

Appendix A

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

Product Name: Battery Operated LTE Cellular GPS Tracker

Trade Mark: Phillips Connect Technologies

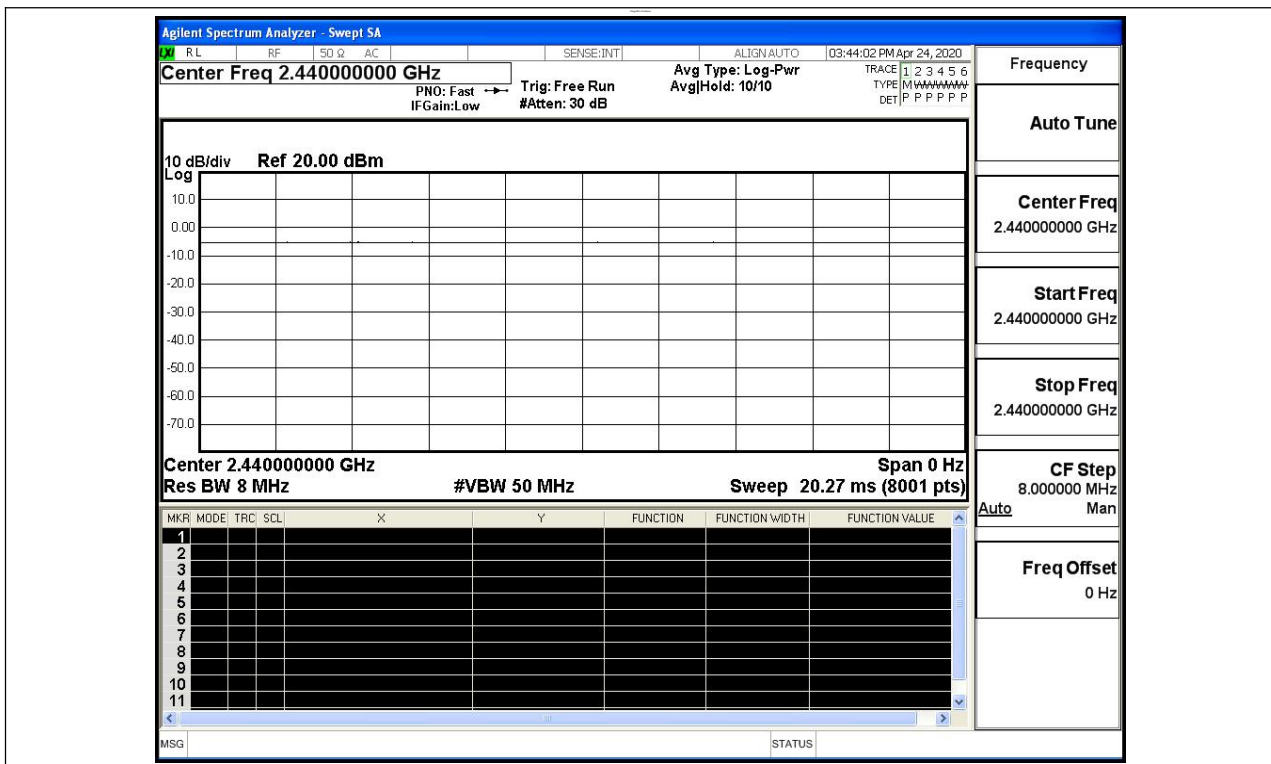
Test Model: Dagger67

Environmental Conditions

Temperature:	23.1° C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond.Lu
Supervised by:	Tom.Liu

