

Appendix A

RF Test Data for BT V4.2(BT LE) (Conducted Measurement)

Product Name: Portable Internet Radio

Trade Mark: N/A

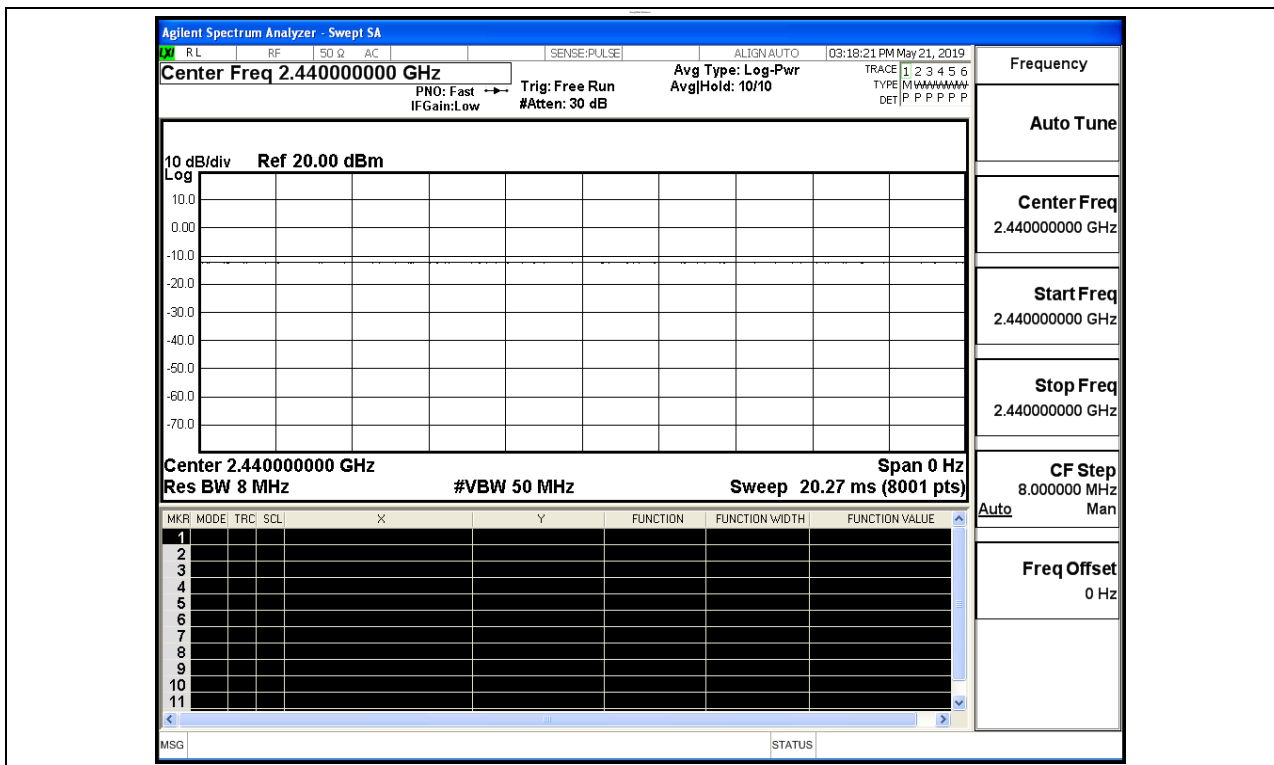
Test Model: MA-26D

Environmental Conditions

Temperature:	23.9 °C
Relative Humidity:	54.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom.Liu
Supervised by:	Aking Jin

