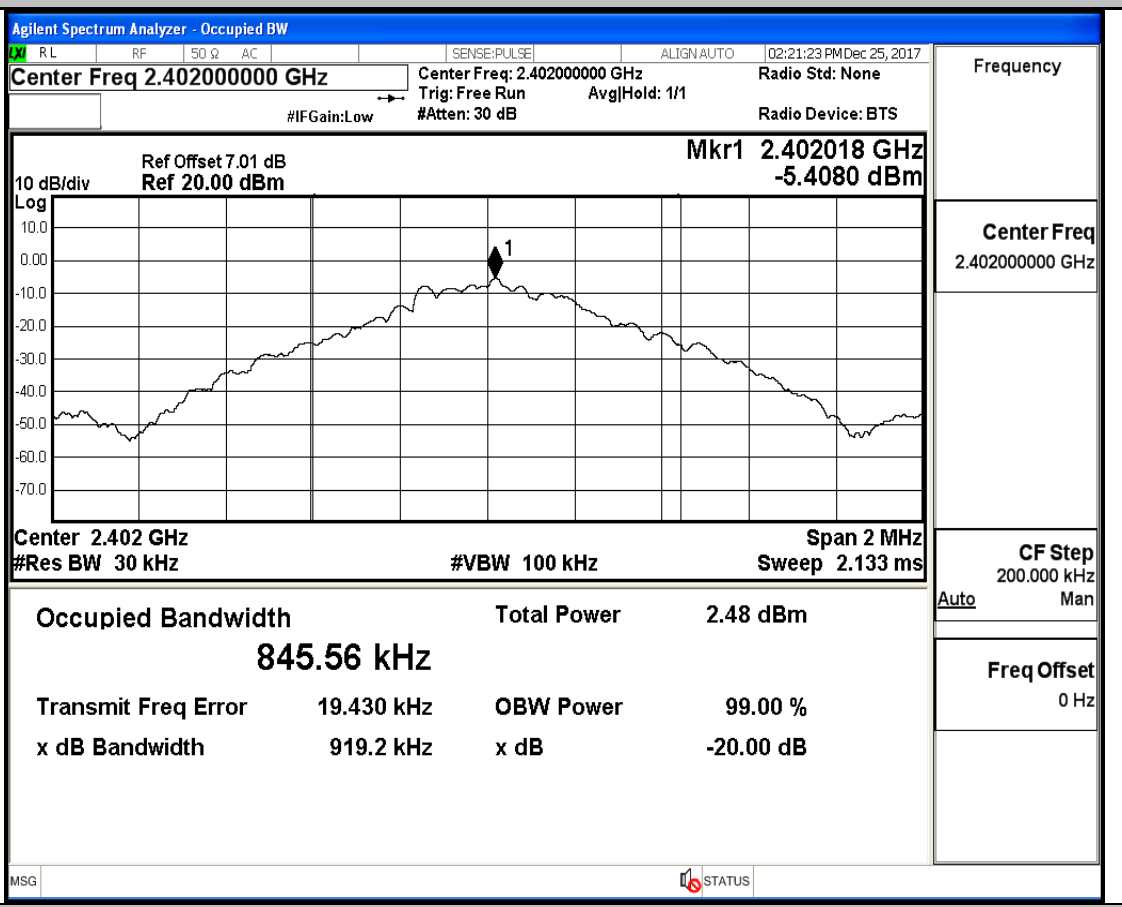
Appendix A
RF Test Data for BT V4.2(BDR/EDR) (Conducted Measurement)

Product Name: BLUETOOTH ON-EAR HEADPHONES
Trade Mark: ONN
Test Model: 17LY81
FCC ID: 2AKI8-ONNBTONEAR

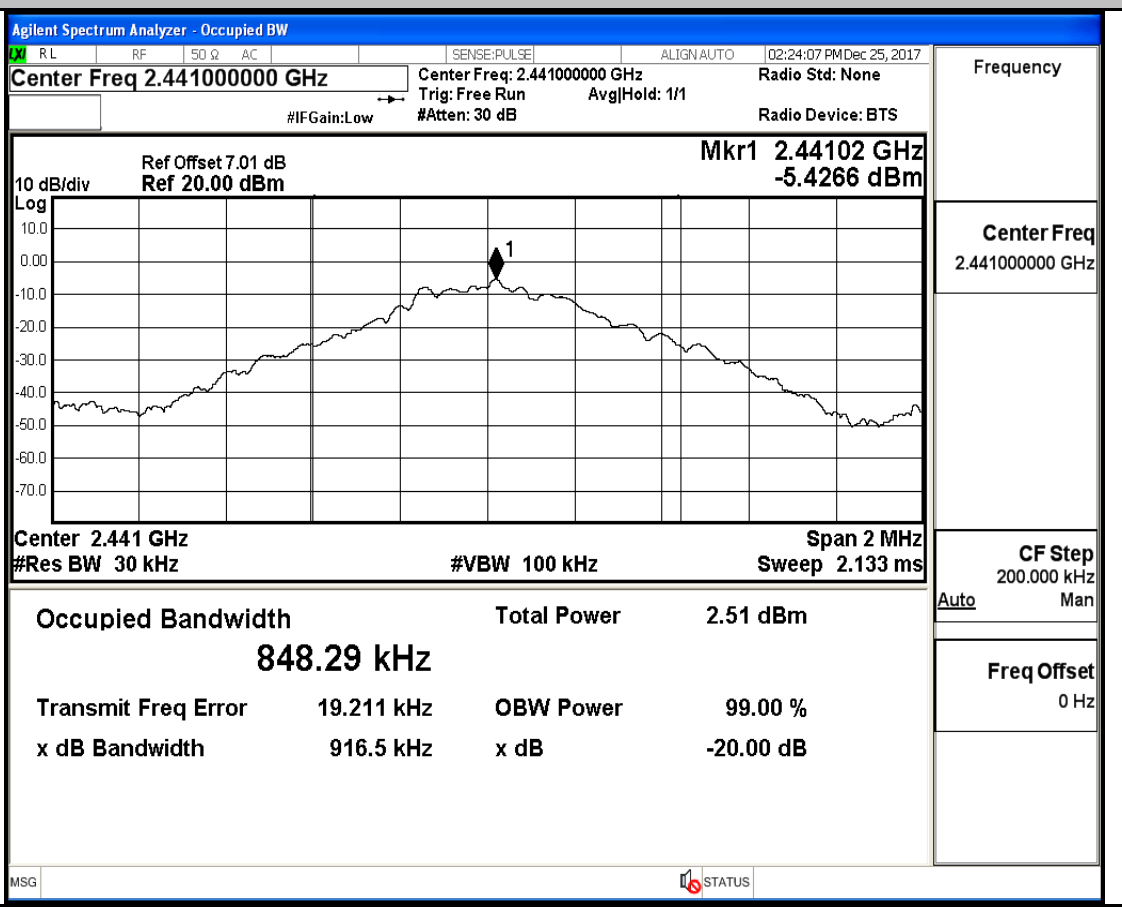
A.1 20 dB Bandwidth

Test Mode	Test Channel	EBW[MHz]	Limit[MHz]	Verdict
GFSK	2402	0.9192	---	PASS
	2441	0.9165	---	PASS
	2480	0.9102	---	PASS
π/4-DQPSK	2402	1.245	---	PASS
	2441	1.250	---	PASS
	2480	1.245	---	PASS

