

Appendix B

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

Product Name: 3G smartphone

Trade Mark: GOL

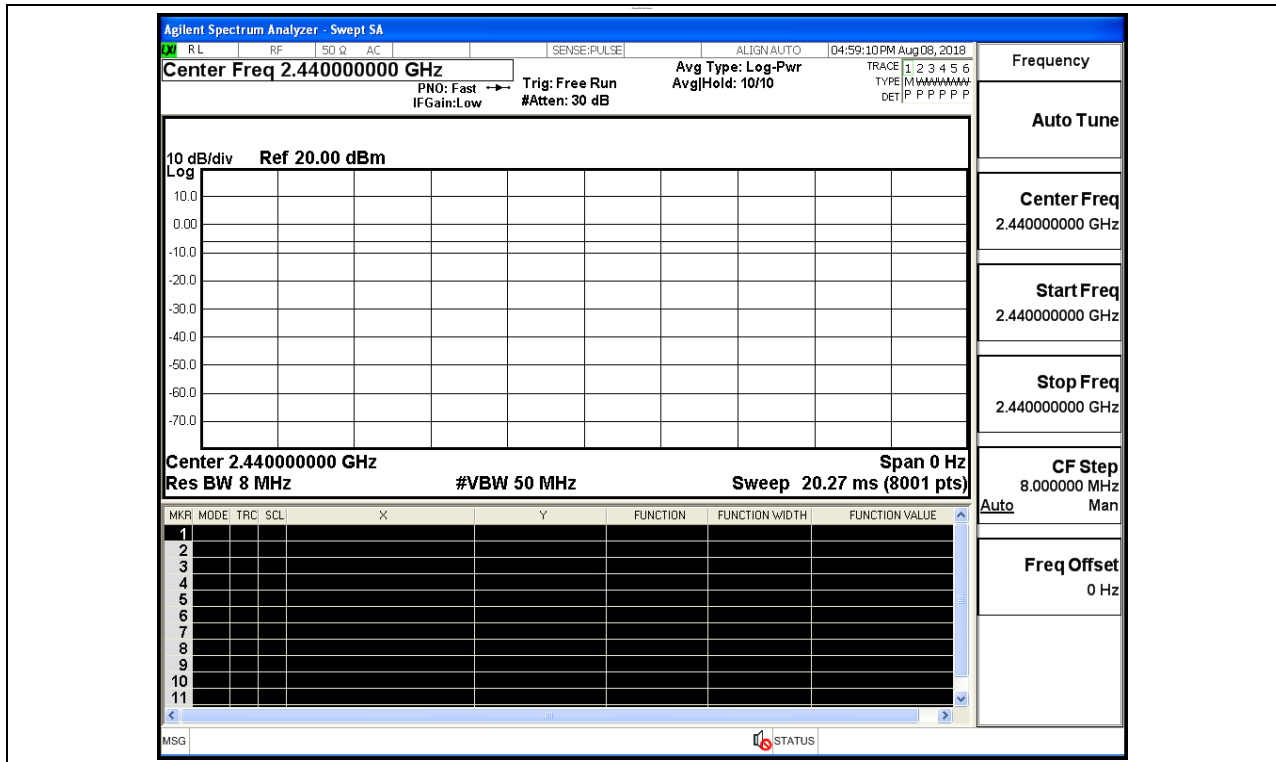
Test Model: F3

Environmental Conditions

Temperature:	24.2 ° C
Relative Humidity:	52.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom Liu
Supervised by:	Jayden Zhuo