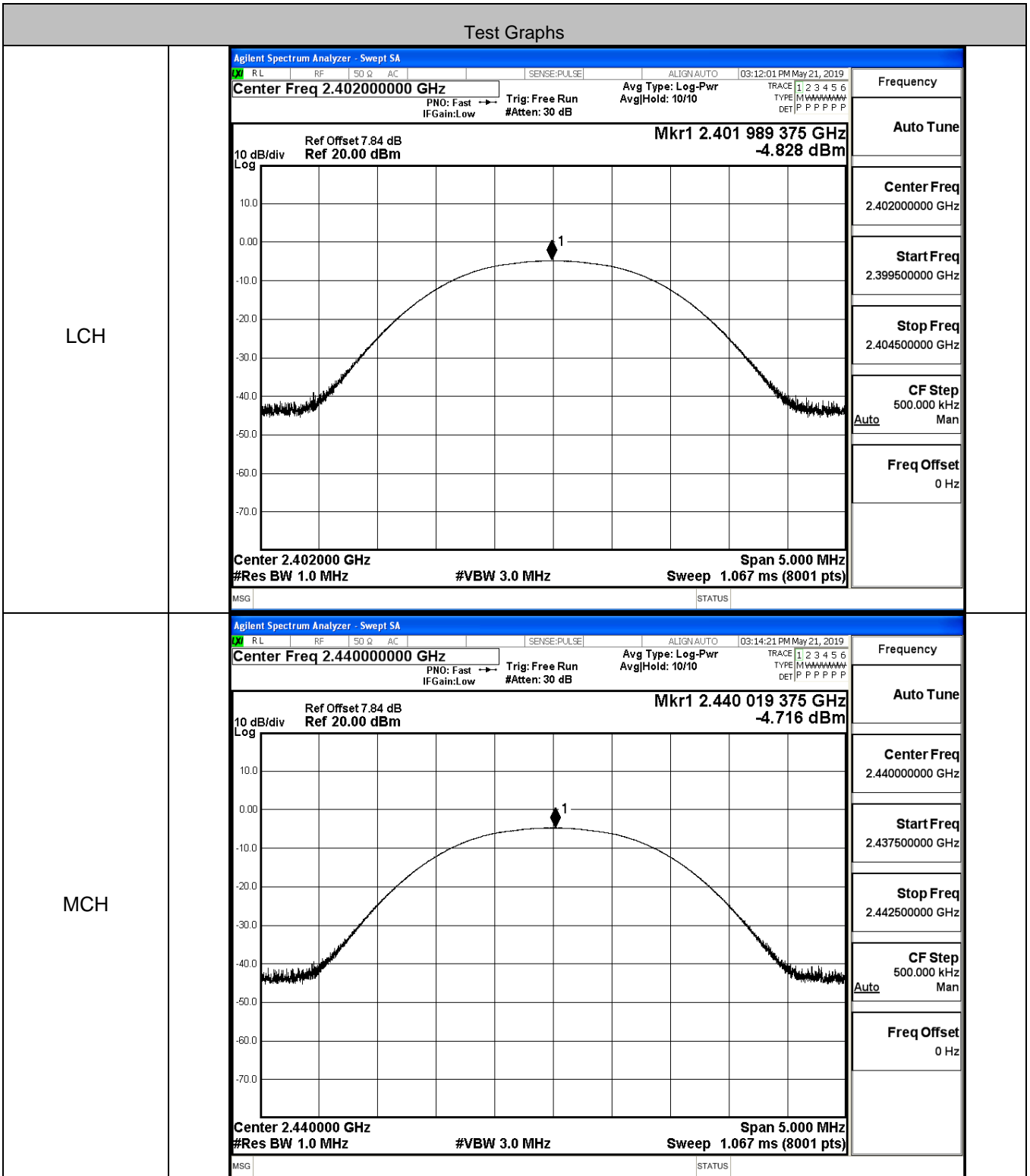
A.1 Duty Cycle

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



A.2 Maximum Conducted Peak Output Power

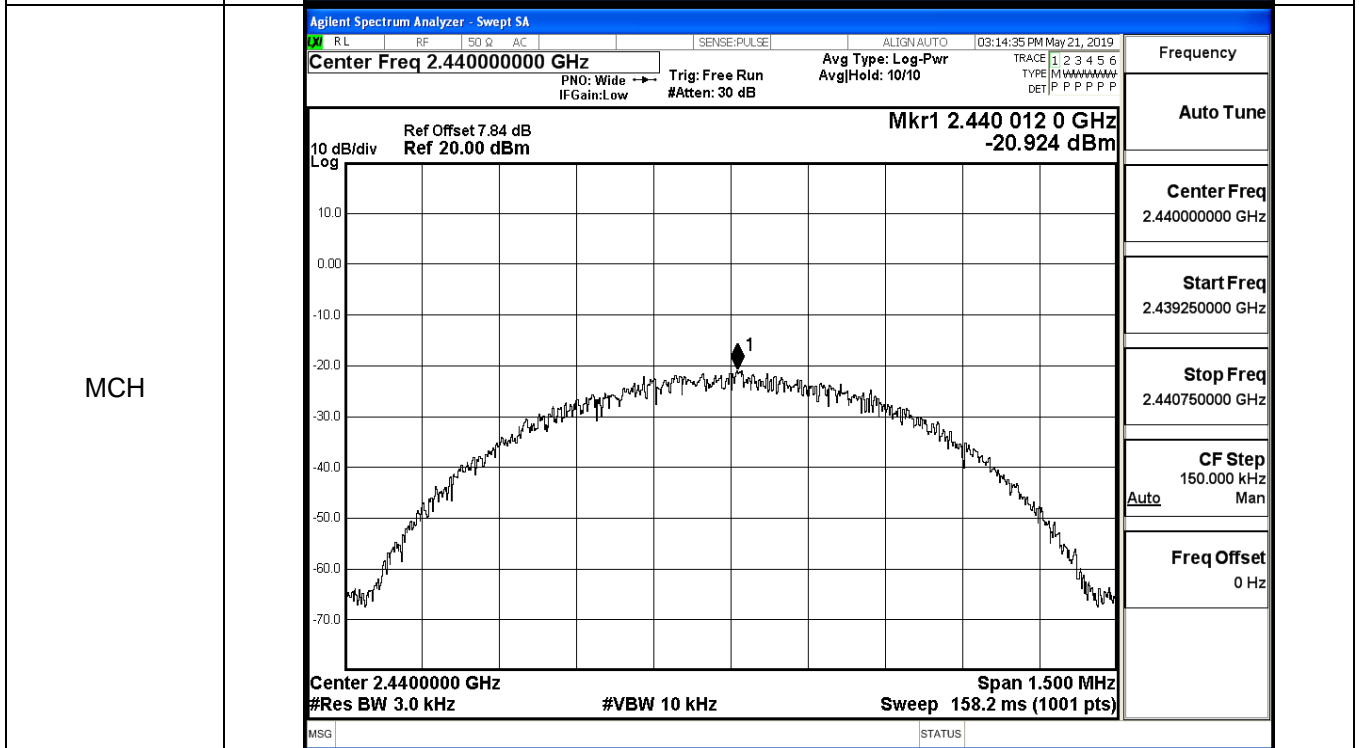
