

## Appendix A

### RF Test Data for BT V4.1(BDR/EDR) (Conducted Measurement)

Product Name: Babisit

Trade Mark: BABI

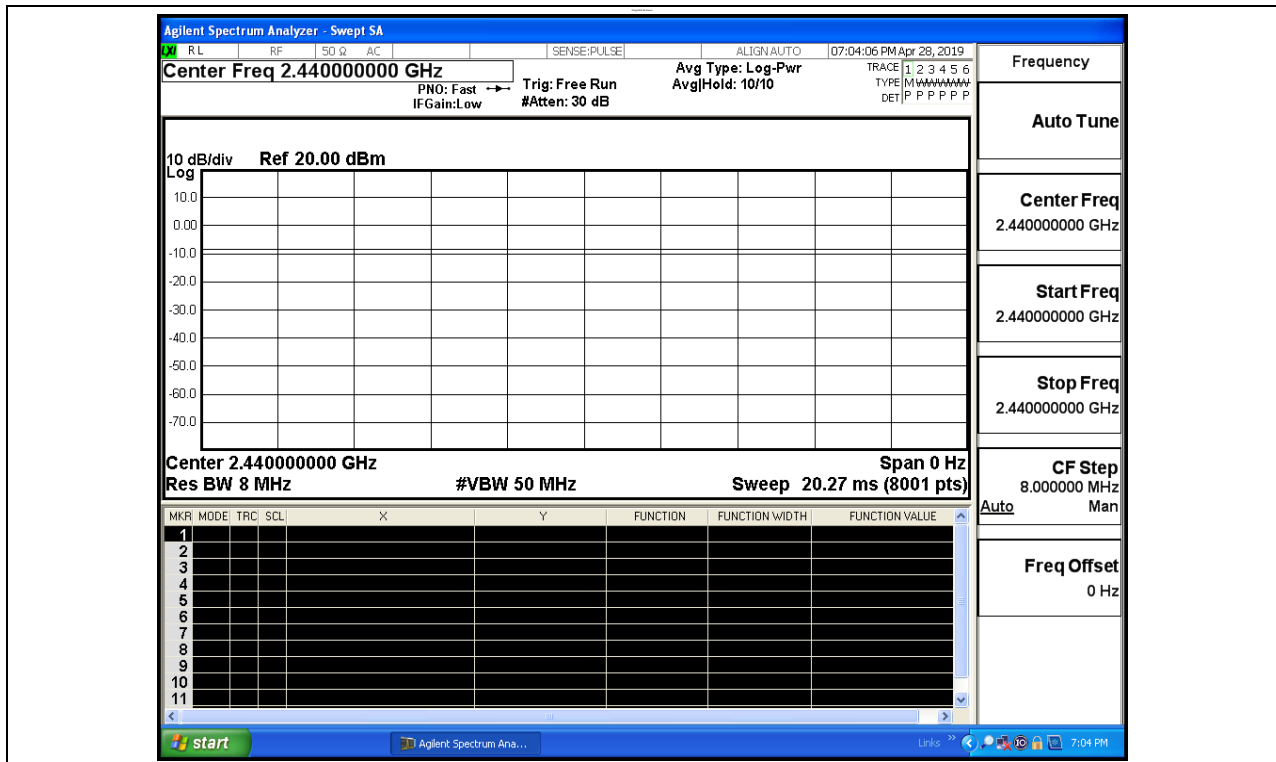
Test Model: Babisit1\_0

#### Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	53.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond.Lu
Supervised by:	Tom.Liu

