

## Appendix A

### RF Test Data for 2.4G (Conducted Measurement)

Product Name: RADIO TRANSMITTER

Trade Mark: NEEWER

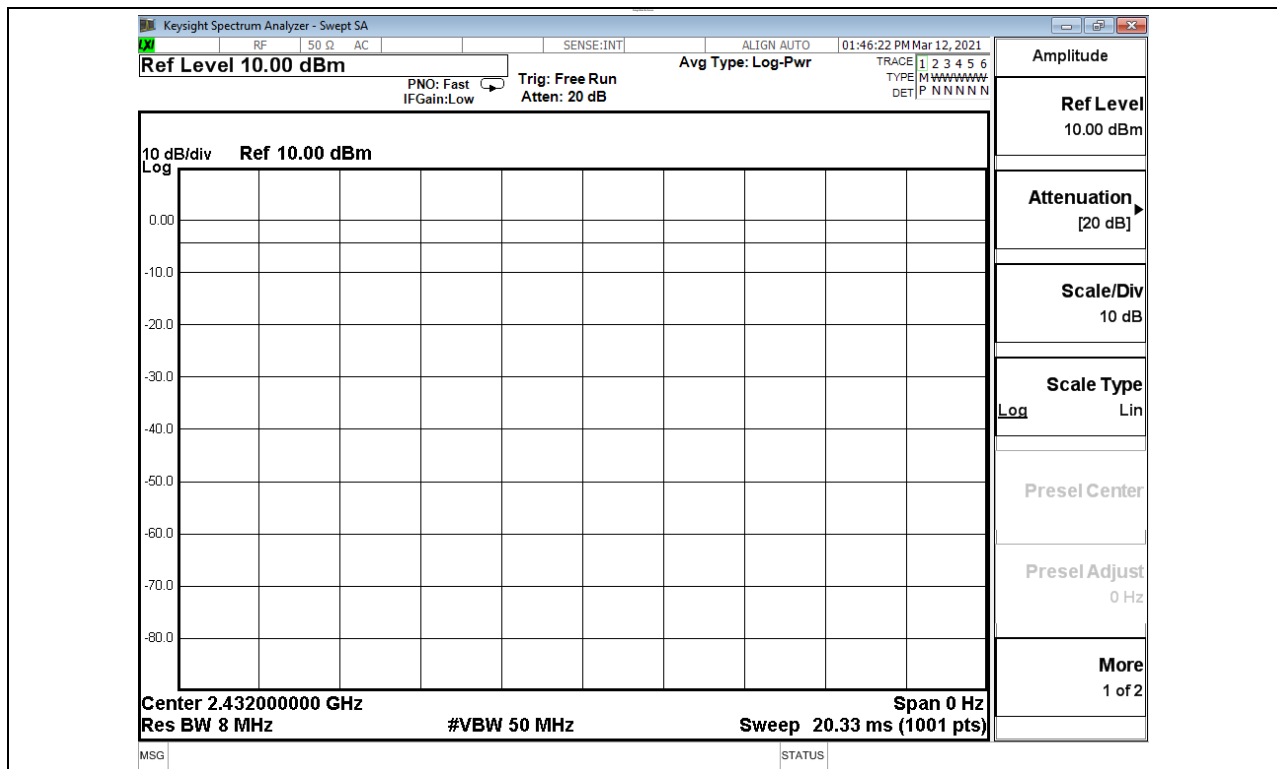
Test Model: VC-818TX

#### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 25 ° C    |
| Relative Humidity: | 50%       |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Kay Hu    |
| Supervised by:     | Li Huan   |

