

Appendix A

RF Test Data for BT V4.0(BT LE) (Conducted Measurement)

Product Name: Bluetooth headphones with ANC BT-300ANC

Trade Mark: N/A

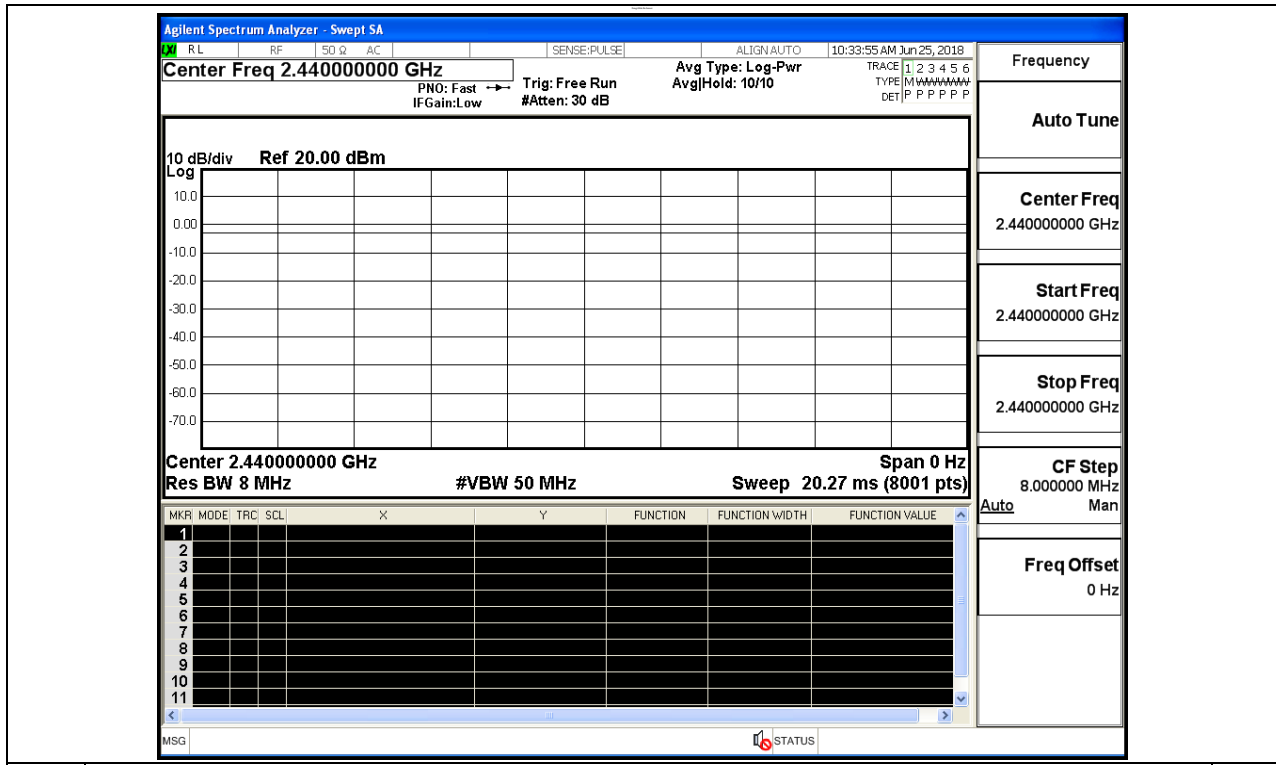
Test Model: 33834

Environmental Conditions

Temperature:	22.2° C
Relative Humidity:	53.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Mina Xu
Supervised by:	Jayden Zhuo

