

## Appendix B

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

**Product Name: Monster FLAME**

**Trade Mark: Monster**

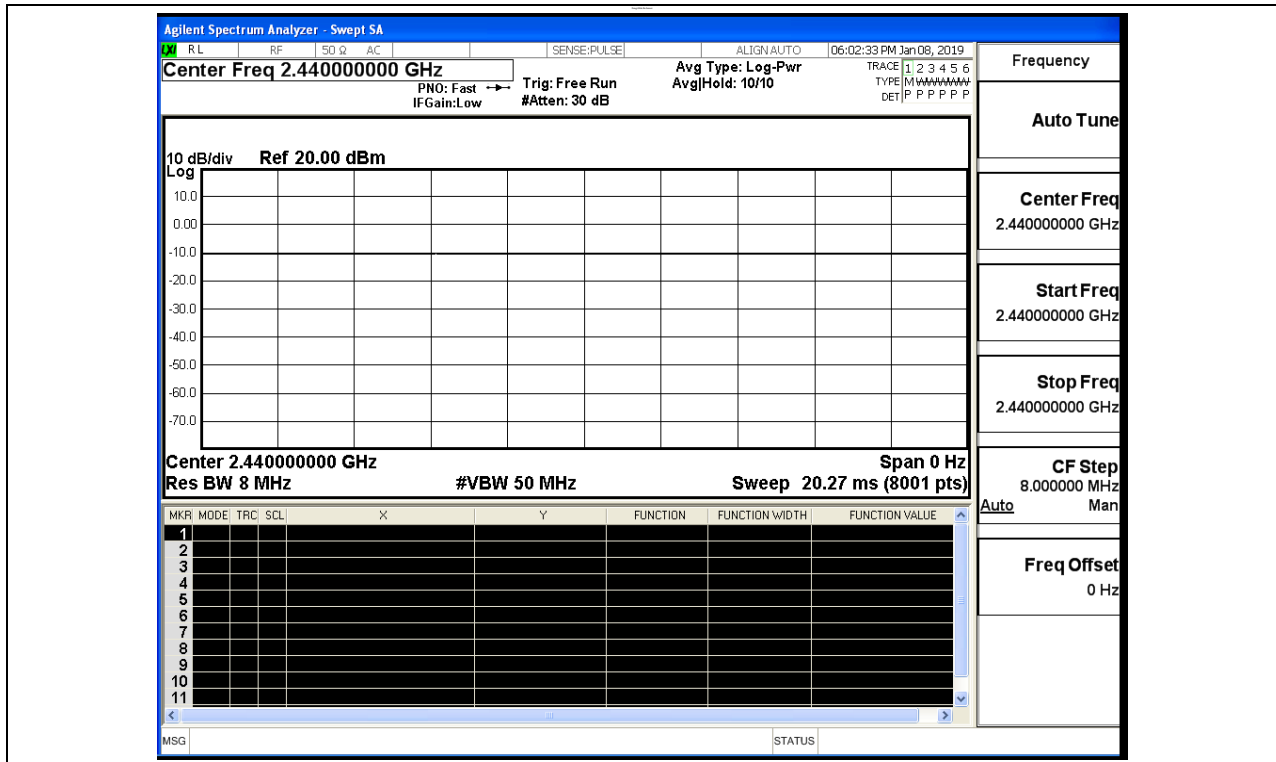
**Test Model: MNFLAME**

#### Environmental Conditions

Temperature:	23.3 ° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond.Lu
Supervised by:	Jayden.Zhuo

