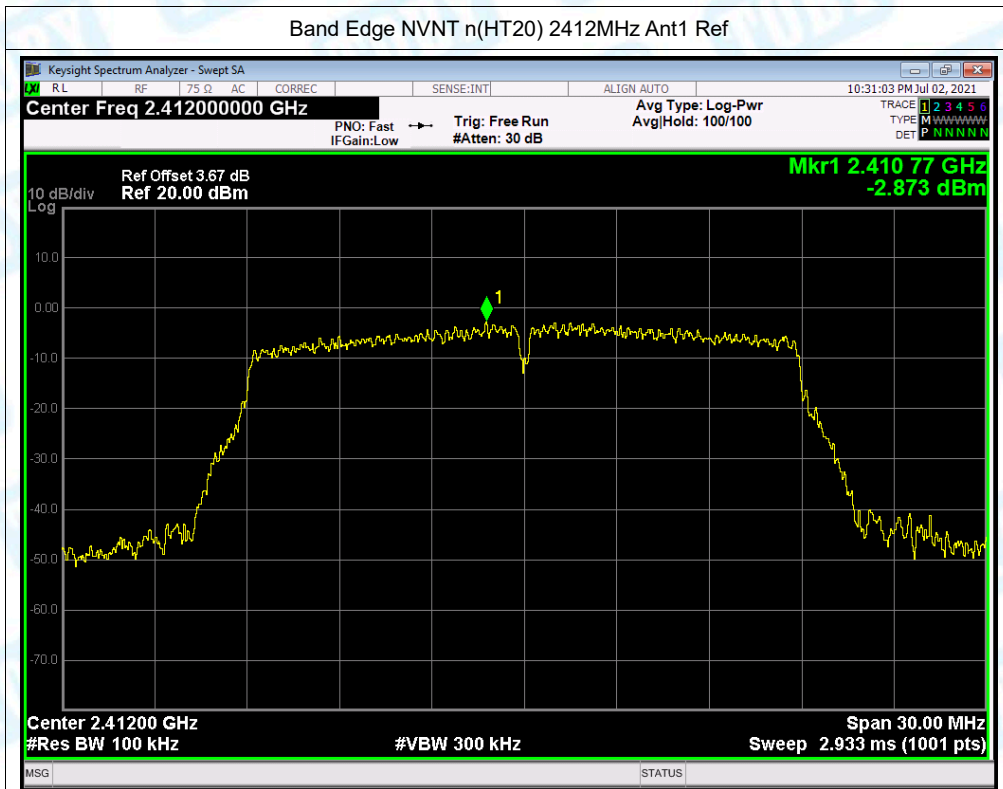
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-57.8	-20	Pass
NVNT	b	2462	Ant1	-57.68	-20	Pass
NVNT	g	2412	Ant1	-49.55	-20	Pass
NVNT	g	2462	Ant1	-48.83	-20	Pass
NVNT	n(HT20)	2412	Ant1	-48.5	-20	Pass
NVNT	n(HT20)	2462	Ant1	-48.45	-20	Pass
NVNT	n(HT40)	2422	Ant1	-41.28	-20	Pass
NVNT	n(HT40)	2452	Ant1	-44.82	-20	Pass

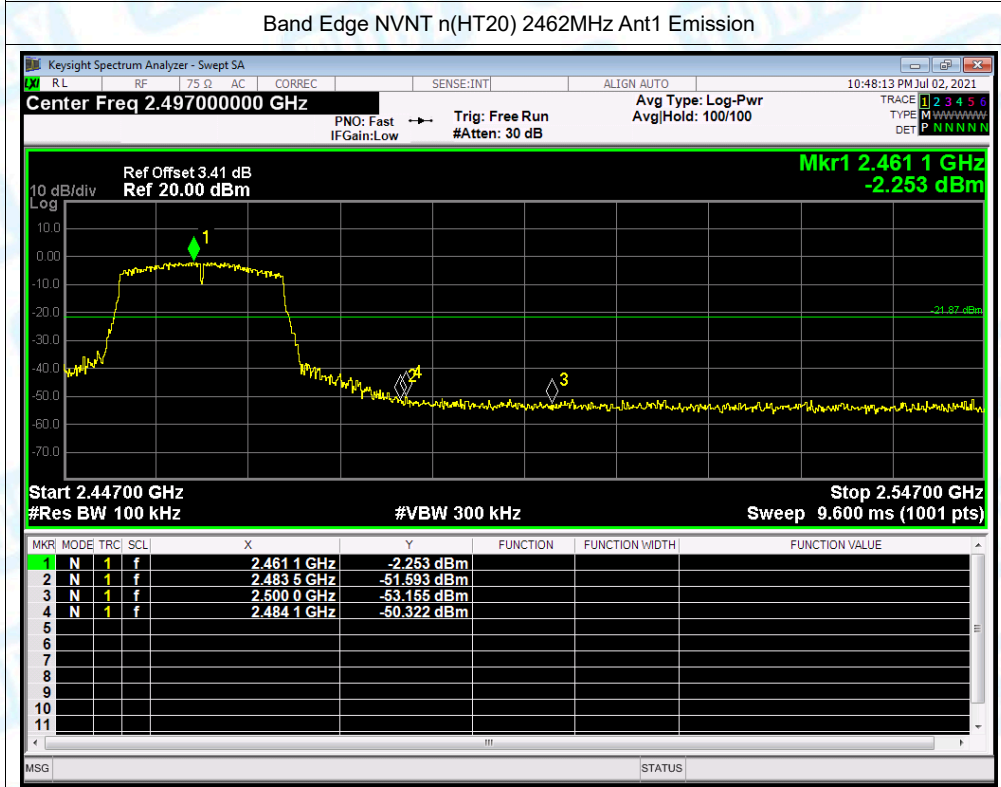
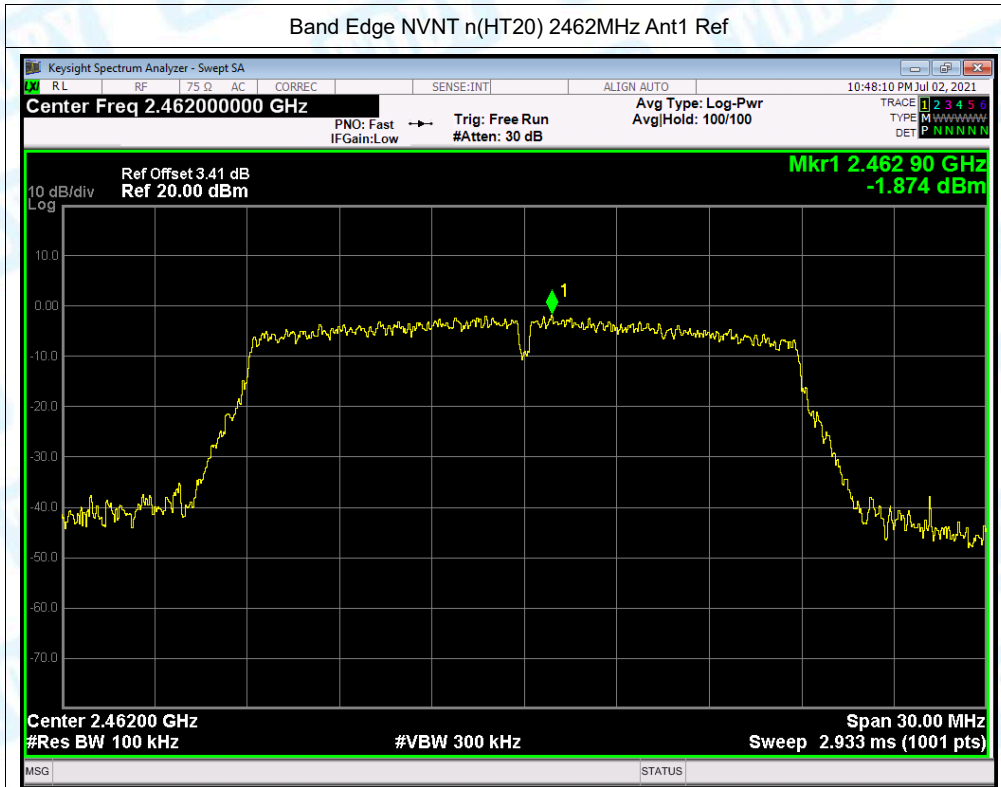


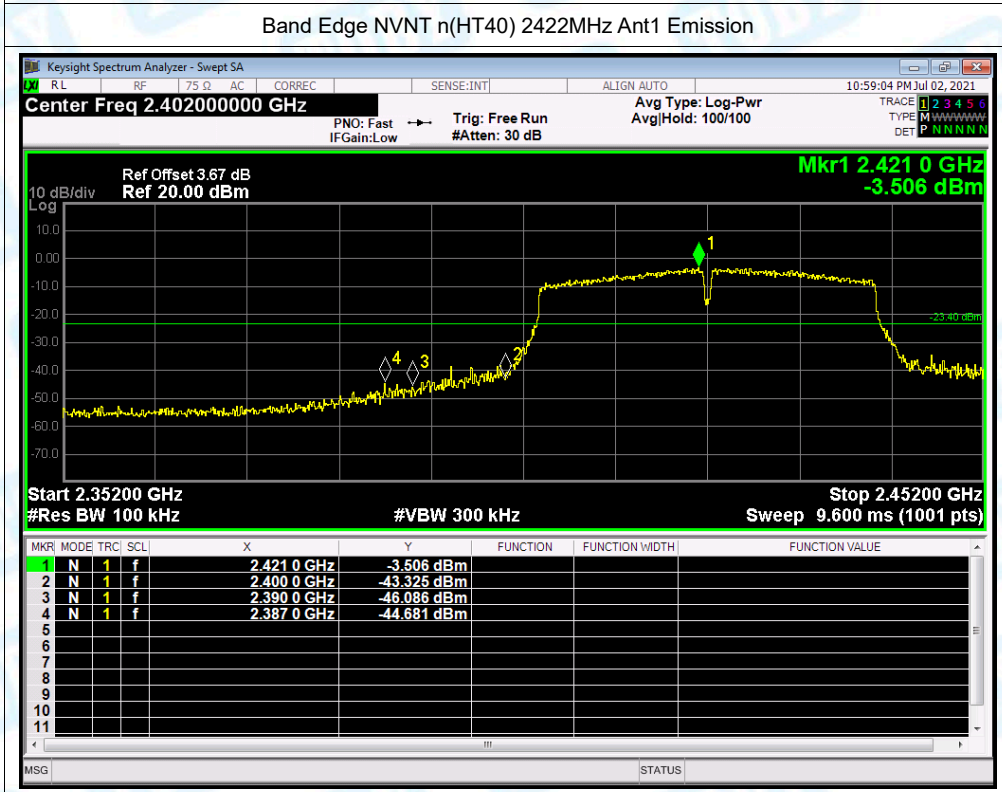
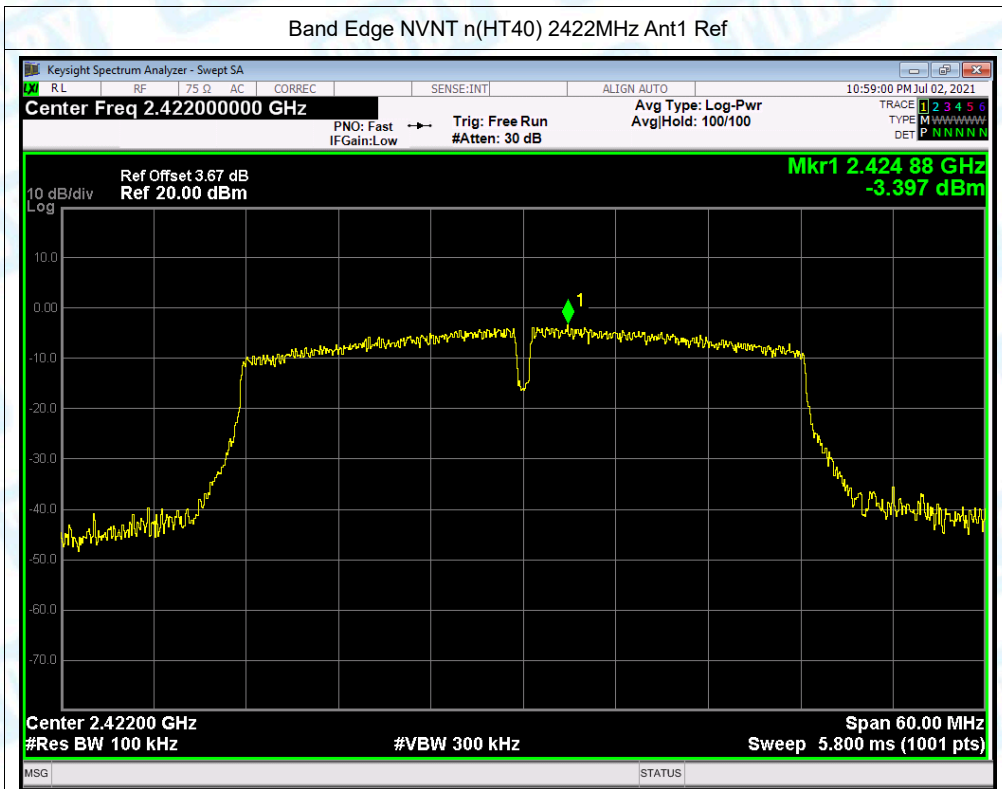


