

# Appendix

## 2.4G\_WIFI Test Data for BTEK240506004AE



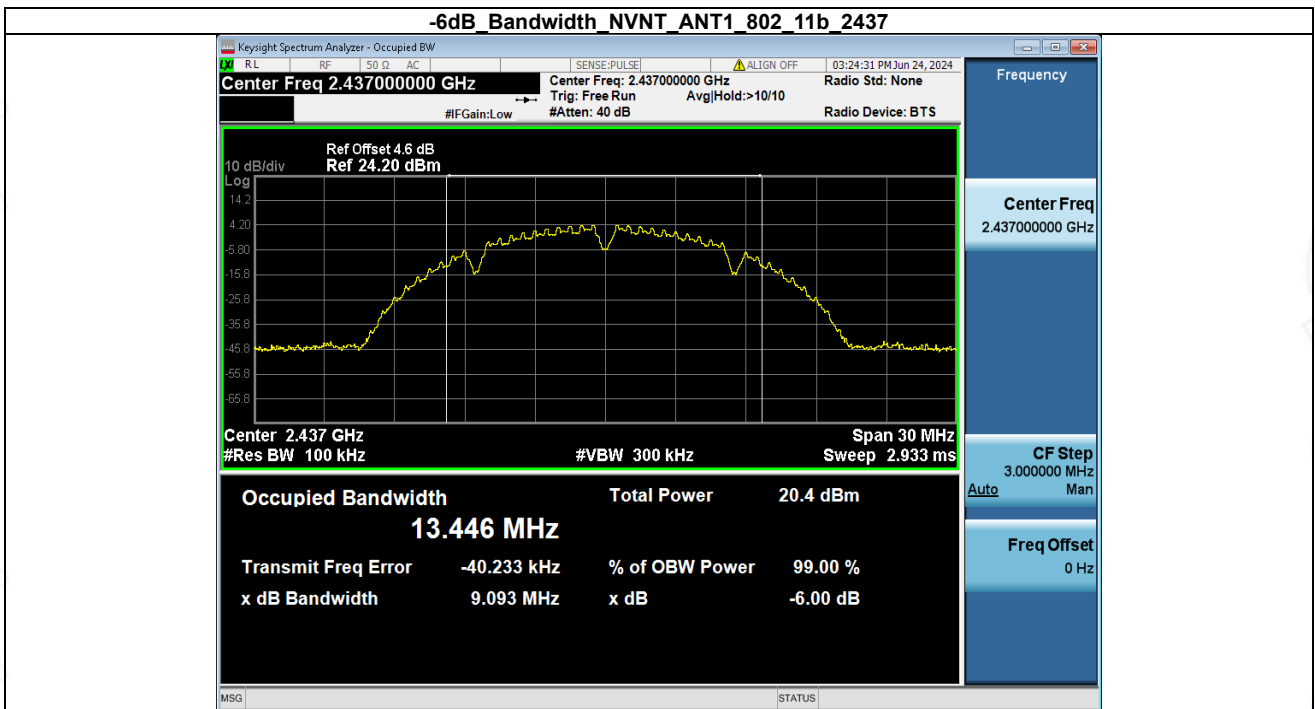
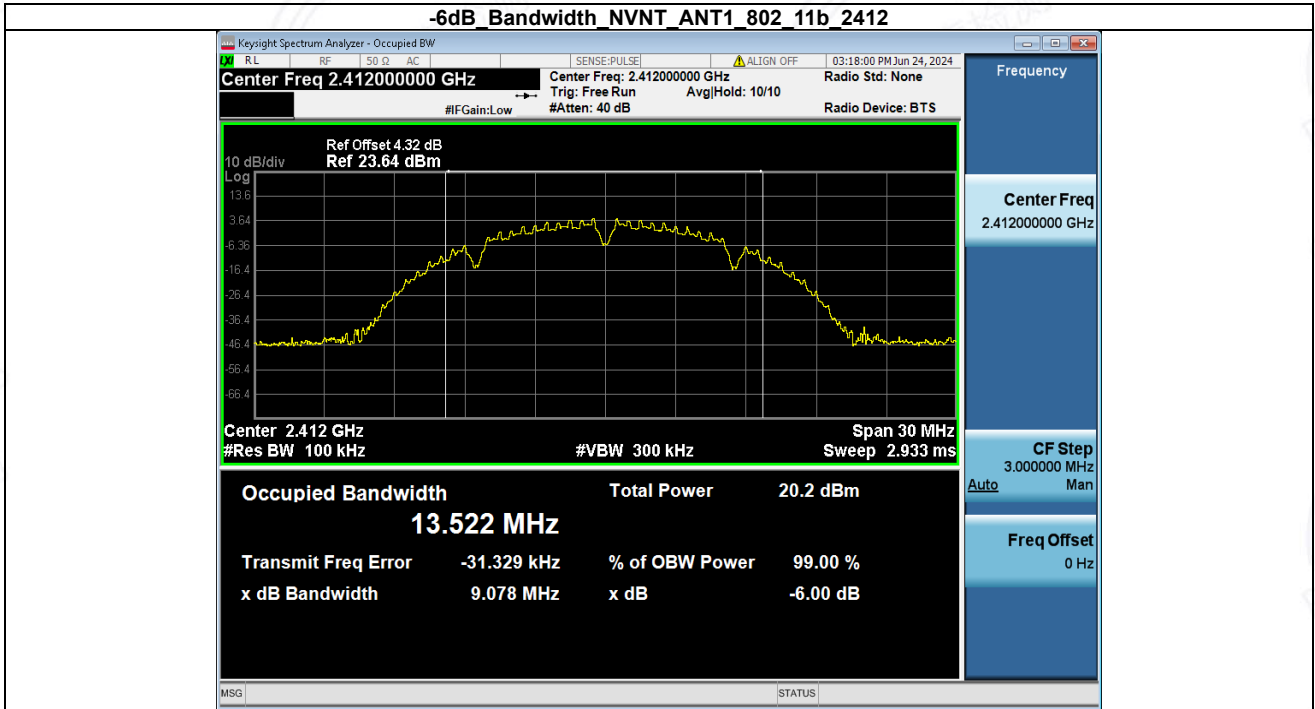
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# 1. -6dB Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	9.08	500	Pass
NVNT	ANT1	802.11b	2437.00	9.09	500	Pass
NVNT	ANT1	802.11b	2462.00	9.09	500	Pass
NVNT	ANT1	802.11g	2412.00	16.59	500	Pass
NVNT	ANT1	802.11g	2437.00	16.59	500	Pass
NVNT	ANT1	802.11g	2462.00	16.59	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.82	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.80	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.80	500	Pass



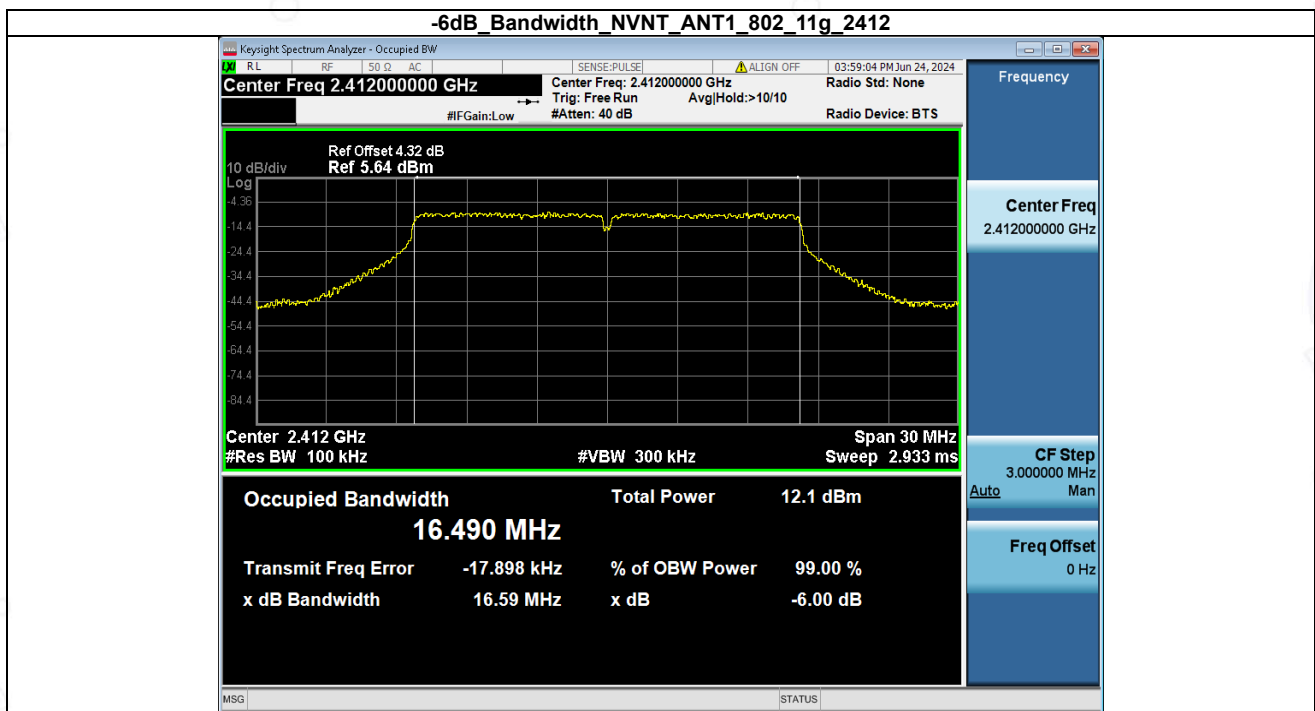
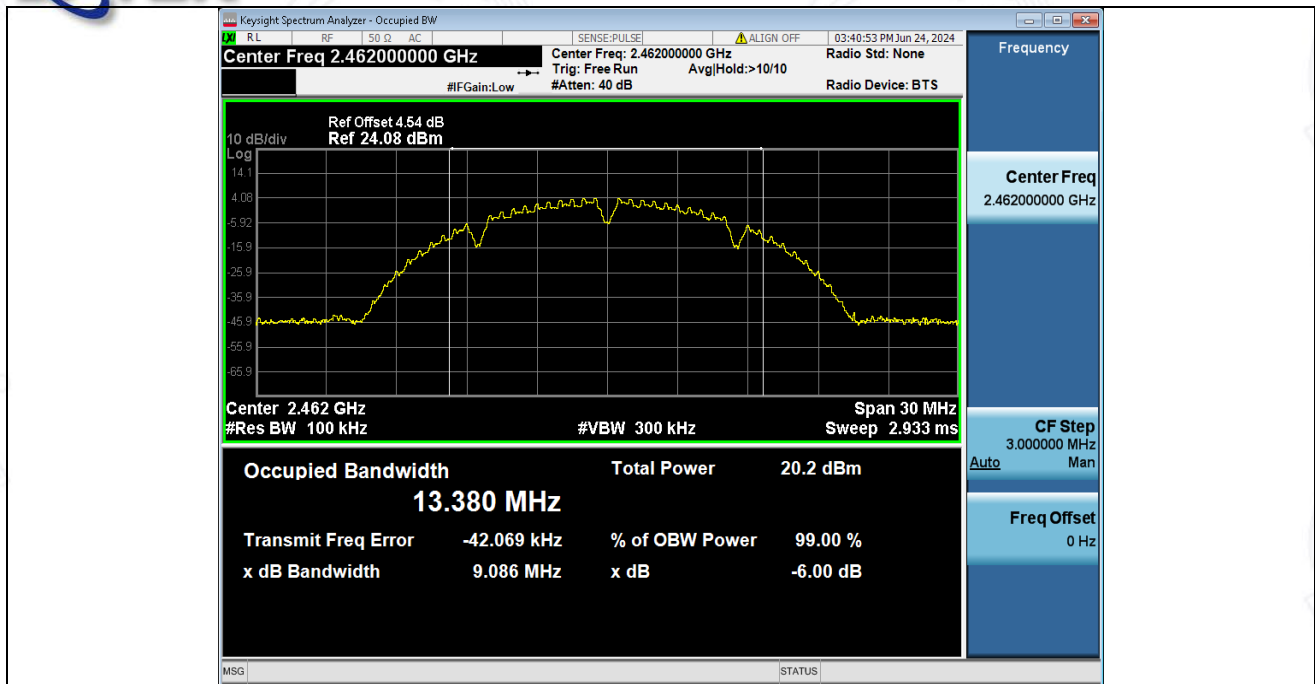
**-6dB Bandwidth\_NVNT\_ANT1\_802\_11b\_2462**

ShenZhen BANTEK Testing Co.,Ltd.

 Add : A5&A6, Building B1&B2, No.45 Gangtou Road, Bogang Community, Shajing Street  
 Bao'an District, Shenzhen, Guangdong, China 518104

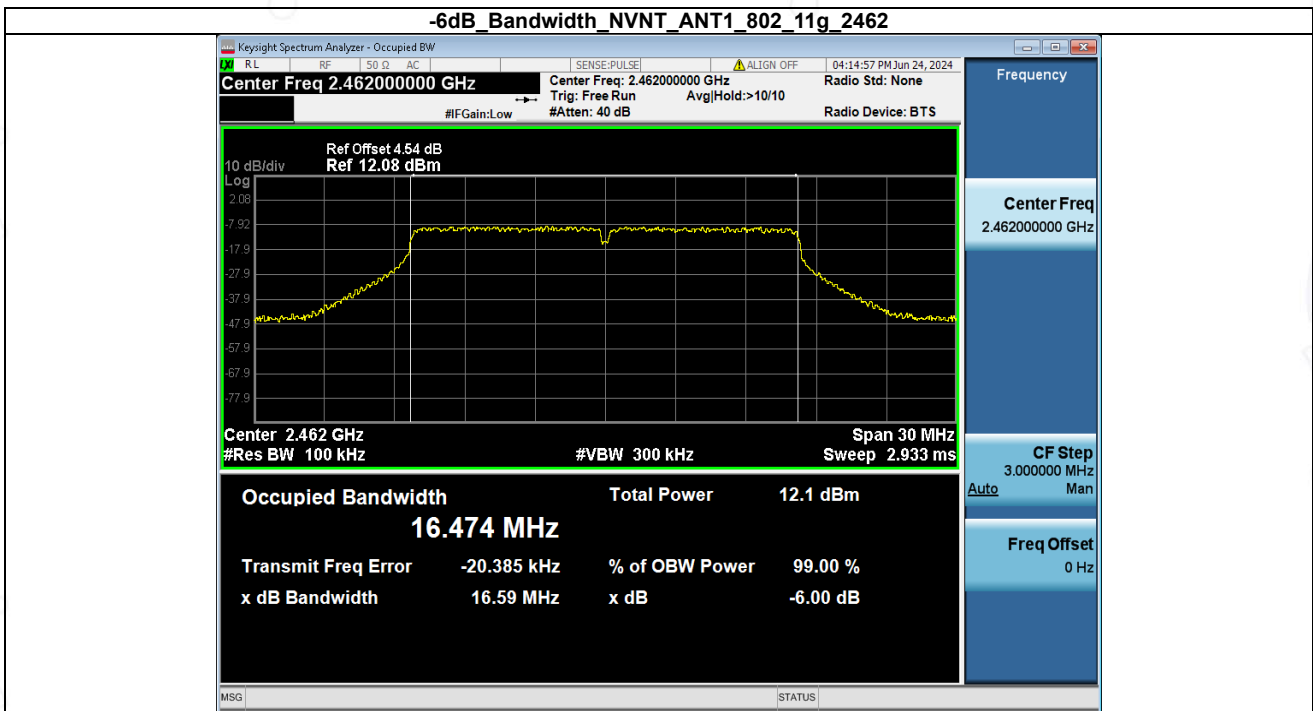
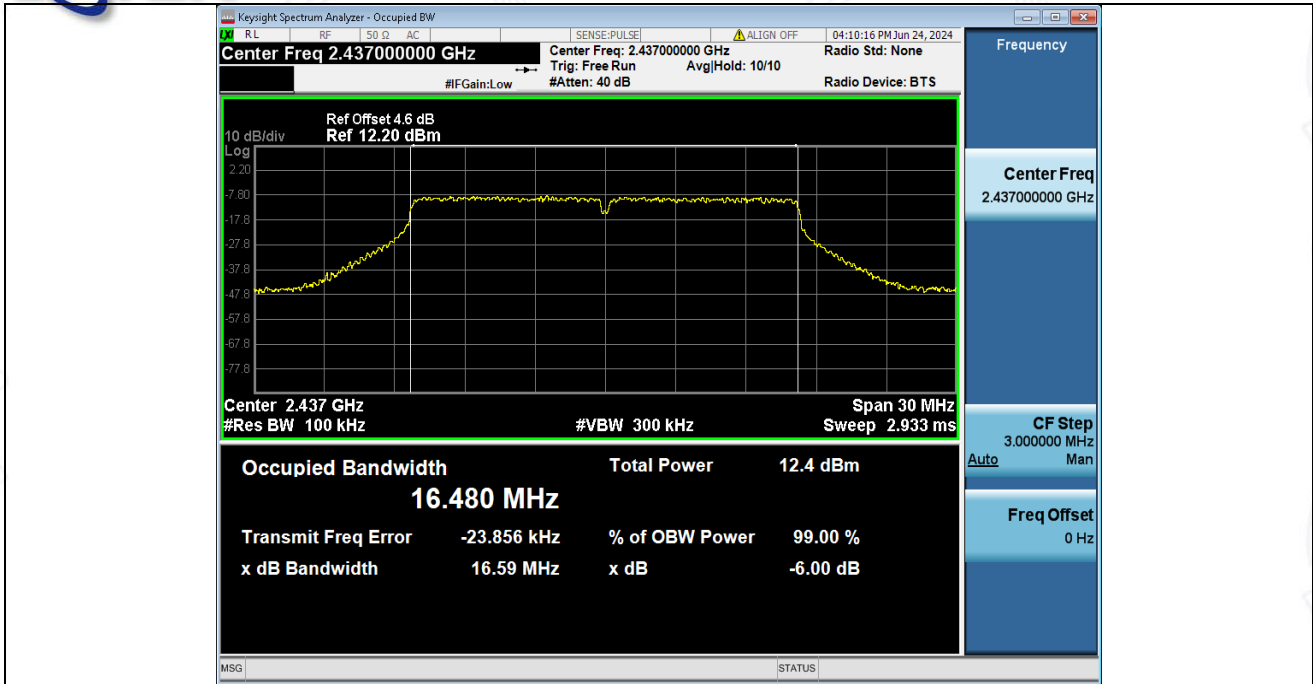
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**-6dB Bandwidth\_NVNT\_ANT1\_802\_11g\_2437**

