

Appendix A

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

Product Name: Motion Tracking Phone Holder

Trade Mark: N/A

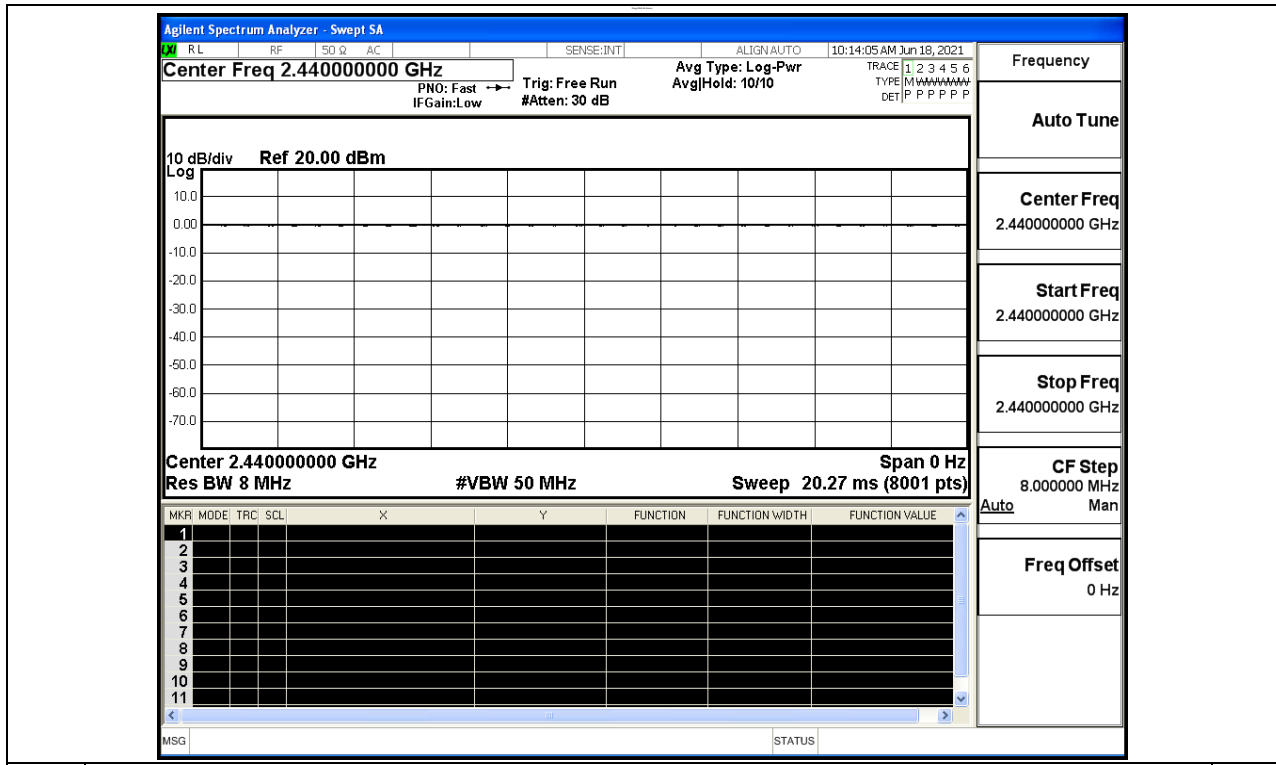
Test Model: 53826-DI

Environmental Conditions

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

A.1 Duty Cycle

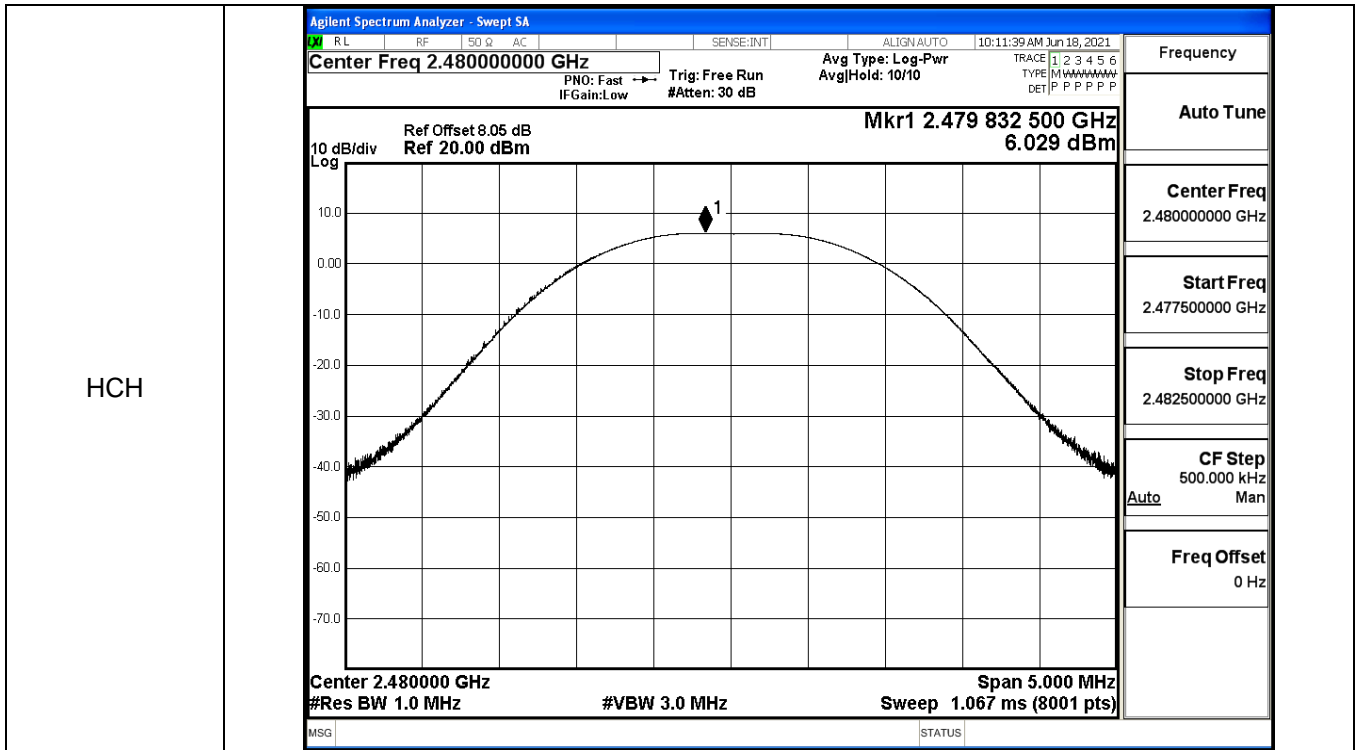
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS



