

Appendix A

RF Test Data for BT V4.0(BDR/EDR) (Conducted Measurement)

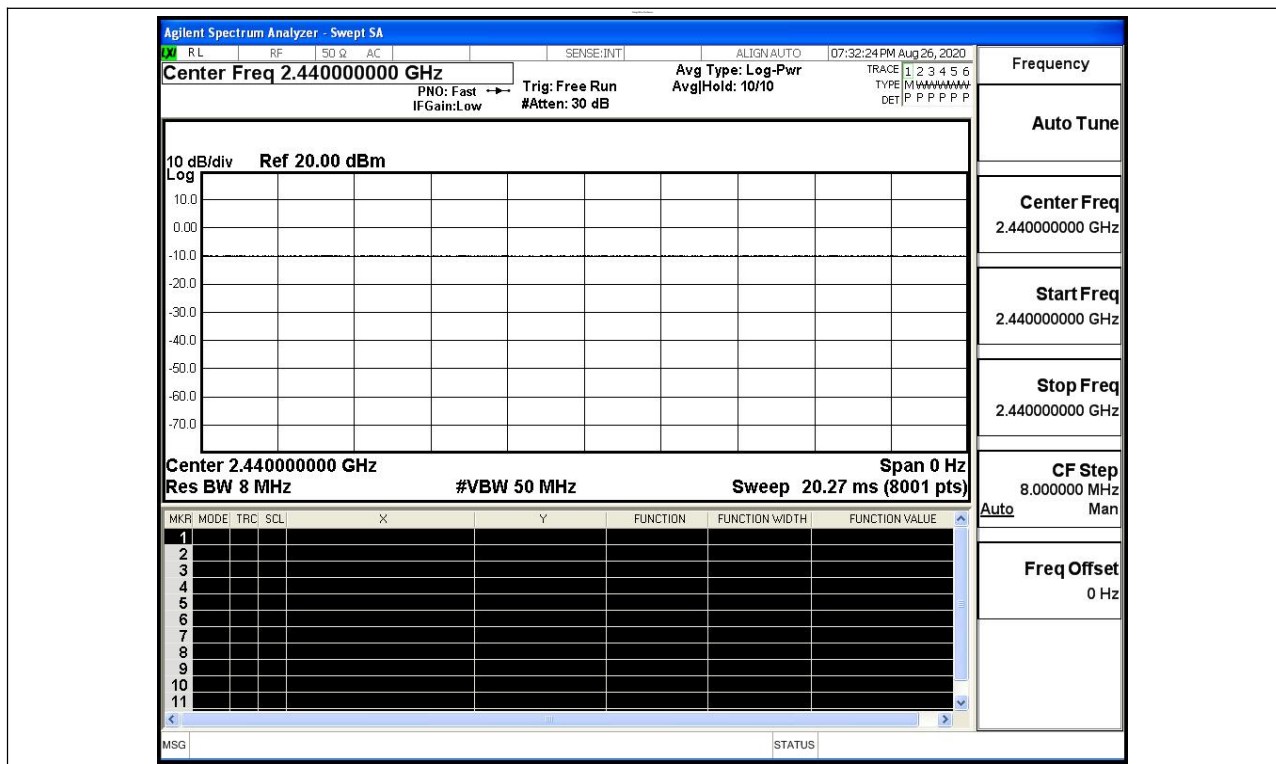
Product Name: Aquarium Luminaire
Trade Mark: Fluval
Test Model: A13291

