

## Appendix A

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

Product Name: Bluetooth Earphones

Trade Mark: NUARL, n|a

Test Model: NUARL N6 mini

FCC ID: 2ARGT-NUARLN6MINI

### Environmental Conditions

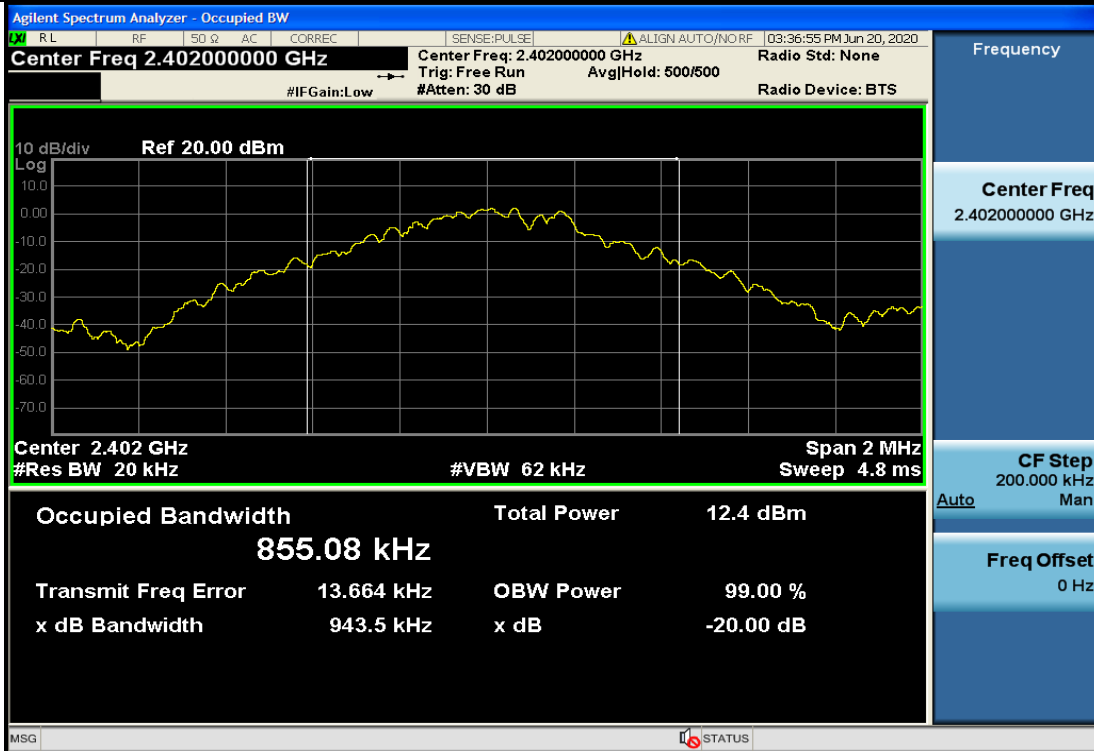
Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Nancy Li
Supervised by:	Hugo Chen

#### A.1 20 dB Bandwidth

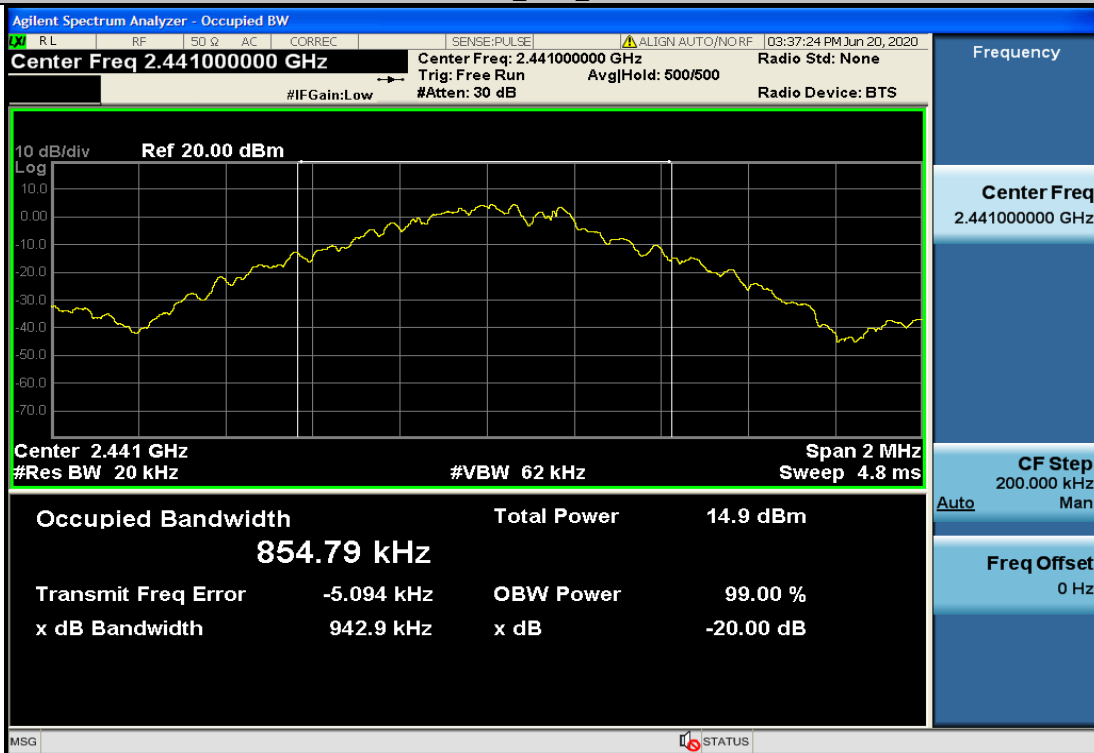
Type	Frequency(MHz)	Nominal Bandwidth(MHz)	Test Condition	20dB Spectrum Bandwidth(MHz)	Conclusion
1DH5	2402	1	NVNT	0.944	No Limit
1DH5	2441	1	NVNT	0.943	No Limit
1DH5	2480	1	NVNT	0.942	No Limit
2DH5	2402	1	NVNT	1.228	No Limit
2DH5	2441	1	NVNT	1.232	No Limit
2DH5	2480	1	NVNT	1.231	No Limit
3DH5	2402	1	NVNT	1.250	No Limit
3DH5	2441	1	NVNT	1.252	No Limit
3DH5	2480	1	NVNT	1.252	No Limit

