

Appendix A

RF Test Data for BT V5.0(BDR/EDR) (Conducted Measurement)

Product Name: Smart Lock

Trade Mark: LaView

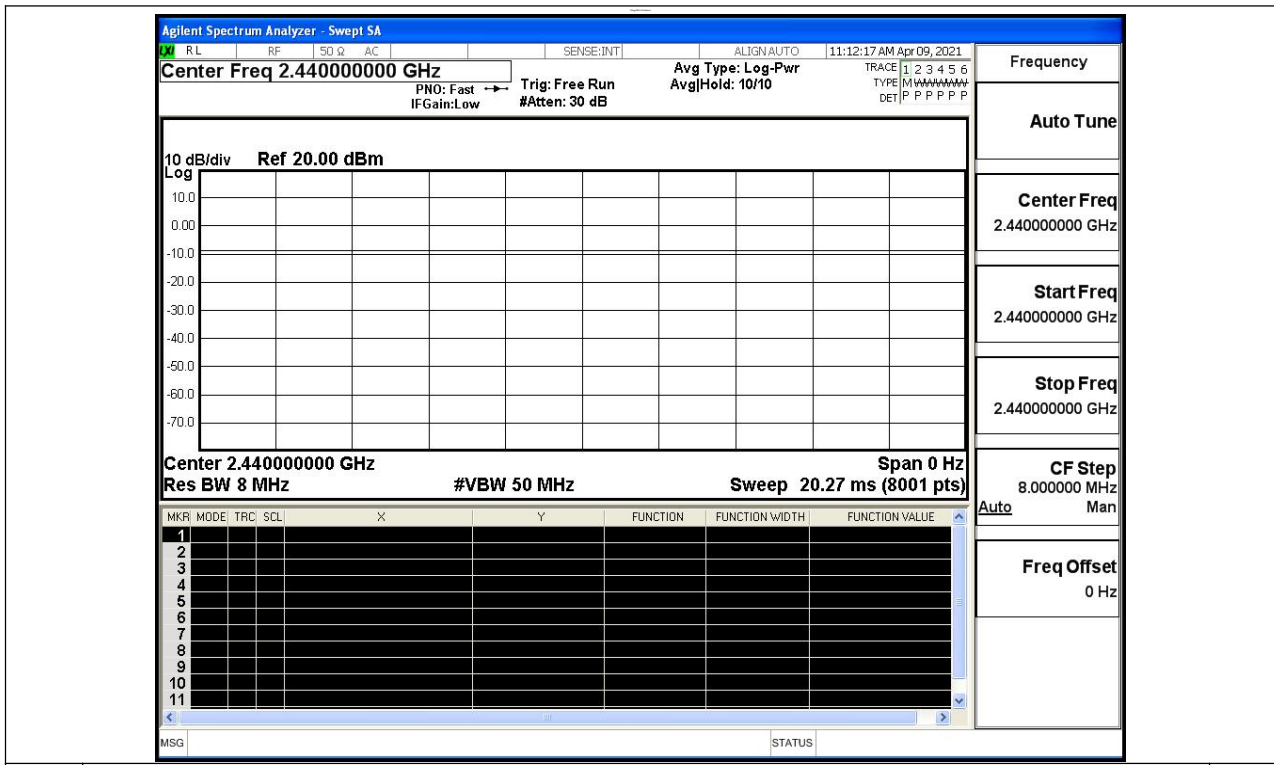
Test Model: LV-DHU06-B

Environmental Conditions

Temperature:	24.9° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

