

Appendix B

RF Test Data for BT LE V5.0 (DTS) (Conducted Measurement)

Product Name: Smart TV Box

Trade Mark: N/A

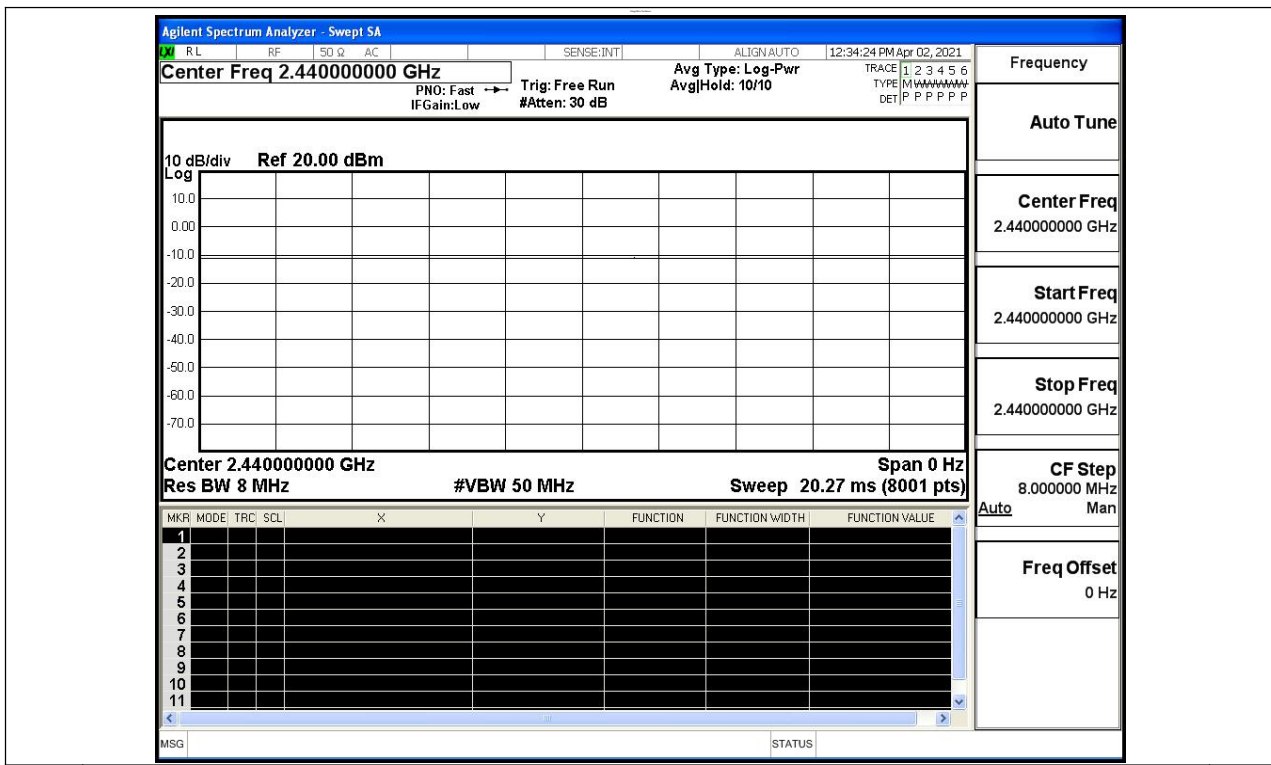
Test Model: T95

Environmental Conditions

Temperature:	24.6 ° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

