

## Appendix B

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

Product Name: Tablet

Trade Mark: HYUNDAI

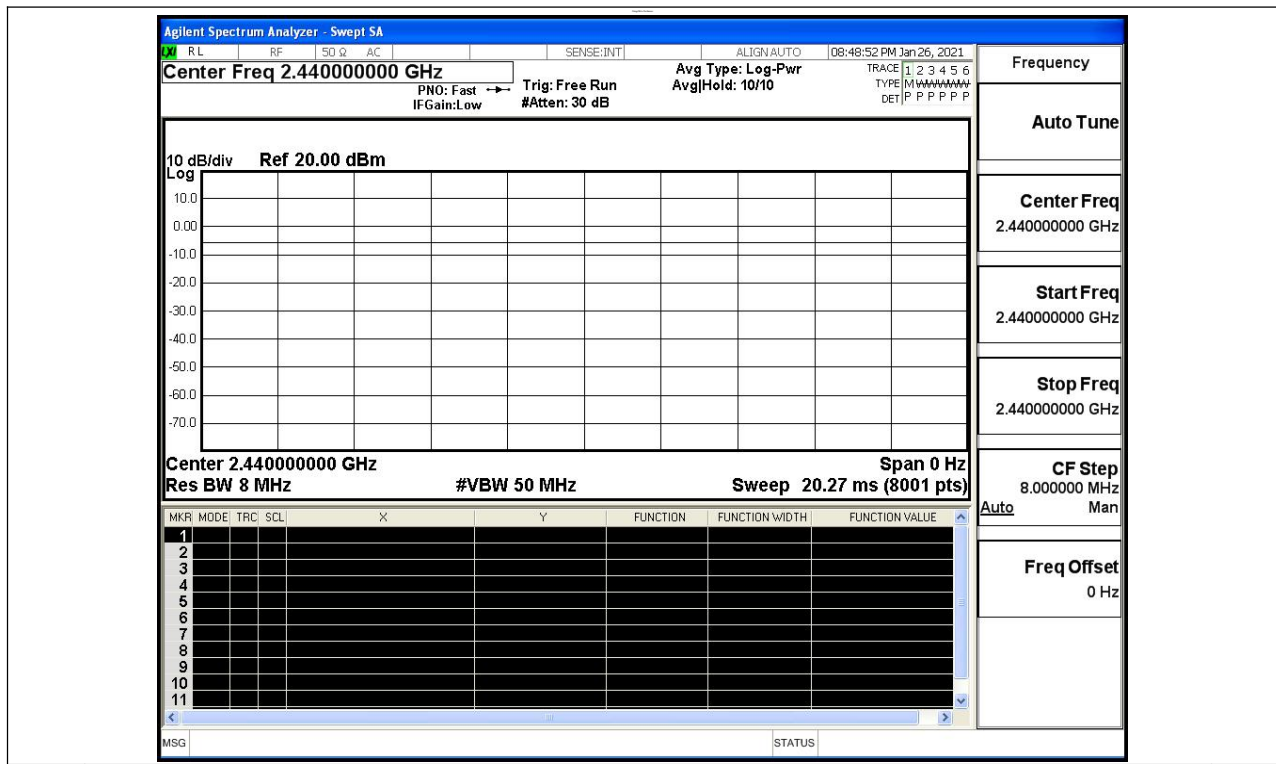
Test Model: 7WA1

#### Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

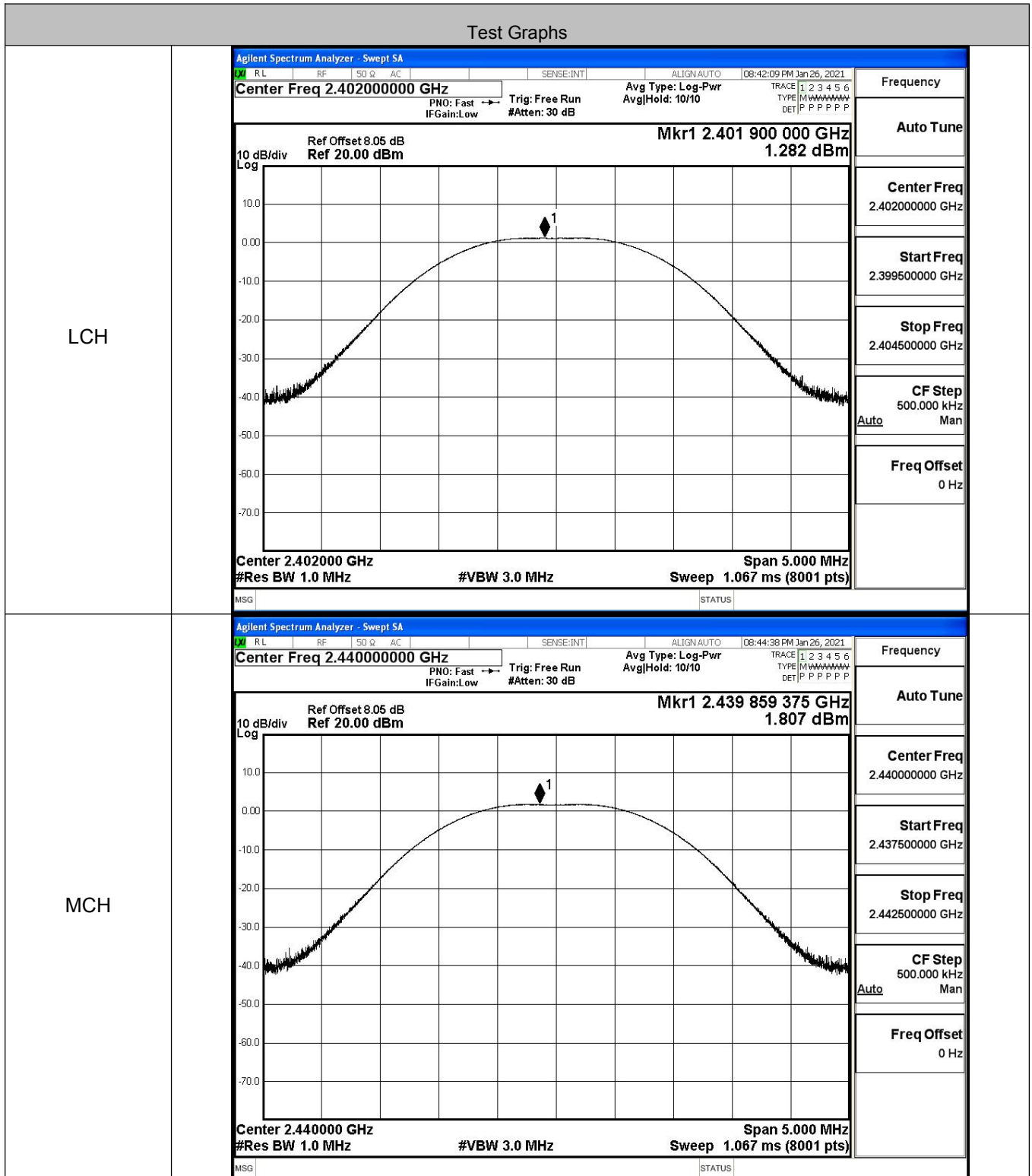
#### B.1 Duty Cycle

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

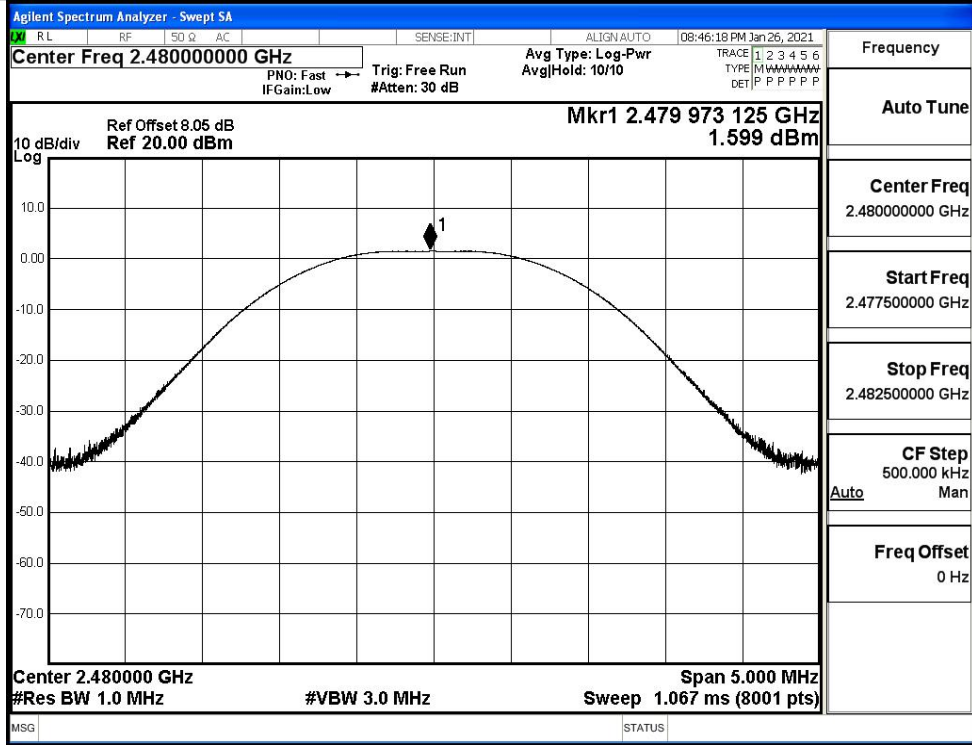