Test Graph

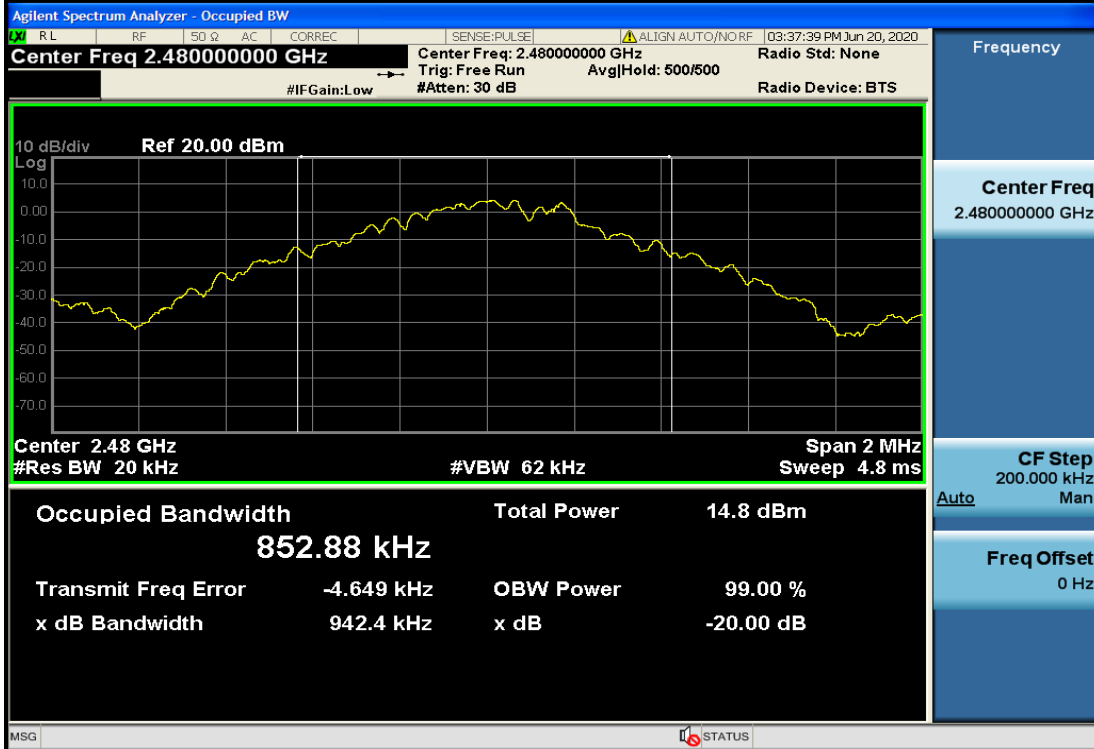
DH5\_Ant1\_2402



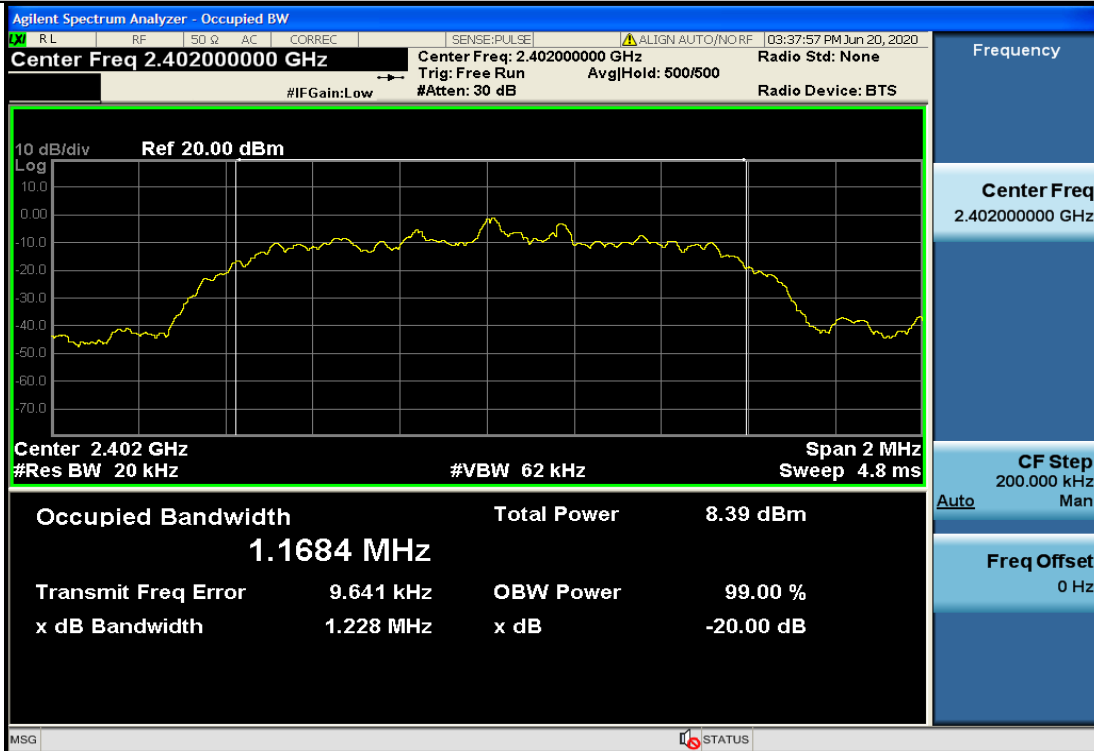
DH5\_Ant1\_2441



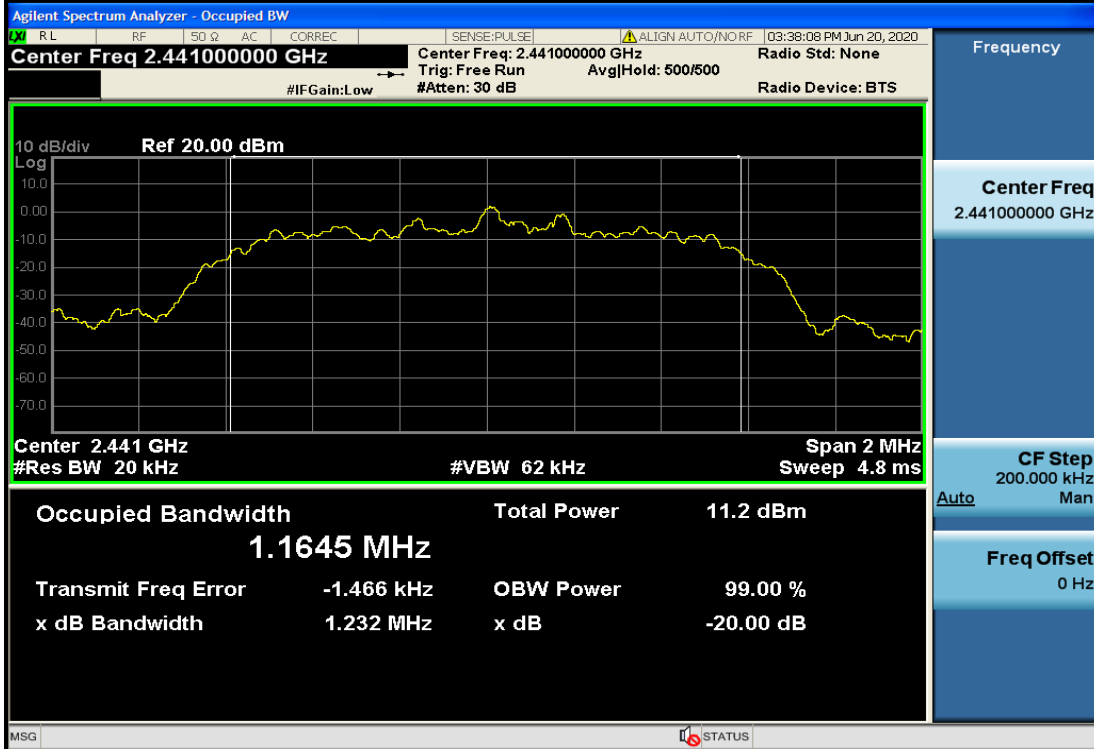
DH5\_Ant1\_2480



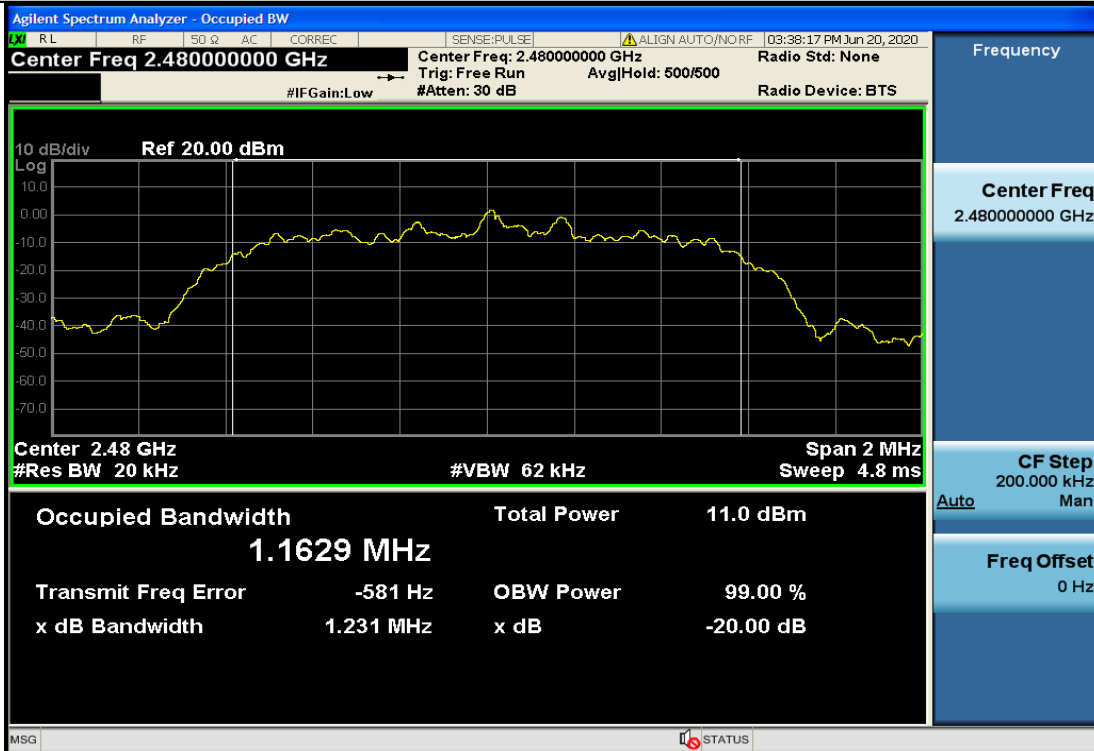
2DH5\_Ant1\_2402



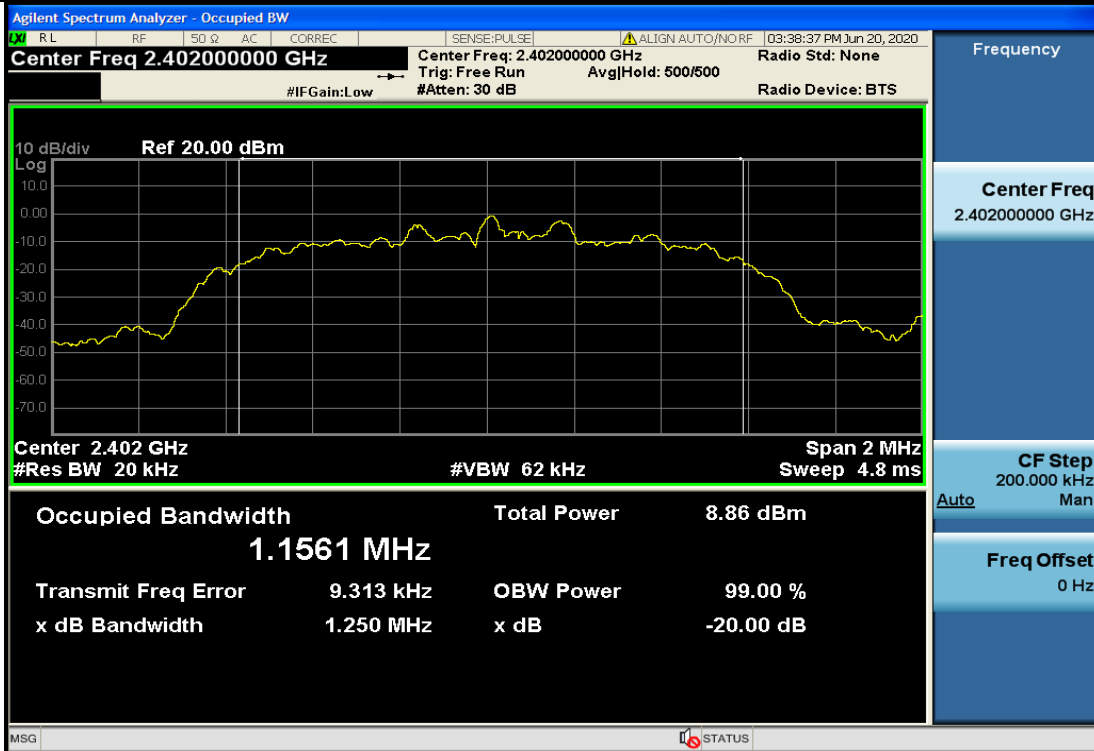
2DH5\_Ant1\_2441



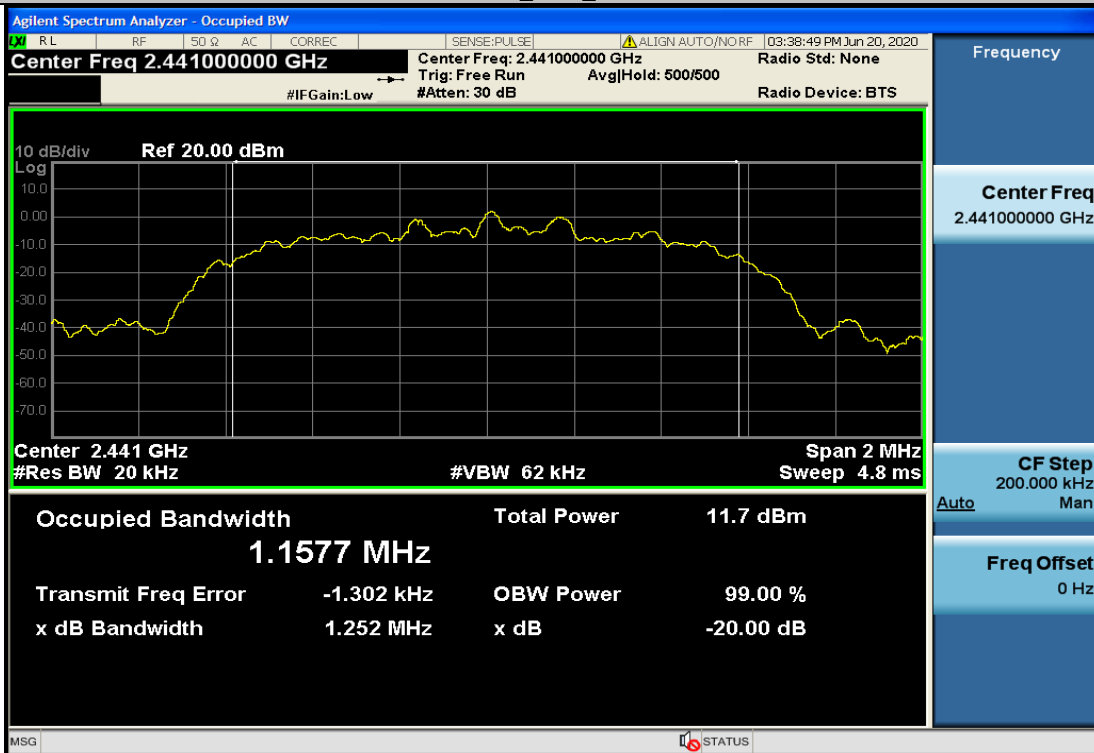
2DH5\_Ant1\_2480



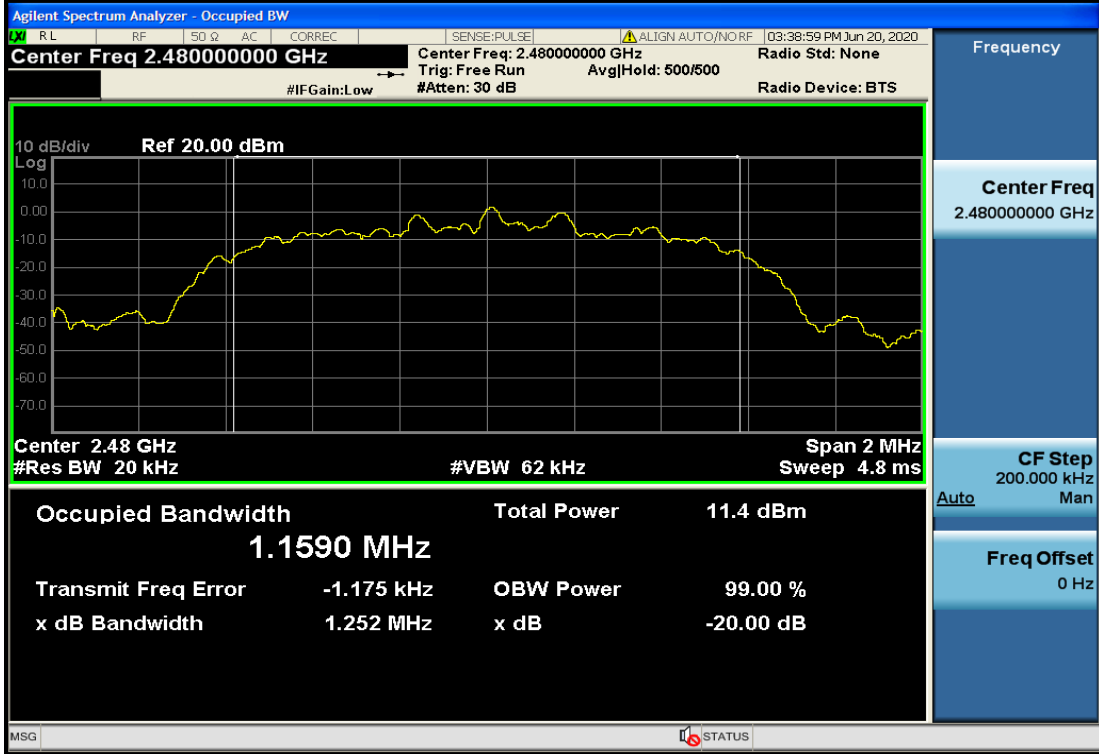
3DH5\_Ant1\_2402



3DH5\_Ant1\_2441



3DH5\_Ant1\_2480

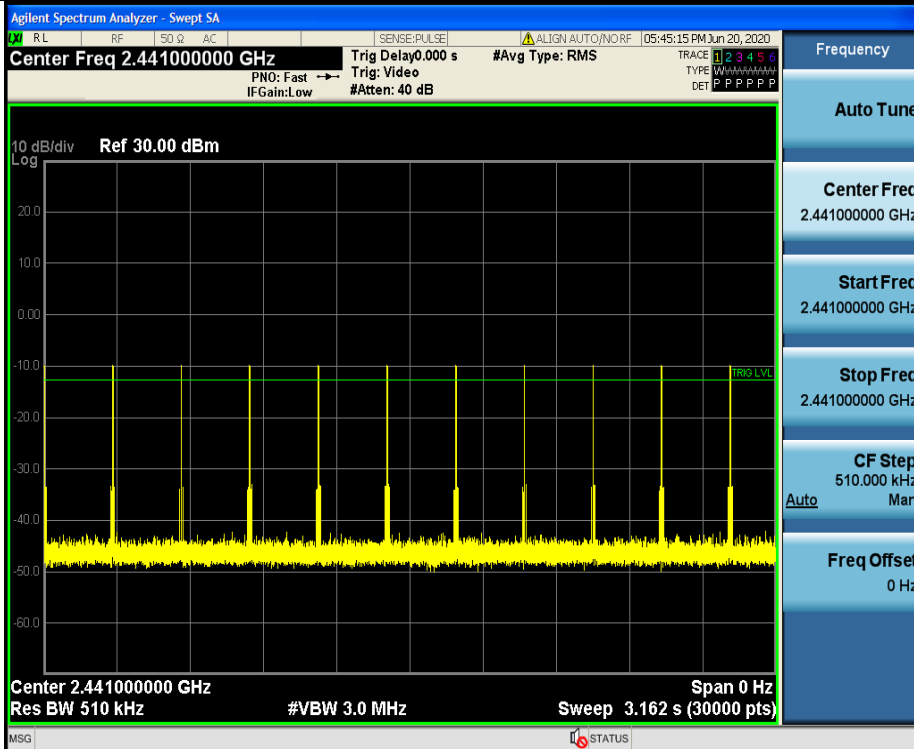
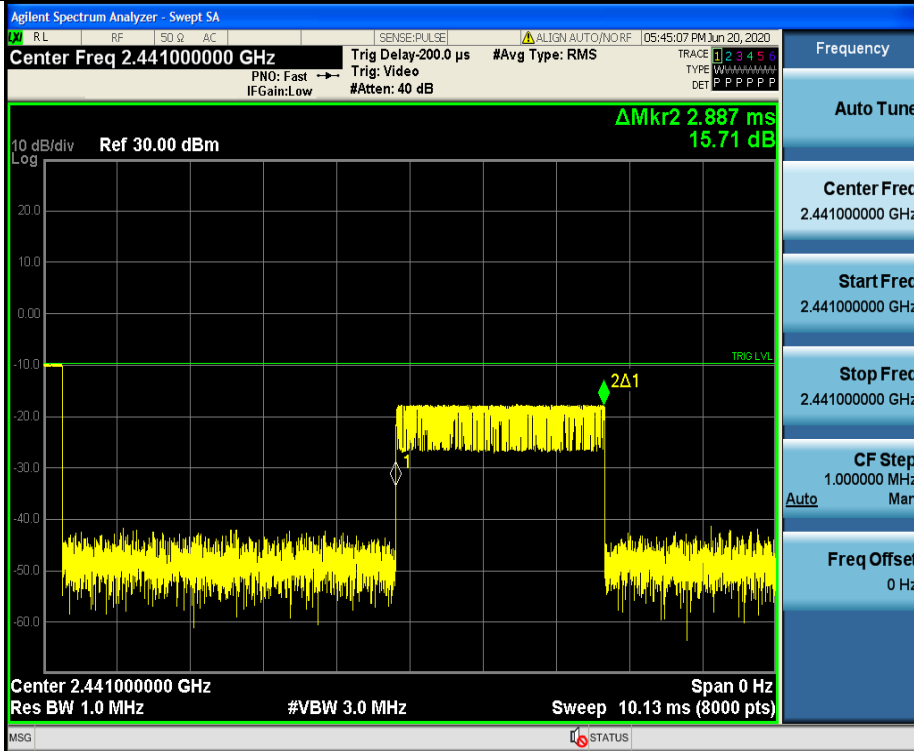


**A.2 Dwell Time**

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.887	110	0.318	<=0.4	PASS
2DH5	Ant1	Hop	2.890	110	0.318	<=0.4	PASS
3DH5	Ant1	Hop	2.896	110	0.319	<=0.4	PASS

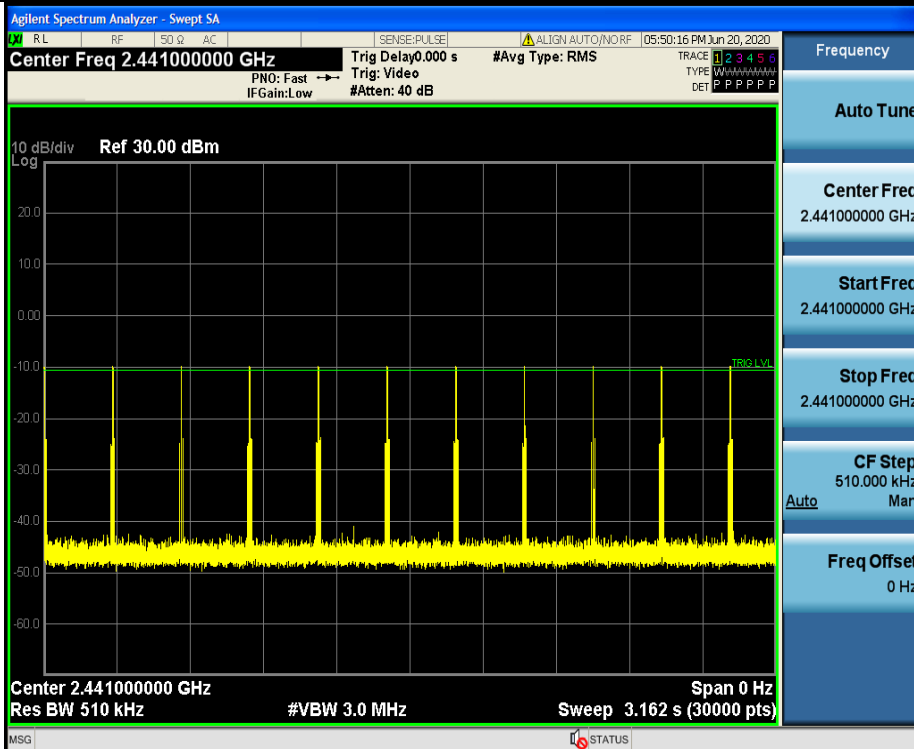
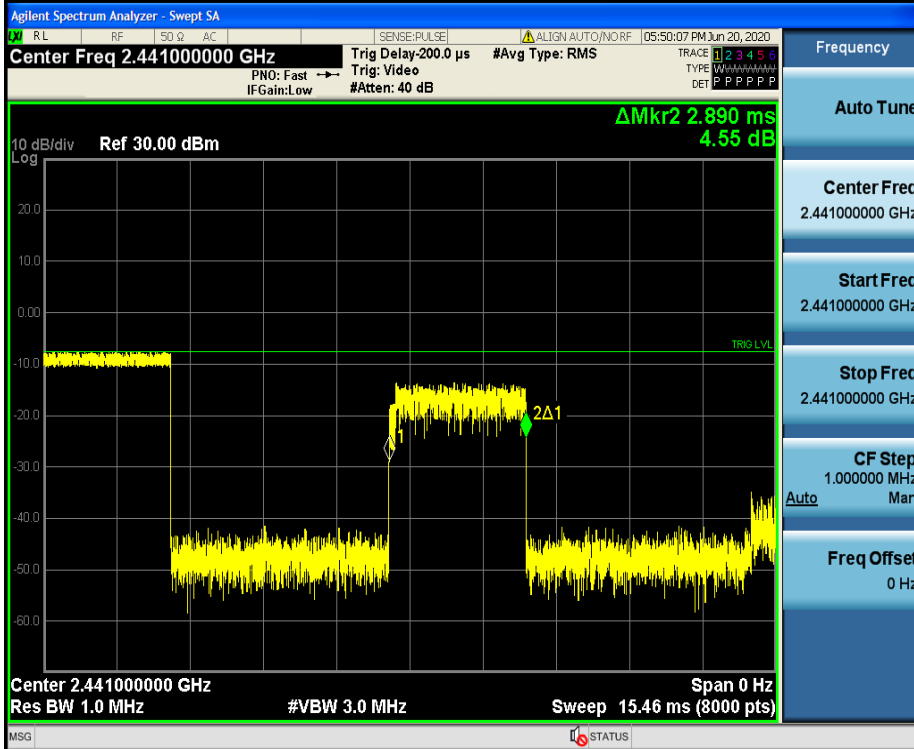
### Test Graph

DH5\_Ant1\_Hop

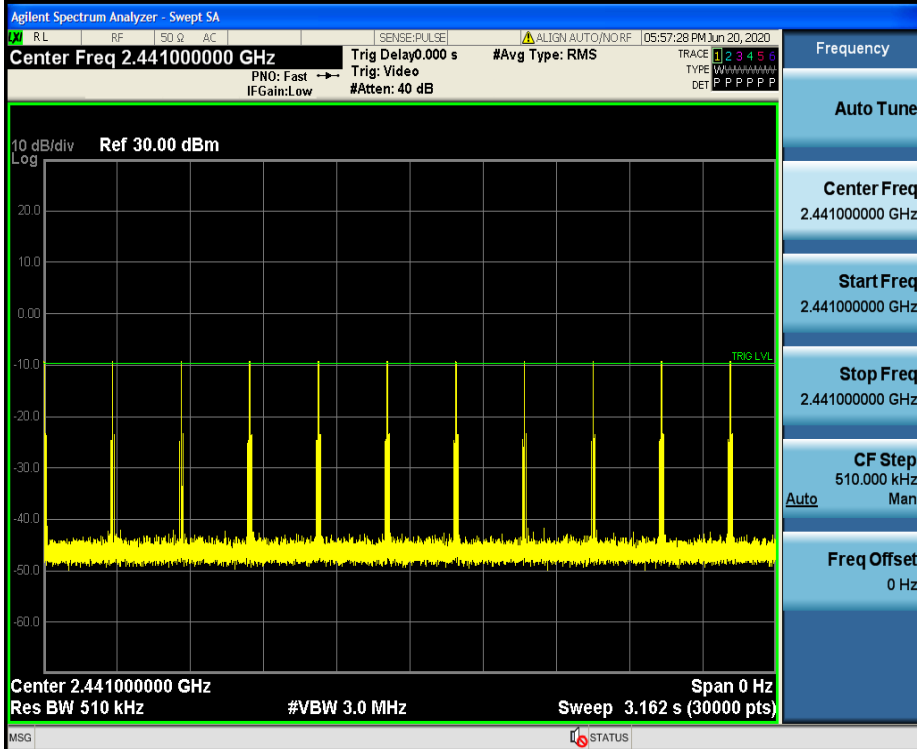
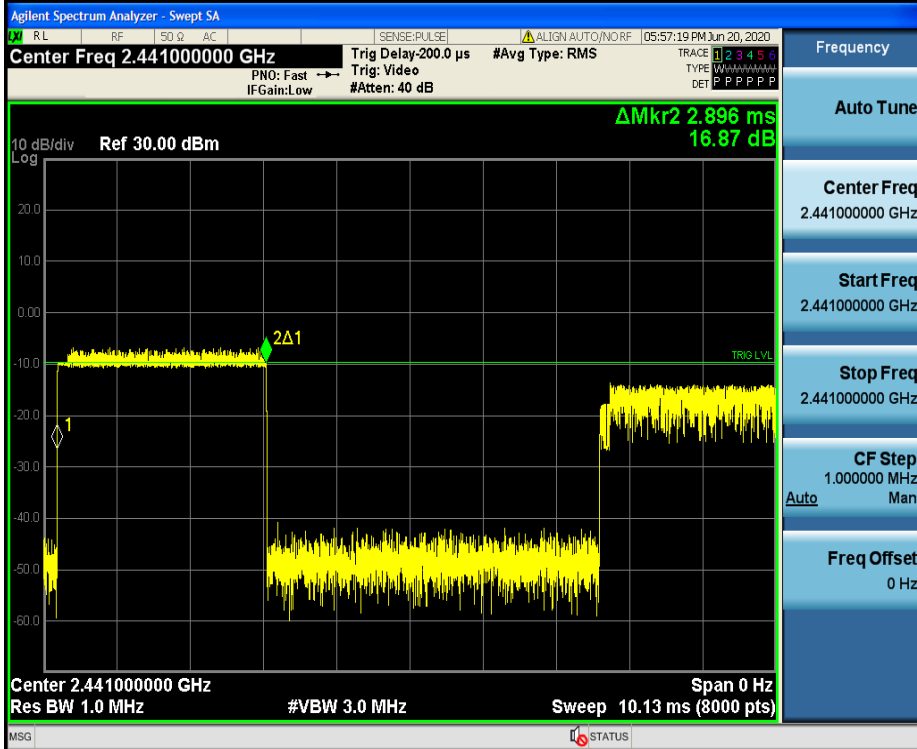




2DH5\_Ant1\_Hop



3DH5\_Ant1\_Hop



### A.3 Carrier Frequency Separation

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.958	$\geq 0.740$	PASS
2DH5	Ant1	Hop	0.998	$\geq 0.952$	PASS
3DH5	Ant1	Hop	0.998	$\geq 0.932$	PASS

