

Appendix C

RF Test Data for BT V5.0(DTS) (Conducted Measurement)

**Product Name: TRUE WIRELESS GAMING EARBUDS WITH 60MS
LOW LATENCY, MICROPHONE AND CHARGING CASE**

Trade Mark: iLuv

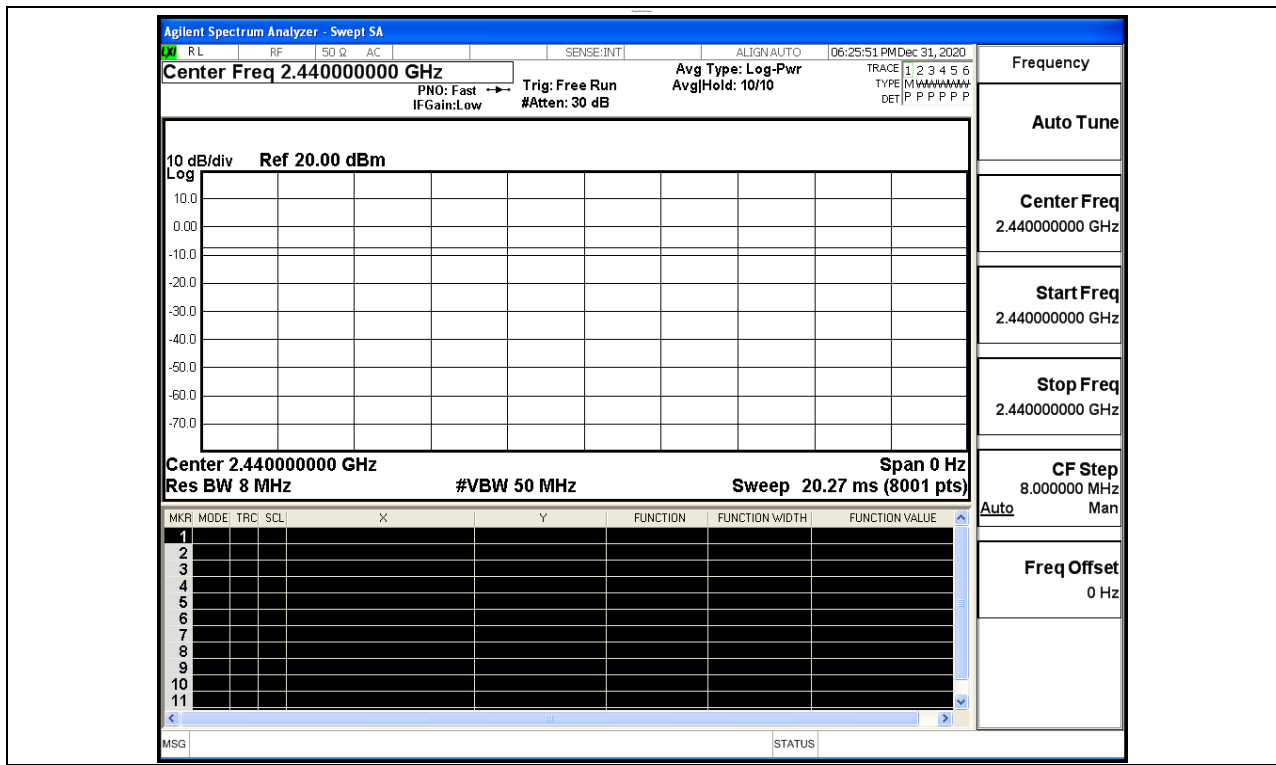
Test Model: SG100

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	53%
ATM Pressure:	100.0 kPa
Test Engineer:	Ben Jin
Supervised by:	Li Huan

