

Appendix B

RF Test Data for BT V4.1 (BT LE) (Conducted Measurement)

Product Name: Wireless earbuds

Trade Mark: PrimeAudio

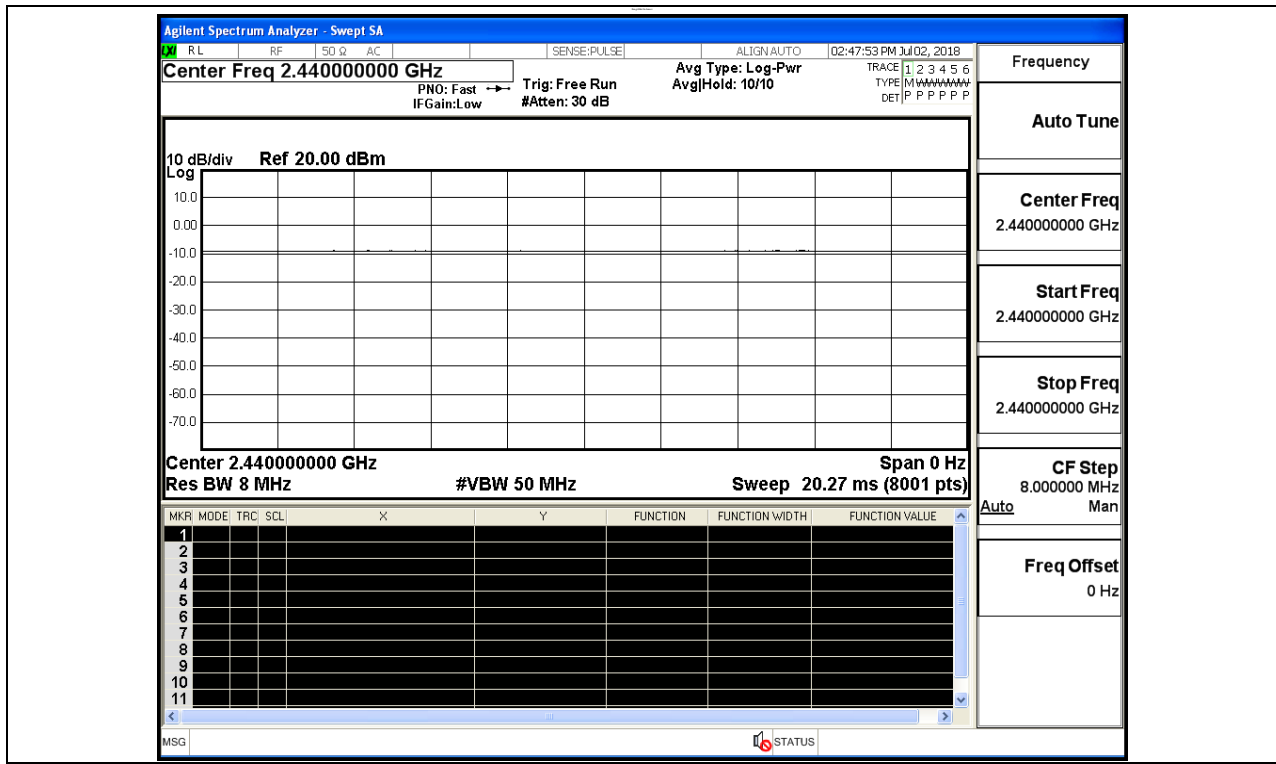
Test Model: PAEB1004-ASST

Environmental Conditions

Temperature:	23.2 °C
Relative Humidity:	53.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Ryan.Hu
Supervised by:	Jayden.Zhuo