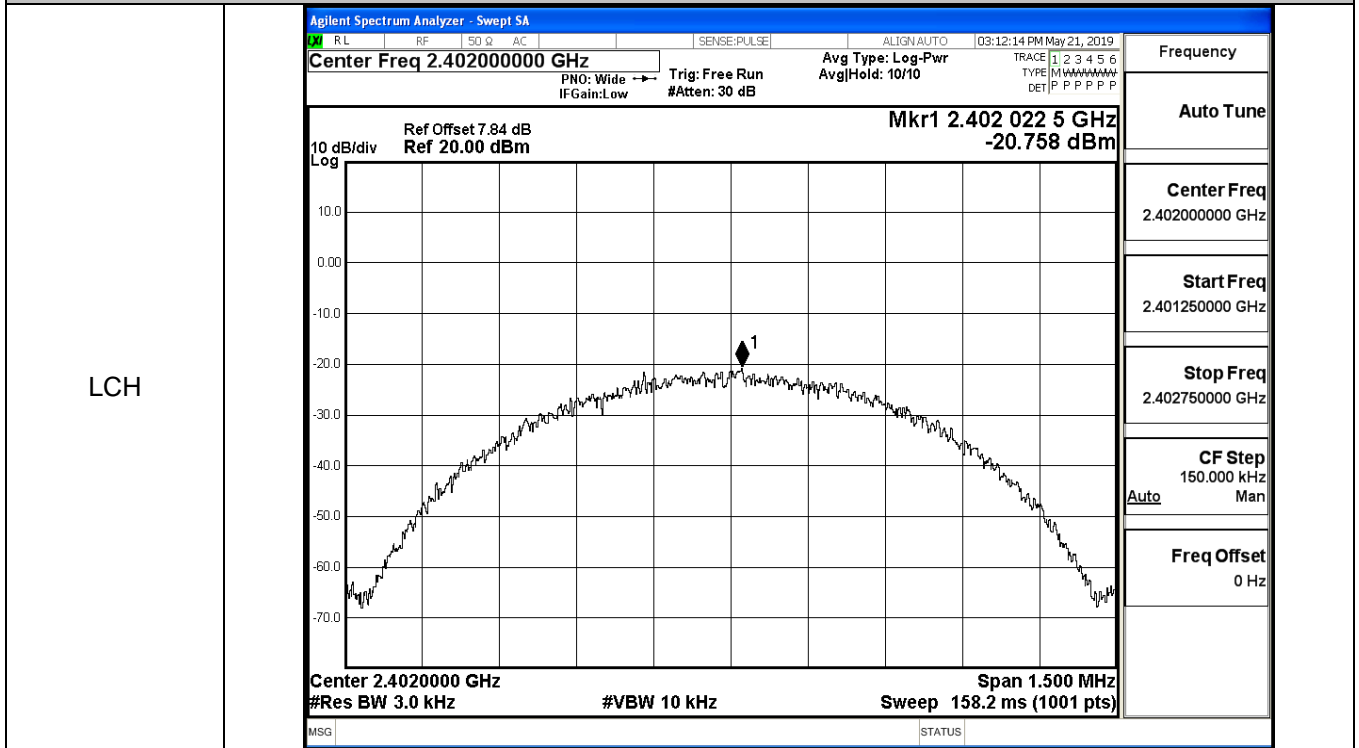
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-4.828	30	PASS
BT LE	MCH	-4.716	30	PASS
BT LE	HCH	-5.492	30	PASS