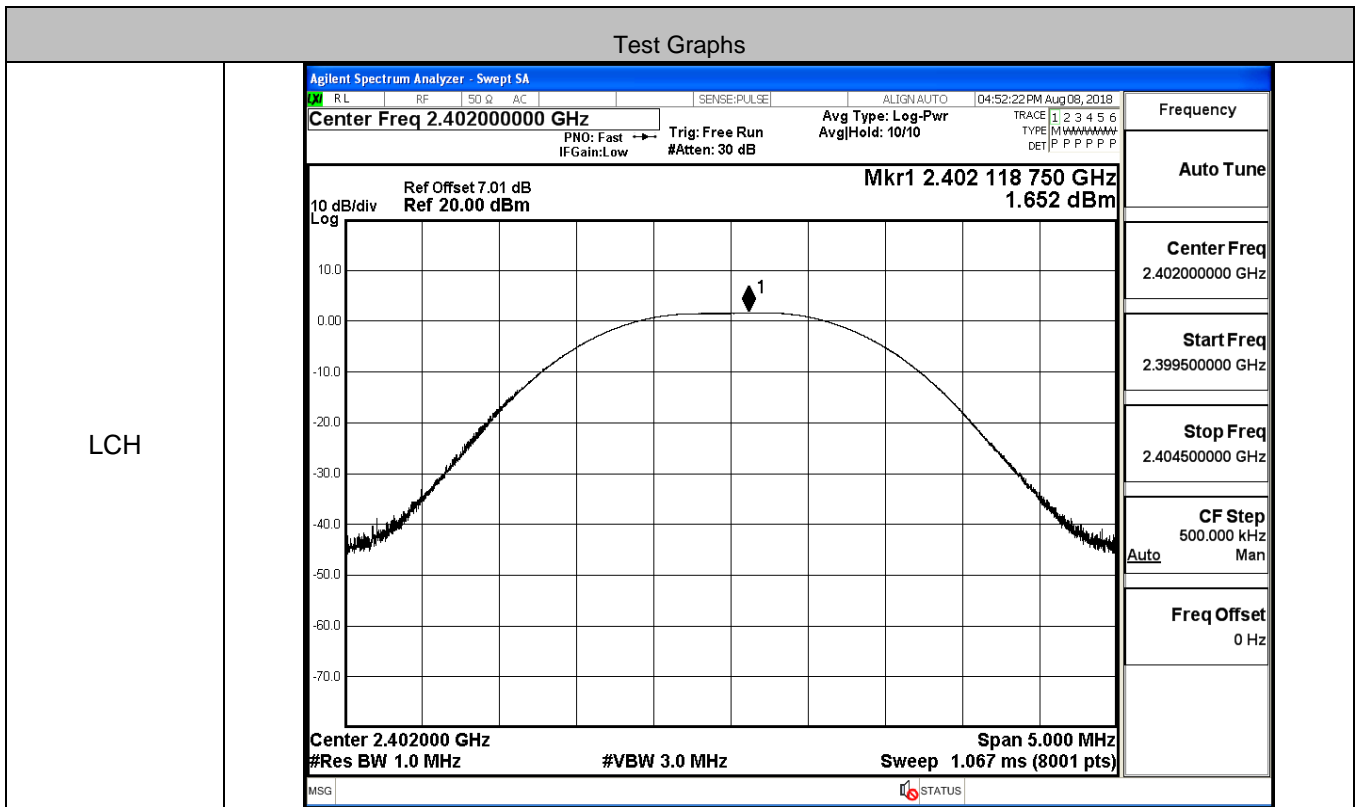
B.1 Duty Cycle

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

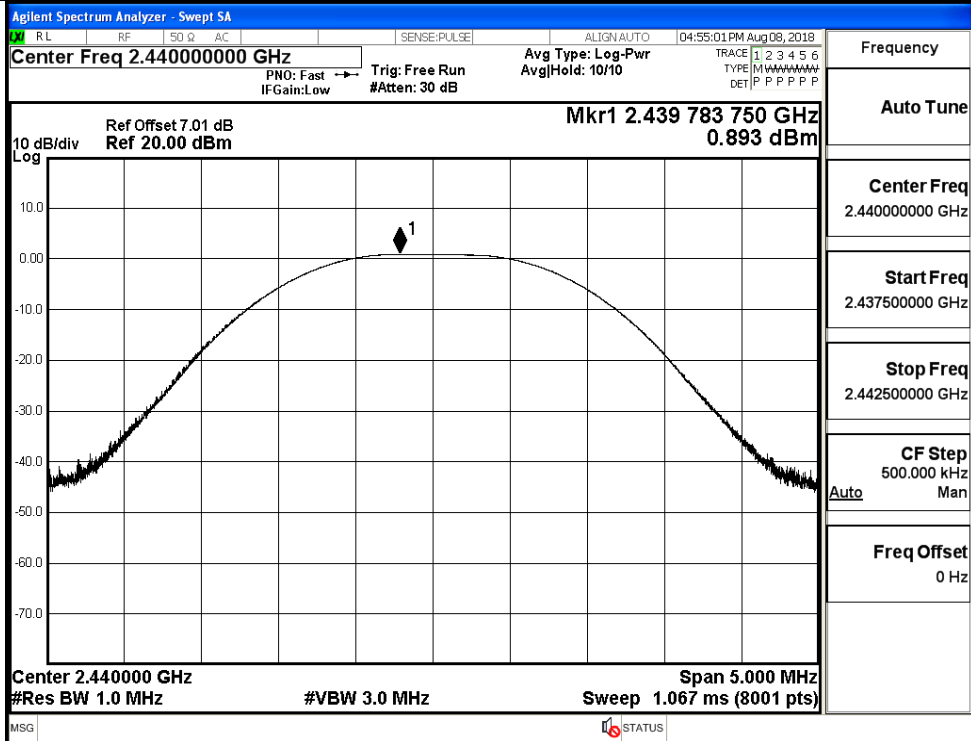


B.2 Maximum Conducted Peak Output Power

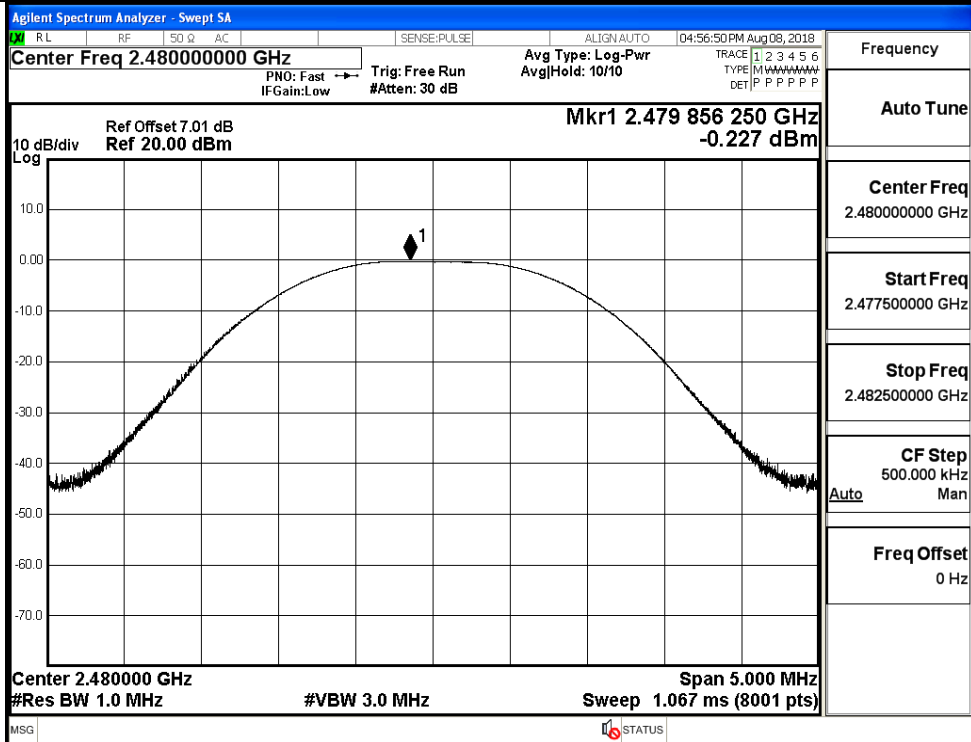
Mode	Channel	Conduct Peak Power[dBm]	Conduct Average Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.652	1.525	30	PASS
BT LE	MCH	0.893	0.703	30	PASS
BT LE	HCH	-0.227	-0.397	30	PASS