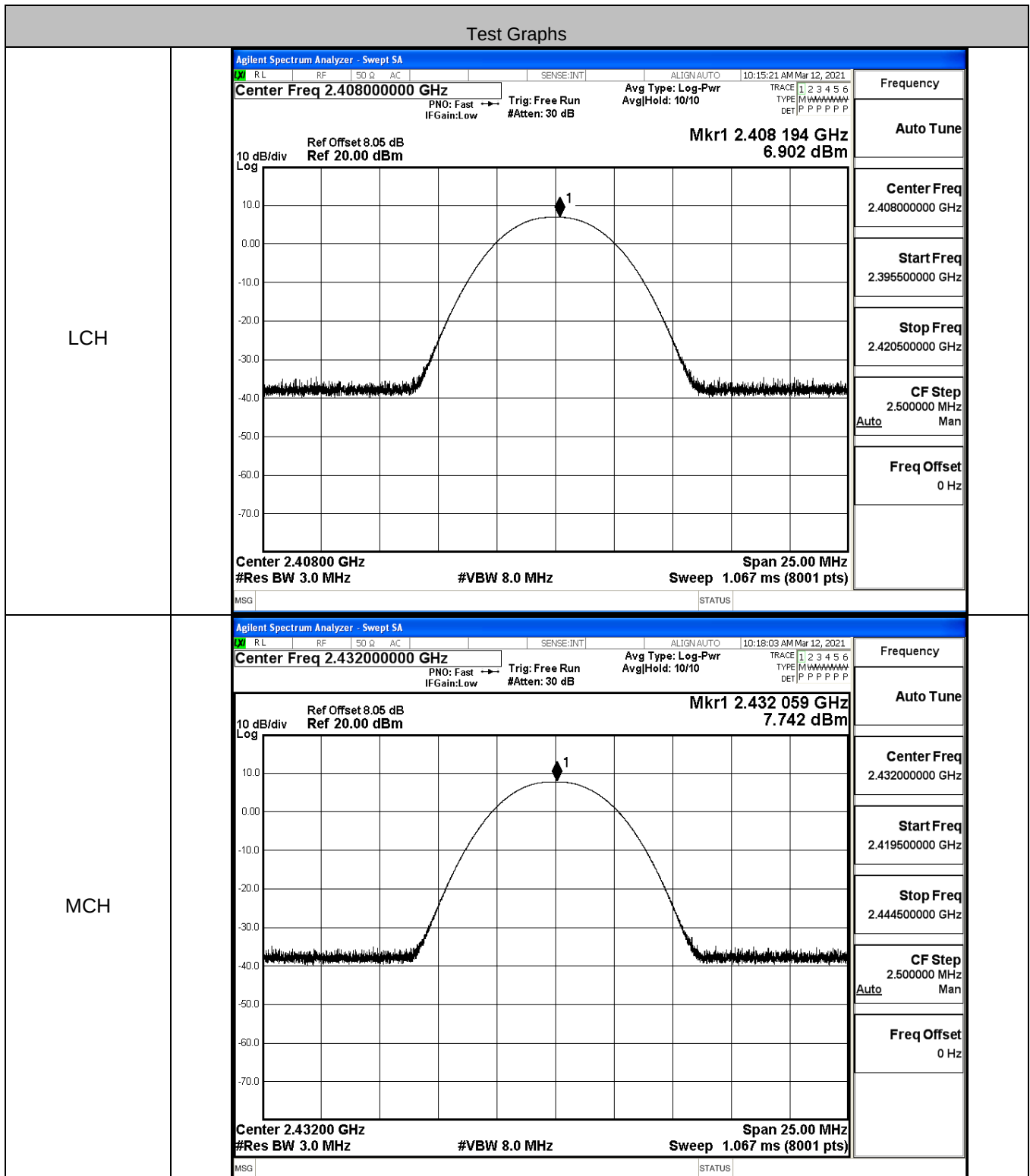
#### A.1 Duty Cycle

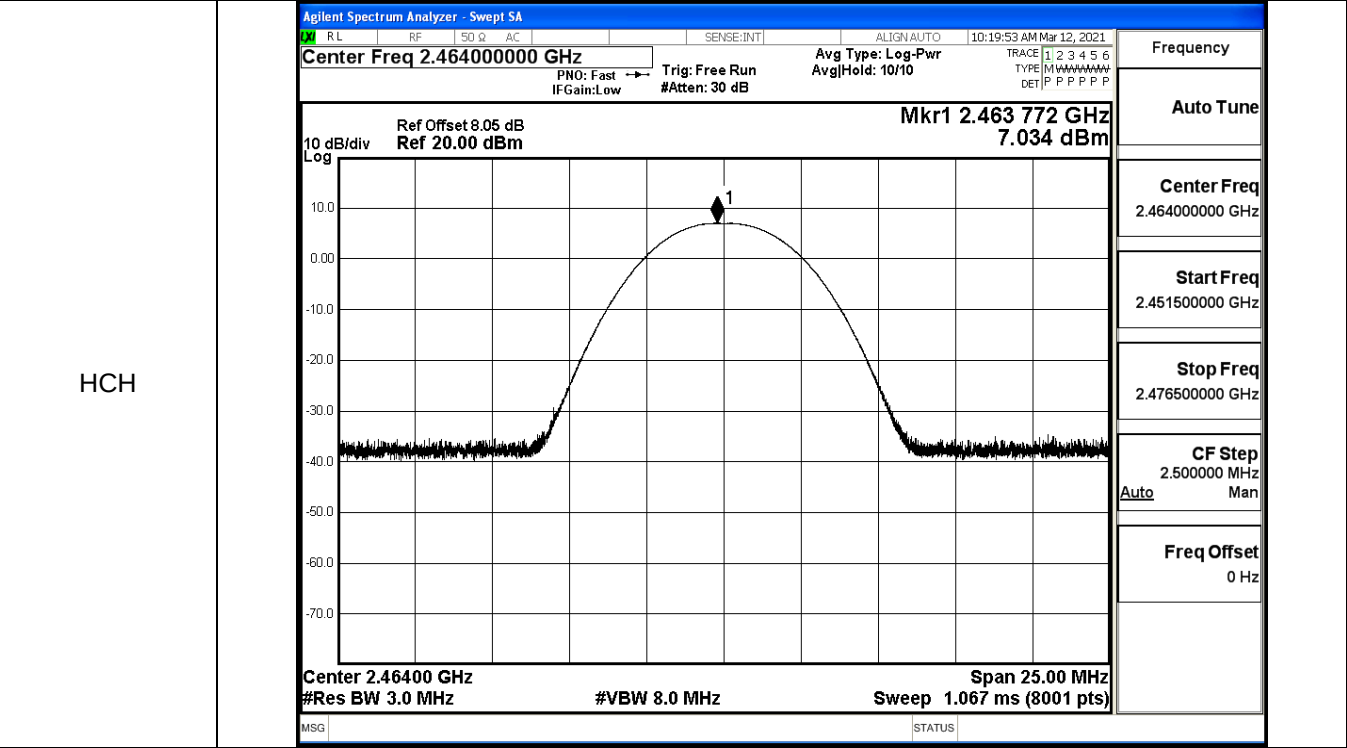
| Test Mode | Test Channel | Ant  | Duty Cycle[%] | Verdict |
|-----------|--------------|------|---------------|---------|
| GFSK      | 2432         | Ant1 | 100           | PASS    |



## A.2 Maximum Conducted Peak Output Power

| Mode | Channel | Conduct Peak Power[dBm] | Limit [dBm] | Verdict |
|------|---------|-------------------------|-------------|---------|
| GFSK | LCH     | 6.902                   | 30          | PASS    |
| GFSK | MCH     | 7.742                   | 30          | PASS    |
| GFSK | HCH     | 7.034                   | 30          | PASS    |



