

## Appendix A

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

Product Name: 1080P IOT CAMERA

Trade Mark: Momentum

Test Model: MOCAM-1080-01

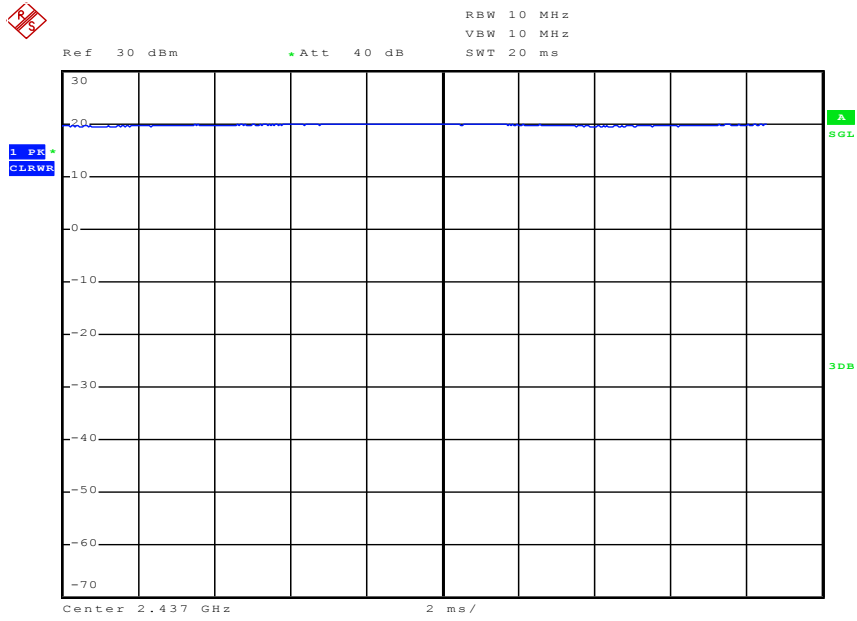
#### Environmental Conditions

Temperature:	24.3 ° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Wang Chuang
Supervised by:	Tom Liu

#### A.1 Duty Cycle

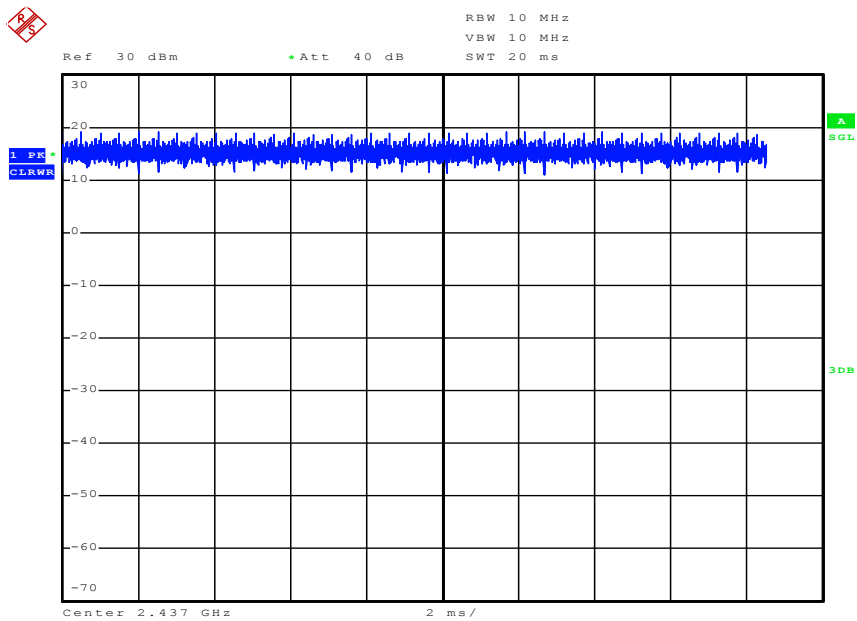
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant1	100	PASS
11G	2437	Ant1	100	PASS
11N20SISO	2437	Ant1	100	PASS
11N40SISO	2437	Ant1	100	PASS

### Duty Cycle\_11B\_2437\_Ant1



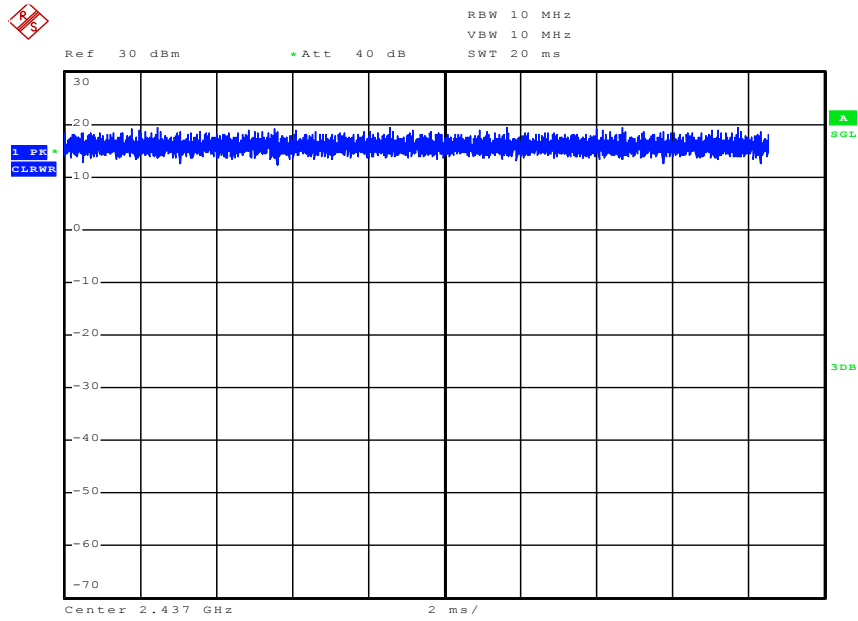
Date: 3.AUG.2019 17:46:30

### Duty Cycle\_11G\_2437\_Ant1



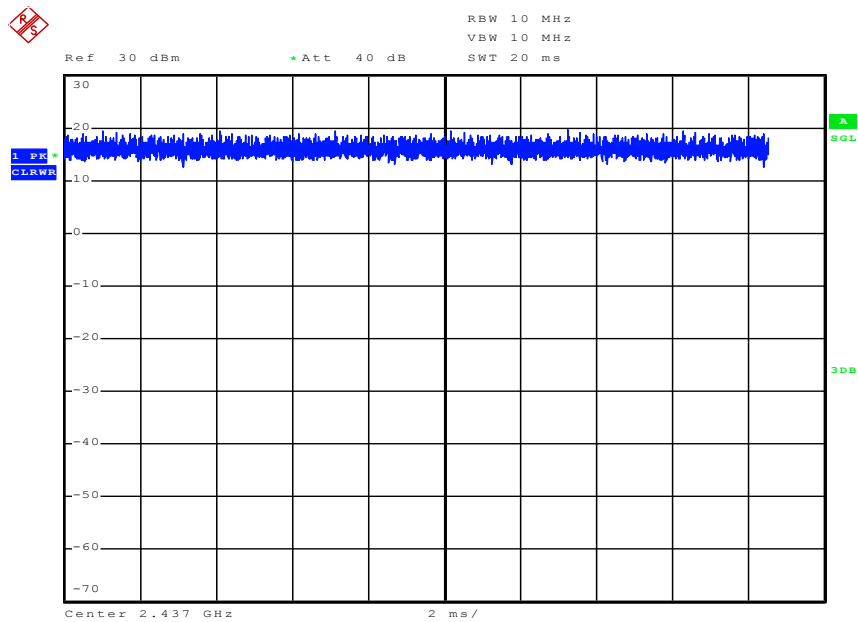
Date: 3.AUG.2019 17:47:20

Duty Cycle\_11N20SISO\_2437\_Ant1



Date: 3.AUG.2019 17:48:28

Duty Cycle\_11N40SISO\_2437\_Ant1



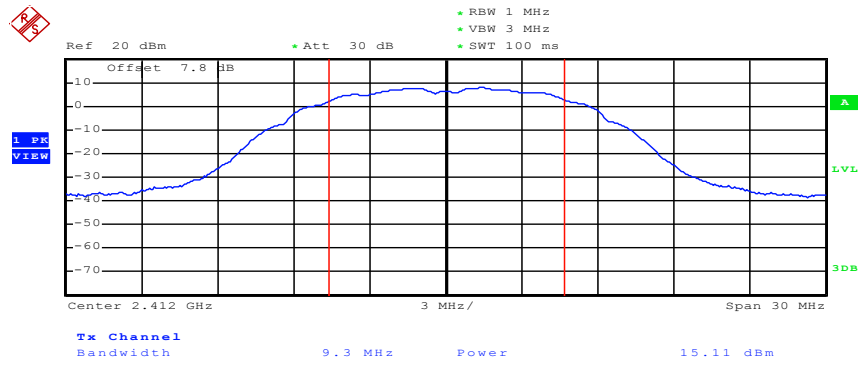
Date: 3.AUG.2019 17:48:47

## A.2 Maximum Conducted Output Power

Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	15.11	30	PASS
	MCH	15.71	30	PASS
	HCH	15.04	30	PASS
11G	LCH	16.34	30	PASS
	MCH	18.32	30	PASS
	HCH	17.86	30	PASS
11N20SISO	LCH	16.03	30	PASS
	MCH	18.25	30	PASS
	HCH	17.67	30	PASS
11N40SISO	LCH	17.99	30	PASS
	MCH	18.04	30	PASS
	HCH	17.78	30	PASS

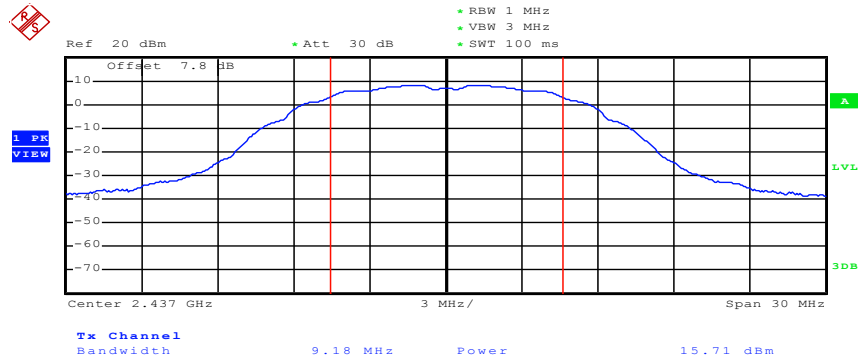
Test Graphs

11B/LCH



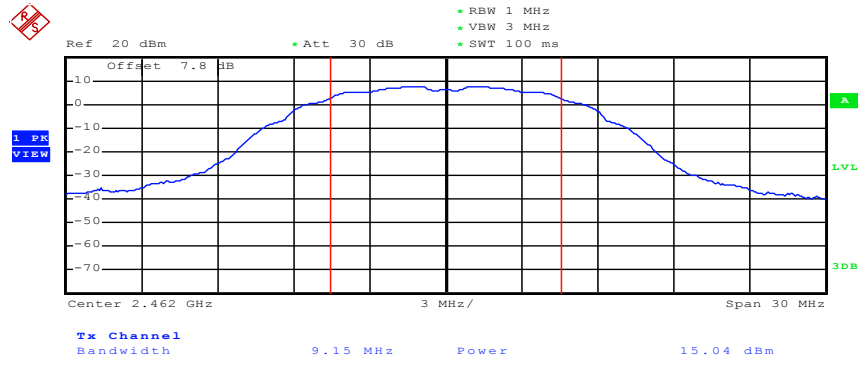
Date: 3 AUG 2019 17:17:52

11B/MCH



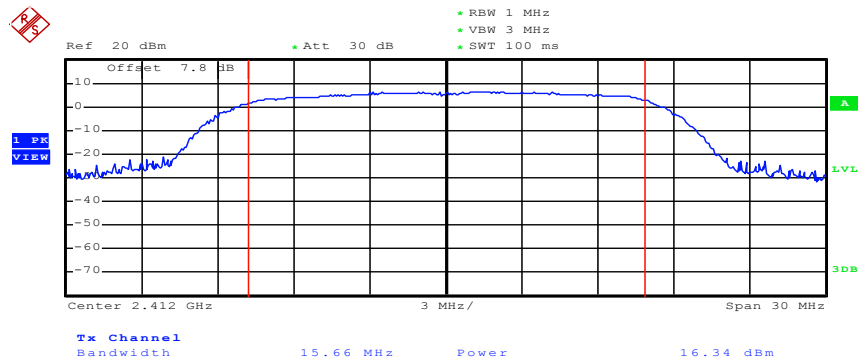
Date: 3 AUG 2019 17:20:40

11B/HCH



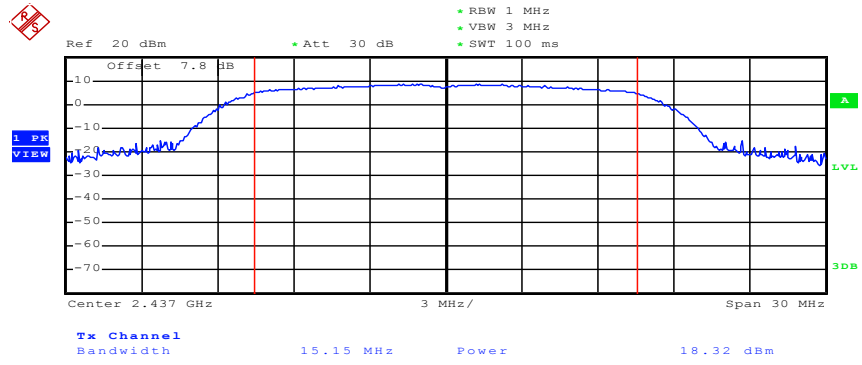
Date: 3.AUG.2019 17:22:23

11G/LCH



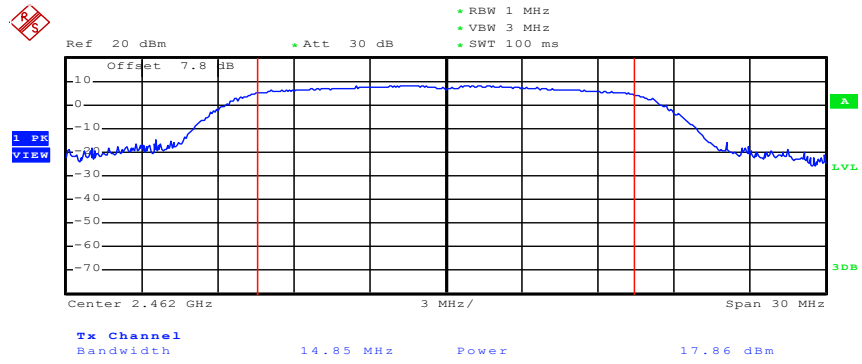
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11G/MCH



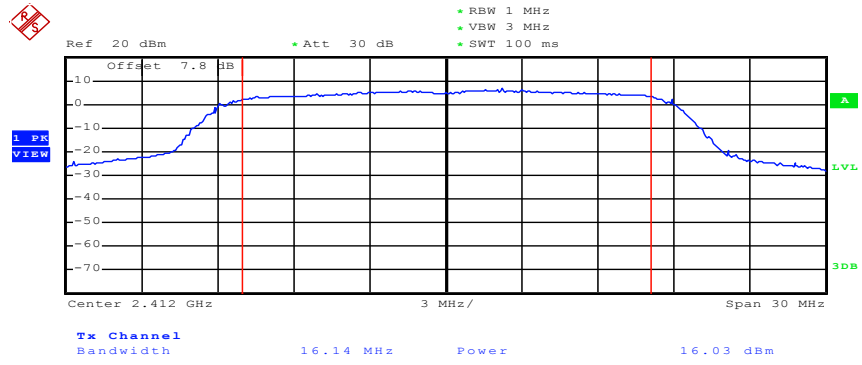
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11G/HCH



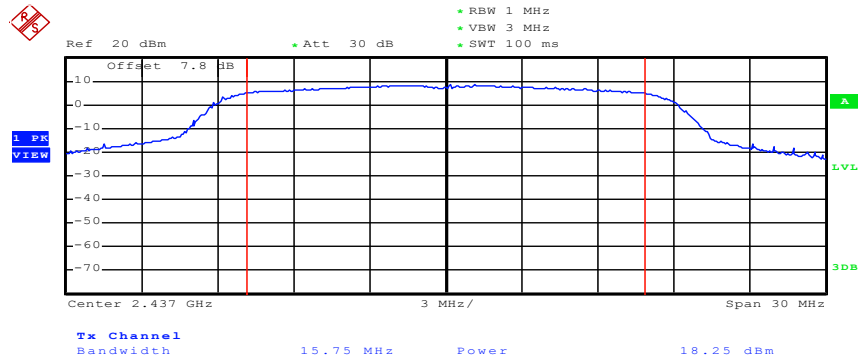
Date: 3 AUG 2019 17:29:47

11N20SISO/LCH



Date: 3.AUG.2019 17:32:26

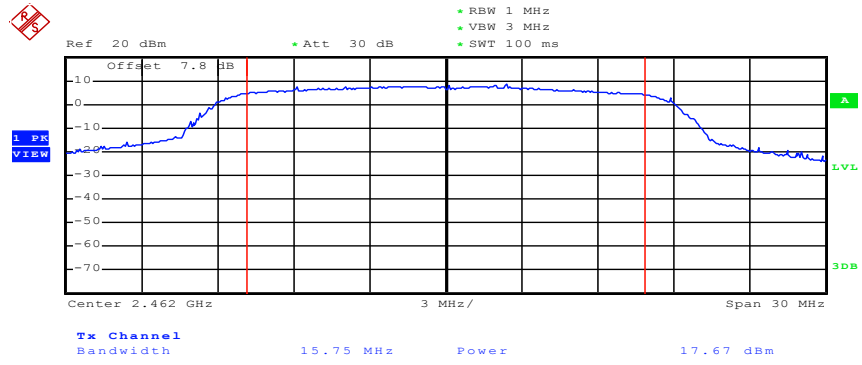
11N20SISO/MCH



Date: 3.AUG.2019 17:35:19

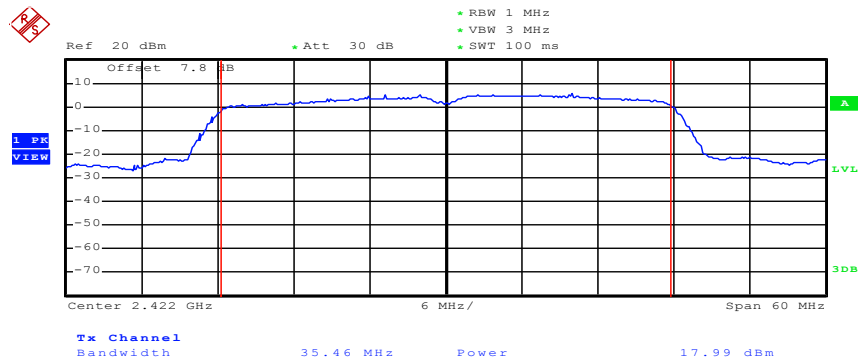


11N20SISO/HCH



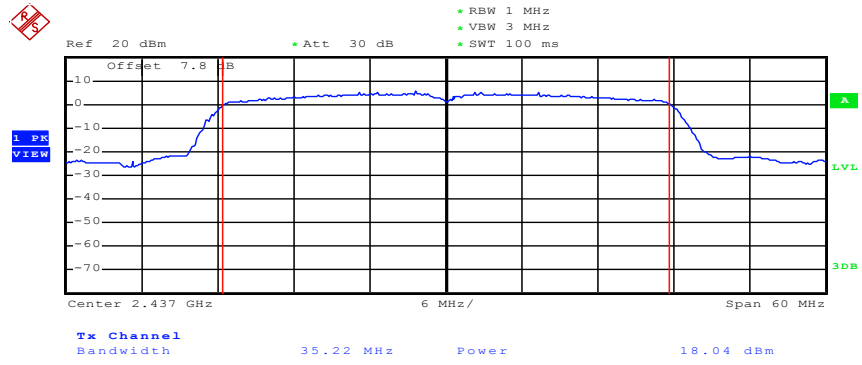
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11N40SISO/LCH



