

Appendix D

RF Test Data for BT V4.0(BT LE) (Conducted Measurement)

Product Name: KE2 Edge Manager Plus

Trade Mark: KE2, KE2 Connect, KE2 Therm

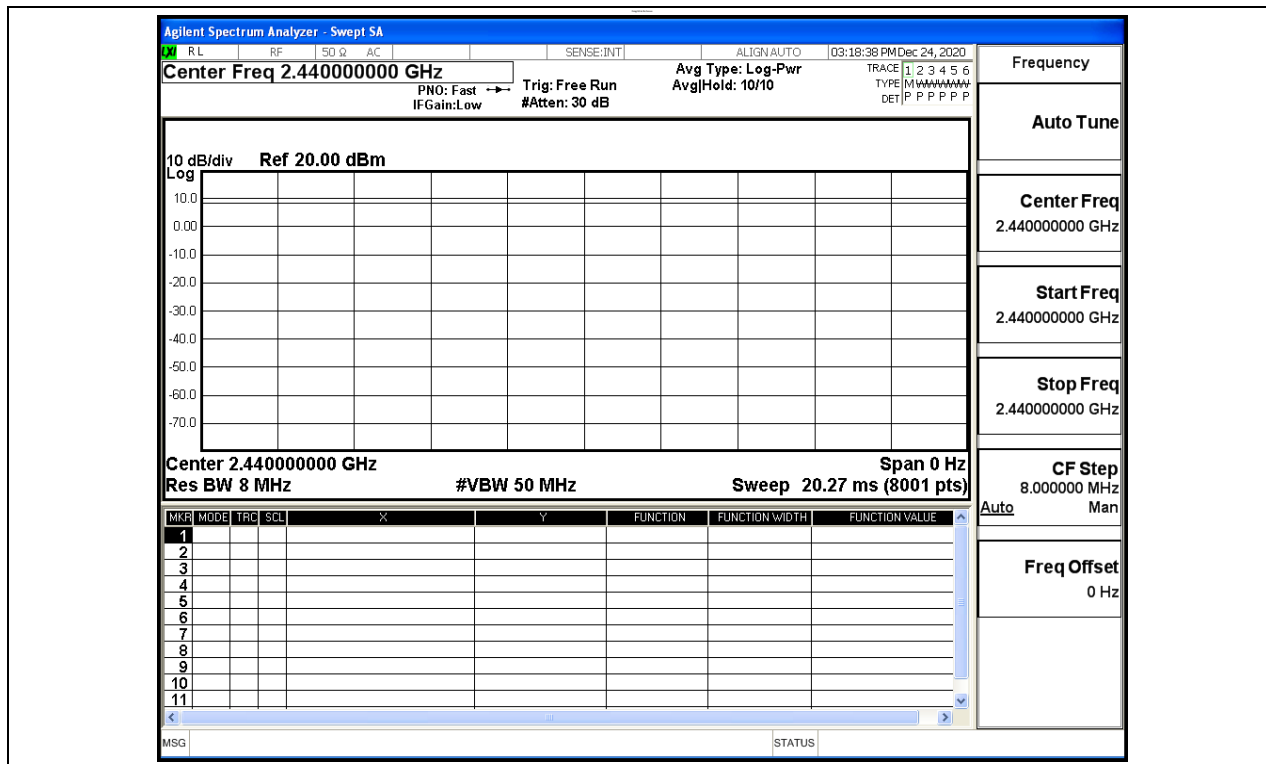
Test Model: KE2EM-Plus

Environmental Conditions

Temperature:	23.7 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

D.1 Duty Cycle

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

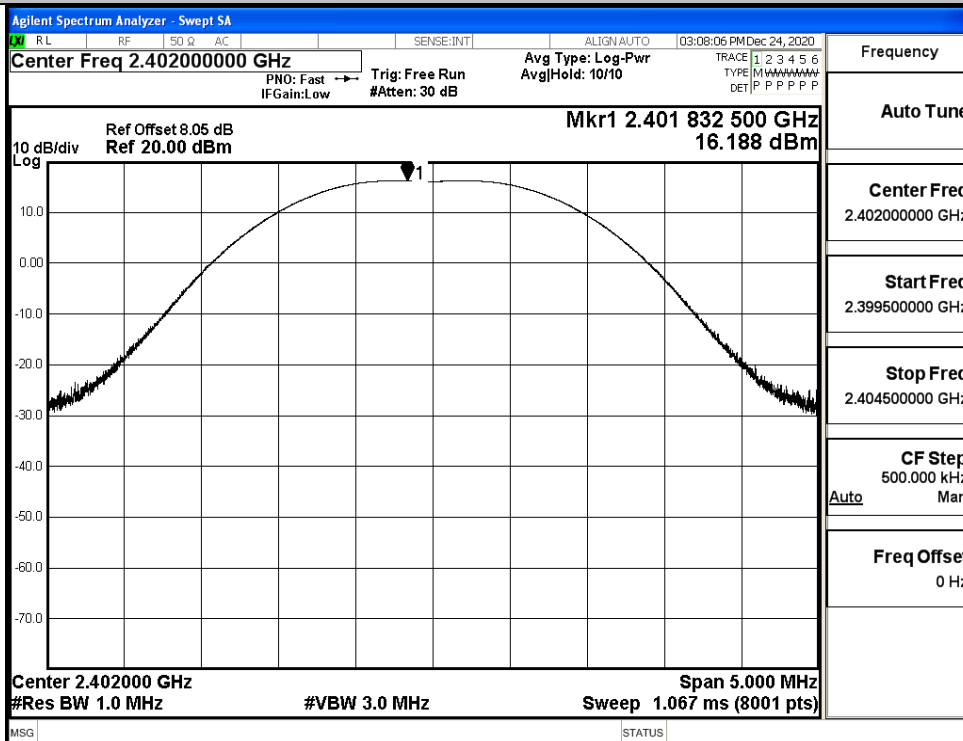