#### A.1 Duty Cycle

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

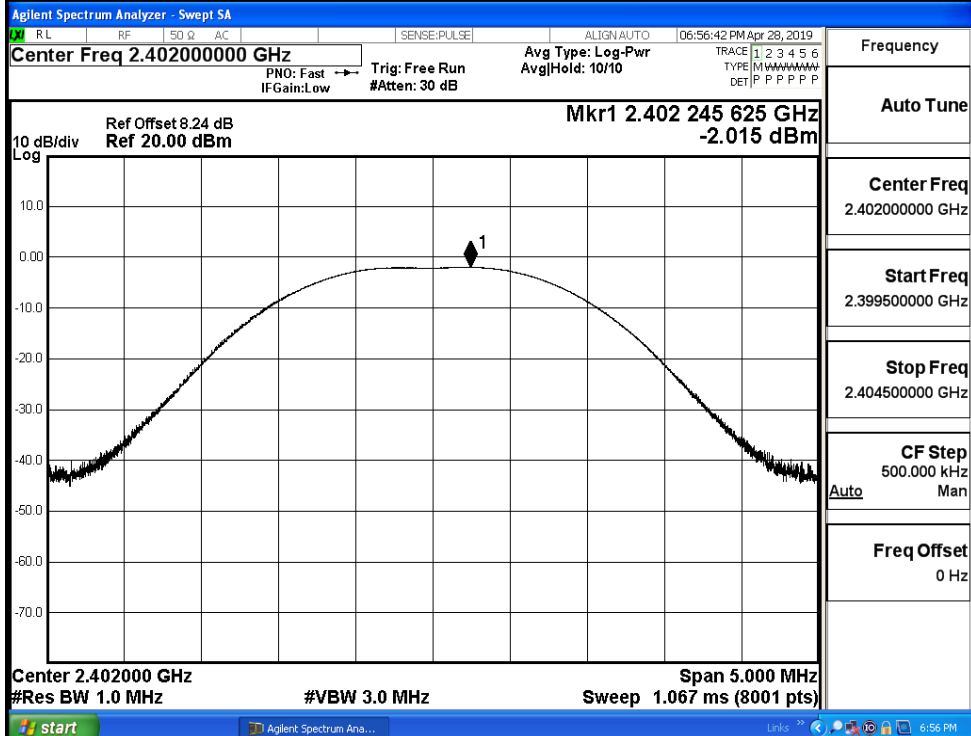


### A.2 Maximum Conducted Peak Output Power

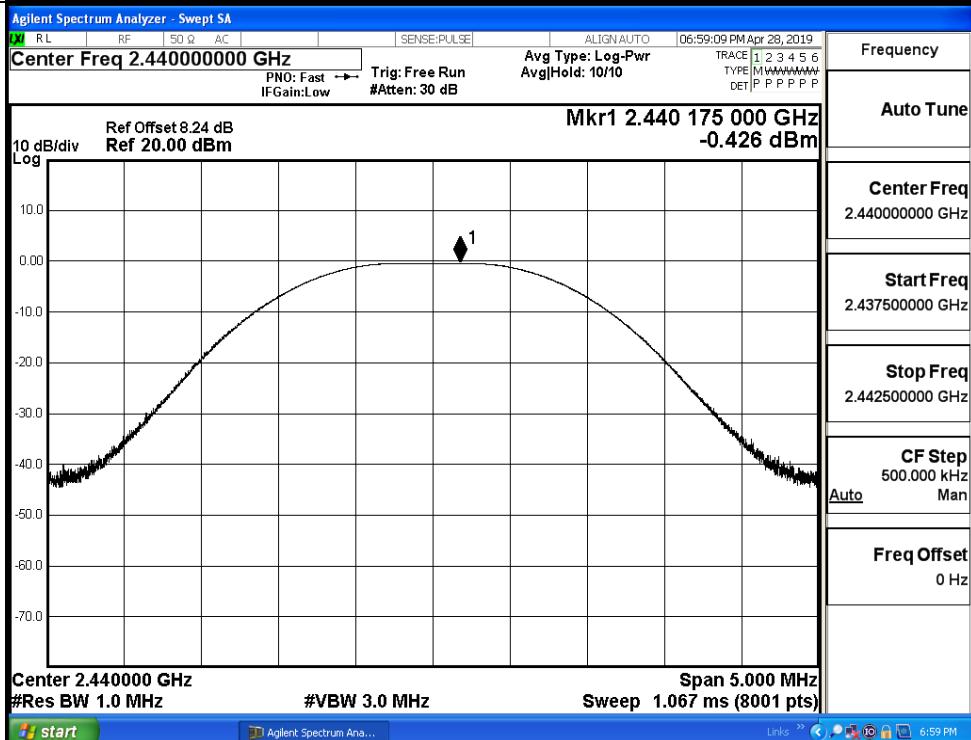
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.015	30	PASS
BT LE	MCH	-0.426	30	PASS
BT LE	HCH	-0.631	30	PASS