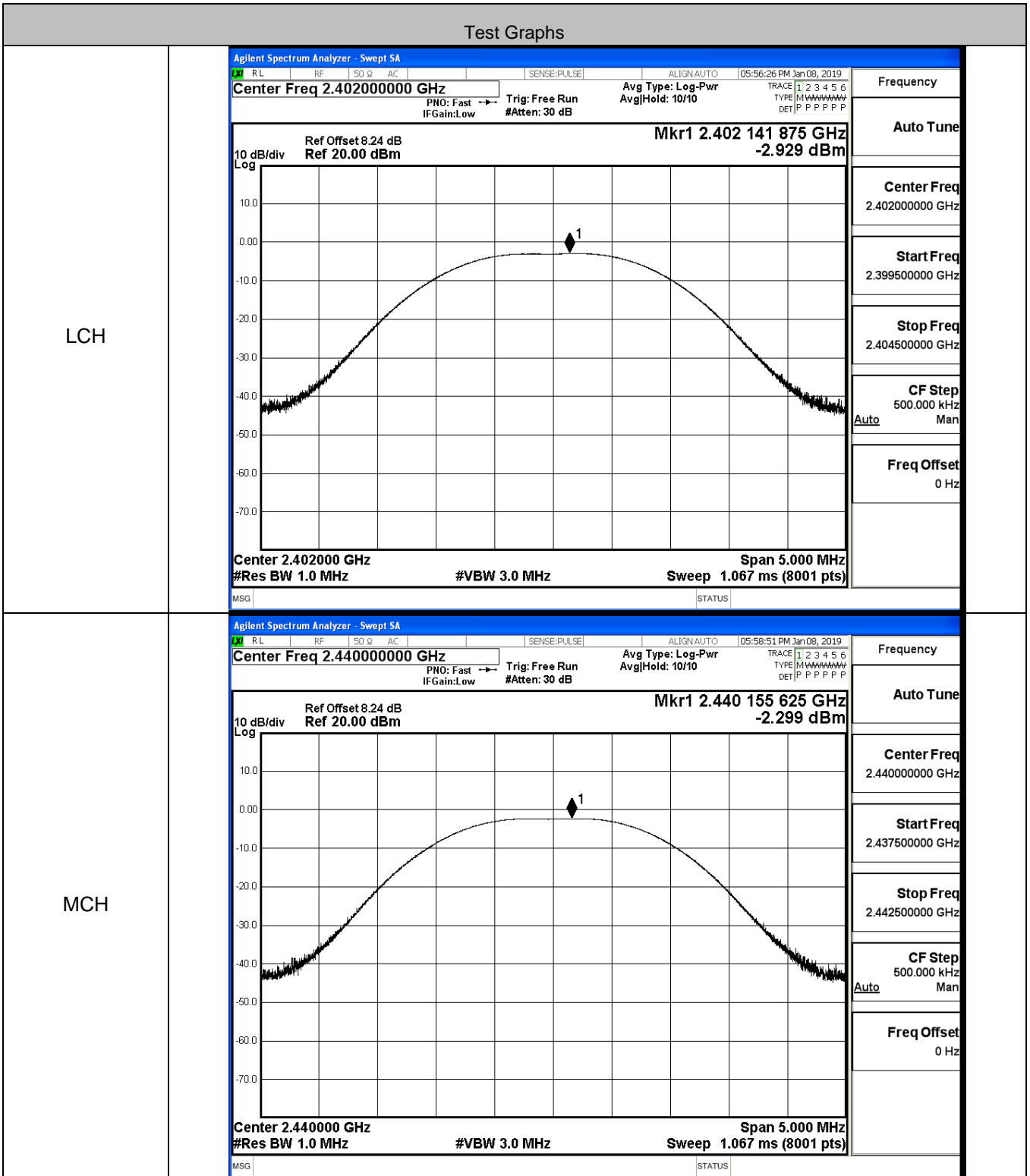
#### B.1 Duty Cycle

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

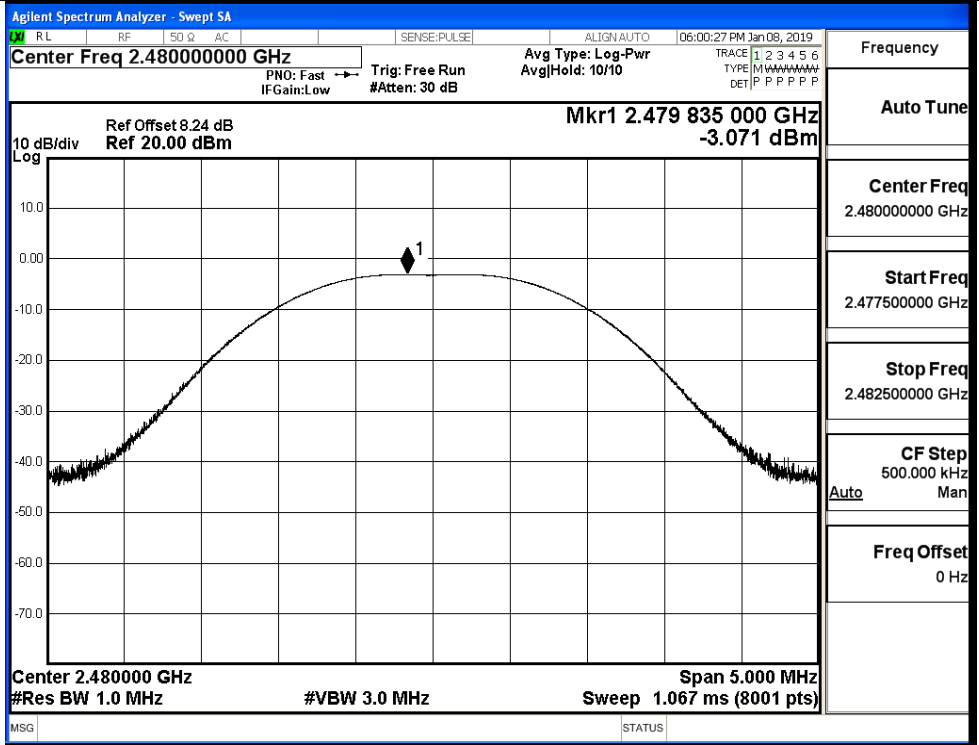


### B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.929	30	PASS
BT LE	MCH	-2.299	30	PASS
