

Appendix B

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

Product Name: LTE GSM/WCDMA Smartphone

Trade Mark: DOOGEE

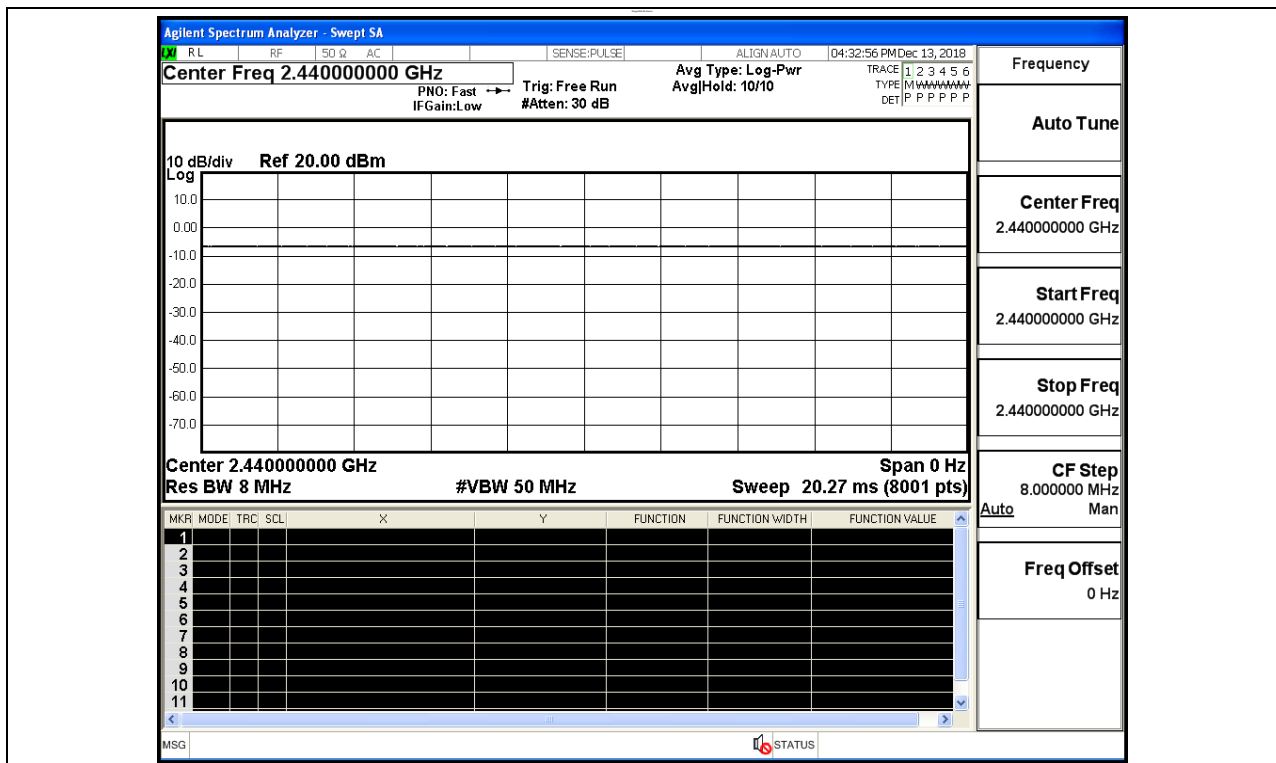
Test Model: S80 Lite

Environmental Conditions

Temperature:	23.6 ° C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	WANGCHUANG
Supervised by:	Jayden.Zhuo