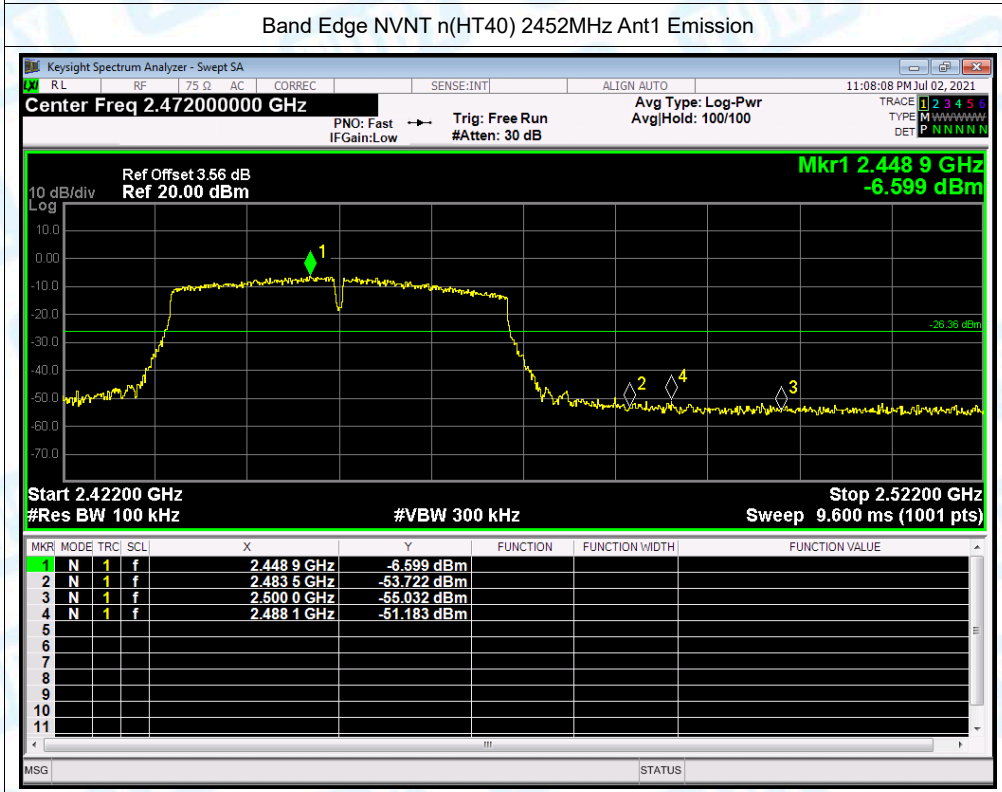
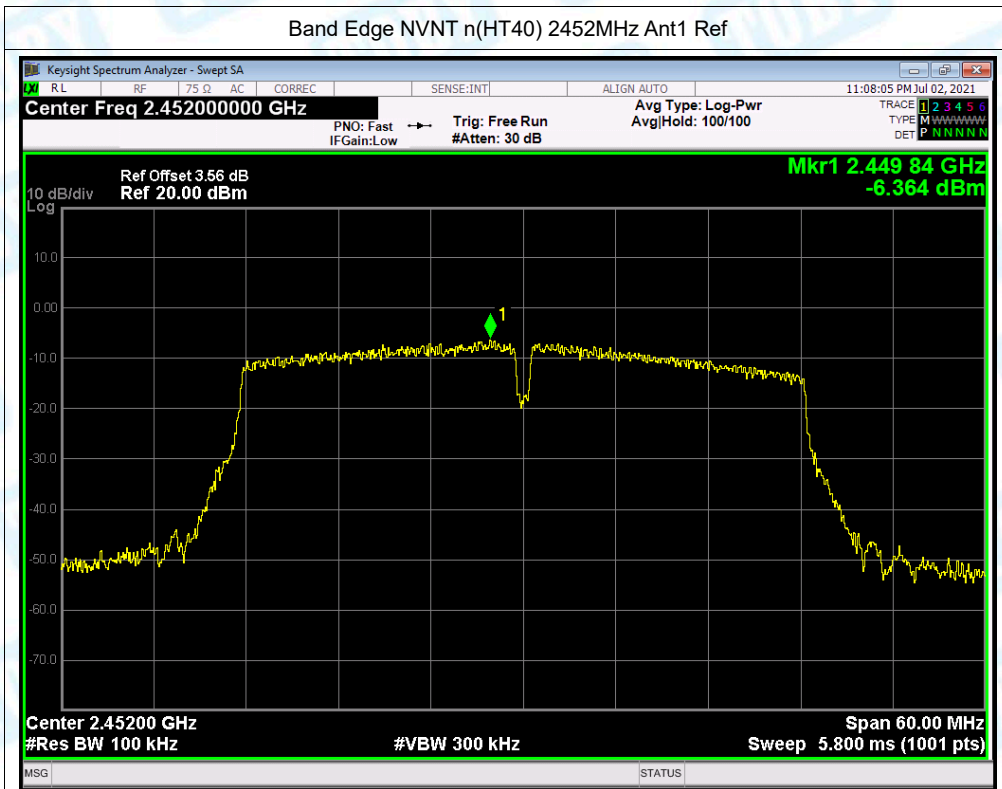






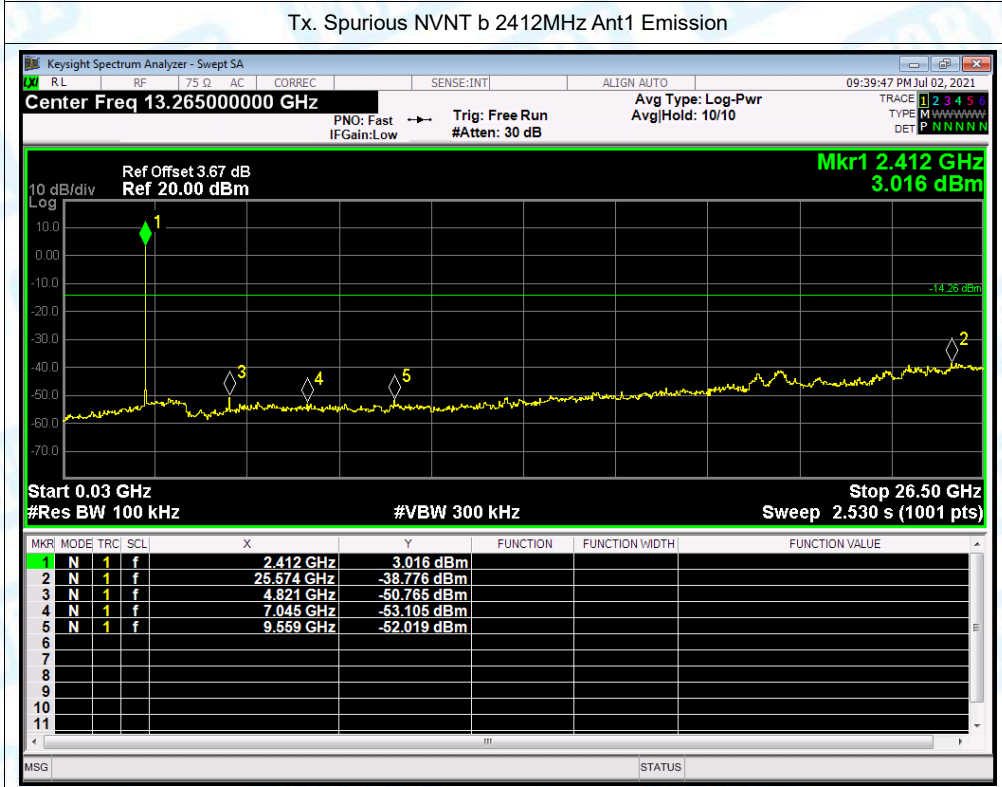




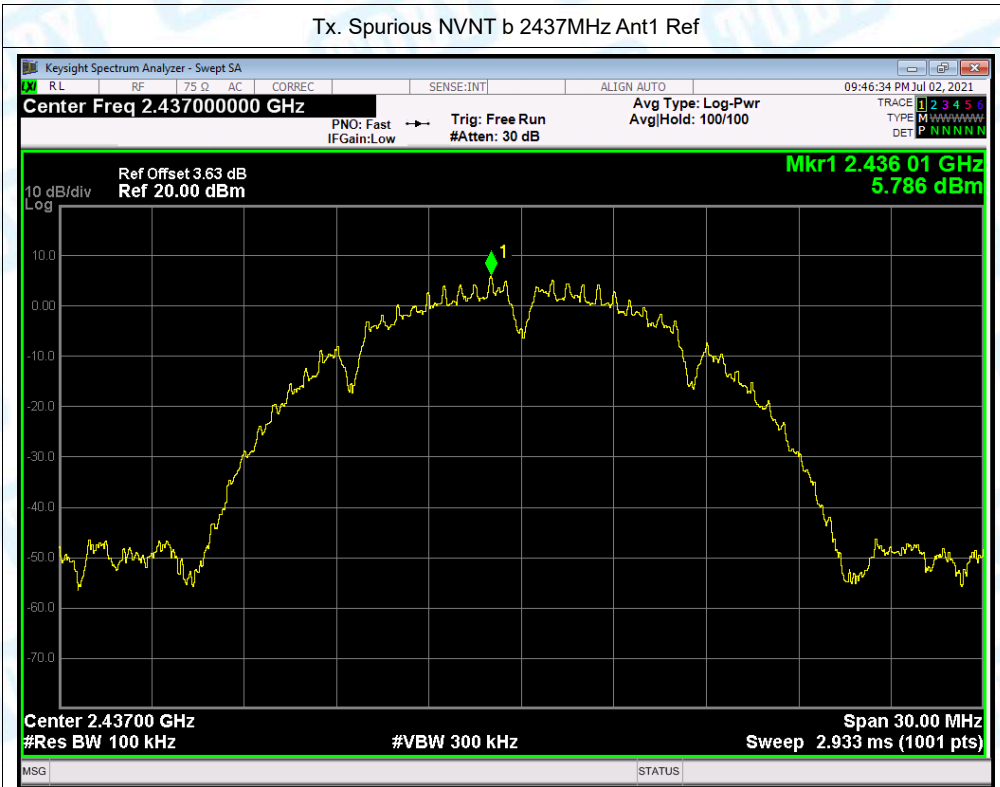


7. Conducted RF Spurious Emission

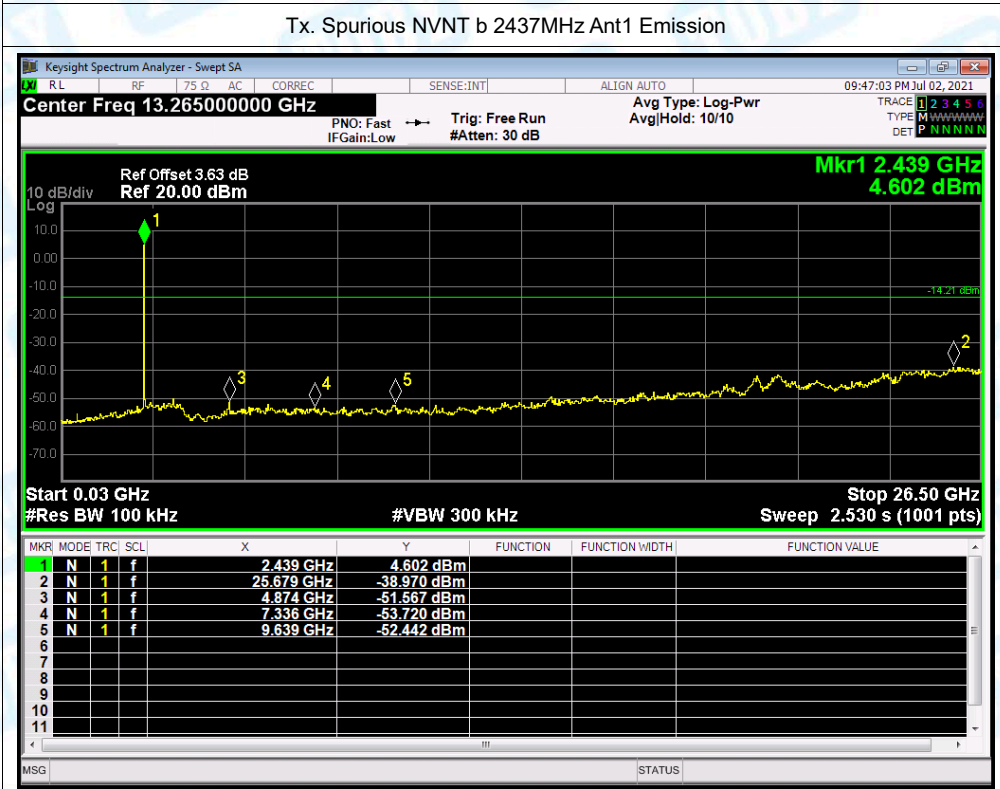
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-44.52	-20	Pass
NVNT	b	2437	Ant1	-44.75	-20	Pass
NVNT	b	2462	Ant1	-43.36	-20	Pass
NVNT	g	2412	Ant1	-36.74	-20	Pass
NVNT	g	2437	Ant1	-37.18	-20	Pass
NVNT	g	2462	Ant1	-37.21	-20	Pass
NVNT	n(HT20)	2412	Ant1	-35.69	-20	Pass
NVNT	n(HT20)	2437	Ant1	-38.25	-20	Pass
NVNT	n(HT20)	2462	Ant1	-36.71	-20	Pass
NVNT	n(HT40)	2422	Ant1	-35.43	-20	Pass
NVNT	n(HT40)	2437	Ant1	-33.45	-20	Pass
NVNT	n(HT40)	2452	Ant1	-32.26	-20	Pass



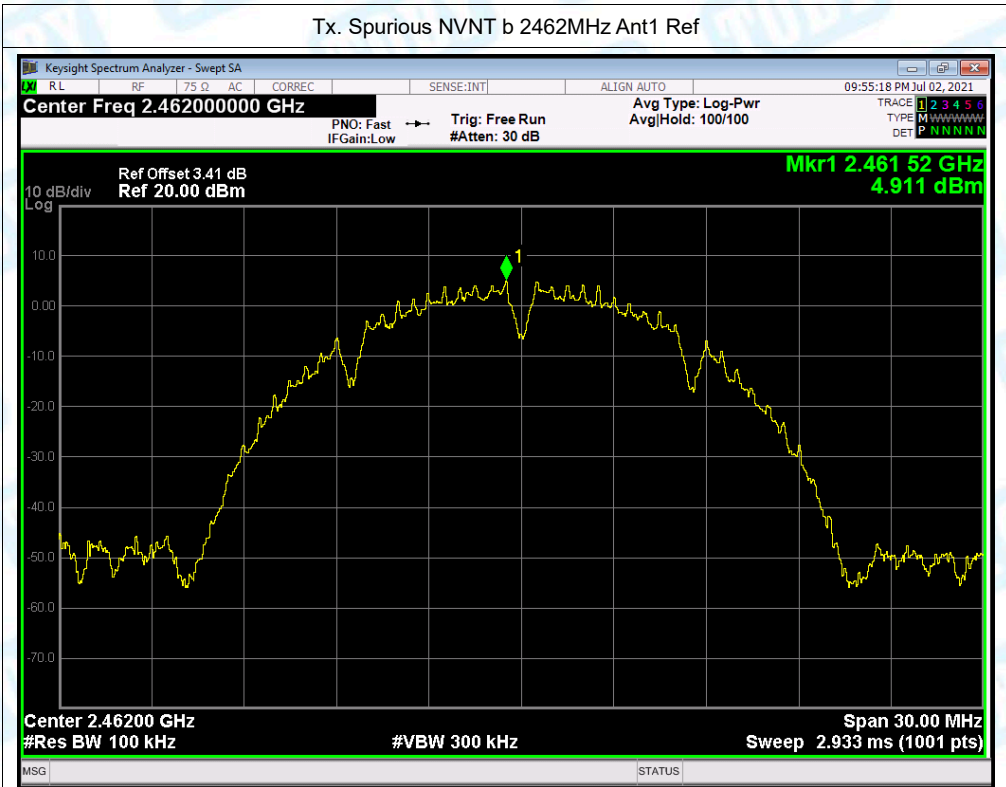
Tx. Spurious NVNT b 2437MHz Ant1 Ref



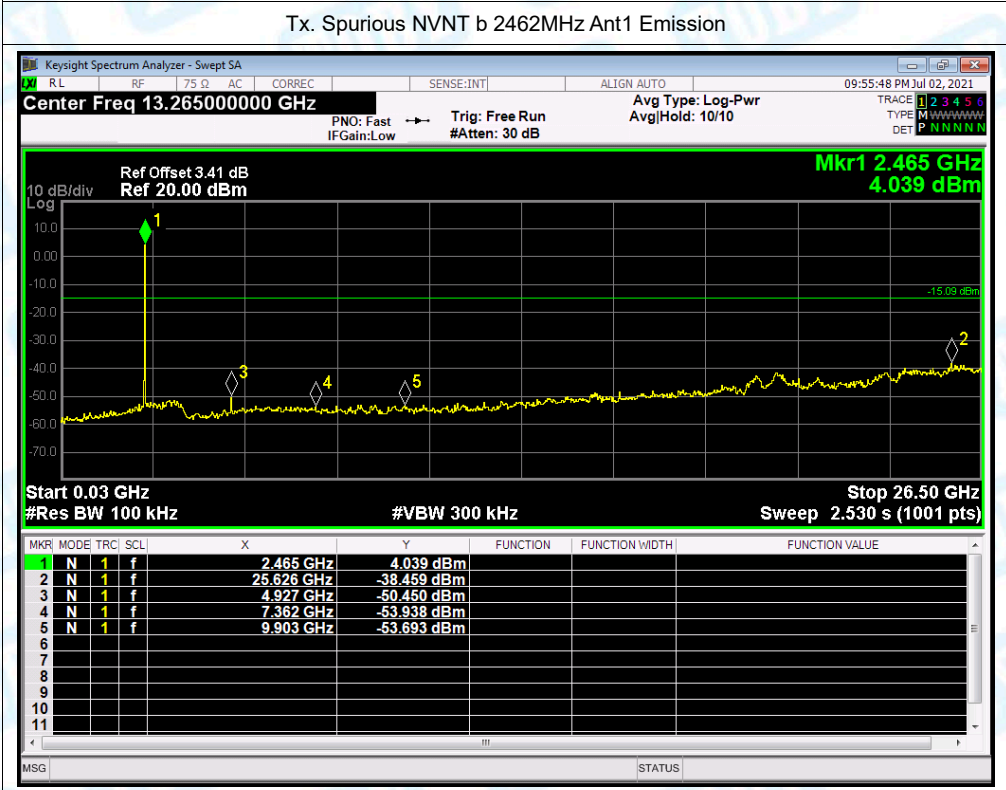
Tx. Spurious NVNT b 2437MHz Ant1 Emission



