

## Appendix B

### RF Test Data for BT V4.2 (BLE) (Conducted Measurement)

Product Name: Wireless Stereo Bluetooth headphones

Trade Mark: N/A

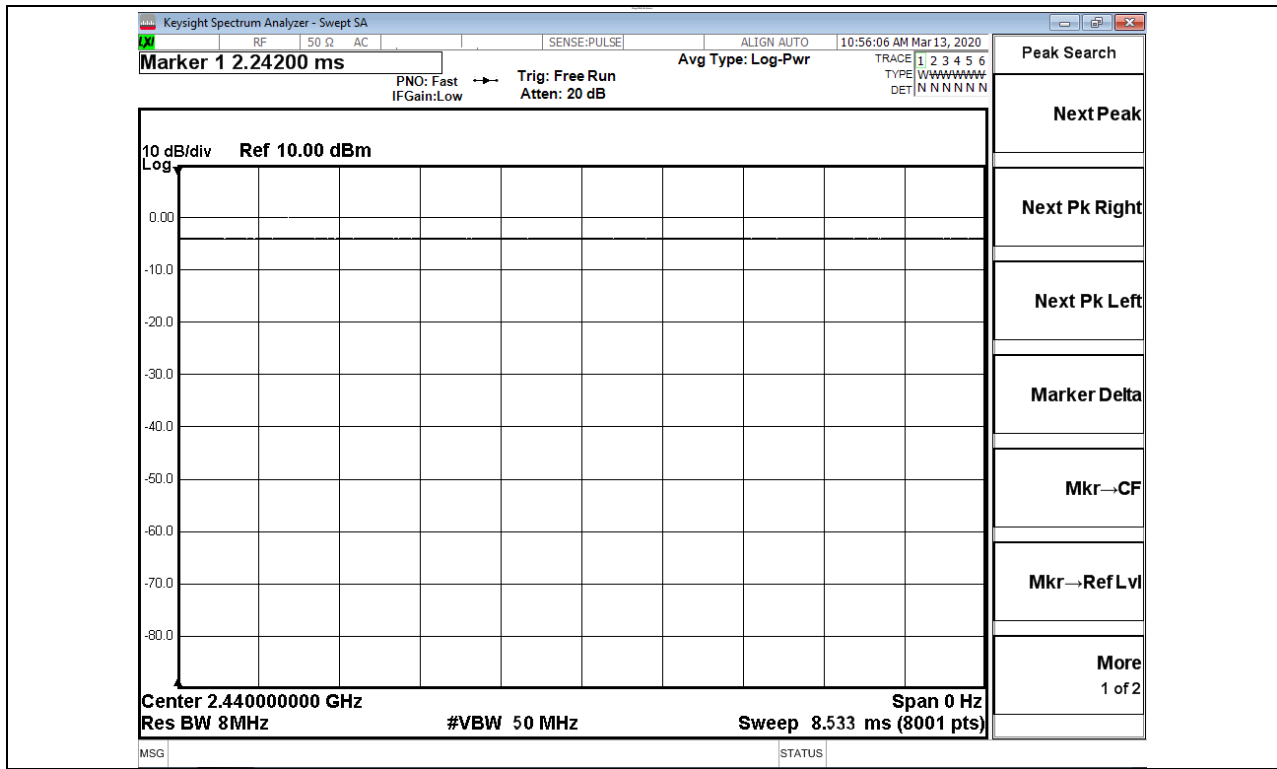
Test Model: FS-BT210

#### Environmental Conditions

Temperature:	23.9° C
Relative Humidity:	54%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom Liu
Supervised by:	Jayden.Zhuo