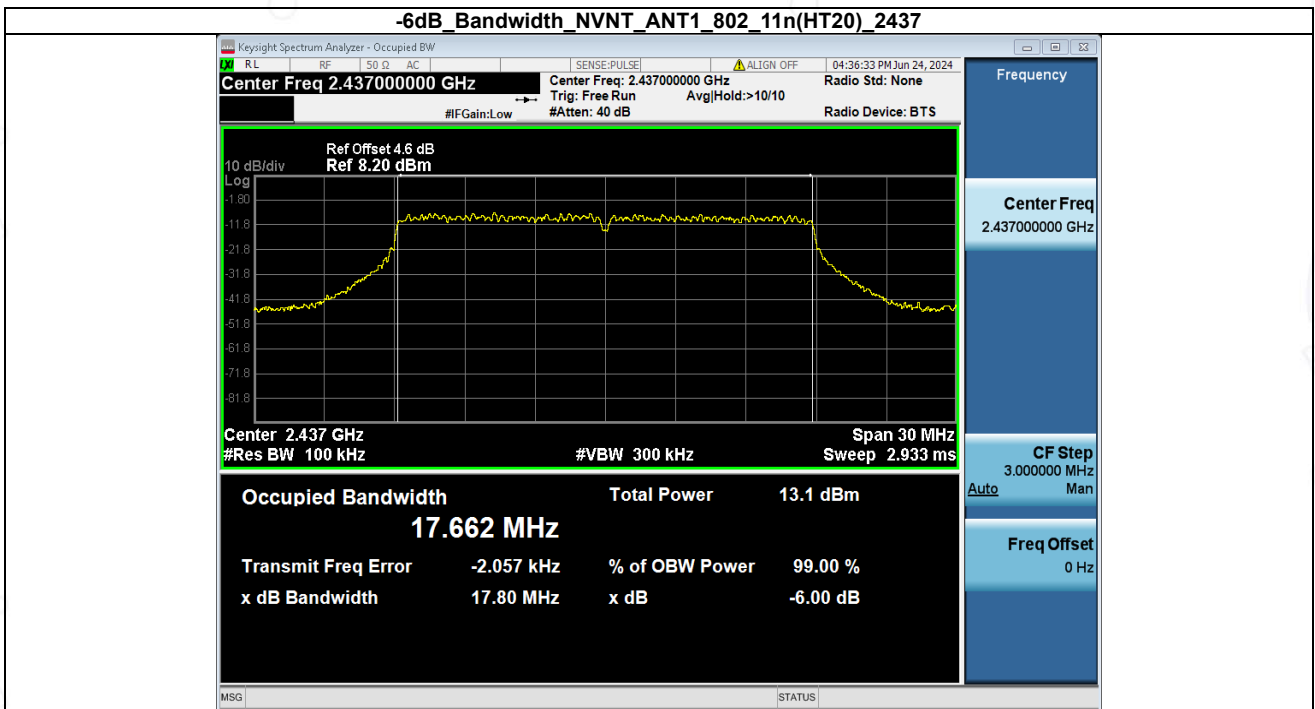
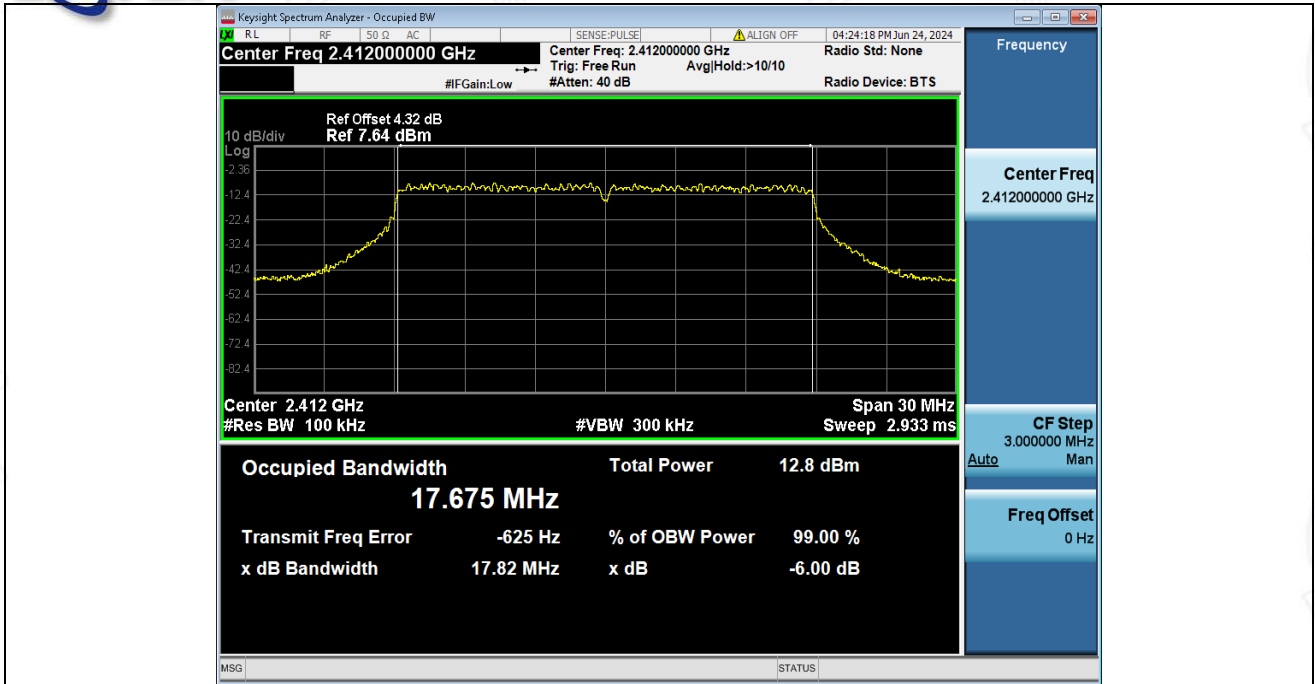




**-6dB Bandwidth\_NVNT\_ANT1\_802\_11n(HT20)\_2412**

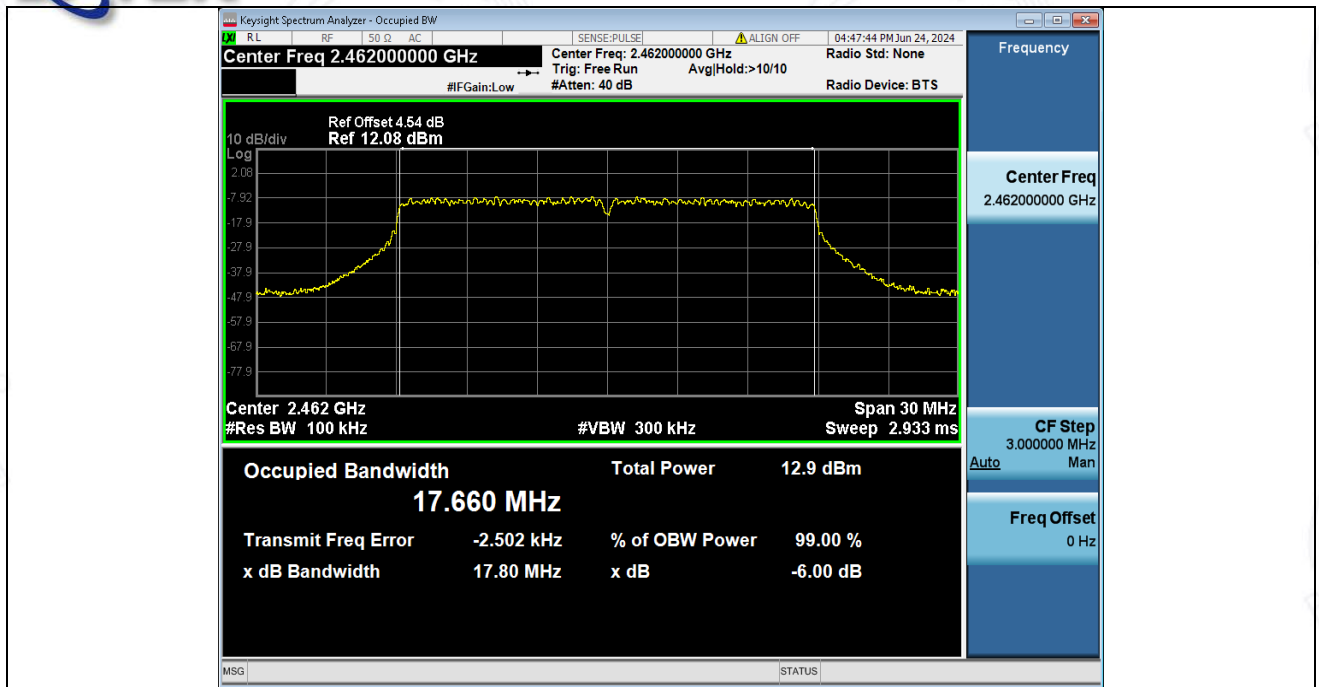






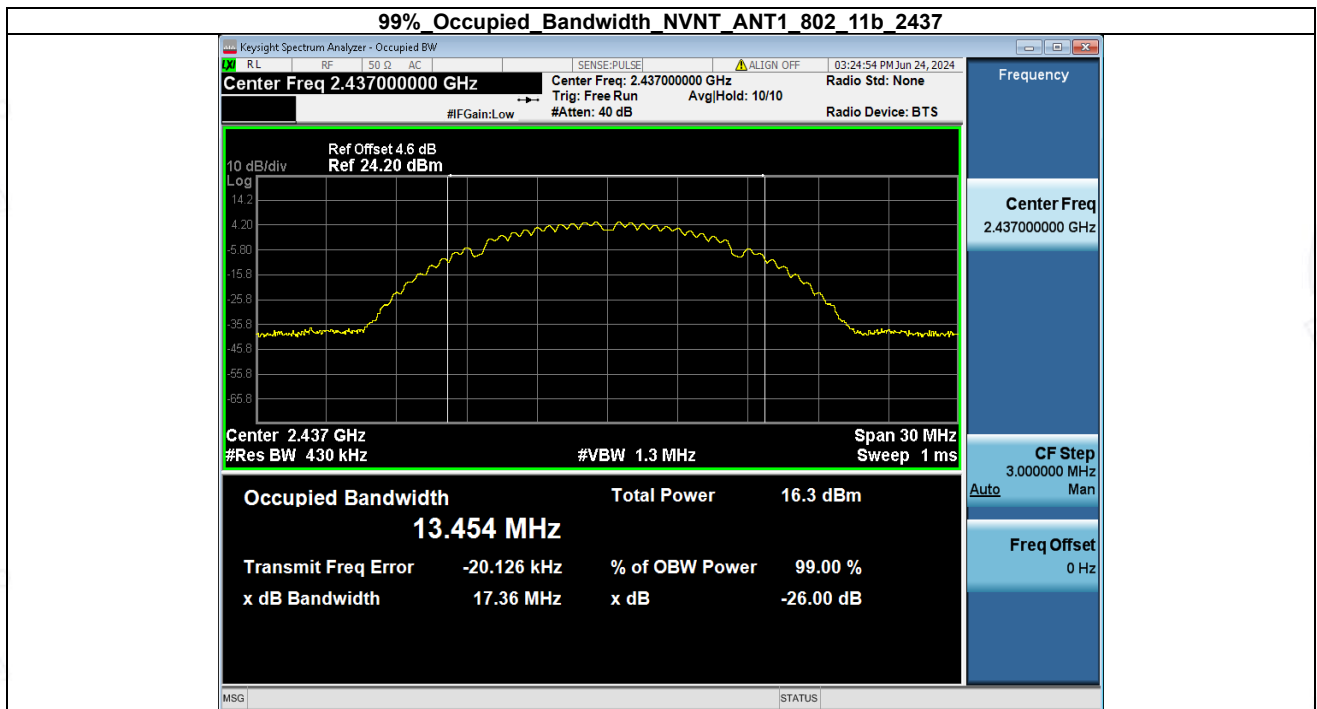
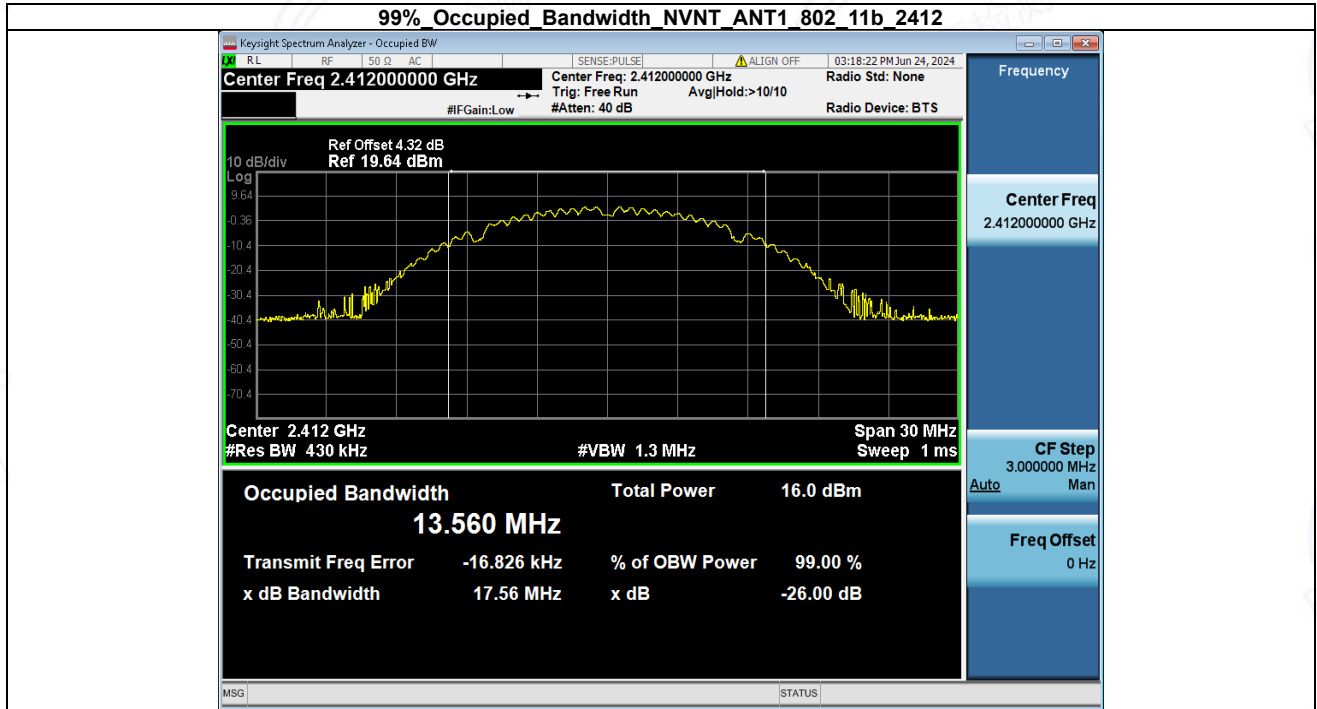
**-6dB\_Bandwidth\_NVNT\_ANT1\_802\_11n(HT20)\_2462**





## 2. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99%OBW(MHz)
NVNT	ANT1	802.11b	2412.00	13.560
NVNT	ANT1	802.11b	2437.00	13.454
NVNT	ANT1	802.11b	2462.00	13.394
NVNT	ANT1	802.11g	2412.00	17.395
NVNT	ANT1	802.11g	2437.00	17.373
NVNT	ANT1	802.11g	2462.00	17.345
NVNT	ANT1	802.11n(HT20)	2412.00	18.056
NVNT	ANT1	802.11n(HT20)	2437.00	18.012
NVNT	ANT1	802.11n(HT20)	2462.00	18.001



**99% Occupied Bandwidth\_NVNT\_ANT1\_802\_11b\_2462**

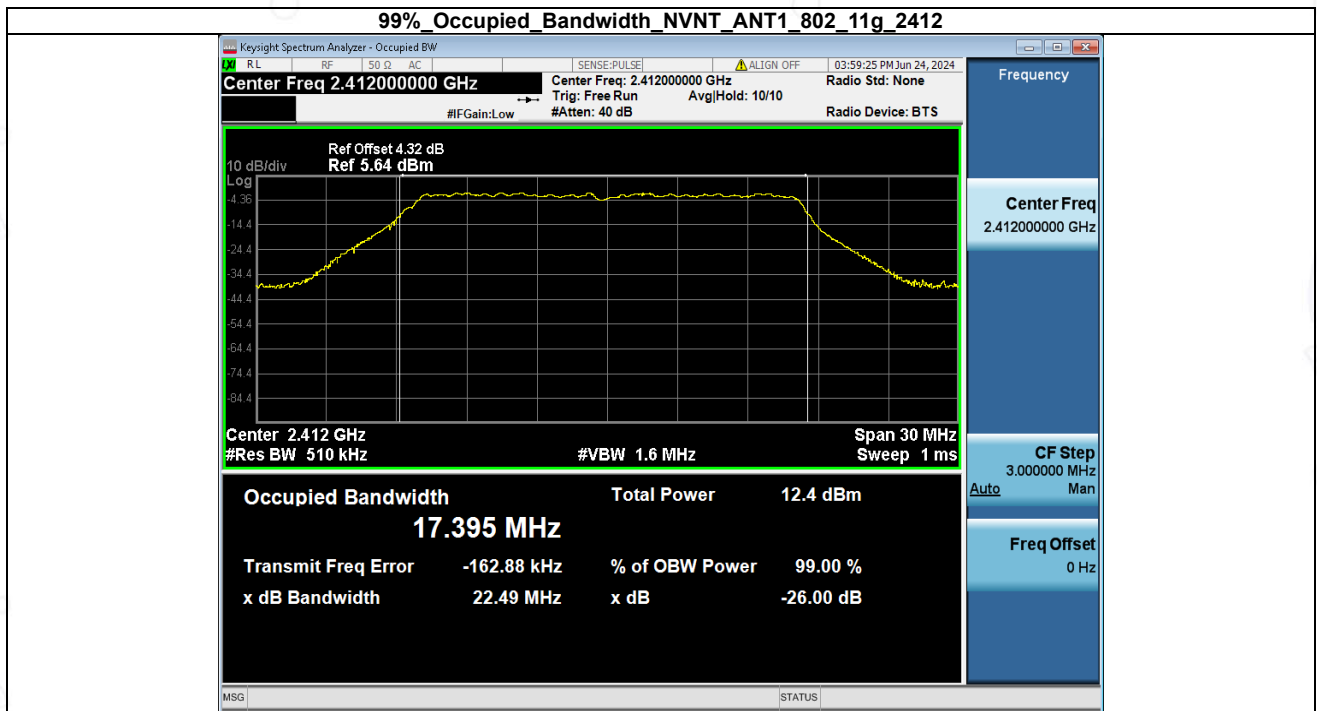
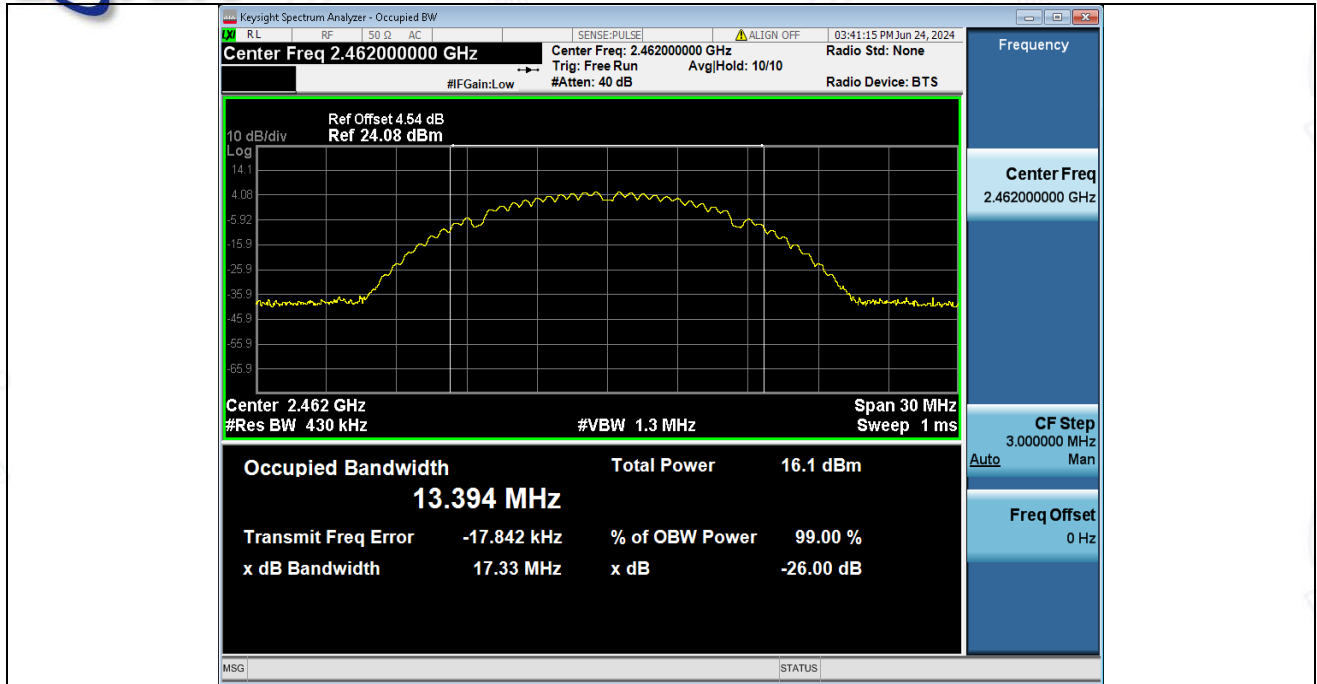
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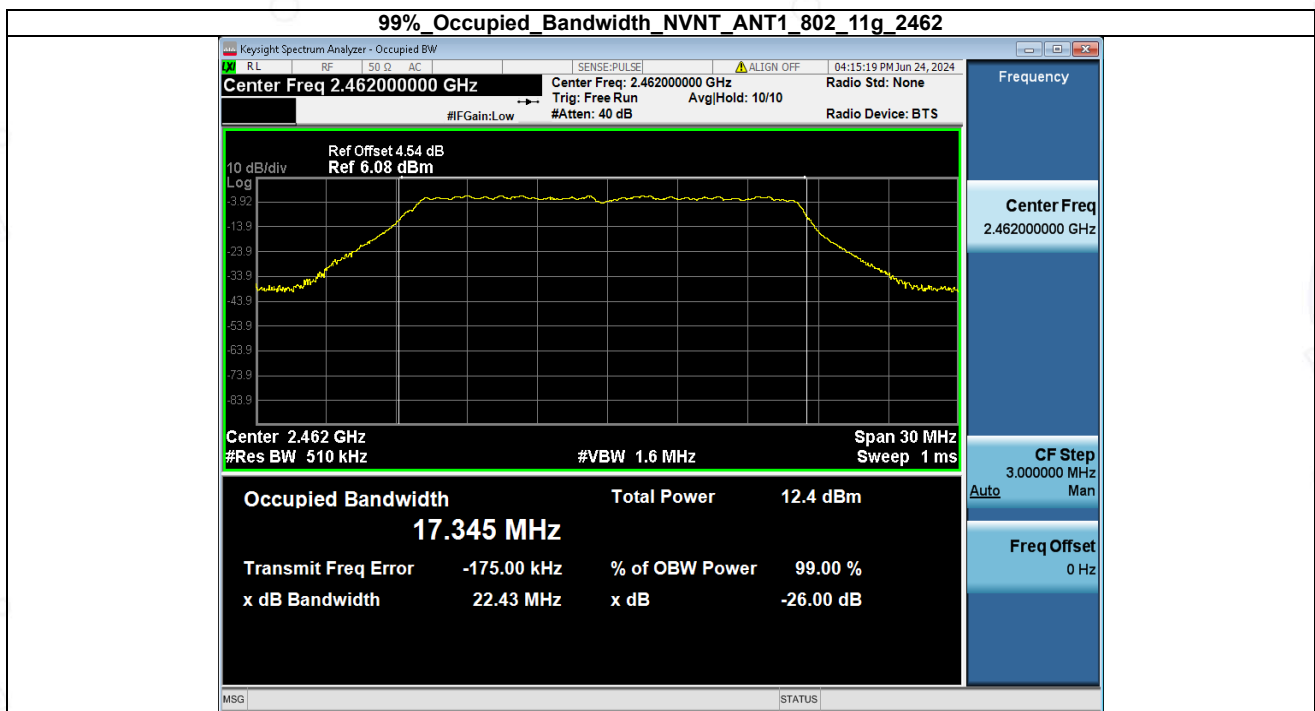
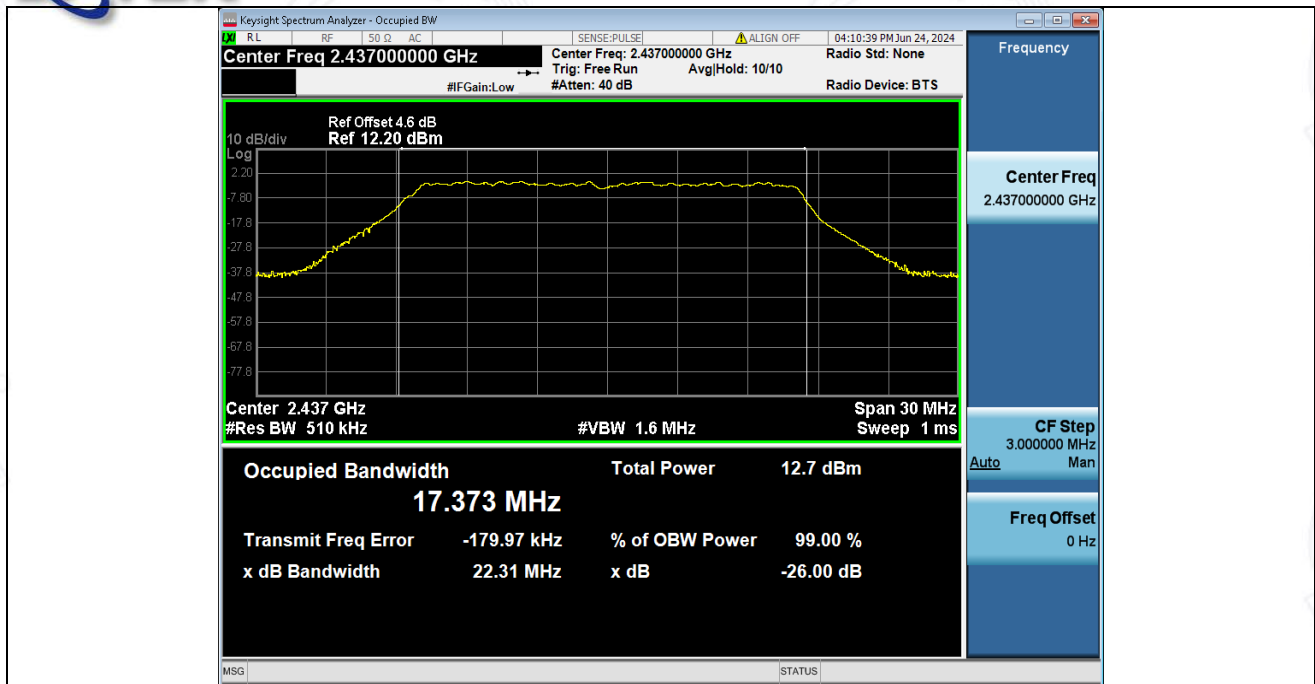
Add : A5&A6, Building B1&B2, No.45 Gangtou Road, Bogang Community, Shajing Street  
Bao'an District, Shenzhen, Guangdong, China 518104

