



Appendix A

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

Product Name: Under-cabinet luminaires



Trade Mark:

Test Model: GE-SMRT-UCL-30-20W-2765-WH-WFBT-01

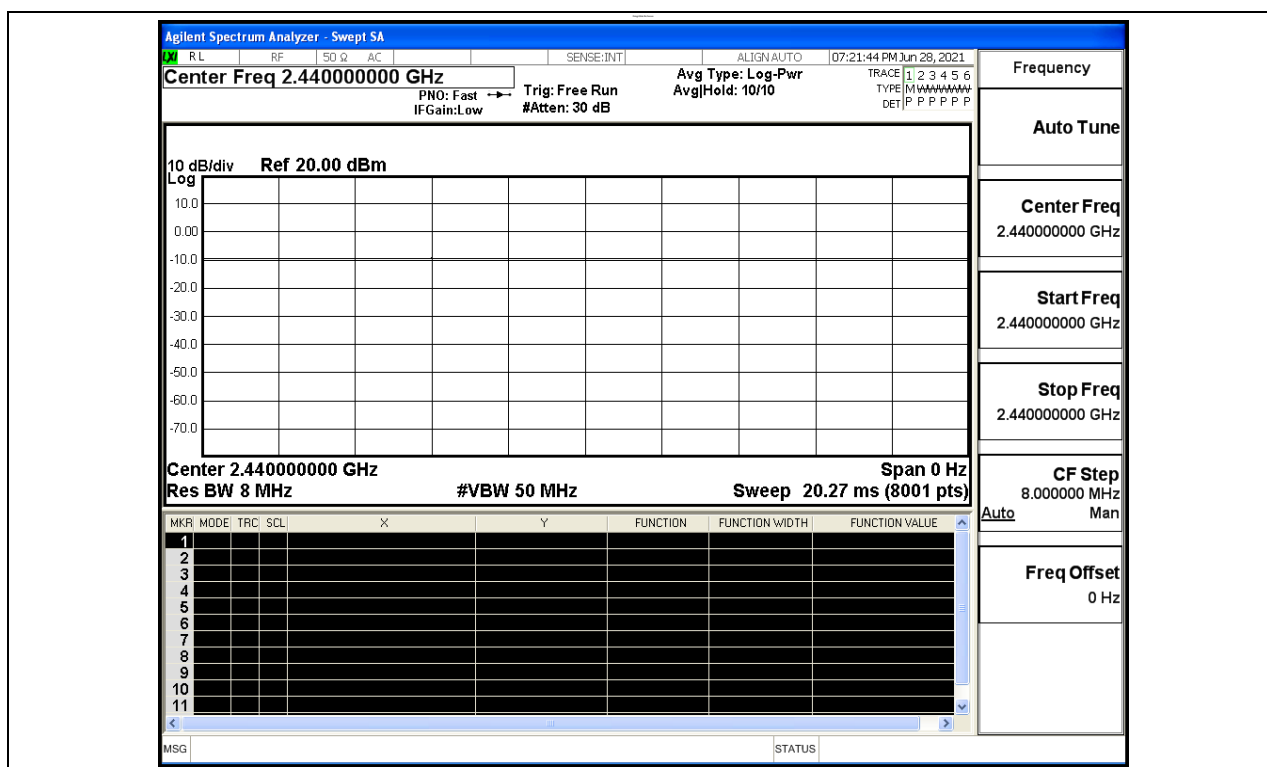
Environmental Conditions

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

A.1 Duty Cycle

BT LE

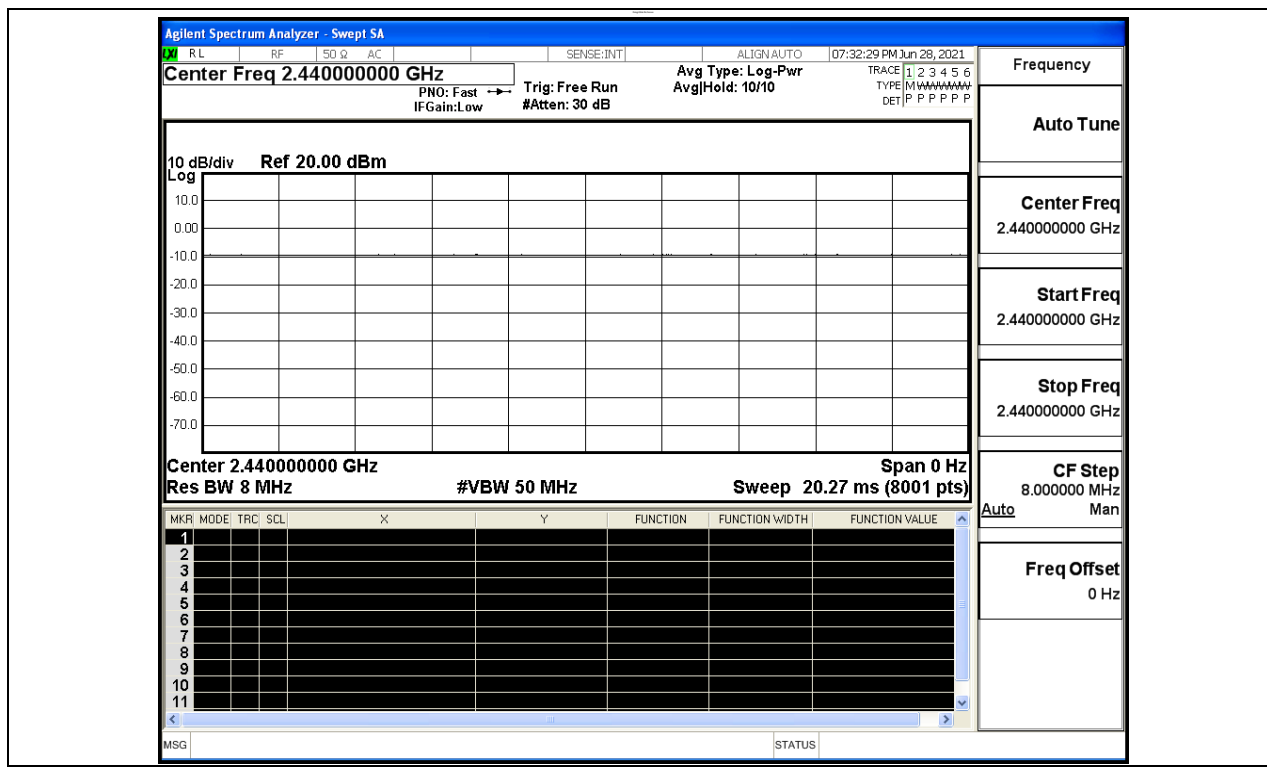
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS





BT 2LE

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

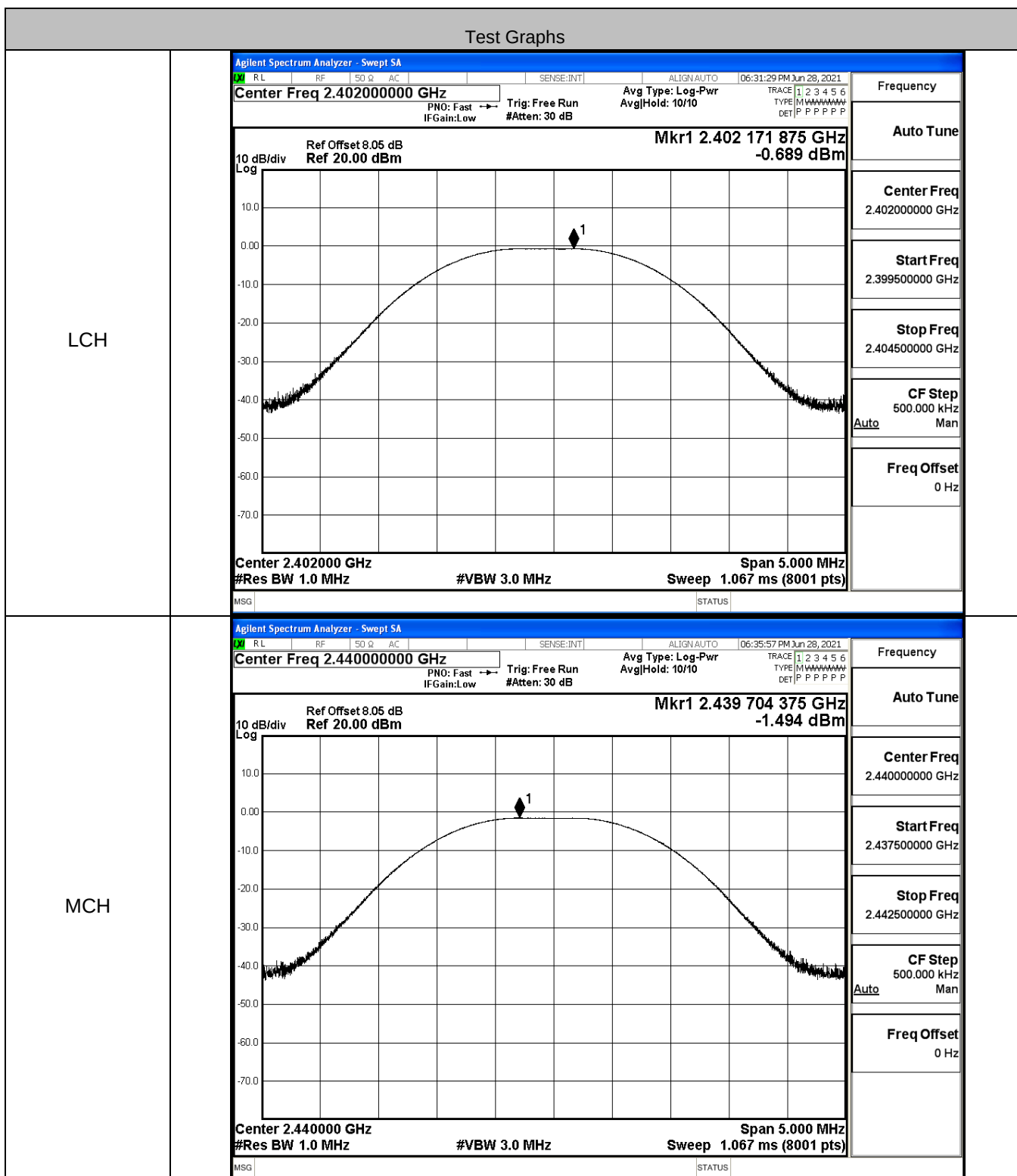


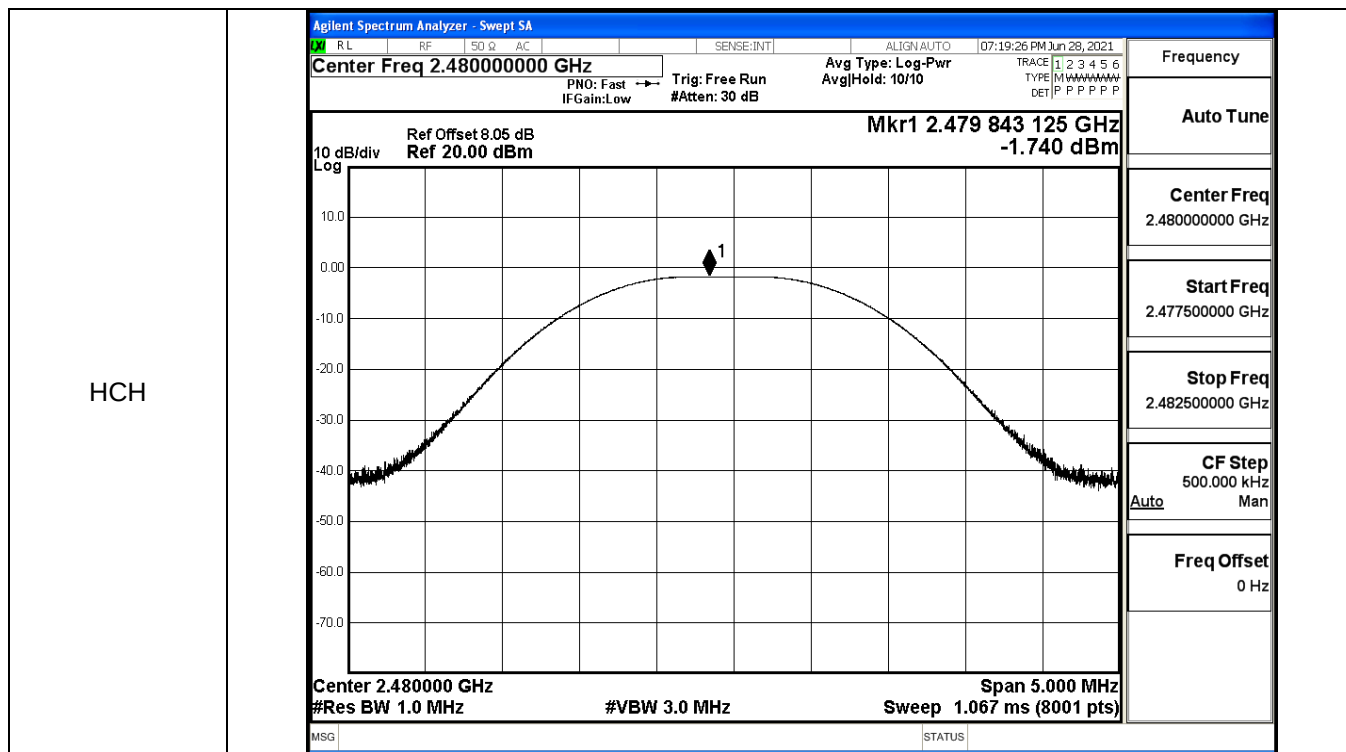


A.2 Maximum Conducted Peak Output Power

BT LE

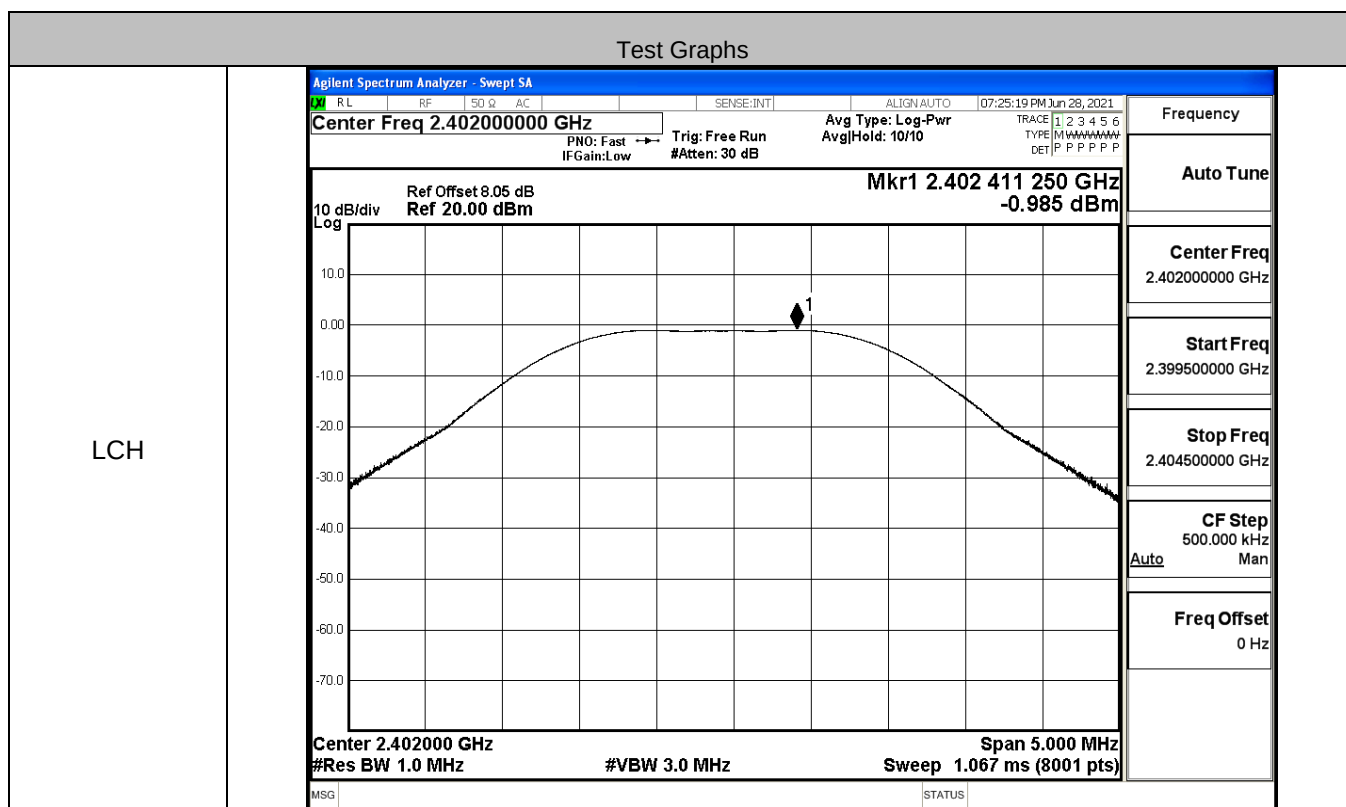
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.689	30	PASS
BT LE	MCH	-1.494	30	PASS
BT LE	HCH	-1.74	30	PASS



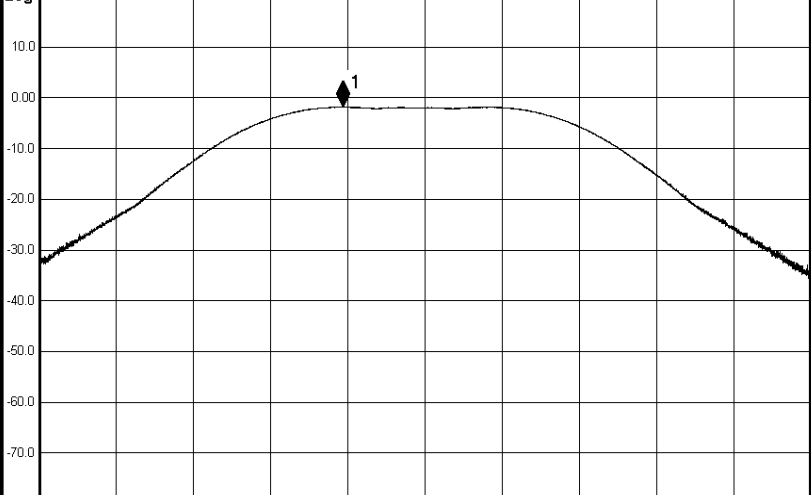
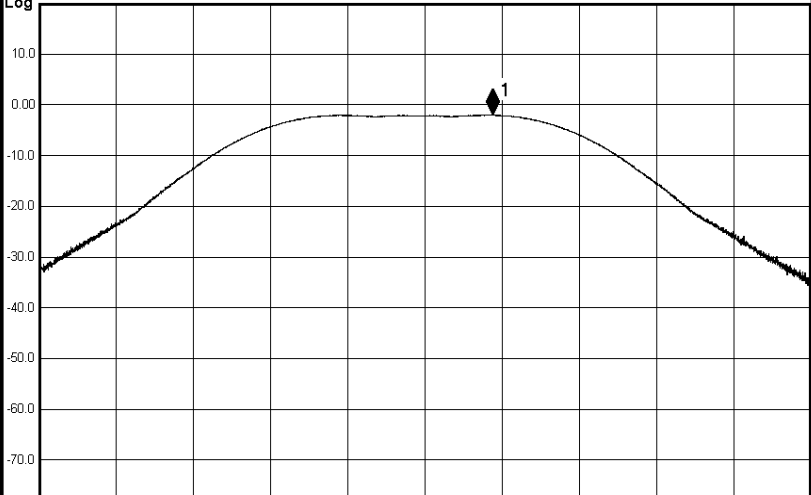


BT 2LE

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.985	30	PASS
BT LE	MCH	-1.835	30	PASS
BT LE	HCH	-2.021	30	PASS





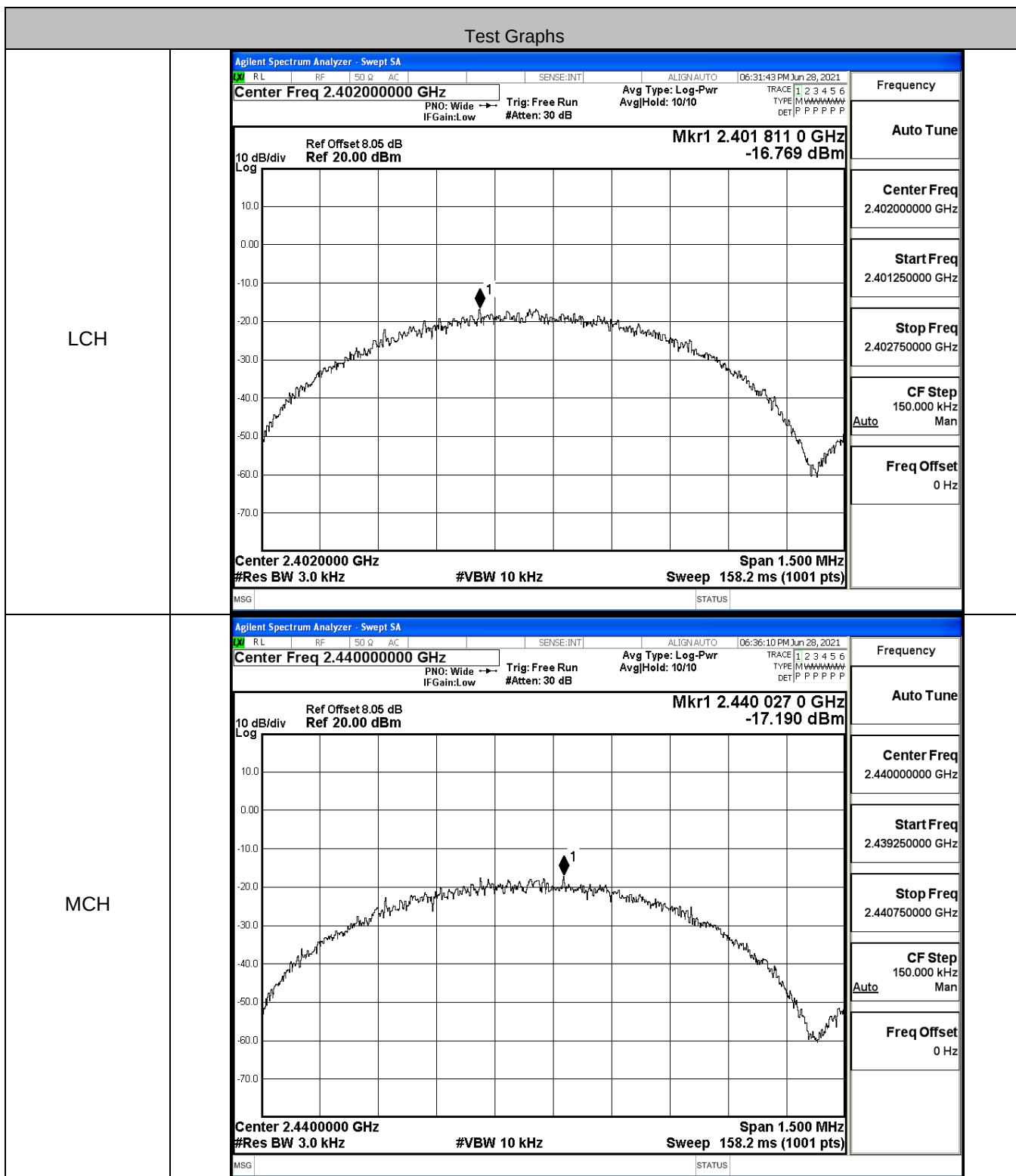
MCH	Agilent Spectrum Analyzer - Swept SA RLRF50 QACSENSE:INTALIGN AUTO07:28:12 PM Jun 28, 2021 Center Freq 2.440000000 GHz PN0: FastIFGain:LowTrig: Free Run#Atten: 30 dB Avg Type: Log-PwrAvalHold: 10/10 TRACE 1 2 3 4 5 6TYPE M W M M M M M M M MDET P P P P P P P Ref Offset 8.05 dBRef 20.00 dBm Mkr1 2.439 470 625 GHz-1.835 dBm 10 dB/divLog  Center 2.440000 GHz#Res BW 1.0 MHz#VBW 3.0 MHzSweep 1.067 ms (8001 pts) Span 5.000 MHz MSGSTATUS Frequency Auto Tune Center Freq2.440000000 GHz Start Freq2.437500000 GHz Stop Freq2.442500000 GHz CF Step500.000 kHzManAuto Freq Offset0 Hz
HCH	Agilent Spectrum Analyzer - Swept SA RLRF50 QACSENSE:INTALIGN AUTO07:30:04 PM Jun 28, 2021 Center Freq 2.480000000 GHz PN0: FastIFGain:LowTrig: Free Run#Atten: 30 dB Avg Type: Log-PwrAvalHold: 10/10 TRACE 1 2 3 4 5 6TYPE M W M M M M M M M MDET P P P P P P P Ref Offset 8.05 dBRef 20.00 dBm Mkr1 2.480 436 875 GHz-2.021 dBm 10 dB/divLog  Center 2.480000 GHz#Res BW 1.0 MHz#VBW 3.0 MHzSweep 1.067 ms (8001 pts) Span 5.000 MHz MSGSTATUS Frequency Auto Tune Center Freq2.480000000 GHz Start Freq2.477500000 GHz Stop Freq2.482500000 GHz CF Step500.000 kHzManAuto Freq Offset0 Hz