A.1 Duty Cycle

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

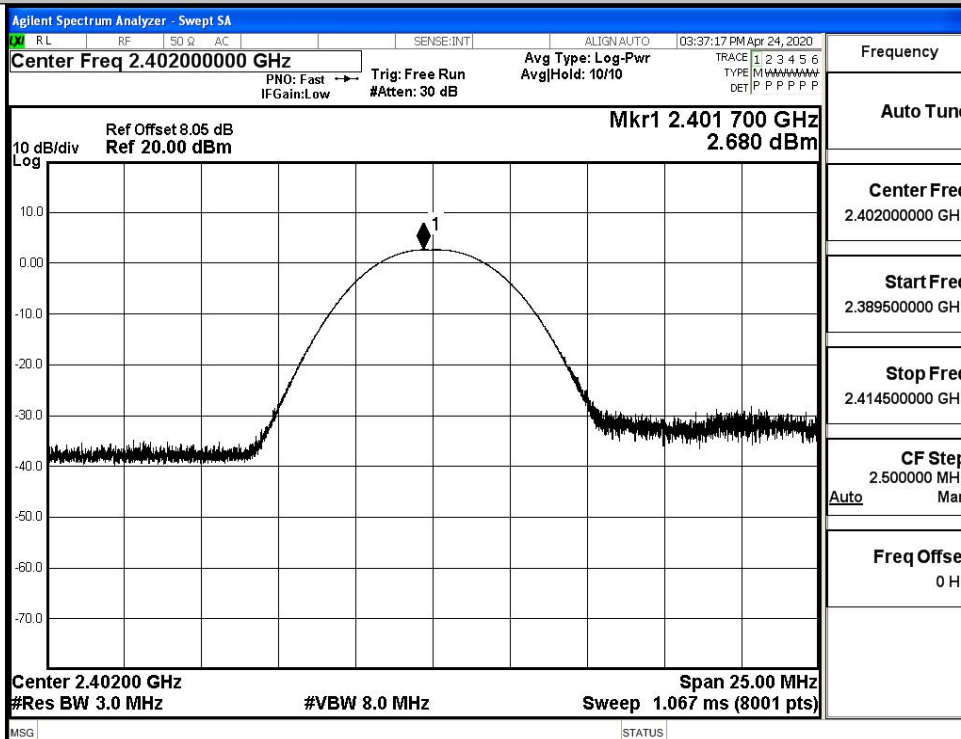


A.2 Maximum Conducted Peak Output Power

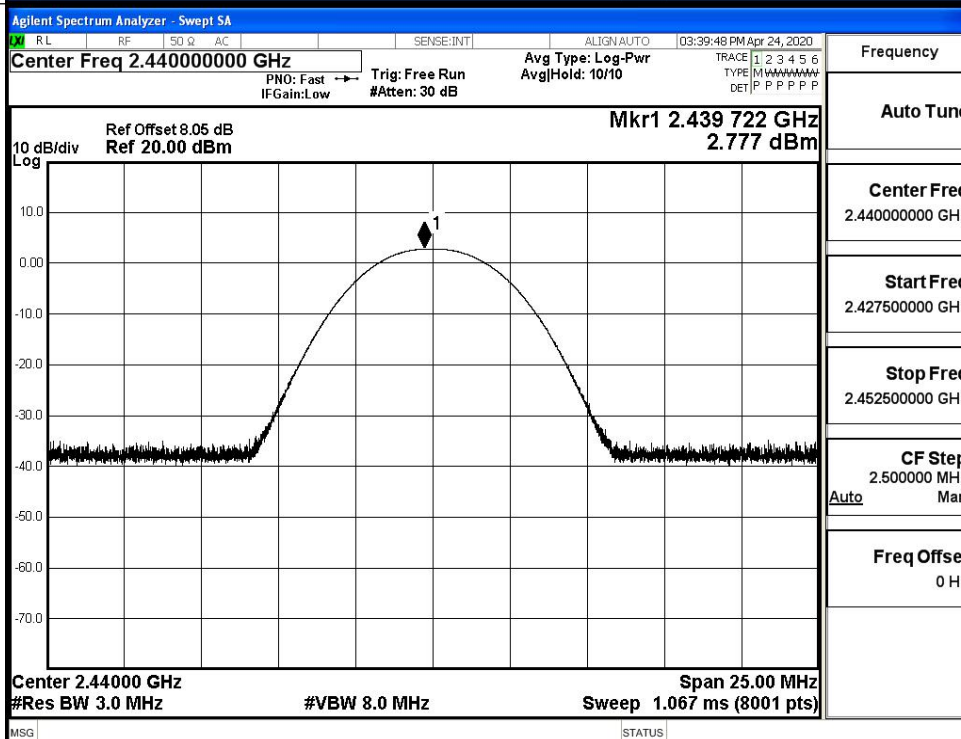
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	2.68	30	PASS
BT LE	MCH	2.777	30	PASS
BT LE	HCH	2.763	30	PASS

