

Appendix A

RF Test Data for BT V5.0 (BT LE) (Conducted Measurement)

Product Name: Hand-held Barcode Scanner

Trade Mark: Newland

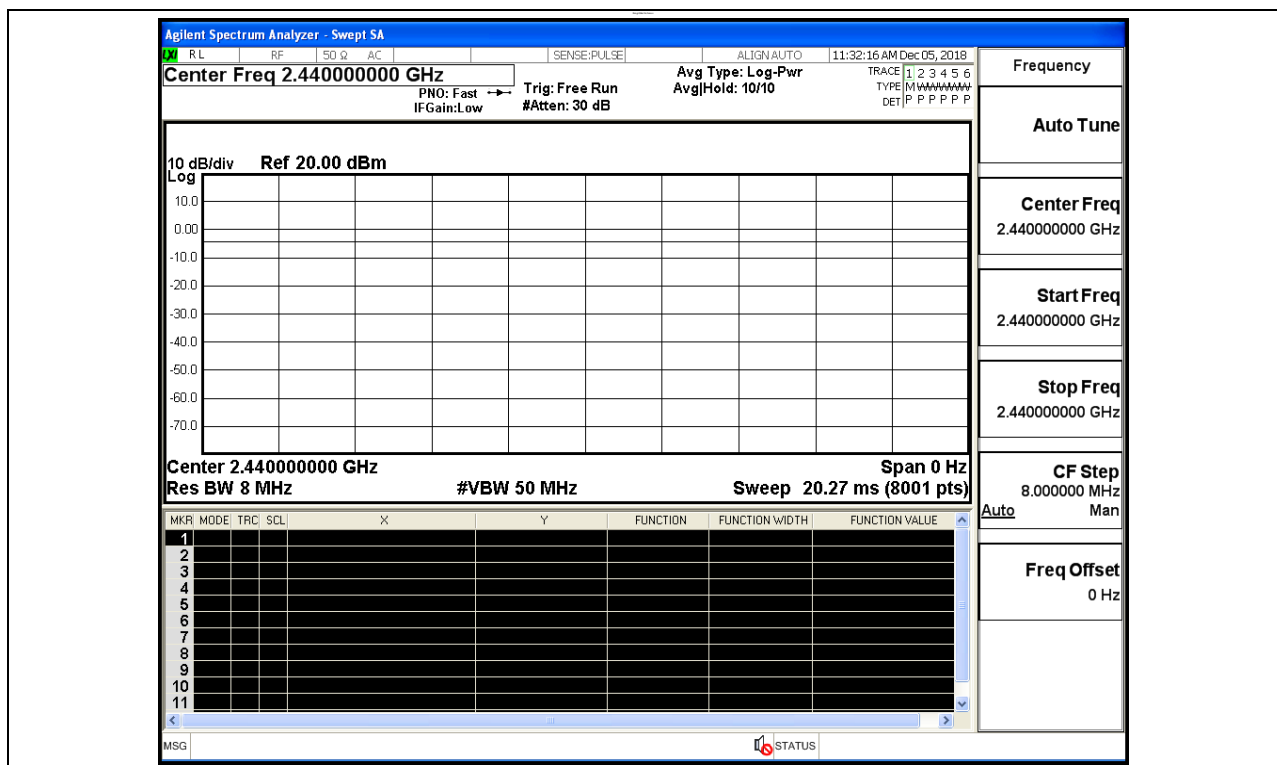
Test Model: NLS-HR52

Environmental Conditions

Temperature:	23.6 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond.Lu
Supervised by:	Jayden.Zhuo

A.1 Duty Cycle

Test Mode	Test Channel	Data Rate	Ant	Duty Cycle[%]	Verdict
BT LE	2440	2M	Ant1	100	PASS

