

## Appendix B

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

Product Name: AR GUN

Trade Mark: N/A

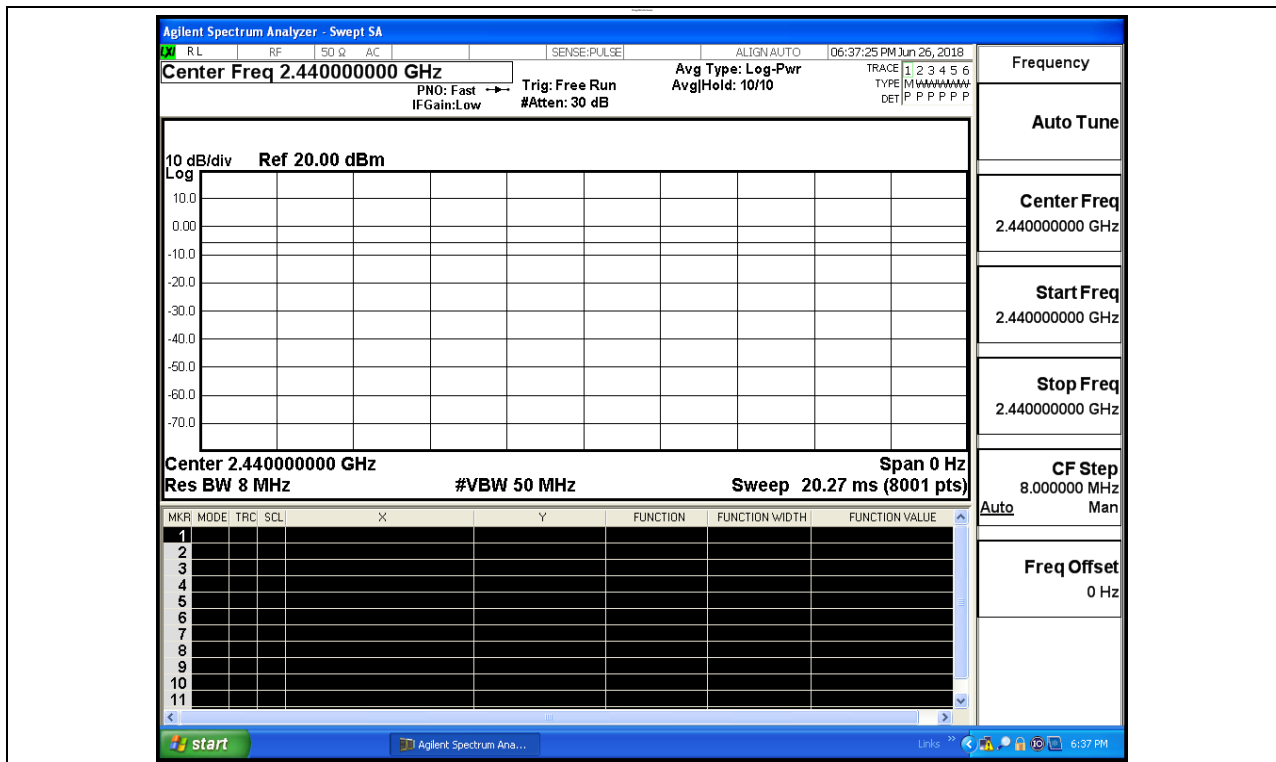
Test Model: G20C

#### Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	53.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Mina.Xu
Supervised by:	Jayden.Zhuo