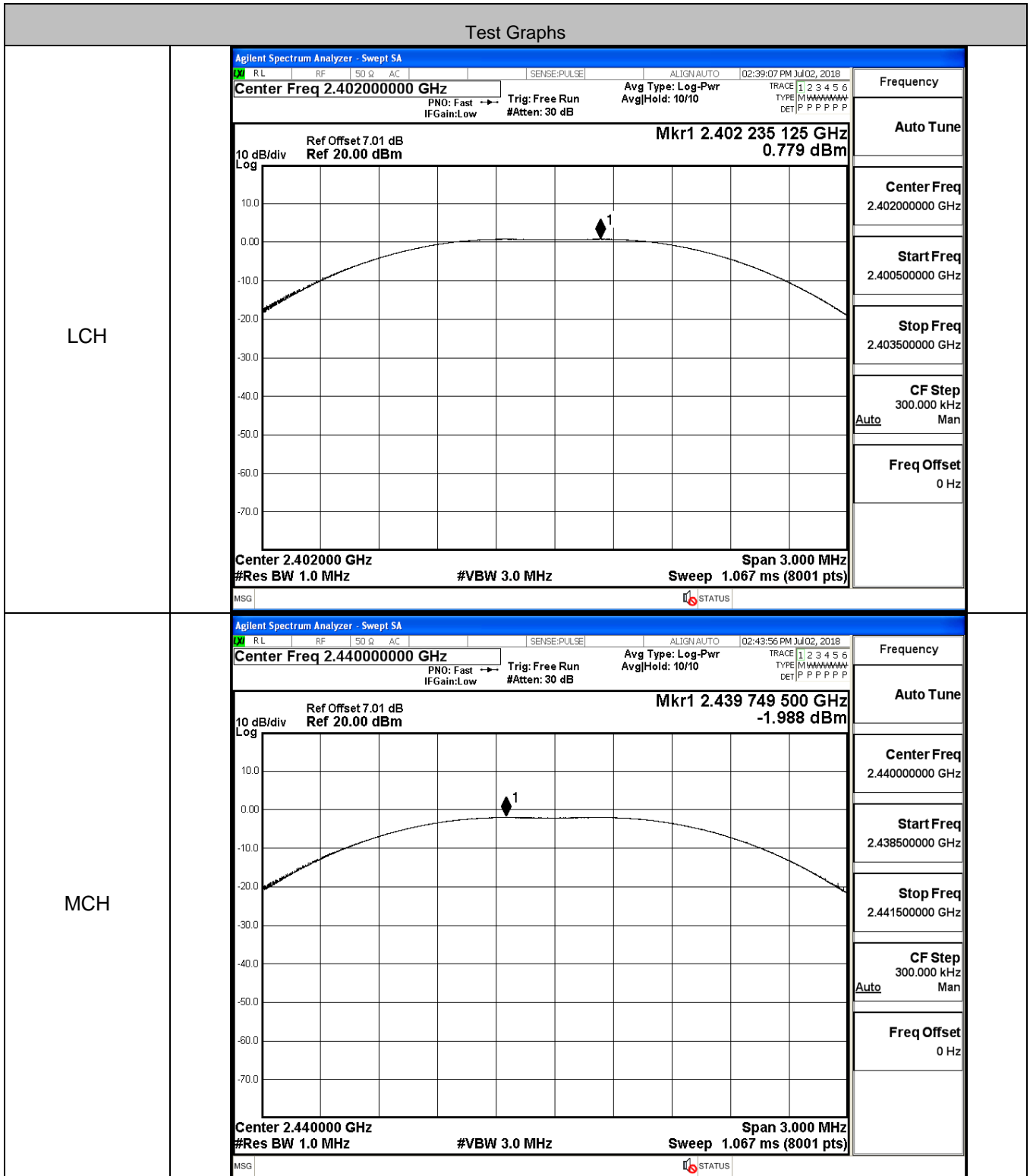
B.1 Duty Cycle

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

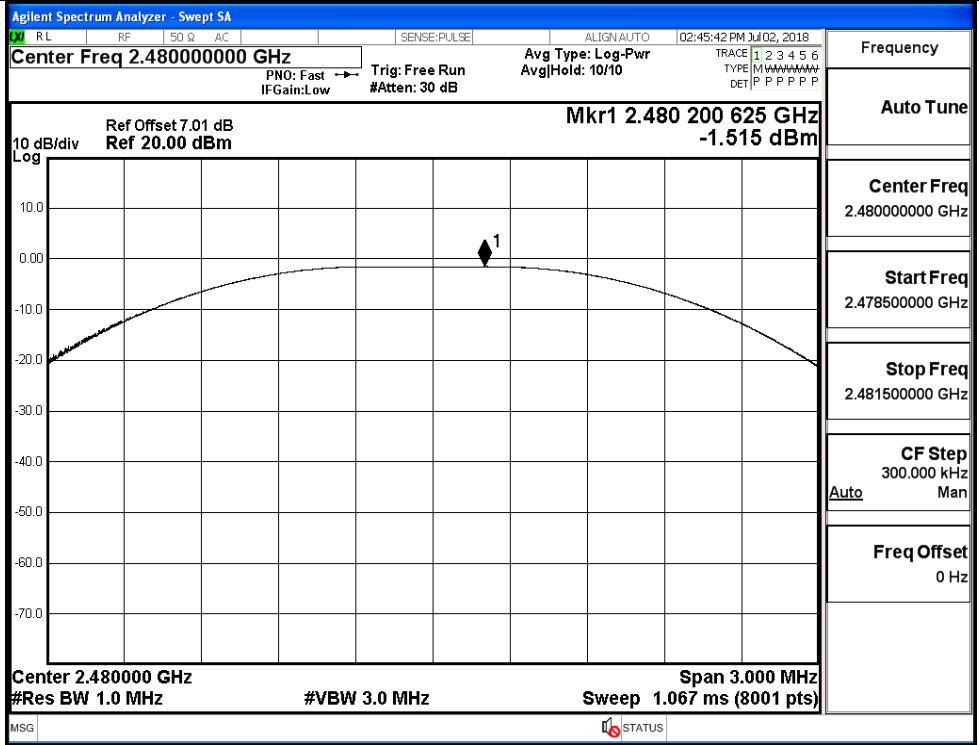


B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	0.779	30	PASS
BT LE	MCH	-1.988	30	PASS
BT LE	HCH	-1.515	30	PASS