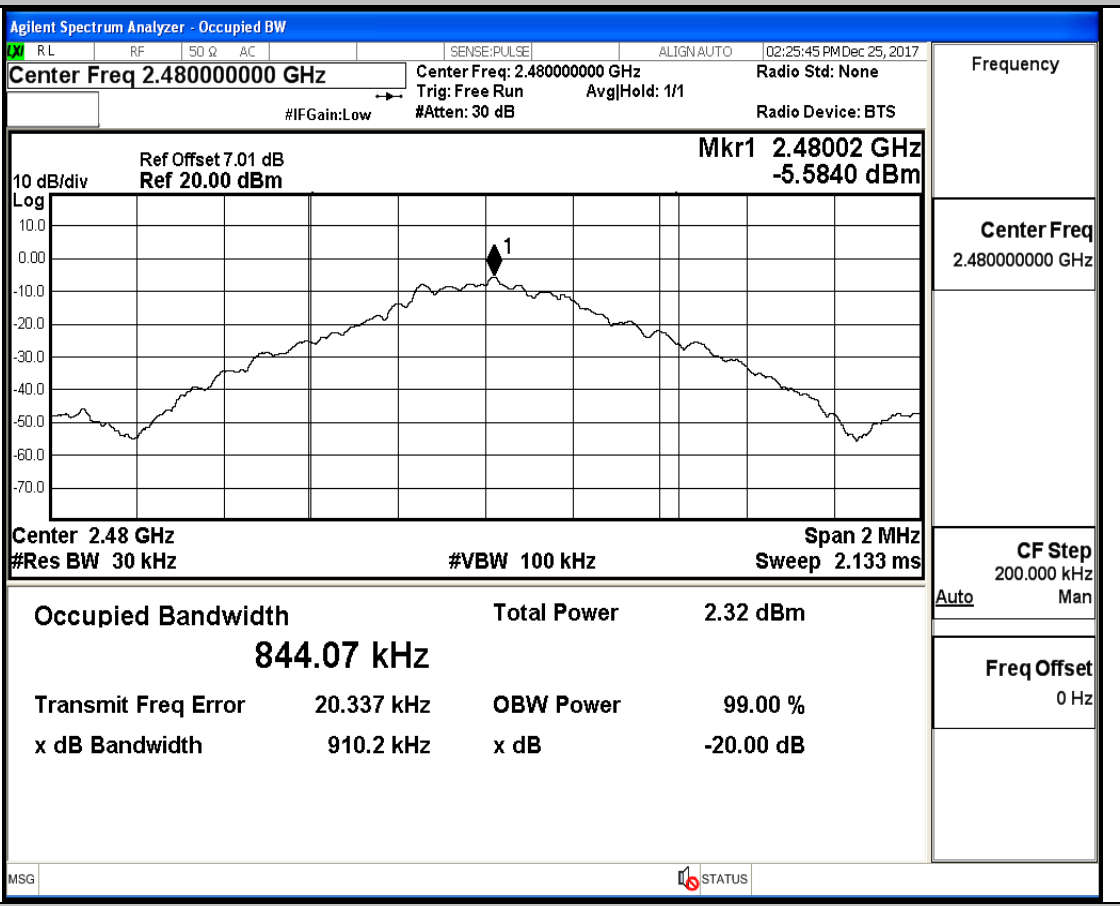
20 dB Bandwidth_GFSK_2402



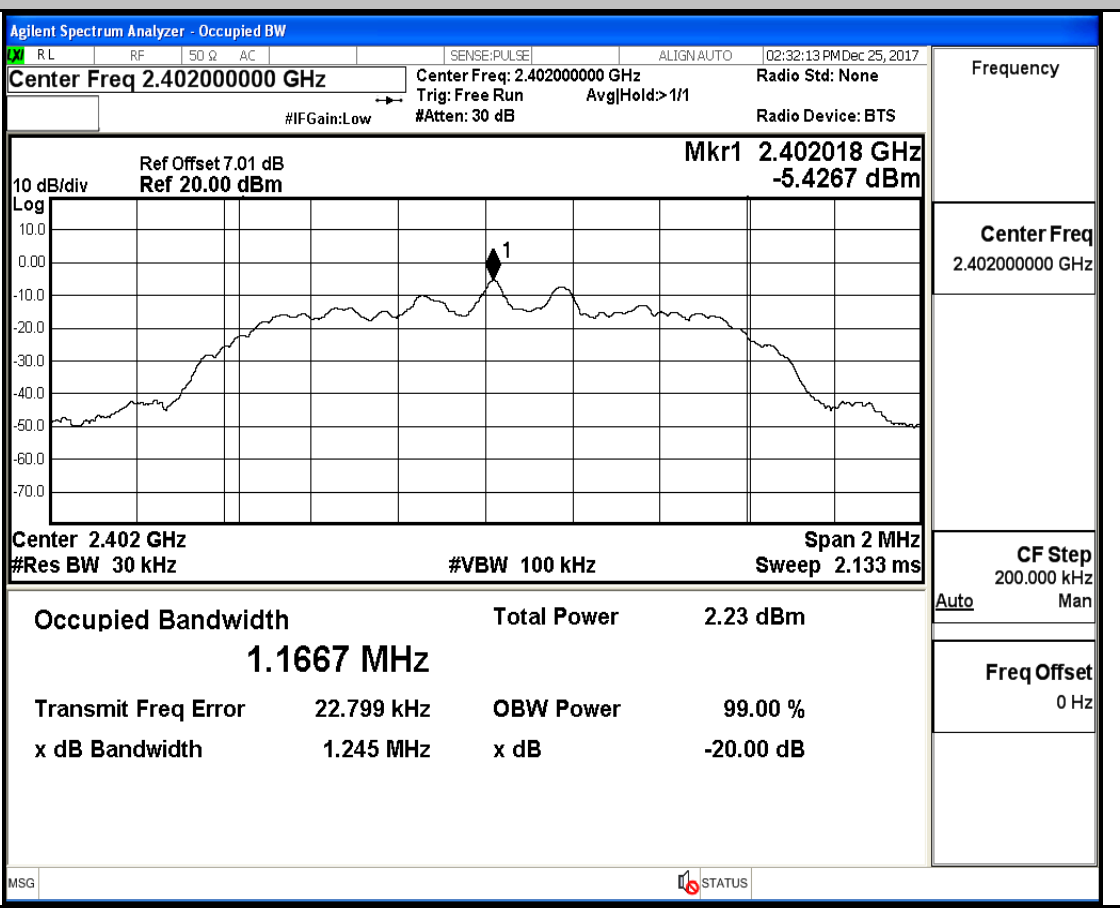
20 dB Bandwidth_GFSK_2441



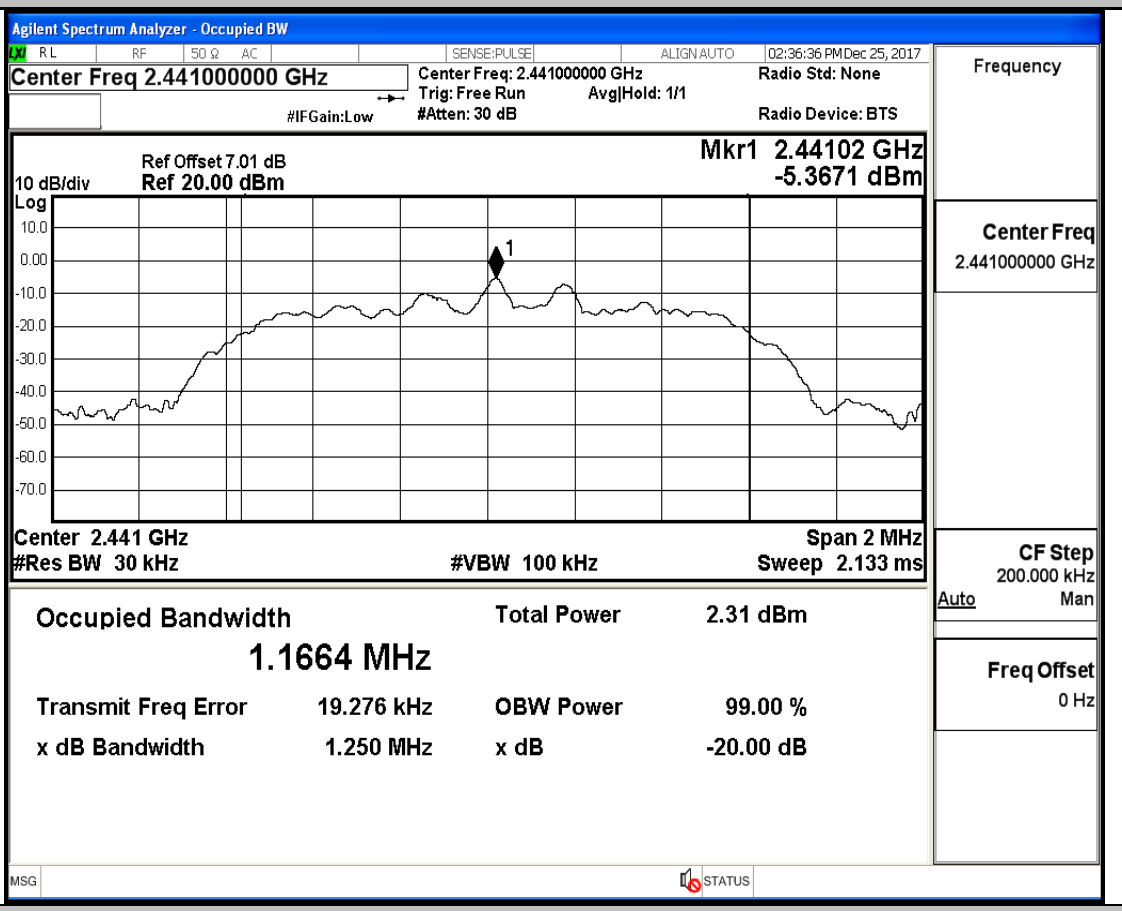
20 dB Bandwidth_GFSK_2480



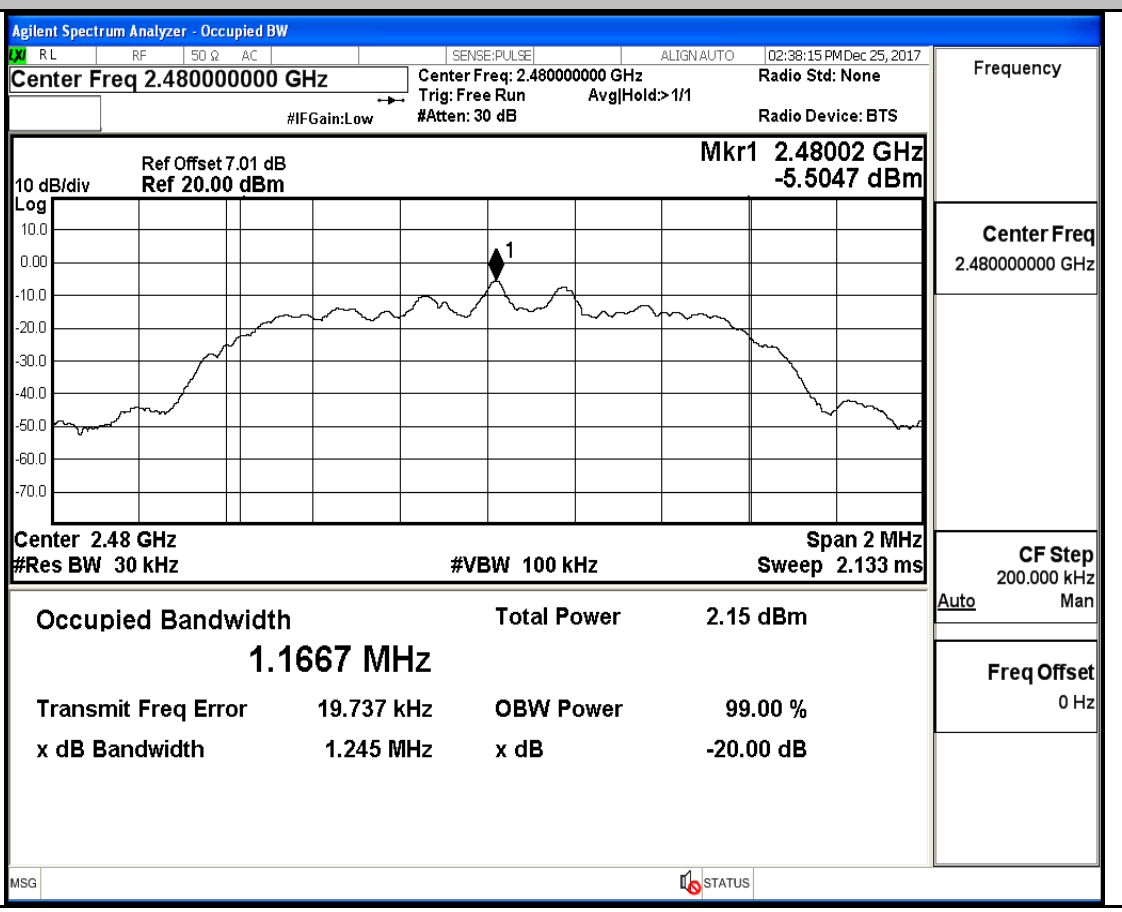
20 dB Bandwidth_π/4-DQPSK_2402



20 dB Bandwidth_π/4-DQPSK_2441



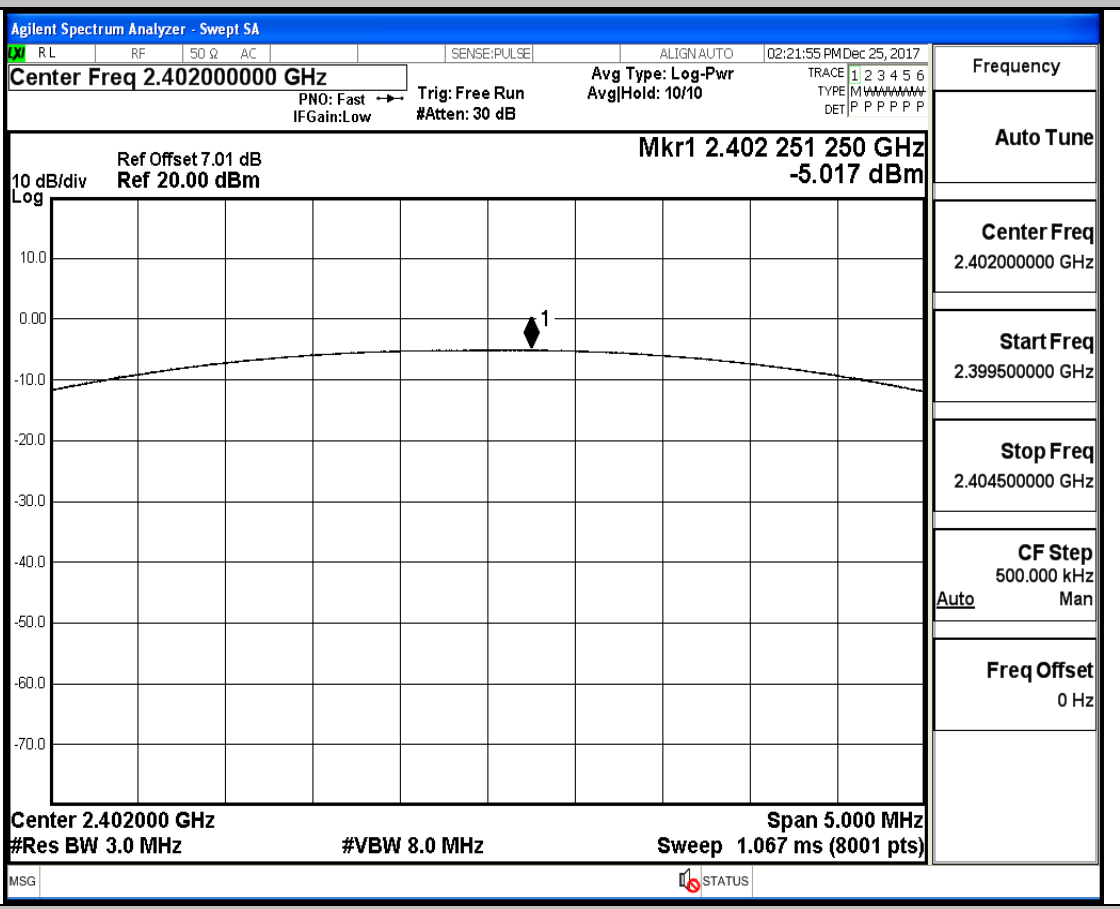
20 dB Bandwidth_π/4-DQPSK_2480



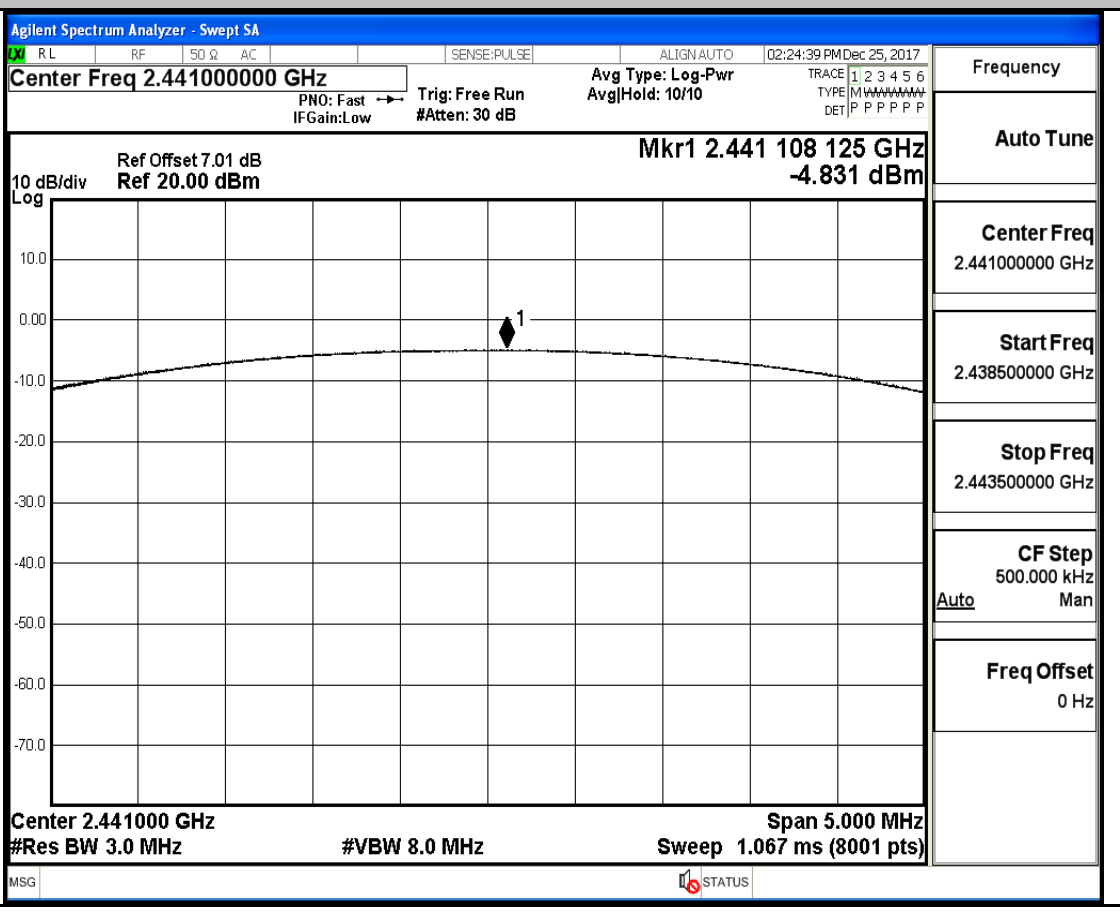
A.2 Conducted Peak Output Power

Test Mode	Test Channel	Power[dBm]	Limit[dBm]	Verdict
GFSK	2402	-5.017	30	PASS
	2441	-4.831	30	PASS
	2480	-5.128	30	PASS
π/4-DQPSK	2402	-3.976	21	PASS
	2441	-3.887	21	PASS
	2480	-3.996	21	PASS

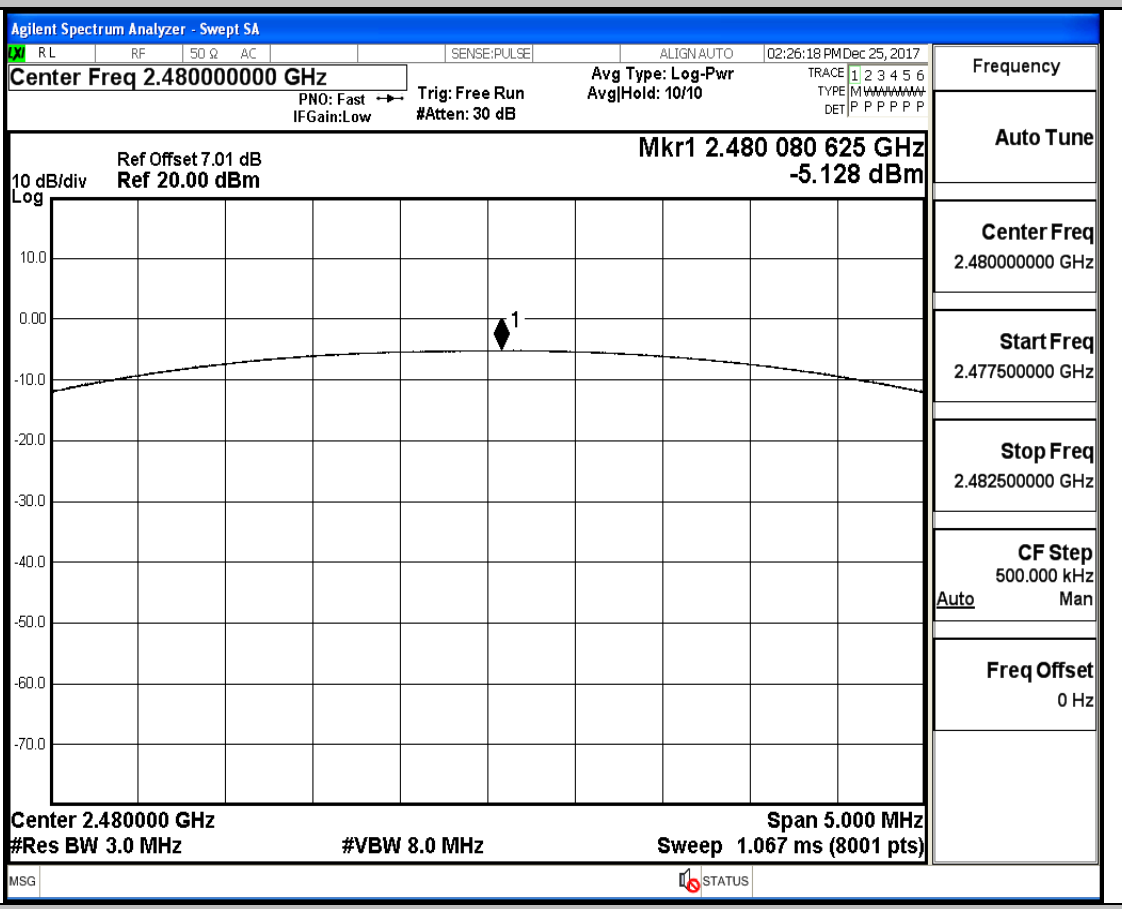
Conducted Peak Output Power_GFSK_2402



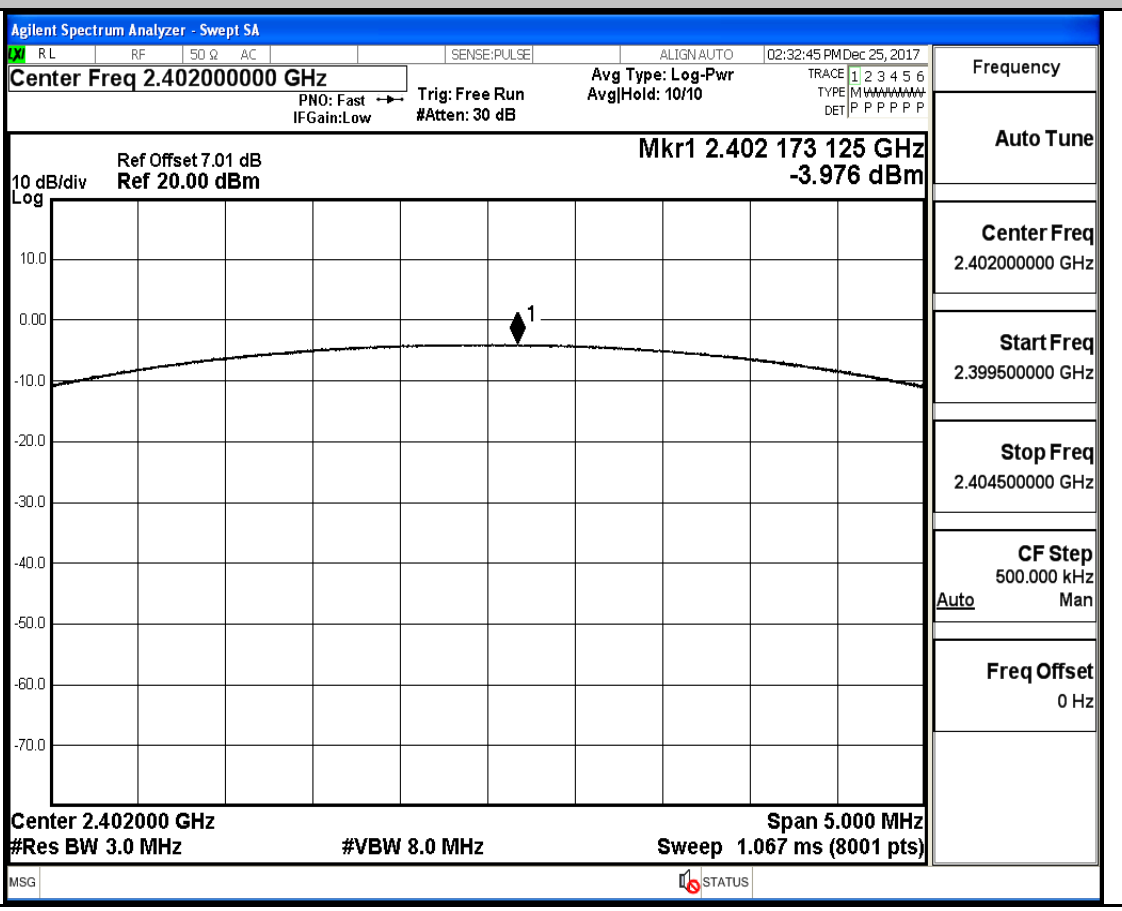
Conducted Peak Output Power_GFSK_2441



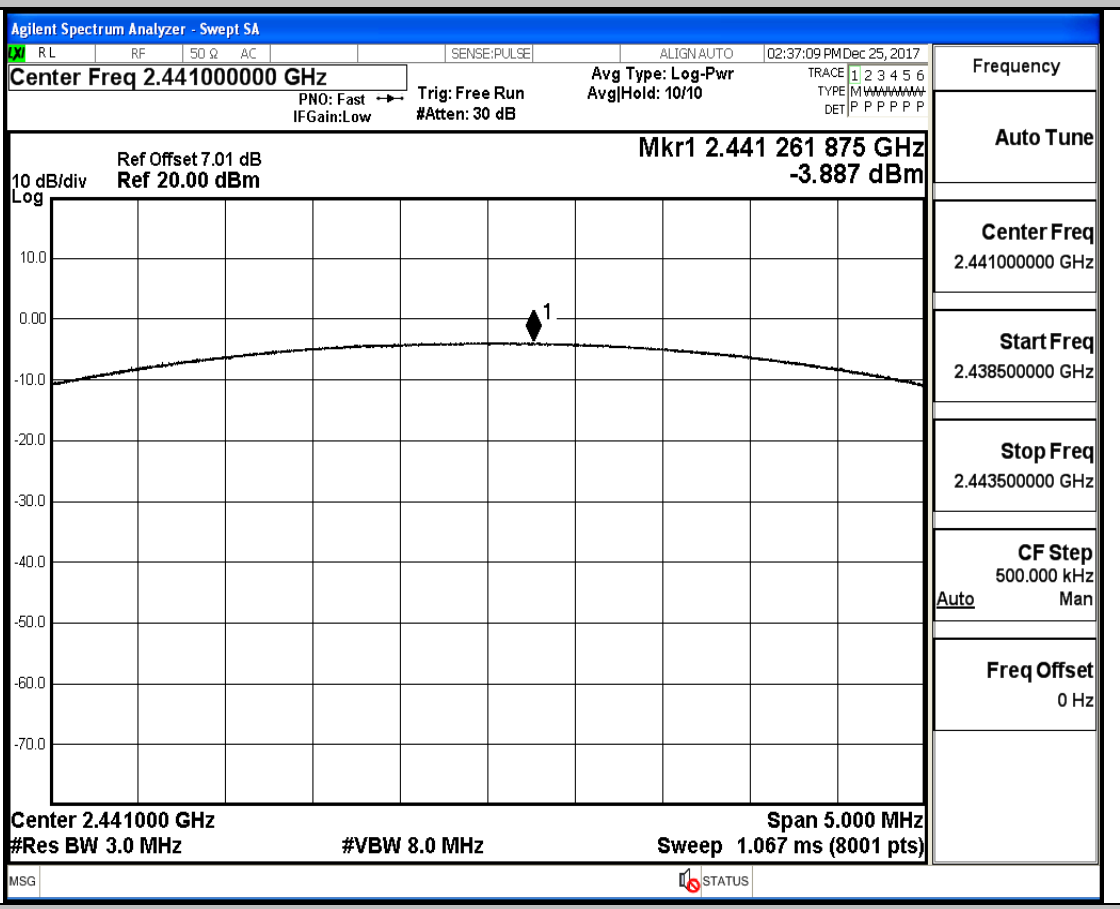
Conducted Peak Output Power_GFSK_2480



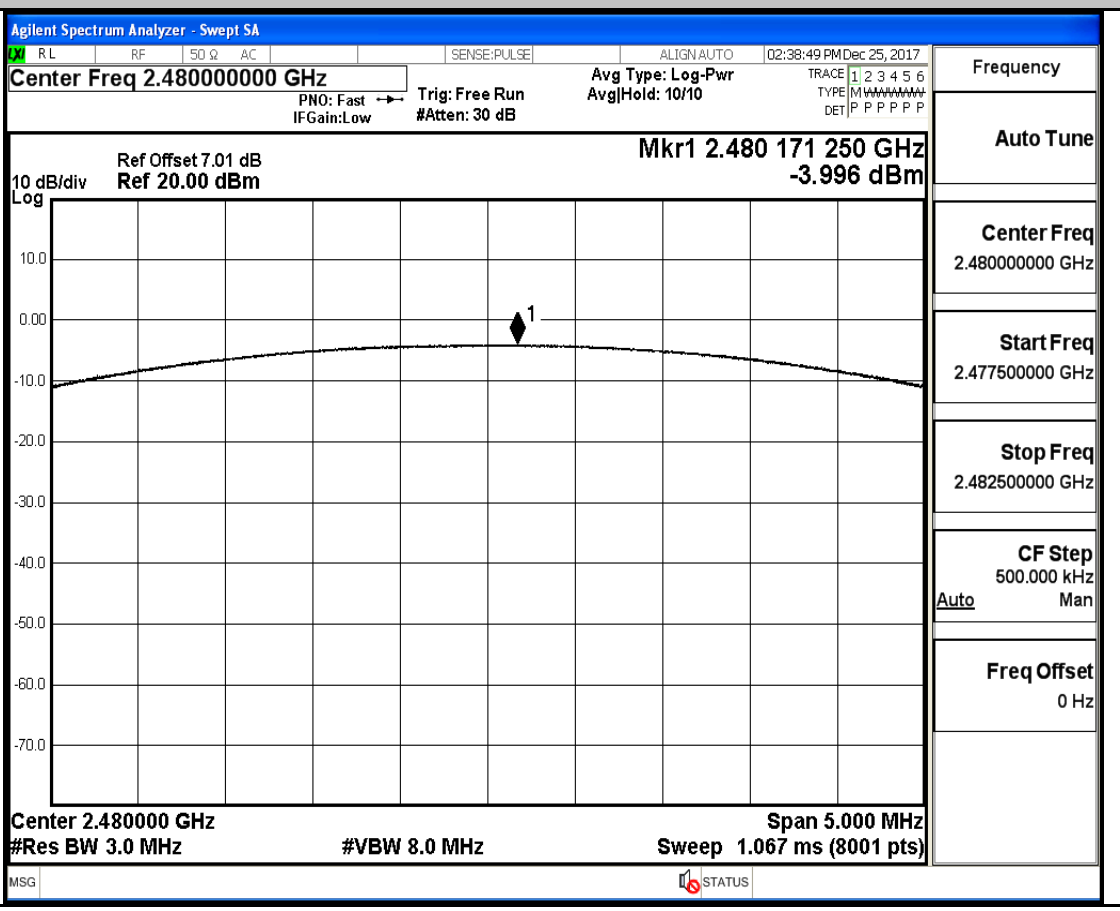
Conducted Peak Output Power_π/4-DQPSK_2402



Conducted Peak Output Power_π/4-DQPSK_2441



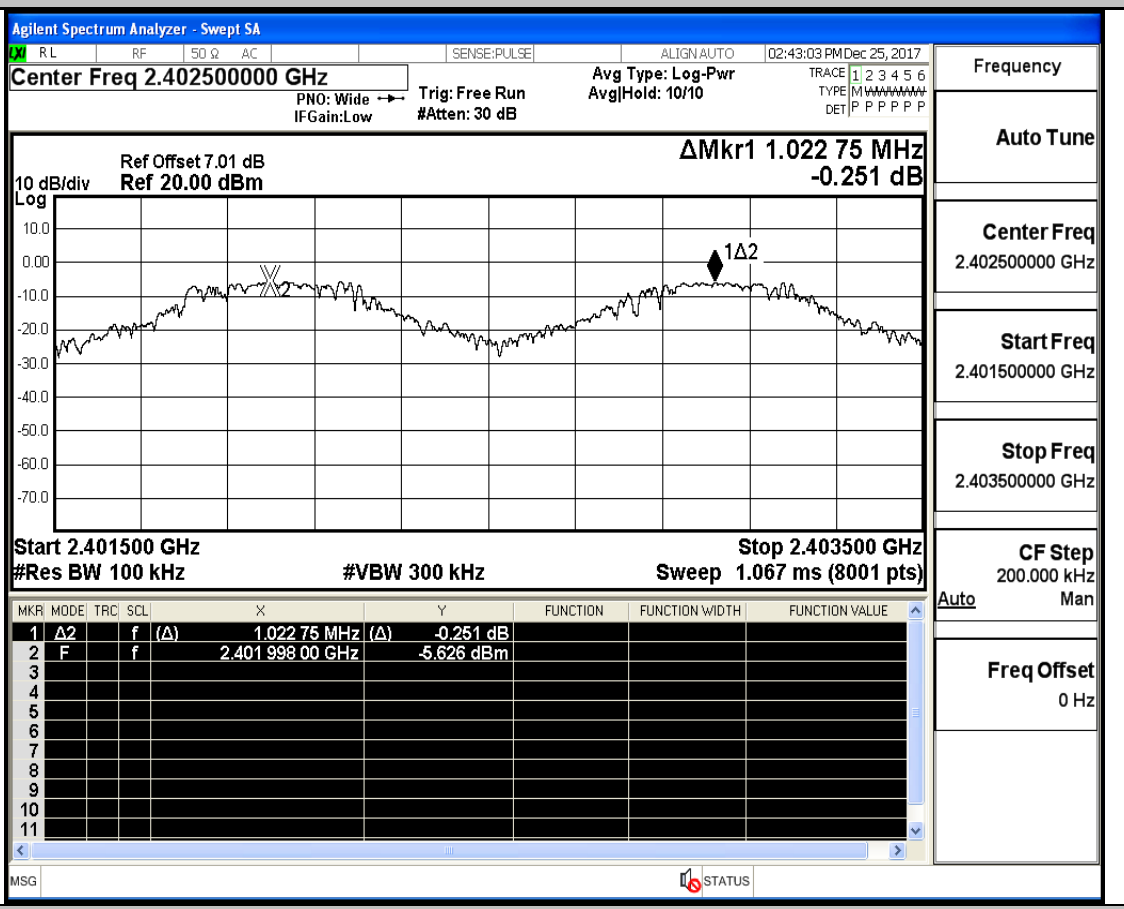
Conducted Peak Output Power_π/4-DQPSK_2480