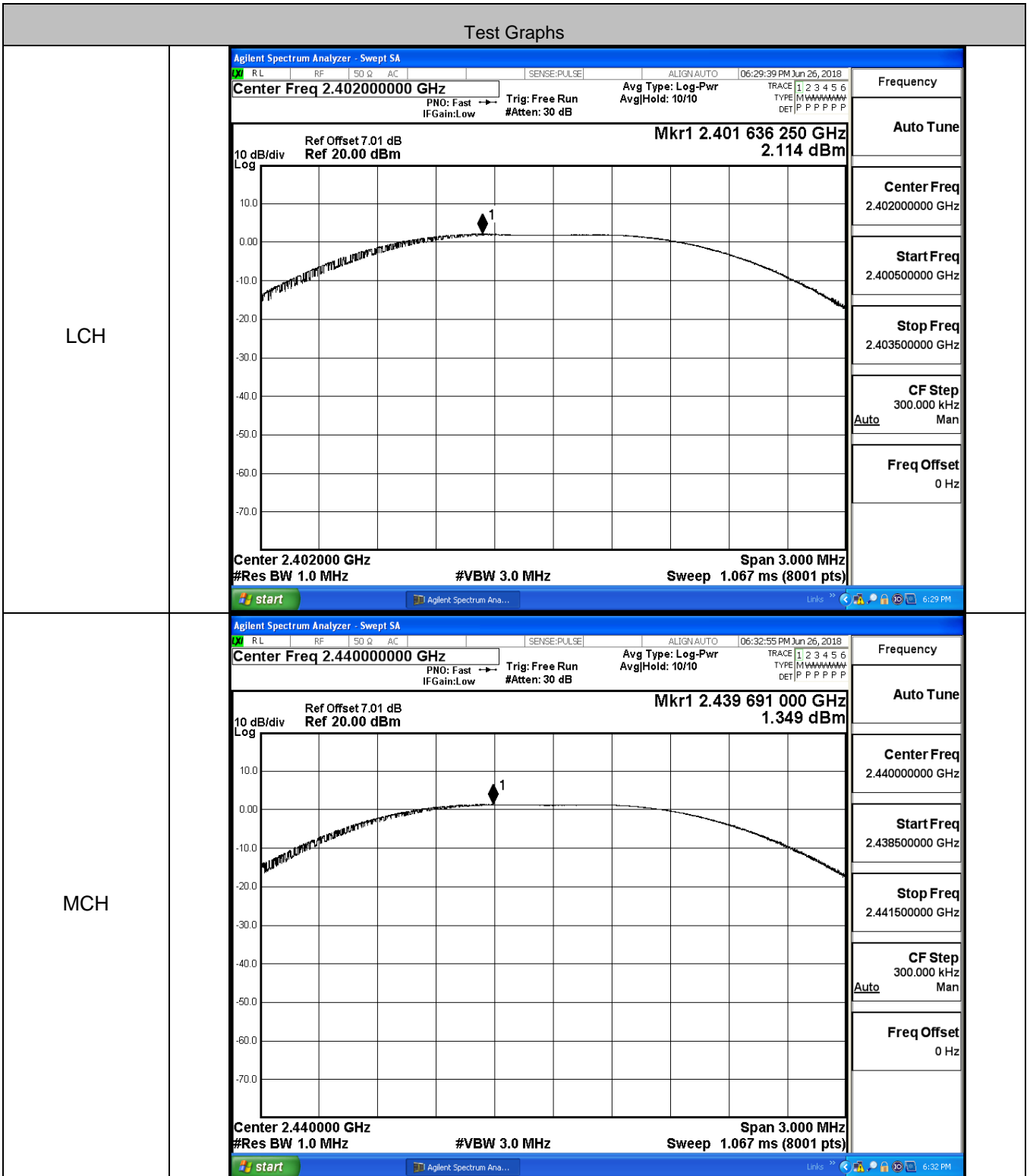
#### B.1 Duty Cycle

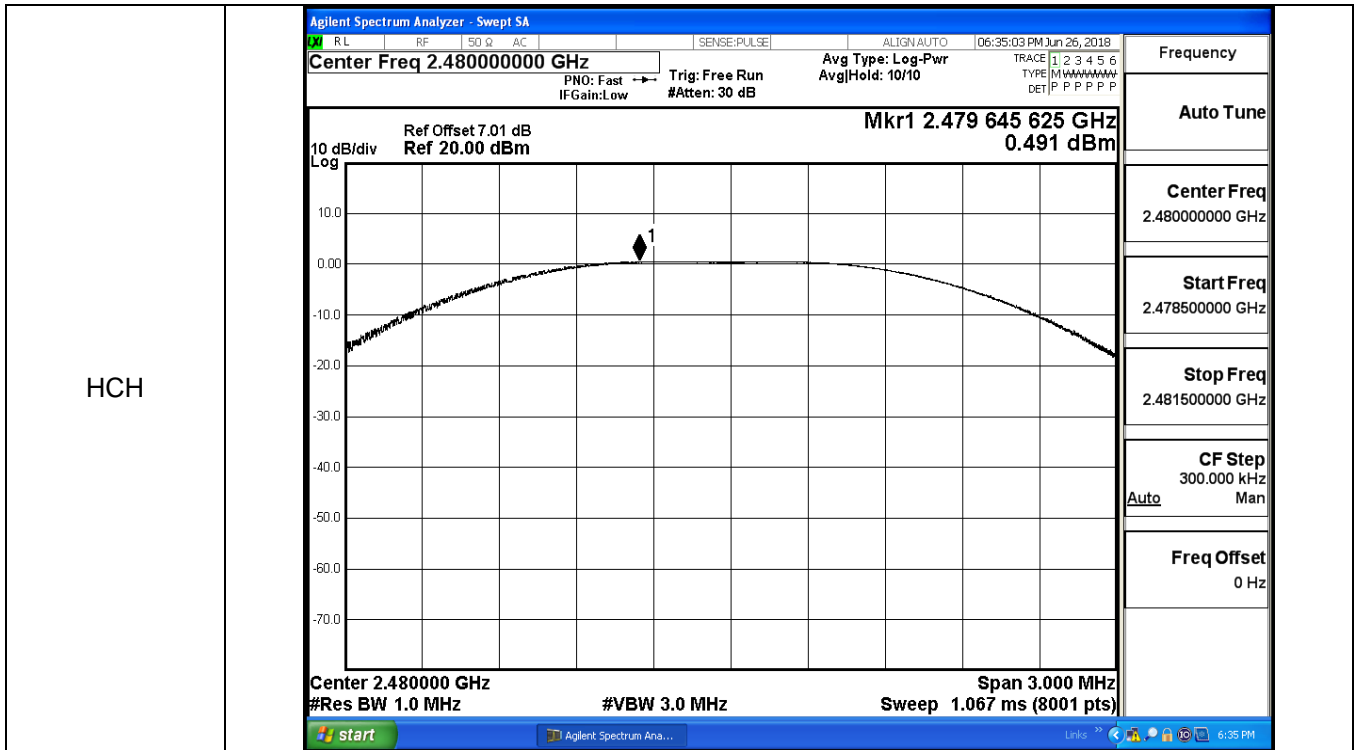
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS



### B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	2.114	30	PASS
BT LE	MCH	1.349	30	PASS
BT LE	HCH	0.491	30	PASS

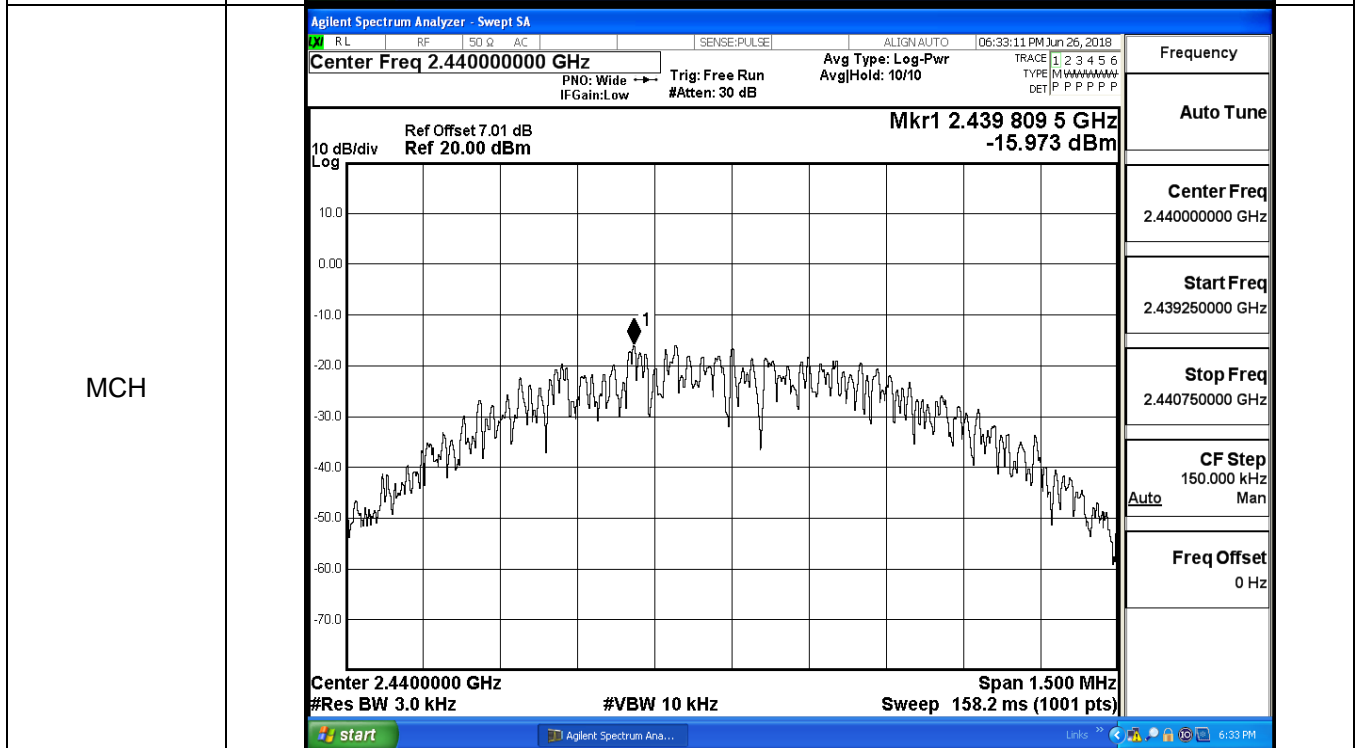
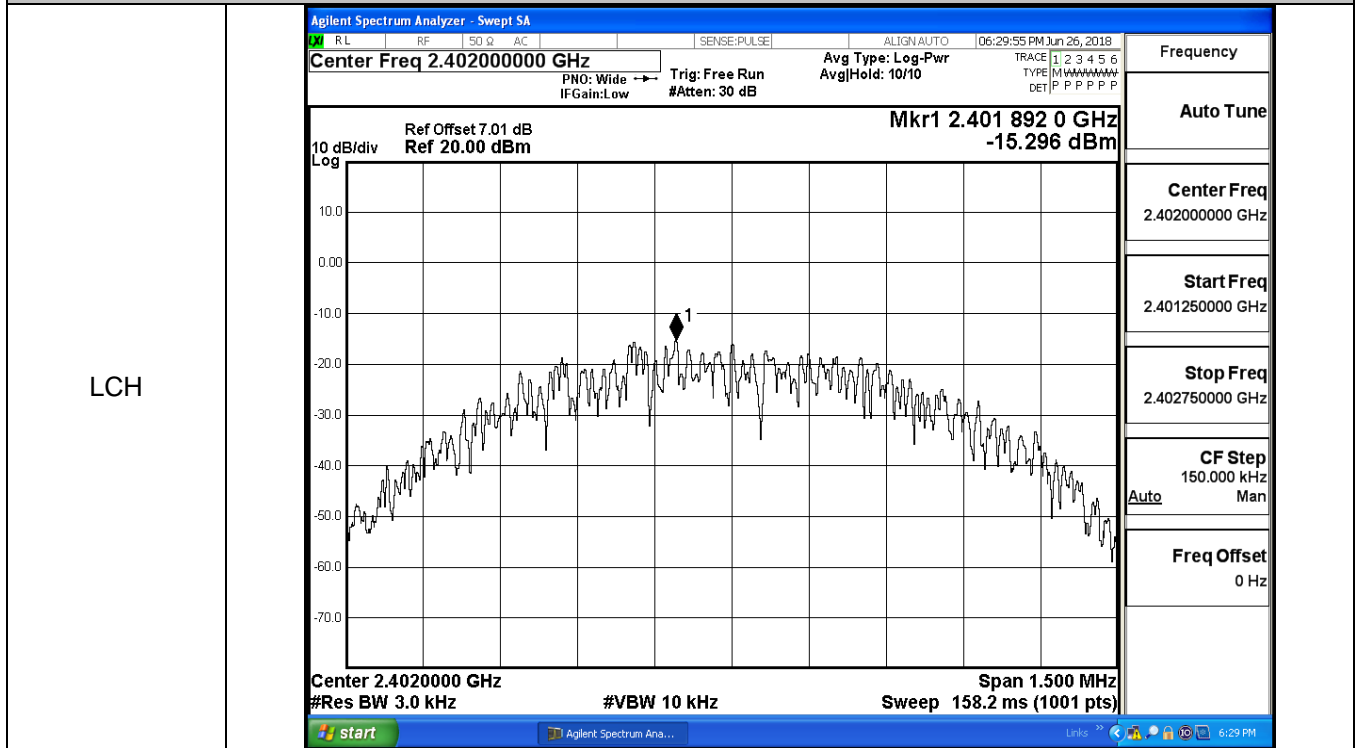


