

Appendix B

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

Product Name: Bluetooth FM Transmitter for Car

Trade Mark: N/A

Test Model: T25

PMN: Bluetooth FM Transmitter for Car

HVIN: T25, BT23, C69S, BT94

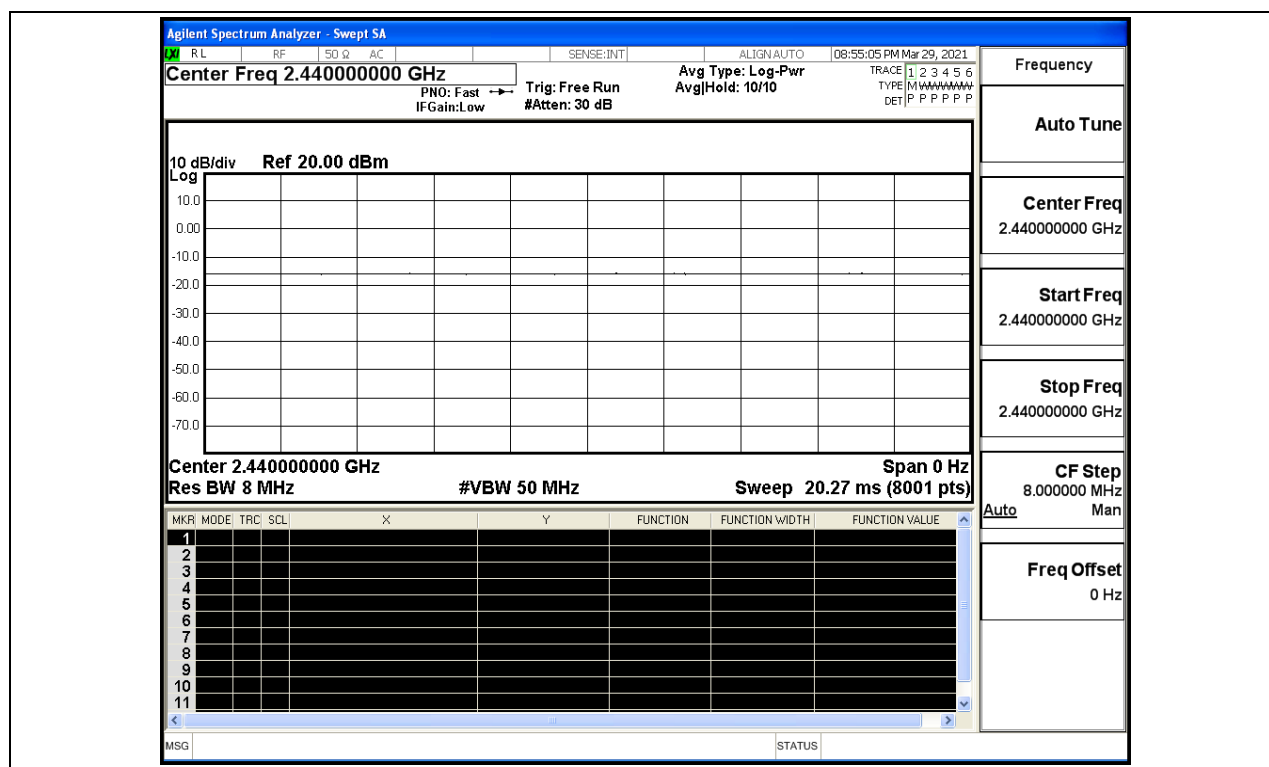
Environmental Conditions

Temperature:	24.4° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan

B.1 Duty Cycle

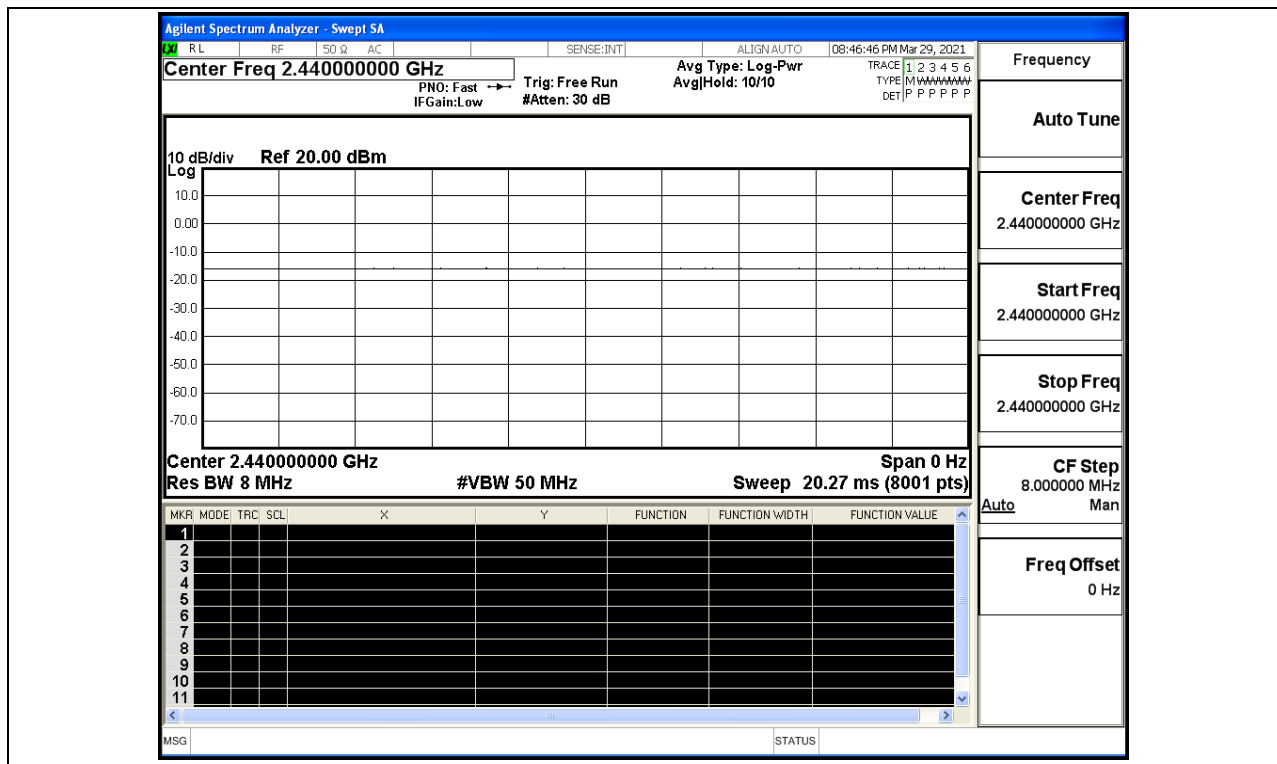
BT LE

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



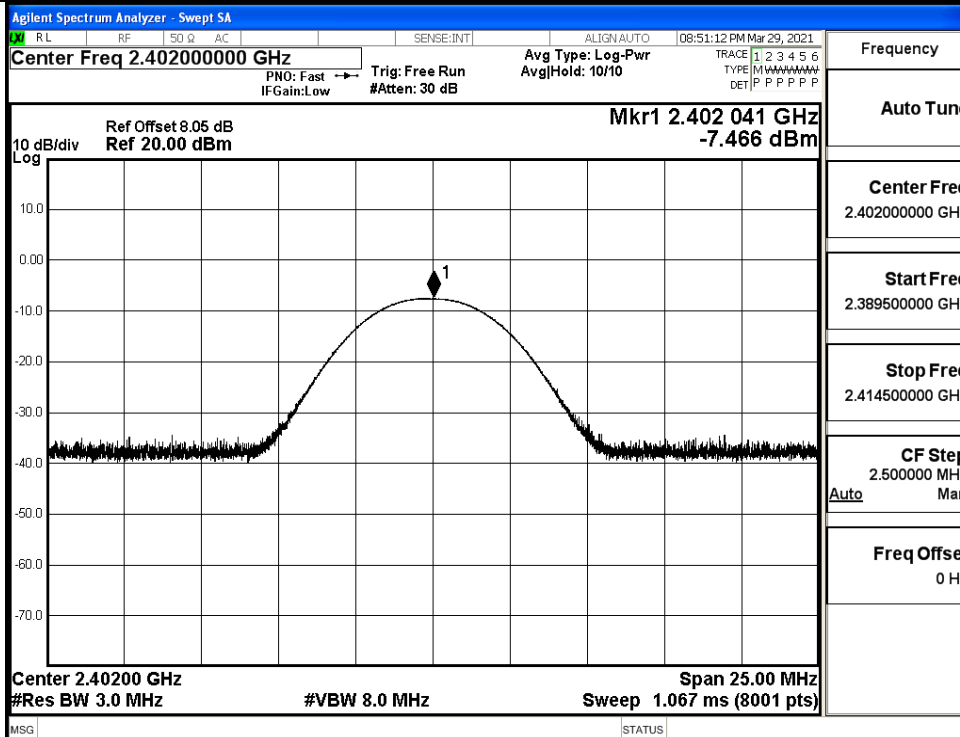
B.2 Maximum Conducted Peak Output Power

BT LE

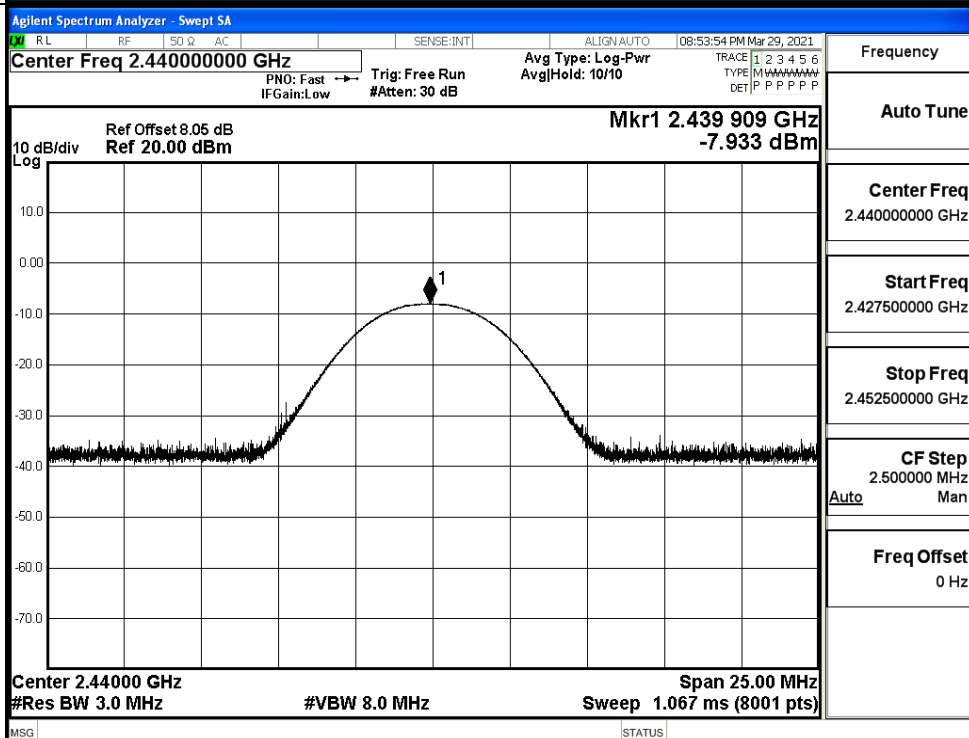
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-7.466	30	PASS
BT LE	MCH	-7.933	30	PASS
BT LE	HCH	-7.464	30	PASS

