

Appendix B

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

Product Name: BrainLink Dual

Trade Mark: BrainLink

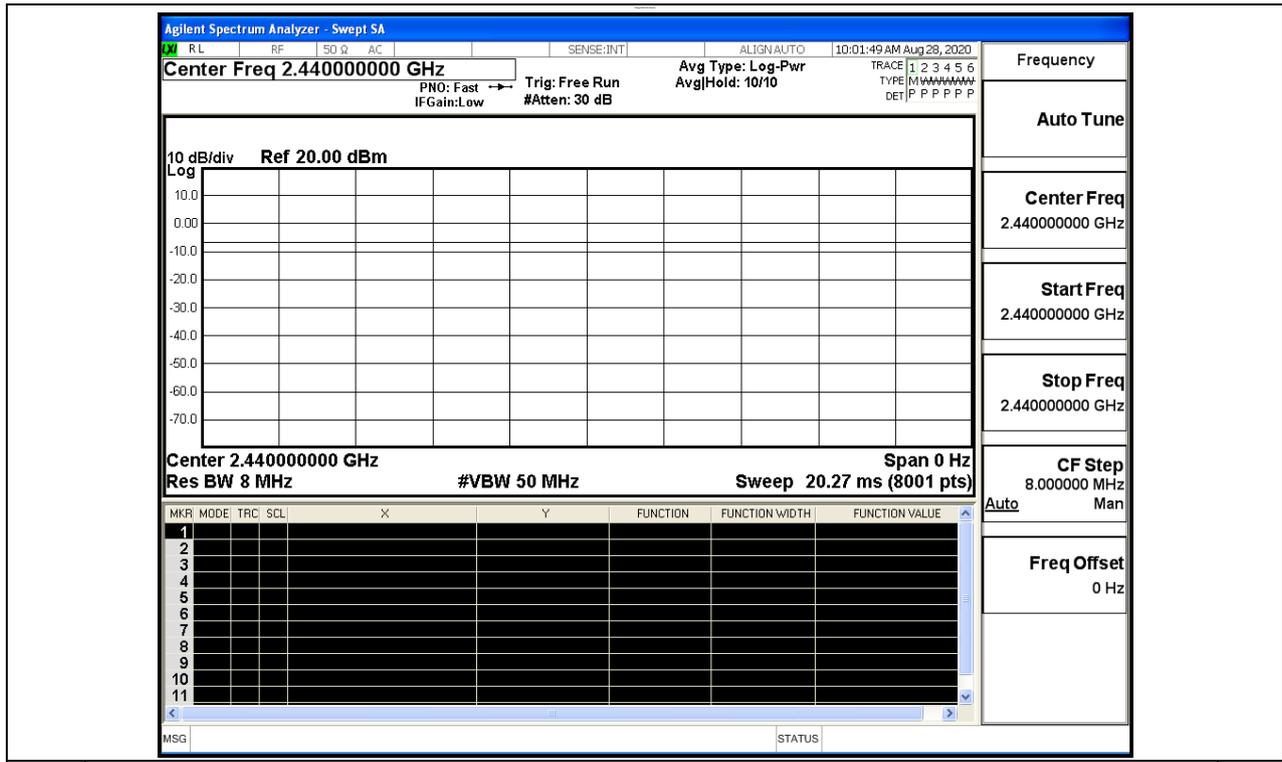
Test Model: BL002D

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	50%
ATM Pressure:	100.0 kPa
Test Engineer:	CARL FU
Supervised by:	Li Huan

