

Appendix B

RF Test Data for BT V4.2(BDR/EDR) (Conducted Measurement)

Product Name: BABI Angel Alarm

Trade Mark: BABI

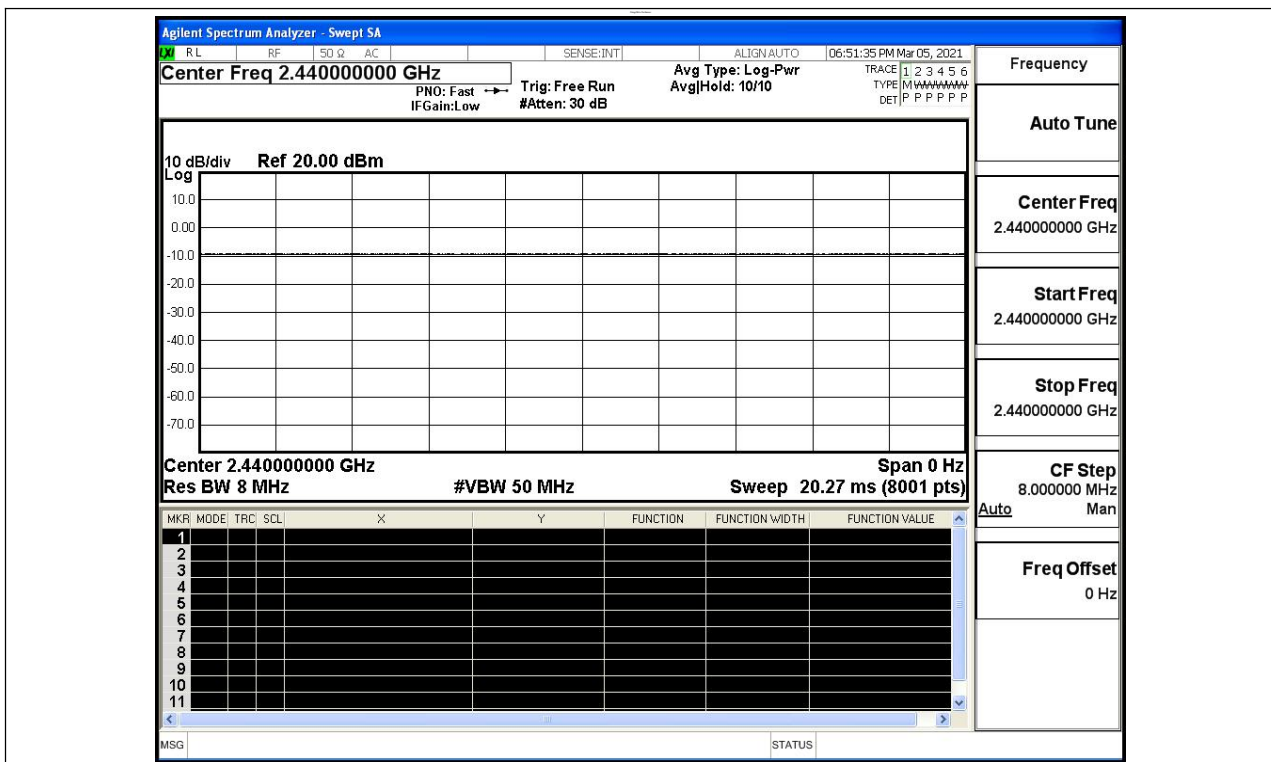
Test Model: BAA1001

Environmental Conditions

Temperature:	24.4 °C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