### B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.282	30	PASS
BT LE	MCH	1.807	30	PASS
BT LE	HCH	1.599	30	PASS



HCH

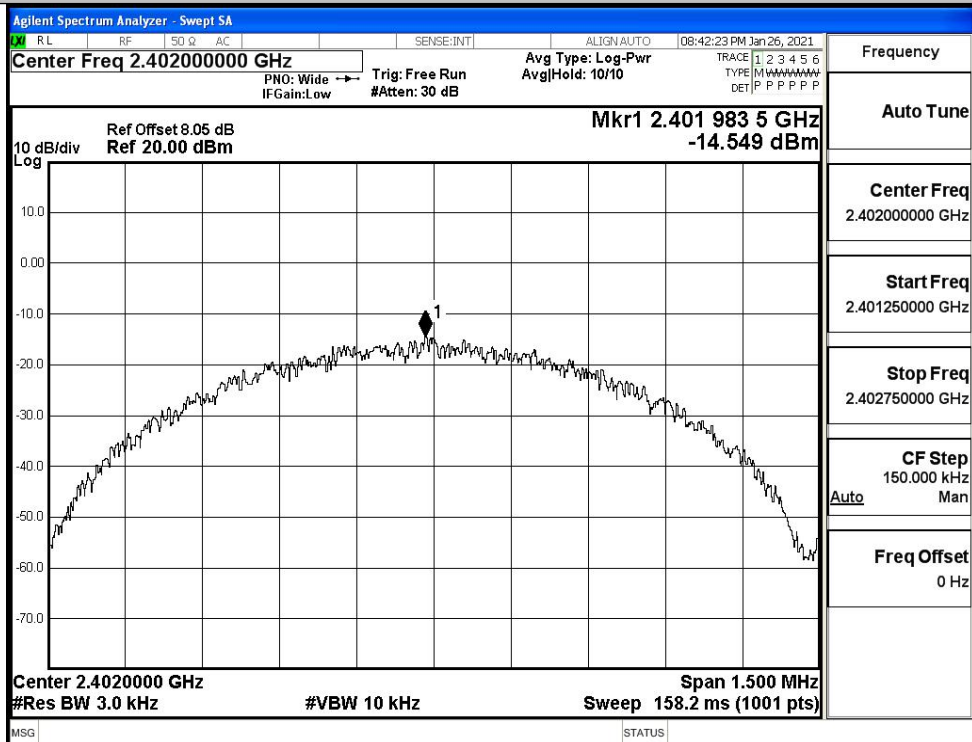


### B.3 Maximum Power Spectral Density

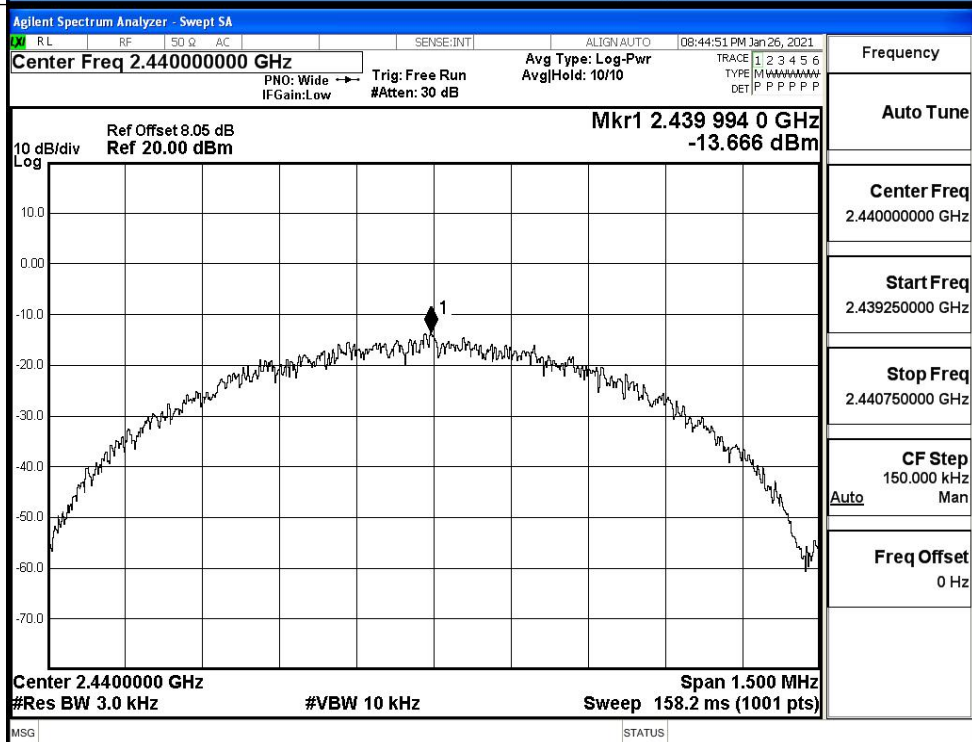
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-14.549	8	PASS
BT LE	MCH	-13.666	8	PASS
BT LE	HCH	-13.955	8	PASS