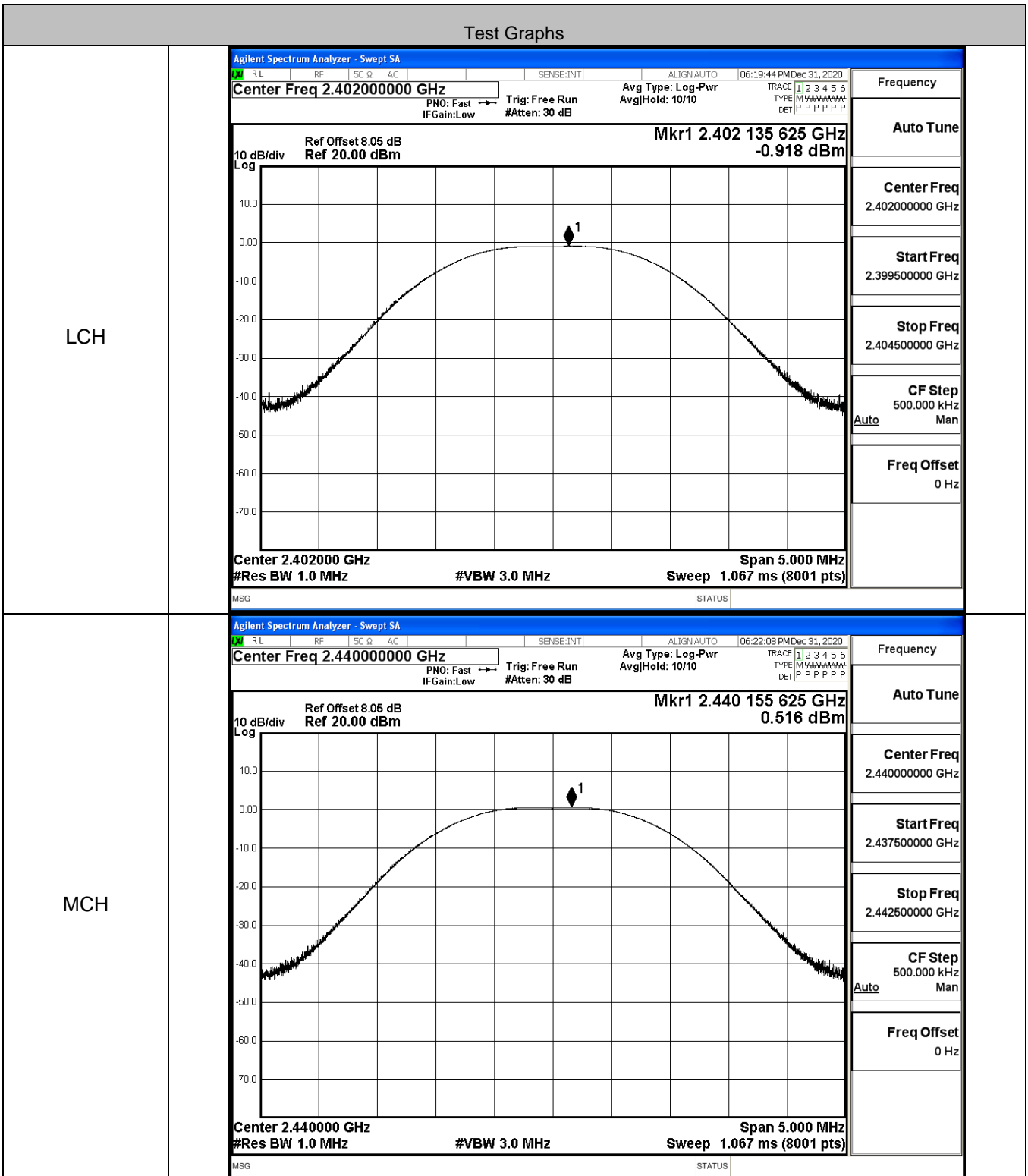
C.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT 2LE	2440	Ant1	100	PASS

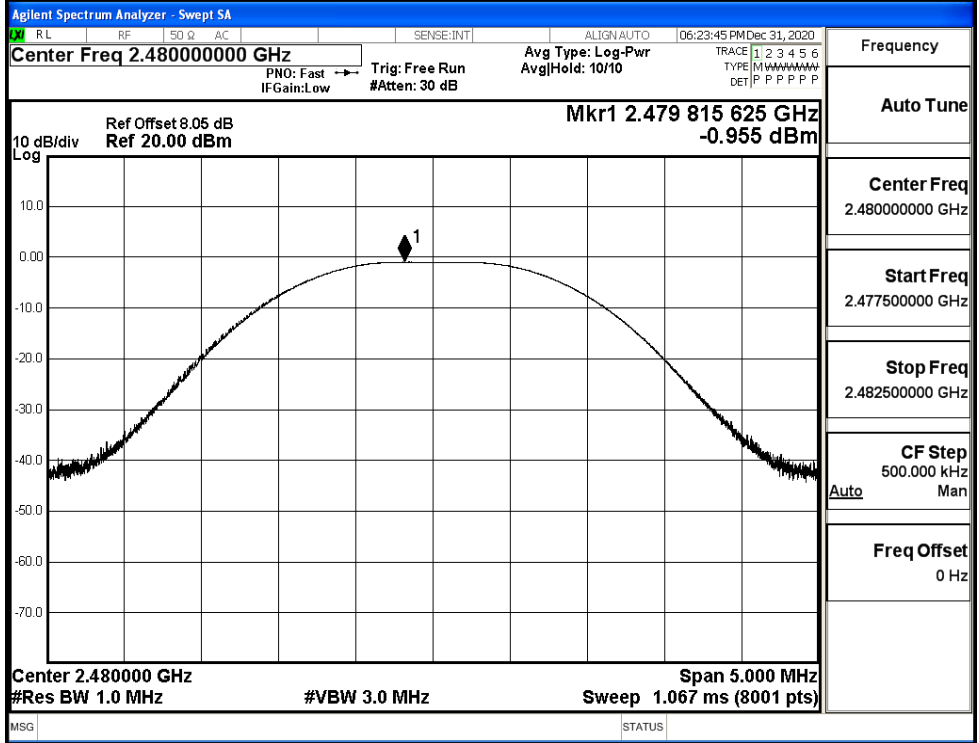


C.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT 2LE	LCH	-0.918	30	PASS
BT 2LE	MCH	0.516	30	PASS
BT 2LE	HCH	-0.955	30	PASS



