

Appendix A

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

Product Name: Bluetooth mechanical keyboard

Trade Mark: N/A

Test Model: keychron K3

FCC ID: 2ASF4-K3

Environmental Conditions

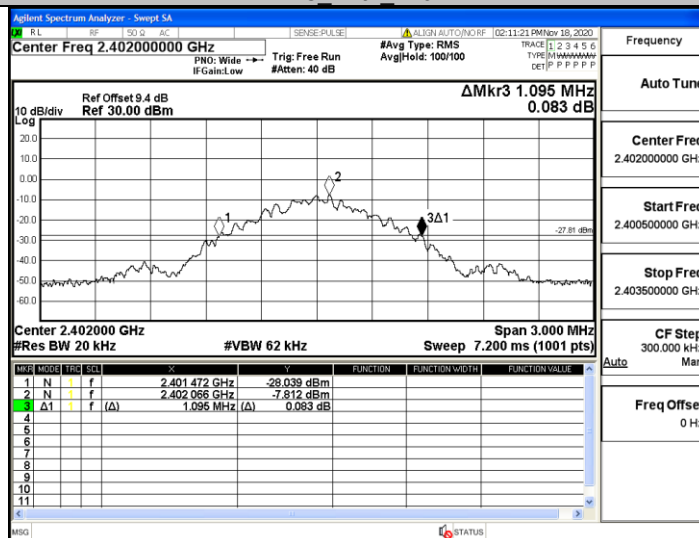
Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen

A.1 20 dB Bandwidth

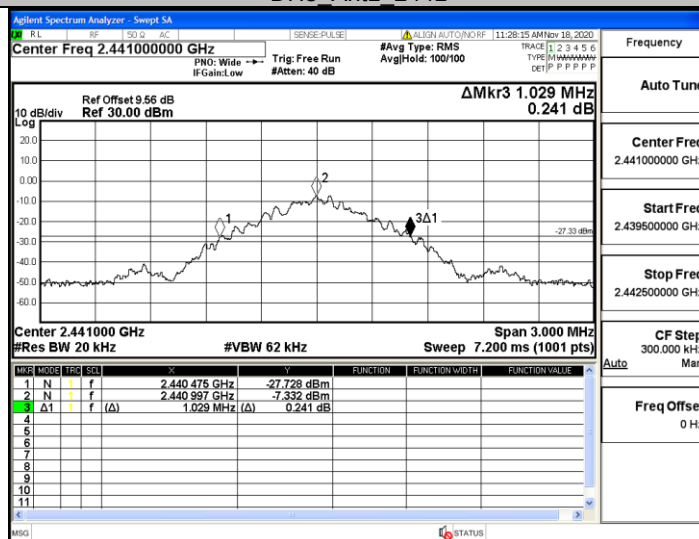
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.095	2401.472	2402.567	---	PASS
		2441	1.029	2440.475	2441.504	---	PASS
		2480	1.029	2479.481	2480.510	---	PASS

