

## Appendix B

### RF Test Data for BT V4.2(BT LE) (Conducted Measurement)

Product Name: 5.5 inch 4G Smart Phone

Trade Mark: LOGIC, iSWAG, UNONU

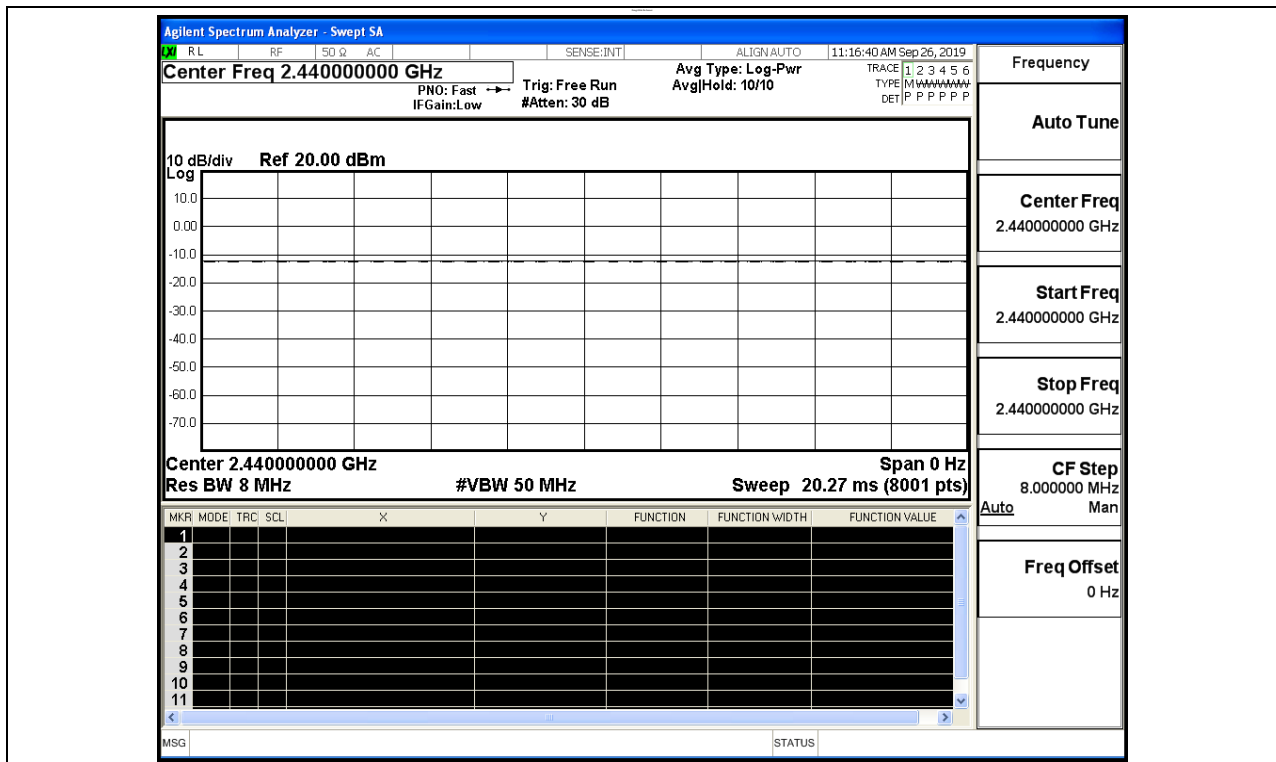
Test Model: L55A

#### Environmental Conditions

Temperature:	24.4 ° C
Relative Humidity:	53.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond.Lu
Supervised by:	Wang.Chuang