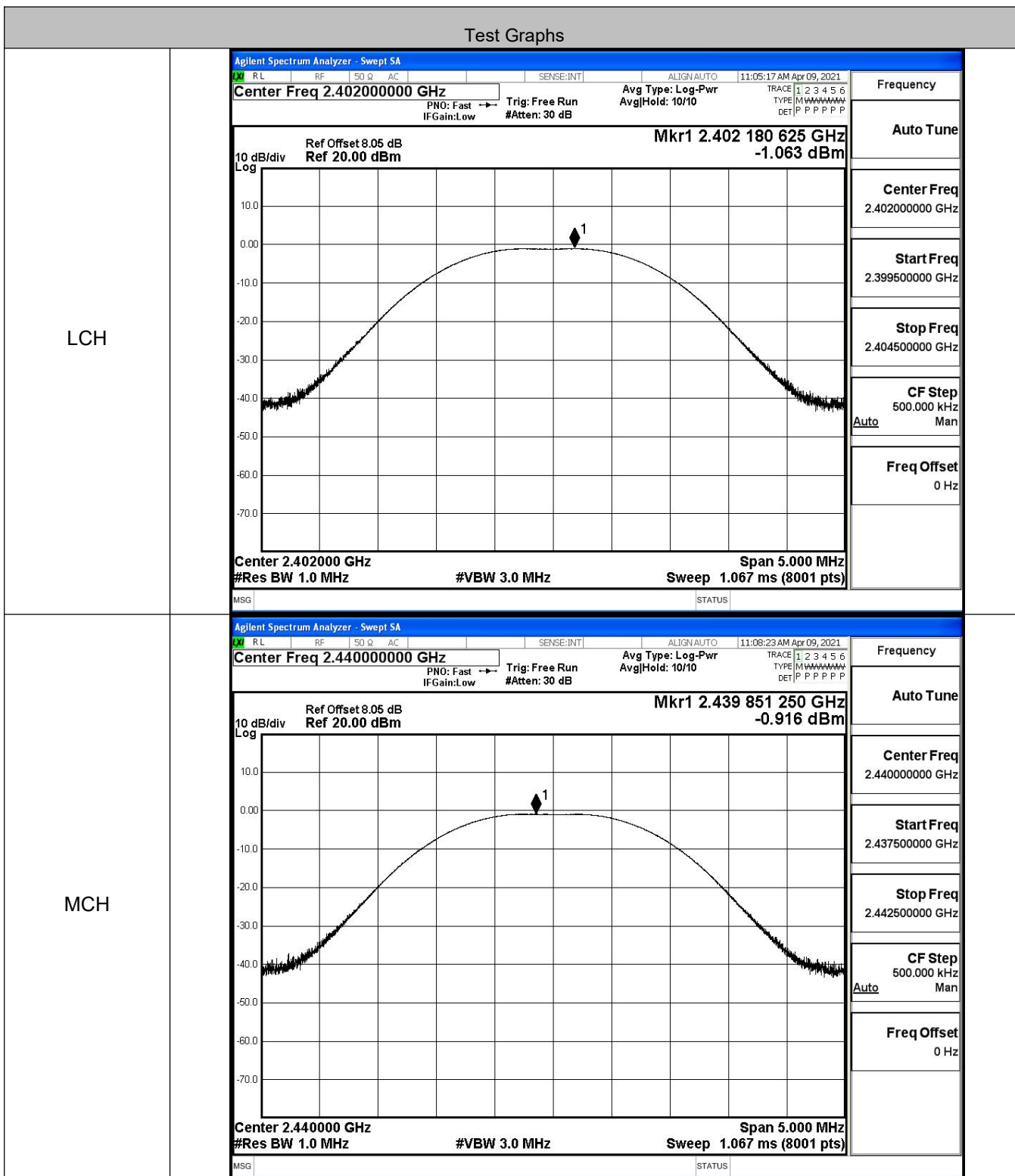
A.1 Duty Cycle

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

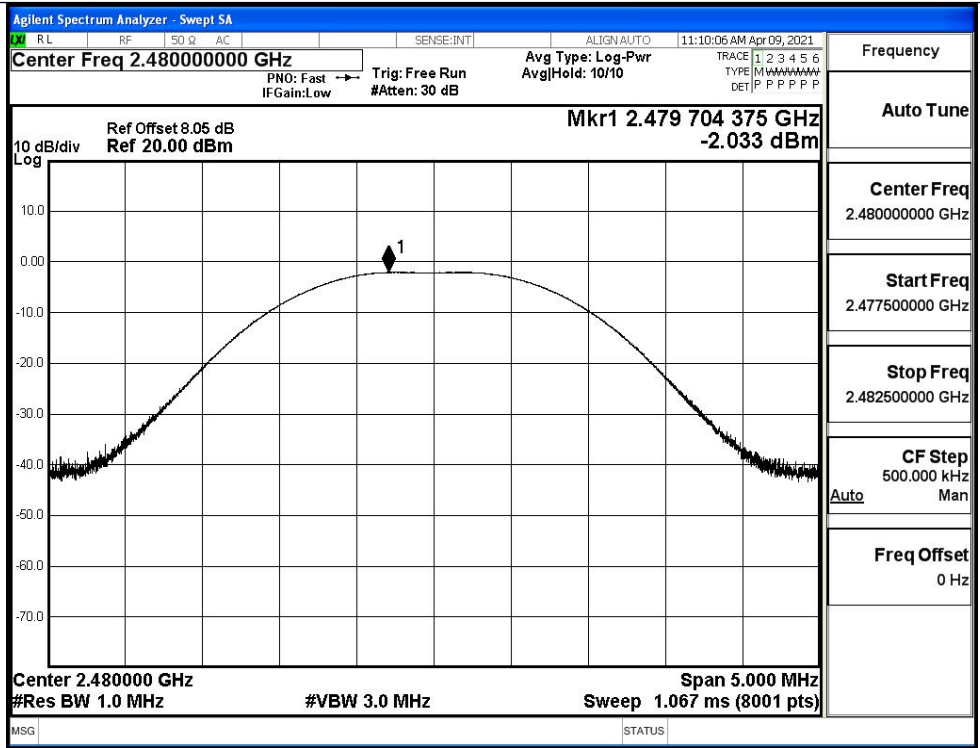


A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-1.063	30	PASS
BT LE	MCH	-0.916	30	PASS
BT LE	HCH	-2.033	30	PASS