Test Graph

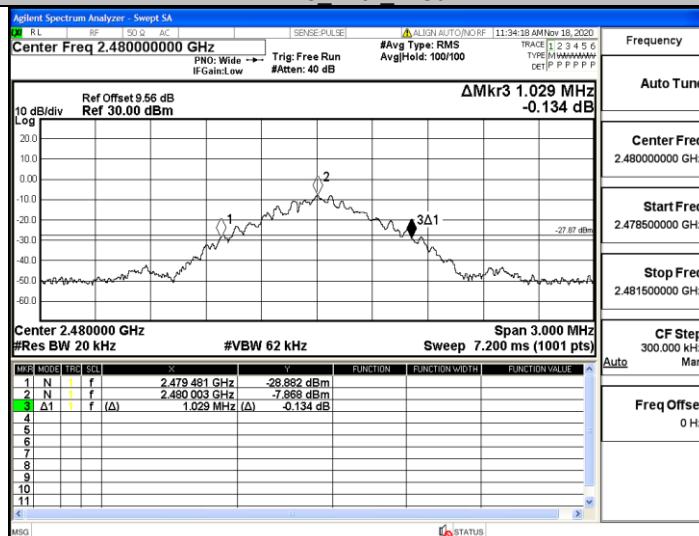
DH5_Ant1_2402



DH5_Ant1_2441



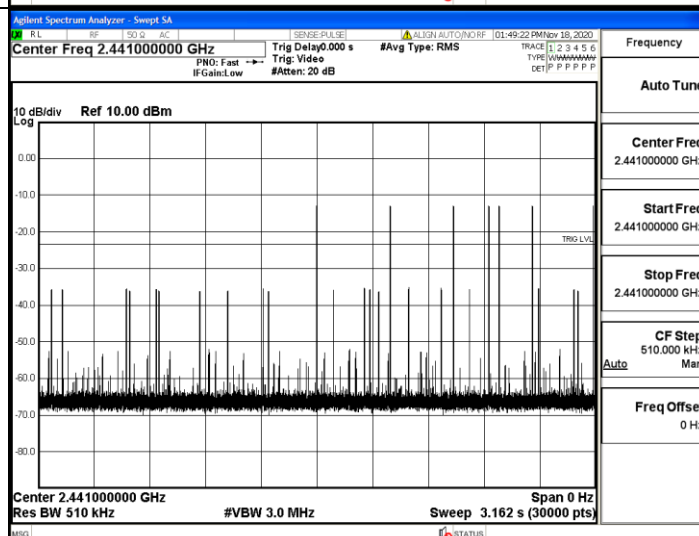
DH5_Ant1_2480



A.2 Dwell Time

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]
DH1	Ant1	Hop	2.95	80	0.236	<=0.4

