

Appendix A

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

Product Name: Bluetooth mechanical keyboard

Trade Mark: N/A

Test Model: keychron K7

FCC ID: 2ASF4-K7

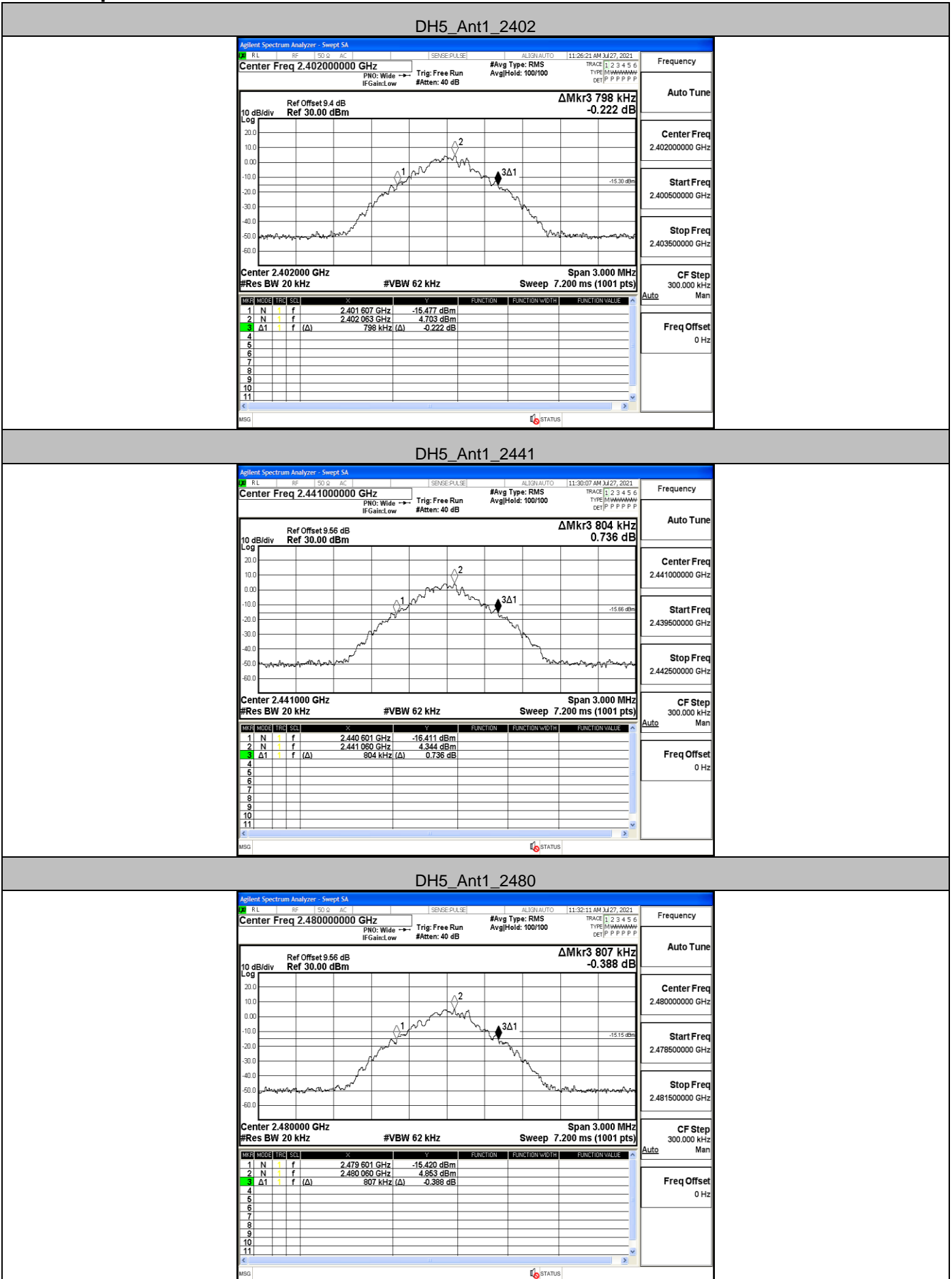
Environmental Conditions

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	0.944	No Limit
DH5	2441	1	NVNT	0.944	No Limit
DH5	2480	1	NVNT	0.942	No Limit