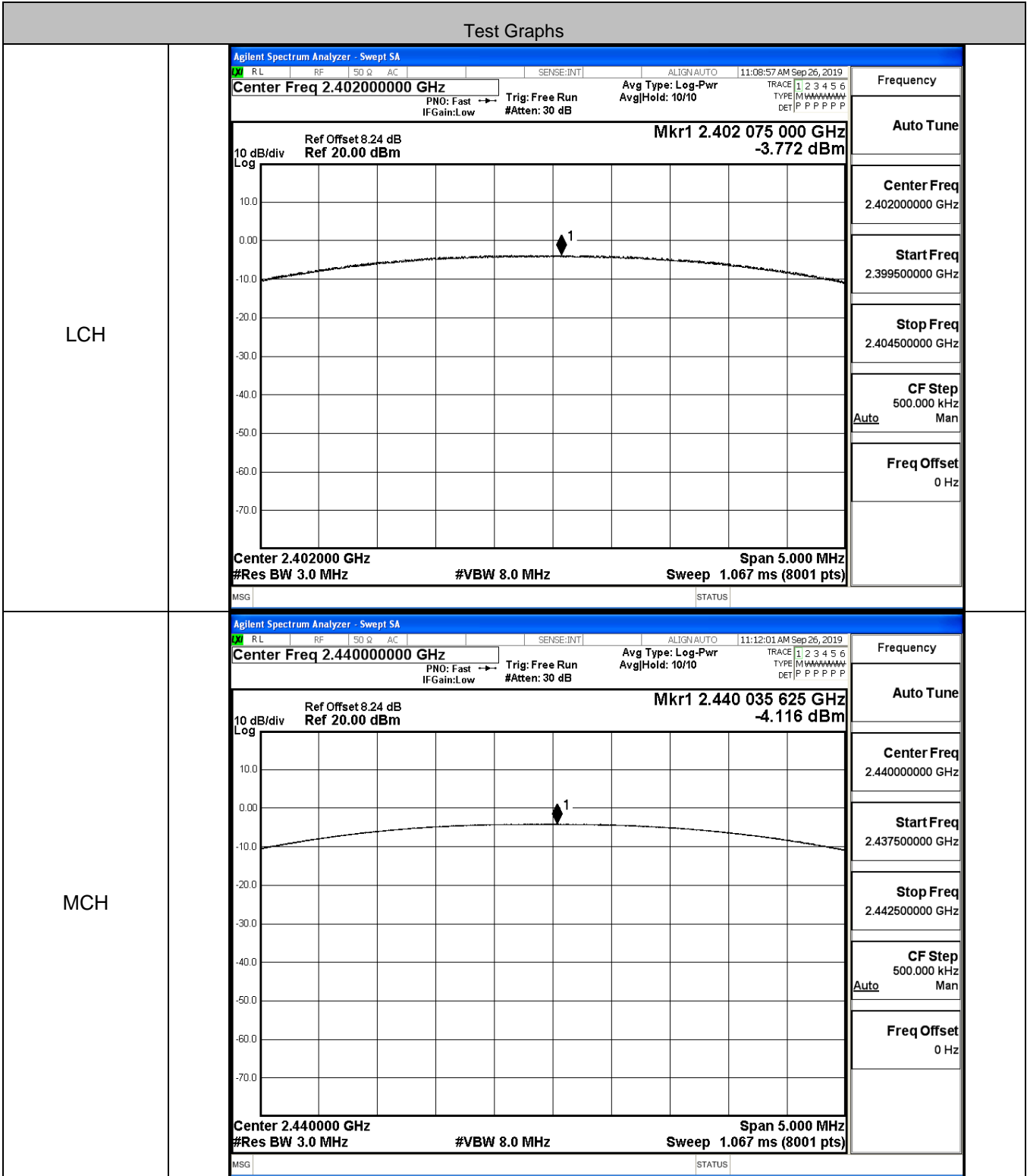
#### B.1 Duty Cycle

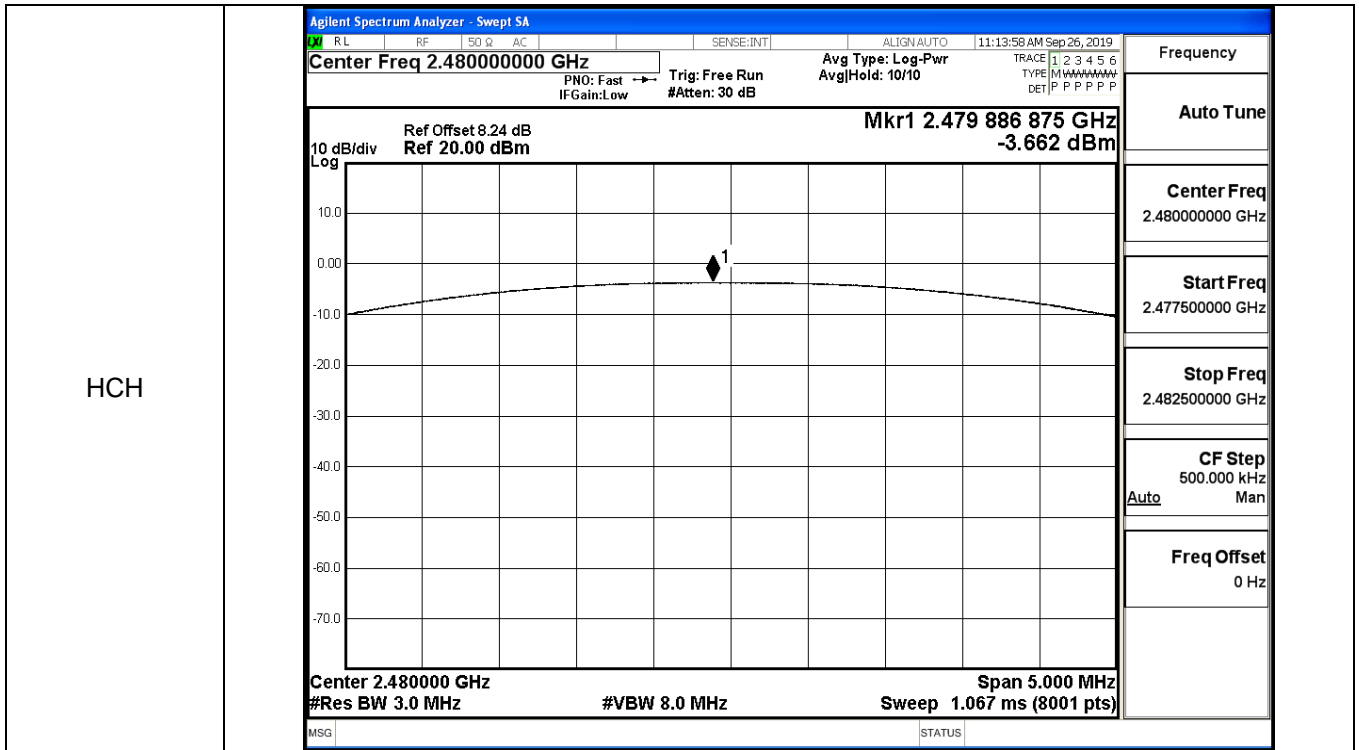
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS



**B.2 Maximum Conducted Peak Output Power**

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.772	30	PASS
BT LE	MCH	-4.116	30	PASS
BT LE	HCH	-3.662	30	PASS

