

## Appendix B

### RF Test Data for BT V4.0 (Conducted Measurement)

Product Name: Tablet

Trade Mark: N/A

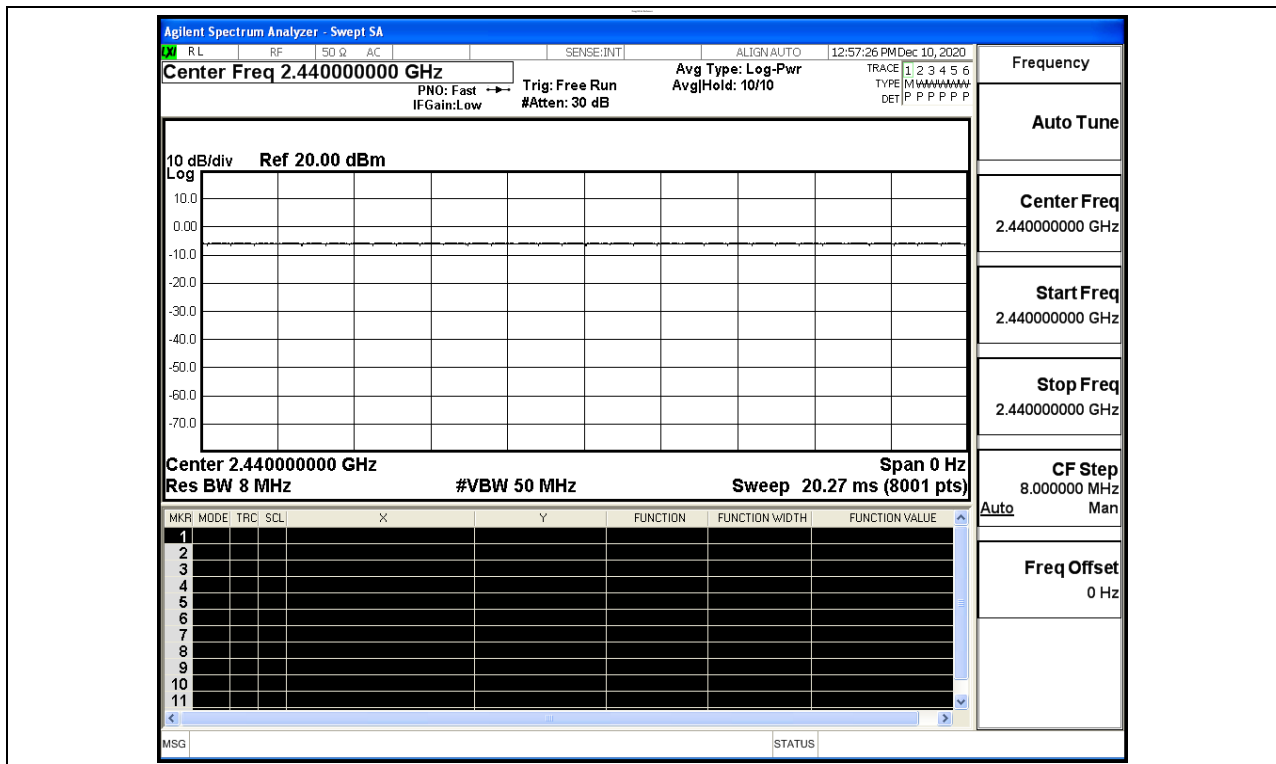
Test Model: I1401

#### Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Ben Jin
Supervised by:	Li Huan