Test Graphs

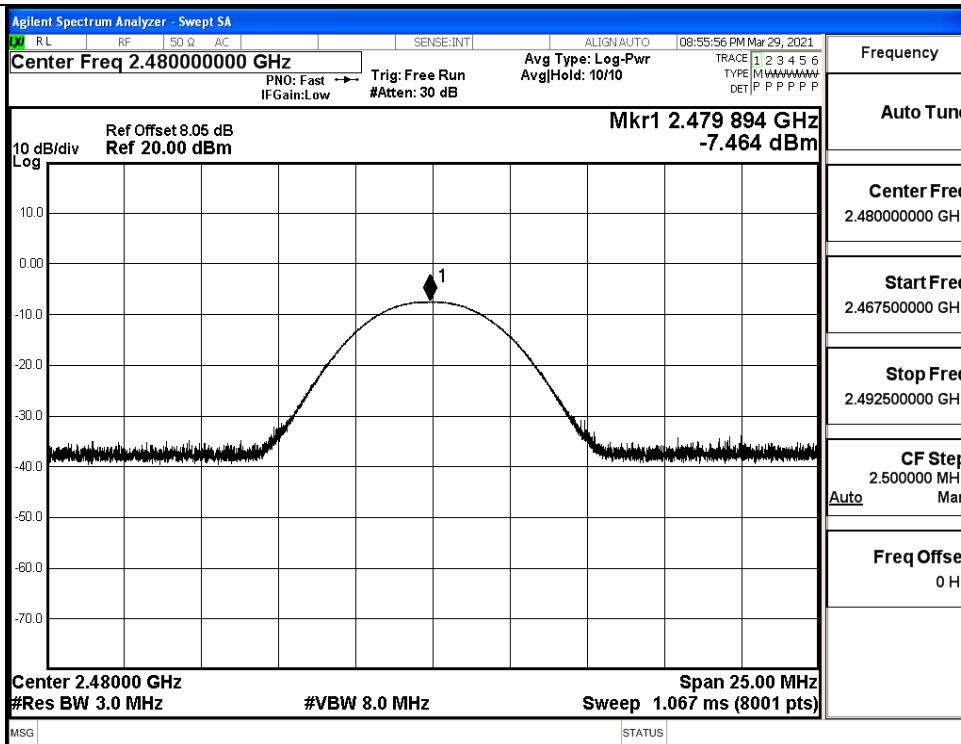
LCH



MCH



HCH

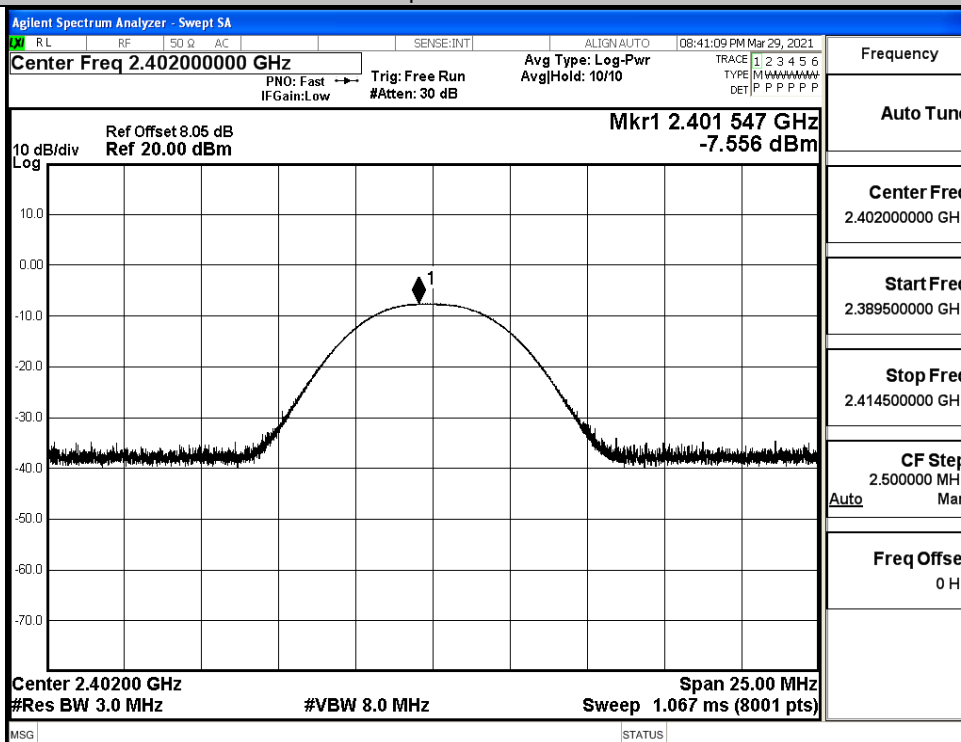


BT 2LE

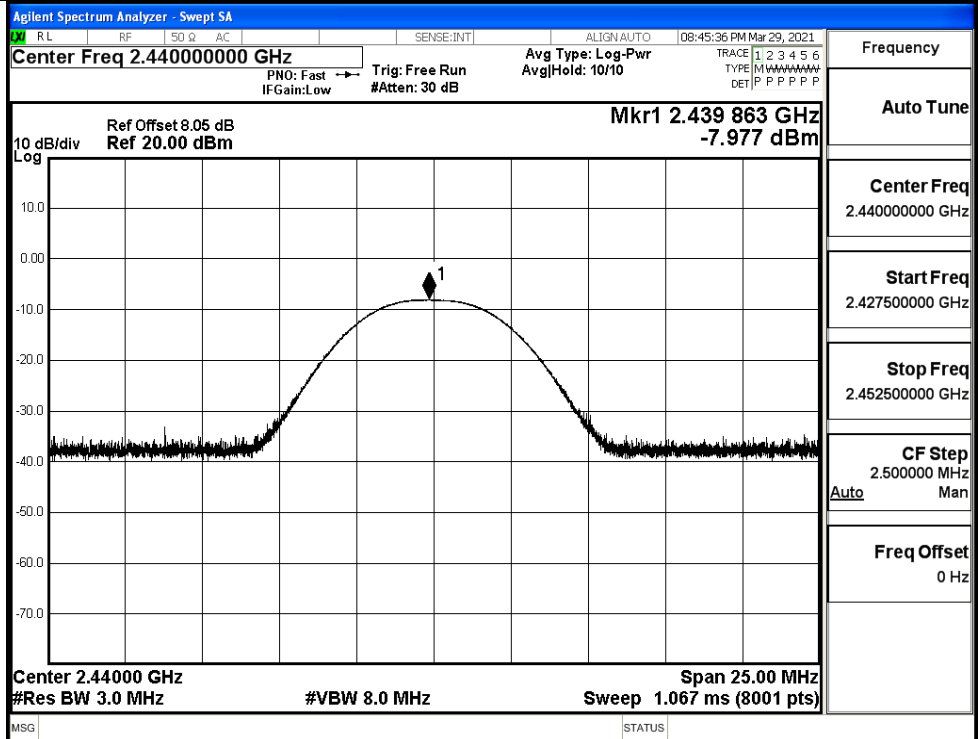
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-7.556	30	PASS
BT LE	MCH	-7.977	30	PASS
BT LE	HCH	-7.366	30	PASS

Test Graphs

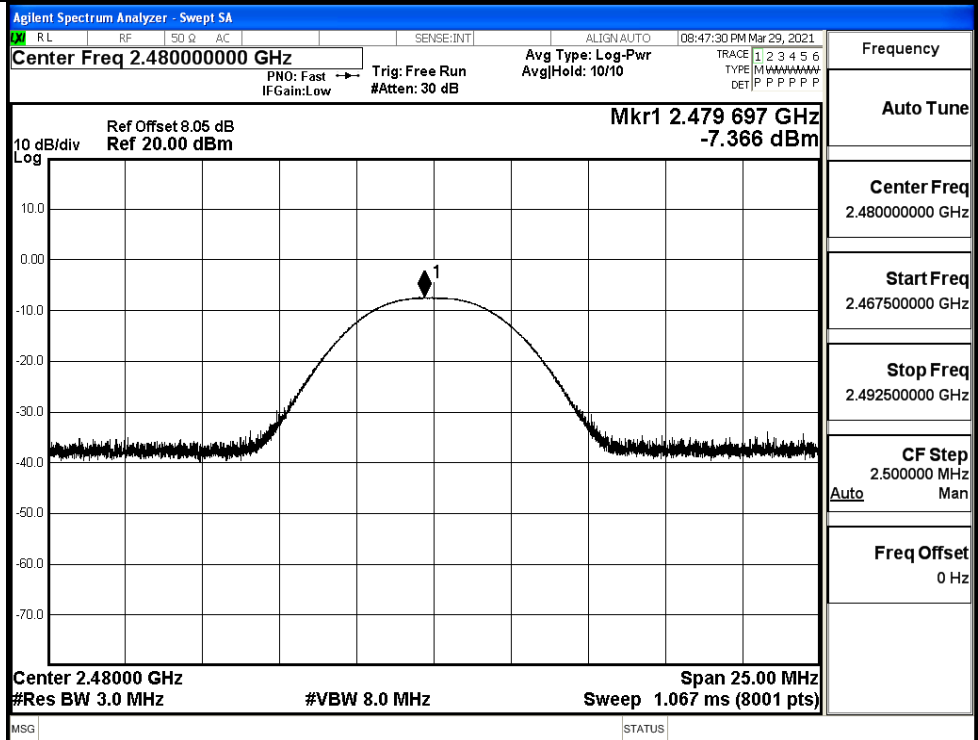
LCH



MCH



HCH



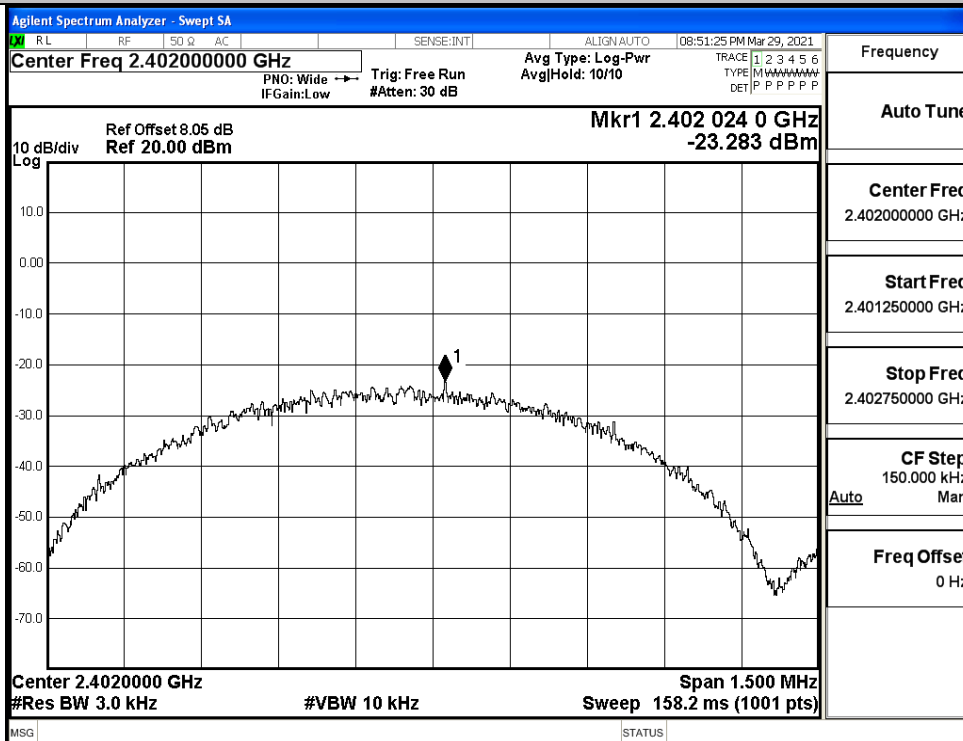
B.3 Maximum Power Spectral Density

BT LE

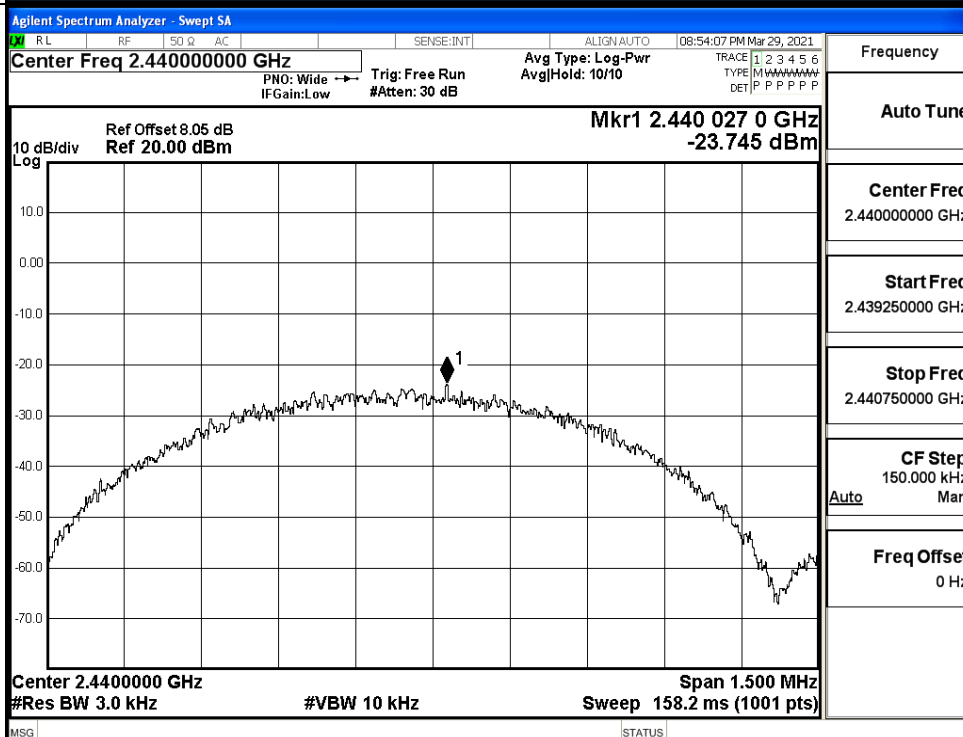
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-23.283	8	PASS
BT LE	MCH	-23.745	8	PASS
BT LE	HCH	-23.243	8	PASS

