

## Appendix A

### RF Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: ANC Bluetooth headphone

Trade Mark: N/A

Test Model: NC-1031

FCC ID: 2AAHX-NC-1031

### Environmental Conditions

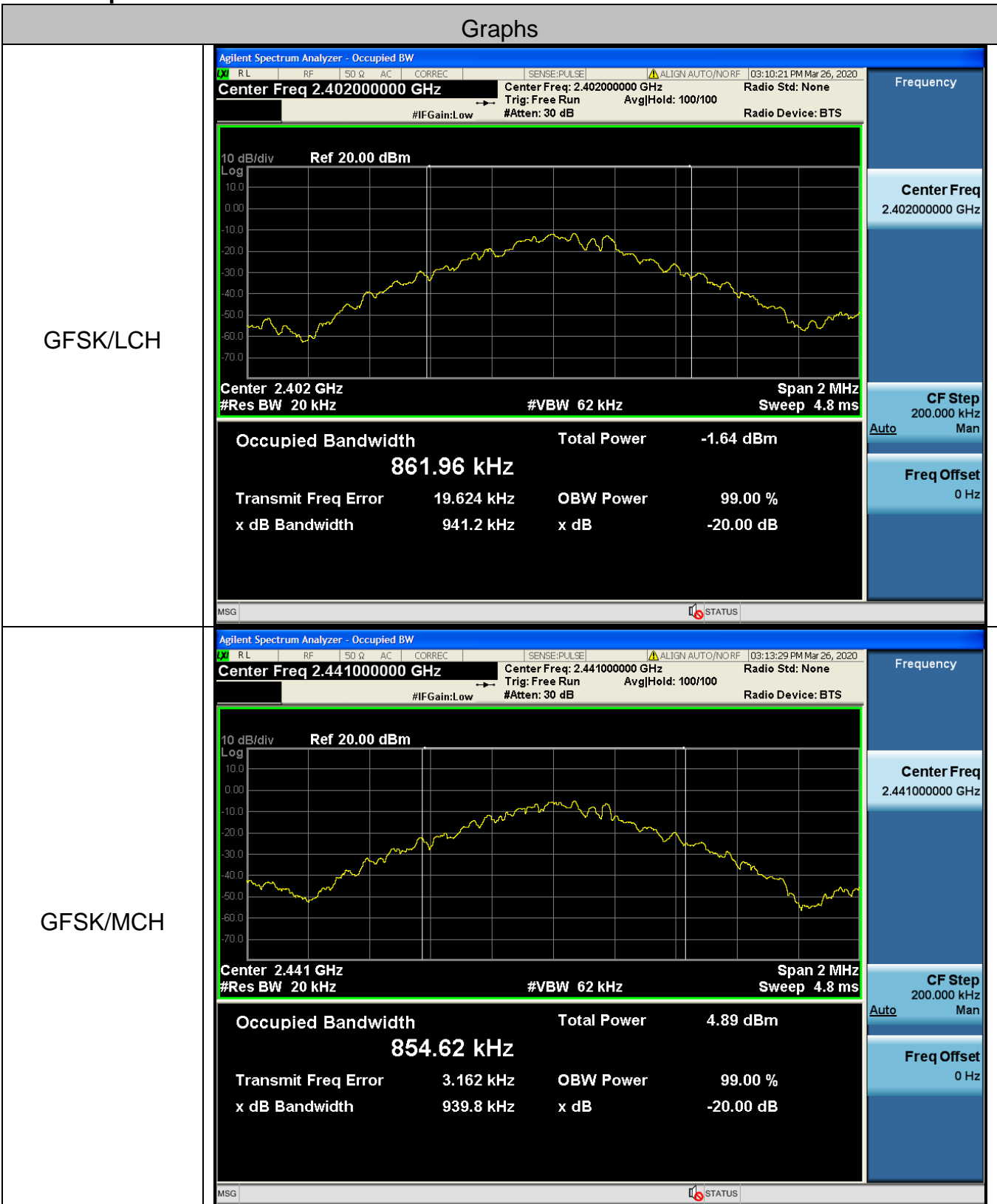
Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Nancy Li
Supervised by:	Hugo Chen

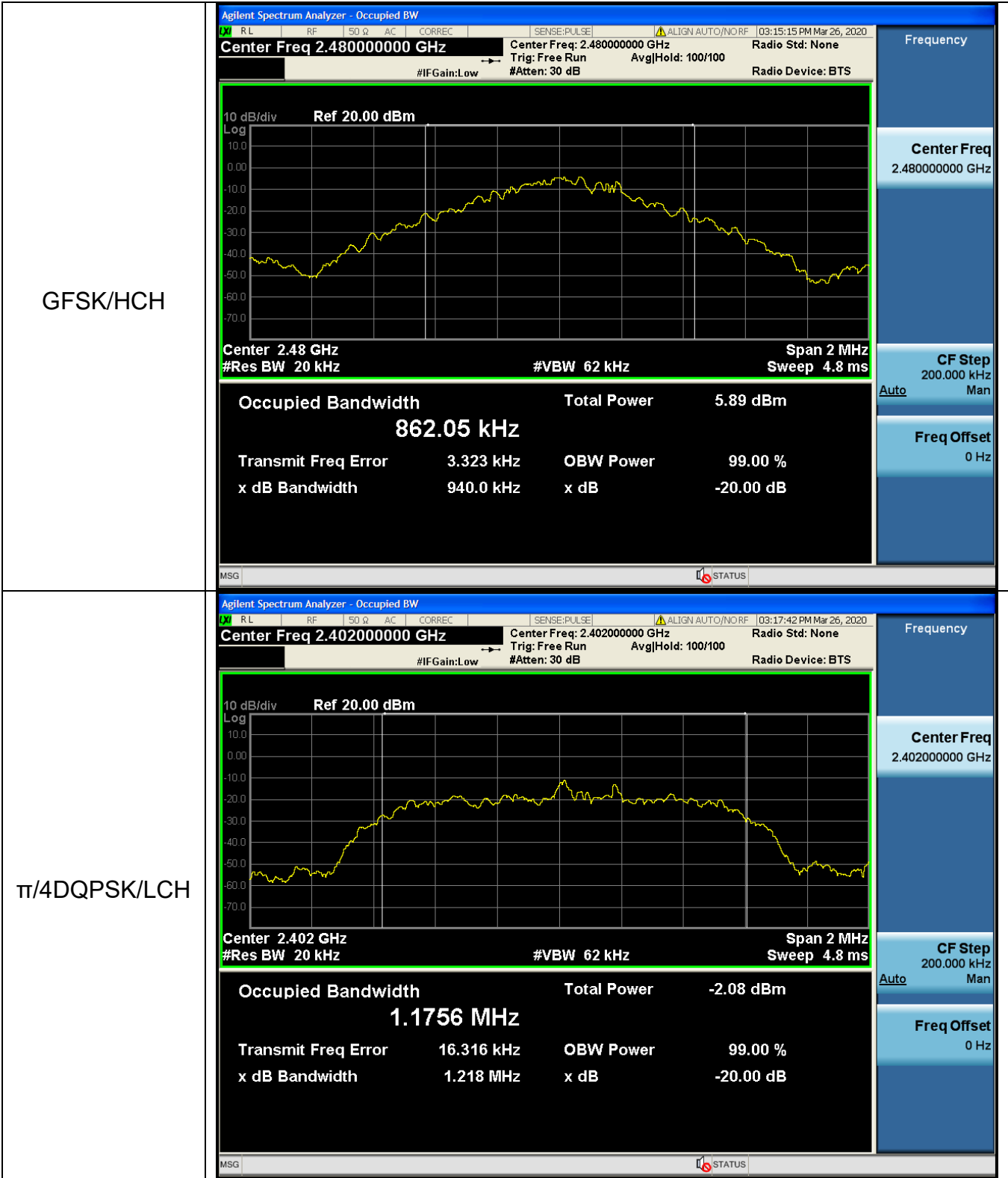
#### A.1 20 dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit(MHz)	Verdict
GFSK	LCH	0.941	Not Specified	PASS
GFSK	MCH	0.940	Not Specified	PASS
GFSK	HCH	0.940	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.218	Not Specified	PASS
$\pi/4$ DQPSK	MCH	1.231	Not Specified	PASS
$\pi/4$ DQPSK	HCH	1.236	Not Specified	PASS
8DPSK	LCH	1.260	Not Specified	PASS
8DPSK	MCH	1.253	Not Specified	PASS
8DPSK	HCH	1.253	Not Specified	PASS

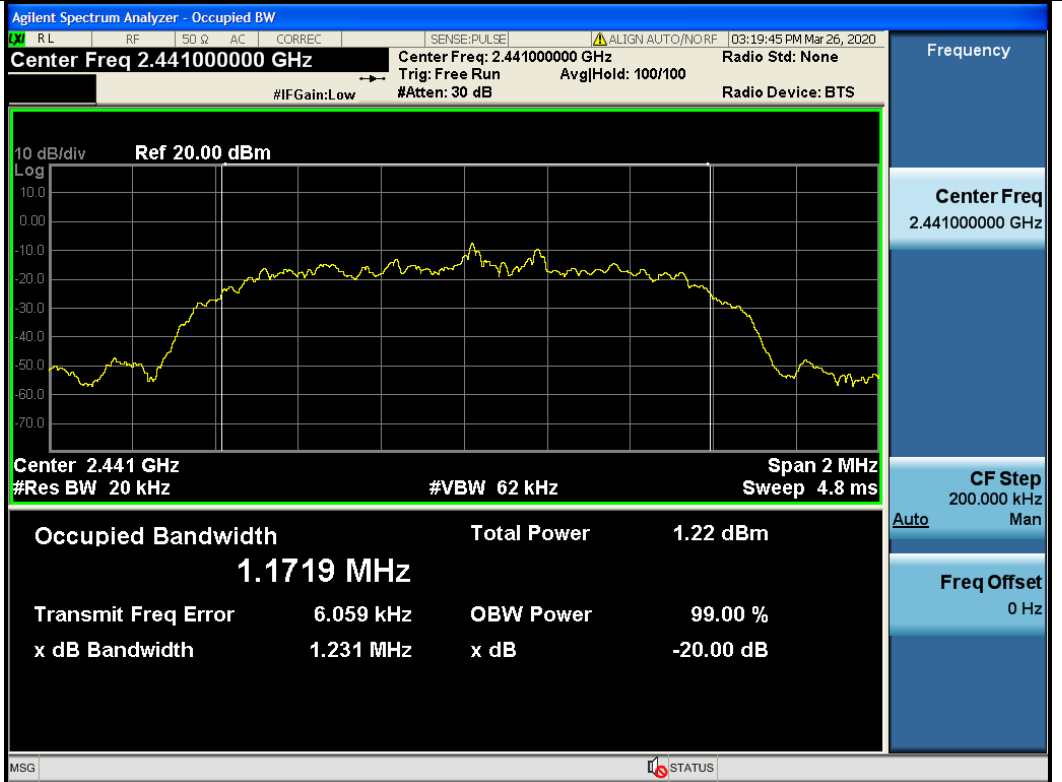
Test Graph

Graphs

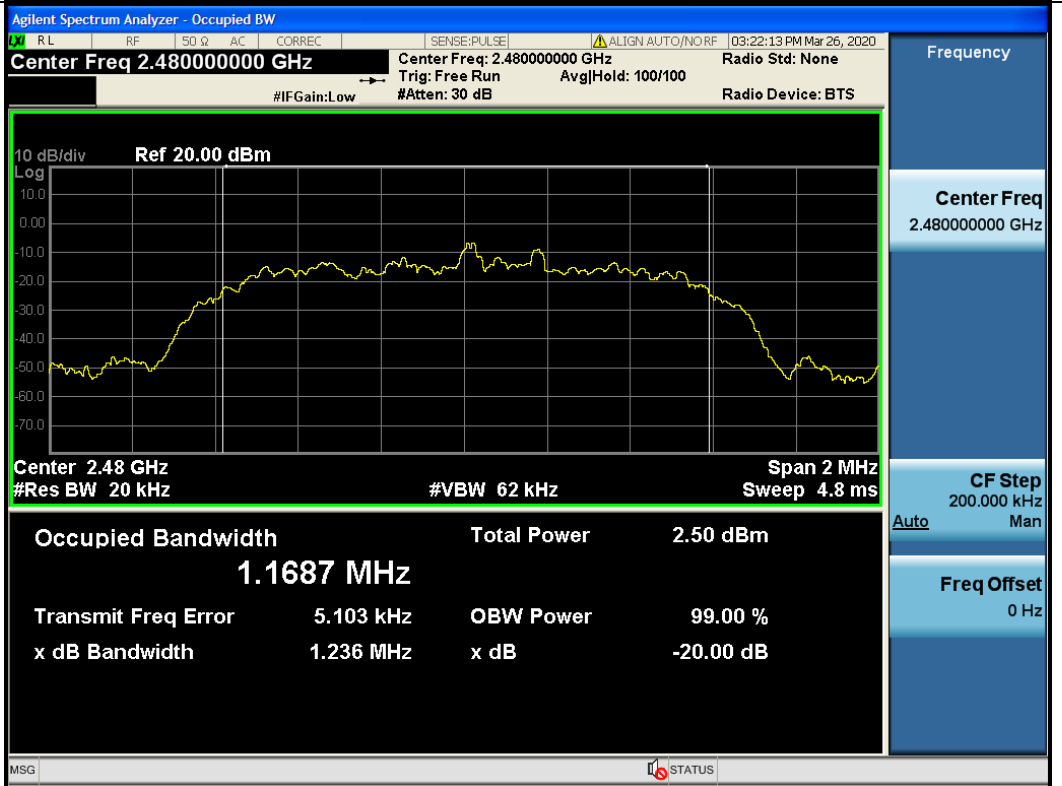


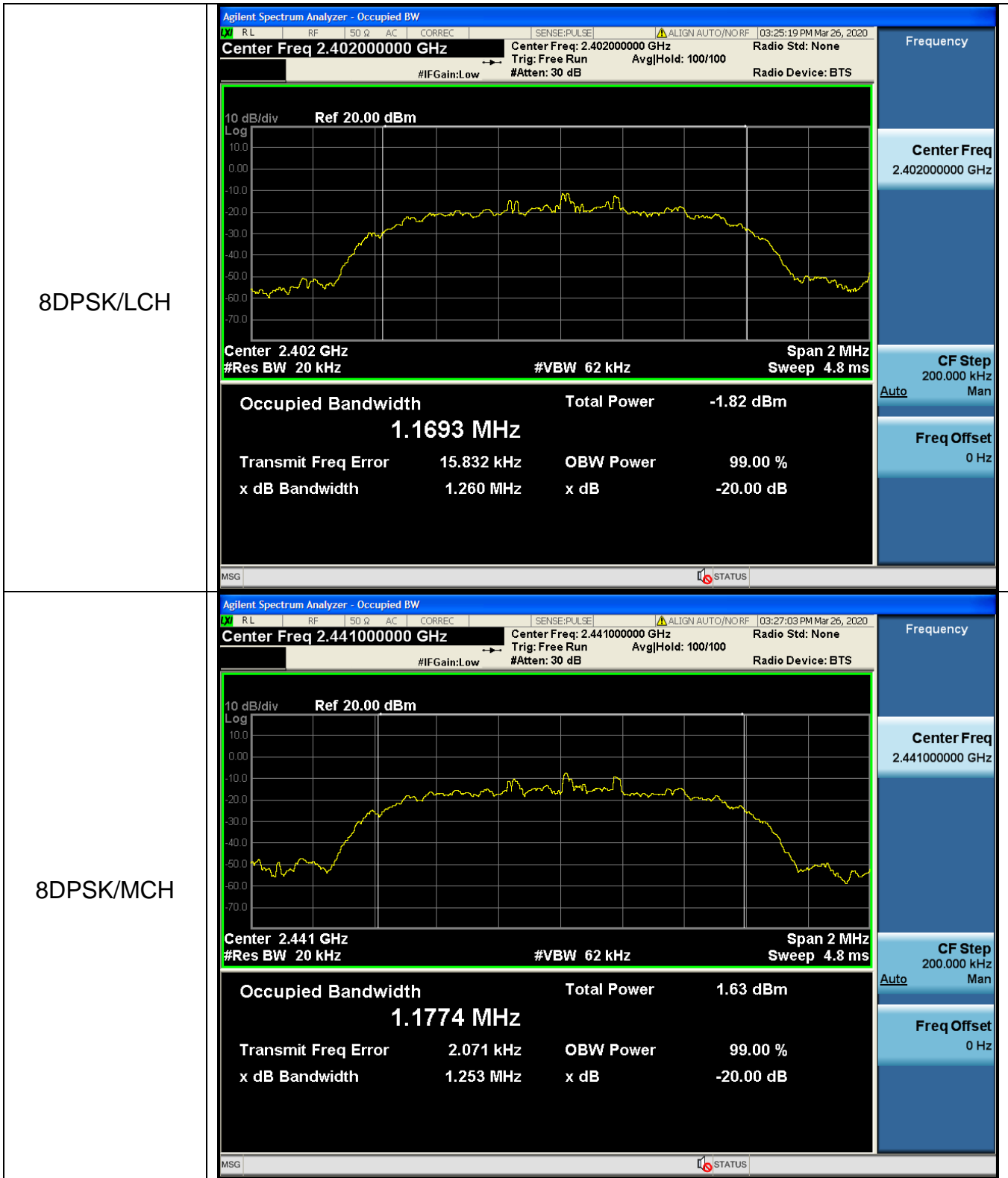


$\pi/4$ DQPSK/MCH

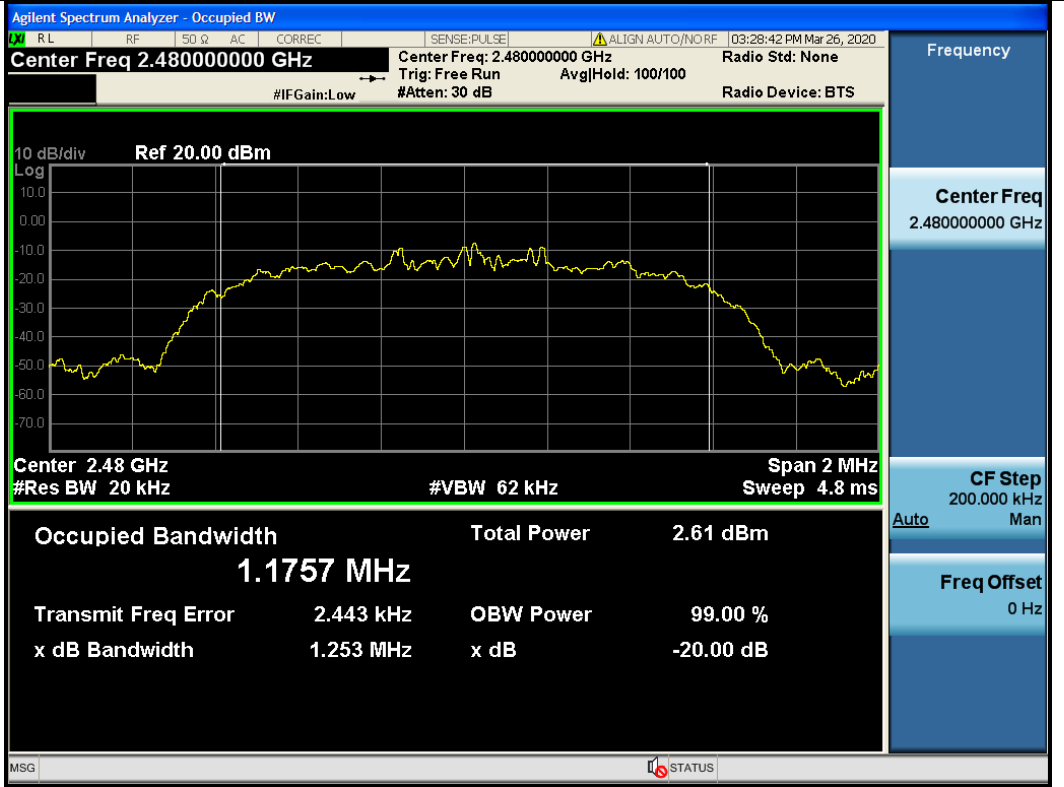


$\pi/4$ DQPSK/HCH





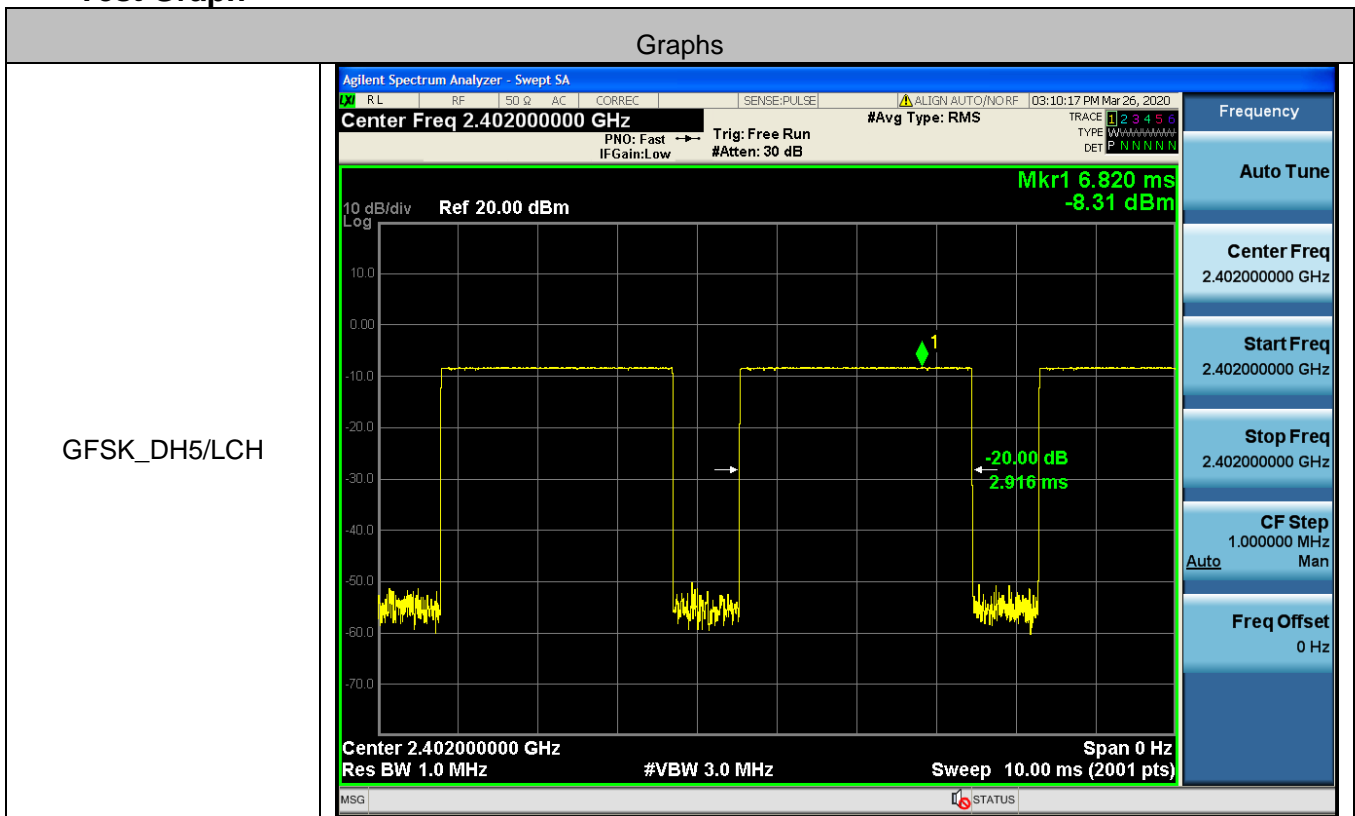
8DPSK/HCH

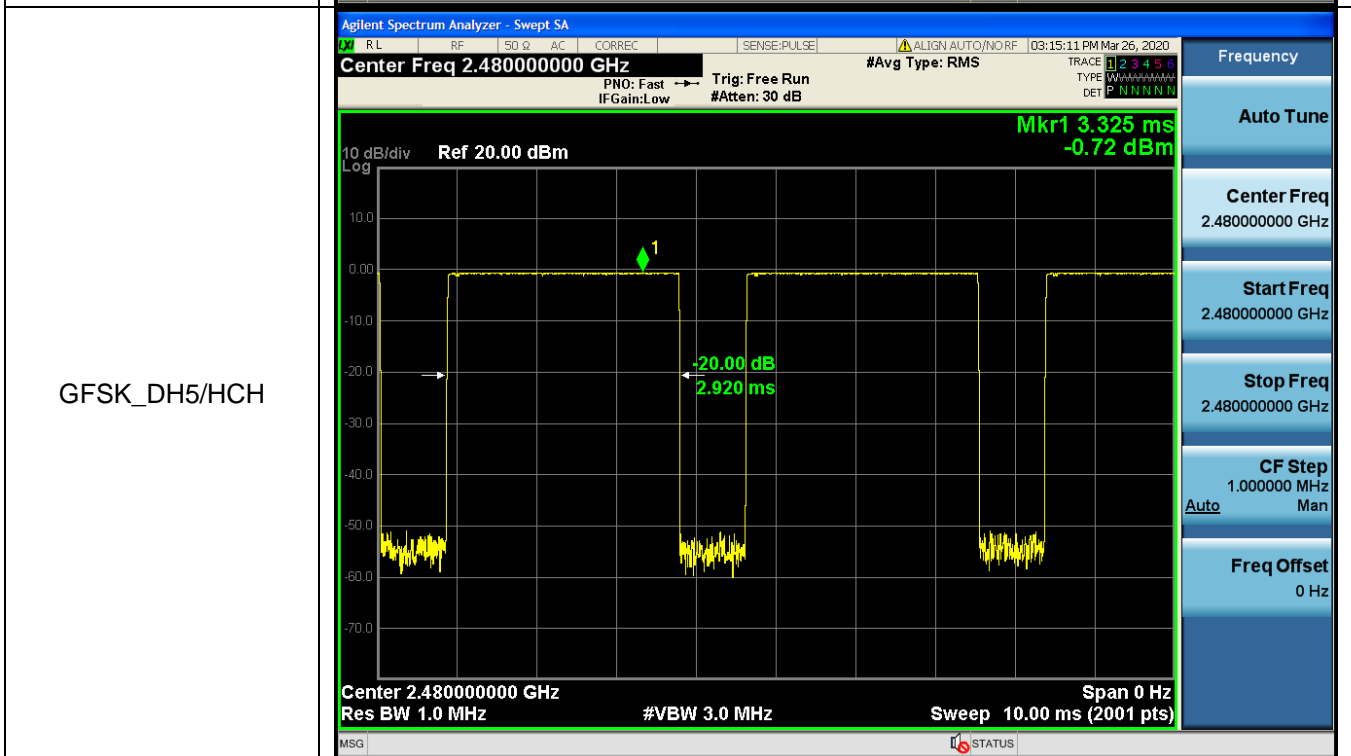
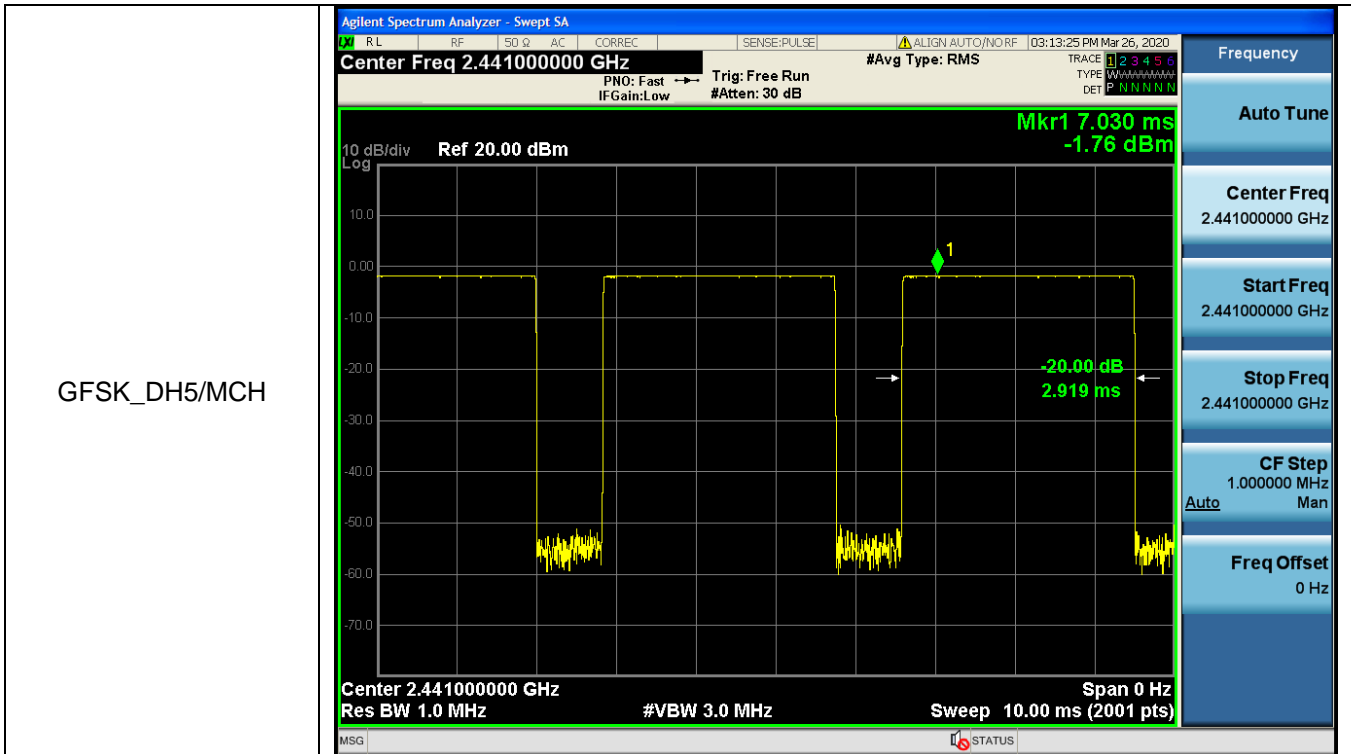


