Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: DP50-2

Trade Mark: OBDSTAR®

Test Model: X300 PRO4

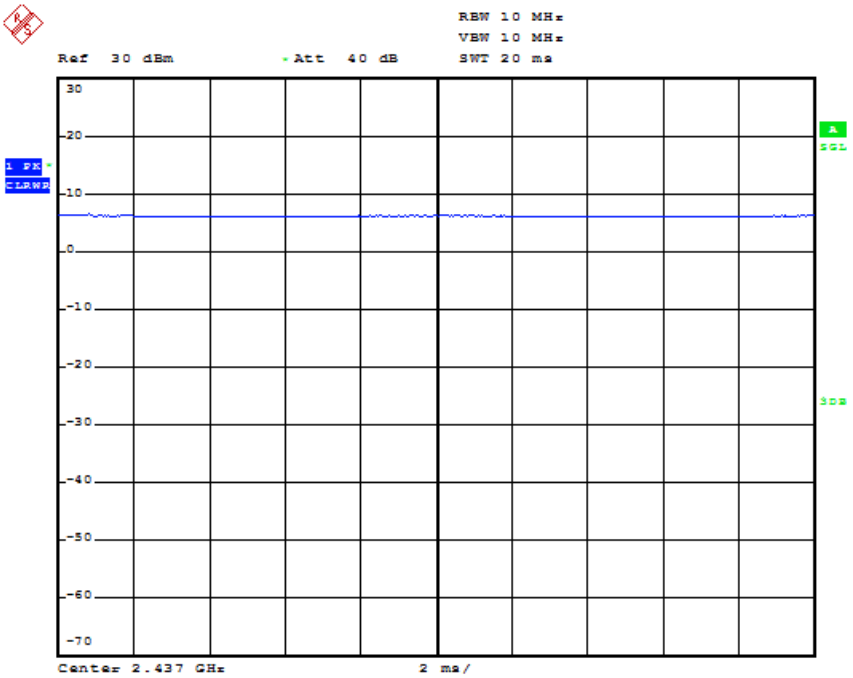
Environmental Conditions

Temperature:	24.1° C
Relative Humidity:	53.2 %
ATM Pressure:	100.0 kPa
Test Engineer:	SCENT HU
Supervised by:	Wang.Chuang

C.1 Duty Cycle

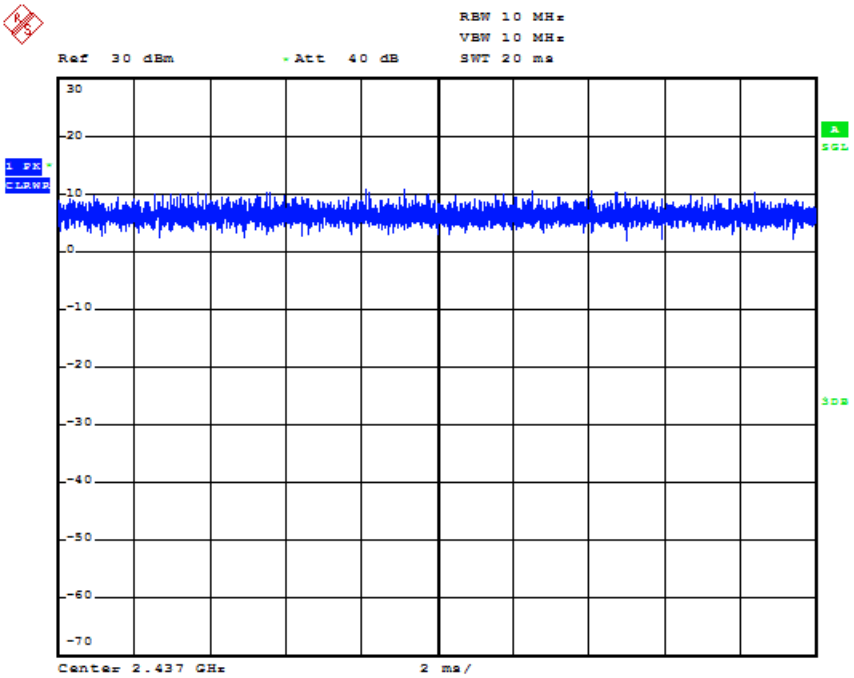
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant1	100	PASS
11G	2437	Ant1	100	PASS
11N20SISO	2437	Ant1	100	PASS

Duty Cycle_11B_2437_Ant1



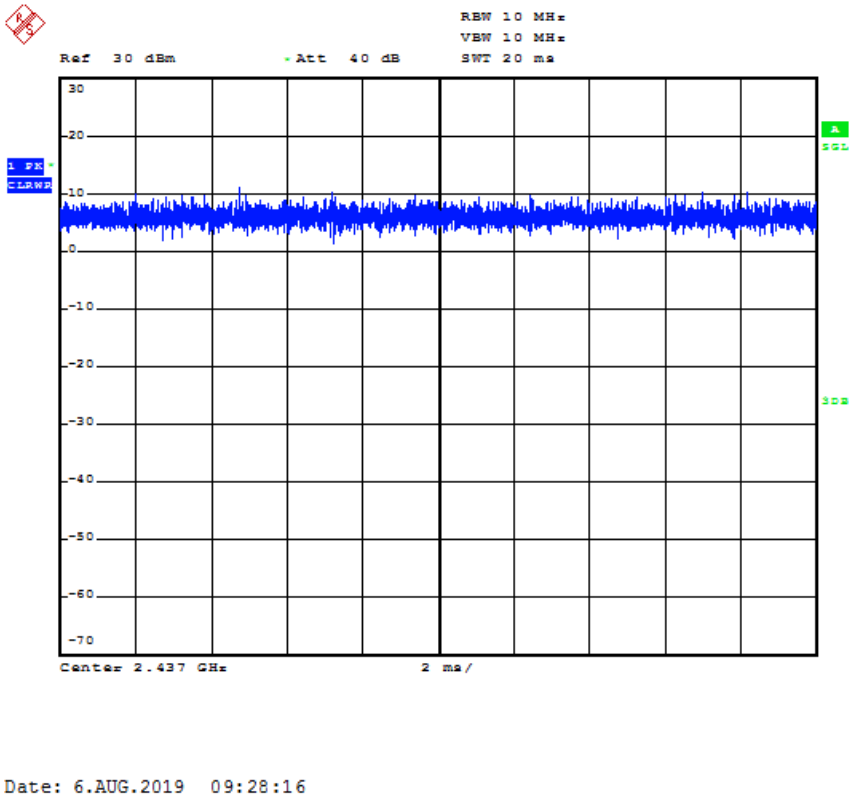
Date: 6.AUG.2019 09:27:08

Duty Cycle_11G_2437_Ant1



Date: 6.AUG.2019 09:27:37

Duty Cycle_11N20SISO_2437_Ant1



C.2 Maximum Conducted Output Power

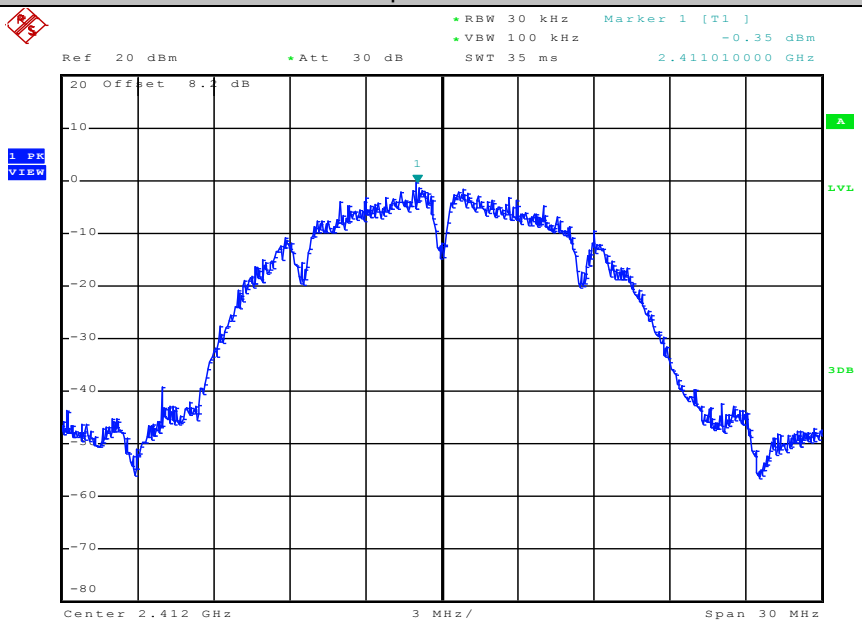
Mode	Channel	Max Peak Conducted Power	Max Average Conducted Power	Limit [dBm]	Verdict
11B	LCH	14.65	7.92	30	PASS
	MCH	14.44	7.64	30	PASS
	HCH	13.91	7.35	30	PASS
11G	LCH	17.29	9.33	30	PASS
	MCH	17.26	9.02	30	PASS
	HCH	17.08	8.92	30	PASS
11N20S ISO	LCH	16.96	8.86	30	PASS
	MCH	17.25	8.95	30	PASS
	HCH	16.91	8.07	30	PASS

C.3 Maximum Power Spectral Density

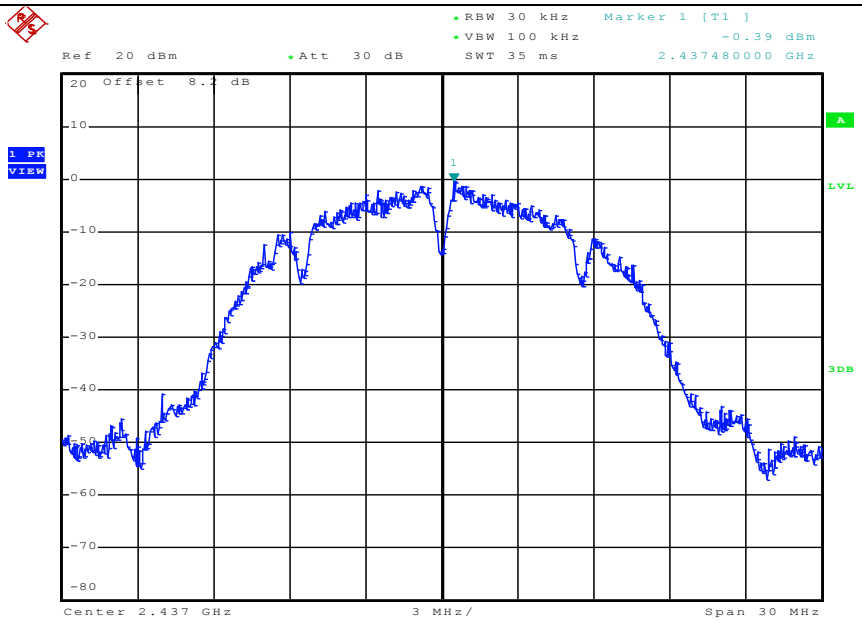
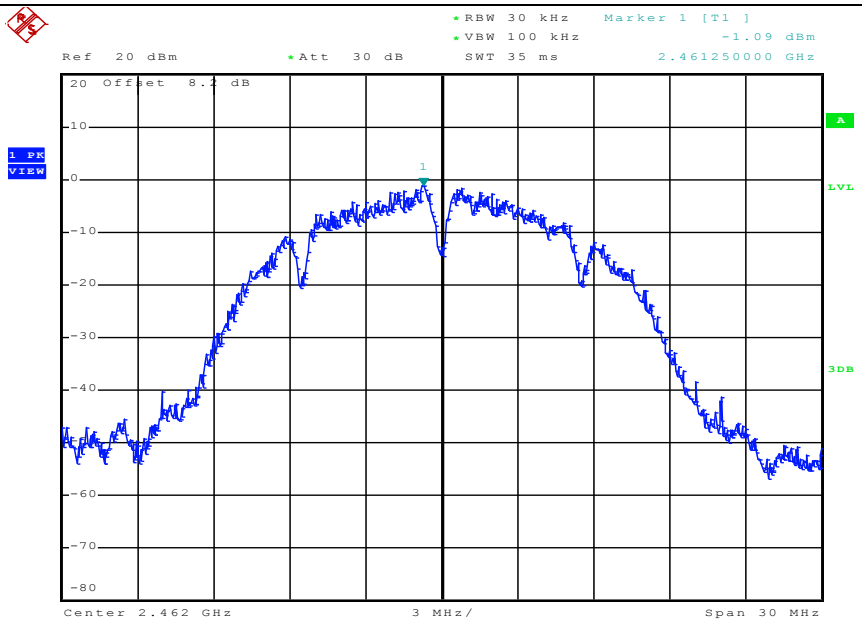
Mode	Channel	Meas.Level [dBm/30KHz]	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-0.350	-10.350	8	PASS
	MCH	-0.390	-10.390	8	PASS
	HCH	-1.090	-11.090	8	PASS
11G	LCH	-5.940	-15.940	8	PASS
	MCH	-5.470	-15.470	8	PASS
	HCH	-5.820	-15.820	8	PASS
11N20SISO	LCH	-4.810	-14.810	8	PASS
	MCH	-4.510	-14.510	8	PASS
	HCH	-5.070	-15.070	8	PASS

