

Appendix B

RF Test Data for BT V4.2(BDR/EDR) (Conducted Measurement)

Product Name: Bluetooth Speaker

Trade Mark: N/A

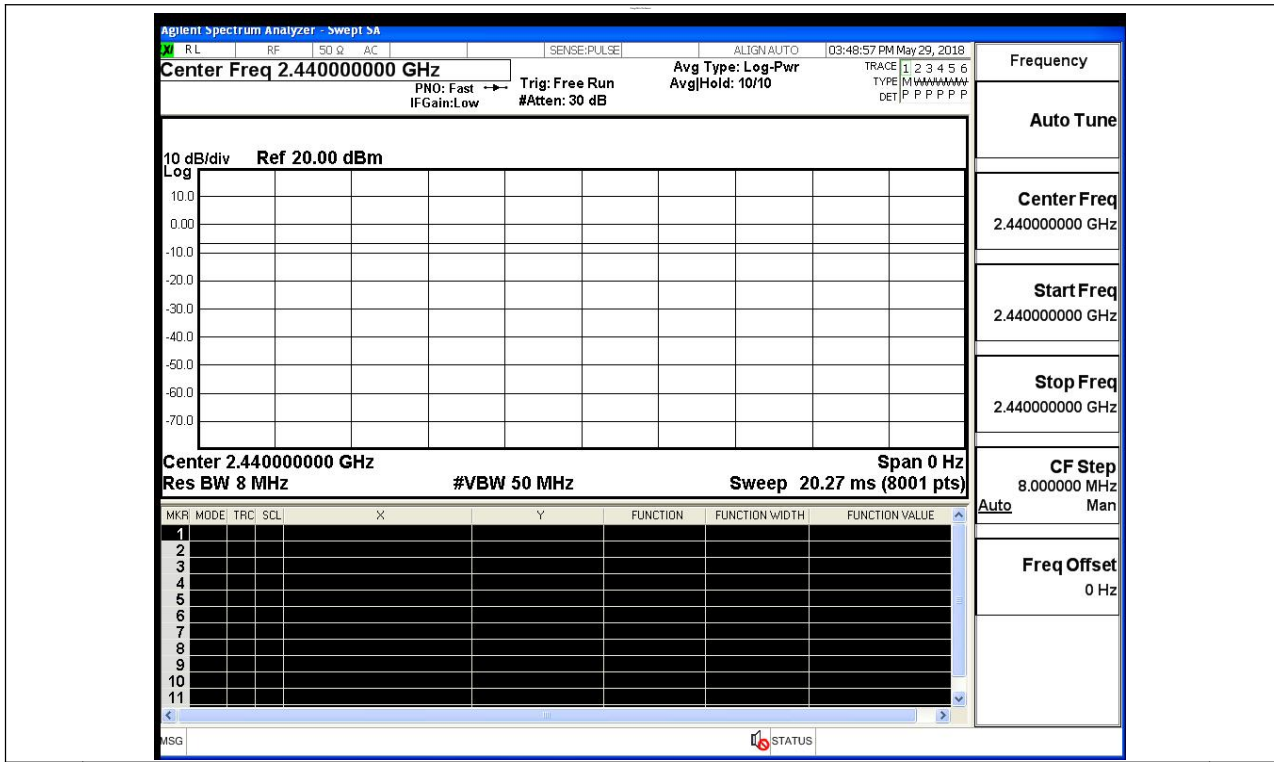
Test Model: S20

Environmental Conditions

Temperature:	22.8° C
Relative Humidity:	53.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond.Lu
Supervised by:	Jayden.Zhuo