Test Graph

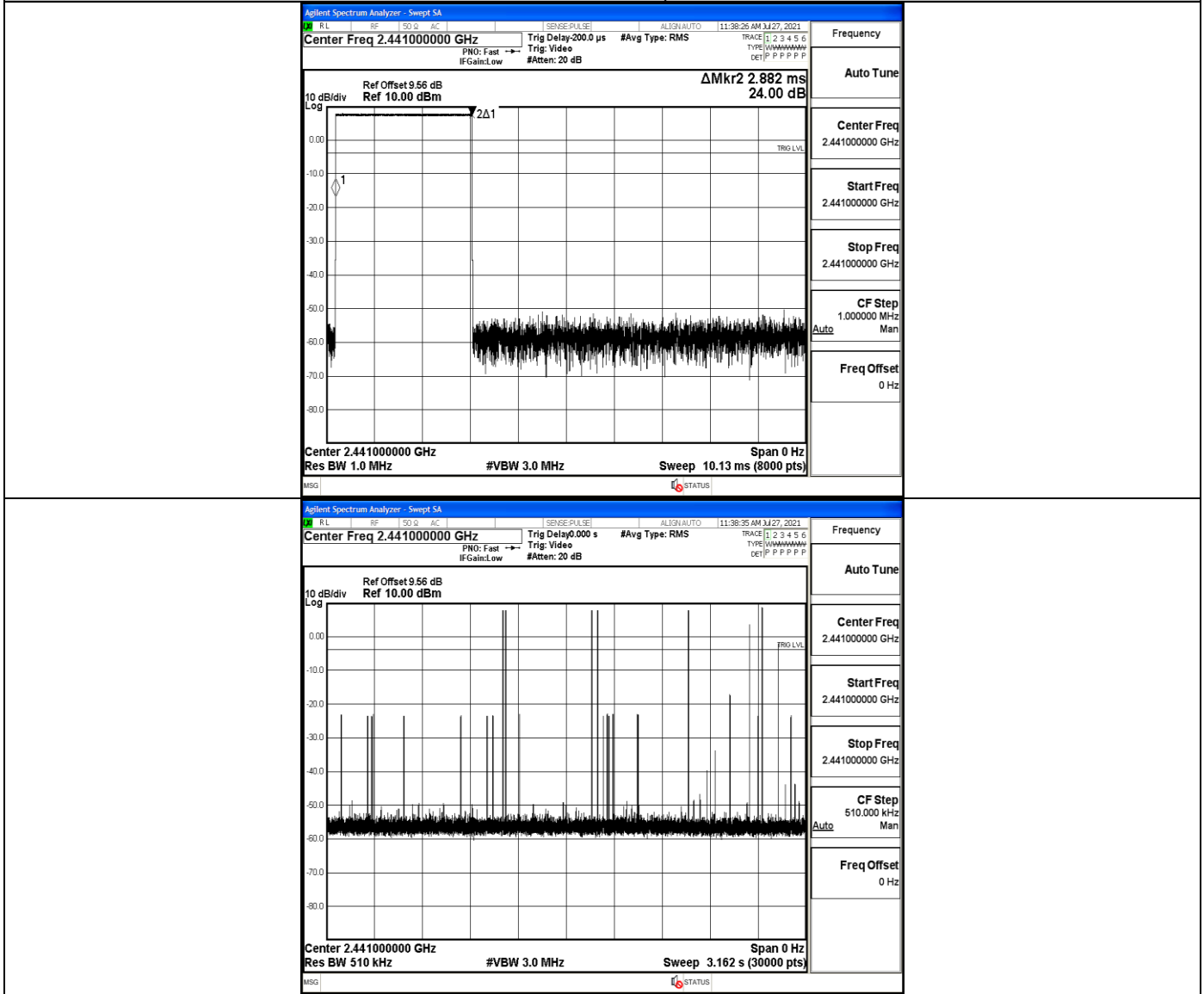


A.2 Dwell Time

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	90	0.259	≤0.4	PASS

Test Graph

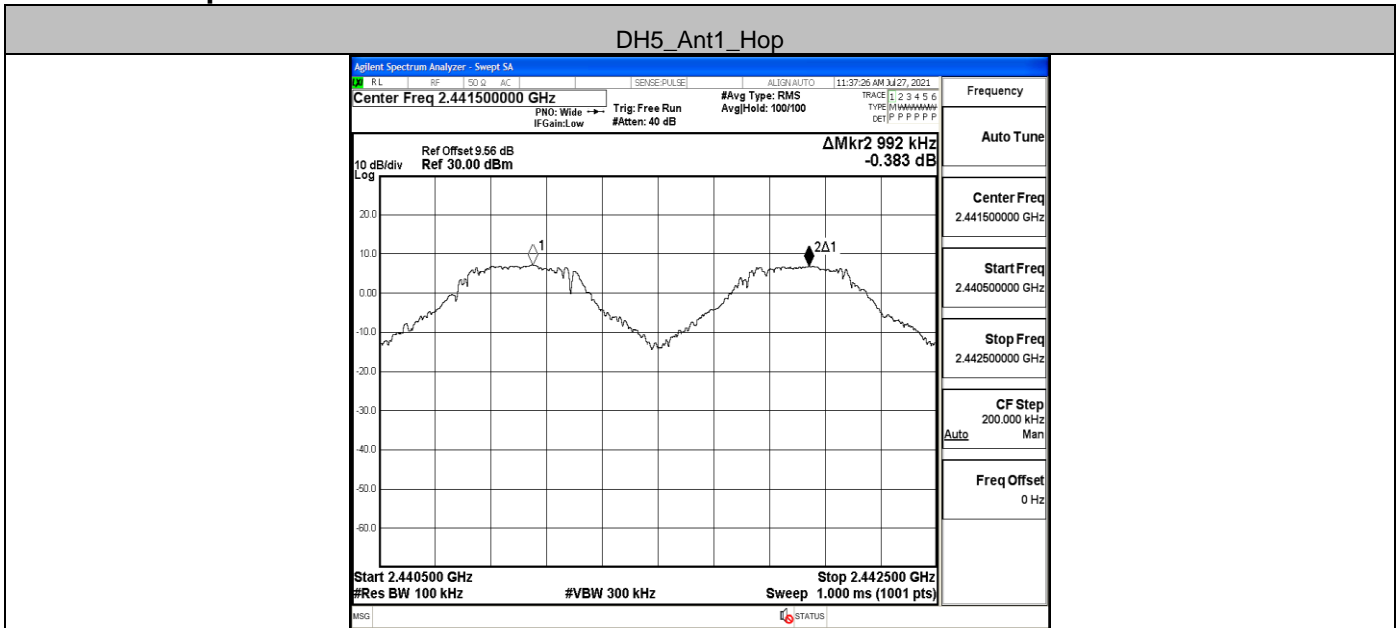
DH5_Ant1_Hop



A.3 Carrier Frequency Separation

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.992	≥ 0.807	PASS

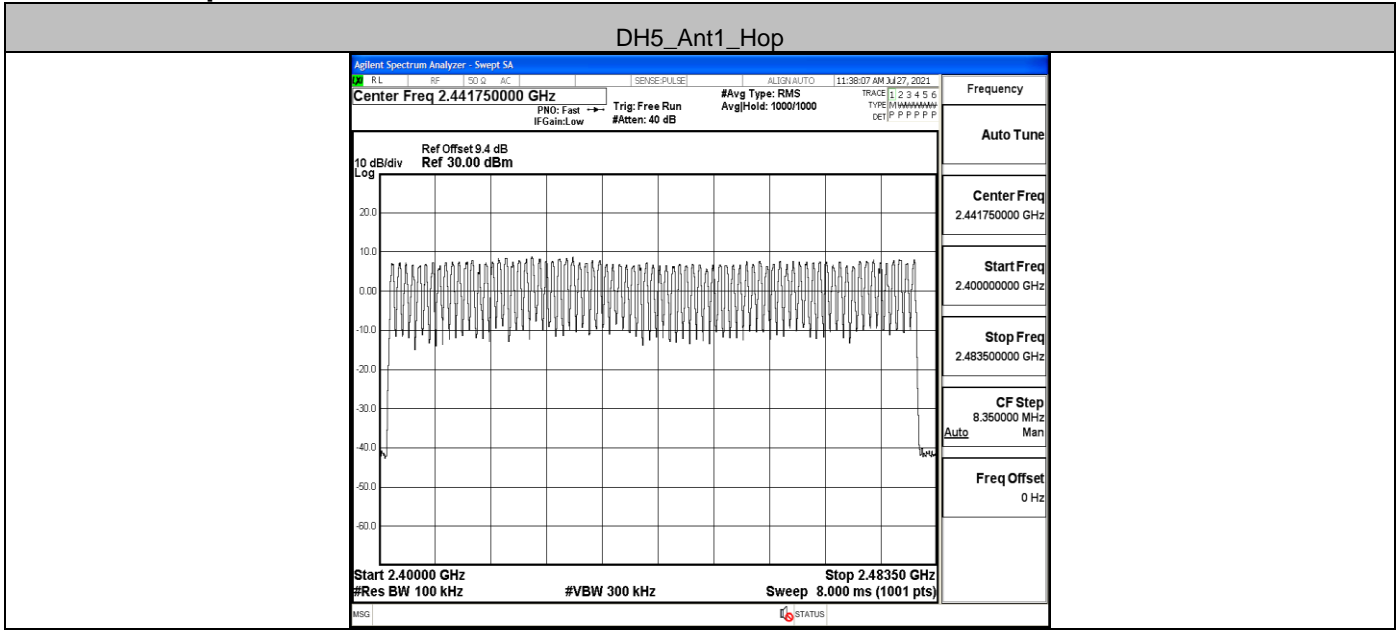
