Appendix A

RF Test Data for 2.4G (Conducted Measurement)

Product Name: 2.4G Wireless Headphone

Trade Mark: Headrush

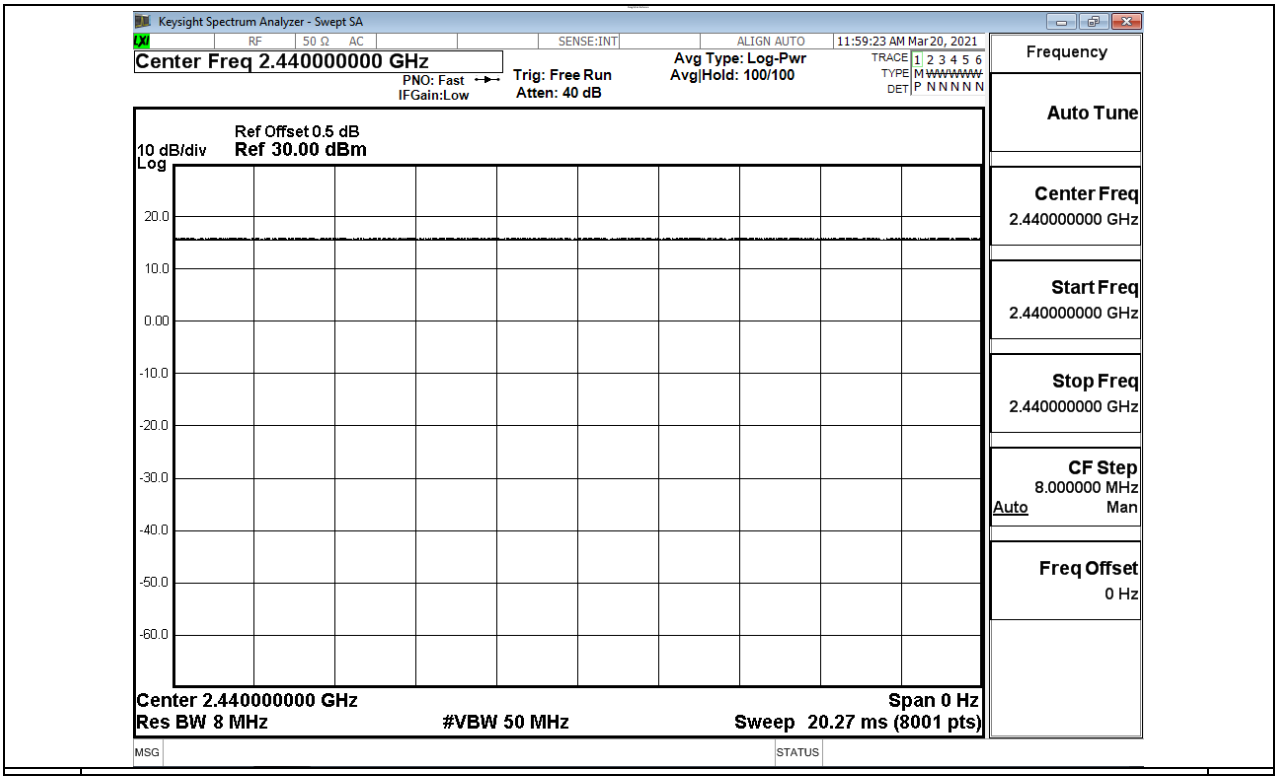
Test Model: 8081706B

Environmental Conditions

Temperature:	22.9 ° C
Relative Humidity:	53.7%
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
2.4G	2440	Ant1	100	PASS

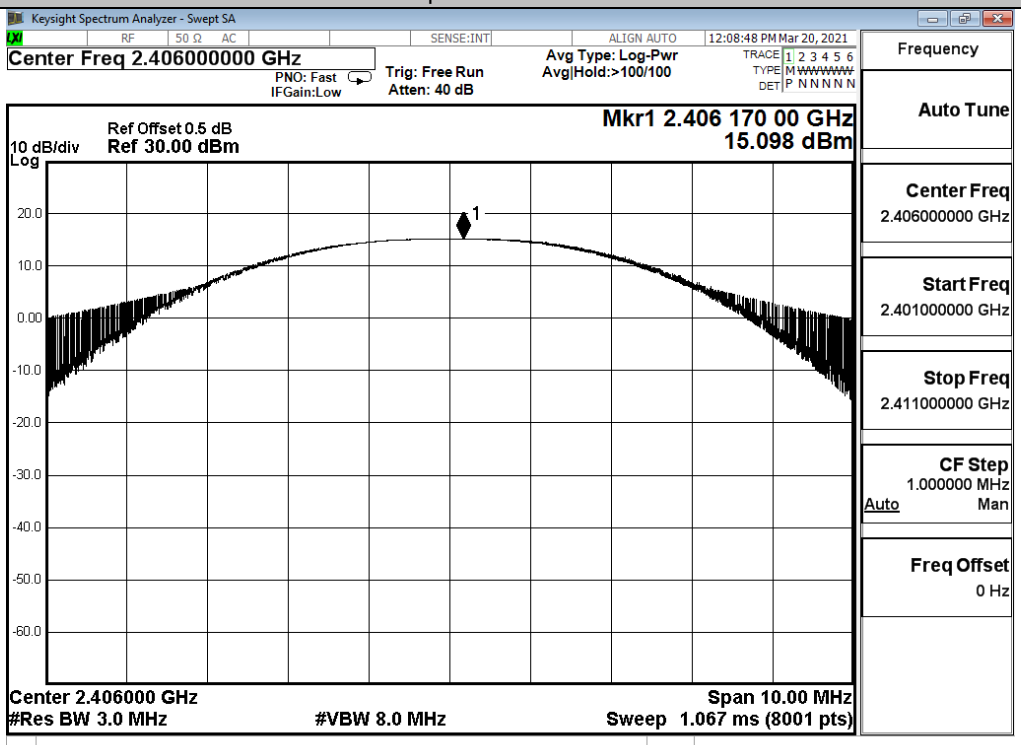


A.2 Maximum Conducted Peak Output Power

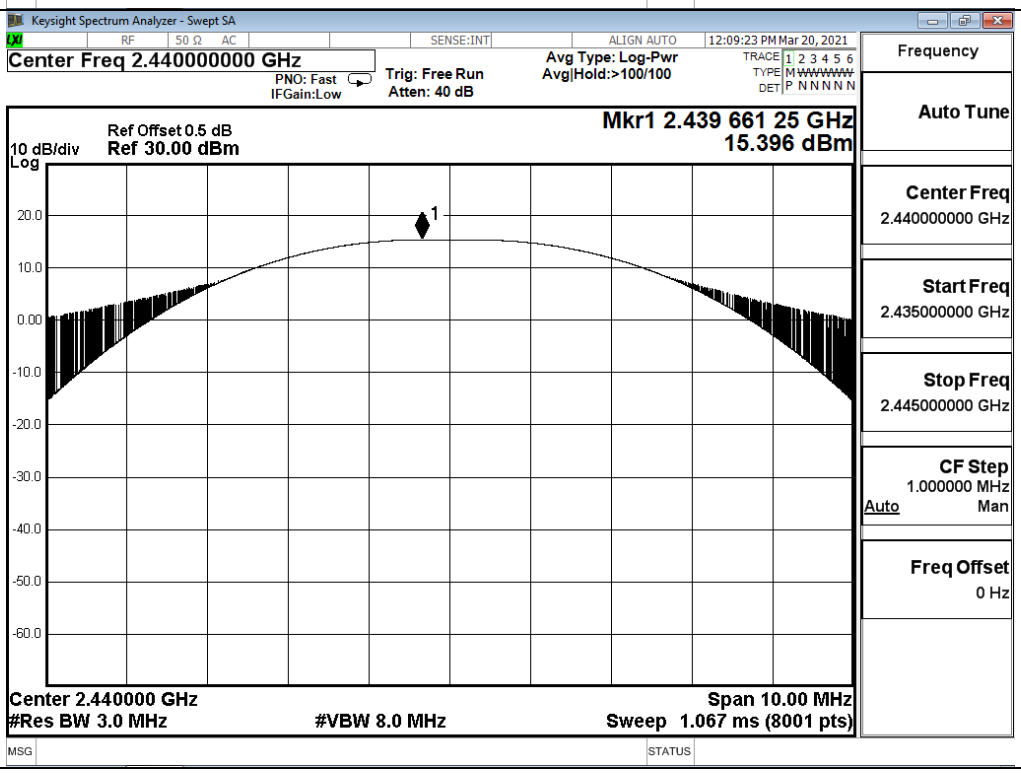
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
2.4G	LCH	15.098	30	PASS
2.4G	MCH	15.396	30	PASS
2.4G	HCH	15.171	30	PASS