#### Test Graphs

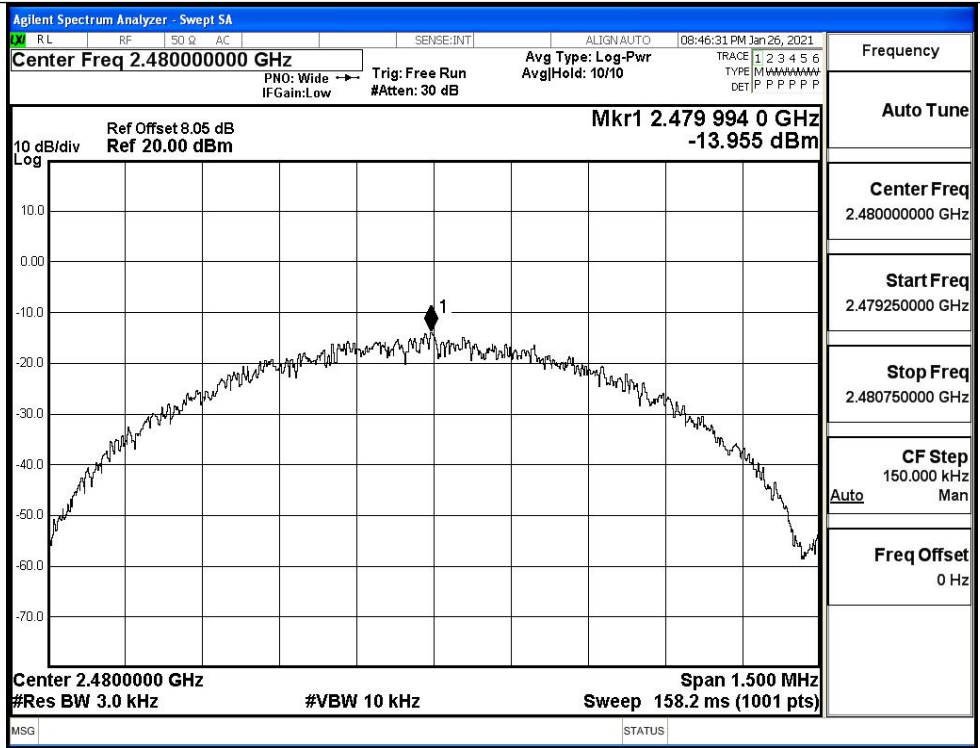
LCH



MCH



HCH



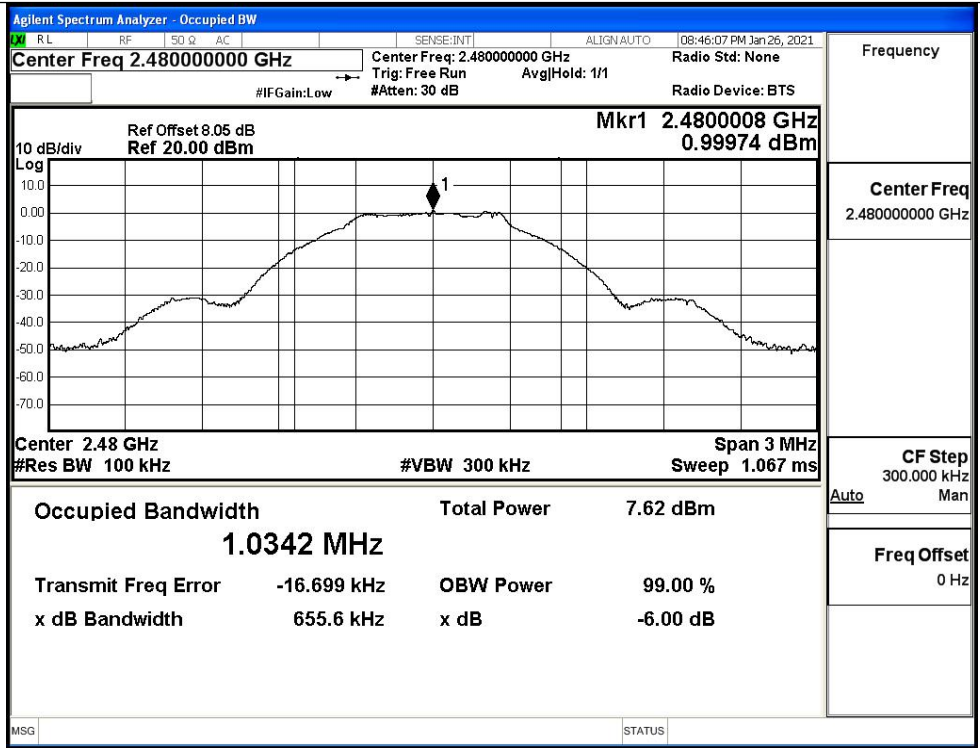
**B.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6458	≥0.5	PASS
BT LE	MCH	0.6474	≥0.5	PASS
BT LE	HCH	0.6556	≥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: 1/1</p> <p>#IFGain:Low    #Atten: 30 dB    Radio Device: BTS</p> <p>Ref Offset 8.05 dB    Ref 20.00 dBm    Mkr1 2.4019888 GHz    0.91214 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>7.41 dBm</td> </tr> <tr> <td><b>1.0296 MHz</b></td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-14.729 kHz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>645.8 kHz</td> <td>x dB</td> </tr> <tr> <td></td> <td></td> <td>-6.00 dB</td> </tr> </table> <p>MSG    STATUS</p>	Occupied Bandwidth	Total Power	7.41 dBm	<b>1.0296 MHz</b>			Transmit Freq Error	-14.729 kHz	OBW Power	x dB Bandwidth	645.8 kHz	x dB			-6.00 dB	<p>Frequency</p> <p>Center Freq 2.402000000 GHz</p> <p>CF Step 300.000 kHz Auto    Man</p> <p>Freq Offset 0 Hz</p>