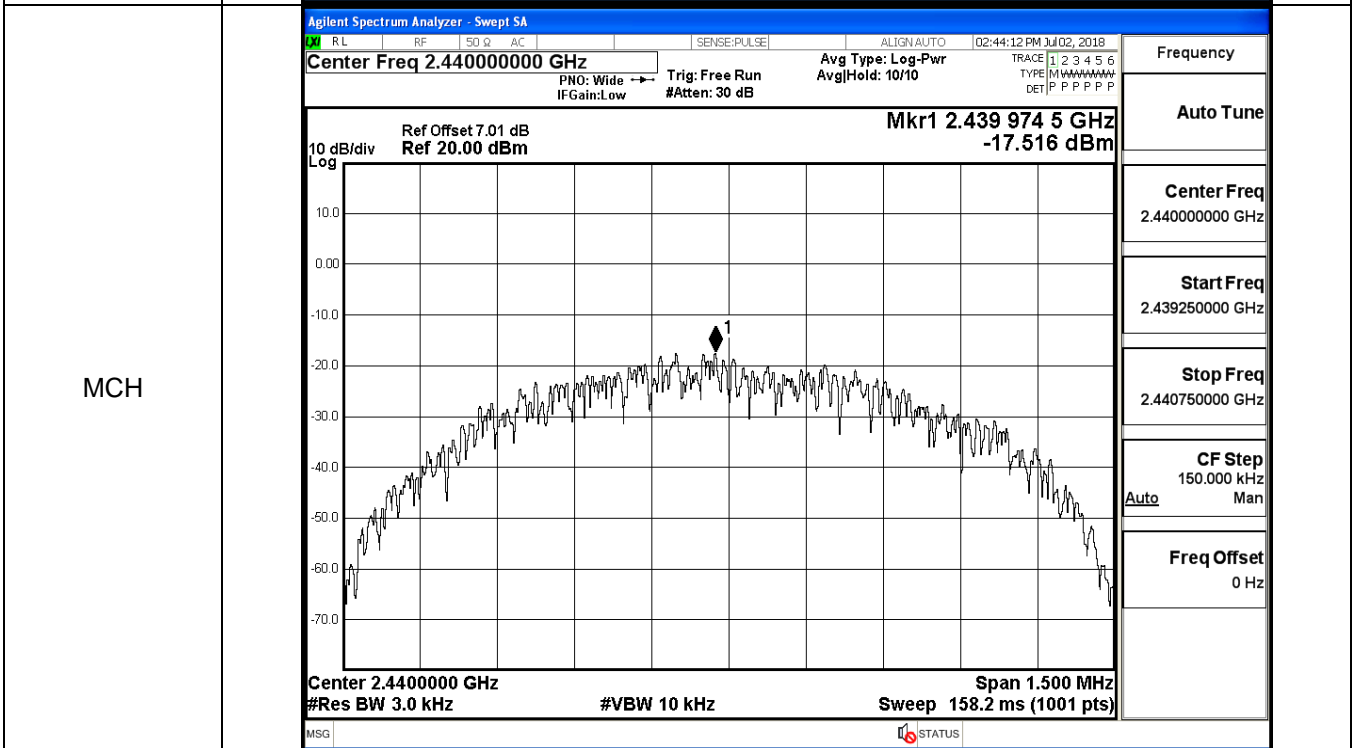
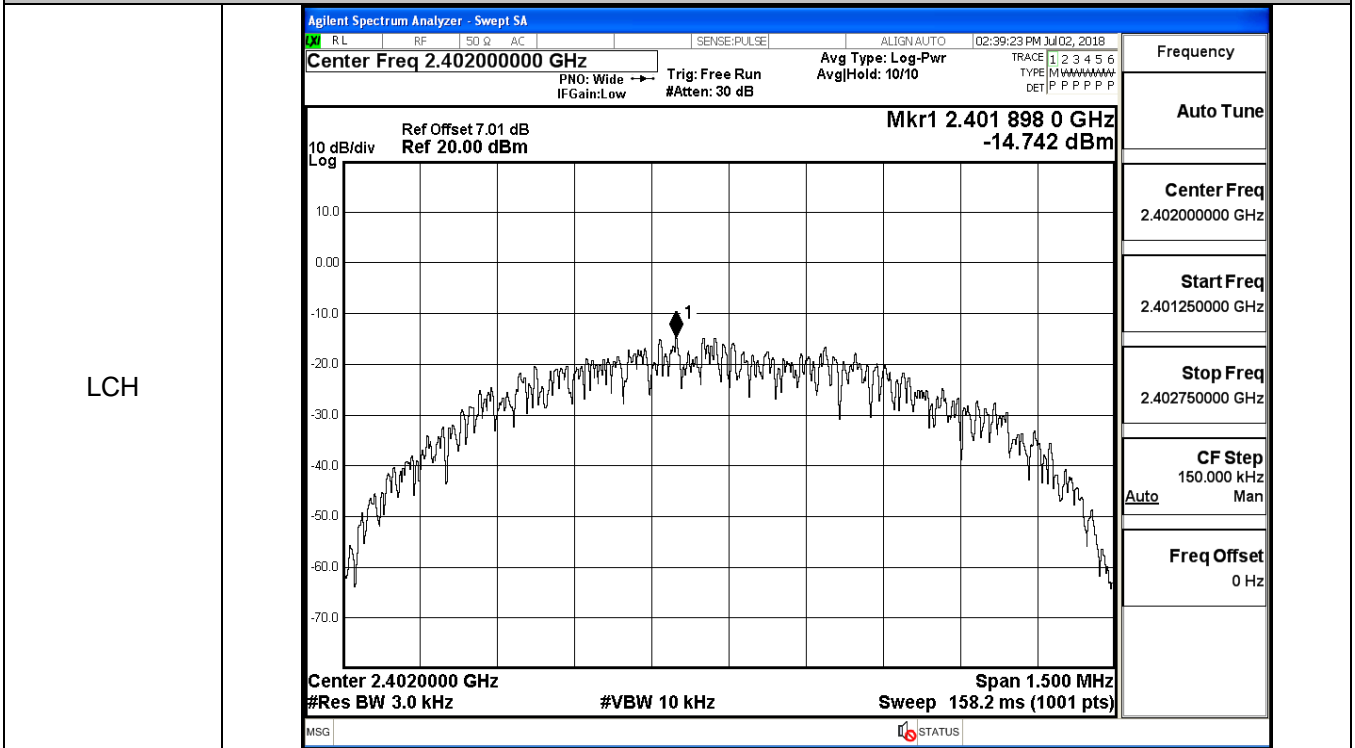
HCH



B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-14.742	8	PASS
BT LE	MCH	-17.516	8	PASS
BT LE	HCH	-17.143	8	PASS