HCH

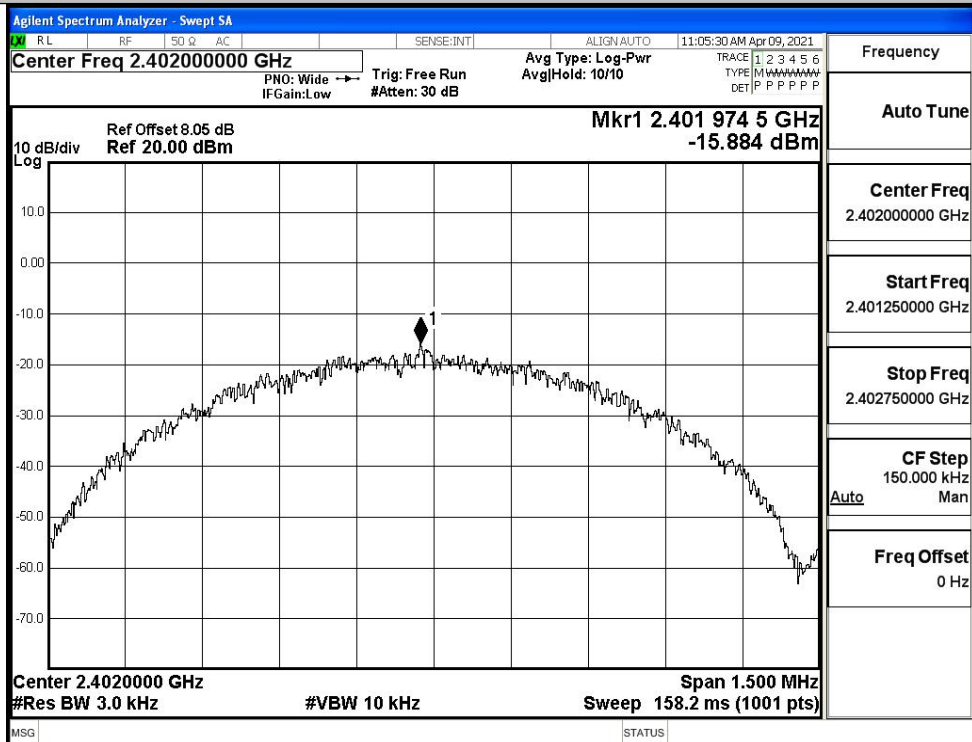


A.3 Maximum Power Spectral Density

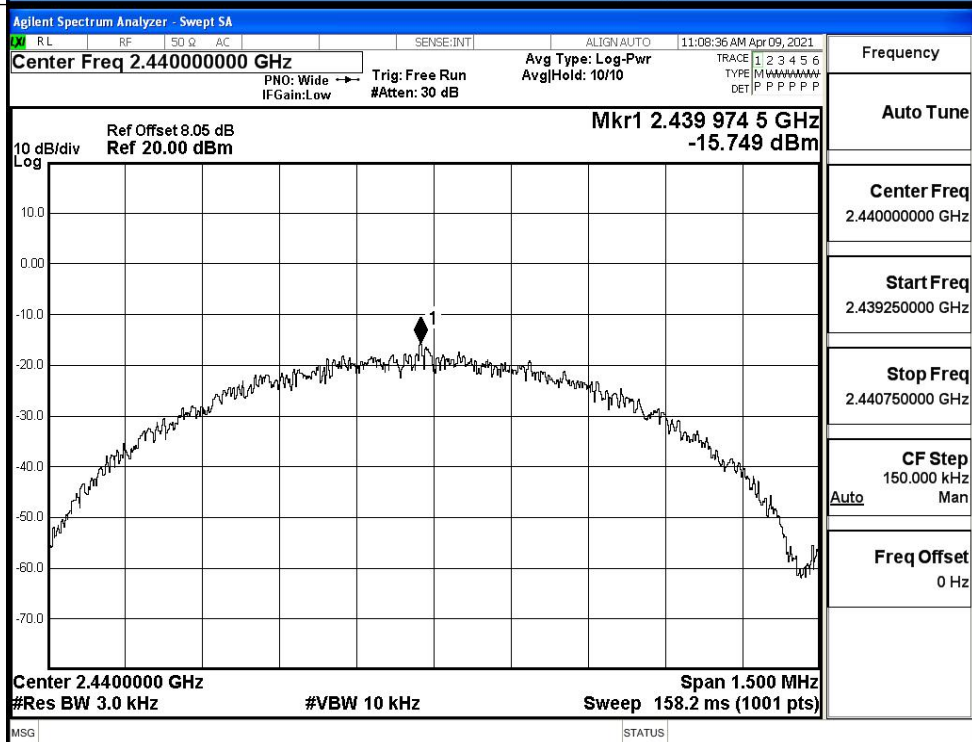
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-15.884	8	PASS
BT LE	MCH	-15.749	8	PASS
BT LE	HCH	-16.805	8	PASS