HCH



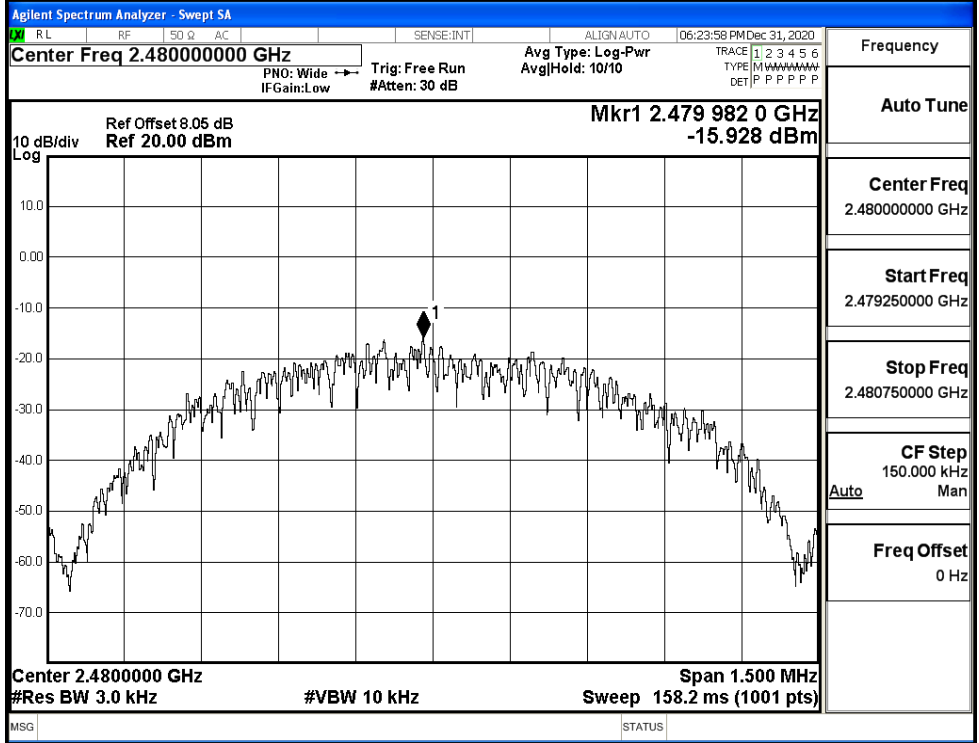
C.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT 2LE	LCH	-15.827	8	PASS
BT 2LE	MCH	-14.290	8	PASS
BT 2LE	HCH	-15.928	8	PASS

Test Graphs

LCH	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.40200000 GHz Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.401 980 5 GHz -15.827 dBm 10 dB/div Log Center 2.4020000 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 1.500 MHz Sweep 158.2 ms (1001 pts)</p>	Frequency Auto Tune Center Freq 2.402000000 GHz Start Freq 2.401250000 GHz Stop Freq 2.402750000 GHz CF Step 150.000 kHz Auto Man Freq Offset 0 Hz
	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.44000000 GHz Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.439 982 0 GHz -14.290 dBm 10 dB/div Log Center 2.4400000 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 1.500 MHz Sweep 158.2 ms (1001 pts)</p>	Frequency Auto Tune Center Freq 2.440000000 GHz Start Freq 2.439250000 GHz Stop Freq 2.440750000 GHz CF Step 150.000 kHz Auto Man Freq Offset 0 Hz

HCH



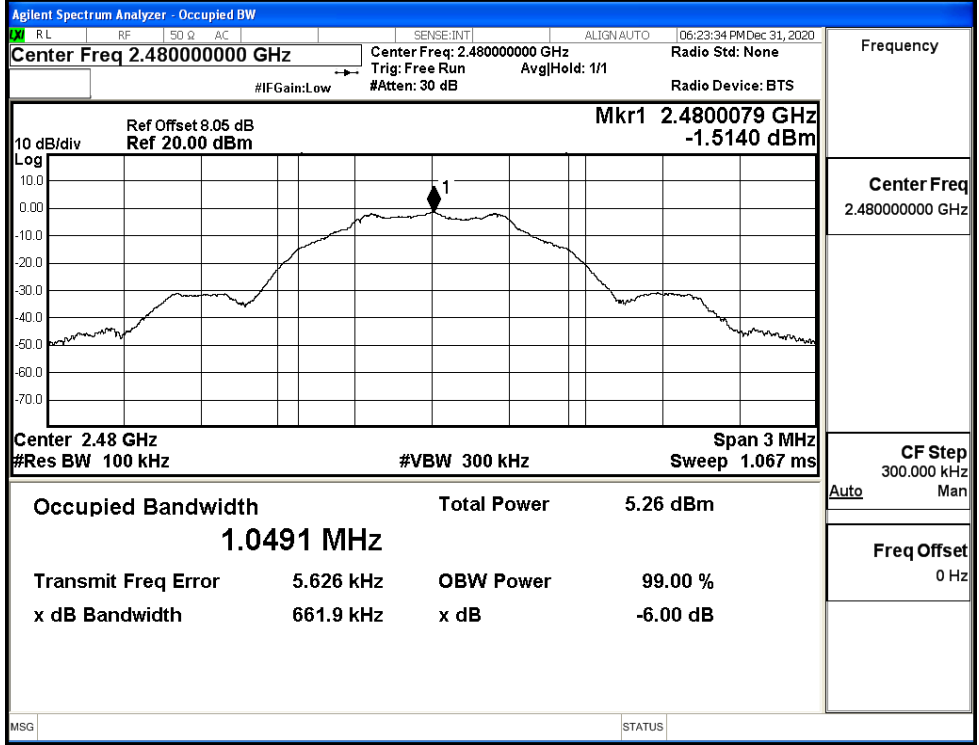
C.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT 2LE	LCH	0.6650	≥0.5	PASS
BT 2LE	MCH	0.6598	≥0.5	PASS
BT 2LE	HCH	0.6619	≥0.5	PASS

