

Appendix B

RF Test Data for BT V4.1(BLE) (Conducted Measurement)

Product Name: In-lane Exit Kiosk

Trade Mark: N/A

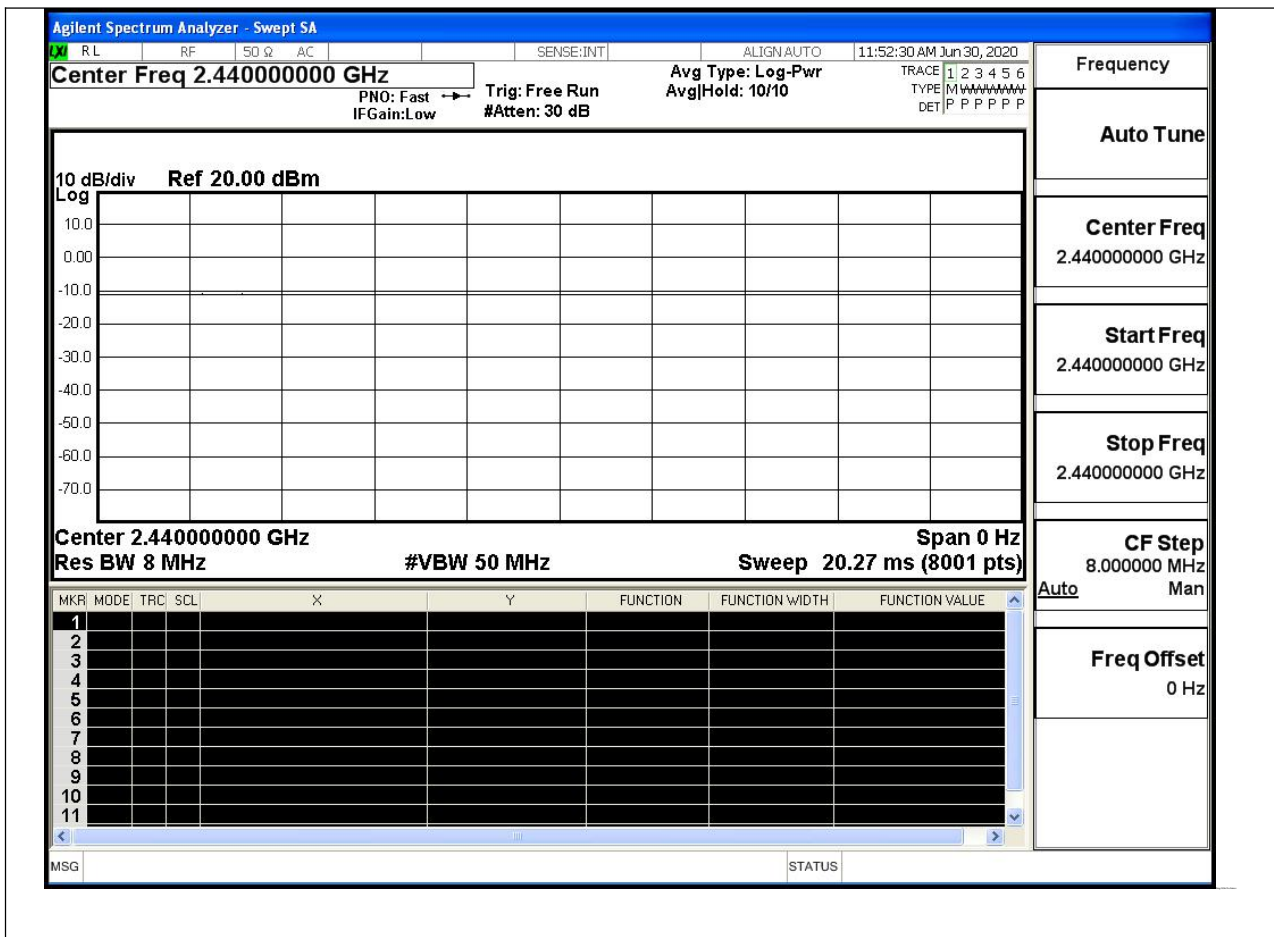
Test Model: REEF-US-LKS8343B

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	53.7%
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