### Test Graph

#### DH5\_Ant1\_Hop



#### 2DH5\_Ant1\_Hop



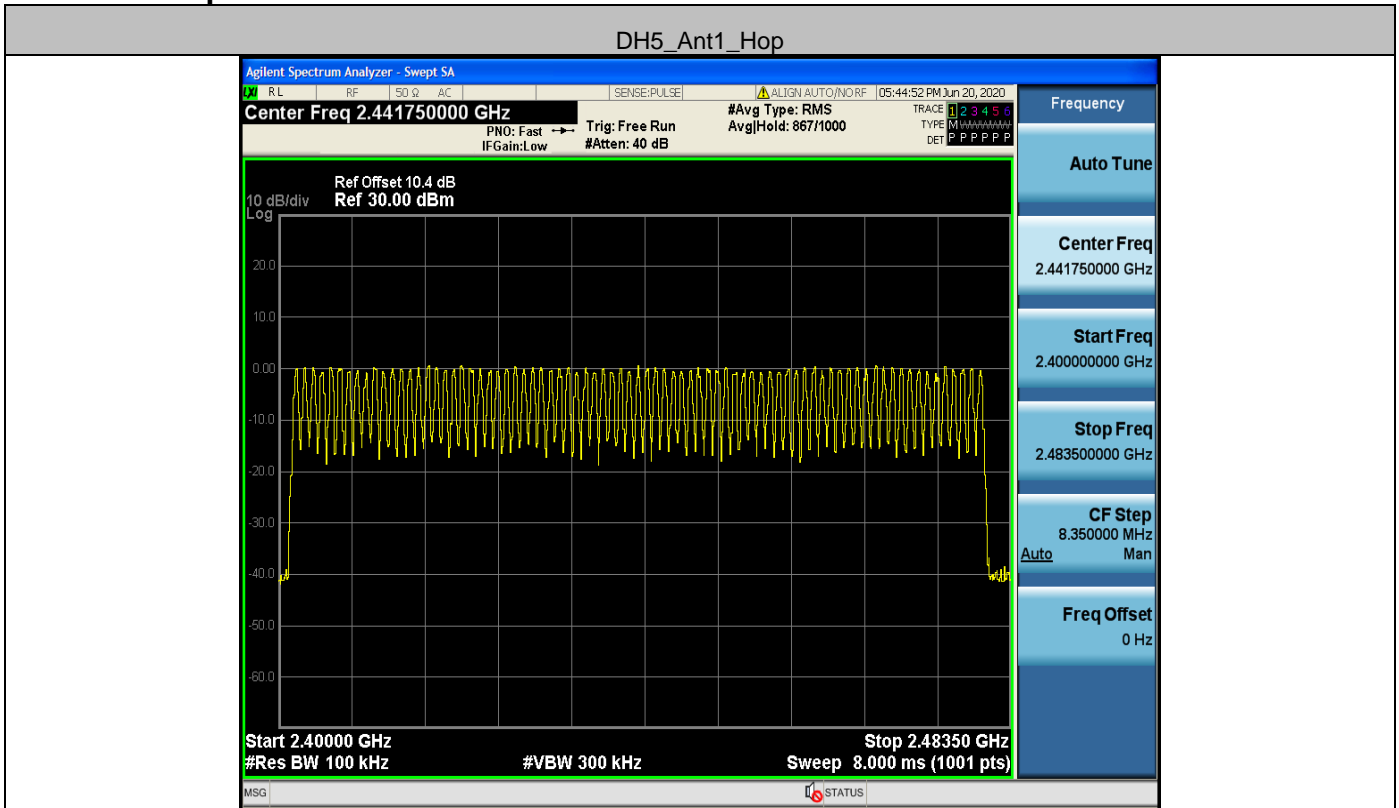
3DH5\_Ant1\_Hop



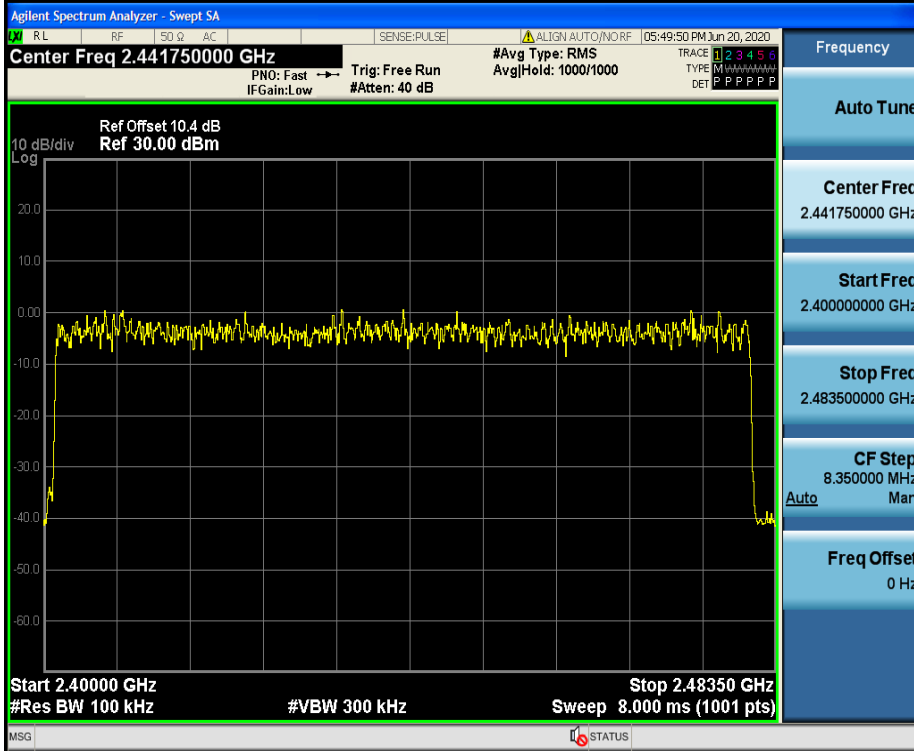
### A.4 Hopping Channel Number

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

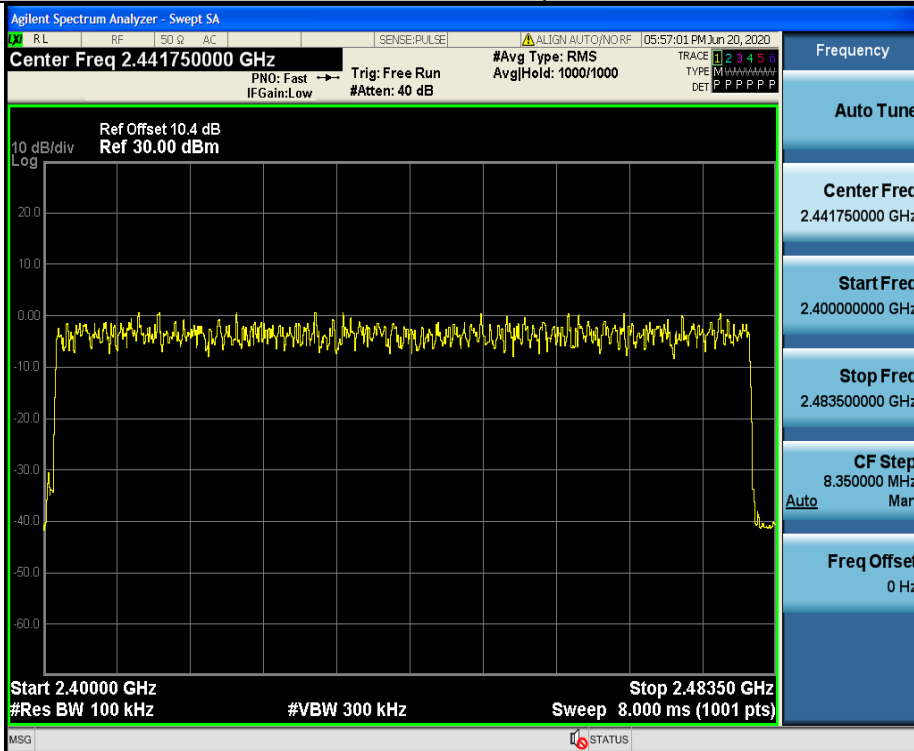
### Test Graph



2DH5\_Ant1\_Hop



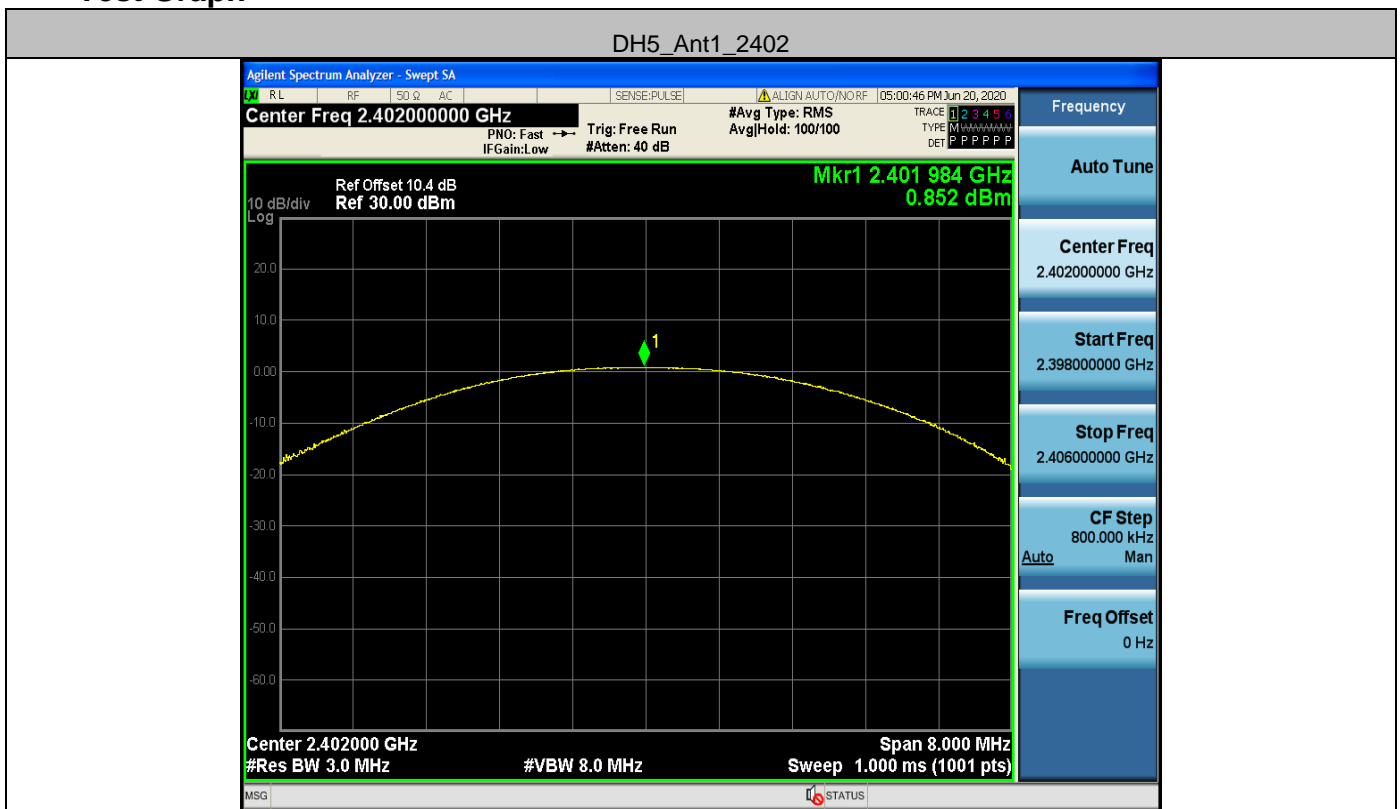
3DH5\_Ant1\_Hop



### A.5 Conducted Peak Output Power

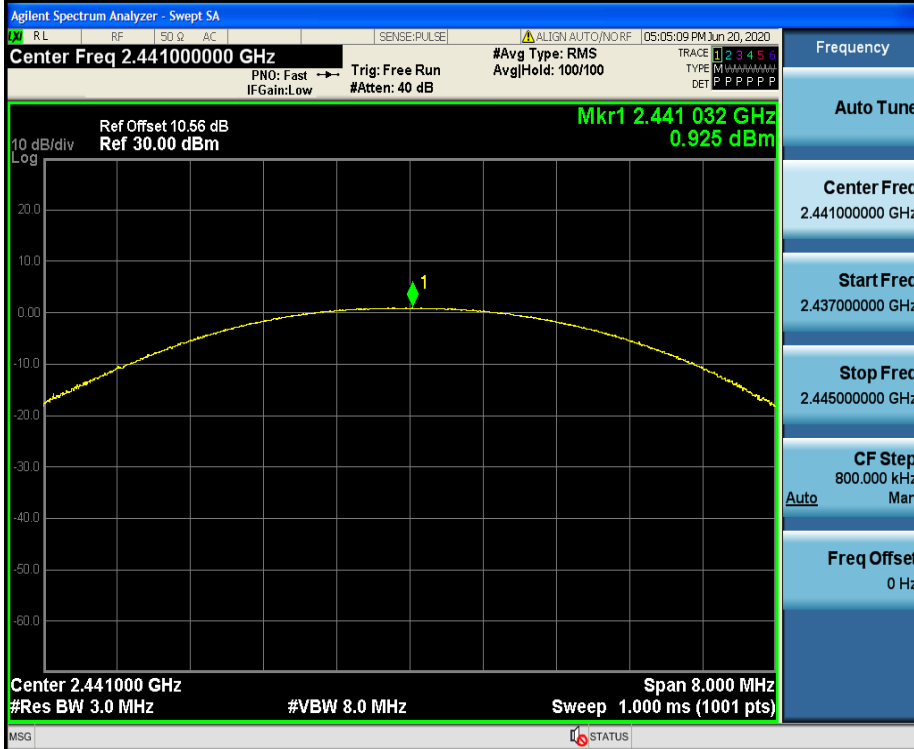
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	0.85	<=20.97	PASS
		2441	0.93	<=20.97	PASS
		2480	0.95	<=20.97	PASS
2DH5	Ant1	2402	3.44	<=20.97	PASS
		2441	3.64	<=20.97	PASS
		2480	3.45	<=20.97	PASS
3DH5	Ant1	2402	4.34	<=20.97	PASS
		2441	4.36	<=20.97	PASS
		2480	4.05	<=20.97	PASS