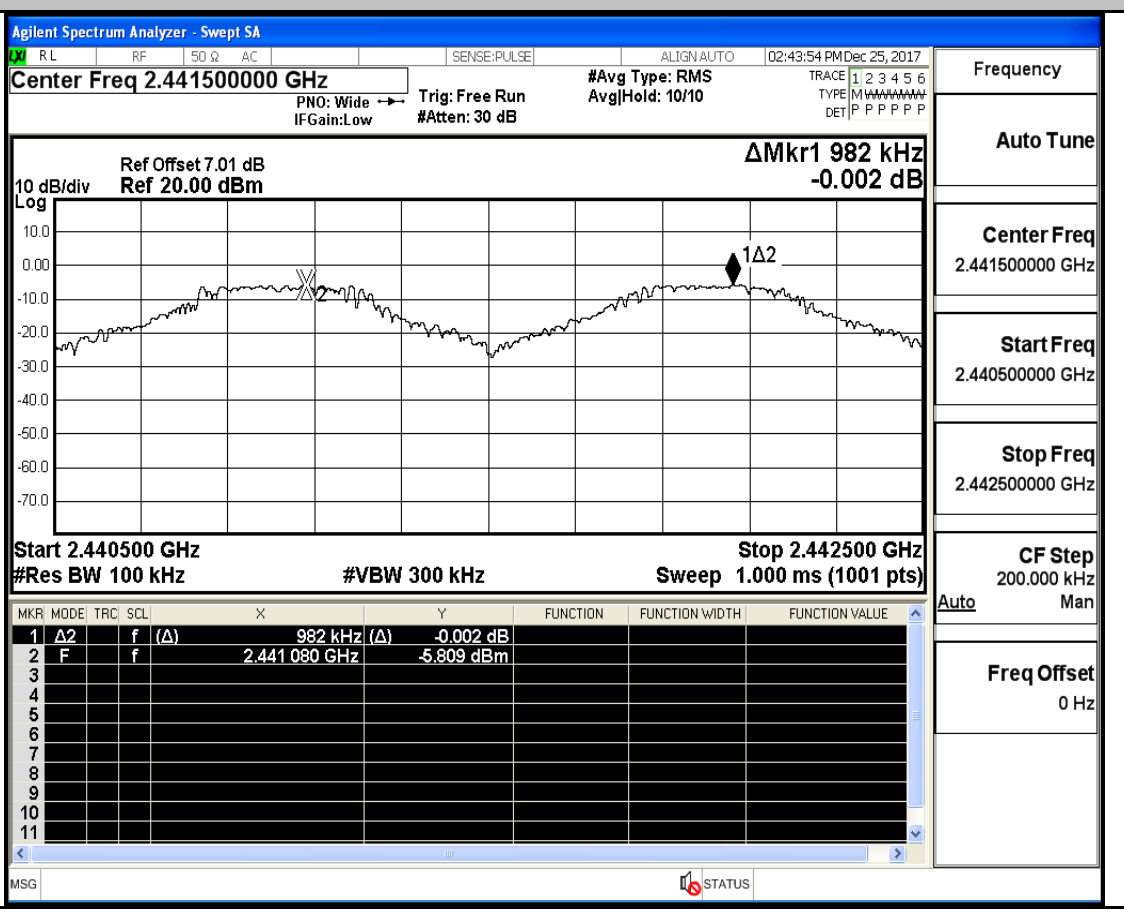
A.3 Carrier Frequency Separation

Test Mode	Test Channel	Result[MHz]	Limit[MHz]	Verdict
GFSK	2402	1.023	0.9192	PASS
	2441	0.982	0.9165	PASS
	2480	1.322	0.9102	PASS
π/4-DQPSK	2402	0.96	0.83	PASS
	2441	0.994	0.83	PASS
	2480	1.16	0.83	PASS

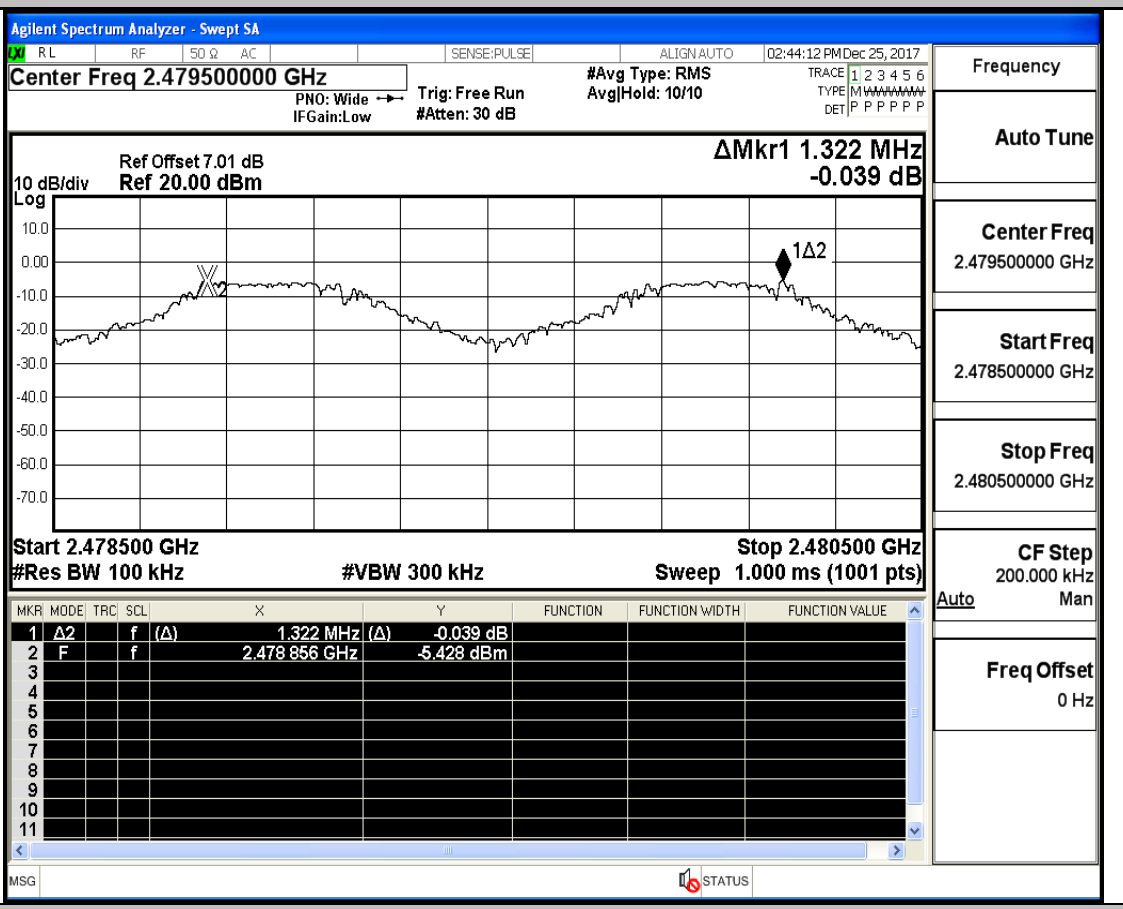
Carrier Frequency Separation_GFSK_2402



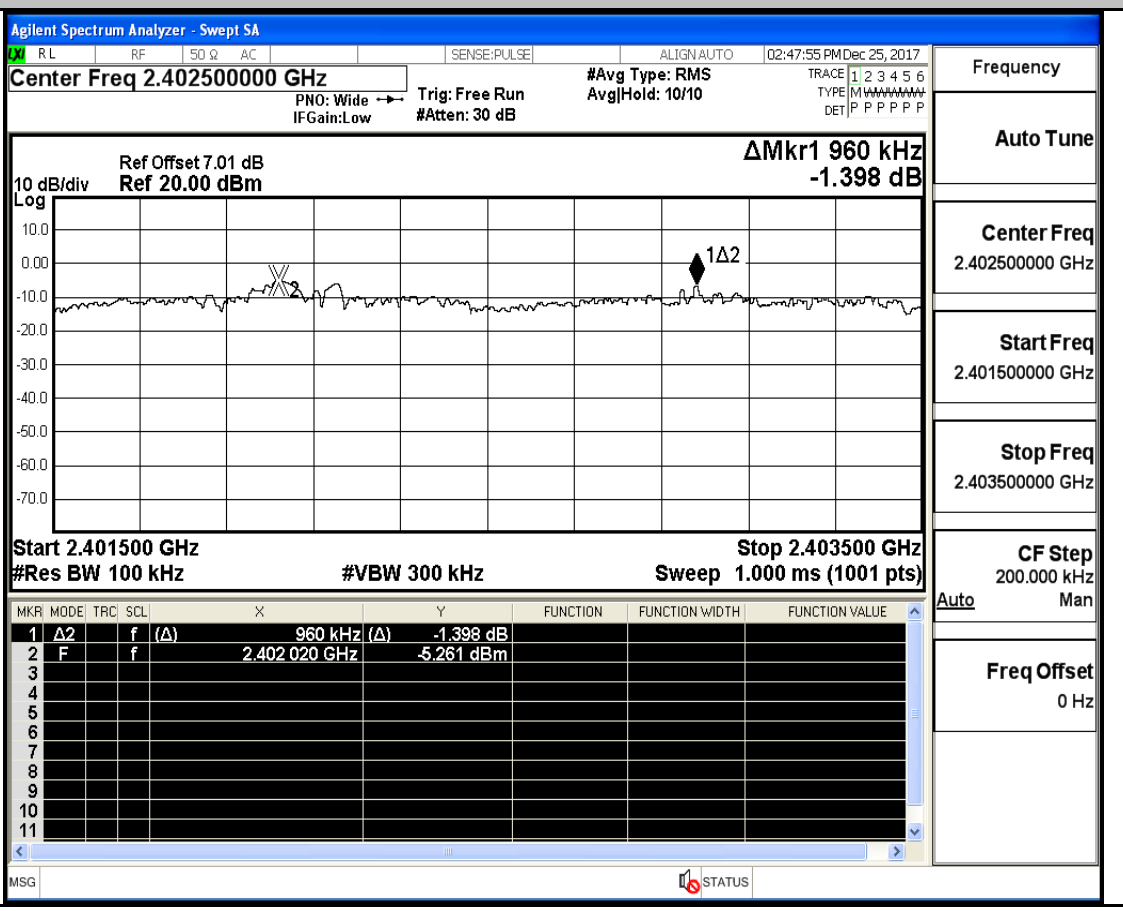
Carrier Frequency Separation_GFSK_2441



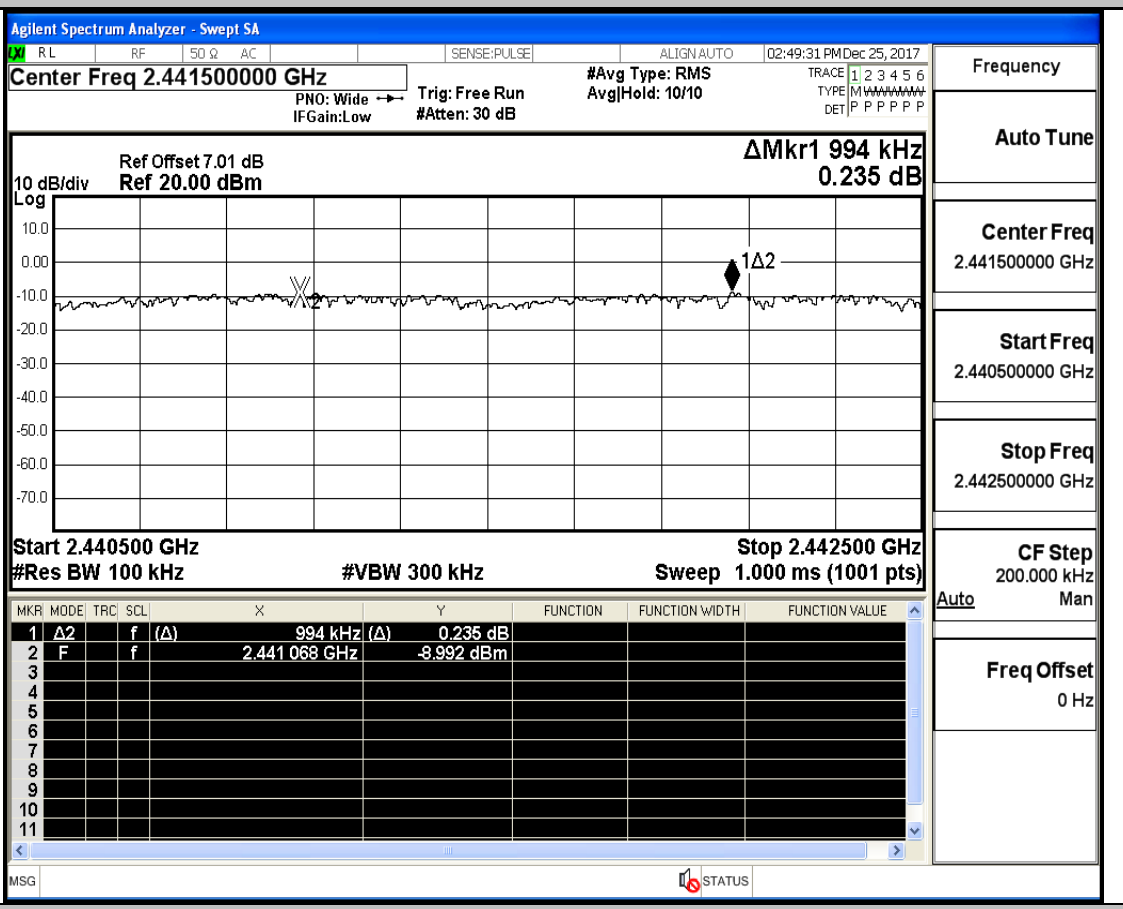
Carrier Frequency Separation_GFSK_2480



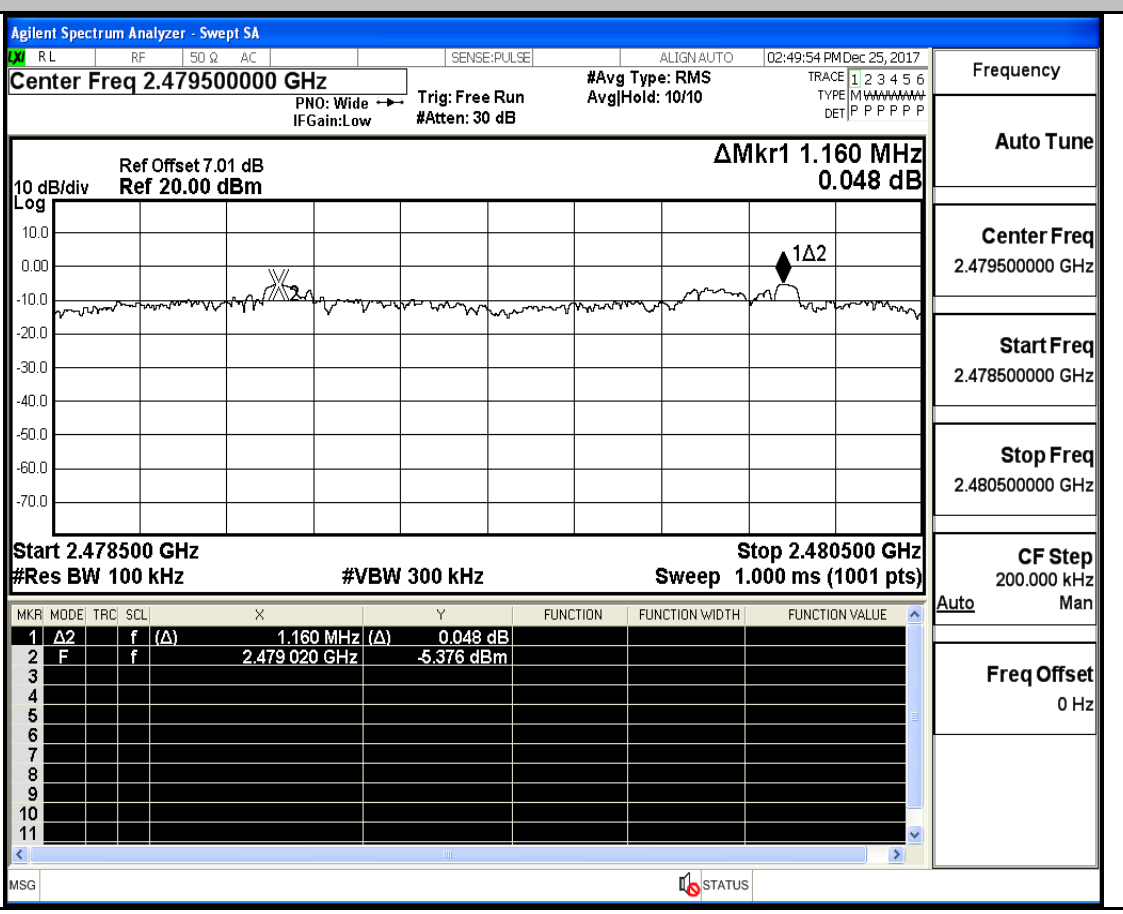
Carrier Frequency Separation_π/4-DQPSK_2402



Carrier Frequency Separation_π/4-DQPSK_2441



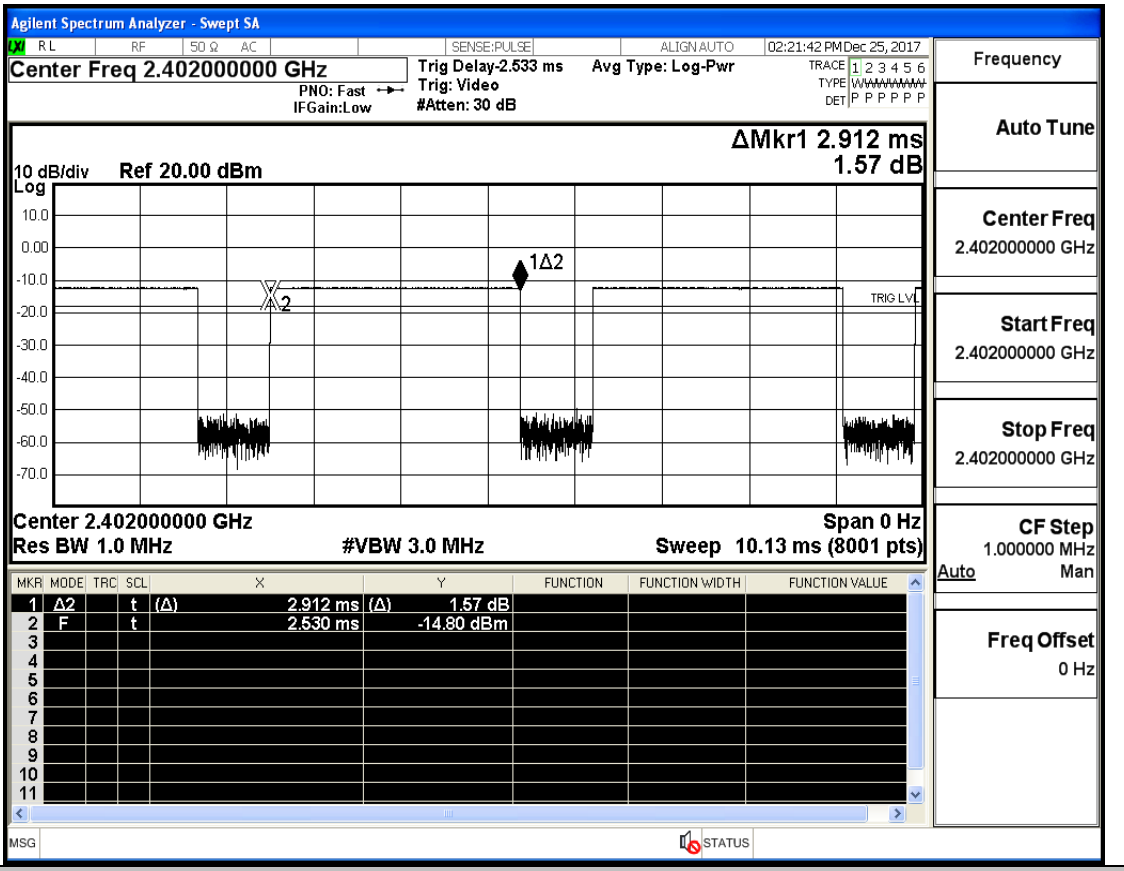
Carrier Frequency Separation_π/4-DQPSK_2480



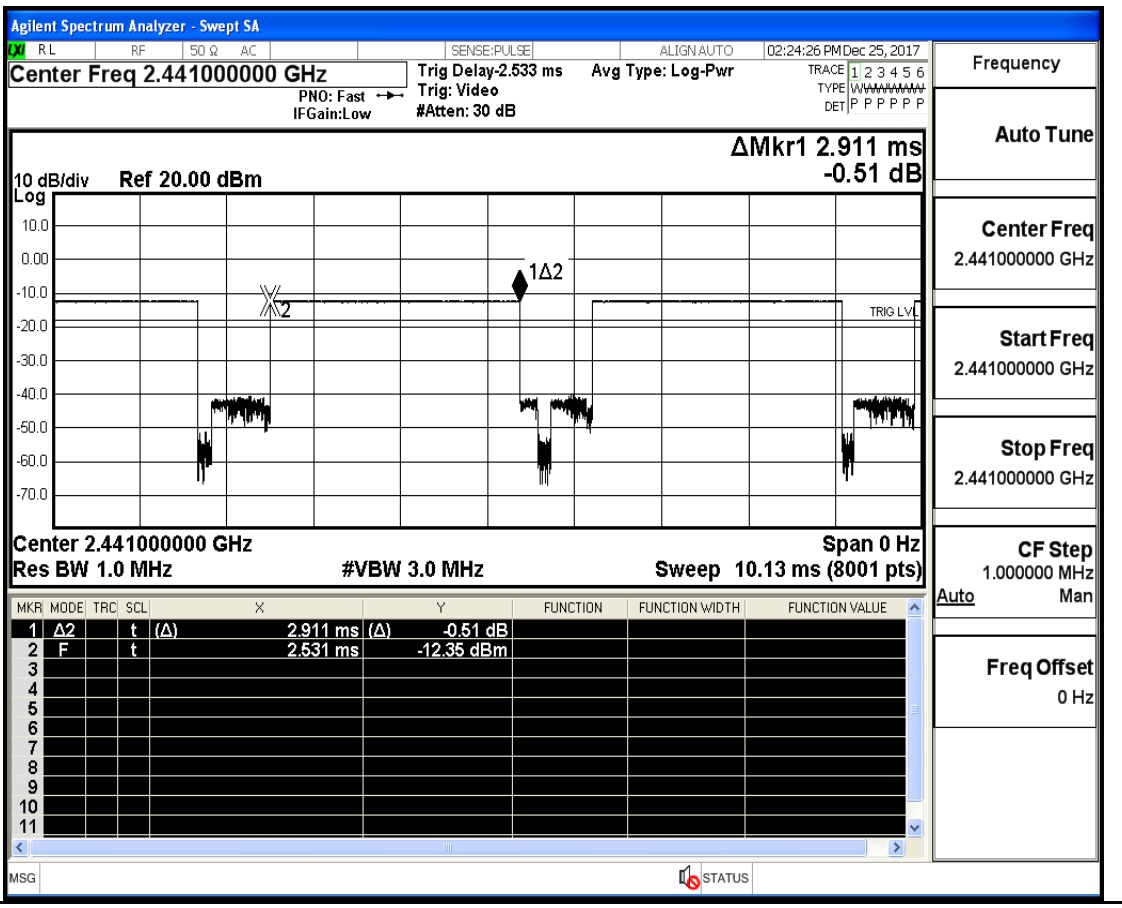
A.4 Dwell Time

Test Mode	Test Channel	Burst Width[ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit[s]	Verdict
GFSK	2402	2.91	106.7	0.31	0.4	PASS
	2441	2.91	106.7	0.31	0.4	PASS
	2480	2.91	106.7	0.31	0.4	PASS
π/4-DQPSK	2402	2.92	106.7	0.312	0.4	PASS
	2441	2.92	106.7	0.312	0.4	PASS
	2480	2.92	106.7	0.312	0.4	PASS