Test Graphs

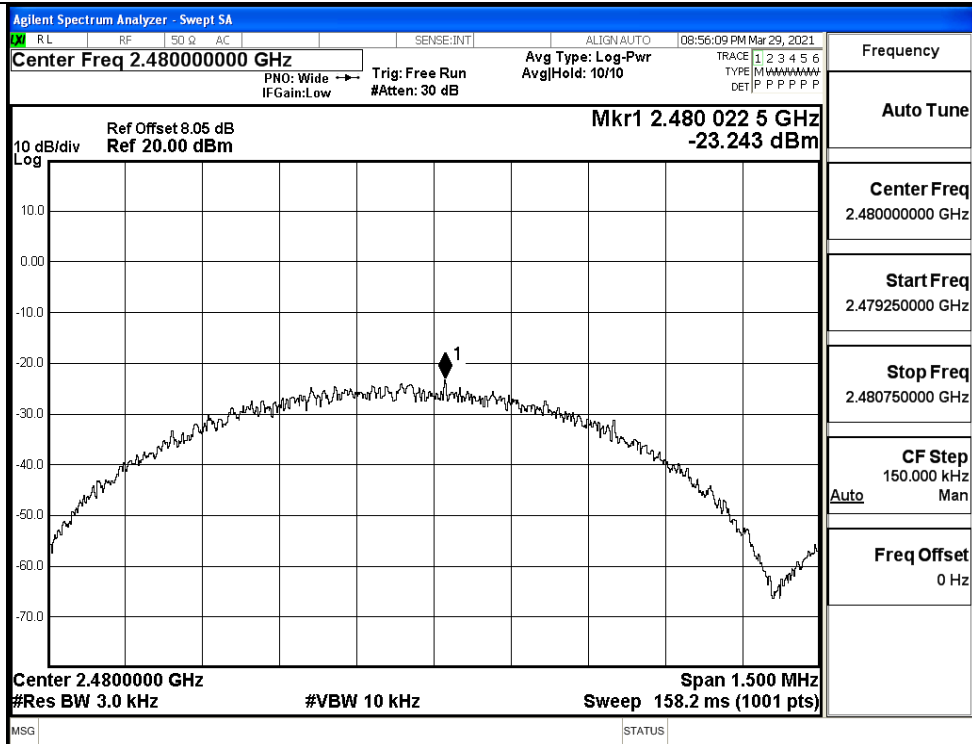
LCH



MCH



HCH

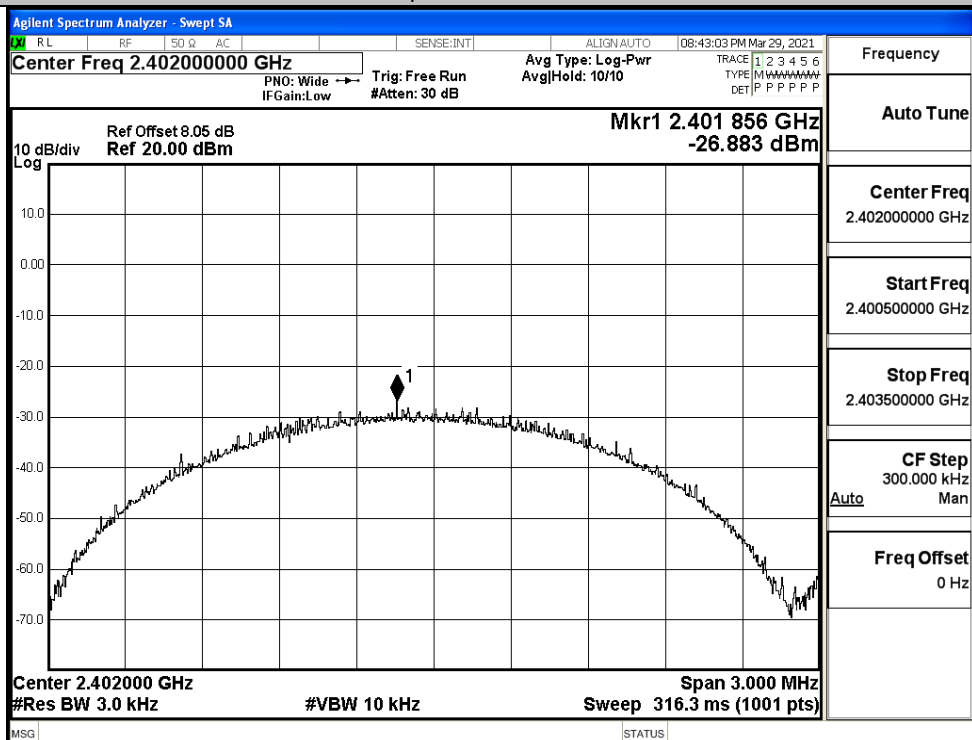


BT 2LE

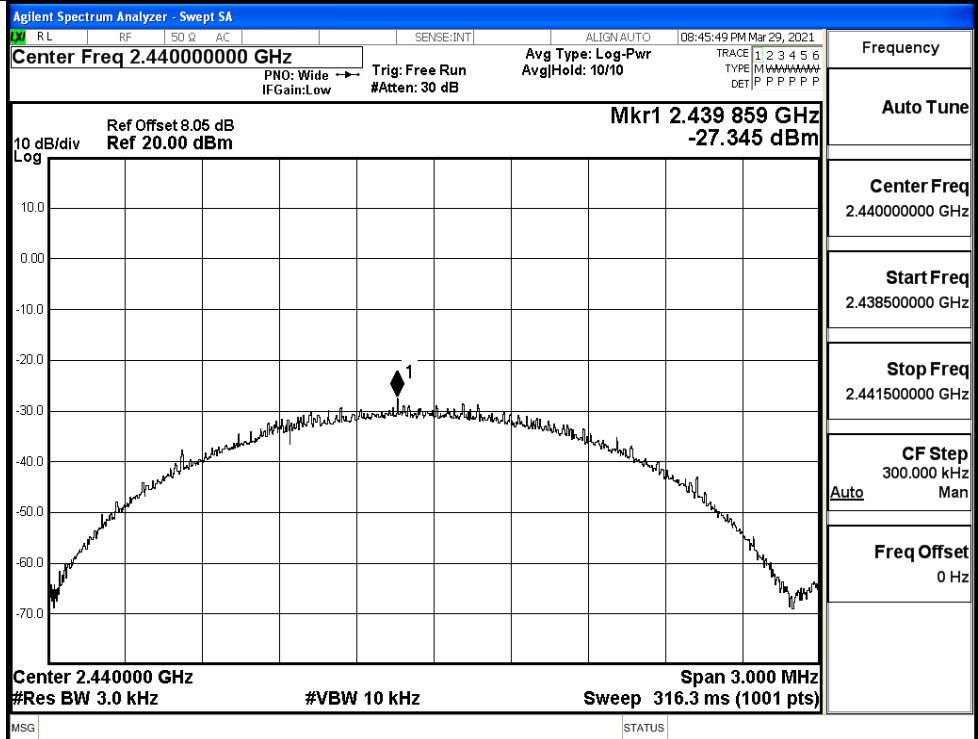
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-26.883	8	PASS
BT LE	MCH	-27.345	8	PASS
BT LE	HCH	-26.737	8	PASS

Test Graphs

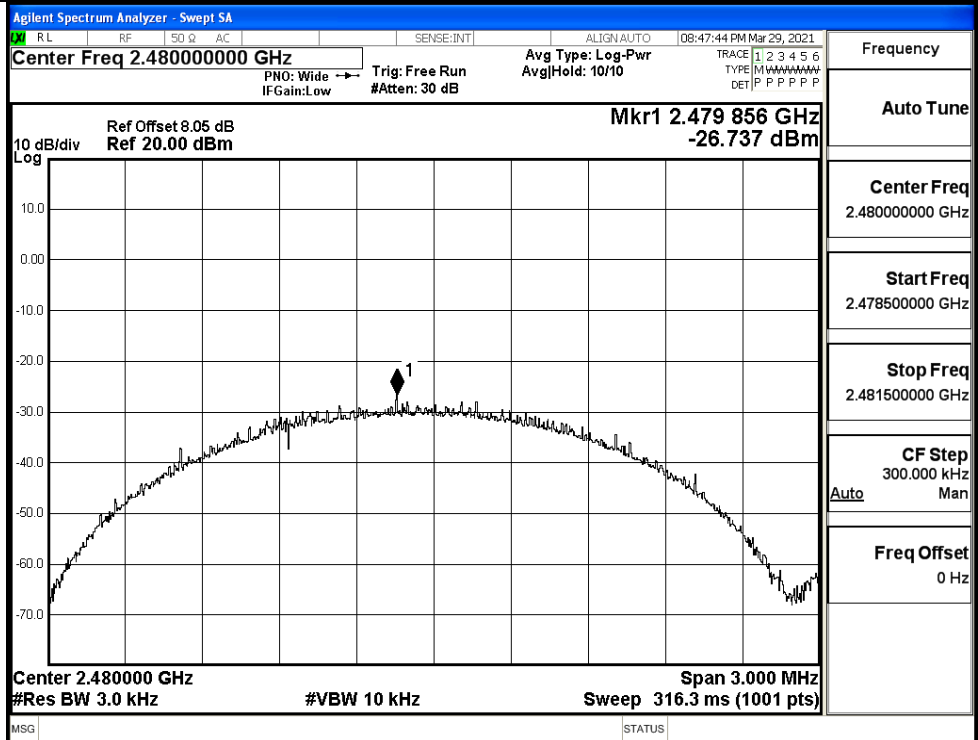
LCH



MCH



HCH



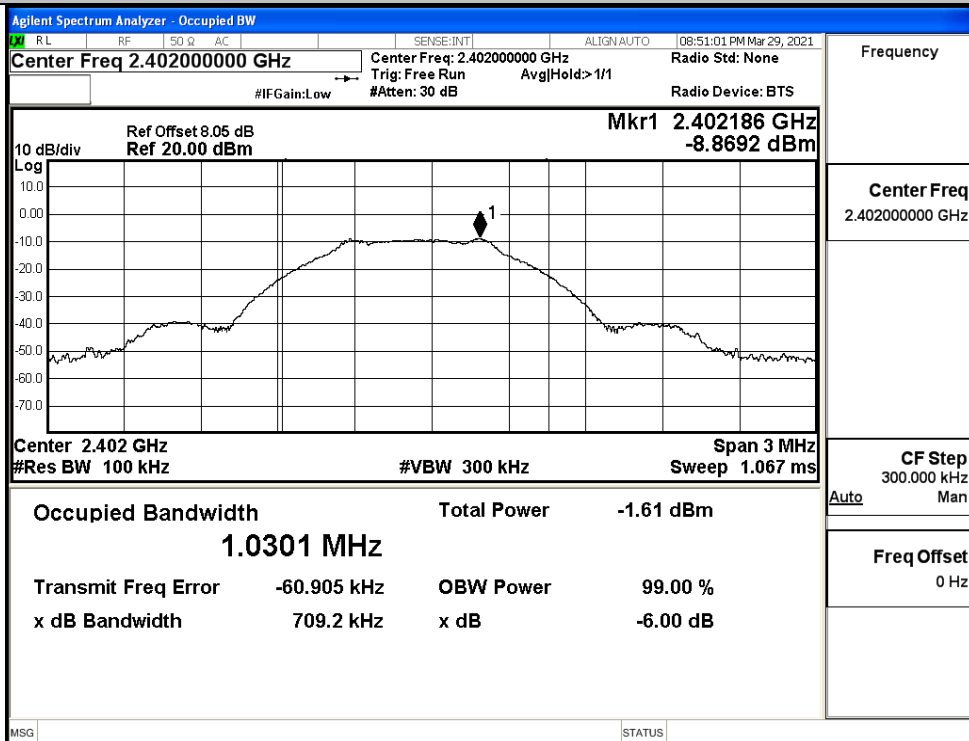
B.4 6dB Bandwidth

BT LE

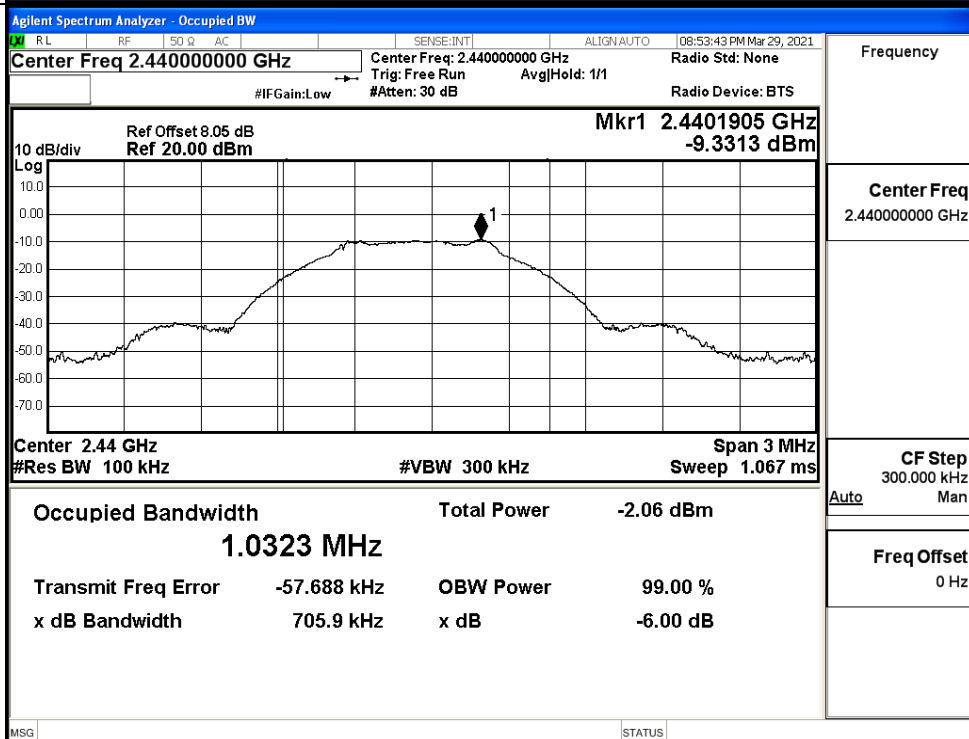
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.7092	≥ 0.5	PASS
BT LE	MCH	0.7059	≥ 0.5	PASS
BT LE	HCH	0.6934	≥ 0.5	PASS

Test Graphs

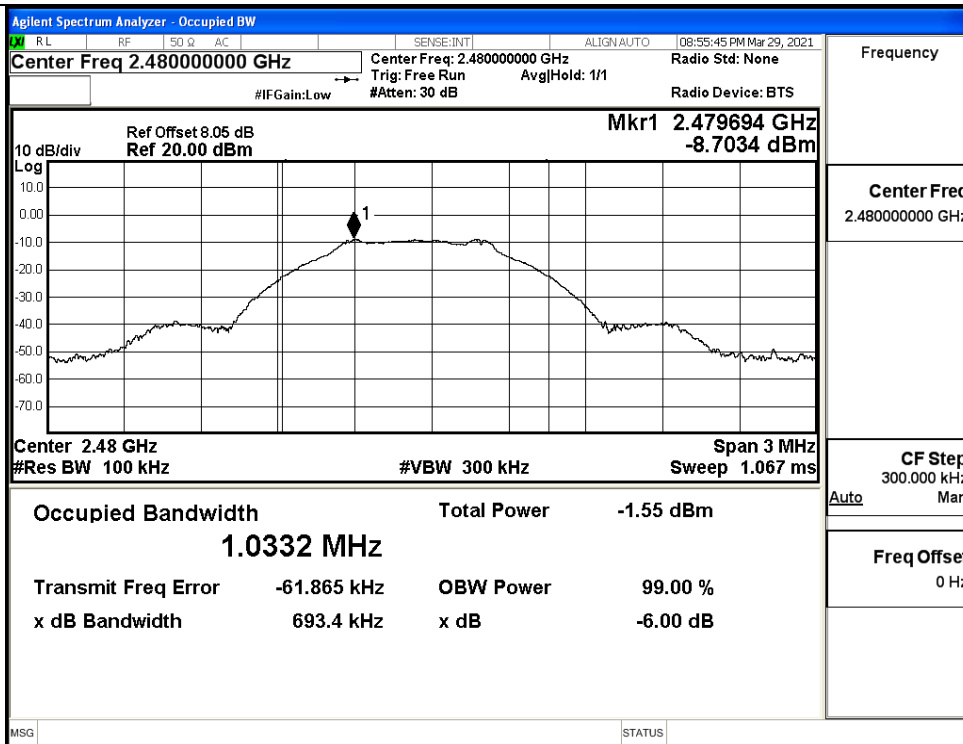
LCH



MCH



HCH

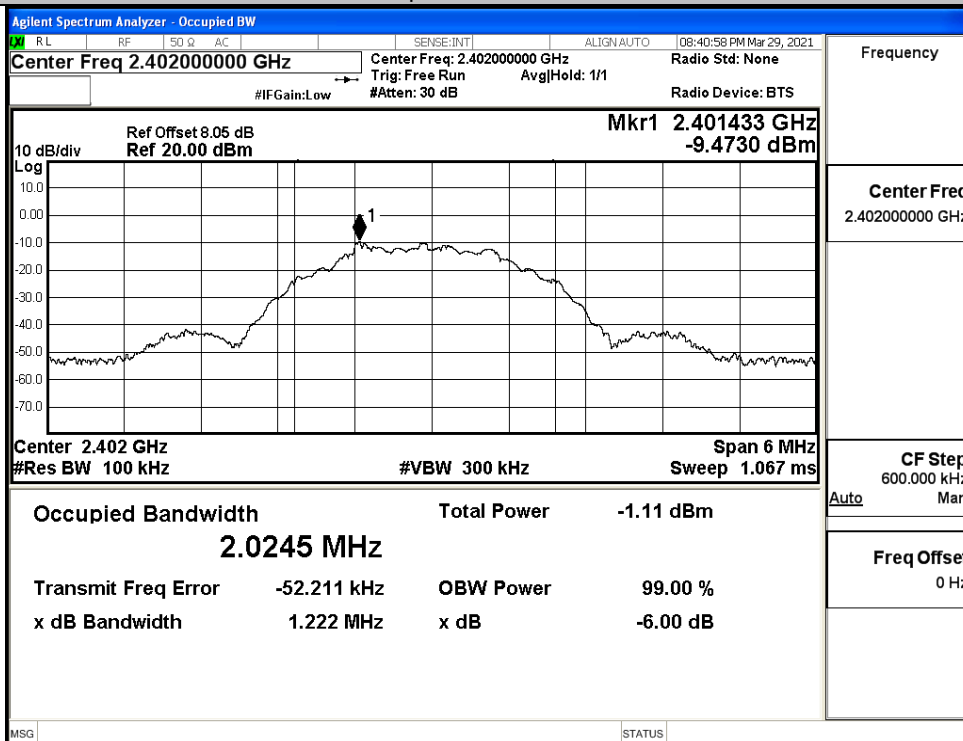


BT 2LE

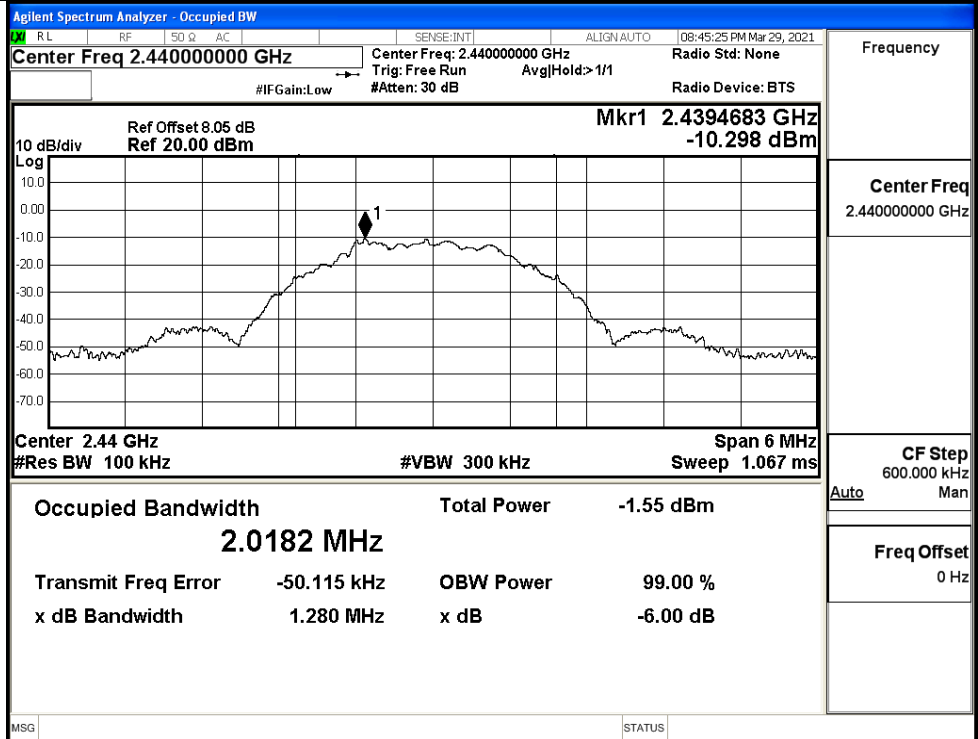
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	1.222	≥ 0.5	PASS
BT LE	MCH	1.280	≥ 0.5	PASS
BT LE	HCH	1.259	≥ 0.5	PASS