### Test Graph

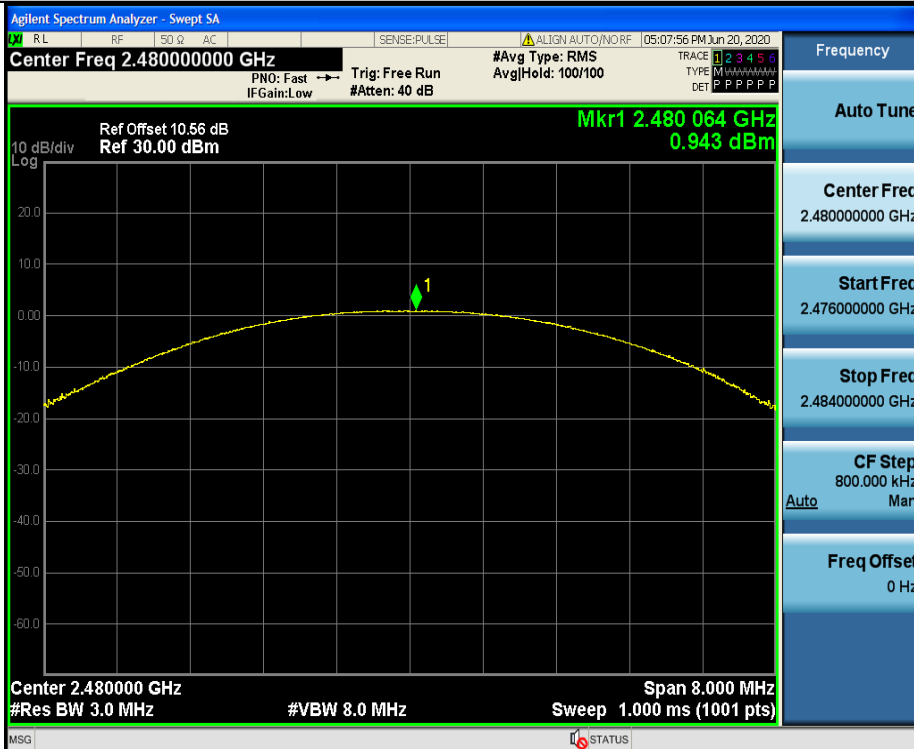




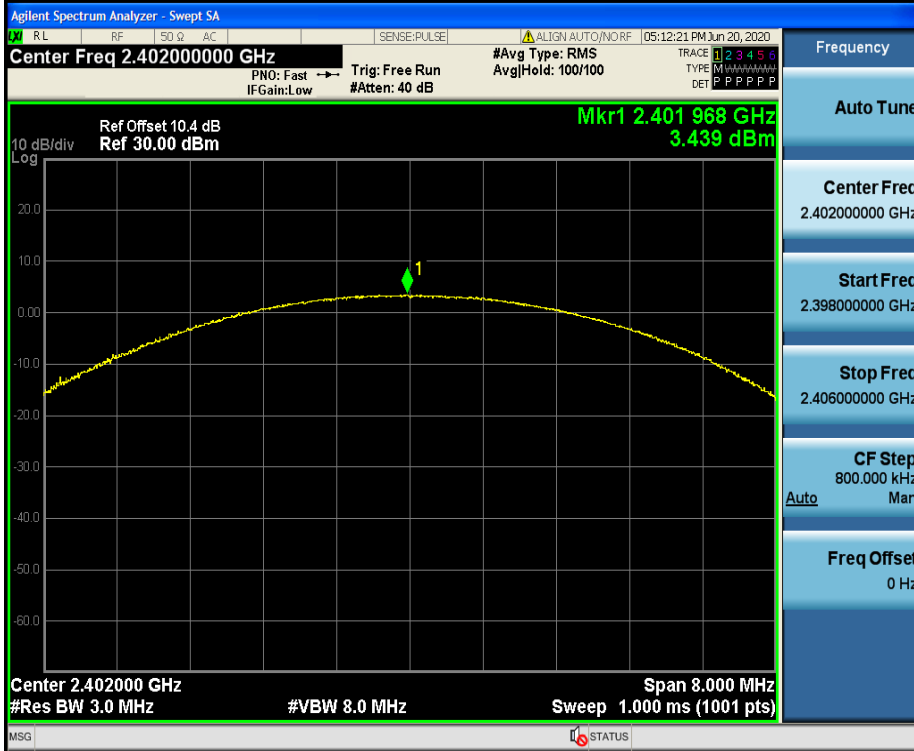
DH5\_Ant1\_2441



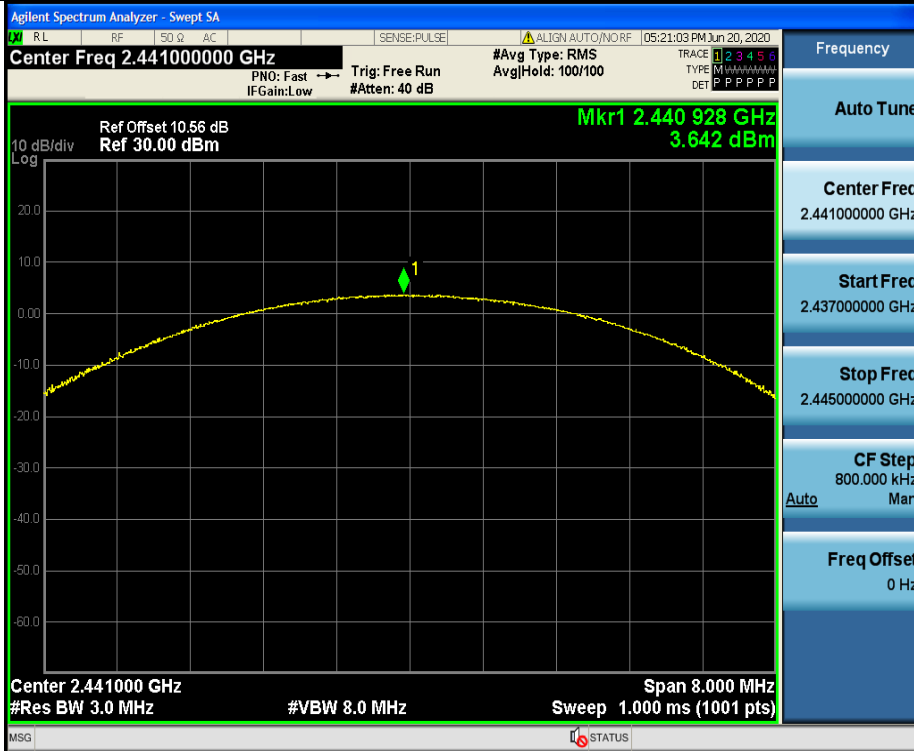
DH5\_Ant1\_2480



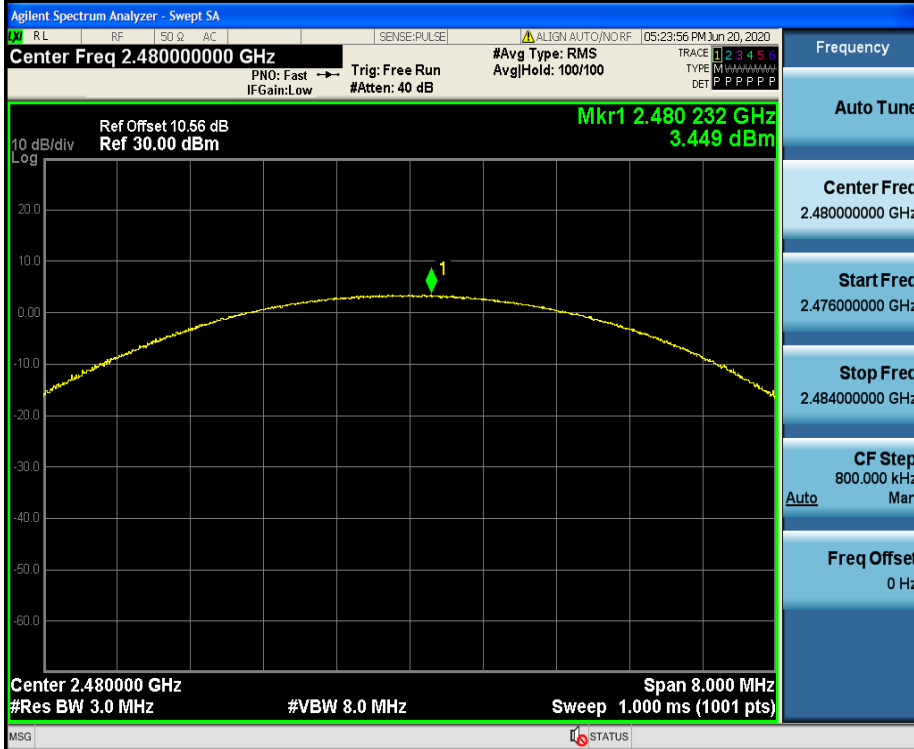
2DH5\_Ant1\_2402



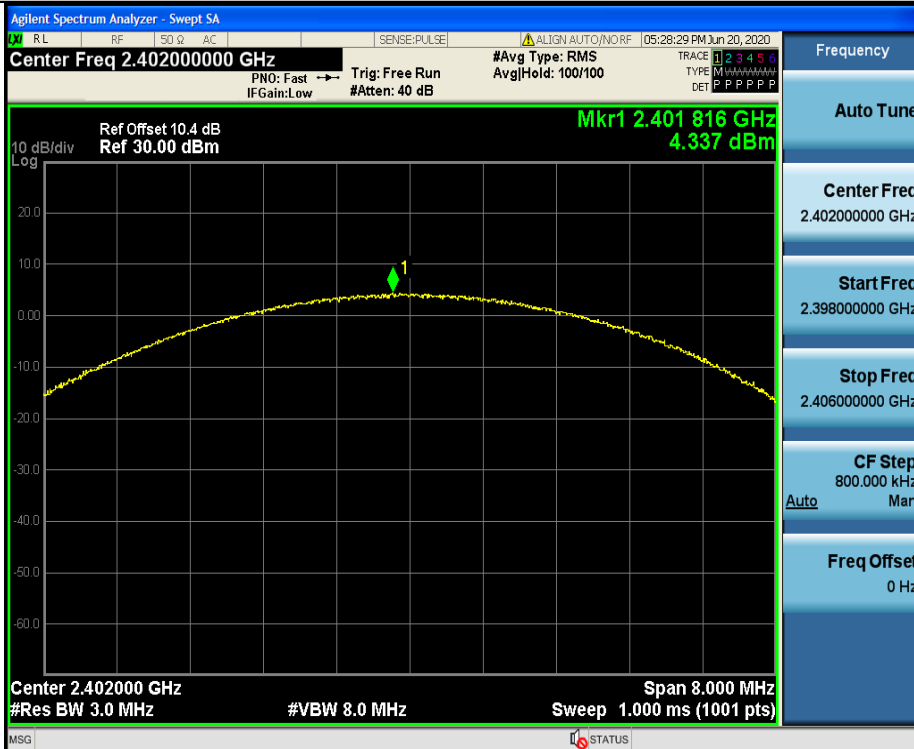
2DH5\_Ant1\_2441



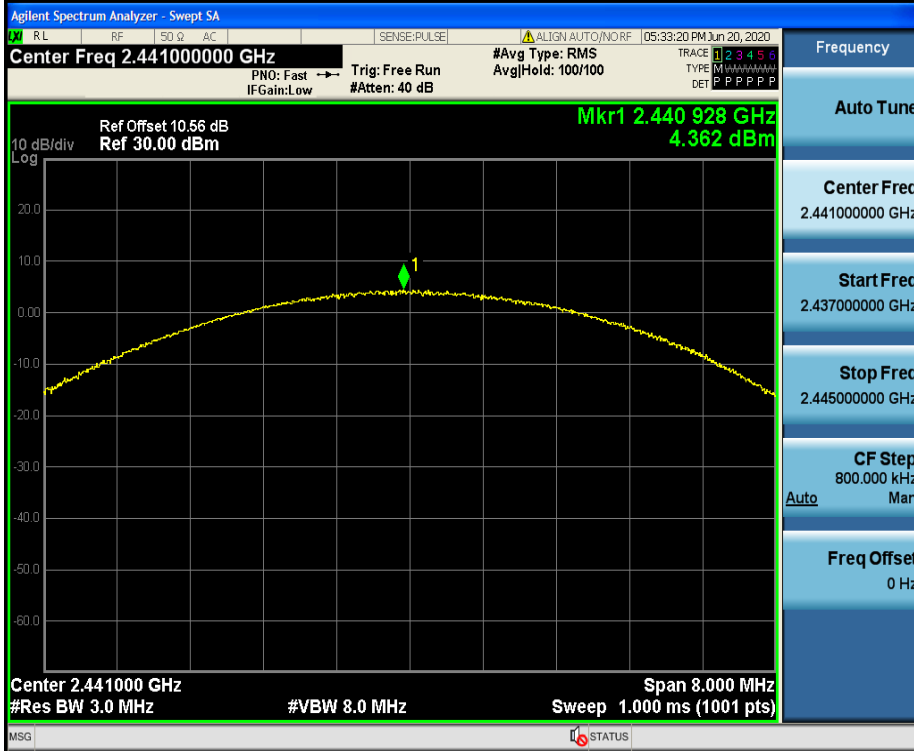
2DH5\_Ant1\_2480



3DH5\_Ant1\_2402



3DH5\_Ant1\_2441



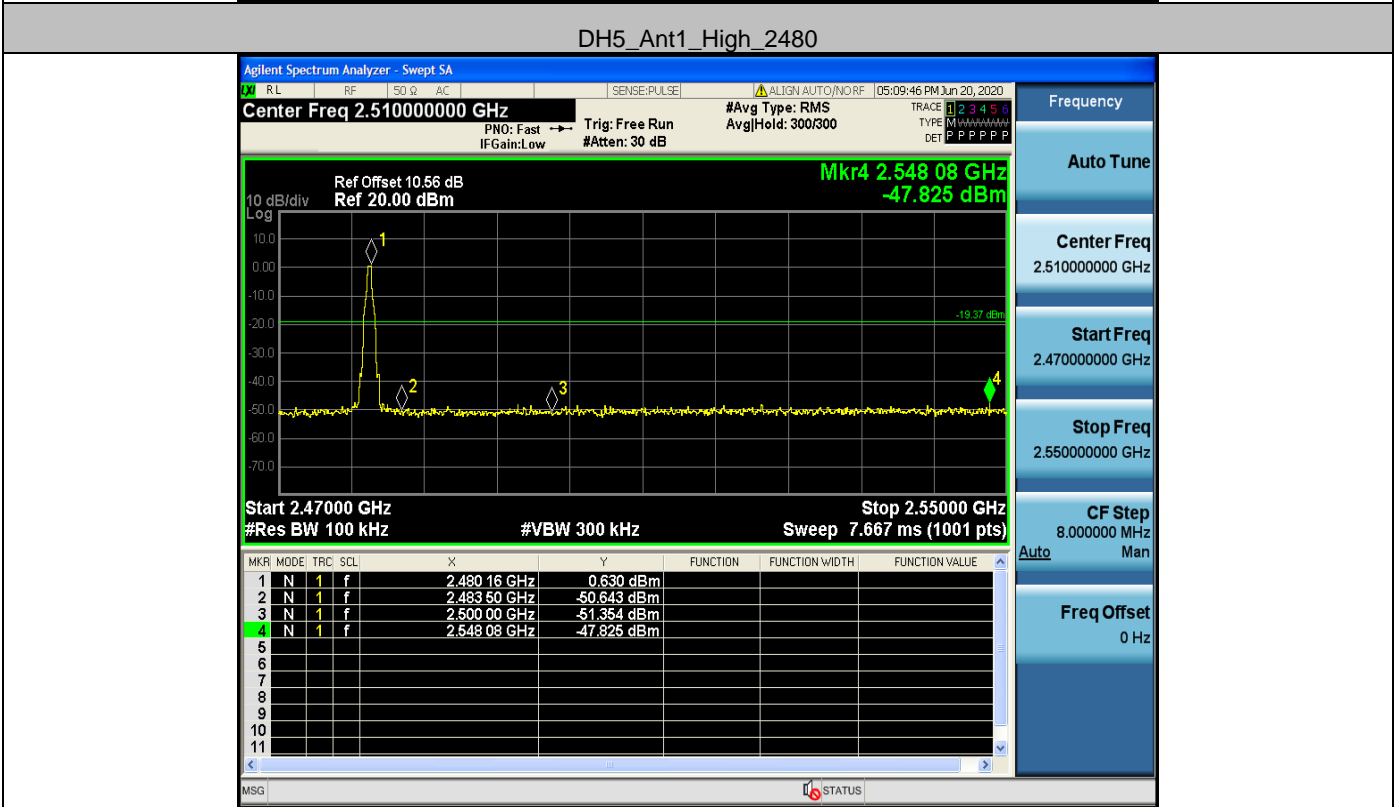
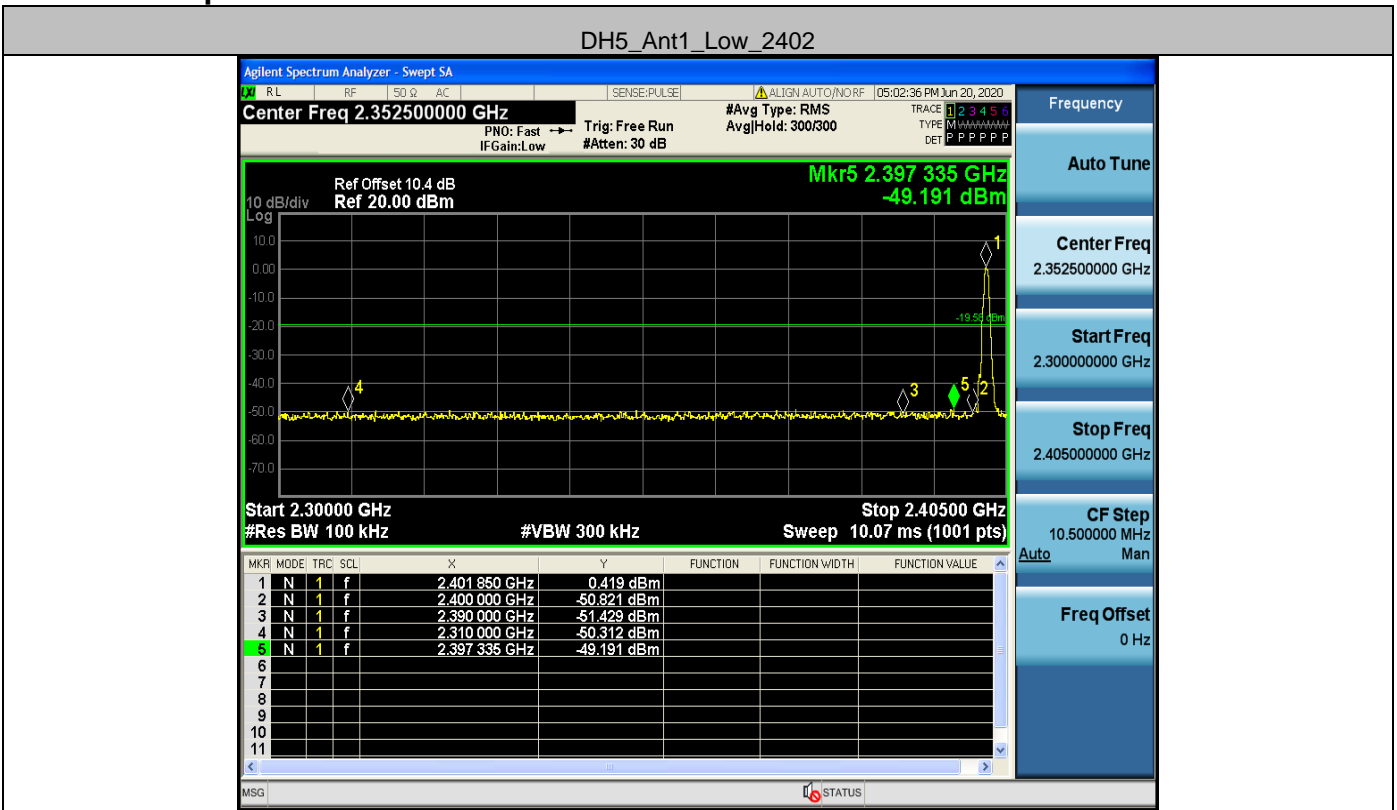
3DH5\_Ant1\_2480



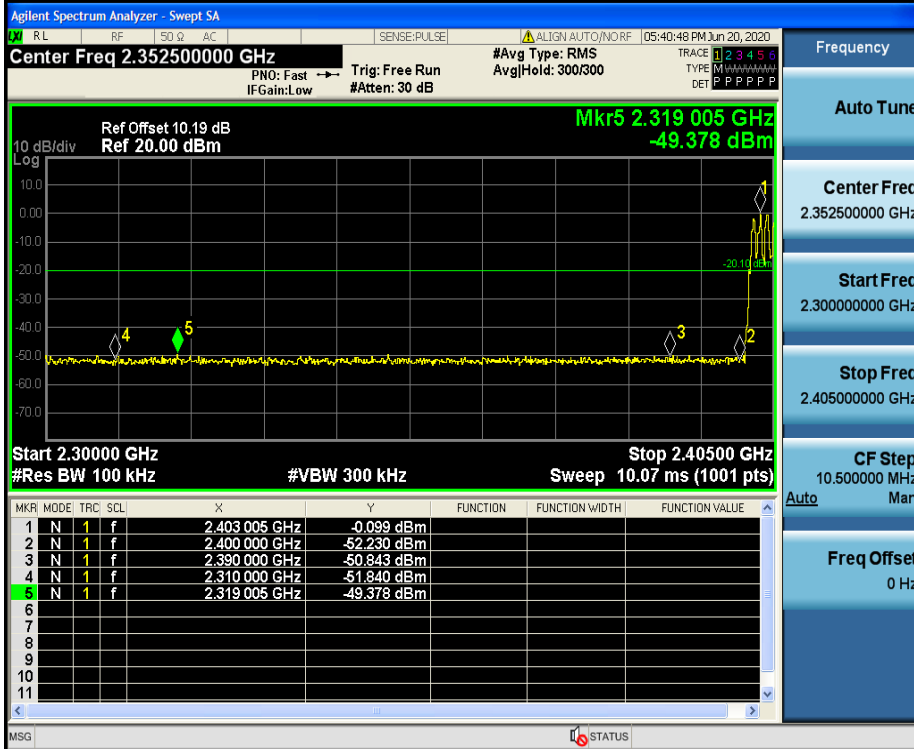
**A.6 Band-edge for RF Conducted Emissions**

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.42	-49.19	<=-19.58	PASS
		High	2480	0.63	-47.83	<=-19.37	PASS
		Low	Hop_2402	-0.10	-49.38	<=-20.1	PASS
		High	Hop_2480	0.83	-47.4	<=-19.17	PASS
2DH5	Ant1	Low	2402	0.41	-47.24	<=-19.59	PASS
		High	2480	0.47	-47.43	<=-19.53	PASS
		Low	Hop_2402	-2.70	-49.16	<=-22.70	PASS
		High	Hop_2480	-2.22	-47.93	<=-22.22	PASS
3DH5	Ant1	Low	2402	0.30	-48.45	<=-19.7	PASS
		High	2480	0.85	-47.39	<=-19.15	PASS
		Low	Hop_2402	-3.02	-48.59	<=-23.02	PASS
		High	Hop_2480	-0.69	-48.04	<=-20.69	PASS