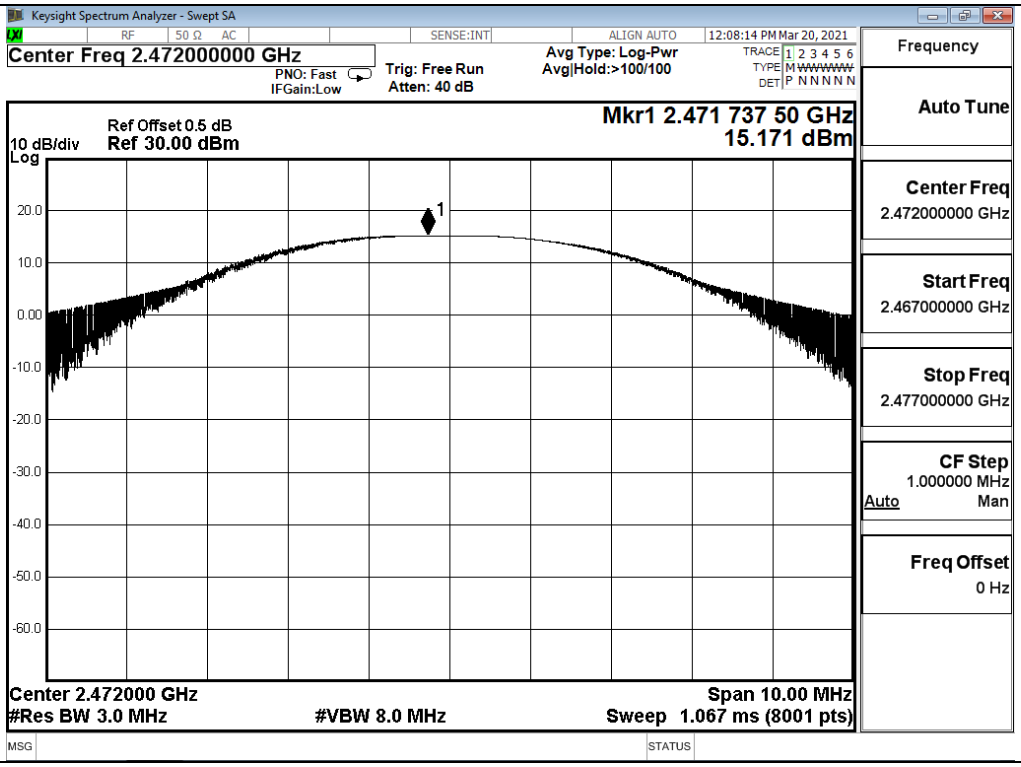
Test Graphs

LCH



MCH



HCH	

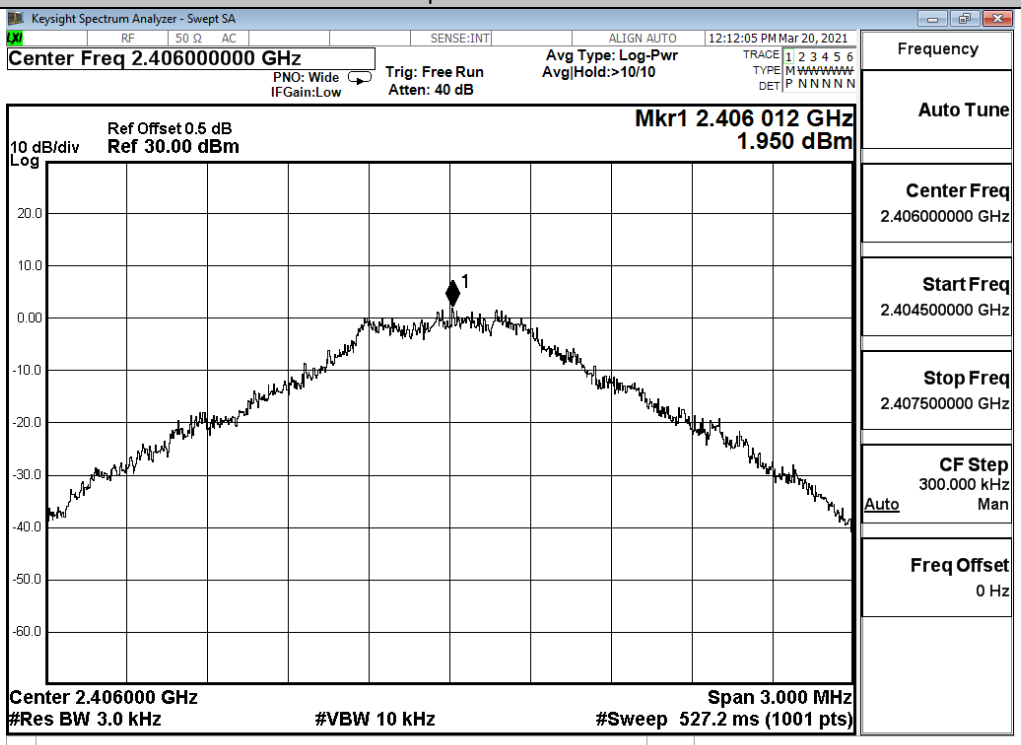
Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
12:08:14 PM Mar 20, 2021
Center Freq 2.472000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 40 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Ref Offset 0.5 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr1 2.471 737 50 GHz
15.171 dBm
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 2.472000 GHz
#Res BW 3.0 MHz
#VBW 8.0 MHz
Span 10.00 MHz
Sweep 1.067 ms (8001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.472000000 GHz
Start Freq
2.467000000 GHz
Stop Freq
2.477000000 GHz
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz

A.3 Maximum Power Spectral Density

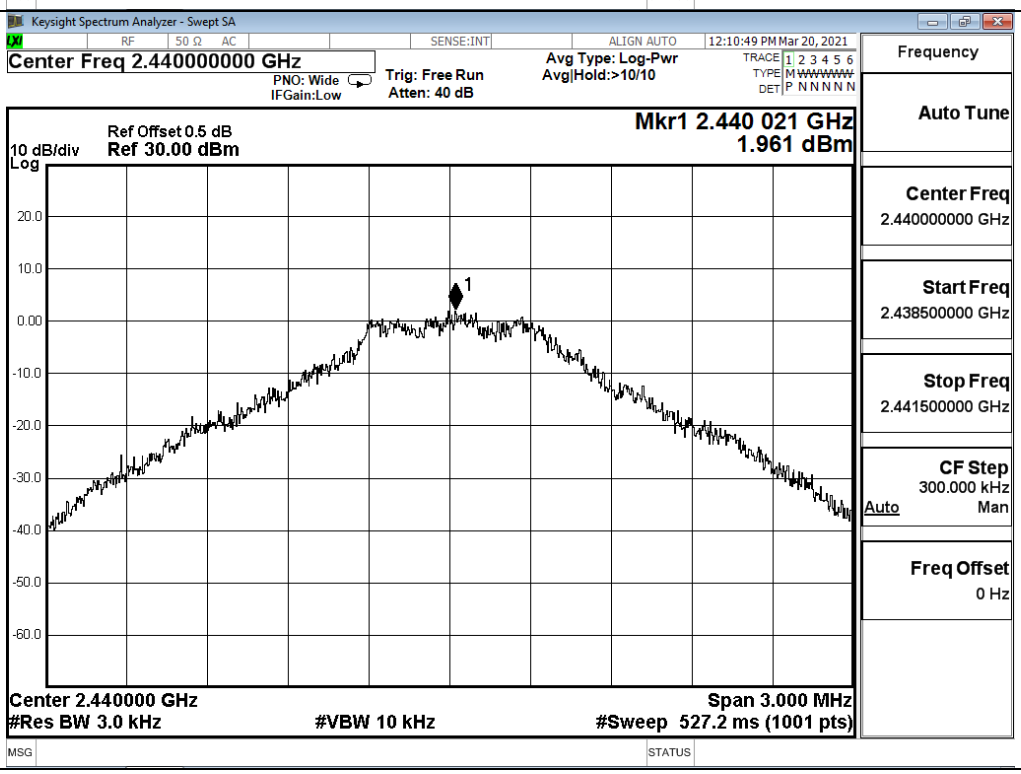
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
2.4G	LCH	1.950	8	PASS
2.4G	MCH	1.961	8	PASS
2.4G	HCH	3.114	8	PASS