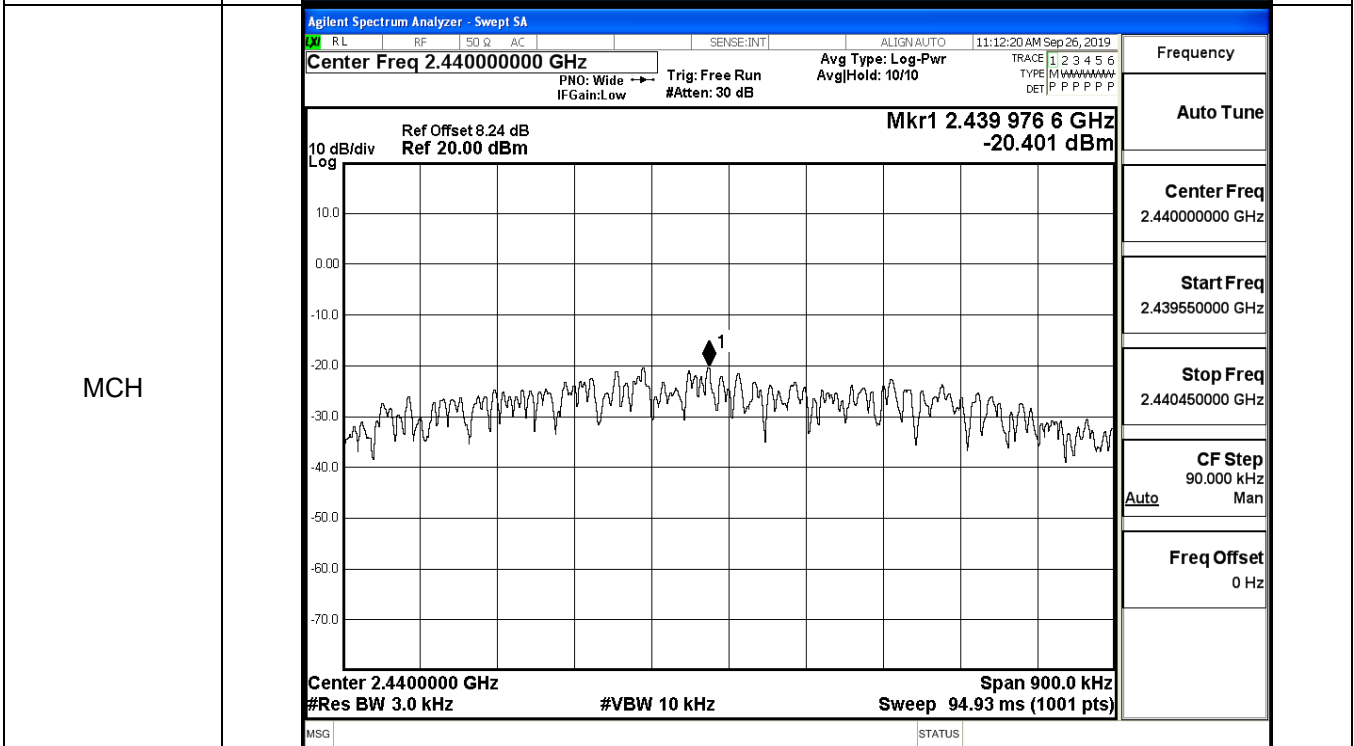
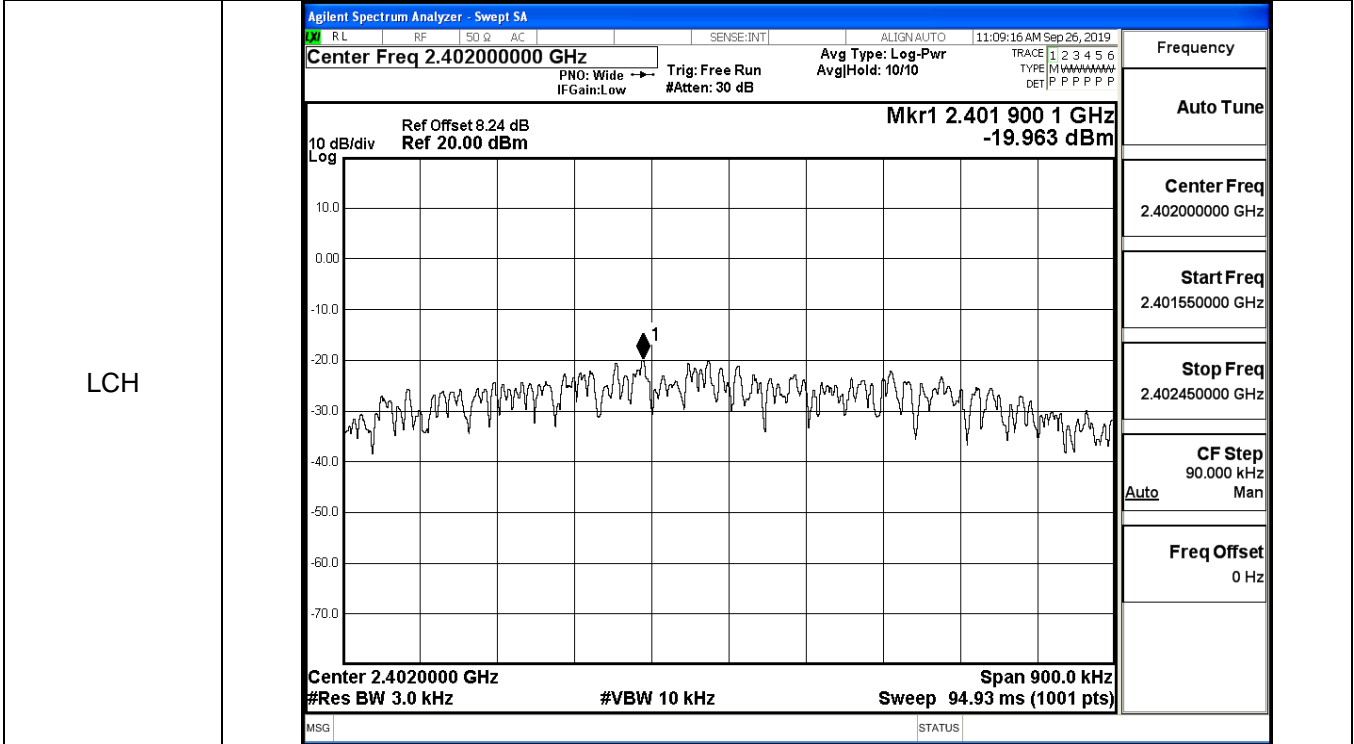