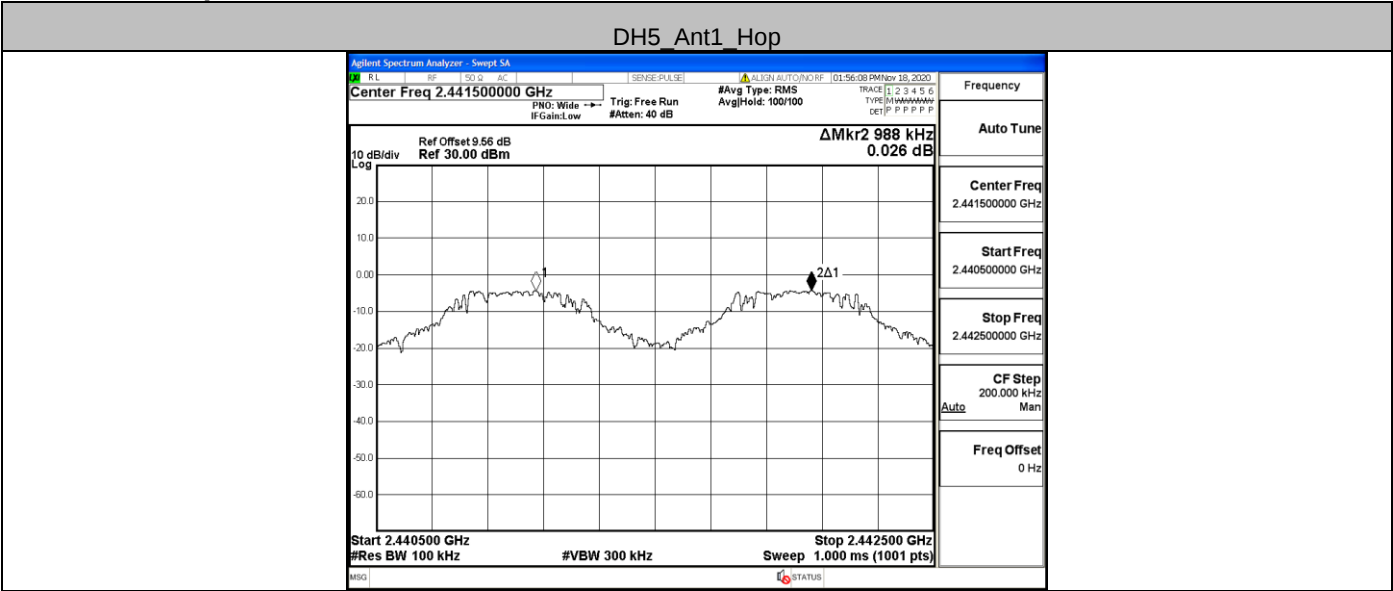
DH1_Ant1_Hop



A.3 Carrier Frequency Separation

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.988	≥ 0.686	PASS

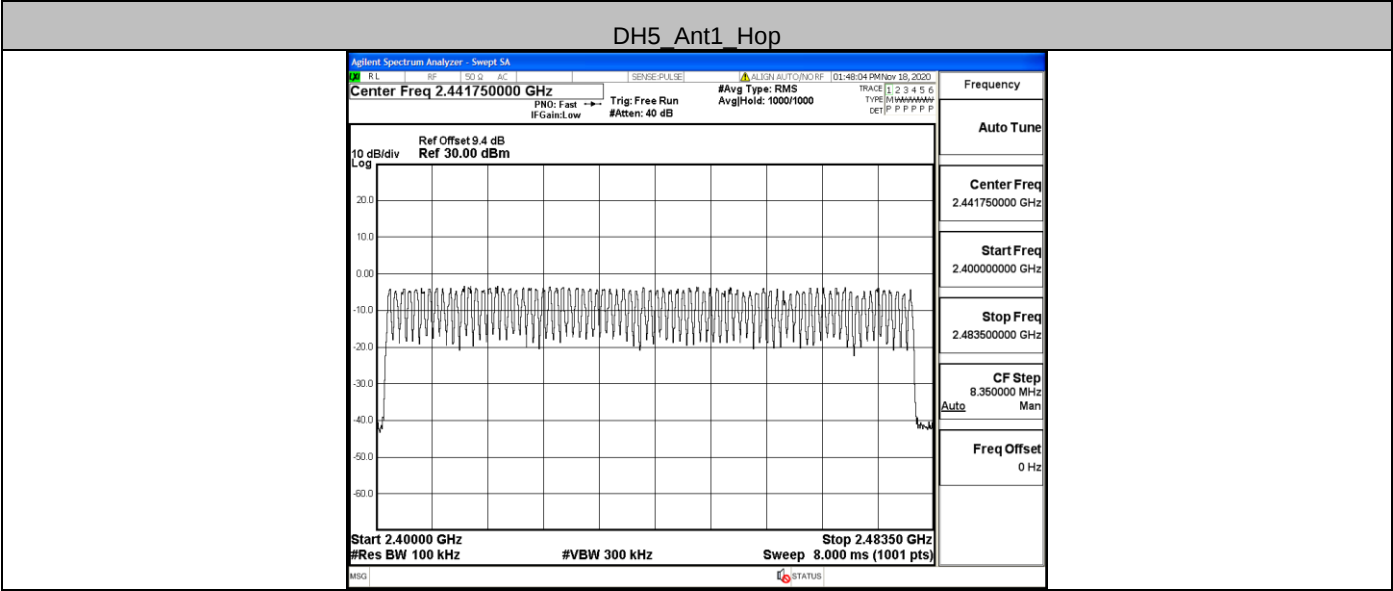
Test Graph



A.4 Hopping Channel Number

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

Test Graph

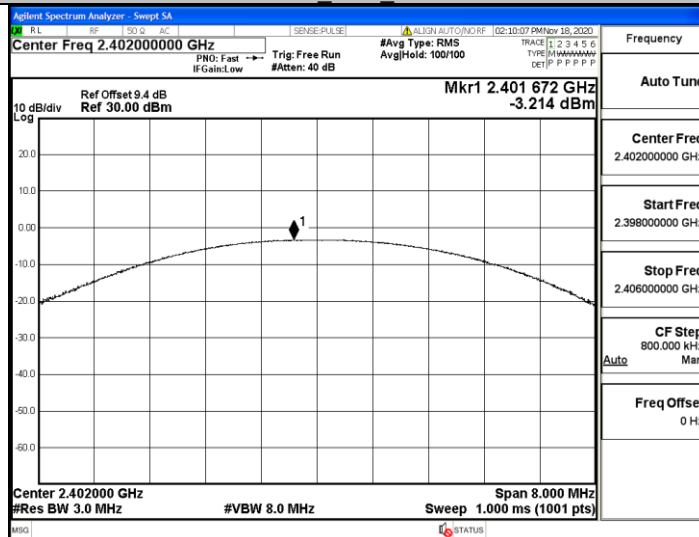


A.5 Conducted Peak Output Power

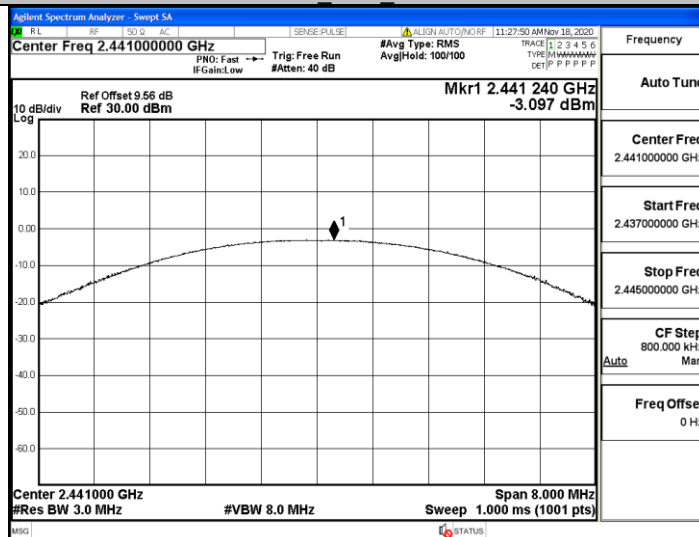
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-3.21	<=20.97	PASS
		2441	-3.10	<=30	PASS
		2480	-3.59	<=20.97	PASS

