

Appendix A

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

Product Name: LOVENSE Mission

Trade Mark: LOVENSE

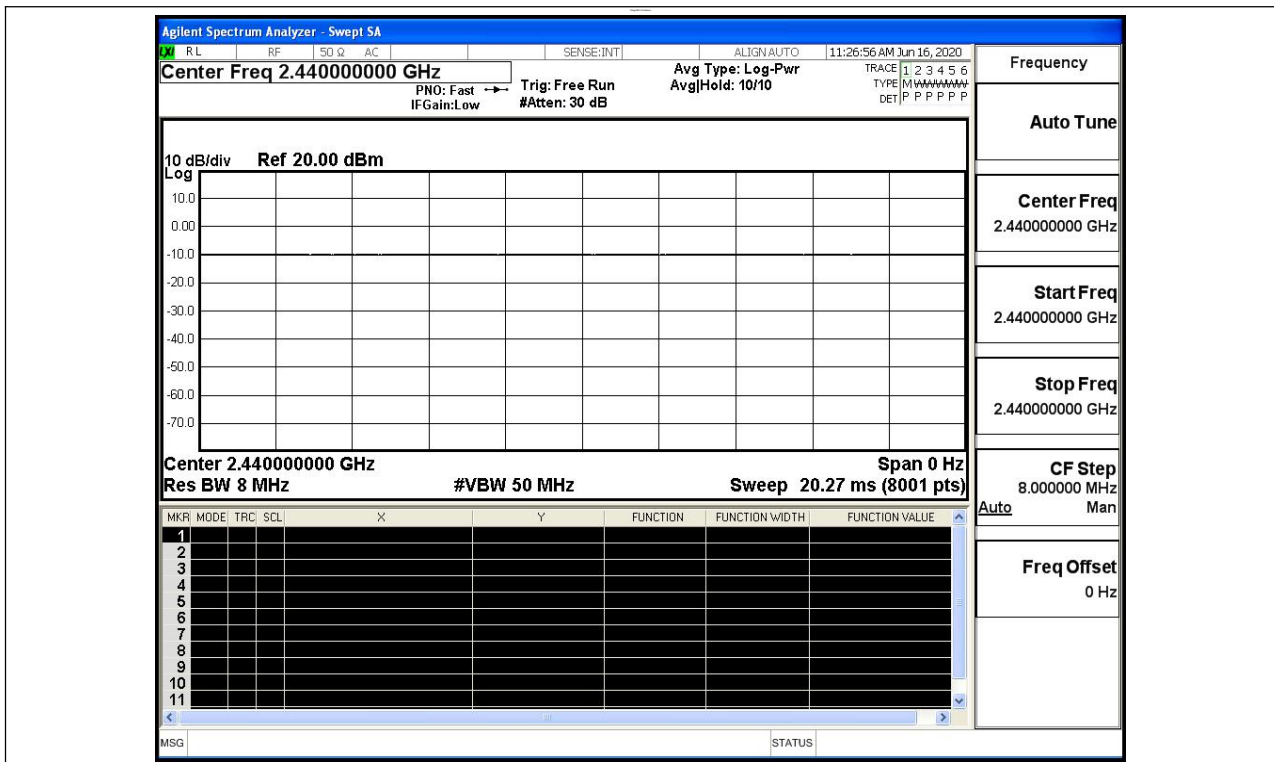
Test Model: Mission

Environmental Conditions

Temperature:	24.1 ° C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

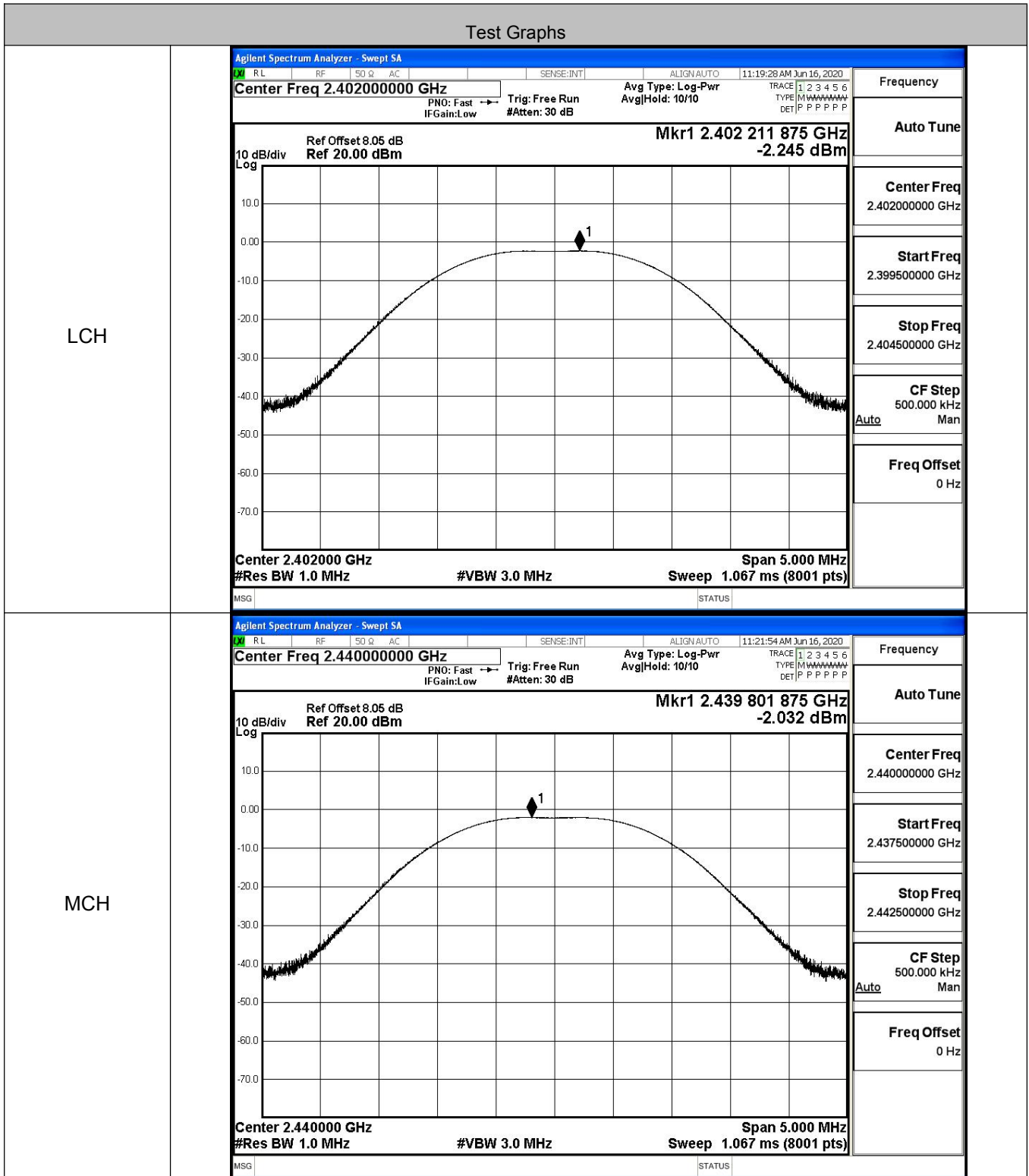
A.1 Duty Cycle

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

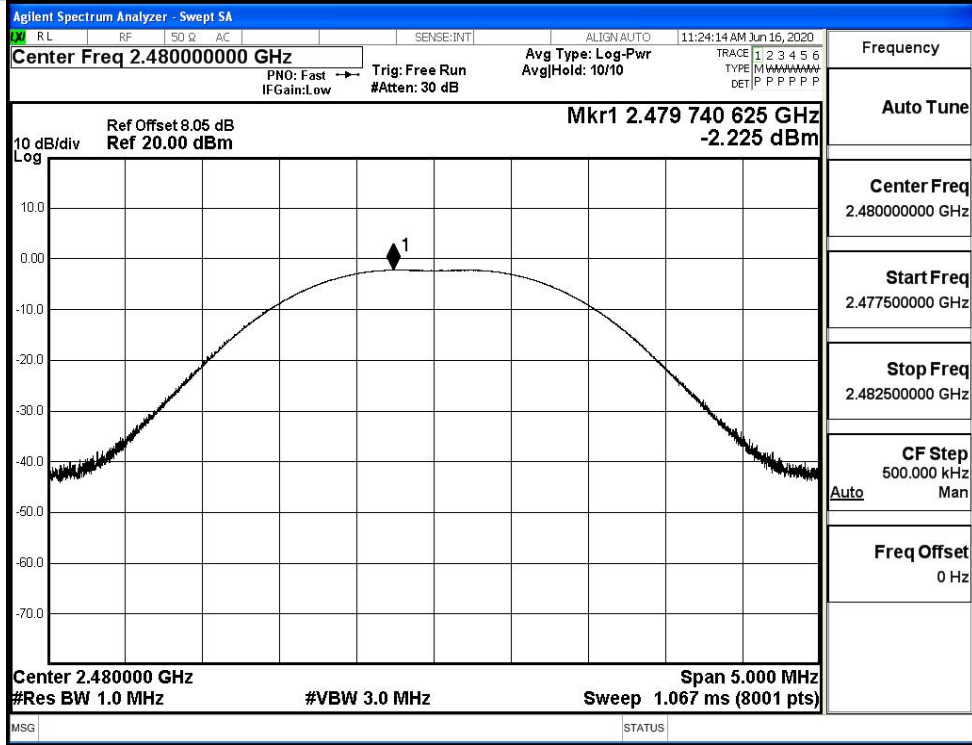


A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.245	30	PASS
BT LE	MCH	-2.032	30	PASS
BT LE	HCH	-2.225	30	PASS



