



# Appendix A

## RF Test Data for BT LE V5.1 (Conducted Measurement)

Product Name: Locator



Trade Mark:

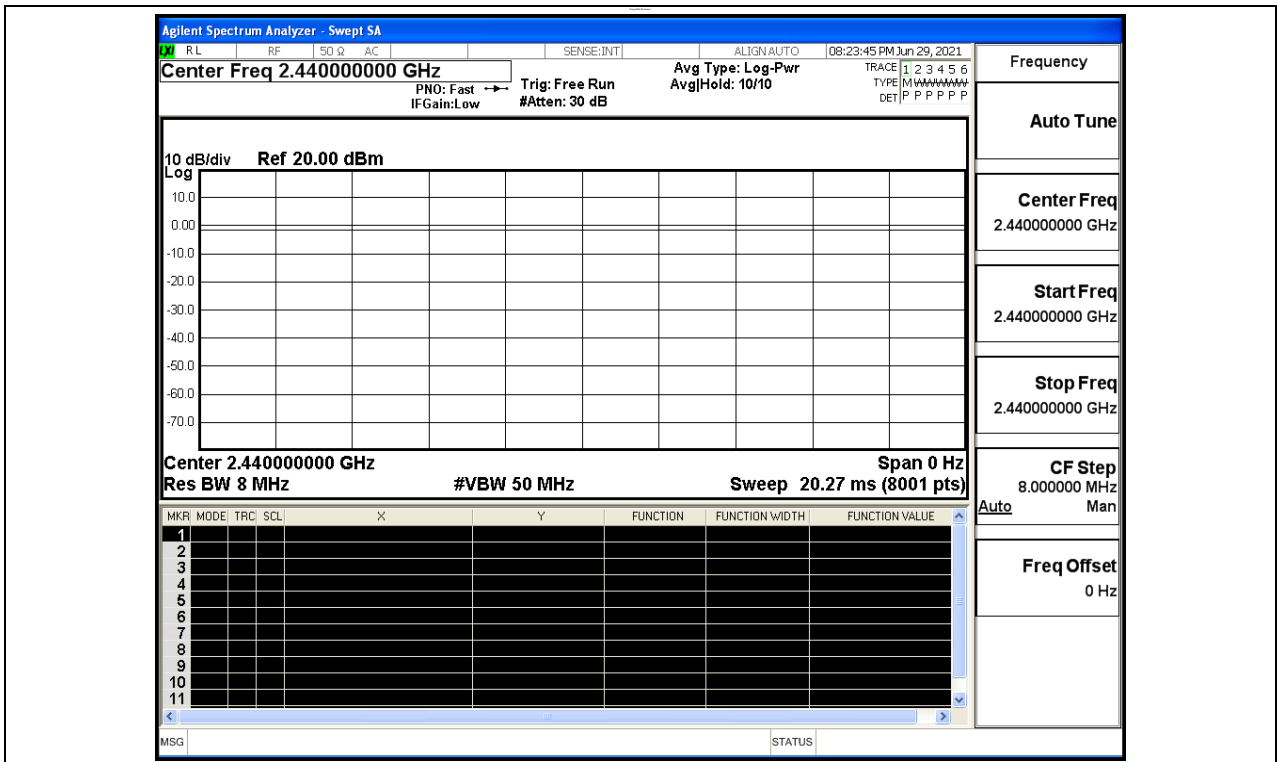
Test Model: XR-2

### Environmental Conditions

Temperature:	21.6° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan

### A.1 Duty Cycle

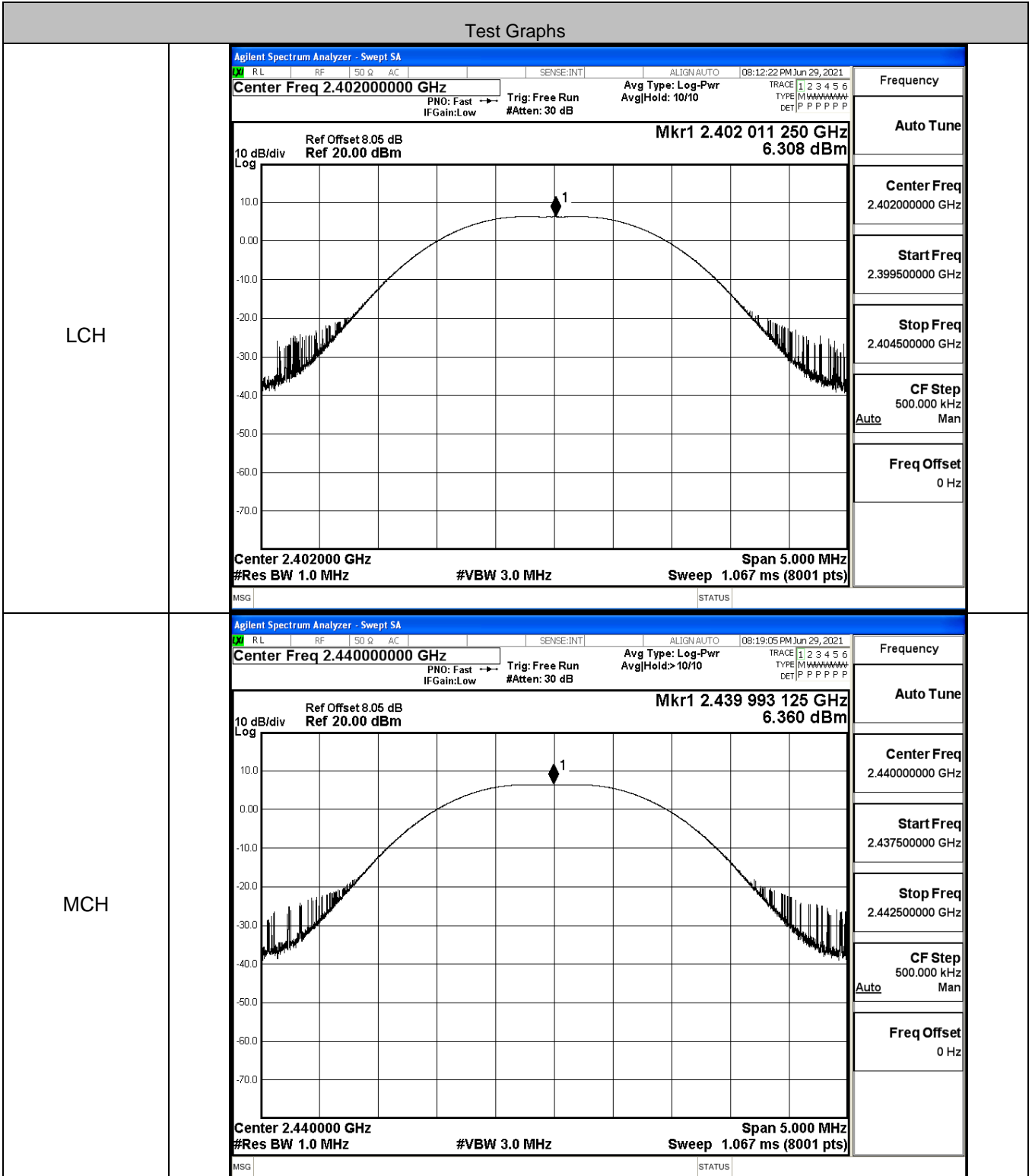
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS

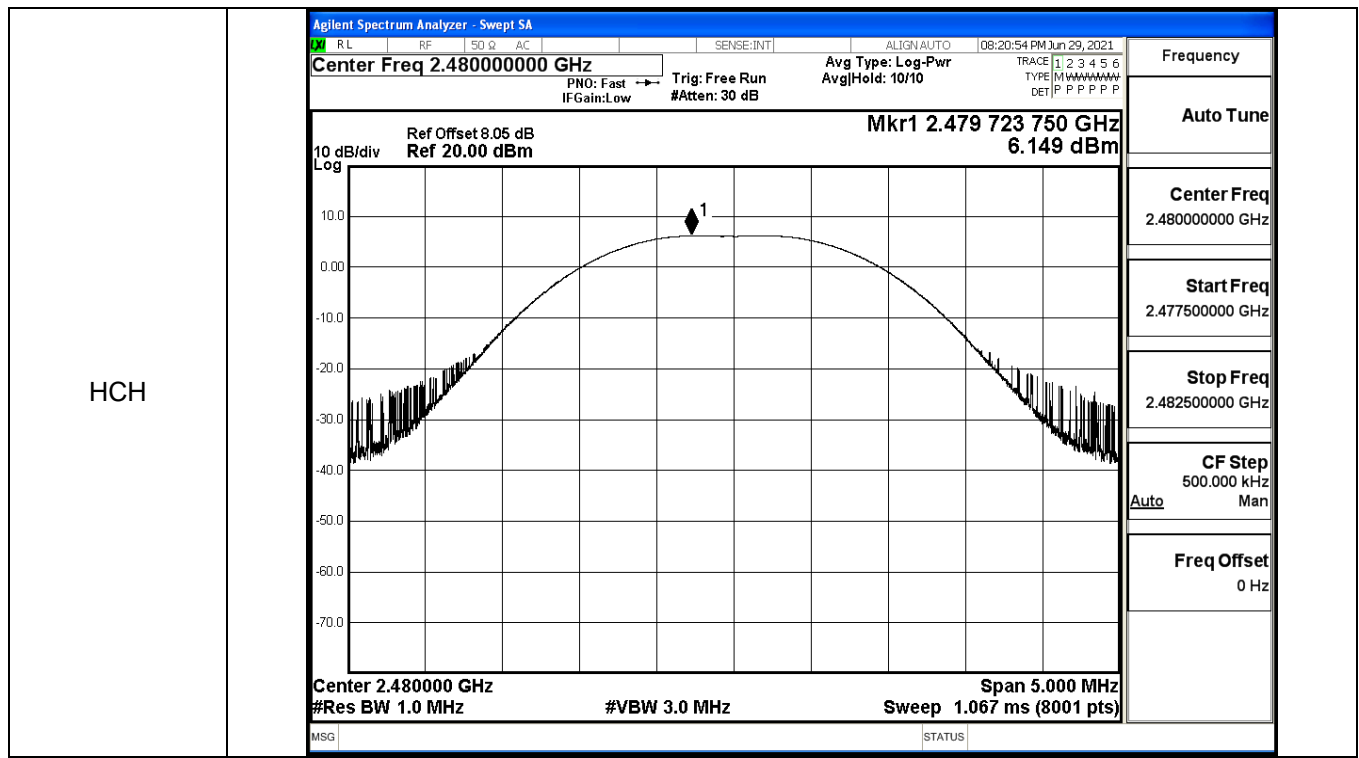




### A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	6.308	30	PASS
BT LE	MCH	6.36	30	PASS
BT LE	HCH	6.149	30	PASS