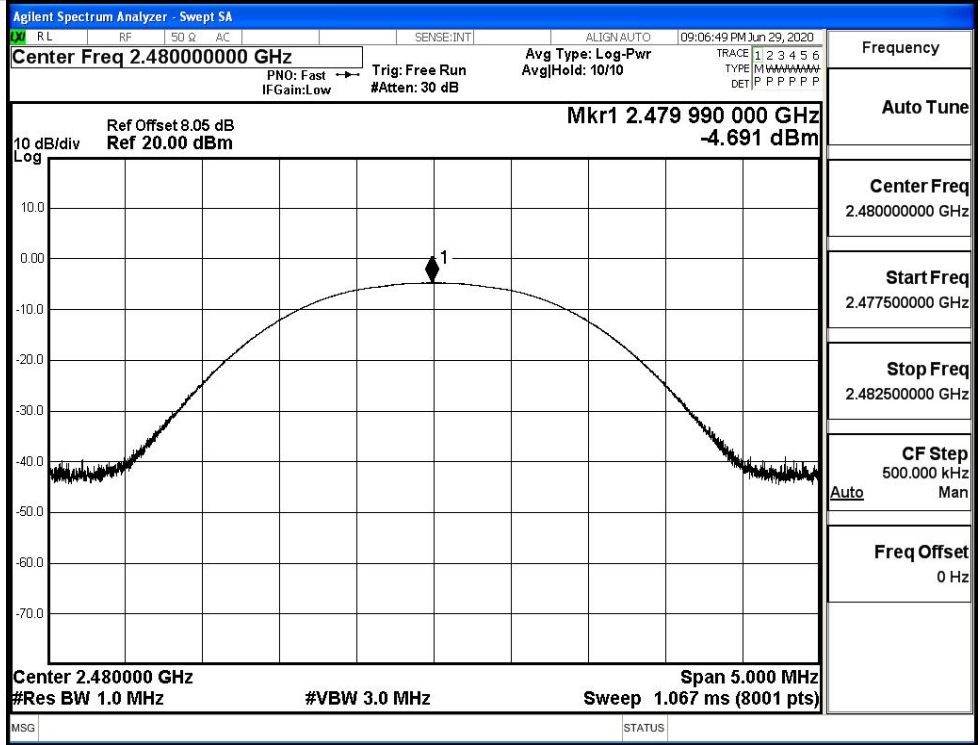
B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-4.657	30	PASS
BT LE	MCH	-3.61	30	PASS
BT LE	HCH	-4.691	30	PASS

Test Graphs

LCH		<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.40200000 GHz</p> <p>Mkr1 2.402 018 750 GHz -4.657 dBm</p> <p>Ref Offset 8.05 dB Ref 20.00 dBm</p> <p>10 dB/div Log</p> <p>Center 2.402000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 1.067 ms (8001 pts)</p>	<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.402000000 GHz</p> <p>Start Freq 2.399500000 GHz</p> <p>Stop Freq 2.404500000 GHz</p> <p>CF Step 500.000 kHz Auto Man</p> <p>Freq Offset 0 Hz</p>
	MCH		<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.44000000 GHz</p> <p>Mkr1 2.440 022 500 GHz -3.610 dBm</p> <p>Ref Offset 8.05 dB Ref 20.00 dBm</p> <p>10 dB/div Log</p> <p>Center 2.440000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 1.067 ms (8001 pts)</p>