BT LE	HCH	-3.071	30	PASS



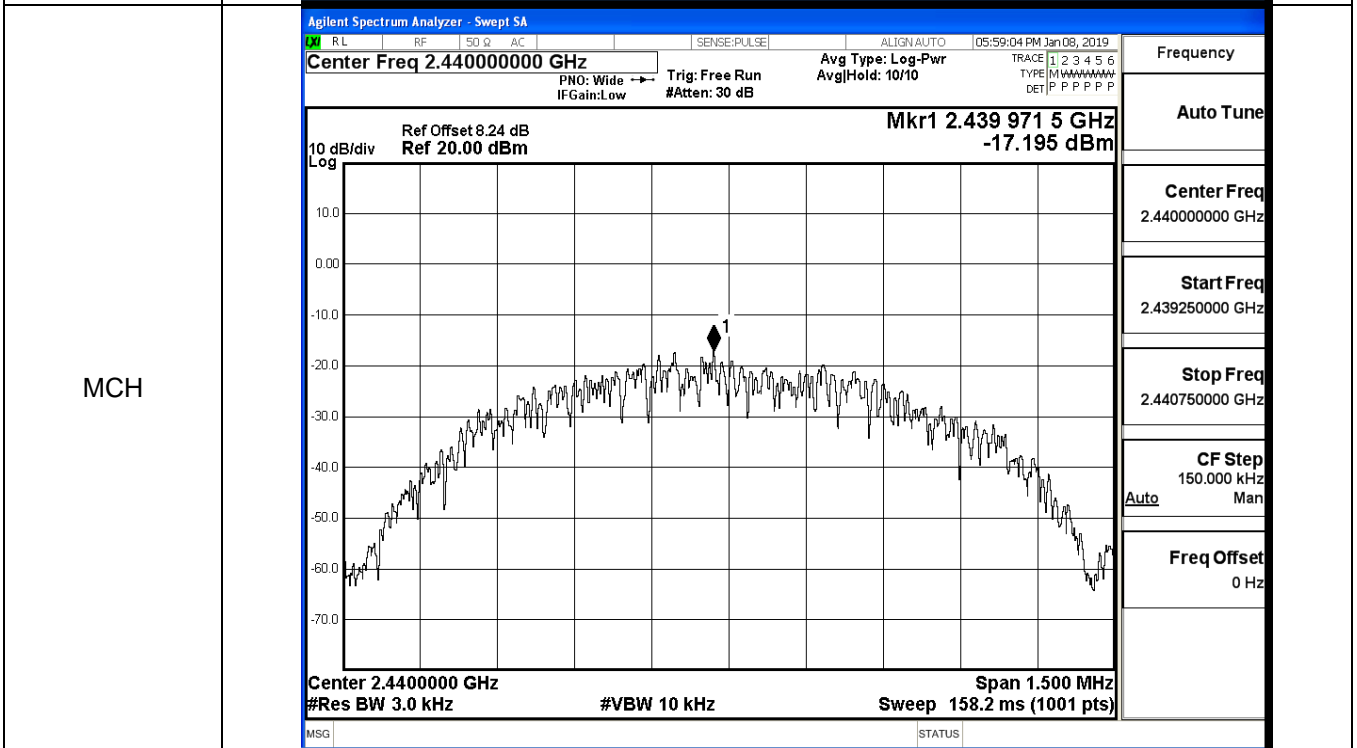
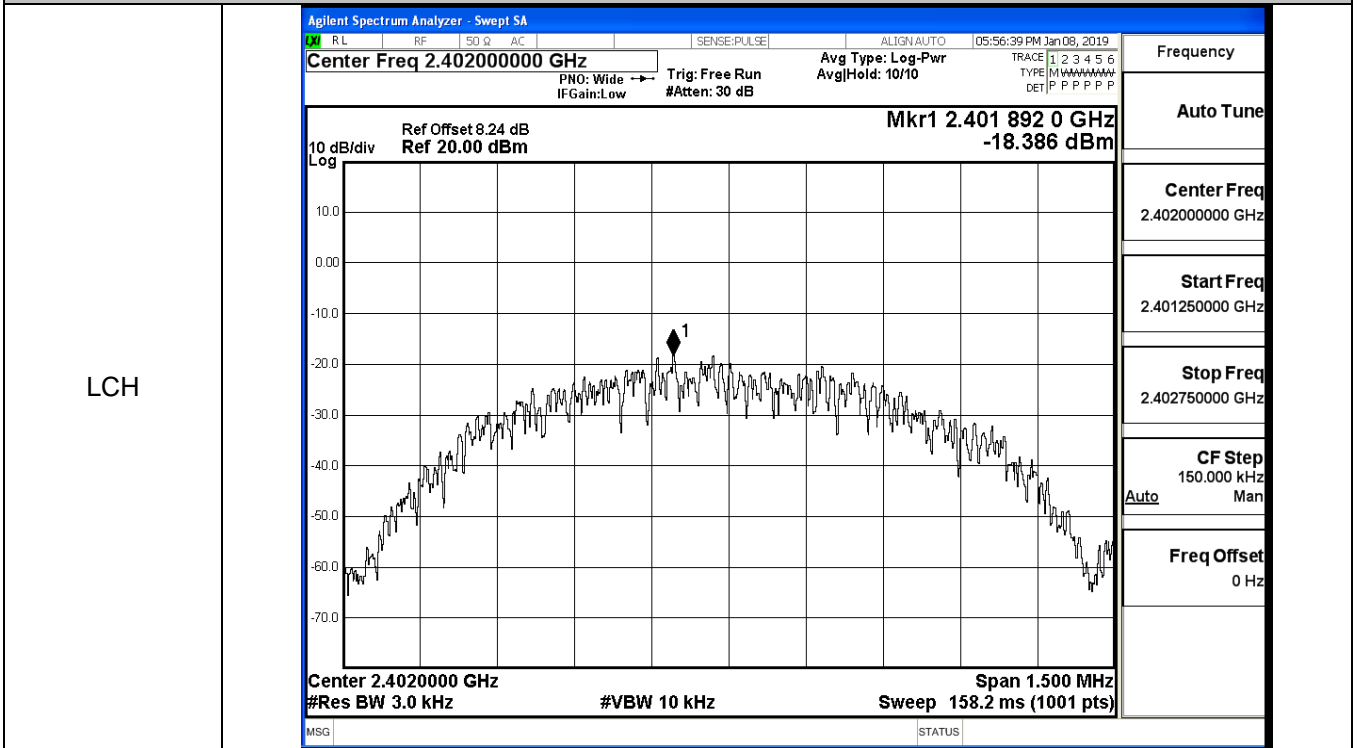
HCH



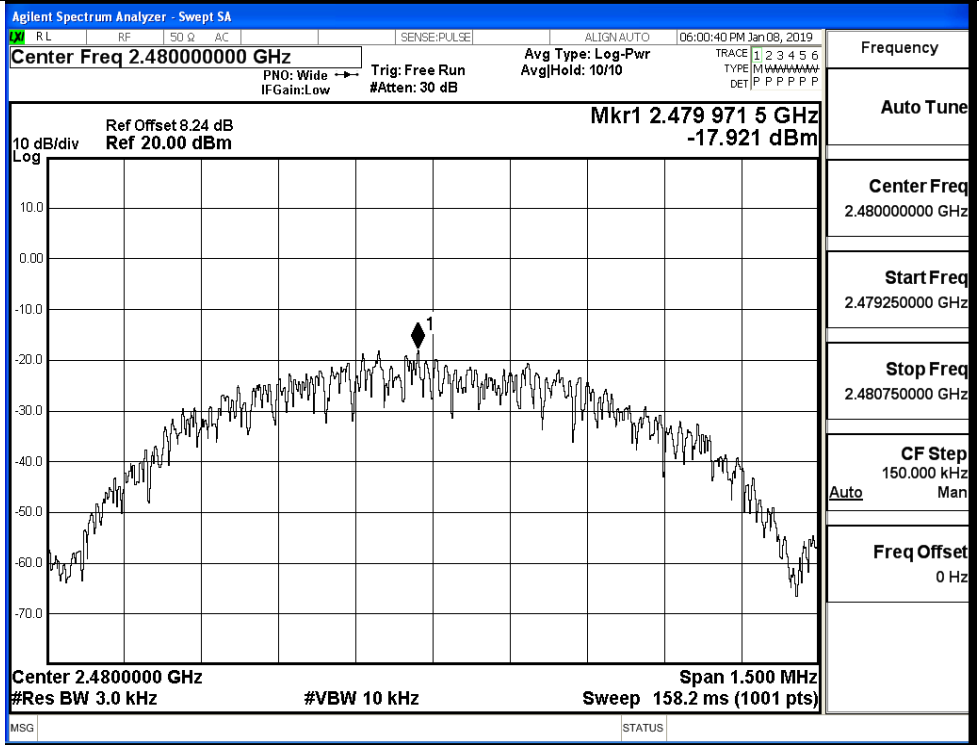
### B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-18.386	8	PASS
BT LE	MCH	-17.195	8	PASS
BT LE	HCH	-17.921	8	PASS

