

## Appendix B

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

Product Name: Bluetooth remote controller

Trade Mark: GUIDE

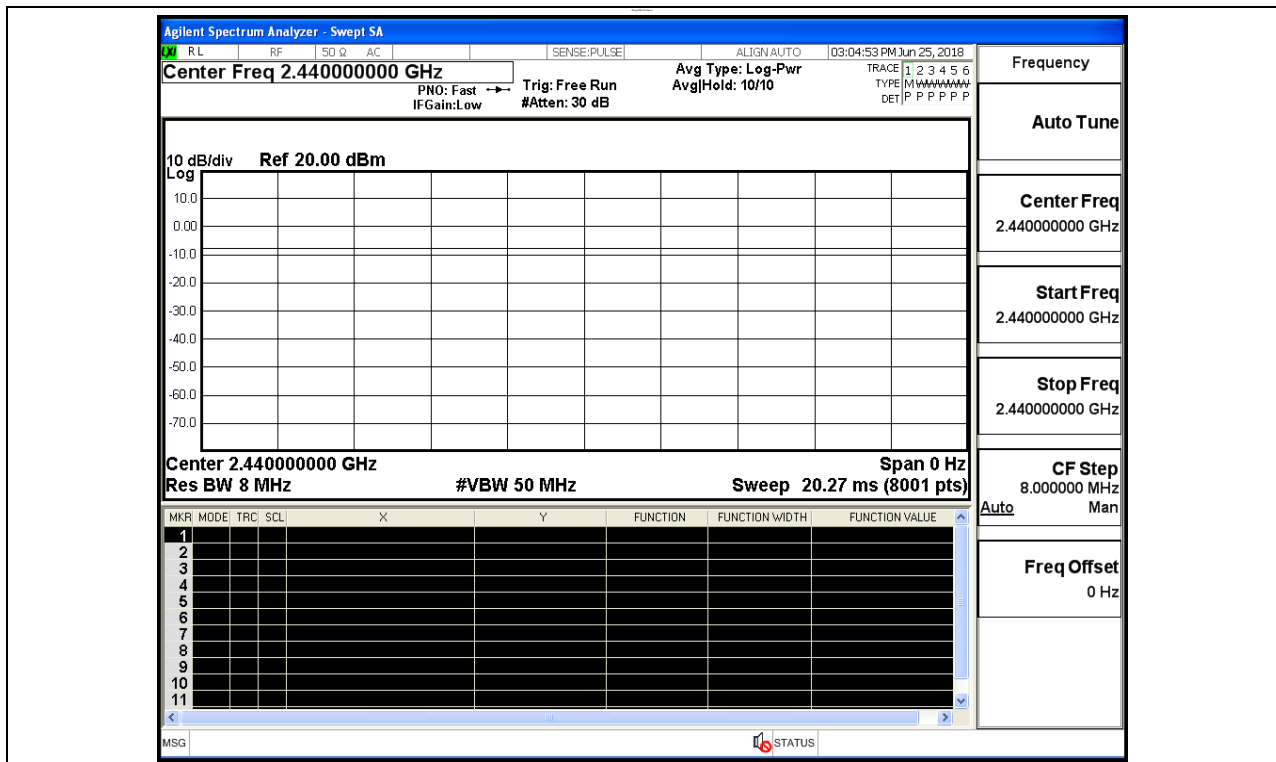
Test Model: RC01

#### Environmental Conditions

Temperature:	22.2 °C
Relative Humidity:	53.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Mina.Xu
Supervised by:	Jayden.Zhuo