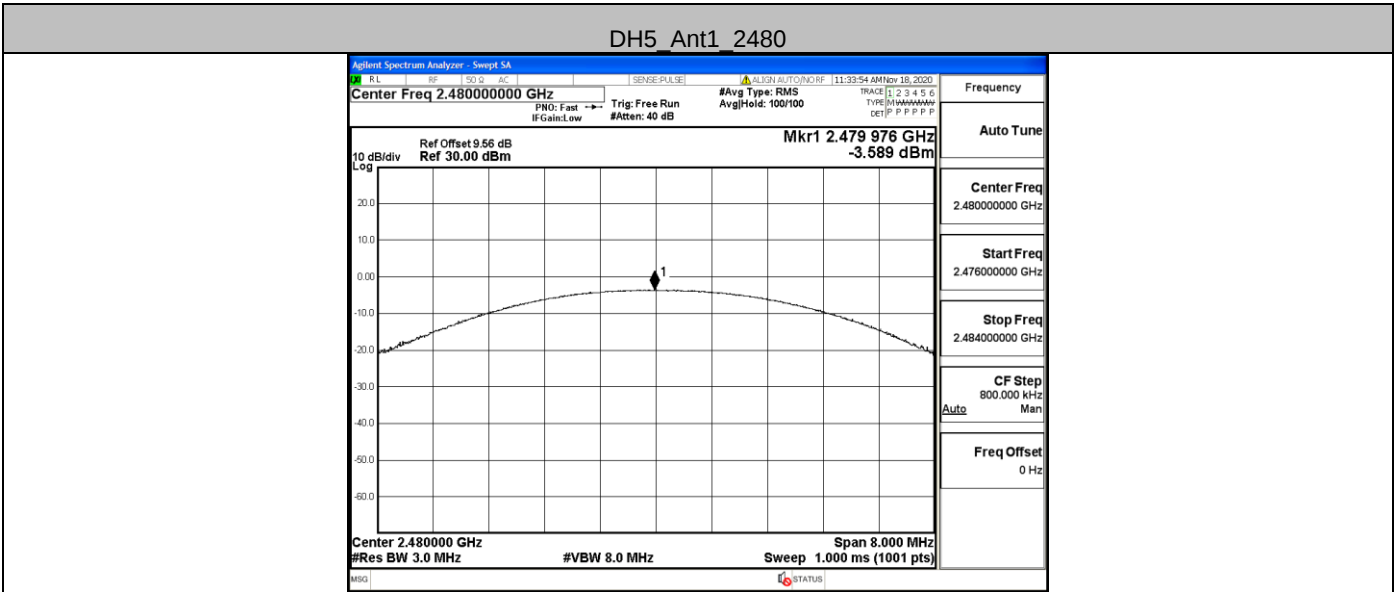
Test Graph

DH5_Ant1_2402



DH5_Ant1_2441



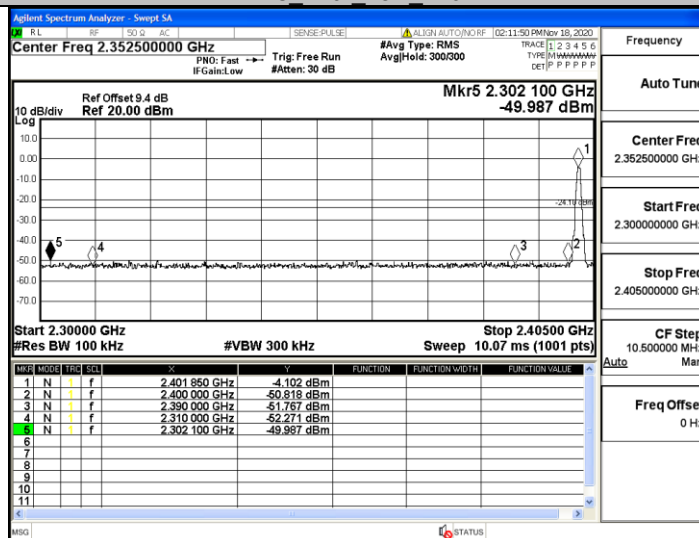


A.6 Band-edge for RF Conducted Emissions

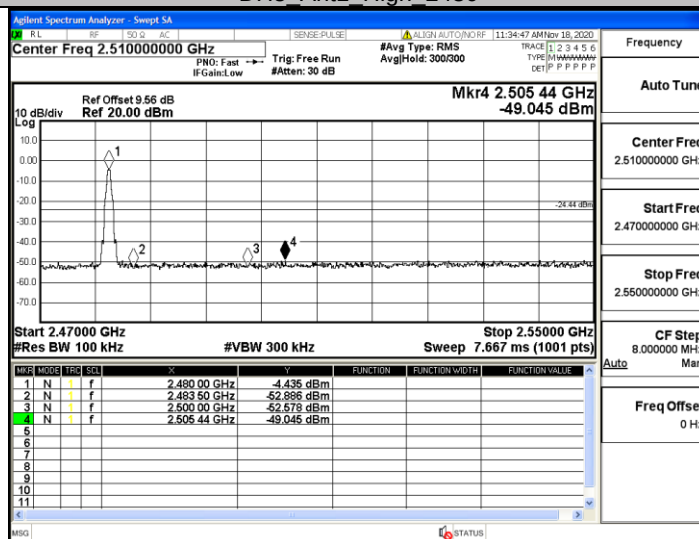
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-4.10	-49.99	<=-24.1	PASS
		High	2480	-4.43	-49.05	<=-24.44	PASS
		Low	Hop_2402	-4.12	-50.21	<=-24.12	PASS
		High	Hop_2480	-4.10	-48.98	<=-24.1	PASS