Environmental Conditions

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

A.1 Duty Cycle

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

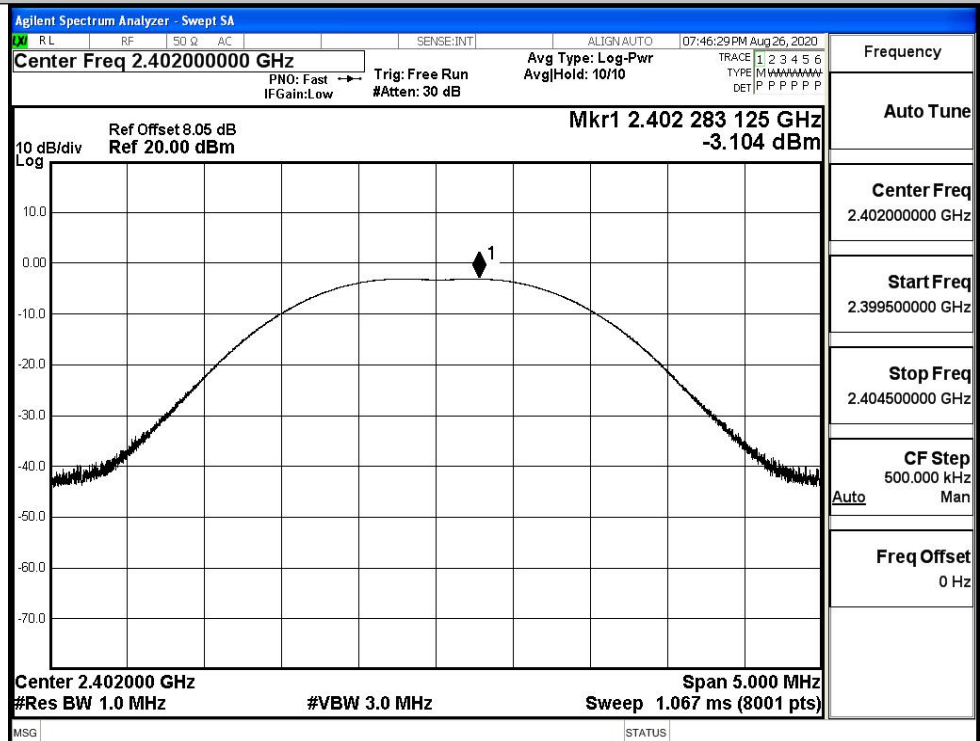


A.2 Maximum Conducted Peak Output Power

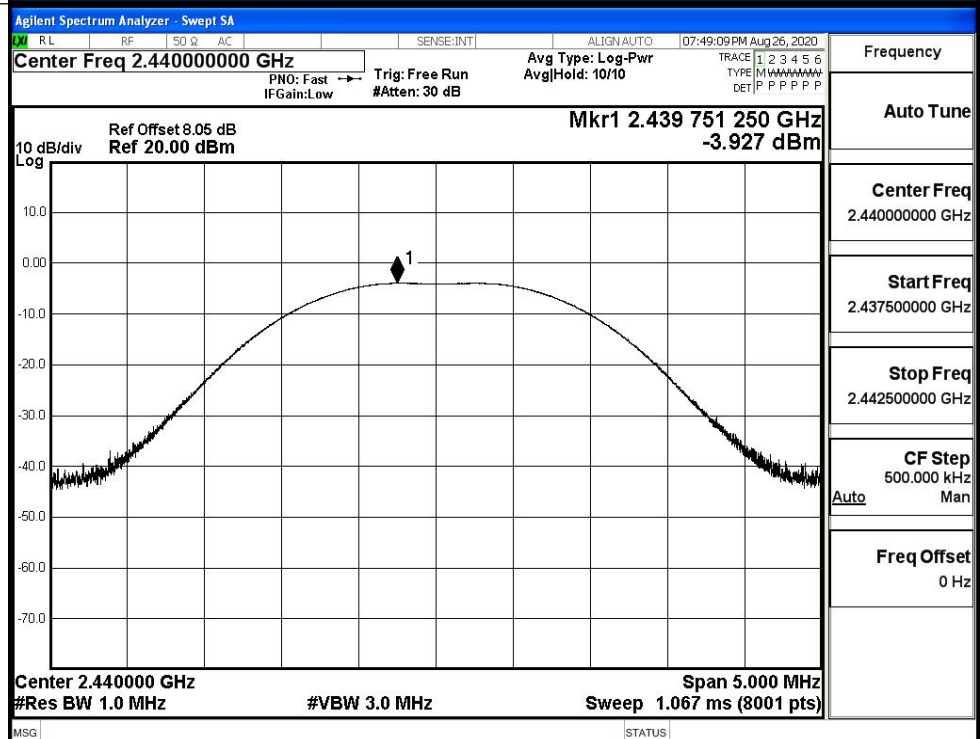
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.104	30	PASS
BT LE	MCH	-3.927	30	PASS
BT LE	HCH	-4.445	30	PASS

Test Graphs

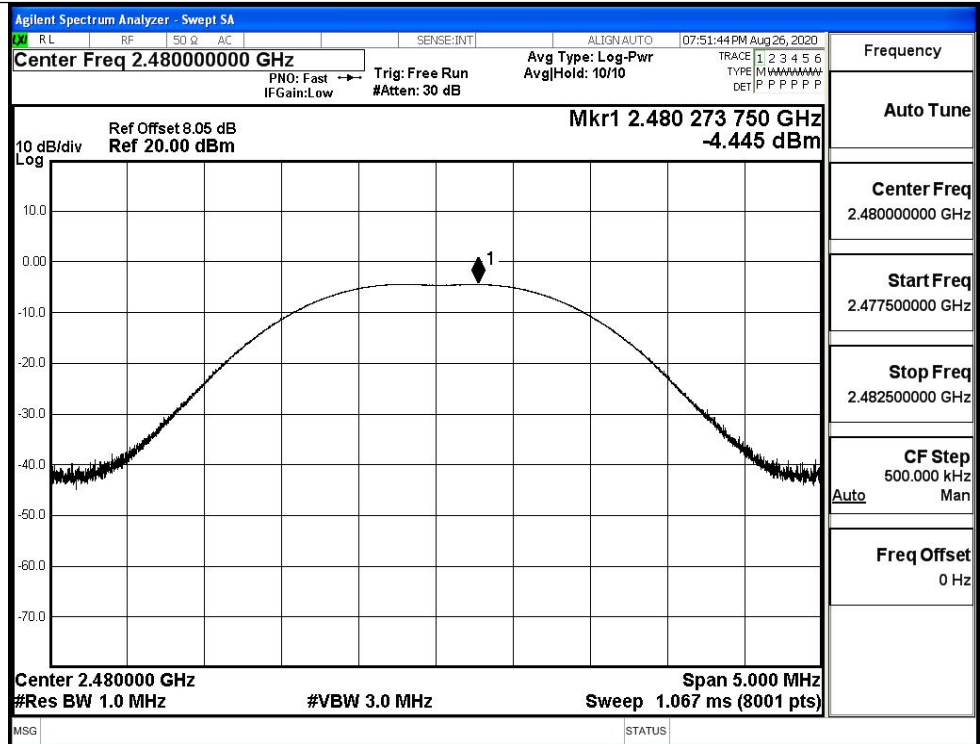
LCH



MCH



HCH

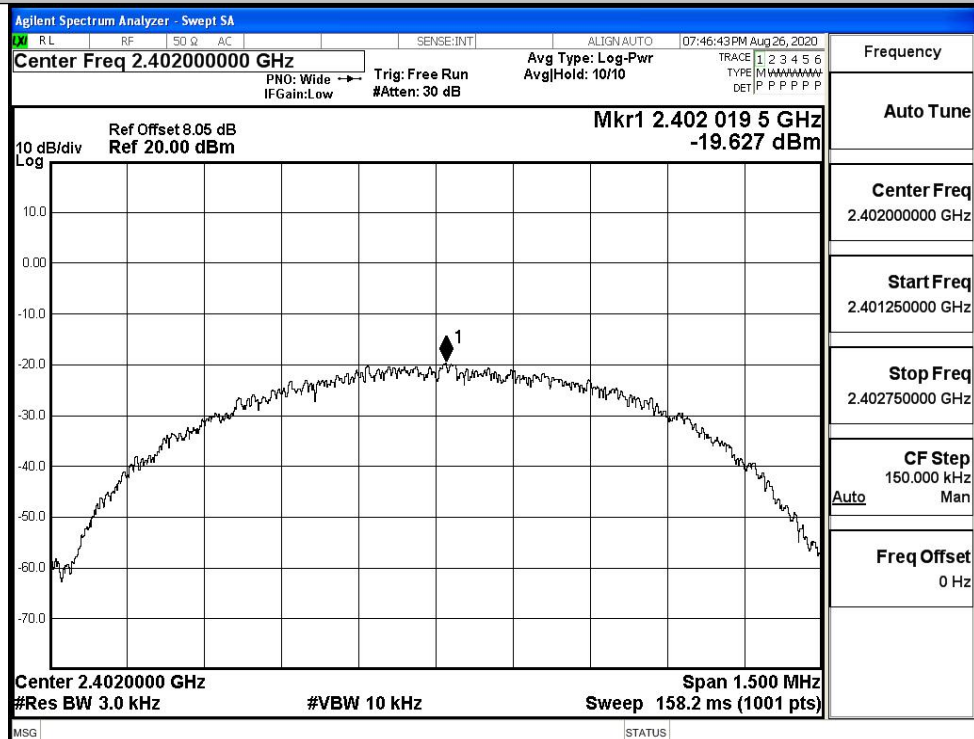


A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-19.627	8	PASS
BT LE	MCH	-20.420	8	PASS
BT LE	HCH	-20.903	8	PASS

