

## Appendix B

### RF Test Data for BT V4.0(BDR/EDR) (Conducted Measurement)

Product Name: Smart phone

Trade Mark: S SMOOTH

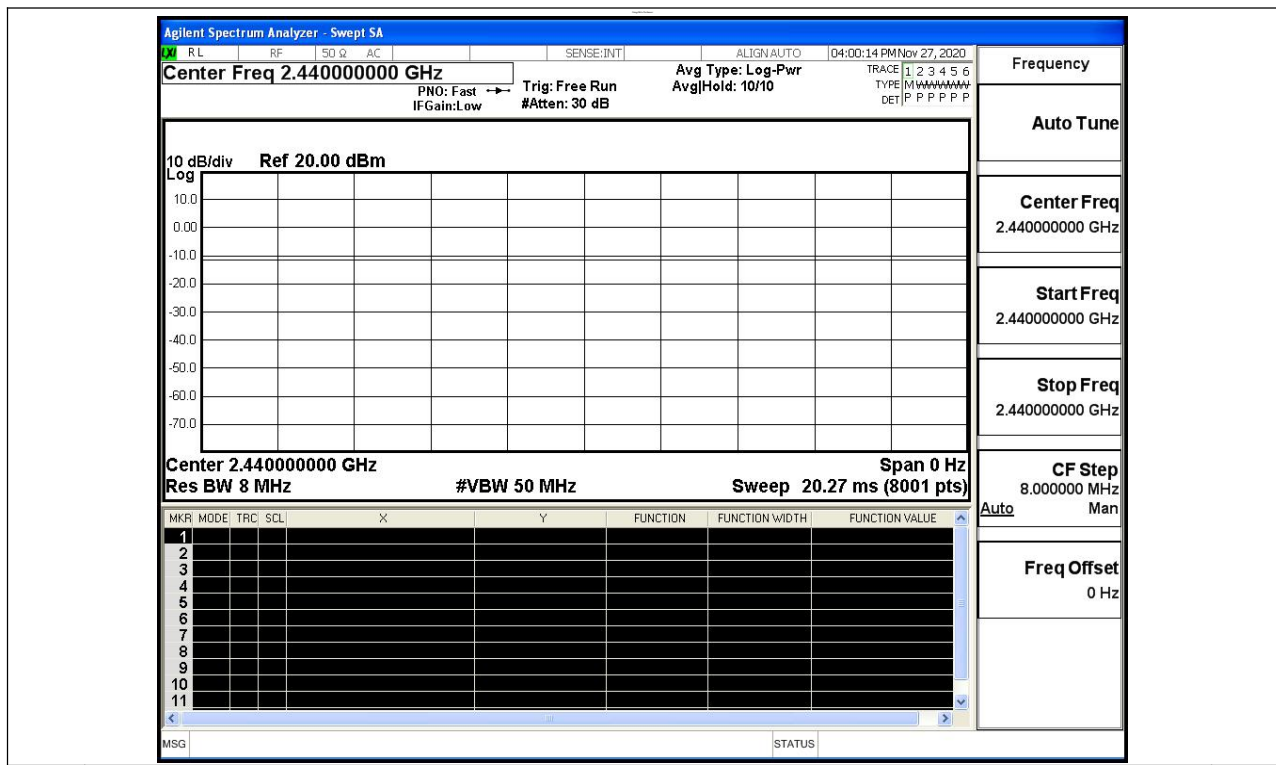
Test Model: SMOOTH 5.0

#### Environmental Conditions

Temperature:	22.3° C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