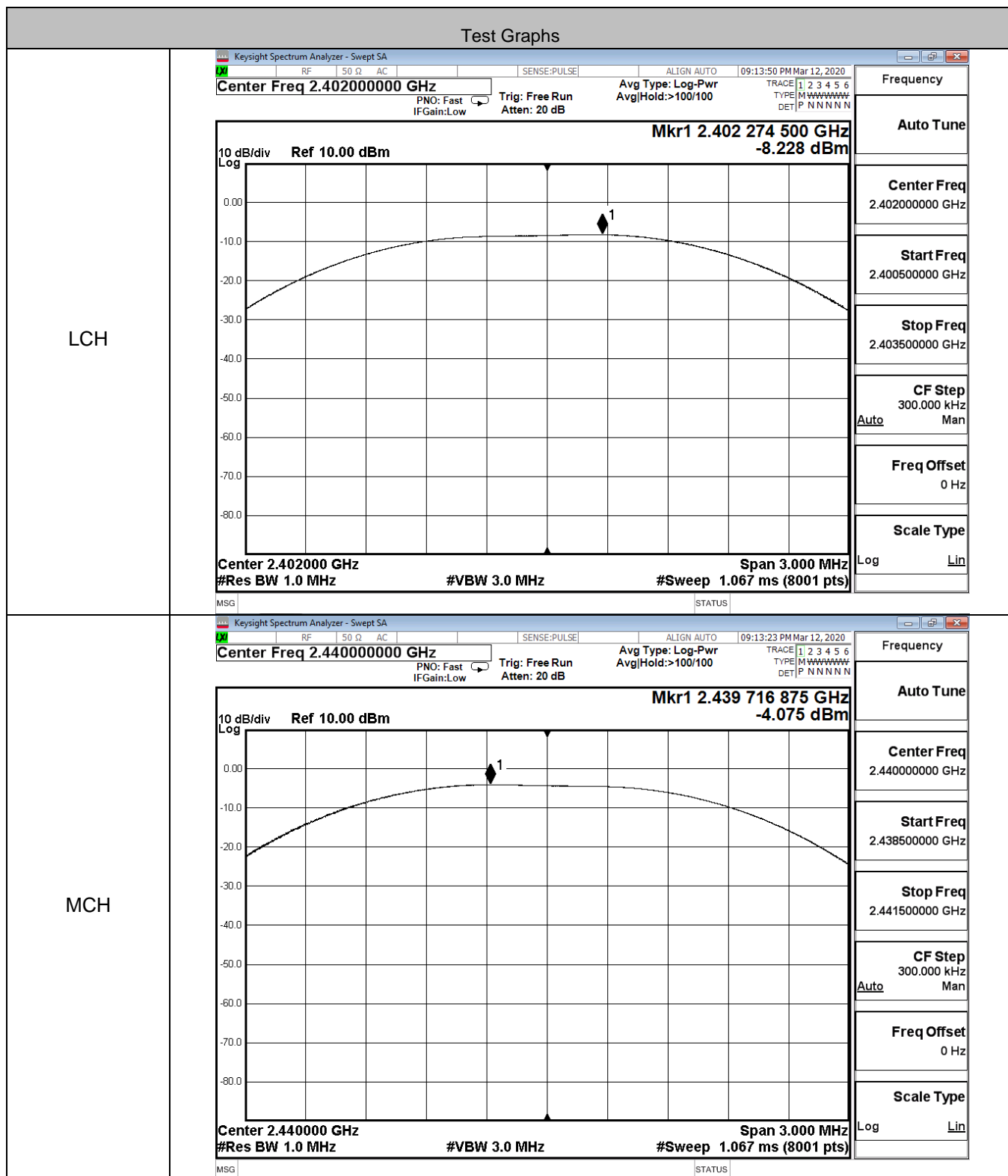
#### B.1 Duty Cycle

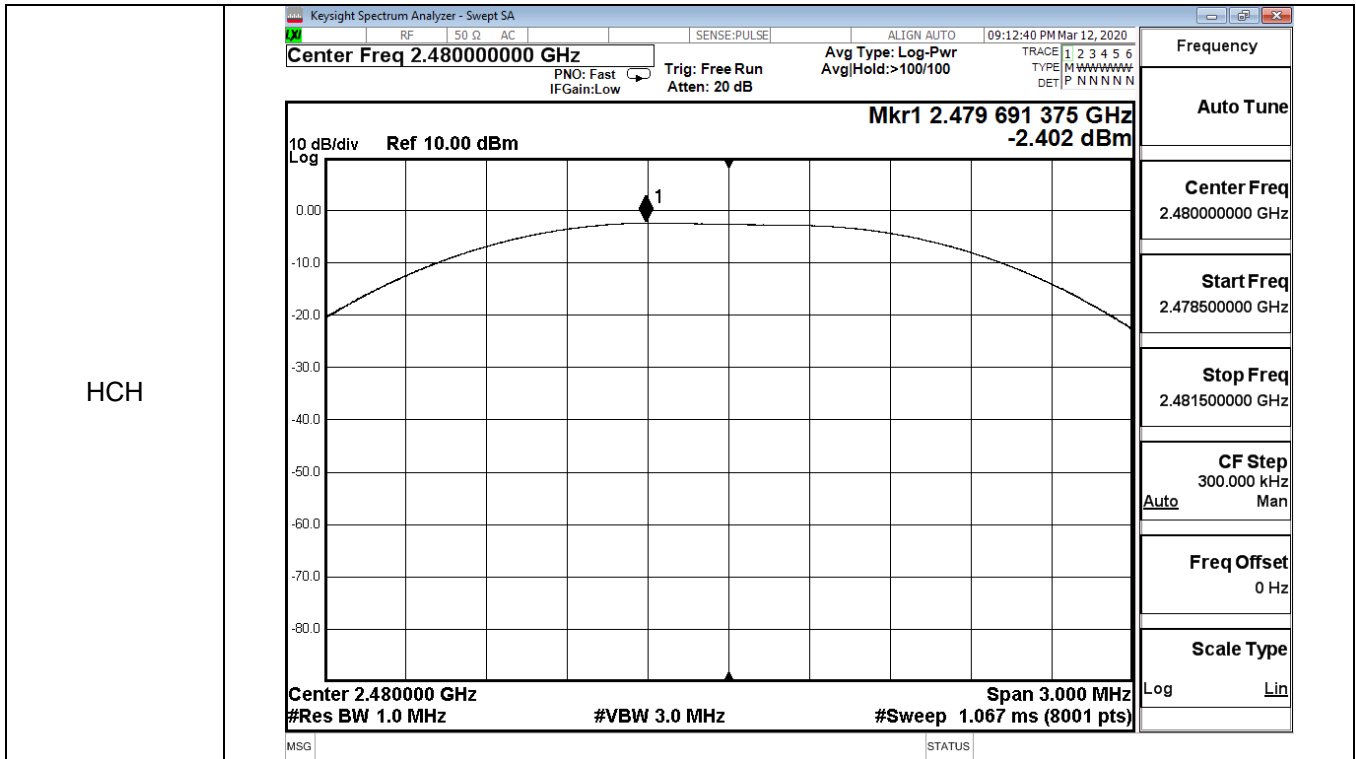
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS



### B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-8.228	30	PASS
BT LE	MCH	-4.075	30	PASS
BT LE	HCH	-2.402	30	PASS



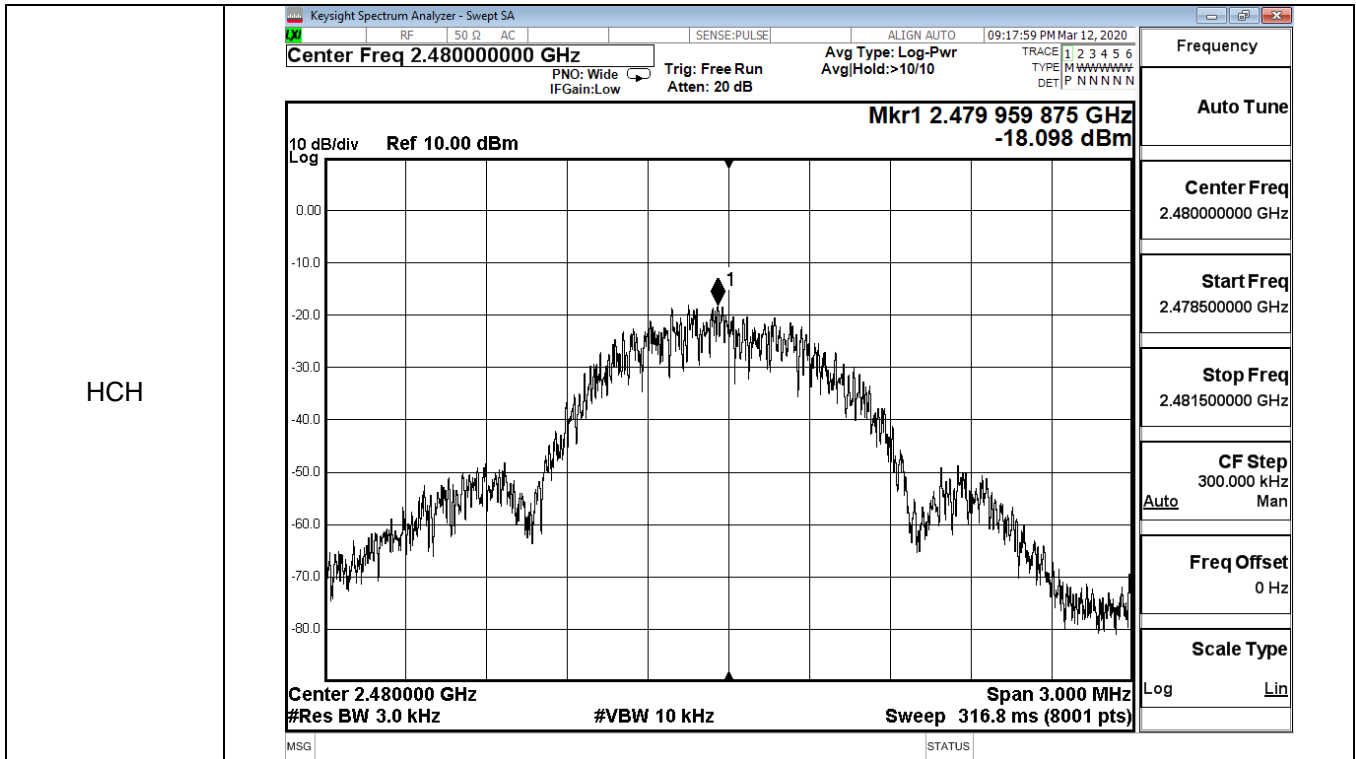


### B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-23.863	8	PASS
BT LE	MCH	-19.670	8	PASS
BT LE	HCH	-18.098	8	PASS

**Test Graphs**

LCH	<p>Center Freq 2.402000000 GHz Mkr1 2.401 959 875 GHz -23.863 dBm Center 2.402000 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 3.000 MHz Sweep 316.8 ms (8001 pts)</p>
MCH	<p>Center Freq 2.440000000 GHz Mkr1 2.439 959 125 GHz -19.670 dBm Center 2.440000 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 3.000 MHz Sweep 316.8 ms (8001 pts)</p>



**B.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.7034	≥0.5	PASS
BT LE	MCH	0.6962	≥0.5	PASS
BT LE	HCH	0.6972	≥0.5	PASS

**Test Graphs**

LCH

Keysight Spectrum Analyzer - Occupied BW

Center Freq: 2.40200000 GHz  
 Trig: Free Run Avg|Hold:>10/10  
 #IFGain:Low #Atten: 20 dB

10 dB/div Ref 10.00 dBm

Center 2.402 GHz  
 #Res BW 100 kHz #VBW 300 kHz Span 3 MHz #Sweep 1 ms

**Occupied Bandwidth 1.0417 MHz**

Total Power -1.96 dBm

Transmit Freq Error -6.165 kHz % of OBW Power 99.00 %  
 x dB Bandwidth 703.4 kHz x dB -6.00 dB