Test Graphs

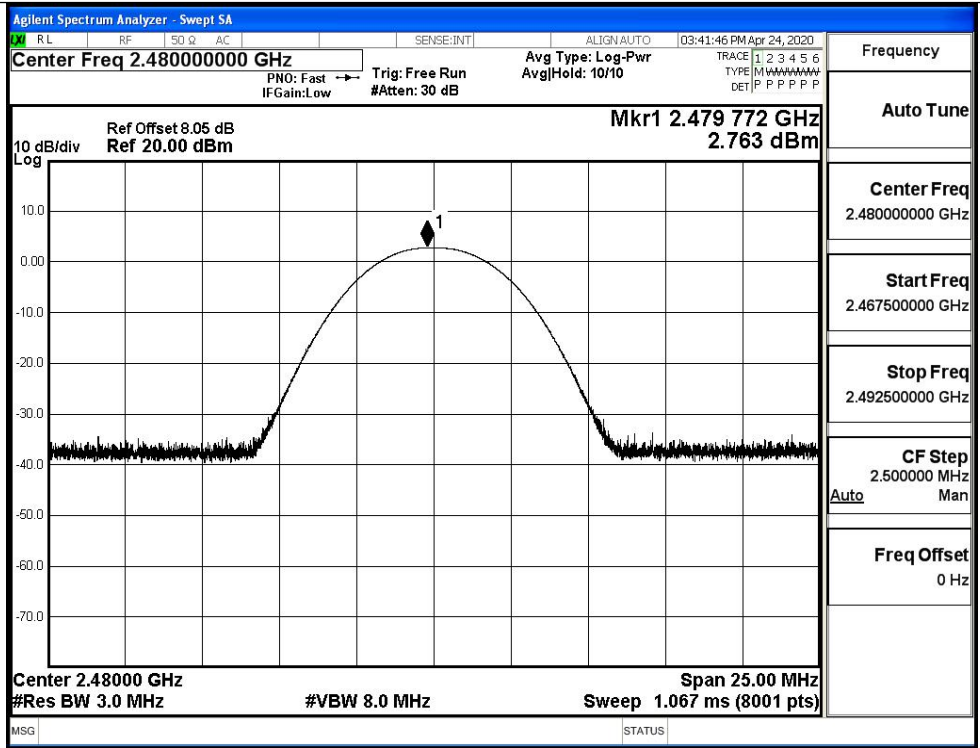
LCH



MCH



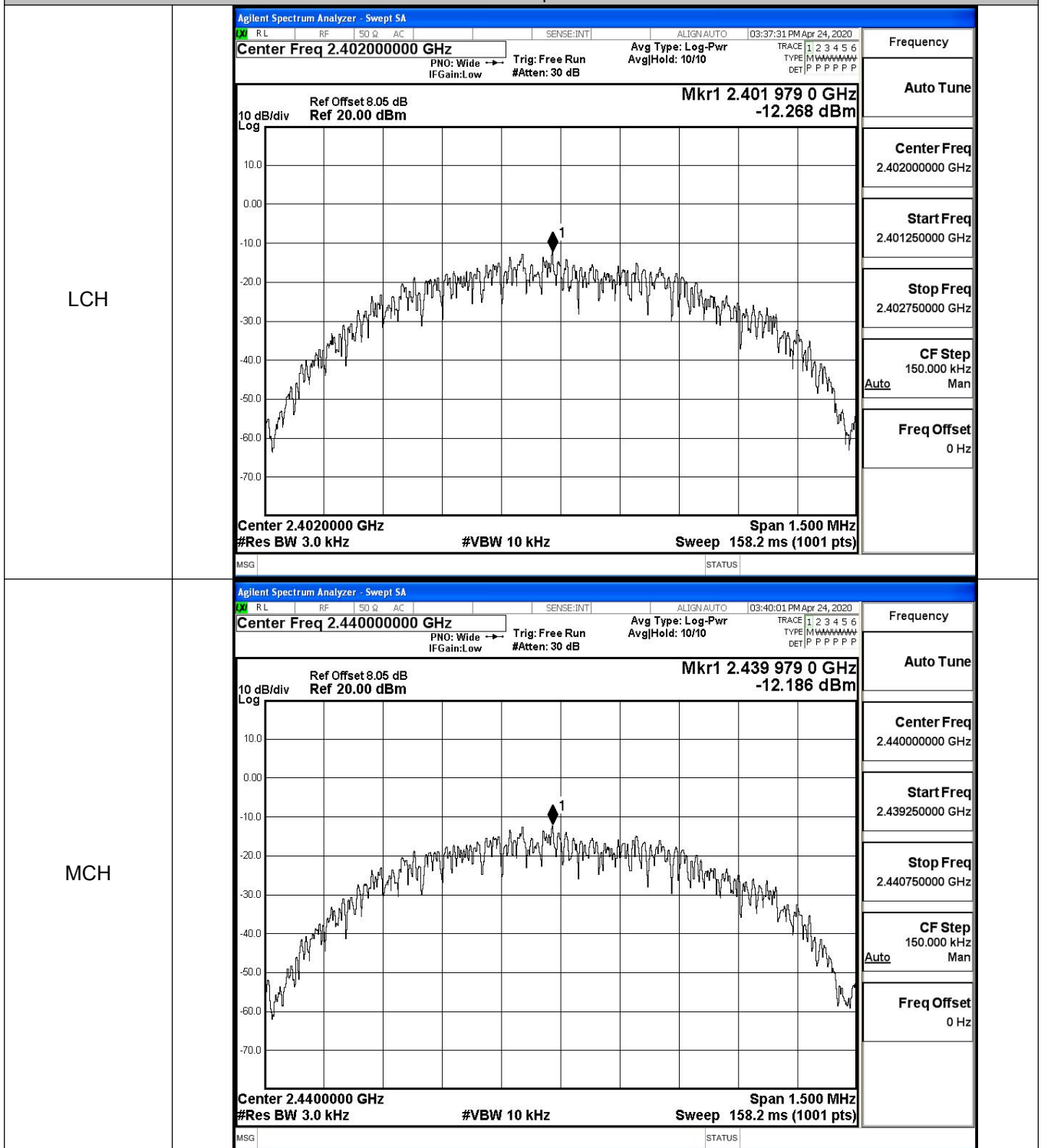
HCH



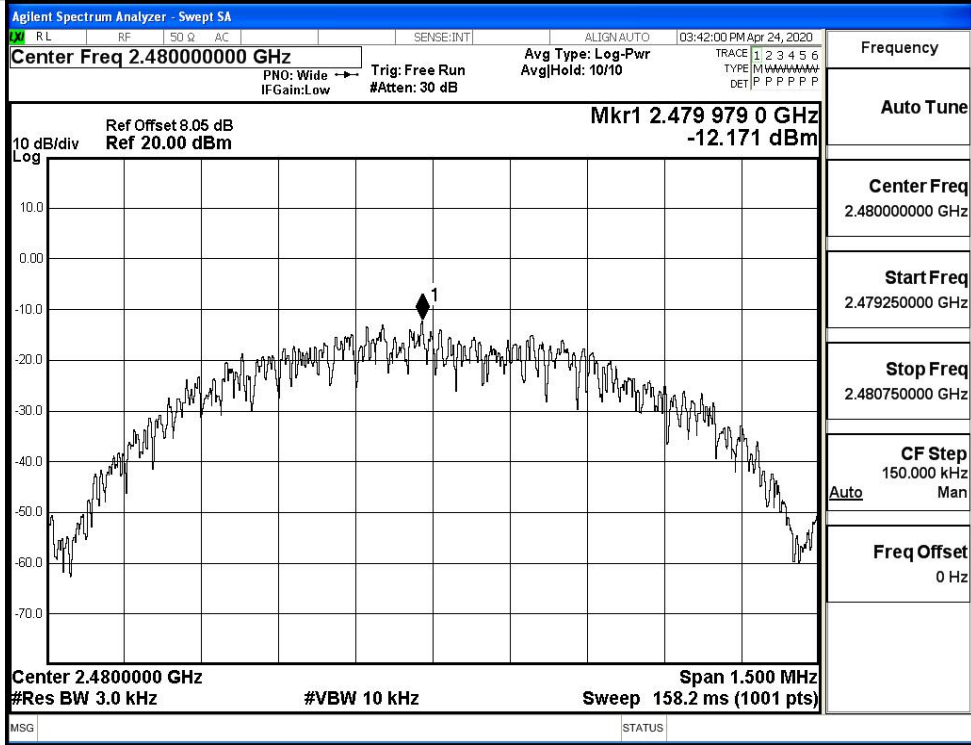
A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-12.268	8	PASS
BT LE	MCH	-12.186	8	PASS
BT LE	HCH	-12.171	8	PASS