Test Graph



A.4 Hopping Channel Number

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

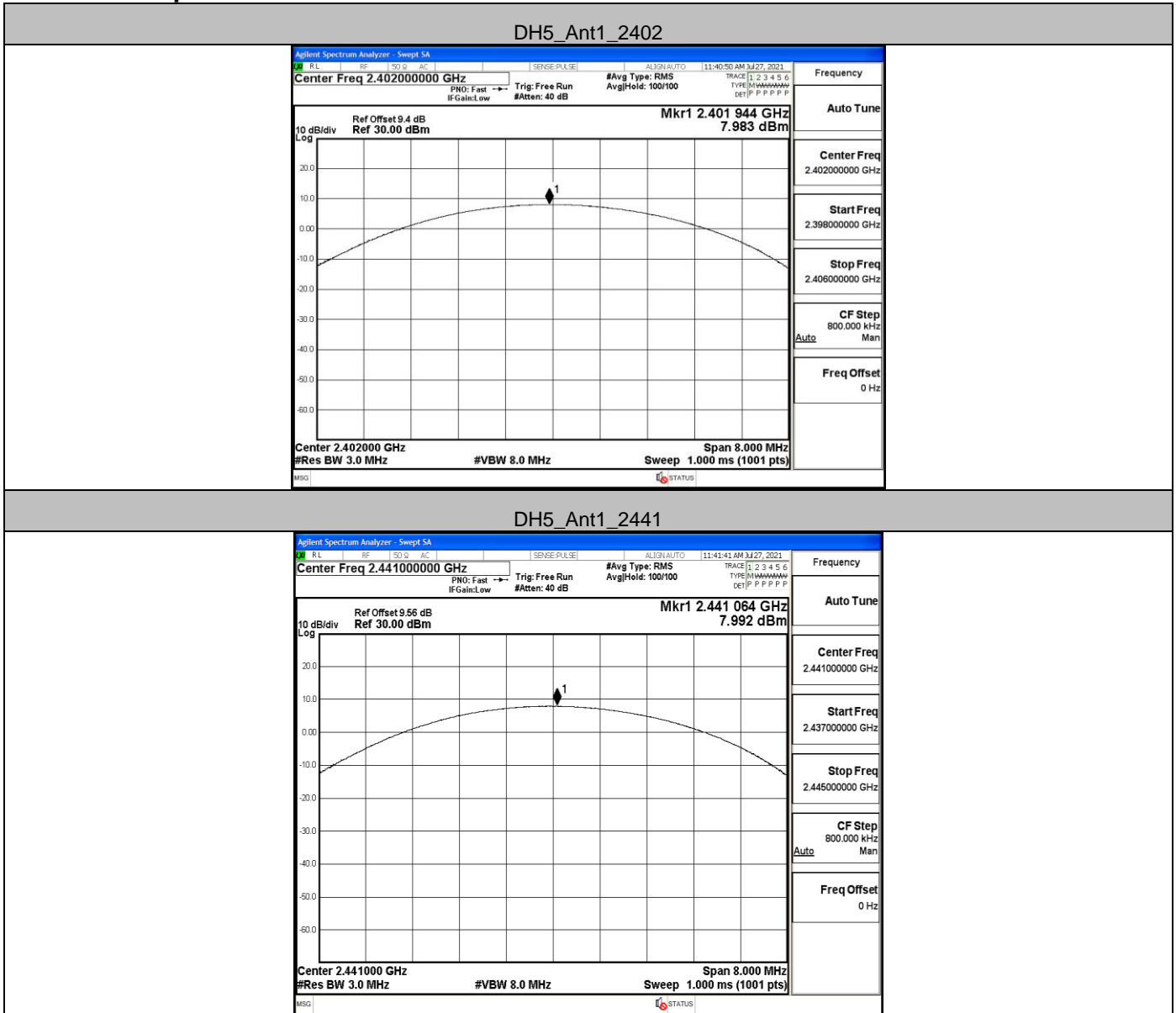
Test Graph



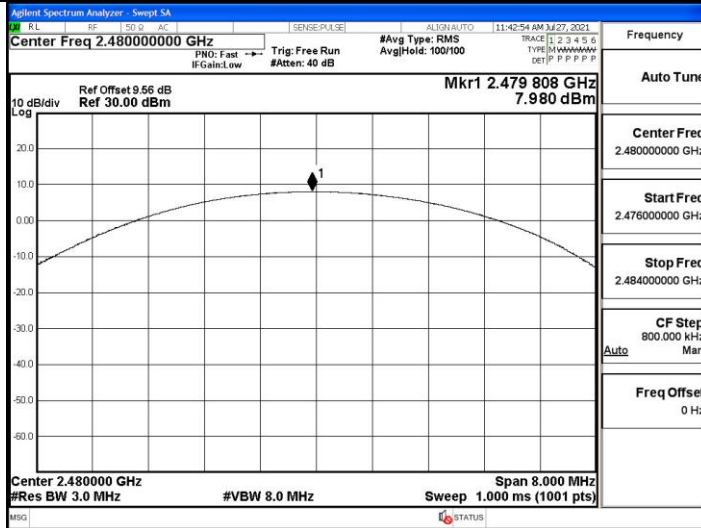
A.5 Conducted Peak Output Power

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	7.983	≤30	PASS
		2441	7.992	≤30	PASS
		2480	7.980	≤30	PASS