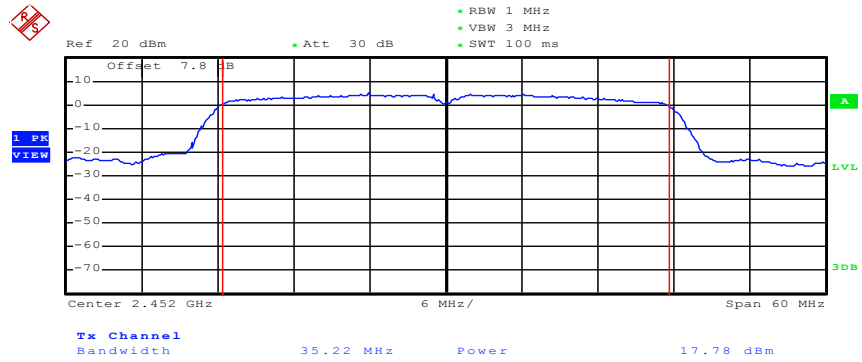
Date: 3 AUG 2019 17:39:43

11N40SISO/MCH



Date: 3 AUG 2019 17:42:23

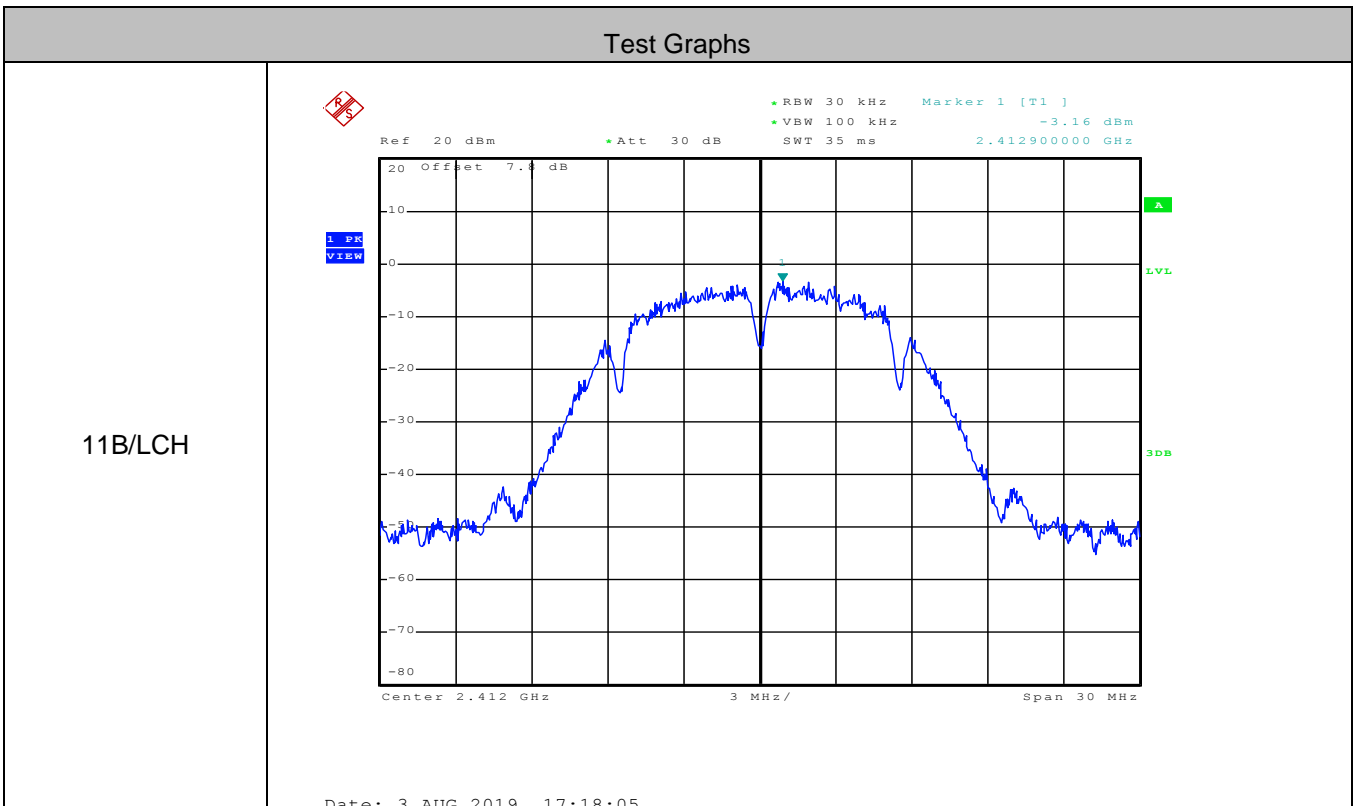
11N40SISO/HCH



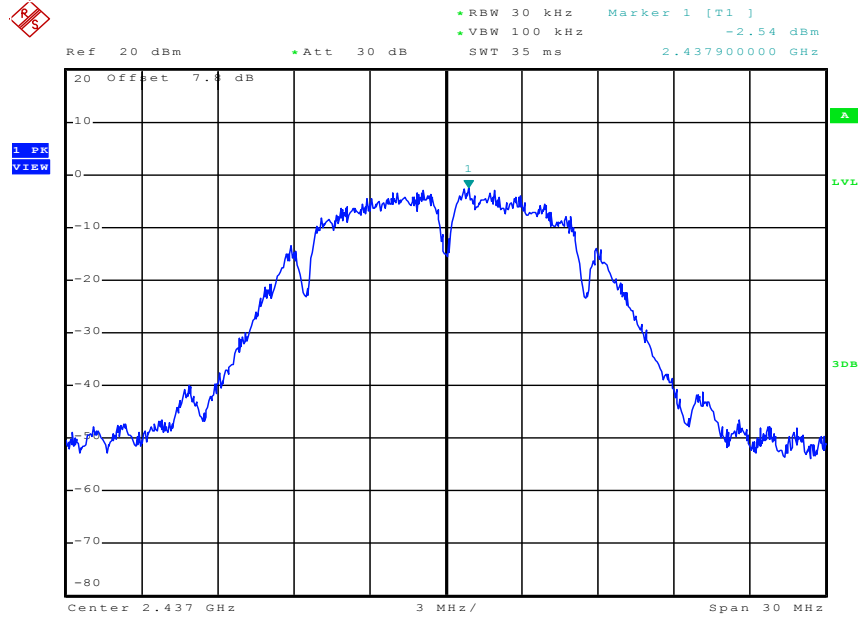
Date: 3 AUG 2019 17:44:25

### A.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-13.160	8	PASS
	MCH	-12.540	8	PASS
	HCH	-13.130	8	PASS
11G	LCH	-16.260	8	PASS
	MCH	-14.670	8	PASS
	HCH	-15.510	8	PASS
11N20SISO	LCH	-16.210	8	PASS
	MCH	-13.350	8	PASS
	HCH	-14.070	8	PASS
11N40SISO	LCH	-19.100	8	PASS
	MCH	-18.610	8	PASS
	HCH	-18.950	8	PASS

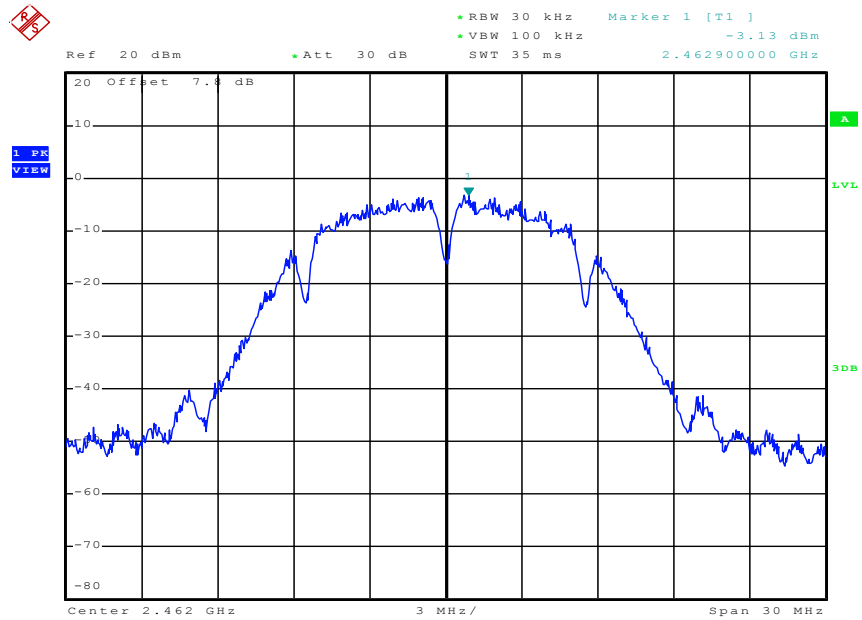


11B/MCH



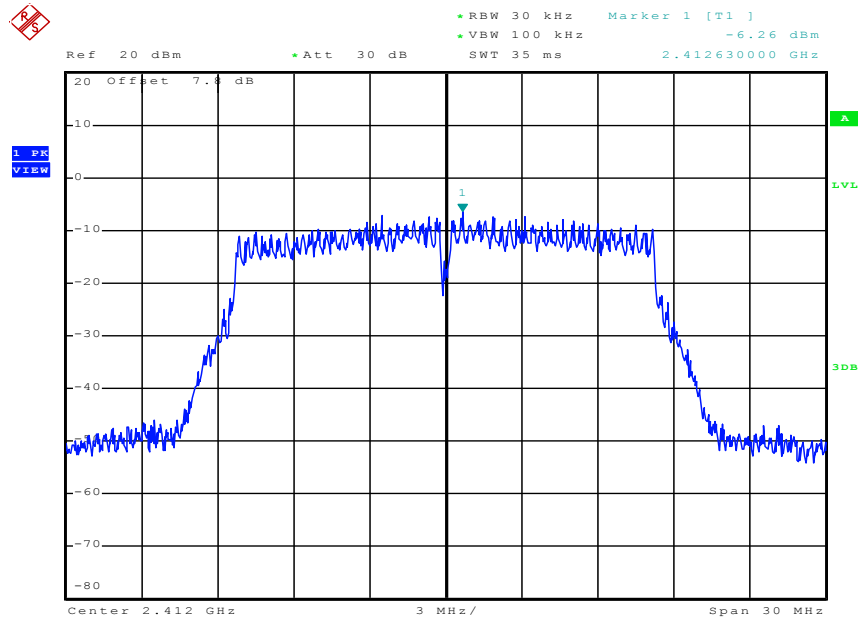
Date: 3 AUG 2019 17:20:54

11B/HCH



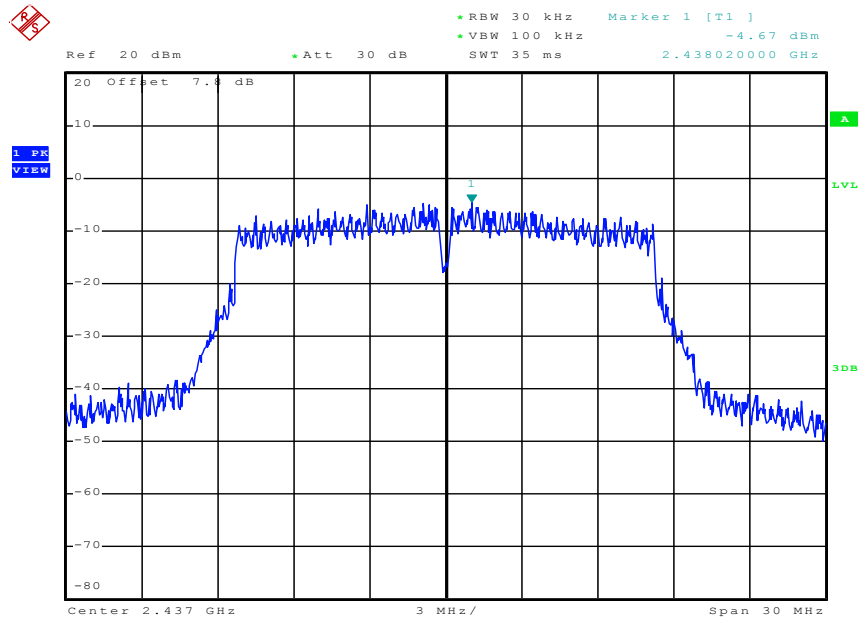
Date: 3 AUG 2019 17:22:35

11G/LCH



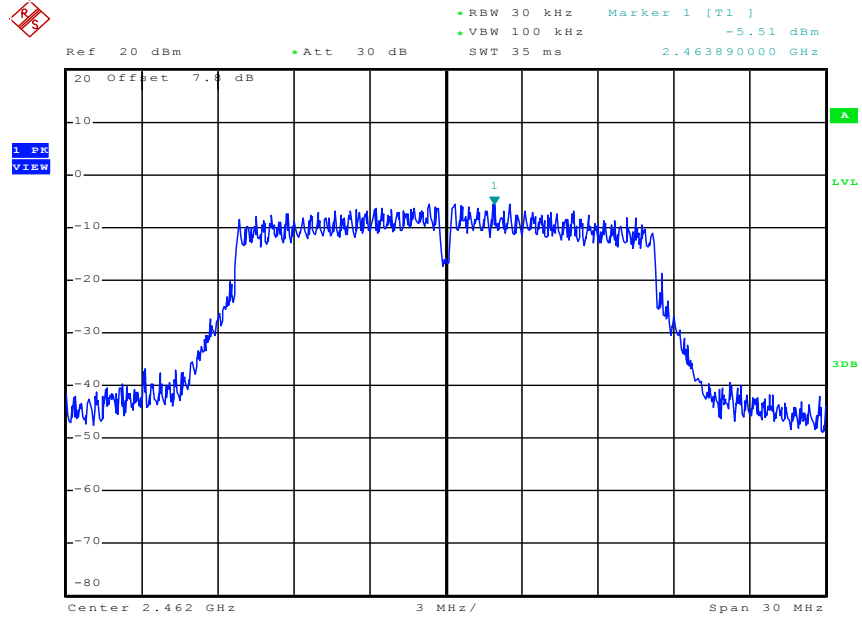
Date: 3 AUG 2019 17:25:36

11G/MCH



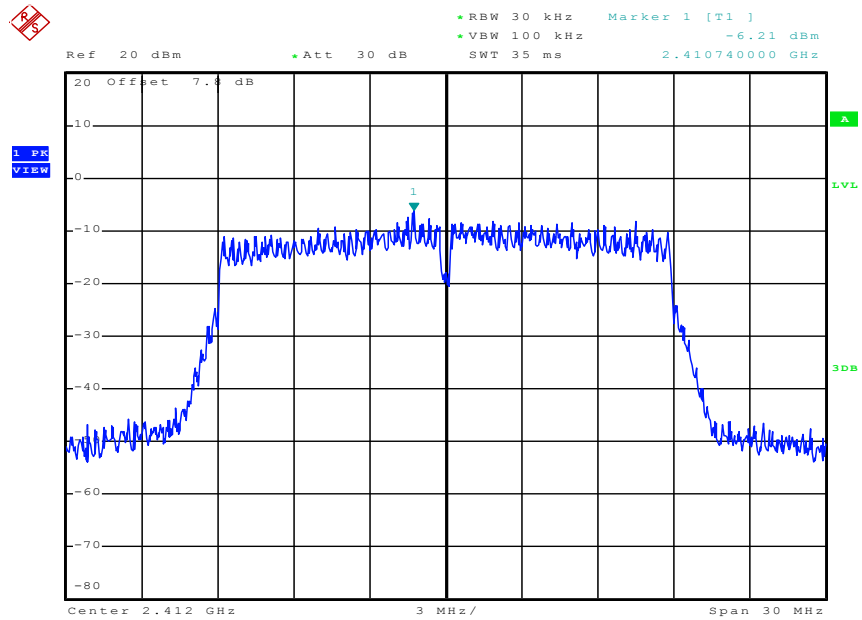
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11G/HCH



