

Appendix B

RF Test Data for BT V4.2(BDR/EDR) (Conducted Measurement)

Product Name: atomi Shower Speaker

Trade Mark: atomi

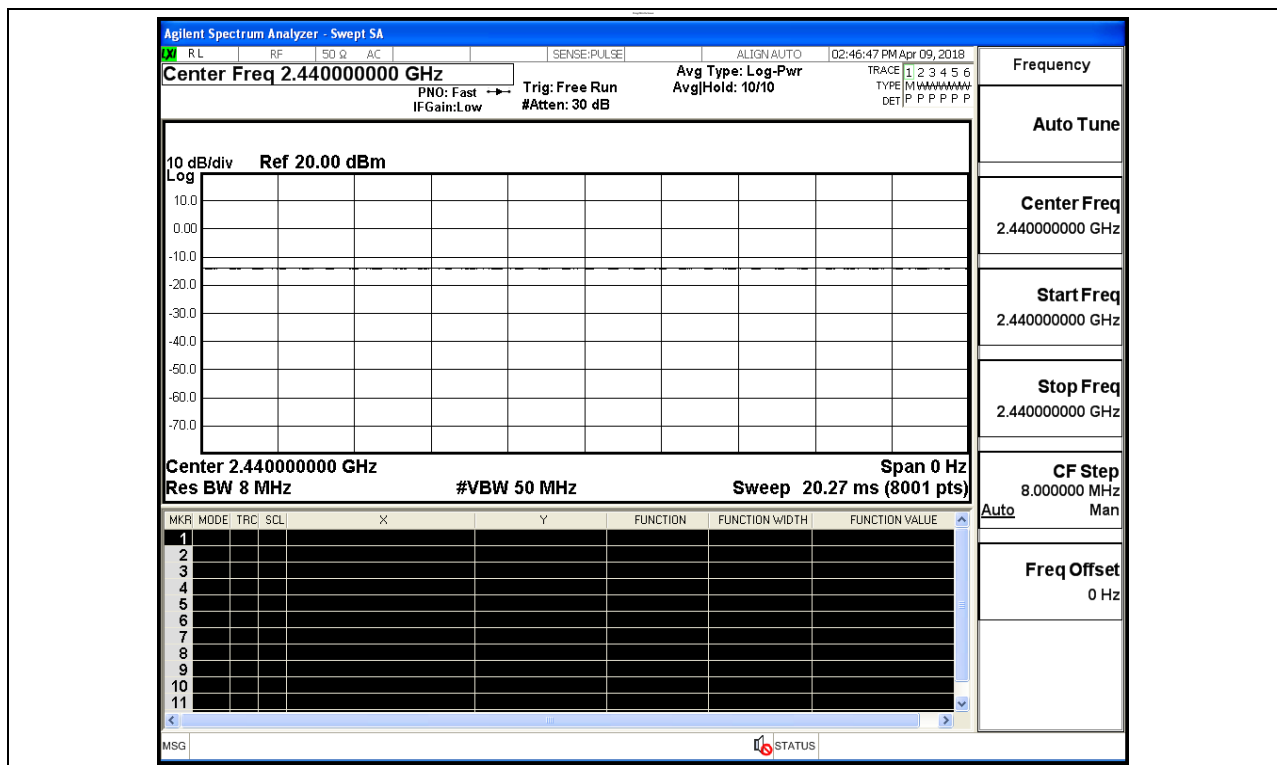
Test Model: AT1219

Environmental Conditions

Temperature:	23.2 ° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Wangchuang
Supervised by:	Jayden Zhuo