Test Graph

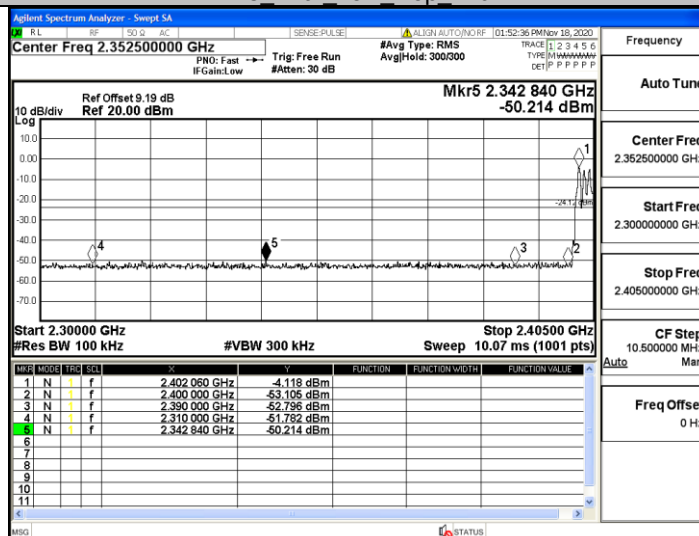
DH5_Ant1_Low_2402

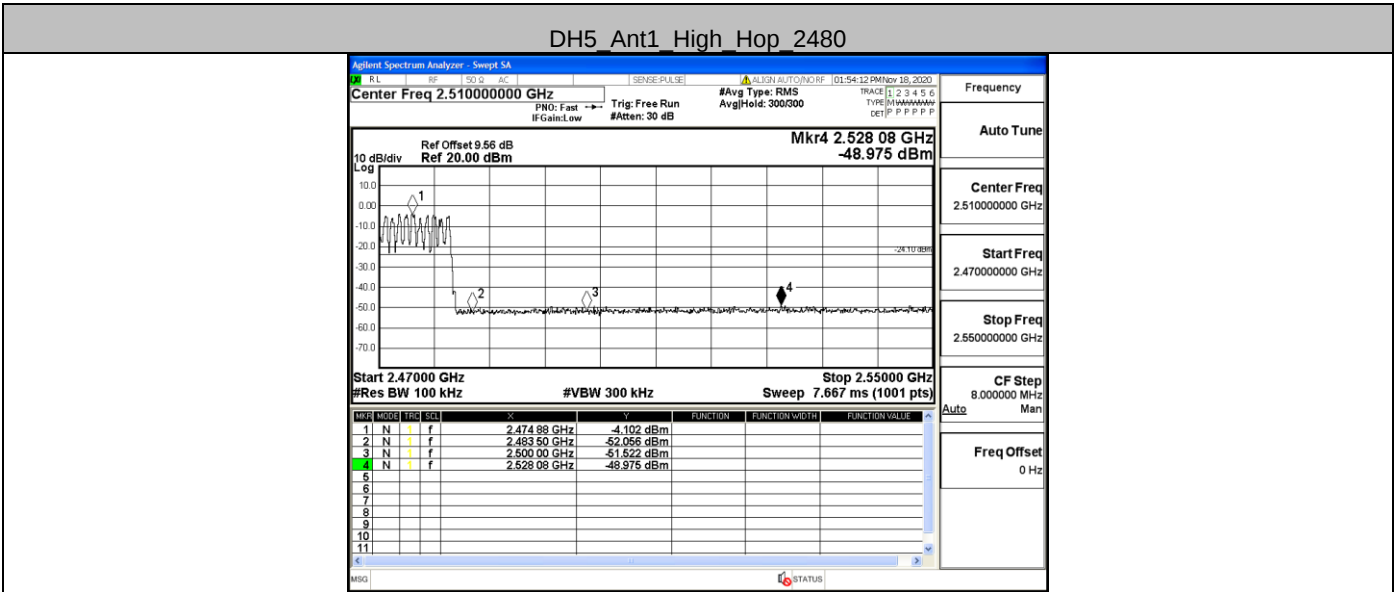


DH5_Ant1_High_2480



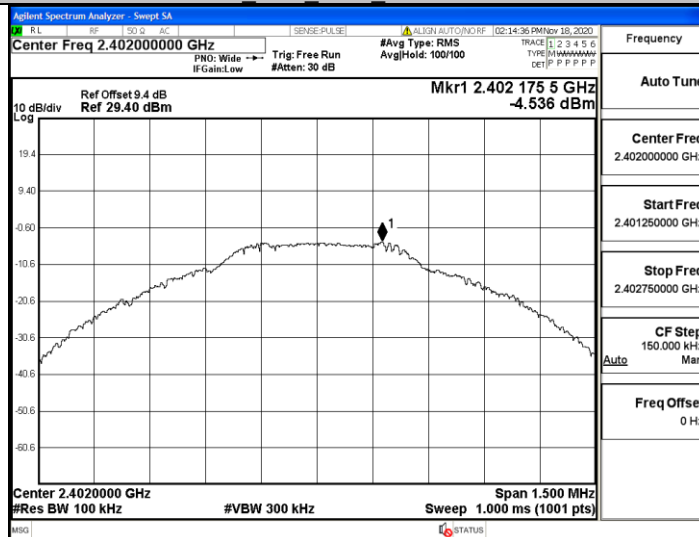
DH5_Ant1_Low_Hop_2402



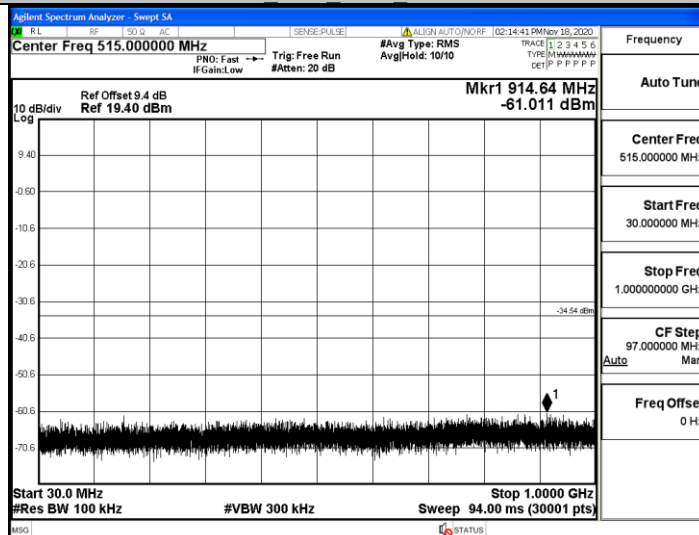


A.7 RF Conducted Spurious Emissions Test Graph

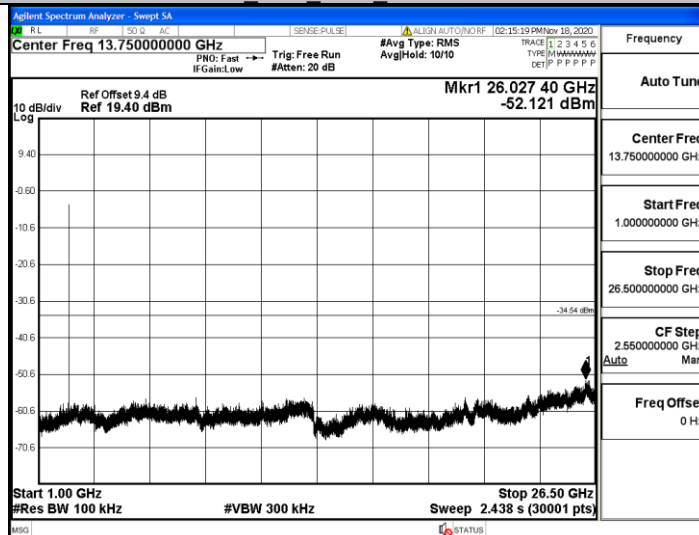
DH5_Ant1_2402_0-Reference