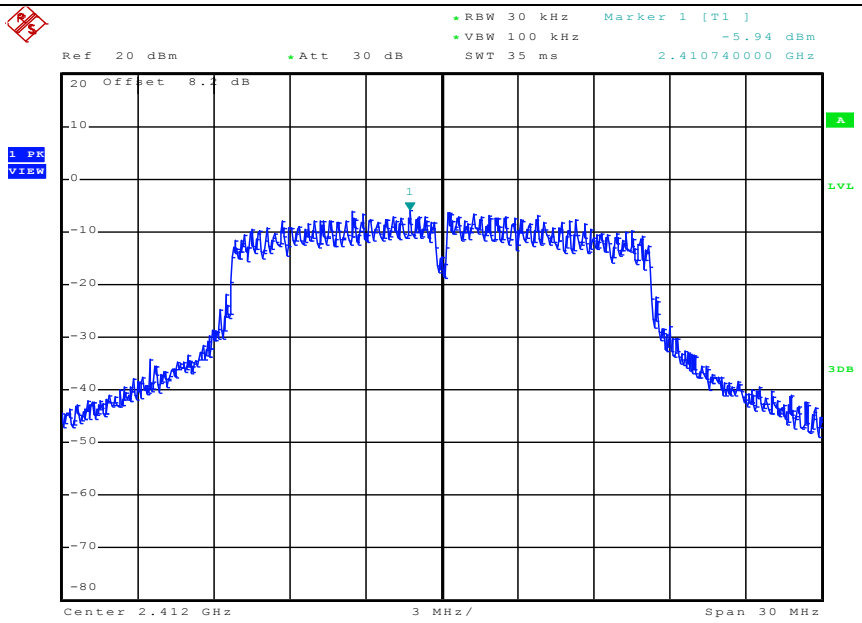
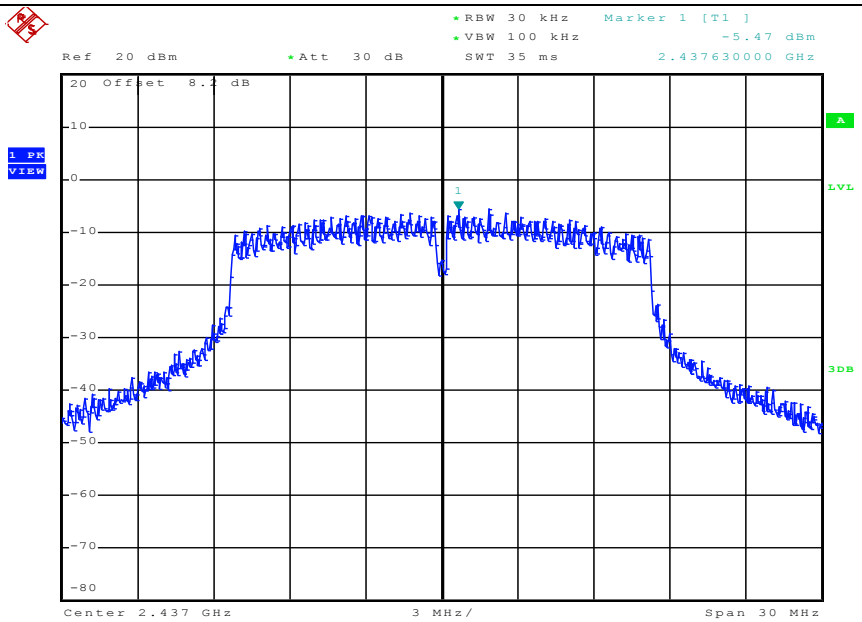
Test Graphs

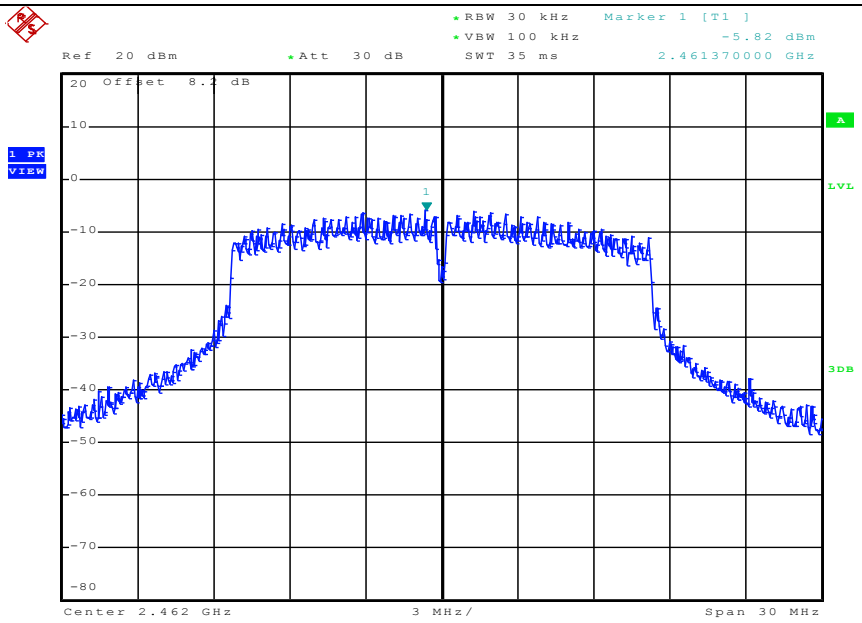
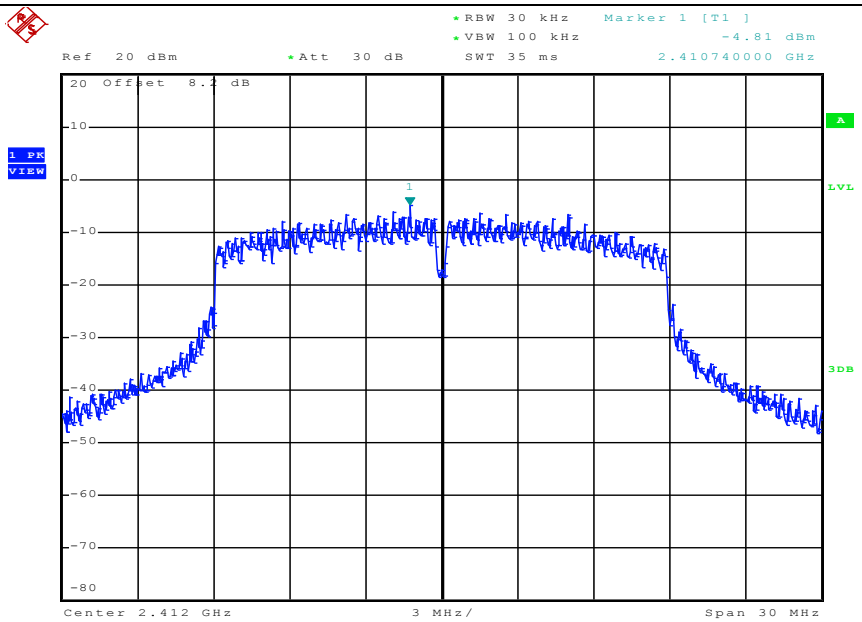
11B/LCH

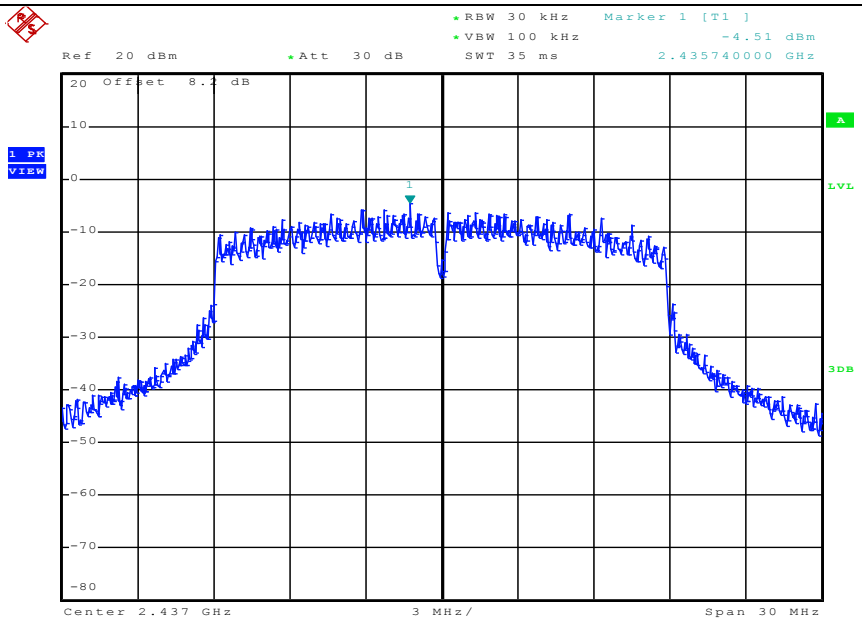
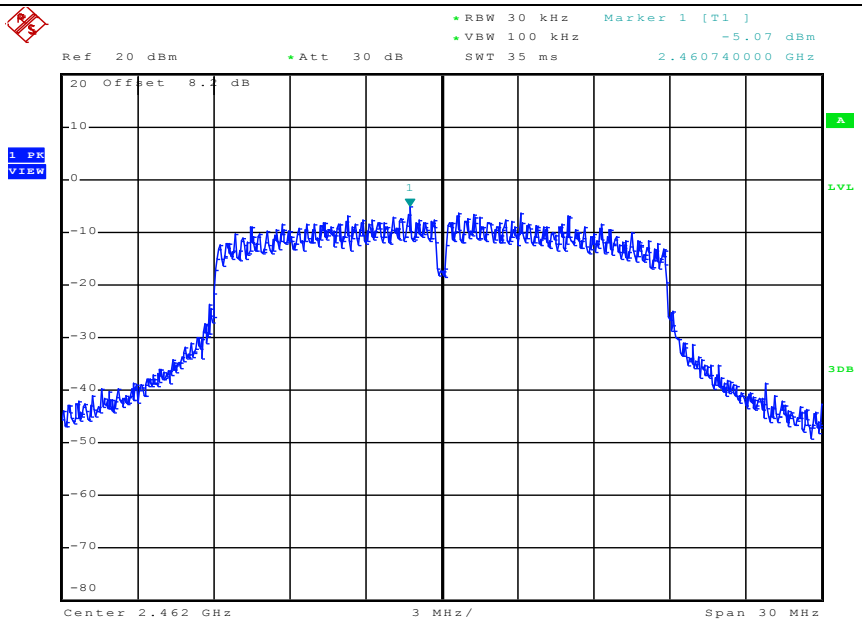


Date: 6.AUG.2019 12:13:40

11B/MCH	 Date: 6.AUG.2019 12:18:06
11B/HCH	 Date: 6.AUG.2019 12:20:01

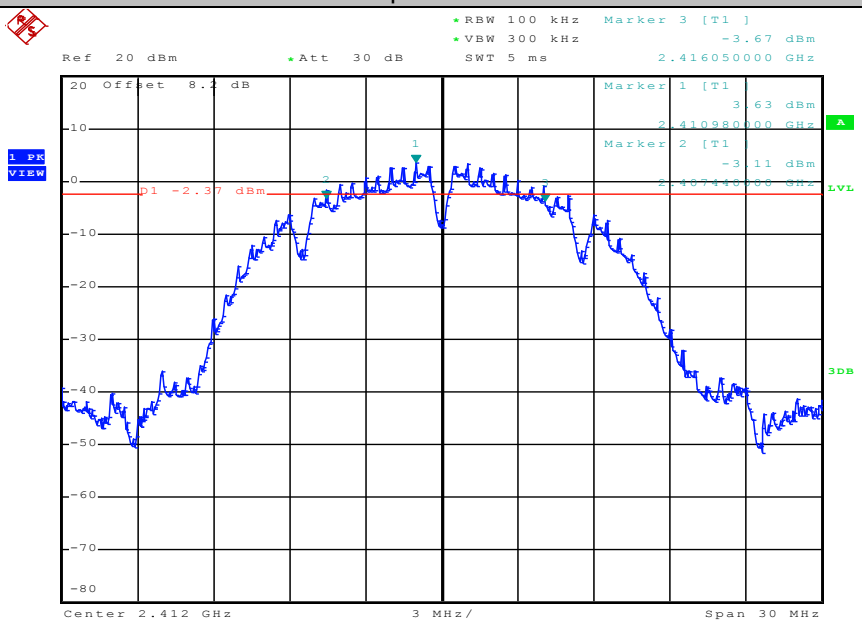
11G/LCH	 Date: 6.AUG.2019 12:36:59
11G/MCH	 Date: 6.AUG.2019 12:39:47