B.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS

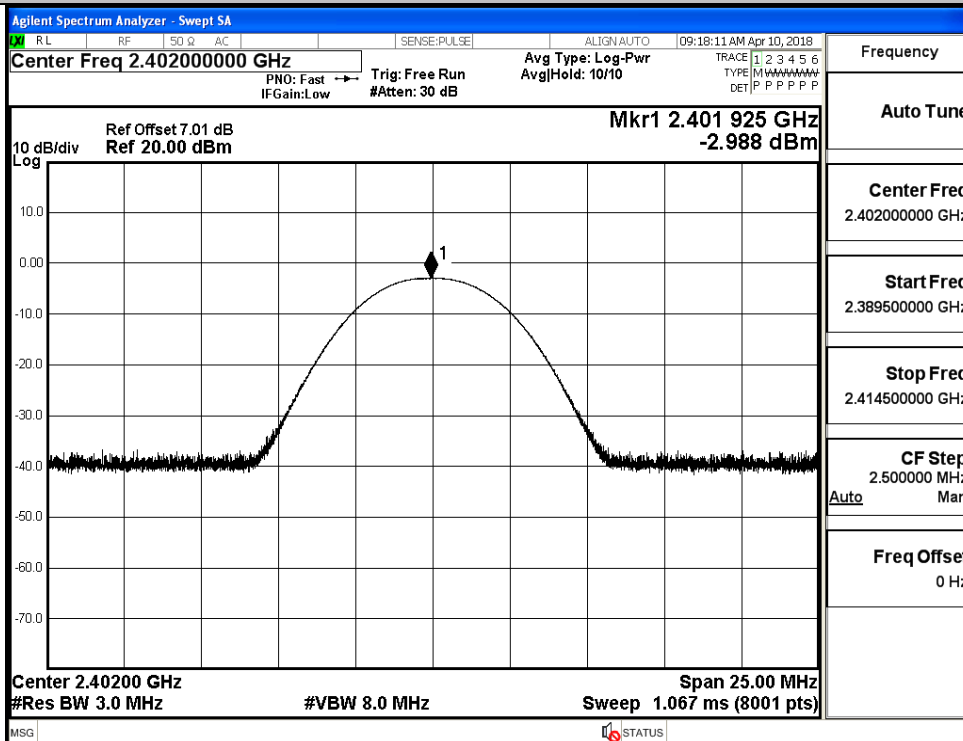


B.2 Maximum Conducted Peak Output Power

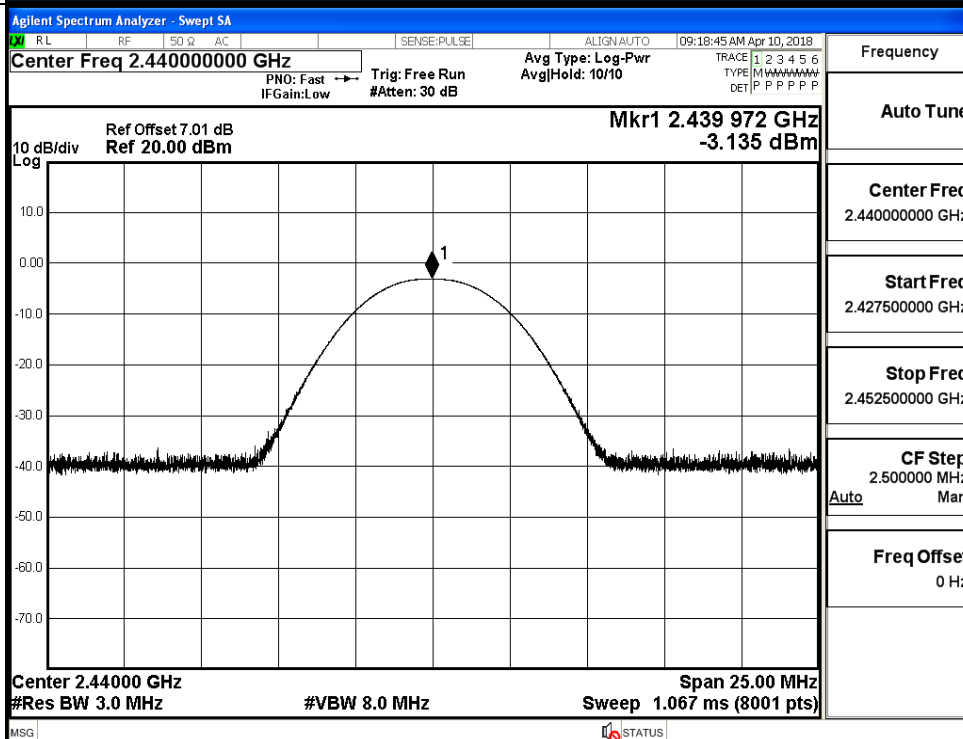
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.988	30	PASS
BT LE	MCH	-3.135	30	PASS
BT LE	HCH	-3.153	30	PASS