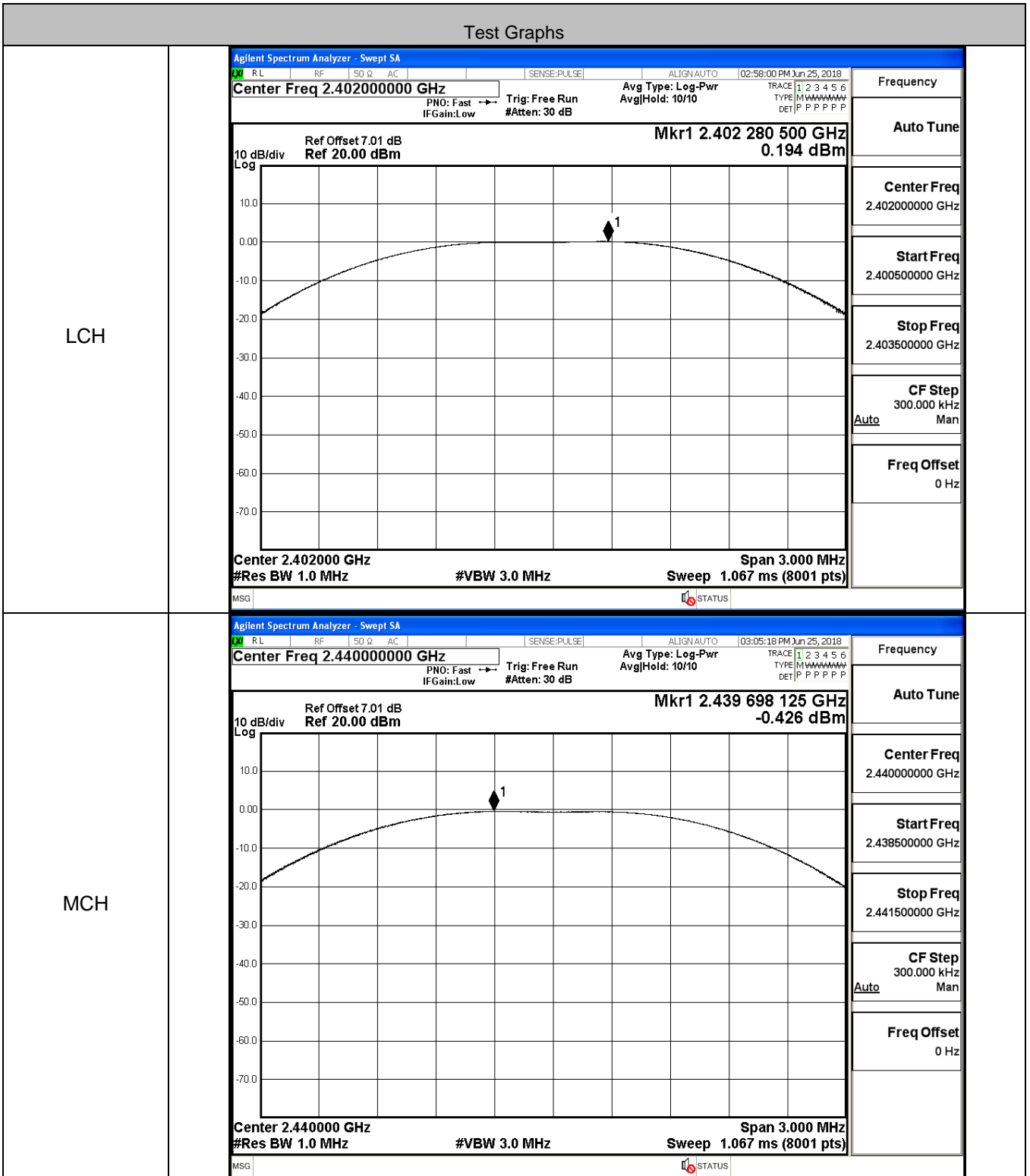
#### A.1 Duty Cycle

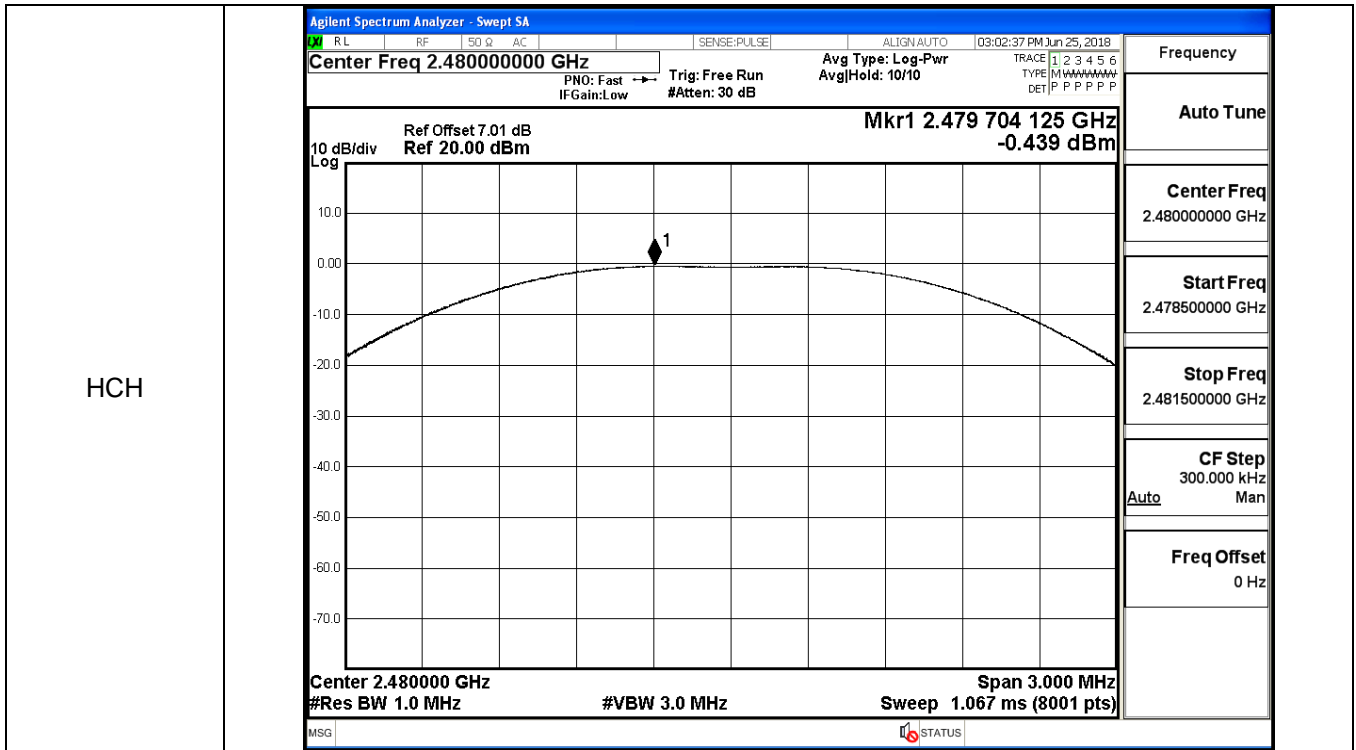
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS



### A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	0.194	30	PASS
BT LE	MCH	-0.426	30	PASS
BT LE	HCH	-0.439	30	PASS

