# Appendix B

# RF Test Data for 2.4G WIFI (Conducted Measurement)

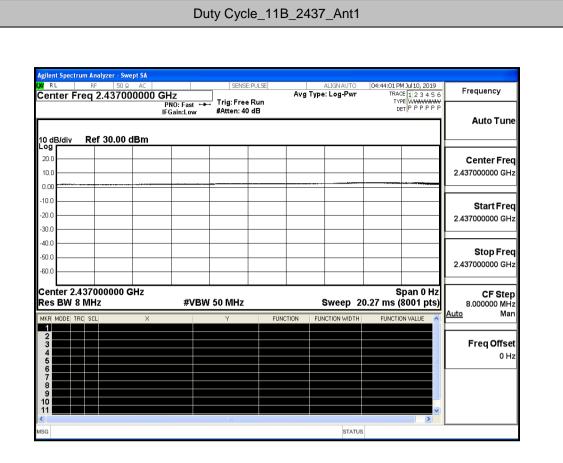
Product Name: Laptop Trade Mark: FUSION5 Test Model: T90B+ Pro

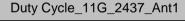
# **Environmental Conditions**

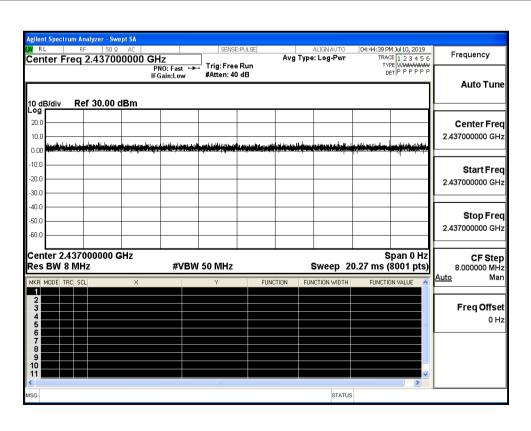
Temperature:	24.3° C				
Relative Humidity:	52.8%				
ATM Pressure:	100.0 kPa				
Test Engineer:	JERRY.ZENG				
Supervised by:	Wang.Chuang				

# **B.1 Duty Cycle**

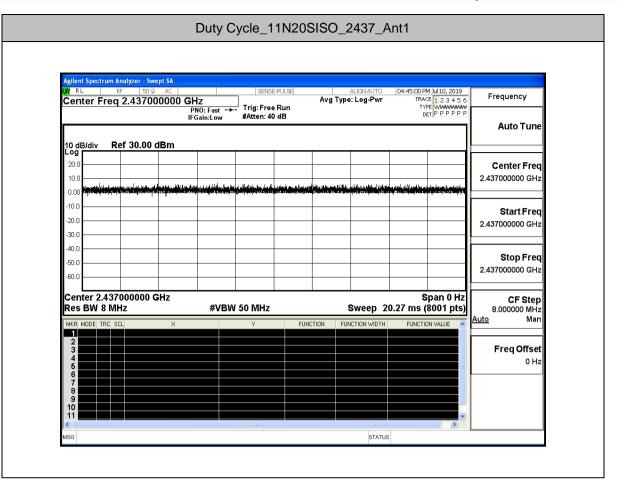
Test Mode	Test Channel Ant		Duty Cycle[%]	Verdict
11B	2437	Ant1	100	PASS
11G	2437	Ant1	100	PASS
11N20SISO	2437	Ant1	100	PASS







# SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2AIKX--T90BPRO Report No.: LCS190621068AEB

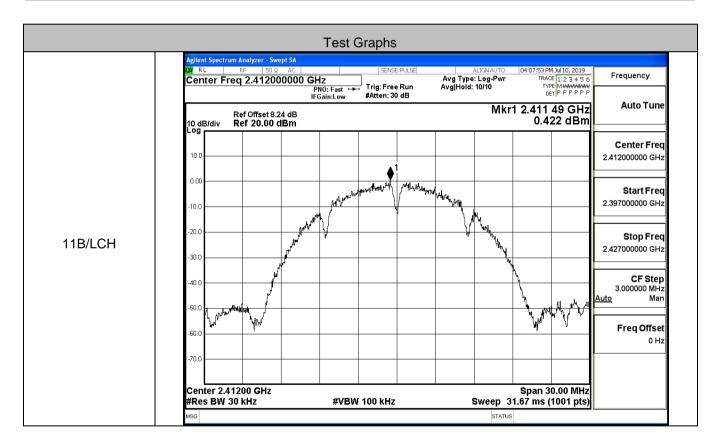


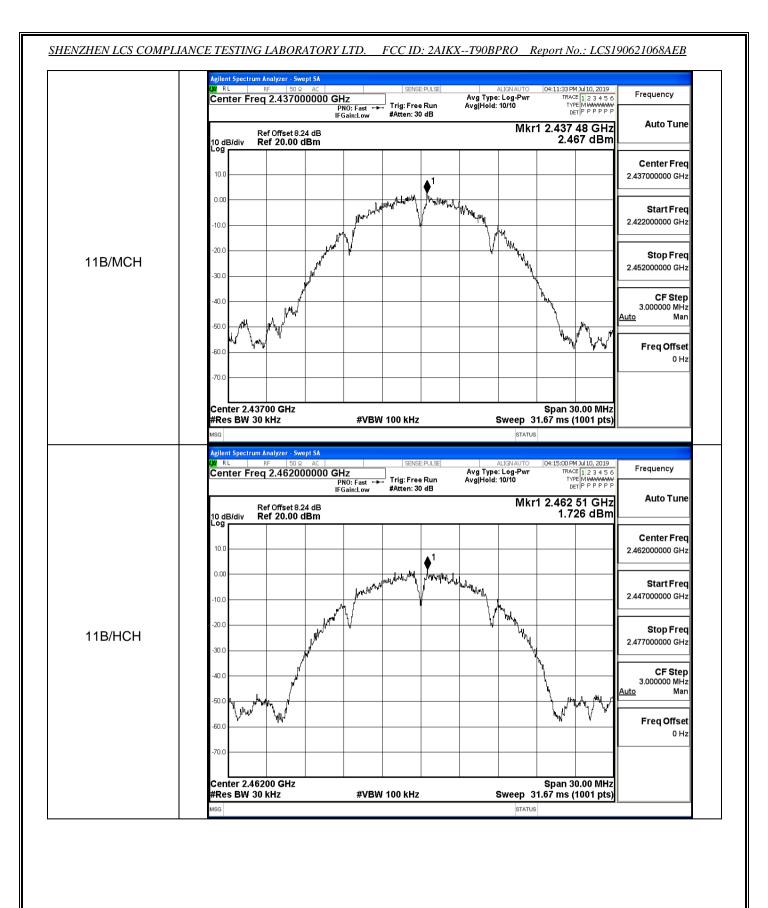
# **B.2 Maximum Conducted Output Power**