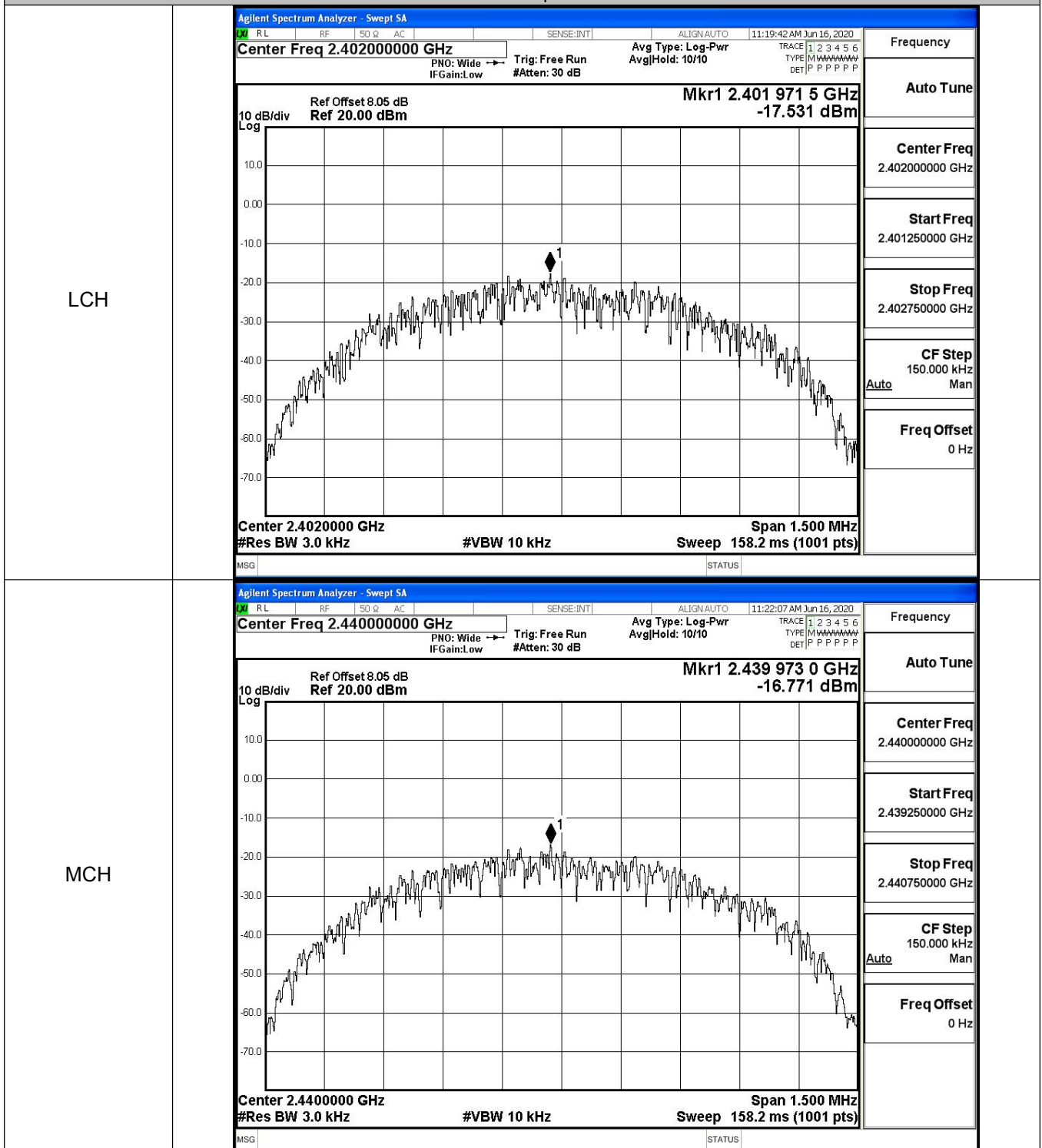
HCH



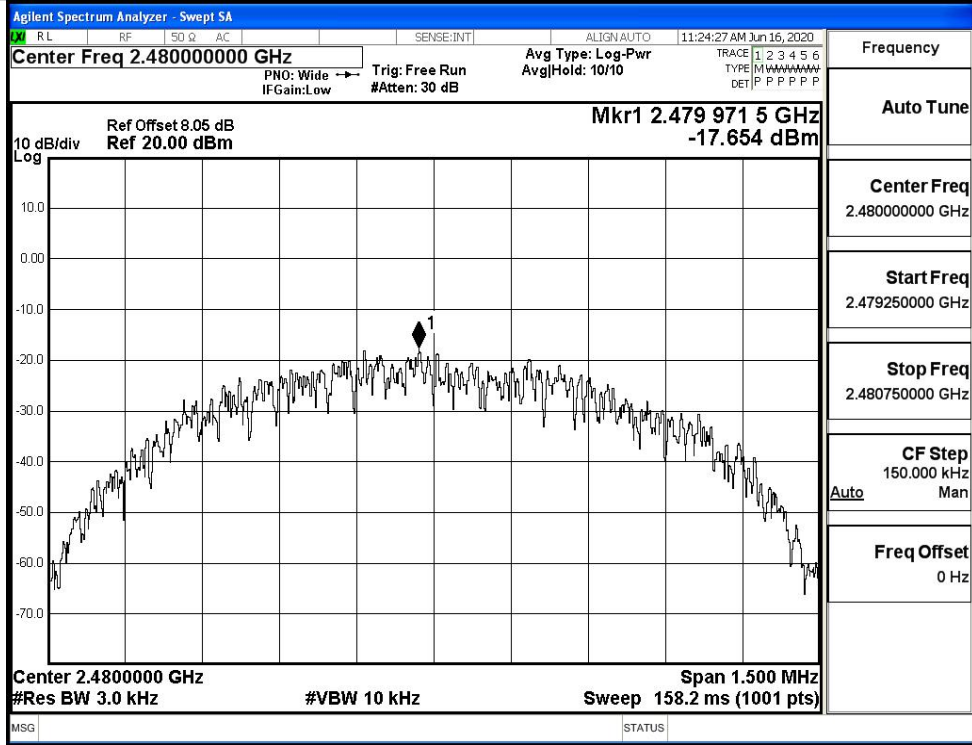
A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-17.531	8	PASS
BT LE	MCH	-16.771	8	PASS
BT LE	HCH	-17.654	8	PASS