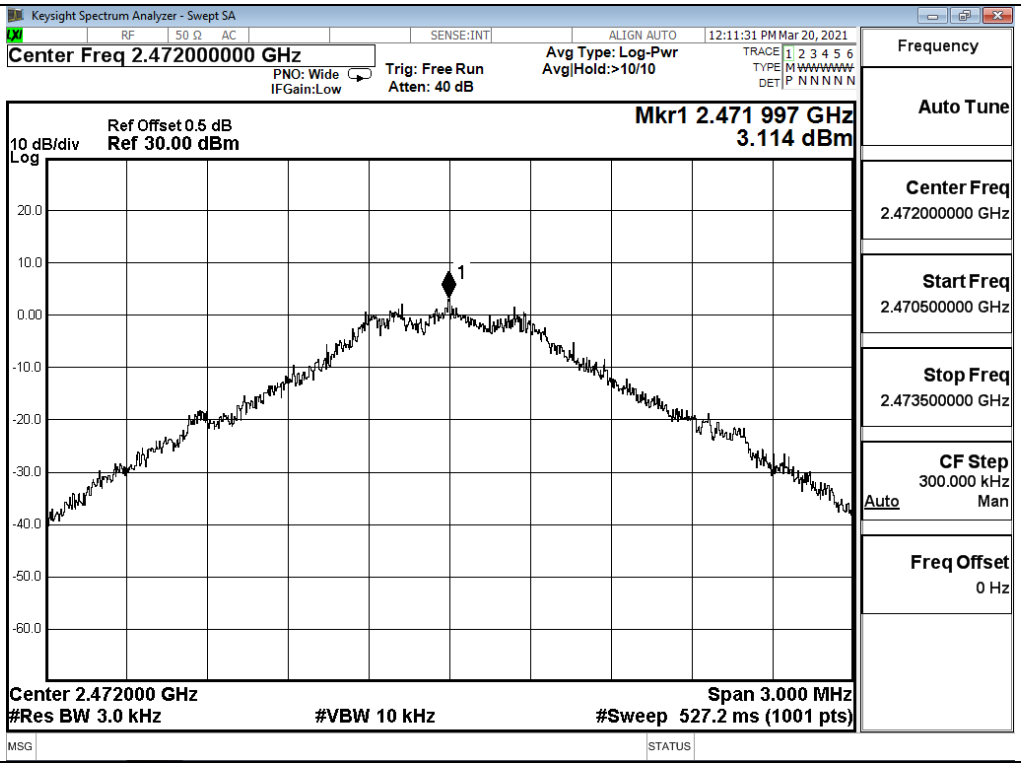
Test Graphs

LCH



MCH



HCH	

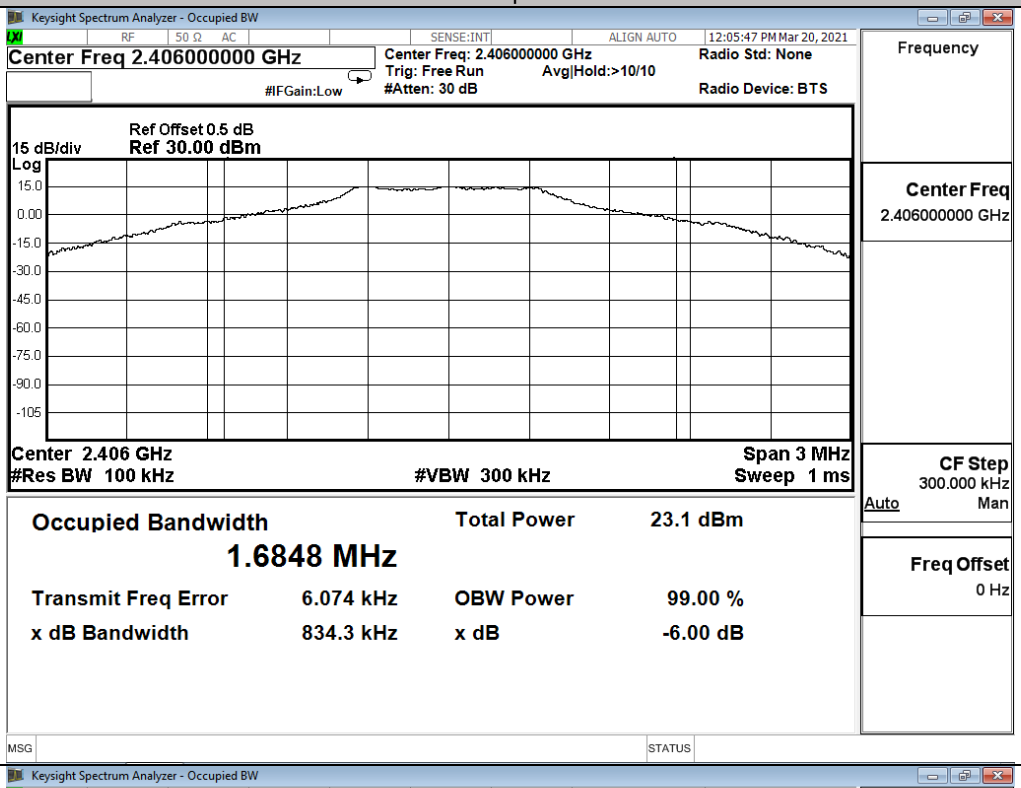
Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
12:11:31 PM Mar 20, 2021
Center Freq 2.472000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
Atten: 40 dB
Avg Type: Log-Pwr
Avg|Hold:>10/10
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Ref Offset 0.5 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr1 2.471 997 GHz
3.114 dBm
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 2.472000 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 3.000 MHz
#Sweep 527.2 ms (1001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.472000000 GHz
Start Freq
2.470500000 GHz
Stop Freq
2.473500000 GHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz

A.4 6dB Bandwidth& 99% Occupied Bandwidth

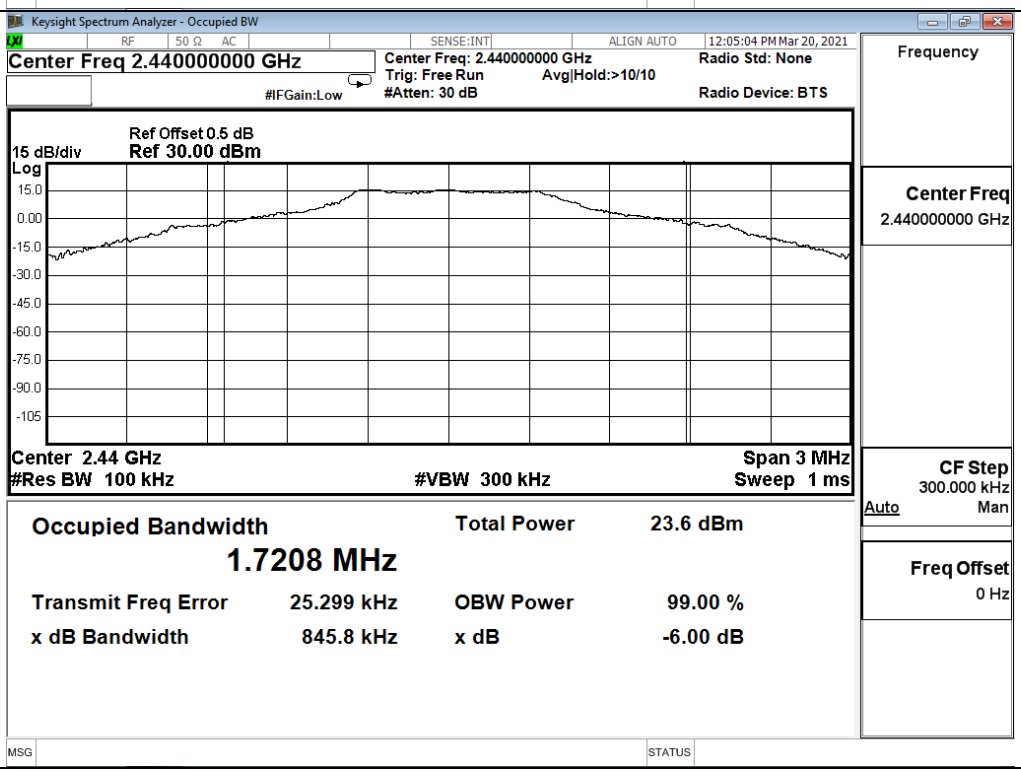
Mode	Channel	6dB Bandwidth [MHz]	Occupied Bandwidth[MHz]	Limit [MHz]	Verdict
2.4G	LCH	0.8343	1.5462	⩾0.5	PASS
2.4G	MCH	0.8458	1.5119	⩾0.5	PASS
2.4G	HCH	0.8245	1.5158	⩾0.5	PASS