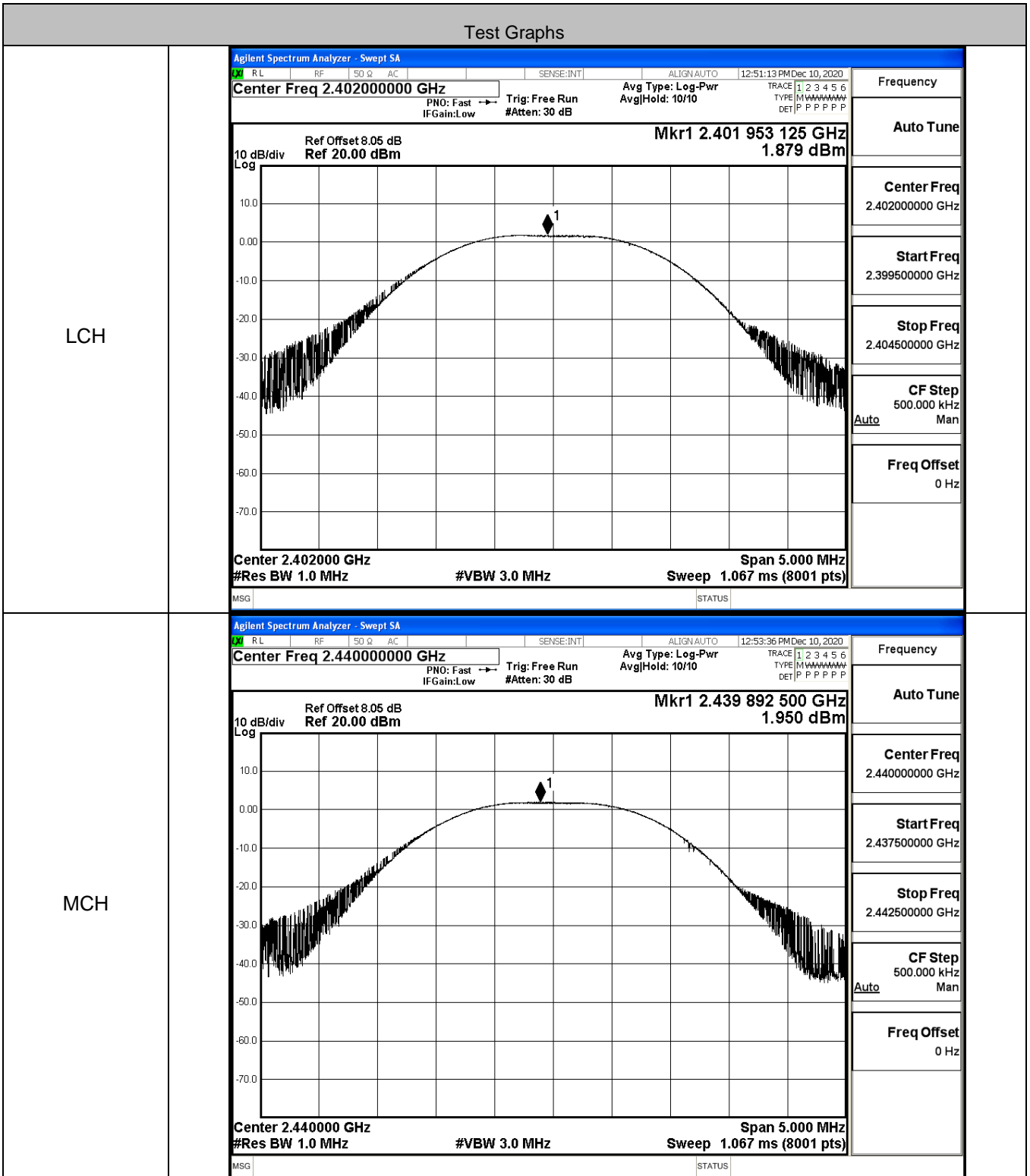
#### B.1 Duty Cycle

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

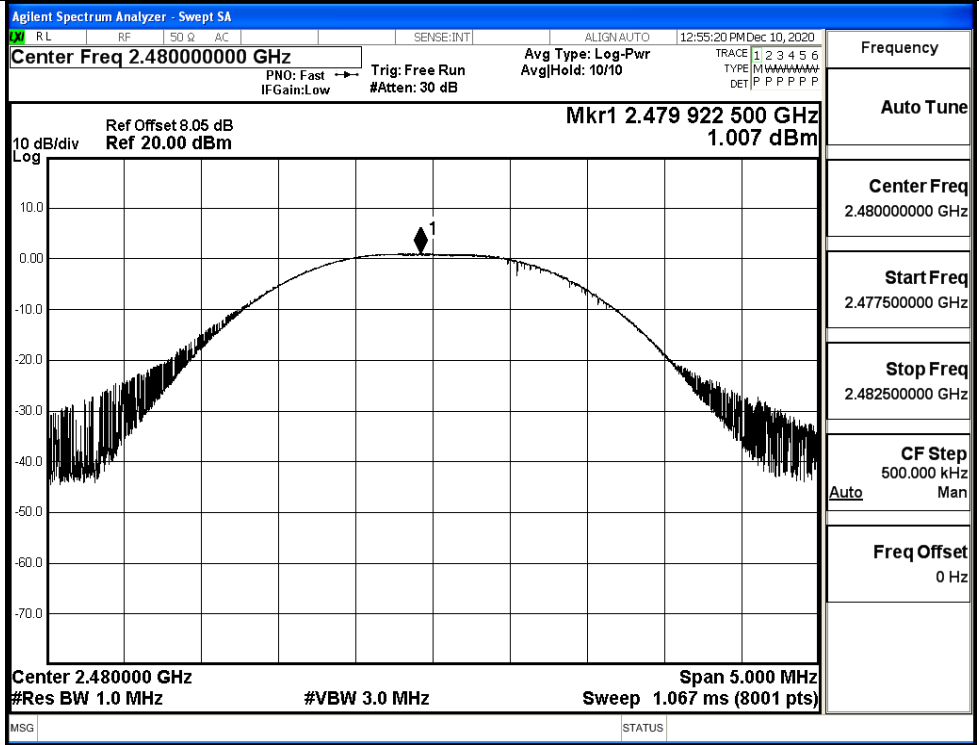


### B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.879	30	PASS
BT LE	MCH	1.95	30	PASS
BT LE	HCH	1.007	30	PASS

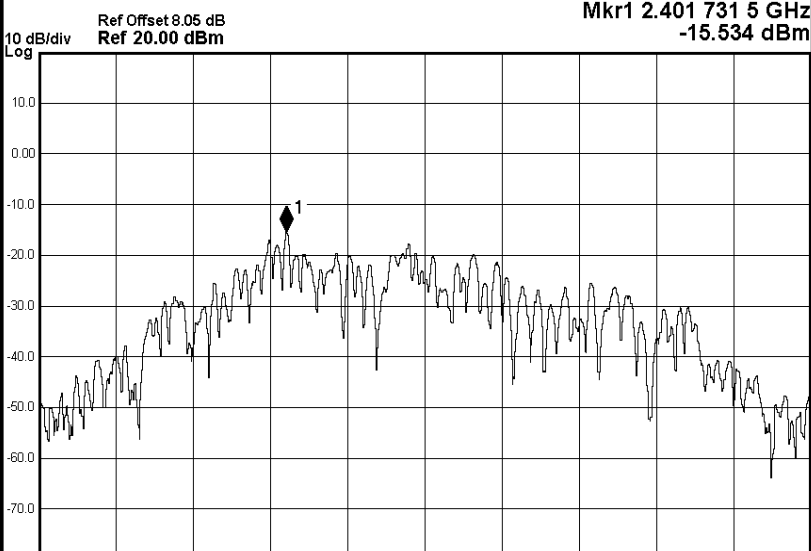
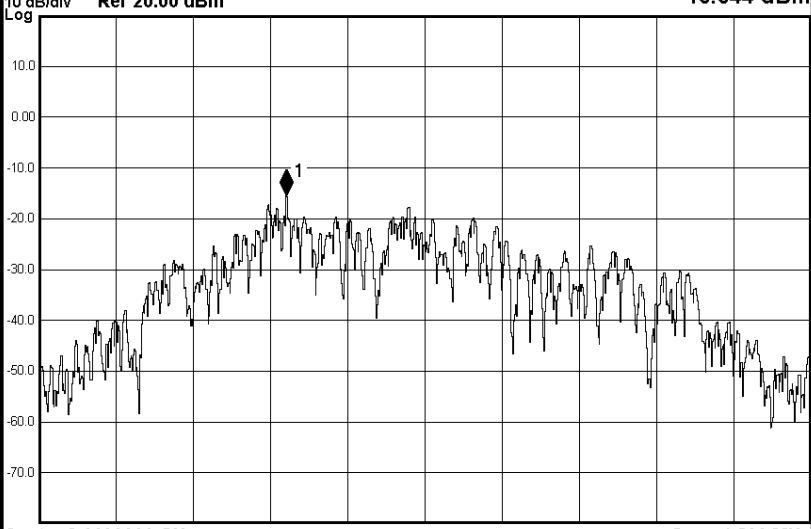