D.2 Maximum Conducted Peak Output Power

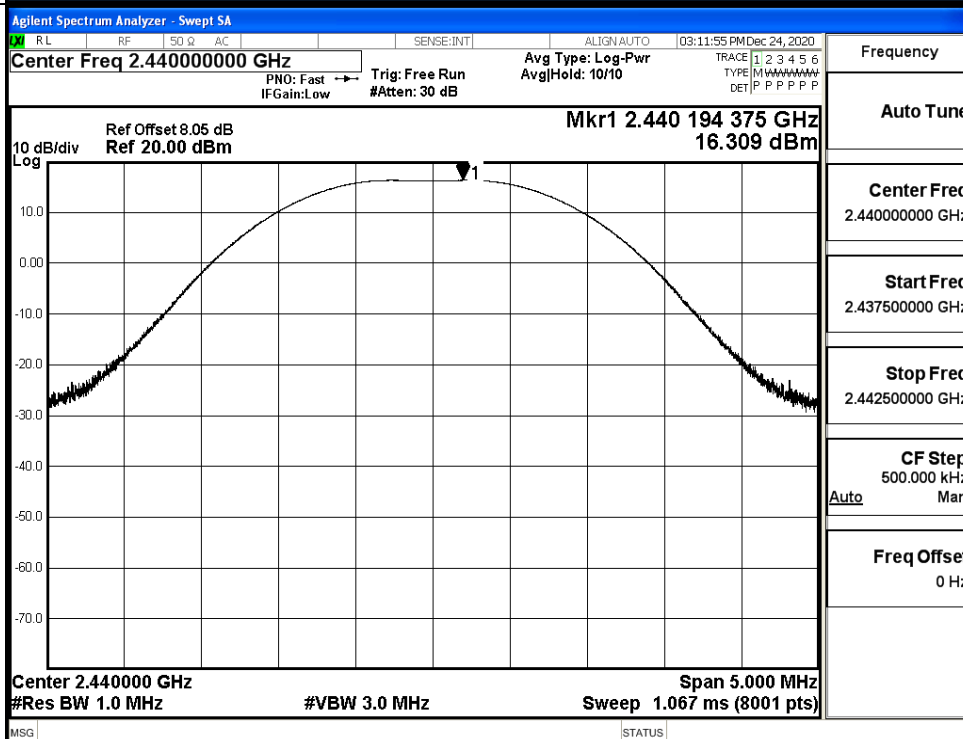
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	16.188	30	PASS
BT LE	MCH	16.309	30	PASS
BT LE	HCH	16.226	30	PASS

Test Graphs

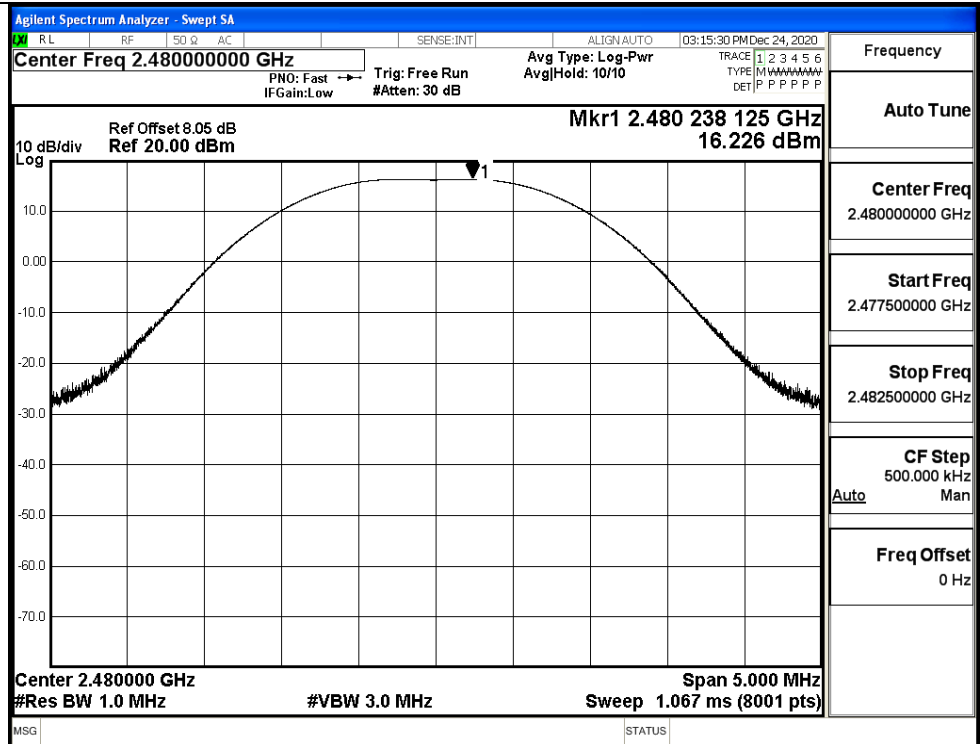
LCH



MCH



HCH

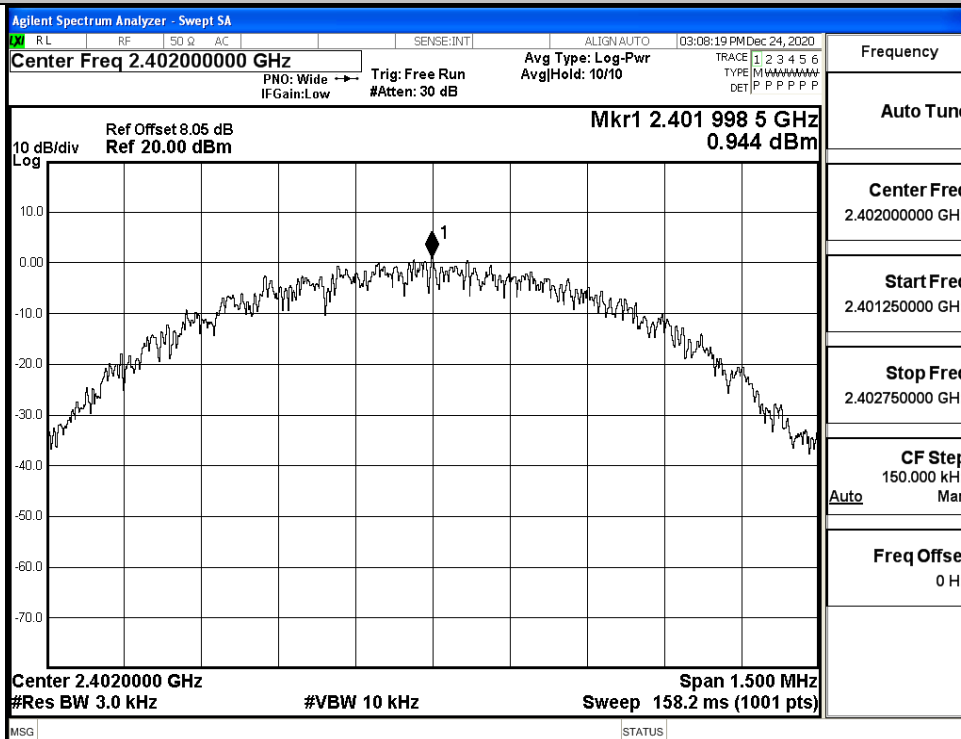


D.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	0.944	8	PASS
BT LE	MCH	1.184	8	PASS
BT LE	HCH	1.097	8	PASS