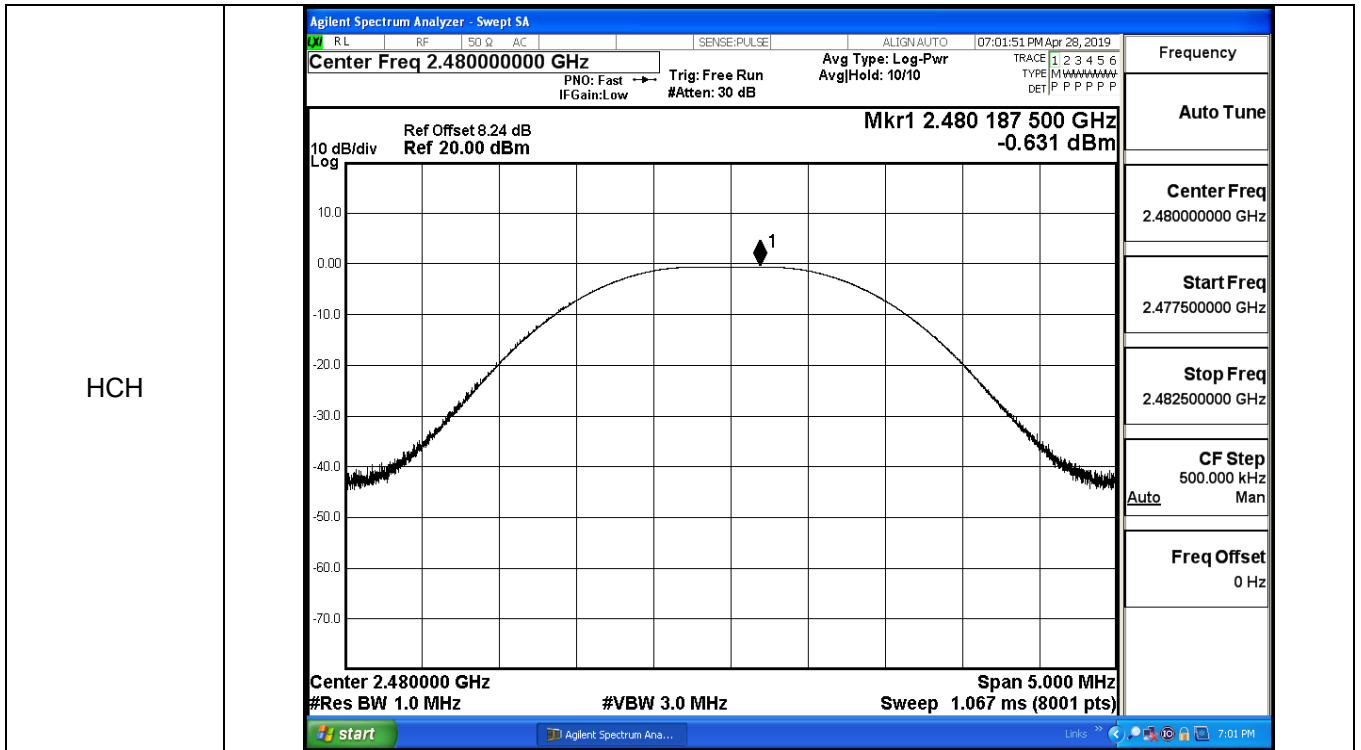
#### Test Graphs

LCH



MCH

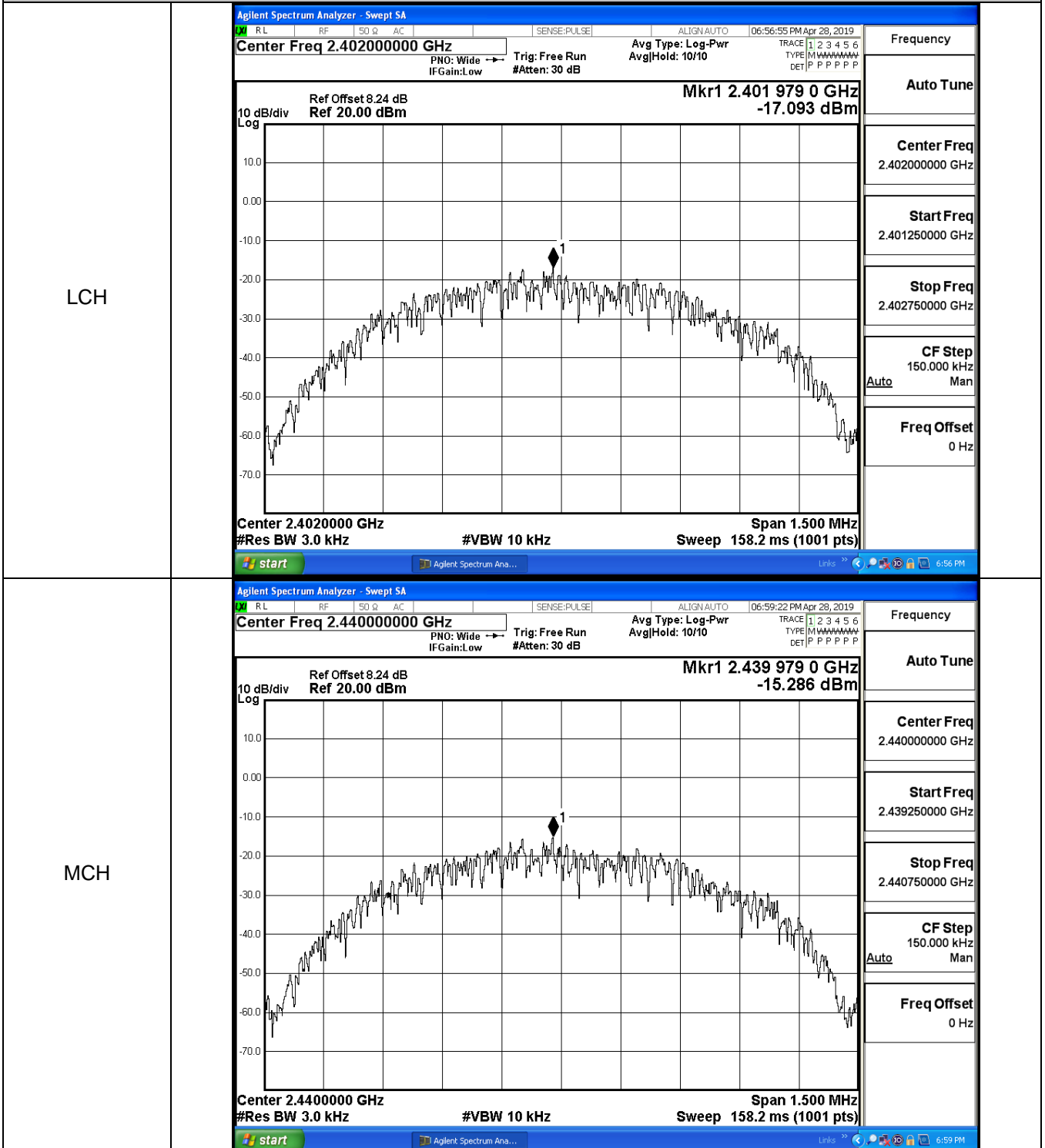




### A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-17.093	8	PASS
BT LE	MCH	-15.286	8	PASS
BT LE	HCH	-15.664	8	PASS