MCH



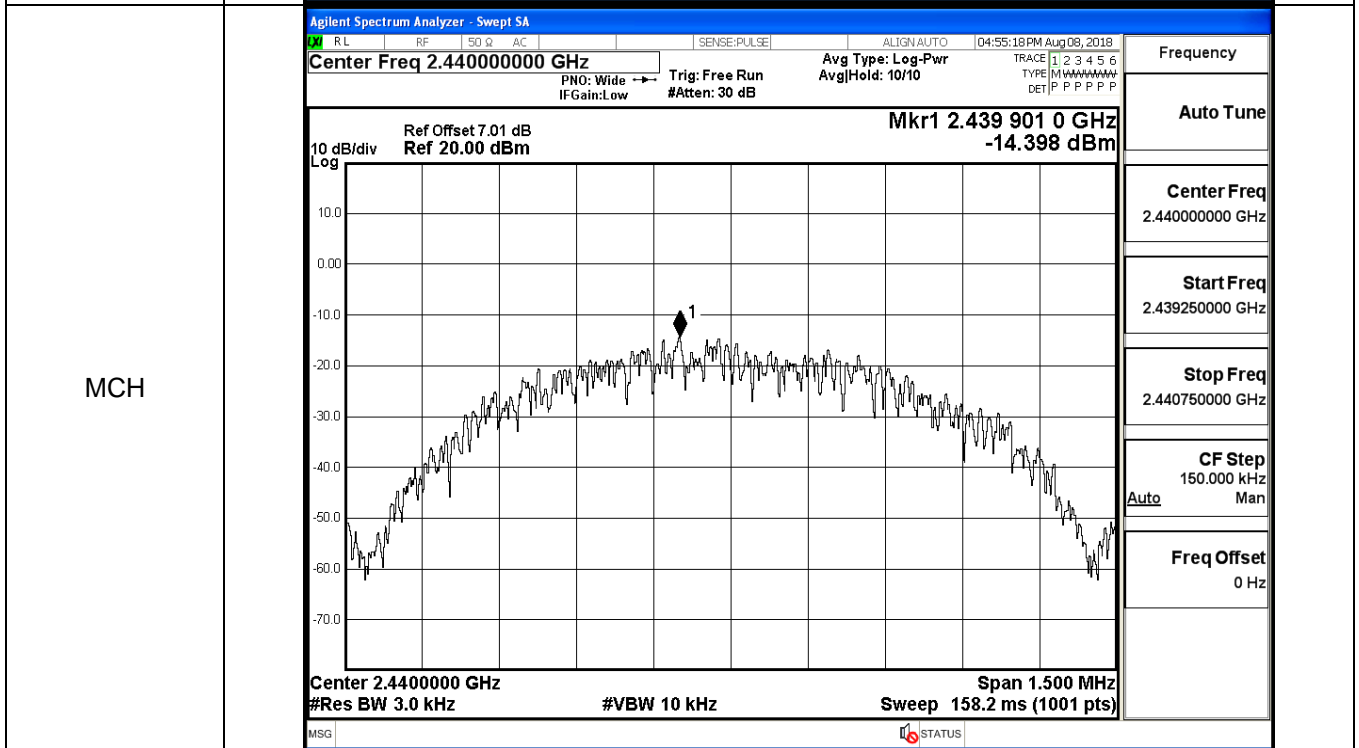
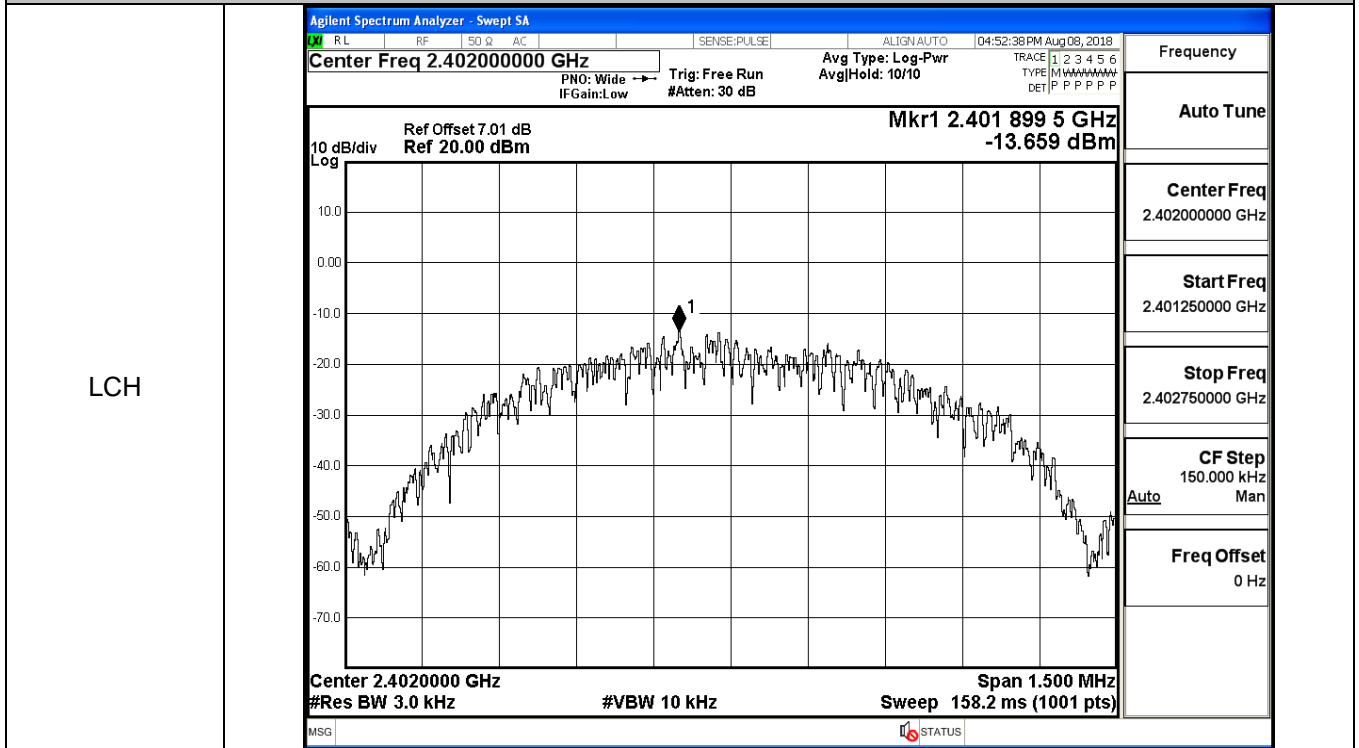
HCH



