Appendix A

RF Test Data for BT V4.2 (BLE) (Conducted Measurement)
Product Name: WCA2CS

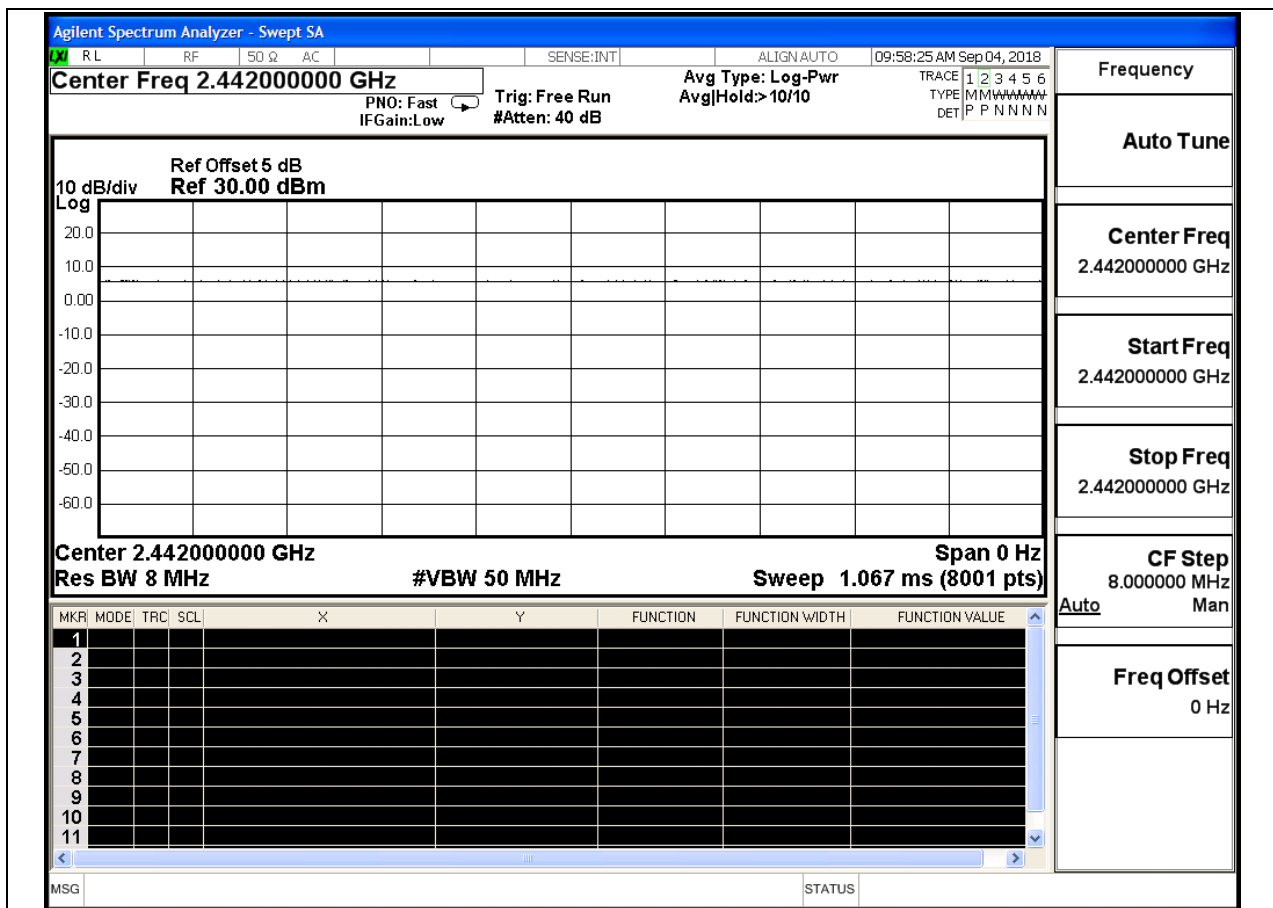**Trade Mark:** WISILICA Terilite

Test Model: WCA2CS

Environmental Conditions

Temperature:	23.3° C
Relative Humidity:	51.3%
ATM Pressure:	100.0 kPa
Test Engineer:	WangChuang
Supervised by:	Jayden.Zhuo