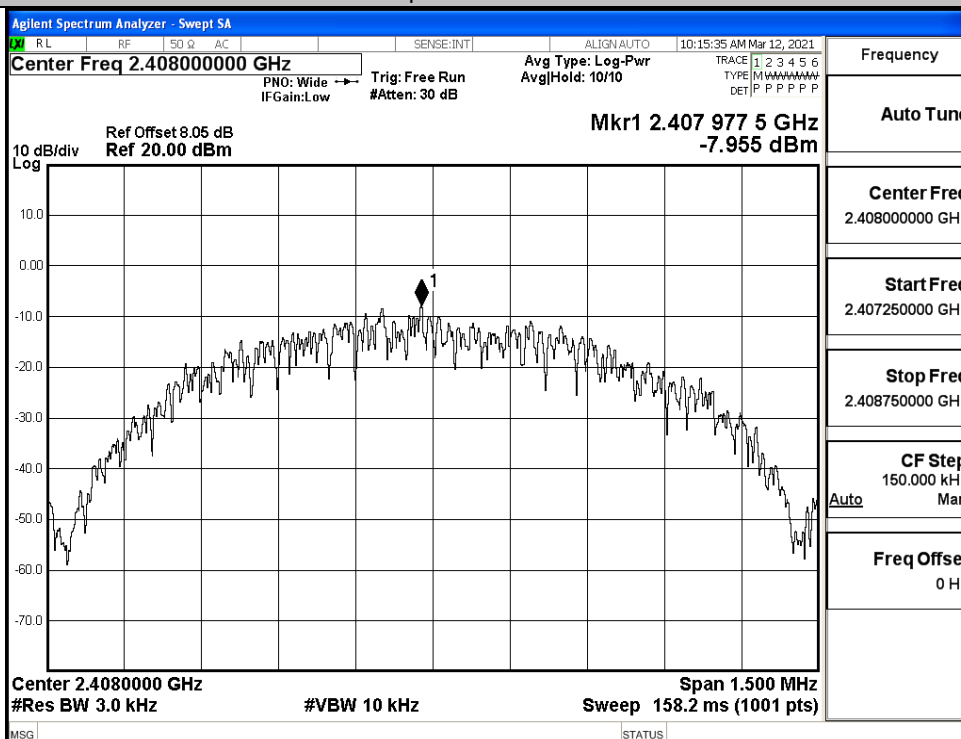


### A.3 Maximum Power Spectral Density

| Mode | Channel | PSD [dBm/3KHz] | Limit [dBm/3KHz] | Verdict |
|------|---------|----------------|------------------|---------|
| GFSK | LCH     | -7.955         | 8                | PASS    |
| GFSK | MCH     | -7.270         | 8                | PASS    |
| GFSK | HCH     | -7.831         | 8                | PASS    |

#### Test Graphs

LCH

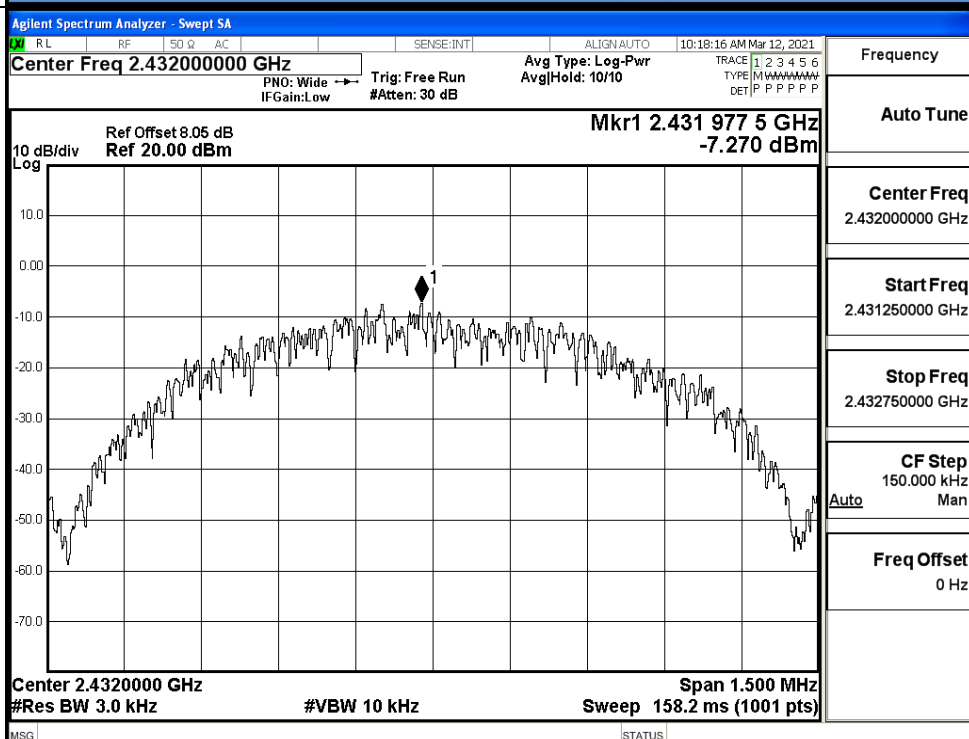


Frequency

Auto Tune

Center Freq  
2.408000000 GHzStart Freq  
2.407250000 GHzStop Freq  
2.408750000 GHzCF Step  
150.000 kHz  
Auto ManFreq Offset  
0 Hz

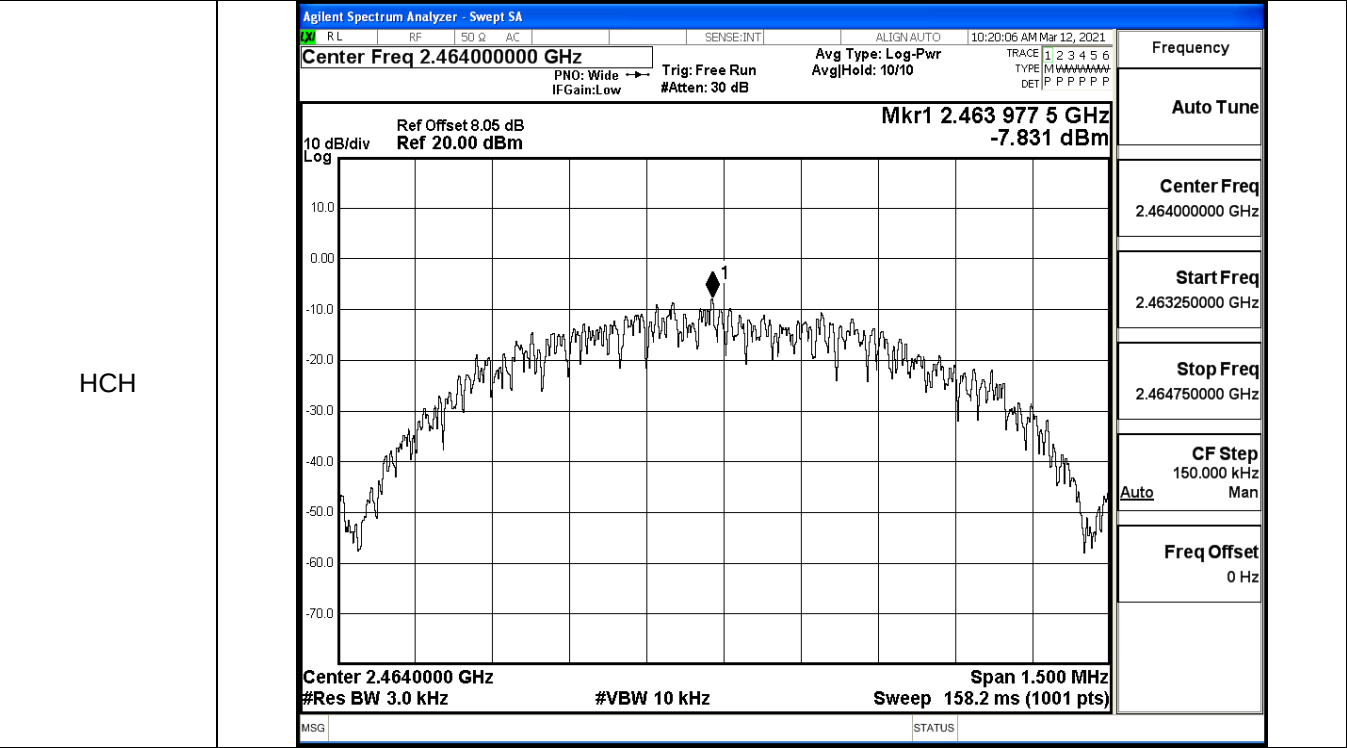
MCH



Frequency

Auto Tune

Center Freq  
2.432000000 GHzStart Freq  
2.431250000 GHzStop Freq  
2.432750000 GHzCF Step  
150.000 kHz  
Auto ManFreq Offset  
0 Hz