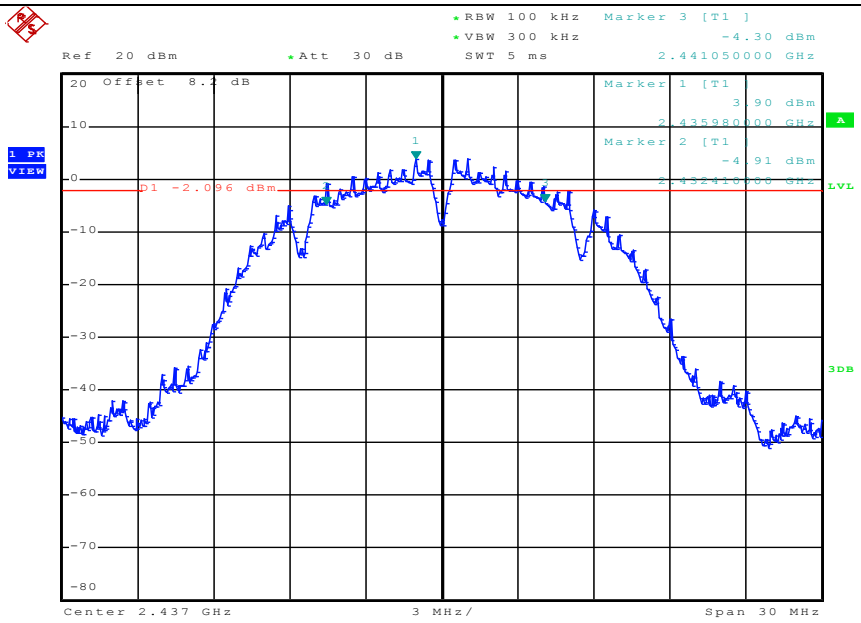
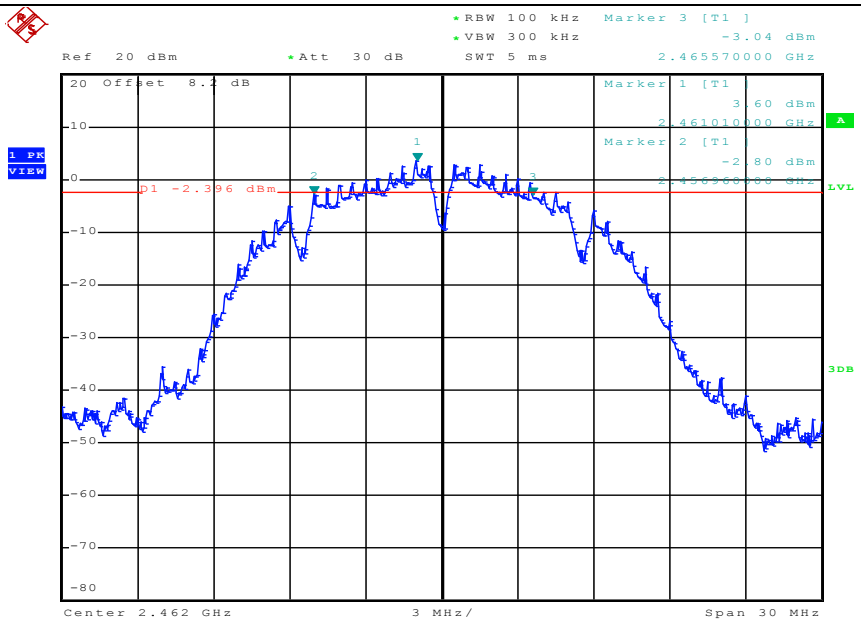
11G/HCH	 Date: 6.AUG.2019 12:41:39
11N20SISO/LCH	 Date: 6.AUG.2019 12:51:54

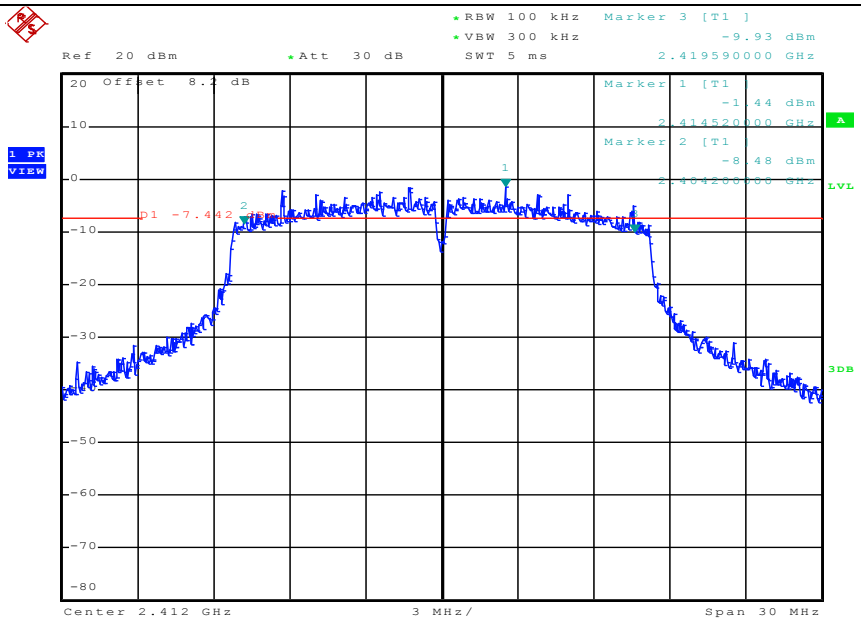
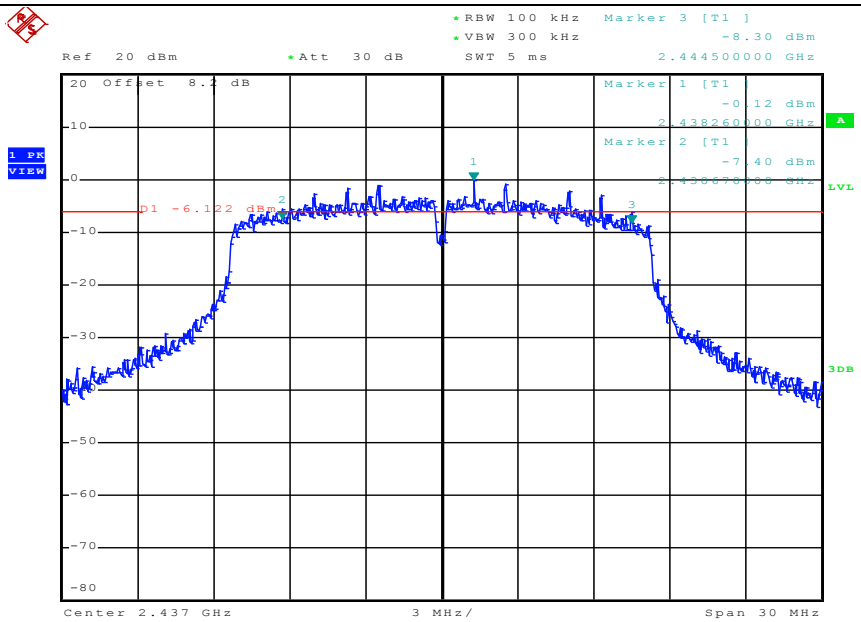
11N20SISO/MCH	 Date: 6.AUG.2019 12:55:49
11N20SISO/HCH	 Date: 6.AUG.2019 12:57:53

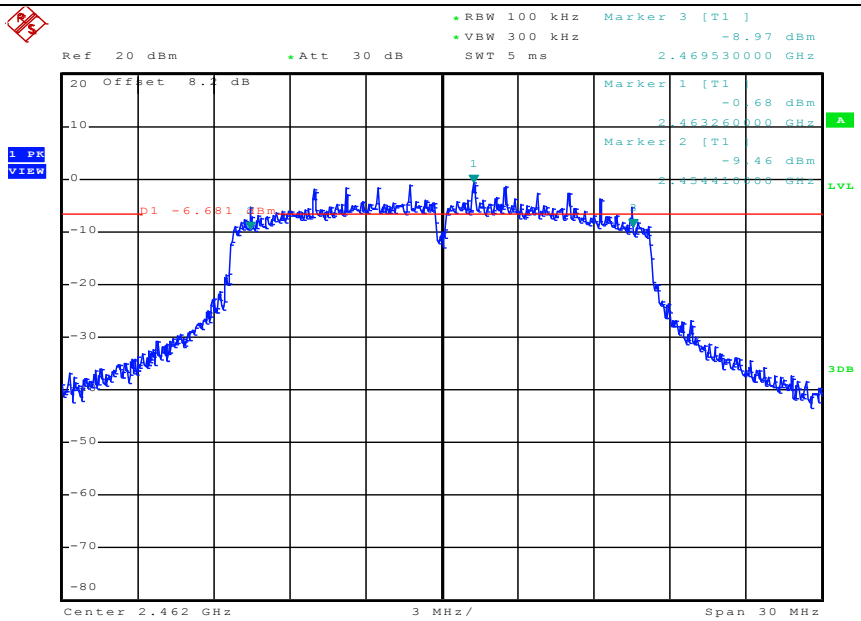
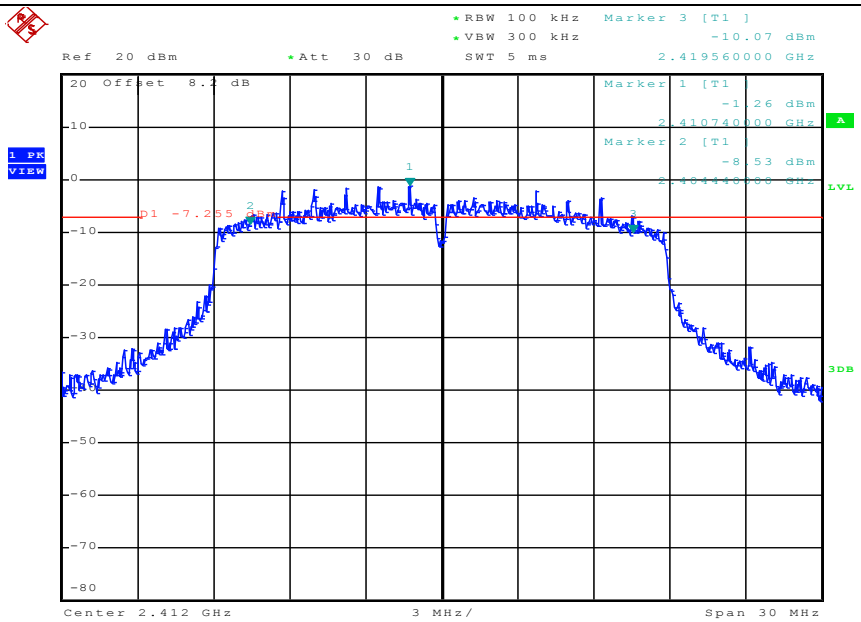
C.4 6dB Bandwidth

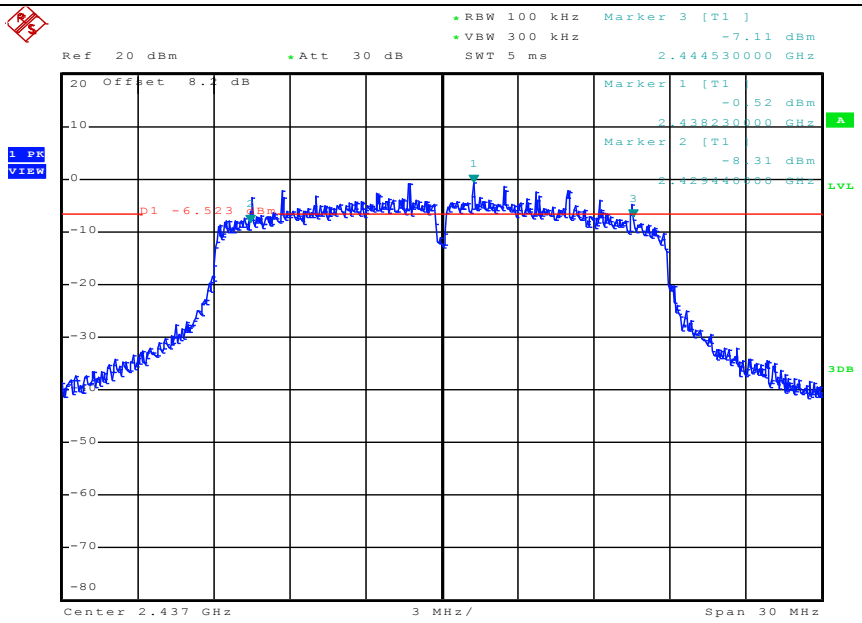
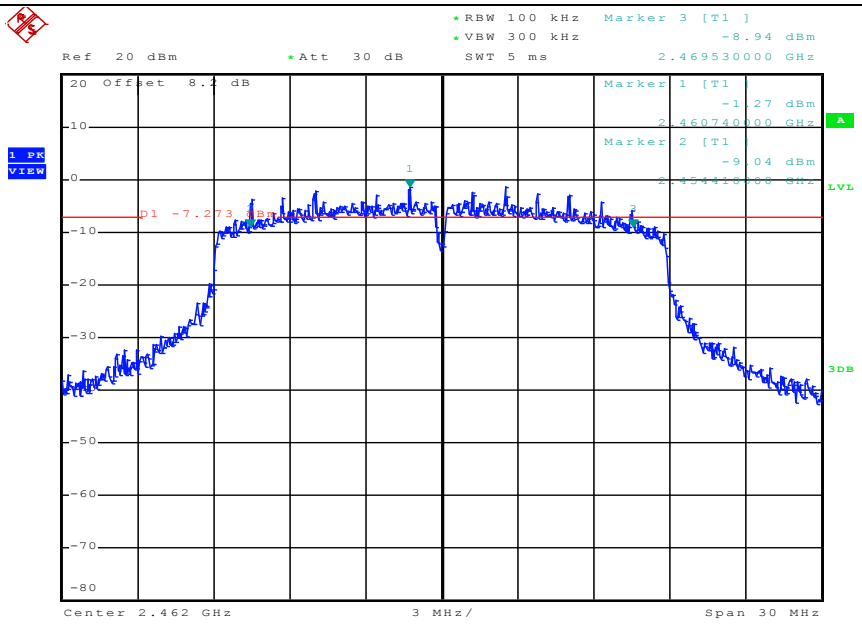
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	8.610	⩾0.5	PASS
	MCH	8.640	⩾0.5	PASS
	HCH	8.610	⩾0.5	PASS
11G	LCH	15.390	⩾0.5	PASS
	MCH	13.830	⩾0.5	PASS
	HCH	15.120	⩾0.5	PASS
11N20SISO	LCH	15.120	⩾0.5	PASS
	MCH	15.090	⩾0.5	PASS
	HCH	15.120	⩾0.5	PASS