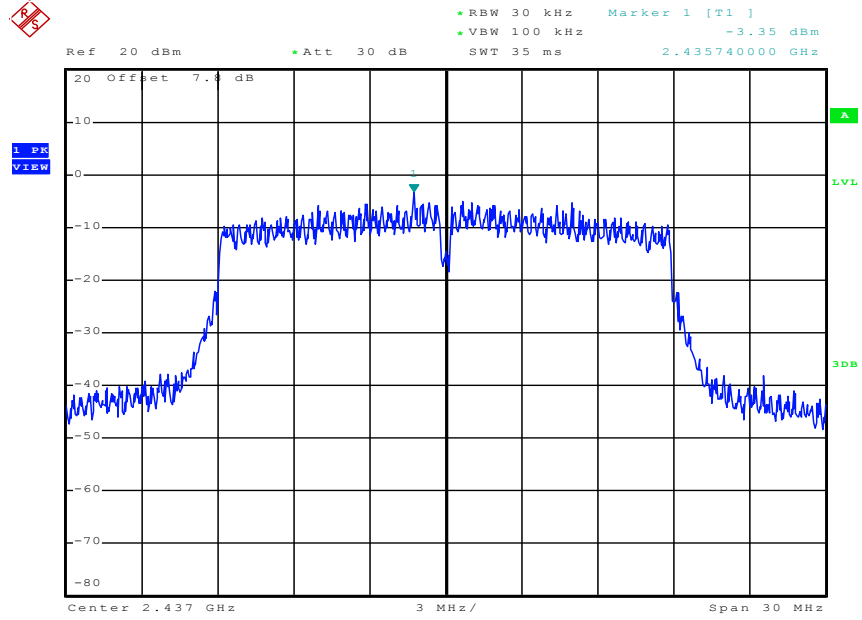
Date: 3 AUG 2019 17:30:00

11N20SISO/LCH



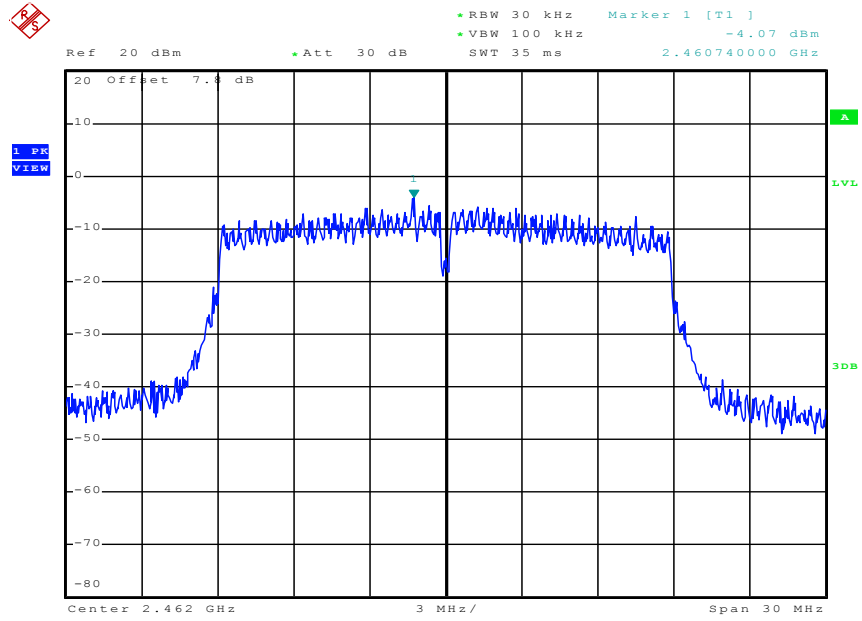
Date: 3 AUG 2019 17:32:40

11N20SISO/MCH



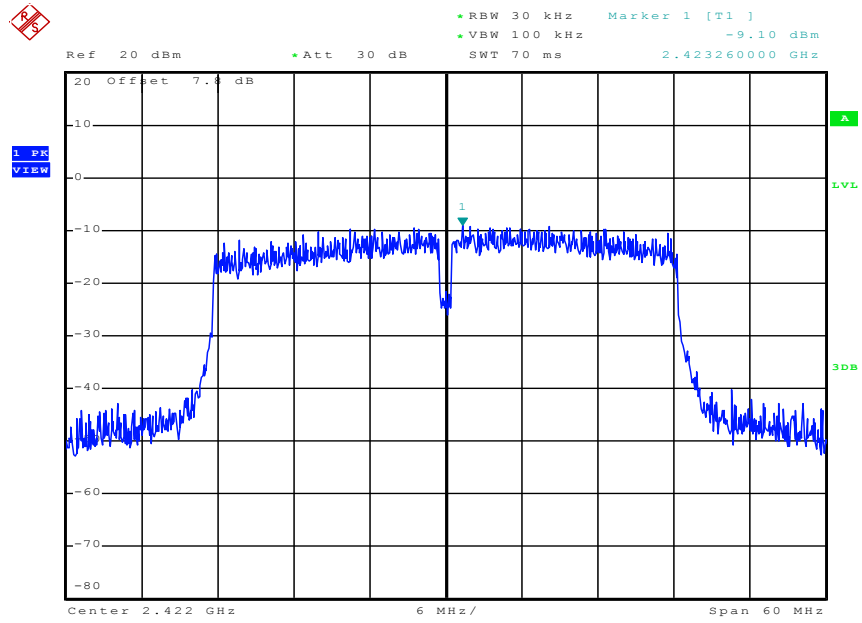
Date: 3 AUG 2019 17:35:32

11N20SISO/HCH



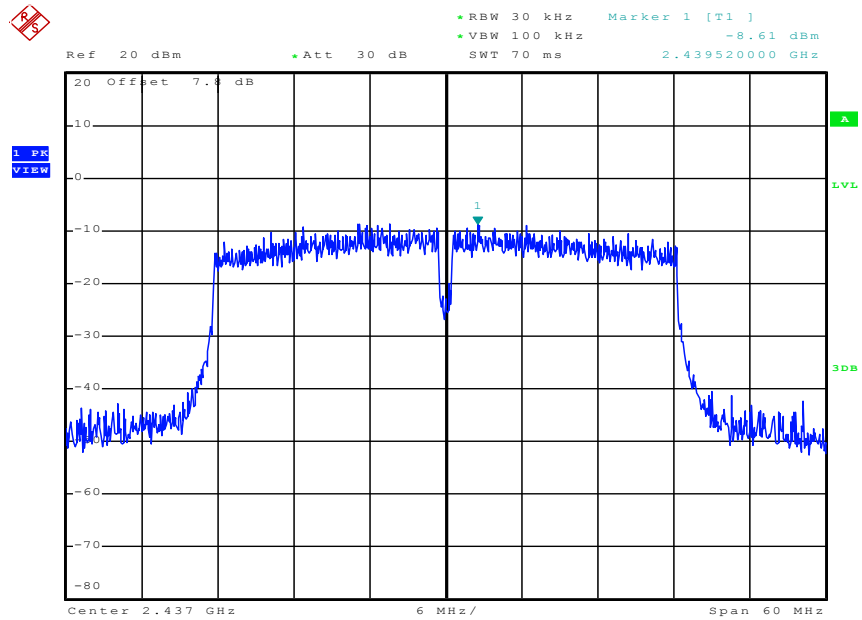
Date: 3 AUG 2019 17:37:23

11N40SISO/LCH



Date: 3 AUG 2019 17:39:56

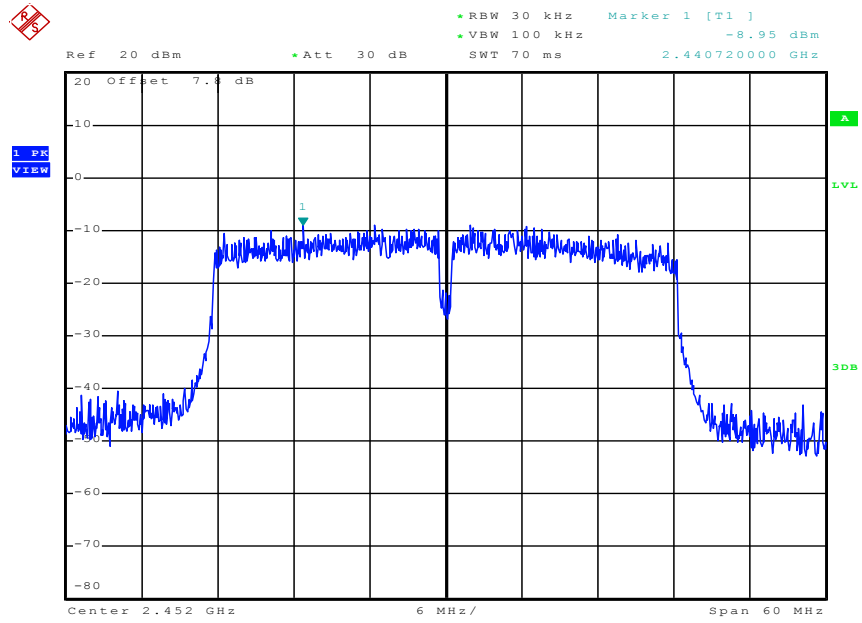
11N40SISO/MCH



Date: 3 AUG 2019 17:42:36



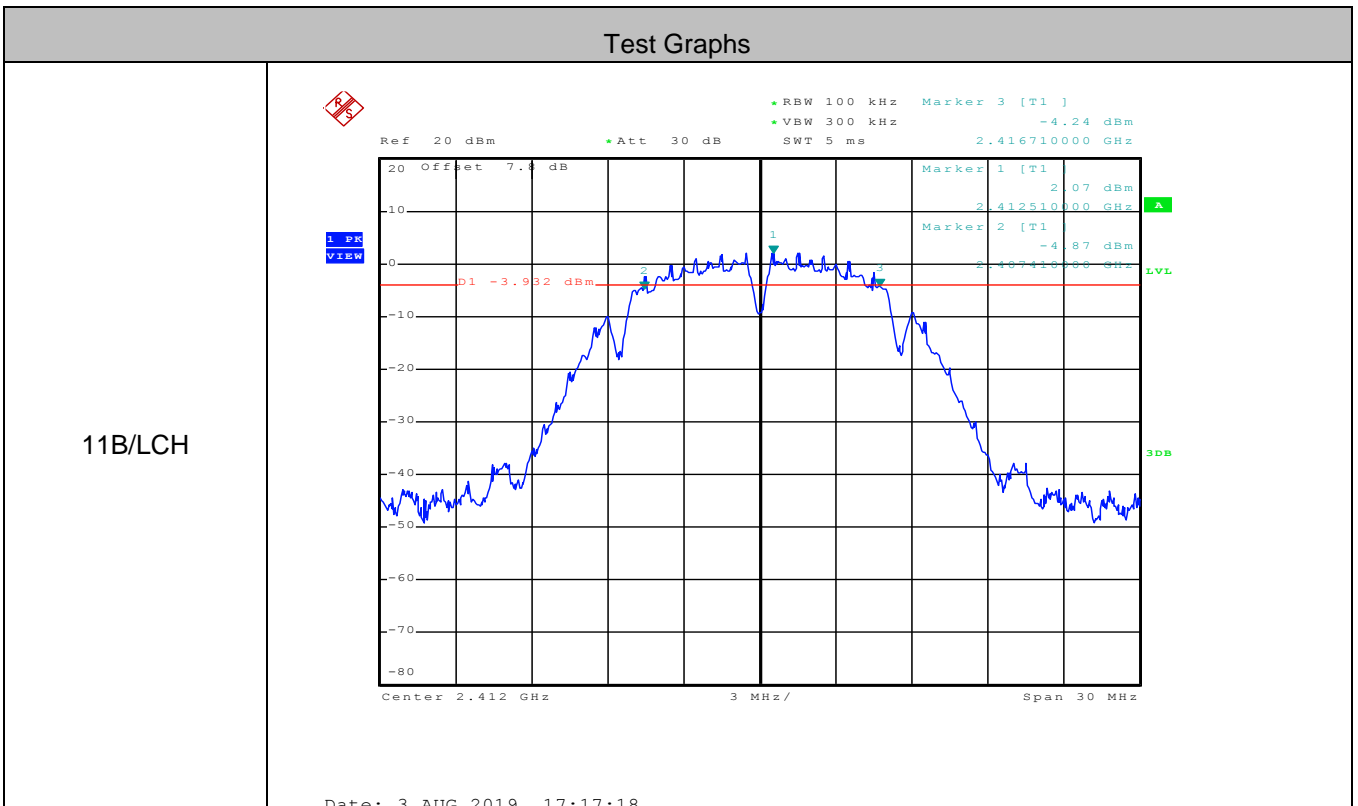
11N40SISO/HCH



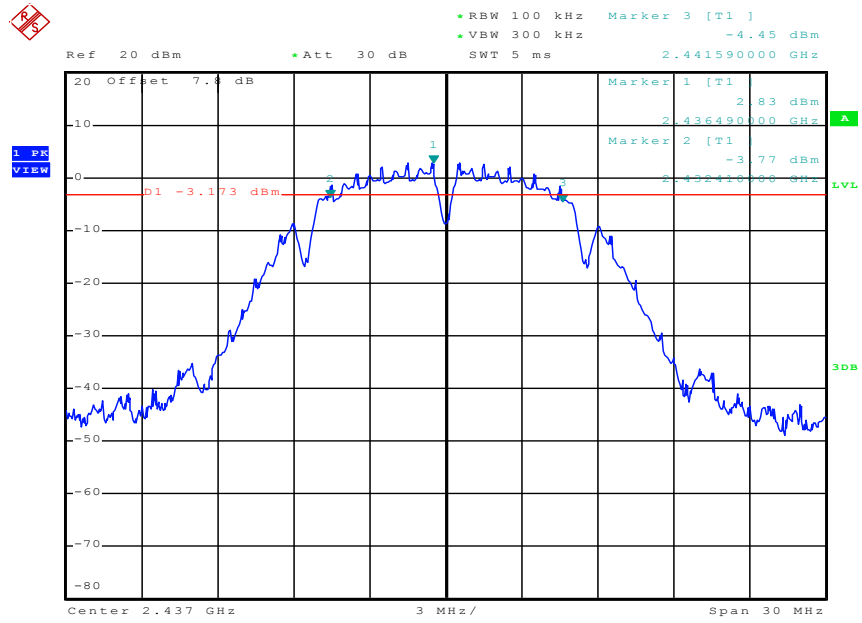
Date: 3.AUG.2019 17:44:39

### A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.300	≥0.5	PASS
	MCH	9.180	≥0.5	PASS
	HCH	9.150	≥0.5	PASS
11G	LCH	15.660	≥0.5	PASS
	MCH	15.150	≥0.5	PASS
	HCH	14.850	≥0.5	PASS
11N20SISO	LCH	16.140	≥0.5	PASS
	MCH	15.750	≥0.5	PASS
	HCH	15.750	≥0.5	PASS
11N40SISO	LCH	35.460	≥0.5	PASS
	MCH	35.220	≥0.5	PASS
	HCH	35.220	≥0.5	PASS