Test Graphs



HCH

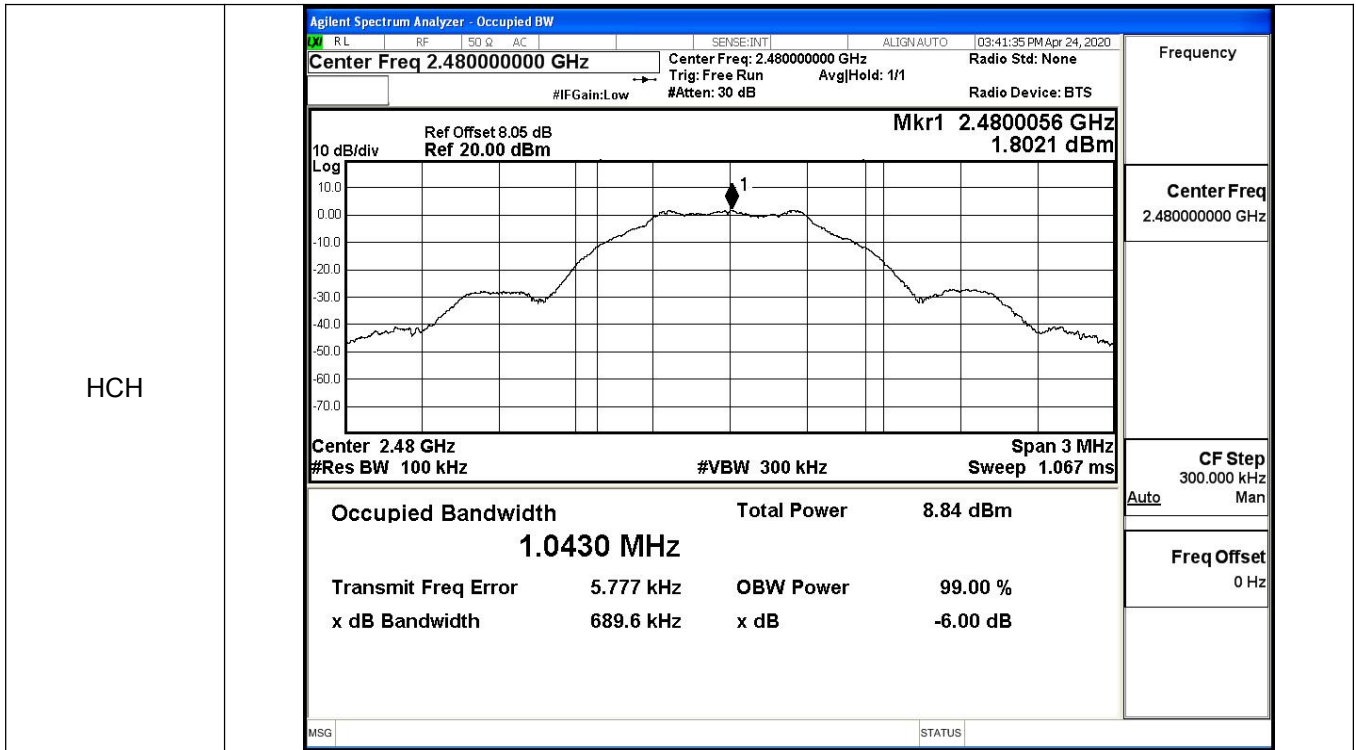


A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6949	≥0.5	PASS
BT LE	MCH	0.6933	≥0.5	PASS
BT LE	HCH	0.6896	≥0.5	PASS

Test Graphs

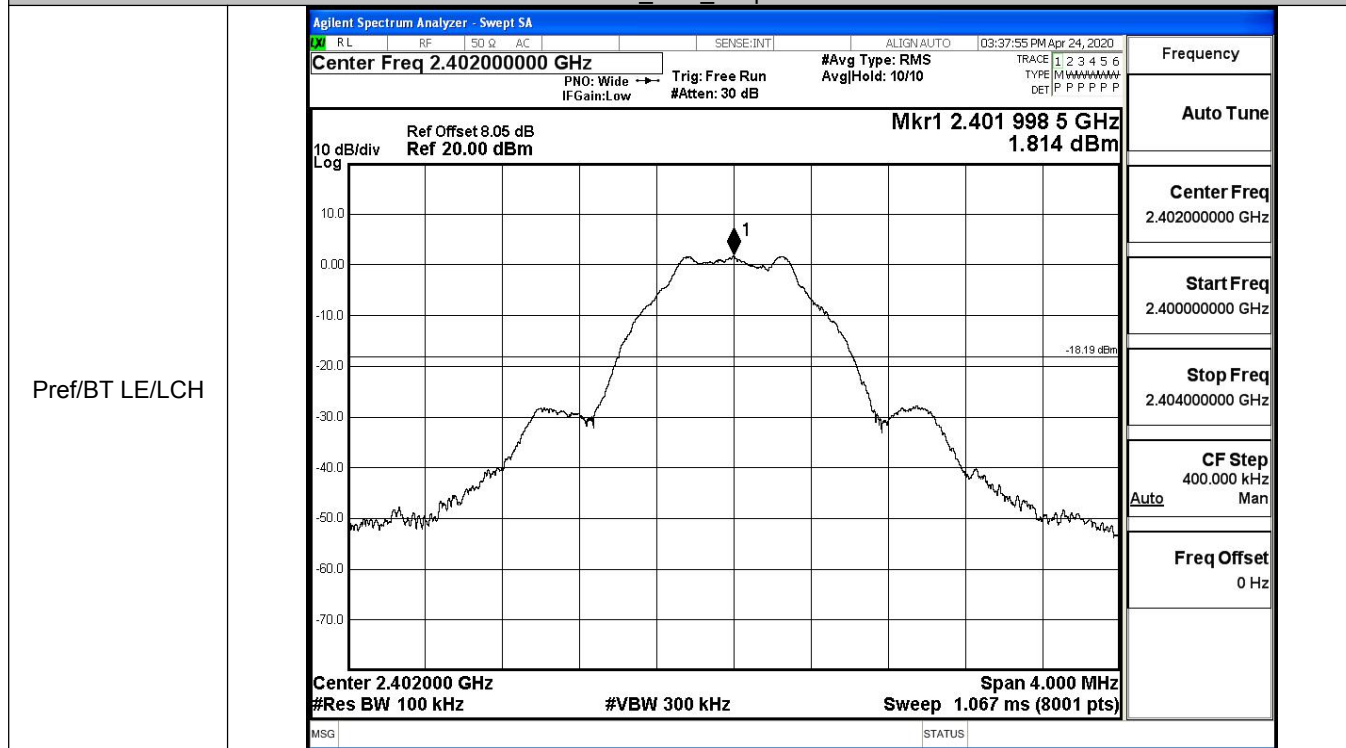
LCH	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.40200000 GHz</p> <p>Center Freq: 2.402000000 GHz</p> <p>Mkr1 2.4019929 GHz</p> <p>1.7844 dBm</p> <p>Occupied Bandwidth 1.0518 MHz</p> <p>Total Power 8.86 dBm</p> <p>Transmit Freq Error 6.406 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 694.9 kHz</p> <p>x dB -6.00 dB</p>	<p>Frequency</p> <p>Center Freq 2.402000000 GHz</p> <p>CF Step 300.000 kHz</p> <p>Freq Offset 0 Hz</p>
	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.44000000 GHz</p> <p>Center Freq: 2.440000000 GHz</p> <p>Mkr1 2.439997 GHz</p> <p>1.9038 dBm</p> <p>Occupied Bandwidth 1.0478 MHz</p> <p>Total Power 8.91 dBm</p> <p>Transmit Freq Error 5.763 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 693.3 kHz</p> <p>x dB -6.00 dB</p>	<p>Frequency</p> <p>Center Freq 2.440000000 GHz</p> <p>CF Step 300.000 kHz</p> <p>Freq Offset 0 Hz</p>