Test Graphs

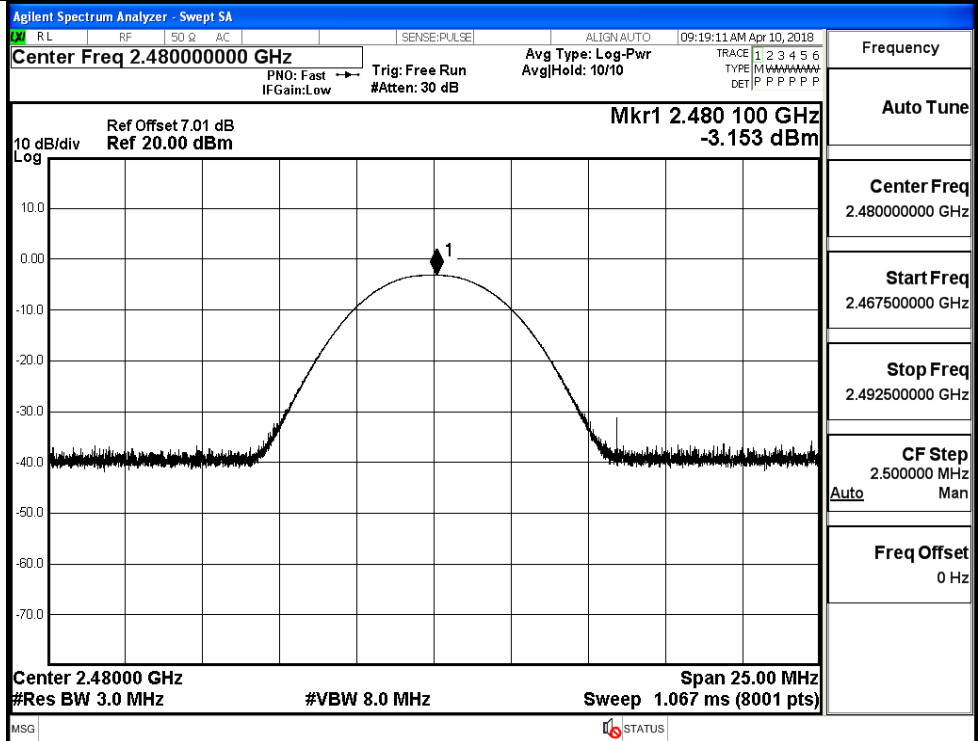
LCH



MCH



HCH

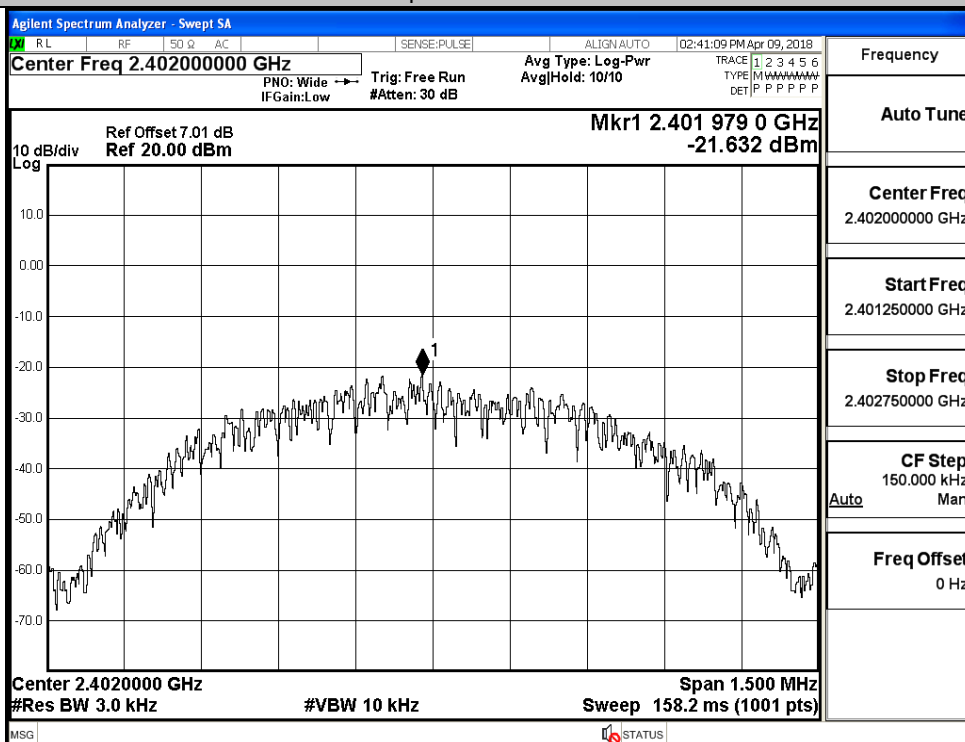


B.3 Maximum Power Spectral Density

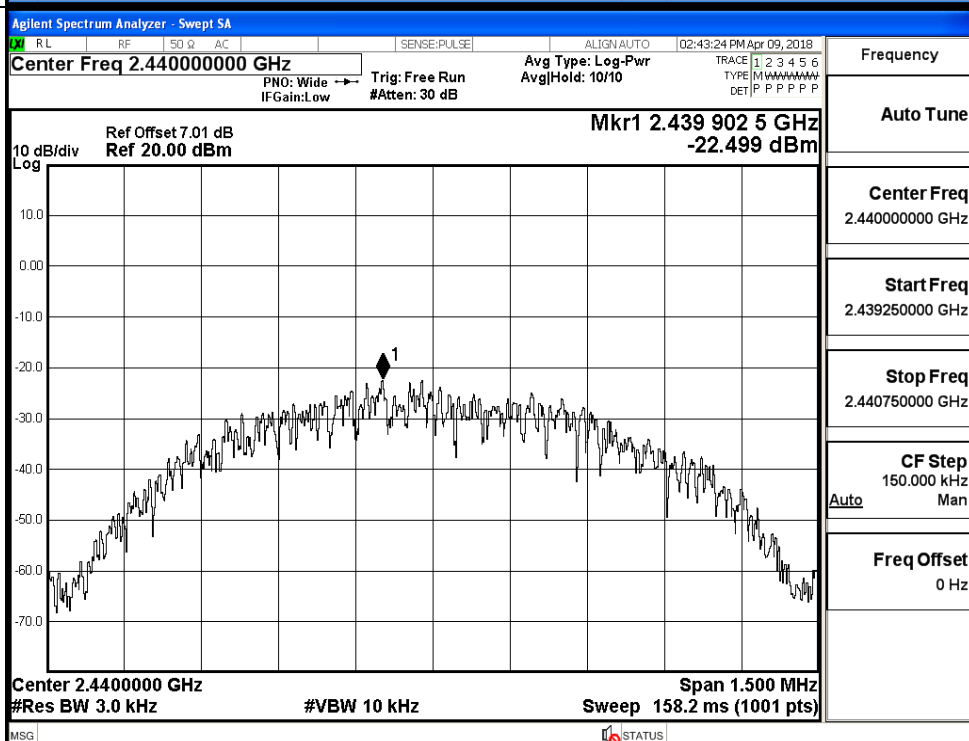
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-21.632	8	PASS
BT LE	MCH	-22.499	8	PASS
BT LE	HCH	-23.278	8	PASS