Frequency

Center Freq  
2.40200000 GHz

CF Step  
300.000 kHz  
Auto Man

Freq Offset  
0 Hz

MCH

Keysight Spectrum Analyzer - Occupied BW

Center Freq: 2.44000000 GHz  
 Trig: Free Run Avg|Hold:>10/10  
 #IFGain:Low #Atten: 20 dB

10 dB/div Ref 10.00 dBm

Center 2.44 GHz  
 #Res BW 100 kHz #VBW 300 kHz Span 3 MHz #Sweep 1 ms

**Occupied Bandwidth 1.0428 MHz**

Total Power 2.16 dBm

Transmit Freq Error -21.943 kHz % of OBW Power 99.00 %  
 x dB Bandwidth 696.2 kHz x dB -6.00 dB

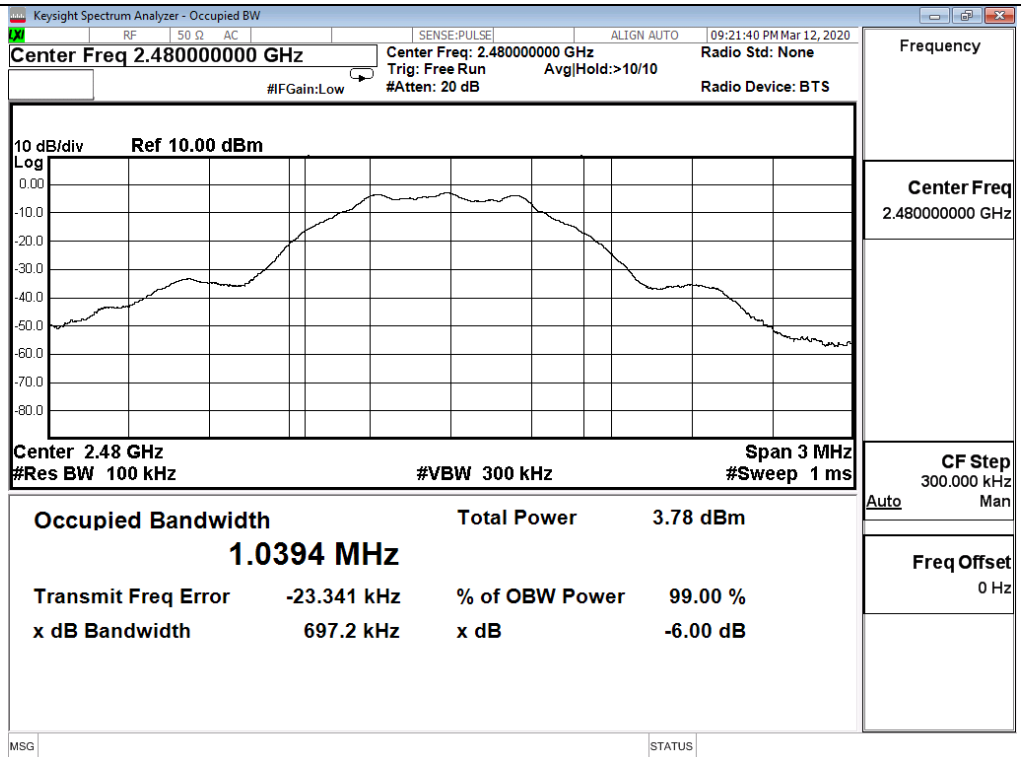
Frequency

Center Freq  
2.44000000 GHz

CF Step  
300.000 kHz  
Auto Man

Freq Offset  
0 Hz

HCH



### B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-8.318	-50.698	-28.32	PASS
BT LE	MCH	-4.606	-49.335	-24.61	PASS
BT LE	HCH	-2.912	-44.749	-22.91	PASS