Test Graphs

LCH	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.40200000 GHz</p> <p>Center Freq: 2.40200000 GHz</p> <p>Mkr1 2.4020026 GHz -1.4609 dBm</p> <p>Occupied Bandwidth 1.0485 MHz</p> <p>Total Power 5.25 dBm</p> <p>Transmit Freq Error 9.181 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 665.0 kHz</p> <p>x dB -6.00 dB</p>	<p>Frequency</p> <p>Center Freq 2.40200000 GHz</p> <p>CF Step 300.000 kHz</p> <p>Freq Offset 0 Hz</p>
	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.44000000 GHz</p> <p>Center Freq: 2.44000000 GHz</p> <p>Mkr1 2.4400038 GHz -0.011997 dBm</p> <p>Occupied Bandwidth 1.0480 MHz</p> <p>Total Power 6.70 dBm</p> <p>Transmit Freq Error 6.826 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 659.8 kHz</p> <p>x dB -6.00 dB</p>	<p>Frequency</p> <p>Center Freq 2.44000000 GHz</p> <p>CF Step 300.000 kHz</p> <p>Freq Offset 0 Hz</p>

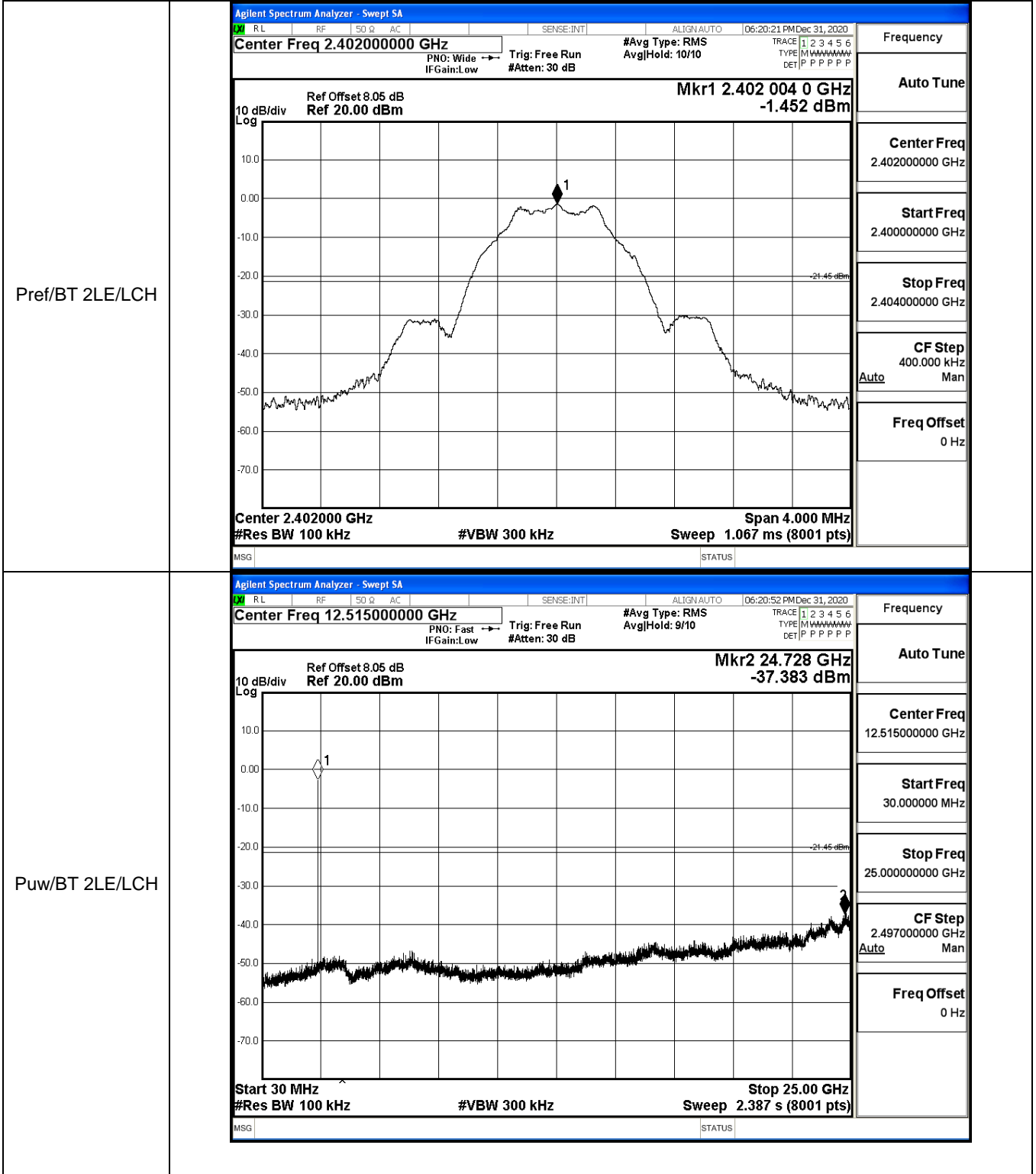
HCH



C.5 RF Conducted Spurious Emissions

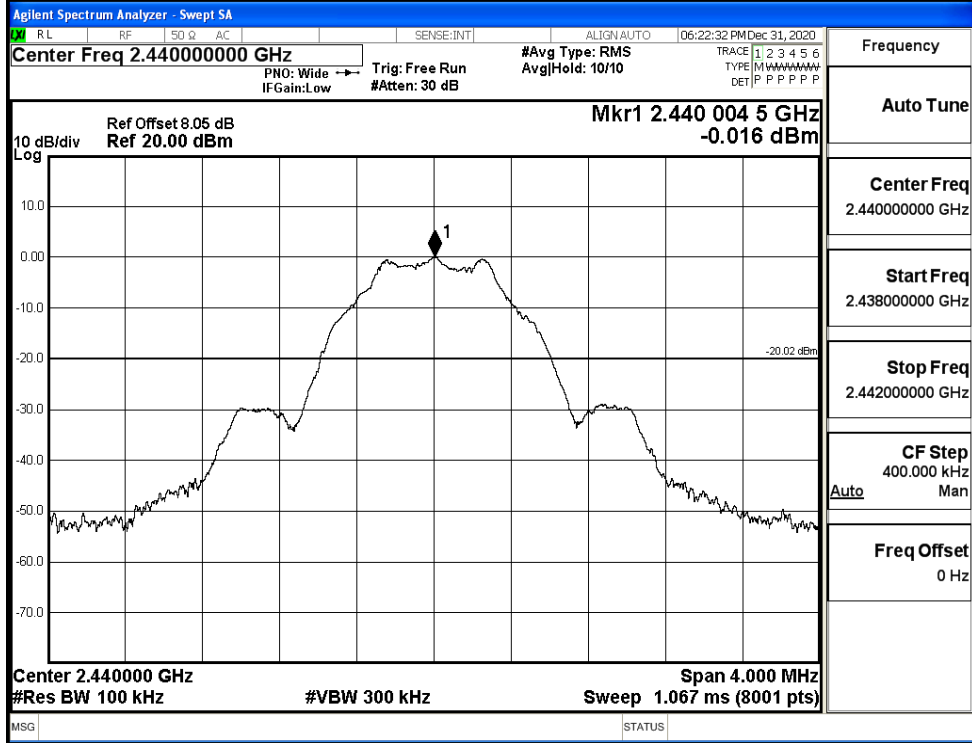
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT 2LE	LCH	-1.452	-37.383	-21.452	PASS
BT 2LE	MCH	-0.016	-36.907	-20.016	PASS
BT 2LE	HCH	-1.471	-36.801	-21.471	PASS