Test Graphs

LCH



Frequency

Auto Tune

Center Freq

2.402000000 GHz

Start Freq

2.401250000 GHz

Stop Freq

2.402750000 GHz

CF Step

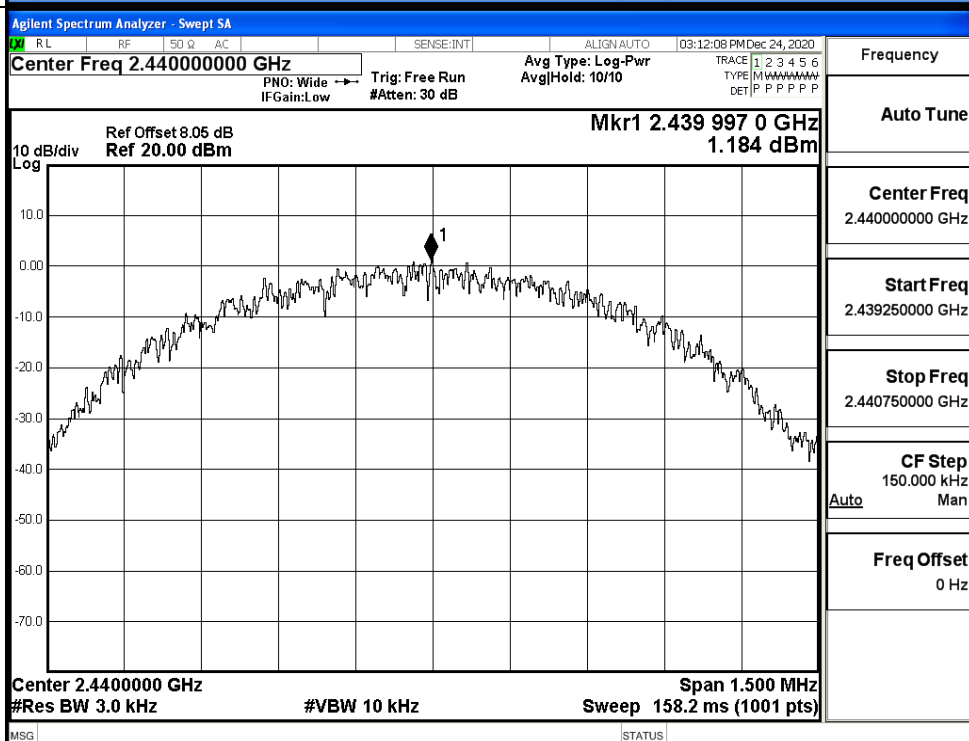
150.000 kHz

Auto

Freq Offset

0 Hz

MCH



Frequency

Auto Tune

Center Freq

2.440000000 GHz

Start Freq

2.439250000 GHz

Stop Freq

2.440750000 GHz

CF Step

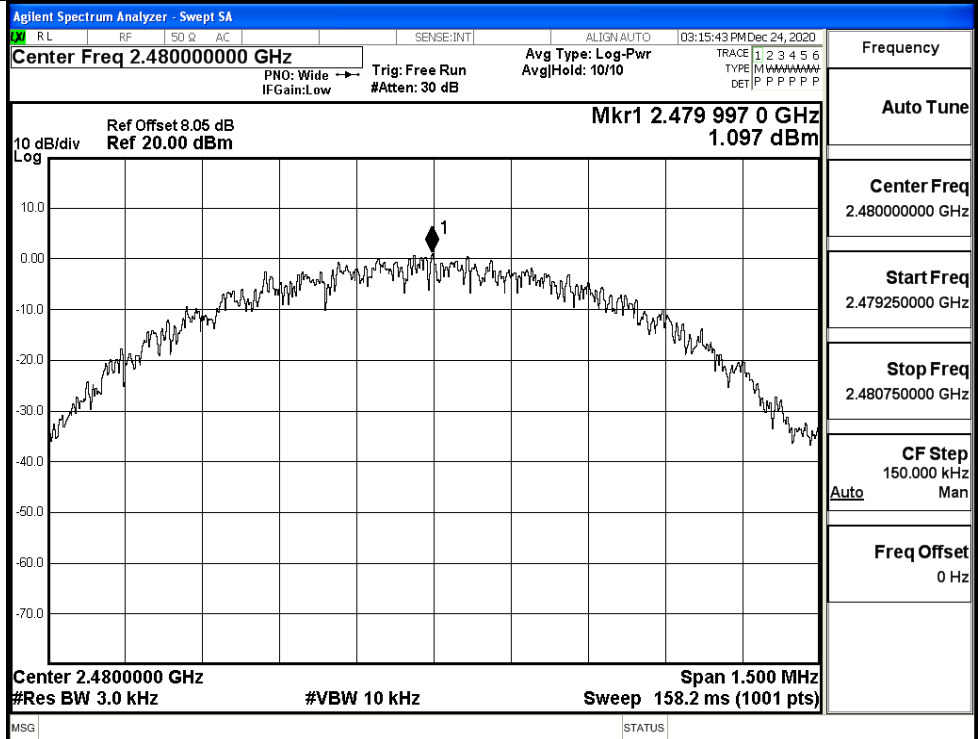
150.000 kHz

Auto

Freq Offset

0 Hz

HCH

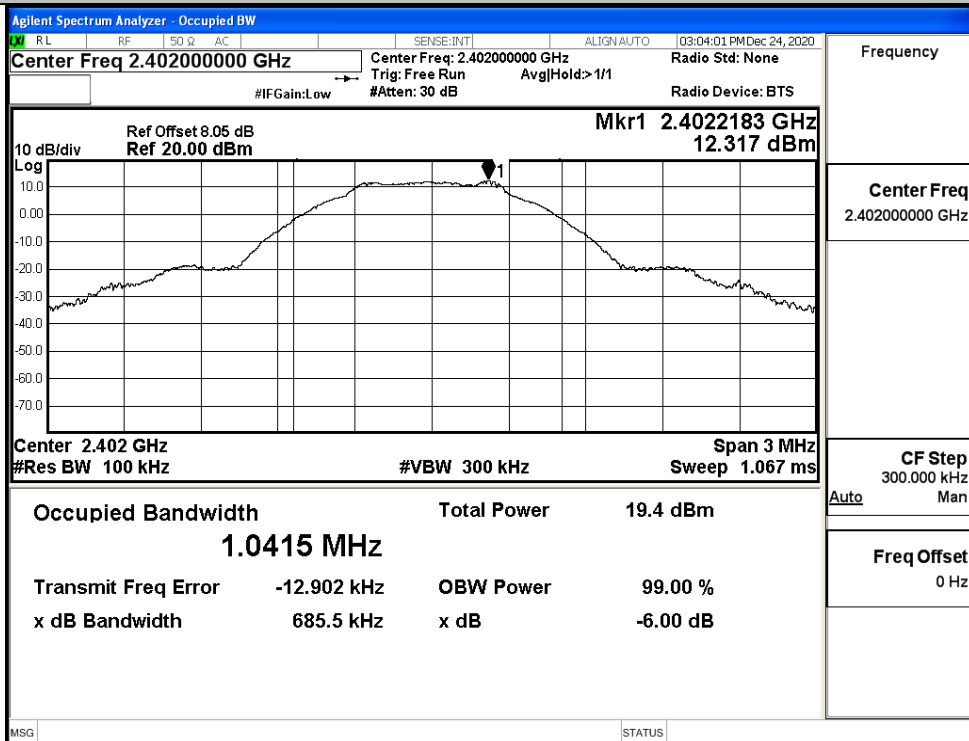


D.4 6dB Bandwidth&99% Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	99% Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6855	1.0415	≥ 0.5	PASS
BT LE	MCH	0.6830	1.0412	≥ 0.5	PASS
BT LE	HCH	0.6877	1.0430	≥ 0.5	PASS