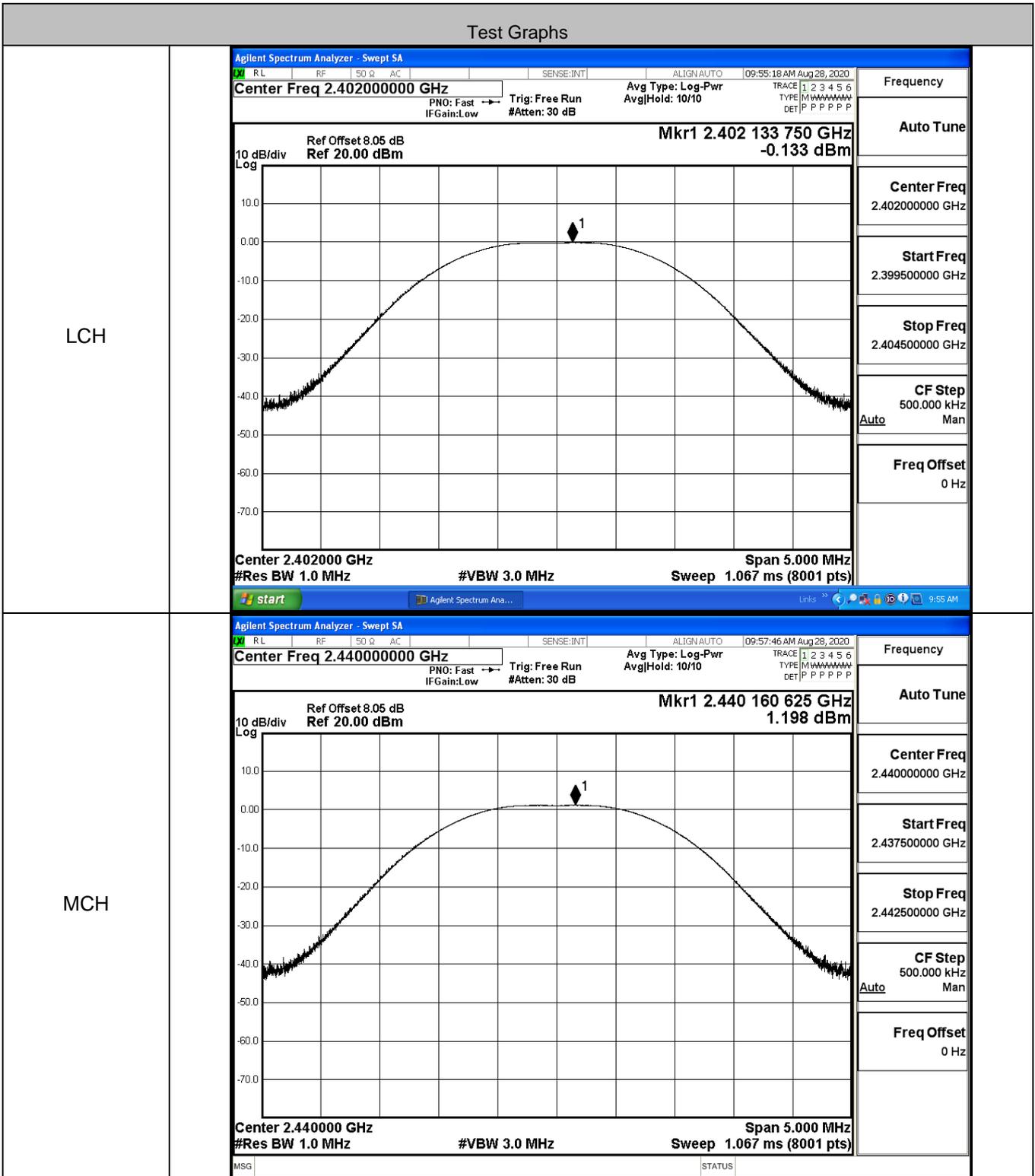
B.1 Duty Cycle

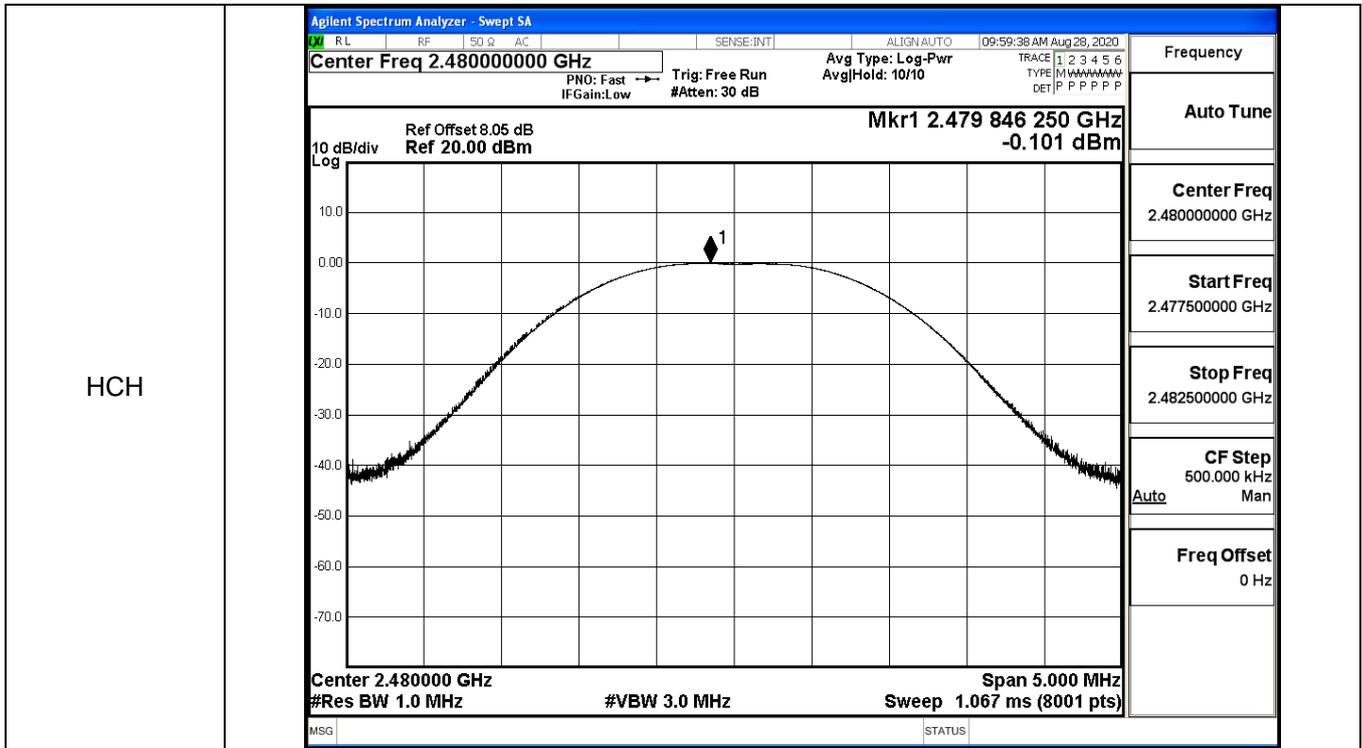
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS