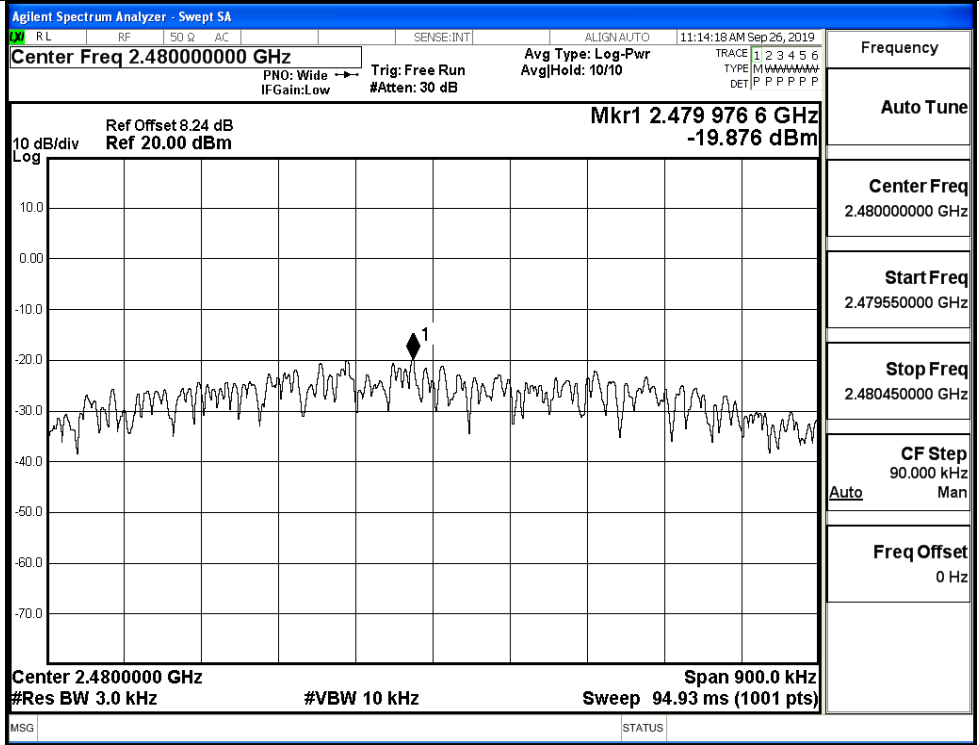
### B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-19.963	8	PASS
BT LE	MCH	-20.401	8	PASS
BT LE	HCH	-19.876	8	PASS