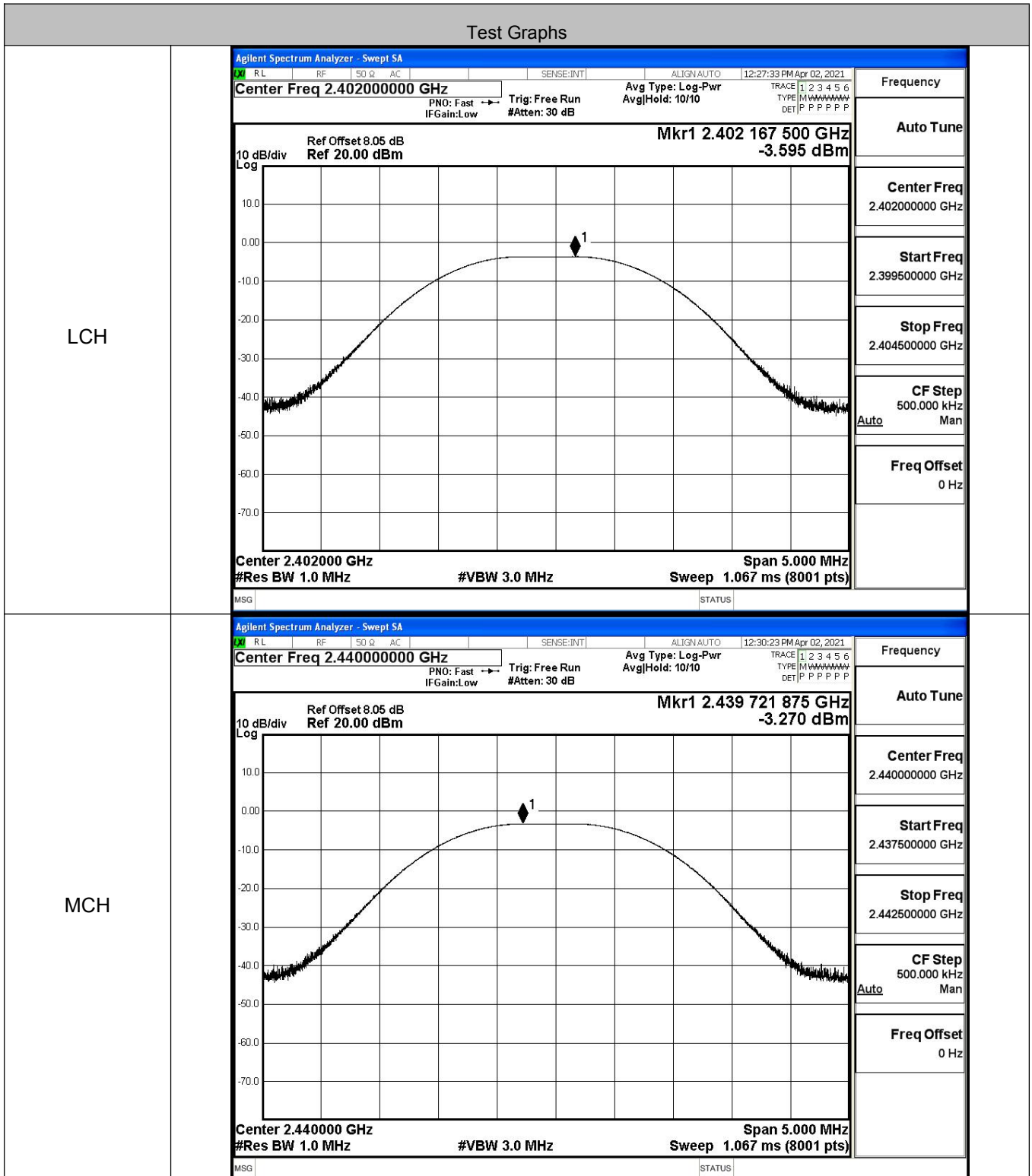
B.1 Duty Cycle

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

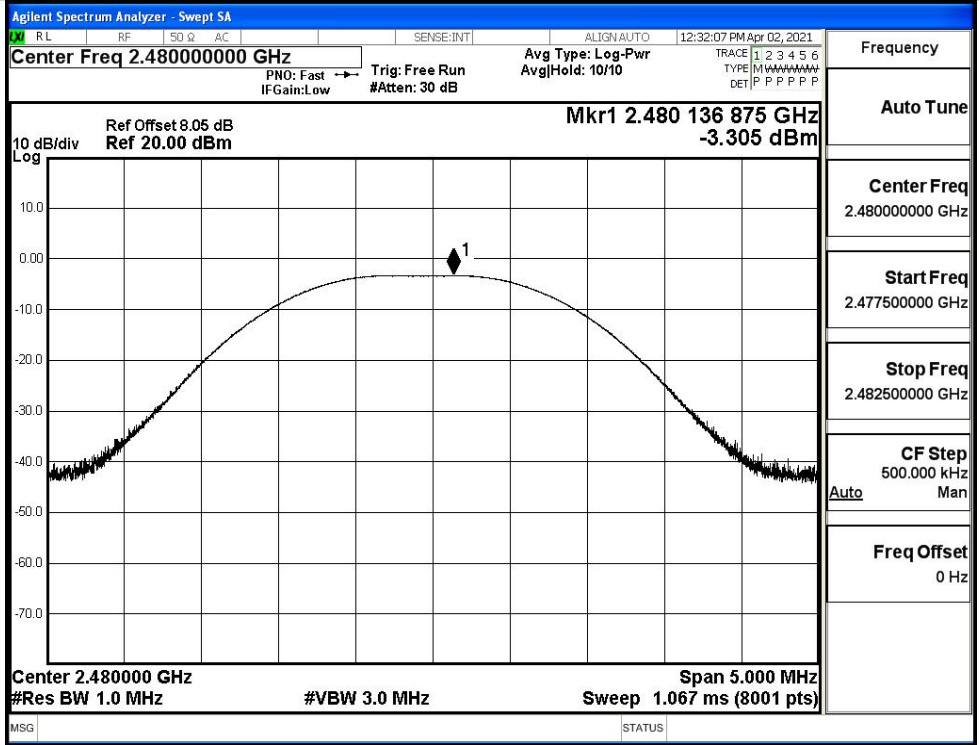


B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.595	30	PASS
BT LE	MCH	-3.27	30	PASS
BT LE	HCH	-3.305	30	PASS



