

Appendix A

RF Test Data for BT LE V5.0 (Conducted Measurement)

Product Name: Bluetooth thermometer

Trade Mark: N/A

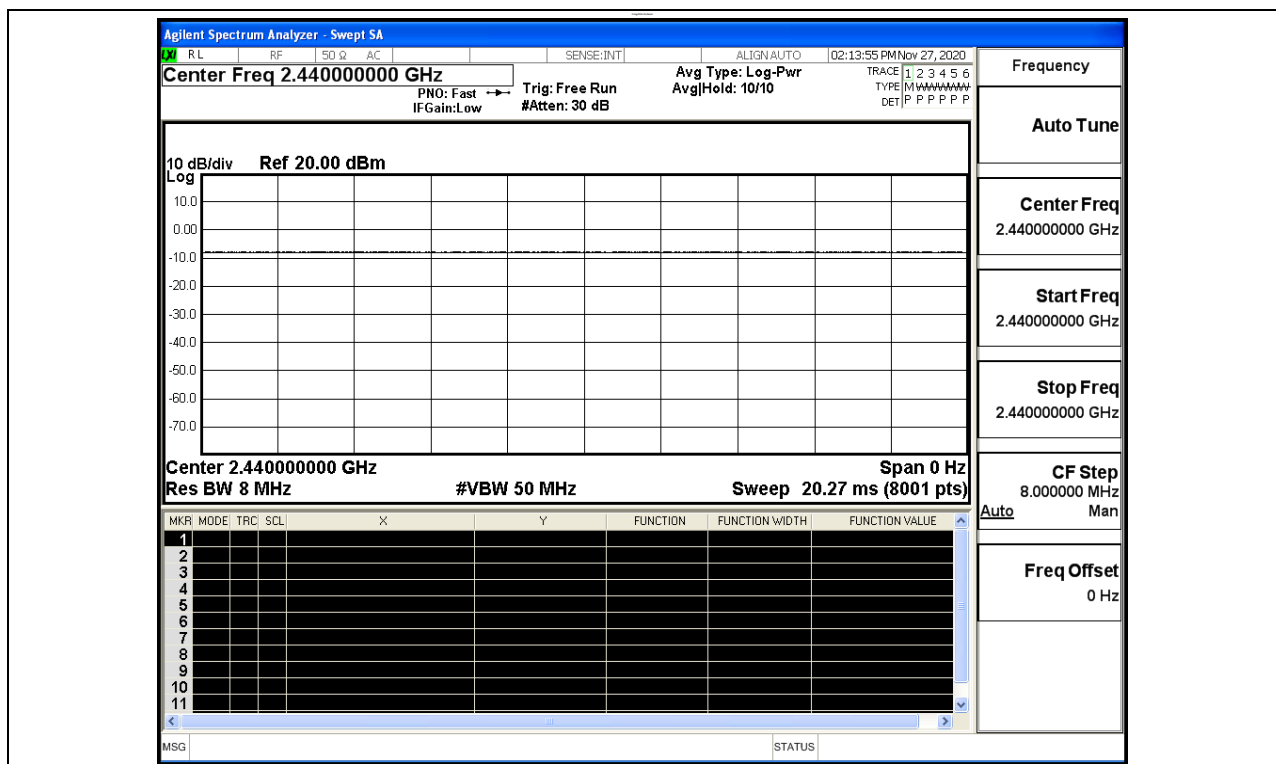
Test Model: TP-25H2

Environmental Conditions

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

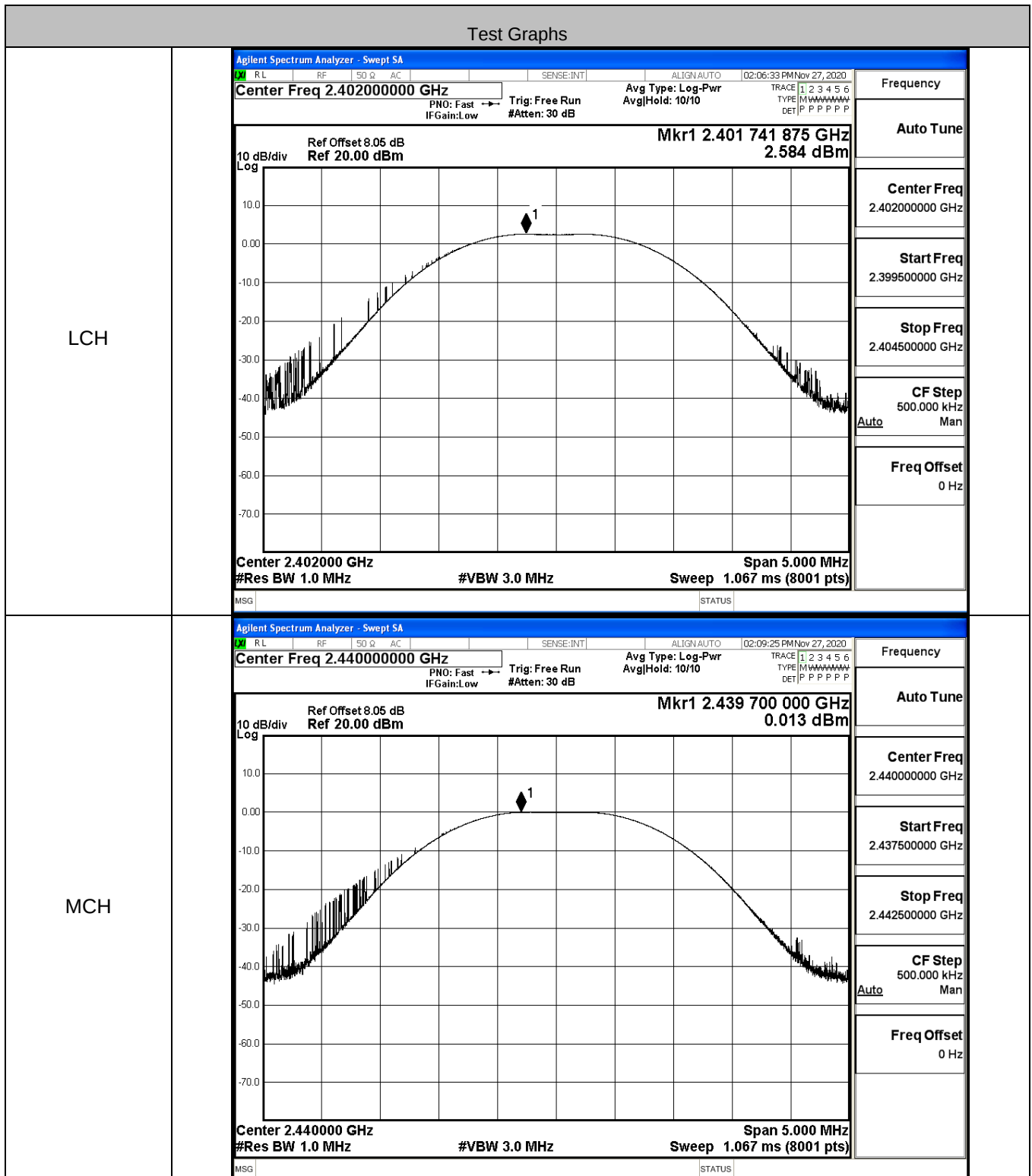
A.1 Duty Cycle

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

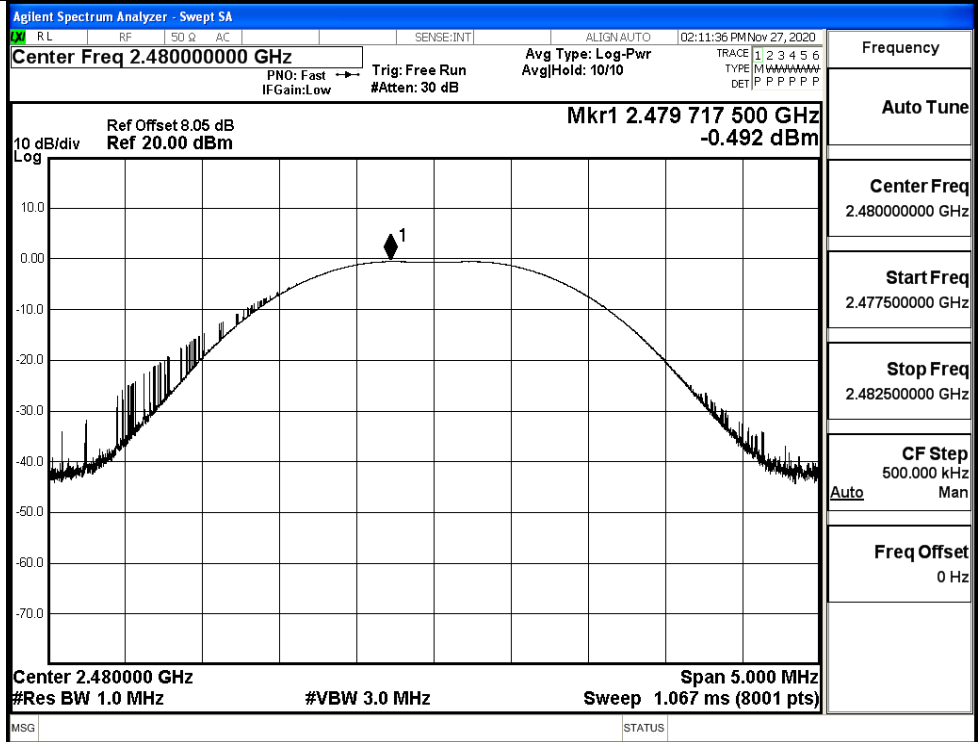


A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	2.584	30	PASS
BT LE	MCH	0.013	30	PASS
BT LE	HCH	-0.492	30	PASS