Test Graphs(6dB Bandwidth)

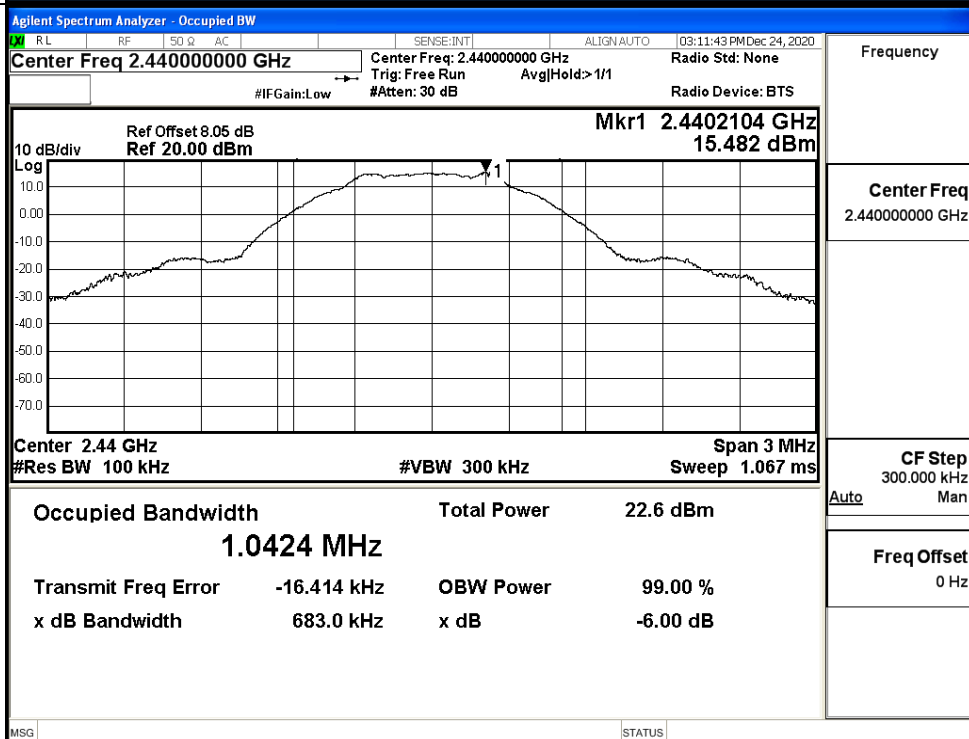
LCH



Frequency

Center Freq
2.402000000 GHzCF Step
300.000 kHz
ManFreq Offset
0 Hz

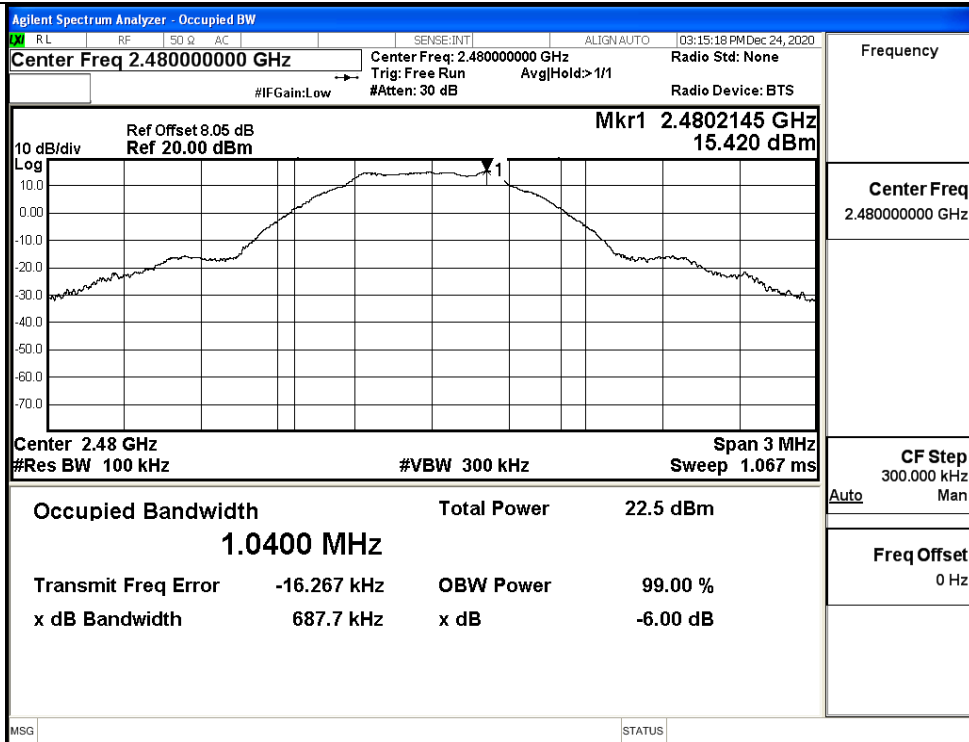
MCH



Frequency

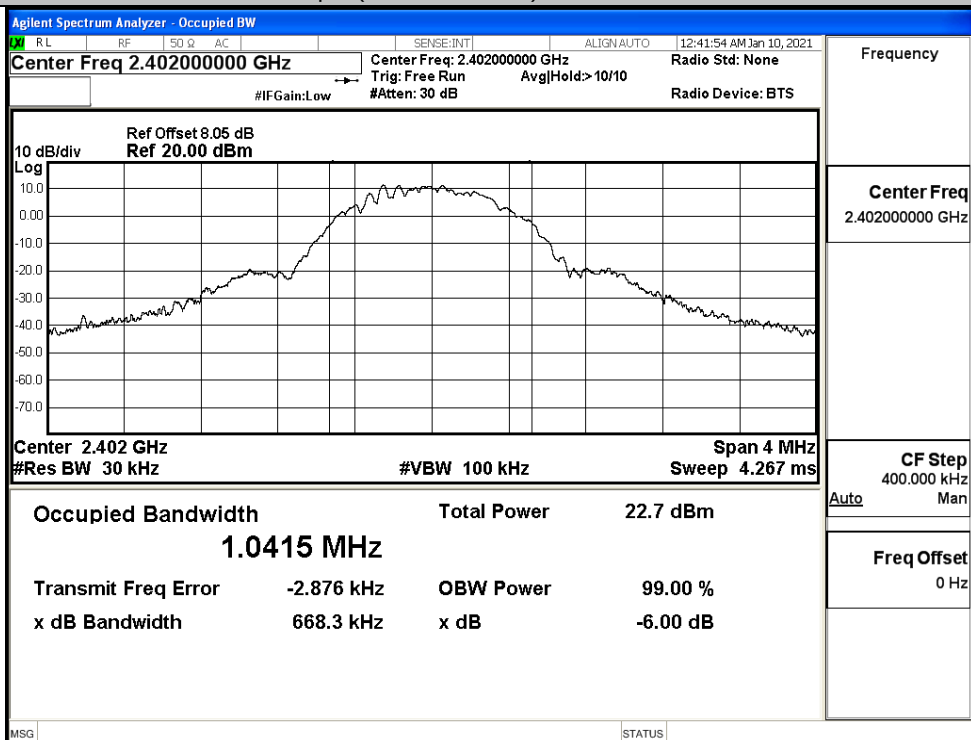
Center Freq
2.440000000 GHzCF Step
300.000 kHz
ManFreq Offset
0 Hz