#### Test Graphs



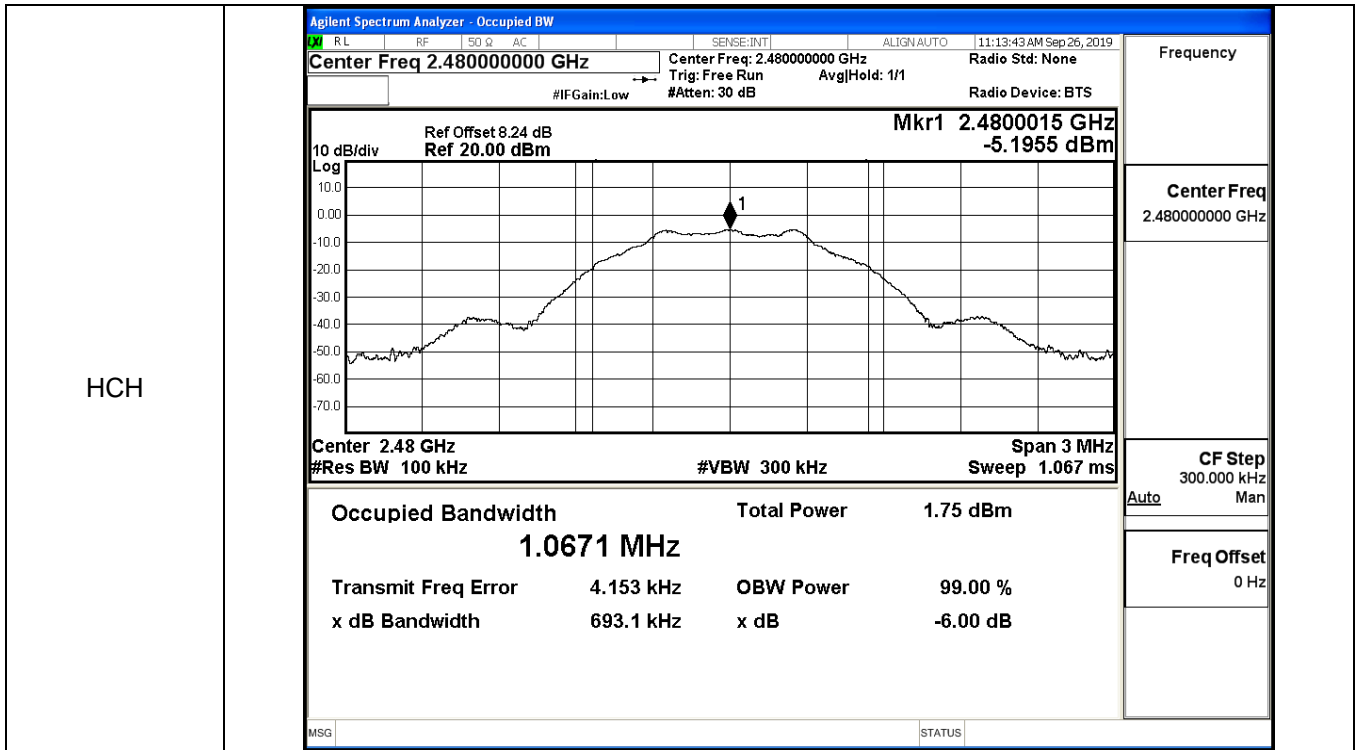
HCH



**B.4 6dB Bandwidth**

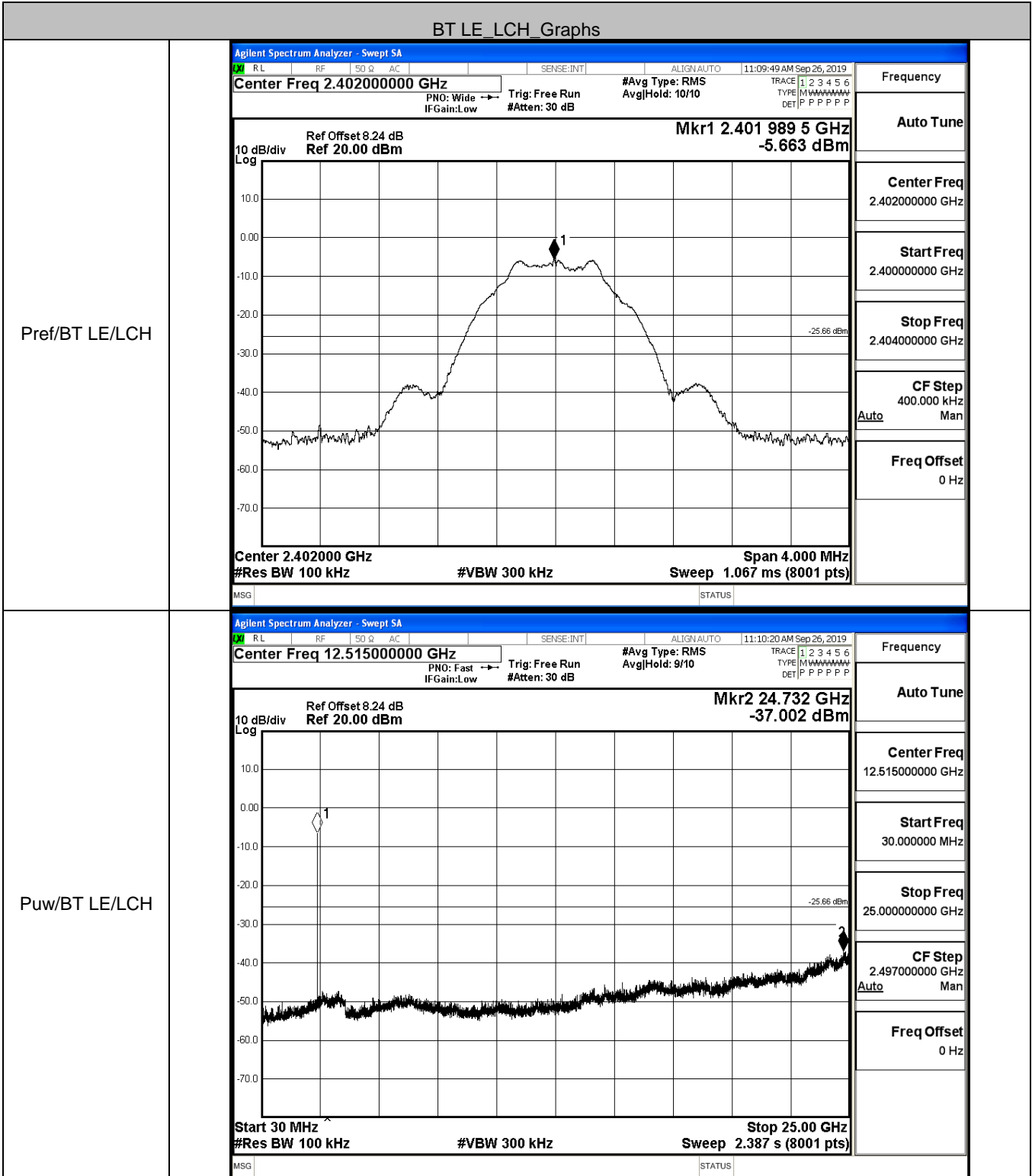
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6944	≥0.5	PASS
BT LE	MCH	0.6896	≥0.5	PASS
BT LE	HCH	0.6931	≥0.5	PASS

Test Graphs																			
LCH	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.40200000 GHz    Center Freq: 2.402000000 GHz    Radio Std: None</p> <p>Trig: Free Run    AvgHold&gt;1/1</p> <p>#IFGain:Low    #Atten: 30 dB    Radio Device: BTS</p> <p>Ref Offset 8.24 dB    Ref 20.00 dBm    Mkr1 2.401997 GHz    -5.2238 dBm</p> <p>Center 2.402 GHz    #Res BW 100 kHz    #VBW 300 kHz    Span 3 MHz    Sweep 1.067 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>1.72 dBm</td> </tr> <tr> <td><b>1.0717 MHz</b></td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>2.569 kHz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>694.4 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	1.72 dBm	<b>1.0717 MHz</b>			Transmit Freq Error	2.569 kHz	OBW Power	x dB Bandwidth	694.4 kHz	x dB			99.00 %			-6.00 dB
	Occupied Bandwidth	Total Power	1.72 dBm																
<b>1.0717 MHz</b>																			
Transmit Freq Error	2.569 kHz	OBW Power																	
x dB Bandwidth	694.4 kHz	x dB																	
		99.00 %																	
		-6.00 dB																	
MCH	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.44000000 GHz    Center Freq: 2.440000000 GHz    Radio Std: None</p> <p>Trig: Free Run    AvgHold&gt;1/1</p> <p>#IFGain:Low    #Atten: 30 dB    Radio Device: BTS</p> <p>Ref Offset 8.24 dB    Ref 20.00 dBm    Mkr1 2.4400068 GHz    -5.6524 dBm</p> <p>Center 2.44 GHz    #Res BW 100 kHz    #VBW 300 kHz    Span 3 MHz    Sweep 1.067 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>1.27 dBm</td> </tr> <tr> <td><b>1.0704 MHz</b></td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>4.201 kHz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>689.6 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	1.27 dBm	<b>1.0704 MHz</b>			Transmit Freq Error	4.201 kHz	OBW Power	x dB Bandwidth	689.6 kHz	x dB			99.00 %			-6.00 dB
Occupied Bandwidth	Total Power	1.27 dBm																	
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x dB Bandwidth	689.6 kHz	x dB																	
		99.00 %																	
		-6.00 dB																	