HCH

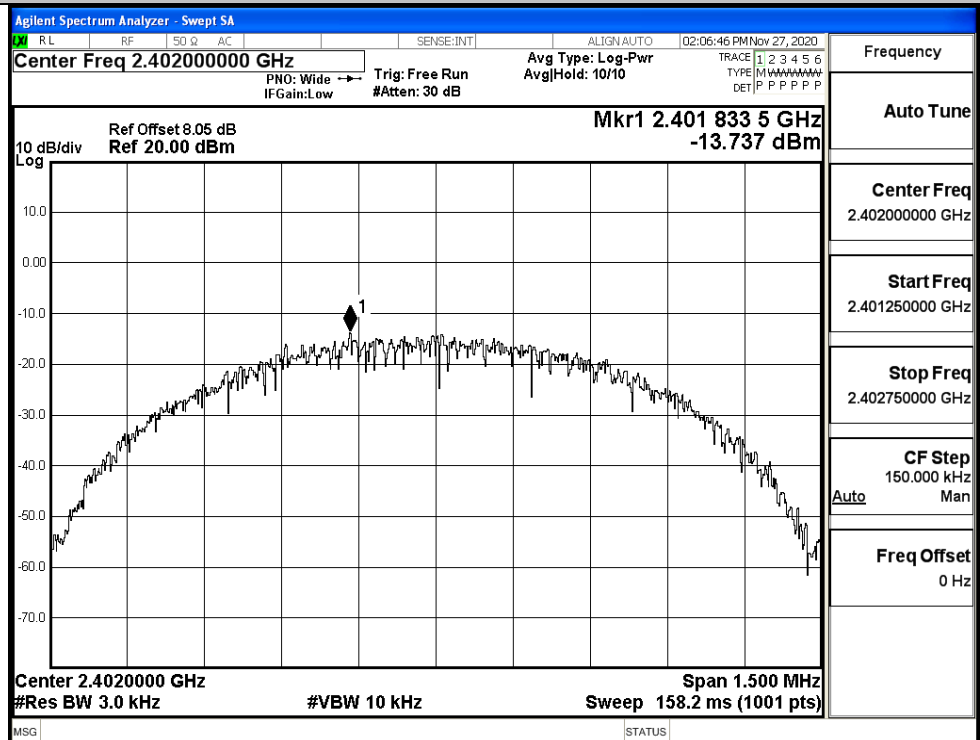


A.3 Maximum Power Spectral Density

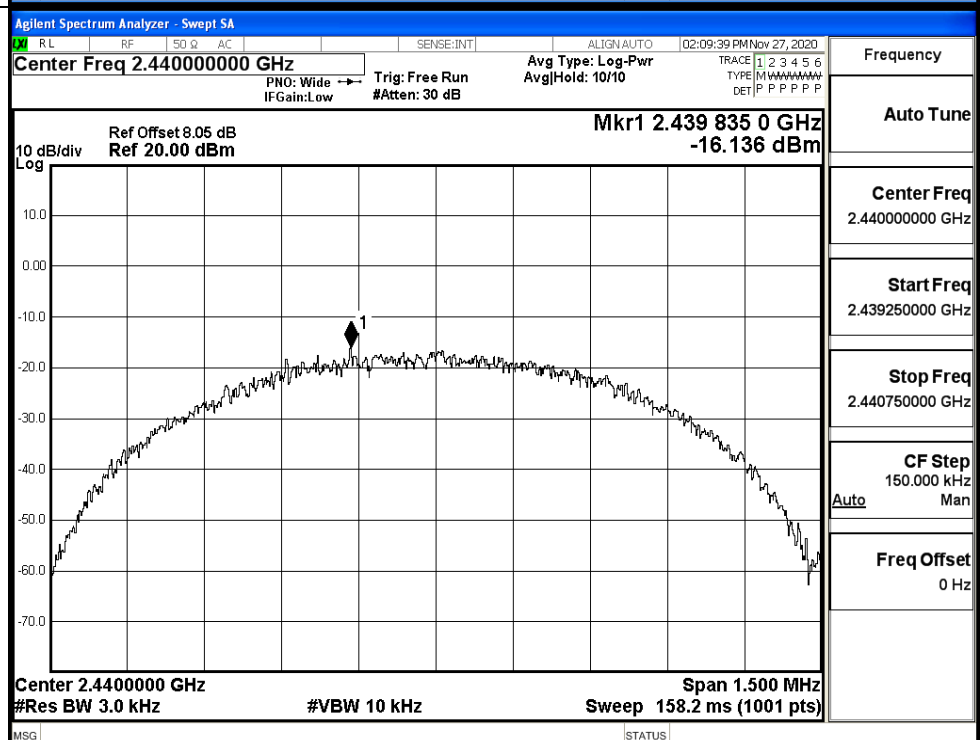
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-13.737	8	PASS
BT LE	MCH	-16.136	8	PASS
BT LE	HCH	-16.762	8	PASS