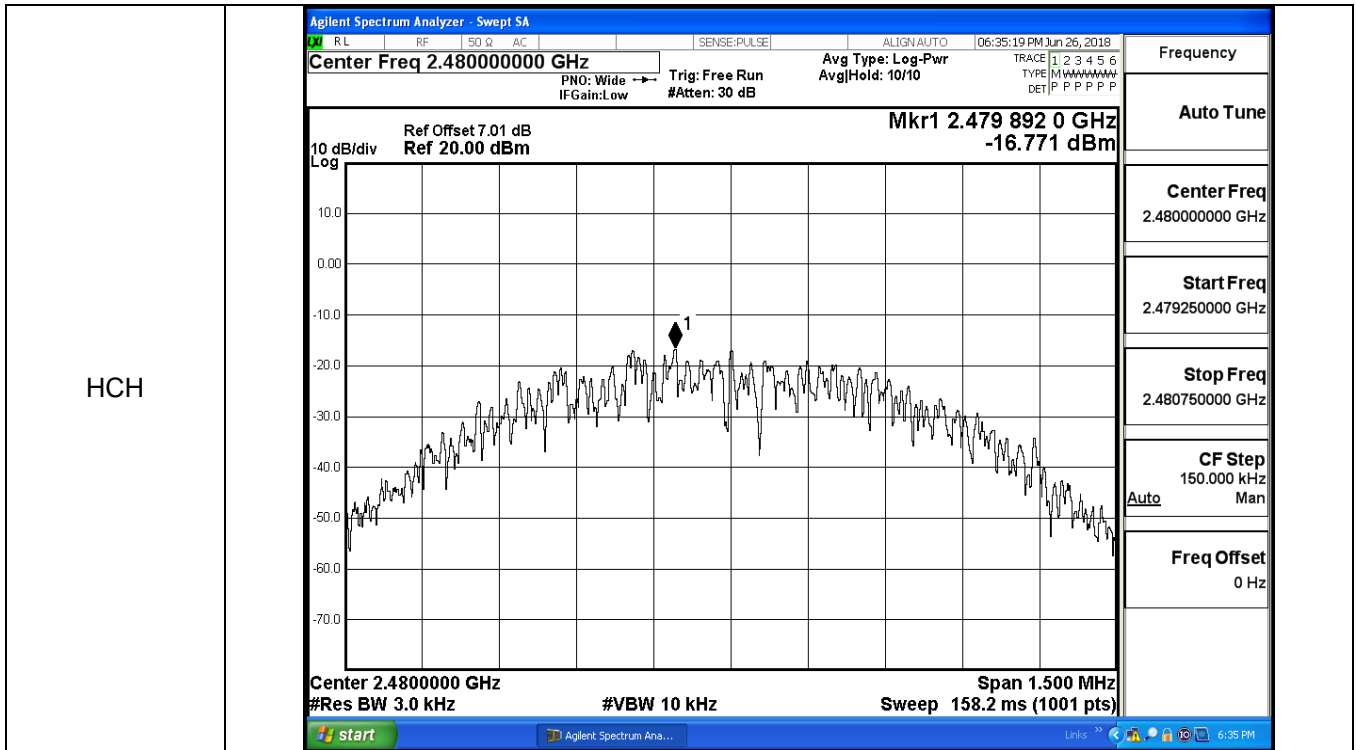


### B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-15.296	8	PASS
BT LE	MCH	-15.973	8	PASS
BT LE	HCH	-16.771	8	PASS

#### Test Graphs



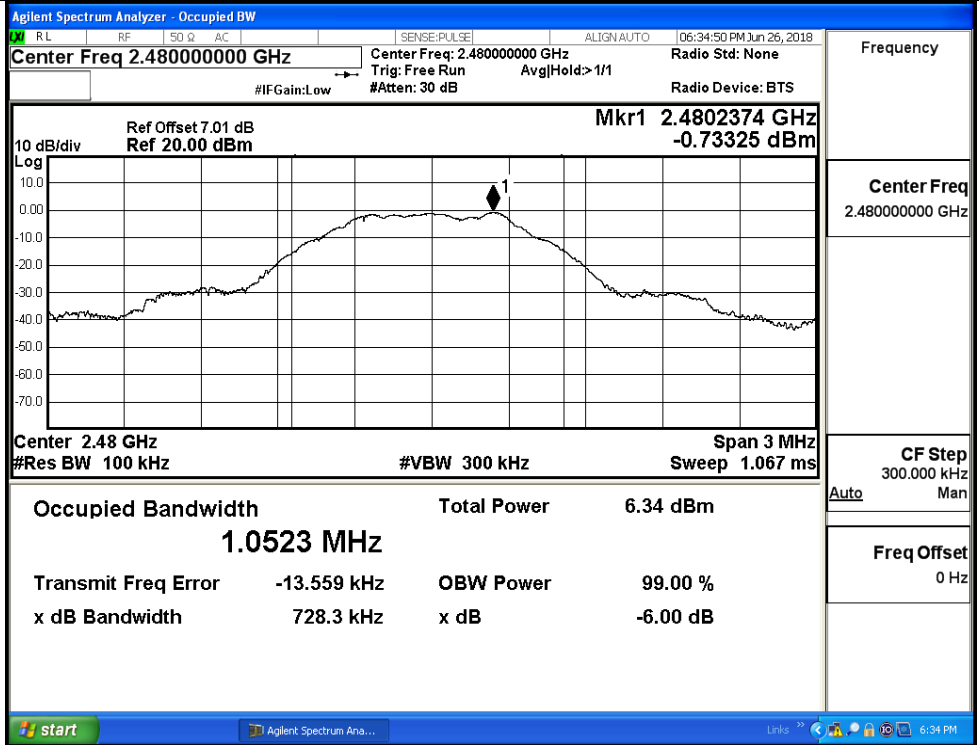


**B.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.7199	≥0.5	PASS
BT LE	MCH	0.7113	≥0.5	PASS
BT LE	HCH	0.7283	≥0.5	PASS