Test Graph



DH5_Ant1_2480

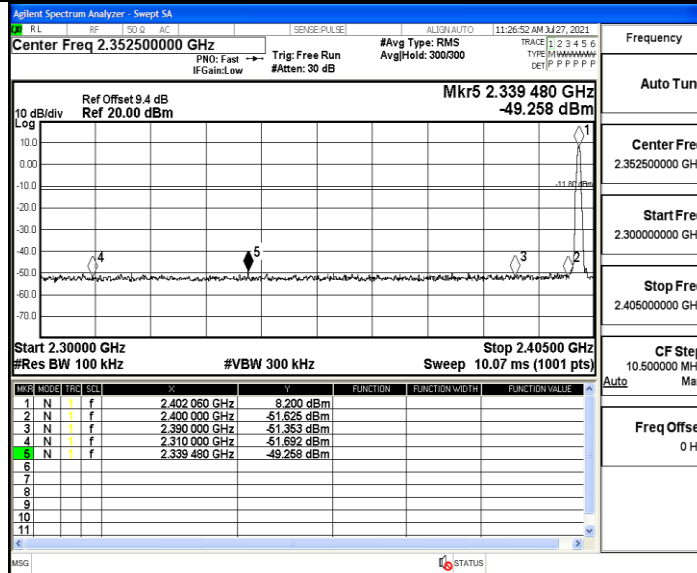


A.6 Band-edge for RF Conducted Emissions

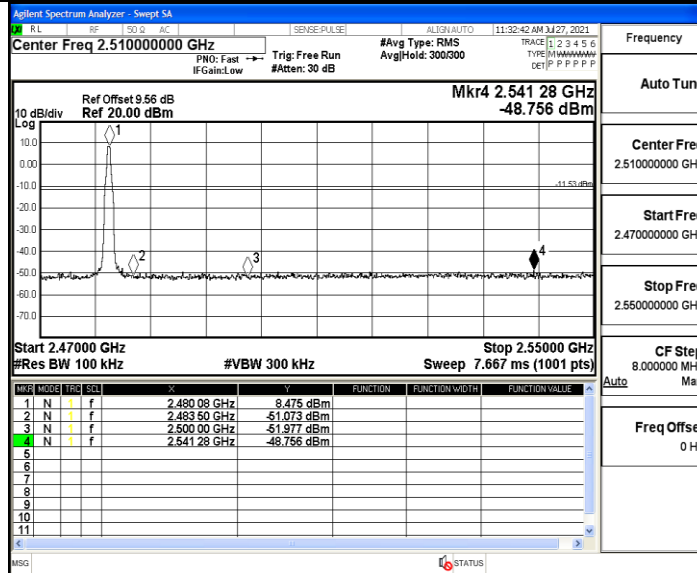
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	8.20	-49.26	≤-11.8	PASS
		High	2480	8.48	-48.76	≤-11.53	PASS
		Low	Hop_2402	7.12	-49.45	≤-12.88	PASS
		High	Hop_2480	8.03	-48.58	≤-11.97	PASS