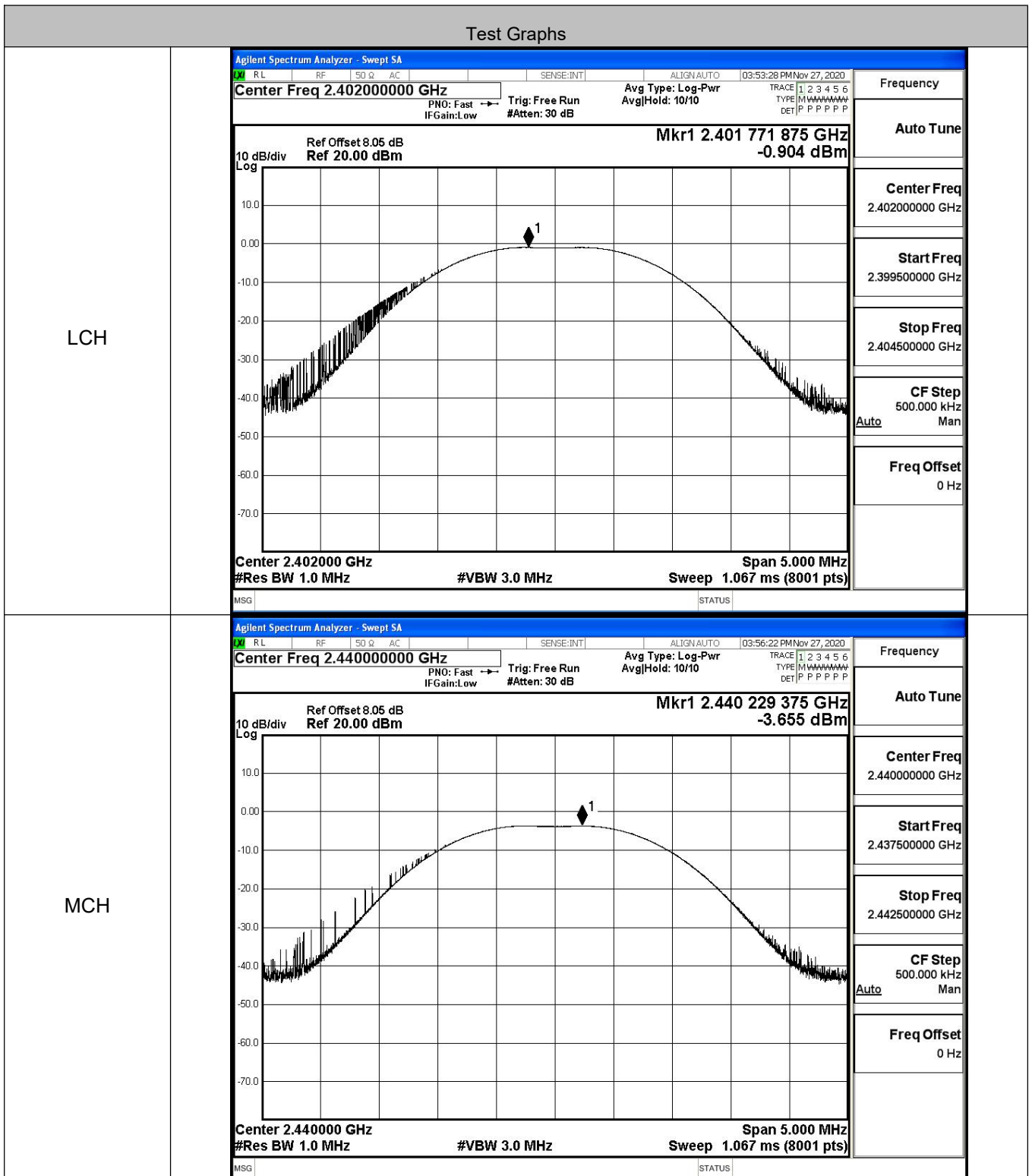
#### B.1 Duty Cycle

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

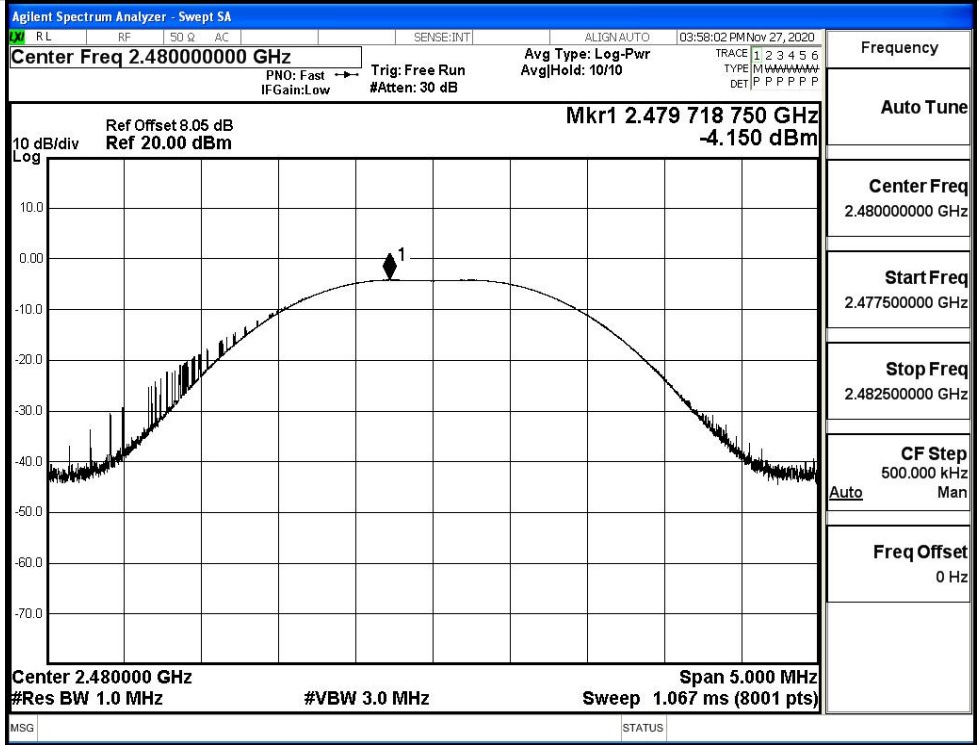


### B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.904	30	PASS
BT LE	MCH	-3.655	30	PASS