Test Graphs	
11B/LCH	 Date: 6.AUG.2019 12:09:59

11B/MCH	
11B/HCH	

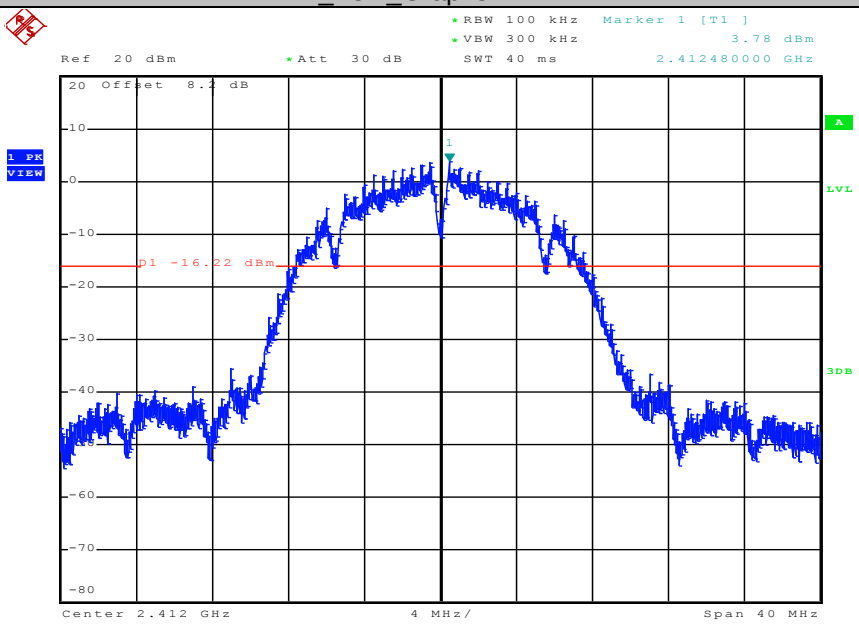
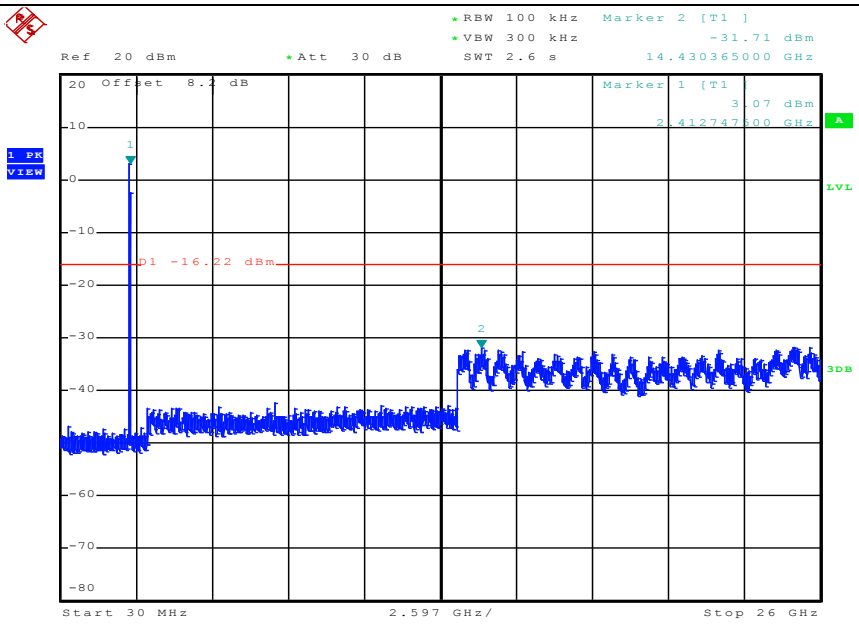
11G/LCH	 Date: 6.AUG.2019 12:36:12
11G/MCH	 Date: 6.AUG.2019 12:38:59

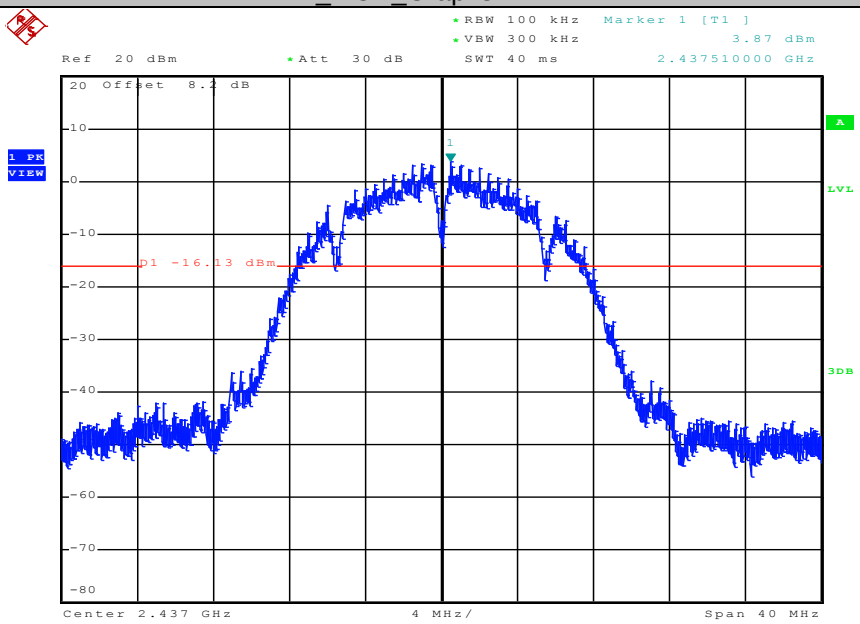
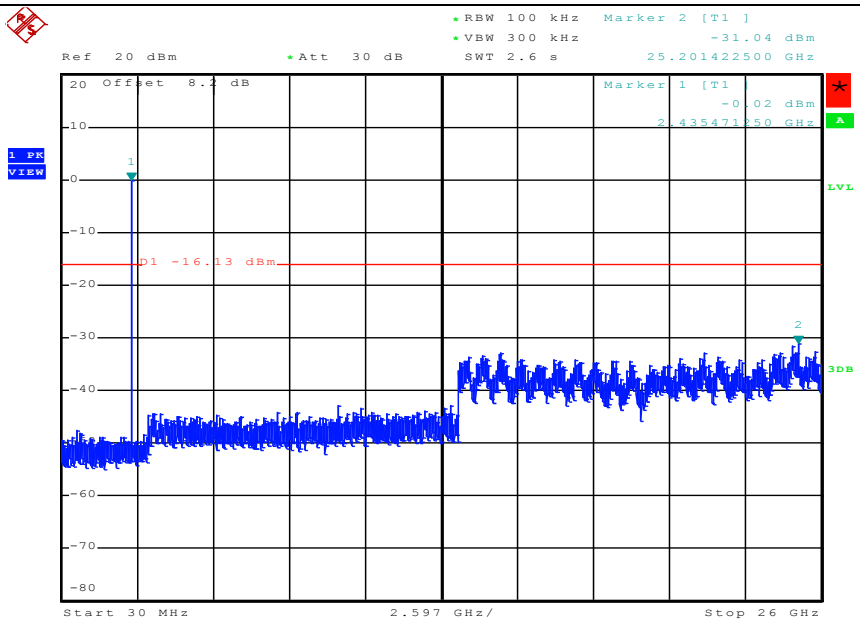
11G/HCH	 Date: 6.AUG.2019 12:40:51
11N20SISO/LCH	 Date: 6.AUG.2019 12:48:45

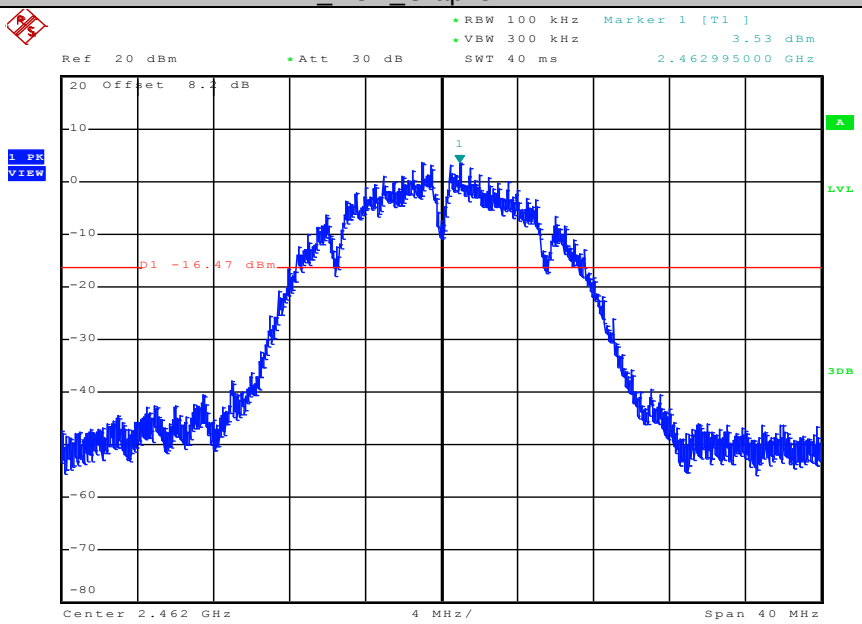
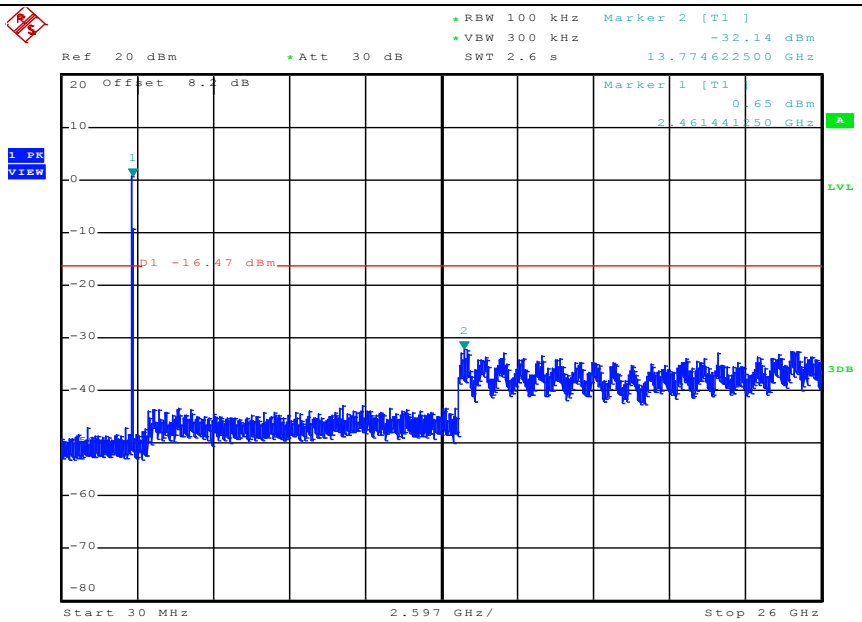
11N20SISO/MCH	
11N20SISO/HCH	

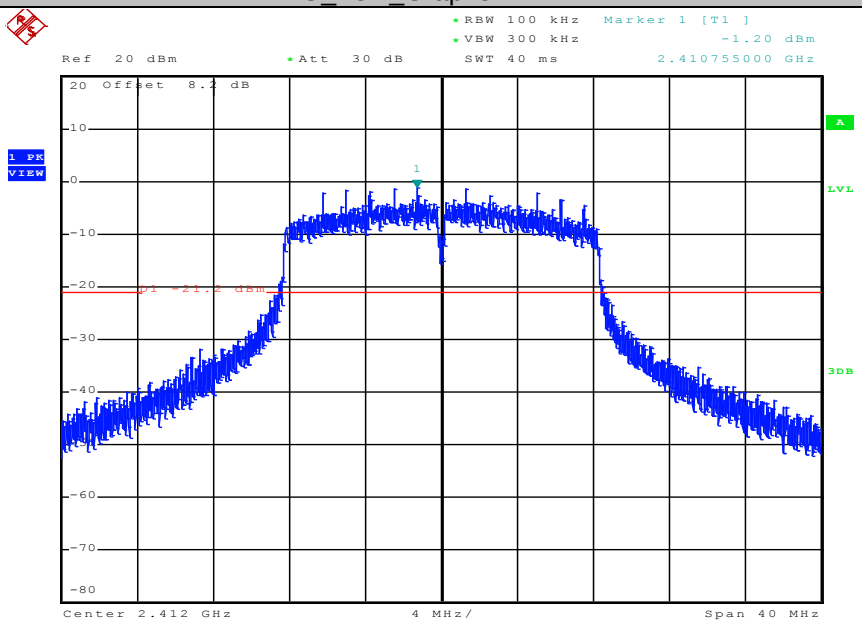
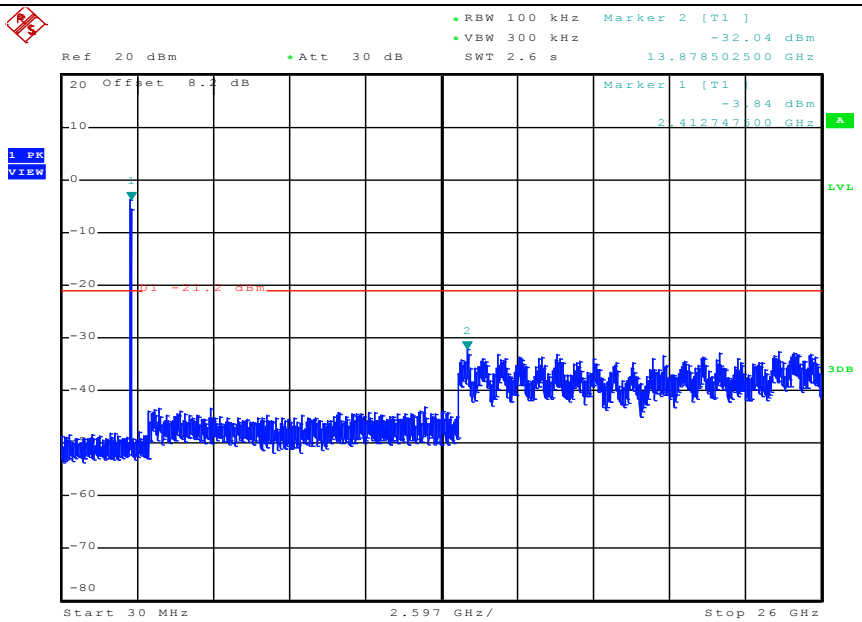
C.5 RF Conducted Spurious Emissions