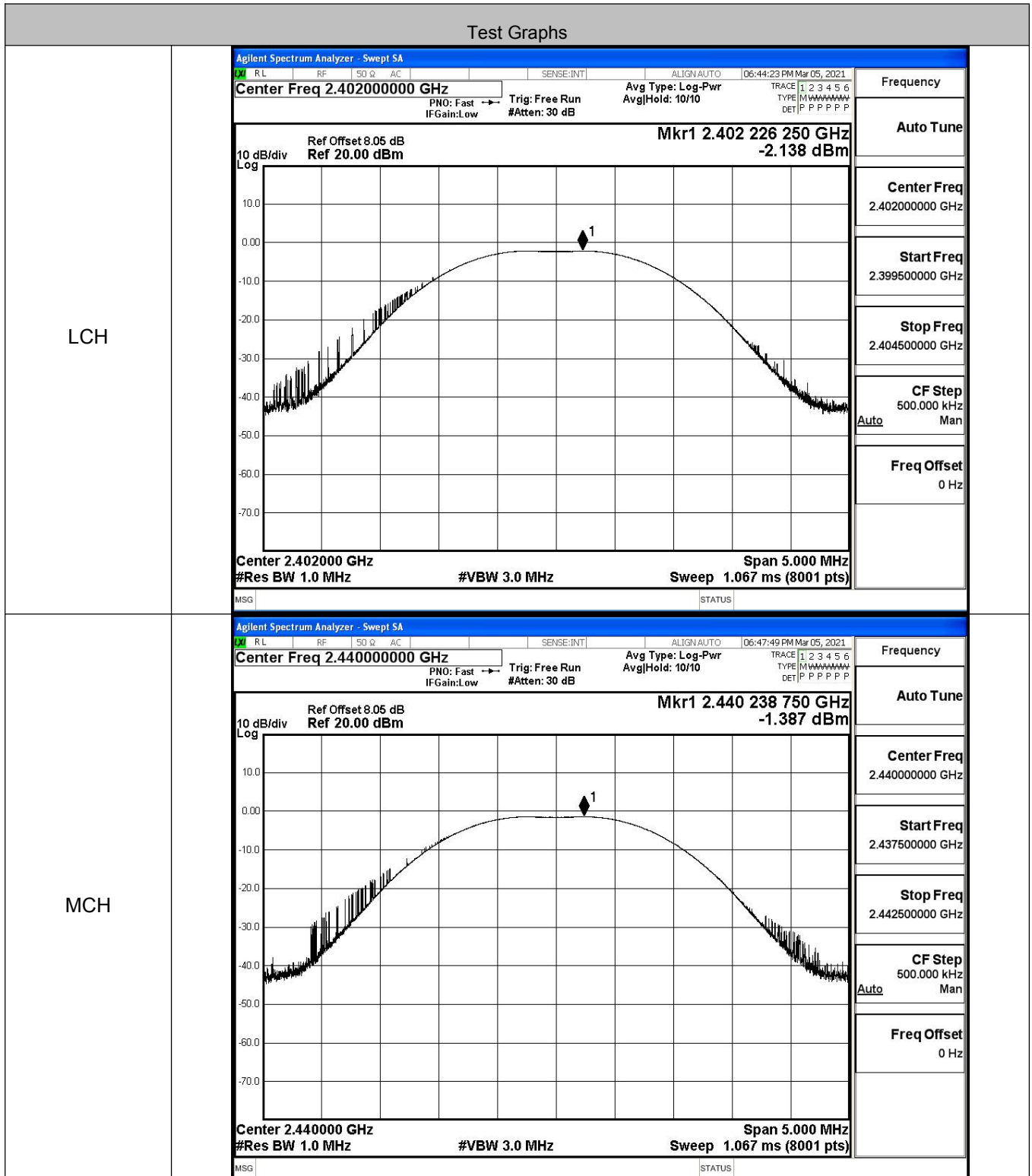
B.1 Duty Cycle

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

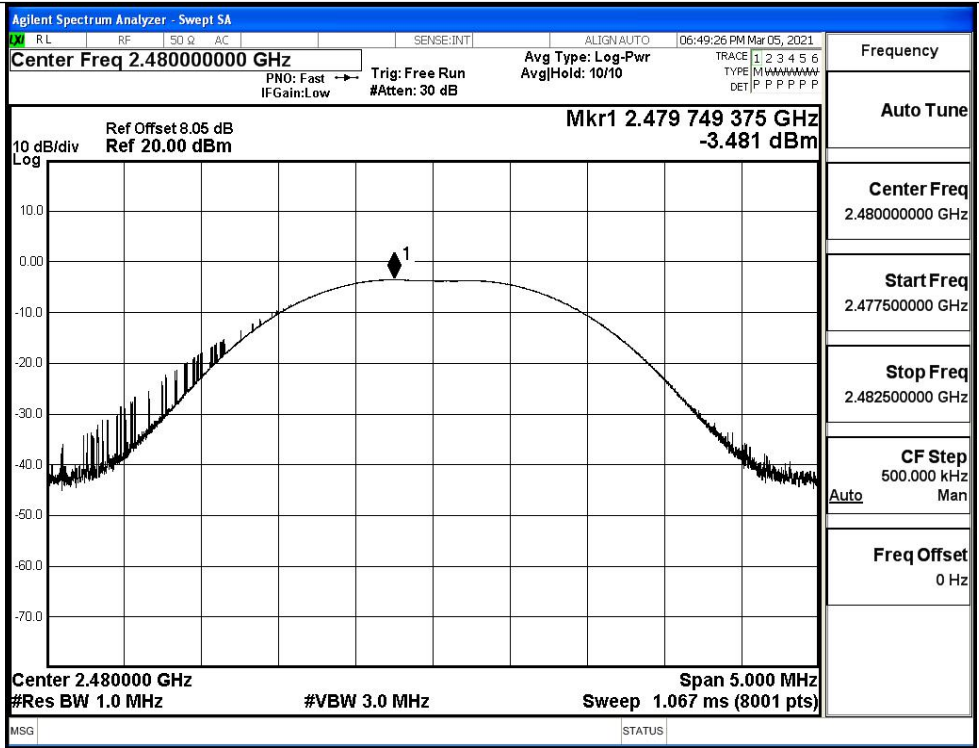


B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.138	30	PASS
BT LE	MCH	-1.387	30	PASS
BT LE	HCH	-3.481	30	PASS