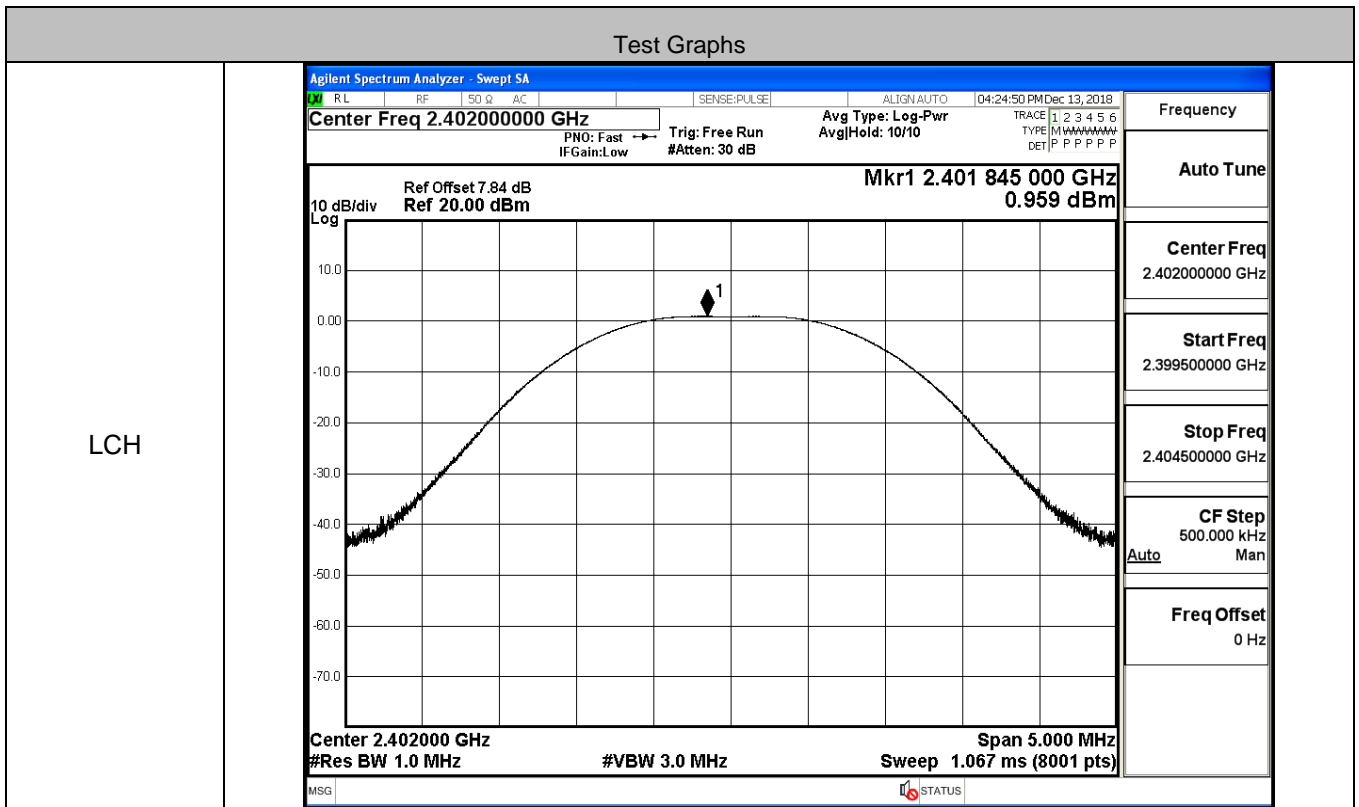
B.1 Duty Cycle

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

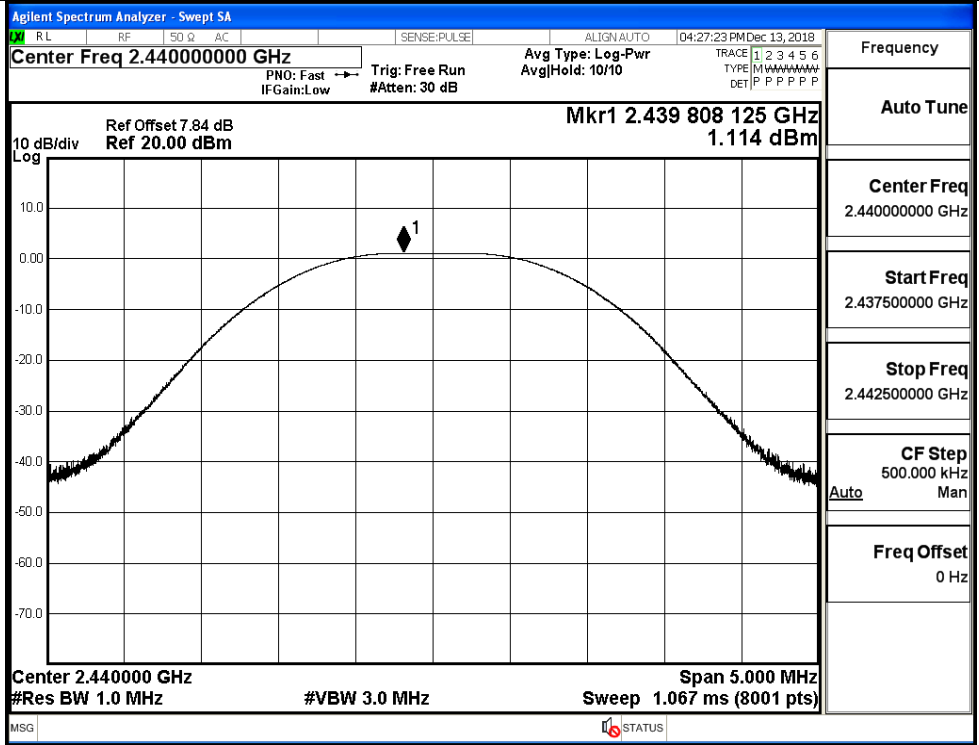


B.2 Maximum Conducted Peak Output Power

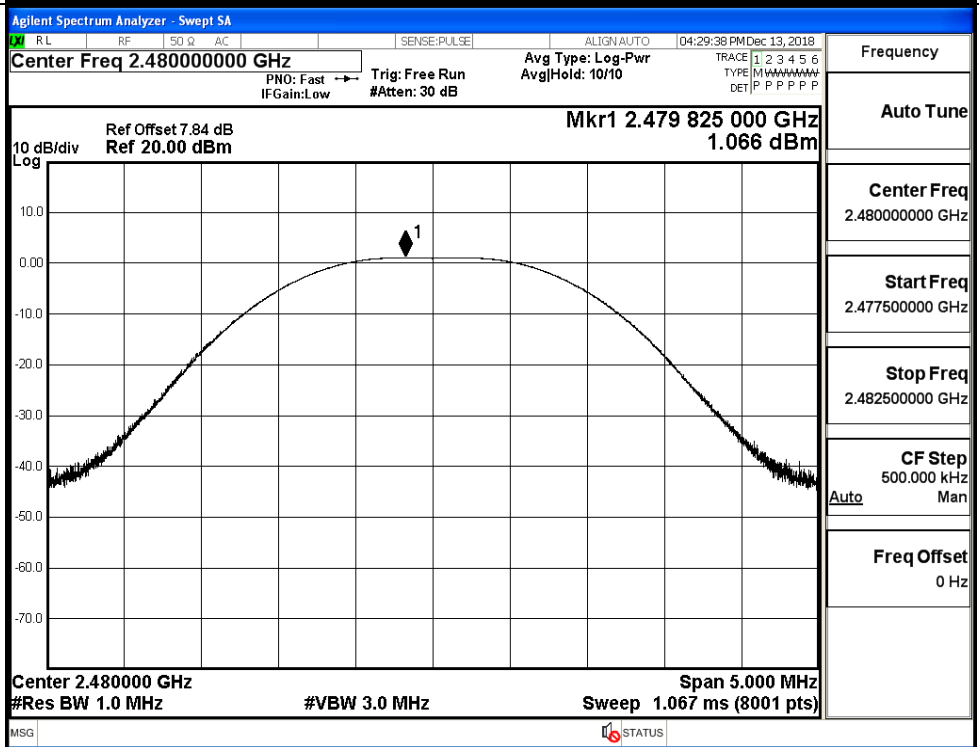
Mode	Channel	Conduct Peak Power[dBm]	Conduct Average Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	0.959	0.012	30	PASS
BT LE	MCH	1.114	0.132	30	PASS
BT LE	HCH	1.066	0.051	30	PASS