### A.2 Dwell Time

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.916	106.7	0.311	0.4	PASS
GFSK	DH5	MCH	2.919	106.7	0.311	0.4	PASS
GFSK	DH5	HCH	2.920	106.7	0.312	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.927	106.7	0.312	0.4	PASS
$\pi/4$ DQPSK	2DH5	MCH	2.927	106.7	0.312	0.4	PASS
$\pi/4$ DQPSK	2DH5	HCH	2.927	106.7	0.312	0.4	PASS
8DPSK	3DH5	LCH	2.927	106.7	0.312	0.4	PASS
8DPSK	3DH5	MCH	2.927	106.7	0.312	0.4	PASS
8DPSK	3DH5	HCH	2.928	106.7	0.312	0.4	PASS

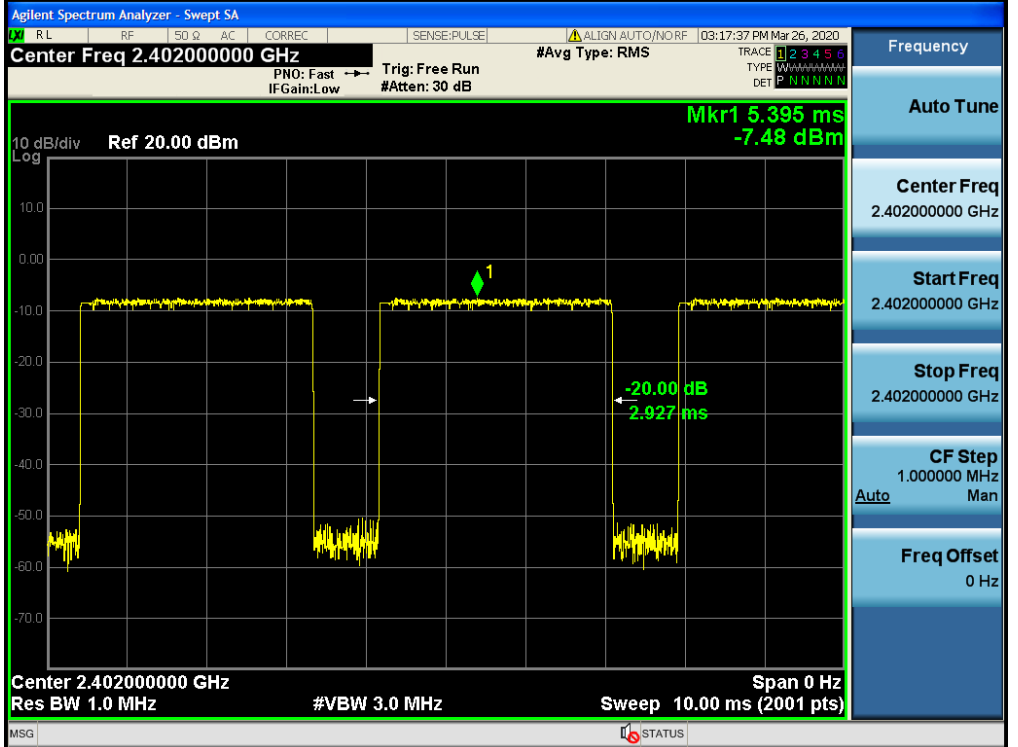
### Test Graph



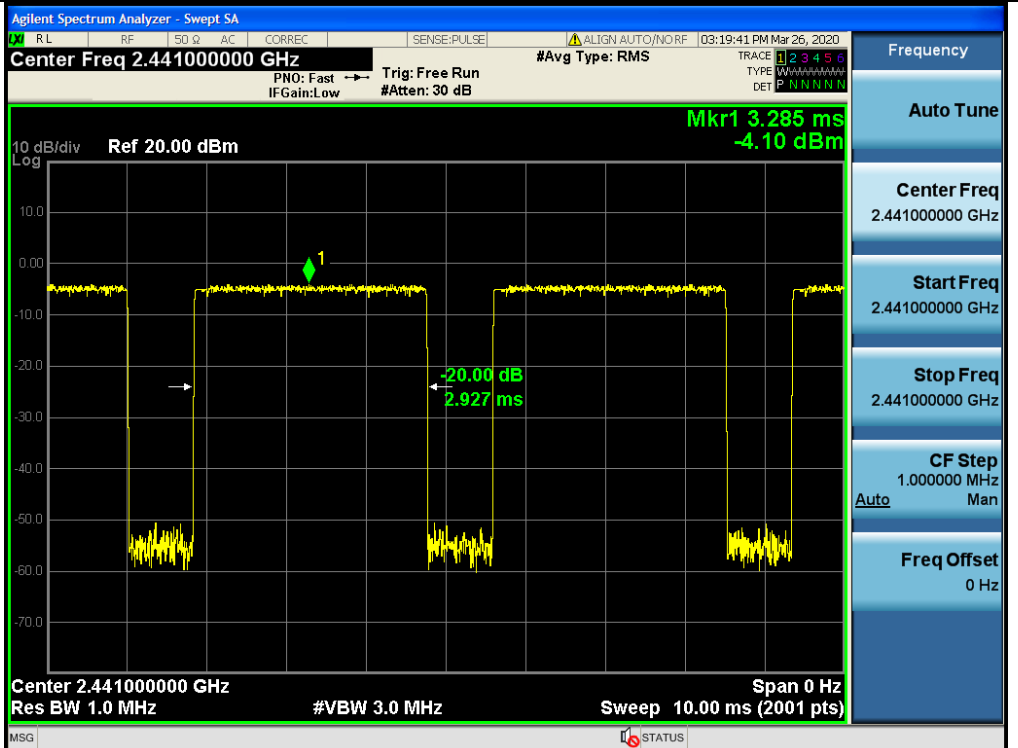




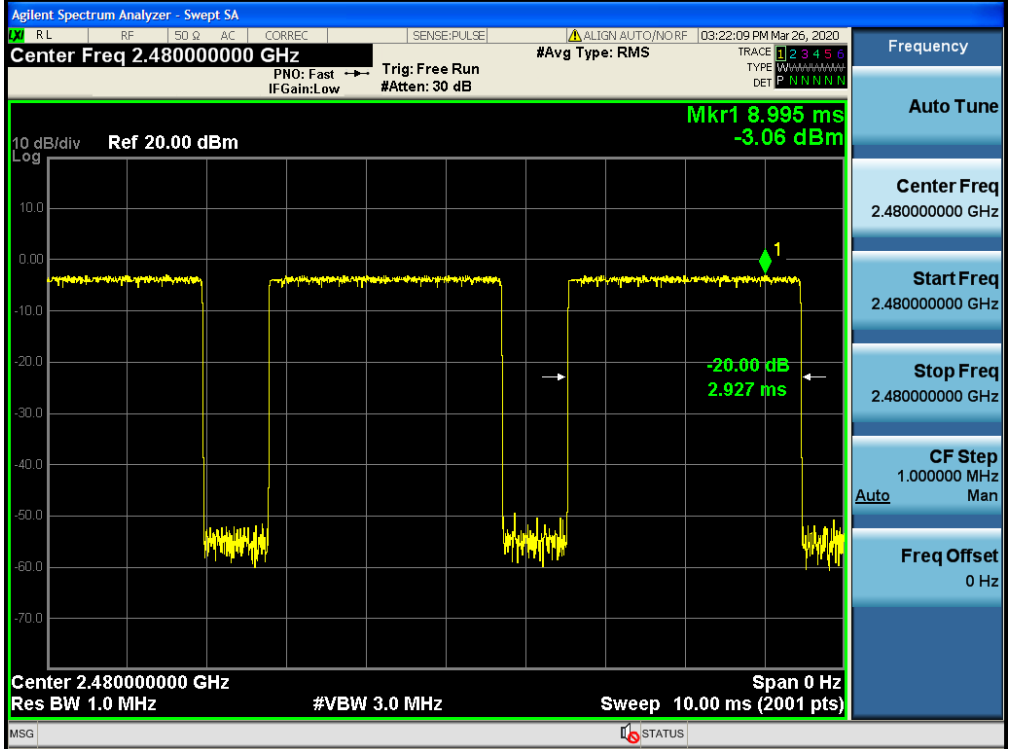
$\pi/4$ DQPSK  
\_2DH5/LCH



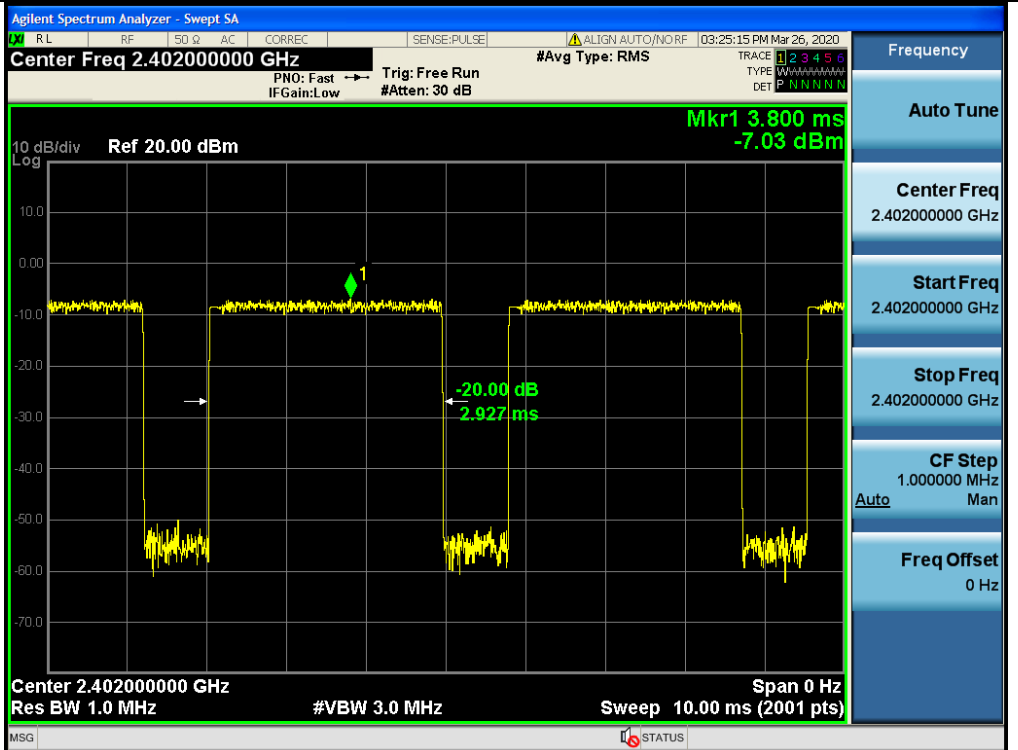
$\pi/4$ DQPSK  
\_2DH5/MCH

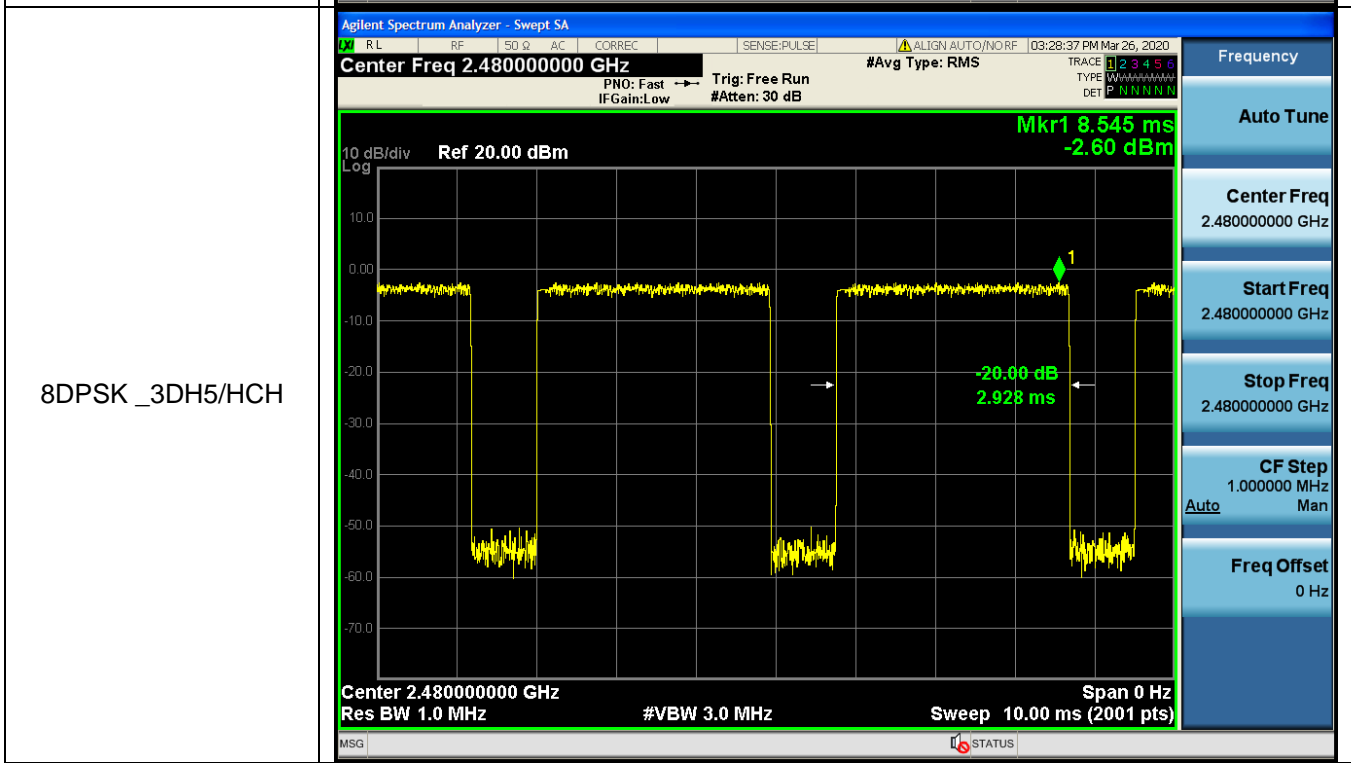
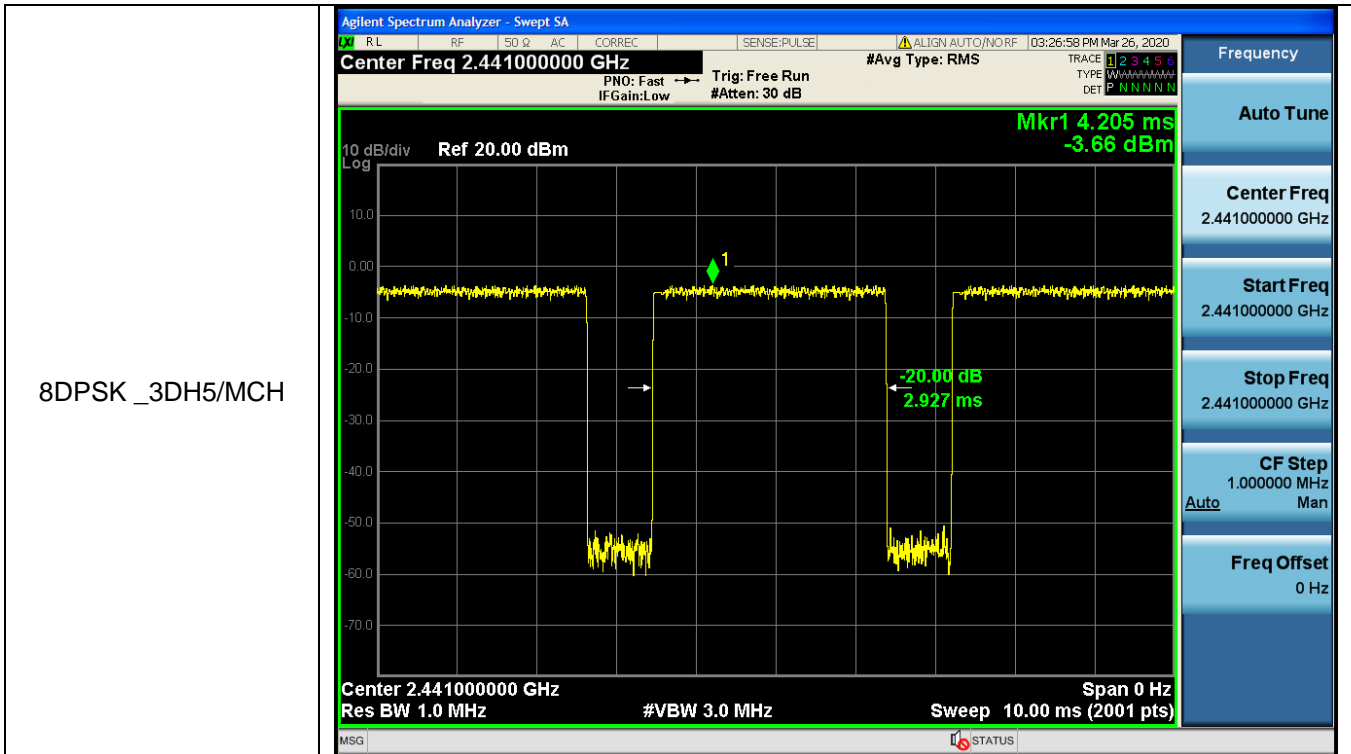


$\pi/4$ DQPSK  
\_2DH5/HCH



8DPSK \_3DH5/LCH

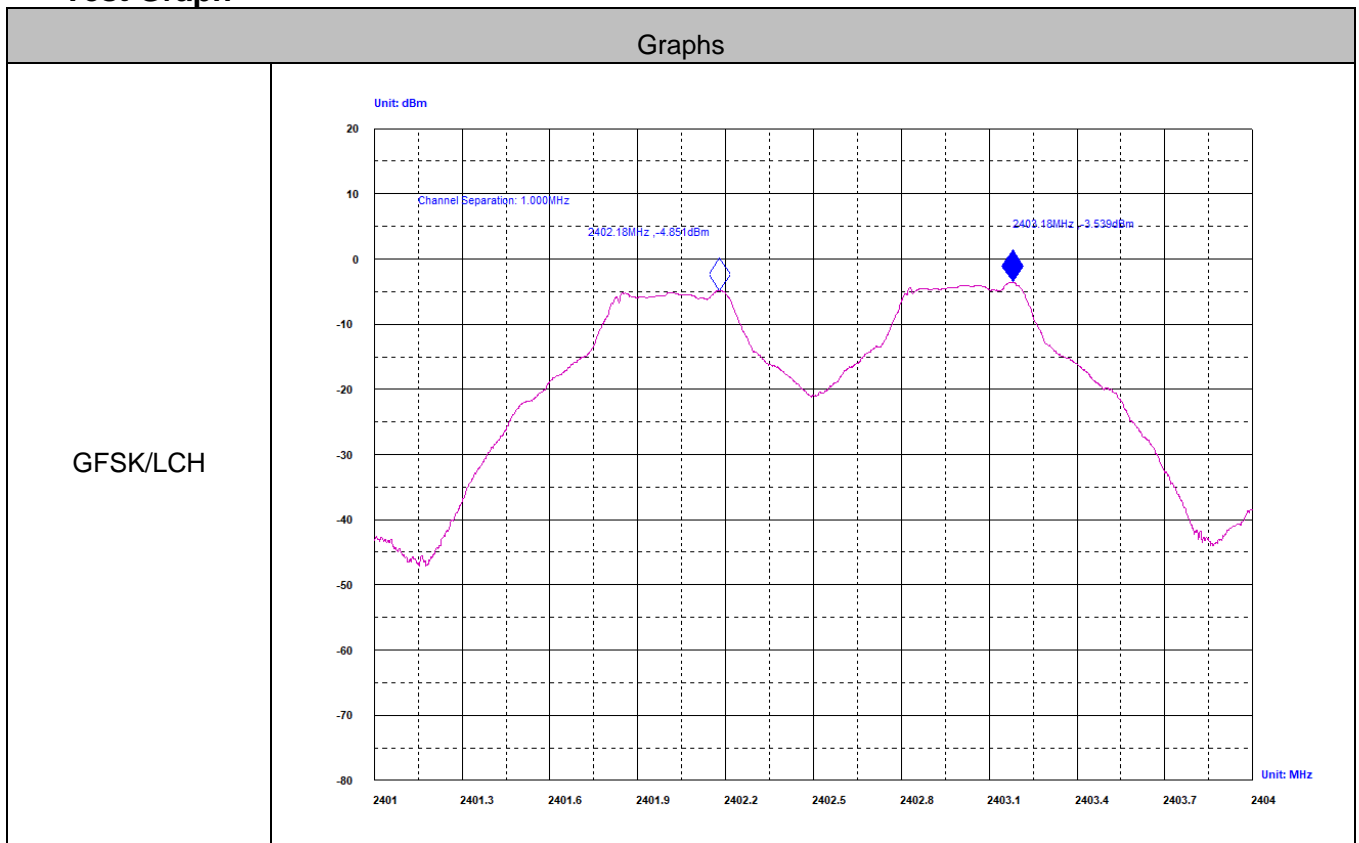




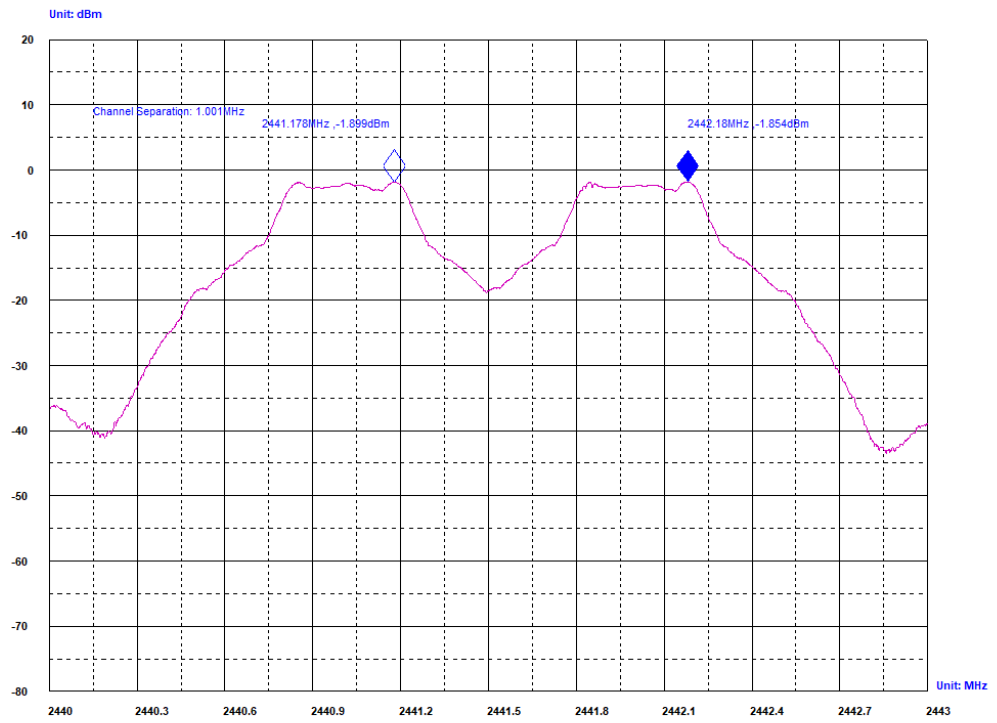
### A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.000	0.627	PASS
GFSK	MCH	1.001	0.627	PASS
GFSK	HCH	0.994	0.627	PASS
$\pi/4$ DQPSK	LCH	1.004	0.812	PASS
$\pi/4$ DQPSK	MCH	0.997	0.821	PASS
$\pi/4$ DQPSK	HCH	1.000	0.824	PASS
8DPSK	LCH	1.000	0.840	PASS
8DPSK	MCH	0.994	0.835	PASS
8DPSK	HCH	0.997	0.835	PASS