#### Test Graphs



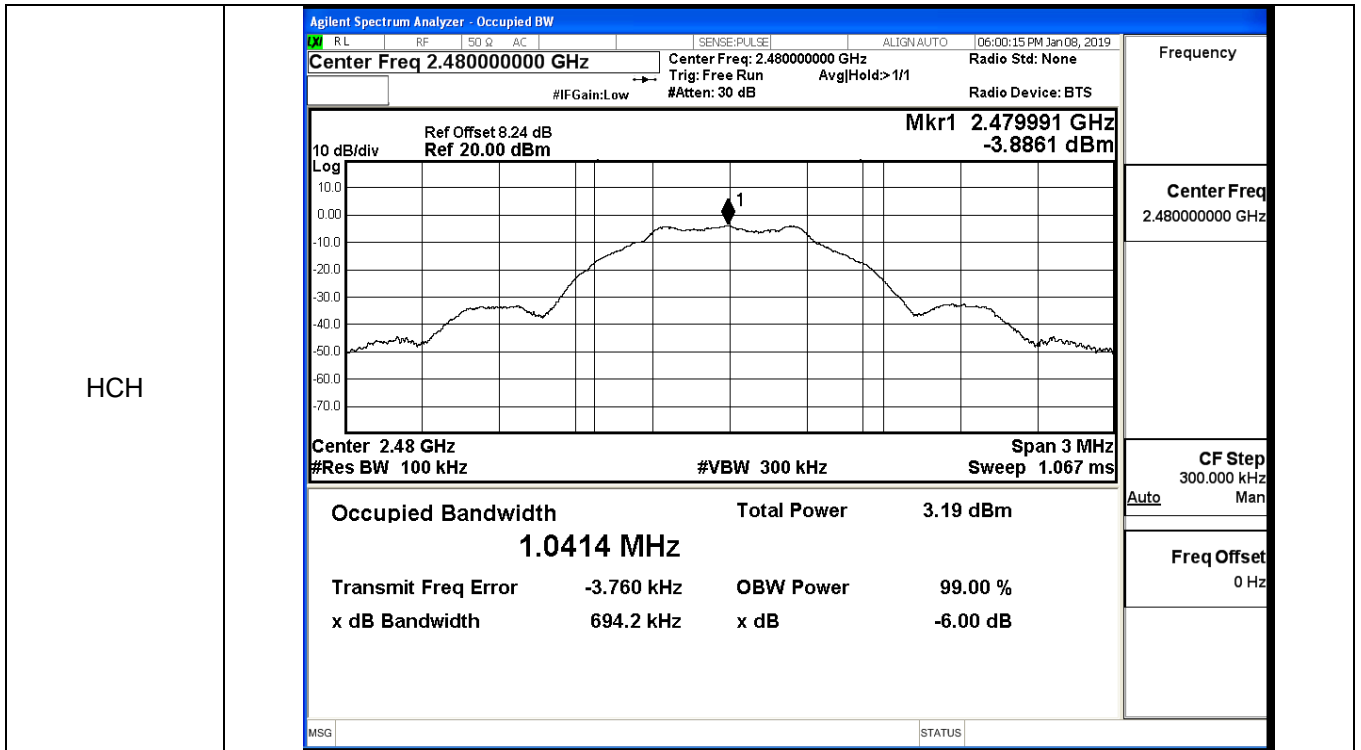
HCH



**B.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6900	≥0.5	PASS
BT LE	MCH	0.6927	≥0.5	PASS
BT LE	HCH	0.6942	≥0.5	PASS