A.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2442	Ant1	100	PASS

A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	7.417	30	PASS
BT LE	MCH	6.750	30	PASS
BT LE	HCH	6.048	30	PASS
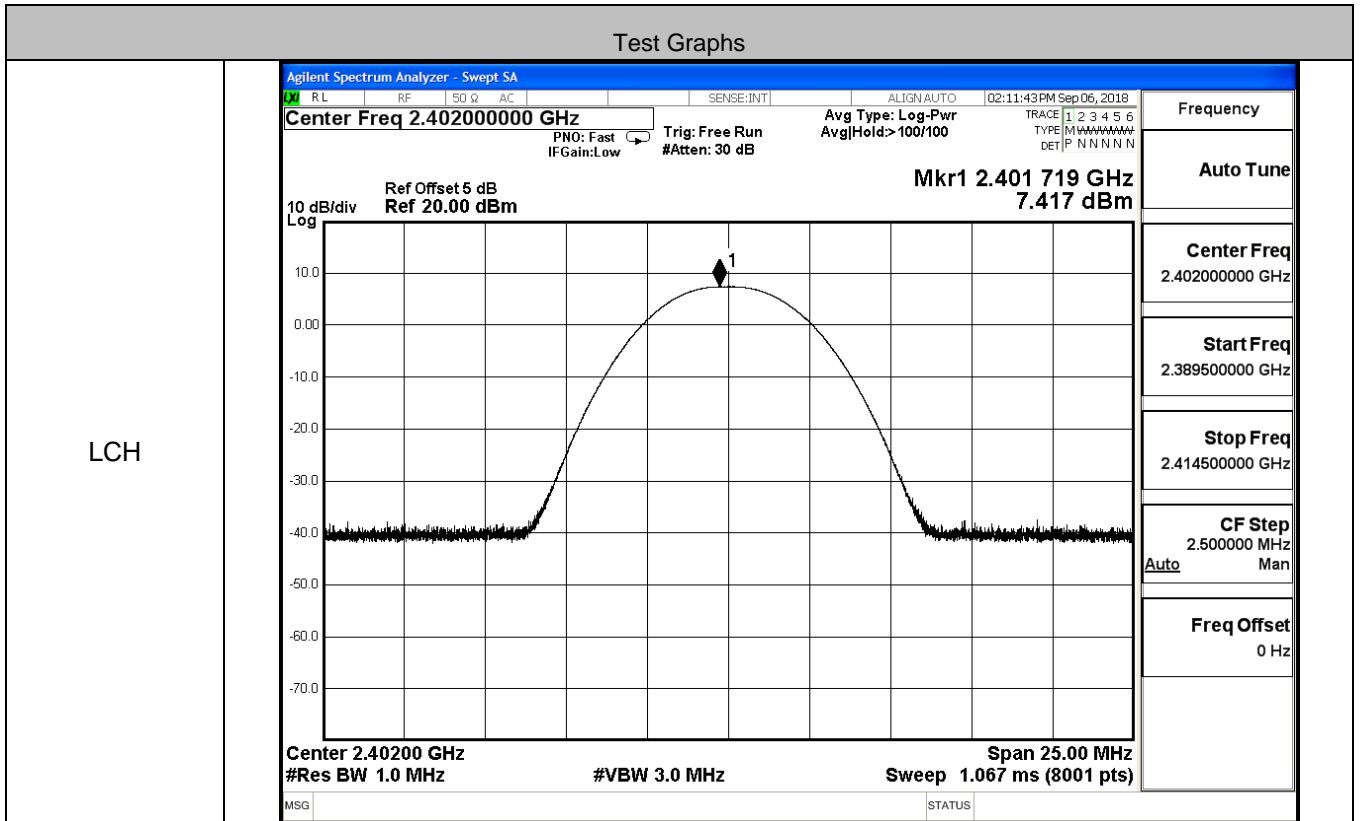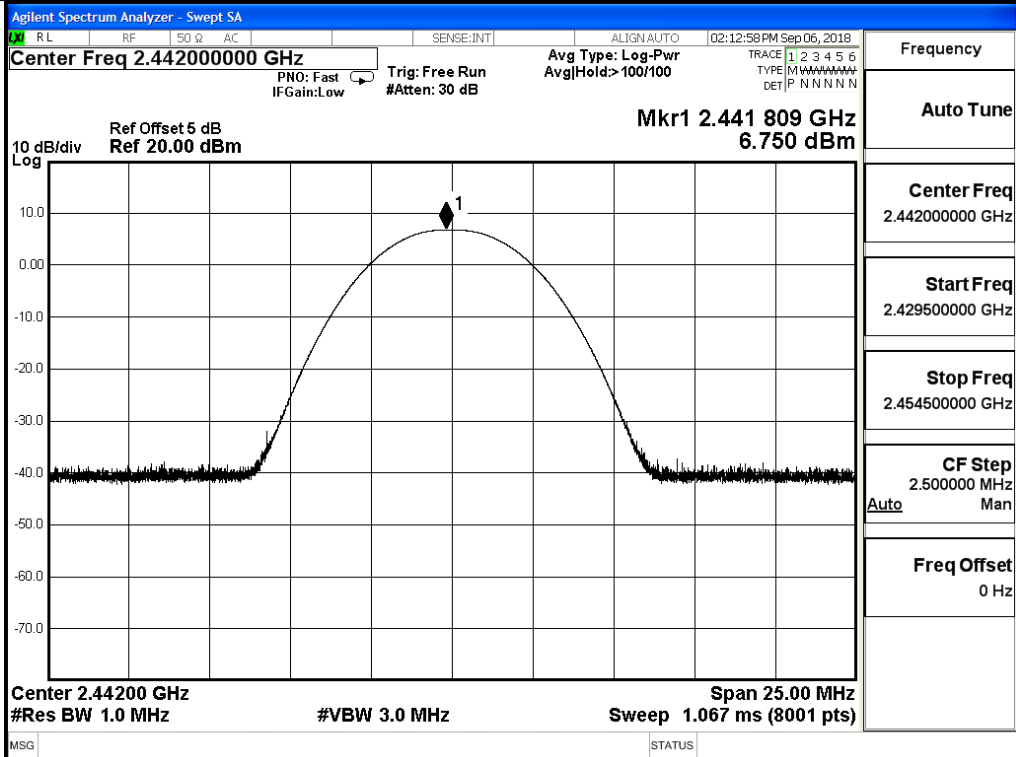
Test Graphs	
LCH	

MCH	
HCH	
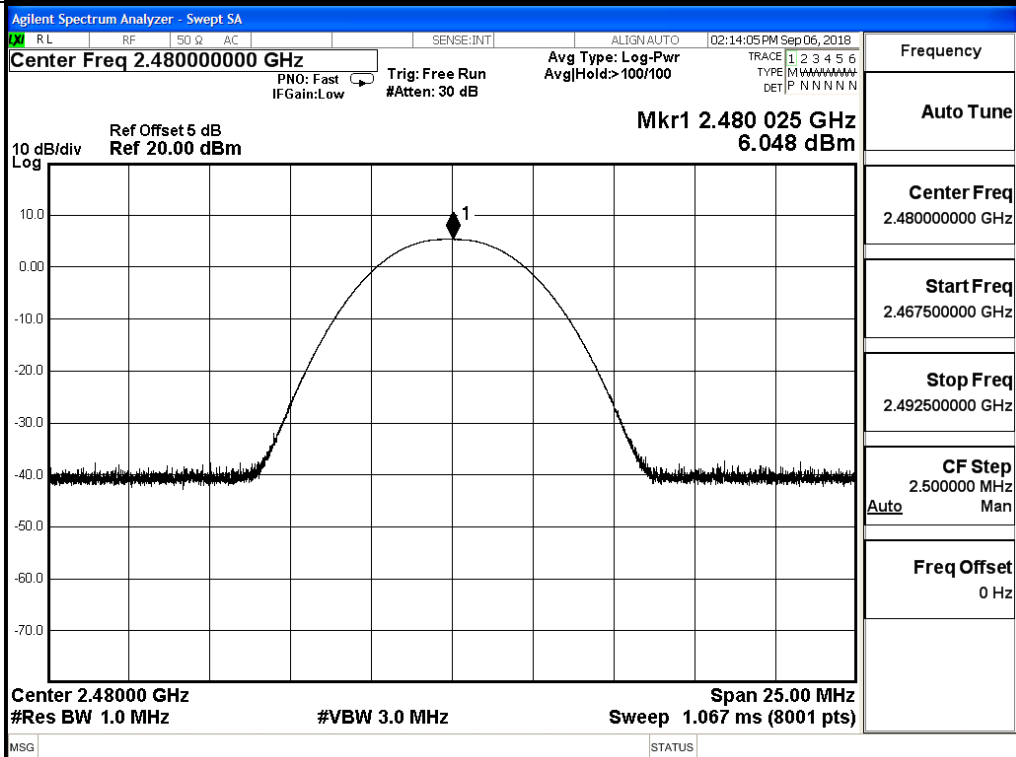
A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-0.361	8	PASS
BT LE	MCH	-1.211	8	PASS
BT LE	HCH	-2.821	8	PASS