#### Test Graphs

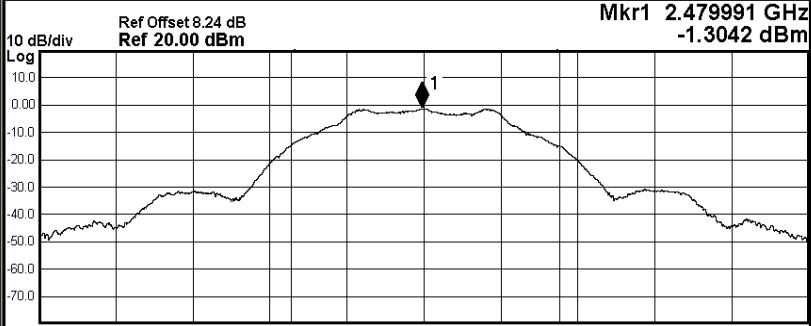




**A.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6893	≥0.5	PASS
BT LE	MCH	0.6938	≥0.5	PASS
BT LE	HCH	0.6814	≥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:PULSE ALIGN:AUTO 06:56:30 PM Apr 28, 2019</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="font-size: x-small;">                         10 dB/div Log Ref Offset 8.24 dB Ref 20.00 dBm                     </div> <div style="text-align: right;">                         Mkr1 2.4019936 GHz -2.8464 dBm                     </div> </div> <div style="display: flex; justify-content: space-between; font-size: x-small; margin-top: 5px;"> <span>Center 2.402 GHz</span> <span>#Res BW 100 kHz</span> <span>#VBW 300 kHz</span> <span>Span 3 MHz</span> <span>Sweep 1.067 ms</span> </div> <table style="width: 100%; font-size: x-small; margin-top: 5px;"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td colspan="2">4.25 dBm</td> </tr> <tr> <td colspan="4" style="text-align: center;"><b>1.0512 MHz</b></td> </tr> <tr> <td>Transmit Freq Error</td> <td>6.637 kHz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>689.3 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> </table> <div style="display: flex; justify-content: space-between; font-size: x-small; margin-top: 5px;"> <span>start</span> <span>Agilent Spectrum Ana...</span> <span>Links</span> <span>6:56 PM</span> </div> </div>	Occupied Bandwidth	Total Power	4.25 dBm		<b>1.0512 MHz</b>				Transmit Freq Error	6.637 kHz	OBW Power	99.00 %	x dB Bandwidth	689.3 kHz	x dB	-6.00 dB