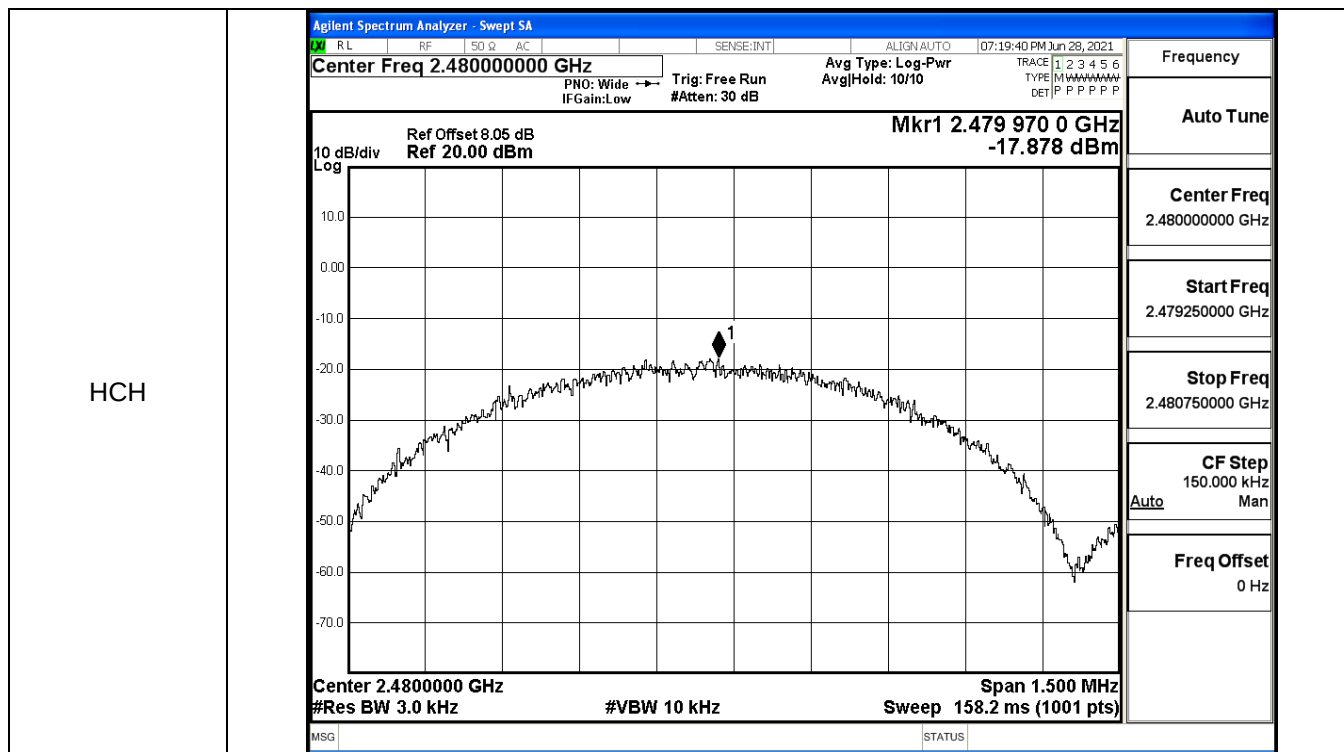


A.3 Maximum Power Spectral Density

BT LE

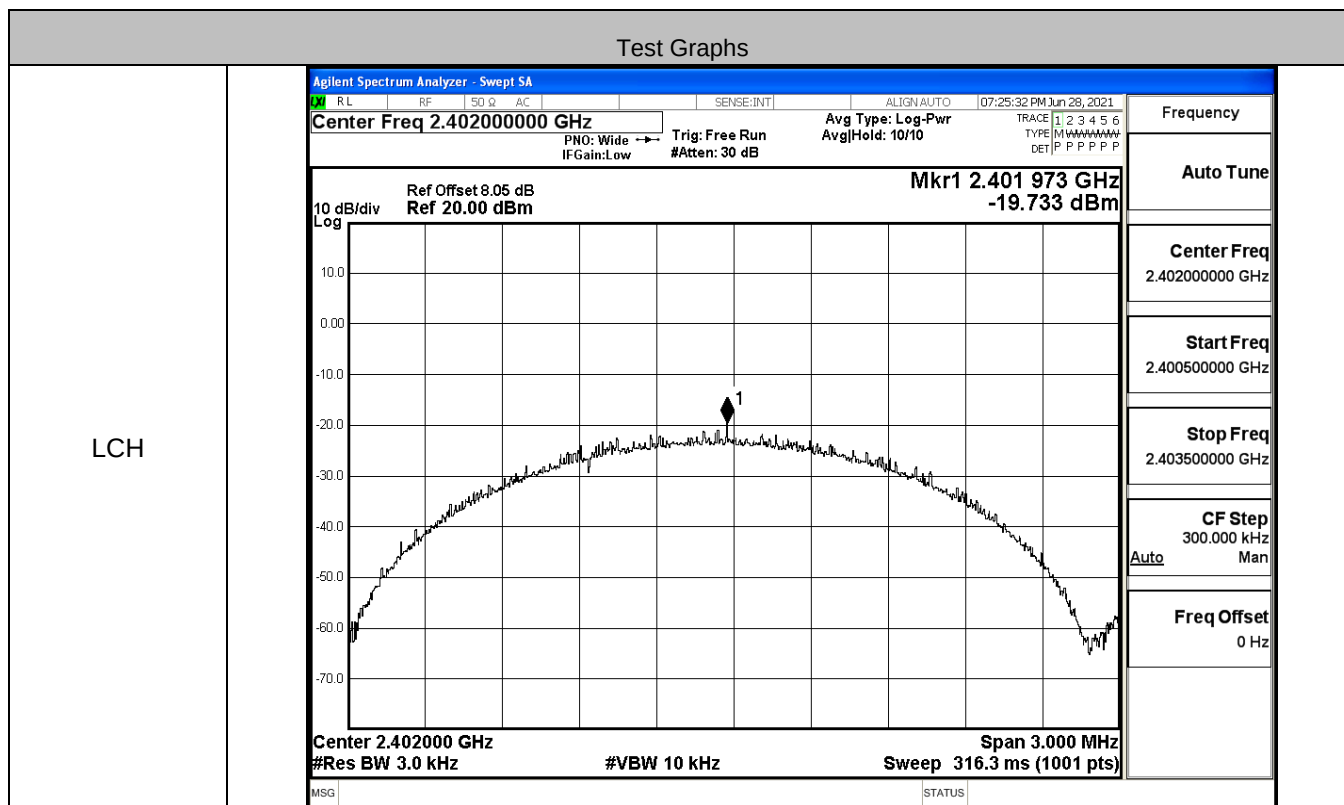
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-16.769	8	PASS
BT LE	MCH	-17.190	8	PASS
BT LE	HCH	-17.878	8	PASS



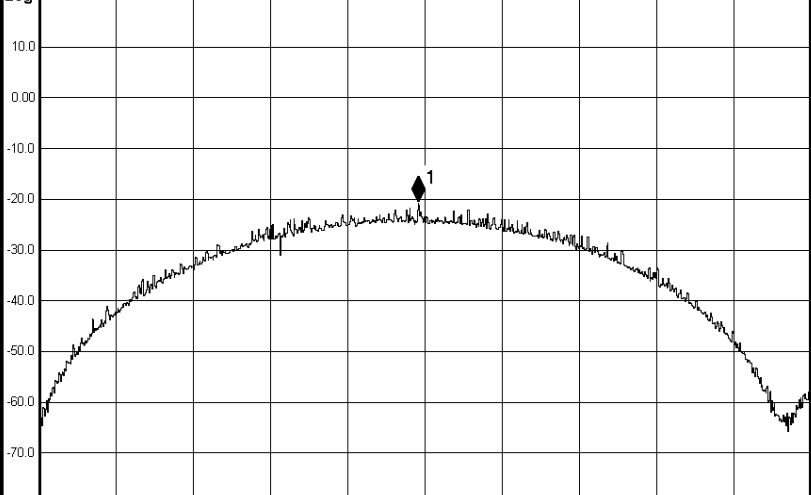
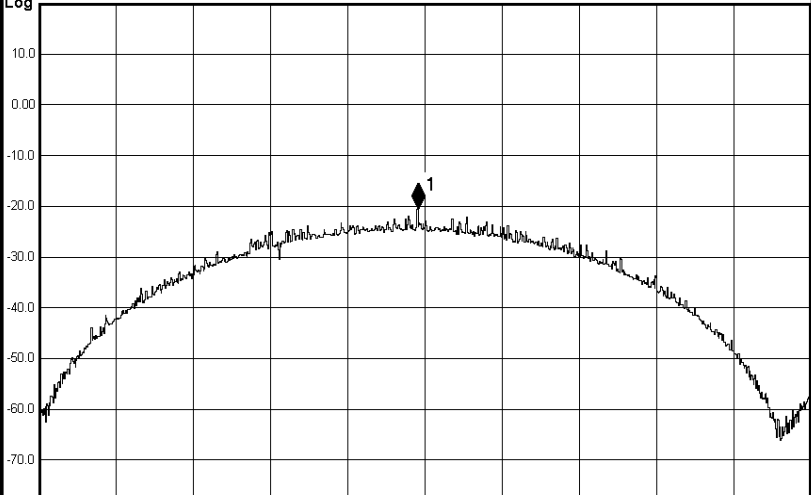


BT 2LE

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-19.733	8	PASS
BT LE	MCH	-20.727	8	PASS
BT LE	HCH	-20.657	8	PASS





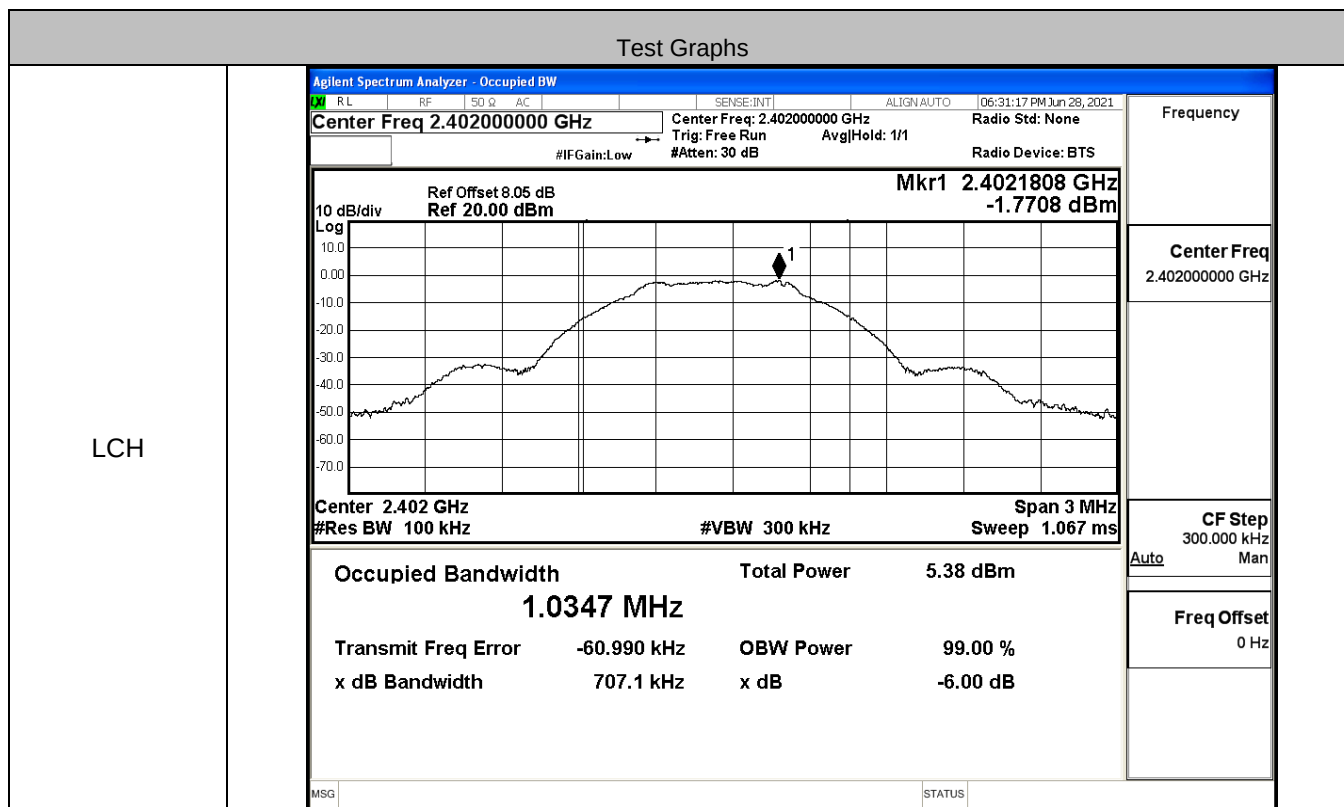
MCH	Agilent Spectrum Analyzer - Swept SA RL RF 50 Ω AC SENSE:INT ALIGN:AUTO 07:28:26 PM Jun 28, 2021 Center Freq 2.440000000 GHz PNO: Wide IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr AvgHold: 10/10 TRACE 1 2 3 4 5 6 TYPE M W M M M M M M DET P P P P P P Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.439 976 GHz -20.727 dBm 10 dB/div Log  Center 2.440000 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 3.000 MHz Sweep 316.3 ms (1001 pts) MSG STATUS Frequency Auto Tune Center Freq 2.440000000 GHz Start Freq 2.438500000 GHz Stop Freq 2.441500000 GHz CF Step 300.000 kHz Auto Man Freq Offset 0 Hz
HCH	Agilent Spectrum Analyzer - Swept SA RL RF 50 Ω AC SENSE:INT ALIGN:AUTO 07:30:17 PM Jun 28, 2021 Center Freq 2.480000000 GHz PNO: Wide IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr AvgHold: 10/10 TRACE 1 2 3 4 5 6 TYPE M W M M M M M M DET P P P P P P Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.479 973 GHz -20.657 dBm 10 dB/div Log  Center 2.480000 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 3.000 MHz Sweep 316.3 ms (1001 pts) MSG STATUS Frequency Auto Tune Center Freq 2.480000000 GHz Start Freq 2.478500000 GHz Stop Freq 2.481500000 GHz CF Step 300.000 kHz Auto Man Freq Offset 0 Hz



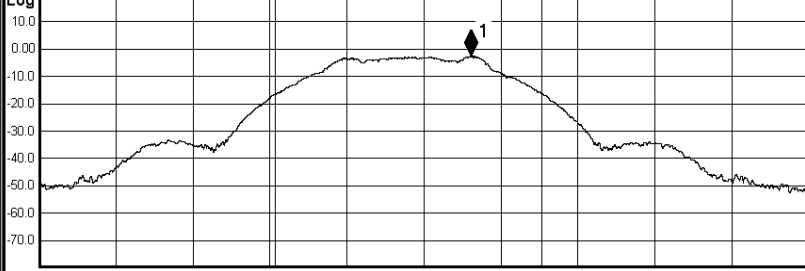
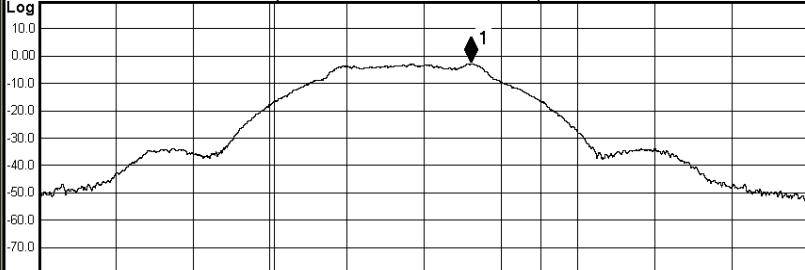
A.4 6dB Bandwidth