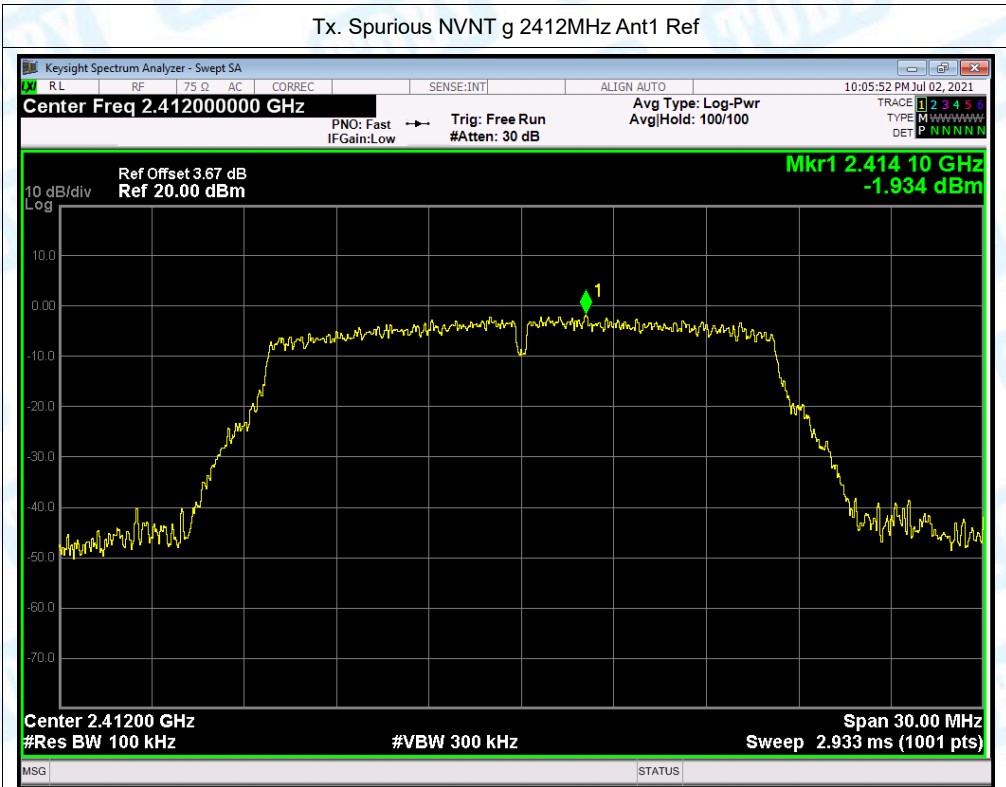
Tx. Spurious NVNT b 2462MHz Ant1 Ref



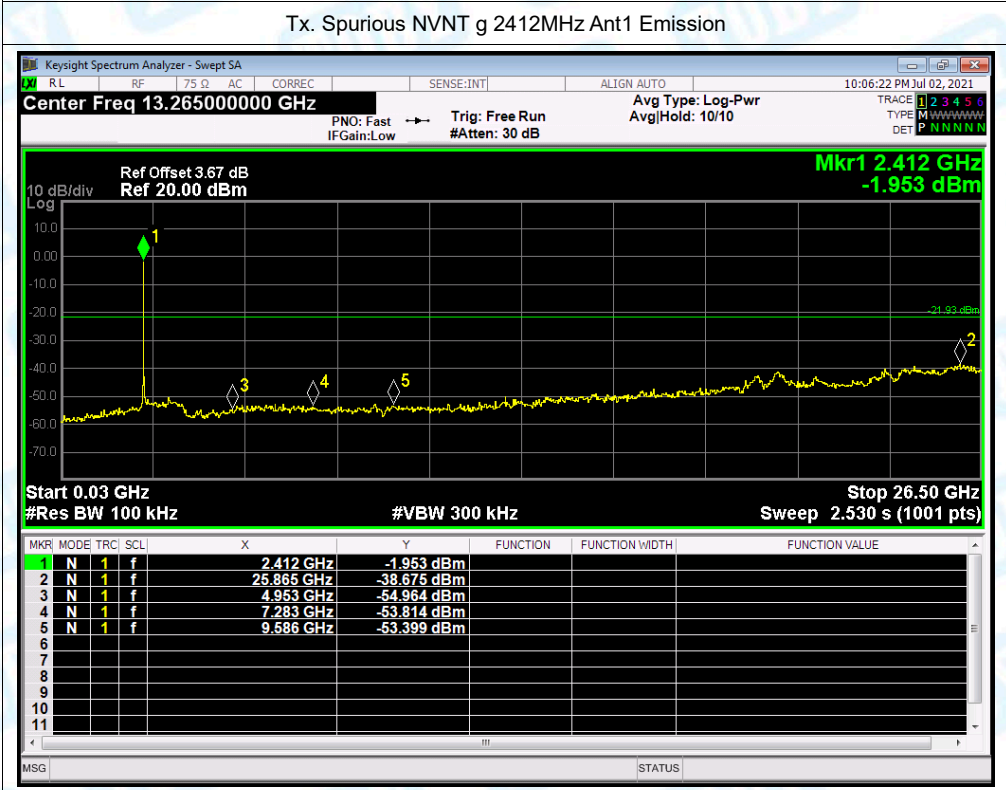
Tx. Spurious NVNT b 2462MHz Ant1 Emission



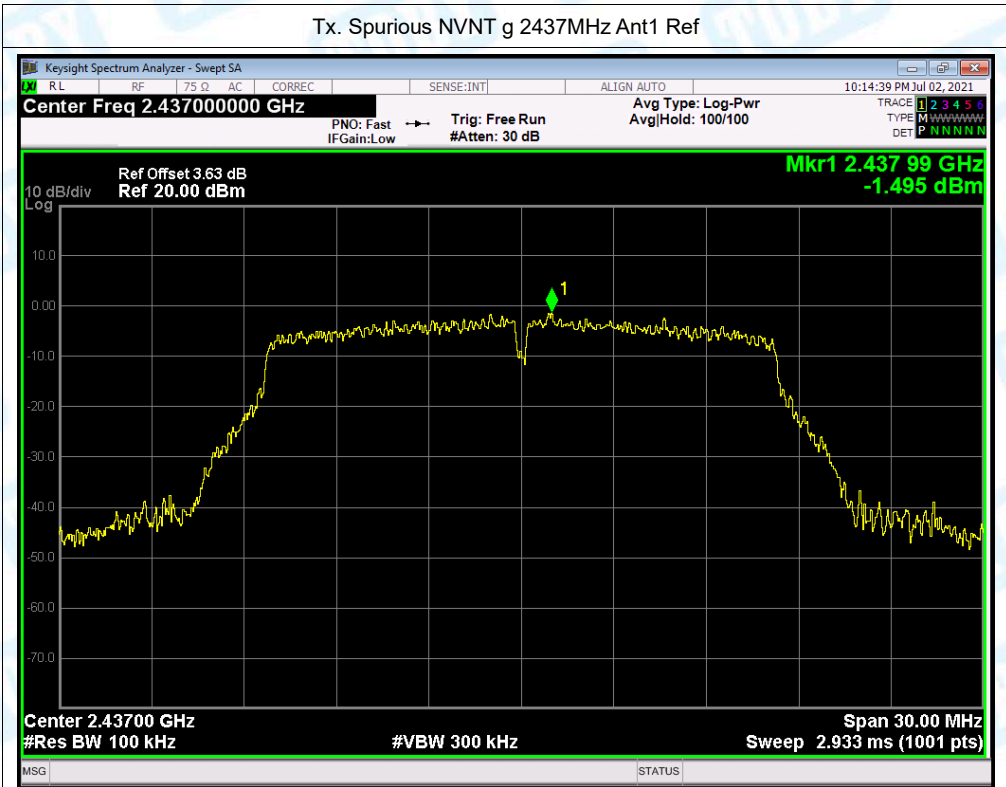
Tx. Spurious NVNT g 2412MHz Ant1 Ref



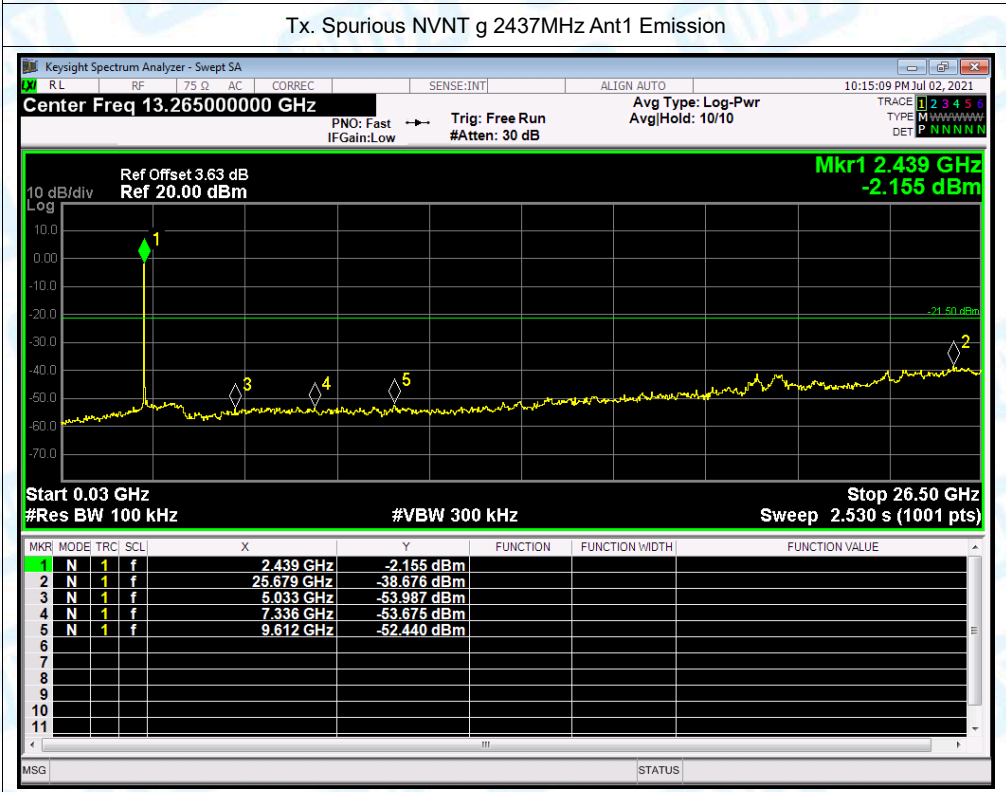
Tx. Spurious NVNT g 2412MHz Ant1 Emission