Test Graphs

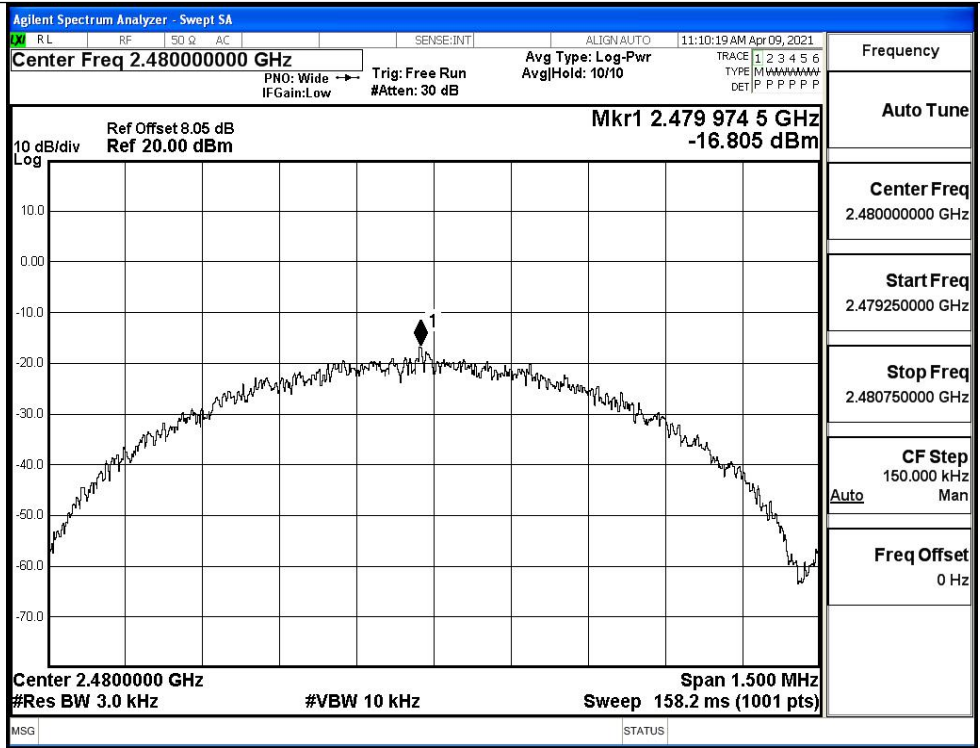
LCH



MCH



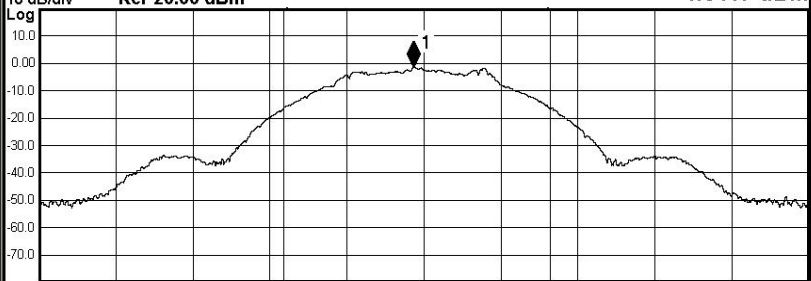
HCH




A.4 6dB Bandwidth

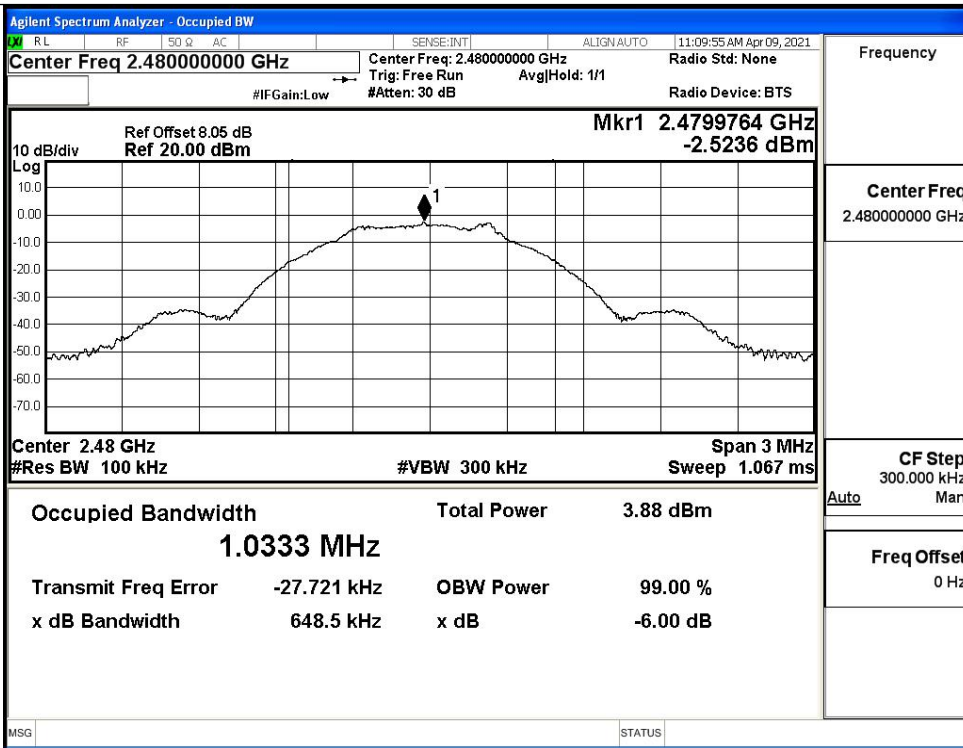
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6412	≥0.5	PASS
BT LE	MCH	0.6432	≥0.5	PASS
BT LE	HCH	0.6485	≥0.5	PASS

Test Graphs

LCH	<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 11:05:06 AM Apr 09, 2021</p> <p style="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;"> <p style="font-size: x-small; margin: 0;">10 dB/div Ref Offset 8.05 dB Mkr1 2.4019614 GHz</p> <p style="font-size: x-small; margin: 0;">Log Ref 20.00 dBm -1.5417 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%;">4.94 dBm</td> </tr> <tr> <td style="text-align: center;">1.0309 MHz</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>	Occupied Bandwidth	Total Power	4.94 dBm	1.0309 MHz			Transmit Freq Error	OBW Power	99.00 %	x dB Bandwidth	x dB	-6.00 dB	<p style="font-size: x-small; margin: 0;">Frequency</p> <hr/> <p style="font-size: x-small; margin: 0;">Center Freq 2.402000000 GHz</p> <hr/> <p style="font-size: x-small; margin: 0;">CF Step 300.000 kHz Auto Man</p> <hr/> <p style="font-size: x-small; margin: 0;">Freq Offset 0 Hz</p>
	Occupied Bandwidth	Total Power	4.94 dBm											
	1.0309 MHz													
	Transmit Freq Error	OBW Power	99.00 %											
x dB Bandwidth	x dB	-6.00 dB												