A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	6.327	30	PASS
BT LE	MCH	7.56	30	PASS
BT LE	HCH	6.029	30	PASS

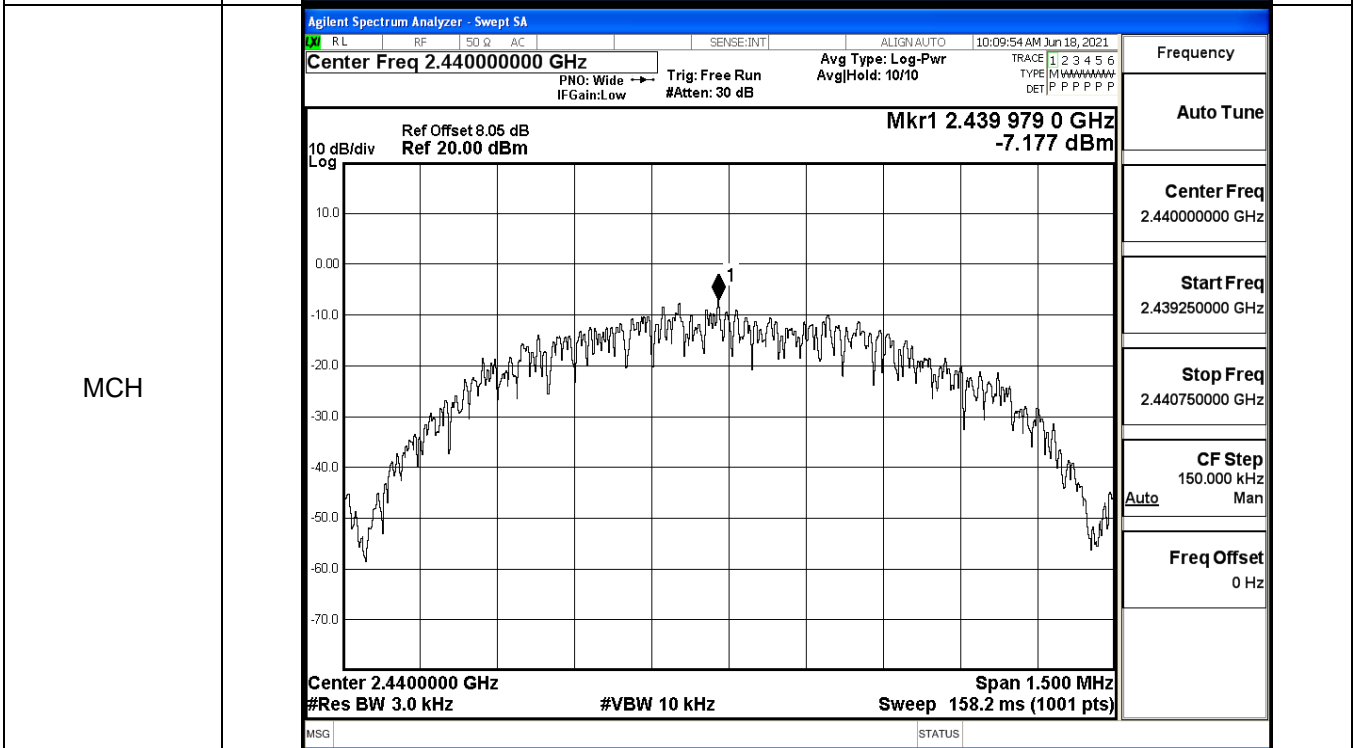
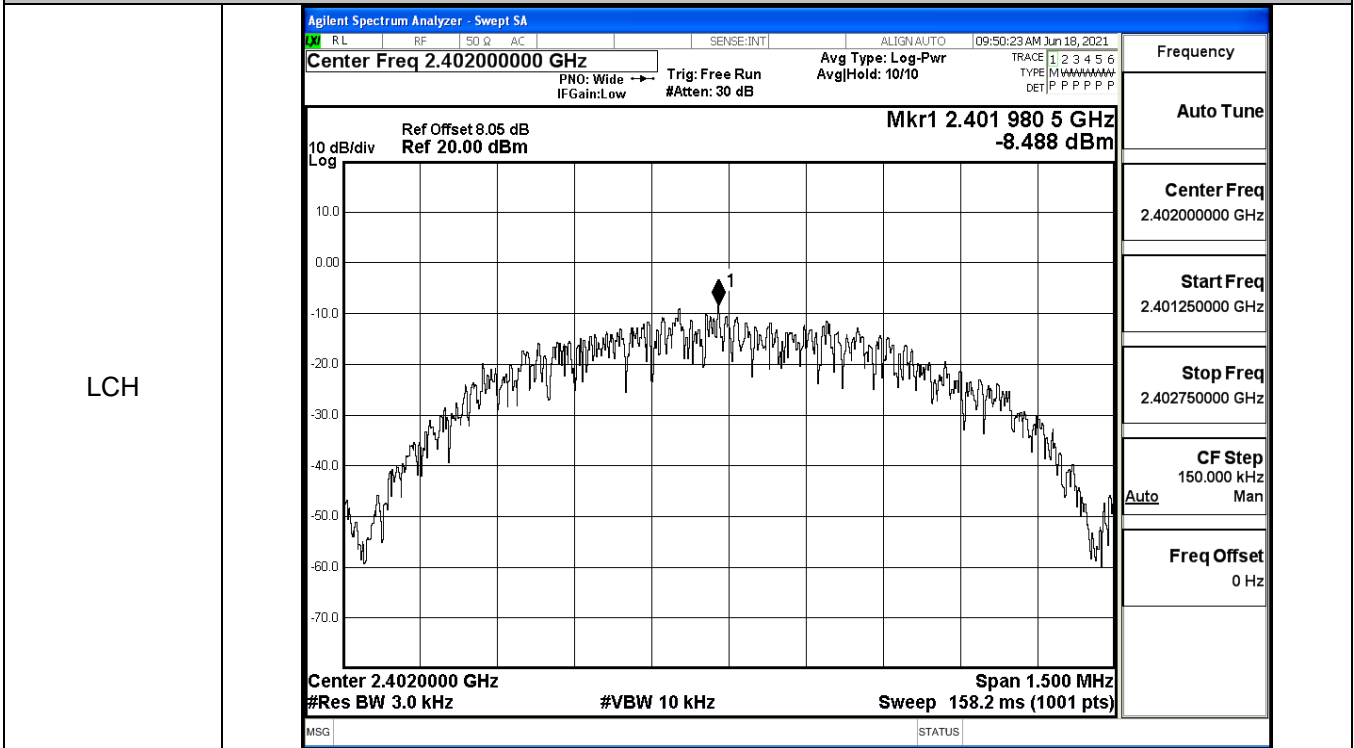
Test Graphs	
LCH	<div data-bbox="418 607 1390 1339"> <p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.40200000 GHz</p> <p>Mkr1 2.402 147 500 GHz 6.327 dBm</p> <p>Center 2.402000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Span 5.000 MHz Sweep 1.067 ms (8001 pts)</p> </div>
MCH	<div data-bbox="418 1352 1390 2085"> <p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.44000000 GHz</p> <p>Mkr1 2.440 146 250 GHz 7.560 dBm</p> <p>Center 2.440000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Span 5.000 MHz Sweep 1.067 ms (8001 pts)</p> </div>



