

Appendix A

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

Product Name: SumUp Air v2

Trade Mark: SumUp Air v2

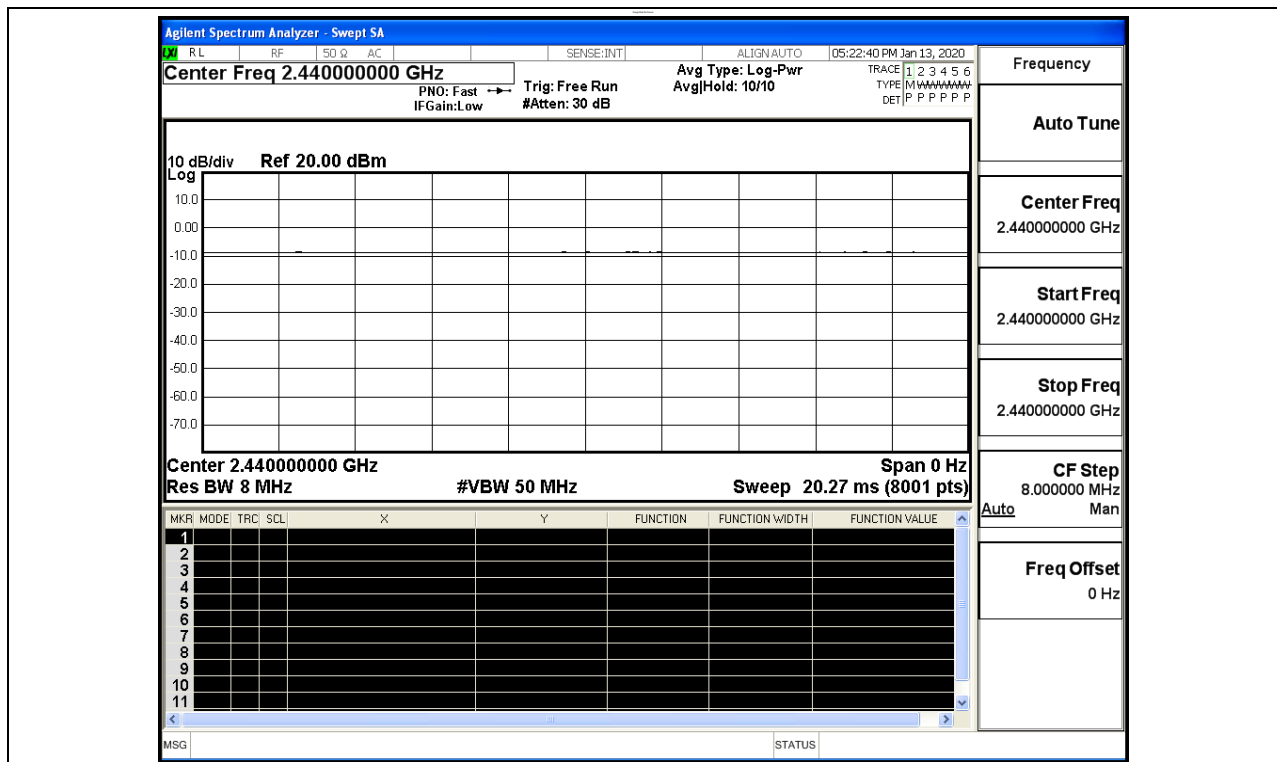
Test Model: SumUp Air v2

Environmental Conditions

Temperature:	22.9 °C
Relative Humidity:	54.2%
ATM Pressure:	100.0 kPa
Test Engineer:	SCOUT WU
Supervised by:	Tom.Liu