MCH	<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 11:08:12 AM Apr 09, 2021</p> <p style="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;"> <p style="font-size: x-small; margin: 0;">10 dB/div Ref Offset 8.05 dB Mkr1 2.4402175 GHz</p> <p style="font-size: x-small; margin: 0;">Log Ref 20.00 dBm -1.4225 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%;">5.12 dBm</td> </tr> <tr> <td style="text-align: center;">1.0299 MHz</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>	Occupied Bandwidth	Total Power	5.12 dBm	1.0299 MHz			Transmit Freq Error	OBW Power	99.00 %	x dB Bandwidth	x dB	-6.00 dB	<p style="font-size: x-small; margin: 0;">Frequency</p> <hr/> <p style="font-size: x-small; margin: 0;">Center Freq 2.440000000 GHz</p> <hr/> <p style="font-size: x-small; margin: 0;">CF Step 300.000 kHz Auto Man</p> <hr/> <p style="font-size: x-small; margin: 0;">Freq Offset 0 Hz</p>
	Occupied Bandwidth	Total Power	5.12 dBm											
	1.0299 MHz													
	Transmit Freq Error	OBW Power	99.00 %											
x dB Bandwidth	x dB	-6.00 dB												

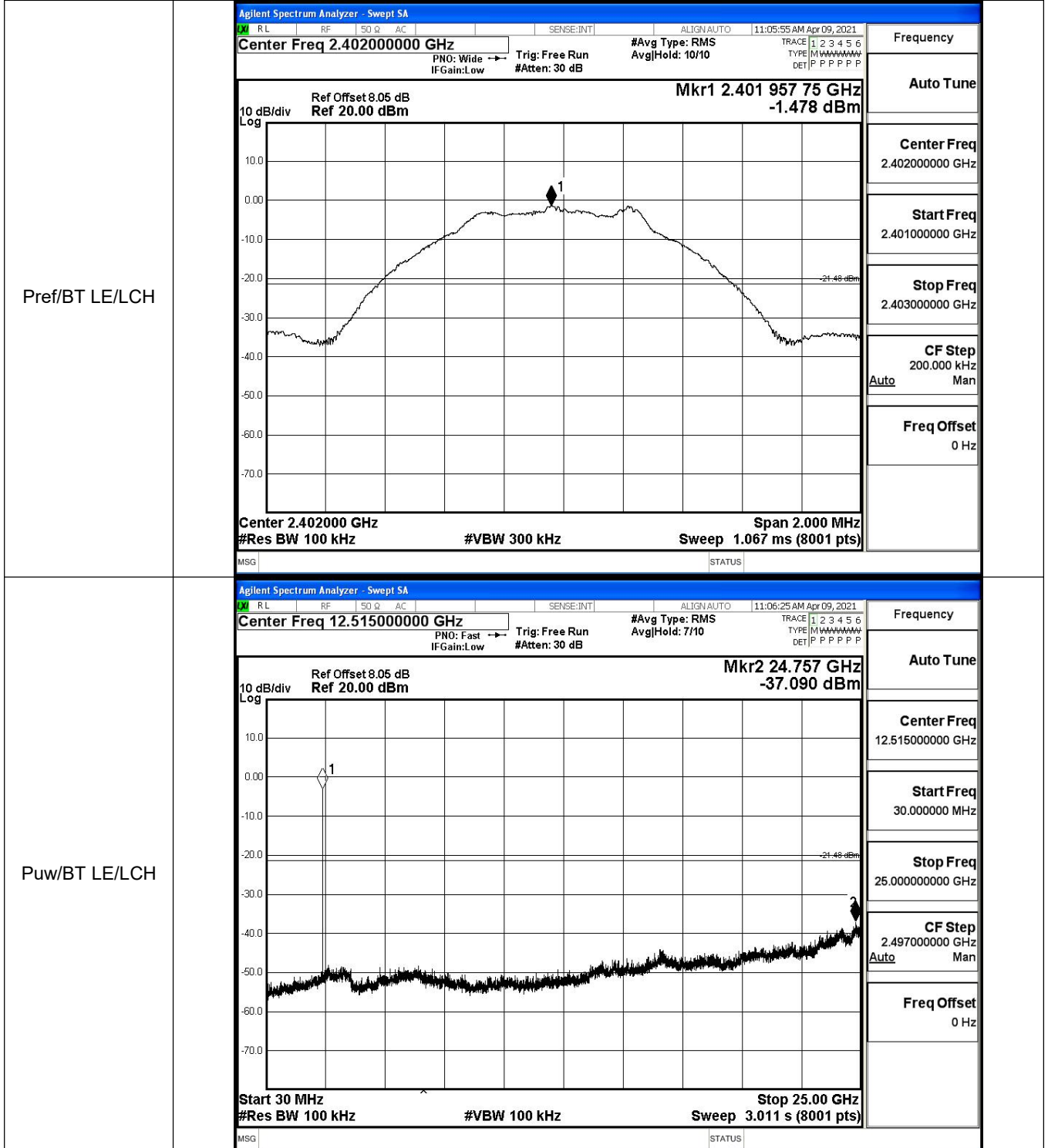
HCH



A.5 RF Conducted Spurious Emissions

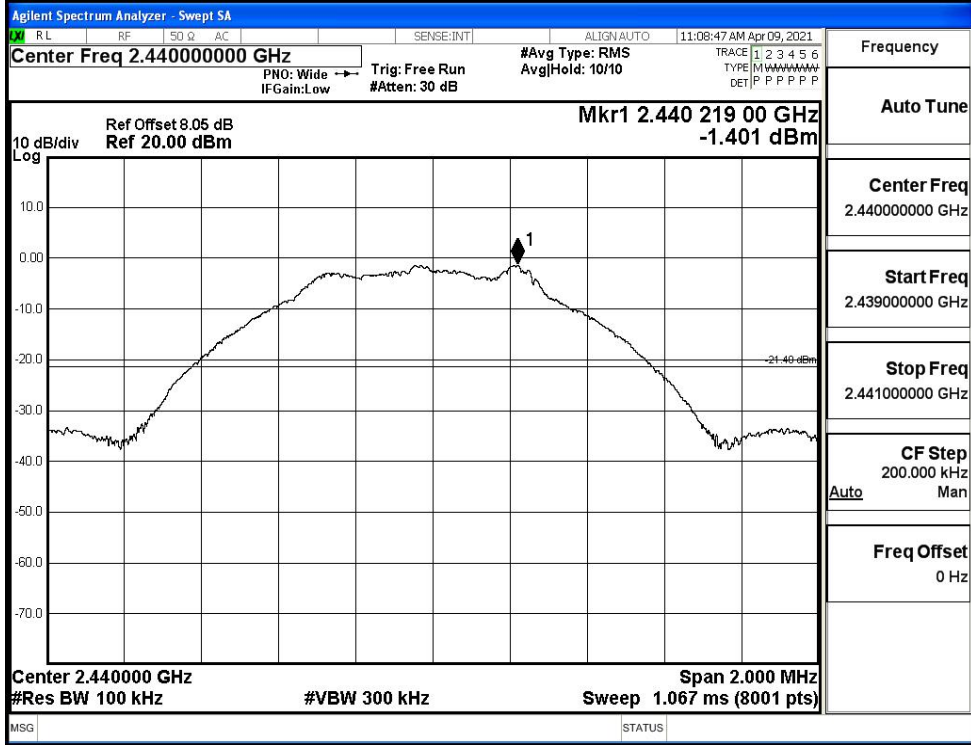
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-1.478	-37.090	-21.478	PASS
BT LE	MCH	-1.401	-37.630	-21.401	PASS
BT LE	HCH	-2.685	-37.126	-22.685	PASS