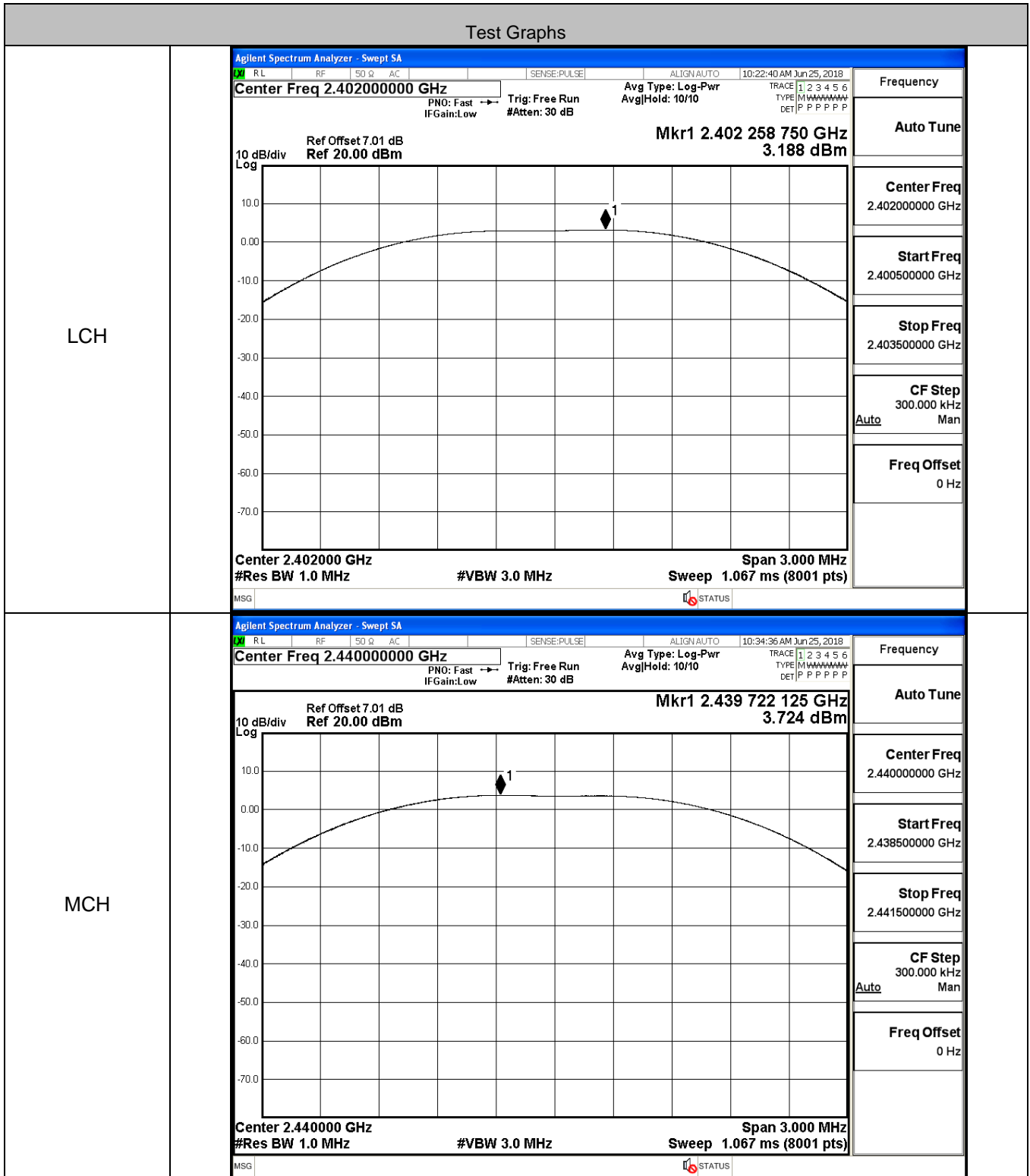
A.1 Duty Cycle

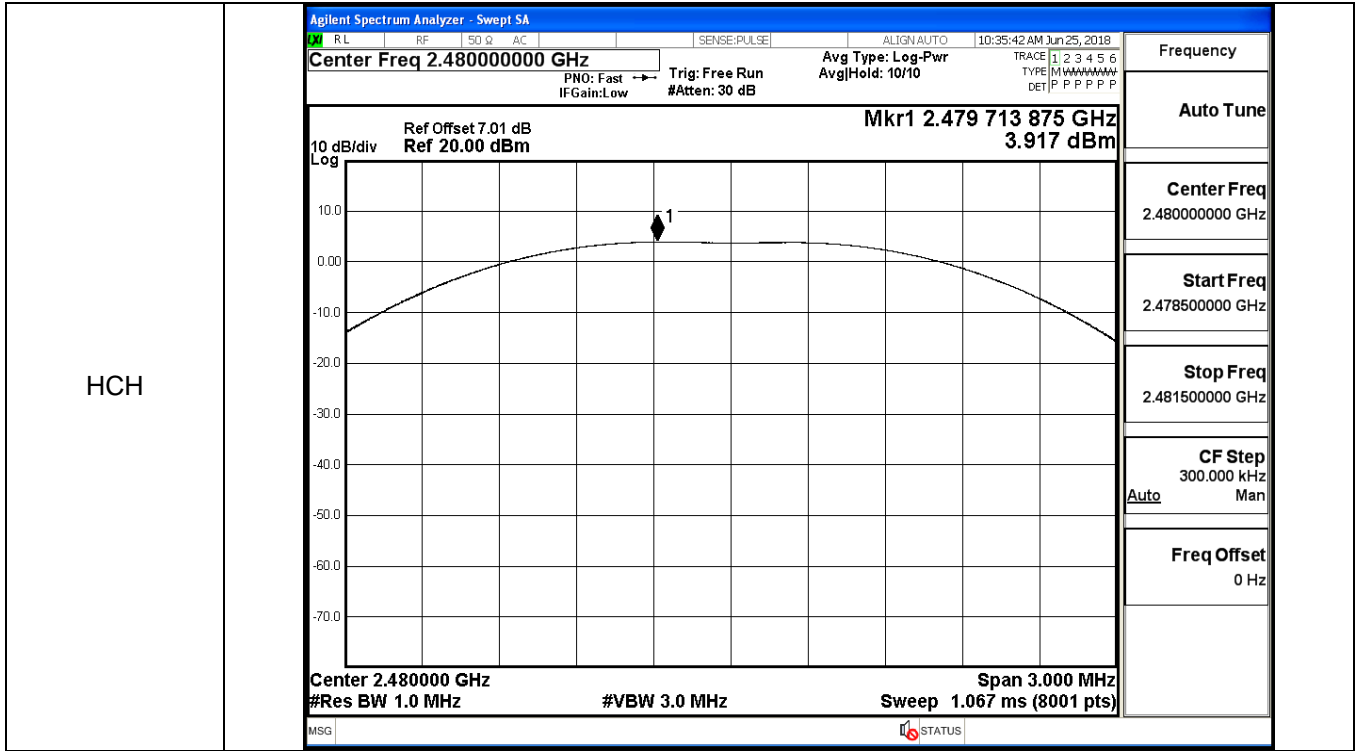
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS



A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	3.188	30	PASS
BT LE	MCH	3.724	30	PASS
BT LE	HCH	3.917	30	PASS