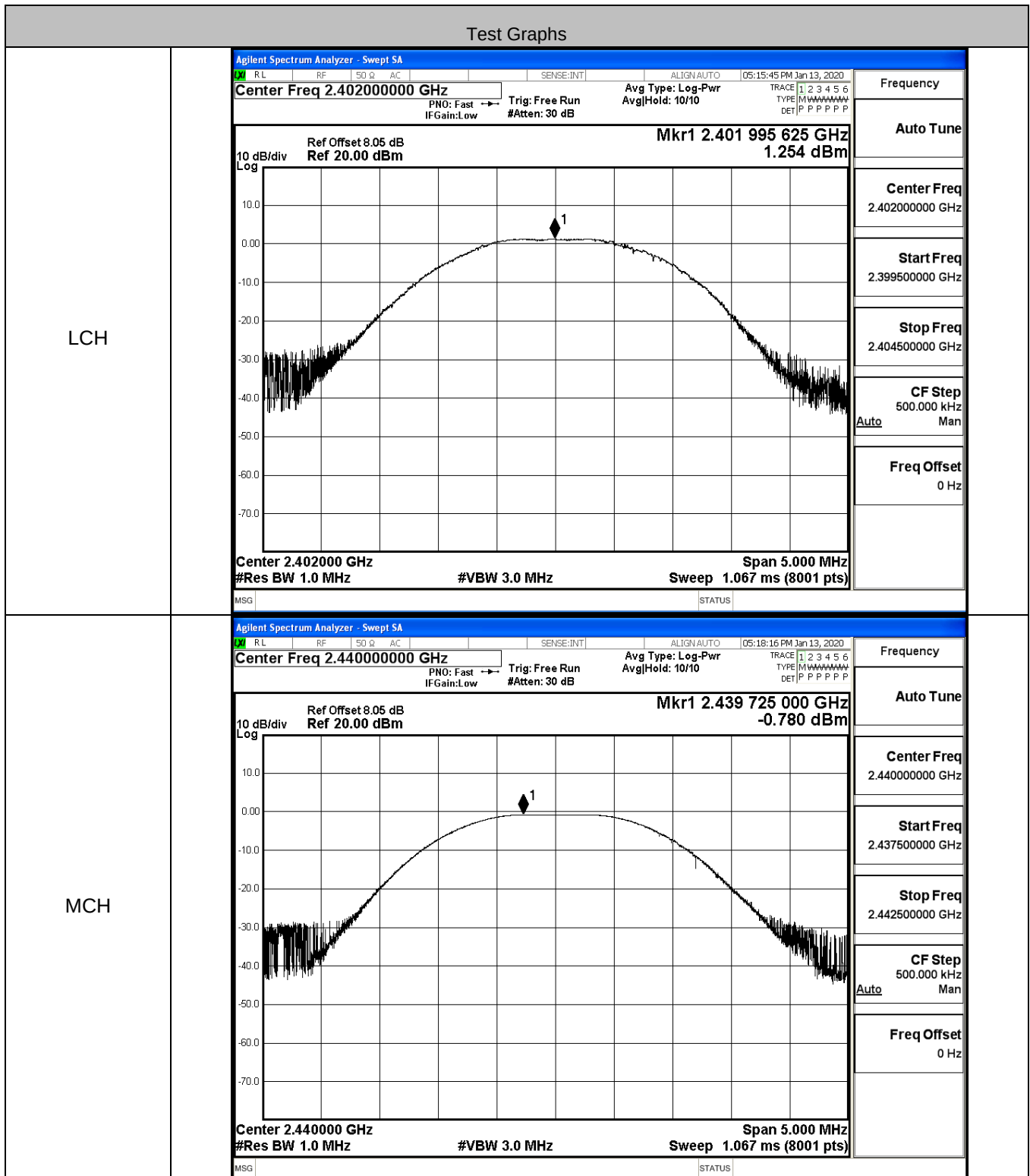
A.1 Duty Cycle

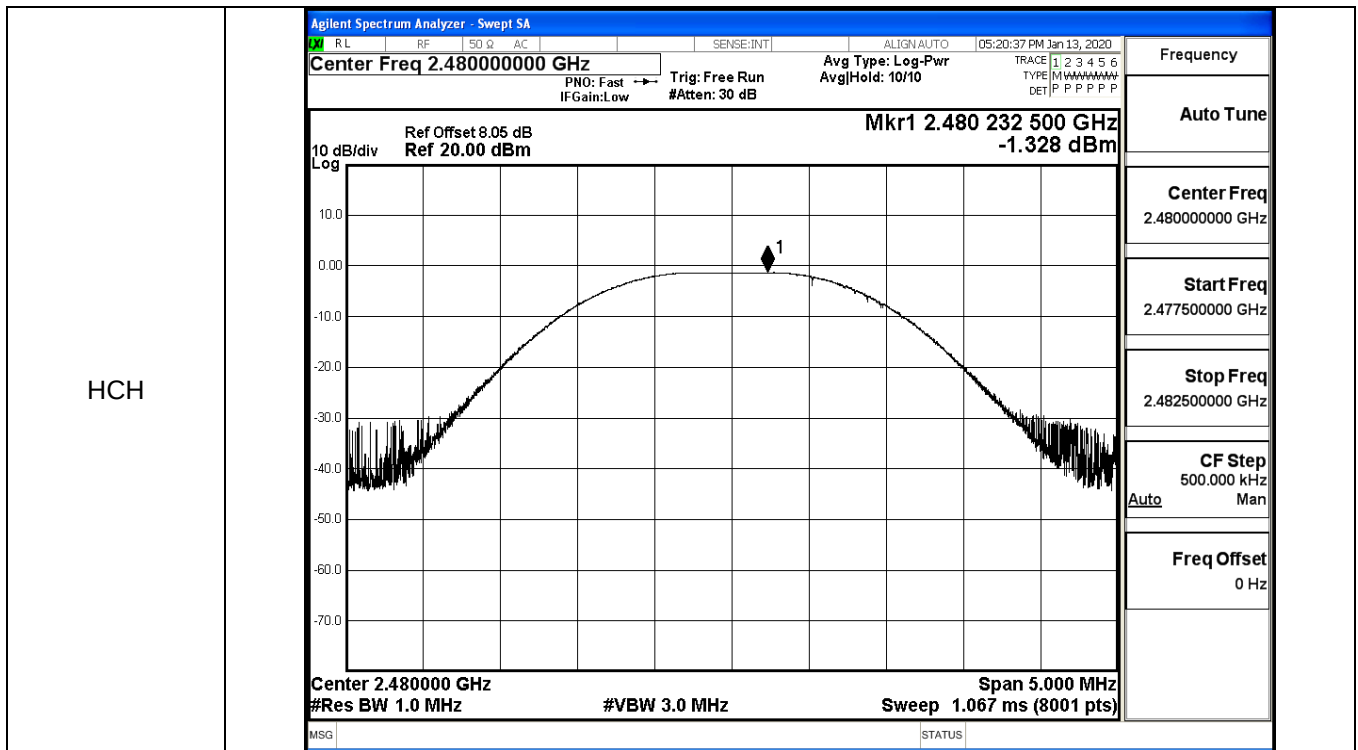
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS



A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.254	30	PASS
BT LE	MCH	-0.78	30	PASS
BT LE	HCH	-1.328	30	PASS