BT LE_LCH_Graphs



BT LE MCH Graphs

Pref/BT LE/MCH

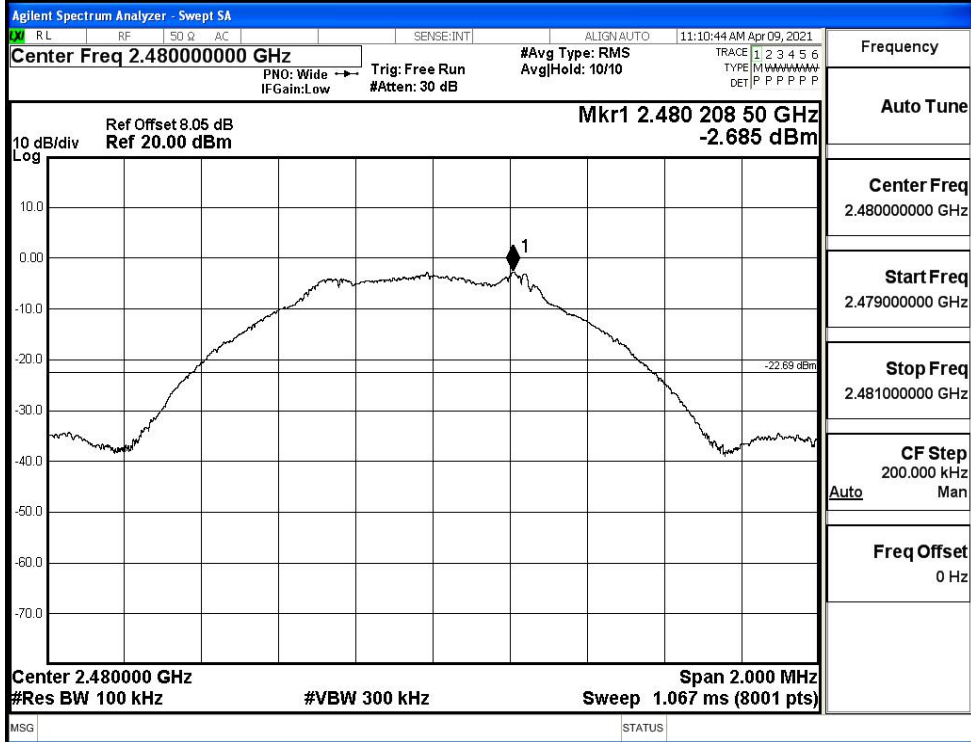


Puw/BT LE/MCH

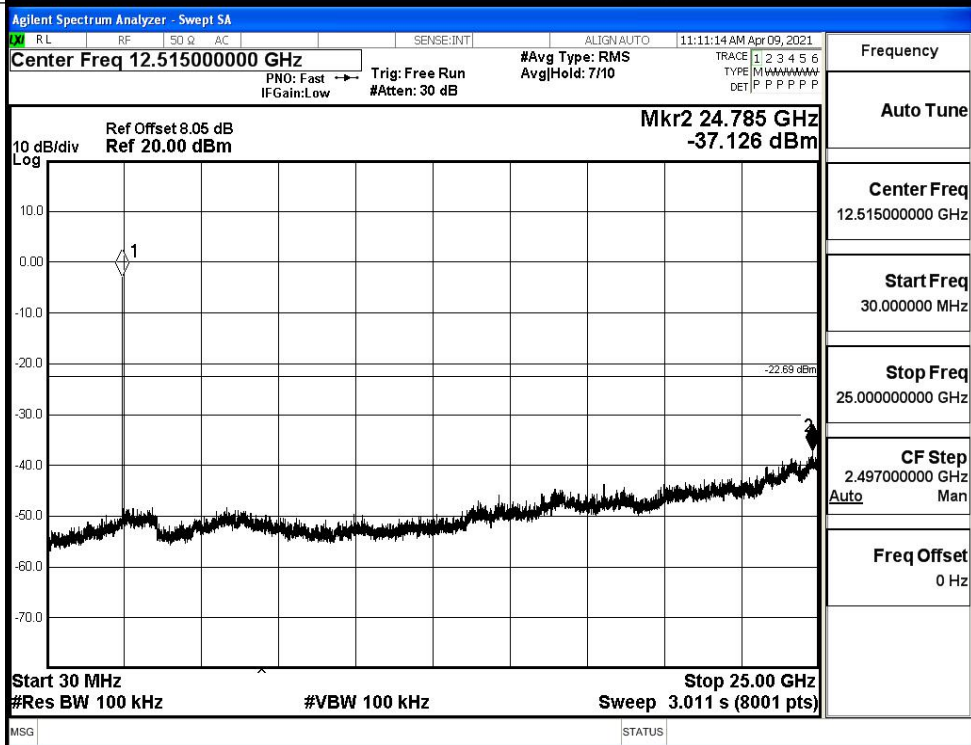


BT LE HCH Graphs

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	-1.665	-49.938	-21.67	PASS
BT LE	HCH	-3.183	-47.889	-23.18	PASS

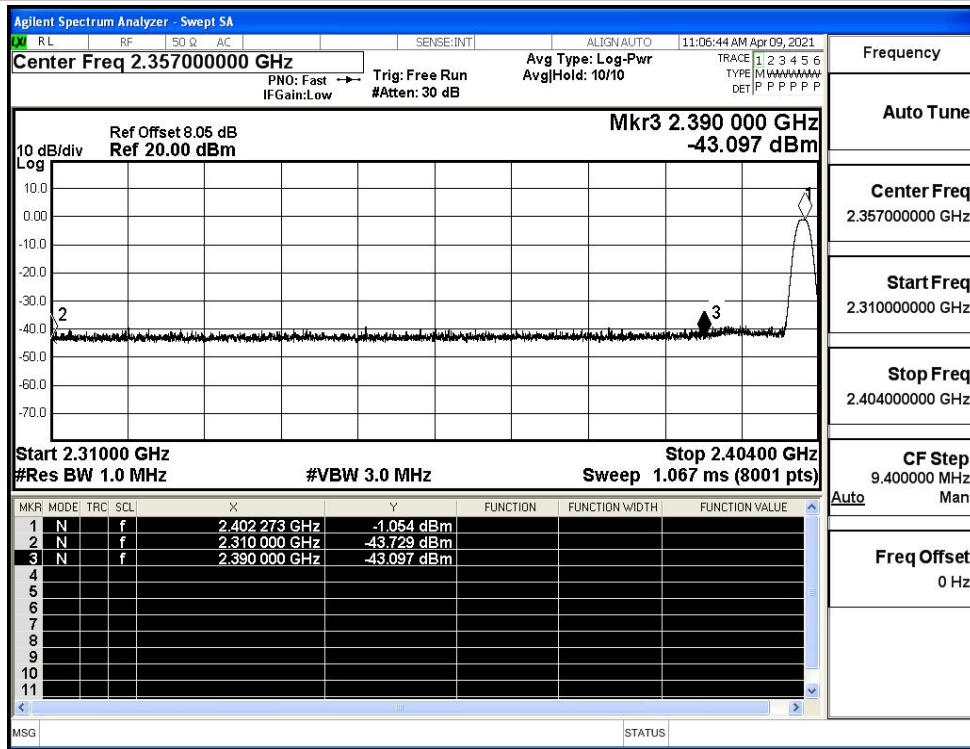
Test Graphs

Channel	Graph	Parameters
LCH		<p>Frequency: 2.35700000 GHz</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>
HCH		<p>Frequency: 2.48900000 GHz</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>