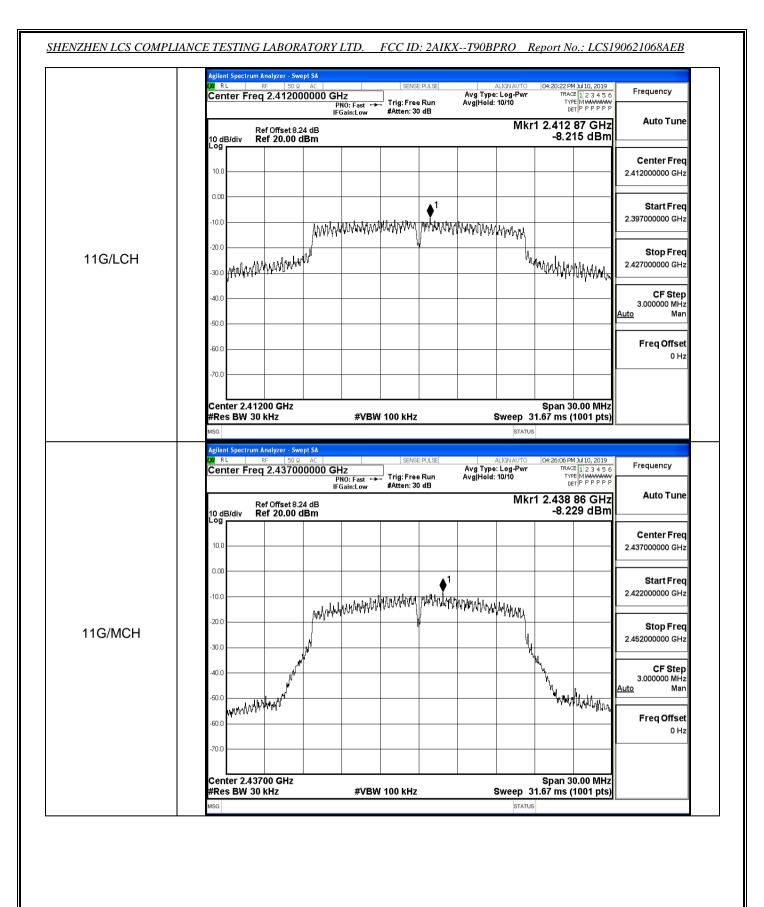
Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
	LCH	9.24	30	PASS
11B	MCH	9.31	30	PASS
	HCH	9.29	30	PASS
	LCH	9.27	30	PASS
11G	MCH	9.14	30	PASS
	HCH	9.32	30	PASS
	LCH	9.24	30	PASS
11N20SISO	MCH	9.01	30	PASS
	HCH	9.34	30	PASS

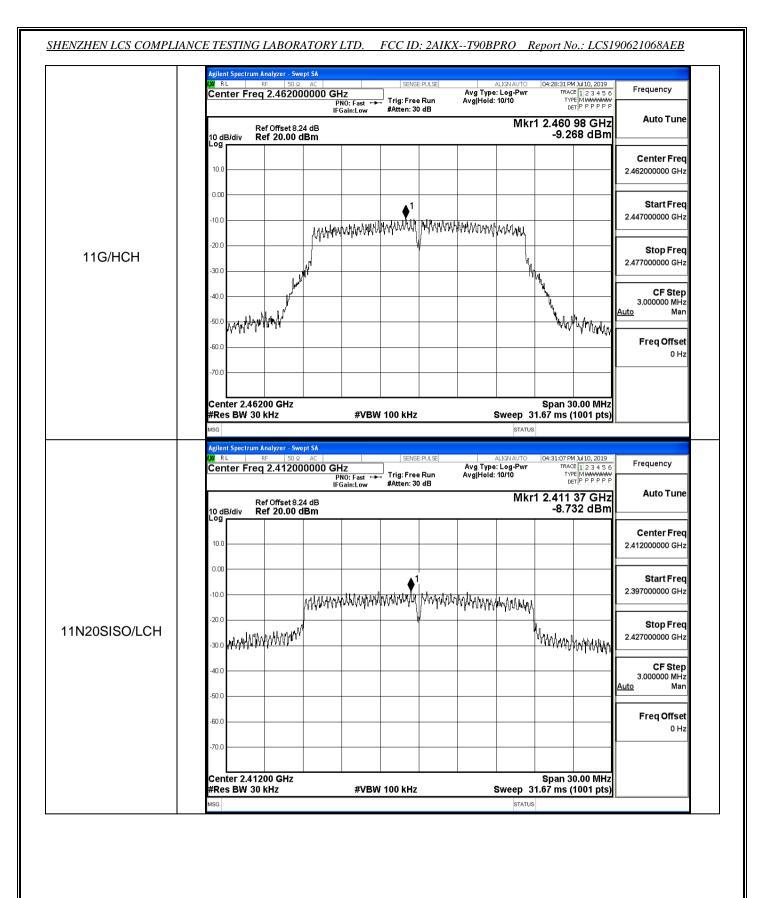
# **B.3 Maximum Power Spectral Density**

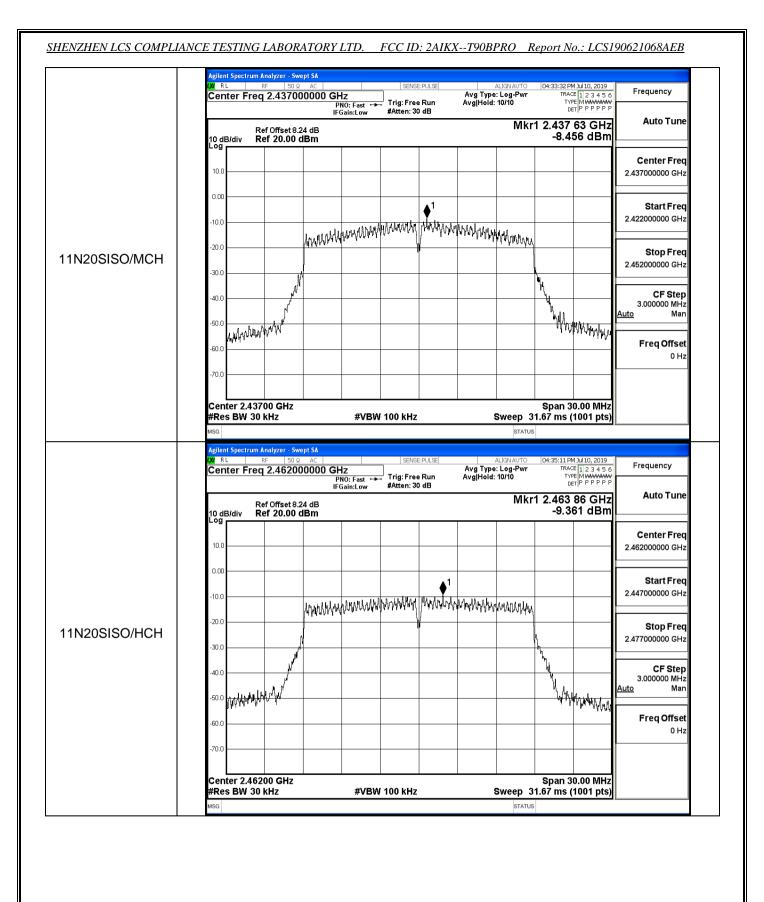
Mode	Channel	Meas.Level [dBm/30KHz]	Limit [dBm/3KHz]	Verdict
	LCH	0.422	8	PASS
11B	MCH	2.467	8	PASS
	HCH	1.726	8	PASS
	LCH	-8.215	8	PASS
11G	MCH	-8.229	8	PASS
	HCH	-9.268	8	PASS
	LCH	-8.732	8	PASS
11N20SISO	N20SISO MCH -8.456		8	PASS
	HCH	-9.361	8	PASS





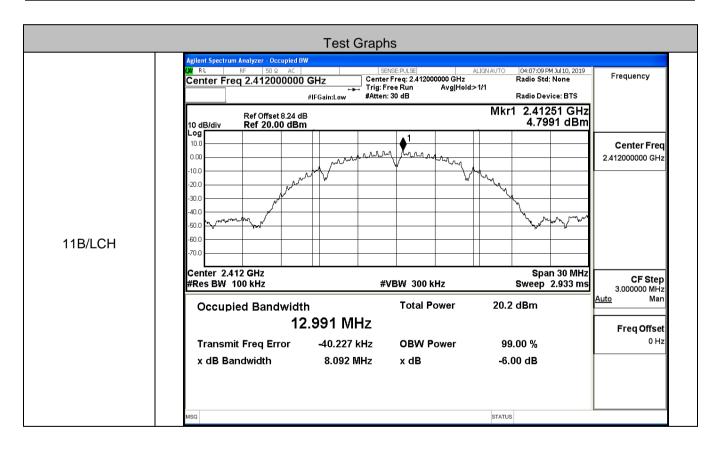






### **B.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
	LCH	8.092	≥0.5	PASS
11B	MCH	7.601	≥0.5	PASS
	HCH	8.098	≥0.5	PASS
	LCH	16.55	≥0.5	PASS
11G	MCH	15.12	≥0.5	PASS
	HCH	16.49	≥0.5	PASS
	LCH	17.75	≥0.5	PASS
11N20SISO	N20SISO MCH 16.41		≥0.5	PASS
	HCH	17.74	≥0.5	PASS



#### SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2AIKX--T90BPRO Report No.: LCS190621068AEB Frequency Center Freq: 2.437000000 GHz Trig: Free Run Avg|Hold: 1/1 Center Freq 2.437000000 GHz Trig: Free Run #Atten: 30 dB #IFGain:Low Radio Device: BTS Mkr1 2.43649 GHz Ref Offset 8.24 dB Ref 20.00 dBm 6.6605 dBm 10.0 Center Freq n no 2.437000000 GHz 10 C 11B/MCH Center 2.437 GHz #Res BW 100 kHz Span 30 MHz **CF Step** #VBW 300 kHz Sweep 2.933 ms 3.000000 MHz Man **Total Power** 21.9 dBm Occupied Bandwidth 12.565 MHz Freq Offset **Transmit Freq Error** 95.661 kHz **OBW Power** 99.00 % 7.601 MHz -6.00 dB x dB Bandwidth x dB gilent Spectrum Analyzer - Occupied BW 04:14:15 PM Jul 10, 2019 Radio Std: None Center Freq: 2.462000000 GHz Trig: Free Run Avg|Hold: 1/1 #Atten: 30 dB Frequency Center Freq 2.462000000 GHz #IFGain:Low Radio Device: BTS Mkr1 2.46149 GHz 5.9452 dBm Ref Offset 8.24 dB **Ref 20.00 dBm** 10 dB/div Center Freq $n_{n}$ 2.462000000 GHz 10.0 11B/HCH Center 2.462 GHz #Res BW 100 kHz Span 30 MHz **CF Step** 3.000000 MHz **#VBW** 300 kHz Sweep 2.933 ms Man **Total Power** 21.3 dBm Occupied Bandwidth 12.982 MHz Freq Offset 18.444 kHz **OBW Power** 99.00 % **Transmit Freq Error** 8.098 MHz -6.00 dB x dB Bandwidth x dB STATUS

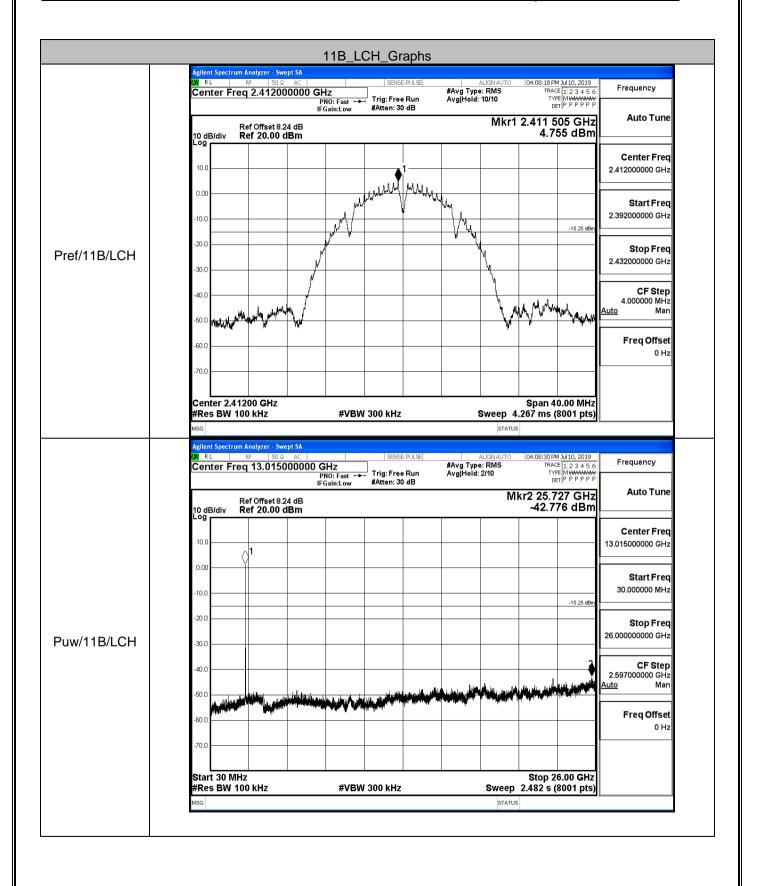
#### SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2AIKX--T90BPRO Report No.: LCS190621068AEB Frequency Center Freq: 2.412000000 GHz Trig: Free Run Avg|Hold: 1/1 Center Freq 2.412000000 GHz Trig: Free Run #Atten: 30 dB #IFGain:Low Radio Device: BTS Mkr1 2.41287 GHz -5.8043 dBm Ref Offset 8.24 dB Ref 20.00 dBm 10.0 Center Freq n no 2.412000000 GHz Janear John Marian 11G/LCH Center 2.412 GHz #Res BW 100 kHz Span 30 MHz **CF Step** #VBW 300 kHz Sweep 2.933 ms 3.000000 MHz Man **Total Power** 14.3 dBm Occupied Bandwidth 24.292 MHz Freq Offset **Transmit Freq Error** -154.45 kHz **OBW Power** 99.00 % 16.55 MHz -6.00 dB x dB Bandwidth x dB gilent Spectrum Analyzer - Occupied BW 04:25:21 PM Jul 10, 2019 Radio Std: None Center Freq: 2.437000000 GHz Trig: Free Run Avg|Hold: 1/1 #Atten: 30 dB Frequency Center Freq 2.437000000 GHz #IFGain:Low Radio Device: BTS Mkr1 2.4385 GHz -5.8407 dBm Ref Offset 8.24 dB Ref 20.00 dBm 10 dB/div Center Freq n no 2.437000000 GHz 10.0 try home mylly many will with 11G/MCH Center 2.437 GHz #Res BW 100 kHz Span 30 MHz **CF Step #VBW** 300 kHz Sweep 2.933 ms 3.000000 MHz **Total Power** 12.8 dBm Occupied Bandwidth 16.274 MHz Freq Offset 5.118 kHz **OBW Power** 99.00 % **Transmit Freq Error** 15.12 MHz -6.00 dB x dB Bandwidth x dB STATUS