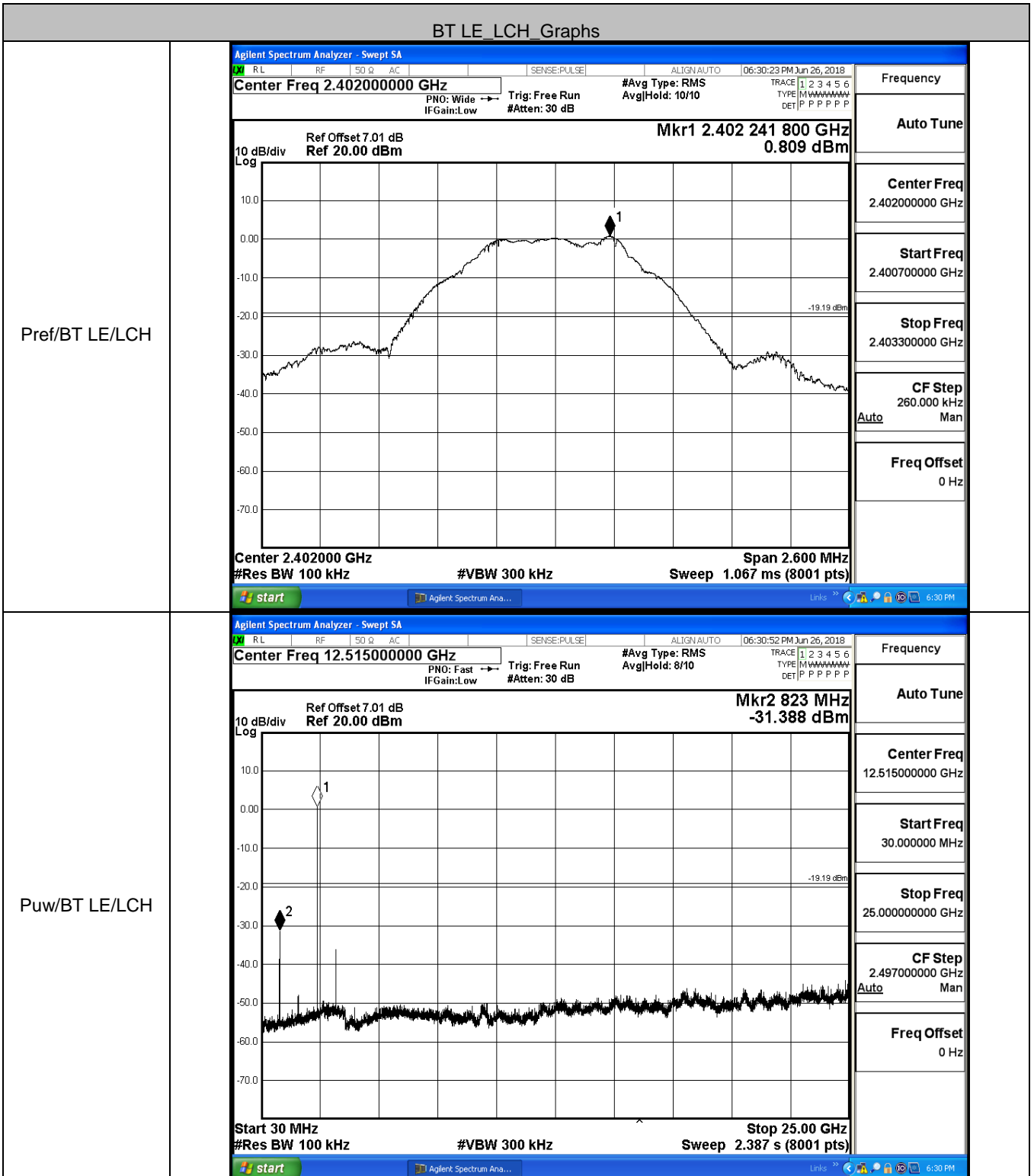
Test Graphs	
LCH	<p><b>Agilent Spectrum Analyzer - Occupied BW</b></p> <p>Center Freq: 2.40200000 GHz          Center Freq: 2.40200000 GHz          Radio Std: None          Trig: Free Run          Avg/Hold: 1/1          #IFGain: Low          #Atten: 30 dB          Radio Device: BTS</p> <p>Ref Offset 7.01 dB          Ref 20.00 dBm          Mkr1 2.402336 GHz          0.75479 dBm</p> <p>10 dB/div          Log</p> <p>Center 2.402 GHz          #Res BW 100 kHz          #VBW 300 kHz          Span 3 MHz          Sweep 1.067 ms</p> <p><b>Occupied Bandwidth</b>      <b>Total Power</b>      <b>7.85 dBm</b></p> <p><b>1.0718 MHz</b></p> <p><b>Transmit Freq Error</b>      <b>-19.763 kHz</b>      <b>OBW Power</b>      <b>99.00 %</b></p> <p><b>x dB Bandwidth</b>      <b>719.9 kHz</b>      <b>x dB</b>      <b>-6.00 dB</b></p> <p>start      Agilent Spectrum Ana...      Links      6:29 PM</p>
MCH	<p><b>Agilent Spectrum Analyzer - Occupied BW</b></p> <p>Center Freq: 2.44000000 GHz          Center Freq: 2.44000000 GHz          Radio Std: None          Trig: Free Run          Avg/Hold: 1/1          #IFGain: Low          #Atten: 30 dB          Radio Device: BTS</p> <p>Ref Offset 7.01 dB          Ref 20.00 dBm          Mkr1 2.4402374 GHz          0.12223 dBm</p> <p>10 dB/div          Log</p> <p>Center 2.44 GHz          #Res BW 100 kHz          #VBW 300 kHz          Span 3 MHz          Sweep 1.067 ms</p> <p><b>Occupied Bandwidth</b>      <b>Total Power</b>      <b>7.20 dBm</b></p> <p><b>1.0519 MHz</b></p> <p><b>Transmit Freq Error</b>      <b>-13.378 kHz</b>      <b>OBW Power</b>      <b>99.00 %</b></p> <p><b>x dB Bandwidth</b>      <b>711.3 kHz</b>      <b>x dB</b>      <b>-6.00 dB</b></p> <p>start      Agilent Spectrum Ana...      Links      6:32 PM</p>

HCH



### B.5 RF Conducted Spurious Emissions

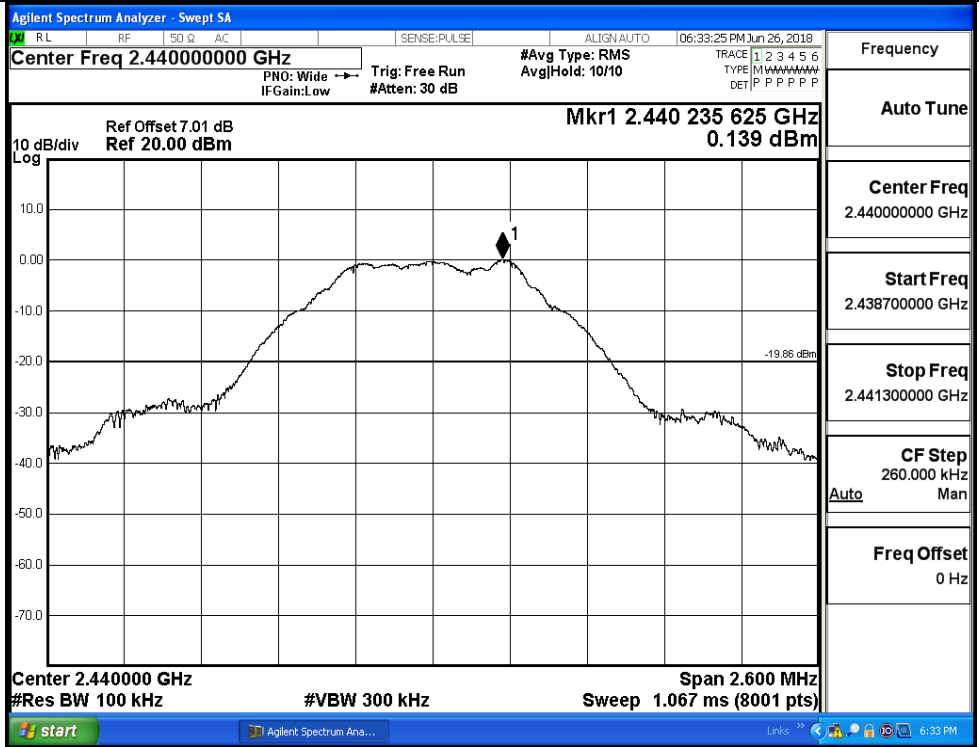
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	0.809	-31.388	-19.191	PASS
BT LE	MCH	0.139	-35.372	-19.861	PASS
BT LE	HCH	-0.779	-35.371	-20.779	PASS