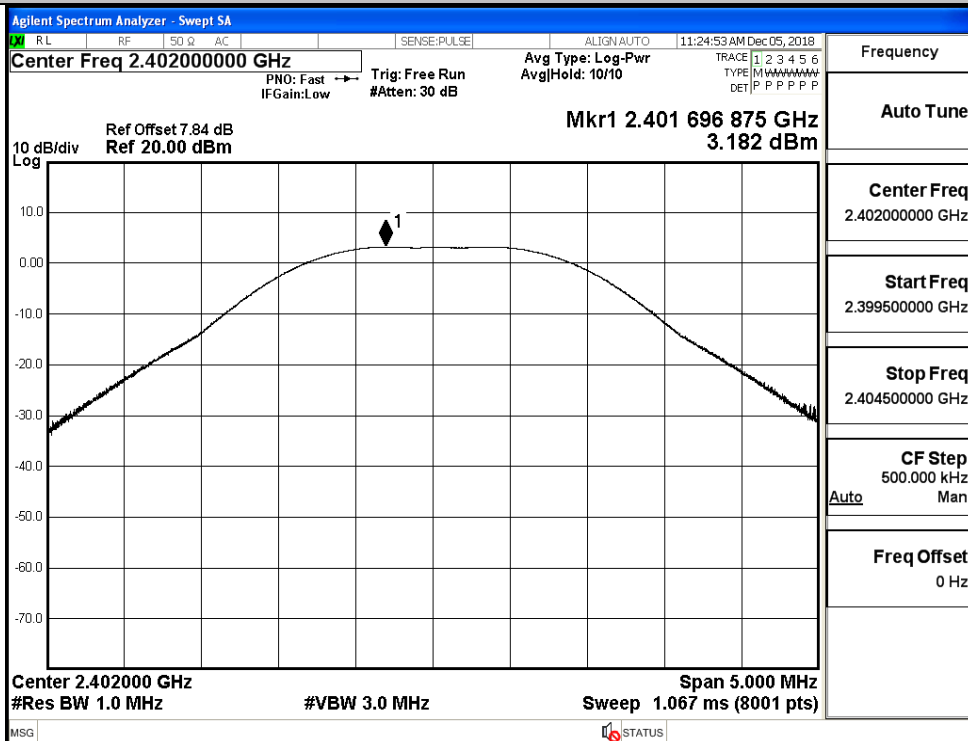


A.2 Maximum Conducted Peak Output Power

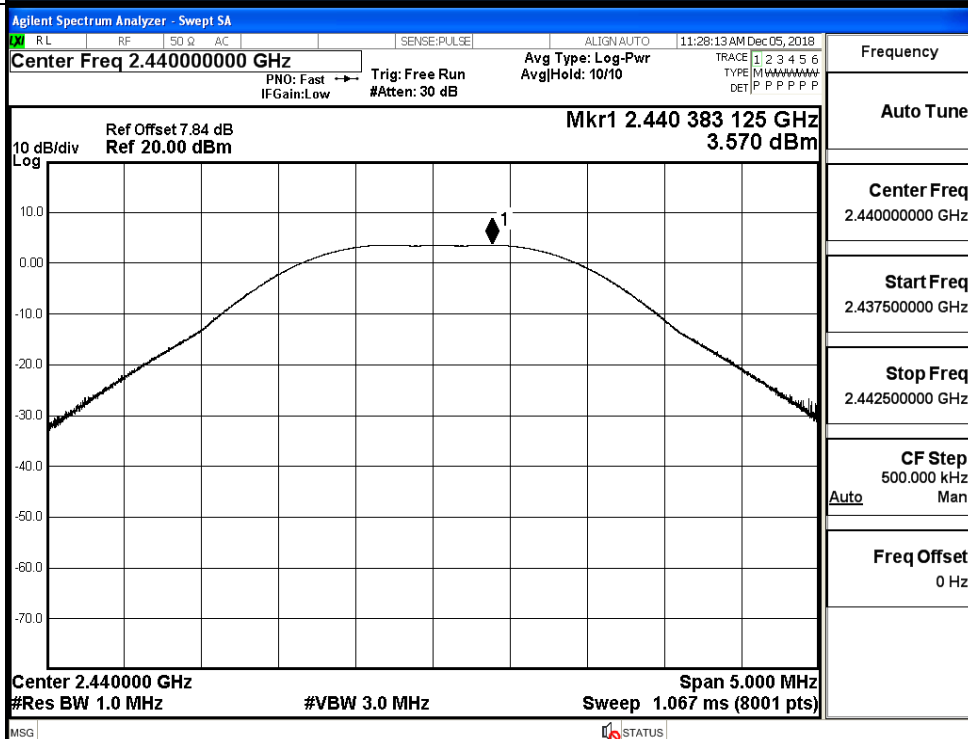
Mode	Data Rate	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	2M	LCH	3.182	30	PASS
BT LE	2M	MCH	3.570	30	PASS
BT LE	2M	HCH	4.179	30	PASS