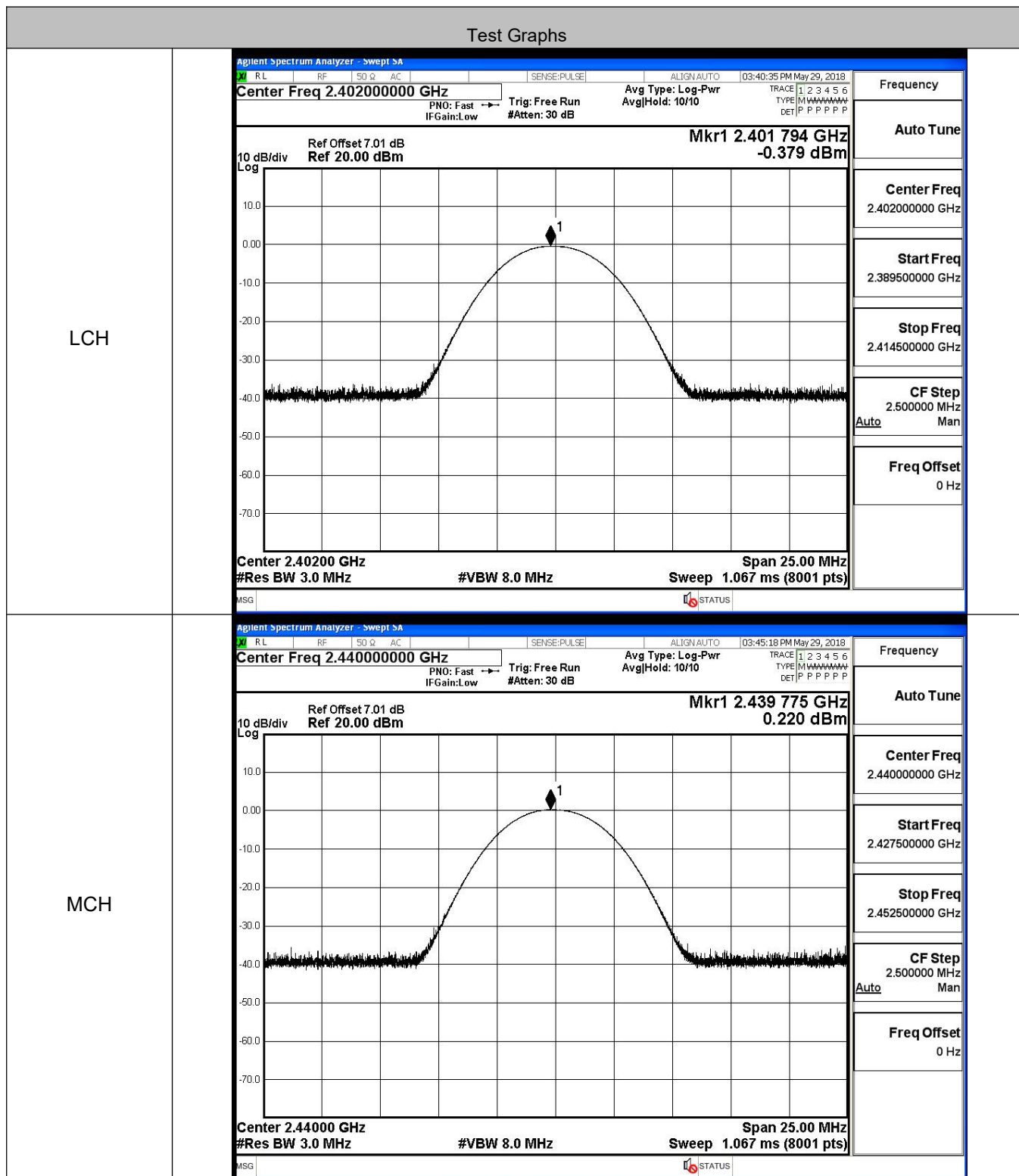
B.1 Duty Cycle

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

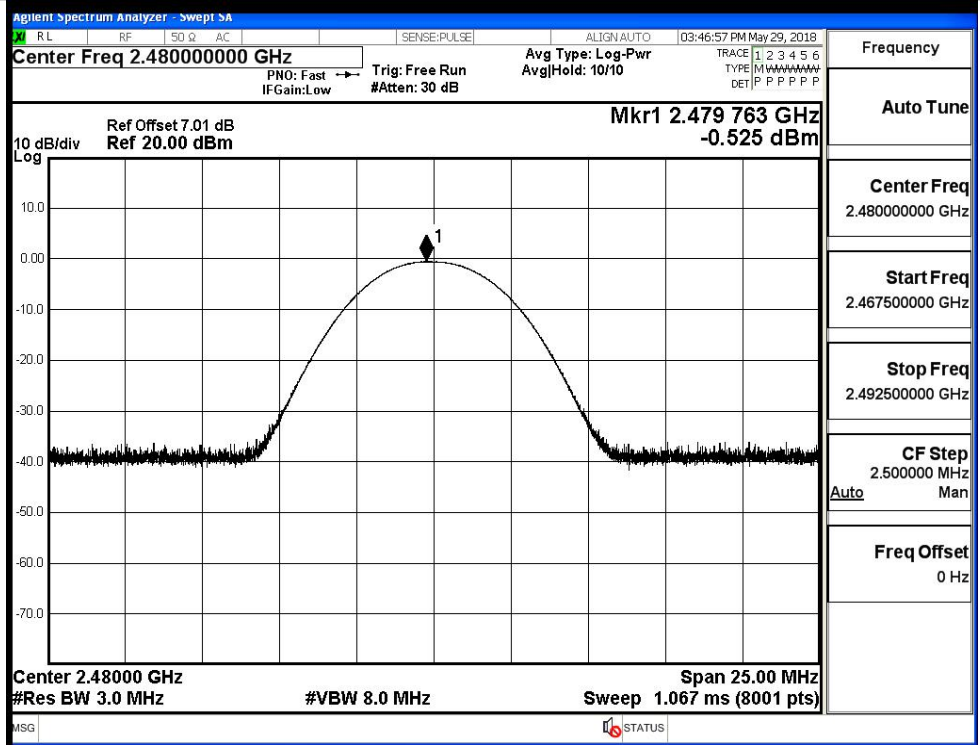


B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.379	30	PASS
BT LE	MCH	0.22	30	PASS
BT LE	HCH	-0.525	30	PASS