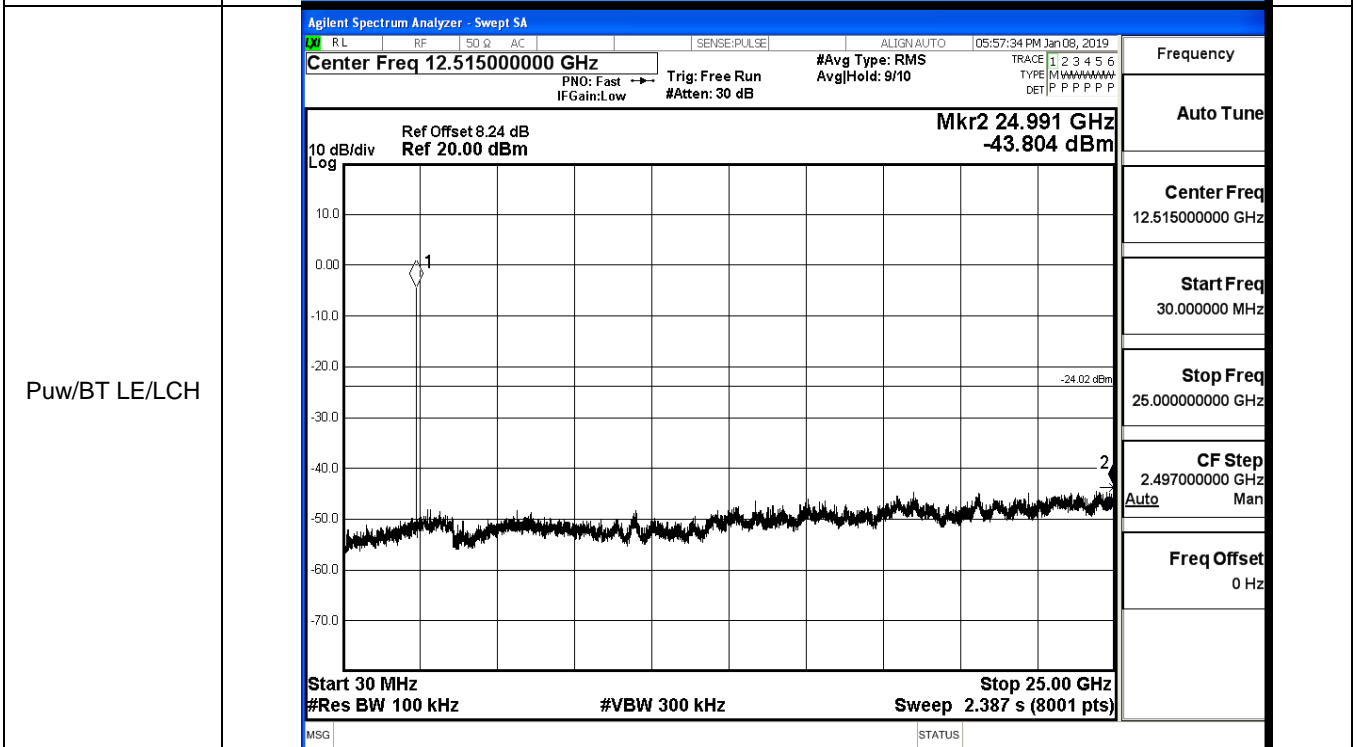
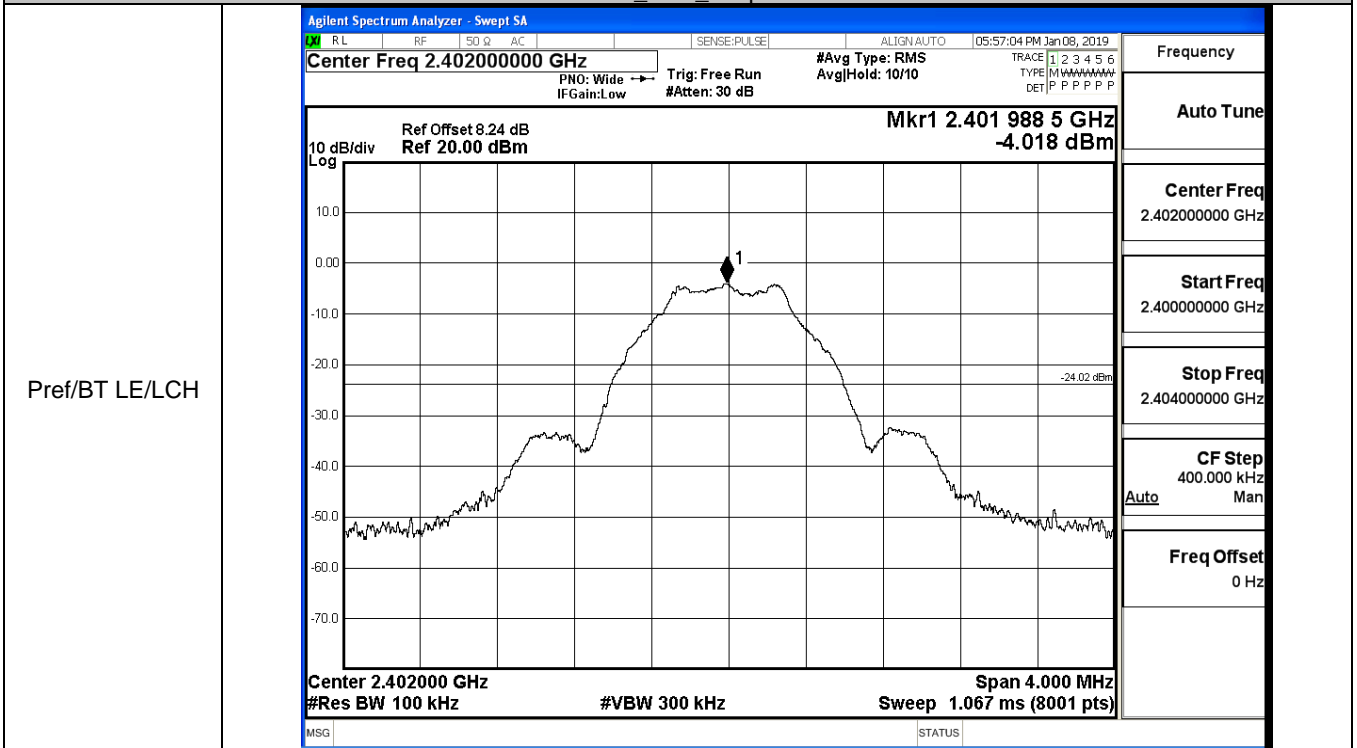
Test Graphs													
LCH	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;">Agilent Spectrum Analyzer - Occupied BW</p> <p style="font-size: small; margin: 0;">RL RF 50 Ω AC SENSE:PULSE ALIGN:AUTO 05:56:15 PM Jan 08, 2019</p> <p style="margin: 0;">Center 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="border: 1px solid black; padding: 2px;"> <p style="text-align: right; margin: 0;">Mkr1 2.4019846 GHz -3.7567 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%; font-size: small; border-collapse: collapse;"> <tr> <td style="width: 33%;">Occupied Bandwidth</td> <td style="width: 33%;">Total Power</td> <td style="width: 33%;">3.32 dBm</td> </tr> <tr> <td style="text-align: center;"><b>1.0442 MHz</b></td> <td></td> <td></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> <p style="font-size: x-small; margin: 0;">MSG STATUS</p> </div>	Occupied Bandwidth	Total Power	3.32 dBm	<b>1.0442 MHz</b>			Transmit Freq Error	OBW Power	99.00 %	x dB Bandwidth	x dB	-6.00 dB
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### B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-4.018	-43.804	-24.018	PASS
BT LE	MCH	-3.061	-43.951	-23.061	PASS
BT LE	HCH	-3.872	-43.180	-23.872	PASS