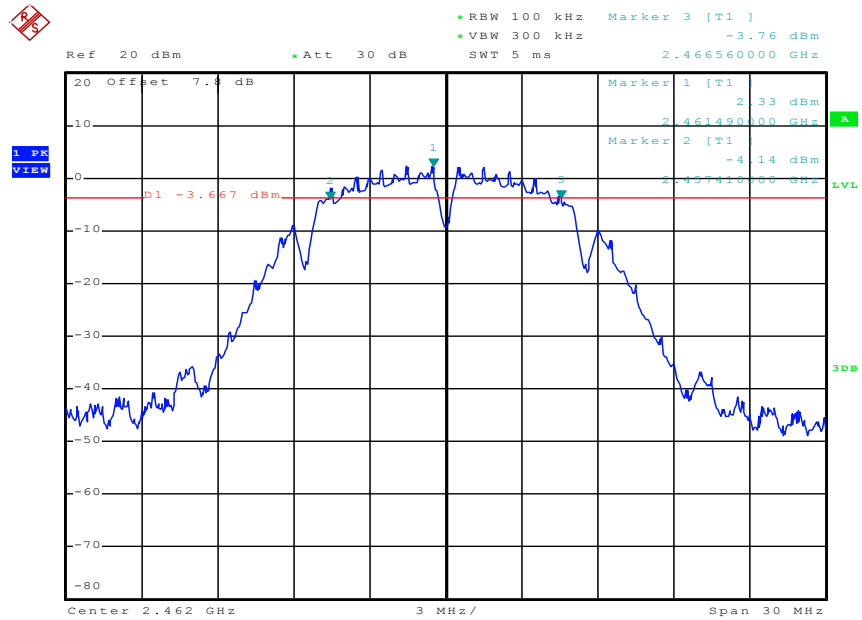


11B/MCH



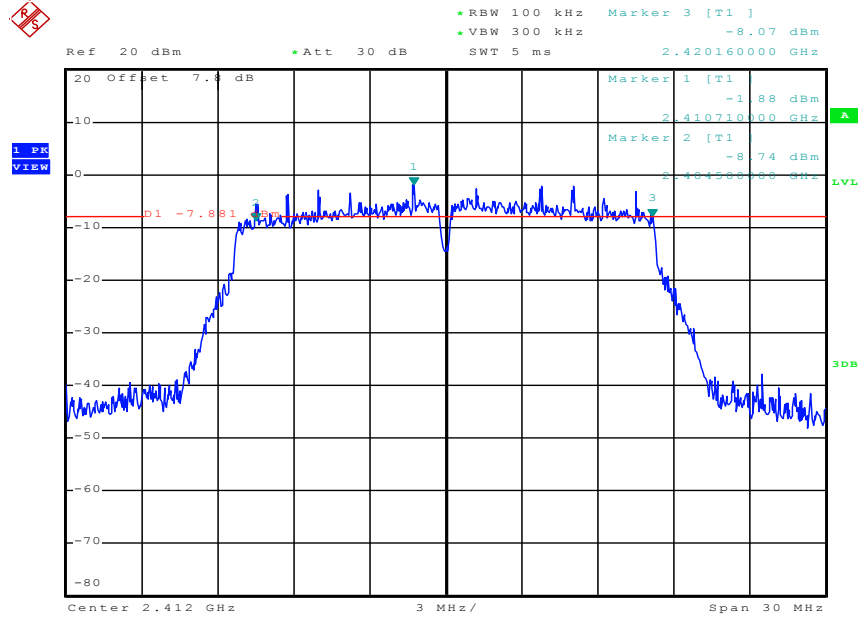
Date: 3 AUG 2019 17:20:06

11B/HCH



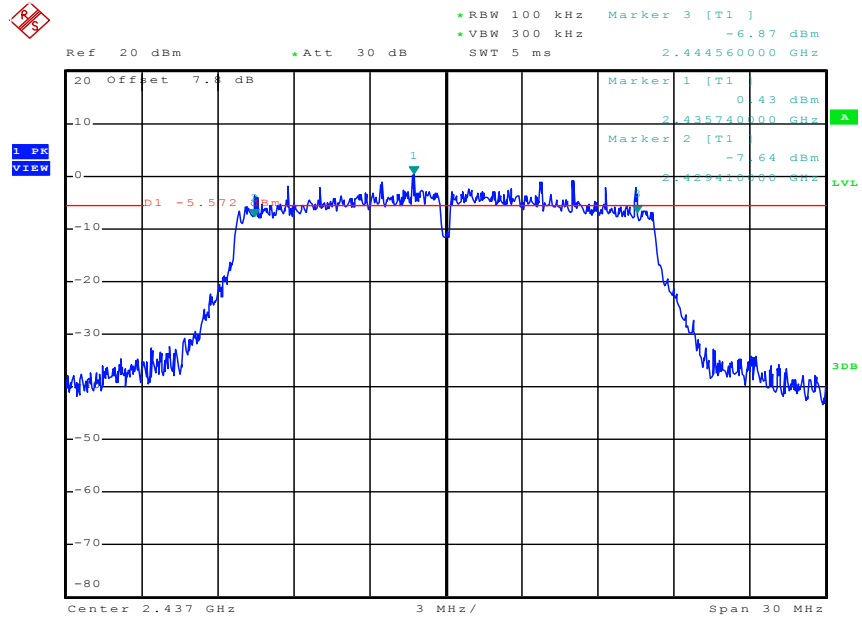
Date: 3 AUG 2019 17:21:48

11G/LCH



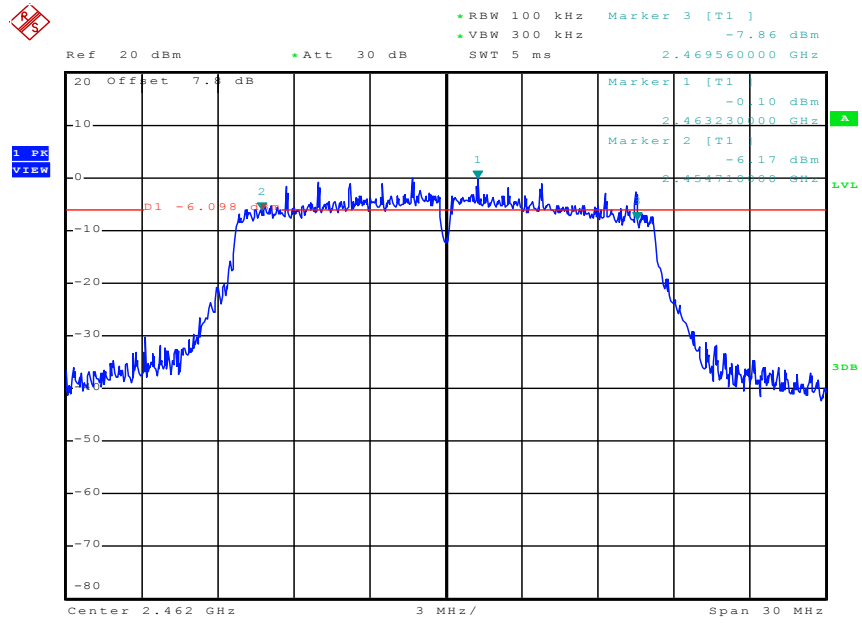
Date: 3 AUG 2019 17:24:49

11G/MCH



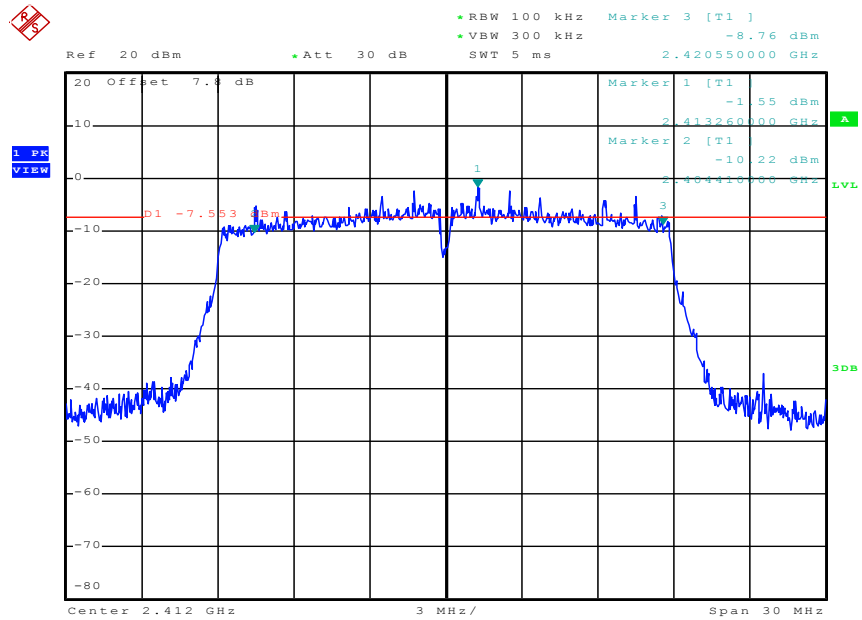
Date: 3 AUG 2019 17:27:23

11G/HCH



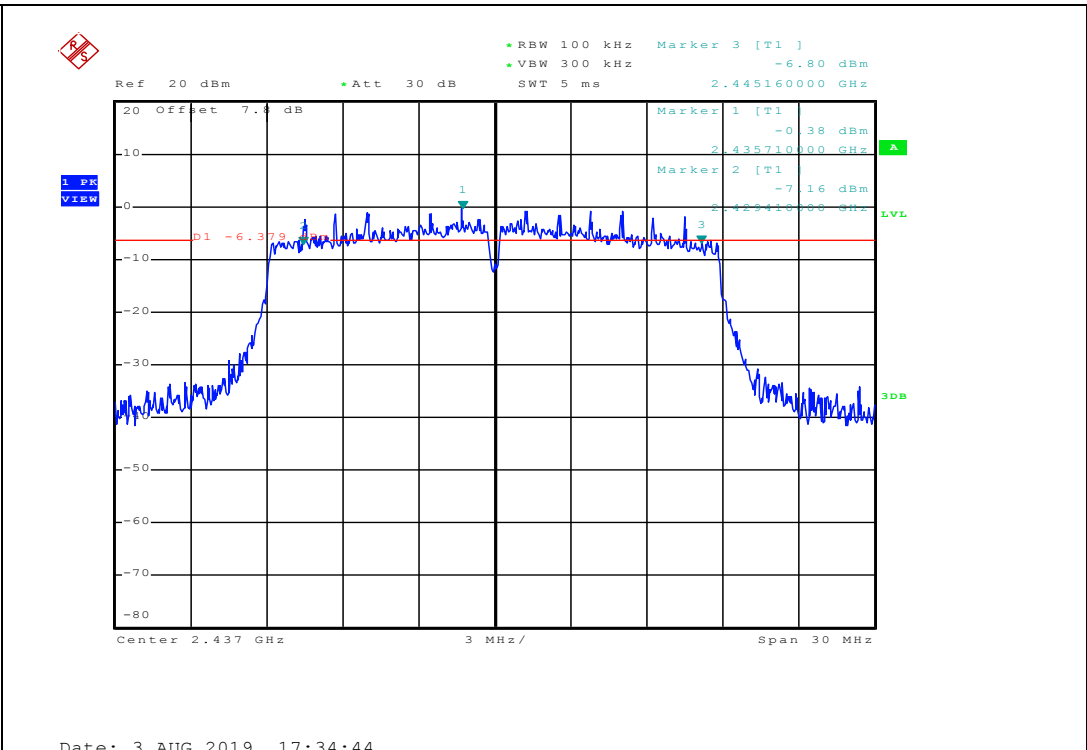
Date: 3.AUG.2019 17:29:12

11N20SISO/LCH

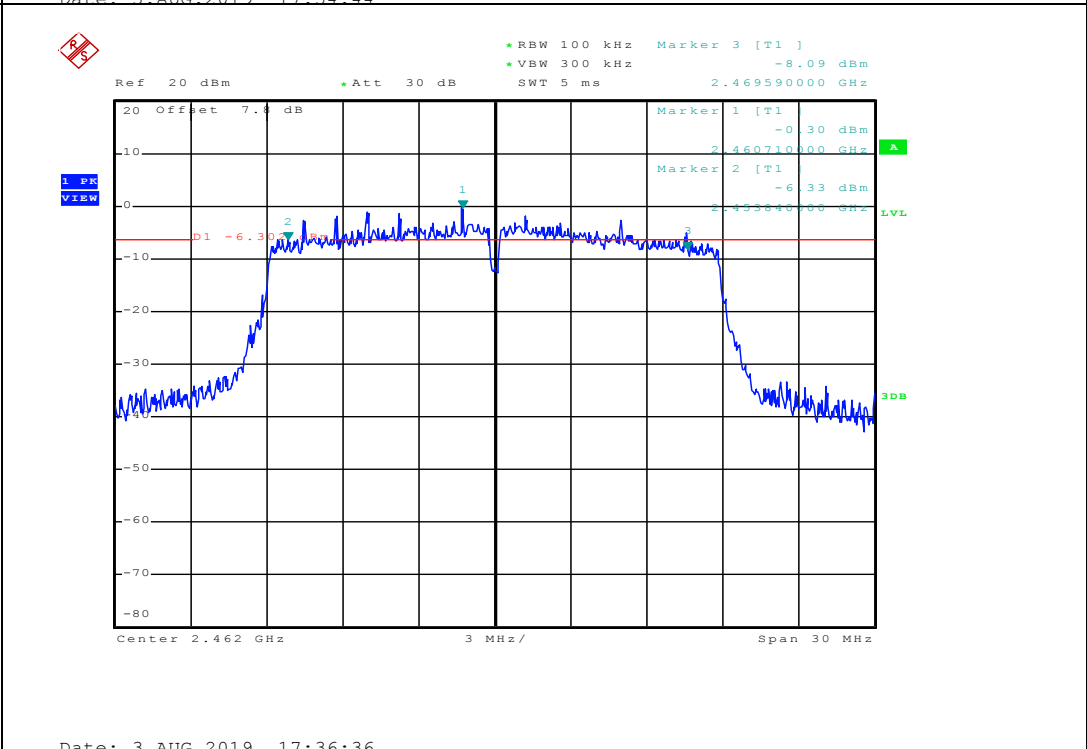


Date: 3.AUG.2019 17:31:52

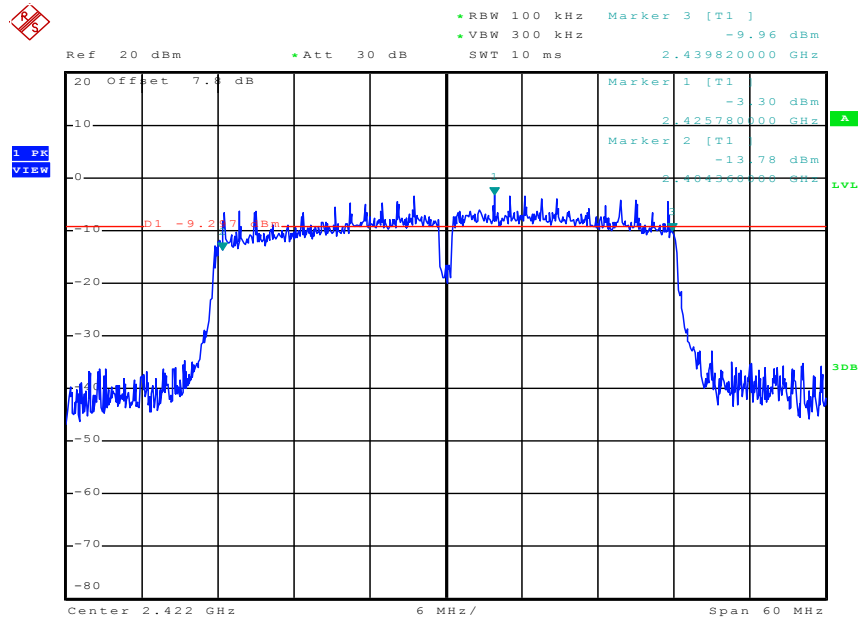
11N20SISO/MCH



11N20SISO/HCH

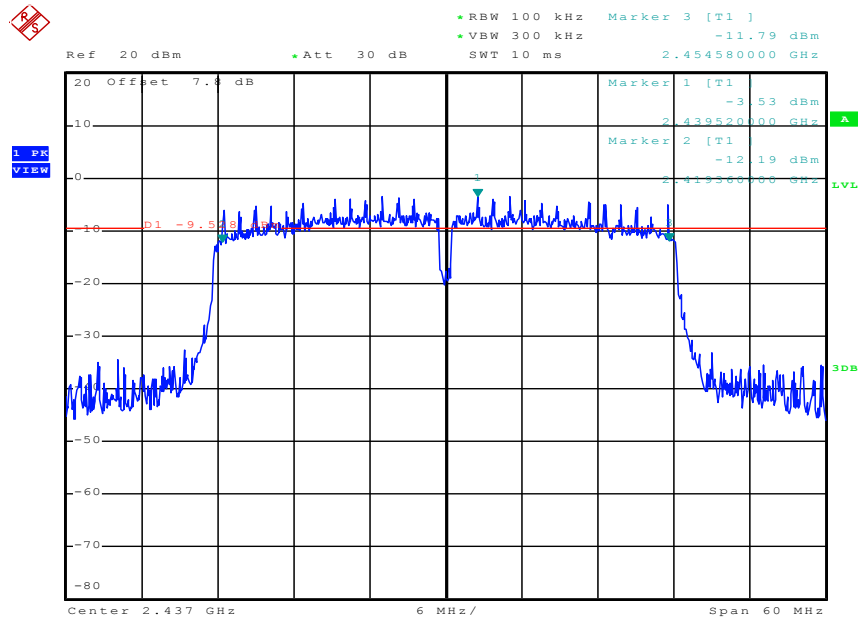


11N40SISO/LCH



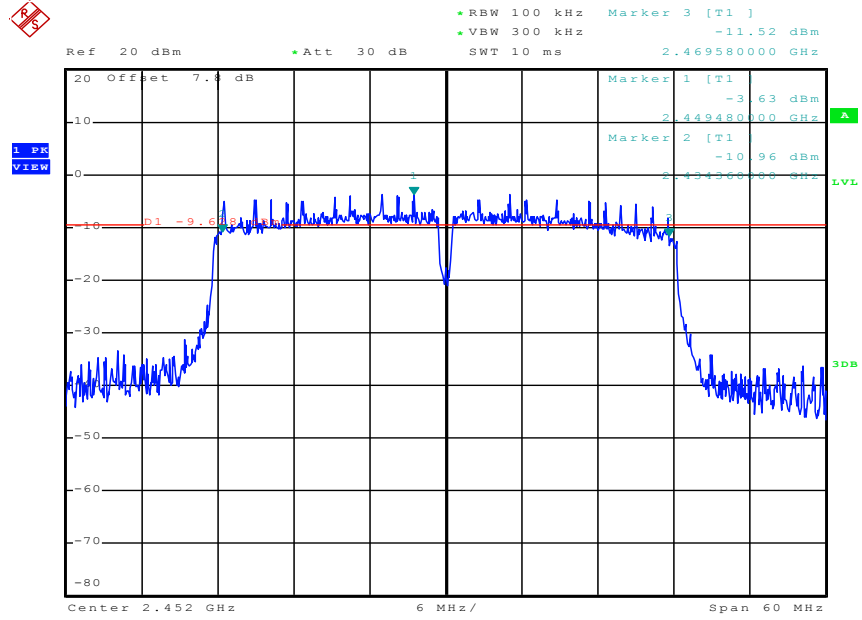
Date: 3 AUG 2019 17:39:08

11N40SISO/MCH



Date: 3 AUG 2019 17:41:49

11N40SISO/HCH



Date: 3.AUG.2019 17:43:51

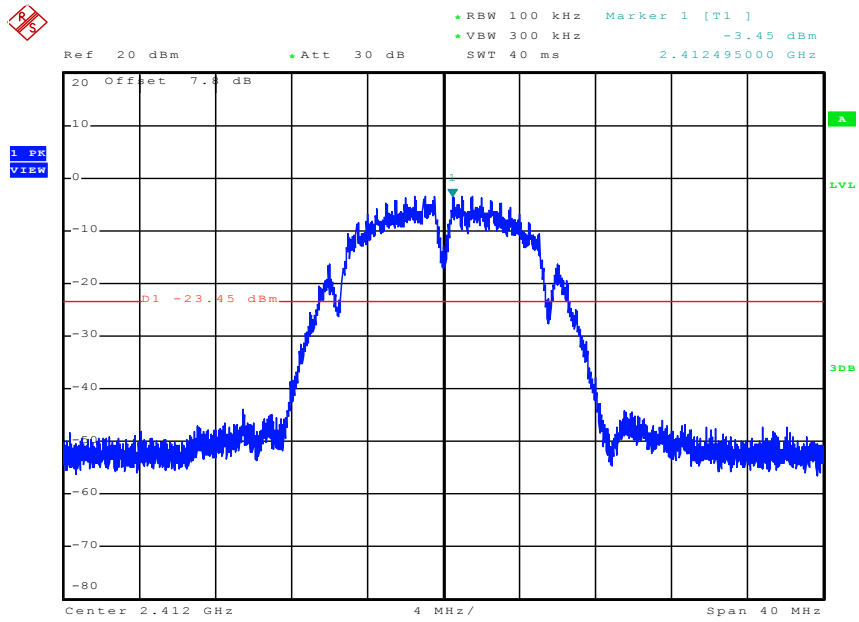


### A.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-3.45	-31.630	-23.450	PASS
	MCH	-2.89	-31.150	-22.890	PASS
	HCH	-1.93	-32.630	-21.930	PASS
11G	LCH	-6.58	-32.220	-26.580	PASS
	MCH	-2.59	-32.670	-22.590	PASS
	HCH	-2.96	-32.330	-22.960	PASS
11N20 SISO	LCH	-3.68	-31.950	-23.680	PASS
	MCH	-2.87	-32.370	-22.870	PASS
	HCH	-1.35	-32.530	-21.350	PASS
11N40 SISO	LCH	-6.22	-32.490	-26.220	PASS
	MCH	-5.75	-33.040	-25.750	PASS
	HCH	-6.18	-31.940	-26.180	PASS