BT LE

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.7071	≥ 0.5	PASS
BT LE	MCH	0.7033	≥ 0.5	PASS
BT LE	HCH	0.6981	≥ 0.5	PASS



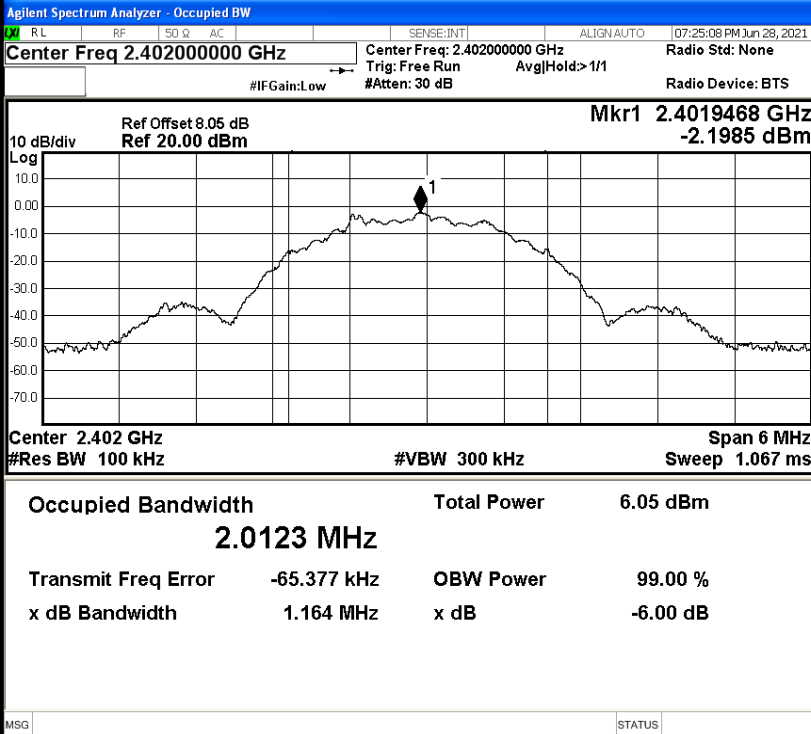
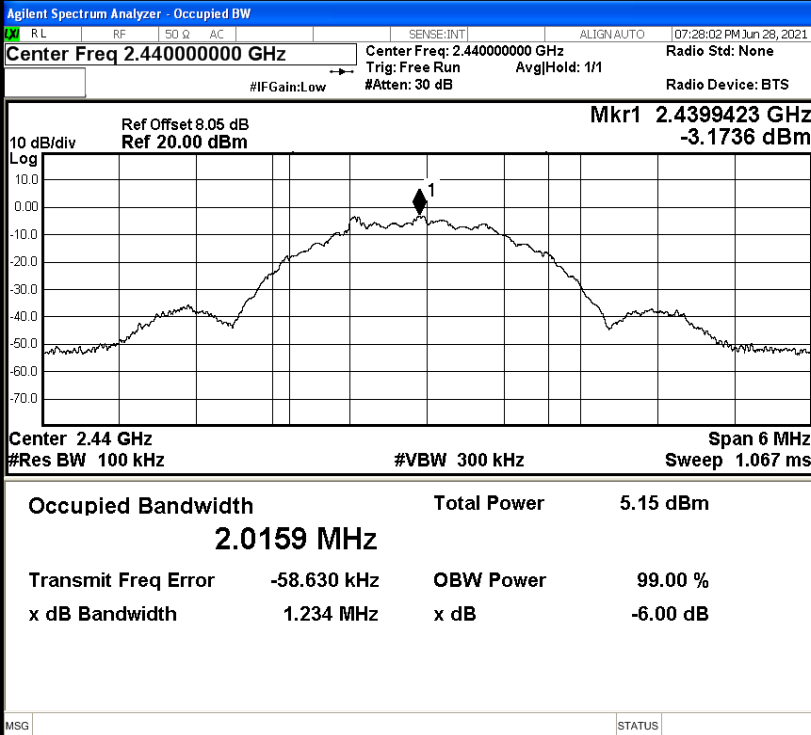


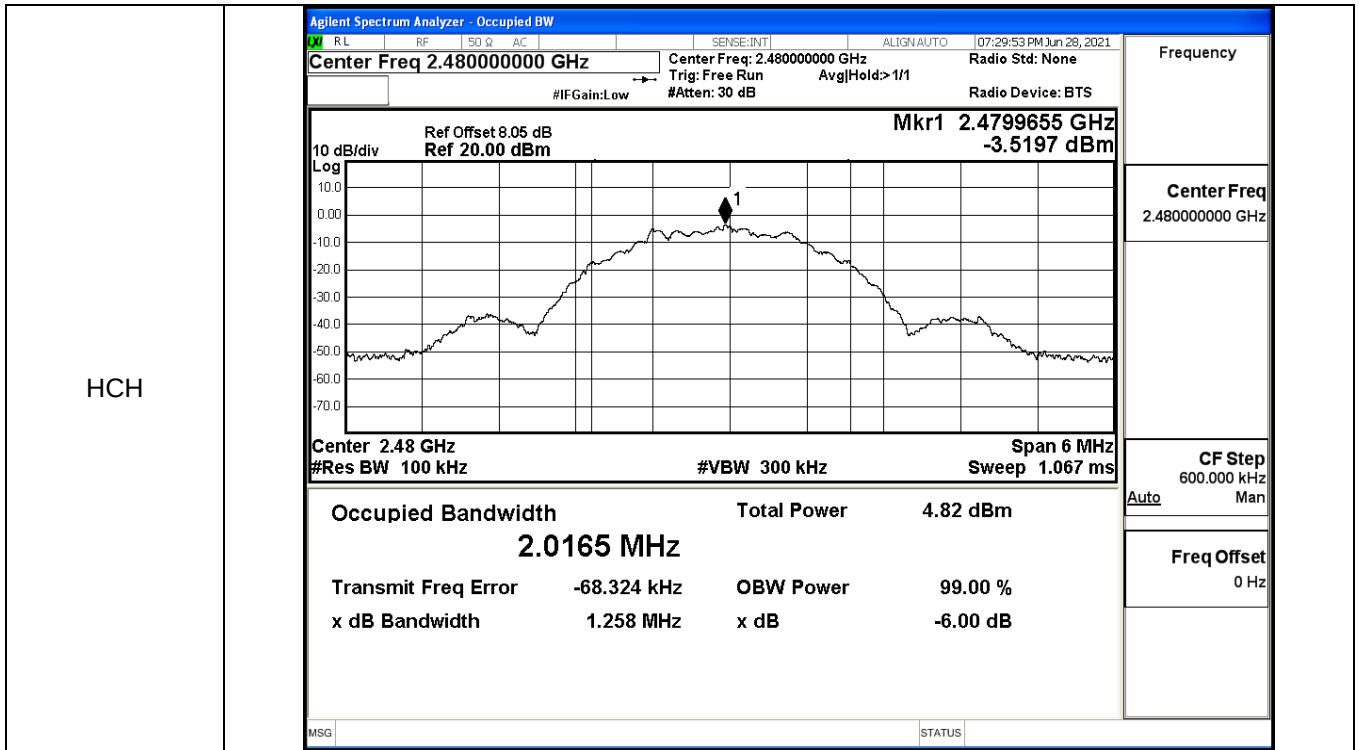
MCH	Agilent Spectrum Analyzer - Occupied BW RLRF50 QACSENSE:INTALIGN AUTO06:35:46 PM Jun 28, 2021 Center Freq 2.440000000 GHzCenter Freq: 2.440000000 GHzRadio Std: None Trig: Free RunAvgHold: 1/1 #IFGain:Low#Atten: 30 dBRadio Device: BTS 10 dB/divRef Offset 8.05 dBMkr1 2.4401823 GHz LogRef 20.00 dBm-2.6453 dBm  Center 2.44 GHzSpan 3 MHz #Res BW 100 kHz#VBW 300 kHzSweep 1.067 ms Occupied BandwidthTotal Power4.59 dBm 1.0322 MHz Transmit Freq Error-58.646 kHzOBW Power99.00 % x dB Bandwidth703.3 kHzx dB-6.00 dB MSGSTATUS Frequency Center Freq2.440000000 GHz CF Step300.000 kHz AutoMan Freq Offset0 Hz
HCH	Agilent Spectrum Analyzer - Occupied BW RLRF50 QACSENSE:INTALIGN AUTO07:19:15 PM Jun 28, 2021 Center Freq 2.480000000 GHzCenter Freq: 2.480000000 GHzRadio Std: None Trig: Free RunAvgHold: 1/1 #IFGain:Low#Atten: 30 dBRadio Device: BTS 10 dB/divRef Offset 8.05 dBMkr1 2.4801834 GHz LogRef 20.00 dBm-2.8332 dBm  Center 2.48 GHzSpan 3 MHz #Res BW 100 kHz#VBW 300 kHzSweep 1.067 ms Occupied BandwidthTotal Power4.34 dBm 1.0322 MHz Transmit Freq Error-63.034 kHzOBW Power99.00 % x dB Bandwidth698.1 kHzx dB-6.00 dB MSGSTATUS Frequency Center Freq2.480000000 GHz CF Step300.000 kHz AutoMan Freq Offset0 Hz



BT 2LE

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	1.164	≥ 0.5	PASS
BT LE	MCH	1.234	≥ 0.5	PASS
BT LE	HCH	1.258	≥ 0.5	PASS

Test Graphs			
LCH			Frequency Center Freq 2.402000000 GHz CF Step 600.000 kHz Auto Freq Offset 0 Hz
MCH			Frequency Center Freq 2.440000000 GHz CF Step 600.000 kHz Auto Freq Offset 0 Hz