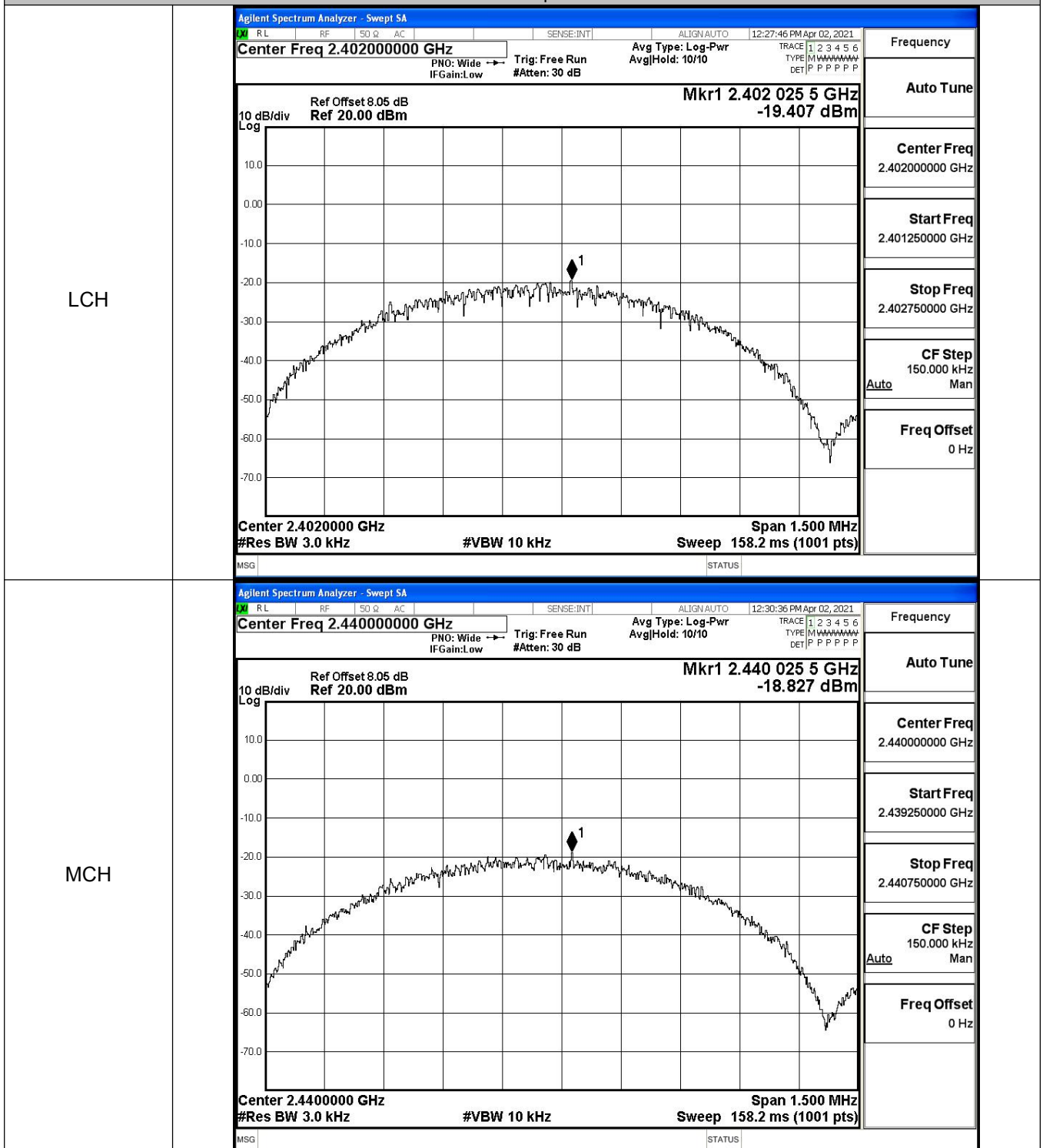
HCH



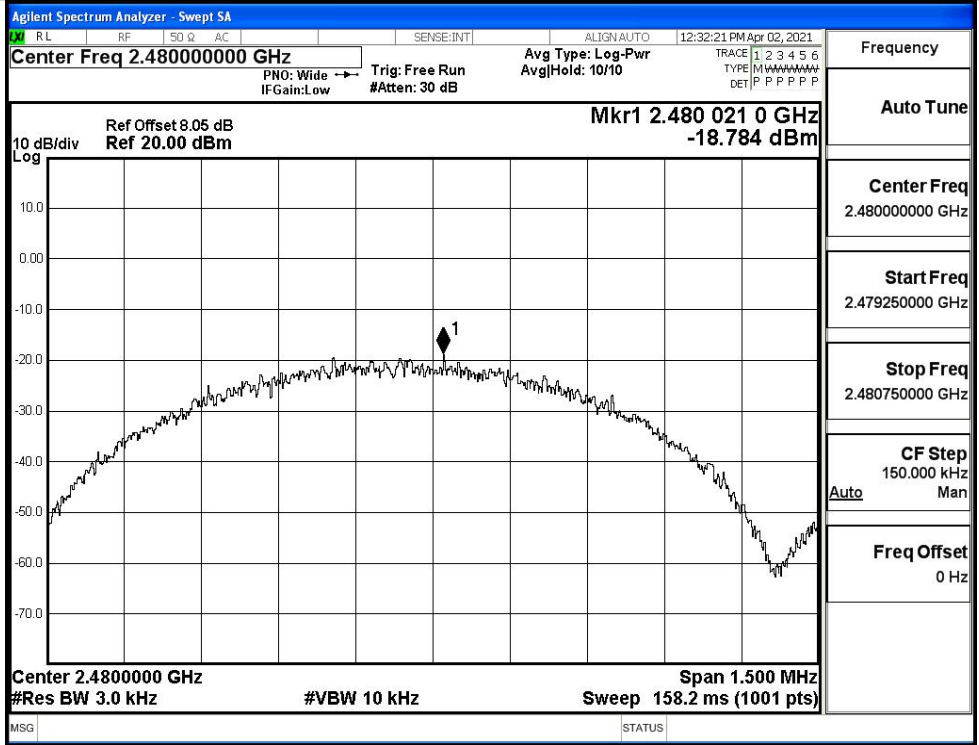
B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-19.407	8	PASS
BT LE	MCH	-18.827	8	PASS
BT LE	HCH	-18.784	8	PASS

Test Graphs



HCH



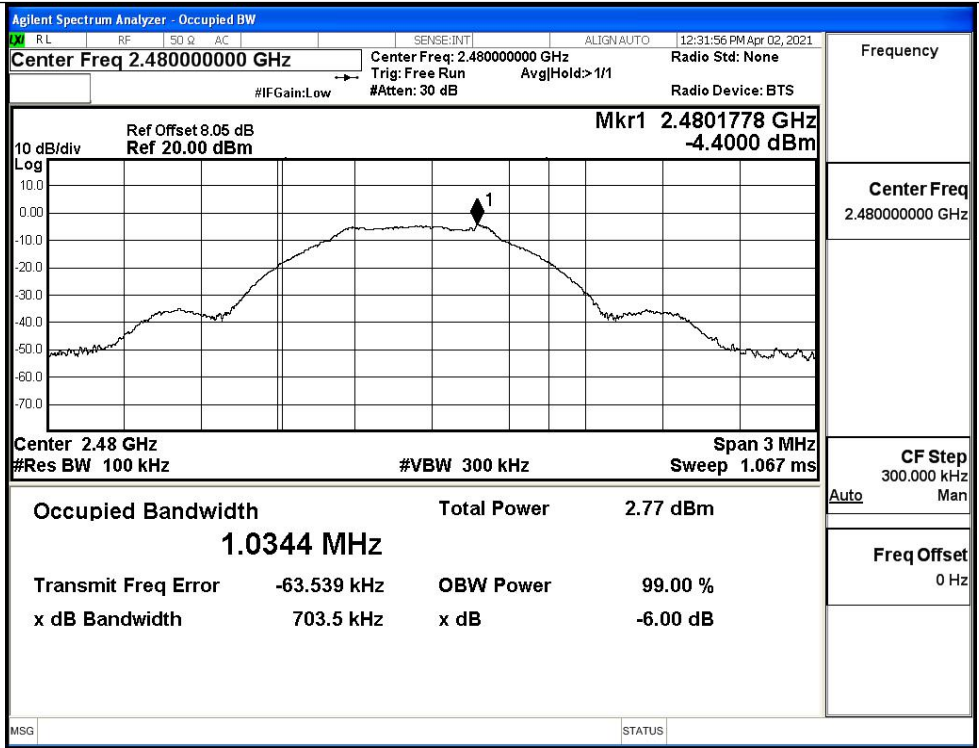
B.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.7094	≥0.5	PASS
BT LE	MCH	0.6993	≥0.5	PASS
BT LE	HCH	0.7035	≥0.5	PASS