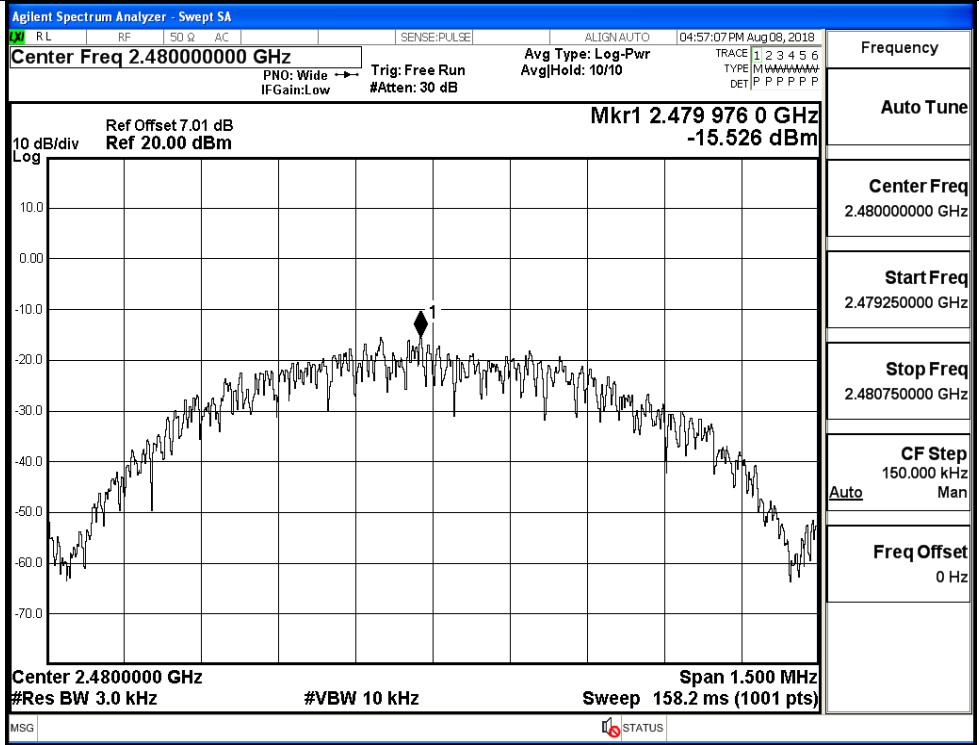
B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-13.659	8	PASS
BT LE	MCH	-14.398	8	PASS
BT LE	HCH	-15.526	8	PASS

