

## Appendix A

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

Product Name: Airista Flow A1 Tag

Trade Mark: Airista Flow

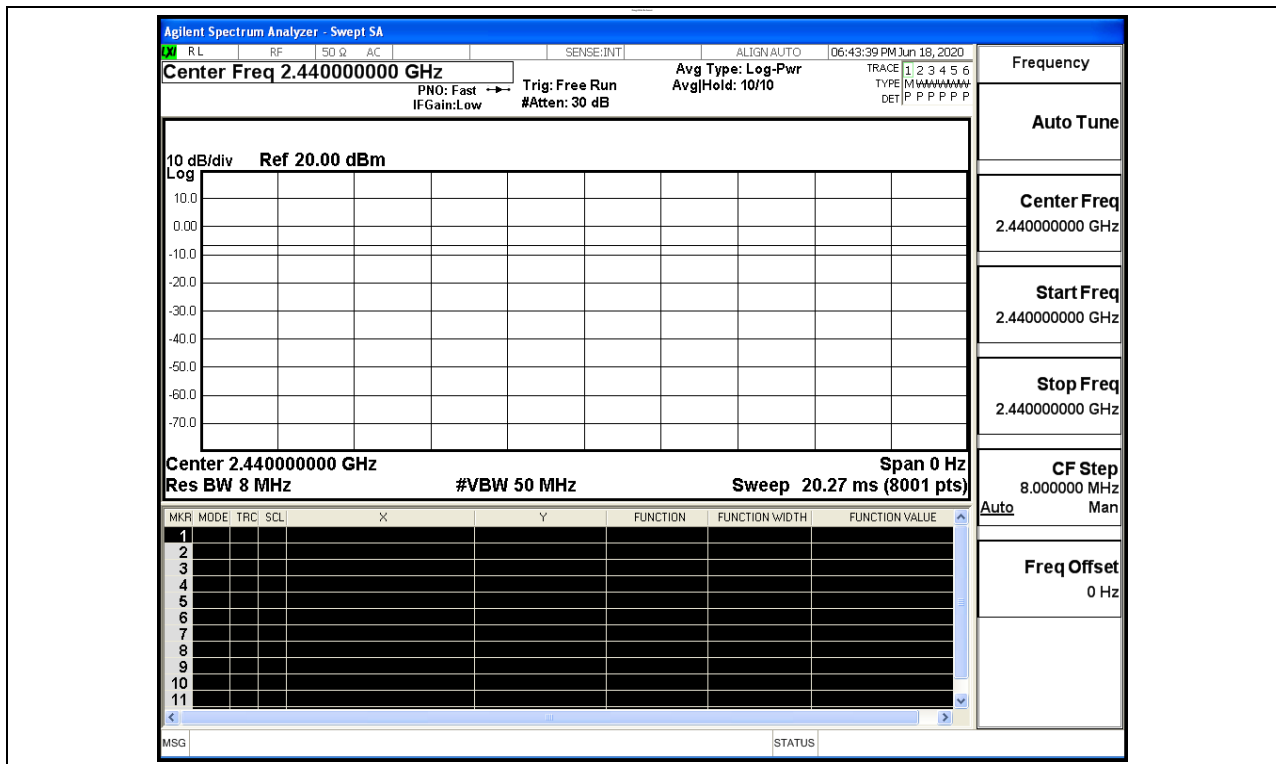
Test Model: V100

#### Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Li Huan
Supervised by:	Tom Liu