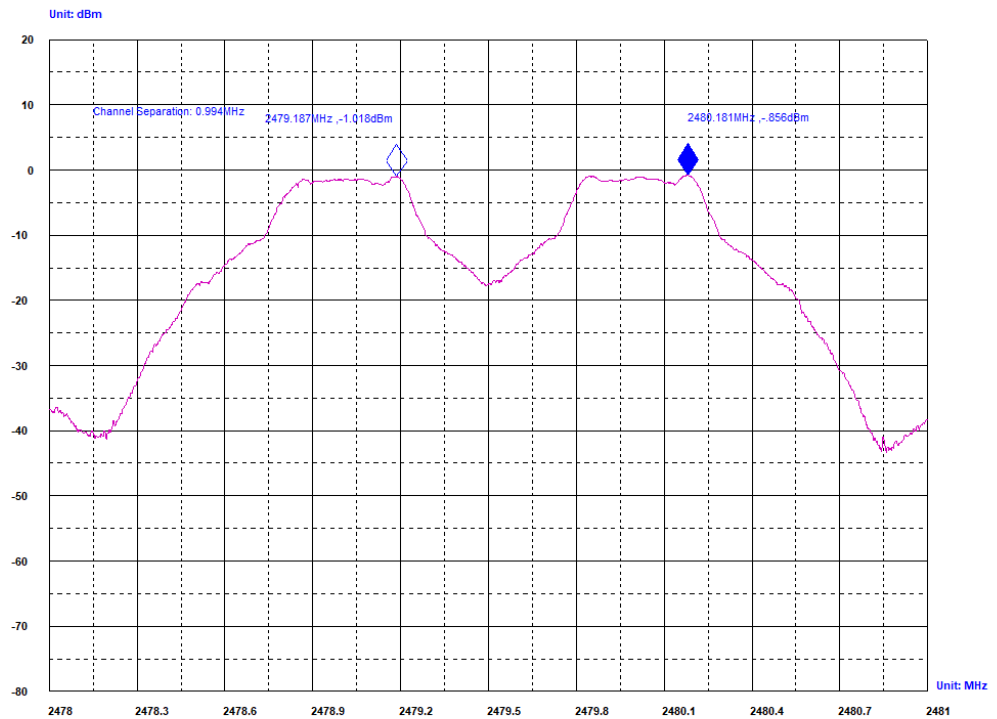
### Test Graph



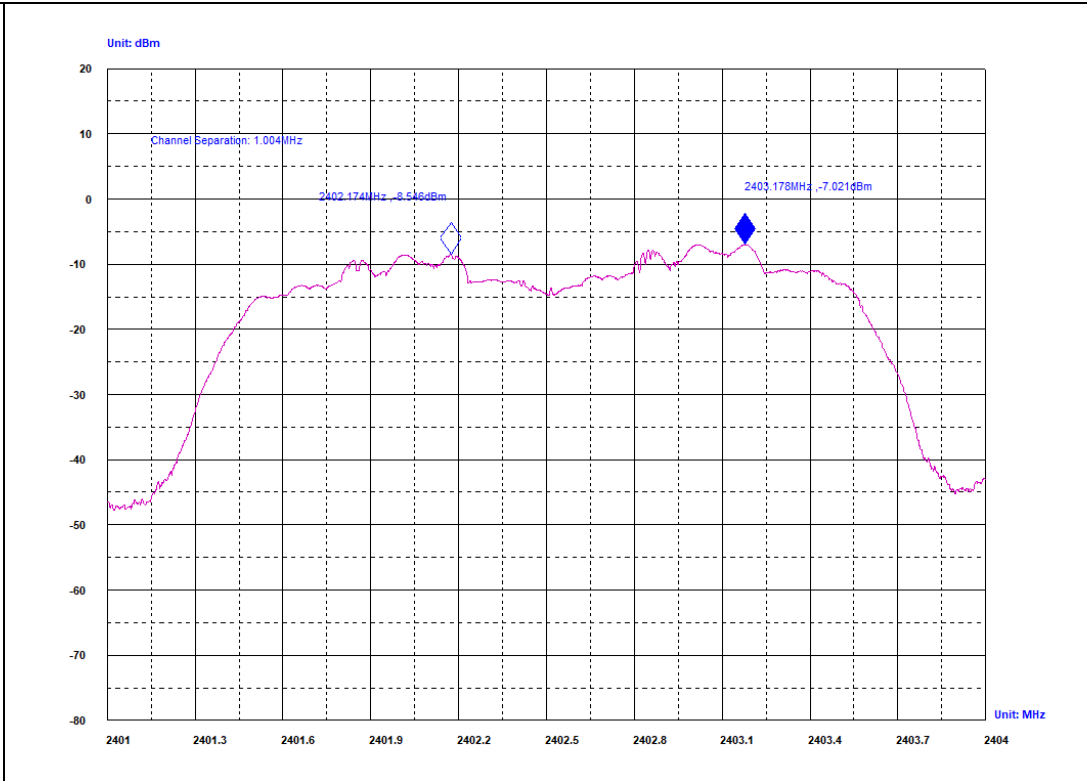
GFSK/MCH



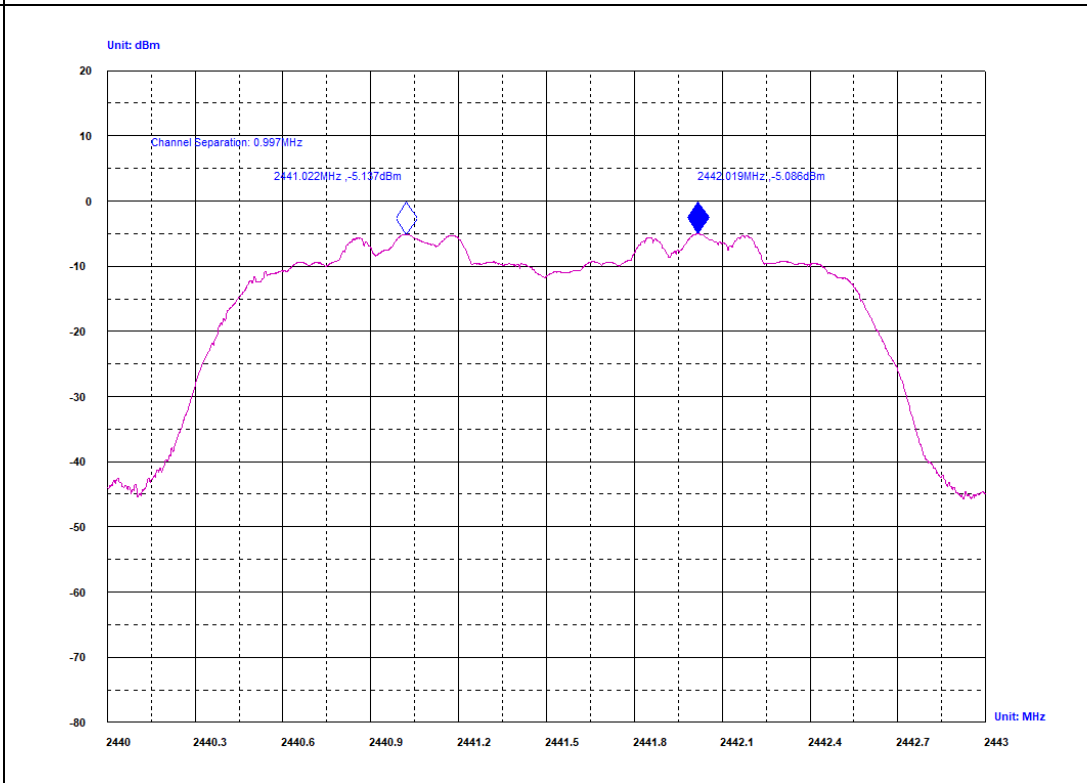
GFSK/HCH



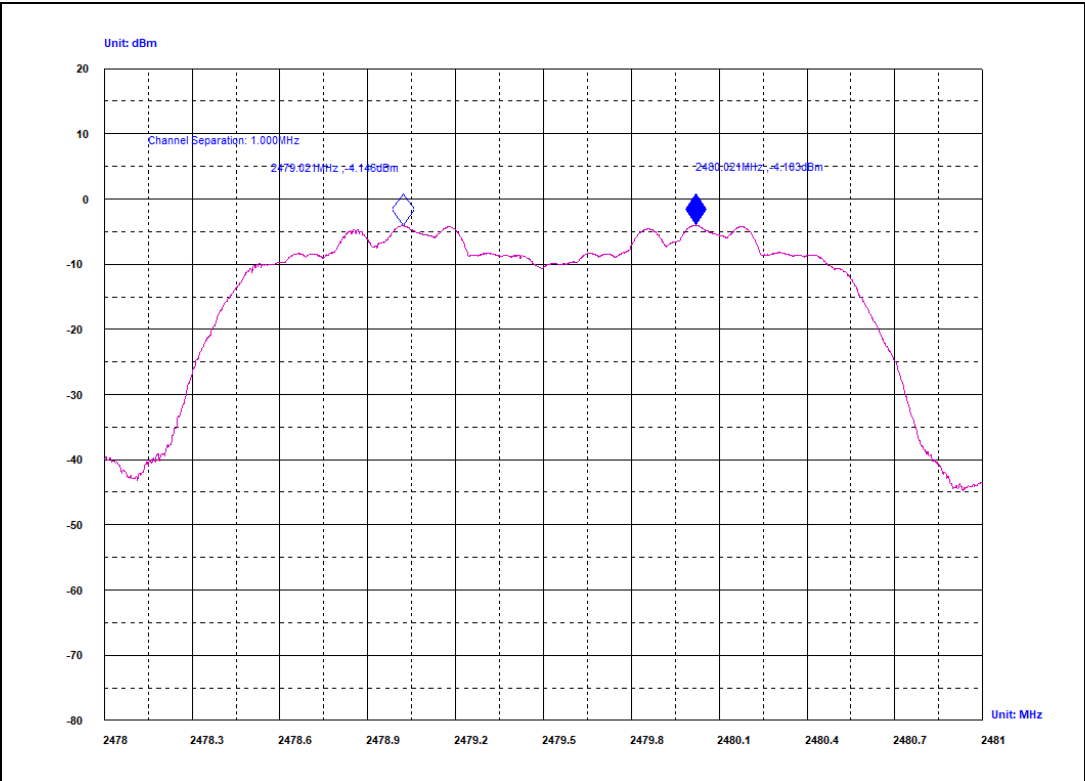
$\pi$ /4DQPSK/LCH



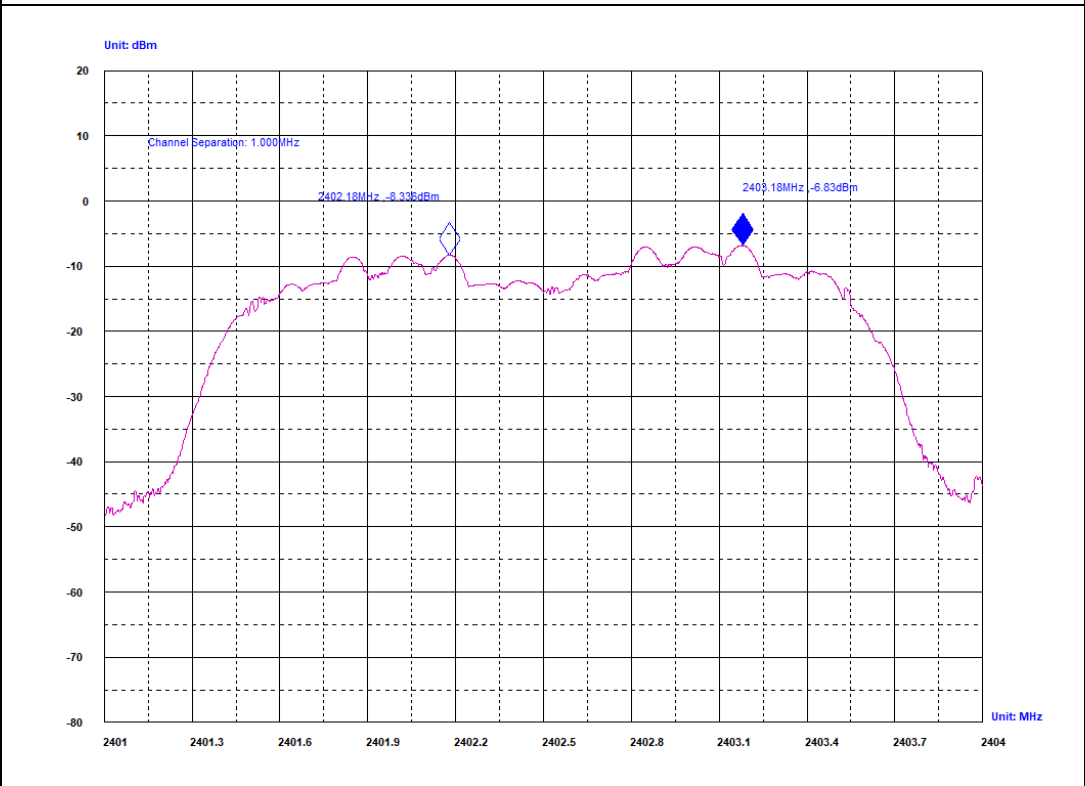
$\pi$ /4DQPSK/MCH



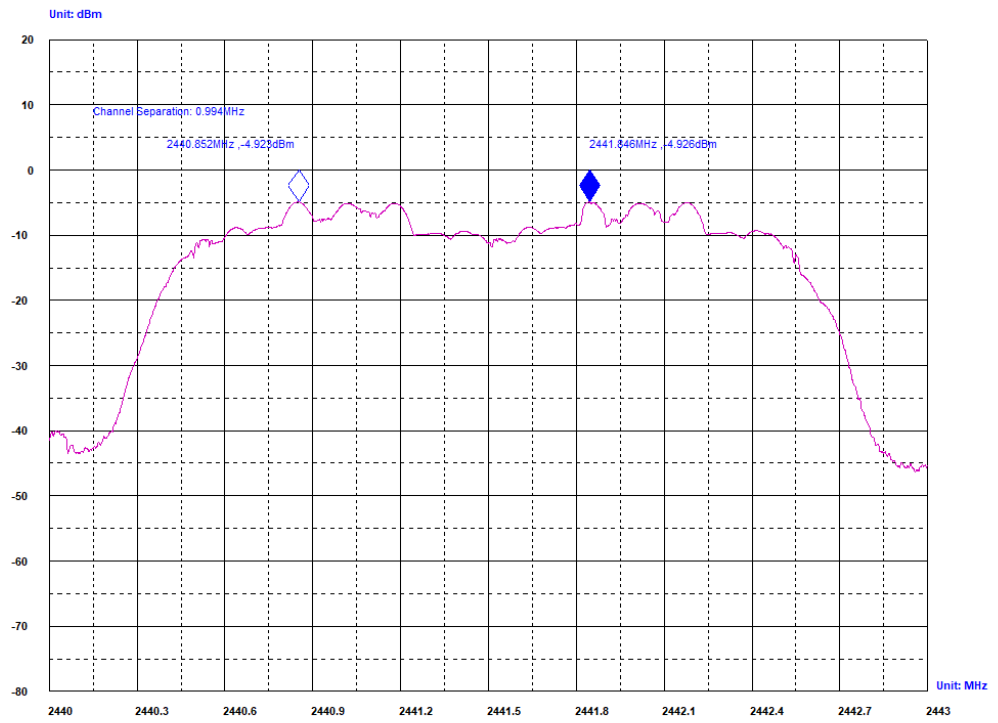
$\pi/4$ DQPSK/HCH



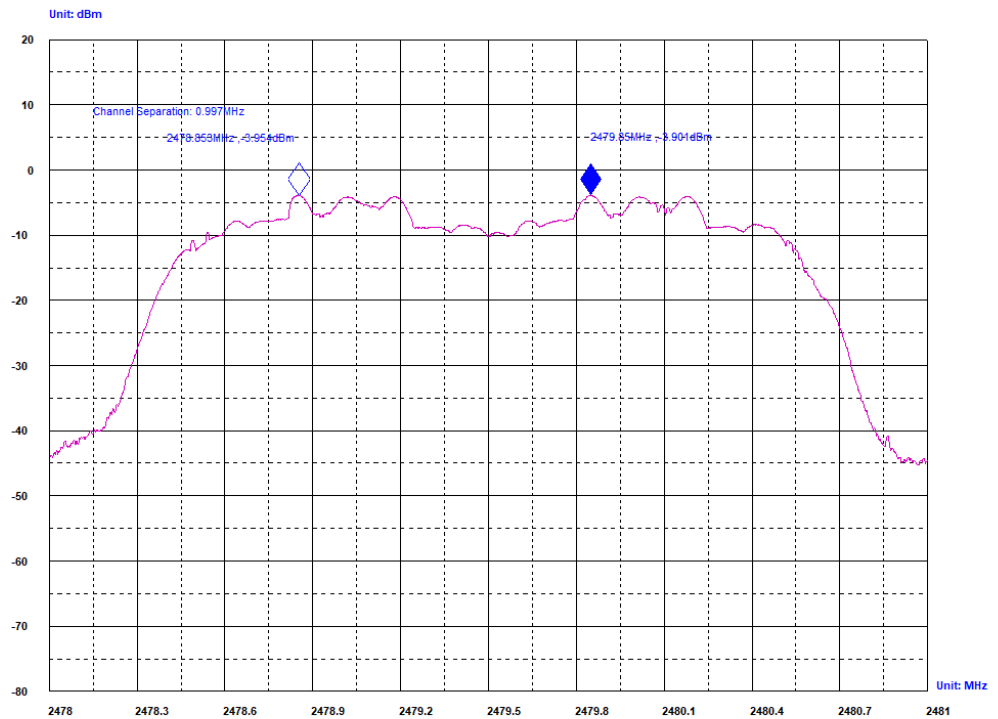
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

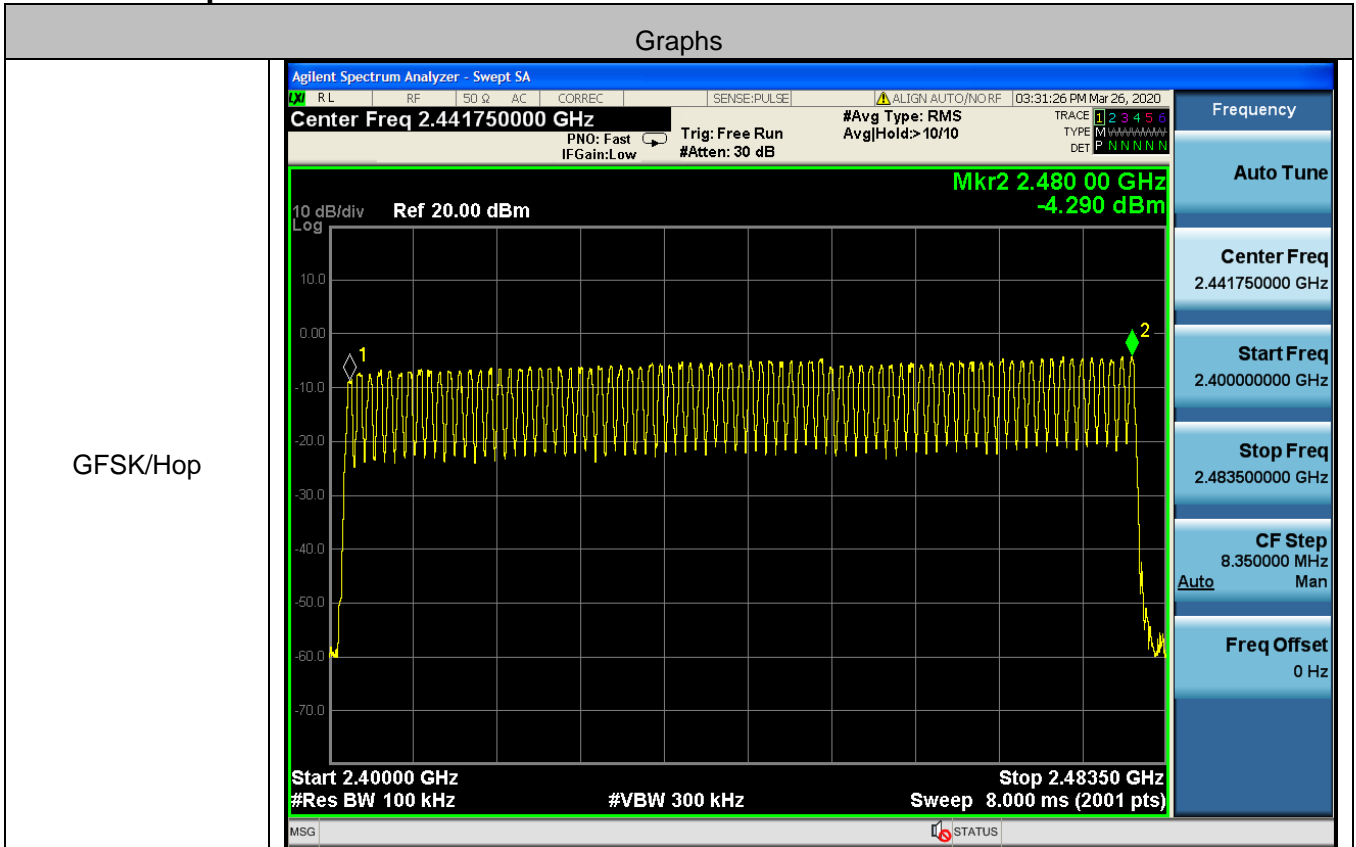


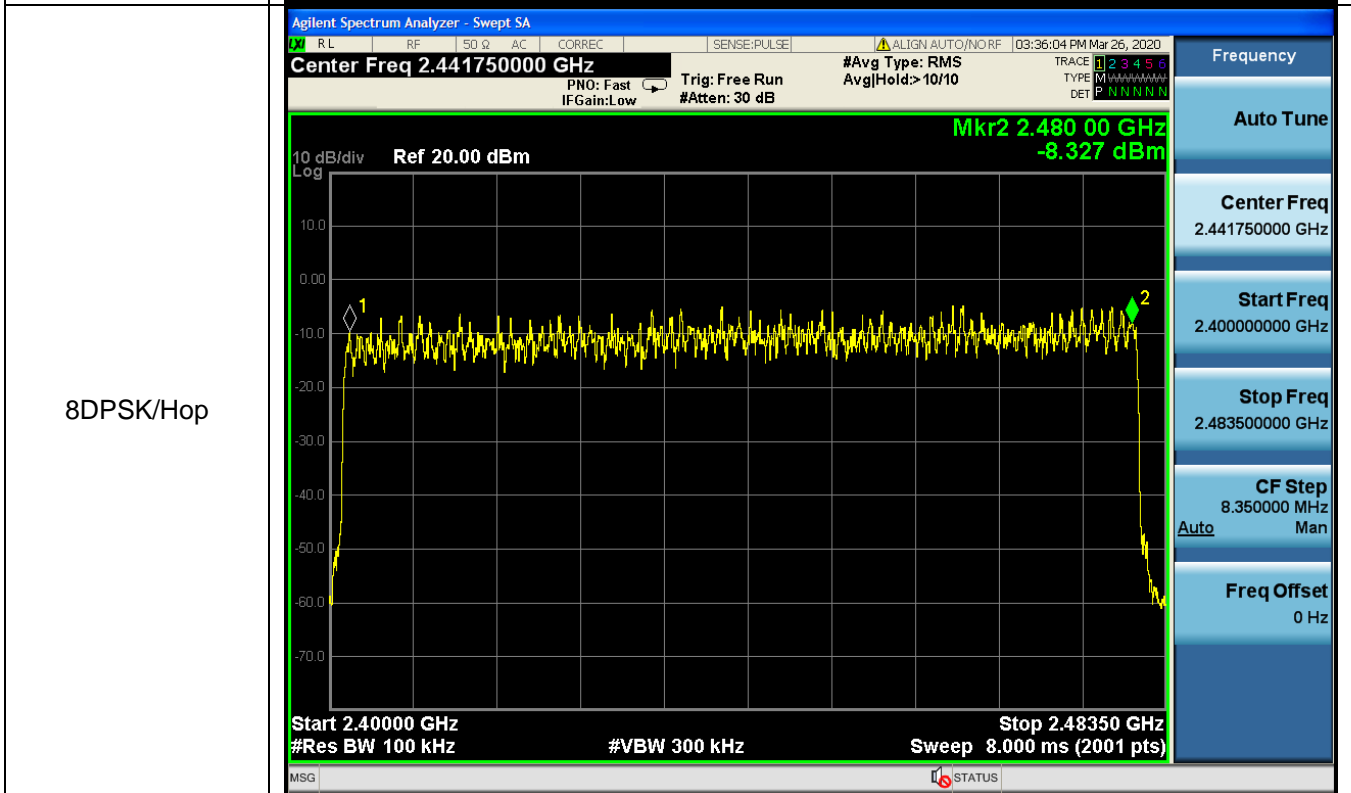
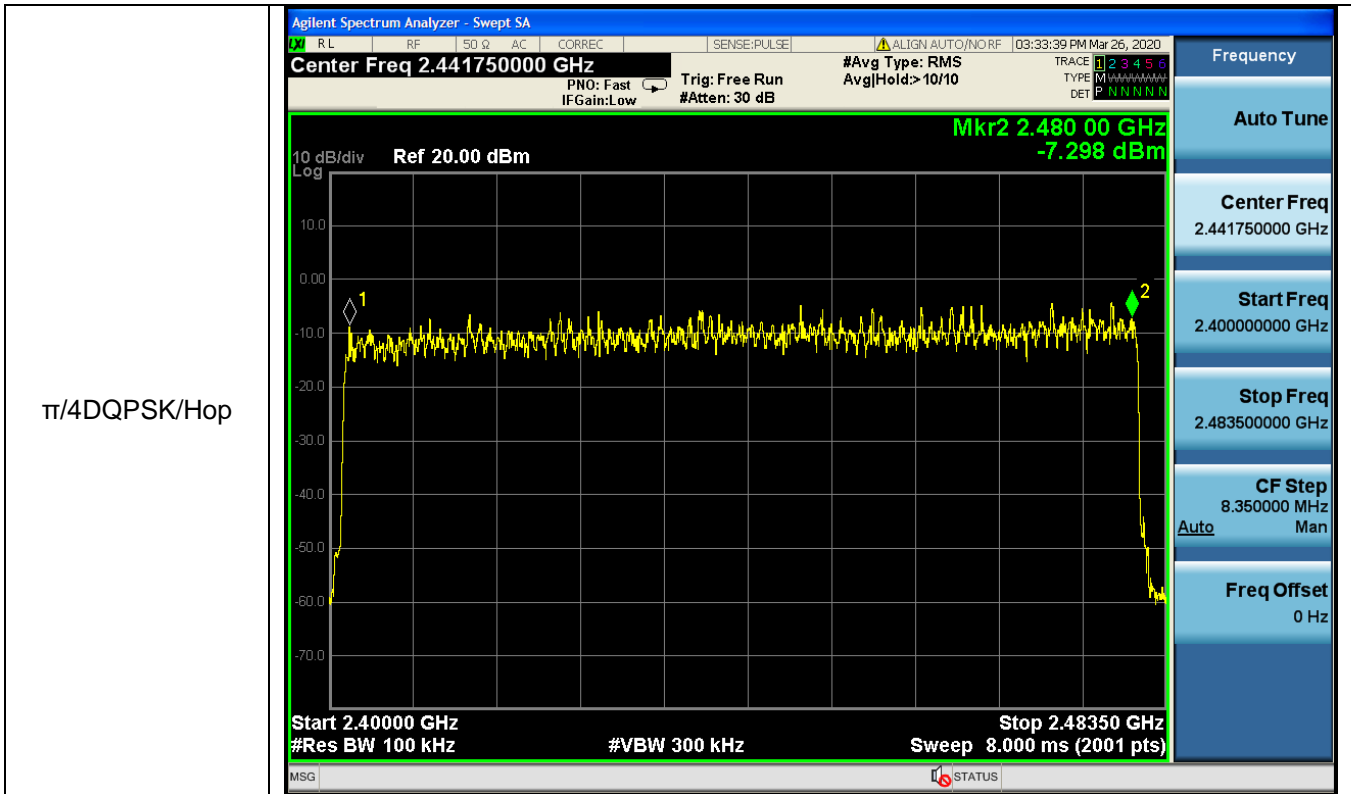


### A.4 Hopping Channel Number

Mode	Channel.	Number of Hopping Channel[N]	Limit[N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