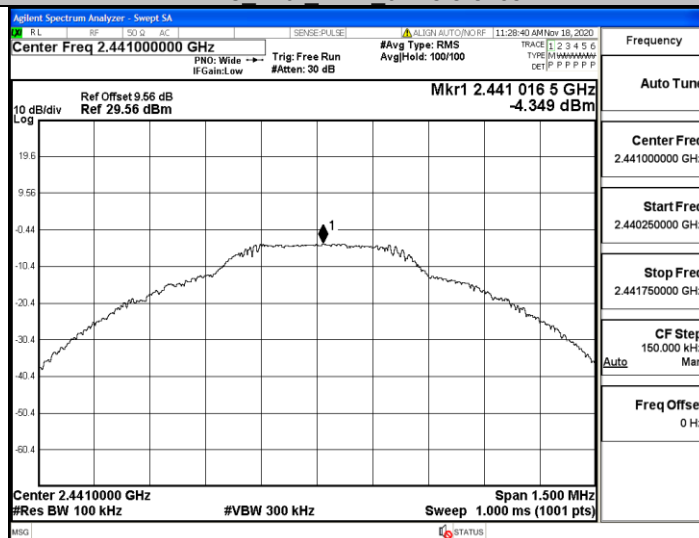
DH5_Ant1_2402_30-1000



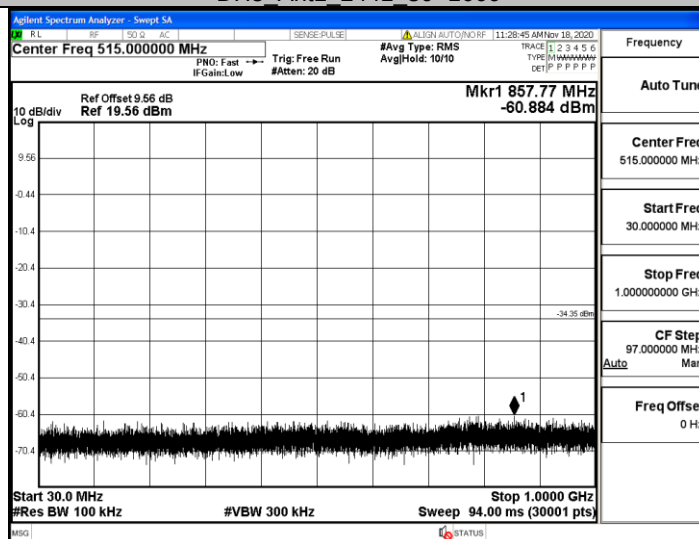
DH5_Ant1_2402_1000-26500



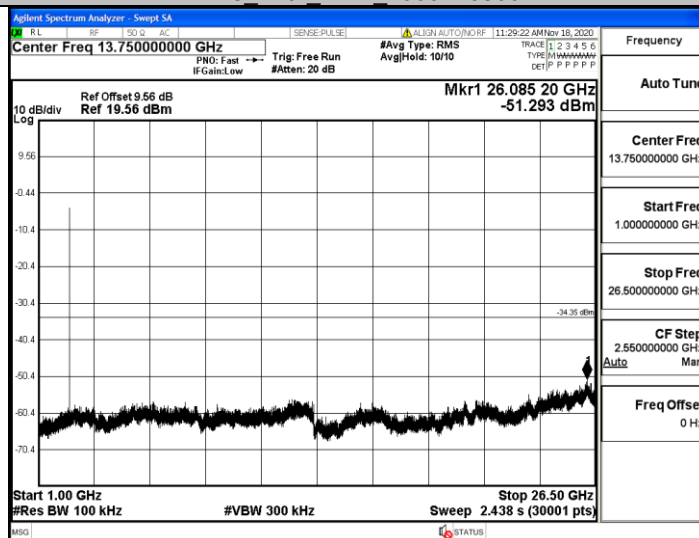
DH5_Ant1_2441_0-Reference



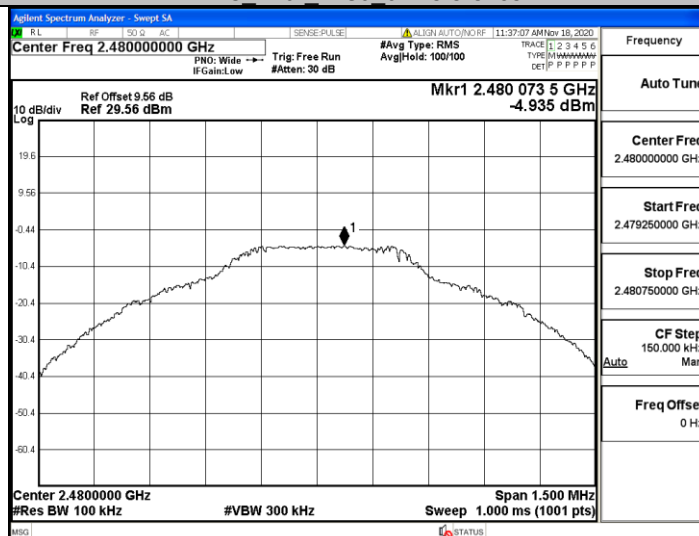
DH5_Ant1_2441_30-1000



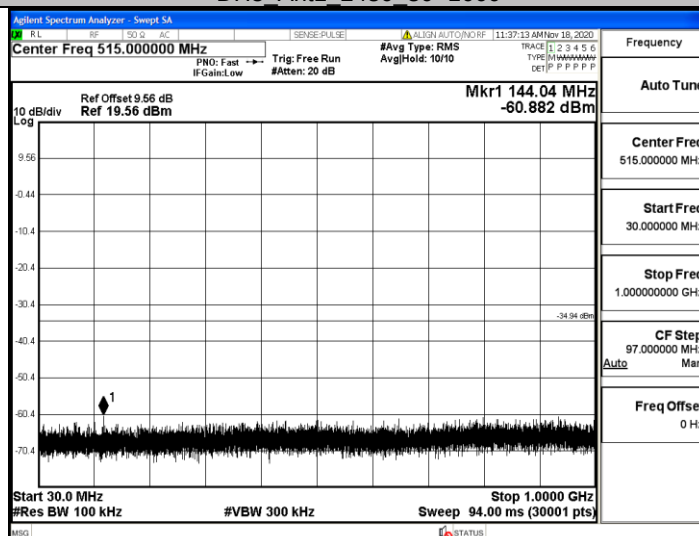
DH5_Ant1_2441_1000-26500