BT LE	HCH	-4.15	30	PASS



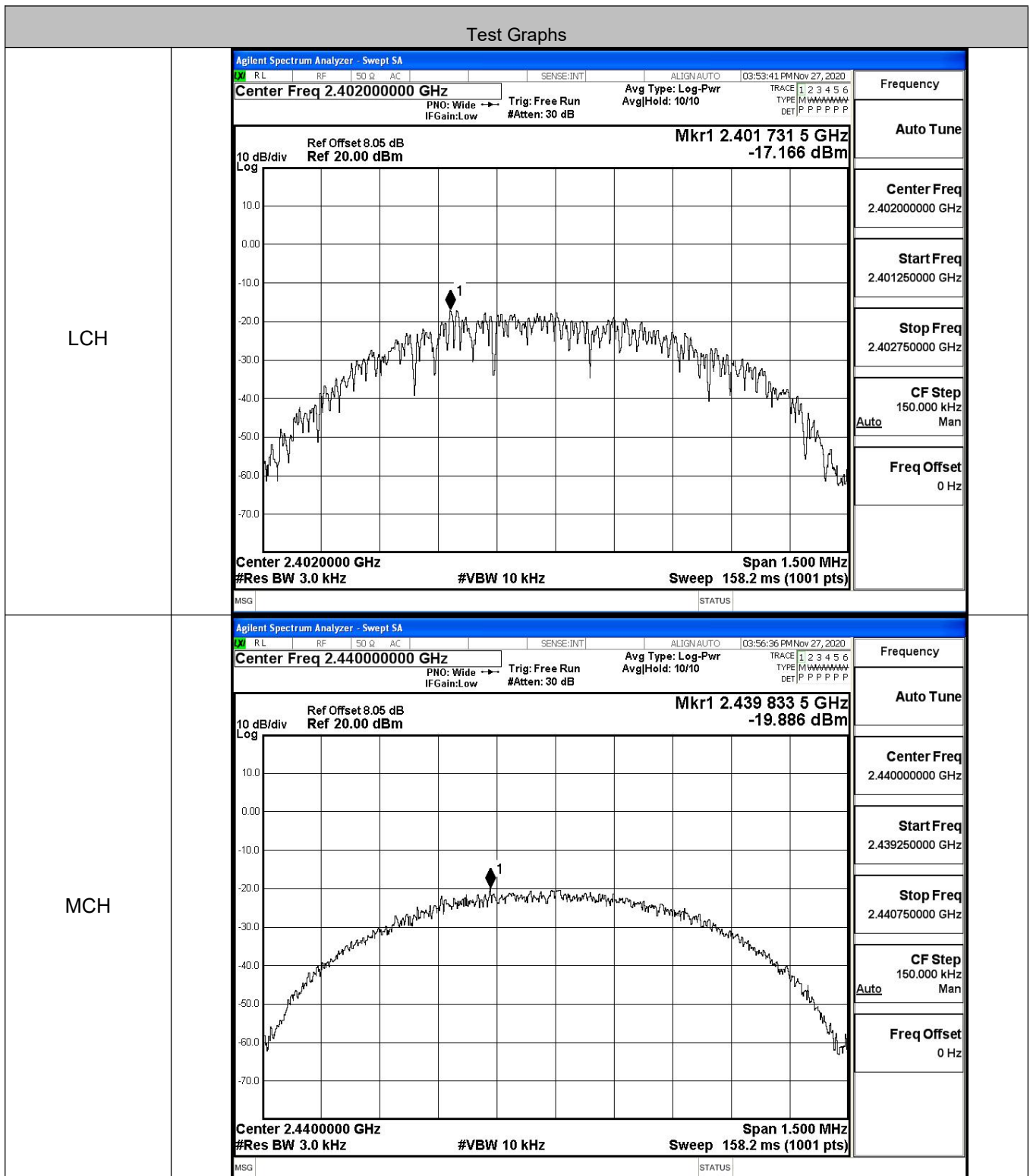
HCH



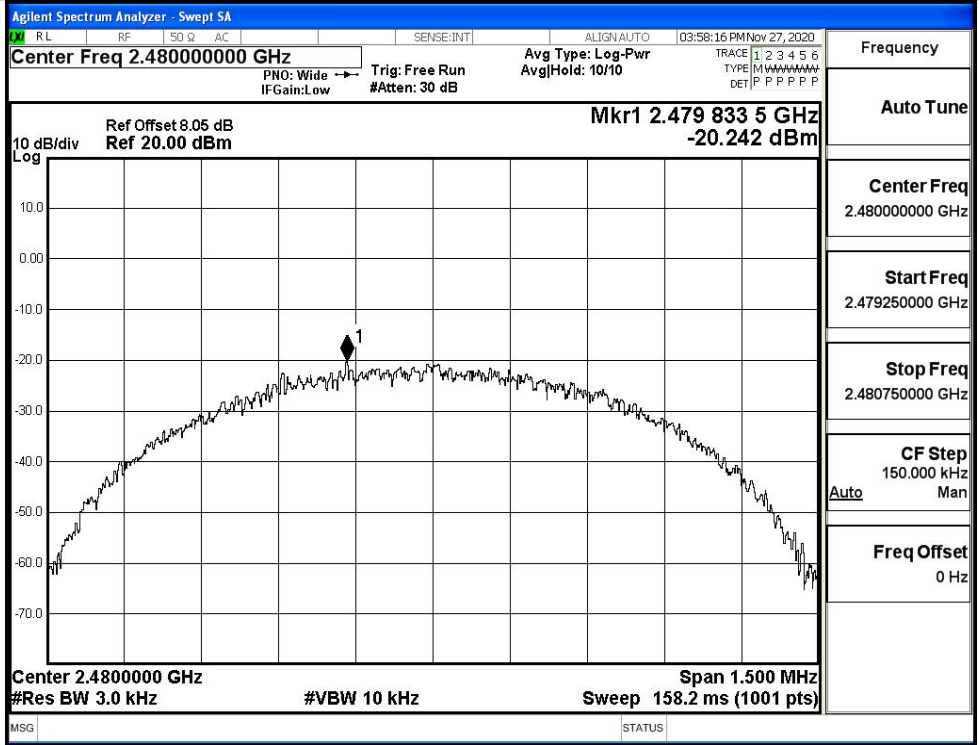
### B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-17.166	8	PASS
BT LE	MCH	-19.886	8	PASS
BT LE	HCH	-20.242	8	PASS