Test Graphs

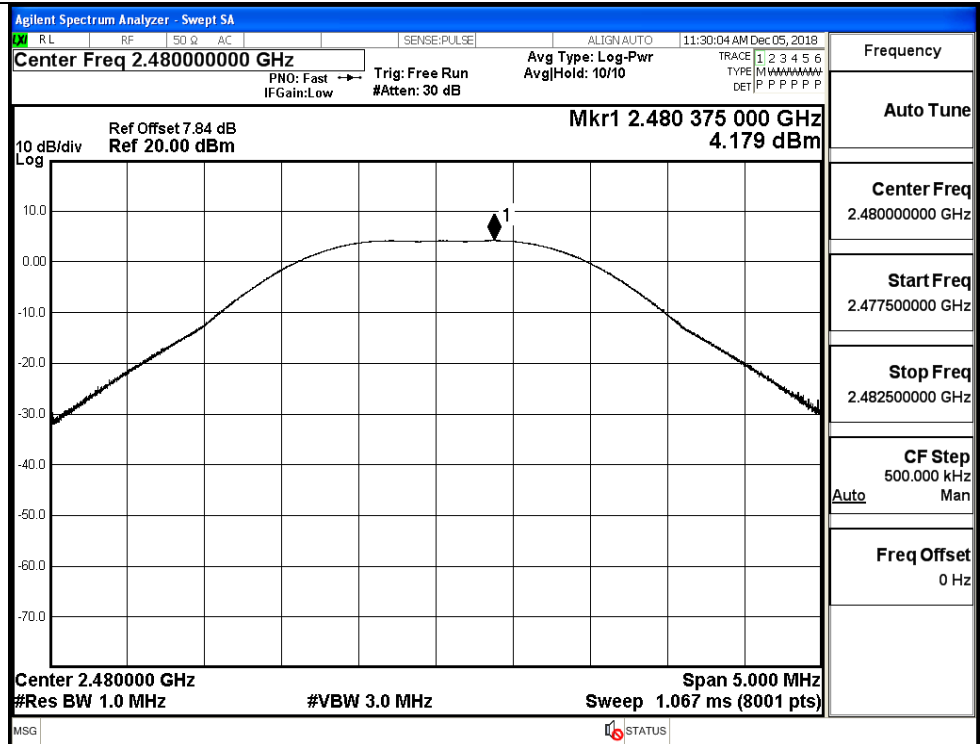
LCH



MCH



HCH

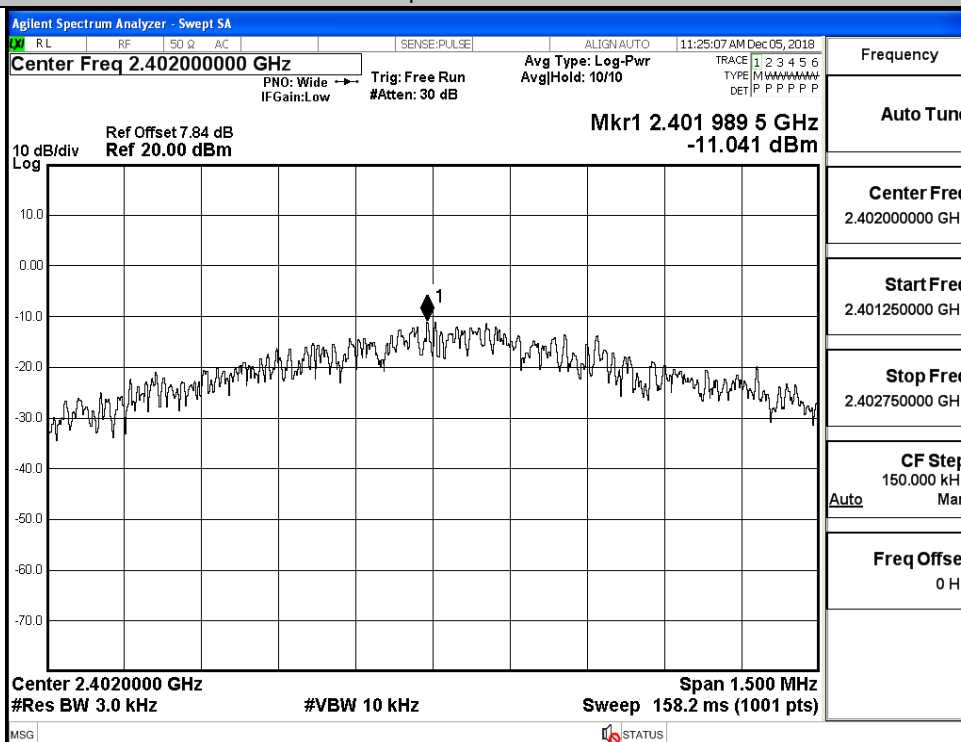


A.3 Maximum Power Spectral Density

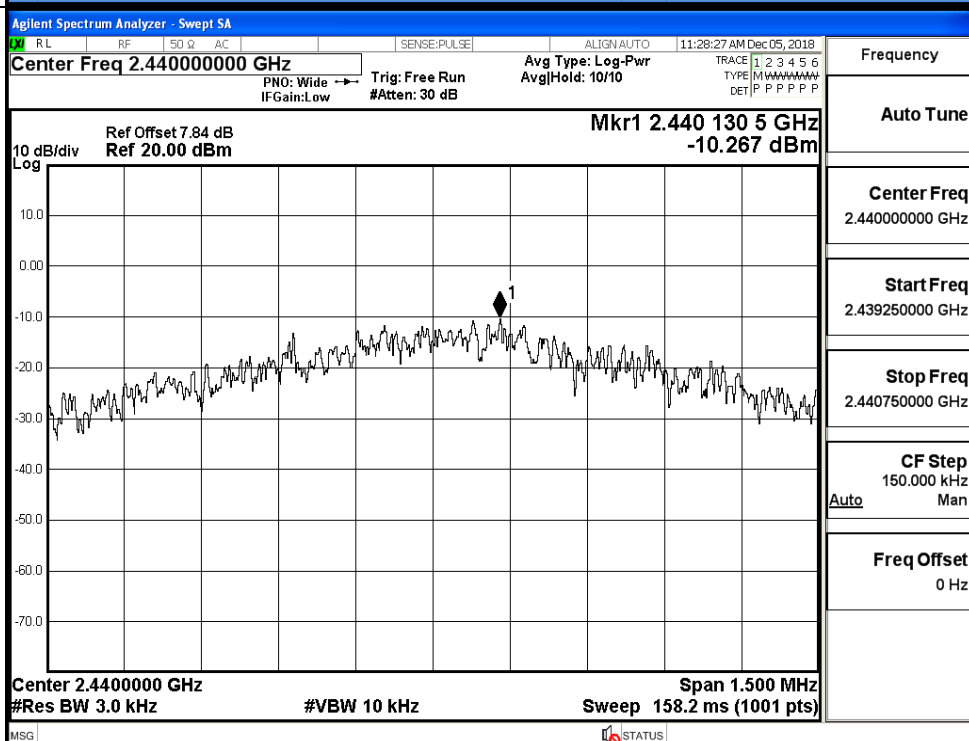
Mode	Data Rate	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	2M	LCH	-11.041	8	PASS
BT LE	2M	MCH	-10.267	8	PASS
BT LE	2M	HCH	-9.441	8	PASS

