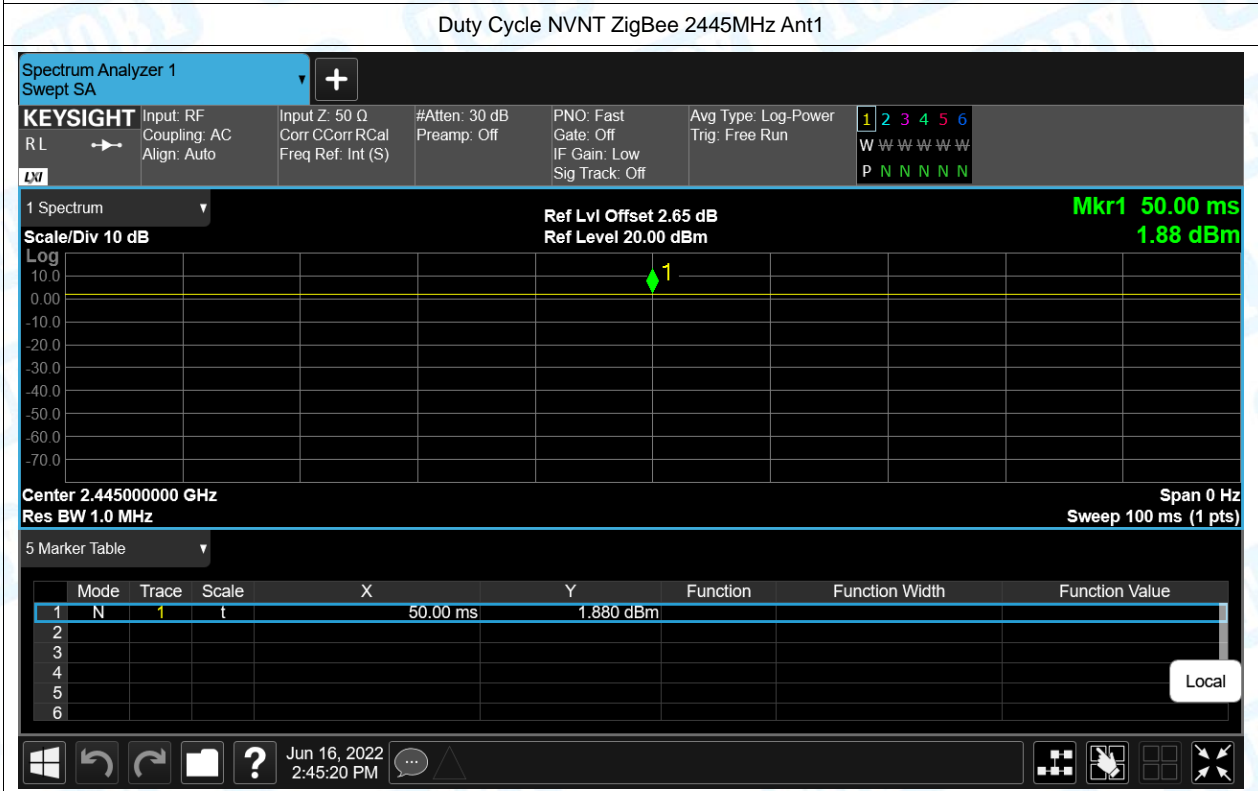
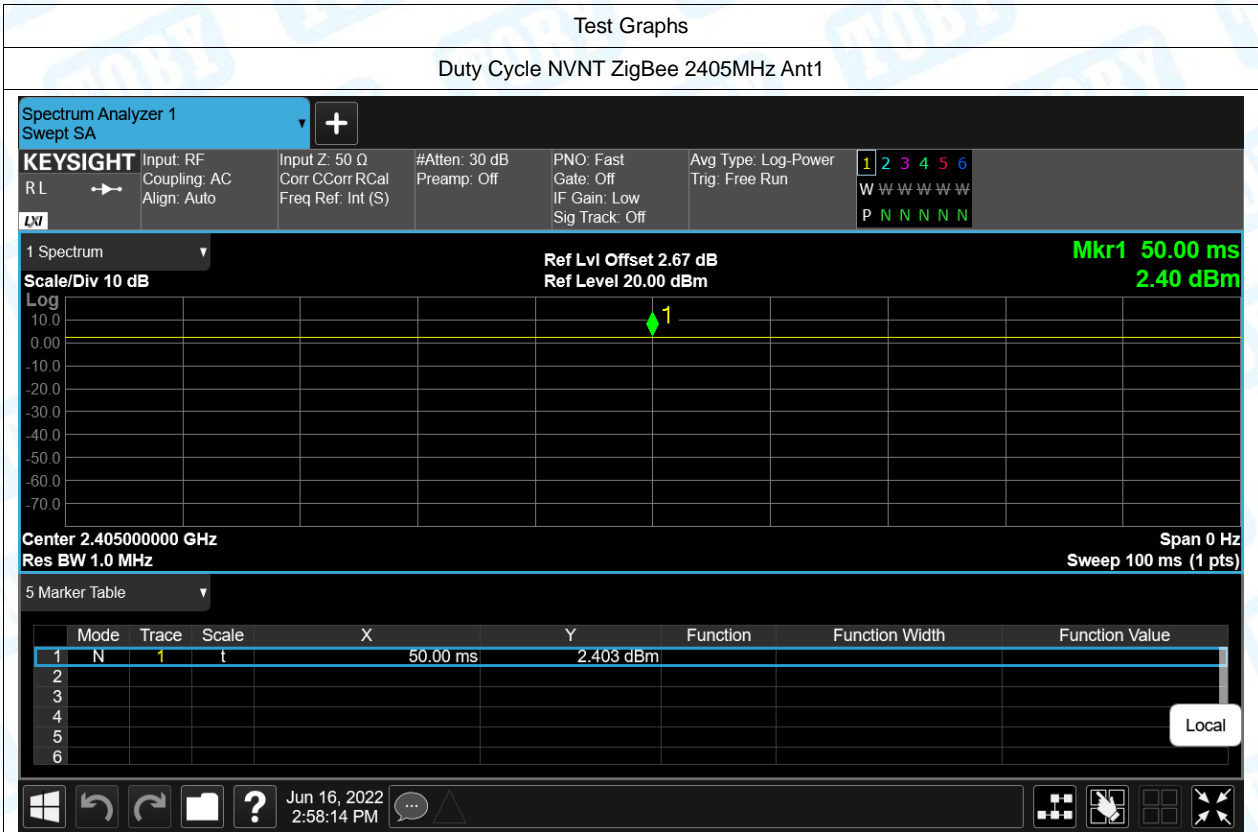


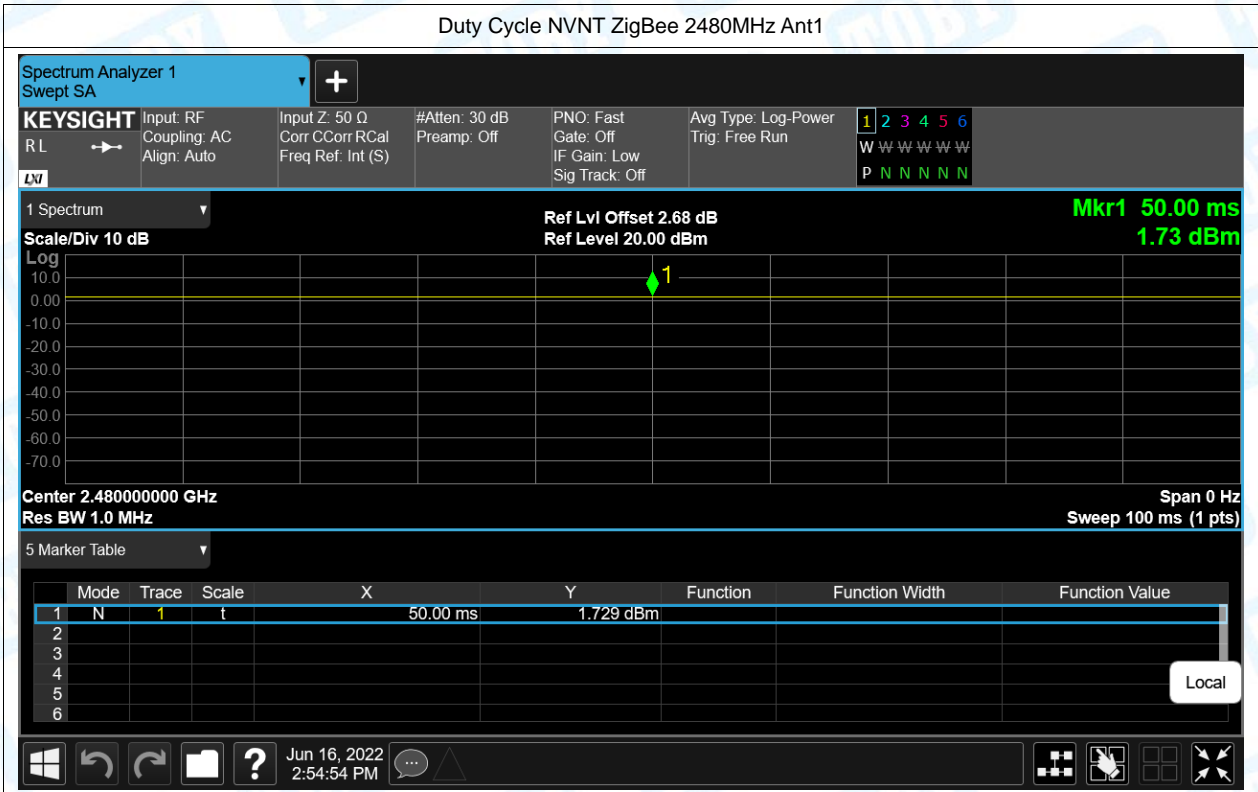
# RF Test Data for ZigBee (Conducted Measurements)

General Description of EUT	
Product Name:	Wireless Controller
Test Model:	3920
Sample ID:	RW-C-202206-0083-3-2#
Environmental Conditions	
Temperature:	23.8°C
Relative Humidity:	48%
Test Voltage:	DC 5V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202206-0083-3	

## 1. Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	ZigBee	2405	Ant1	100	0	0
NVNT	ZigBee	2445	Ant1	100	0	0
NVNT	ZigBee	2480	Ant1	100	0	0