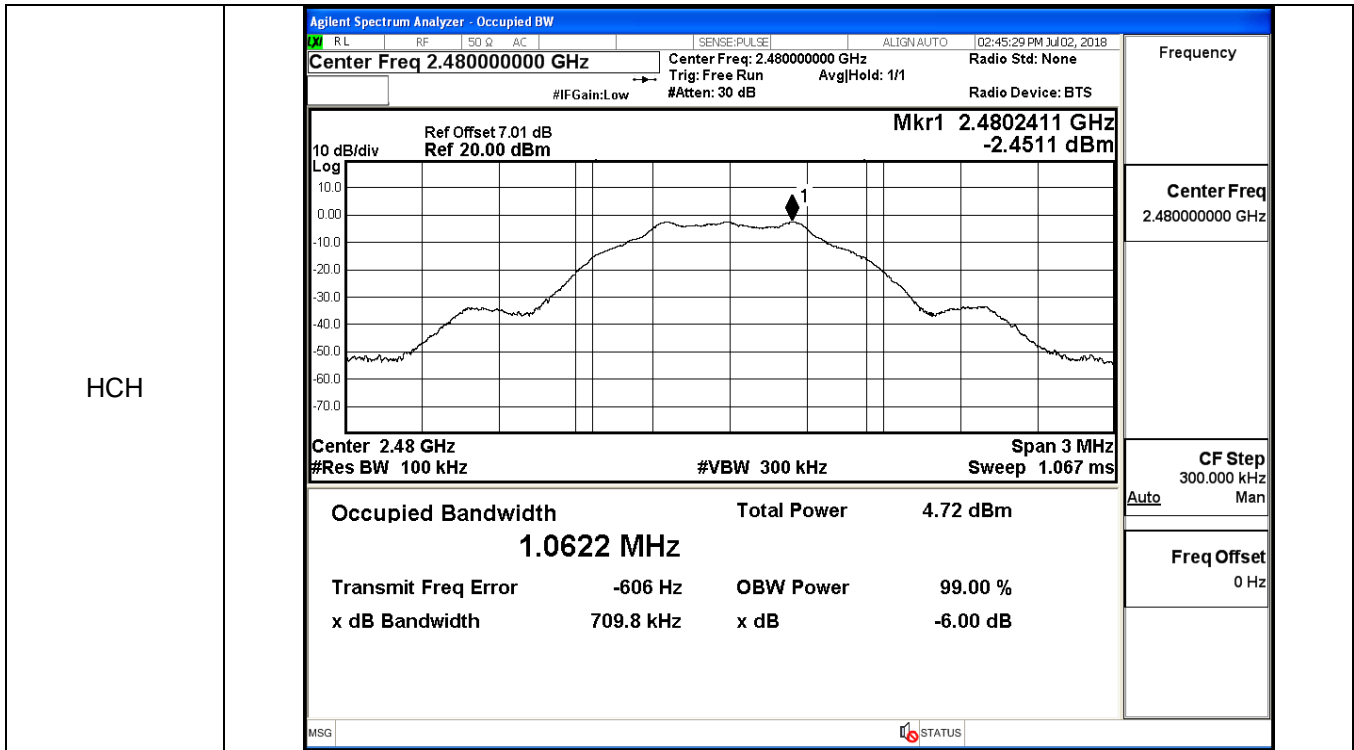
Test Graphs



B.4 6dB Bandwidth

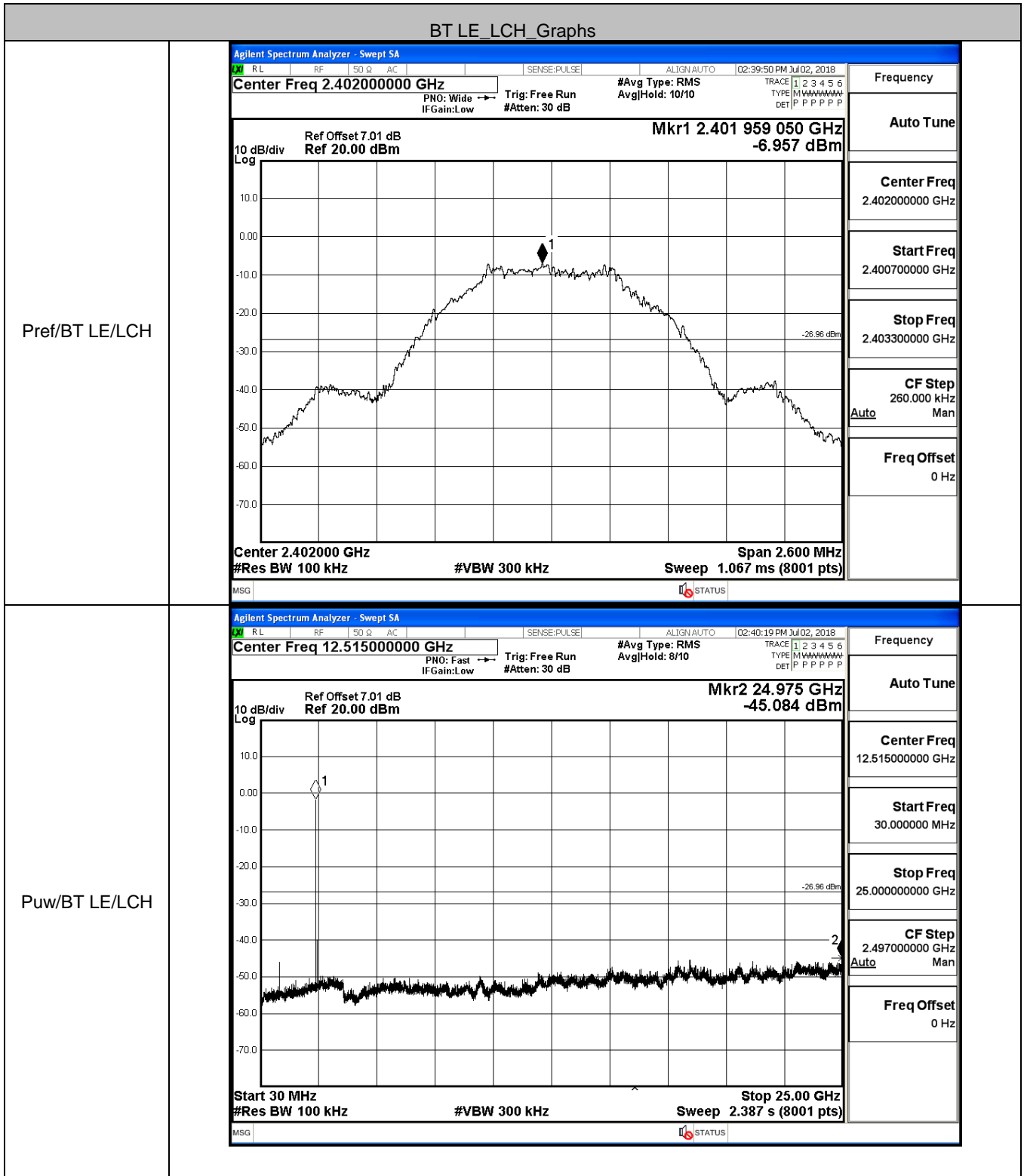
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.7039	≥0.5	PASS
BT LE	MCH	0.7090	≥0.5	PASS
BT LE	HCH	0.7098	≥0.5	PASS