A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-20.758	8	PASS
BT LE	MCH	-20.924	8	PASS
BT LE	HCH	-21.659	8	PASS

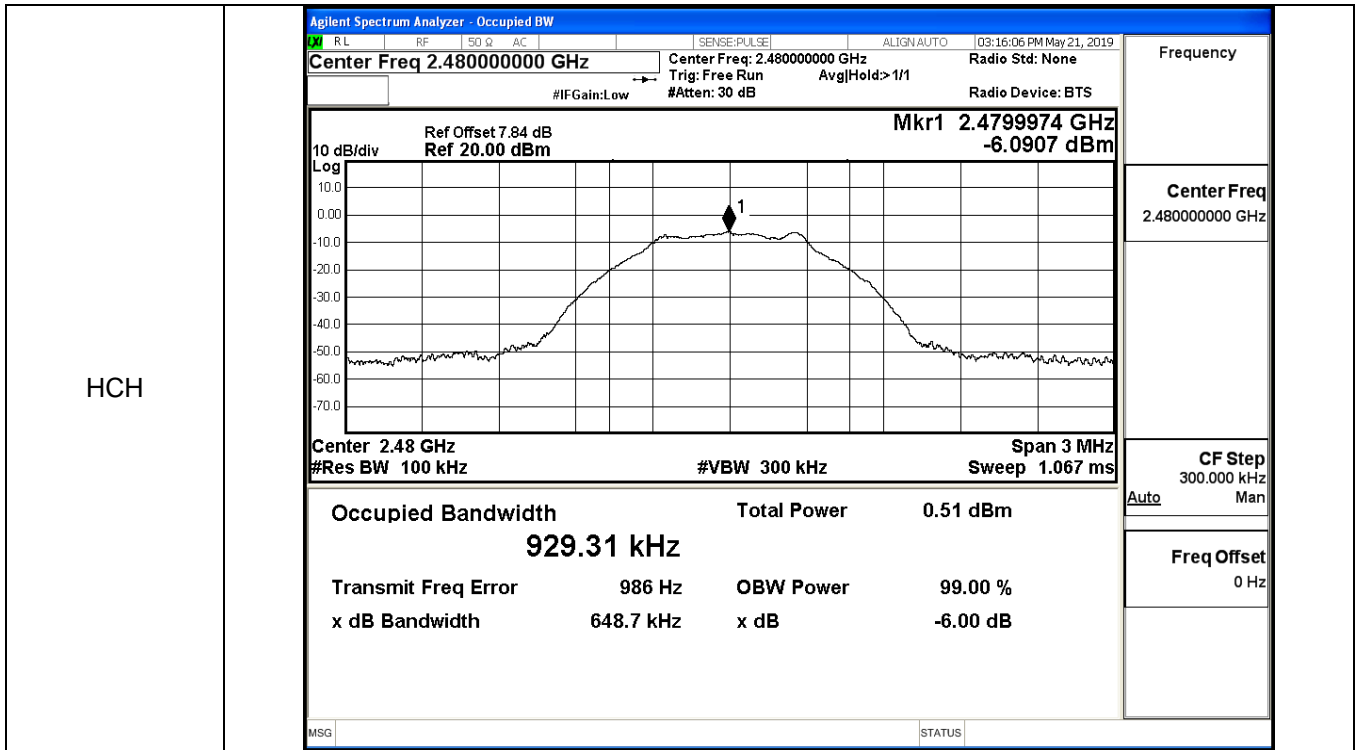
Test Graphs



A.4 6dB Bandwidth

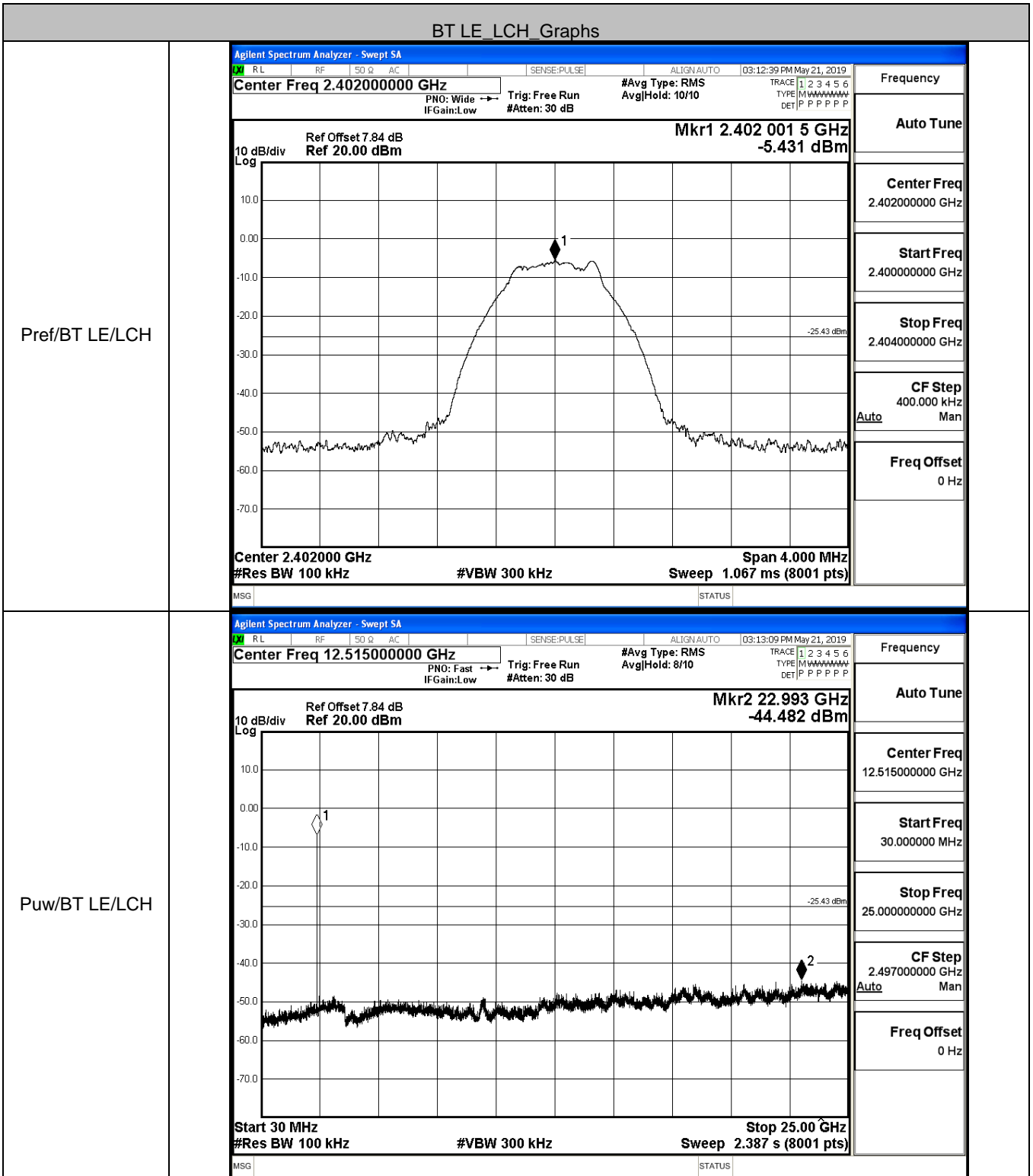
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6431	≥0.5	PASS
BT LE	MCH	0.6484	≥0.5	PASS
BT LE	HCH	0.6487	≥0.5	PASS