Test Graphs

LCH



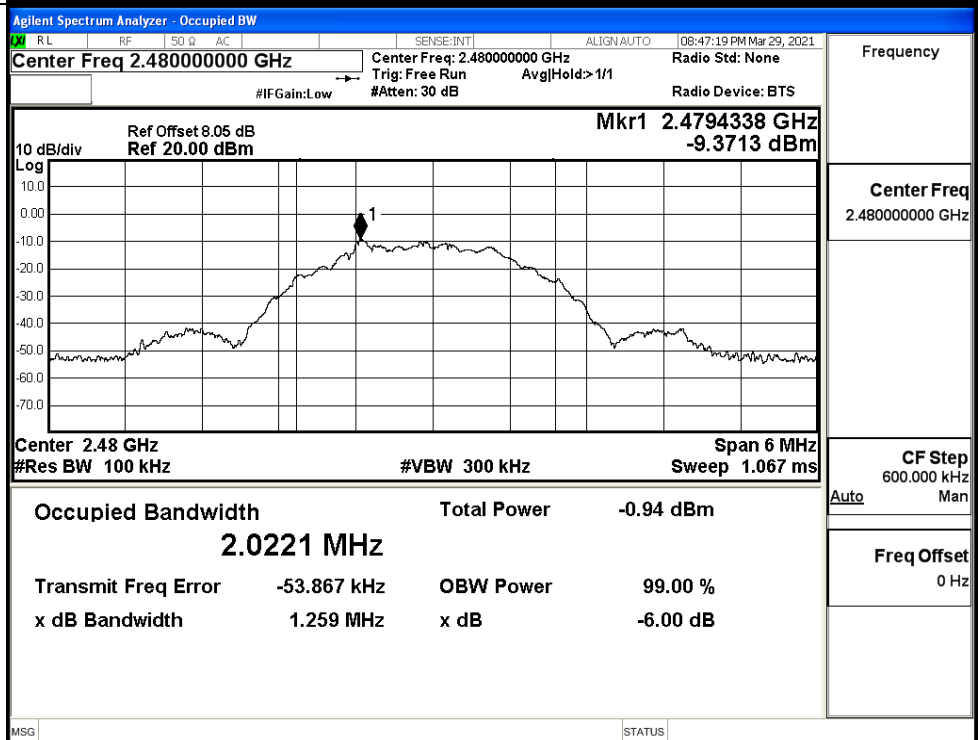
MCH



Frequency

Center Freq
2.440000000 GHzCF Step
600.000 kHz
Auto ManFreq Offset
0 Hz

HCH



Frequency

Center Freq
2.480000000 GHzCF Step
600.000 kHz
Auto ManFreq Offset
0 Hz

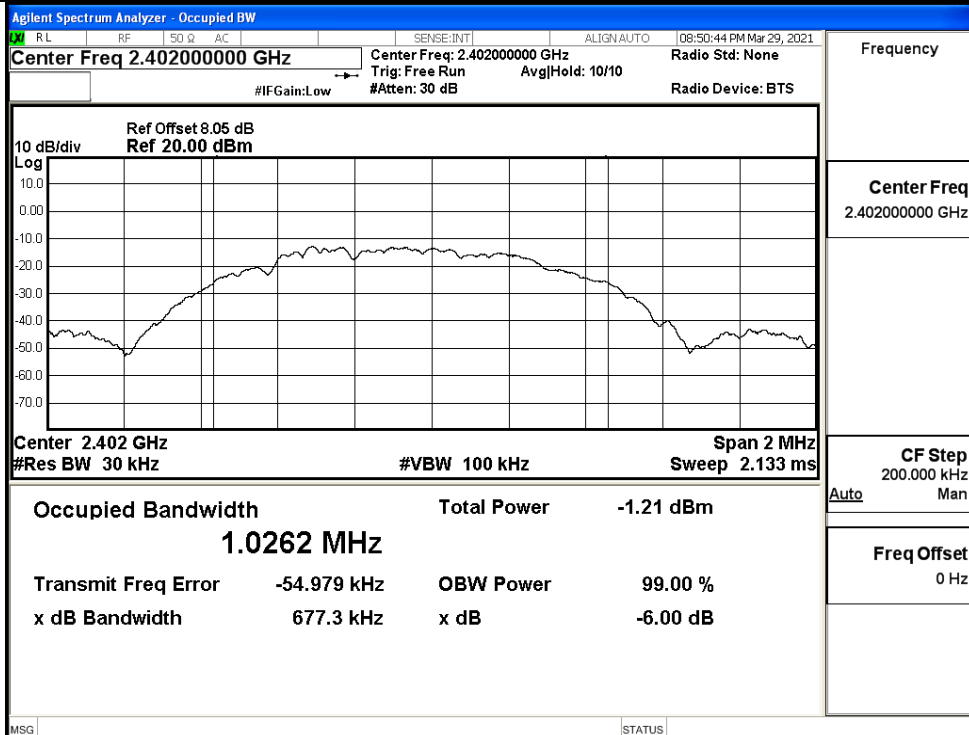
B.5 Occupied Bandwidth

BT LE

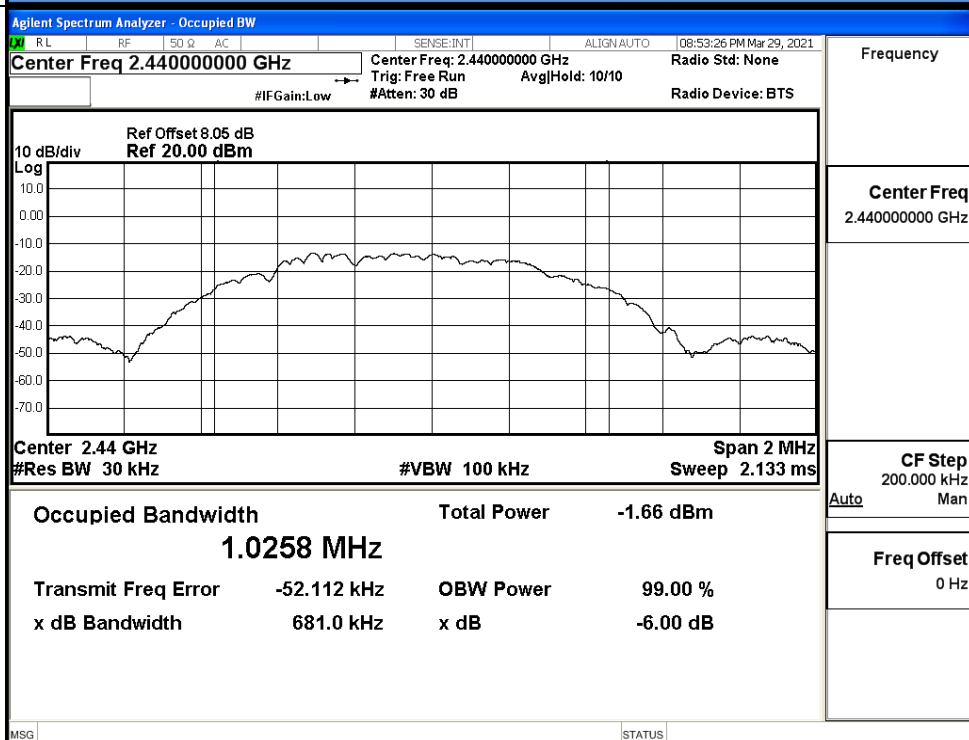
Mode	Channel	Occupied Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	1.0262	≥ 0.5	PASS
BT LE	MCH	1.0258	≥ 0.5	PASS
BT LE	HCH	1.0271	≥ 0.5	PASS

Test Graphs

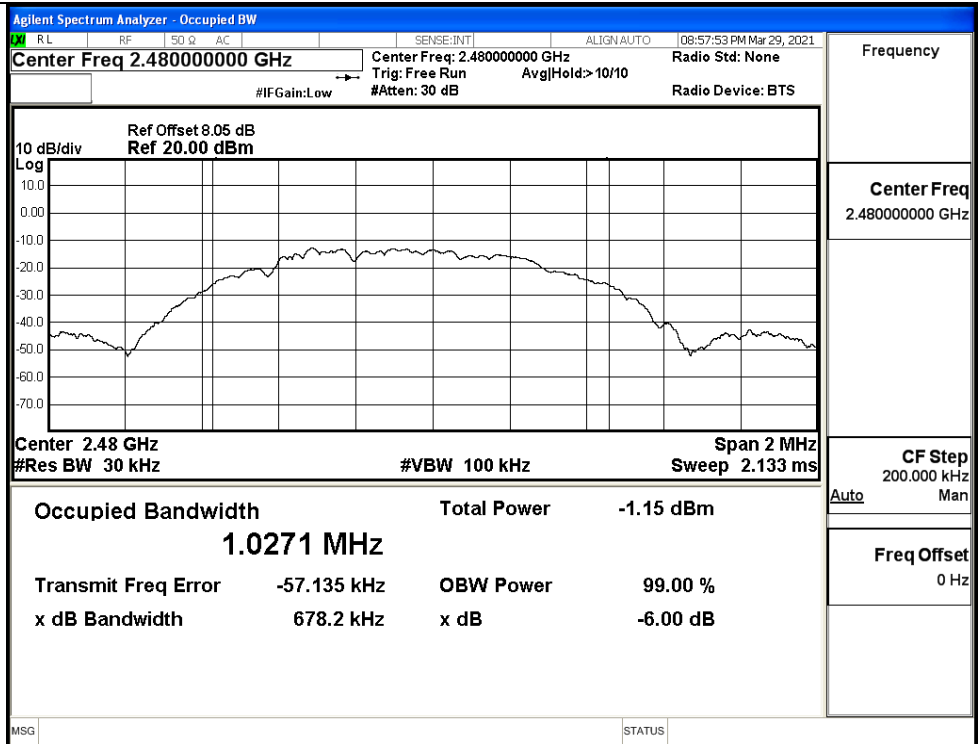
LCH



MCH



HCH

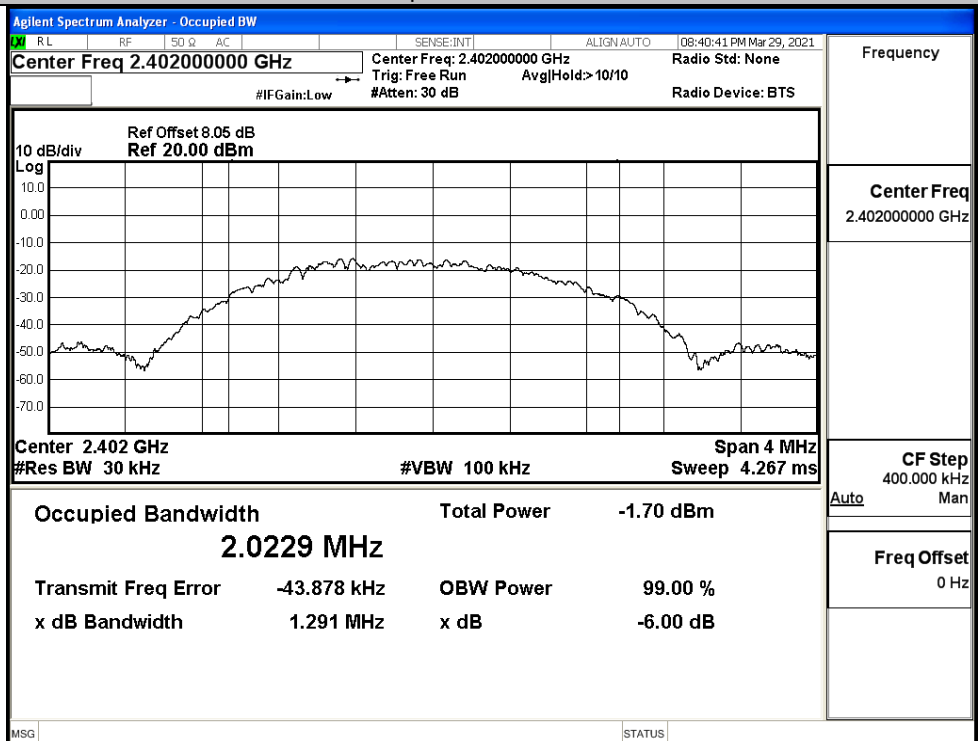


BT 2LE

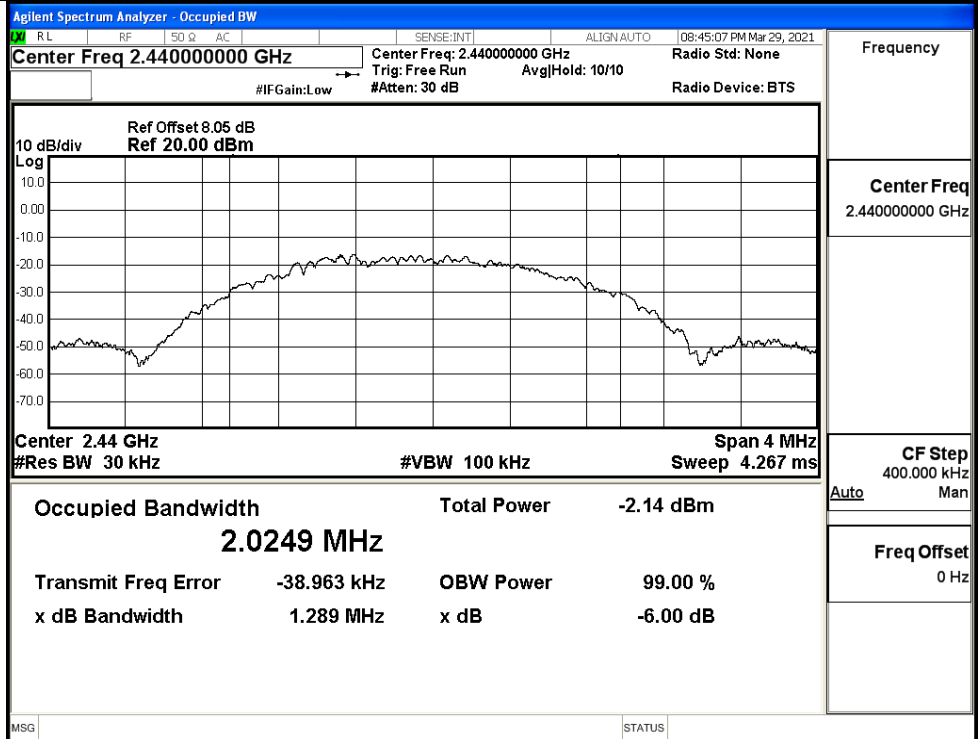
Mode	Channel	Occupied Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	2.0229	≥ 0.5	PASS
BT LE	MCH	2.0249	≥ 0.5	PASS
BT LE	HCH	2.0242	≥ 0.5	PASS

