

## Appendix B

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

**Product Name: Biometric access system**

**Trade Mark: N/A**

**Test Model: Access One**

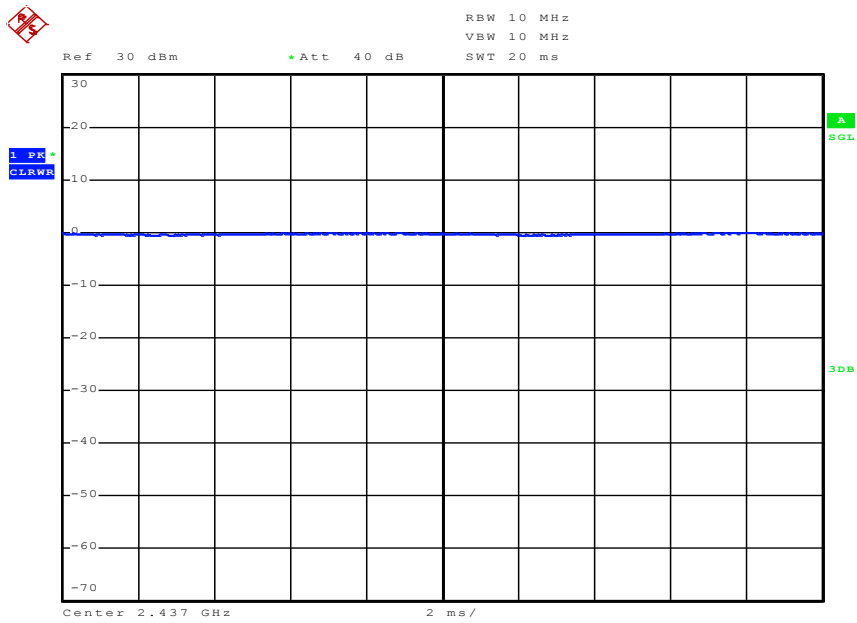
#### Environmental Conditions

Temperature:	23.9°C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	JK ZHOU
Supervised by:	Wang.Chuang

#### B.1 Duty Cycle

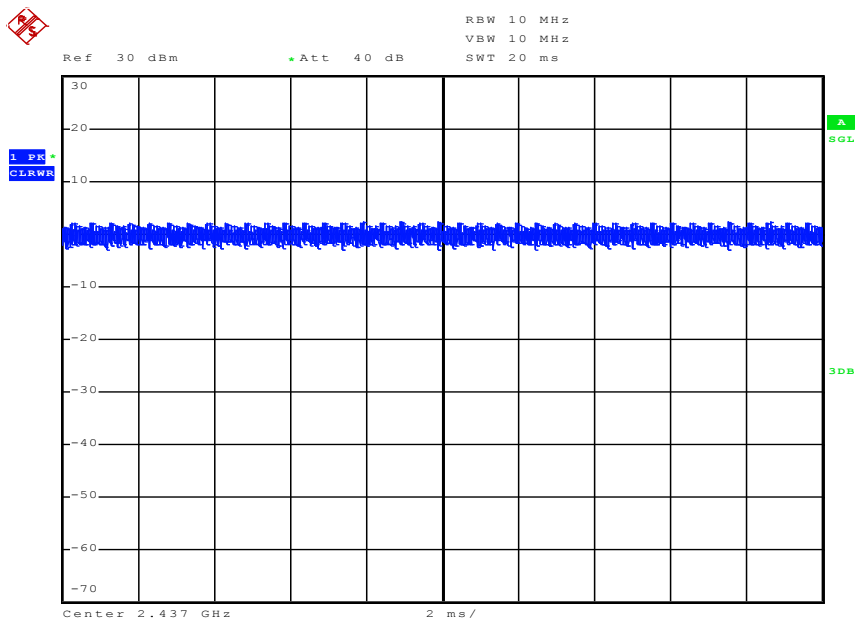
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant1	100	PASS
11G	2437	Ant1	100	PASS
11N20SISO	2437	Ant1	100	PASS