Tel : +(86)755-2334 4200 E-mail : Service@btek-lab.com Web : www.btek-lab.com



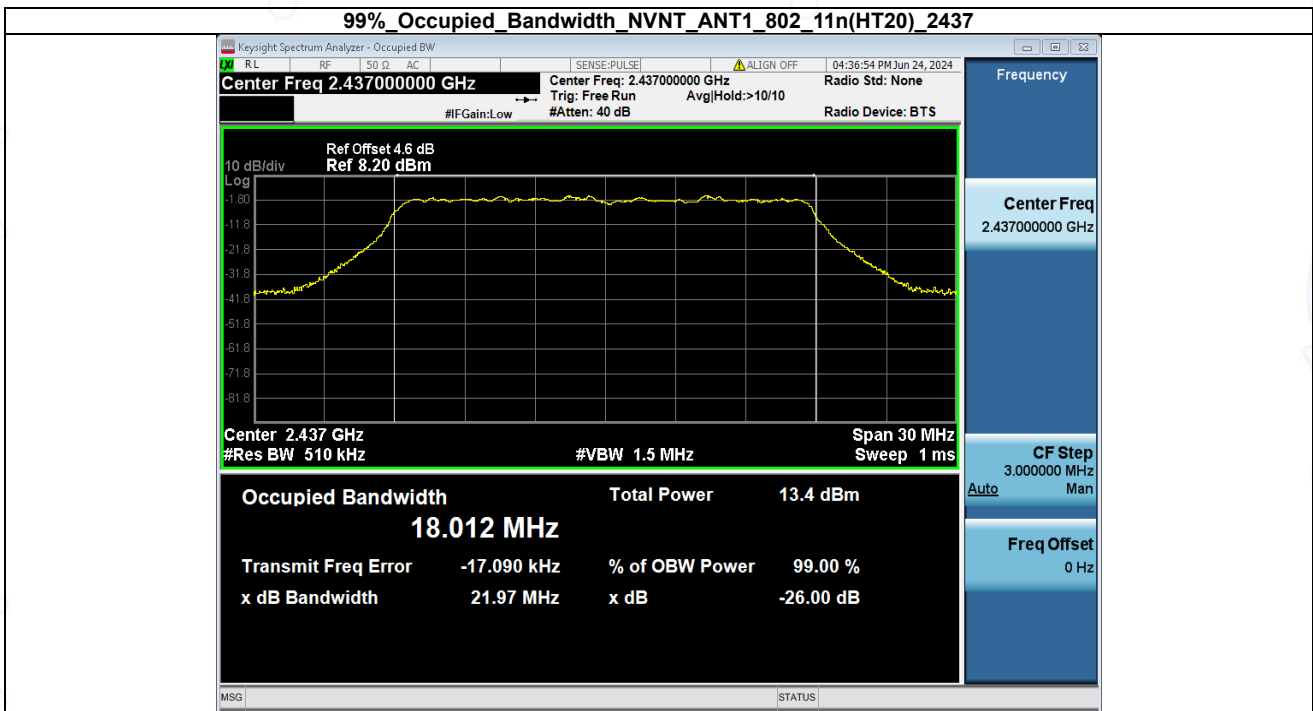
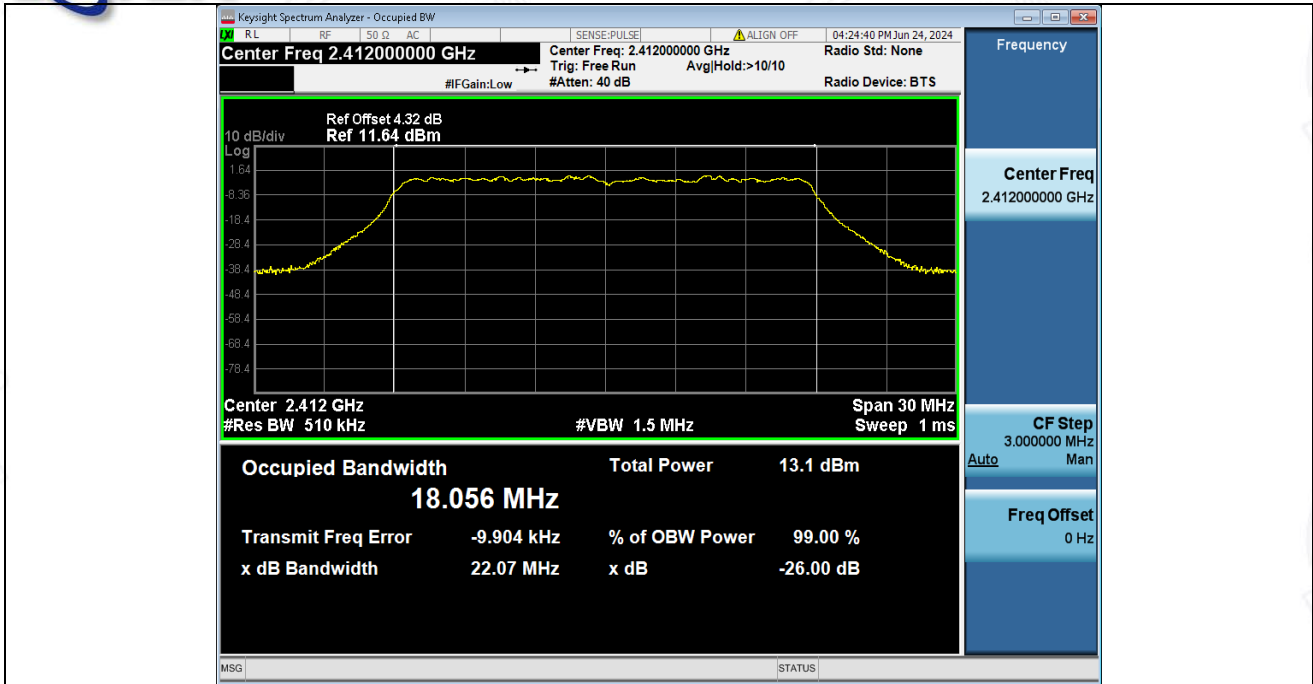






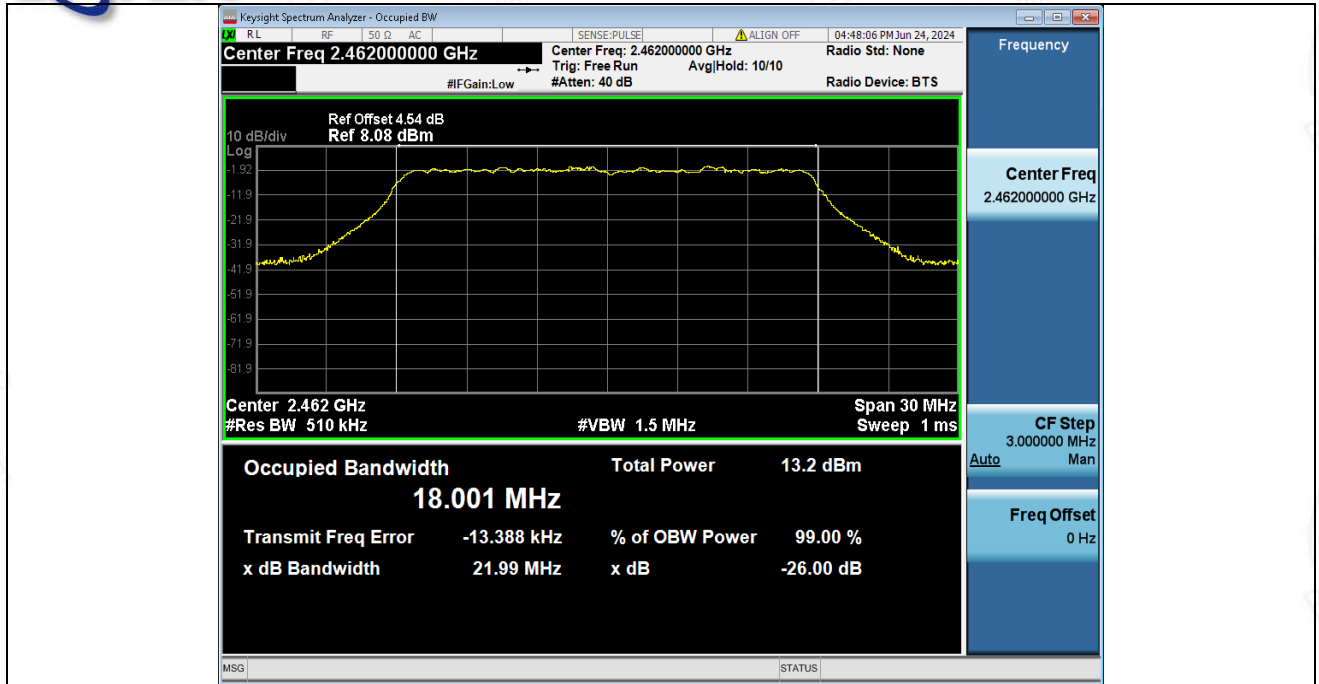
99% Occupied Bandwidth NVNT\_ANT1\_802\_11n(HT20)\_2412





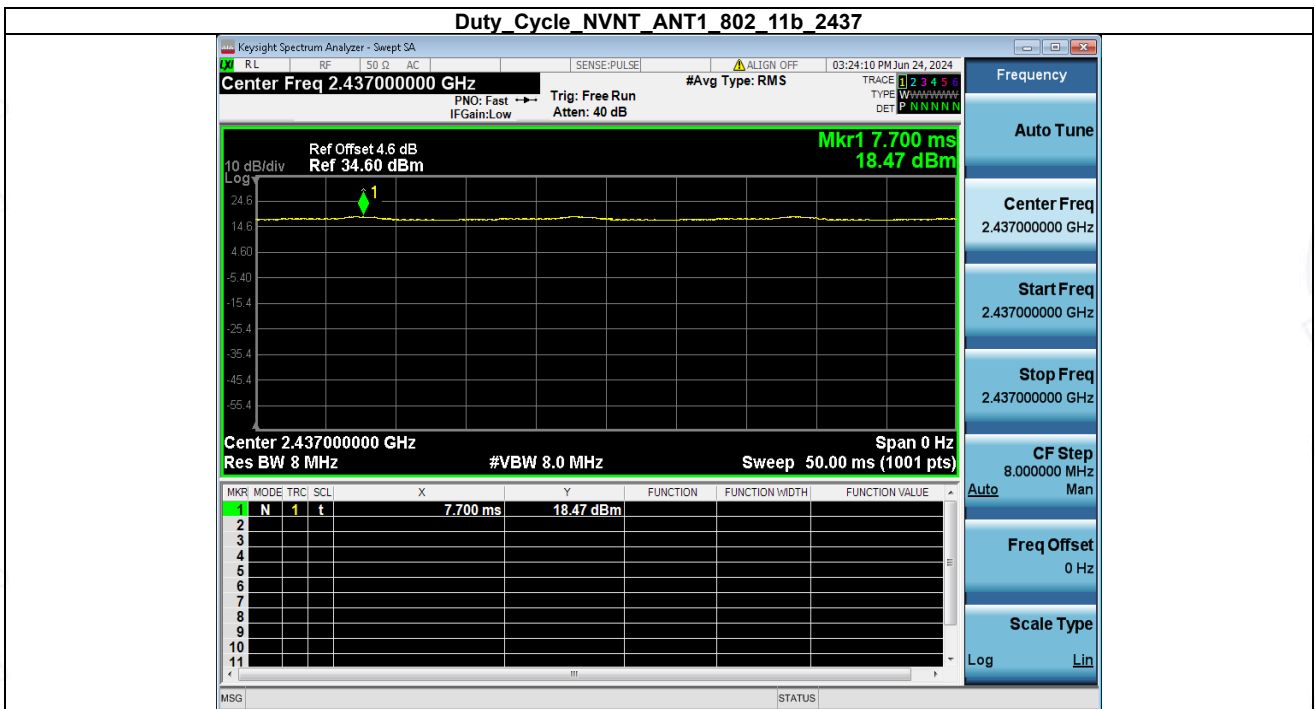
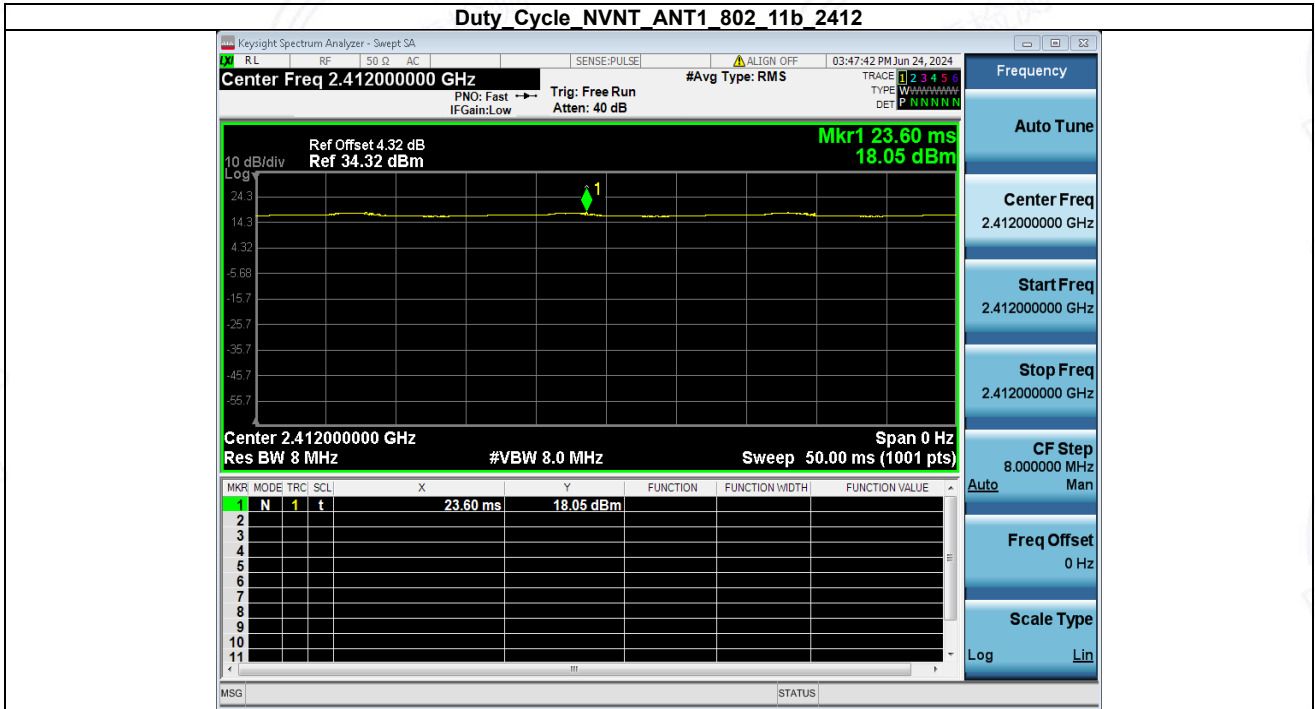
**99% Occupied Bandwidth\_NVNT\_ANT1\_802\_11n(HT20)\_2462**





### 3. Duty Cycle

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty factor(dB)
NVNT	ANT1	802.11b	2412.00	100	0.00
NVNT	ANT1	802.11b	2437.00	100	0.00
NVNT	ANT1	802.11b	2462.00	100	0.00
NVNT	ANT1	802.11g	2412.00	100	0.00
NVNT	ANT1	802.11g	2437.00	100	0.00
NVNT	ANT1	802.11g	2462.00	100	0.00
NVNT	ANT1	802.11n(HT20)	2412.00	100	0.00
NVNT	ANT1	802.11n(HT20)	2437.00	100	0.00
NVNT	ANT1	802.11n(HT20)	2462.00	100	0.00