Test Graphs

LCH	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.402000000 GHz Center Freq: 2.402000000 GHz Radio Std: None</p> <p>Trig: Free Run AvgHold: 1/1</p> <p>#IFGain:Low #Atten: 30 dB Radio Device: BTS</p> <p>10 dB/div Ref Offset 8.05 dB Mkr1 2.4021856 GHz Log Ref 20.00 dBm -4.7419 dBm</p> <p>Center 2.402 GHz Span 3 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms</p> <table border="0"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>2.48 dBm</td> </tr> <tr> <td>1.0342 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-62.079 kHz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>709.4 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>MSG STATUS</p>	Occupied Bandwidth	Total Power	2.48 dBm	1.0342 MHz			Transmit Freq Error	-62.079 kHz	OBW Power	x dB Bandwidth	709.4 kHz	x dB			99.00 %			-6.00 dB	<p>Frequency</p> <p>Center Freq 2.402000000 GHz</p> <p>CF Step 300.000 kHz Auto Man</p> <p>Freq Offset 0 Hz</p>
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MCH	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.440000000 GHz Center Freq: 2.440000000 GHz Radio Std: None</p> <p>Trig: Free Run AvgHold: >1/1</p> <p>#IFGain:Low #Atten: 30 dB Radio Device: BTS</p> <p>10 dB/div Ref Offset 8.05 dB Mkr1 2.4401856 GHz Log Ref 20.00 dBm -4.4052 dBm</p> <p>Center 2.44 GHz Span 3 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms</p> <table border="0"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>2.84 dBm</td> </tr> <tr> <td>1.0329 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-57.456 kHz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>699.3 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>MSG STATUS</p>	Occupied Bandwidth	Total Power	2.84 dBm	1.0329 MHz			Transmit Freq Error	-57.456 kHz	OBW Power	x dB Bandwidth	699.3 kHz	x dB			99.00 %			-6.00 dB	<p>Frequency</p> <p>Center Freq 2.440000000 GHz</p> <p>CF Step 300.000 kHz Auto Man</p> <p>Freq Offset 0 Hz</p>
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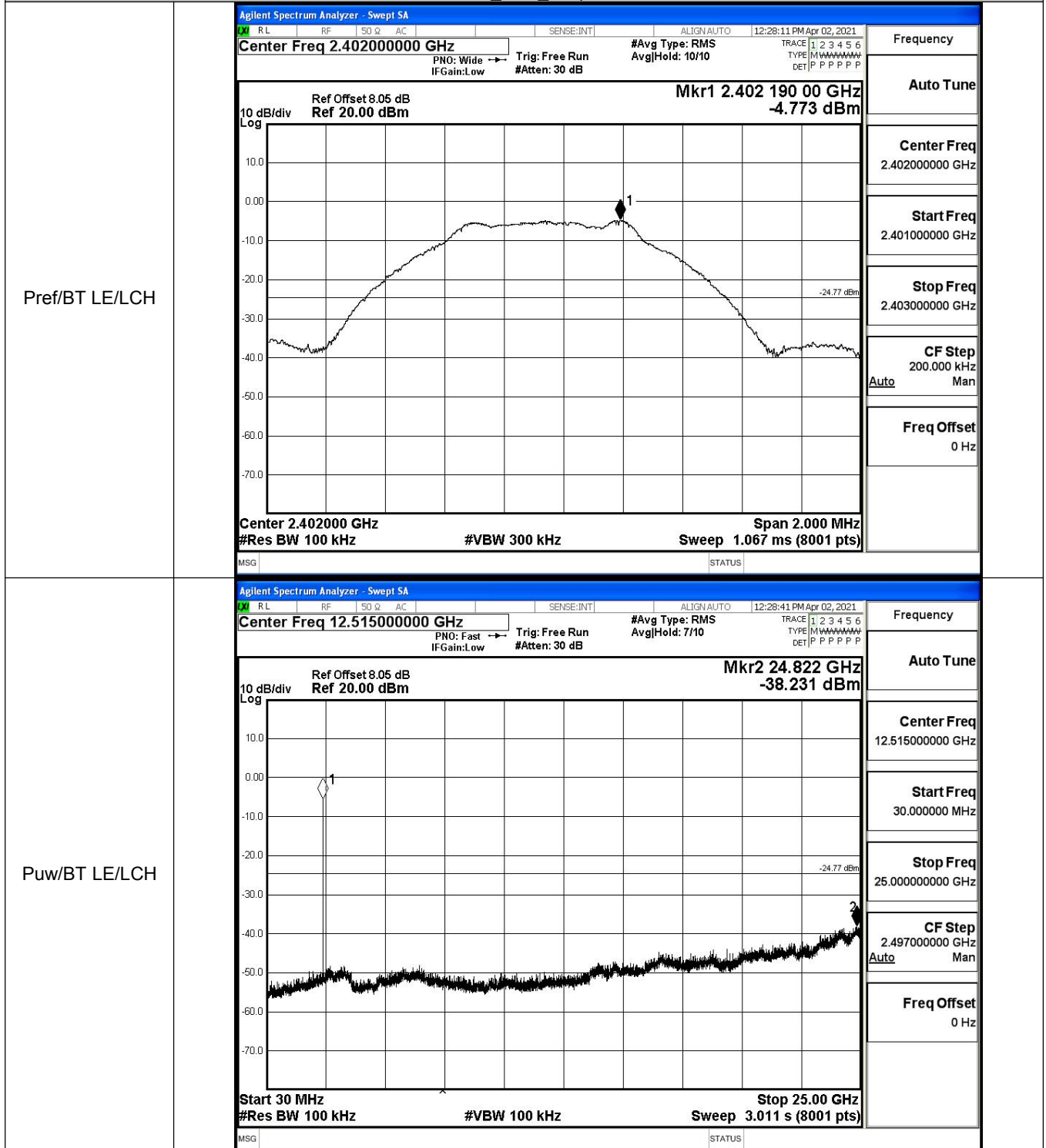
HCH

