

Appendix A

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

Product Name: True wireless Earphones

Trade Mark: MUVEACOUSTICS

Test Model: MA-3000

FCC ID: 2ANVW-MA-3000

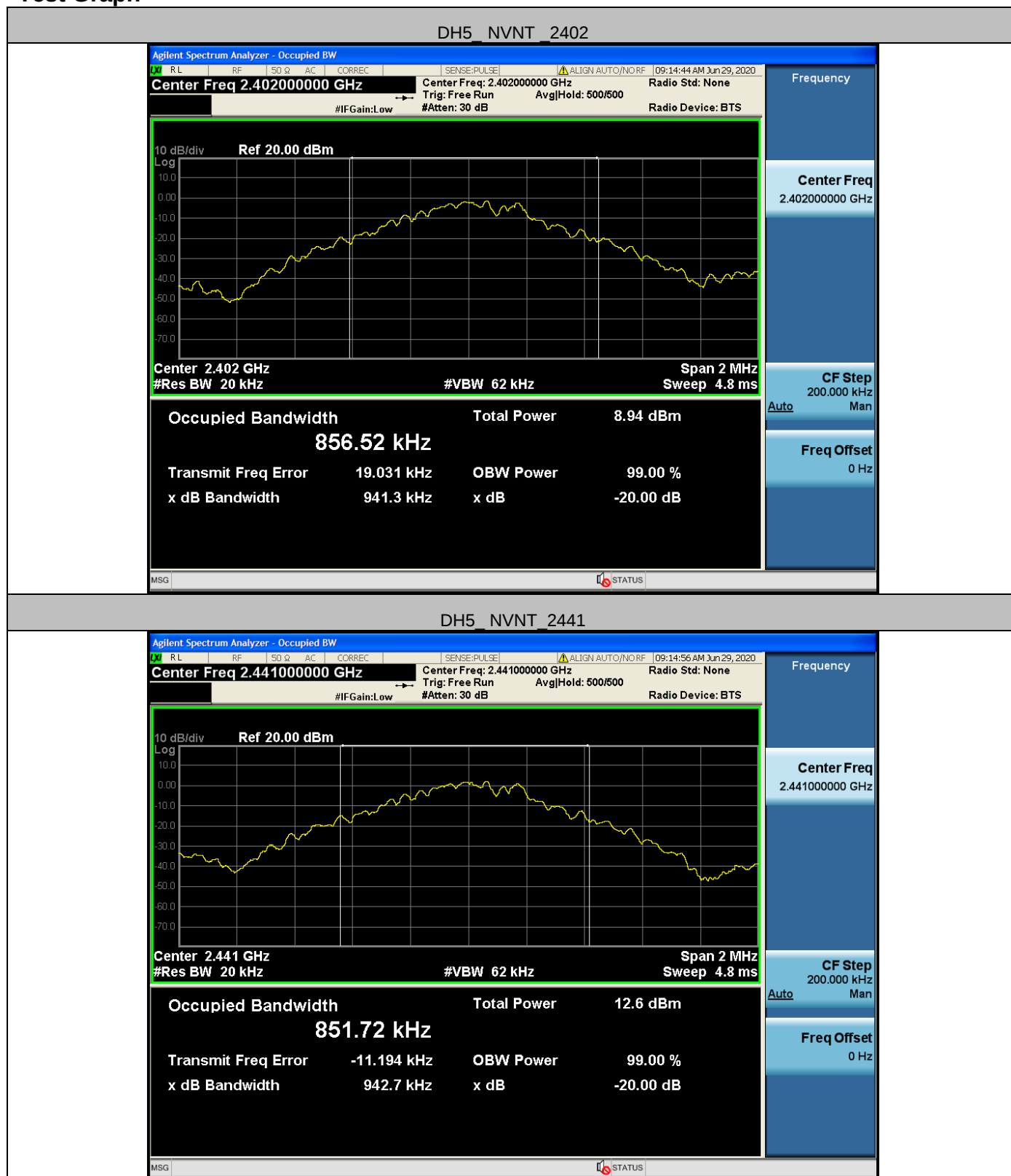
Environmental Conditions

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

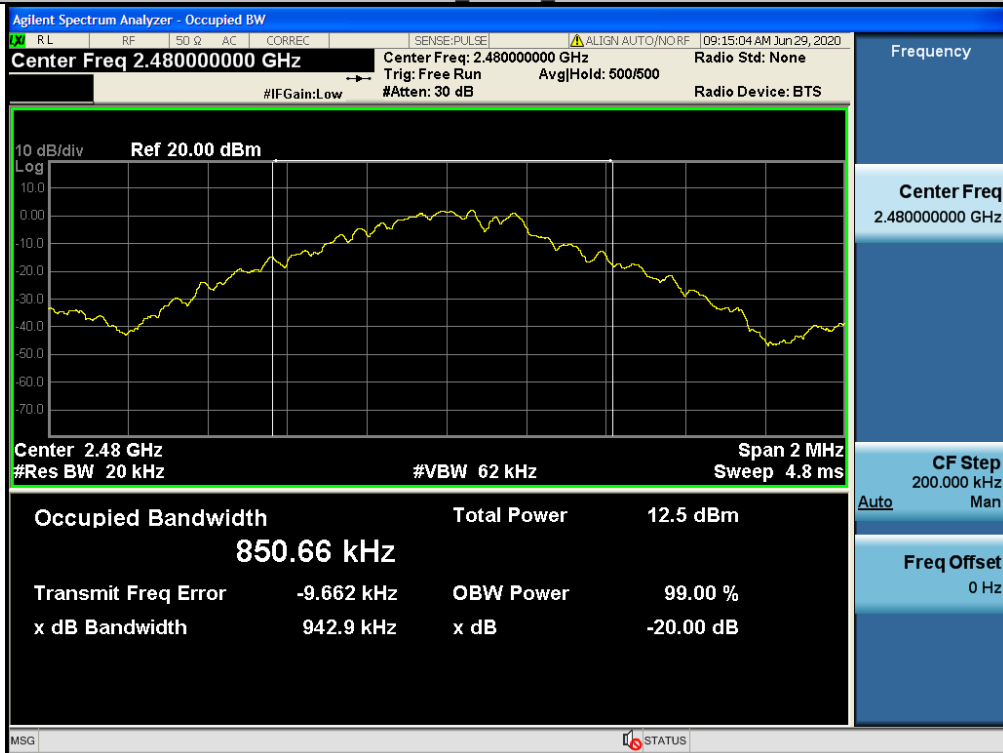
A.1 20 dB Bandwidth

Type	Frequency(MHz)	Nominal Bandwidth(MHz)	Test Condition	20dB Spectrum Bandwidth(MHz)	Conclusion
DH5	2402	1	NVNT	0.942	No Limit
DH5	2441	1	NVNT	0.943	No Limit
DH5	2480	1	NVNT	0.943	No Limit
2DH5	2402	1	NVNT	1.235	No Limit
2DH5	2441	1	NVNT	1.230	No Limit
2DH5	2480	1	NVNT	1.231	No Limit
3DH5	2402	1	NVNT	1.257	No Limit
3DH5	2441	1	NVNT	1.248	No Limit
3DH5	2480	1	NVNT	1.249	No Limit