Test Graphs

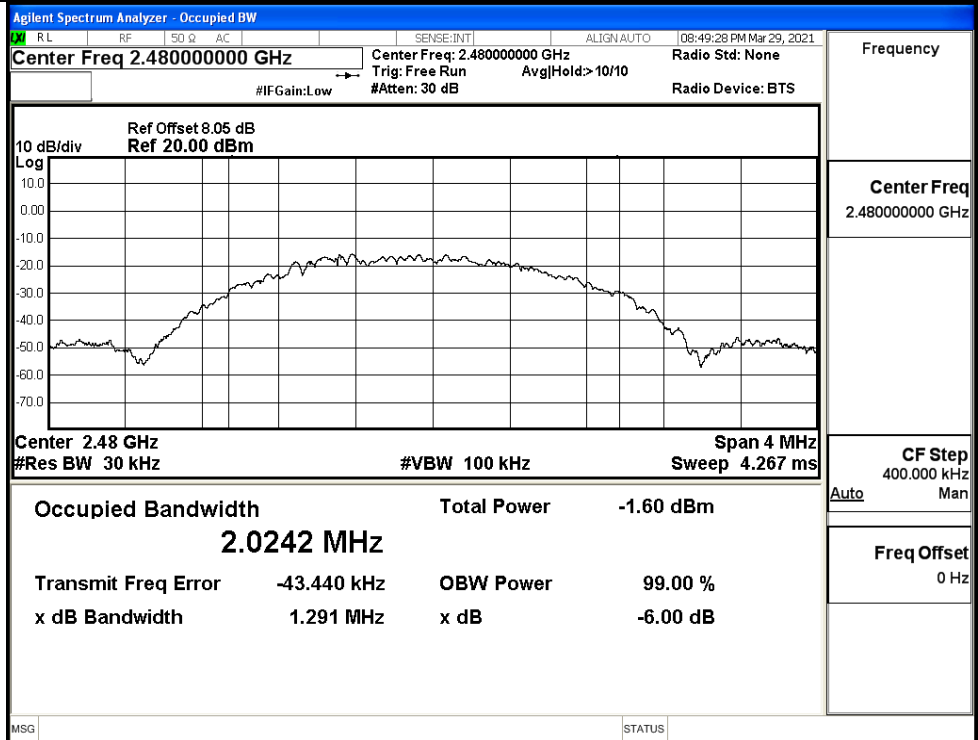
LCH



MCH



HCH

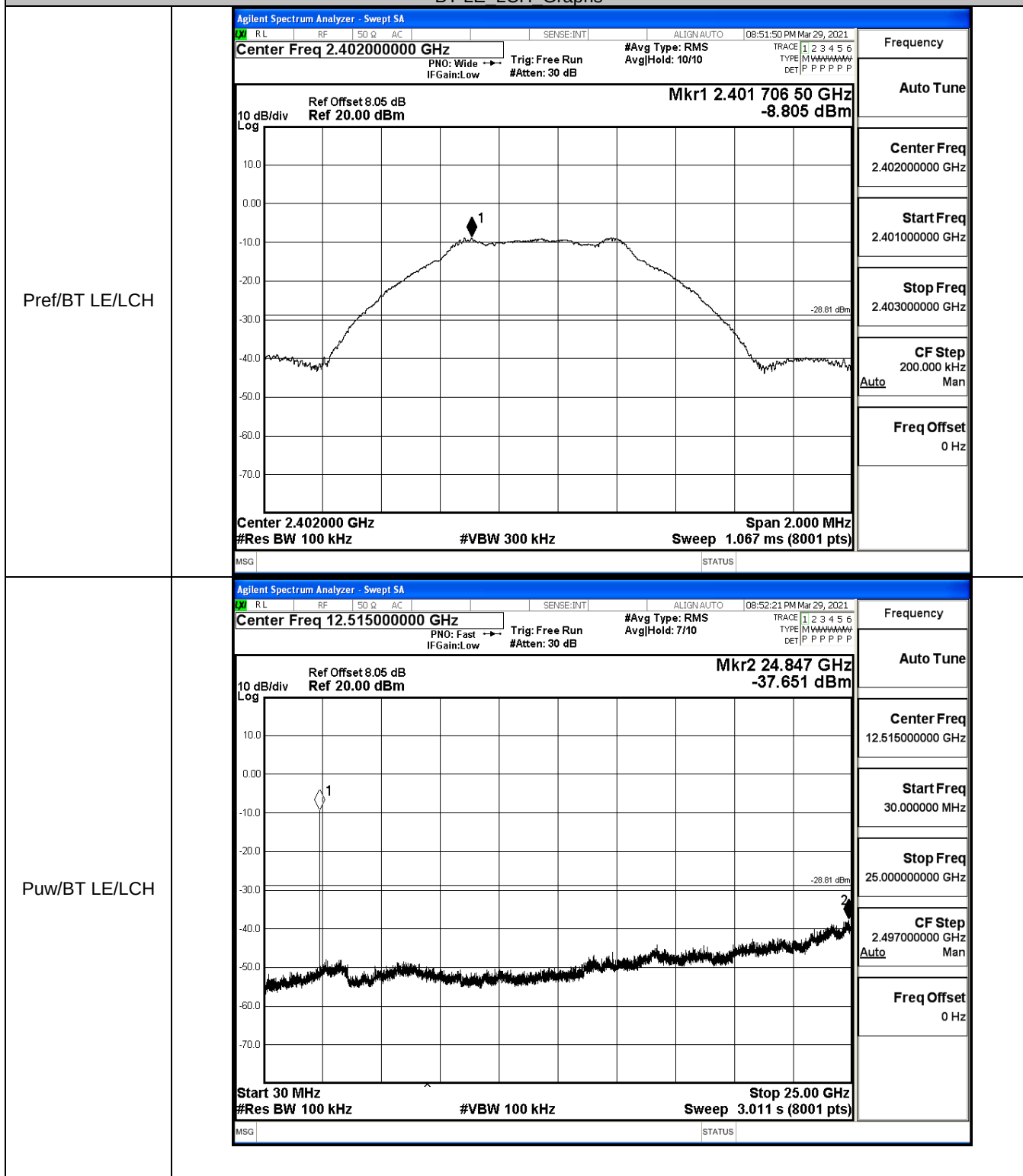


B.6 RF Conducted Spurious Emissions

BT LE

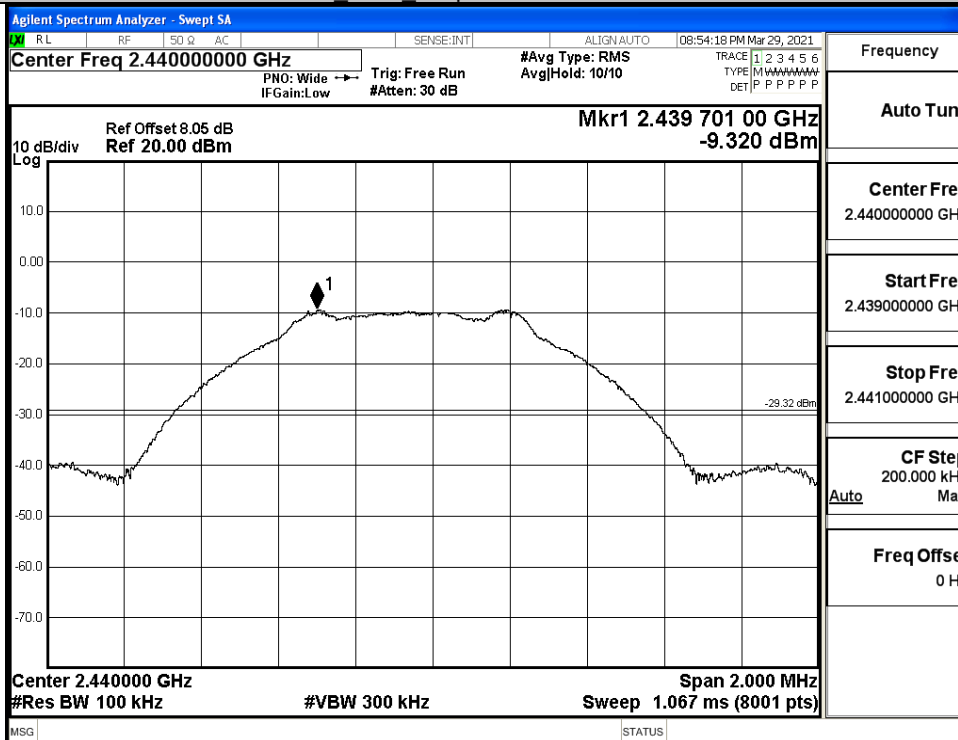
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-8.805	-37.651	-28.805	PASS
BT LE	MCH	-9.32	-37.652	-29.320	PASS
BT LE	HCH	-8.717	-37.556	-28.717	PASS

