

Appendix A

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

Product Name: MINDMESH GATEWAY

Trade Mark: MINDMESH

Test Model: MWG01

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	100.0 kPa
Test Engineer:	CARL FU
Supervised by:	Li Huan

A.1 Duty Cycle

ANT1:

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

ANT2:

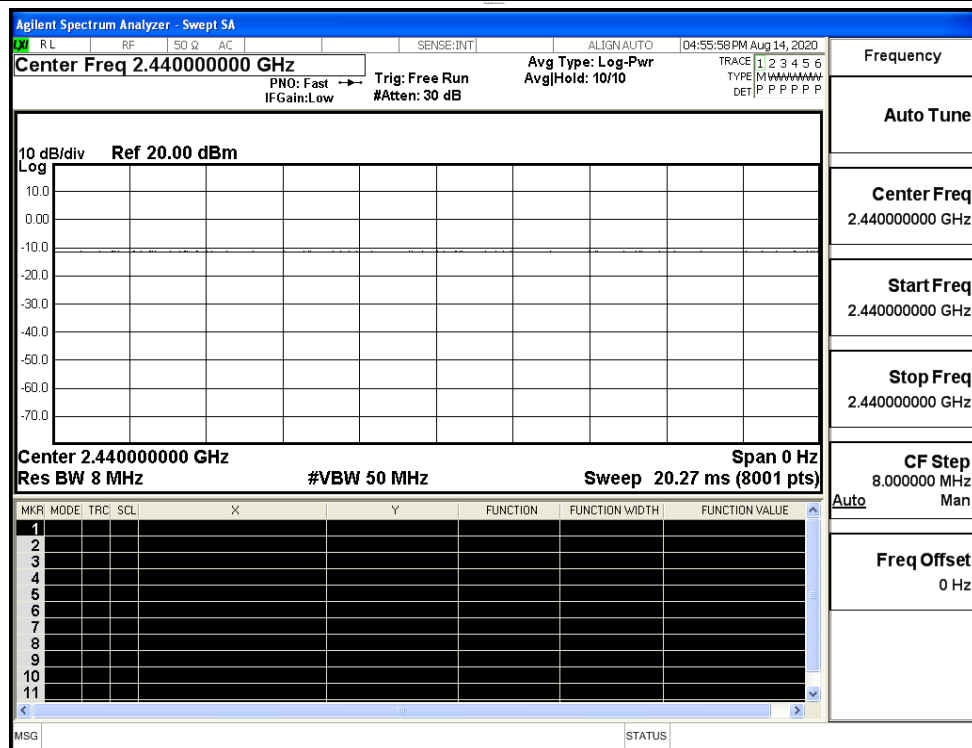
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS

ANT3:

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

ANT4:

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



A.2 Maximum Conducted Peak Output Power

ANT1:

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.732	30	PASS
BT LE	MCH	-3.553	30	PASS
BT LE	HCH	-3.872	30	PASS

ANT2:

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.732	30	PASS
BT LE	MCH	-3.553	30	PASS
BT LE	HCH	-3.872	30	PASS

ANT3:

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.732	30	PASS
BT LE	MCH	-3.553	30	PASS
BT LE	HCH	-3.872	30	PASS

ANT4:

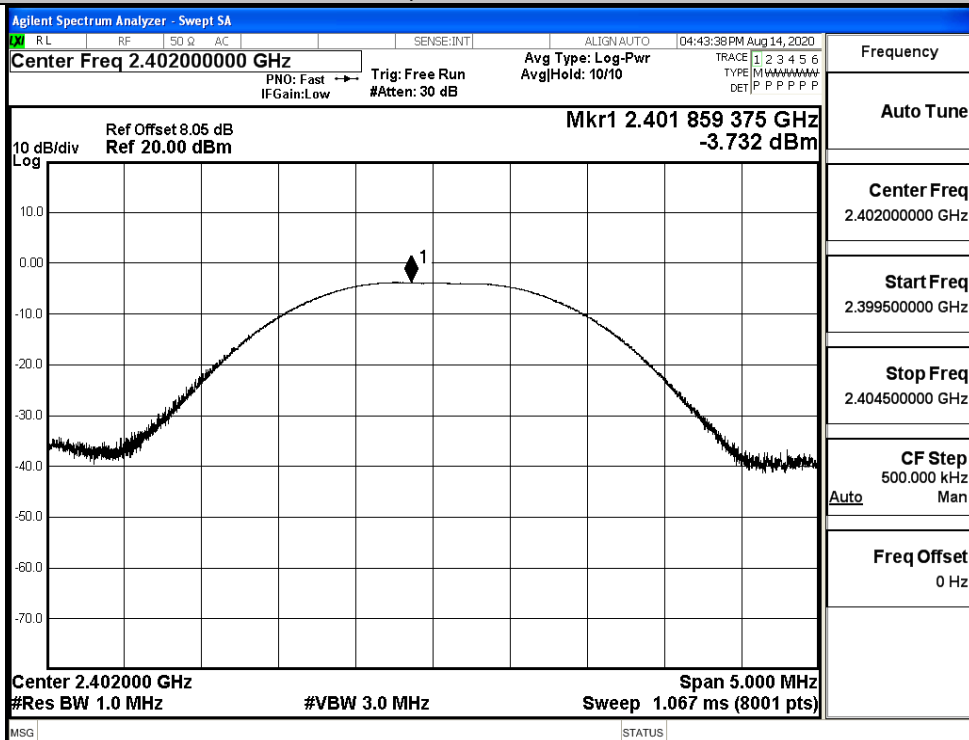
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.732	30	PASS
BT LE	MCH	-3.553	30	PASS
BT LE	HCH	-3.872	30	PASS

ANT1 + ANT2 + ANT3 + ANT4:

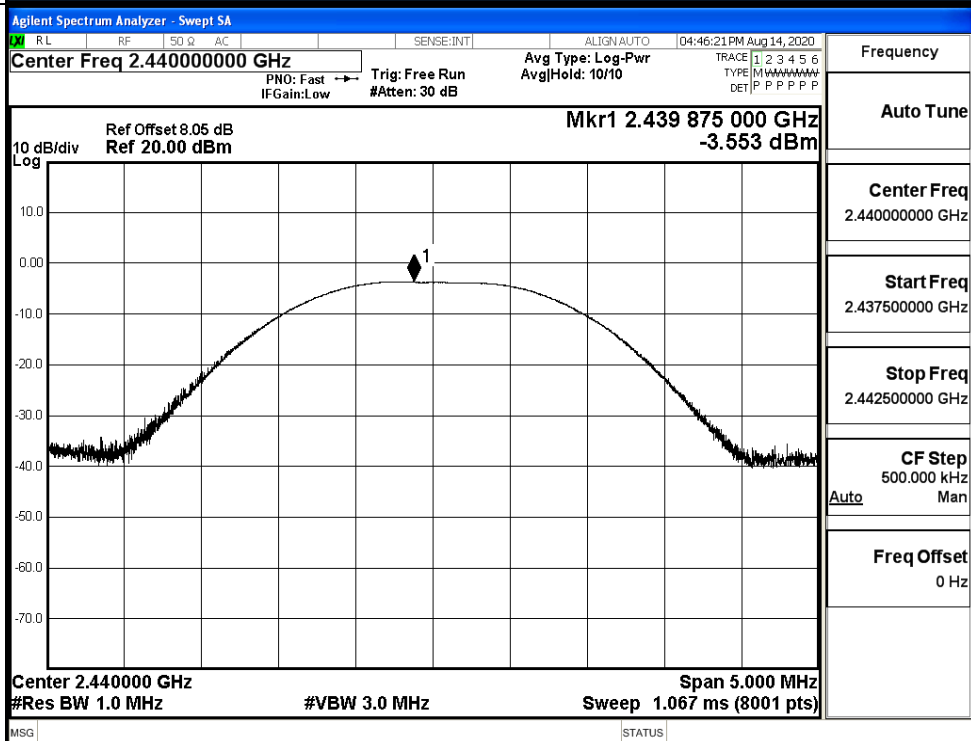
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	2.27	30	PASS
BT LE	MCH	2.45	30	PASS
BT LE	HCH	2.13	30	PASS

Test Graphs

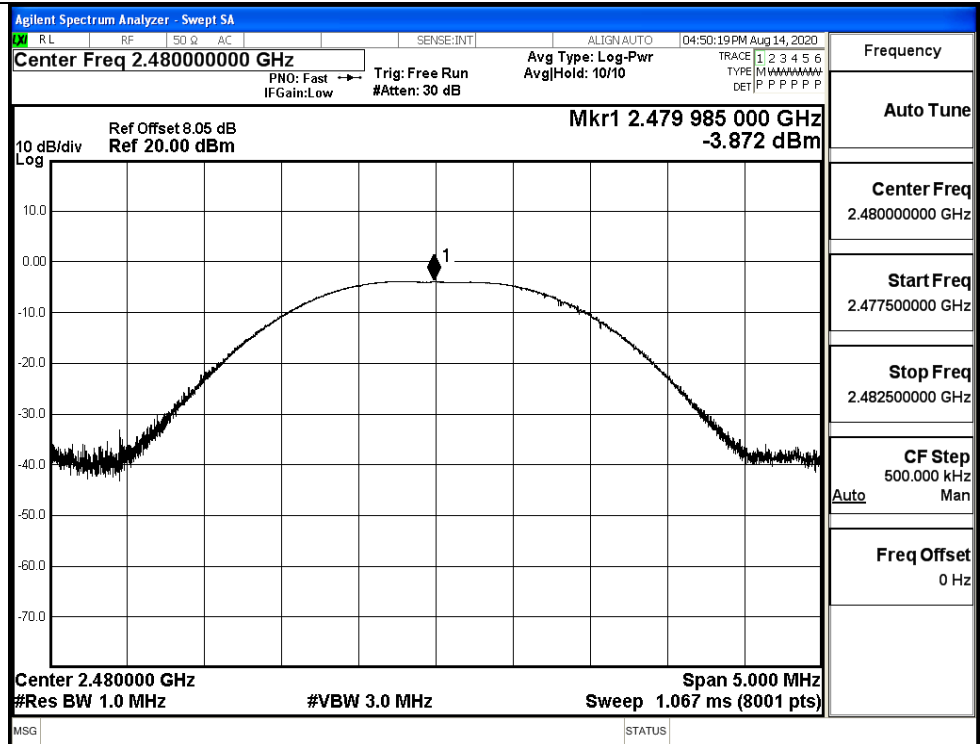
LCH



MCH



HCH



A.3 Maximum Power Spectral Density

ANT1:

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-15.358	8	PASS
BT LE	MCH	-15.282	8	PASS
BT LE	HCH	-15.417	8	PASS

ANT2:

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-15.358	8	PASS
BT LE	MCH	-15.282	8	PASS
BT LE	HCH	-15.417	8	PASS

ANT3:

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-15.358	8	PASS
BT LE	MCH	-15.282	8	PASS
BT LE	HCH	-15.417	8	PASS

ANT4:

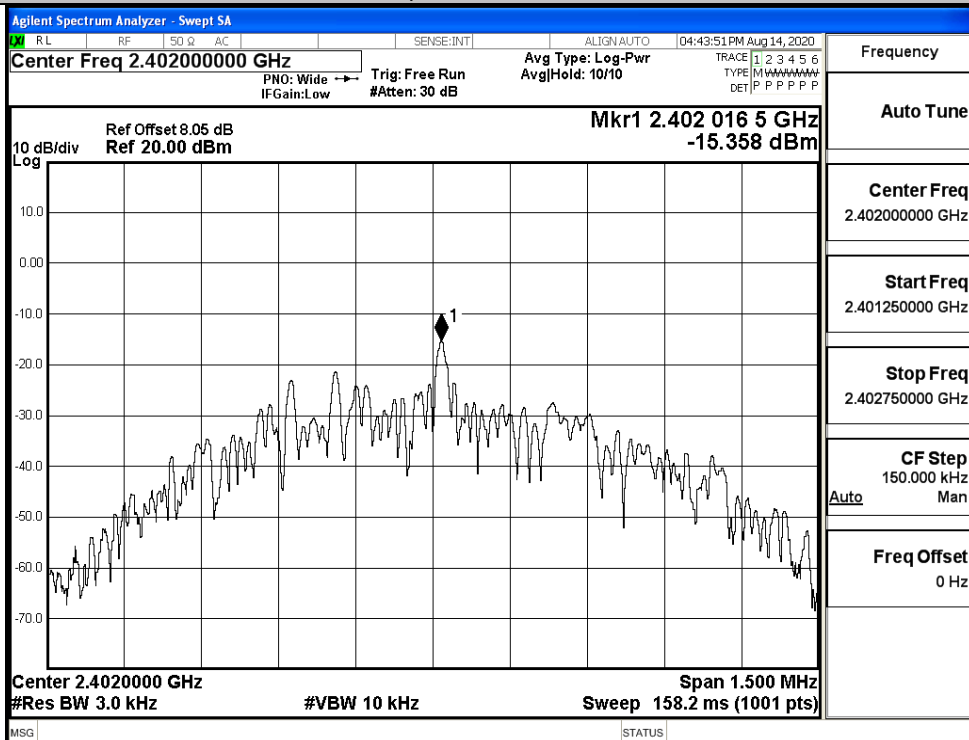
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-15.358	8	PASS
BT LE	MCH	-15.282	8	PASS
BT LE	HCH	-15.417	8	PASS

ANT1 + ANT2 + ANT3 + ANT4:

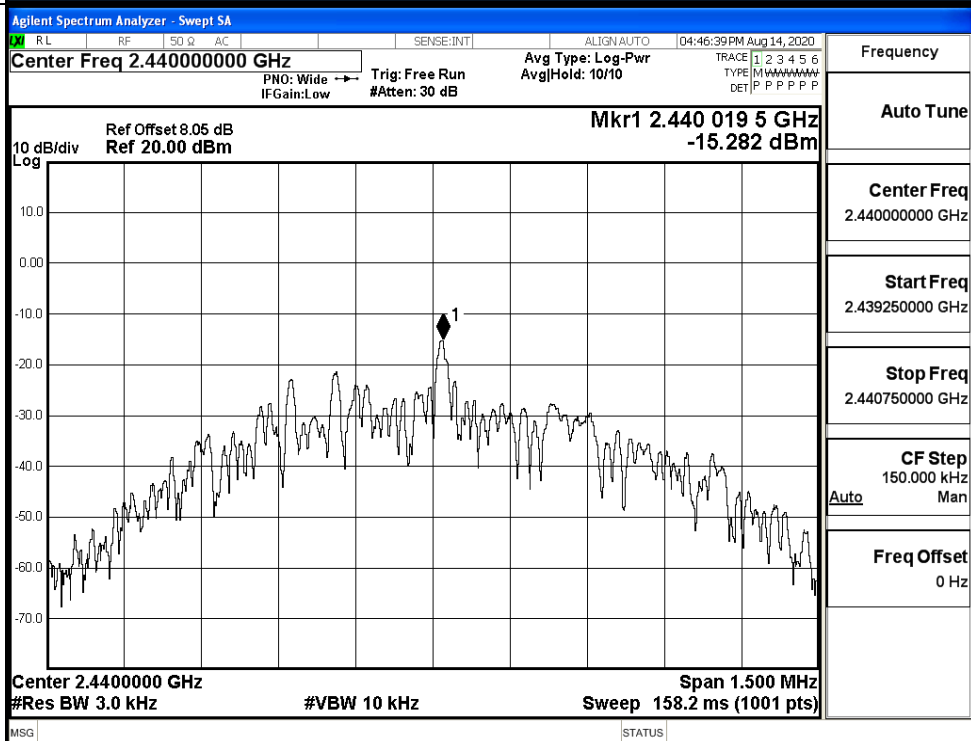
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-9.36	8	PASS
BT LE	MCH	-9.28	8	PASS
BT LE	HCH	-9.42	8	PASS

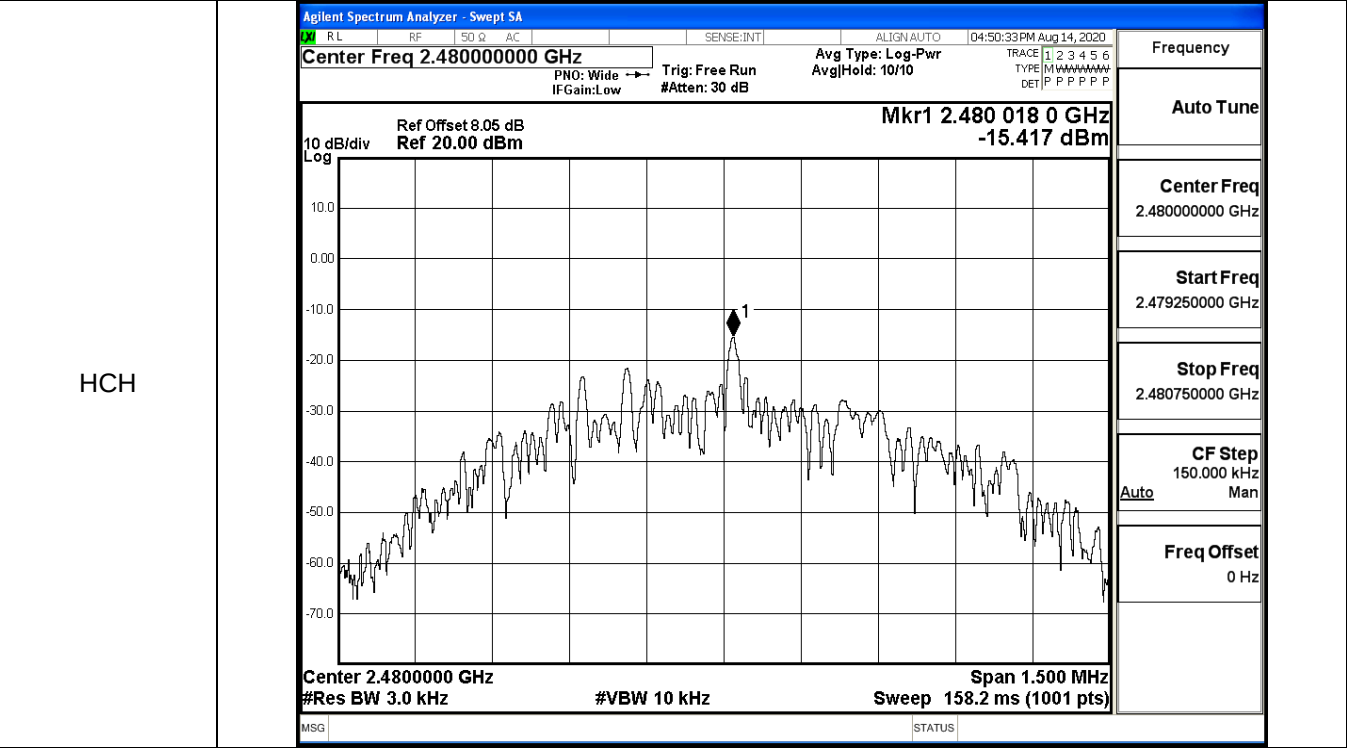
Test Graphs

LCH



MCH





A.4 6dB Bandwidth

ANT1:

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6444	≥ 0.5	PASS
BT LE	MCH	0.6517	≥ 0.5	PASS
BT LE	HCH	0.6554	≥ 0.5	PASS

ANT2:

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6444	≥ 0.5	PASS
BT LE	MCH	0.6517	≥ 0.5	PASS
BT LE	HCH	0.6554	≥ 0.5	PASS

ANT3:

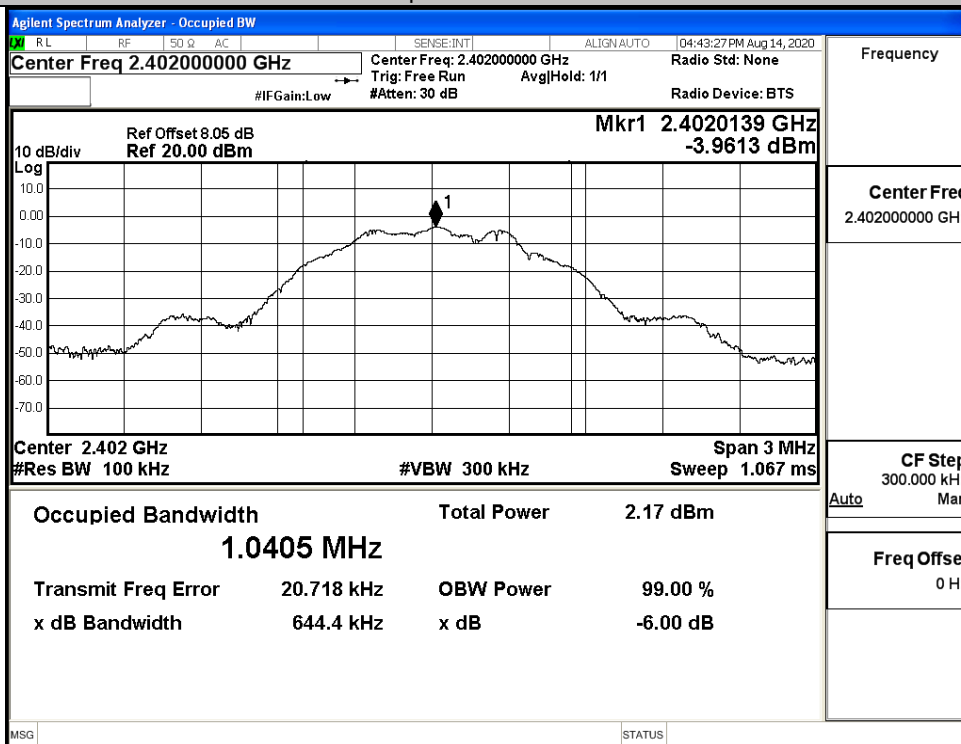
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6444	≥ 0.5	PASS
BT LE	MCH	0.6517	≥ 0.5	PASS
BT LE	HCH	0.6554	≥ 0.5	PASS

ANT4:

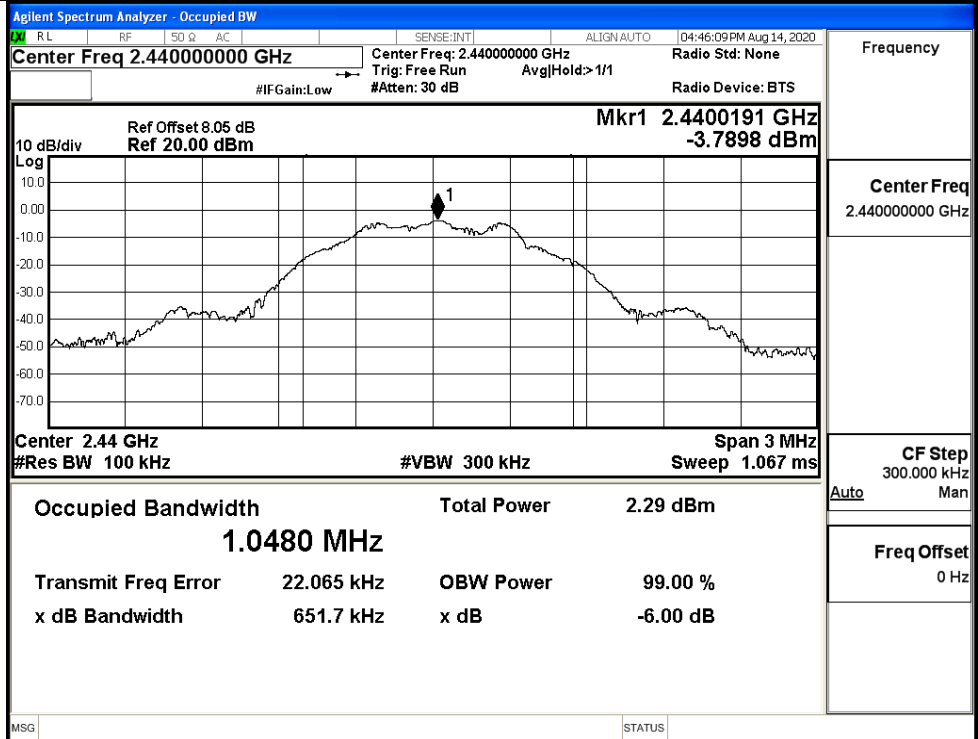
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6444	≥ 0.5	PASS
BT LE	MCH	0.6517	≥ 0.5	PASS
BT LE	HCH	0.6554	≥ 0.5	PASS

Test Graphs

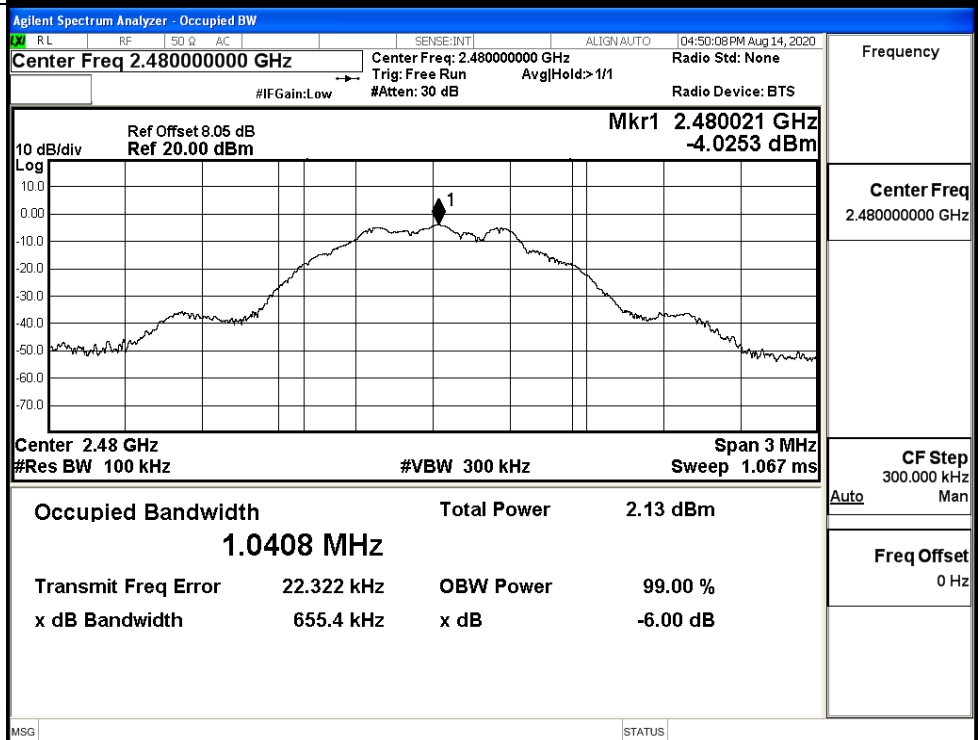
LCH



MCH



HCH



A.5 RF Conducted Spurious Emissions

ANT1:

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.945	-36.511	-23.945	PASS
BT LE	MCH	-3.804	-37.412	-23.804	PASS
BT LE	HCH	-4.002	-37.635	-24.002	PASS

ANT2:

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.945	-36.511	-23.945	PASS
BT LE	MCH	-3.804	-37.412	-23.804	PASS
BT LE	HCH	-4.002	-37.635	-24.002	PASS