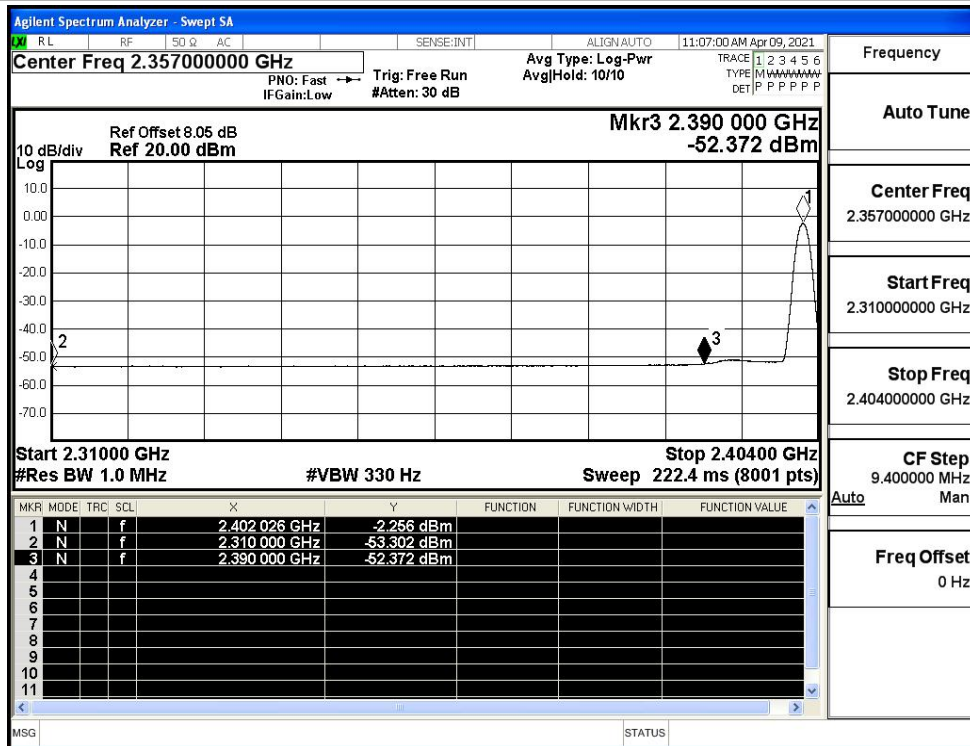
A.7 Restrict-band band-edge measurements

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	-43.73	2.0	0	53.53	PEAK	74	PASS
		Ant1	2310.0	-53.30	2.0	0	43.96	AV	54	PASS
		Ant1	2390.0	-43.10	2.0	0	54.16	PEAK	74	PASS
		Ant1	2390.0	-52.37	2.0	0	44.89	AV	54	PASS
	2480	Ant1	2483.5	-41.61	2.0	0	55.64	PEAK	74	PASS
		Ant1	2483.5	-51.41	2.0	0	45.85	AV	54	PASS
		Ant1	2500.0	-41.53	2.0	0	55.72	PEAK	74	PASS
		Ant1	2500.0	-52.19	2.0	0	45.07	AV	54	PASS

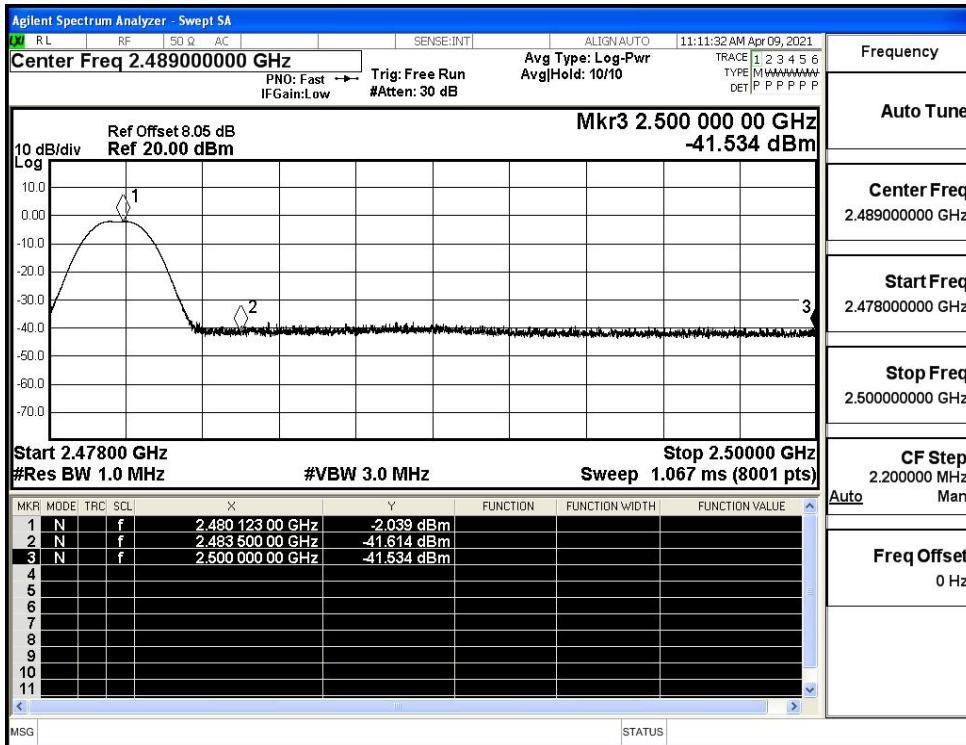
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