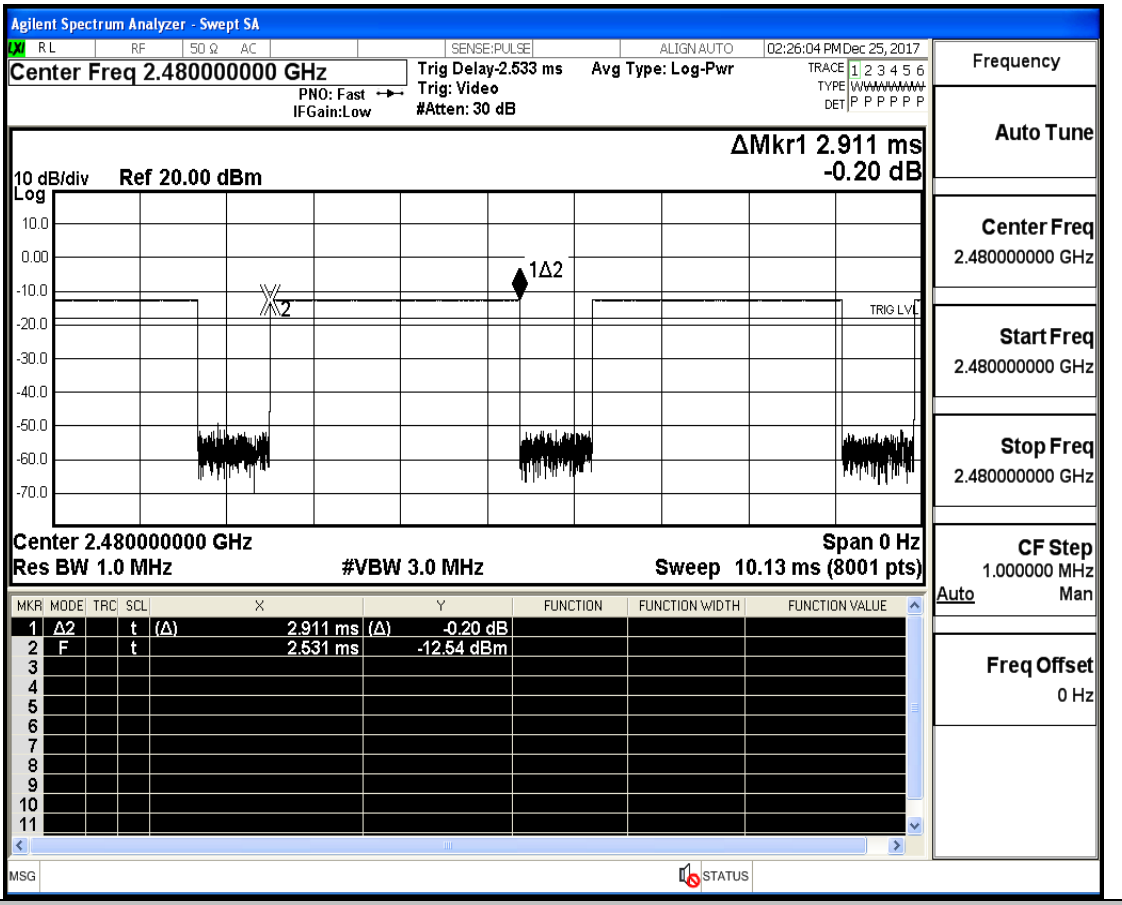
Dwell Time_GFSK_2402



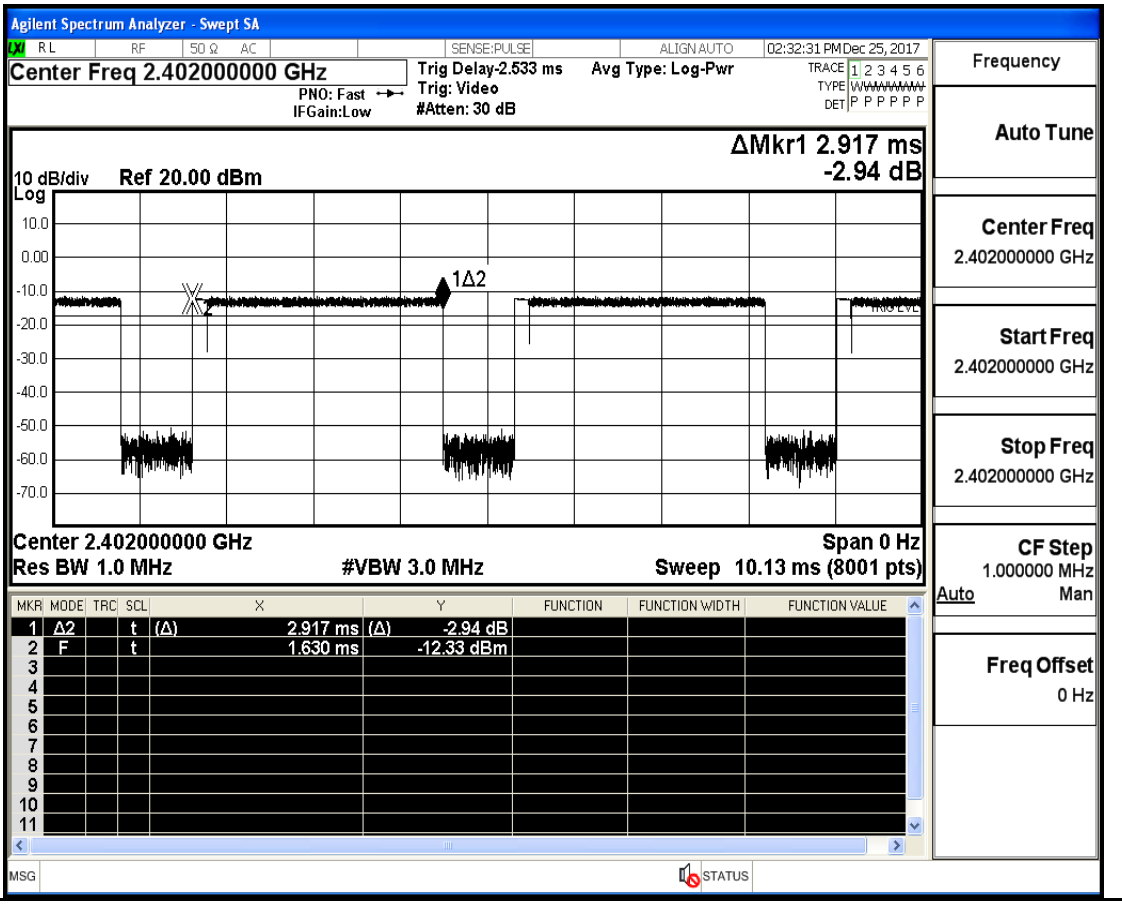
Dwell Time_GFSK_2441



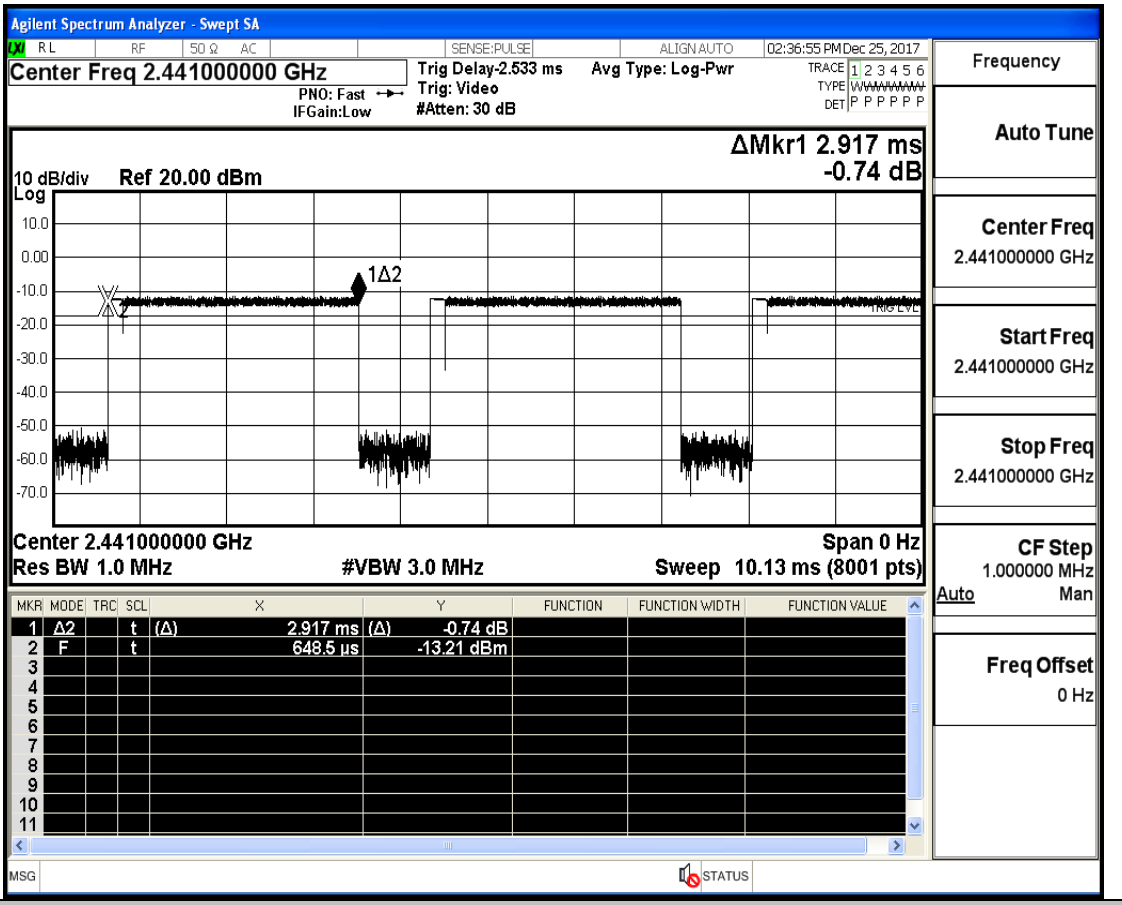
Dwell Time_GFSK_2480



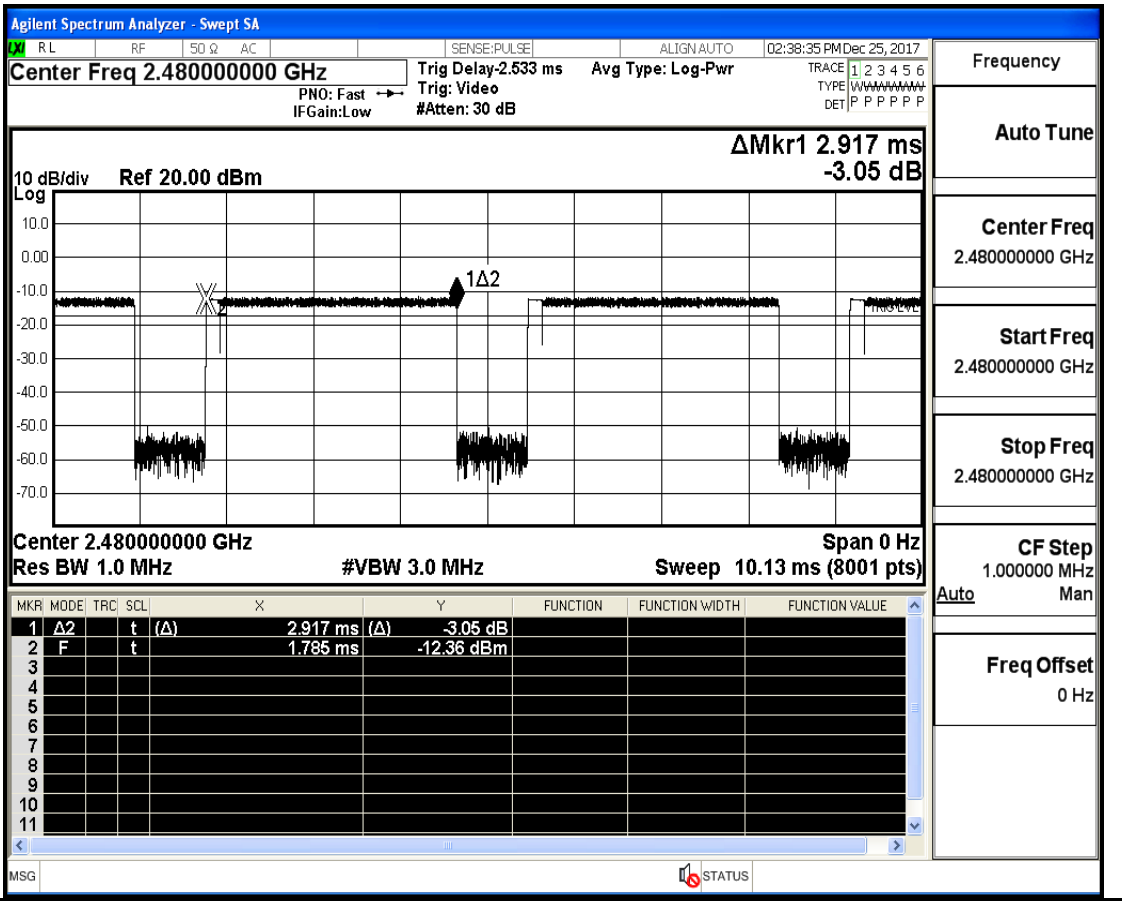
Dwell Time_π/4-DQPSK_2402



Dwell Time_π/4-DQPSK_2441



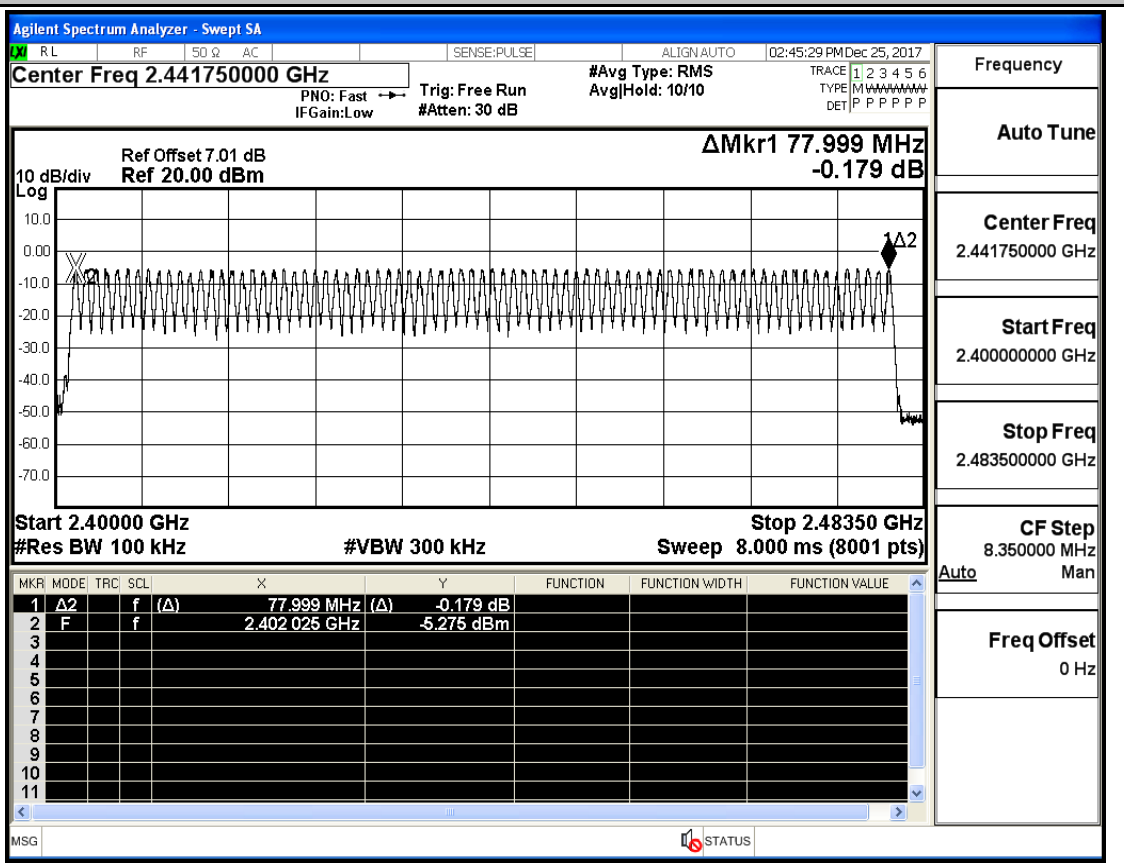
Dwell Time_π/4-DQPSK_2480



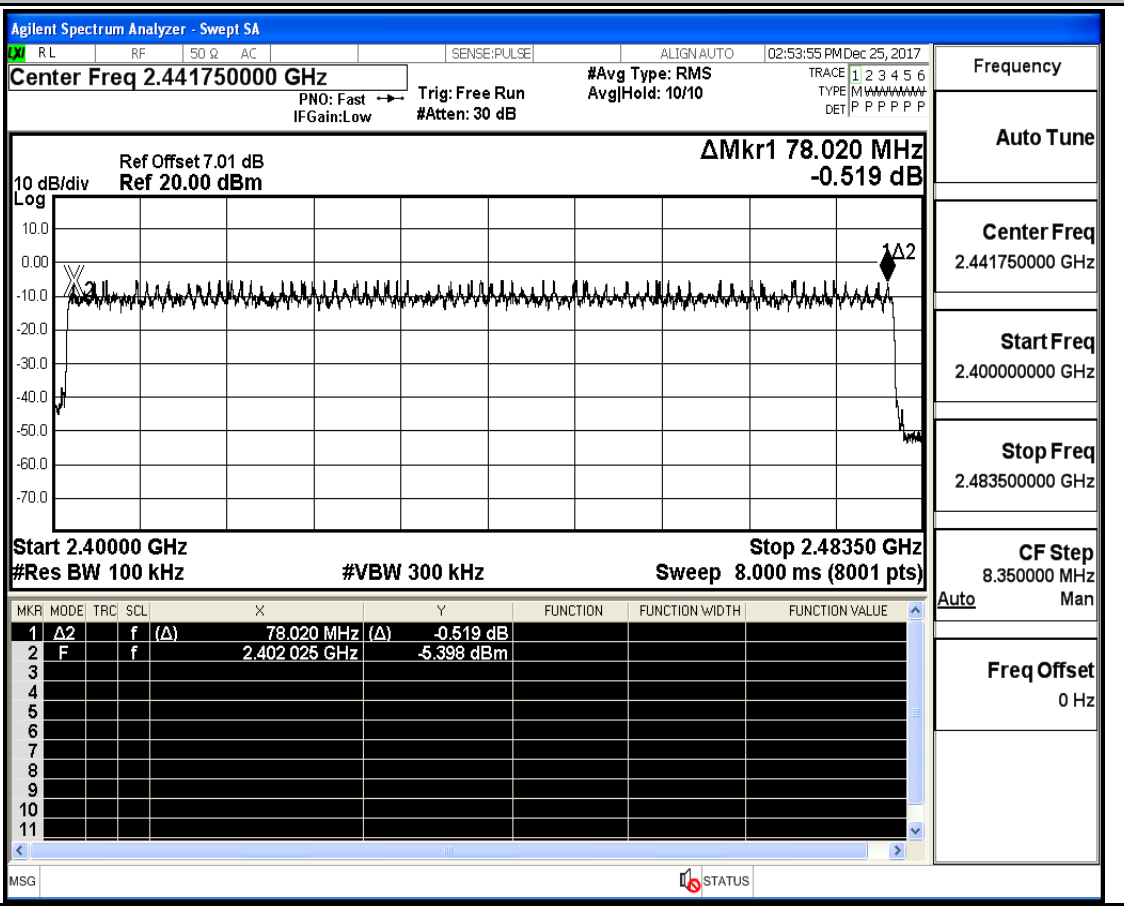
A.5 Hopping Channel Number

Test Mode	Test Channel	Number of Hopping Channel[N]	Limit[N]	Verdict
GFSK	2402	79	>=15	PASS
π/4-DQPSK	2402	79	>=15	PASS