HCH

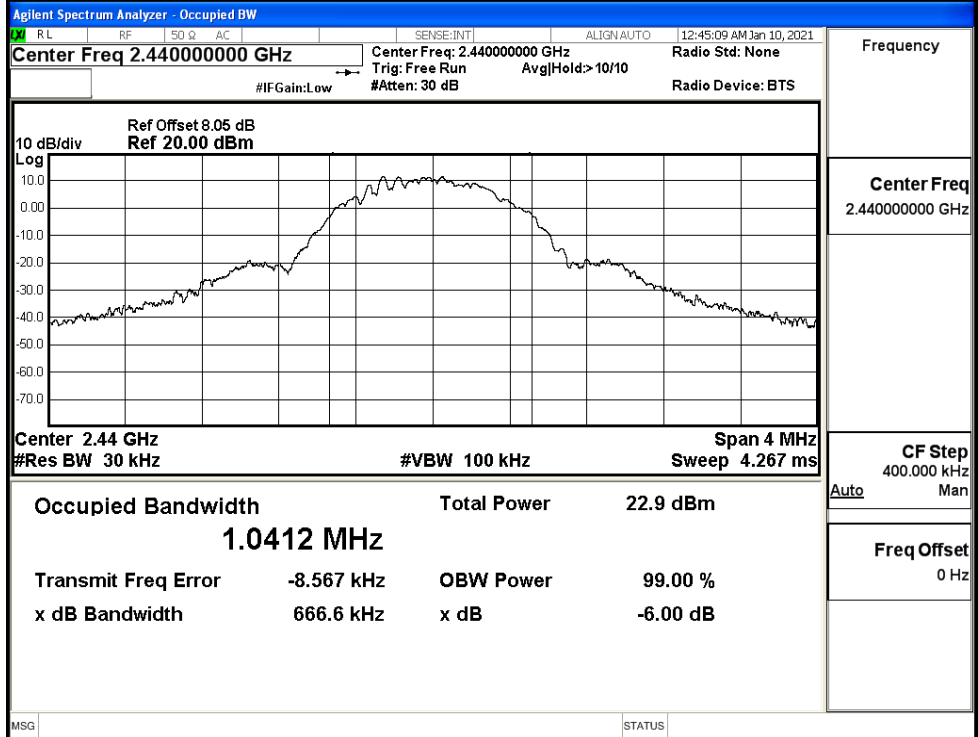


Test Graphs(99% Bandwidth)

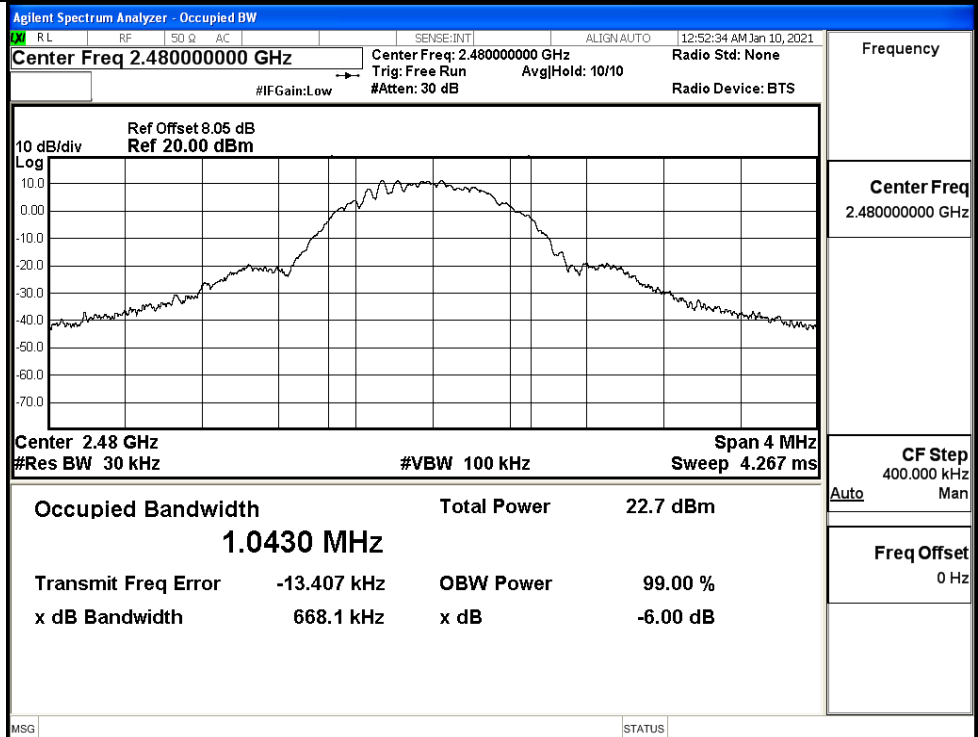
LCH



MCH



HCH

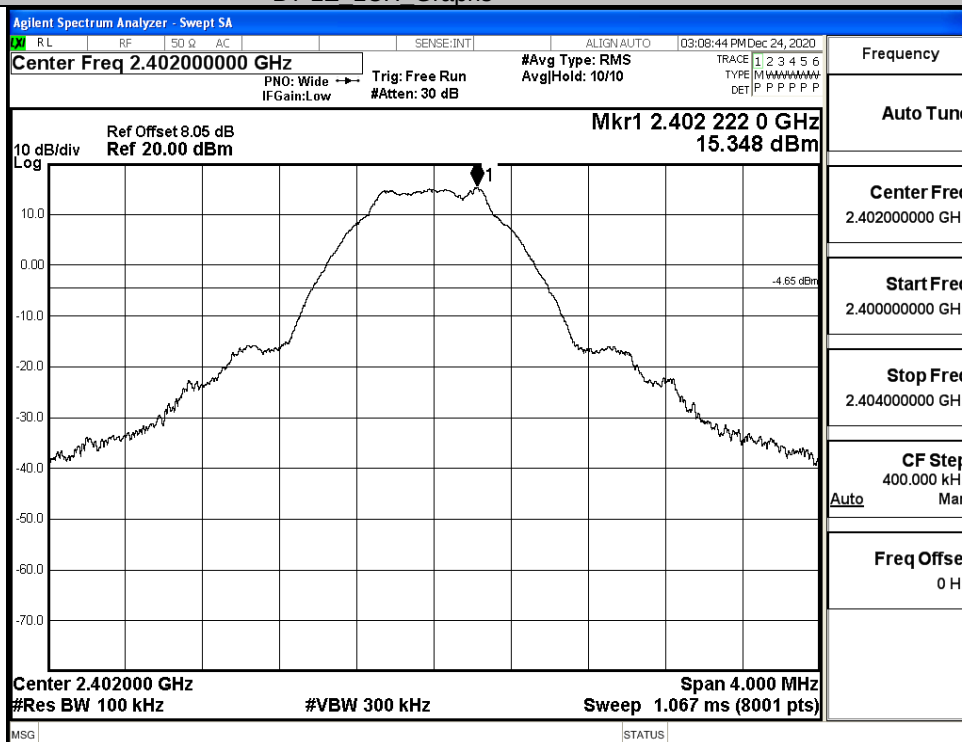


D.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	15.348	-37.396	-4.652	PASS
BT LE	MCH	15.486	-37.110	-4.514	PASS
BT LE	HCH	15.395	-37.732	-4.605	PASS