MCH



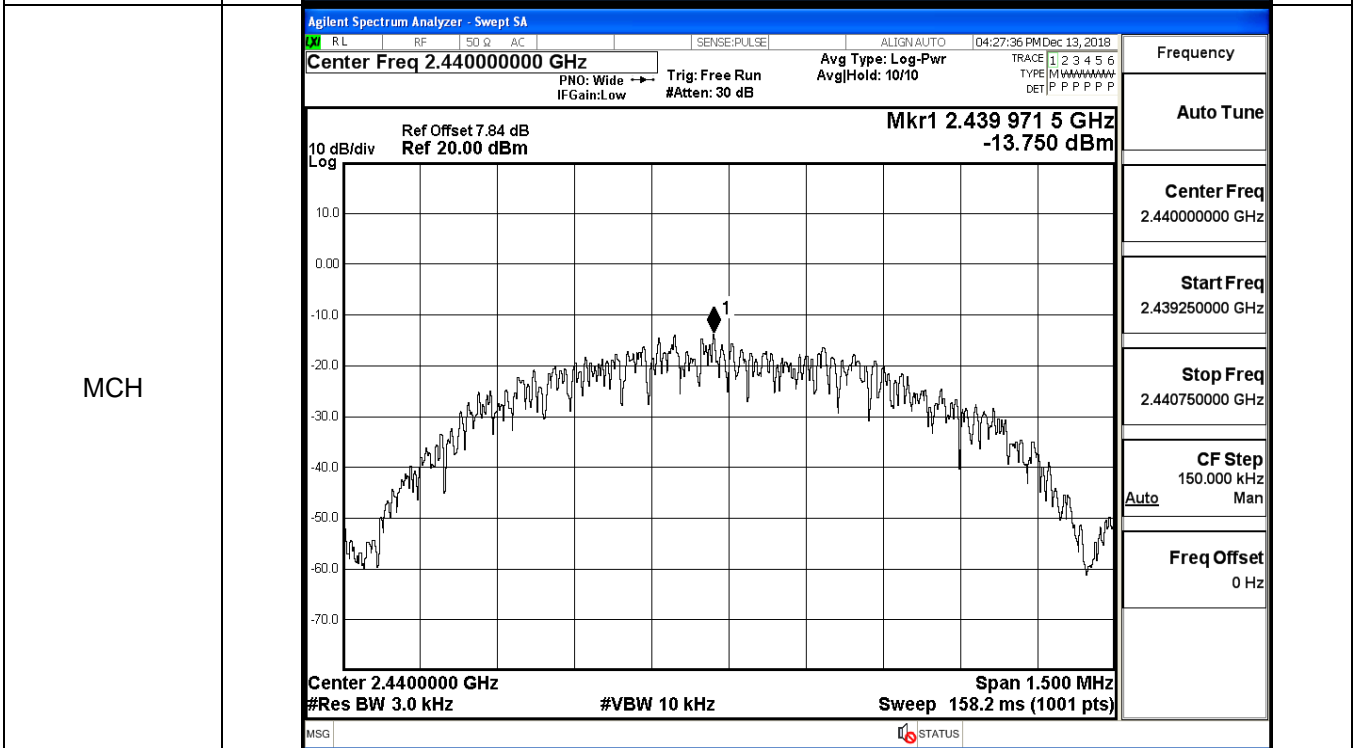
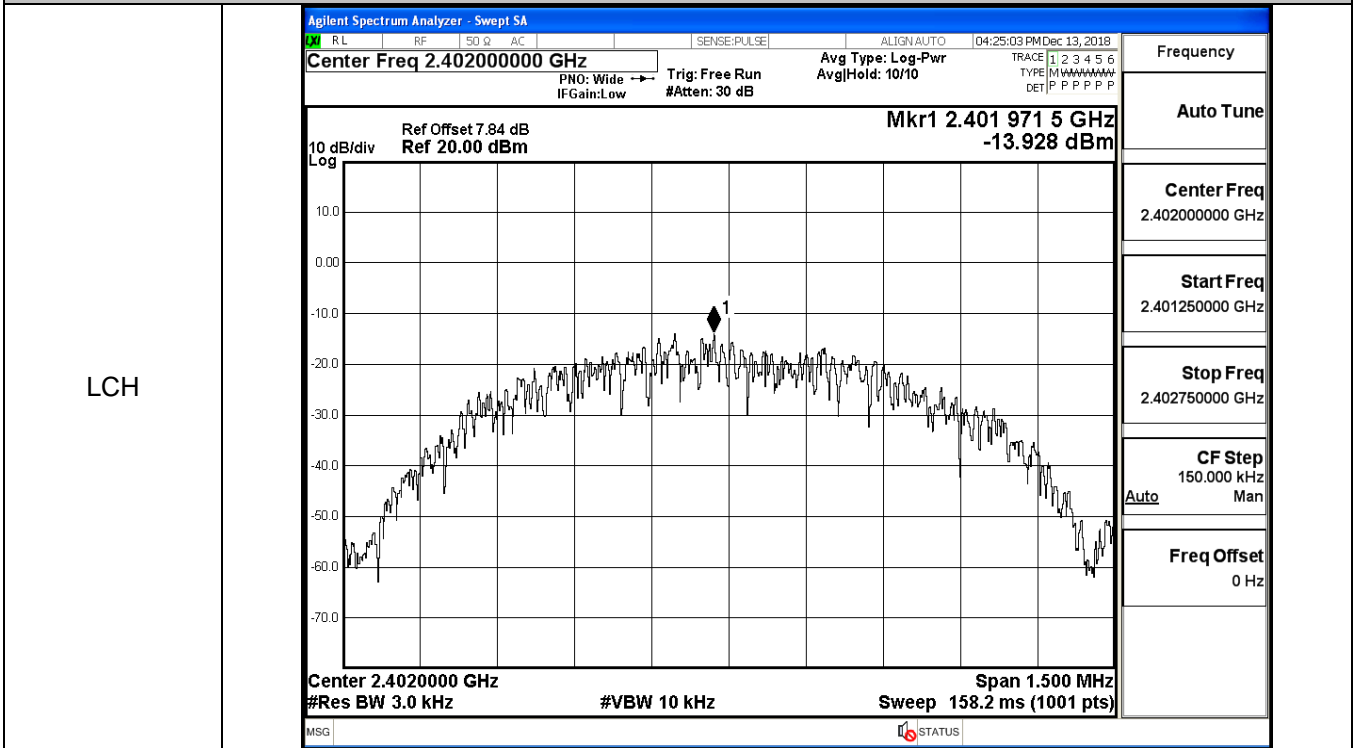
HCH