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 02:38:53 PM Jul 02, 2018</p> <p style="margin: 0;">Center Freq 2.402000000 GHz Center Freq: 2.402000000 GHz Radio Std: None Trig: Free Run AvgHold: >1/1 #IFGain: Low #Atten: 30 dB Radio Device: BTS</p> <div style="display: flex; justify-content: space-between;"> <div style="font-size: x-small;"> 10 dB/div Log Ref Offset 7.01 dB Ref 20.00 dBm </div> <div style="text-align: right;"> Mkr1 2.4017465 GHz -0.51733 dBm </div> </div> <div style="display: flex; justify-content: space-between; font-size: x-small;"> <div>Center 2.402 GHz #Res BW 100 kHz</div> <div>#VBW 300 kHz</div> <div>Span 3 MHz Sweep 1.067 ms</div> </div> <table style="width: 100%; font-size: x-small; margin-top: 5px;"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td colspan="2">6.01 dBm</td> </tr> <tr> <td colspan="4" style="text-align: center;">1.0624 MHz</td> </tr> <tr> <td>Transmit Freq Error</td> <td>-1.023 kHz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>703.9 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> </table> <p style="font-size: x-small; margin-top: 5px;">MSG STATUS</p> </div>	Occupied Bandwidth	Total Power	6.01 dBm		1.0624 MHz				Transmit Freq Error	-1.023 kHz	OBW Power	99.00 %	x dB Bandwidth	703.9 kHz	x dB	-6.00 dB
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MCH	<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 02:43:42 PM Jul 02, 2018</p> <p style="margin: 0;">Center Freq 2.440000000 GHz Center Freq: 2.440000000 GHz Radio Std: None Trig: Free Run AvgHold: 1/1 #IFGain: Low #Atten: 30 dB Radio Device: BTS</p> <div style="display: flex; justify-content: space-between;"> <div style="font-size: x-small;"> 10 dB/div Log Ref Offset 7.01 dB Ref 20.00 dBm </div> <div style="text-align: right;"> Mkr1 2.4402441 GHz -2.9072 dBm </div> </div> <div style="display: flex; justify-content: space-between; font-size: x-small;"> <div>Center 2.44 GHz #Res BW 100 kHz</div> <div>#VBW 300 kHz</div> <div>Span 3 MHz Sweep 1.067 ms</div> </div> <table style="width: 100%; font-size: x-small; margin-top: 5px;"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td colspan="2">4.27 dBm</td> </tr> <tr> <td colspan="4" style="text-align: center;">1.0615 MHz</td> </tr> <tr> <td>Transmit Freq Error</td> <td>-809 Hz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>709.0 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> </table> <p style="font-size: x-small; margin-top: 5px;">MSG STATUS</p> </div>	Occupied Bandwidth	Total Power	4.27 dBm		1.0615 MHz				Transmit Freq Error	-809 Hz	OBW Power	99.00 %	x dB Bandwidth	709.0 kHz	x dB	-6.00 dB
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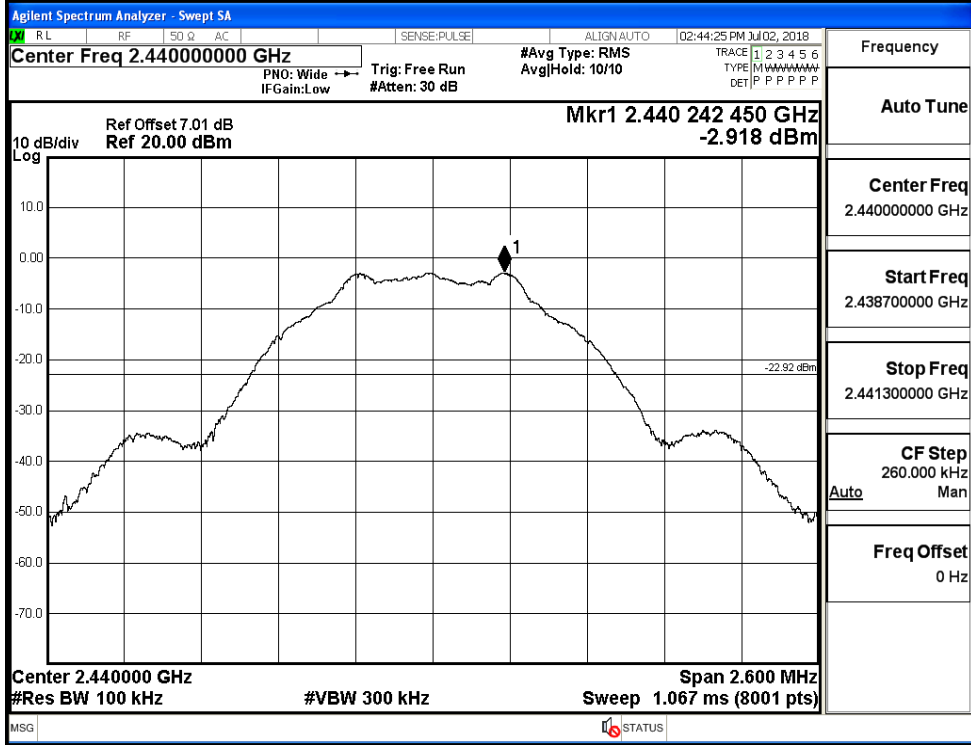
B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-6.957	-45.084	-26.957	PASS
BT LE	MCH	-2.918	-45.536	-22.918	PASS
BT LE	HCH	-2.371	-44.972	-22.371	PASS