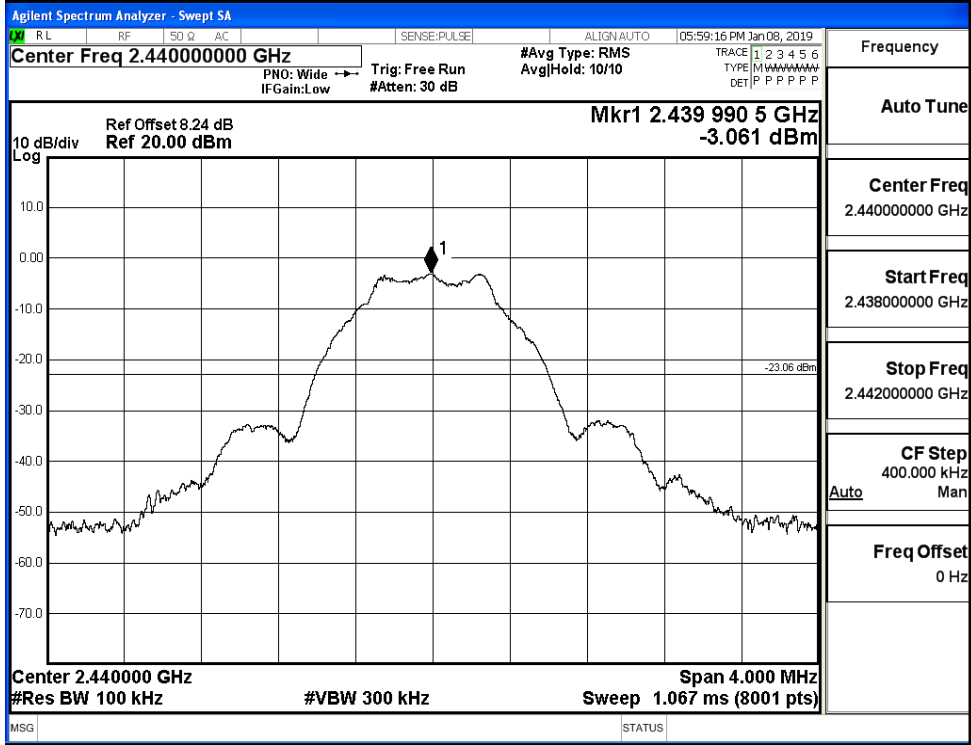
BT LE\_LCH\_Graphs



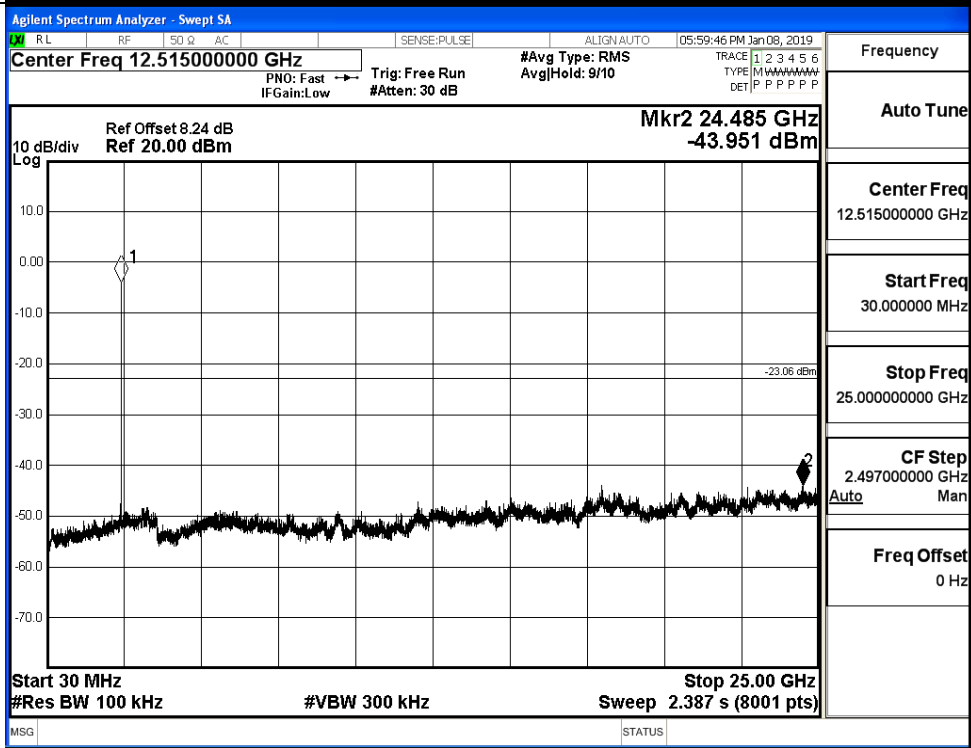


BT LE\_MCH\_Graphs

Pref/BT LE/MCH

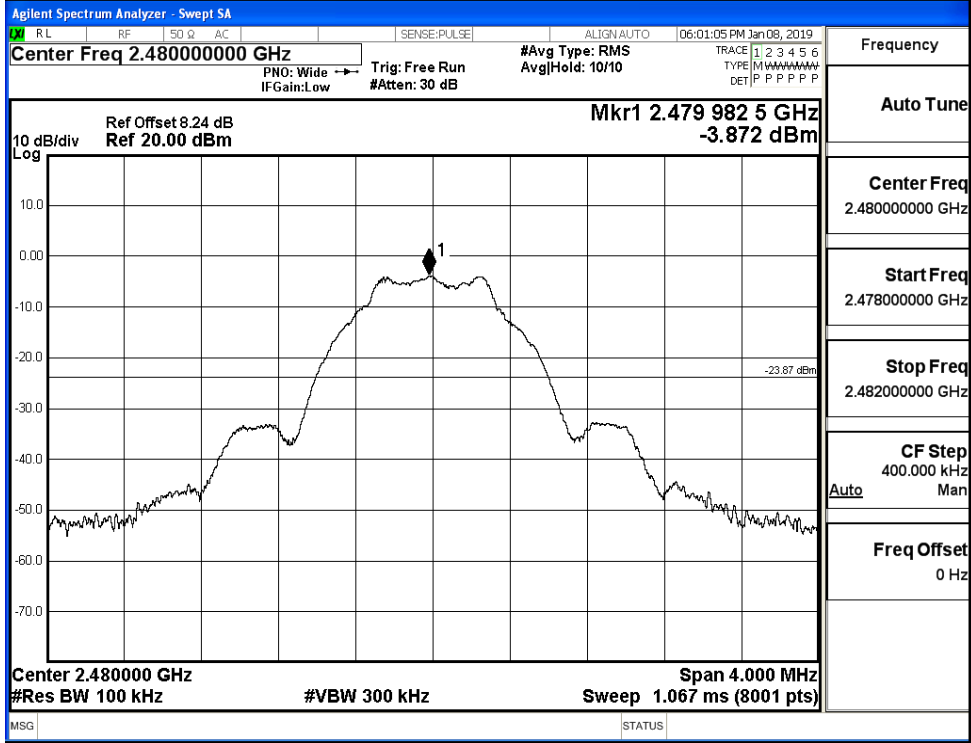