Test Graphs

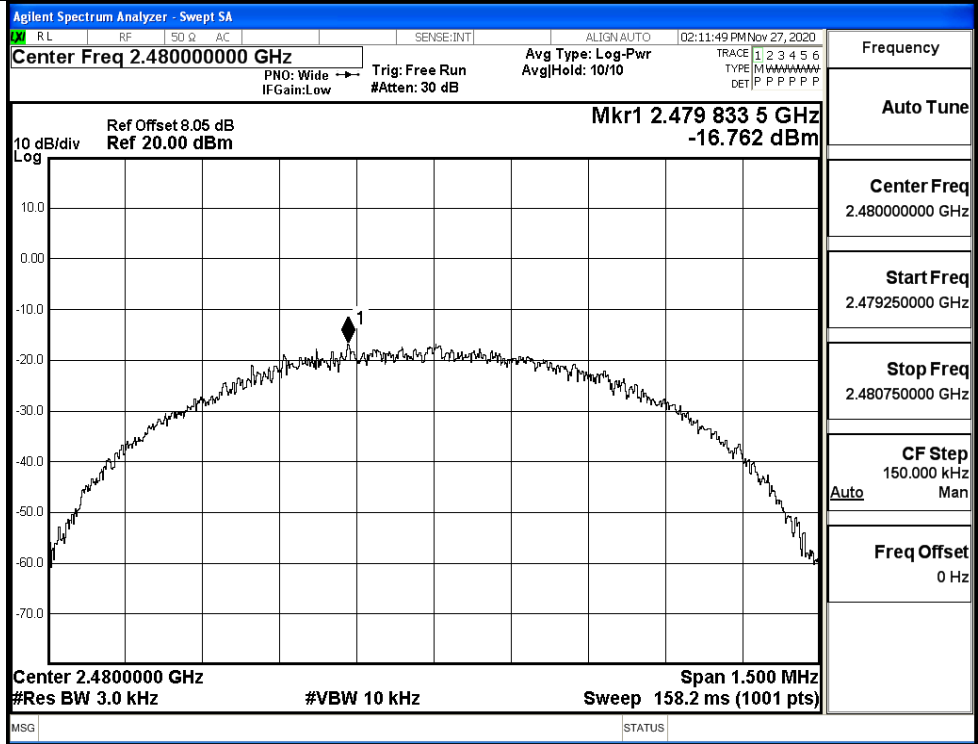
LCH



MCH



HCH

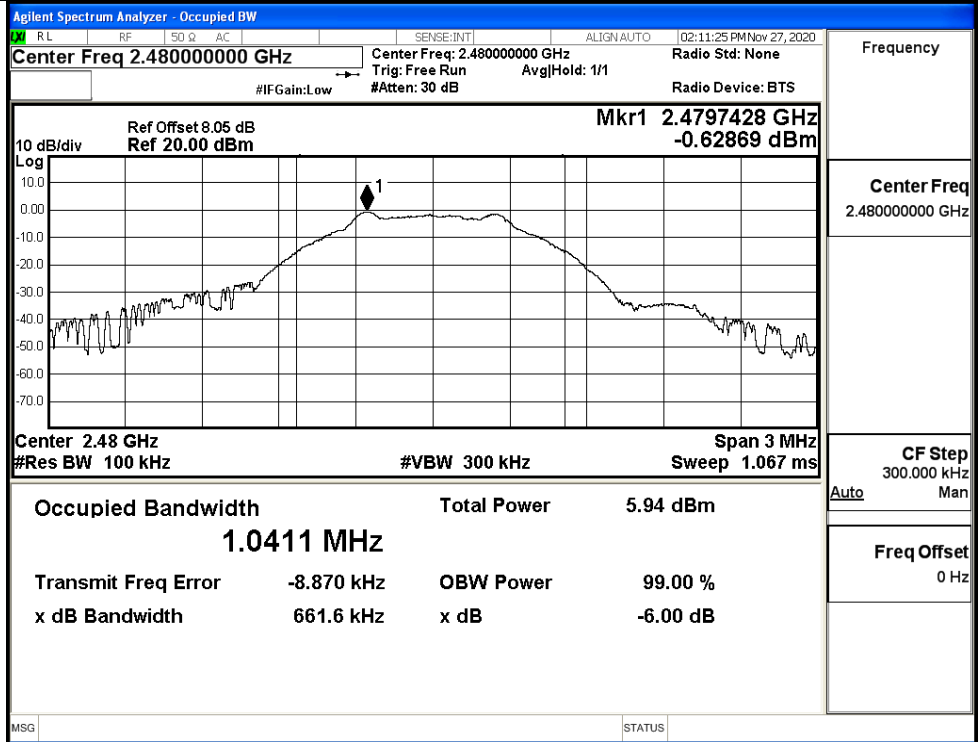


A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6621	≥ 0.5	PASS
BT LE	MCH	0.6600	≥ 0.5	PASS
BT LE	HCH	0.6616	≥ 0.5	PASS

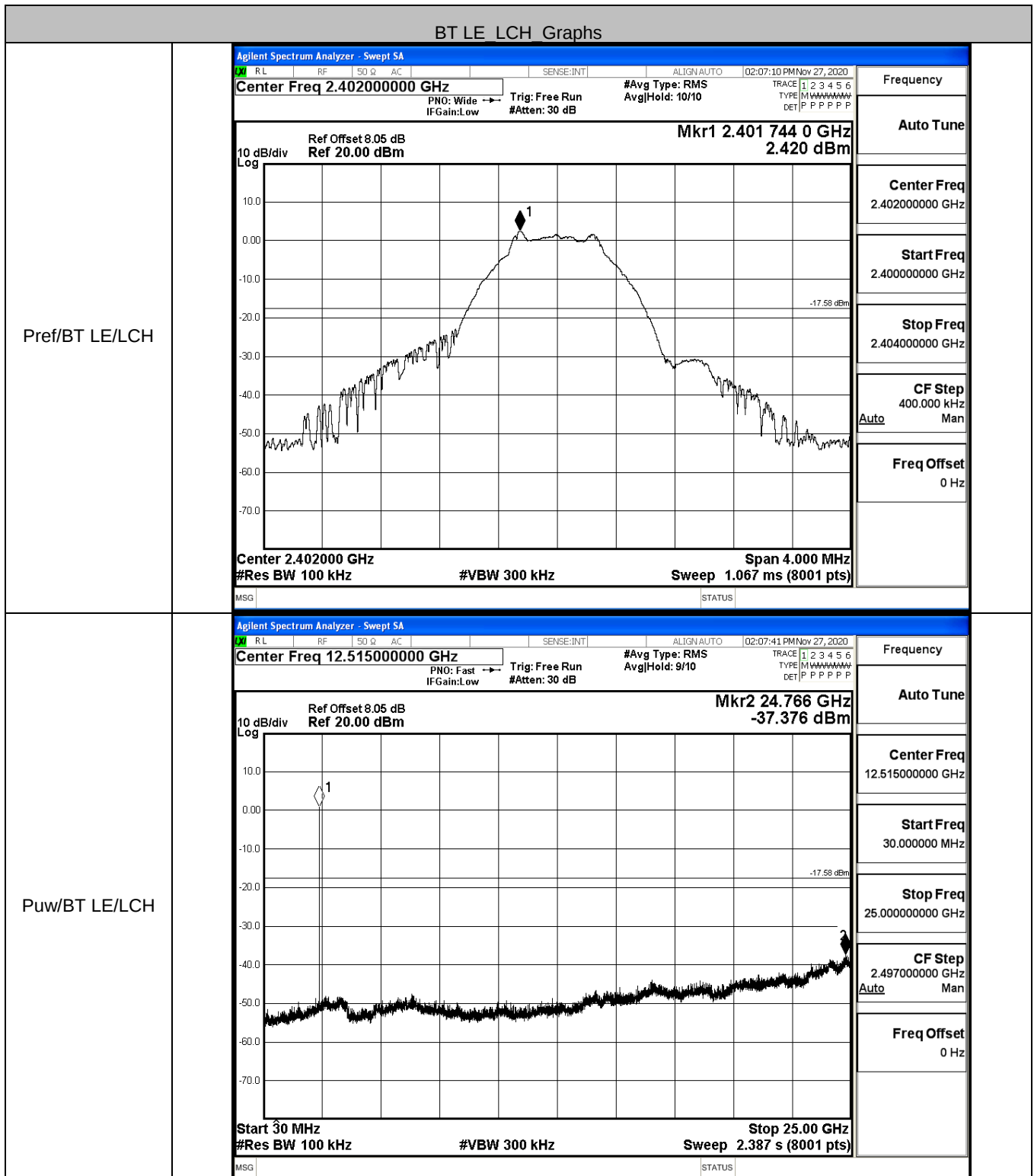
Test Graphs			
LCH		Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 02:06:22 PM Nov 27, 2020 Center Freq 2.402000000 GHz Center Freq: 2.402000000 GHz Radio Std: None Trig: Free Run Avg/Hold: 1/1 #IF Gain: Low #Atten: 30 dB Radio Device: BTS Ref Offset 8.05 dB Mkr1 2.4017435 GHz Ref 20.00 dBm 2.4445 dBm Center 2.402 GHz Span 3 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms Occupied Bandwidth Total Power 8.98 dBm 1.0401 MHz Transmit Freq Error -10.270 kHz OBW Power 99.00 % x dB Bandwidth 662.1 kHz x dB -6.00 dB MSG STATUS	Frequency Center Freq 2.402000000 GHz CF Step 300.000 kHz Auto Man Freq Offset 0 Hz
		Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 02:09:14 PM Nov 27, 2020 Center Freq 2.440000000 GHz Center Freq: 2.440000000 GHz Radio Std: None Trig: Free Run Avg/Hold: 1/1 #IF Gain: Low #Atten: 30 dB Radio Device: BTS Ref Offset 8.05 dB Mkr1 2.439742 GHz Ref 20.00 dBm -0.090311 dBm Center 2.44 GHz Span 3 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms Occupied Bandwidth Total Power 6.44 dBm 1.0435 MHz Transmit Freq Error -9.490 kHz OBW Power 99.00 % x dB Bandwidth 660.0 kHz x dB -6.00 dB MSG STATUS	Frequency Center Freq 2.440000000 GHz CF Step 300.000 kHz Auto Man Freq Offset 0 Hz
MCH			