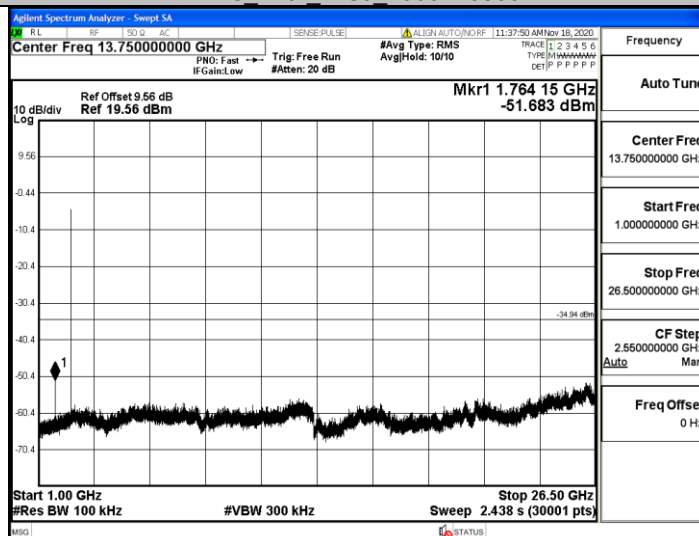
DH5_Ant1_2480_0-Reference



DH5_Ant1_2480_30-1000



DH5_Ant1_2480_1000-26500



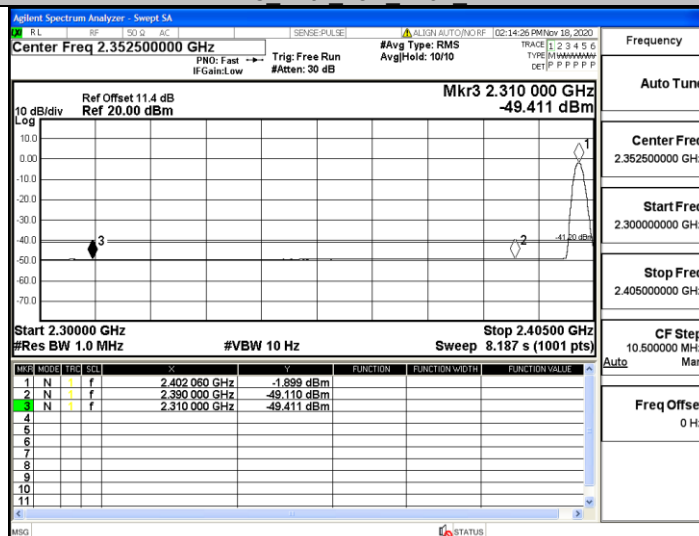
A.8 Restrict-band band-edge measurements

TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-49.42	<=-41.20	PASS
				AV	2390.000	-49.11	<=-41.20	PASS
				Peak	2310.000	-48.12	<=-21.20	PASS