HCH



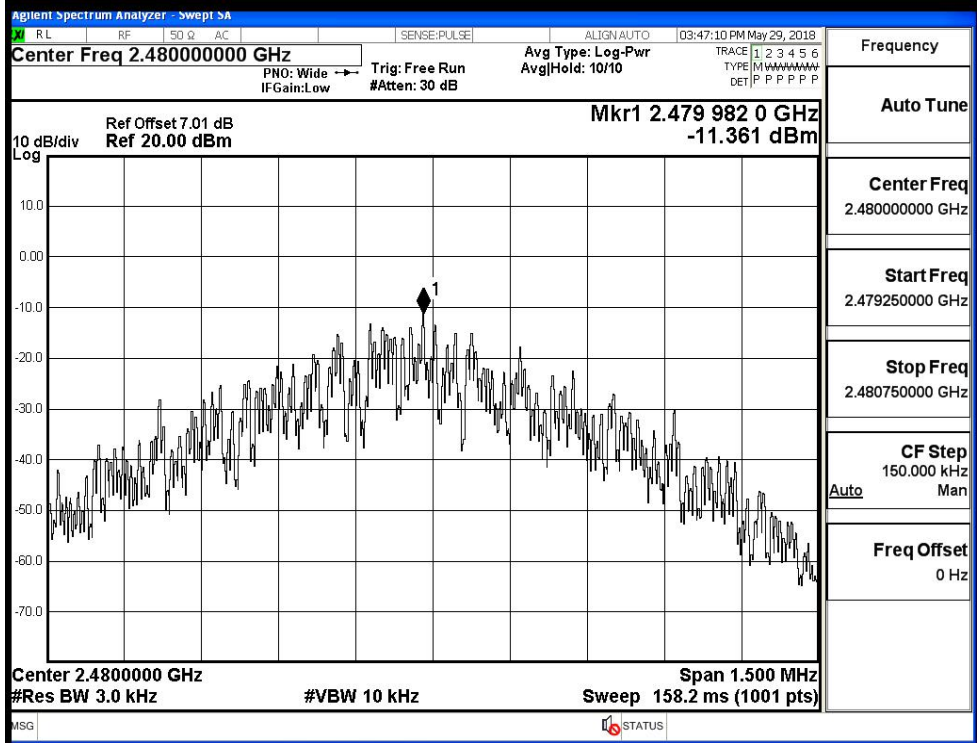
B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-10.998	8	PASS
BT LE	MCH	-10.596	8	PASS
BT LE	HCH	-11.361	8	PASS

Test Graphs

<p>LCH</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.40200000 GHz</p> <p>Start Freq 2.401250000 GHz</p> <p>Stop Freq 2.402750000 GHz</p> <p>CF Step 150.000 kHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>MCH</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.44000000 GHz</p> <p>Start Freq 2.439250000 GHz</p> <p>Stop Freq 2.440750000 GHz</p> <p>CF Step 150.000 kHz Auto Man</p> <p>Freq Offset 0 Hz</p>

HCH



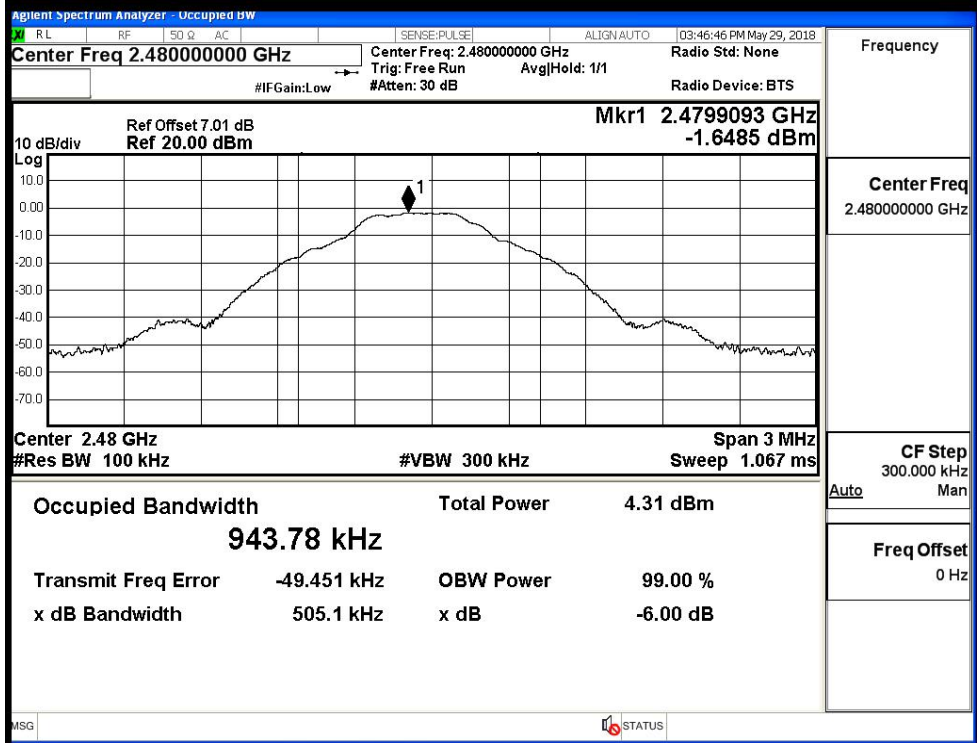
B.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.5067	≥0.5	PASS
BT LE	MCH	0.5052	≥0.5	PASS
BT LE	HCH	0.5051	≥0.5	PASS