ANT3:

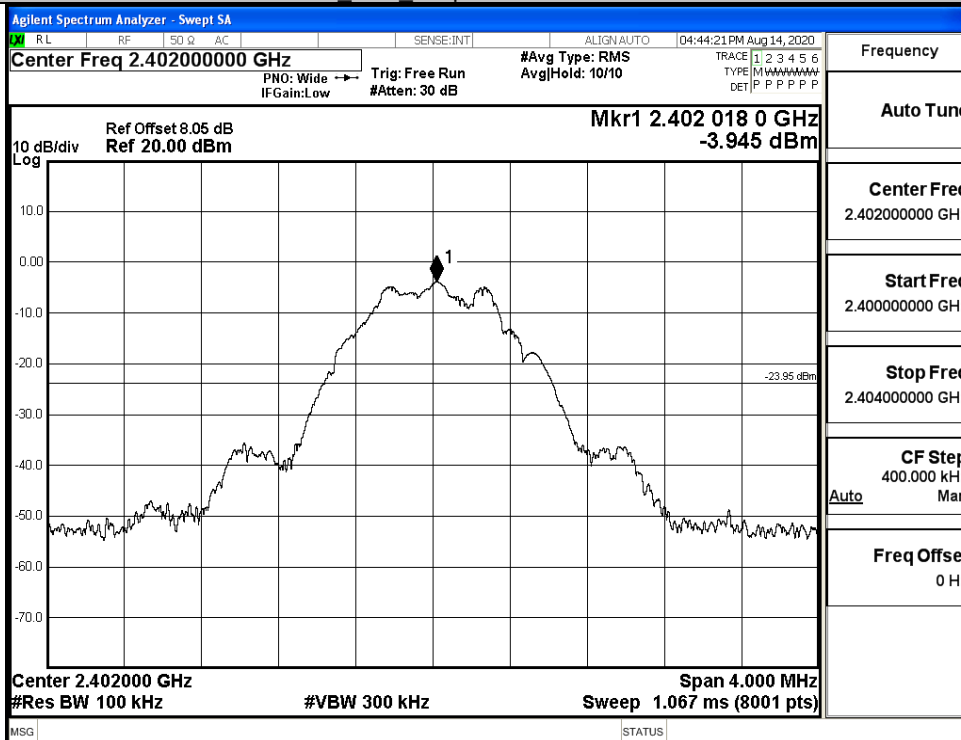
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.945	-36.511	-23.945	PASS
BT LE	MCH	-3.804	-37.412	-23.804	PASS
BT LE	HCH	-4.002	-37.635	-24.002	PASS

ANT4:

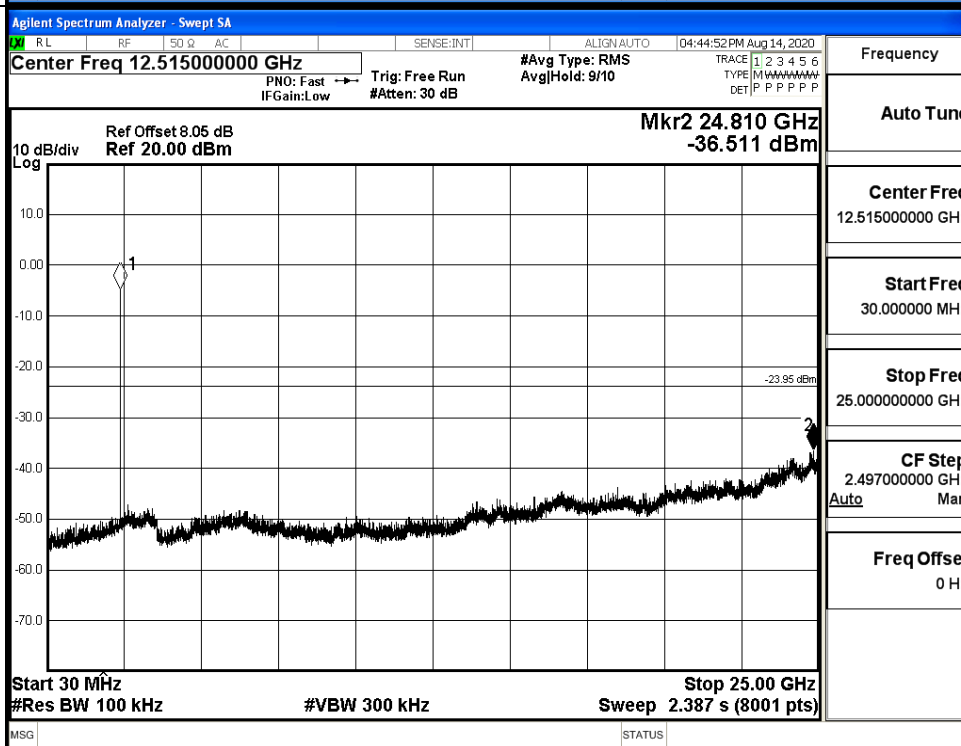
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.945	-36.511	-23.945	PASS
BT LE	MCH	-3.804	-37.412	-23.804	PASS
BT LE	HCH	-4.002	-37.635	-24.002	PASS