BT LE LCH Graphs

Pref/BT LE/LCH

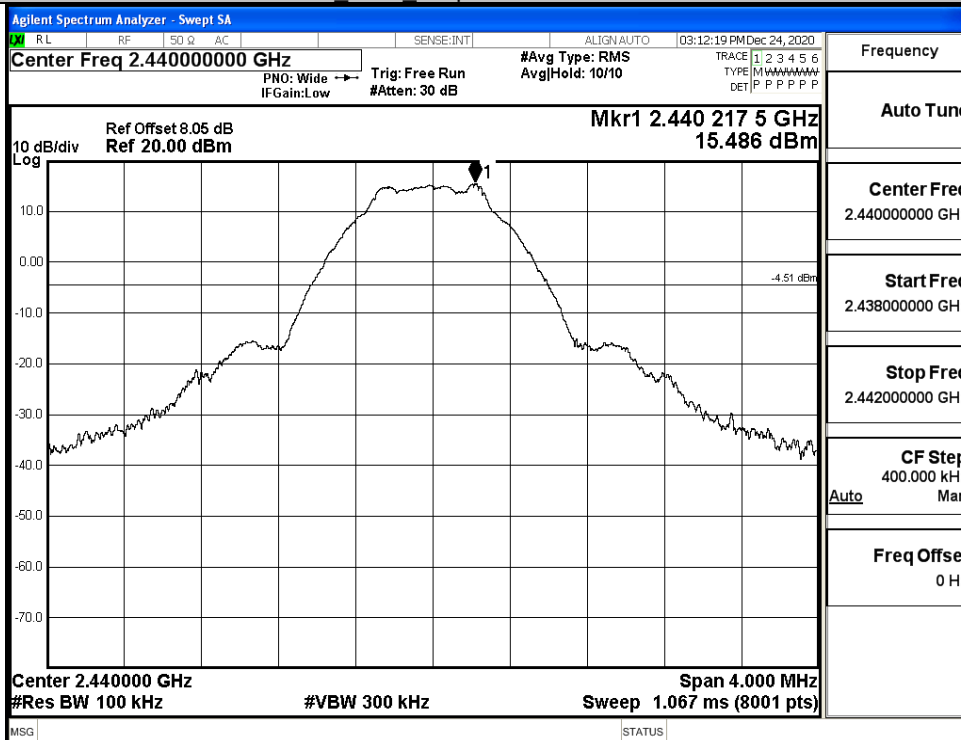


Puw/BT LE/LCH



BT LE MCH Graphs

Pref/BT LE/MCH

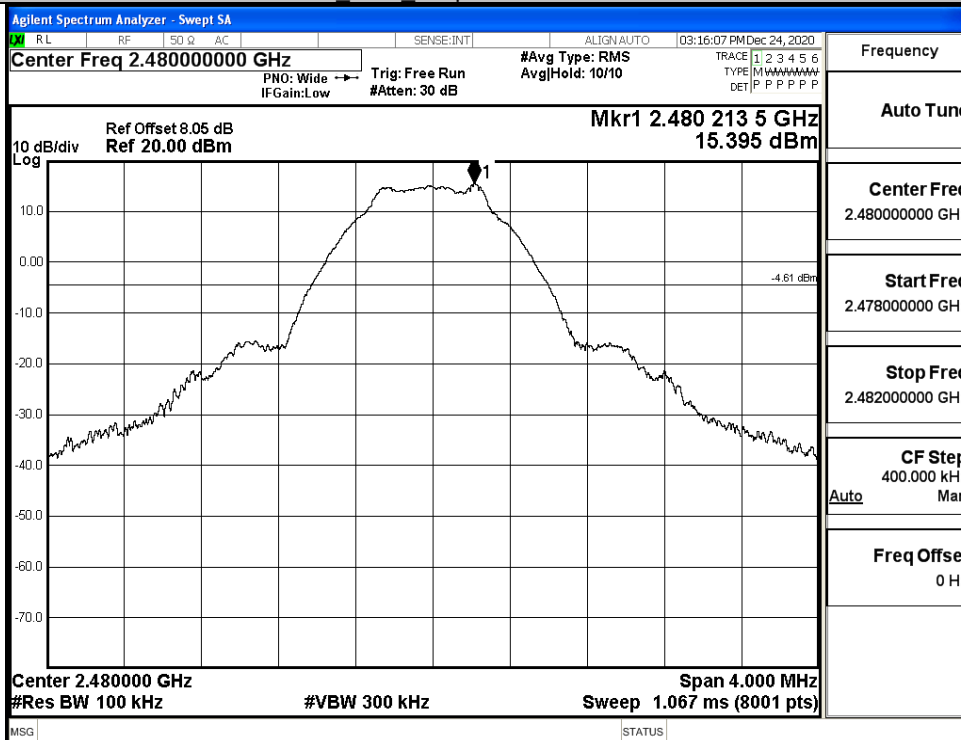


Puw/BT LE/MCH

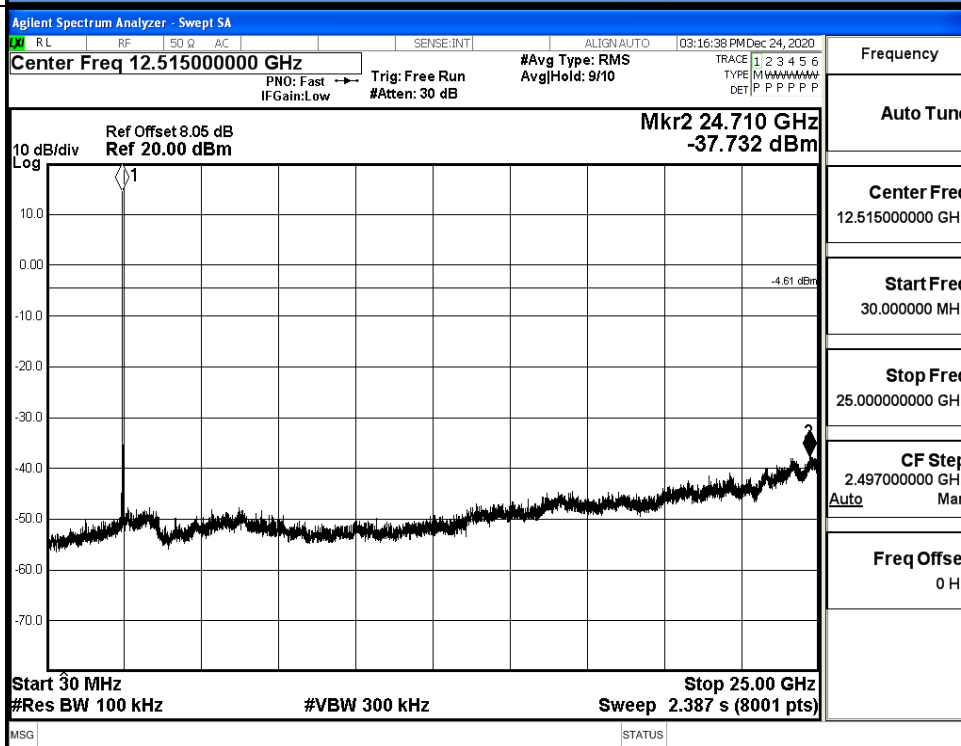


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