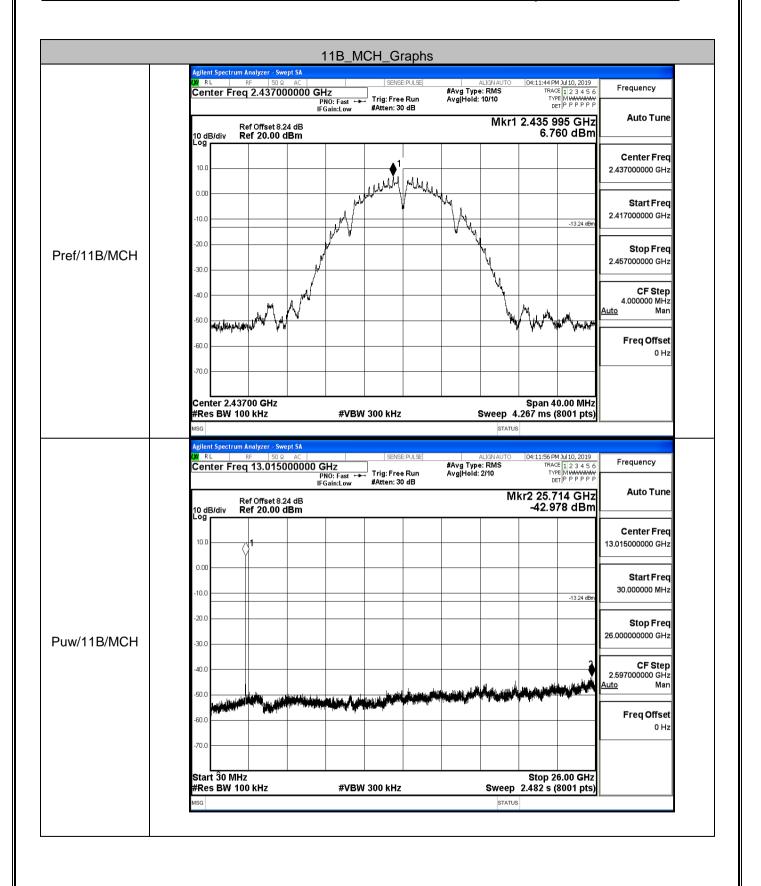
#### SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2AIKX--T90BPRO Report No.: LCS190621068AEB Frequency Center Freq: 2.462000000 GHz Trig: Free Run Avg|Hold: 1/1 Center Freq 2.462000000 GHz Trig: Free Run #Atten: 30 dB #IFGain:Low Radio Device: BTS Mkr1 2.46287 GHz -6.8550 dBm Ref Offset 8.24 dB Ref 20.00 dBm 10.0 Center Freq n no 2.462000000 GHz 10 O and the second ~vVvvV<sup>au</sup>VvvVvV<sub>akulv</sub> 11G/HCH Center 2.462 GHz #Res BW 100 kHz Span 30 MHz **CF Step** #VBW 300 kHz Sweep 2.933 ms 3.000000 MHz Man **Total Power** 13.1 dBm Occupied Bandwidth 16.463 MHz Freq Offset 18.019 kHz **Transmit Freq Error OBW Power** 99.00 % 16.49 MHz -6.00 dB x dB Bandwidth x dB gilent Spectrum Analyzer - Occupied BW 04:30:22 PM Jul 10, 2019 Radio Std: None Center Freq: 2.412000000 GHz Trig: Free Run Avg|Hold: 1/1 #Atten: 30 dB Frequency Center Freq 2.412000000 GHz #IFGain:Low Radio Device: BTS Mkr1 2.40975 GHz -5.8112 dBm Ref Offset 8.24 dB **Ref 20.00 dBm** 10 dB/div Center Freq n no 2.412000000 GHz 10.0 11N20SISO/LCH Center 2.412 GHz Span 30 MHz **CF Step** Res BW 100 kHz **#VBW** 300 kHz Sweep 2.933 ms 3.000000 MHz Man **Total Power** 14.3 dBm Occupied Bandwidth 24.815 MHz Freq Offset -288.53 kHz **OBW Power** 99.00 % **Transmit Freq Error** 17.75 MHz -6.00 dB x dB Bandwidth x dB STATUS

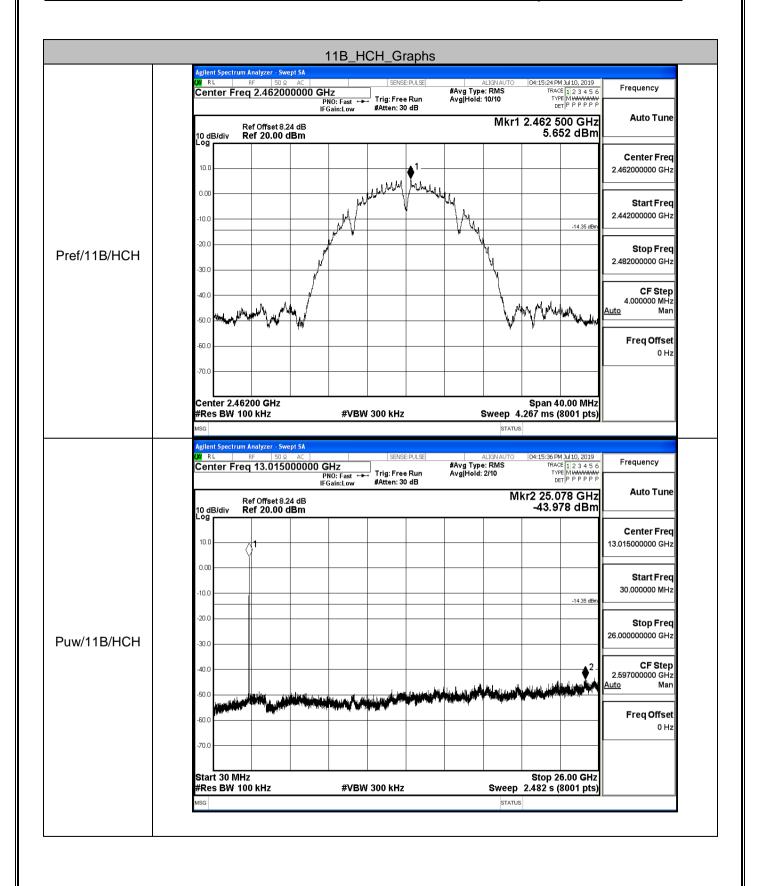
#### SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2AIKX--T90BPRO Report No.: LCS190621068AEB Frequency Center Freq: 2.437000000 GHz Trig: Free Run Avg|Hold: 1/1 Center Freq 2.437000000 GHz Trig: Free Run #Atten: 30 dB #IFGain:Low Radio Device: BTS Mkr1 2.43847 GHz -6.5531 dBm Ref Offset 8.24 dB Ref 20.00 dBm 10.0 Center Freq n no 2.437000000 GHz 10 O Mondaylow ar hand property 11N20SISO/MCH Center 2.437 GHz #Res BW 100 kHz Span 30 MHz **CF Step** #VBW 300 kHz Sweep 2.933 ms 3.000000 MHz Man **Total Power** 12.7 dBm Occupied Bandwidth 17.442 MHz Freq Offset 9.848 kHz **Transmit Freq Error OBW Power** 99.00 % 16.41 MHz -6.00 dB x dB Bandwidth x dB gilent Spectrum Analyzer - Occupied BW 04:34:26 PM Jul 10, 2019 Radio Std: None Center Freq: 2.462000000 GHz Trig: Free Run Avg|Hold: 1/1 #Atten: 30 dB Frequency Center Freq 2.462000000 GHz #IFGain:Low Radio Device: BTS Mkr1 2.46347 GHz -6.9785 dBm Ref Offset 8.24 dB Ref 20.00 dBm 10 dB/div Center Freq n no 2.462000000 GHz 10.0 Why haperhappy 11N20SISO/HCH Center 2.462 GHz #Res BW 100 kHz Span 30 MHz **CF Step #VBW** 300 kHz Sweep 2.933 ms 3.000000 MHz **Total Power** 13.0 dBm Occupied Bandwidth 17.658 MHz Freq Offset 23.375 kHz **OBW Power** 99.00 % **Transmit Freq Error** 17.74 MHz -6.00 dB x dB Bandwidth x dB STATUS