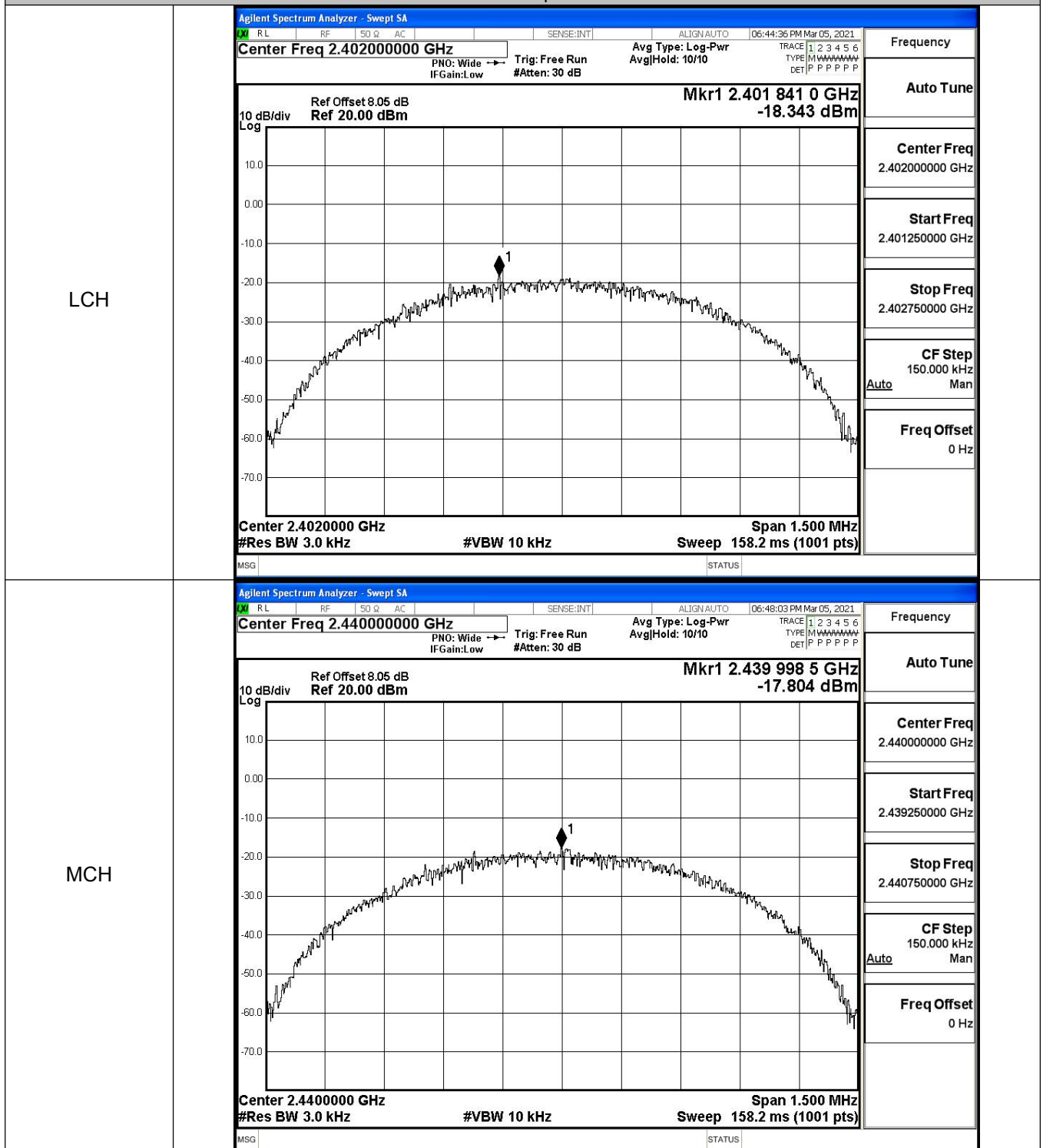
HCH



B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-18.343	8	PASS
BT LE	MCH	-17.804	8	PASS
BT LE	HCH	-19.840	8	PASS


Test Graphs

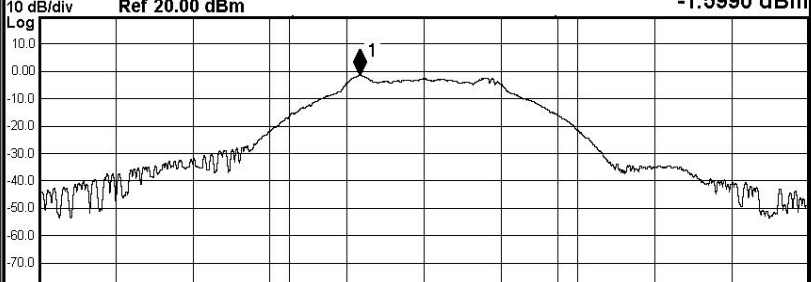


B.4 6dB Bandwidth

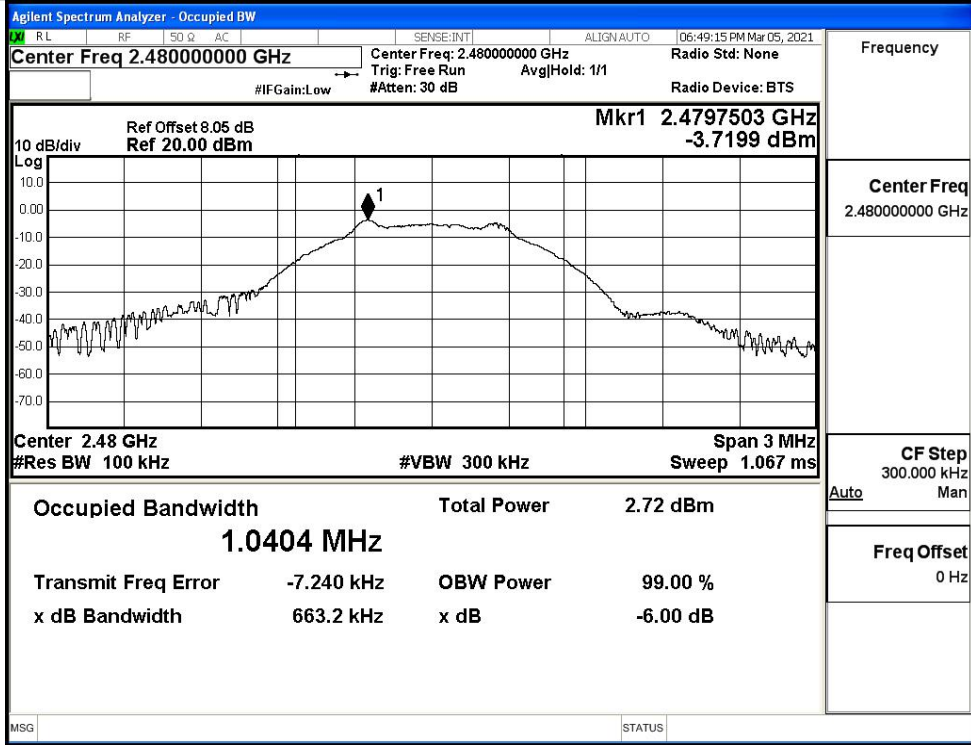
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6657	≥0.5	PASS
BT LE	MCH	0.6678	≥0.5	PASS
BT LE	HCH	0.6632	≥0.5	PASS