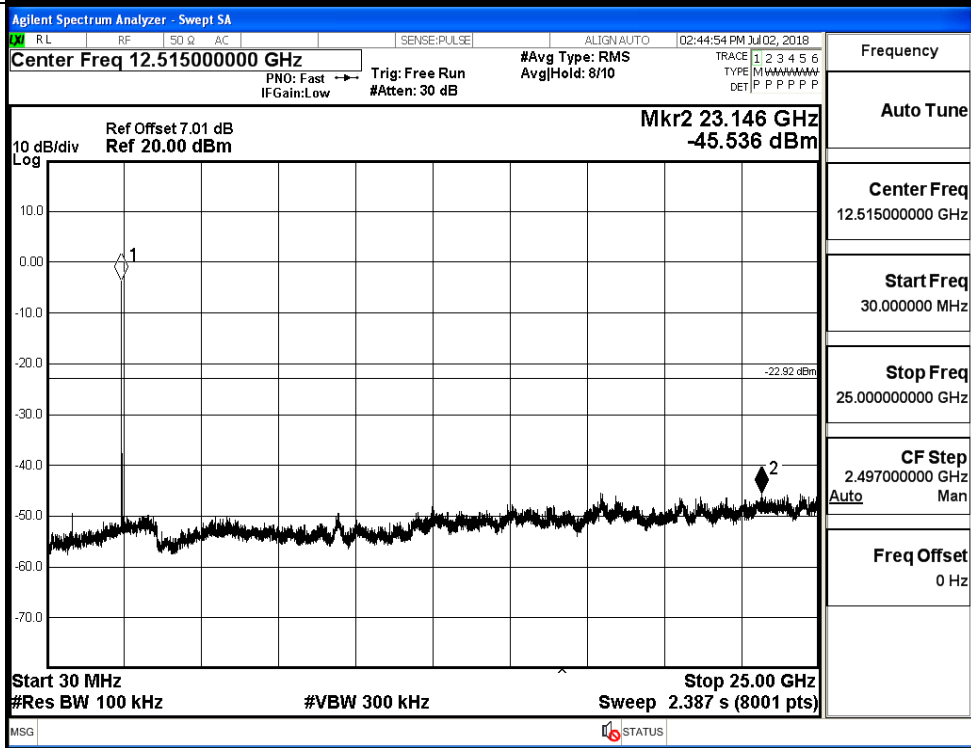


BT LE_MCH_Graphs

Pref/BT LE/MCH

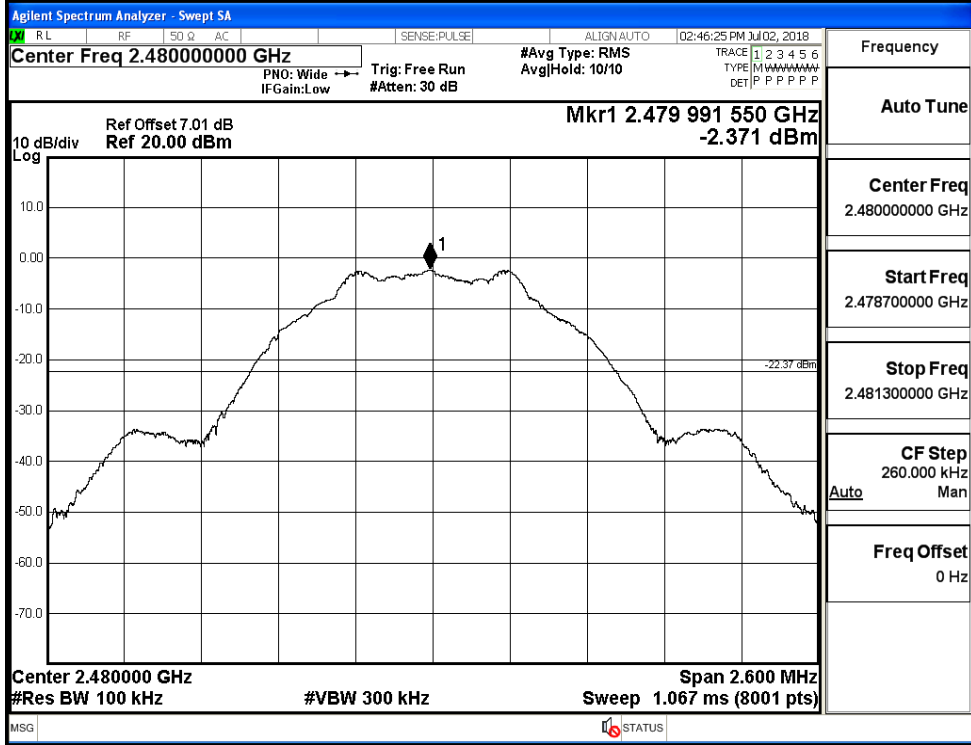


Puw/BT LE/MCH

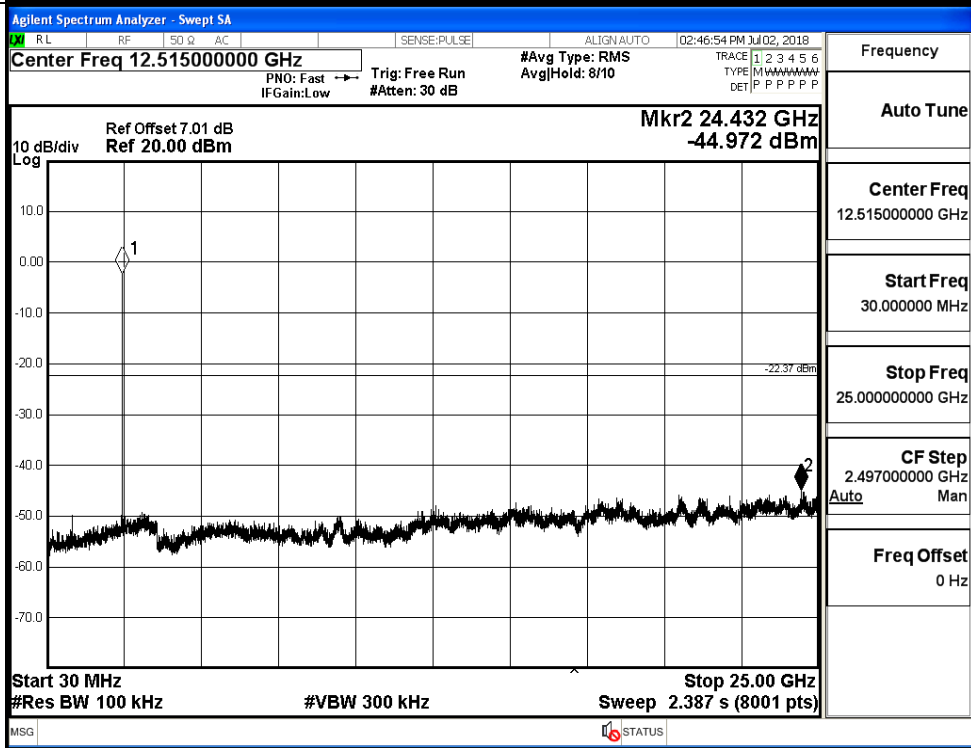


BT LE_HCH_Graphs

Pref/BT LE/HCH



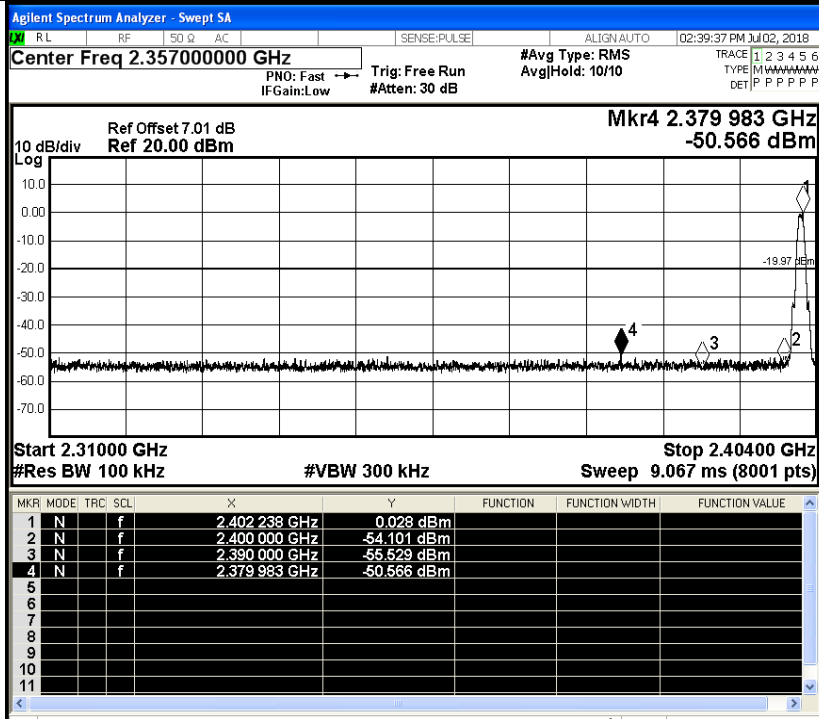
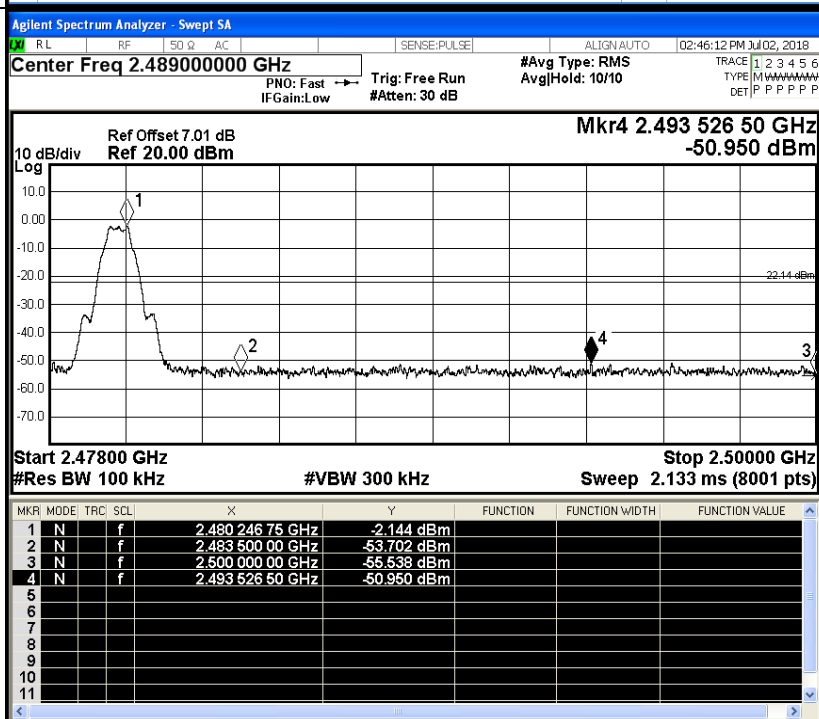
Puw/BT LE/HCH



B.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	0.028	-50.566	-19.97	PASS
BT LE	HCH	-2.144	-50.950	-22.14	PASS