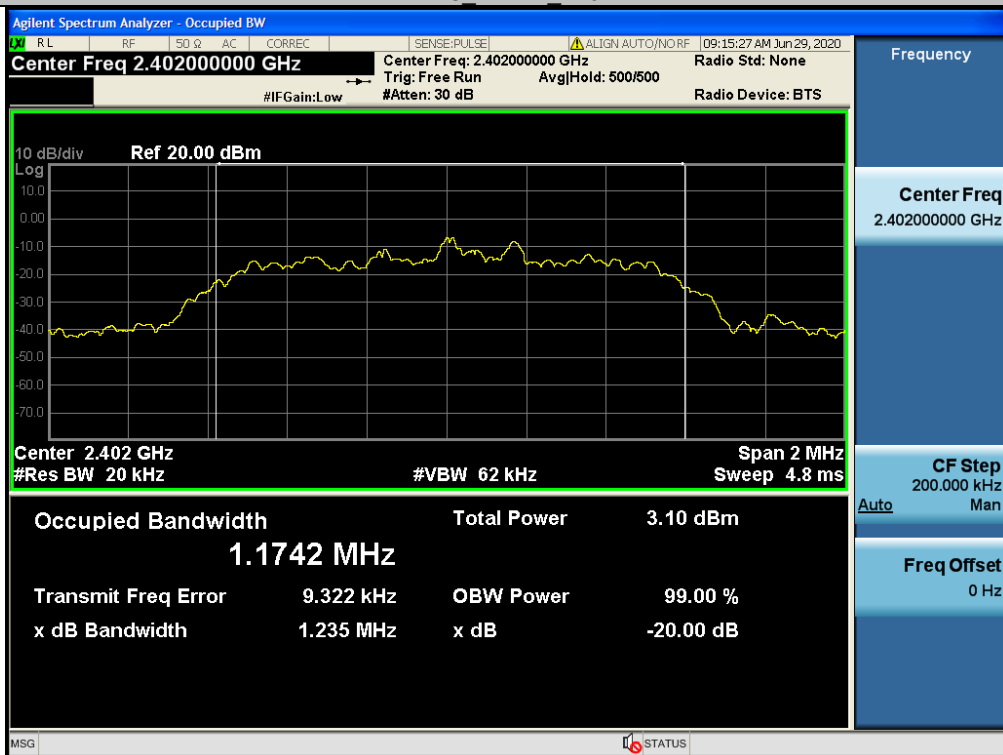
Test Graph



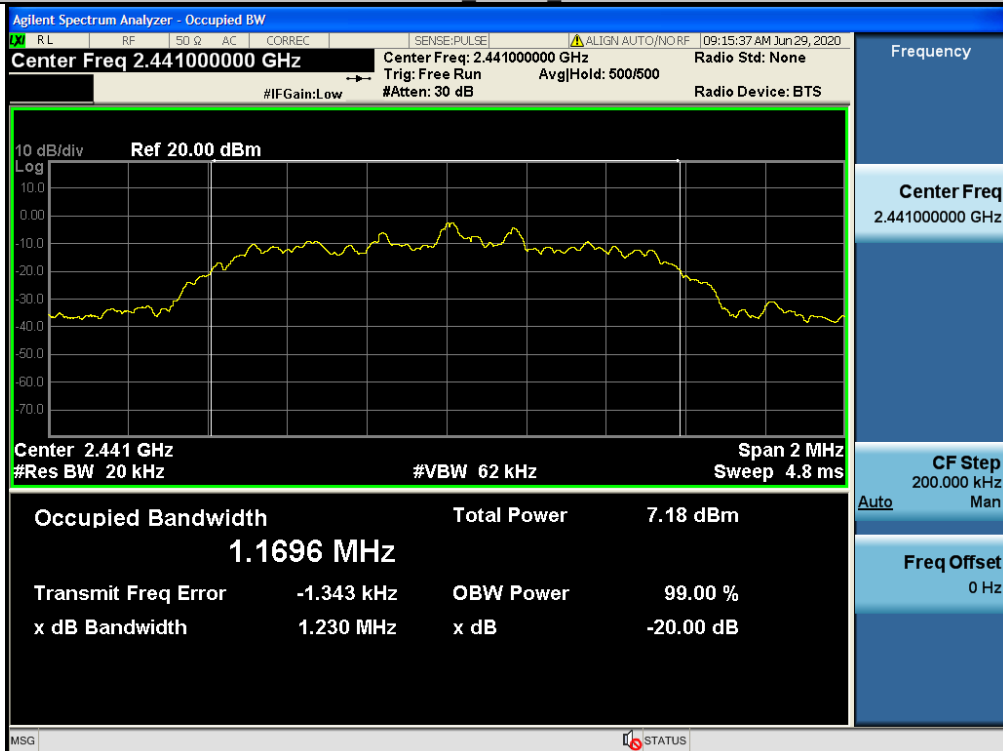
DH5 NVNT 2480



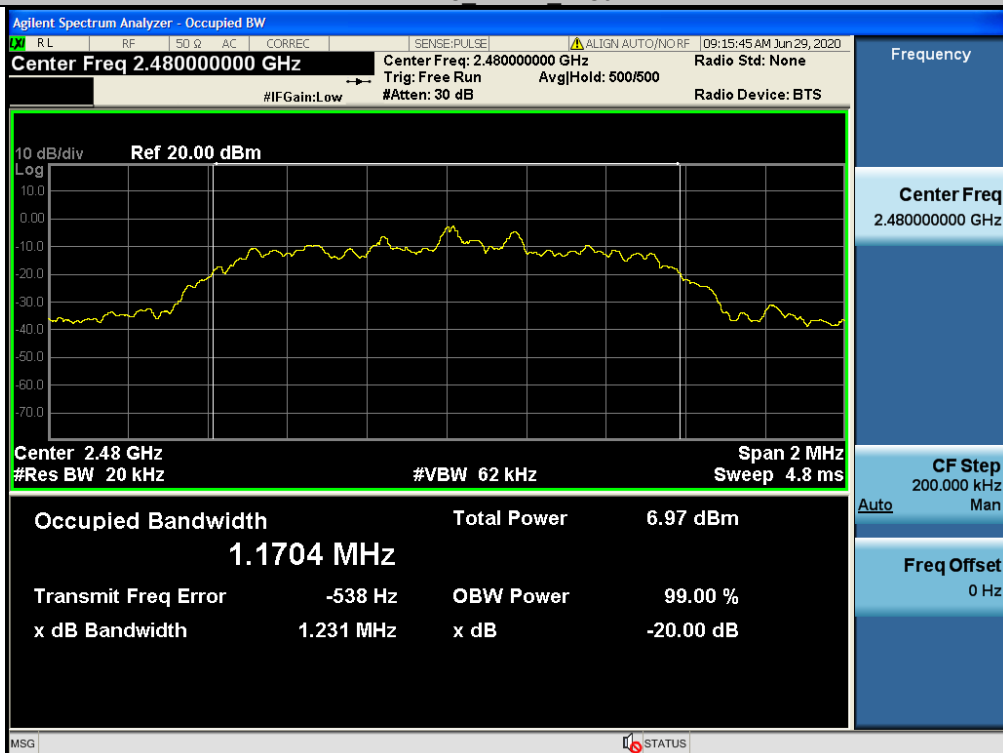
2DH5 NVNT 2402



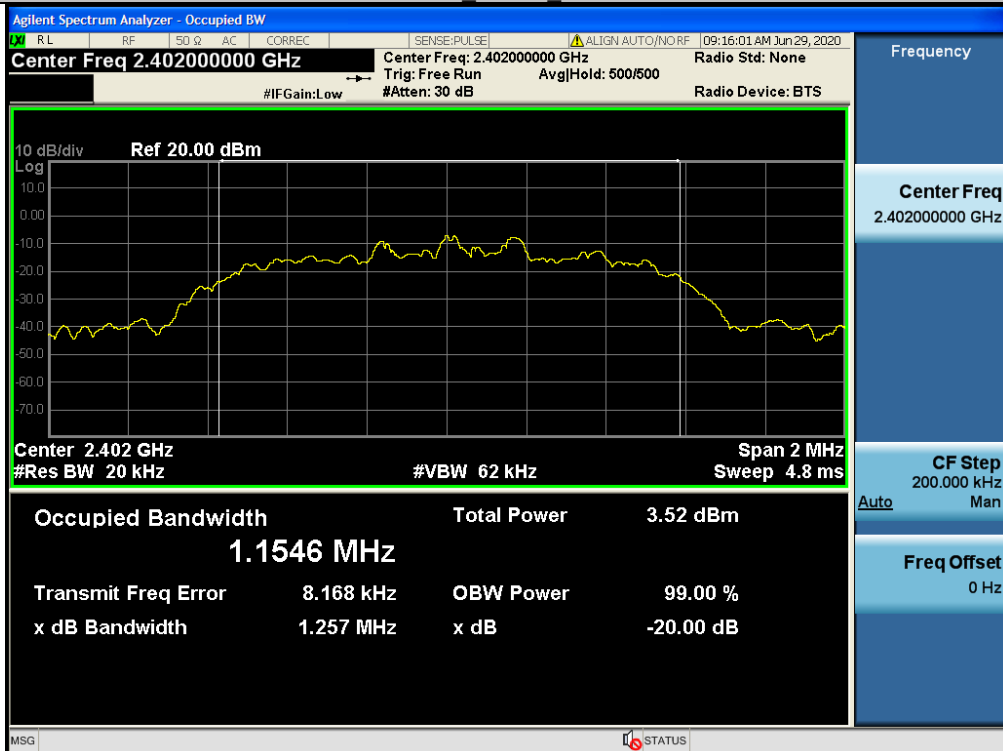
2DH5 NVNT 2441



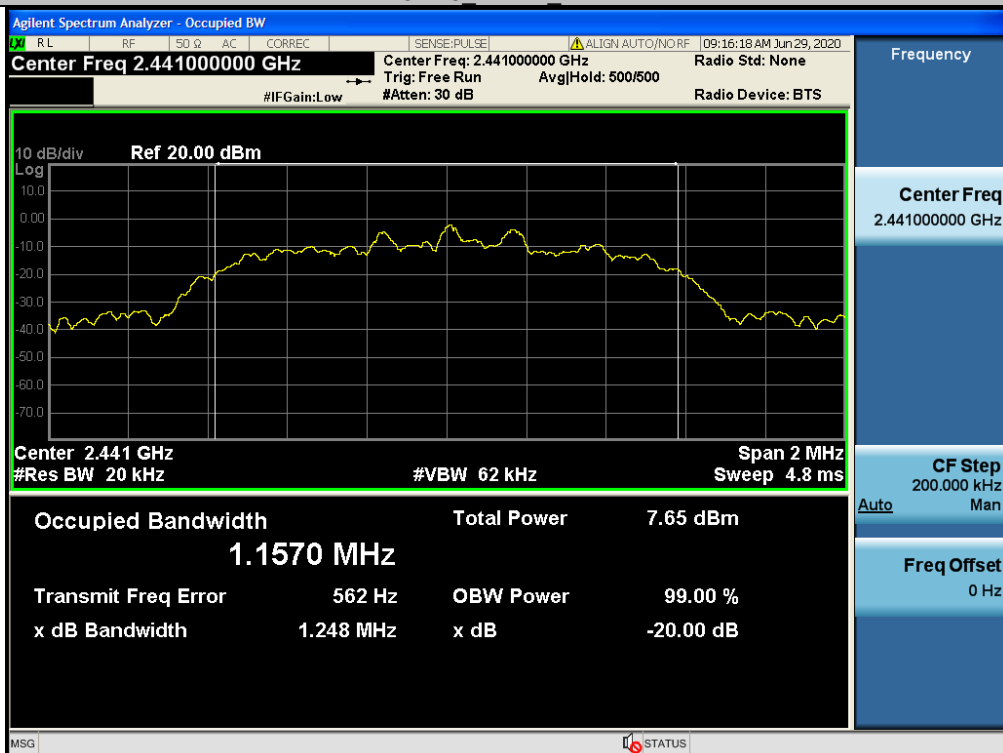
2DH5 NVNT 2480

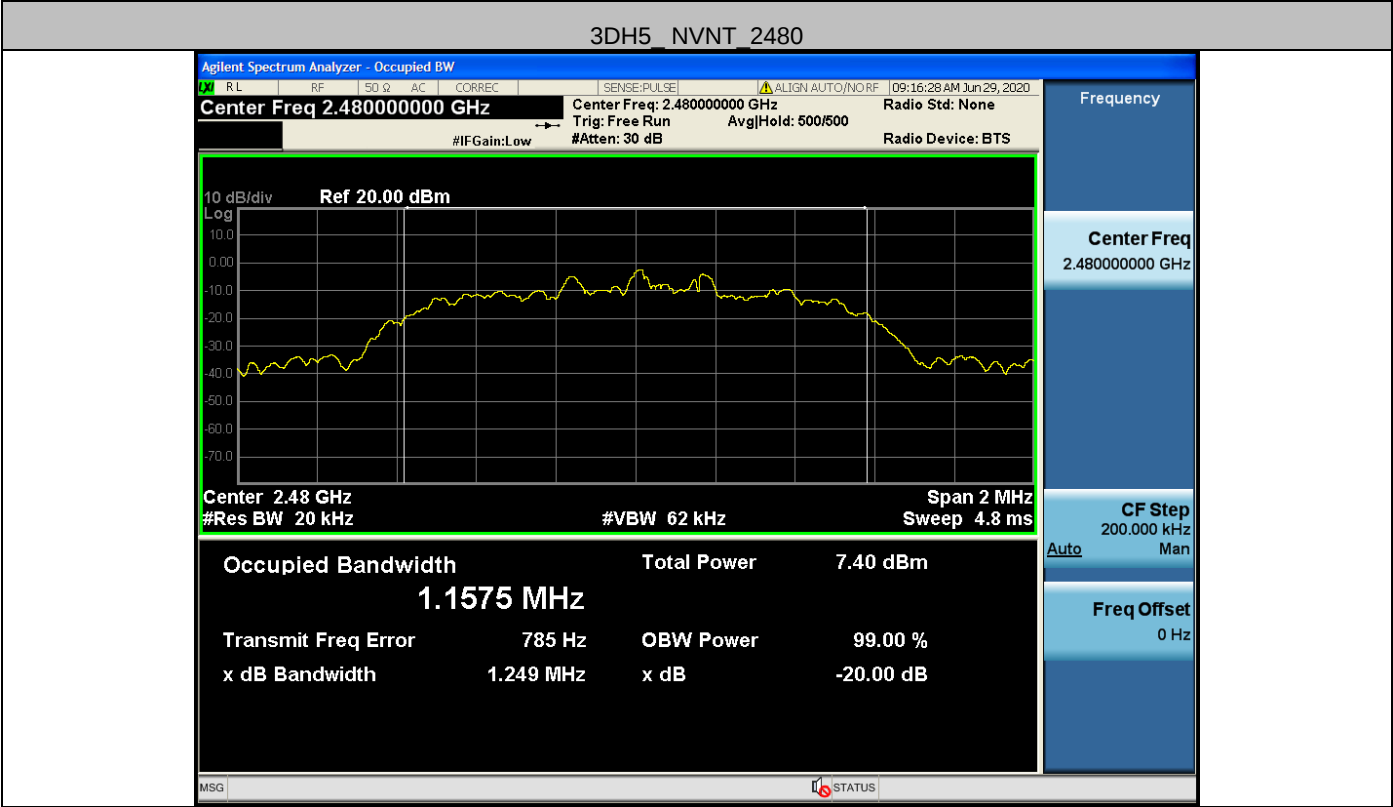


3DH5 NVNT 2402



3DH5 NVNT 2441

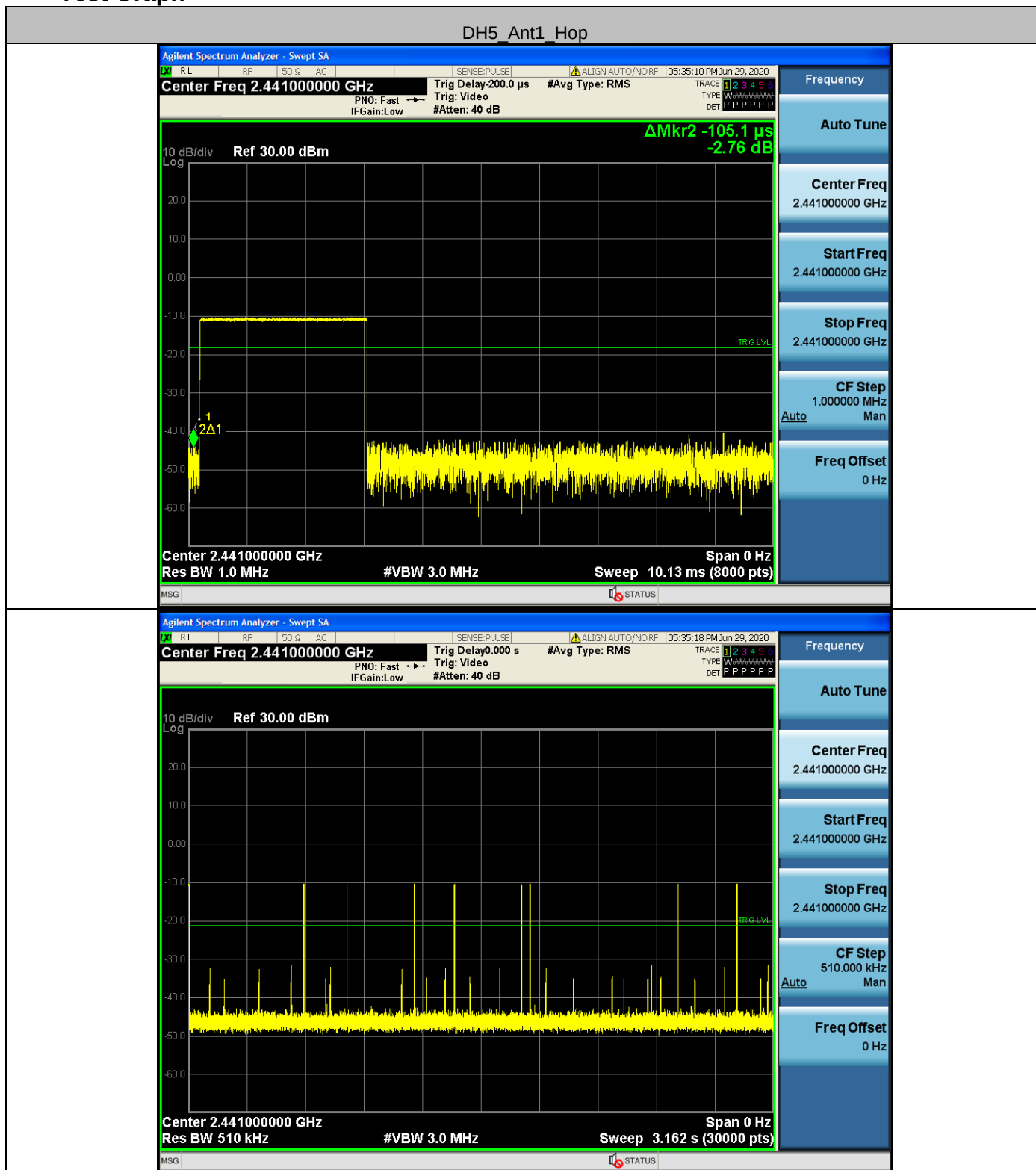




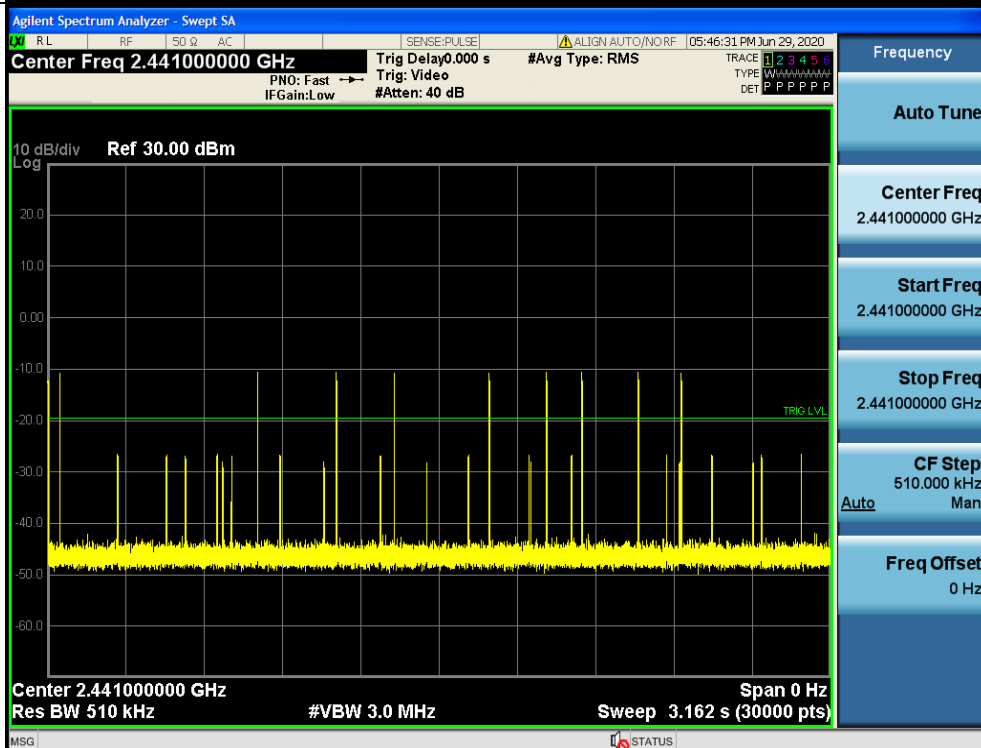
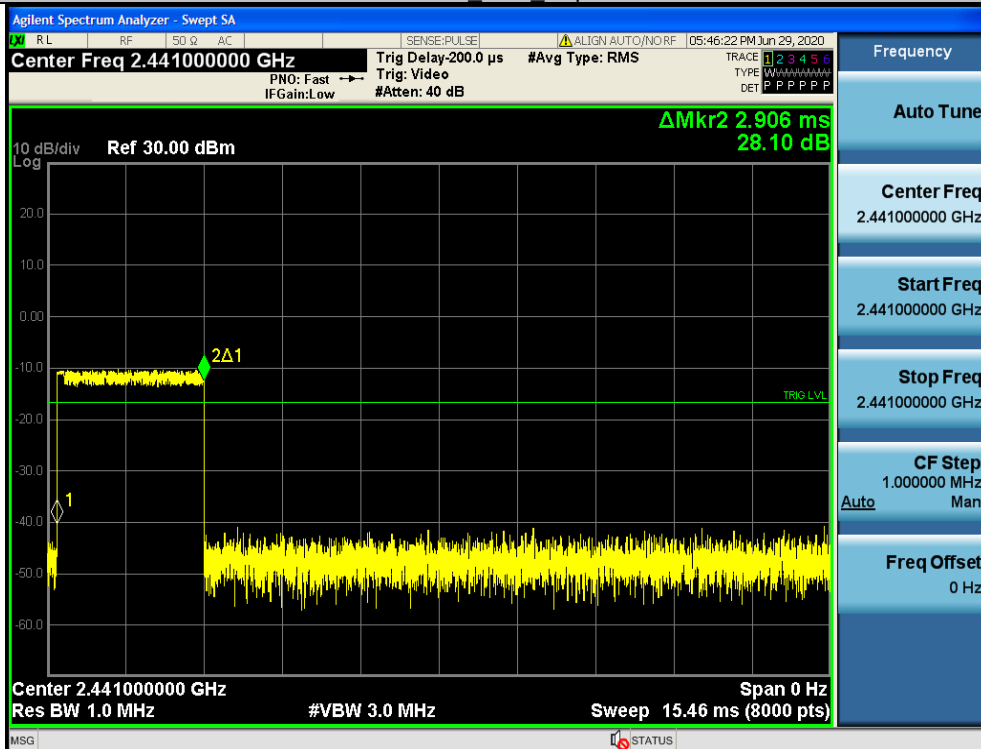
A.2 Dwell Time

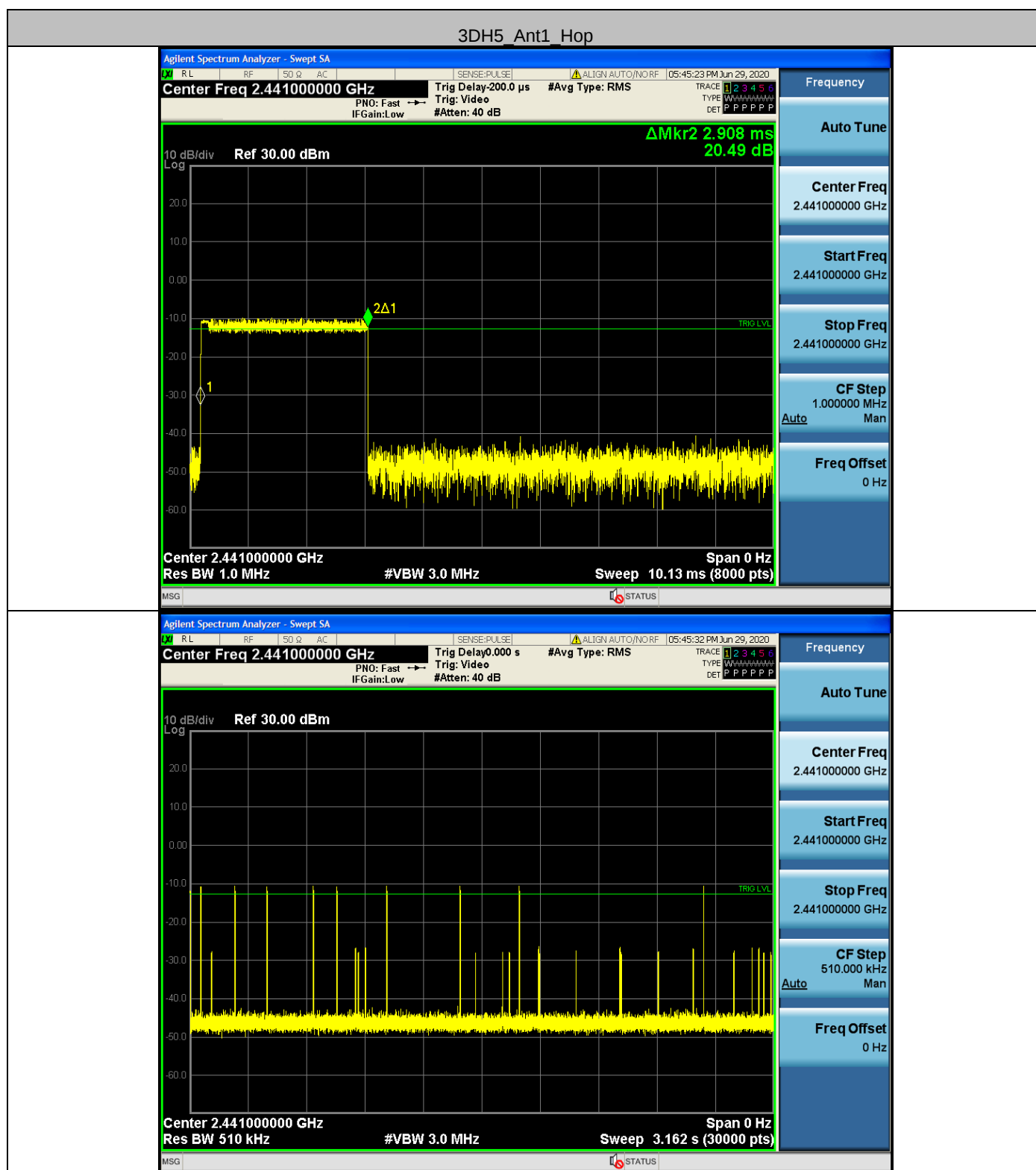
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.91	100	0.291	<=0.4	PASS
2DH5	Ant1	Hop	2.91	100	0.291	<=0.4	PASS
3DH5	Ant1	Hop	2.91	100	0.291	<=0.4	PASS

Test Graph



2DH5_Ant1_Hop



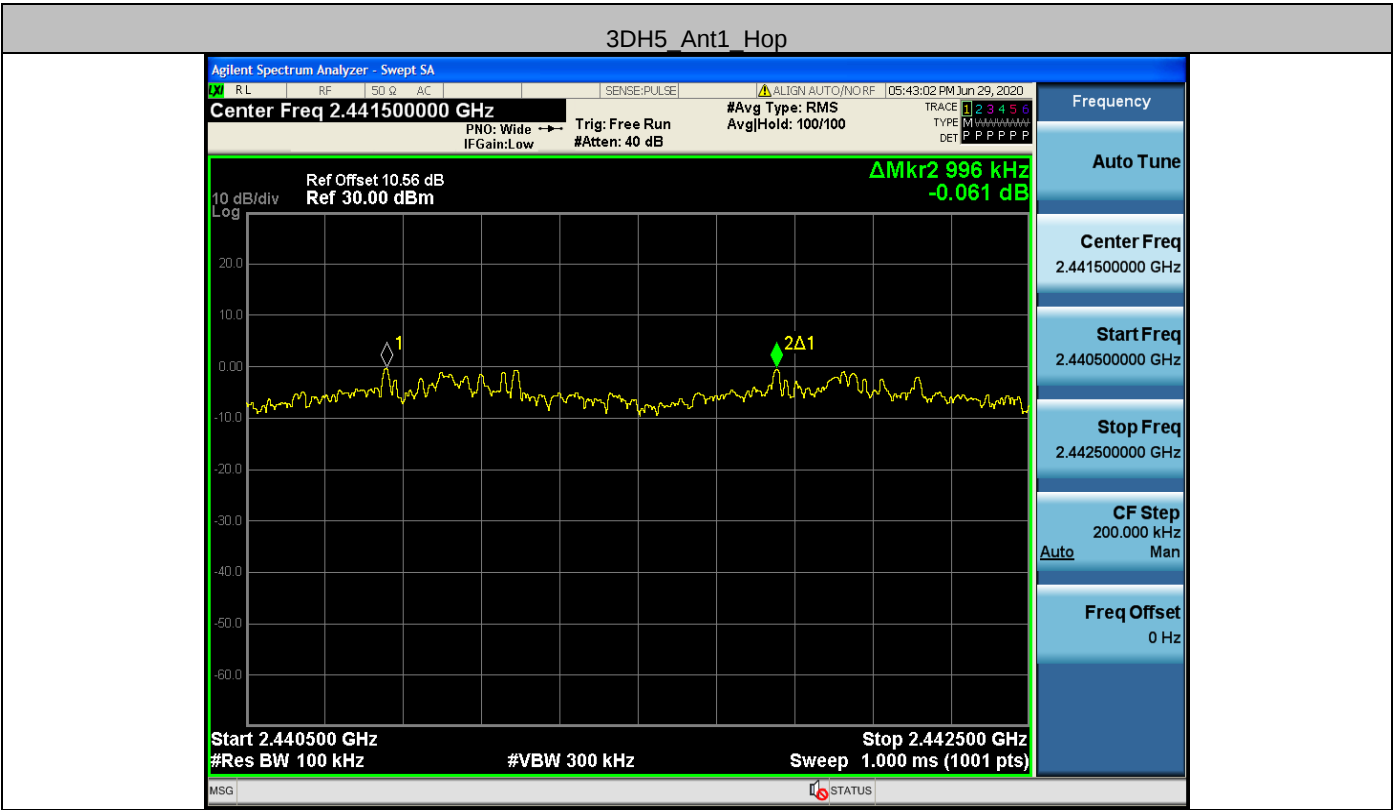


A.3 Carrier Frequency Separation

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.02	≥ 0.728	PASS
2DH5	Ant1	Hop	1.18	≥ 0.904	PASS
3DH5	Ant1	Hop	0.996	≥ 0.908	PASS

Test Graph

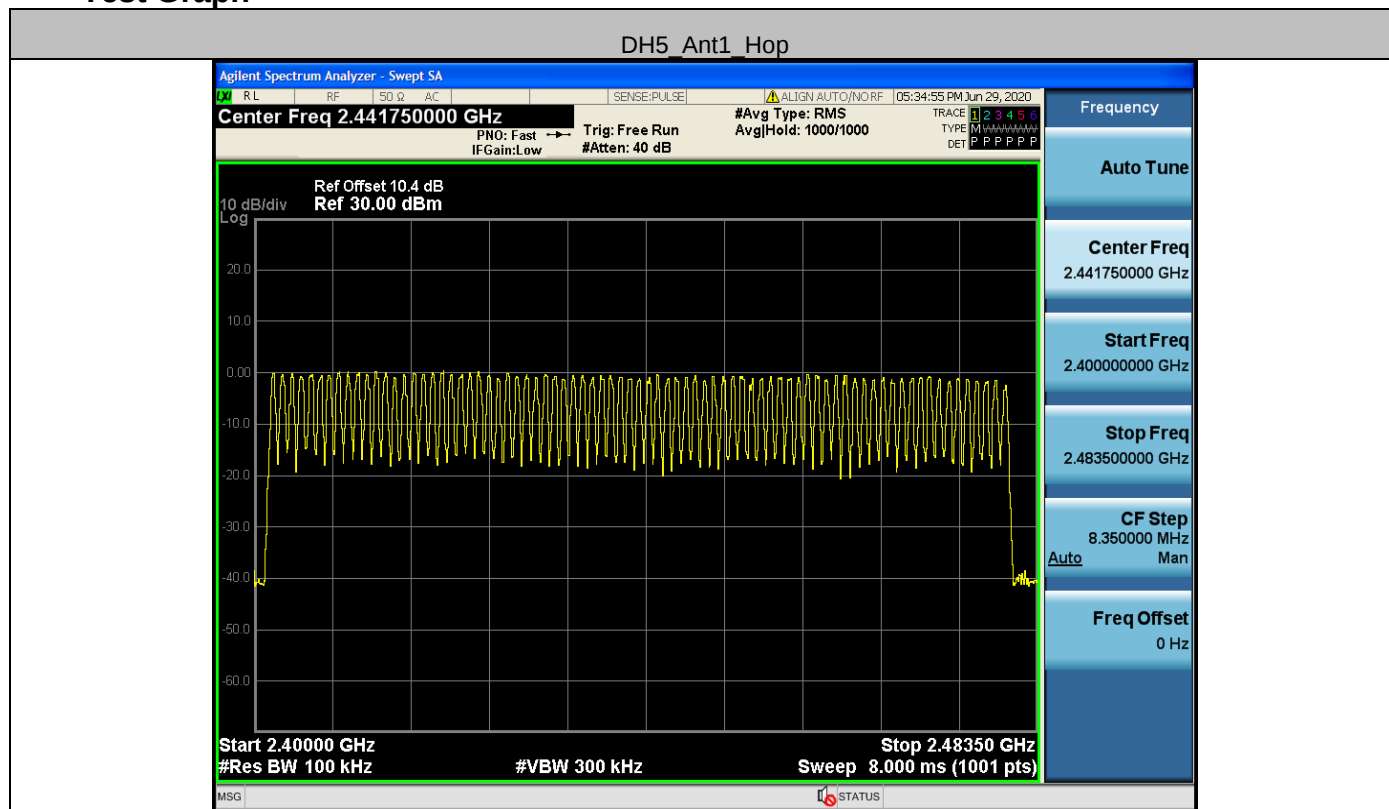




A.4 Hopping Channel Number

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	>=15	PASS
2DH5	Ant1	Hop	79	>=15	PASS
3DH5	Ant1	Hop	79	>=15	PASS