**Duty Cycle NVNT ANT1 802\_11b 2462**

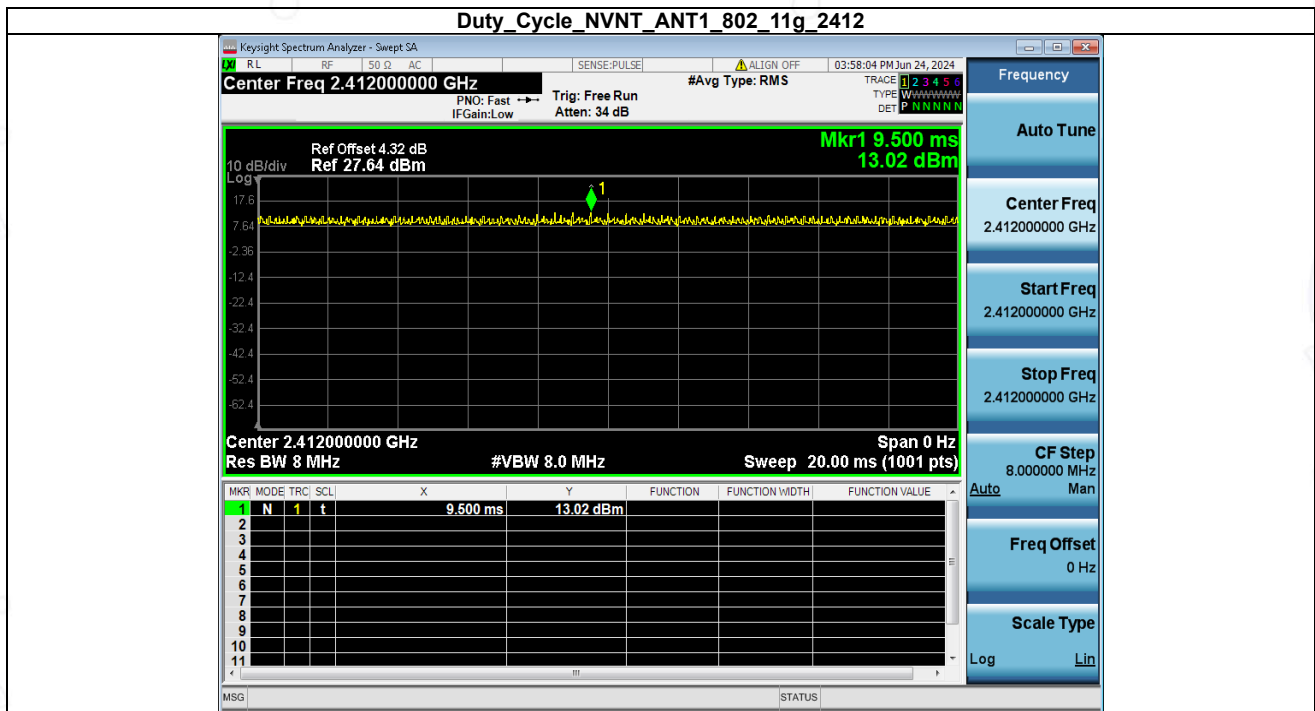
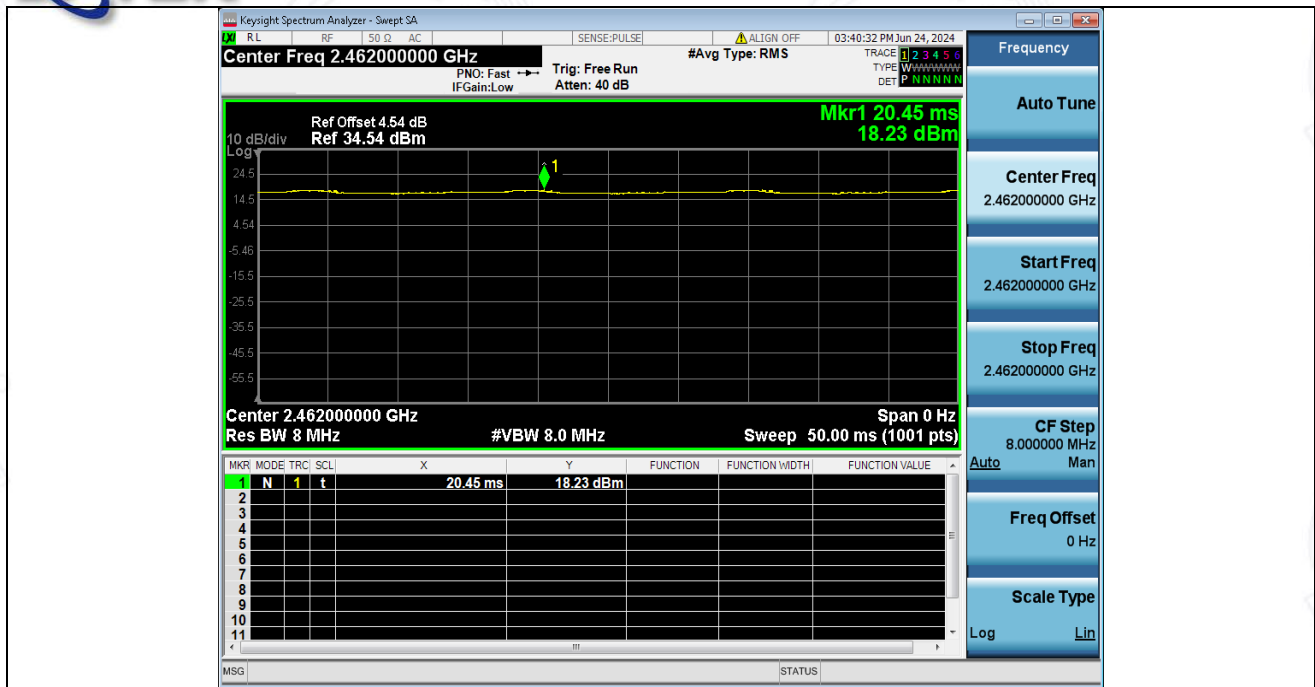
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 Bao'an District, Shenzhen, Guangdong, China 518104

Tel : +(86)755-2334 4200 E-mail : Service@btek-lab.com Web : www.btek-lab.com

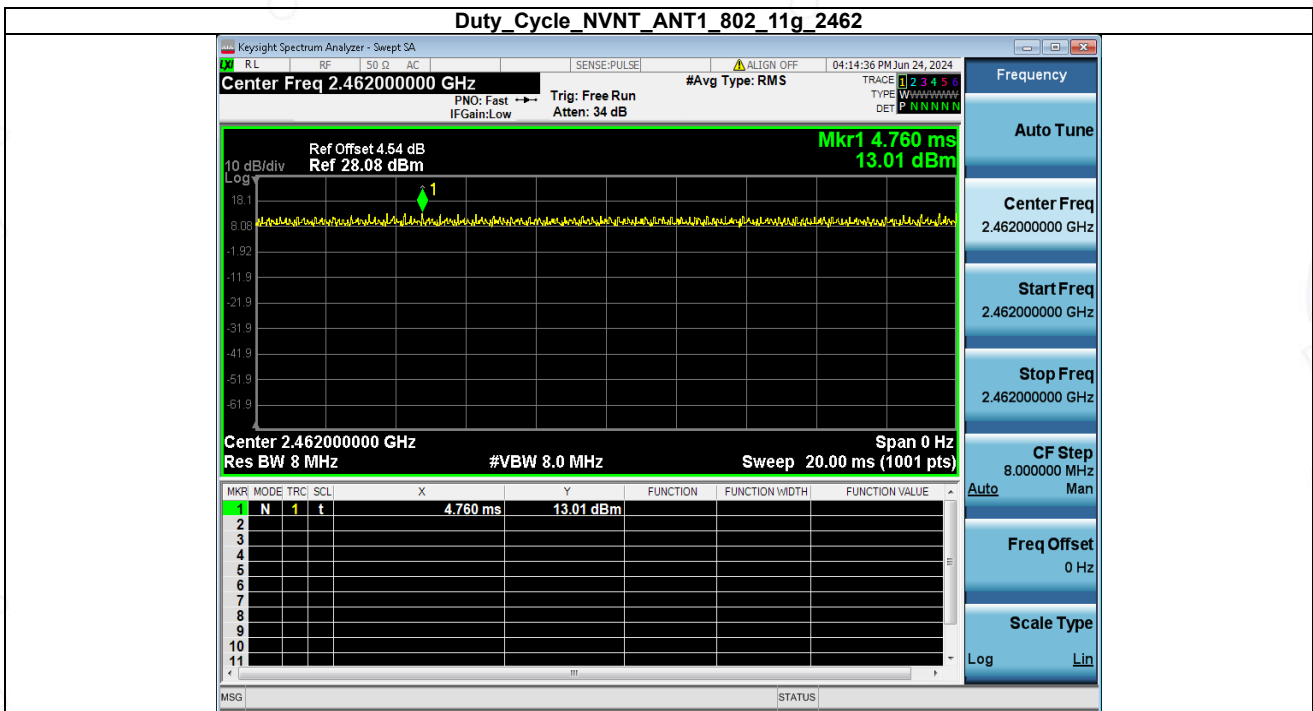
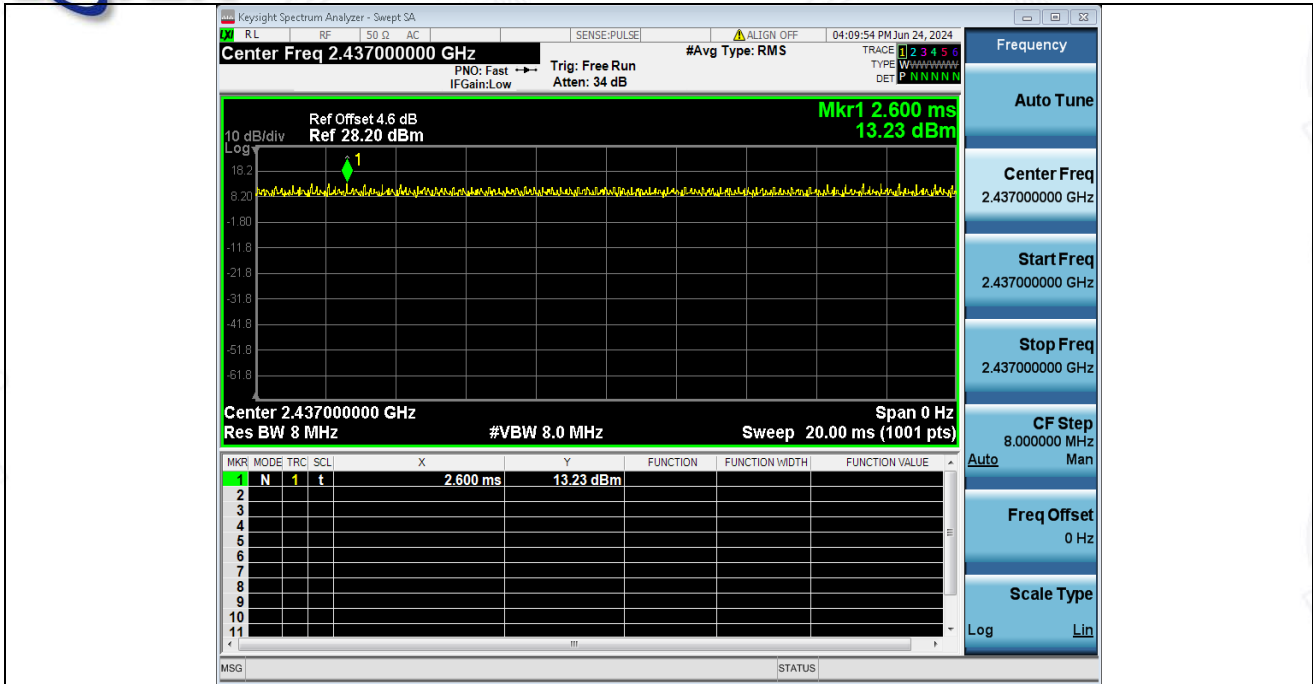






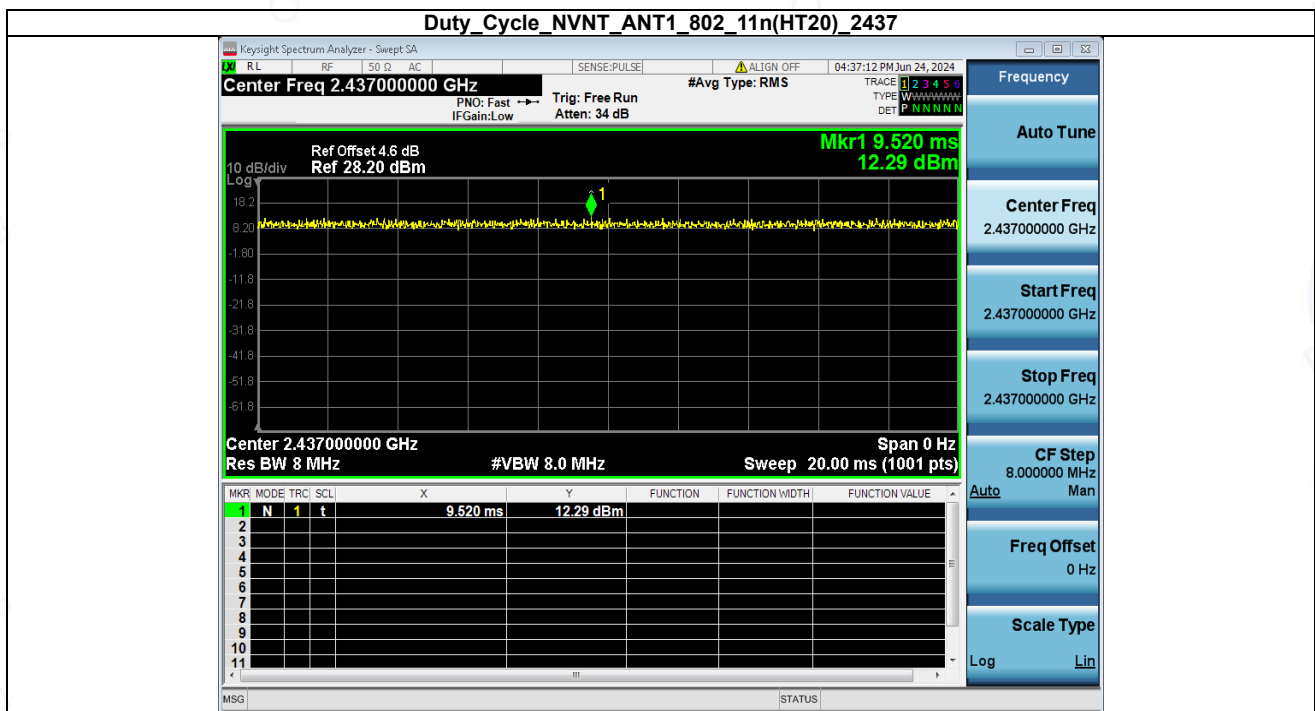
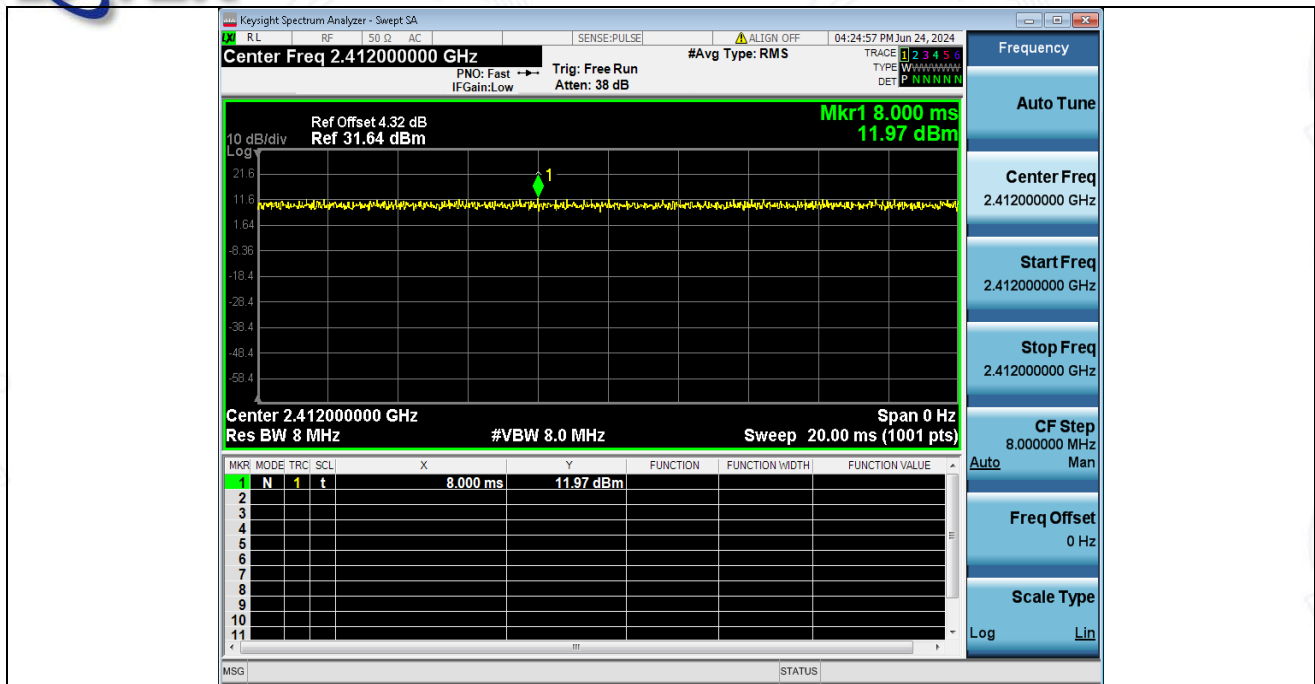
**Duty Cycle NVNT\_ANT1\_802\_11g\_2437**





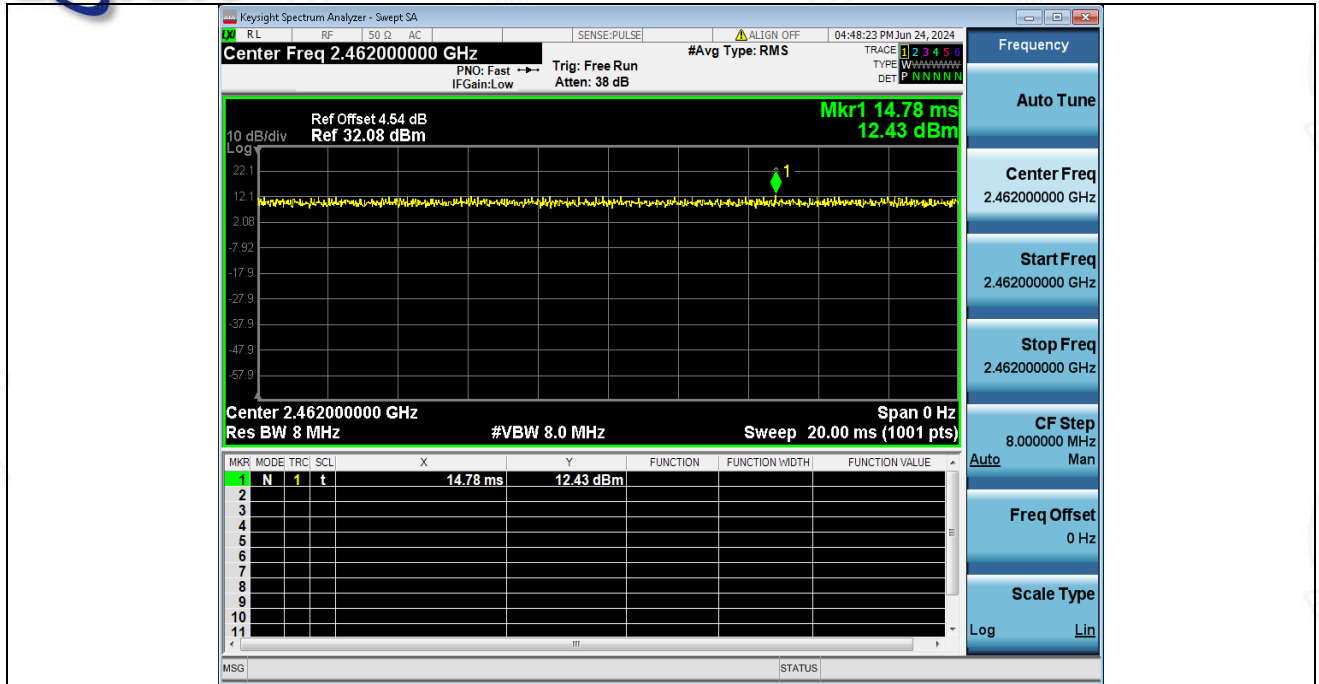
Duty Cycle NVNT\_ANT1\_802\_11n(HT20)\_2412