HCH

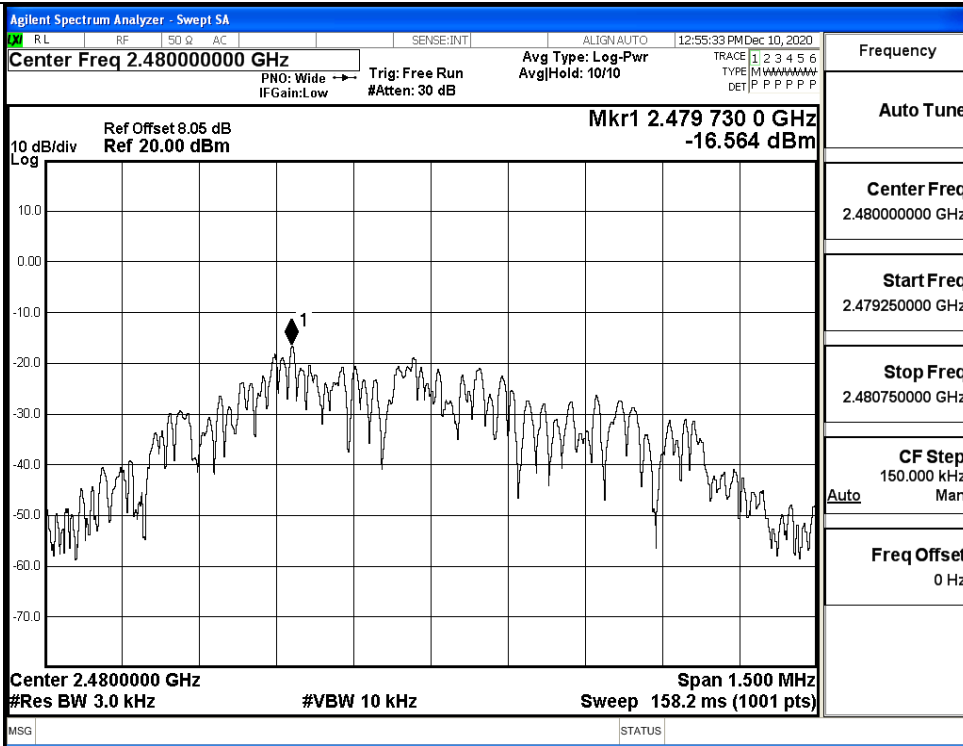


### B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-15.534	8	PASS
BT LE	MCH	-15.544	8	PASS
BT LE	HCH	-16.564	8	PASS

Test Graphs	
LCH	<div style="border: 1px solid black; padding: 5px;"> <p style="font-size: small; margin: 0;">Agilent Spectrum Analyzer - Swept SA</p> <p style="font-size: x-small; margin: 0;">RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 12:51:26 PM Dec 10, 2020</p> <p style="font-size: small; margin: 0;">Center Freq 2.40200000 GHz Avg Type: Log-Pwr TracE 1 2 3 4 5 6</p> <p style="font-size: x-small; margin: 0;">PNO: Wide → Trig: Free Run #Atten: 30 dB AvgHld: 10/10 TYPE: M W W W W W W W</p> <p style="font-size: x-small; margin: 0;">IFGain: Low DET: P P P P P P</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 70%;"> <p style="font-size: small; margin: 0;">Ref Offset 8.05 dB Mkr1 2.401 731 5 GHz</p> <p style="font-size: small; margin: 0;">Ref 20.00 dBm -15.534 dBm</p>  <p style="font-size: x-small; margin: 0;">Center 2.4020000 GHz Span 1.500 MHz</p> <p style="font-size: x-small; margin: 0;">#Res BW 3.0 kHz #VBW 10 kHz Sweep 158.2 ms (1001 pts)</p> </div> <div style="width: 25%; border-left: 1px solid black; padding-left: 5px;"> <p style="font-size: x-small; margin: 0;">Frequency</p> <p style="font-size: x-small; margin: 0;">Auto Tune</p> <p style="font-size: x-small; margin: 0;">Center Freq 2.40200000 GHz</p> <p style="font-size: x-small; margin: 0;">Start Freq 2.401250000 GHz</p> <p style="font-size: x-small; margin: 0;">Stop Freq 2.402750000 GHz</p> <p style="font-size: x-small; margin: 0;">CF Step 150.000 kHz</p> <p style="font-size: x-small; margin: 0;">Auto Man</p> <p style="font-size: x-small; margin: 0;">Freq Offset 0 Hz</p> </div> </div> <p style="font-size: x-small; margin: 0; display: flex; justify-content: space-between;">MSG STATUS</p> </div>
MCH	<div style="border: 1px solid black; padding: 5px;"> <p style="font-size: small; margin: 0;">Agilent Spectrum Analyzer - Swept SA</p> <p style="font-size: x-small; margin: 0;">RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 12:53:49 PM Dec 10, 2020</p> <p style="font-size: small; margin: 0;">Center Freq 2.44000000 GHz Avg Type: Log-Pwr TracE 1 2 3 4 5 6</p> <p style="font-size: x-small; margin: 0;">PNO: Wide → Trig: Free Run #Atten: 30 dB AvgHld: 10/10 TYPE: M W W W W W W W</p> <p style="font-size: x-small; margin: 0;">IFGain: Low DET: P P P P P P</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 70%;"> <p style="font-size: small; margin: 0;">Ref Offset 8.05 dB Mkr1 2.439 731 5 GHz</p> <p style="font-size: small; margin: 0;">Ref 20.00 dBm -15.544 dBm</p>  <p style="font-size: x-small; margin: 0;">Center 2.4400000 GHz Span 1.500 MHz</p> <p style="font-size: x-small; margin: 0;">#Res BW 3.0 kHz #VBW 10 kHz Sweep 158.2 ms (1001 pts)</p> </div> <div style="width: 25%; border-left: 1px solid black; padding-left: 5px;"> <p style="font-size: x-small; margin: 0;">Frequency</p> <p style="font-size: x-small; margin: 0;">Auto Tune</p> <p style="font-size: x-small; margin: 0;">Center Freq 2.44000000 GHz</p> <p style="font-size: x-small; margin: 0;">Start Freq 2.439250000 GHz</p> <p style="font-size: x-small; margin: 0;">Stop Freq 2.440750000 GHz</p> <p style="font-size: x-small; margin: 0;">CF Step 150.000 kHz</p> <p style="font-size: x-small; margin: 0;">Auto Man</p> <p style="font-size: x-small; margin: 0;">Freq Offset 0 Hz</p> </div> </div> <p style="font-size: x-small; margin: 0; display: flex; justify-content: space-between;">MSG STATUS</p> </div>


HCH



**B.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.5287	≥0.5	PASS
BT LE	MCH	0.5308	≥0.5	PASS
BT LE	HCH	0.5253	≥0.5	PASS