BT 2LE_LCH_Graphs

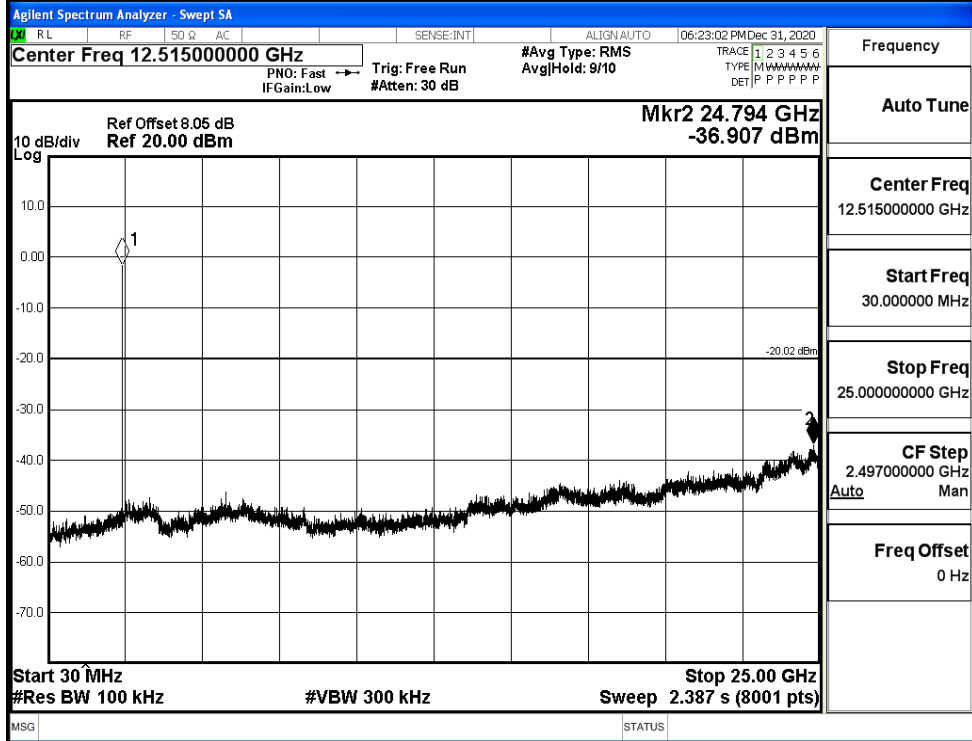


BT 2LE_MCH_Graphs

Pref/BT
2LE/MCH

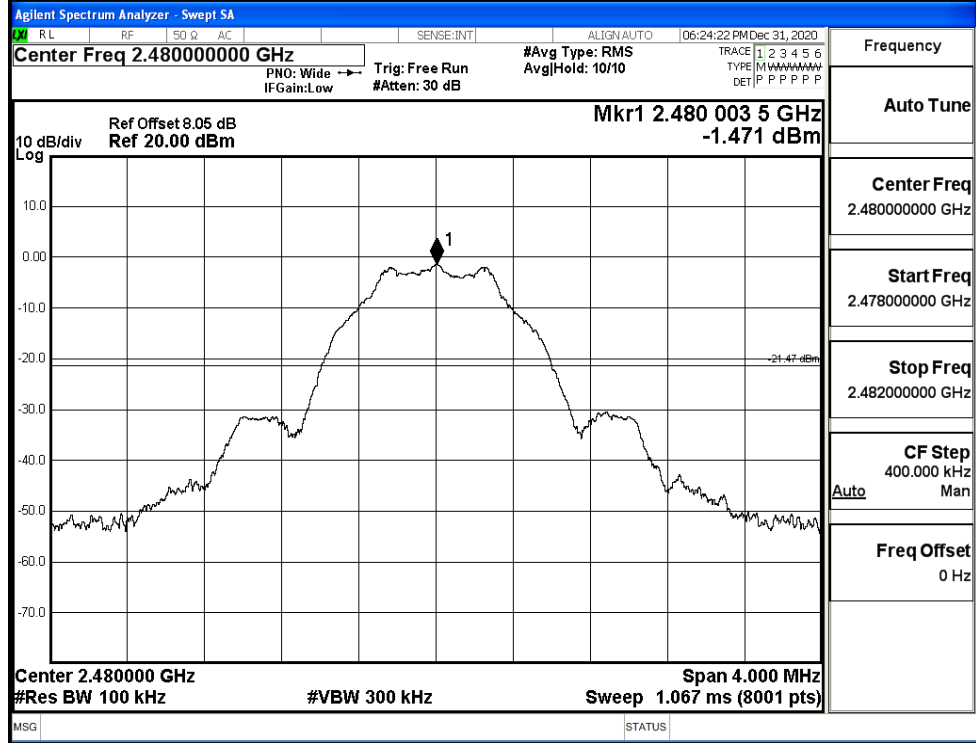


Puw/BT
2LE/MCH

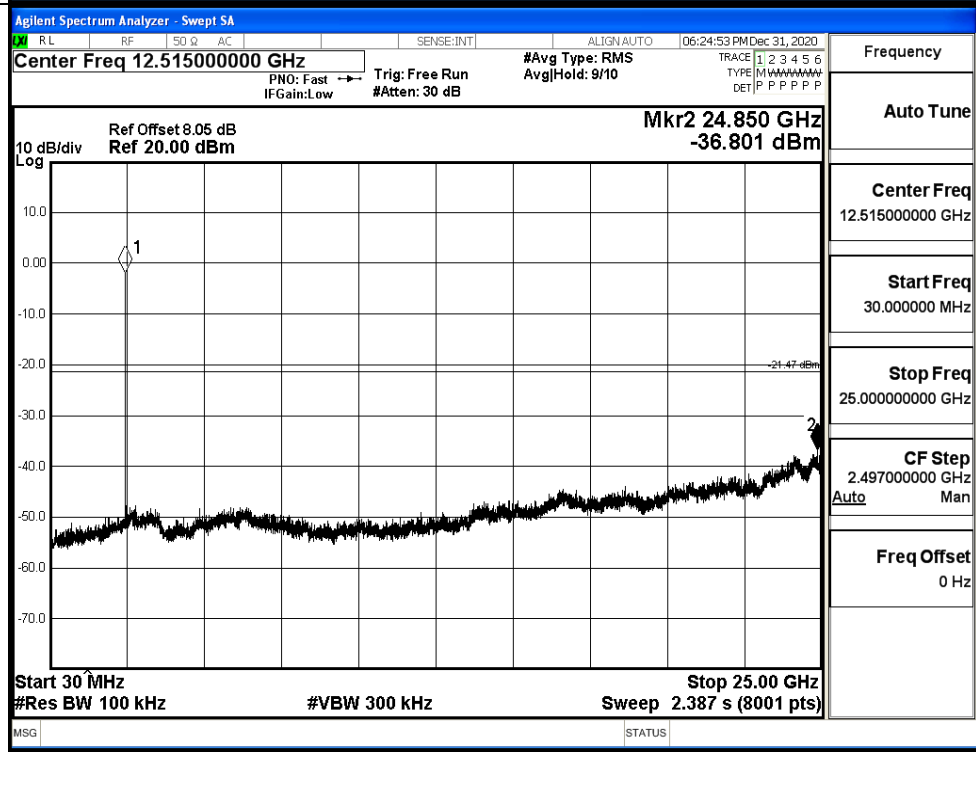


BT 2LE_HCH_Graphs

Pref/BT 2LE/HCH



Puw/BT 2LE/HCH



C.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT 2LE	LCH	-1.565	-49.681	-21.57	PASS
BT 2LE	HCH	-1.491	-49.283	-21.49	PASS