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 06:44:12 PM Mar 05, 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;"> <p style="font-size: x-small; margin: 0;">10 dB/div Ref Offset 8.05 dB Mkr1 2.4017529 GHz</p> <p style="font-size: x-small; margin: 0;">Log Ref 20.00 dBm -2.3674 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%;">4.16 dBm</td> </tr> <tr> <td style="text-align: center;">1.0421 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> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table> <p style="font-size: x-small; margin: 0;">MSG STATUS</p>	Occupied Bandwidth	Total Power	4.16 dBm	1.0421 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	4.16 dBm																	
	1.0421 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 06:47:38 PM Mar 05, 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;"> <p style="font-size: x-small; margin: 0;">10 dB/div Ref Offset 8.05 dB Mkr1 2.4397495 GHz</p> <p style="font-size: x-small; margin: 0;">Log Ref 20.00 dBm -1.5990 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%;">4.96 dBm</td> </tr> <tr> <td style="text-align: center;">1.0386 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> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table> <p style="font-size: x-small; margin: 0;">MSG STATUS</p>	Occupied Bandwidth	Total Power	4.96 dBm	1.0386 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	4.96 dBm																	
	1.0386 MHz																			
	Transmit Freq Error	OBW Power	99.00 %																	
x dB Bandwidth	x dB	-6.00 dB																		

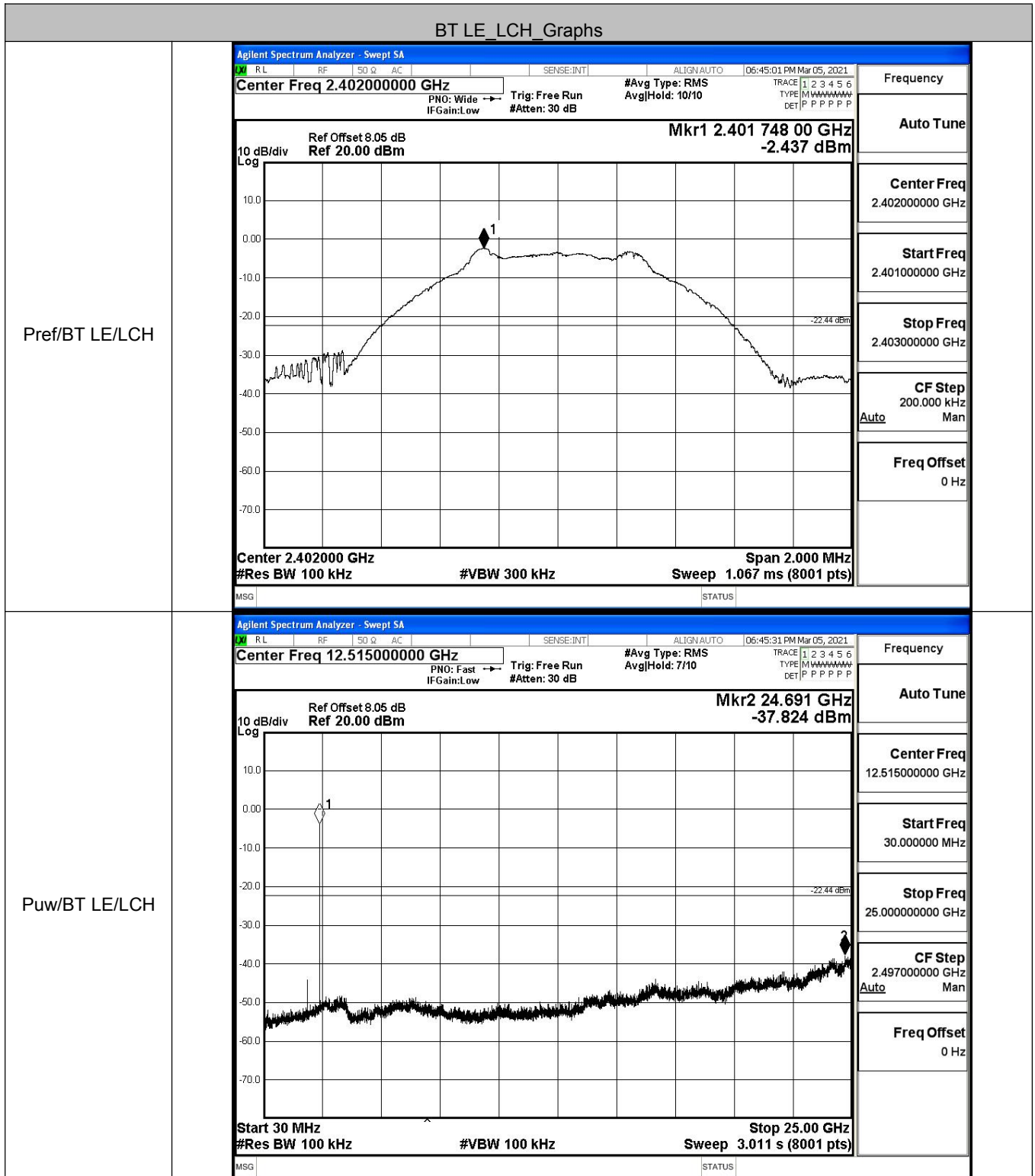
HCH



Frequency	2.48000000 GHz
Center Freq	2.48000000 GHz
CF Step	300.000 kHz Auto Man
Freq Offset	0 Hz