Hopping Channel Number_GFSK_2402



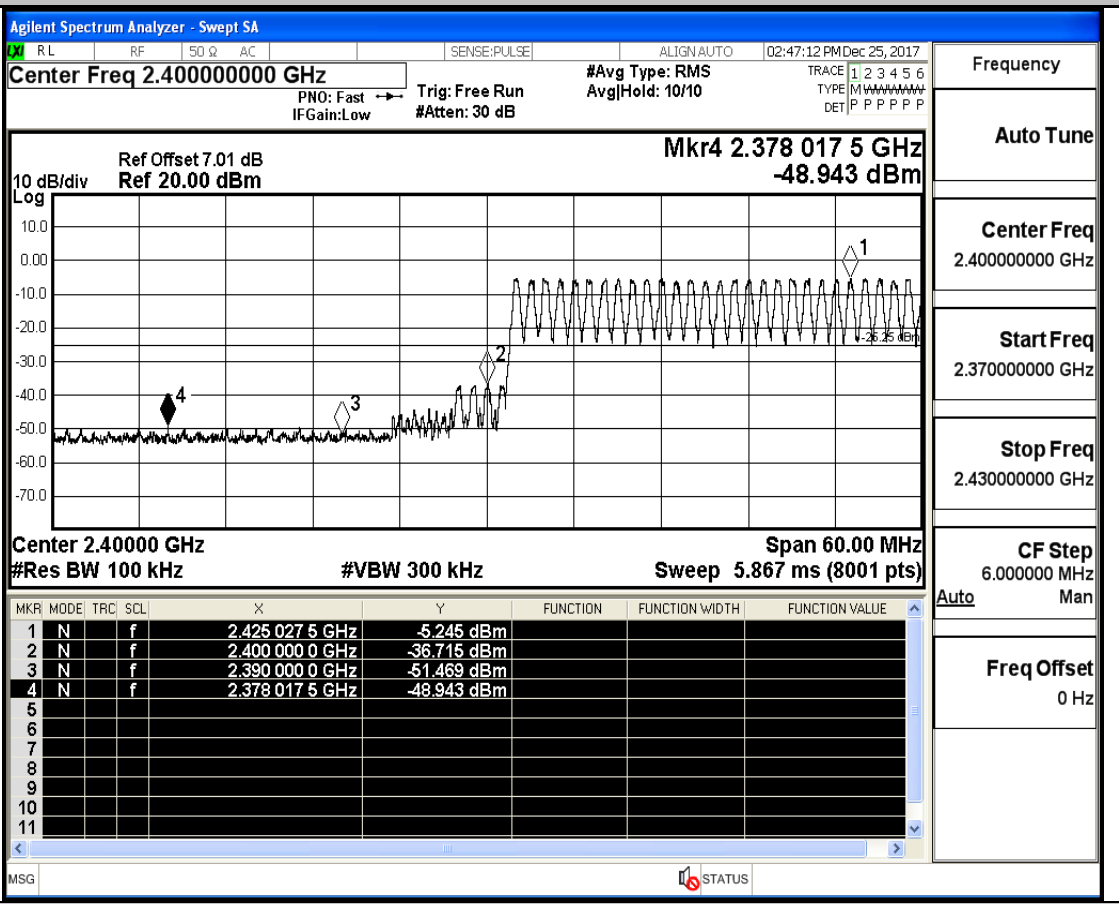
Hopping Channel Number_π/4-DQPSK_2402



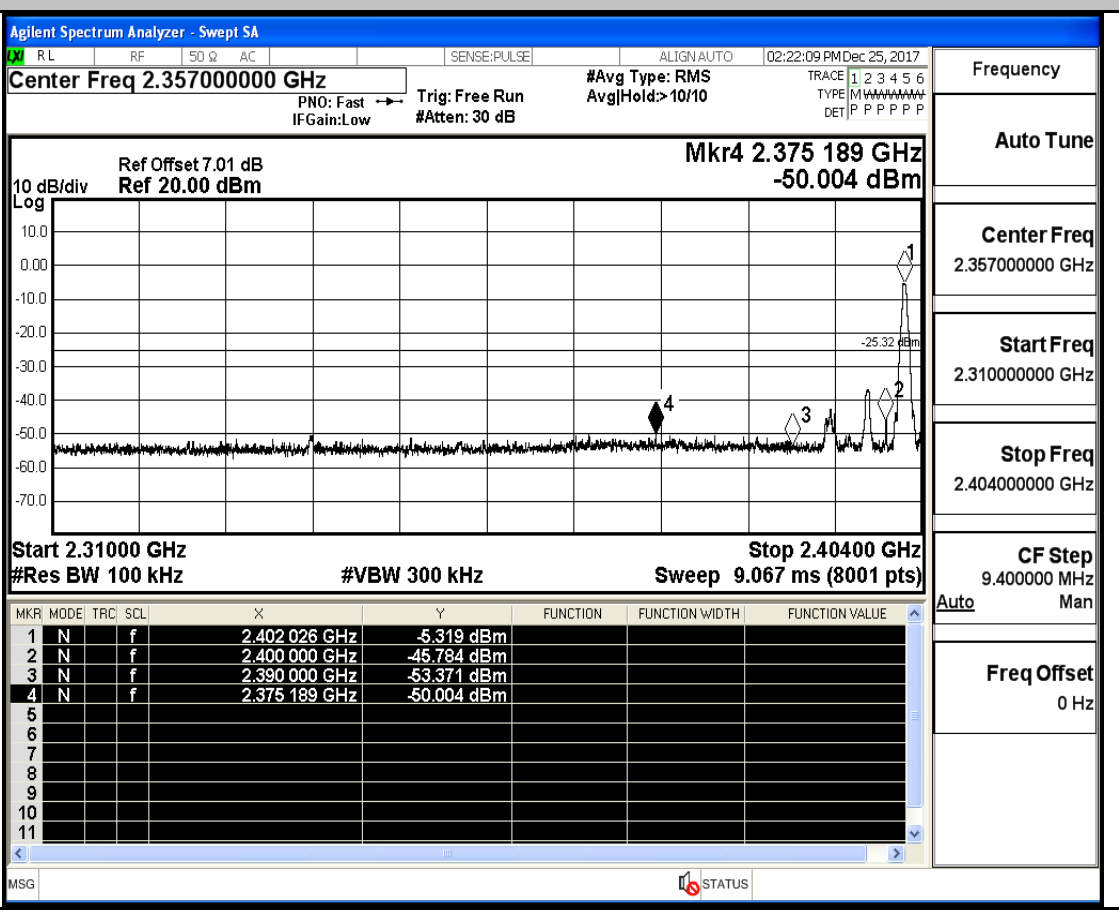
A.6 Band-edge for RF Conducted Emissions

Test Mode	Test Channel	Hopping	Carrier Power[dBm]	Max. Spurious Level [dBm]	Limit[dBm]	Verdict
GFSK	2402	On	-5.245	-48.943	-25.25	PASS
	2402	Off	-5.319	-50.004	-25.32	PASS
	2480	On	-5.328	-49.421	-25.33	PASS
	2480	Off	-5.432	-50.427	-25.43	PASS
π/4-DQPSK	2402	On	-5.164	-49.730	-25.16	PASS
	2402	Off	-5.255	-49.860	-25.26	PASS
	2480	On	-5.287	-42.251	-25.29	PASS
	2480	Off	-5.332	-49.265	-25.33	PASS

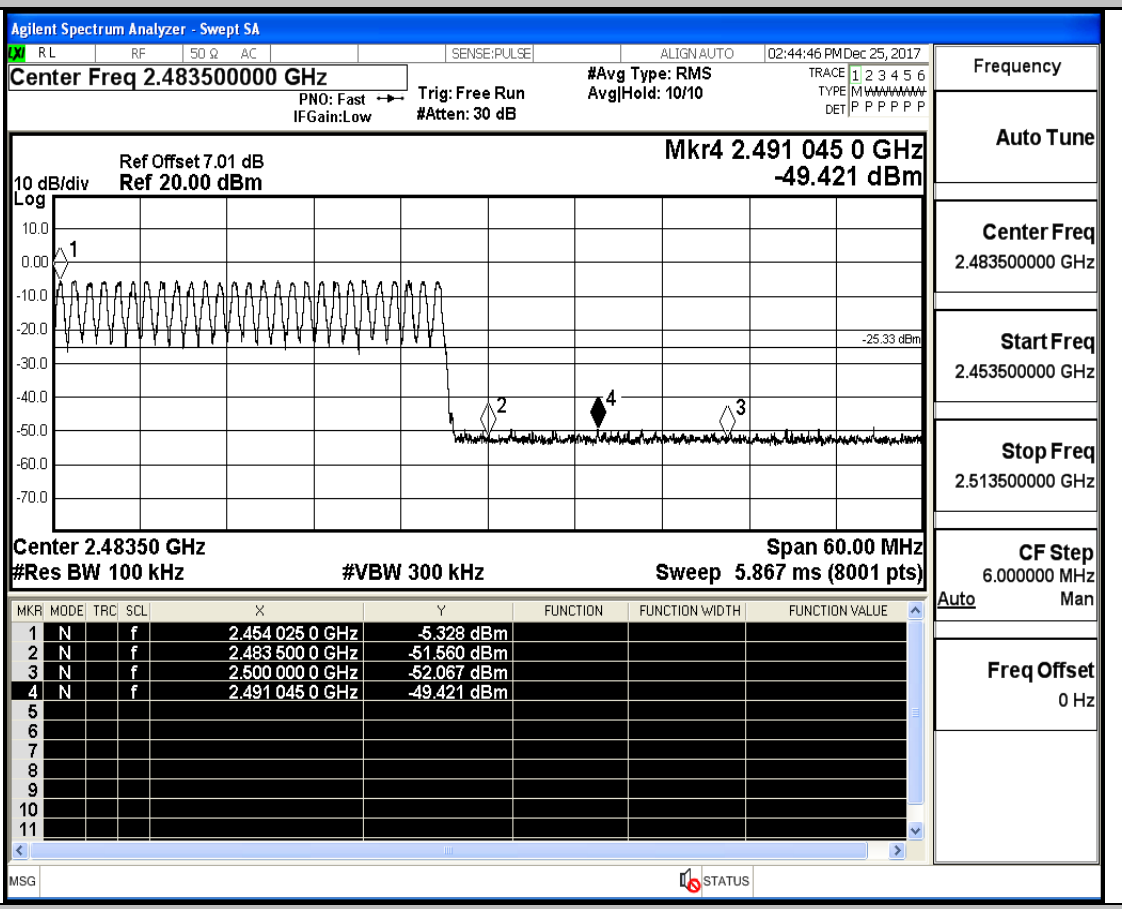
Band-edge for RF Conducted Emissions_GFSK_2402_Hopping On



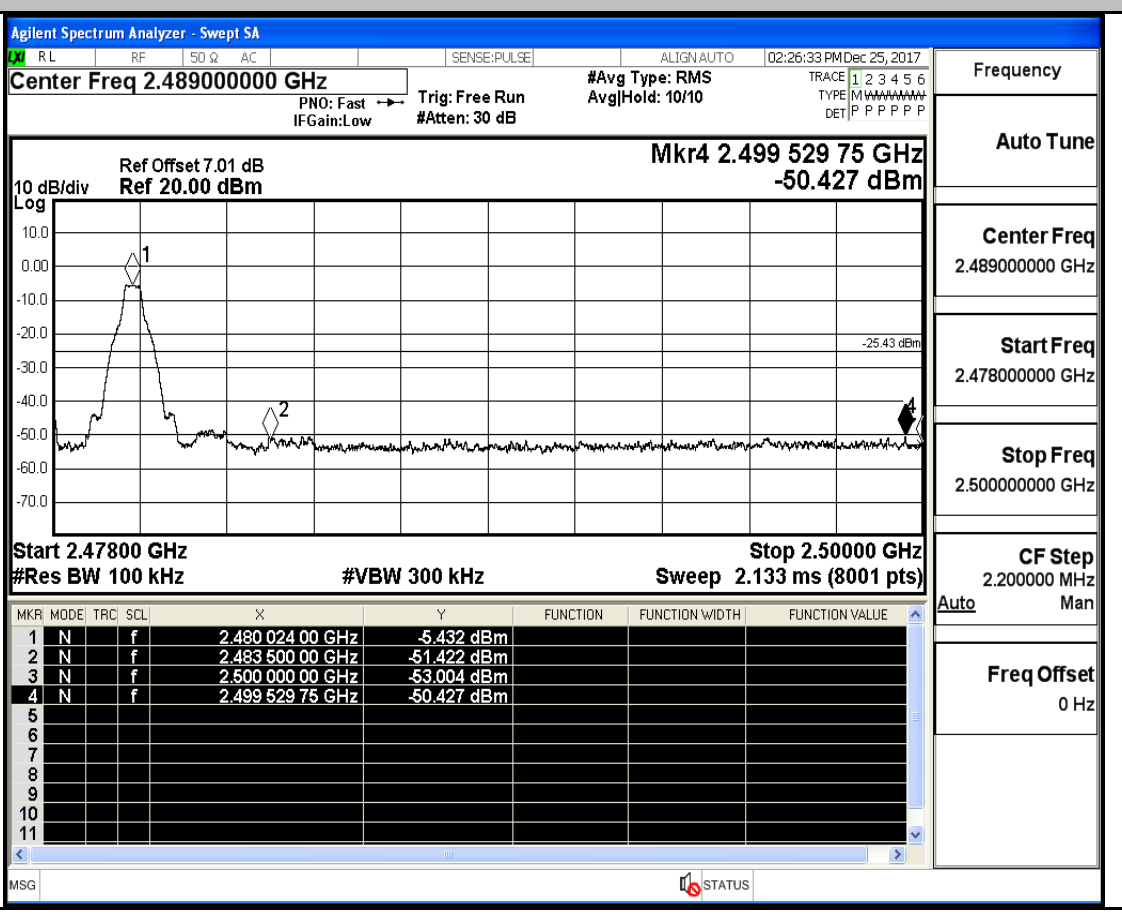
Band-edge for RF Conducted Emissions_GFSK_2402_Hopping Off



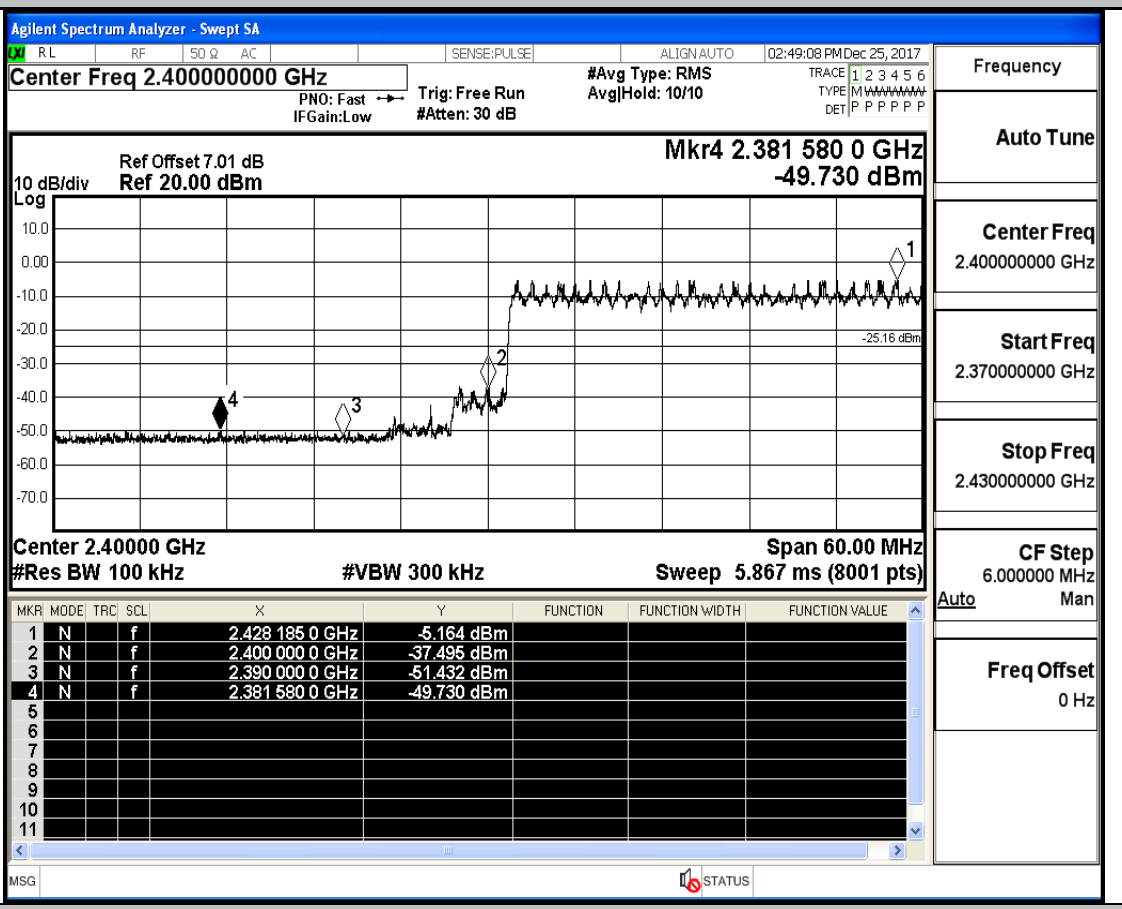
Band-edge for RF Conducted Emissions_GFSK_2480_Hopping On



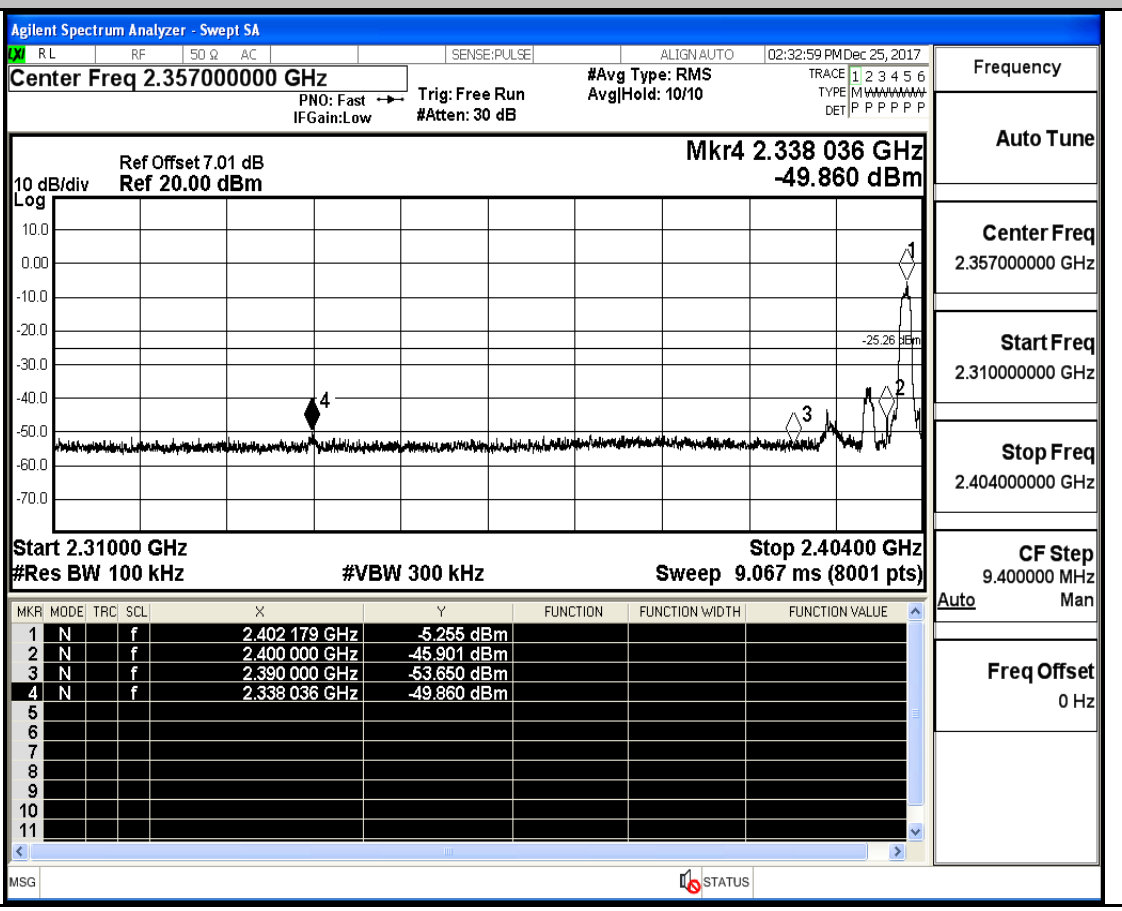
Band-edge for RF Conducted Emissions_GFSK_2480_Hopping Off



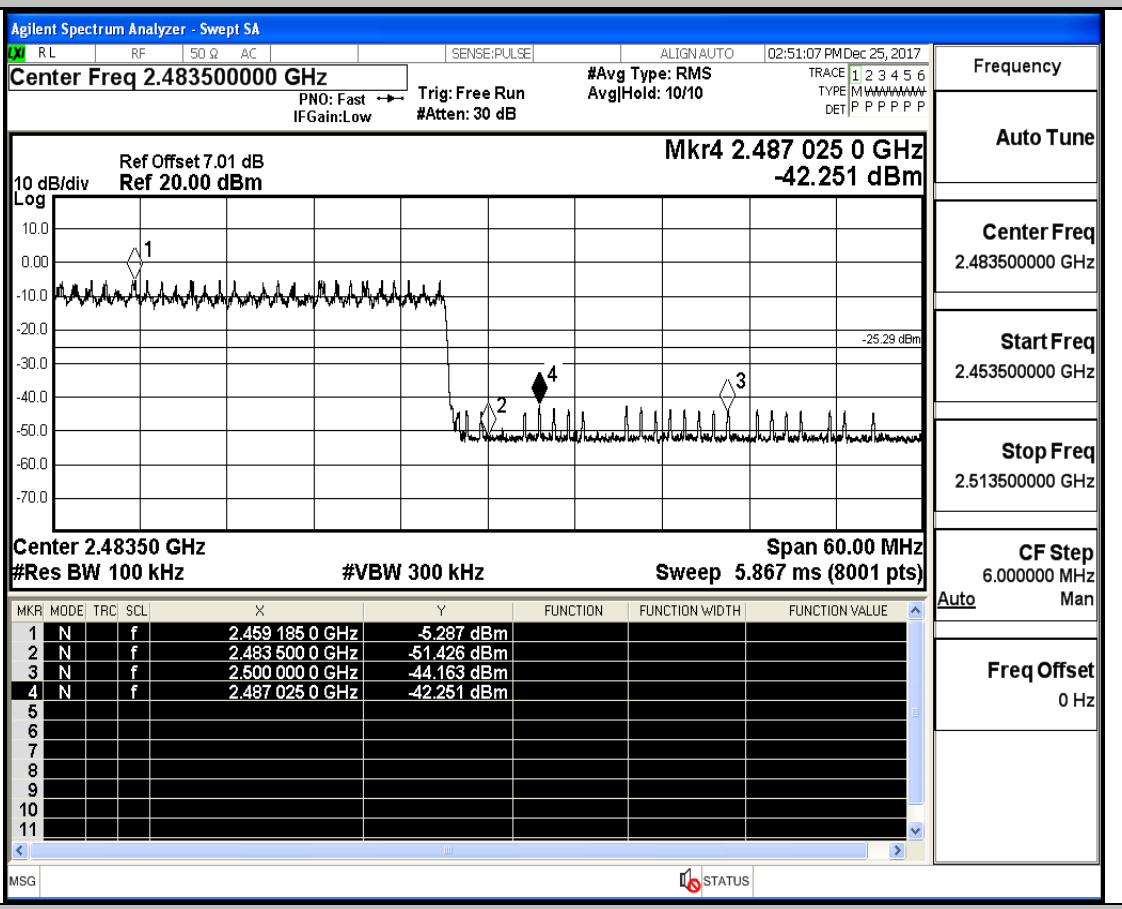
Band-edge for RF Conducted Emissions_π/4-DQPSK_2402_Hopping On



