

Appendix B

RF Test Data for BT V4.0(BDR/EDR) (Conducted Measurement)

Product Name: Smart phone

Trade Mark: S SMOOTH

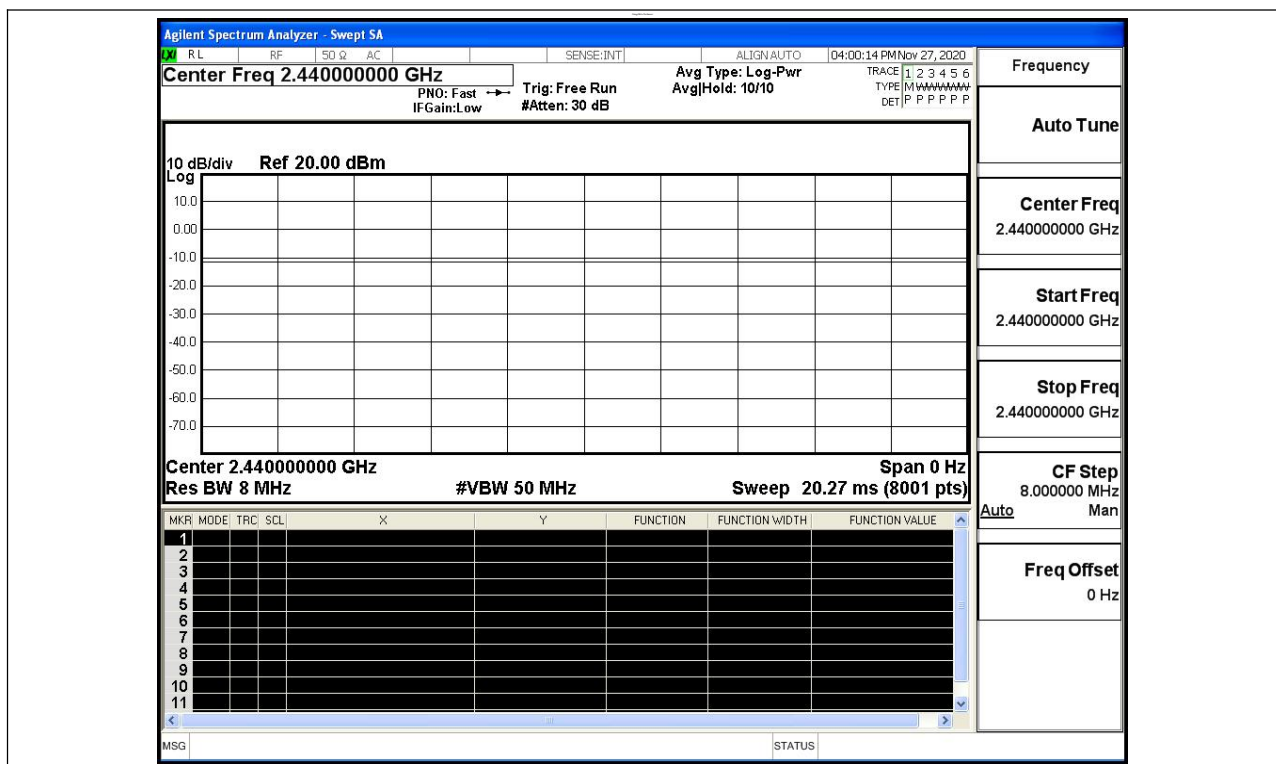
Test Model: SMOOTH 5.0

Environmental Conditions

Temperature:	22.3° C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

B.1 Duty Cycle

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

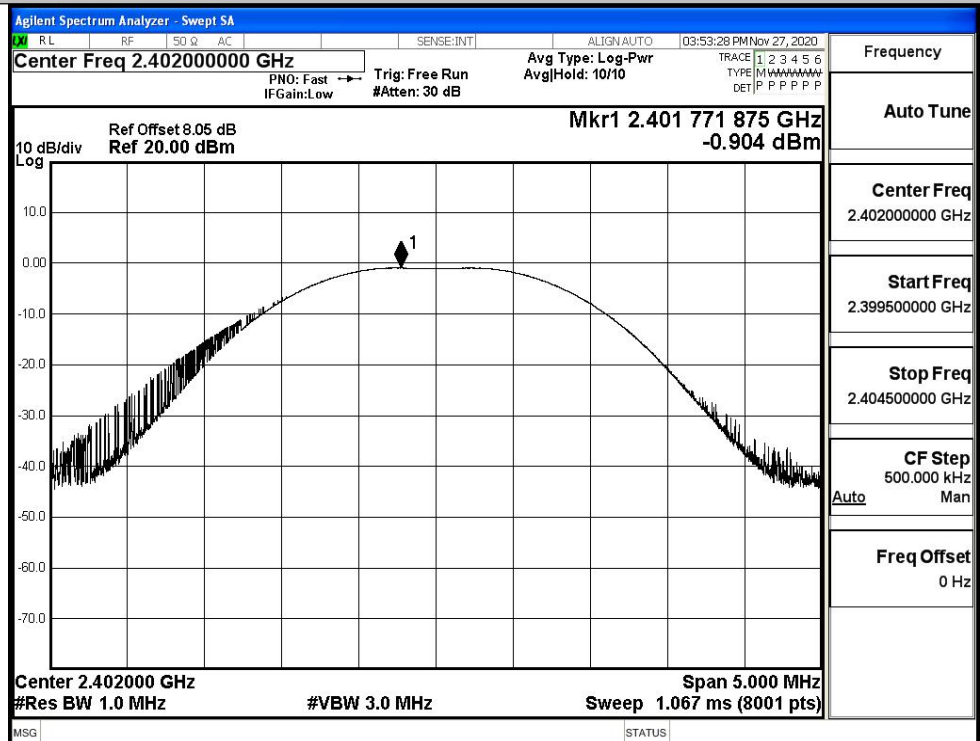


B.2 Maximum Conducted Peak Output Power

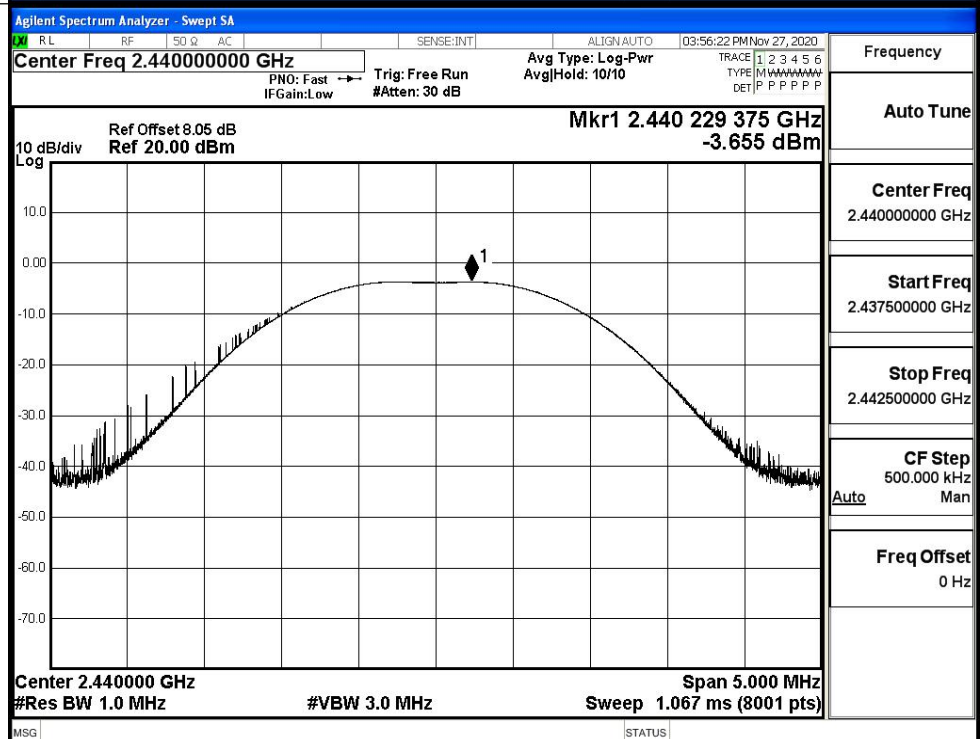
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.904	30	PASS
BT LE	MCH	-3.655	30	PASS
BT LE	HCH	-4.15	30	PASS

Test Graphs

LCH



MCH



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.48000000 GHz

Ref Offset 8.05 dB
Ref 20.00 dBm

10 dB/div
Log

Mkr1 2.479 718 750 GHz
-4.150 dBm