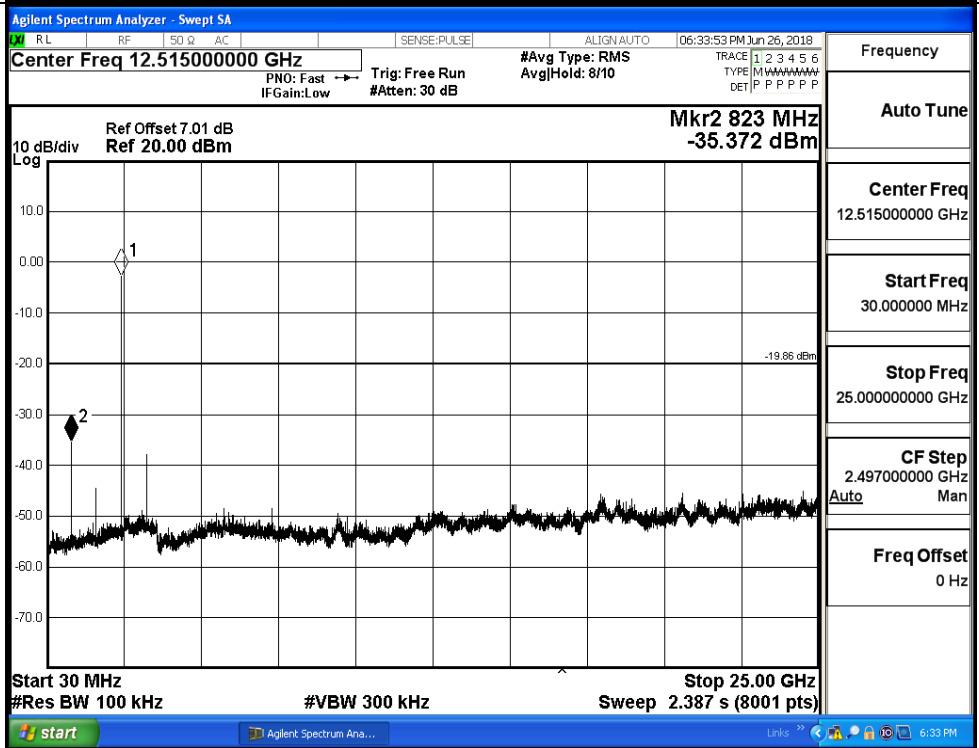


BT LE\_MCH\_Graphs

Pref/BT LE/MCH

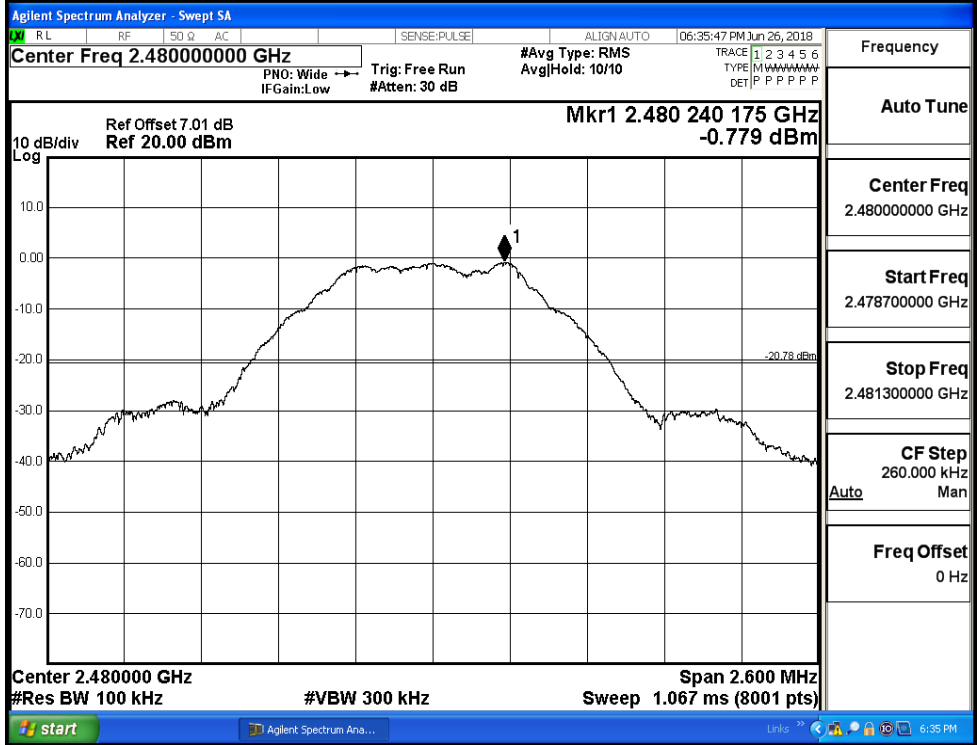


Puw/BT LE/MCH

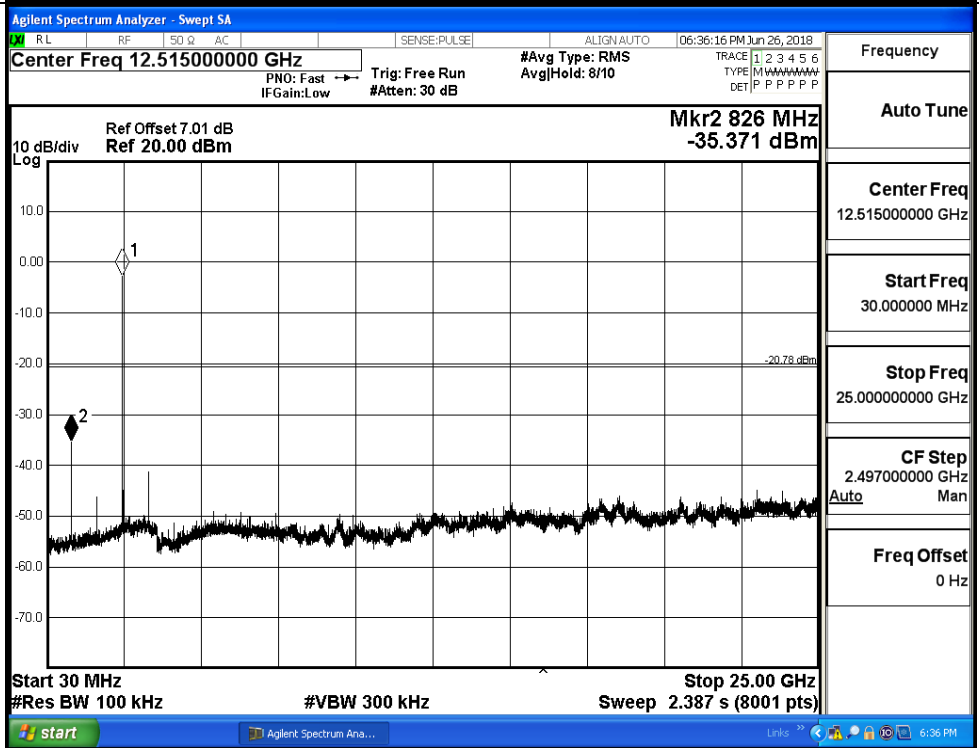


BT LE\_HCH\_Graphs

Pref/BT LE/HCH



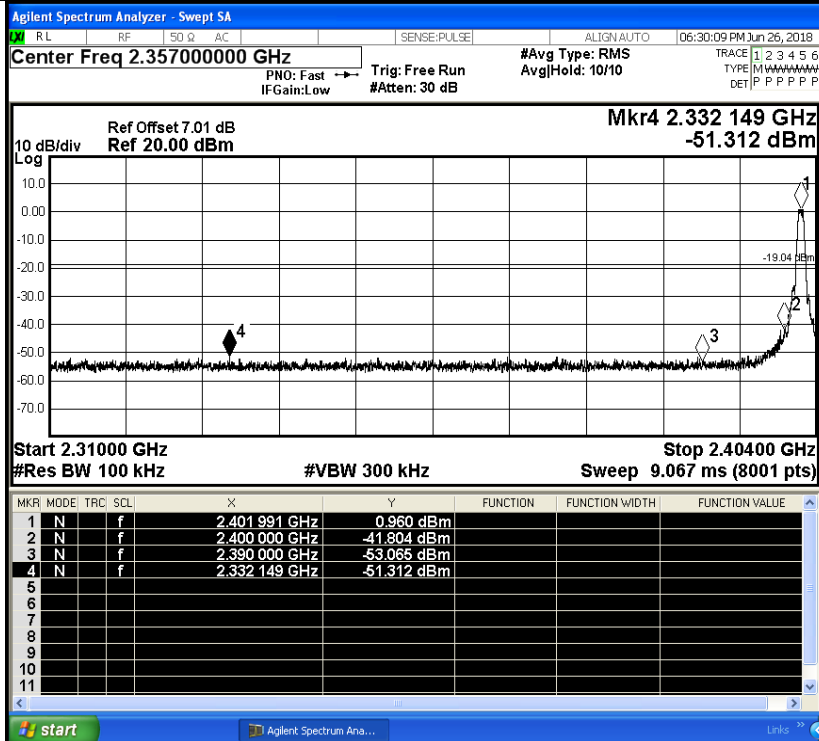