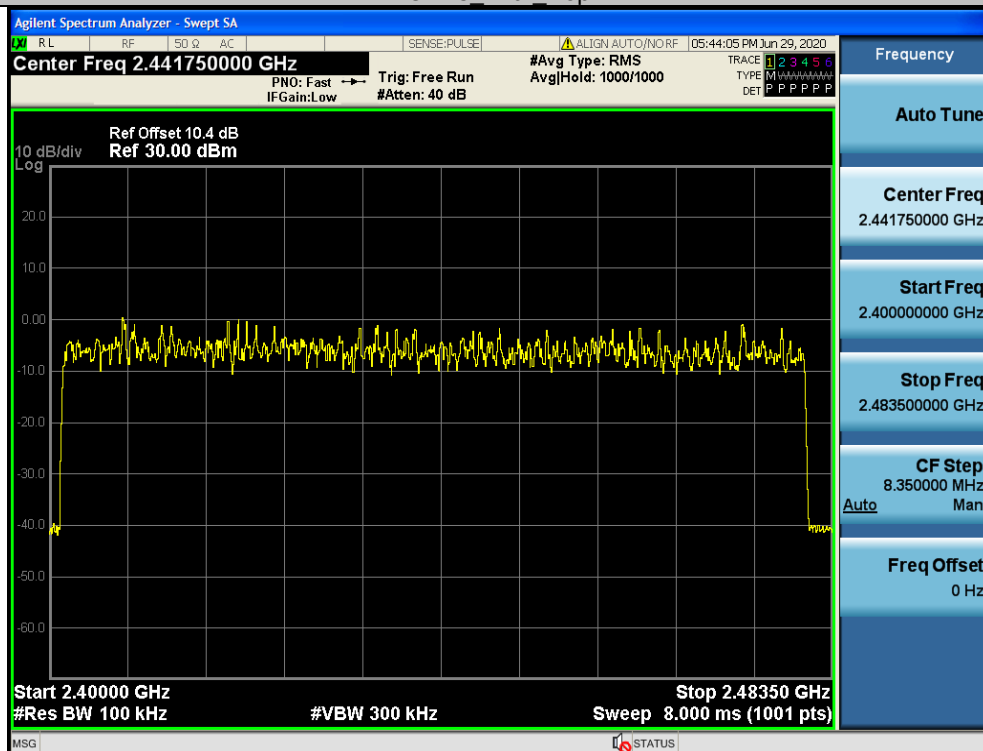
Test Graph



2DH5 Ant1 Hop

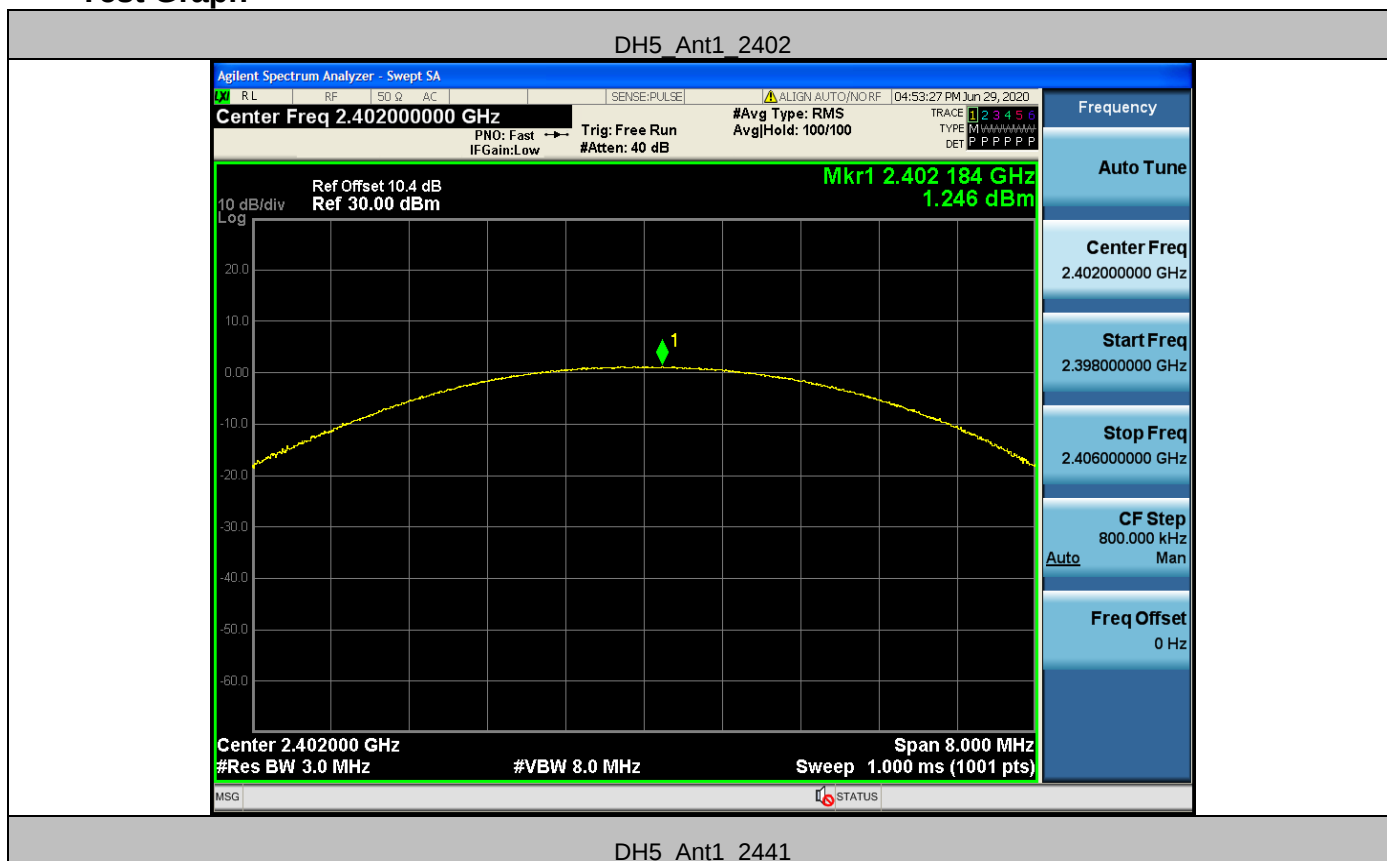


3DH5 Ant1 Hop



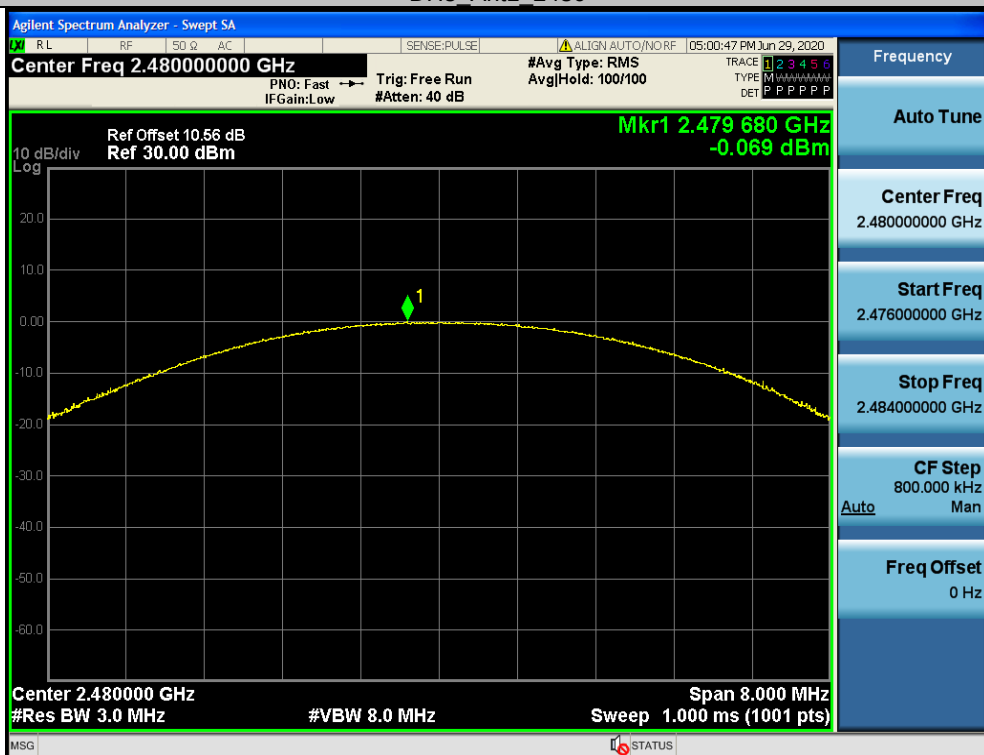
A.5 Conducted Peak Output Power

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict	Antenna Gain(dBi)	EIRP (dBm)
DH5	Ant1	2402	1.24	<=20.97	PASS	1.3	2.54
		2441	0.55	<=20.97	PASS	1.3	1.85
		2480	-0.07	<=20.97	PASS	1.3	1.23
2DH5	Ant1	2402	1.85	<=20.97	PASS	1.3	3.15
		2441	1.14	<=20.97	PASS	1.3	2.44
		2480	0.38	<=20.97	PASS	1.3	1.68
3DH5	Ant1	2402	2.00	<=20.97	PASS	1.3	3.3
		2441	1.29	<=20.97	PASS	1.3	2.59
		2480	0.81	<=20.97	PASS	1.3	2.11