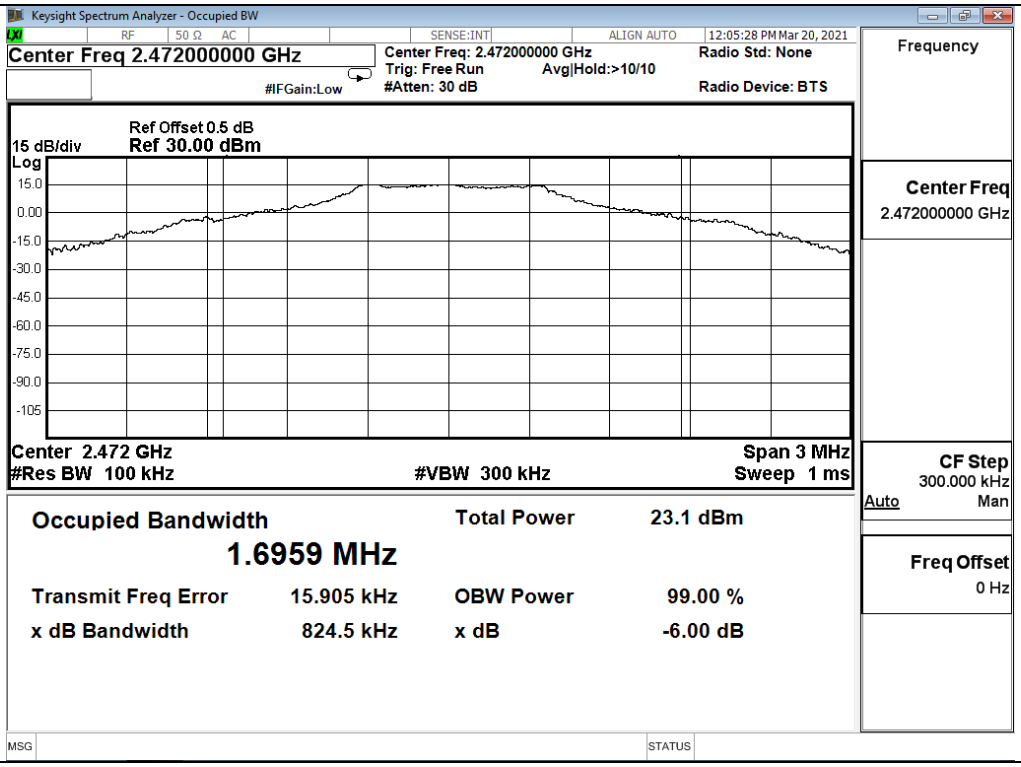
6dB Bandwidth Test Graphs

LCH

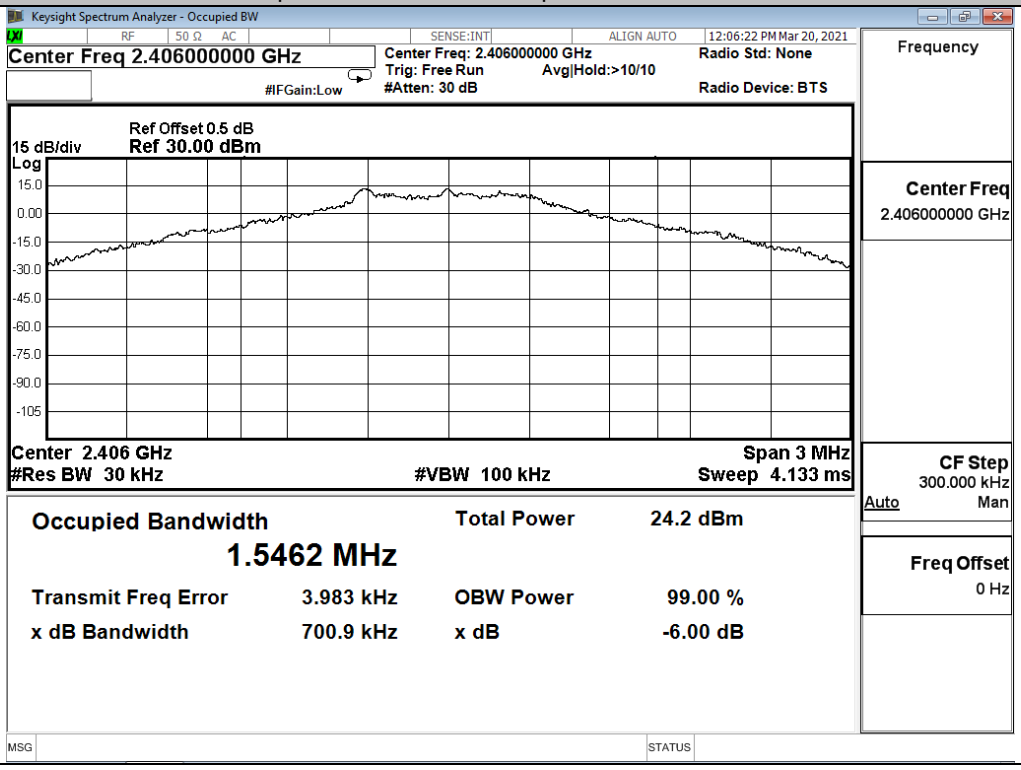


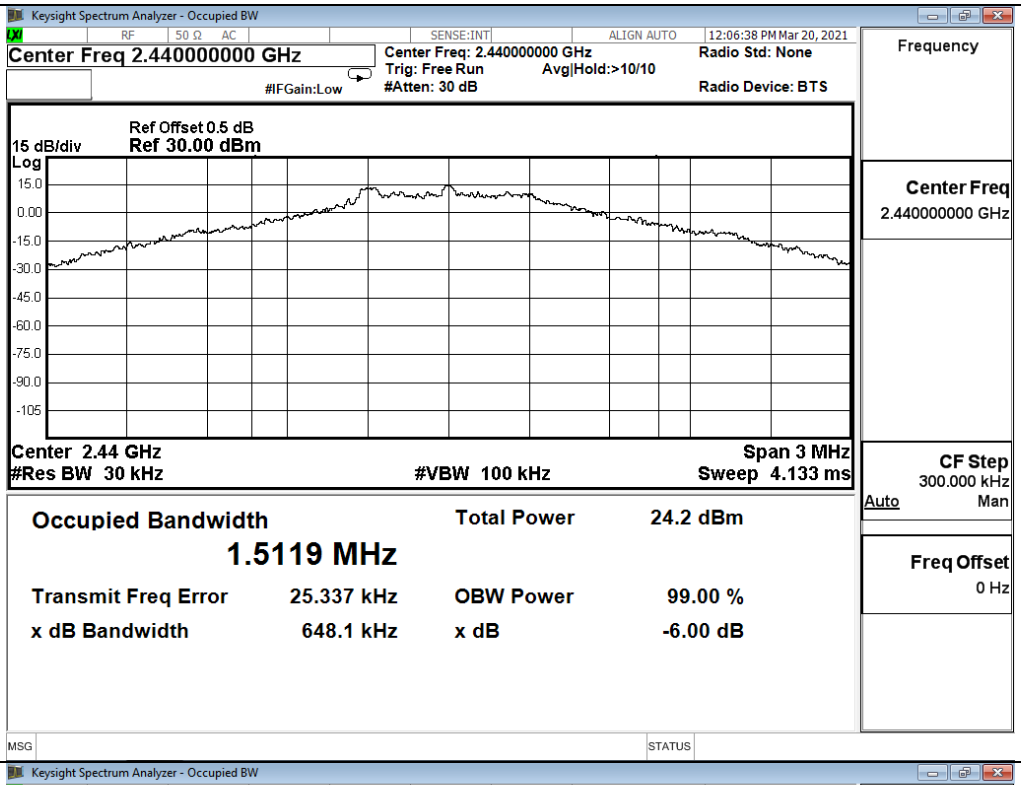
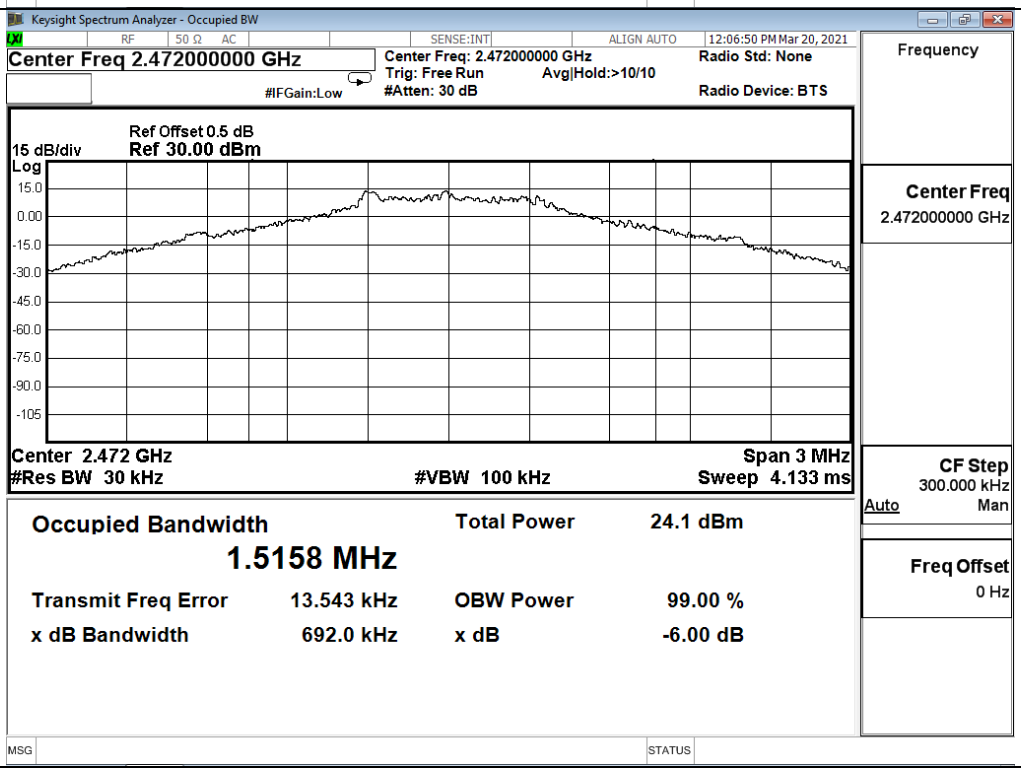
MCH