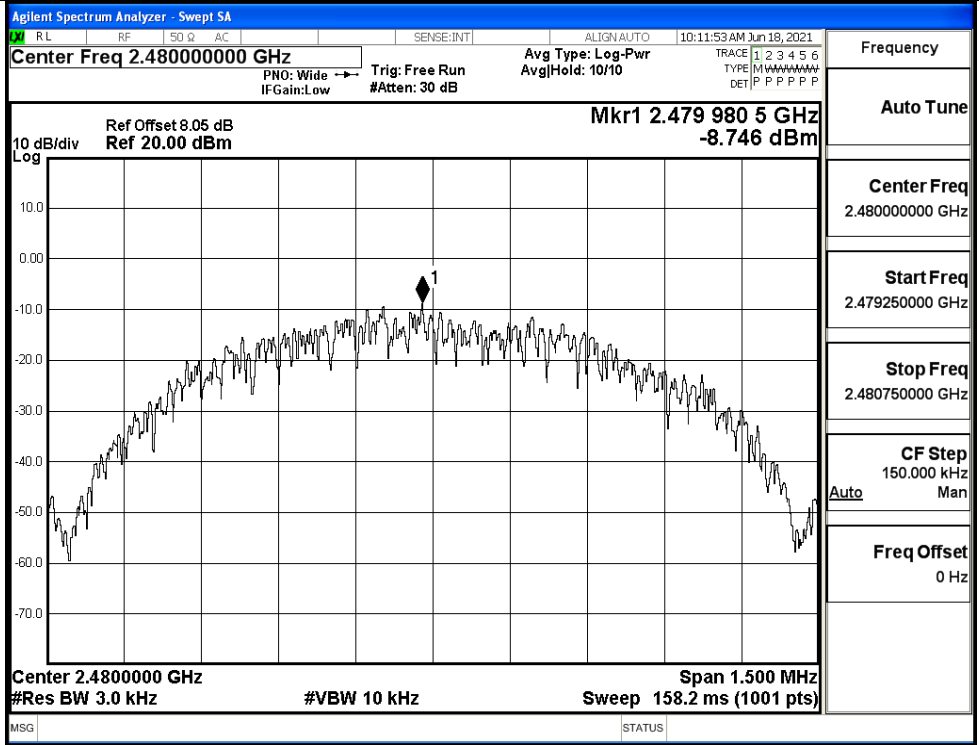
A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-8.488	8	PASS
BT LE	MCH	-7.177	8	PASS
BT LE	HCH	-8.746	8	PASS