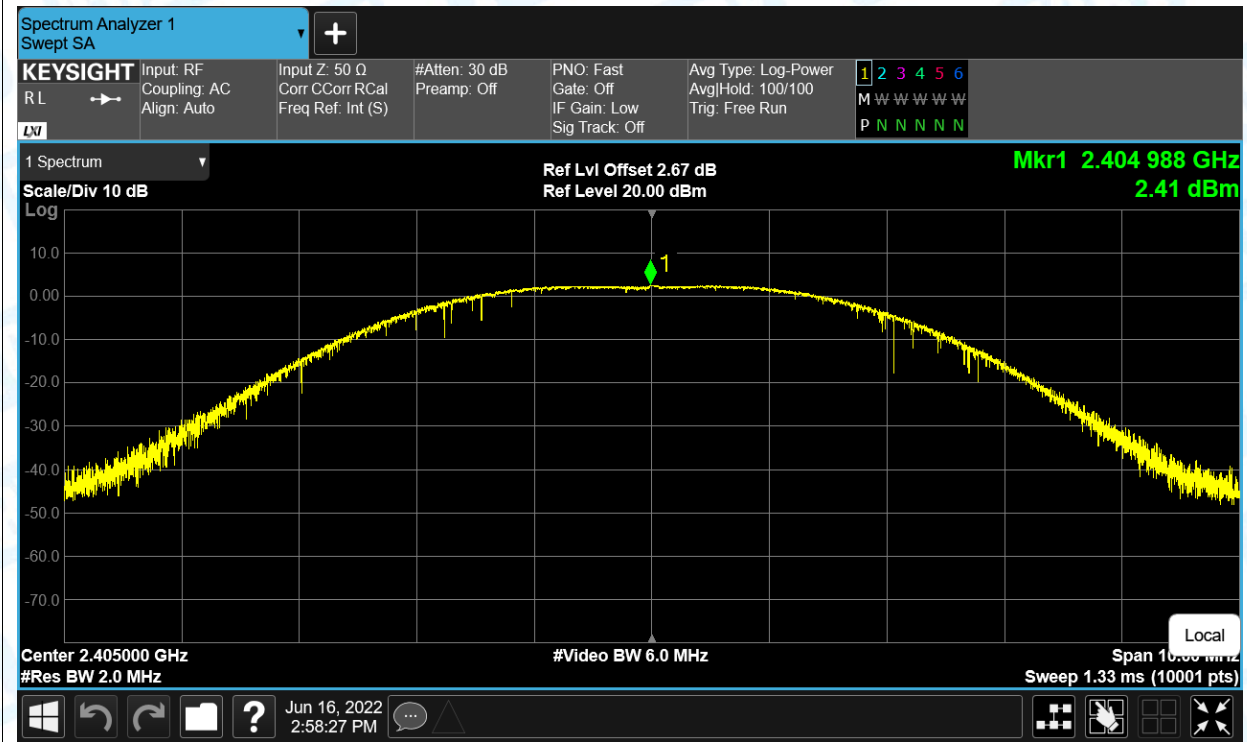


## 2. Maximum Conducted Output Power

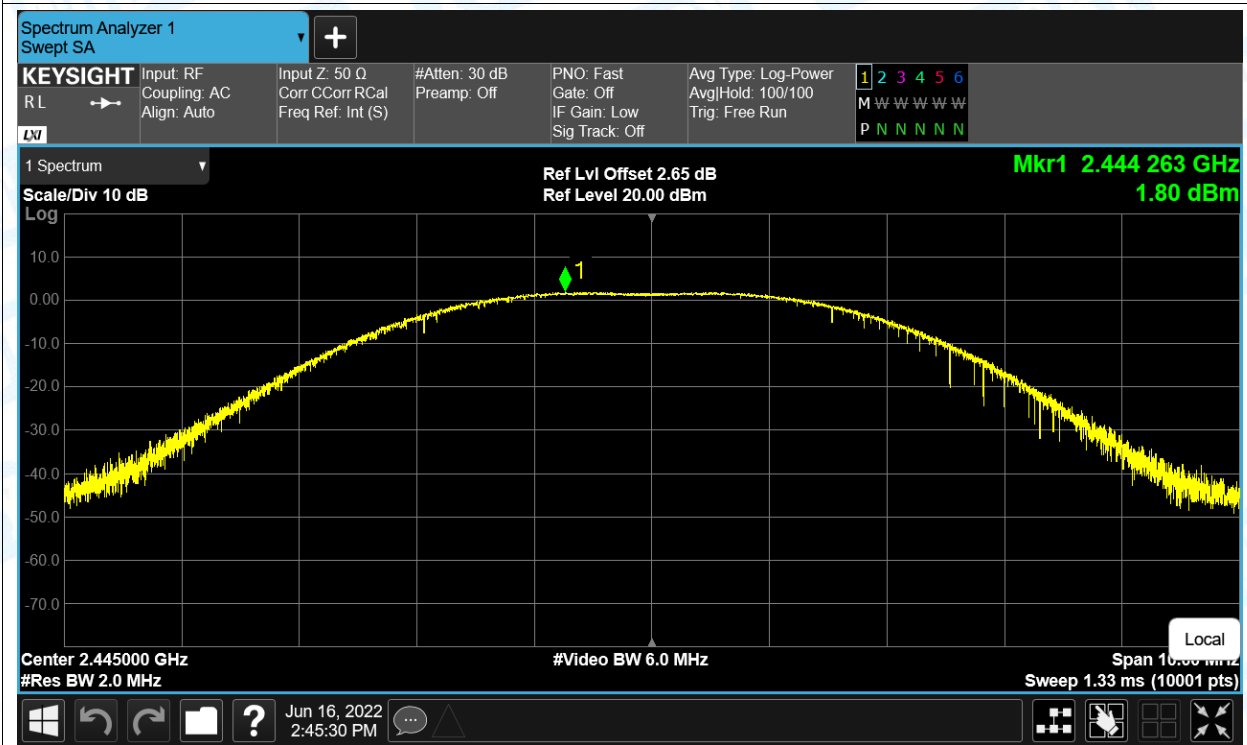
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	ZigBee	2405	Ant1	2.41	30	Pass
NVNT	ZigBee	2445	Ant1	1.80	30	Pass
NVNT	ZigBee	2480	Ant1	1.76	30	Pass

Test Graphs

Power NVNT ZigBee 2405MHz Ant1



Power NVNT ZigBee 2445MHz Ant1



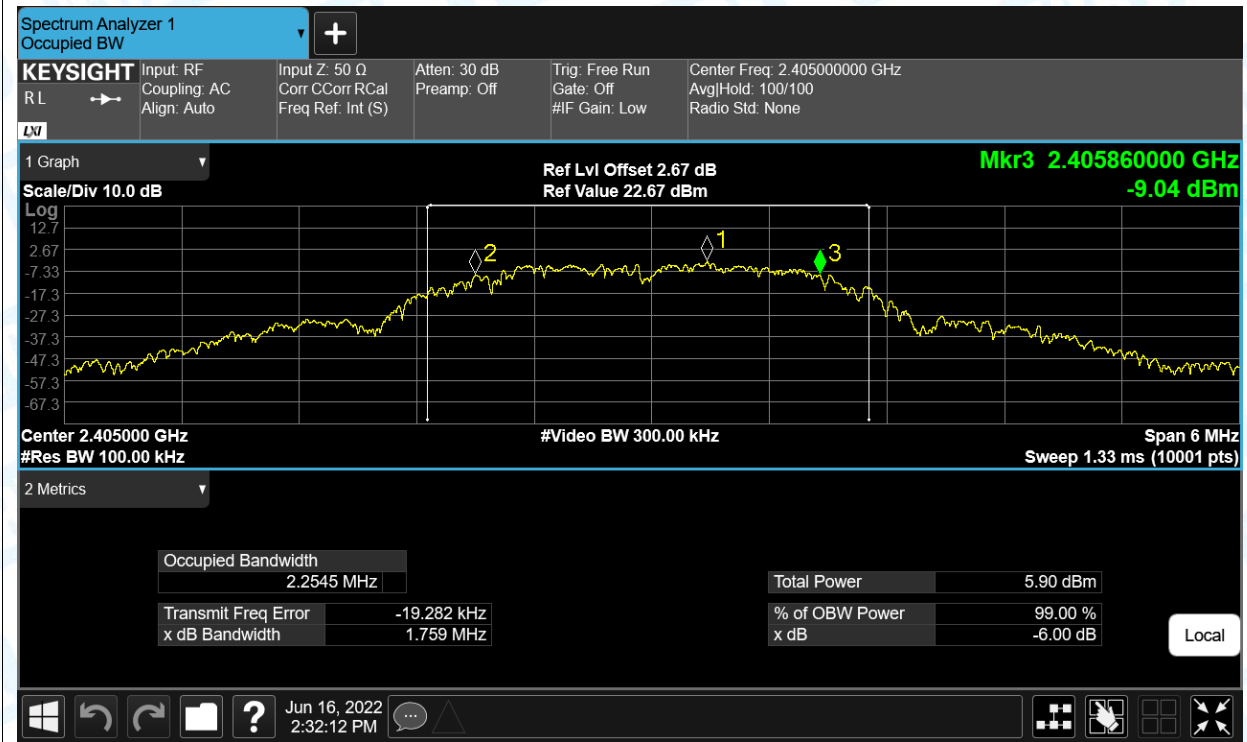


### 3. -6dB Bandwidth

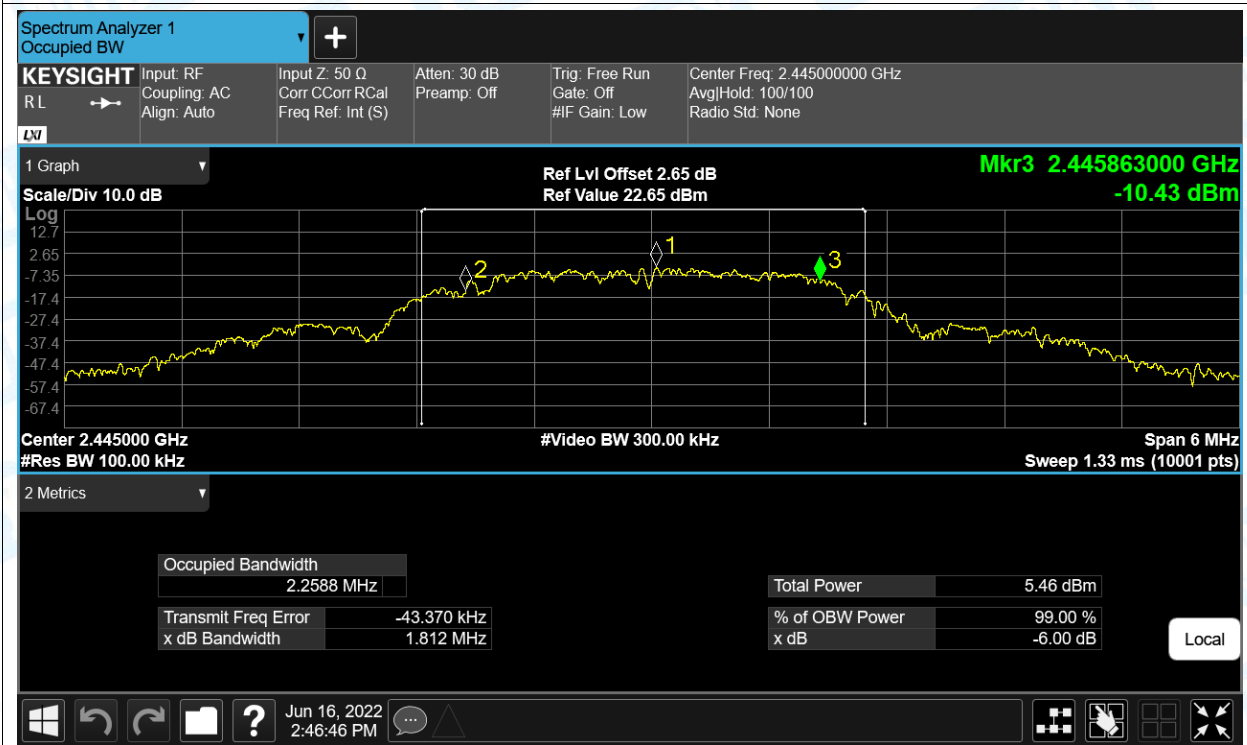
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	ZigBee	2405	Ant1	1.76	0.5	Pass
NVNT	ZigBee	2445	Ant1	1.81	0.5	Pass
NVNT	ZigBee	2480	Ant1	1.62	0.5	Pass