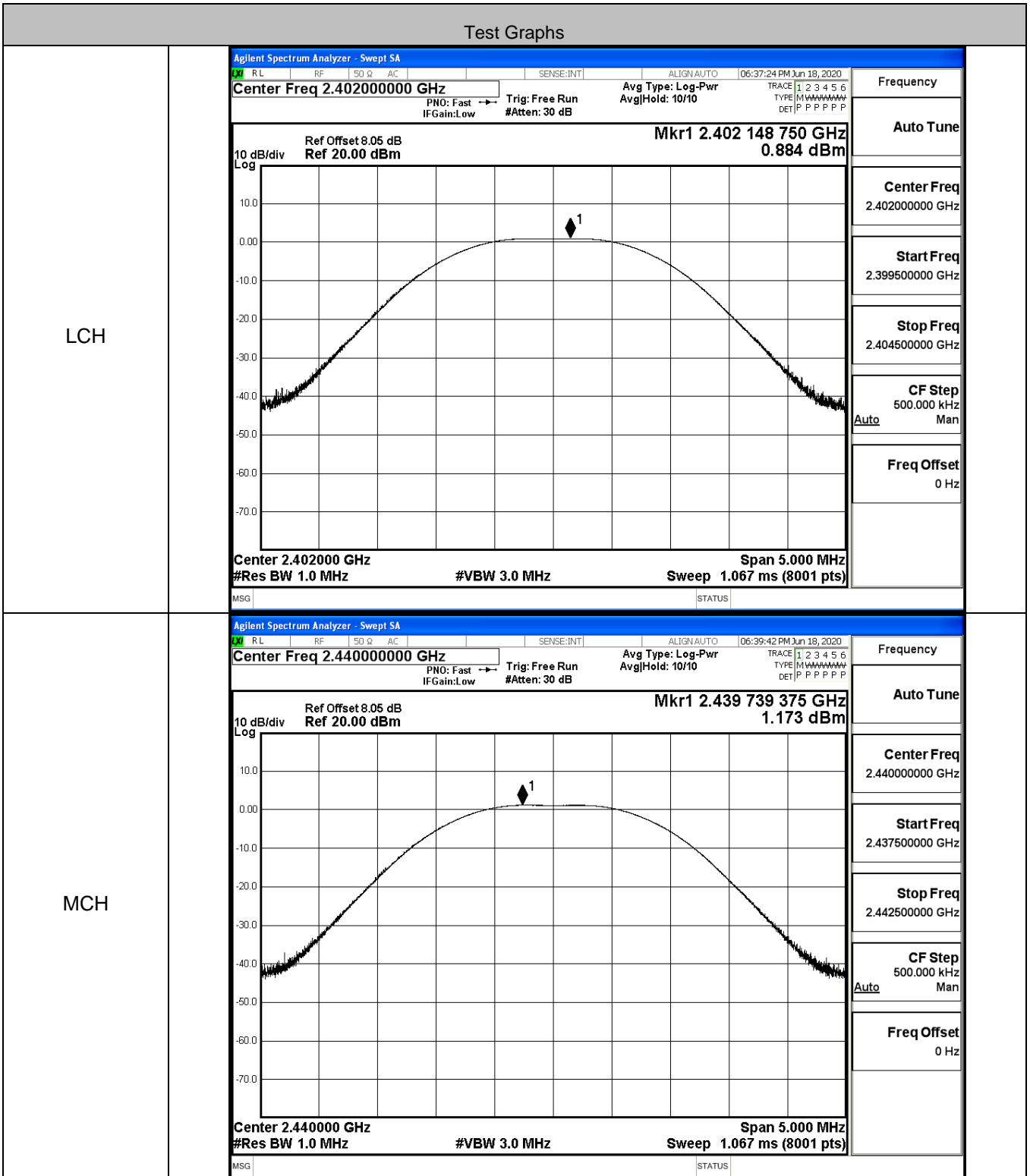
#### A.1 Duty Cycle

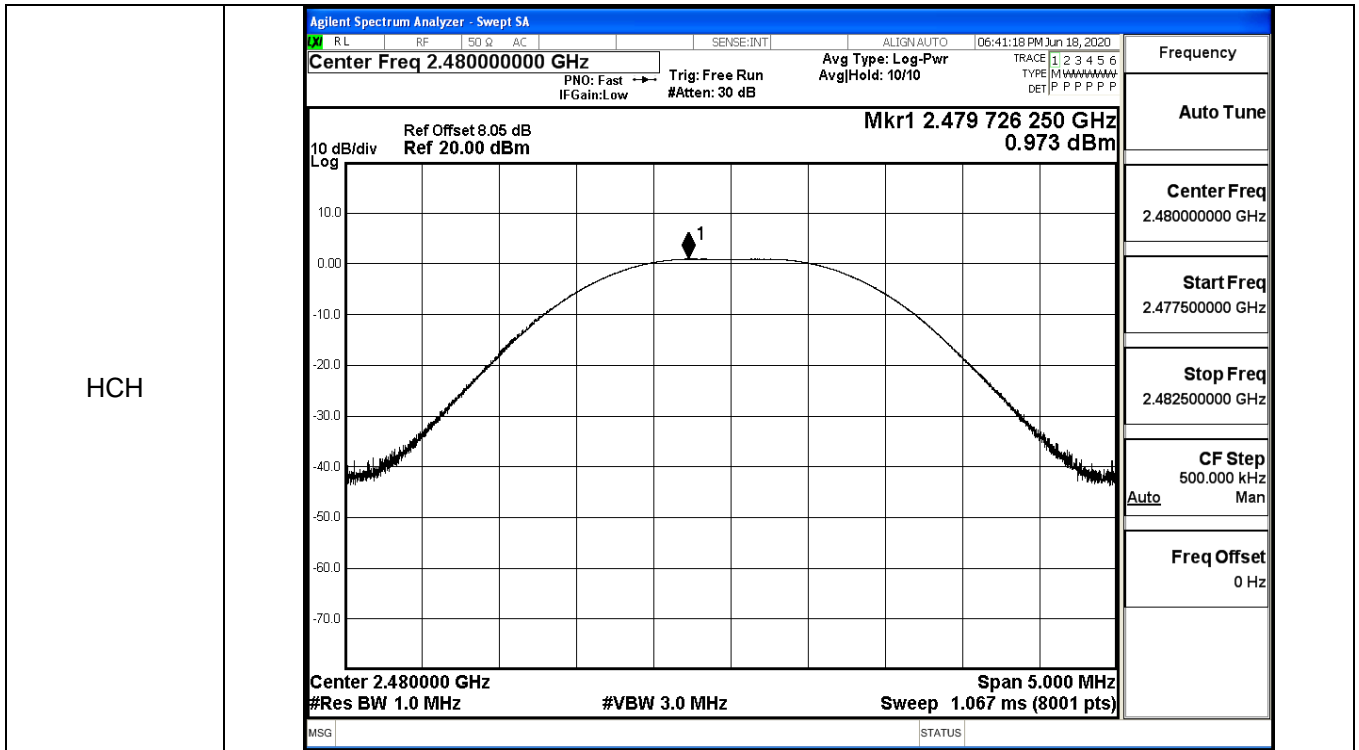
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS



### A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	0.884	30	PASS
BT LE	MCH	1.173	30	PASS
BT LE	HCH	0.973	30	PASS

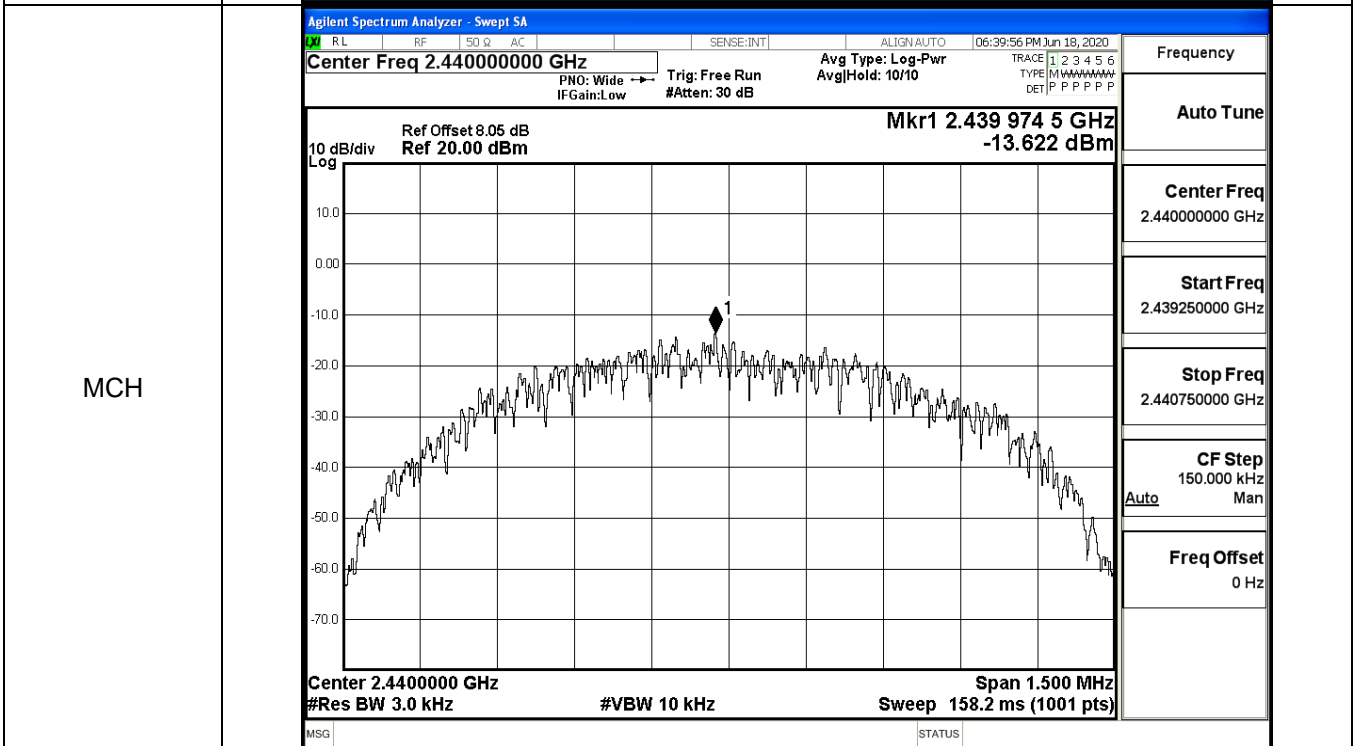
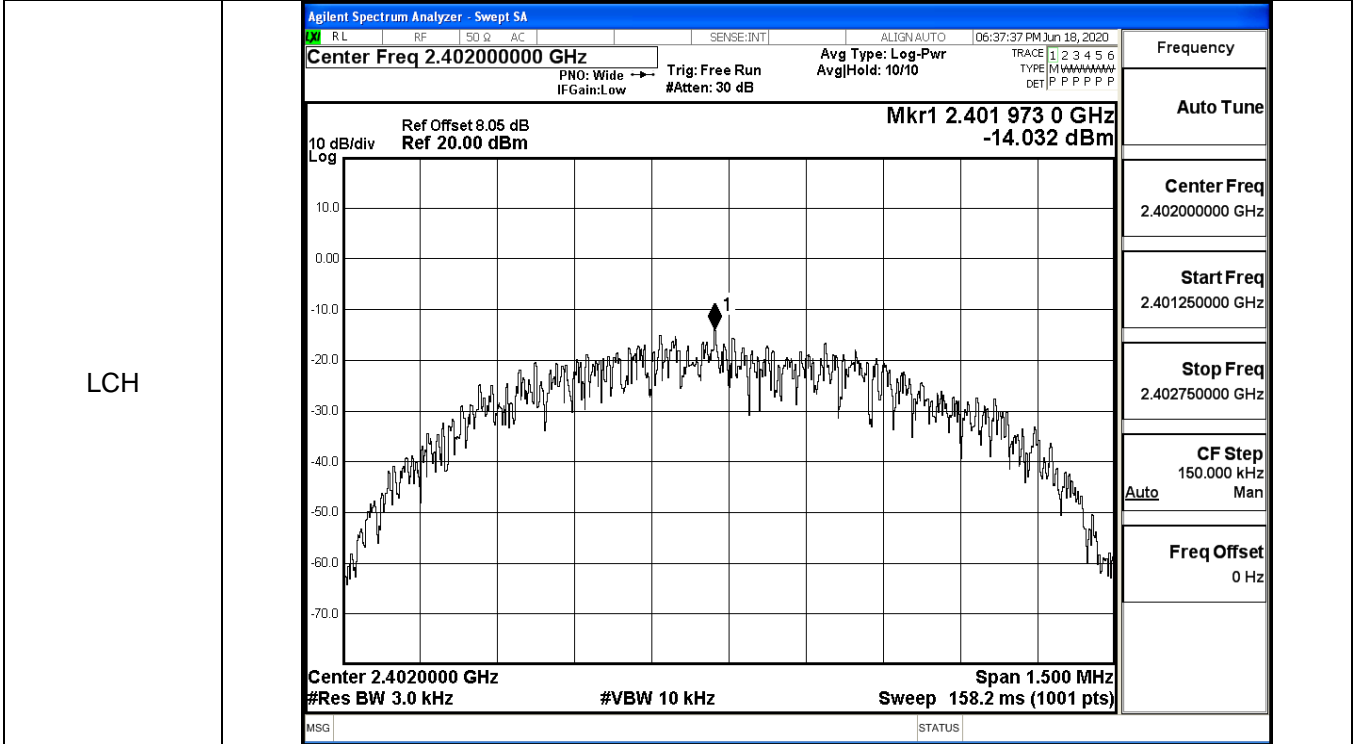