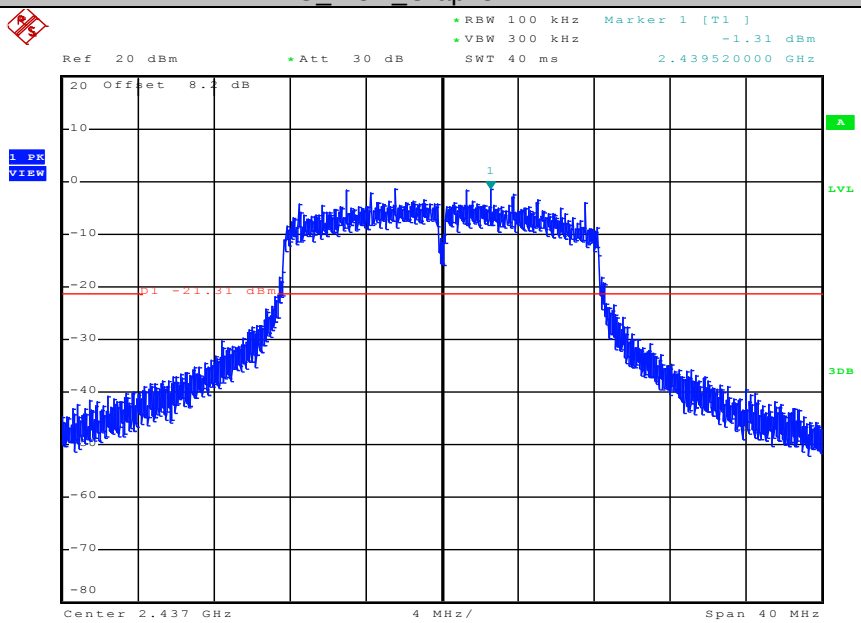
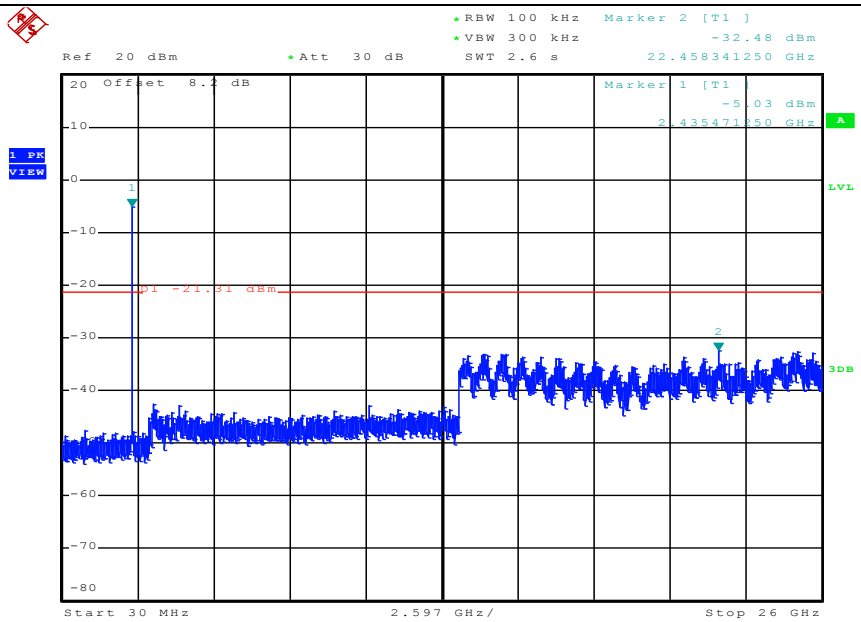
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	3.78	-31.710	-16.220	PASS
	MCH	3.87	-31.040	-16.130	PASS
	HCH	3.53	-32.140	-16.470	PASS
11G	LCH	-1.2	-32.040	-21.200	PASS
	MCH	-1.31	-32.480	-21.310	PASS
	HCH	-1.16	-32.350	-21.160	PASS
11N20 SISO	LCH	-1.13	-30.300	-21.130	PASS
	MCH	-1	-32.140	-21.000	PASS
	HCH	-0.77	-32.240	-20.770	PASS

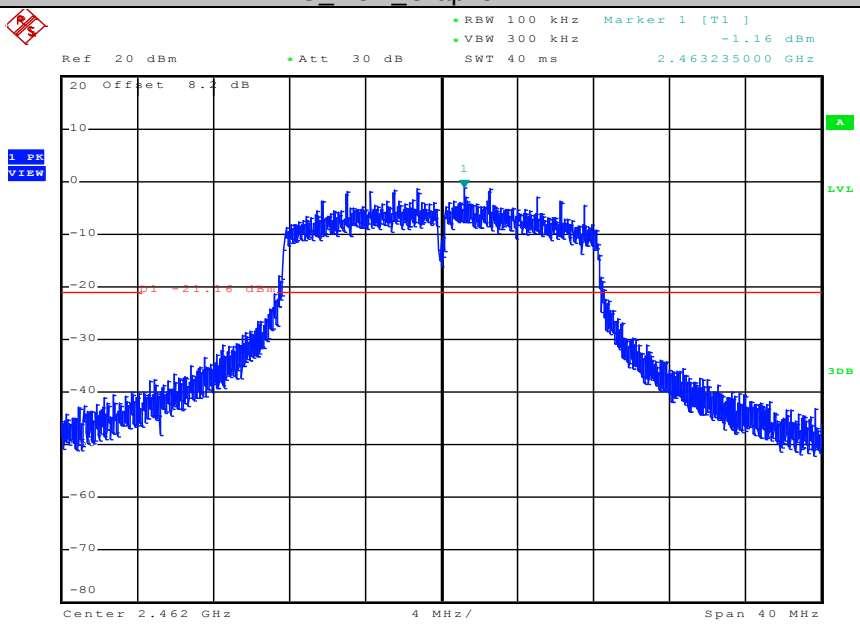
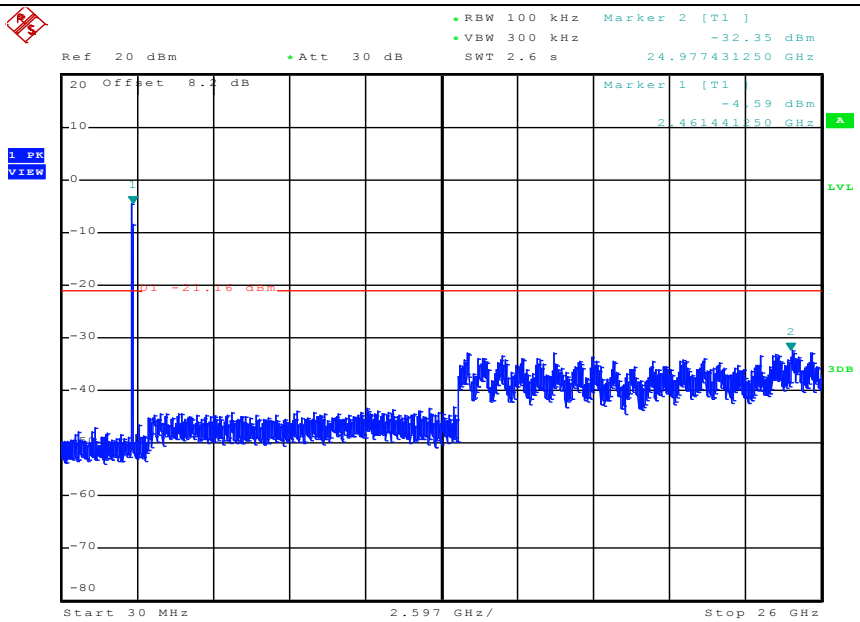
11B_LCH_Graphs	
Pref/11B/LCH	 Date: 6.AUG.2019 12:14:07
Puw/11B/LCH	 Date: 6.AUG.2019 12:14:50

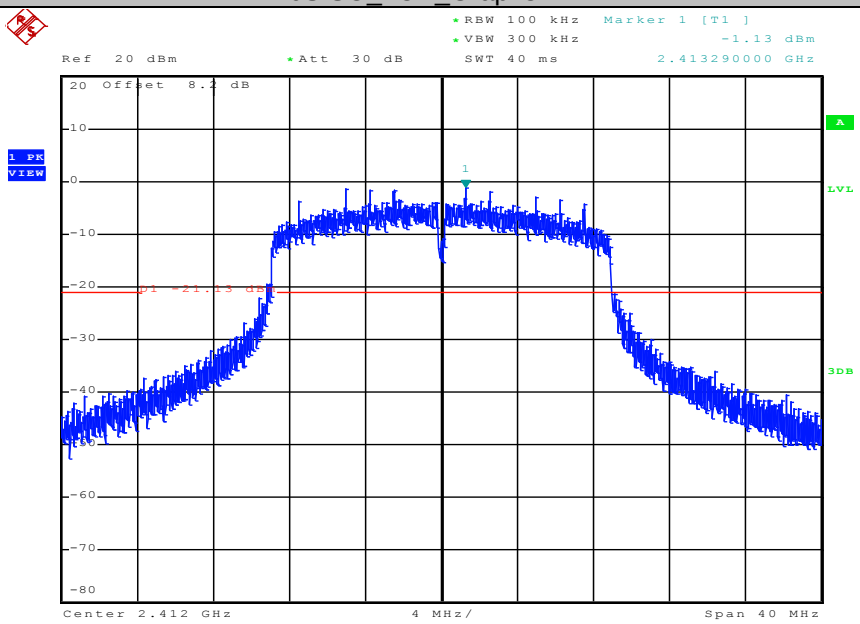
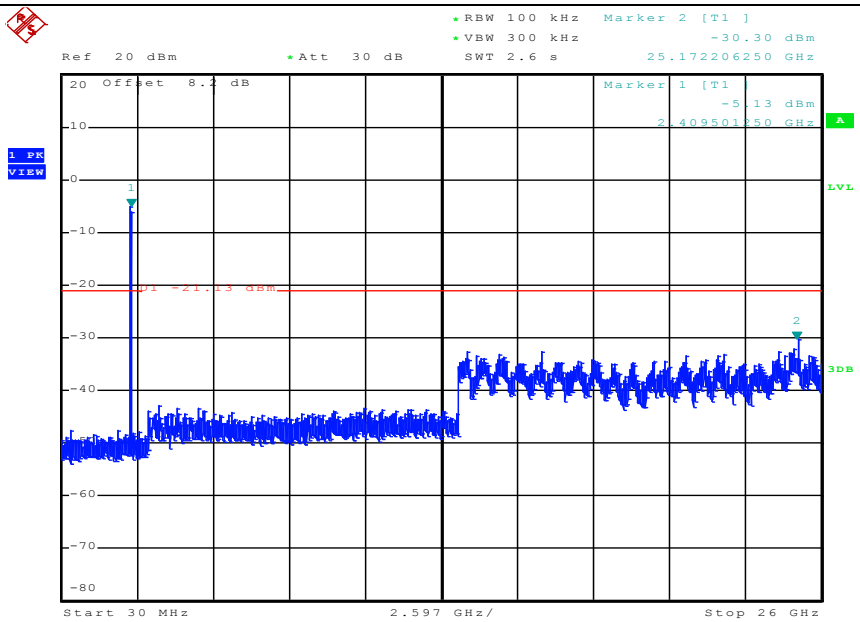
11B_MCH_Graphs	
Pref/11B/MCH	 Date: 6.AUG.2019 12:18:18
Puw/11B/MCH	 Date: 6.AUG.2019 12:18:35

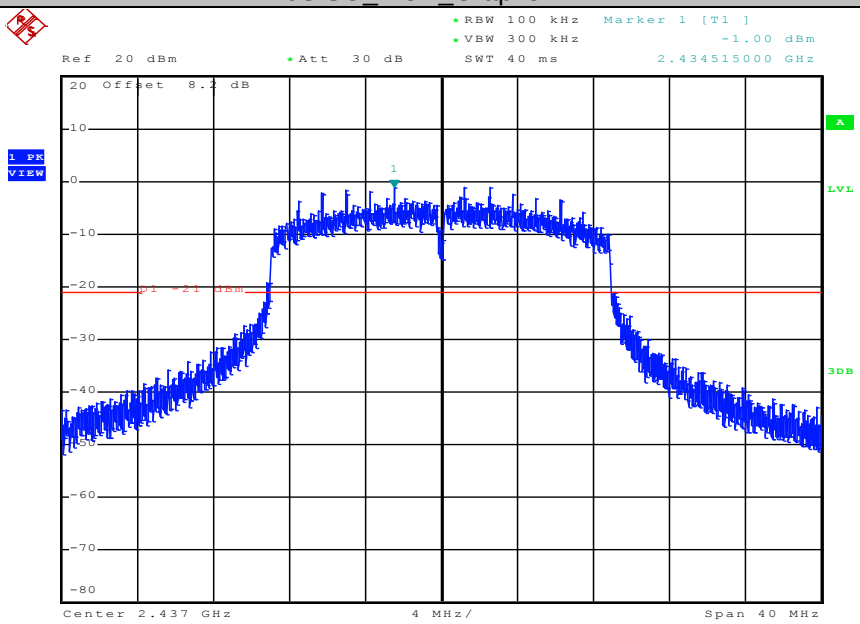
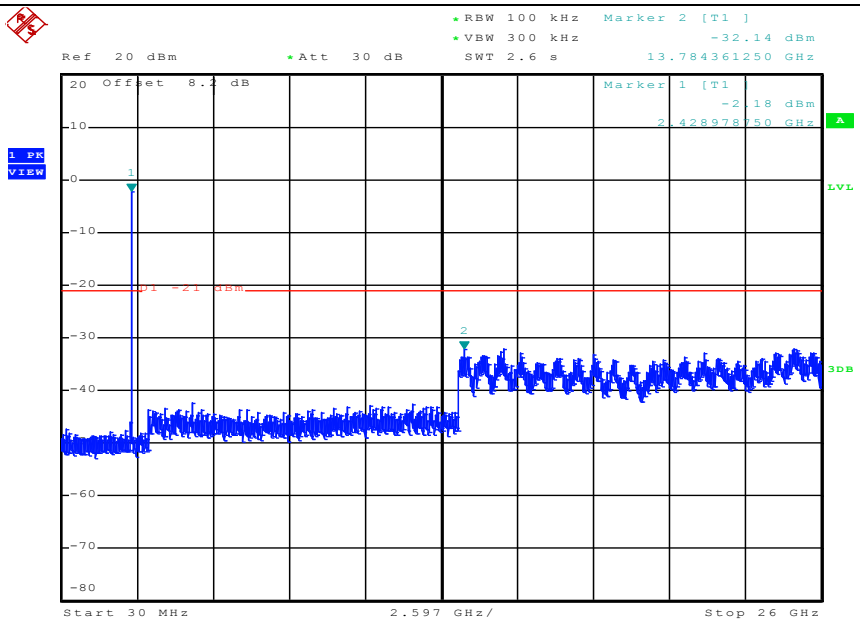
11B_HCH_Graphs	
Pref/11B/HCH	 Date: 6.AUG.2019 12:20:28
Puw/11B/HCH	 Date: 6.AUG.2019 12:20:47