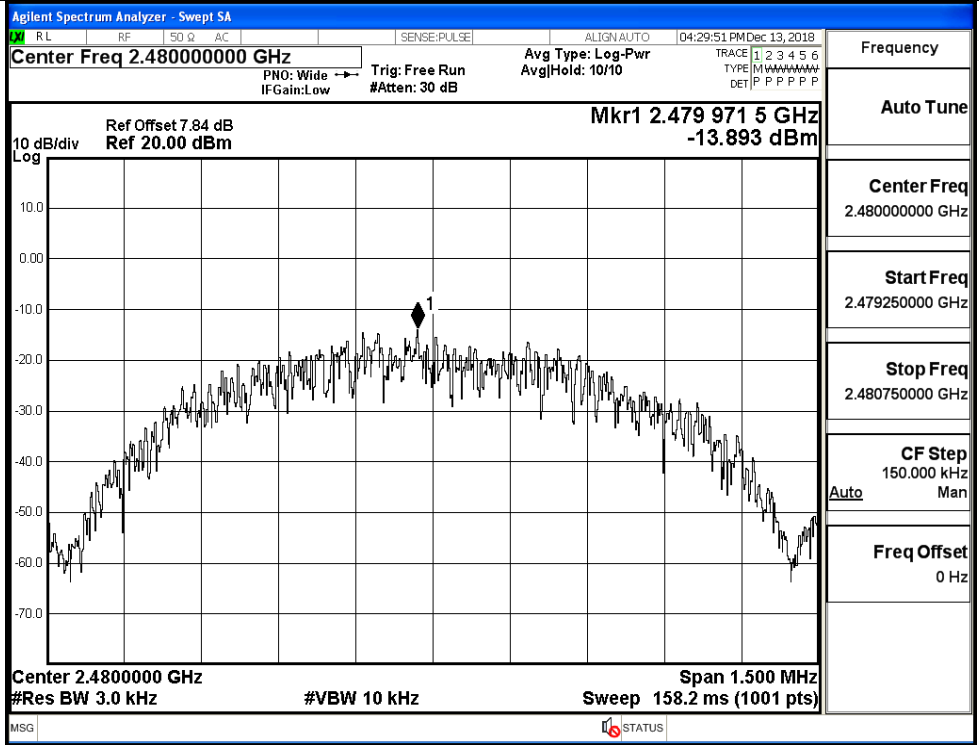
B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-13.928	8	PASS
BT LE	MCH	-13.750	8	PASS
BT LE	HCH	-13.893	8	PASS