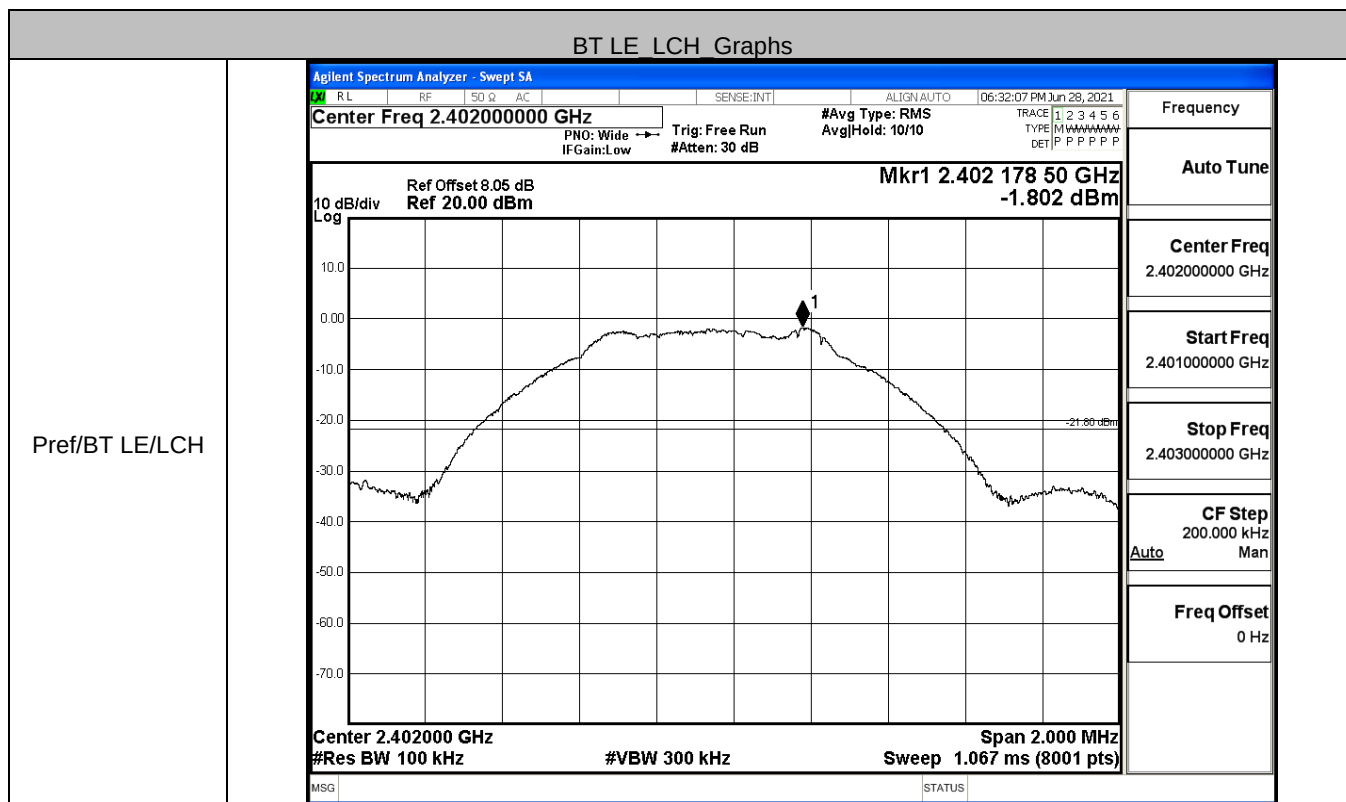


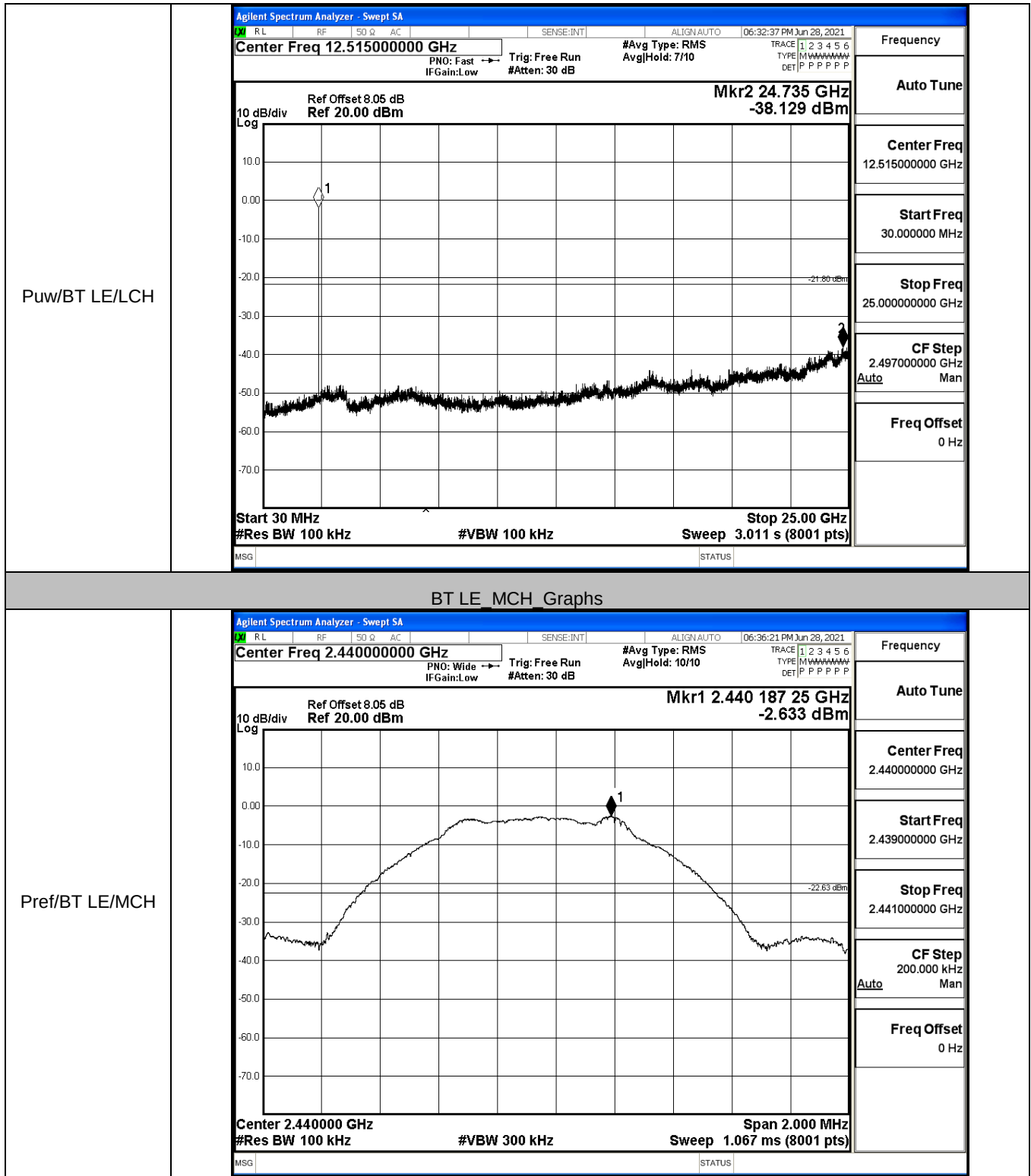


A.5 RF Conducted Spurious Emissions

BT LE

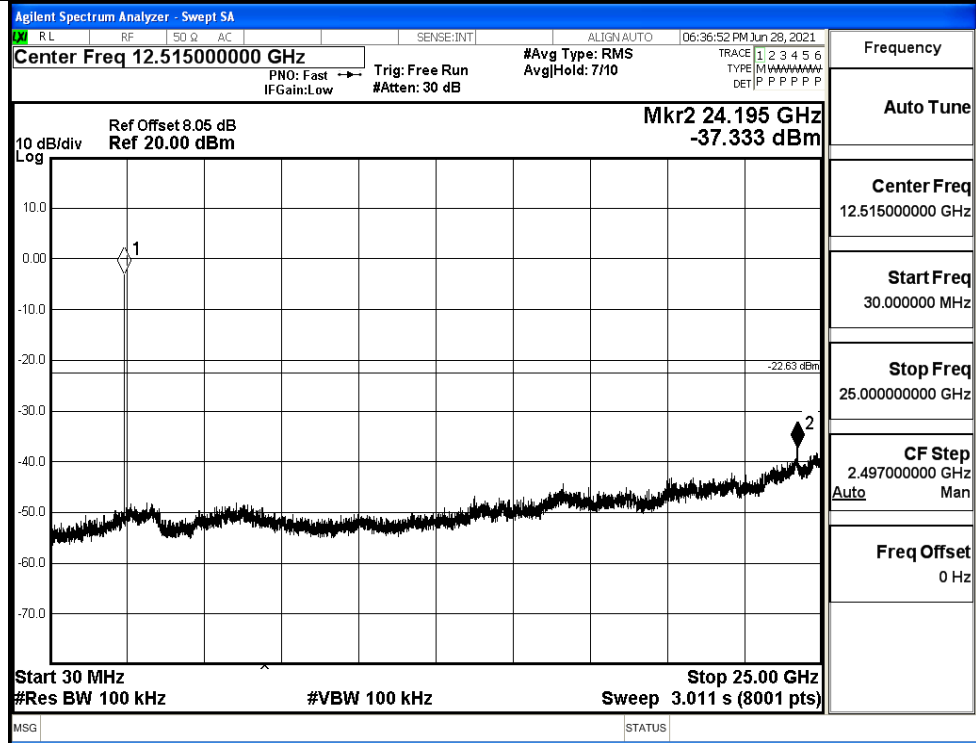
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-1.802	-38.129	-21.802	PASS
BT LE	MCH	-2.633	-37.333	-22.633	PASS
BT LE	HCH	-2.81	-37.403	-22.810	PASS