Test Graphs

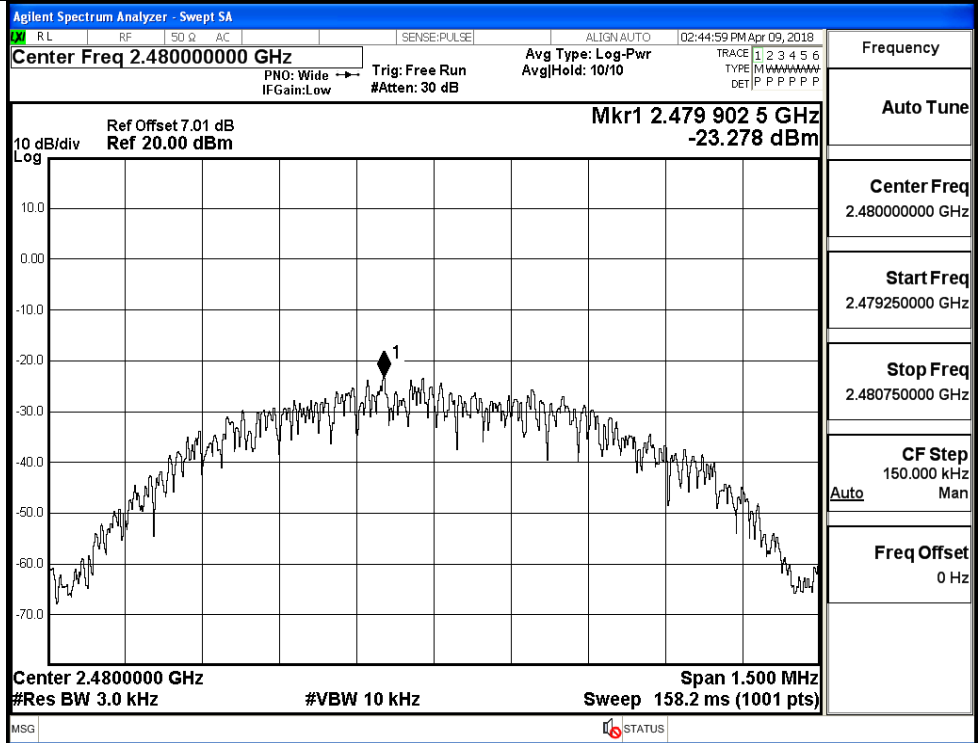
LCH



MCH



HCH

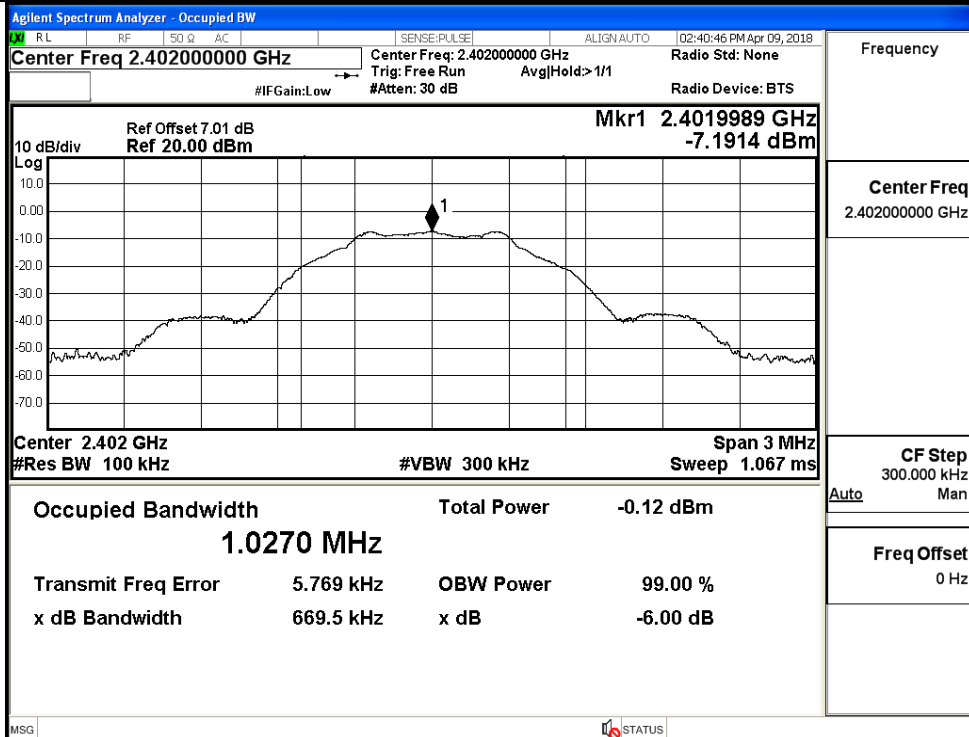


B.4 6dB Bandwidth

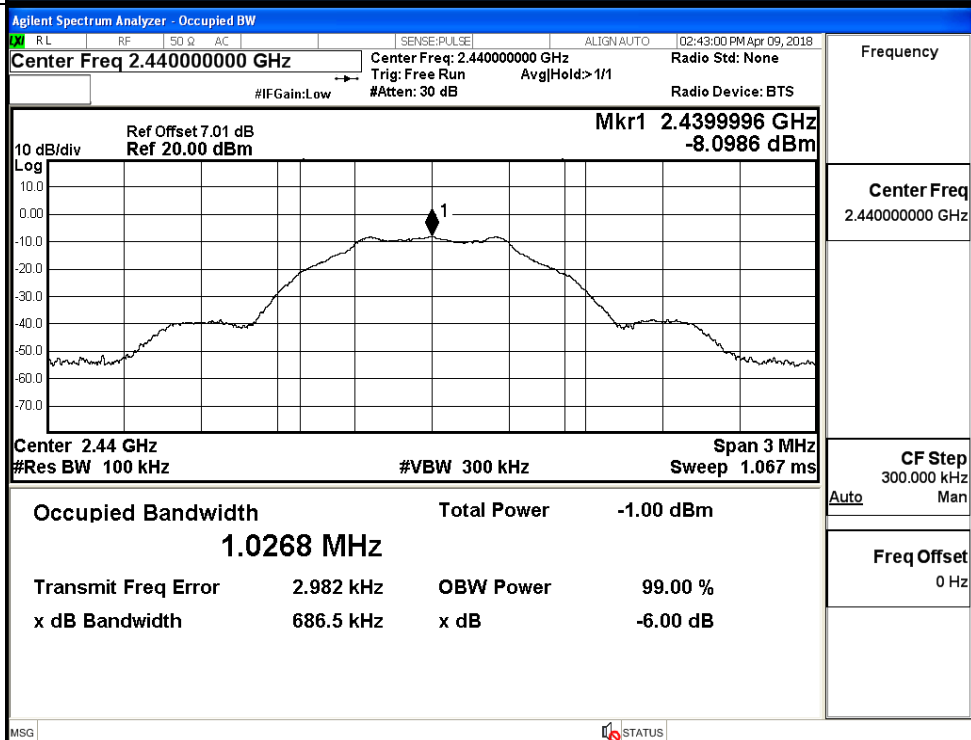
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6695	≥ 0.5	PASS
BT LE	MCH	0.6865	≥ 0.5	PASS
BT LE	HCH	0.6916	≥ 0.5	PASS