Test Graphs



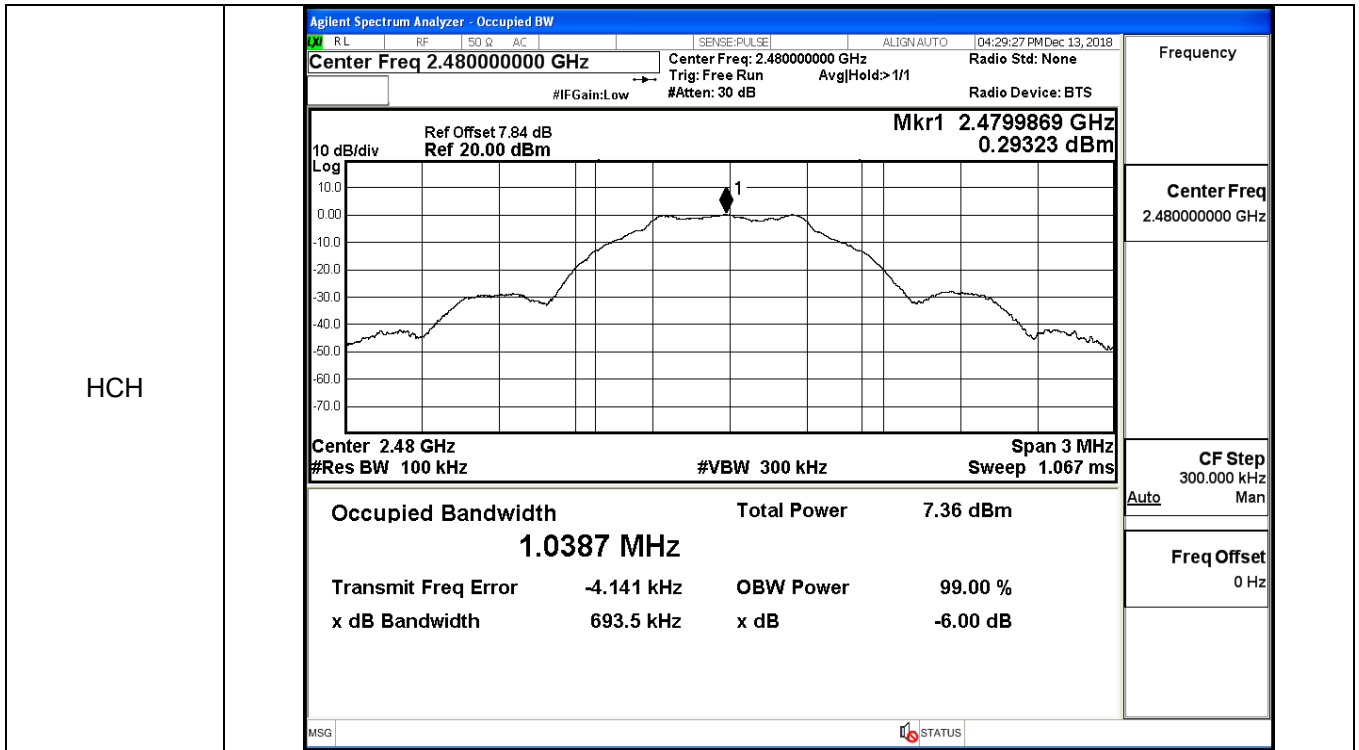
HCH



B.4 6dB Bandwidth

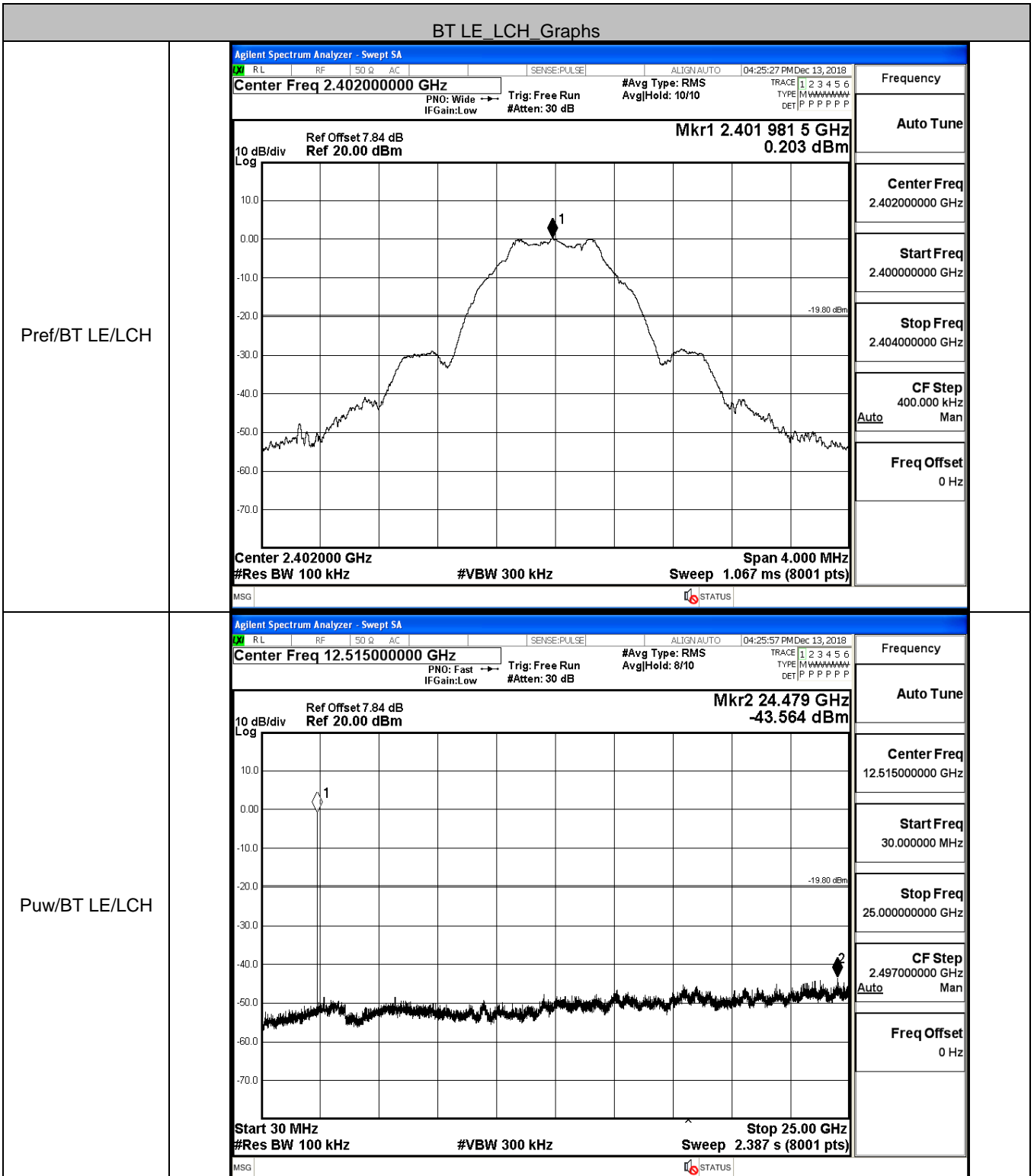
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6970	≥0.5	PASS
BT LE	MCH	0.6995	≥0.5	PASS
BT LE	HCH	0.6935	≥0.5	PASS

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 Radio Device: BTS</p> <p>#IFGain: Low #Atten: 30 dB</p> <p>Ref Offset 7.84 dB Ref 20.00 dBm Mkr1 2.4019858 GHz 0.20114 dBm</p> <p>Center 2.402 GHz #Res BW 100 kHz #VBW 300 kHz Span 3 MHz Sweep 1.067 ms</p> <p>Occupied Bandwidth 1.0439 MHz Total Power 7.27 dBm</p> <p>Transmit Freq Error -3.888 kHz OBW Power 99.00 %</p> <p>x dB Bandwidth 697.0 kHz x dB -6.00 dB</p> <p>MSG STATUS</p>	<p>Frequency</p> <p>Center Freq 2.402000000 GHz</p> <p>CF Step 300.000 kHz</p> <p>Auto Man</p> <p>Freq Offset 0 Hz</p>
	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 Radio Device: BTS</p> <p>#IFGain: Low #Atten: 30 dB</p> <p>Ref Offset 7.84 dB Ref 20.00 dBm Mkr1 2.4399869 GHz 0.36971 dBm</p> <p>Center 2.44 GHz #Res BW 100 kHz #VBW 300 kHz Span 3 MHz Sweep 1.067 ms</p> <p>Occupied Bandwidth 1.0407 MHz Total Power 7.44 dBm</p> <p>Transmit Freq Error -4.250 kHz OBW Power 99.00 %</p> <p>x dB Bandwidth 699.5 kHz x dB -6.00 dB</p> <p>MSG STATUS</p>