Test Graphs



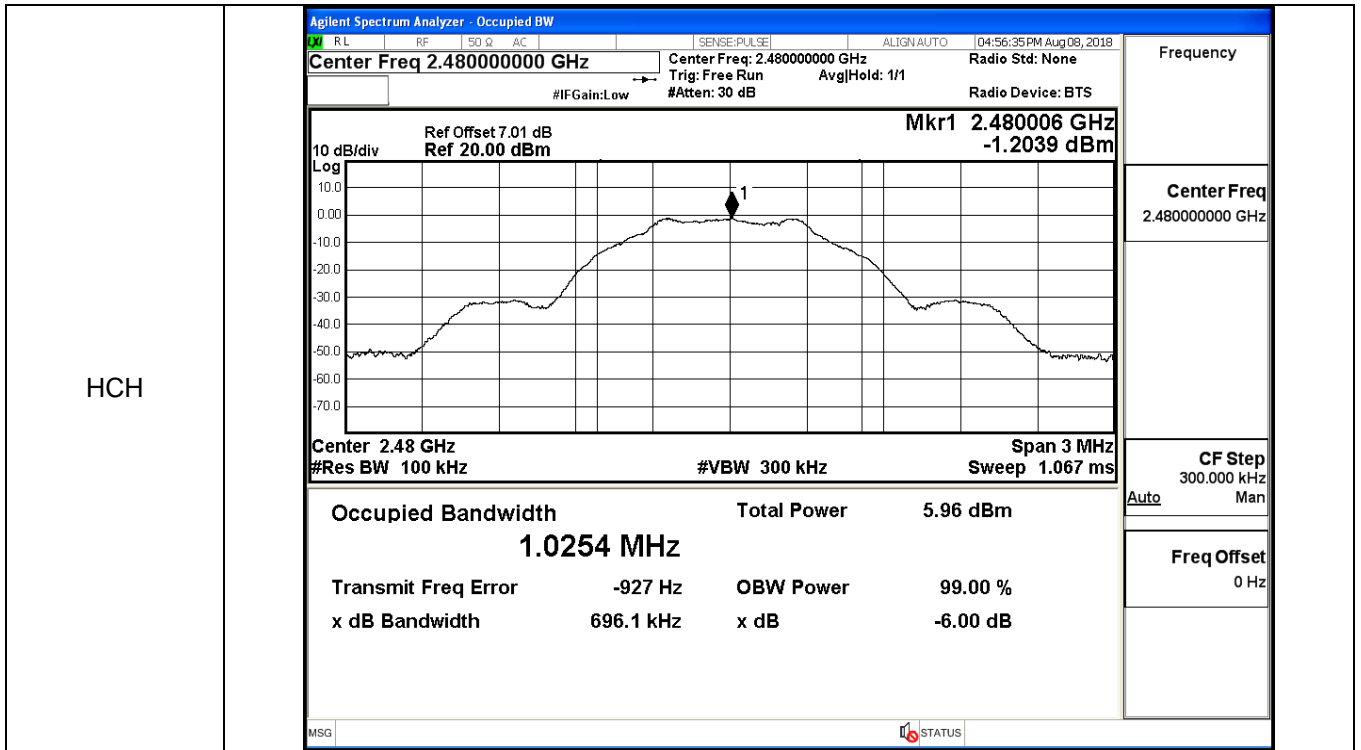
HCH



B.4 6dB Bandwidth

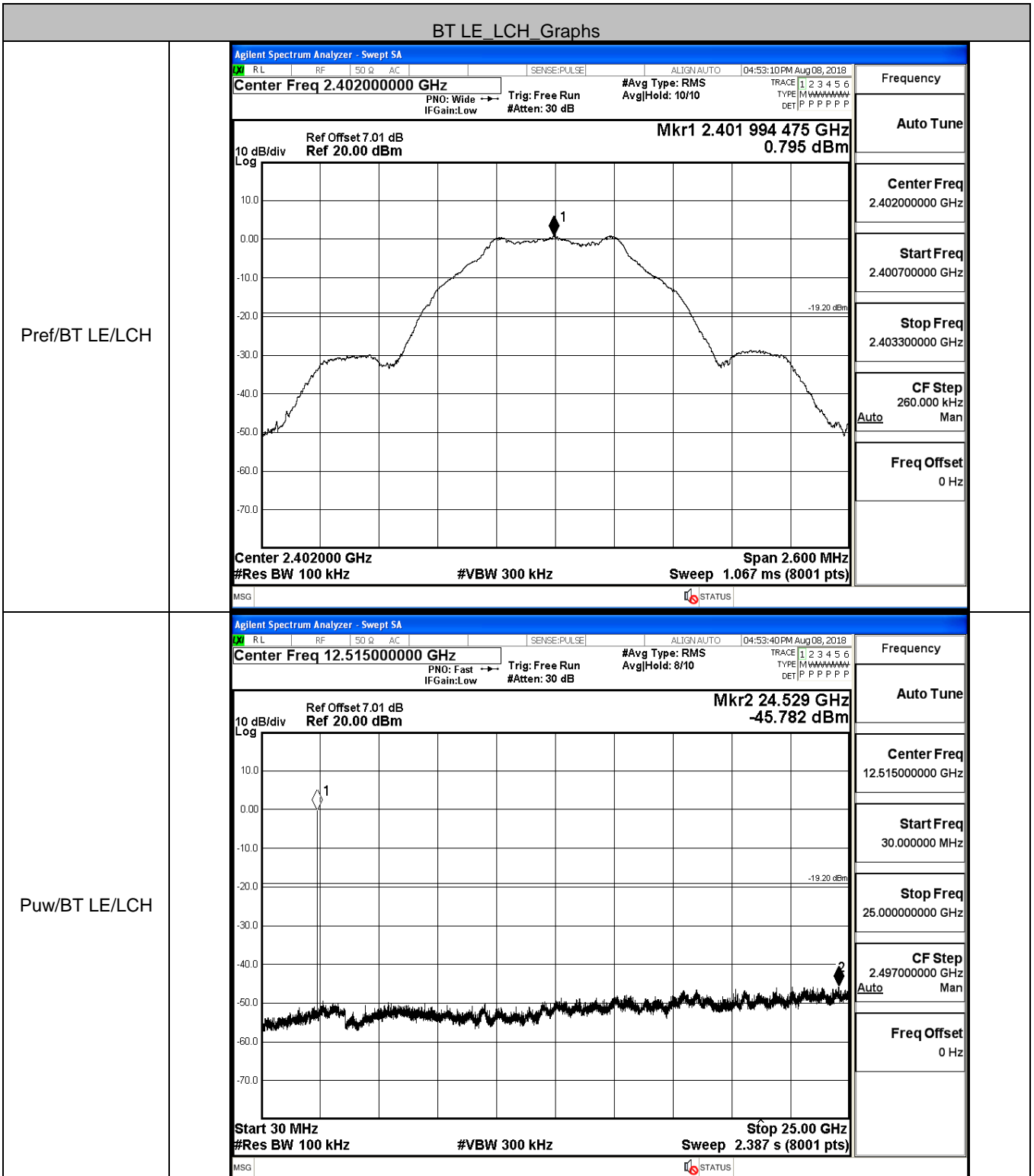
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6817	≥0.5	PASS
BT LE	MCH	0.6800	≥0.5	PASS
BT LE	HCH	0.6961	≥0.5	PASS

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 04:52:07 PM Aug 08, 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 2.4019948 GHz 0.78463 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 colspan="2">7.88 dBm</td> </tr> <tr> <td colspan="4" style="text-align: center;">1.0254 MHz</td> </tr> <tr> <td>Transmit Freq Error</td> <td>5.246 kHz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>681.7 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> </table> <p style="font-size: x-small; margin: 0;">MSG STATUS</p> </div>	Occupied Bandwidth	Total Power	7.88 dBm		1.0254 MHz				Transmit Freq Error	5.246 kHz	OBW Power	99.00 %	x dB Bandwidth	681.7 kHz	x dB	-6.00 dB
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x dB Bandwidth	681.7 kHz	x dB	-6.00 dB														
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 04:54:45 PM Aug 08, 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 2.4399948 GHz 0.064131 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 colspan="2">7.15 dBm</td> </tr> <tr> <td colspan="4" style="text-align: center;">1.0230 MHz</td> </tr> <tr> <td>Transmit Freq Error</td> <td>-1.146 kHz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>680.0 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> </table> <p style="font-size: x-small; margin: 0;">MSG STATUS</p> </div>	Occupied Bandwidth	Total Power	7.15 dBm		1.0230 MHz				Transmit Freq Error	-1.146 kHz	OBW Power	99.00 %	x dB Bandwidth	680.0 kHz	x dB	-6.00 dB
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Transmit Freq Error	-1.146 kHz	OBW Power	99.00 %														
x dB Bandwidth	680.0 kHz	x dB	-6.00 dB														



B.5 RF Conducted Spurious Emissions

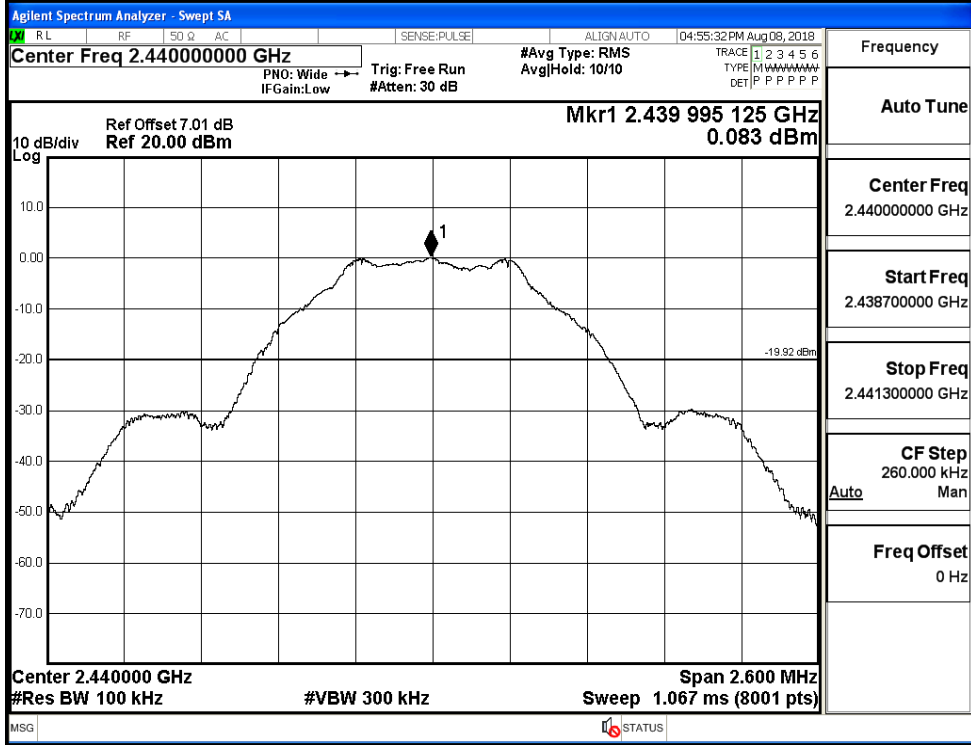
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	0.795	-45.782	-19.205	PASS
BT LE	MCH	0.083	-45.372	-19.917	PASS
BT LE	HCH	-1.063	-45.641	-21.063	PASS