Test Graphs

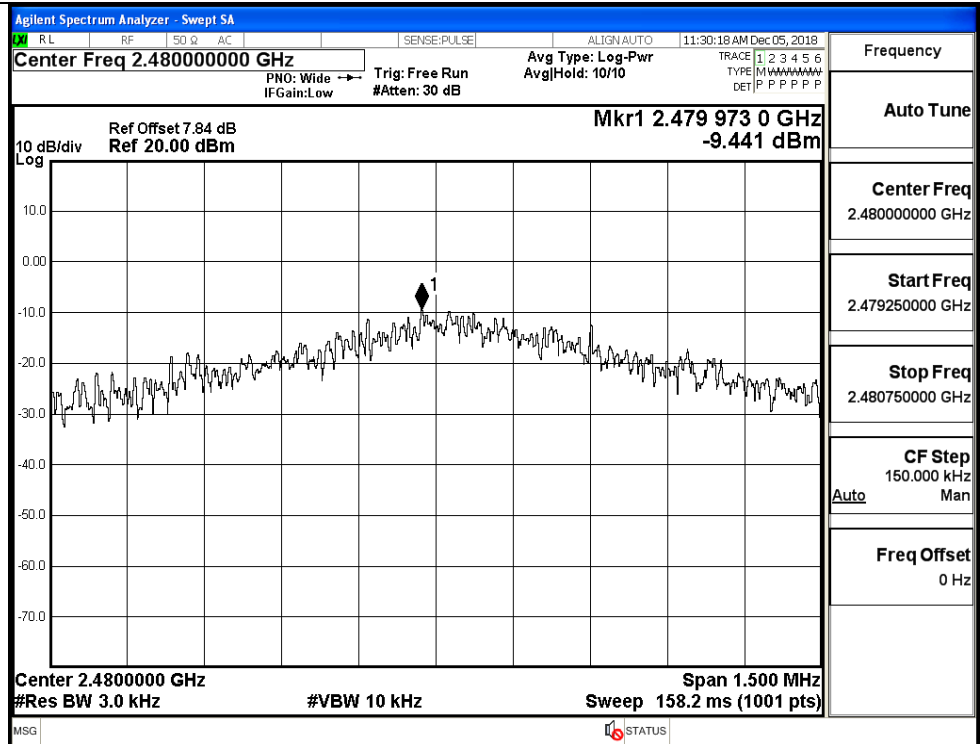
LCH



MCH



HCH

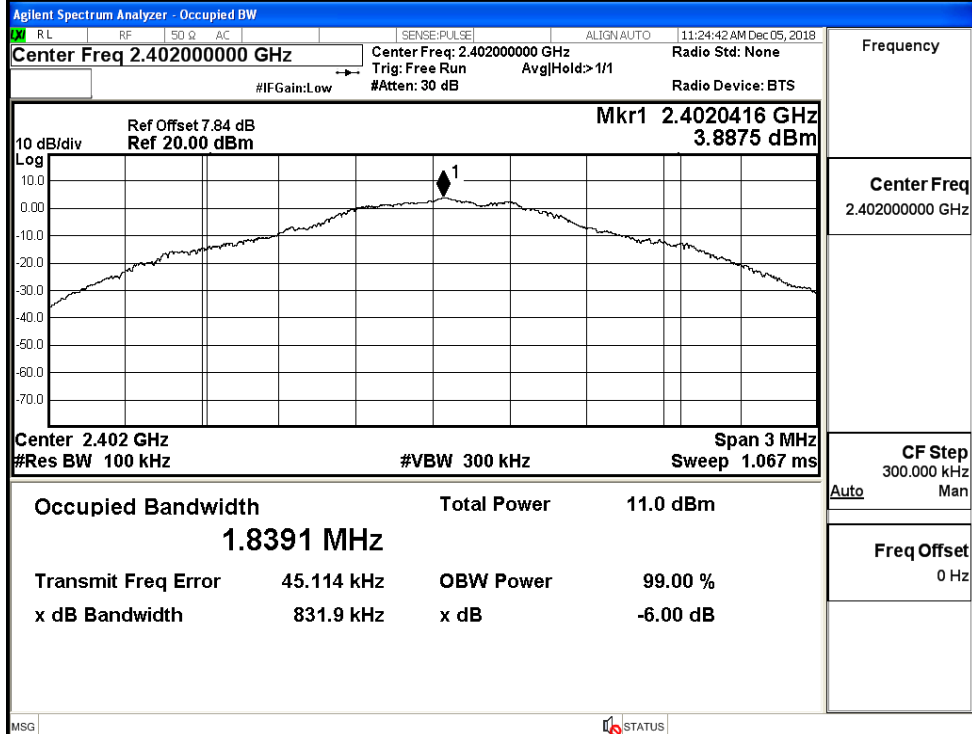


A.4 6dB Bandwidth

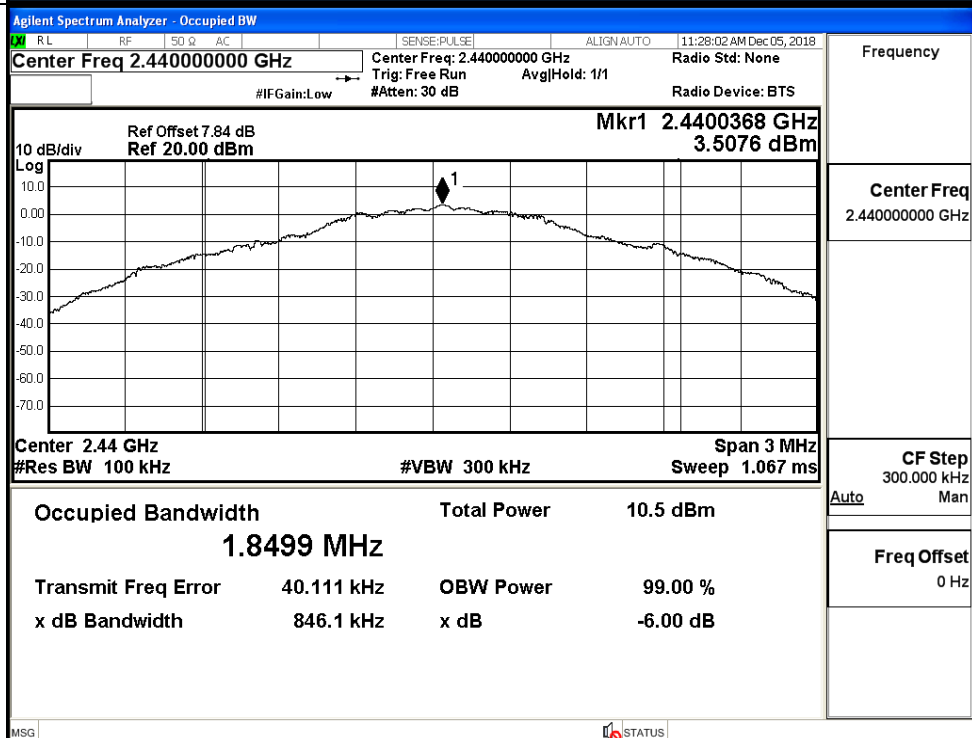
Mode	Data Rate	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	2M	LCH	0.8319	≥ 0.5	PASS
BT LE	2M	MCH	0.8461	≥ 0.5	PASS
BT LE	2M	HCH	0.8005	≥ 0.5	PASS