### Test Graph

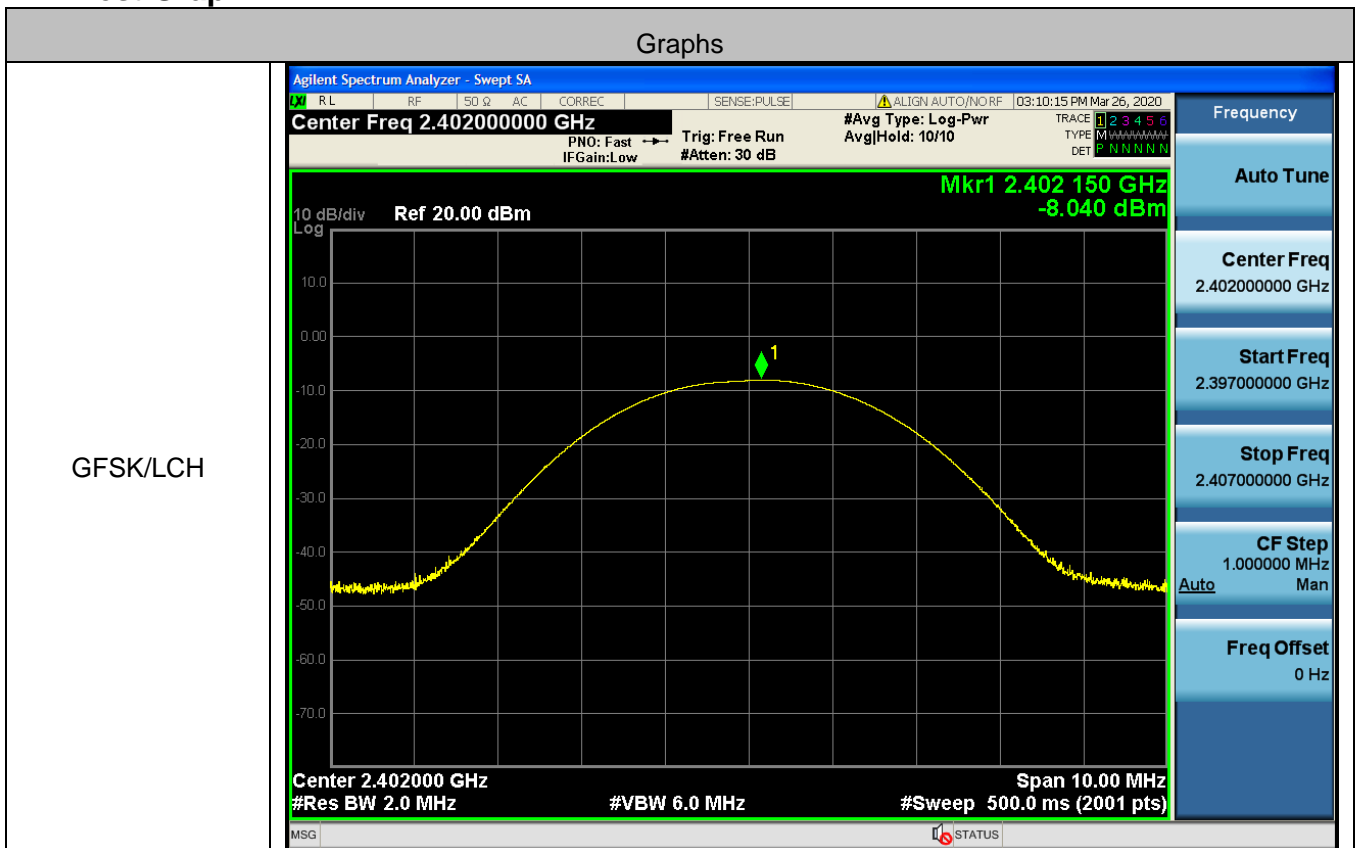


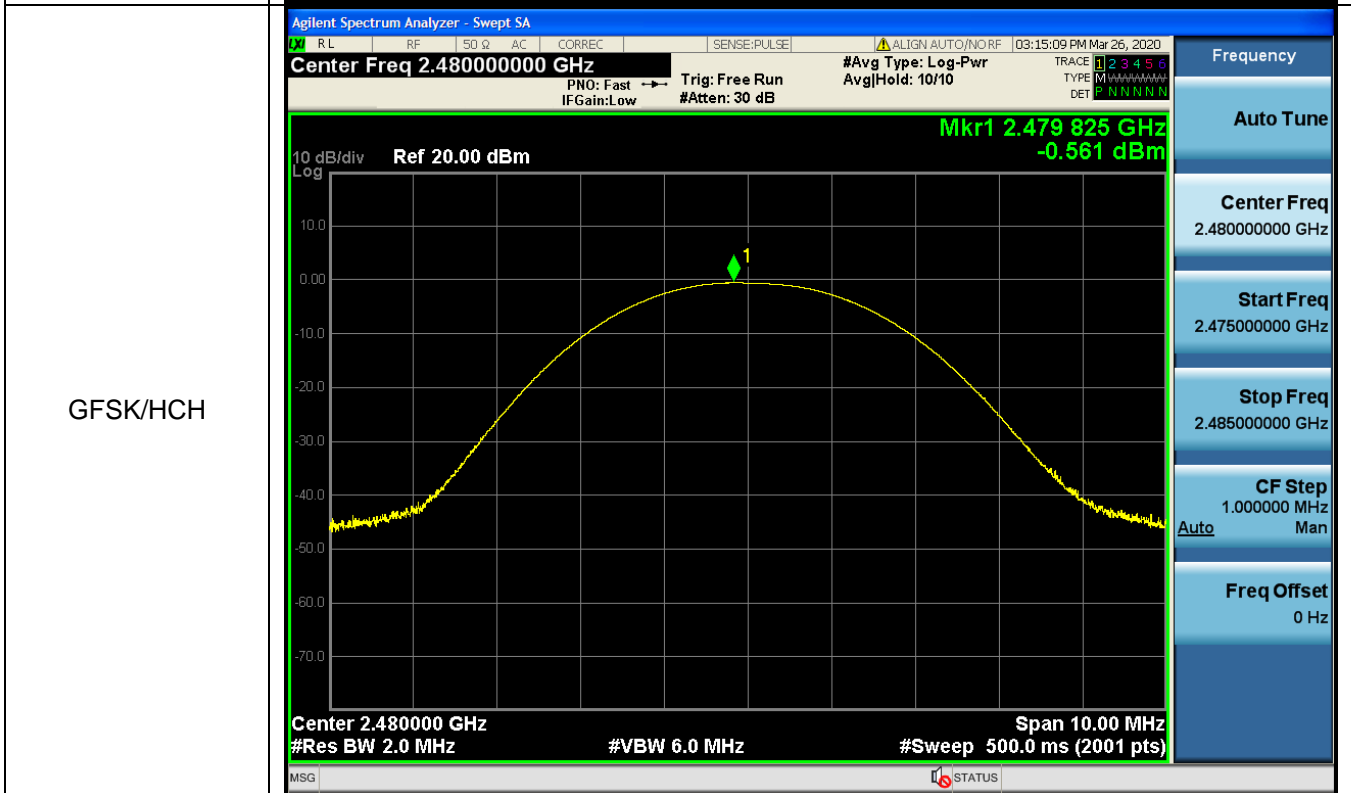
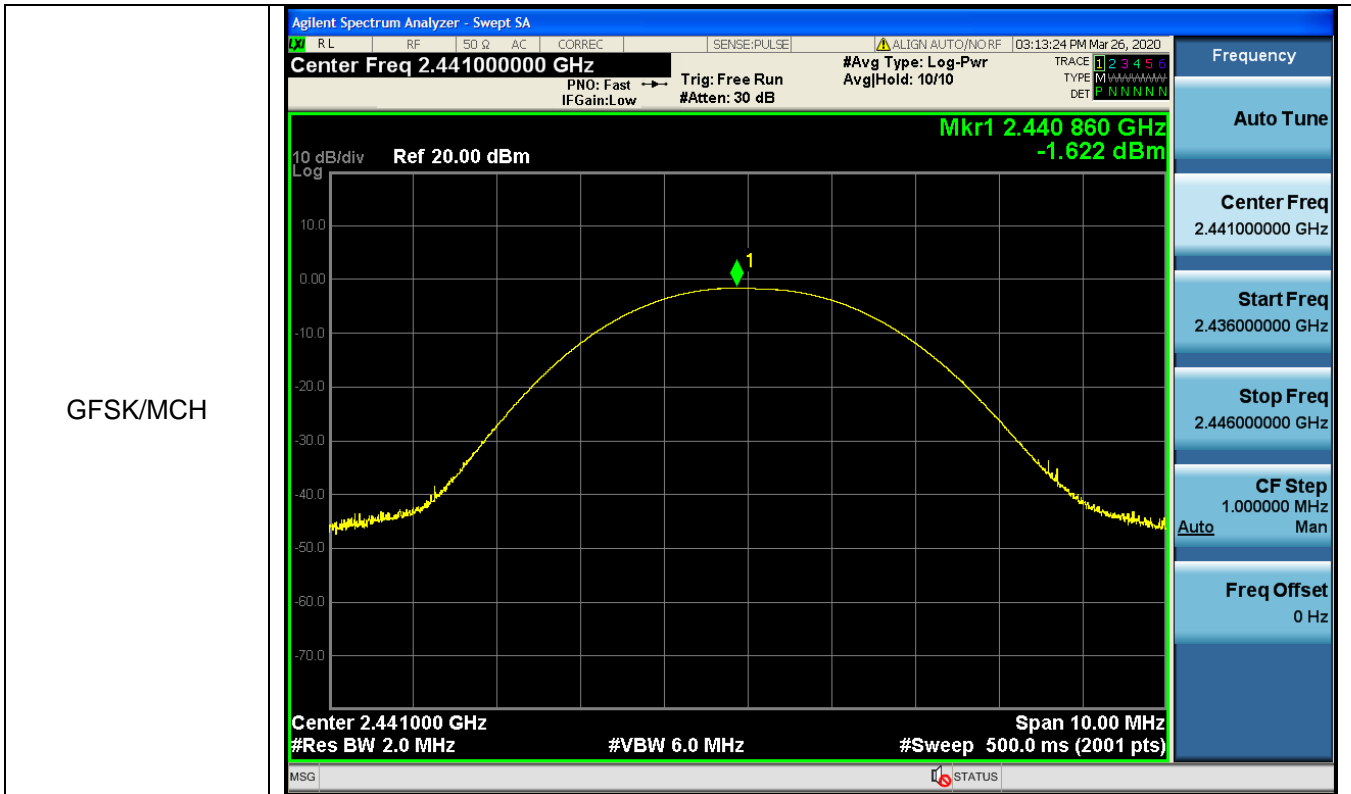


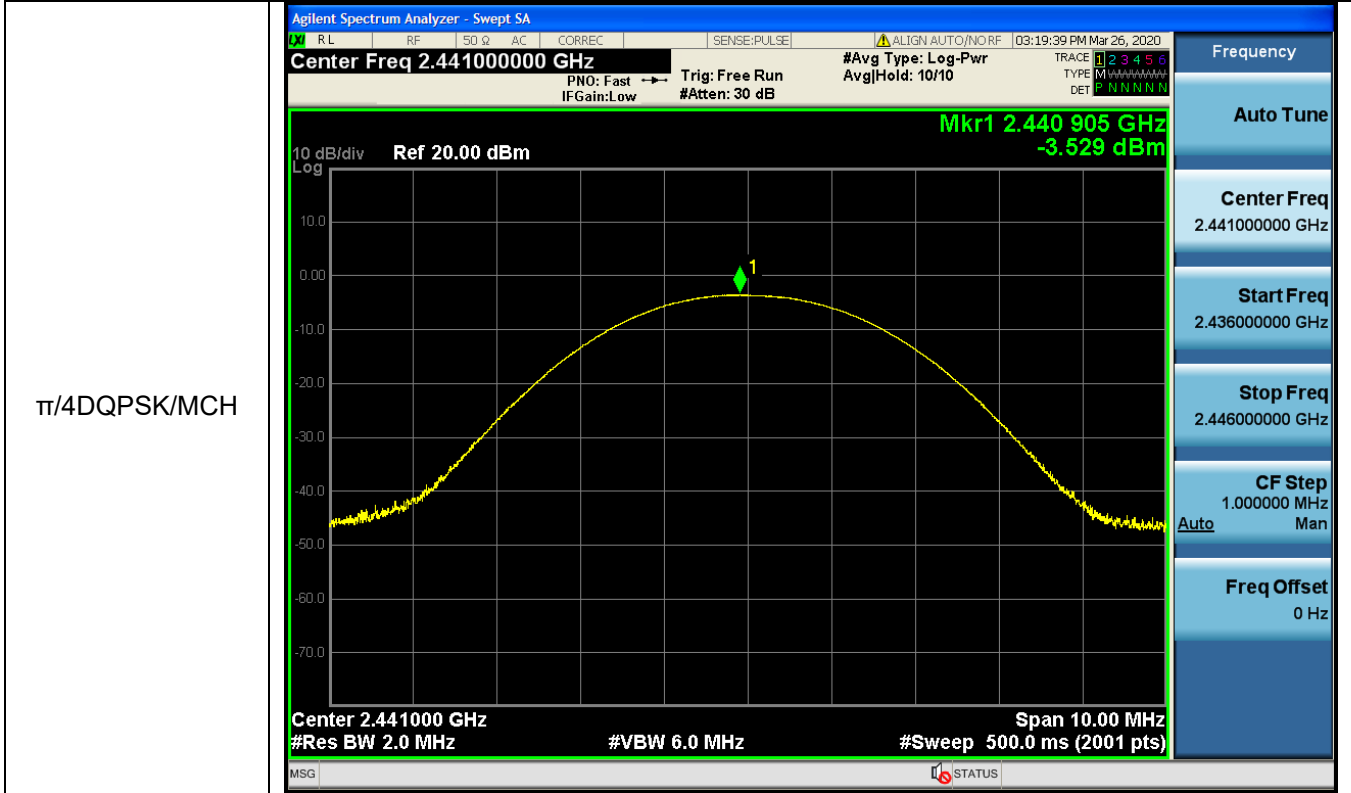
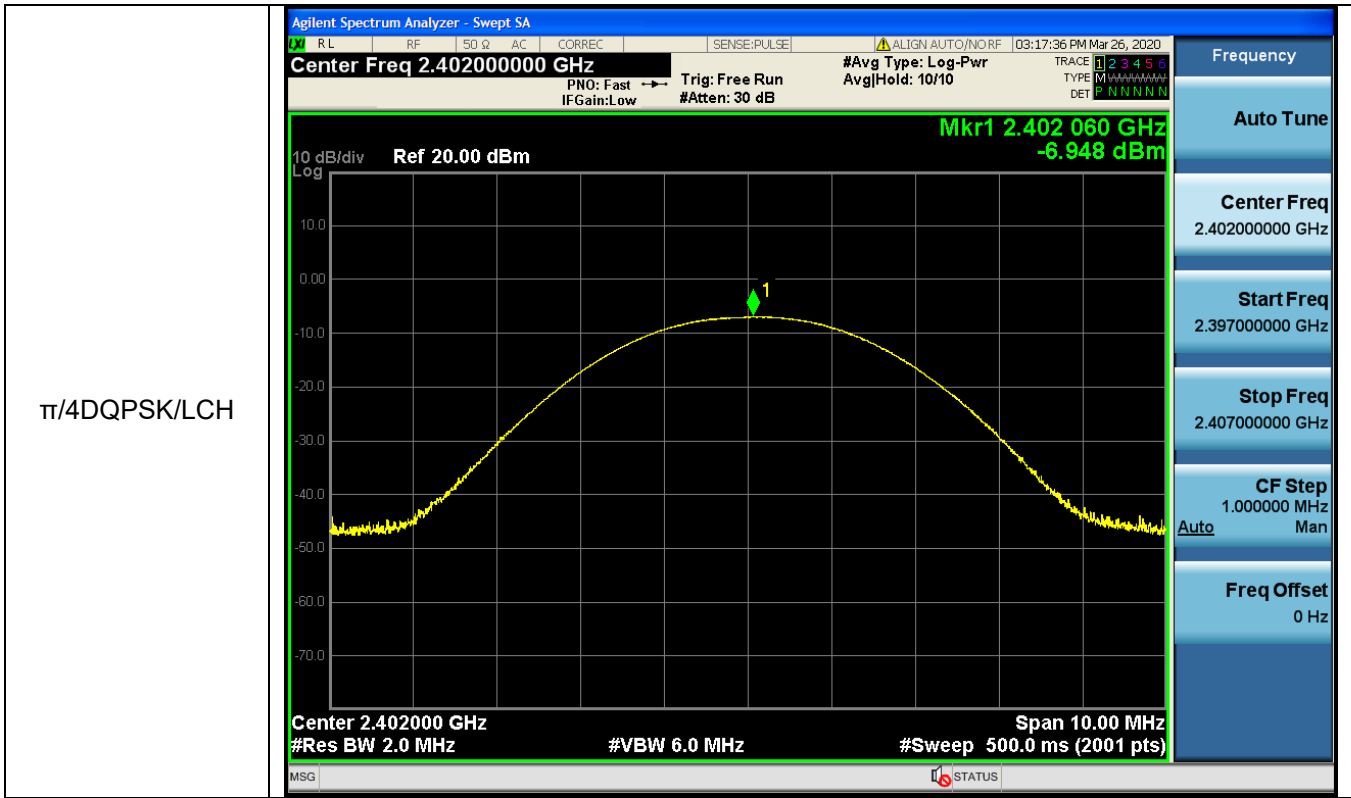
### A.5 Conducted Peak Output Power

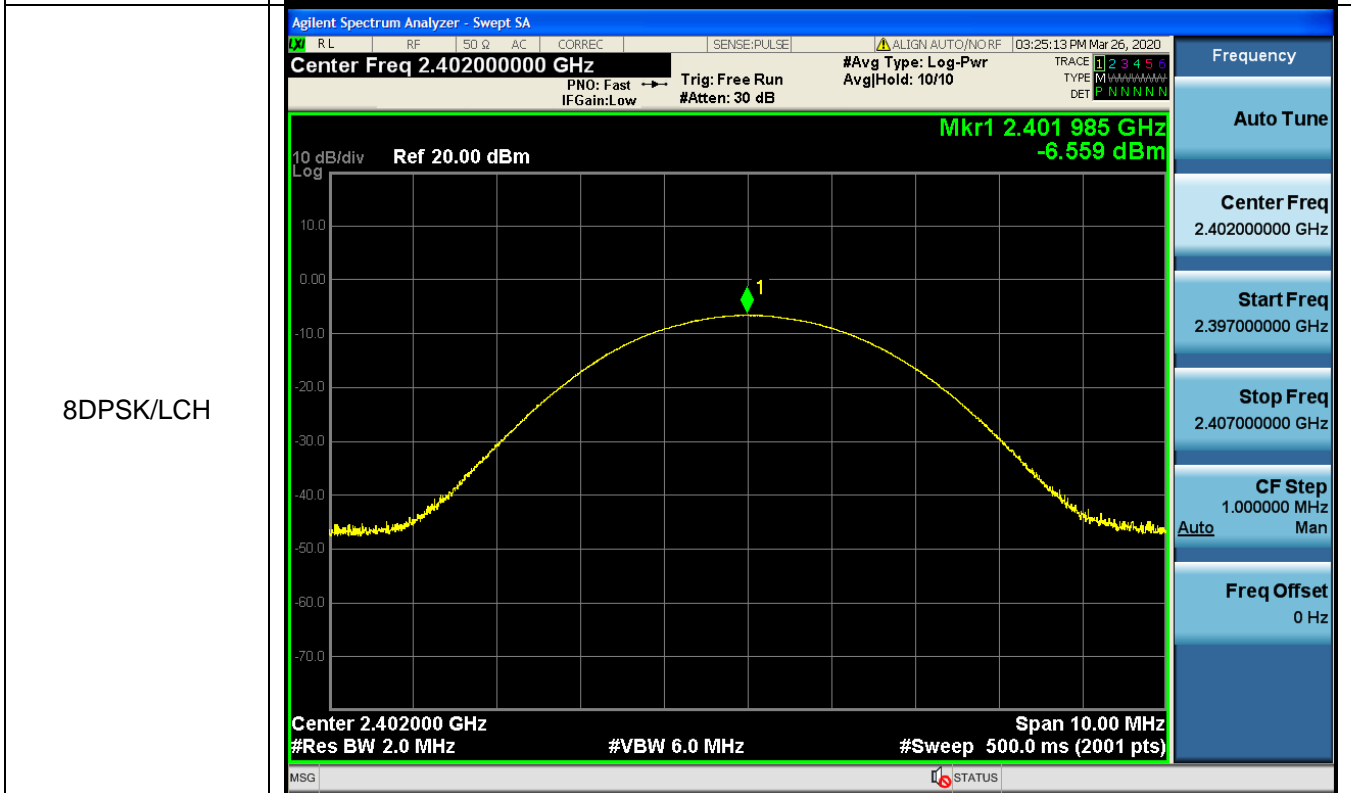
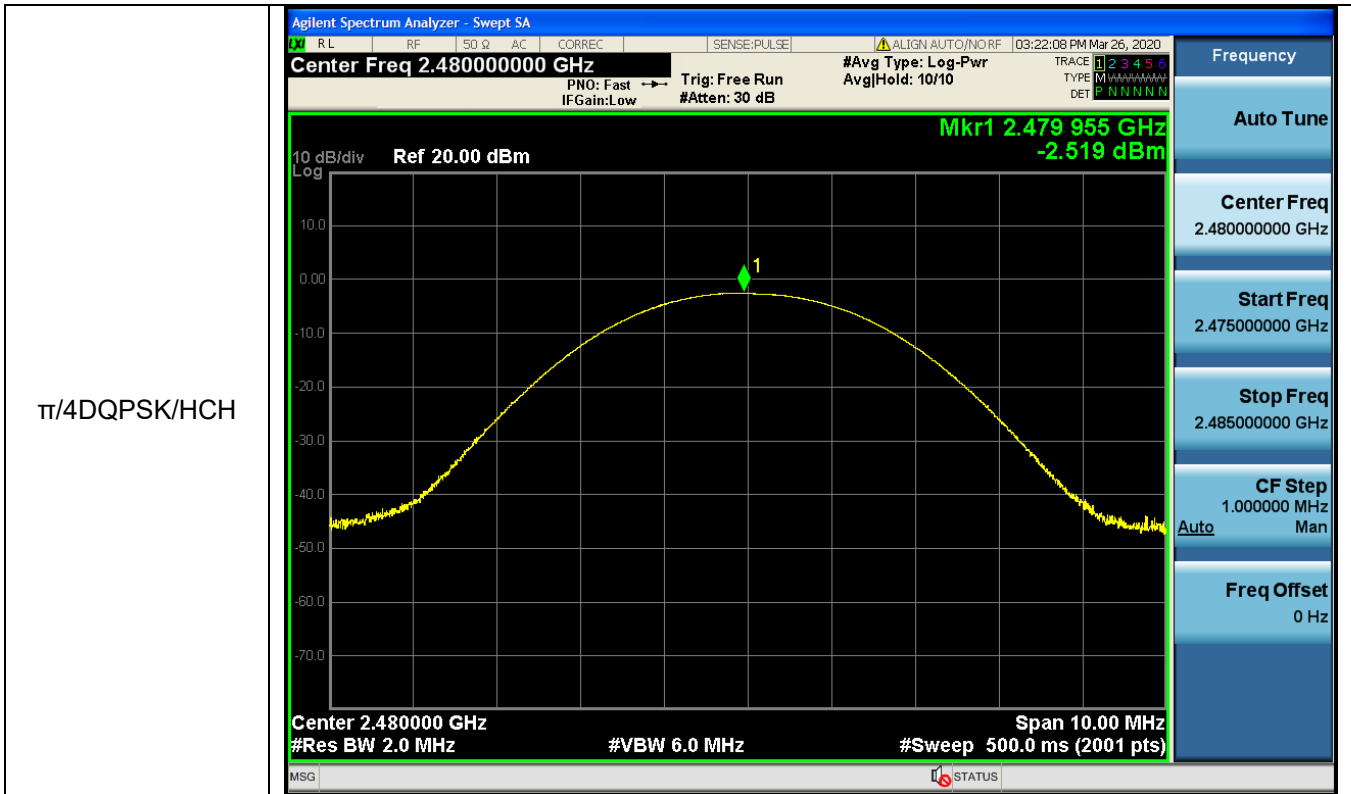
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-8.040	21	PASS
GFSK	MCH	-1.622	21	PASS
GFSK	HCH	-0.561	21	PASS
$\pi/4$ DQPSK	LCH	-6.948	21	PASS
$\pi/4$ DQPSK	MCH	-3.529	21	PASS
$\pi/4$ DQPSK	HCH	-2.519	21	PASS
8DPSK	LCH	-6.559	21	PASS
8DPSK	MCH	-3.150	21	PASS
8DPSK	HCH	-2.106	21	PASS

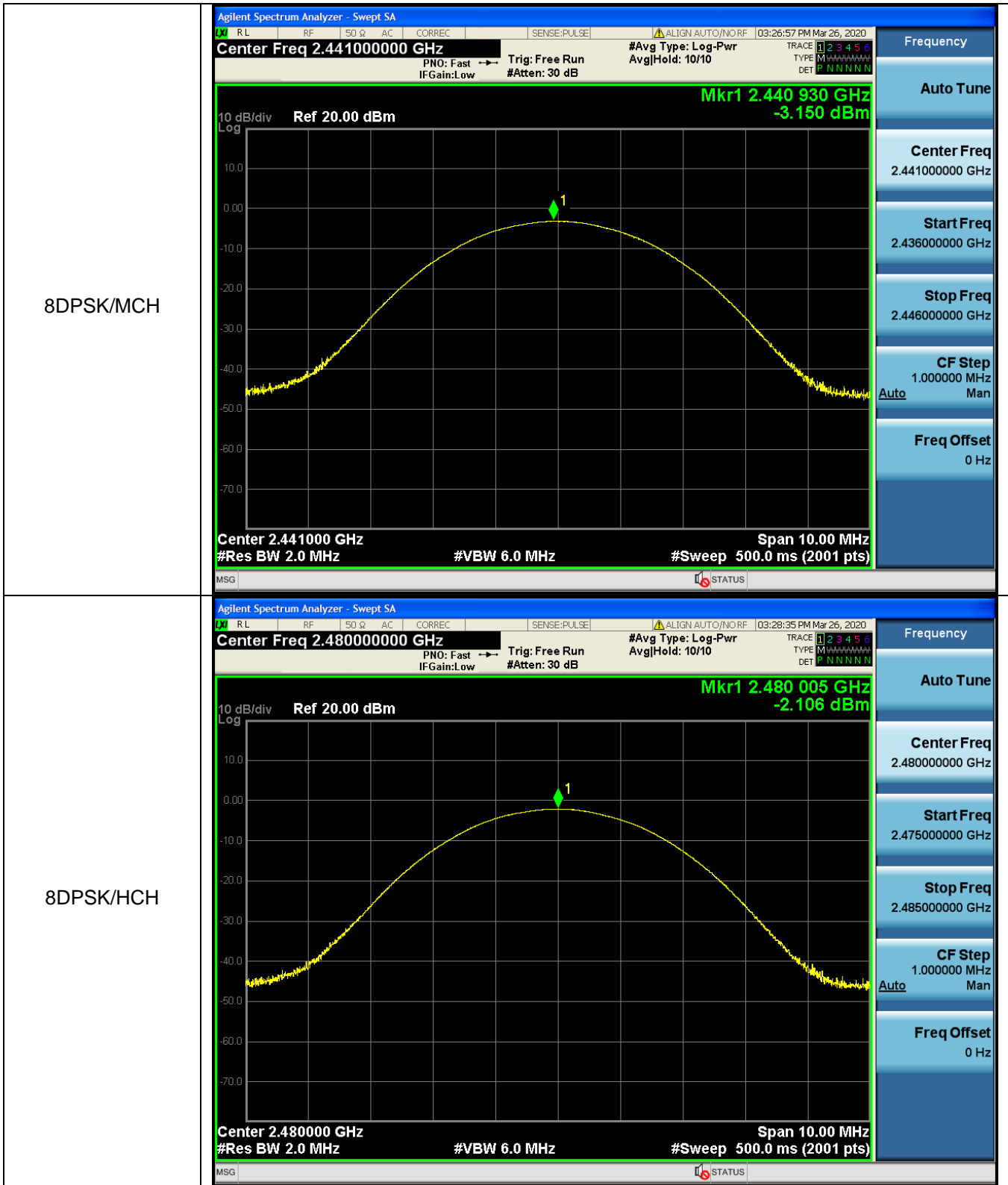
### Test Graph











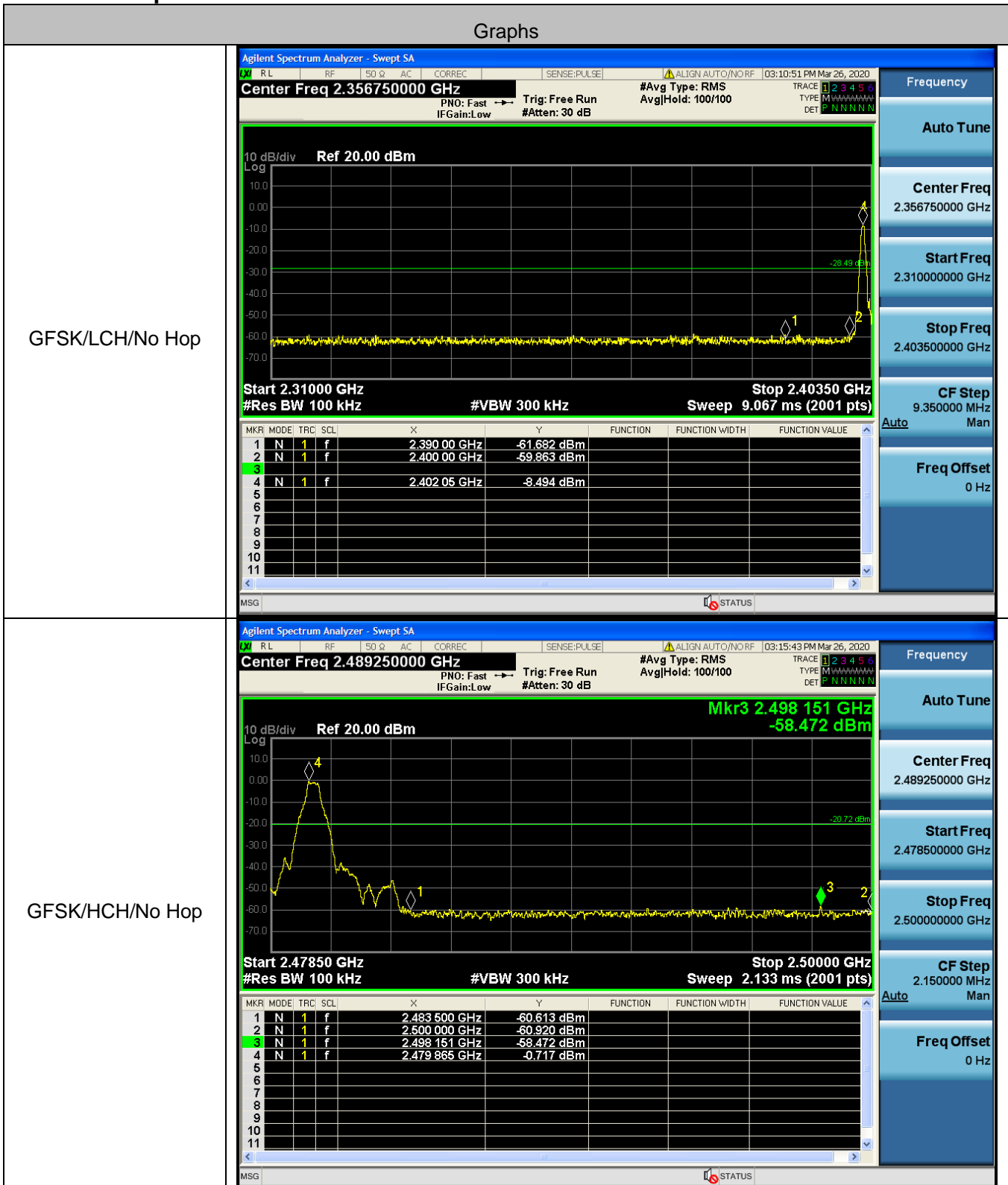
**A.6 Band-edge for RF Conducted Emissions**