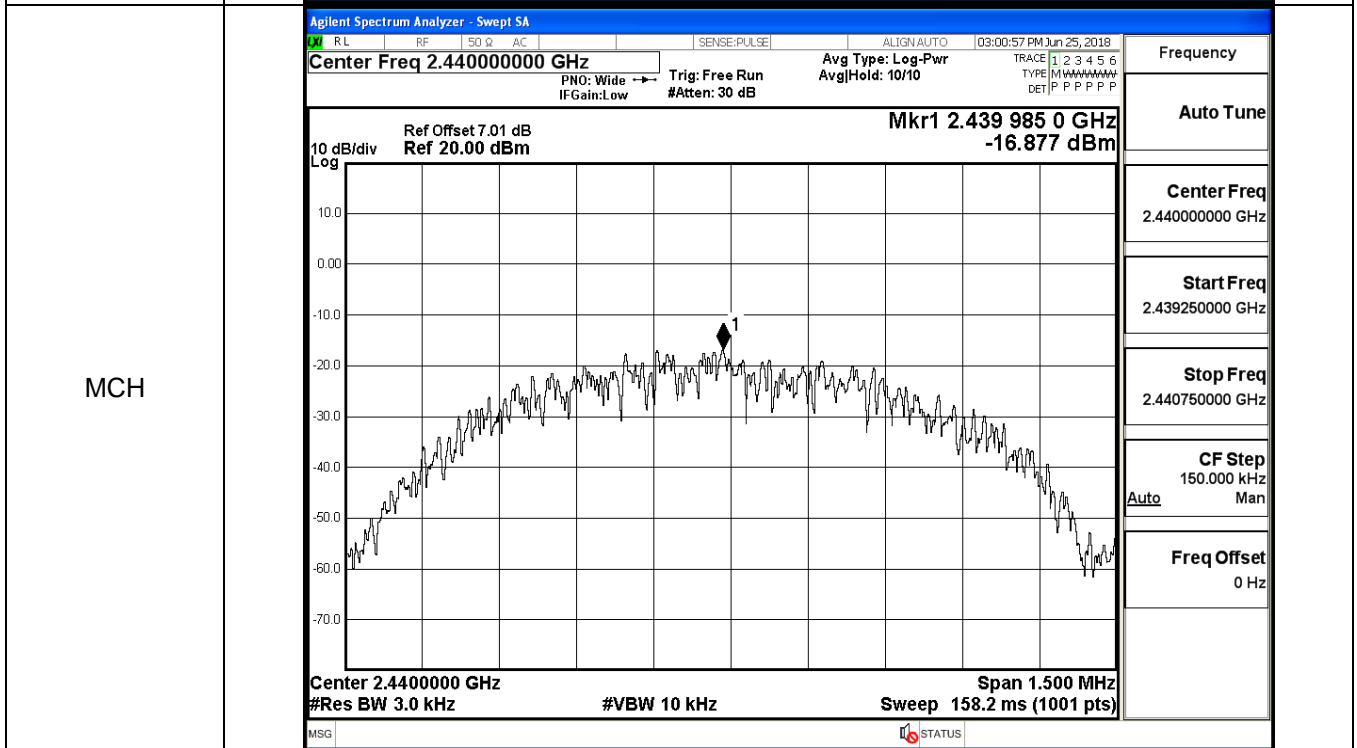
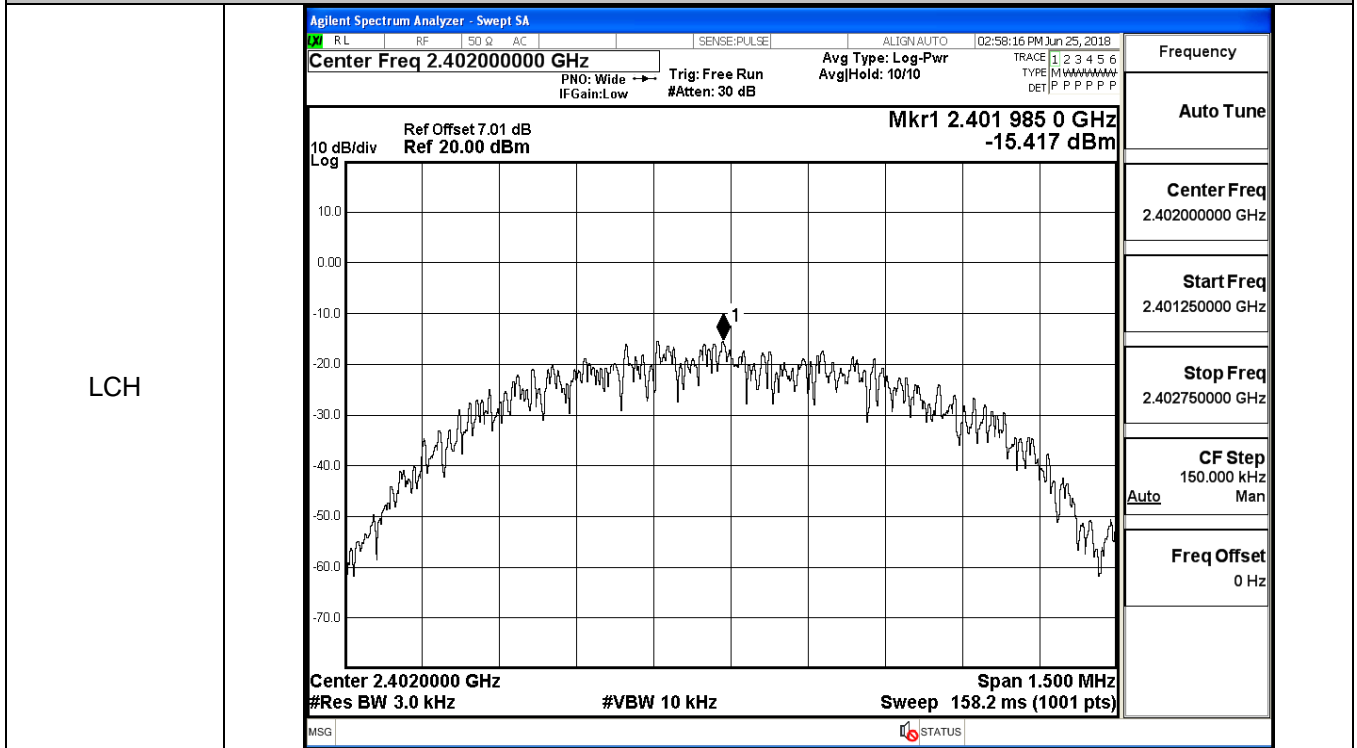




### A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-15.417	8	PASS
BT LE	MCH	-16.877	8	PASS
BT LE	HCH	-15.700	8	PASS