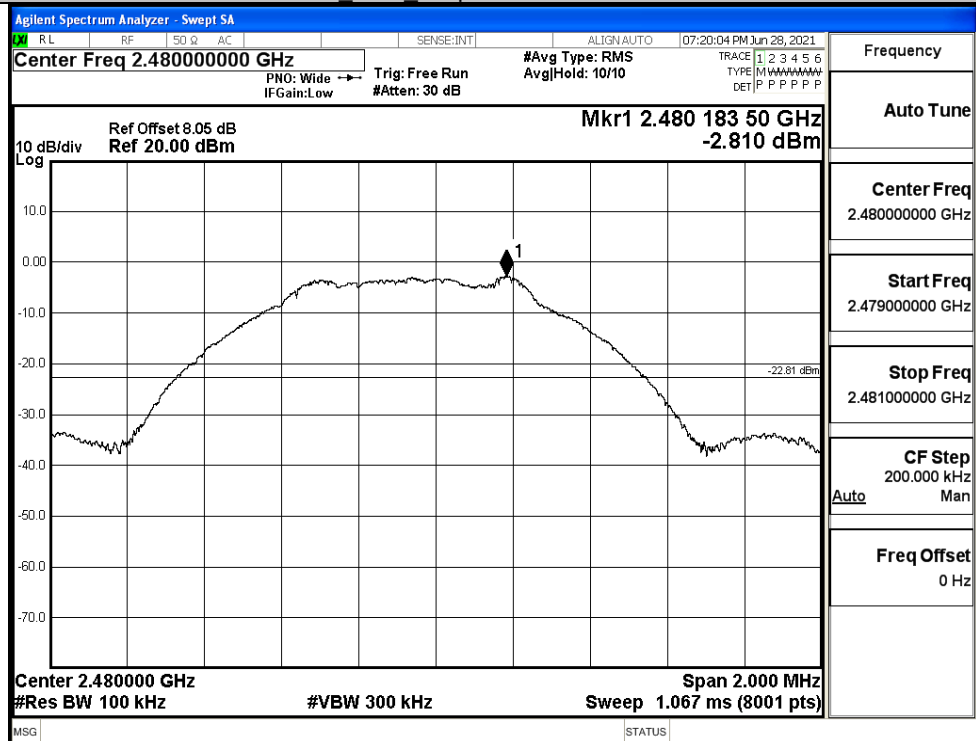


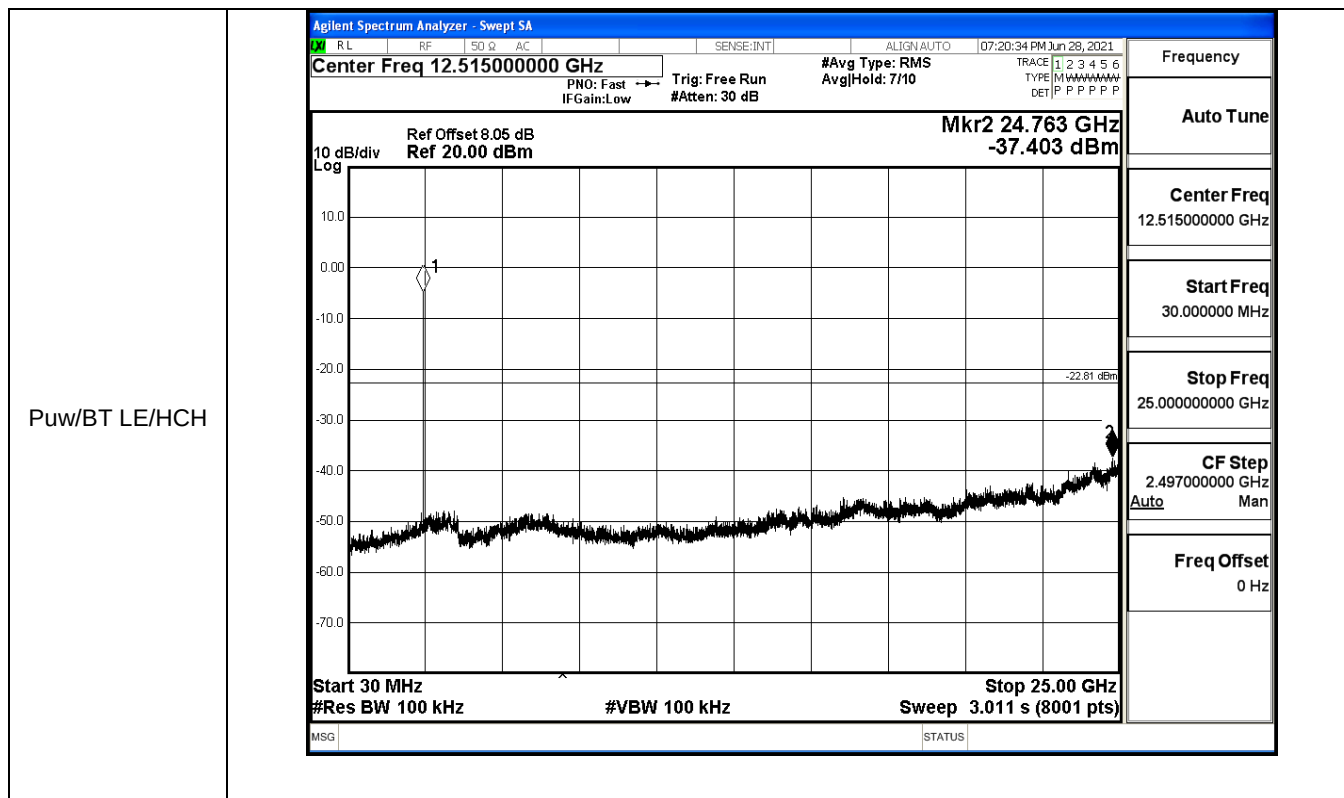
Puw/BT LE/MCH



BT LE HCH Graphs

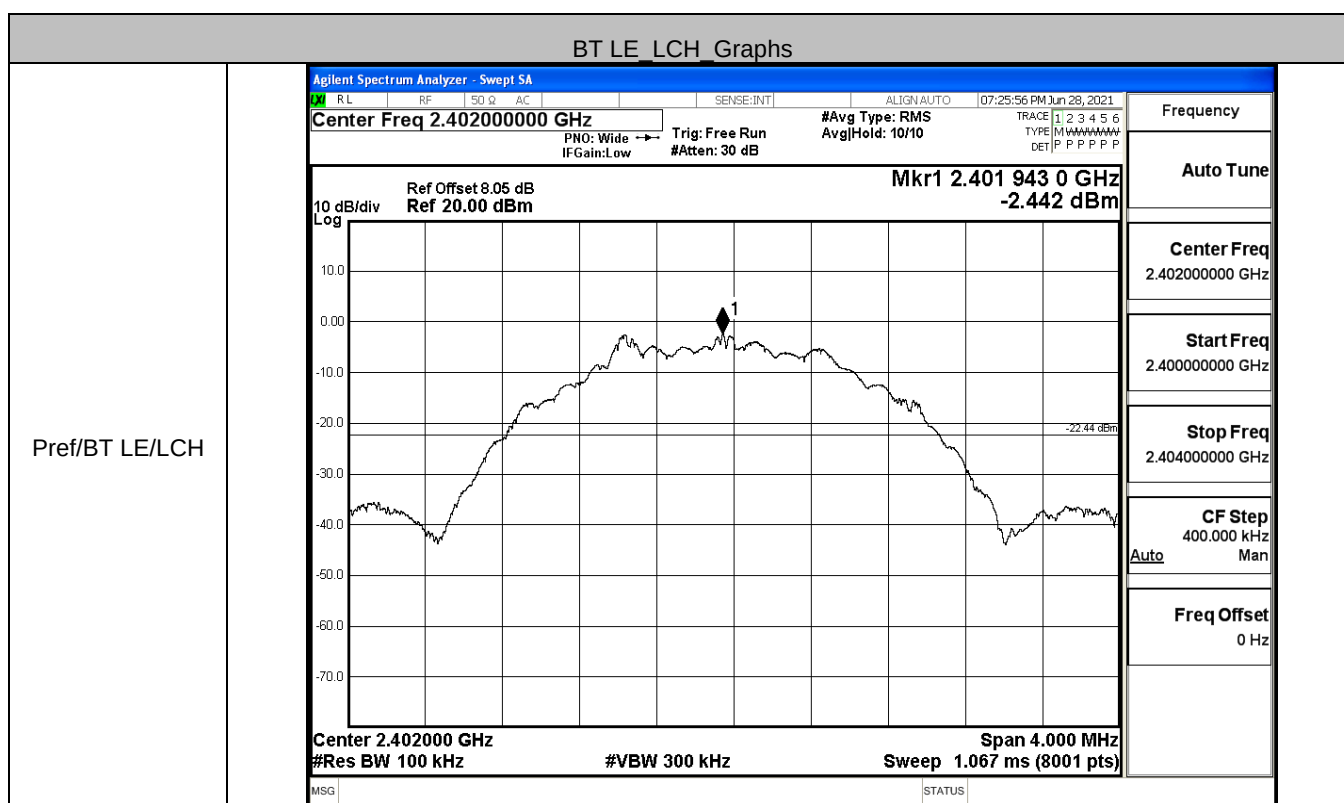
Pref/BT LE/HCH

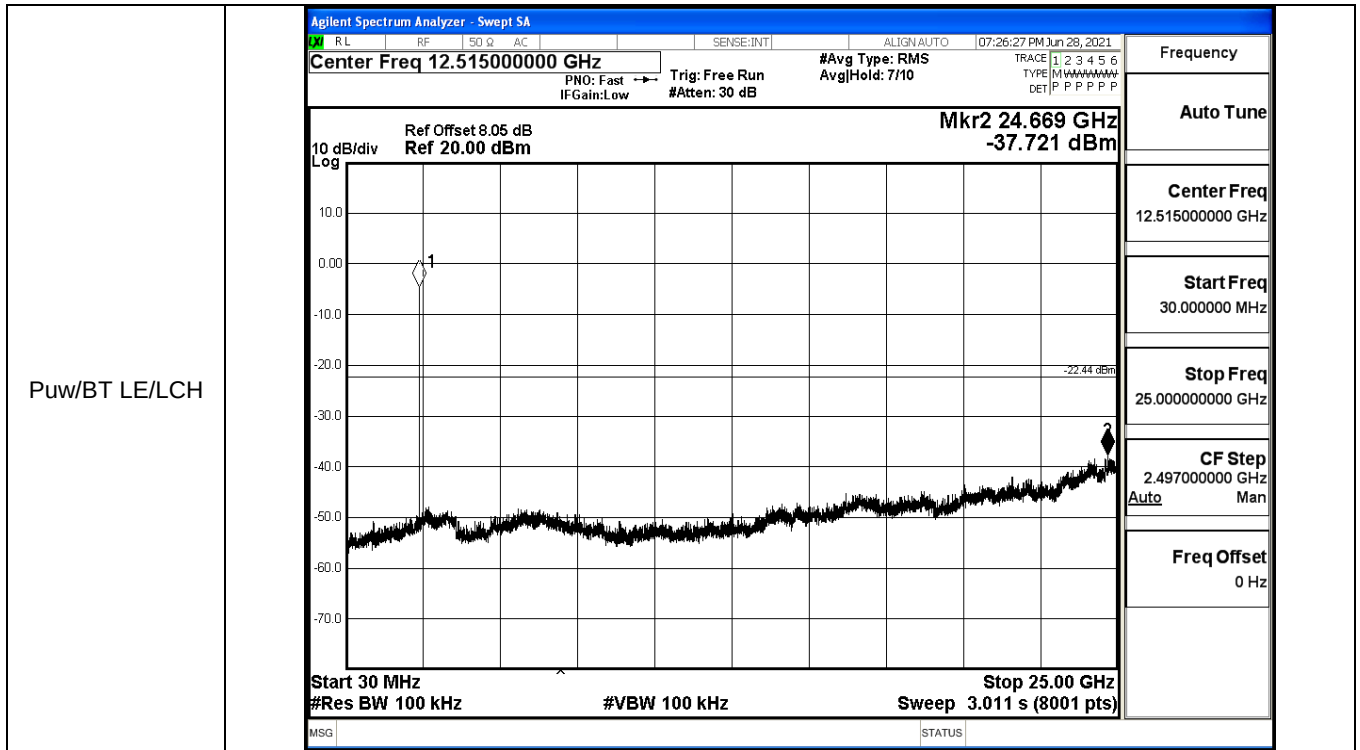




BT 2LE

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.442	-37.721	-22.442	PASS
BT LE	MCH	-3.25	-37.229	-23.250	PASS
BT LE	HCH	-3.434	-37.809	-23.434	PASS