HCH



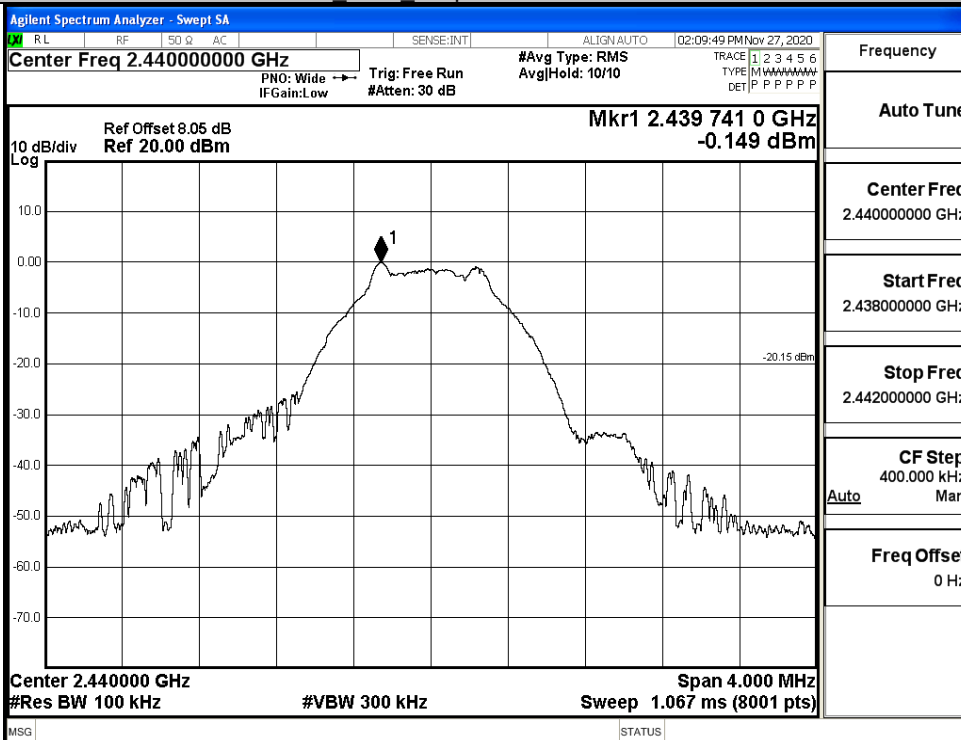
A.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	2.42	-37.376	-17.580	PASS
BT LE	MCH	-0.149	-37.354	-20.149	PASS
BT LE	HCH	-0.74	-36.866	-20.740	PASS