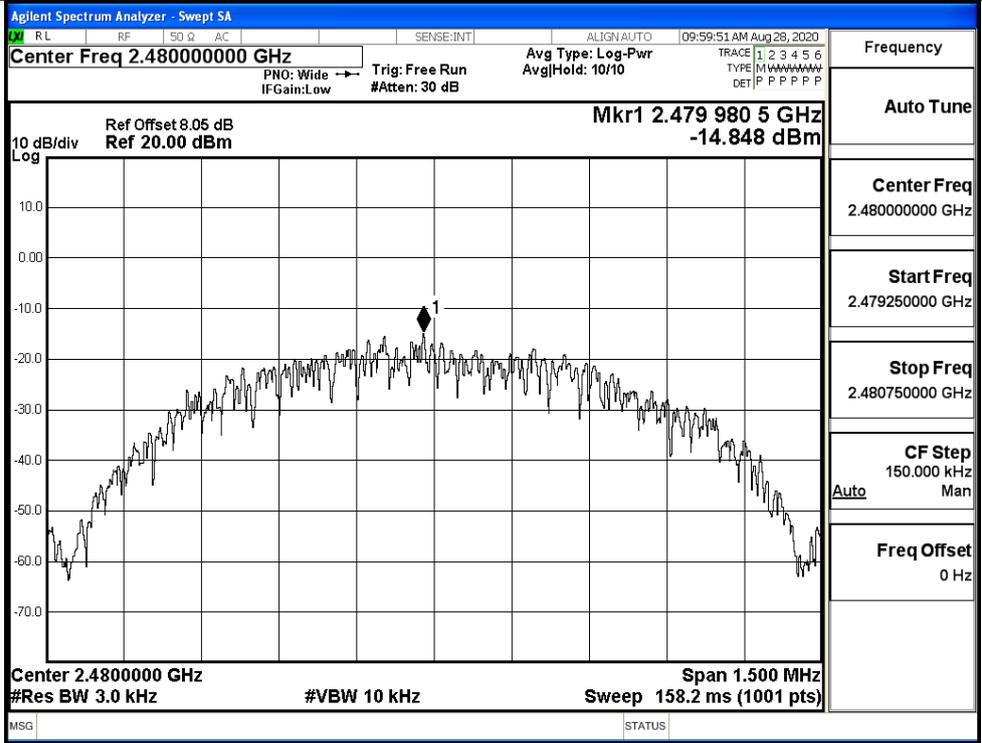
B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.133	30	PASS
BT LE	MCH	1.198	30	PASS
BT LE	HCH	-0.101	30	PASS





HCH



B.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6685	≥0.5	PASS
BT LE	MCH	0.6753	≥0.5	PASS
BT LE	HCH	0.6735	≥0.5	PASS