Test Graphs

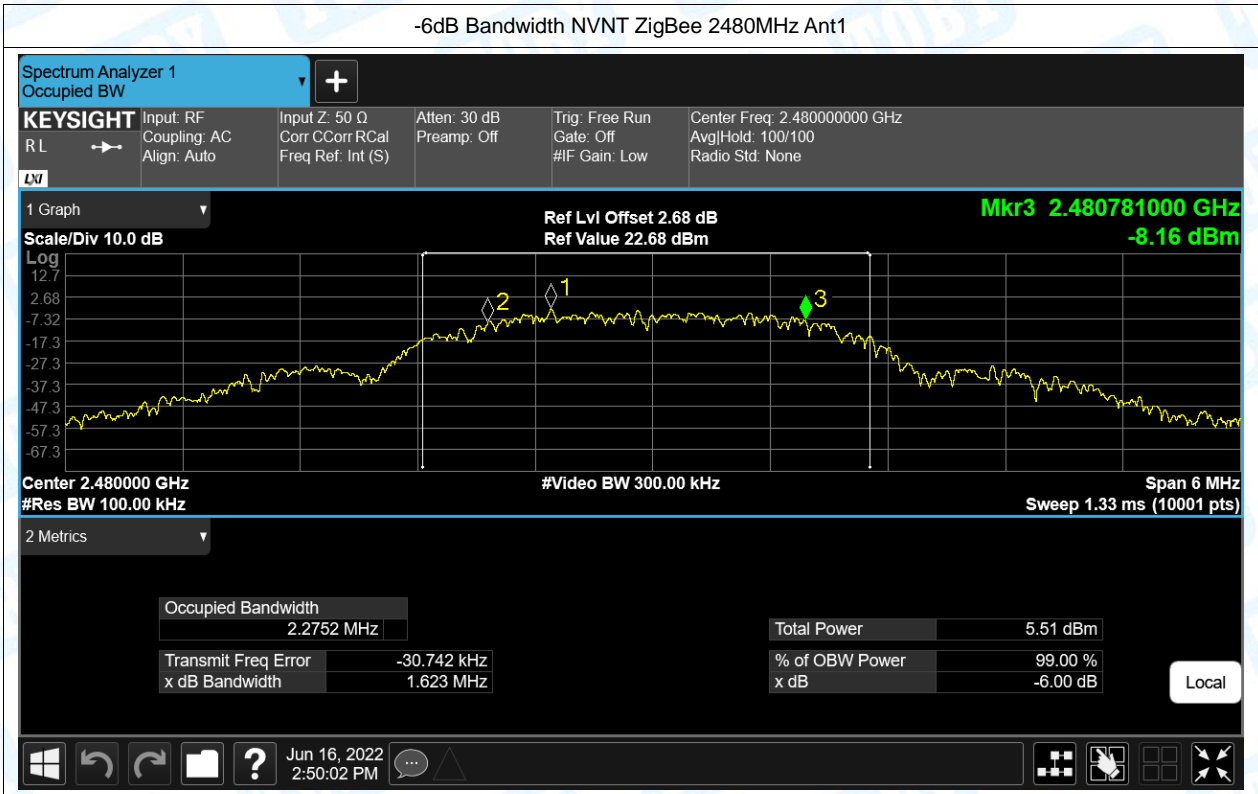
-6dB Bandwidth NVNT ZigBee 2405MHz Ant1



-6dB Bandwidth NVNT ZigBee 2445MHz Ant1

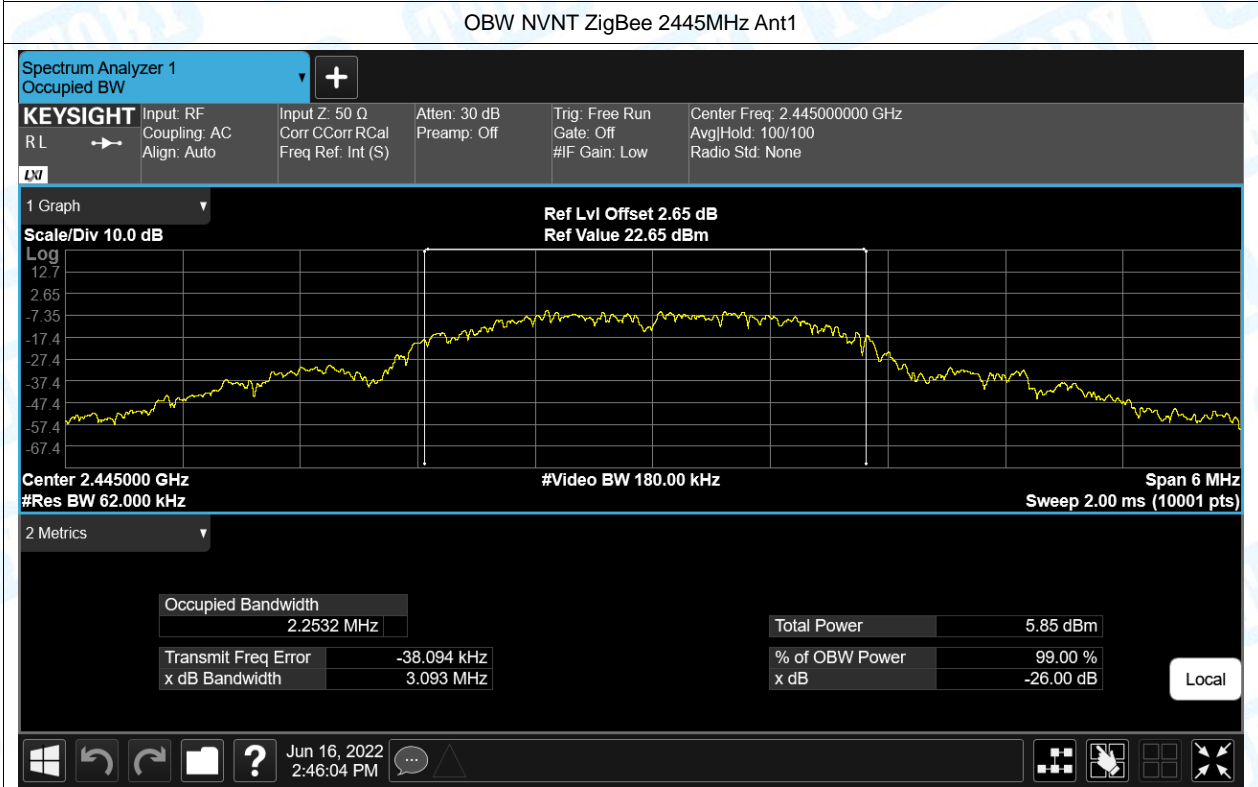
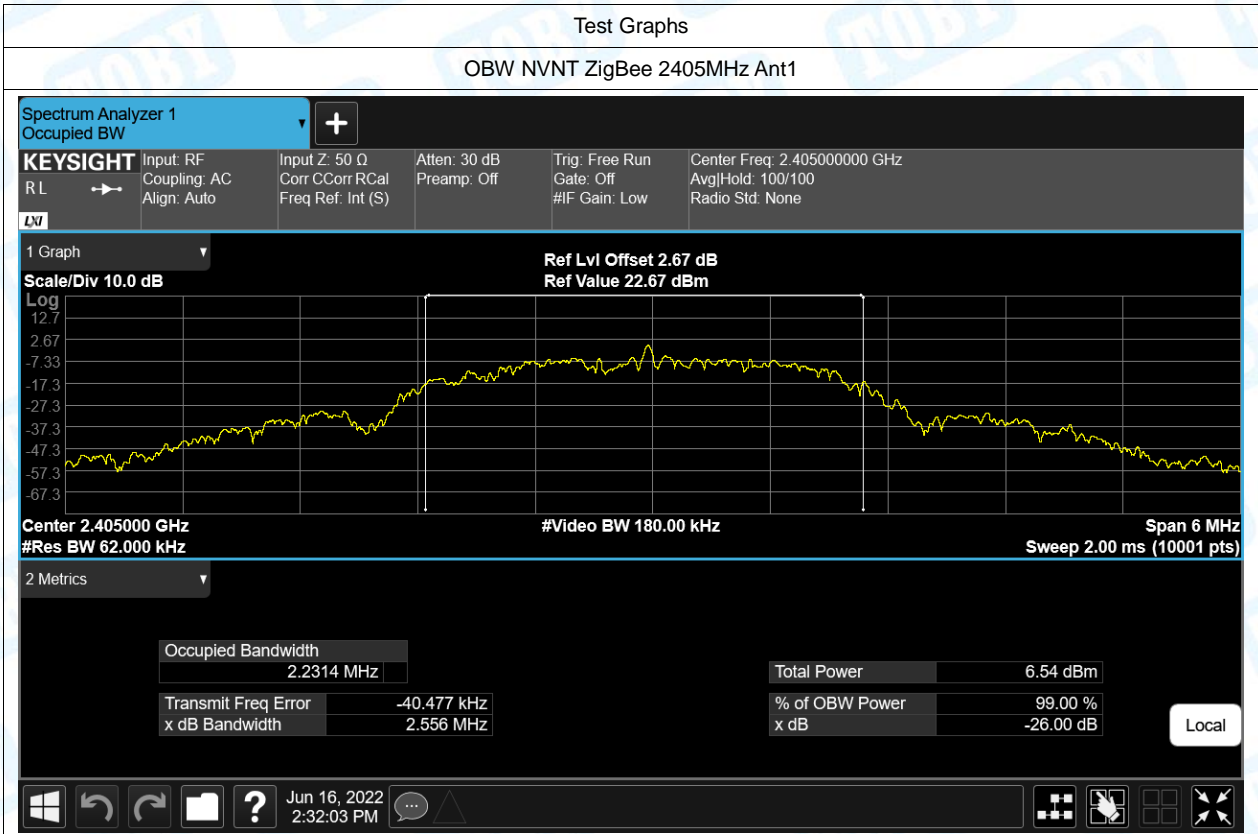