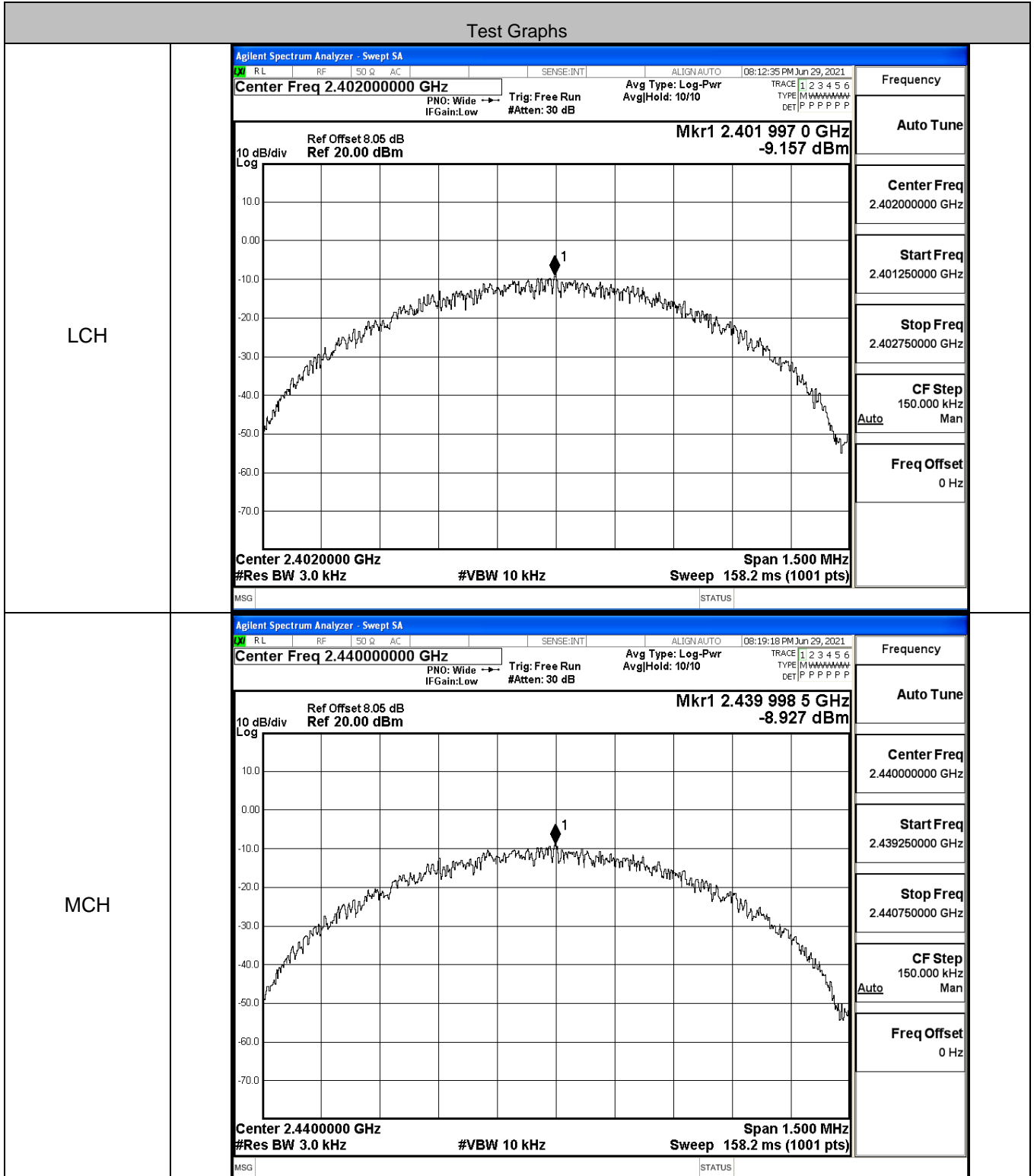


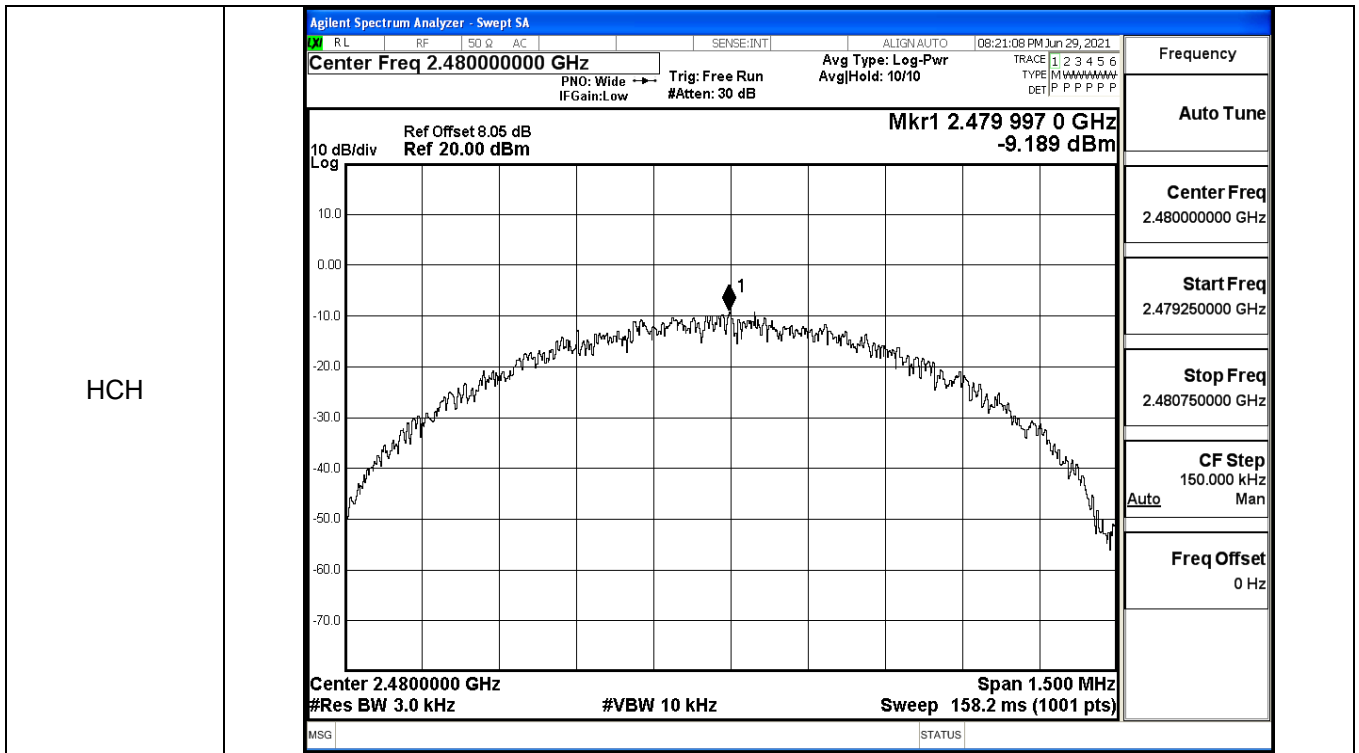




### A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-9.157	8	PASS
BT LE	MCH	-8.927	8	PASS
BT LE	HCH	-9.189	8	PASS