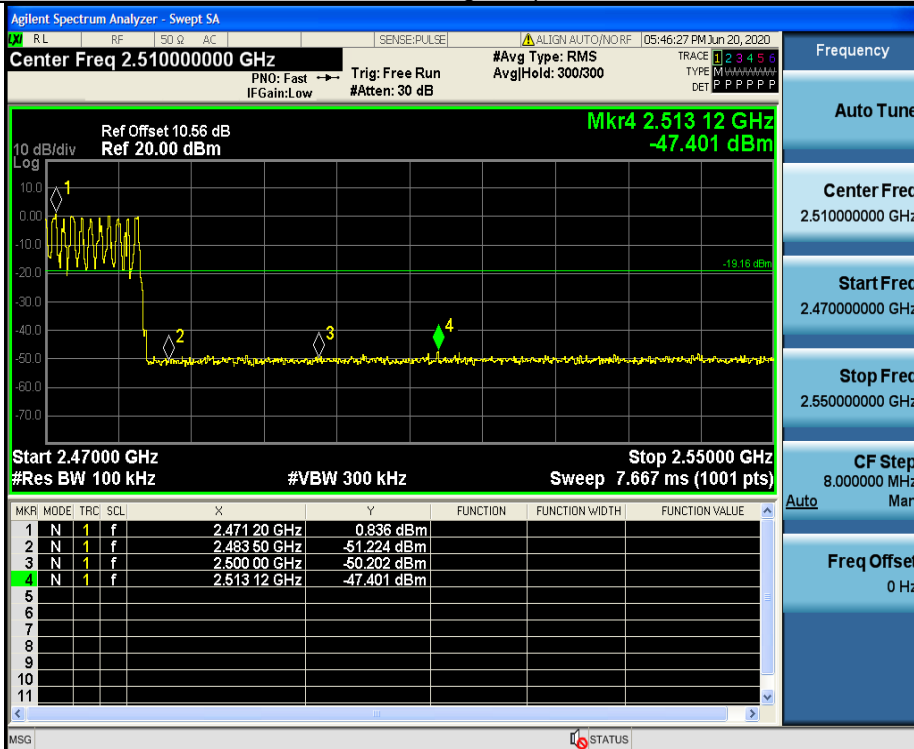
Test Graph



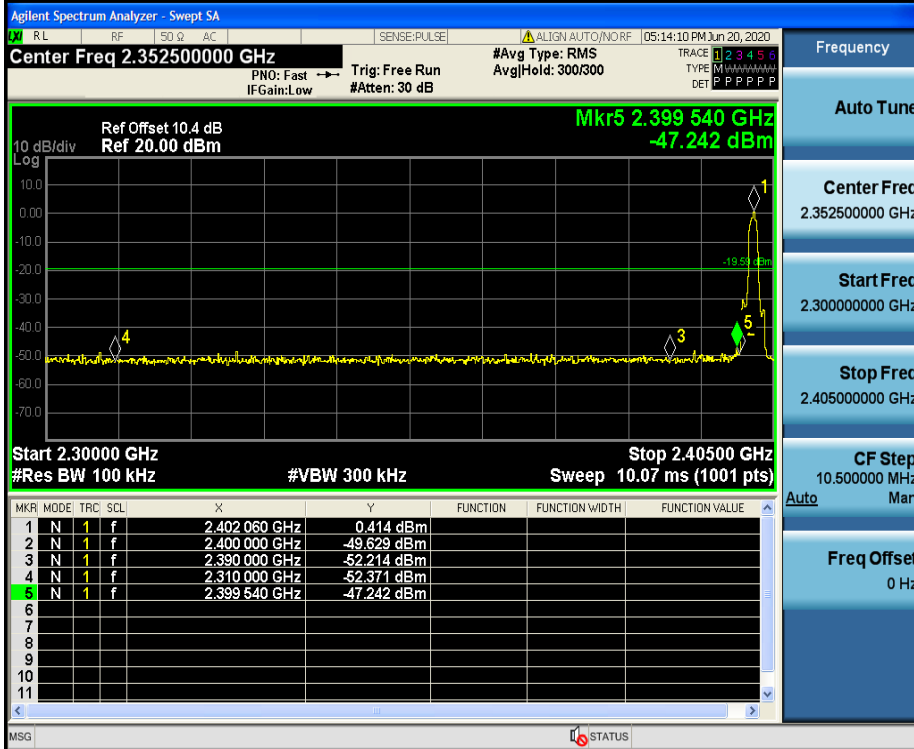
DH5\_Ant1\_Low\_Hop\_2402



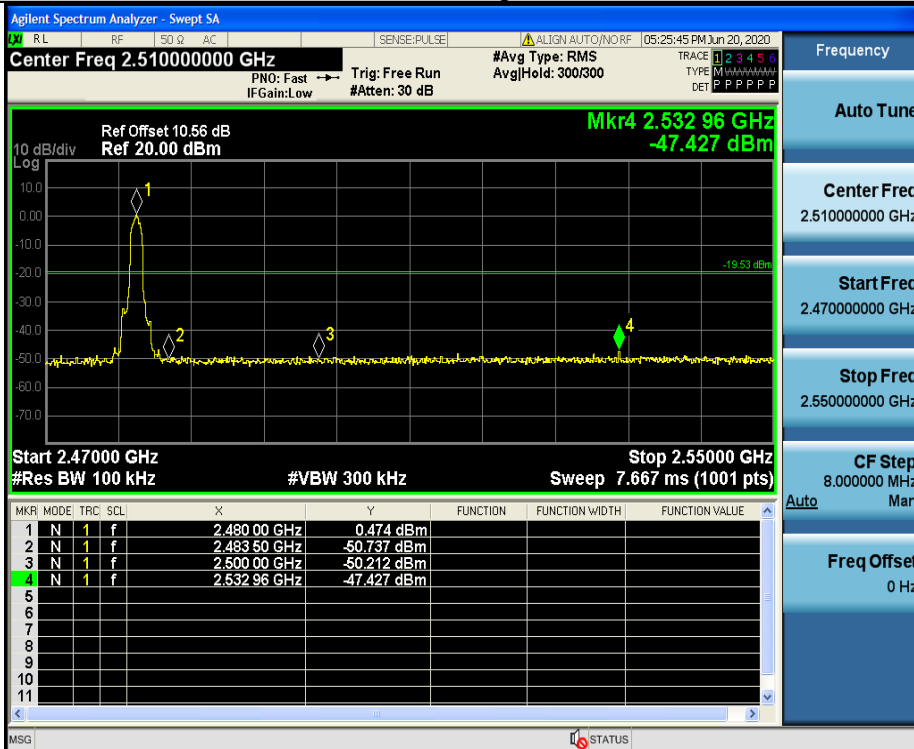
DH5\_Ant1\_High\_Hop\_2480



2DH5\_Ant1\_Low\_2402

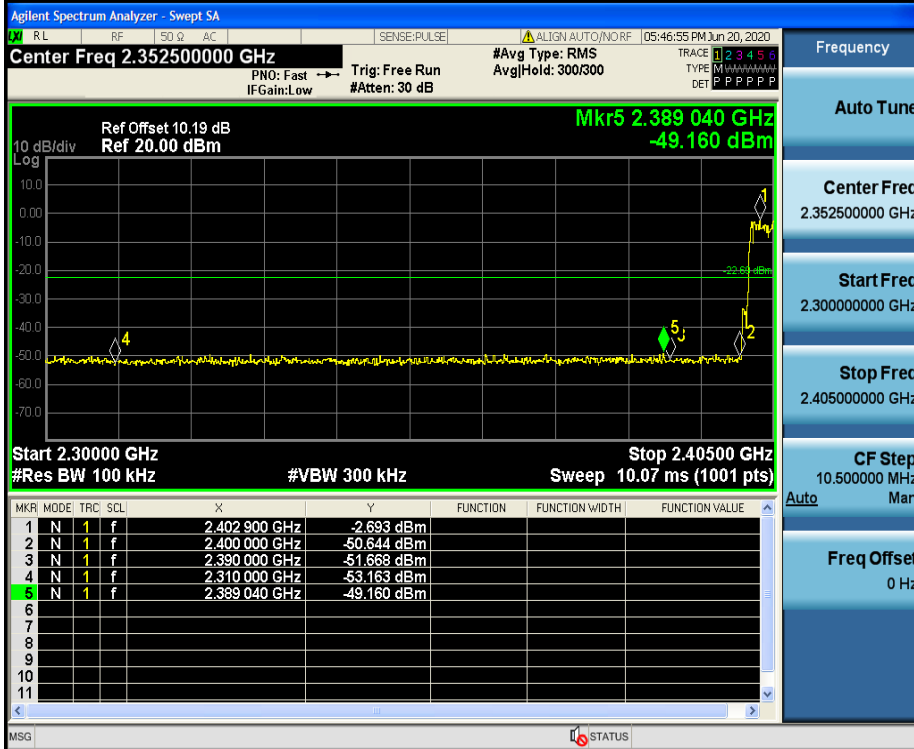


2DH5\_Ant1\_High\_2480

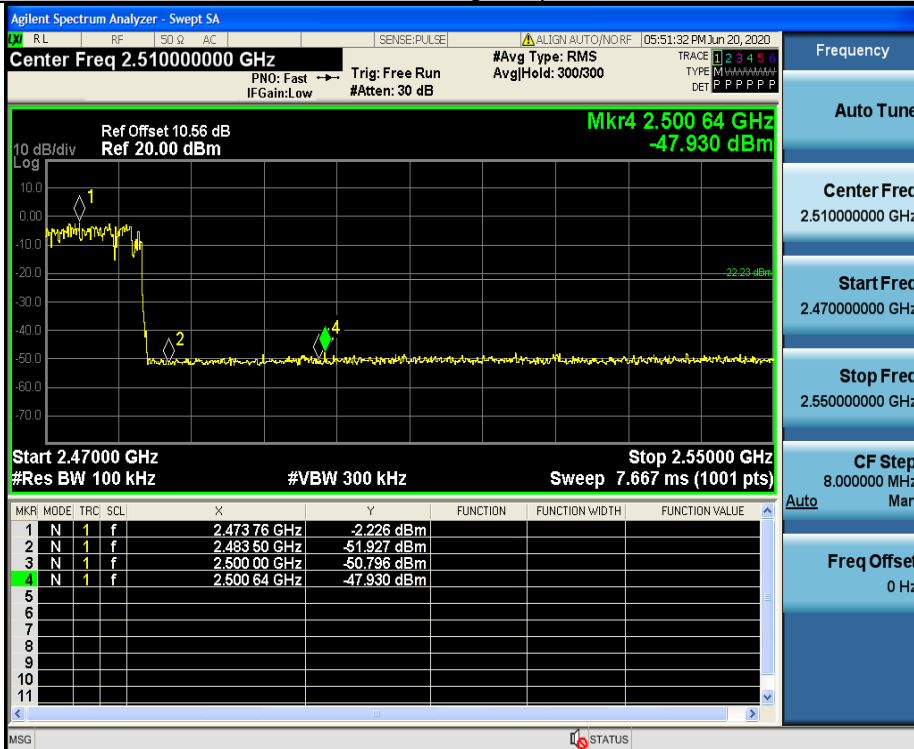




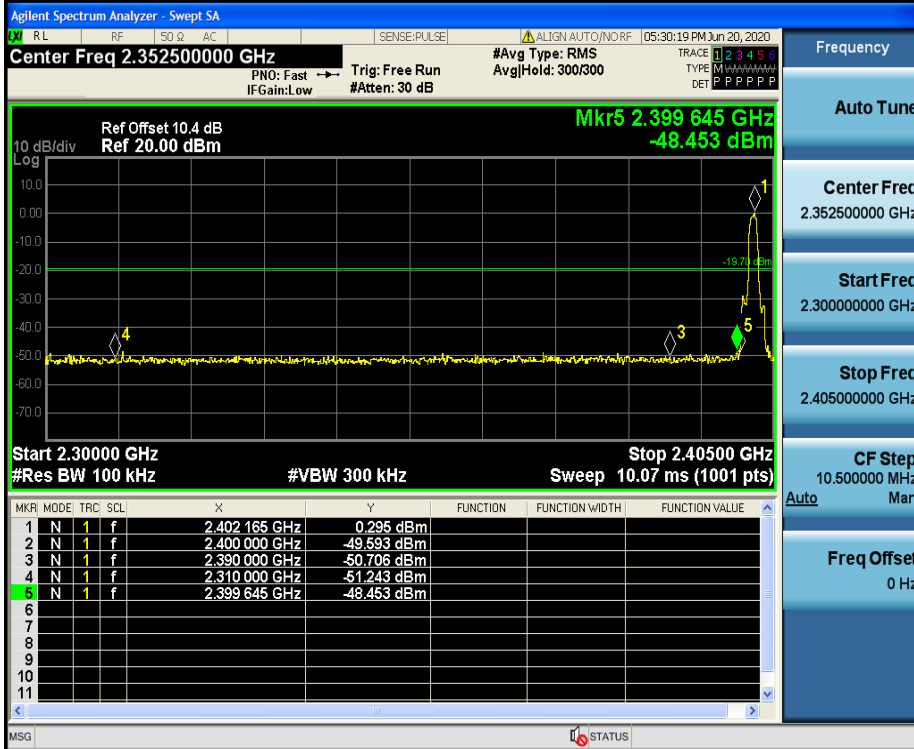
2DH5\_Ant1\_Low\_Hop\_2402



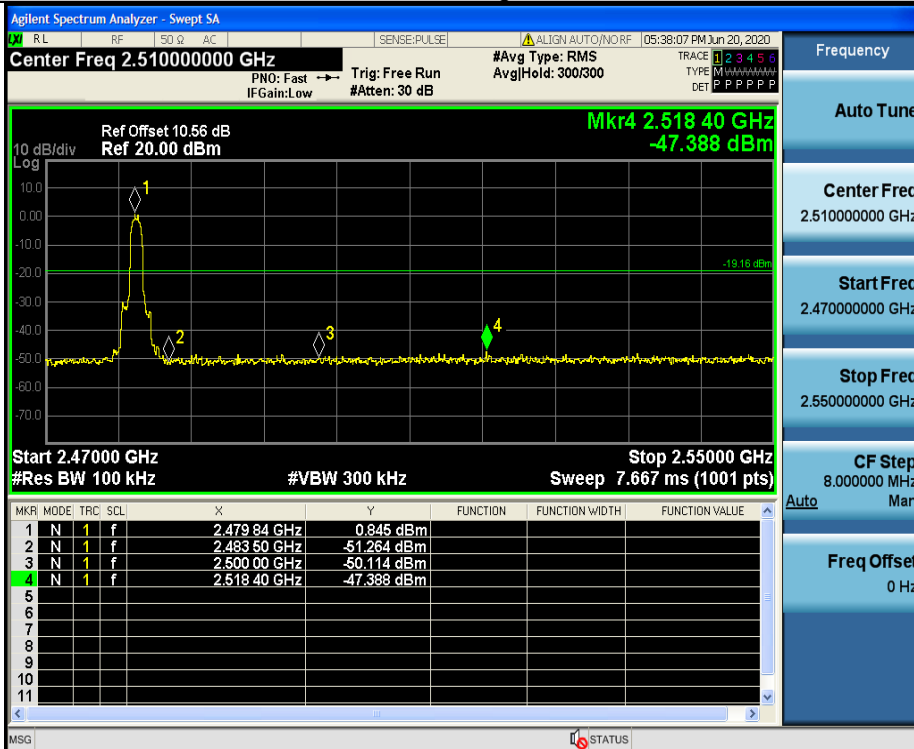
2DH5\_Ant1\_High\_Hop\_2480



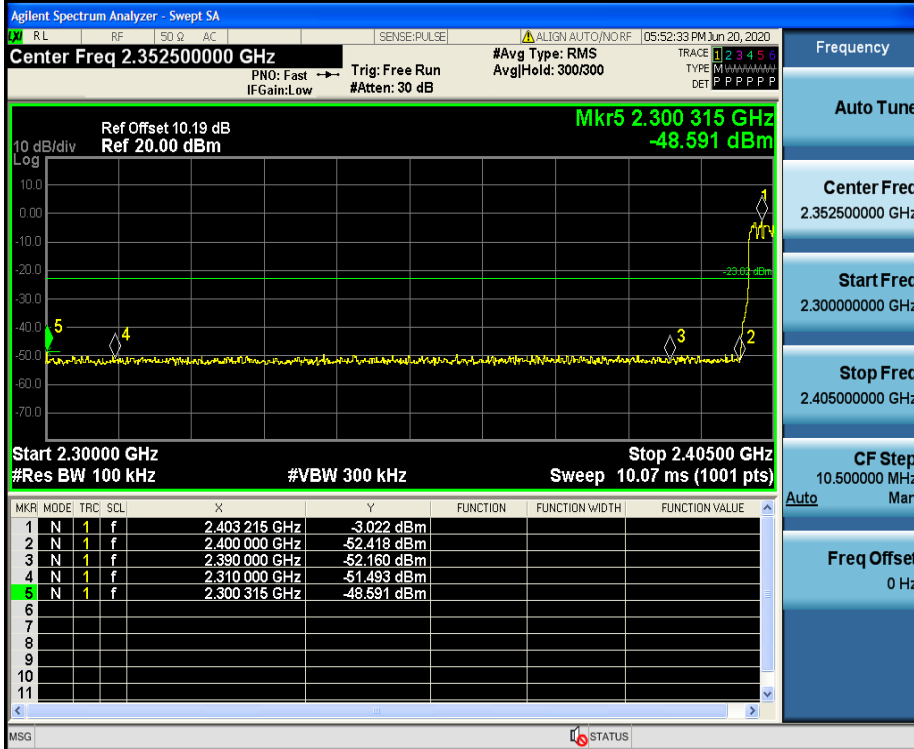
3DH5\_Ant1\_Low\_2402



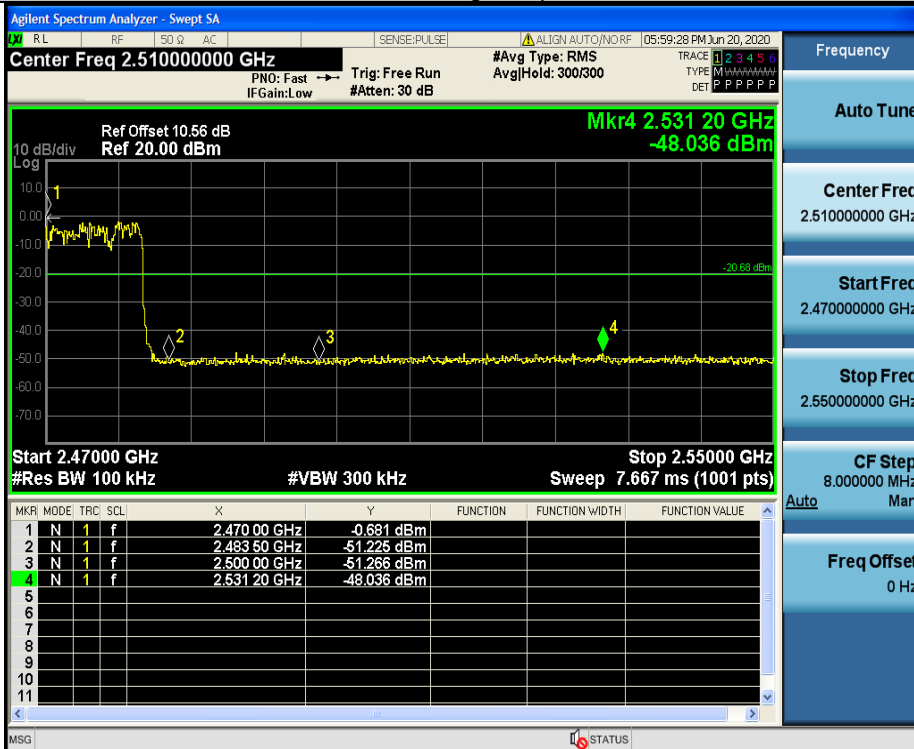
3DH5\_Ant1\_High\_2480



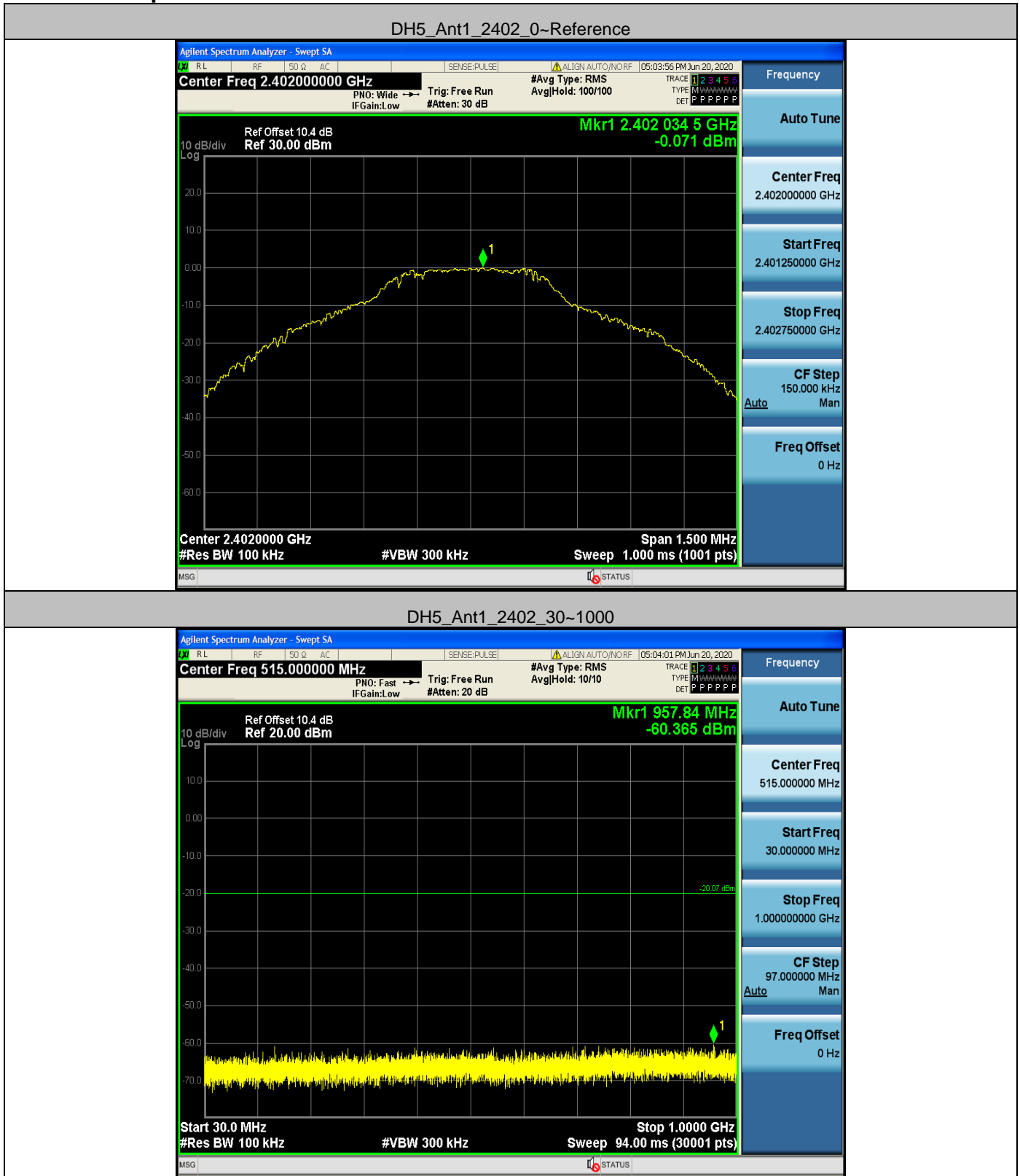
3DH5\_Ant1\_Low\_Hop\_2402



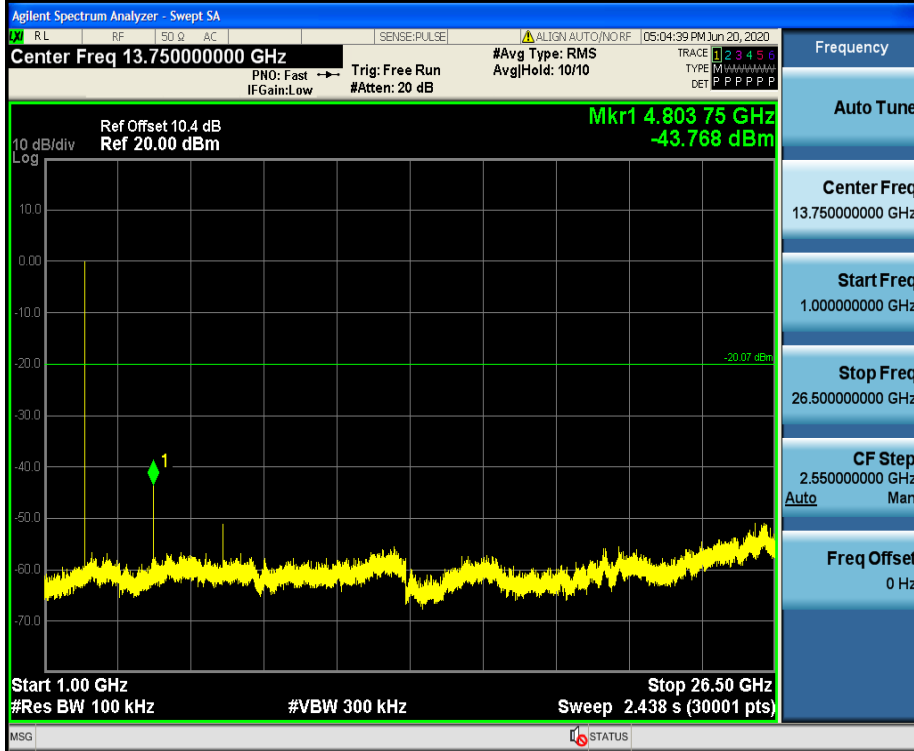
3DH5\_Ant1\_High\_Hop\_2480



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



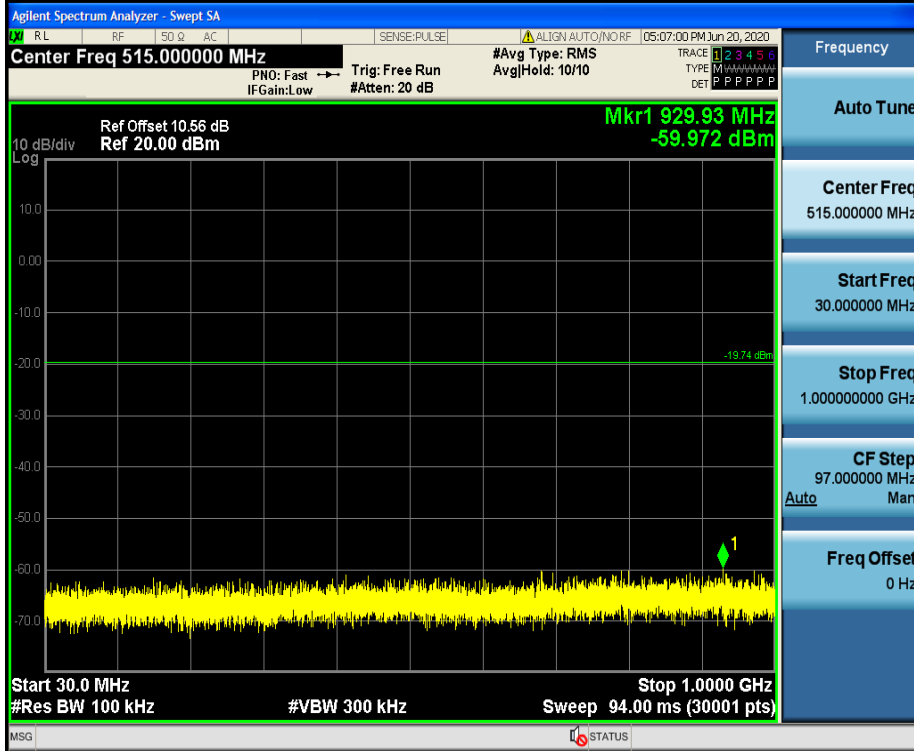
DH5\_Ant1\_2402\_1000~26500



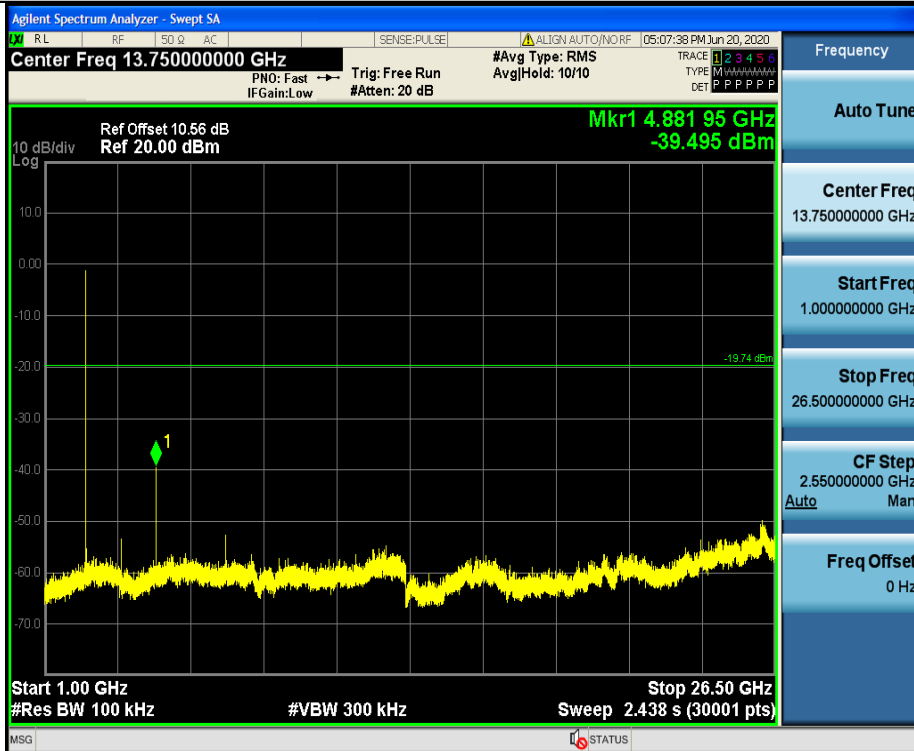
DH5\_Ant1\_2441\_0~Reference



DH5\_Ant1\_2441\_30~1000



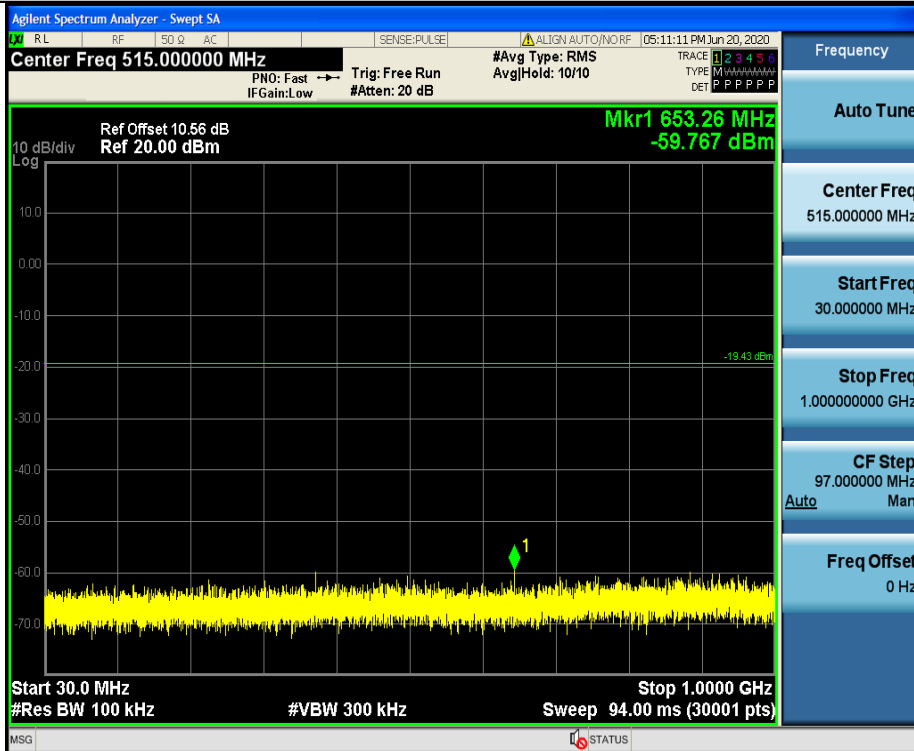
DH5\_Ant1\_2441\_1000~26500



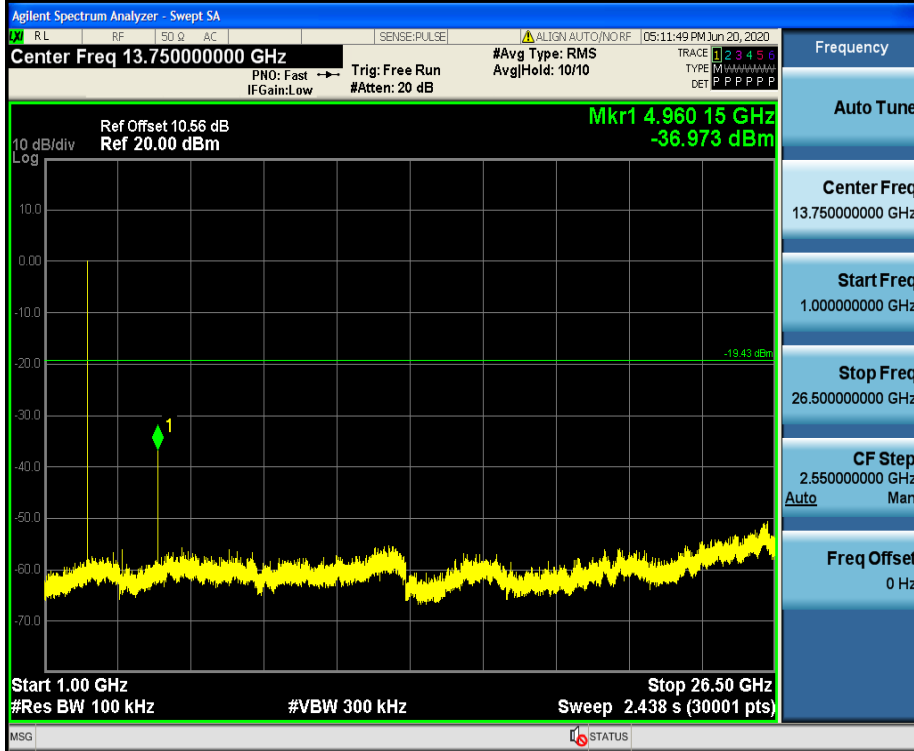
DH5\_Ant1\_2480\_0-Reference



DH5\_Ant1\_2480\_30-1000



DH5\_Ant1\_2480\_1000~26500