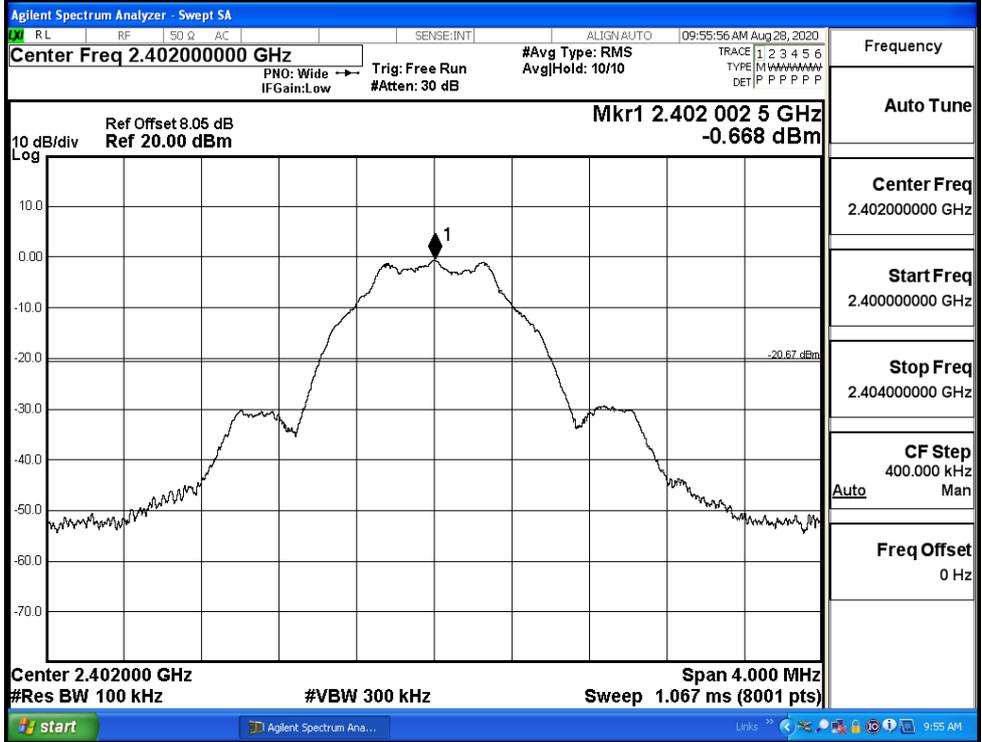
Test Graphs	
LCH	<div data-bbox="416 562 1390 1294"> <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.40200000 GHz Center Freq: 2.402000000 GHz Radio Std: None</p> <p>Trig: Free Run AvgHold> 1/1 Radio Device: BTS</p> <p>#IFGain:Low #Atten: 30 dB</p> <p>Ref Offset 8.05 dB Mkr1 2.401993 GHz -0.70215 dBm</p> <p>Ref 20.00 dBm</p> <p>Center 2.402 GHz Span 3 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms</p> <p>Occupied Bandwidth 1.0491 MHz Total Power 6.06 dBm</p> <p>Transmit Freq Error 7.509 kHz OBW Power 99.00 %</p> <p>x dB Bandwidth 668.5 kHz x dB -6.00 dB</p> </div>
MCH	<div data-bbox="416 1308 1390 2042"> <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.44000000 GHz Center Freq: 2.440000000 GHz Radio Std: None</p> <p>Trig: Free Run AvgHold> 1/1 Radio Device: BTS</p> <p>#IFGain:Low #Atten: 30 dB</p> <p>Ref Offset 8.05 dB Mkr1 2.4400034 GHz 0.65867 dBm</p> <p>Ref 20.00 dBm</p> <p>Center 2.44 GHz Span 3 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 1.067 ms</p> <p>Occupied Bandwidth 1.0469 MHz Total Power 7.41 dBm</p> <p>Transmit Freq Error 5.267 kHz OBW Power 99.00 %</p> <p>x dB Bandwidth 675.3 kHz x dB -6.00 dB</p> </div>

B.5 RF Conducted Spurious Emissions

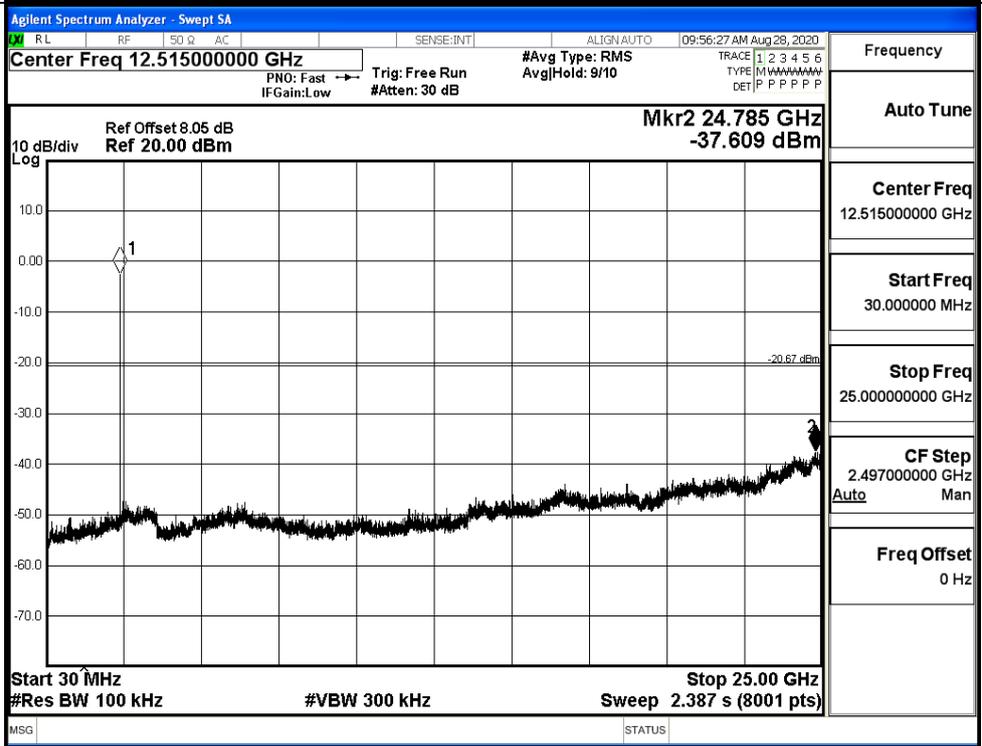
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.668	-37.609	-20.668	PASS
BT LE	MCH	0.666	-38.020	-19.334	PASS
BT LE	HCH	-0.605	-37.820	-20.605	PASS