Test Graphs

LCH

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.35700000 GHz

Ref Offset 8.05 dB
Ref 20.00 dBm

Mkr4 2.336 849 GHz
-49.681 dBm

Start 2.31000 GHz Stop 2.40400 GHz

#Res BW 100 kHz #VBW 300 kHz Sweep 9.067 ms (8001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f		2.402 249 GHz	-1.565 dBm			
2	N	f		2.400 000 GHz	-51.514 dBm			
3	N	f		2.390 000 GHz	-54.493 dBm			
4	N	f		2.336 849 GHz	-49.681 dBm			

Frequency

Auto Tune

Center Freq
2.357000000 GHz

Start Freq
2.310000000 GHz

Stop Freq
2.404000000 GHz

CF Step
9.400000 MHz

Freq Offset
0 Hz

HCH

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.489000000 GHz

Ref Offset 8.05 dB
Ref 20.00 dBm

Mkr4 2.498 693 75 GHz
-49.283 dBm

Start 2.47800 GHz Stop 2.50000 GHz

#Res BW 100 kHz #VBW 300 kHz Sweep 2.133 ms (8001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f		2.480 010 25 GHz	-1.491 dBm			
2	N	f		2.483 500 00 GHz	-53.184 dBm			
3	N	f		2.500 000 00 GHz	-52.623 dBm			
4	N	f		2.498 693 75 GHz	-49.283 dBm			