Test Graphs

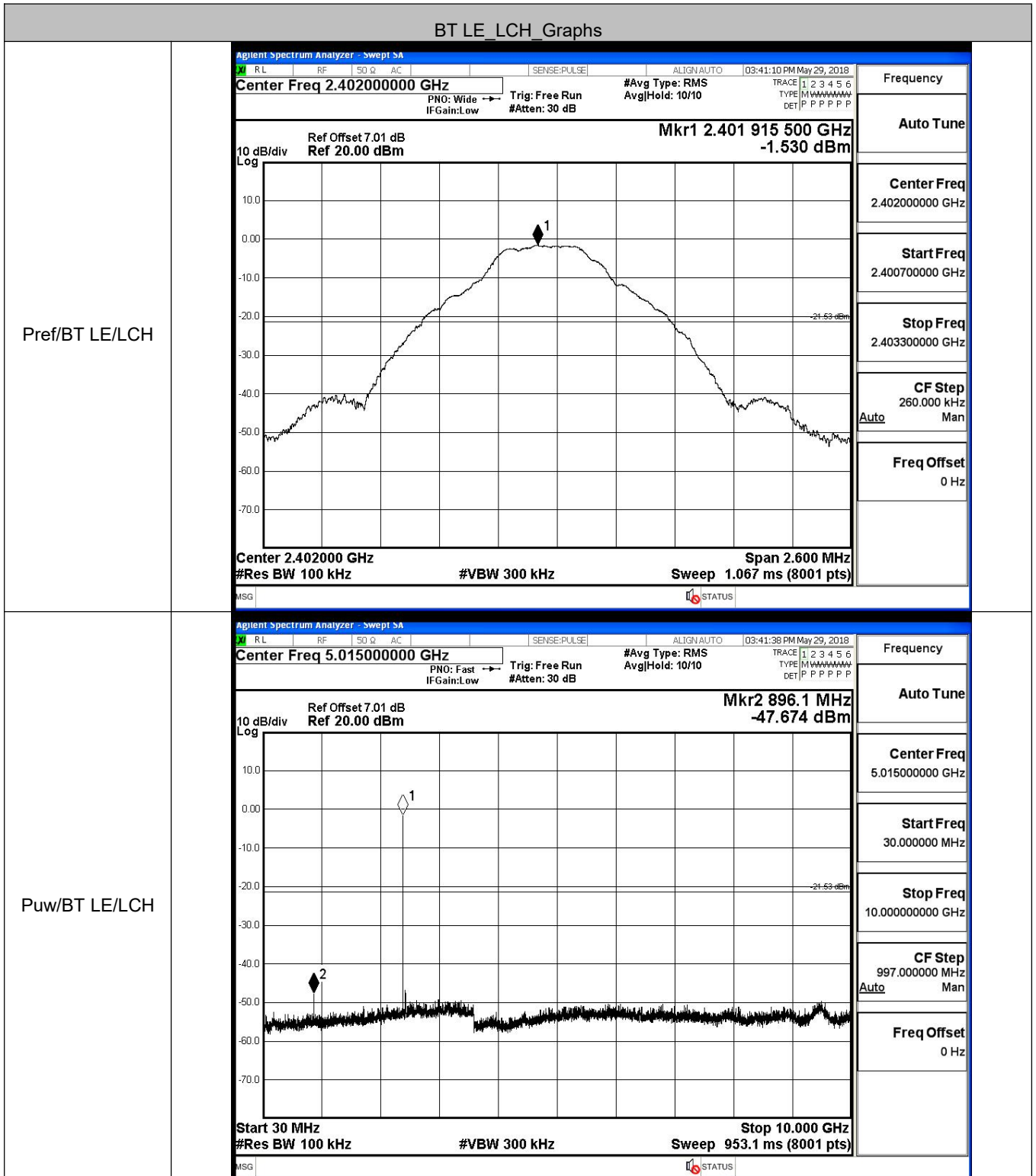
LCH	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.40200000 GHz</p> <p>Center Freq: 2.40200000 GHz</p> <p>Mkr1 2.401907 GHz -1.4539 dBm</p> <p>Occupied Bandwidth 943.95 kHz</p> <p>Total Power 4.47 dBm</p> <p>Transmit Freq Error -47.806 kHz</p> <p>x dB Bandwidth 506.7 kHz</p>	<p>Frequency</p> <p>Center Freq 2.40200000 GHz</p> <p>CF Step 300.000 kHz</p> <p>Freq Offset 0 Hz</p>
	MCH	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.44000000 GHz</p> <p>Center Freq: 2.44000000 GHz</p> <p>Mkr1 2.4399096 GHz -0.83894 dBm</p> <p>Occupied Bandwidth 945.79 kHz</p> <p>Total Power 5.09 dBm</p> <p>Transmit Freq Error -49.121 kHz</p> <p>x dB Bandwidth 505.2 kHz</p>

HCH



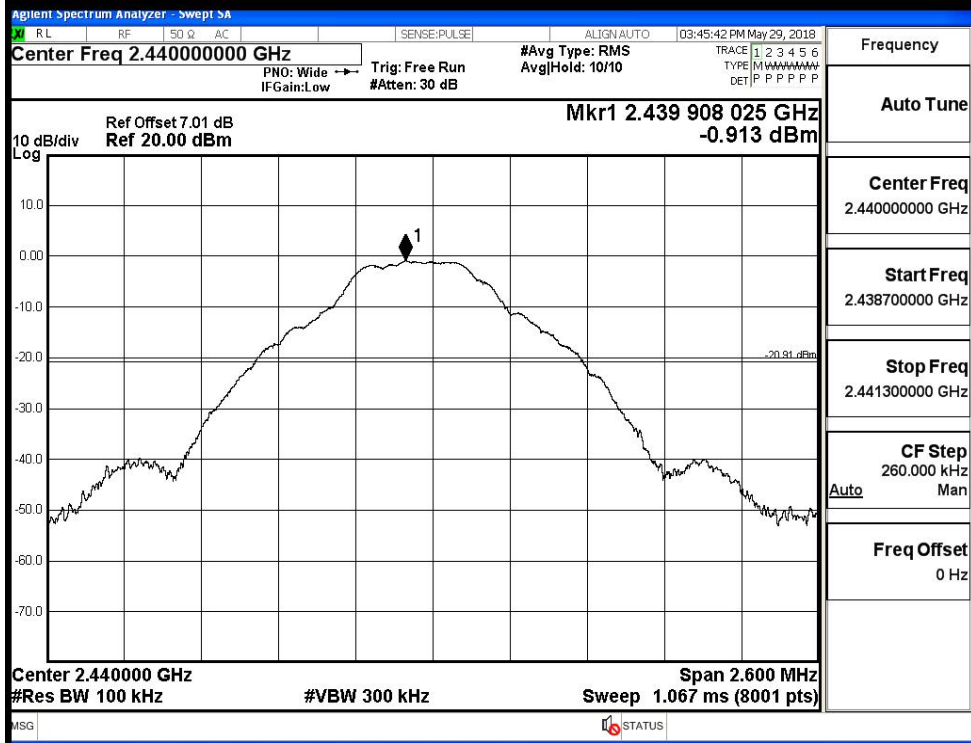
B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-1.53	-47.674	-21.530	PASS
BT LE	MCH	-0.913	-49.049	-20.913	PASS
BT LE	HCH	-1.647	-48.808	-21.647	PASS