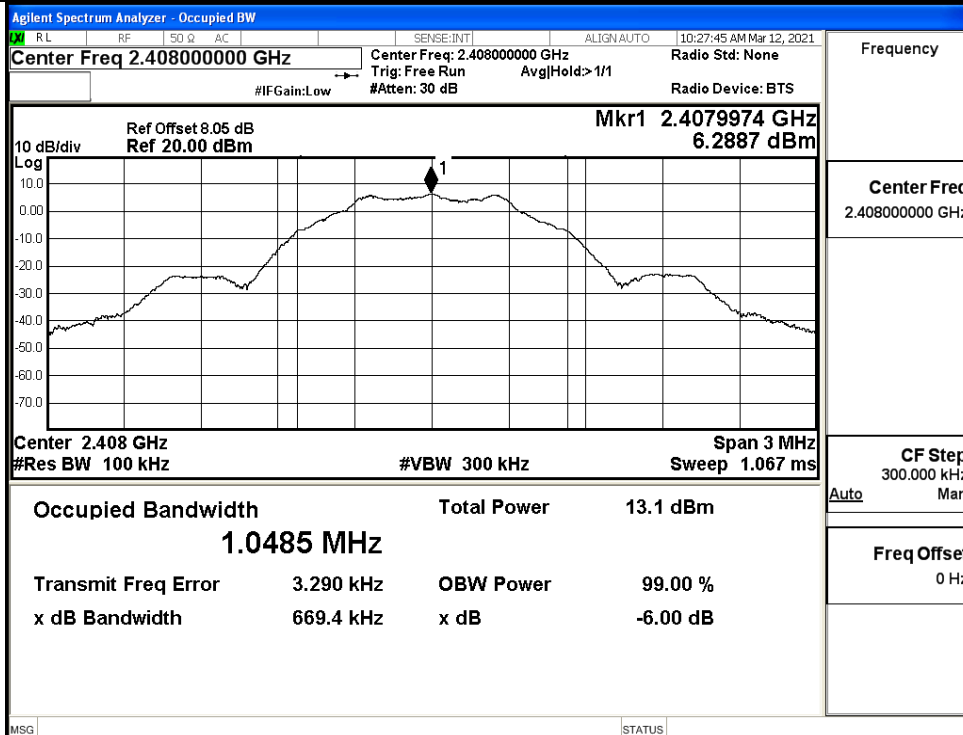


## A.4 6dB Bandwidth

| Mode | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|------|---------|---------------------|-------------|---------|
| GFSK | LCH     | 0.6694              | $\geq 0.5$  | PASS    |
| GFSK | MCH     | 0.6679              | $\geq 0.5$  | PASS    |
| GFSK | HCH     | 0.6690              | $\geq 0.5$  | PASS    |