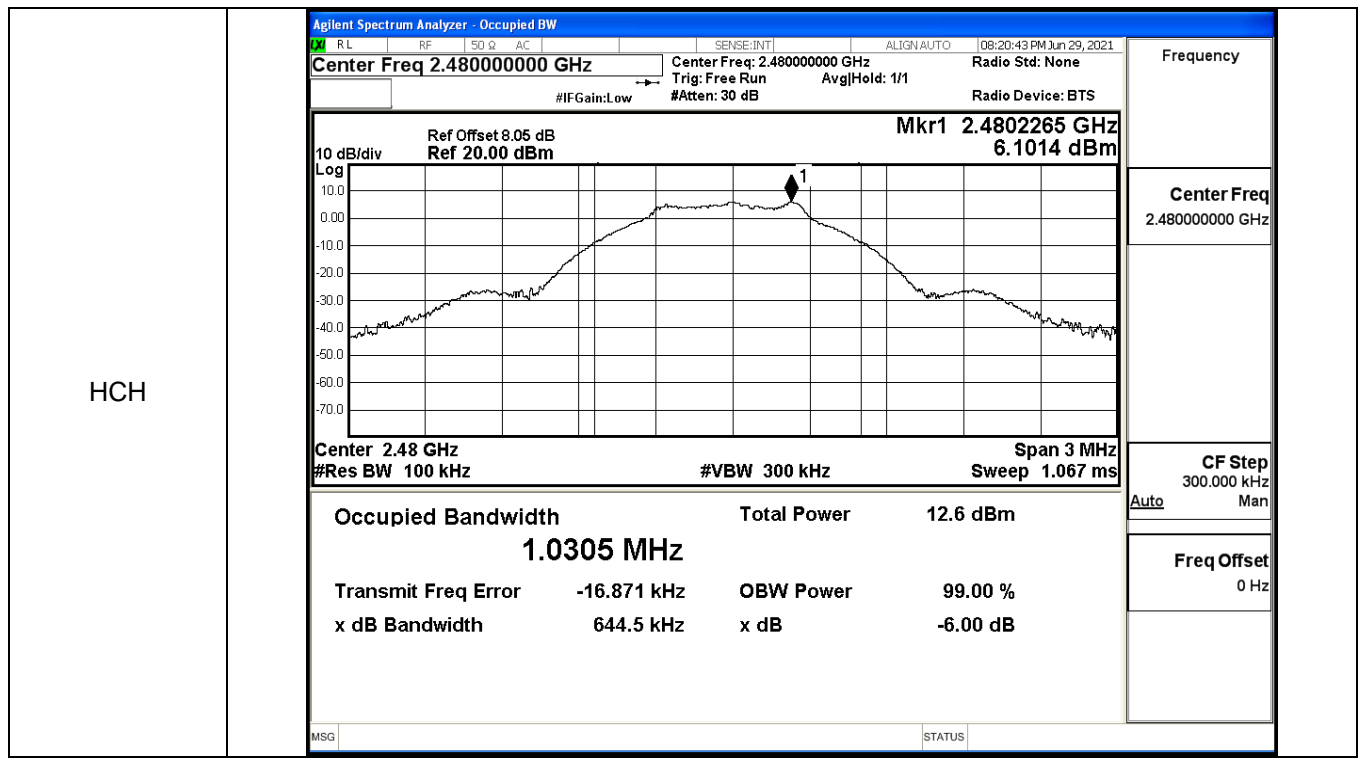




### A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6482	≥0.5	PASS
BT LE	MCH	0.6445	≥0.5	PASS
BT LE	HCH	0.6445	≥0.5	PASS