**Duty Cycle\_NVNT\_ANT1\_802\_11n(HT20)\_2462**





#### 4. MAX. Output Power

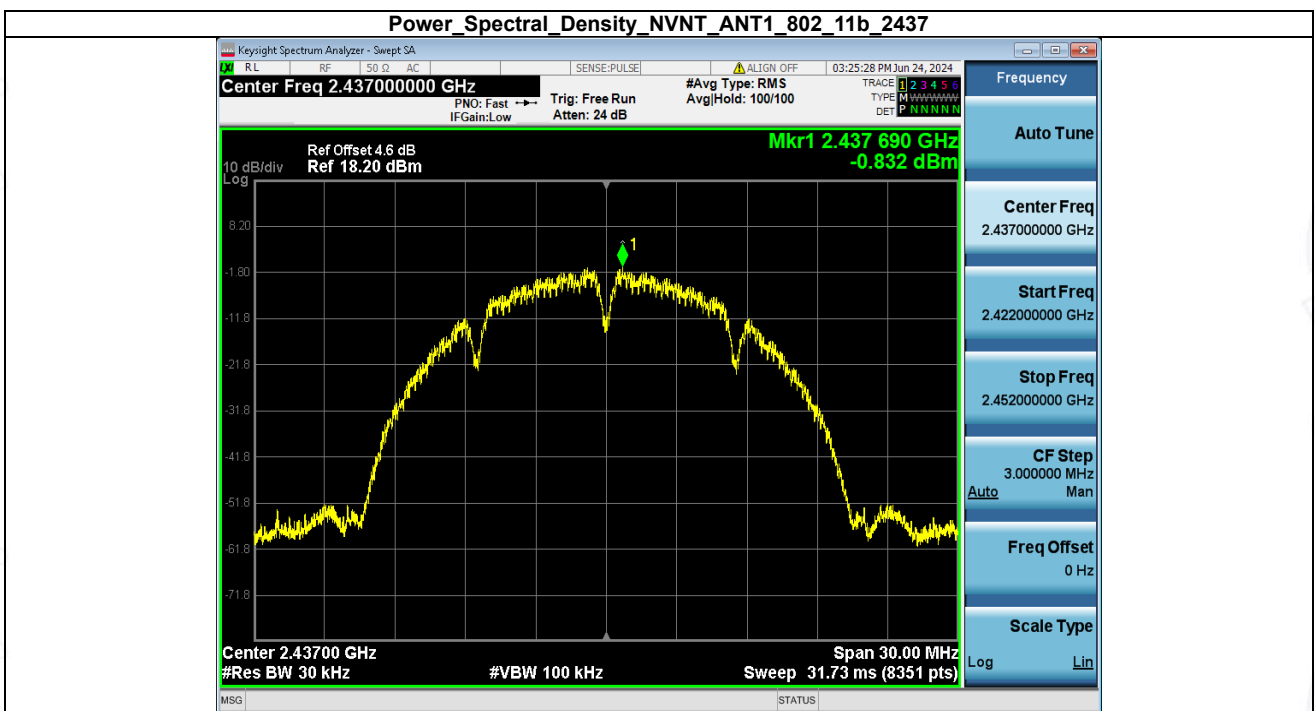
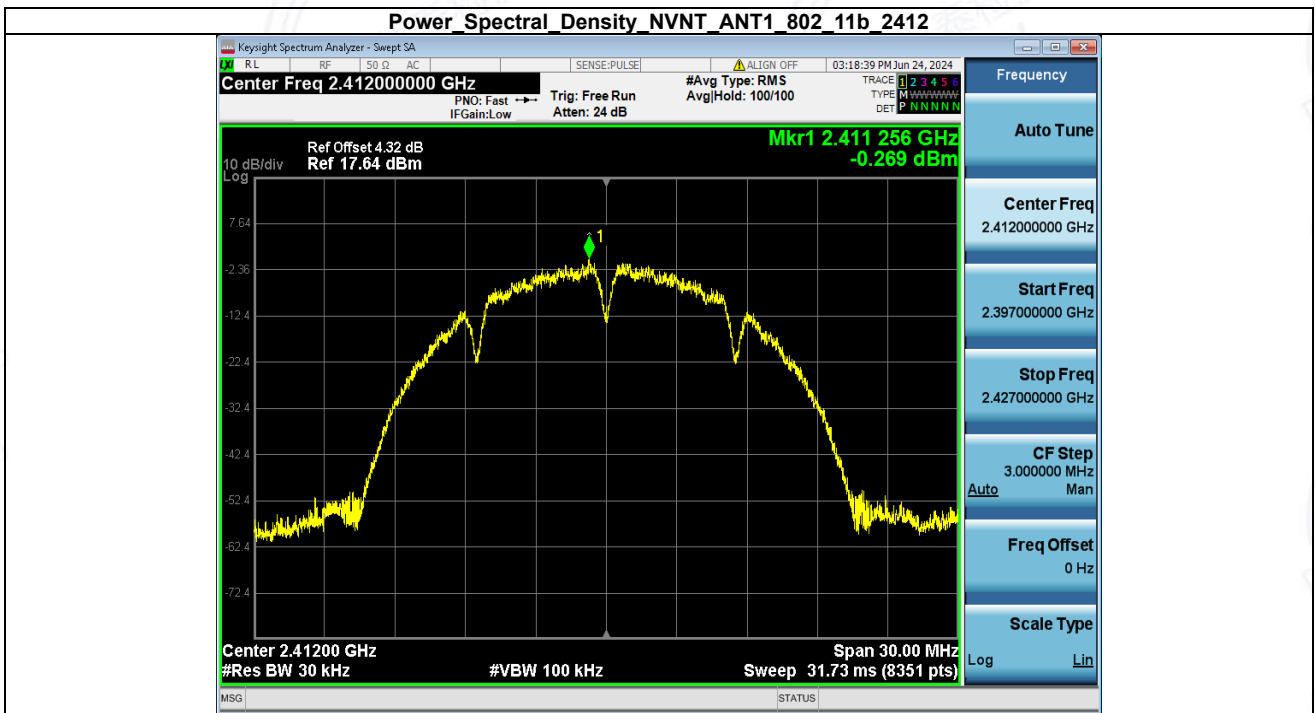
Condition	Antenna	Modulation	Frequency (MHz)	Detector	Conducted Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	Peak	15.97	30	Pass
NVNT	ANT1	802.11b	2437.00	Peak	16.30	30	Pass
NVNT	ANT1	802.11b	2462.00	Peak	16.24	30	Pass
NVNT	ANT1	802.11g	2412.00	Peak	13.38	30	Pass
NVNT	ANT1	802.11g	2437.00	Peak	13.55	30	Pass
NVNT	ANT1	802.11g	2462.00	Peak	13.40	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	Peak	13.40	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	Peak	13.71	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	Peak	13.62	30	Pass





### 5. Power Spectral Density

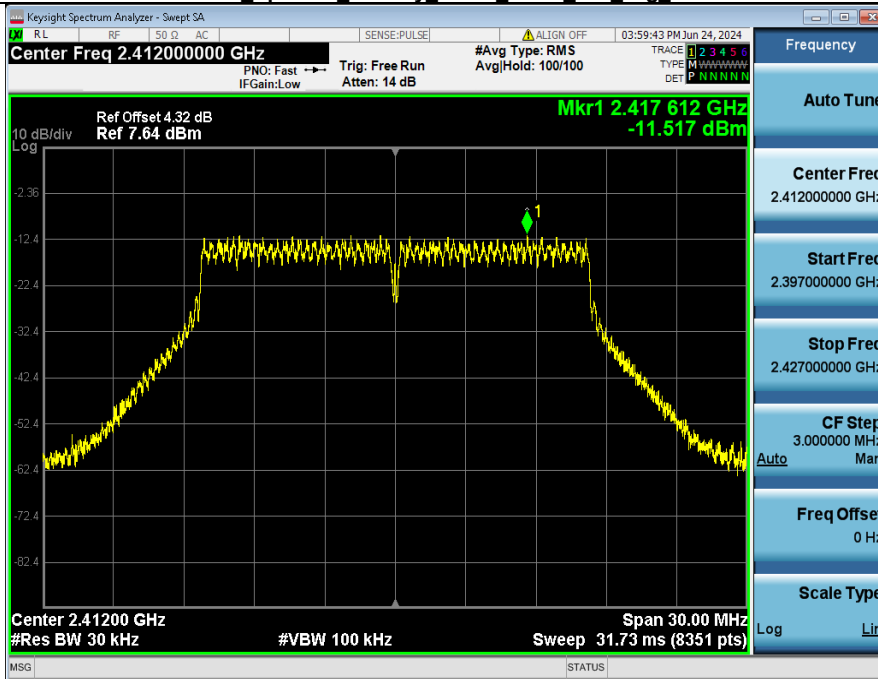
Condition	Antenna	Modulation	Frequency (MHz)	PSD(dBm/30kHz)	RB factor(dB)	PSD(dBm/3kHz)	limit(dBm/3kHz)	Result
NVNT	ANT1	802.11b	2412.00	-0.27	-10.00	-10.27	8	Pass
NVNT	ANT1	802.11b	2437.00	-0.83	-10.00	-10.83	8	Pass
NVNT	ANT1	802.11b	2462.00	-1.10	-10.00	-11.10	8	Pass
NVNT	ANT1	802.11g	2412.00	-11.52	-10.00	-21.52	8	Pass
NVNT	ANT1	802.11g	2437.00	-11.17	-10.00	-21.17	8	Pass
NVNT	ANT1	802.11g	2462.00	-11.32	-10.00	-21.32	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	-11.24	-10.00	-21.24	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	-10.92	-10.00	-20.92	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	-11.02	-10.00	-21.02	8	Pass



**Power Spectral Density NVNT\_ANT1\_802\_11b\_2462**

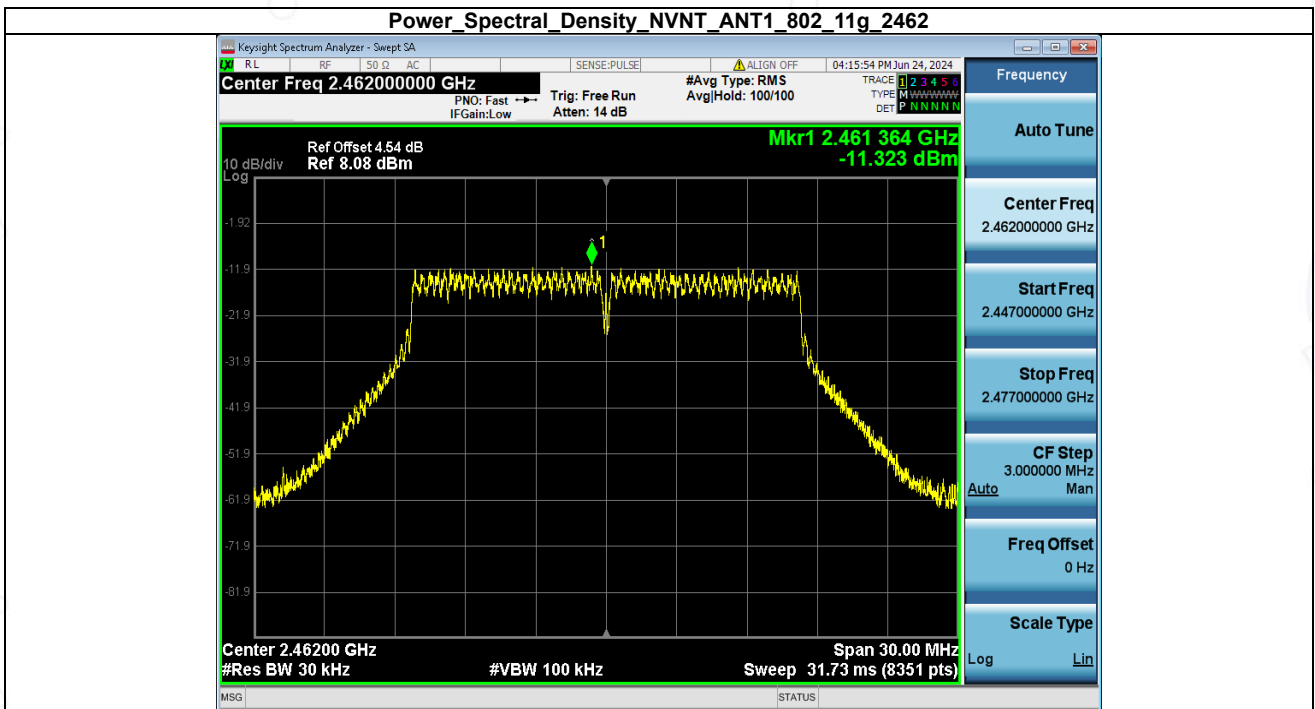
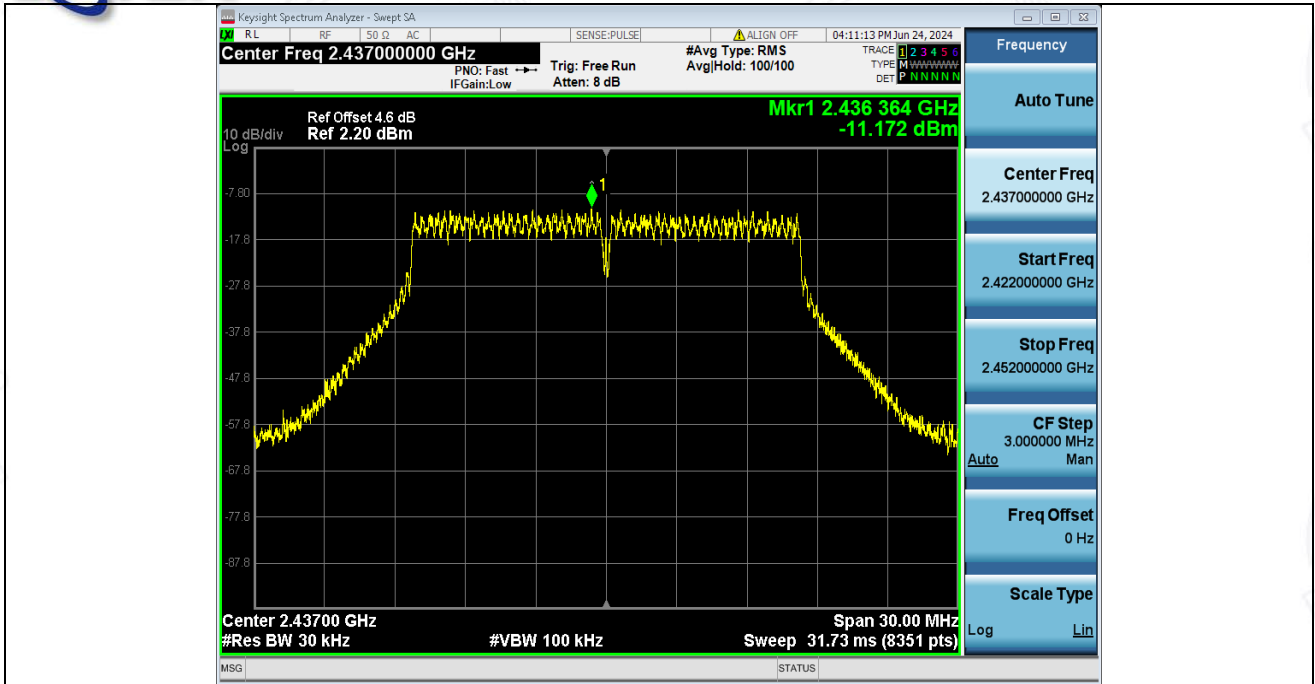


**Power Spectral Density NVNT\_ANT1\_802\_11g\_2412**



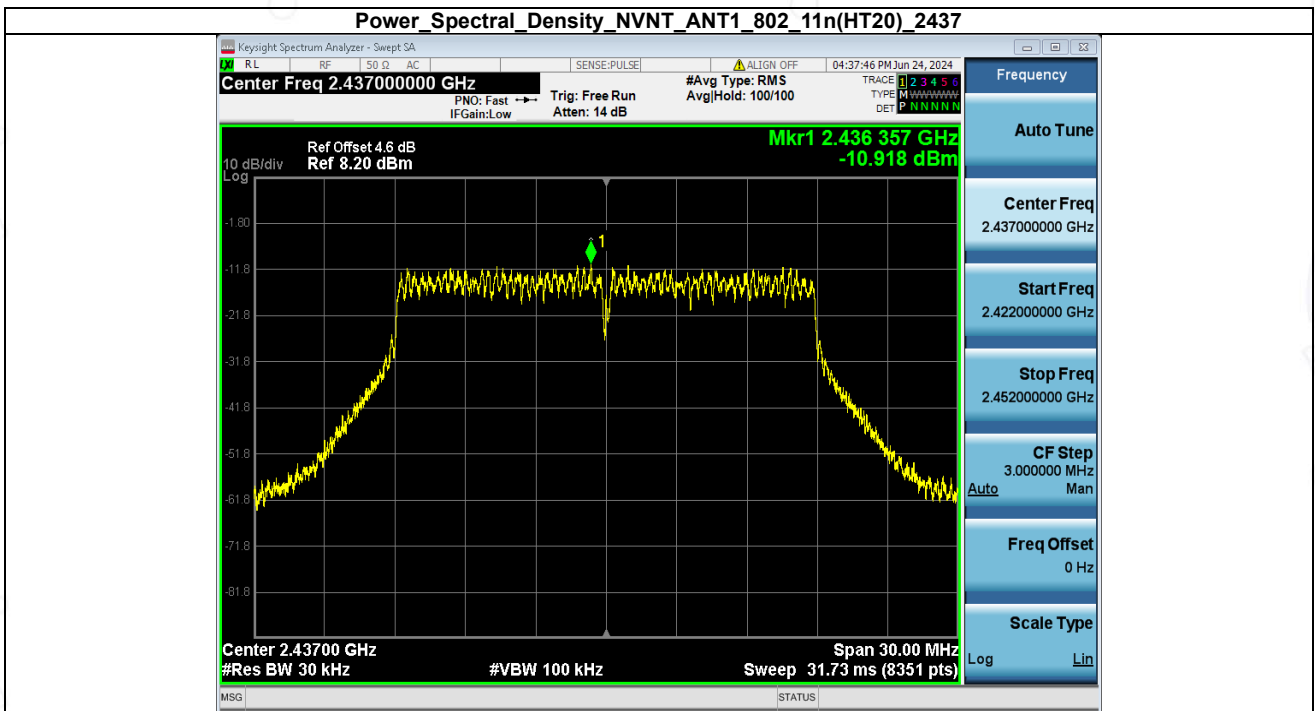
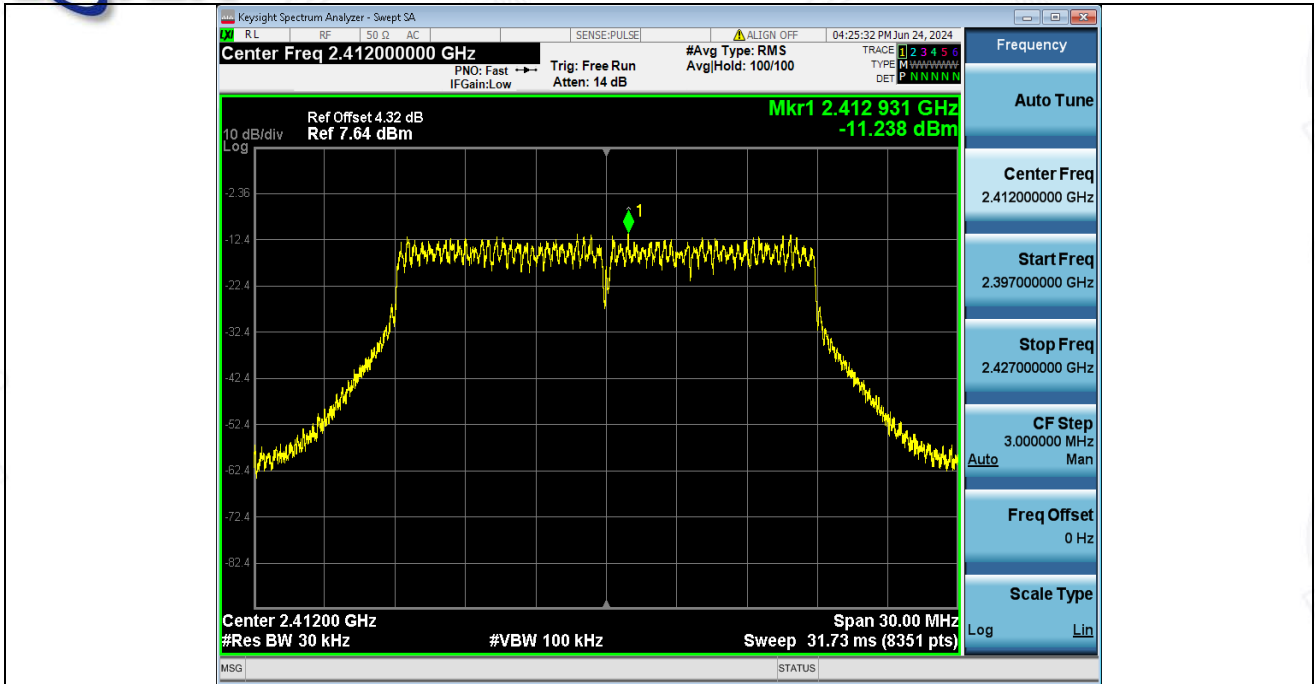
**Power Spectral Density NVNT\_ANT1\_802\_11g\_2437**