				Peak	2390.000	-42.70	<=-21.20	PASS
		High	2480	AV	2483.500	-48.39	<=-41.20	PASS
				AV	2500.000	-48.34	<=-41.20	PASS
				Peak	2483.500	-41.36	<=-21.20	PASS
				Peak	2500.000	-43.28	<=-21.20	PASS

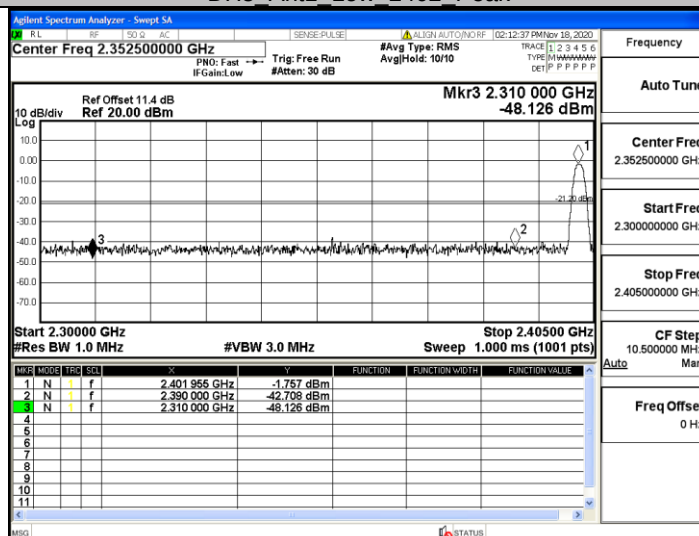
Note:

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.

DH5 Ant1 Low 2402 AV



DH5 Ant1 Low 2402 Peak



DH5 Ant1 High 2480 AV