Test Graphs



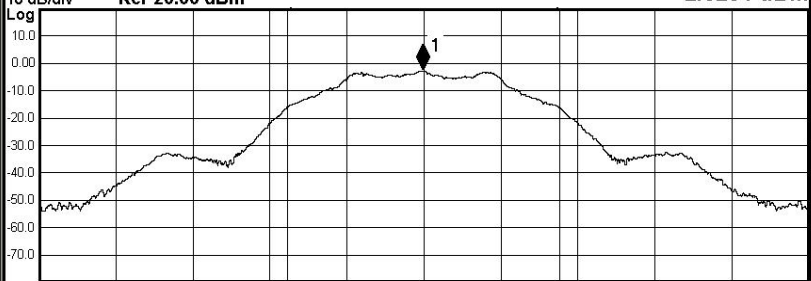
HCH

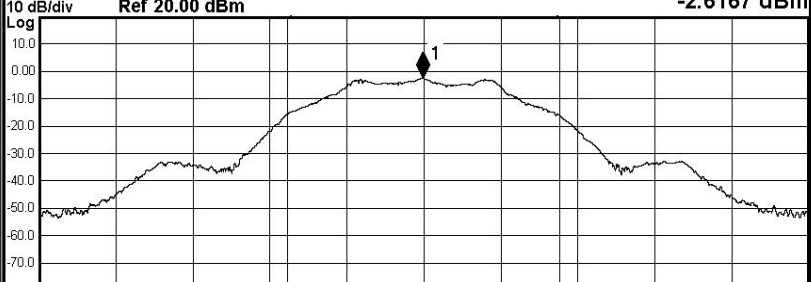


A.4 6dB Bandwidth

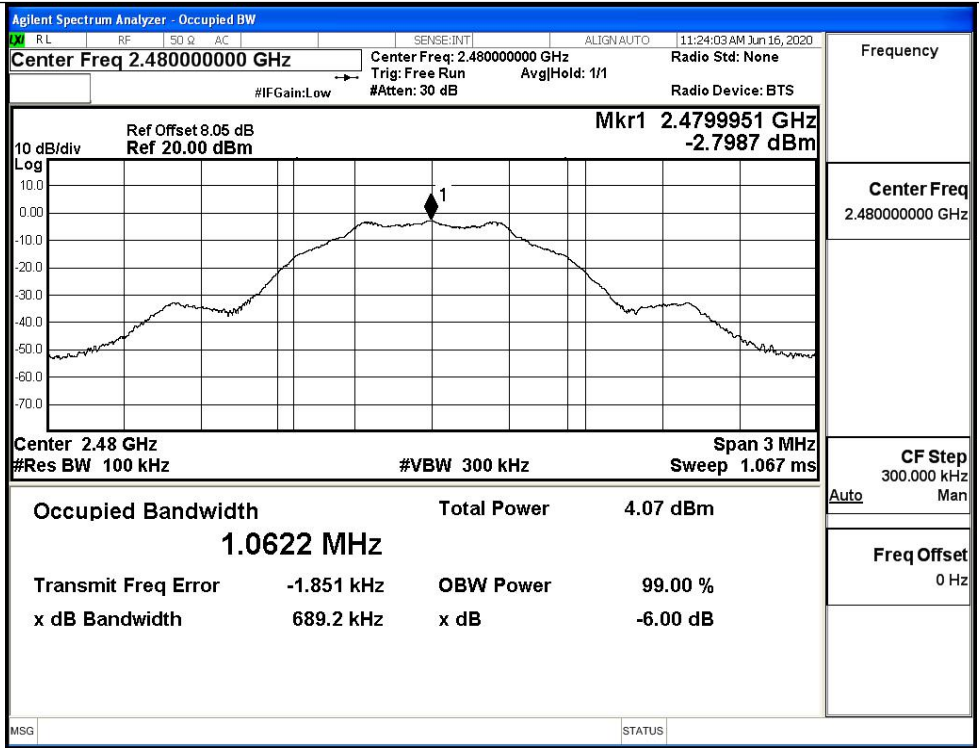
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6767	≥0.5	PASS
BT LE	MCH	0.6926	≥0.5	PASS
BT LE	HCH	0.6892	≥0.5	PASS

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 11:19:17 AM Jun 16, 2020</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 2.4019974 GHz</p> <p style="font-size: x-small; margin: 0;">Log Ref 20.00 dBm -2.8254 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>Occupied Bandwidth</td> <td>Total Power</td> <td>3.99 dBm</td> </tr> <tr> <td style="text-align: center;">1.0616 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-1.282 kHz</td> <td>OBW Power 99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>676.7 kHz</td> <td>x dB -6.00 dB</td> </tr> </table> <p style="font-size: x-small; margin: 0;">MSG STATUS</p>	Occupied Bandwidth	Total Power	3.99 dBm	1.0616 MHz			Transmit Freq Error	-1.282 kHz	OBW Power 99.00 %	x dB Bandwidth	676.7 kHz	x dB -6.00 dB	<p>Frequency</p> <hr/> <p>Center Freq 2.402000000 GHz</p> <hr/> <p>CF Step 300.000 kHz Auto Man</p> <hr/> <p>Freq Offset 0 Hz</p>
	Occupied Bandwidth	Total Power	3.99 dBm											
	1.0616 MHz													
	Transmit Freq Error	-1.282 kHz	OBW Power 99.00 %											
x dB Bandwidth	676.7 kHz	x dB -6.00 dB												