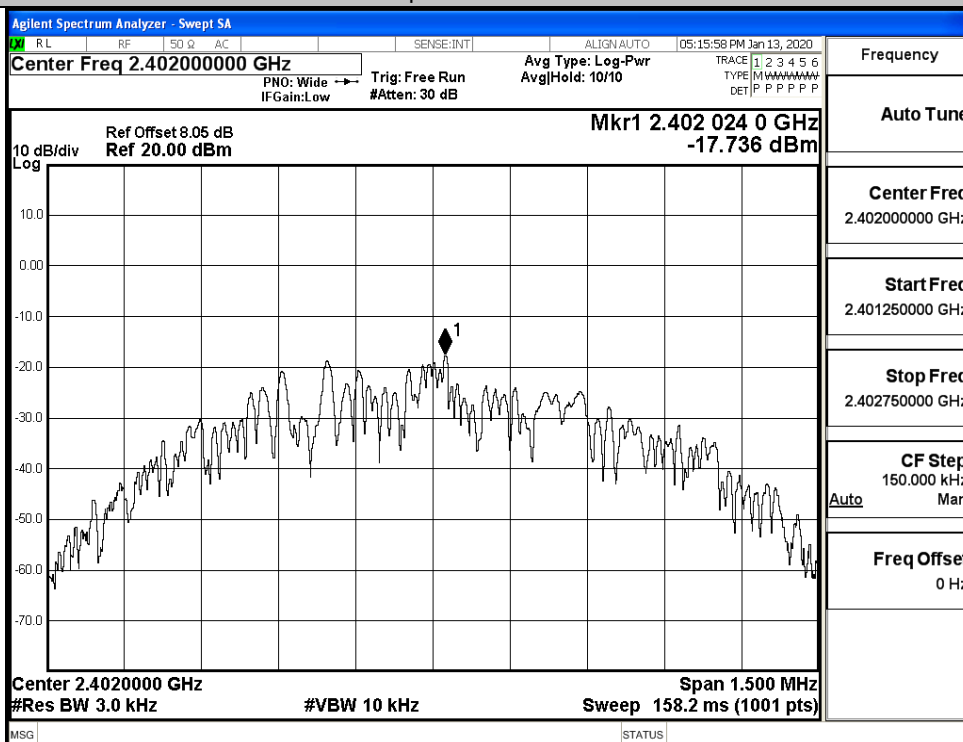


A.3 Maximum Power Spectral Density

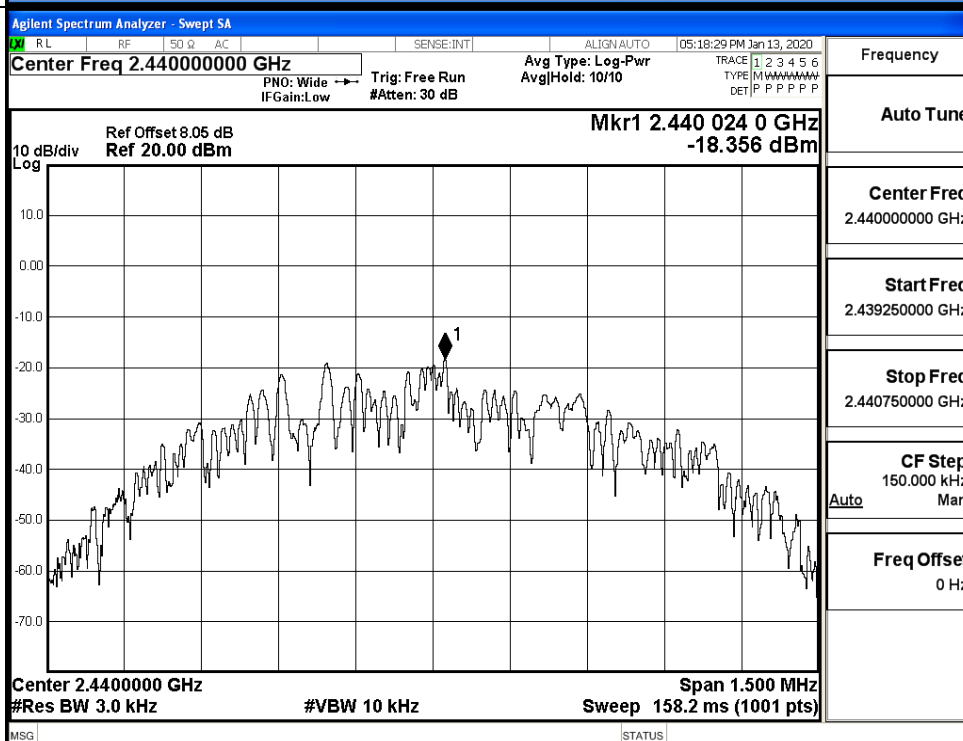
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-17.736	8	PASS
BT LE	MCH	-18.356	8	PASS
BT LE	HCH	-18.896	8	PASS