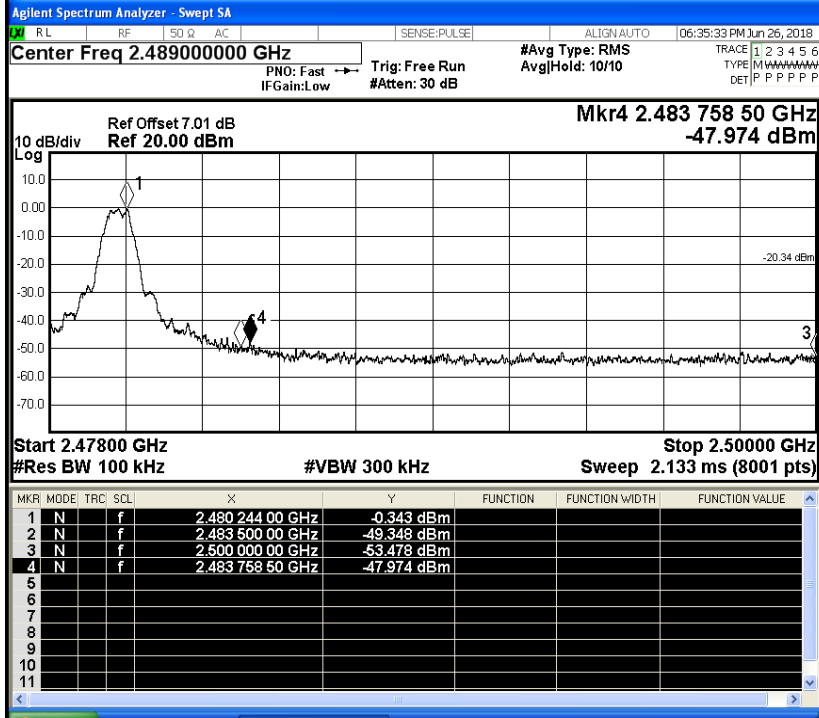
Puw/BT LE/HCH



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

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	0.960	-51.312	-19.04	PASS
BT LE	HCH	-0.343	-47.974	-20.34	PASS