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 03:11:50 PM May 21, 2019</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 2.4019959 GHz -5.3892 dBm</p> </div> <p style="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;"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>1.21 dBm</td> </tr> <tr> <td style="text-align: center;">932.33 kHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>589 Hz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>643.1 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	1.21 dBm	932.33 kHz			Transmit Freq Error	589 Hz	OBW Power	x dB Bandwidth	643.1 kHz	x dB			99.00 %			-6.00 dB
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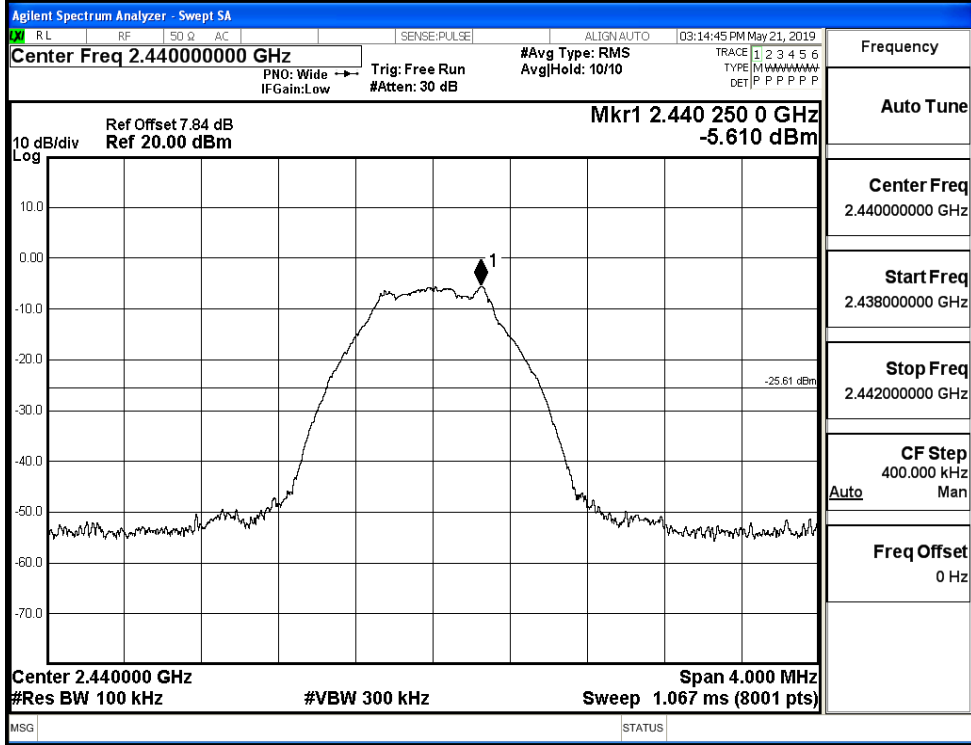
A.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-5.431	-44.482	-25.431	PASS
BT LE	MCH	-5.61	-44.333	-25.610	PASS
BT LE	HCH	-6.072	-44.638	-26.072	PASS