### Duty Cycle\_11B\_2437\_Ant1

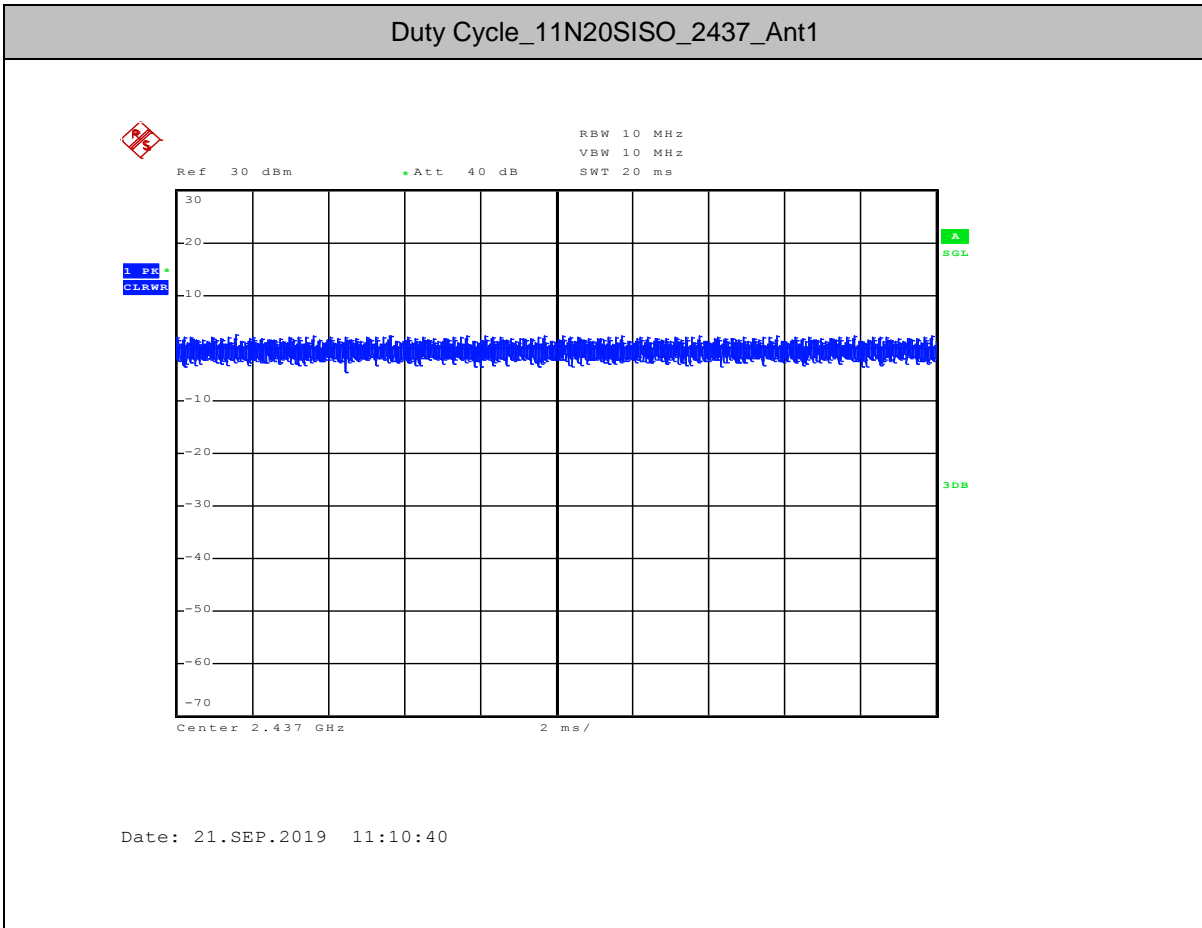


Date: 21.SEP.2019 11:09:37

### Duty Cycle\_11G\_2437\_Ant1



Date: 21.SEP.2019 11:10:10

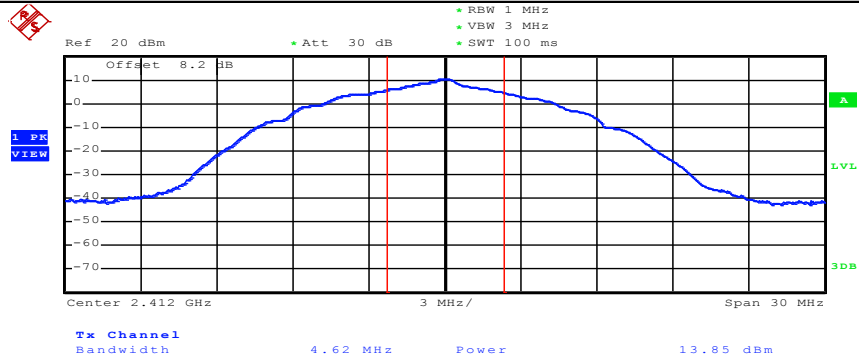


## B.2 Maximum Conducted Output Power

Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	13.85	30	PASS
	MCH	13.61	30	PASS
	HCH	13.48	30	PASS
11G	LCH	12.87	30	PASS
	MCH	12.94	30	PASS
	HCH	12.88	30	PASS
11N20SISO	LCH	9.29	30	PASS
	MCH	13.95	30	PASS
	HCH	13.65	30	PASS