The spectrum analyzer display shows a swept signal. The vertical axis is labeled '10 dB/div Log' and ranges from -70.0 to 10.0. The horizontal axis represents frequency. A peak is marked with a diamond and labeled '1' at 2.479 718 750 GHz with a power level of -4.150 dBm. The signal is centered at 2.480000 GHz. The display includes various settings: Center Freq 2.48000000 GHz, Span 5.000 MHz, #Res BW 1.0 MHz, #VBW 3.0 MHz, Sweep 1.067 ms (8001 pts), and Auto Tune. The right side of the display shows a table of settings: Frequency, Auto Tune, Center Freq 2.480000000 GHz, Start Freq 2.477500000 GHz, Stop Freq 2.482500000 GHz, CF Step 500.000 kHz, Auto Man, and Freq Offset 0 Hz.

Frequency
Auto Tune
Center Freq 2.480000000 GHz
Start Freq 2.477500000 GHz
Stop Freq 2.482500000 GHz
CF Step 500.000 kHz Auto Man
Freq Offset 0 Hz

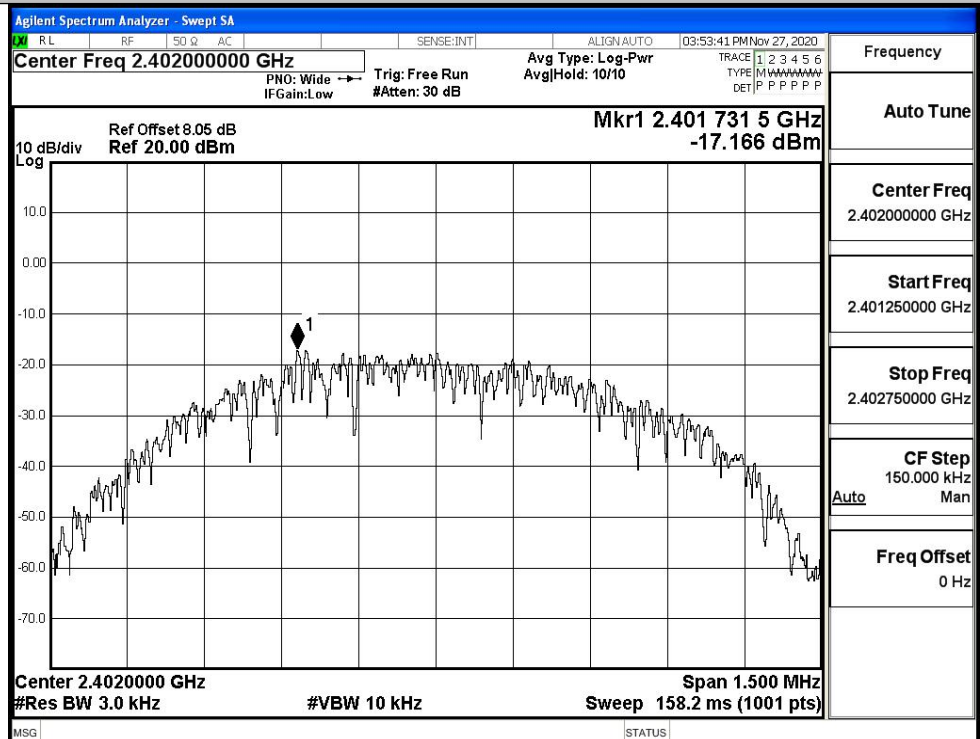
Center 2.480000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 5.000 MHz
Sweep 1.067 ms (8001 pts)