## Test Graphs

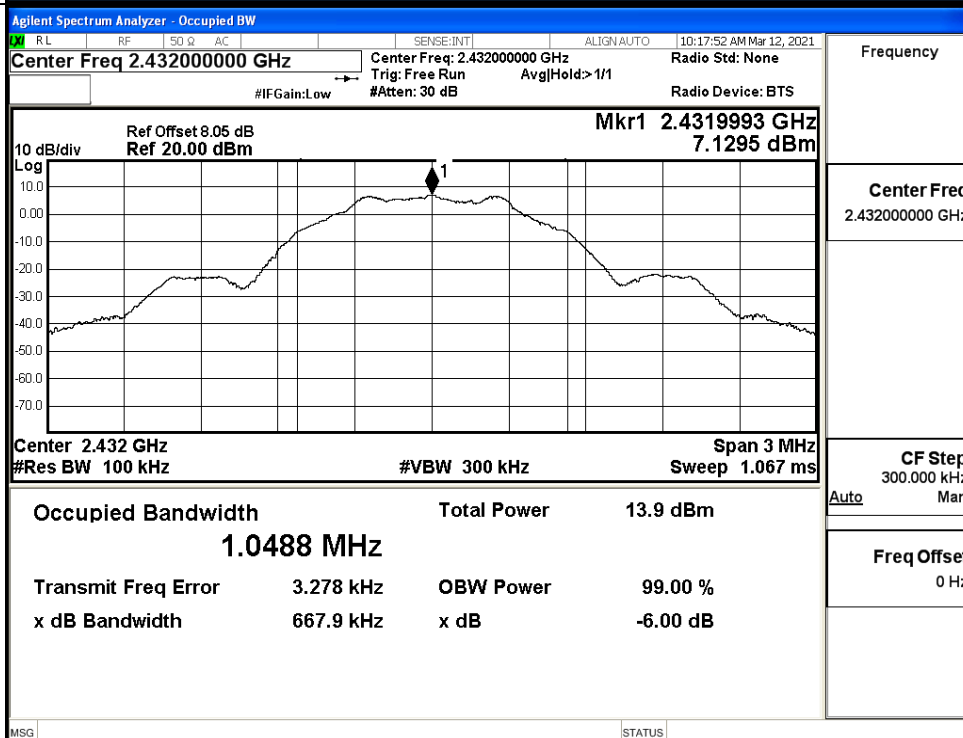
LCH



Frequency

Center Freq  
2.408000000 GHzCF Step  
300.000 kHz  
Auto ManFreq Offset  
0 Hz

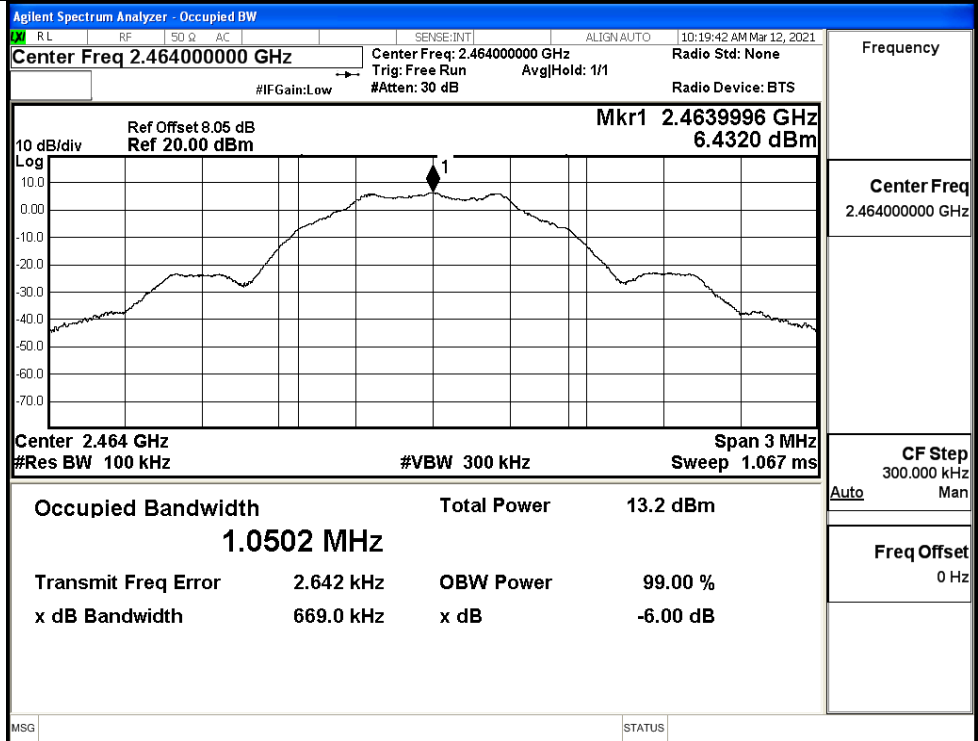
MCH



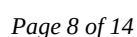
Frequency

Center Freq  
2.432000000 GHzCF Step  
300.000 kHz  
Auto ManFreq Offset  
0 Hz

HCH

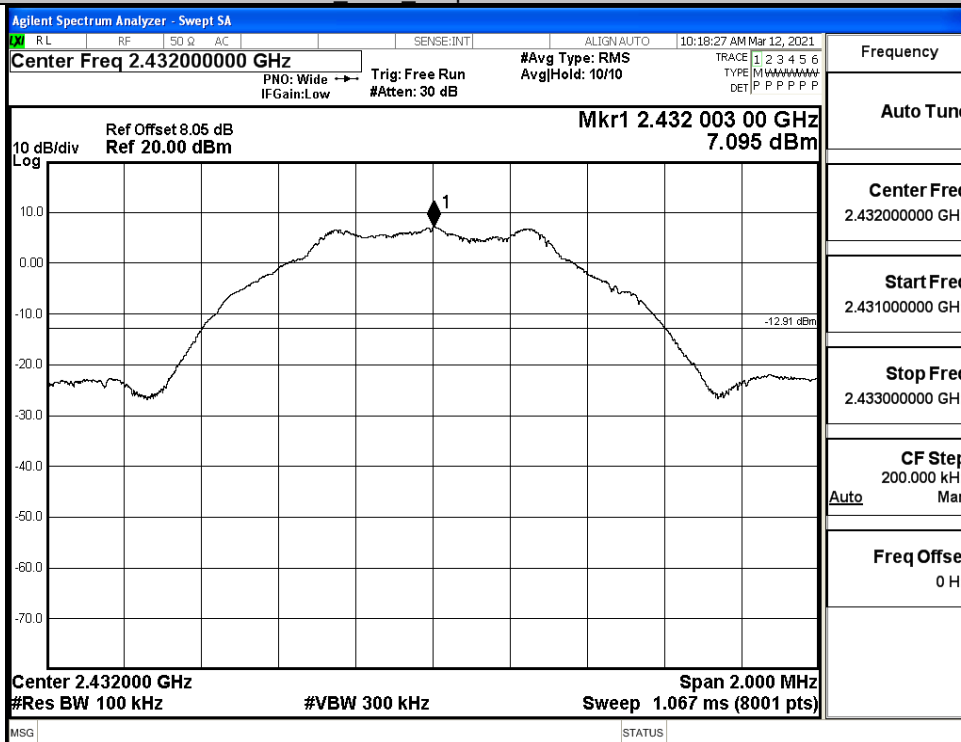


| Mode | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|------|---------|------------|------------------|-------------|---------|
| GFSK | LCH     | 6.284      | -38.007          | -13.716     | PASS    |
| GFSK | MCH     | 7.095      | -37.547          | -12.905     | PASS    |
| GFSK | HCH     | 6.426      | -37.967          | -13.574     | PASS    |