Test Graphs

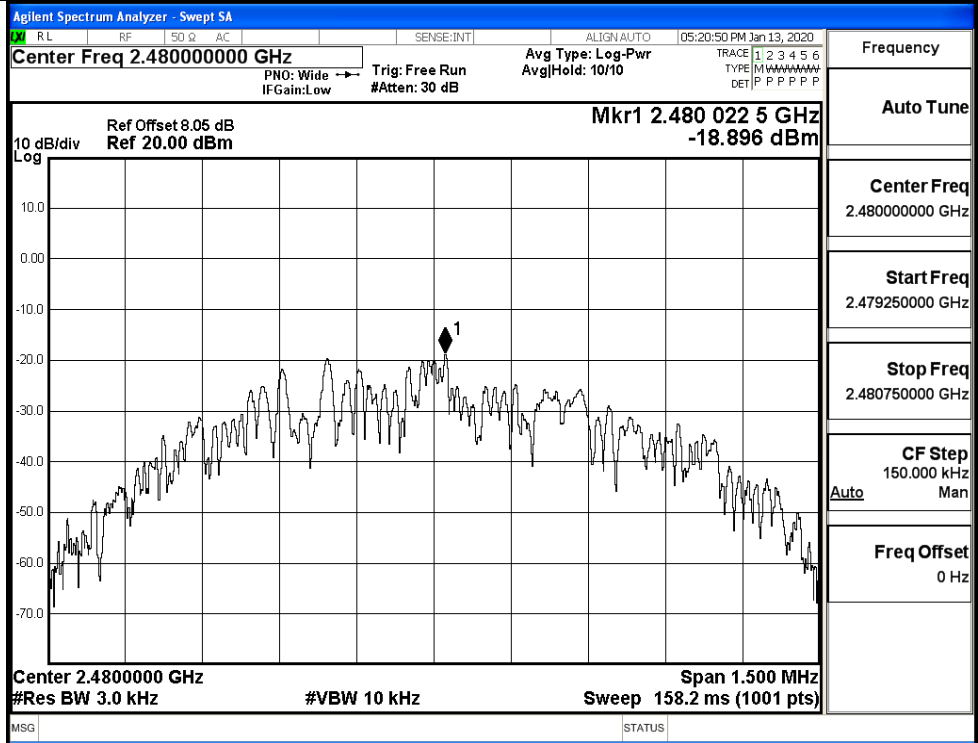
LCH



MCH



HCH

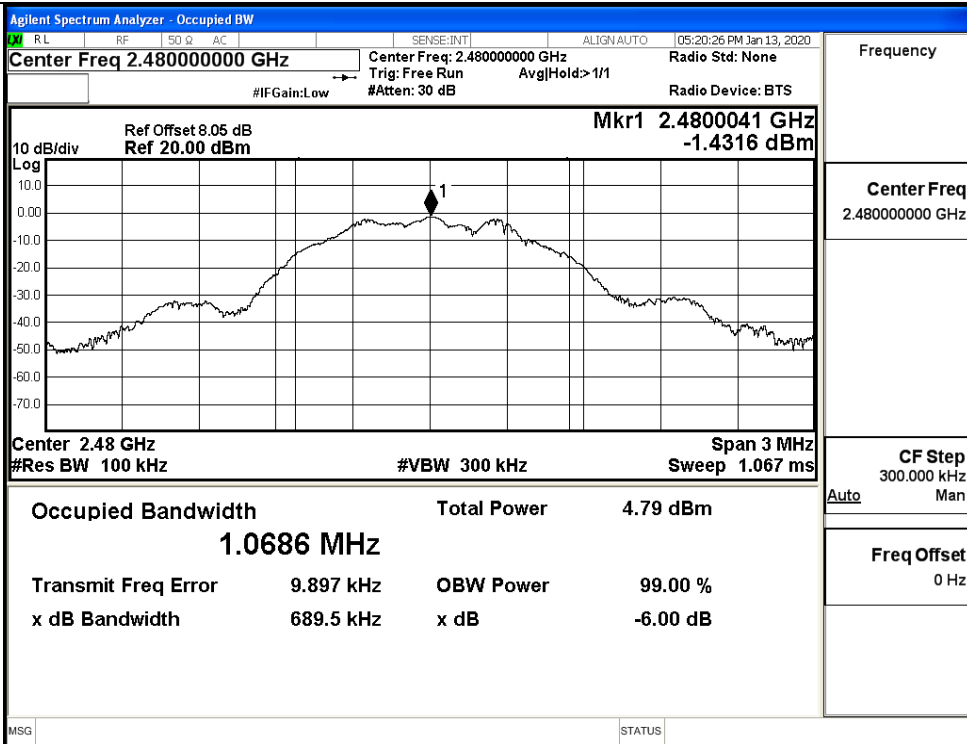


A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6911	≥ 0.5	PASS
BT LE	MCH	0.6870	≥ 0.5	PASS
BT LE	HCH	0.6895	≥ 0.5	PASS

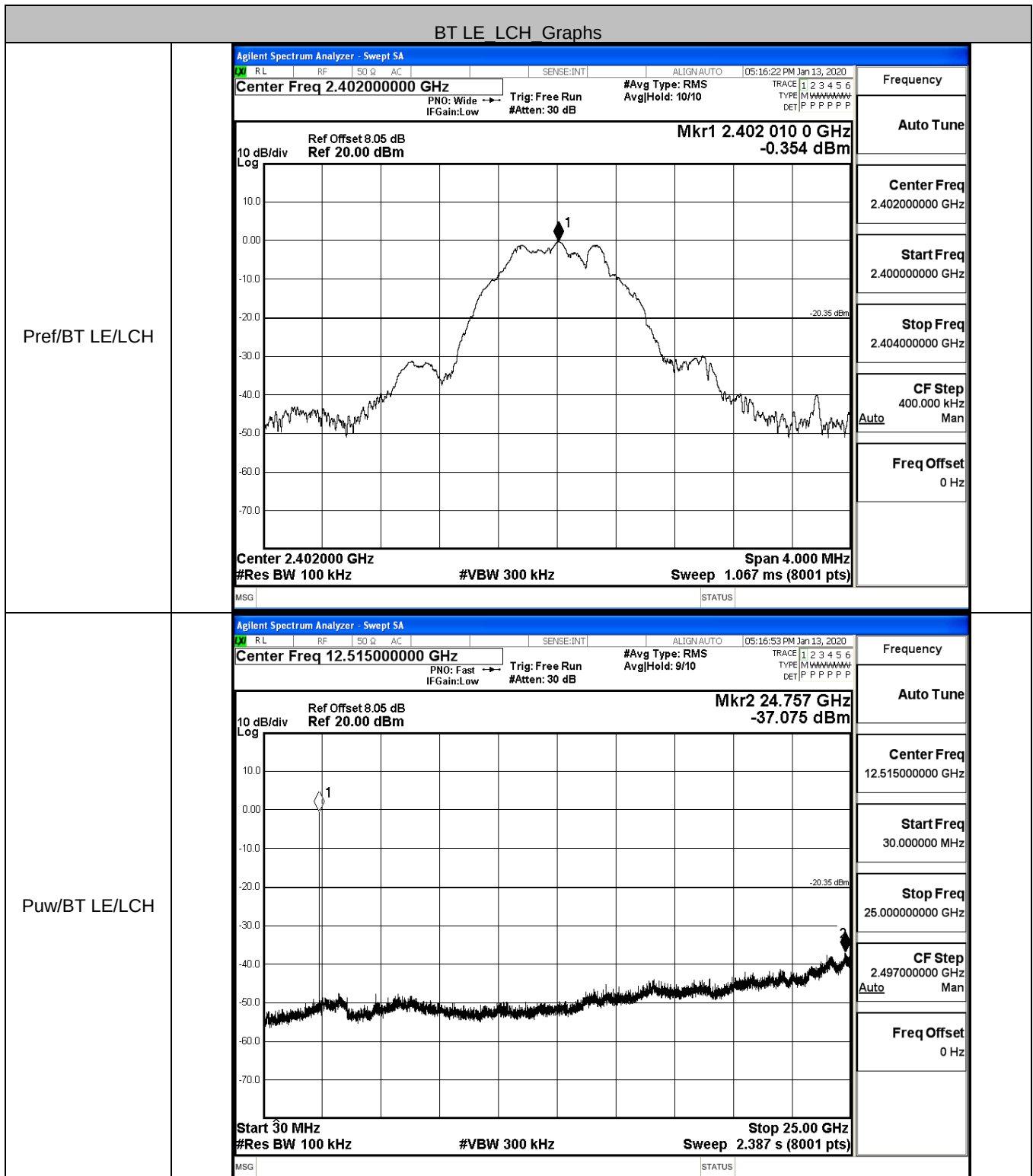
Test Graphs			
LCH		Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 05:15:34 PM Jan 13, 2020 Center Freq 2.402000000 GHz Center Freq: 2.402000000 GHz Radio Std: None Trig: Free Run AvgHold: 1/1 #IFGain: Low #Atten: 30 dB Radio Device: BTS Ref Offset 8.05 dB Mkr1 2.4020135 GHz Ref 20.00 dBm -0.68681 dBm 10 dB/div Log Center 2.402 GHz Span 3 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms Occupied Bandwidth Total Power 5.54 dBm 1.0672 MHz Transmit Freq Error 12.535 kHz OBW Power 99.00 % x dB Bandwidth 691.1 kHz x dB -6.00 dB MSG STATUS	Frequency Center Freq 2.402000000 GHz CF Step 300.000 kHz Man Freq Offset 0 Hz
		Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 05:18:04 PM Jan 13, 2020 Center Freq 2.440000000 GHz Center Freq: 2.440000000 GHz Radio Std: None Trig: Free Run AvgHold: 1/1 #IFGain: Low #Atten: 30 dB Radio Device: BTS Ref Offset 8.05 dB Mkr1 2.4400079 GHz Ref 20.00 dBm -0.86285 dBm 10 dB/div Log Center 2.44 GHz Span 3 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms Occupied Bandwidth Total Power 5.35 dBm 1.0671 MHz Transmit Freq Error 10.677 kHz OBW Power 99.00 % x dB Bandwidth 687.0 kHz x dB -6.00 dB MSG STATUS	Frequency Center Freq 2.440000000 GHz CF Step 300.000 kHz Man Freq Offset 0 Hz
MCH			