B.5 RF Conducted Spurious Emissions

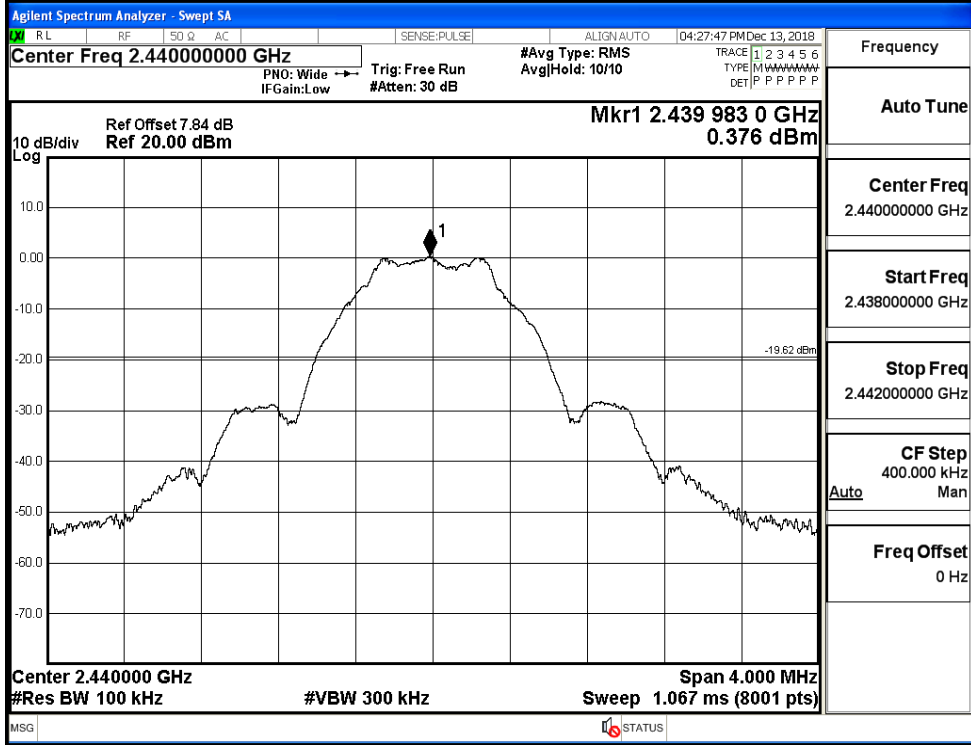
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	0.203	-43.564	-19.797	PASS
BT LE	MCH	0.376	-44.513	-19.624	PASS
BT LE	HCH	0.316	-44.568	-19.684	PASS



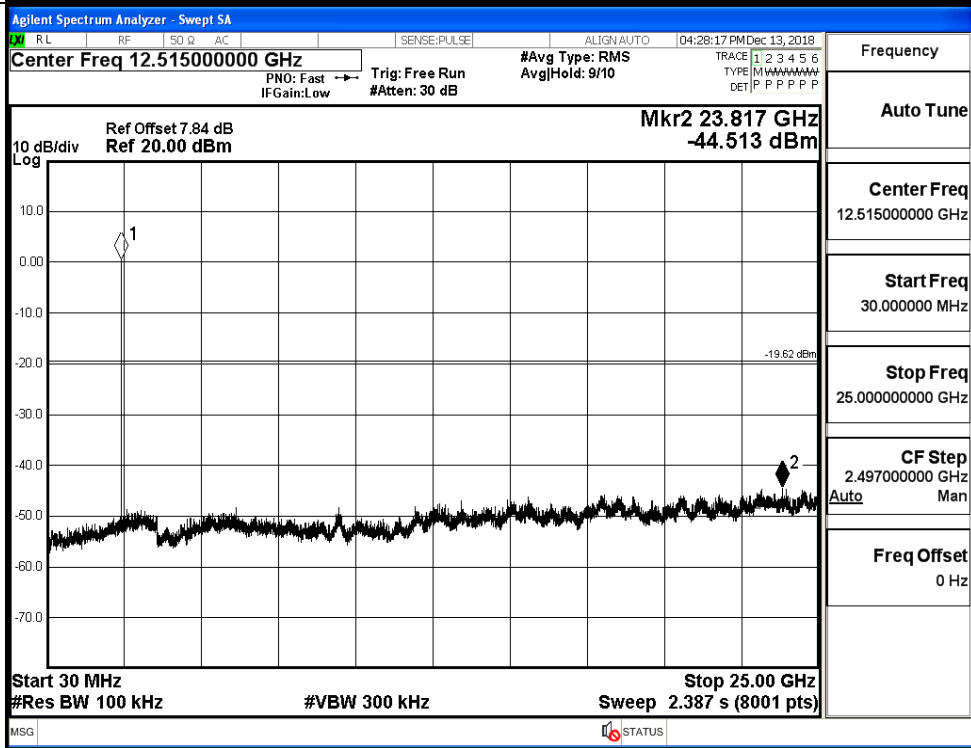
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BT LE_MCH_Graphs