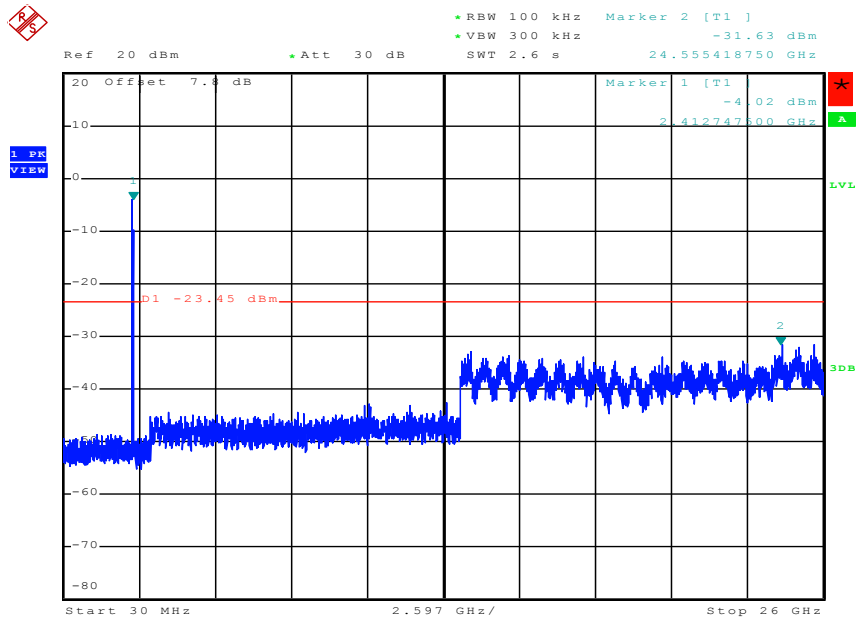
11B\_LCH\_Graphs

Pref/11B/LCH



Date: 3 AUG 2019 19:44:25

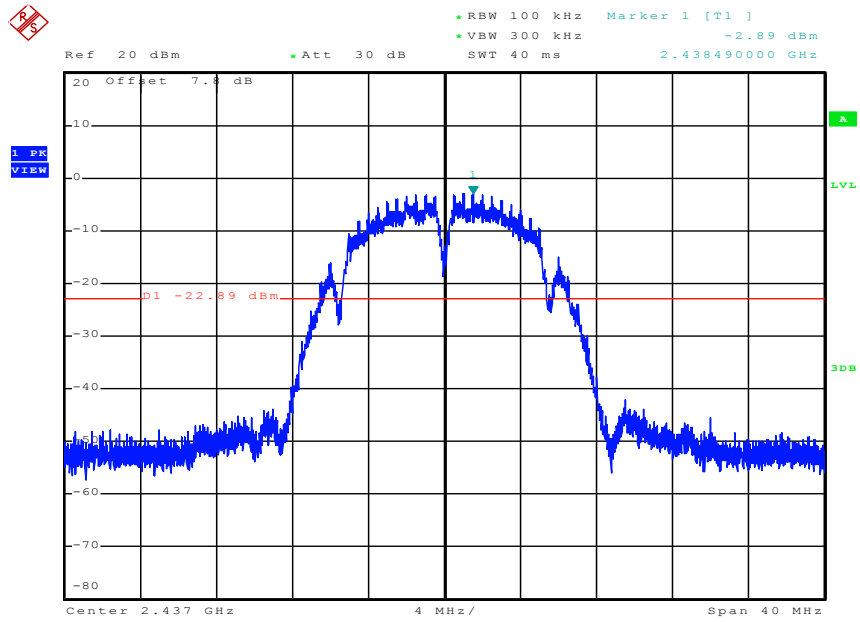
Puw/11B/LCH



Date: 3.AUG.2019 19:44:40

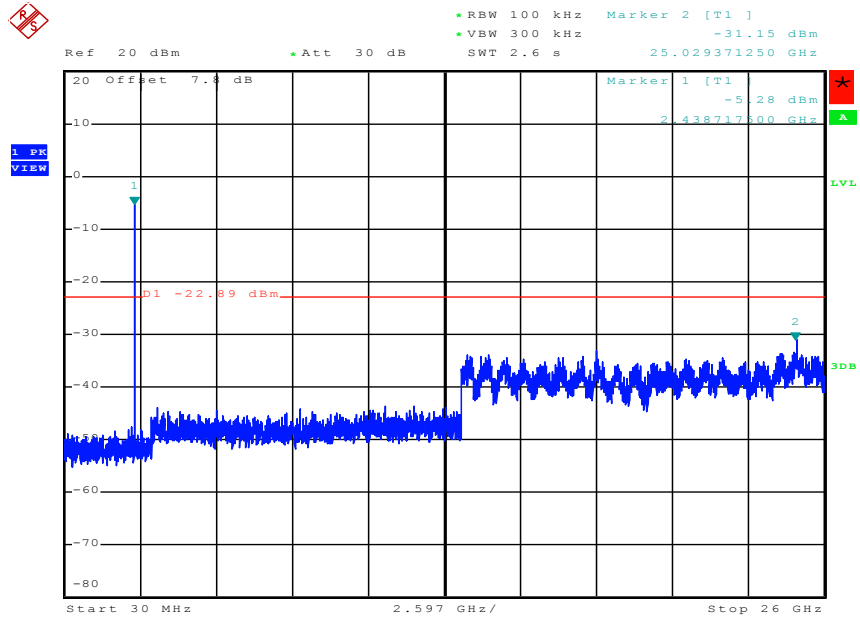
11B\_MCH\_Graphs

Pref/11B/MCH



Date: 3 AUG 2019 19:46:31

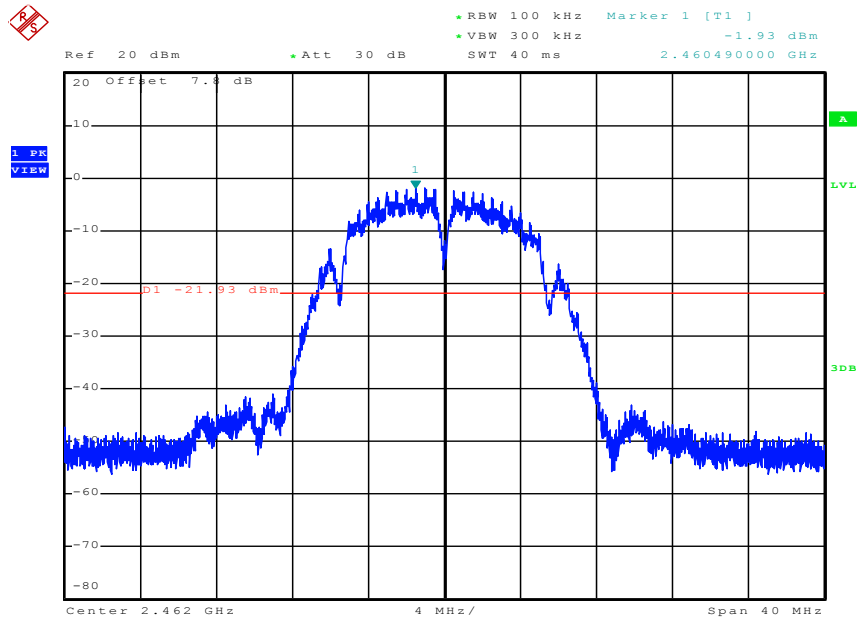
Puw/11B/MCH



Date: 3.AUG.2019 19:46:51

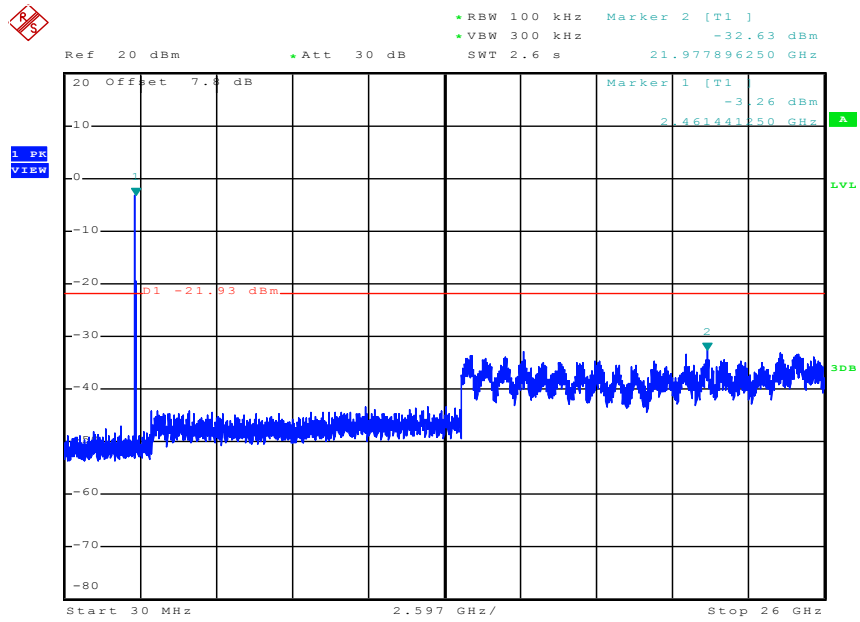
11B\_HCH\_Graphs

Pref/11B/HCH



Date: 3 AUG 2019 19:47:20

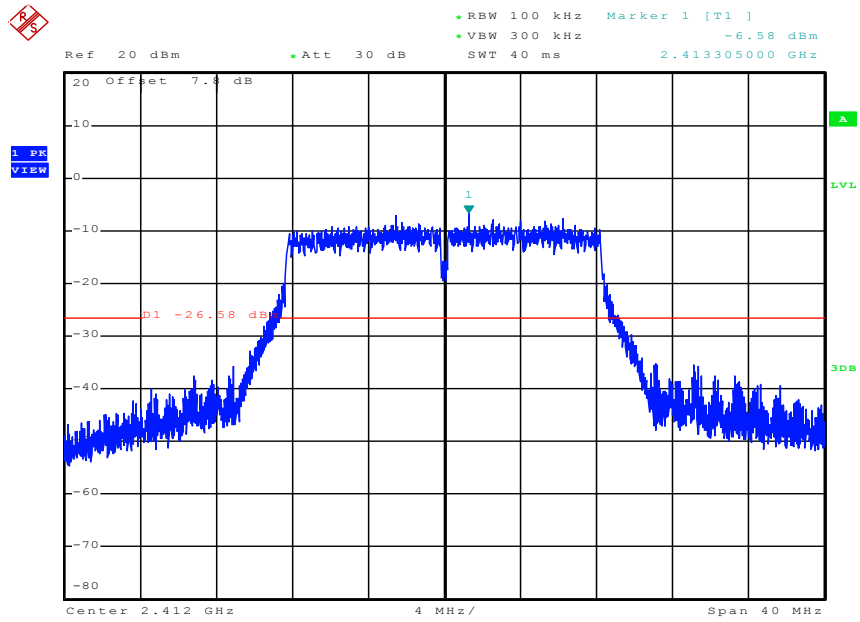
Puw/11B/HCH



Date: 3.AUG.2019 19:47:36

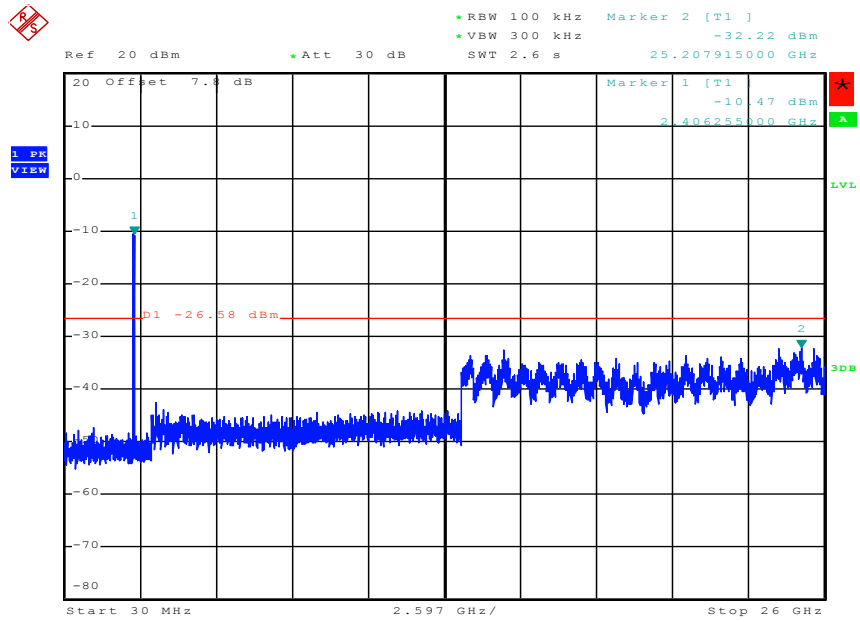
11G\_LCH\_Graphs

Pref/11G/LCH



Date: 3 AUG 2019 19:48:04

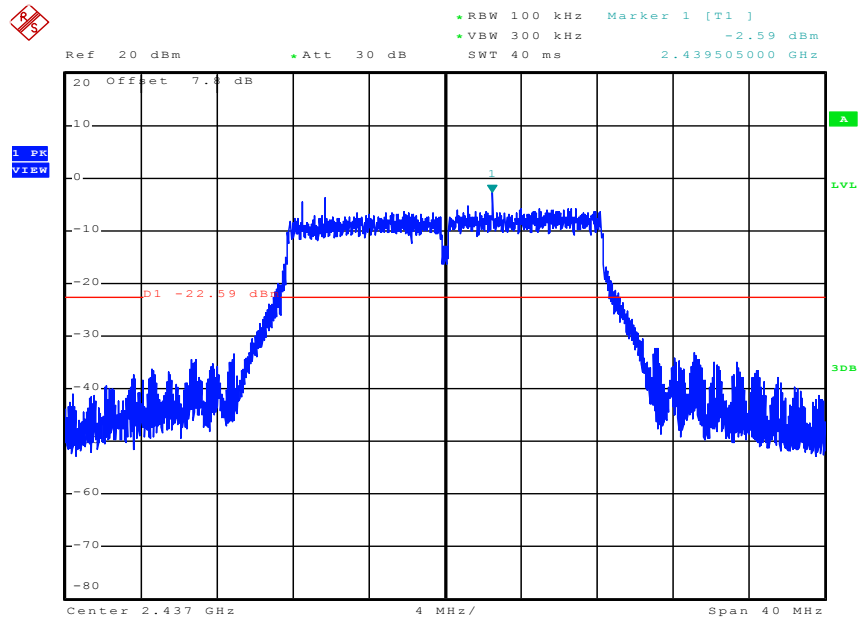
Puw/11G/LCH



Date: 3.AUG.2019 19:48:23

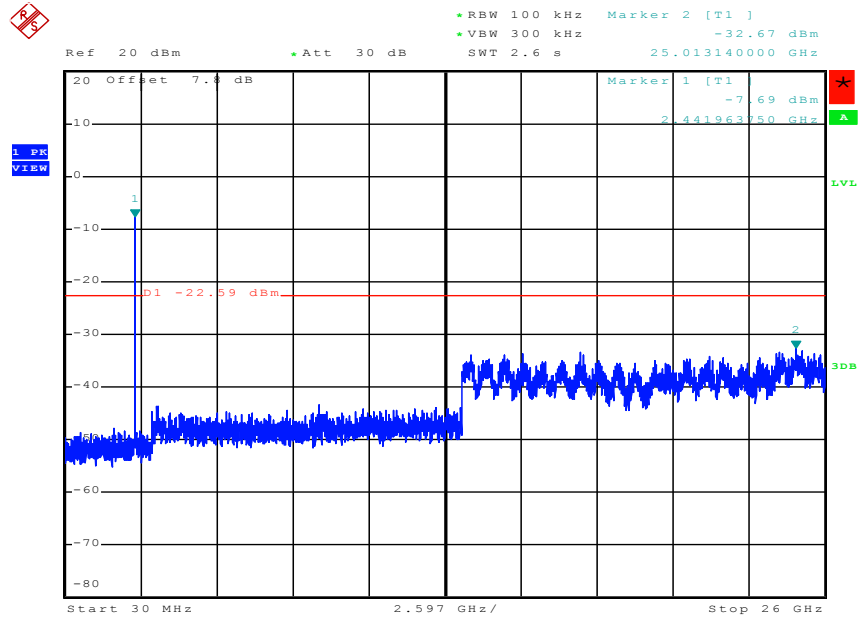
11G\_MCH\_Graphs

Pref/11G/MCH



Date: 3 AUG 2019 19:48:46

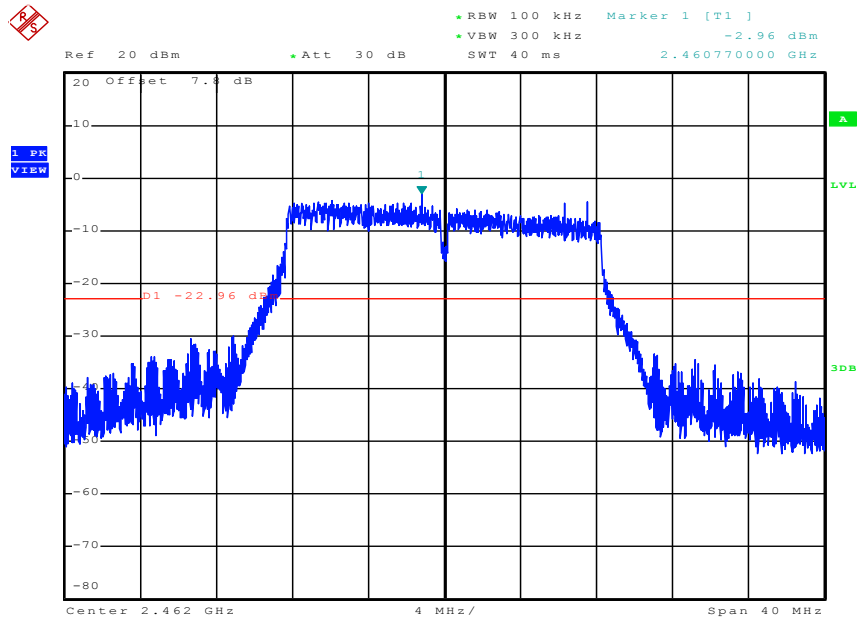
Puw/11G/MCH



Date: 3.AUG.2019 19:49:03

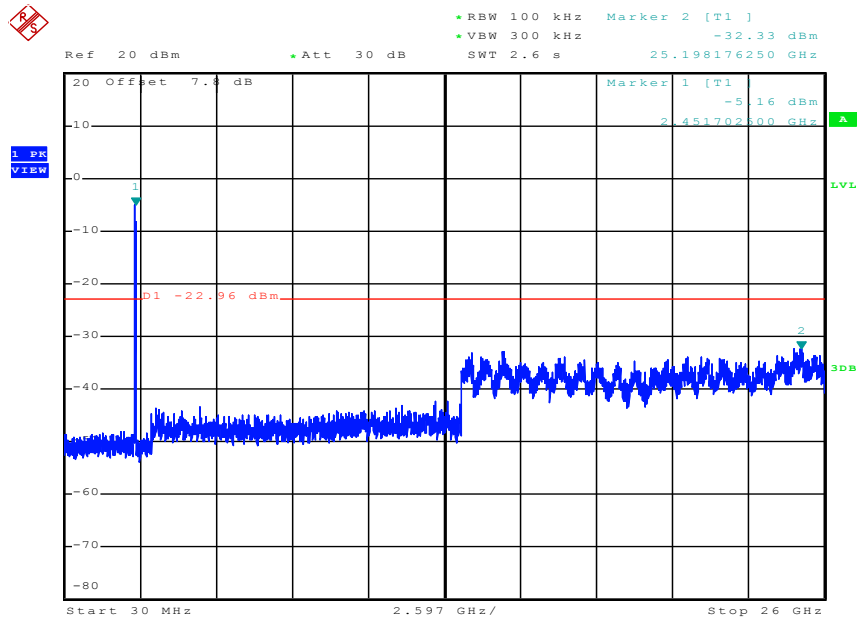
11G\_HCH\_Graphs

Pref/11G/HCH



Date: 3 AUG 2019 19:49:31

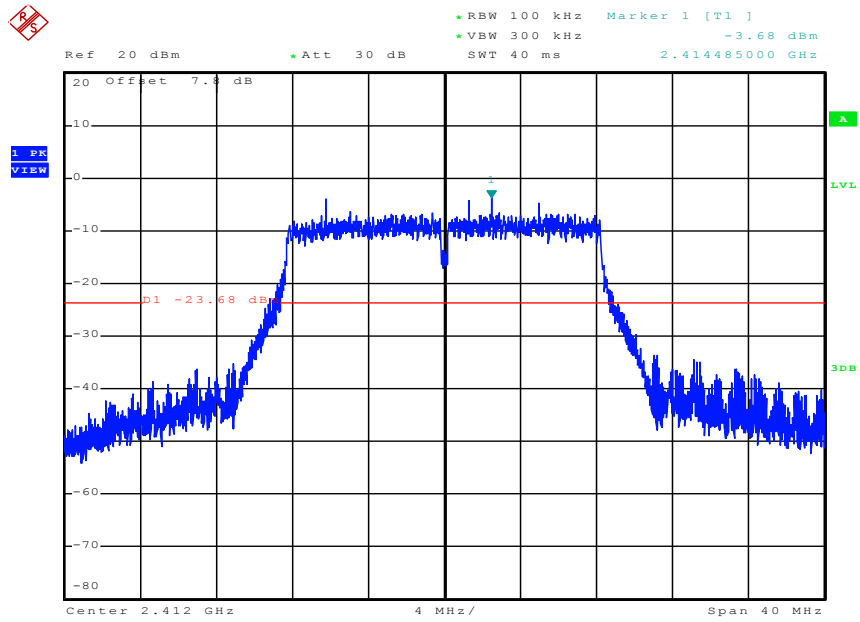
Puw/11G/HCH



Date: 3.AUG.2019 19:49:55

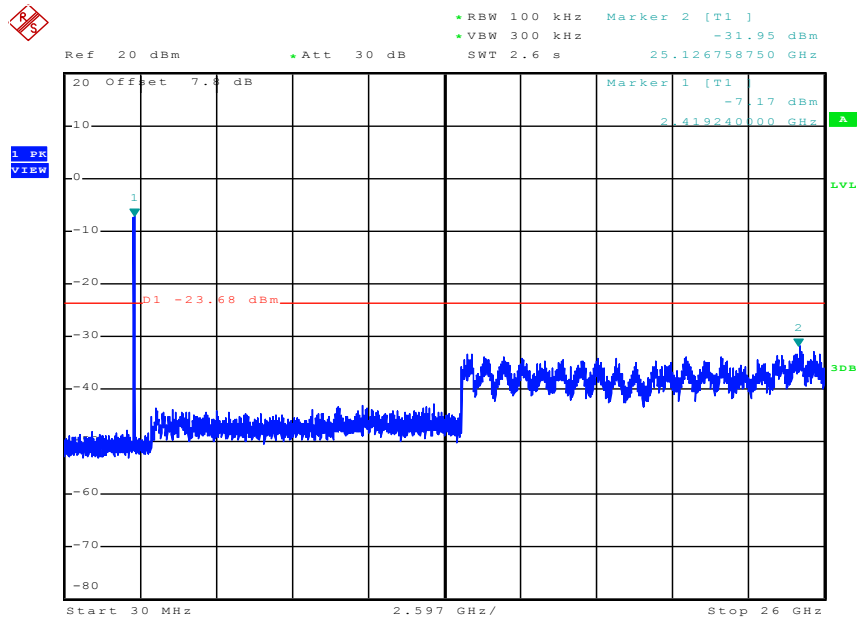
11N20SISO\_LCH\_Graphs

Pref/11N20SIS  
O/LCH



Date: 3 AUG 2019 19:50:53

Puw/11N20  
SISO/LCH

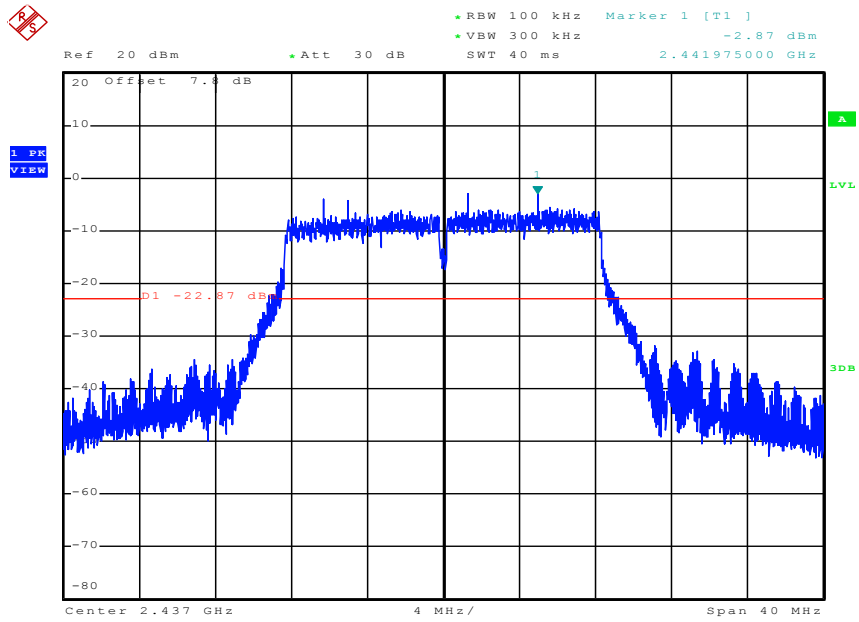


Date: 3.AUG.2019 19:51:13



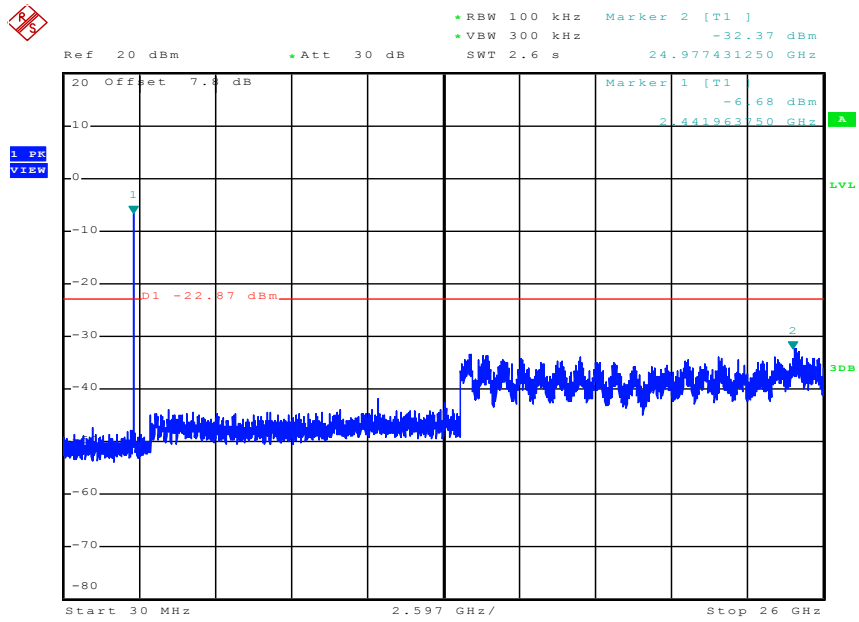