HCH	

Occupied Bandwidth Test Graphs

LCH	

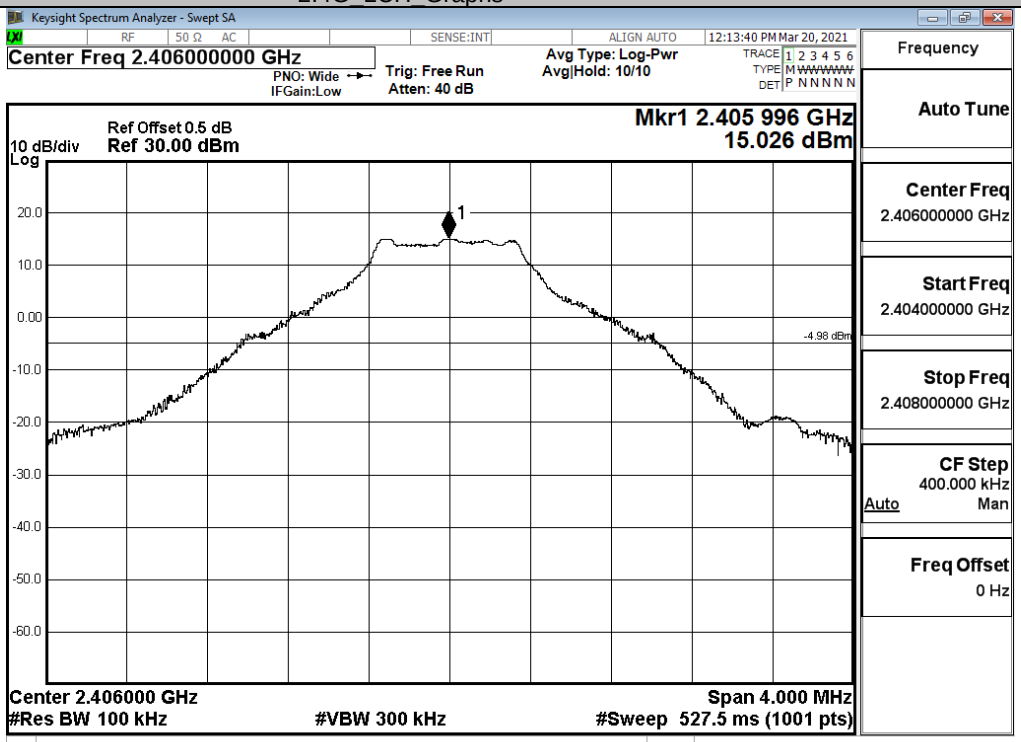
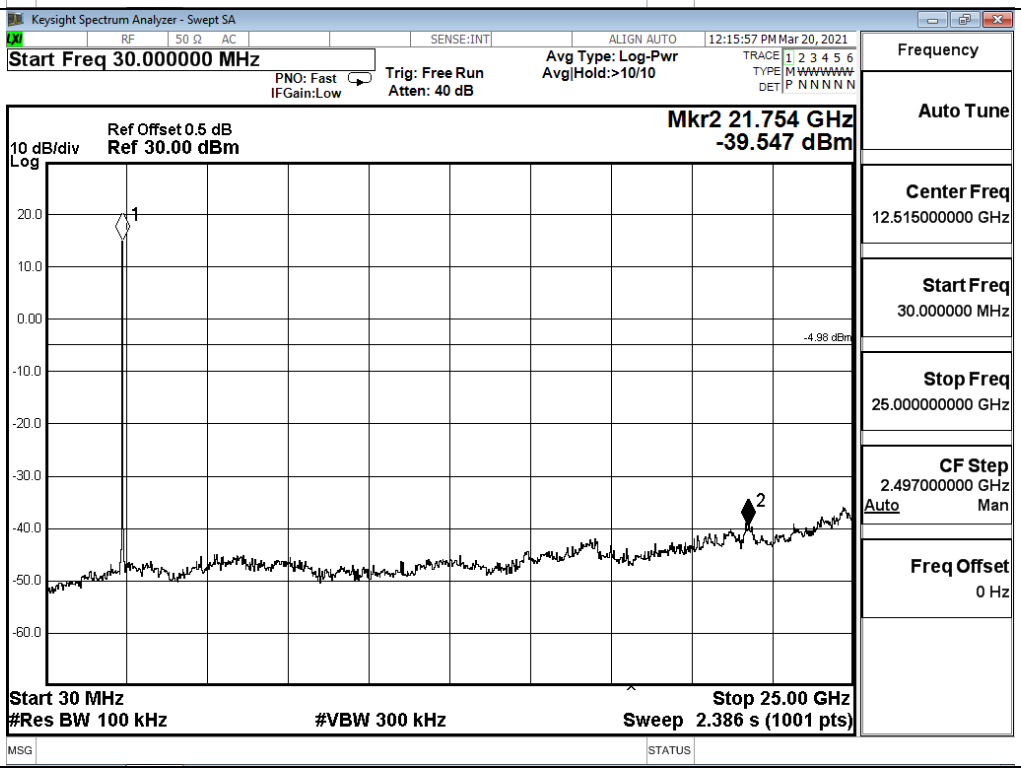
MCH	
HCH	