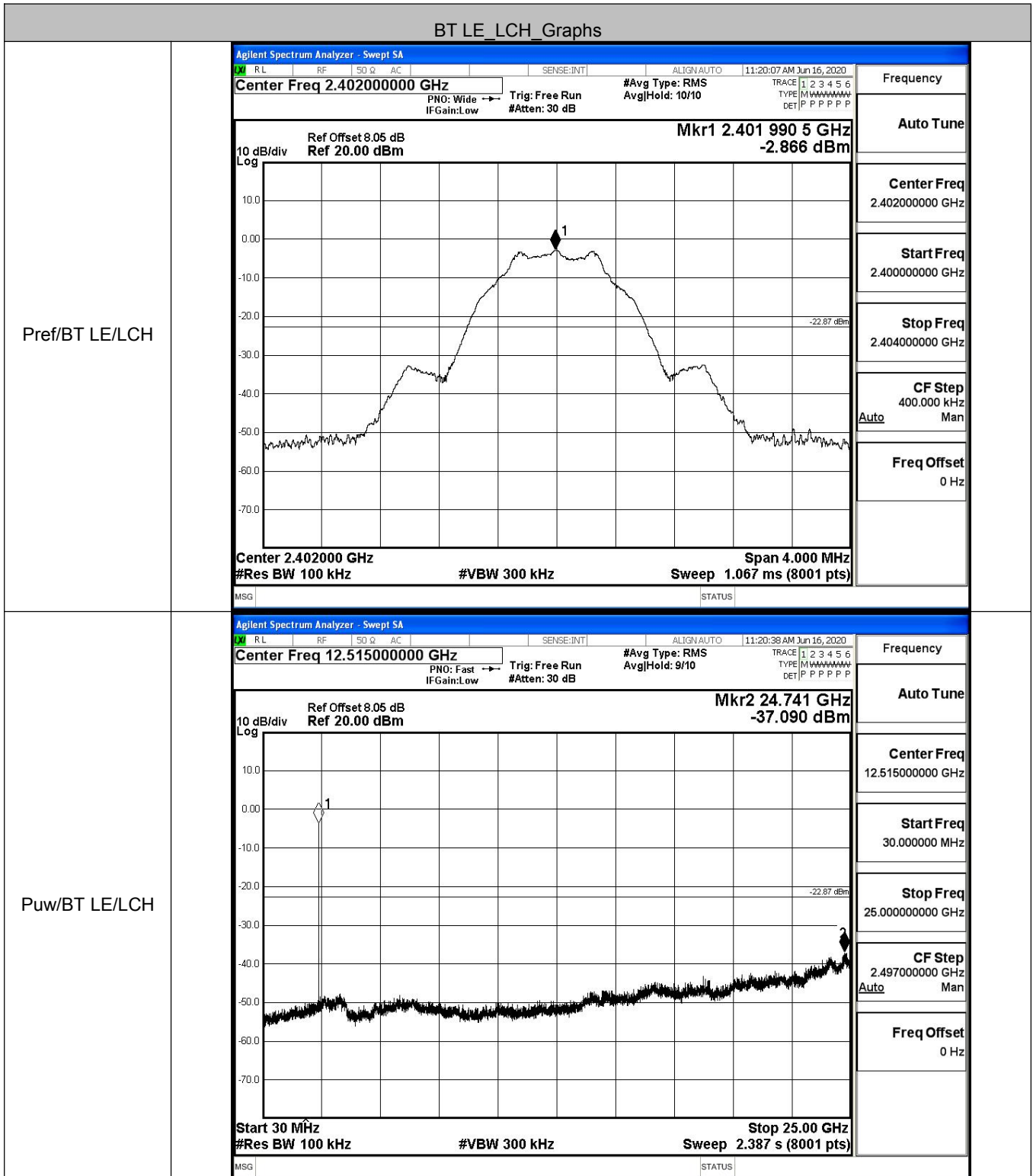
MCH	<p style="font-size: small; margin: 0;">Agilent Spectrum Analyzer - Occupied BW</p> <p style="font-size: x-small; margin: 0;">RL RF 50 Ω AC SENSE:INT ALIGN:AUTO 11:21:42 AM Jun 16, 2020</p> <p style="font-size: small; margin: 0;">Center Freq 2.440000000 GHz Center Freq: 2.440000000 GHz Radio Std: 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 2.4399948 GHz</p> <p style="font-size: x-small; margin: 0;">Log Ref 20.00 dBm -2.6167 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>Occupied Bandwidth</td> <td>Total Power</td> <td>4.23 dBm</td> </tr> <tr> <td style="text-align: center;">1.0626 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-1.802 kHz</td> <td>OBW Power 99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>692.6 kHz</td> <td>x dB -6.00 dB</td> </tr> </table> <p style="font-size: x-small; margin: 0;">MSG STATUS</p>	Occupied Bandwidth	Total Power	4.23 dBm	1.0626 MHz			Transmit Freq Error	-1.802 kHz	OBW Power 99.00 %	x dB Bandwidth	692.6 kHz	x dB -6.00 dB	<p>Frequency</p> <hr/> <p>Center Freq 2.440000000 GHz</p> <hr/> <p>CF Step 300.000 kHz Auto Man</p> <hr/> <p>Freq Offset 0 Hz</p>
	Occupied Bandwidth	Total Power	4.23 dBm											
	1.0626 MHz													
	Transmit Freq Error	-1.802 kHz	OBW Power 99.00 %											
x dB Bandwidth	692.6 kHz	x dB -6.00 dB												