#### Test Graphs

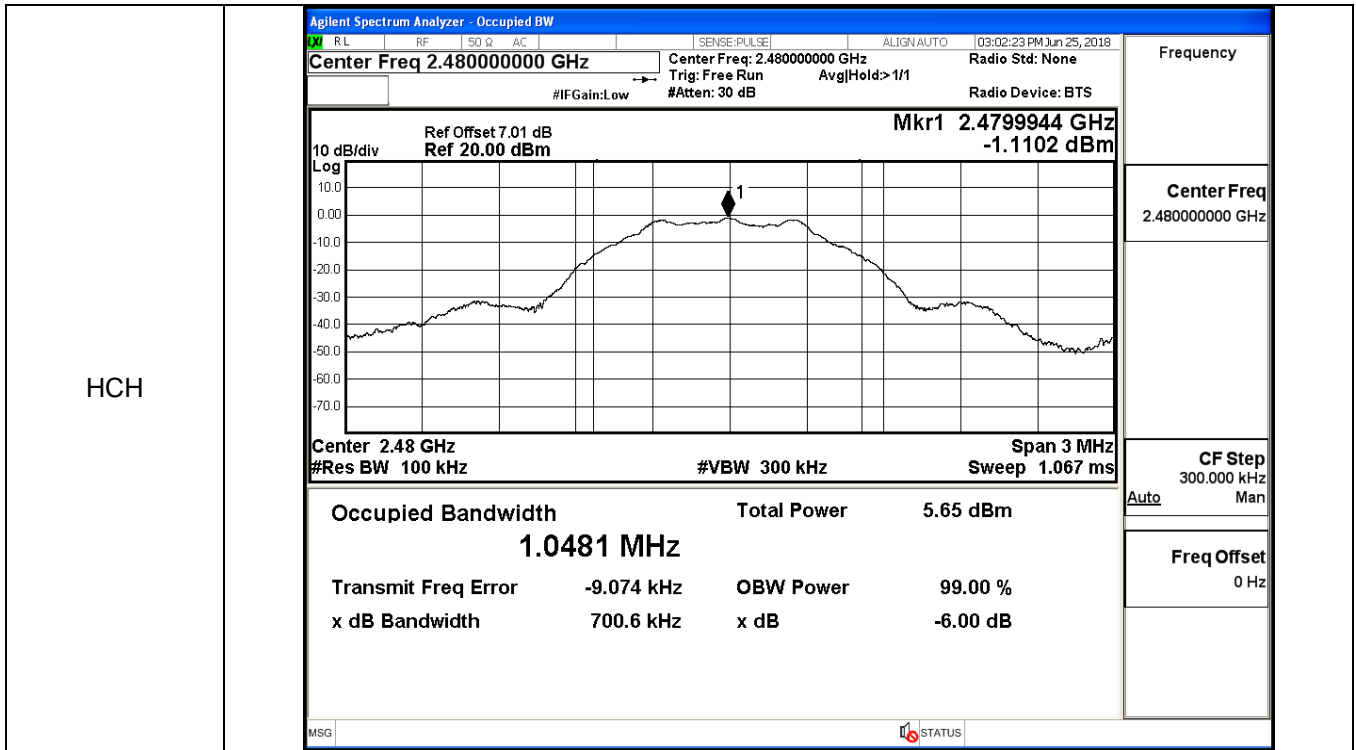




**A.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6934	≥0.5	PASS
BT LE	MCH	0.6948	≥0.5	PASS
BT LE	HCH	0.7006	≥0.5	PASS

Test Graphs	
LCH	<div data-bbox="416 562 1390 1294"> <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.402000000 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 7.01 dB    Mkr1 2.4019959 GHz</p> <p>Ref 20.00 dBm    -2.3650 dBm</p> <p>Center 2.402 GHz    Span 3 MHz</p> <p>#Res BW 100 kHz    #VBW 300 kHz    Sweep 1.067 ms</p> <p>Occupied Bandwidth    Total Power    4.33 dBm</p> <p><b>1.0446 MHz</b></p> <p>Transmit Freq Error    -935 Hz    OBW Power    99.00 %</p> <p>x dB Bandwidth    693.4 kHz    x dB    -6.00 dB</p> <p>MSG    STATUS</p> </div>
MCH	<div data-bbox="416 1305 1390 2042"> <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.440000000 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 7.01 dB    Mkr1 2.4399906 GHz</p> <p>Ref 20.00 dBm    0.70923 dBm</p> <p>Center 2.44 GHz    Span 3 MHz</p> <p>#Res BW 100 kHz    #VBW 300 kHz    Sweep 1.067 ms</p> <p>Occupied Bandwidth    Total Power    7.48 dBm</p> <p><b>1.0436 MHz</b></p> <p>Transmit Freq Error    -9.253 kHz    OBW Power    99.00 %</p> <p>x dB Bandwidth    694.8 kHz    x dB    -6.00 dB</p> <p>MSG    STATUS</p> </div>



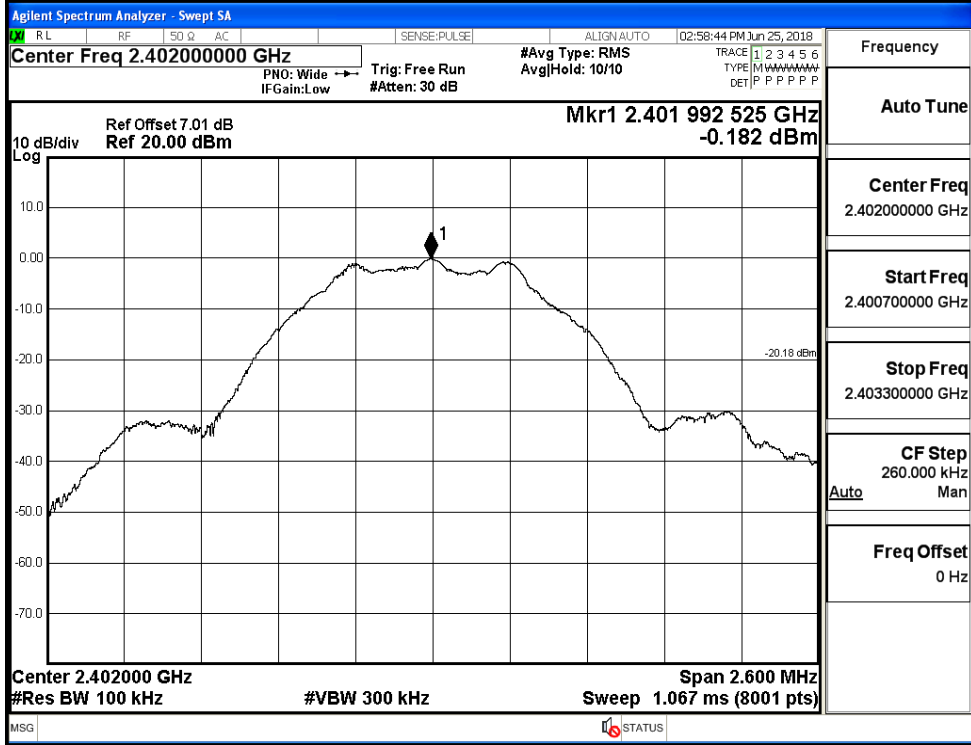
**A.5 RF Conducted Spurious Emissions**

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.182	-44.946	-20.182	PASS
BT LE	MCH	-1.749	-44.776	-21.749	PASS
BT LE	HCH	-0.784	-45.686	-20.784	PASS