BT LE_LCH_Graphs

Pref/BT LE/LCH

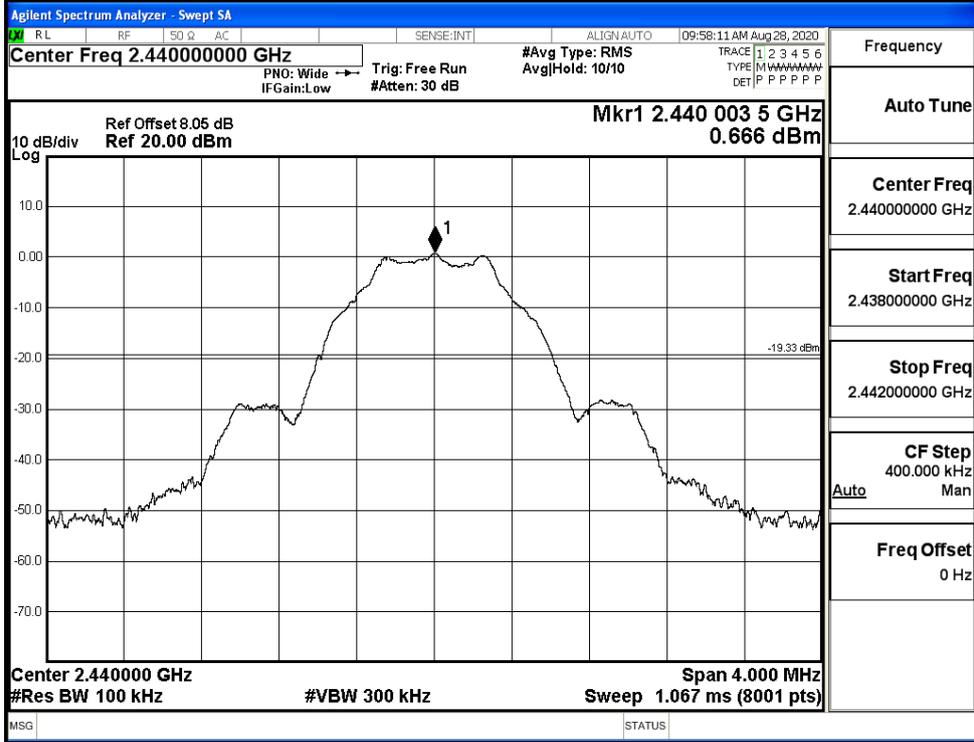


Puw/BT LE/LCH

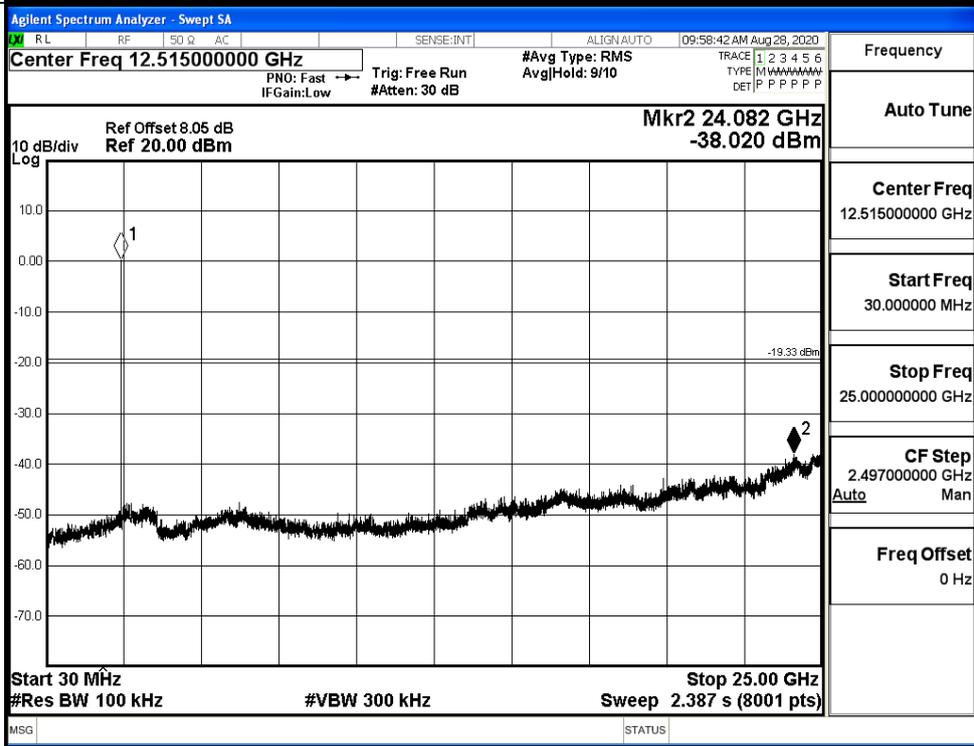


BT LE_MCH_Graphs

Pref/BT LE/MCH

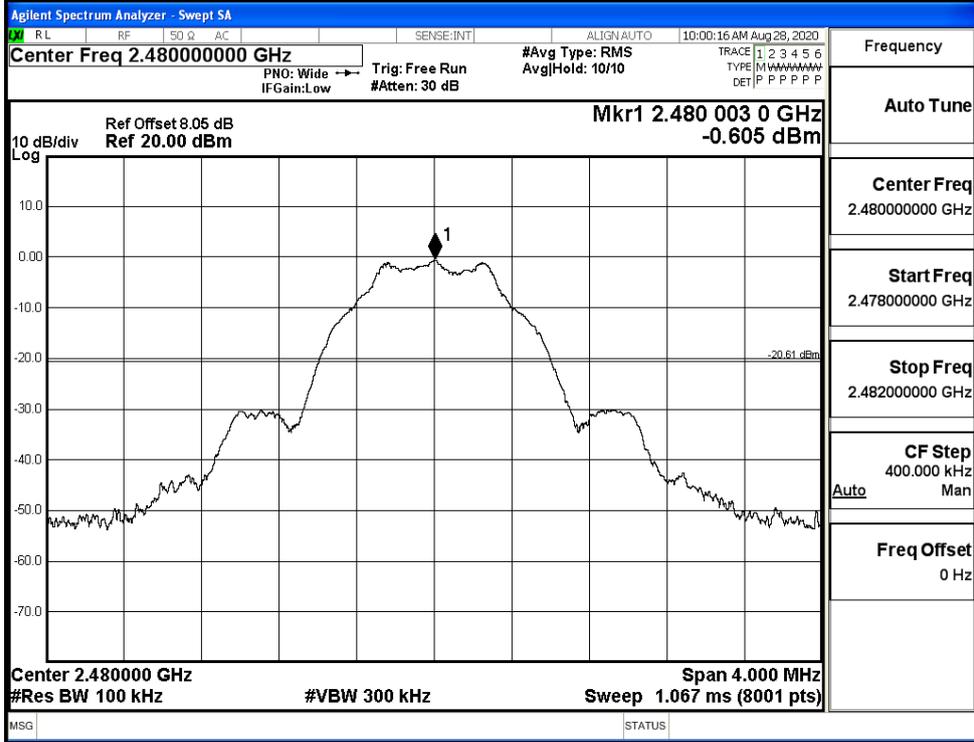


Puw/BT LE/MCH

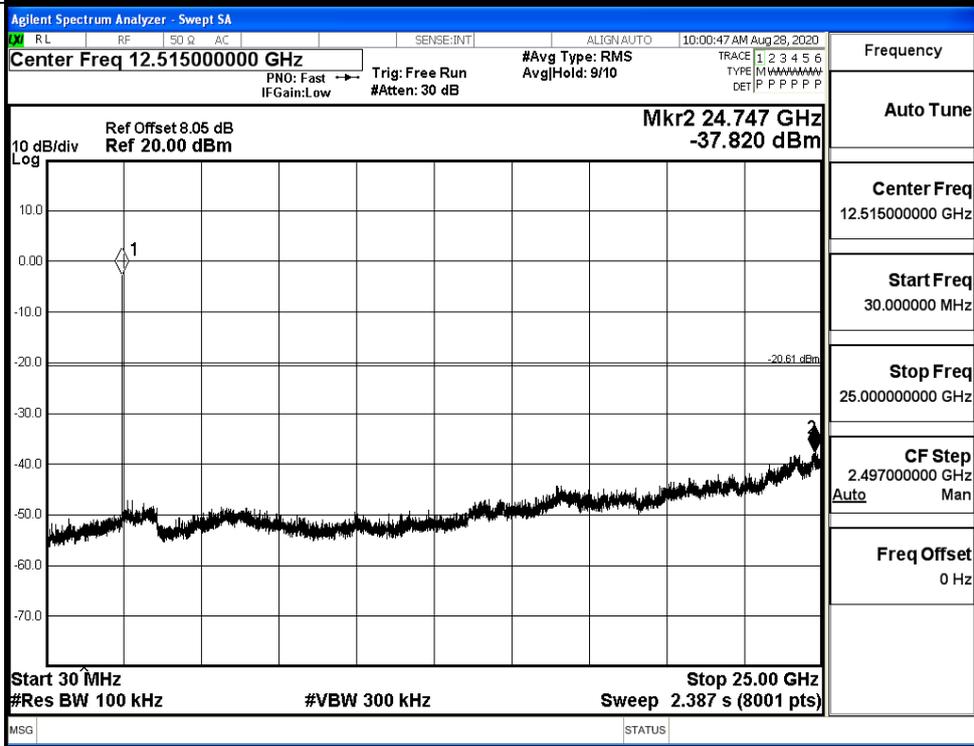