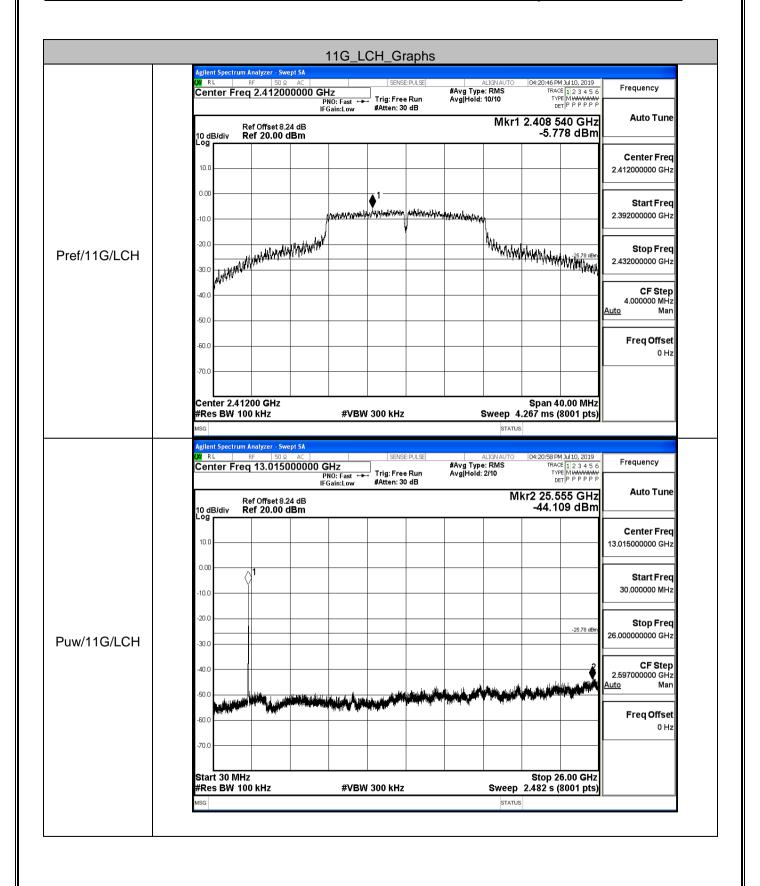
# **B.5 RF Conducted Spurious Emissions**

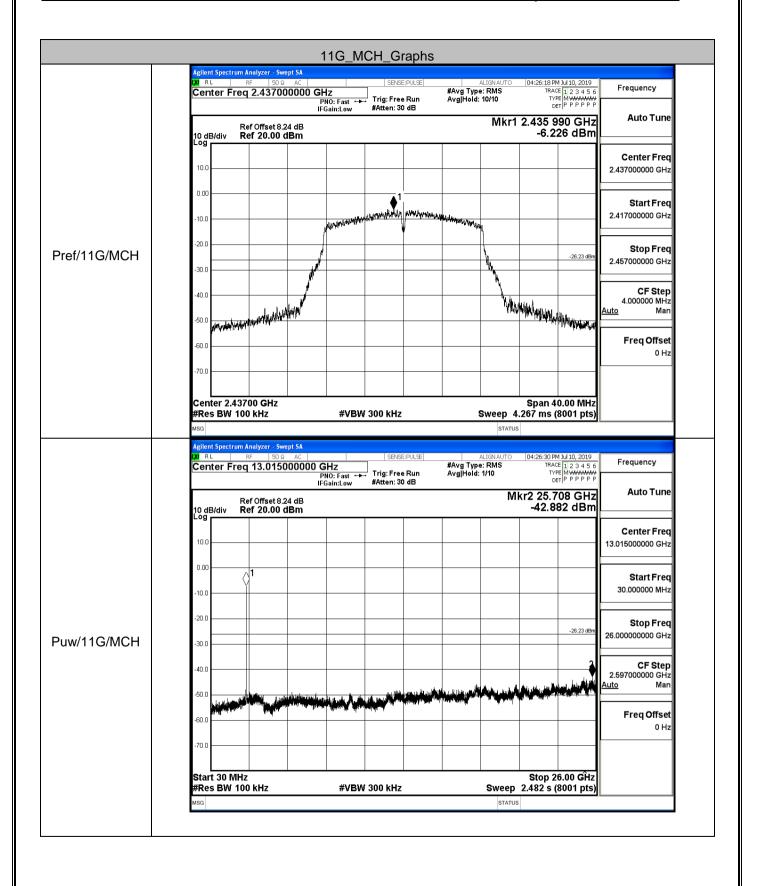
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdic t
	LCH	4.755	-42.776	-15.245	PASS
11B	MCH	6.76	-42.978	-13.240	PASS
	HCH	5.652	-43.978	-14.348	PASS
	LCH	-5.778	-44.109	-25.778	PASS
11G	MCH	-6.226	-42.882	-26.226	PASS
	HCH	-6.968	-43.700	-26.968	PASS
	LCH	-6.139	-43.838	-26.139	PASS
11N20	MCH	-6.777	-43.044	-26.777	PASS
SISO	НСН	-7.197	-43.445	-27.197	PASS