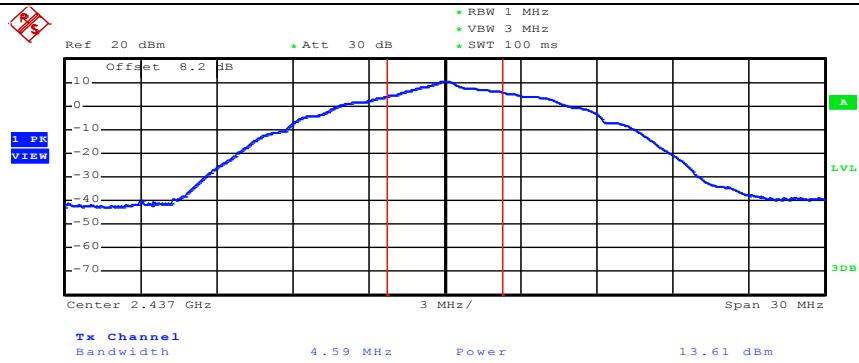
Test Graphs

11B/LCH



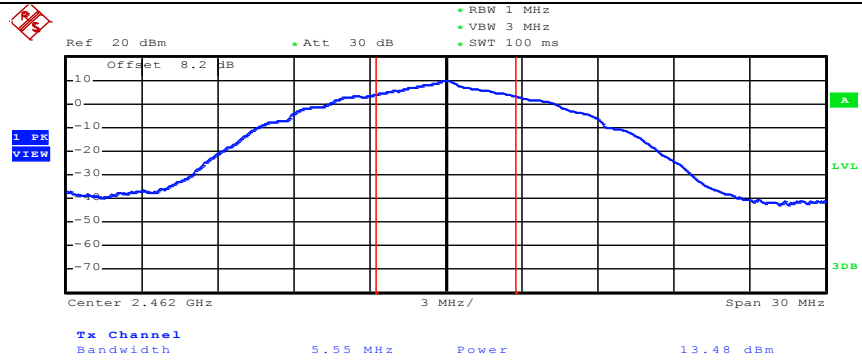
Date: 20.SEP.2019 14:16:45

11B/MCH



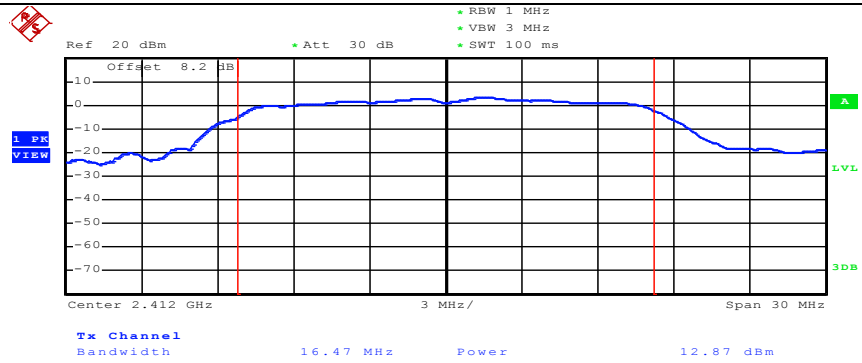
Date: 20.SEP.2019 14:21:19

11B/HCH



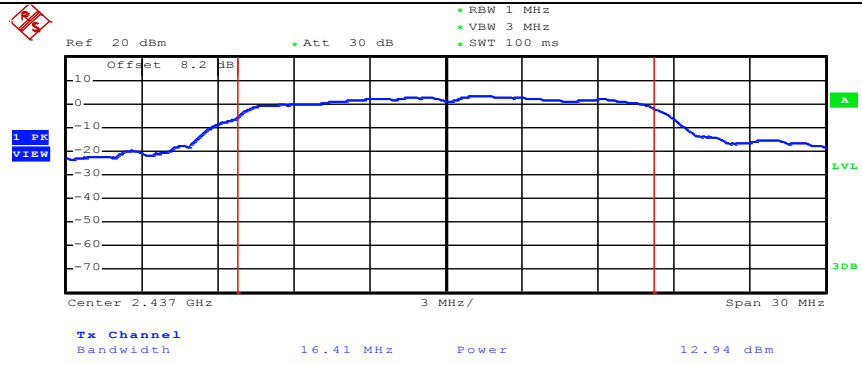
Date: 20.SEP.2019 14:23:04

11G/LCH



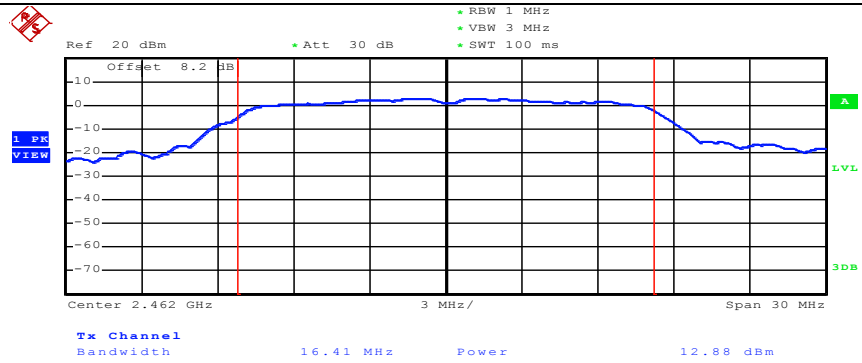
Date: 21.SEP.2019 10:48:14

11G/MCH



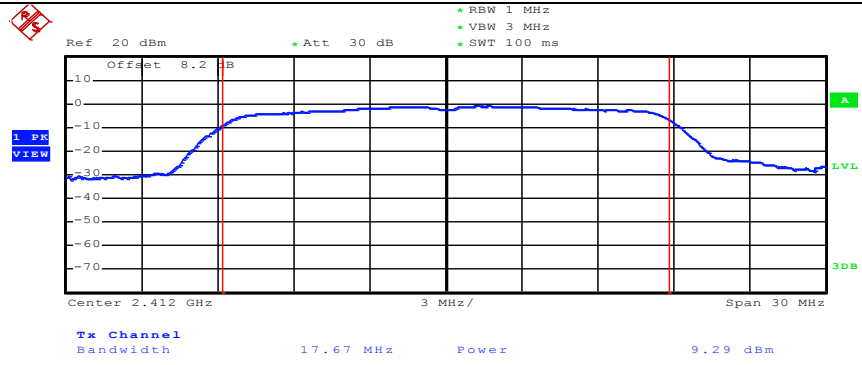
Date: 21.SEP.2019 10:51:08

11G/HCH



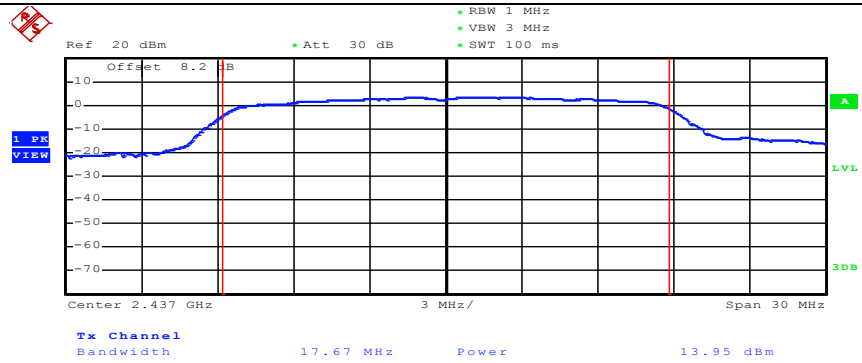
Date: 21.SEP.2019 10:52:58

11N20SISO/LCH



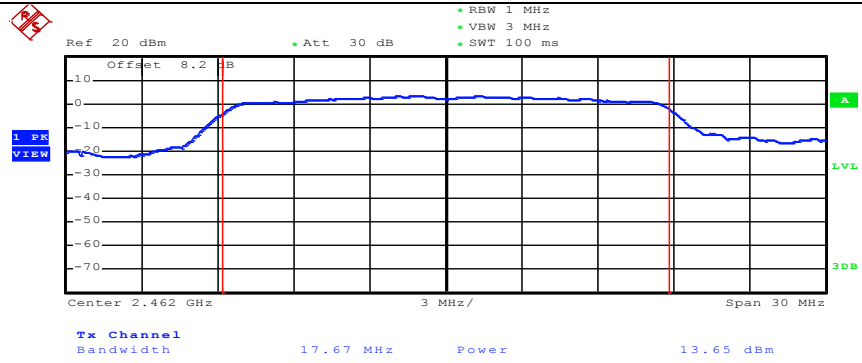