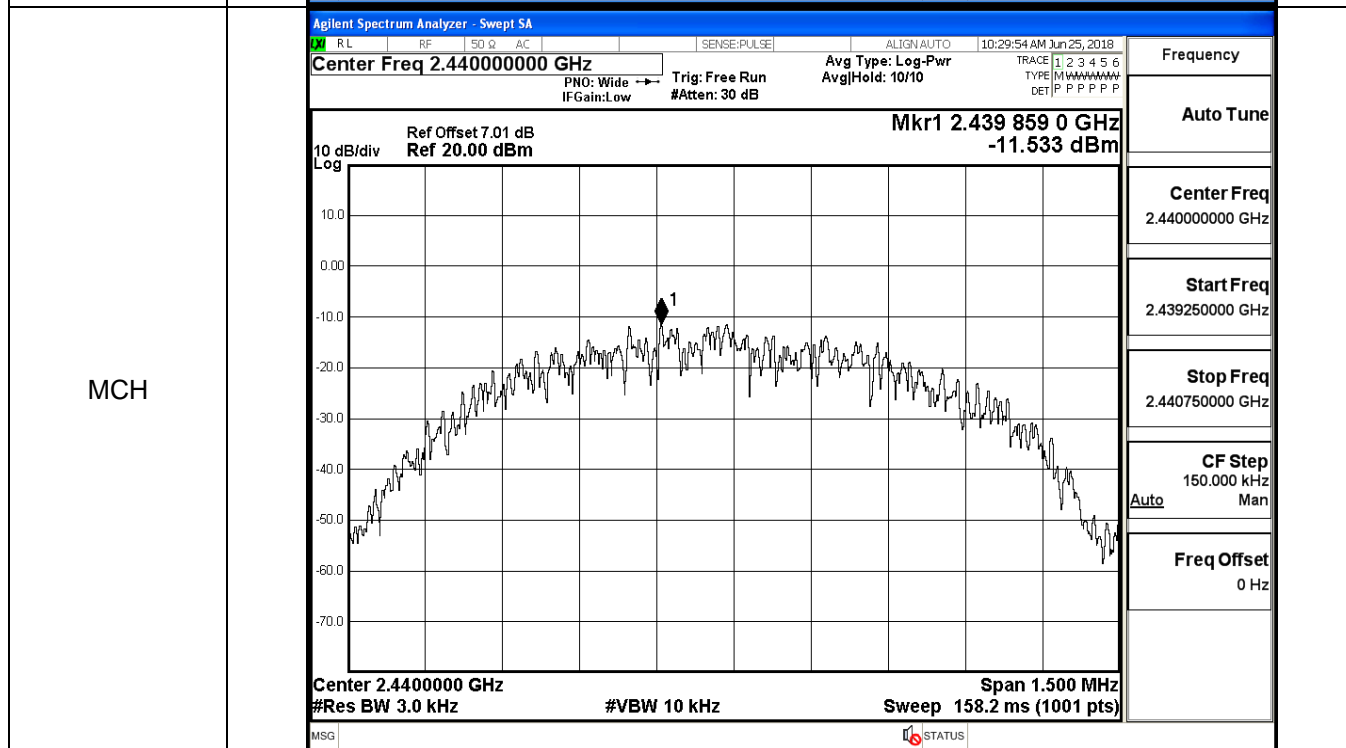
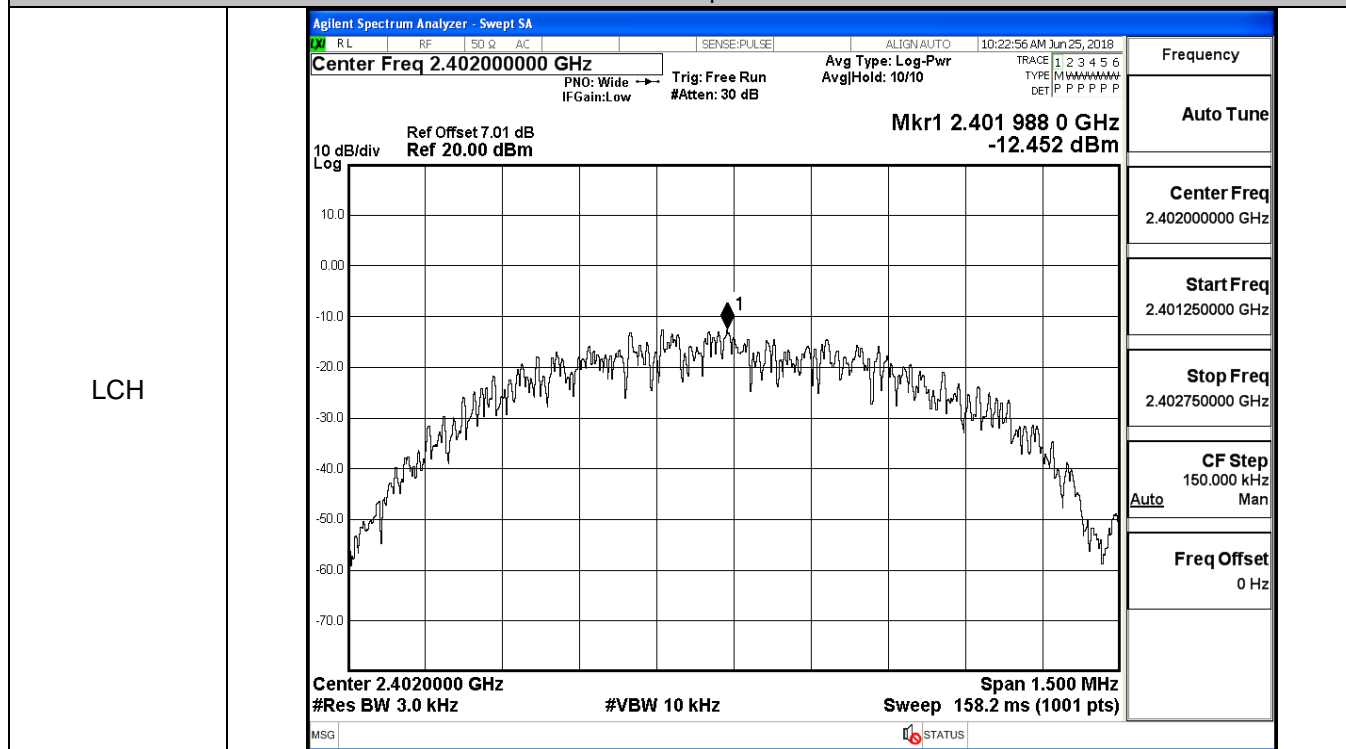