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		-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: 1/1</p> <p>#IFGain:Low    #Atten: 30 dB    Radio Device: BTS</p> <p>Ref Offset 8.05 dB    Ref 20.00 dBm    Mkr1 2.440219 GHz    1.4297 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>7.93 dBm</td> </tr> <tr> <td><b>1.0334 MHz</b></td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-16.497 kHz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>647.4 kHz</td> <td>x dB</td> </tr> <tr> <td></td> <td></td> <td>-6.00 dB</td> </tr> </table> <p>MSG    STATUS</p>	Occupied Bandwidth	Total Power	7.93 dBm	<b>1.0334 MHz</b>			Transmit Freq Error	-16.497 kHz	OBW Power	x dB Bandwidth	647.4 kHz	x dB			-6.00 dB	<p>Frequency</p> <p>Center Freq 2.440000000 GHz</p> <p>CF Step 300.000 kHz Auto    Man</p> <p>Freq Offset 0 Hz</p>
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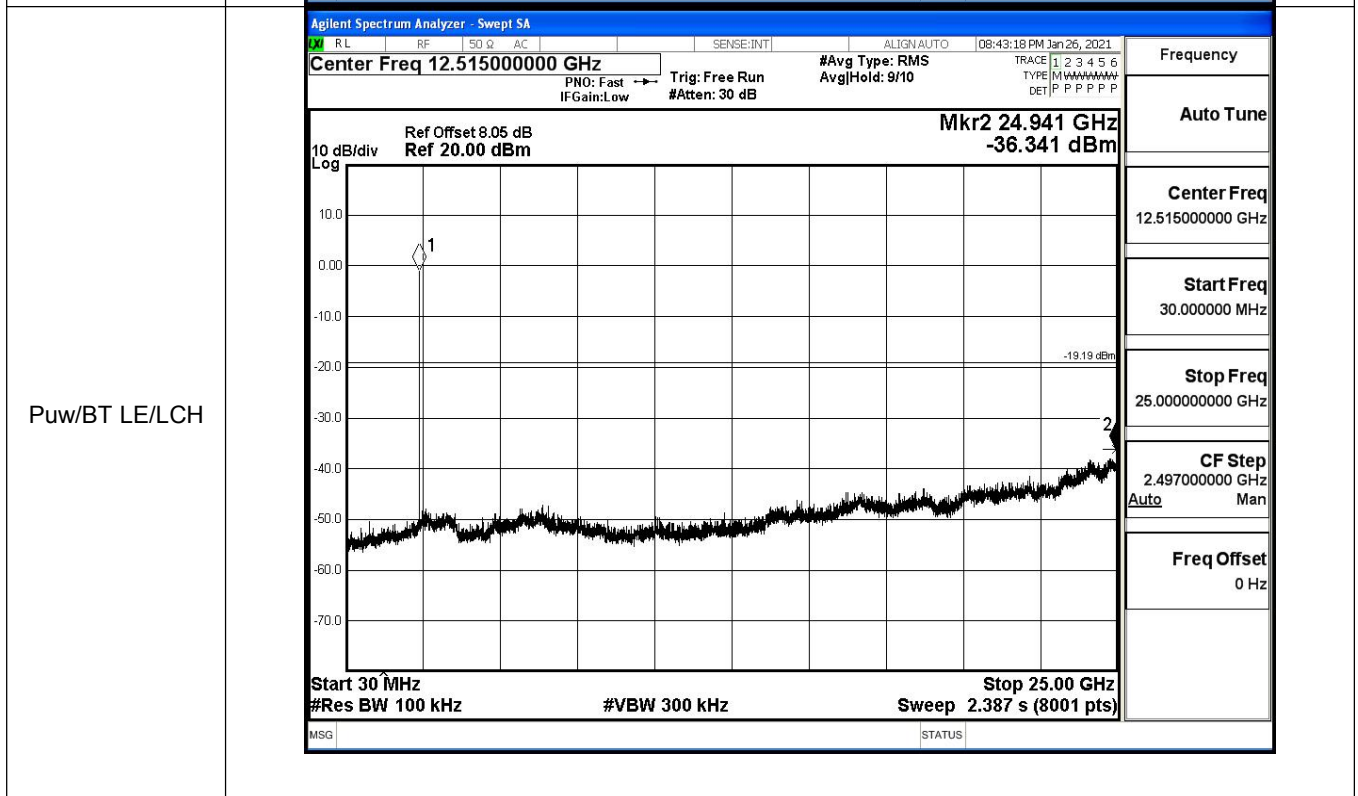
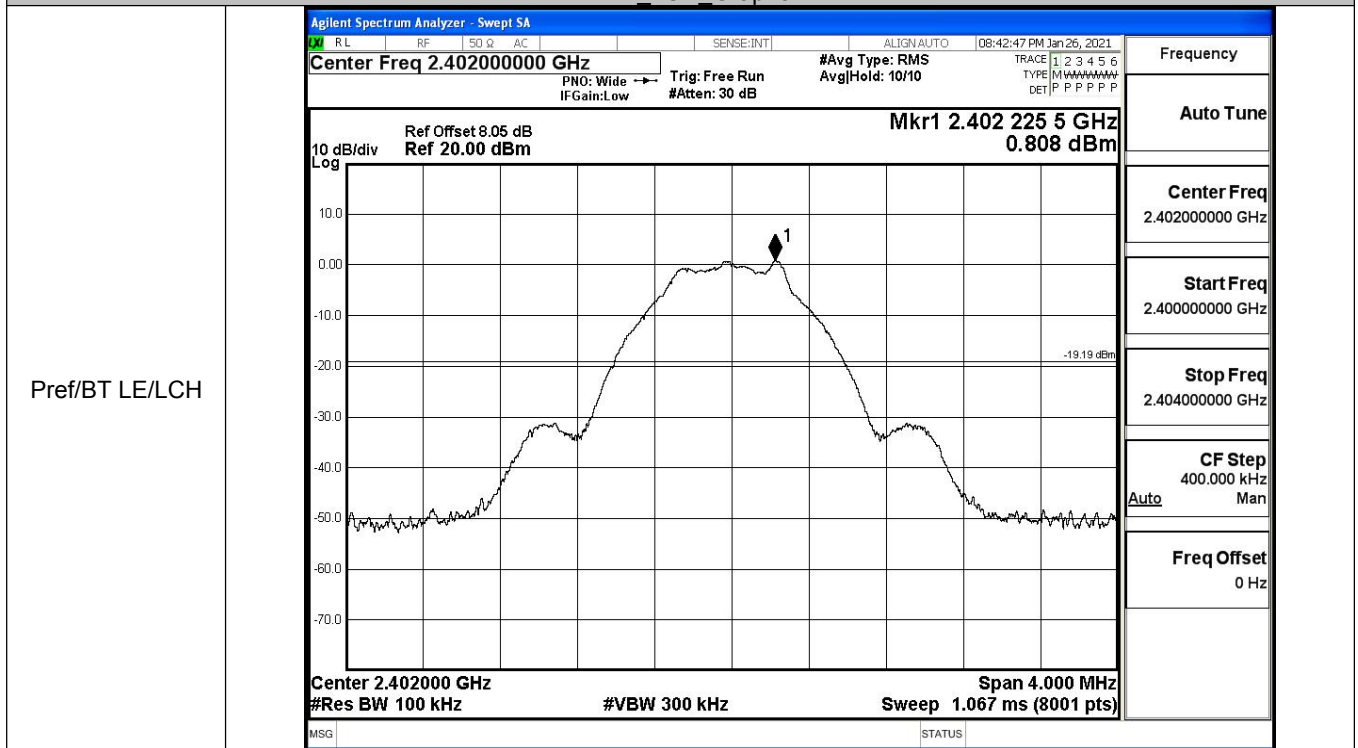
HCH