### B.5 RF Conducted Spurious Emissions

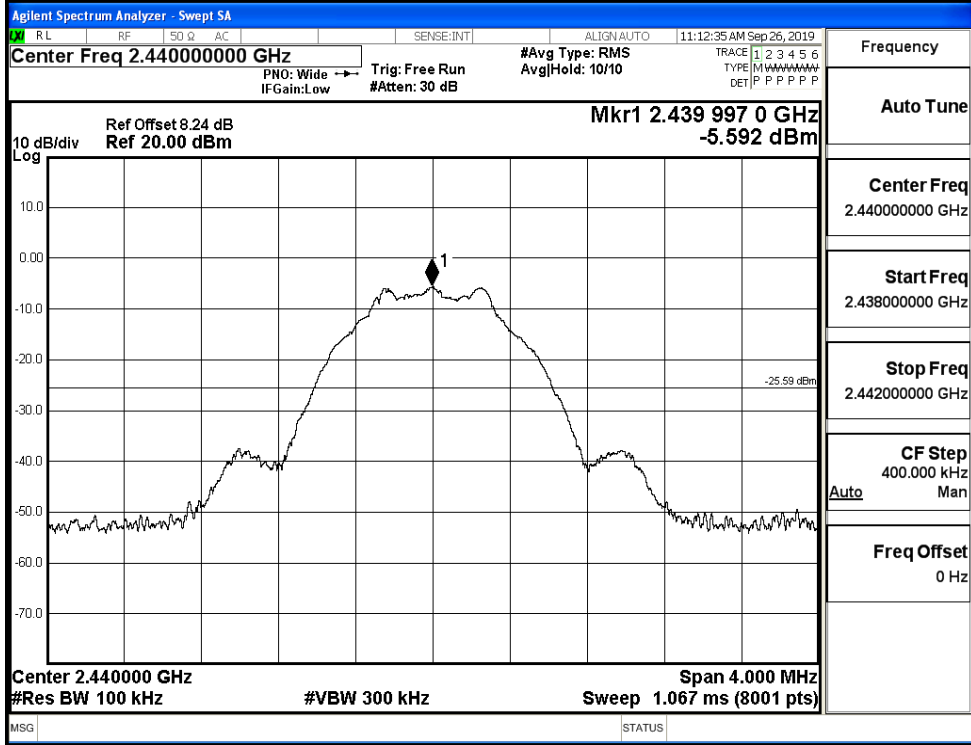
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-5.663	-37.002	-25.663	PASS
BT LE	MCH	-5.592	-36.479	-25.592	PASS
BT LE	HCH	-5.274	-37.080	-25.274	PASS