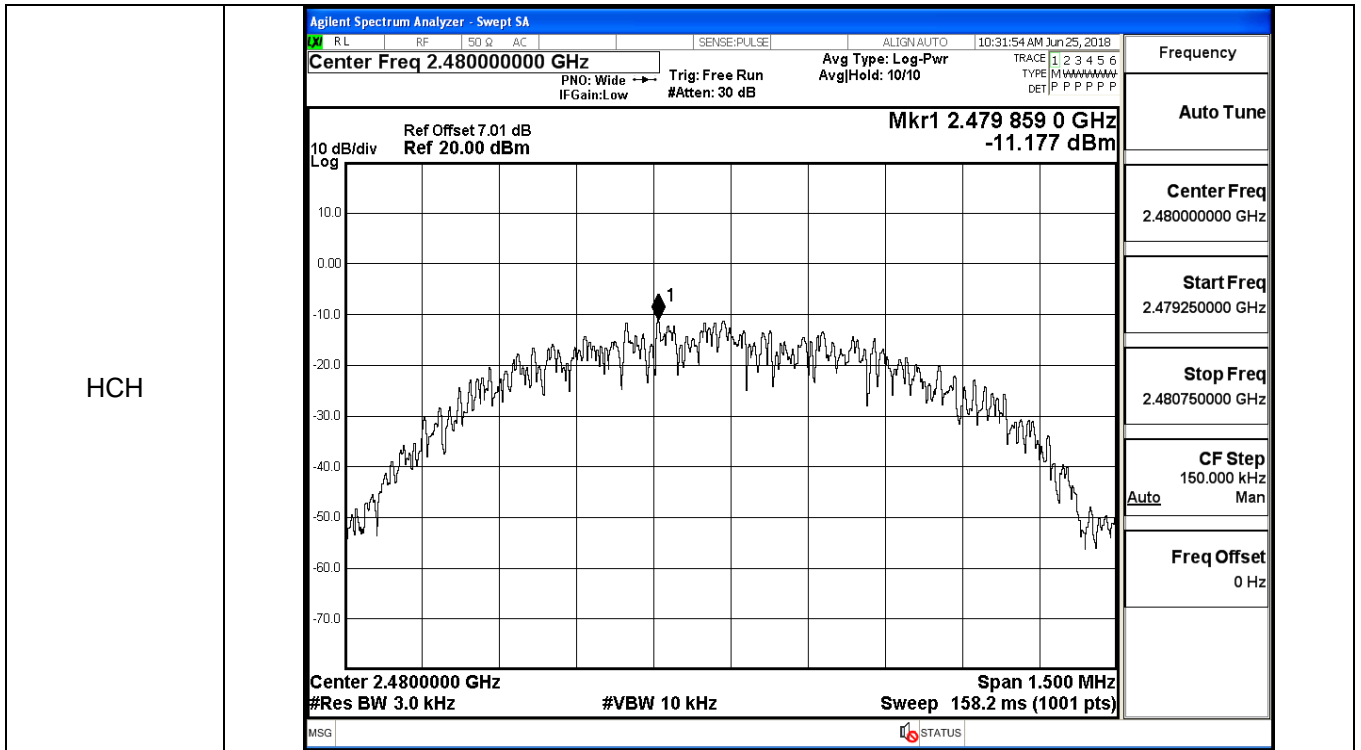


A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-12.452	8	PASS
BT LE	MCH	-11.533	8	PASS
BT LE	HCH	-11.177	8	PASS

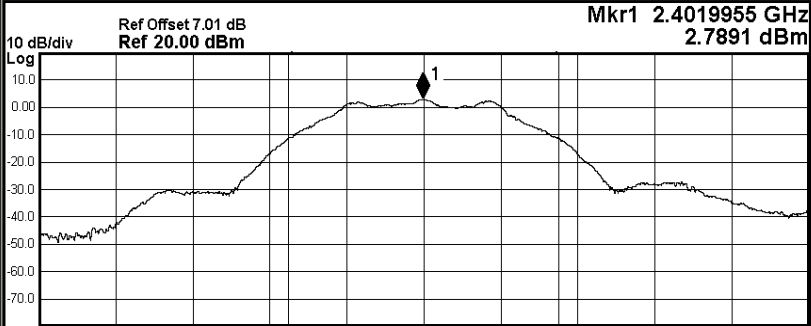
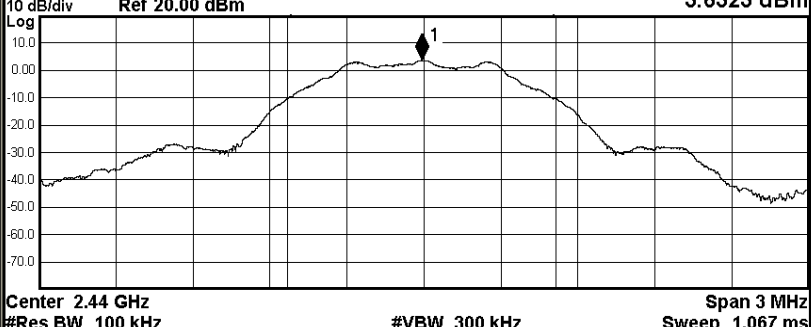
Test Graphs