Test Graphs

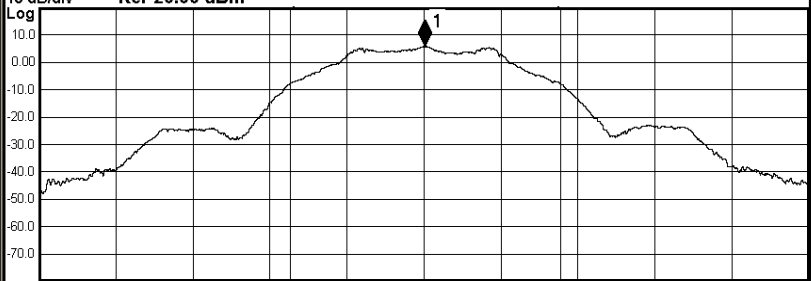
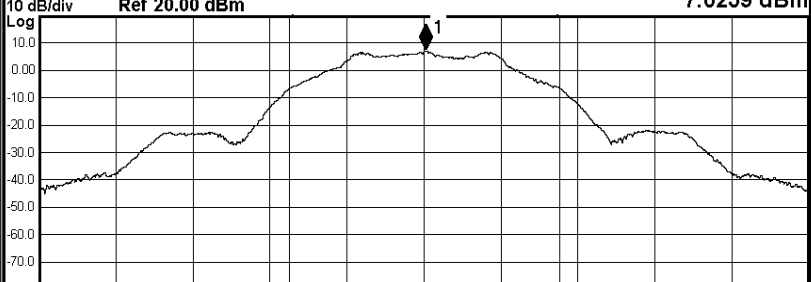


HCH



A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6632	≥0.5	PASS
BT LE	MCH	0.6707	≥0.5	PASS
BT LE	HCH	0.6690	≥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 09:49:59 AM Jun 18, 2021</p> <p style="font-size: small; margin: 0;">Center Freq 2.402000000 GHz Center Freq: 2.402000000 GHz Radio Std: None</p> <p style="font-size: x-small; margin: 0;">Trig: Free Run AvgHold: 1/1</p> <p style="font-size: x-small; margin: 0;">#IFGain:Low #Atten: 30 dB Radio Device: BTS</p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> <p style="font-size: x-small; margin: 0;">10 dB/div Ref Offset 8.05 dB Mkr1 2.4020019 GHz</p> <p style="font-size: x-small; margin: 0;">Log Ref 20.00 dBm 5.7790 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%;">12.5 dBm</td> </tr> <tr> <td style="text-align: center;">1.0496 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>7.088 kHz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>663.2 kHz</td> <td>x dB</td> </tr> <tr> <td></td> <td></td> <td>99.00 %</td> </tr> <tr> <td></td> <td></td> <td>-6.00 dB</td> </tr> </table> <p style="font-size: x-small; margin: 0;">MSG STATUS</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p style="font-size: x-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 10:09:29 AM Jun 18, 2021</p> <p style="font-size: small; margin: 0;">Center Freq 2.440000000 GHz Center Freq: 2.440000000 GHz Radio Std: None</p> <p style="font-size: x-small; margin: 0;">Trig: Free Run AvgHold: 1/1</p> <p style="font-size: x-small; margin: 0;">#IFGain:Low #Atten: 30 dB Radio Device: BTS</p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> <p style="font-size: x-small; margin: 0;">10 dB/div Ref Offset 8.05 dB Mkr1 2.4400071 GHz</p> <p style="font-size: x-small; margin: 0;">Log Ref 20.00 dBm 7.0259 dBm</p>  </div> <p style="font-size: x-small; margin: 0;">Center 2.44 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%;">13.8 dBm</td> </tr> <tr> <td style="text-align: center;">1.0492 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>5.077 kHz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>670.7 kHz</td> <td>x dB</td> </tr> <tr> <td></td> <td></td> <td>99.00 %</td> </tr> <tr> <td></td> <td></td> <td>-6.00 dB</td> </tr> </table> <p style="font-size: x-small; margin: 0;">MSG STATUS</p> </div>	Occupied Bandwidth	Total Power	12.5 dBm	1.0496 MHz			Transmit Freq Error	7.088 kHz	OBW Power	x dB Bandwidth	663.2 kHz	x dB			99.00 %			-6.00 dB	Occupied Bandwidth	Total Power	13.8 dBm	1.0492 MHz			Transmit Freq Error	5.077 kHz	OBW Power	x dB Bandwidth	670.7 kHz	x dB			99.00 %			-6.00 dB
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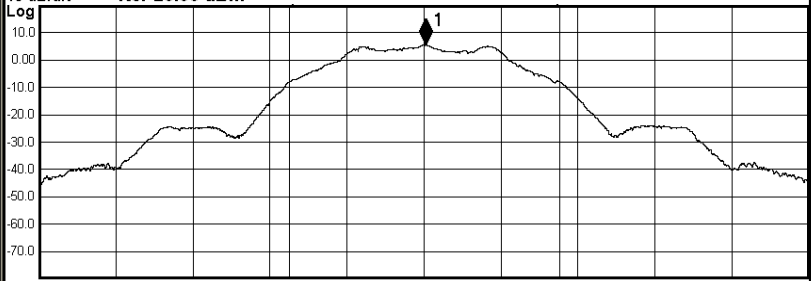
HCH

Agilent Spectrum Analyzer - Occupied BW

RL	RF	50 Ω	AC	SENSE:INT	ALIGN:AUTO	10:11:28 AM Jun 18, 2021
Center Freq 2.480000000 GHz				Center Freq: 2.480000000 GHz	Radio Std: None	Frequency
				Trig: Free Run	AvgHold>1/1	
				#IFGain:Low	#Atten: 30 dB	Radio Device: BTS