HCH



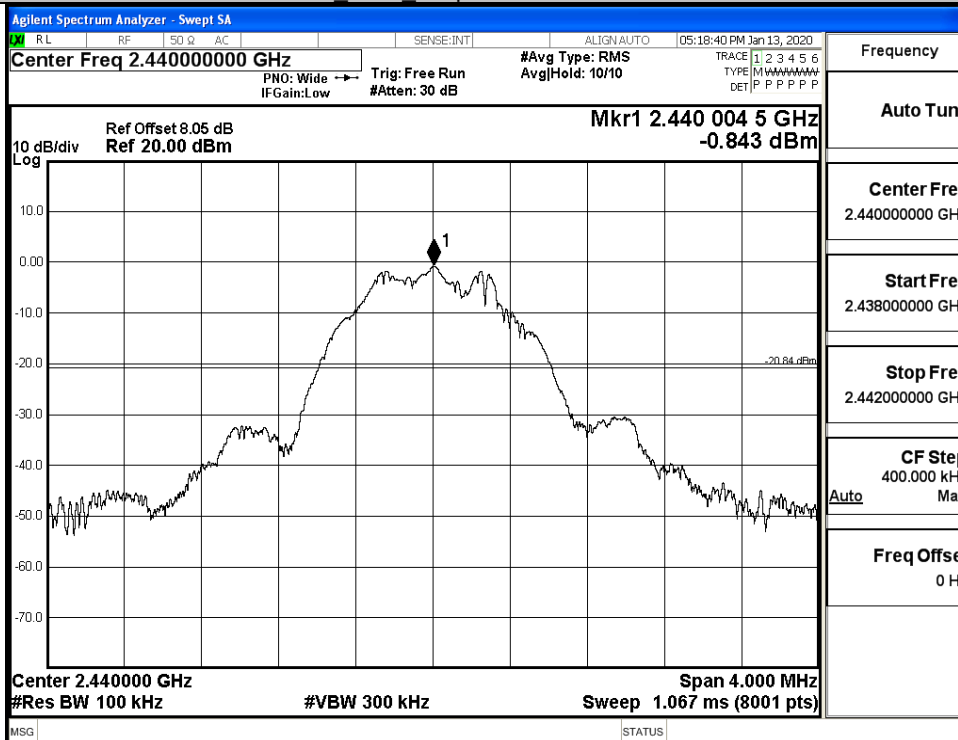
A.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.354	-37.075	-20.354	PASS
BT LE	MCH	-0.843	-37.058	-20.843	PASS
BT LE	HCH	-1.401	-36.696	-21.401	PASS