Pref/BT LE/MCH

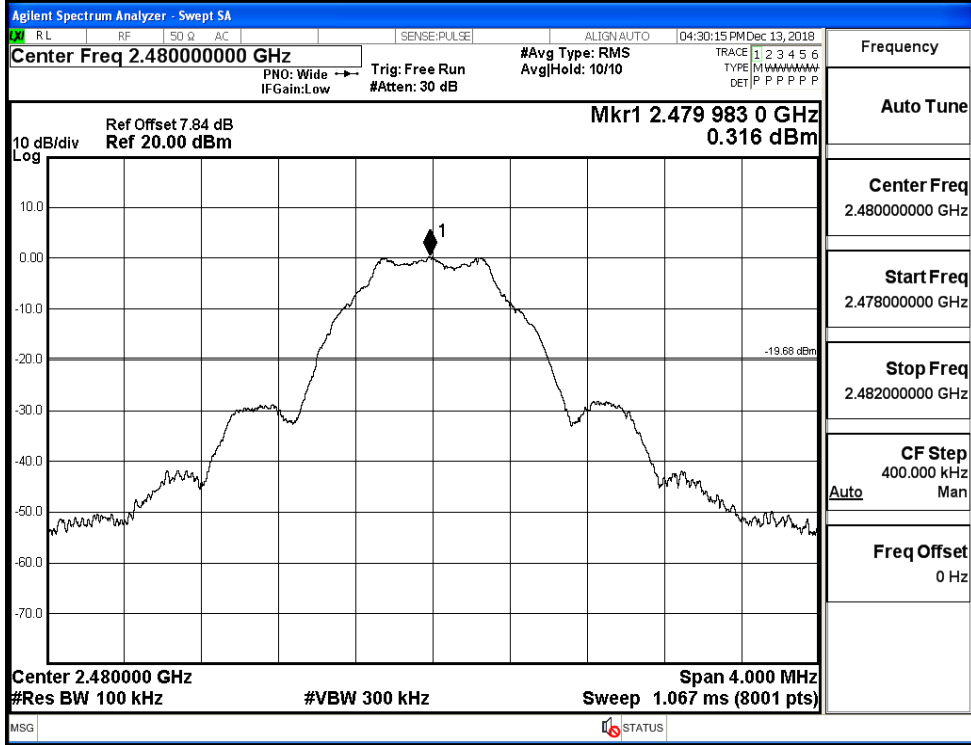


Puw/BT LE/MCH

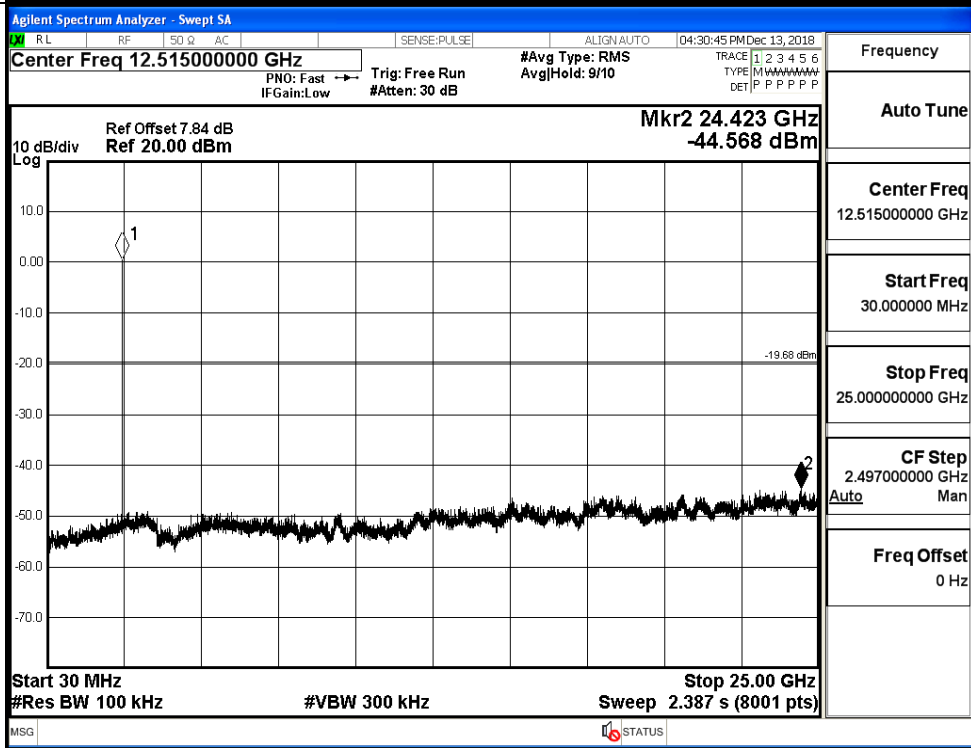


BT LE_HCH_Graphs

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	0.271	-50.152	-19.73	PASS
BT LE	HCH	0.346	-50.741	-19.65	PASS