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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:PULSE ALIGN:AUTO 06:58:58 PM Apr 28, 2019</p> <p style="margin: 0;">Center Freq: 2.440000000 GHz Center Freq: 2.440000000 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="font-size: x-small;">                         10 dB/div Log Ref Offset 8.24 dB Ref 20.00 dBm                     </div> <div style="text-align: right;">                         Mkr1 2.439994 GHz -1.1320 dBm                     </div> </div> <div style="display: flex; justify-content: space-between; font-size: x-small; margin-top: 5px;"> <span>Center 2.44 GHz</span> <span>#Res BW 100 kHz</span> <span>#VBW 300 kHz</span> <span>Span 3 MHz</span> <span>Sweep 1.067 ms</span> </div> <table style="width: 100%; font-size: x-small; margin-top: 5px;"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td colspan="2">5.92 dBm</td> </tr> <tr> <td colspan="4" style="text-align: center;"><b>1.0463 MHz</b></td> </tr> <tr> <td>Transmit Freq Error</td> <td>5.958 kHz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>693.8 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> </table> <div style="display: flex; justify-content: space-between; font-size: x-small; margin-top: 5px;"> <span>start</span> <span>Agilent Spectrum Ana...</span> <span>Links</span> <span>6:58 PM</span> </div> </div>	Occupied Bandwidth	Total Power	5.92 dBm		<b>1.0463 MHz</b>				Transmit Freq Error	5.958 kHz	OBW Power	99.00 %	x dB Bandwidth	693.8 kHz	x dB	-6.00 dB
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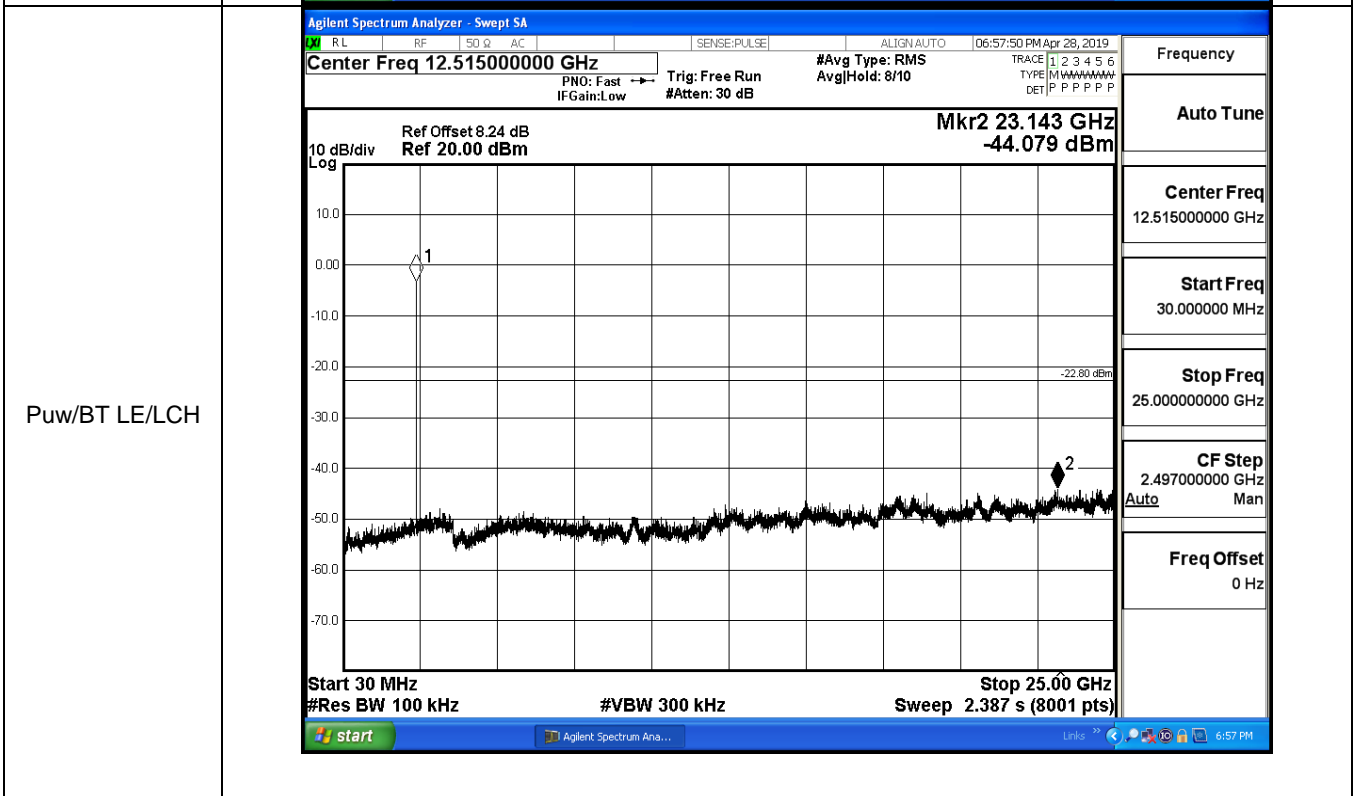
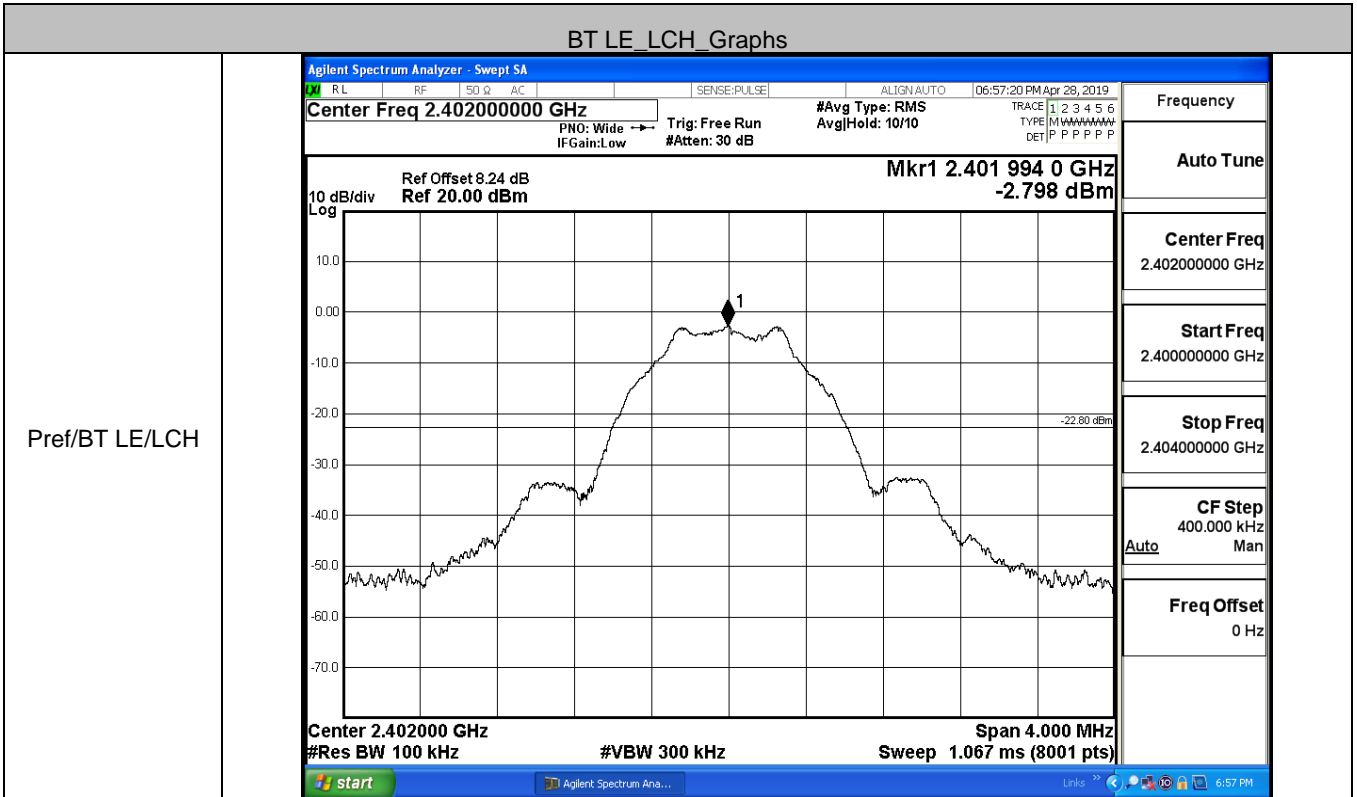
HCH	<b>Agilent Spectrum Analyzer - Occupied BW</b>	
	RL RF 50 Ω AC SENSE:PULSE ALIGN:AUTO 07:01:40 PM Apr 28, 2019	Center Freq: 2.480000000 GHz
	Center Freq: 2.480000000 GHz Trig: Free Run AvgHold>1/1 Radio Std: None	Radio Device: BTS
	#IFGain:Low #Atten: 30 dB	Mkr1 2.479991 GHz -1.3042 dBm
		