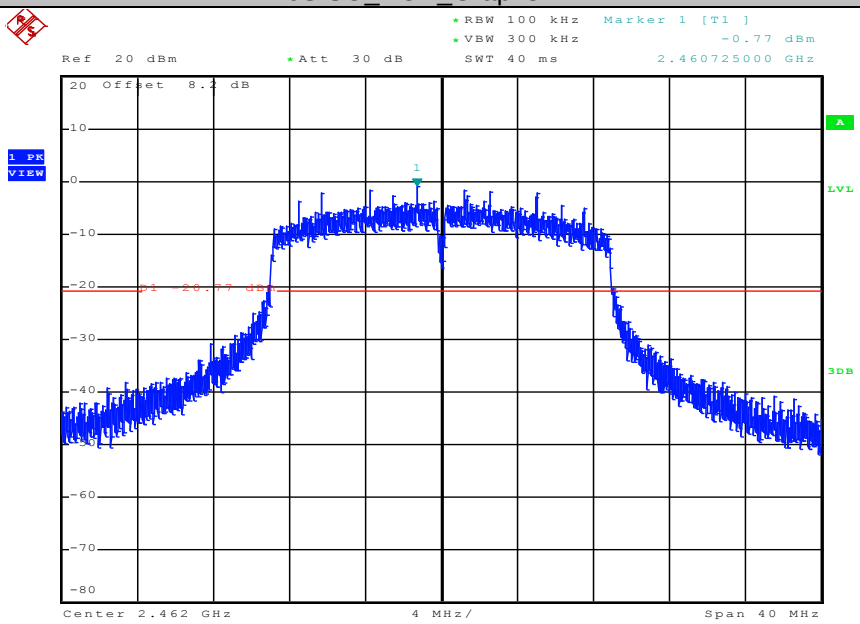
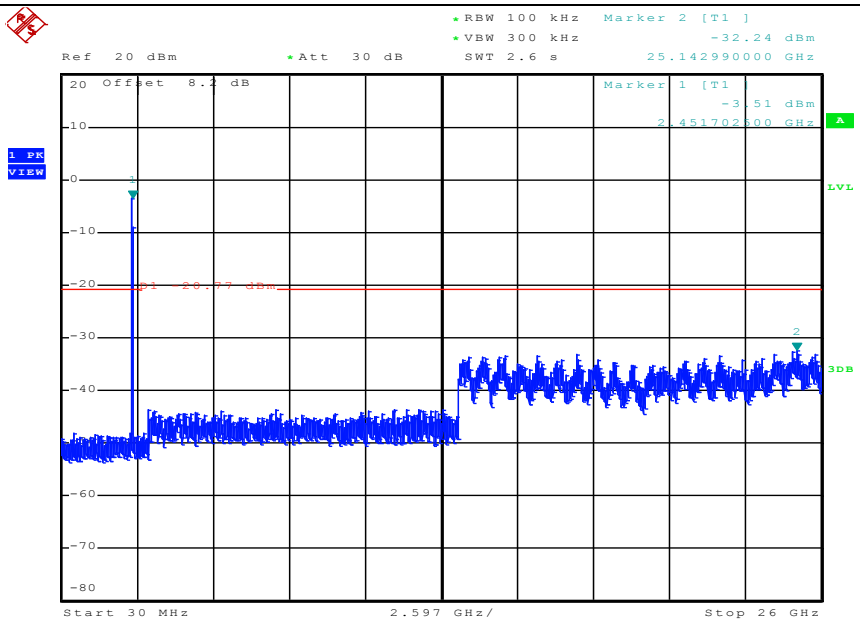
11G_LCH_Graphs	
Pref/11G/LCH	 Date: 6.AUG.2019 12:37:26
Puw/11G/LCH	 Date: 6.AUG.2019 12:37:40

11G_MCH_Graphs	
Pref/11G/MCH	 Date: 6.AUG.2019 12:39:59
Puw/11G/MCH	 Date: 6.AUG.2019 12:40:16

11G_HCH_Graphs	
Pref/11G/HCH	 Date: 6.AUG.2019 12:43:19
Puw/11G/HCH	 Date: 6.AUG.2019 12:43:34

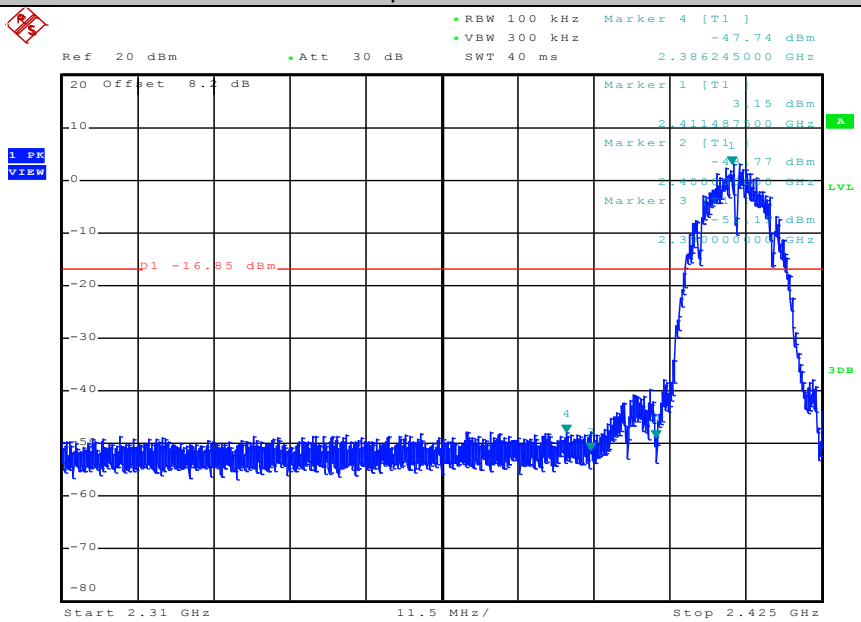
11N20SISO_LCH_Graphs	
Pref/11N20SISO/LCH	 Date: 6.AUG.2019 12:52:21
Puw/11N20SISO/LCH	 Date: 6.AUG.2019 12:52:37

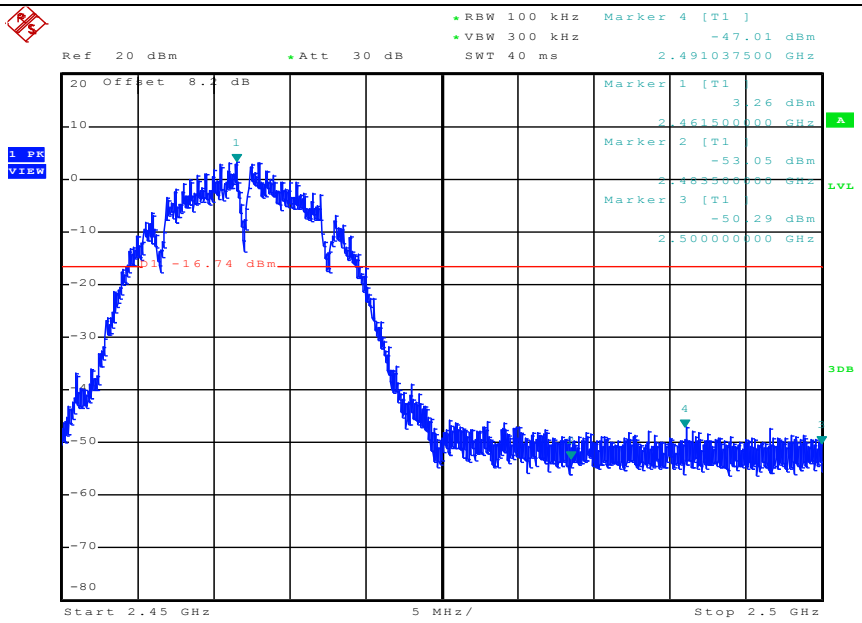
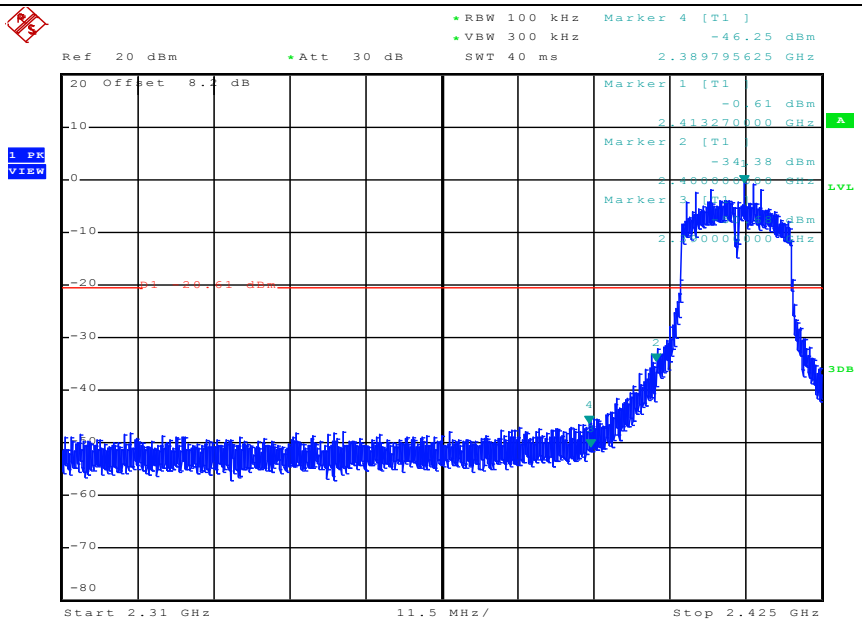
11N20SISO_MCH_Graphs	
Pref/11N20 SISO/MCH	 Date: 6.AUG.2019 12:56:01
Puw/11N20 SISO/MCH	 Date: 6.AUG.2019 12:56:27

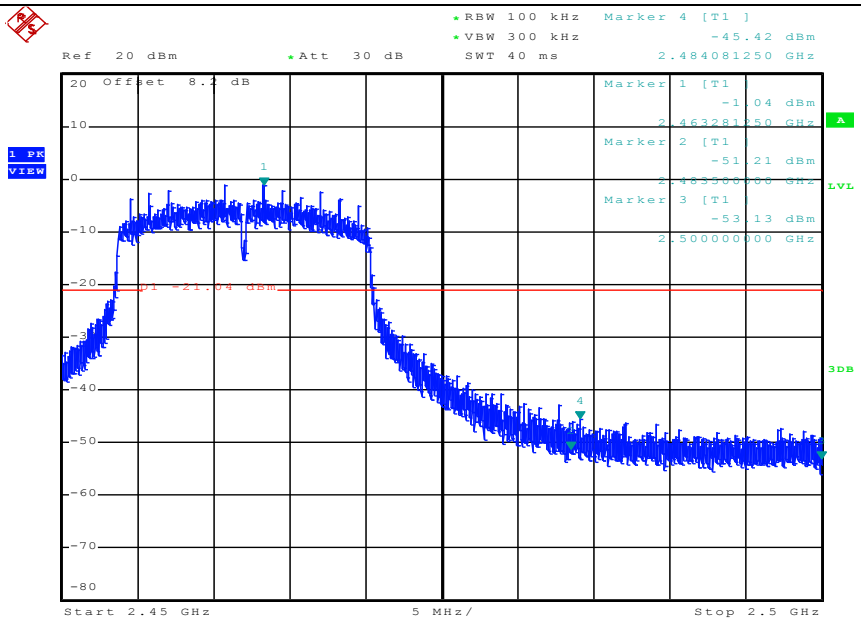
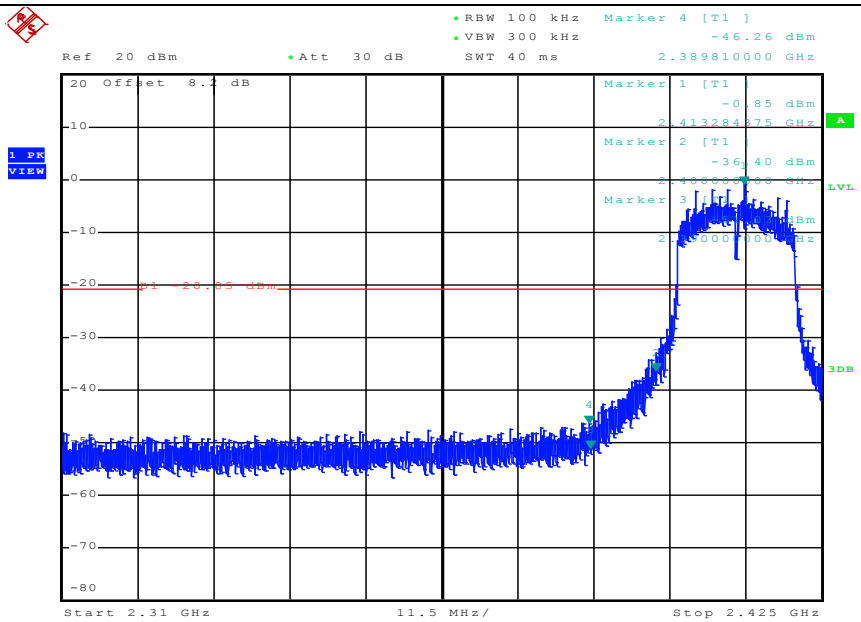
11N20SISO_HCH_Graphs	
Pref/11N20 SISO/HCH	 Date: 6.AUG.2019 12:58:20
Puw/11N20 SISO/HCH	 Date: 6.AUG.2019 12:58:35