Frequency

Auto Tune

Center Freq
2.489000000 GHz

Start Freq
2.478000000 GHz

Stop Freq
2.500000000 GHz

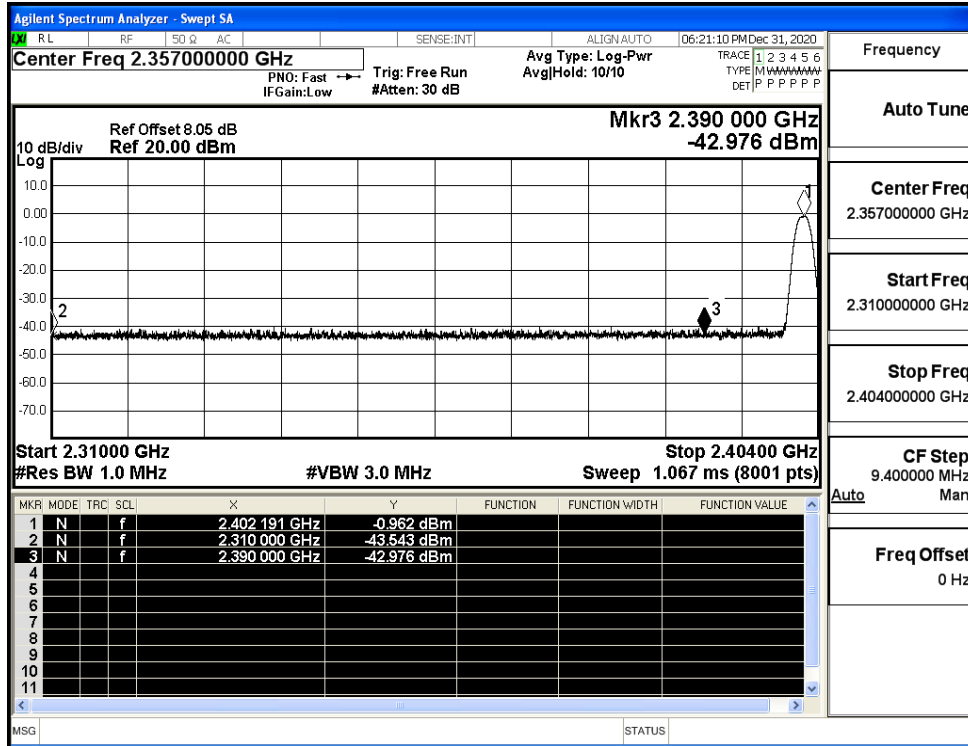
CF Step
2.200000 MHz

Freq Offset
0 Hz

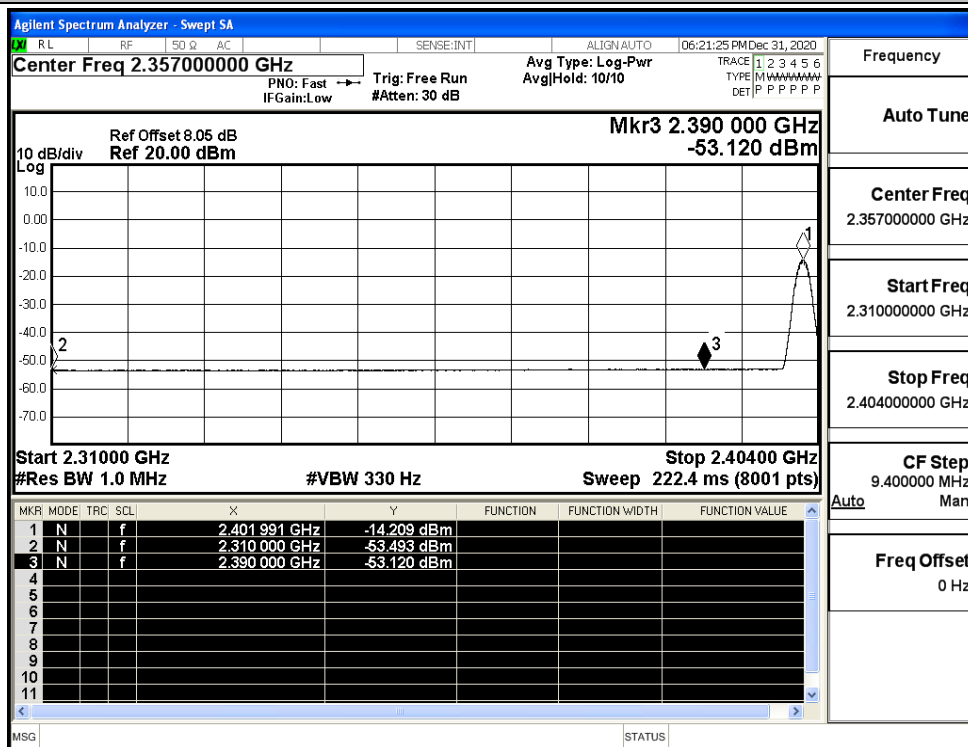
C.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
BT 2LE	2402	Ant1	2310.0	-43.54	2.0	0	51.71	PEAK	74	PASS
		Ant1	2310.0	-53.49	2.0	0	41.76	AV	54	PASS
		Ant1	2390.0	-42.98	2.0	0	52.28	PEAK	74	PASS
		Ant1	2390.0	-53.12	2.0	0	42.14	AV	54	PASS