Center 2.48 GHz #Res BW 100 kHz #VBW 300 kHz Span 3 MHz Sweep 1.067 ms		
<b>Occupied Bandwidth</b> 1.0442 MHz <b>Total Power</b> 5.71 dBm		
Transmit Freq Error 5.549 kHz <b>OBW Power</b> 99.00 %		
x dB Bandwidth 681.4 kHz x dB -6.00 dB		
start Agilent Spectrum Ana... Links 7:01 PM		

Frequency
Center Freq 2.480000000 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
BT LE	LCH	-2.798	-44.079	-22.798	PASS
BT LE	MCH	-1.195	-43.738	-21.195	PASS
BT LE	HCH	-1.403	-43.731	-21.403	PASS

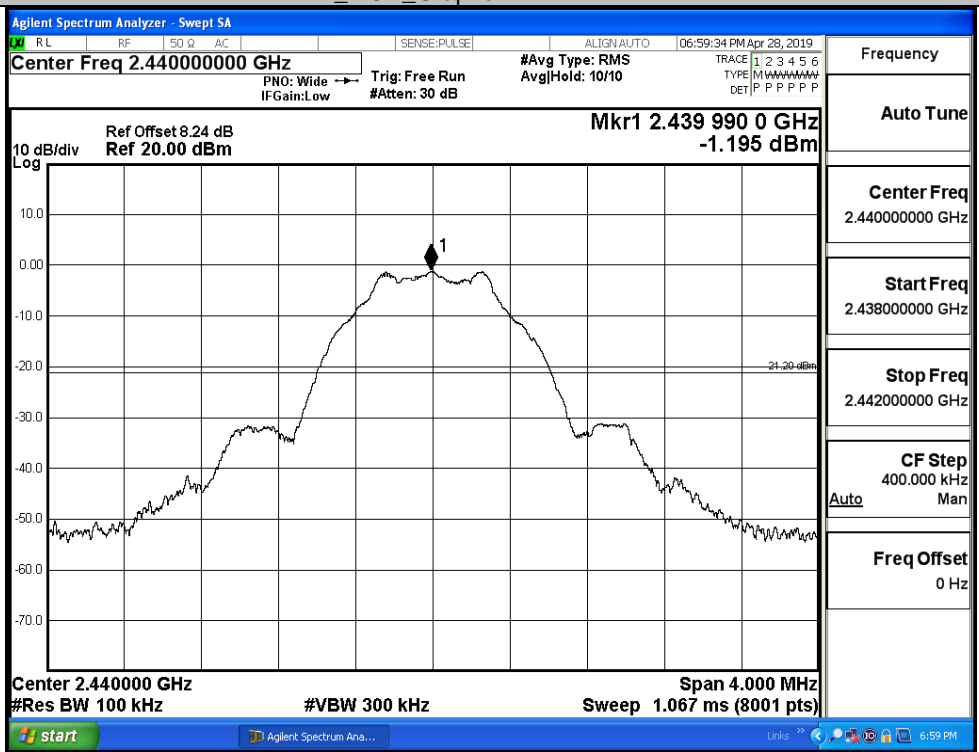
BT LE\_LCH\_Graphs



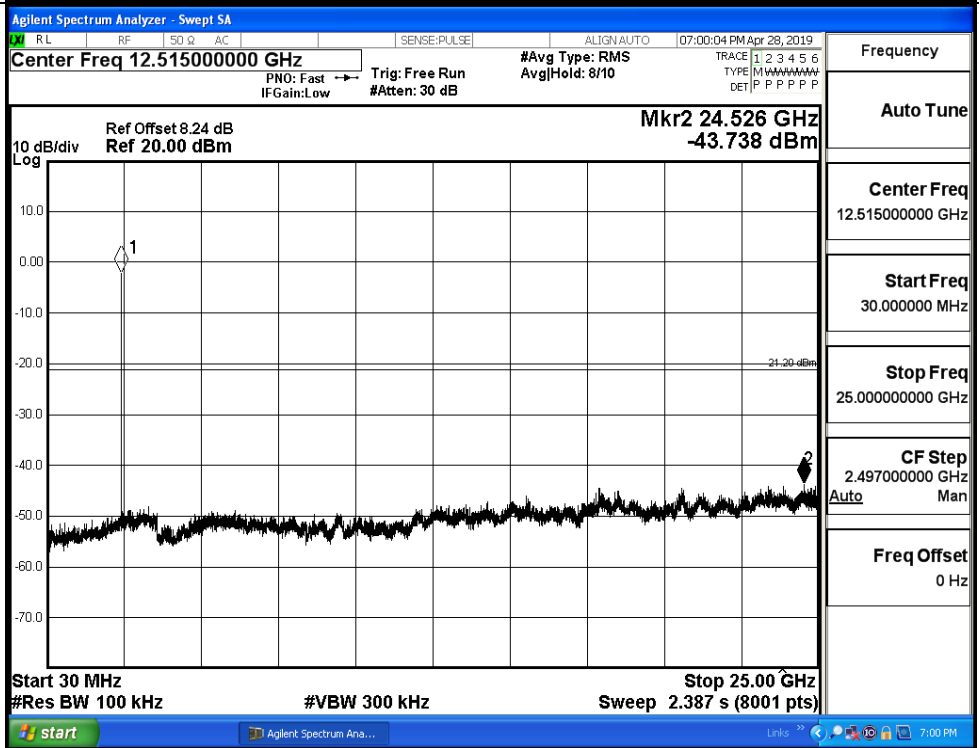


BT LE\_MCH\_Graphs

Pref/BT LE/MCH



Puw/BT LE/MCH

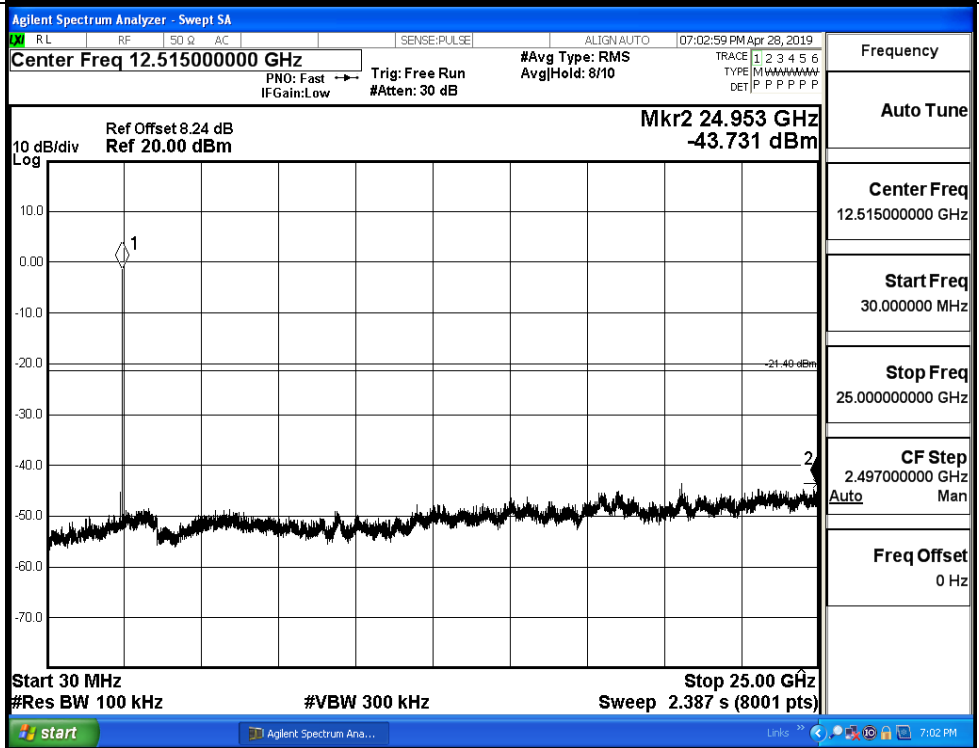


BT LE\_HCH\_Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH



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

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.621	-49.034	-22.62	PASS
BT LE	HCH	-1.180	-49.940	-21.18	PASS