Test Graphs

LCH

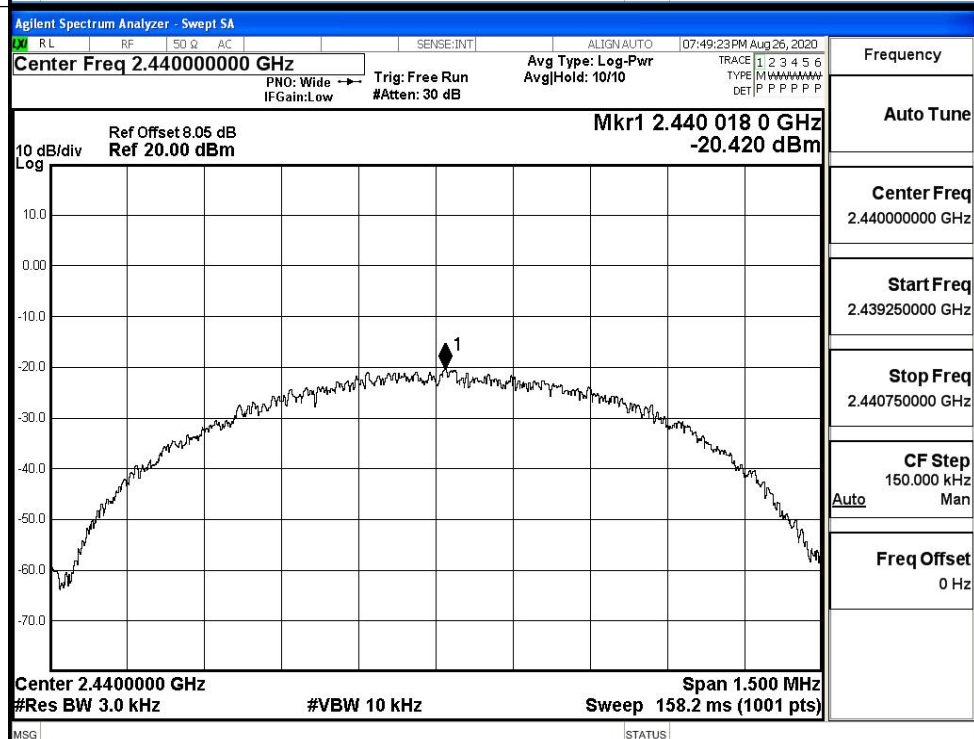


Frequency

Auto Tune

Center Freq
2.402000000 GHzStart Freq
2.401250000 GHzStop Freq
2.402750000 GHzCF Step
150.000 kHz
Auto ManFreq Offset
0 Hz

MCH

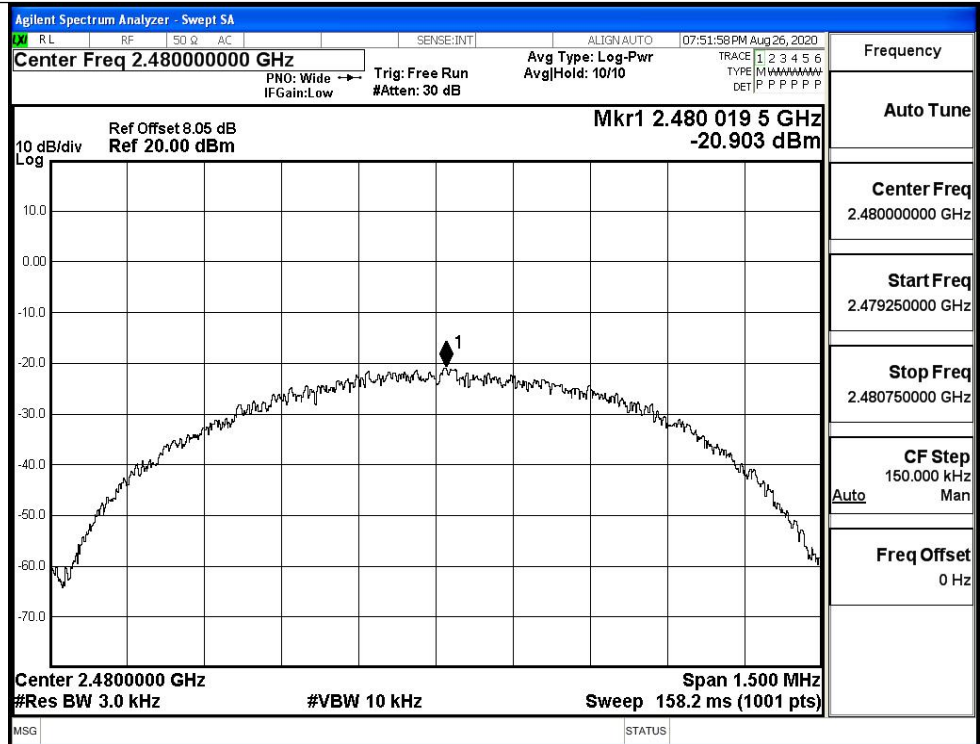


Frequency

Auto Tune

Center Freq
2.440000000 GHzStart Freq
2.439250000 GHzStop Freq
2.440750000 GHzCF Step
150.000 kHz
Auto ManFreq Offset
0 Hz