HCH



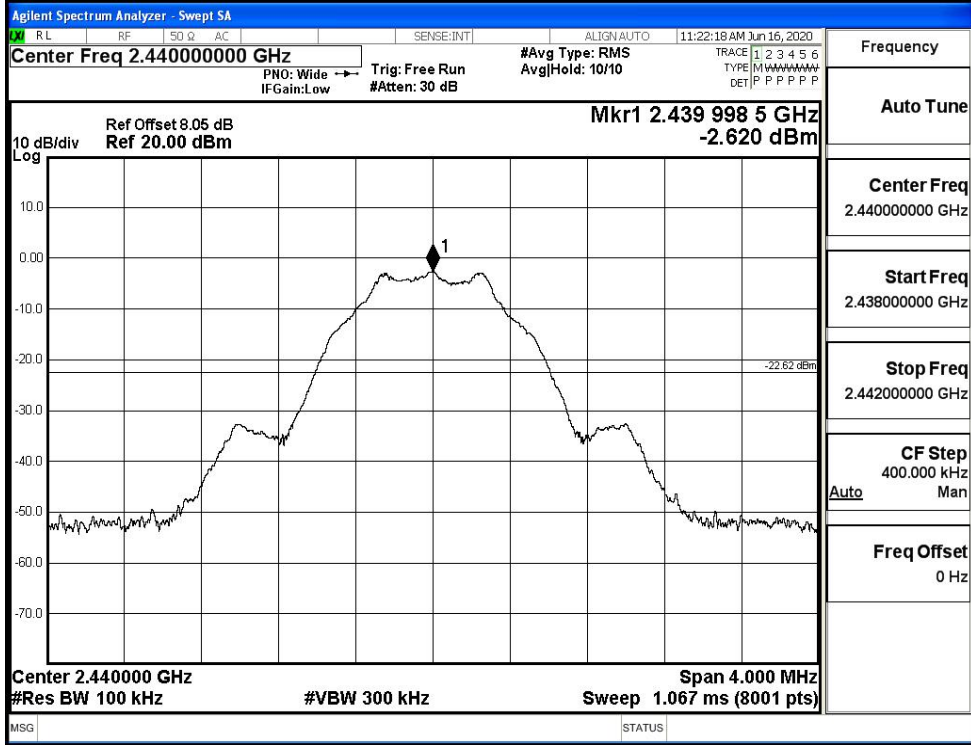
A.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.866	-37.090	-22.866	PASS
BT LE	MCH	-2.62	-37.229	-22.620	PASS
BT LE	HCH	-2.815	-37.317	-22.815	PASS