Test Graph

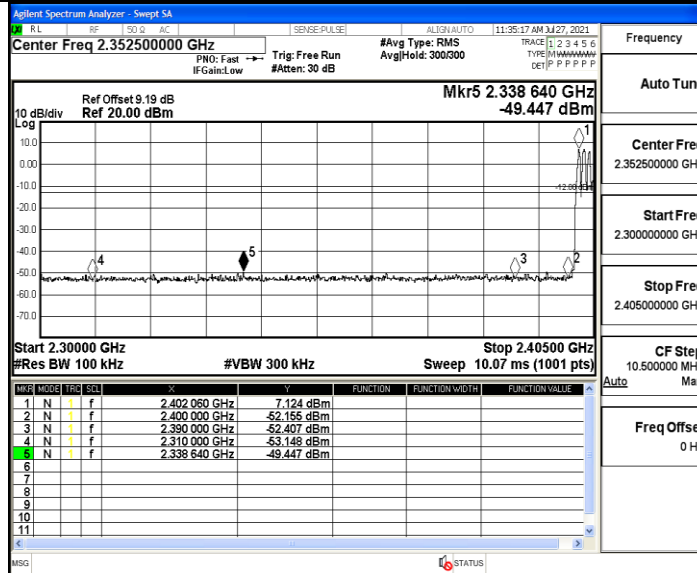
DH5_Ant1_Low_2402



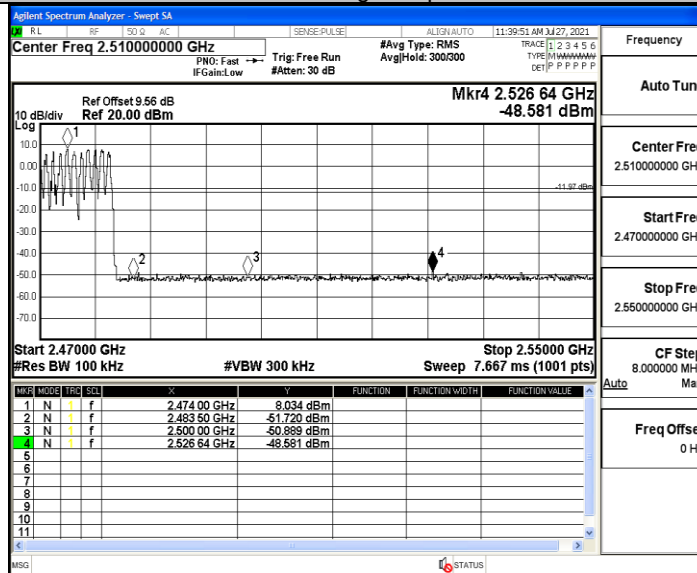
DH5_Ant1_High_2480



DH5_Ant1_Low_Hop_2402

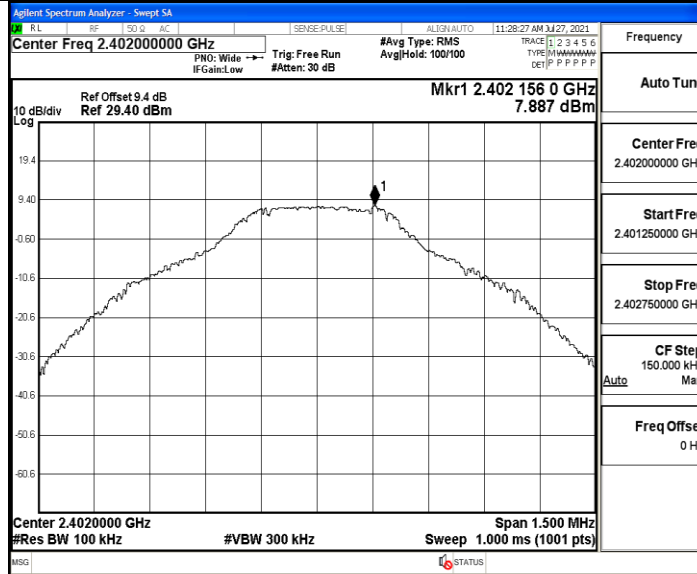


DH5_Ant1_High_Hop_2480

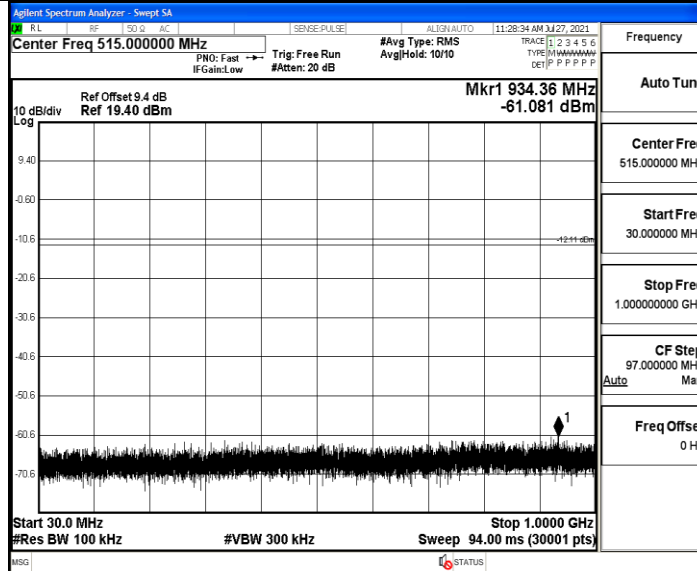


A.7 RF Conducted Spurious Emissions Test Graph

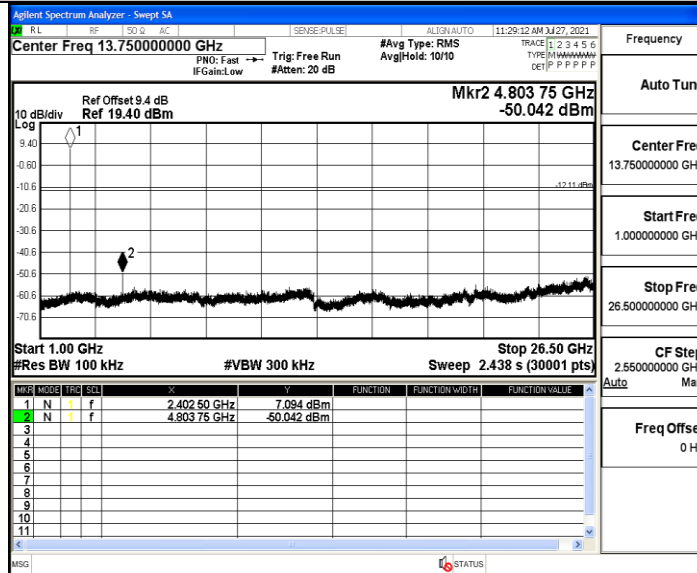
DH5_Ant1_2402_0~Reference