B.3 Maximum Power Spectral Density

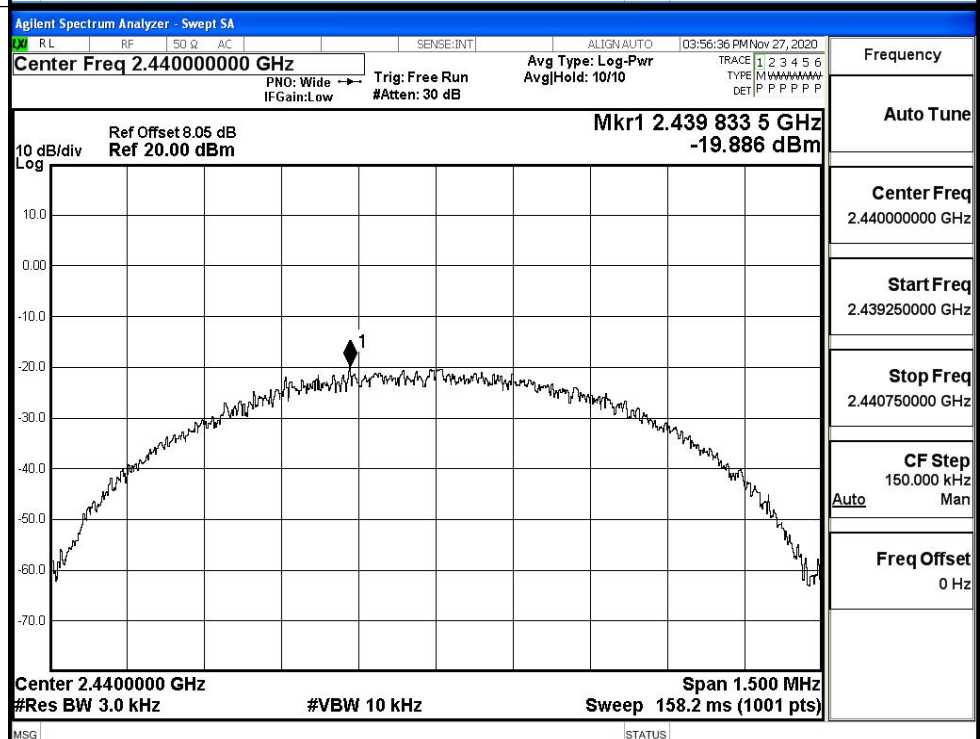
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-17.166	8	PASS
BT LE	MCH	-19.886	8	PASS
BT LE	HCH	-20.242	8	PASS