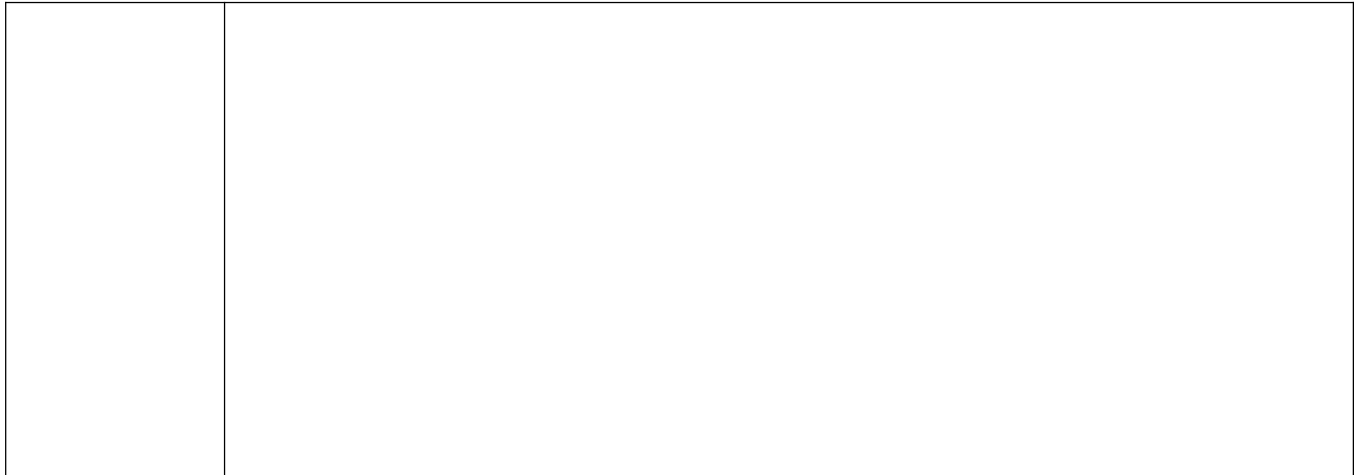


B.5 RF Conducted Spurious Emissions

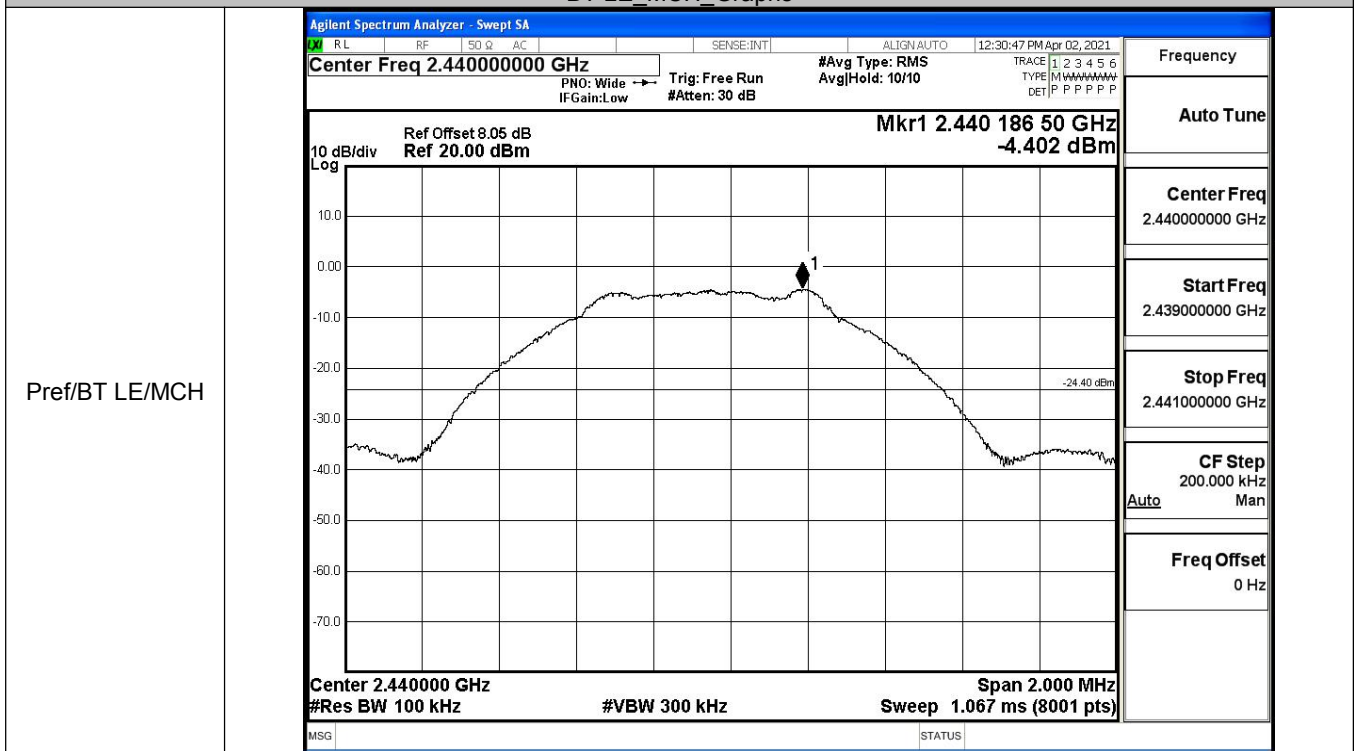
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-4.773	-38.231	-24.773	PASS
BT LE	MCH	-4.402	-37.758	-24.402	PASS
BT LE	HCH	-4.451	-37.621	-24.451	PASS