Test Graphs

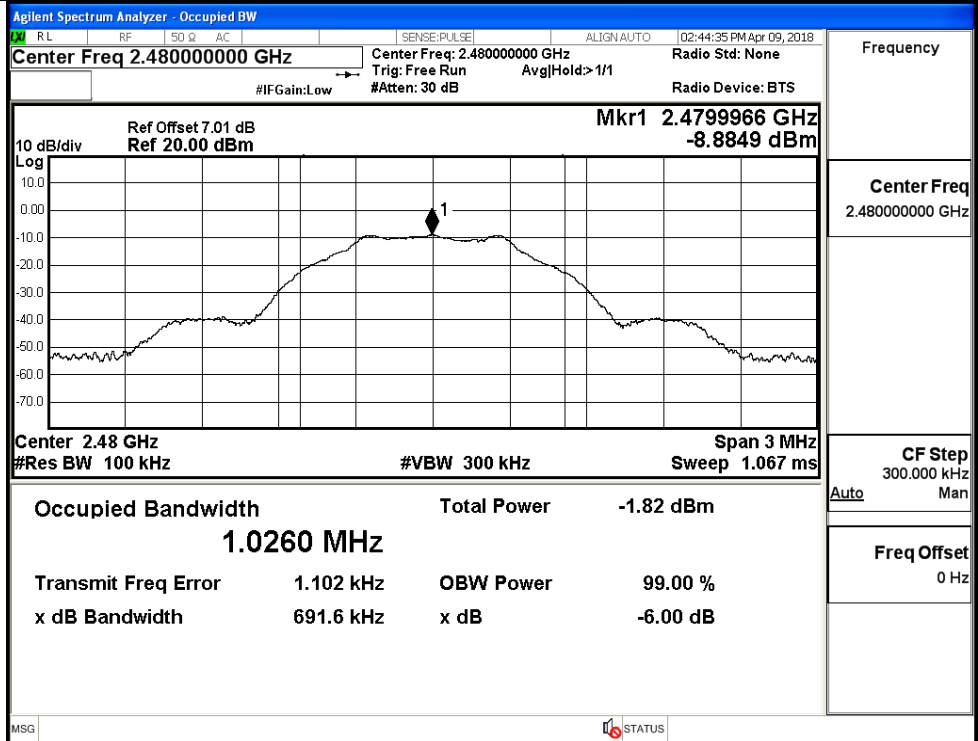
LCH



MCH



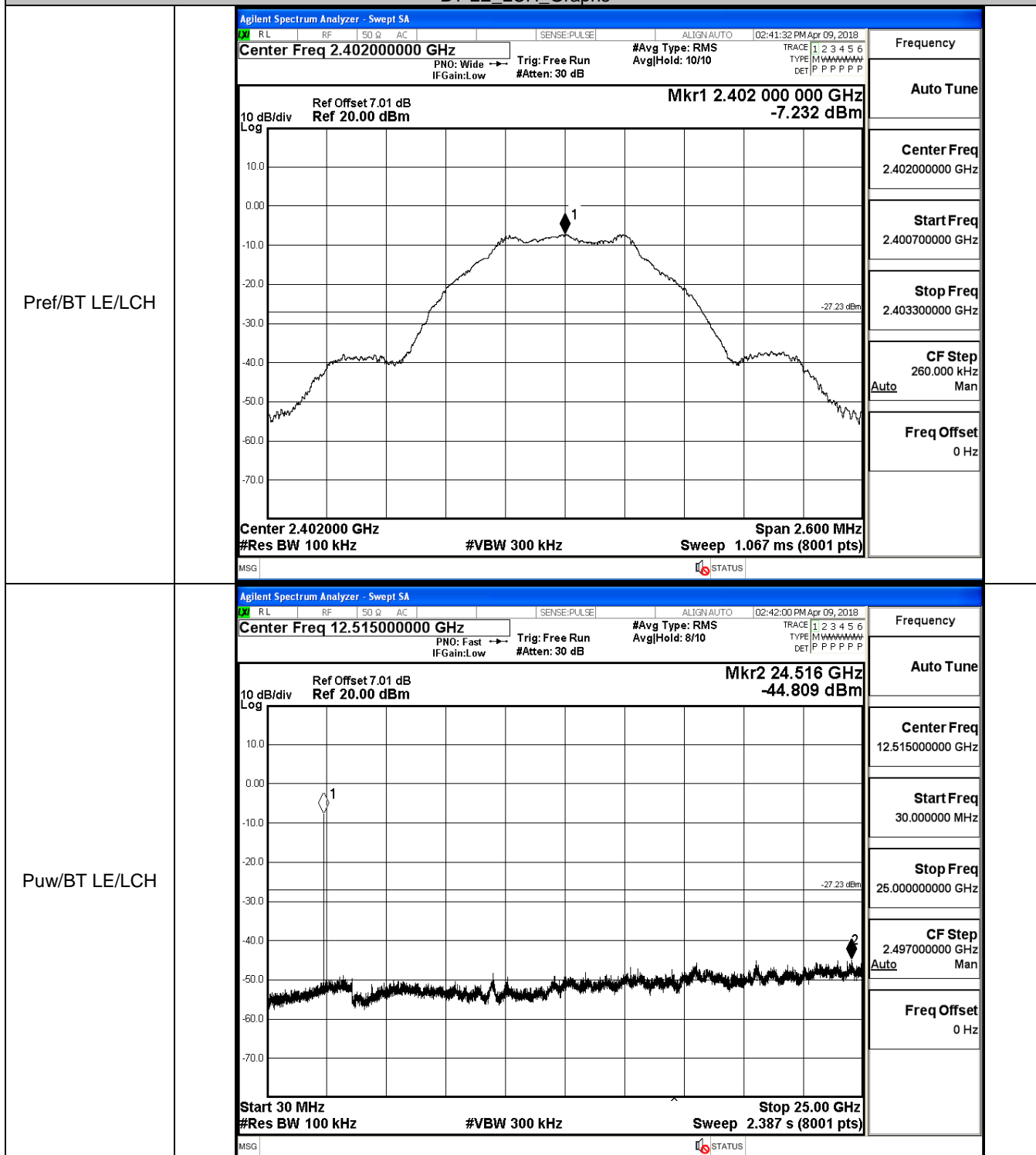
HCH



B.5 RF Conducted Spurious Emissions

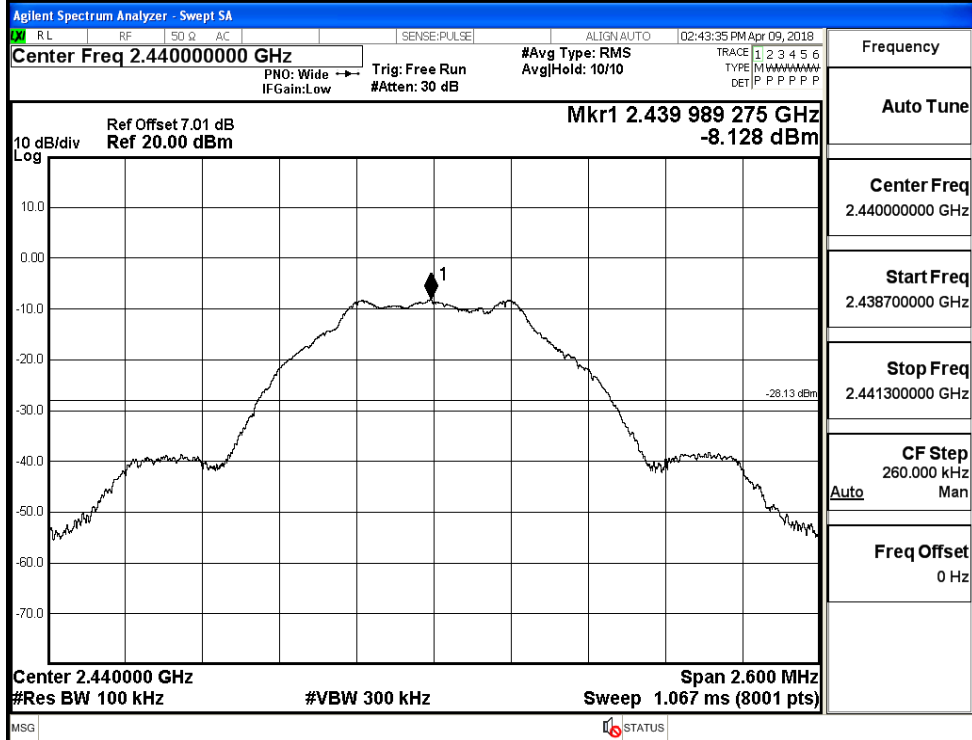
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-7.232	-44.809	-27.232	PASS
BT LE	MCH	-8.128	-45.139	-28.128	PASS
BT LE	HCH	-8.923	-44.912	-28.923	PASS