HCH

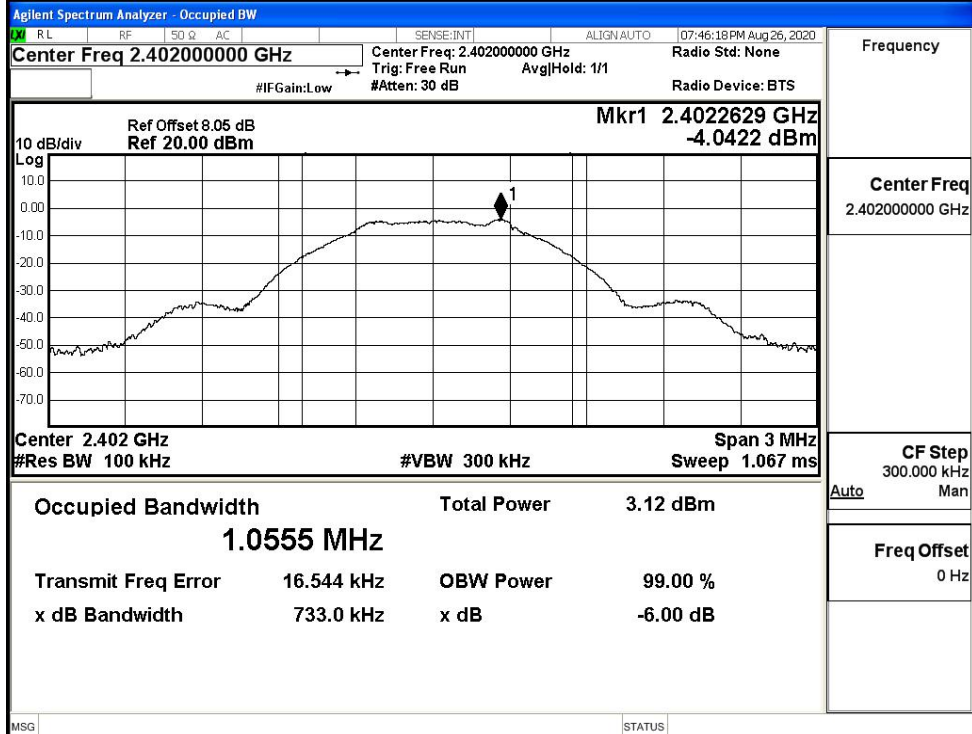


A.4 6dB Bandwidth

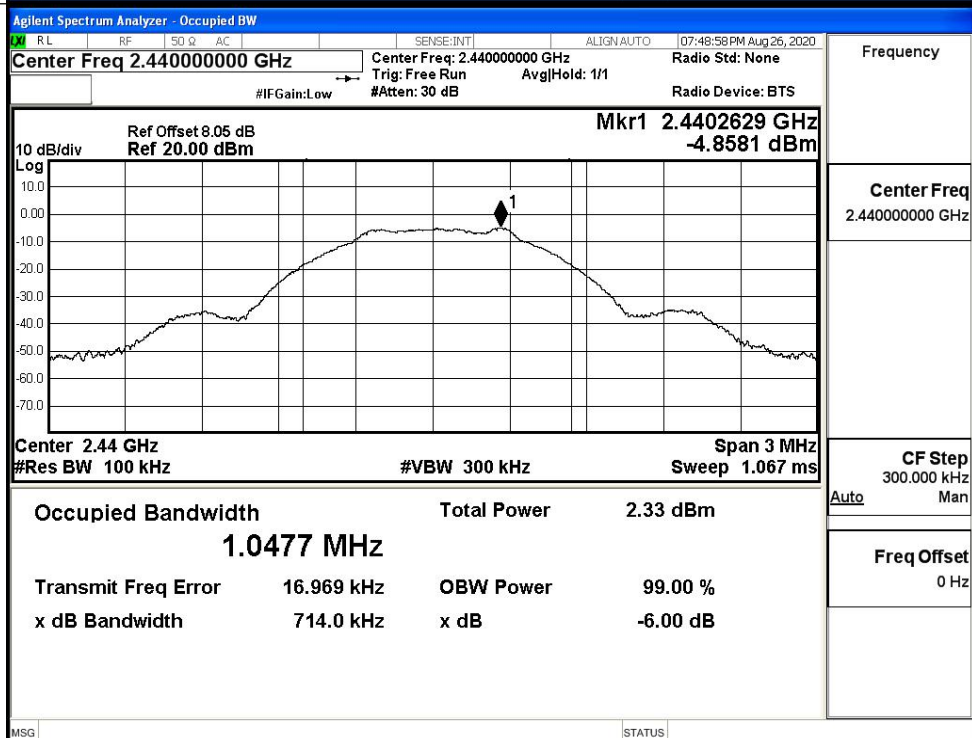
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.7330	≥ 0.5	PASS
BT LE	MCH	0.7140	≥ 0.5	PASS
BT LE	HCH	0.7064	≥ 0.5	PASS