#### Test Graphs



HCH



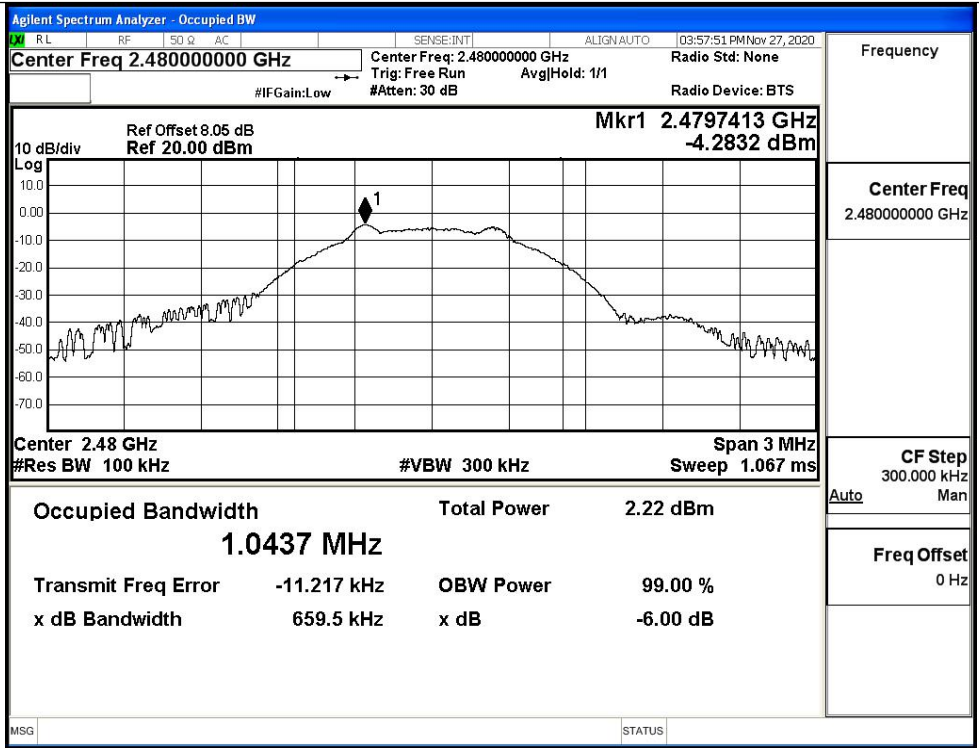
**B.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6643	≥0.5	PASS
BT LE	MCH	0.6691	≥0.5	PASS
BT LE	HCH	0.6595	≥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 8.05 dB    Ref 20.00 dBm    Mkr1 2.401739 GHz    -1.0817 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>5.23 dBm</td> </tr> <tr> <td><b>1.0497 MHz</b></td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-9.301 kHz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>664.3 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	5.23 dBm	<b>1.0497 MHz</b>			Transmit Freq Error	-9.301 kHz	OBW Power	x dB Bandwidth	664.3 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>
	Occupied Bandwidth	Total Power	5.23 dBm														
<b>1.0497 MHz</b>																	
Transmit Freq Error	-9.301 kHz	OBW Power															
x dB Bandwidth	664.3 kHz	x dB															
		-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 8.05 dB    Ref 20.00 dBm    Mkr1 2.4397431 GHz    -3.8225 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>2.73 dBm</td> </tr> <tr> <td><b>1.0438 MHz</b></td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-10.283 kHz</td> <td>OBW Power</td> </tr> <tr> <td>x dB Bandwidth</td> <td>669.1 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	2.73 dBm	<b>1.0438 MHz</b>			Transmit Freq Error	-10.283 kHz	OBW Power	x dB Bandwidth	669.1 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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Transmit Freq Error	-10.283 kHz	OBW Power															
x dB Bandwidth	669.1 kHz	x dB															
		-6.00 dB															