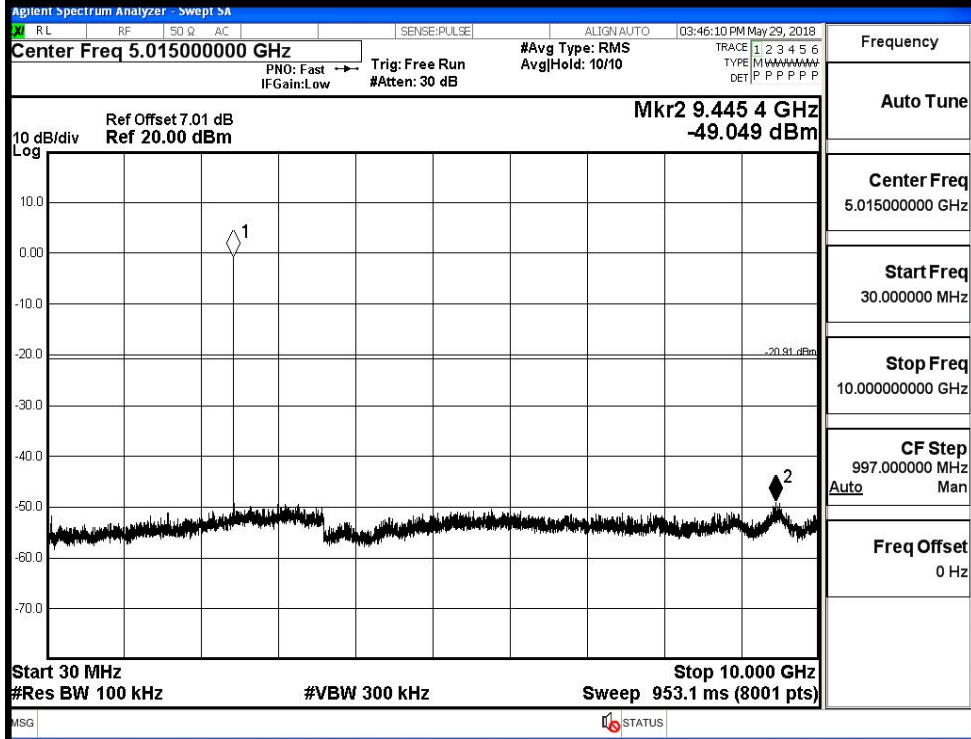


BT LE MCH Graphs

Pref/BT LE/MCH

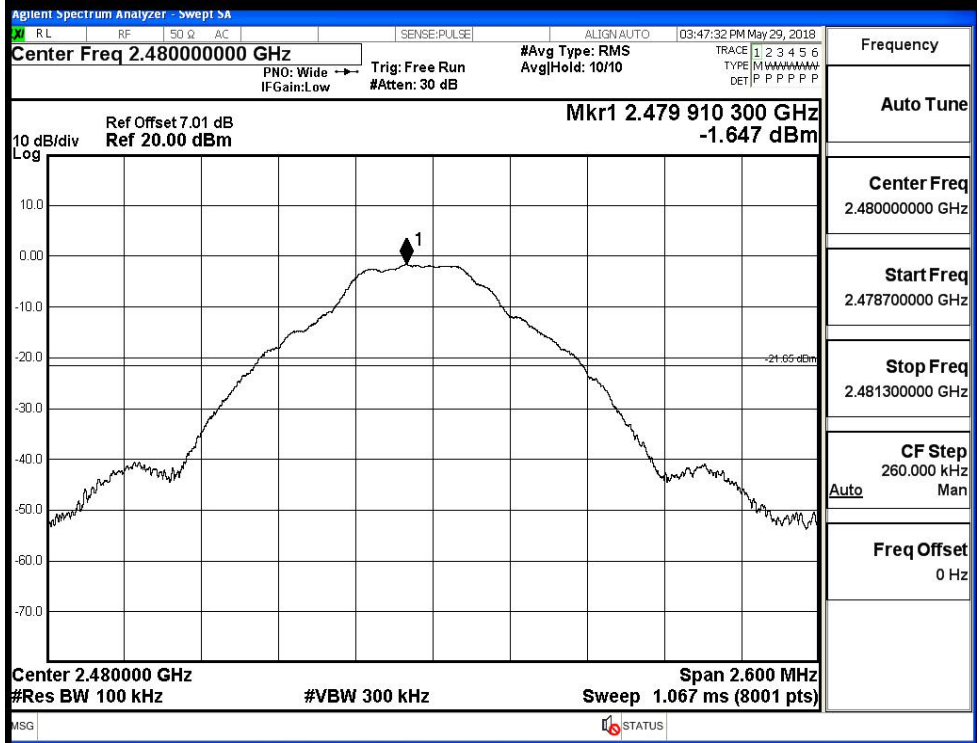


Puw/BT LE/MCH