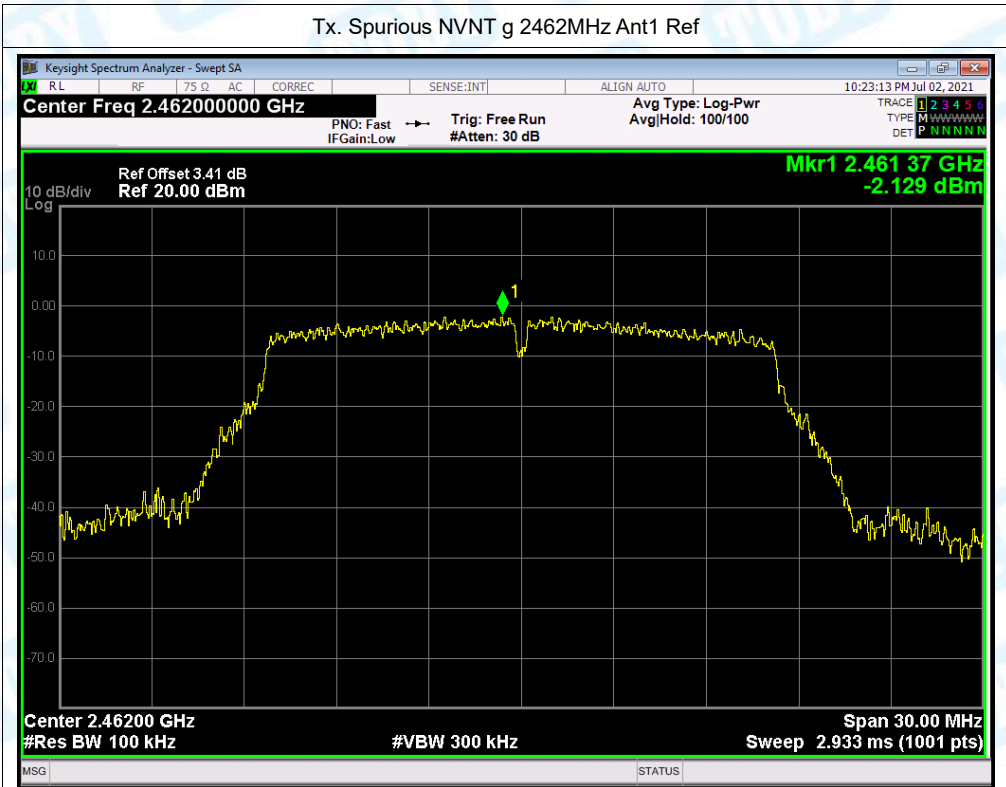
Tx. Spurious NVNT g 2437MHz Ant1 Ref



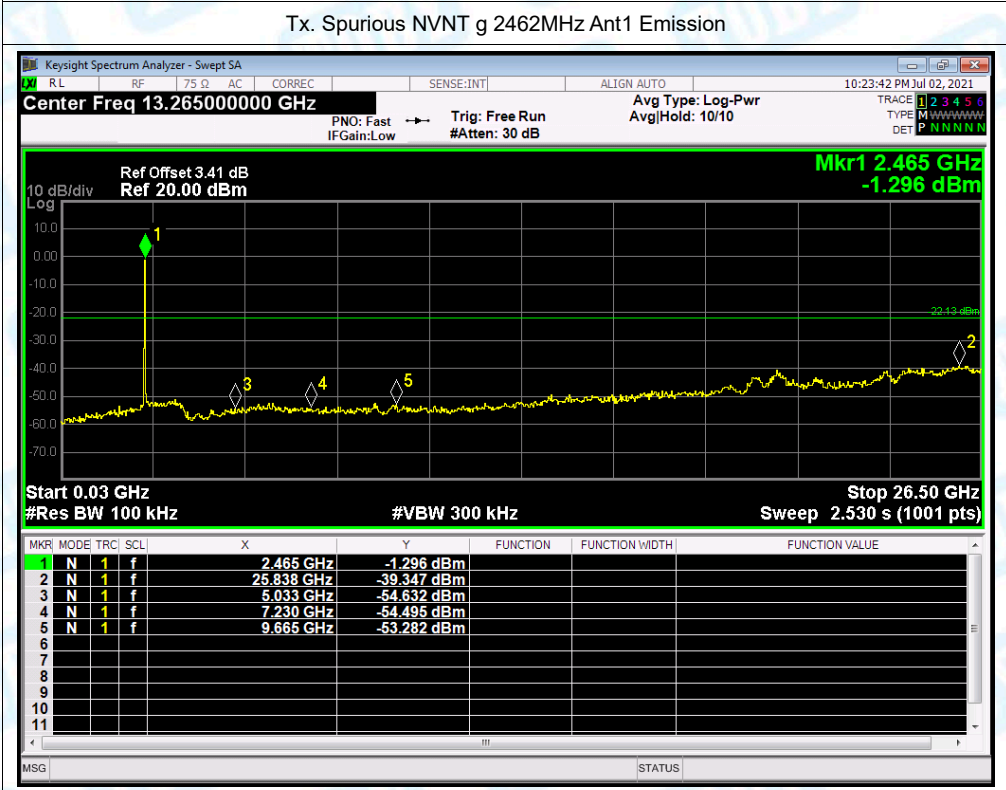
Tx. Spurious NVNT g 2437MHz Ant1 Emission



Tx. Spurious NVNT g 2462MHz Ant1 Ref



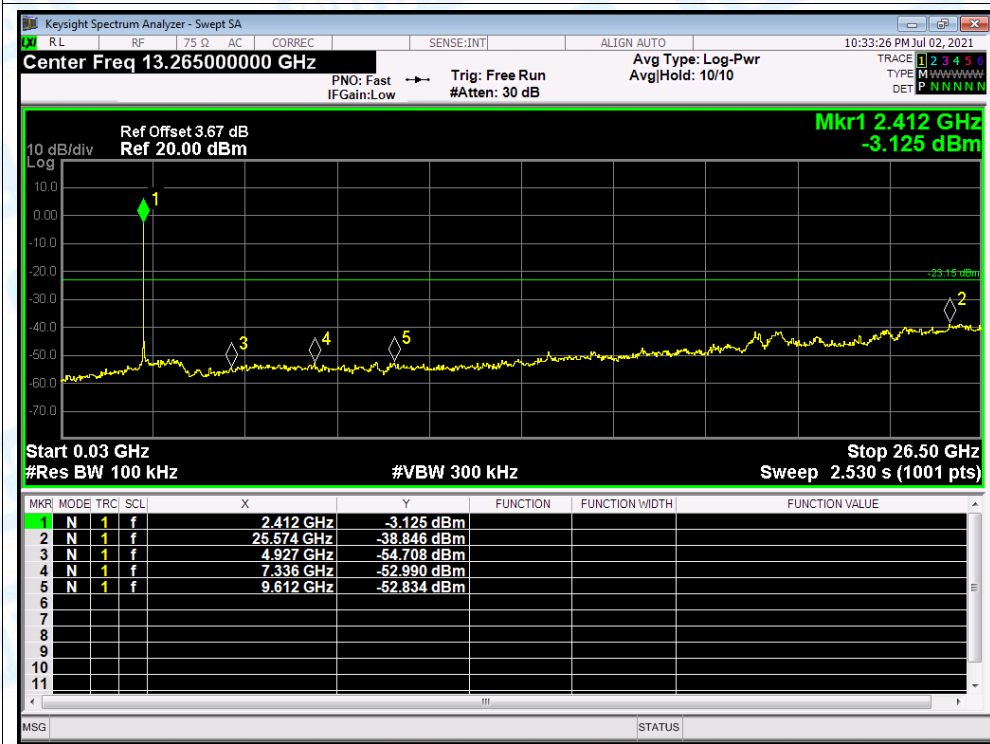
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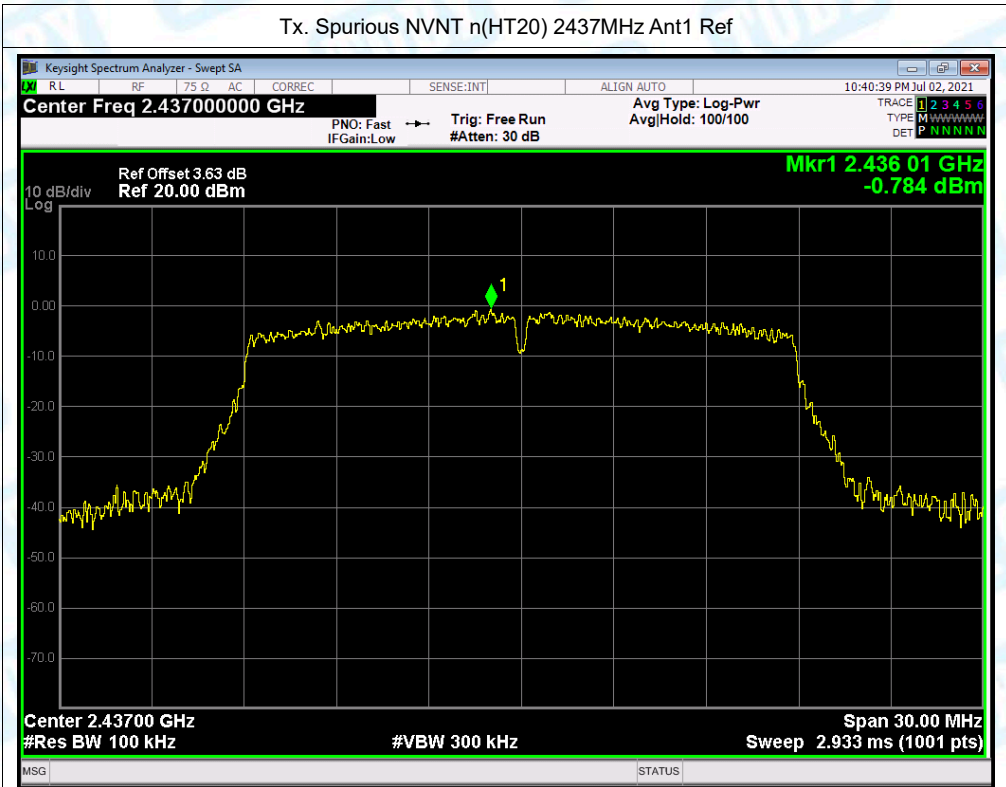
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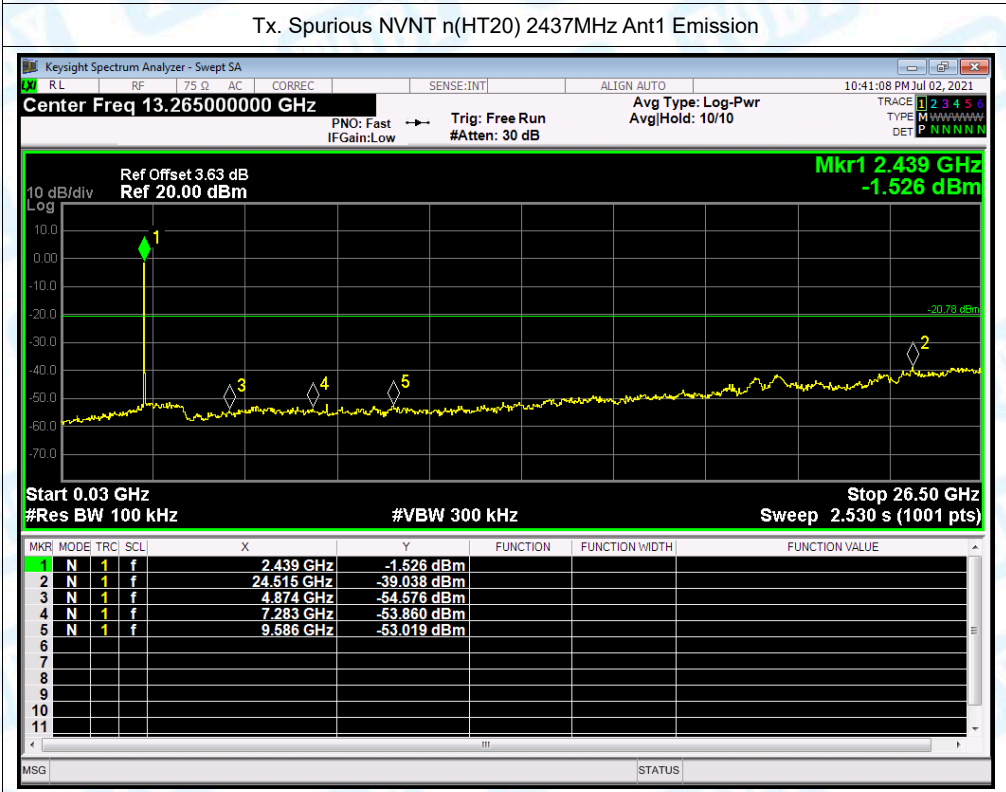
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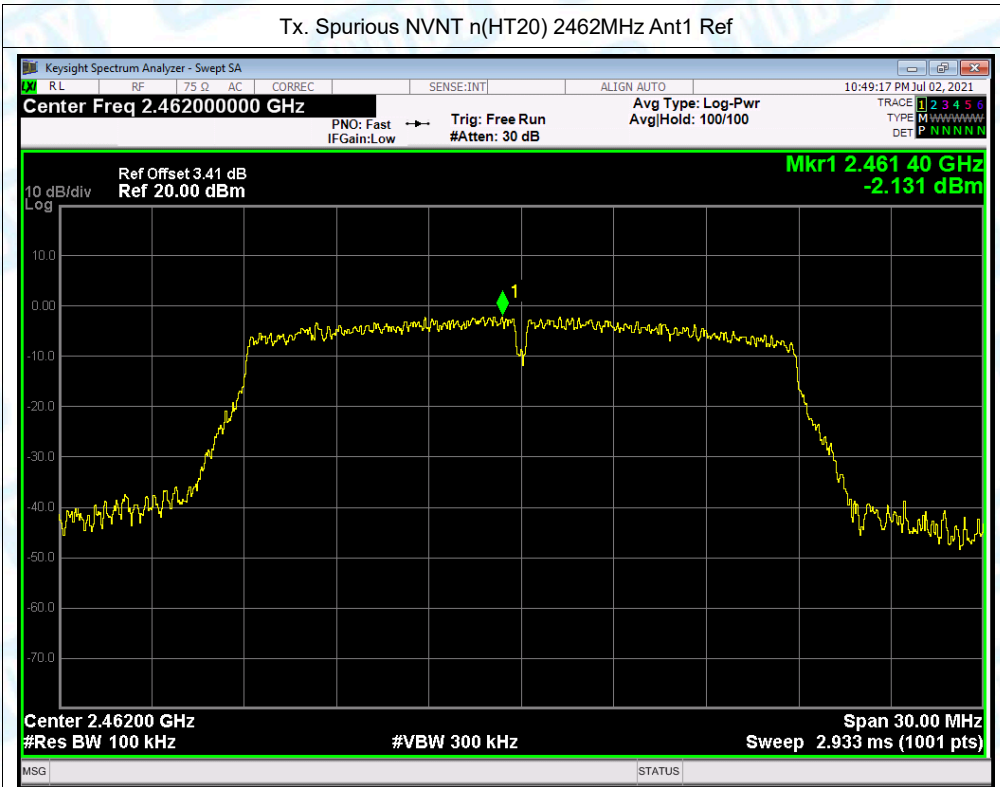
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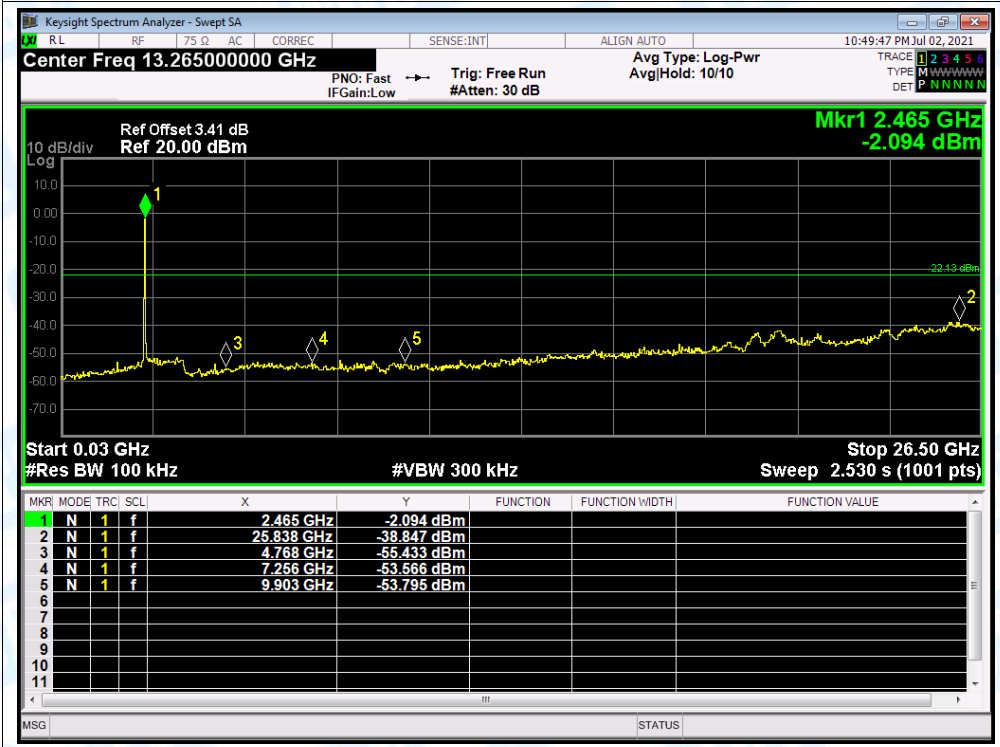
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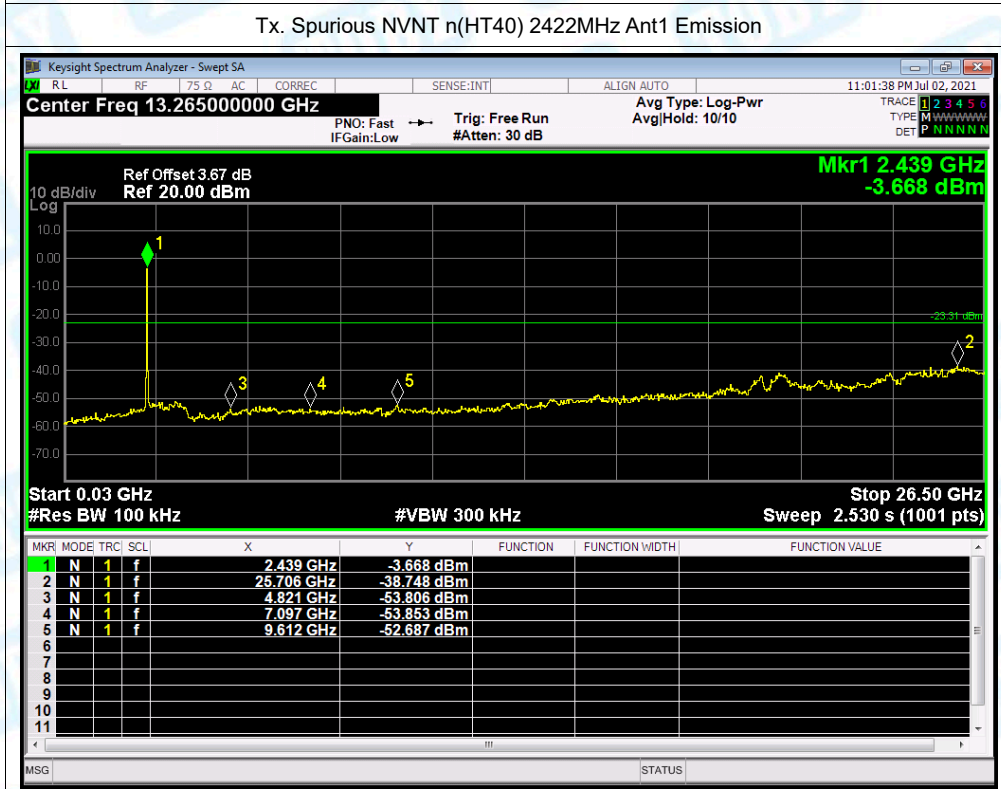
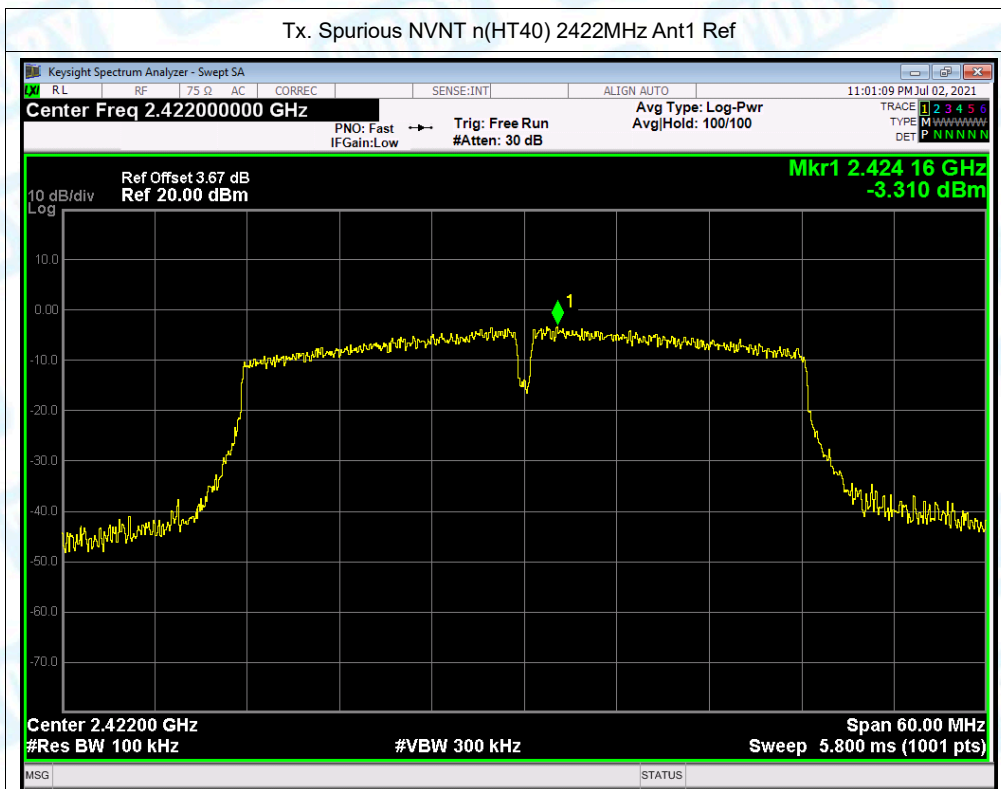