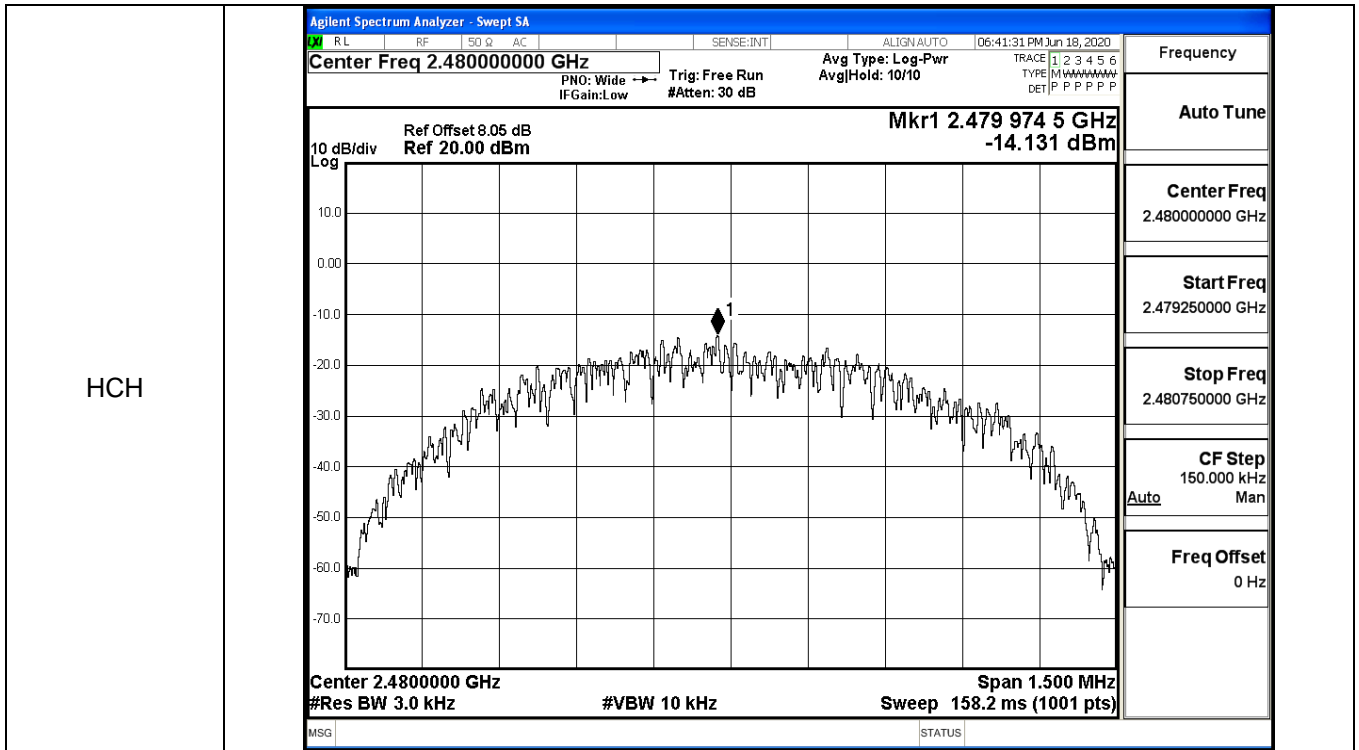


### A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-14.032	8	PASS
BT LE	MCH	-13.622	8	PASS
BT LE	HCH	-14.131	8	PASS