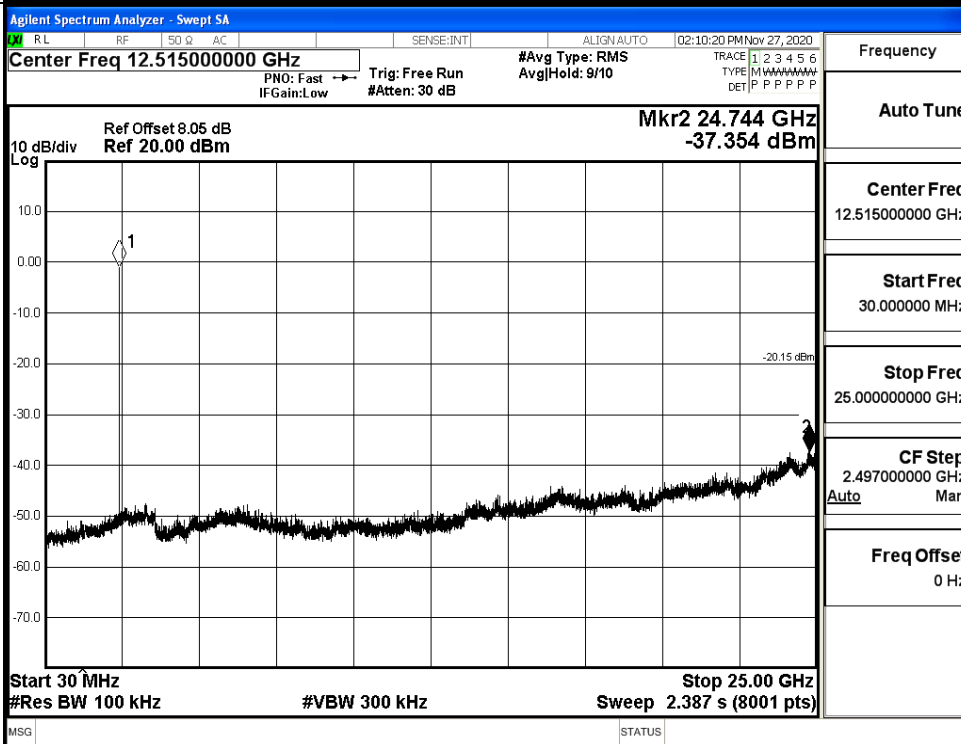


BT LE MCH Graphs

Pref/BT LE/MCH

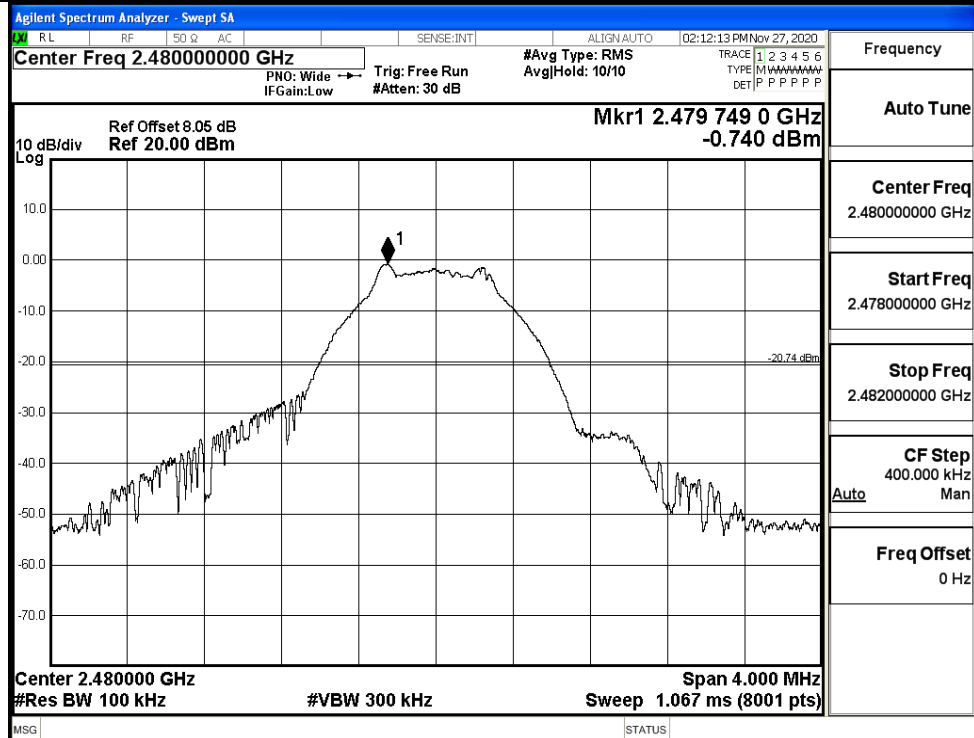


Puw/BT LE/MCH

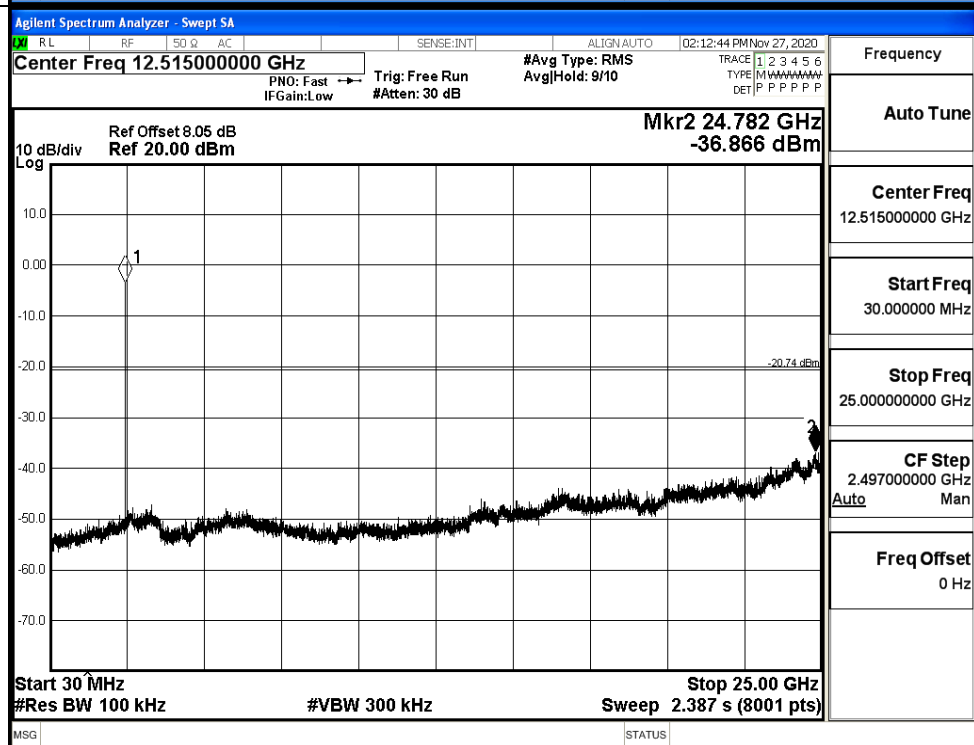


BT LE HCH Graphs

Pref/BT LE/HCH

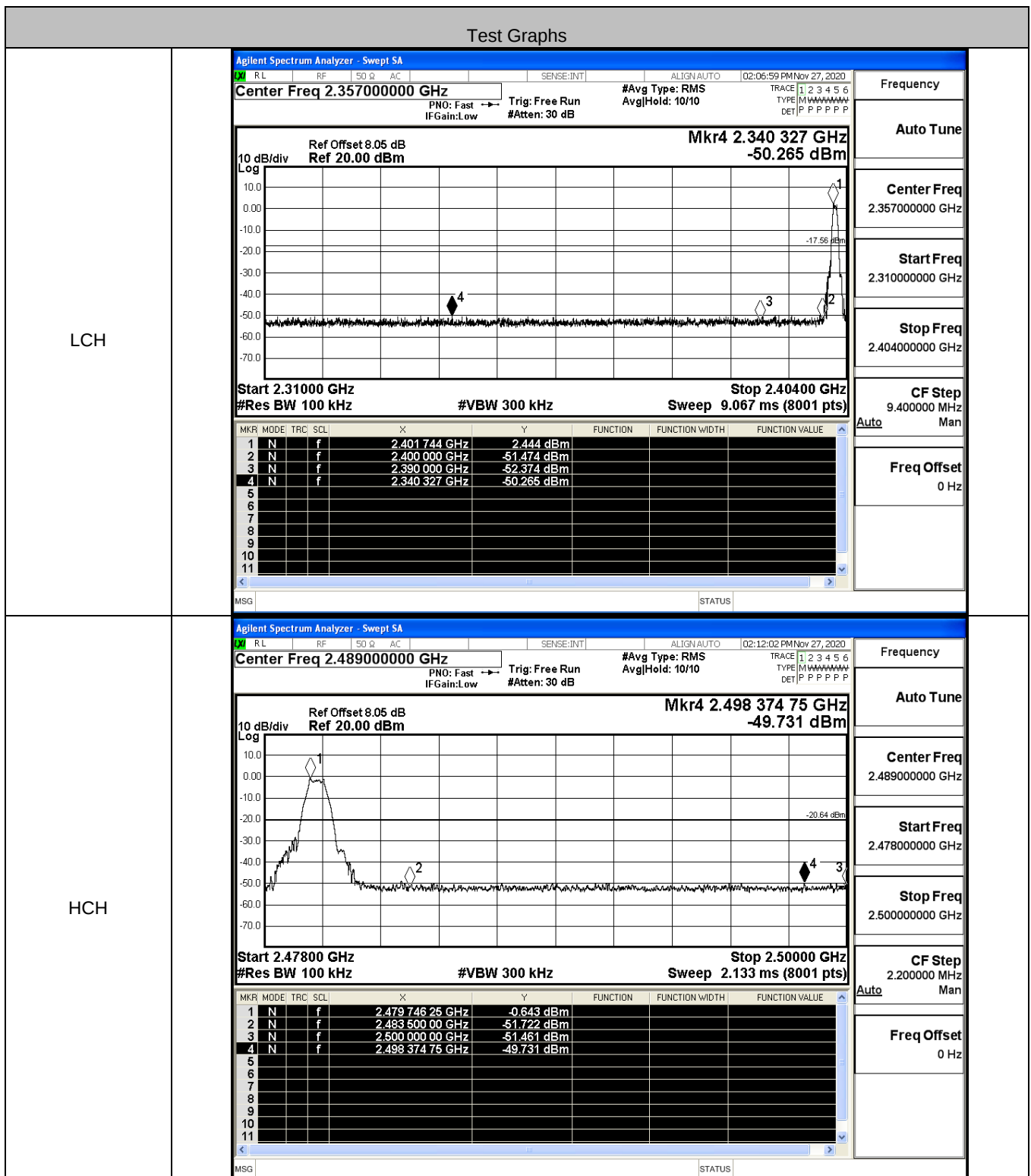