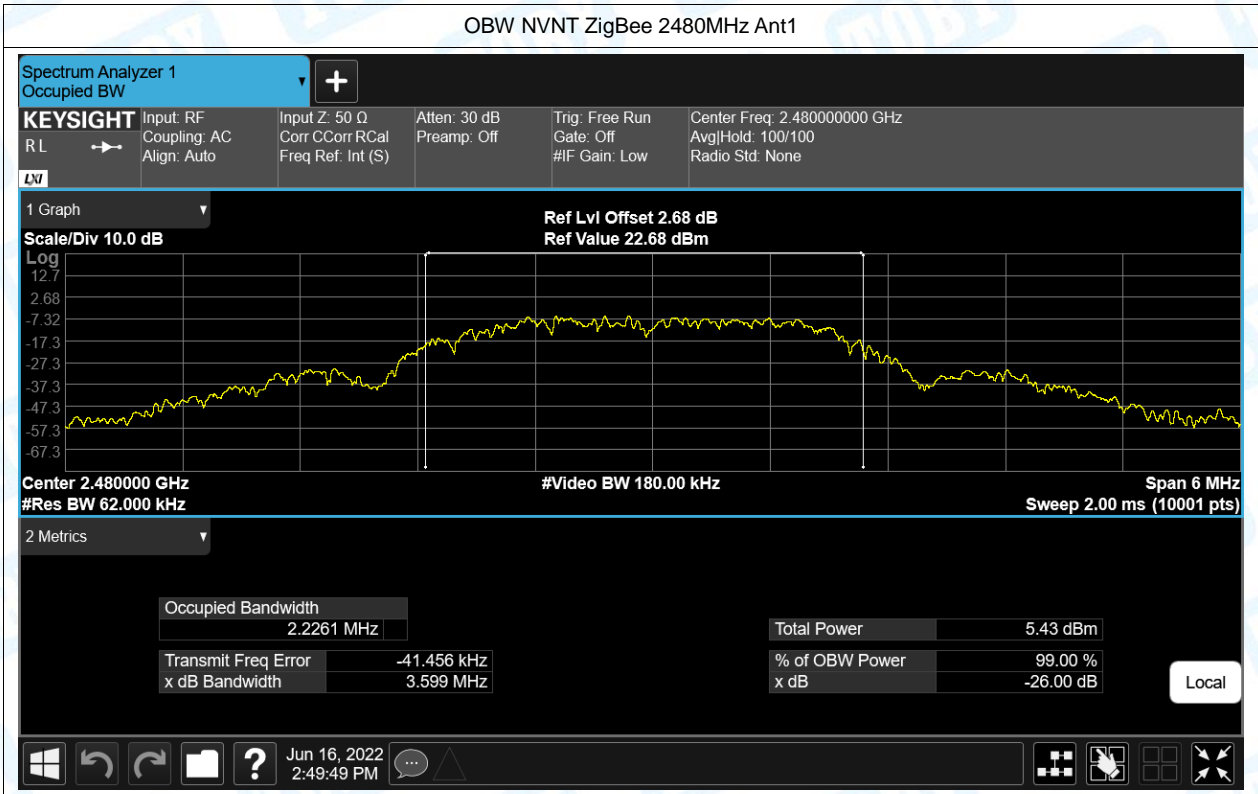




## 4. Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	ZigBee	2405	Ant1	2.231
NVNT	ZigBee	2445	Ant1	2.253
NVNT	ZigBee	2480	Ant1	2.226



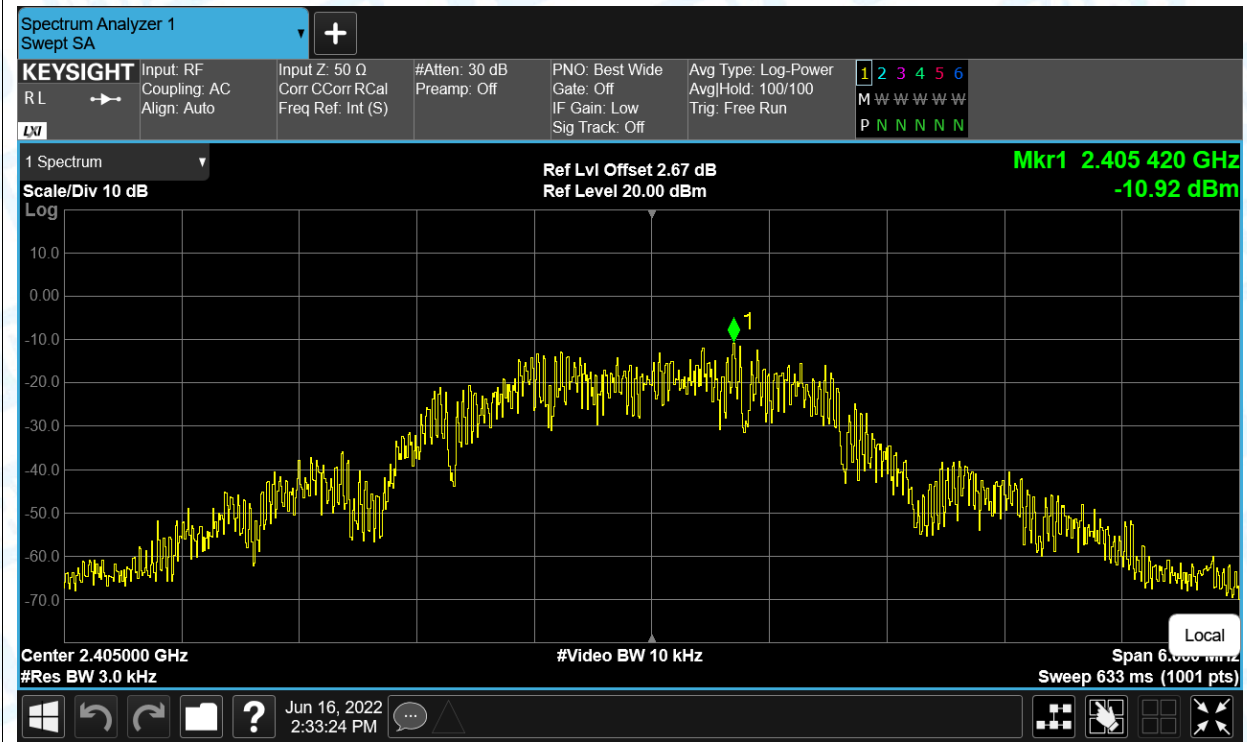


## 5. Maximum Power Spectral Density Level

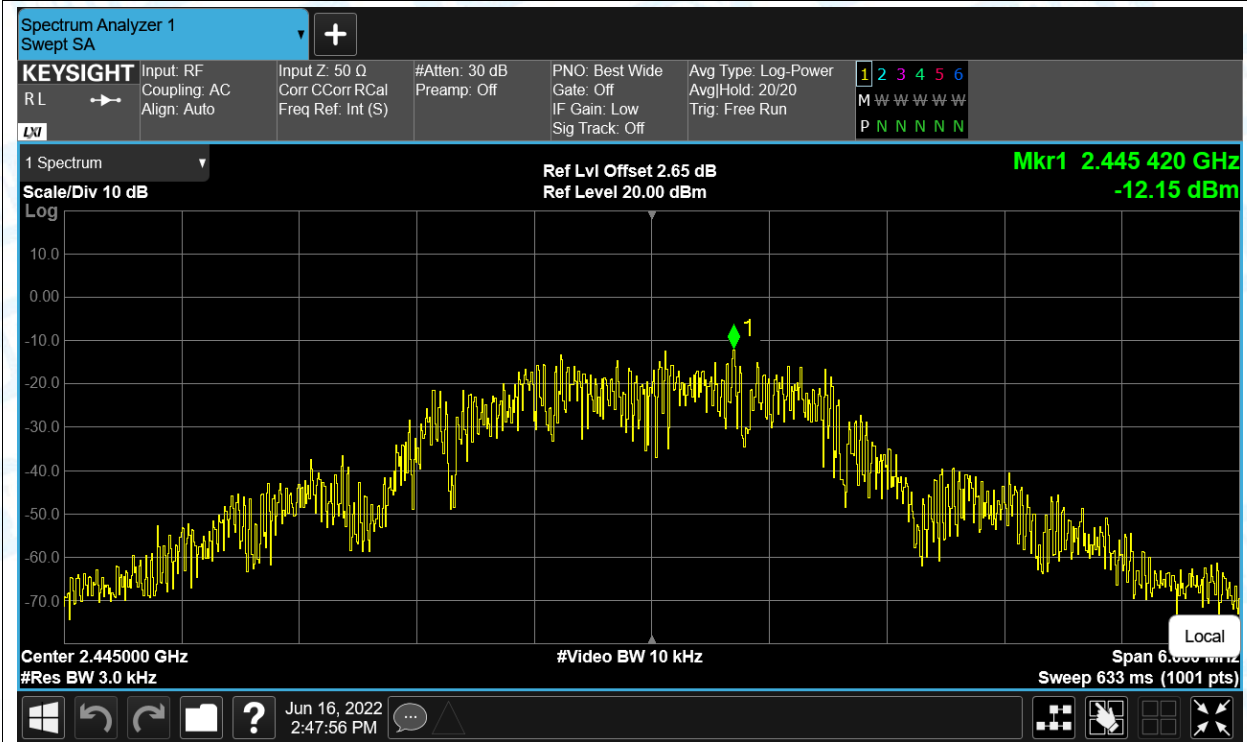
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	ZigBee	2405	Ant1	-10.923	8	Pass
NVNT	ZigBee	2445	Ant1	-12.15	8	Pass
NVNT	ZigBee	2480	Ant1	-10.798	8	Pass