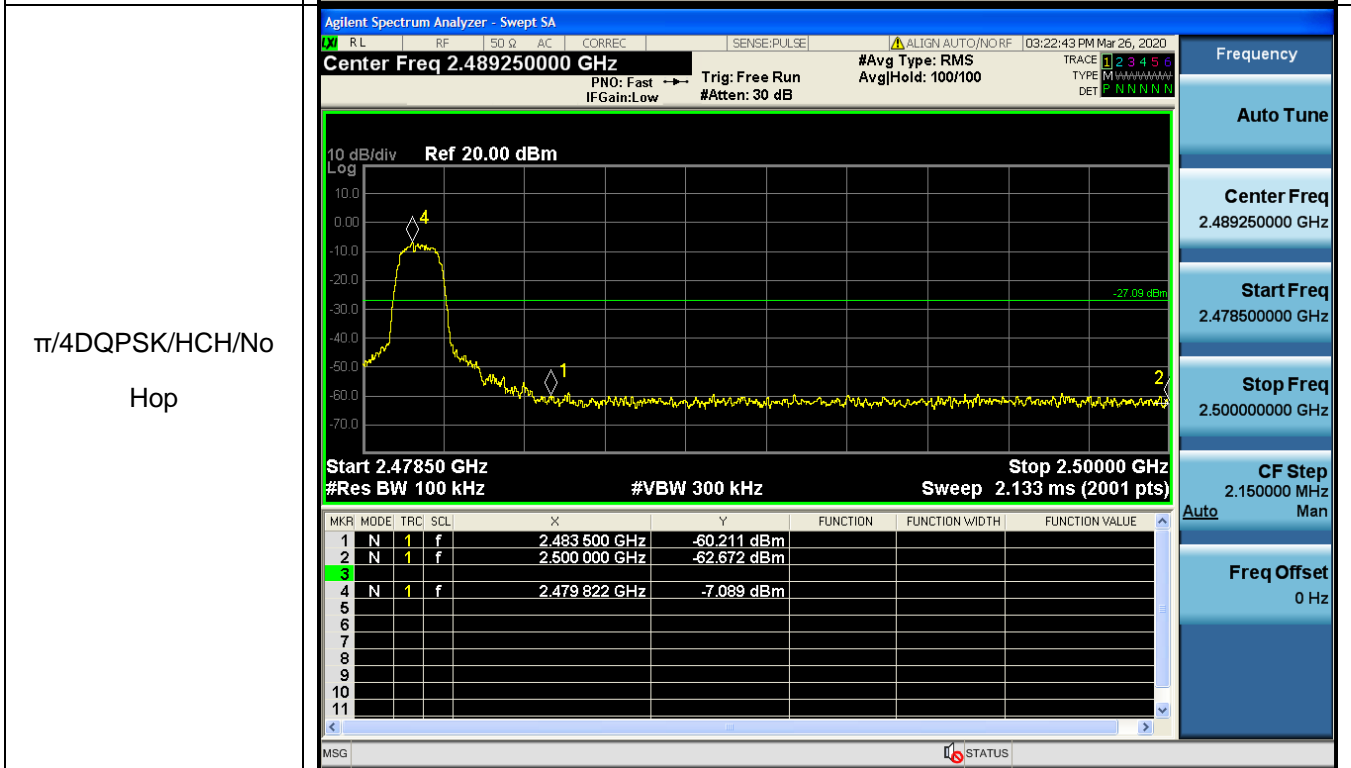
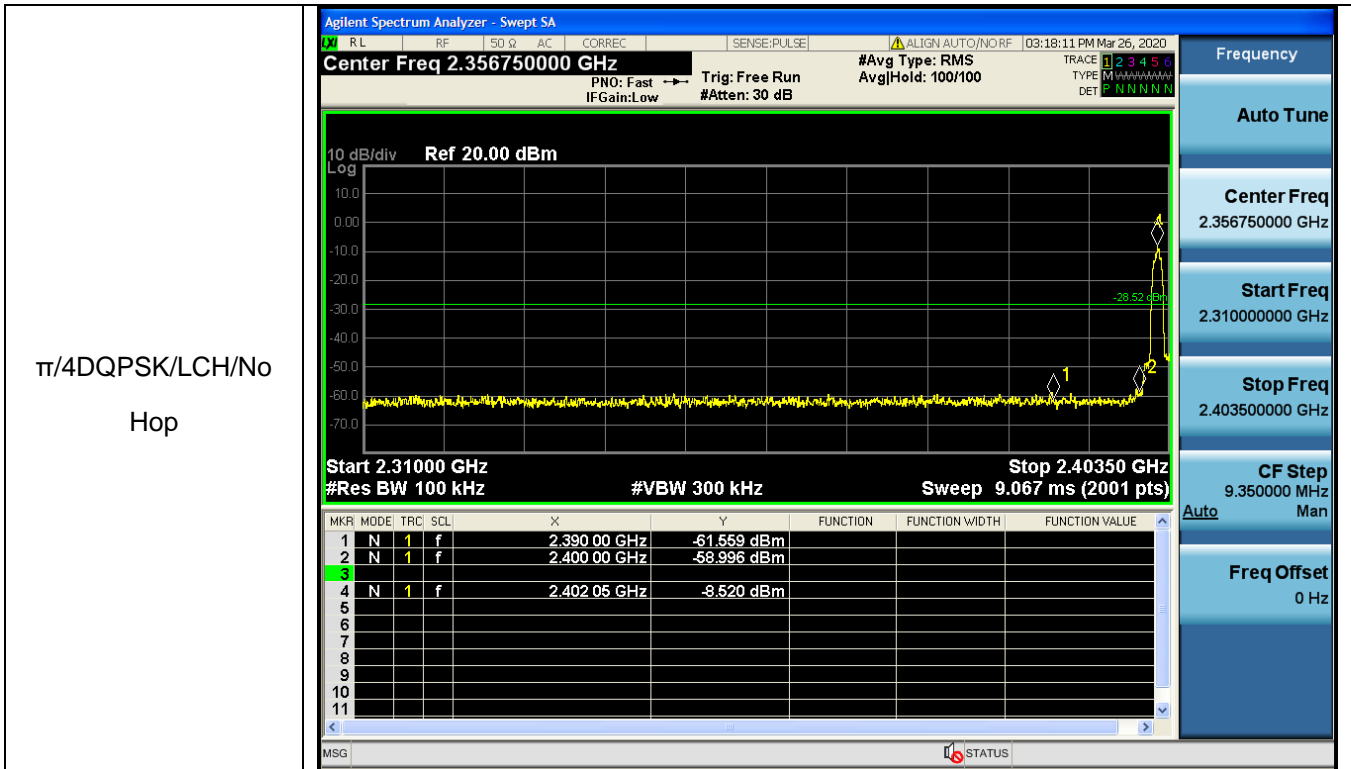
Type	Carrier Frequency(MHz)	Frequency(MHz)	Carrier Frequency Power [dBm]	Bandedge Peak(dBm)	Upper limit(dBm)	Conclusion
1DH5	2402	2400	-8.494	-59.86	-28.494	Pass
1DH5	2480	2498.151	-0.717	-58.472	-20.717	Pass
2DH5	2402	2400	-8.52	-59	-28.52	Pass
2DH5	2480	2483.5	-7.089	-60.21	-27.089	Pass
3DH5	2402	2400	-9.64	-56.82	-29.64	Pass
3DH5	2480	2500	-4.078	-59.84	-24.078	Pass
1DH5-Hopping	2402	2390	-5.619	-59.82	-25.619	Pass
1DH5-Hopping	2480	2500	-4.114	-56.2	-24.114	Pass
2DH5-Hopping	2402	2400	-5.827	-60.03	-25.827	Pass
2DH5-Hopping	2480	2500	-4.255	-57.06	-24.255	Pass
3DH5-Hopping	2402	2400	-6.04	-58.42	-26.04	Pass
3DH5-Hopping	2480	2483.5	-4.344	-59.76	-24.344	Pass