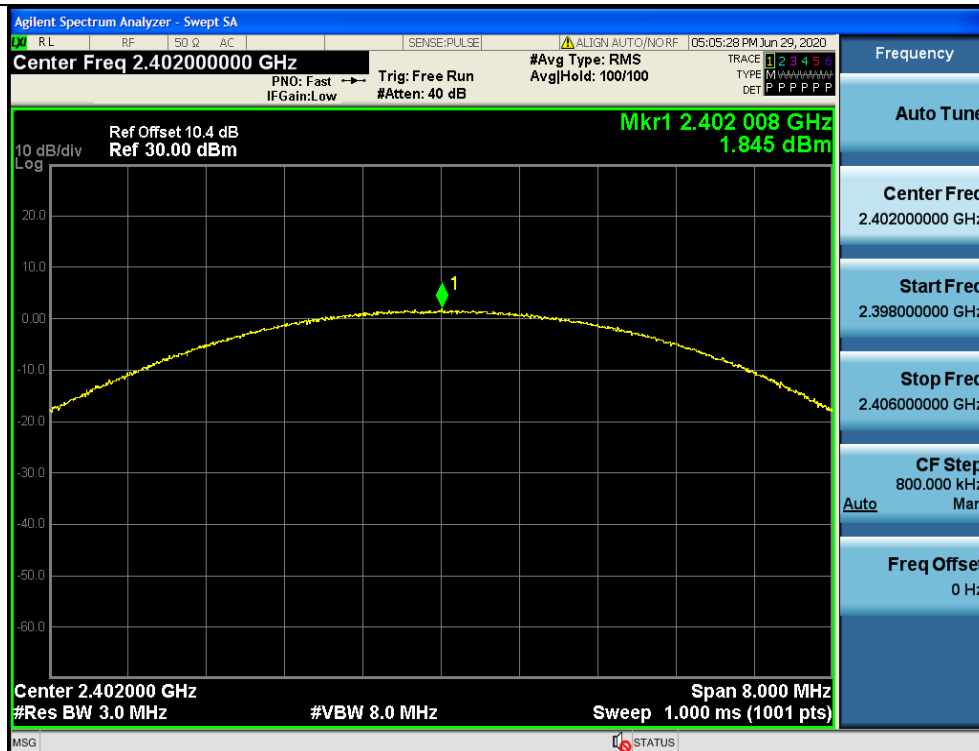
Test Graph



DH5_Ant1_2480



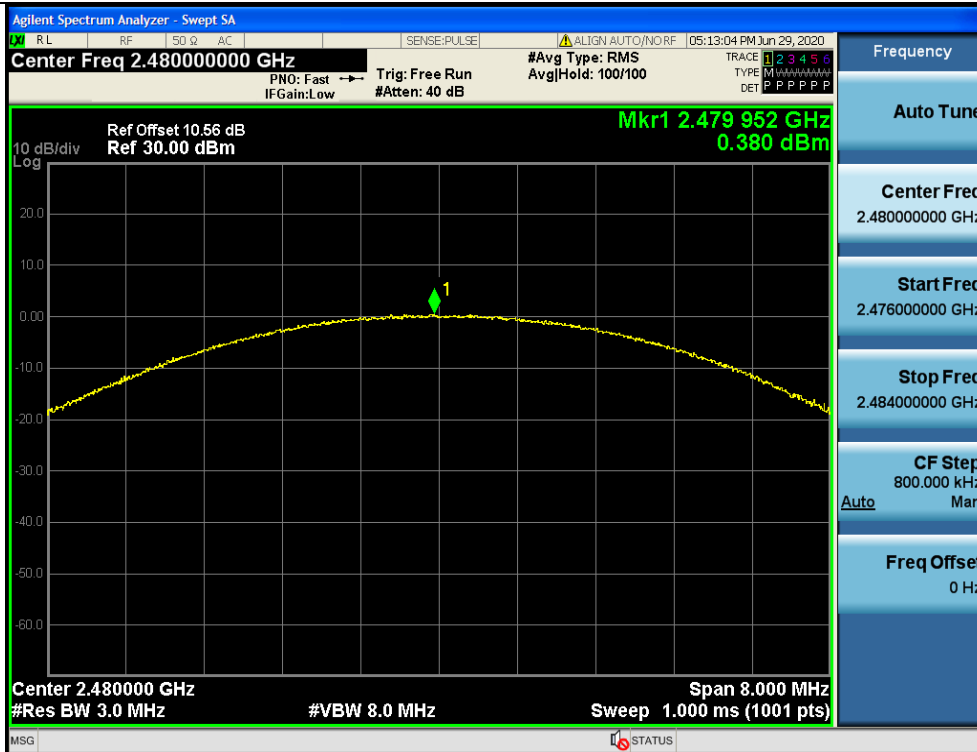
2DH5_Ant1_2402



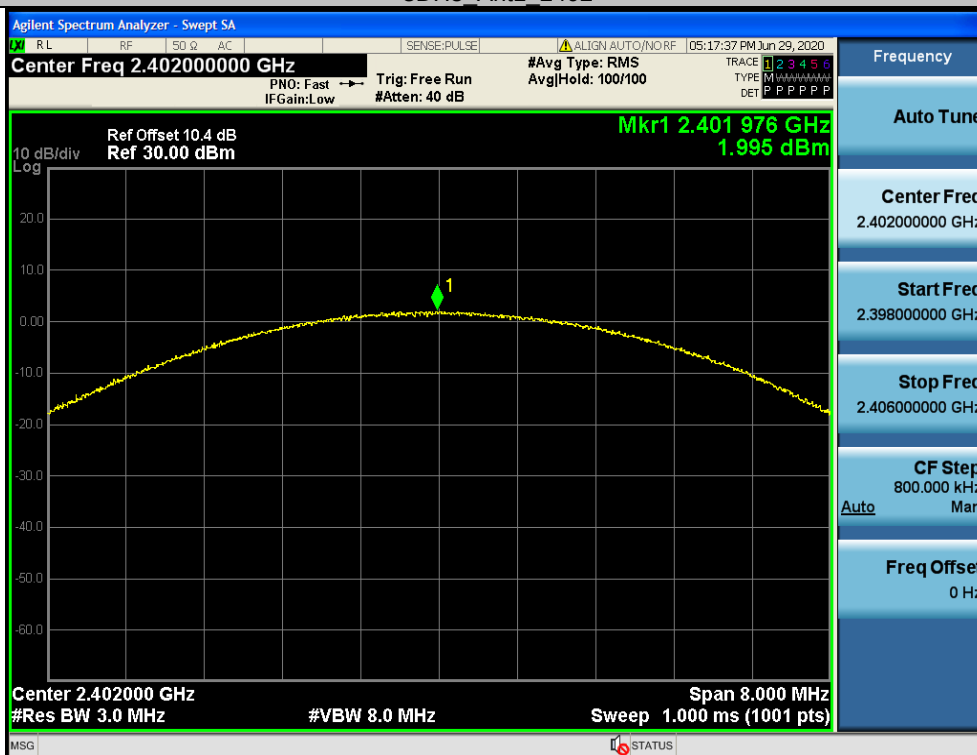
2DH5_Ant1_2441



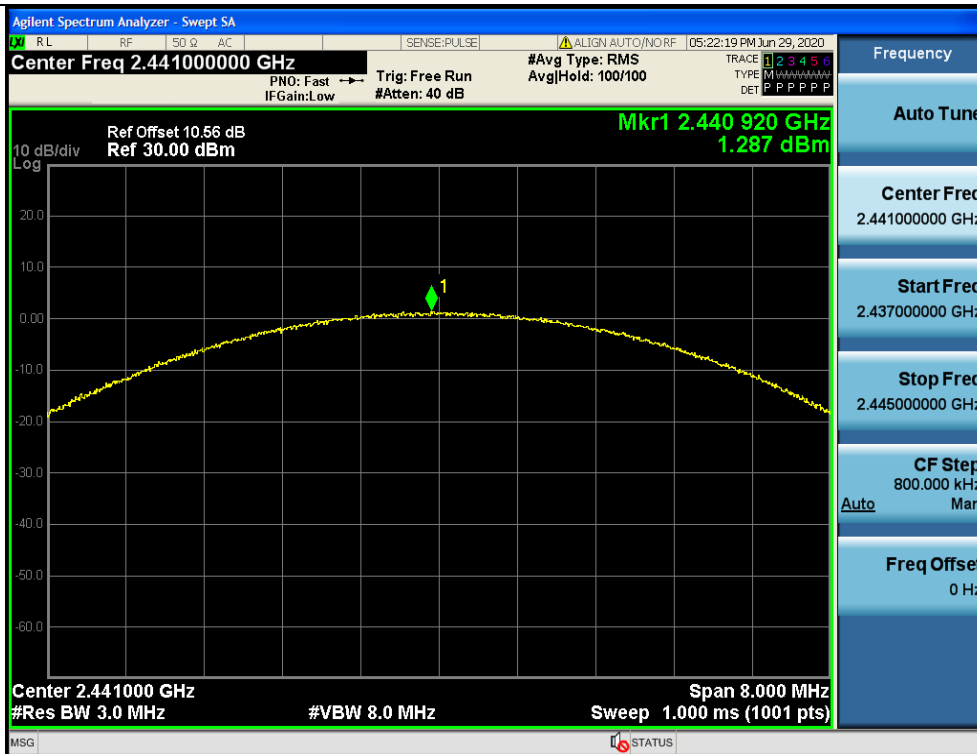
2DH5_Ant1_2480



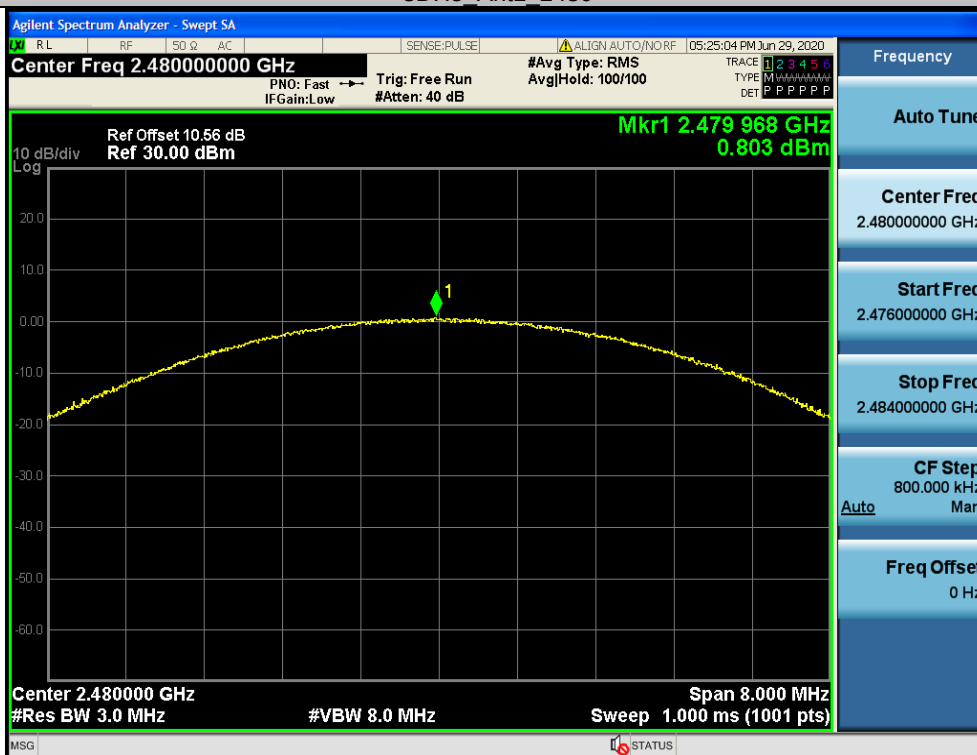
3DH5_Ant1_2402



3DH5_Ant1_2441



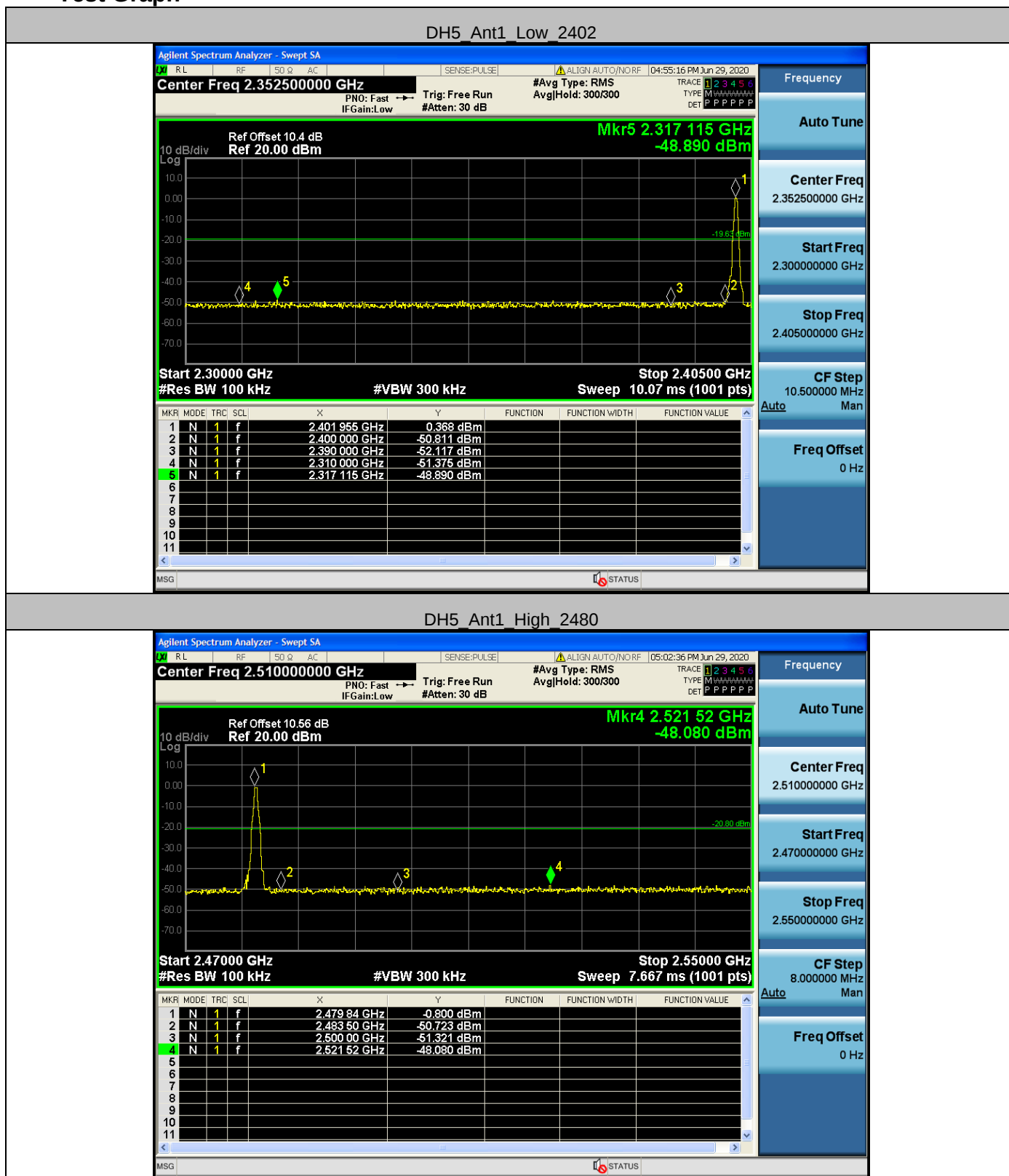
3DH5_Ant1_2480



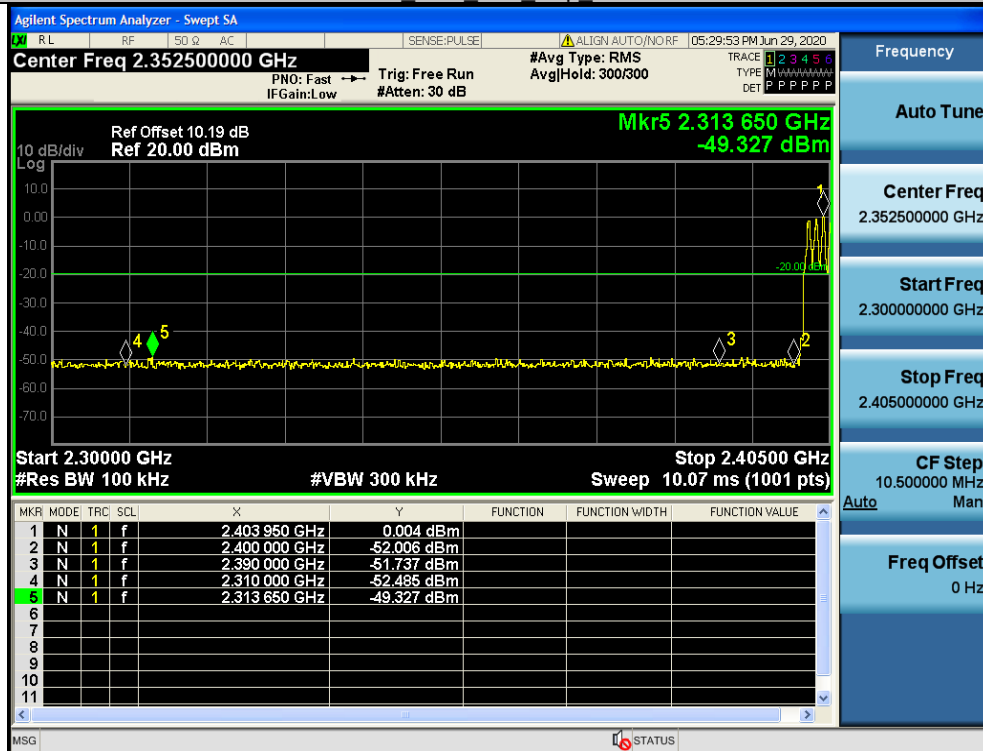
A.6 Band-edge for RF Conducted Emissions

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.37	-48.89	<=-19.63	PASS
		High	2480	-0.80	-48.08	<=-20.8	PASS
		Low	Hop_2402	0.00	-49.33	<=-20.0	PASS
		High	Hop_2480	-0.18	-47.79	<=-20.18	PASS
2DH5	Ant1	Low	2402	0.58	-48.96	<=-19.42	PASS
		High	2480	-0.75	-47.62	<=-20.75	PASS
		Low	Hop_2402	-4.59	-48.80	<=-24.59	PASS
		High	Hop_2480	-3.55	-47.60	<=-23.55	PASS
3DH5	Ant1	Low	2402	0.40	-48.13	<=-19.6	PASS
		High	2480	-0.80	-47.73	<=-20.8	PASS
		Low	Hop_2402	-3.21	-48.98	<=-23.21	PASS
		High	Hop_2480	-3.45	-47.48	<=-23.45	PASS