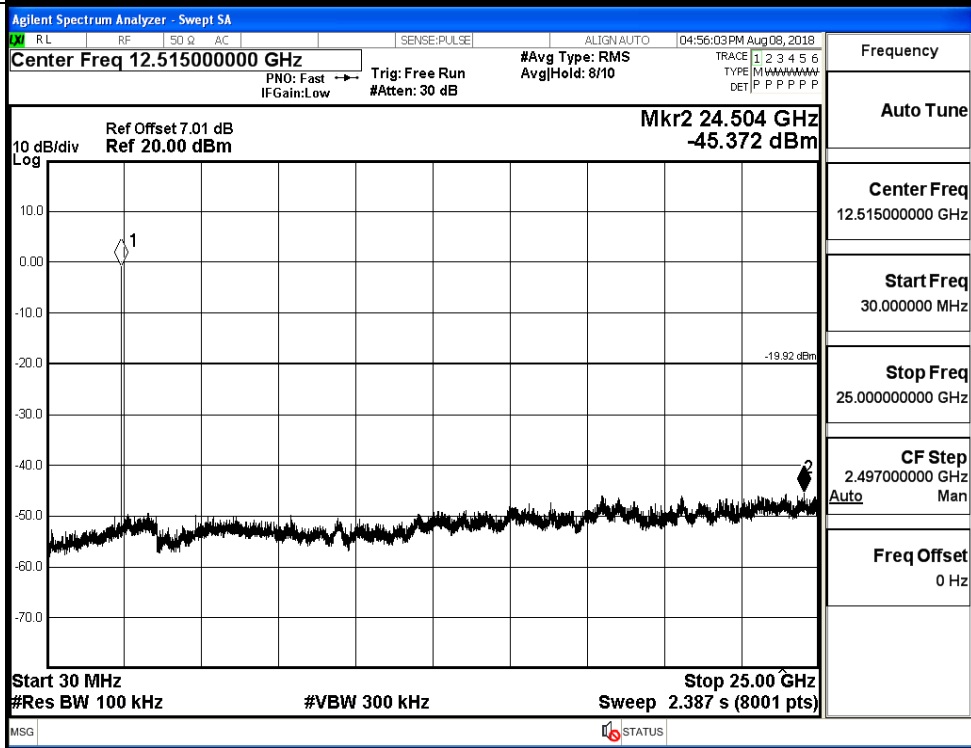
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BT LE_MCH_Graphs