HCH

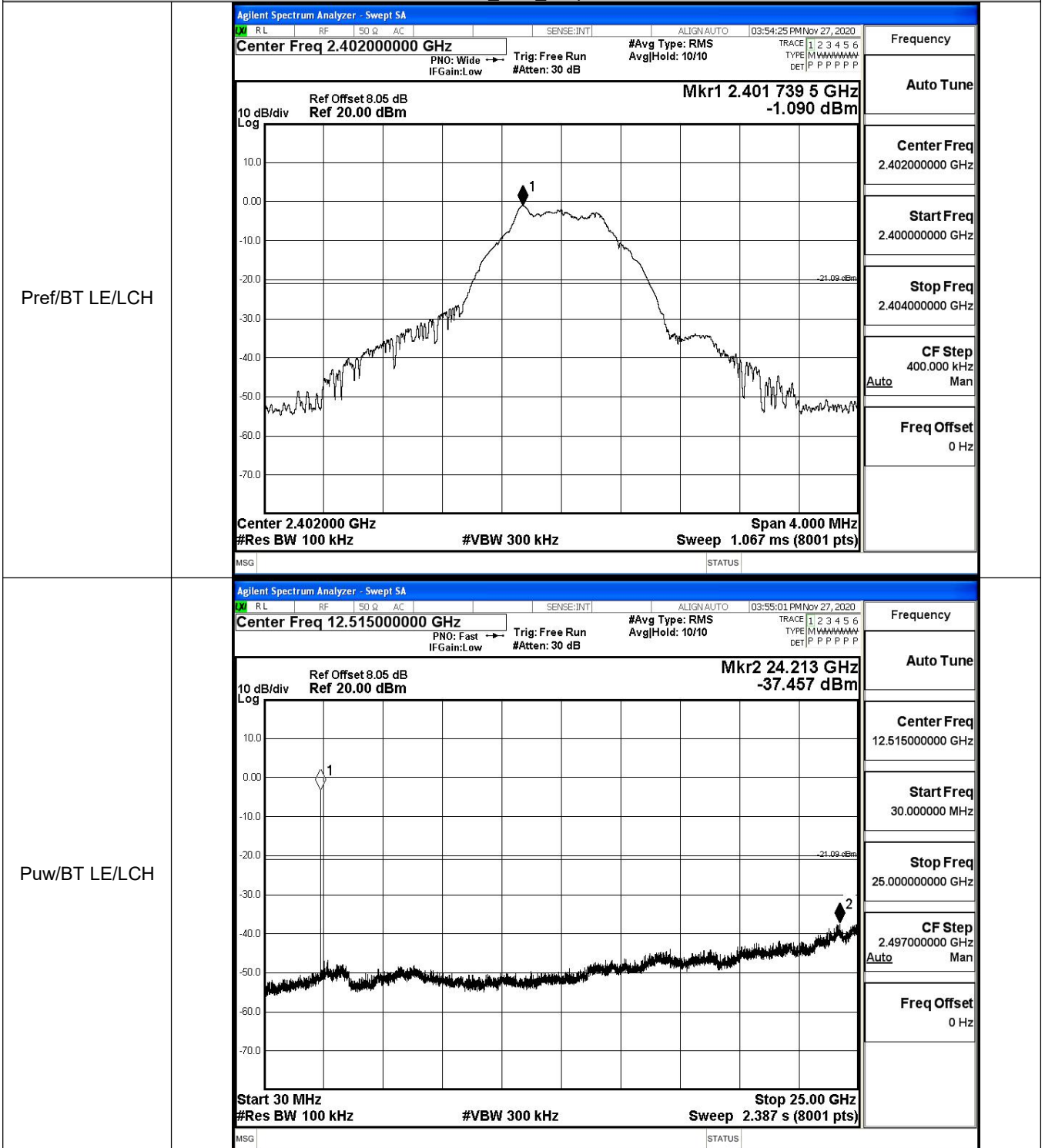


Frequency	Center Freq 2.48000000 GHz
CF Step	300.000 kHz Auto Man
Freq Offset	0 Hz

### B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-1.09	-37.457	-21.090	PASS
BT LE	MCH	-3.827	-37.499	-23.827	PASS
BT LE	HCH	-4.296	-36.897	-24.296	PASS