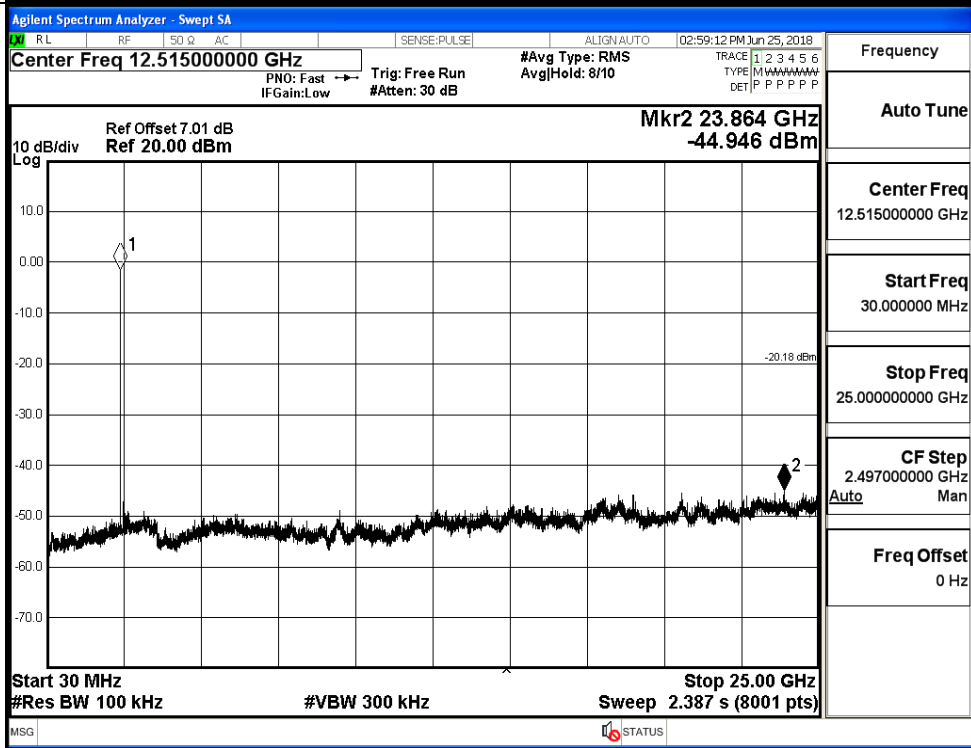


BT LE\_LCH\_Graphs

Pref/BT LE/LCH

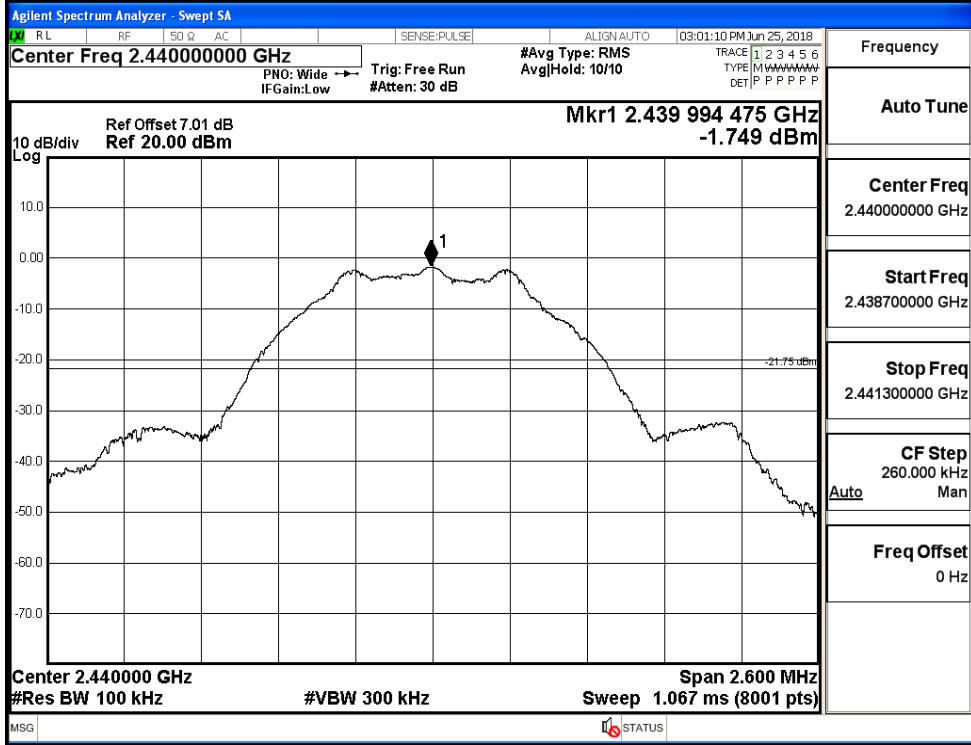


Puw/BT LE/LCH

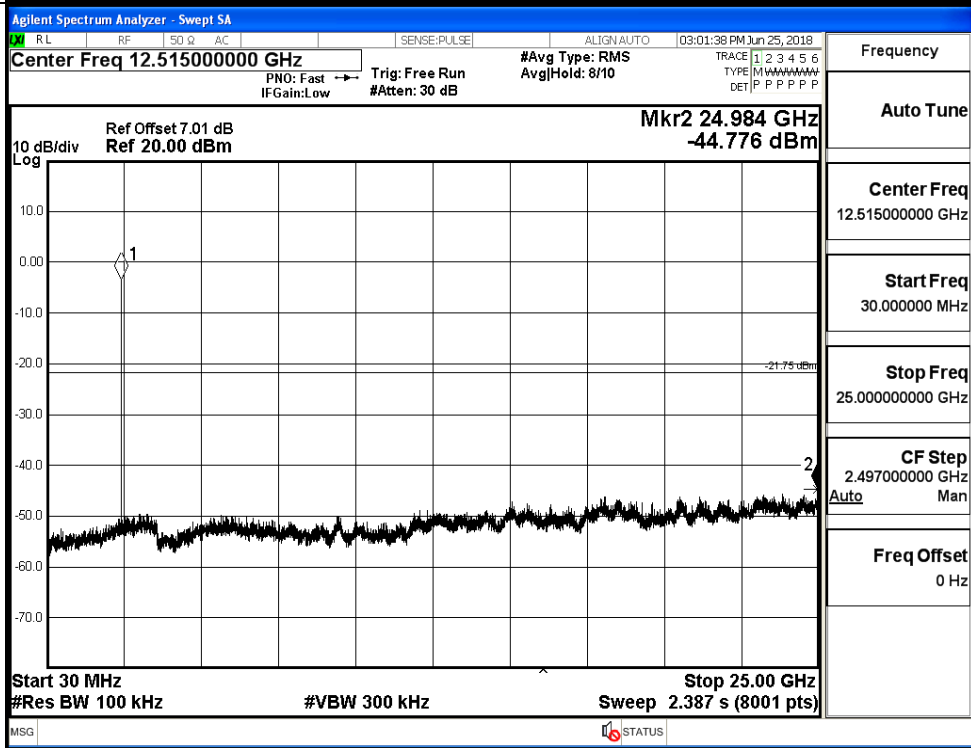


BT LE\_MCH\_Graphs

Pref/BT LE/MCH

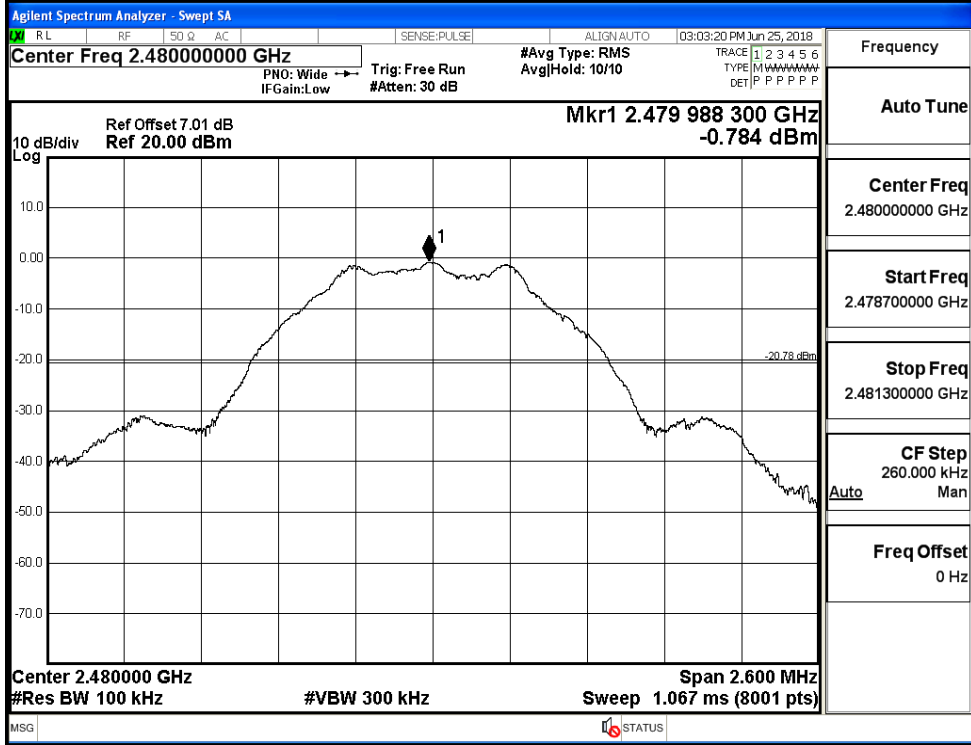


Puw/BT LE/MCH

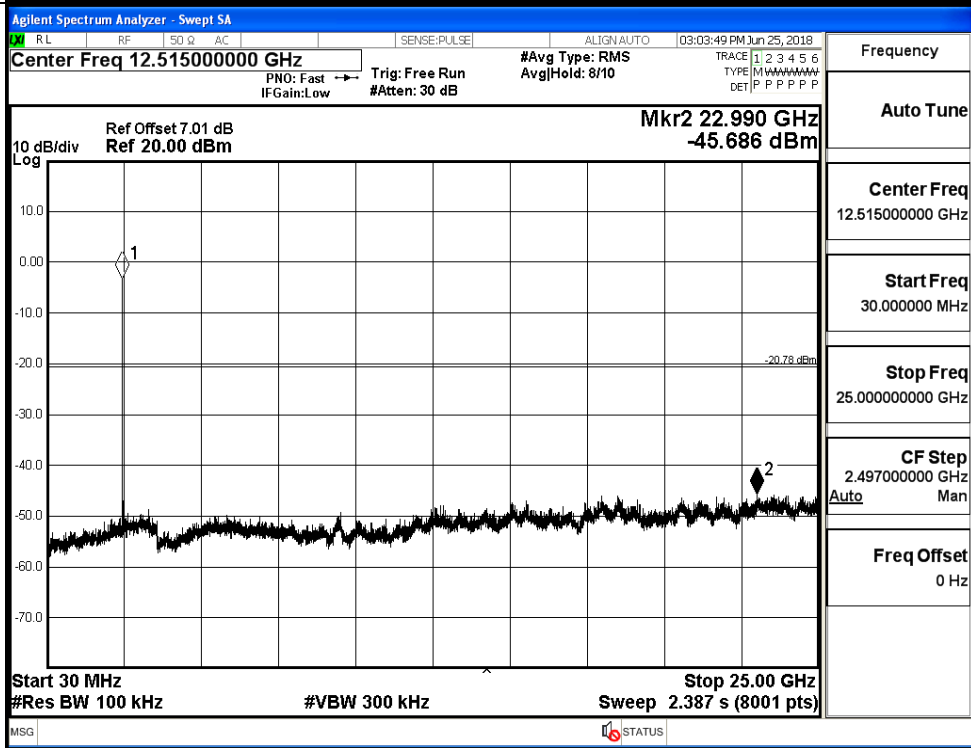


BT LE\_HCH\_Graphs