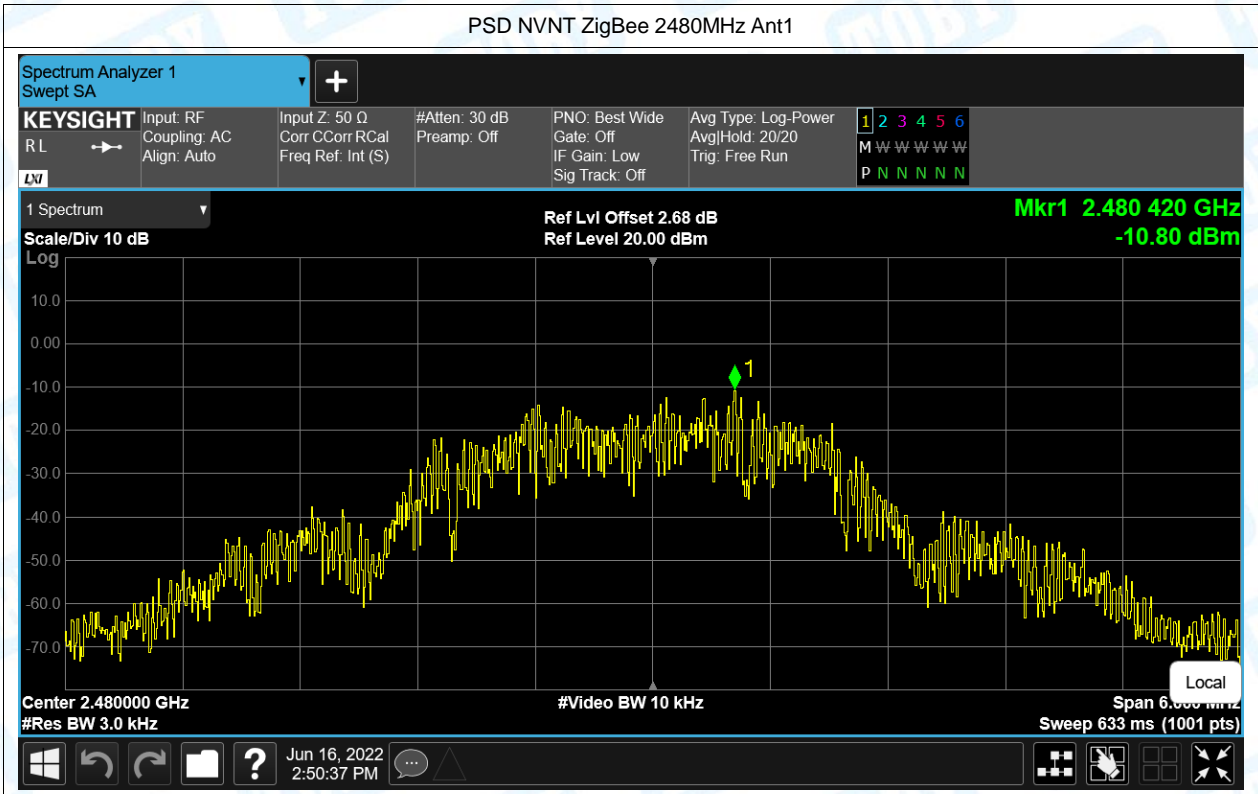
Test Graphs

PSD NVNT ZigBee 2405MHz Ant1



PSD NVNT ZigBee 2445MHz Ant1





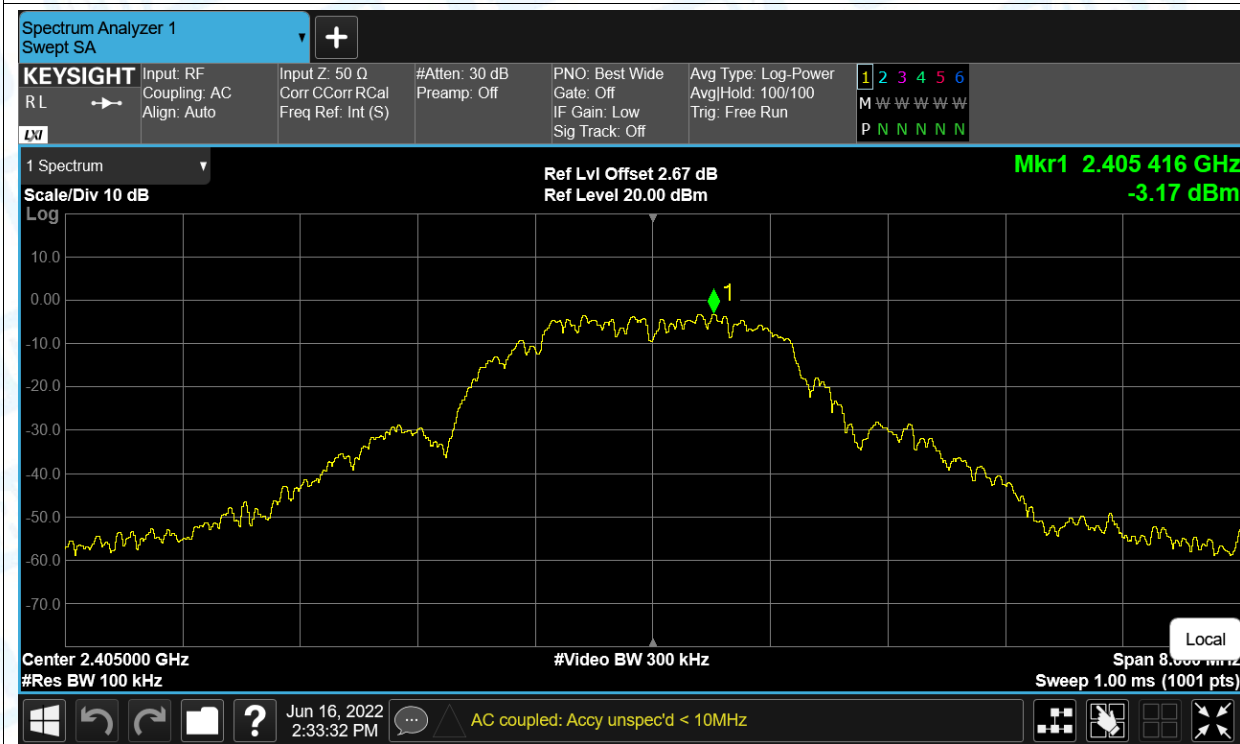
## 6. Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	ZigBee	2405	Ant1	-53.05	-20	Pass
NVNT	ZigBee	2480	Ant1	-49.43	-20	Pass