Test Graphs

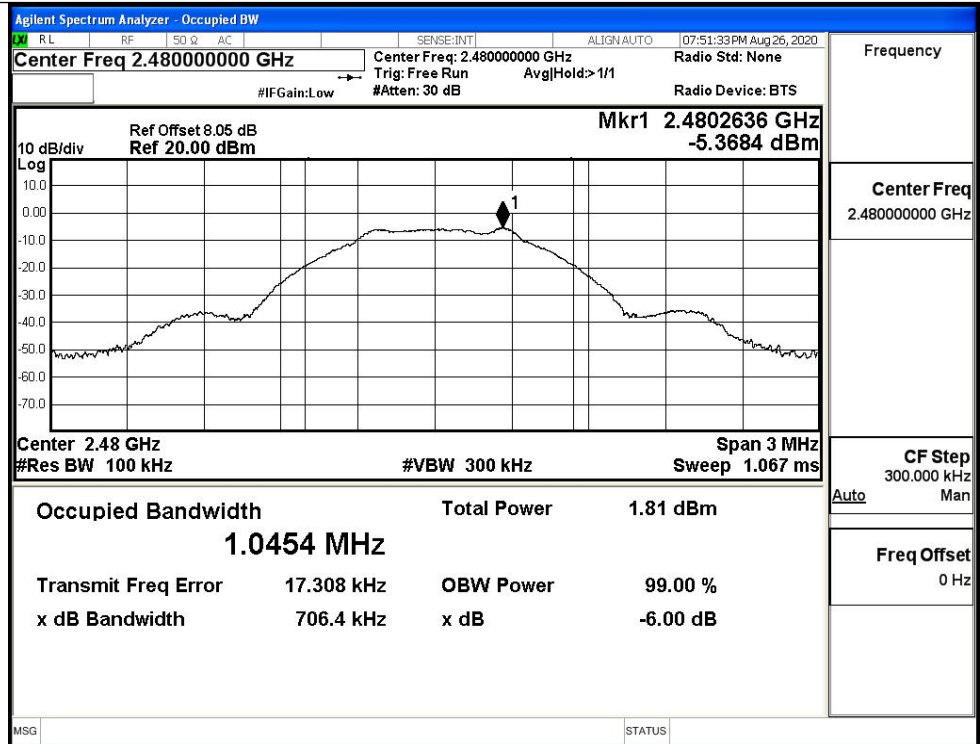
LCH



MCH



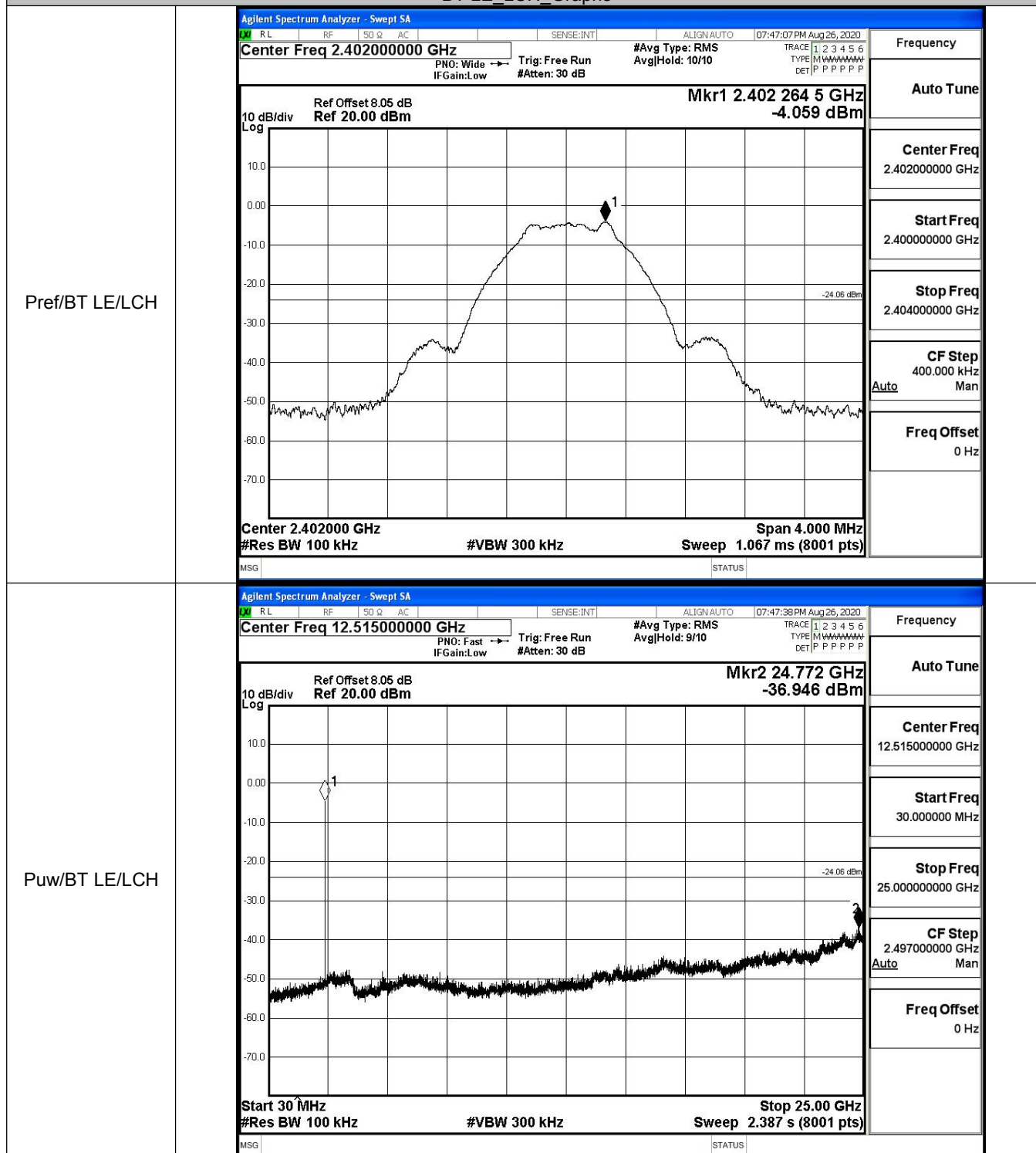
HCH



A.5 RF Conducted Spurious Emissions

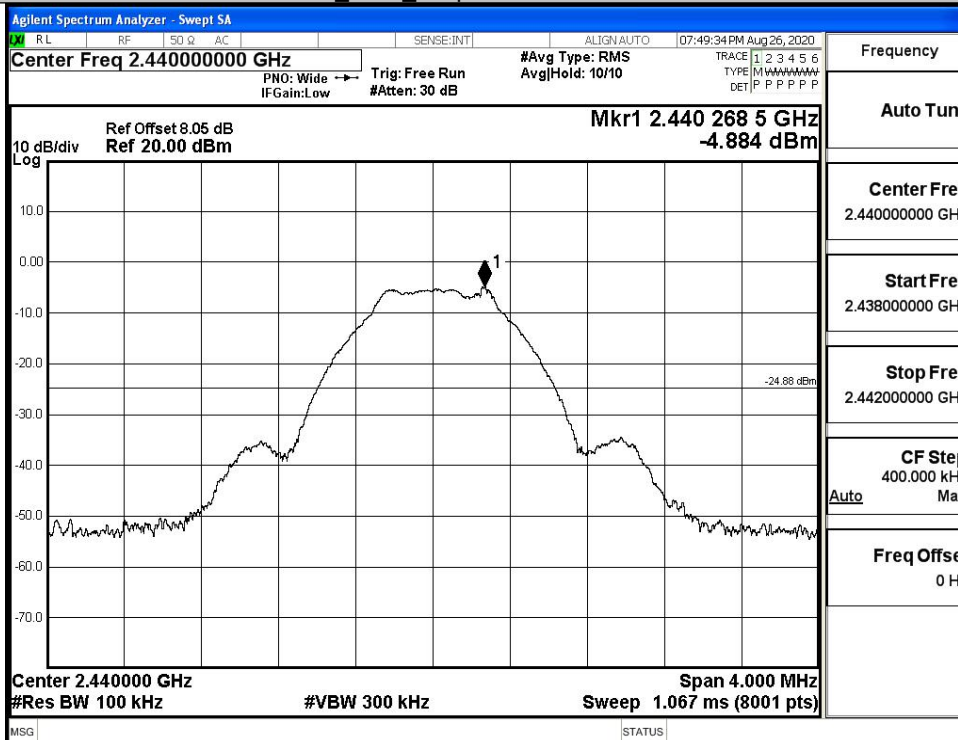
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-4.059	-36.946	-24.059	PASS
BT LE	MCH	-4.884	-37.416	-24.884	PASS
BT LE	HCH	-5.408	-37.283	-25.408	PASS