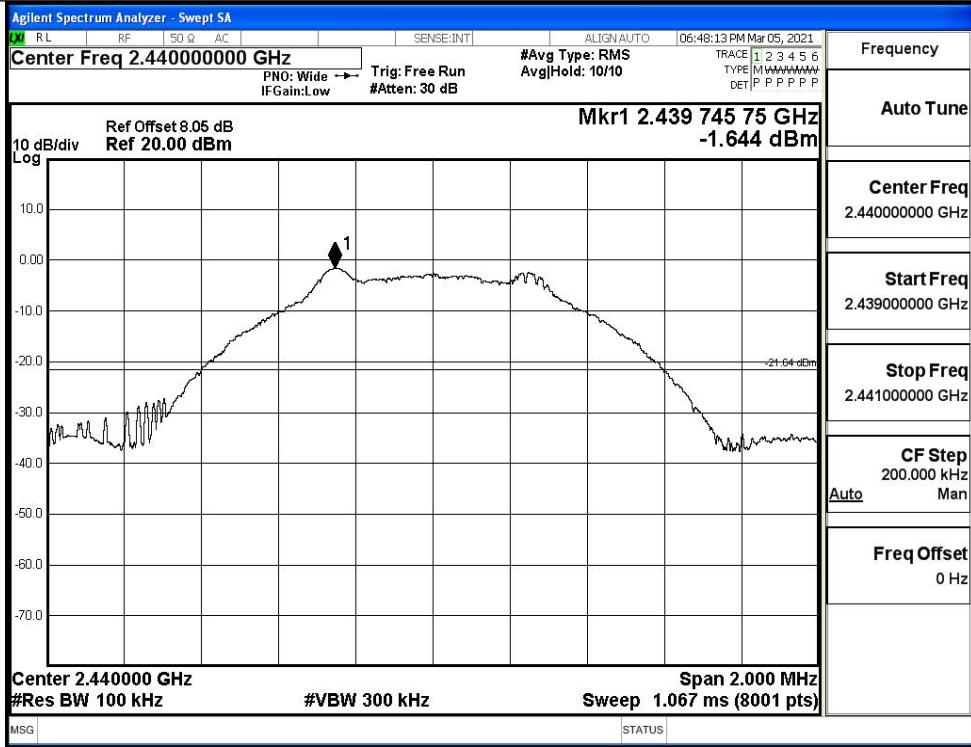
B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.437	-37.824	-22.437	PASS
BT LE	MCH	-1.644	-37.142	-21.644	PASS
BT LE	HCH	-3.793	-37.529	-23.793	PASS