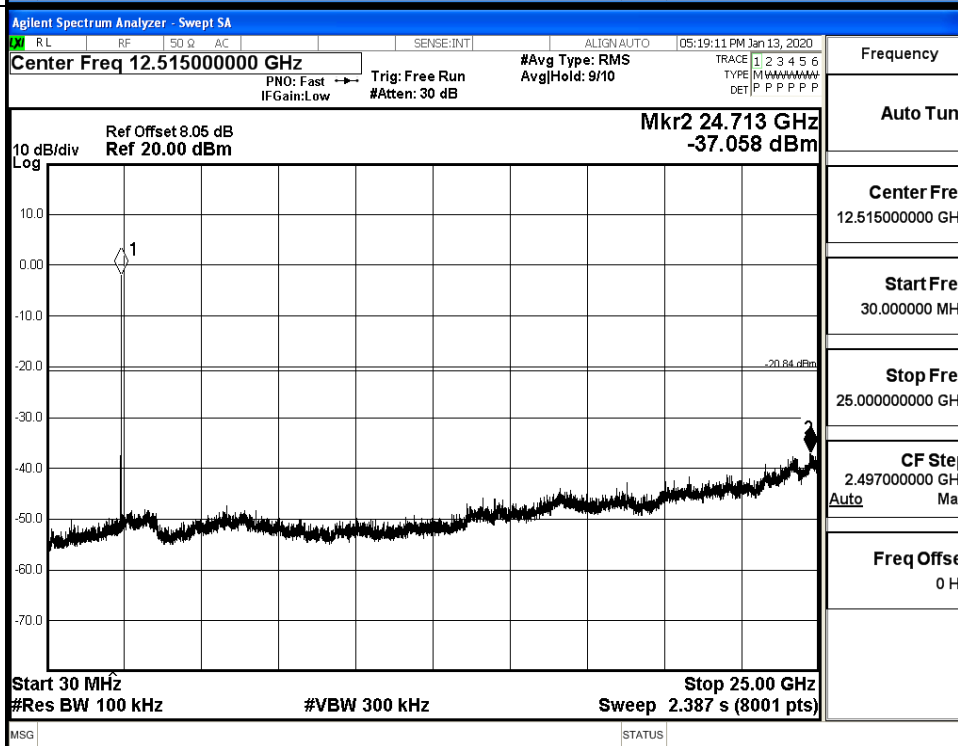


BT LE MCH Graphs

Pref/BT LE/MCH

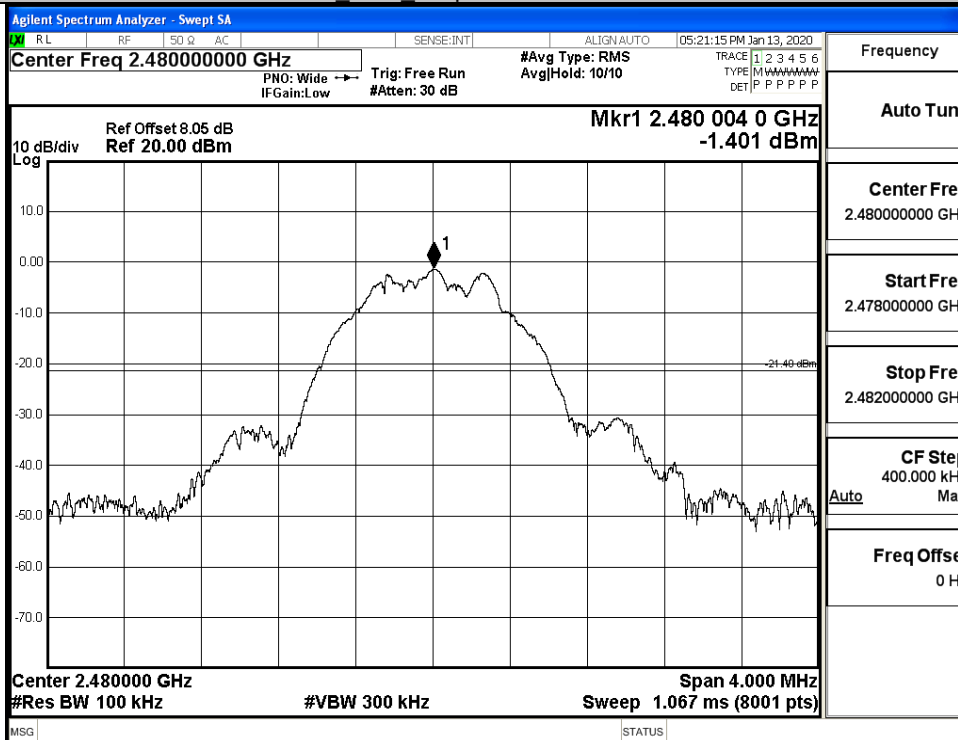


Puw/BT LE/MCH

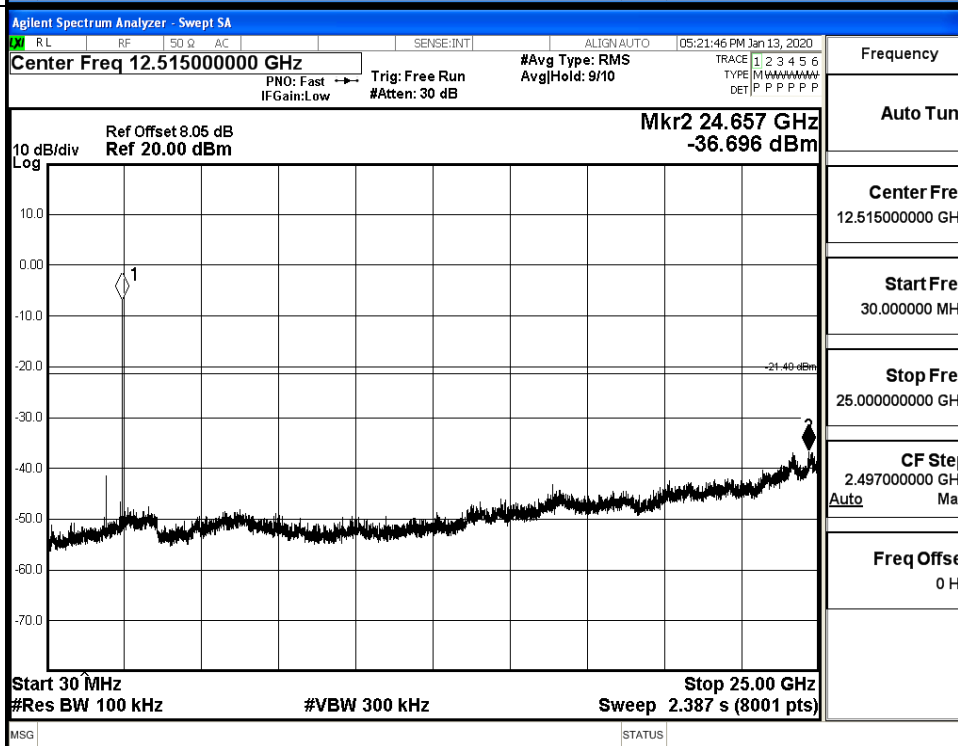


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