BT LE LCH Graphs

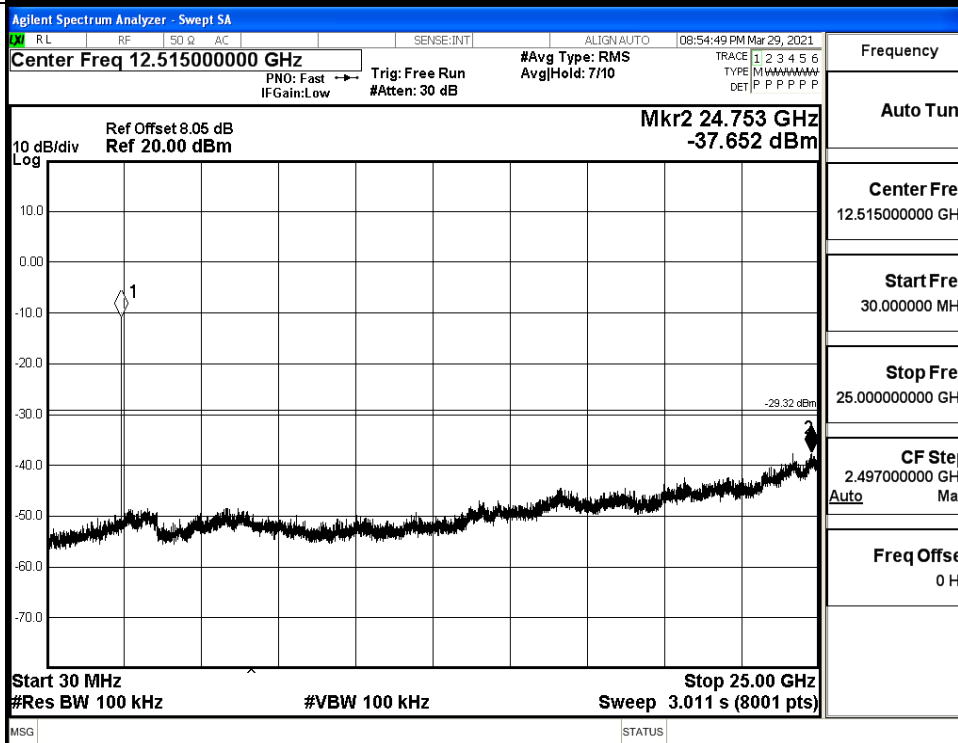


BT LE MCH Graphs

Pref/BT LE/MCH

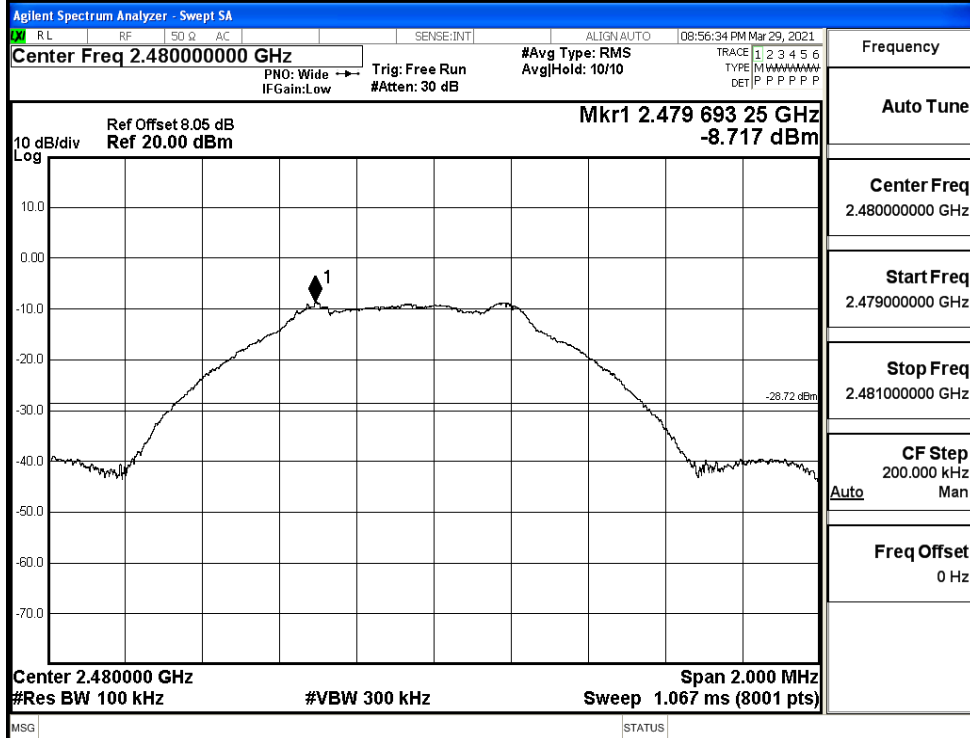


Puw/BT LE/MCH

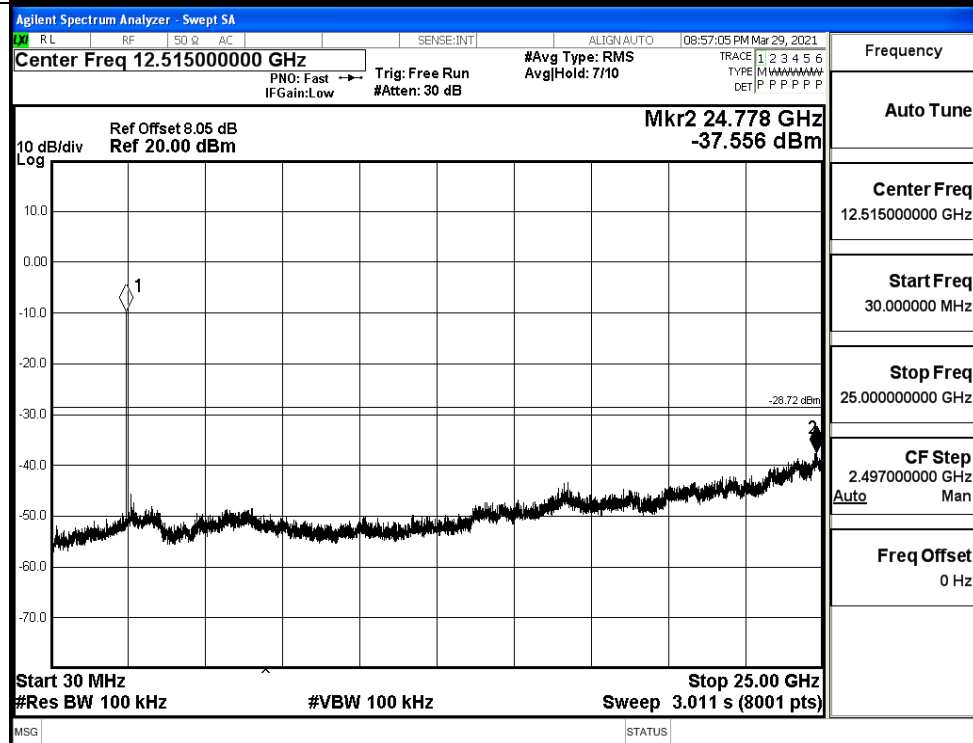


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

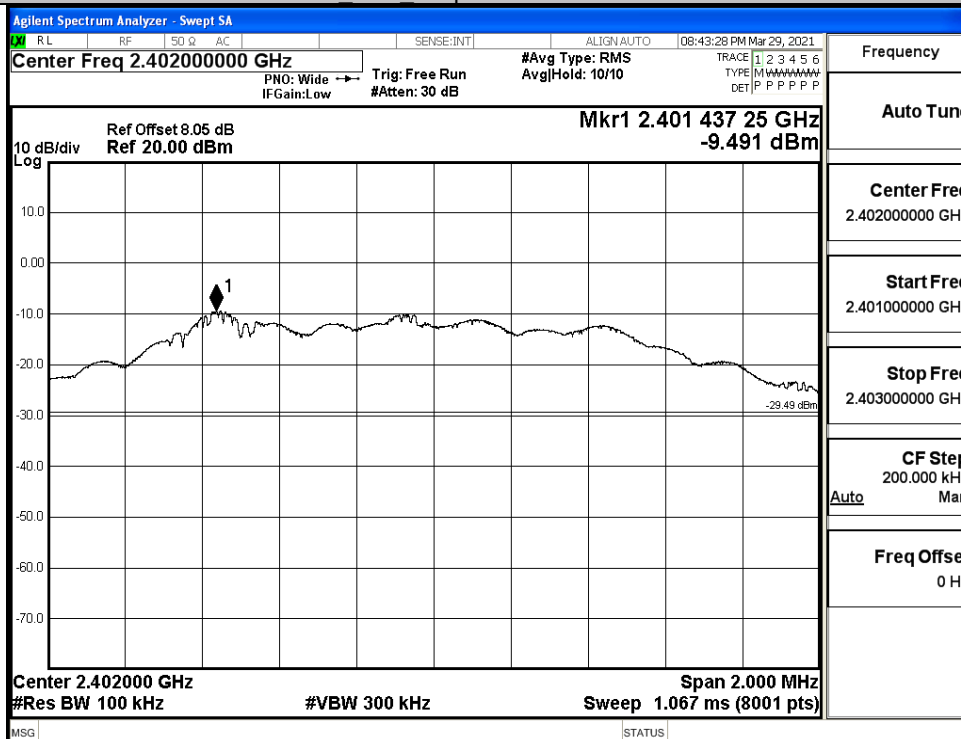


BT 2LE

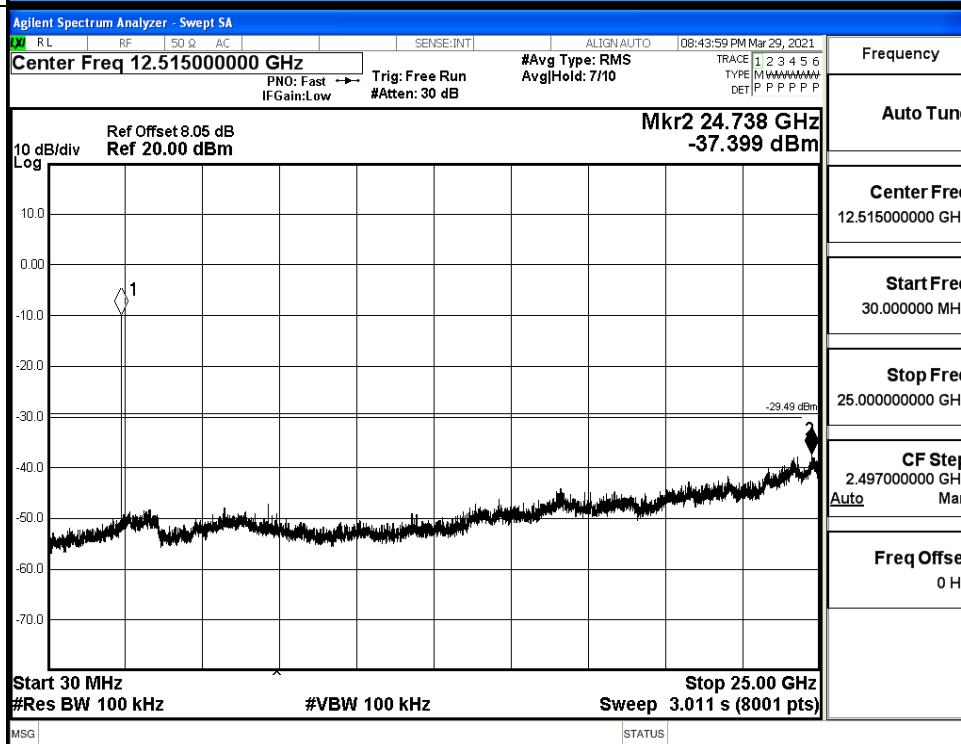
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-9.491	-37.399	-29.491	PASS
BT LE	MCH	-9.969	-37.238	-29.969	PASS
BT LE	HCH	-9.400	-37.811	-29.400	PASS