BT LE_LCH_Graphs



BT LE MCH Graphs

Pref/BT LE/MCH

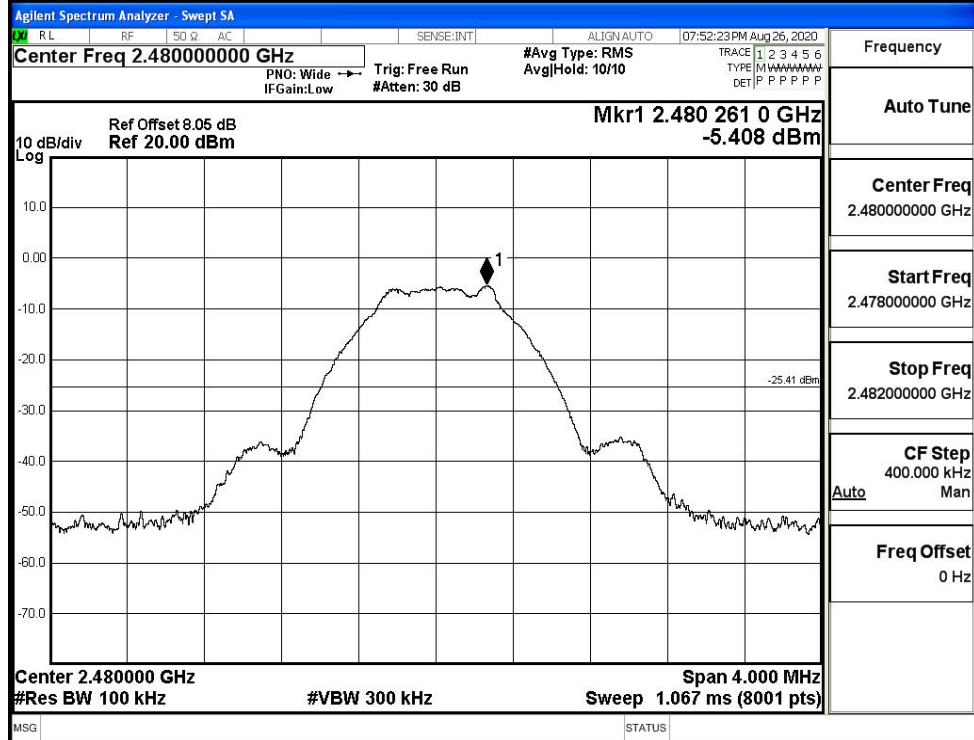


Puw/BT LE/MCH

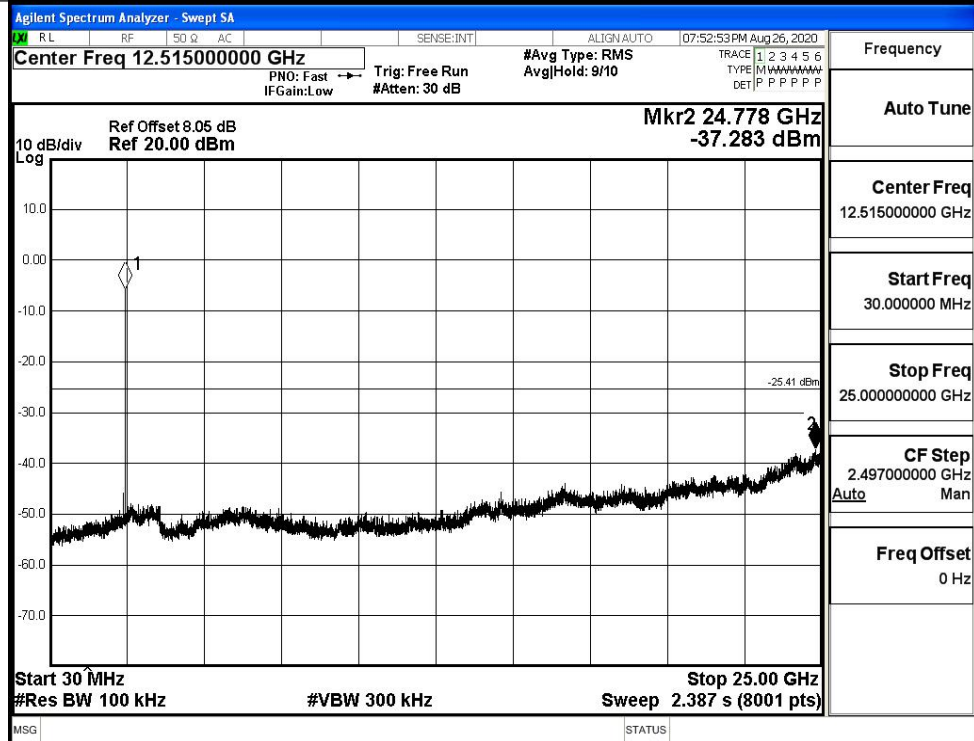


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

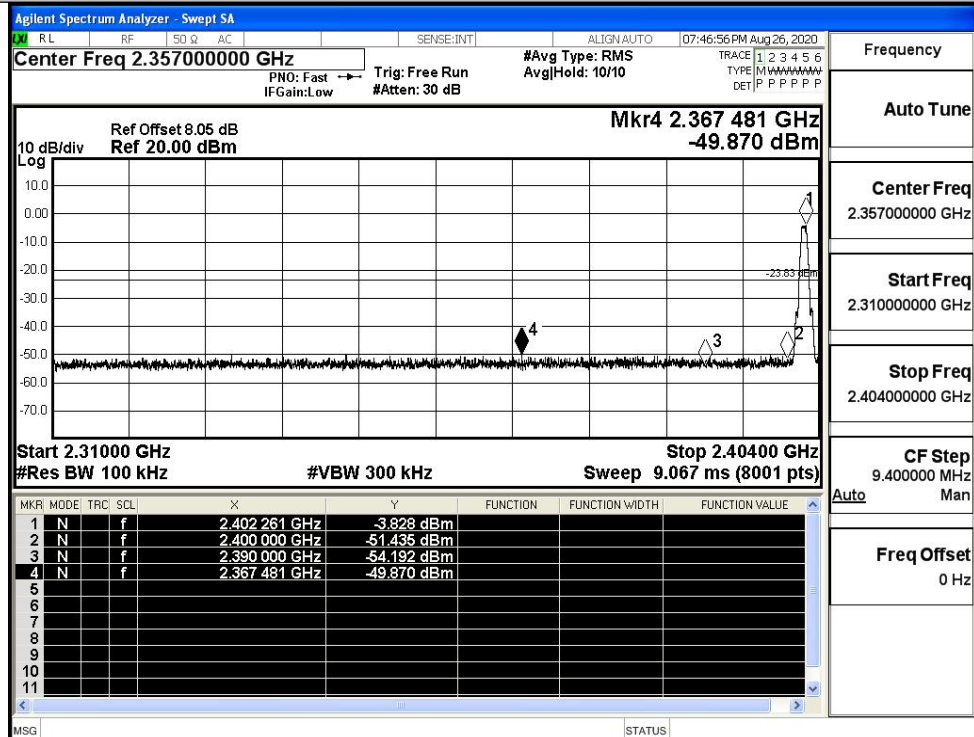


A.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.828	-49.870	-23.83	PASS
BT LE	HCH	-5.174	-48.226	-25.17	PASS