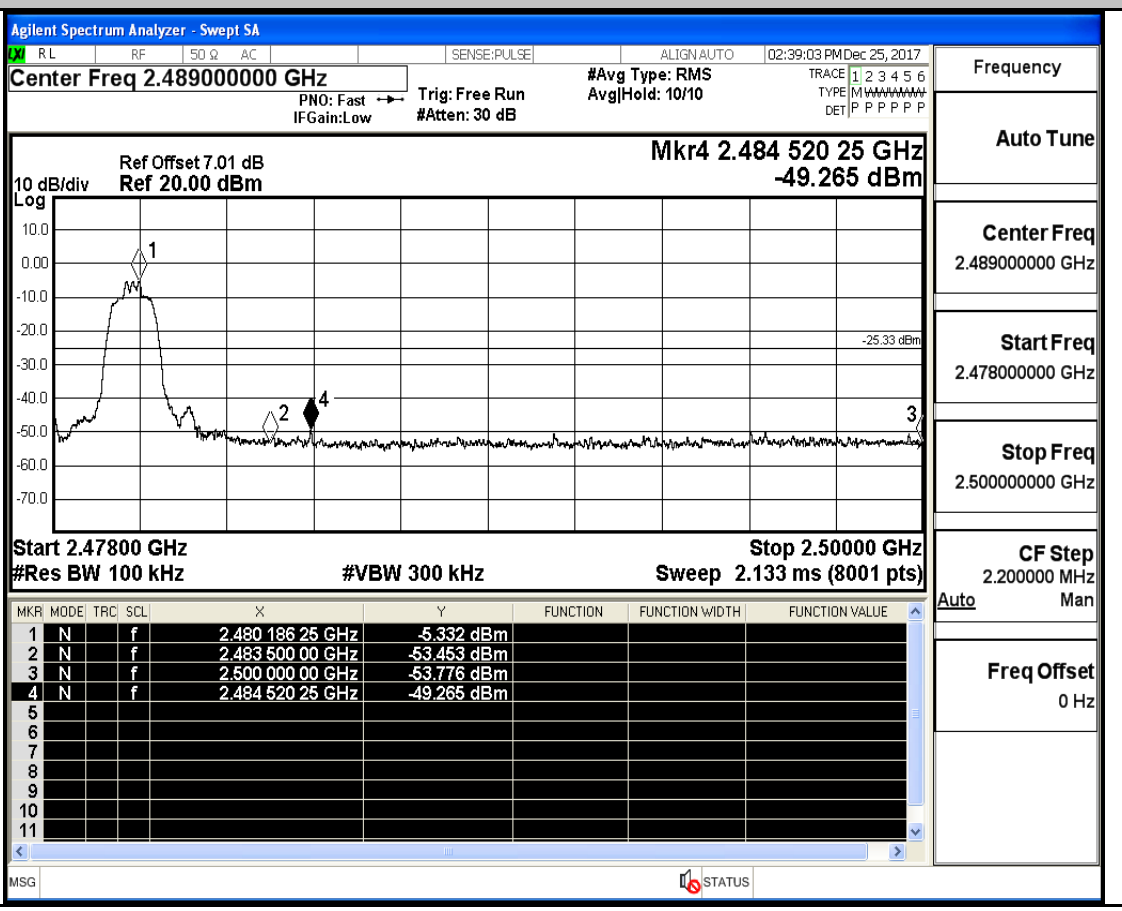
Band-edge for RF Conducted Emissions_π/4-DQPSK_2402_Hopping Off



Band-edge for RF Conducted Emissions_π/4-DQPSK_2480_Hopping On



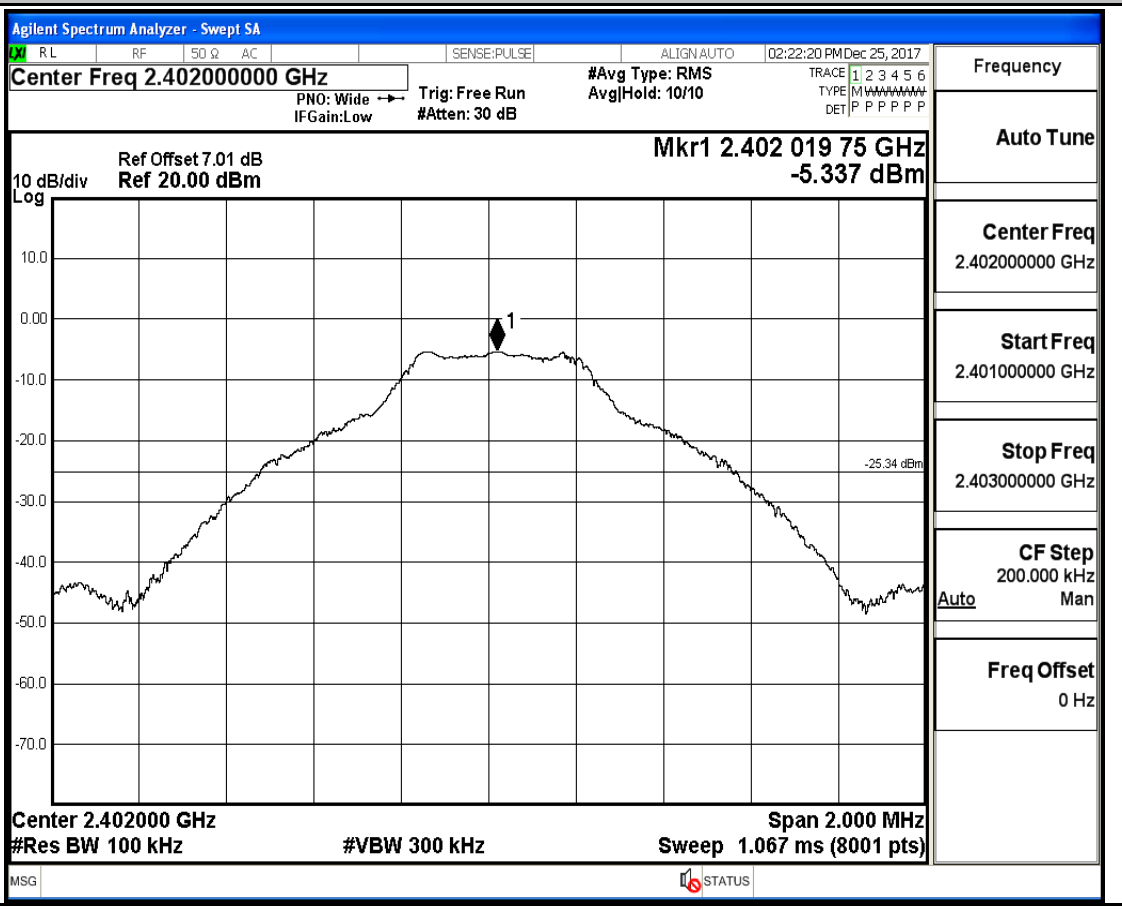
Band-edge for RF Conducted Emissions_π/4-DQPSK_2480_Hopping Off

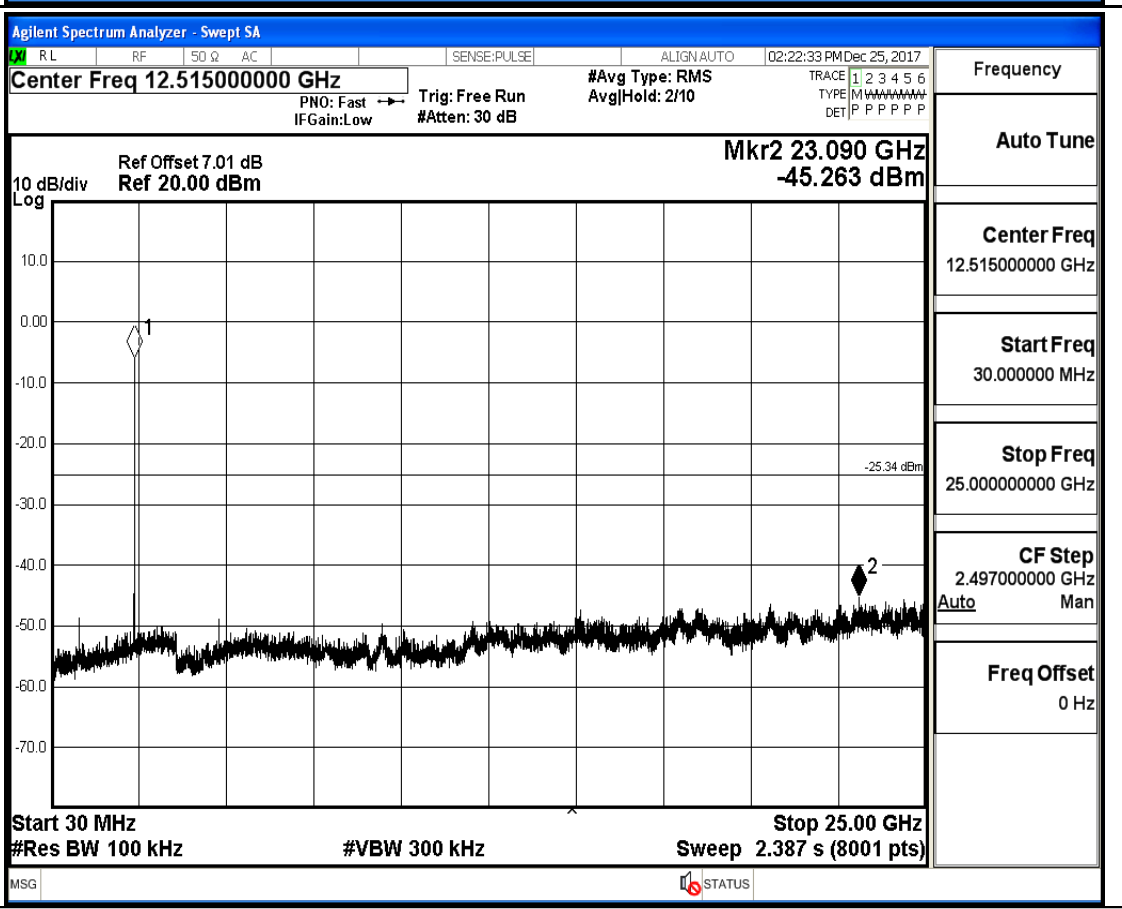


A.7 RF Conducted Spurious Emissions

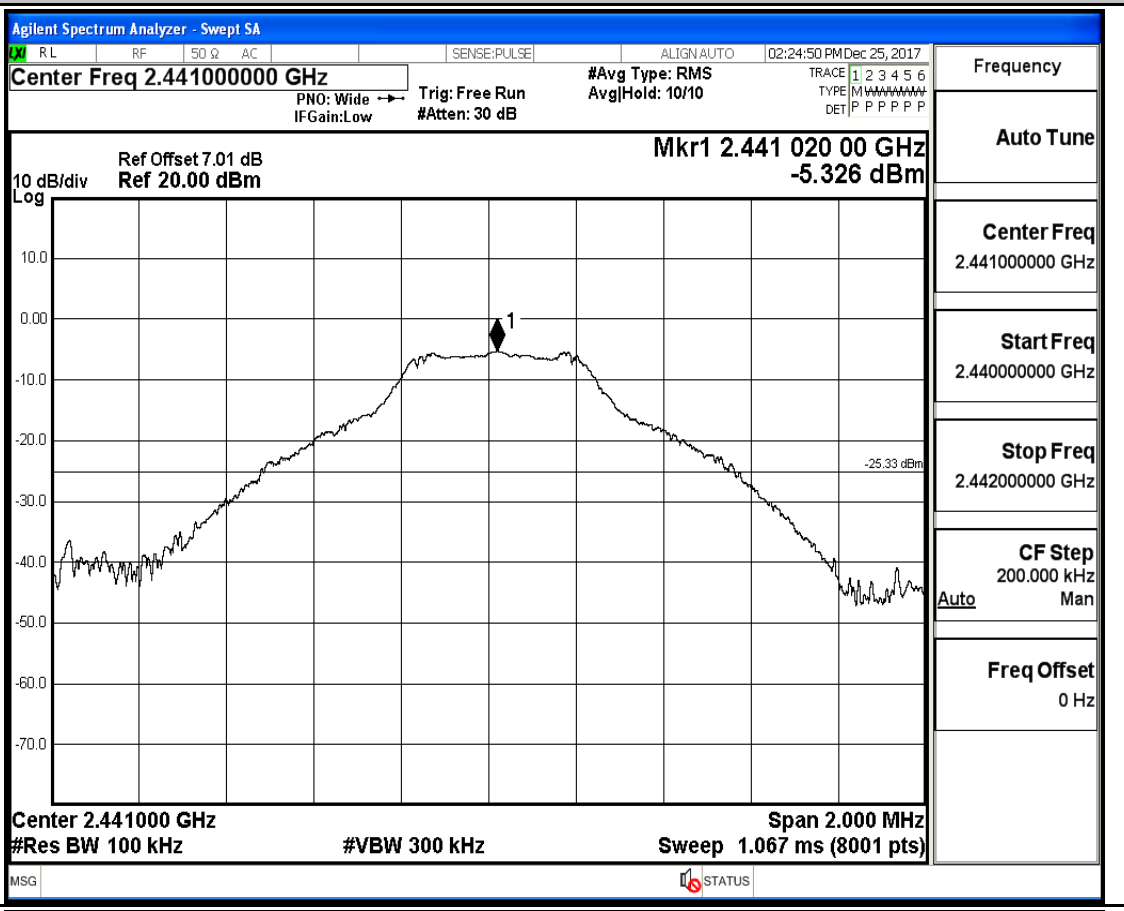
Test Mode	Test Channel	StartFre [MHz]	StopFre [MHz]	RBW [kHz]	VBW [kHz]	Pref[dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	2402	30	25000	100	300	-5.337	-45.263	<-25.337	PASS
	2441	30	25000	100	300	-5.326	-45.058	<-25.326	PASS
	2480	30	25000	100	300	-5.539	-45.947	<-25.539	PASS
π/4-DQPSK	2402	30	25000	100	300	-5.452	-45.759	<-25.452	PASS
	2441	30	25000	100	300	-5.24	-44.973	<-25.24	PASS
	2480	30	25000	100	300	-5.361	-45.845	<-25.361	PASS

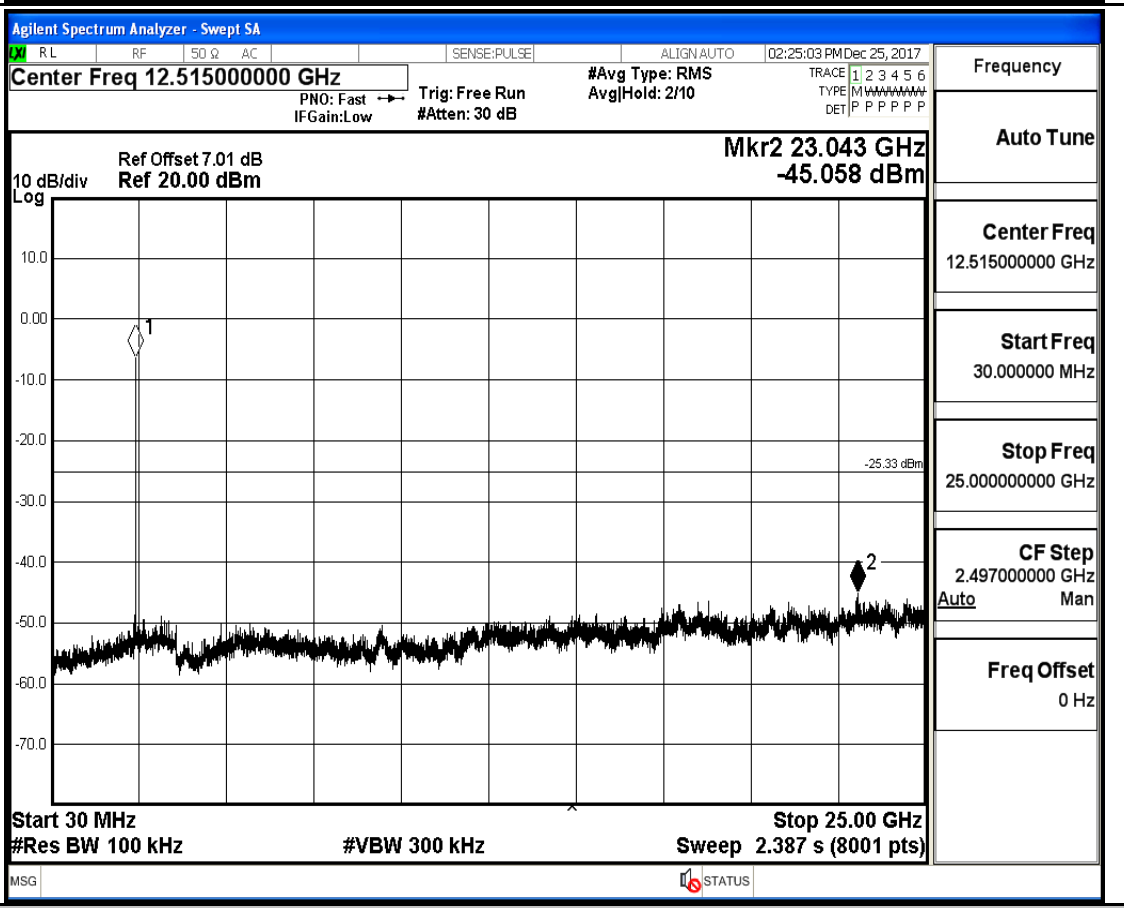
RF Conducted Spurious Emissions_GFSK_2402



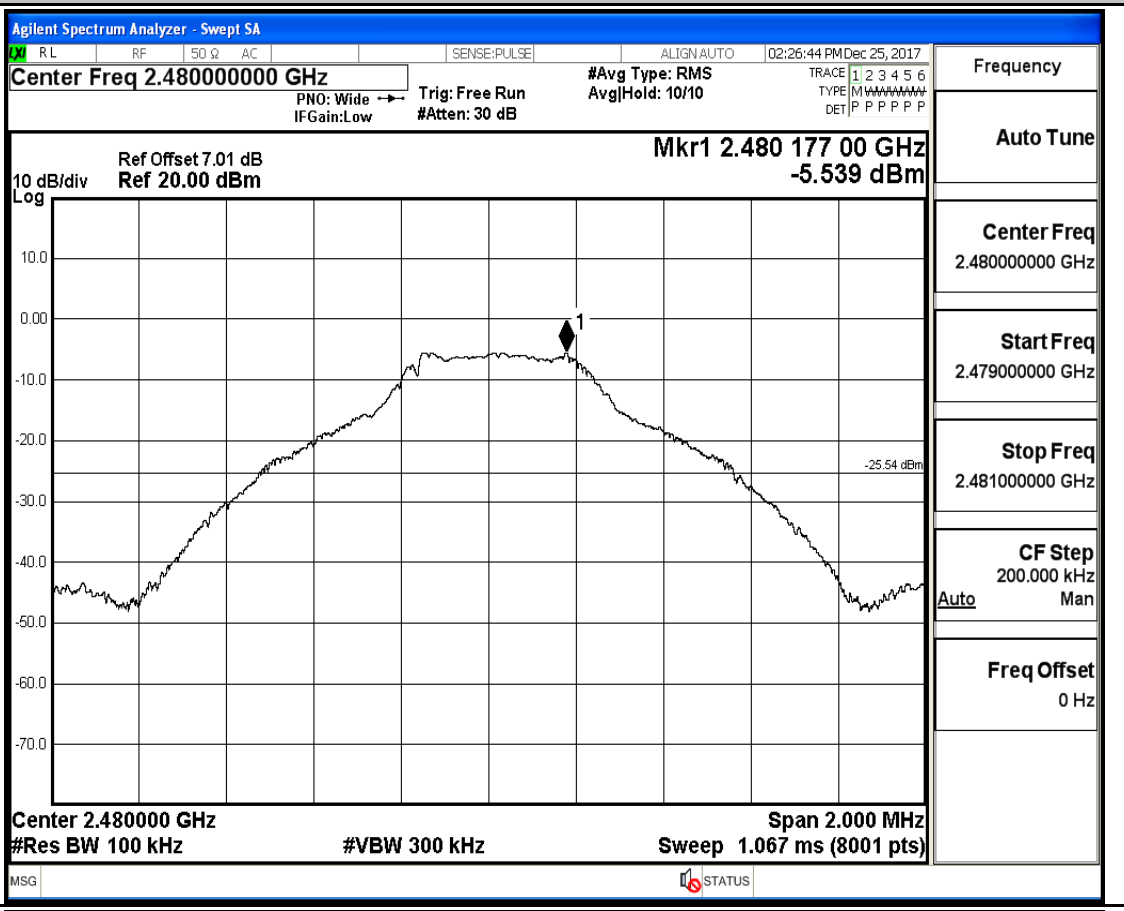


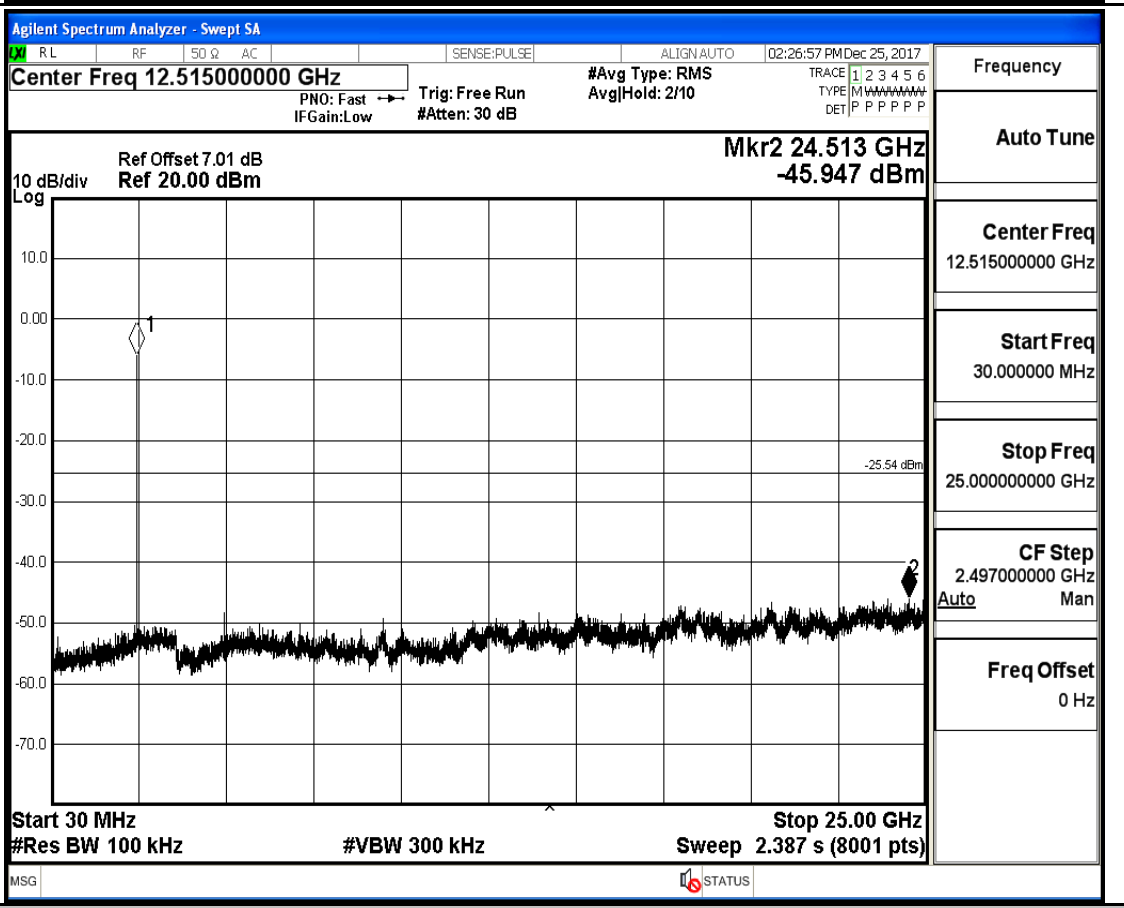
RF Conducted Spurious Emissions_GFSK_2441