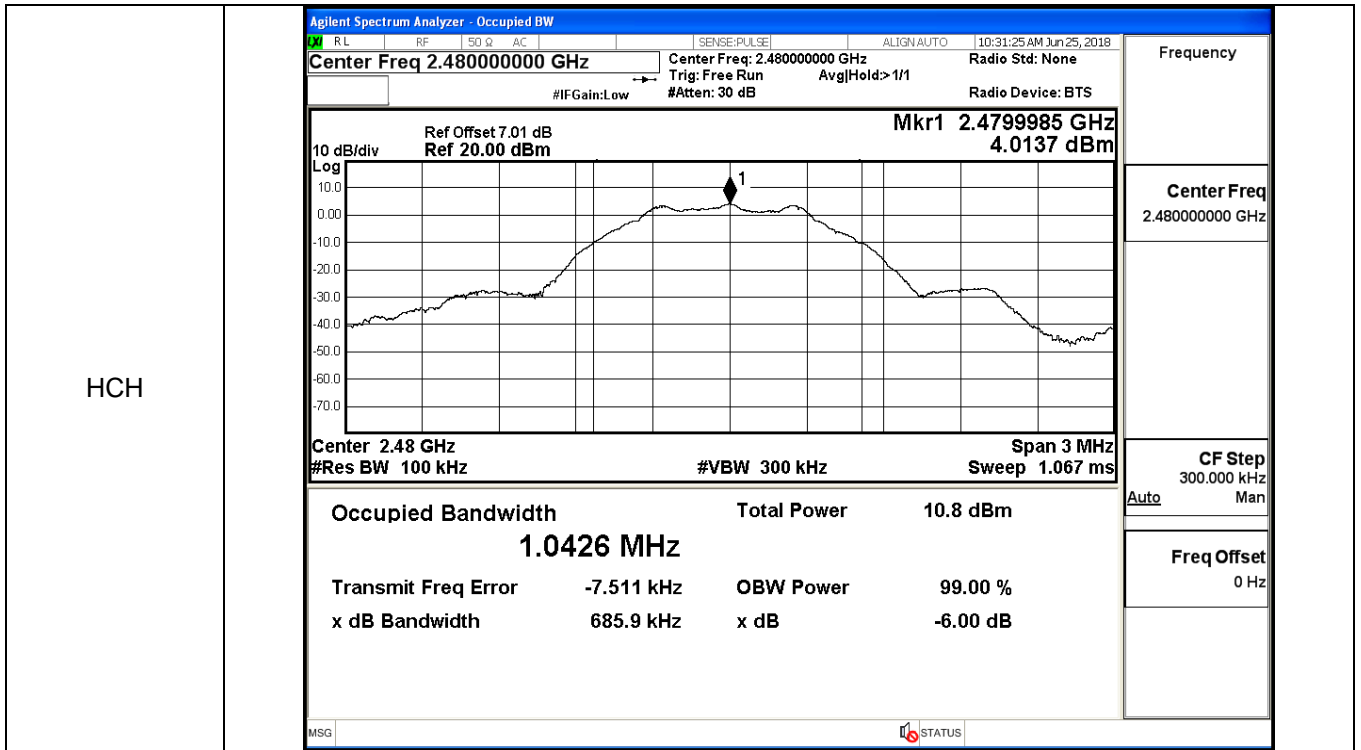




A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.7023	≥0.5	PASS
BT LE	MCH	0.7018	≥0.5	PASS
BT LE	HCH	0.6859	≥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 10:22:27 AM Jun 25, 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="border: 1px solid black; padding: 2px;"> <p style="text-align: right; margin: 0;">Mkr1 2.4019955 GHz 2.7891 dBm</p>  </div> <p style="font-size: small; margin: 0;">Center 2.402 GHz Span 3 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms</p> <table style="width: 100%; font-size: small; border-collapse: collapse;"> <tr> <td style="width: 50%;">Occupied Bandwidth</td> <td style="width: 50%;">Total Power</td> <td style="width: 50%;">9.52 dBm</td> </tr> <tr> <td style="text-align: center;">1.0456 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>1.138 kHz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>702.3 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	9.52 dBm	1.0456 MHz			Transmit Freq Error	1.138 kHz	OBW Power	x dB Bandwidth	702.3 kHz	x dB			99.00 %			-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 10:29:24 AM Jun 25, 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="border: 1px solid black; padding: 2px;"> <p style="text-align: right; margin: 0;">Mkr1 2.4399929 GHz 3.6323 dBm</p>  </div> <p style="font-size: small; margin: 0;">Center 2.44 GHz Span 3 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms</p> <table style="width: 100%; font-size: small; border-collapse: collapse;"> <tr> <td style="width: 50%;">Occupied Bandwidth</td> <td style="width: 50%;">Total Power</td> <td style="width: 50%;">10.4 dBm</td> </tr> <tr> <td style="text-align: center;">1.0440 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-7.727 kHz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>701.8 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	10.4 dBm	1.0440 MHz			Transmit Freq Error	-7.727 kHz	OBW Power	x dB Bandwidth	701.8 kHz	x dB			99.00 %			-6.00 dB
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A.5 RF Conducted Spurious Emissions

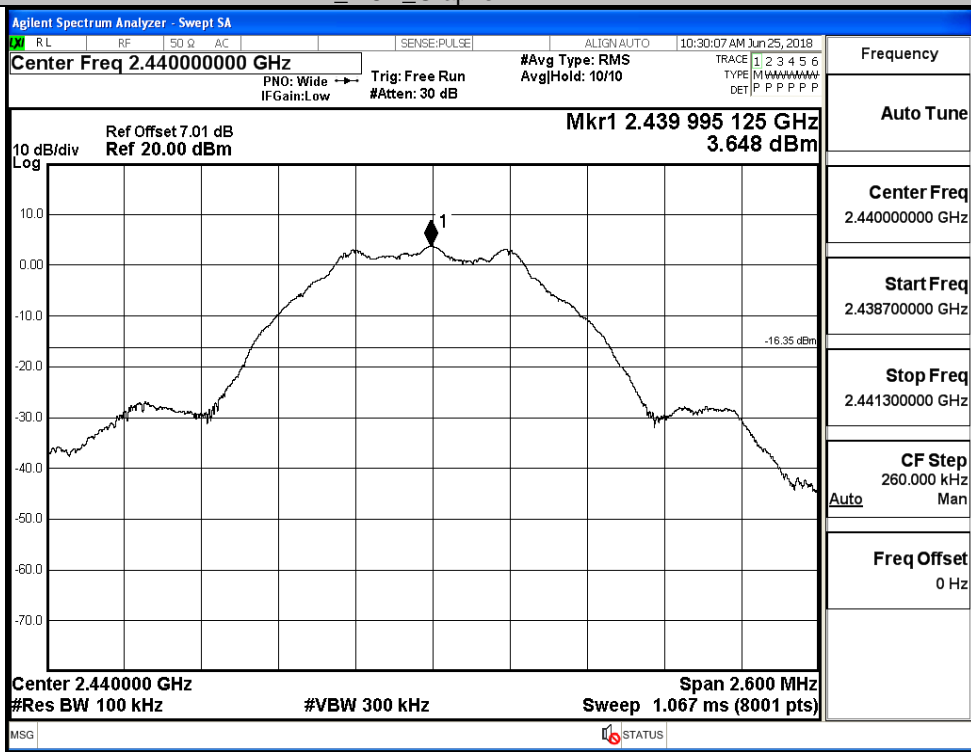
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	2.762	-45.448	-17.238	PASS
BT LE	MCH	3.648	-45.370	-16.352	PASS
BT LE	HCH	3.934	-32.040	-16.066	PASS