BT LE_LCH_Graphs

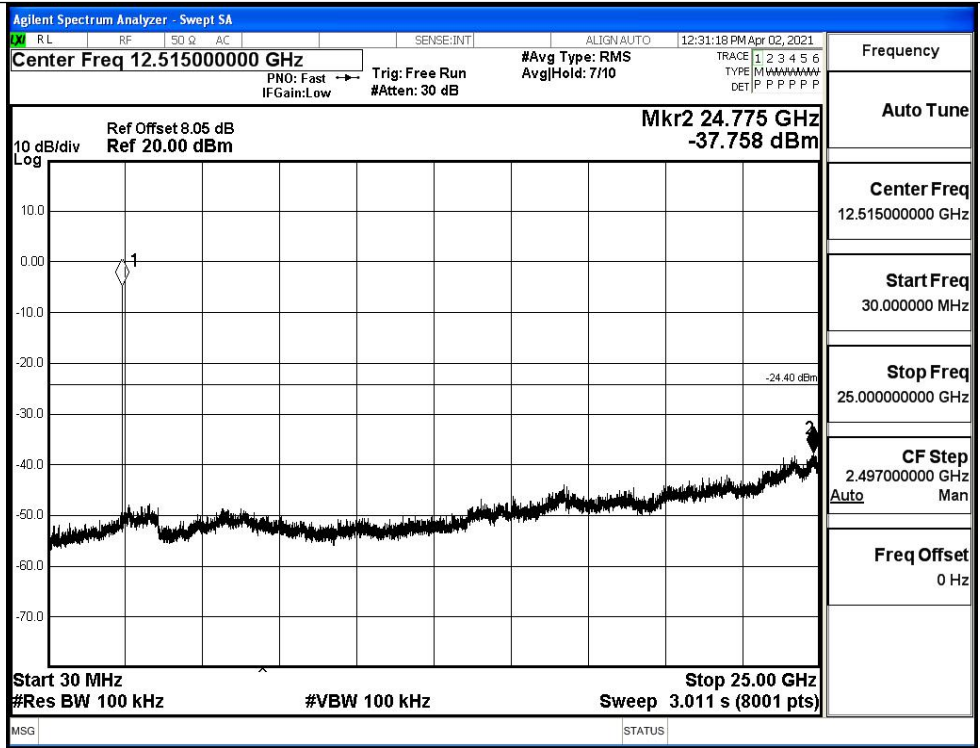




BT LE_MCH_Graphs

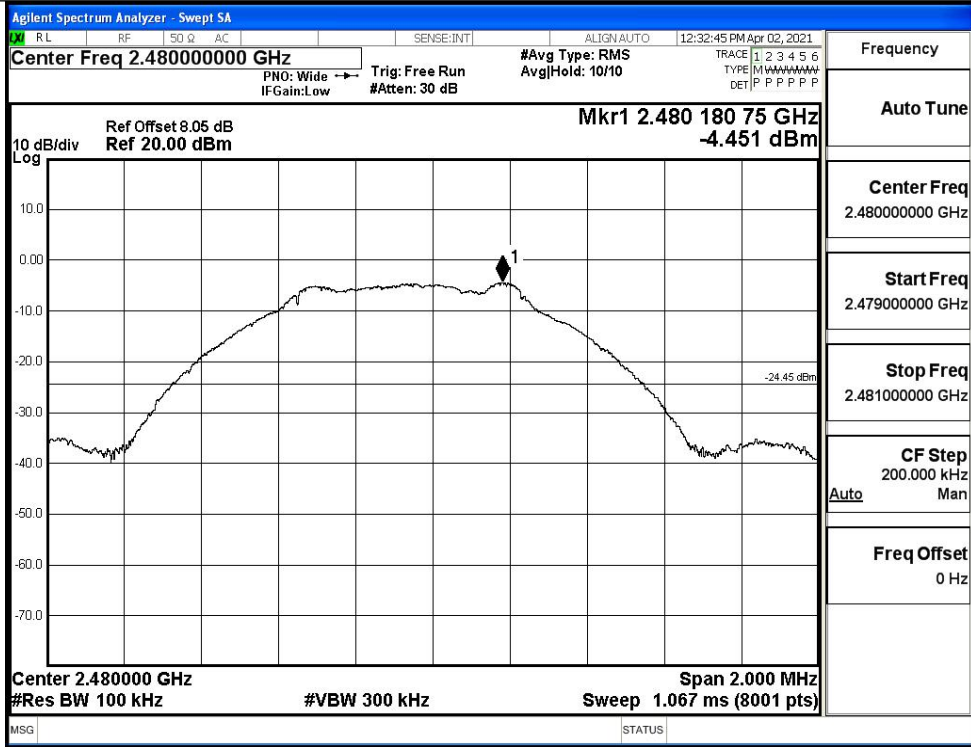


Puw/BT LE/MCH

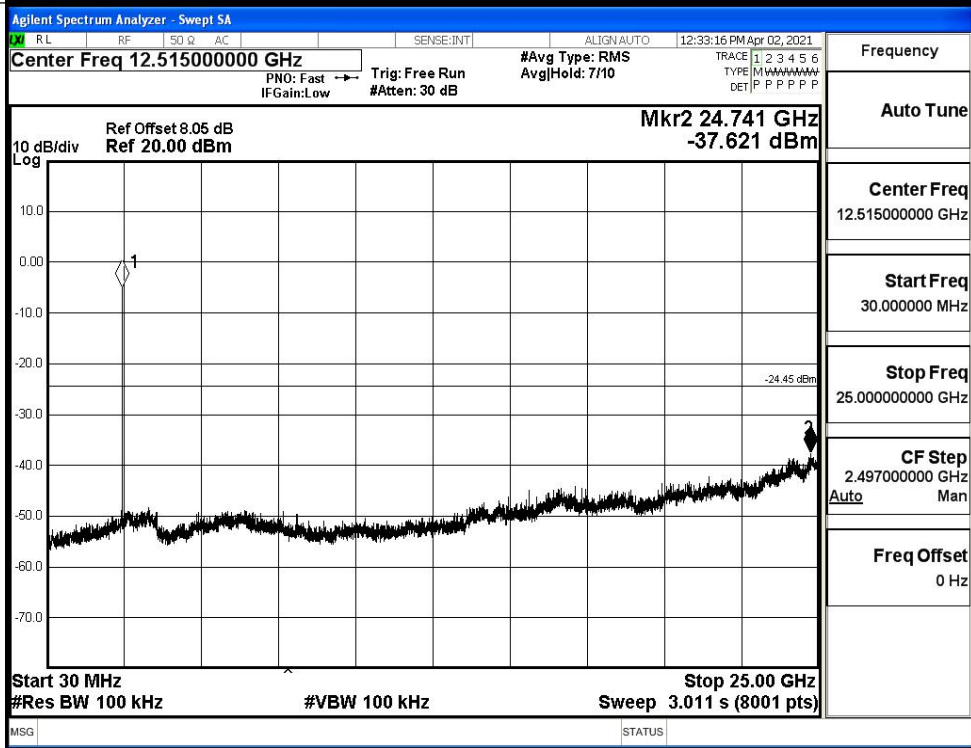


BT LE HCH Graphs

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	-4.691	-49.568	-24.69	PASS
BT LE	HCH	-4.184	-49.677	-24.18	PASS