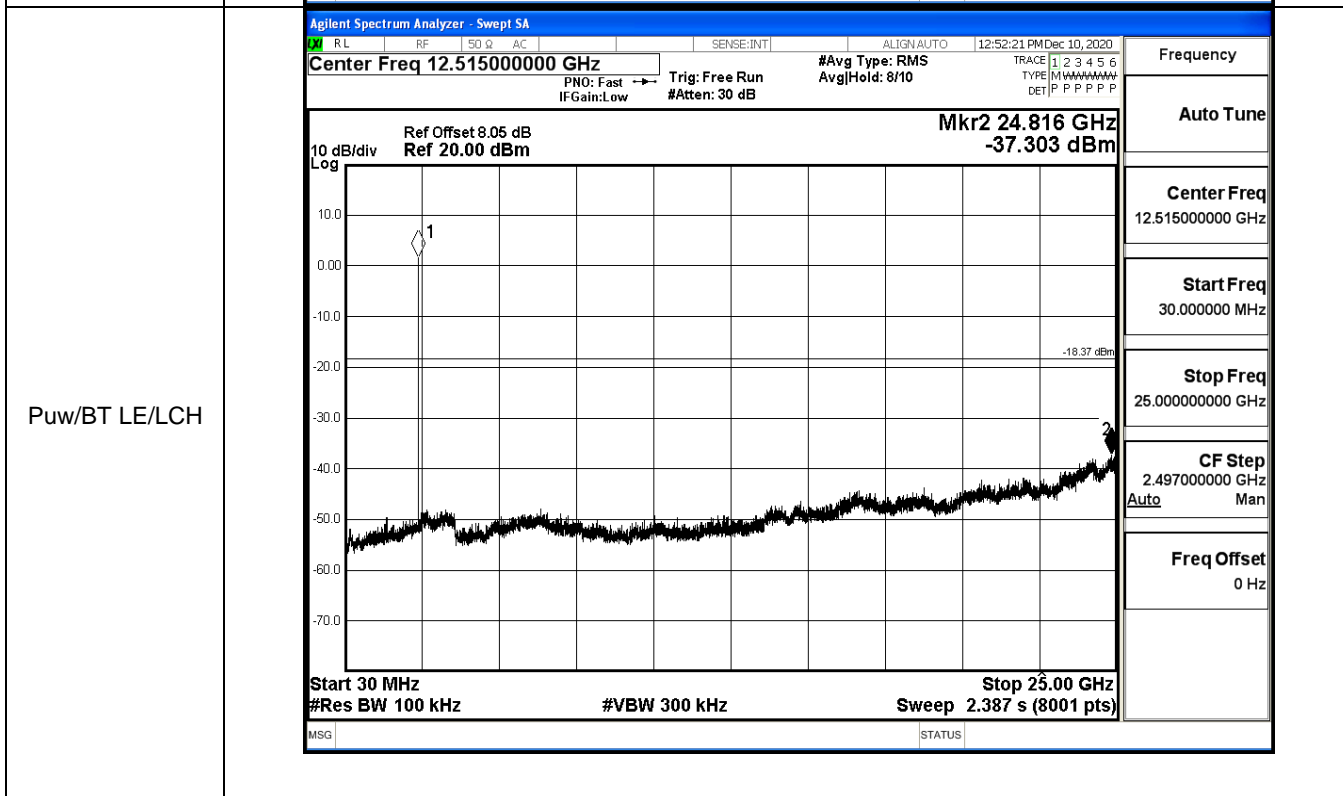
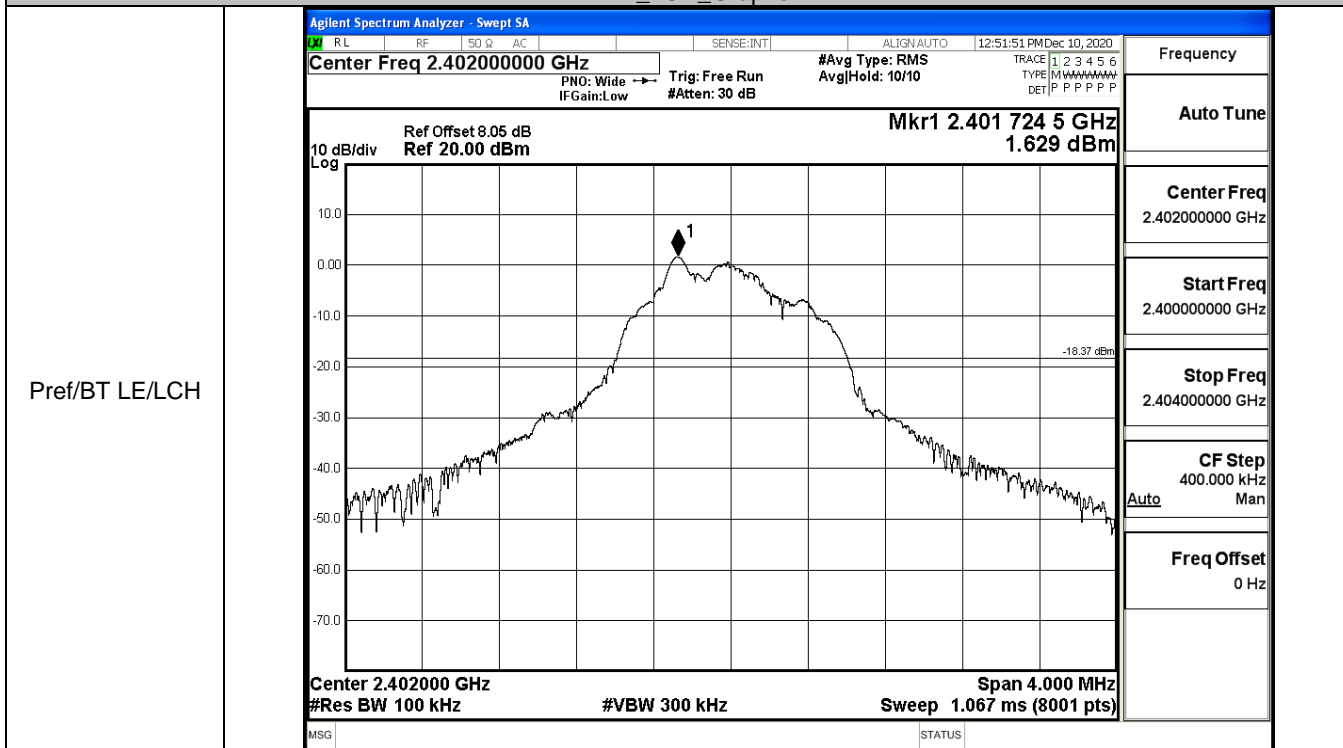
Test Graphs													
LCH	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;">Agilent Spectrum Analyzer - Occupied BW</p> <p style="font-size: small; margin: 0;">RL RF 50 Ω AC SENSE:INT ALIGN:AUTO 12:51:02 PM Dec 10, 2020</p> <p style="margin: 0;">Center Freq 2.402000000 GHz Center Freq: 2.402000000 GHz Radio Std: None                      Trig: Free Run AvgHold: &gt;1/1                      #IFGain: Low #Atten: 30 dB Radio Device: BTS</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p style="margin: 0;">10 dB/div Ref Offset 8.05 dB Mkr1 2.4017251 GHz                              Log Ref 20.00 dBm 1.6211 dBm</p> <p style="margin: 0;">Center 2.402 GHz Span 3 MHz                              #Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms</p> <table border="0" style="width: 100%; font-size: small;"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>6.88 dBm</td> </tr> <tr> <td colspan="3" style="text-align: center;"><b>1.0950 MHz</b></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>x dB</td> <td>-6.00 dB</td> </tr> </table> </div> <div style="width: 35%; border-left: 1px solid black; padding-left: 5px;"> <p style="margin: 0;">Frequency</p> <hr/> <p style="margin: 0;">Center Freq 2.402000000 GHz</p> <hr/> <p style="margin: 0;">CF Step 300.000 kHz Auto Man</p> <hr/> <p style="margin: 0;">Freq Offset 0 Hz</p> </div> </div> <p style="font-size: x-small; margin-top: 5px;">MSG STATUS</p> </div>	Occupied Bandwidth	Total Power	6.88 dBm	<b>1.0950 MHz</b>			Transmit Freq Error	OBW Power	99.00 %	x dB Bandwidth	x dB	-6.00 dB
Occupied Bandwidth	Total Power	6.88 dBm											
<b>1.0950 MHz</b>													
Transmit Freq Error	OBW Power	99.00 %											
x dB Bandwidth	x dB	-6.00 dB											
MCH	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;">Agilent Spectrum Analyzer - Occupied BW</p> <p style="font-size: small; margin: 0;">RL RF 50 Ω AC SENSE:INT ALIGN:AUTO 12:53:25 PM Dec 10, 2020</p> <p style="margin: 0;">Center Freq 2.440000000 GHz Center Freq: 2.440000000 GHz Radio Std: None                      Trig: Free Run AvgHold: 1/1                      #IFGain: Low #Atten: 30 dB Radio Device: BTS</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p style="margin: 0;">10 dB/div Ref Offset 8.05 dB Mkr1 2.4397195 GHz                              Log Ref 20.00 dBm 1.6197 dBm</p> <p style="margin: 0;">Center 2.44 GHz Span 3 MHz                              #Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms</p> <table border="0" style="width: 100%; font-size: small;"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>6.88 dBm</td> </tr> <tr> <td colspan="3" style="text-align: center;"><b>1.0958 MHz</b></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>x dB</td> <td>-6.00 dB</td> </tr> </table> </div> <div style="width: 35%; border-left: 1px solid black; padding-left: 5px;"> <p style="margin: 0;">Frequency</p> <hr/> <p style="margin: 0;">Center Freq 2.440000000 GHz</p> <hr/> <p style="margin: 0;">CF Step 300.000 kHz Auto Man</p> <hr/> <p style="margin: 0;">Freq Offset 0 Hz</p> </div> </div> <p style="font-size: x-small; margin-top: 5px;">MSG STATUS</p> </div>	Occupied Bandwidth	Total Power	6.88 dBm	<b>1.0958 MHz</b>			Transmit Freq Error	OBW Power	99.00 %	x dB Bandwidth	x dB	-6.00 dB
Occupied Bandwidth	Total Power	6.88 dBm											
<b>1.0958 MHz</b>													
Transmit Freq Error	OBW Power	99.00 %											
x dB Bandwidth	x dB	-6.00 dB											