BT LE_HCH_Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH



B.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.793	-49.587	-20.79	PASS
BT LE	HCH	-0.837	-49.584	-20.84	PASS

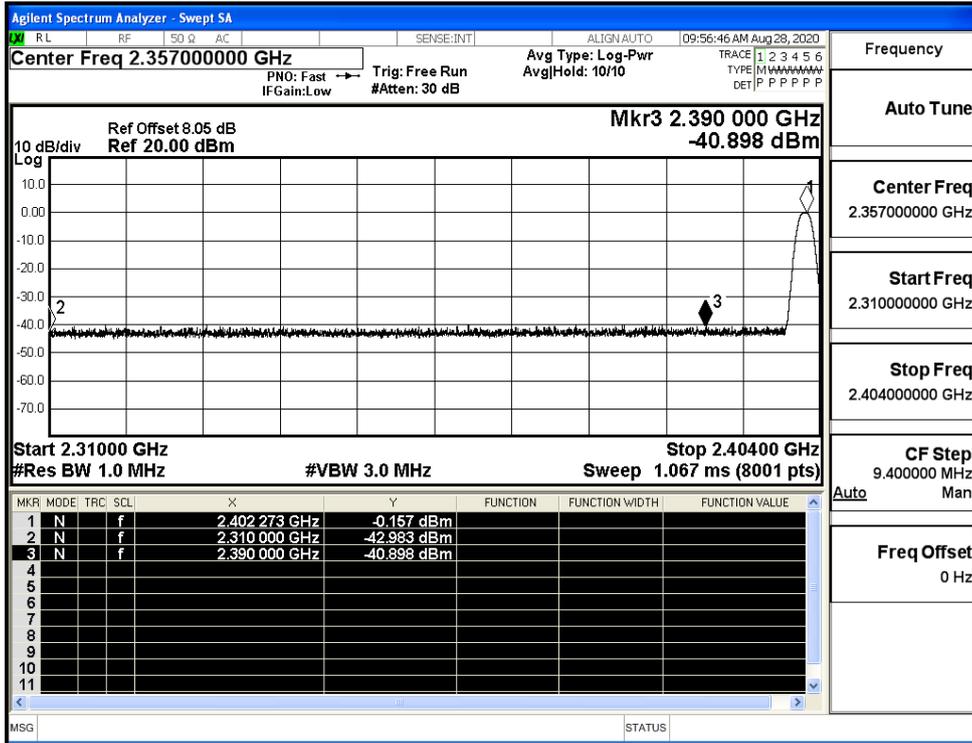
Test Graphs

LCH		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.357000000 GHz</p> <p>Start Freq 2.310000000 GHz</p> <p>Stop Freq 2.404000000 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 2.489000000 GHz</p> <p>Start Freq 2.478000000 GHz</p> <p>Stop Freq 2.500000000 GHz</p> <p>CF Step 2.200000 MHz</p> <p>Freq Offset 0 Hz</p>