Pref/BT LE/HCH



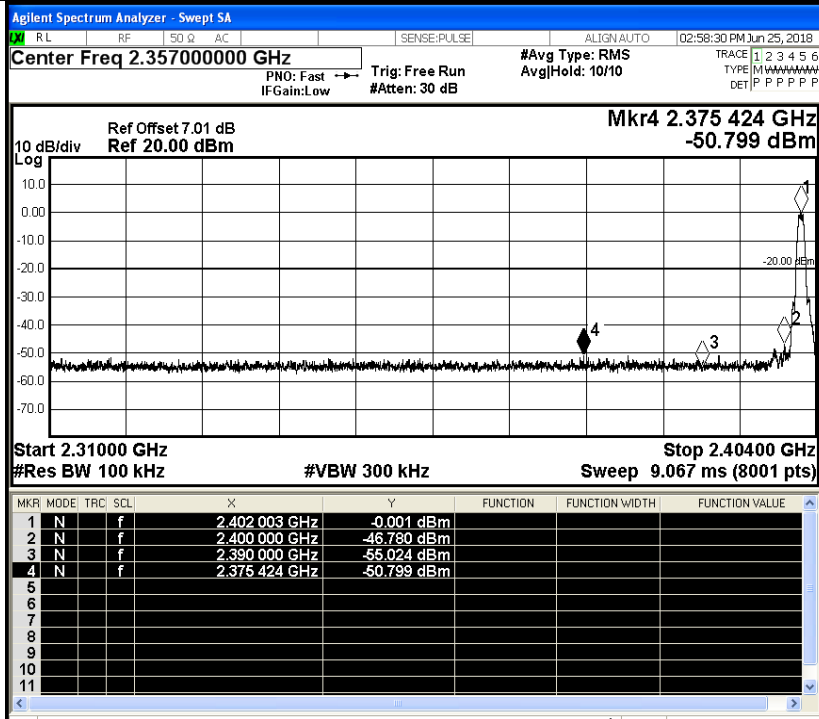
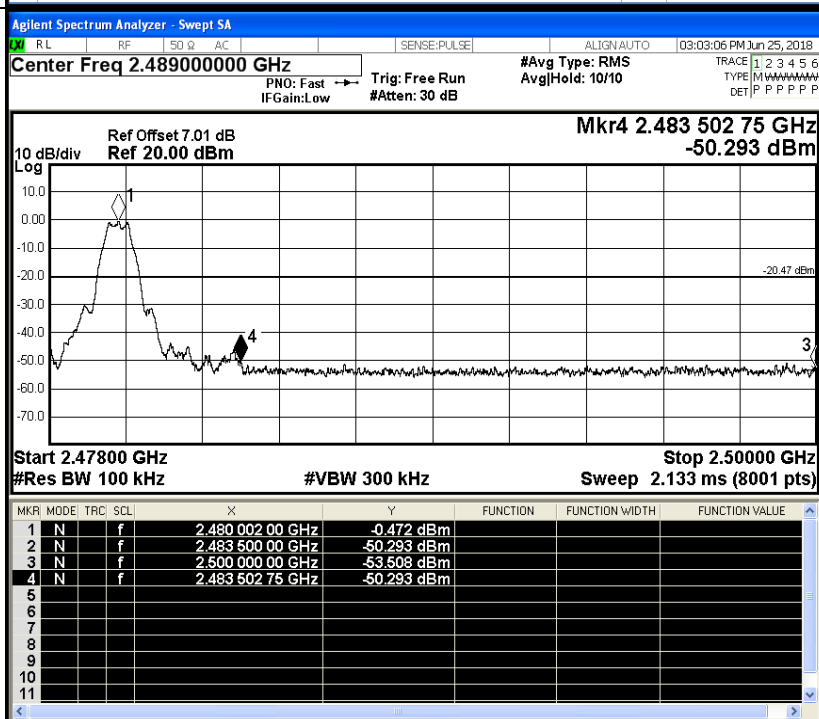
Puw/BT LE/HCH



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

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.001	-50.799	-20	PASS
BT LE	HCH	-0.472	-50.293	-20.47	PASS

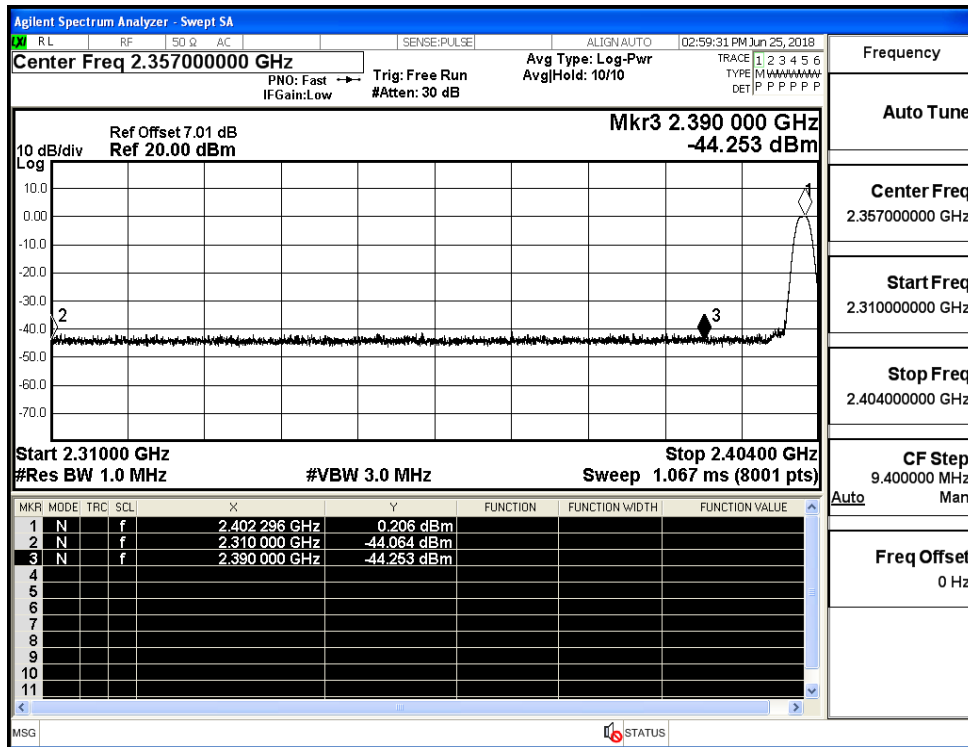
Test Graphs

LCH		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.357000000 GHz</p> <p>Start Freq 2.310000000 GHz</p> <p>Stop Freq 2.404000000 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 2.489000000 GHz</p> <p>Start Freq 2.478000000 GHz</p> <p>Stop Freq 2.500000000 GHz</p> <p>CF Step 2.200000 MHz</p> <p>Freq Offset 0 Hz</p>