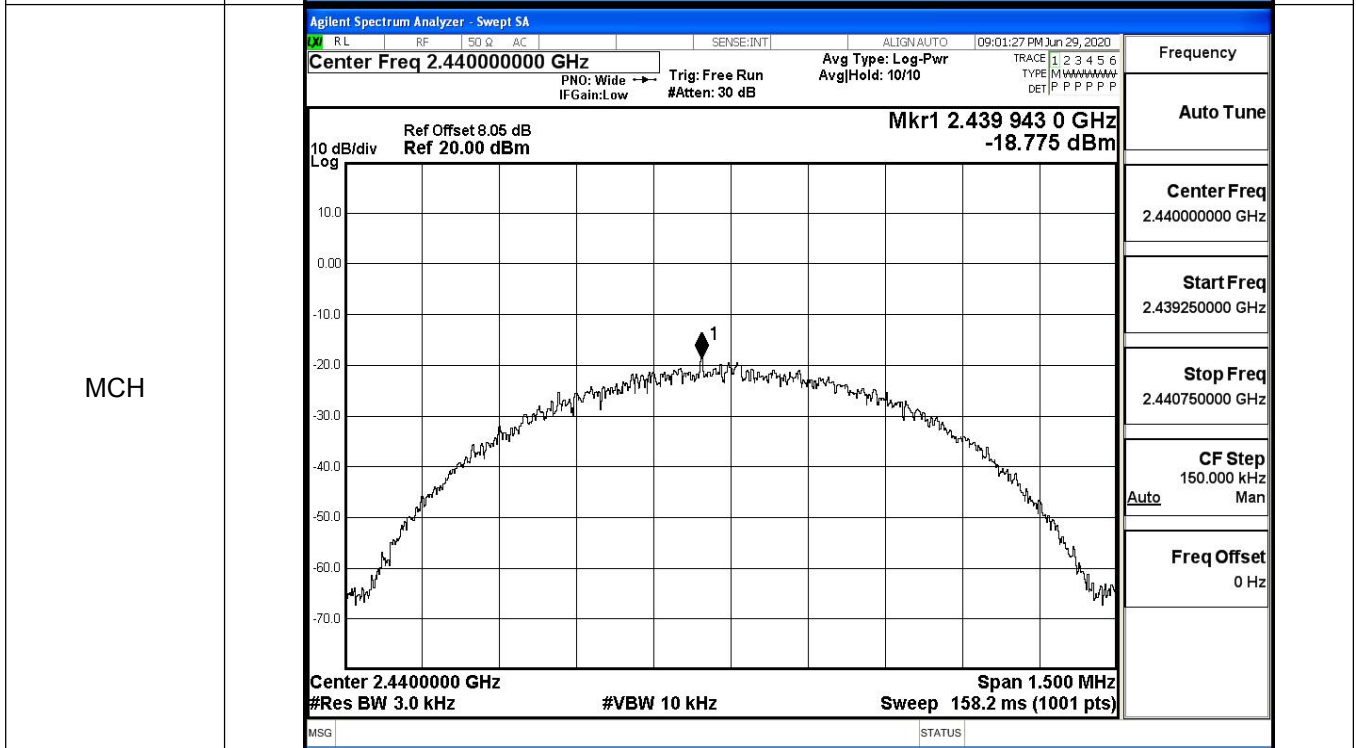
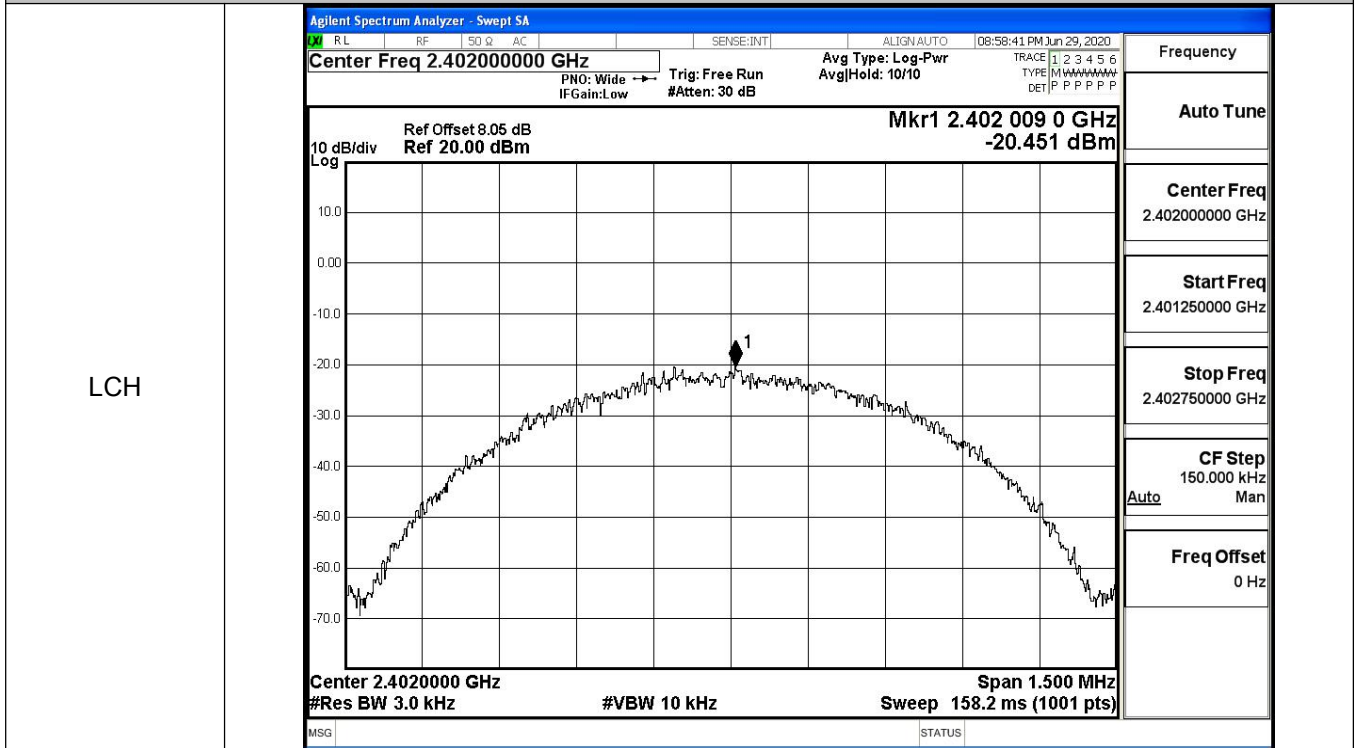
HCH



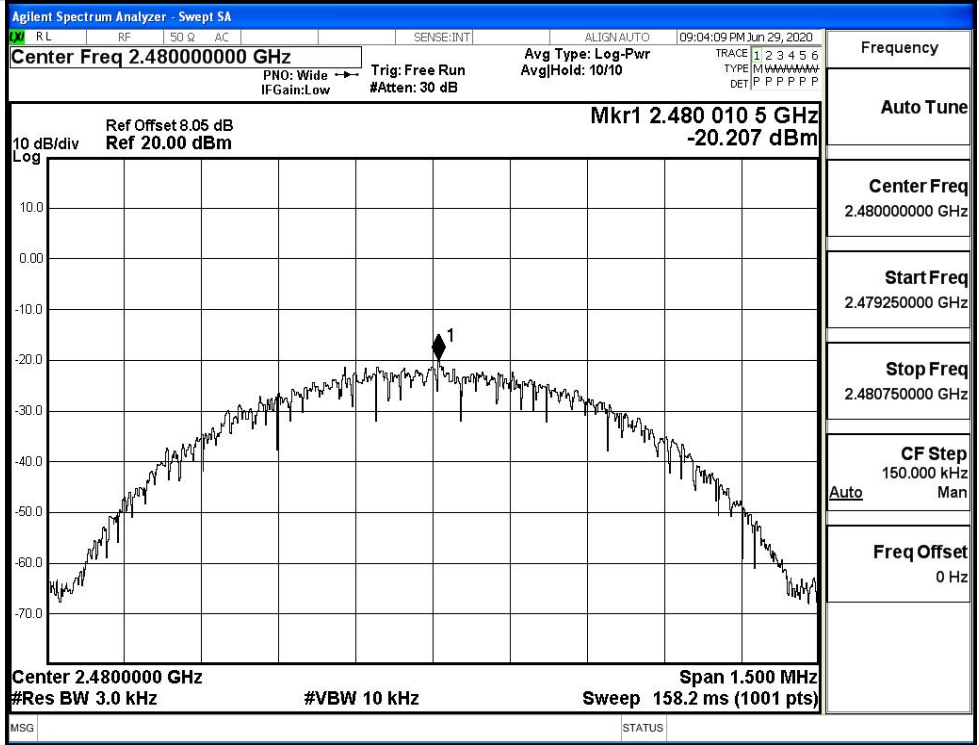
B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-20.451	8	PASS
BT LE	MCH	-18.775	8	PASS
BT LE	HCH	-20.207	8	PASS