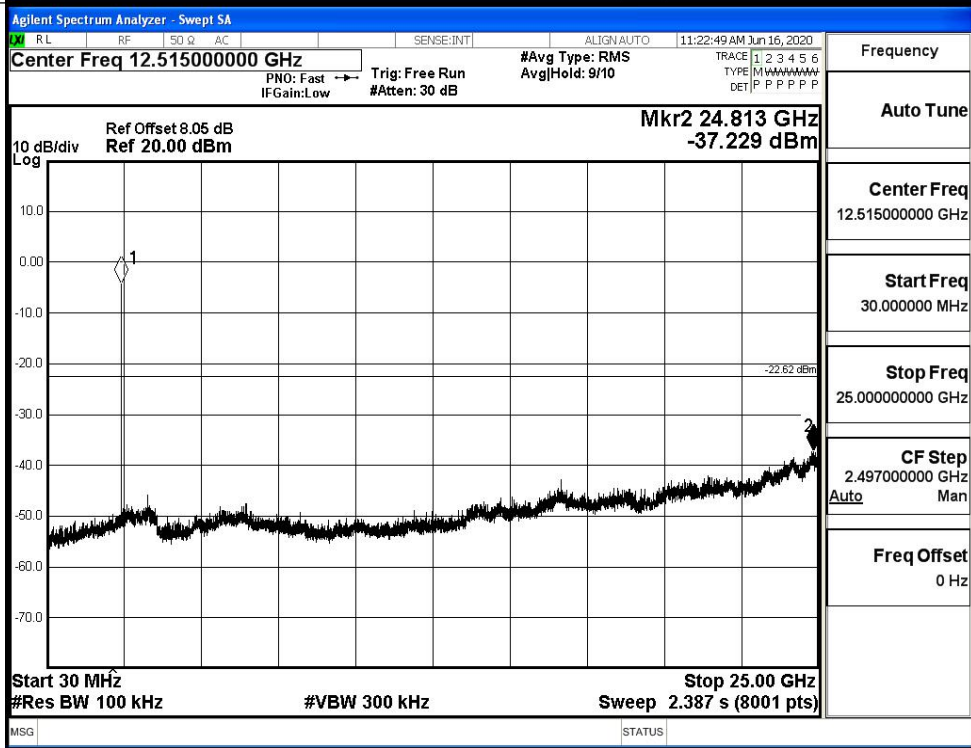


BT LE MCH Graphs

Pref/BT LE/MCH

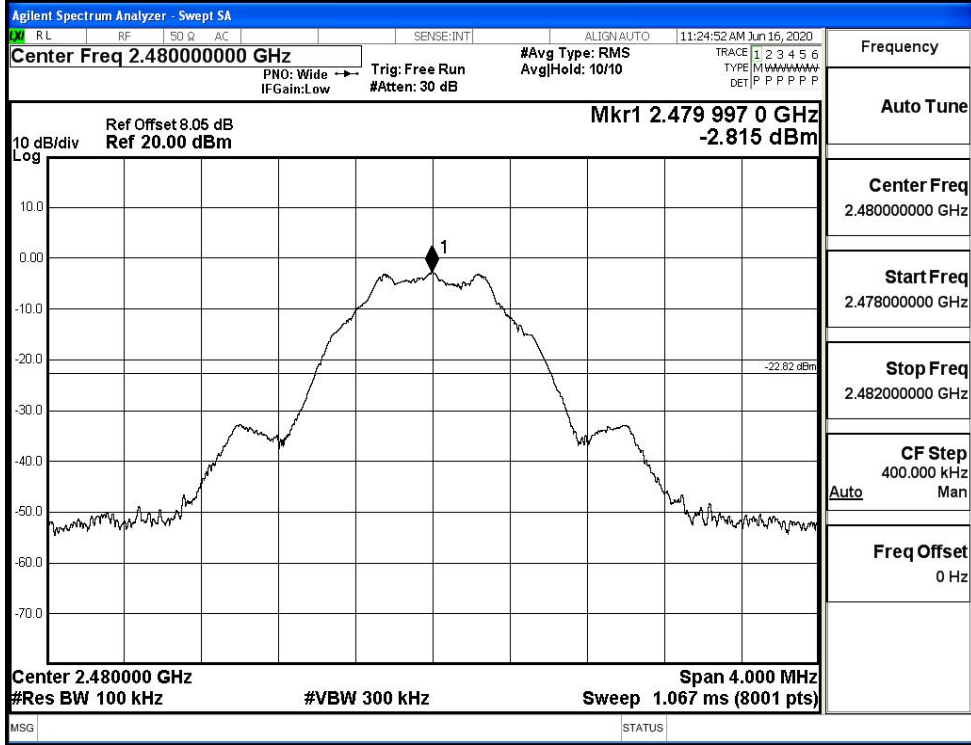


Puw/BT LE/MCH

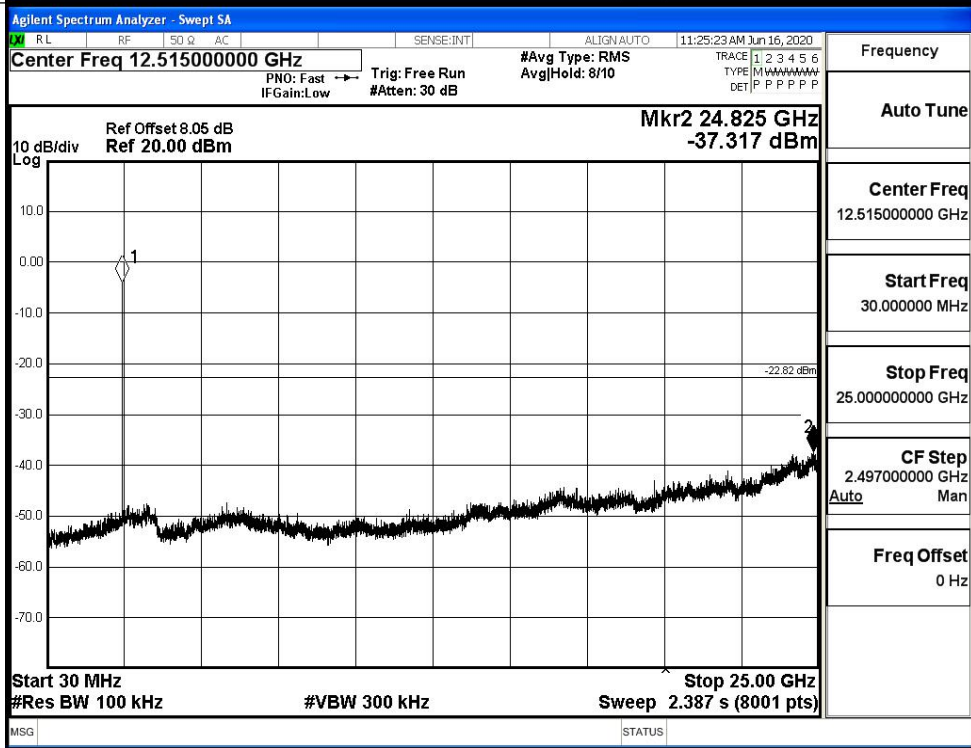


BT LE HCH Graphs

Pref/BT LE/HCH