BT LE_LCH_Graphs

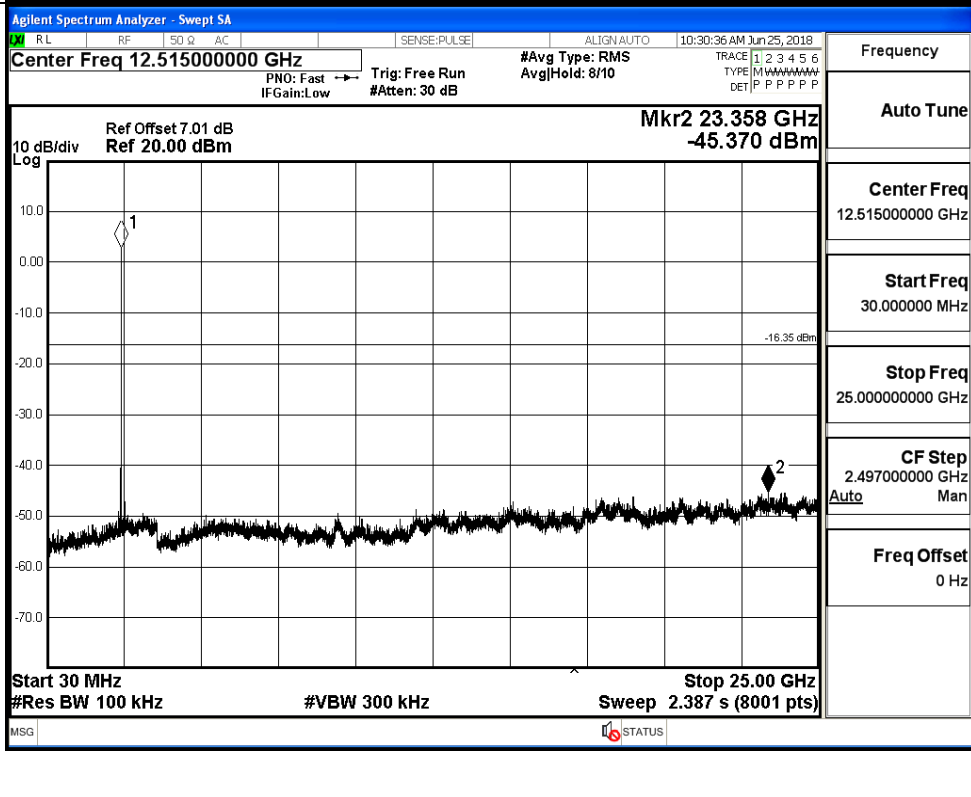
Pref/BT LE/LCH		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Frequency</td></tr> <tr><td>Auto Tune</td></tr> <tr><td>Center Freq 2.402000000 GHz</td></tr> <tr><td>Start Freq 2.400700000 GHz</td></tr> <tr><td>Stop Freq 2.403300000 GHz</td></tr> <tr><td>CF Step 260.000 kHz Auto Man</td></tr> <tr><td>Freq Offset 0 Hz</td></tr> </table>	Frequency	Auto Tune	Center Freq 2.402000000 GHz	Start Freq 2.400700000 GHz	Stop Freq 2.403300000 GHz	CF Step 260.000 kHz Auto Man	Freq Offset 0 Hz
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Stop Freq 2.403300000 GHz									
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Freq Offset 0 Hz									
Puw/BT LE/LCH		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Frequency</td></tr> <tr><td>Auto Tune</td></tr> <tr><td>Center Freq 12.515000000 GHz</td></tr> <tr><td>Start Freq 30.000000 MHz</td></tr> <tr><td>Stop Freq 25.000000000 GHz</td></tr> <tr><td>CF Step 2.497000000 GHz Auto Man</td></tr> <tr><td>Freq Offset 0 Hz</td></tr> </table>	Frequency	Auto Tune	Center Freq 12.515000000 GHz	Start Freq 30.000000 MHz	Stop Freq 25.000000000 GHz	CF Step 2.497000000 GHz Auto Man	Freq Offset 0 Hz
Frequency									
Auto Tune									
Center Freq 12.515000000 GHz									
Start Freq 30.000000 MHz									
Stop Freq 25.000000000 GHz									
CF Step 2.497000000 GHz Auto Man									
Freq Offset 0 Hz									

BT LE_MCH_Graphs

Pref/BT LE/MCH

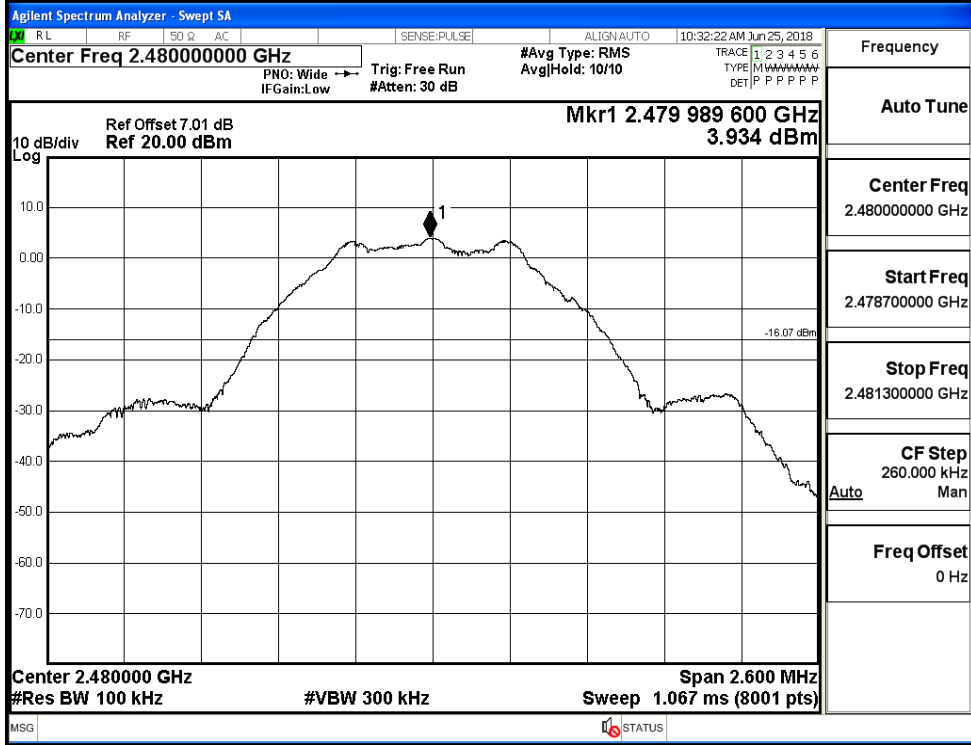


Puw/BT LE/MCH



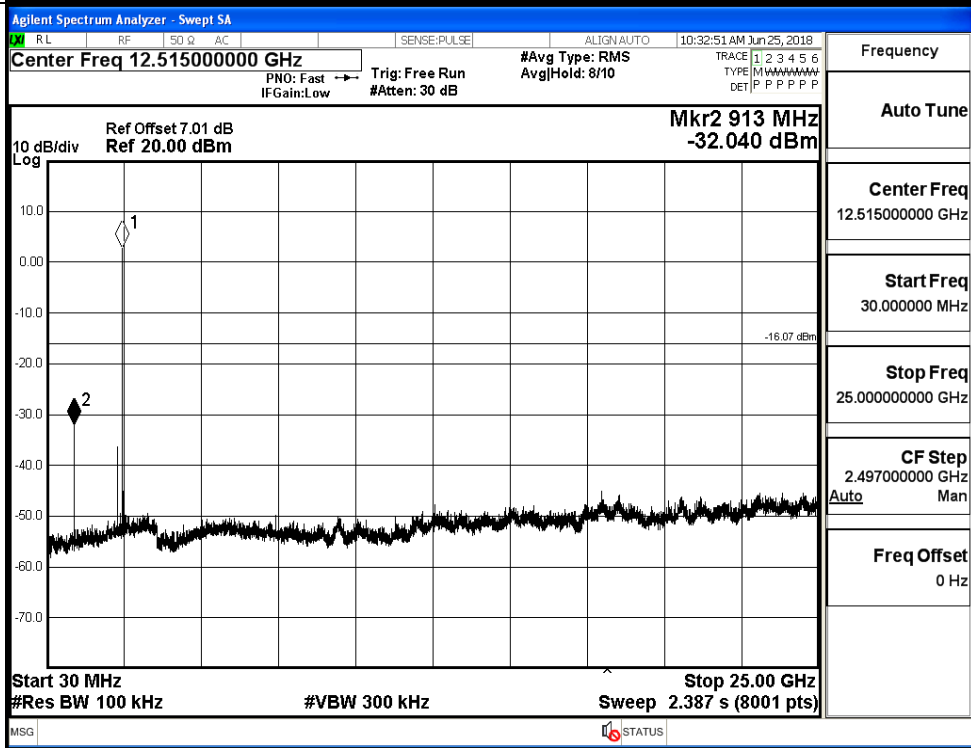
BT LE_HCH_Graphs

Pref/BT LE/HCH



Frequency
Auto Tune
Center Freq 2.480000000 GHz
Start Freq 2.478700000 GHz
Stop Freq 2.481300000 GHz
CF Step 260.000 kHz Auto Man
Freq Offset 0 Hz