11N20SISO\_MCH\_Graphs

Pref/11N20  
SISO/MCH



Date: 3 AUG 2019 19:51:44

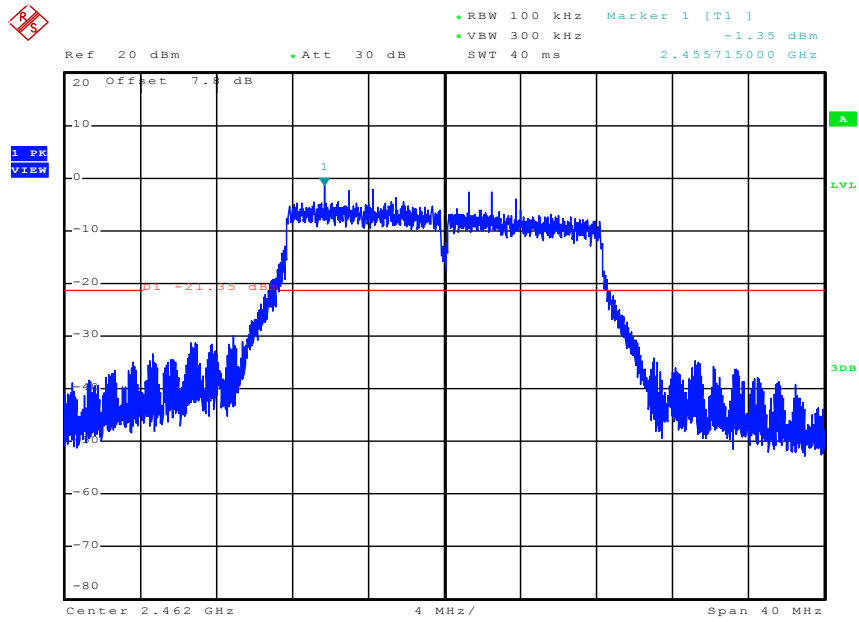
Puw/11N20  
SISO/MCH



Date: 3.AUG.2019 19:52:00

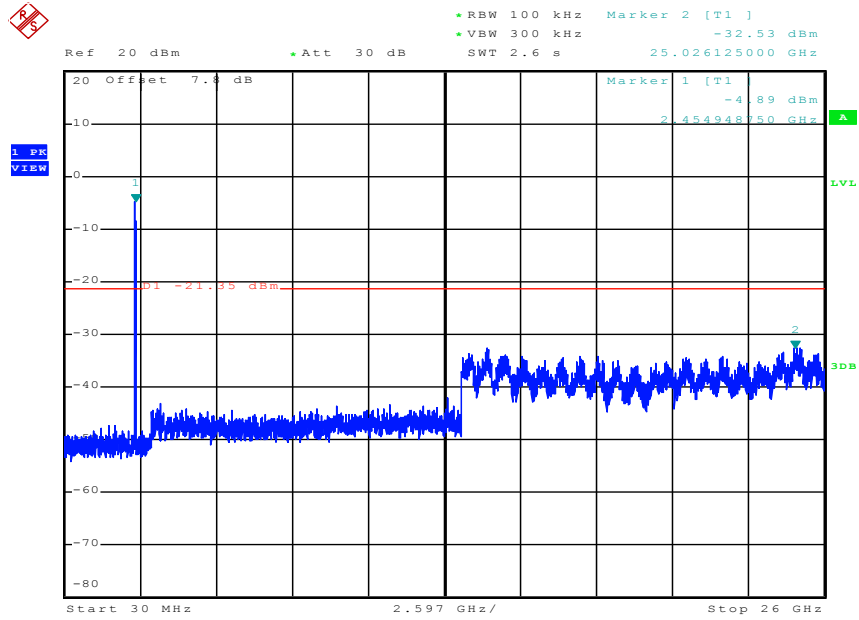
11N20SISO\_HCH\_Graphs

Pref/11N20  
SISO/HCH



Date: 3 AUG 2019 19:52:27

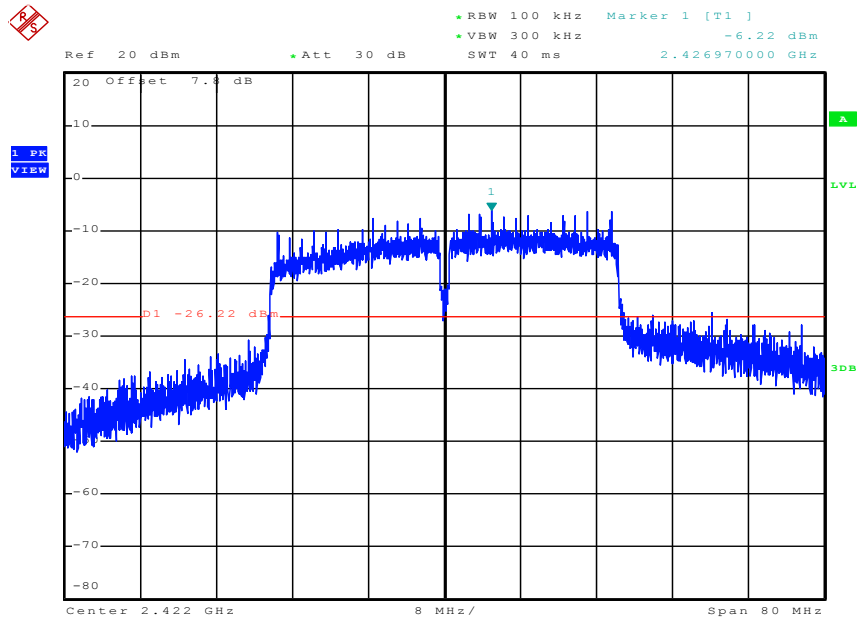
Puw/11N20  
SISO/HCH



Date: 3.AUG.2019 19:52:43

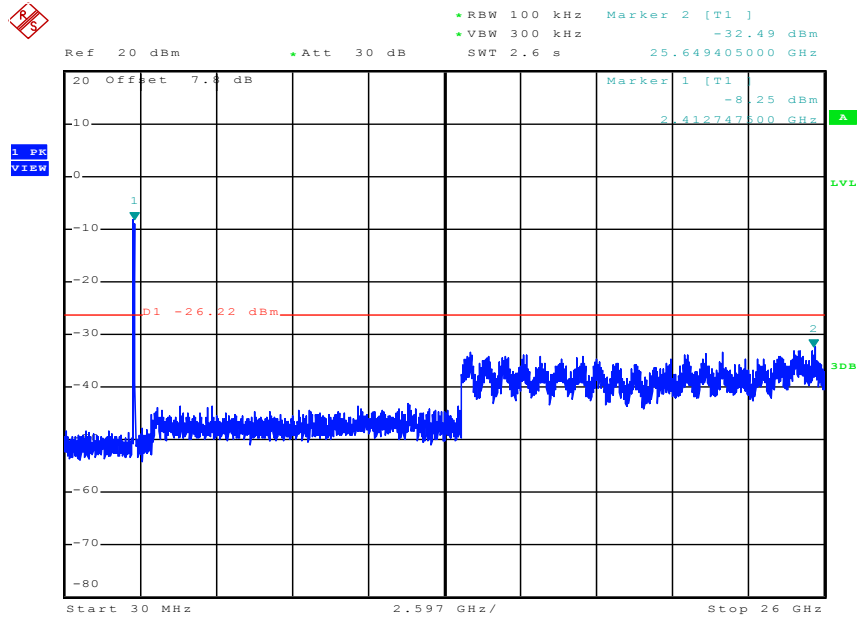
11N40SISO\_LCH\_Graphs

Pref/11N40  
SISO/LCH



Date: 3 AUG 2019 19:56:03

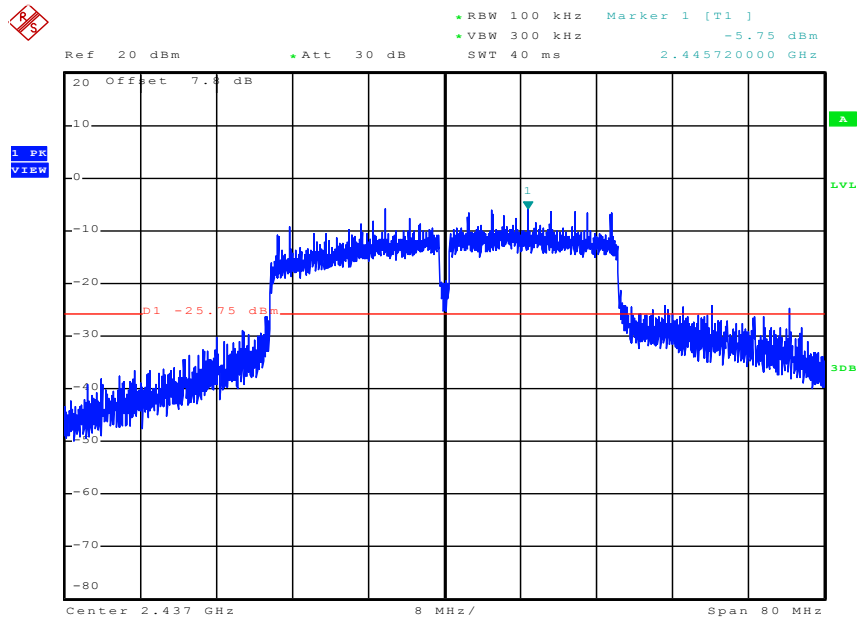
Puw/11N40  
SISO/LCH



Date: 3.AUG.2019 19:56:19

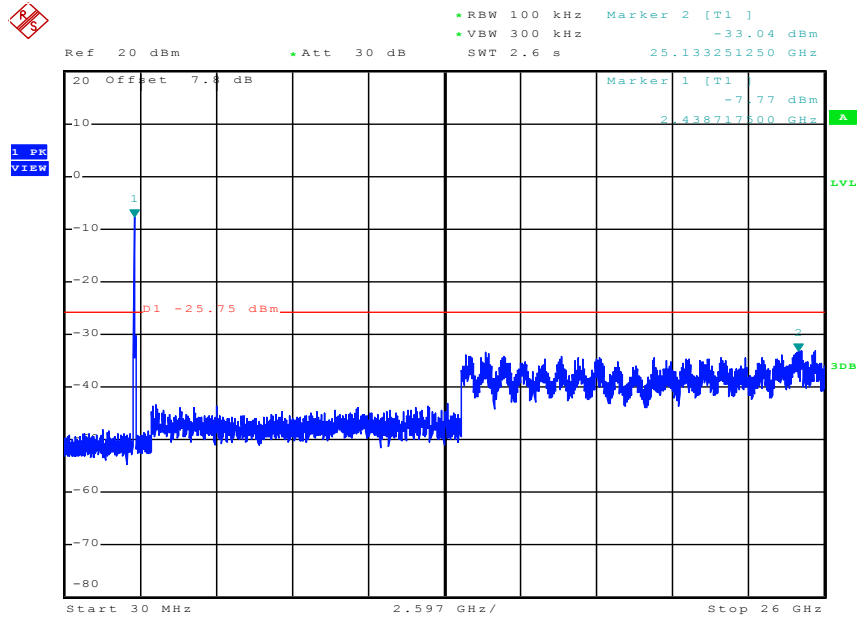
11N40SISO\_MCH\_Graphs

Pref/11N40  
SISO/MCH



Date: 3 AUG 2019 19:56:46

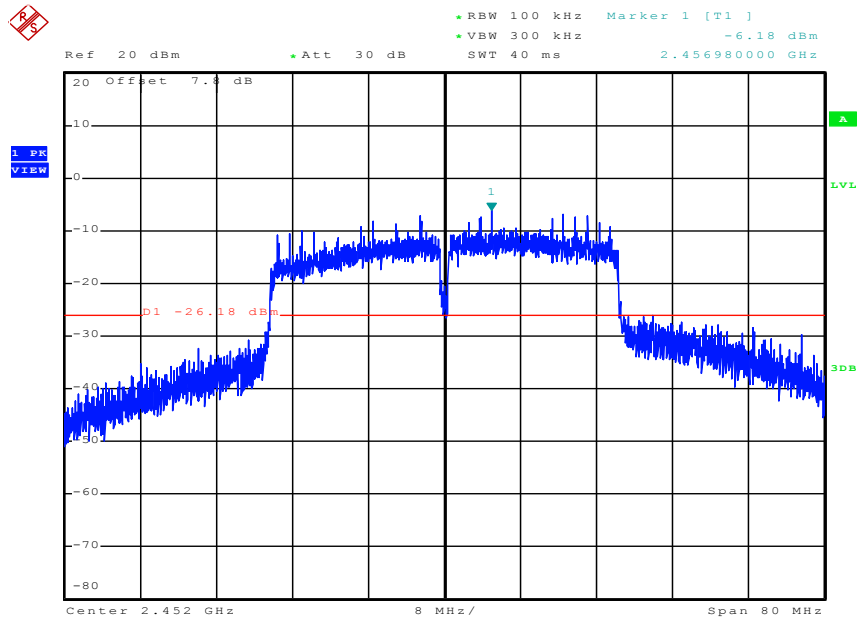
Puw/11N40  
SISO/MCH



Date: 3.AUG.2019 19:57:01

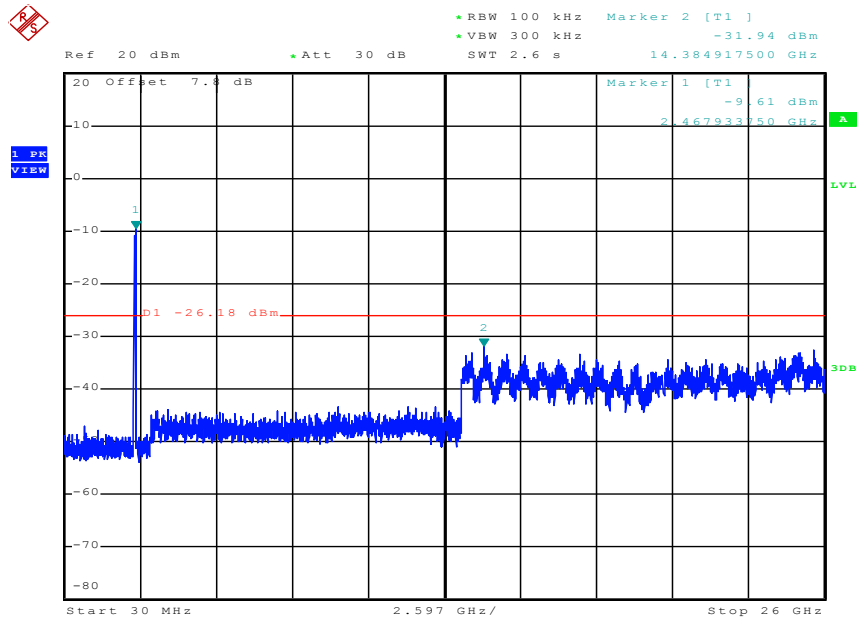
11N40SISO\_HCH\_Graphs

Pref/11N40  
SISO/HCH



Date: 3 AUG 2019 19:57:22

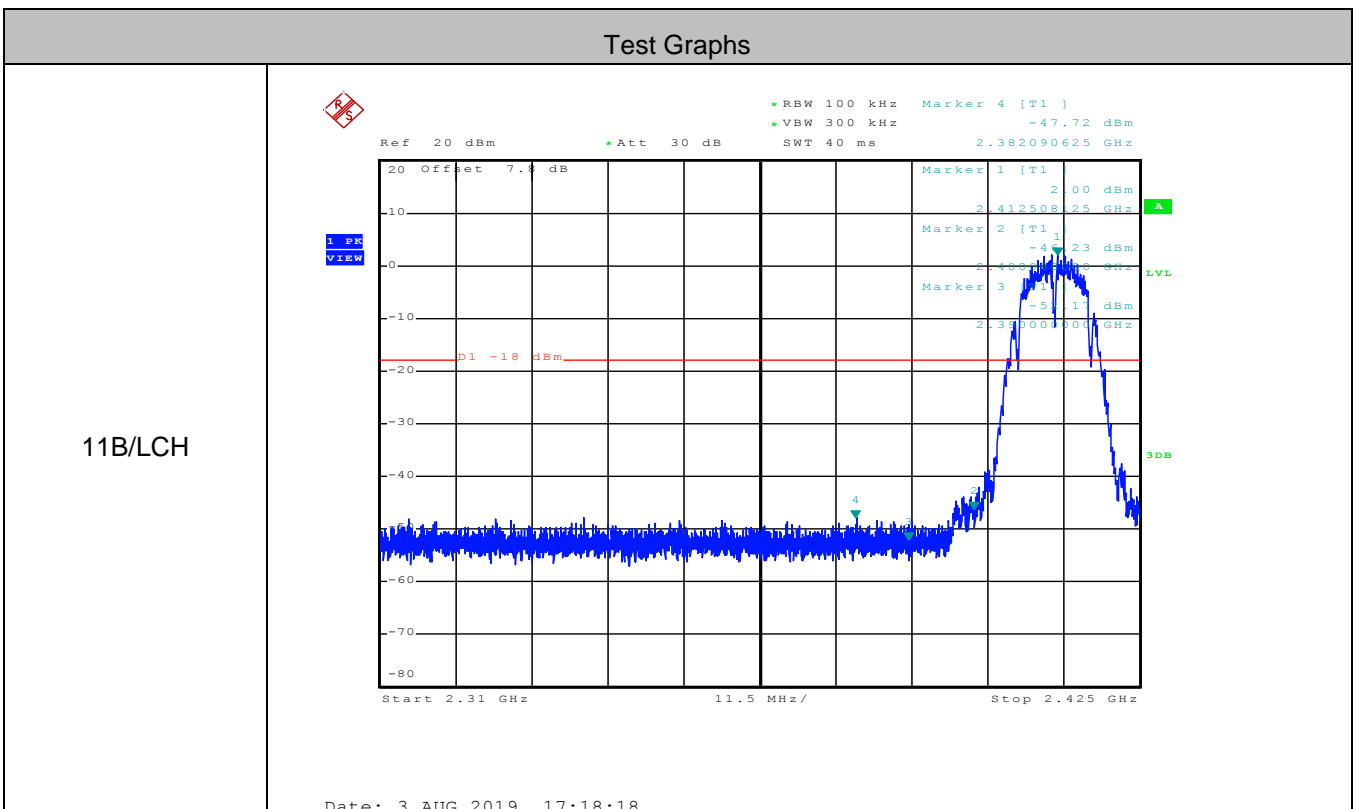
Puw/11N40  
SISO/HCH



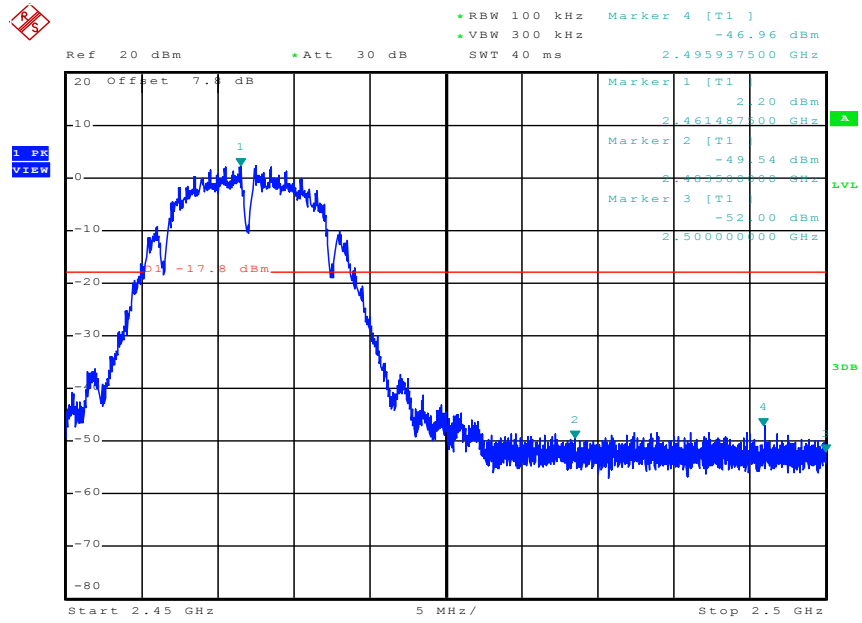
Date: 3.AUG.2019 19:57:38

### A.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	2.000	-47.720	-18	PASS
	HCH	2.200	-46.959	-17.8	PASS
11G	LCH	-2.620	-48.106	-22.62	PASS
	HCH	0.100	-47.334	-19.9	PASS
11N20SISO	LCH	-2.490	-47.980	-22.49	PASS
	HCH	-1.590	-46.125	-21.59	PASS
11N40SISO	LCH	-3.230	-43.352	-23.23	PASS
	HCH	-3.580	-39.174	-23.58	PASS