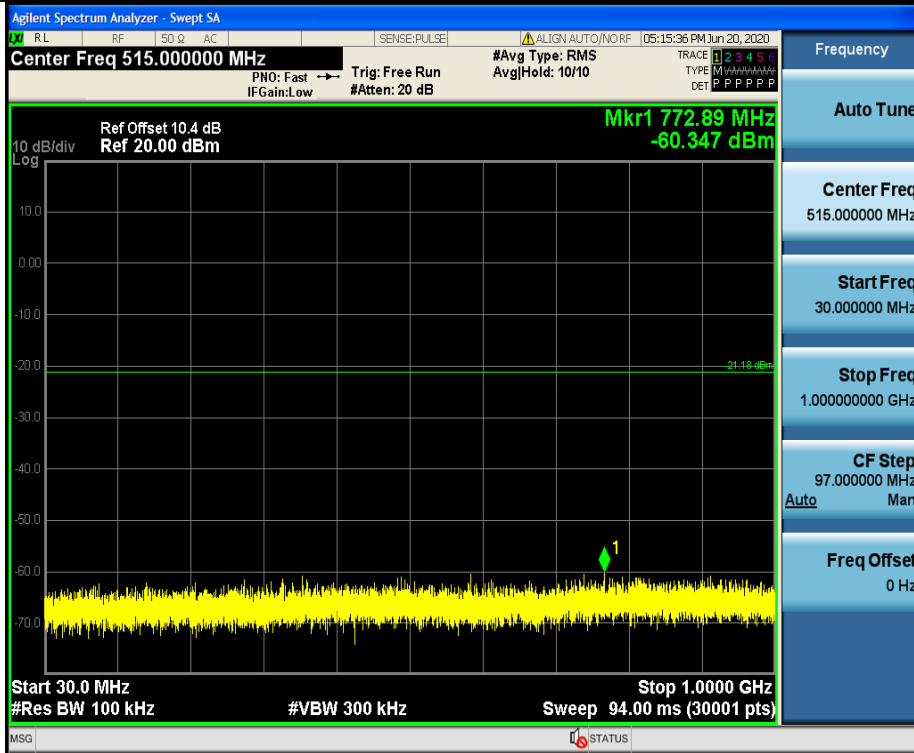


2DH5\_Ant1\_2402\_0~Reference

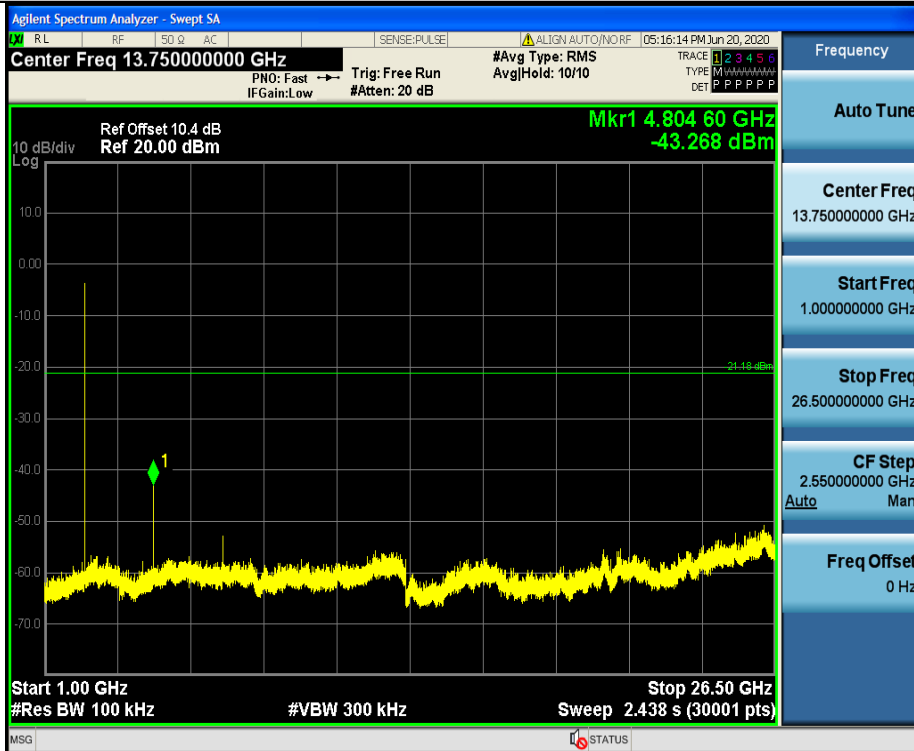




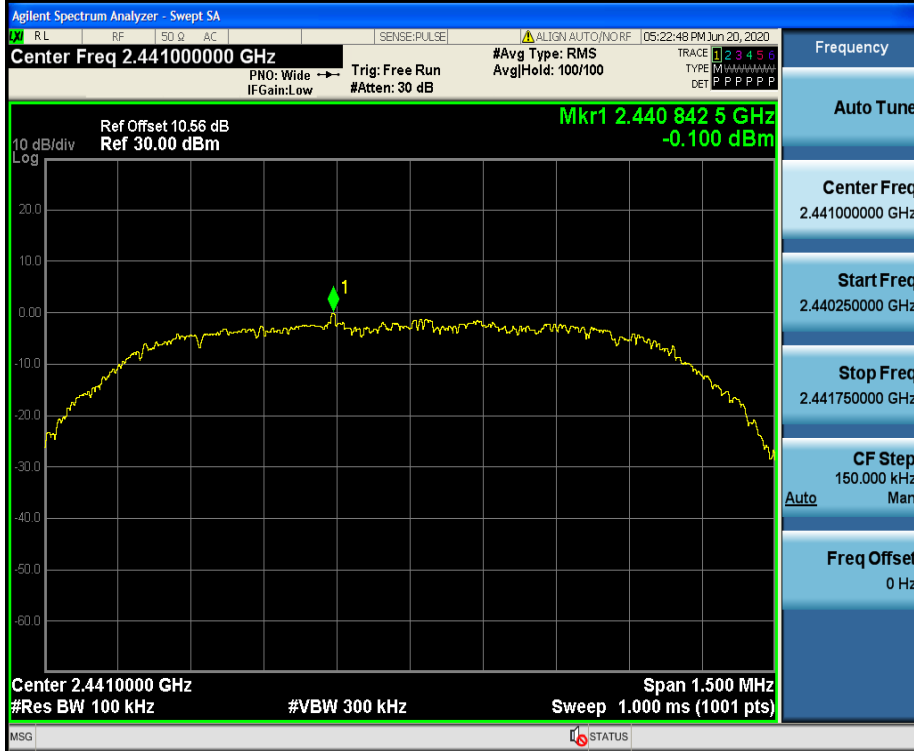
2DH5\_Ant1\_2402\_30~1000



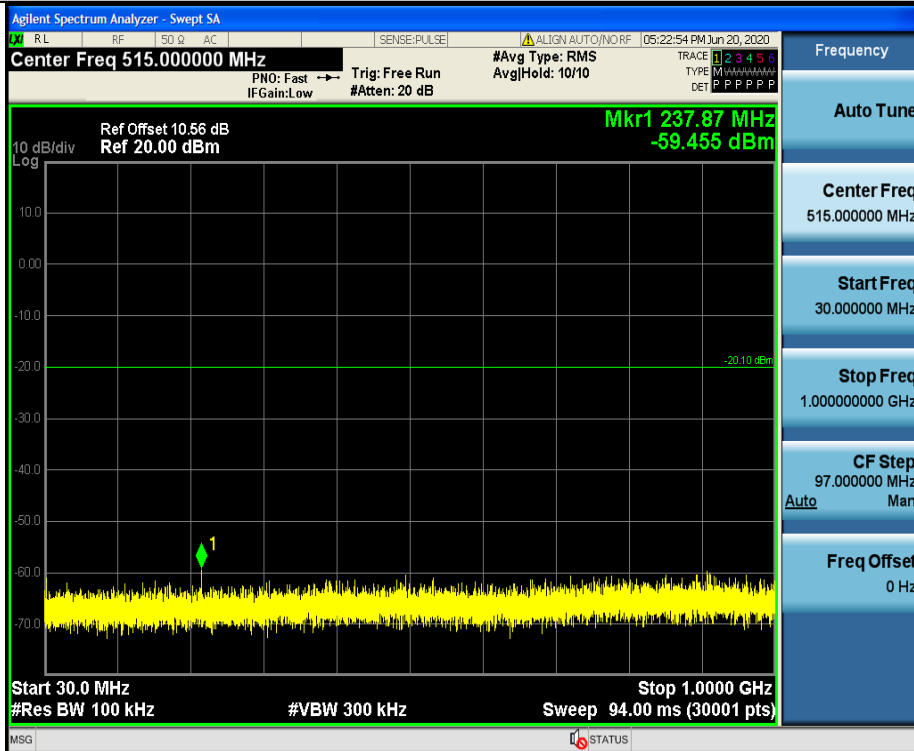
2DH5\_Ant1\_2402\_1000~26500



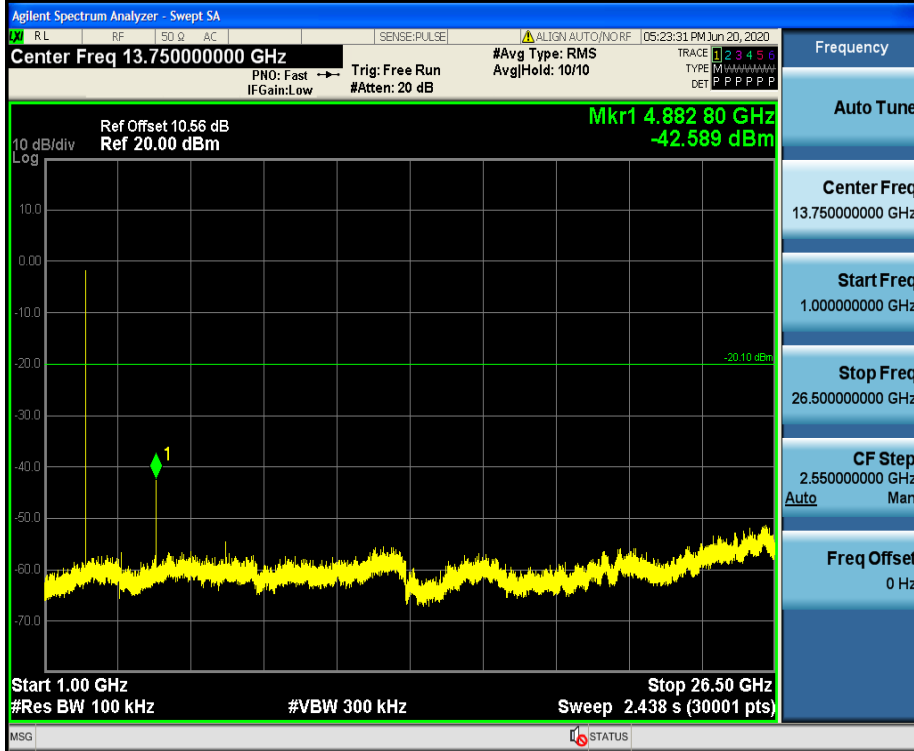
2DH5\_Ant1\_2441\_0~Reference



2DH5\_Ant1\_2441\_30~1000



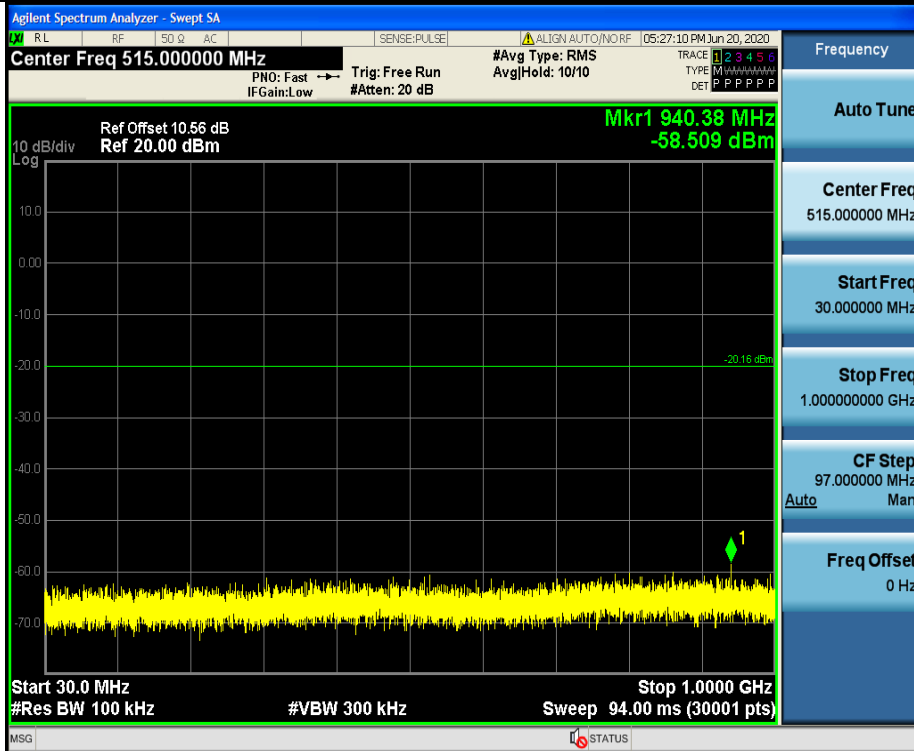
2DH5\_Ant1\_2441\_1000~26500



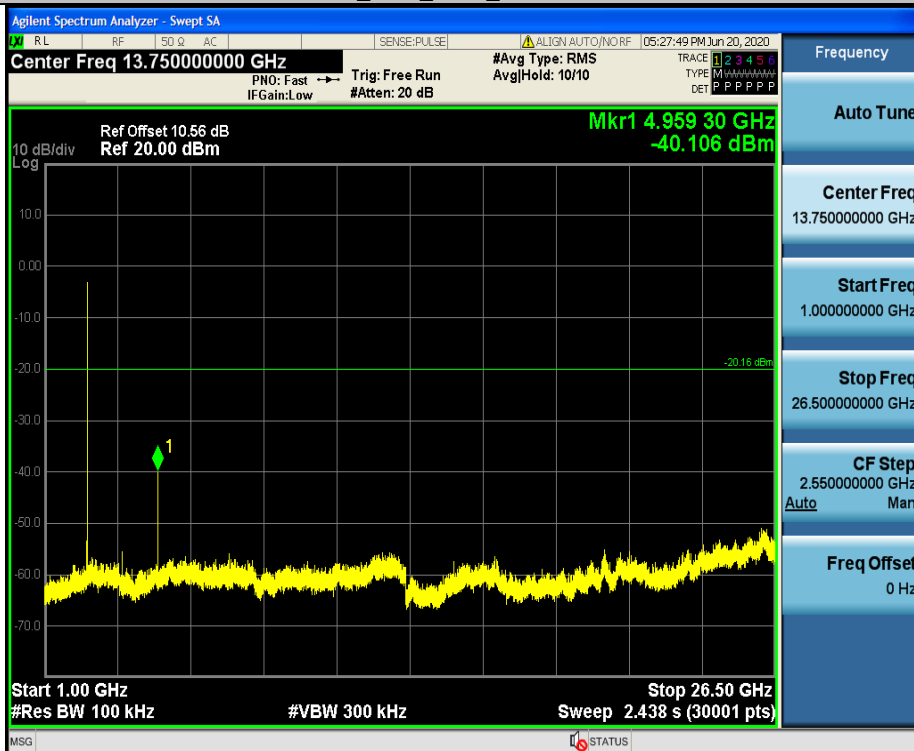
2DH5\_Ant1\_2480\_0~Reference



2DH5\_Ant1\_2480\_30~1000



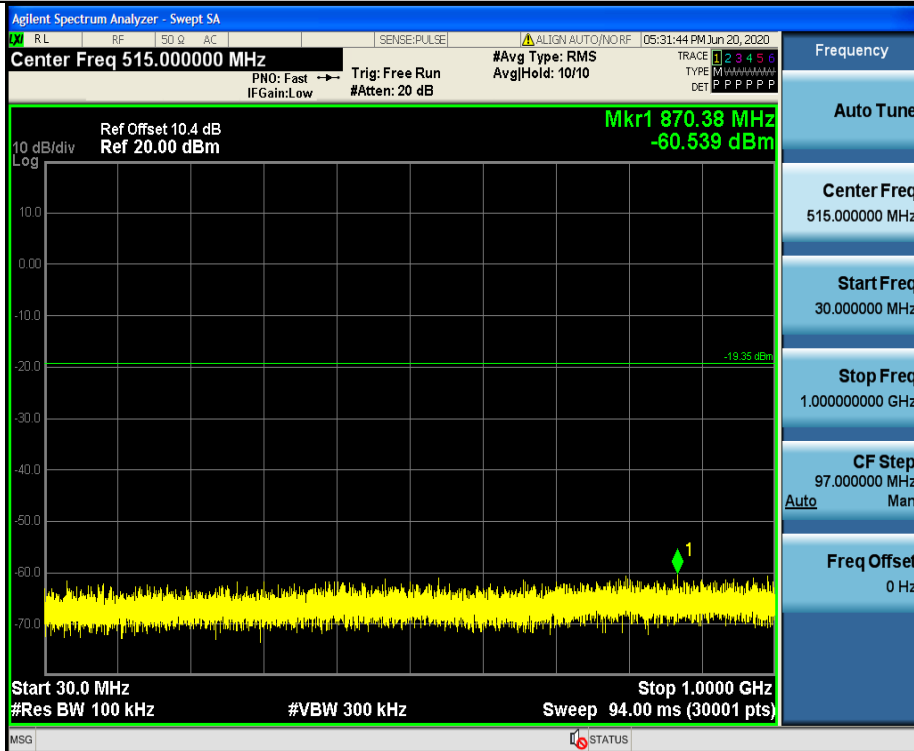
2DH5\_Ant1\_2480\_1000~26500



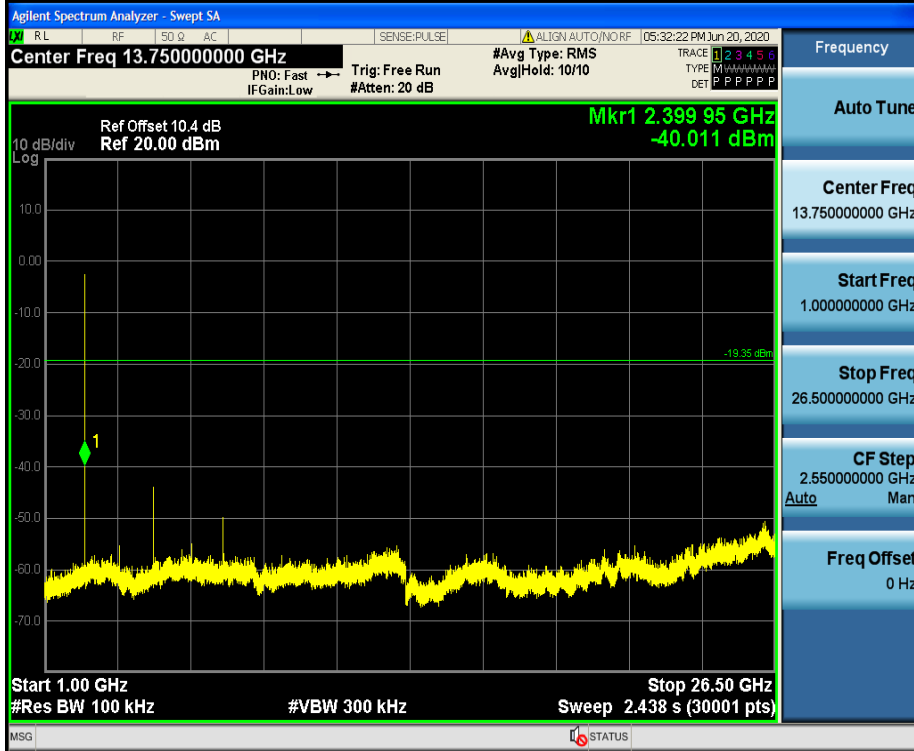
3DH5\_Ant1\_2402\_0~Reference



3DH5\_Ant1\_2402\_30~1000



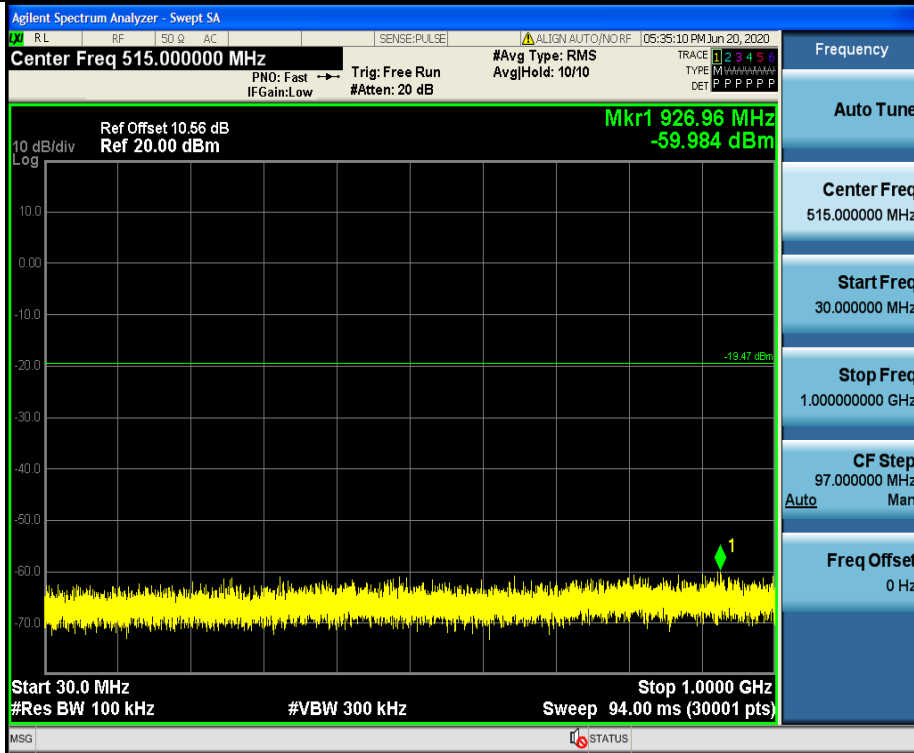
3DH5\_Ant1\_2402\_1000~26500



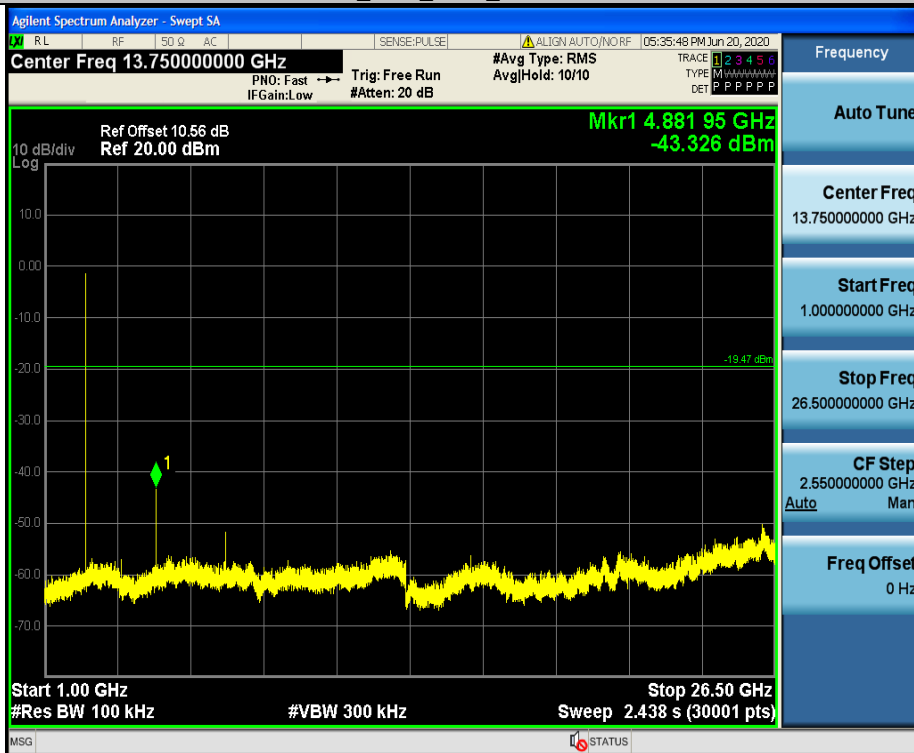
3DH5\_Ant1\_2441\_0~Reference



3DH5\_Ant1\_2441\_30~1000



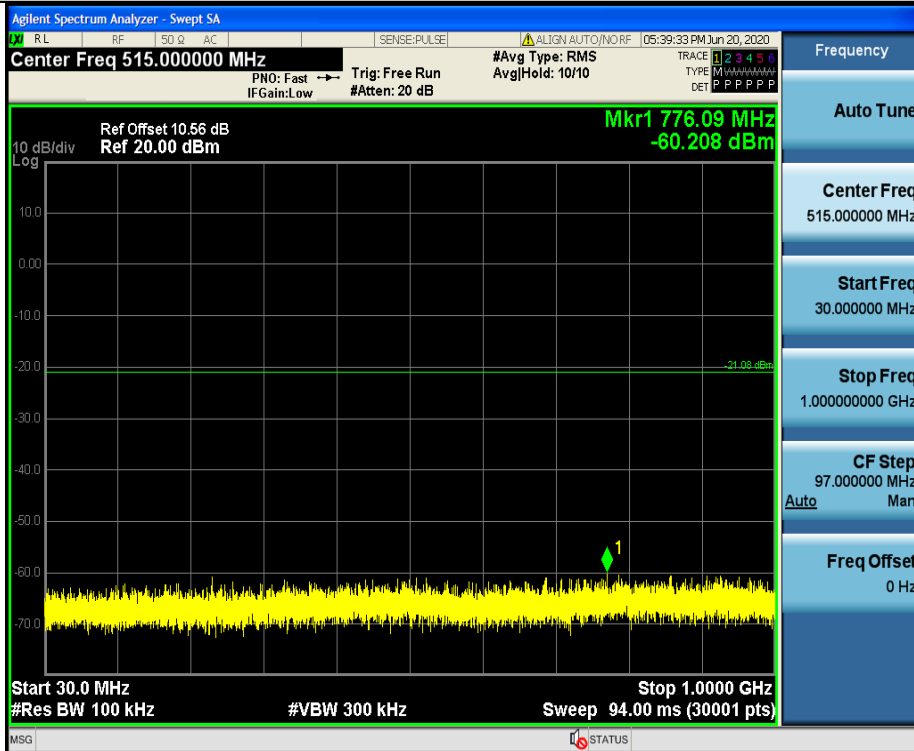
3DH5\_Ant1\_2441\_1000~26500



3DH5\_Ant1\_2480\_0-Reference

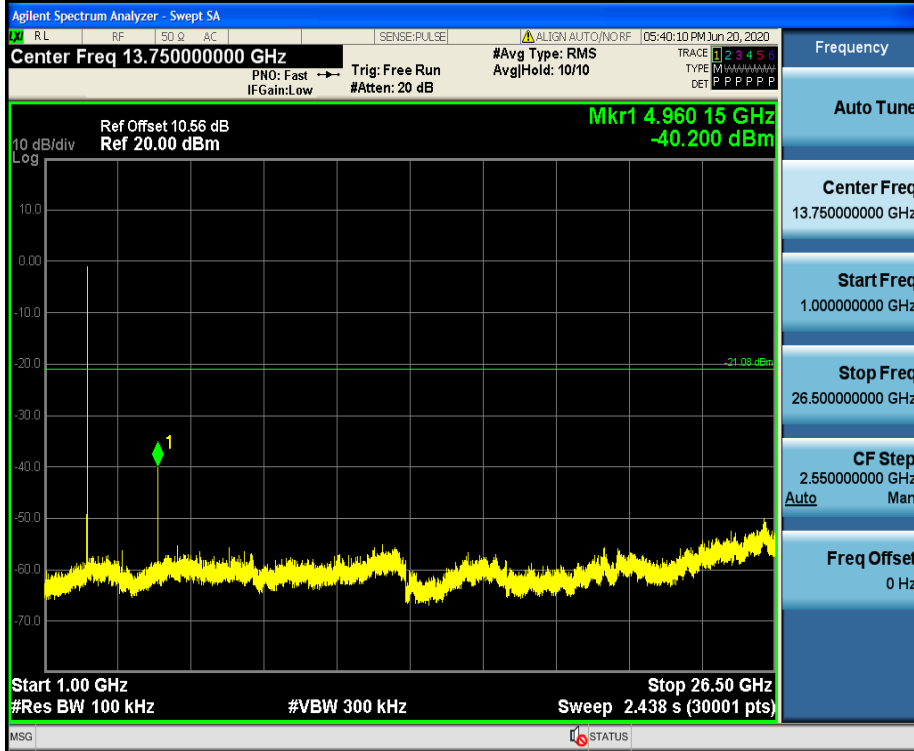


3DH5\_Ant1\_2480\_30~1000





3DH5\_Ant1\_2480\_1000-26500



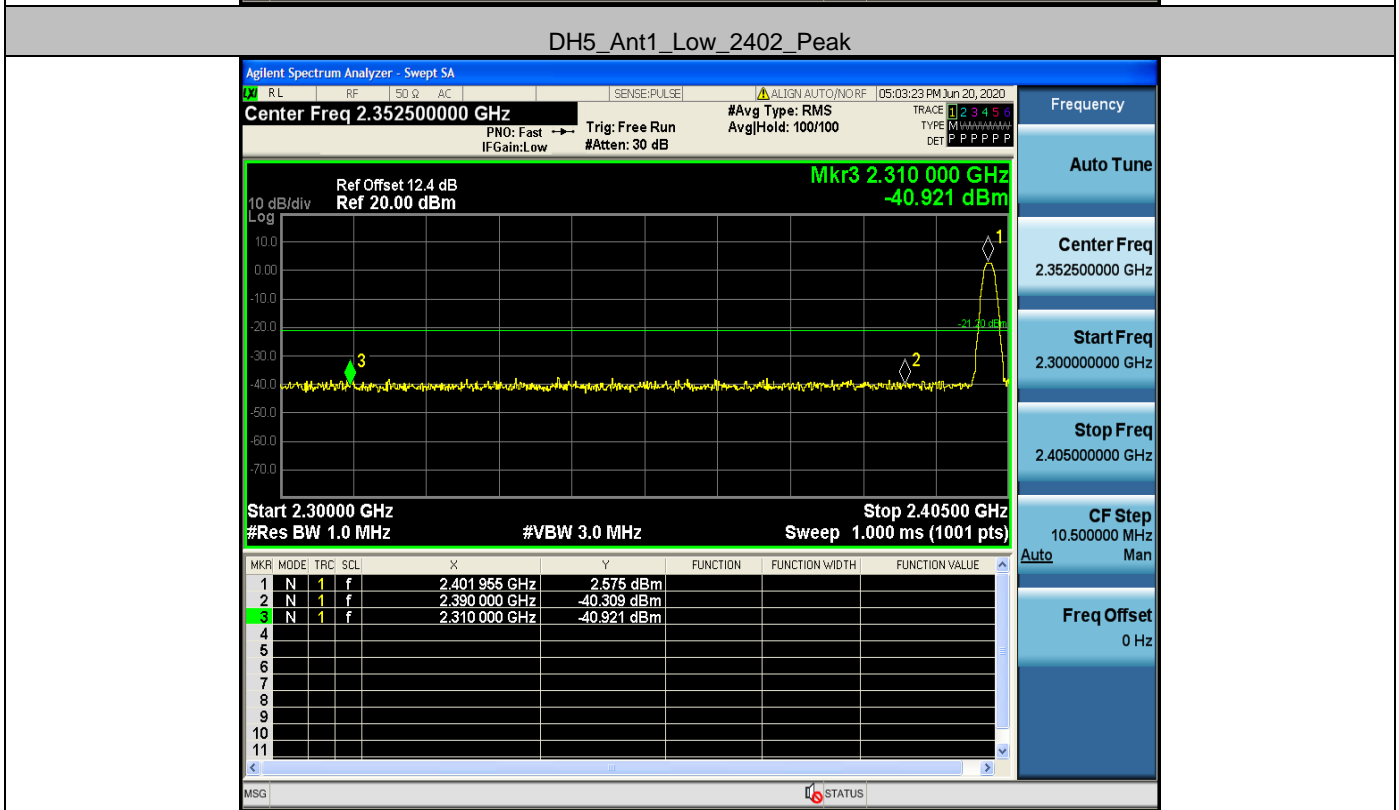
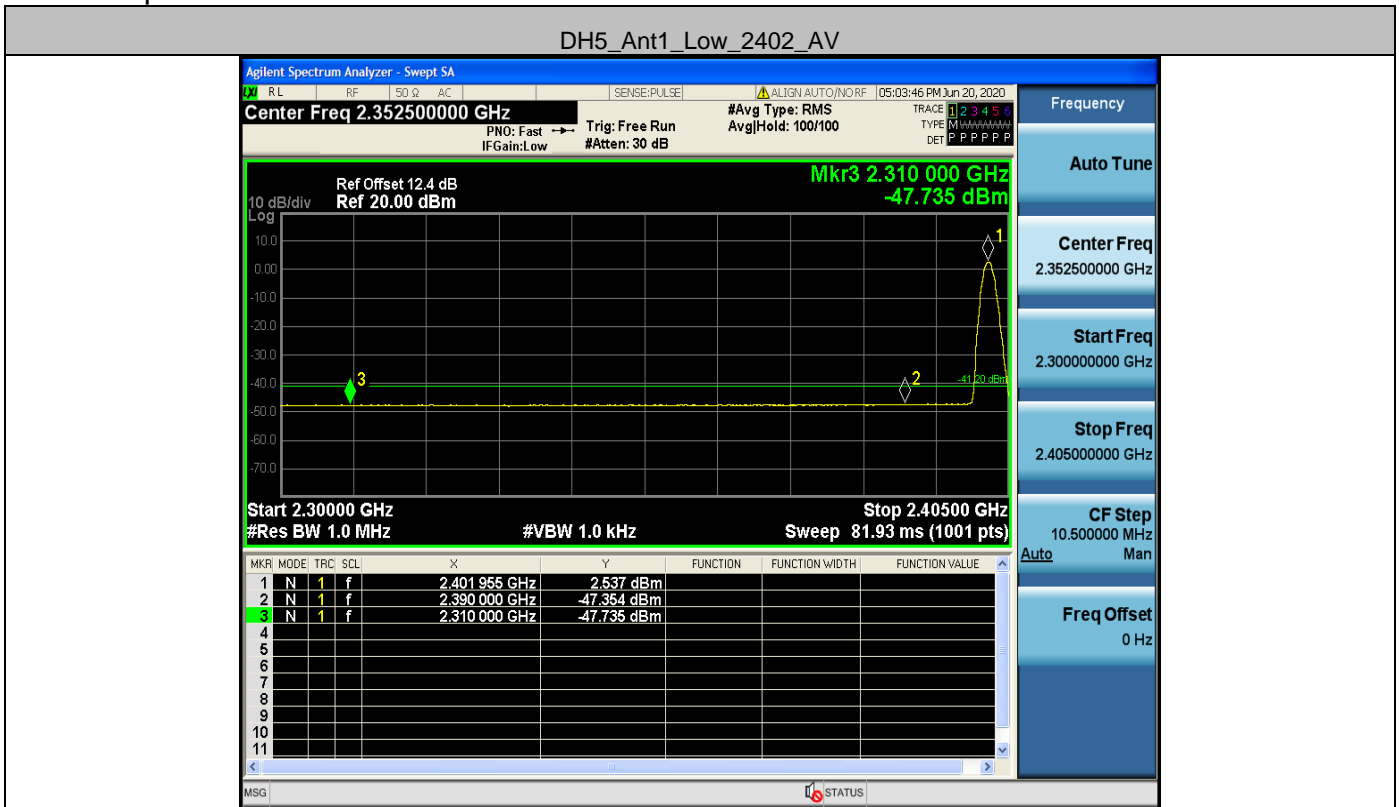