#### Test Graphs

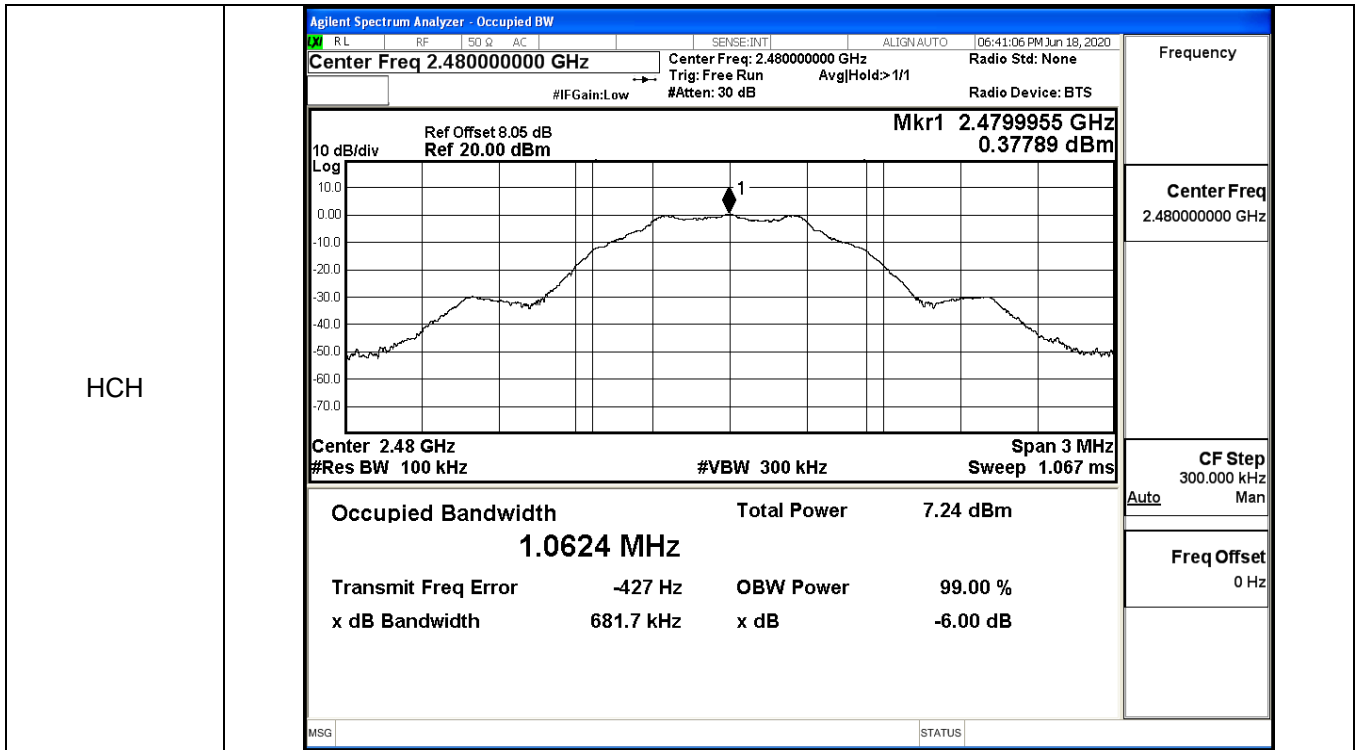




**A.4 6dB Bandwidth**

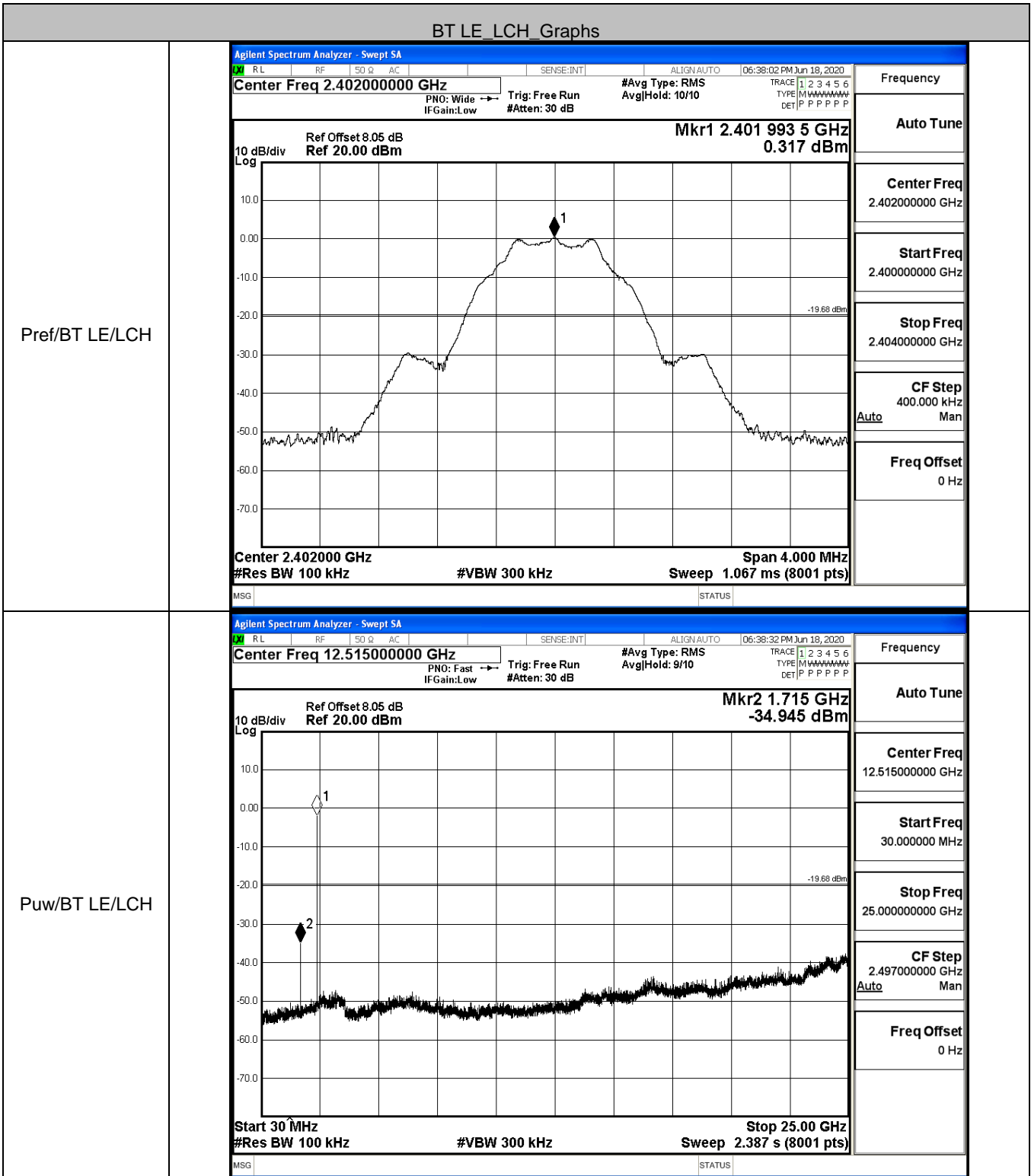
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6855	≥0.5	PASS
BT LE	MCH	0.6997	≥0.5	PASS
BT LE	HCH	0.6817	≥0.5	PASS

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 06:37:13 PM Jun 18, 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="border: 1px solid black; padding: 2px;"> <p style="text-align: right; margin: 0;">Mkr1 2.4019978 GHz 0.29810 dBm</p> </div> <p style="font-size: small; margin: 0;">Center 2.402 GHz Span 3 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms</p> <table style="width: 100%; border-collapse: collapse; font-size: small;"> <tr> <td style="width: 50%;">Occupied Bandwidth</td> <td style="width: 50%;">Total Power</td> <td colspan="2">7.16 dBm</td> </tr> <tr> <td colspan="4" style="text-align: center;"><b>1.0627 MHz</b></td> </tr> <tr> <td>Transmit Freq Error</td> <td>225 Hz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>685.5 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> </table> <p style="font-size: x-small; margin: 0;">MSG STATUS</p> </div>	Occupied Bandwidth	Total Power	7.16 dBm		<b>1.0627 MHz</b>				Transmit Freq Error	225 Hz	OBW Power	99.00 %	x dB Bandwidth	685.5 kHz	x dB	-6.00 dB
Occupied Bandwidth	Total Power	7.16 dBm															
<b>1.0627 MHz</b>																	
Transmit Freq Error	225 Hz	OBW Power	99.00 %														
x dB Bandwidth	685.5 kHz	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 06:39:31 PM Jun 18, 2020</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="border: 1px solid black; padding: 2px;"> <p style="text-align: right; margin: 0;">Mkr1 2.4399978 GHz 0.57840 dBm</p> </div> <p style="font-size: small; margin: 0;">Center 2.44 GHz Span 3 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms</p> <table style="width: 100%; border-collapse: collapse; font-size: small;"> <tr> <td style="width: 50%;">Occupied Bandwidth</td> <td style="width: 50%;">Total Power</td> <td colspan="2">7.44 dBm</td> </tr> <tr> <td colspan="4" style="text-align: center;"><b>1.0639 MHz</b></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-630 Hz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>699.7 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> </table> <p style="font-size: x-small; margin: 0;">MSG STATUS</p> </div>	Occupied Bandwidth	Total Power	7.44 dBm		<b>1.0639 MHz</b>				Transmit Freq Error	-630 Hz	OBW Power	99.00 %	x dB Bandwidth	699.7 kHz	x dB	-6.00 dB
Occupied Bandwidth	Total Power	7.44 dBm															
<b>1.0639 MHz</b>																	
Transmit Freq Error	-630 Hz	OBW Power	99.00 %														
x dB Bandwidth	699.7 kHz	x dB	-6.00 dB														



### A.5 RF Conducted Spurious Emissions

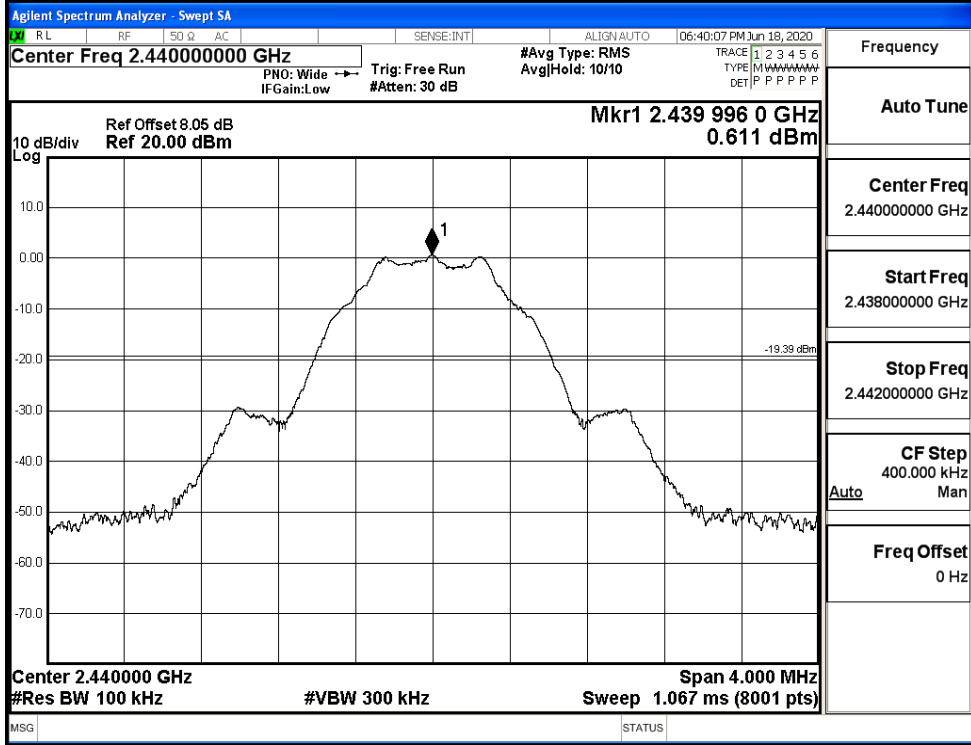
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	0.317	-34.945	-19.683	PASS
BT LE	MCH	0.611	-36.548	-19.389	PASS
BT LE	HCH	0.393	-37.013	-19.607	PASS