Puw/BT LE/HCH



A.6 Band-edge for RF Conducted Emissions

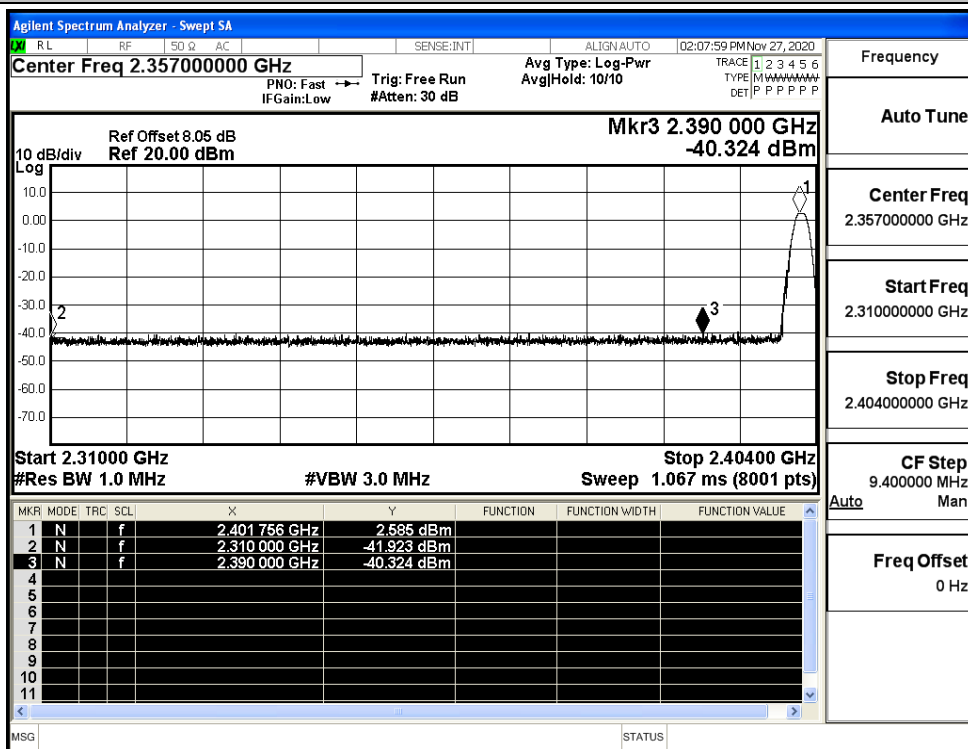
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	2.444	-50.265	-17.56	PASS
BT LE	HCH	-0.643	-49.731	-20.64	PASS