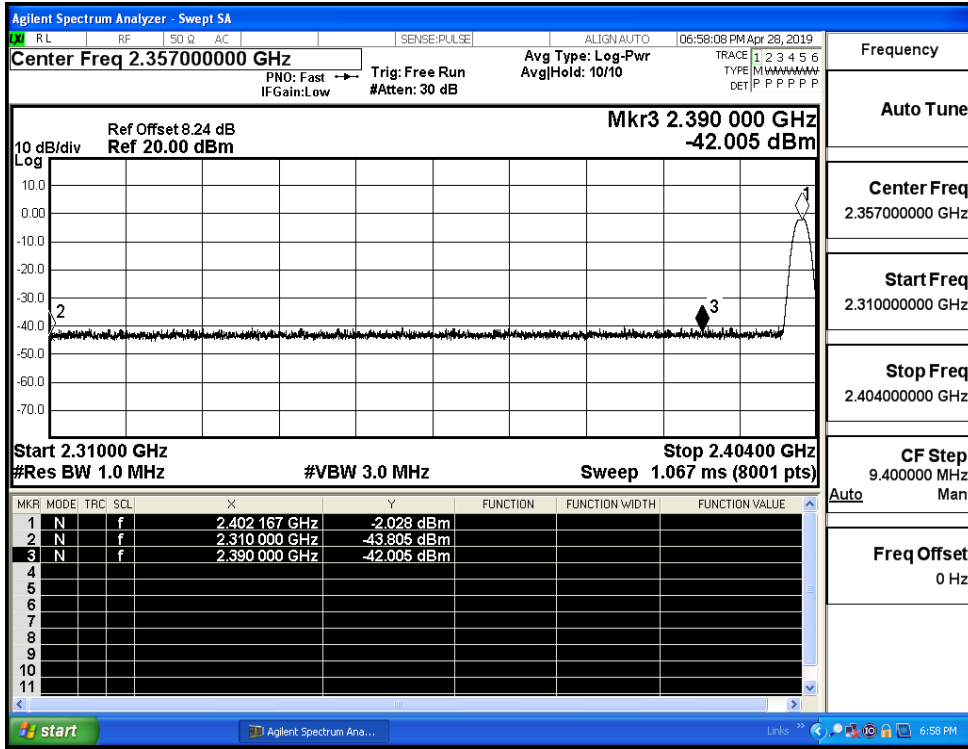
#### Test Graphs

LCH	<p>Agilent Spectrum Analyzer - Swept SA                  Center Freq 2.35700000 GHz                  #Avg Type: RMS                  AvgHold: 10/10                  Ref Offset 8.24 dB                  Ref 20.00 dBm                  Mkr4 2.339 046 GHz                  -49.034 dBm                  Start 2.31000 GHz                  Stop 2.40400 GHz                  #Res BW 100 kHz                  #VBW 300 kHz                  Sweep 9.067 ms (8001 pts)</p> <table border="1"> <thead> <tr> <th>MKR</th> <th>MODE</th> <th>TRC</th> <th>SCL</th> <th>X</th> <th>Y</th> <th>FUNCTION</th> <th>FUNCTION WIDTH</th> <th>FUNCTION VALUE</th> </tr> </thead> <tbody> <tr><td>1</td><td>N</td><td>f</td><td></td><td>2.402 238 GHz</td><td>-2.621 dBm</td><td></td><td></td><td></td></tr> <tr><td>2</td><td>N</td><td>f</td><td></td><td>2.400 000 GHz</td><td>-51.600 dBm</td><td></td><td></td><td></td></tr> <tr><td>3</td><td>N</td><td>f</td><td></td><td>2.390 000 GHz</td><td>-54.115 dBm</td><td></td><td></td><td></td></tr> <tr><td>4</td><td>N</td><td>f</td><td></td><td>2.339 046 GHz</td><td>-49.034 dBm</td><td></td><td></td><td></td></tr> </tbody> </table>	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	f		2.402 238 GHz	-2.621 dBm				2	N	f		2.400 000 GHz	-51.600 dBm				3	N	f		2.390 000 GHz	-54.115 dBm				4	N	f		2.339 046 GHz	-49.034 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
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HCH	<p>Agilent Spectrum Analyzer - Swept SA                  Center Freq 2.489000000 GHz                  #Avg Type: RMS                  AvgHold: 10/10                  Ref Offset 8.24 dB                  Ref 20.00 dBm                  Mkr4 2.494 654 00 GHz                  -49.940 dBm                  Start 2.47800 GHz                  Stop 2.50000 GHz                  #Res BW 100 kHz                  #VBW 300 kHz                  Sweep 2.133 ms (8001 pts)</p> <table border="1"> <thead> <tr> <th>MKR</th> <th>MODE</th> <th>TRC</th> <th>SCL</th> <th>X</th> <th>Y</th> <th>FUNCTION</th> <th>FUNCTION WIDTH</th> <th>FUNCTION VALUE</th> </tr> </thead> <tbody> <tr><td>1</td><td>N</td><td>f</td><td></td><td>2.479 996 50 GHz</td><td>-1.180 dBm</td><td></td><td></td><td></td></tr> <tr><td>2</td><td>N</td><td>f</td><td></td><td>2.483 500 00 GHz</td><td>-53.561 dBm</td><td></td><td></td><td></td></tr> <tr><td>3</td><td>N</td><td>f</td><td></td><td>2.500 000 00 GHz</td><td>-52.708 dBm</td><td></td><td></td><td></td></tr> <tr><td>4</td><td>N</td><td>f</td><td></td><td>2.494 654 00 GHz</td><td>-49.940 dBm</td><td></td><td></td><td></td></tr> </tbody> </table>	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	f		2.479 996 50 GHz	-1.180 dBm				2	N	f		2.483 500 00 GHz	-53.561 dBm				3	N	f		2.500 000 00 GHz	-52.708 dBm				4	N	f		2.494 654 00 GHz	-49.940 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
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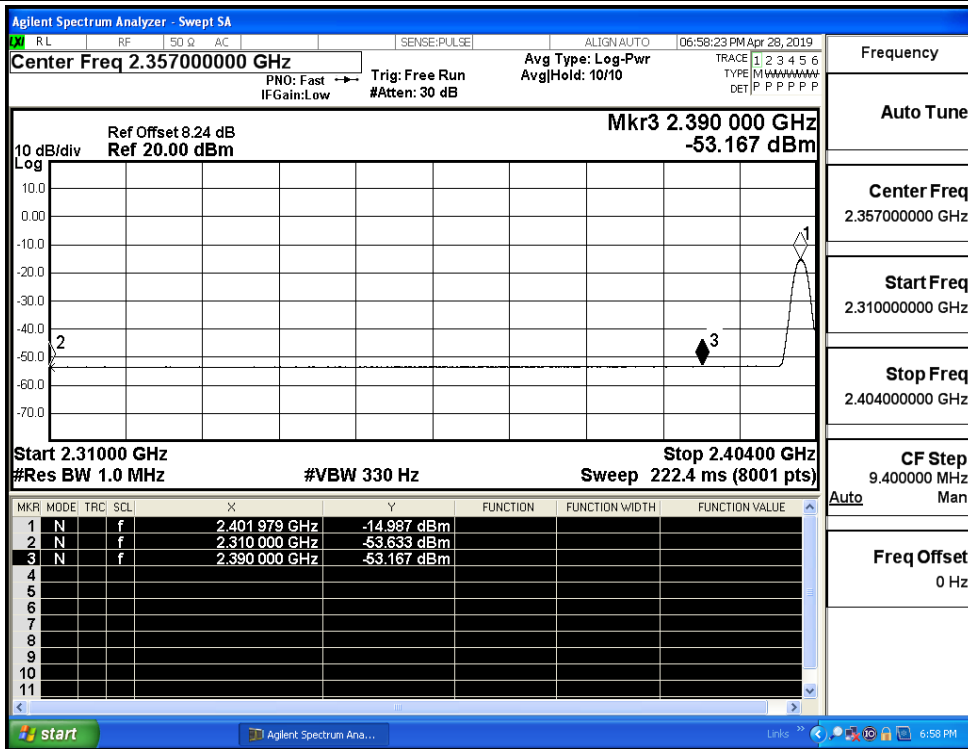
**A.7 Restrict-band band-edge measurements**