A.5 RF Conducted Spurious Emissions

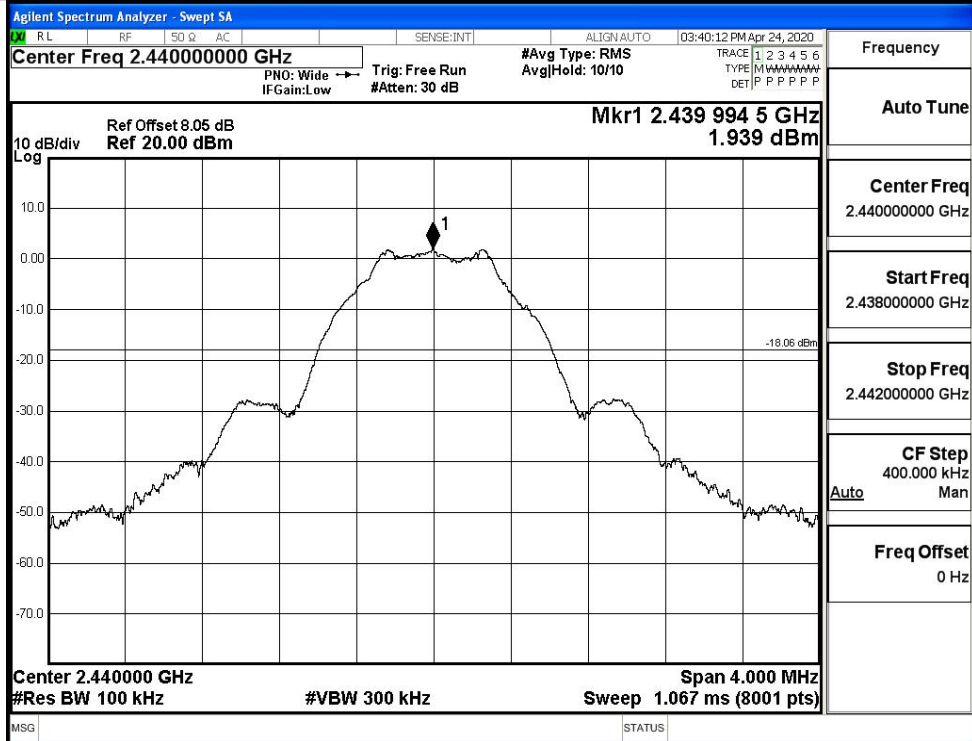
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.814	-36.567	-18.186	PASS
BT LE	MCH	1.939	-36.891	-18.061	PASS
BT LE	HCH	1.92	-36.870	-18.080	PASS