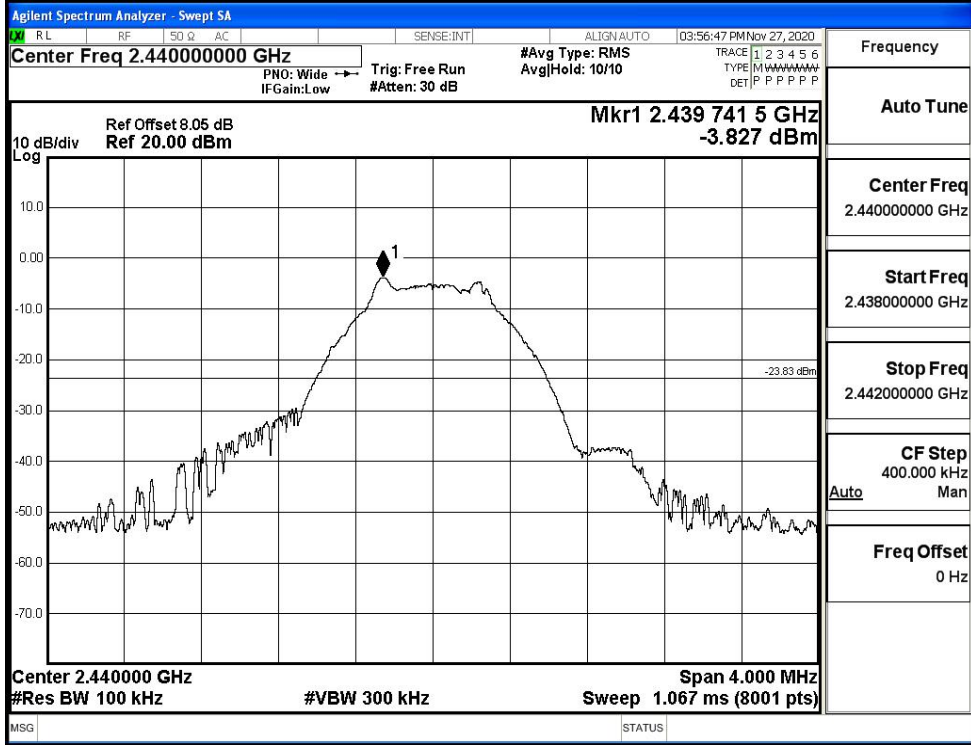
BT LE\_LCH\_Graphs



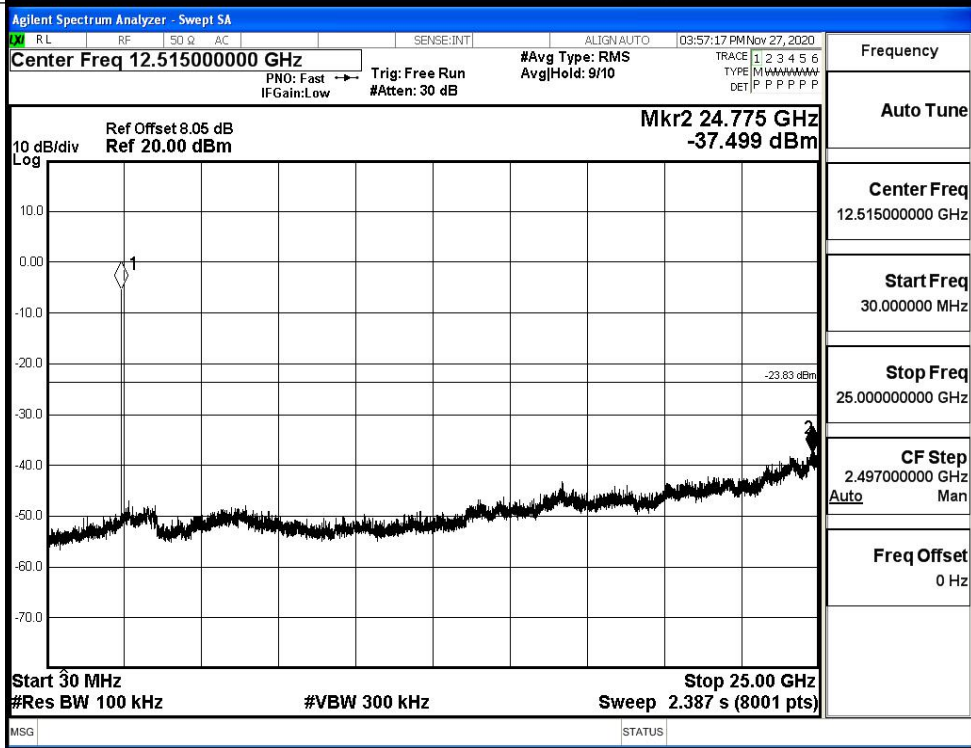


BT LE MCH Graphs

Pref/BT LE/MCH

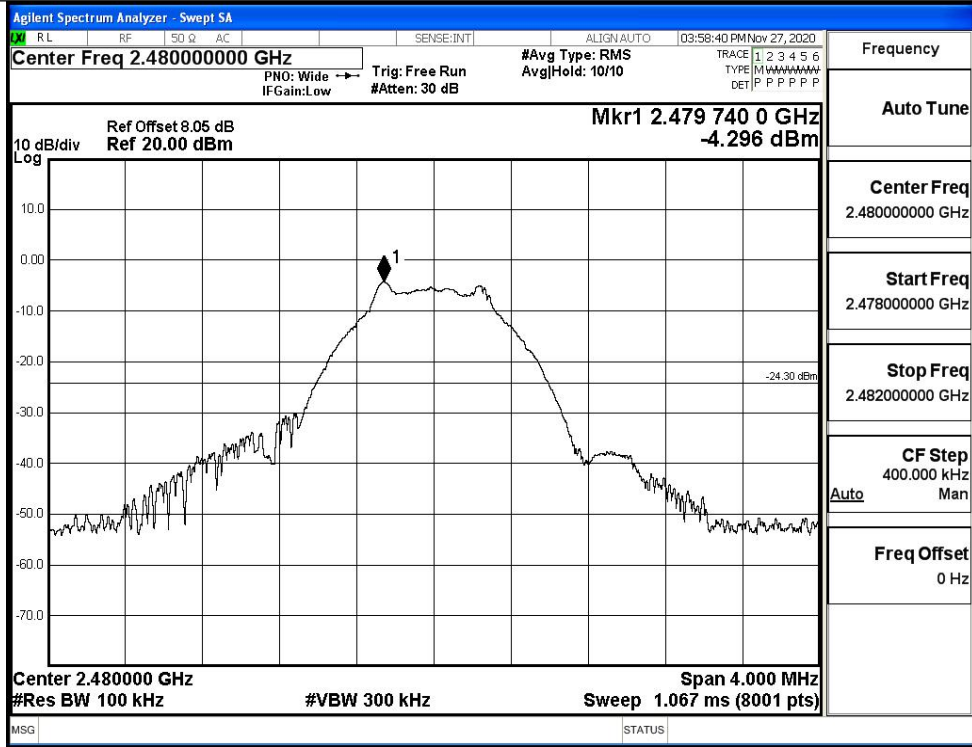


Puw/BT LE/MCH

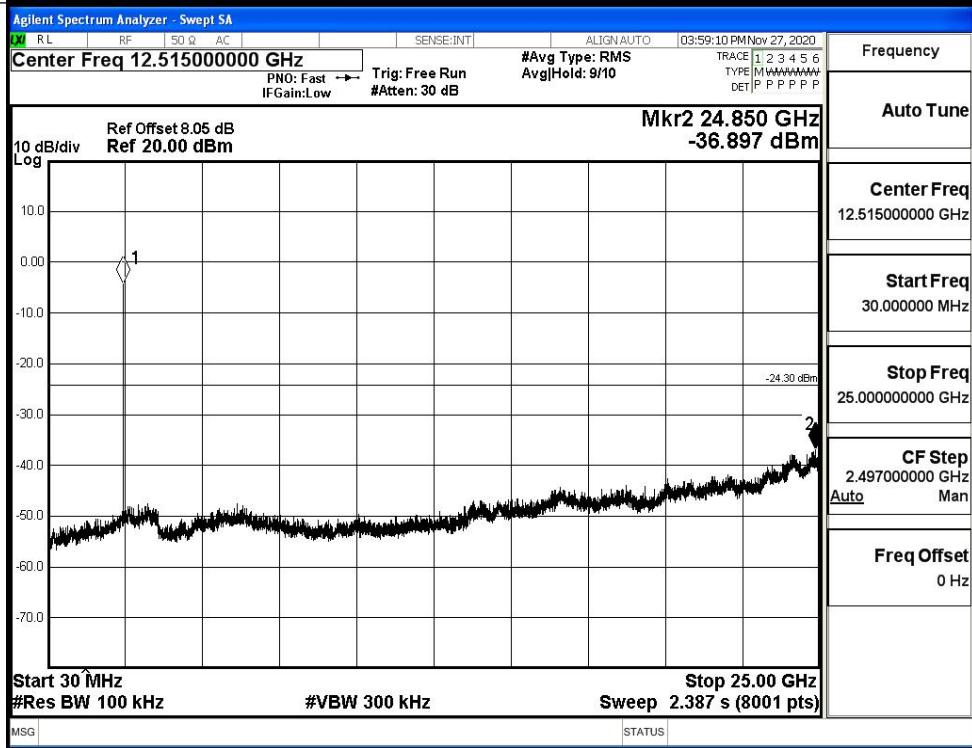


BT LE HCH Graphs

Pref/BT LE/HCH



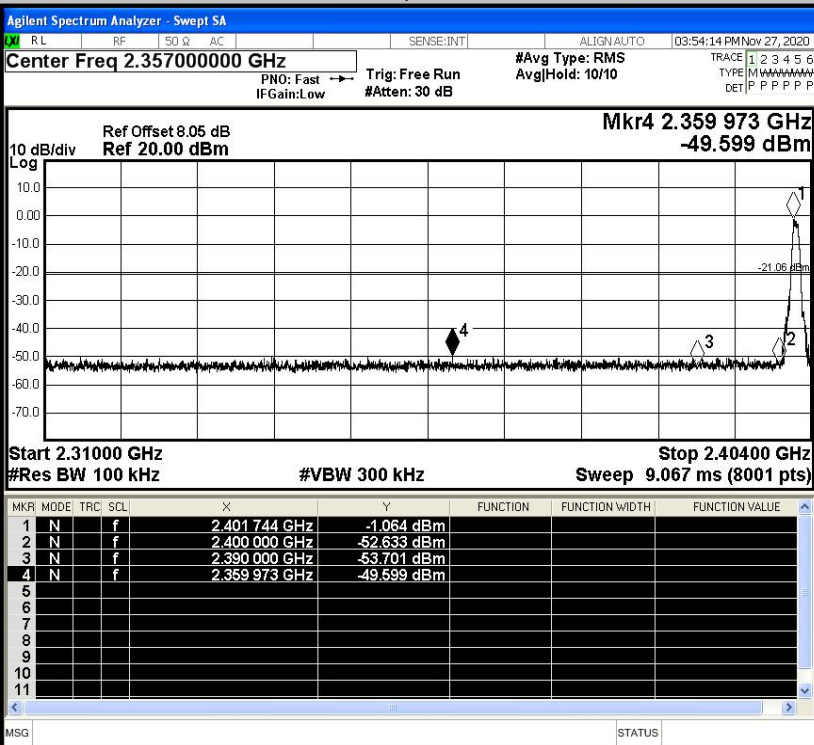