Test Graphs

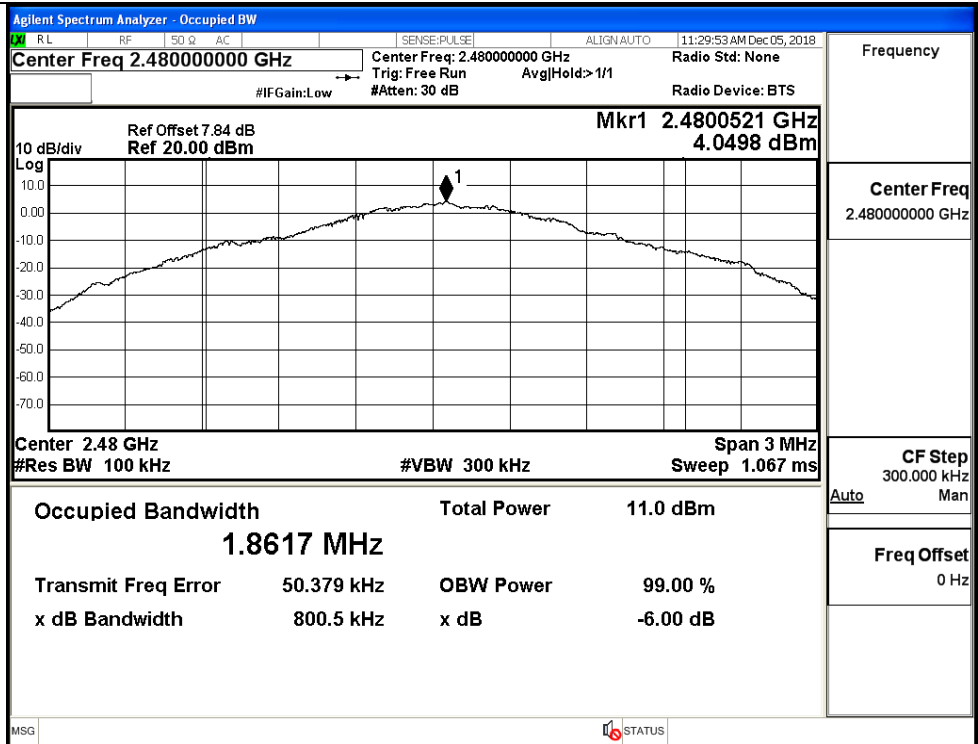
LCH



MCH



HCH

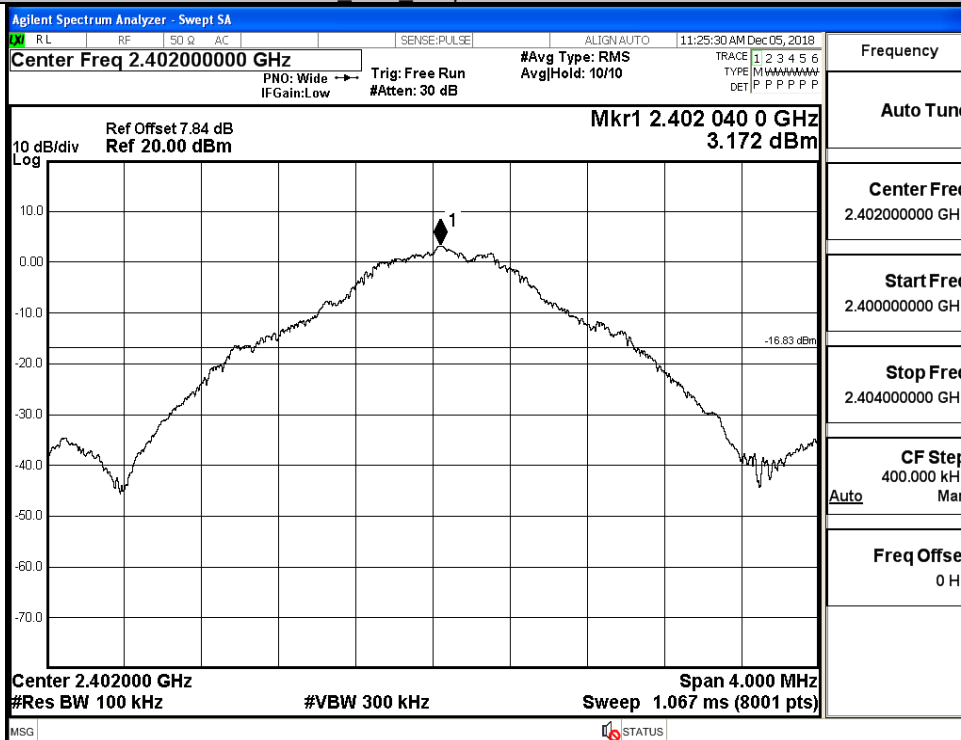


A.5 RF Conducted Spurious Emissions

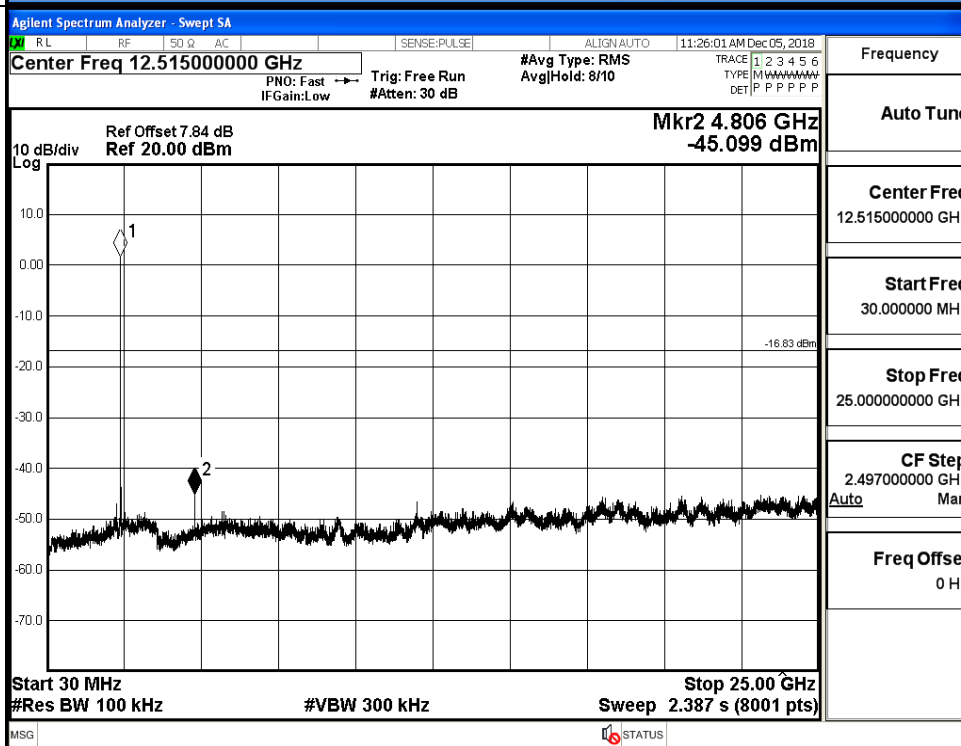
Mode	Channel	Data Rate	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	2M	3.172	-45.099	-16.828	PASS
BT LE	MCH	2M	3.389	-44.257	-16.611	PASS
BT LE	HCH	2M	3.989	-43.780	-16.011	PASS