Test Graphs

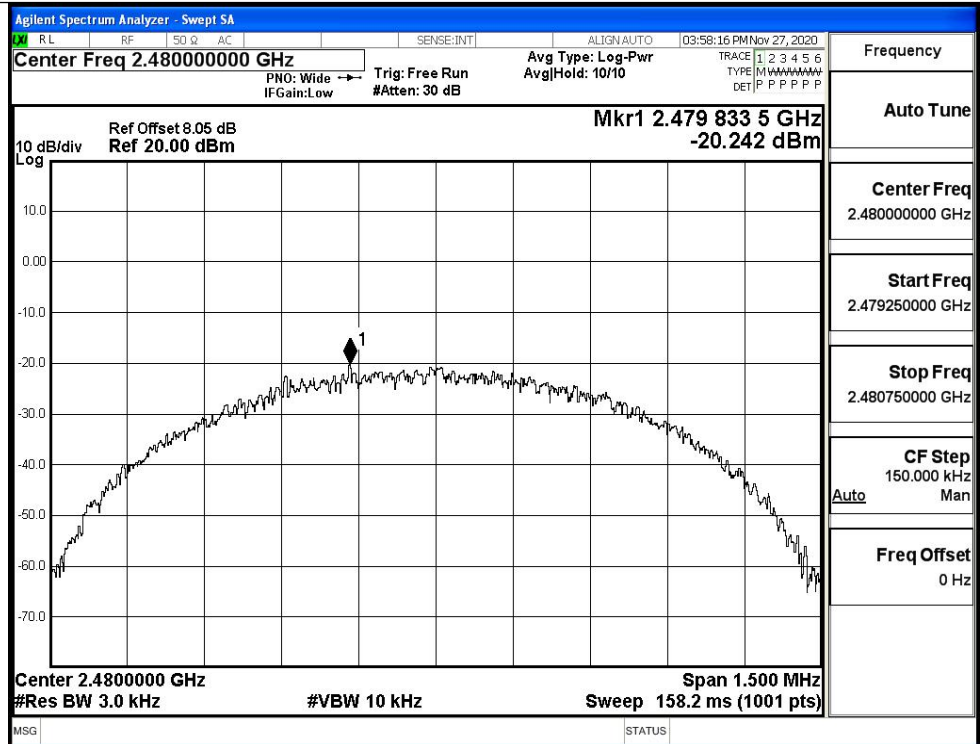
LCH



MCH



HCH

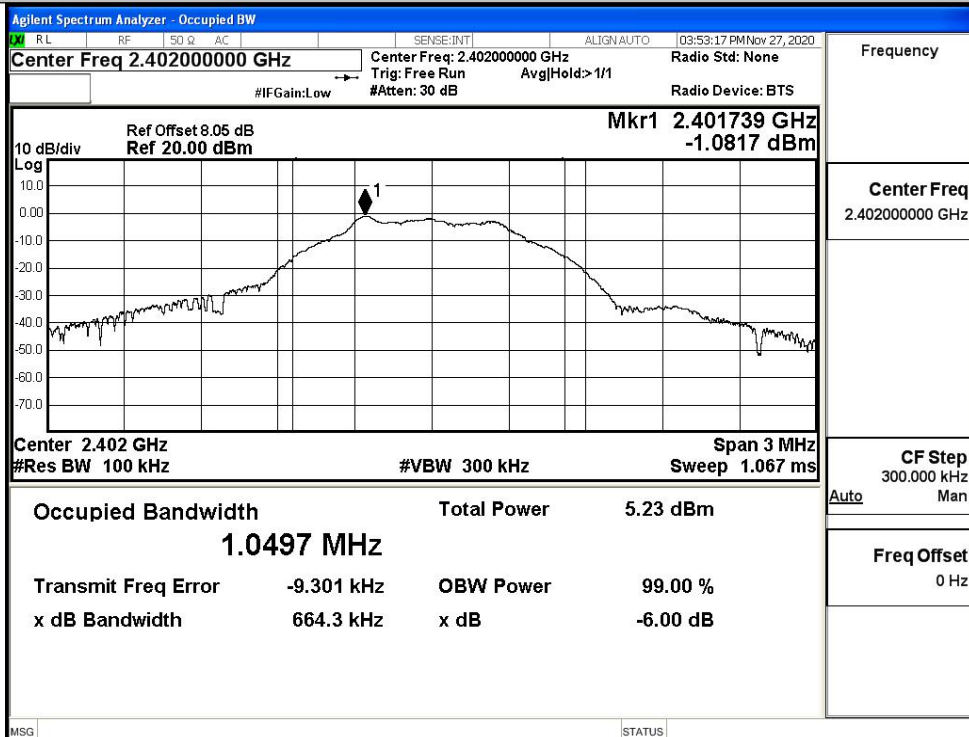


B.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6643	≥ 0.5	PASS
BT LE	MCH	0.6691	≥ 0.5	PASS
BT LE	HCH	0.6595	≥ 0.5	PASS