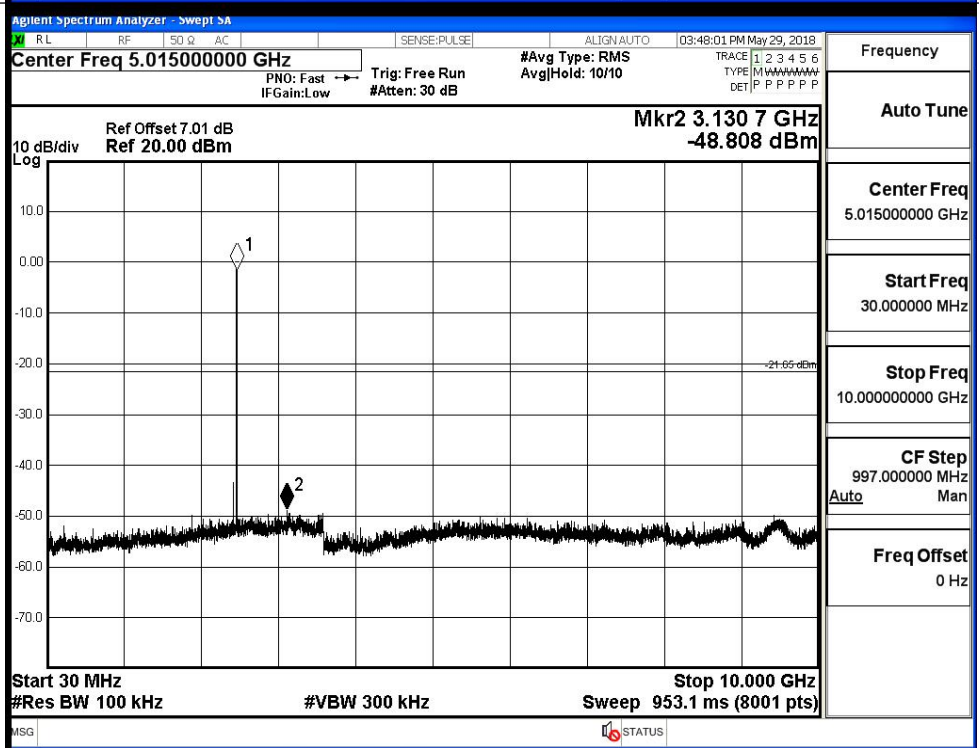


BT LE HCH Graphs

Pref/BT LE/HCH



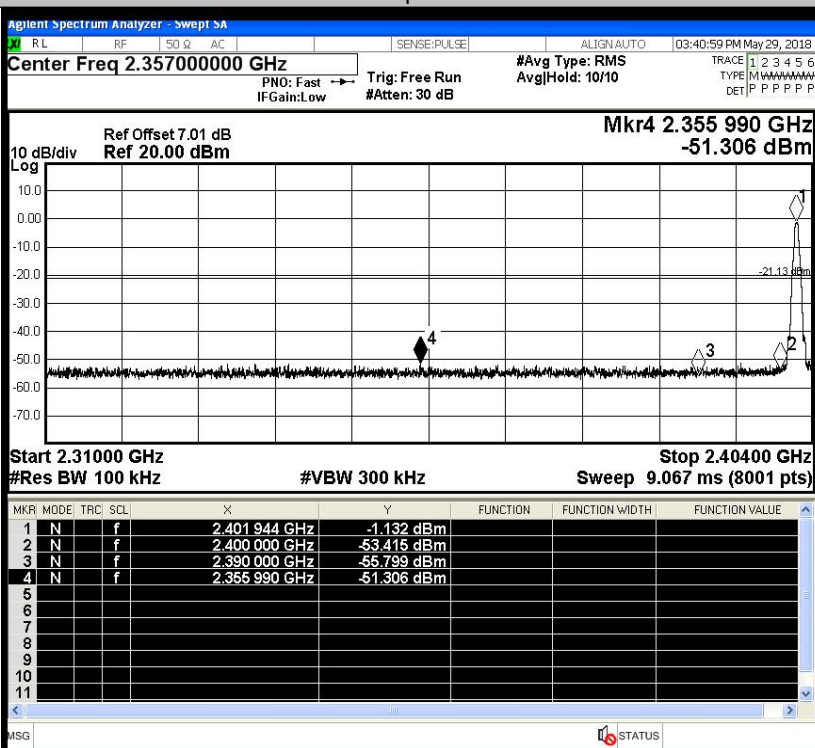
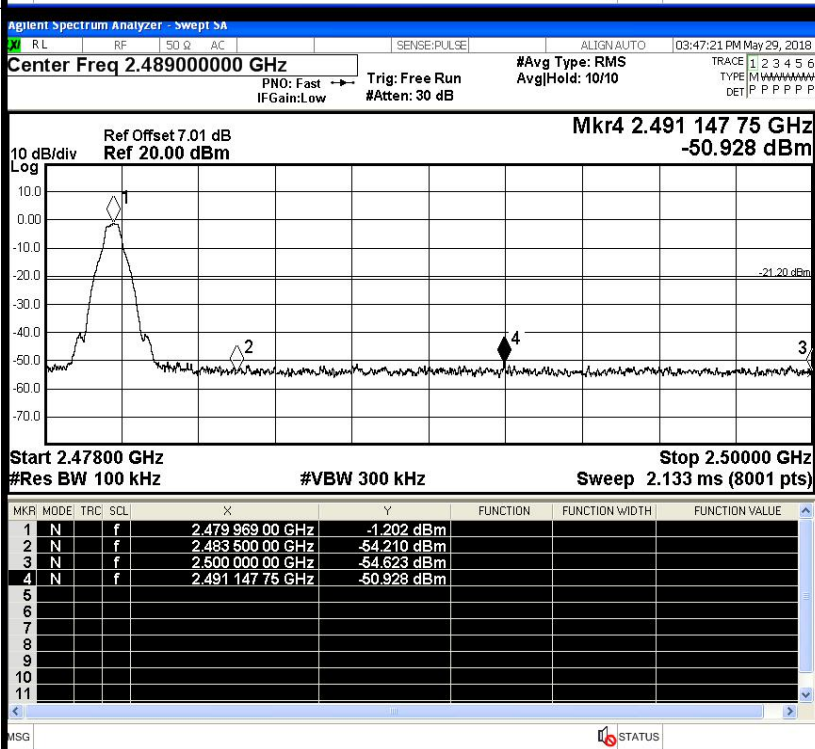
Puw/BT LE/HCH