Date: 21.SEP.2019 10:57:31

11N20SISO/MCH



Date: 21.SEP.2019 11:03:28

11N20SISO/HCH

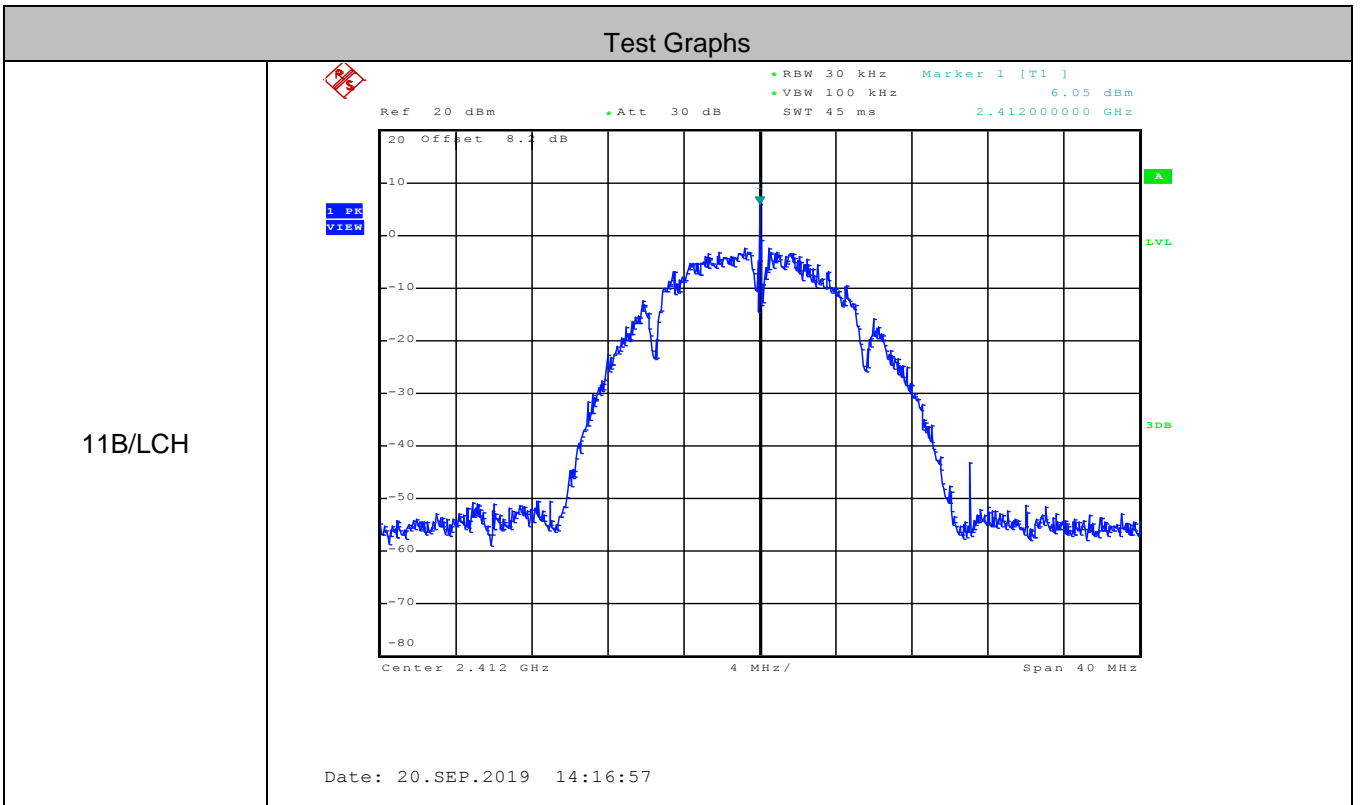


Date: 21.SEP.2019 11:05:22

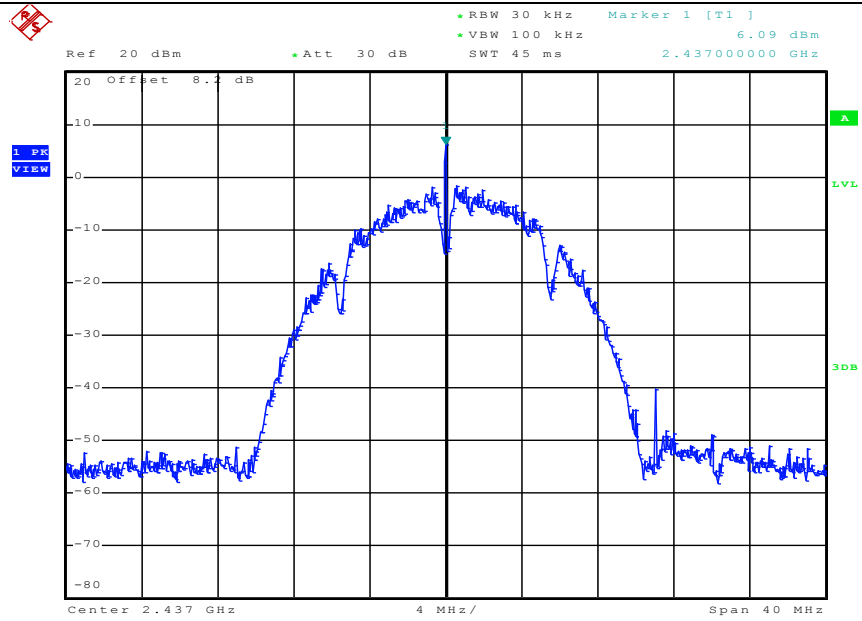


### B.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/30KHz]	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	6.050	-3.950	8	PASS
	MCH	6.090	-3.910	8	PASS
	HCH	5.030	-4.970	8	PASS
11G	LCH	-10.650	-20.650	8	PASS
	MCH	-10.720	-20.720	8	PASS
	HCH	-10.650	-20.650	8	PASS
11N20SISO	LCH	-13.520	-23.520	8	PASS
	MCH	-9.660	-19.660	8	PASS
	HCH	-9.040	-19.040	8	PASS