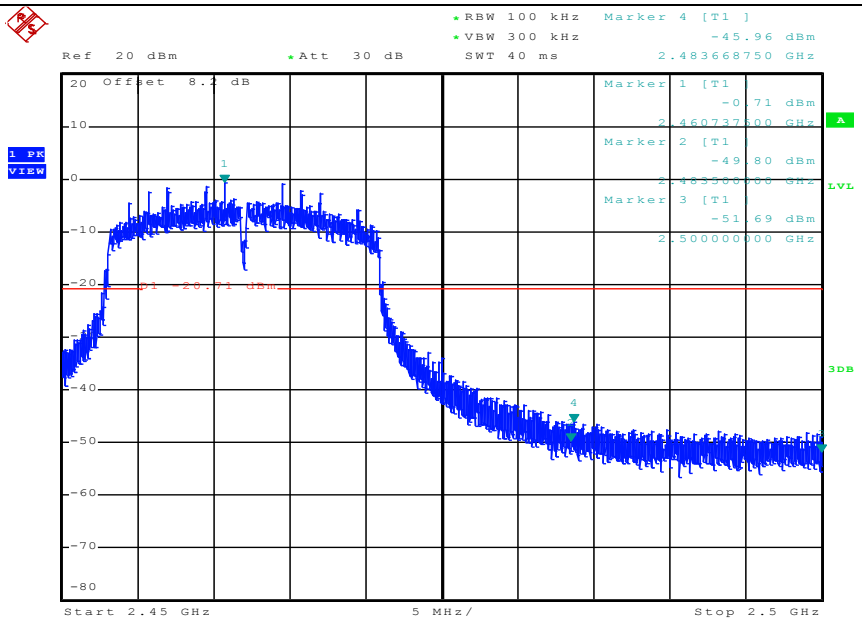
C.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	3.150	-47.738	-16.85	PASS
	HCH	3.260	-47.013	-16.74	PASS
11G	LCH	-0.610	-46.249	-20.61	PASS
	HCH	-1.040	-45.418	-21.04	PASS
11N20SISO	LCH	-0.850	-46.264	-20.85	PASS
	HCH	-0.710	-45.962	-20.71	PASS

Test Graphs	
11B/LCH	

11B/HCH	 Date: 6.AUG.2019 12:20:15
11G/LCH	 Date: 6.AUG.2019 12:37:13

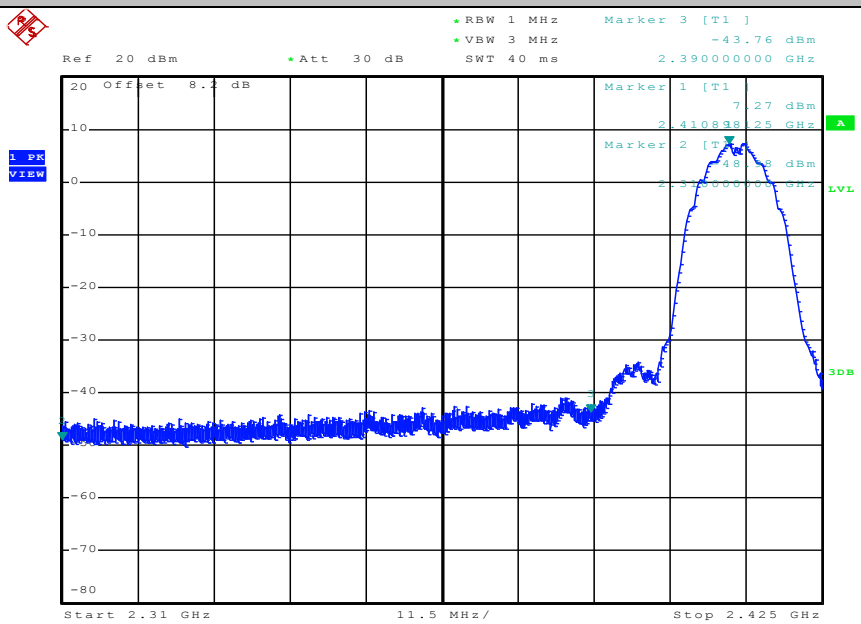
11G/HCH	 Date: 6.AUG.2019 12:43:06
11N20SISO/LCH	 Date: 6.AUG.2019 12:52:08

11N20SISO/HCH	 Date: 6.AUG.2019 12:58:06

C.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-48.98	2.0	0	48.28	PEAK	74	PASS
	2412	Ant1	2310.0	-57.69	2.0	0	39.57	AV	54	PASS
	2412	Ant1	2390.0	-43.76	2.0	0	53.5	PEAK	74	PASS
	2412	Ant1	2390.0	-53.45	2.0	0	43.81	AV	54	PASS
	2462	Ant1	2483.5	-42.77	2.0	0	54.49	PEAK	74	PASS
	2462	Ant1	2483.5	-55.69	2.0	0	41.57	AV	54	PASS
	2462	Ant1	2500.0	-46.48	2.0	0	50.78	PEAK	74	PASS
	2462	Ant1	2500.0	-56.82	2.0	0	40.44	AV	54	PASS
11G	2412	Ant1	2310.0	-49.41	2.0	0	47.85	PEAK	74	PASS
	2412	Ant1	2310.0	-57.87	2.0	0	39.39	AV	54	PASS
	2412	Ant1	2390.0	-40.15	2.0	0	57.11	PEAK	74	PASS
	2412	Ant1	2390.0	-50.97	2.0	0	46.29	AV	54	PASS
	2462	Ant1	2483.5	-39.43	2.0	0	57.83	PEAK	74	PASS
	2462	Ant1	2483.5	-51.40	2.0	0	45.86	AV	54	PASS
	2462	Ant1	2500.0	-46.57	2.0	0	50.69	PEAK	74	PASS
	2462	Ant1	2500.0	-55.97	2.0	0	41.29	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-47.79	2.0	0	49.47	PEAK	74	PASS
	2412	Ant1	2310.0	-57.89	2.0	0	39.37	AV	54	PASS
	2412	Ant1	2390.0	-38.08	2.0	0	59.18	PEAK	74	PASS
	2412	Ant1	2390.0	-50.18	2.0	0	47.08	AV	54	PASS
	2462	Ant1	2483.5	-36.79	2.0	0	60.47	PEAK	74	PASS
	2462	Ant1	2483.5	-50.80	2.0	0	46.46	AV	54	PASS
	2462	Ant1	2500.0	-45.52	2.0	0	51.74	PEAK	74	PASS
	2462	Ant1	2500.0	-55.96	2.0	0	41.3	AV	54	PASS

Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



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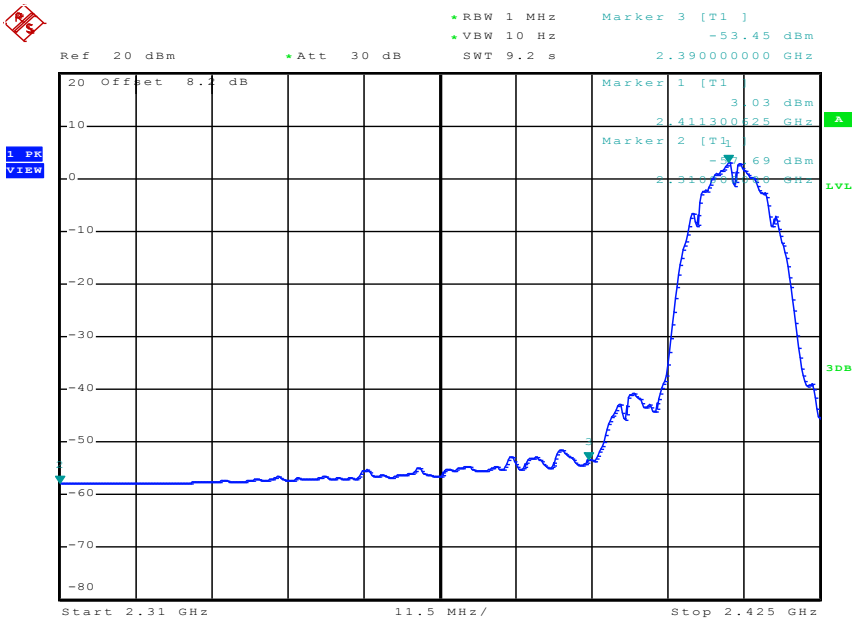
Restrict-band band-edge measurements_11B_2412_Ant1_AV



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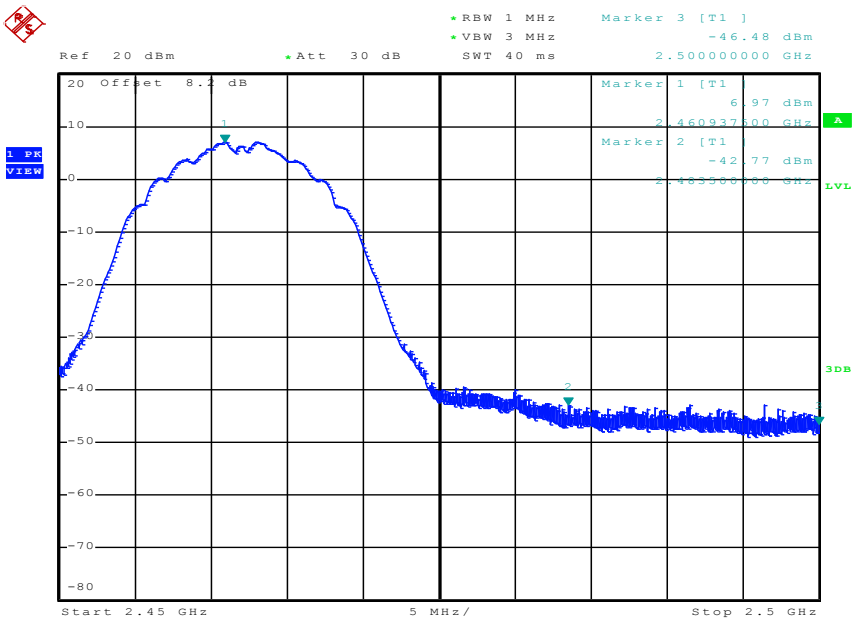
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



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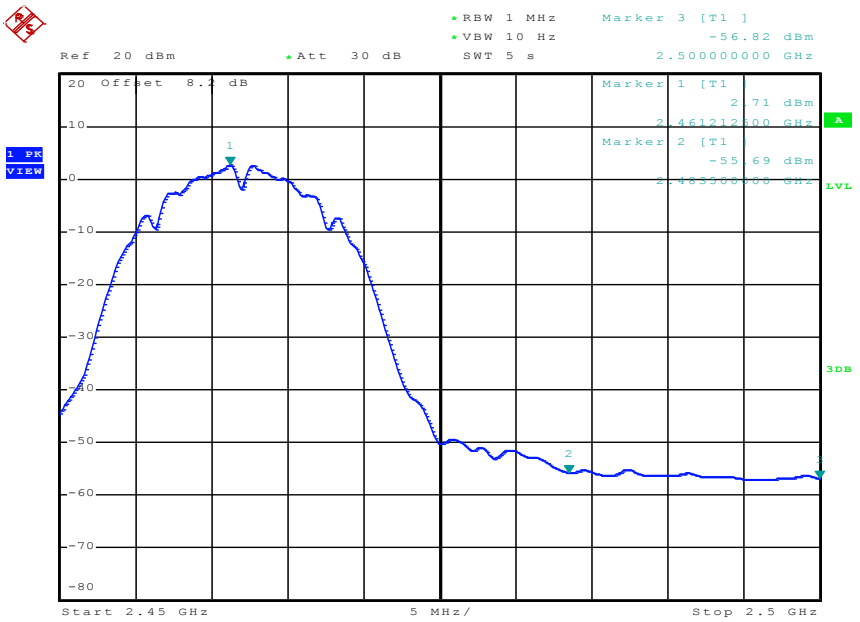