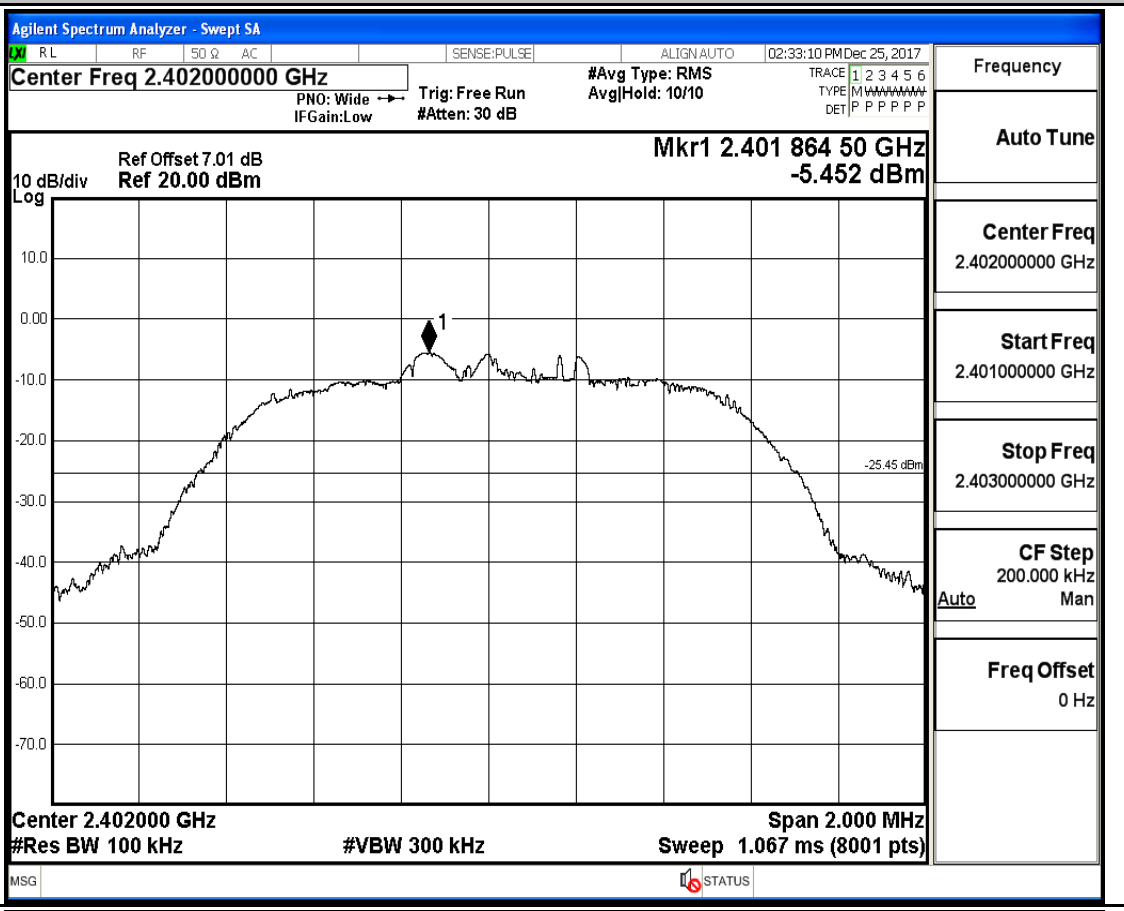


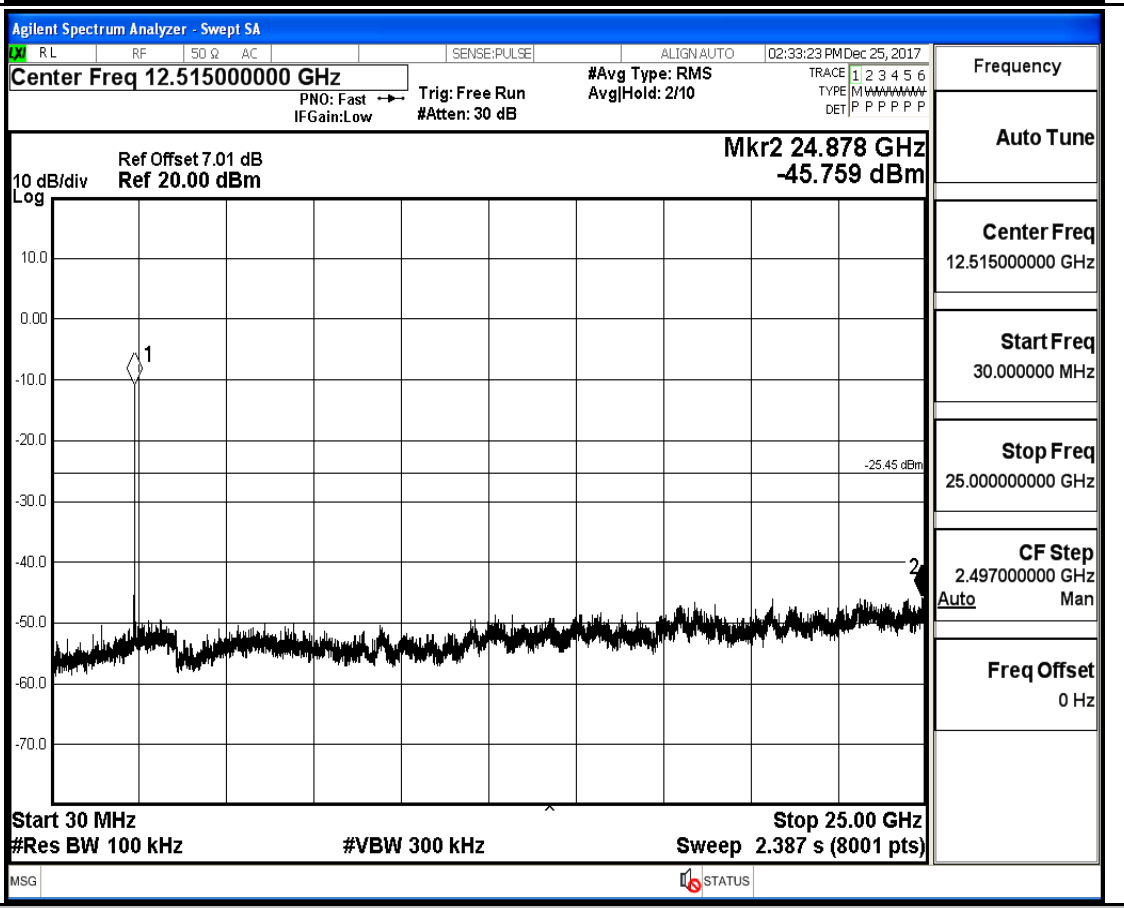
RF Conducted Spurious Emissions_GFSK_2480



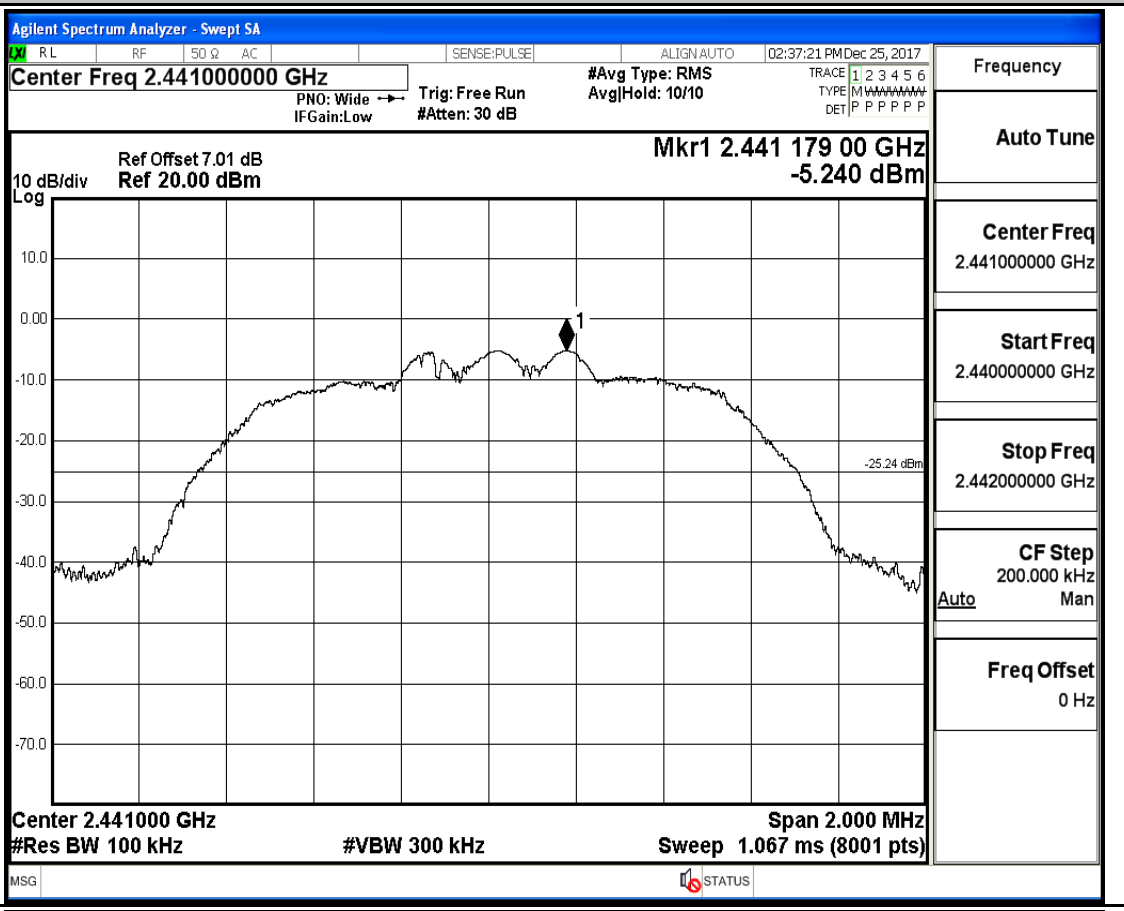


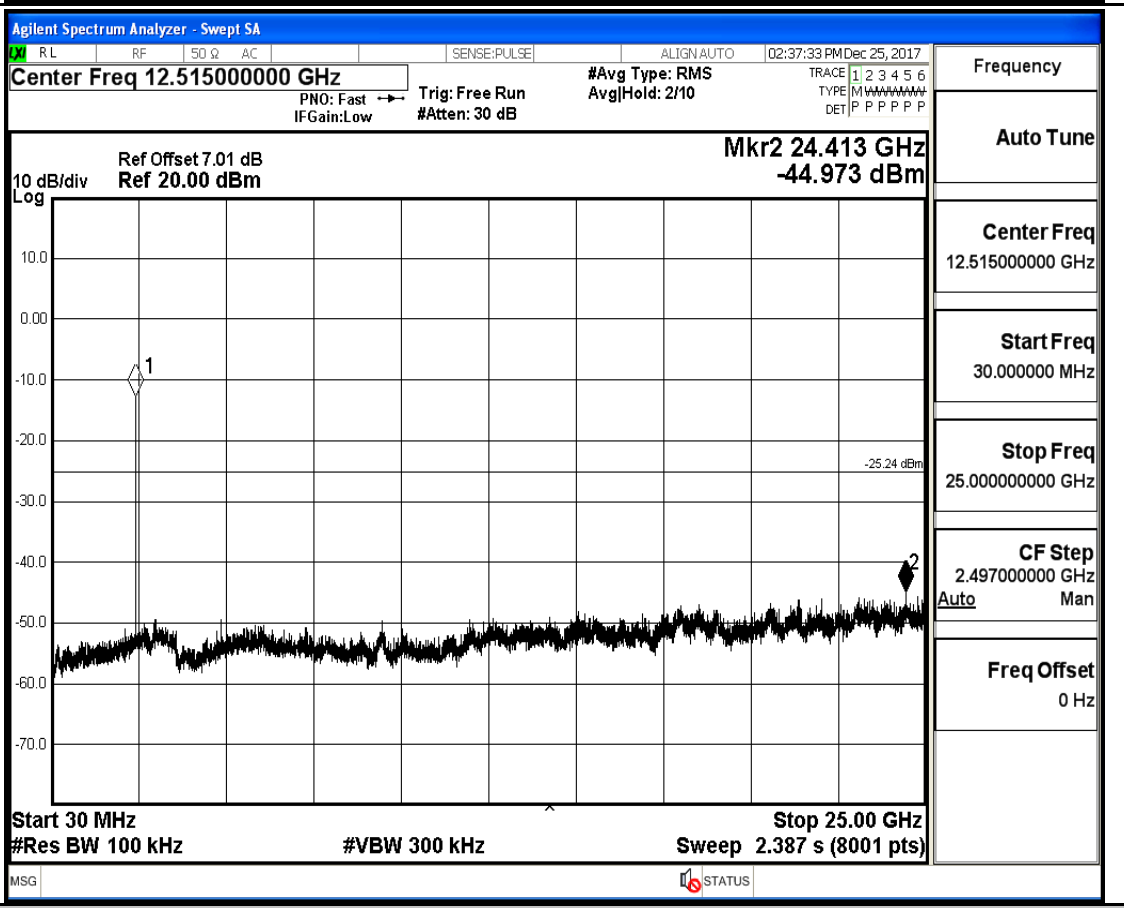
RF Conducted Spurious Emissions_π/4-DQPSK_2402



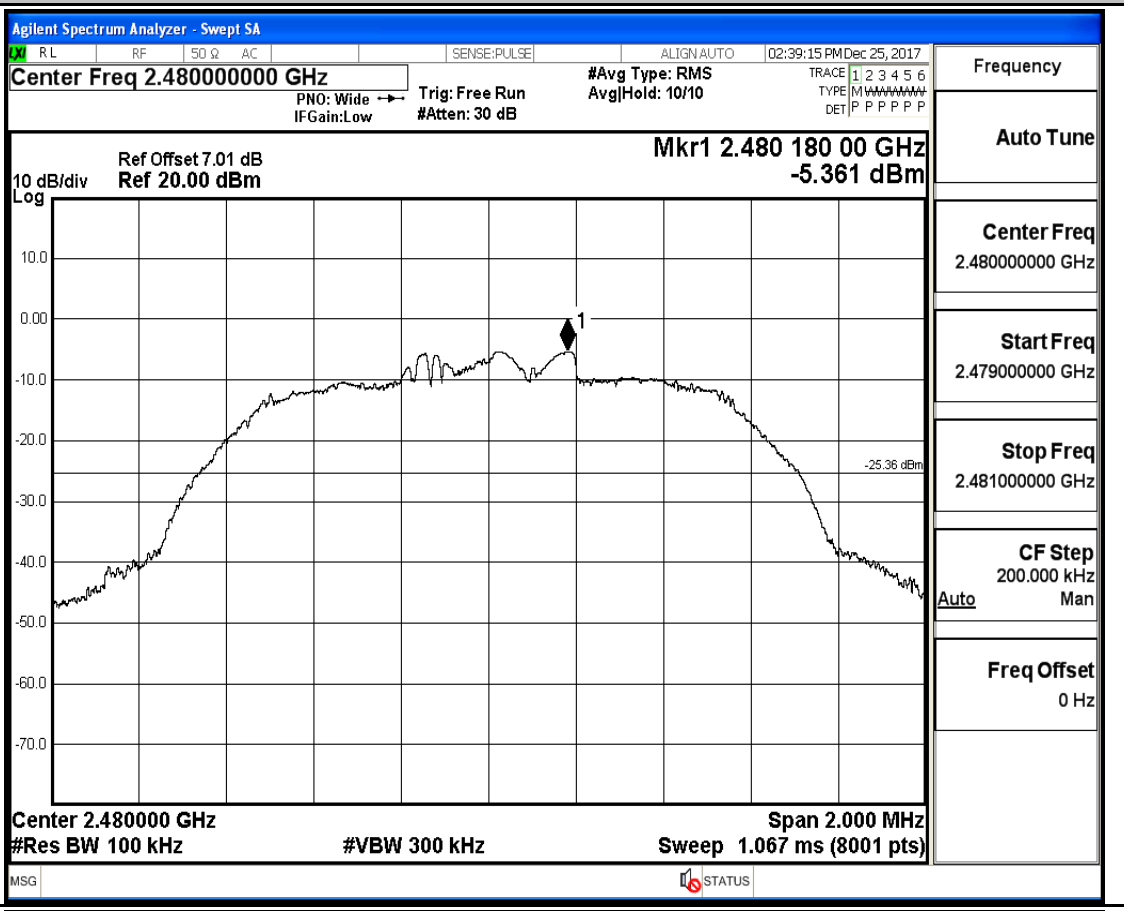


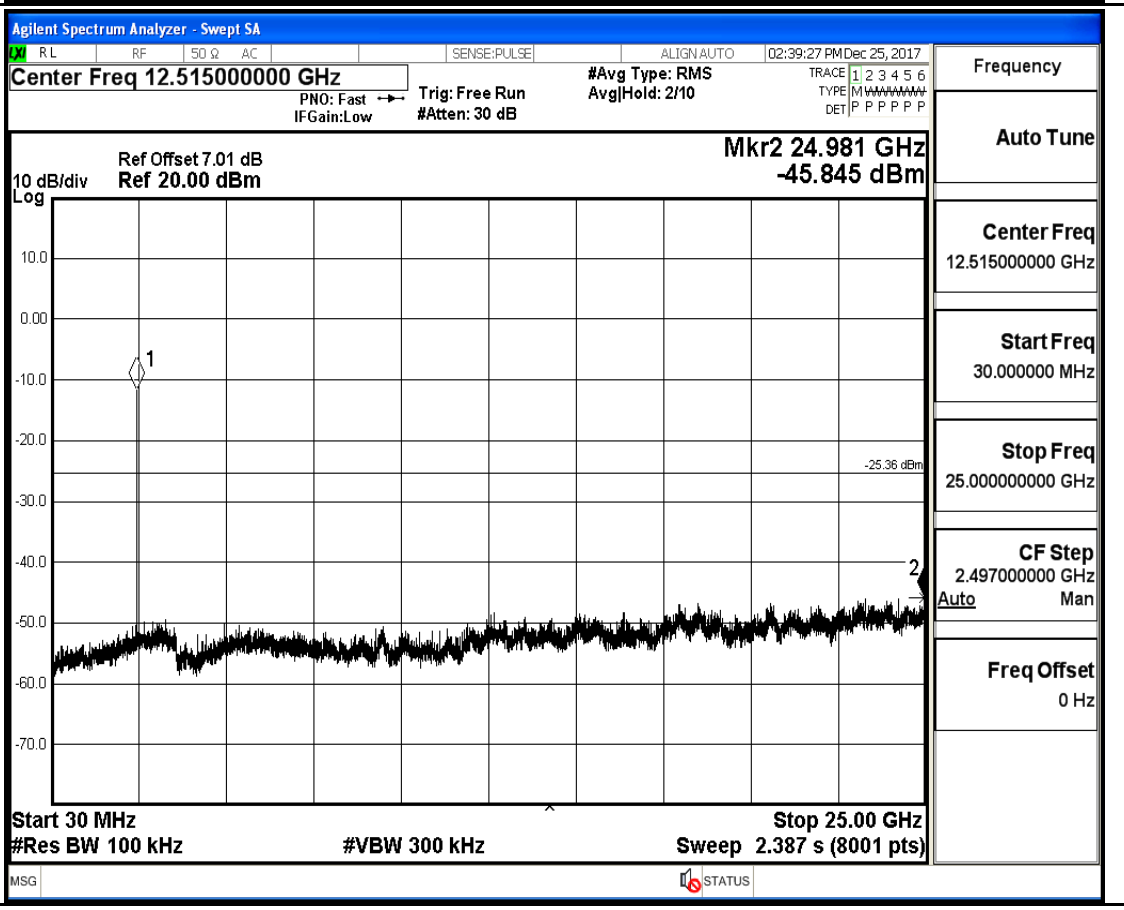
RF Conducted Spurious Emissions_π/4-DQPSK_2441