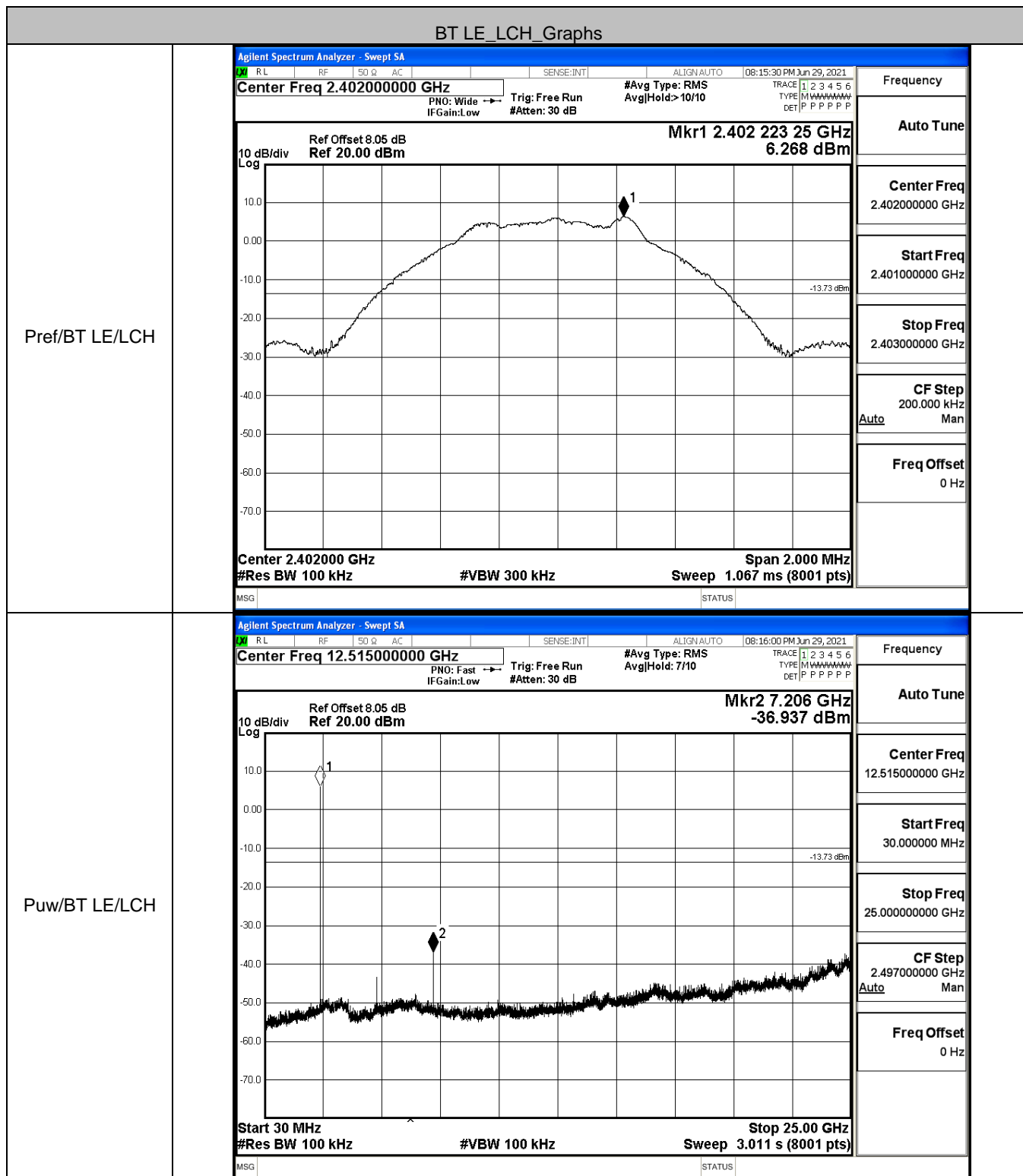
Test Graphs													
LCH	<div style="border: 1px solid black; padding: 5px;"> <p style="font-size: small; margin: 0;">Agilent Spectrum Analyzer - Occupied BW</p> <p style="font-size: x-small; margin: 0;">RL RF 50 Ω AC SENSE:INT ALIGN:AUTO 08:12:11 PM Jun 29, 2021</p> <p style="font-size: small; margin: 0;">Center Freq 2.40200000 GHz Center Freq: 2.40200000 GHz Radio Std: None</p> <p style="font-size: x-small; margin: 0;">#IFGain:Low #Atten: 30 dB Trig: Free Run AvgHold: &gt;1/1</p> <p style="font-size: x-small; margin: 0;">Radio Device: BTS</p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> <p style="font-size: x-small; margin: 0;">Ref Offset 8.05 dB Mkr1 2.4022194 GHz</p> <p style="font-size: x-small; margin: 0;">Ref 20.00 dBm 6.2077 dBm</p> </div> <p style="font-size: x-small; margin: 0;">Center 2.402 GHz Span 3 MHz</p> <p style="font-size: x-small; margin: 0;">#Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms</p> <table style="width: 100%; font-size: x-small; border-collapse: collapse;"> <tr> <td style="width: 33%;">Occupied Bandwidth</td> <td style="width: 33%;">Total Power</td> <td style="width: 33%;">12.8 dBm</td> </tr> <tr> <td style="text-align: center;"><b>1.0224 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	12.8 dBm	<b>1.0224 MHz</b>			Transmit Freq Error	OBW Power	99.00 %	x dB Bandwidth	x dB	-6.00 dB
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### A.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	6.268	-36.937	-13.732	PASS
BT LE	MCH	6.303	-38.282	-13.697	PASS
BT LE	HCH	6.054	-38.500	-13.946	PASS