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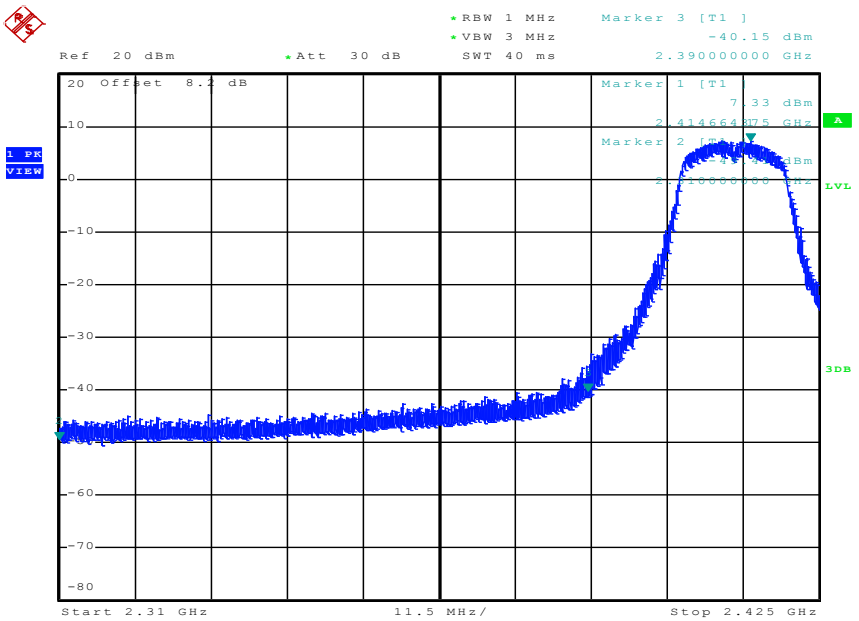

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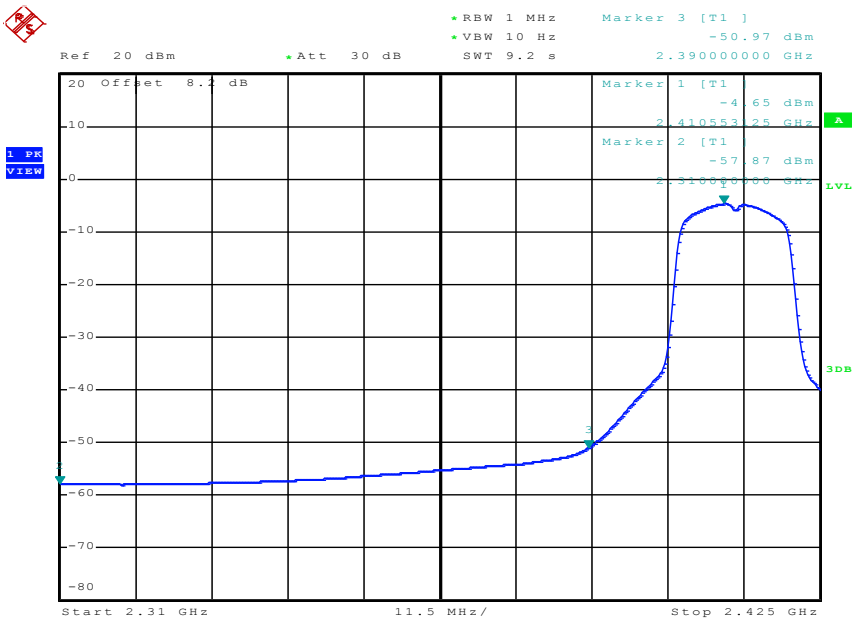

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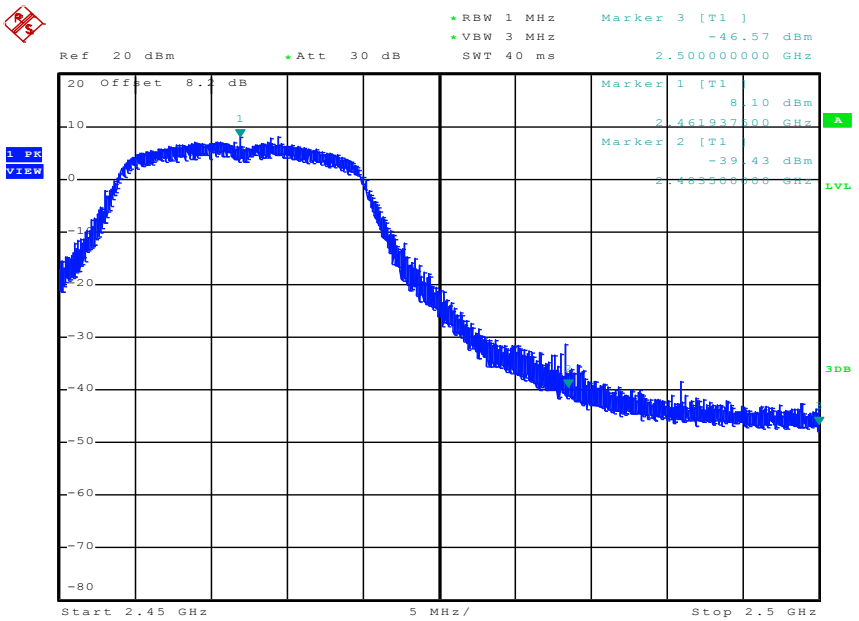
Restrict-band band-edge measurements_11G_2462_Ant1_PEAK



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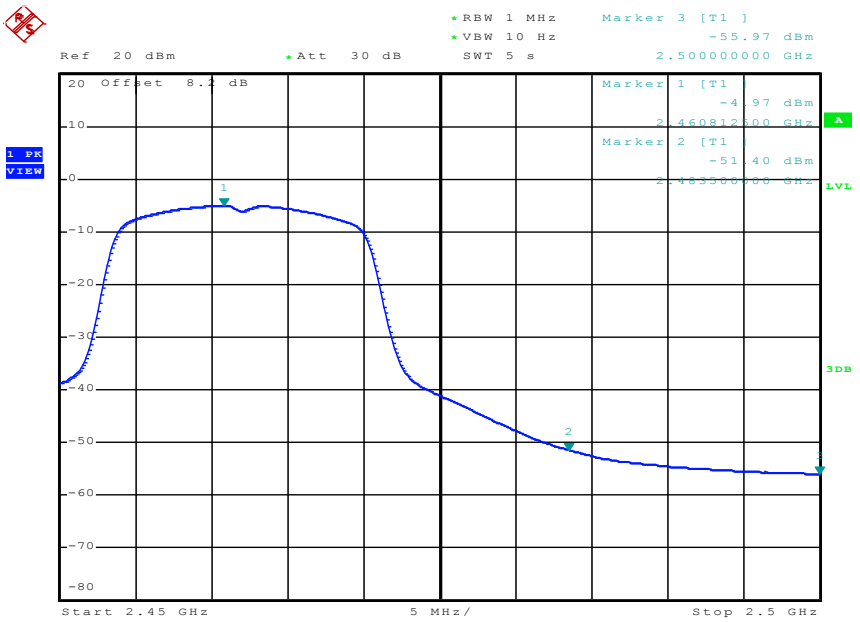
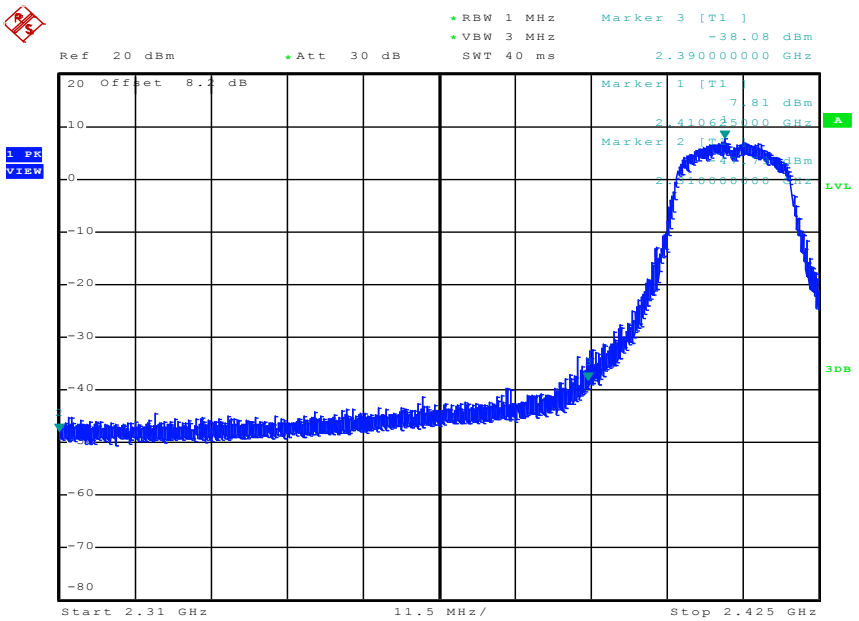


Date: 6.AUG.2019 12:44:09

Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK



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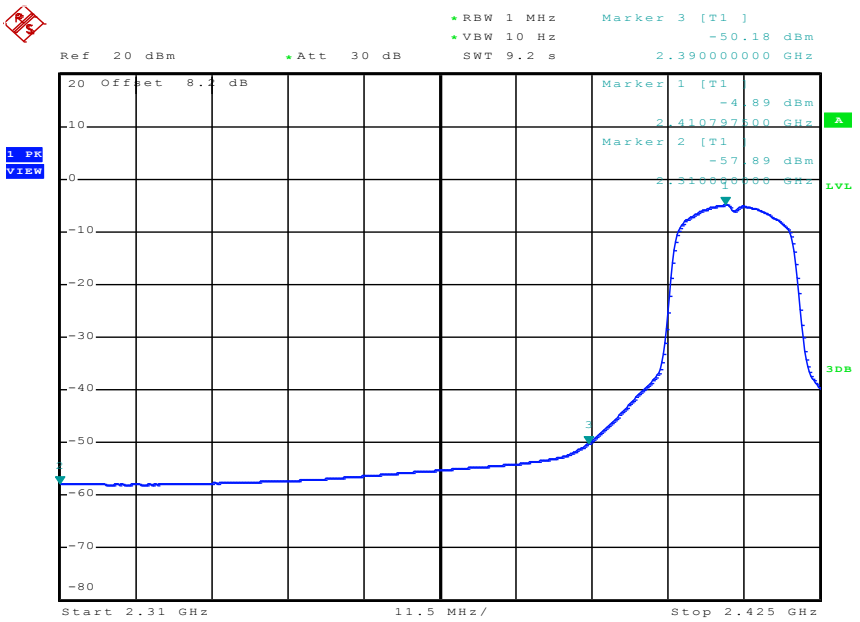

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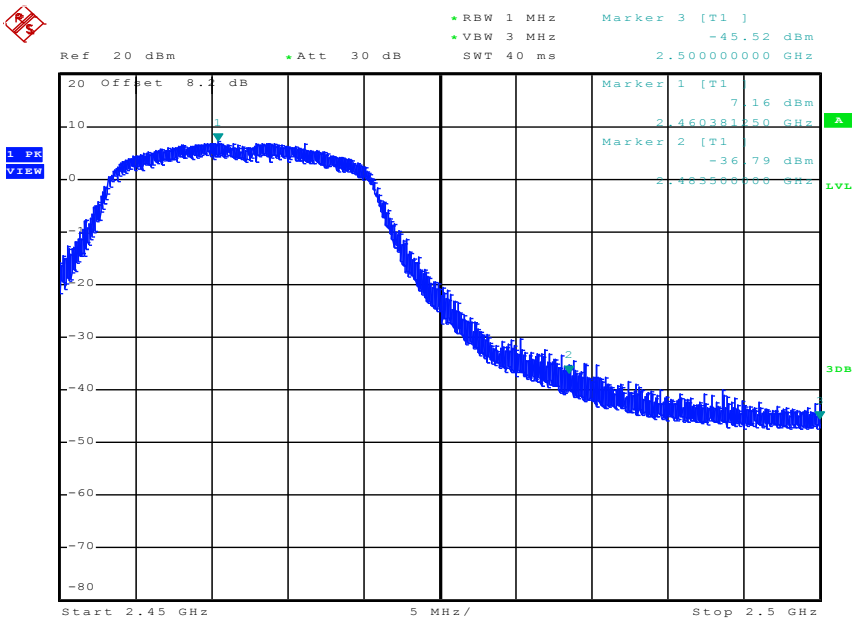

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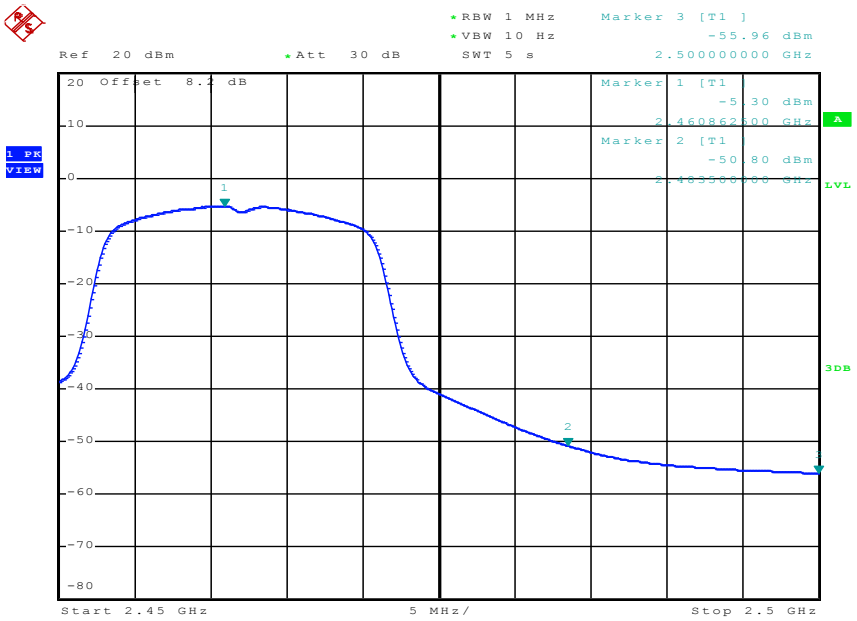

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