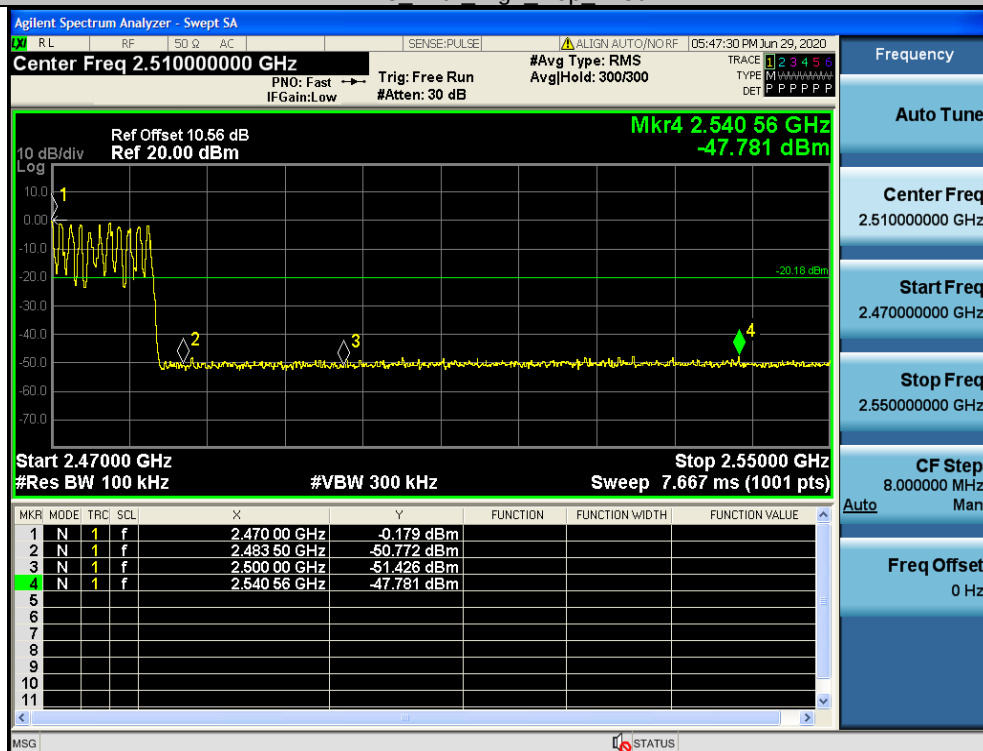
Test Graph



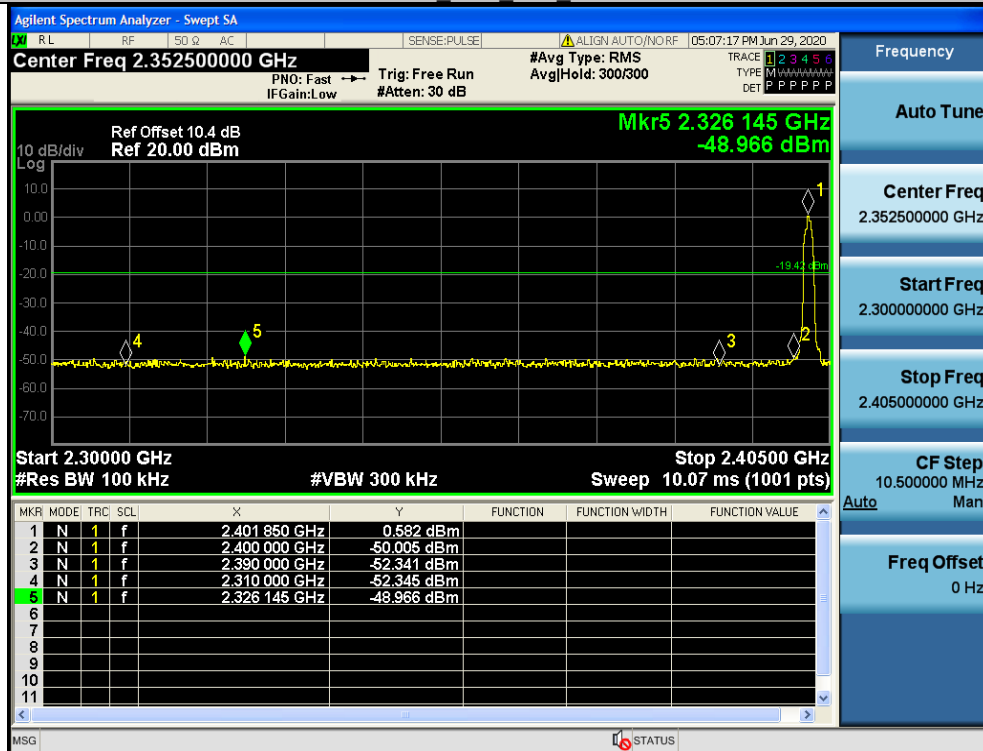
DH5 Ant1 Low Hop 2402



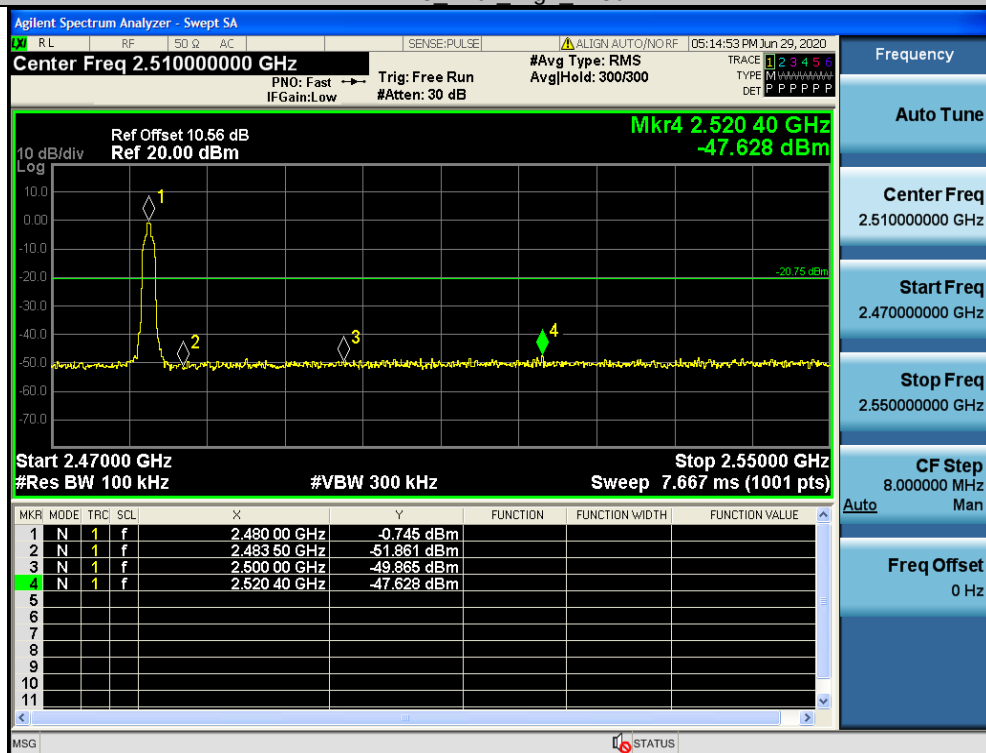
DH5 Ant1 High Hop 2480



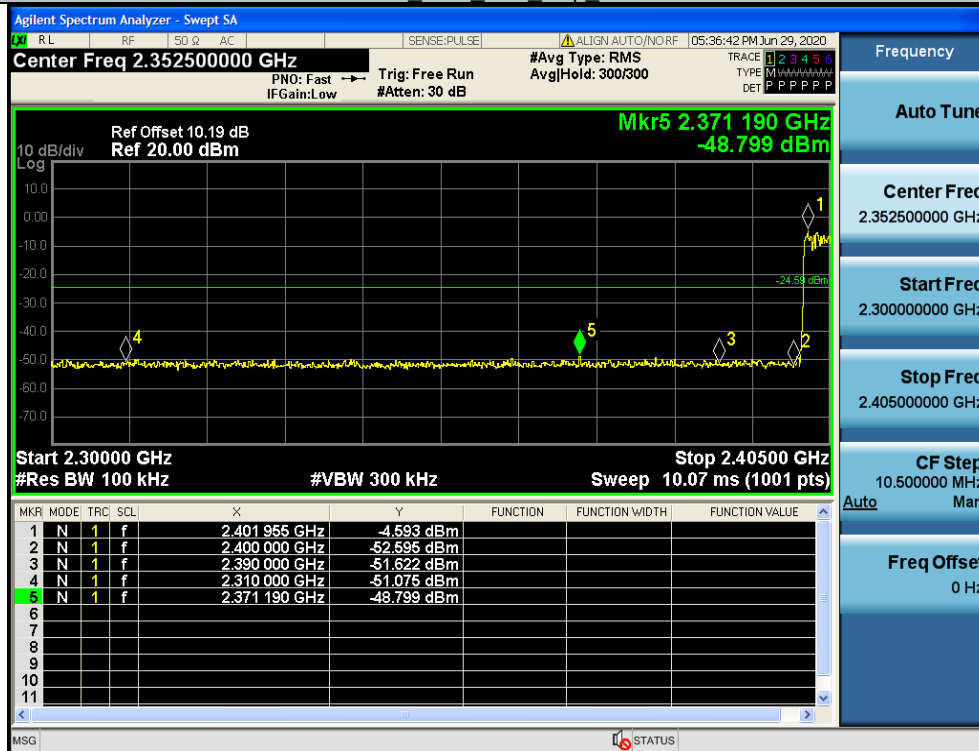
2DH5 Ant1 Low 2402



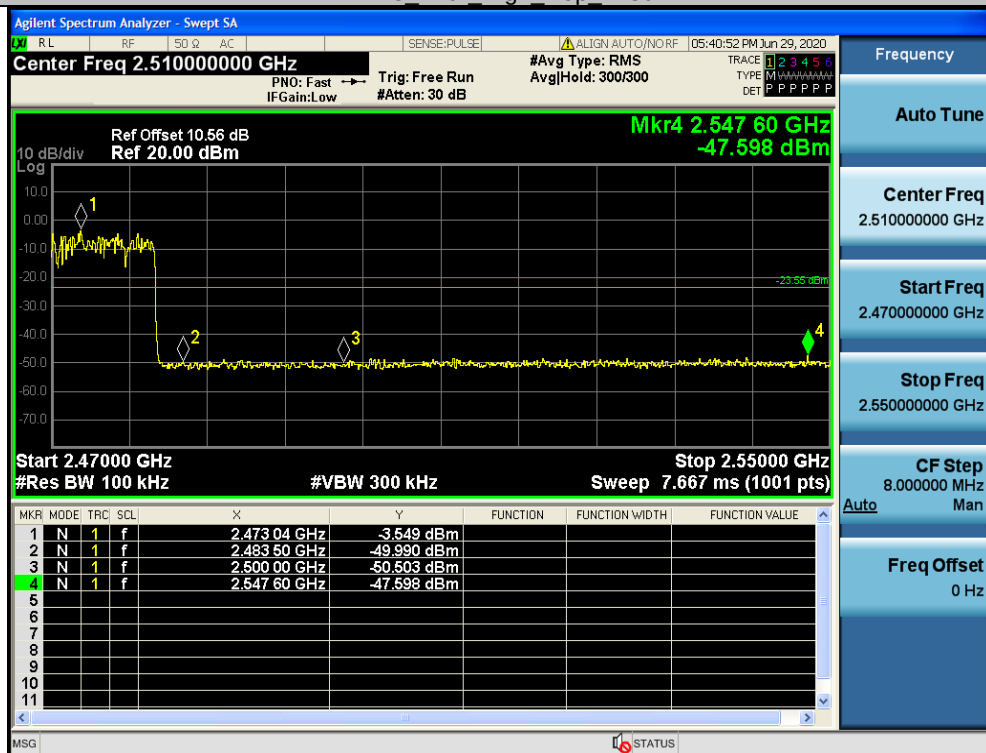
2DH5 Ant1 High 2480



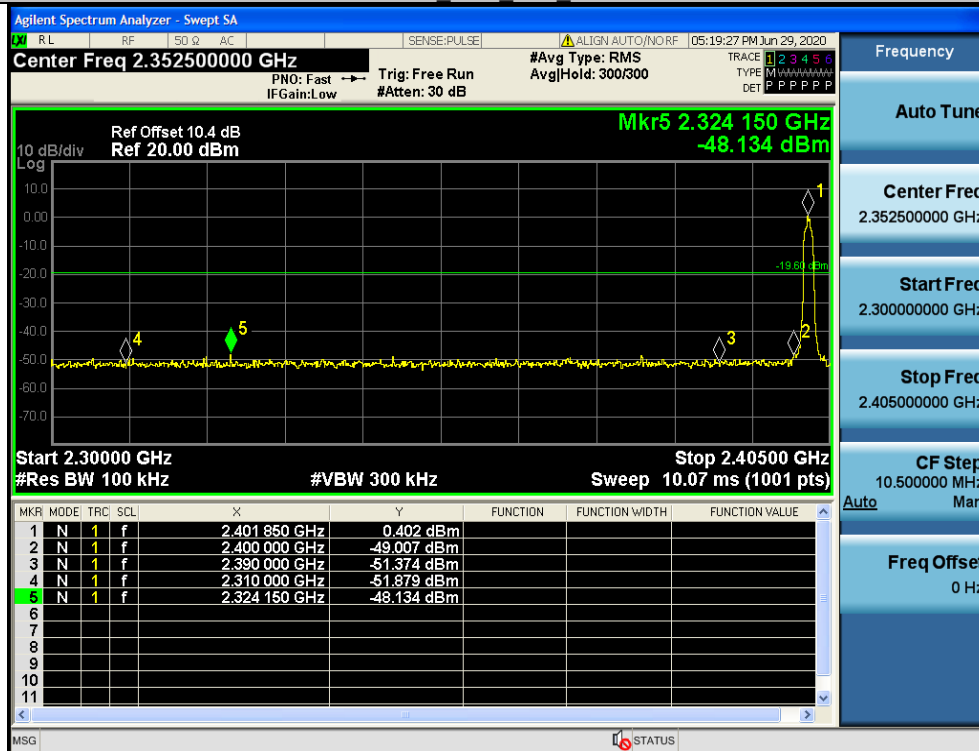
2DH5 Ant1 Low Hop 2402



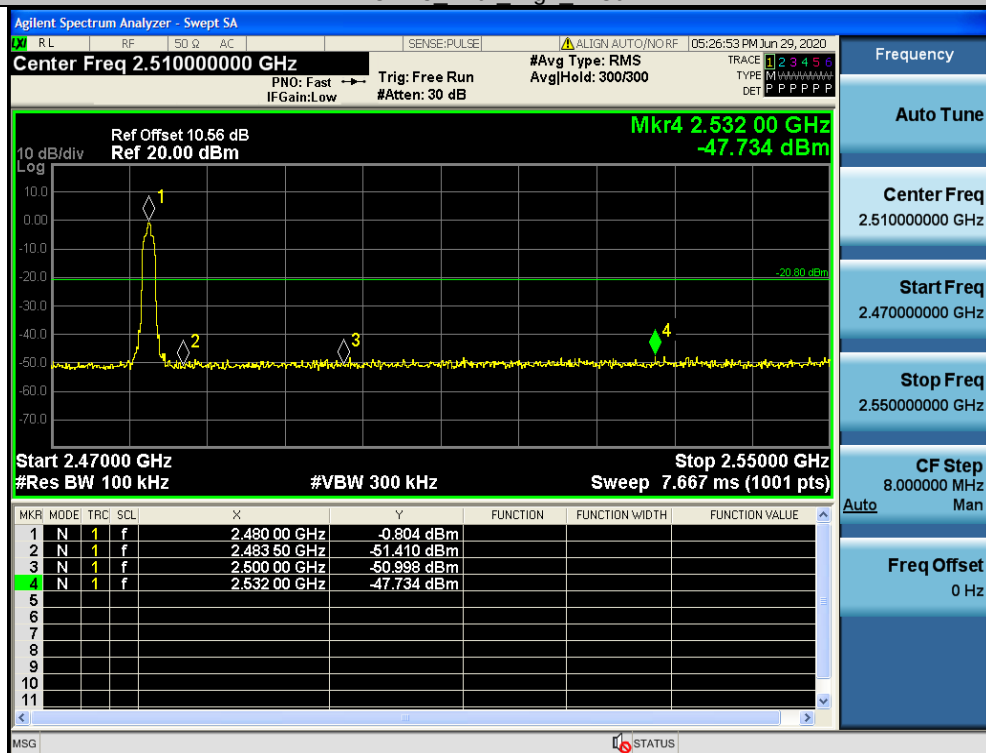
2DH5 Ant1 High Hop 2480



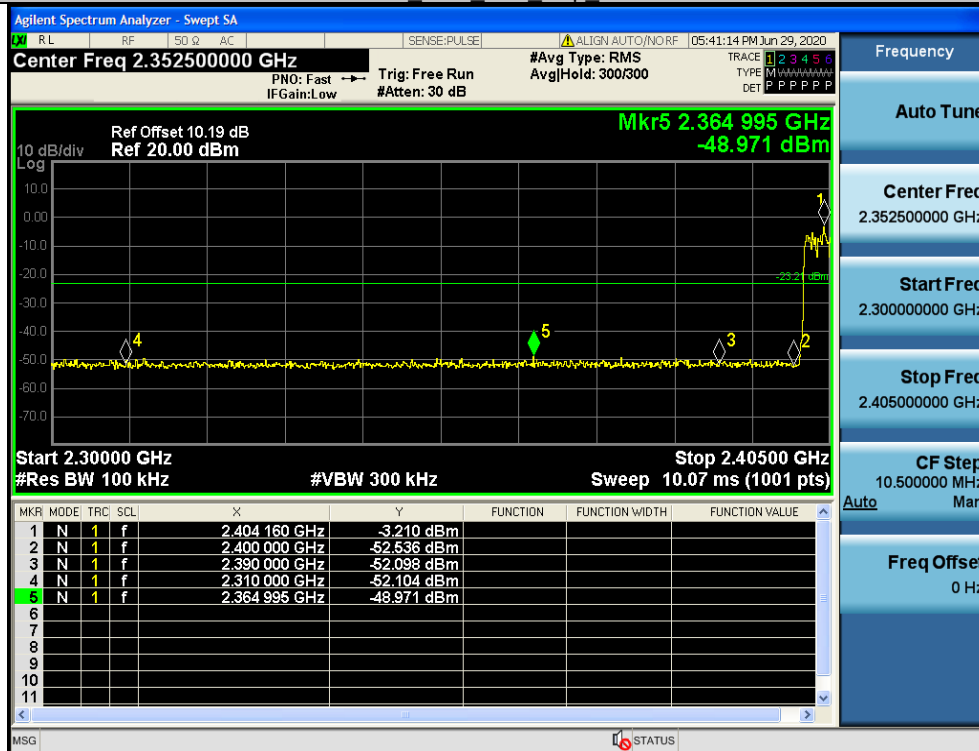
3DH5_Ant1_Low_2402



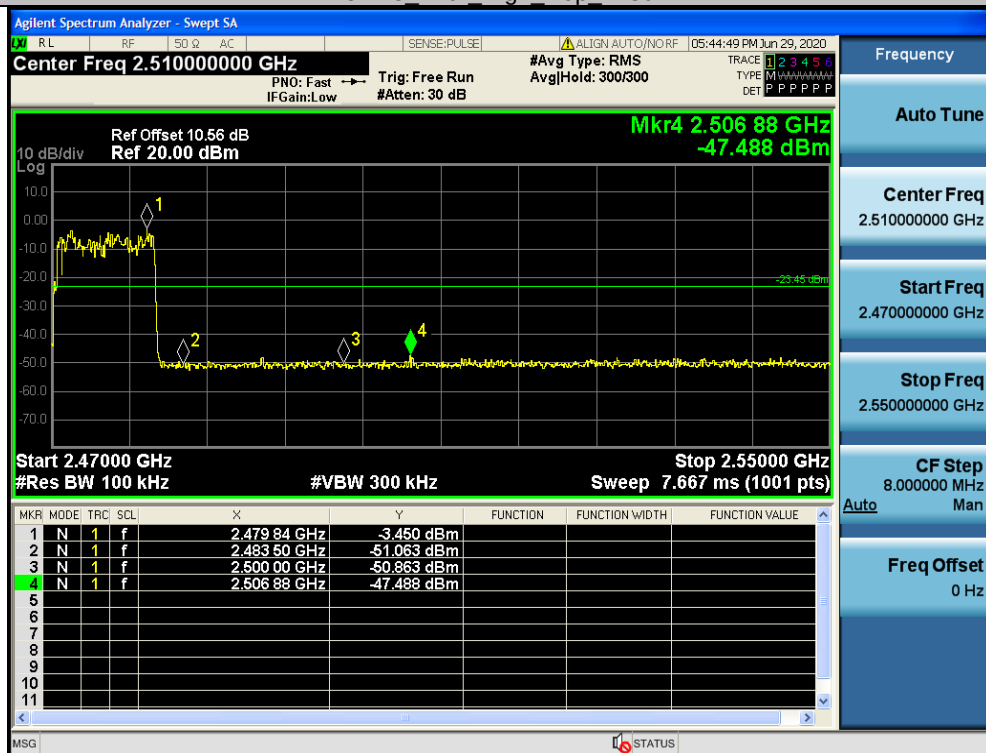
3DH5_Ant1_High_2480



3DH5 Ant1 Low Hop 2402

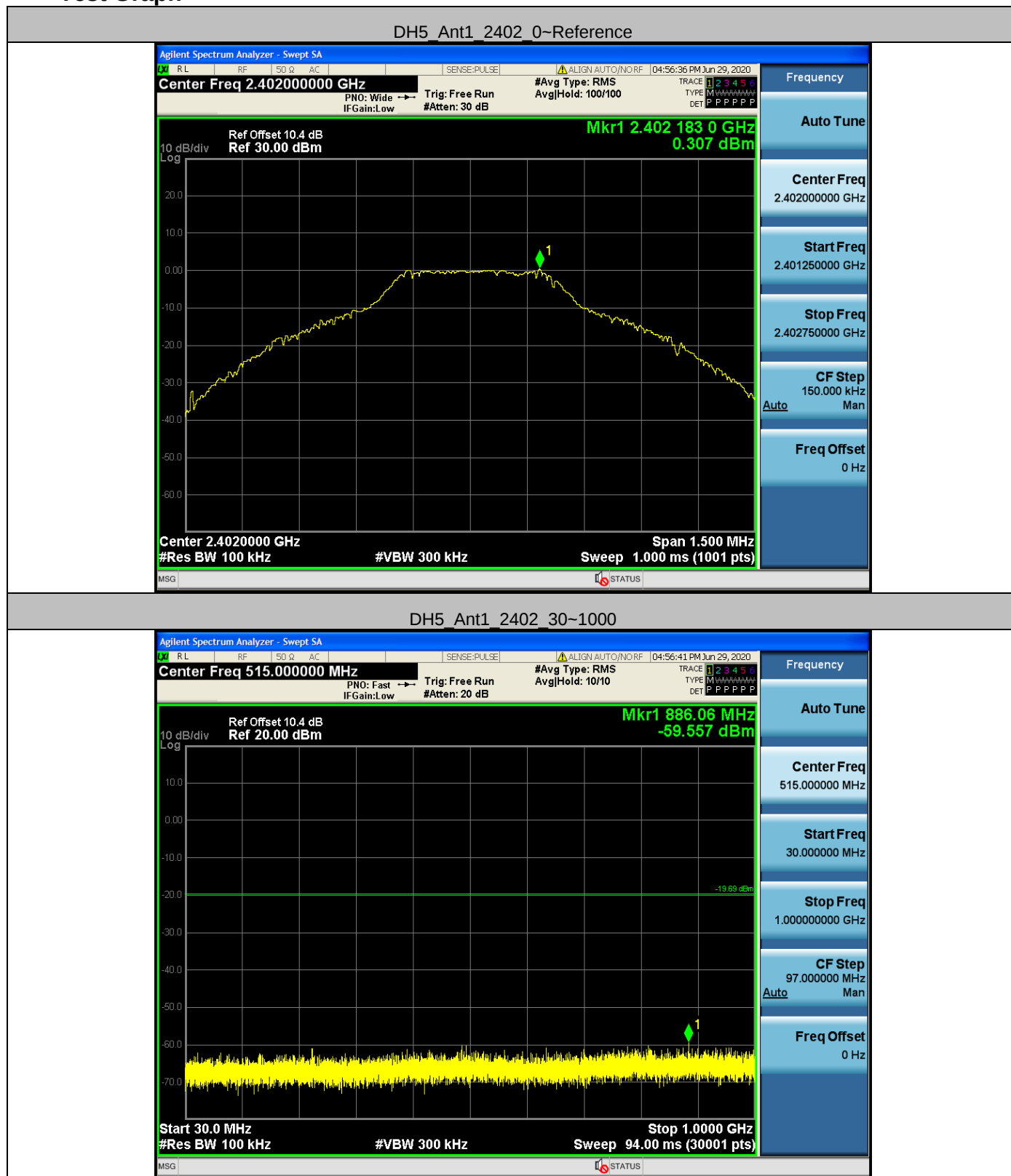


3DH5 Ant1 High Hop 2480

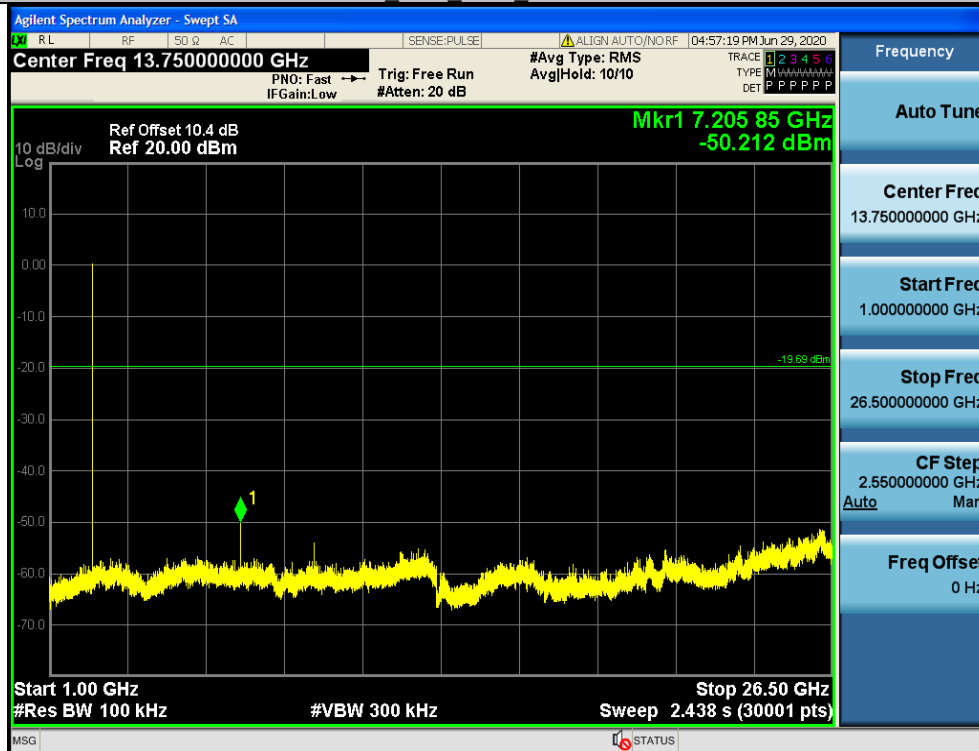


A.7 RF Conducted Spurious Emissions

Test Graph



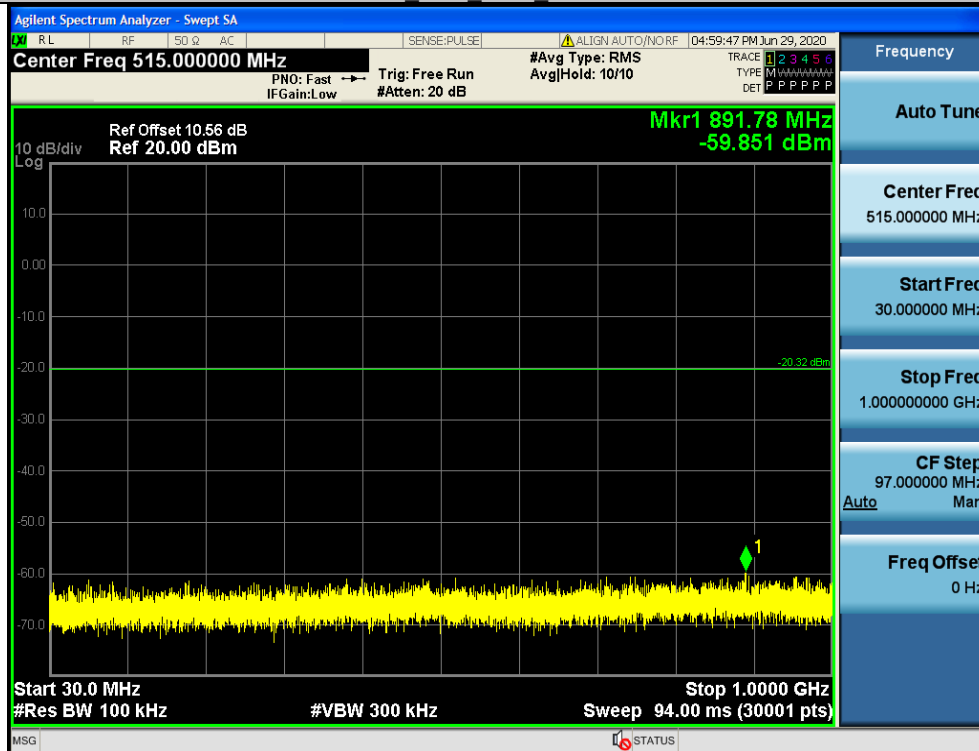
DH5_Ant1_2402_1000~26500



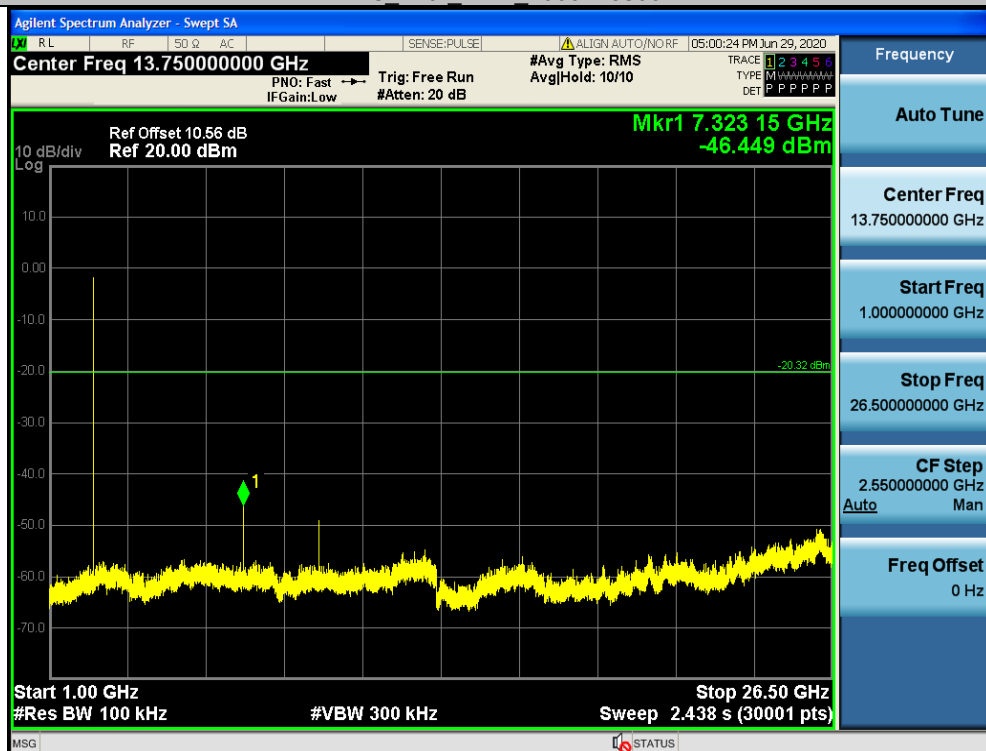
DH5_Ant1_2441_0~Reference



DH5 Ant1 2441 30~1000



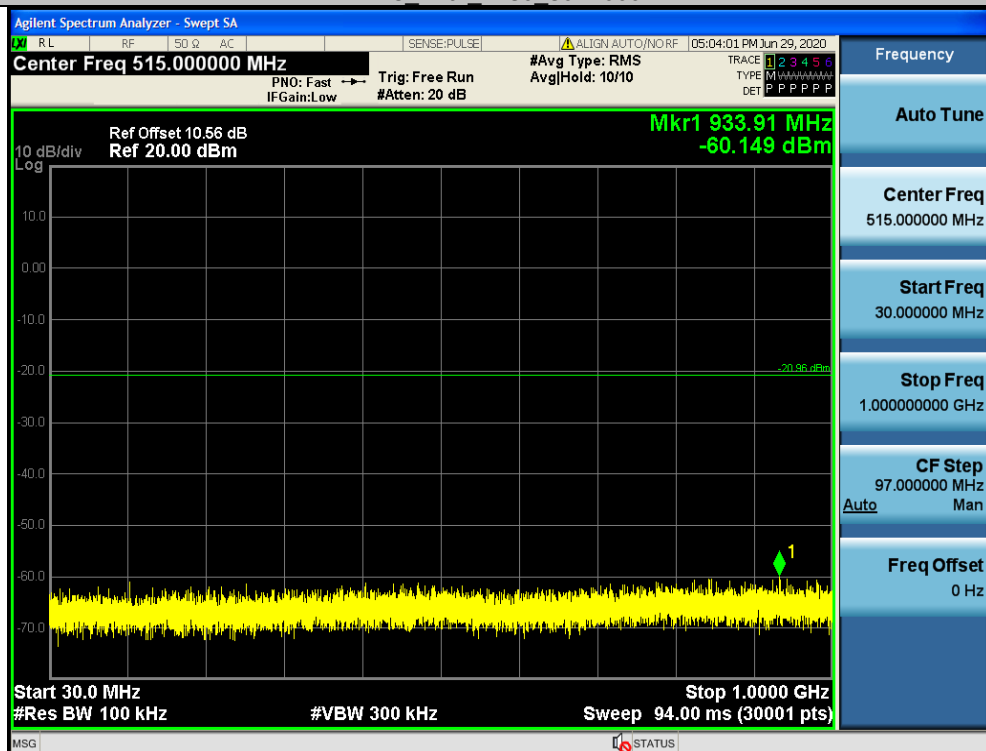
DH5 Ant1 2441 1000~26500



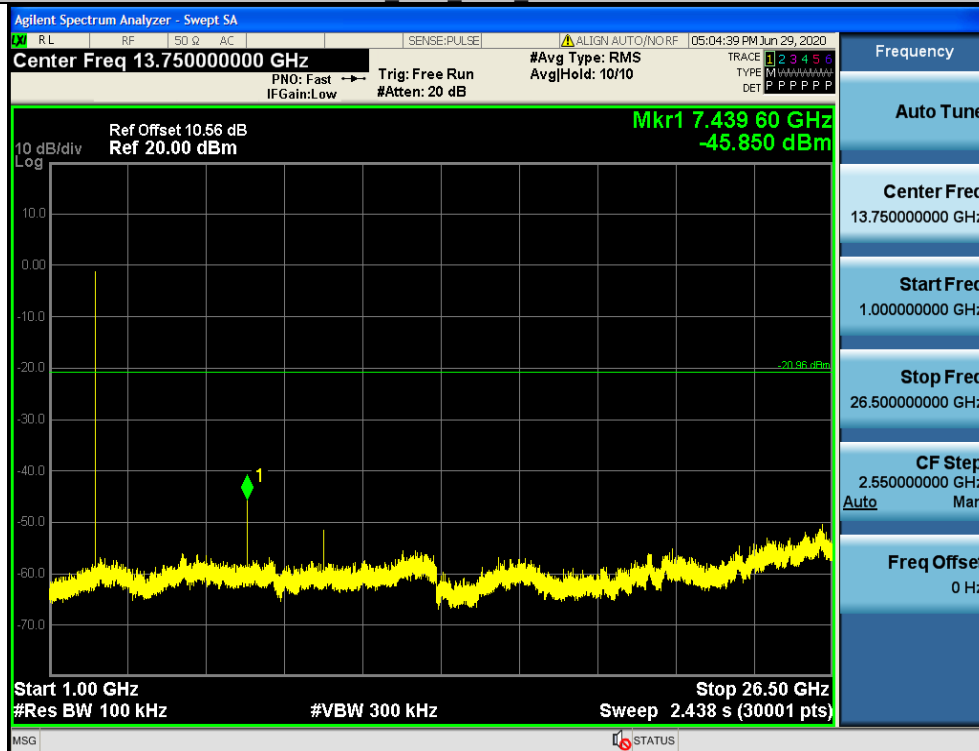