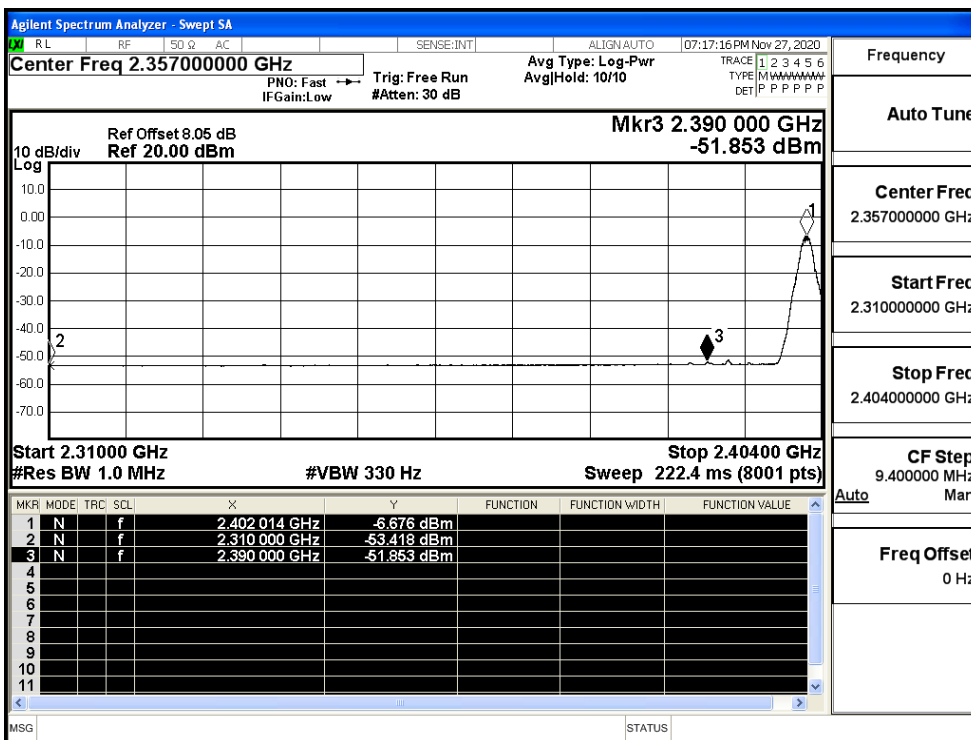
A.7 Restrict-band band-edge measurements

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	-41.92	2.0	0	53.33	PEAK	74	PASS
		Ant1	2310.0	-53.42	2.0	0	41.84	AV	54	PASS
		Ant1	2390.0	-40.32	2.0	0	54.93	PEAK	74	PASS
		Ant1	2390.0	-51.85	2.0	0	43.40	AV	54	PASS
	2480	Ant1	2483.5	-42.80	2.0	0	52.46	PEAK	74	PASS
		Ant1	2483.5	-52.43	2.0	0	42.83	AV	54	PASS
		Ant1	2500.0	-40.81	2.0	0	54.45	PEAK	74	PASS
		Ant1	2500.0	-52.24	2.0	0	43.01	AV	54	PASS

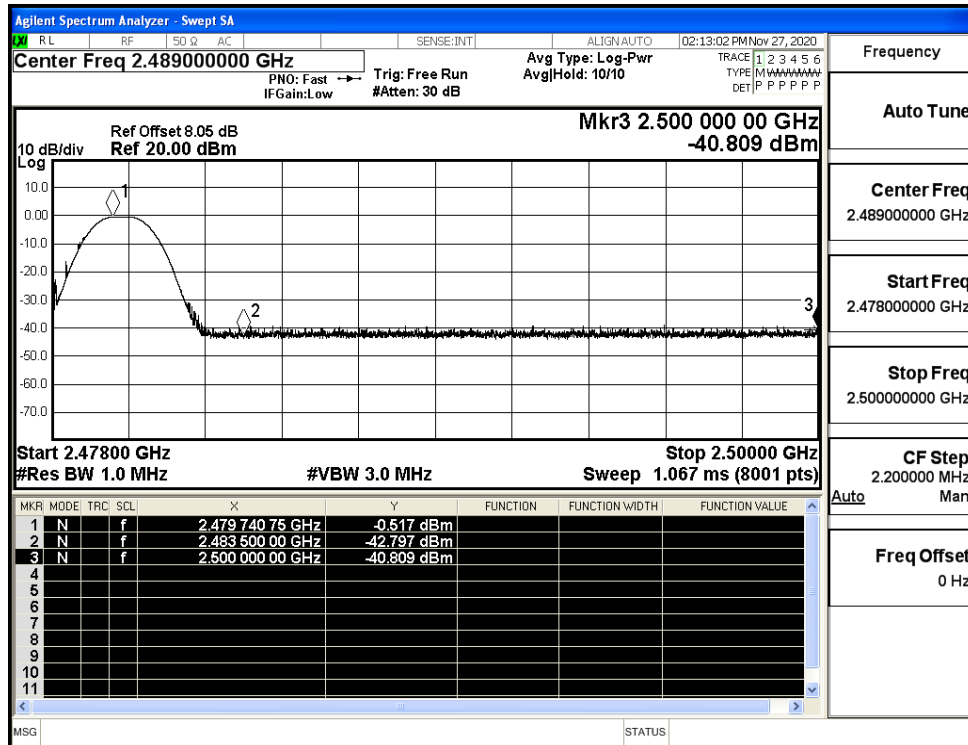
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