Tx. Spurious NVNT n(HT20) 2462MHz Ant1 Ref

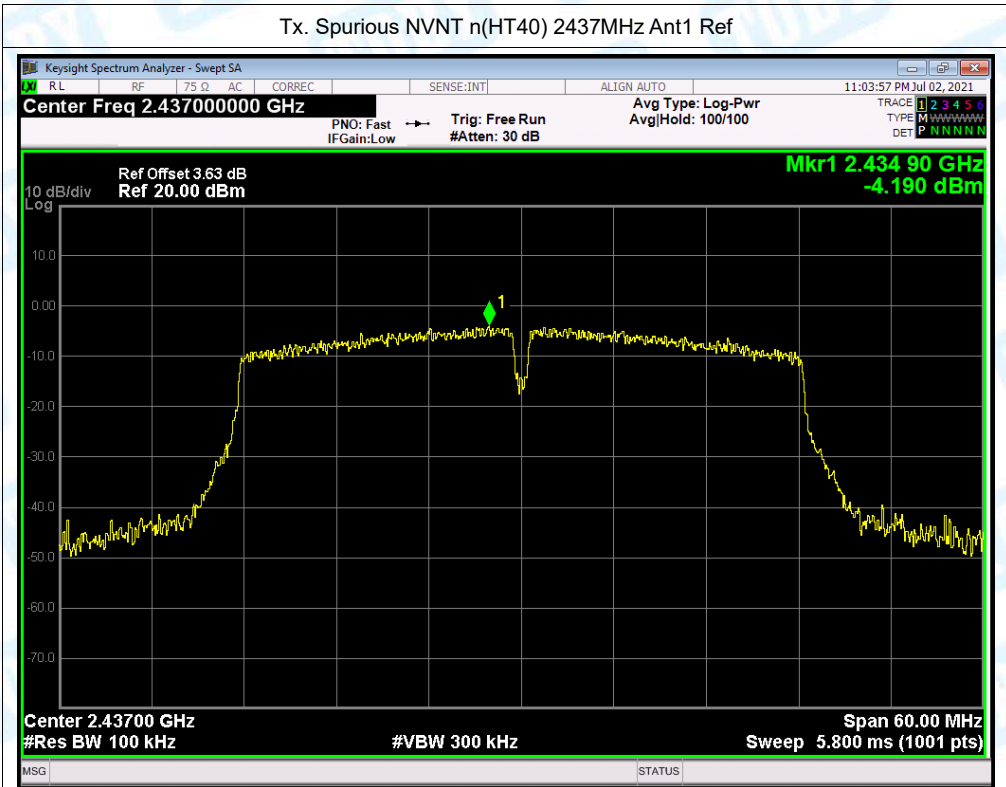


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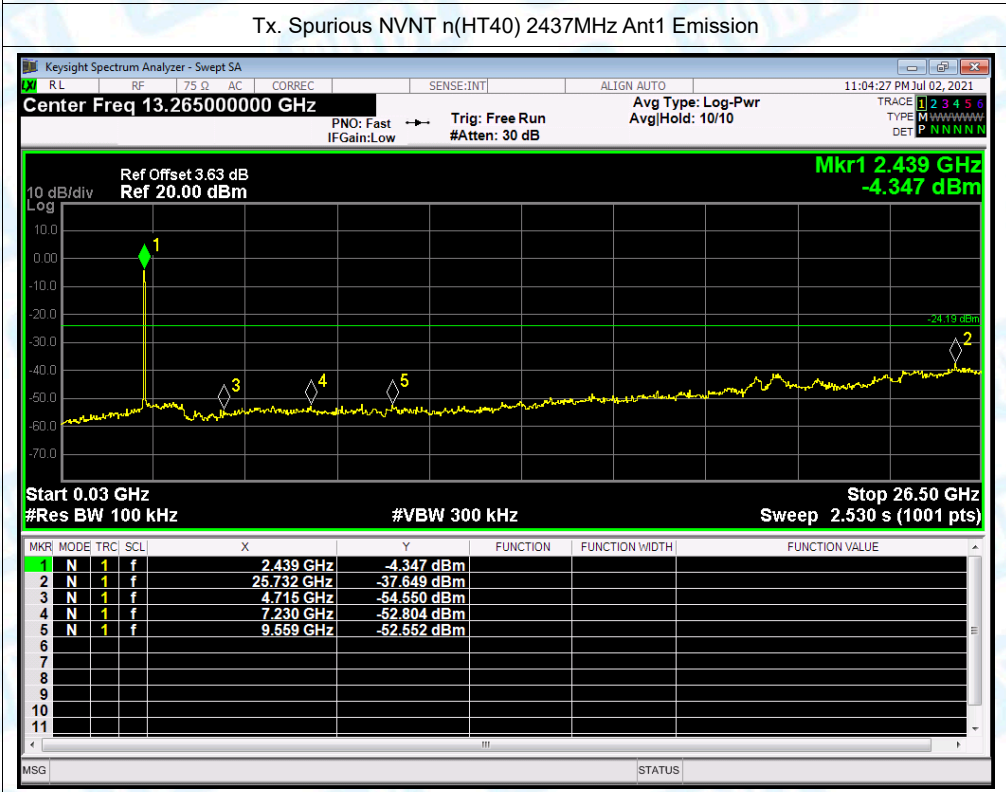




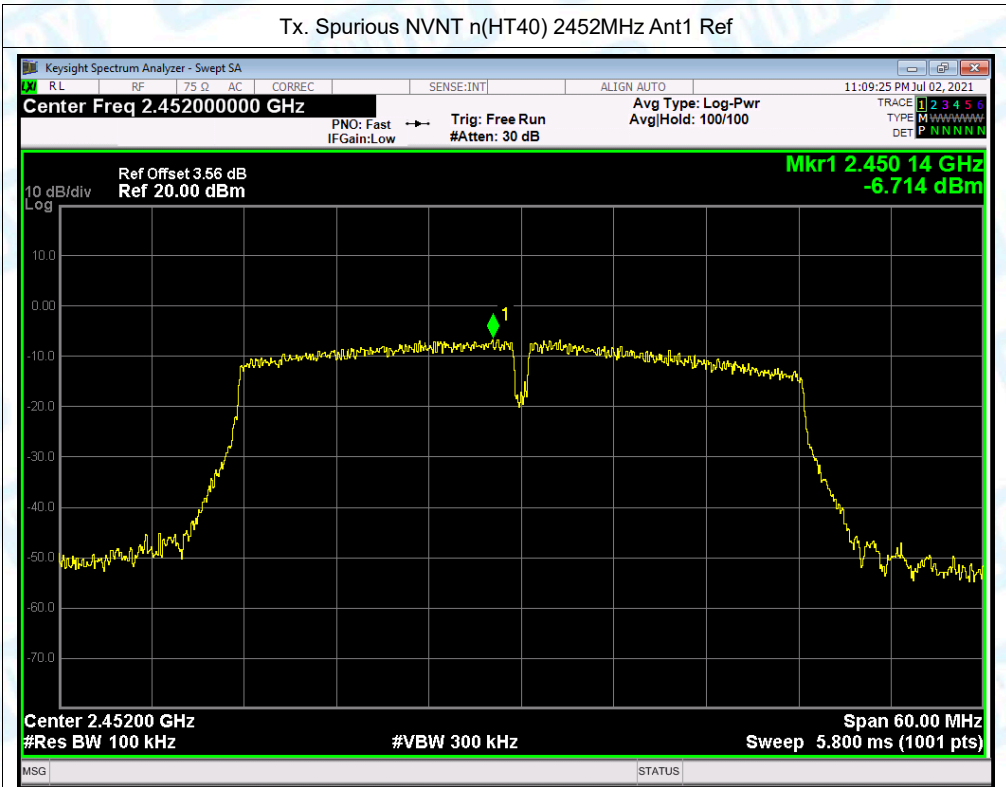
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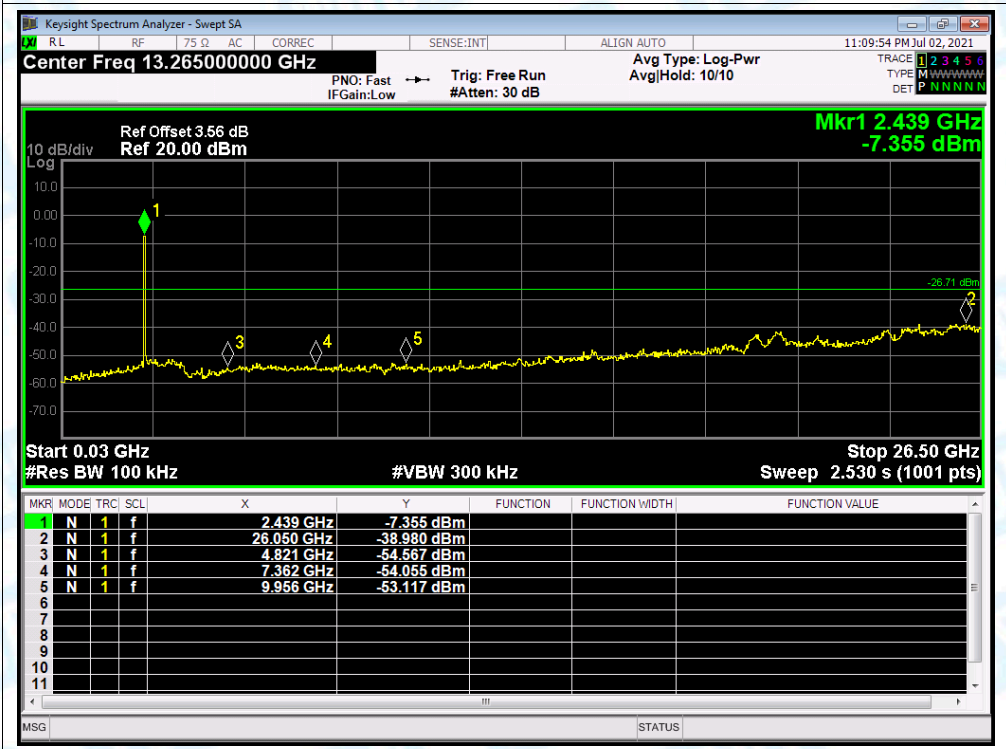
Tx. Spurious NVNT n(HT40) 2437MHz Ant1 Emission