DH5_Ant1_2480_0-Reference



DH5_Ant1_2480_30-1000

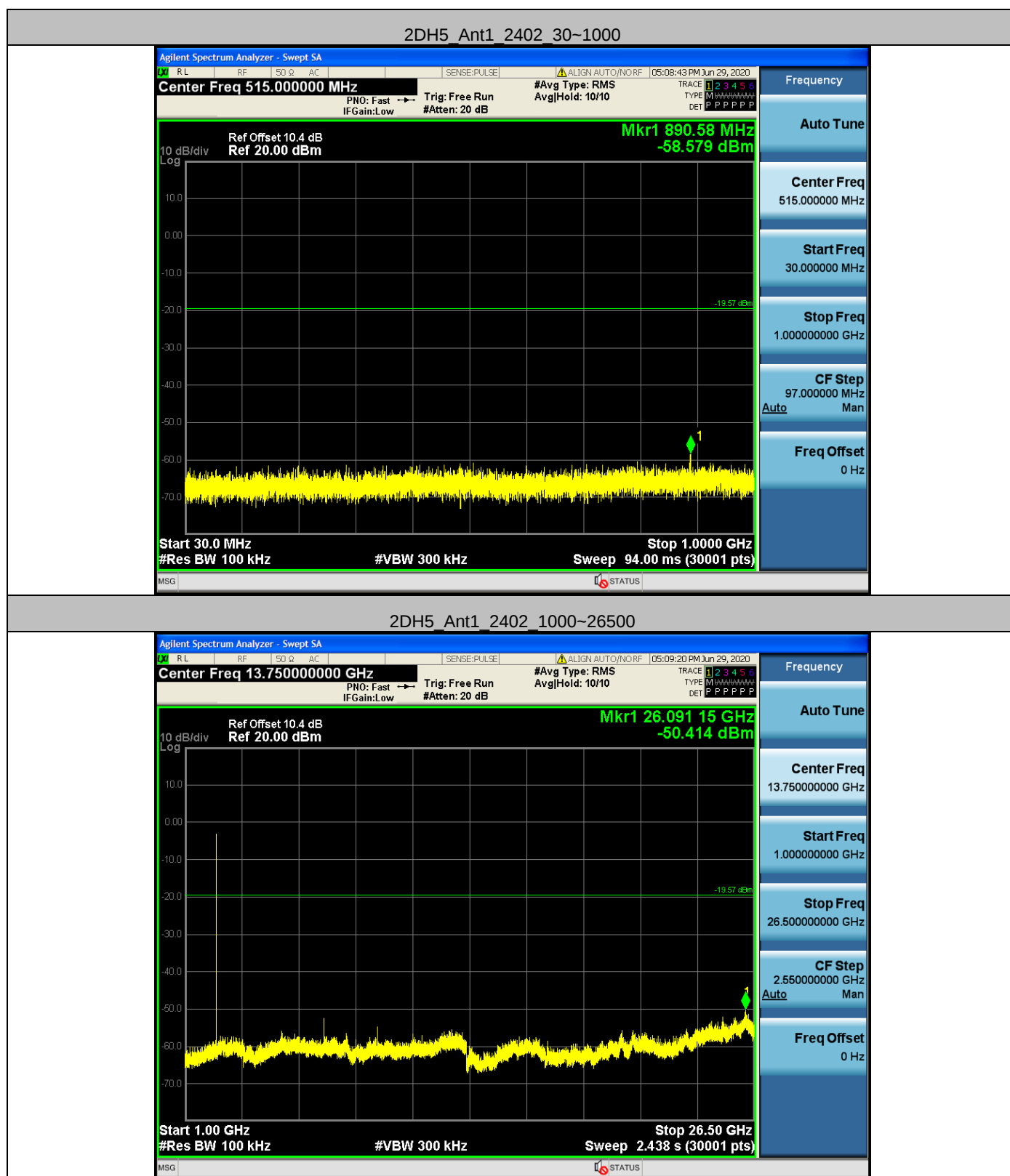


DH5 Ant1 2480 1000~26500



2DH5 Ant1 2402 0-Reference

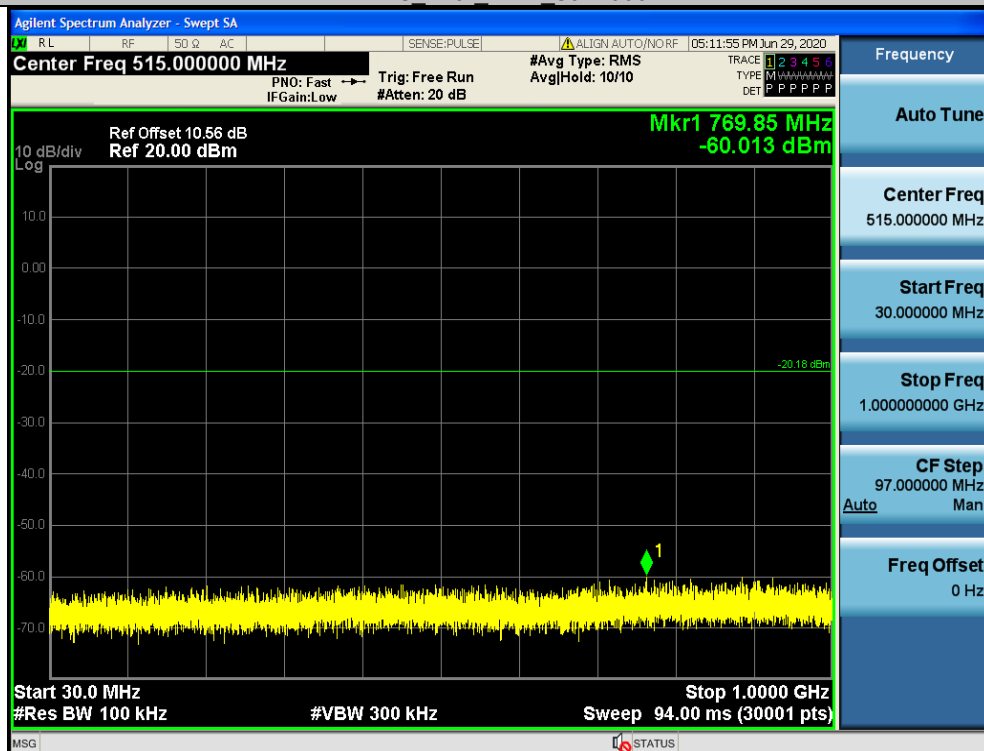




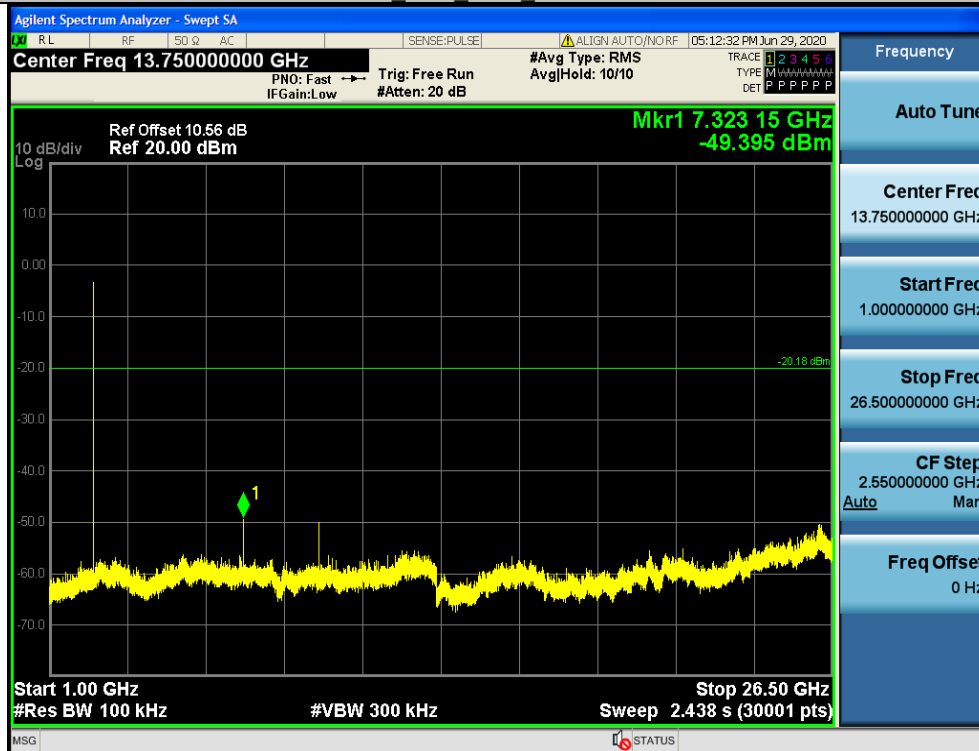
2DH5_Ant1_2441_0~Reference



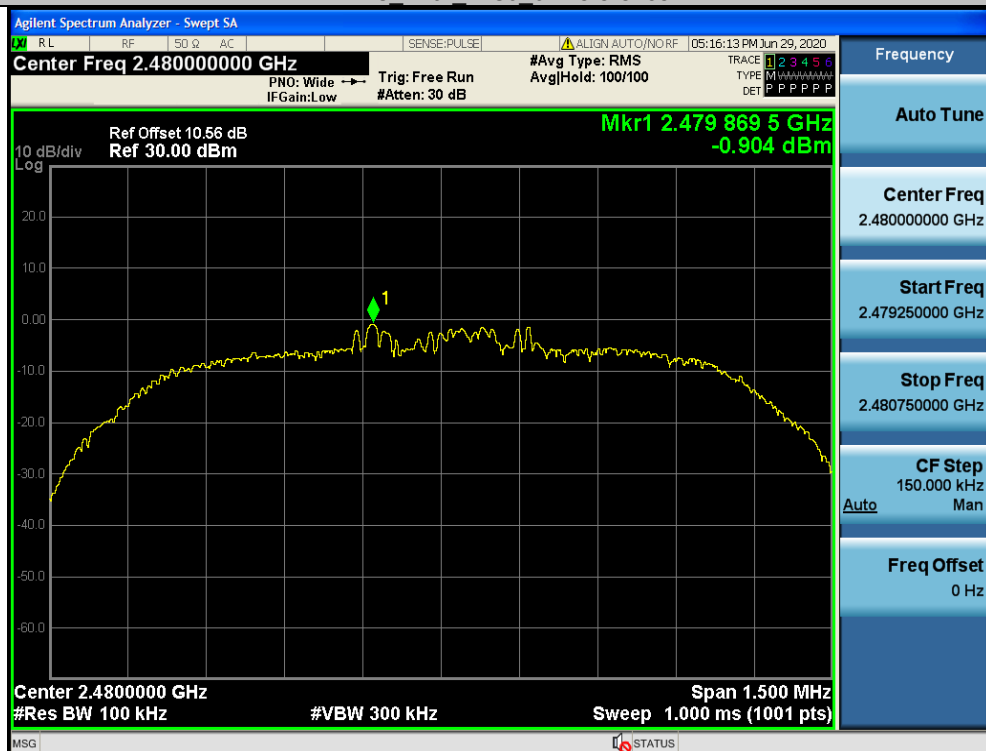
2DH5_Ant1_2441_30~1000

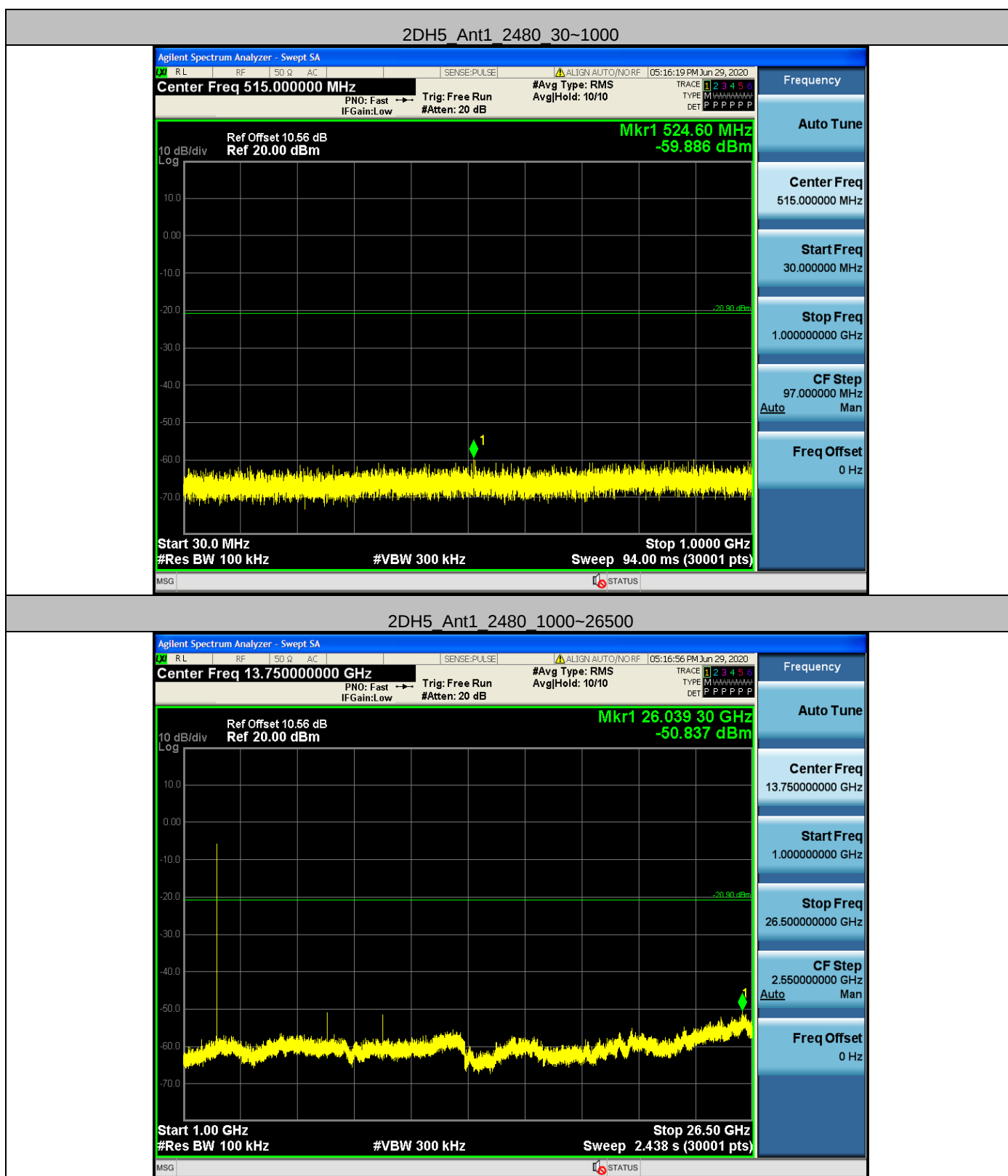


2DH5 Ant1 2441 1000-26500



2DH5 Ant1 2480 0-Reference

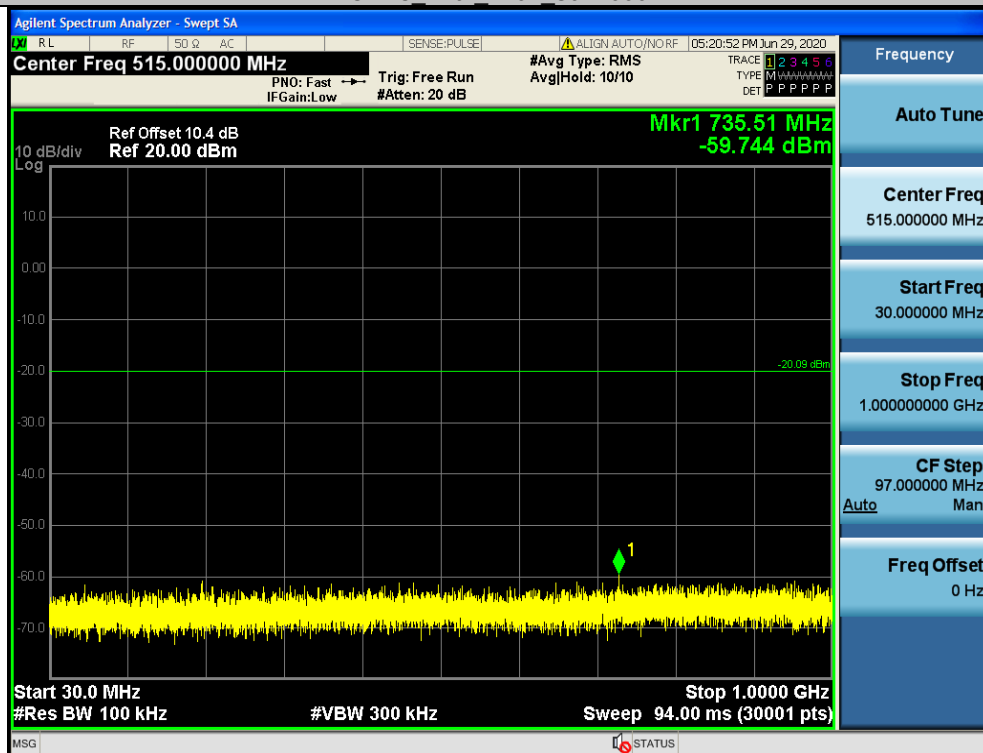




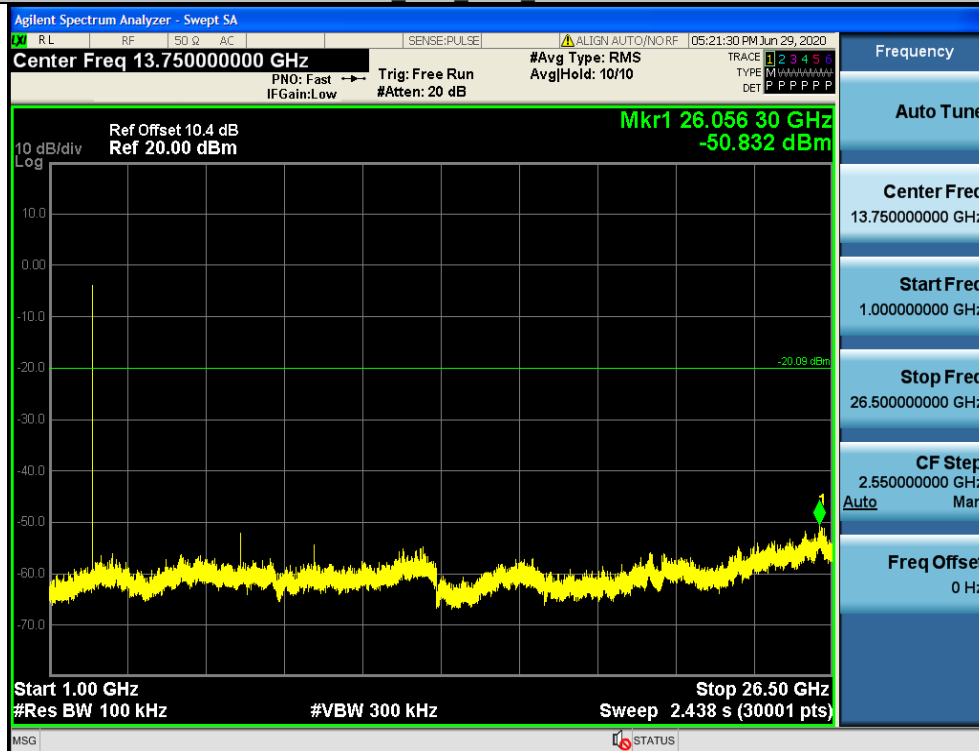
3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_30~1000

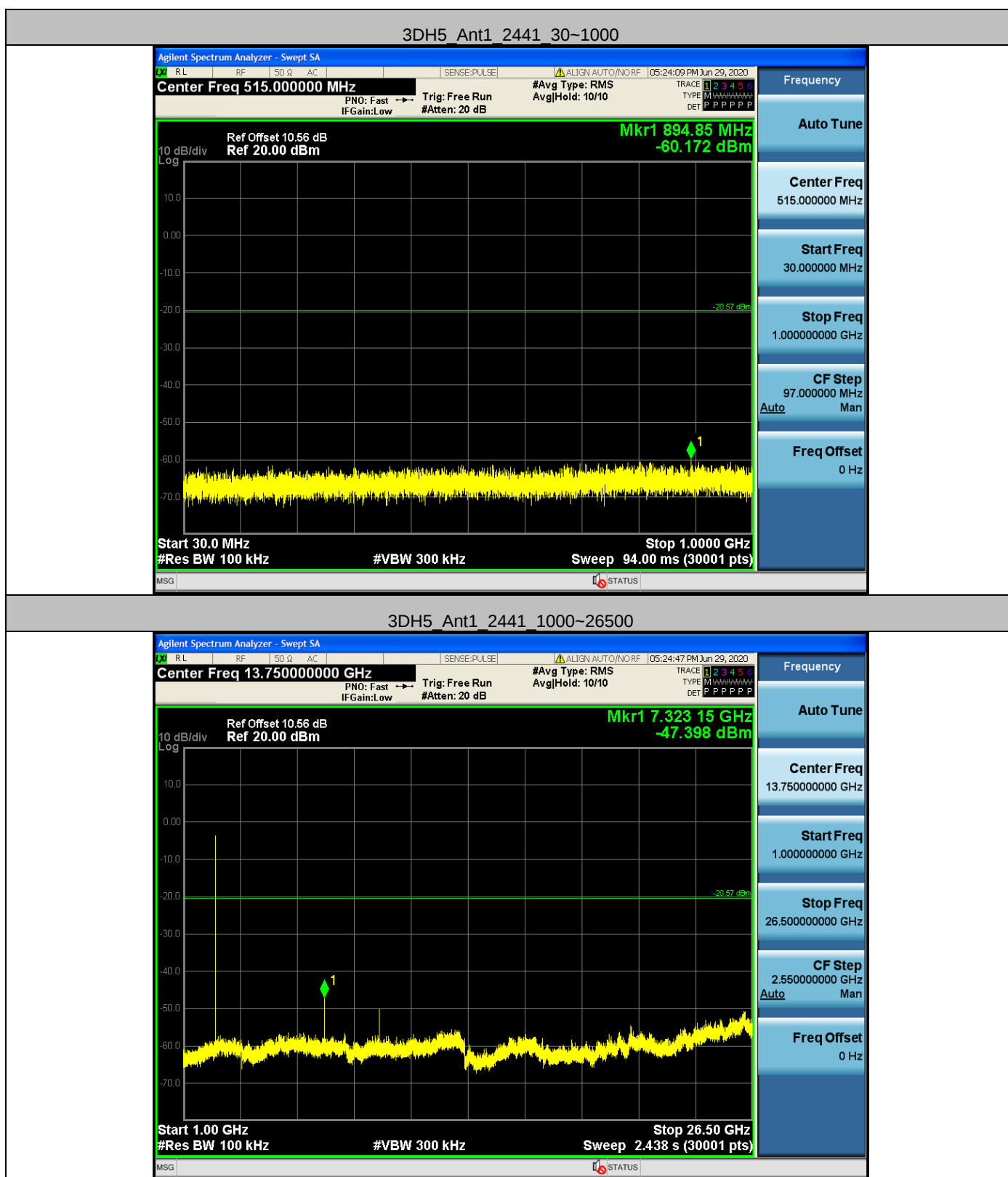


3DH5_Ant1_2402_1000-26500



3DH5_Ant1_2441_0-Reference

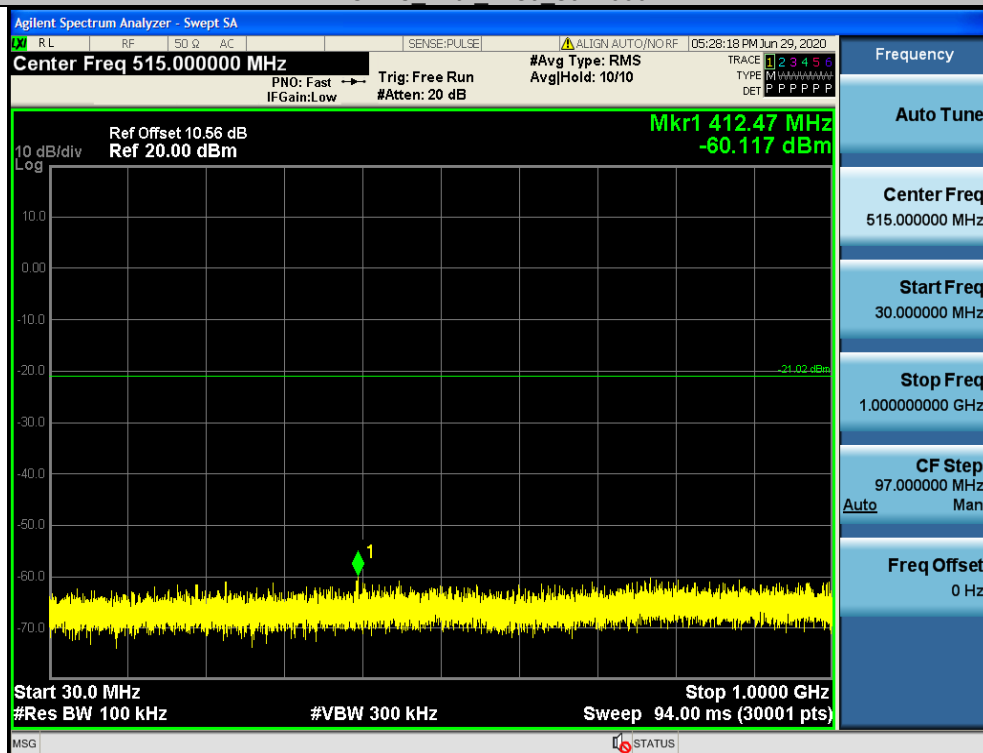


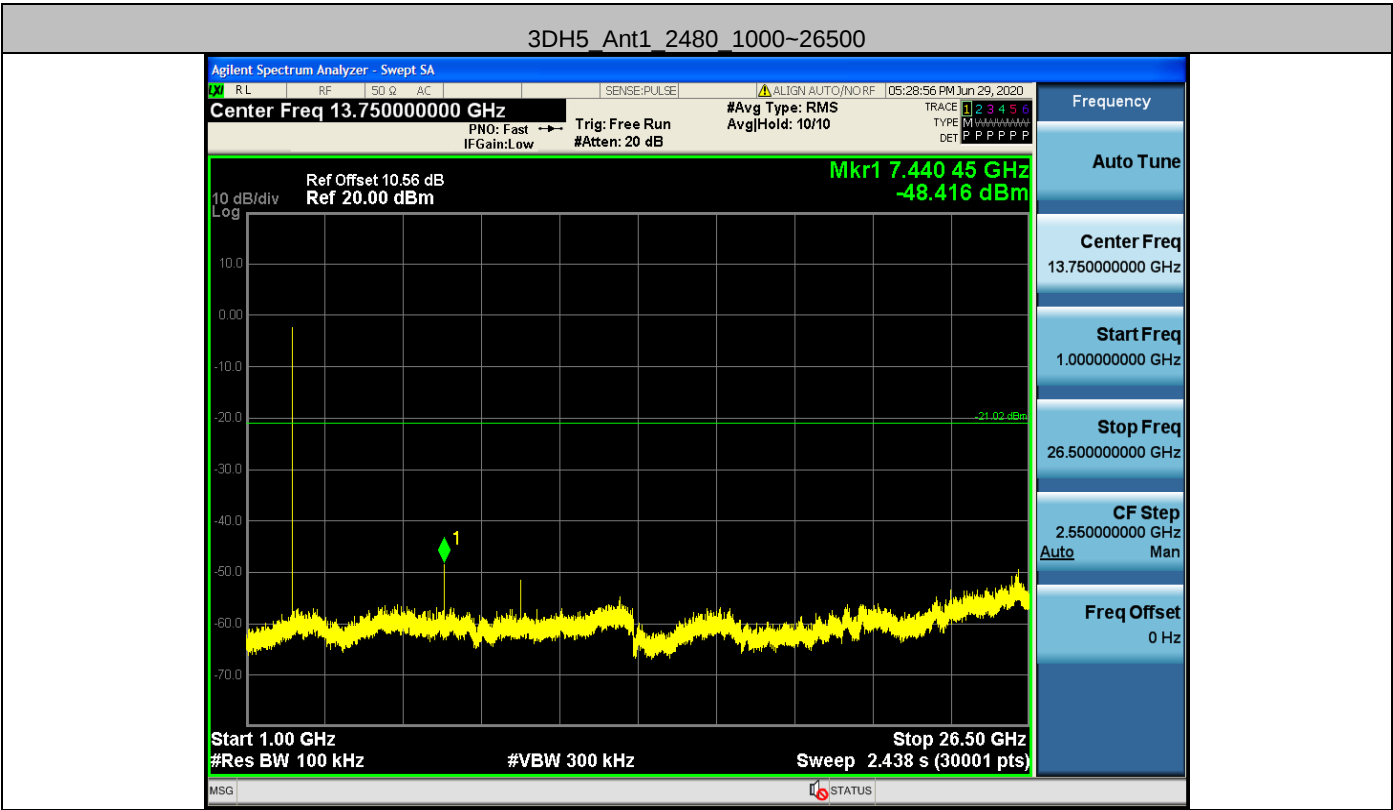


3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000





A.8 Restrict-band band-edge measurements

TestMode	Antenna	ChName	Channel	Detector	Freq	Result	Limit	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-47.55	<=-41.20	PASS
				AV	2390.000	-47.43	<=-41.20	PASS