Test Graphs

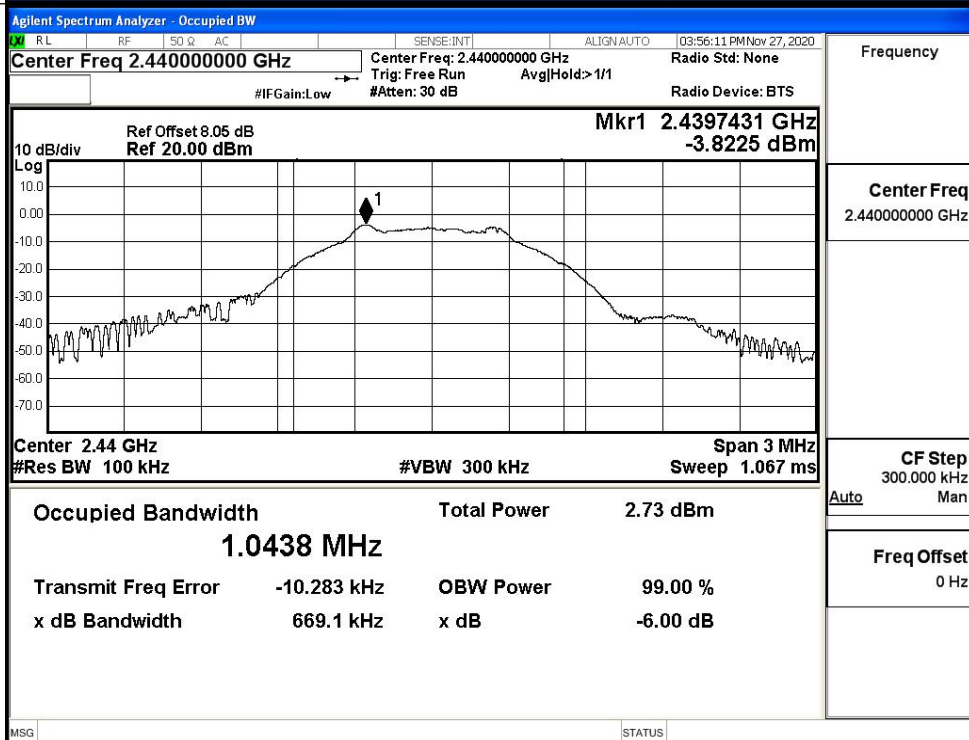
LCH



Frequency

Center Freq
2.402000000 GHzCF Step
300.000 kHz
Auto ManFreq Offset
0 Hz

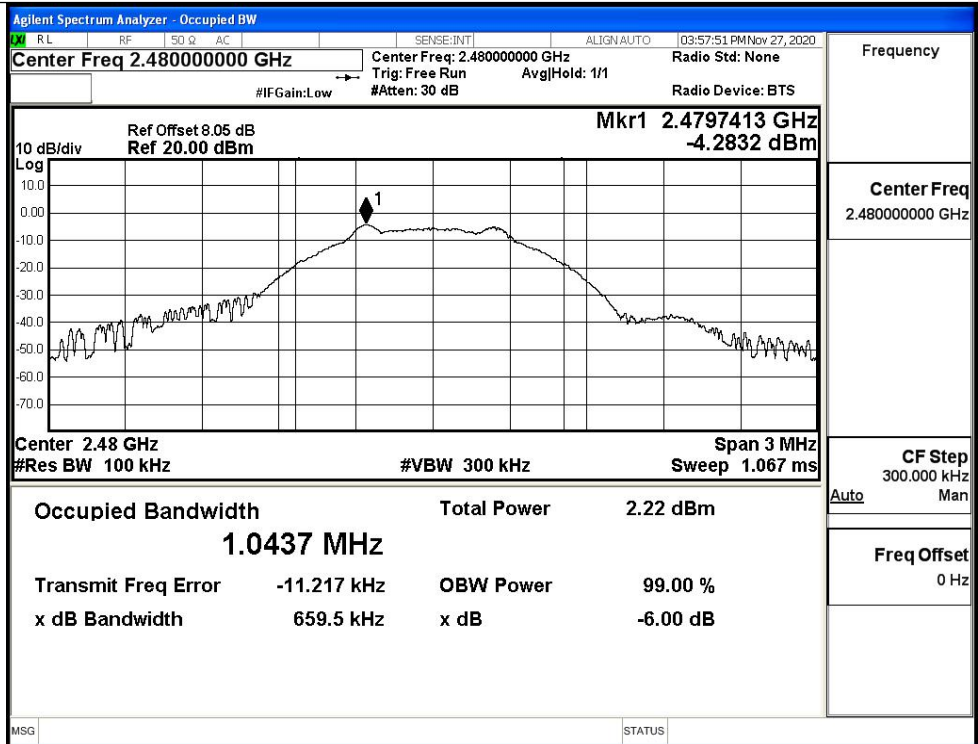
MCH



Frequency

Center Freq
2.440000000 GHzCF Step
300.000 kHz
Auto ManFreq Offset
0 Hz