**A.8 Restrict-band band-edge measurements**

TestMode	Antenna	ChName	Channel	Detector	Freq	Result dBm	Limit dBm	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-47.74	<=-41.20	PASS
				AV	2390.000	-47.35	<=-41.20	PASS
				Peak	2310.000	-40.93	<=-21.20	PASS
				Peak	2390.000	-40.31	<=-21.20	PASS
		High	2480	AV	2483.500	-46.74	<=-41.20	PASS
				AV	2500.000	-46.80	<=-41.20	PASS
				Peak	2483.500	-39.64	<=-21.20	PASS
				Peak	2500.000	-40.01	<=-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-47.75	<=-41.20	PASS
				AV	2390.000	-47.56	<=-41.20	PASS
				Peak	2310.000	-40.80	<=-21.20	PASS
				Peak	2390.000	-38.76	<=-21.20	PASS
		High	2480	AV	2483.500	-46.23	<=-41.20	PASS
				AV	2500.000	-46.81	<=-41.20	PASS
				Peak	2483.500	-40.63	<=-21.20	PASS
				Peak	2500.000	-39.51	<=-21.20	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-47.85	<=-41.20	PASS
				AV	2390.000	-47.43	<=-41.20	PASS
				Peak	2310.000	-41.02	<=-21.20	PASS
				Peak	2390.000	-40.57	<=-21.20	PASS
		High	2480	AV	2483.500	-46.25	<=-41.20	PASS
				AV	2500.000	-46.66	<=-41.20	PASS
				Peak	2483.500	-39.96	<=-21.20	PASS
				Peak	2500.000	-38.46	<=-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.