Test Graphs



HCH

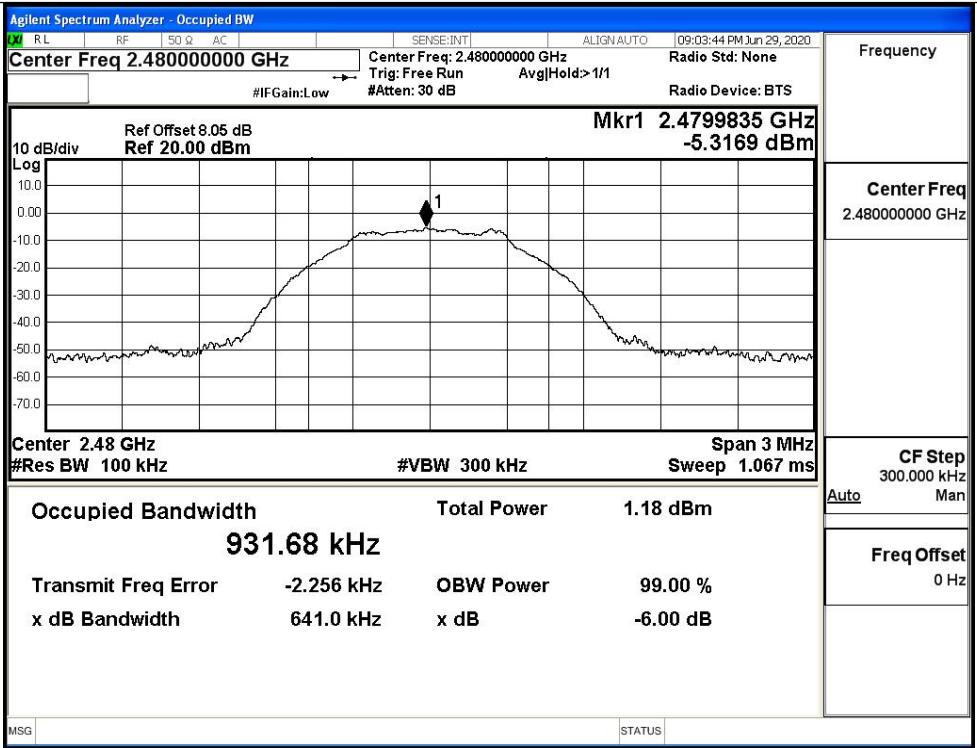


B.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6477	≥0.5	PASS
BT LE	MCH	0.6478	≥0.5	PASS
BT LE	HCH	0.6410	≥0.5	PASS