BT LE LCH Graphs

Pref/BT LE/LCH

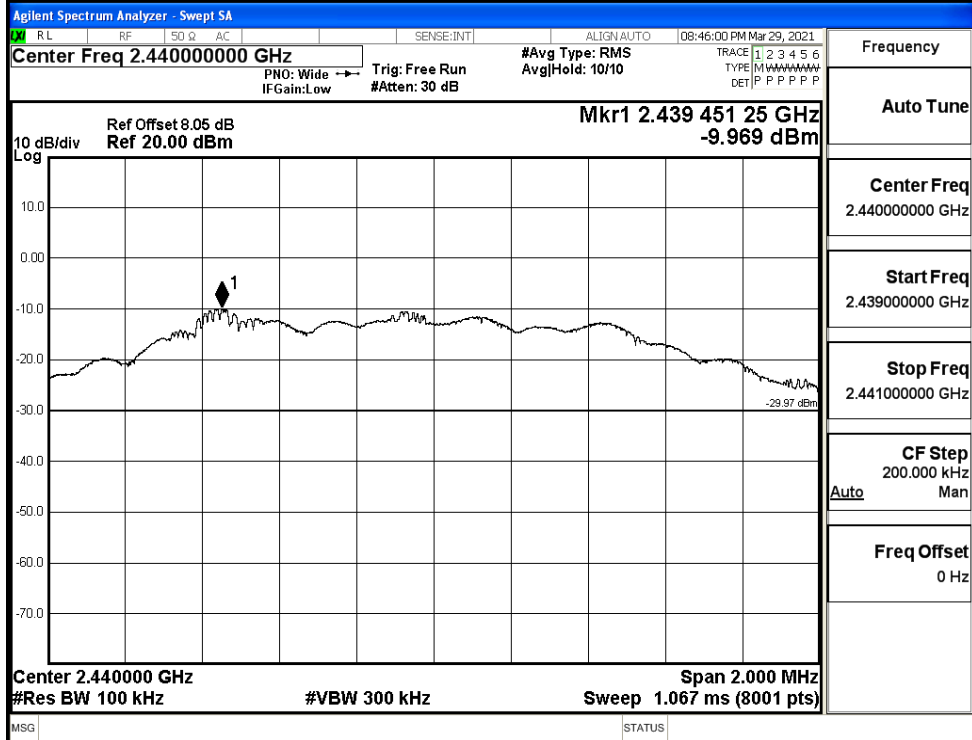


Puw/BT LE/LCH

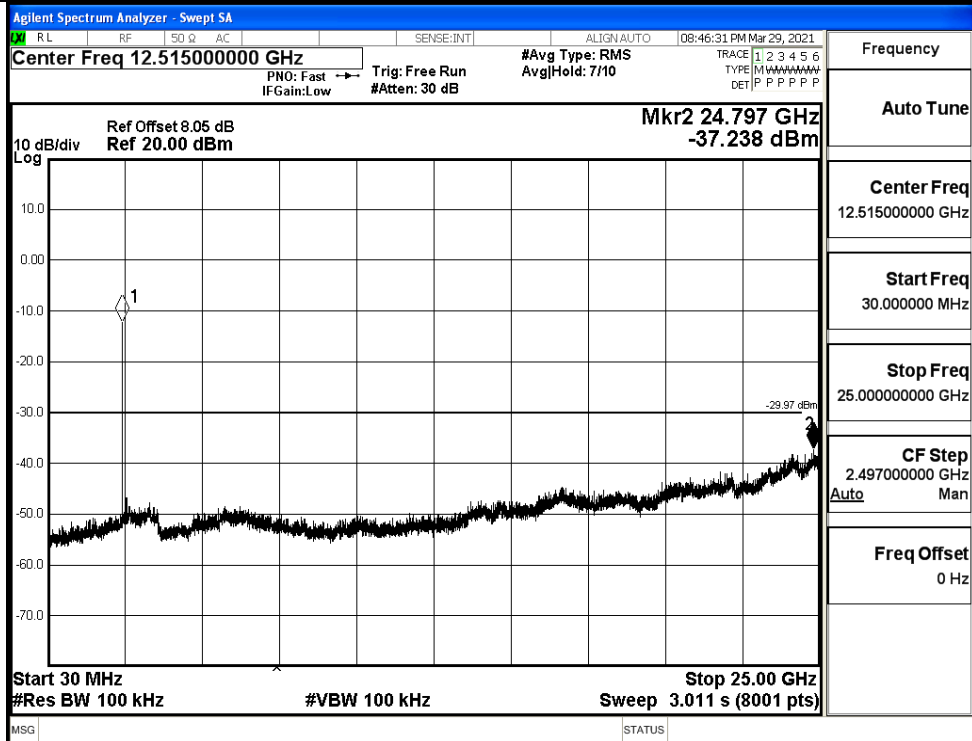


BT LE MCH Graphs

Pref/BT LE/MCH

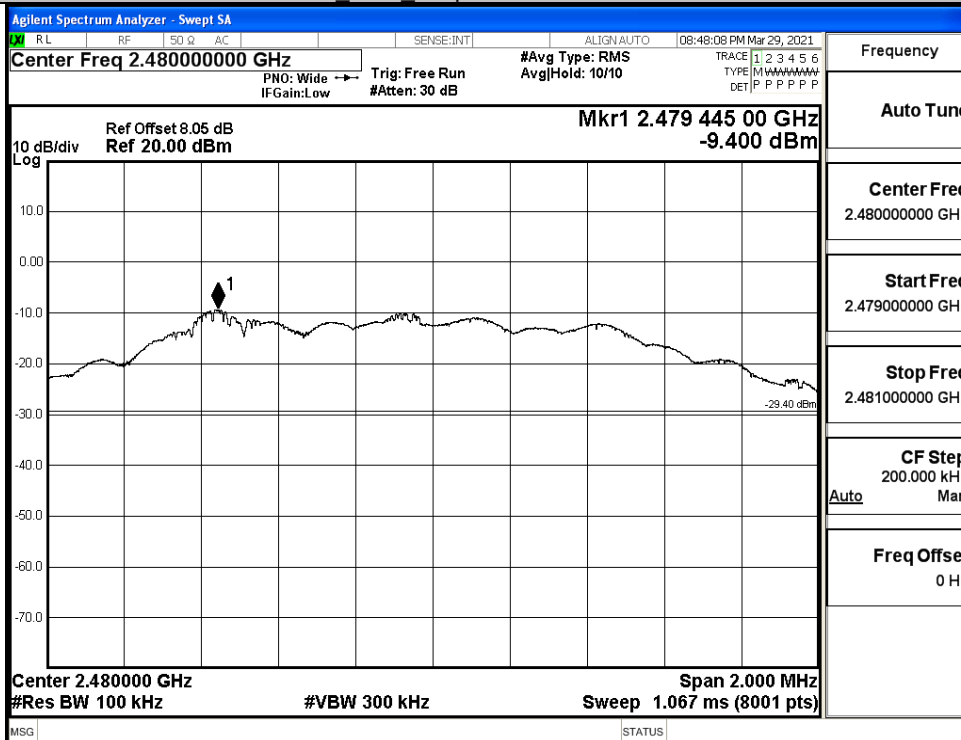


Puw/BT LE/MCH

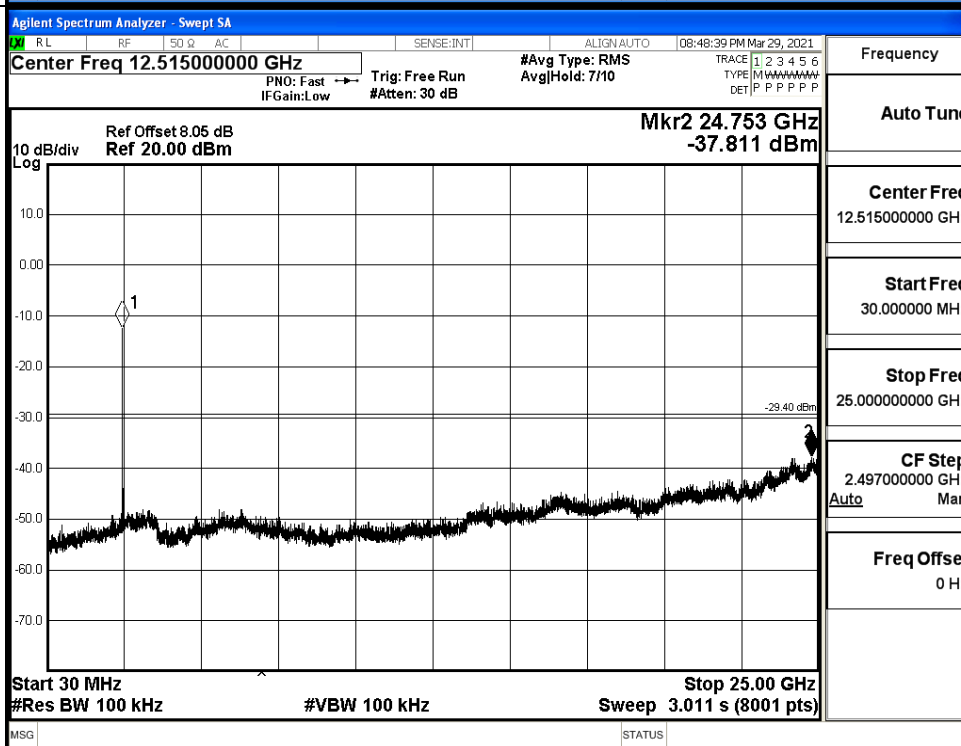


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH



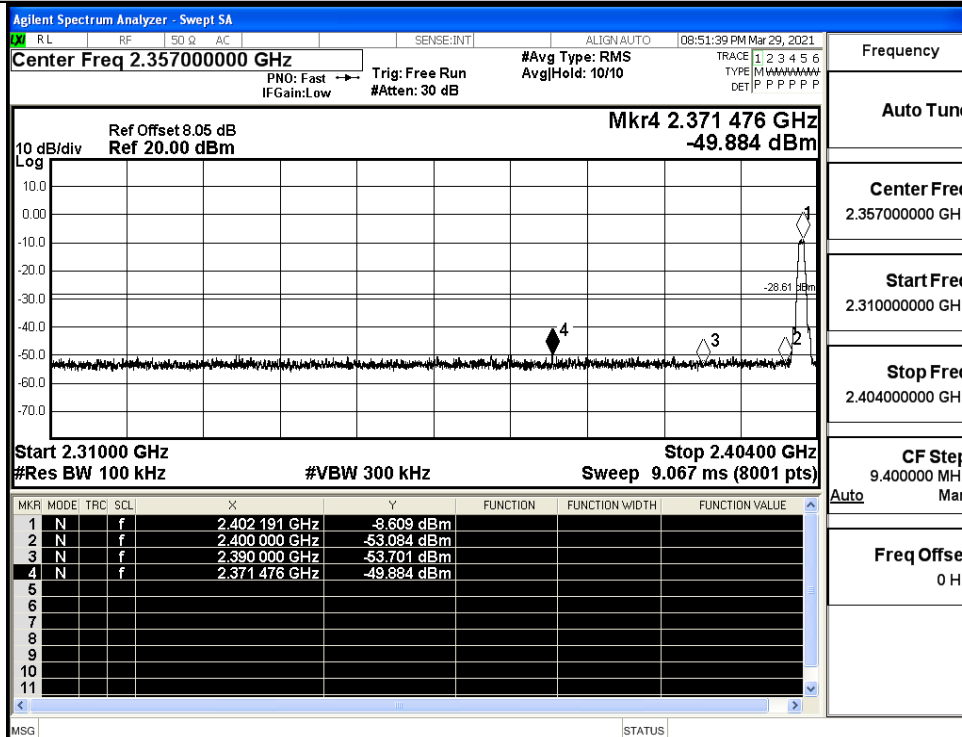
B.7 Band-edge for RF Conducted Emissions

BT LE

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-8.609	-49.884	-28.61	PASS
BT LE	HCH	-8.832	-49.369	-28.83	PASS

Test Graphs

LCH



Frequency

Auto Tune

Center Freq

2.357000000 GHz

Start Freq

2.310000000 GHz

Stop Freq

2.404000000 GHz

CF Step

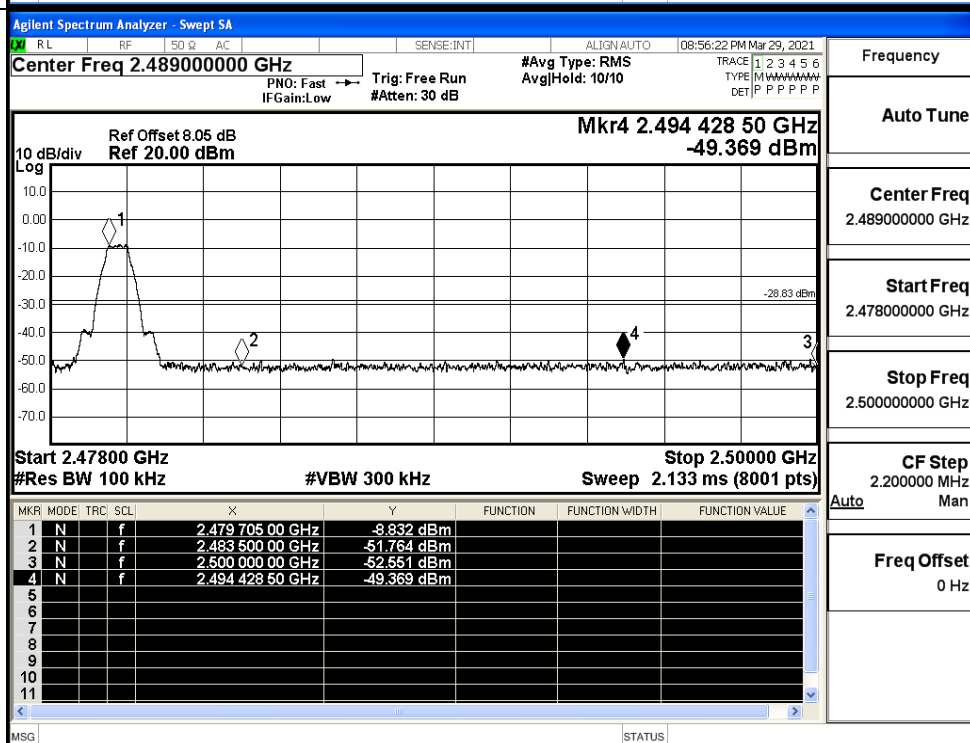
9.400000 MHz

Auto Man

Freq Offset

0 Hz

HCH



Frequency

Auto Tune

Center Freq

2.489000000 GHz

Start Freq

2.478000000 GHz

Stop Freq

2.500000000 GHz

CF Step

2.200000 MHz

Auto Man

Freq Offset

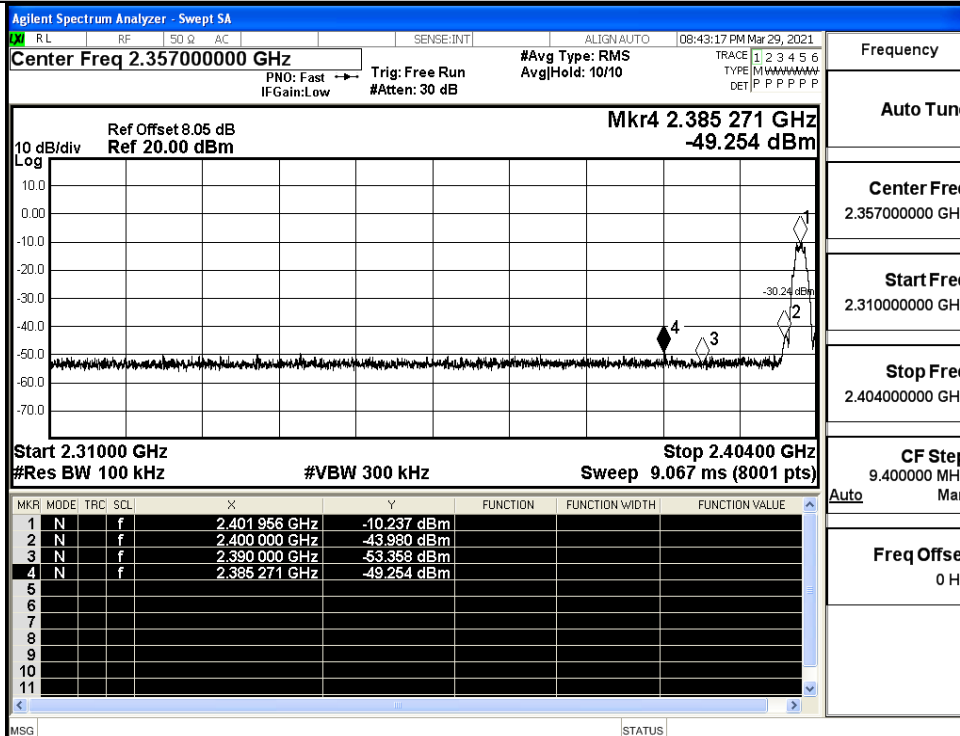
0 Hz

BT 2LE

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-10.237	-49.254	-30.24	PASS
BT LE	HCH	-9.150	-49.234	-29.15	PASS

Test Graphs

LCH



Frequency

Auto Tune

Center Freq

2.35700000 GHz

Start Freq

2.31000000 GHz

Stop Freq

2.40400000 GHz

CF Step

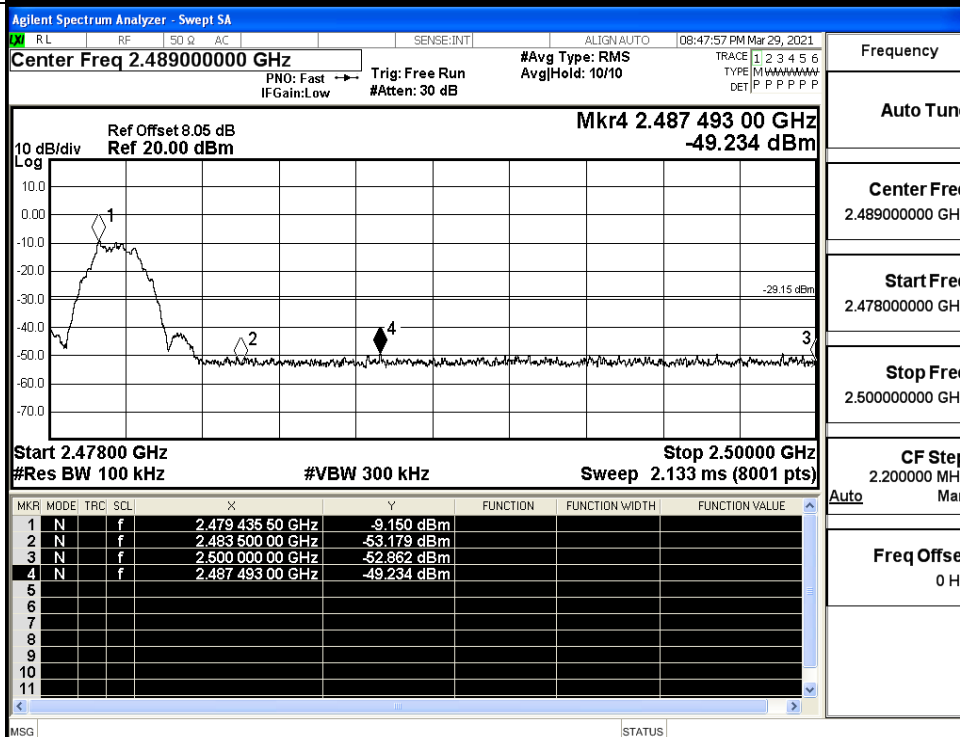
9.400000 MHz

Auto

Freq Offset

0 Hz

HCH



Frequency

Auto Tune

Center Freq

2.48900000 GHz

Start Freq

2.47800000 GHz

Stop Freq

2.50000000 GHz

CF Step

2.200000 MHz

Auto

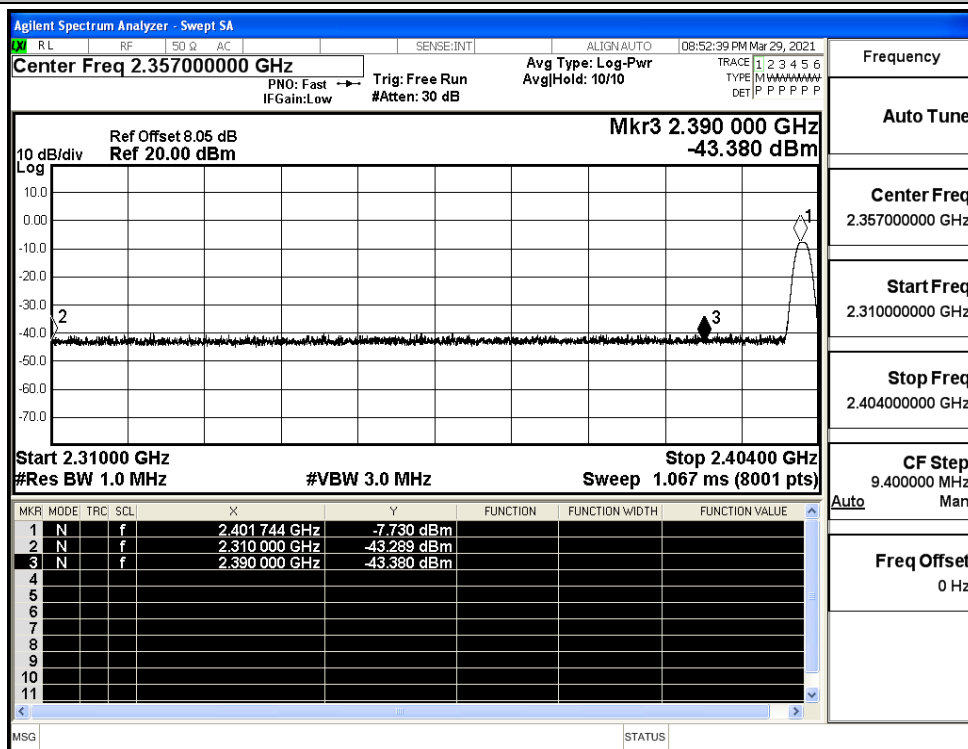
Freq Offset

0 Hz

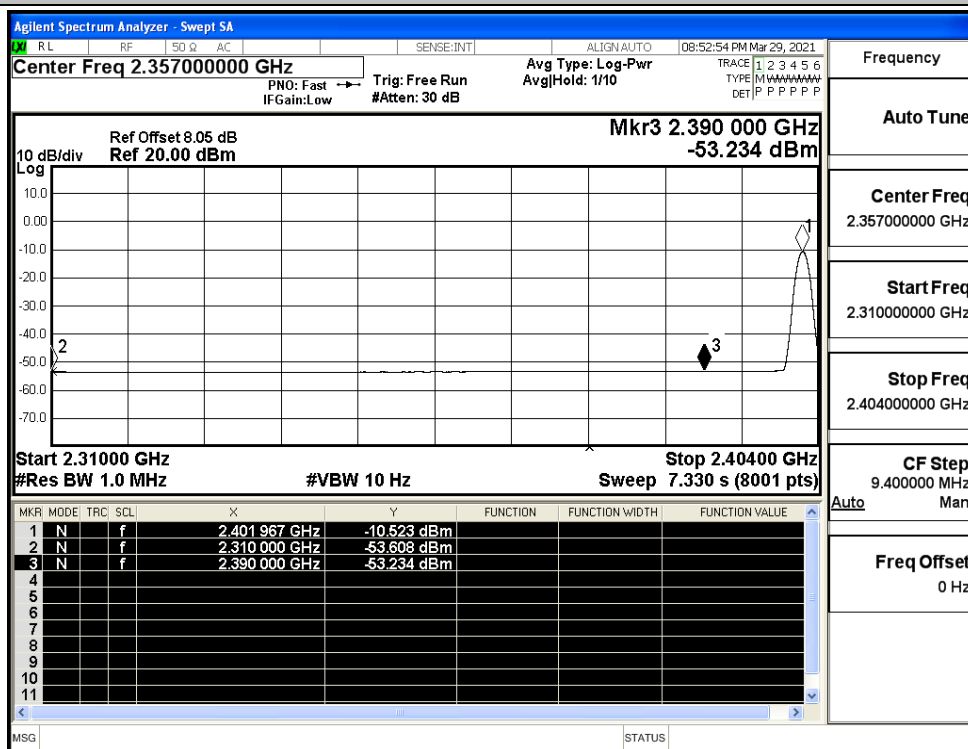
B.8 Restrict-band band-edge measurements**BT LE**