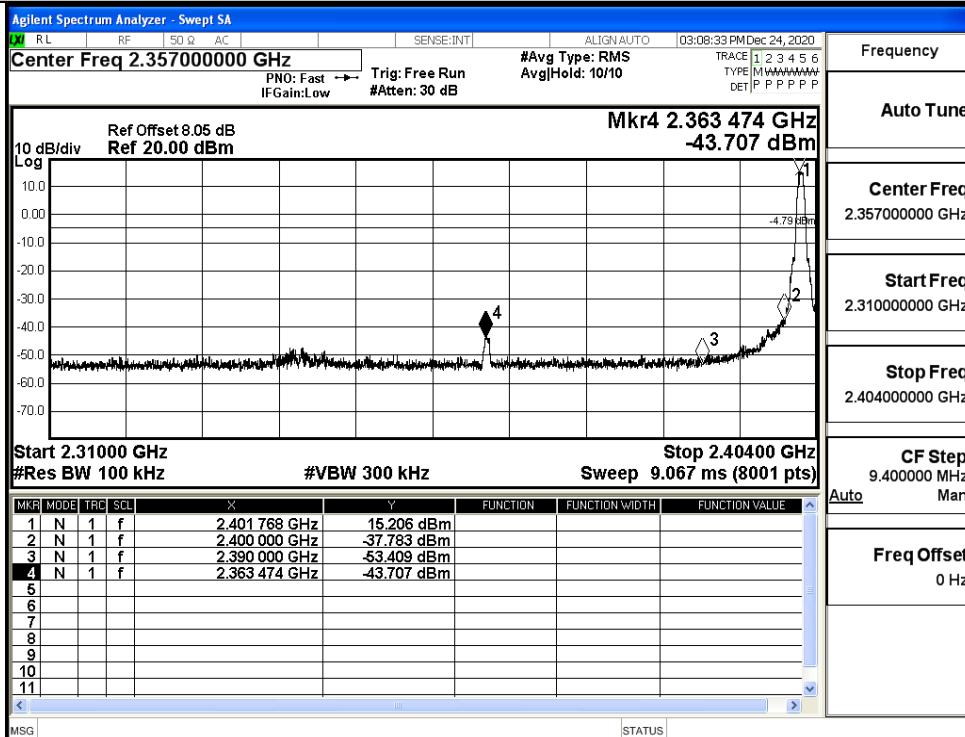


D.6 Band-edge for RF Conducted Emissions

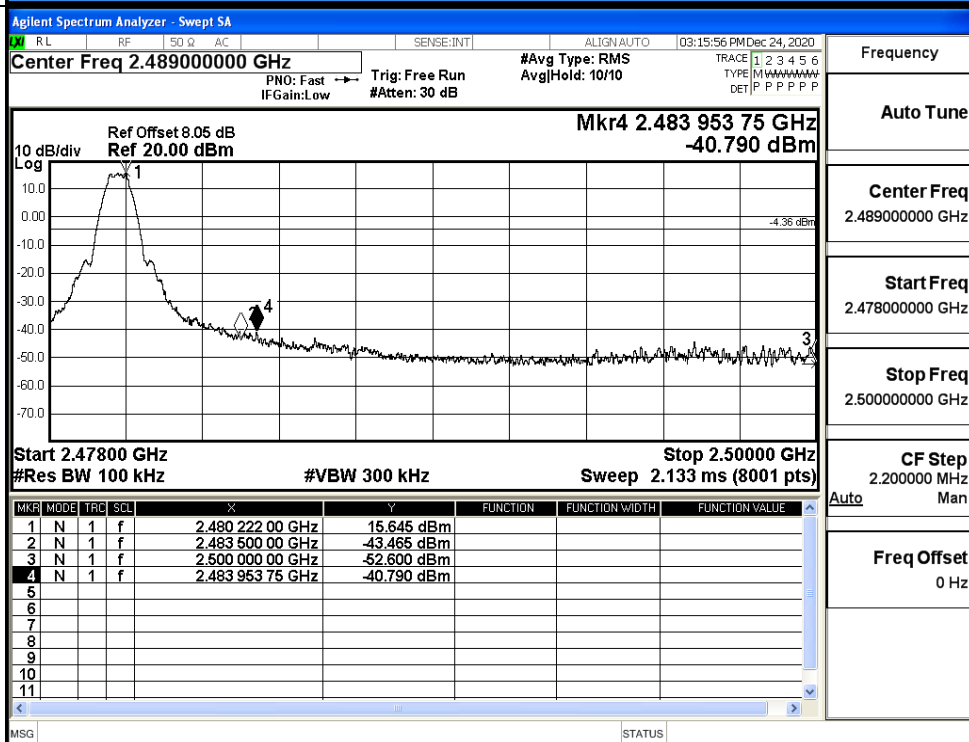
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	15.206	-43.707	-4.79	PASS
BT LE	HCH	15.645	-40.790	-4.36	PASS