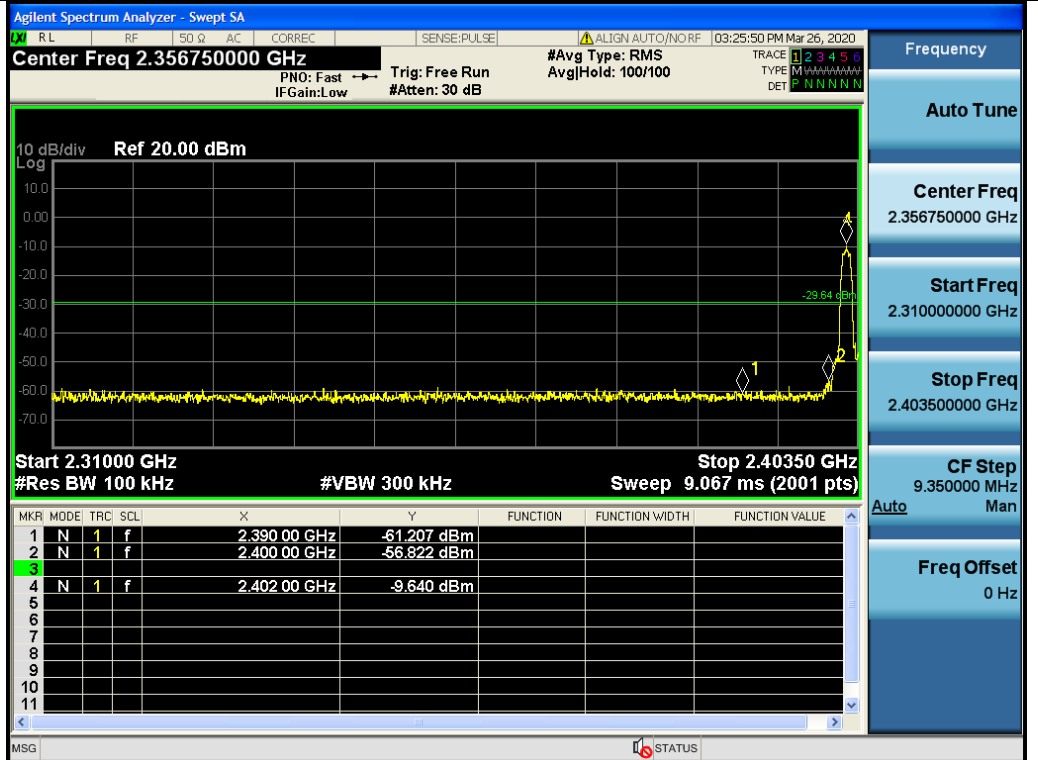
Test Graph

Graphs

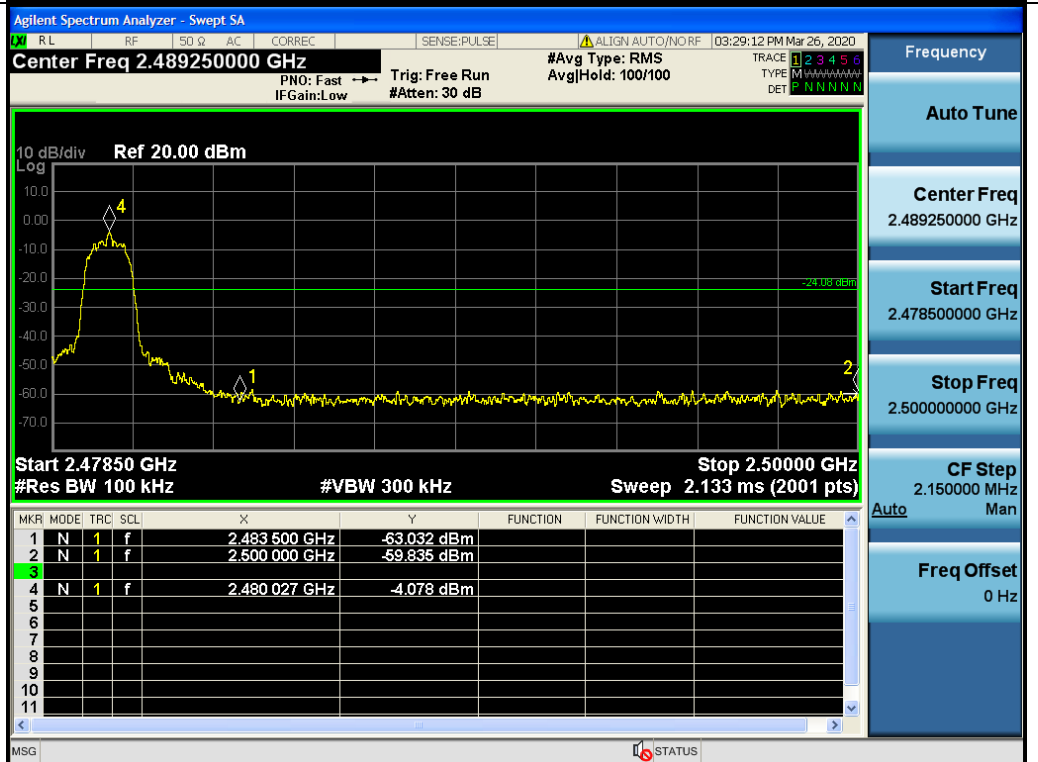




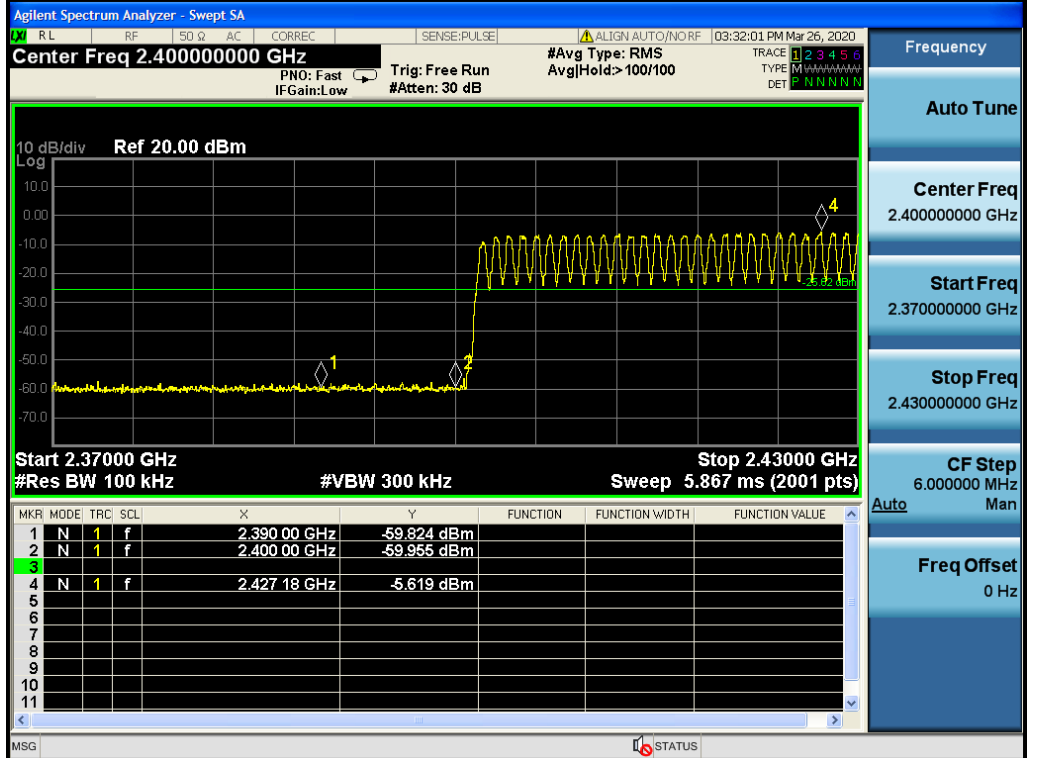
8DPSK/LCH/No Hop



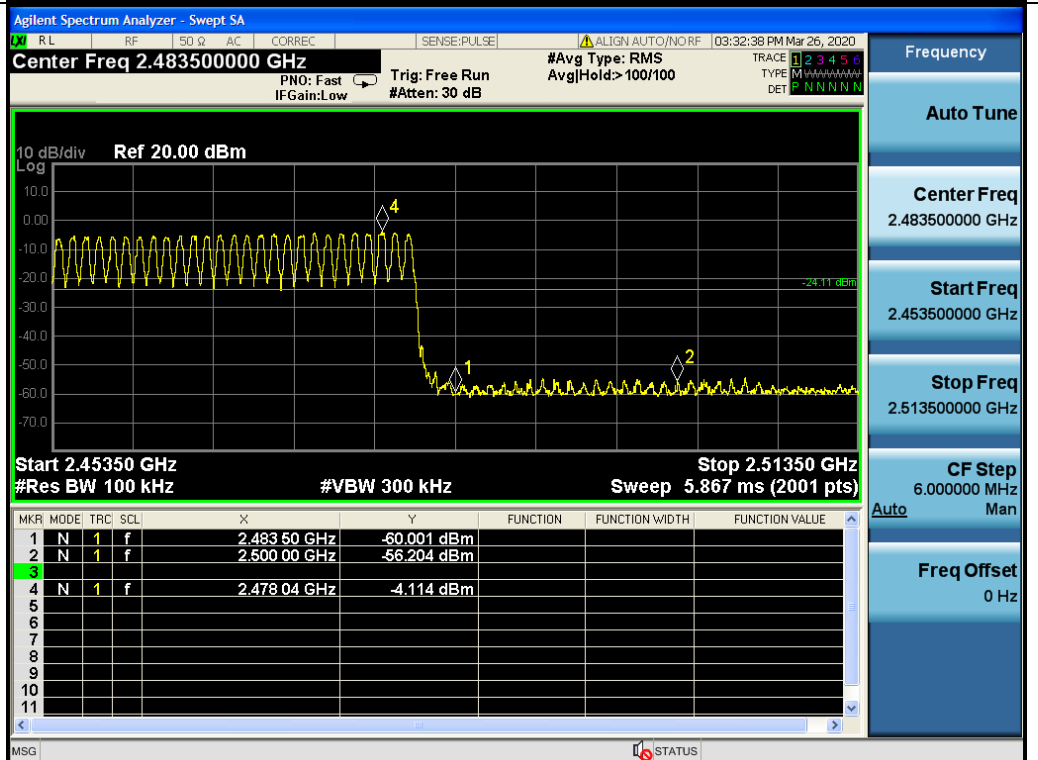
8DPSK/HCH/ No Hop



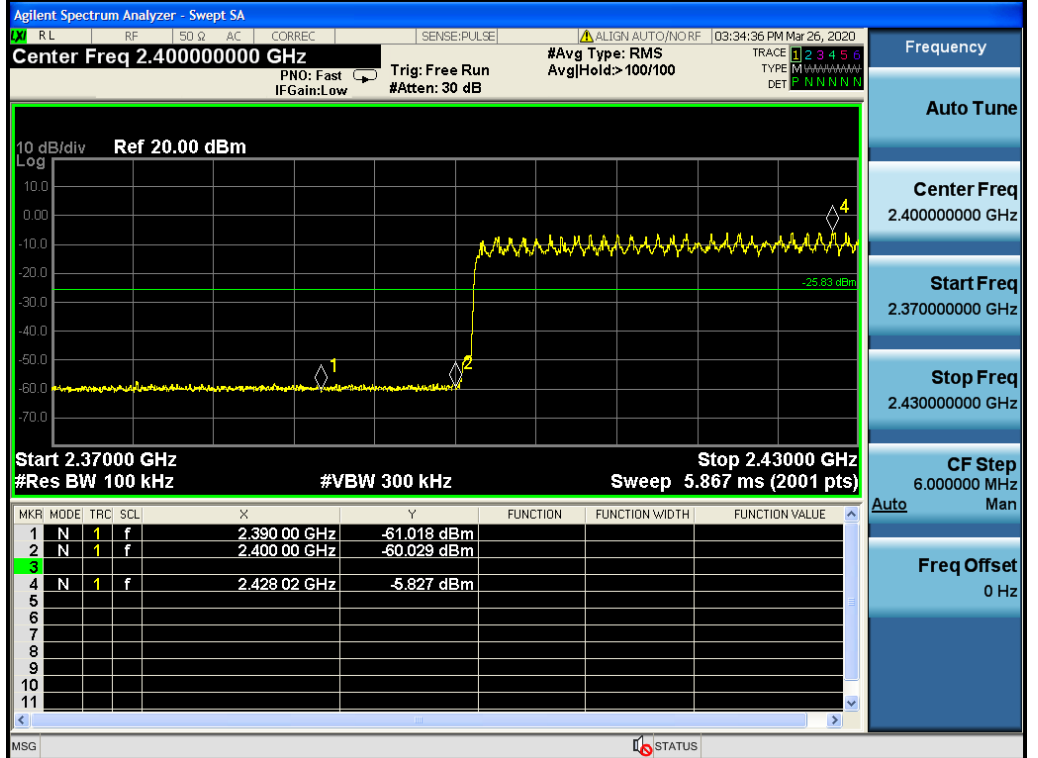
GFSK/LCH/Hop



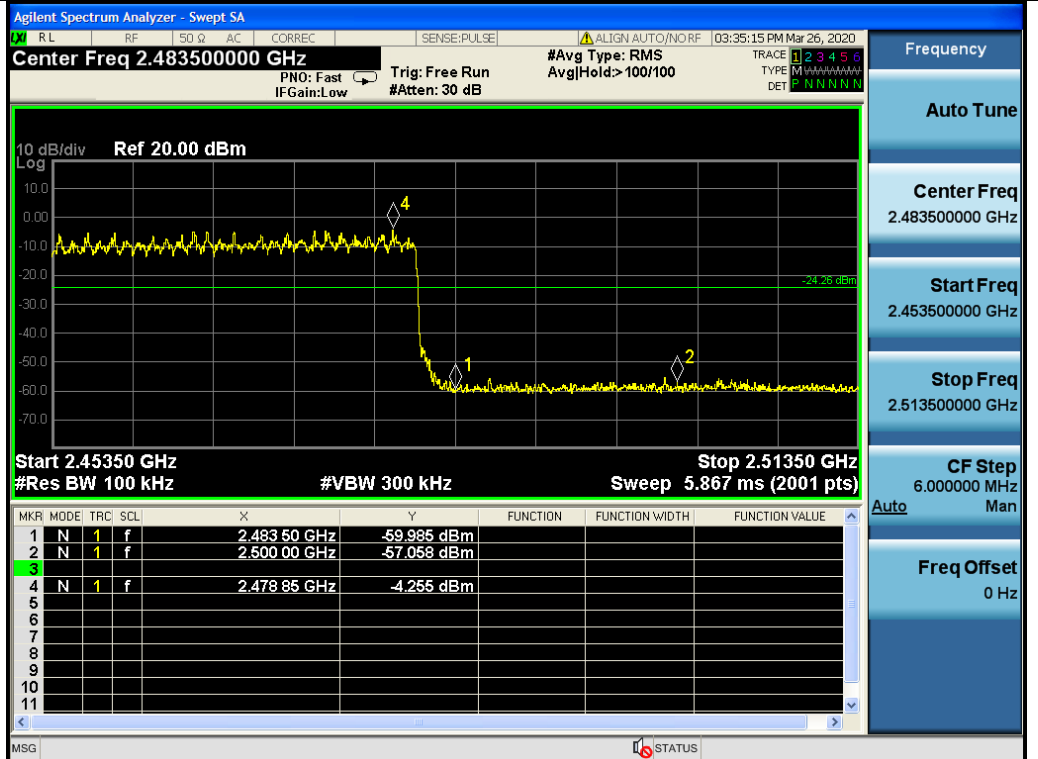
GFSK/HCH/Hop



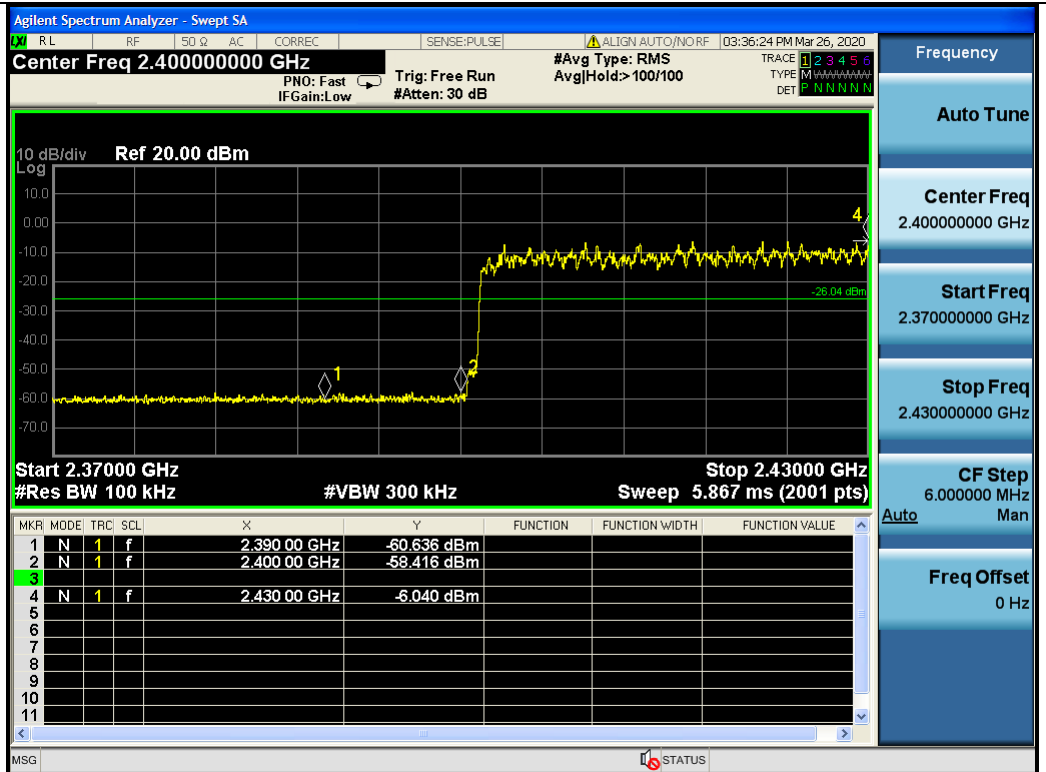
$\pi/4$ DQPSK/LCH/Hop



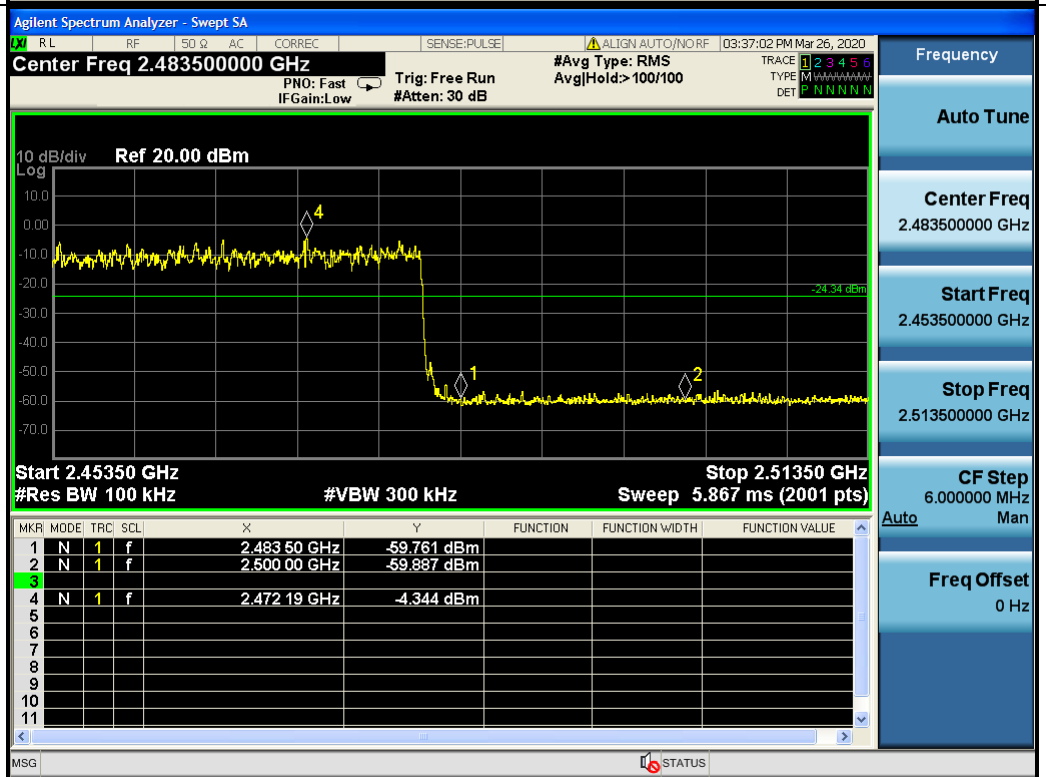
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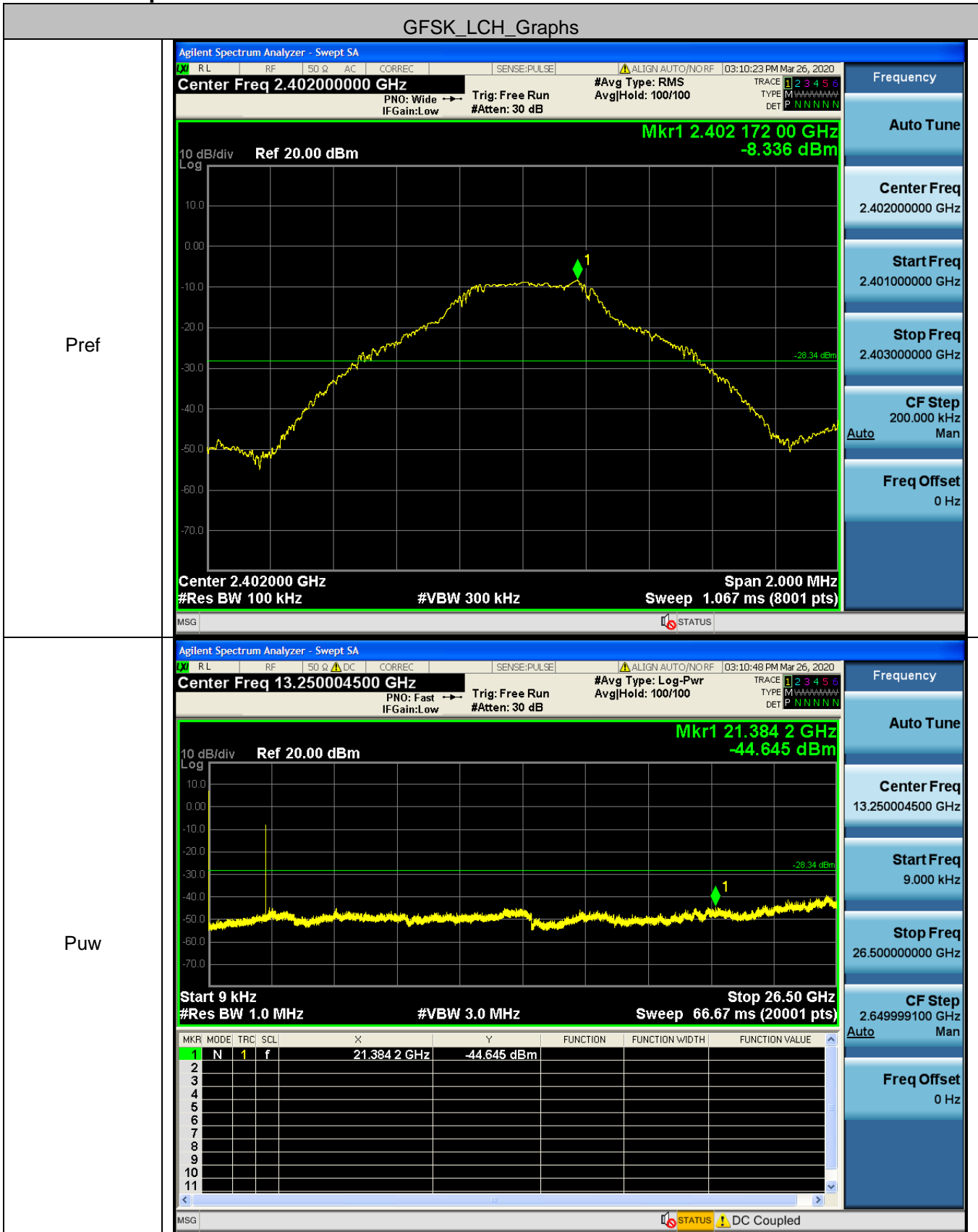
8DPSK/LCH/Hop



8DPSK/HCH/Hop

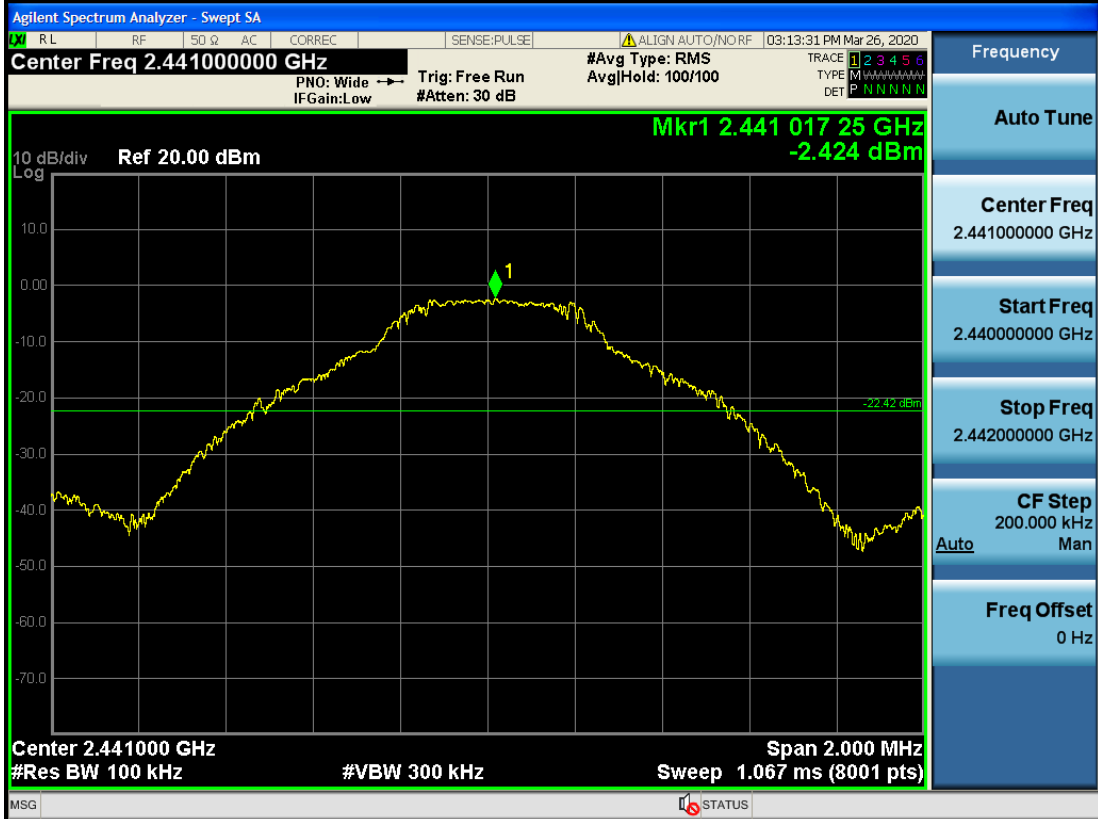


### A.7 RF Conducted Spurious Emissions Test Graph

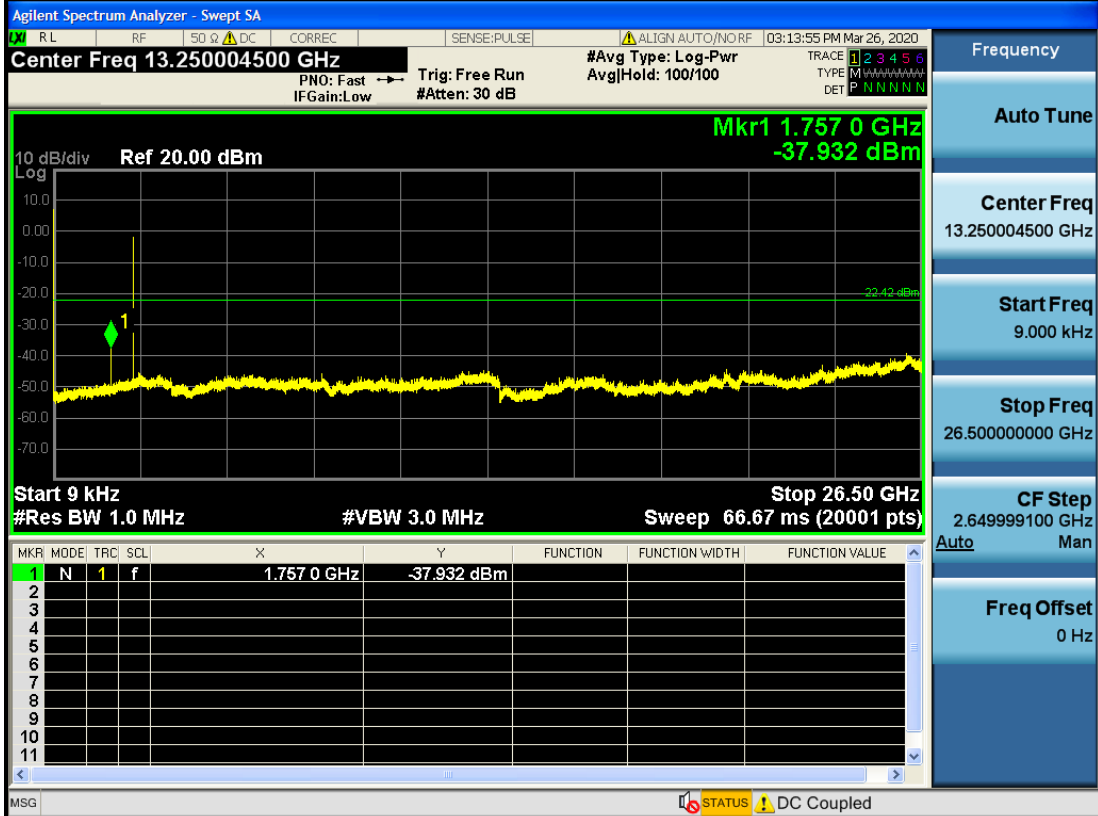


GFSK\_MCH\_Graphs

Pref



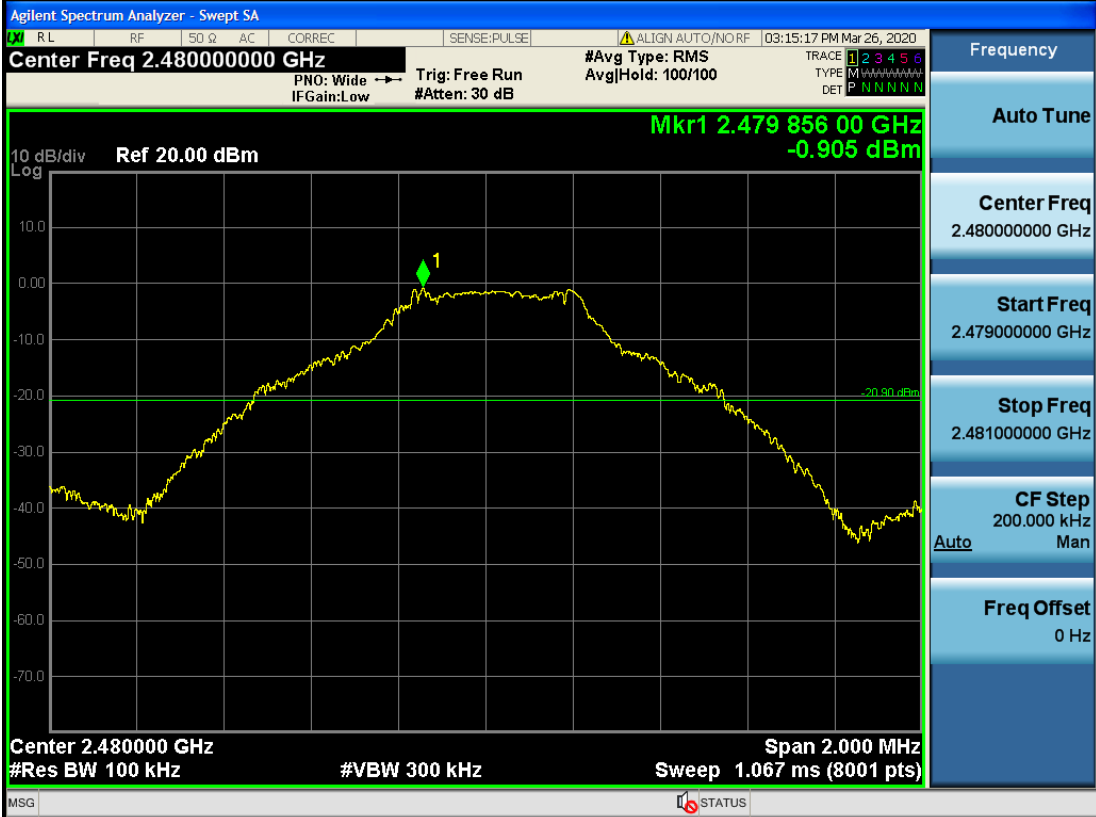
Puw



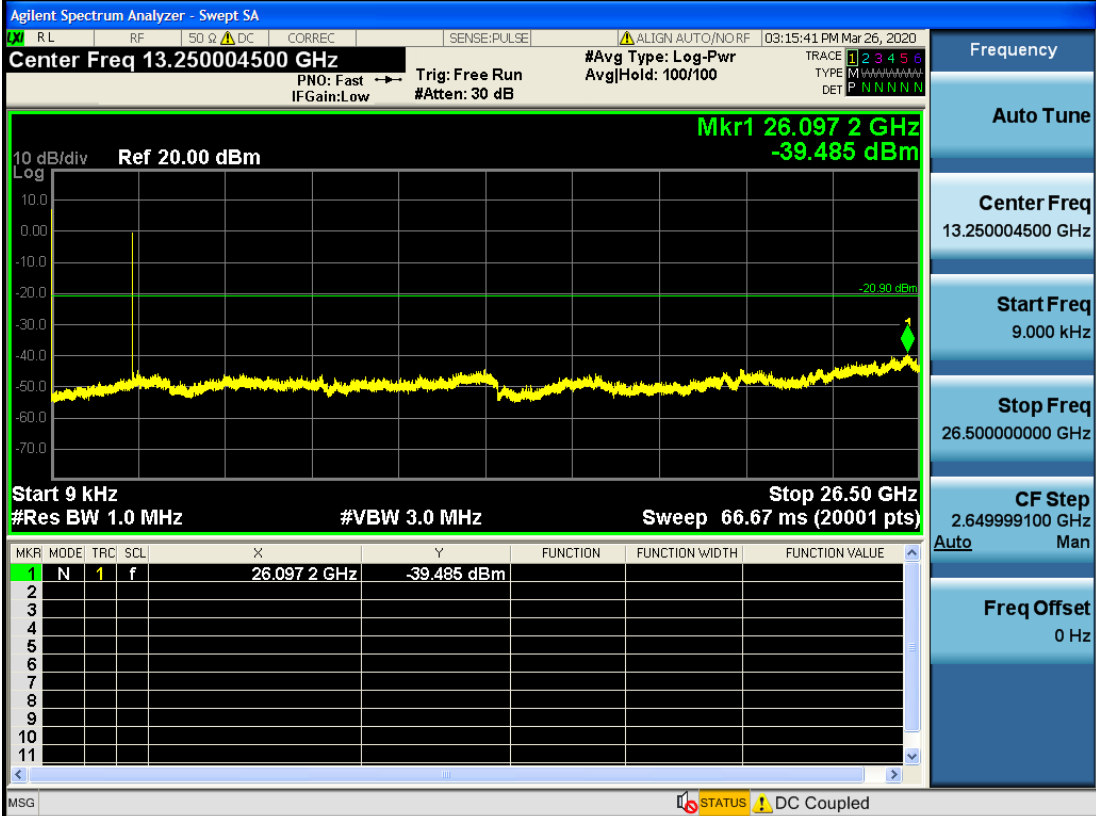


GFSK\_HCH\_Graphs

Pref

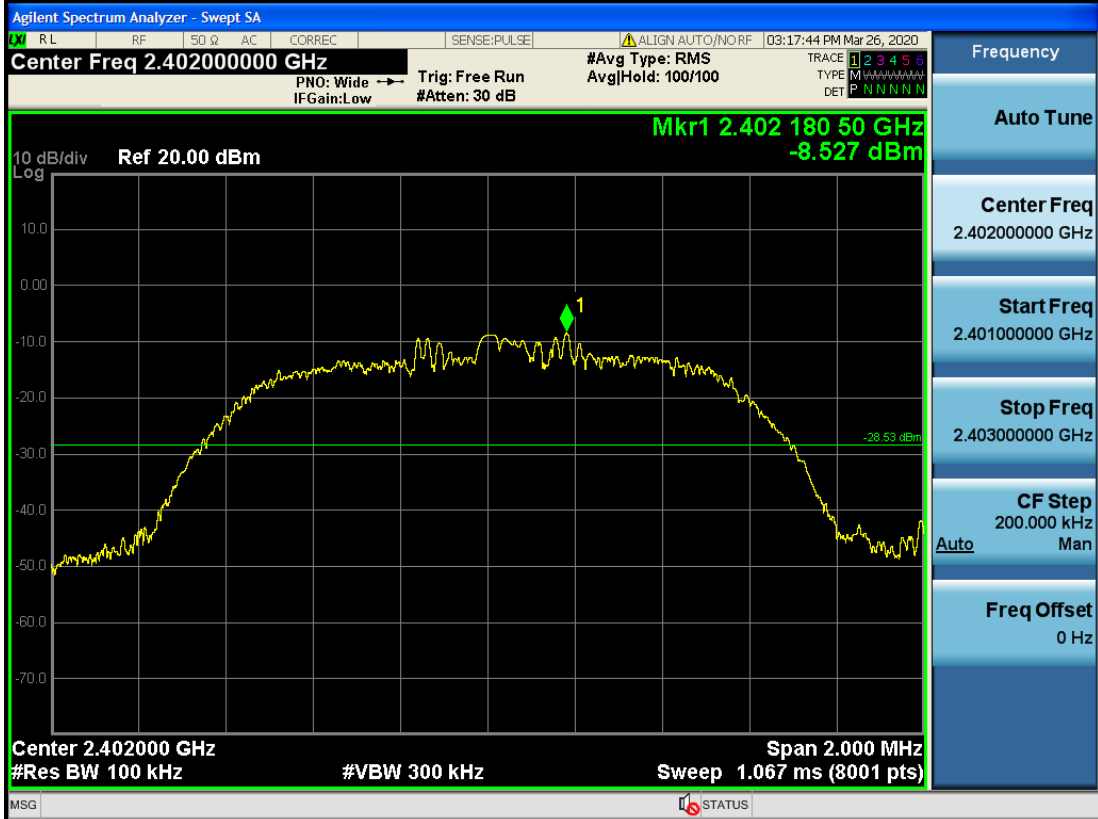


Puw

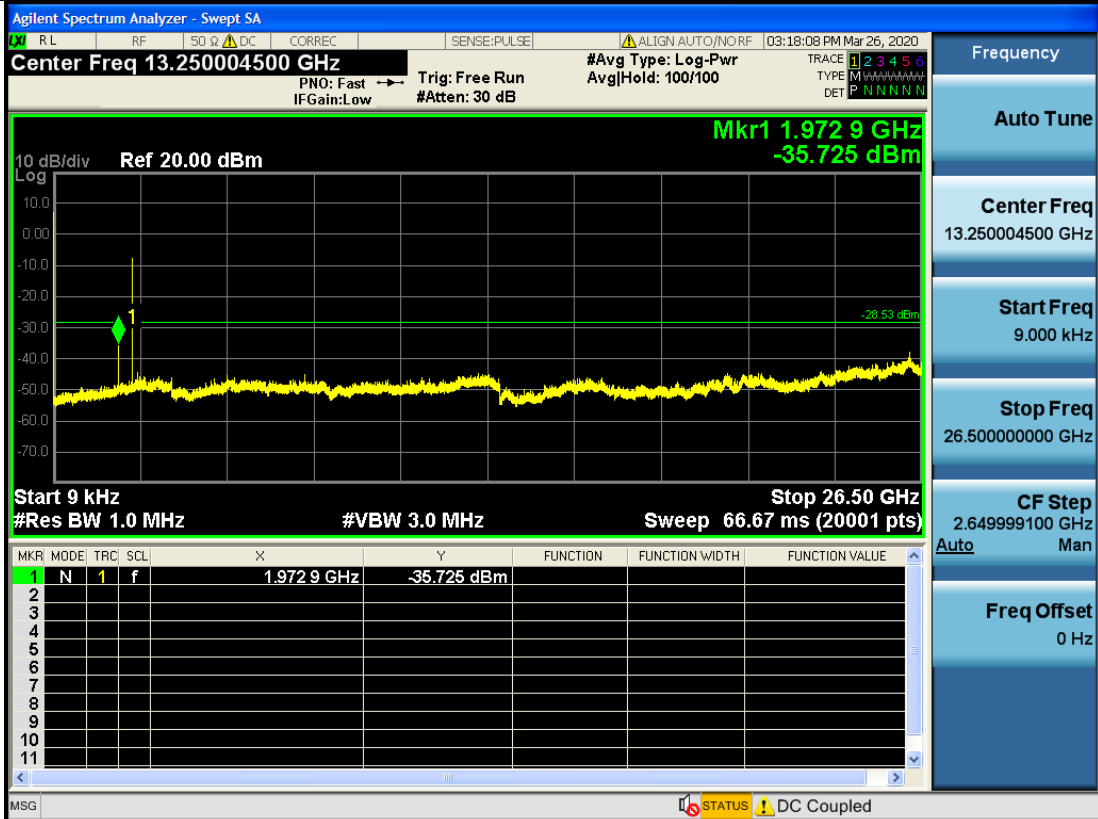


$\pi/4$ DQPSK LCH\_Graphs

Pref

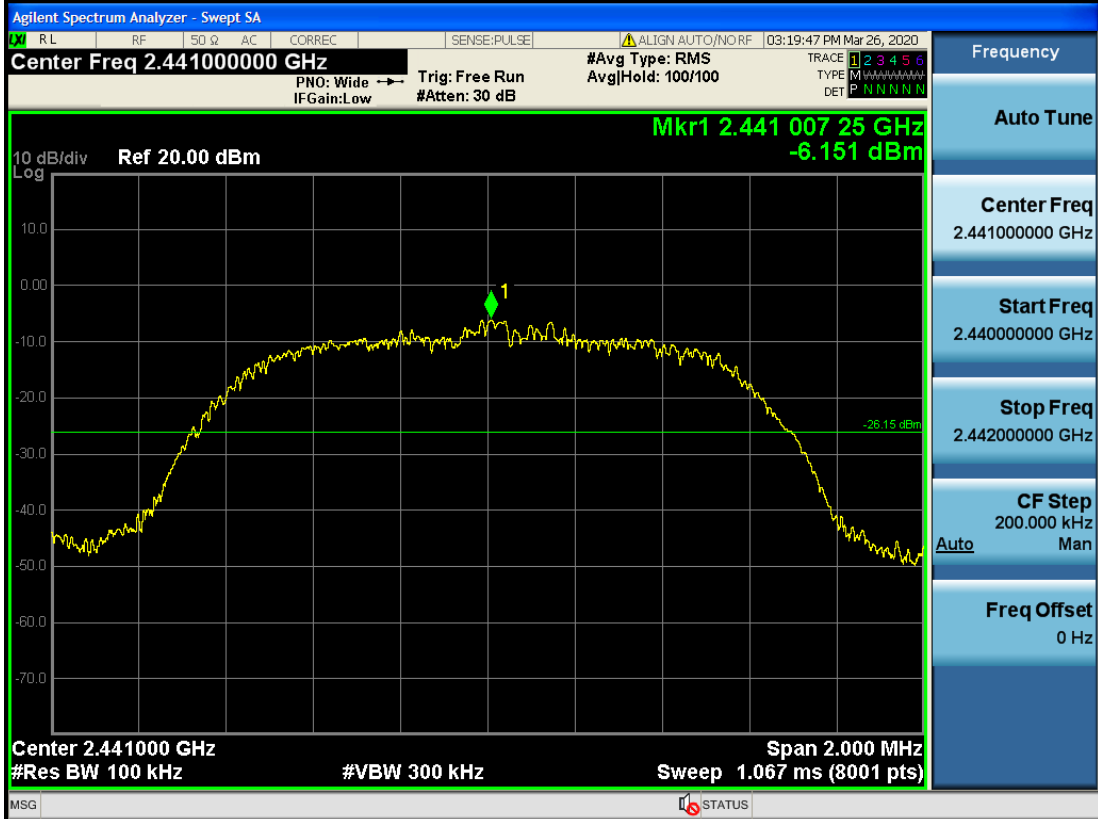


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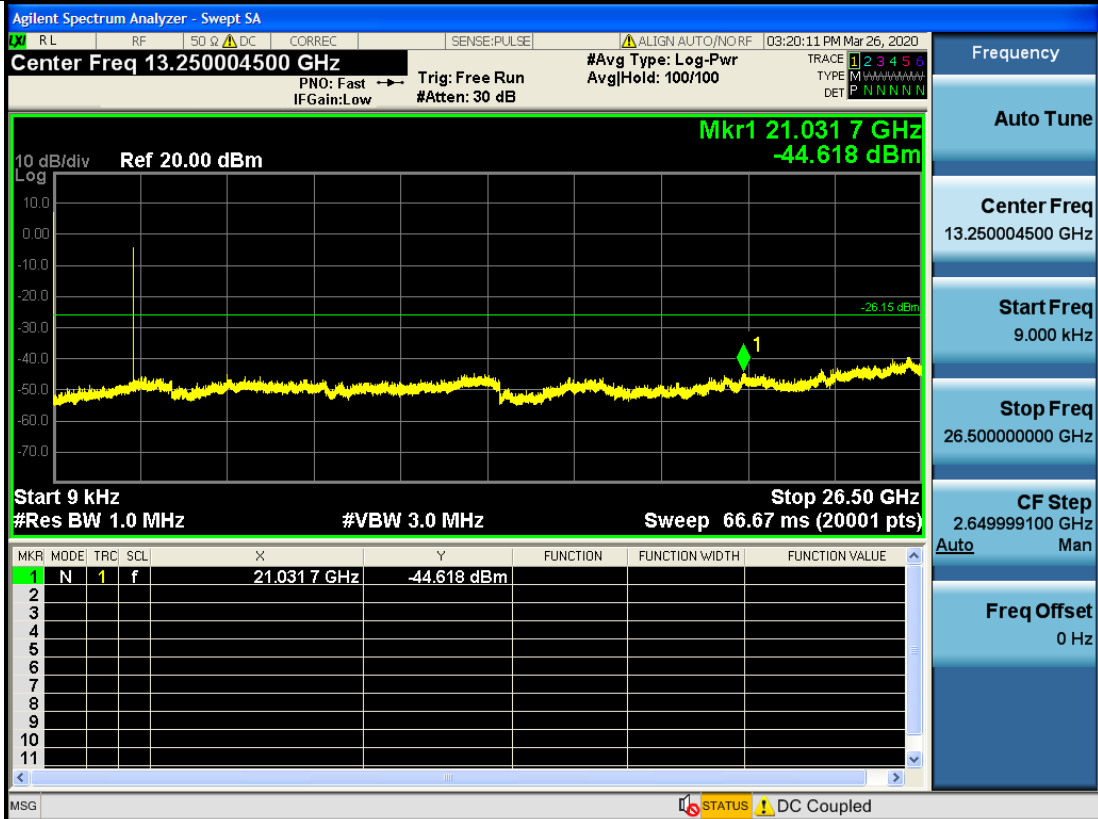