HCH	Agilent Spectrum Analyzer - Occupied BW	RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 12:55:09 PM Dec 10, 2020															
	<b>Center Freq 2.480000000 GHz</b>	Center Freq: 2.480000000 GHz Trig: Free Run AvgHold: 1/1	Radio Std: None Radio Device: BTS														
	#IFGain: Low	#Atten: 30 dB	Mkr1 2.4797225 GHz 0.62694 dBm														
	<div style="display: flex; justify-content: space-between;"> <span>10 dB/div</span> <span>Ref Offset 8.05 dB</span> </div>  <p>The plot shows a signal centered at 2.48 GHz with a bandwidth of approximately 1 MHz. The y-axis is logarithmic, ranging from -70 dBm to 10 dBm. A peak is marked at 2.4797225 GHz with a power of 0.62694 dBm. The plot is titled 'Occupied BW' and shows a typical signal profile with some noise floor.</p>																
	Center 2.48 GHz #Res BW 100 kHz	#VBW 300 kHz	Span 3 MHz Sweep 1.067 ms														
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"><b>Occupied Bandwidth</b></td> <td style="width: 33%;"><b>Total Power</b></td> <td style="width: 33%;"><b>5.95 dBm</b></td> </tr> <tr> <td style="text-align: center;"><b>1.0939 MHz</b></td> <td></td> <td></td> </tr> <tr> <td><b>Transmit Freq Error</b></td> <td><b>-6.530 kHz</b></td> <td><b>OBW Power</b></td> </tr> <tr> <td><b>x dB Bandwidth</b></td> <td><b>525.3 kHz</b></td> <td><b>99.00 %</b></td> </tr> <tr> <td></td> <td><b>x dB</b></td> <td><b>-6.00 dB</b></td> </tr> </table>		<b>Occupied Bandwidth</b>	<b>Total Power</b>	<b>5.95 dBm</b>	<b>1.0939 MHz</b>			<b>Transmit Freq Error</b>	<b>-6.530 kHz</b>	<b>OBW Power</b>	<b>x dB Bandwidth</b>	<b>525.3 kHz</b>	<b>99.00 %</b>		<b>x dB</b>	<b>-6.00 dB</b>	CF Step 300.000 kHz Auto Man  Freq Offset 0 Hz
<b>Occupied Bandwidth</b>	<b>Total Power</b>	<b>5.95 dBm</b>															
<b>1.0939 MHz</b>																	
<b>Transmit Freq Error</b>	<b>-6.530 kHz</b>	<b>OBW Power</b>															
<b>x dB Bandwidth</b>	<b>525.3 kHz</b>	<b>99.00 %</b>															
	<b>x dB</b>	<b>-6.00 dB</b>															
MSG		STATUS															