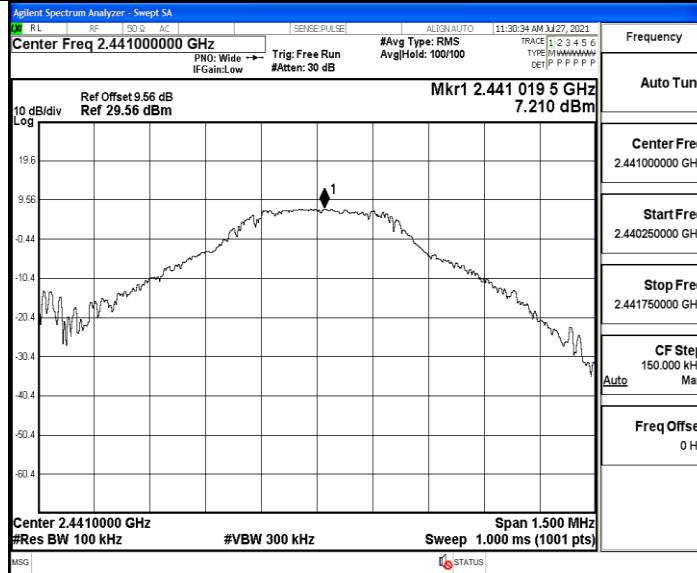
DH5_Ant1_2402_30~1000



DH5_Ant1_2402_1000~26500

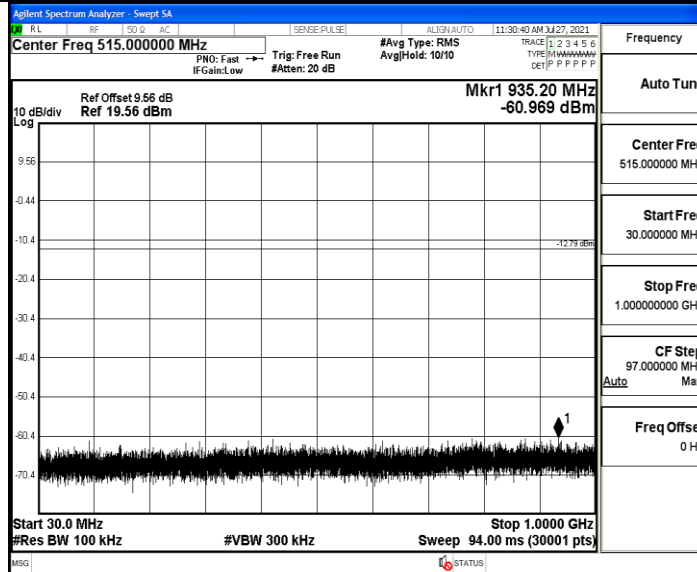


DH5_Ant1_2441_0~Reference



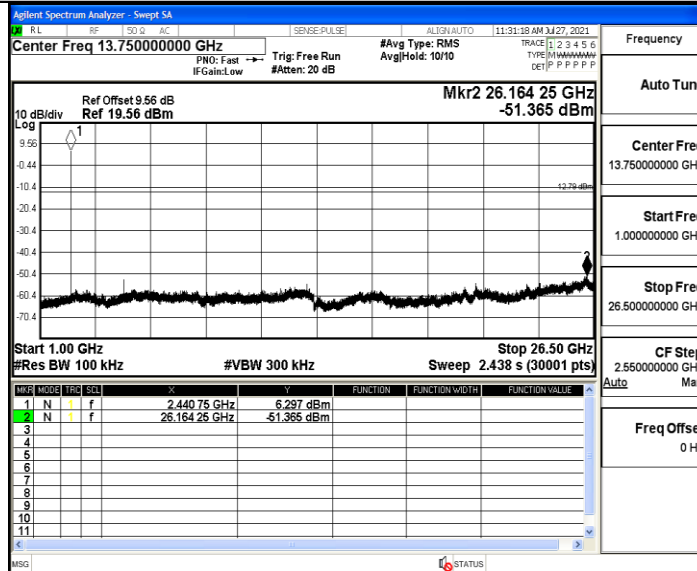
Frequency
Auto Tune
Center Freq 2.441000000 GHz
Start Freq 2.440250000 GHz
Stop Freq 2.441750000 GHz
CF Step 150.000 kHz Auto Man
Freq Offset 0 Hz

DH5_Ant1_2441_30~1000



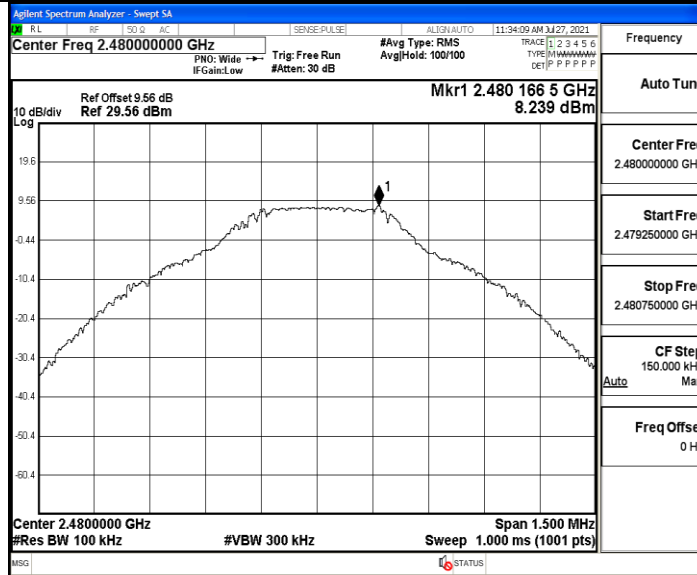