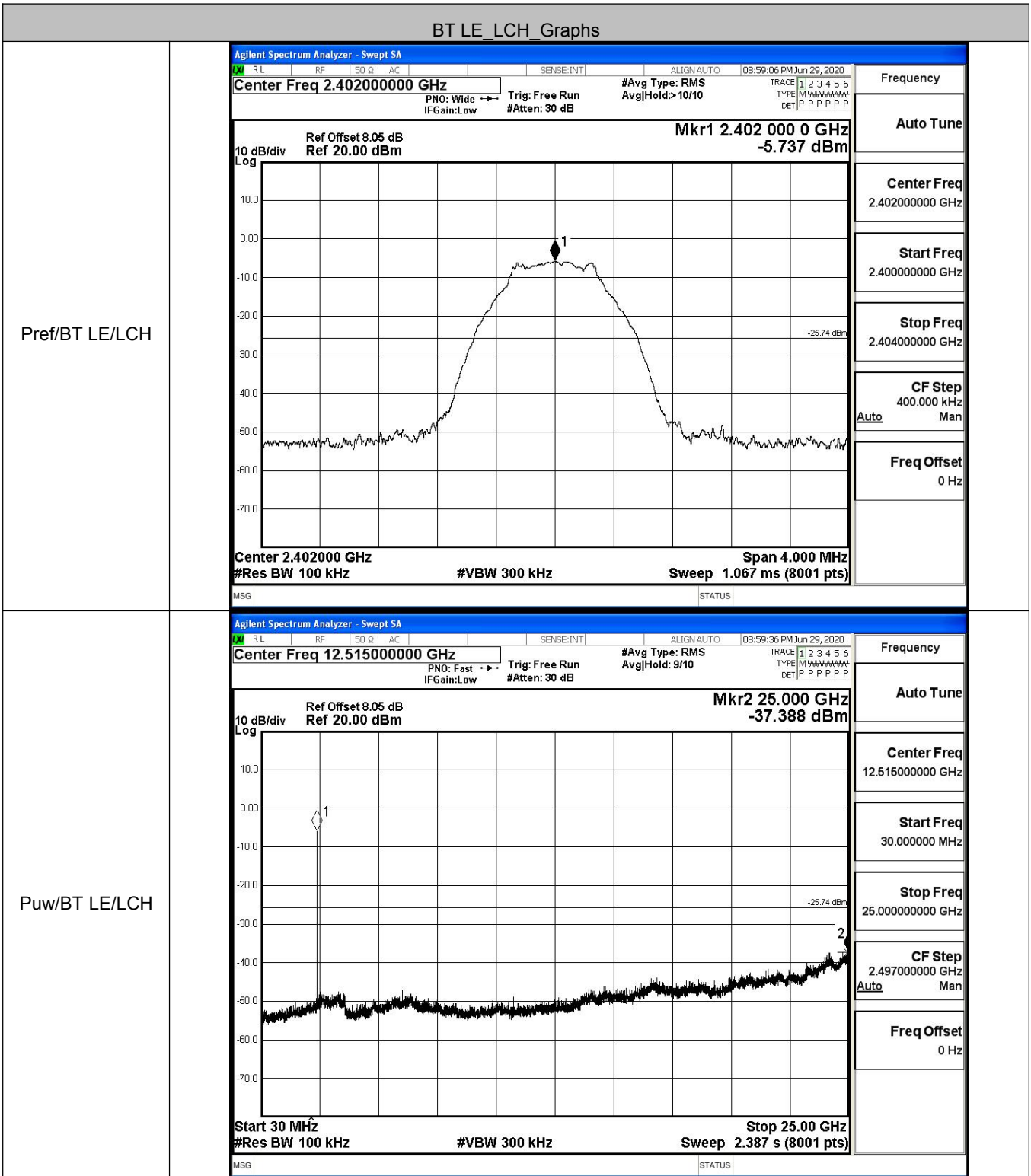
Test Graphs																			
LCH	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;">Agilent Spectrum Analyzer - Occupied BW</p> <p style="font-size: small; margin: 0;">RL RF 50 Ω AC SENSE:INT ALIGN:AUTO 08:58:17 PM Jun 29, 2020</p> <p style="margin: 0;">Center 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="display: flex; justify-content: space-between;"> <div style="font-size: x-small;">10 dB/div Log</div> <div style="text-align: right;">Mkr1 2.4019899 GHz -5.2401 dBm</div> </div> <div style="display: flex; justify-content: space-between; font-size: x-small;"> <div>Center 2.402 GHz #Res BW 100 kHz</div> <div>#VBW 300 kHz</div> <div>Span 3 MHz Sweep 1.067 ms</div> </div> <table style="width: 100%; font-size: x-small; margin-top: 5px;"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>1.27 dBm</td> </tr> <tr> <td style="text-align: center;">928.76 kHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-1.954 kHz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>647.7 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-top: 5px;">MSG STATUS</p> </div>	Occupied Bandwidth	Total Power	1.27 dBm	928.76 kHz			Transmit Freq Error	-1.954 kHz	OBW Power	x dB Bandwidth	647.7 kHz	x dB			99.00 %			-6.00 dB
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HCH



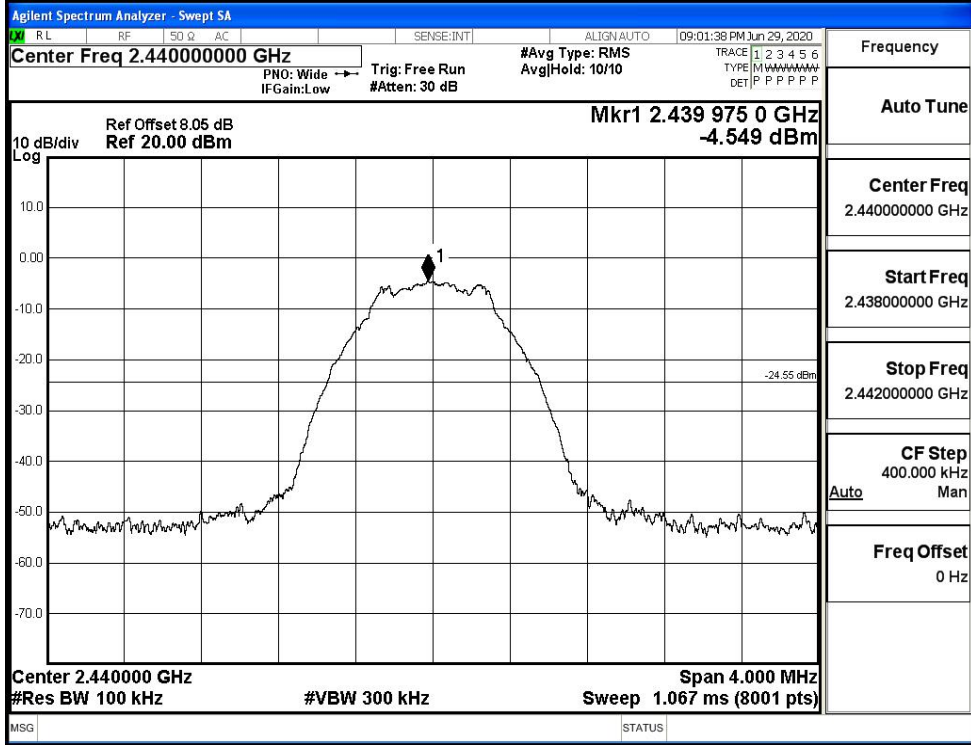
B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-5.737	-37.388	-25.737	PASS
BT LE	MCH	-4.549	-37.216	-24.549	PASS
BT LE	HCH	-5.287	-36.770	-25.287	PASS