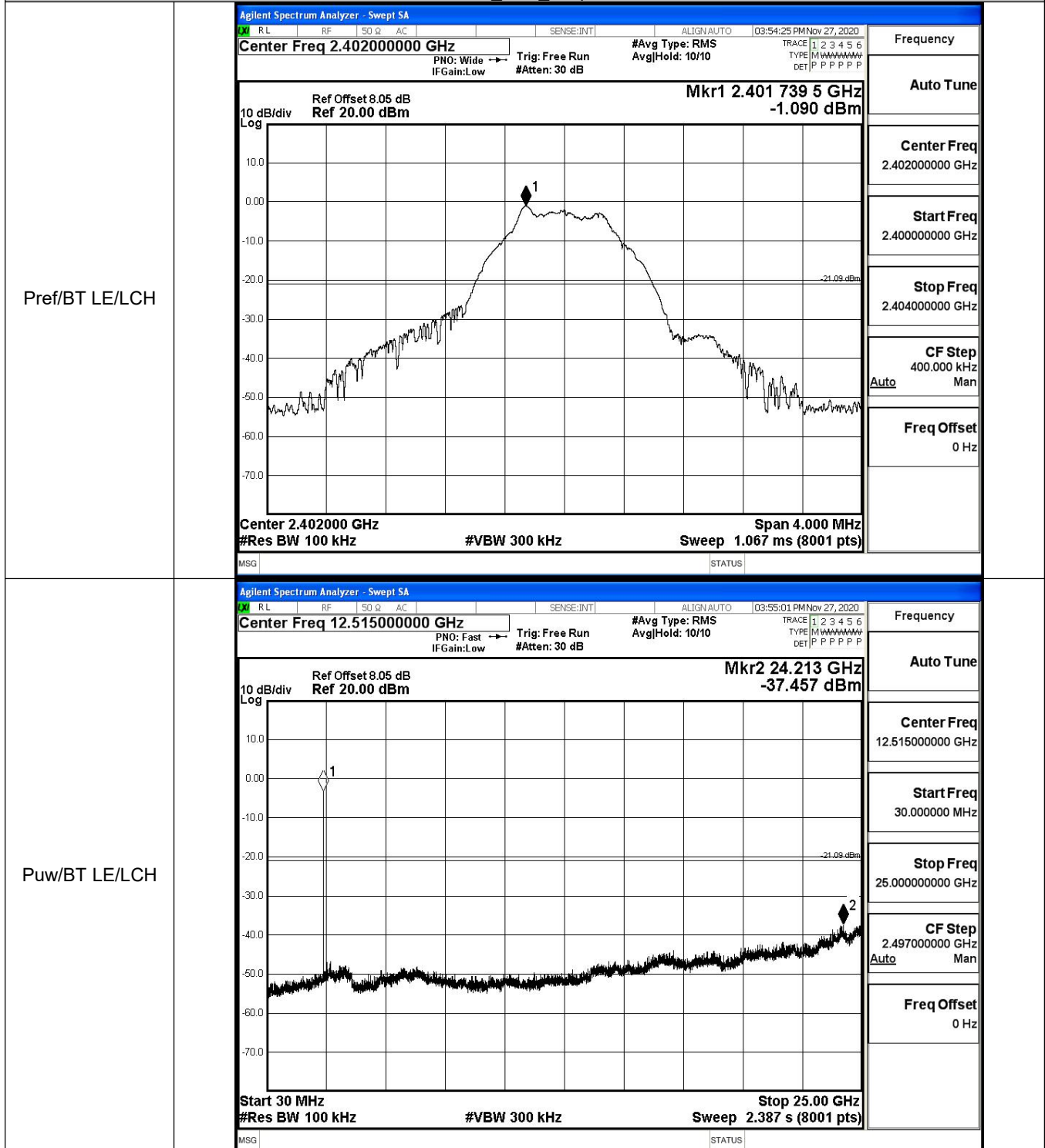
HCH



B.5 RF Conducted Spurious Emissions

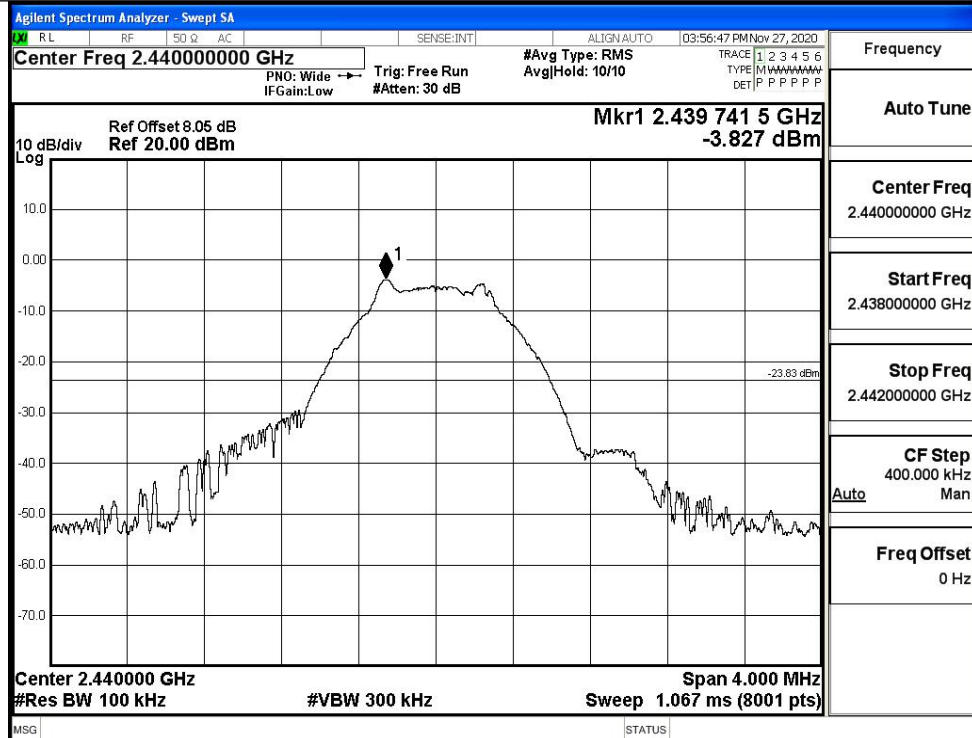
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-1.09	-37.457	-21.090	PASS
BT LE	MCH	-3.827	-37.499	-23.827	PASS
BT LE	HCH	-4.296	-36.897	-24.296	PASS