BT LE_LCH_Graphs

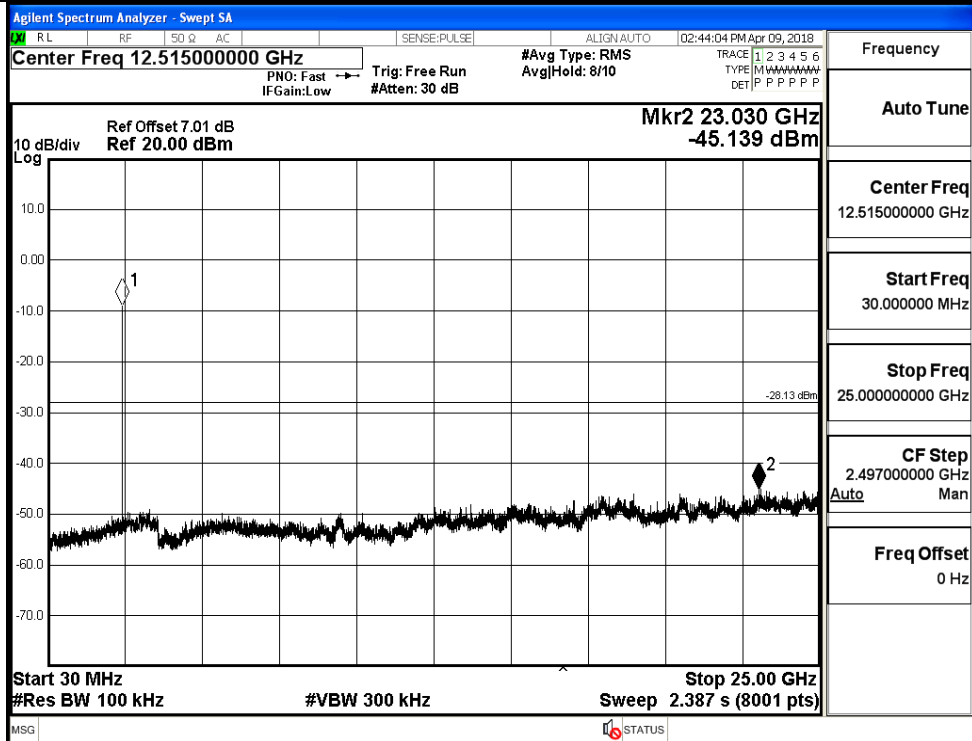


BT LE_MCH_Graphs

Pref/BT LE/MCH

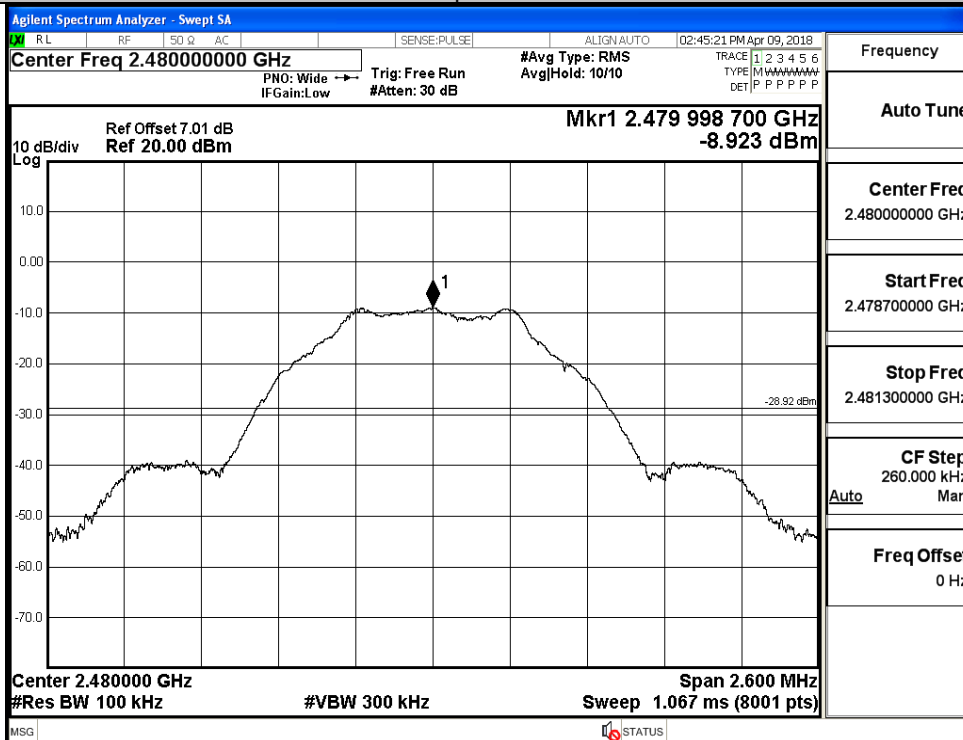


Puw/BT LE/MCH

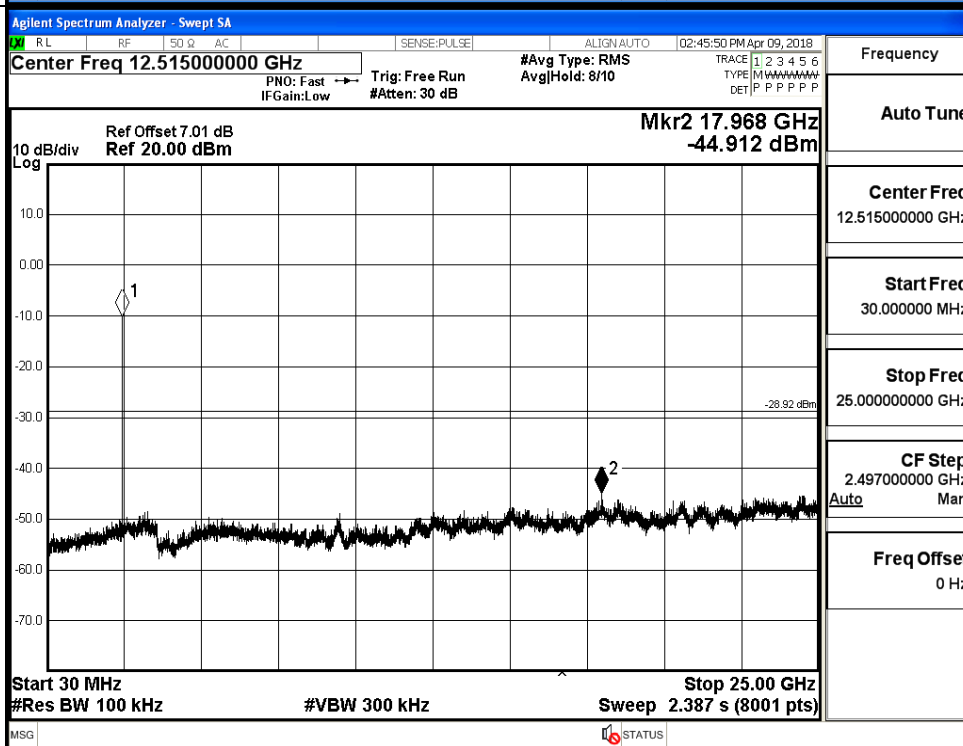


BT LE_HCH_Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

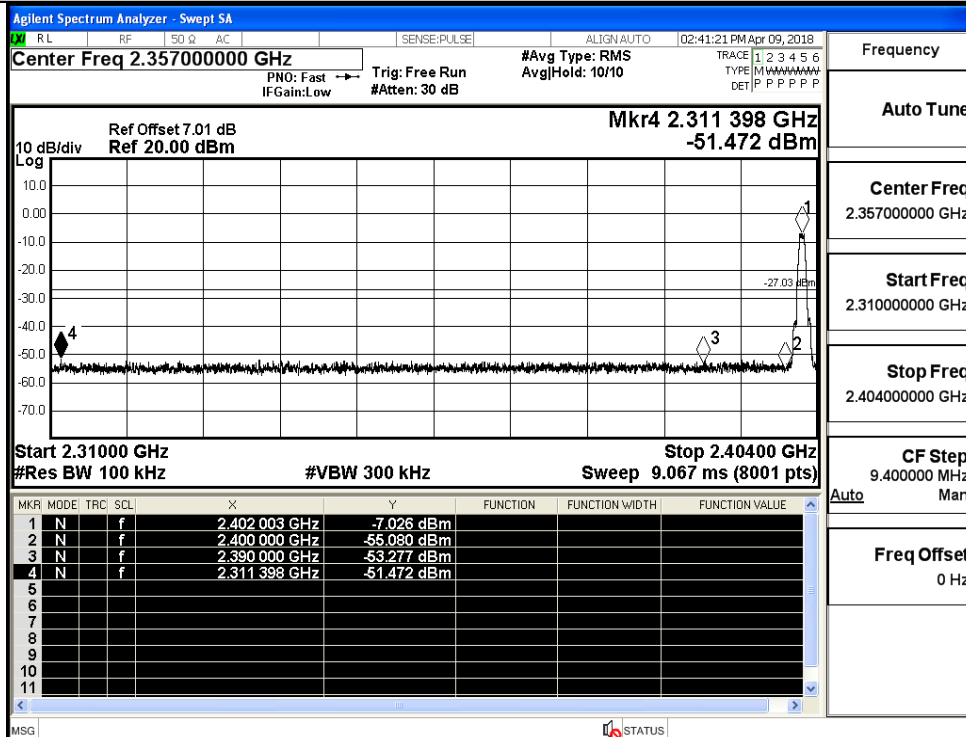


B.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-7.026	-51.472	-27.03	PASS
BT LE	HCH	-8.844	-50.910	-28.84	PASS