Mkr1 2.4800068 GHz
5.4834 dBm

10 dB/div Ref Offset 8.05 dB
Log Ref 20.00 dBm



Center 2.48 GHz Span 3 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms

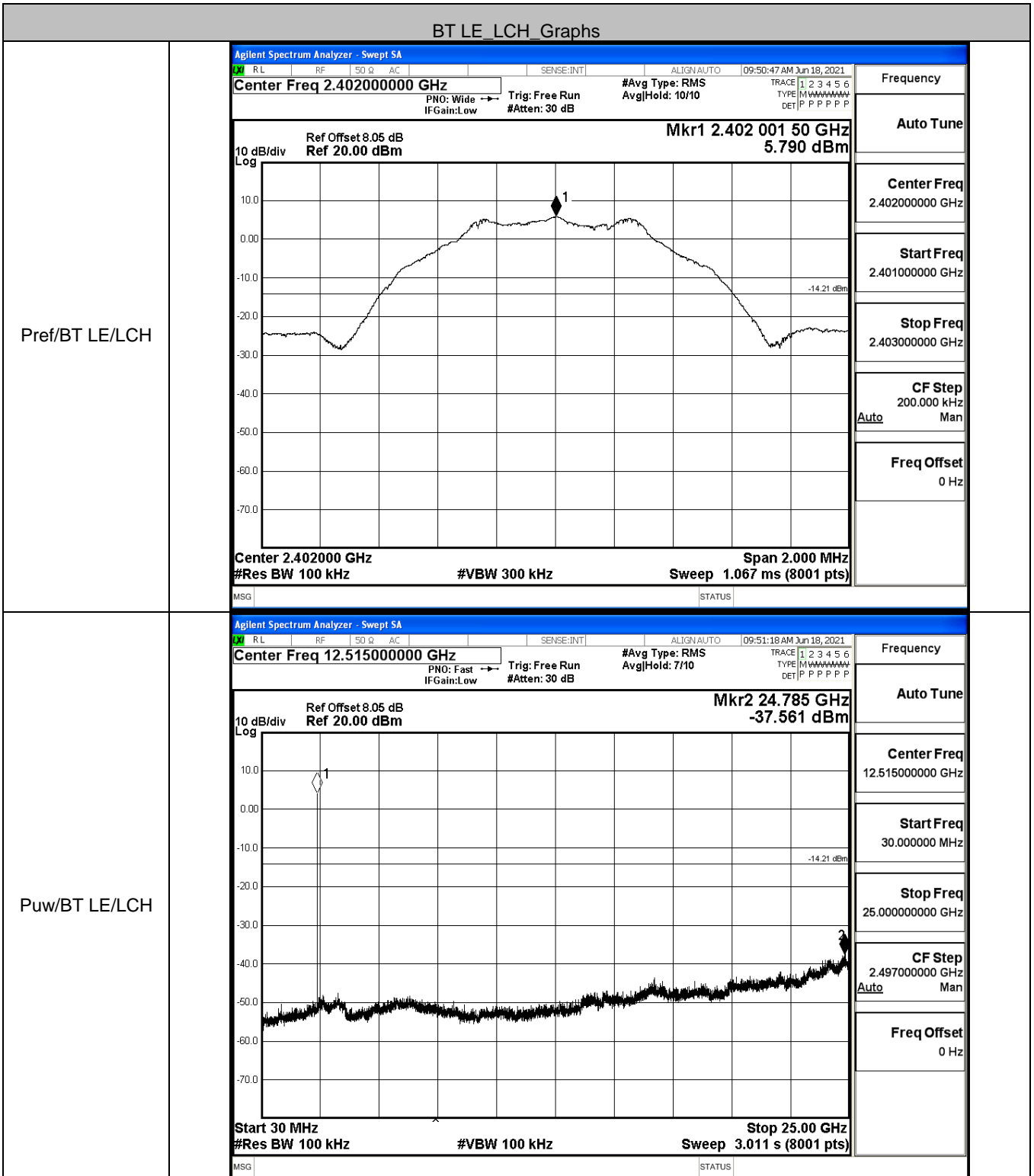
Occupied Bandwidth	Total Power	12.3 dBm
1.0490 MHz		
Transmit Freq Error	5.123 kHz	OBW Power
x dB Bandwidth	669.0 kHz	x dB
		99.00 %
		-6.00 dB

Center Freq	2.480000000 GHz
CF Step	300.000 kHz
	Auto Man
Freq Offset	0 Hz

MSG STATUS

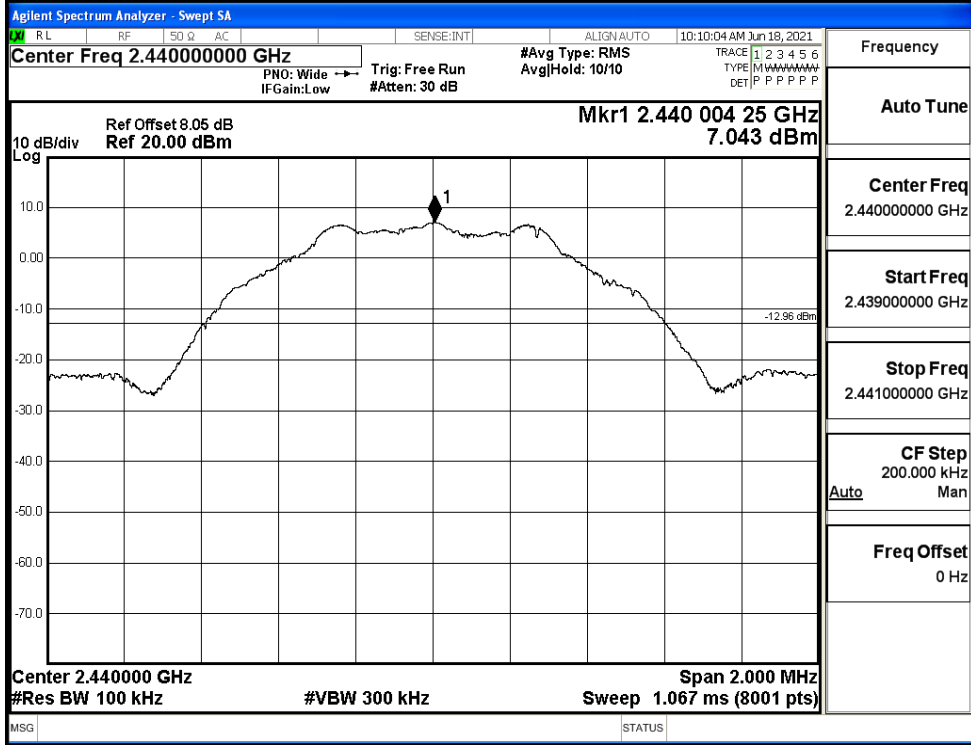
A.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	5.79	-37.561	-14.210	PASS
BT LE	MCH	7.043	-37.567	-12.957	PASS
BT LE	HCH	5.509	-37.846	-14.491	PASS