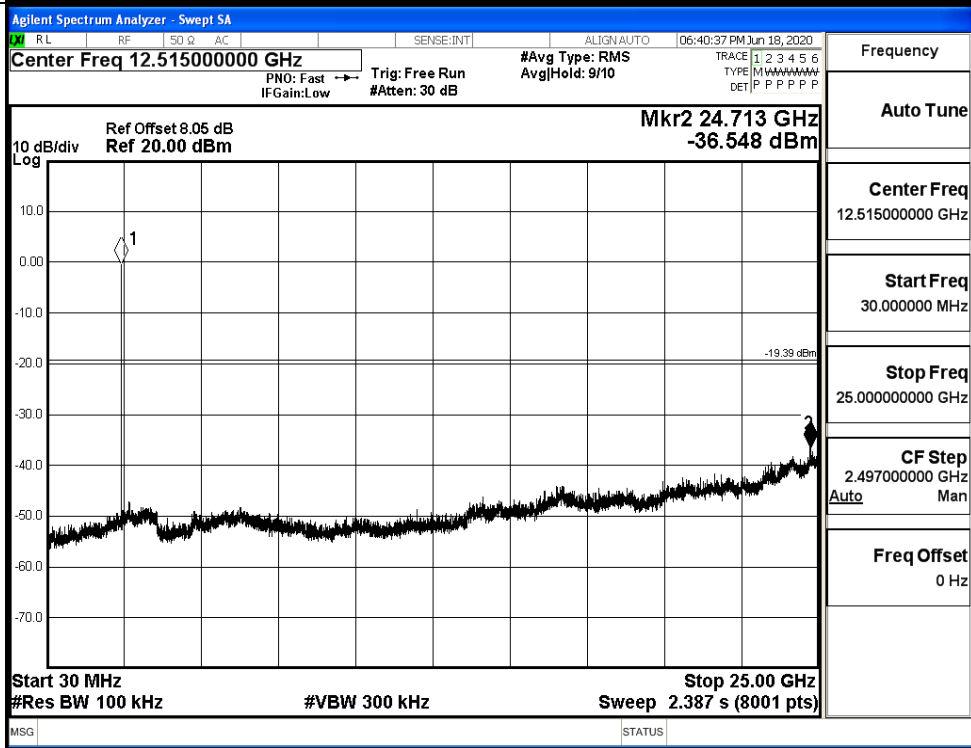


BT LE\_MCH\_Graphs

Pref/BT LE/MCH

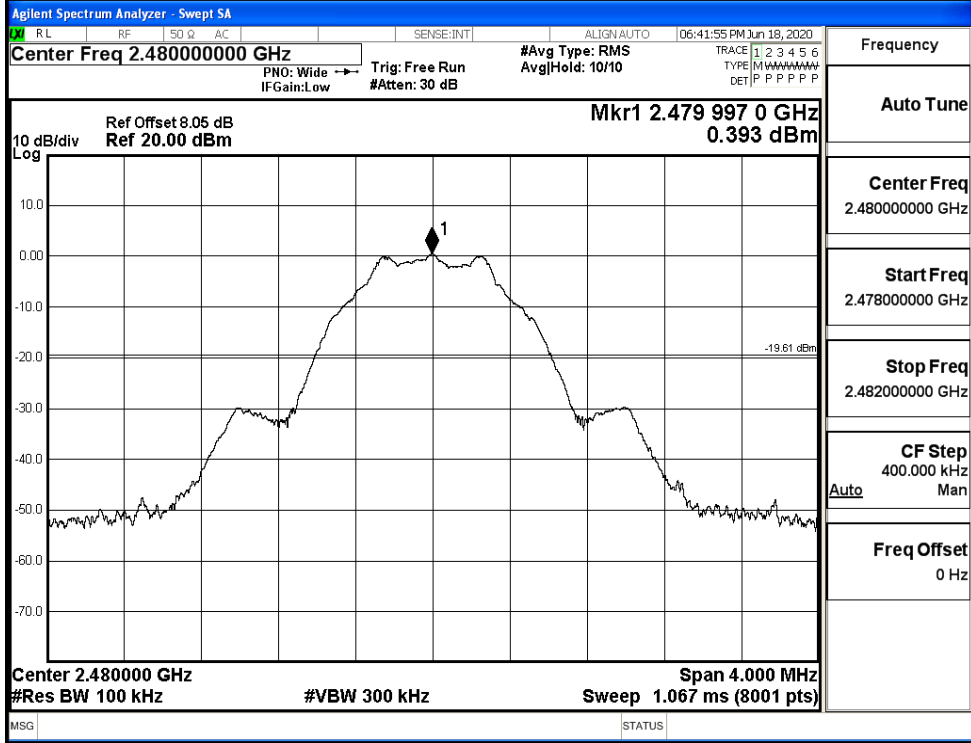


Puw/BT LE/MCH

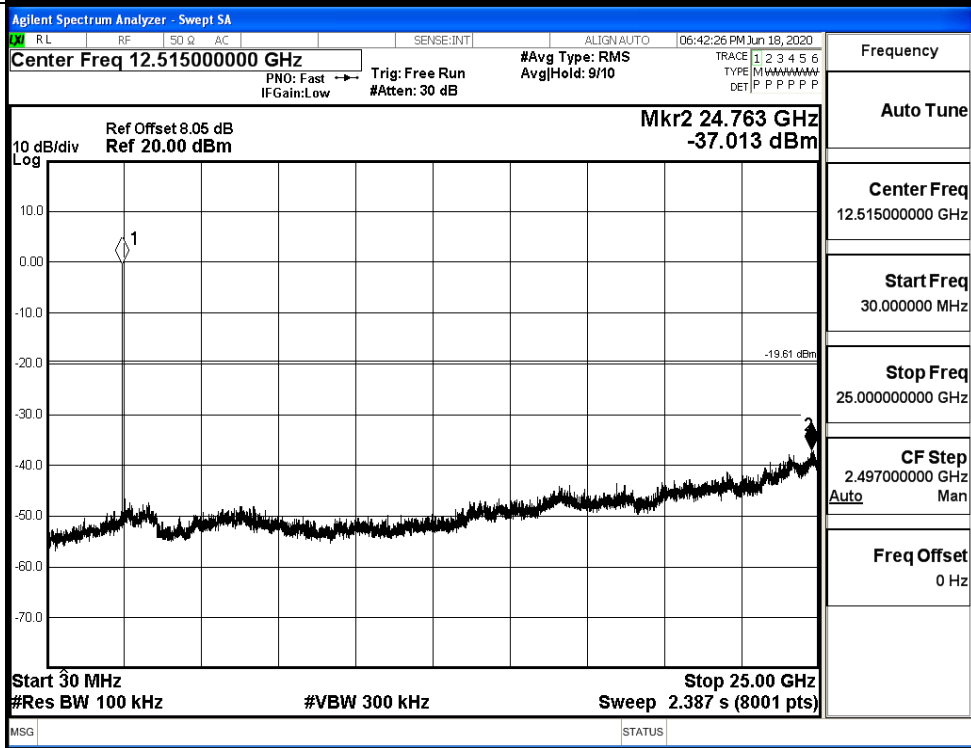


BT LE\_HCH\_Graphs

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	0.338	-49.107	-19.66	PASS
BT LE	HCH	0.476	-48.546	-19.52	PASS

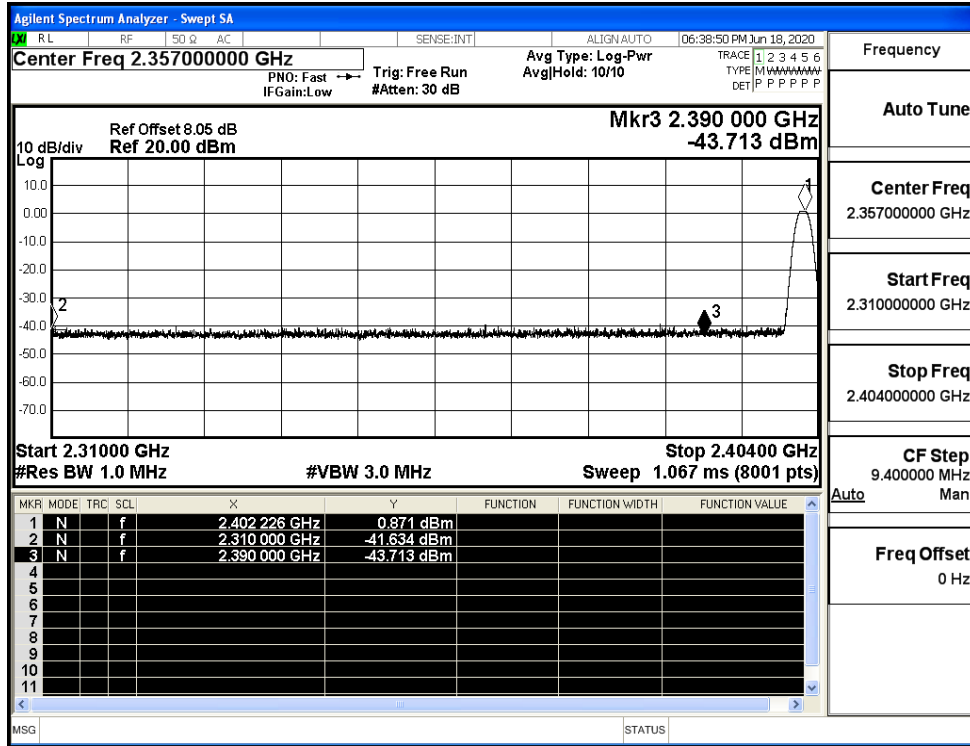
Test Graphs

LCH	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <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></td><td>f</td><td>2.402 003 GHz</td><td>0.338 dBm</td><td></td><td></td><td></td></tr> <tr><td>2</td><td>N</td><td></td><td>f</td><td>2.400 000 GHz</td><td>-52.790 dBm</td><td></td><td></td><td></td></tr> <tr><td>3</td><td>N</td><td></td><td>f</td><td>2.390 000 GHz</td><td>-53.005 dBm</td><td></td><td></td><td></td></tr> <tr><td>4</td><td>N</td><td></td><td>f</td><td>2.386 622 GHz</td><td>-49.107 dBm</td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N		f	2.402 003 GHz	0.338 dBm				2	N		f	2.400 000 GHz	-52.790 dBm				3	N		f	2.390 000 GHz	-53.005 dBm				4	N		f	2.386 622 GHz	-49.107 dBm				5									6									7									8									9									10									11									<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.35700000 GHz</p> <p>Start Freq 2.31000000 GHz</p> <p>Stop Freq 2.40400000 GHz</p> <p>CF Step 9.400000 MHz</p> <p>Freq Offset 0 Hz</p>
MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																																																																																																						
1	N		f	2.402 003 GHz	0.338 dBm																																																																																																									
2	N		f	2.400 000 GHz	-52.790 dBm																																																																																																									
3	N		f	2.390 000 GHz	-53.005 dBm																																																																																																									
4	N		f	2.386 622 GHz	-49.107 dBm																																																																																																									
5																																																																																																														
6																																																																																																														
7																																																																																																														
8																																																																																																														
9																																																																																																														
10																																																																																																														