### B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	0.808	-36.341	-19.192	PASS
BT LE	MCH	1.588	-37.553	-18.412	PASS
BT LE	HCH	1.128	-37.606	-18.872	PASS

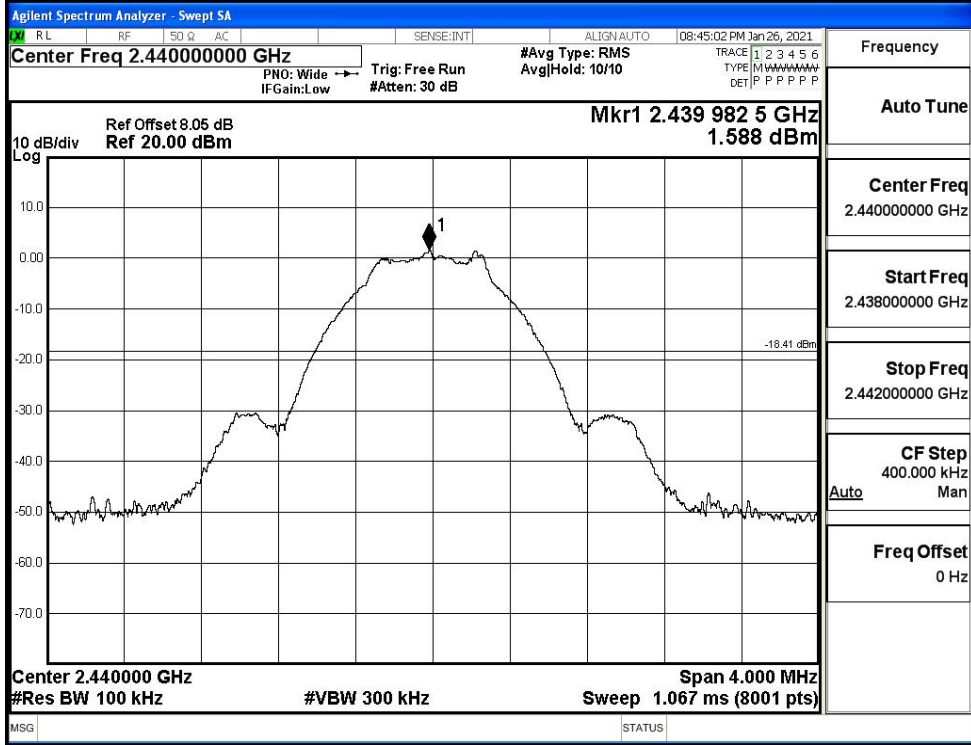
BT LE LCH Graphs



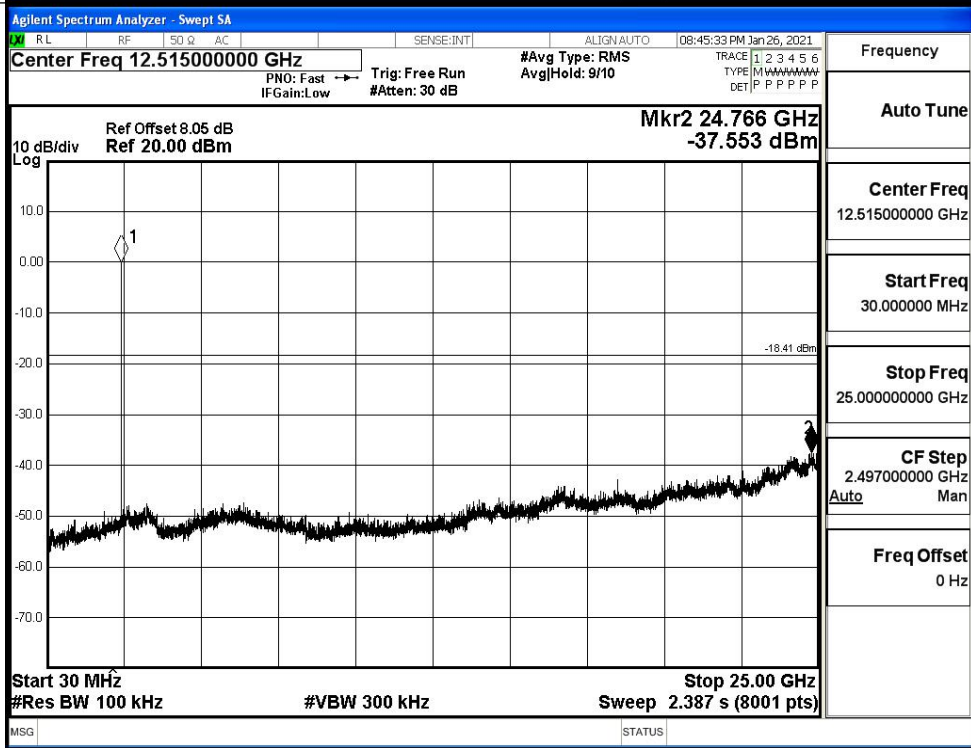