B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.629	-37.303	-18.371	PASS
BT LE	MCH	1.611	-35.650	-18.389	PASS
BT LE	HCH	0.638	-36.496	-19.362	PASS

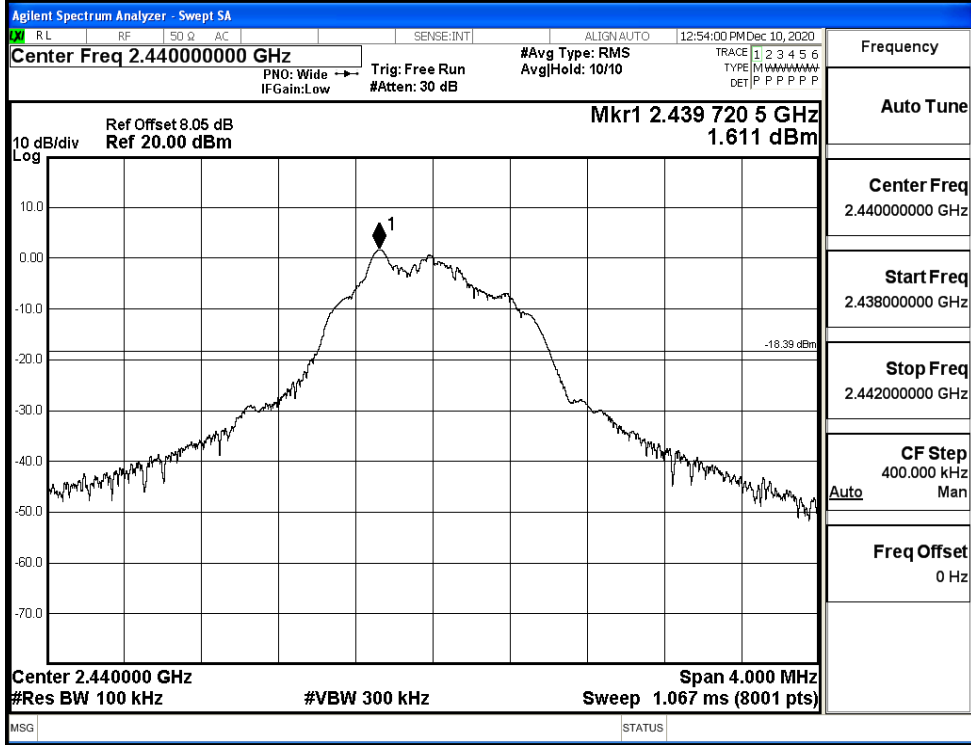
BT LE\_LCH\_Graphs



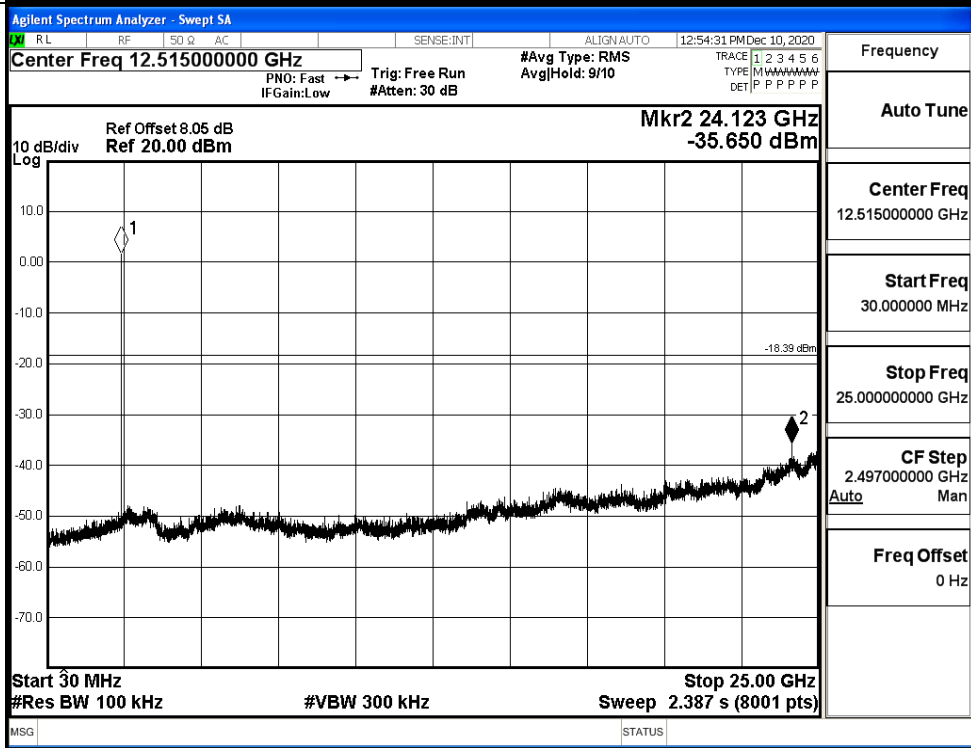


BT LE\_MCH\_Graphs

Pref/BT LE/MCH

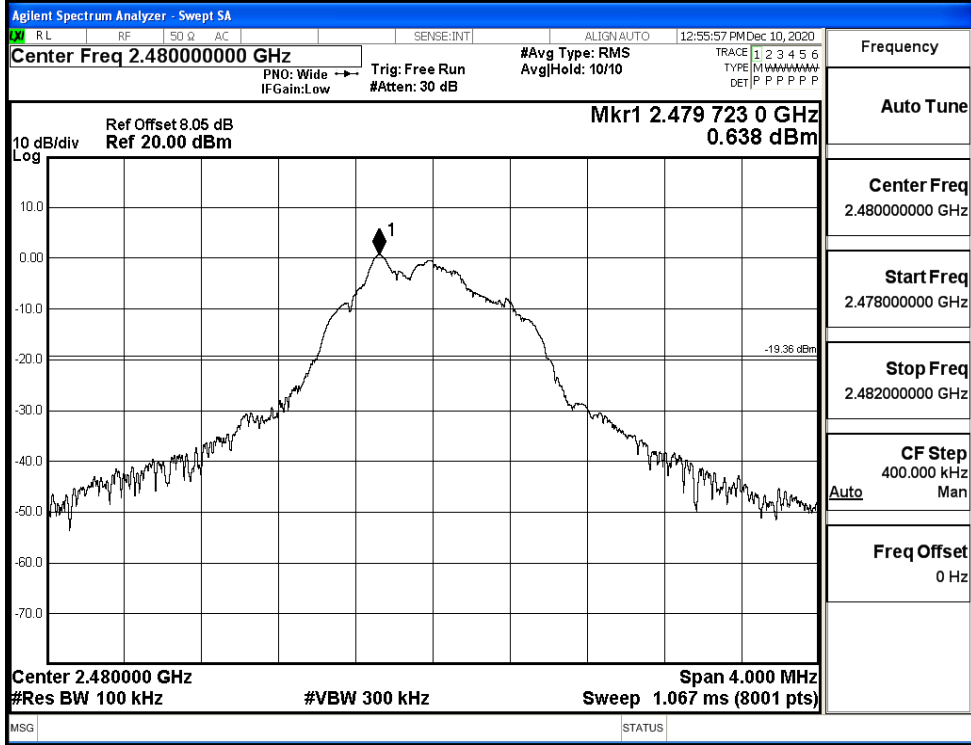


Puw/BT LE/MCH

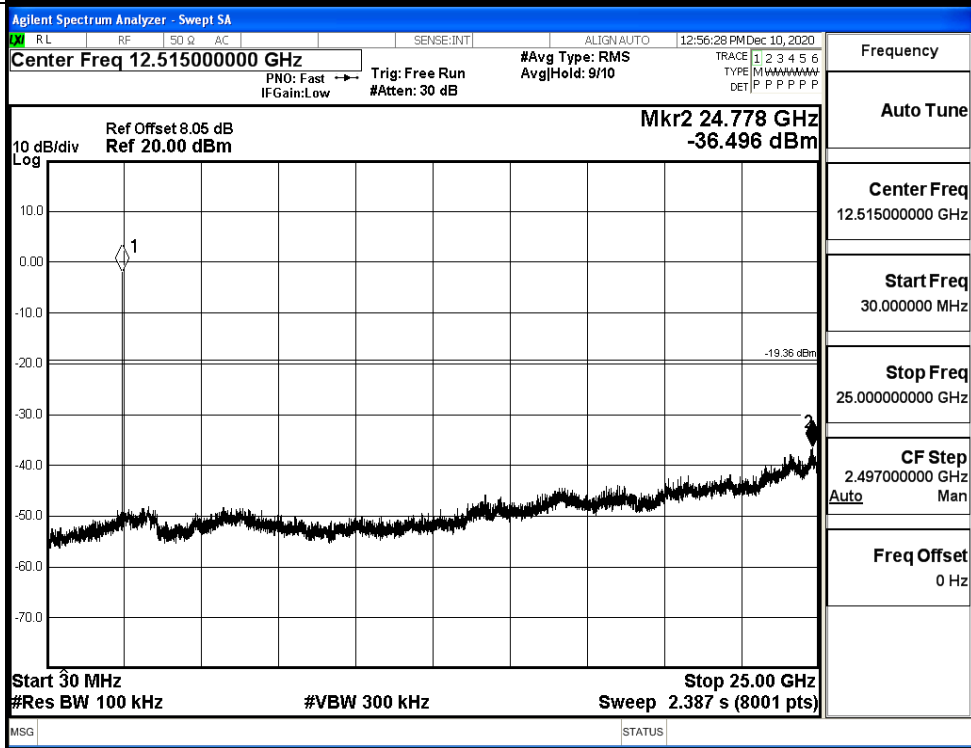


BT LE\_HCH\_Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH



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

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.659	-50.138	-18.34	PASS
BT LE	HCH	0.633	-48.418	-19.37	PASS

Test Graphs

LCH

Agilent Spectrum Analyzer - Swept SA  
 Center Freq 2.35700000 GHz  
 #Avg Type: RMS  
 #Res BW 100 kHz #VBW 300 kHz  
 Mkr4 2.354 016 GHz -50.138 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		2.401732 GHz	1.659 dBm			
2	N	f		2.400000 GHz	-47.360 dBm			
3	N	f		2.390000 GHz	-53.431 dBm			
4	N	f		2.354016 GHz	-50.138 dBm			

Frequency

Auto Tune

Center Freq  
2.35700000 GHz

Start Freq  
2.31000000 GHz

Stop Freq  
2.40400000 GHz

CF Step  
9.400000 MHz

Freq Offset  
0 Hz

HCH

Agilent Spectrum Analyzer - Swept SA  
 Center Freq 2.48900000 GHz  
 #Avg Type: RMS  
 #Res BW 100 kHz #VBW 300 kHz  
 Mkr4 2.485 293 00 GHz -48.418 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		2.479727 00 GHz	0.633 dBm			
2	N	f		2.483500 00 GHz	-51.905 dBm			
3	N	f		2.500000 00 GHz	-51.119 dBm			
4	N	f		2.485293 00 GHz	-48.418 dBm			