BT LE_LCH_Graphs

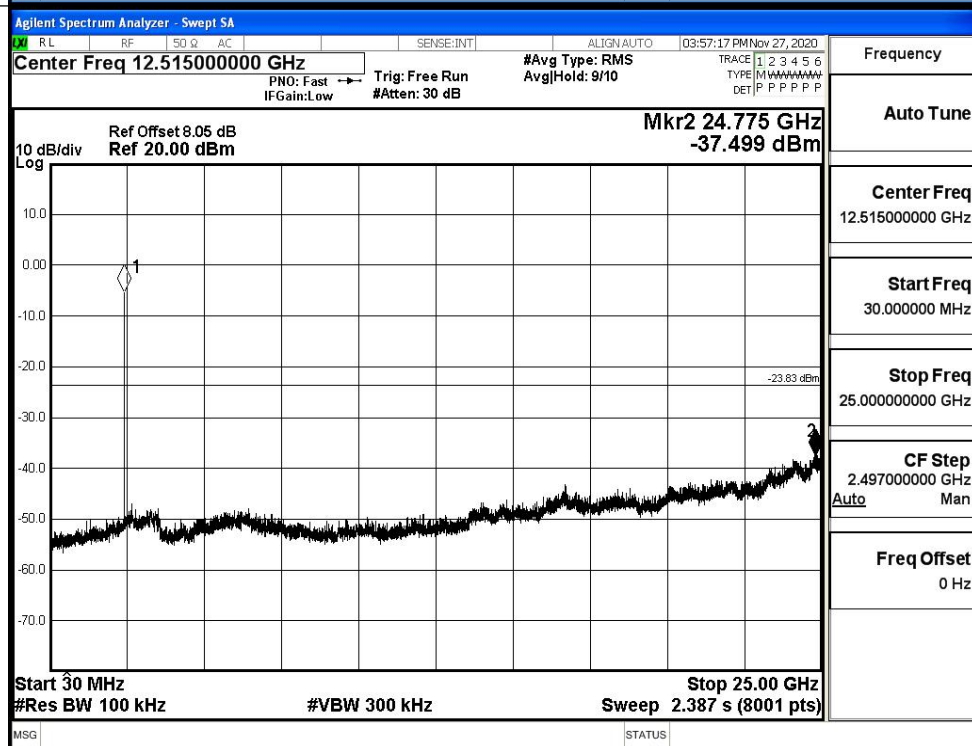


BT LE MCH Graphs

Pref/BT LE/MCH

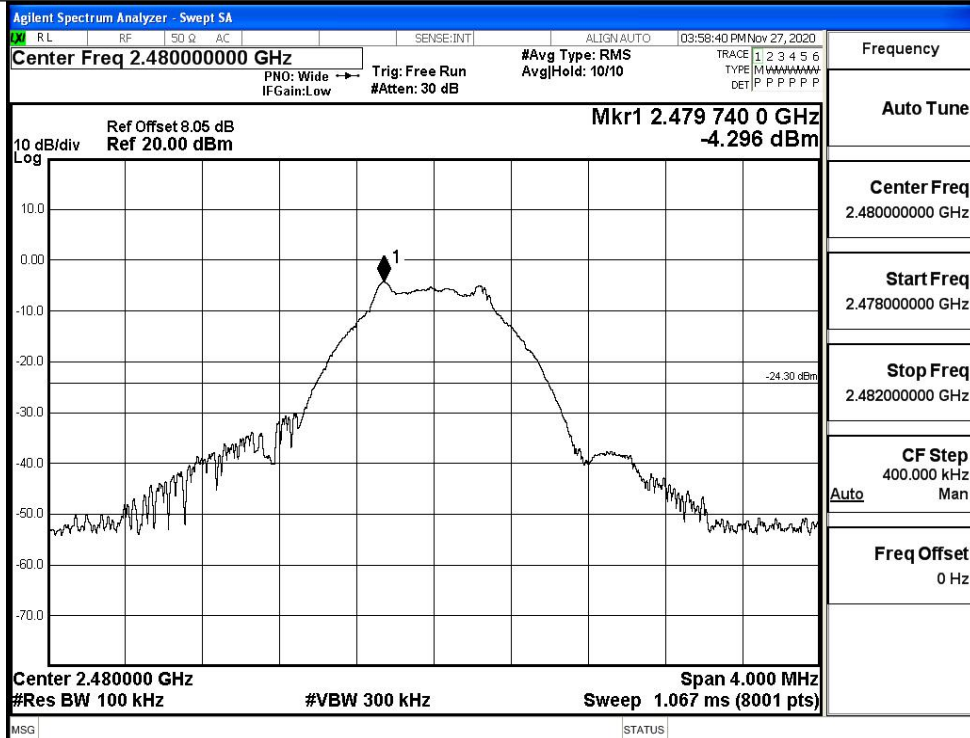


Puw/BT LE/MCH



BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

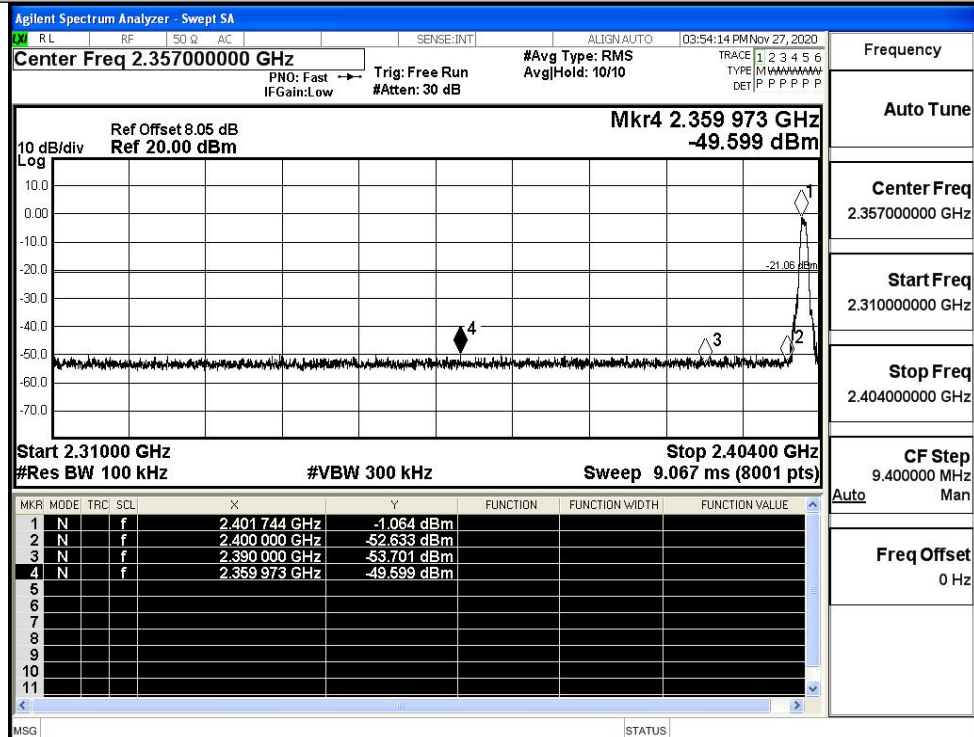


B.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-1.064	-49.599	-21.06	PASS
BT LE	HCH	-4.281	-49.511	-24.28	PASS