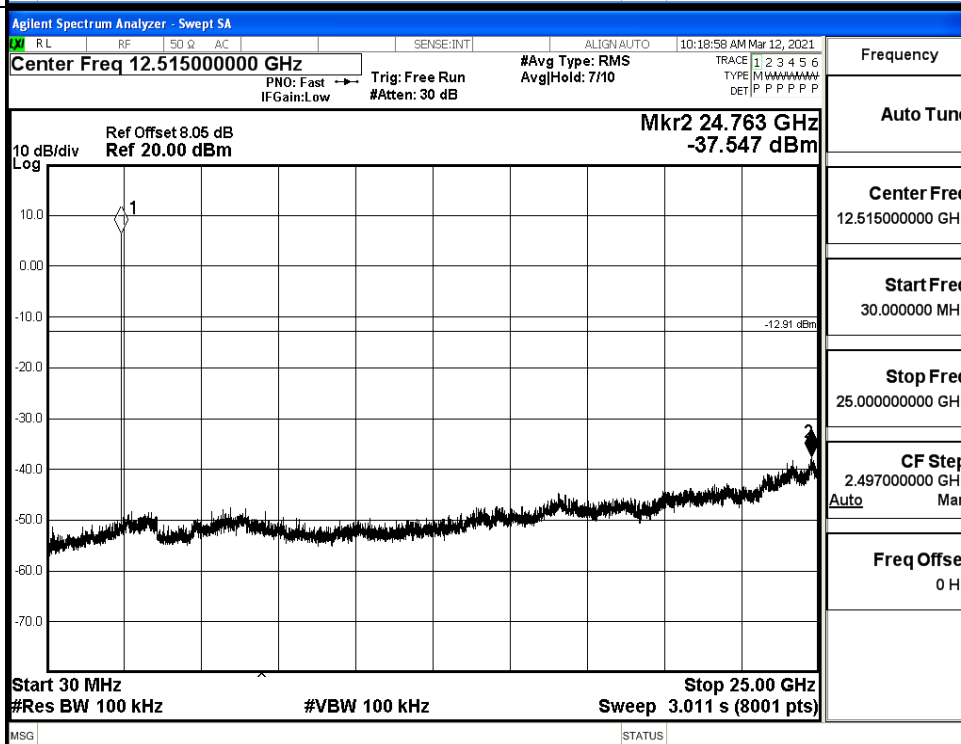


## GFSK MCH Graphs

Pref/GFSK/MCH

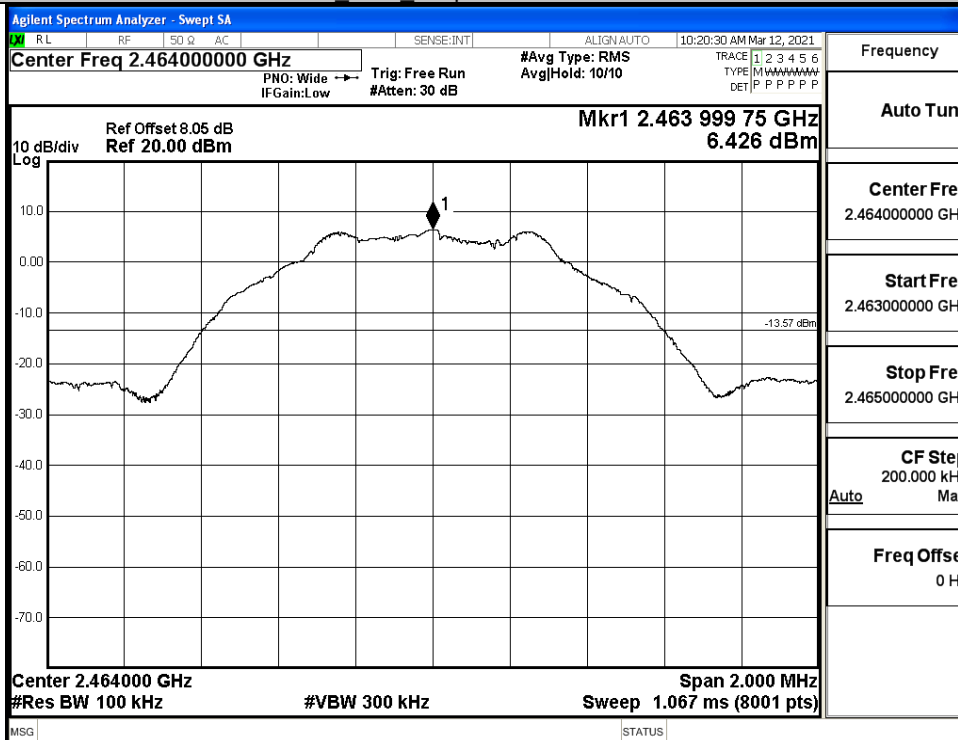


Puw/GFSK/MCH

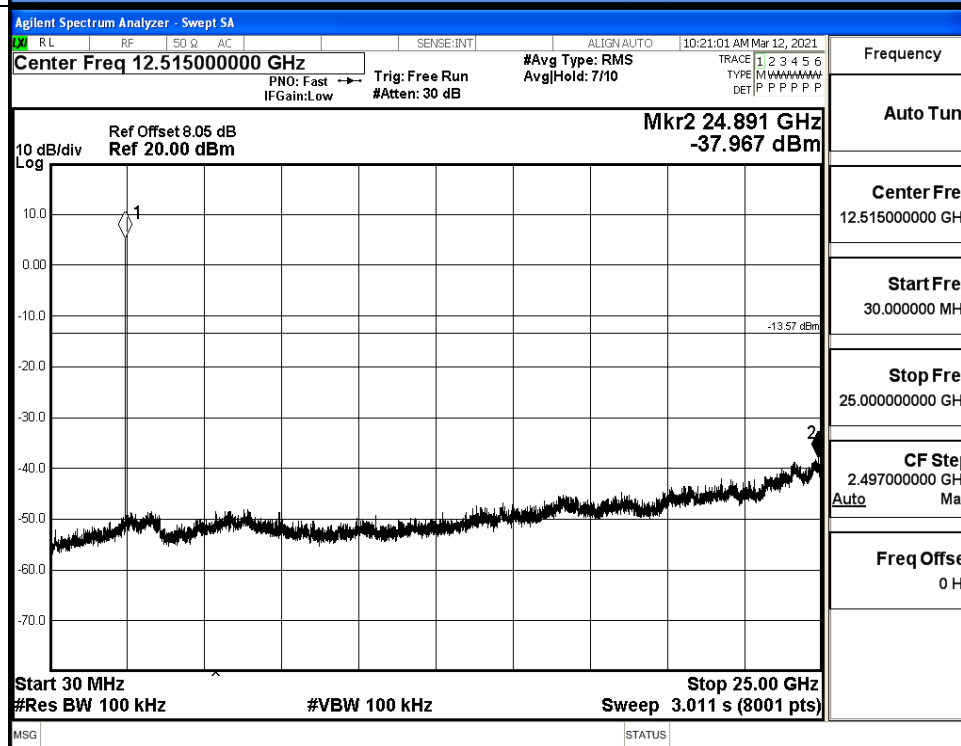


## GFSK HCH Graphs

Pref/GFSK/HCH



Puw/GFSK/HCH

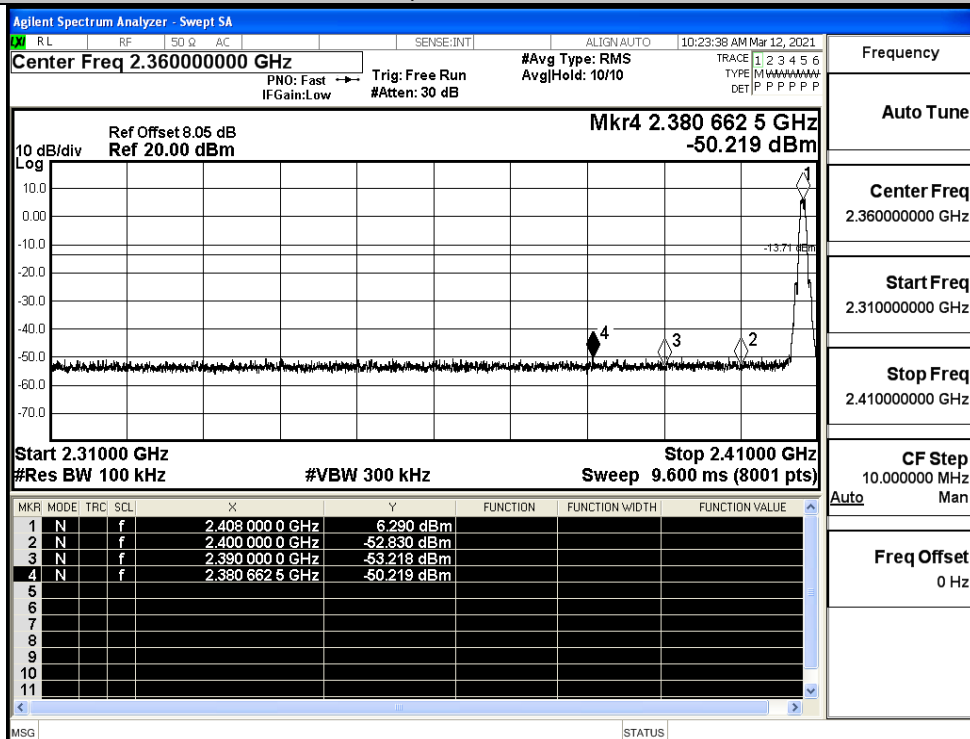


## A.6 Band-edge for RF Conducted Emissions

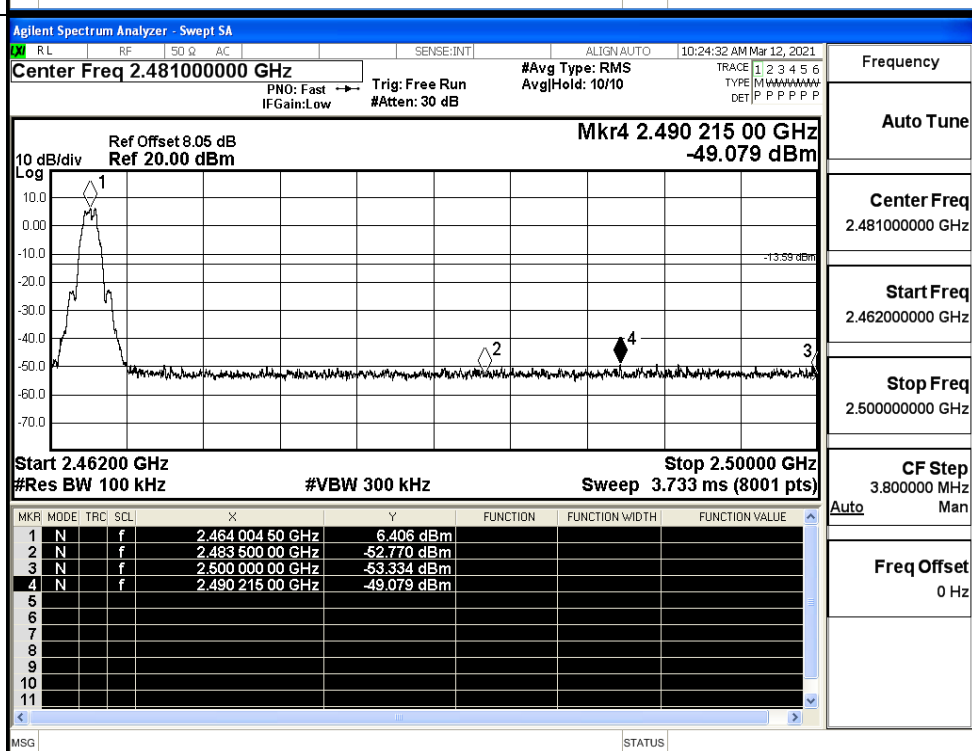
| Mode | Channel | Carrier Power[dBm] | Max.Spurious Level [dBm] | Limit [dBm] | Verdict |
|------|---------|--------------------|--------------------------|-------------|---------|
| GFSK | LCH     | 6.290              | -50.219                  | -13.71      | PASS    |
| GFSK | HCH     | 6.406              | -49.079                  | -13.59      | PASS    |