BT LE_LCH_Graphs

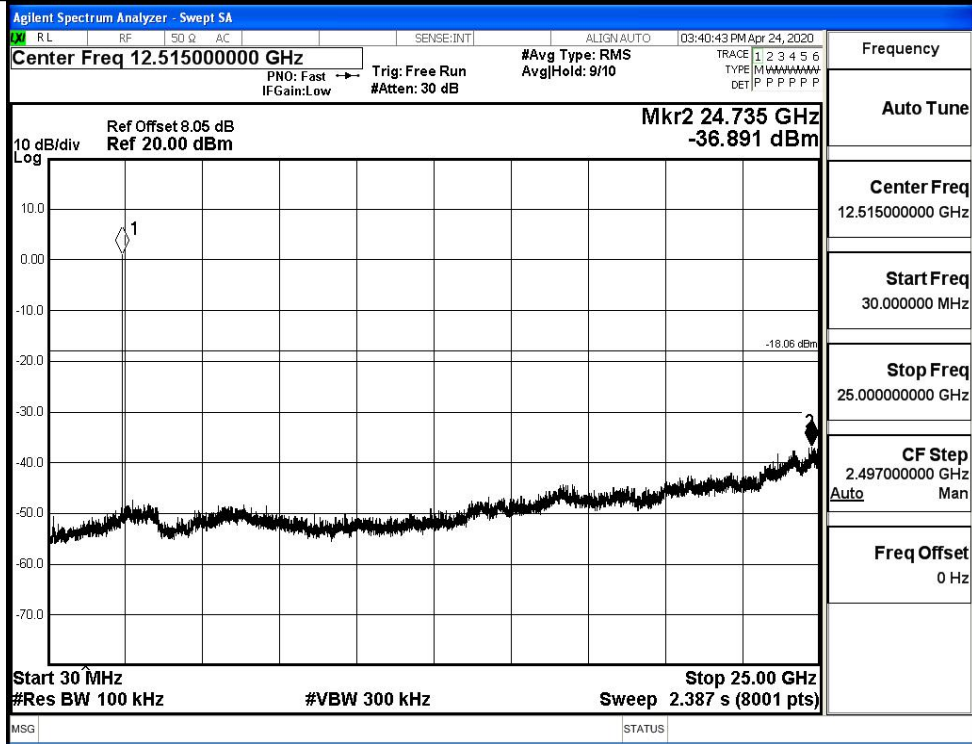


BT LE_MCH_Graphs

Pref/BT LE/MCH

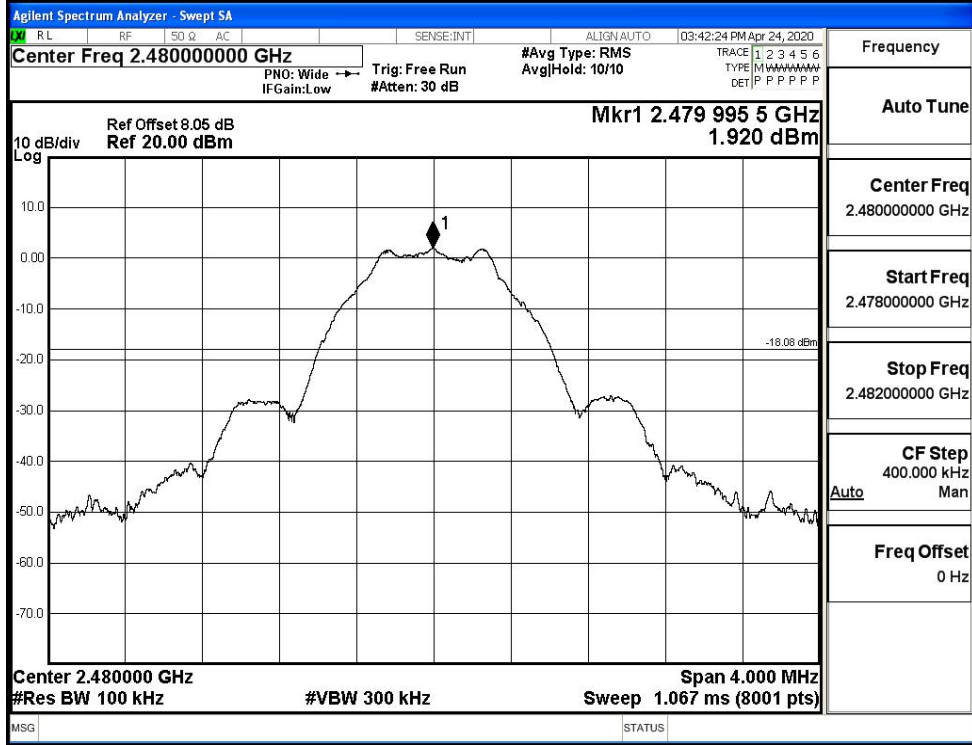


Puw/BT LE/MCH

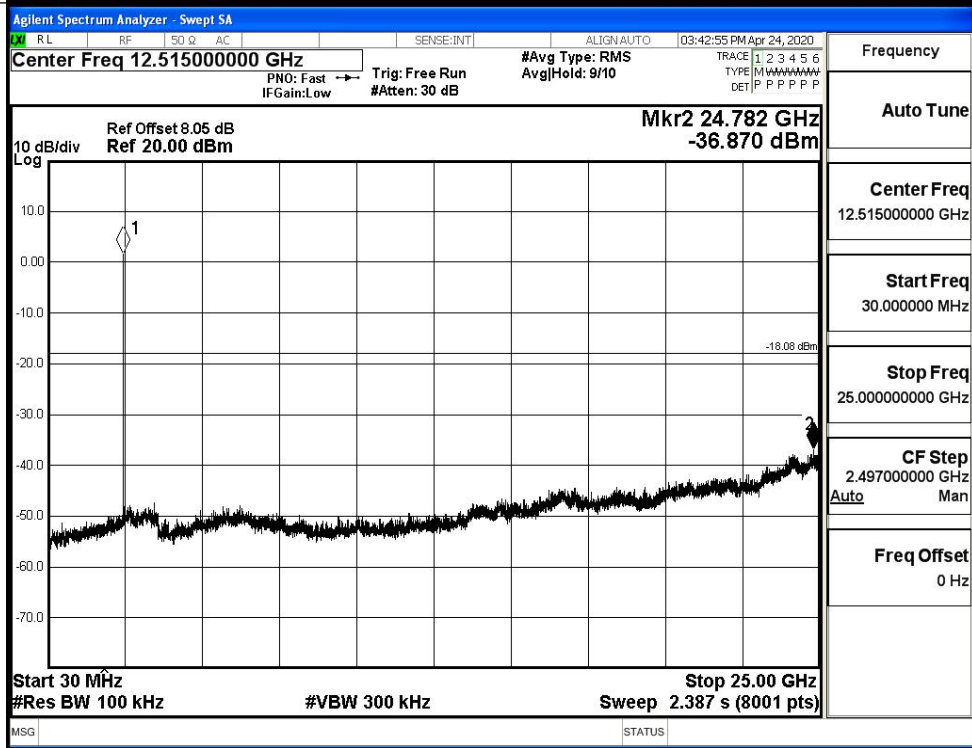


BT LE HCH Graphs

Pref/BT LE/HCH



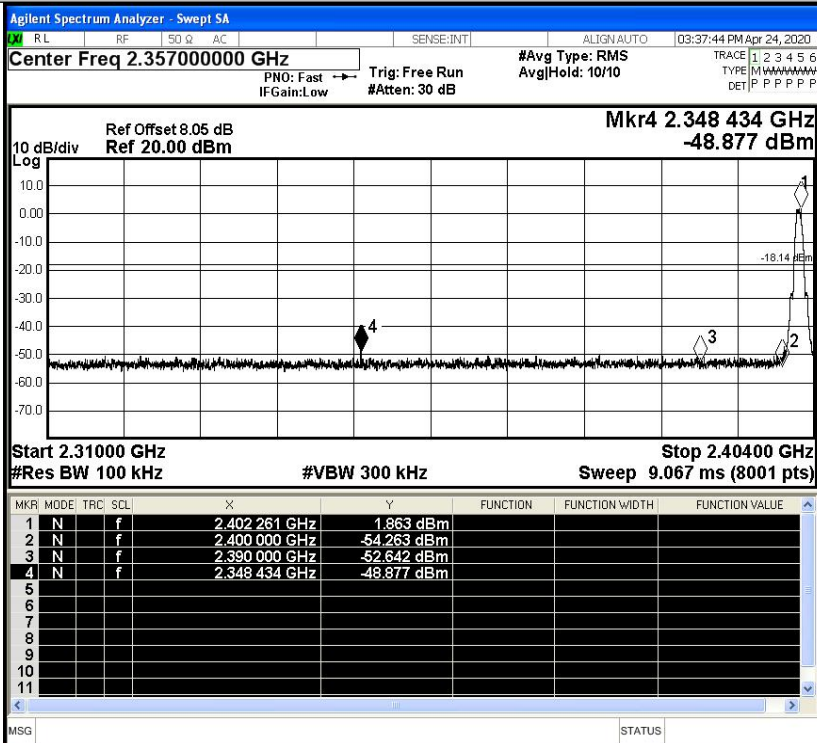
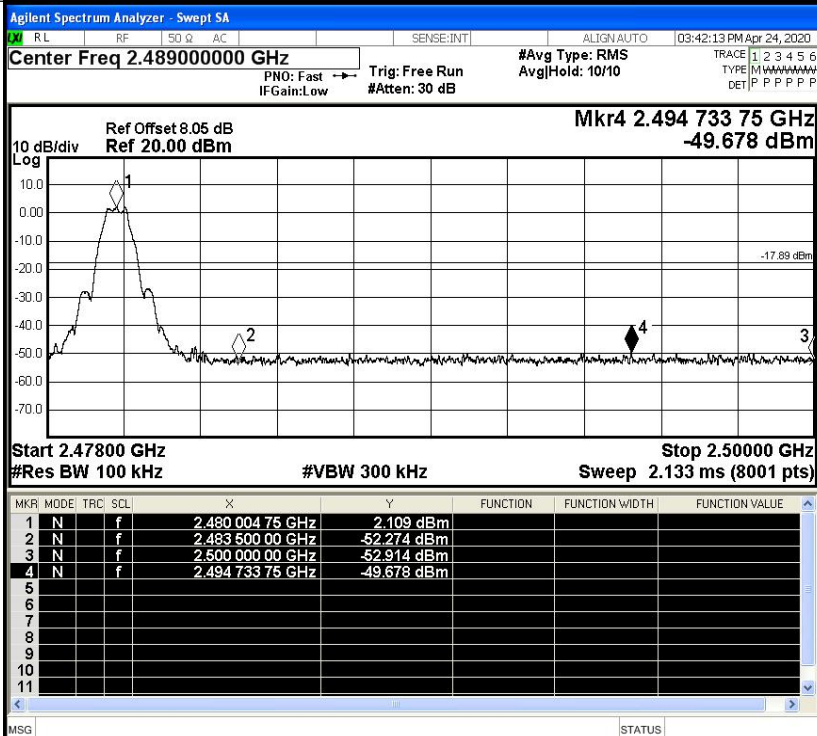
Puw/BT LE/HCH



A.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.863	-48.877	-18.14	PASS
BT LE	HCH	2.109	-49.678	-17.89	PASS