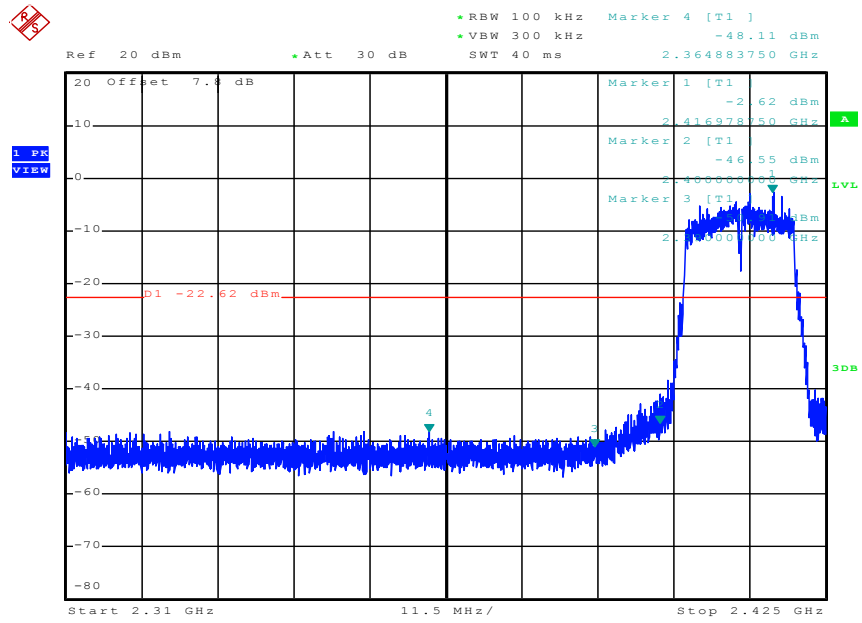


11B/HCH



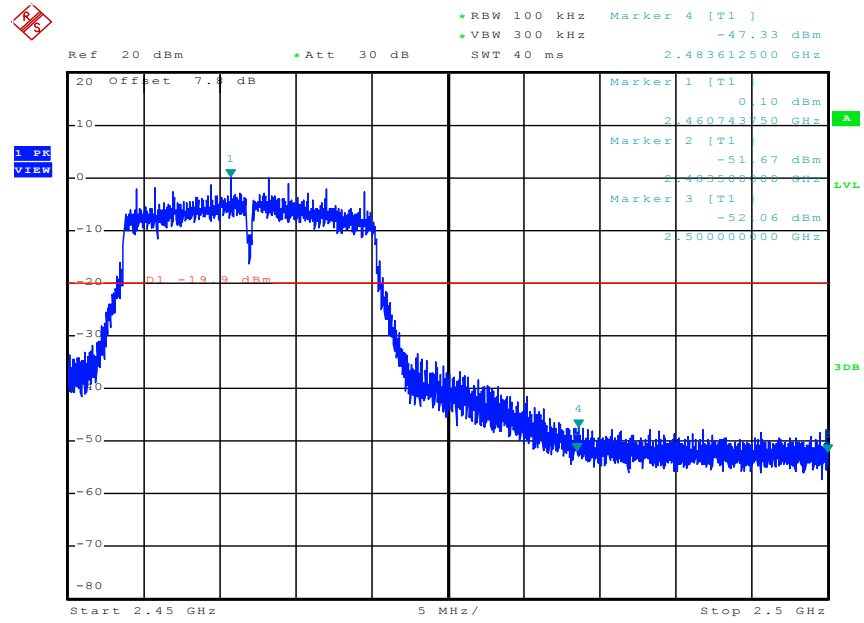
Date: 3 AUG 2019 17:22:49

11G/LCH



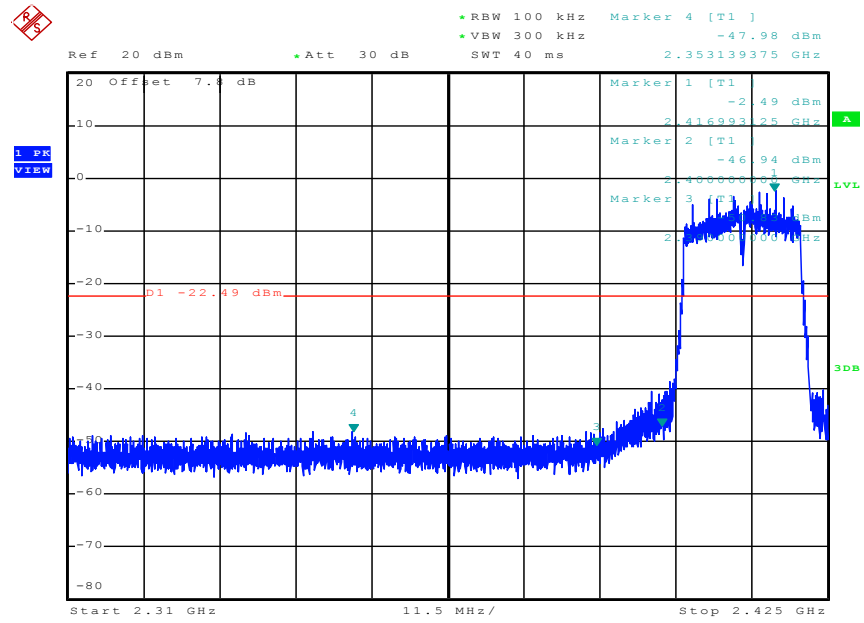
Date: 3 AUG 2019 17:25:49

11G/HCH



Date: 3 AUG 2019 17:30:13

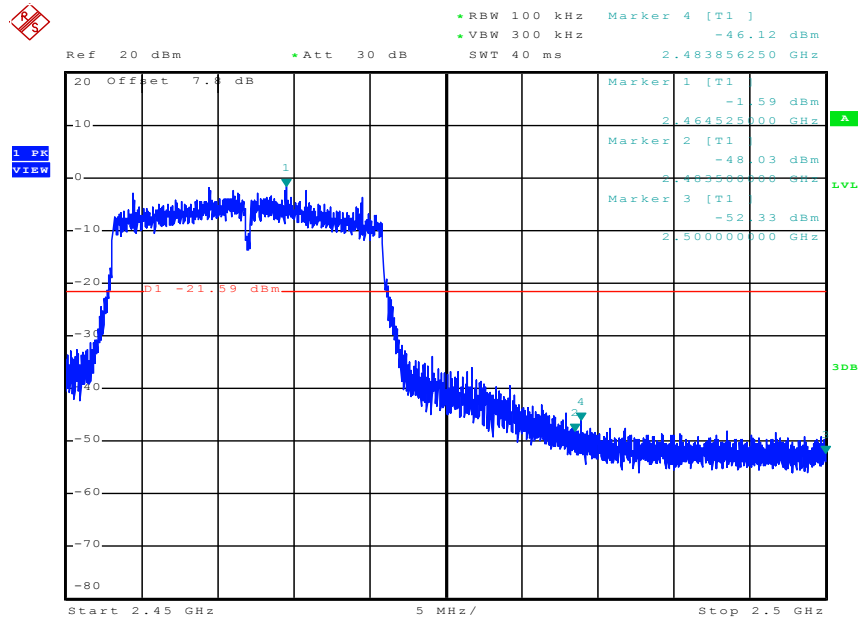
11N20SISO/LCH



Date: 3 AUG 2019 17:32:53

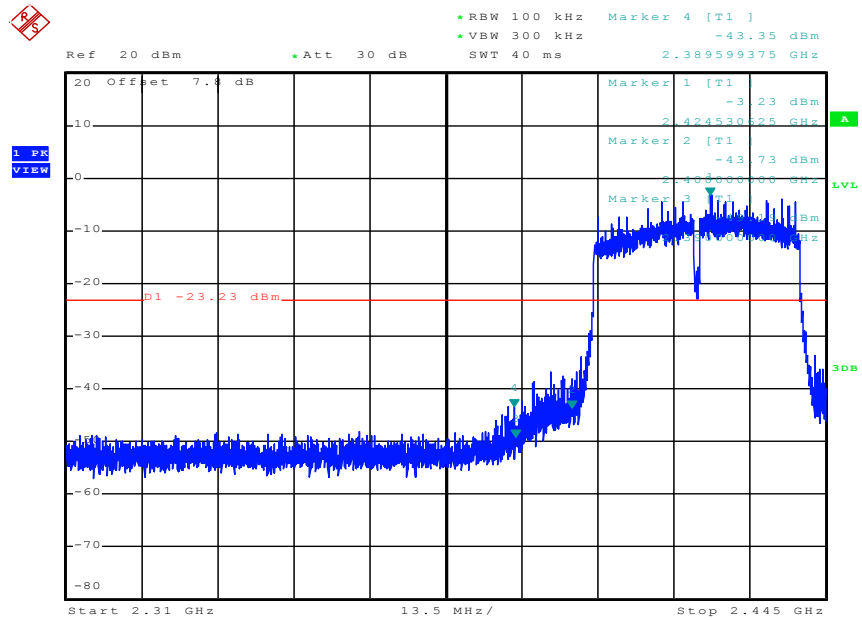


11N20SISO/HCH



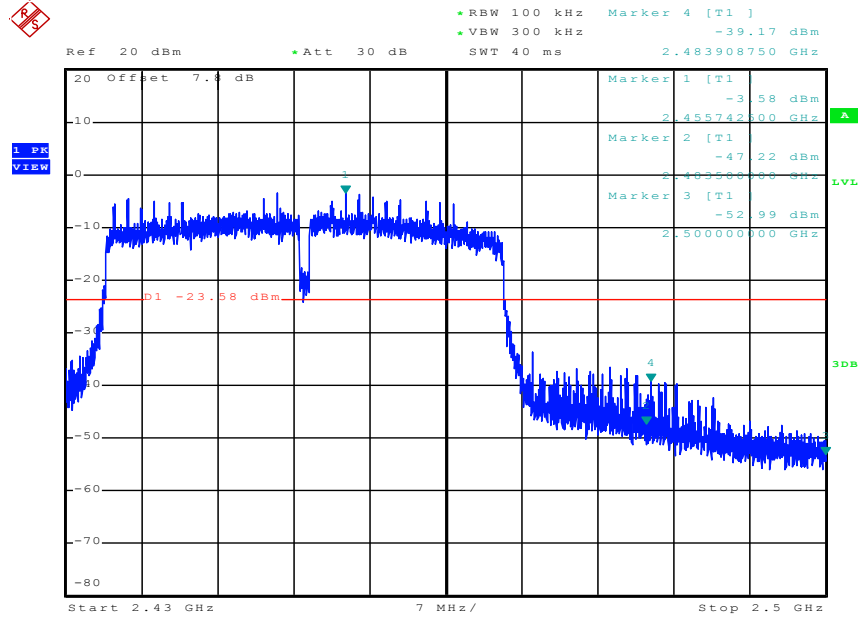
Date: 3 AUG 2019 17:37:36

11N40SISO/LCH



Date: 3 AUG 2019 17:40:09

11N40SISO/HCH



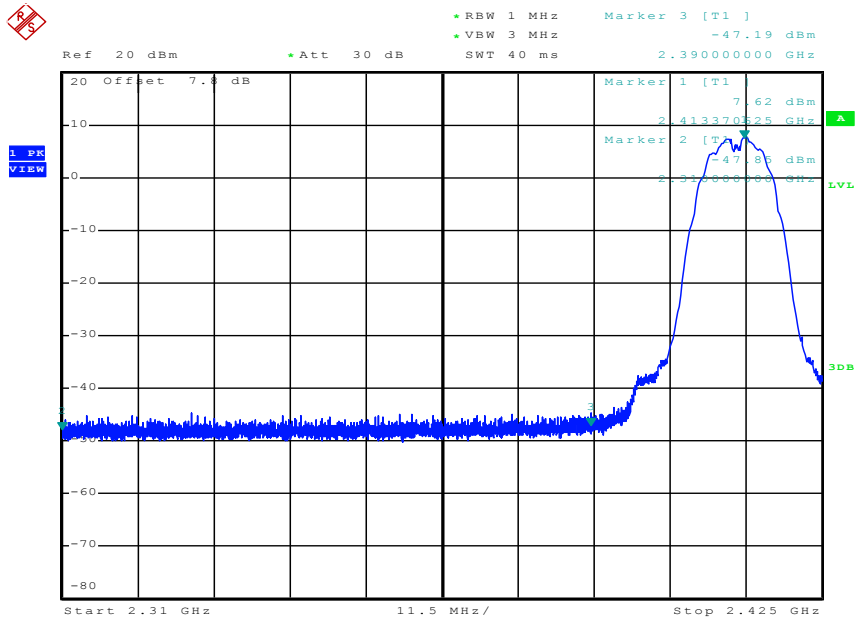
Date: 3.AUG.2019 17:44:52

### A.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
11B	2412	Ant1	2310.0	-47.85	2.0	0	47.41	PEAK	74	PASS
	2412	Ant1	2310.0	-58.04	2.0	0	37.22	AV	54	PASS
	2412	Ant1	2390.0	-47.19	2.0	0	48.07	PEAK	74	PASS
	2412	Ant1	2390.0	-57.05	2.0	0	38.21	AV	54	PASS
	2462	Ant1	2483.5	-46.79	2.0	0	48.47	PEAK	74	PASS
	2462	Ant1	2483.5	-57.03	2.0	0	38.23	AV	54	PASS
	2462	Ant1	2500.0	-48.55	2.0	0	46.71	PEAK	74	PASS
	2462	Ant1	2500.0	-58.26	2.0	0	37.00	AV	54	PASS
11G	2412	Ant1	2310.0	-47.29	2.0	0	47.97	PEAK	74	PASS
	2412	Ant1	2310.0	-58.20	2.0	0	37.06	AV	54	PASS
	2412	Ant1	2390.0	-45.61	2.0	0	49.65	PEAK	74	PASS
	2412	Ant1	2390.0	-55.87	2.0	0	39.39	AV	54	PASS
	2462	Ant1	2483.5	-39.73	2.0	0	55.53	PEAK	74	PASS
	2462	Ant1	2483.5	-52.97	2.0	0	42.29	AV	54	PASS
	2462	Ant1	2500.0	-48.60	2.0	0	46.66	PEAK	74	PASS
	2462	Ant1	2500.0	-58.36	2.0	0	36.90	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-48.31	2.0	0	46.95	PEAK	74	PASS
	2412	Ant1	2310.0	-58.29	2.0	0	36.97	AV	54	PASS
	2412	Ant1	2390.0	-44.20	2.0	0	51.06	PEAK	74	PASS
	2412	Ant1	2390.0	-55.48	2.0	0	39.78	AV	54	PASS
	2462	Ant1	2483.5	-37.92	2.0	0	57.34	PEAK	74	PASS
	2462	Ant1	2483.5	-51.93	2.0	0	43.33	AV	54	PASS
	2462	Ant1	2500.0	-46.82	2.0	0	48.44	PEAK	74	PASS
	2462	Ant1	2500.0	-58.43	2.0	0	36.83	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-49.82	2.0	0	45.44	PEAK	74	PASS
	2422	Ant1	2310.0	-58.34	2.0	0	36.92	AV	54	PASS

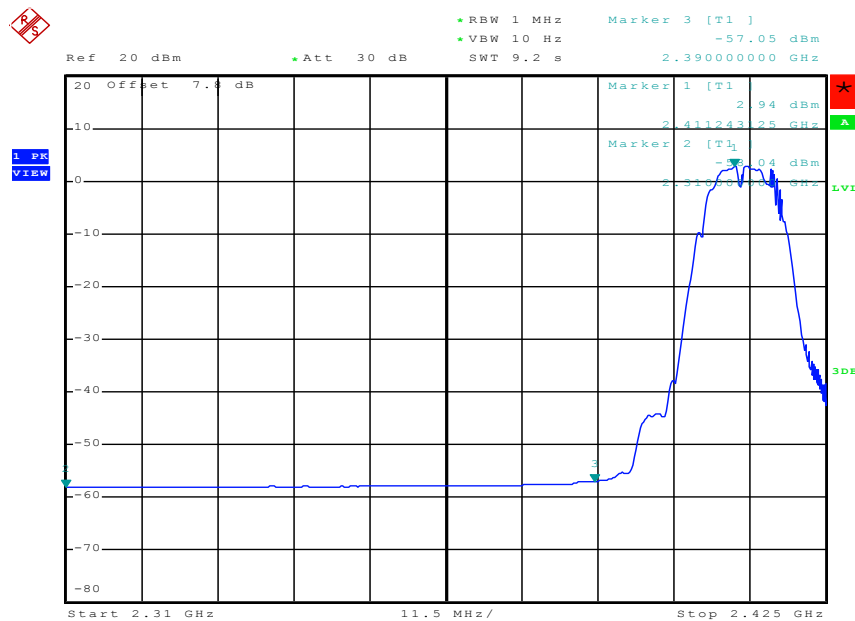
	2422	Ant1	2390.0	-37.60	2.0	0	57.66	PEAK	74	PASS
	2422	Ant1	2390.0	-50.79	2.0	0	44.47	AV	54	PASS
	2452	Ant1	2483.5	-30.47	2.0	0	64.79	PEAK	74	PASS
	2452	Ant1	2483.5	-49.61	2.0	0	45.65	AV	54	PASS
	2452	Ant1	2500.0	-48.03	2.0	0	47.23	PEAK	74	PASS
	2452	Ant1	2500.0	-58.36	2.0	0	36.90	AV	54	PASS

Restrict-band band-edge measurements\_11B\_2412\_Ant1\_PEAK



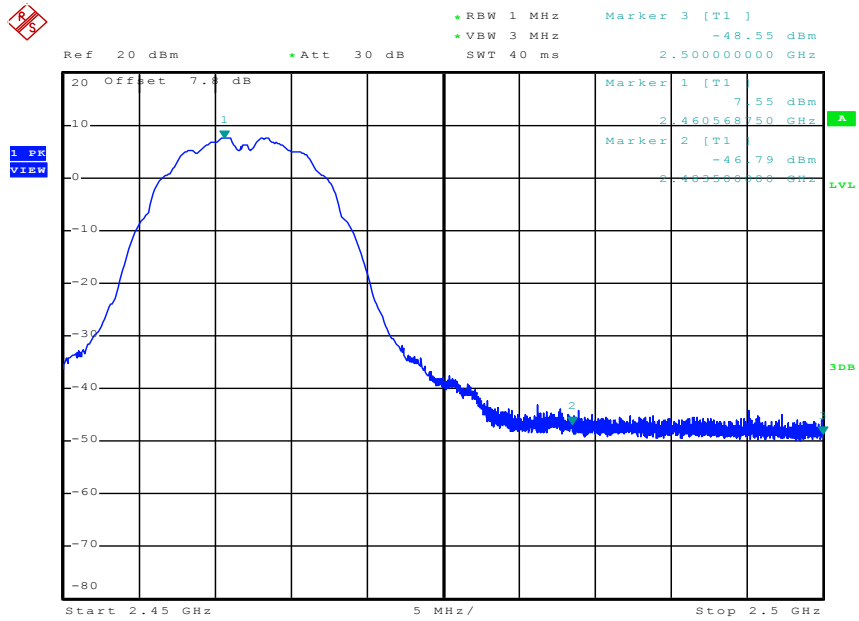
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Restrict-band band-edge measurements\_11B\_2412\_Ant1\_AV



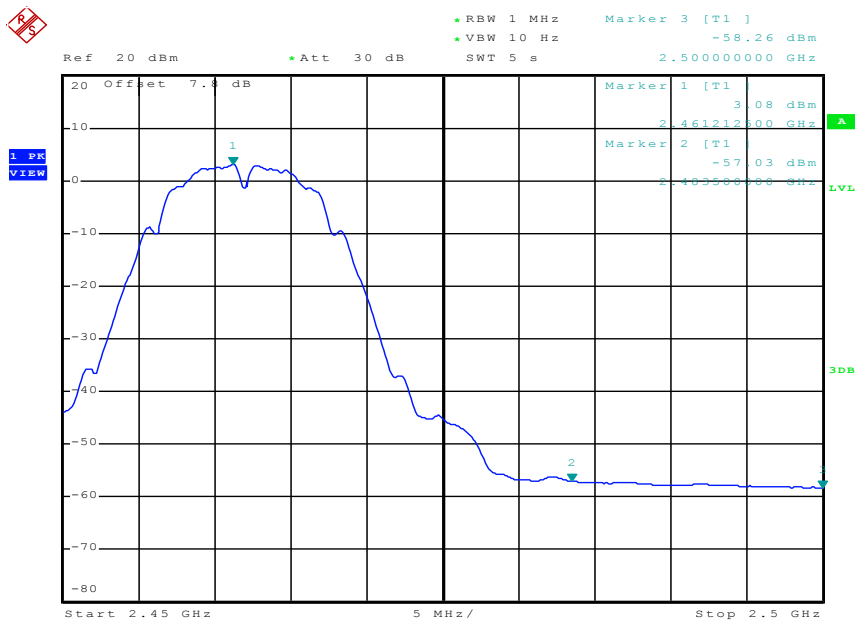
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Restrict-band band-edge measurements\_11B\_2462\_Ant1\_PEAK



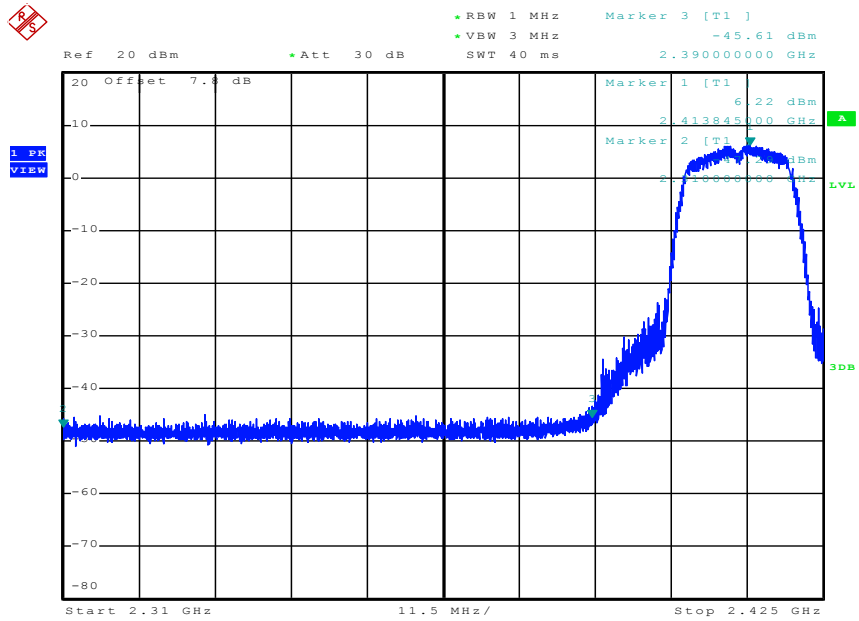
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Restrict-band band-edge measurements\_11B\_2462\_Ant1\_AV