Test Graphs

LCH



Frequency

Auto Tune

Center Freq

2.357000000 GHz

Start Freq

2.310000000 GHz

Stop Freq

2.404000000 GHz

CF Step

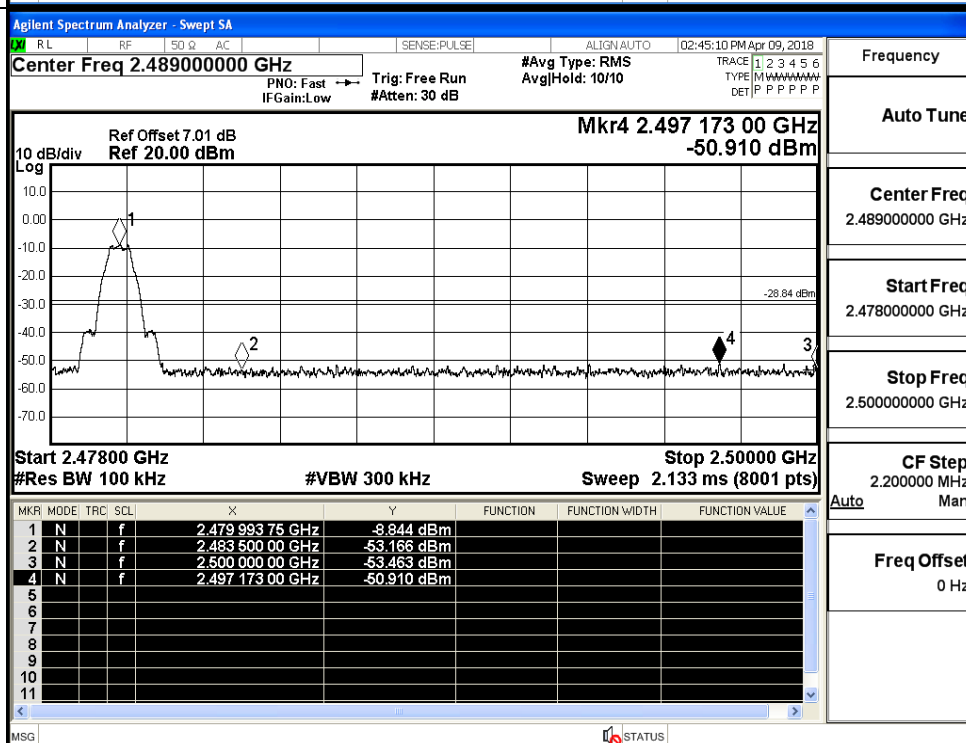
9.400000 MHz

Auto Man

Freq Offset

0 Hz

HCH



Frequency

Auto Tune

Center Freq

2.489000000 GHz

Start Freq

2.478000000 GHz

Stop Freq

2.500000000 GHz

CF Step

2.200000 MHz

Auto Man

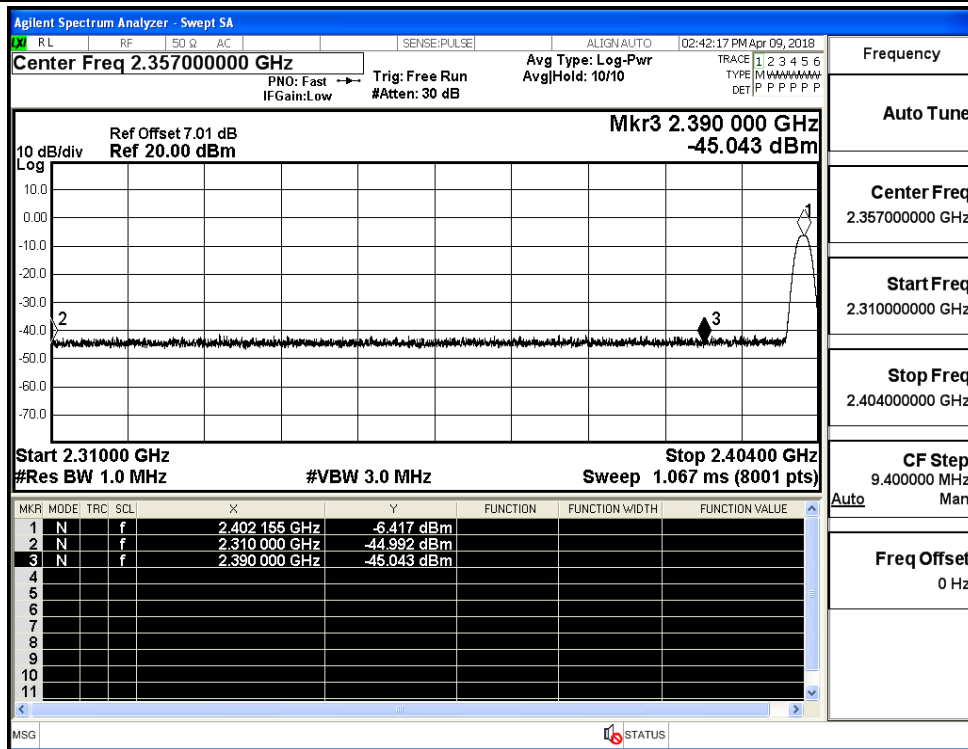
Freq Offset

0 Hz

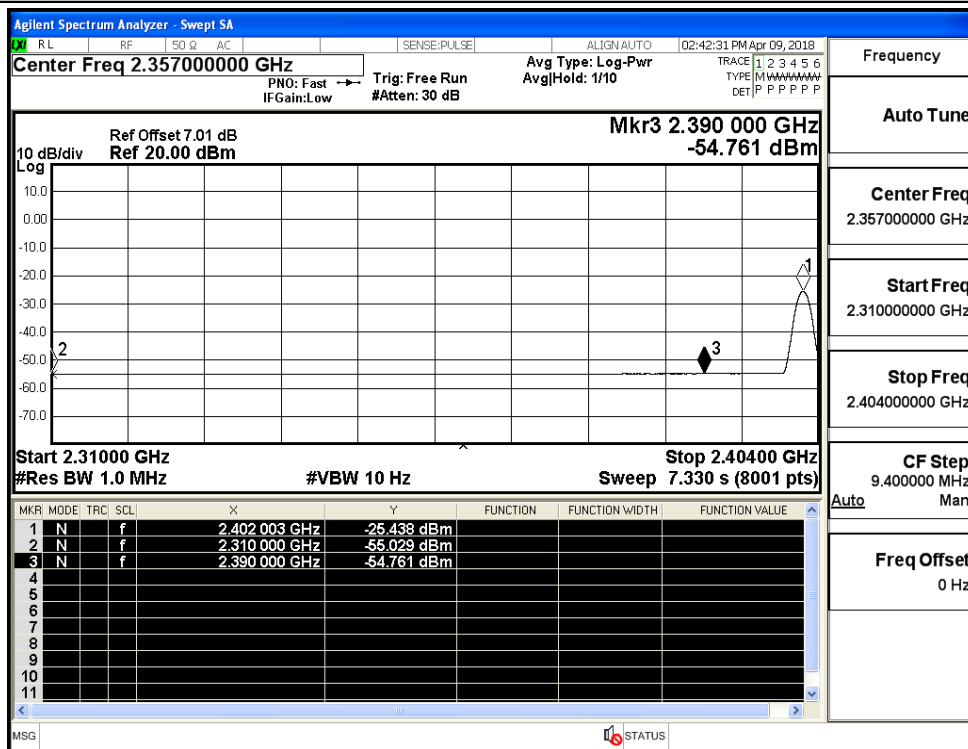
B.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
BT LE	2402	Ant1	2310.0	-44.99	2.0	0	50.27	PEAK	74	PASS