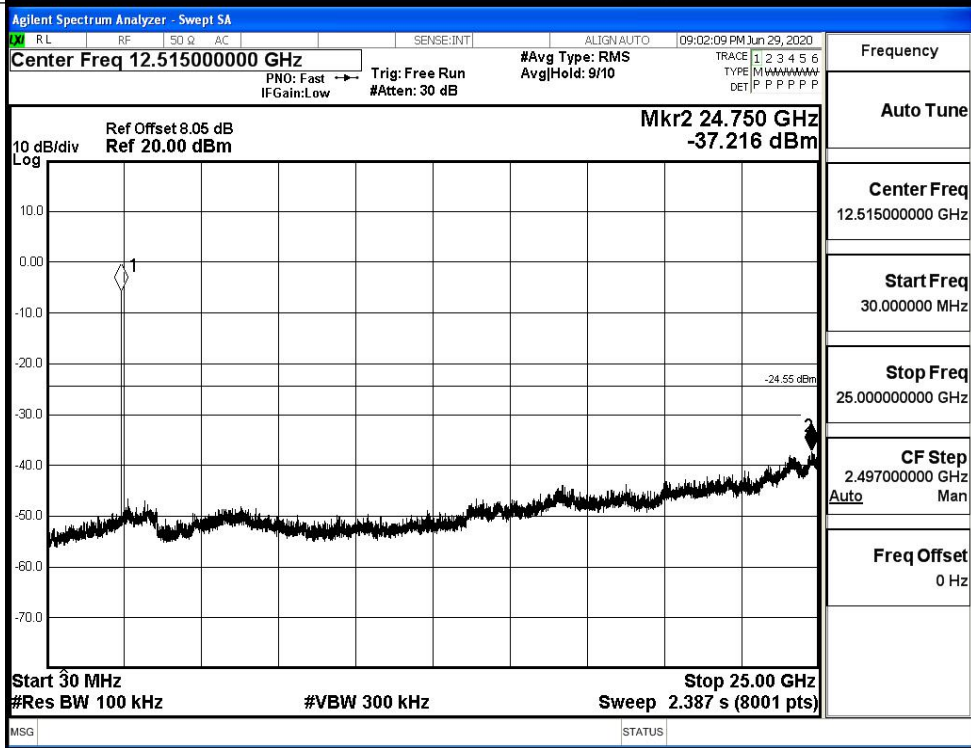


BT LE MCH Graphs

Pref/BT LE/MCH

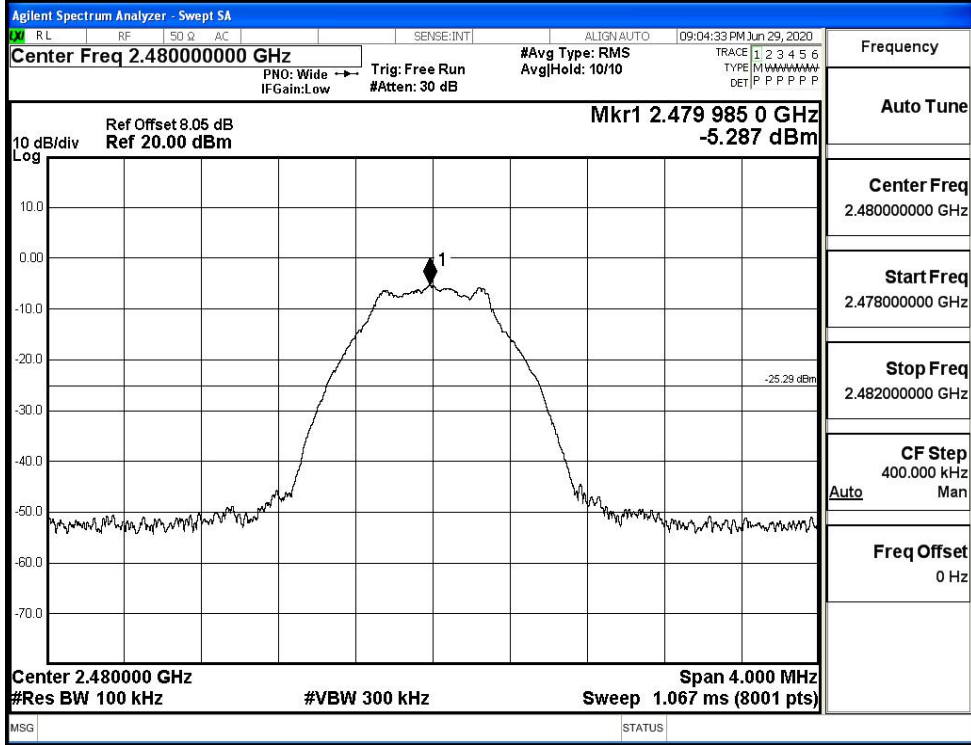


Puw/BT LE/MCH

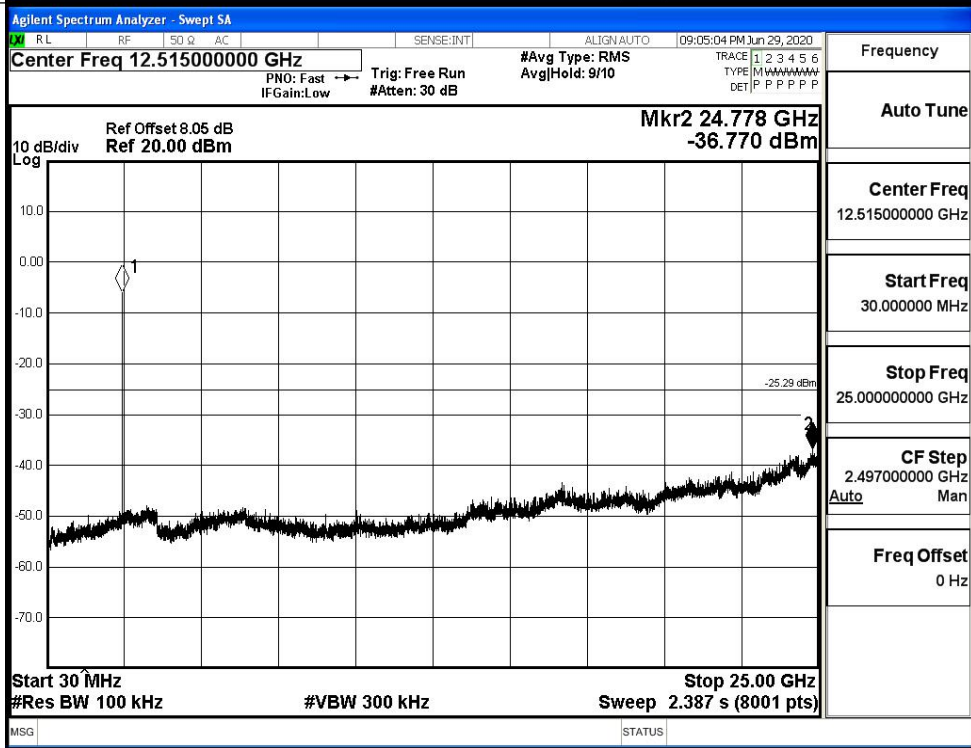


BT LE HCH Graphs

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	-5.187	-49.243	-25.19	PASS
BT LE	HCH	-5.364	-49.051	-25.36	PASS