RF Conducted Spurious Emissions_π/4-DQPSK_2480

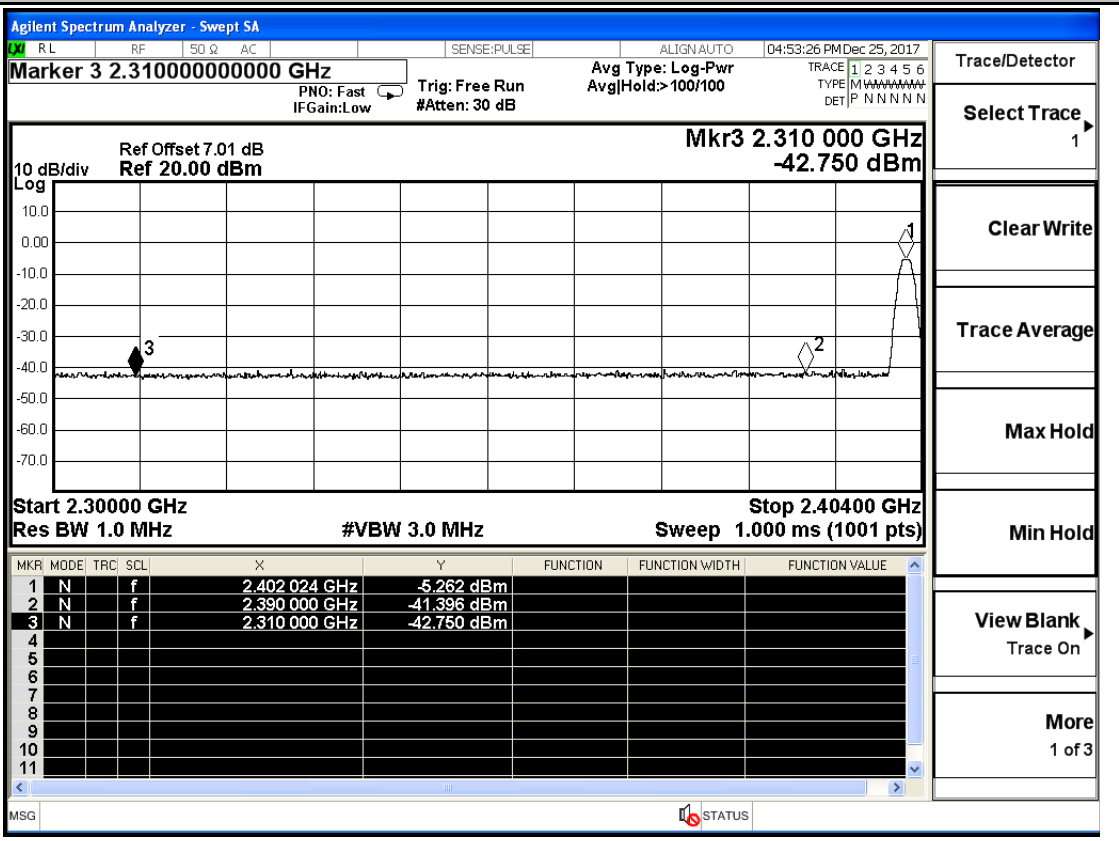




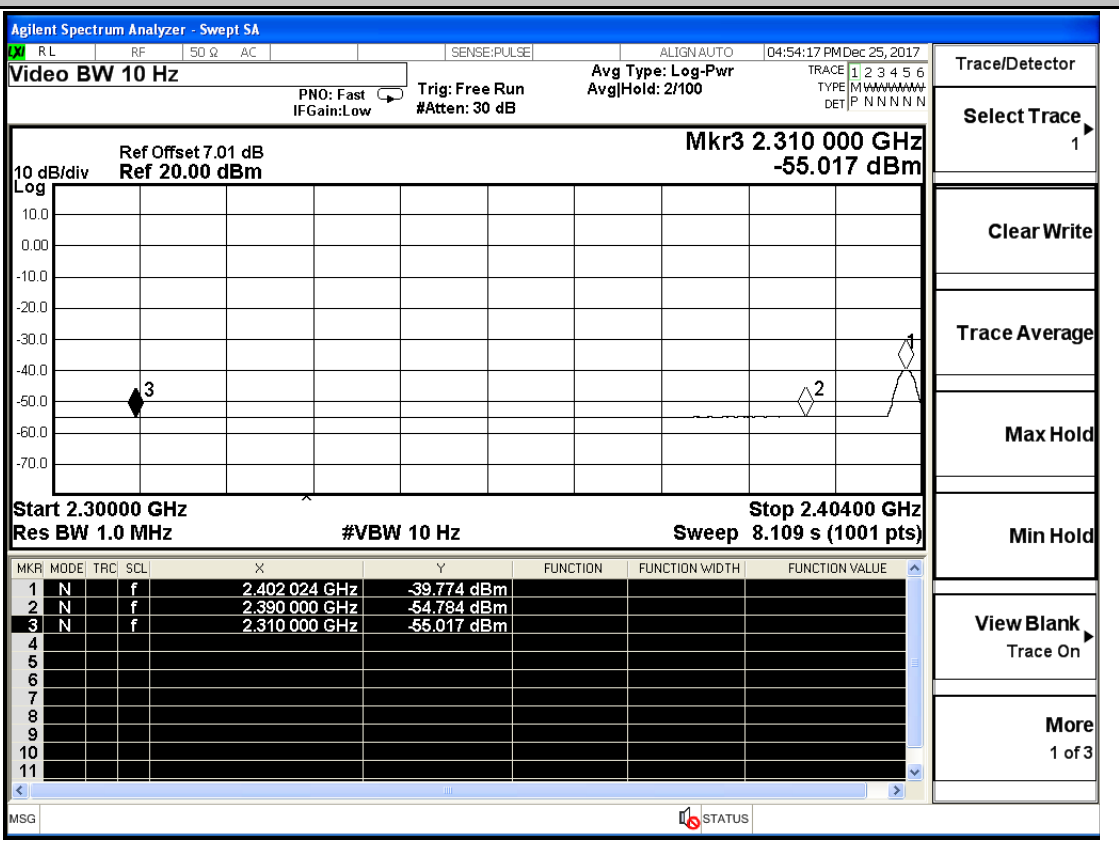
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-42.75	-0.68	0	54.51	PEAK	74	PASS
	Off	2310.0	-55.02	-0.68	0	42.24	AV	54	PASS
	Off	2390.0	-41.40	-0.68	0	55.86	PEAK	74	PASS
	Off	2390.0	-54.78	-0.68	0	42.48	AV	54	PASS
	Off	2483.5	-42.53	-0.68	0	54.73	PEAK	74	PASS
	Off	2483.5	-53.53	-0.68	0	43.73	AV	54	PASS
	Off	2500.0	-43.91	-0.68	0	53.35	PEAK	74	PASS
	Off	2500.0	-53.81	-0.68	0	43.44	AV	54	PASS
π/4-DQPSK	Off	2310.0	-44.44	-0.68	0	52.82	PEAK	74	PASS
	Off	2310.0	-55.24	-0.68	0	42.02	AV	54	PASS
	Off	2390.0	-43.14	-0.68	0	54.12	PEAK	74	PASS
	Off	2390.0	-54.79	-0.68	0	42.47	AV	54	PASS
	Off	2483.5	-43.46	-0.68	0	53.79	PEAK	74	PASS
	Off	2483.5	-53.90	-0.68	0	43.35	AV	54	PASS
	Off	2500.0	-43.01	-0.68	0	54.25	PEAK	74	PASS
	Off	2500.0	-53.79	-0.68	0	43.46	AV	54	PASS

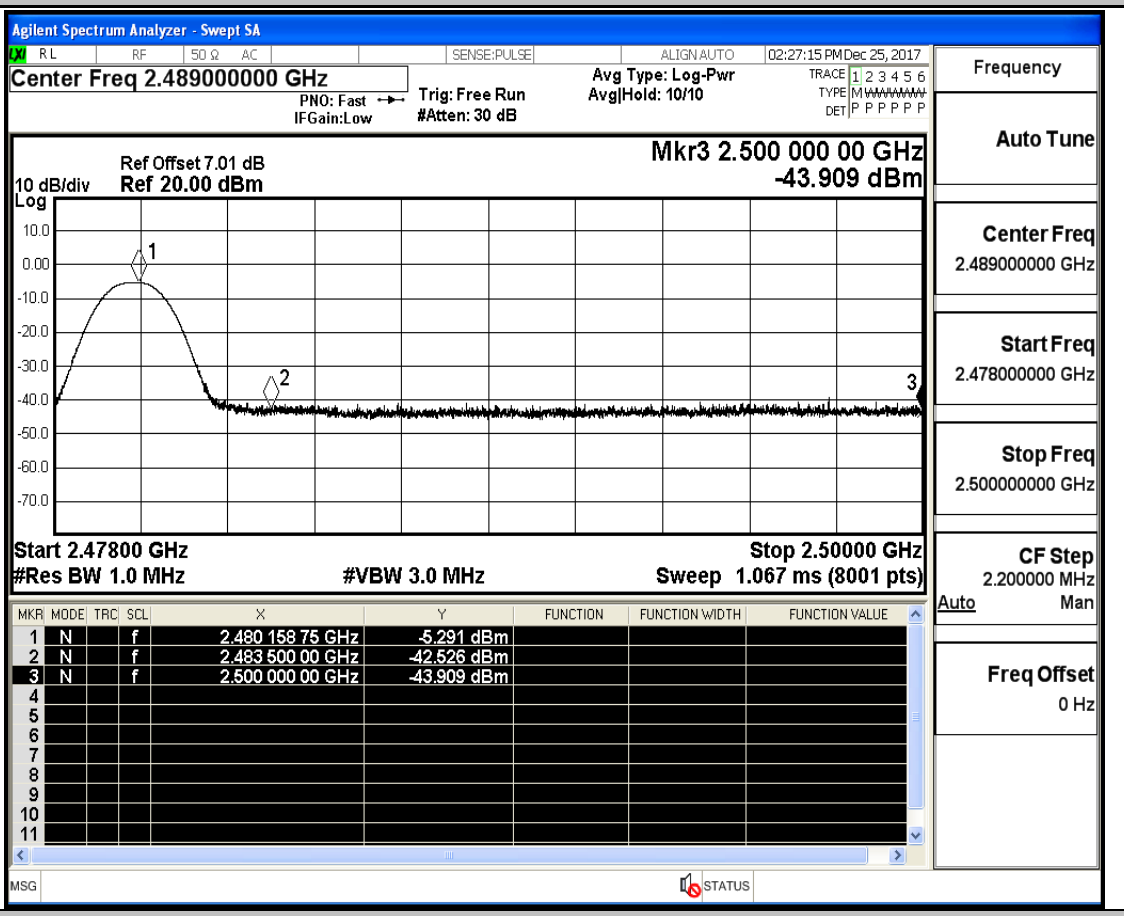
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK



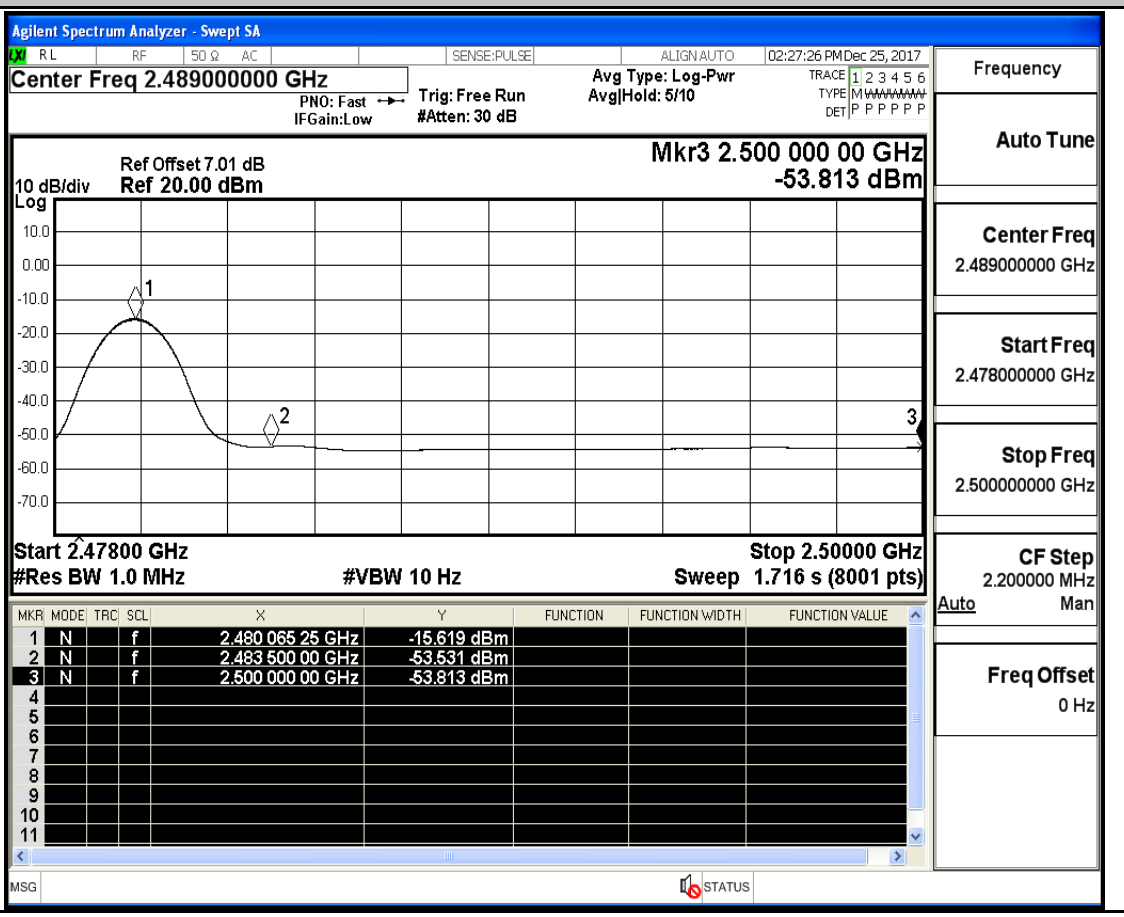
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average



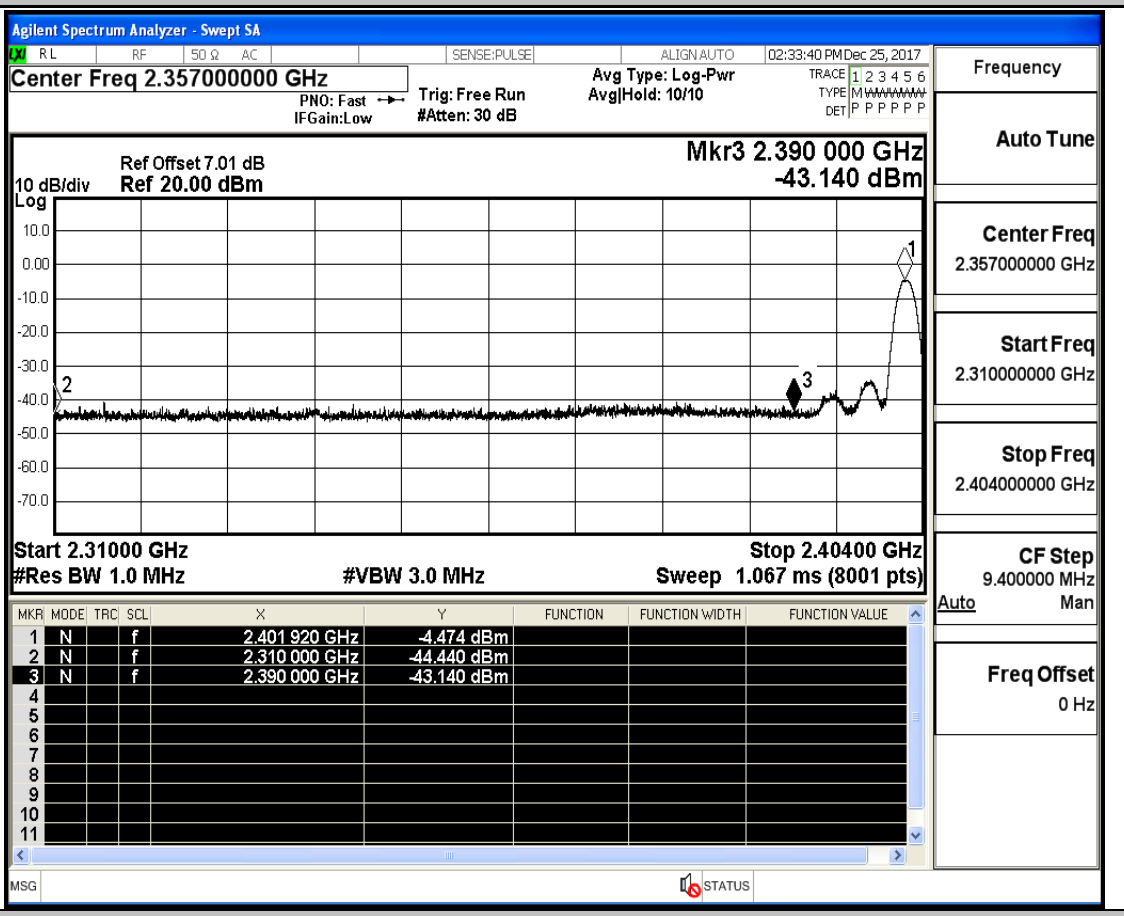
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK



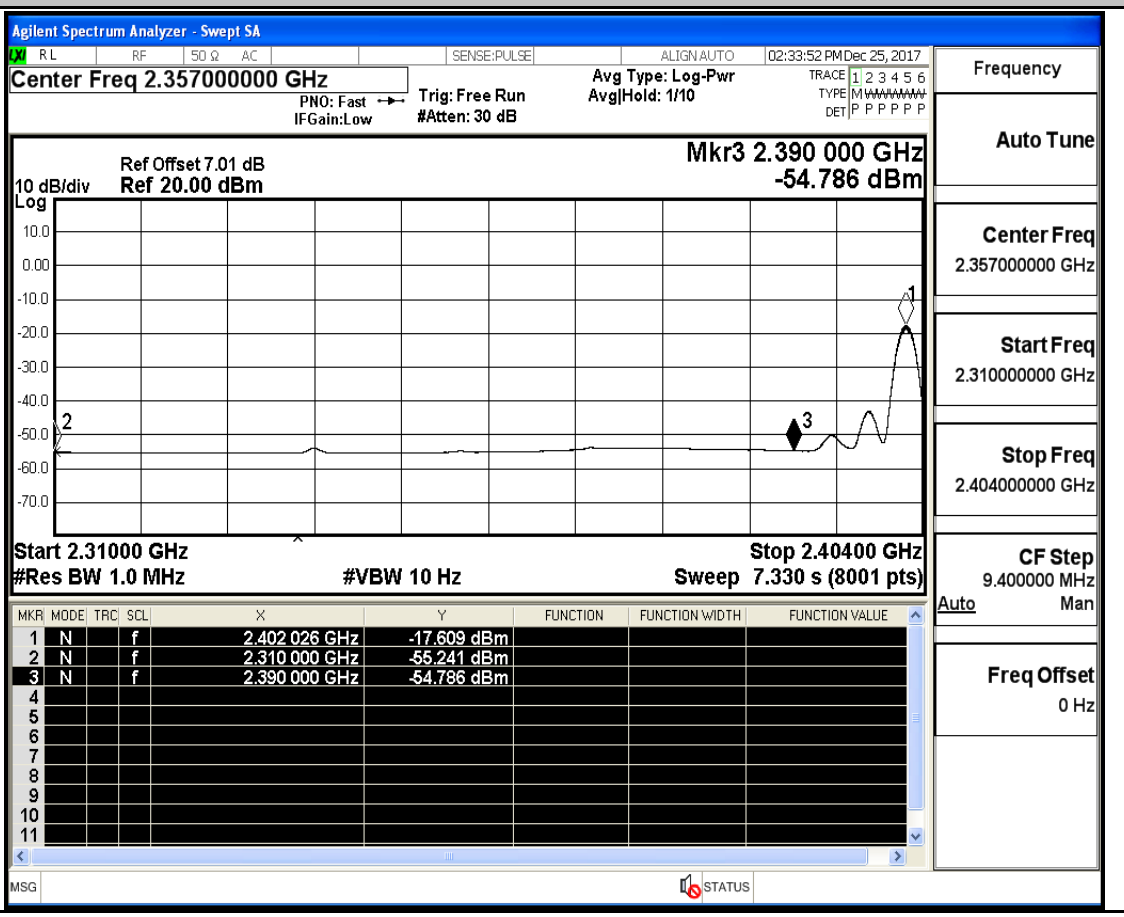
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average



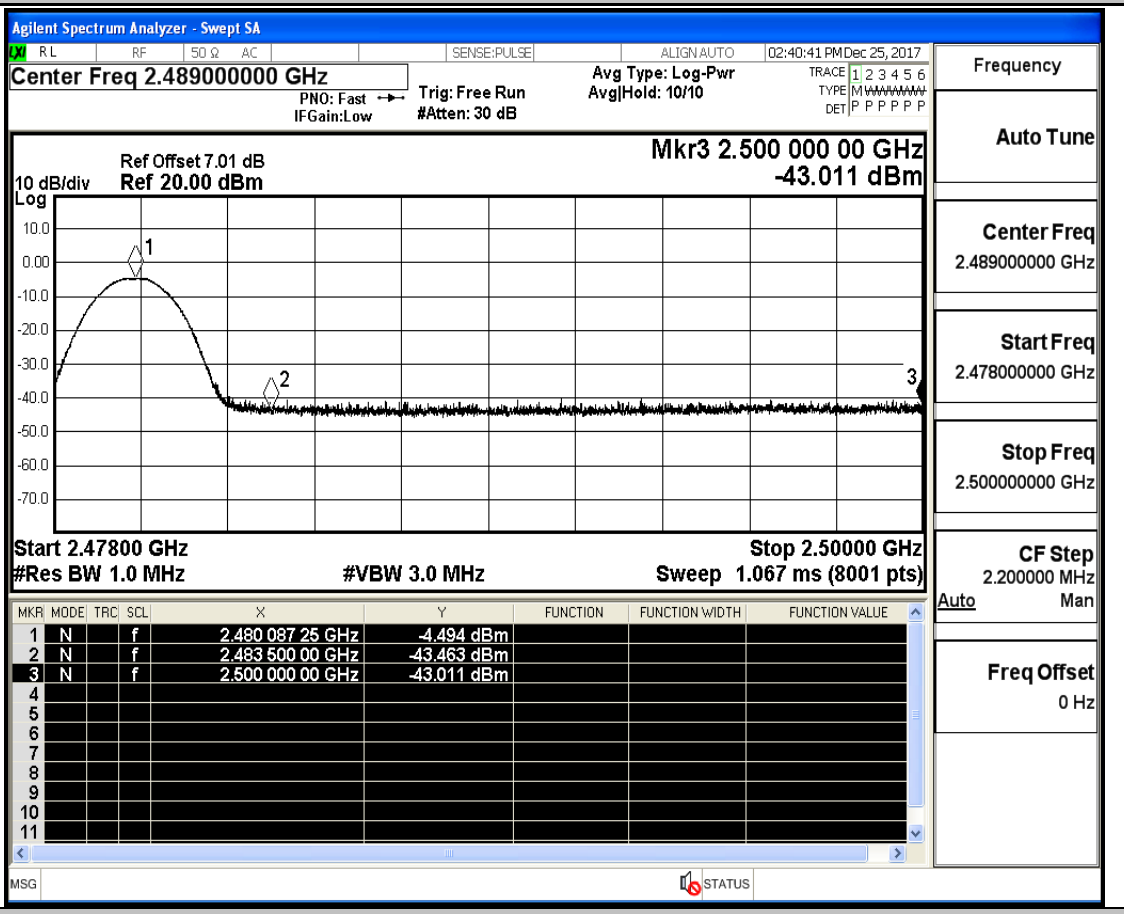
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK



Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average



Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK



Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average