Puw/BT LE/HCH

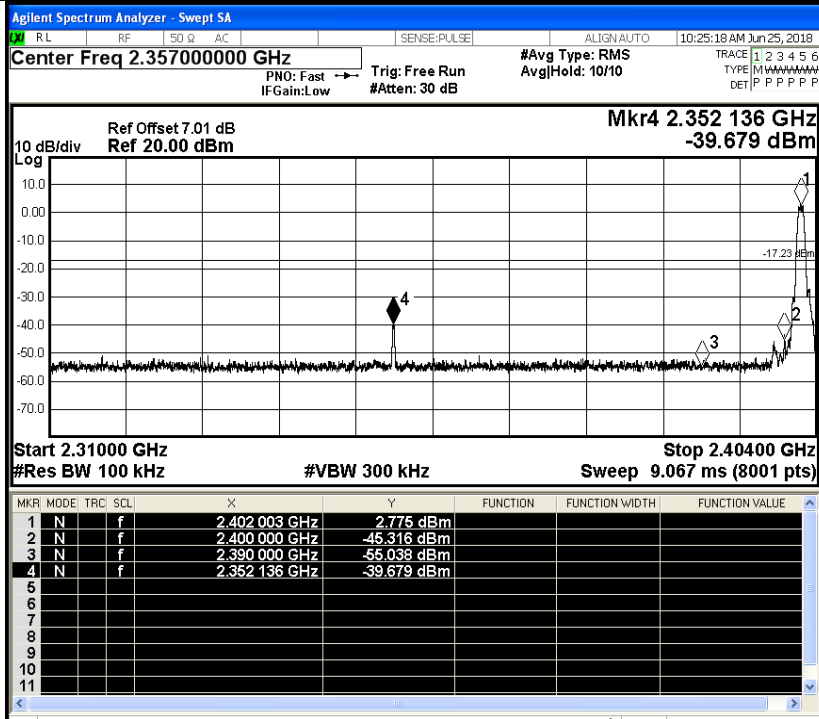
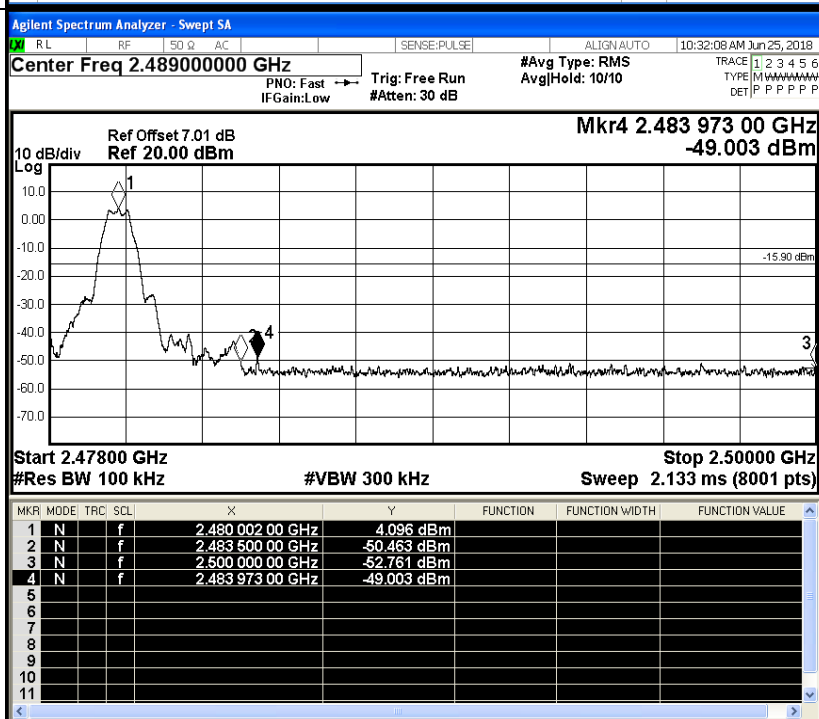


Frequency
Auto Tune
Center Freq 12.515000000 GHz
Start Freq 30.0000000 MHz
Stop Freq 25.000000000 GHz
CF Step 2.497000000 GHz Auto Man
Freq Offset 0 Hz

A.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	2.775	-39.679	-17.23	PASS
BT LE	HCH	4.096	-49.003	-15.9	PASS