Test Graphs

LCH	
MCH	
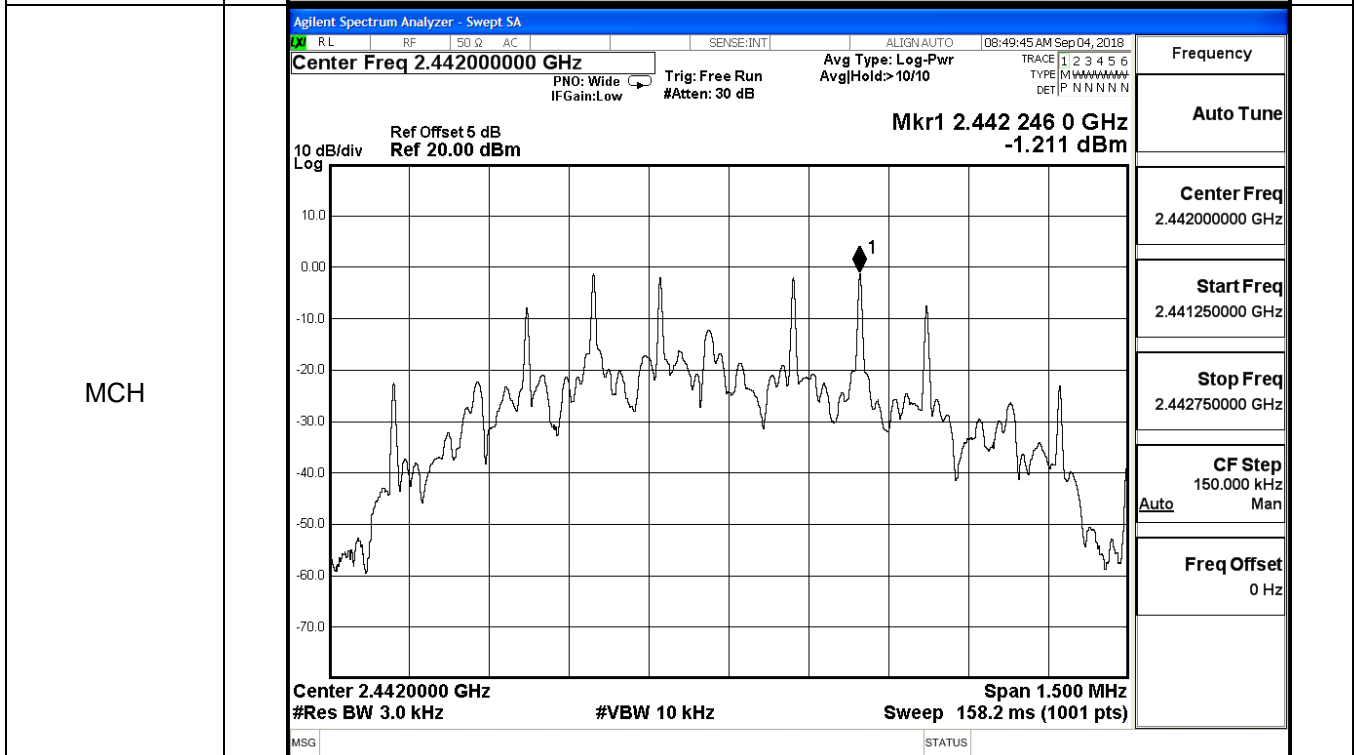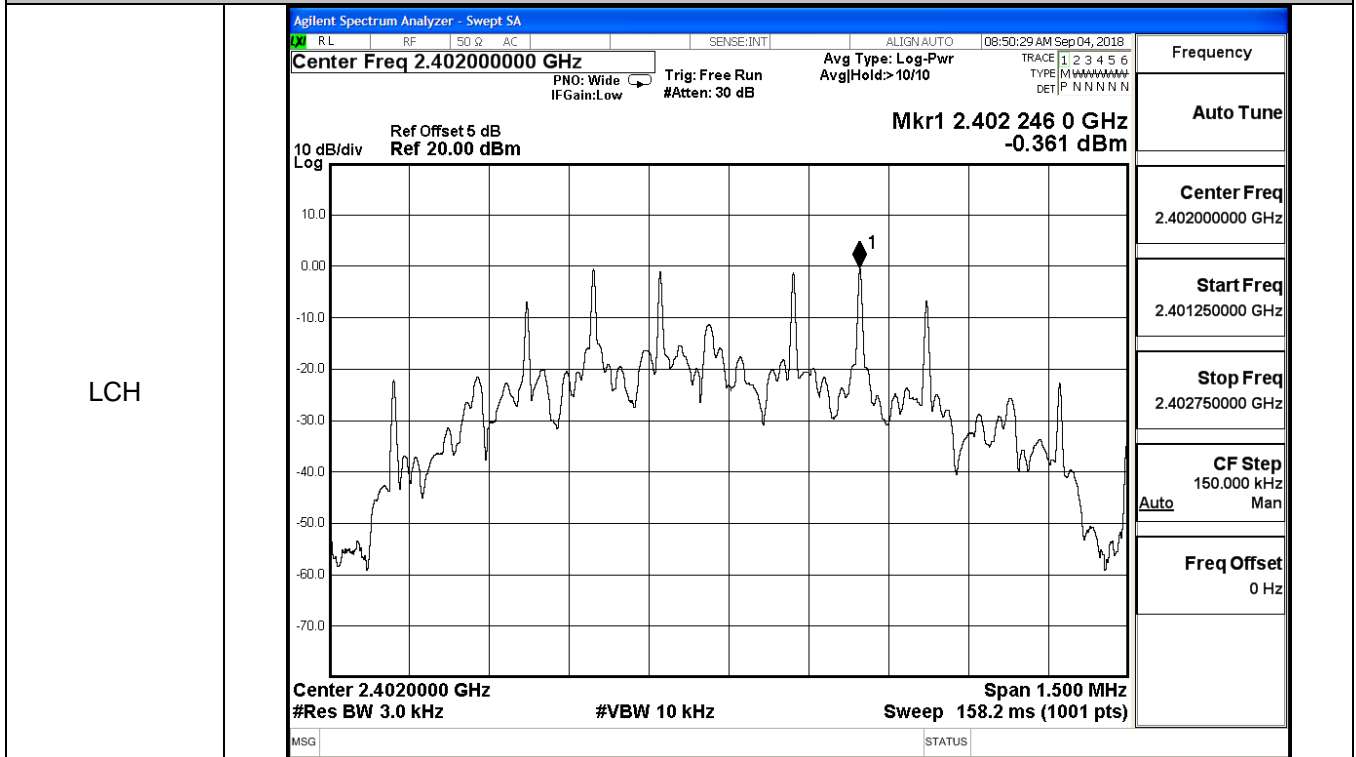
HCH
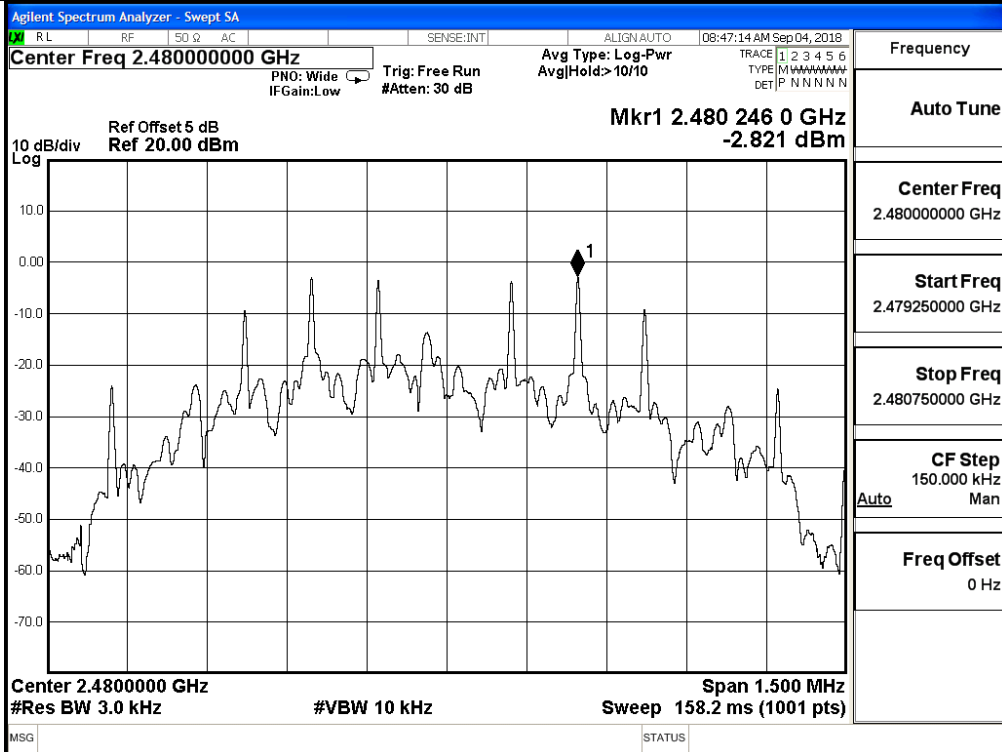
A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6518	≥0.5	PASS
BT LE	MCH	0.6514	≥0.5	PASS
BT LE	HCH	0.6534	≥0.5	PASS