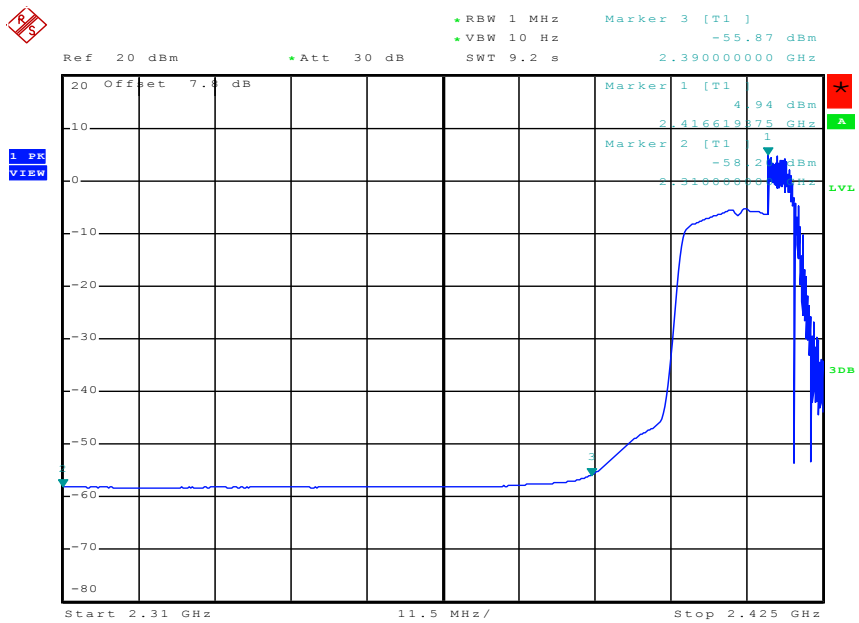
Date: 3.AUG.2019 17:23:49

Restrict-band band-edge measurements\_11G\_2412\_Ant1\_PEAK



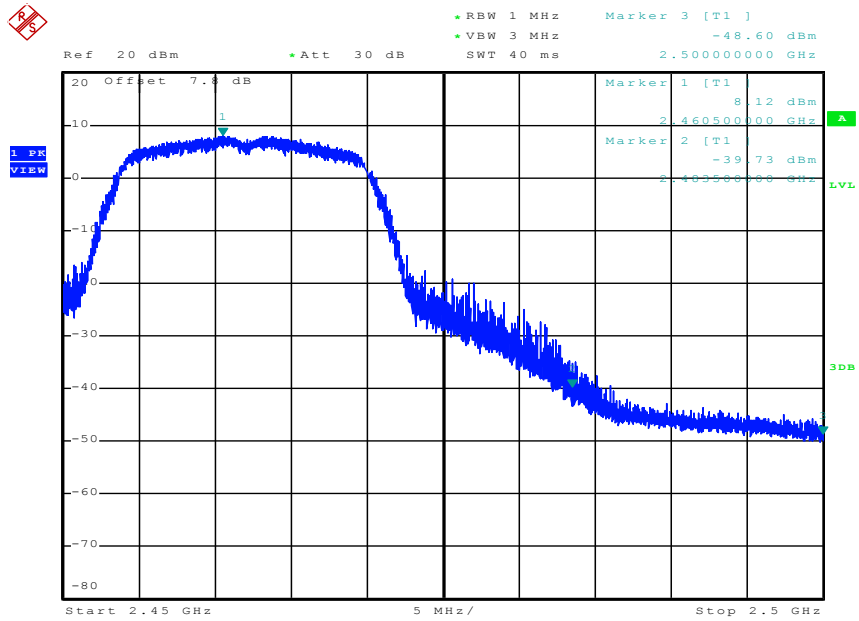
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Restrict-band band-edge measurements\_11G\_2412\_Ant1\_AV



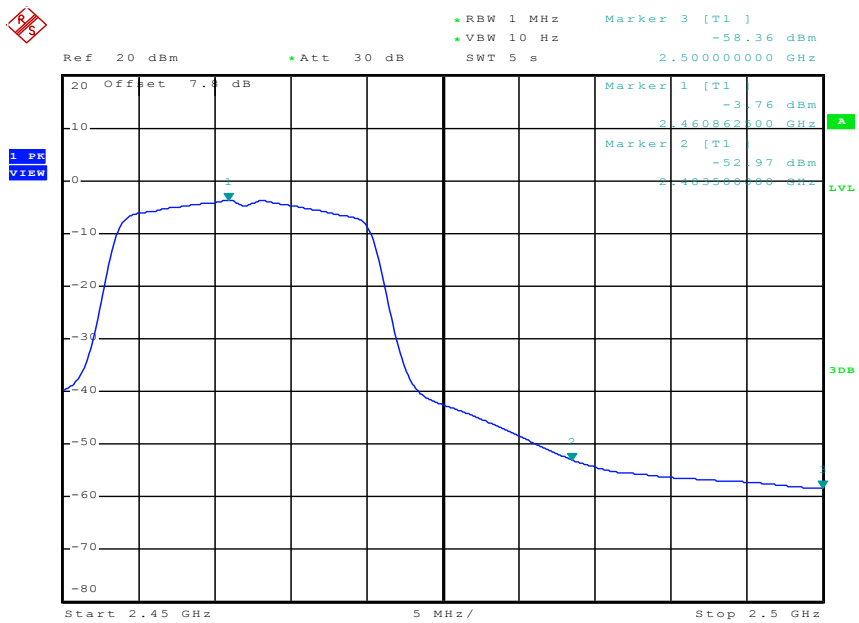
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Restrict-band band-edge measurements\_11G\_2462\_Ant1\_PEAK



Date: 3.AUG.2019 17:30:58

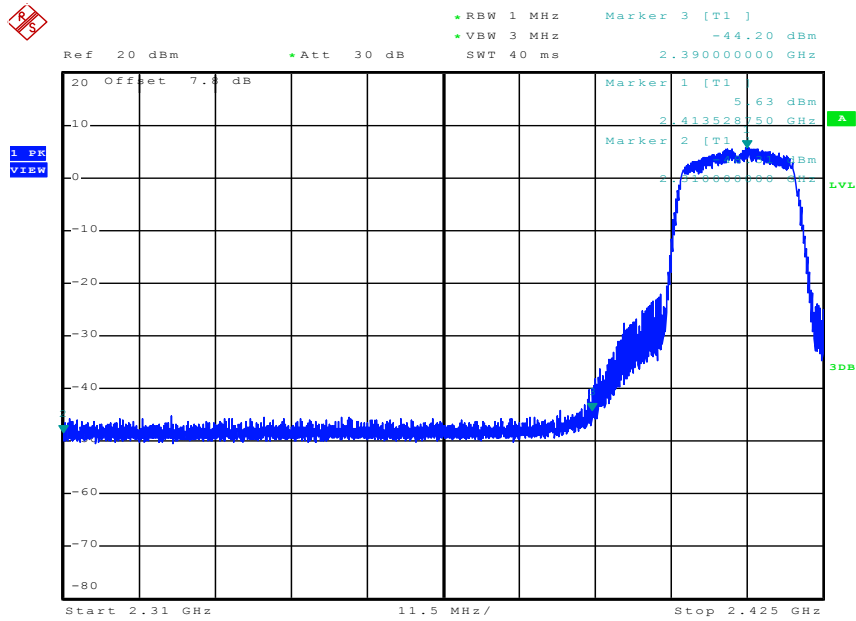
Restrict-band band-edge measurements\_11G\_2462\_Ant1\_AV



Date: 3.AUG.2019 17:31:13

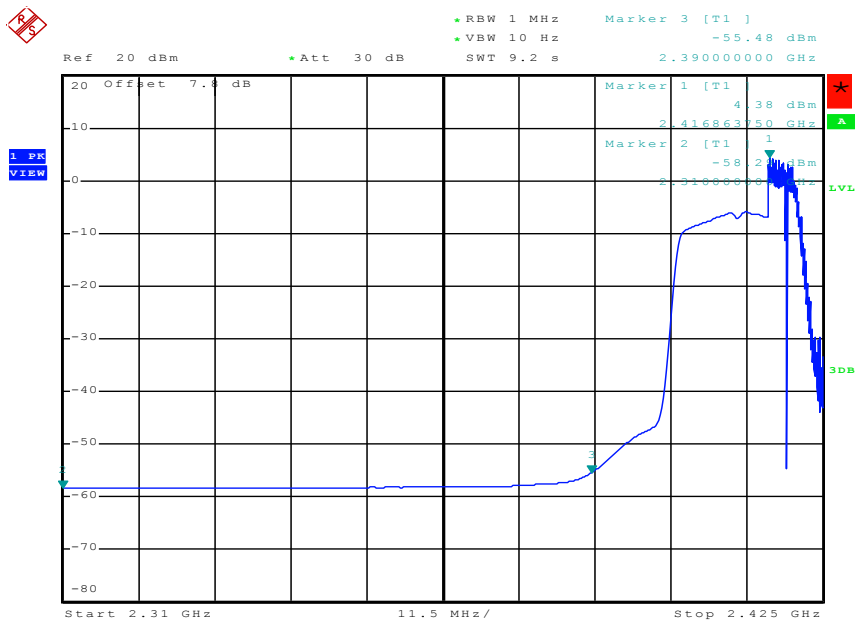


Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_PEAK



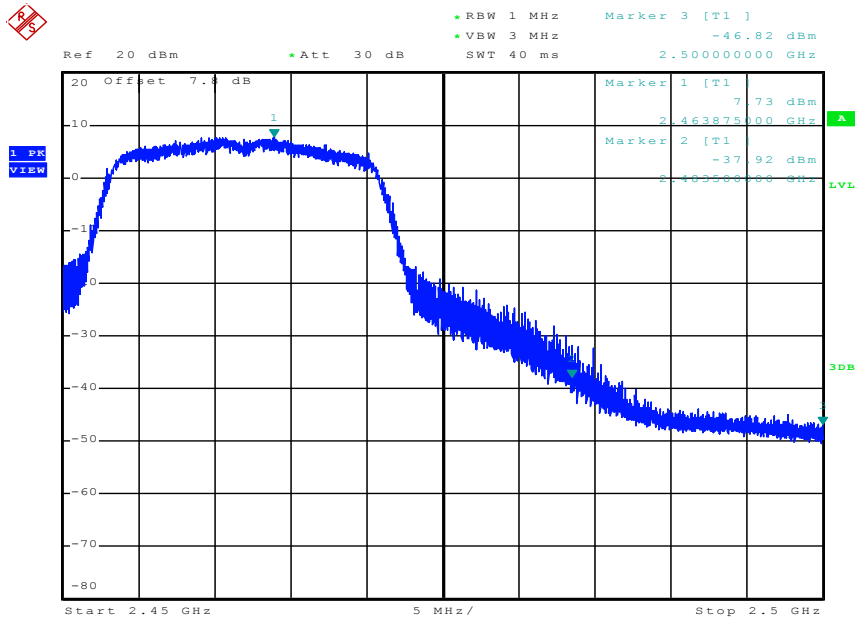
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Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_AV



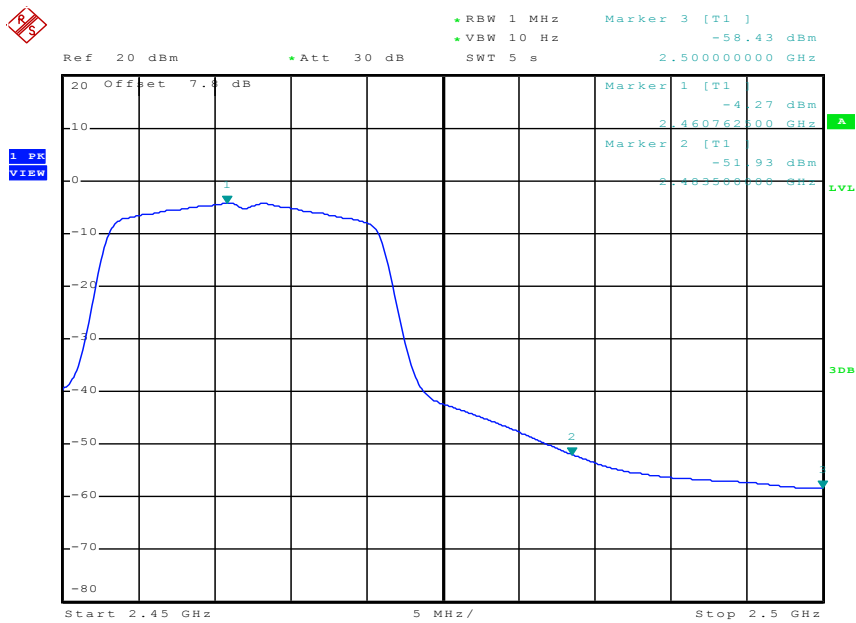
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Restrict-band band-edge measurements\_11N20SISO\_2462\_Ant1\_PEAK



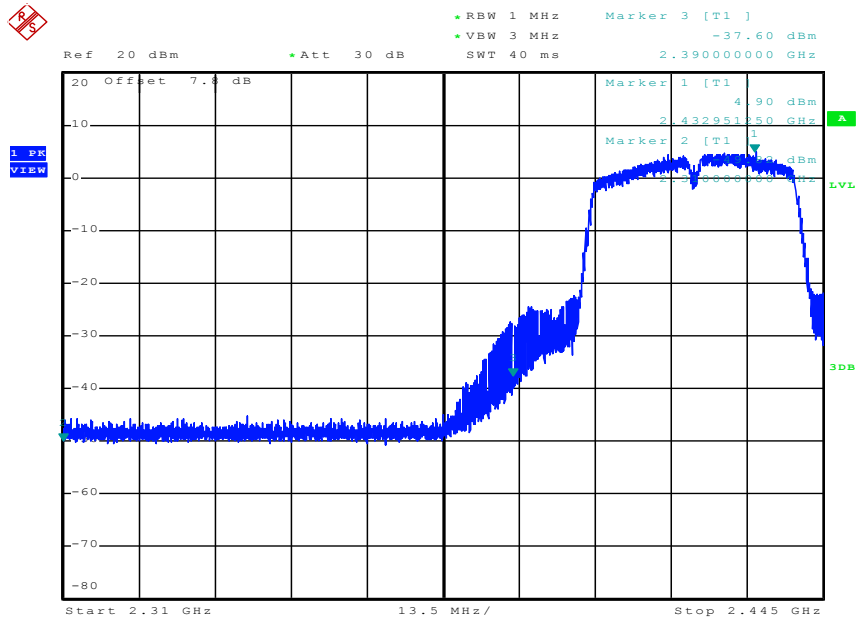
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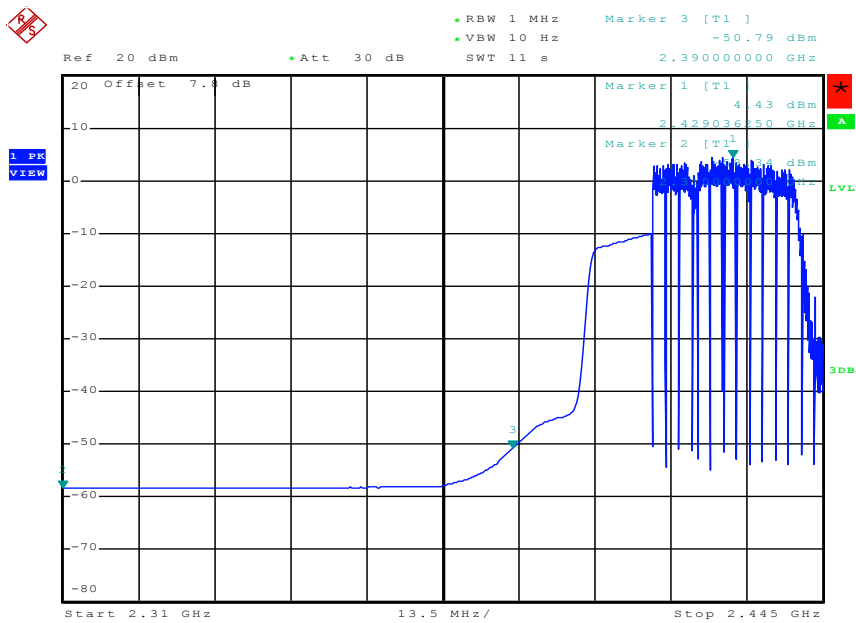
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Restrict-band band-edge measurements\_11N40SISO\_2422\_Ant1\_PEAK



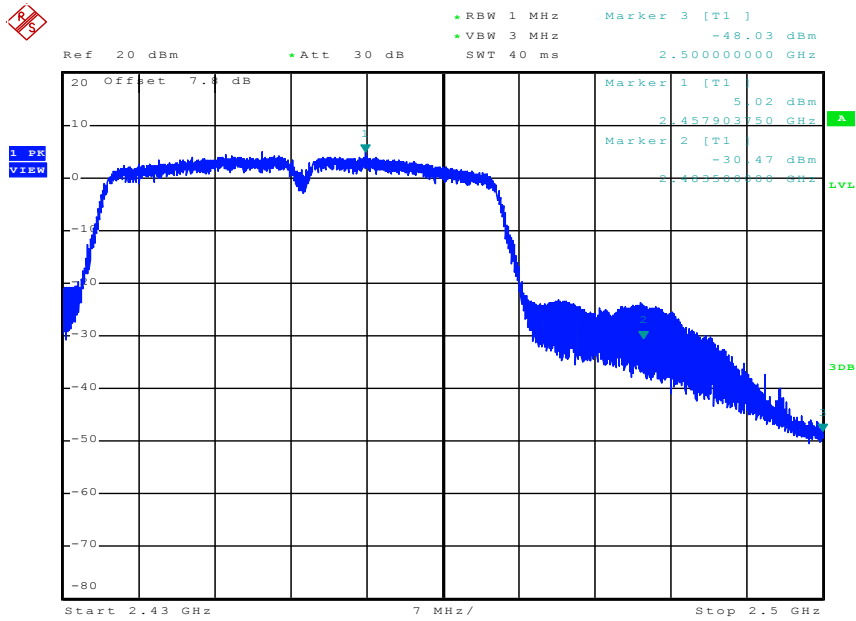
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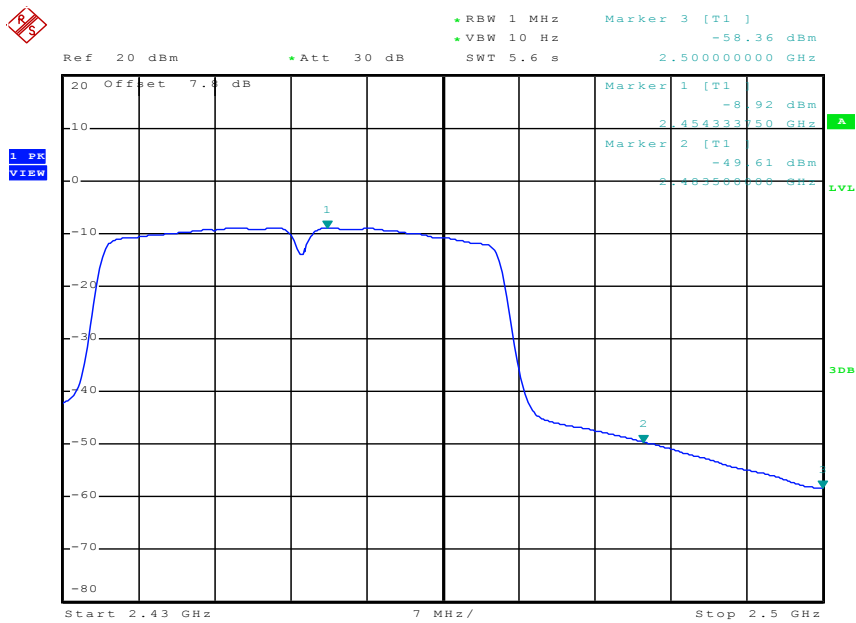
Date: 3.AUG.2019 17:41:09

Restrict-band band-edge measurements\_11N40SISO\_2452\_Ant1\_PEAK



Date: 3.AUG.2019 17:45:37

Restrict-band band-edge measurements\_11N40SISO\_2452\_Ant1\_AV



Date: 3.AUG.2019 17:45:52