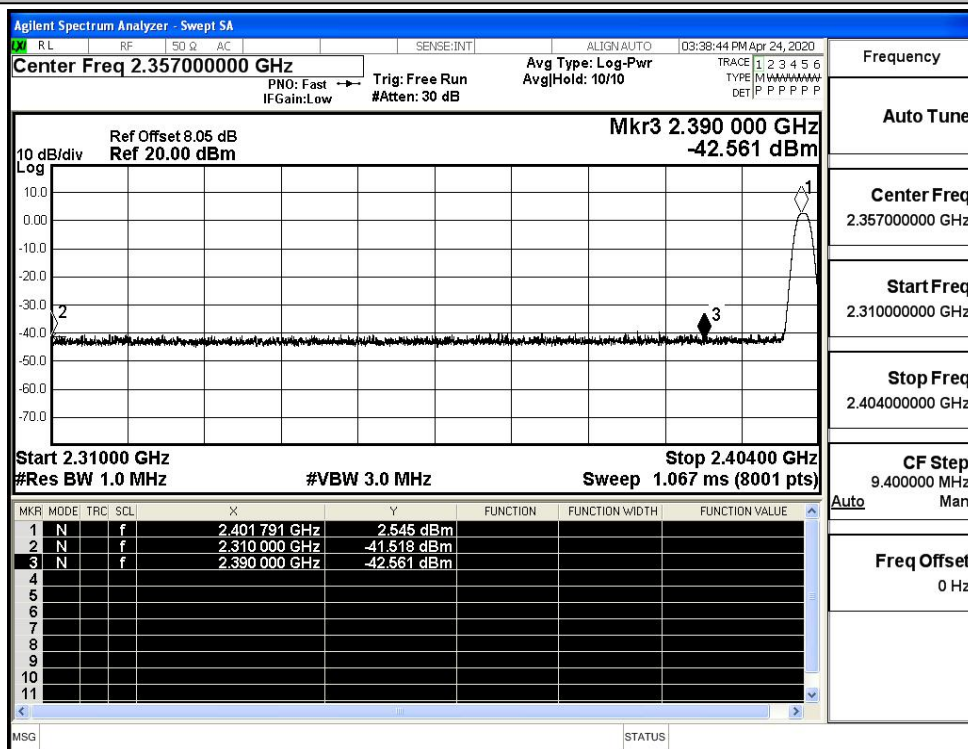
Test Graphs

LCH		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.35700000 GHz</p> <p>Start Freq 2.31000000 GHz</p> <p>Stop Freq 2.40400000 GHz</p> <p>CF Step 9.400000 MHz</p> <p>Freq Offset 0 Hz</p>
		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.48900000 GHz</p> <p>Start Freq 2.47800000 GHz</p> <p>Stop Freq 2.50000000 GHz</p> <p>CF Step 2.200000 MHz</p> <p>Freq Offset 0 Hz</p>