B.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-1.132	-51.306	-21.13	PASS
BT LE	HCH	-1.202	-50.928	-21.2	PASS

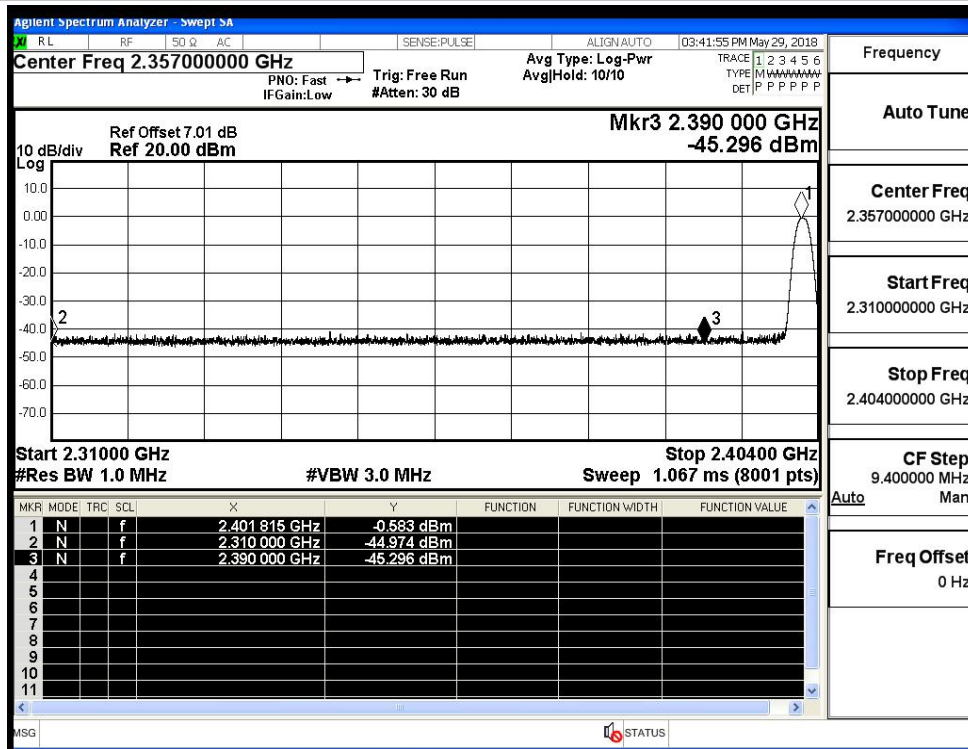
Test Graphs

LCH		<table border="1"> <tr><td>Frequency</td><td></td></tr> <tr><td>Auto Tune</td><td></td></tr> <tr><td>Center Freq</td><td>2.35700000 GHz</td></tr> <tr><td>Start Freq</td><td>2.31000000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.40400000 GHz</td></tr> <tr><td>CF Step</td><td>9.400000 MHz</td></tr> <tr><td>Freq Offset</td><td>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	Freq Offset	0 Hz
	Frequency															
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Start Freq	2.31000000 GHz															
Stop Freq	2.40400000 GHz															
CF Step	9.400000 MHz															
Freq Offset	0 Hz															
HCH		<table border="1"> <tr><td>Frequency</td><td></td></tr> <tr><td>Auto Tune</td><td></td></tr> <tr><td>Center Freq</td><td>2.48900000 GHz</td></tr> <tr><td>Start