Tx. Spurious NVNT n(HT40) 2452MHz Ant1 Ref



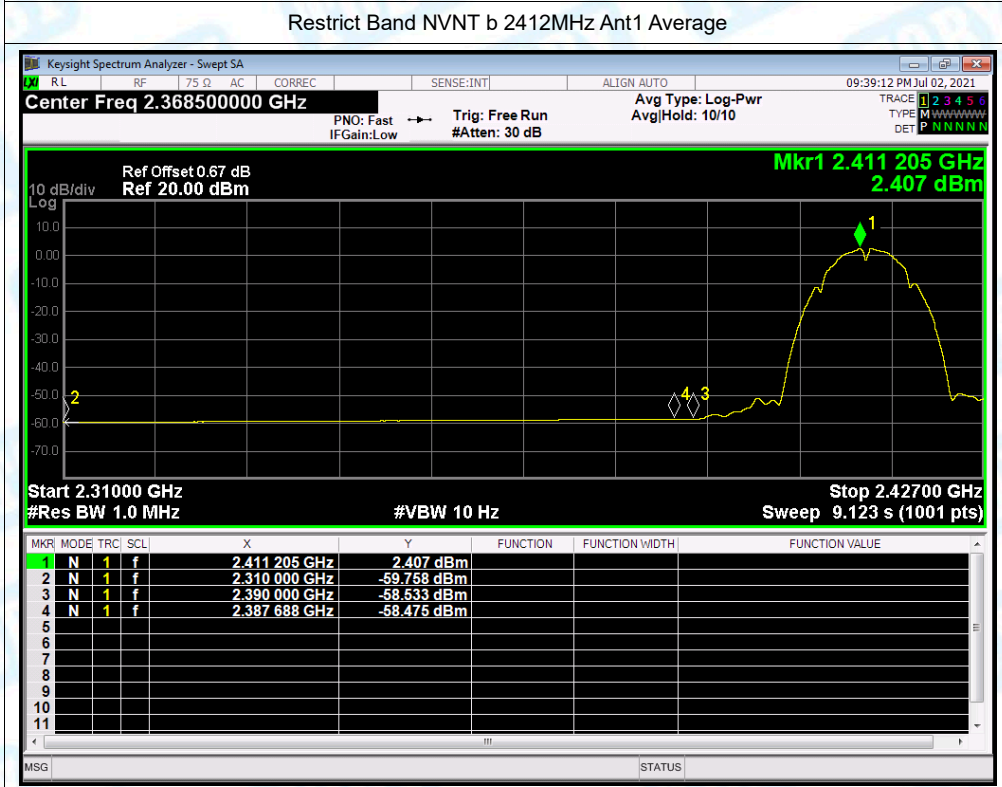
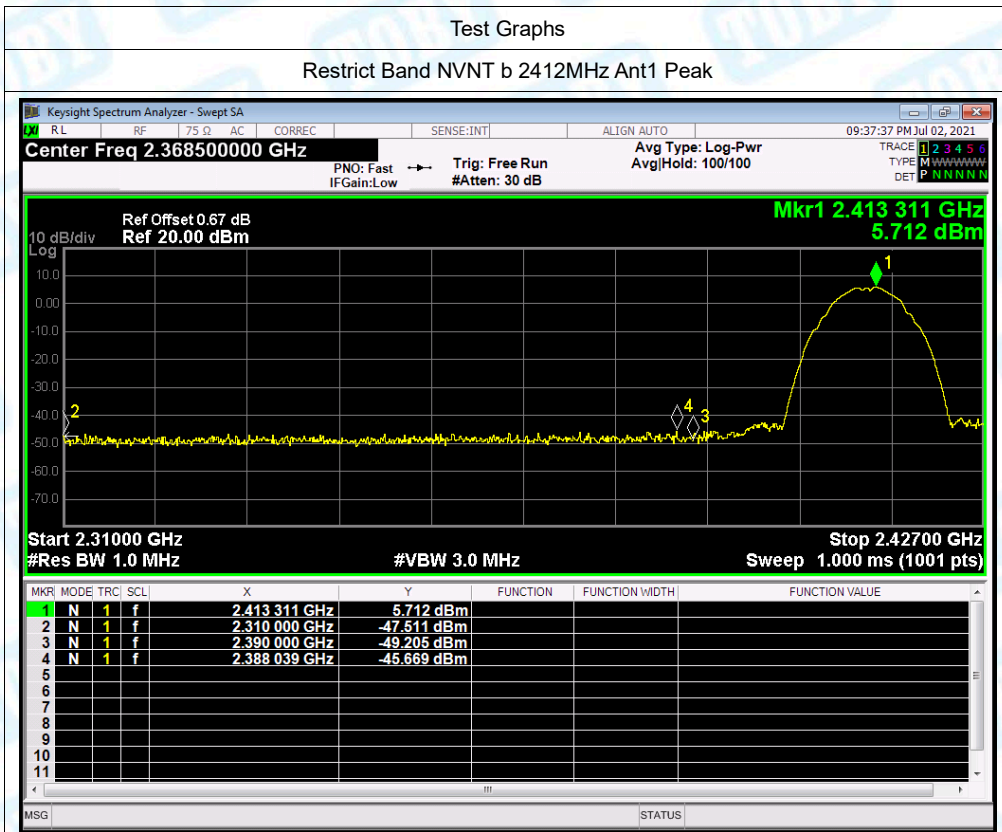
Tx. Spurious NVNT n(HT40) 2452MHz Ant1 Emission



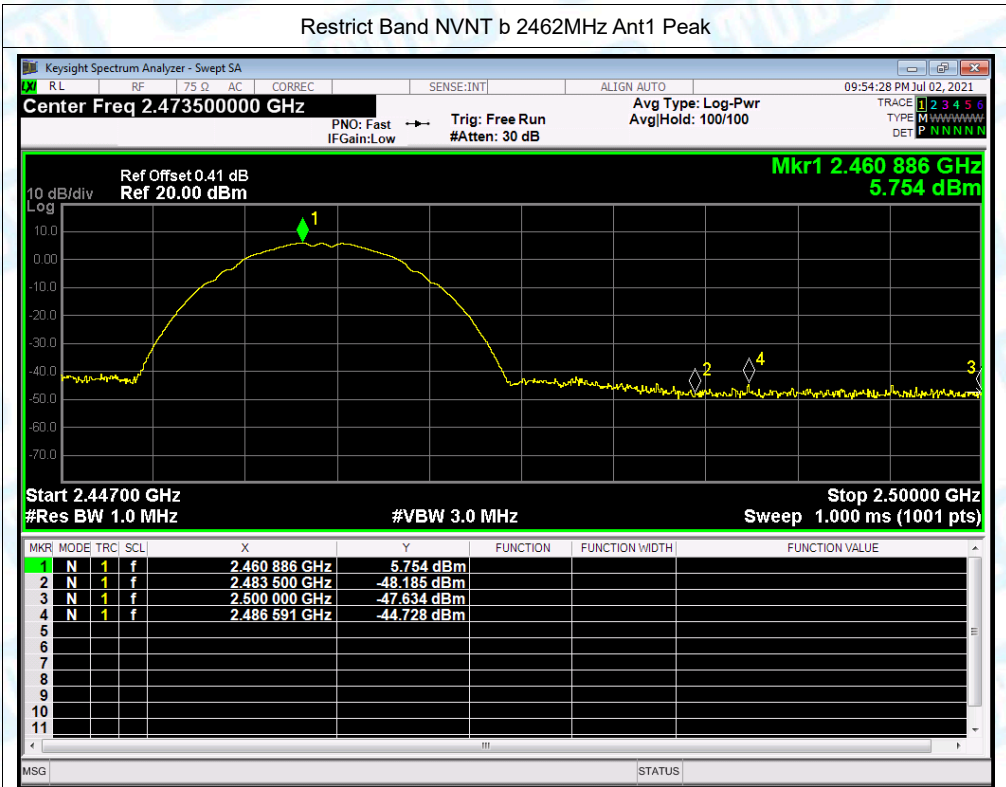
8. Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	b	2412	Ant1	2310	-47.37	2	49.89	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-59.77	2	37.49	Average	54	Pass
NVNT	b	2412	Ant1	2388.039	-45.66	2	51.6	Peak	74	Pass
NVNT	b	2412	Ant1	2387.688	-58.47	2	38.79	Average	54	Pass
NVNT	b	2412	Ant1	2390	-49.2	2	48.06	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-58.53	2	38.73	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-48.18	2	49.08	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-58.2	2	39.06	Average	54	Pass
NVNT	b	2462	Ant1	2486.591	-44.72	2	52.54	Peak	74	Pass
NVNT	b	2462	Ant1	2486.167	-58.08	2	39.18	Average	54	Pass
NVNT	b	2462	Ant1	2500	-47.63	2	49.63	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-58.27	2	38.99	Average	54	Pass
NVNT	g	2412	Ant1	2310	-48.53	2	48.73	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-59.45	2	37.81	Average	54	Pass
NVNT	g	2412	Ant1	2381.604	-45.16	2	52.1	Peak	74	Pass
NVNT	g	2412	Ant1	2389.911	-56.69	2	40.57	Average	54	Pass
NVNT	g	2412	Ant1	2390	-46.58	2	50.68	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-56.71	2	40.55	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-45.26	2	52	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-56.04	2	41.22	Average	54	Pass
NVNT	g	2462	Ant1	2484.63	-41.99	2	55.27	Peak	74	Pass
NVNT	g	2462	Ant1	2483.57	-56.03	2	41.23	Average	54	Pass
NVNT	g	2462	Ant1	2500	-47.64	2	49.62	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-57.13	2	40.13	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2310	-49.74	2	47.52	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2310	-59.47	2	37.79	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2389.209	-42.21	2	55.05	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2389.911	-56.71	2	40.55	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2390	-47.09	2	50.17	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2390	-56.68	2	40.58	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-45.02	2	52.24	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-55.54	2	41.72	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2484.365	-42.07	2	55.19	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.517	-55.54	2	41.72	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2500	-46.86	2	50.4	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2500	-57.13	2	40.13	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2310	-49.66	2	47.6	Peak	74	Pass
NVNT	n(HT40)	2422	Ant1	2310	-59.61	2	37.65	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2386.68	-33.46	2	63.8	Peak	74	Pass
NVNT	n(HT40)	2422	Ant1	2389.946	-52.27	2	44.99	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2390	-40.57	2	56.69	Peak	74	Pass
NVNT	n(HT40)	2422	Ant1	2390	-52.24	2	45.02	Average	54	Pass
NVNT	n(HT40)	2452	Ant1	2483.5	-46.63	2	50.63	Peak	74	Pass

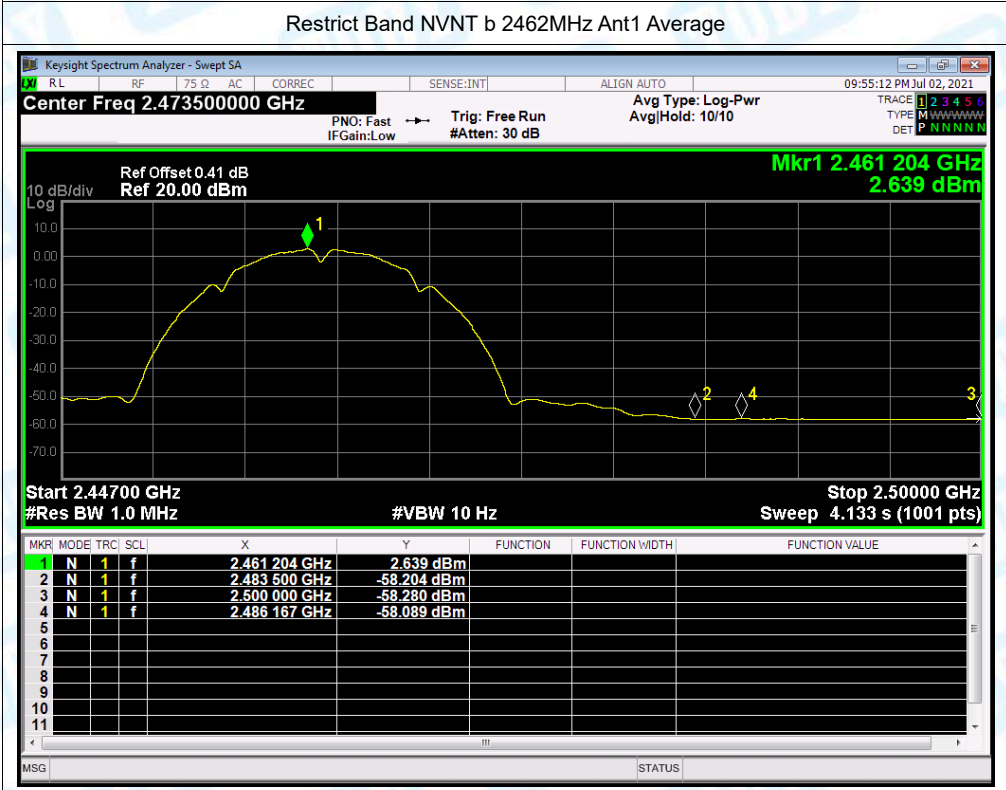
NVNT	n(HT40)	2452	Ant1	2483.5	-56.71	2	40.55	Average	54	Pass
NVNT	n(HT40)	2452	Ant1	2484.01	-43.11	2	54.15	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2484.088	-56.61	2	40.65	Average	54	Pass
NVNT	n(HT40)	2452	Ant1	2500	-47.56	2	49.7	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2500	-57.81	2	39.45	Average	54	Pass