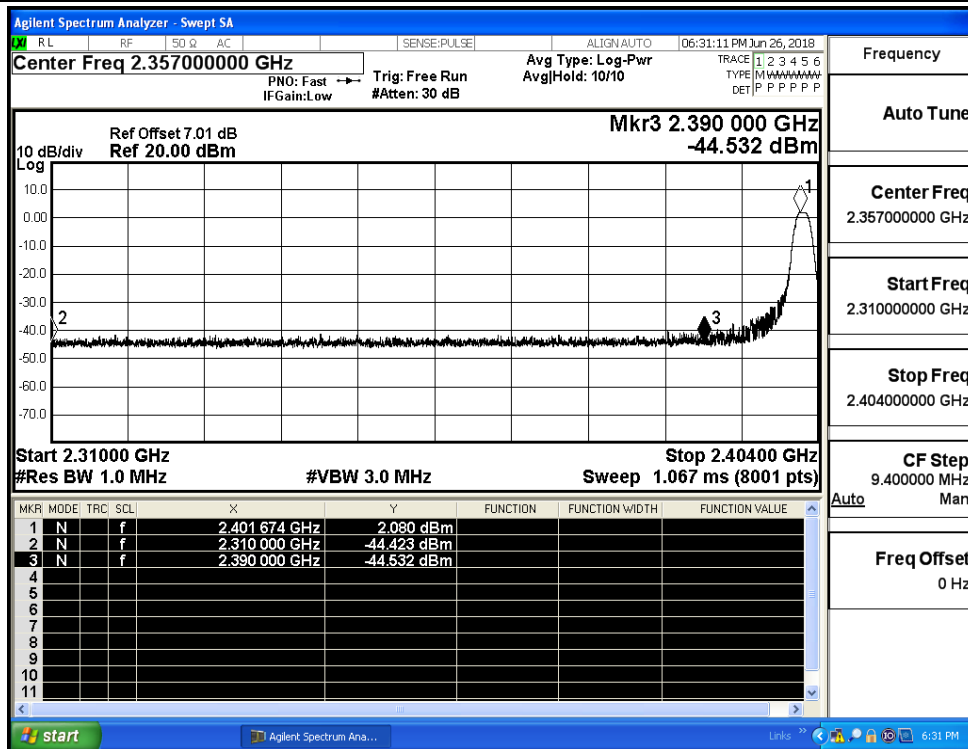
Test Graphs

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>

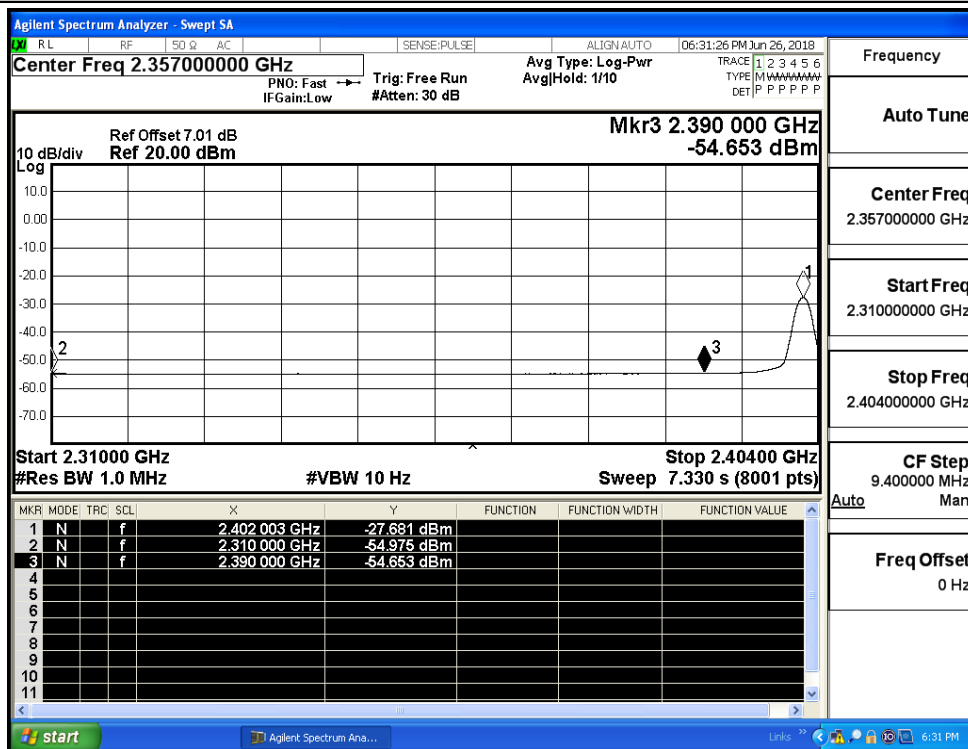
**B.7 Restrict-band band-edge measurements**

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	-44.42	2.0	0	52.83	PEAK	74	PASS
		Ant1	2310.0	-54.98	2.0	0	42.28	AV	54	PASS
		Ant1	2390.0	-44.53	2.0	0	52.73	PEAK	74	PASS
		Ant1	2390.0	-54.65	2.0	0	42.60	AV	54	PASS
	2480	Ant1	2483.5	-39.47	2.0	0	57.79	PEAK	74	PASS
		Ant1	2483.5	-52.90	2.0	0	44.36	AV	54	PASS
		Ant1	2500.0	-43.93	2.0	0	53.33	PEAK	74	PASS
		Ant1	2500.0	-54.36	2.0	0	42.90	AV	54	PASS

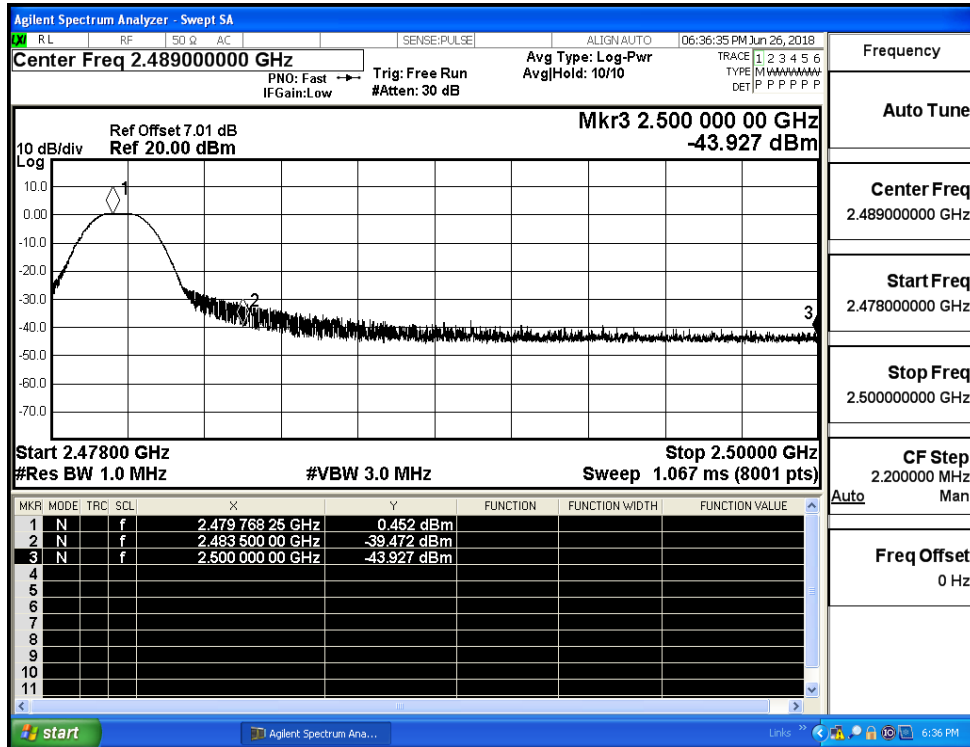
Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



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