Puw/BT LE/MCH

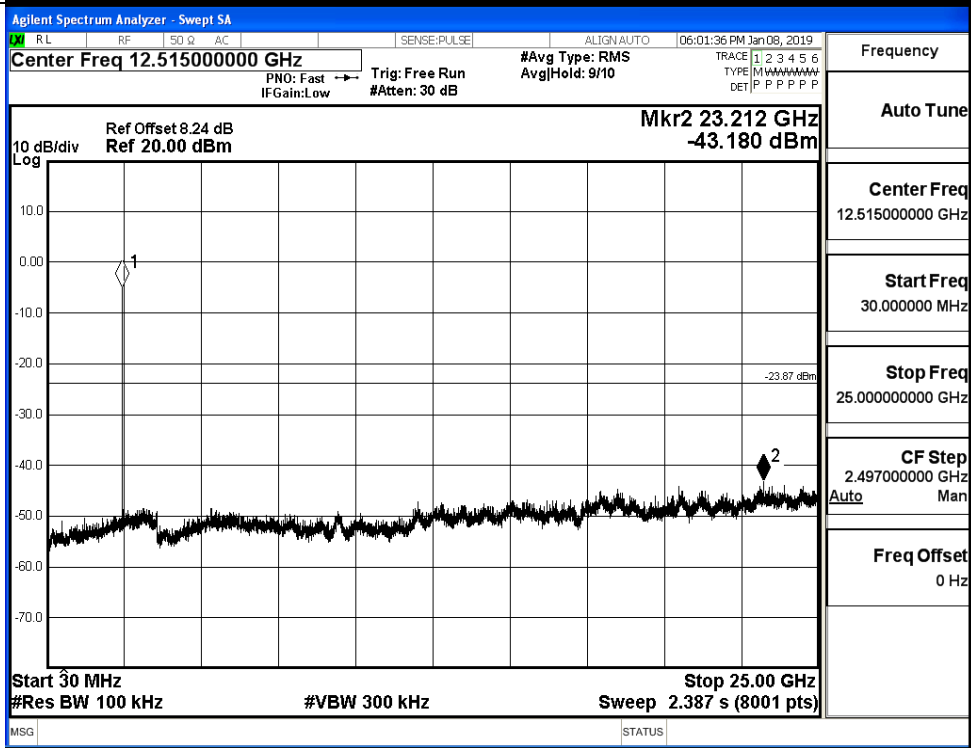


BT LE\_HCH\_Graphs

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	-3.813	-49.942	-23.81	PASS
BT LE	HCH	-3.794	-50.211	-23.79	PASS