Test Graphs

LCH	

MCH	

HCH

Agilent Spectrum Analyzer - Occupied BW

				SENSE:INT	ALIGN AUTO	08:42:21 AM Sep 04, 2018

R L   RF   50 Ω   AC

Center Freq 2.480000000 GHz

Center Freq: 2.480000000 GHz   Radio Std: None
Trig: Free Run   Avg|Hold:>1/1
#IFGain:Low   #Atten: 30 dB   Radio Device: BTS

Mkr1 2.479985 GHz
3.1174 dBm

Ref Offset 5 dB
10 dB/div   **Ref 20.00 dBm**
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0

Center 2.48 GHz   Span 3 MHz
#Res BW 100 kHz   #VBW 300 kHz   Sweep 1 ms

Occupied Bandwidth   Total Power   9.26 dBm
1.0711 MHz
Transmit Freq Error   5.918 kHz   OBW Power   99.00 %
x dB Bandwidth   653.4 kHz   x dB   -6.00 dB

Frequency

Center Freq
2.480000000 GHz

CF Step
300.000 kHz
Auto   Man

Freq Offset
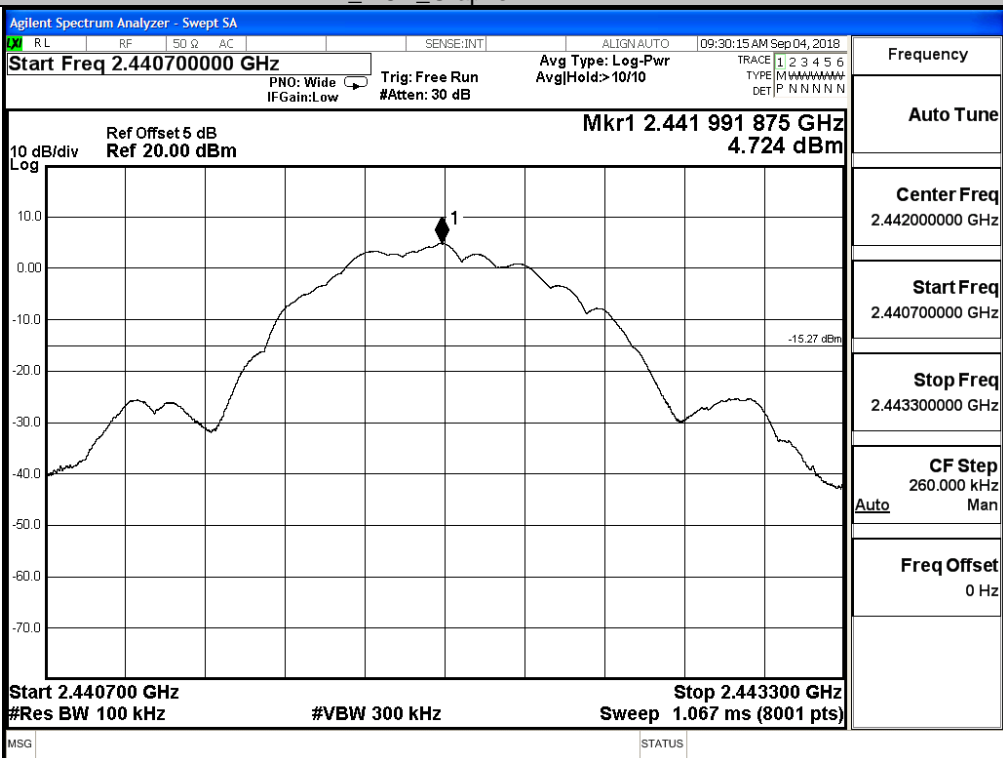0 Hz

MSG   STATUS
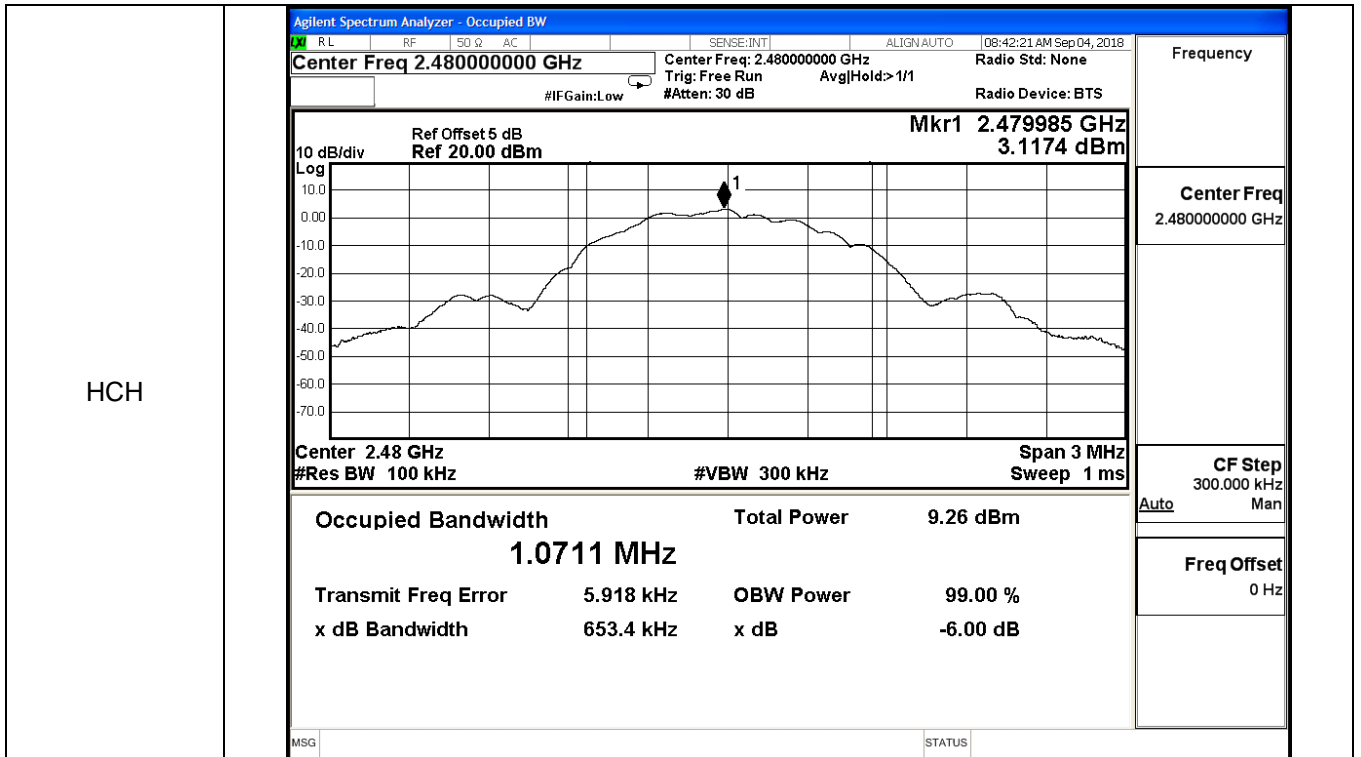
A.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	5.767	-44.400	-14.33	PASS
BT LE	MCH	4.724	-45.190	-15.27	PASS
BT LE	HCH	3.168	-45.860	-16.83	PASS