BT LE\_LCH\_Graphs

Pref/BT LE/LCH

Frequency

Auto Tune

Center Freq  
2.402000000 GHz

Start Freq  
2.400500000 GHz

Stop Freq  
2.403500000 GHz

CF Step  
300.000 kHz  
Auto Man

Freq Offset  
0 Hz

Scale Type  
Log Lin

Puw/BT LE/LCH

Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

Mkr→CF

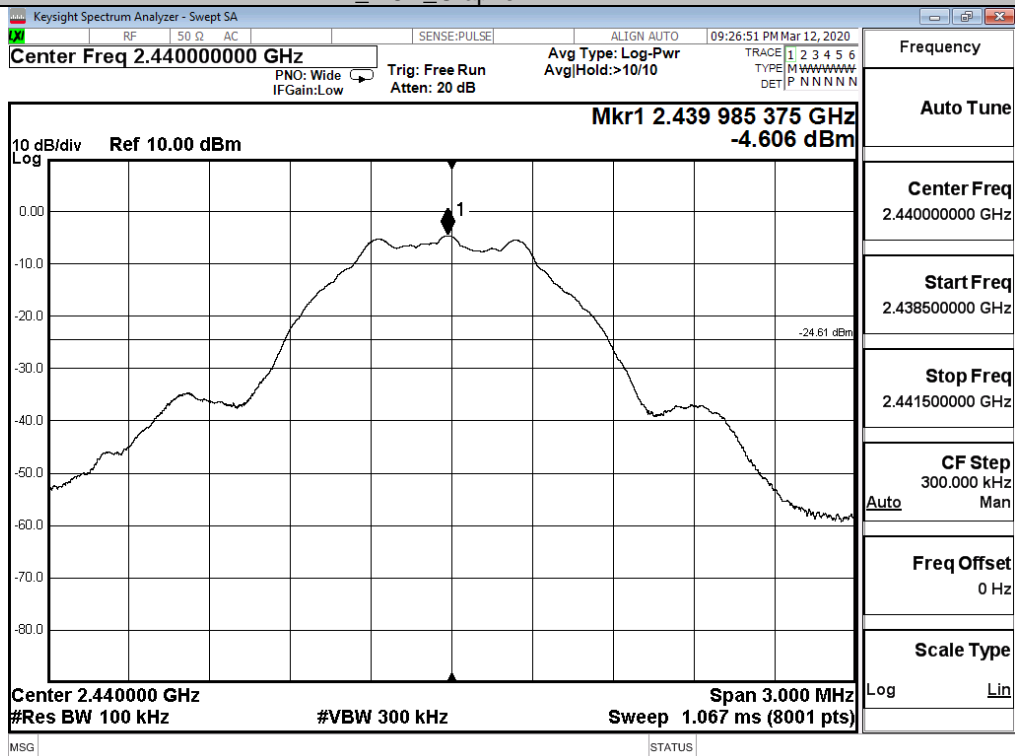
Mkr→Ref Lvl

More  
1 of 2

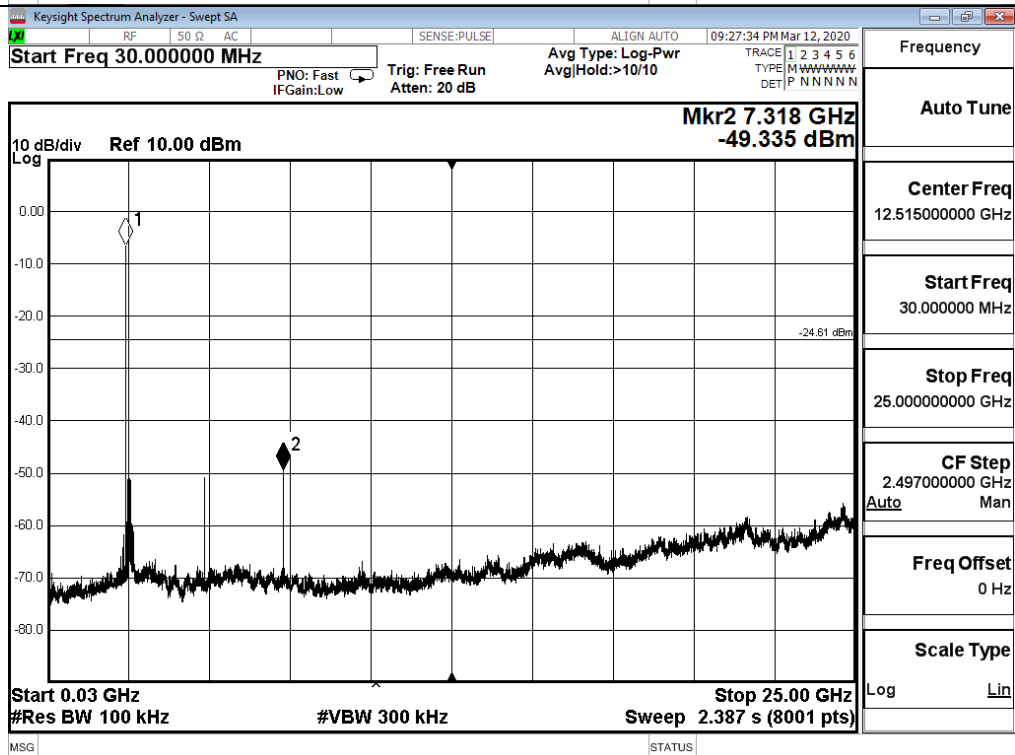


BT LE\_MCH\_Graphs

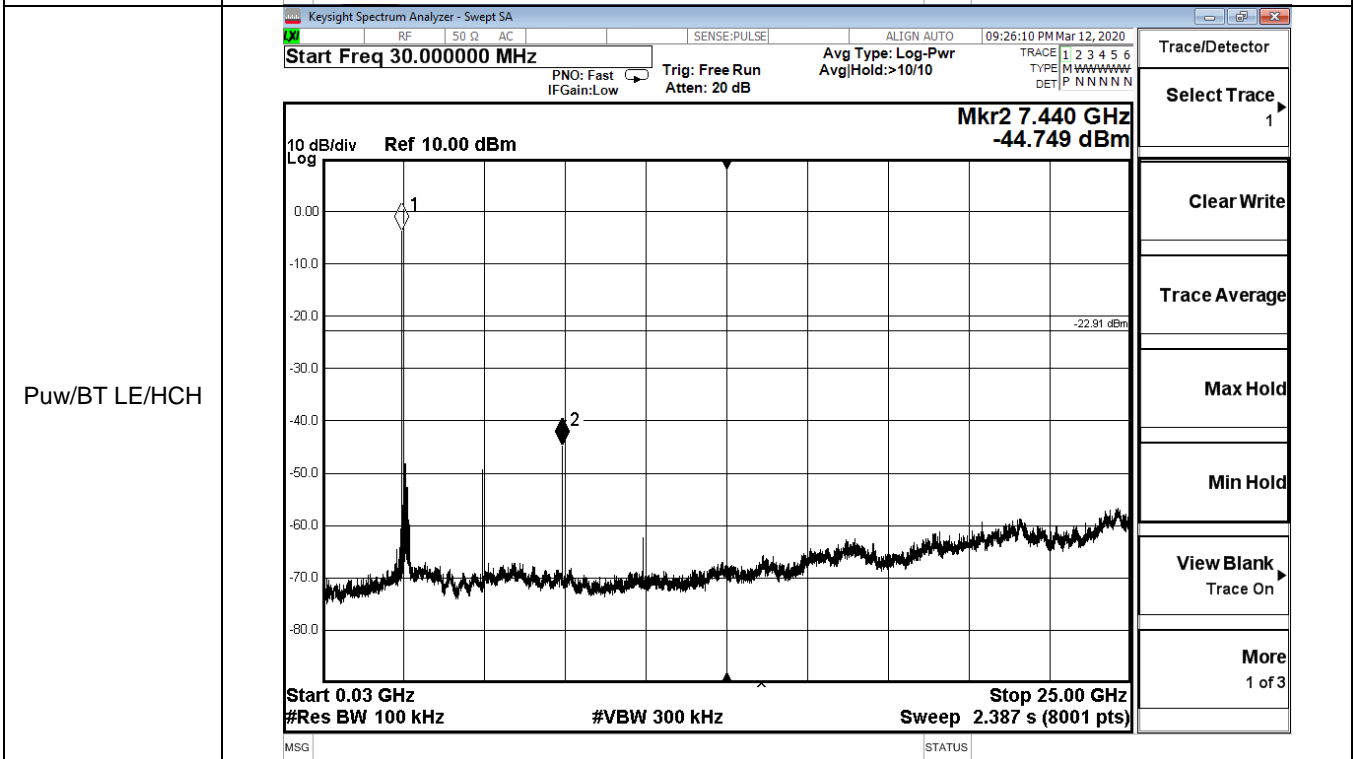
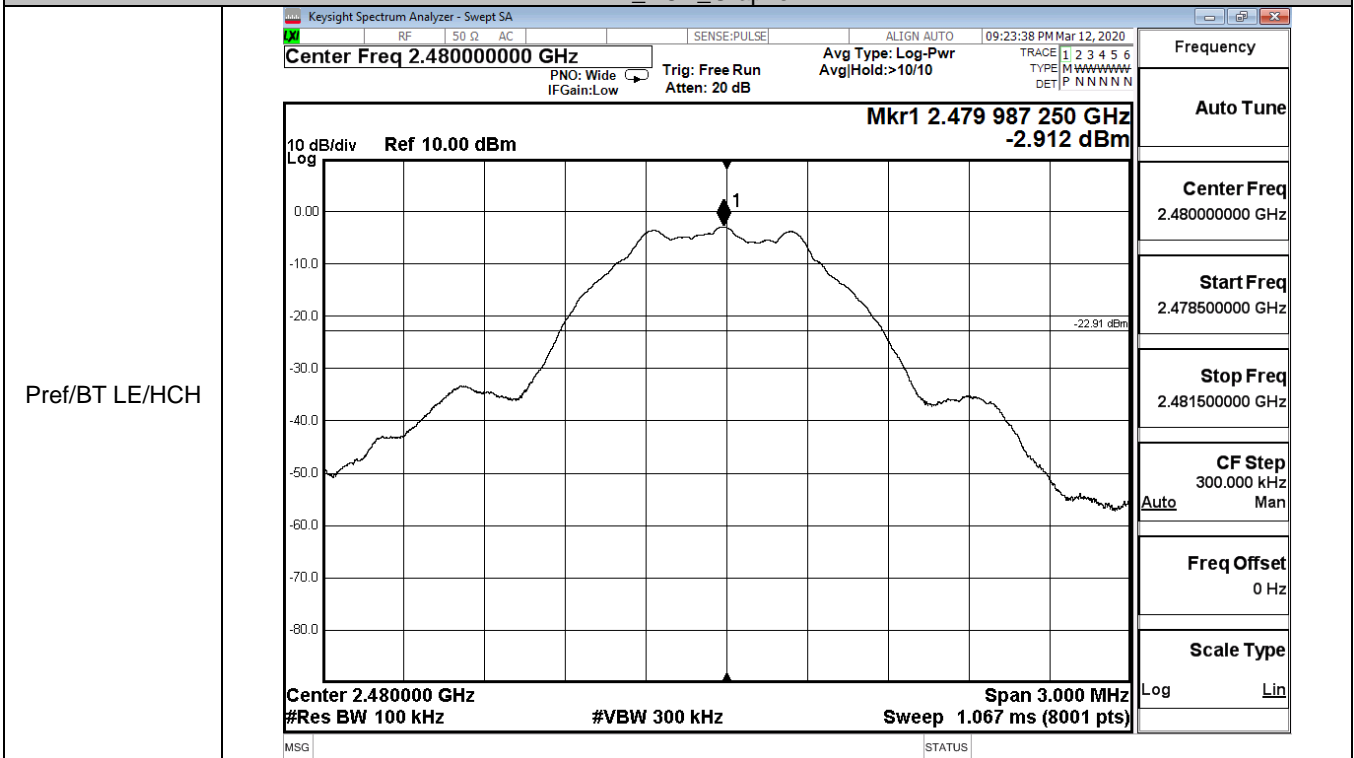
Pref/BT LE/MCH