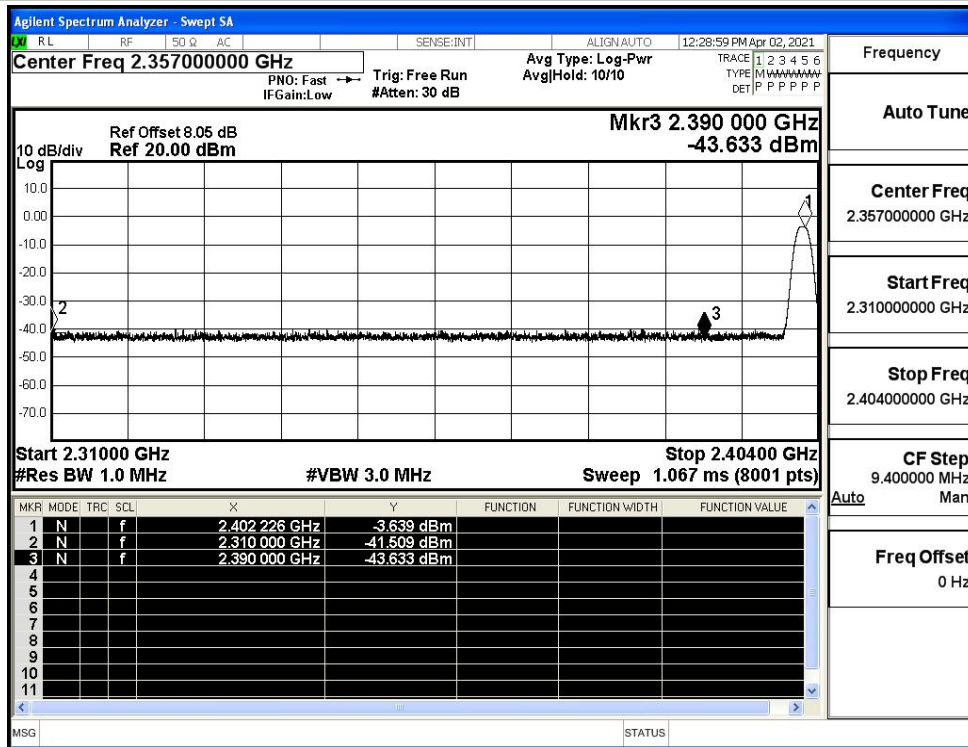
Test Graphs

LCH		<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.35700000 GHz</p> <p>Mkr4 2.341 784 GHz -49.568 dBm</p> <p>Start 2.31000 GHz Stop 2.40400 GHz</p> <table border="1"> <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>2.402 202 GHz</td><td>-4.691 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>-52.963 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>-53.755 dBm</td><td></td><td></td><td></td></tr> <tr><td>4</td><td>N</td><td>f</td><td></td><td>2.341 784 GHz</td><td>-49.568 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		2.402 202 GHz	-4.691 dBm				2	N	f		2.400 000 GHz	-52.963 dBm				3	N	f		2.390 000 GHz	-53.755 dBm				4	N	f		2.341 784 GHz	-49.568 dBm			
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HCH		<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.48900000 GHz</p> <p>Mkr4 2.489 038 50 GHz -49.677 dBm</p> <p>Start 2.47800 GHz Stop 2.50000 GHz</p> <table border="1"> <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>2.480 189 00 GHz</td><td>-4.184 