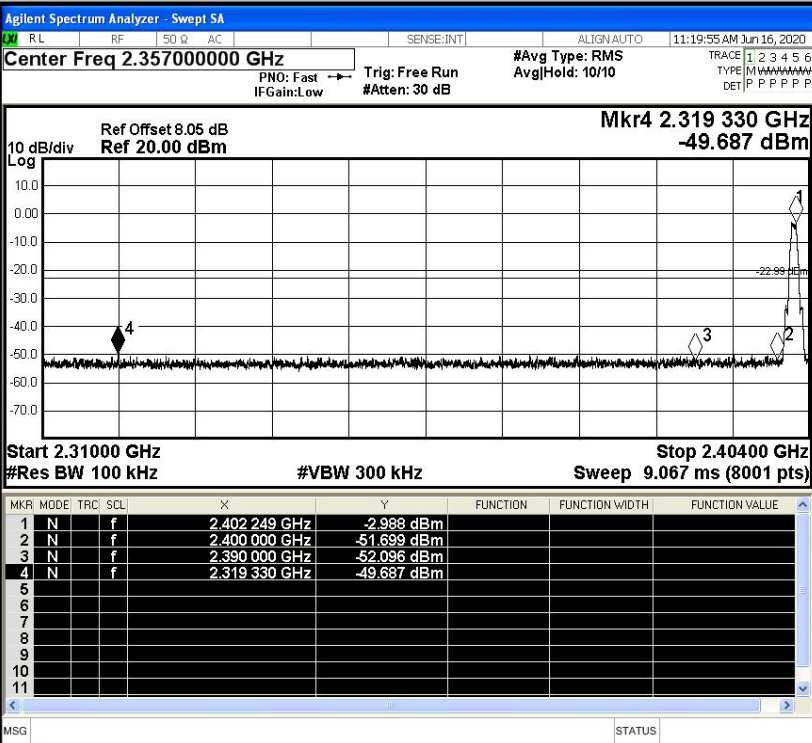
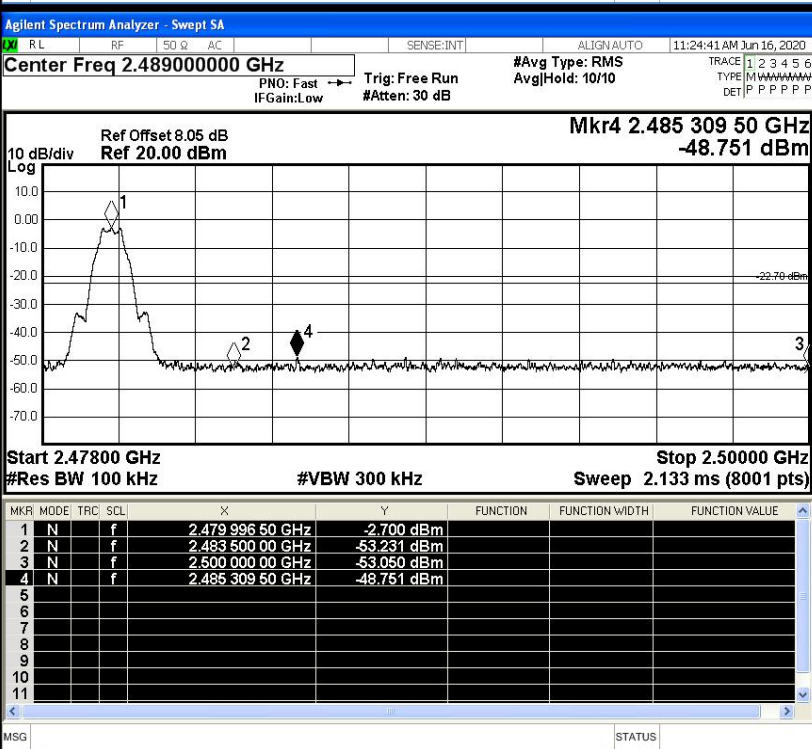
Puw/BT LE/HCH



A.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.988	-49.687	-22.99	PASS
BT LE	HCH	-2.700	-48.751	-22.7	PASS