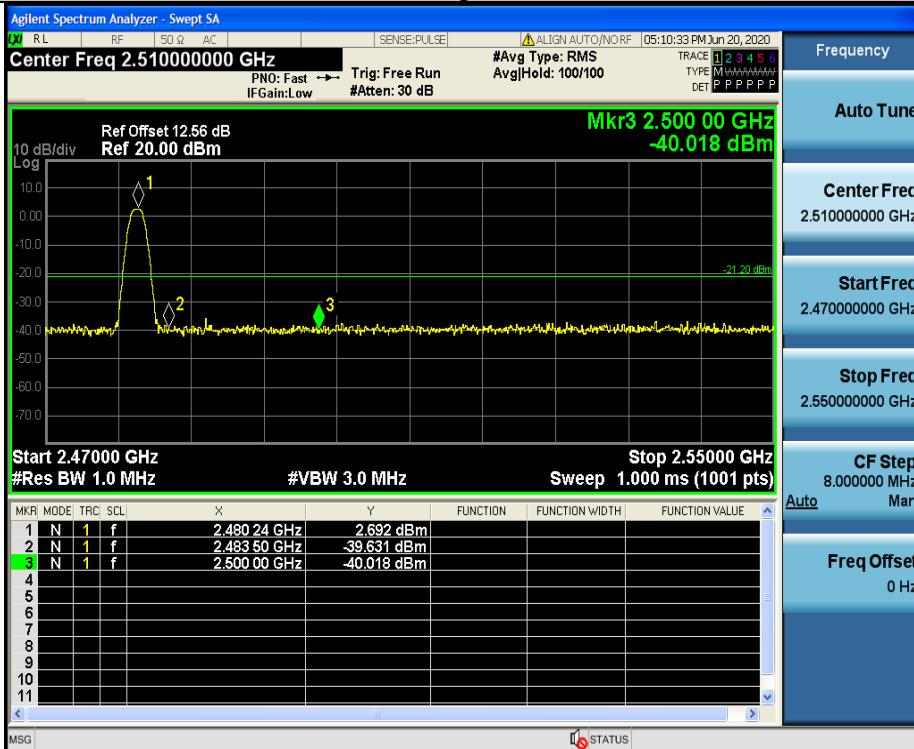
Test Graphs



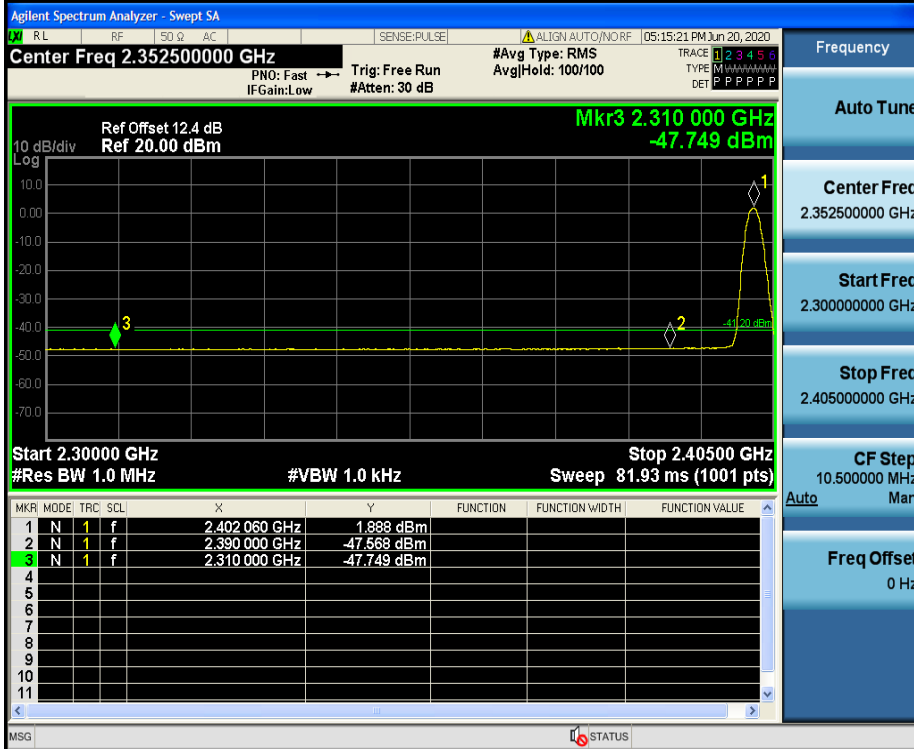
DH5\_Ant1\_High\_2480\_AV



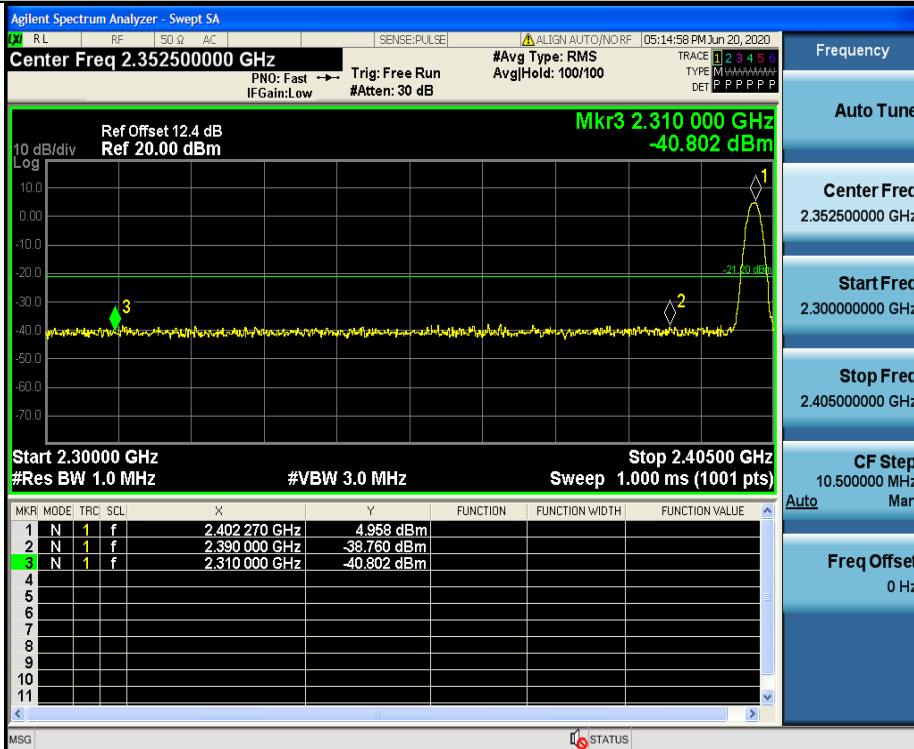
DH5\_Ant1\_High\_2480\_Peak



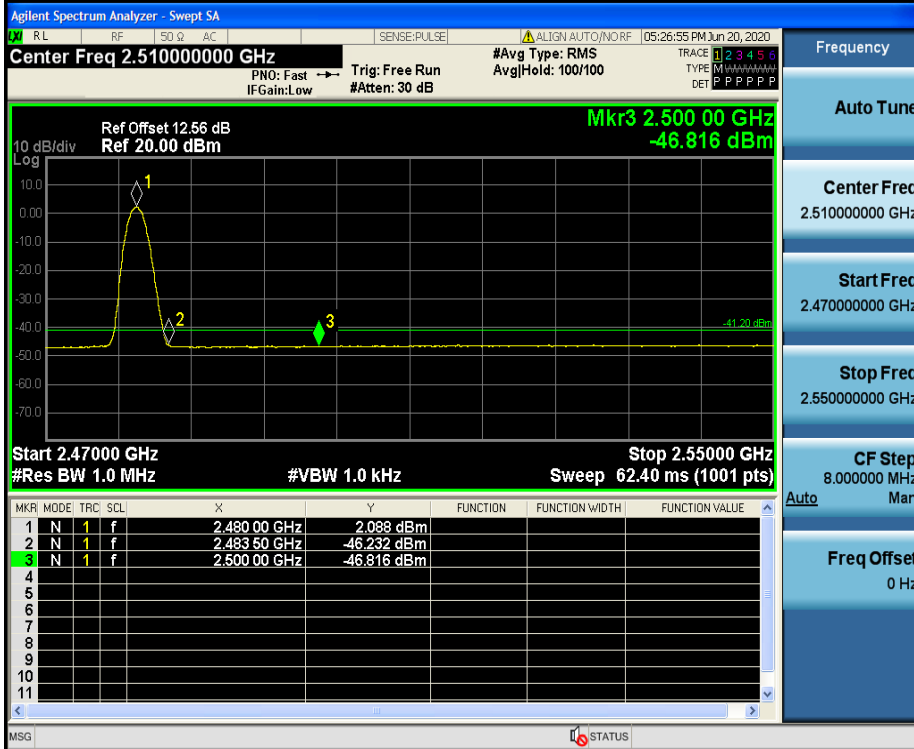
2DH5\_Ant1\_Low\_2402\_AV



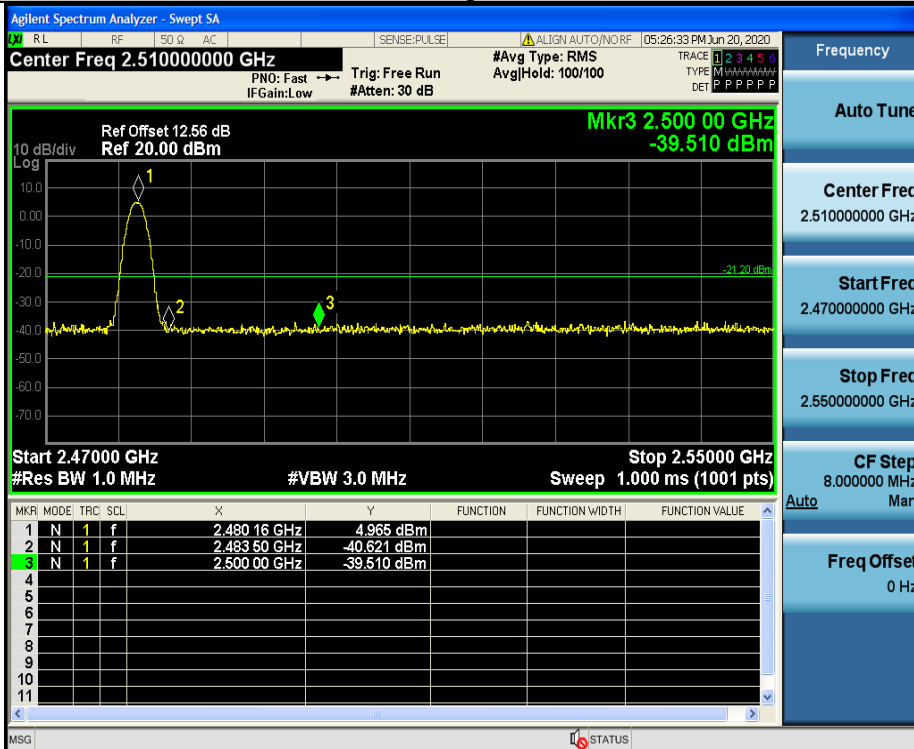
2DH5\_Ant1\_Low\_2402\_Peak



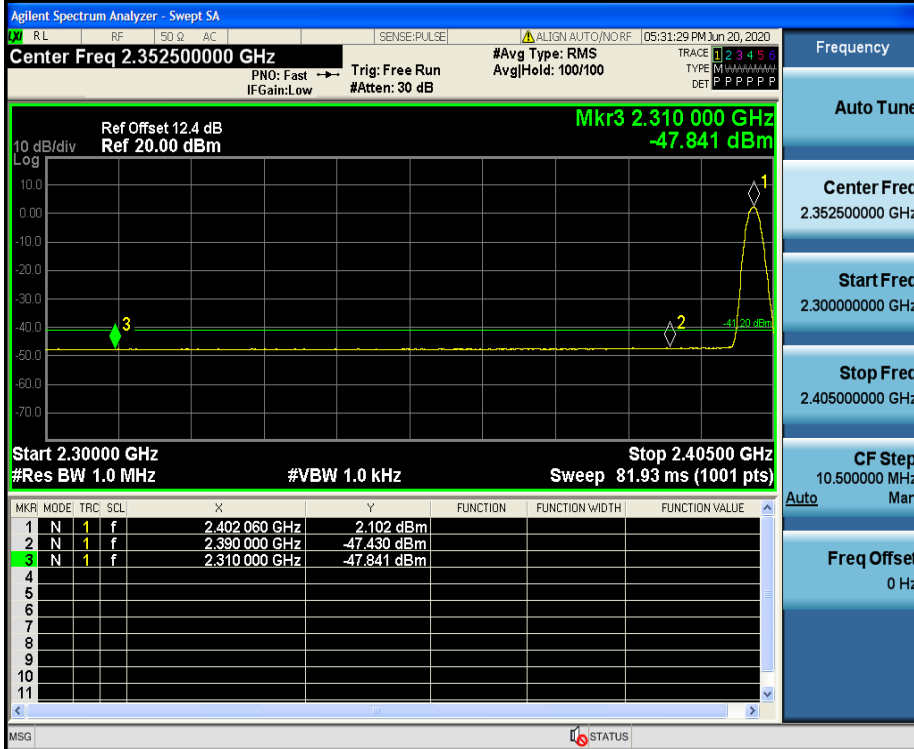
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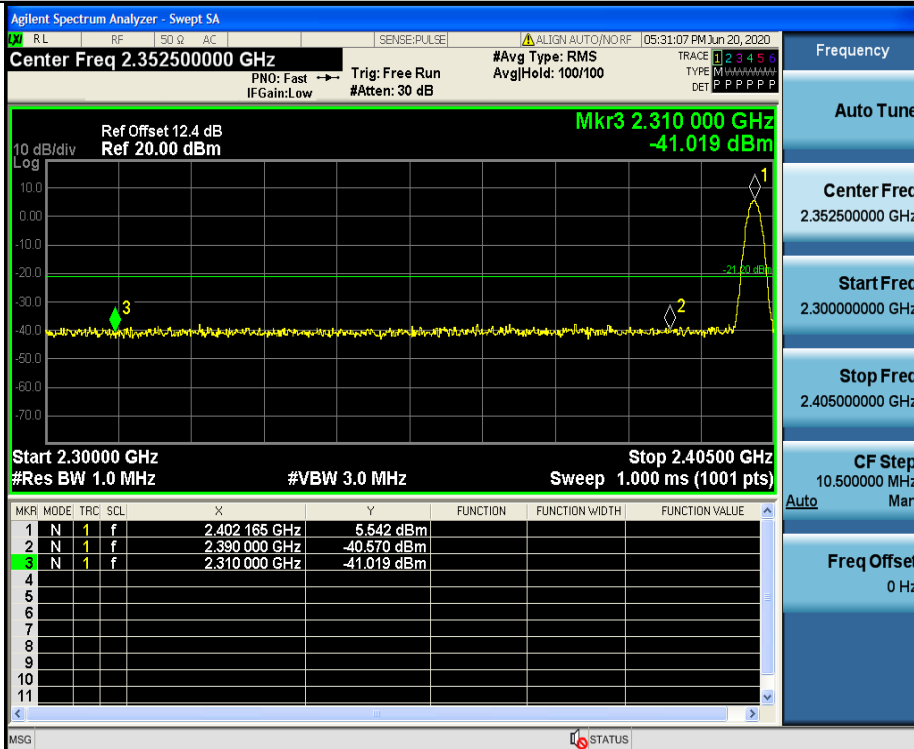
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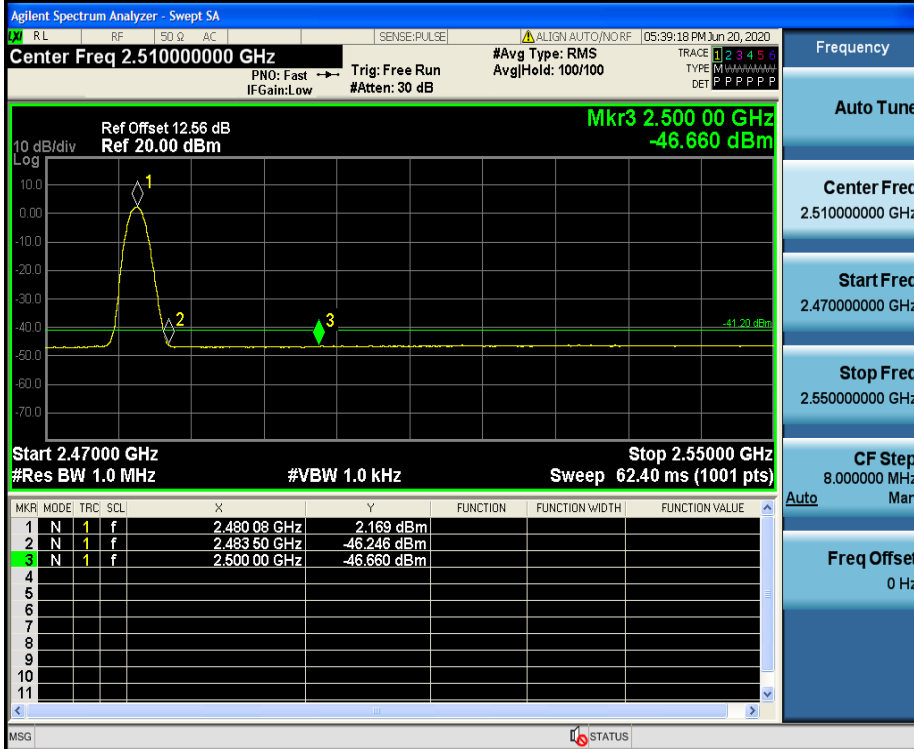
3DH5\_Ant1\_Low\_2402\_AV



3DH5\_Ant1\_Low\_2402\_Peak



3DH5\_Ant1\_High\_2480\_AV



3DH5\_Ant1\_High\_2480\_Peak