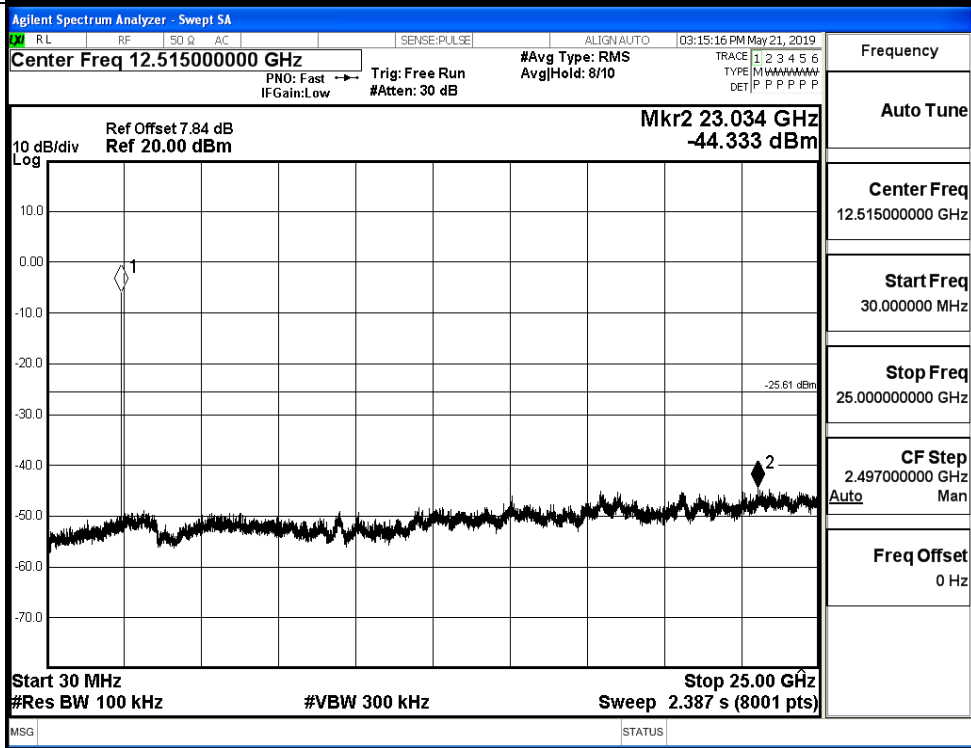


BT LE_MCH_Graphs

Pref/BT LE/MCH

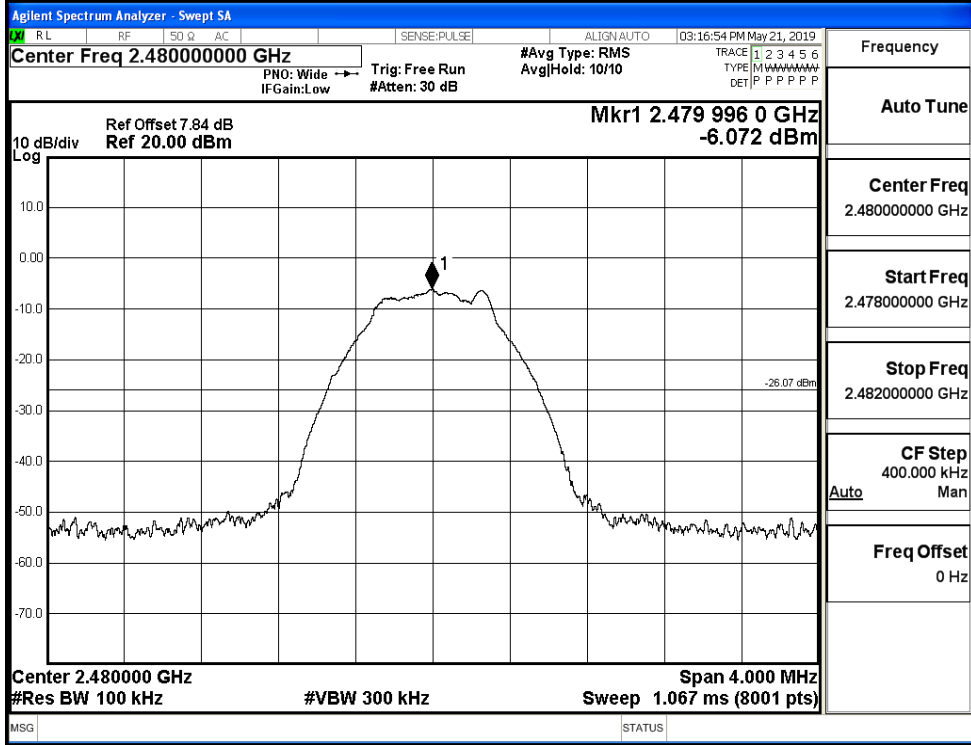


Puw/BT LE/MCH

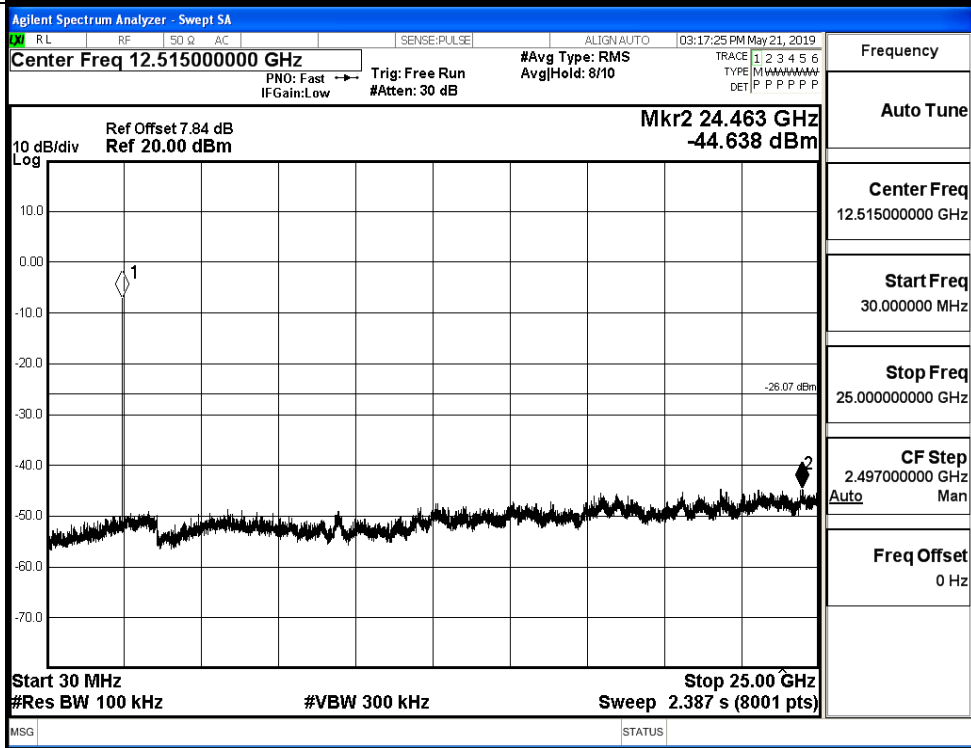


BT LE_HCH_Graphs

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	-5.460	-50.462	-25.46	PASS
BT LE	HCH	-5.870	-50.187	-25.87	PASS