BT LE LCH Graphs

Pref/BT LE/LCH

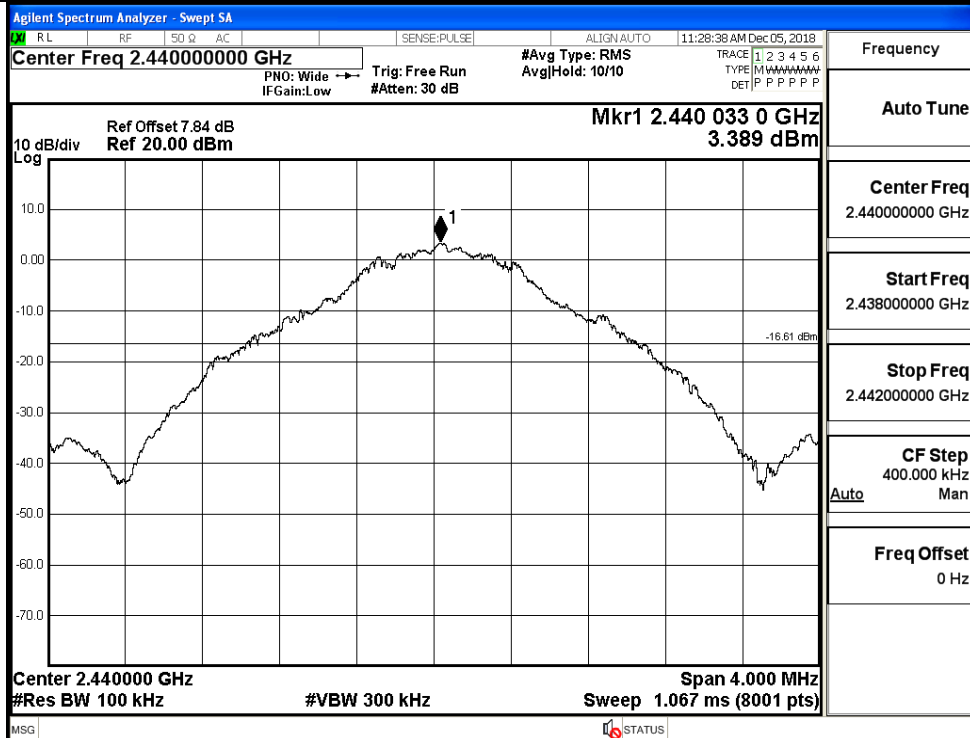


Puw/BT LE/LCH

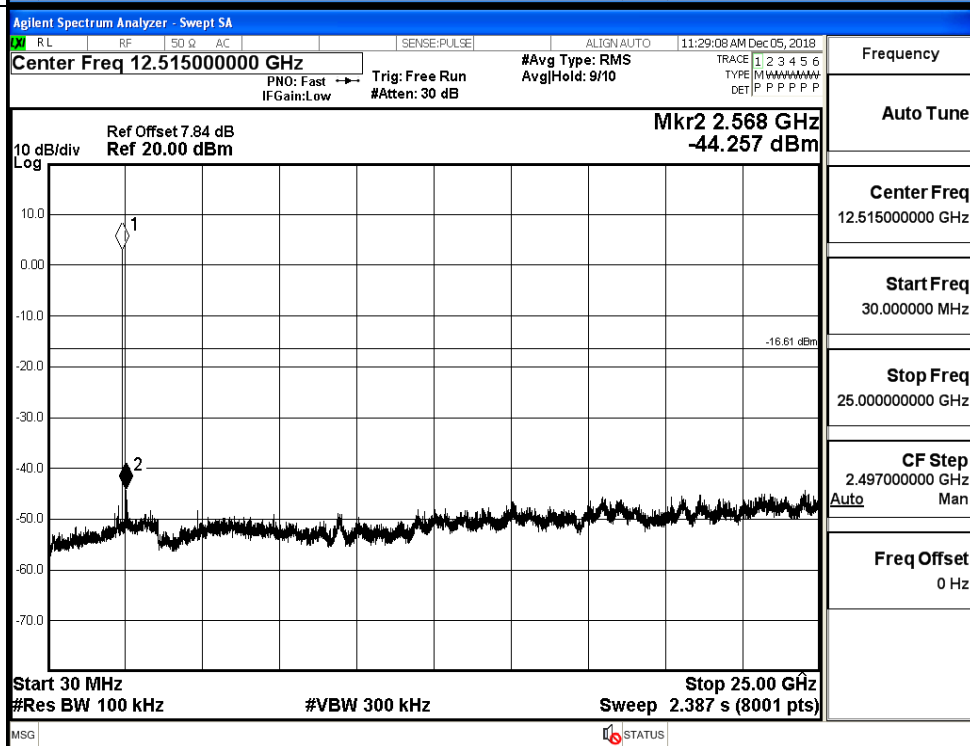


BT LE MCH Graphs

Pref/BT LE/MCH

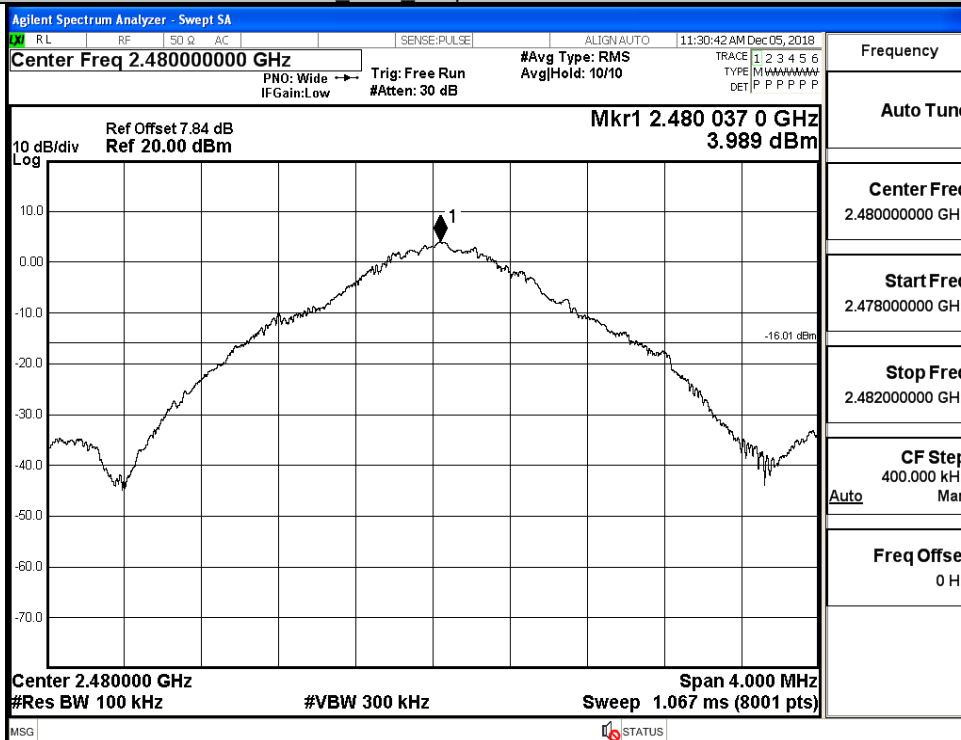


Puw/BT LE/MCH

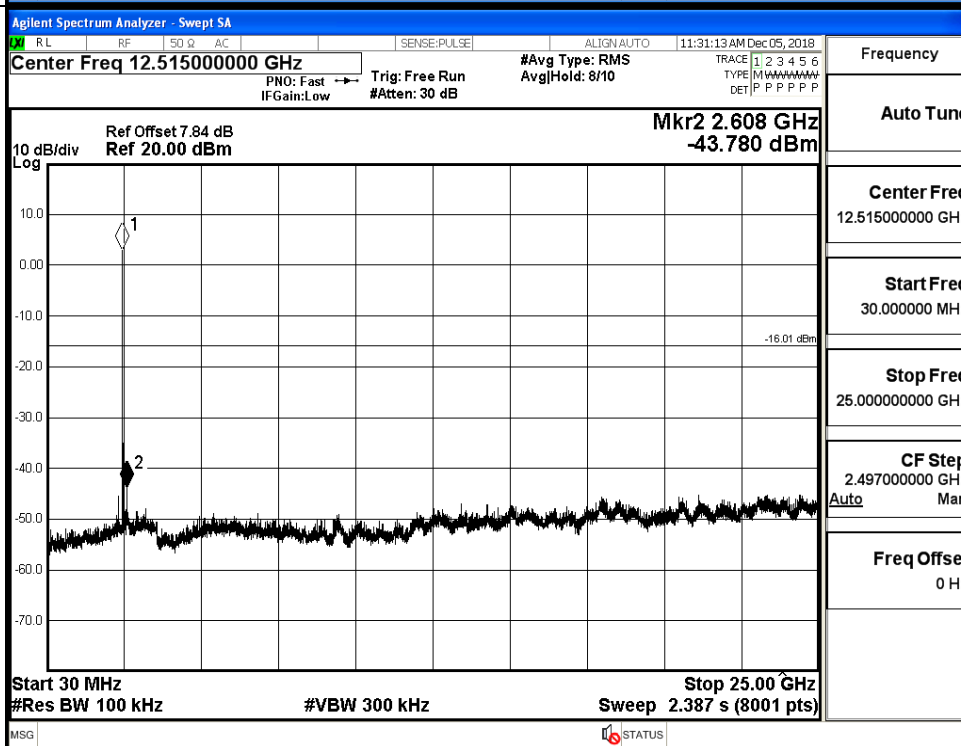