BT LE MCH Graphs

Pref/BT LE/MCH

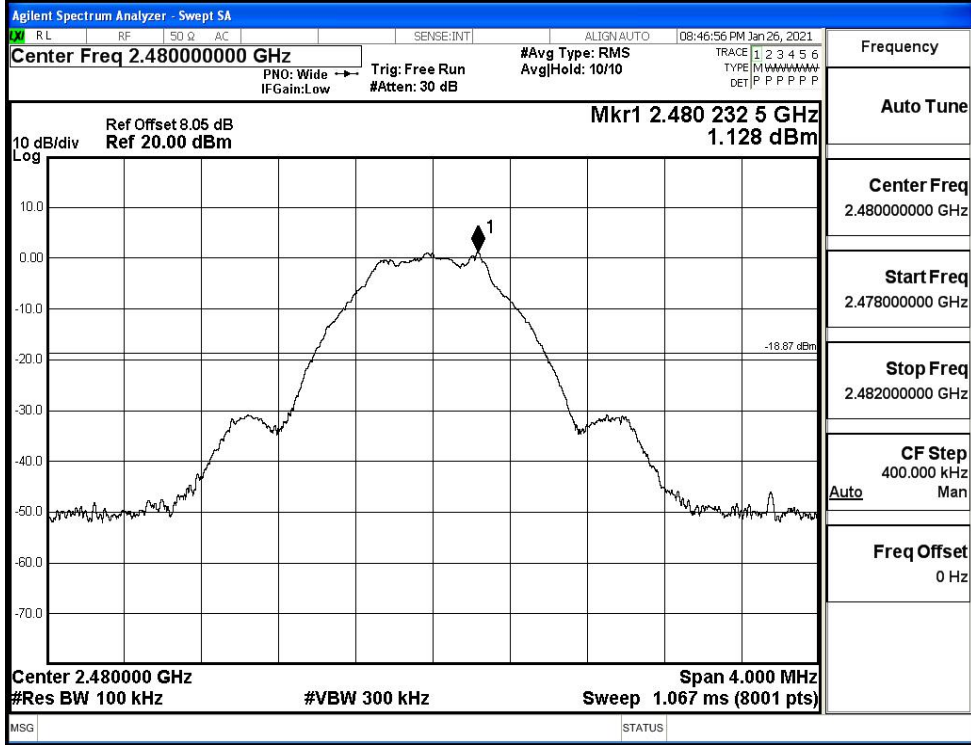


Puw/BT LE/MCH

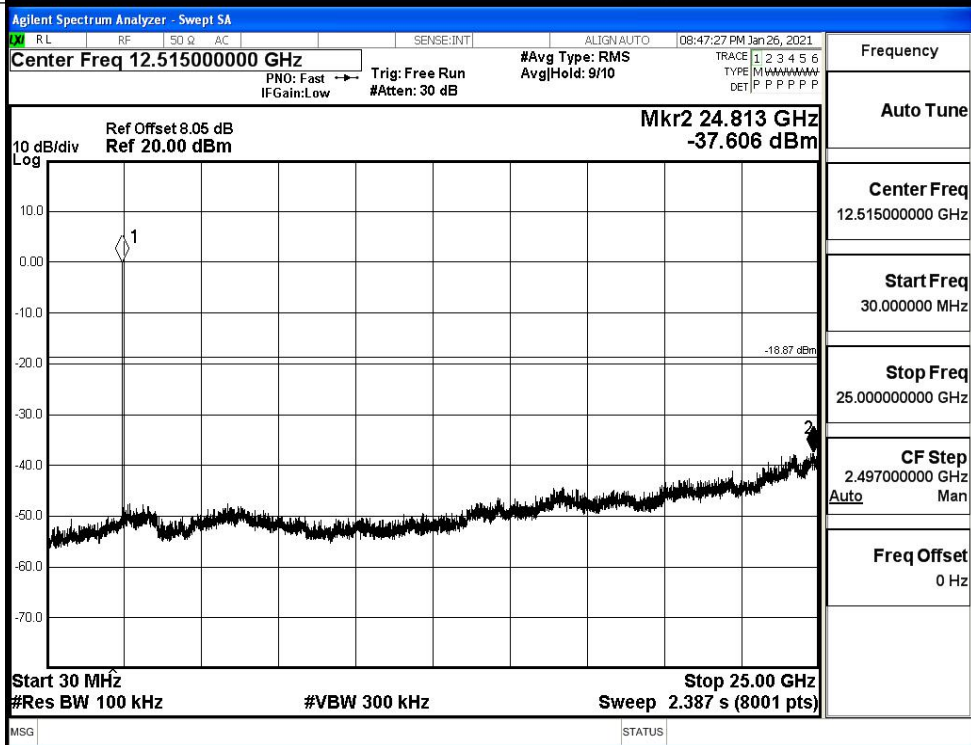


BT LE HCH Graphs

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	0.813	-50.024	-19.19	PASS
BT LE	HCH	1.277	-47.236	-18.72	PASS