				Peak	2310.000	-42.20	<=-21.20	PASS
				Peak	2390.000	-40.51	<=-21.20	PASS
		High	2480	AV	2483.500	-46.70	<=-41.20	PASS
				AV	2500.000	-46.74	<=-41.20	PASS
				Peak	2483.500	-40.70	<=-21.20	PASS
				Peak	2500.000	-38.34	<=-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-47.69	<=-41.20	PASS
				AV	2390.000	-47.51	<=-41.20	PASS
				Peak	2310.000	-39.89	<=-21.20	PASS
				Peak	2390.000	-39.76	<=-21.20	PASS
		High	2480	AV	2483.500	-46.80	<=-41.20	PASS
				AV	2500.000	-46.60	<=-41.20	PASS
				Peak	2483.500	-37.68	<=-21.20	PASS
				Peak	2500.000	-39.00	<=-21.20	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-47.71	<=-41.20	PASS
				AV	2390.000	-47.52	<=-41.20	PASS
				Peak	2310.000	-40.51	<=-21.20	PASS
				Peak	2390.000	-40.28	<=-21.20	PASS
		High	2480	AV	2483.500	-46.71	<=-41.20	PASS
				AV	2500.000	-46.73	<=-41.20	PASS
				Peak	2483.500	-40.01	<=-21.20	PASS
				Peak	2500.000	-40.87	<=-21.20	PASS

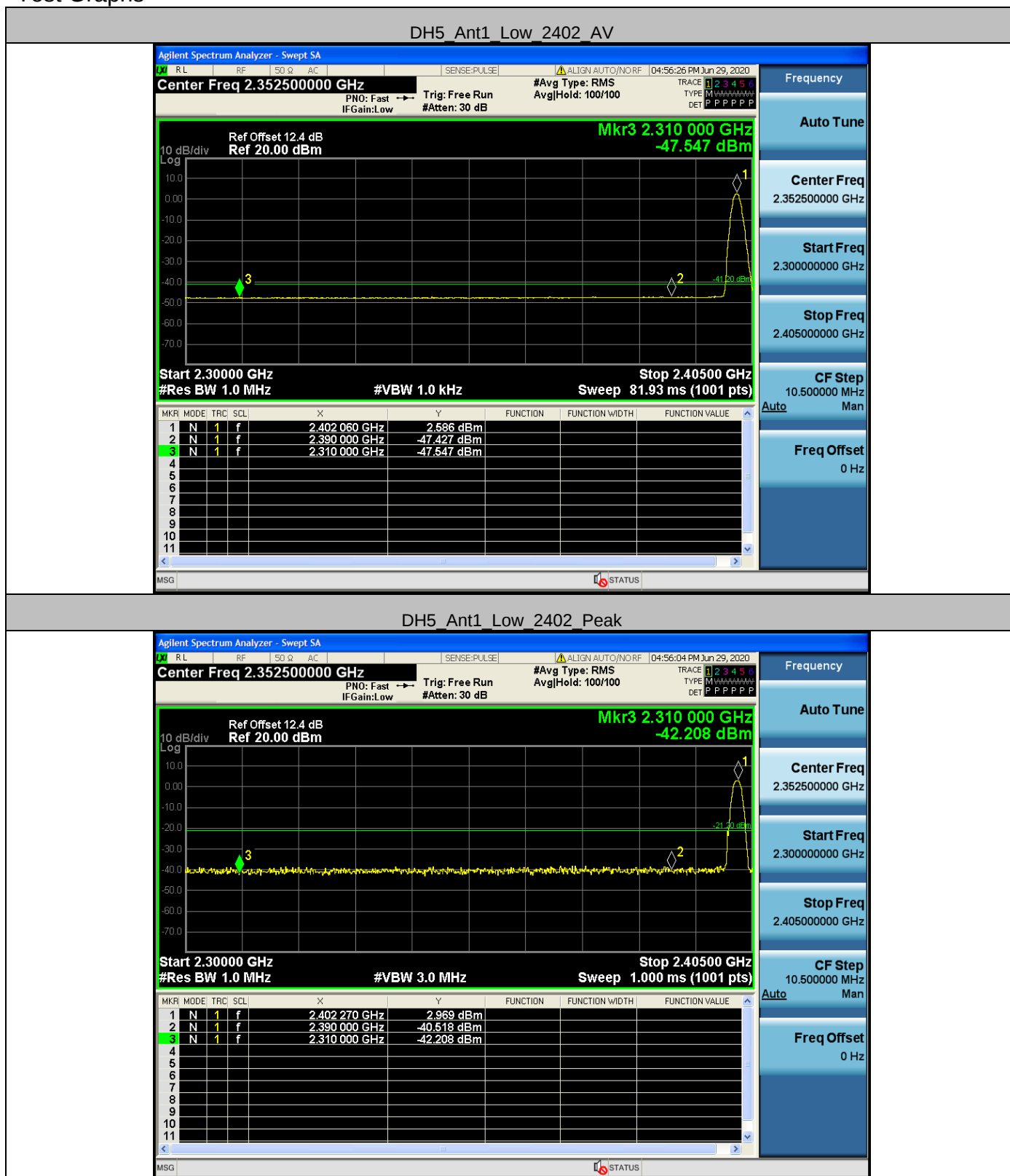
Note :

1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.