$\pi/4$ DQPSK MCH Graphs

Pref

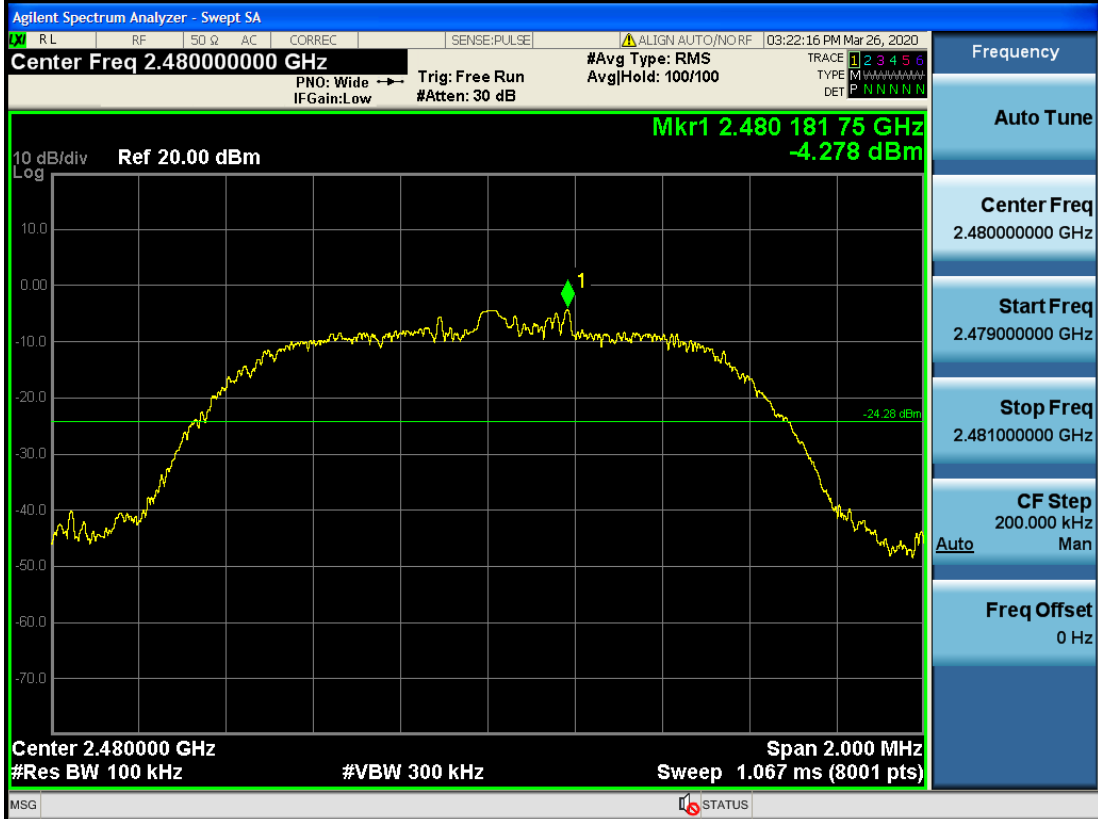


Puw

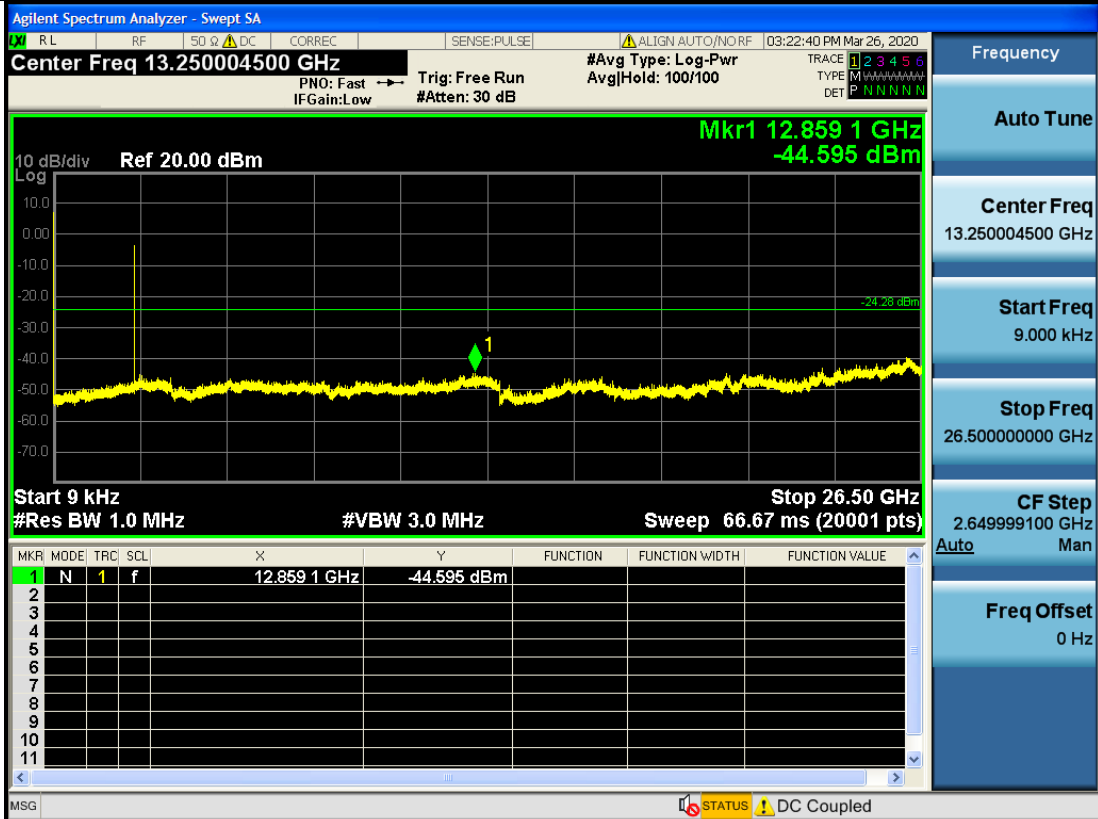


$\pi/4$ DQPSK HCH Graphs

Pref

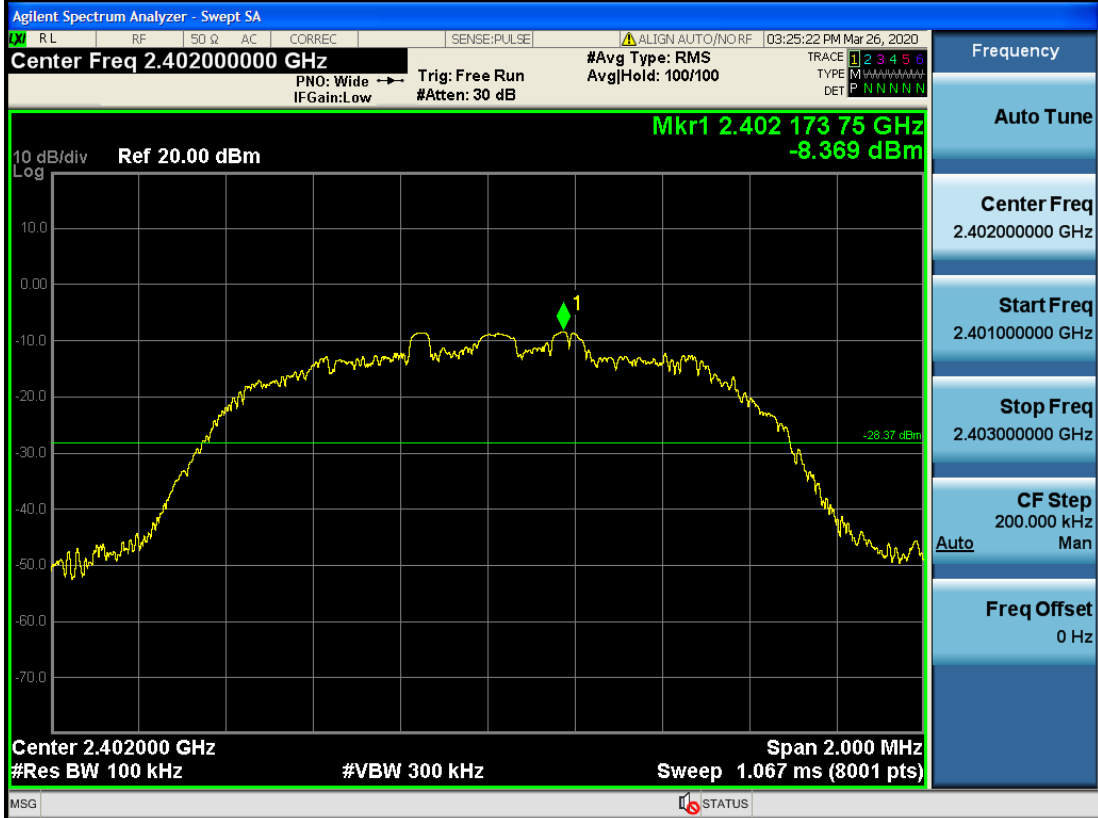


Puw

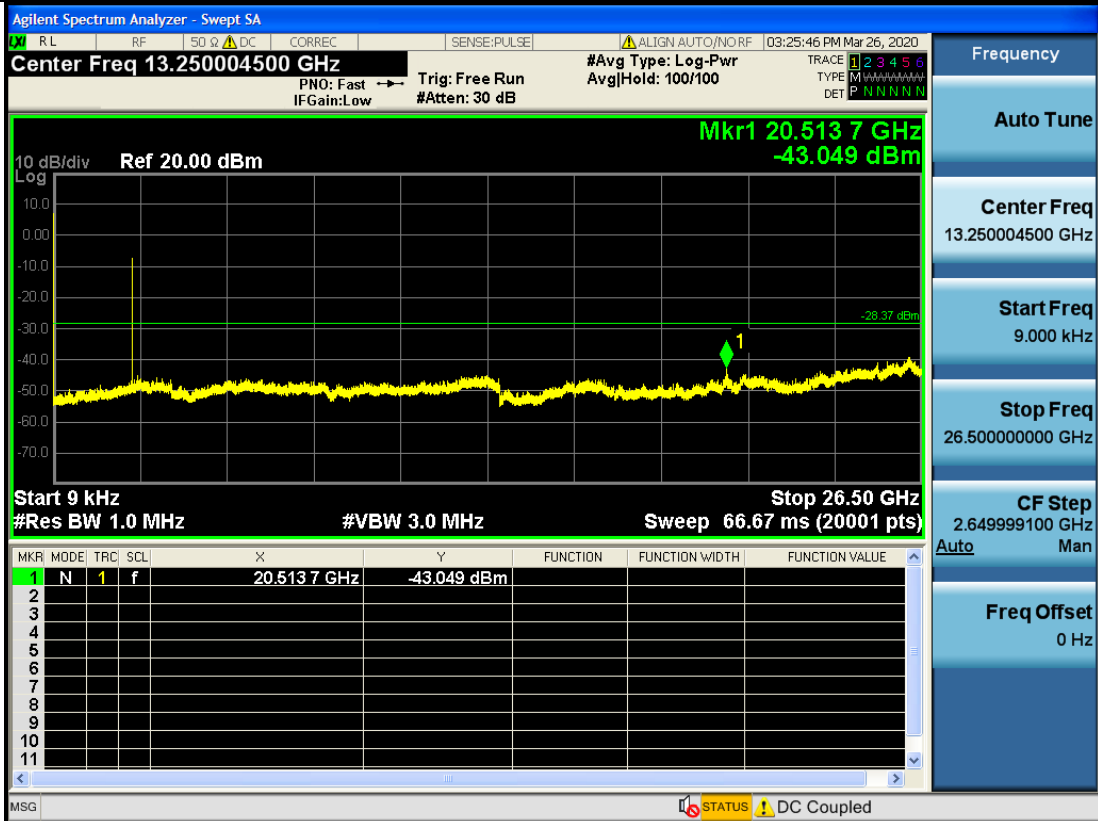


8DPSK\_LCH\_Graphs

Pref

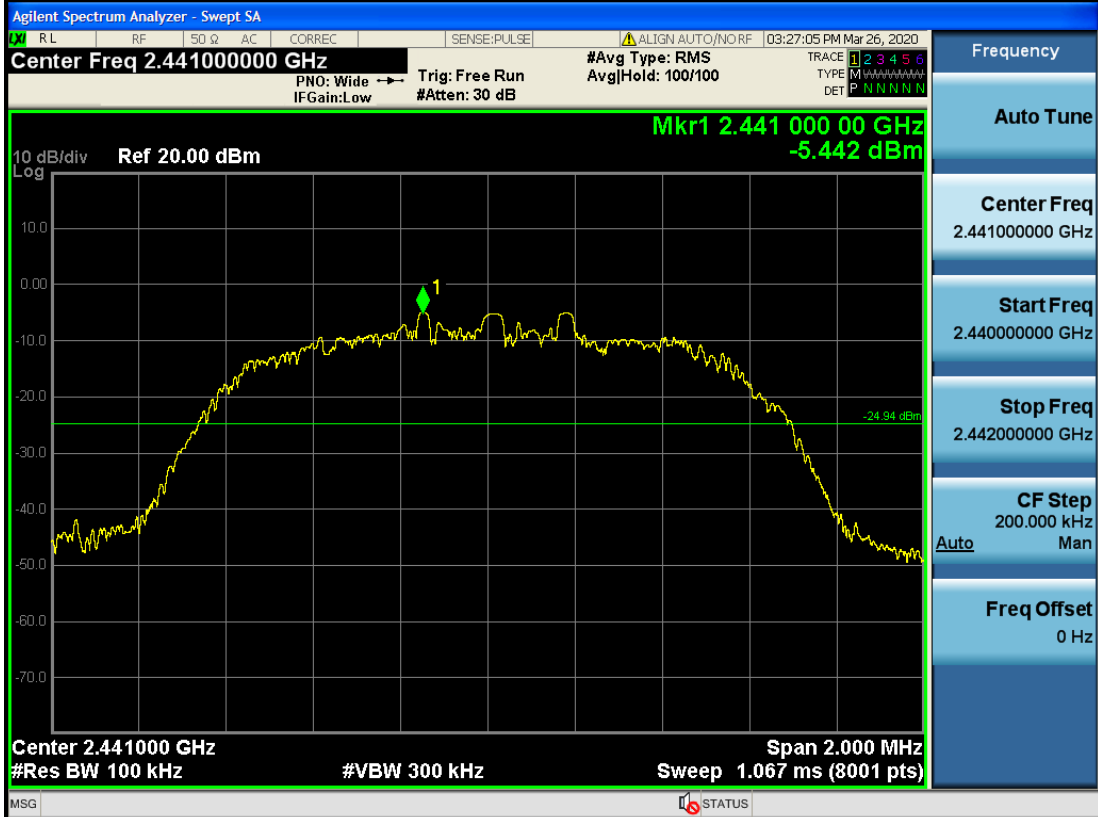


Puw

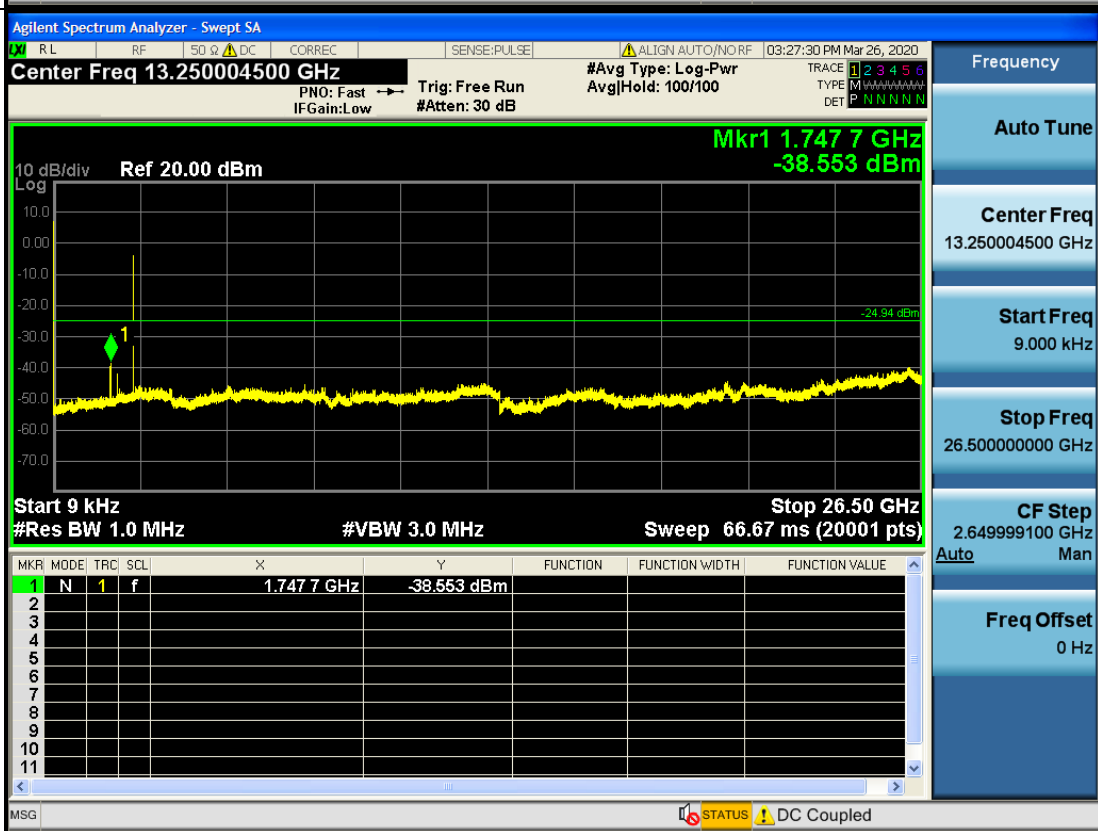


8DPSK\_MCH\_Graphs

Pref

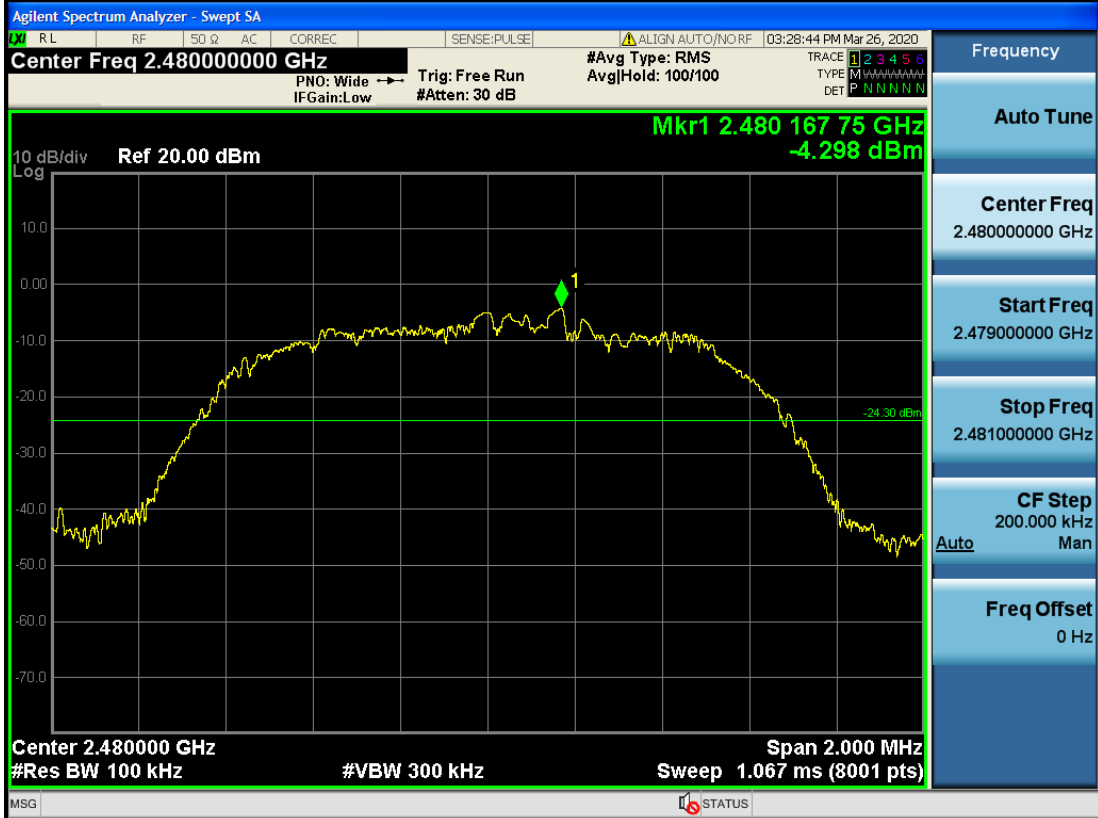


Puw

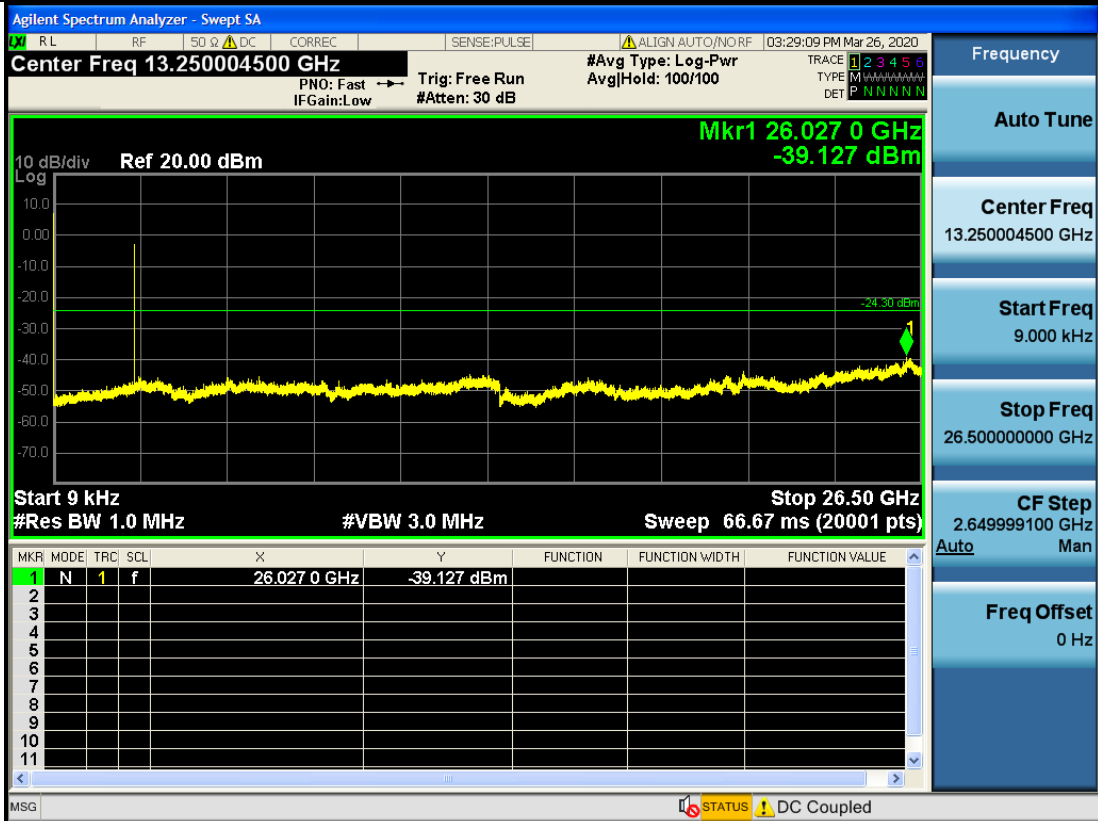


8DPSK\_HCH\_Graphs

Pref



Puw



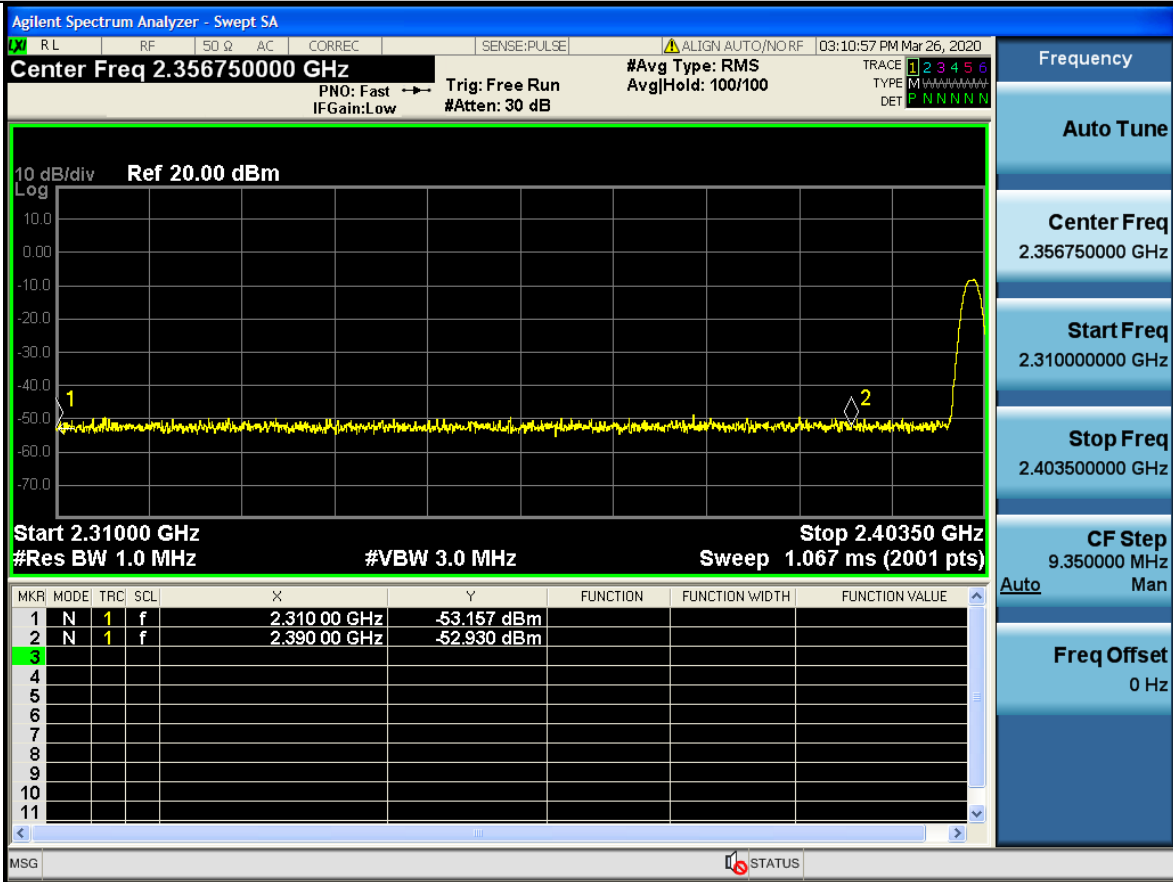
## A.8 Restrict-band band-edge measurements

Type	Carrier Frequency (MHz)	Frequency(M Hz)	Gain	Ground Factor	Peak Value(dBm)	E [dBuV/m]	Limit [dBuV/m]	Conclusion
1DH5	2402	2390	2.00	0.00	-52.93	44.27	74	Pass
1DH5	2480	2483.5	2.00	0.00	-46.399	50.801	74	Pass
2DH5	2402	2310	2.00	0.00	-50.958	46.242	74	Pass
2DH5	2480	2483.5	2.00	0.00	-49.711	47.489	74	Pass
3DH5	2402	2310	2.00	0.00	-52.382	44.818	74	Pass
3DH5	2480	2483.5	2.00	0.00	-49.591	47.609	74	Pass