BT LE LCH Graphs

Pref/BT LE/LCH

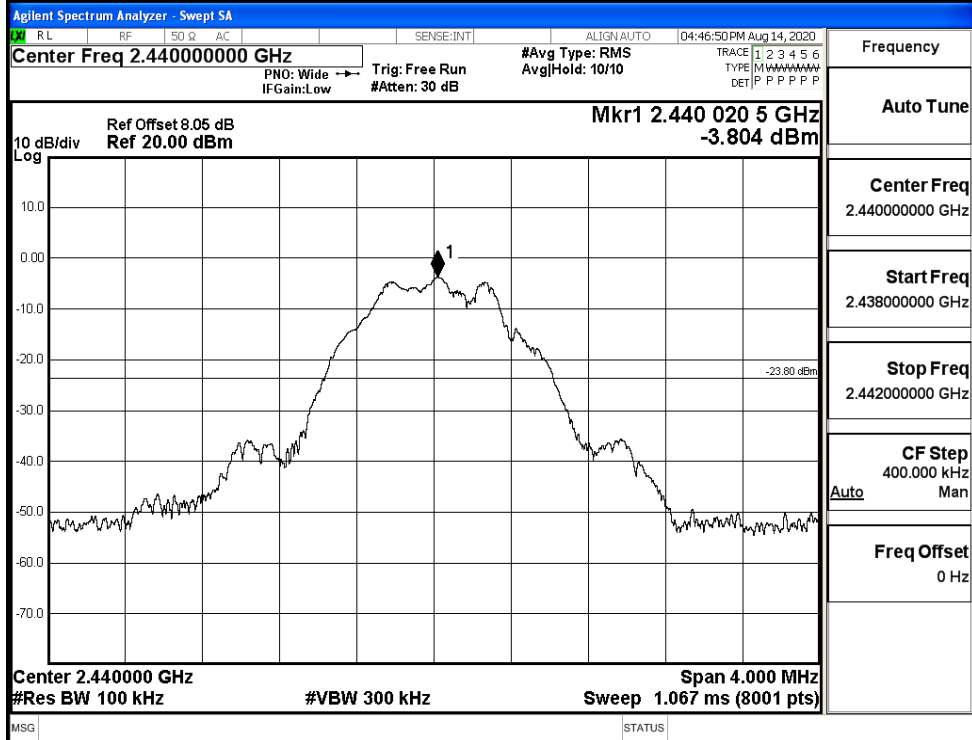


Puw/BT LE/LCH

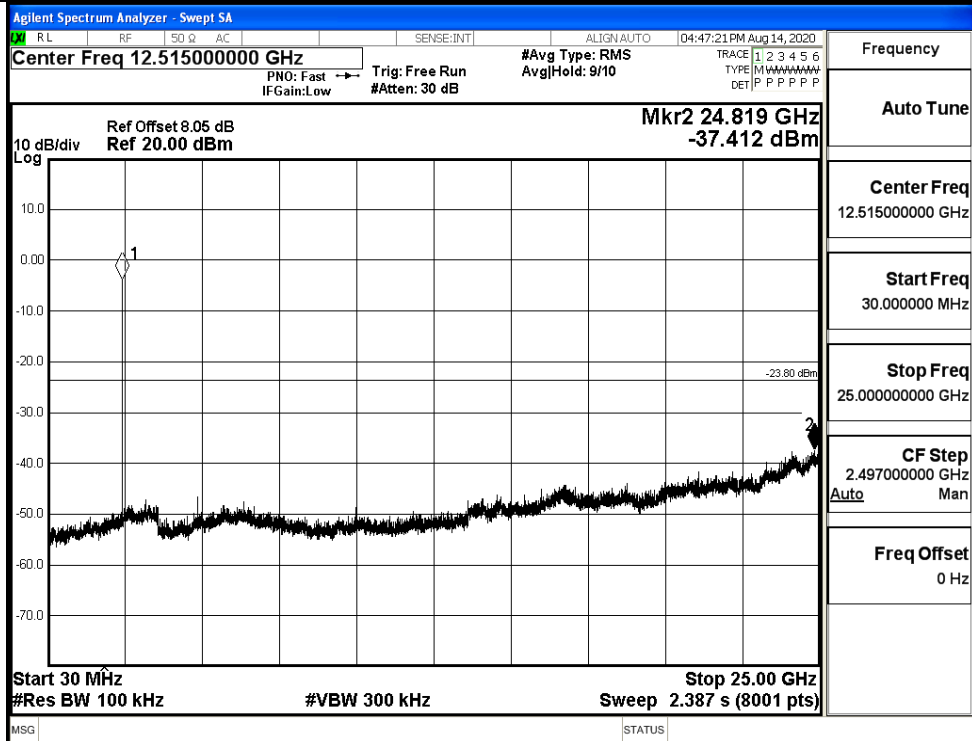


BT LE MCH Graphs

Pref/BT LE/MCH

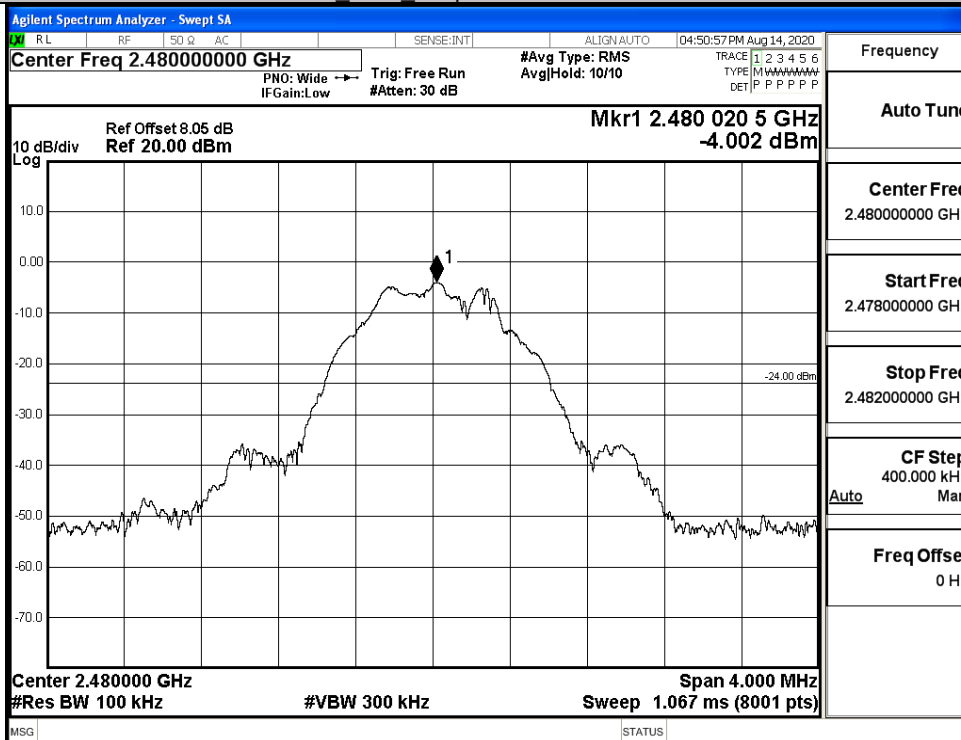


Puw/BT LE/MCH



BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH



A.6 Band-edge for RF Conducted Emissions

ANT1:

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.832	-49.387	-23.83	PASS
BT LE	HCH	-3.921	-45.049	-23.92	PASS

ANT2:

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.832	-49.387	-23.83	PASS
BT LE	HCH	-3.921	-45.049	-23.92	PASS

ANT3:

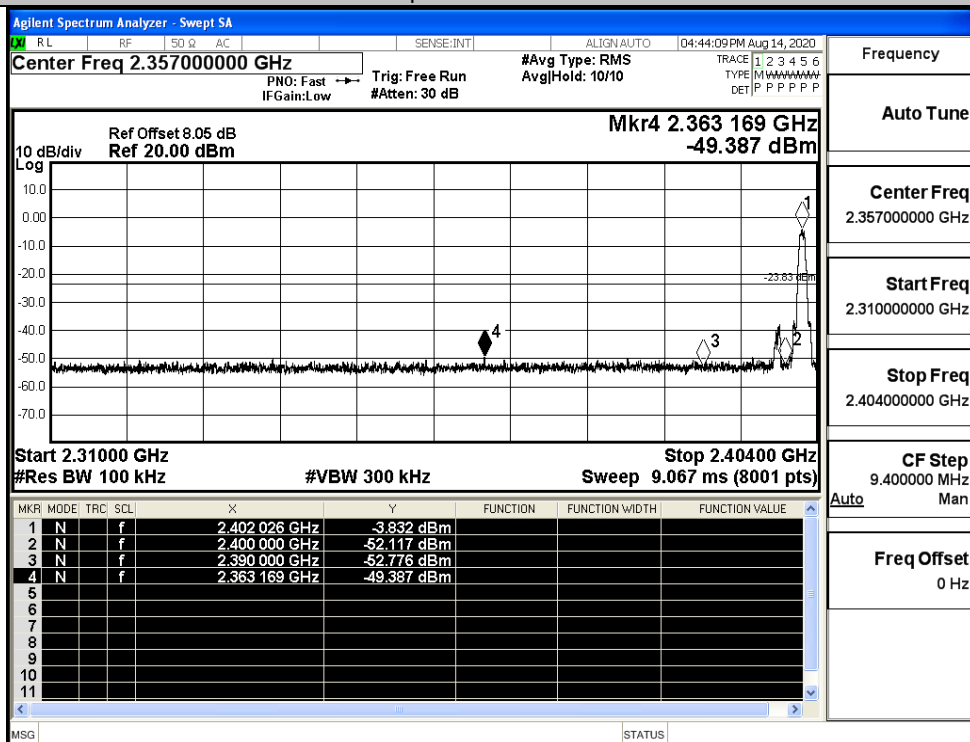
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.832	-49.387	-23.83	PASS
BT LE	HCH	-3.921	-45.049	-23.92	PASS

ANT4:

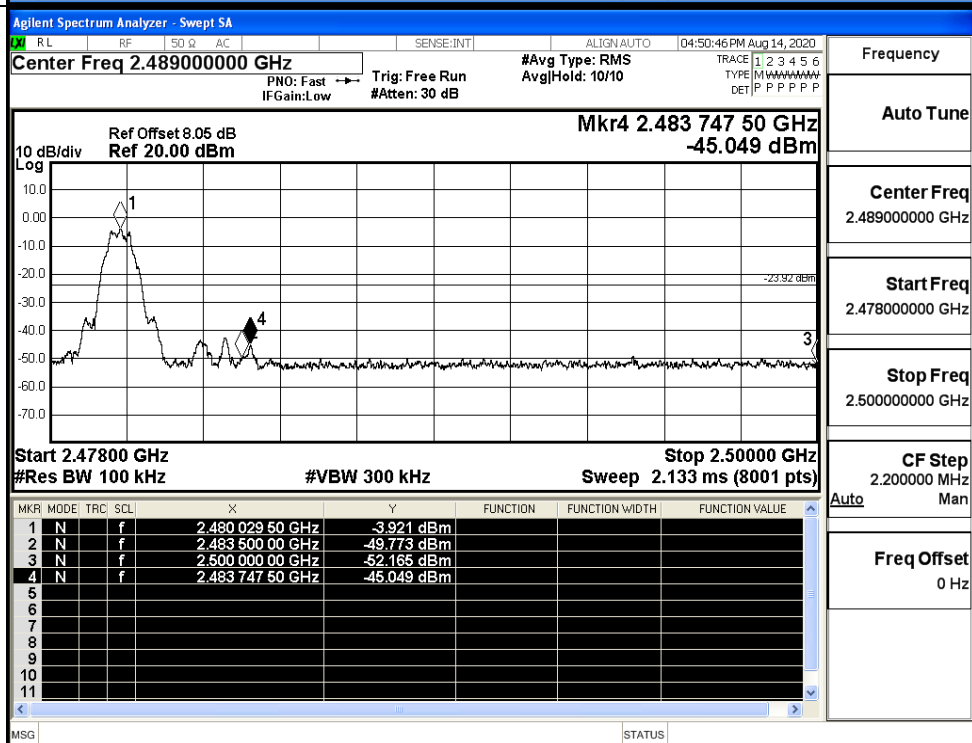
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.832	-49.387	-23.83	PASS
BT LE	HCH	-3.921	-45.049	-23.92	PASS

Test Graphs

LCH



HCH



A.7 Restrict-band band-edge measurements

ANT1:

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	-43.49	2.0	0	51.76	PEAK	74	PASS
		Ant1	2310.0	-53.23	2.0	0	42.03	AV	54	PASS
		Ant1	2390.0	-42.09	2.0	0	53.17	PEAK	74	PASS
		Ant1	2390.0	-52.91	2.0	0	42.35	AV	54	PASS
	2480	Ant1	2483.5	-39.52	2.0	0	55.74	PEAK	74	PASS
		Ant1	2483.5	-51.13	2.0	0	44.13	AV	54	PASS
		Ant1	2500.0	-42.77	2.0	0	52.49	PEAK	74	PASS
		Ant1	2500.0	-52.00	2.0	0	43.26	AV	54	PASS

ANT2:

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	-43.49	2.0	0	51.76	PEAK	74	PASS
		Ant1	2310.0	-53.23	2.0	0	42.03	AV	54	PASS
		Ant1	2390.0	-42.09	2.0	0	53.17	PEAK	74	PASS
		Ant1	2390.0	-52.91	2.0	0	42.35	AV	54	PASS
	2480	Ant1	2483.5	-39.52	2.0	0	55.74	PEAK	74	PASS
		Ant1	2483.5	-51.13	2.0	0	44.13	AV	54	PASS
		Ant1	2500.0	-42.77	2.0	0	52.49	PEAK	74	PASS
		Ant1	2500.0	-52.00	2.0	0	43.26	AV	54	PASS

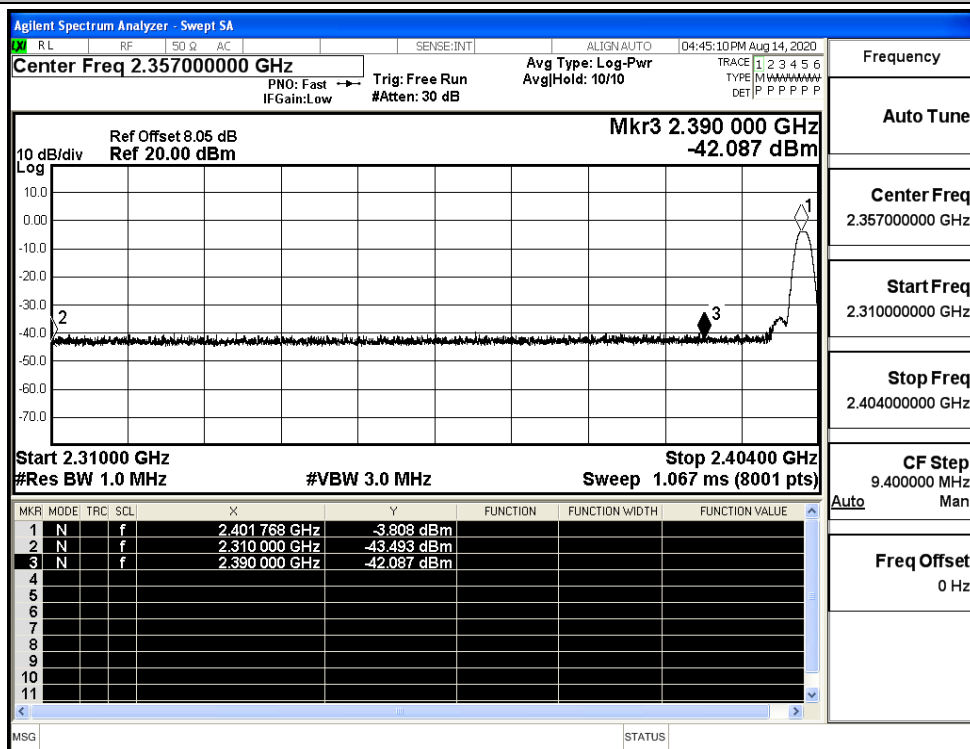
ANT3:

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	-43.49	2.0	0	51.76	PEAK	74	PASS
		Ant1	2310.0	-53.23	2.0	0	42.03	AV	54	PASS
		Ant1	2390.0	-42.09	2.0	0	53.17	PEAK	74	PASS
		Ant1	2390.0	-52.91	2.0	0	42.35	AV	54	PASS
	2480	Ant1	2483.5	-39.52	2.0	0	55.74	PEAK	74	PASS
		Ant1	2483.5	-51.13	2.0	0	44.13	AV	54	PASS
		Ant1	2500.0	-42.77	2.0	0	52.49	PEAK	74	PASS
		Ant1	2500.0	-52.00	2.0	0	43.26	AV	54	PASS

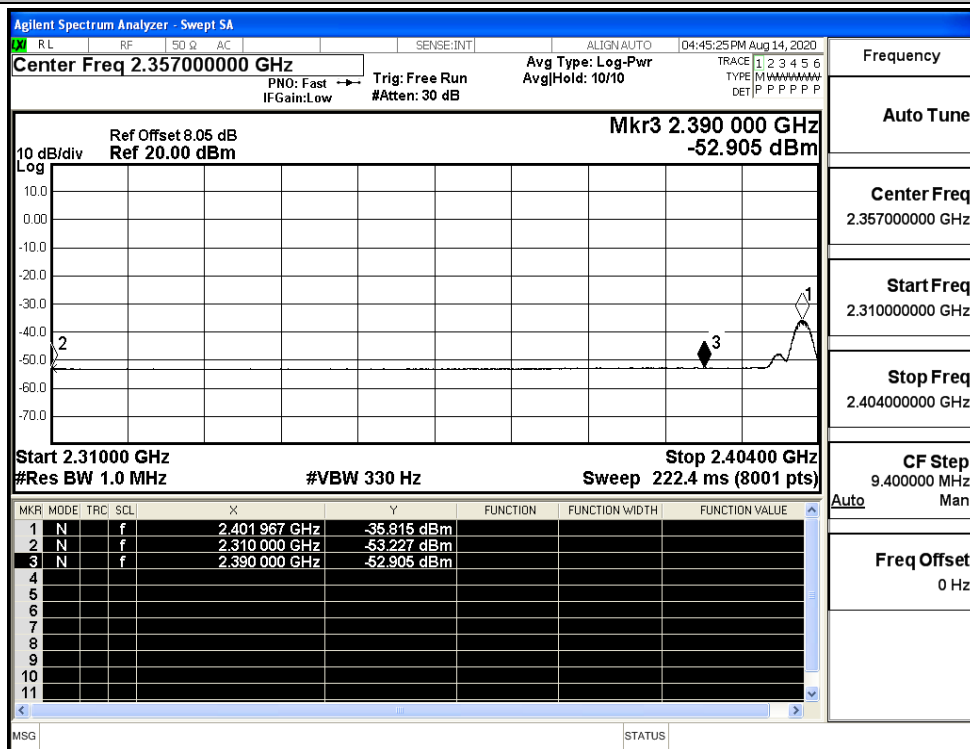
ANT4:

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	-43.49	2.0	0	51.76	PEAK	74	PASS
		Ant1	2310.0	-53.23	2.0	0	42.03	AV	54	PASS
		Ant1	2390.0	-42.09	2.0	0	53.17	PEAK	74	PASS
		Ant1	2390.0	-52.91	2.0	0	42.35	AV	54	PASS
	2480	Ant1	2483.5	-39.52	2.0	0	55.74	PEAK	74	PASS
		Ant1	2483.5	-51.13	2.0	0	44.13	AV	54	PASS
		Ant1	2500.0	-42.77	2.0	0	52.49	PEAK	74	PASS
		Ant1	2500.0	-52.00	2.0	0	43.26	AV	54	PASS

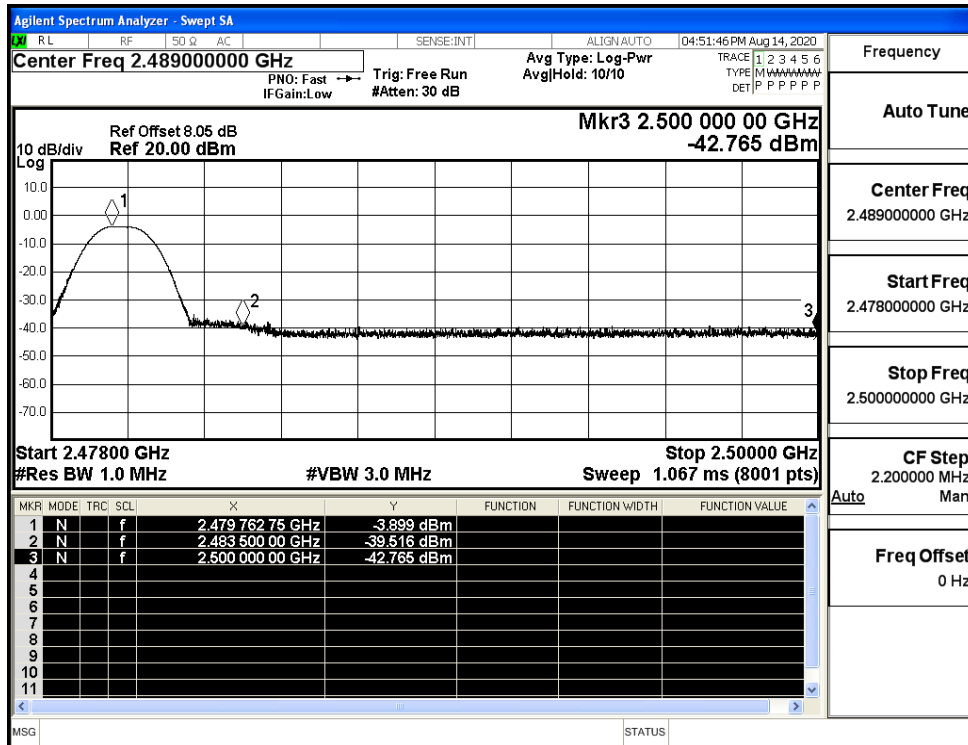
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