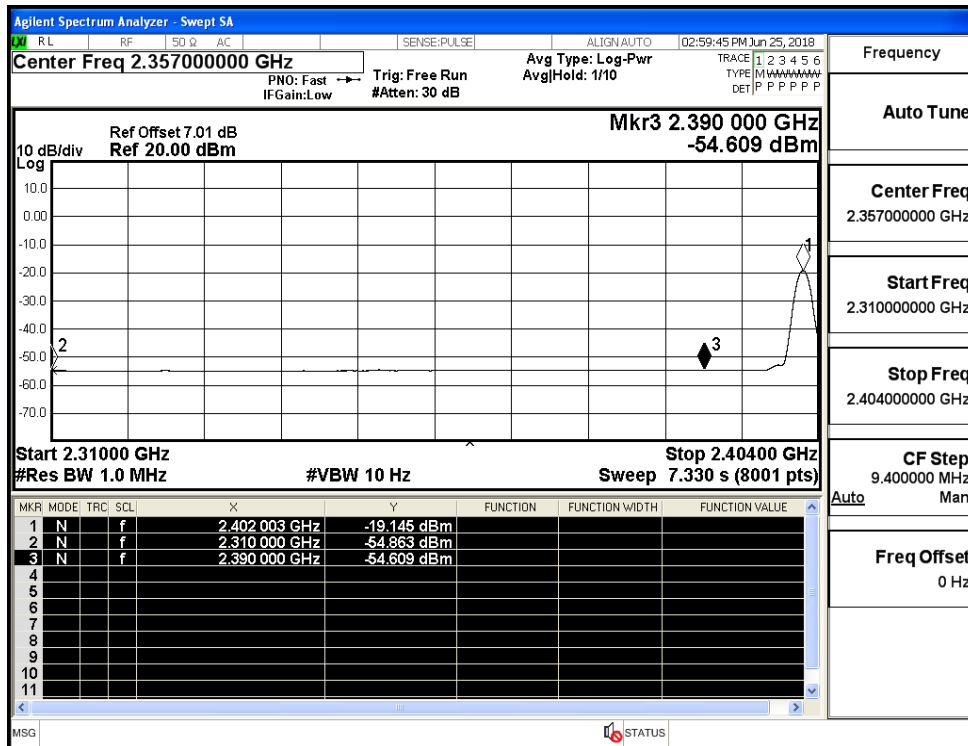
## A.7 Restrict-band band-edge measurements

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	-44.06	2.0	0	53.19	PEAK	74	PASS
		Ant1	2310.0	-54.86	2.0	0	42.39	AV	54	PASS
		Ant1	2390.0	-44.25	2.0	0	53.00	PEAK	74	PASS
		Ant1	2390.0	-54.61	2.0	0	42.65	AV	54	PASS
	2480	Ant1	2483.5	-39.66	2.0	0	57.59	PEAK	74	PASS
		Ant1	2483.5	-52.99	2.0	0	44.27	AV	54	PASS
		Ant1	2500.0	-43.57	2.0	0	53.68	PEAK	74	PASS
		Ant1	2500.0	-54.38	2.0	0	42.88	AV	54	PASS

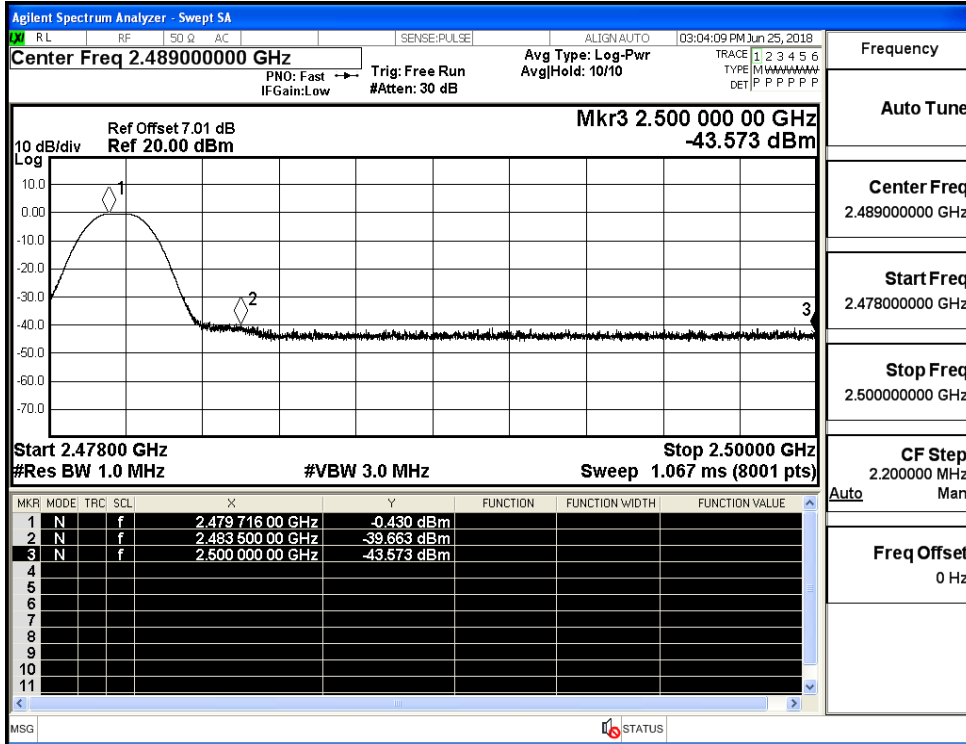
Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



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