Freq</td><td>2.47800000 GHz</td></tr> <tr><td>Stop Freq</td><td>2.50000000 GHz</td></tr> <tr><td>CF Step</td><td>2.200000 MHz</td></tr> <tr><td>Freq Offset</td><td>0 Hz</td></tr> </table>	Frequency		Auto Tune		Center Freq	2.48900000 GHz	Start Freq	2.47800000 GHz	Stop Freq	2.50000000 GHz	CF Step	2.200000 MHz	Freq Offset	0 Hz
	Frequency															
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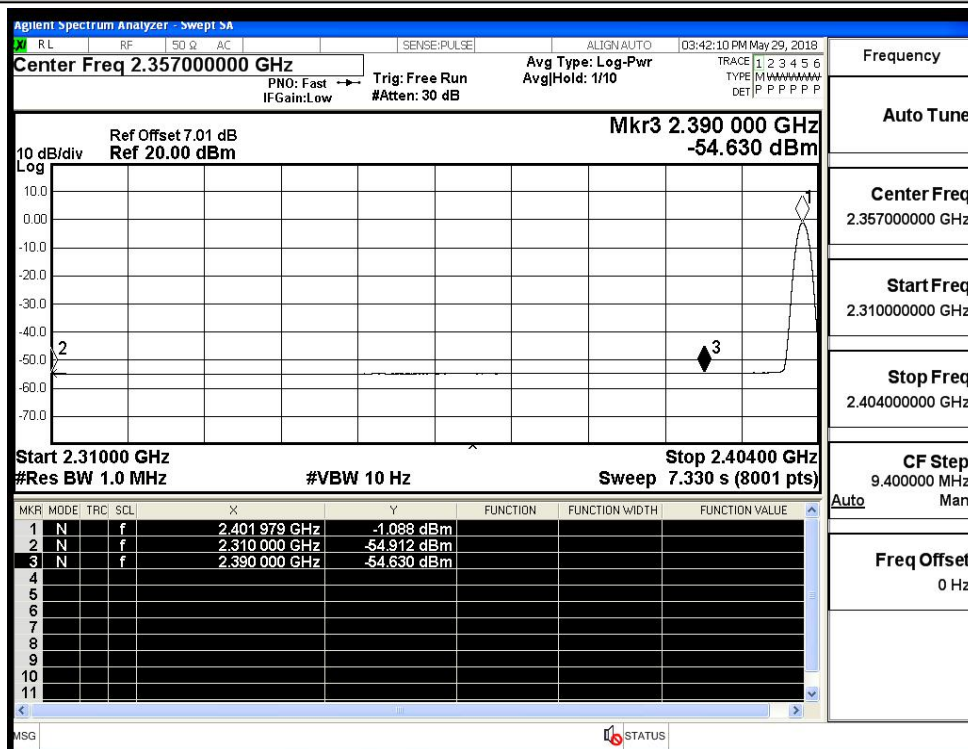
B.7 Restrict-band band-edge measurements

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	-44.97	2.0	0	50.28	PEAK	74	PASS
		Ant1	2310.0	-54.91	2.0	0	40.35	AV	54	PASS
		Ant1	2390.0	-45.30	2.0	0	49.96	PEAK	74	PASS
		Ant1	2390.0	-54.63	2.0	0	40.63	AV	54	PASS
	2480	Ant1	2483.5	-44.53	2.0	0	50.73	PEAK	74	PASS
		Ant1	2483.5	-54.25	2.0	0	41.01	AV	54	PASS
		Ant1	2500.0	-44.70	2.0	0	50.56	PEAK	74	PASS
		Ant1	2500.0	-54.28	2.0	0	40.98	AV	54	PASS

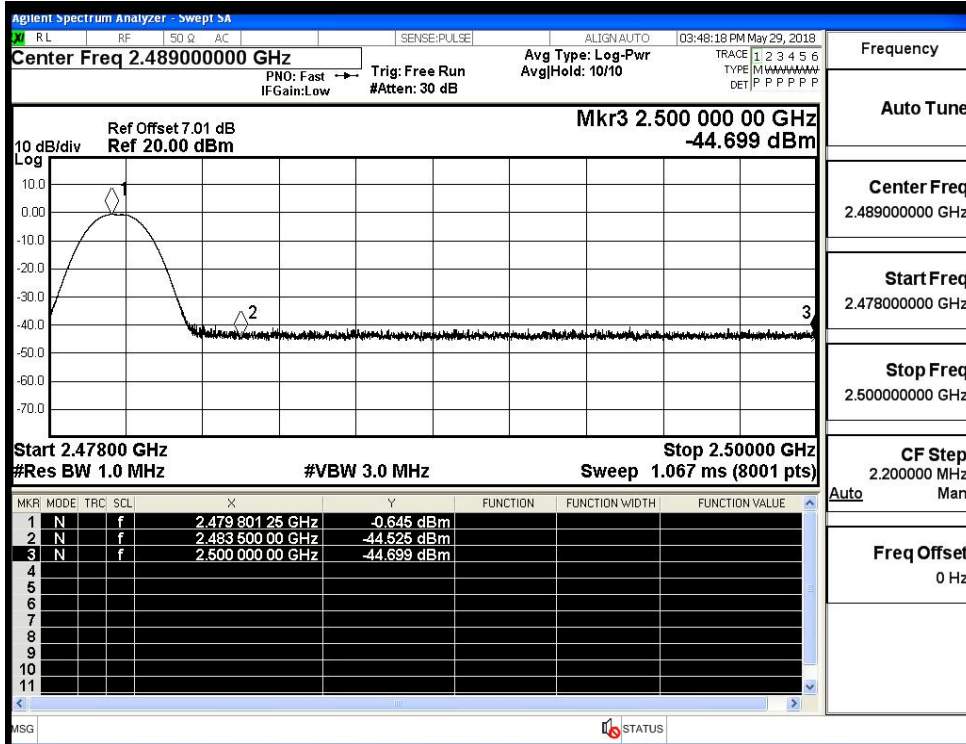
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