Pref/BT LE/MCH

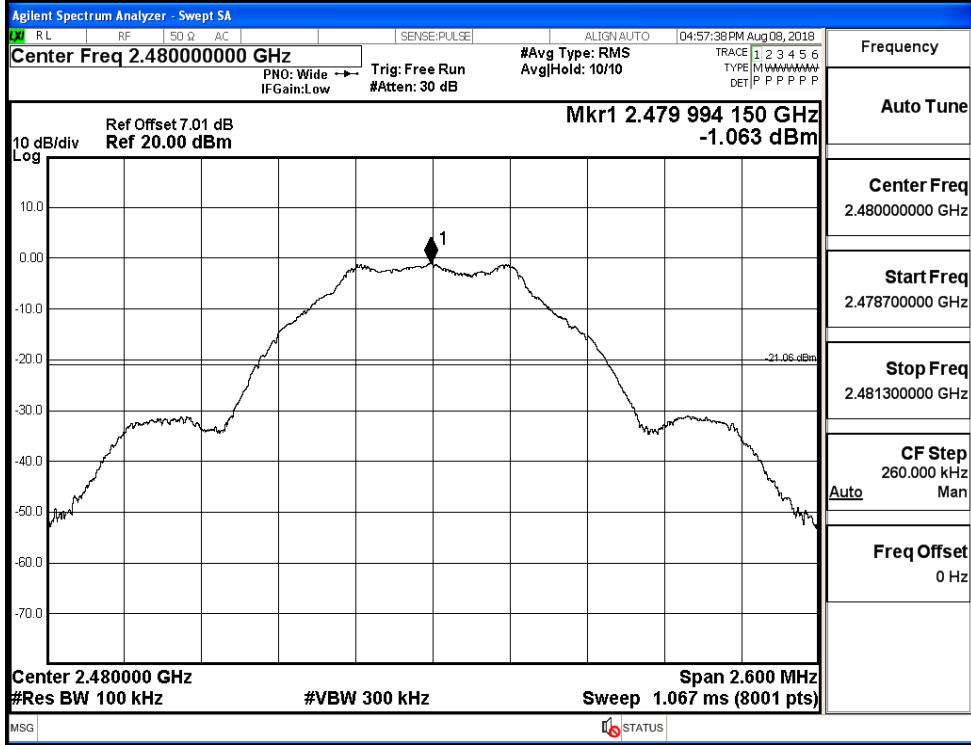


Puw/BT LE/MCH

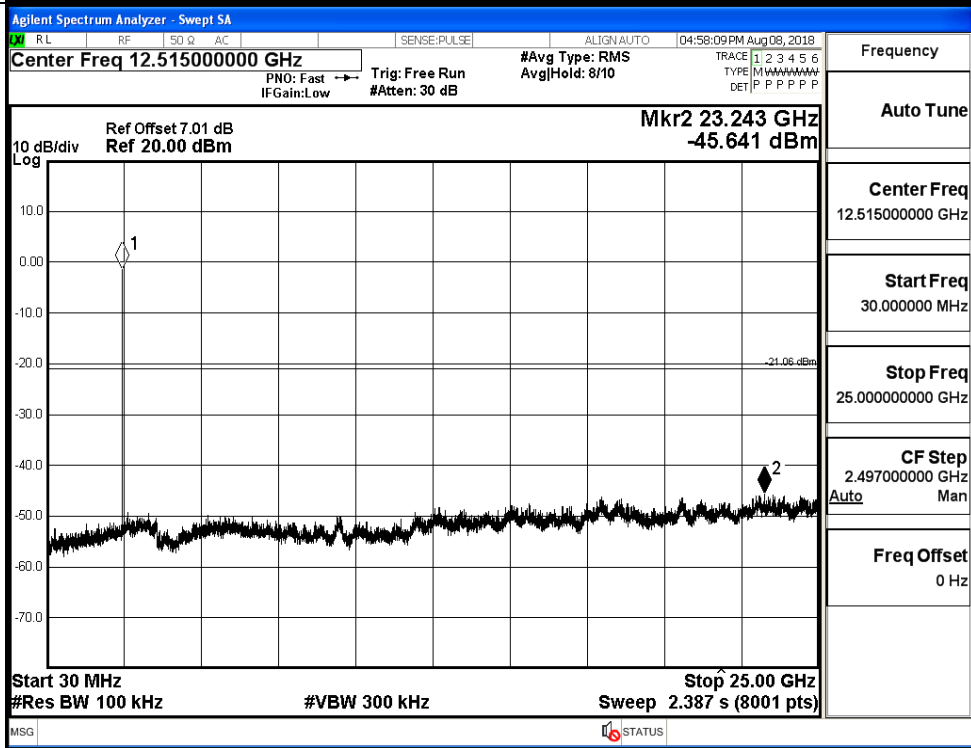


BT LE_HCH_Graphs

Pref/BT LE/HCH



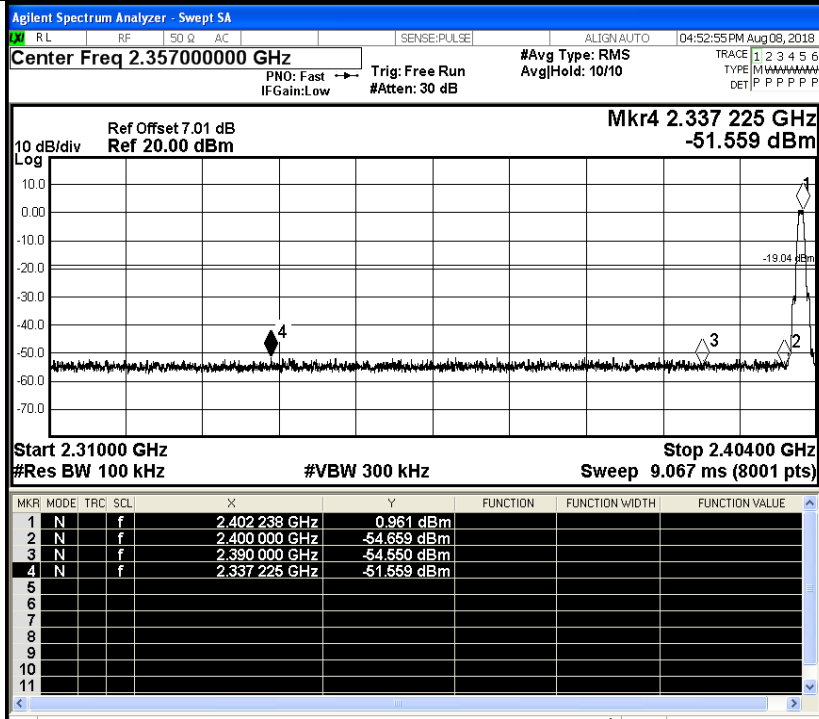
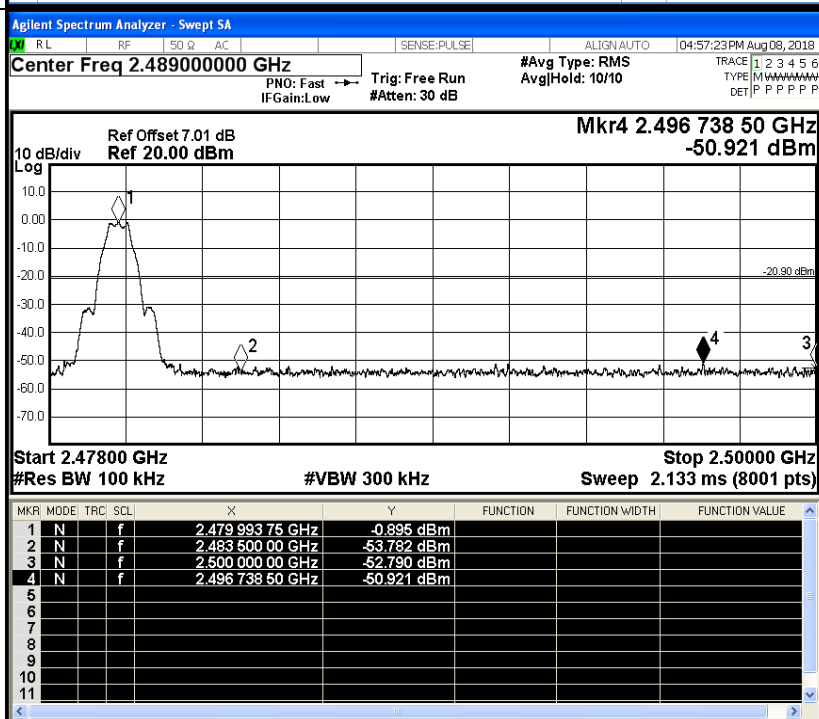
Puw/BT LE/HCH



B.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	0.961	-51.559	-19.04	PASS
BT LE	HCH	-0.895	-50.921	-20.9	PASS