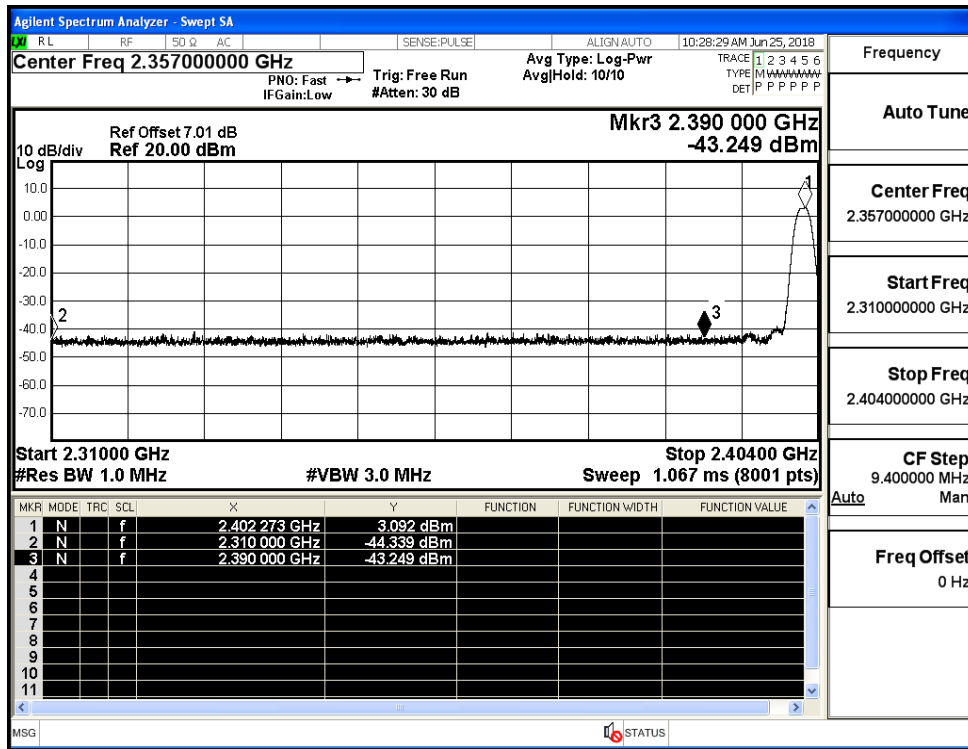
Test Graphs

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>
HCH		<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>

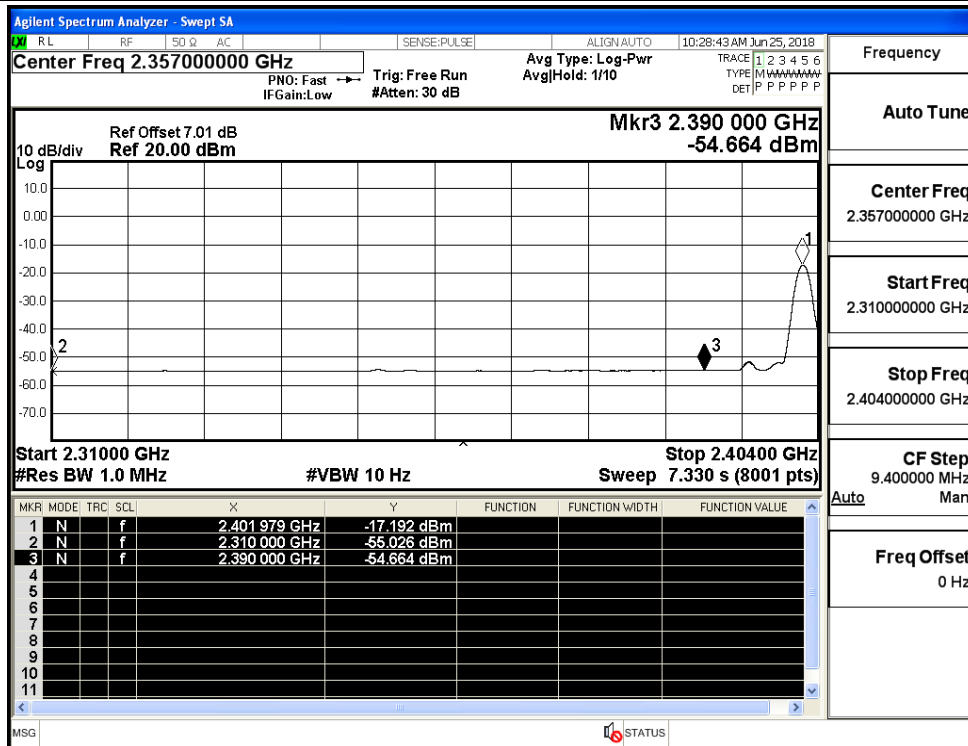
A.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
BT LE	2402	Ant1	2310.0	-44.34	2.0	0	52.92	PEAK	74	PASS
		Ant1	2310.0	-55.03	2.0	0	42.23	AV	54	PASS
		Ant1	2390.0	-43.25	2.0	0	54.01	PEAK	74	PASS
		Ant1	2390.0	-54.66	2.0	0	42.59	AV	54	PASS
	2480	Ant1	2483.5	-39.25	2.0	0	58.00	PEAK	74	PASS
		Ant1	2483.5	-51.78	2.0	0	45.48	AV	54	PASS
		Ant1	2500.0	-43.65	2.0	0	53.61	PEAK	74	PASS
		Ant1	2500.0	-54.26	2.0	0	43.00	AV	54	PASS

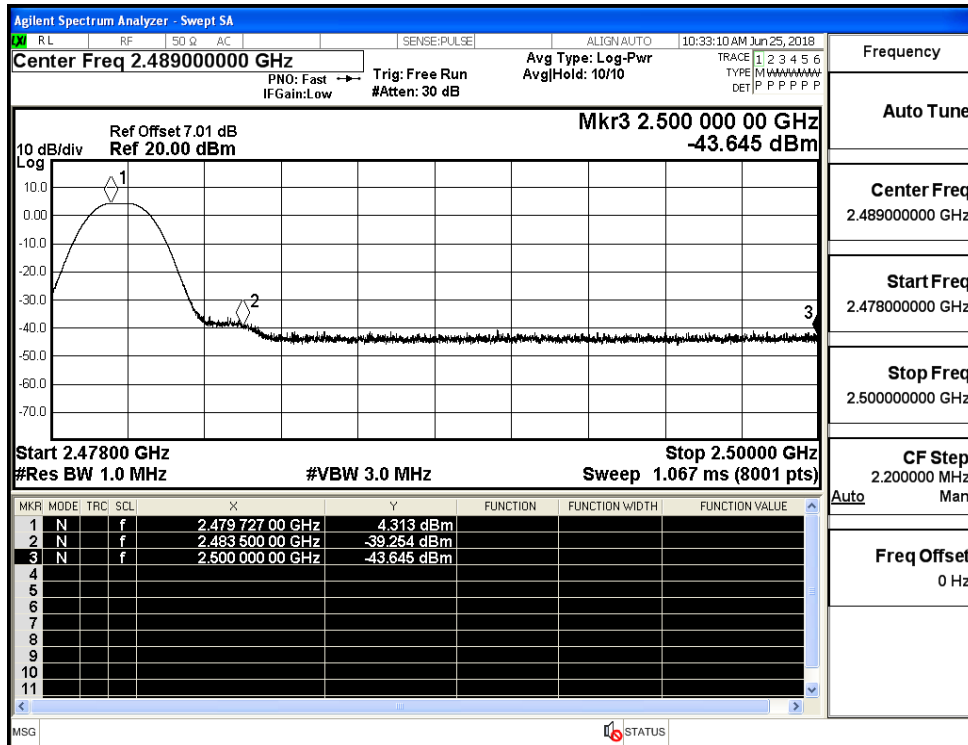
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