	BT LE_LCH_Graphs
Pref/BT LE/LCH	
Puw/BT LE/LCH	
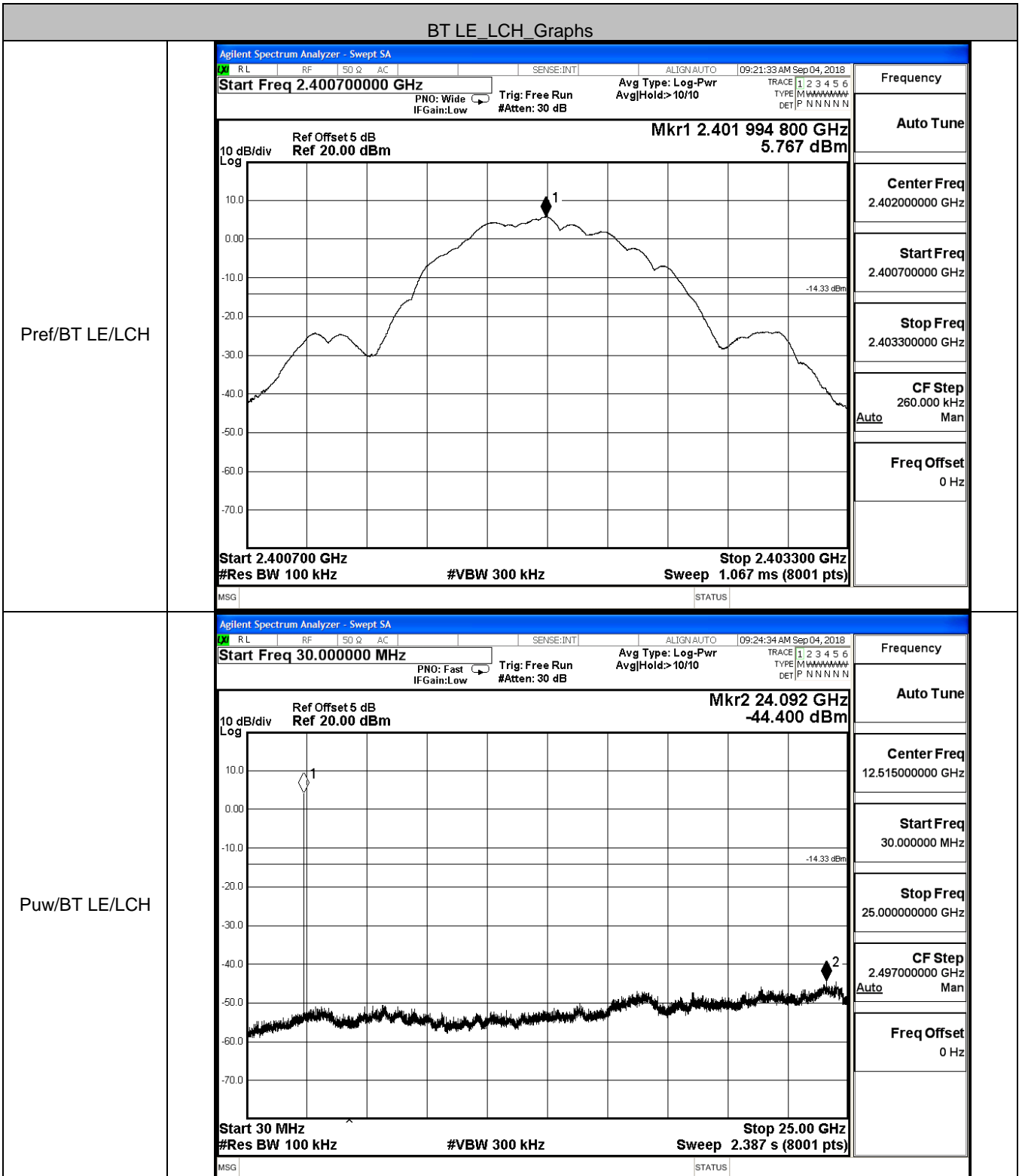
BT LE_MCH_Graphs	
Pref/BT LE/MCH	
Puw/BT LE/MCH	
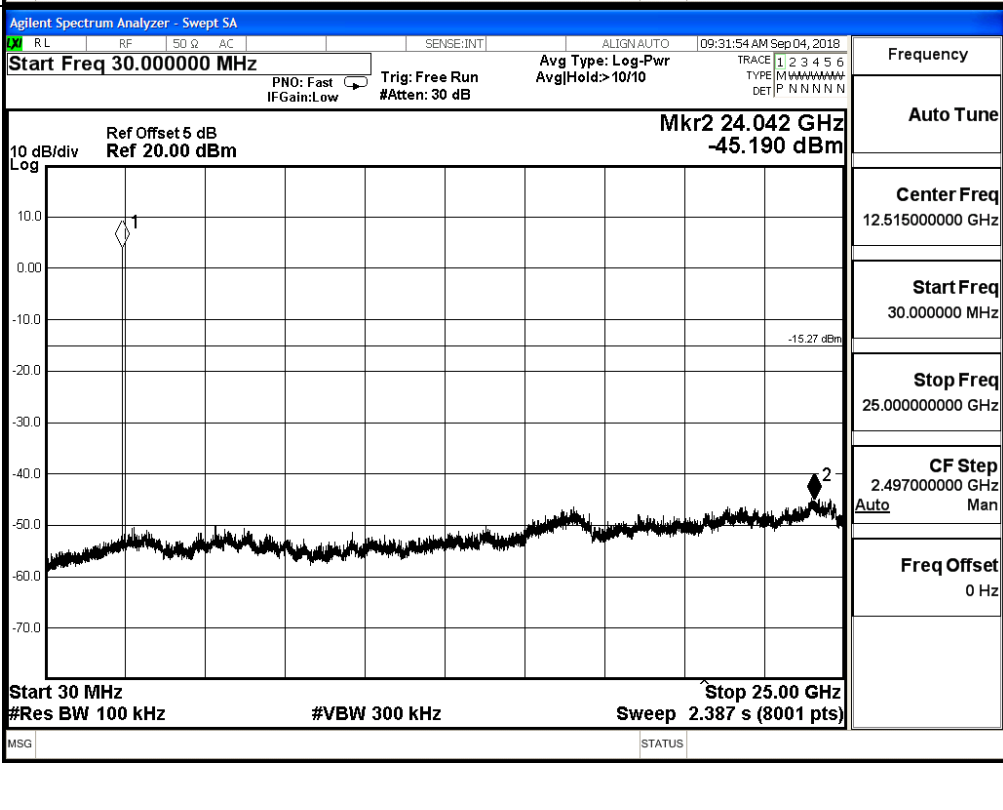
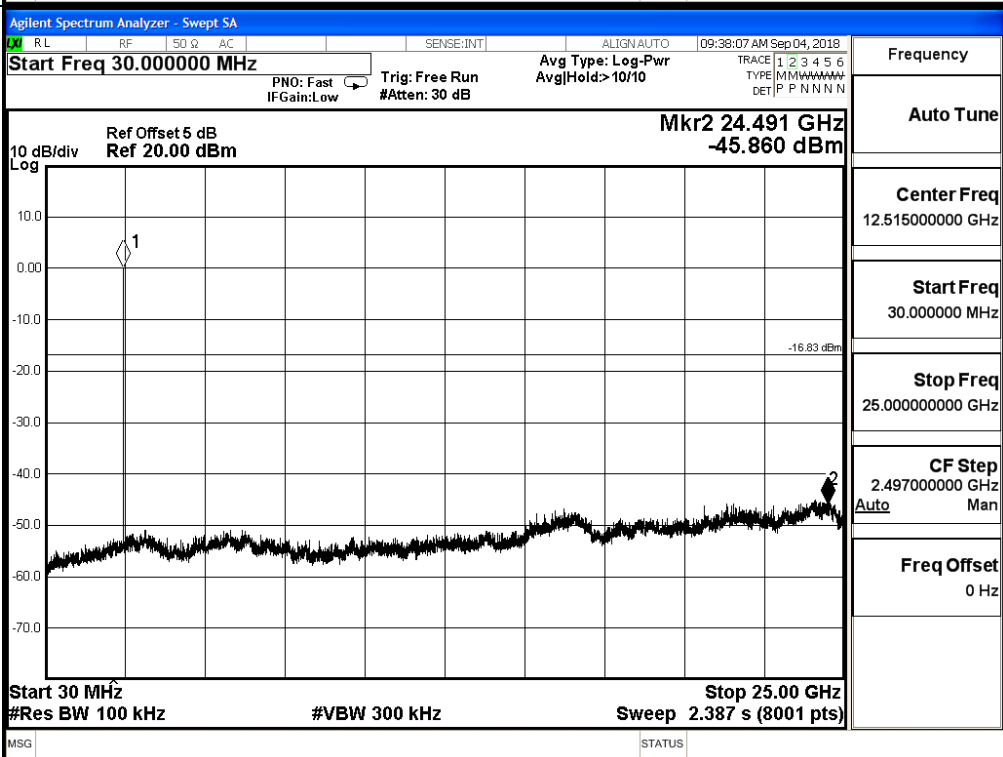| BT LE_HCH_Graphs	