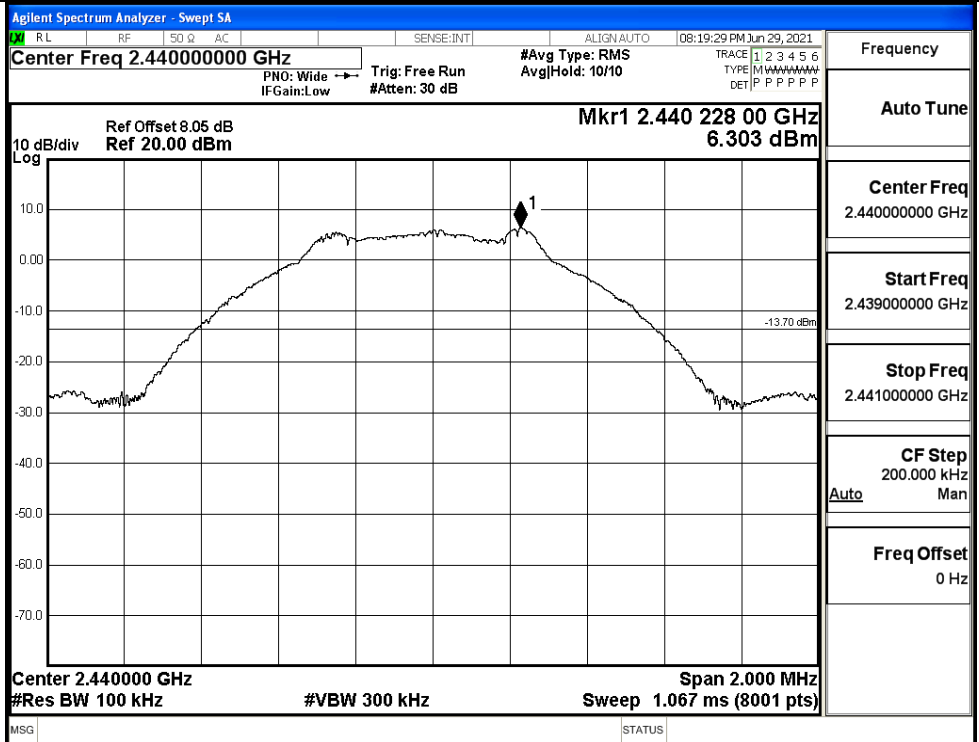




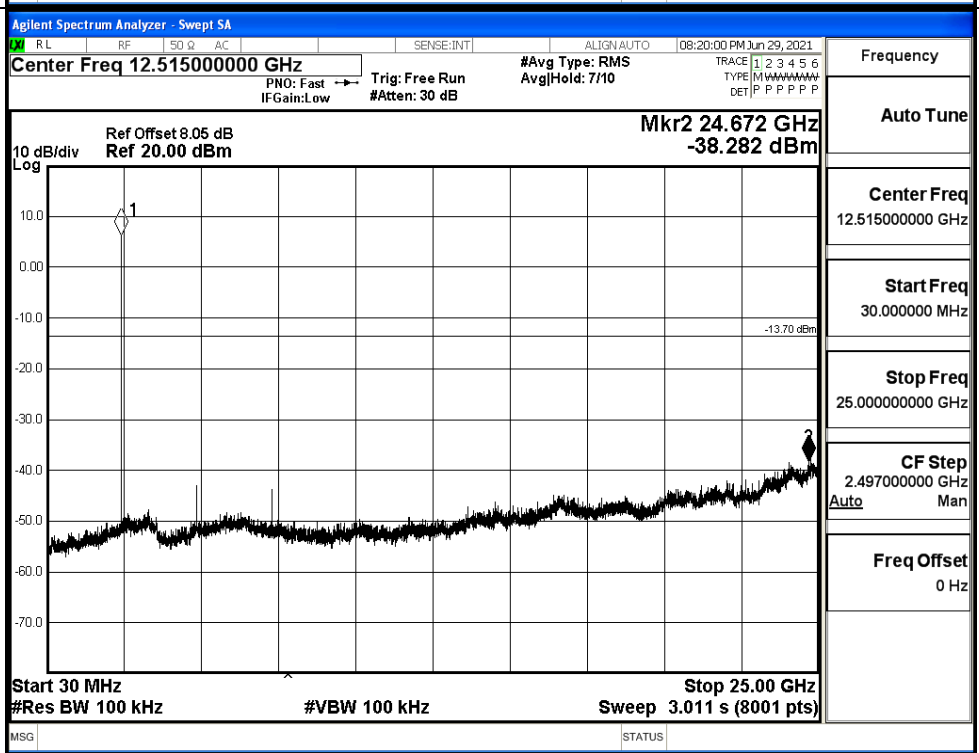


BT LE\_MCH\_Graphs

Pref/BT LE/MCH



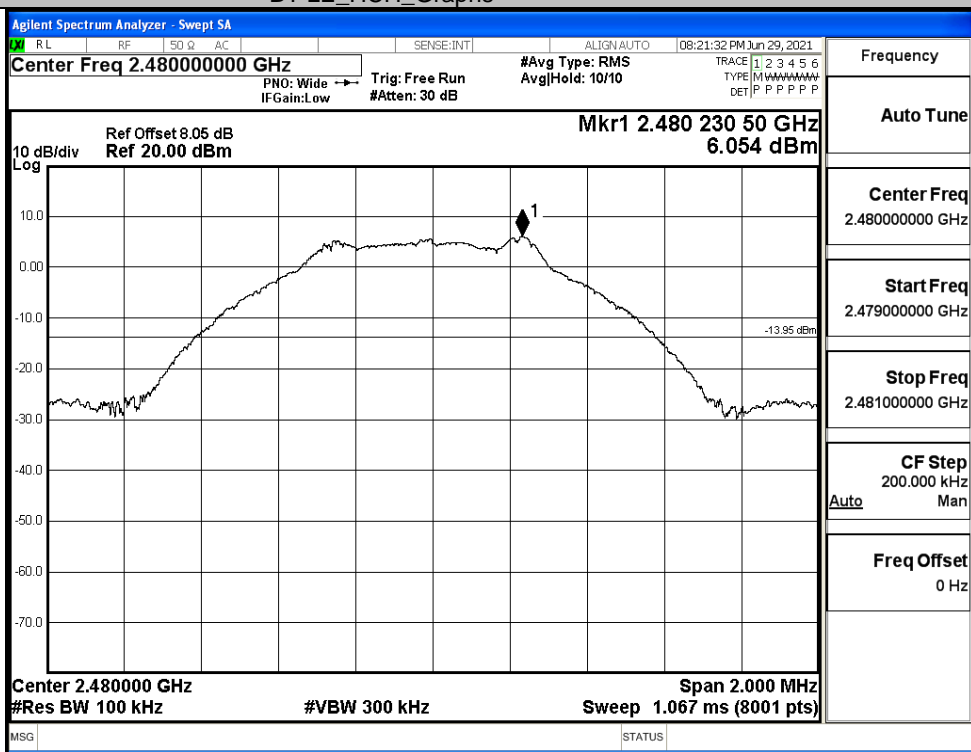
Puw/BT LE/MCH



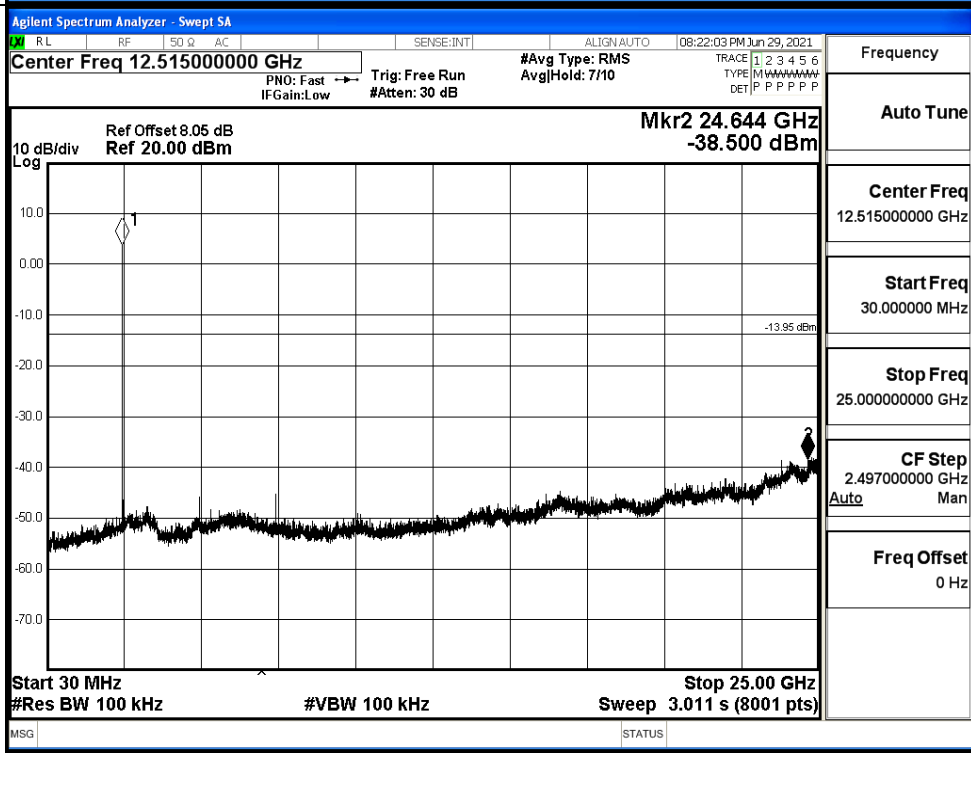


BT LE\_HCH\_Graphs

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	5.667	-49.311	-14.33	PASS
BT LE	HCH	6.125	-48.561	-13.88	PASS

Test Graphs																																																																																																													