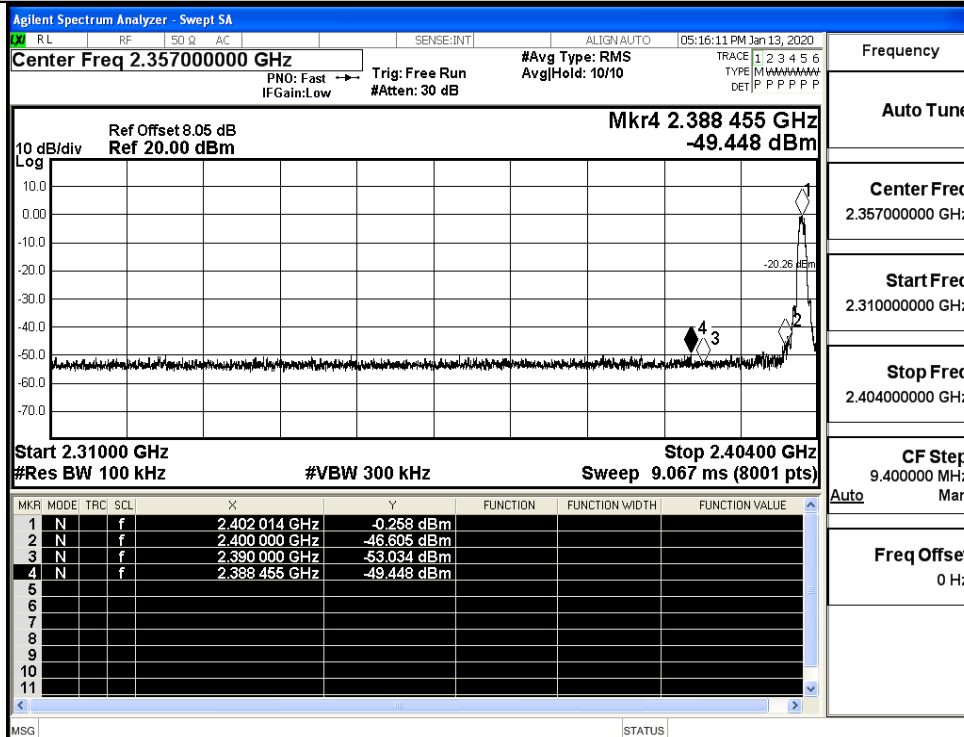


A.6 Band-edge for RF Conducted Emissions

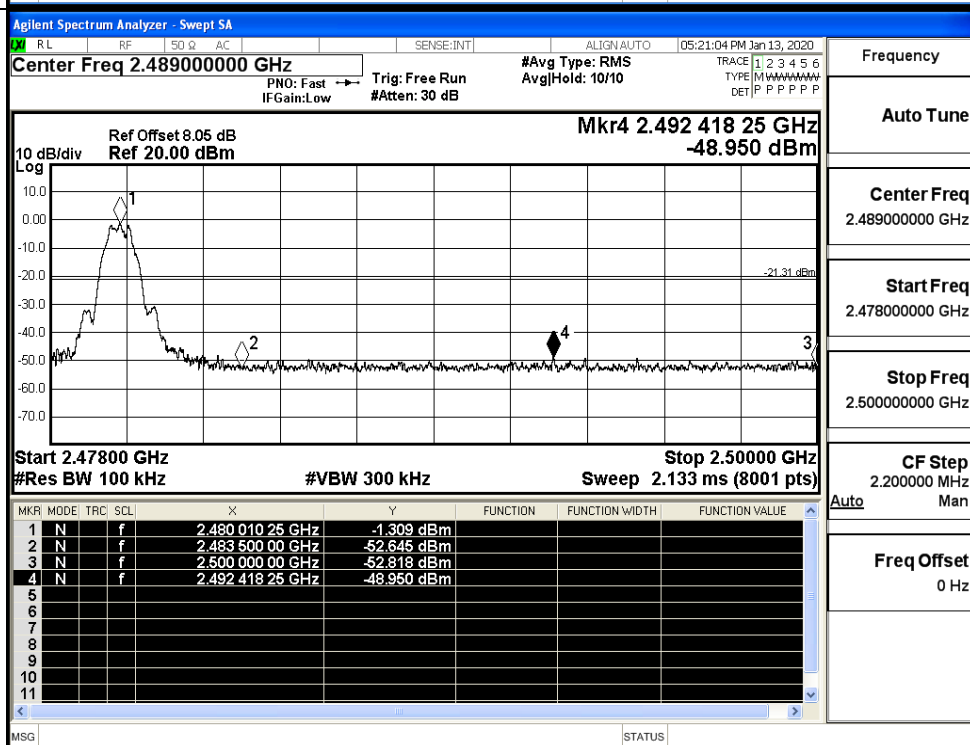
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.258	-49.448	-20.26	PASS
BT LE	HCH	-1.309	-48.950	-21.31	PASS