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

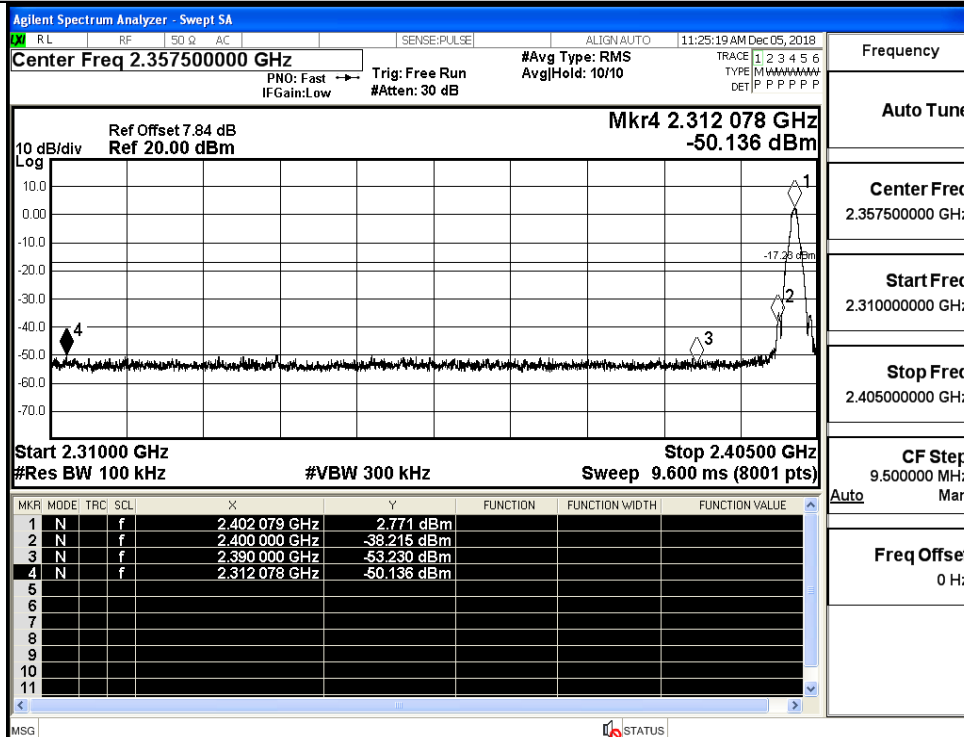


A.6 Band-edge for RF Conducted Emissions

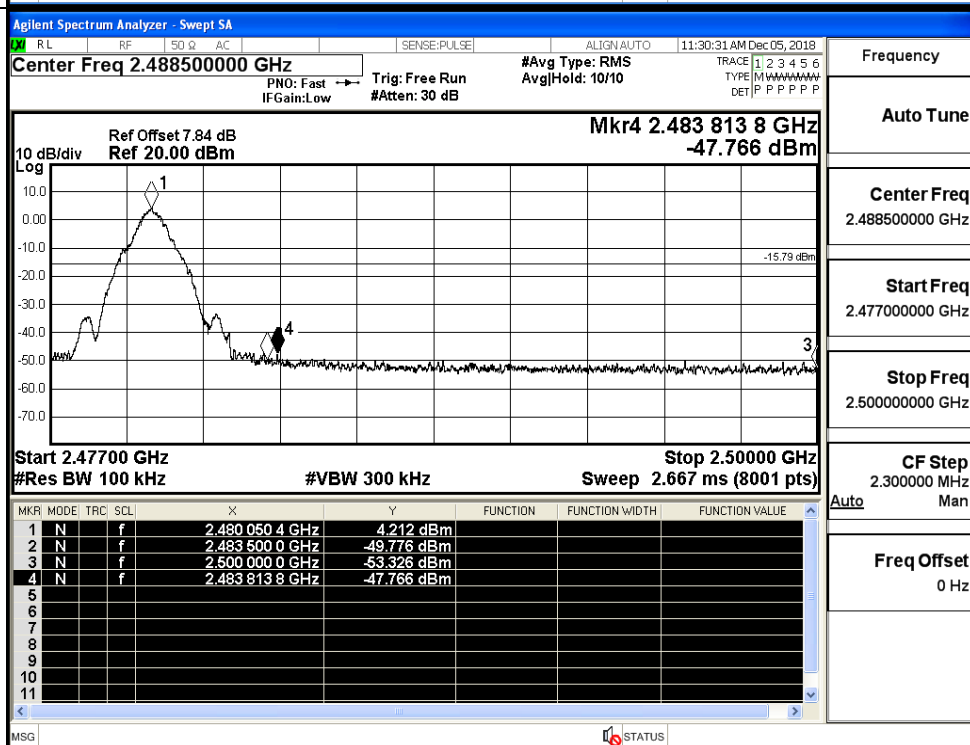
Mode	Data Rate	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	2M	LCH	2.771	-50.136	-17.23	PASS
BT LE	2M	HCH	4.212	-47.766	-15.79	PASS