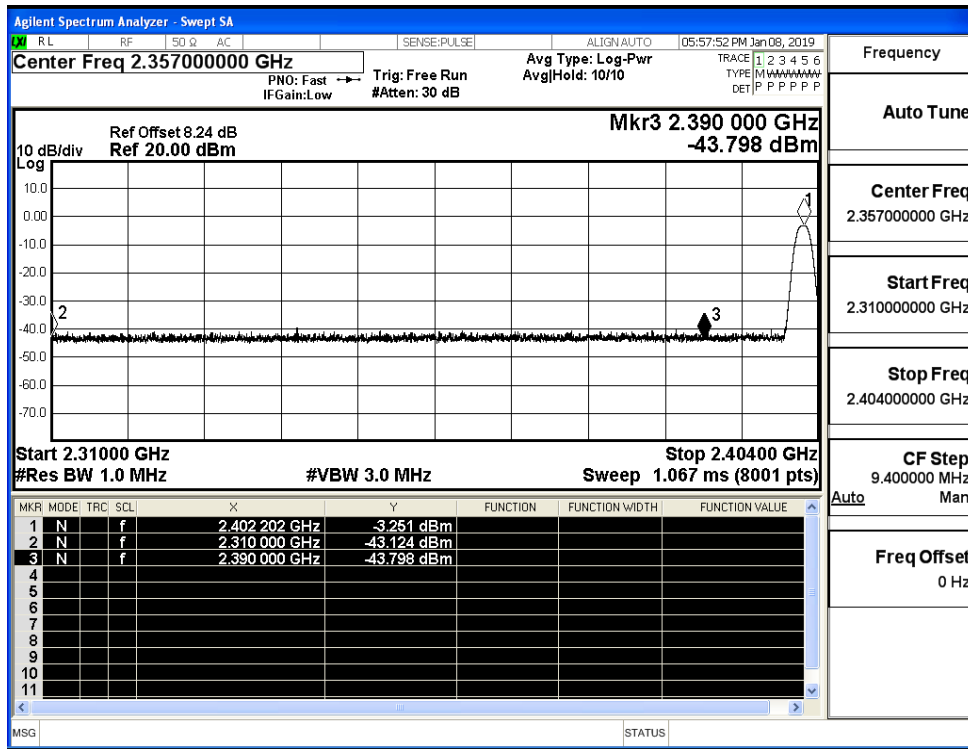
Test Graphs

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>f</td> <td></td> <td>2.401991 GHz</td> <td>-3.813 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>N</td> <td>f</td> <td></td> <td>2.400000 GHz</td> <td>-53.136 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>N</td> <td>f</td> <td></td> <td>2.390000 GHz</td> <td>-54.676 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>N</td> <td>f</td> <td></td> <td>2.386281 GHz</td> <td>-49.942 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		2.401991 GHz	-3.813 dBm				2	N	f		2.400000 GHz	-53.136 dBm				3	N	f		2.390000 GHz	-54.676 dBm				4	N	f		2.386281 GHz	-49.942 dBm				<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>
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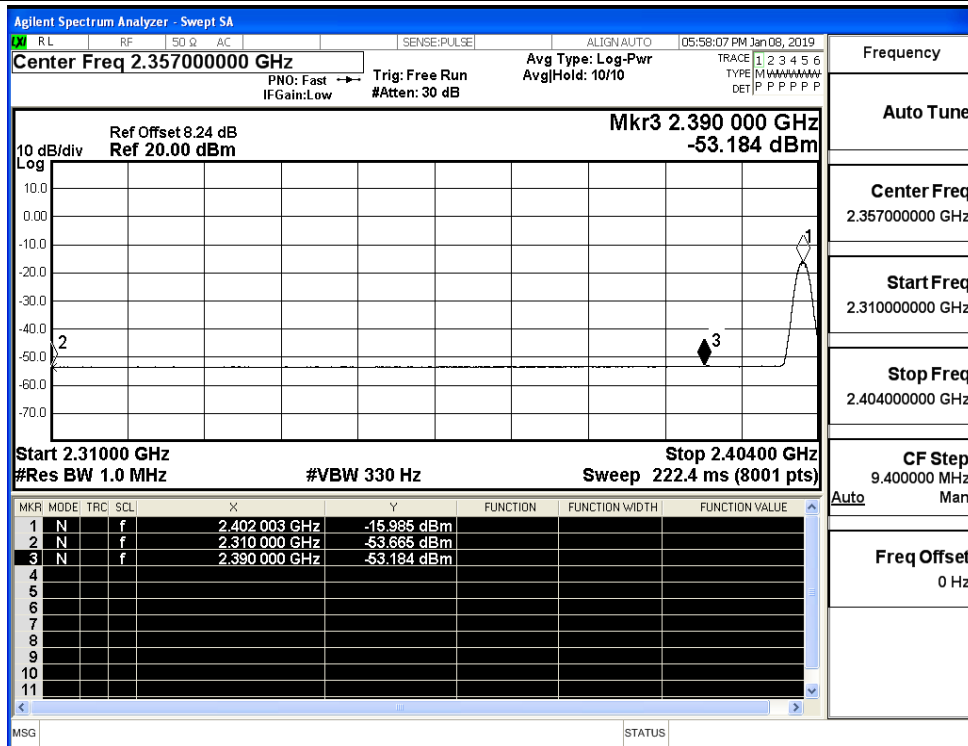
### B.7 Restrict-band band-edge measurements

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	-43.12	4.0	0	56.14	PEAK	74	PASS
		Ant1	2310.0	-53.67	4.0	0	45.59	AV	54	PASS
		Ant1	2390.0	-43.80	4.0	0	55.46	PEAK	74	PASS
		Ant1	2390.0	-53.18	4.0	0	46.08	AV	54	PASS
	2480	Ant1	2483.5	-42.34	4.0	0	56.92	PEAK	74	PASS
		Ant1	2483.5	-52.92	4.0	0	46.34	AV	54	PASS
		Ant1	2500.0	-43.11	4.0	0	56.15	PEAK	74	PASS
		Ant1	2500.0	-52.96	4.0	0	46.30	AV	54	PASS

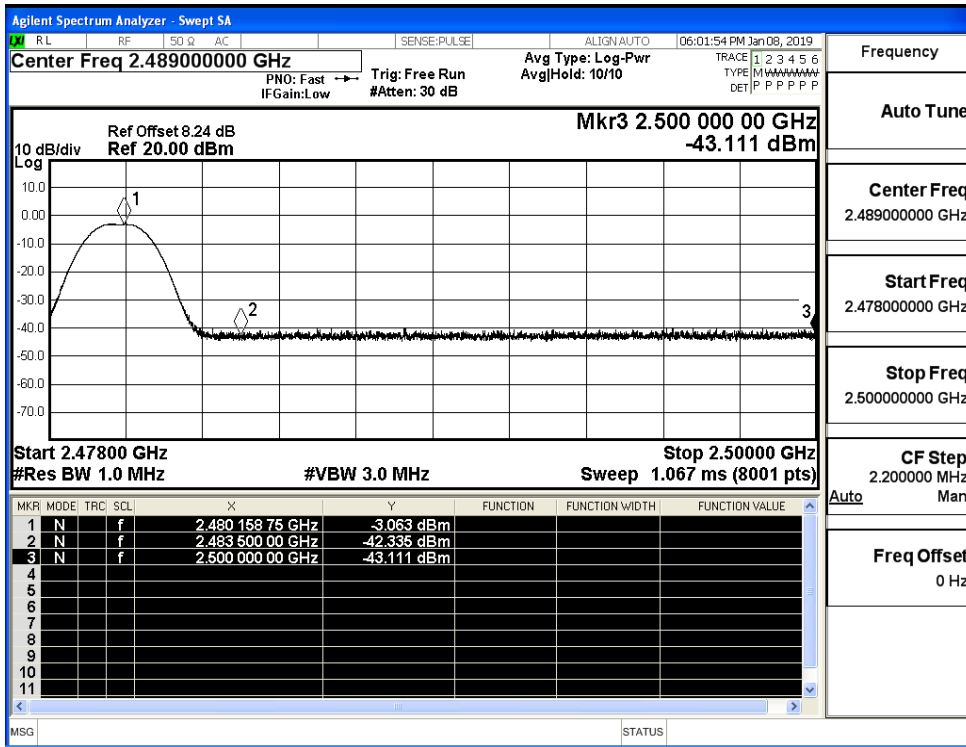
Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



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