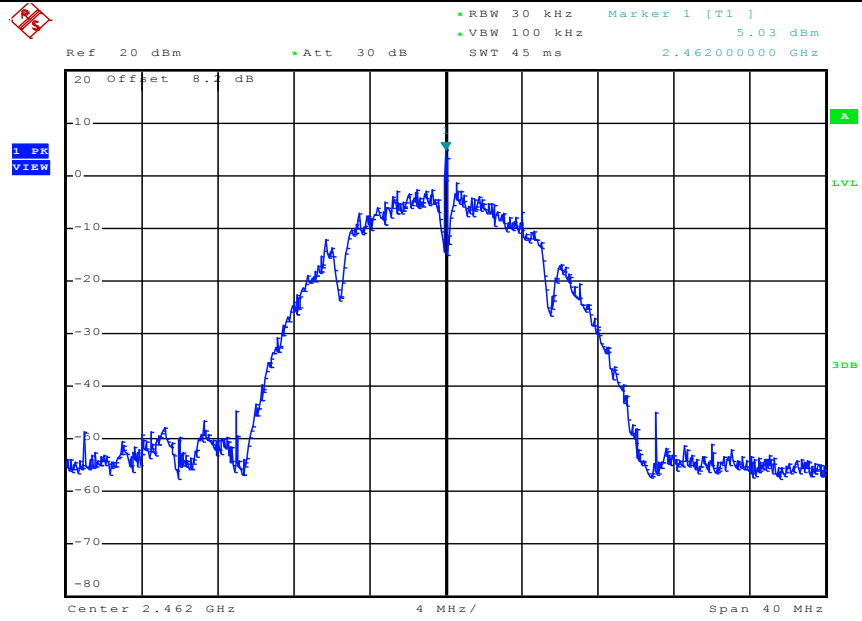


11B/MCH



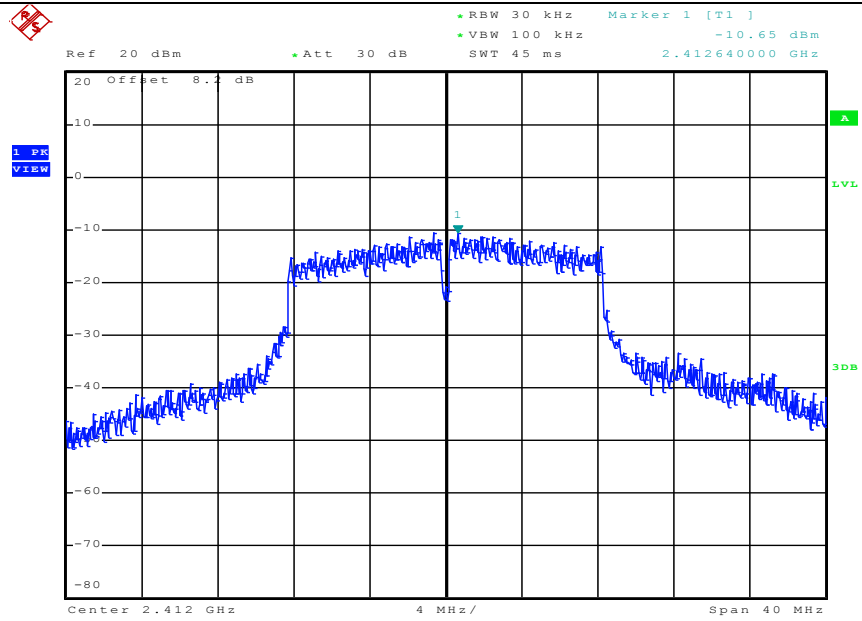
Date: 20.SEP.2019 14:21:32

11B/HCH



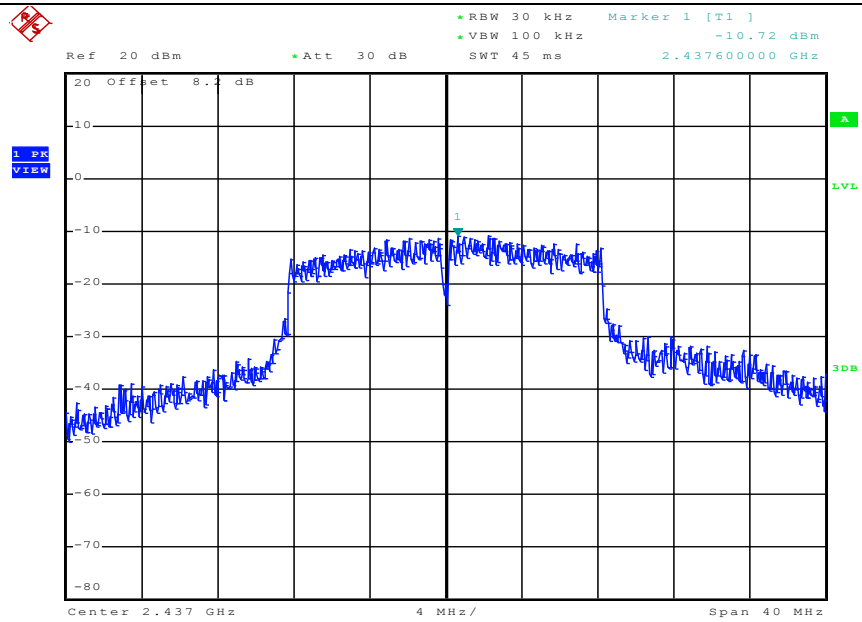
Date: 20.SEP.2019 14:23:17

11G/LCH



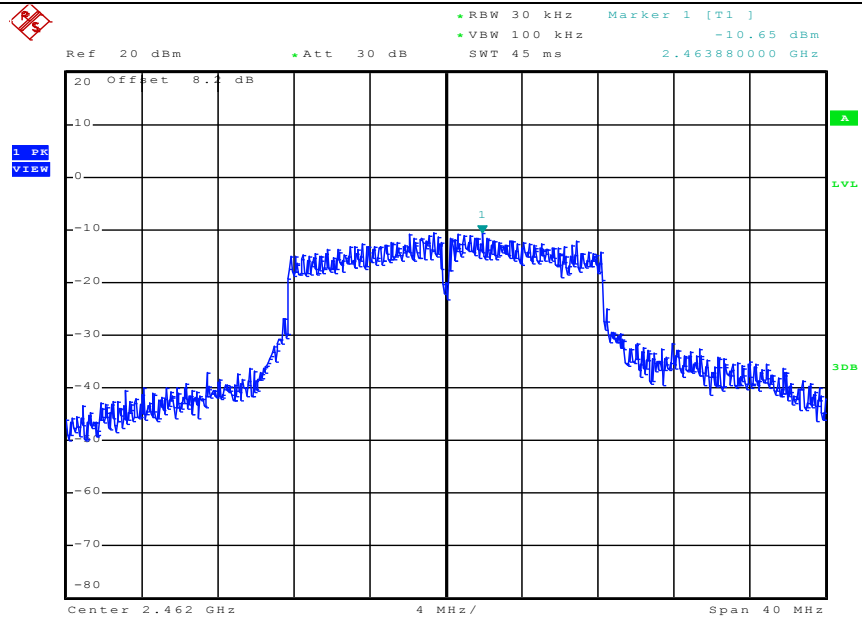