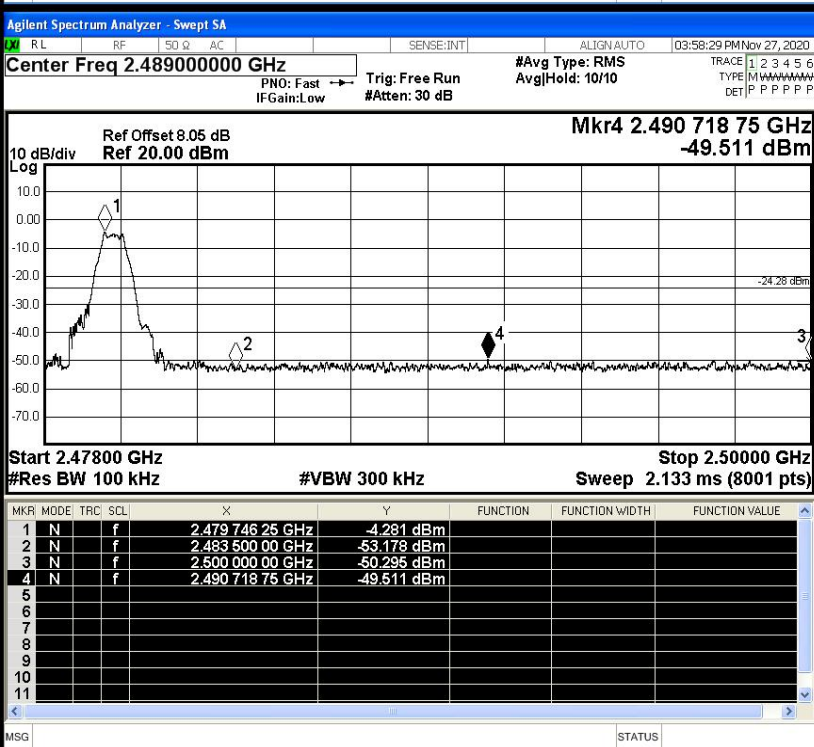
Puw/BT LE/HCH



### B.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-1.064	-49.599	-21.06	PASS
BT LE	HCH	-4.281	-49.511	-24.28	PASS

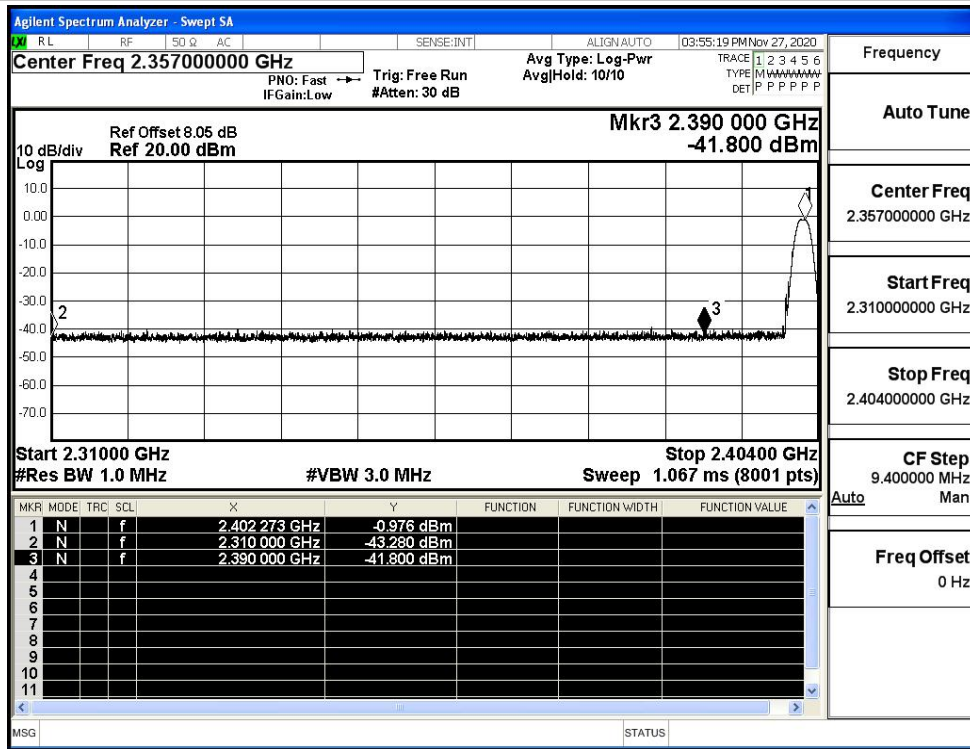
#### Test Graphs

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>
		<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>