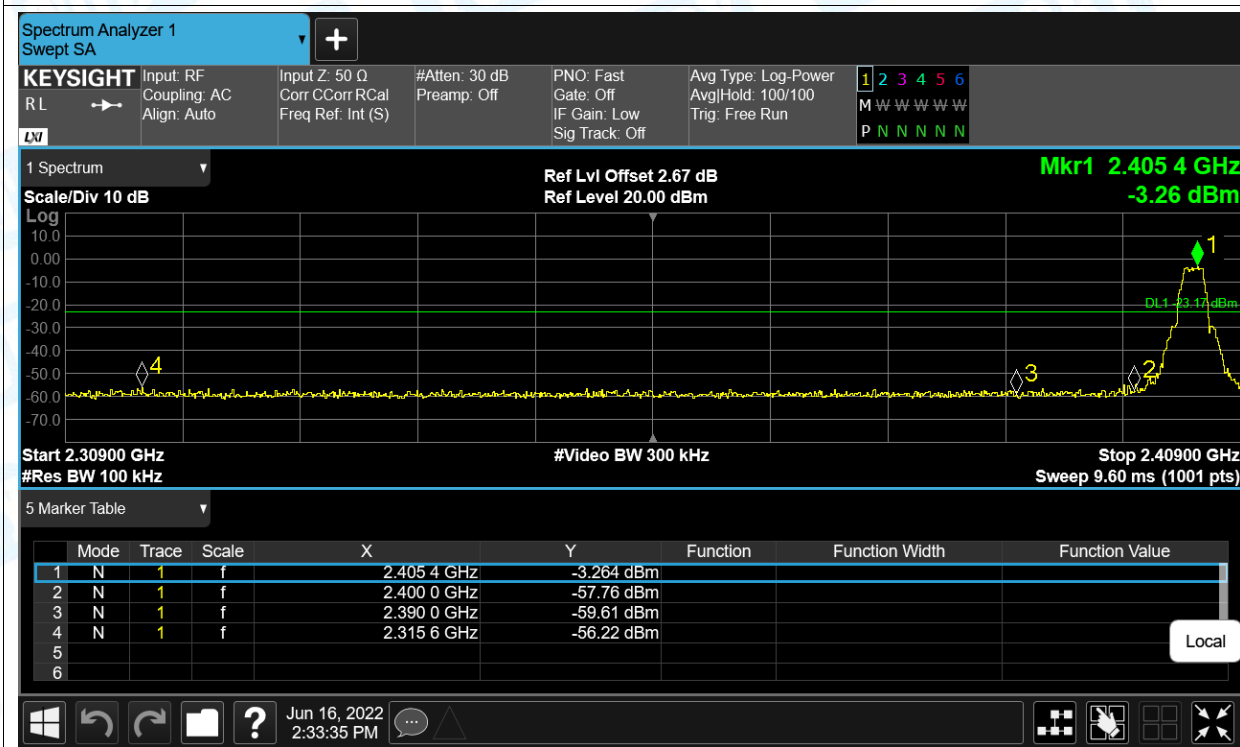


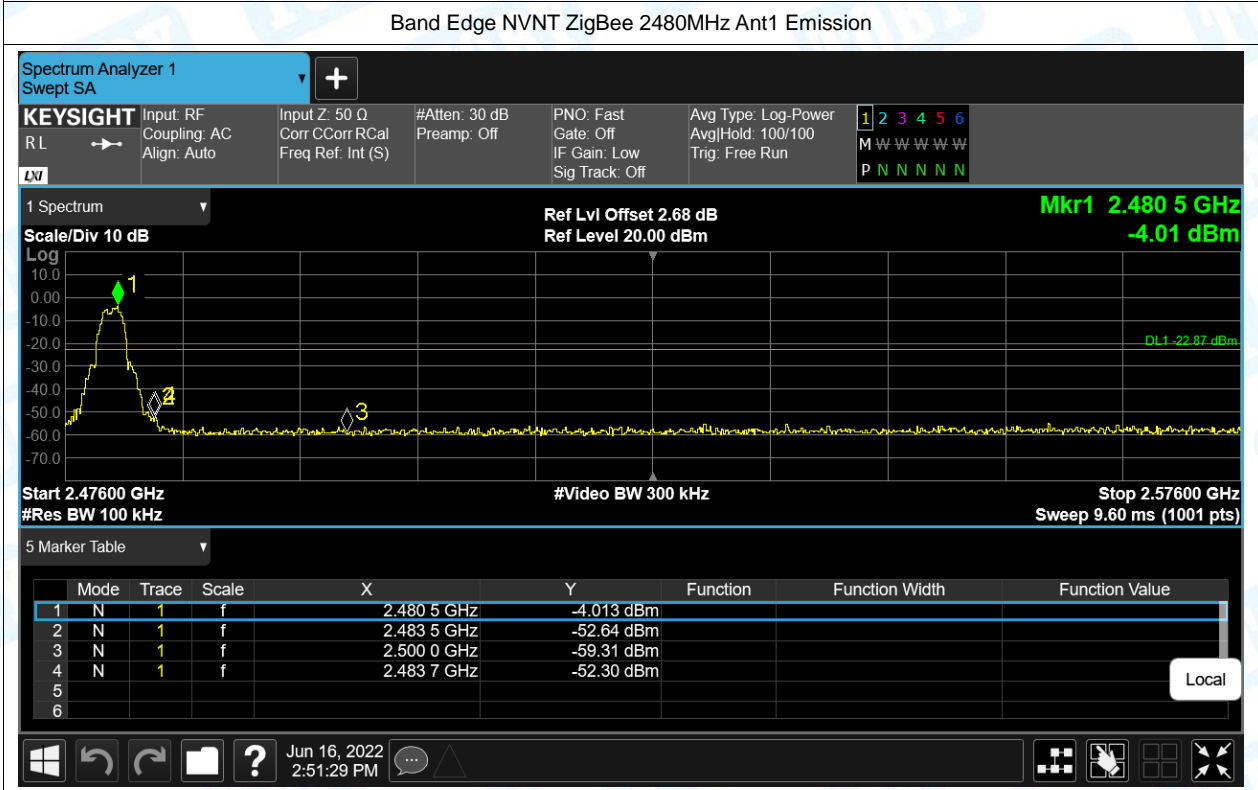
### Test Graphs

#### Band Edge NVNT ZigBee 2405MHz Ant1 Ref



#### Band Edge NVNT ZigBee 2405MHz Ant1 Emission



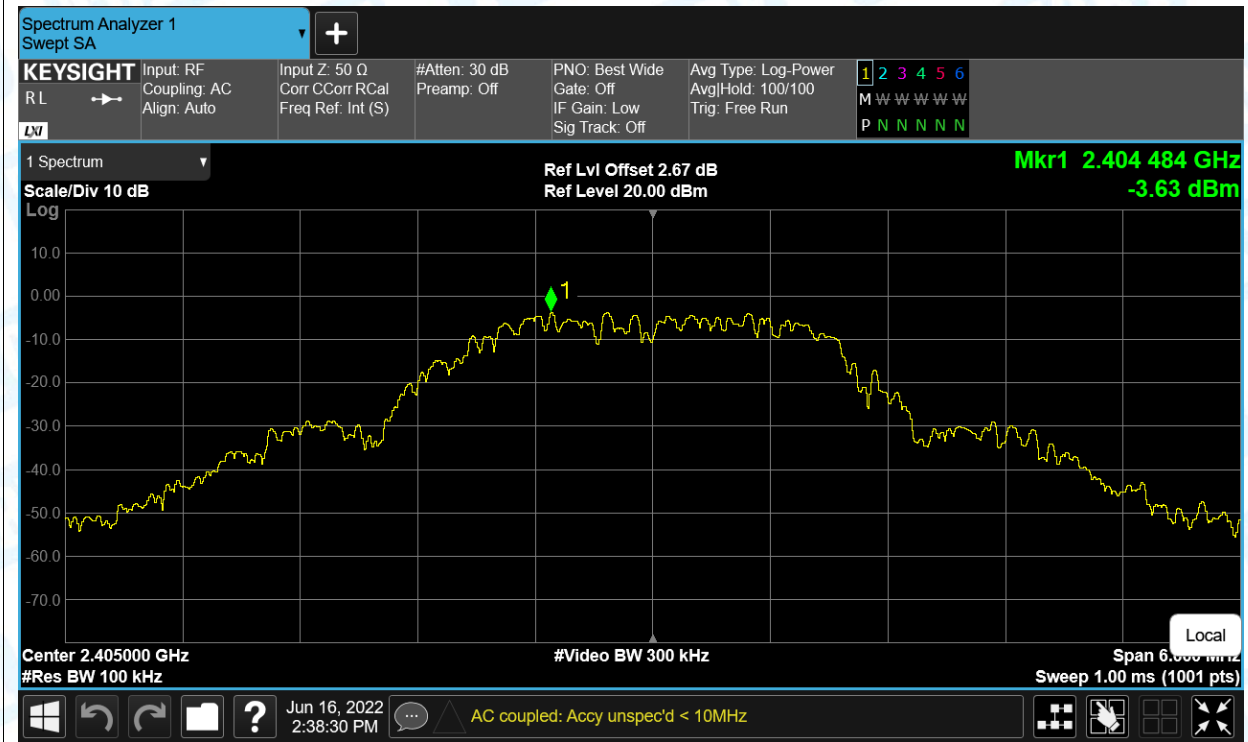


## 7. Conducted RF Spurious Emission

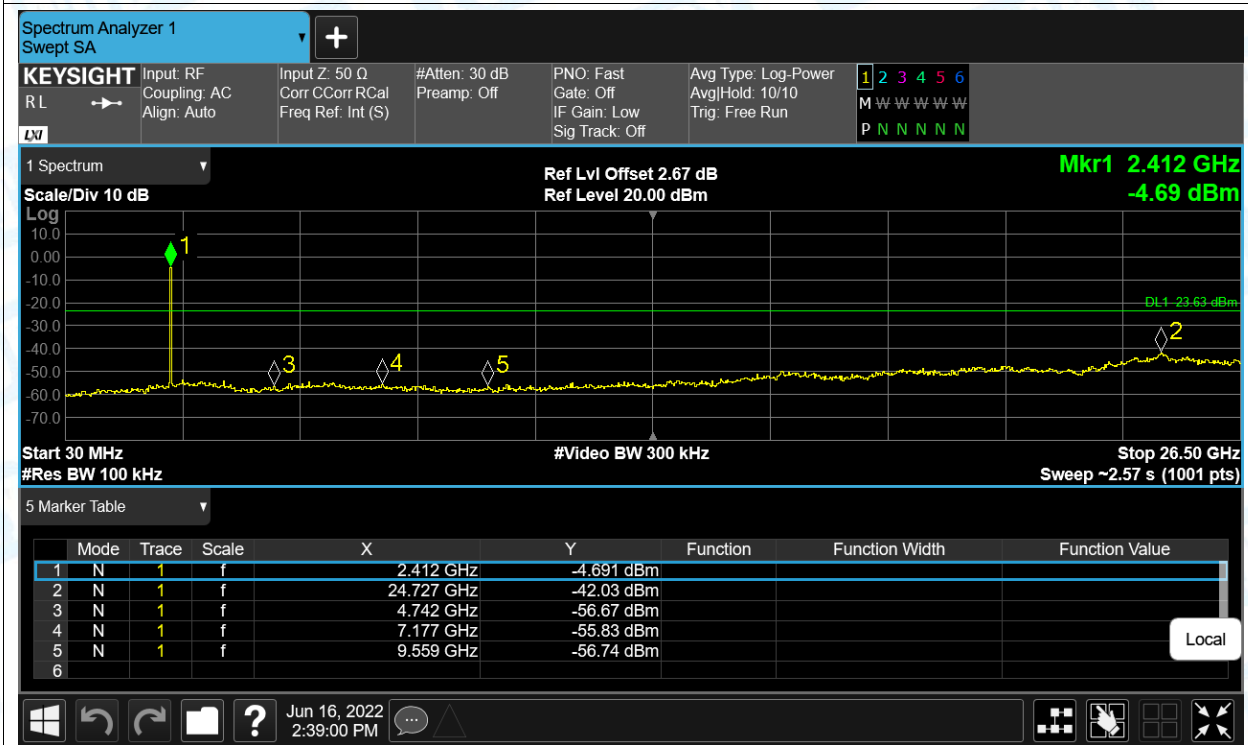
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	ZigBee	2405	Ant1	-38.4	-20	Pass
NVNT	ZigBee	2445	Ant1	-39.17	-20	Pass
NVNT	ZigBee	2480	Ant1	-39.46	-20	Pass

### Test Graphs

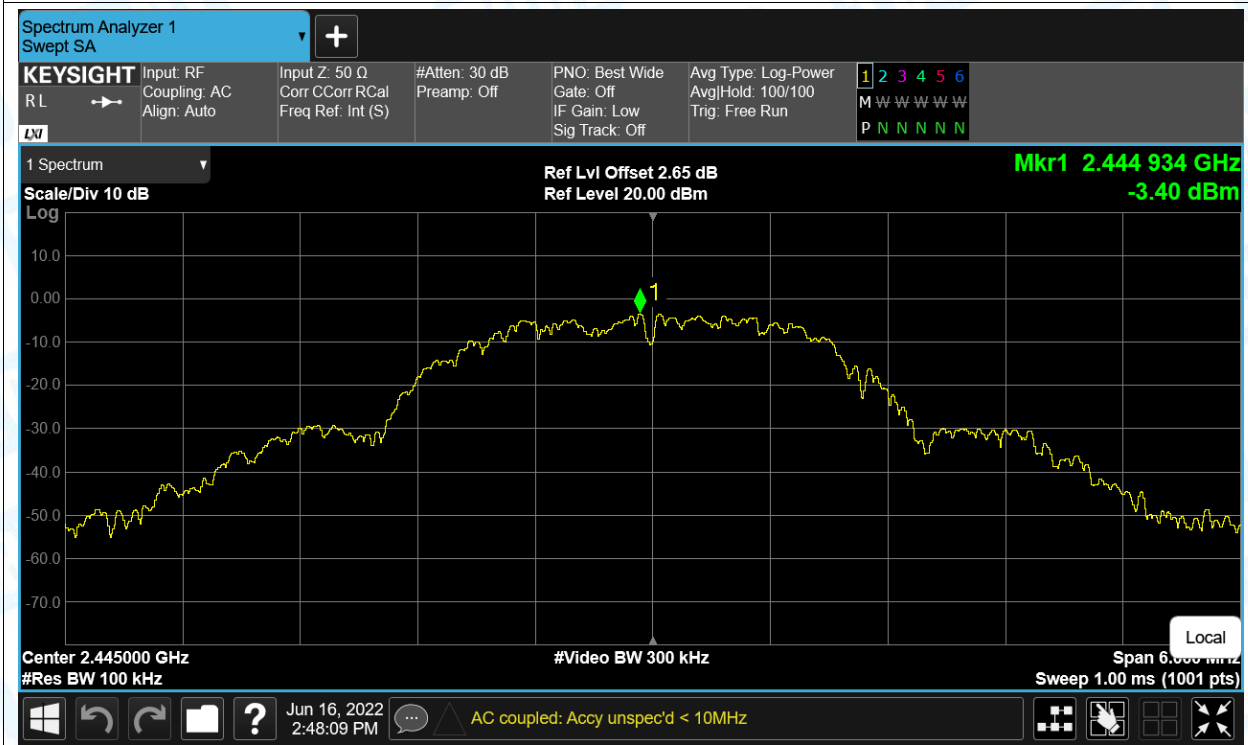
#### Tx. Spurious NVNT ZigBee 2405MHz Ant1 Ref