Test Graphs

LCH



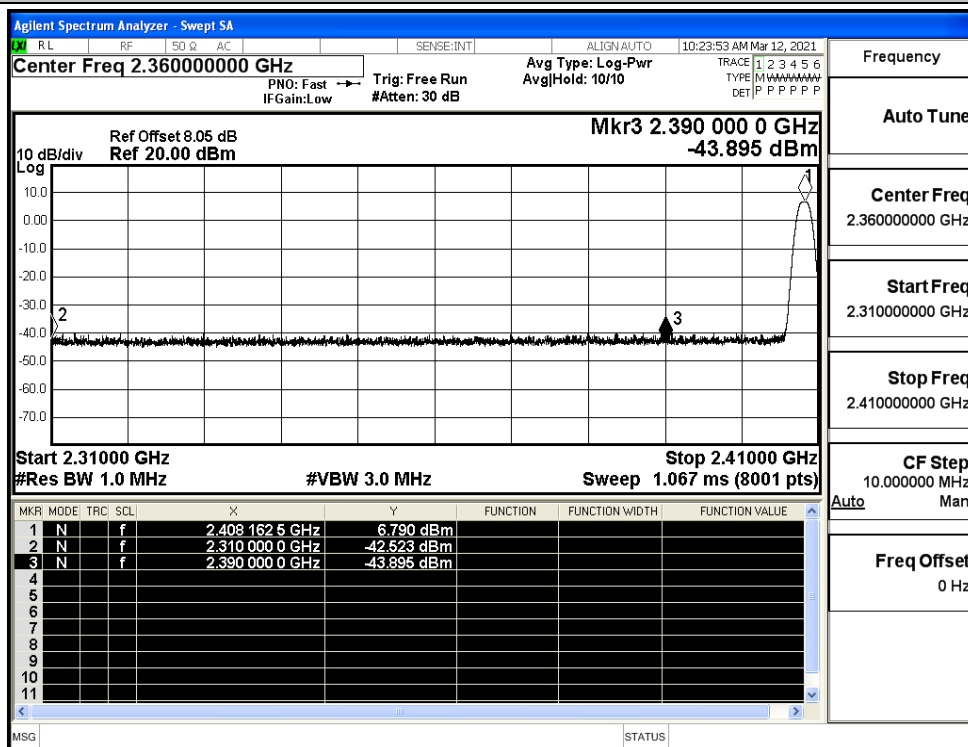
HCH



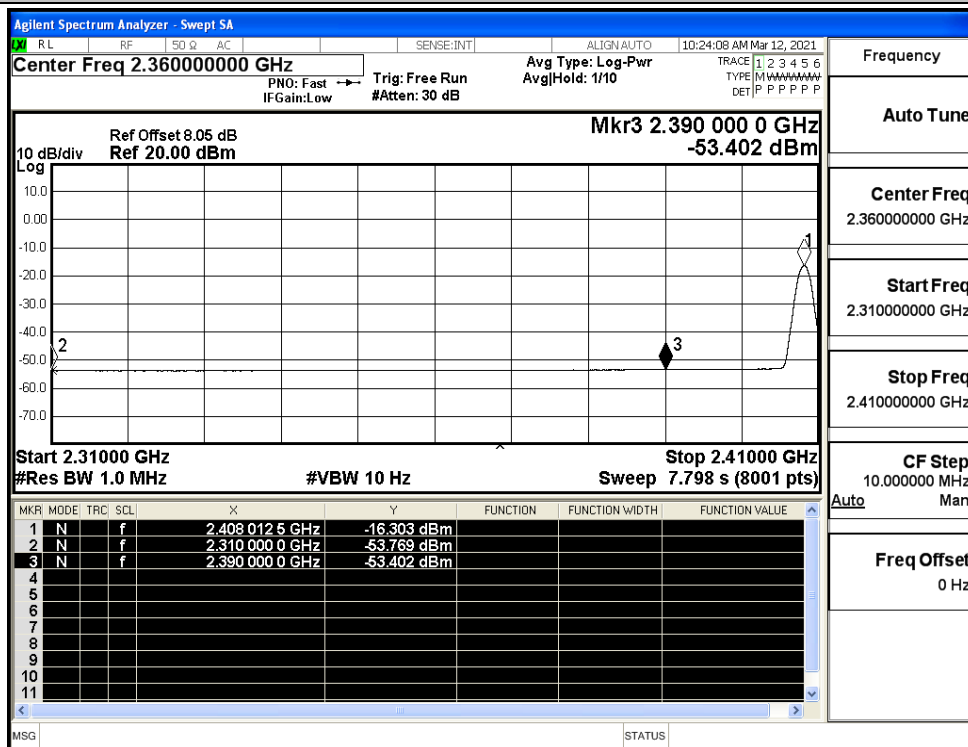
## A.7 Restrict-band band-edge measurements

| Test Mode | Test Channel | Ant  | Freq.  | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBuV/m] | Verdi |
|-----------|--------------|------|--------|-------------|------|---------------|------------|----------|----------------|-------|
| GFSK      | 2408         | Ant1 | 2310.0 | -42.52      | 2.0  | 0             | 54.71      | PEAK     | 74             | PASS  |
|           |              | Ant1 | 2310.0 | -53.77      | 2.0  | 0             | 43.46      | AV       | 54             | PASS  |
|           |              | Ant1 | 2390.0 | -43.90      | 2.0  | 0             | 53.33      | PEAK     | 74             | PASS  |
|           |              | Ant1 | 2390.0 | -53.40      | 2.0  | 0             | 43.83      | AV       | 54             | PASS  |
|           | 2464         | Ant1 | 2483.5 | -42.46      | 2.0  | 0             | 54.77      | PEAK     | 74             | PASS  |
|           |              | Ant1 | 2483.5 | -53.02      | 2.0  | 0             | 44.21      | AV       | 54             | PASS  |
|           |              | Ant1 | 2500.0 | -42.86      | 2.0  | 0             | 54.37      | PEAK     | 74             | PASS  |
|           |              | Ant1 | 2500.0 | -52.82      | 2.0  | 0             | 44.41      | AV       | 54             | PASS  |

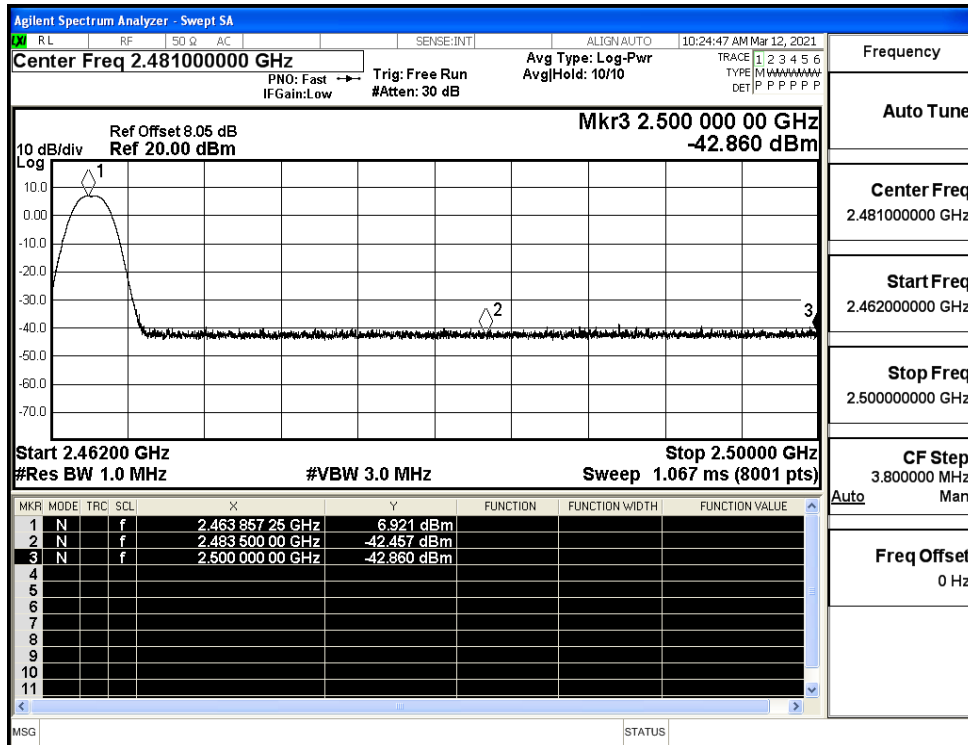
## Restrict-band band-edge measurements\_GFSK\_2408\_Ant1\_PEAK



## Restrict-band band-edge measurements\_GFSK\_2408\_Ant1\_AV



## Restrict-band band-edge measurements\_GFSK\_2464\_Ant1\_PEAK



## Restrict-band band-edge measurements\_GFSK\_2464\_Ant1\_AV