LCH	<div style="border: 1px solid black; padding: 5px;"> <p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.357000000 GHz</p> <p>Mkr4 2.388 619 GHz -49.311 dBm</p> <p>Start 2.31000 GHz Stop 2.40400 GHz</p> <p>#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></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td><td></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> </div>	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1									2									3									4									5									6									7									8									9									10									11								
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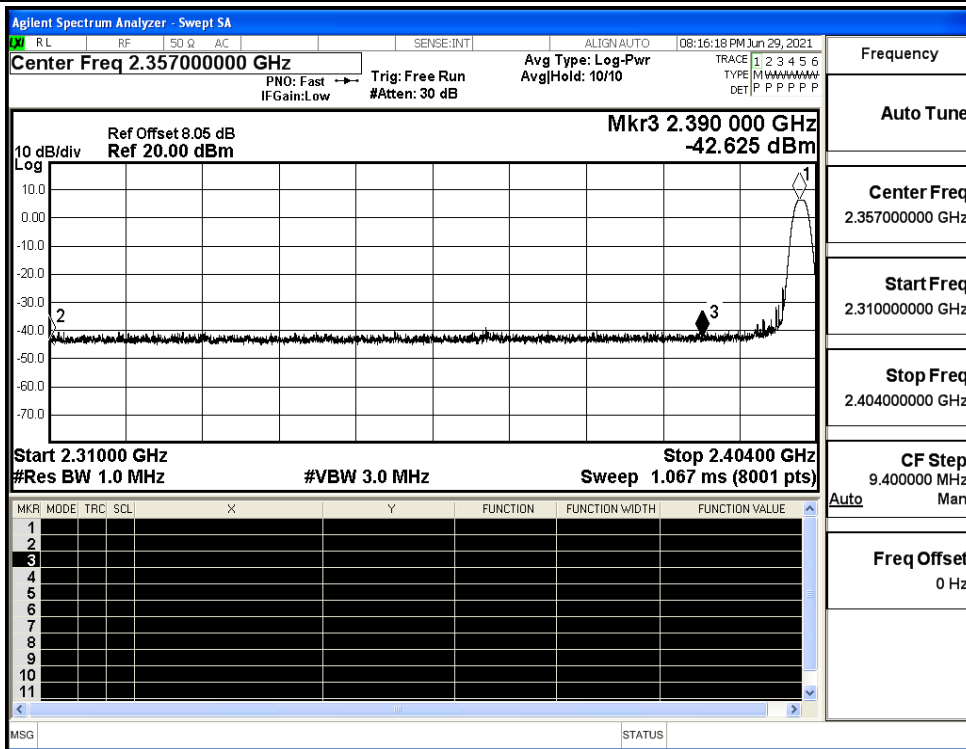