Test Graphs

LCH



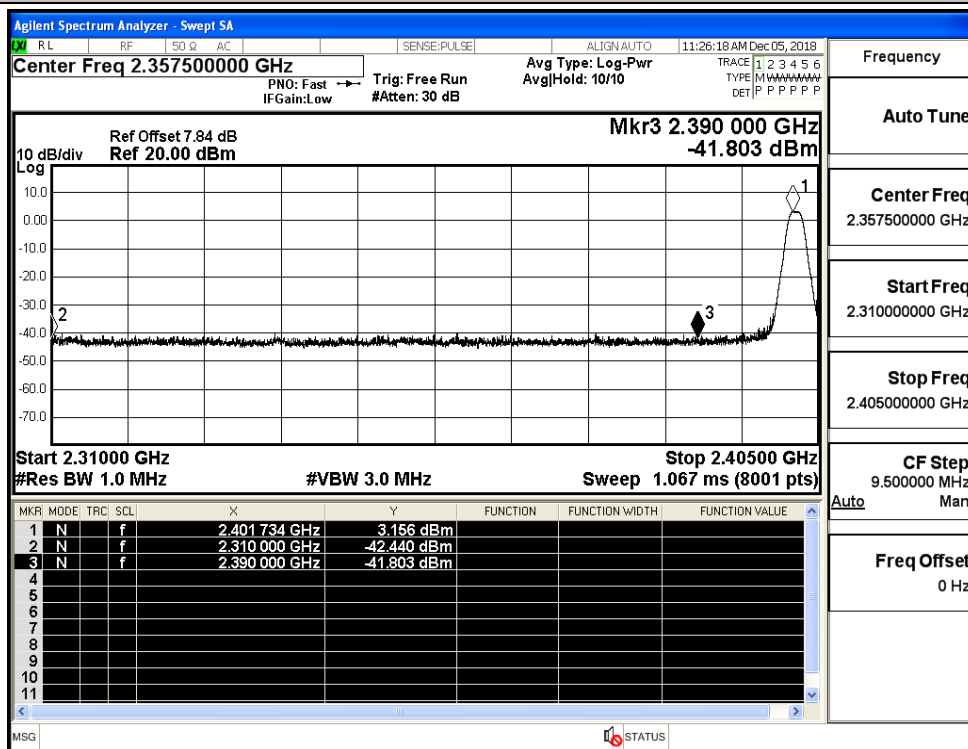
HCH



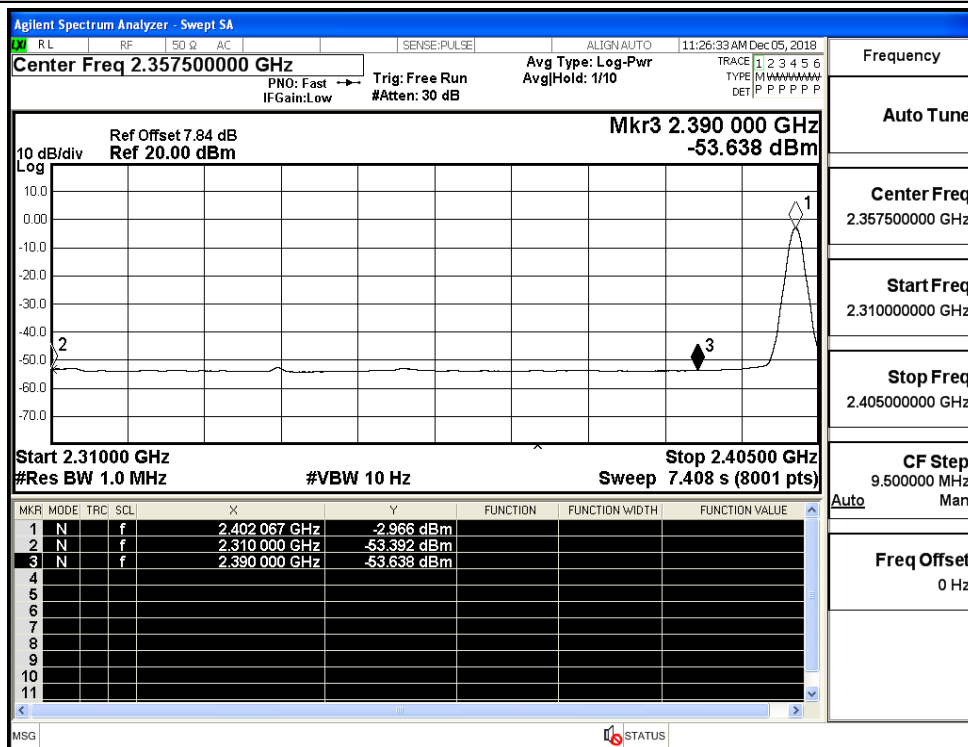
A.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Data Rate	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
BT LE	2402	2M	Ant1	2310.0	-42.44	2.0	0	54.82	PEAK	74	PASS
			Ant1	2310.0	-53.39	2.0	0	43.87	AV	54	PASS
			Ant1	2390.0	-41.80	2.0	0	55.45	PEAK	74	PASS
			Ant1	2390.0	-53.64	2.0	0	43.62	AV	54	PASS
	2480	2M	Ant1	2483.5	-34.83	2.0	0	62.43	PEAK	74	PASS
			Ant1	2483.5	-50.12	2.0	0	47.13	AV	54	PASS
			Ant1	2500.0	-43.01	2.0	0	54.25	PEAK	74	PASS
			Ant1	2500.0	-53.13	2.0	0	44.13	AV	54	PASS

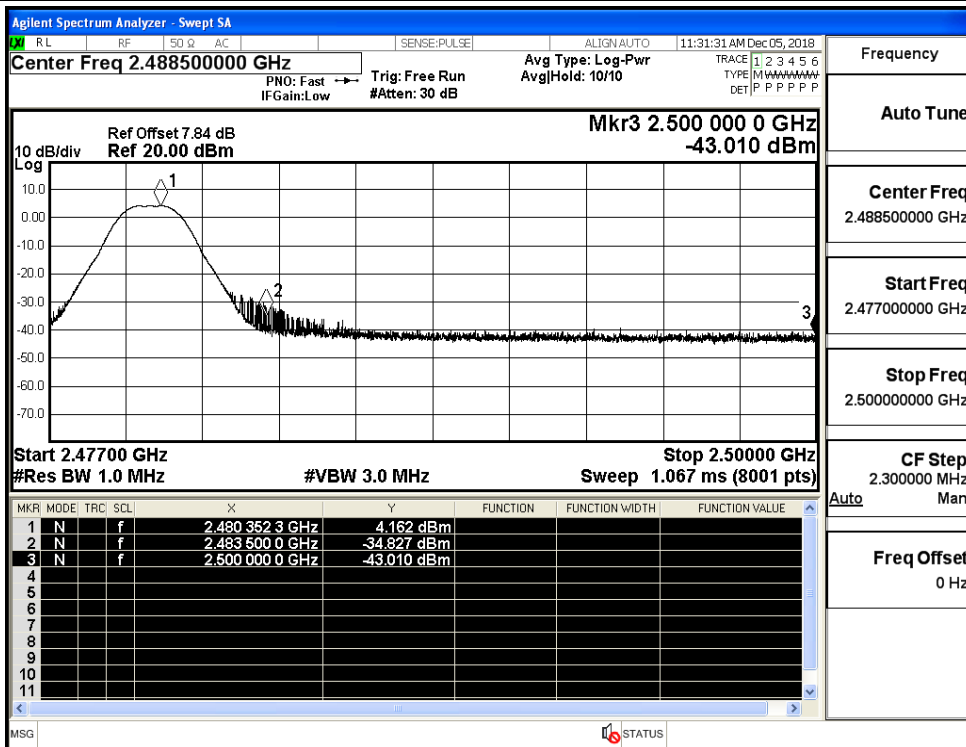
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