Test Graphs

LCH



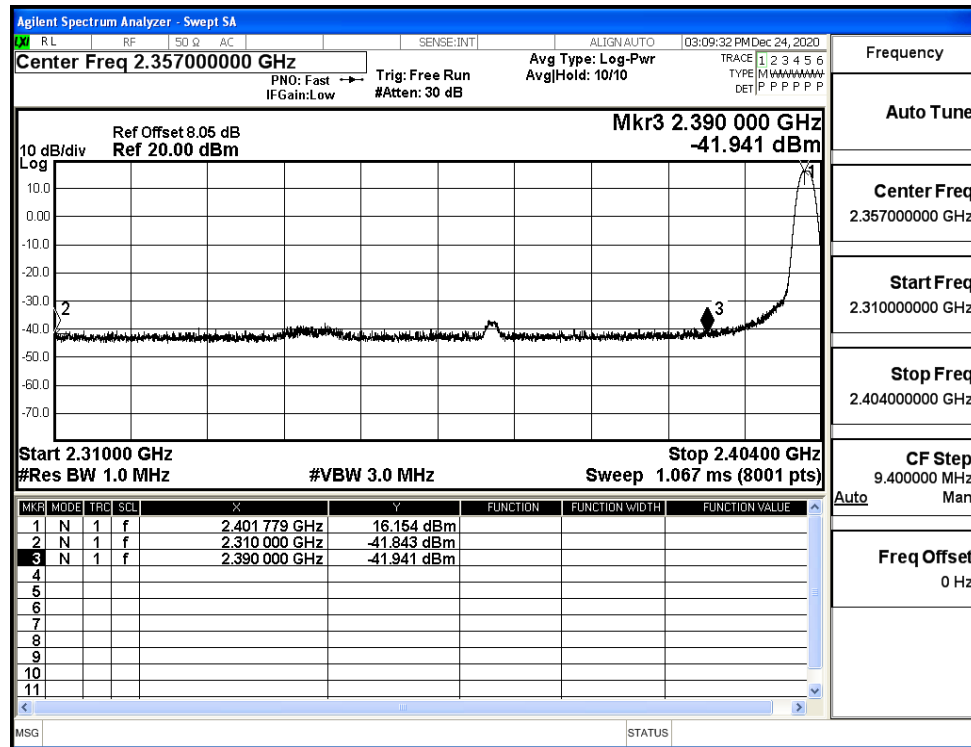
HCH



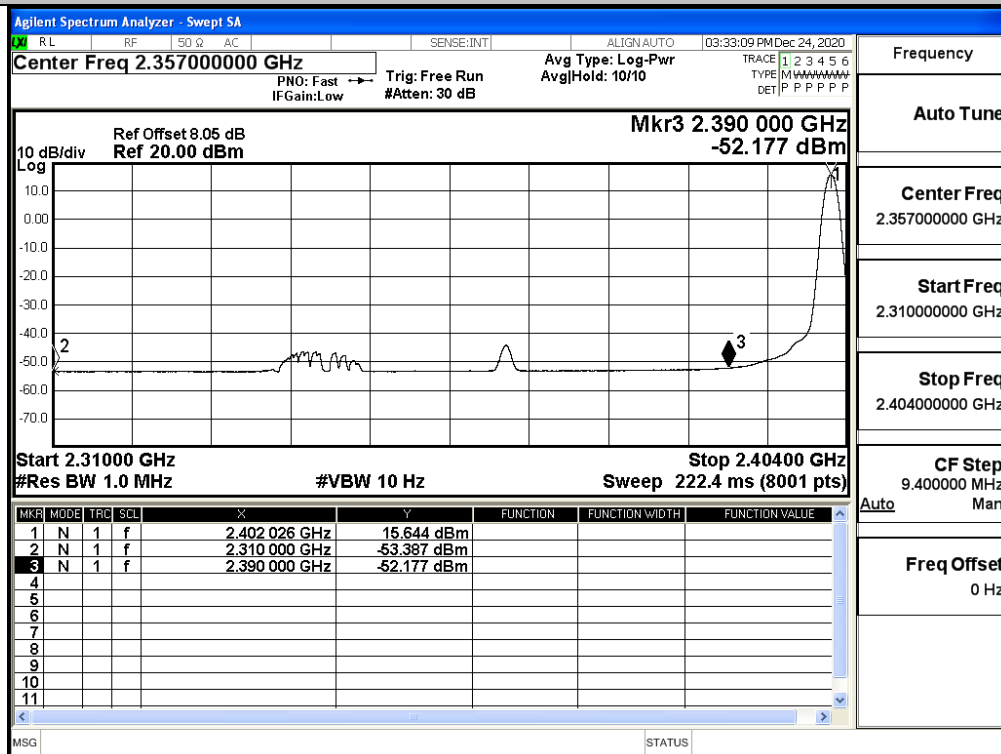
D.7 Restrict-band band-edge measurements

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	-41.84	2.0	0	55.42	PEAK	74	PASS
		Ant1	2310.0	-53.39	2.0	0	43.87	AV	54	PASS
		Ant1	2390.0	-41.94	2.0	0	55.32	PEAK	74	PASS
		Ant1	2390.0	-52.18	2.0	0	45.08	AV	54	PASS
	2480	Ant1	2483.5	-32.10	2.0	0	65.16	PEAK	74	PASS
		Ant1	2483.5	-42.14	2.0	0	55.12	AV	54	PASS
		Ant1	2500.0	-41.33	2.0	0	55.93	PEAK	74	PASS
		Ant1	2500.0	-48.85	2.0	0	48.41	AV	54	PASS

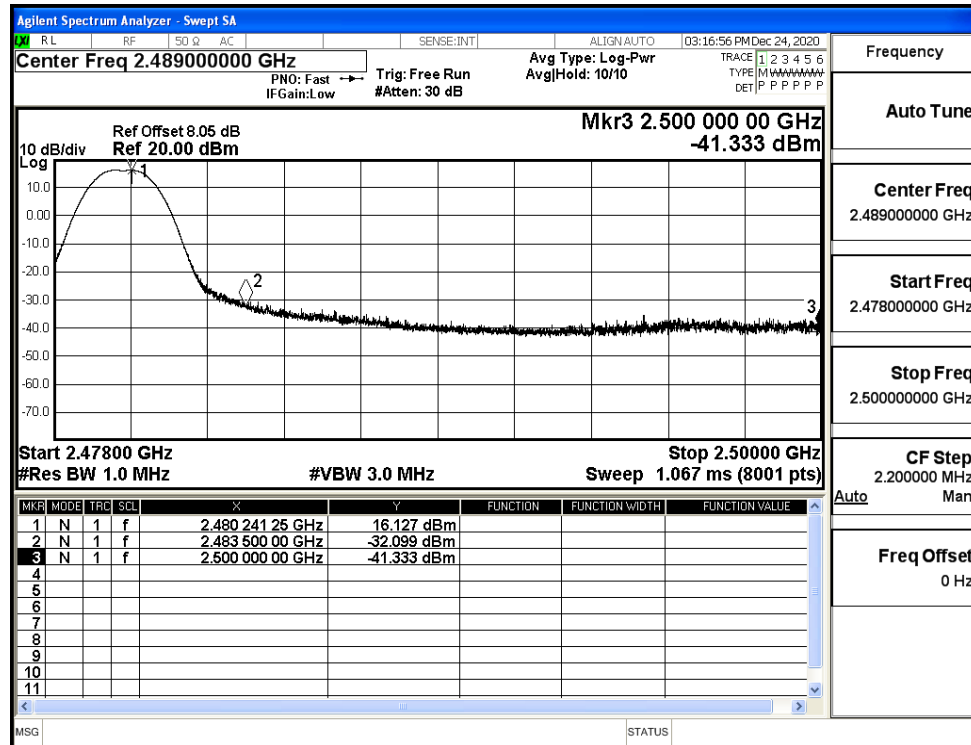
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