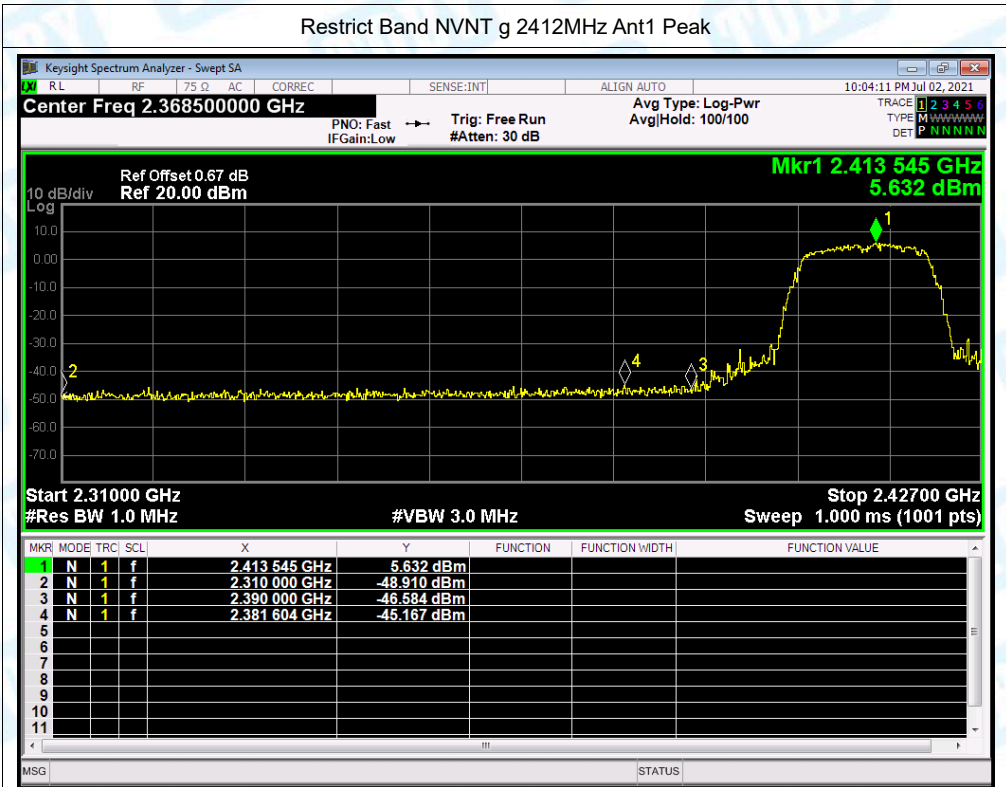
Restrict Band NVNT b 2462MHz Ant1 Peak



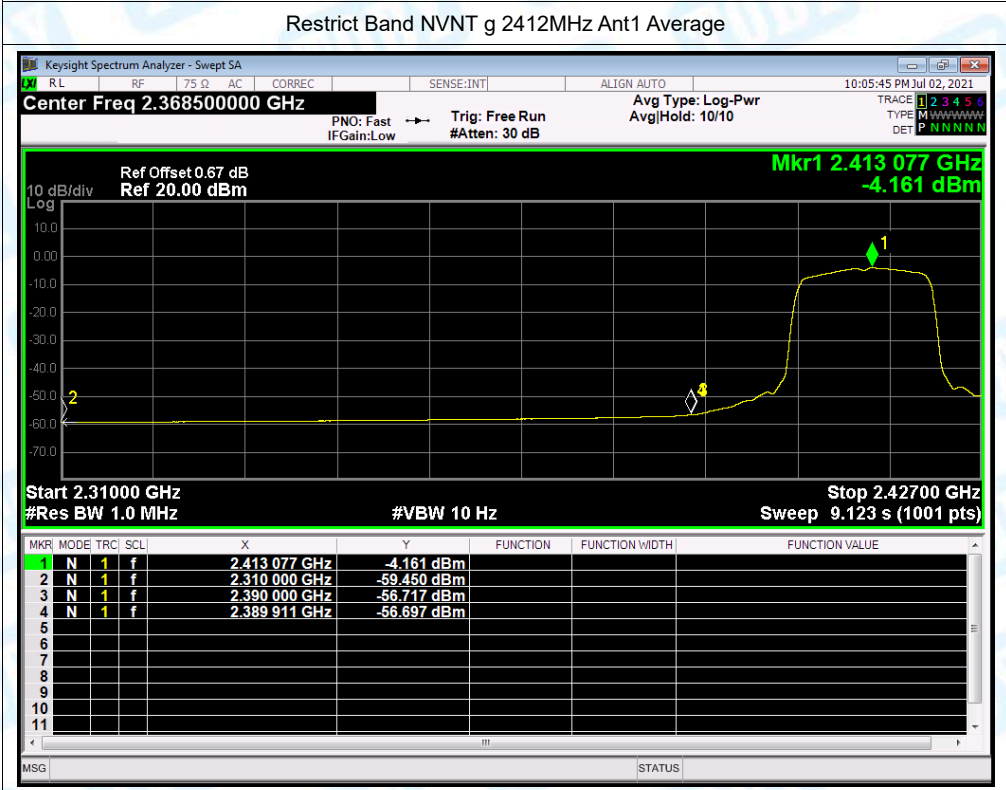
Restrict Band NVNT b 2462MHz Ant1 Average

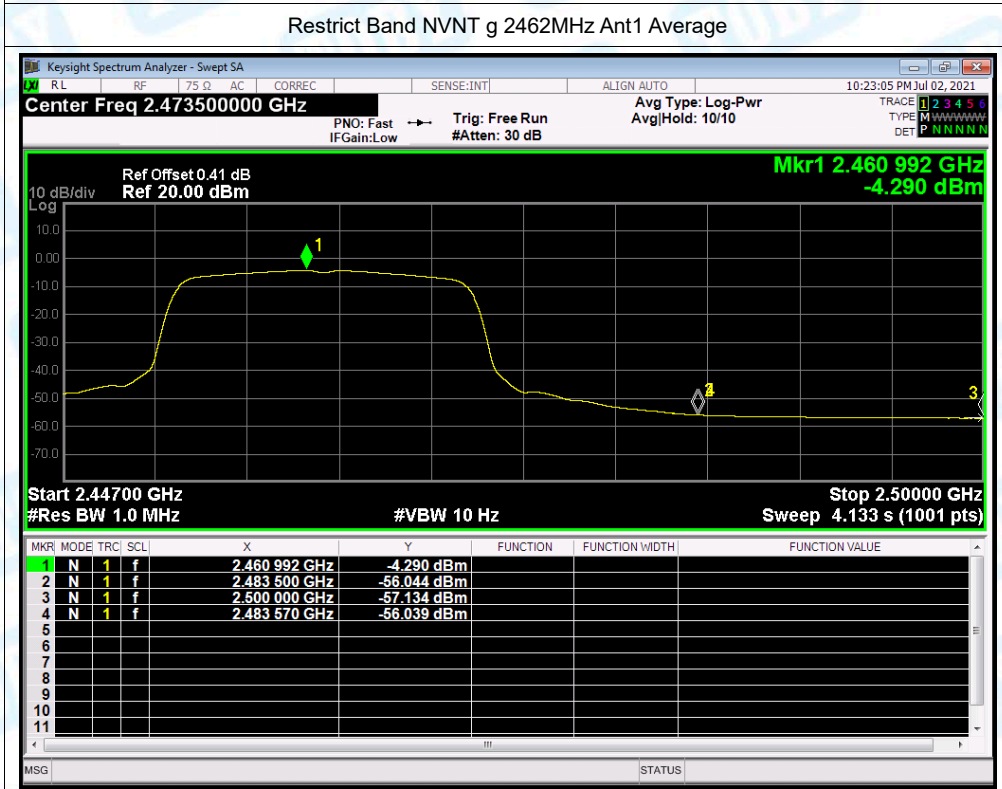
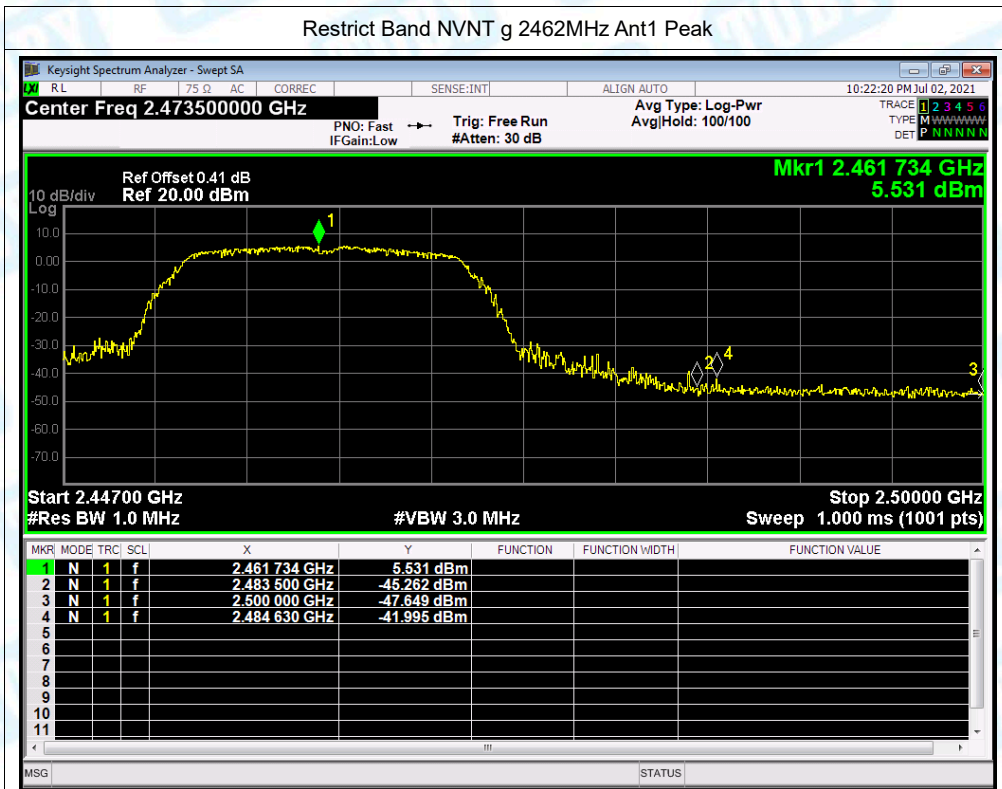


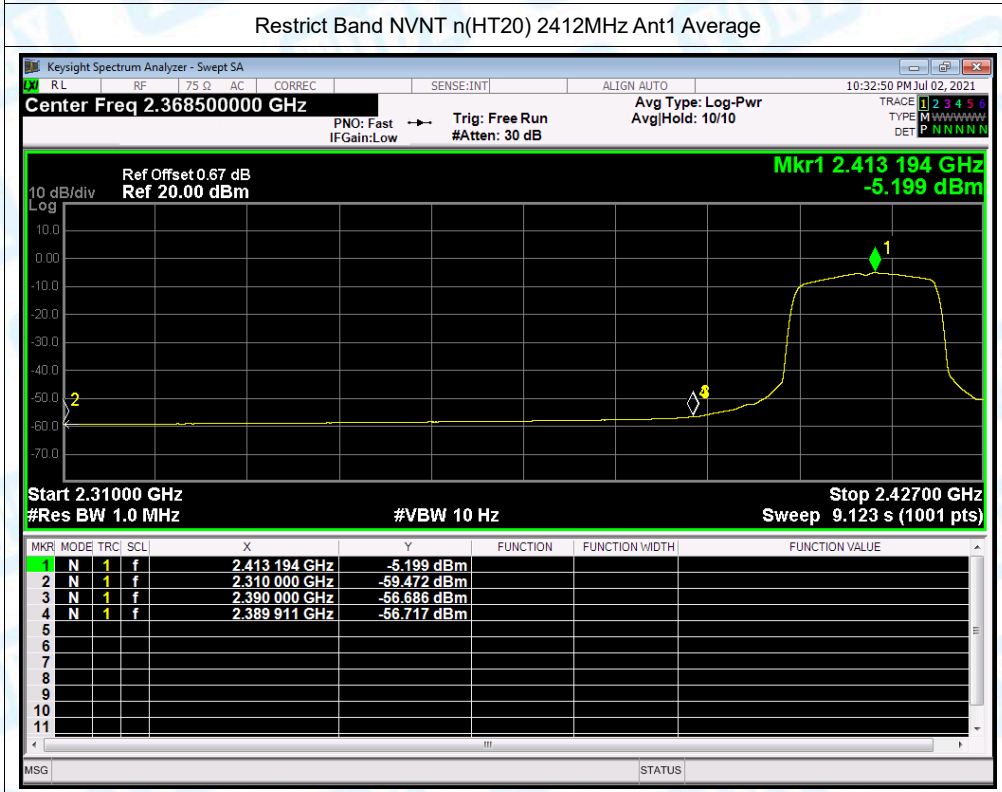
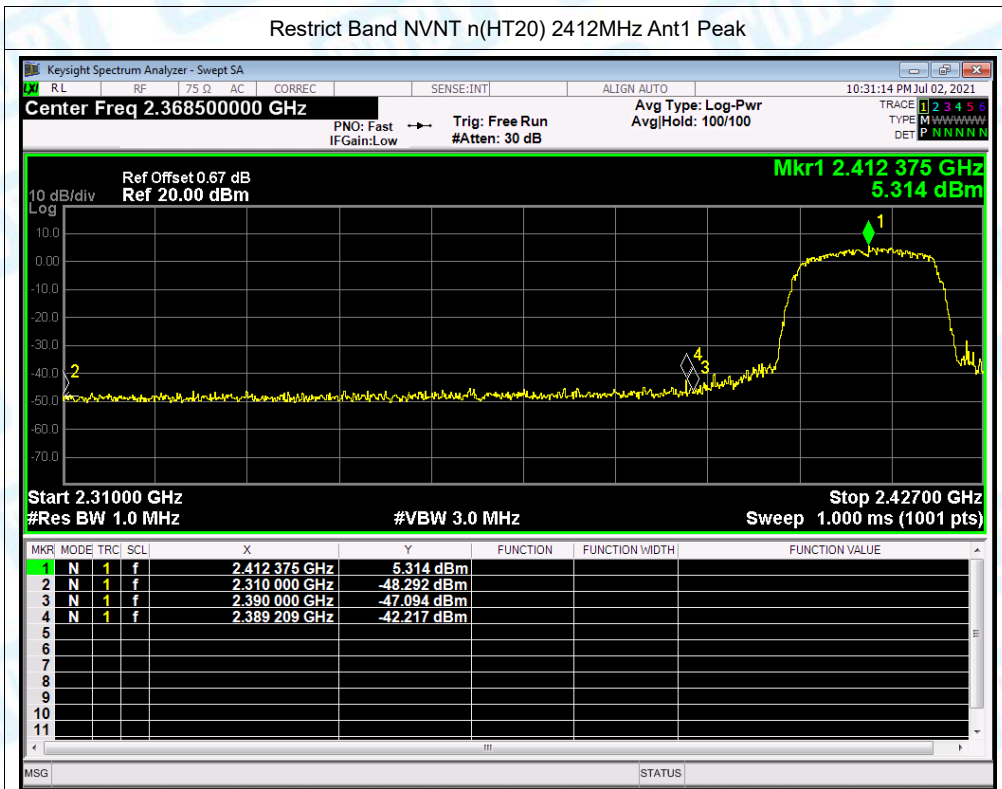
Restrict Band NVNT g 2412MHz Ant1 Peak