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
BT LE	2402	Ant1	2310.0	-43.81	2.0	0	51.45	PEAK	74	PASS
		Ant1	2310.0	-53.63	2.0	0	41.62	AV	54	PASS
		Ant1	2390.0	-42.01	2.0	0	53.25	PEAK	74	PASS
		Ant1	2390.0	-53.17	2.0	0	42.09	AV	54	PASS
	2480	Ant1	2483.5	-43.61	2.0	0	51.65	PEAK	74	PASS
		Ant1	2483.5	-53.05	2.0	0	42.21	AV	54	PASS
		Ant1	2500.0	-42.46	2.0	0	52.80	PEAK	74	PASS
		Ant1	2500.0	-52.92	2.0	0	42.34	AV	54	PASS

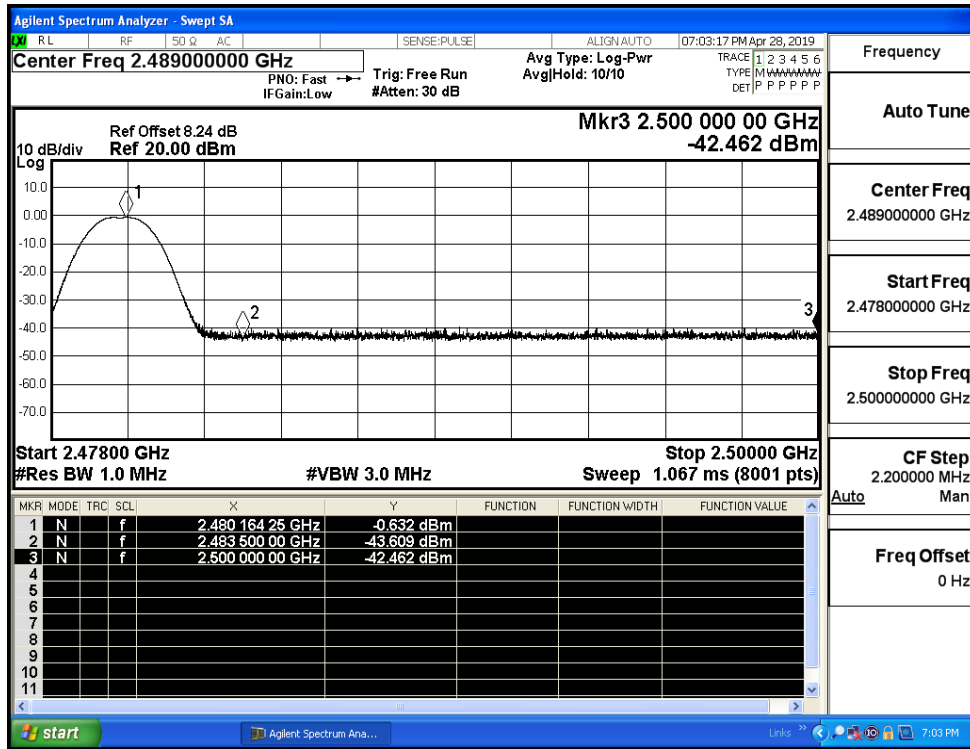
Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



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