Test Graphs

LCH



Frequency

Auto Tune

Center Freq

2.357000000 GHz

Start Freq

2.310000000 GHz

Stop Freq

2.404000000 GHz

CF Step

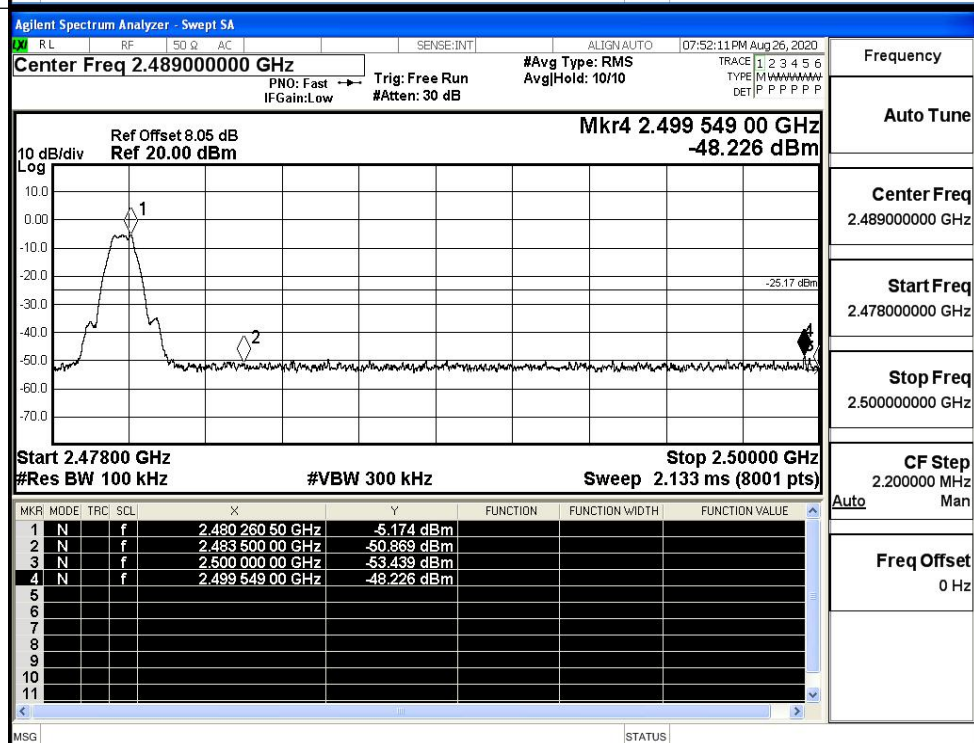
9.400000 MHz

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

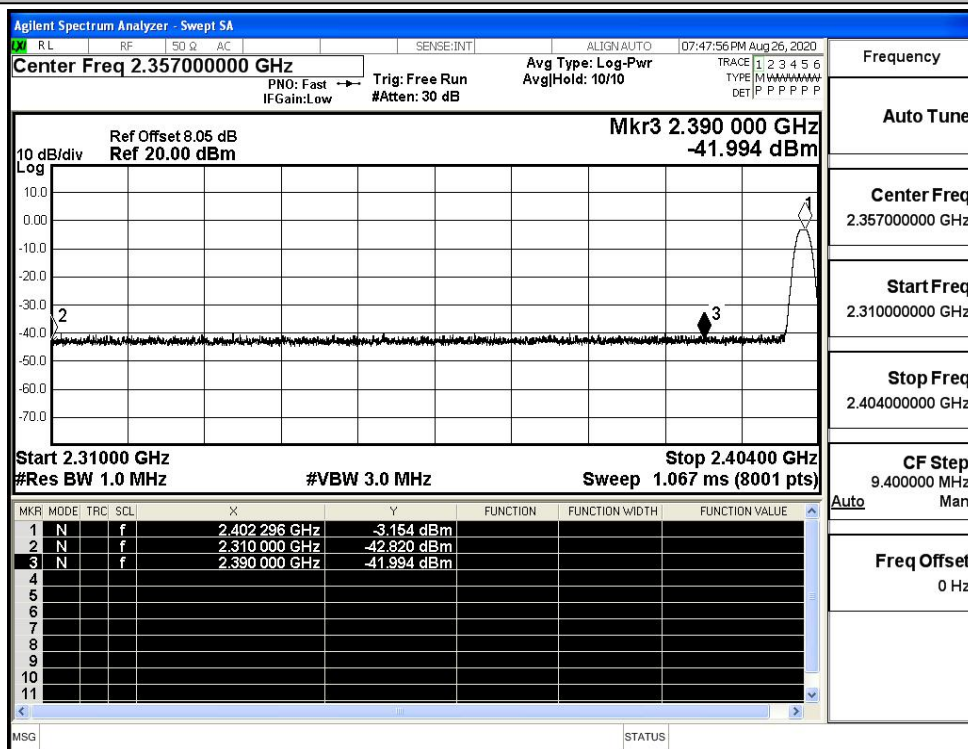
Freq Offset

0 Hz

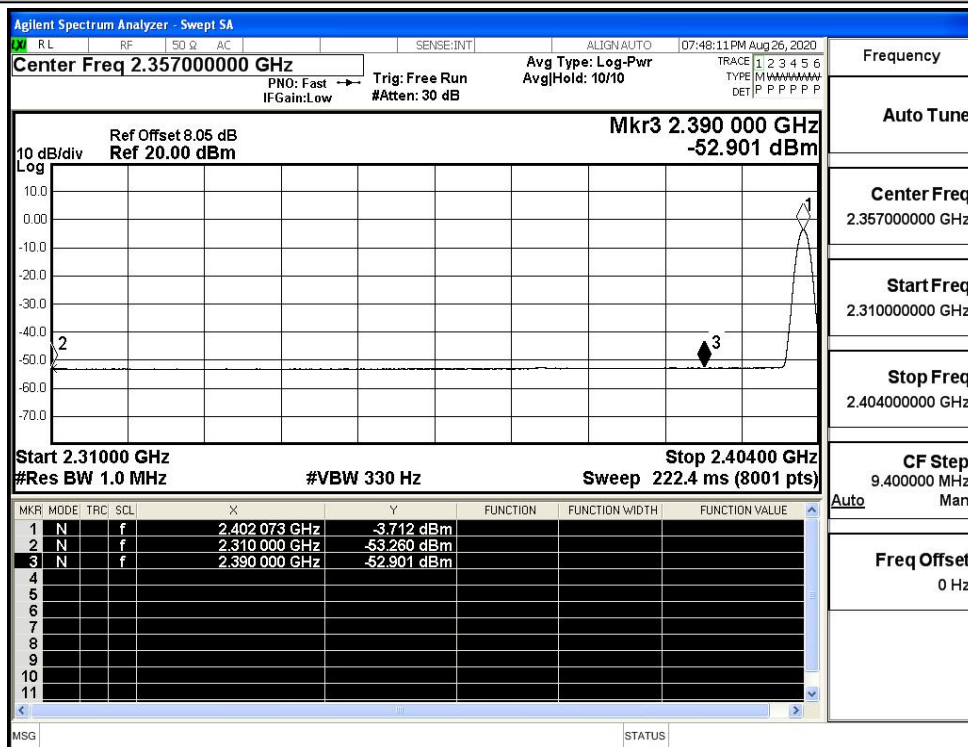
A.7 Restrict-band band-edge measurements

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	-42.82	2.65	0	55.06	PEAK	74	PASS