Test Graphs

LCH



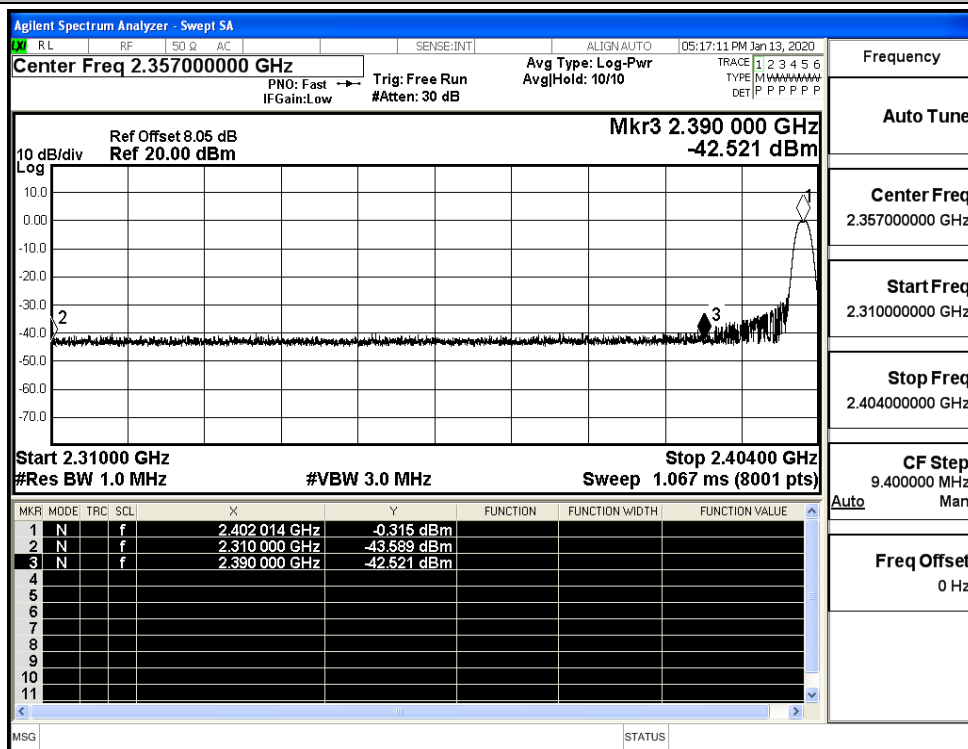
HCH



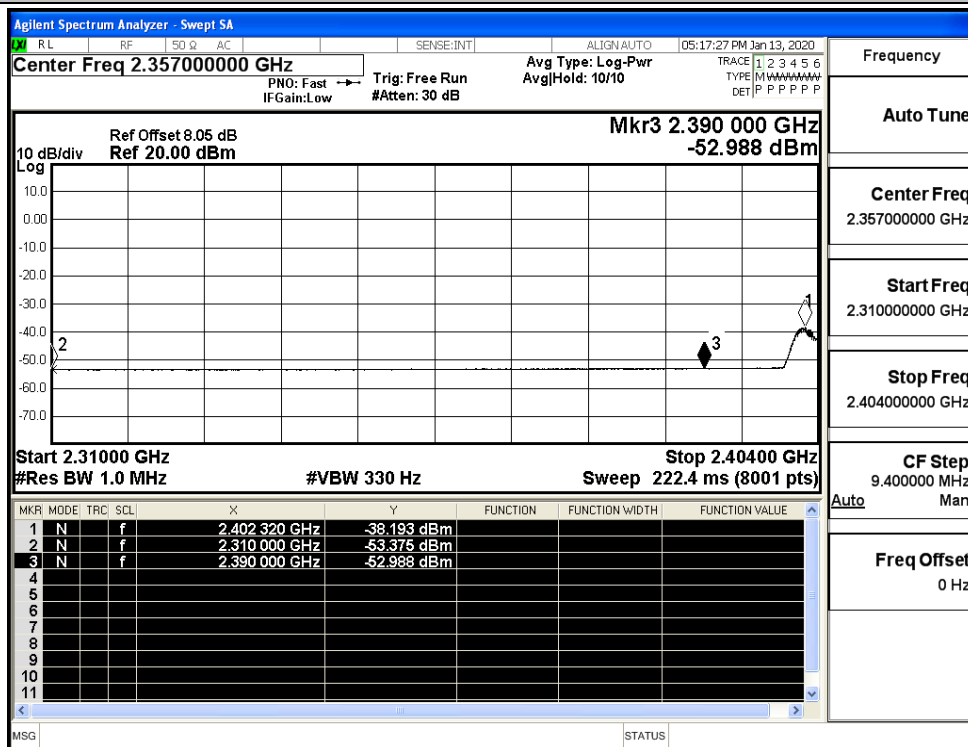
A.7 Restrict-band band-edge measurements

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	-43.59	2.0	0	53.64	PEAK	74	PASS
		Ant1	2310.0	-53.38	2.0	0	43.85	AV	54	PASS
		Ant1	2390.0	-42.52	2.0	0	54.71	PEAK	74	PASS
		Ant1	2390.0	-52.99	2.0	0	44.24	AV	54	PASS
	2480	Ant1	2483.5	-37.86	2.0	0	59.37	PEAK	74	PASS
		Ant1	2483.5	-52.50	2.0	0	44.73	AV	54	PASS
		Ant1	2500.0	-42.02	2.0	0	55.21	PEAK	74	PASS
		Ant1	2500.0	-52.41	2.0	0	44.82	AV	54	PASS

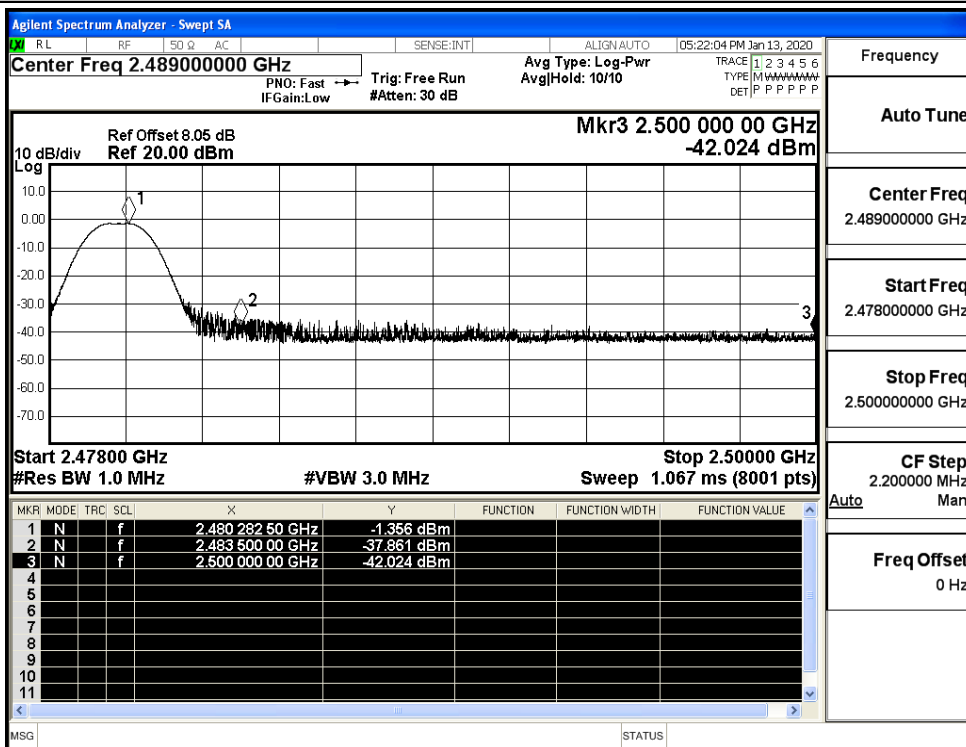
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