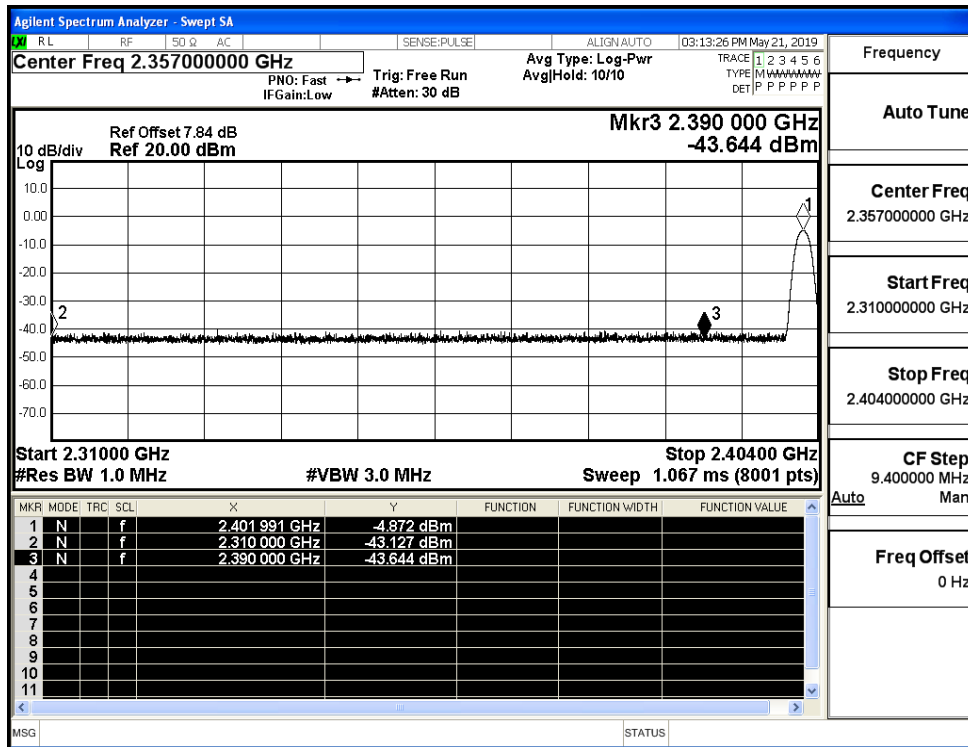
Test Graphs

LCH	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.35700000 GHz Ref Offset 7.84 dB, Ref 20.00 dBm Mkr4 2.352 147 GHz, -50.462 dBm Start 2.31000 GHz, Stop 2.40400 GHz #Res BW 100 kHz, #VBW 300 kHz, Sweep 9.067 ms (8001 pts)</p> <table border="1" style="width: 100%; font-size: small;"> <thead> <tr> <th>MKR</th> <th>MODE</th> <th>TRC</th> <th>SCL</th> <th>X</th> <th>Y</th> <th>FUNCTION</th> <th>FUNCTION WIDTH</th> <th>FUNCTION VALUE</th> </tr> </thead> <tbody> <tr><td>1</td><td>N</td><td>f</td><td></td><td>2.402 003 GHz</td><td>-5.460 dBm</td><td></td><td></td><td></td></tr> <tr><td>2</td><td>N</td><td>f</td><td></td><td>2.400 000 GHz</td><td>-52.882 dBm</td><td></td><td></td><td></td></tr> <tr><td>3</td><td>N</td><td>f</td><td></td><td>2.390 000 GHz</td><td>-54.404 dBm</td><td></td><td></td><td></td></tr> <tr><td>4</td><td>N</td><td>f</td><td></td><td>2.352 147 GHz</td><td>-50.462 dBm</td><td></td><td></td><td></td></tr> </tbody> </table>	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	f		2.402 003 GHz	-5.460 dBm				2	N	f		2.400 000 GHz	-52.882 dBm				3	N	f		2.390 000 GHz	-54.404 dBm				4	N	f		2.352 147 GHz	-50.462 dBm				Frequency Auto Tune Center Freq 2.35700000 GHz Start Freq 2.310000000 GHz Stop Freq 2.404000000 GHz CF Step 9.400000 MHz Freq Offset 0 Hz
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HCH	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.48900000 GHz Ref Offset 7.84 dB, Ref 20.00 dBm Mkr1 2.479 919 00 GHz, -50.187 dBm Start 2.47800 GHz, Stop 2.50000 GHz #Res BW 100 kHz, #VBW 300 kHz, Sweep 2.133 ms (8001 pts)</p> <table border="1" style="width: 100%; font-size: small;"> <thead> <tr> <th>MKR</th> <th>MODE</th> <th>TRC</th> <th>SCL</th> <th>X</th> <th>Y</th> <th>FUNCTION</th> <th>FUNCTION WIDTH</th> <th>FUNCTION VALUE</th> </tr> </thead> <tbody> <tr><td>1</td><td>N</td><td>f</td><td></td><td>2.479 999 25 GHz</td><td>-5.870 dBm</td><td></td><td></td><td></td></tr> <tr><td>2</td><td>N</td><td>f</td><td></td><td>2.483 500 00 GHz</td><td>-53.597 dBm</td><td></td><td></td><td></td></tr> <tr><td>3</td><td>N</td><td>f</td><td></td><td>2.500 000 00 GHz</td><td>-52.694 dBm</td><td></td><td></td><td></td></tr> <tr><td>4</td><td>N</td><td>f</td><td></td><td>2.494 819 00 GHz</td><td>-50.187 dBm</td><td></td><td></td><td></td></tr> </tbody> </table>	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	f		2.479 999 25 GHz	-5.870 dBm				2	N	f		2.483 500 00 GHz	-53.597 dBm				3	N	f		2.500 000 00 GHz	-52.694 dBm				4	N	f		2.494 819 00 GHz	-50.187 dBm				Frequency Auto Tune Center Freq 2.489000000 GHz Start Freq 2.478000000 GHz Stop Freq 2.500000000 GHz CF Step 2.200000 MHz Freq Offset 0 Hz
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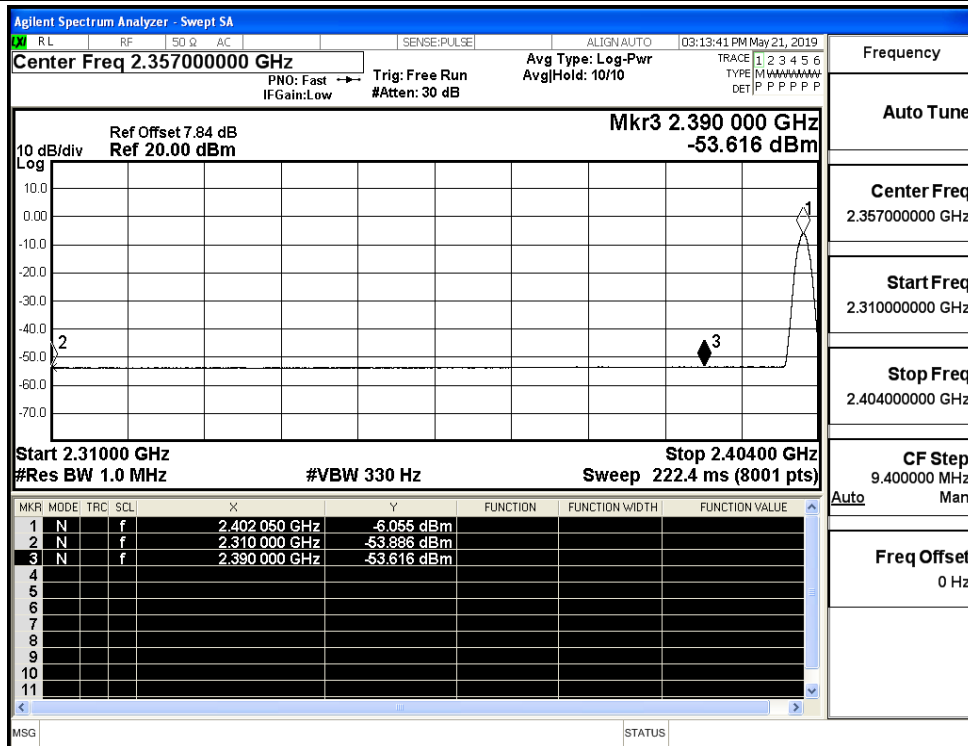
A.7 Restrict-band band-edge measurements