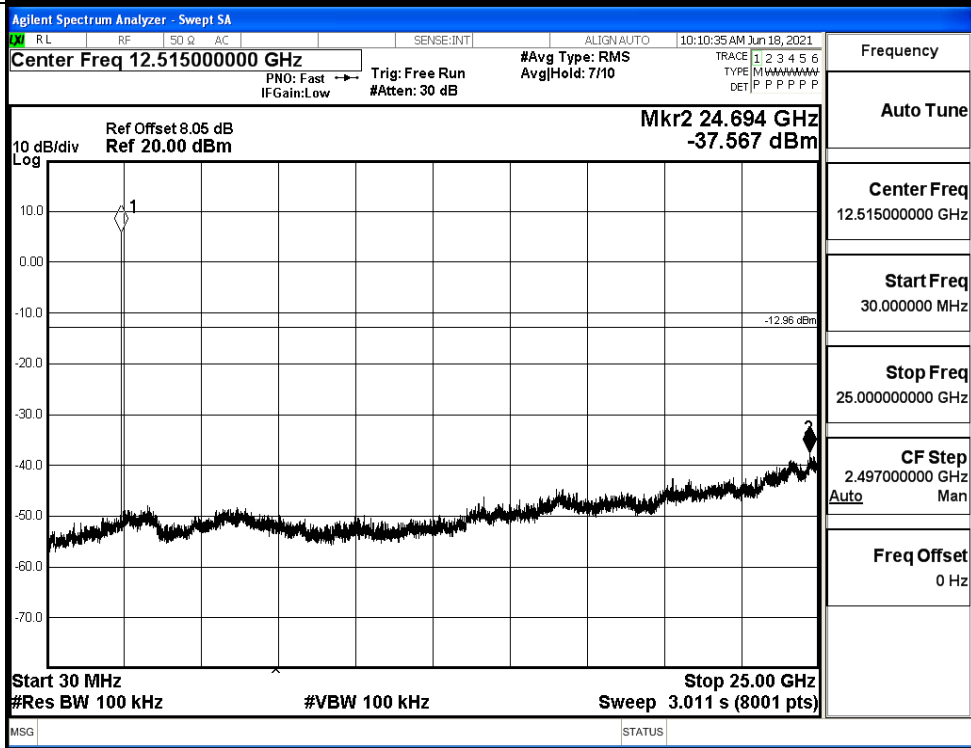


BT LE_MCH_Graphs

Pref/BT LE/MCH

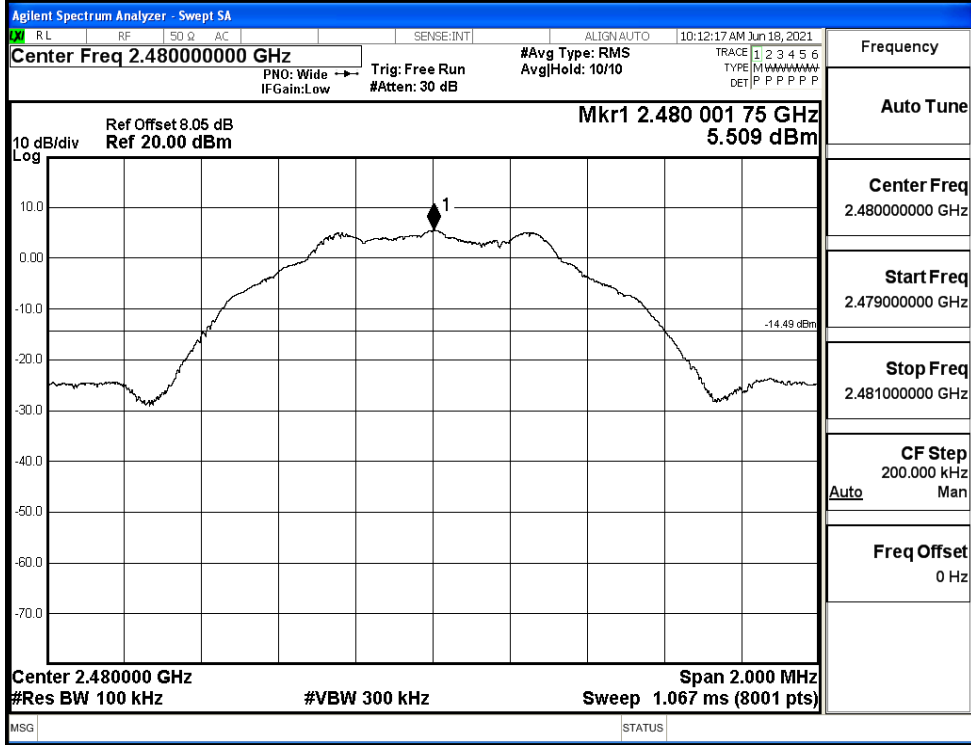


Puw/BT LE/MCH

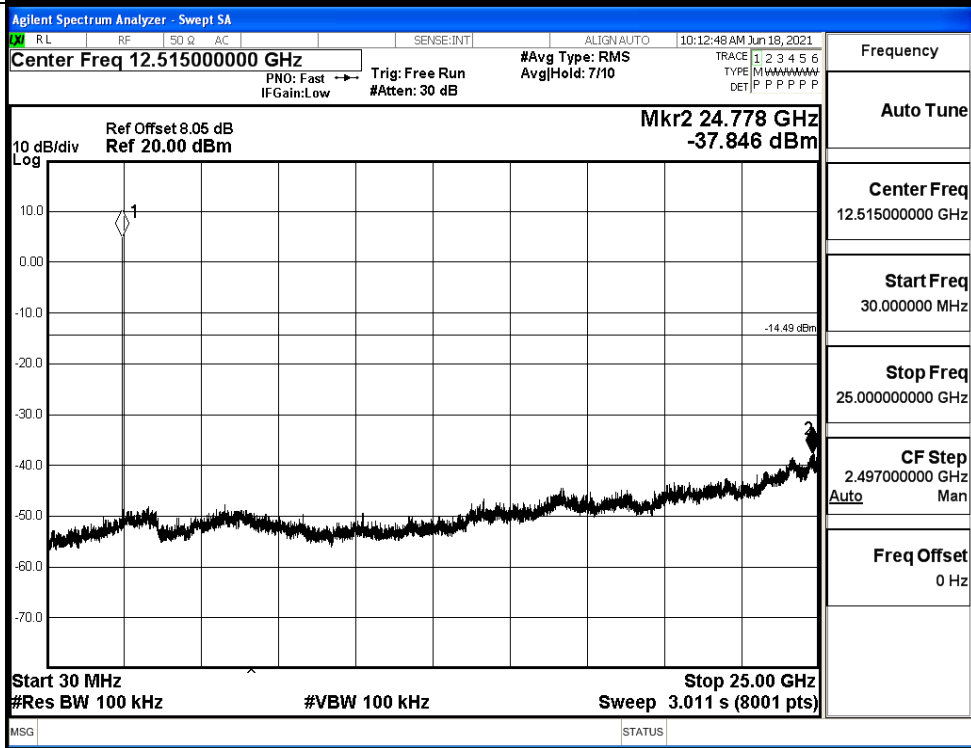


BT LE_HCH_Graphs

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	5.885	-49.326	-14.12	PASS
BT LE	HCH	5.621	-49.841	-14.38	PASS

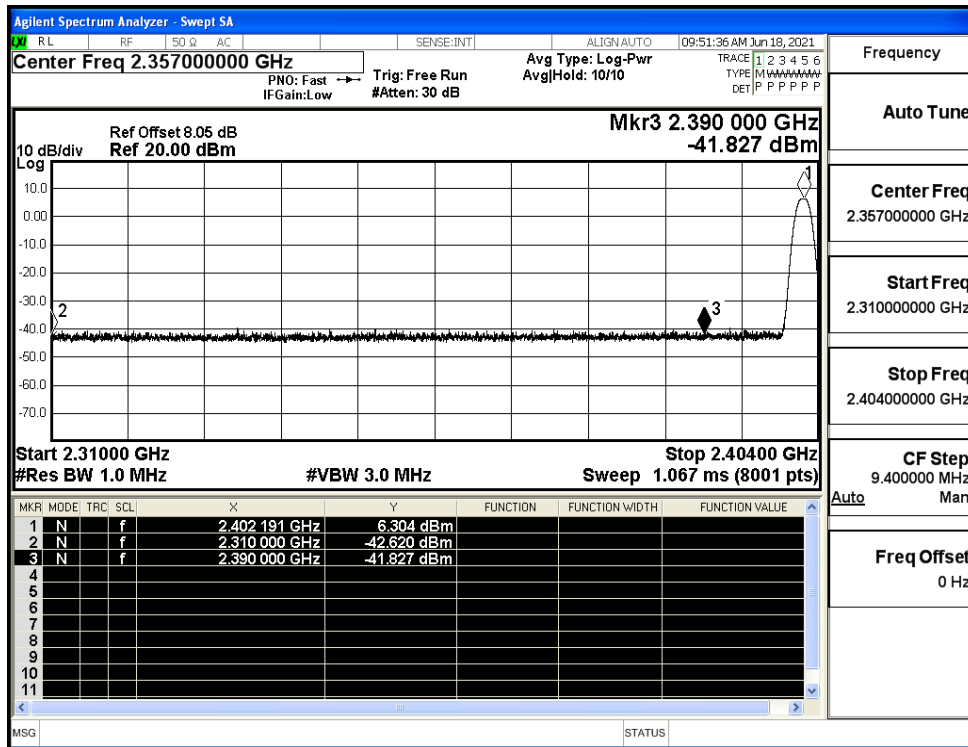
Test Graphs

LCH	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.35700000 GHz Max Spurious Level -49.326 dBm Mkr4 2.355 014 GHz Start 2.31000 GHz, Stop 2.40400 GHz</p>	<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>
	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.48900000 GHz Max Spurious Level -49.841 dBm Mkr4 2.484 300 25 GHz Start 2.47800 GHz, Stop 2.50000 GHz</p>	<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>