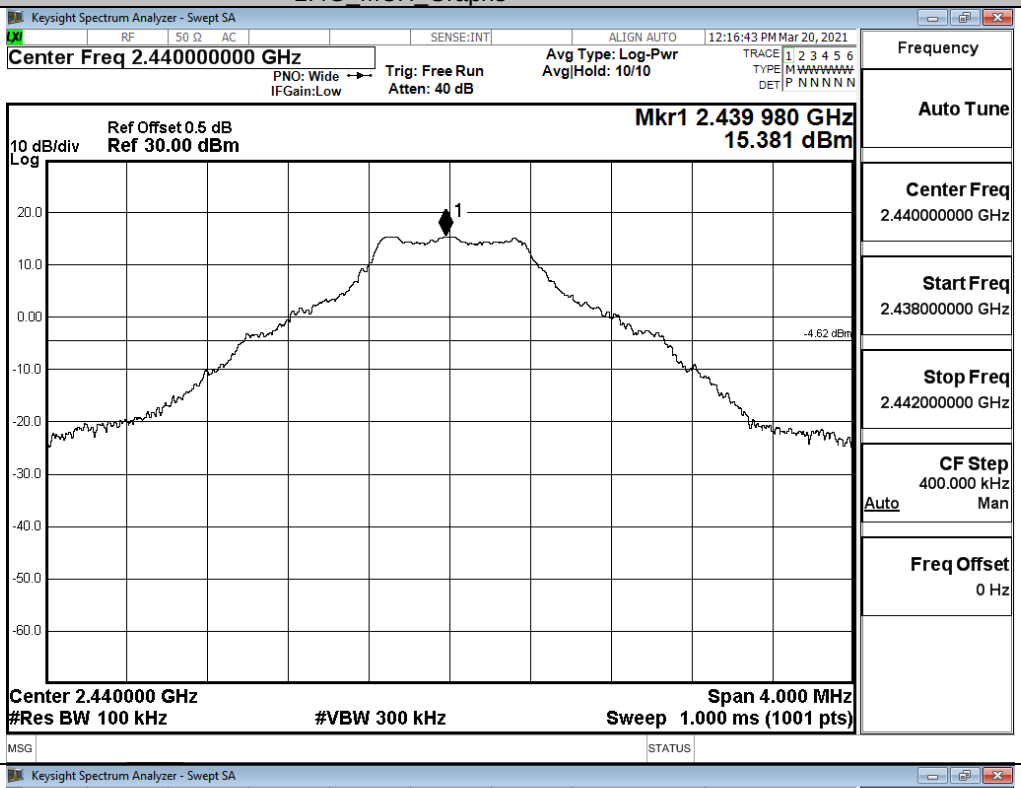
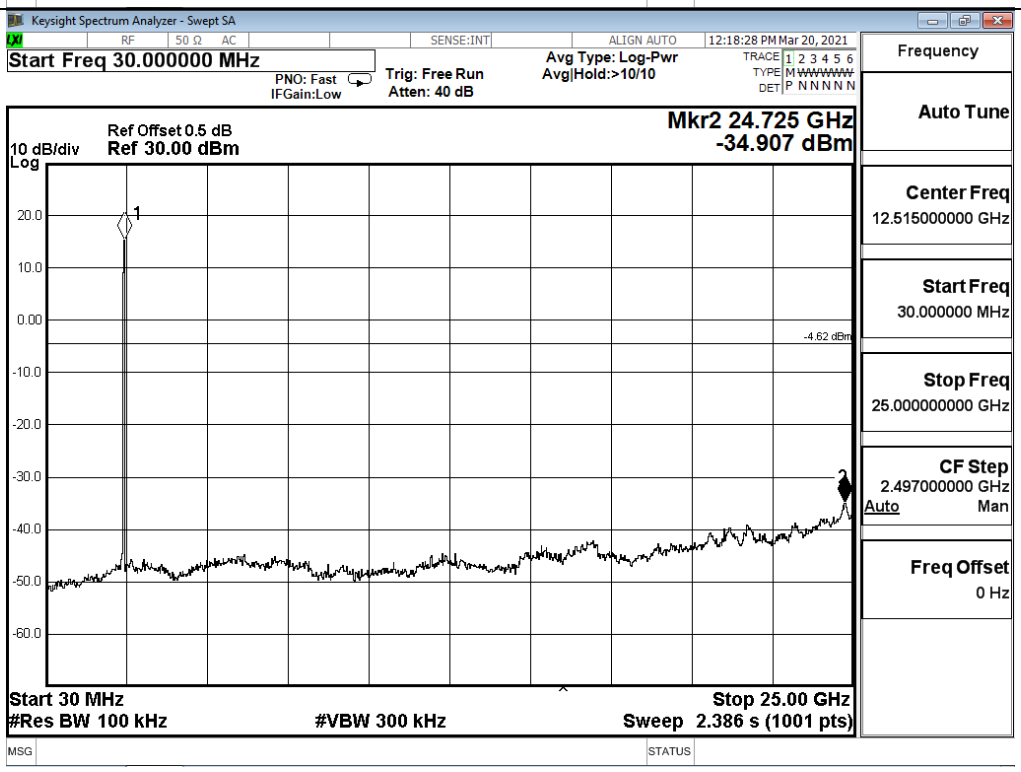
Keysight Spectrum Analyzer - Occupied BW
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
12:06:38 PM Mar 20, 2021
Center Freq 2.440000000 GHz
Center Freq: 2.440000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#IFGain:Low
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Ref Offset 0.5 dB
15 dB/div
Ref 30.00 dBm
Log
15.0
0.00
-15.0
-30.0
-45.0
-60.0
-75.0
-90.0
-105
Center 2.44 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3 MHz
Sweep 4.133 ms
Occupied Bandwidth
1.5119 MHz
Total Power 24.2 dBm
Transmit Freq Error 25.337 kHz
OBW Power 99.00 %
x dB Bandwidth 648.1 kHz
x dB -6.00 dB
MSG
STATUS
Frequency
Center Freq
2.440000000 GHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz

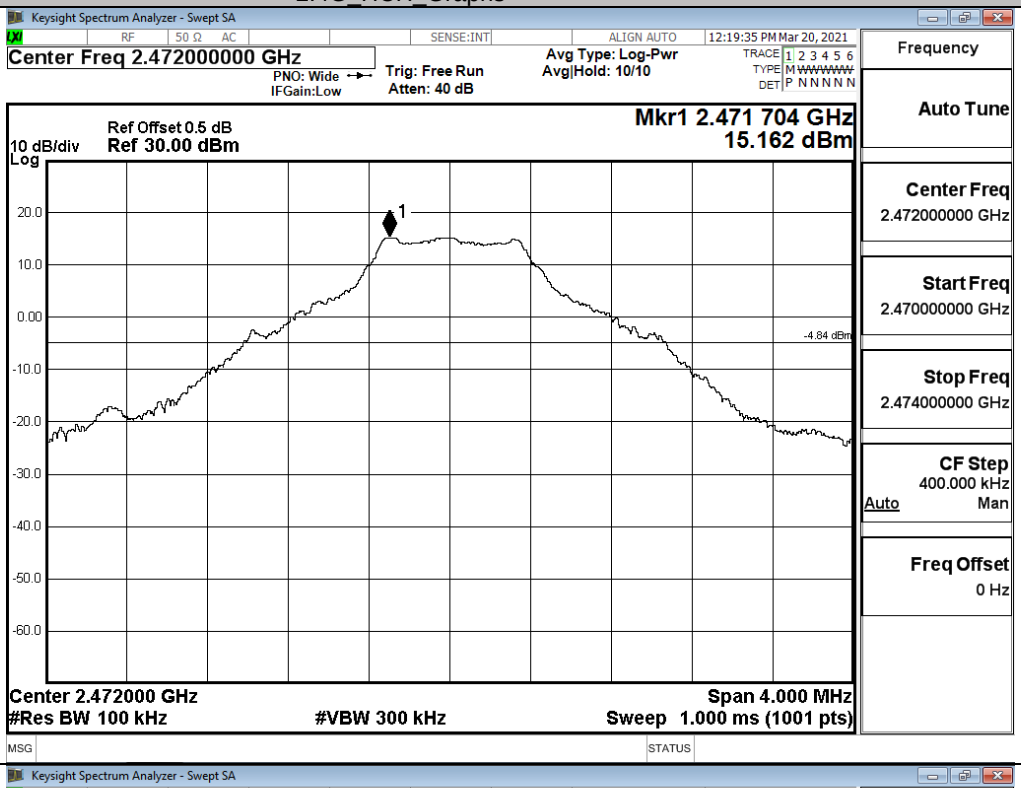
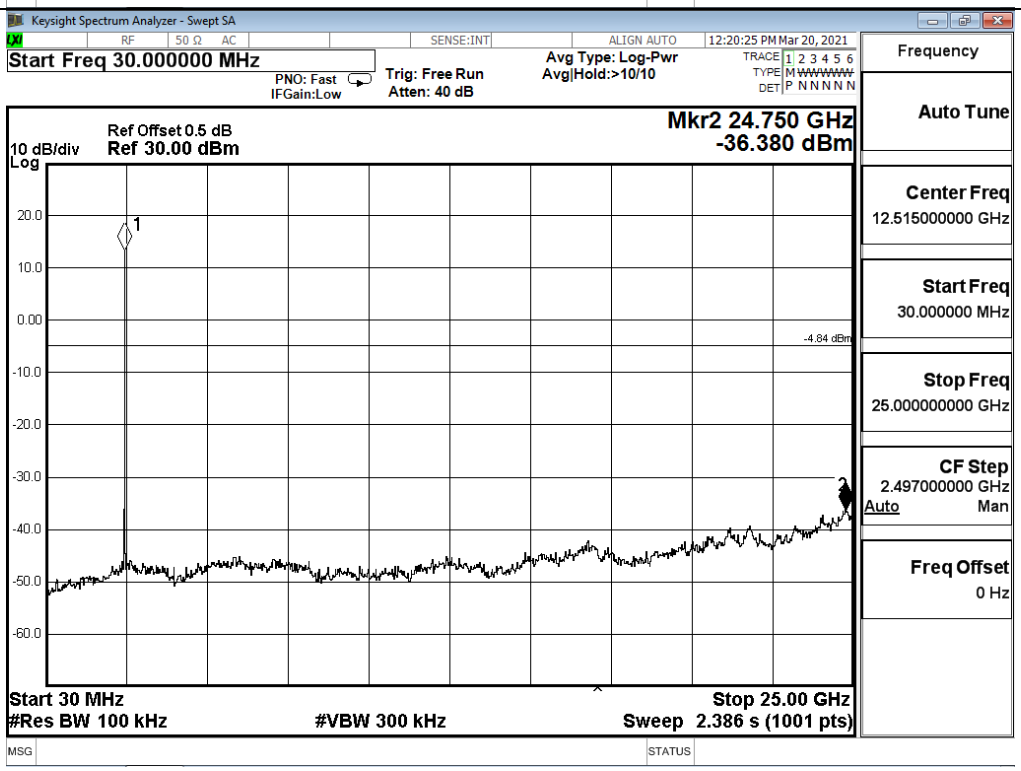
Keysight Spectrum Analyzer - Occupied BW
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
12:06:50 PM Mar 20, 2021
Center Freq 2.472000000 GHz
Center Freq: 2.472000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#IFGain:Low
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Ref Offset 0.5 dB
15 dB/div
Ref 30.00 dBm
Log
15.0
0.00
-15.0
-30.0
-45.0
-60.0
-75.0
-90.0
-105
Center 2.472 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3 MHz
Sweep 4.133 ms
Occupied Bandwidth
1.5158 MHz
Total Power 24.1 dBm
Transmit Freq Error 13.543 kHz
OBW Power 99.00 %
x dB Bandwidth 692.0 kHz
x dB -6.00 dB
MSG
STATUS
Frequency
Center Freq
2.472000000 GHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz