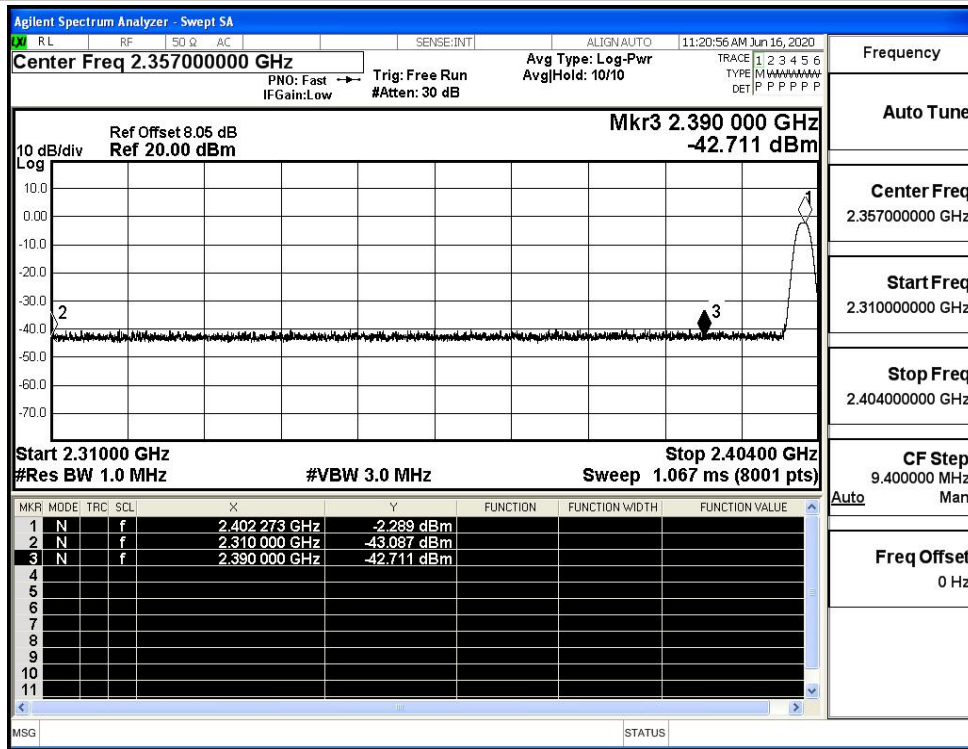
Test Graphs

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>

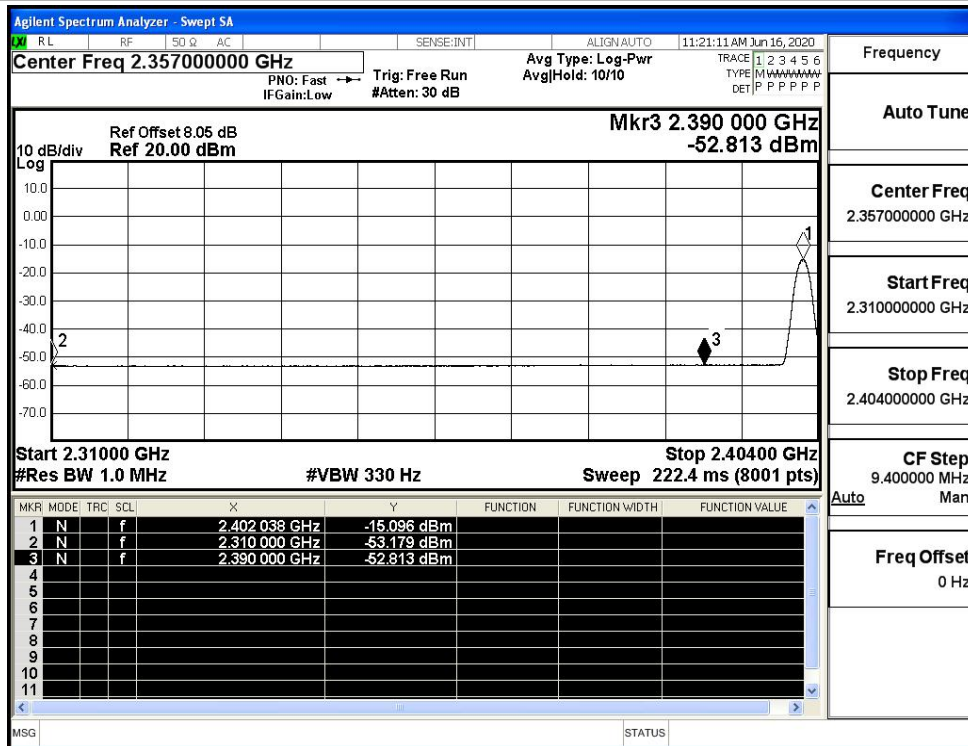
A.7 Restrict-band band-edge measurements

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	-43.09	2.66	0	54.80	PEAK	74	PASS
		Ant1	2310.0	-53.18	2.66	0	44.71	AV	54	PASS
		Ant1	2390.0	-42.71	2.66	0	55.18	PEAK	74	PASS
		Ant1	2390.0	-52.81	2.66	0	45.08	AV	54	PASS
	2480	Ant1	2483.5	-42.10	2.66	0	55.79	PEAK	74	PASS
		Ant1	2483.5	-52.51	2.66	0	45.38	AV	54	PASS
		Ant1	2500.0	-41.93	2.66	0	55.96	PEAK	74	PASS
		Ant1	2500.0	-52.31	2.66	0	45.58	AV	54	PASS

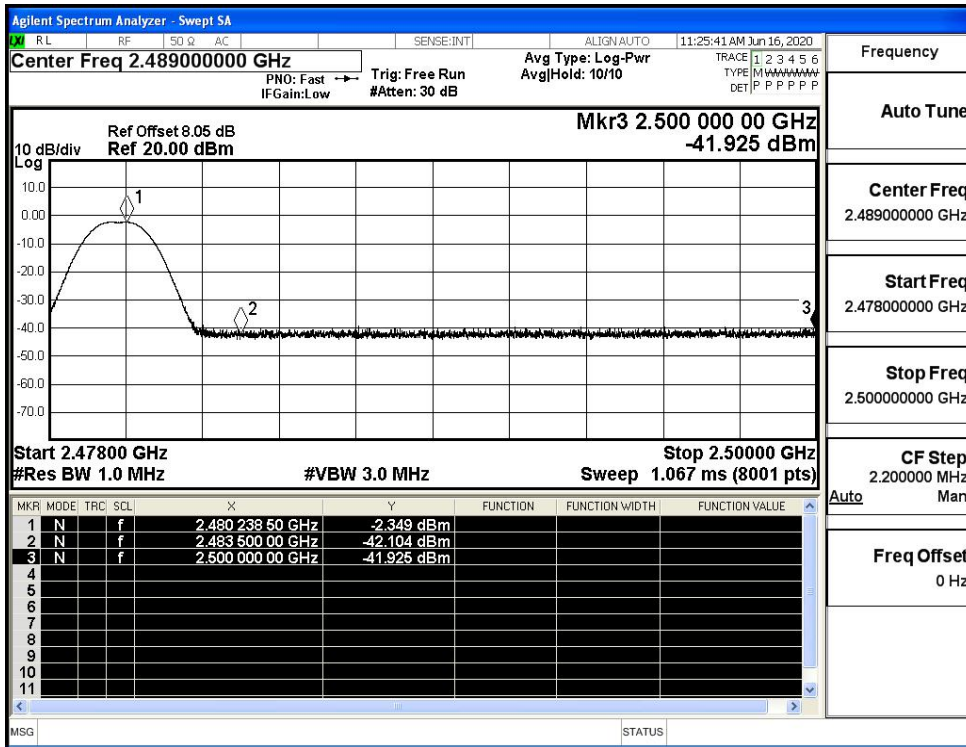
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