		Ant1	2310.0	-53.26	2.65	0	44.62	AV	54	PASS
		Ant1	2390.0	-41.99	2.65	0	55.89	PEAK	74	PASS
		Ant1	2390.0	-52.90	2.65	0	44.98	AV	54	PASS
	2480	Ant1	2483.5	-41.09	2.65	0	56.79	PEAK	74	PASS
		Ant1	2483.5	-52.45	2.65	0	45.43	AV	54	PASS
		Ant1	2500.0	-41.65	2.65	0	56.23	PEAK	74	PASS
		Ant1	2500.0	-52.22	2.65	0	45.66	AV	54	PASS

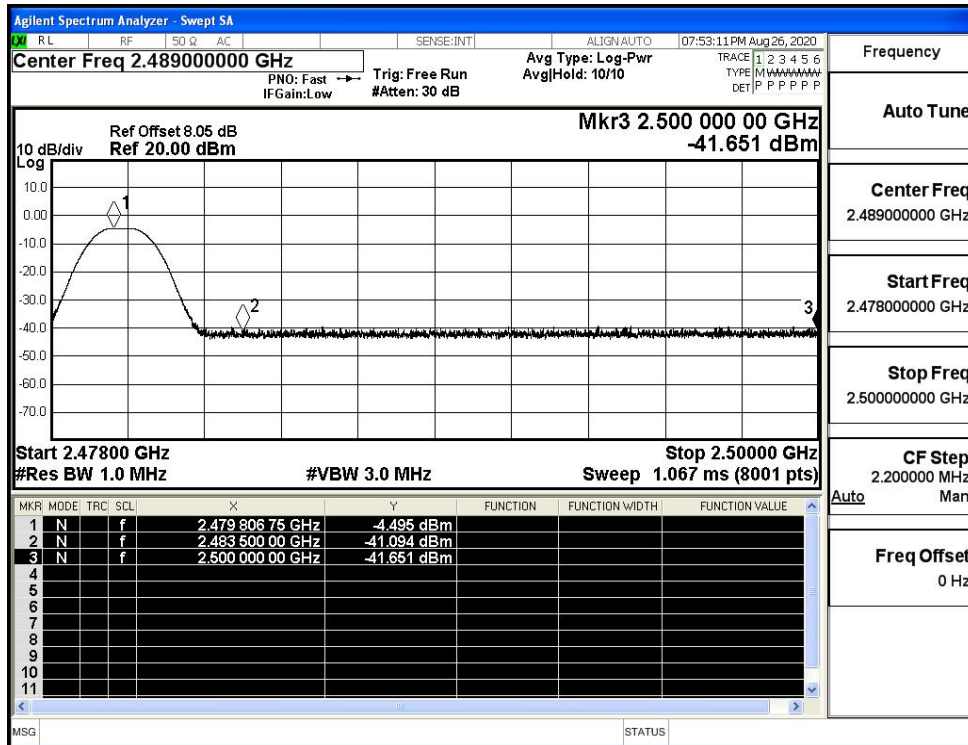
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