		Ant1	2310.0	-55.03	2.0	0	40.23	AV	54	PASS
		Ant1	2390.0	-45.04	2.0	0	50.21	PEAK	74	PASS
		Ant1	2390.0	-54.76	2.0	0	40.50	AV	54	PASS
	2480	Ant1	2483.5	-42.71	2.0	0	52.55	PEAK	74	PASS
		Ant1	2483.5	-54.56	2.0	0	40.70	AV	54	PASS
		Ant1	2500.0	-44.14	2.0	0	51.12	PEAK	74	PASS
		Ant1	2500.0	-54.42	2.0	0	40.84	AV	54	PASS

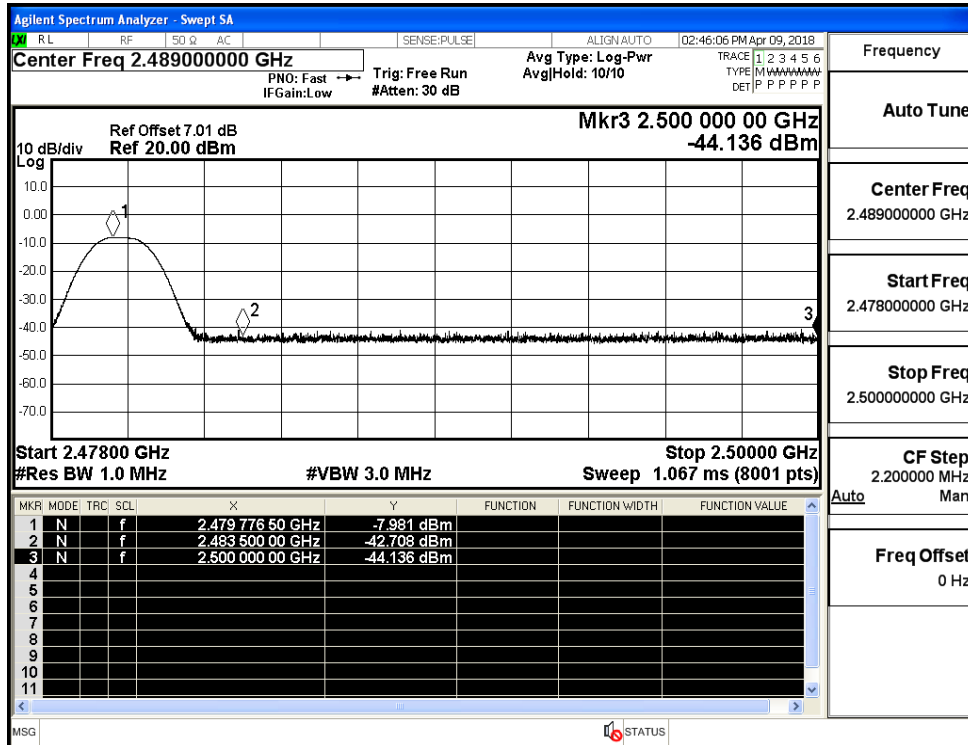
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



Restrict-band band-edge measurements_BT LE_2402_Ant1_AV



Restrict-band band-edge measurements_BT LE_2480_Ant1_PEAK



Restrict-band band-edge measurements_BT LE_2480_Ant1_AV