Frequency
Auto Tune
Center Freq 515.0000000 MHz
Start Freq 30.0000000 MHz
Stop Freq 1.000000000 GHz
CF Step 97.0000000 MHz Auto Man
Freq Offset 0 Hz

DH5_Ant1_2441_1000~26500

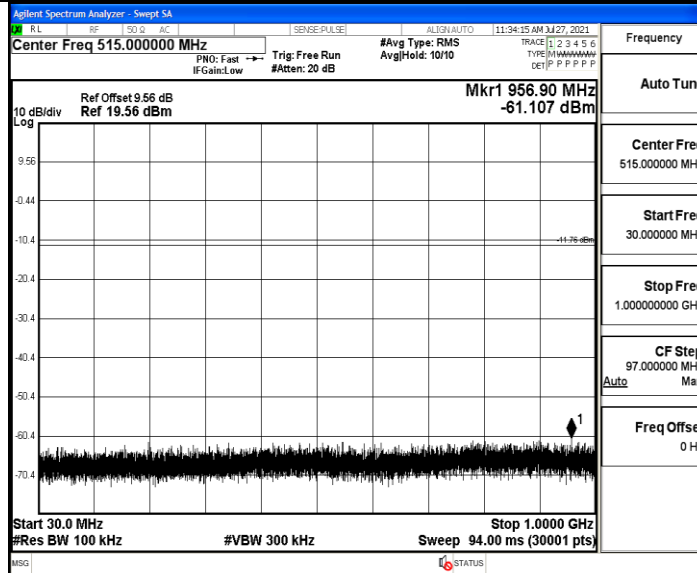


Frequency
Auto Tune
Center Freq 13.750000000 GHz
Start Freq 1.000000000 GHz
Stop Freq 26.500000000 GHz
CF Step 2.550000000 GHz Auto Man
Freq Offset 0 Hz