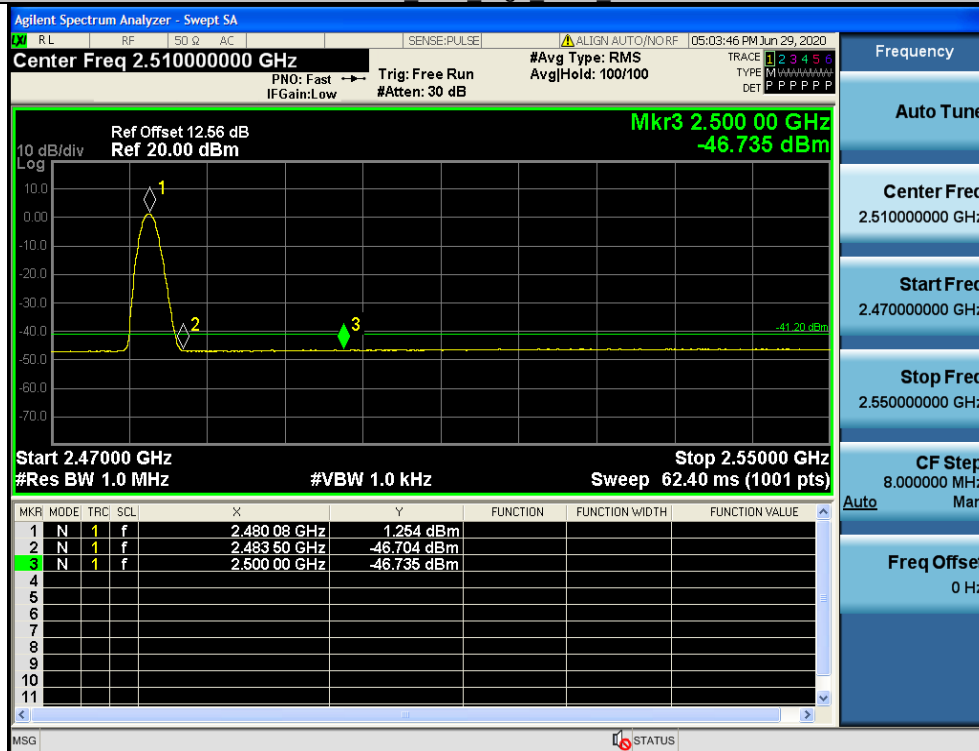
2.The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a),

The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

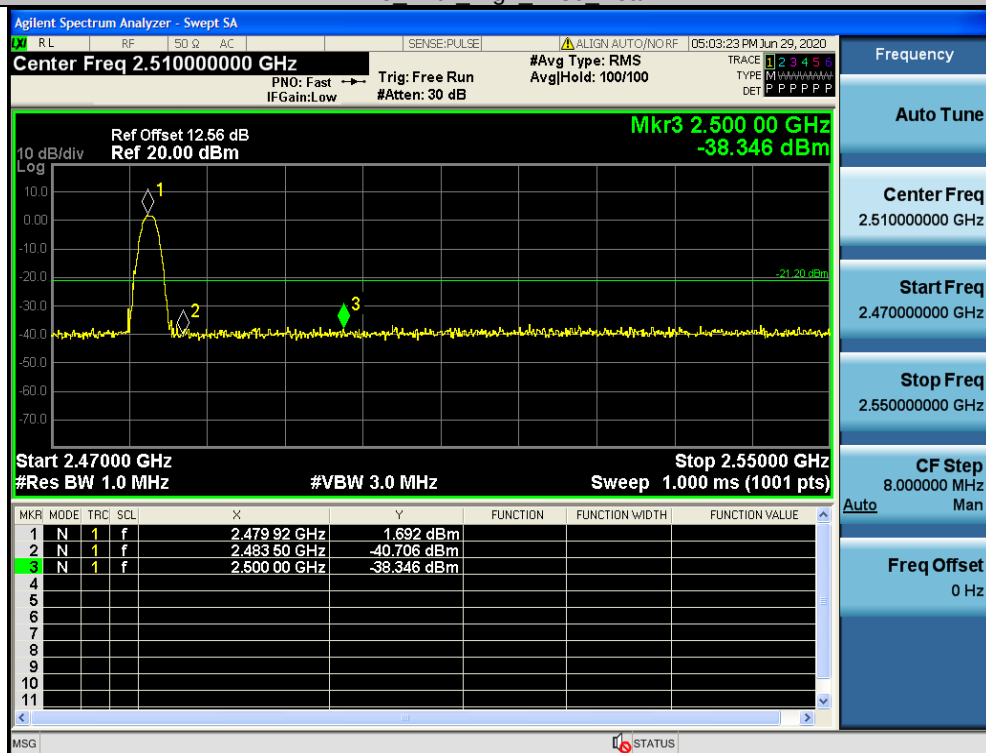
Test Graphs



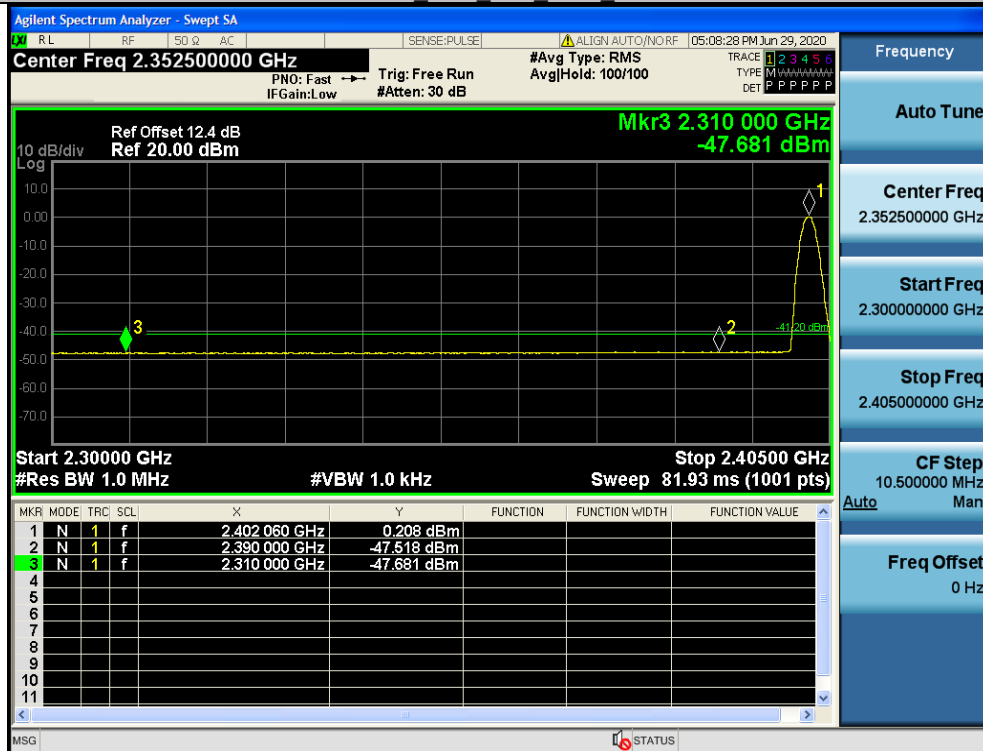
DH5 Ant1 High 2480 AV



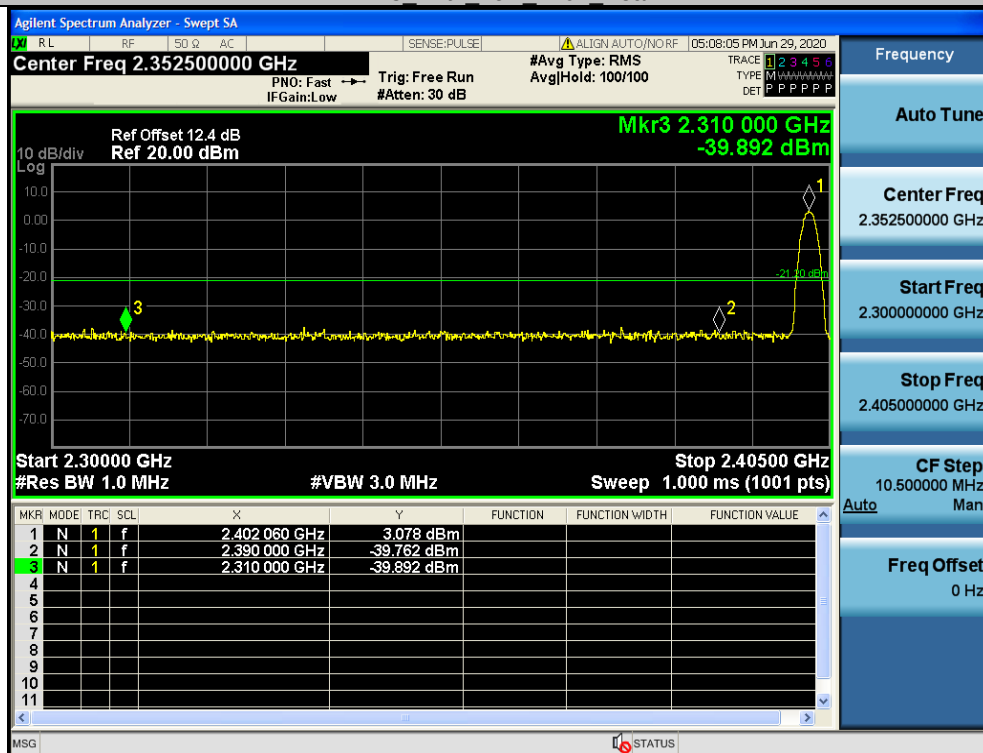
DH5 Ant1 High 2480 Peak



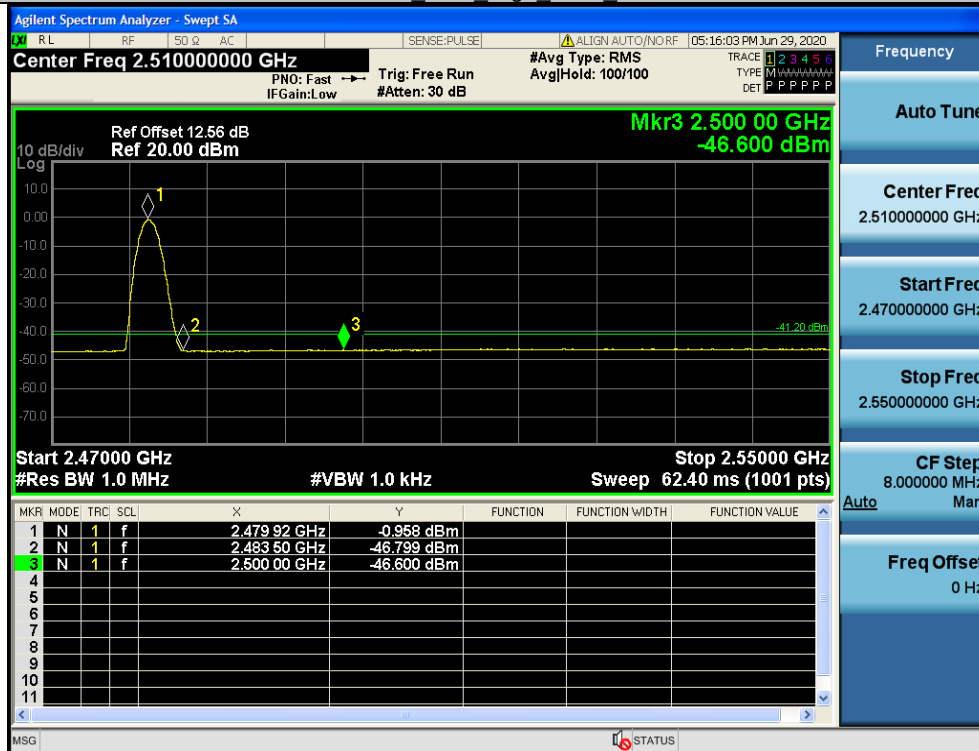
2DH5_Ant1_Low_2402_AV



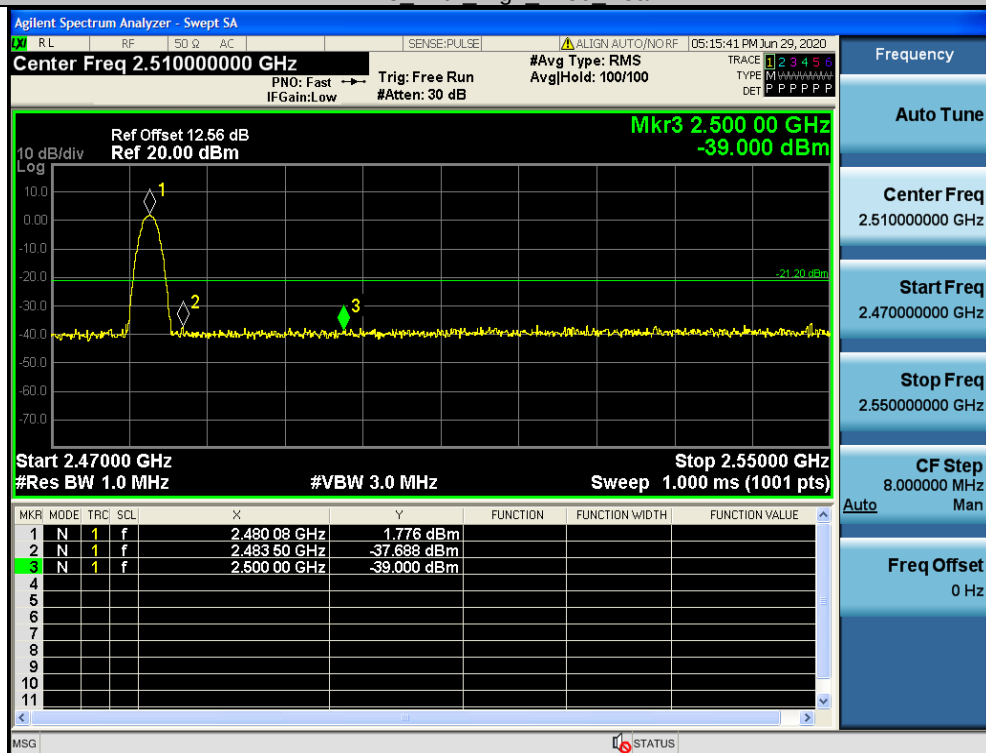
2DH5_Ant1_Low_2402_Peak



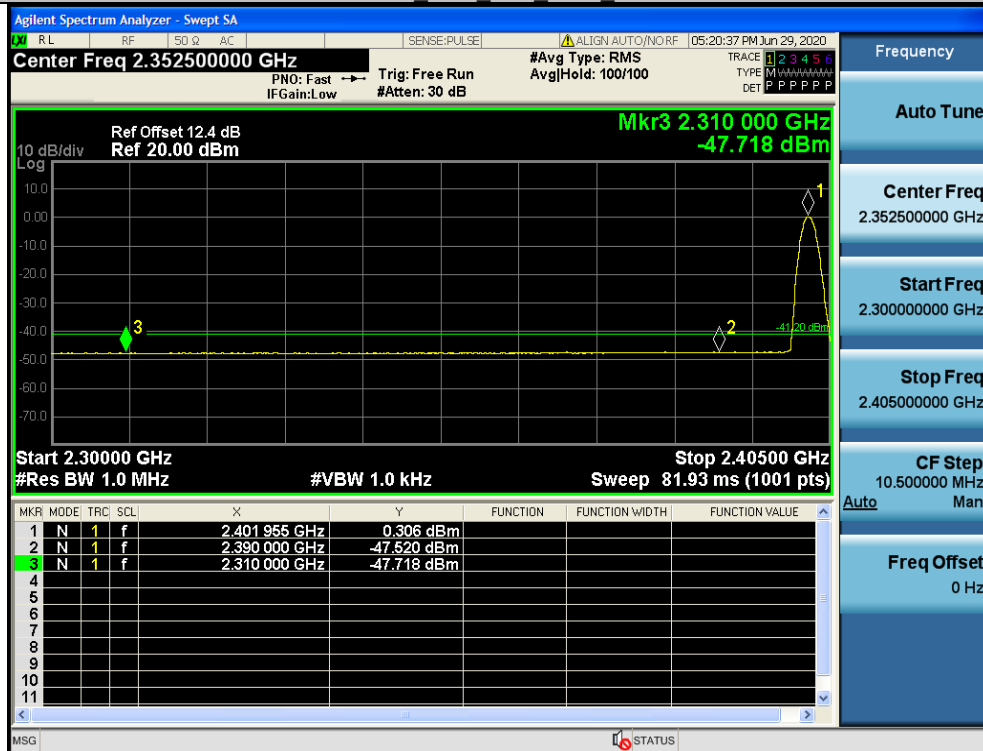
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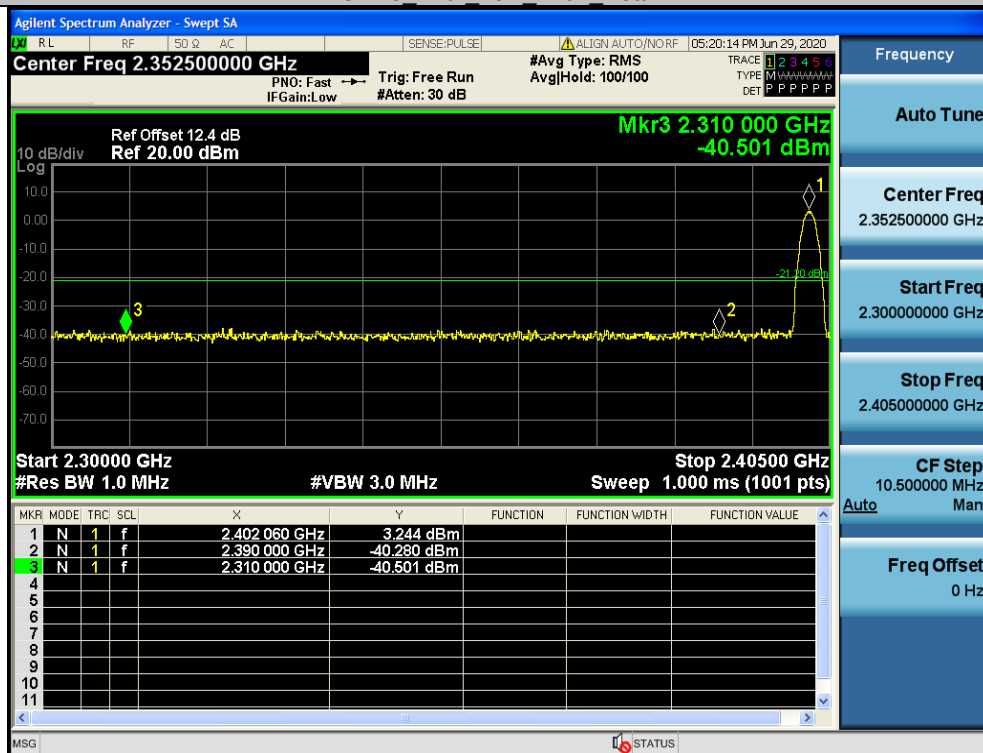
2DH5_Ant1_High_2480_Peak



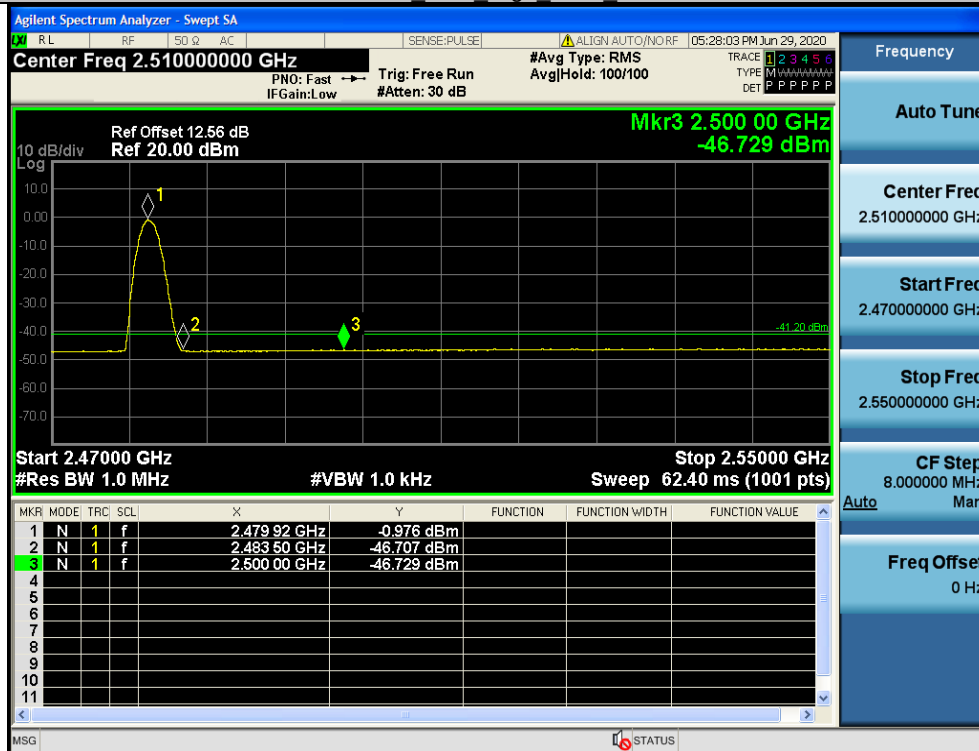
3DH5_Ant1_Low_2402_AV



3DH5_Ant1_Low_2402_Peak



3DH5_Ant1_High_2480_AV



3DH5_Ant1_High_2480_Peak