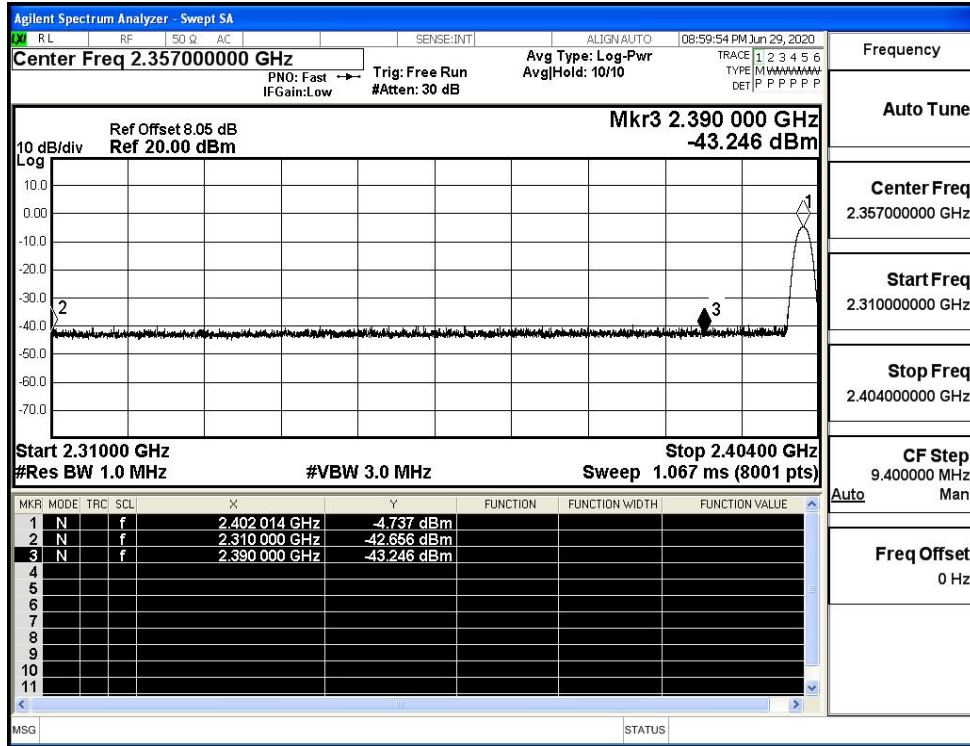
Test Graphs

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>

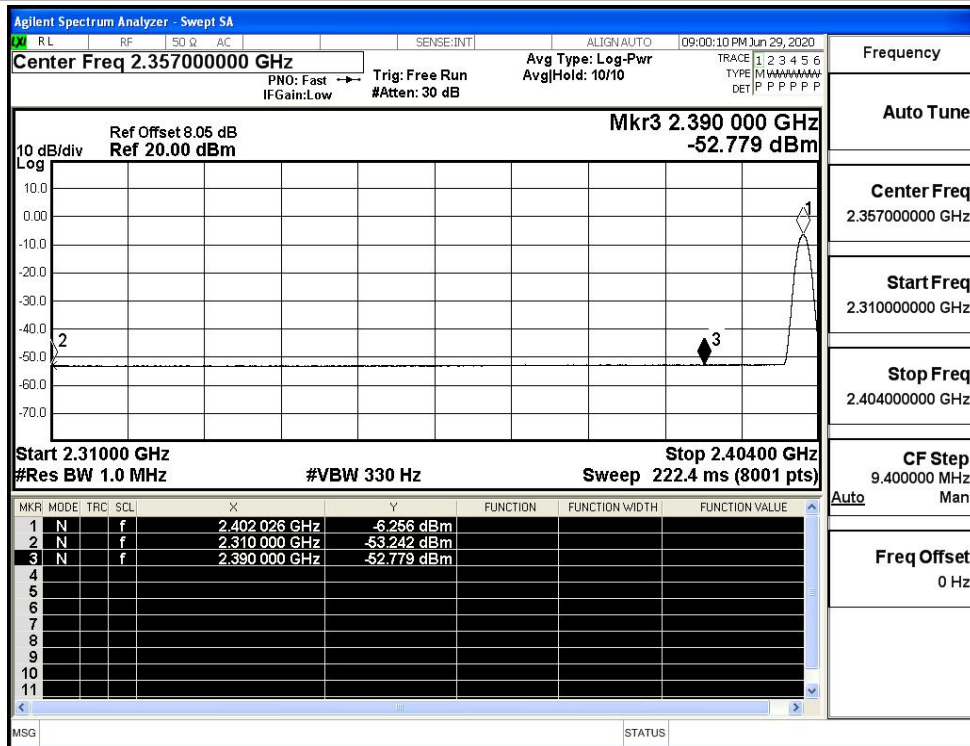
B.7 Restrict-band band-edge measurements

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	-42.66	2.0	0	54.57	PEAK	74	PASS
		Ant1	2310.0	-53.24	2.0	0	43.99	AV	54	PASS
		Ant1	2390.0	-43.25	2.0	0	53.98	PEAK	74	PASS
		Ant1	2390.0	-52.78	2.0	0	44.45	AV	54	PASS
	2480	Ant1	2483.5	-42.02	2.0	0	55.21	PEAK	74	PASS
		Ant1	2483.5	-52.32	2.0	0	44.91	AV	54	PASS
		Ant1	2500.0	-41.05	2.0	0	56.18	PEAK	74	PASS
		Ant1	2500.0	-52.16	2.0	0	45.07	AV	54	PASS

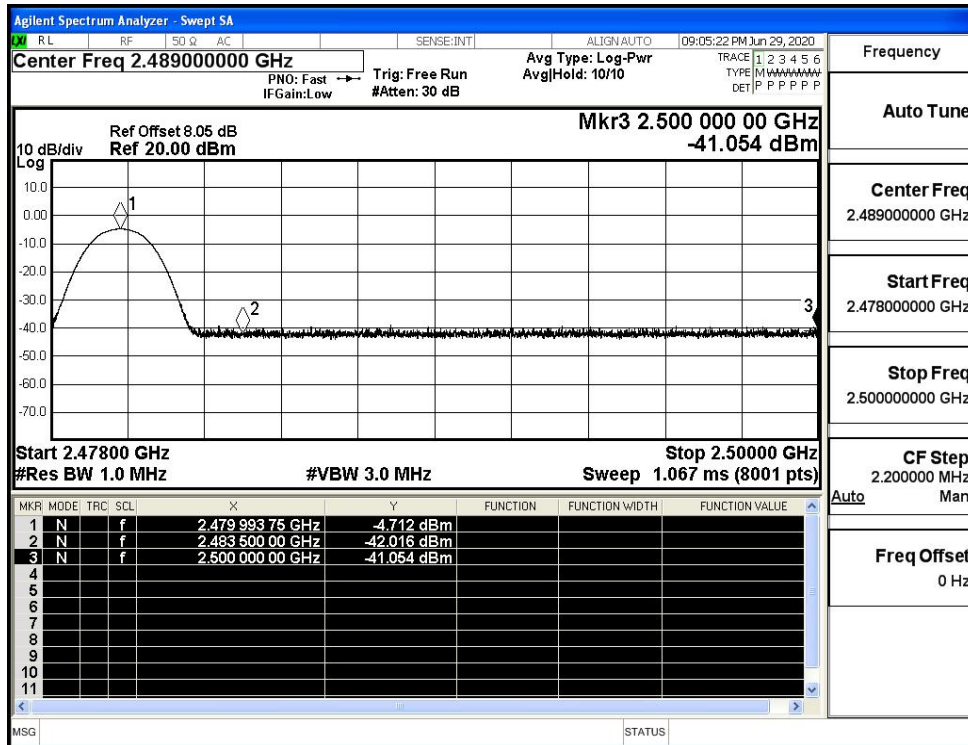
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