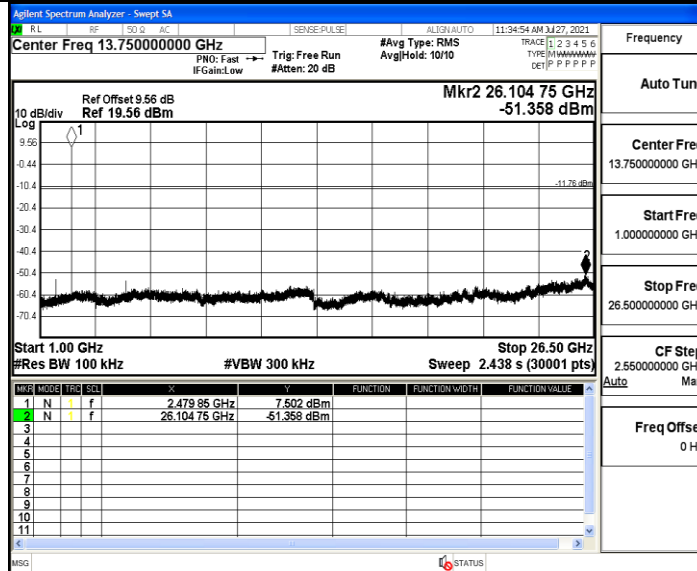
DH5_Ant1_2480_0-Reference



DH5_Ant1_2480_30-1000



DH5_Ant1_2480_1000-26500



A.8 Restrict-band band-edge measurements

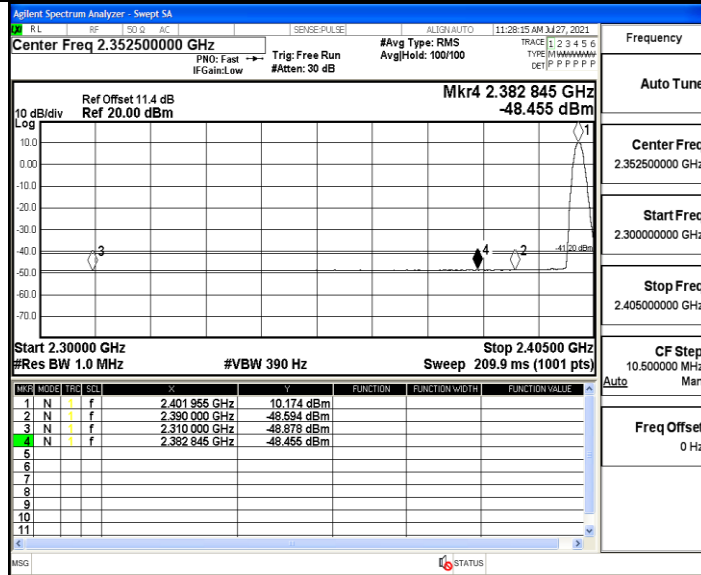
TestMode	Antenna	ChName	Channel	Detector	Freq (MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-48.88	≤-41.20	PASS
				AV	2382.845	-48.46	≤-41.20	PASS
				AV	2390.000	-48.59	≤-41.20	PASS
				Peak	2310.000	-42.84	≤-21.20	PASS
				Peak	2344.415	-38.76	≤-21.20	PASS
				Peak	2390.000	-41.78	≤-21.20	PASS
		High	2480	AV	2483.500	-46.47	≤-41.20	PASS
				AV	2483.520	-46.47	≤-41.20	PASS
				AV	2500.000	-47.94	≤-41.20	PASS
				Peak	2483.500	-40.5	≤-21.20	PASS
				Peak	2497.280	-38.37	≤-21.20	PASS
				Peak	2500.000	-41.11	≤-21.20	PASS

Note :

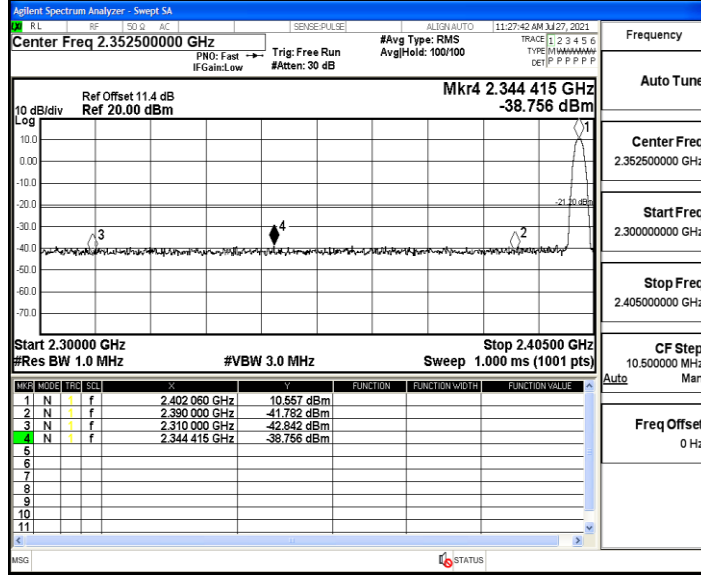
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graph

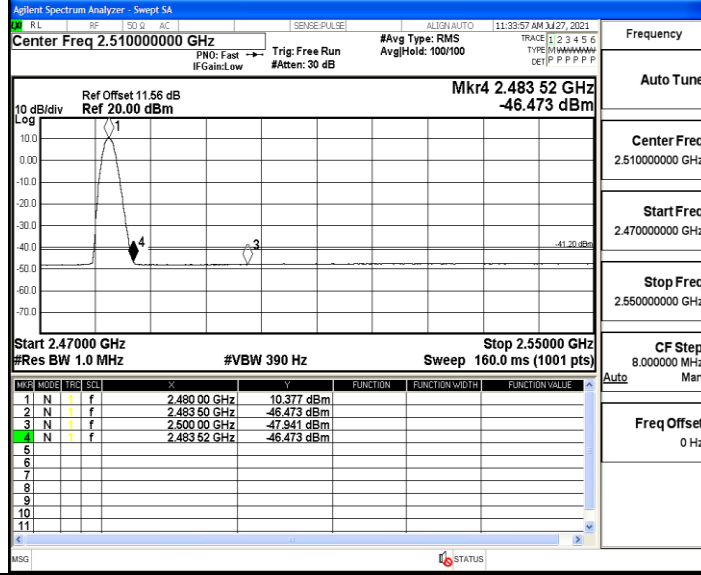
DH5_Ant1_Low_2402_AV



DH5_Ant1_Low_2402_Peak



DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