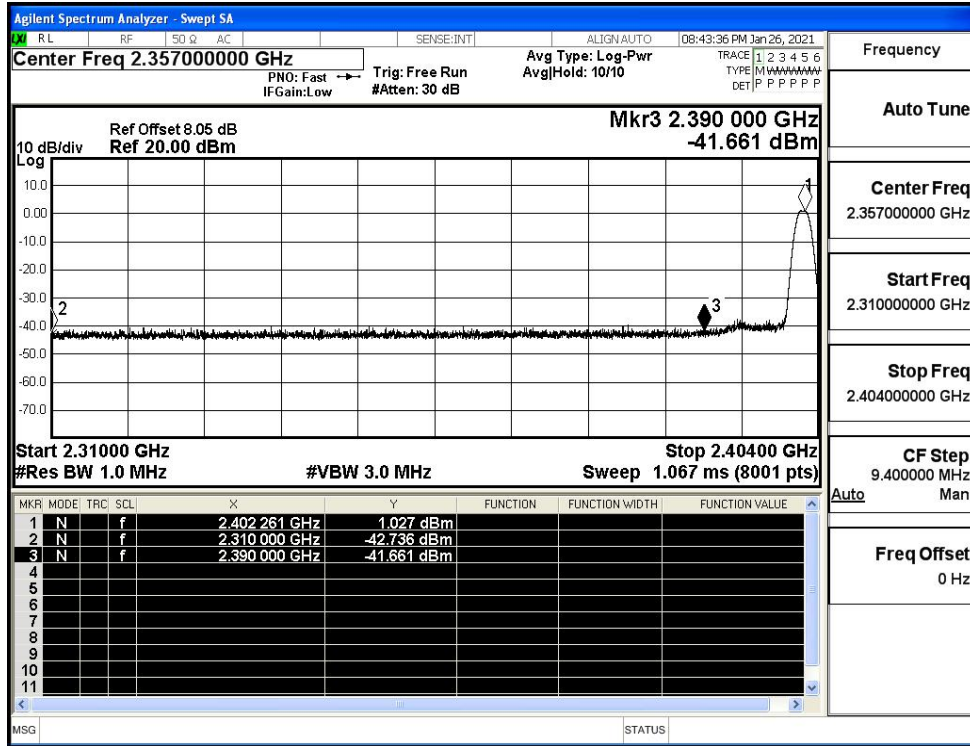
#### Test Graphs

LCH		<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.35700000 GHz</p> <p>Mkr4 2.317 661 GHz -50.024 dBm</p> <p>Start 2.31000 GHz Stop 2.40400 GHz</p> <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>2.402 226 GHz</td><td>0.813 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>-50.897 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>-52.381 dBm</td><td></td><td></td><td></td></tr> <tr><td>4</td><td>N</td><td>f</td><td></td><td>2.317 661 GHz</td><td>-50.024 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		2.402 226 GHz	0.813 dBm				2	N	f		2.400 000 GHz	-50.897 dBm				3	N	f		2.390 000 GHz	-52.381 dBm				4	N	f		2.317 661 GHz	-50.024 dBm			
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HCH		<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.48900000 GHz</p> <p>Mkr4 2.487 449 00 GHz -47.236 dBm</p> <p>Start 2.47800 GHz Stop 2.50000 GHz</p> <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>2.480 230 25 GHz</td><td>1.277 dBm</td><td></td><td></td><td></td></tr> <tr><td>2</td><td>N</td><td>f</td><td></td><td>2.483 500 00 GHz</td><td>-50.052 