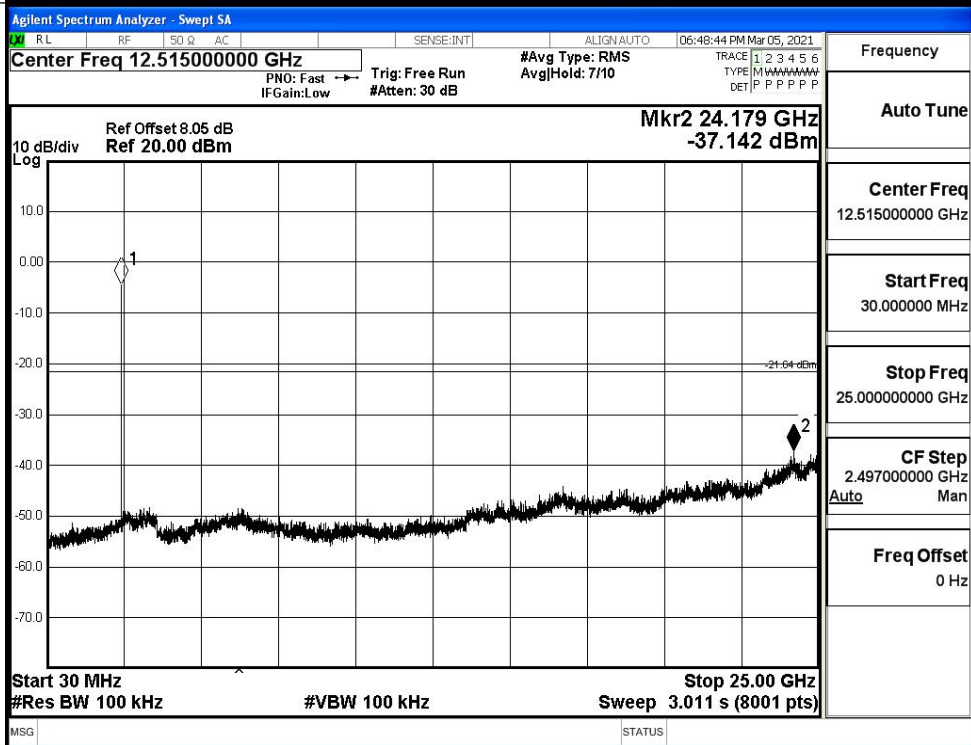


BT LE MCH Graphs

Pref/BT LE/MCH

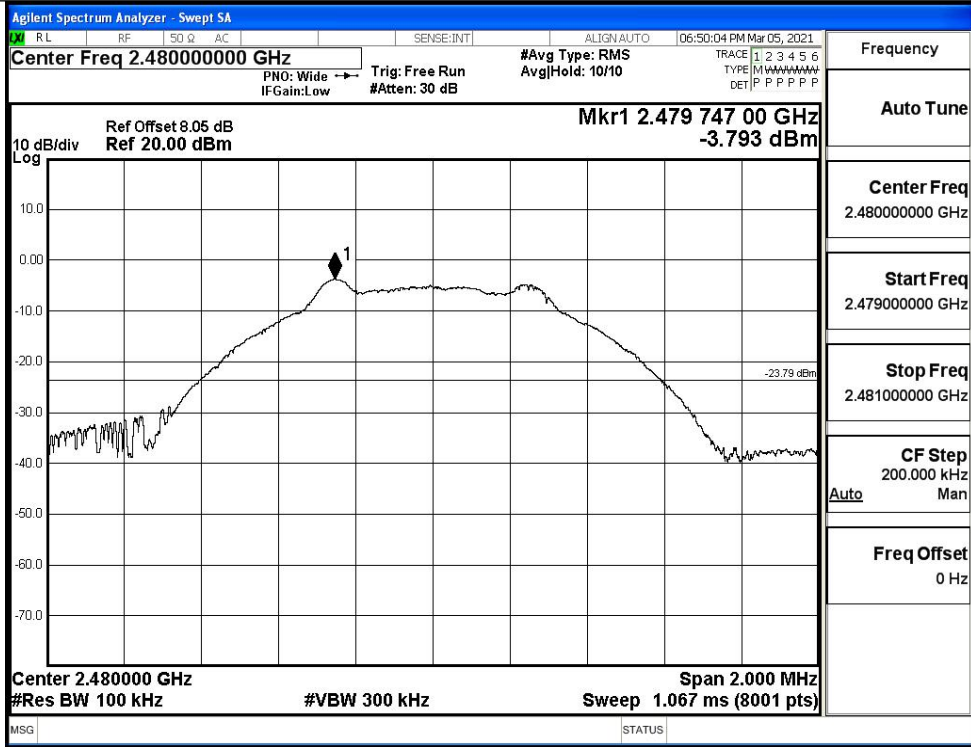


Puw/BT LE/MCH

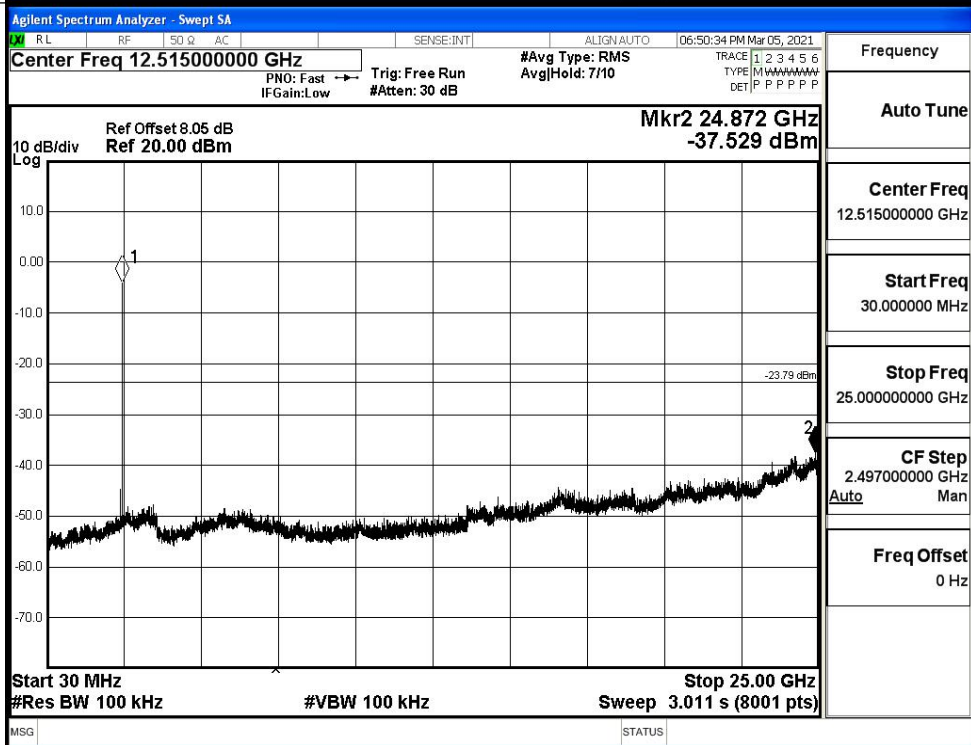


BT LE HCH Graphs

Pref/BT LE/HCH



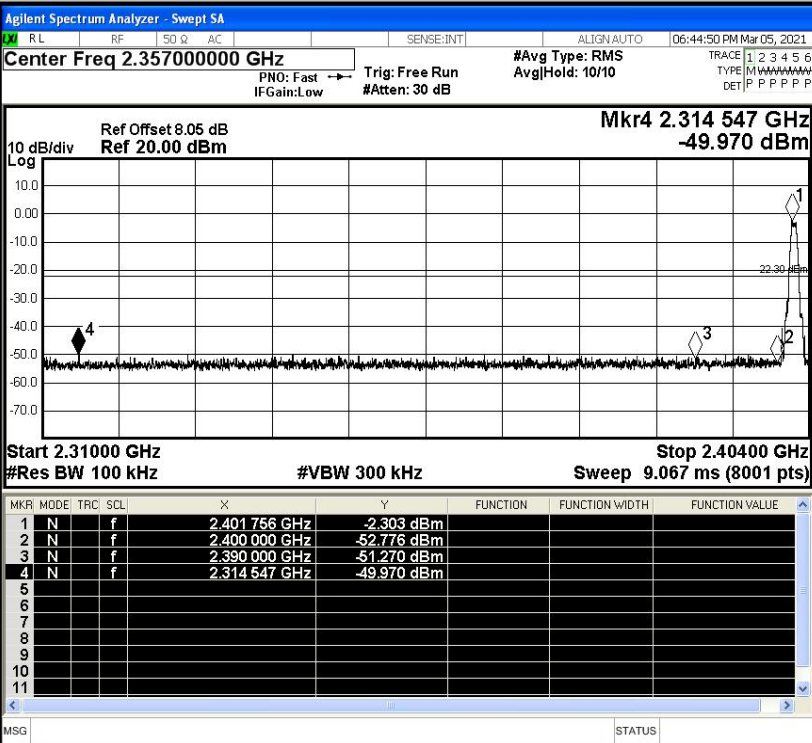
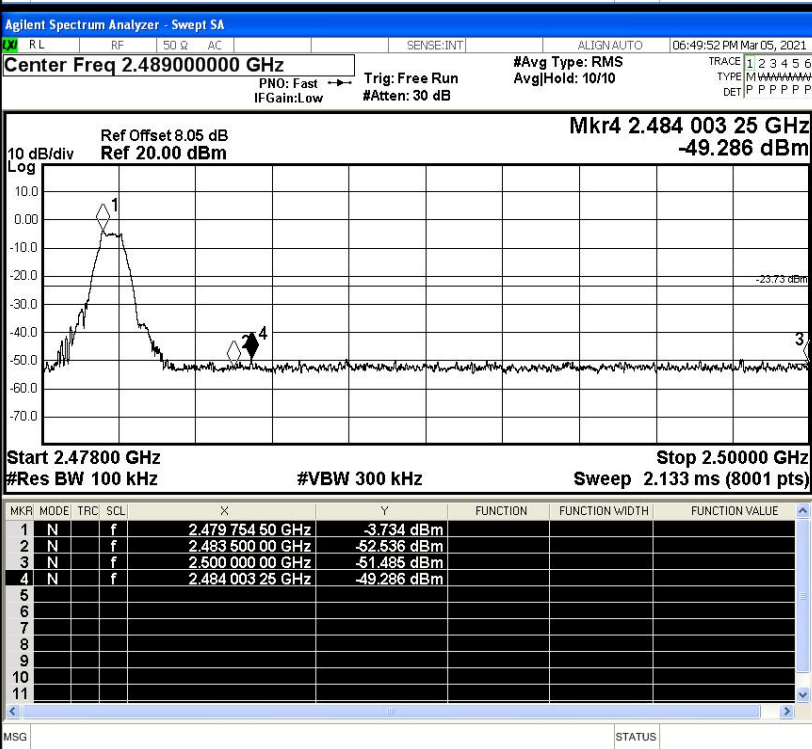