11																																																																																																														
HCH	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <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></td><td>f</td><td>2.479 999 25 GHz</td><td>0.476 dBm</td><td></td><td></td><td></td></tr> <tr><td>2</td><td>N</td><td></td><td>f</td><td>2.483 500 00 GHz</td><td>-52.283 dBm</td><td></td><td></td><td></td></tr> <tr><td>3</td><td>N</td><td></td><td>f</td><td>2.500 000 00 GHz</td><td>-52.406 dBm</td><td></td><td></td><td></td></tr> <tr><td>4</td><td>N</td><td></td><td>f</td><td>2.496 793 50 GHz</td><td>-48.546 dBm</td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N		f	2.479 999 25 GHz	0.476 dBm				2	N		f	2.483 500 00 GHz	-52.283 dBm				3	N		f	2.500 000 00 GHz	-52.406 dBm				4	N		f	2.496 793 50 GHz	-48.546 dBm				5									6									7									8									9									10									11									<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.48900000 GHz</p> <p>Start Freq 2.47800000 GHz</p> <p>Stop Freq 2.50000000 GHz</p> <p>CF Step 2.200000 MHz</p> <p>Freq Offset 0 Hz</p>
MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																																																																																																						
1	N		f	2.479 999 25 GHz	0.476 dBm																																																																																																									
2	N		f	2.483 500 00 GHz	-52.283 dBm																																																																																																									
3	N		f	2.500 000 00 GHz	-52.406 dBm																																																																																																									
4	N		f	2.496 793 50 GHz	-48.546 dBm																																																																																																									
5																																																																																																														
6																																																																																																														
7																																																																																																														
8																																																																																																														
9																																																																																																														
10																																																																																																														
11																																																																																																														