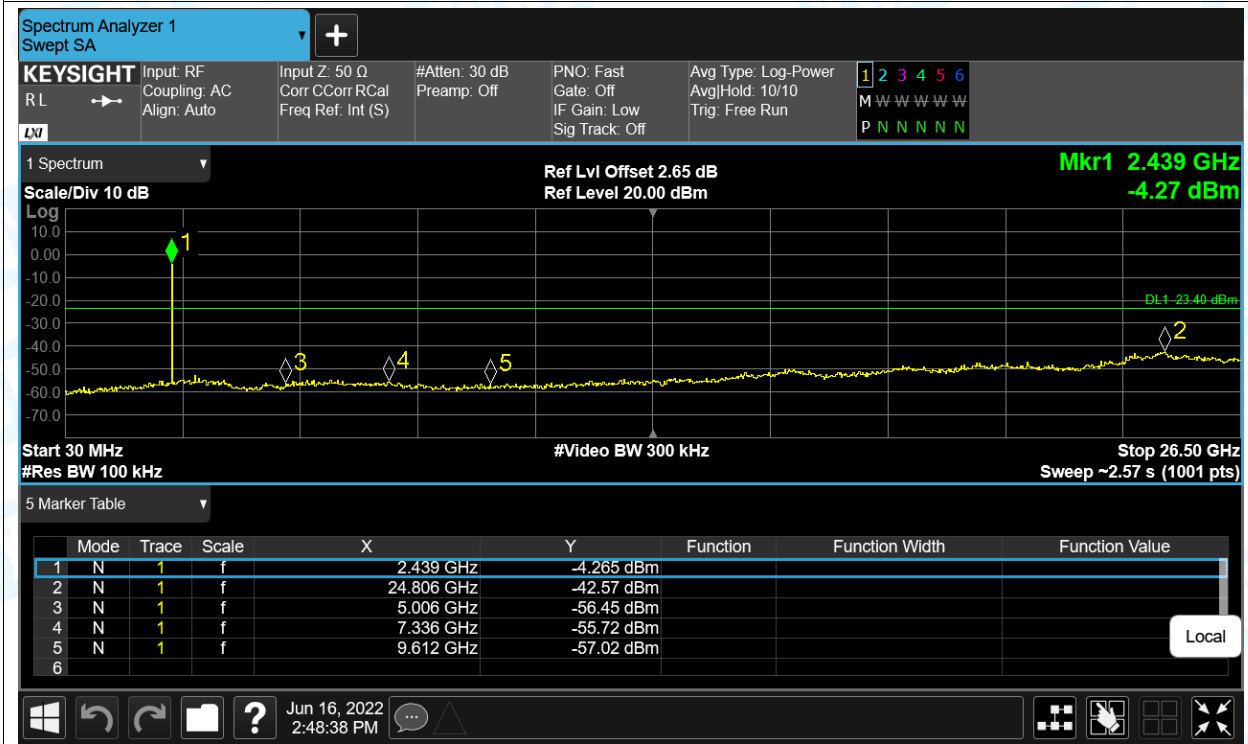
#### Tx. Spurious NVNT ZigBee 2405MHz Ant1 Emission



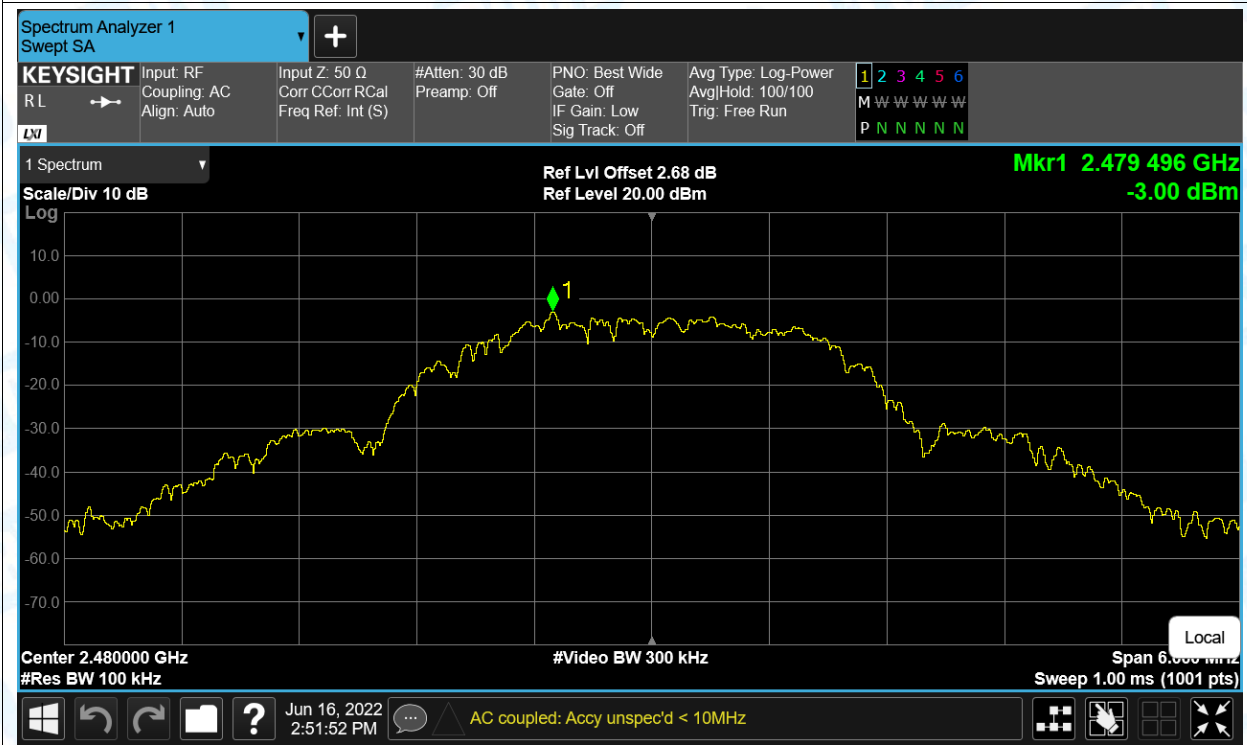
### Tx. Spurious NVNT ZigBee 2445MHz Ant1 Ref



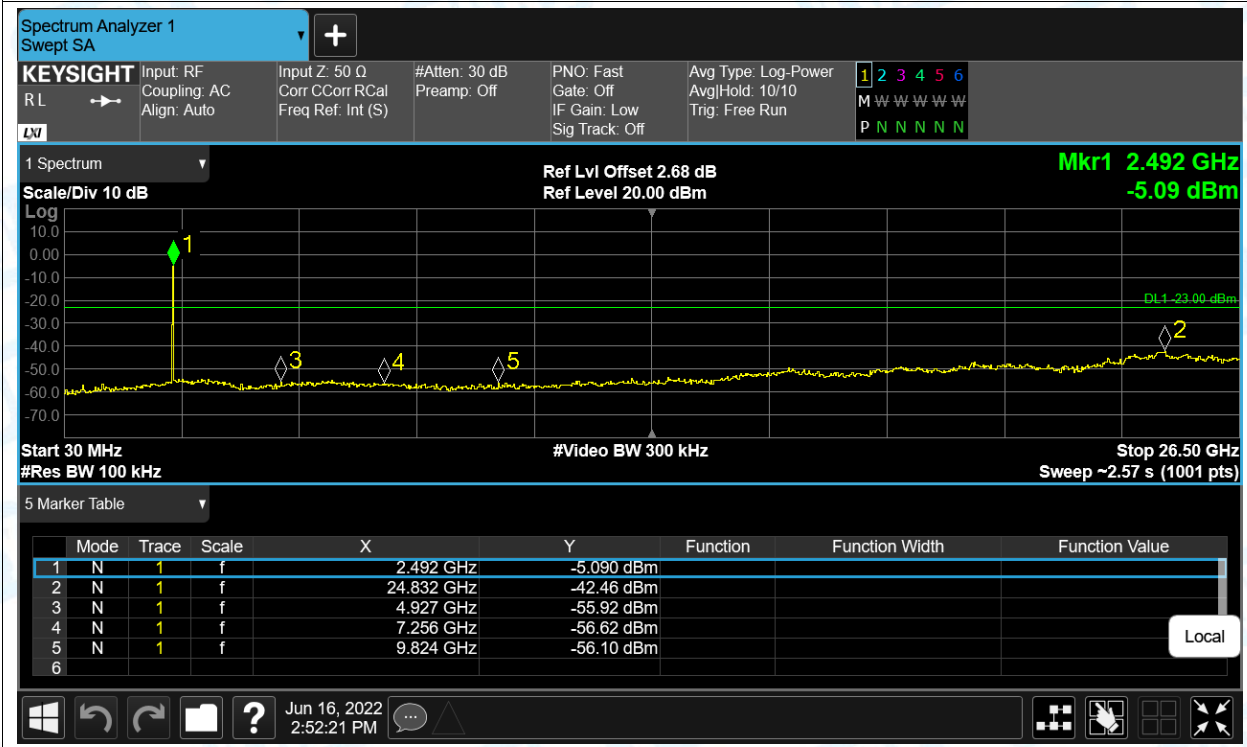
### Tx. Spurious NVNT ZigBee 2445MHz Ant1 Emission