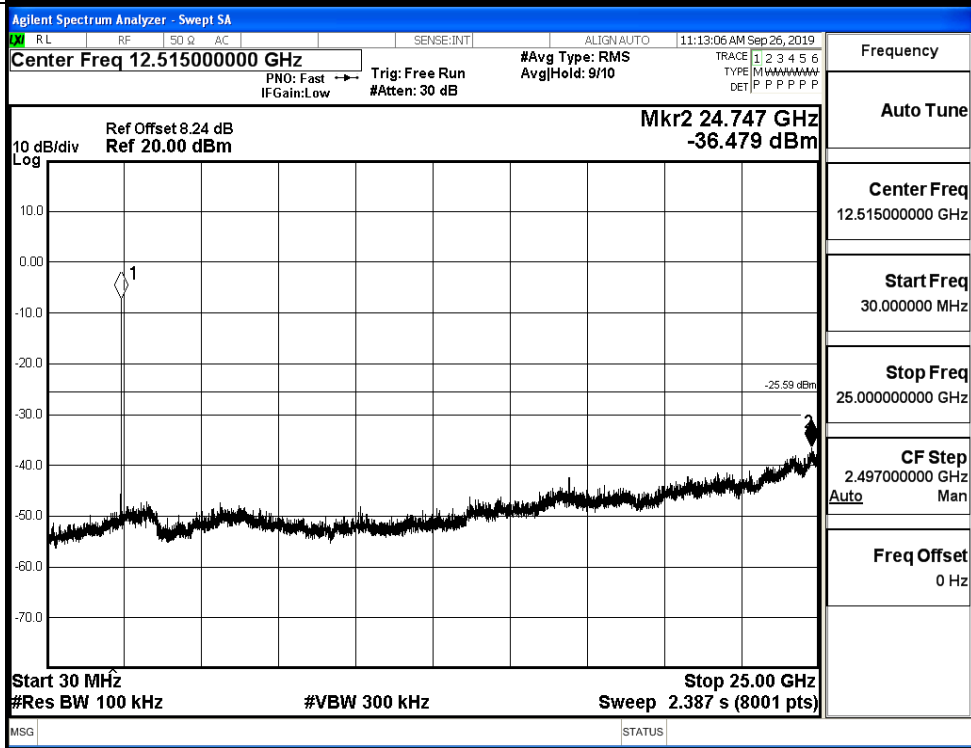


BT LE\_MCH\_Graphs

Pref/BT LE/MCH

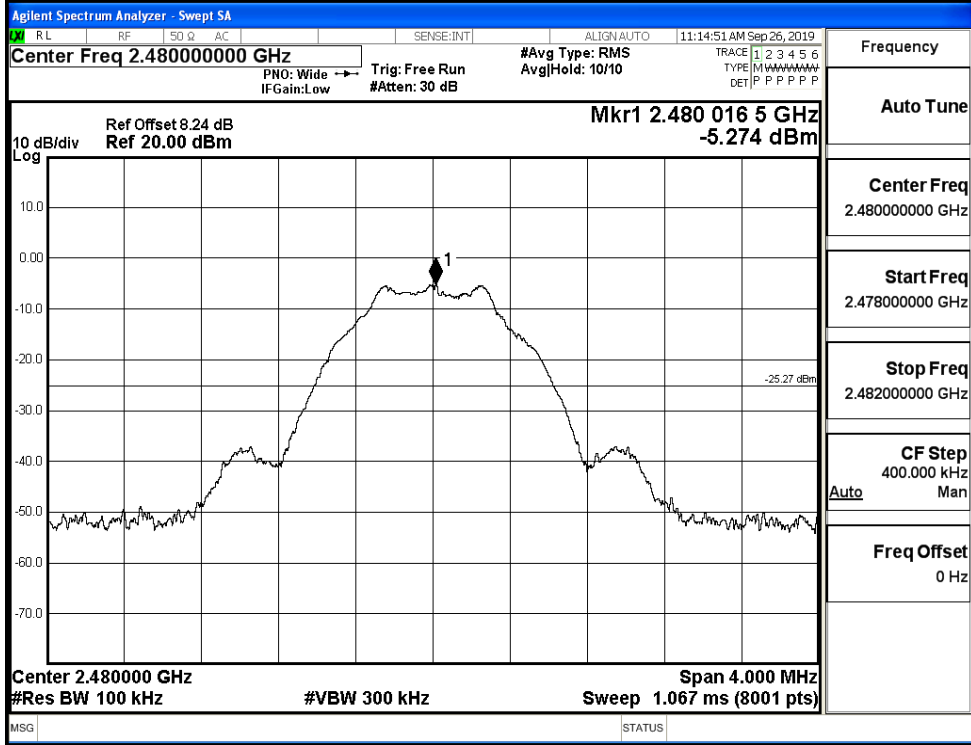


Puw/BT LE/MCH

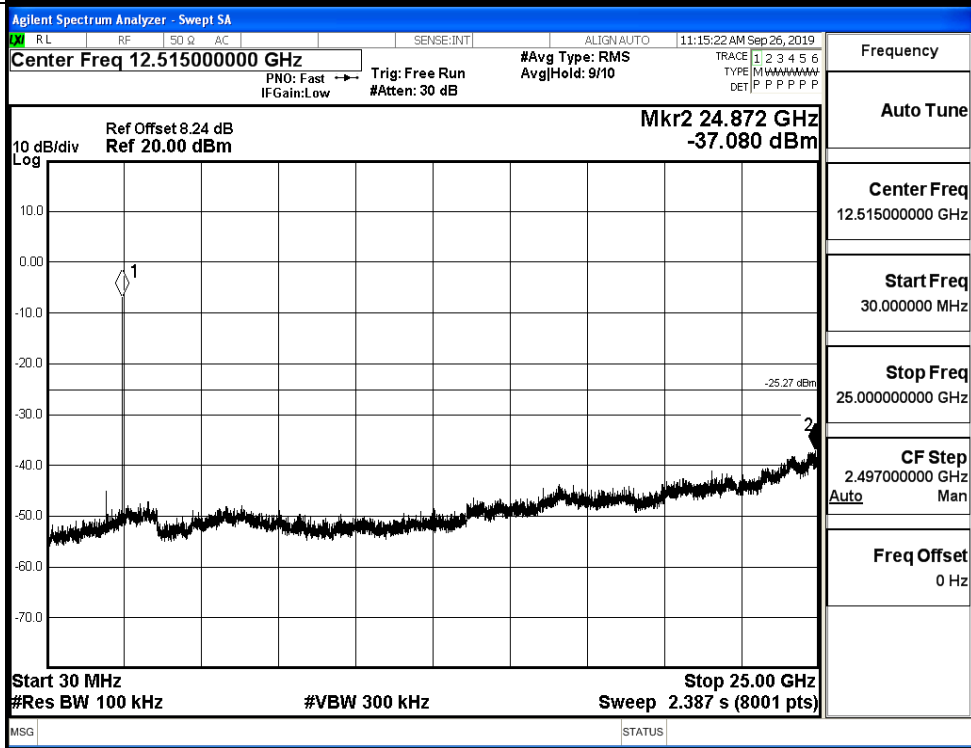


BT LE\_HCH\_Graphs

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	-5.337	-48.663	-25.34	PASS
BT LE	HCH	-5.027	-48.374	-25.03	PASS