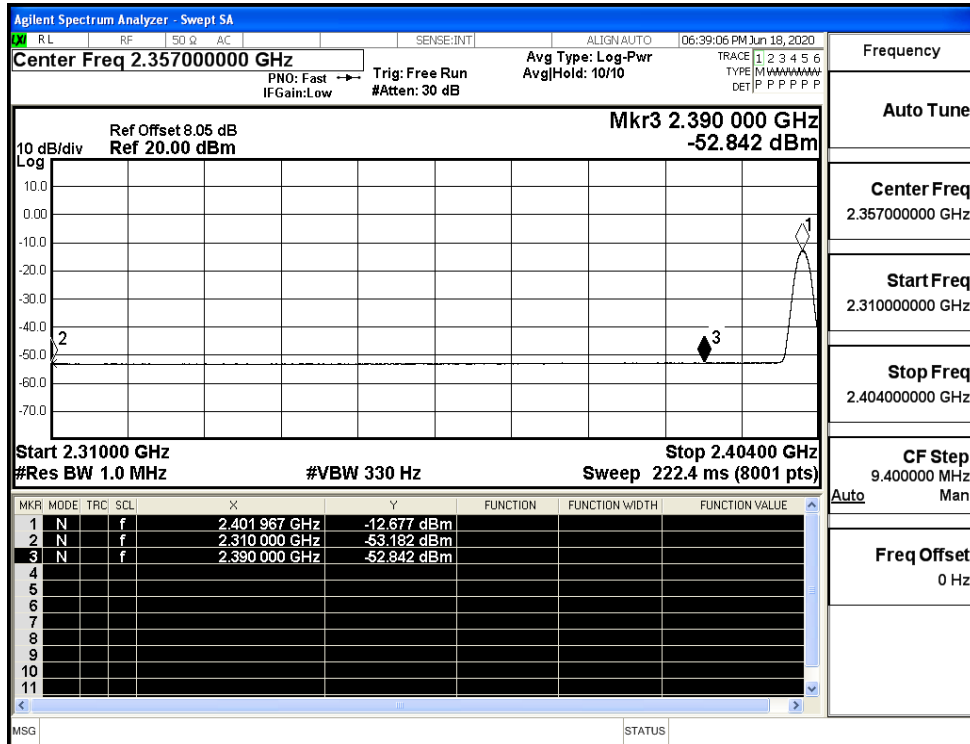
## A.7 Restrict-band band-edge measurements

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	-41.63	2.0	0	55.63	PEAK	74	PASS
		Ant1	2310.0	-53.18	2.0	0	44.08	AV	54	PASS
		Ant1	2390.0	-43.71	2.0	0	53.55	PEAK	74	PASS
		Ant1	2390.0	-52.84	2.0	0	44.42	AV	54	PASS
	2480	Ant1	2483.5	-42.06	2.0	0	55.2	PEAK	74	PASS
		Ant1	2483.5	-52.43	2.0	0	44.83	AV	54	PASS
		Ant1	2500.0	-41.66	2.0	0	55.6	PEAK	74	PASS
		Ant1	2500.0	-52.20	2.0	0	45.06	AV	54	PASS

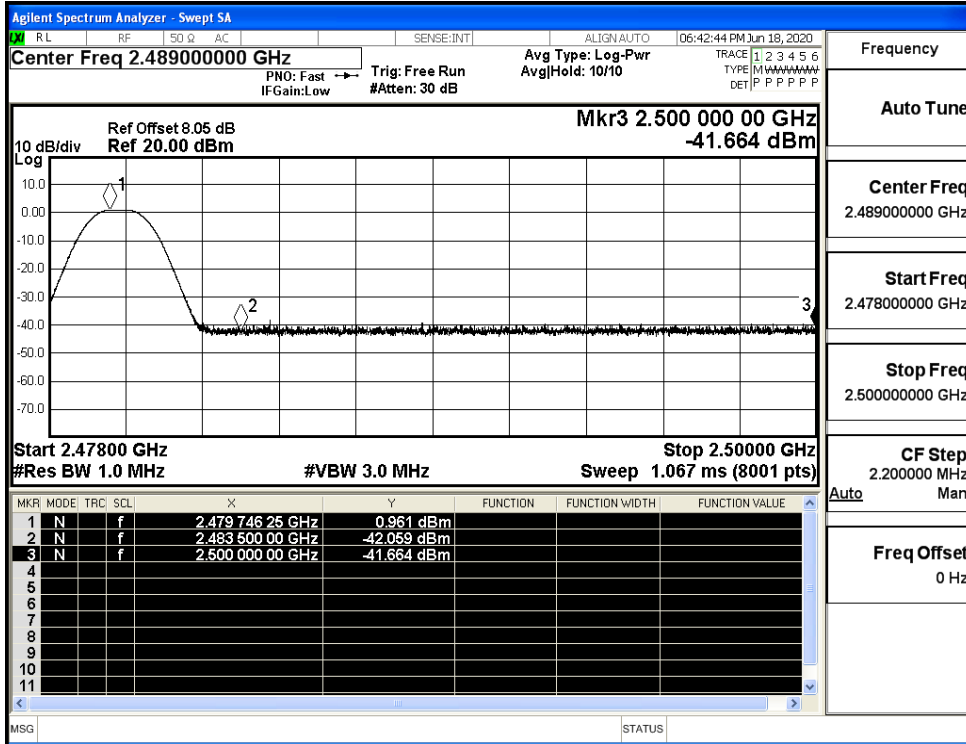
Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



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