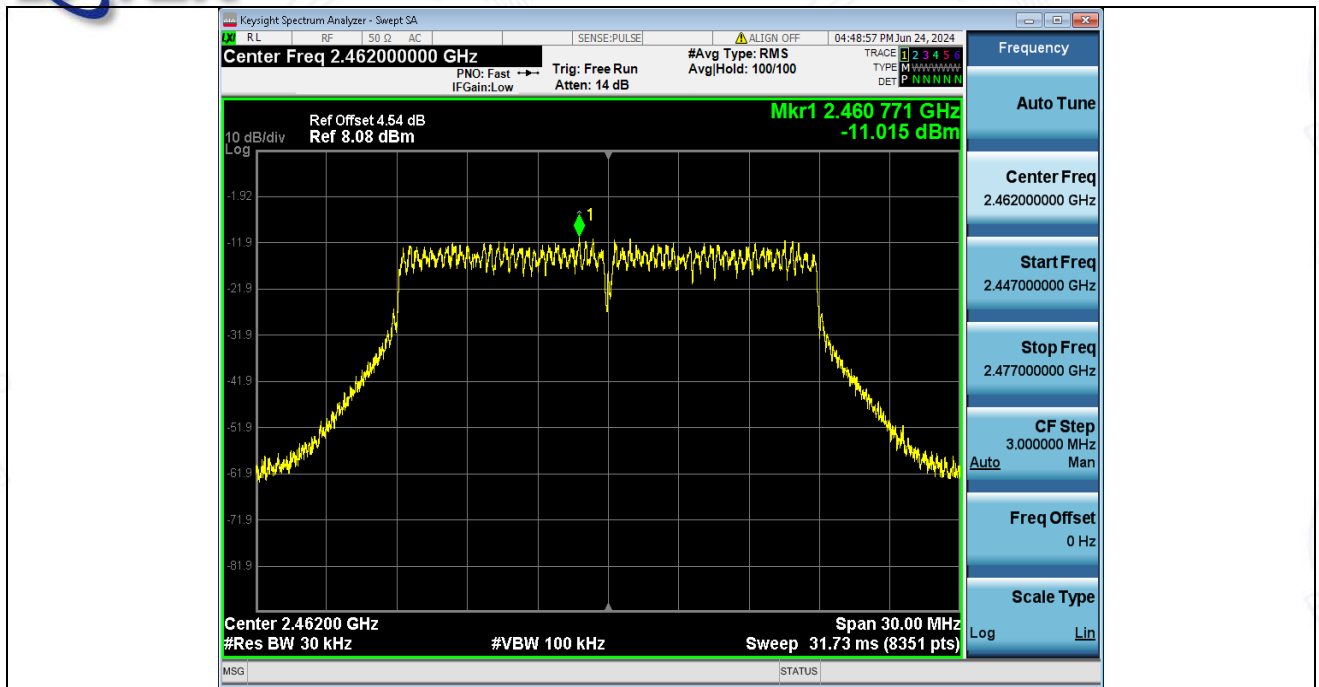
**Power Spectral Density NVNT\_ANT1\_802\_11n(HT20)\_2412**





**Power Spectral Density NVNT\_ANT1\_802\_11n(HT20)\_2462**



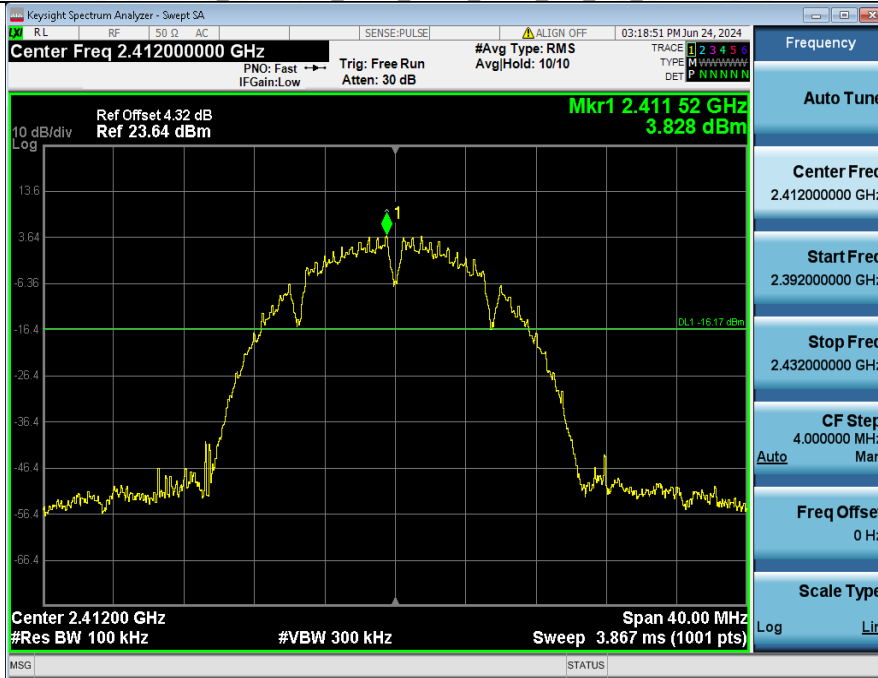




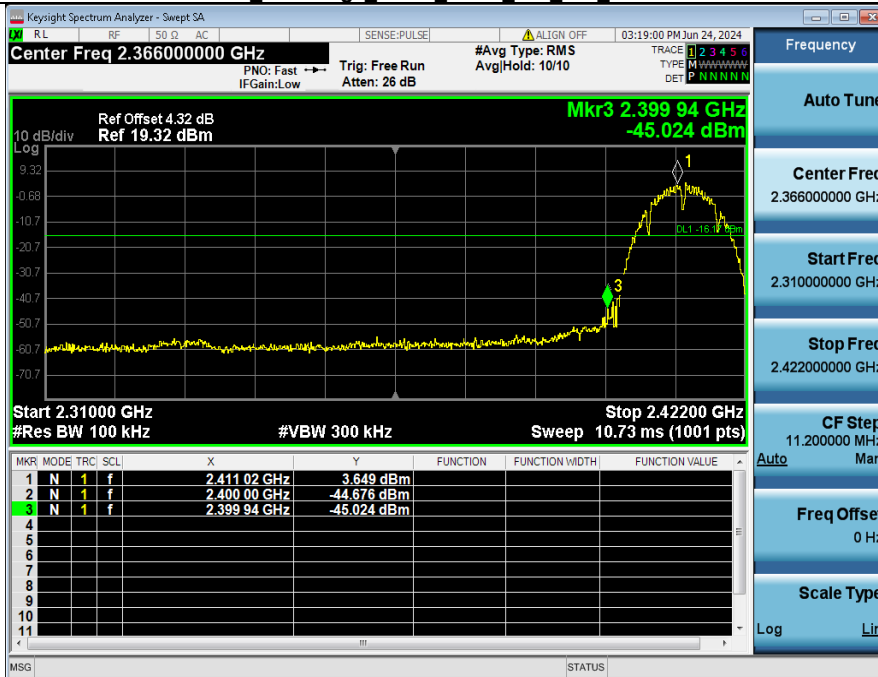
## 6. Bandedge

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	2399.936	-45.024	-16.172	Pass
NVNT	ANT1	802.11b	2462.00	2488.432	-55.523	-16.058	Pass
NVNT	ANT1	802.11g	2412.00	2399.824	-44.859	-28.582	Pass
NVNT	ANT1	802.11g	2462.00	2485.168	-61.460	-28.471	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	2399.824	-46.677	-27.643	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2483.584	-58.888	-27.650	Pass