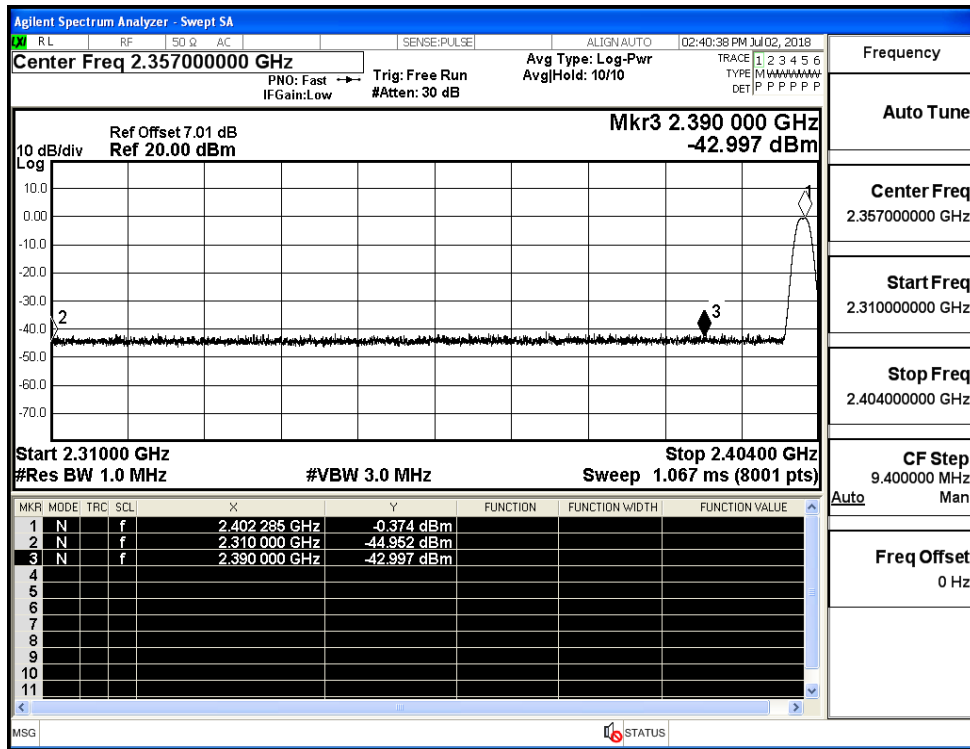
Test Graphs

LCH		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.357000000 GHz</p> <p>Start Freq 2.310000000 GHz</p> <p>Stop Freq 2.404000000 GHz</p> <p>CF Step 9.400000 MHz</p> <p>Freq Offset 0 Hz</p>
HCH		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.489000000 GHz</p> <p>Start Freq 2.478000000 GHz</p> <p>Stop Freq 2.500000000 GHz</p> <p>CF Step 2.200000 MHz</p> <p>Freq Offset 0 Hz</p>