dBm</td><td></td><td></td><td></td></tr> <tr><td>3</td><td>N</td><td>f</td><td></td><td>2.500 000 00 GHz</td><td>-53.011 dBm</td><td></td><td></td><td></td></tr> <tr><td>4</td><td>N</td><td>f</td><td></td><td>2.487 449 00 GHz</td><td>-47.236 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		2.480 230 25 GHz	1.277 dBm				2	N	f		2.483 500 00 GHz	-50.052 dBm				3	N	f		2.500 000 00 GHz	-53.011 dBm				4	N	f		2.487 449 00 GHz	-47.236 dBm			
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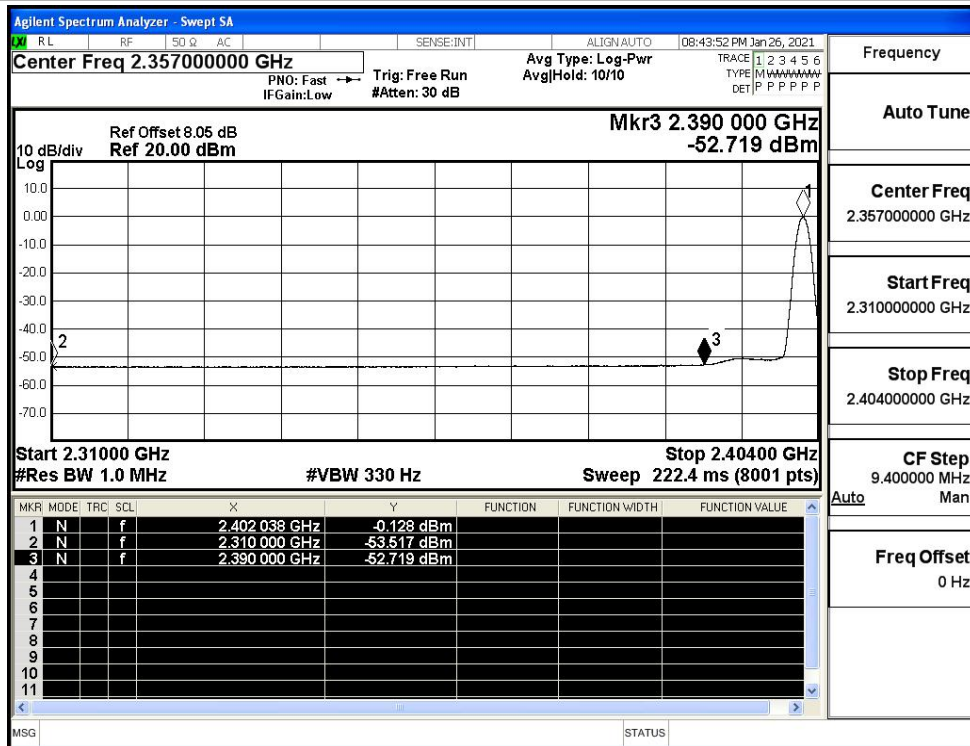
**B.7 Restrict-band band-edge measurements**

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	-42.74	2.0	0	54.49	PEAK	74	PASS
		Ant1	2310.0	-53.52	2.0	0	43.71	AV	54	PASS
		Ant1	2390.0	-41.66	2.0	0	55.57	PEAK	74	PASS
		Ant1	2390.0	-52.72	2.0	0	44.51	AV	54	PASS
	2480	Ant1	2483.5	-40.57	2.0	0	56.66	PEAK	74	PASS
		Ant1	2483.5	-50.62	2.0	0	46.61	AV	54	PASS
		Ant1	2500.0	-42.63	2.0	0	54.60	PEAK	74	PASS
		Ant1	2500.0	-52.38	2.0	0	44.85	AV	54	PASS

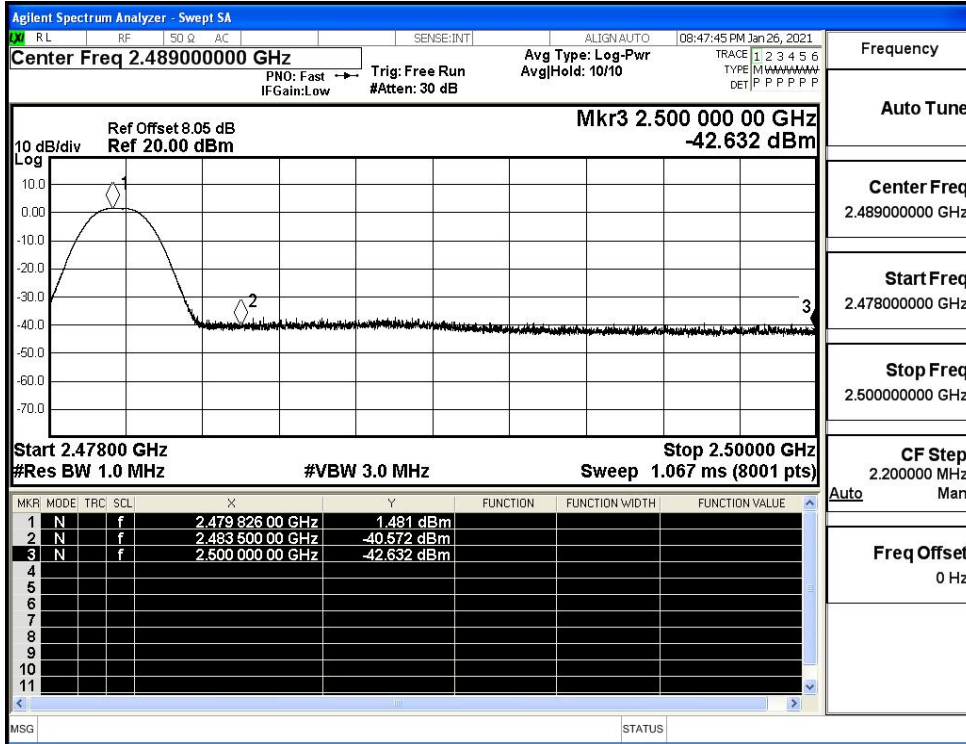
Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



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