### 1 Reference\_Level\_NVNT\_ANT1\_802\_11b\_2412

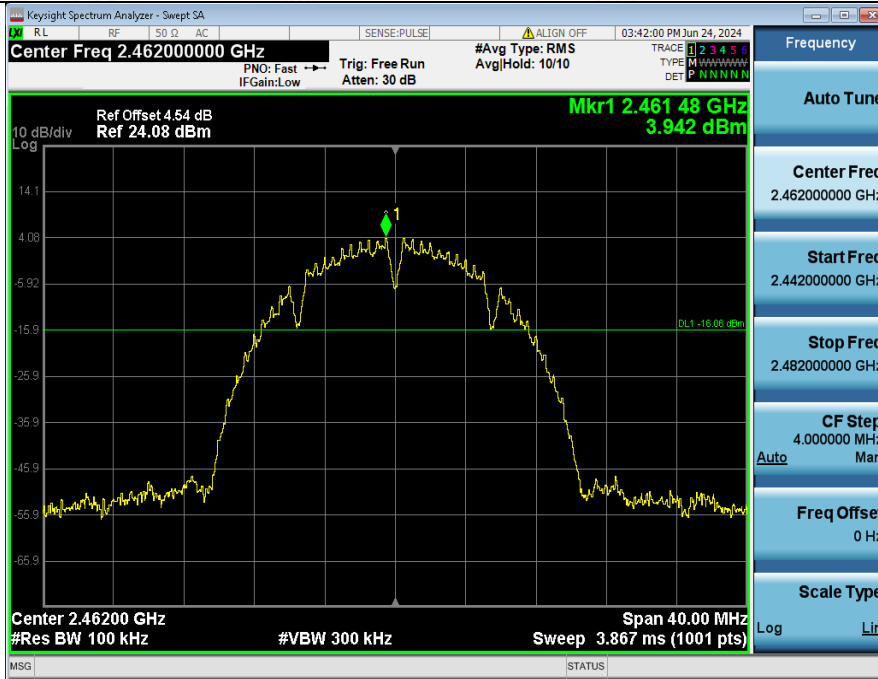


### 2 Bandedge\_NVNT\_ANT1\_802\_11b\_2412

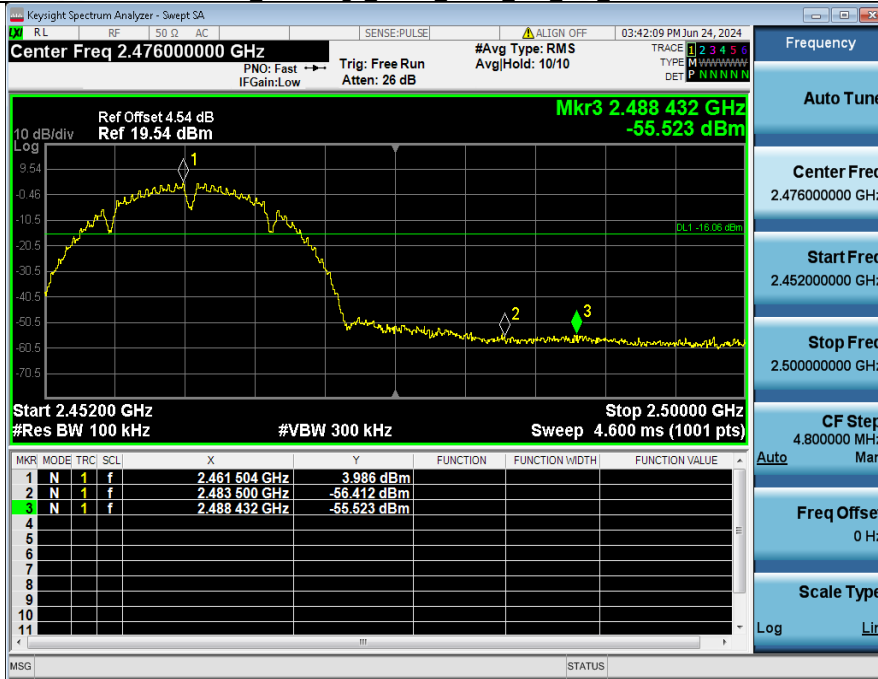


### 1\_Reference\_Level\_NVNT\_ANT1\_802\_11b\_2462



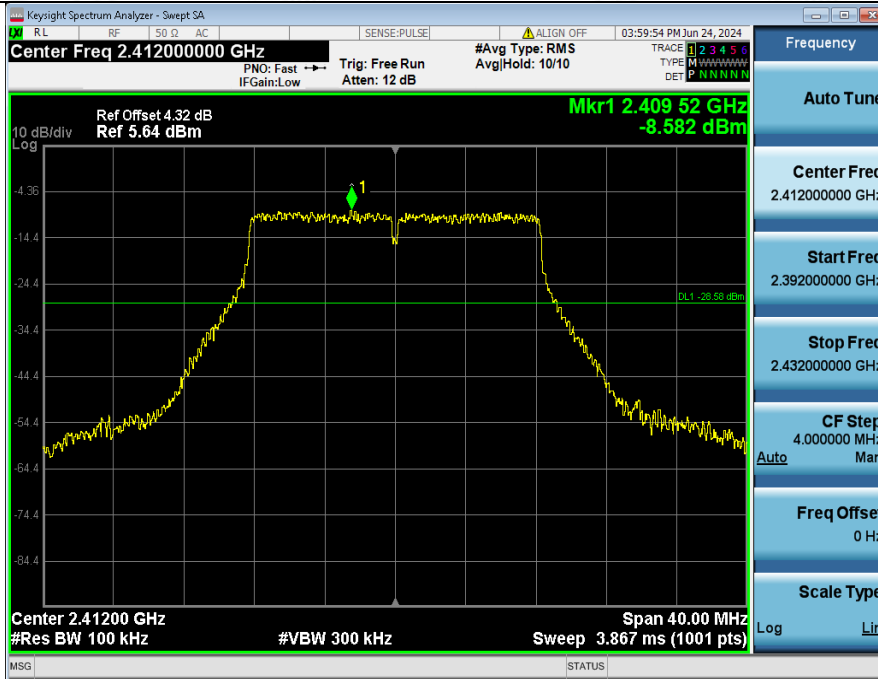


2 Bandedge NVNT\_ANT1\_802\_11b\_2462

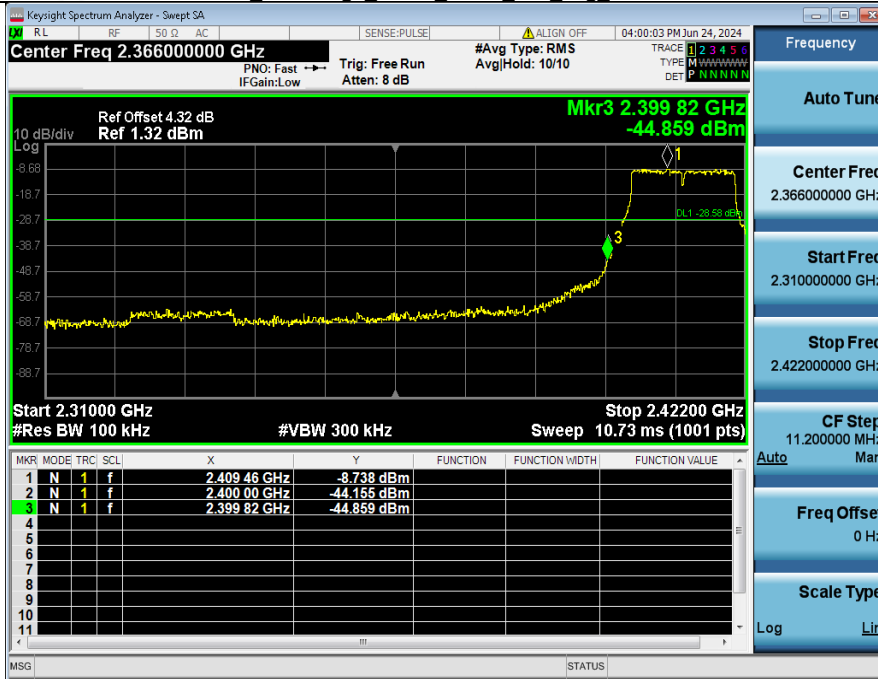


1 Reference Level NVNT\_ANT1\_802\_11g\_2412



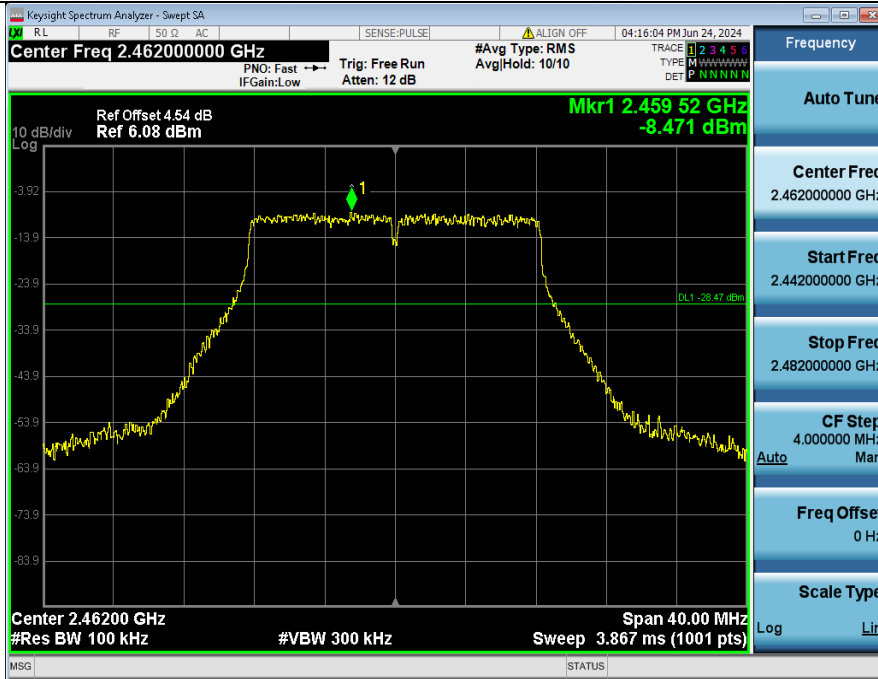


### 2 Bandedge\_NVNT\_ANT1\_802\_11g\_2412

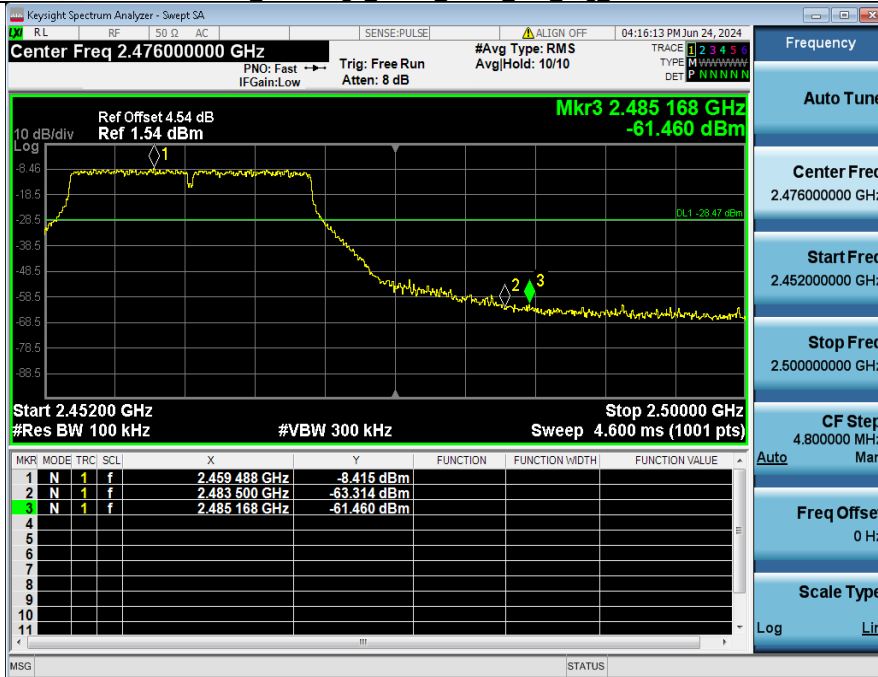


### 1 Reference\_Level\_NVNT\_ANT1\_802\_11g\_2462



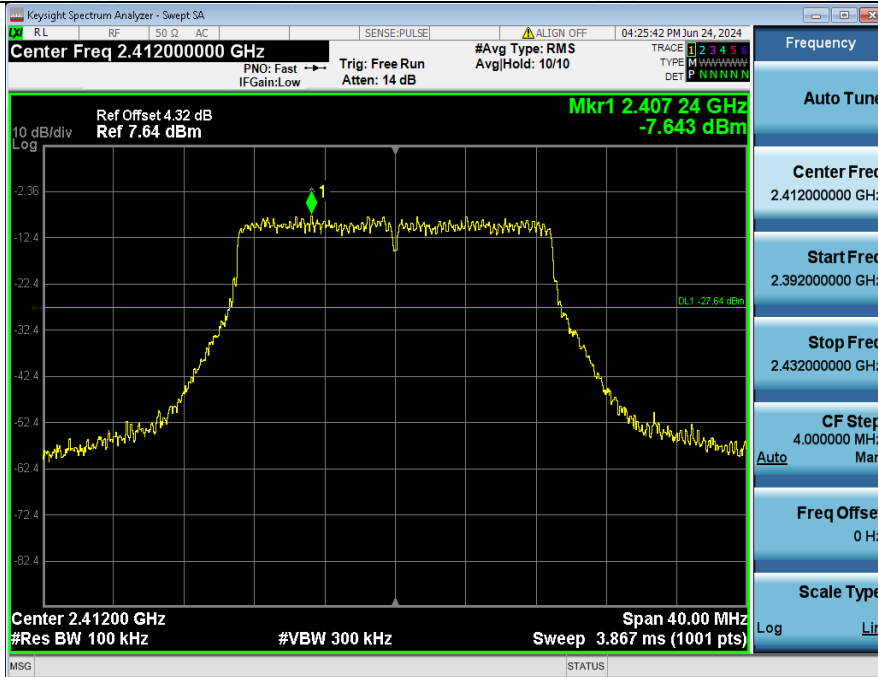


2 Bandedge NVNT\_ANT1\_802\_11g\_2462

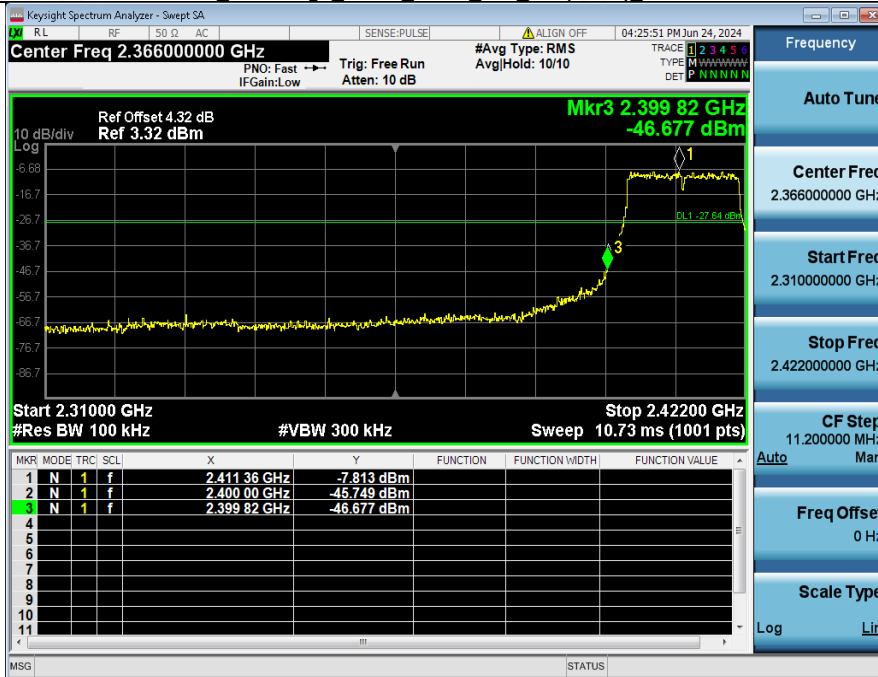


1 Reference Level NVNT\_ANT1\_802\_11n(HT20)\_2412





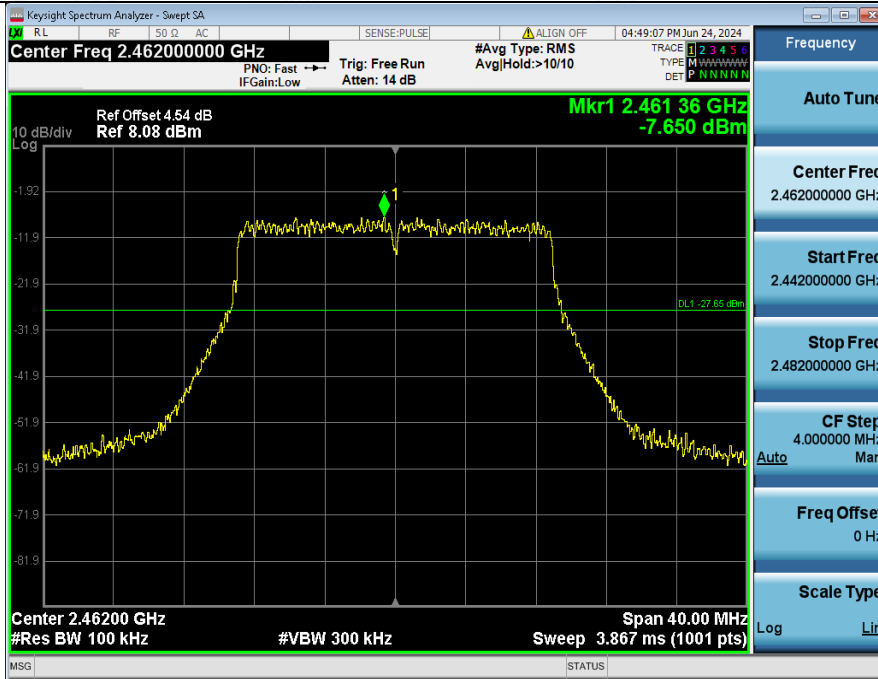
### 2\_Bandedge\_NVNT\_ANT1\_802\_11n(HT20)\_2412



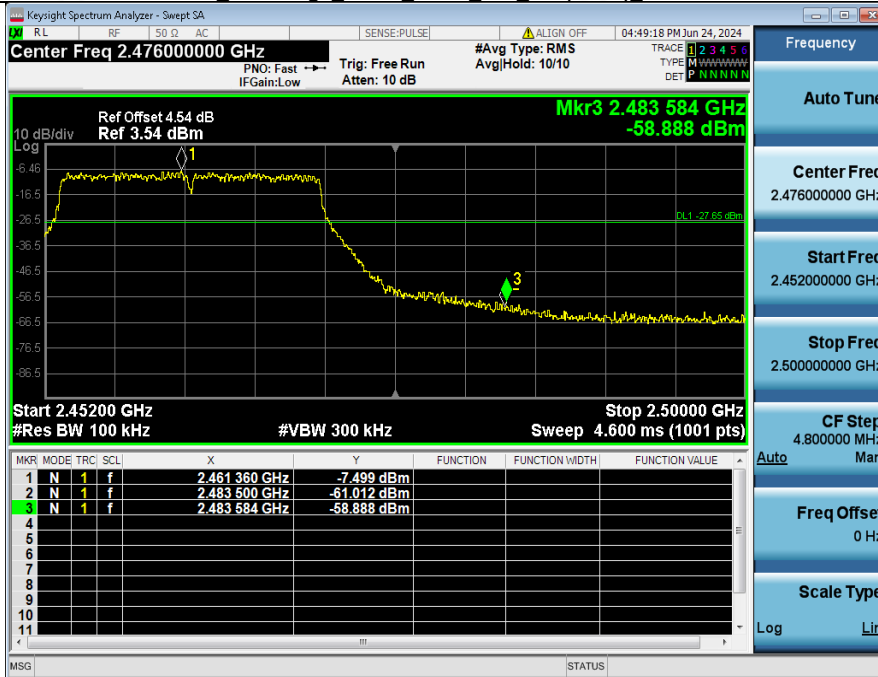
### 1 Reference Level NVNT\_ANT1\_802\_11n(HT20)\_2462







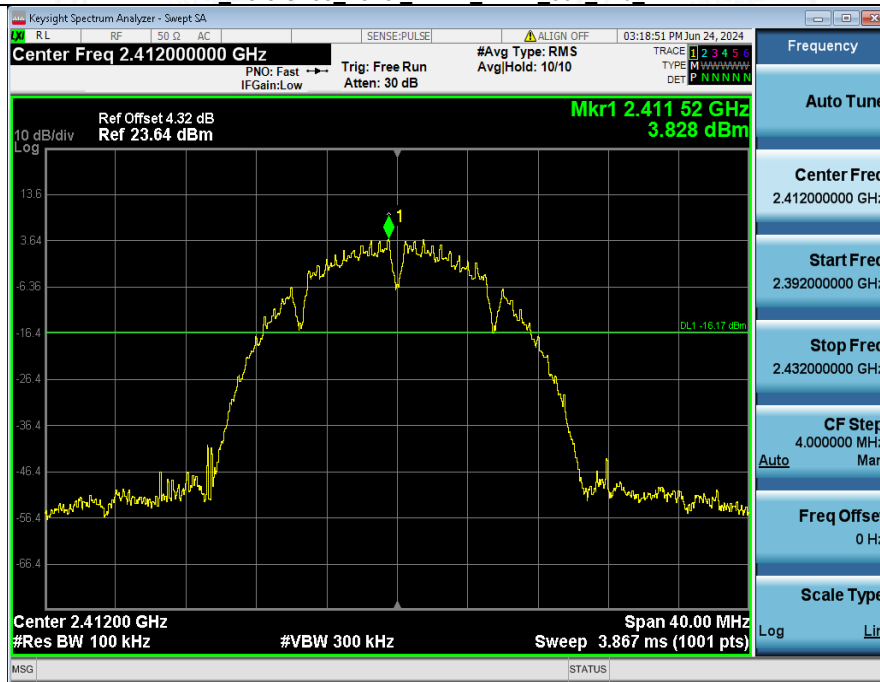
**2\_Bandedge\_NVNT\_ANT1\_802\_11n(HT20)\_2462**



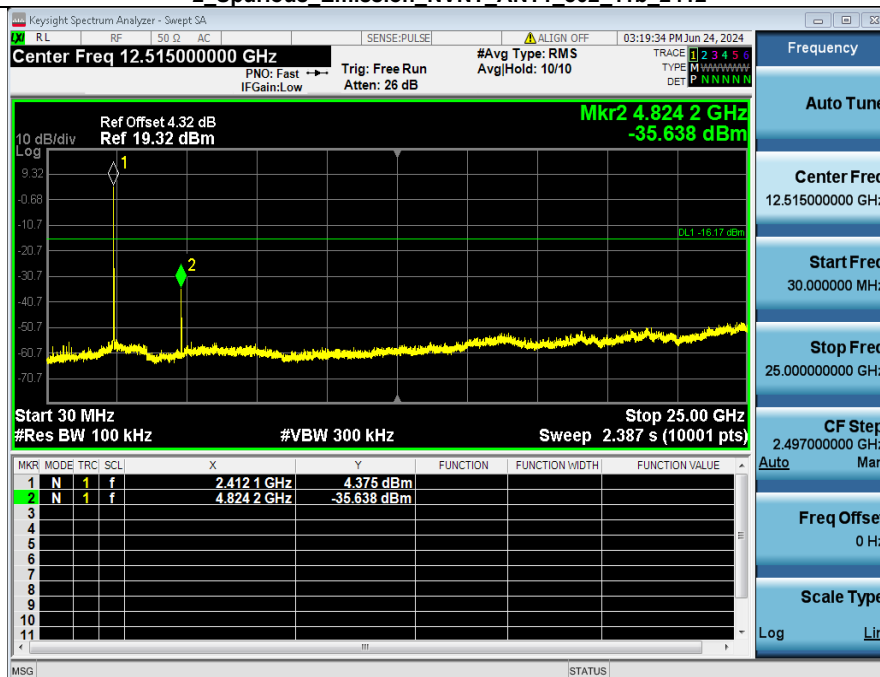
## 7. Spurious Emission

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	4824.240	-35.638	-16.172	Pass
NVNT	ANT1	802.11b	2437.00	4874.180	-36.204	-16.022	Pass
NVNT	ANT1	802.11b	2462.00	4924.120	-37.175	-16.058	Pass
NVNT	ANT1	802.11g	2412.00	4824.240	-56.300	-28.582	Pass
NVNT	ANT1	802.11g	2437.00	4874.180	-57.235	-28.506	Pass
NVNT	ANT1	802.11g	2462.00	4924.120	-56.644	-28.471	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	4824.240	-56.129	-27.643	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	4874.180	-56.744	-27.491	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	4924.120	-56.703	-27.650	Pass

1 Reference\_Level\_NVNT\_ANT1\_802\_11b\_2412

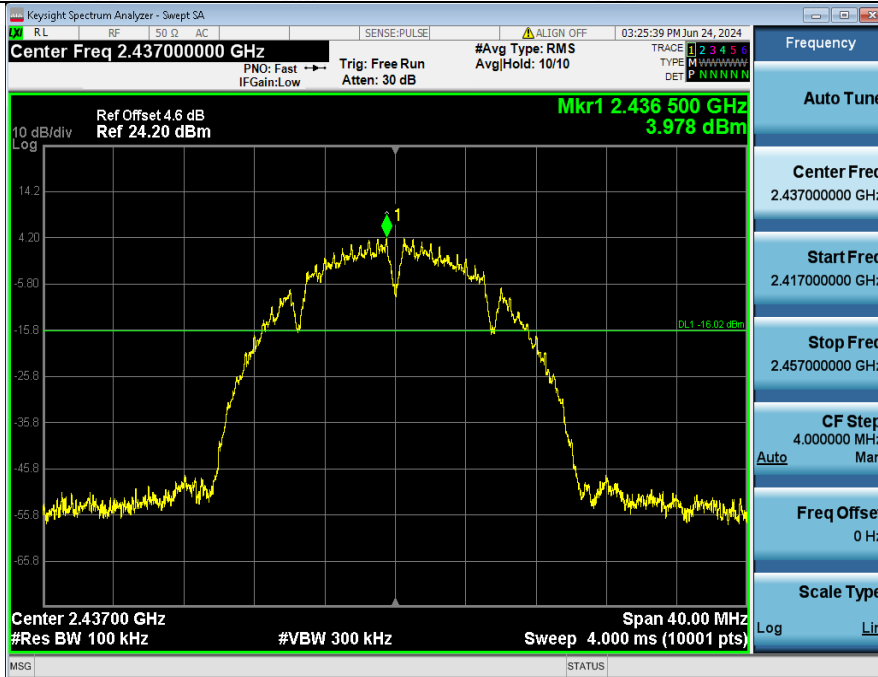


2 Spurious\_Emission\_NVNT\_ANT1\_802\_11b\_2412

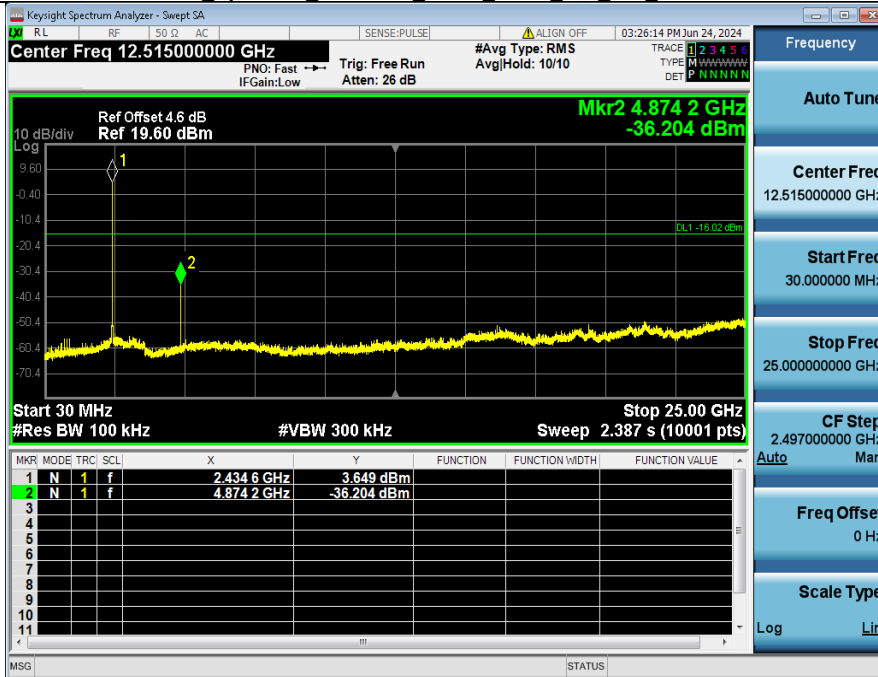


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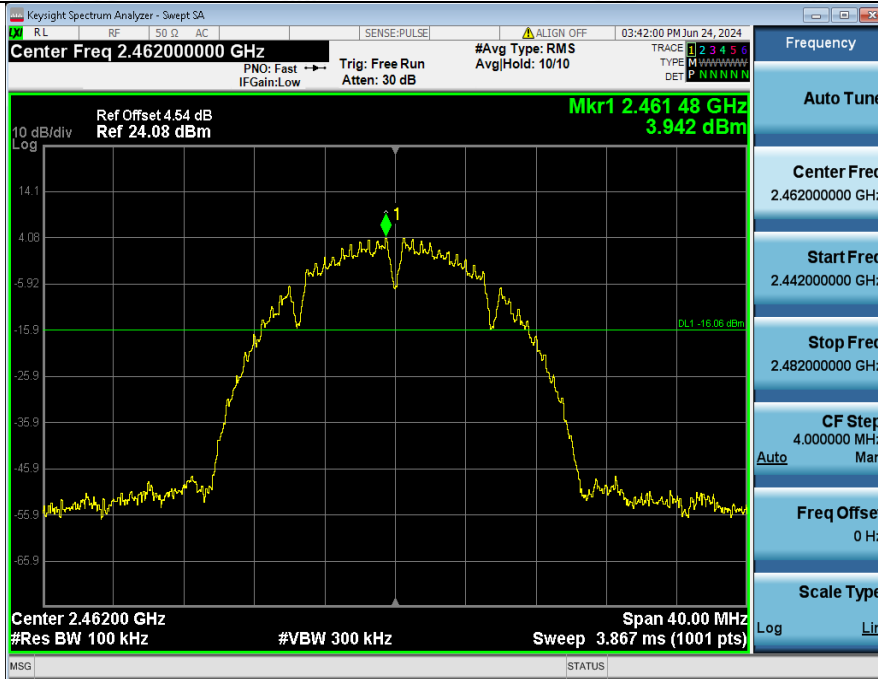