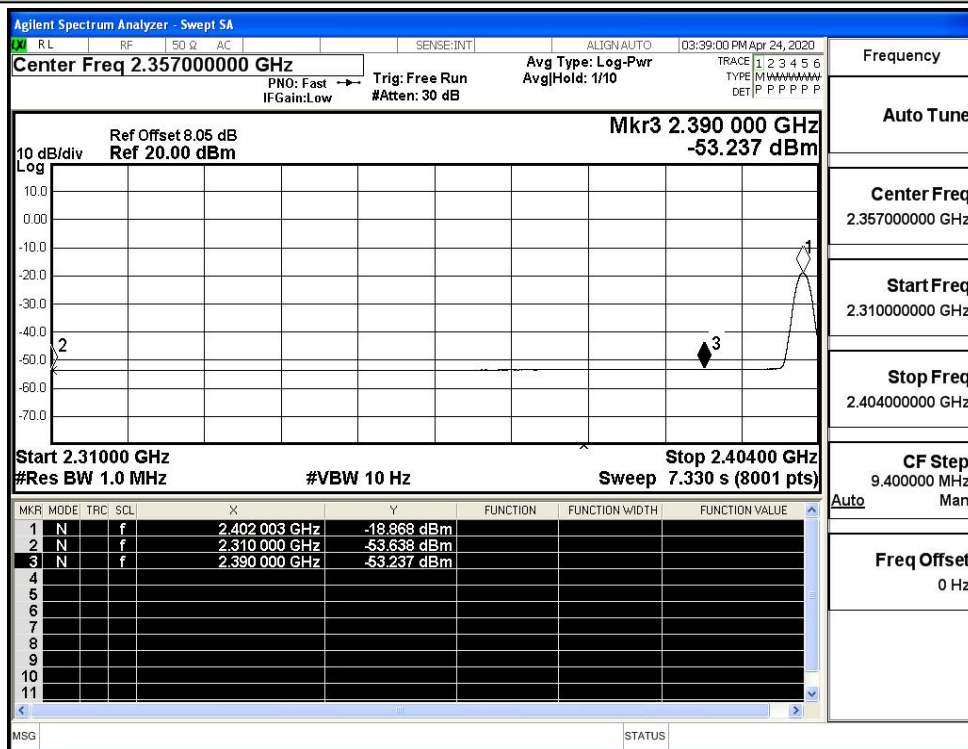
A.7 Restrict-band band-edge measurements

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	-41.52	4.0	0	57.71	PEAK	74	PASS
		Ant1	2310.0	-53.64	4.0	0	45.59	AV	54	PASS
		Ant1	2390.0	-42.56	4.0	0	56.67	PEAK	74	PASS
		Ant1	2390.0	-53.24	4.0	0	45.99	AV	54	PASS
	2480	Ant1	2483.5	-41.36	4.0	0	57.87	PEAK	74	PASS
		Ant1	2483.5	-52.78	4.0	0	46.45	AV	54	PASS
		Ant1	2500.0	-42.03	4.0	0	57.20	PEAK	74	PASS
		Ant1	2500.0	-52.65	4.0	0	46.58	AV	54	PASS

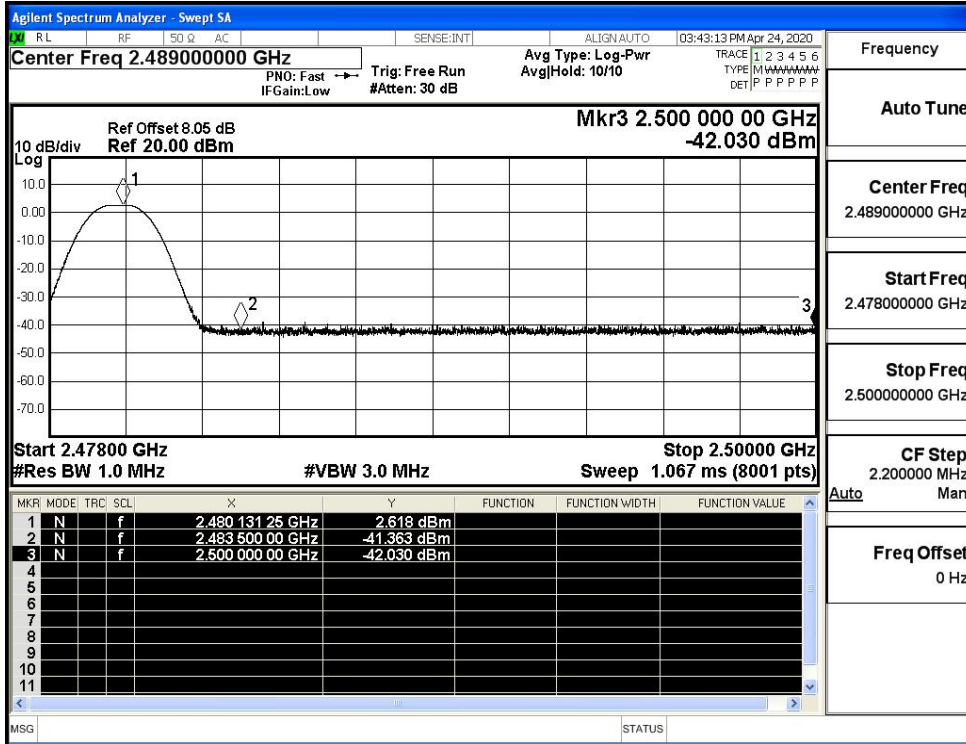
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