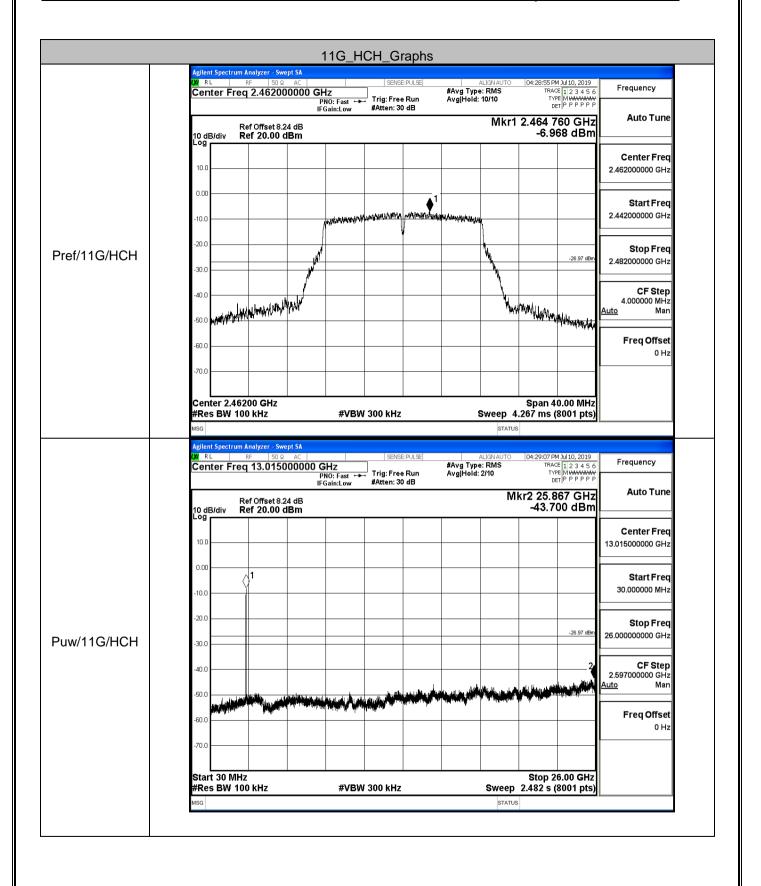


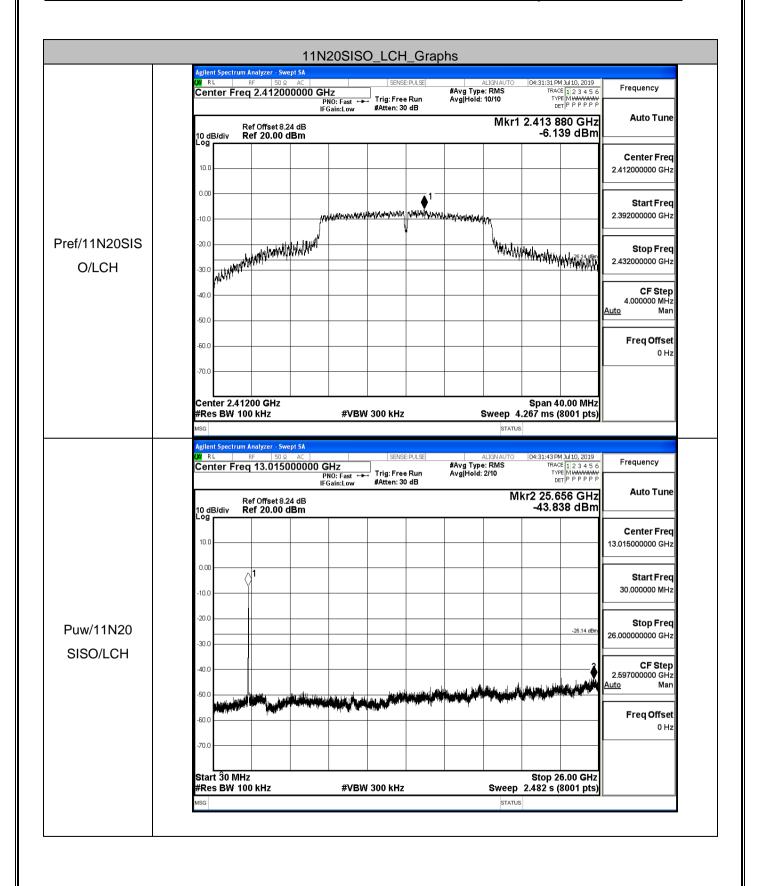


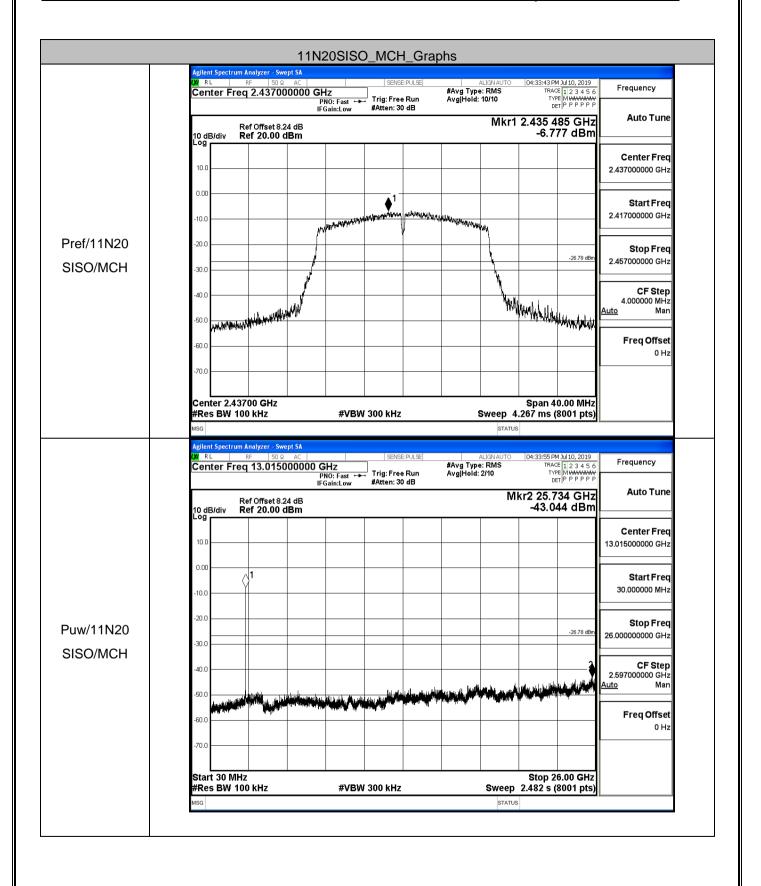


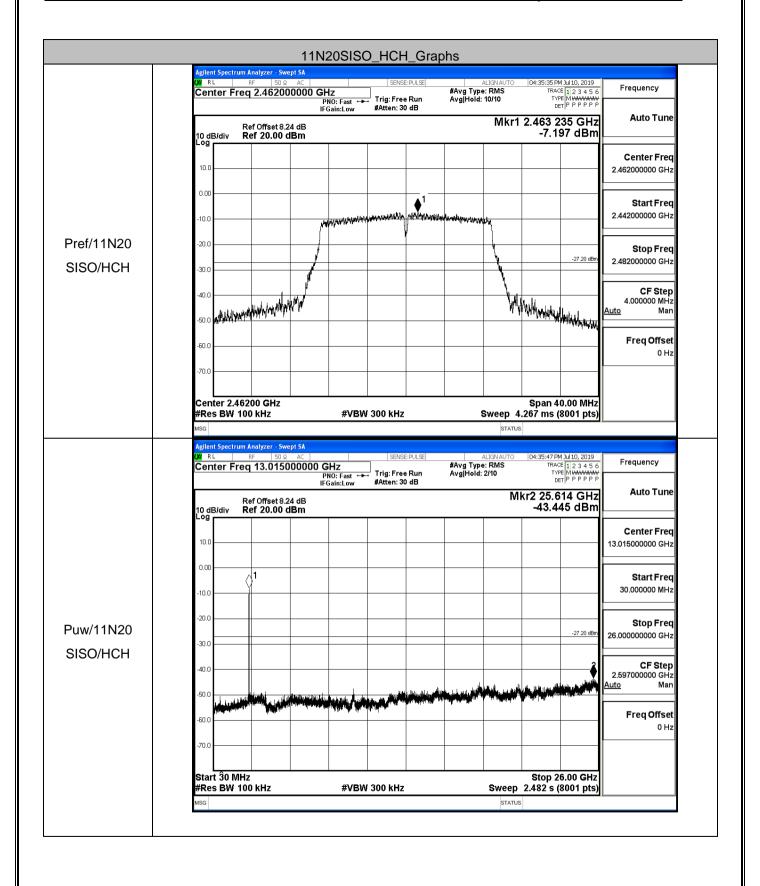






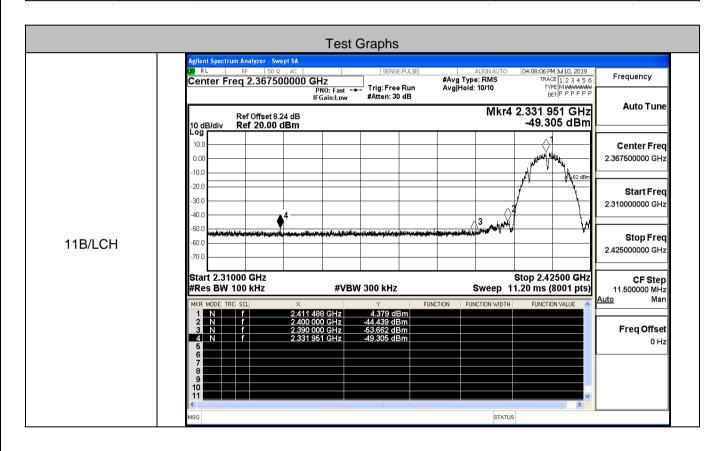


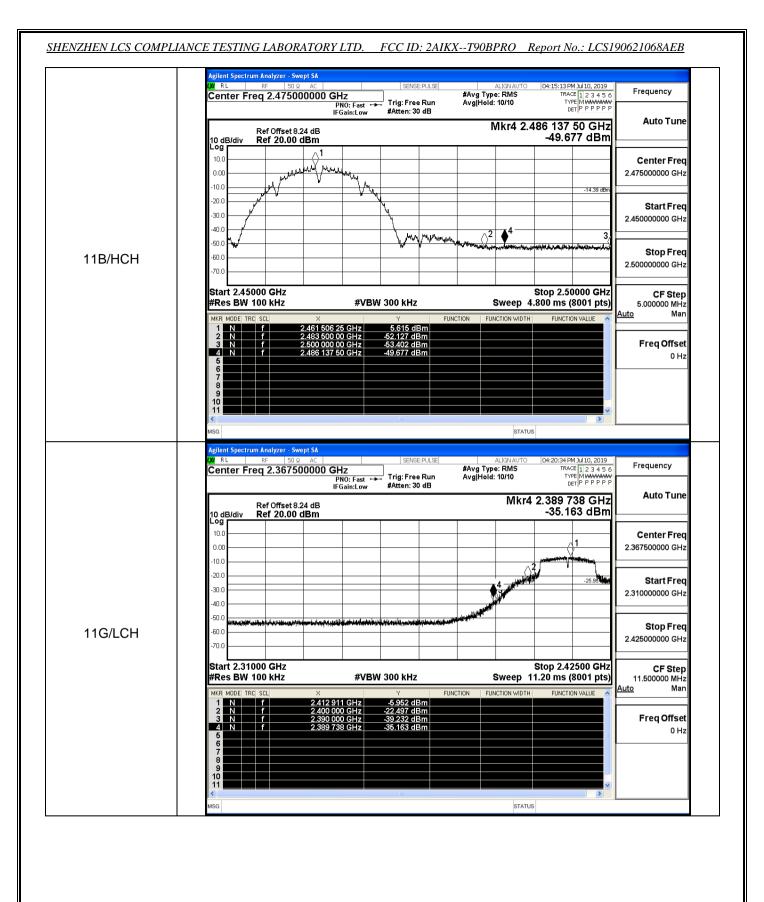




# **B.6 Band-edge for RF Conducted Emissions**

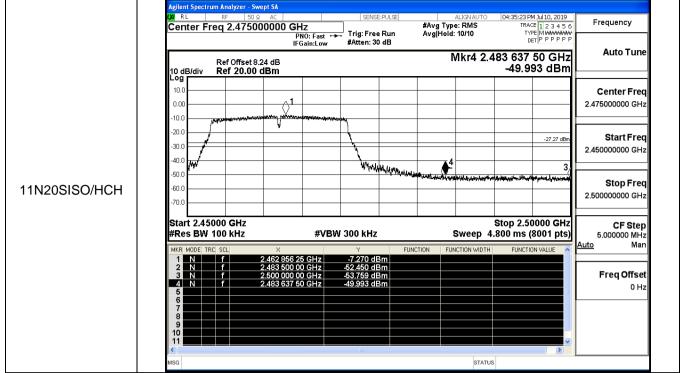
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level	Limit [dBm]	Verdict
445	LCH	4.379	-49.305	-15.62	PASS
11B	HCH	5.615	-49.677	-14.39	PASS
11G	LCH	-5.952	-35.163	-25.95	PASS
	НСН	-7.038	-49.683	-27.04	PASS
11N20SISO	LCH	-6.335	-37.945	-26.34	PASS
	НСН	-7.270	-49.993	-27.27	PASS





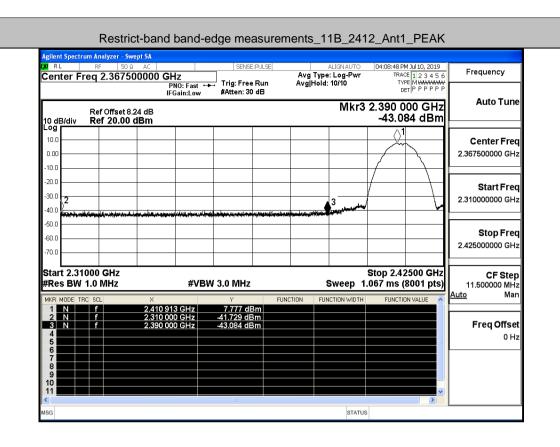
#### SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2AIKX--T90BPRO Report No.: LCS190621068AEB Frequency #Avg Type: RMS Avg|Hold: 10/10 Center Freq 2.475000000 GHz Trig: Free Run PNO: Fast +++ IFGain:Low #Atten: 30 dB Mkr4 2.484 556 25 GHz -49.683 dBm Auto Tune Ref Offset 8.24 dB Ref 20.00 dBm 10.0 Center Freq 2.475000000 GHz 10 f 20.0 Start Freq -27.04 dE 30.0 2.450000000 GHz -50.0 Stop Freq 11G/HCH -en r 2.500000000 GHz Start 2.45000 GHz #Res BW 100 kHz Stop 2.50000 GHz **CF Step** 5.000000 MHz **#VBW** 300 kHz Sweep 4.800 ms (8001 pts) <u>Auto</u> Man FUNCTION Freq Offset Agilent Spectrum Analyzer - Swept SA Frequency #Avg Type: RMS Avg|Hold: 10/10 Center Freq 2.367500000 GHz PNO: Fast +++ IFGain:Low Trig: Free Run #Atten: 30 dB Mkr4 2.389 853 GHz -37.945 dBm Auto Tune Ref Offset 8.24 dB Ref 20.00 dBm 10.0 Center Freq <u>∧</u>1 2.367500000 GHz 10.0 -20.0 -26.34 Start Freq 30.0 2.310000000 GHz Stop Freq 11N20SISO/LCH -60.0 2.425000000 GHz Start 2.31000 