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	-43.29	2.0	0	53.97	PEAK	74	PASS
		Ant1	2310.0	-53.61	2.0	0	43.65	AV	54	PASS
		Ant1	2390.0	-43.38	2.0	0	53.88	PEAK	74	PASS
		Ant1	2390.0	-53.23	2.0	0	44.03	AV	54	PASS
	2480	Ant1	2483.5	-42.19	2.0	0	55.07	PEAK	74	PASS
		Ant1	2483.5	-52.85	2.0	0	44.41	AV	54	PASS
		Ant1	2500.0	-41.03	2.0	0	56.23	PEAK	74	PASS
		Ant1	2500.0	-52.66	2.0	0	44.60	AV	54	PASS

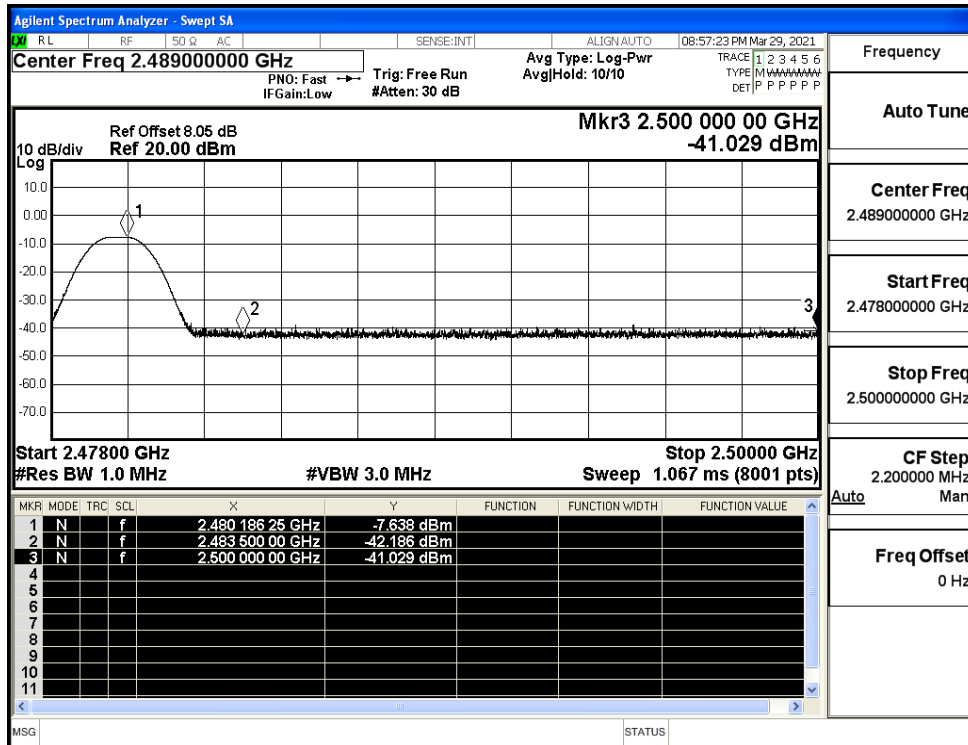
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



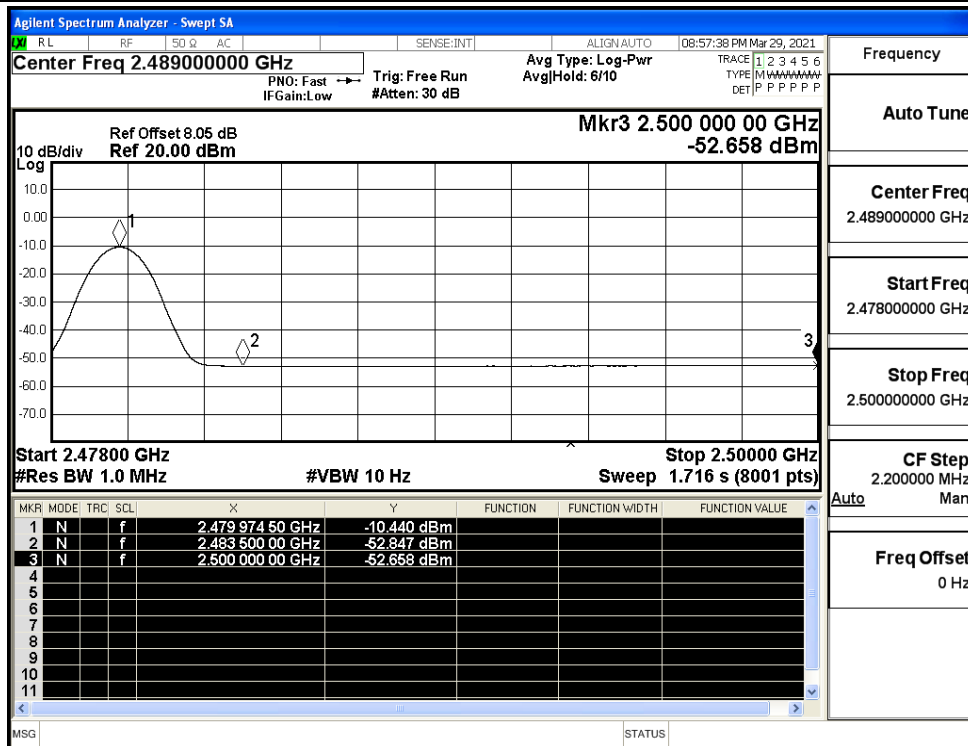
Restrict-band band-edge measurements_BT LE_2402_Ant1_AV



Restrict-band band-edge measurements_BT LE_2480_Ant1_PEAK



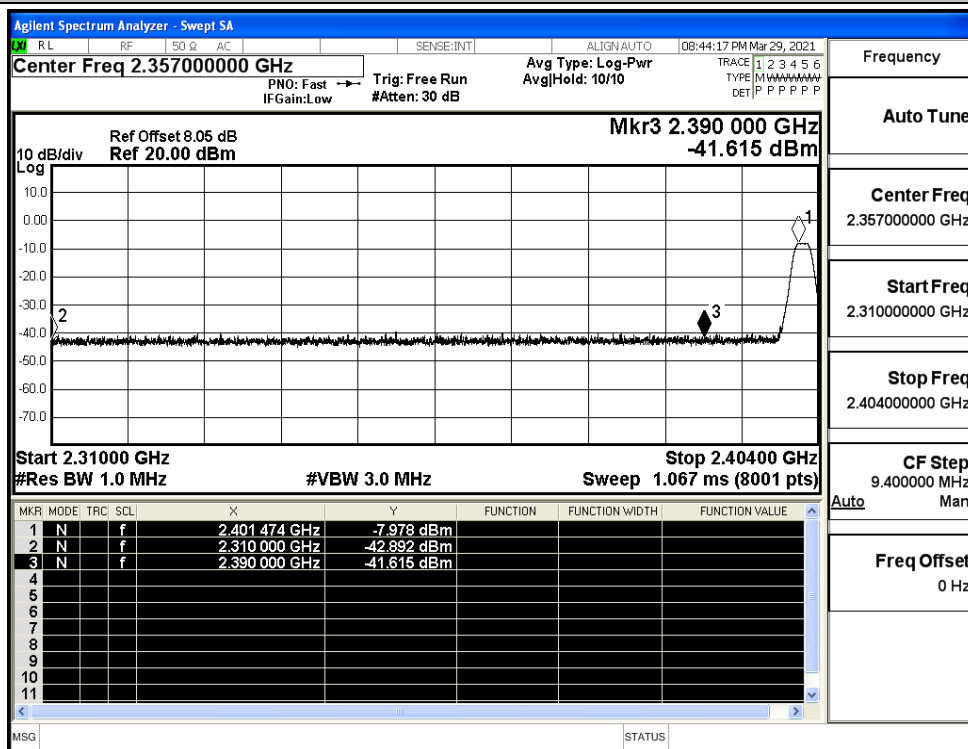
Restrict-band band-edge measurements_BT LE_2480_Ant1_AV



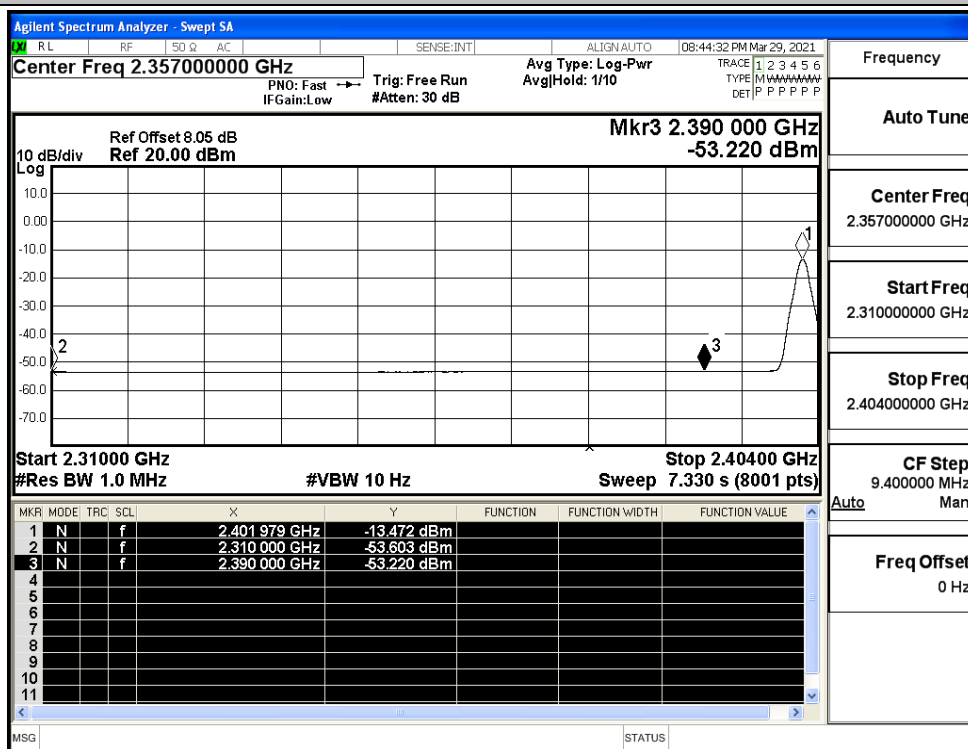
BT 2LE

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	-42.89	2.0	0	54.37	PEAK	74	PASS
		Ant1	2310.0	-53.60	2.0	0	43.66	AV	54	PASS
		Ant1	2390.0	-41.62	2.0	0	55.64	PEAK	74	PASS
		Ant1	2390.0	-53.22	2.0	0	44.04	AV	54	PASS
	2480	Ant1	2483.5	-43.27	2.0	0	53.99	PEAK	74	PASS
		Ant1	2483.5	-52.72	2.0	0	44.54	AV	54	PASS
		Ant1	2500.0	-42.52	2.0	0	54.74	PEAK	74	PASS
		Ant1	2500.0	-52.64	2.0	0	44.62	AV	54	PASS

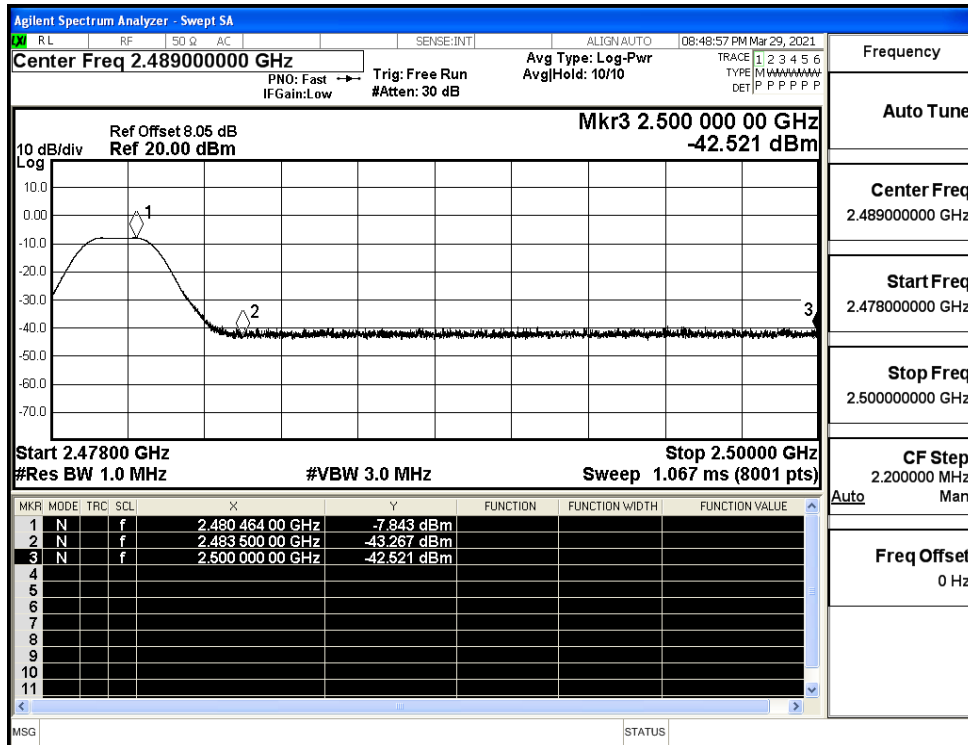
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