Test Graphs

LCH



Frequency

Auto Tune

Center Freq

2.357000000 GHz

Start Freq

2.310000000 GHz

Stop Freq

2.404000000 GHz

CF Step

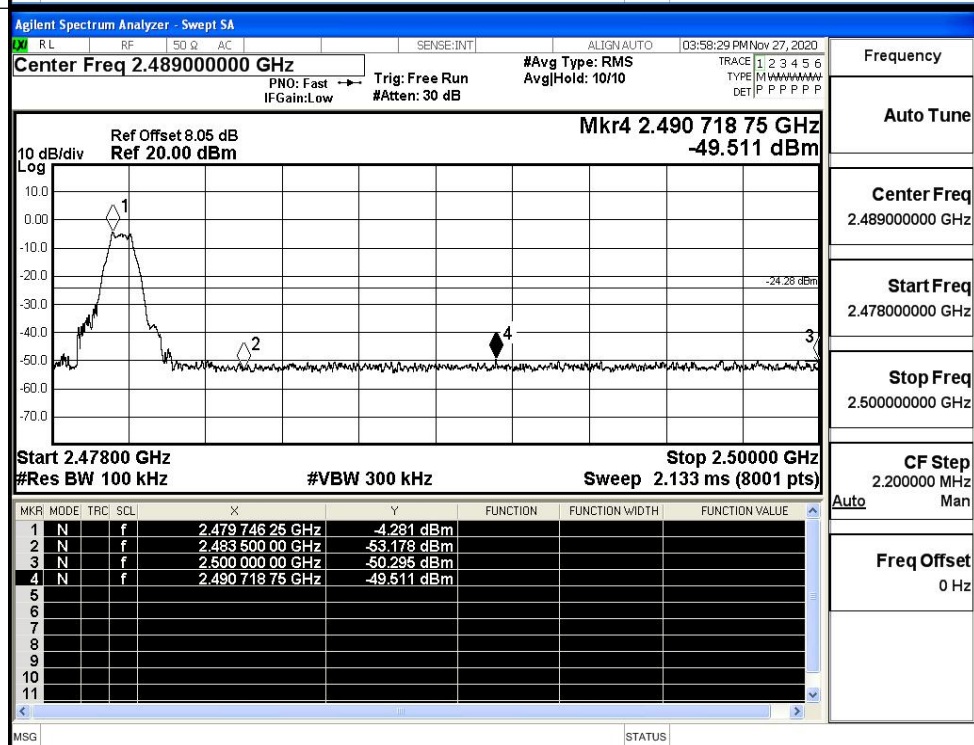
9.400000 MHz

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

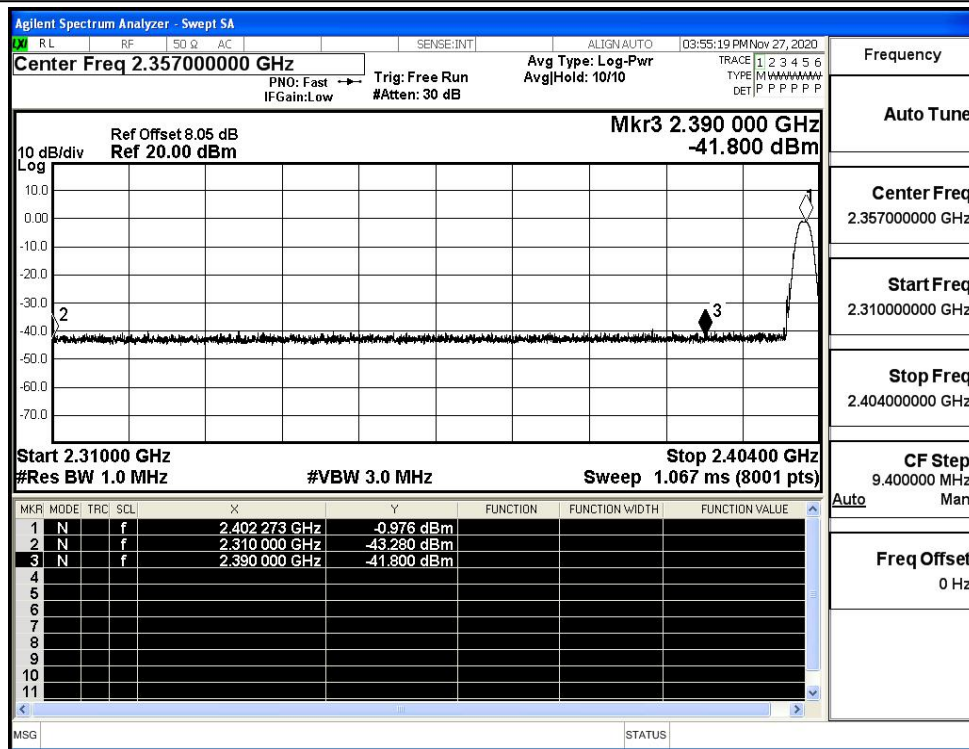
Freq Offset

0 Hz

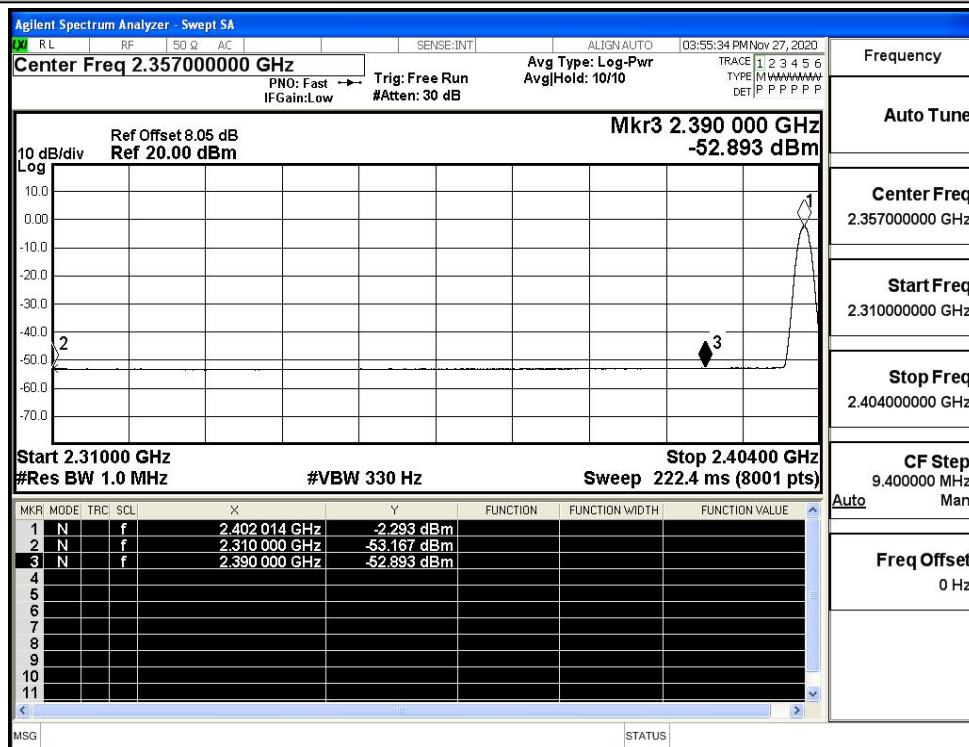
B.7 Restrict-band band-edge measurements

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	-43.28	2.0	0	51.98	PEAK	74	PASS
		Ant1	2310.0	-53.17	2.0	0	42.09	AV	54	PASS
		Ant1	2390.0	-41.80	2.0	0	53.46	PEAK	74	PASS
		Ant1	2390.0	-52.89	2.0	0	42.36	AV	54	PASS
	2480	Ant1	2483.5	-42.82	2.0	0	52.44	PEAK	74	PASS
		Ant1	2483.5	-52.52	2.0	0	42.74	AV	54	PASS
		Ant1	2500.0	-42.80	2.0	0	52.45	PEAK	74	PASS
		Ant1	2500.0	-52.38	2.0	0	42.88	AV	54	PASS

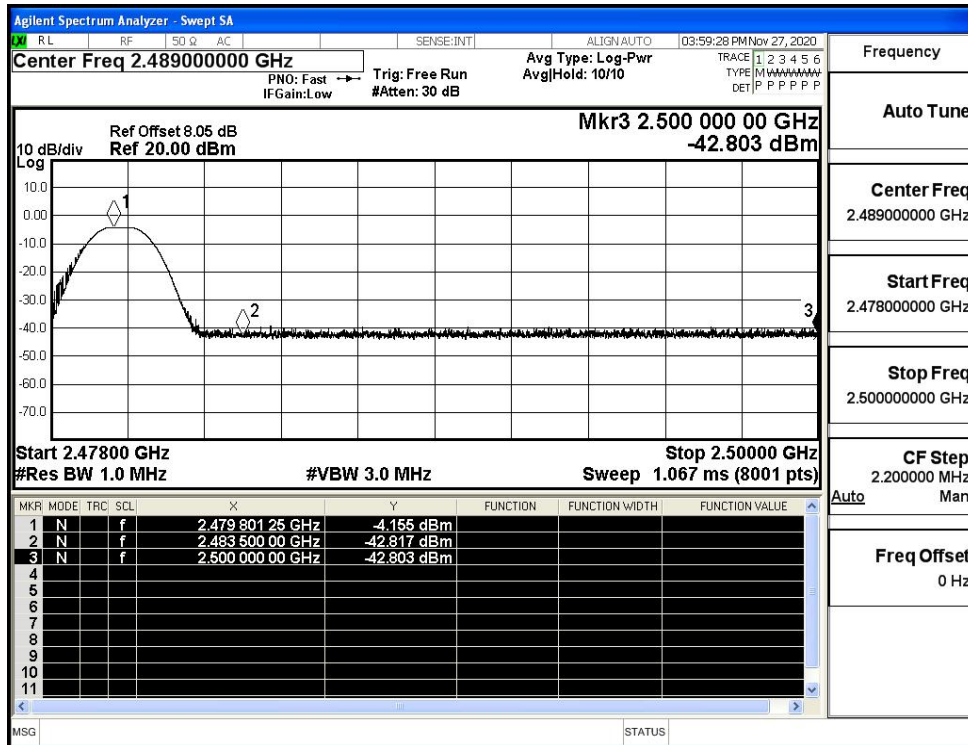
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