**Test Graphs**

LCH

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

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HCH

Frequency

Auto Tune

Center Freq  
2.48900000 GHz

Start Freq  
2.47800000 GHz

Stop Freq  
2.50000000 GHz

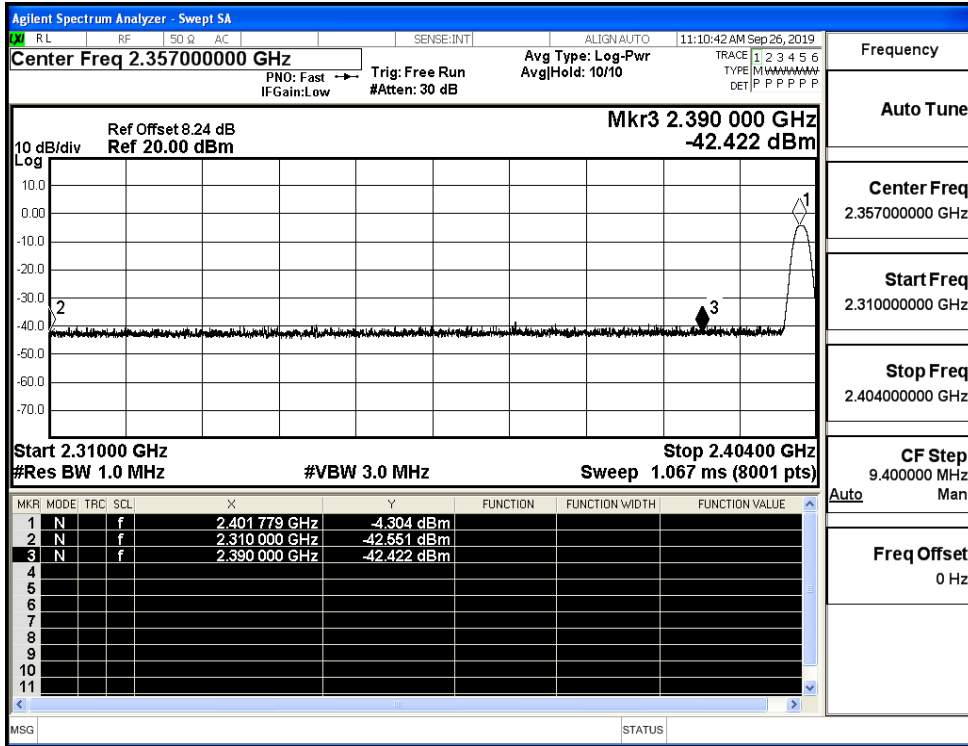
CF Step  
2.200000 MHz

Freq Offset  
0 Hz

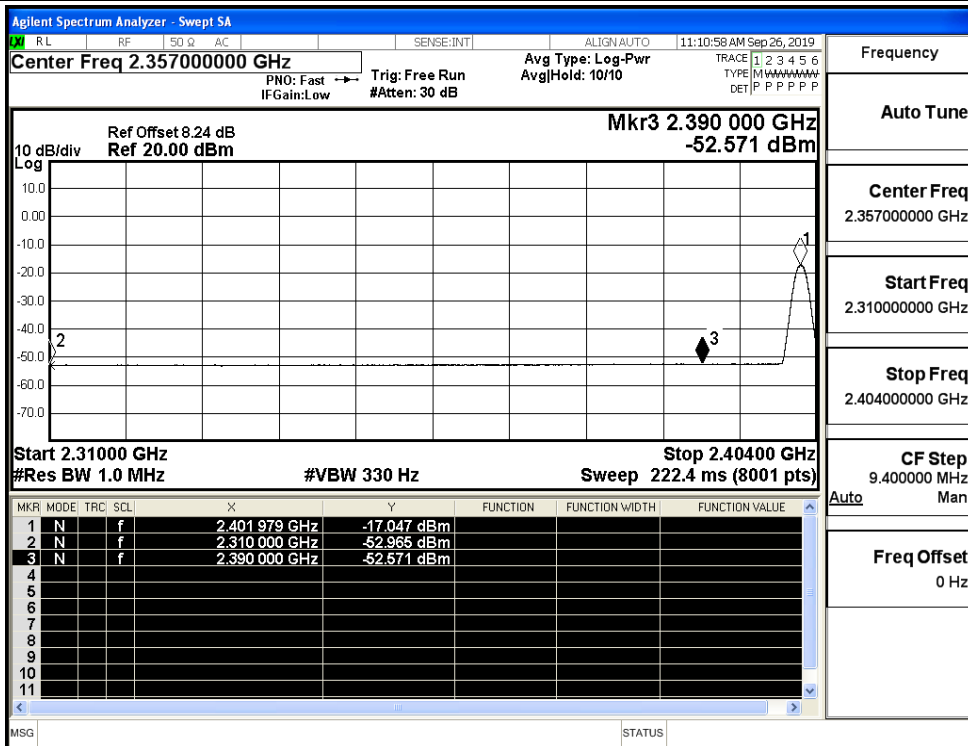
## B.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
BT LE	2402	2310.0	-42.55	2.0	0	52.71	PEAK	74	PASS
		2310.0	-52.97	2.0	0	42.29	AV	54	PASS
		2390.0	-42.42	2.0	0	52.84	PEAK	74	PASS
		2390.0	-52.57	2.0	0	42.69	AV	54	PASS
	2480	2483.5	-42.95	2.0	0	52.31	PEAK	74	PASS
		2483.5	-52.10	2.0	0	43.16	AV	54	PASS
		2500.0	-41.13	2.0	0	54.13	PEAK	74	PASS
		2500.0	-52.00	2.0	0	43.25	AV	54	PASS

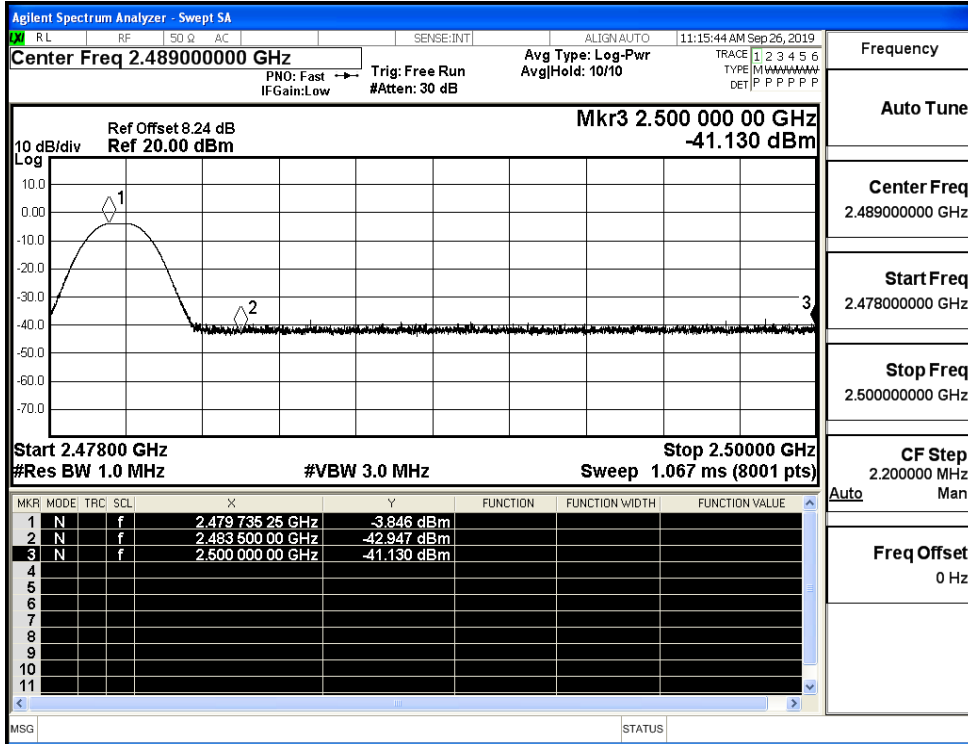
Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



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