2 Spurious Emission NVNT\_ANT1\_802\_11b\_2437

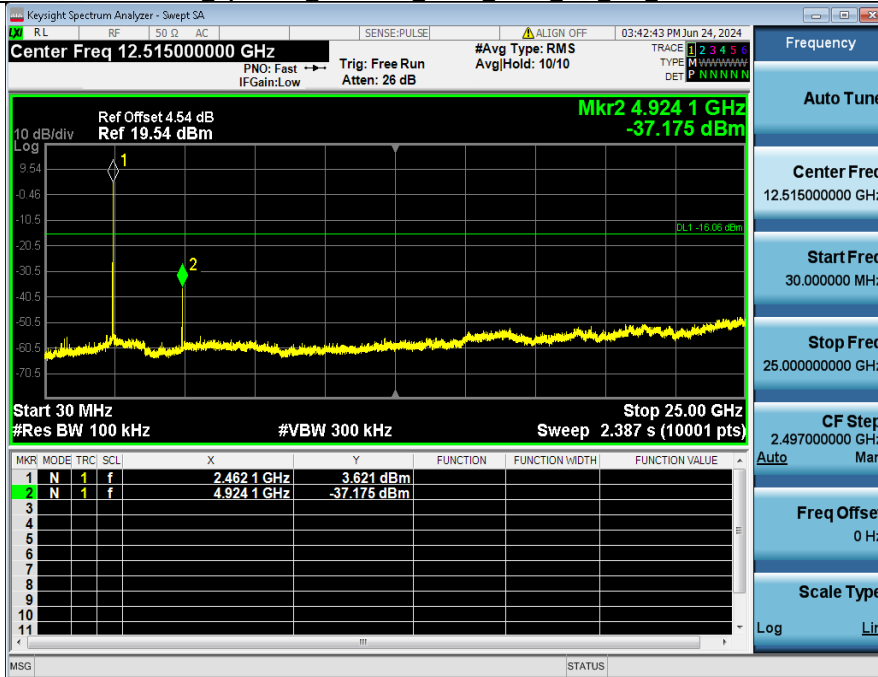


1 Reference Level NVNT\_ANT1\_802\_11b\_2462



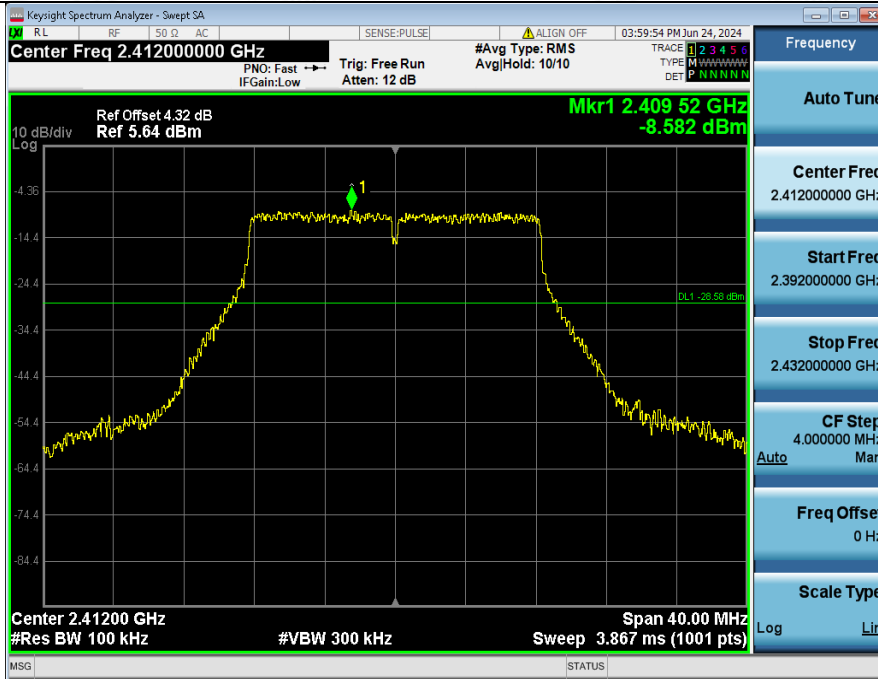


2 Spurious Emission NVNT\_ANT1\_802\_11b\_2462

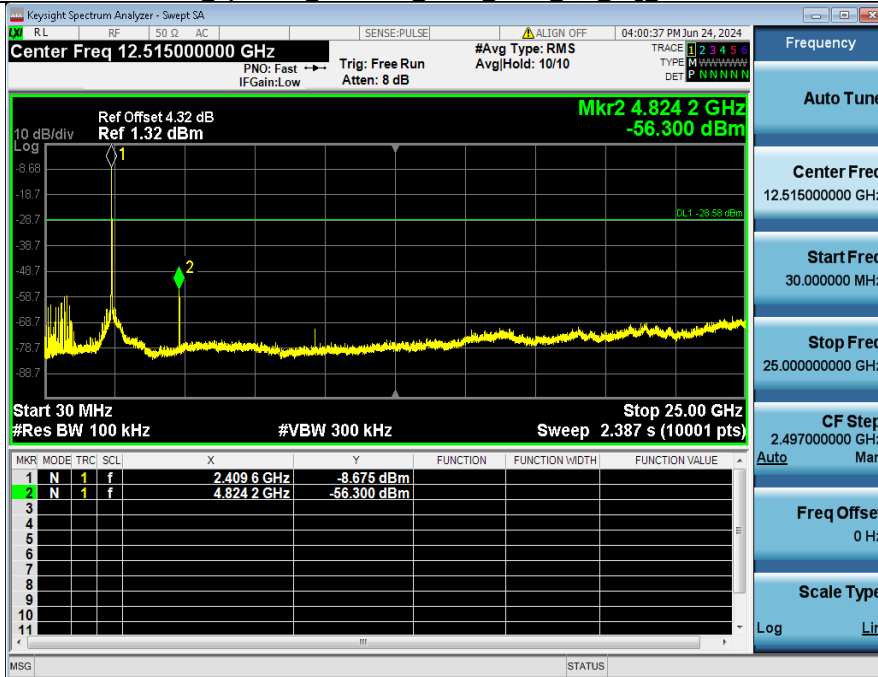


1 Reference Level NVNT\_ANT1\_802\_11g\_2412





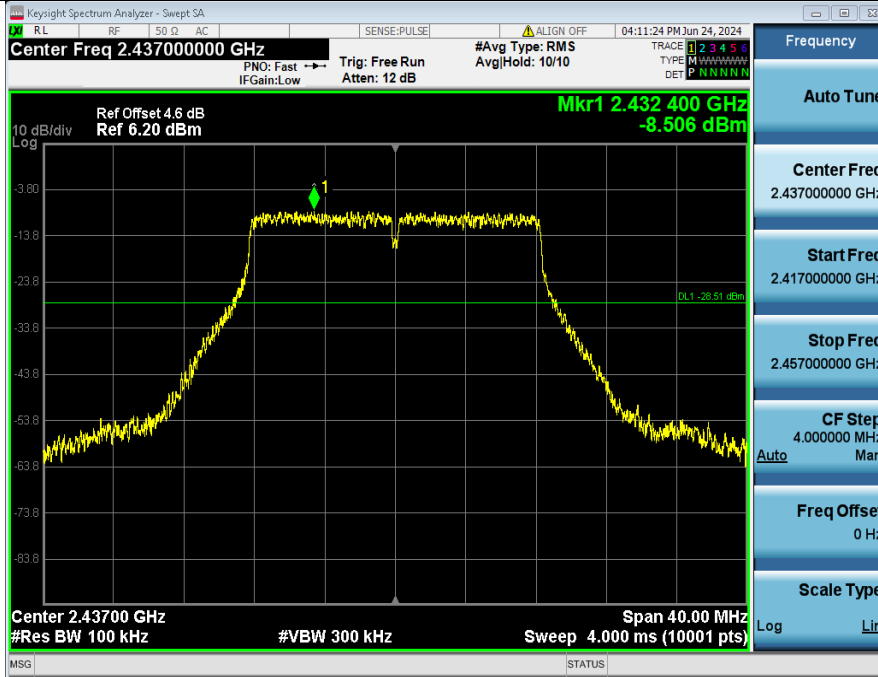
### 2 Spurious Emission NVNT\_ANT1\_802\_11g\_2412



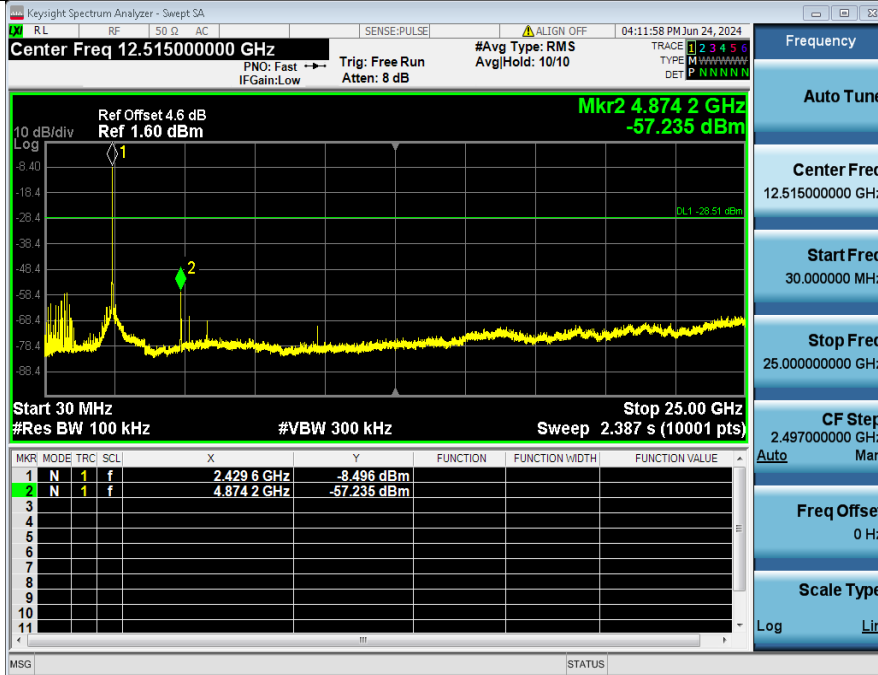
### 1 Reference Level NVNT\_ANT1\_802\_11g\_2437





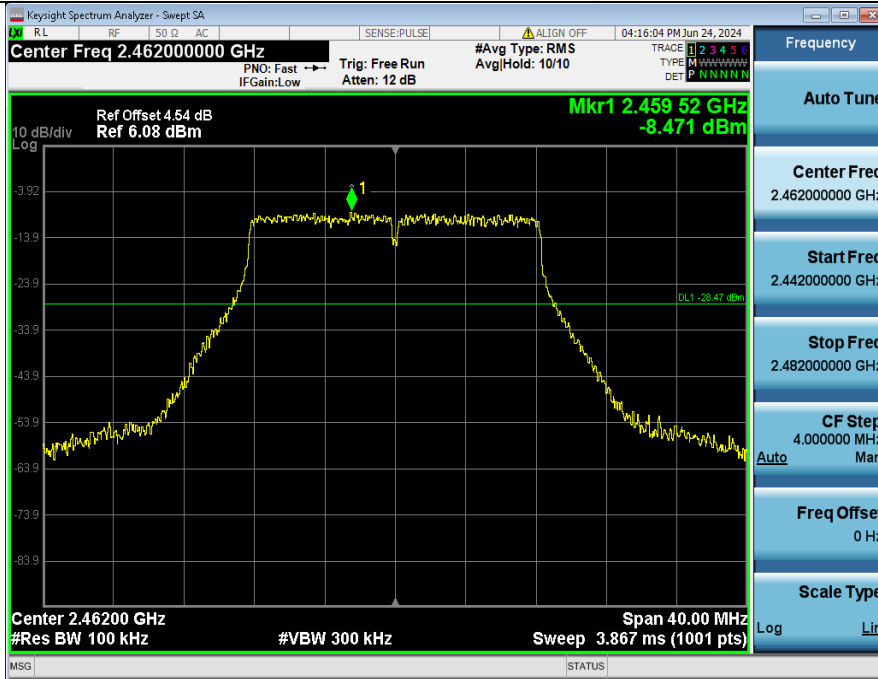


### 2 Spurious Emission NVNT\_ANT1\_802\_11g\_2437

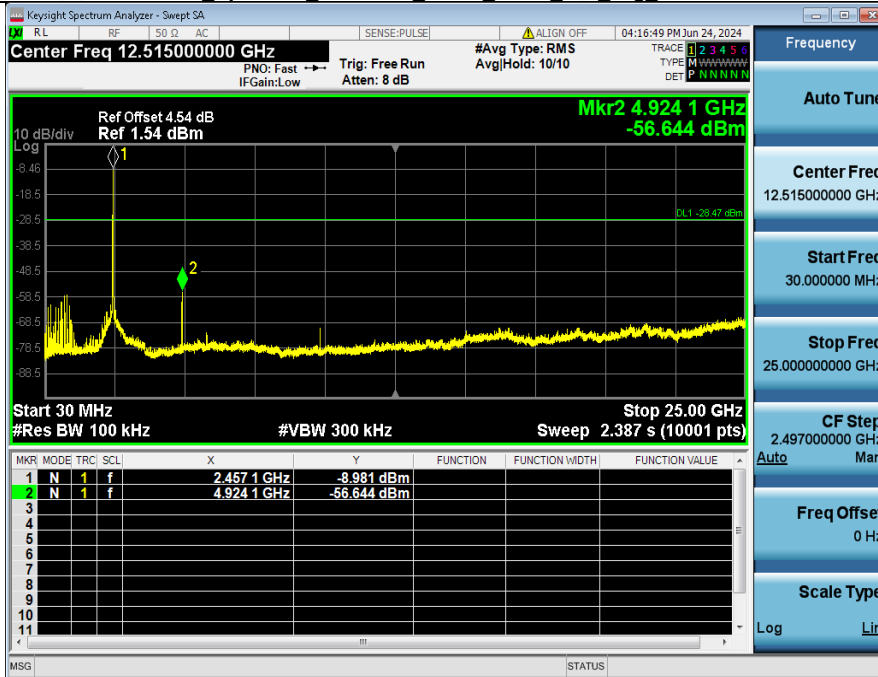


### 1 Reference Level NVNT\_ANT1\_802\_11g\_2462



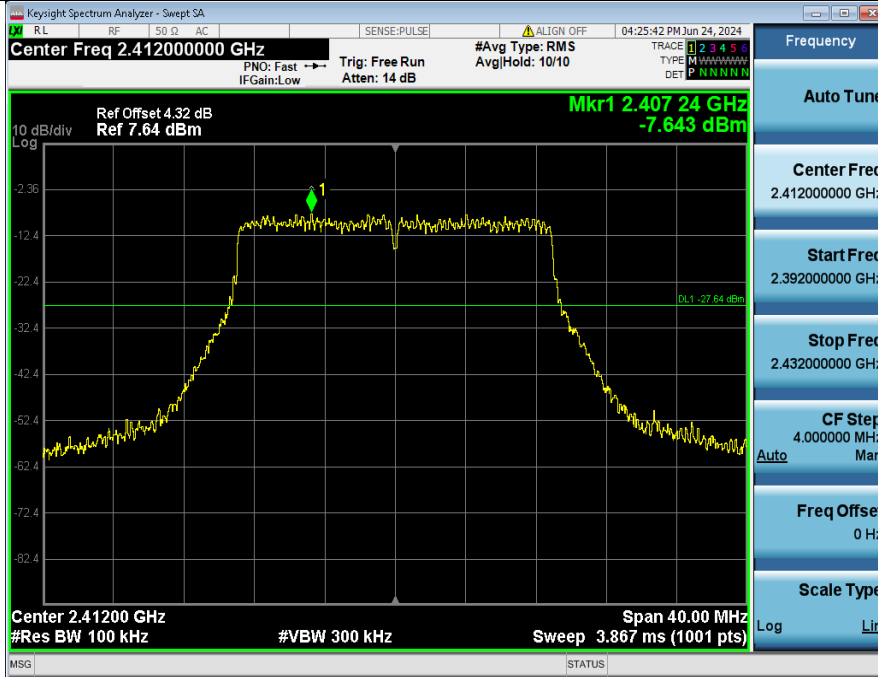


### 2 Spurious Emission NVNT\_ANT1\_802\_11g\_2462

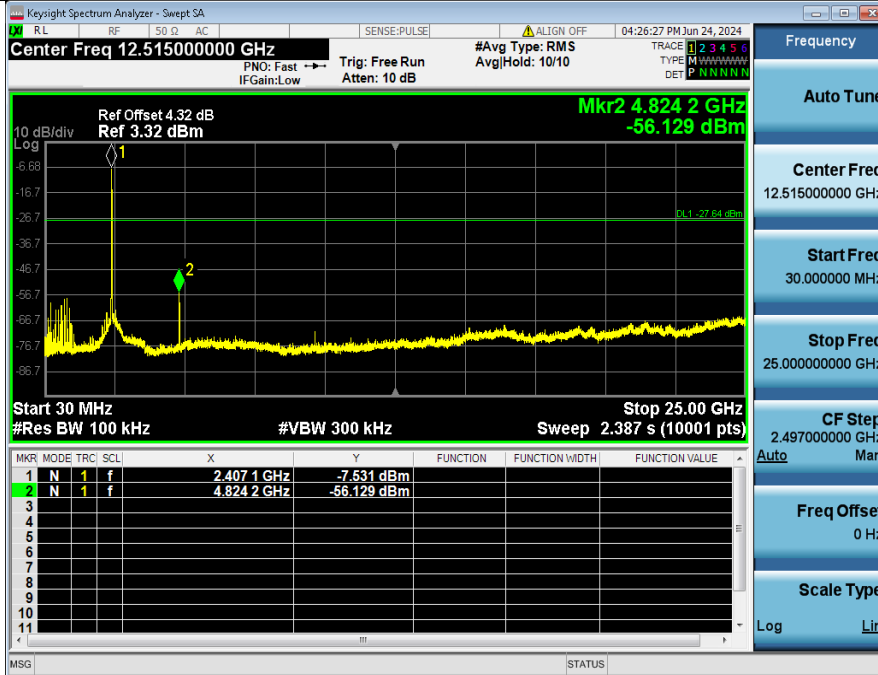


### 1 Reference Level NVNT\_ANT1\_802\_11n(HT20)\_2412



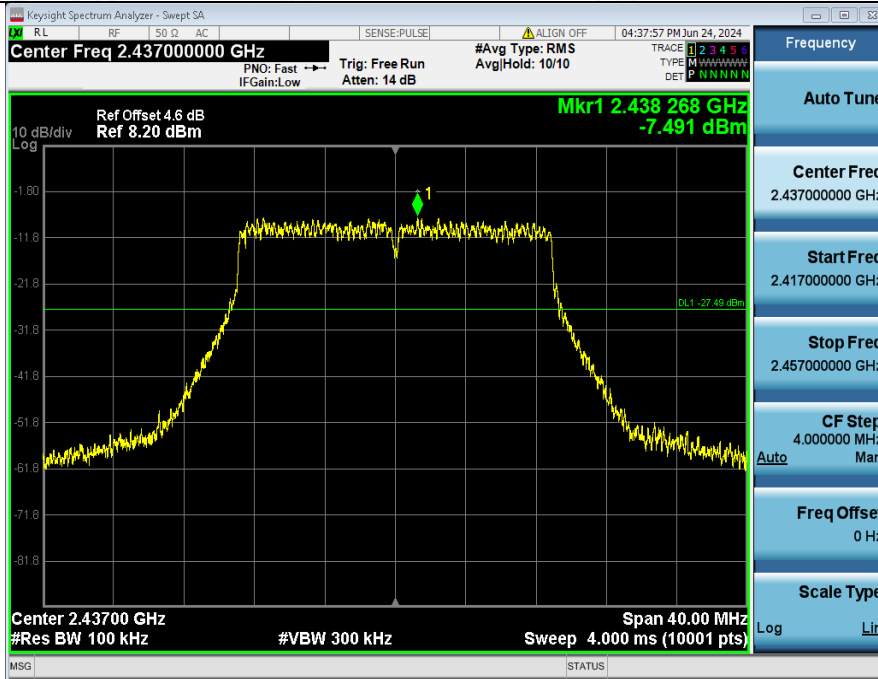


2 Spurious Emission NVNT\_ANT1\_802\_11n(HT20)\_2412

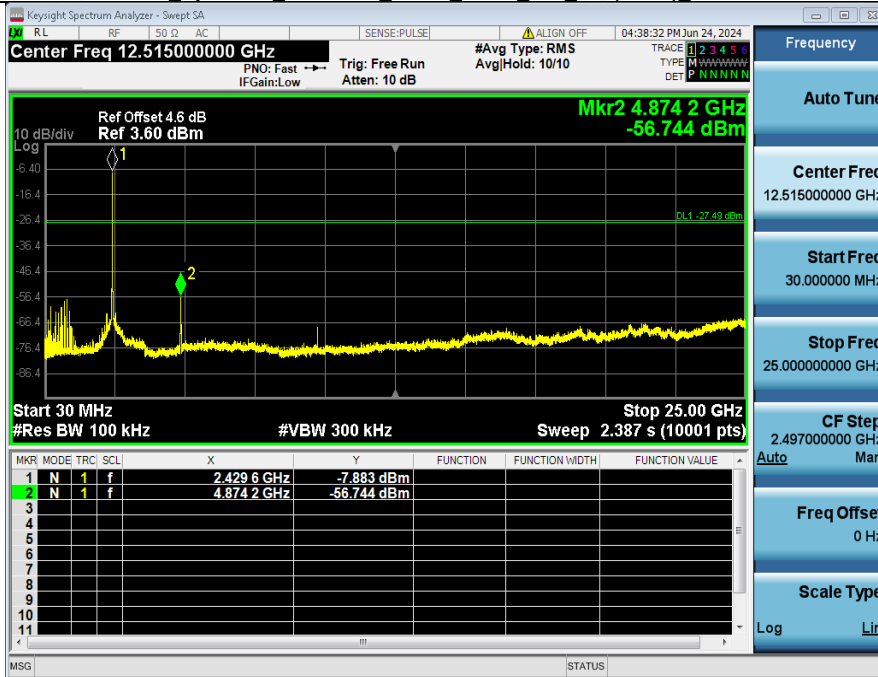


1 Reference Level NVNT\_ANT1\_802\_11n(HT20)\_2437



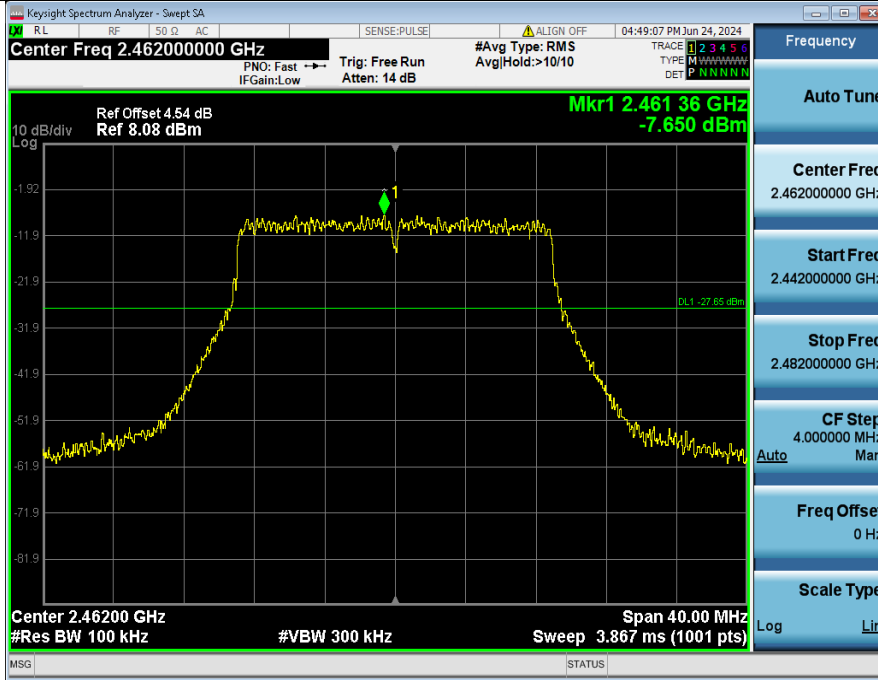


### 2 Spurious Emission NVNT\_ANT1\_802\_11n(HT20)\_2437



### 1 Reference Level NVNT\_ANT1\_802\_11n(HT20)\_2462





**2\_Spurious Emission\_NVNT\_ANT1\_802\_11n(HT20)\_2462**