Tx. Spurious NVNT ZigBee 2480MHz Ant1 Ref



Tx. Spurious NVNT ZigBee 2480MHz Ant1 Emission

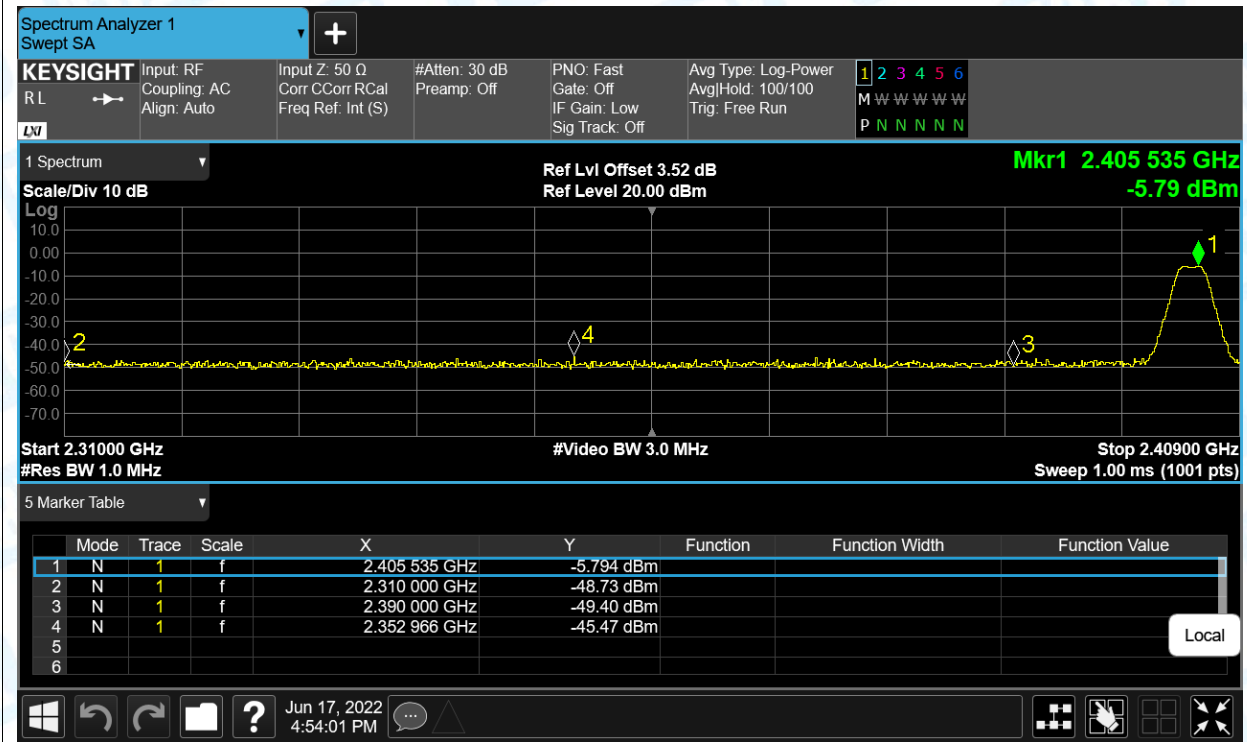


## 8. Restrict Band

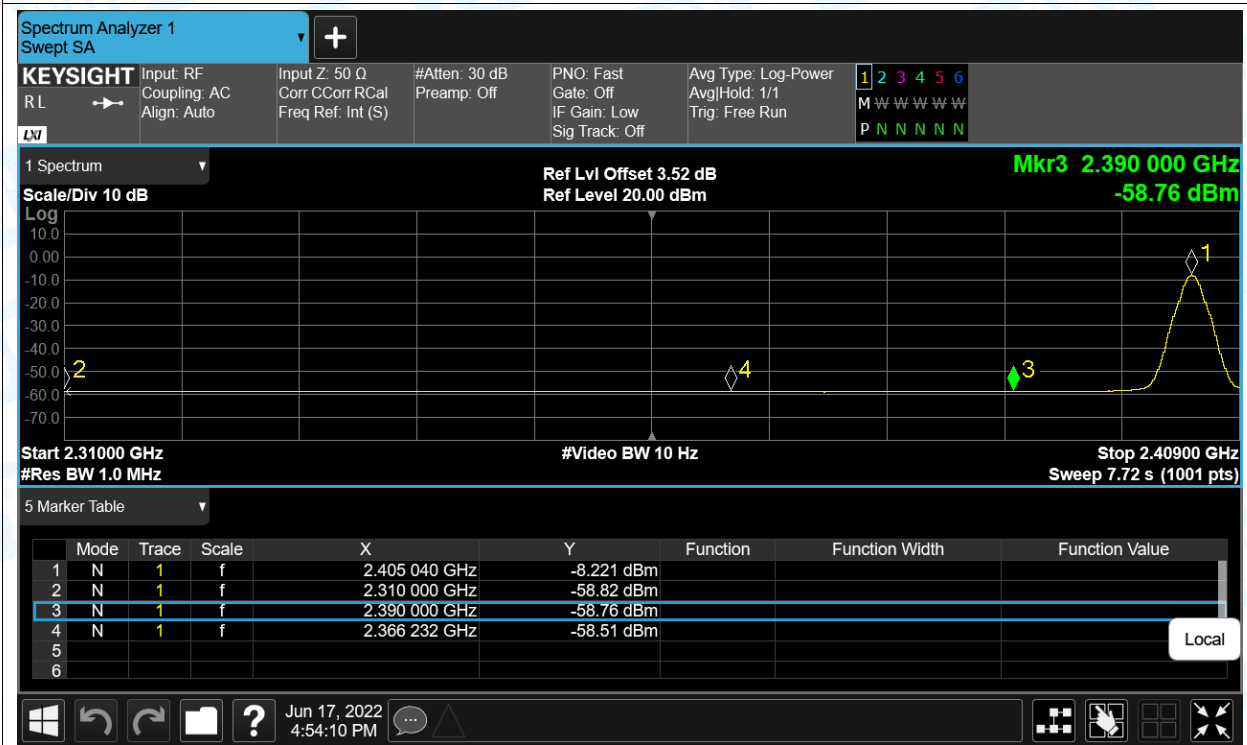
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	ZigBee	2405	Ant1	2310	-48.73	2	48.53	Peak	74	Pass
NVNT	ZigBee	2405	Ant1	2310	-58.82	2	38.44	Average	54	Pass
NVNT	ZigBee	2405	Ant1	2352.966	-45.47	2	51.79	Peak	74	Pass
NVNT	ZigBee	2405	Ant1	2366.232	-58.51	2	38.75	Average	54	Pass
NVNT	ZigBee	2405	Ant1	2390	-48.59	2	48.67	Peak	74	Pass
NVNT	ZigBee	2405	Ant1	2390	-58.75	2	38.51	Average	54	Pass
NVNT	ZigBee	2480	Ant1	2483.5	-45.31	2	51.95	Peak	74	Pass
NVNT	ZigBee	2480	Ant1	2483.5	-55.64	2	41.62	Average	54	Pass
NVNT	ZigBee	2480	Ant1	2483.704	-44.8	2	52.46	Peak	74	Pass
NVNT	ZigBee	2480	Ant1	2483.512	-55.64	2	41.62	Average	54	Pass
NVNT	ZigBee	2480	Ant1	2500	-48.8	2	48.46	Peak	74	Pass
NVNT	ZigBee	2480	Ant1	2500	-58.44	2	38.82	Average	54	Pass

Test Graphs

Restrict Band NVNT ZigBee 2405MHz Ant1 Peak

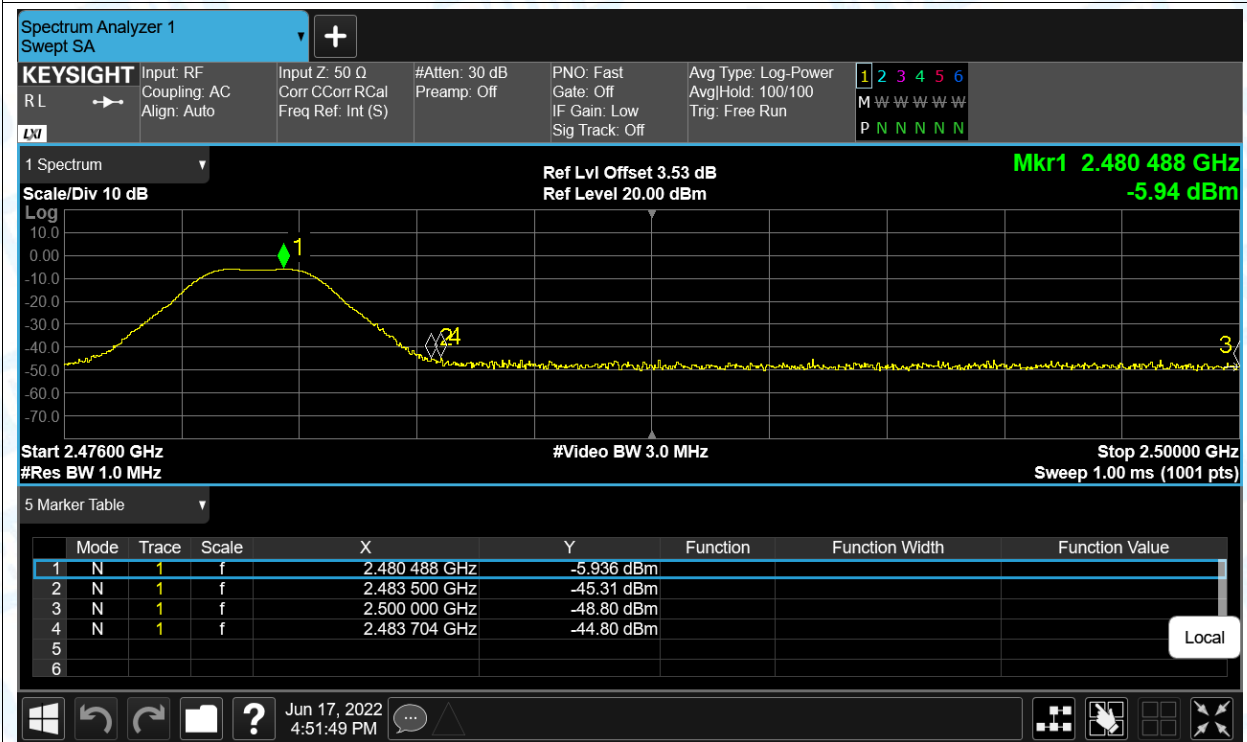


Restrict Band NVNT ZigBee 2405MHz Ant1 Average

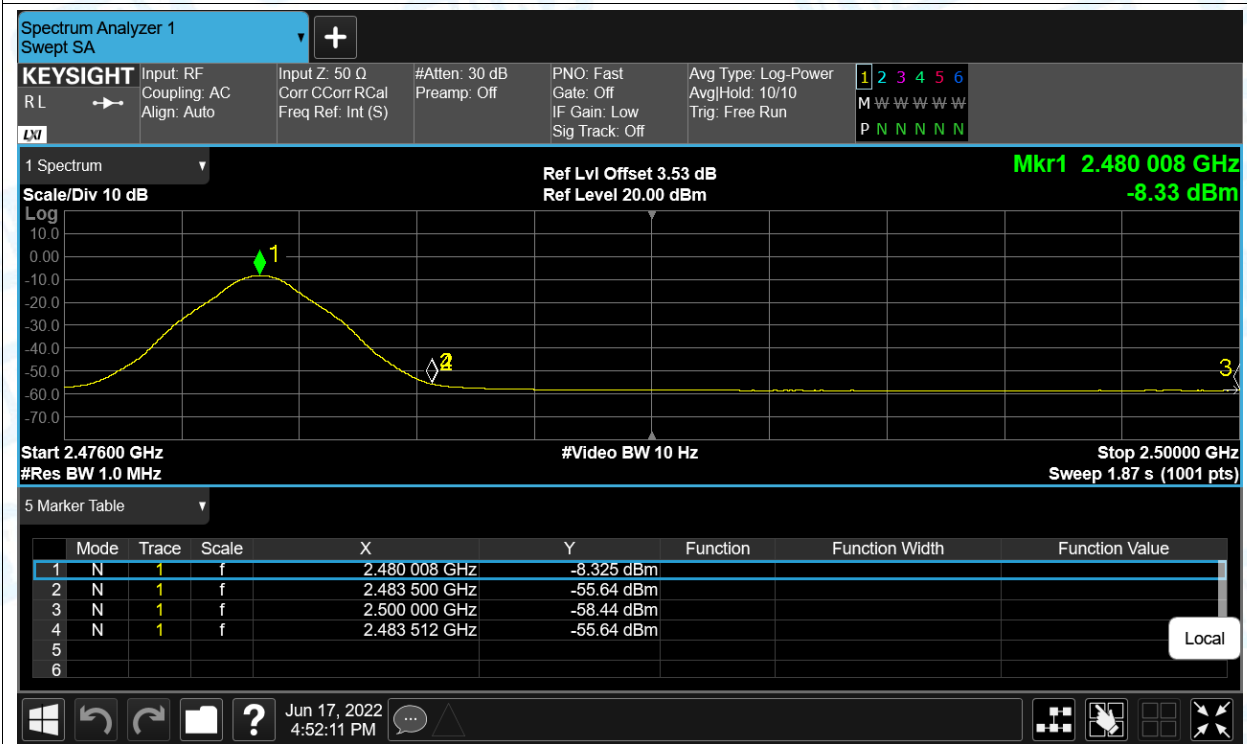




Restrict Band NVNT ZigBee 2480MHz Ant1 Peak



Restrict Band NVNT ZigBee 2480MHz Ant1 Average



-----End of the report-----