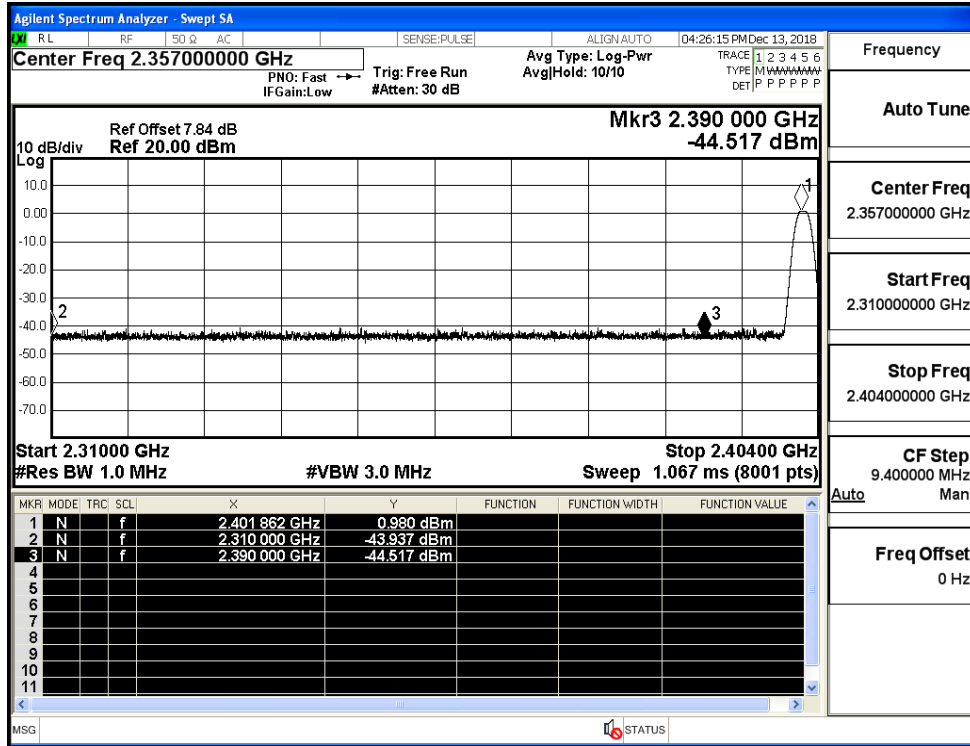
Test Graphs

LCH	<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>2.401 788 GHz</td> <td>0.271 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>-51.274 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>-53.900 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>N</td> <td>f</td> <td></td> <td>2.339 810 GHz</td> <td>-50.152 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		2.401 788 GHz	0.271 dBm				2	N	f		2.400 000 GHz	-51.274 dBm				3	N	f		2.390 000 GHz	-53.900 dBm				4	N	f		2.339 810 GHz	-50.152 dBm				<table border="1"> <tr><td>Frequency</td></tr> <tr><td>Auto Tune</td></tr> <tr><td>Center Freq 2.35700000 GHz</td></tr> <tr><td>Start Freq 2.31000000 GHz</td></tr> <tr><td>Stop Freq 2.40400000 GHz</td></tr> <tr><td>CF Step 9.400000 MHz</td></tr> <tr><td>Auto Man</td></tr> <tr><td>Freq Offset 0 Hz</td></tr> </table>	Frequency	Auto Tune	Center Freq 2.35700000 GHz	Start Freq 2.31000000 GHz	Stop Freq 2.40400000 GHz	CF Step 9.400000 MHz	Auto Man	Freq Offset 0 Hz
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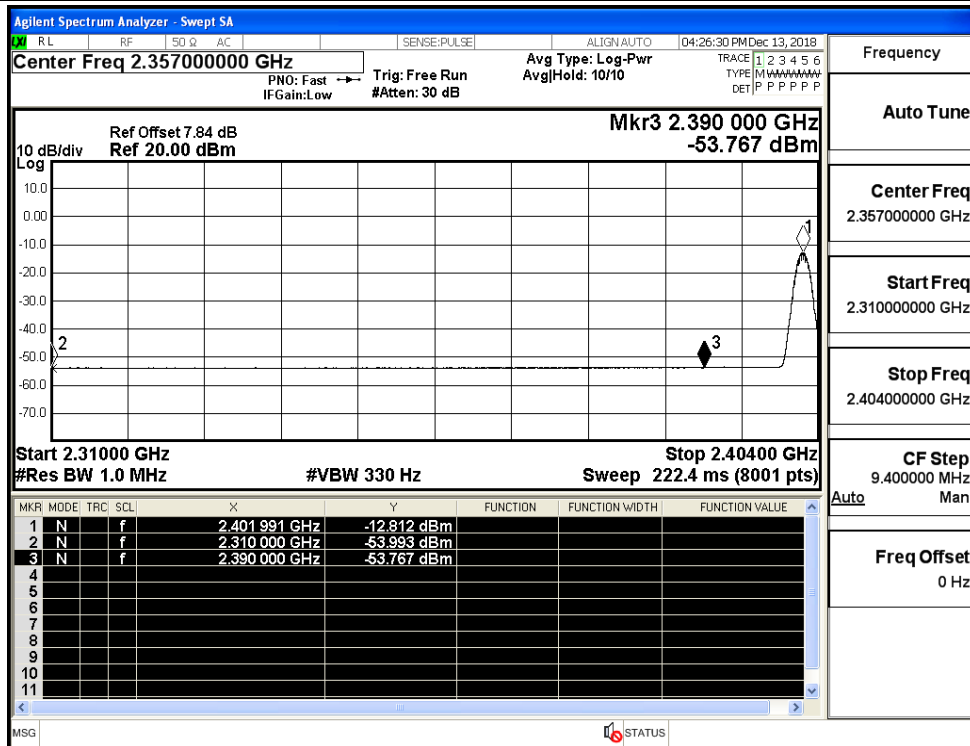
B.7 Restrict-band band-edge measurements

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	-43.94	0.0	0	51.29	PEAK	74	PASS
		Ant1	2310.0	-53.99	0.0	0	41.24	AV	54	PASS
		Ant1	2390.0	-44.52	0.0	0	50.71	PEAK	74	PASS
		Ant1	2390.0	-53.77	0.0	0	41.46	AV	54	PASS
	2480	Ant1	2483.5	-42.84	0.0	0	52.39	PEAK	74	PASS
		Ant1	2483.5	-53.39	0.0	0	41.84	AV	54	PASS
		Ant1	2500.0	-43.64	0.0	0	51.59	PEAK	74	PASS
		Ant1	2500.0	-53.33	0.0	0	41.90	AV	54	PASS

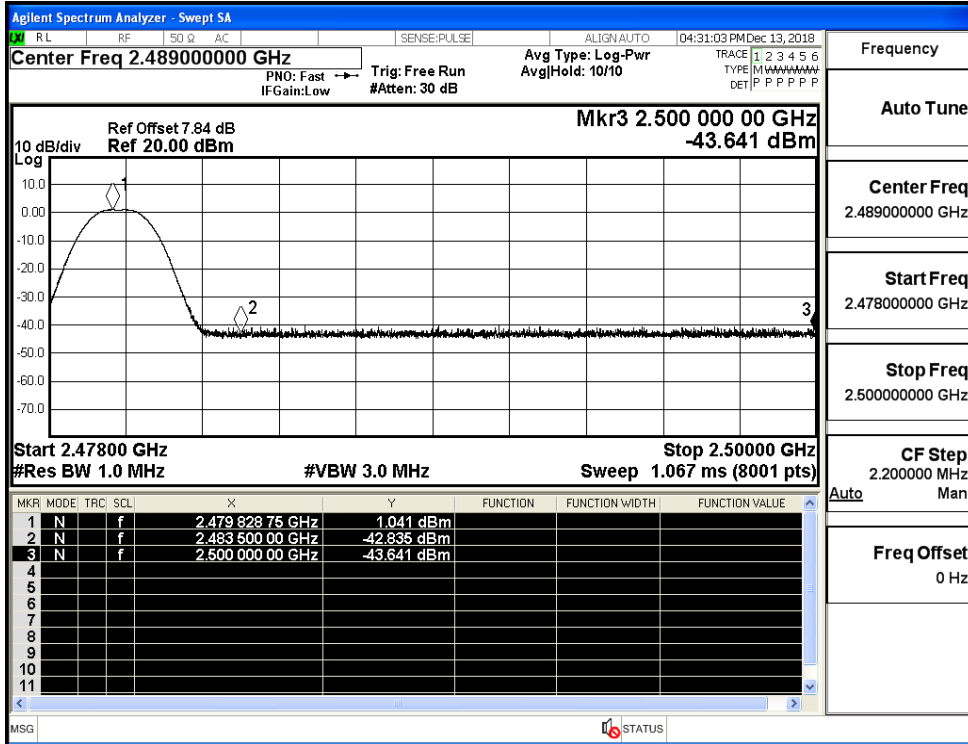
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