Date: 21.SEP.2019 10:48:27

11G/MCH



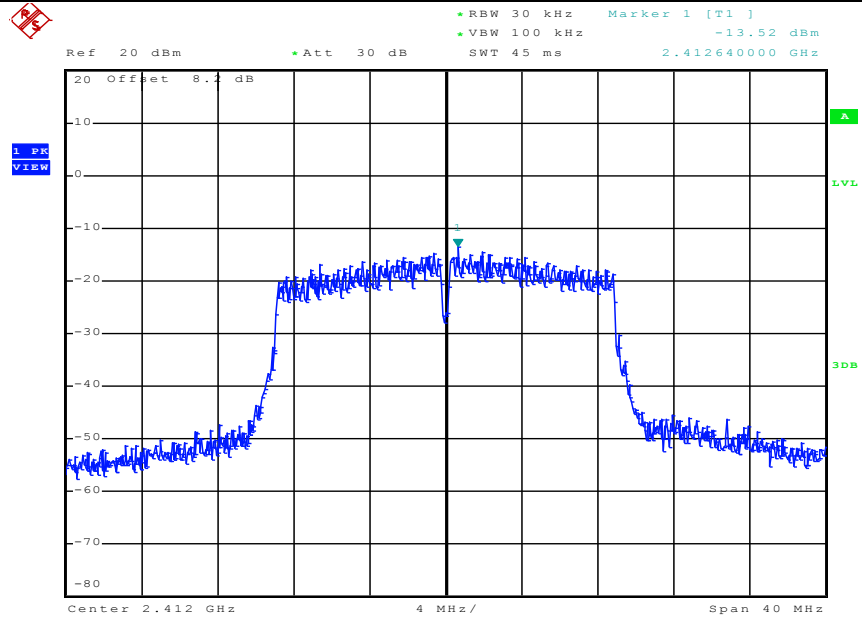
Date: 21.SEP.2019 10:51:20

11G/HCH



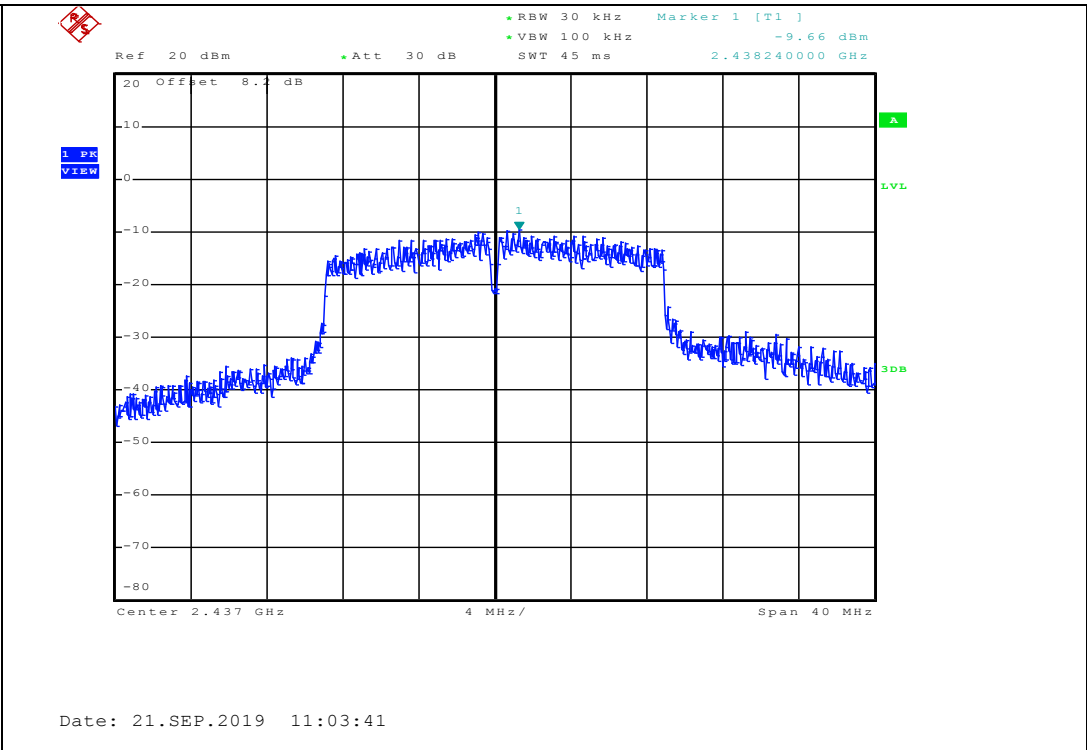
Date: 21.SEP.2019 10:53:10

11N20SISO/LCH

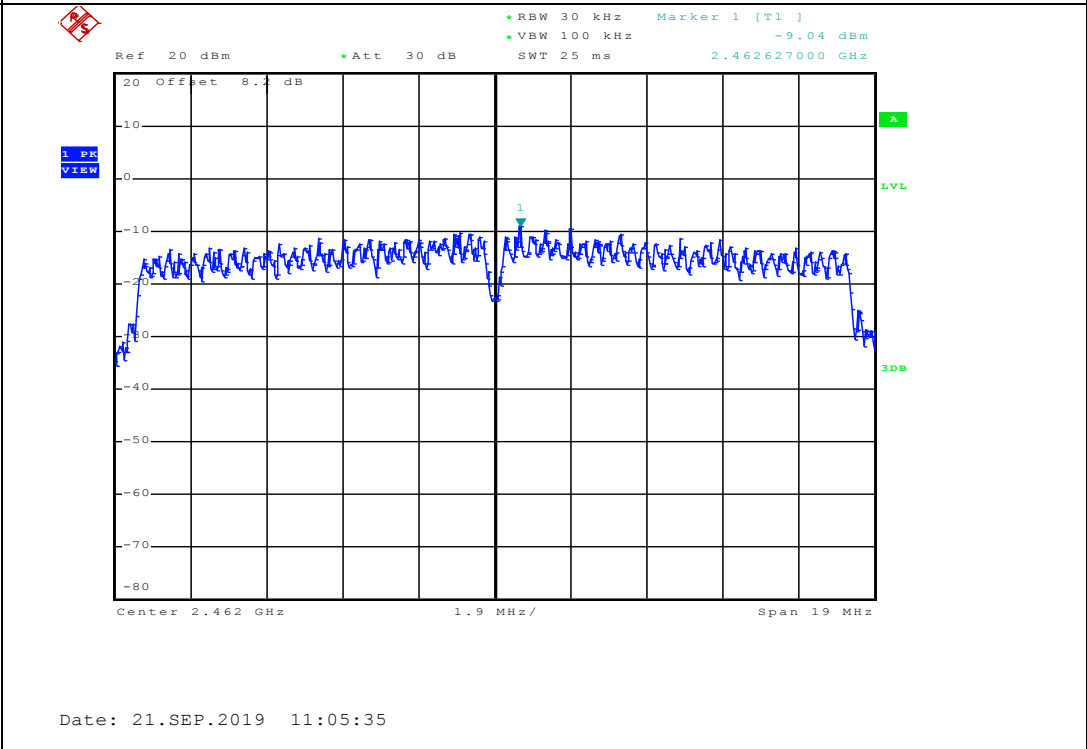