A.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
2.4G	LCH	15.026	-39.547	-4.98	PASS
2.4G	MCH	15.381	-34.907	-4.62	PASS
2.4G	HCH	15.162	-36.380	-4.84	PASS

2.4G_LCH_Graphs	
Pref/2.4G/LCH	
Puw/2.4G/LCH	

2.4G_MCH_Graphs	
Pref/2.4G/MCH	
Puw/2.4G/MCH	

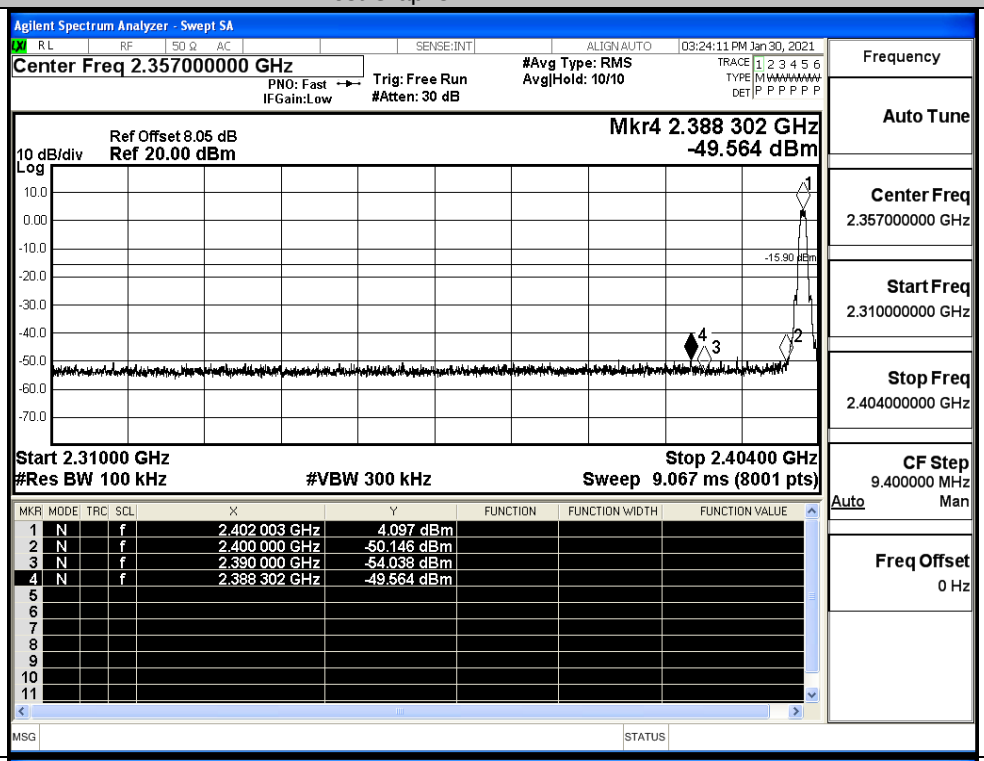
2.4G_HCH_Graphs	
Pref/2.4G/HCH	
Puw/2.4G/HCH	

A.6 Band-edge for RF Conducted Emissions

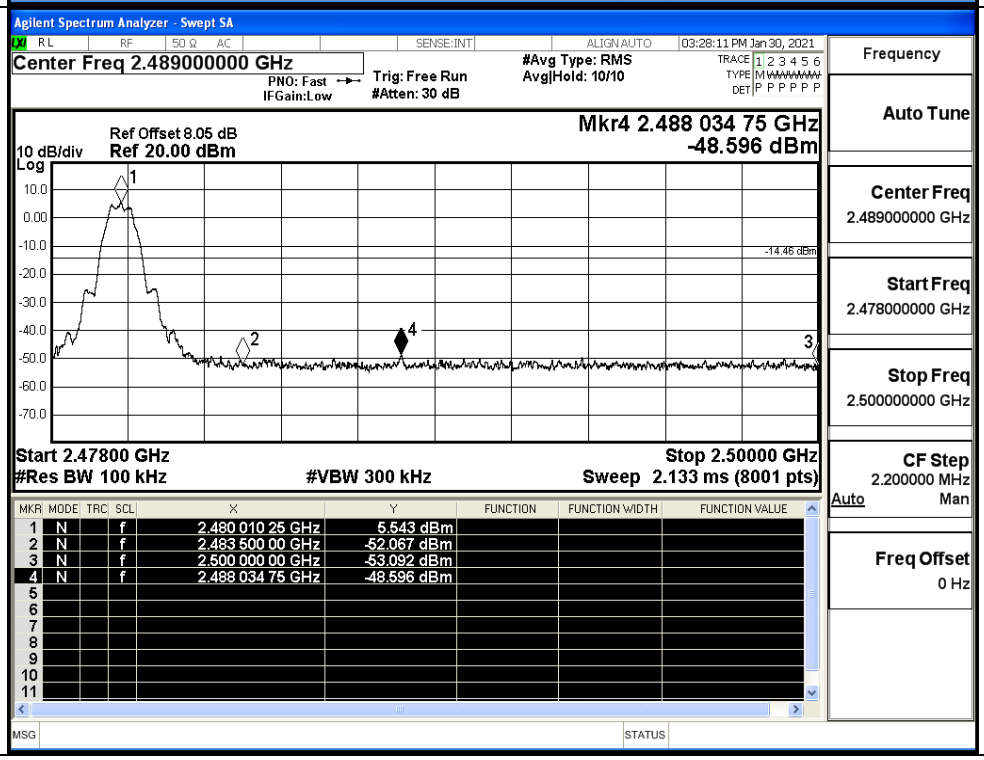
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
2.4G	LCH	15.334	-32.252	-4.67	PASS
2.4G	HCH	15.415	-36.046	-4.58	PASS