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	-43.13	3.3	0	55.37	PEAK	74	PASS
		Ant1	2310.0	-53.89	3.3	0	44.61	AV	54	PASS
		Ant1	2390.0	-43.64	3.3	0	54.86	PEAK	74	PASS
		Ant1	2390.0	-53.62	3.3	0	44.88	AV	54	PASS
	2480	Ant1	2483.5	-43.05	3.3	0	55.45	PEAK	74	PASS
		Ant1	2483.5	-53.34	3.3	0	45.16	AV	54	PASS
		Ant1	2500.0	-42.84	3.3	0	55.66	PEAK	74	PASS
		Ant1	2500.0	-53.22	3.3	0	45.28	AV	54	PASS

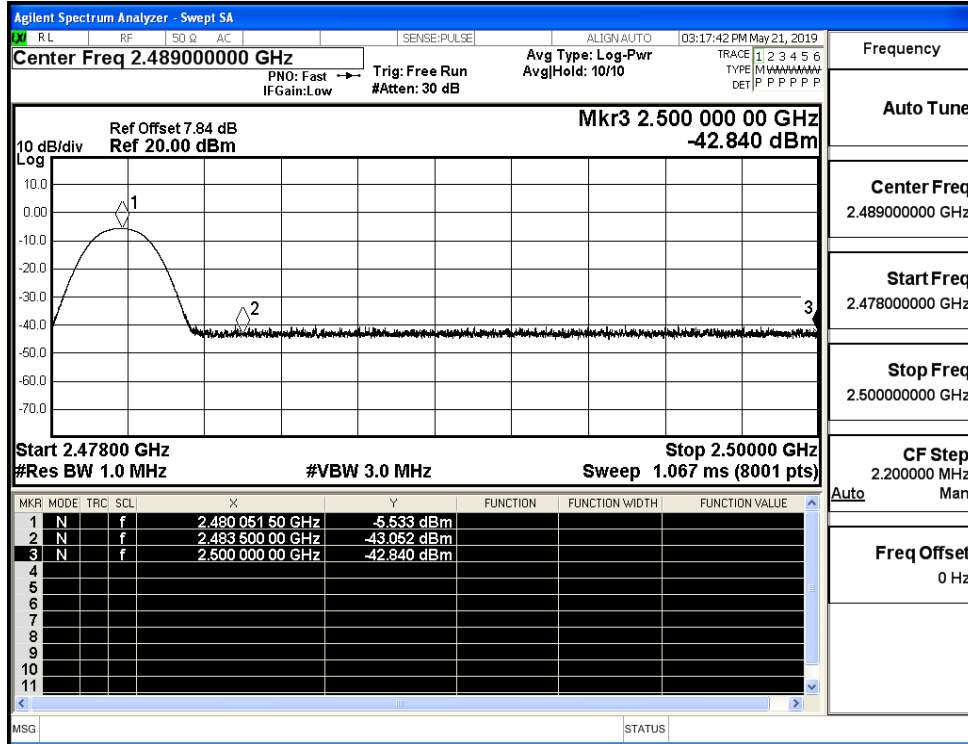
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