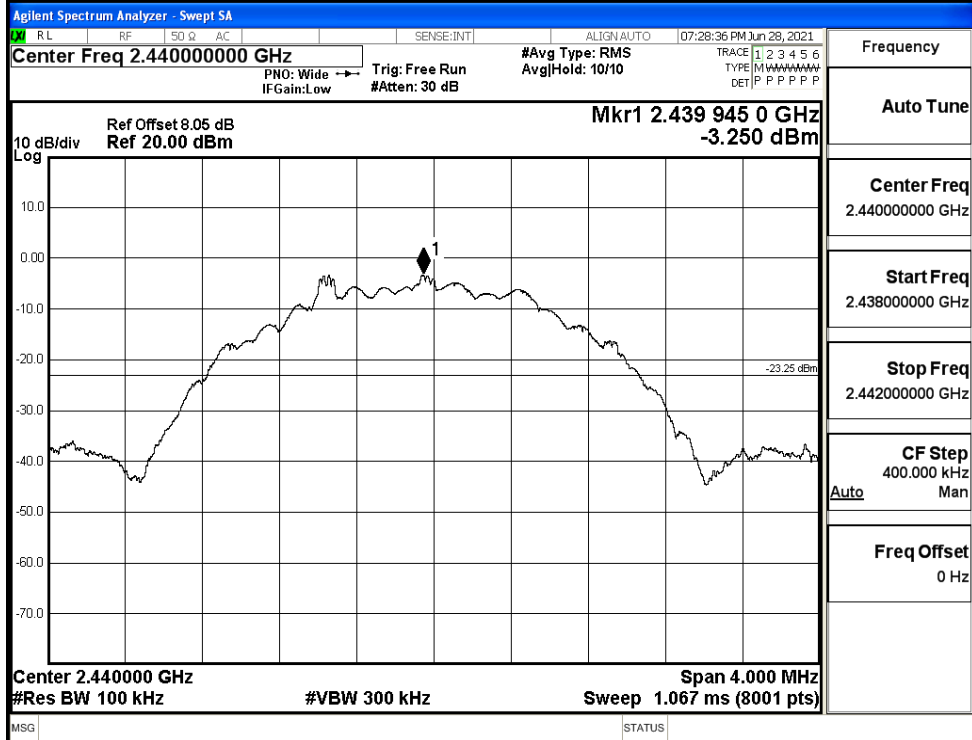




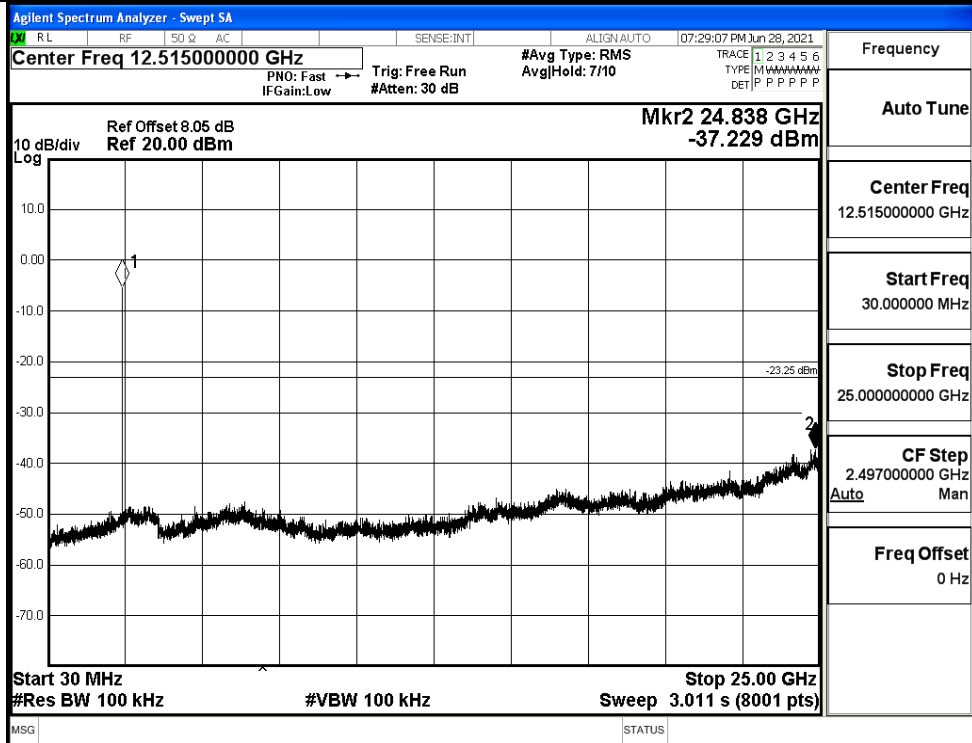


BT LE MCH Graphs

Pref/BT LE/MCH



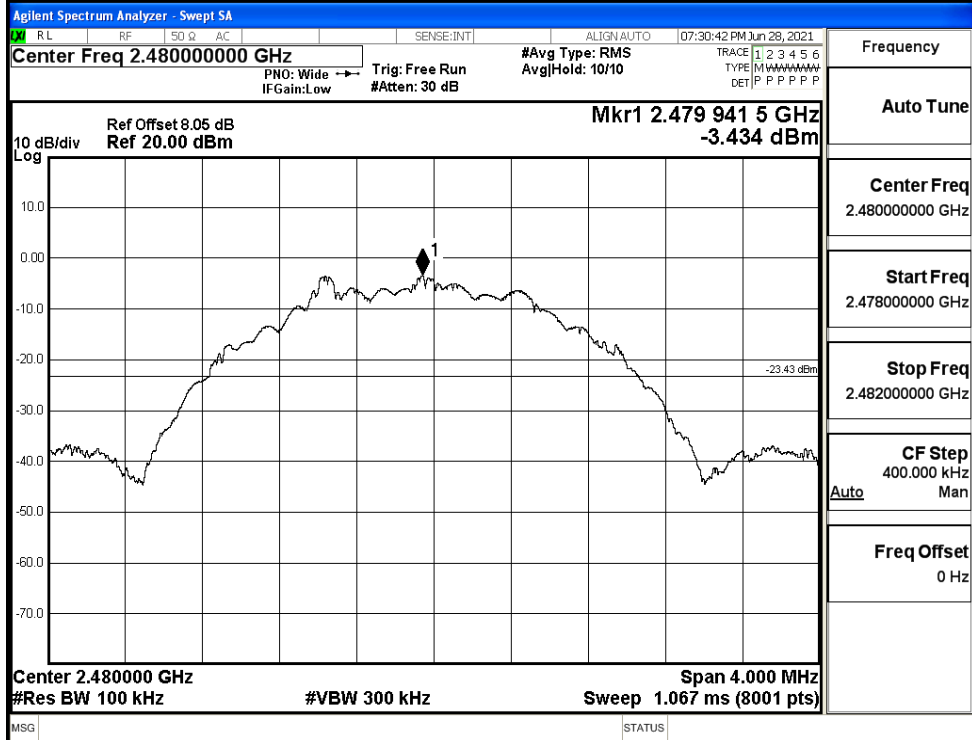
Puw/BT LE/MCH



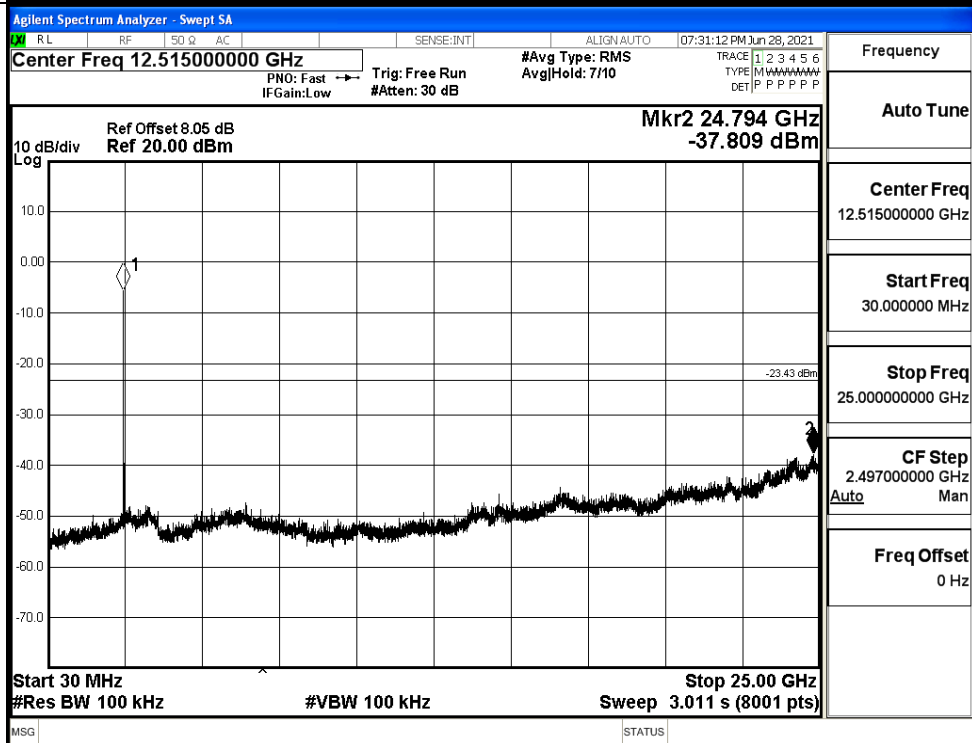


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

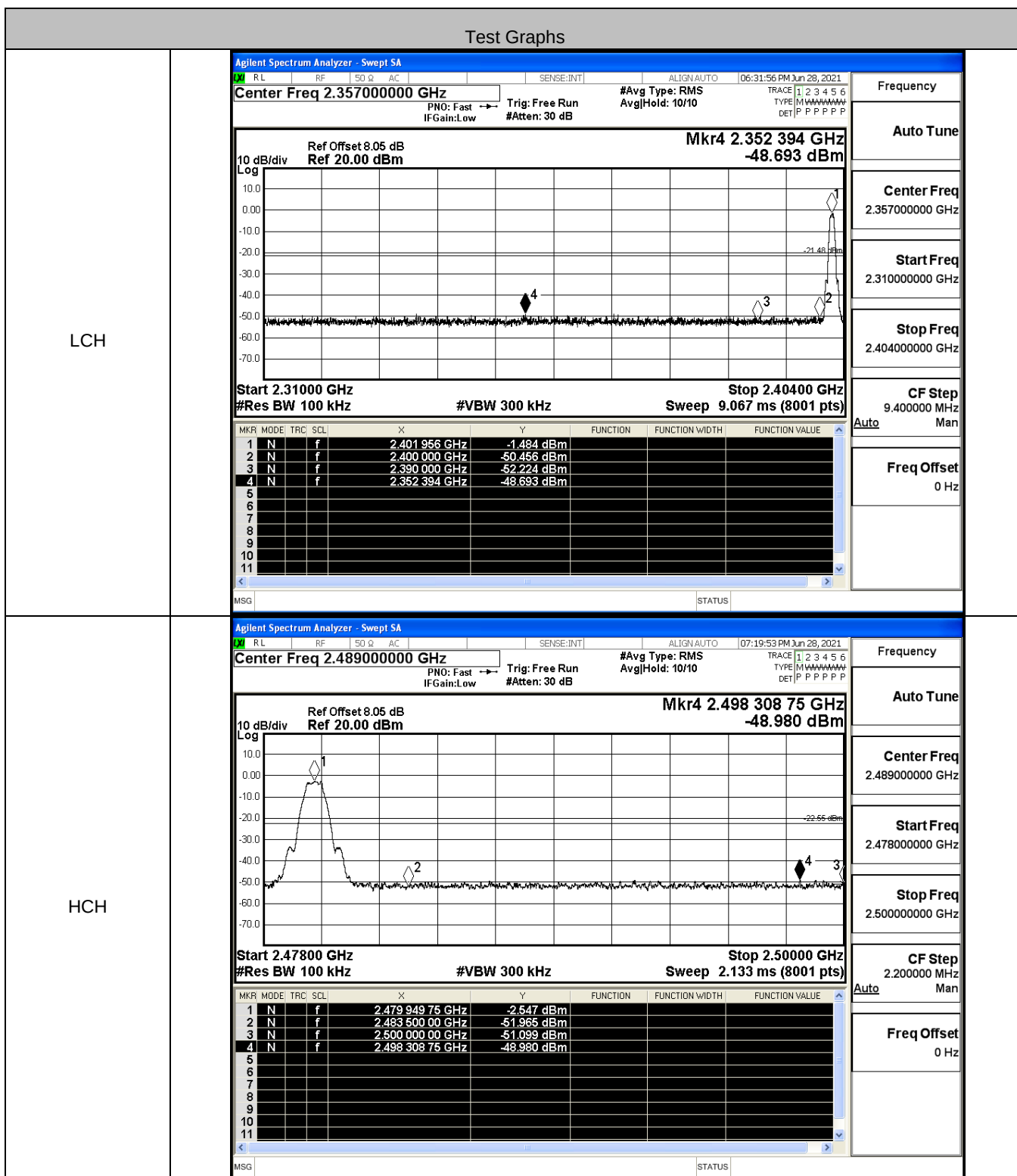




A.6 Band-edge for RF Conducted Emissions

BT LE

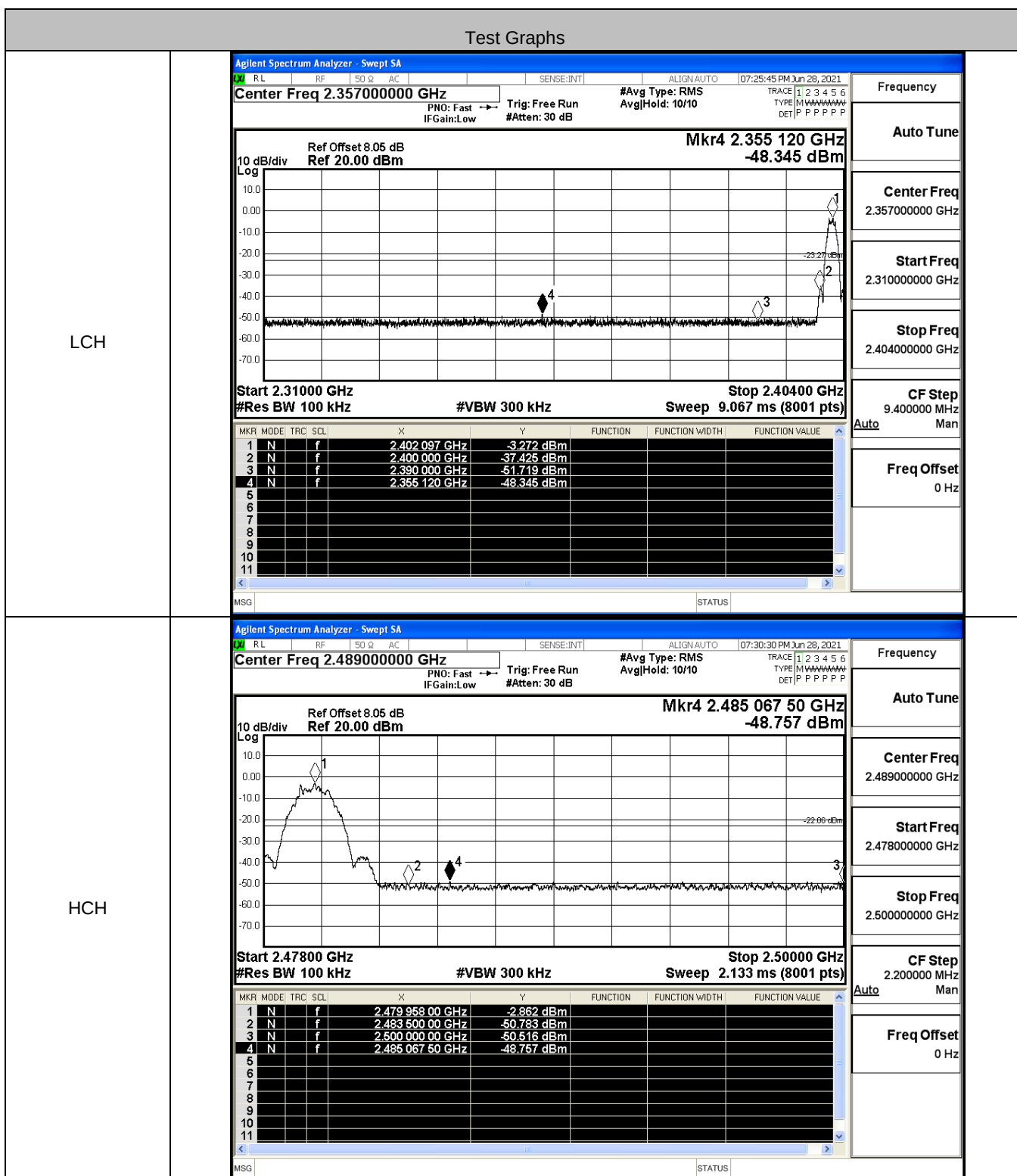
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-1.484	-48.693	-21.48	PASS
BT LE	HCH	-2.547	-48.980	-22.55	PASS





BT 2LE

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.272	-48.345	-23.27	PASS
BT LE	HCH	-2.862	-48.757	-22.86	PASS





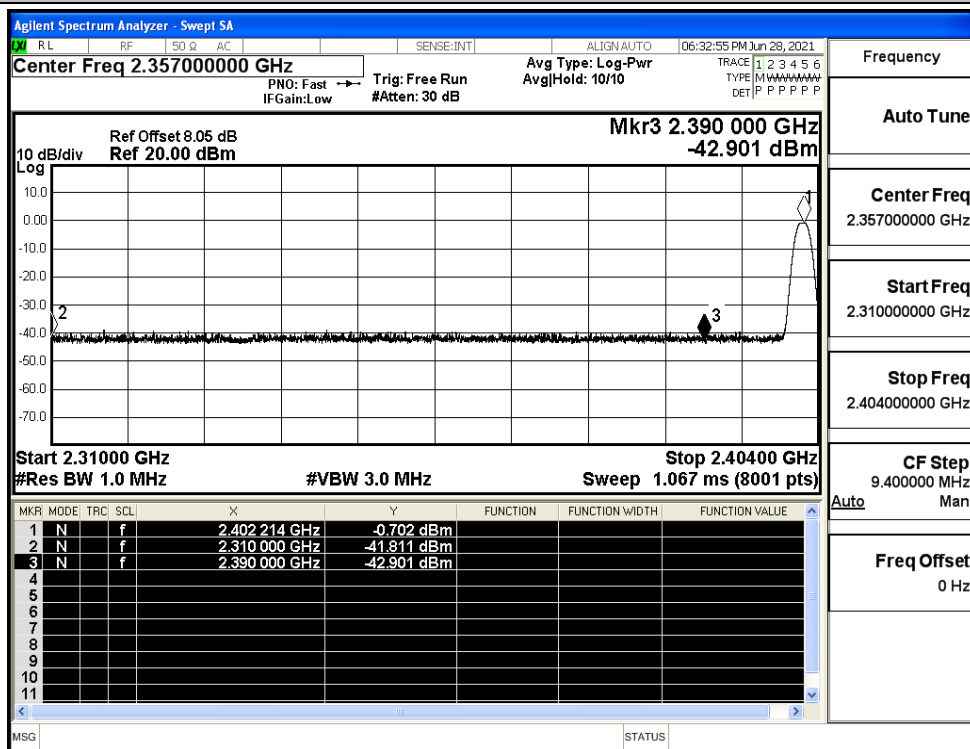
A.7 Restrict-band band-edge measurements

BT LE

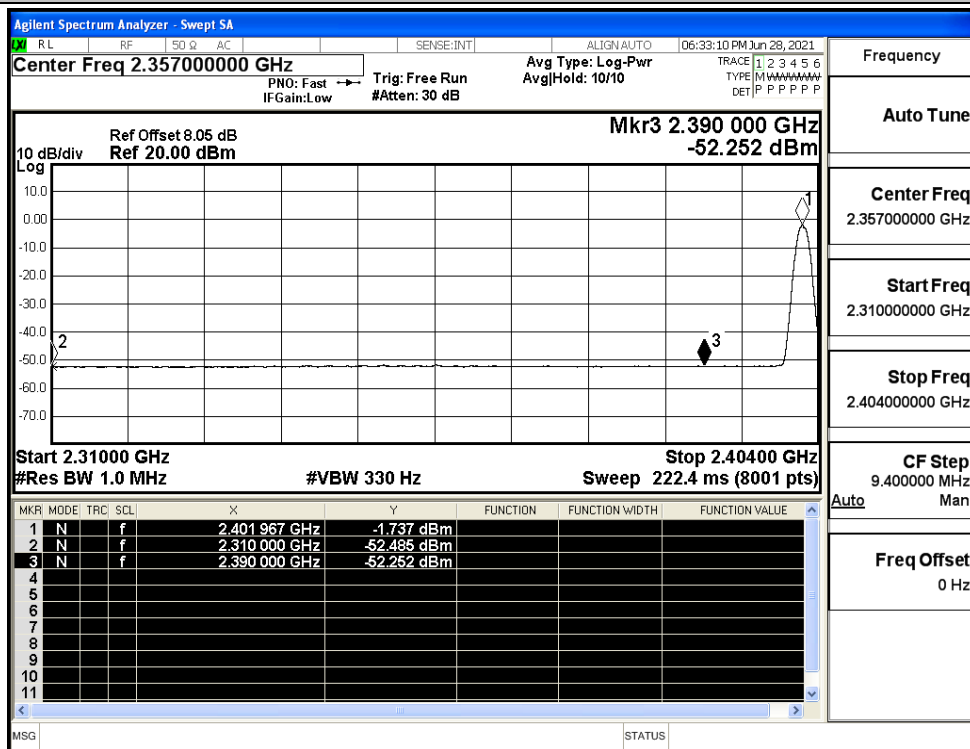
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
BT LE	2402	Ant1	2310.0	-41.81	2.0	0	55.45	PEAK	74	PASS
		Ant1	2310.0	-52.49	2.0	0	44.77	AV	54	PASS
		Ant1	2390.0	-42.90	2.0	0	54.36	PEAK	74	PASS
		Ant1	2390.0	-52.25	2.0	0	45.01	AV	54	PASS
	2480	Ant1	2483.5	-42.65	2.0	0	54.61	PEAK	74	PASS
		Ant1	2483.5	-51.76	2.0	0	45.50	AV	54	PASS
		Ant1	2500.0	-41.55	2.0	0	55.71	PEAK	74	PASS
		Ant1	2500.0	-51.57	2.0	0	45.69	AV	54	PASS



Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK

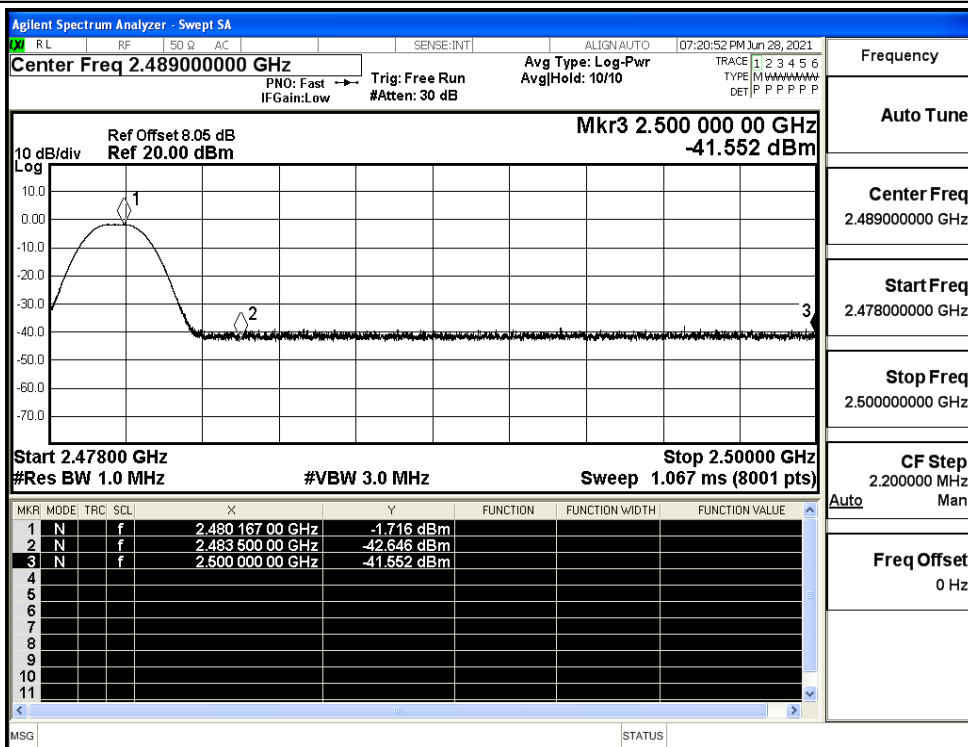


Restrict-band band-edge measurements_BT LE_2402_Ant1_AV

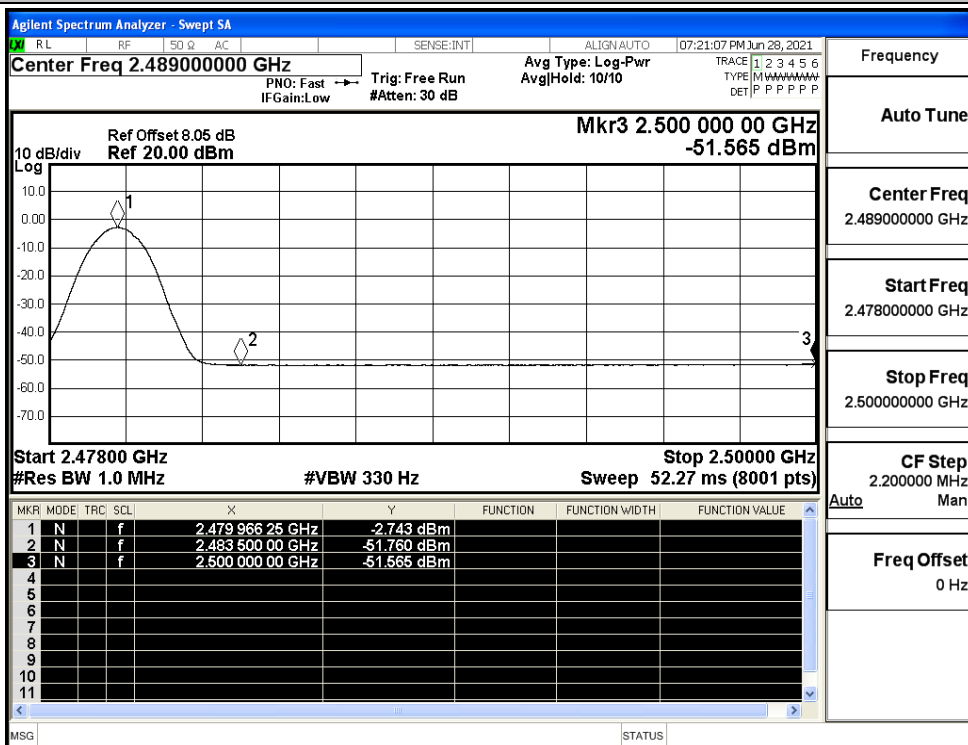




Restrict-band band-edge measurements_BT LE_2480_Ant1_PEAK



Restrict-band band-edge measurements_BT LE_2480_Ant1_AV



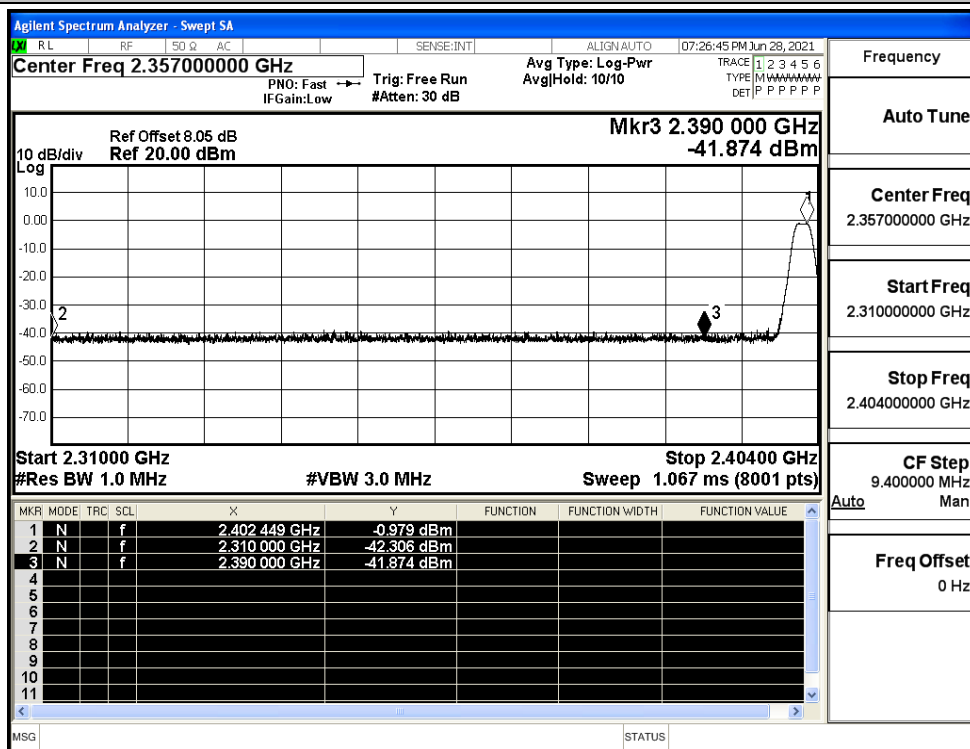


BT 2LE

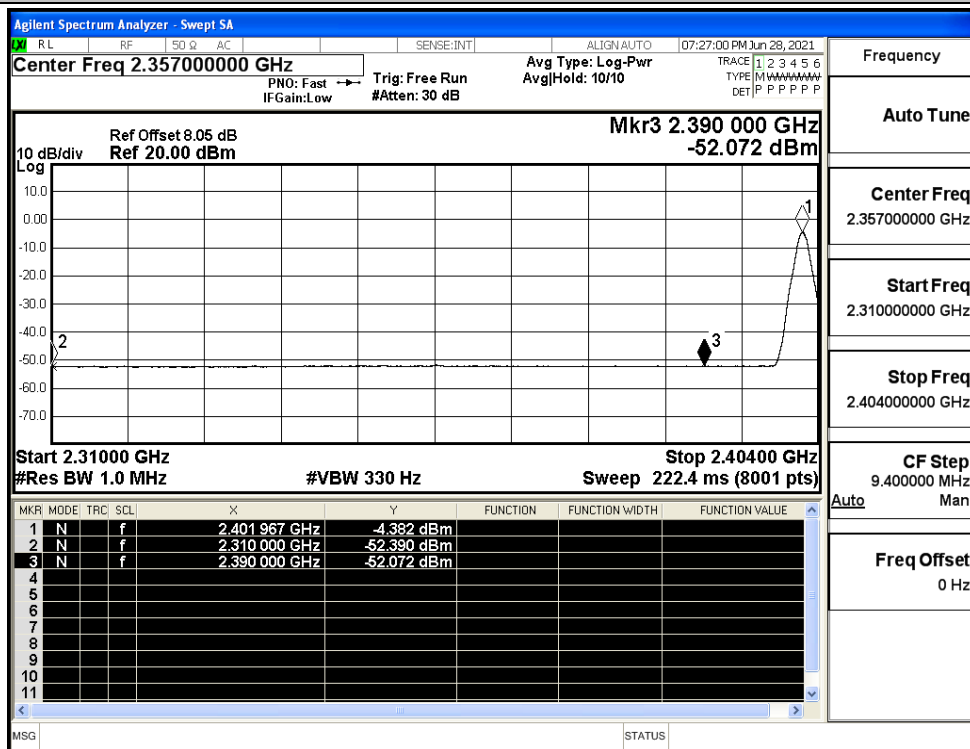
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
BT LE	2402	Ant1	2310.0	-42.31	2.0	0	54.95	PEAK	74	PASS
		Ant1	2310.0	-52.39	2.0	0	44.87	AV	54	PASS
		Ant1	2390.0	-41.87	2.0	0	55.39	PEAK	74	PASS
		Ant1	2390.0	-52.07	2.0	0	45.19	AV	54	PASS
	2480	Ant1	2483.5	-41.51	2.0	0	55.75	PEAK	74	PASS
		Ant1	2483.5	-51.53	2.0	0	45.73	AV	54	PASS
		Ant1	2500.0	-40.95	2.0	0	56.31	PEAK	74	PASS
		Ant1	2500.0	-51.54	2.0	0	45.72	AV	54	PASS



Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK

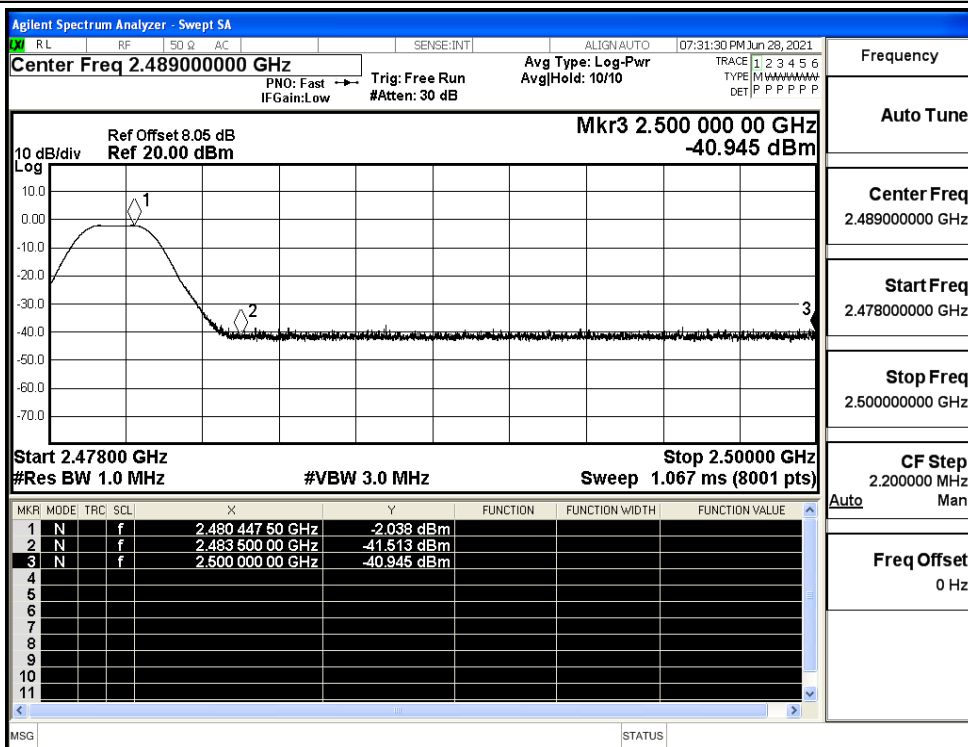


Restrict-band band-edge measurements_BT LE_2402_Ant1_AV





Restrict-band band-edge measurements_BT LE_2480_Ant1_PEAK



Restrict-band band-edge measurements_BT LE_2480_Ant1_AV