GHz Stop 2.42500 GHz CF Step #Res BW 100 kHz #VBW 300 kHz Sweep 11.20 ms (8001 pts) 11.500000 MHz Man Freq Offset 0 Hz STATUS

# SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2AIKX--T90BPRO Report No.: LCS190621068AEB

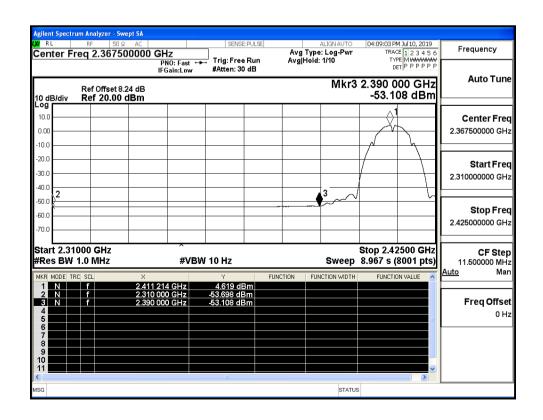


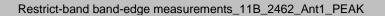
# **B.7 Restrict-band band-edge measurements**

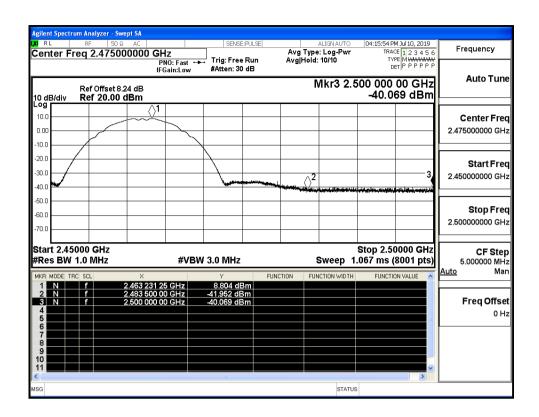
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBu V/m]	Verdict
	2412	Ant1	2310.0	-41.73	2.0	0	55.53	PEAK	74	PASS
	2412	Ant1	2310.0	-53.70	2.0	0	43.56	AV	54	PASS
	2412	Ant1	2390.0	-43.08	2.0	0	54.17	PEAK	74	PASS
	2412	Ant1	2390.0	-53.11	2.0	0	44.15	AV	54	PASS
11B	2462	Ant1	2483.5	-41.95	2.0	0	55.31	PEAK	74	PASS
	2462	Ant1	2483.5	-52.72	2.0	0	44.53	AV	54	PASS
	2462	Ant1	2500.0	-40.07	2.0	0	57.19	PEAK	74	PASS
	2462	Ant1	2500.0	-53.11	2.0	0	44.15	AV	54	PASS
	2412	Ant1	2310.0	-42.86	2.0	0	54.39	PEAK	74	PASS
	2412	Ant1	2310.0	-53.71	2.0	0	43.55	AV	54	PASS
	2412	Ant1	2390.0	-36.22	2.0	0	61.03	PEAK	74	PASS
	2412	Ant1	2390.0	-49.33	2.0	0	47.92	AV	54	PASS
11G	2462	Ant1	2483.5	-41.45	2.0	0	55.80	PEAK	74	PASS
	2462	Ant1	2483.5	-52.72	2.0	0	44.53	AV	54	PASS
	2462	Ant1	2500.0	-42.56	2.0	0	54.70	PEAK	74	PASS
	2462	Ant1	2500.0	-53.11	2.0	0	44.14	AV	54	PASS
	2412	Ant1	2310.0	-42.81	2.0	0	54.45	PEAK	74	PASS
	2412	Ant1	2310.0	-53.74	2.0	0	43.52	AV	54	PASS
	2412	Ant1	2390.0	-24.90	2.0	0	72.36	PEAK	74	PASS
11N20	2412	Ant1	2390.0	-40.98	2.0	0	56.28	AV	54	PASS
SISO	2462	Ant1	2483.5	-42.64	2.0	0	54.61	PEAK	74	PASS
	2462	Ant1	2483.5	-52.62	2.0	0	44.64	AV	54	PASS
	2462	Ant1	2500.0	-42.58	2.0	0	54.68	PEAK	74	PASS
	2462	Ant1	2500.0	-53.10	2.0	0	44.16	AV	54	PASS