## A.7 Restrict-band band-edge measurements

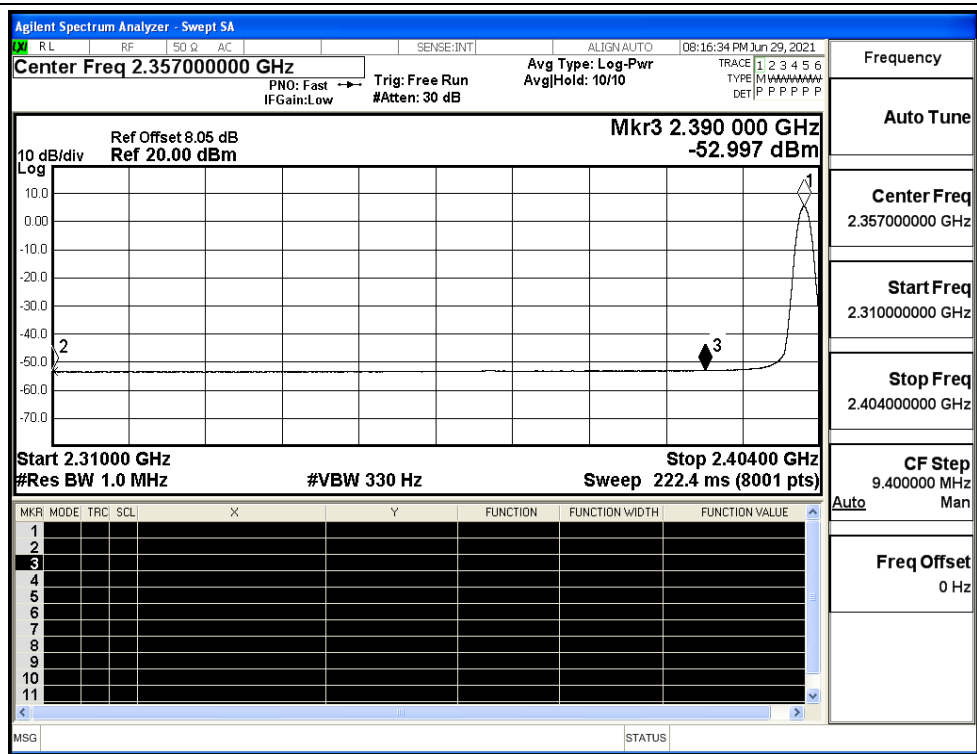
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
BT LE	2402	Ant1	2310.0	-43.85	6.0	0	57.38	PEAK	74	PASS
		Ant1	2310.0	-53.35	6.0	0	47.88	AV	54	PASS
		Ant1	2390.0	-42.63	6.0	0	58.60	PEAK	74	PASS
		Ant1	2390.0	-53.00	6.0	0	48.23	AV	54	PASS
	2480	Ant1	2483.5	-40.34	6.0	0	60.89	PEAK	74	PASS
		Ant1	2483.5	-49.96	6.0	0	51.27	AV	54	PASS
		Ant1	2500.0	-41.79	6.0	0	59.44	PEAK	74	PASS
		Ant1	2500.0	-52.43	6.0	0	48.80	AV	54	PASS



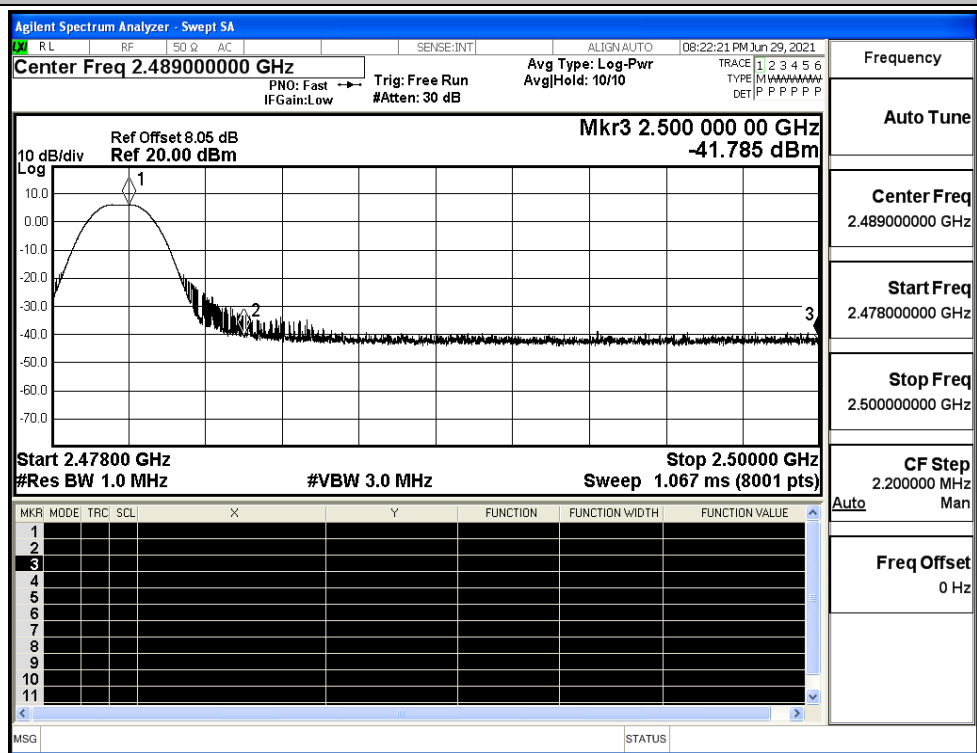
Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



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