Date: 21.SEP.2019 10:57:44

11N20SISO/MCH

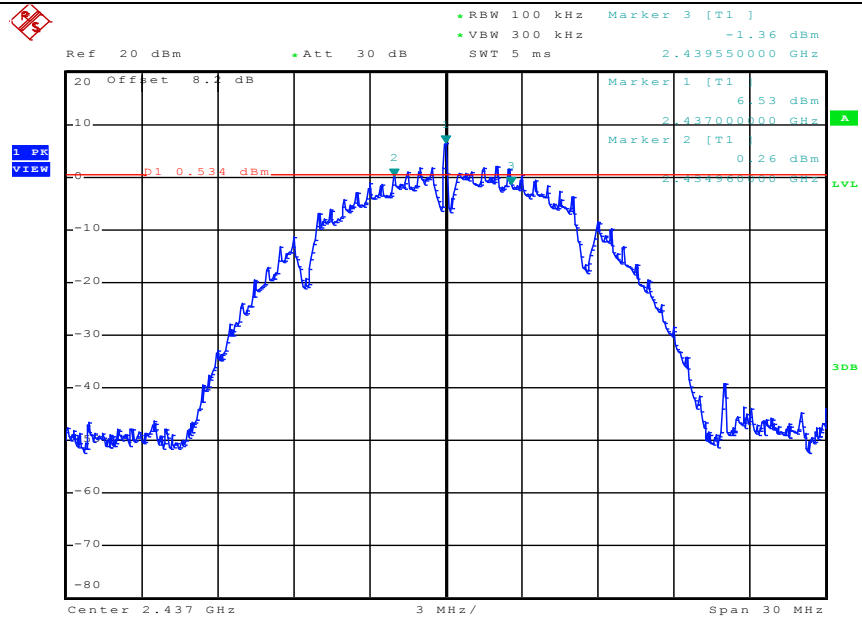


11N20SISO/HCH



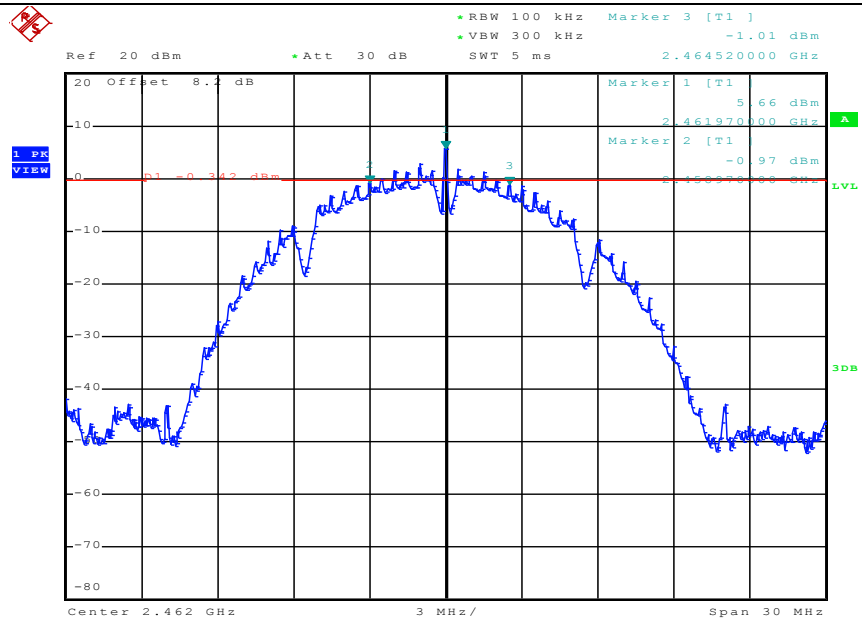


11B/MCH



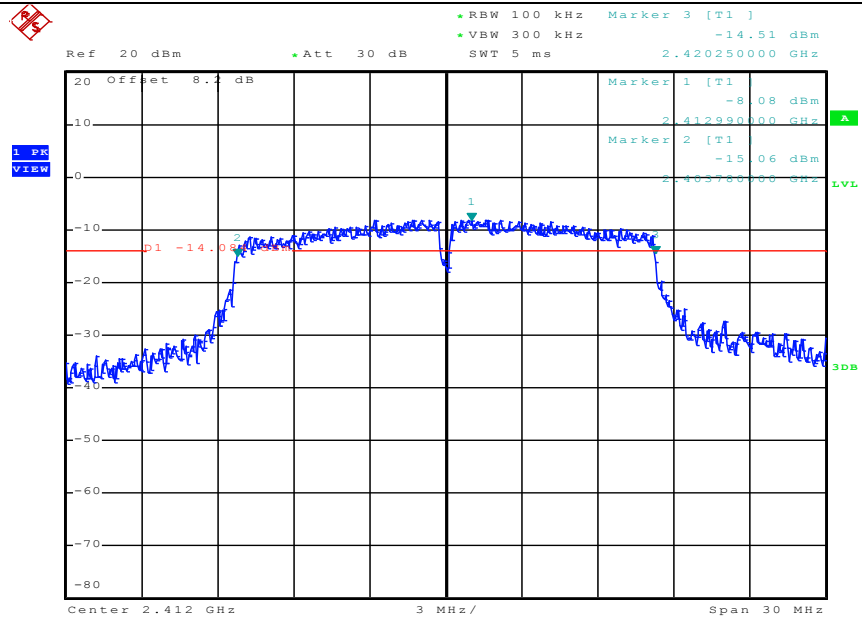
Date: 20.SEP.2019 14:20:44

11B/HCH