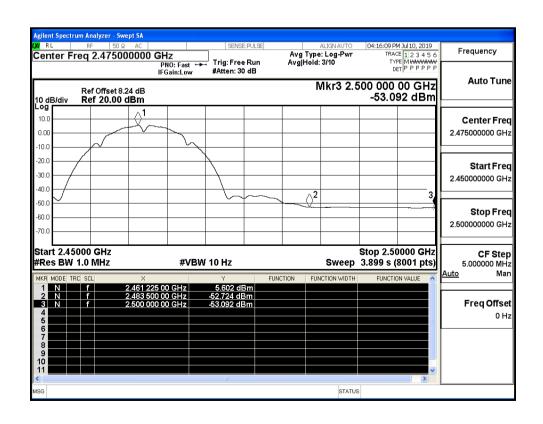
### Restrict-band band-edge measurements\_11B\_2412\_Ant1\_AV

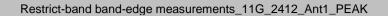


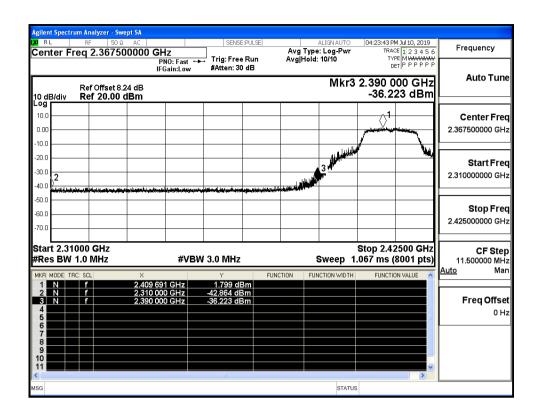




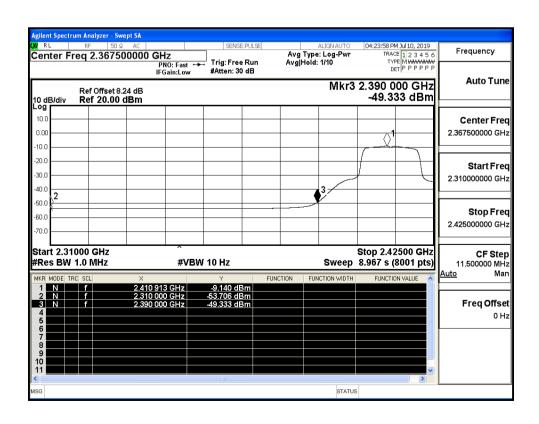
### Restrict-band band-edge measurements\_11B\_2462\_Ant1\_AV

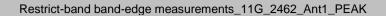


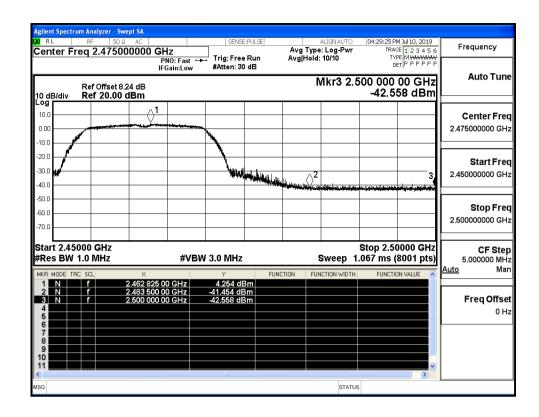




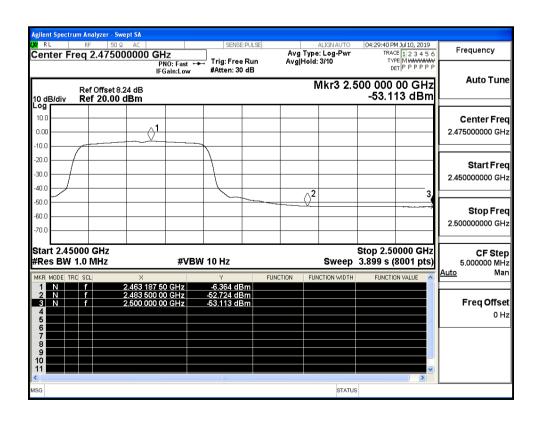
### Restrict-band band-edge measurements\_11G\_2412\_Ant1\_AV

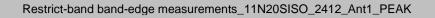


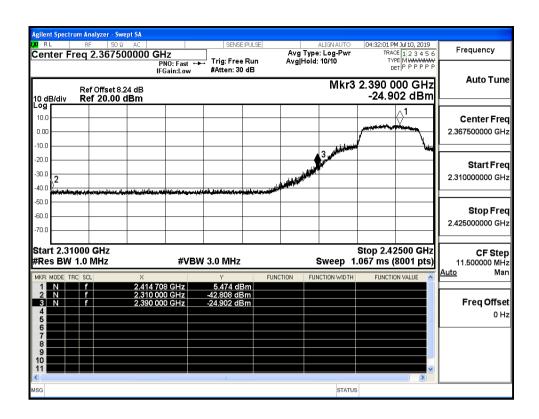




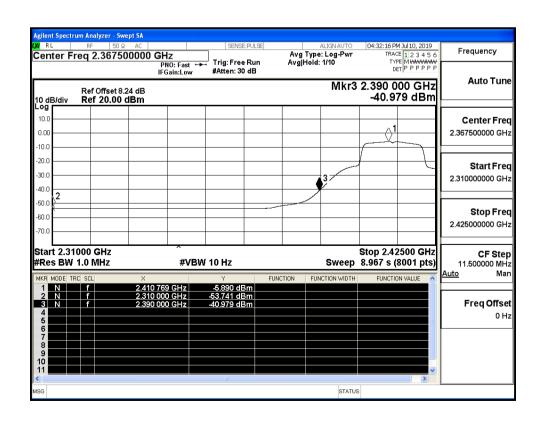
### Restrict-band band-edge measurements\_11G\_2462\_Ant1\_AV

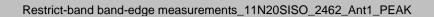


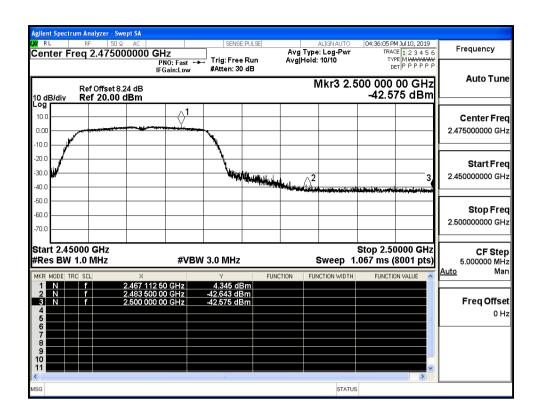




### Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_AV







### Restrict-band band-edge measurements\_11N20SISO\_2462\_Ant1\_AV