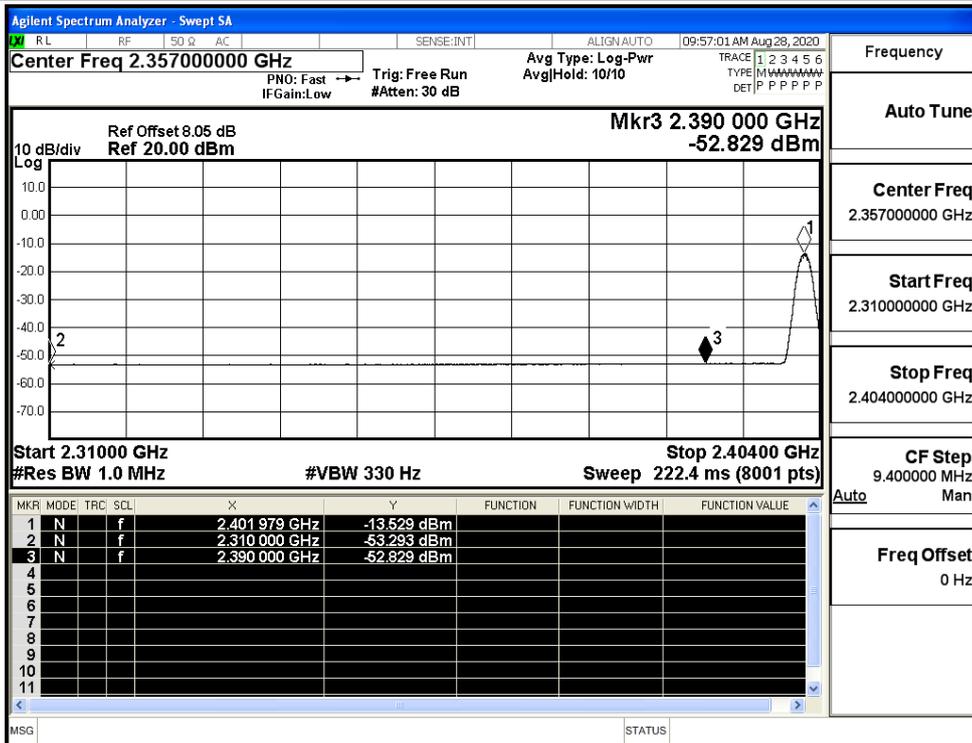
B.7 Restrict-band band-edge measurements

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	-42.98	2.0	0	52.27	PEAK	74	PASS
		Ant1	2310.0	-53.29	2.0	0	41.96	AV	54	PASS
		Ant1	2390.0	-40.90	2.0	0	54.36	PEAK	74	PASS
		Ant1	2390.0	-52.83	2.0	0	42.43	AV	54	PASS
	2480	Ant1	2483.5	-42.53	2.0	0	52.73	PEAK	74	PASS
		Ant1	2483.5	-52.38	2.0	0	42.88	AV	54	PASS
		Ant1	2500.0	-42.10	2.0	0	53.16	PEAK	74	PASS
		Ant1	2500.0	-52.32	2.0	0	42.94	AV	54	PASS

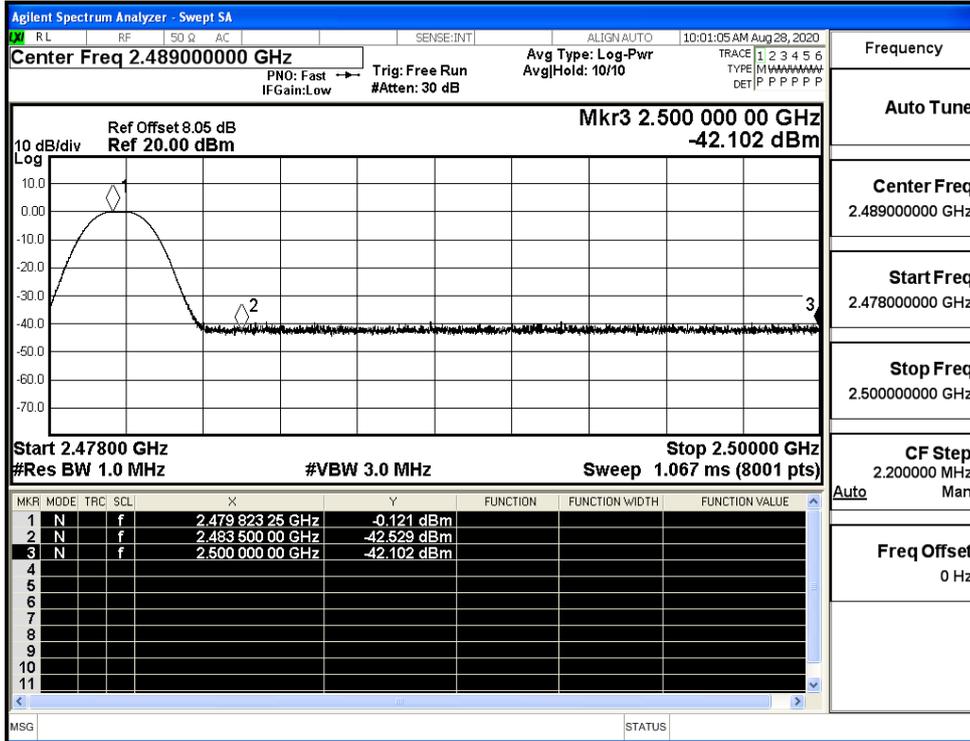
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