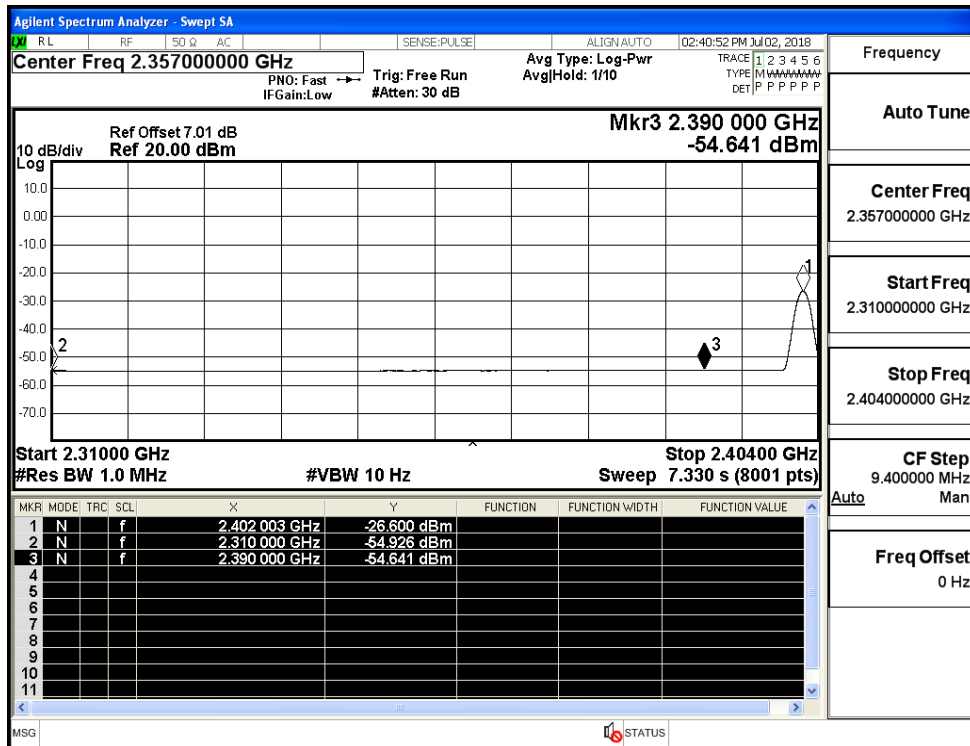
B.7 Restrict-band band-edge measurements

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	-44.95	2.0	0	52.31	PEAK	74	PASS
		Ant1	2310.0	-54.93	2.0	0	42.33	AV	54	PASS
		Ant1	2390.0	-43.00	2.0	0	54.26	PEAK	74	PASS
		Ant1	2390.0	-54.64	2.0	0	42.62	AV	54	PASS
	2480	Ant1	2483.5	-44.02	2.0	0	53.24	PEAK	74	PASS
		Ant1	2483.5	-54.44	2.0	0	42.82	AV	54	PASS
		Ant1	2500.0	-44.30	2.0	0	52.96	PEAK	74	PASS
		Ant1	2500.0	-54.30	2.0	0	42.96	AV	54	PASS

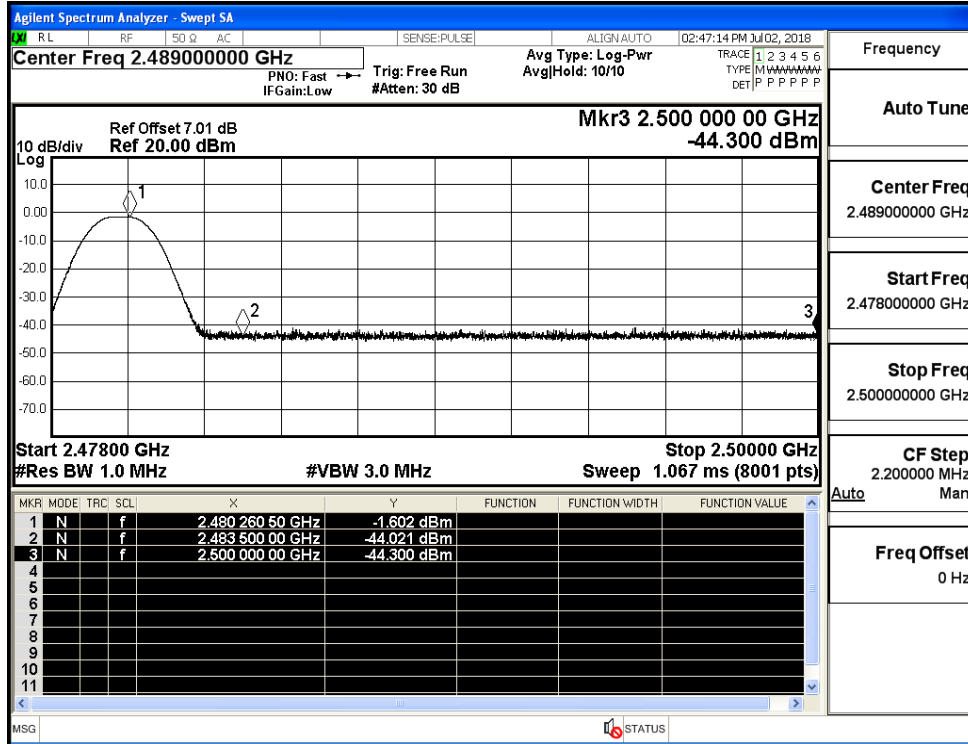
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