Pref/BT LE/HCH	
Puw/BT LE/HCH	
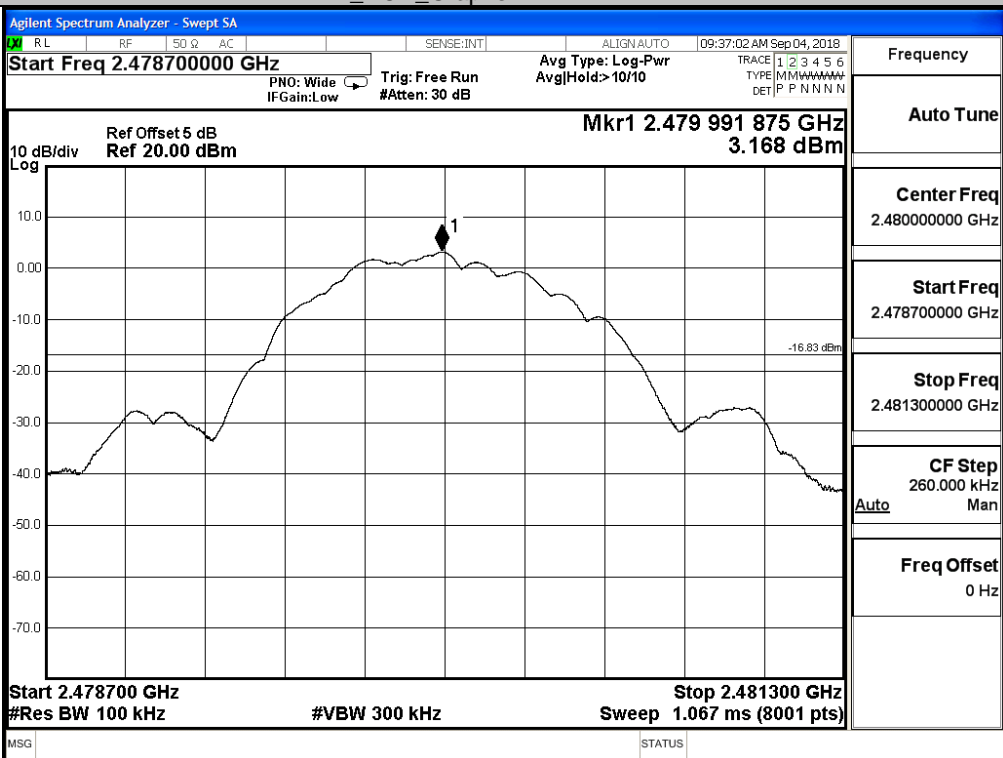
A.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	5.141	-53.148	-14.86	PASS
BT LE	HCH	3.549	-51.661	-16.45	PASS