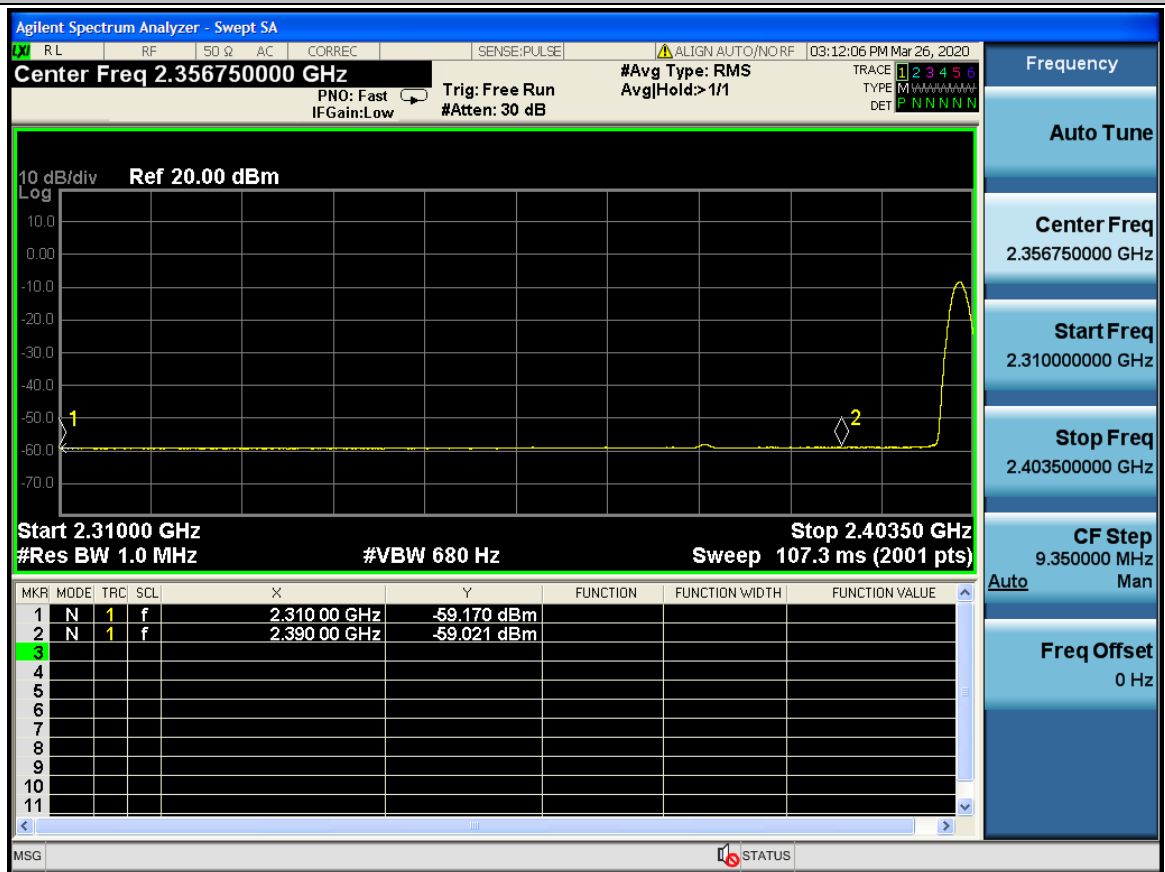
Type	Carrier Frequency (MHz)	Frequency(M Hz)	Gain	Ground Factor	Average Value(dBm)	E [dBuV/m]	Limit [dBuV/m]	Conclusion
1DH5	2402	2390	2.00	0.00	-59.021	38.179	54	Pass
1DH5	2480	2483.5	2.00	0.00	-51.492	45.708	54	Pass
2DH5	2402	2310	2.00	0.00	-59.13	38.07	54	Pass
2DH5	2480	2483.5	2.00	0.00	-55.634	41.566	54	Pass
3DH5	2402	2310	2.00	0.00	-59.128	38.072	54	Pass
3DH5	2480	2483.5	2.00	0.00	-55.616	41.584	54	Pass



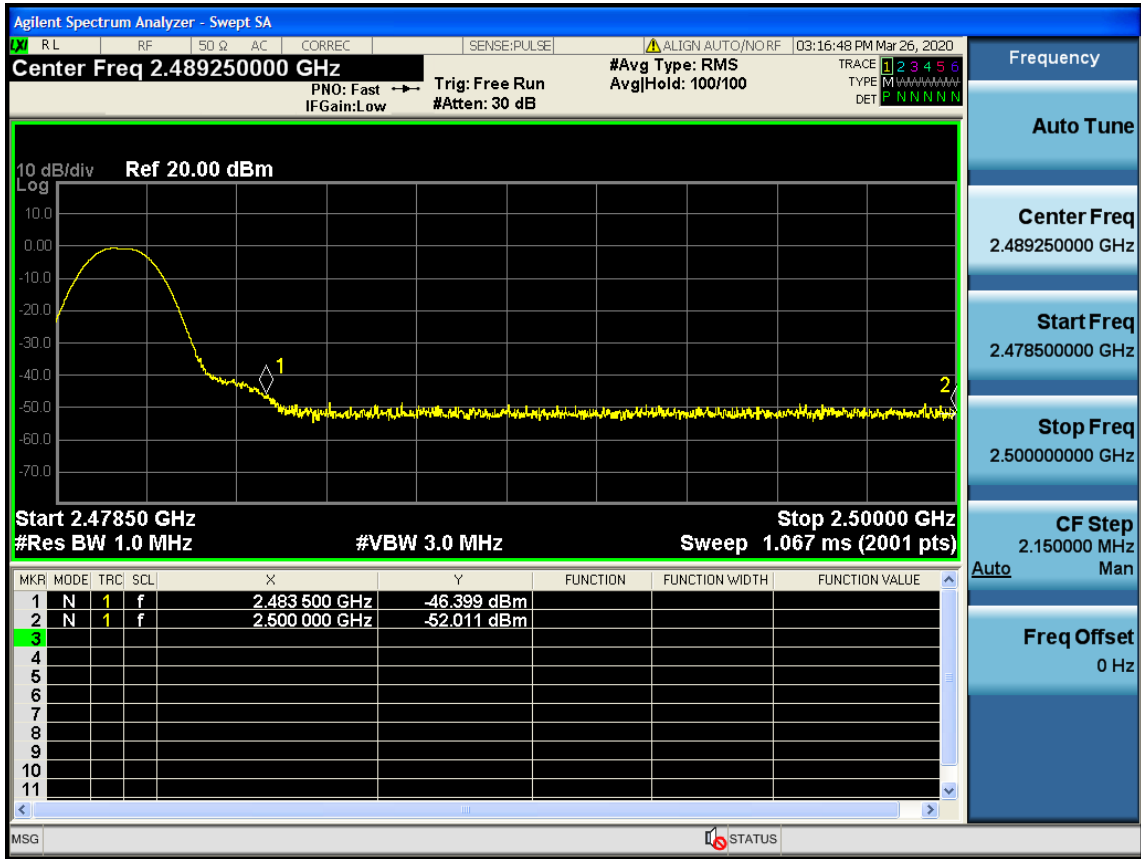
Restrict-band band-edge measurements\_2402\_PEAK\_DH5



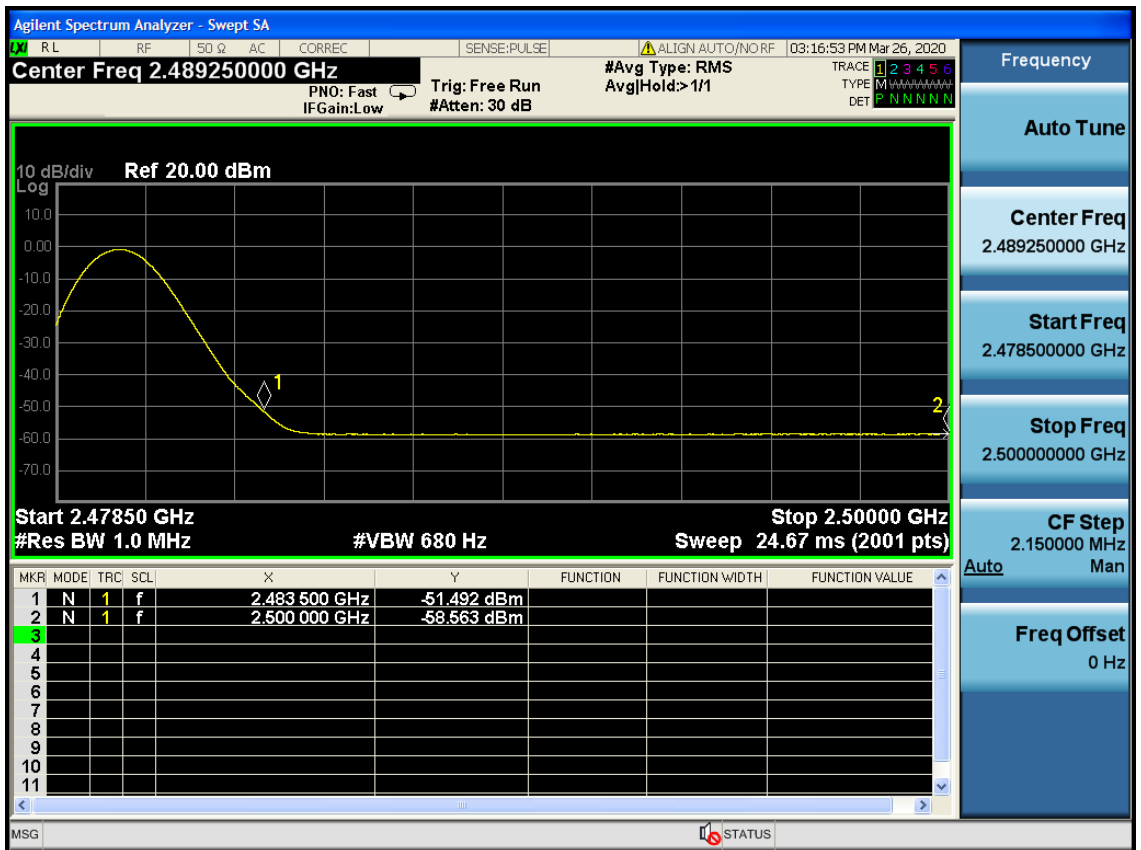
Restrict-band band-edge measurements\_2402\_AV\_DH5



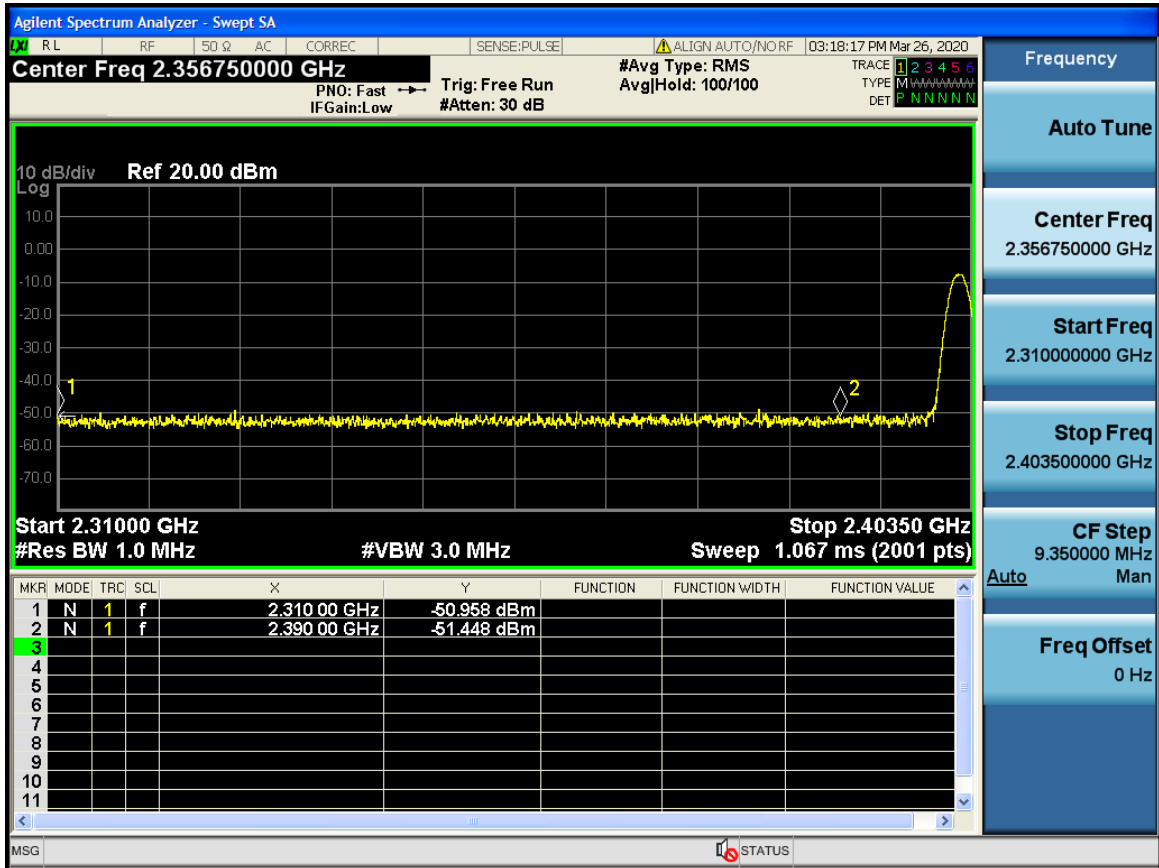
Restrict-band band-edge measurements\_2480\_PEAK\_DH5



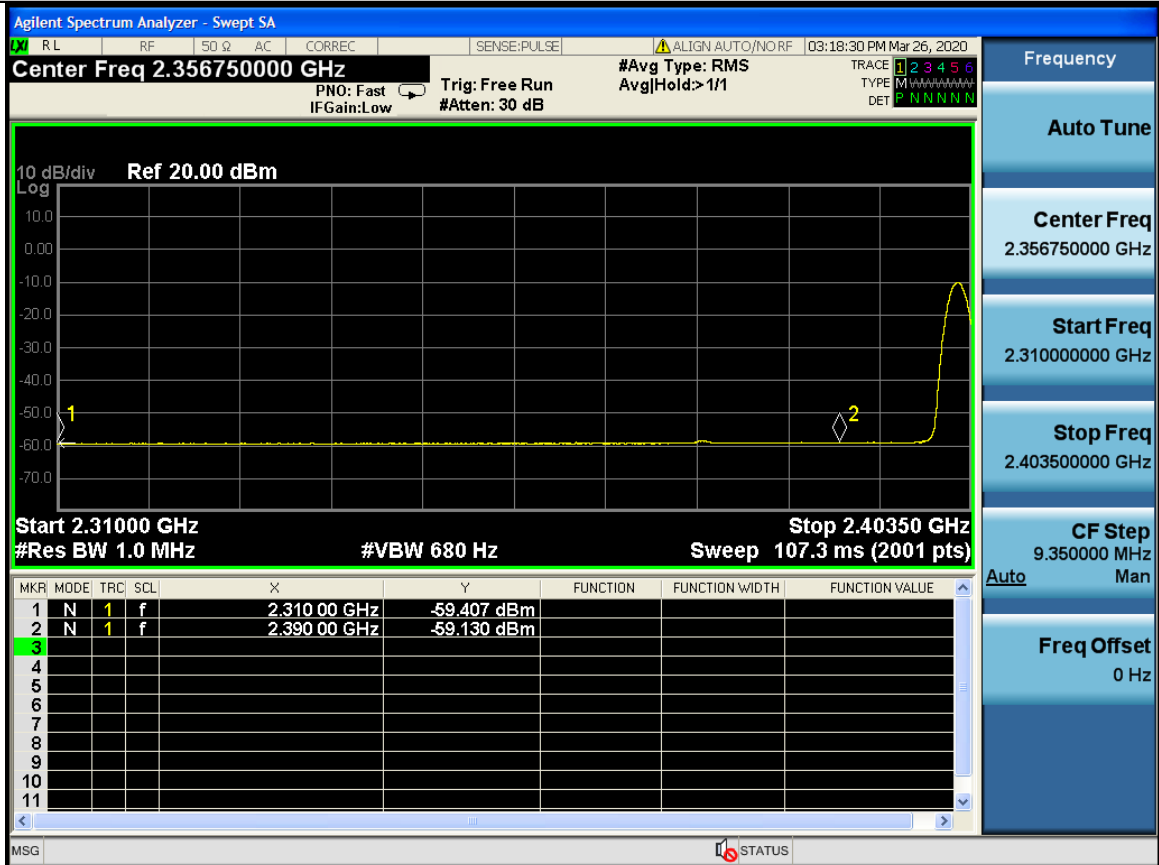
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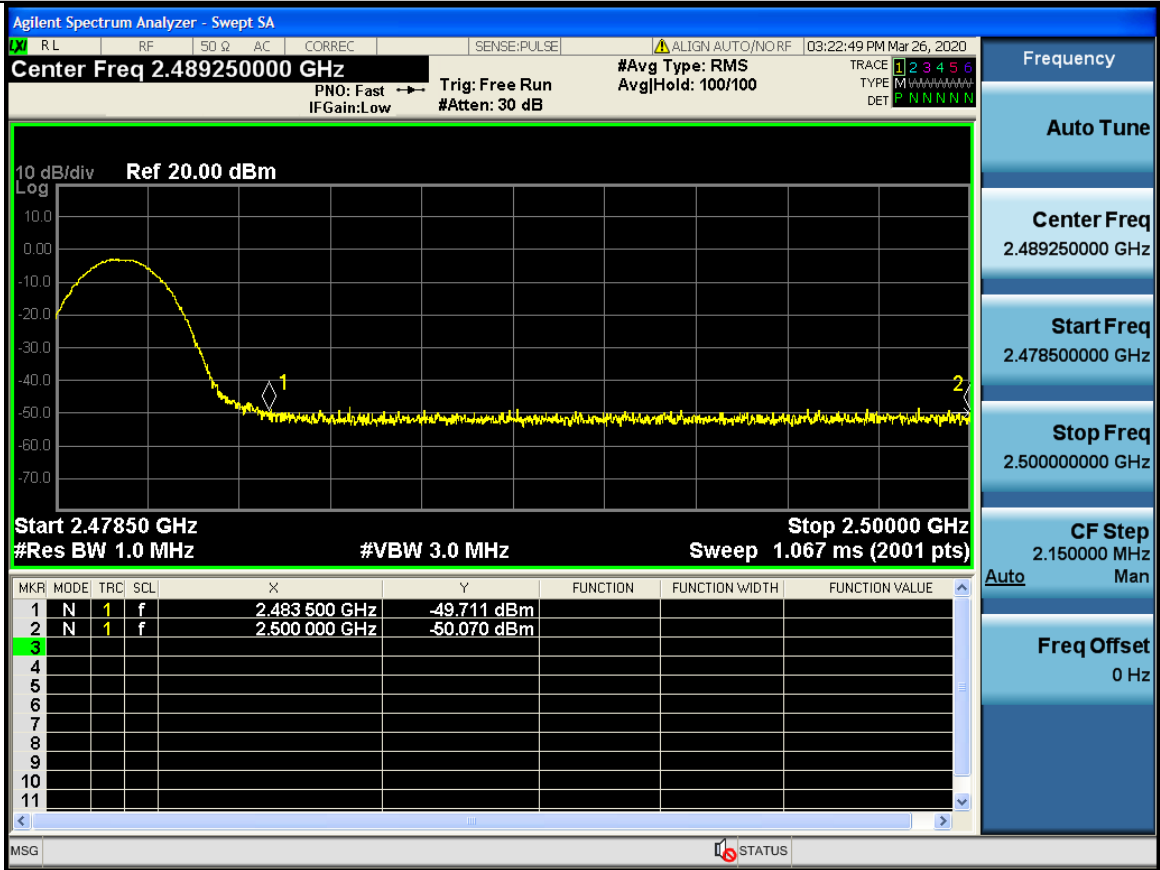
Restrict-band band-edge measurements\_2402\_PEAK\_2DH5



Restrict-band band-edge measurements\_2402\_AV\_2DH5



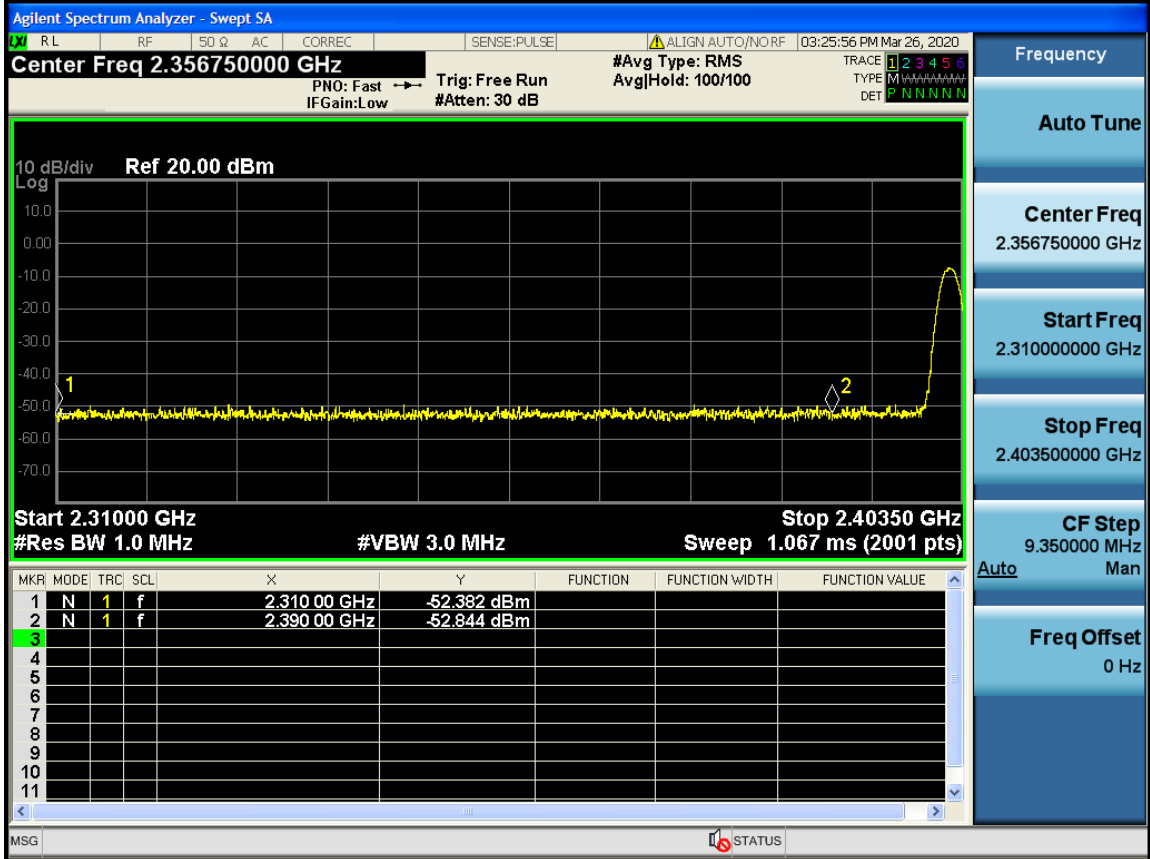
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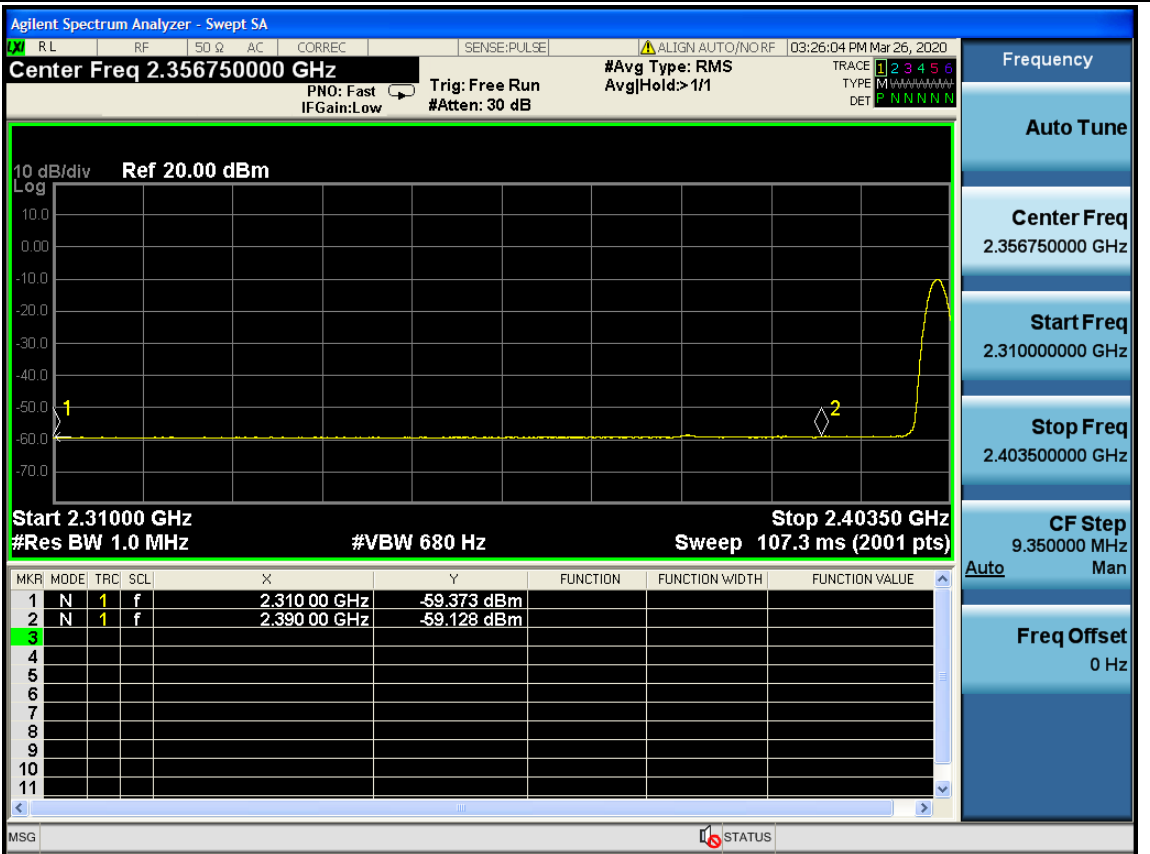
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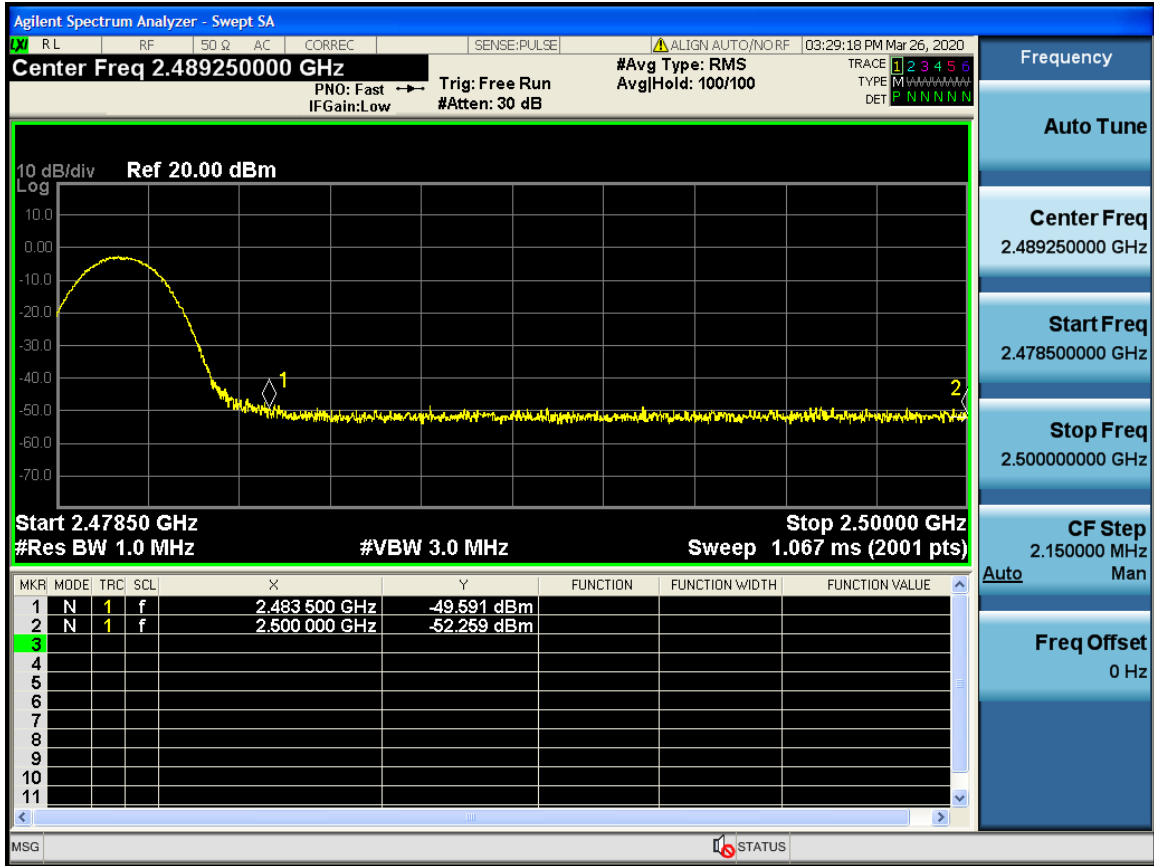
Restrict-band band-edge measurements\_2402\_PEAK\_3DH5



Restrict-band band-edge measurements\_2402\_AV\_3DH5



Restrict-band band-edge measurements\_2480\_PEAK\_3DH5



Restrict-band band-edge measurements\_2480\_AV\_3DH5