Frequency

Auto Tune

Center Freq  
2.48900000 GHz

Start Freq  
2.47800000 GHz

Stop Freq  
2.50000000 GHz

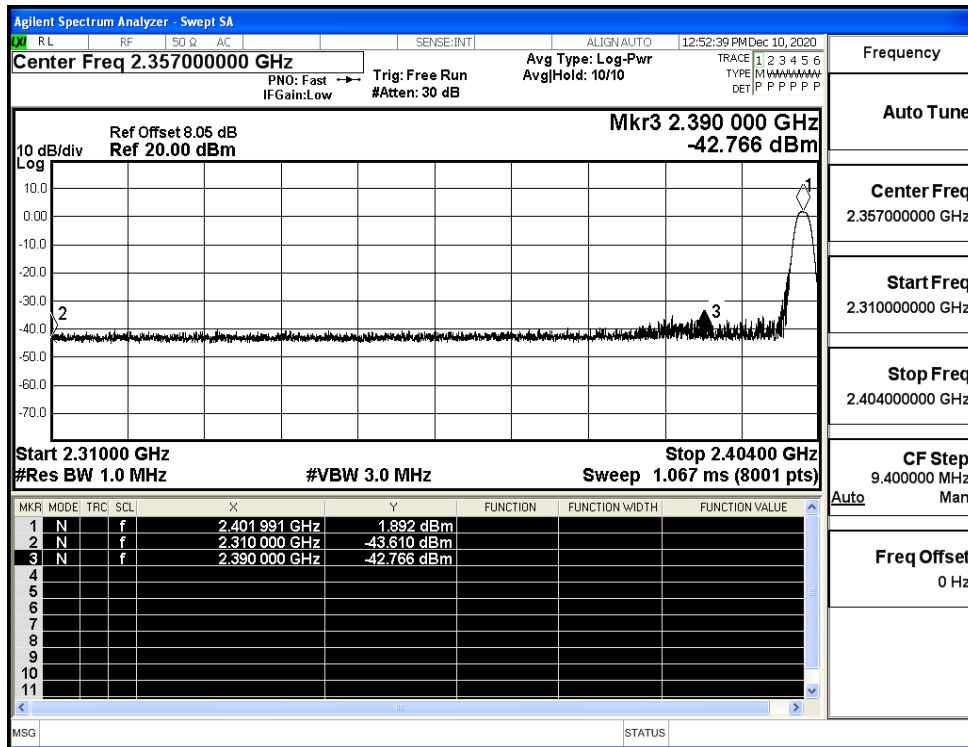
CF Step  
2.200000 MHz

Freq Offset  
0 Hz

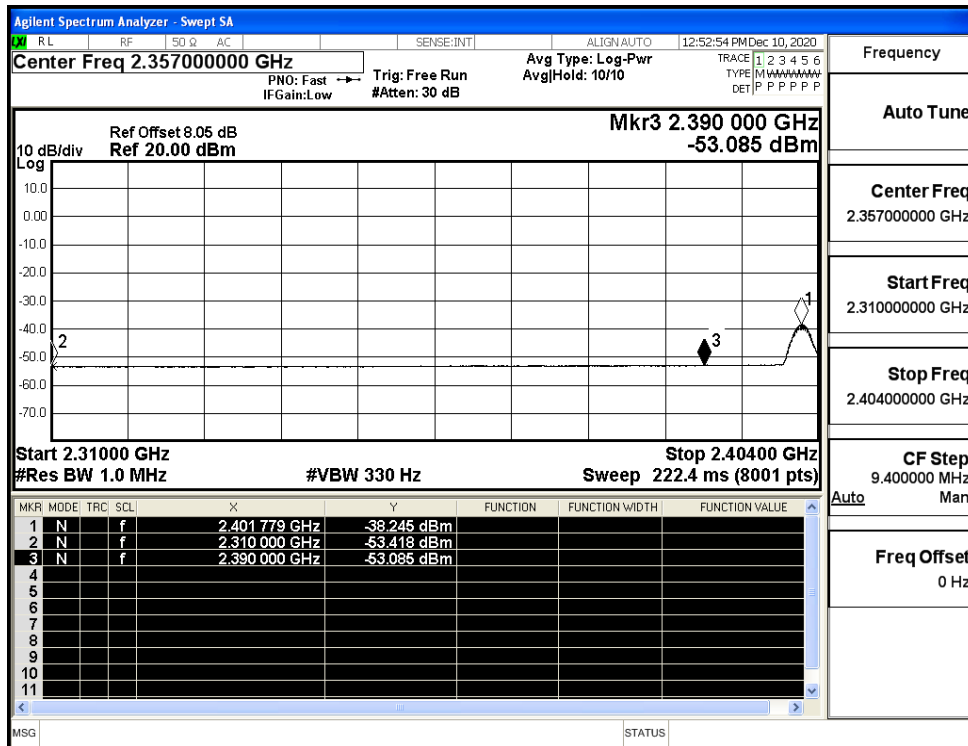
**B.7 Restrict-band band-edge measurements**

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	-43.61	2.0	0	53.65	PEAK	74	PASS
		Ant1	2310.0	-53.42	2.0	0	43.84	AV	54	PASS
		Ant1	2390.0	-42.77	2.0	0	54.49	PEAK	74	PASS
		Ant1	2390.0	-53.09	2.0	0	44.17	AV	54	PASS
	2480	Ant1	2483.5	-37.95	2.0	0	59.31	PEAK	74	PASS
		Ant1	2483.5	-52.43	2.0	0	44.83	AV	54	PASS
		Ant1	2500.0	-41.14	2.0	0	56.12	PEAK	74	PASS
		Ant1	2500.0	-52.45	2.0	0	44.81	AV	54	PASS

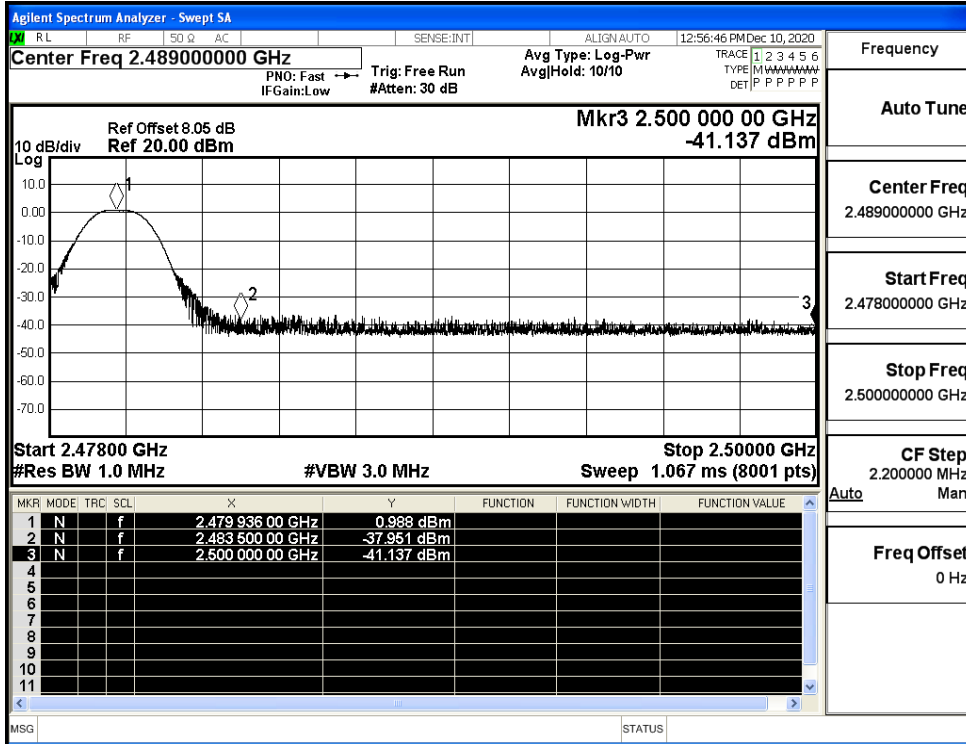
Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



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