Puw/BT LE/HCH



B.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.303	-49.970	-22.3	PASS
BT LE	HCH	-3.734	-49.286	-23.73	PASS

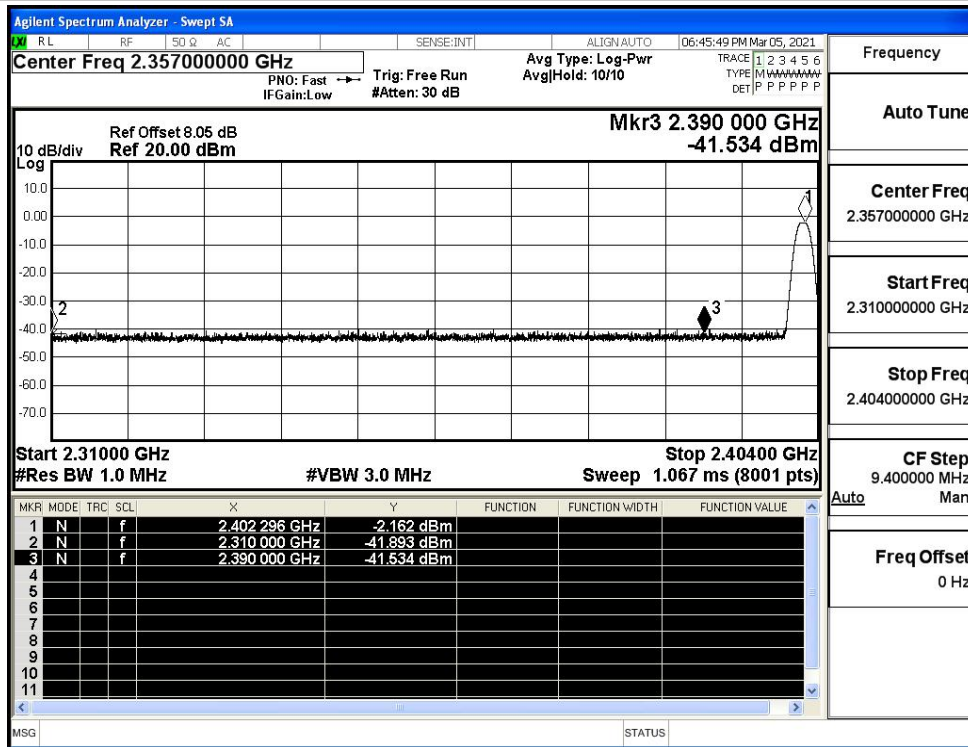
Test Graphs

LCH		<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>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>