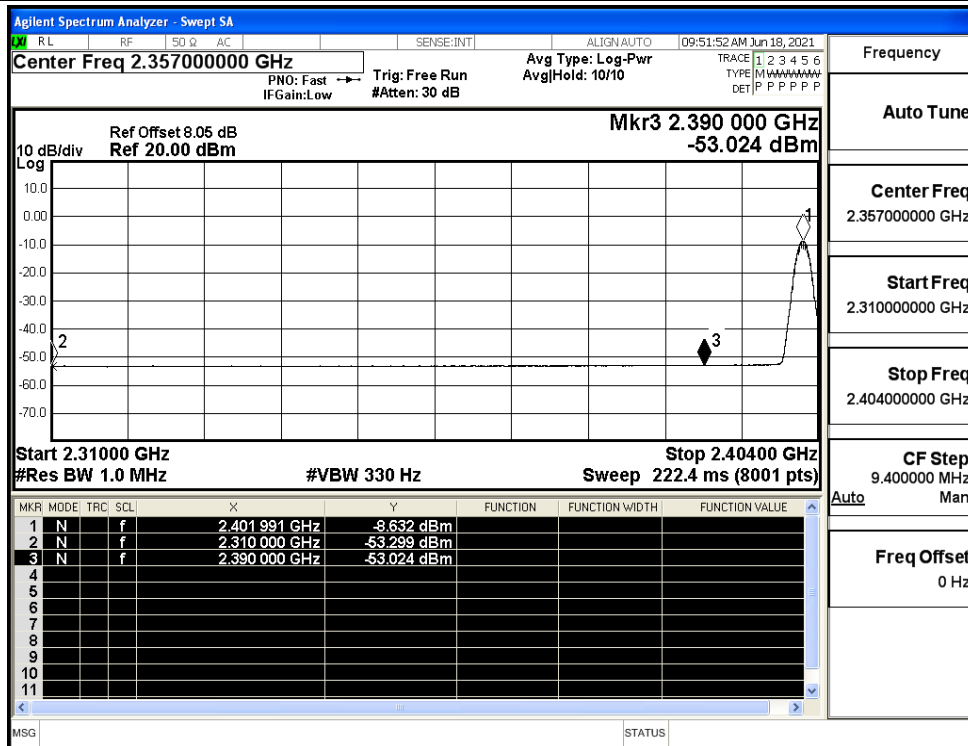
A.7 Restrict-band band-edge measurements

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	-42.62	2.0	0	54.64	PEAK	74	PASS
		Ant1	2310.0	-53.30	2.0	0	43.96	AV	54	PASS
		Ant1	2390.0	-41.83	2.0	0	55.43	PEAK	74	PASS
		Ant1	2390.0	-53.02	2.0	0	44.23	AV	54	PASS
	2480	Ant1	2483.5	-42.78	2.0	0	54.48	PEAK	74	PASS
		Ant1	2483.5	-52.36	2.0	0	44.89	AV	54	PASS
		Ant1	2500.0	-42.03	2.0	0	55.22	PEAK	74	PASS
		Ant1	2500.0	-52.41	2.0	0	44.84	AV	54	PASS

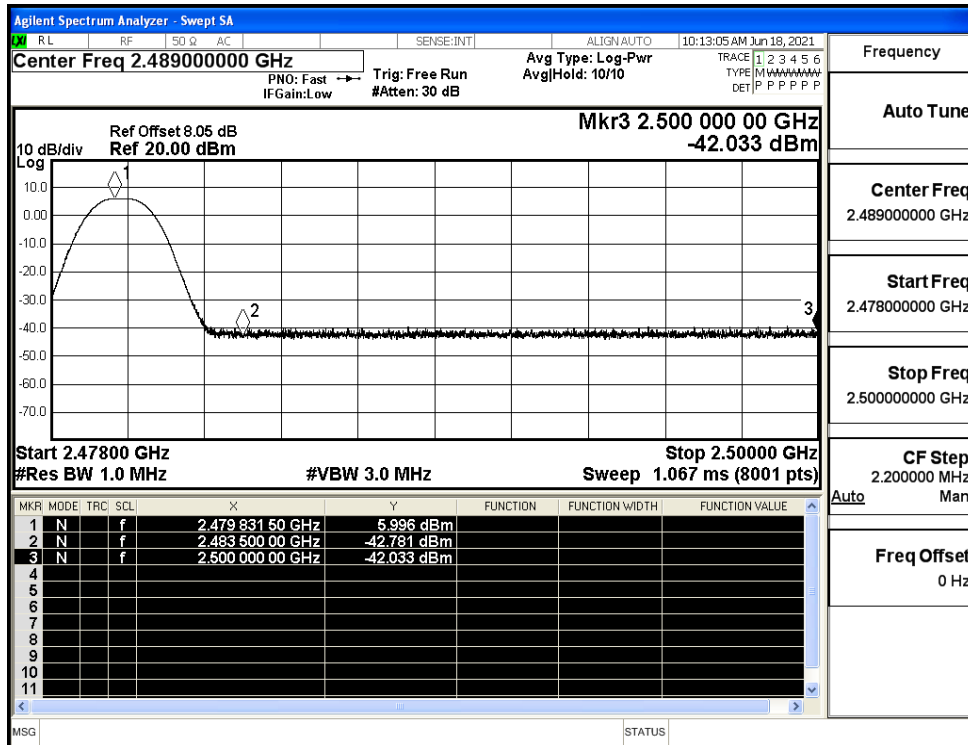
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