	2480	Ant1	2483.5	-43.47	2.0	0	51.78	PEAK	74	PASS
		Ant1	2483.5	-52.74	2.0	0	42.52	AV	54	PASS
		Ant1	2500.0	-42.73	2.0	0	52.53	PEAK	74	PASS
		Ant1	2500.0	-52.55	2.0	0	42.70	AV	54	PASS

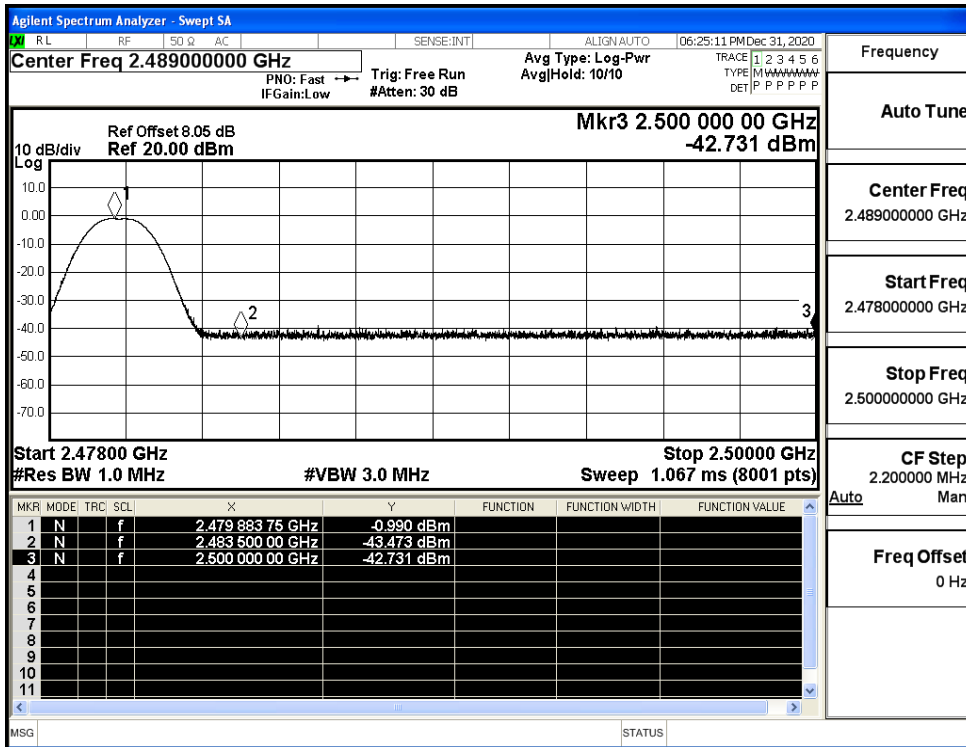
Restrict-band band-edge measurements_BT 2LE_2402_Ant1_PEAK



Restrict-band band-edge measurements_BT 2LE_2402_Ant1_AV



Restrict-band band-edge measurements_BT 2LE_2480_Ant1_PEAK



Restrict-band band-edge measurements_BT 2LE_2480_Ant1_AV