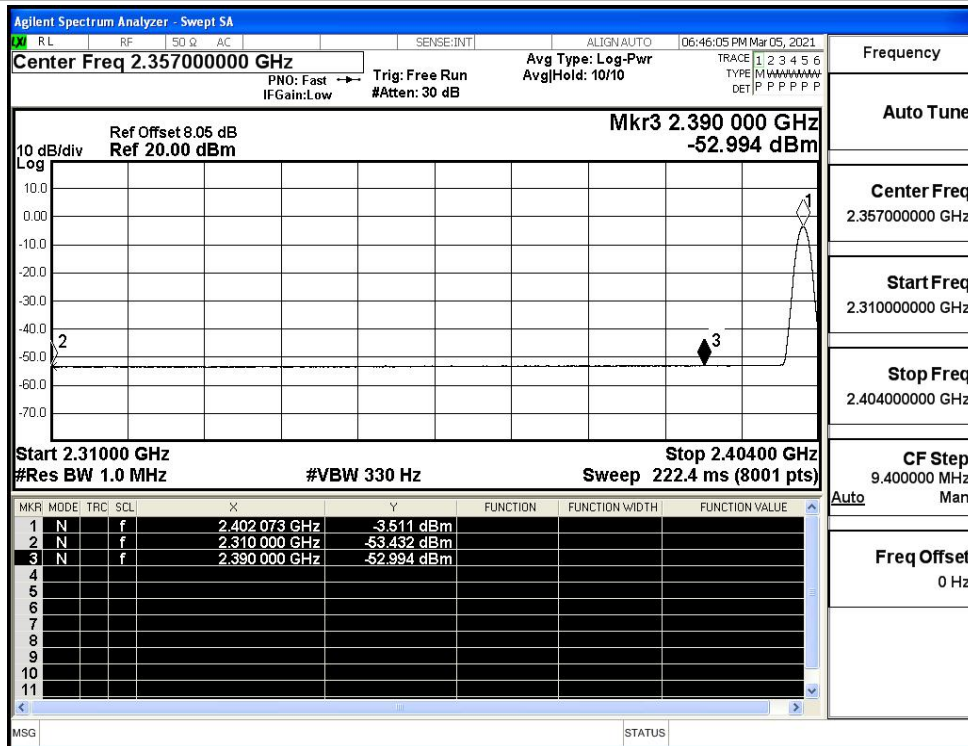
B.7 Restrict-band band-edge measurements

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	-41.89	2.0	0	55.34	PEAK	74	PASS
		Ant1	2310.0	-53.43	2.0	0	43.80	AV	54	PASS
		Ant1	2390.0	-41.53	2.0	0	55.70	PEAK	74	PASS
		Ant1	2390.0	-52.99	2.0	0	44.24	AV	54	PASS
	2480	Ant1	2483.5	-43.14	2.0	0	54.09	PEAK	74	PASS
		Ant1	2483.5	-52.62	2.0	0	44.61	AV	54	PASS
		Ant1	2500.0	-42.38	2.0	0	54.85	PEAK	74	PASS
		Ant1	2500.0	-52.42	2.0	0	44.81	AV	54	PASS

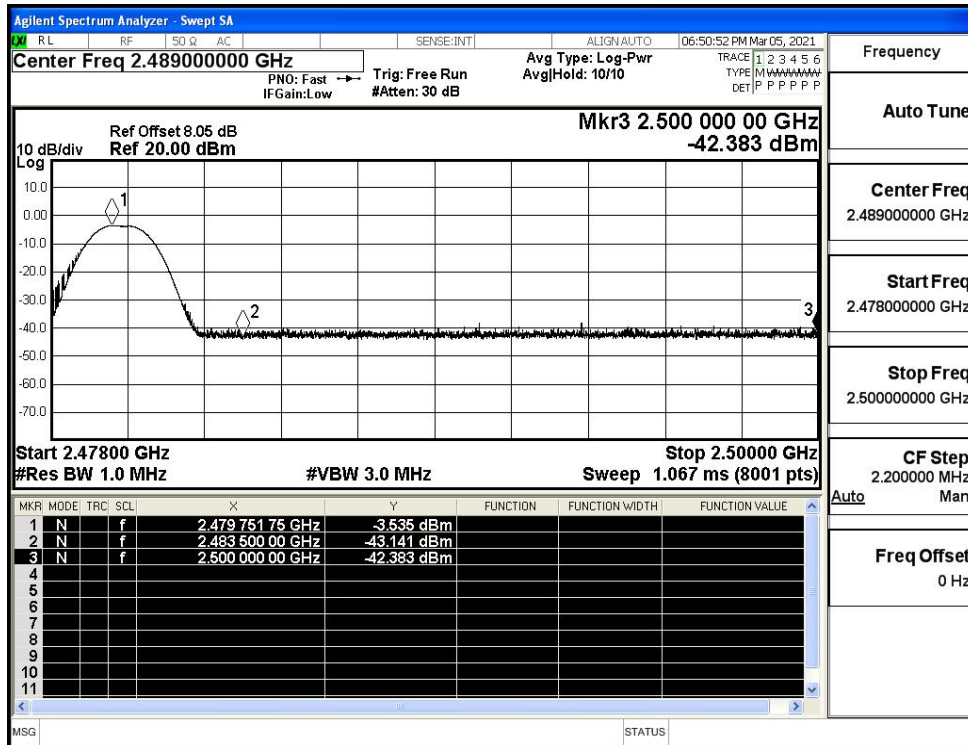
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