Puw/BT LE/MCH



BT LE\_HCH\_Graphs



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

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-8.220	-63.062	-28.22	PASS
BT LE	HCH	-2.362	-63.613	-22.36	PASS

Test Graphs

LCH

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f		2.402 026 GHz	-8.220 dBm			
2	N	f		2.390 000 GHz	-69.259 dBm			
3	N	f		2.400 000 GHz	-62.512 dBm			
4	N	f		2.349 762 GHz	-63.062 dBm			

Frequency

Auto Tune

Center Freq  
2.357000000 GHz

Start Freq  
2.310000000 GHz

Stop Freq  
2.404000000 GHz

CF Step  
9.400000 MHz  
Man

Freq Offset  
0 Hz

Scale Type  
Log Lin

HCH

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f		2.480 002 GHz	-2.362 dBm			
2	N	f		2.483 500 GHz	-66.622 dBm			
3	N	f		2.500 000 GHz	-67.314 dBm			
4	N	f		2.492 036 GHz	-63.613 dBm			

Frequency

Auto Tune

Center Freq  
2.489000000 GHz

Start Freq  
2.478000000 GHz

Stop Freq  
2.500000000 GHz

CF Step  
2.200000 MHz  
Man

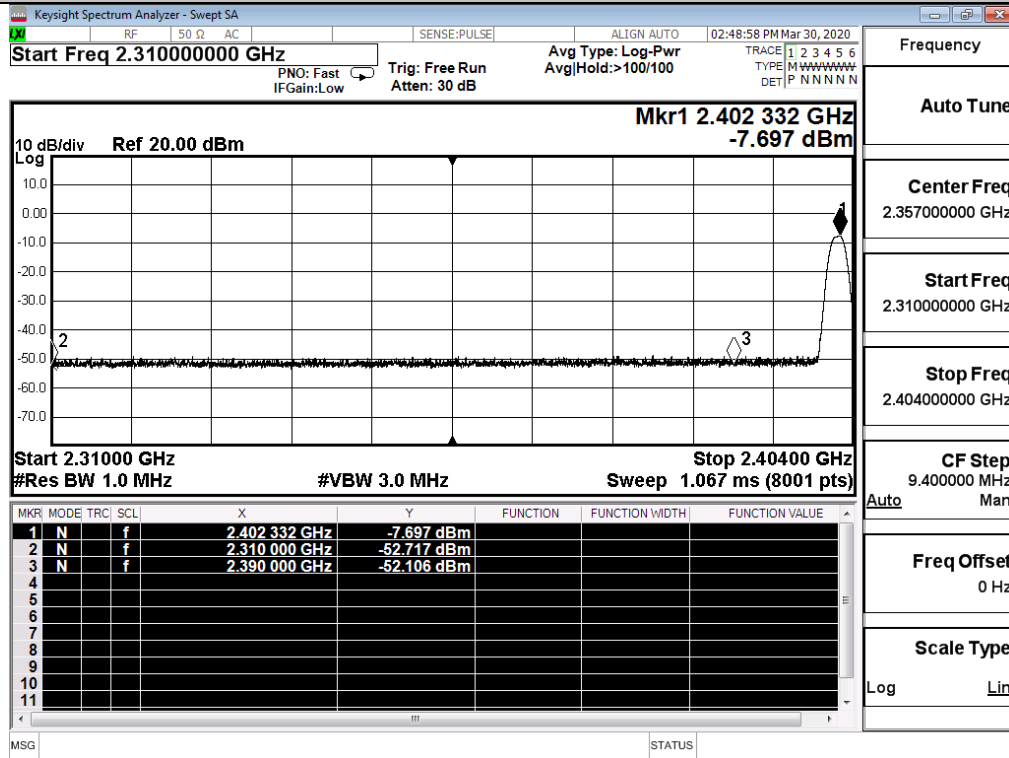
Freq Offset  
0 Hz

Scale Type  
Log Lin

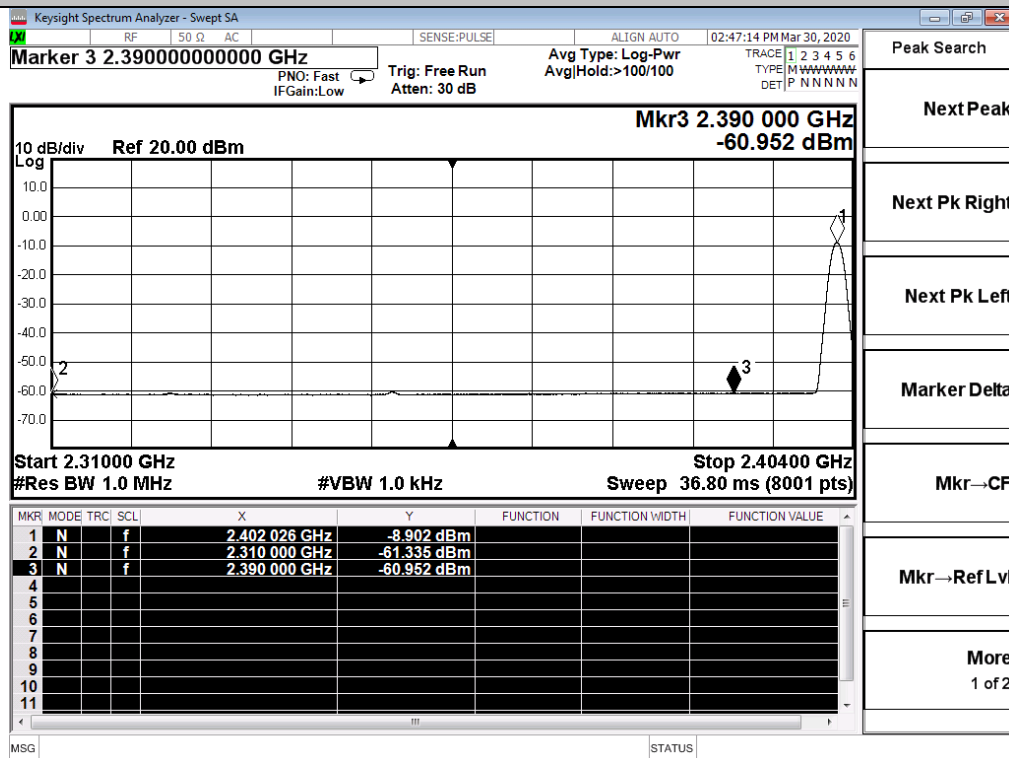
**B.7 Restrict-band band-edge measurements**

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
BT LE	2402	Ant1	2310.0	-52.717	2	0	44.54	PEAK	74	PASS
		Ant1	2310.0	-61.335	2	0	35.93	AV	54	PASS
		Ant1	2390.0	-52.106	2	0	45.15	PEAK	74	PASS
		Ant1	2390.0	-60.952	2	0	36.31	AV	54	PASS
	2480	Ant1	2483.5	-51.442	2	0	45.82	PEAK	74	PASS
		Ant1	2483.5	-60.092	2	0	37.17	AV	54	PASS
		Ant1	2500.0	-51.840	2	0	45.42	PEAK	74	PASS
		Ant1	2500.0	-60.814	2	0	36.45	AV	54	PASS

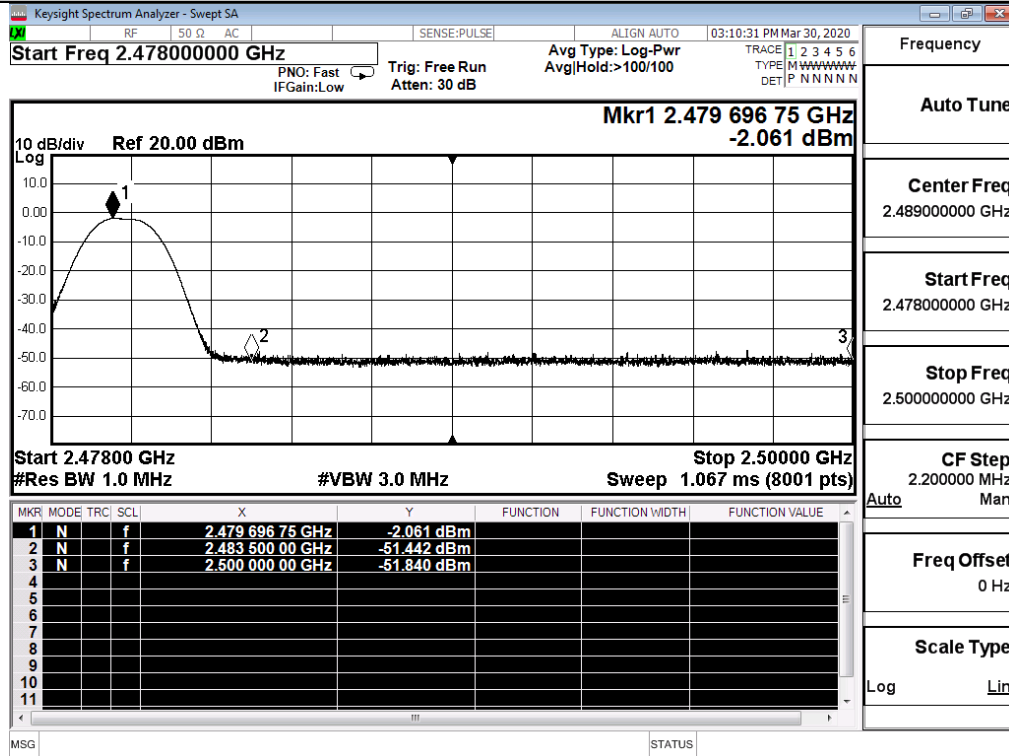
Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_AV



Restrict-band band-edge measurements\_BT LE\_2480\_Ant1\_PEAK



Restrict-band band-edge measurements\_BT LE\_2480\_Ant1\_AV