Test Graphs

LCH



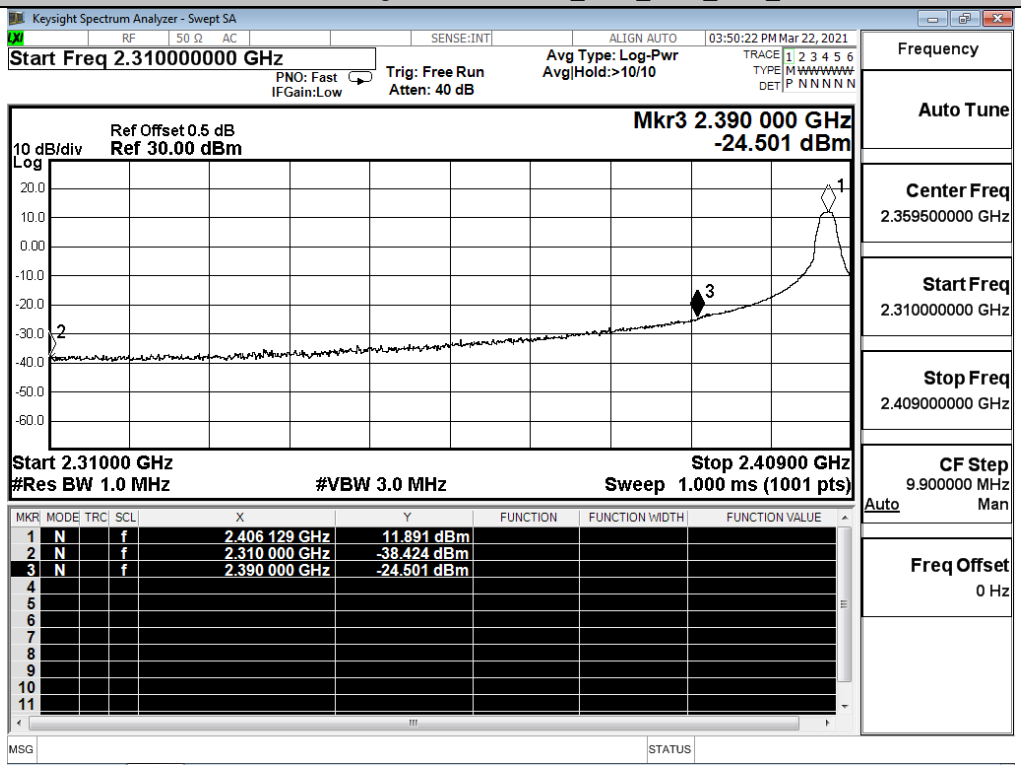
HCH



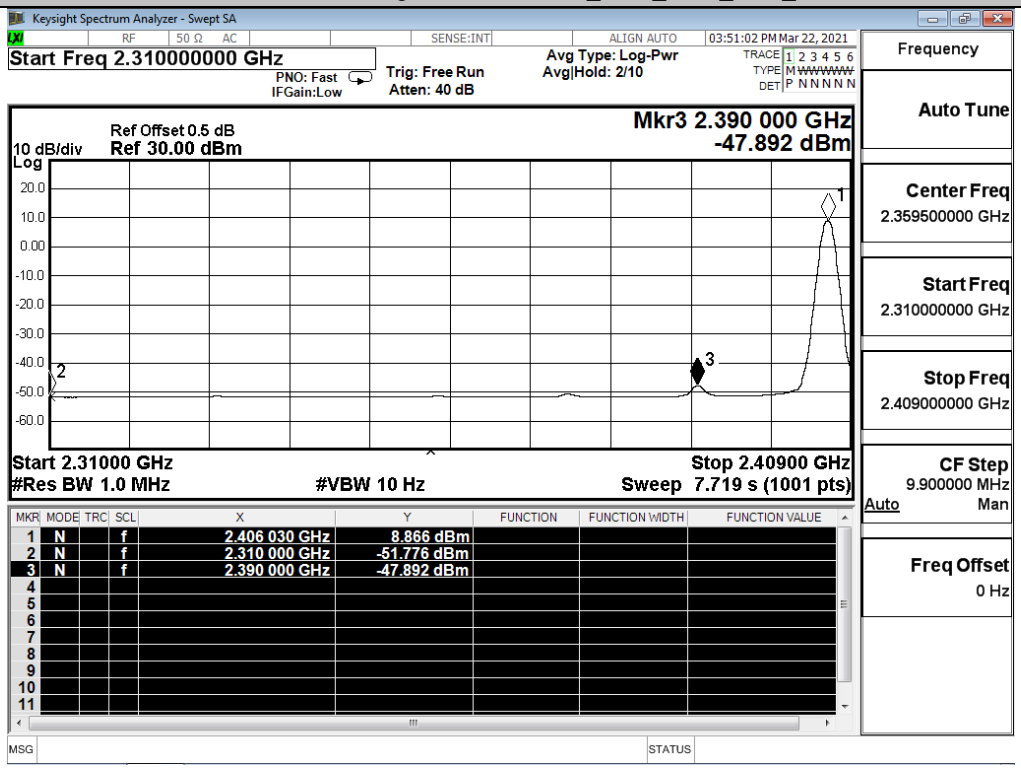
A.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
2.4G	2402	Ant1	2310.0	-38.42	2.0	0	58.84	PEAK	74	PASS
		Ant1	2310.0	-51.78	2.0	0	45.48	AV	54	PASS
		Ant1	2390.0	-24.50	2.0	0	72.76	PEAK	74	PASS
		Ant1	2390.0	-47.89	2.0	0	49.37	AV	54	PASS
	2480	Ant1	2483.5	-23.88	2.0	0	73.38	PEAK	74	PASS
		Ant1	2483.5	-51.30	2.0	0	45.96	AV	54	PASS
		Ant1	2500.0	-30.94	2.0	0	66.32	PEAK	74	PASS
		Ant1	2500.0	-51.51	2.0	0	45.75	AV	54	PASS

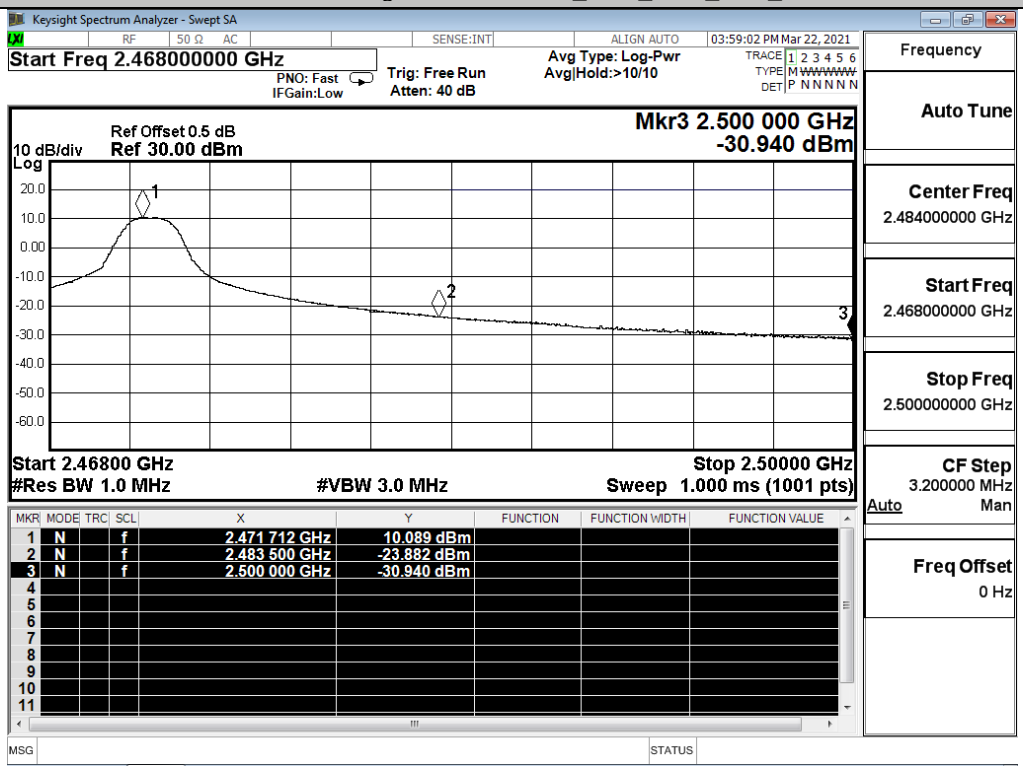
Restrict-band band-edge measurements_2.4G_2406_Ant1_PEAK



Restrict-band band-edge measurements_2.4G_2406_Ant1_AV



Restrict-band band-edge measurements_2.4G_2472_Ant1_PEAK



Restrict-band band-edge measurements_2.4G_2472_Ant1_AV