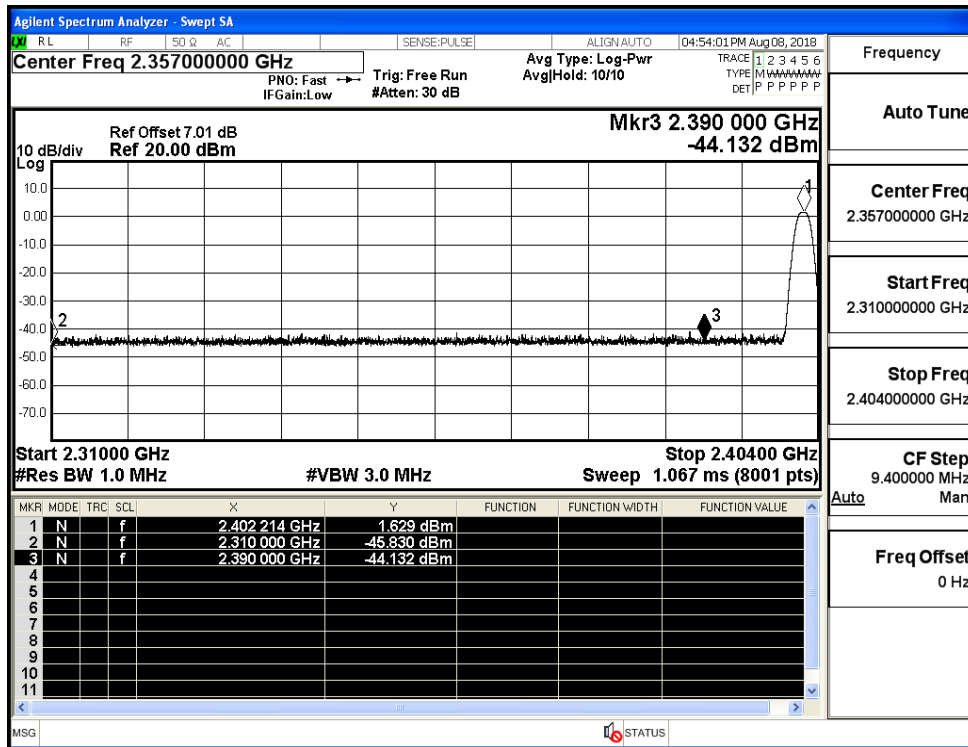
Test Graphs

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>

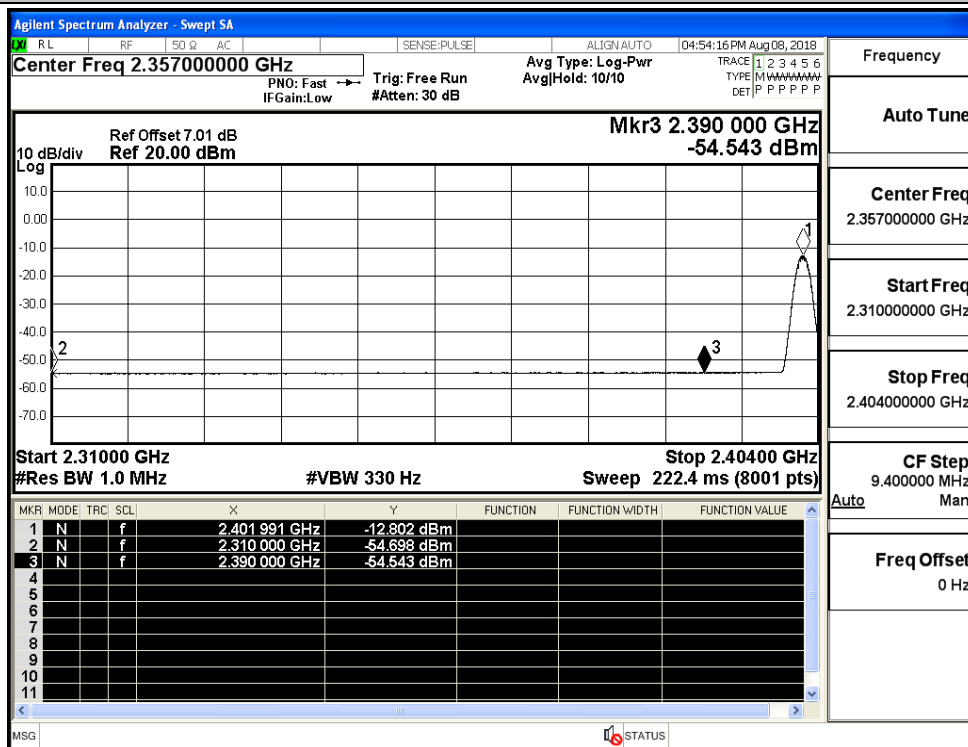
B.7 Restrict-band band-edge measurements

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	-45.83	2.0	0	51.43	PEAK	74	PASS
		Ant1	2310.0	-54.70	2.0	0	42.56	AV	54	PASS
		Ant1	2390.0	-44.13	2.0	0	53.13	PEAK	74	PASS
		Ant1	2390.0	-54.54	2.0	0	42.71	AV	54	PASS
	2480	Ant1	2483.5	-44.04	2.0	0	53.22	PEAK	74	PASS
		Ant1	2483.5	-54.22	2.0	0	43.03	AV	54	PASS
		Ant1	2500.0	-44.61	2.0	0	52.65	PEAK	74	PASS
		Ant1	2500.0	-54.19	2.0	0	43.06	AV	54	PASS

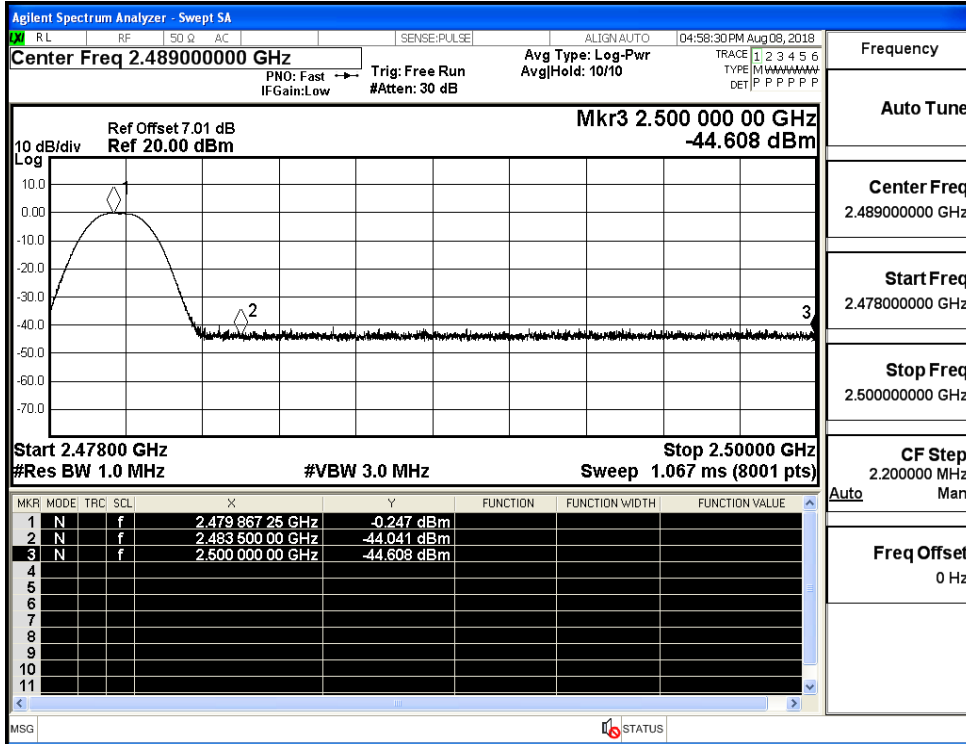
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