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>-52.333 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>-53.096 dBm</td><td></td><td></td><td></td></tr> <tr><td>4</td><td>N</td><td>f</td><td></td><td>2.489 038 50 GHz</td><td>-49.677 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		2.480 189 00 GHz	-4.184 dBm				2	N	f		2.483 500 00 GHz	-52.333 dBm				3	N	f		2.500 000 00 GHz	-53.096 dBm				4	N	f		2.489 038 50 GHz	-49.677 dBm			
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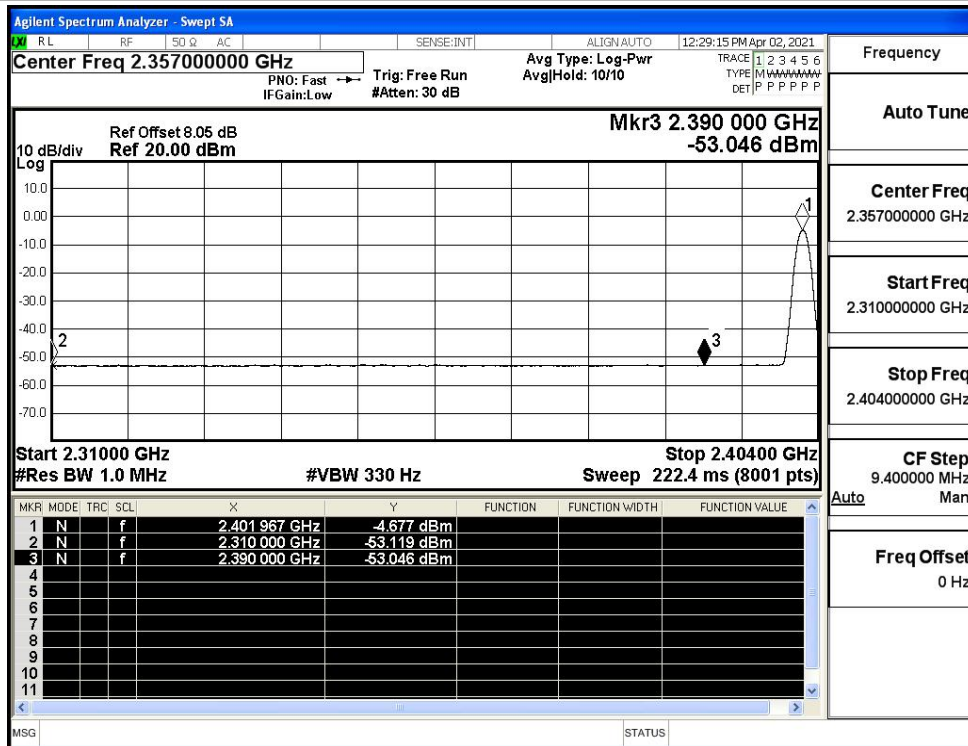
B.7 Restrict-band band-edge measurements

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	-41.51	2.0	0	55.72	PEAK	74	PASS
		Ant1	2310.0	-53.12	2.0	0	44.11	AV	54	PASS
		Ant1	2390.0	-43.63	2.0	0	53.60	PEAK	74	PASS
		Ant1	2390.0	-53.05	2.0	0	44.18	AV	54	PASS
	2480	Ant1	2483.5	-43.64	2.0	0	53.59	PEAK	74	PASS
		Ant1	2483.5	-52.53	2.0	0	44.70	AV	54	PASS
		Ant1	2500.0	-40.30	2.0	0	56.93	PEAK	74	PASS
		Ant1	2500.0	-52.41	2.0	0	44.82	AV	54	PASS

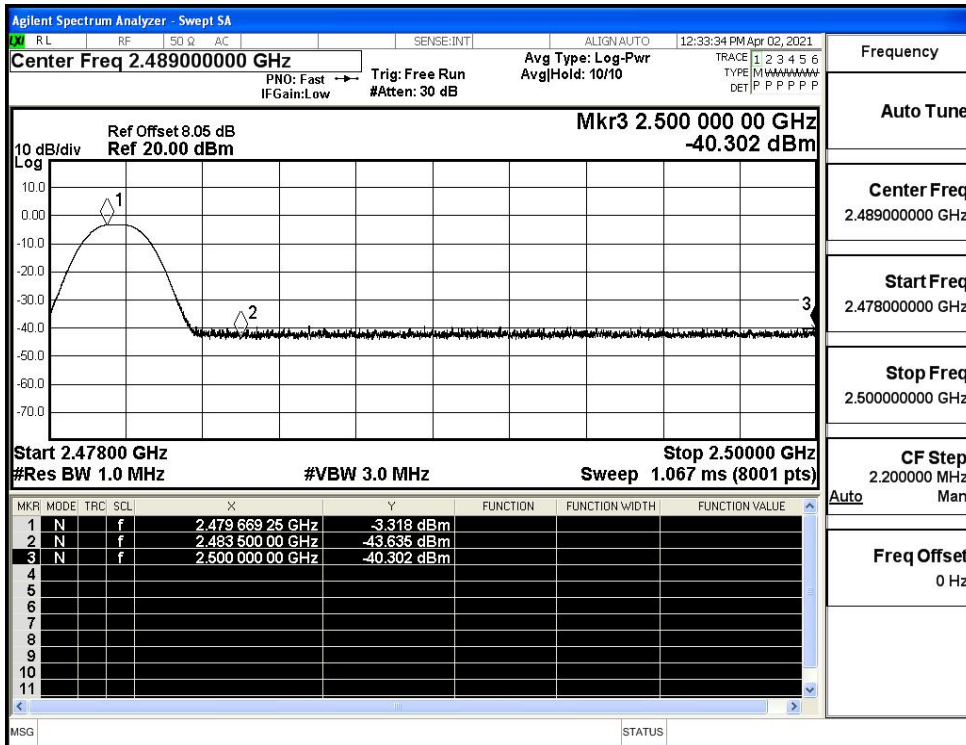
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