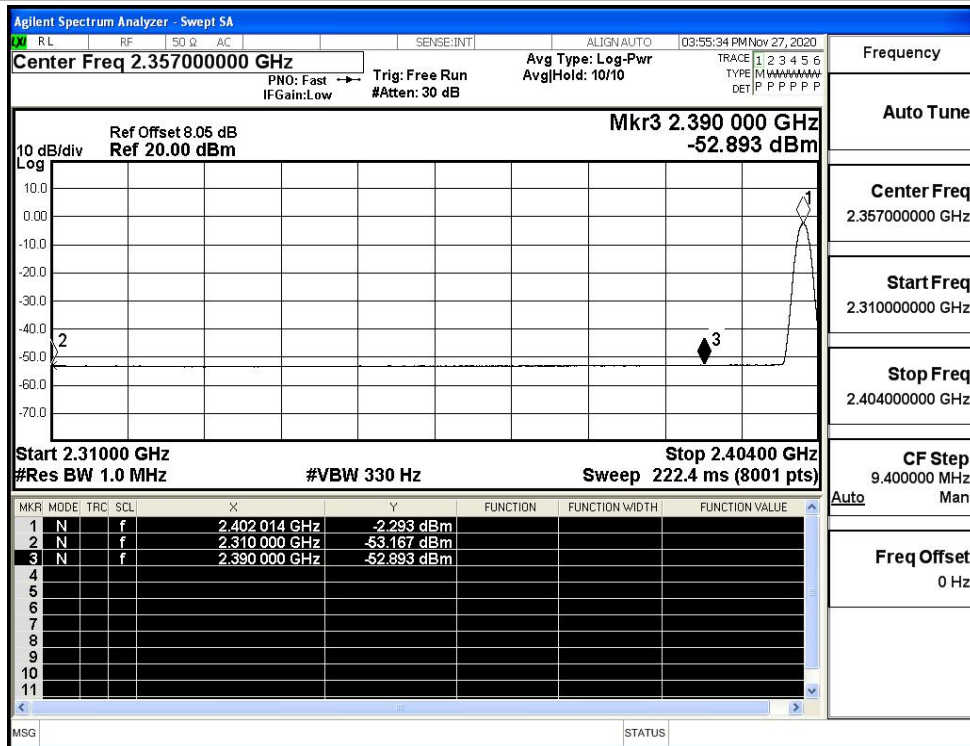
**B.7 Restrict-band band-edge measurements**

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	-43.28	2.0	0	51.98	PEAK	74	PASS
		Ant1	2310.0	-53.17	2.0	0	42.09	AV	54	PASS
		Ant1	2390.0	-41.80	2.0	0	53.46	PEAK	74	PASS
		Ant1	2390.0	-52.89	2.0	0	42.36	AV	54	PASS
	2480	Ant1	2483.5	-42.82	2.0	0	52.44	PEAK	74	PASS
		Ant1	2483.5	-52.52	2.0	0	42.74	AV	54	PASS
		Ant1	2500.0	-42.80	2.0	0	52.45	PEAK	74	PASS
		Ant1	2500.0	-52.38	2.0	0	42.88	AV	54	PASS

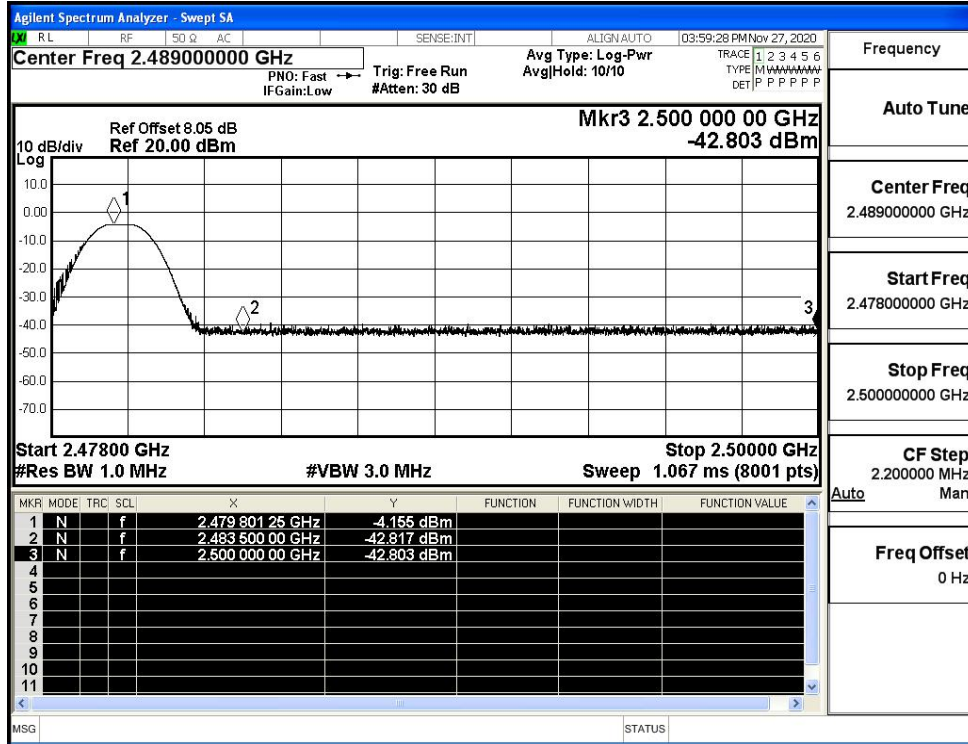
Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



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