| Test Graphs	
LCH	
HCH	

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	-44.508	2.0	0	52.75	PEAK	74	PASS
		Ant1	2310.0	-48.713	2.0	0	48.55	AV	54	PASS
		Ant1	2390.0	-44.421	2.0	0	52.84	PEAK	74	PASS
		Ant1	2390.0	-49.004	2.0	0	48.26	AV	54	PASS
	2480	Ant1	2483.5	-43.510	2.0	0	53.75	PEAK	74	PASS
		Ant1	2483.5	-48.564	2.0	0	48.70	AV	54	PASS
		Ant1	2500.0	-45.420	2.0	0	51.84	PEAK	74	PASS
		Ant1	2500.0	-48.436	2.0	0	48.82	AV	54	PASS

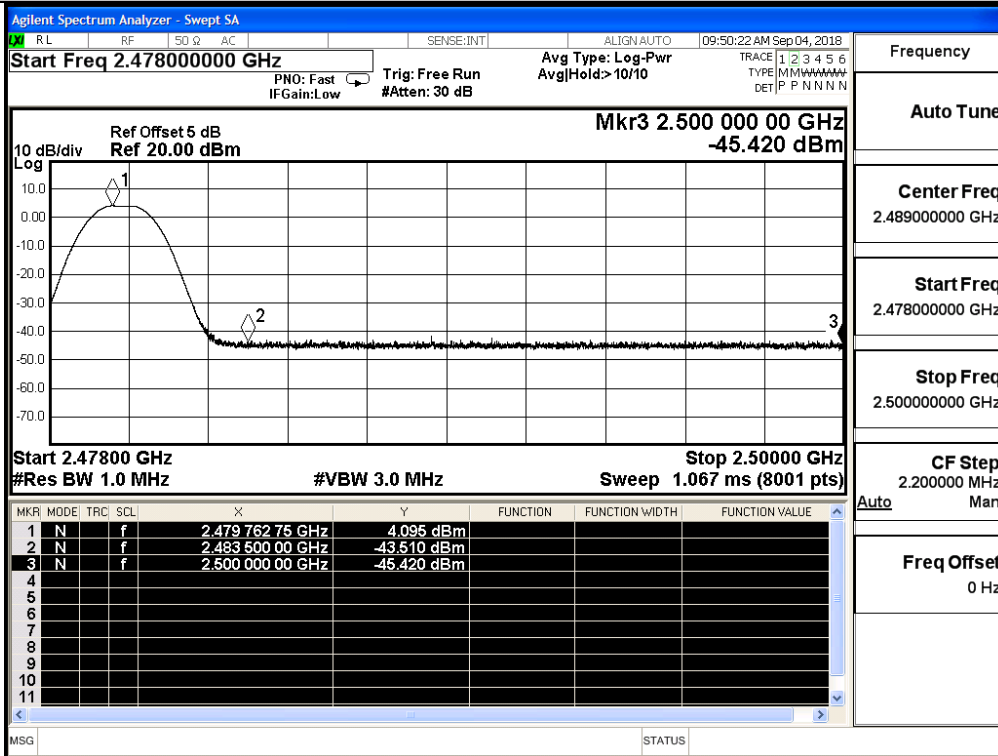| Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK |
|---|
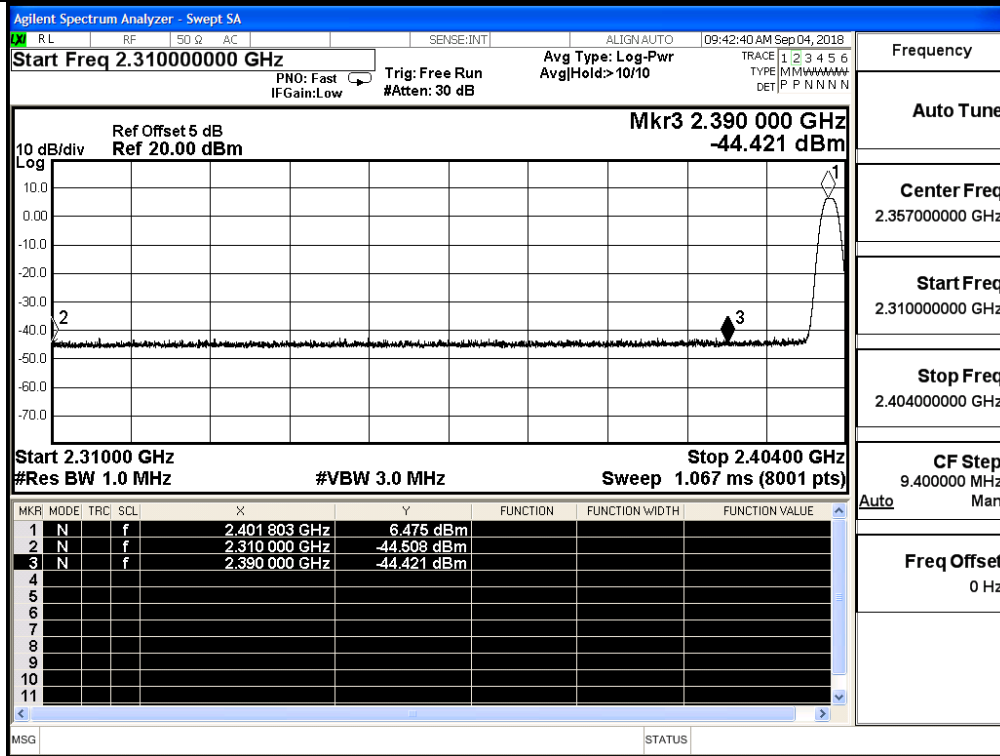
Restrict-band band-edge measurements_BT LE_2402_Ant1_AV
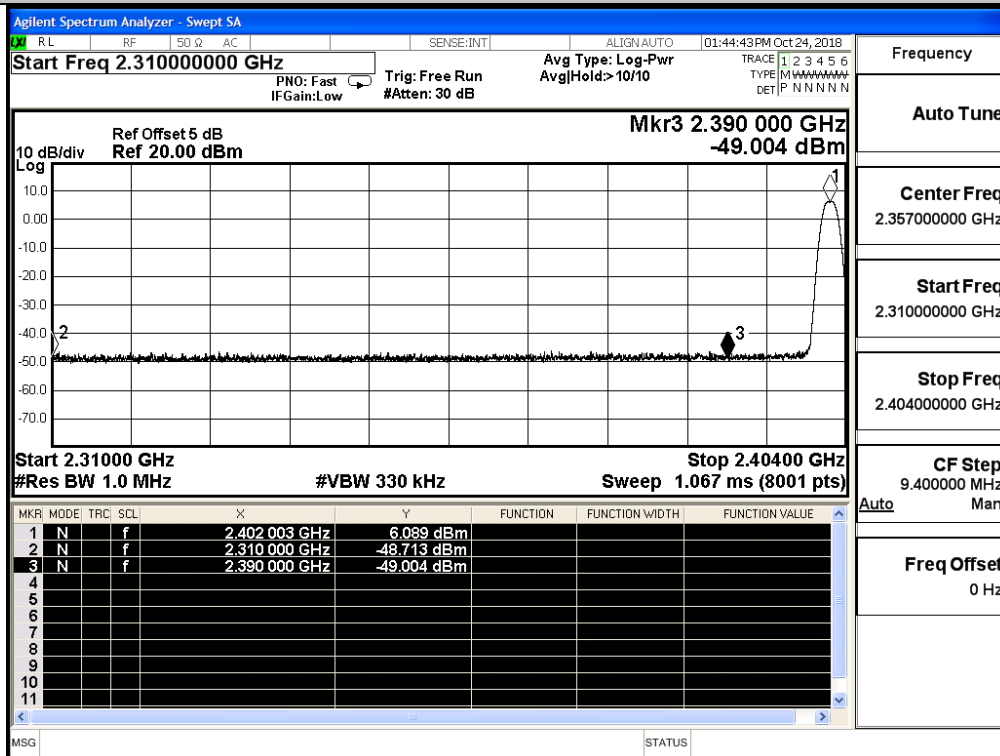
Restrict-band band-edge measurements_BT LE_2480_Ant1_PEAK

Restrict-band band-edge measurements_BT LE_2480_Ant1_AV