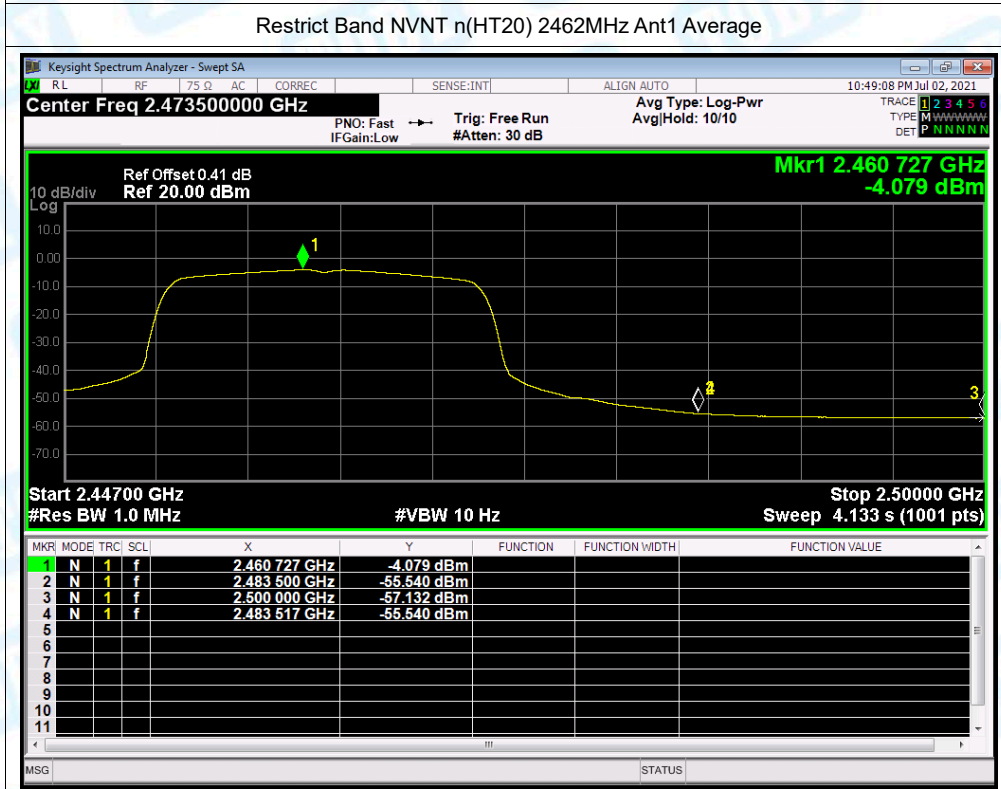
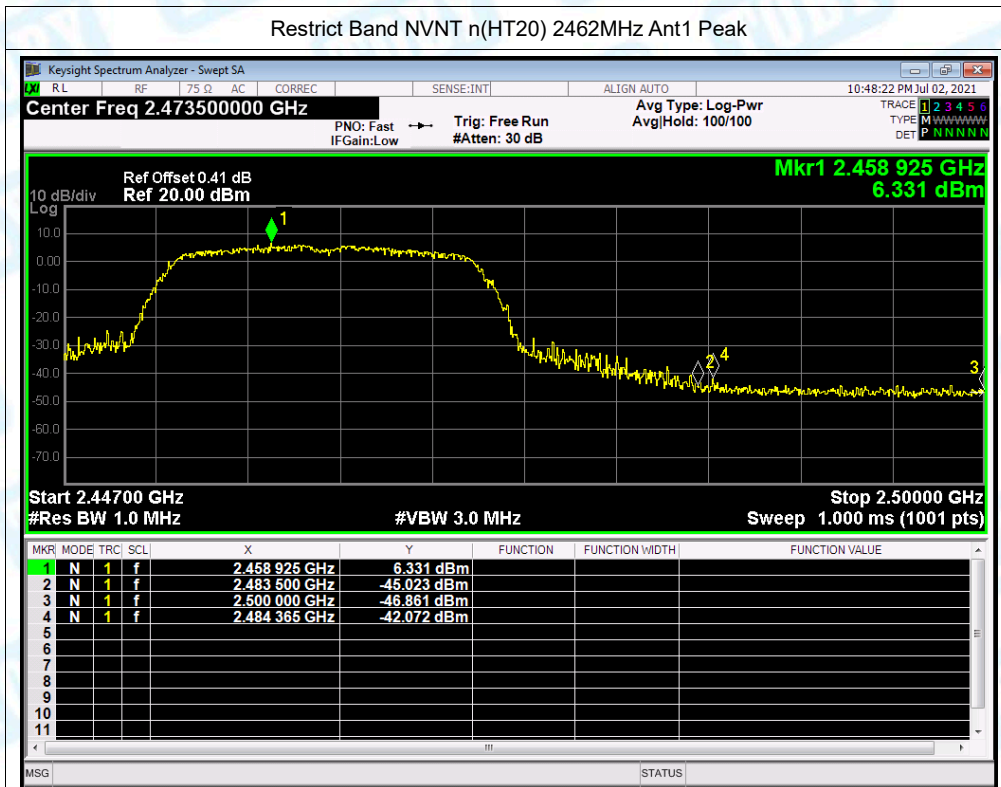


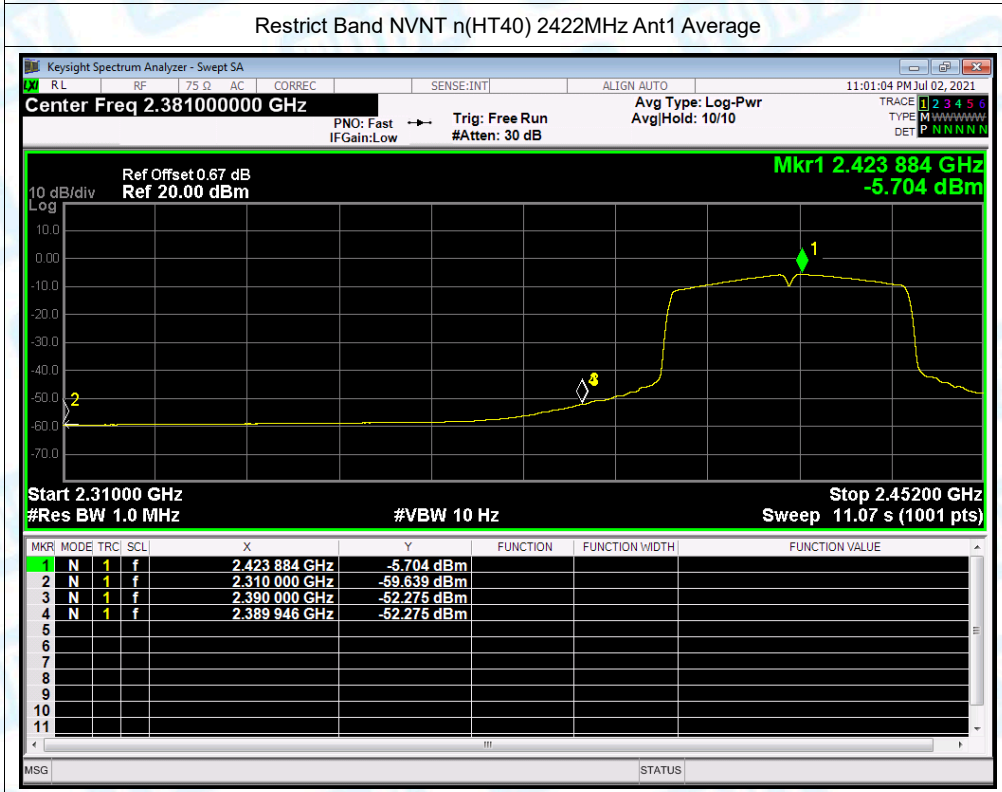
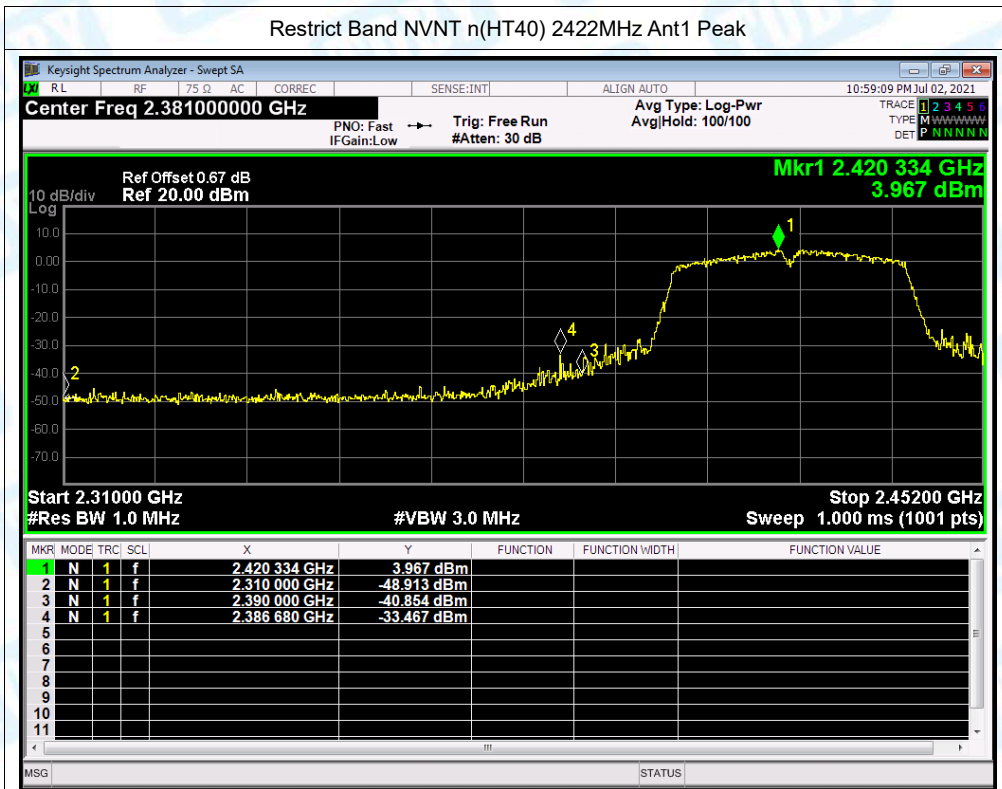
Restrict Band NVNT g 2412MHz Ant1 Average

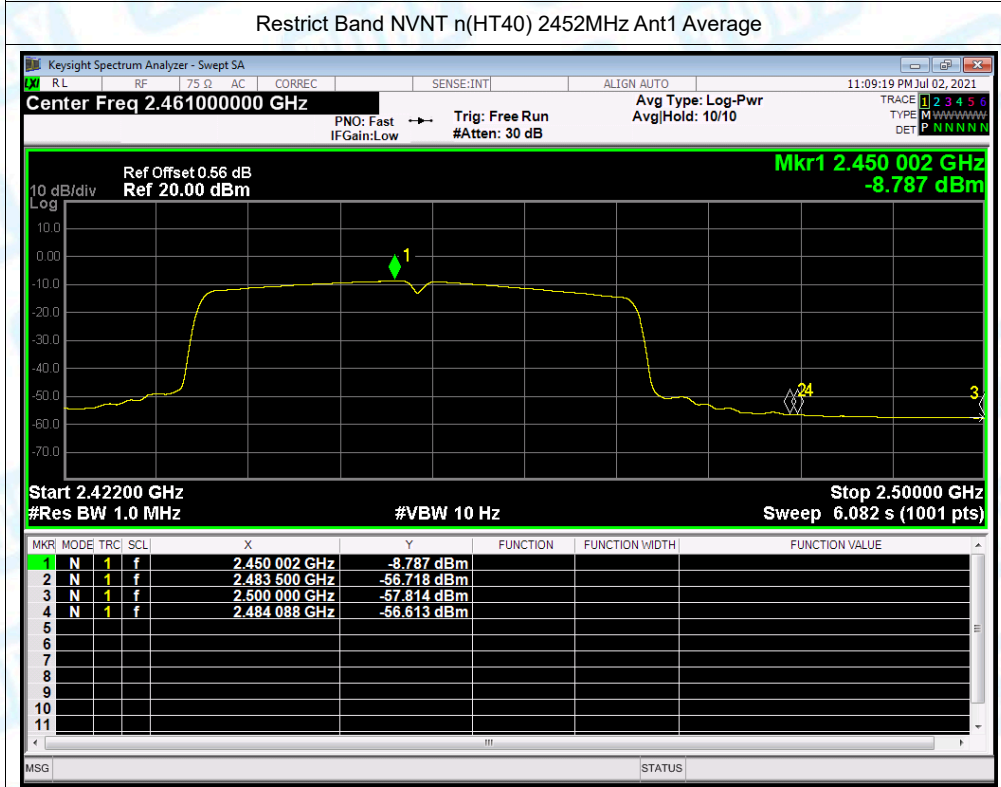
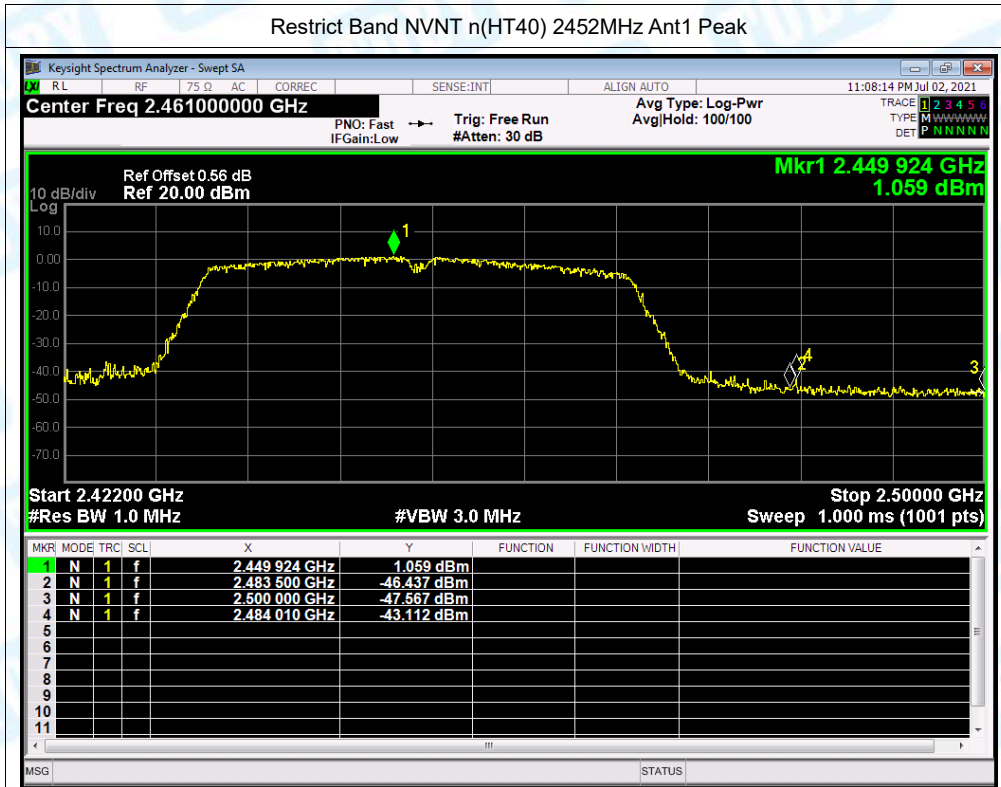












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