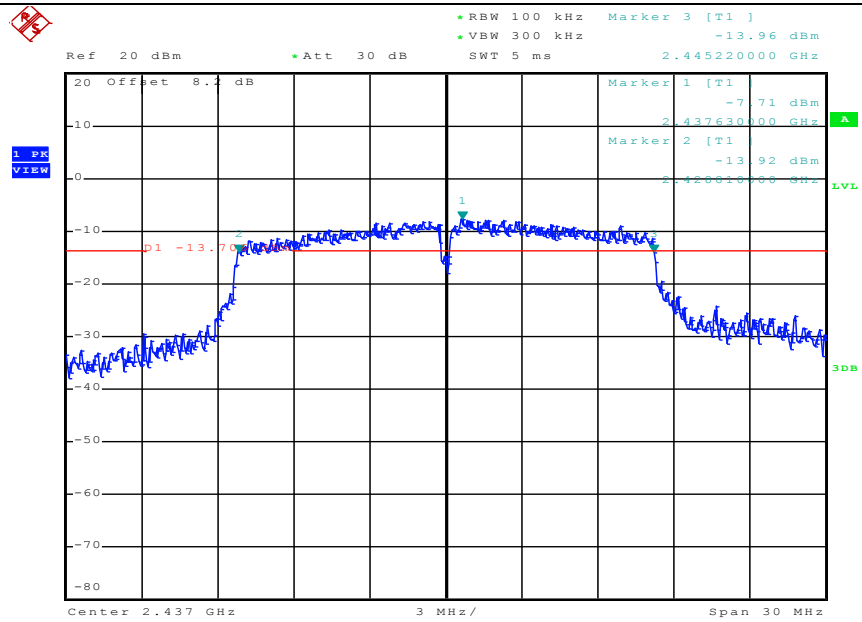
Date: 20.SEP.2019 14:22:30

11G/LCH



Date: 21.SEP.2019 10:47:40

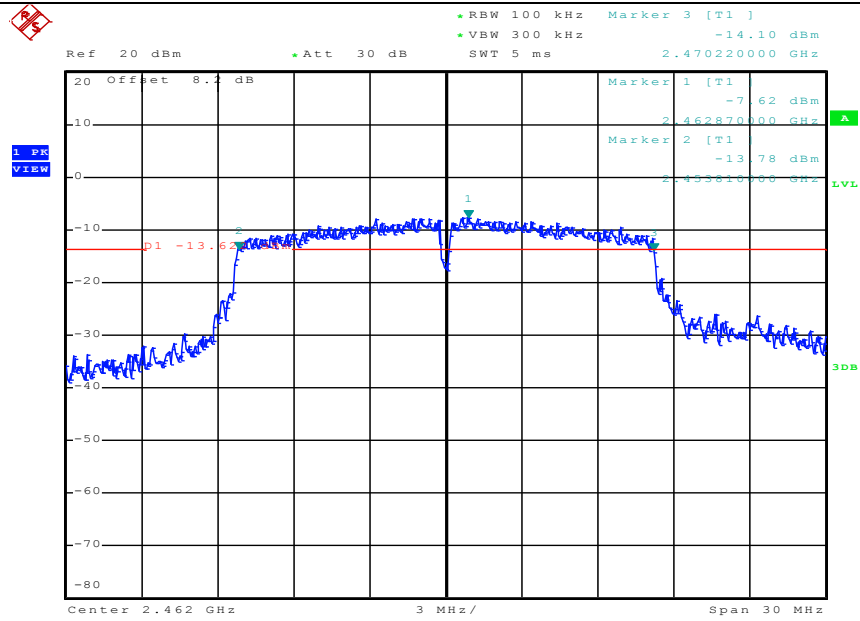
11G/MCH



Date: 21.SEP.2019 10:50:34

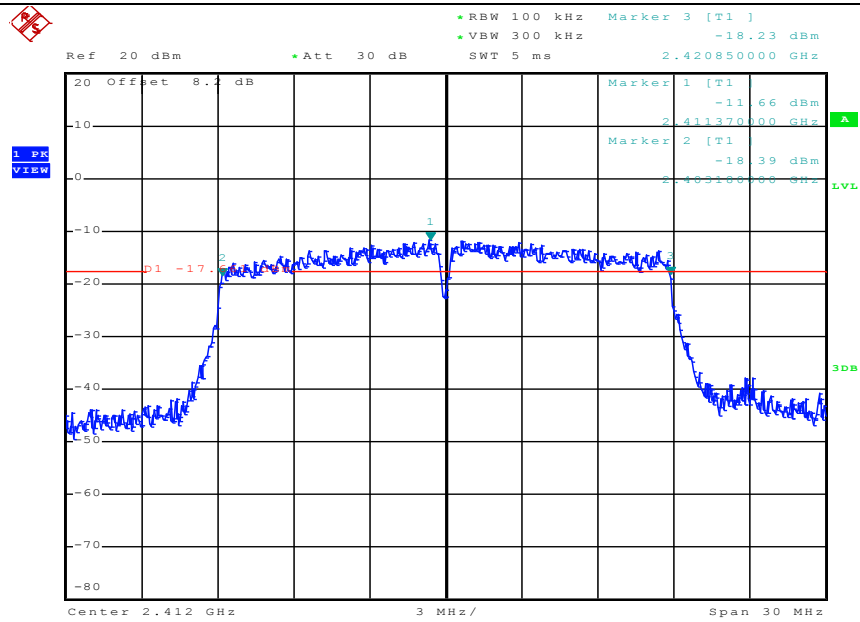


11G/HCH



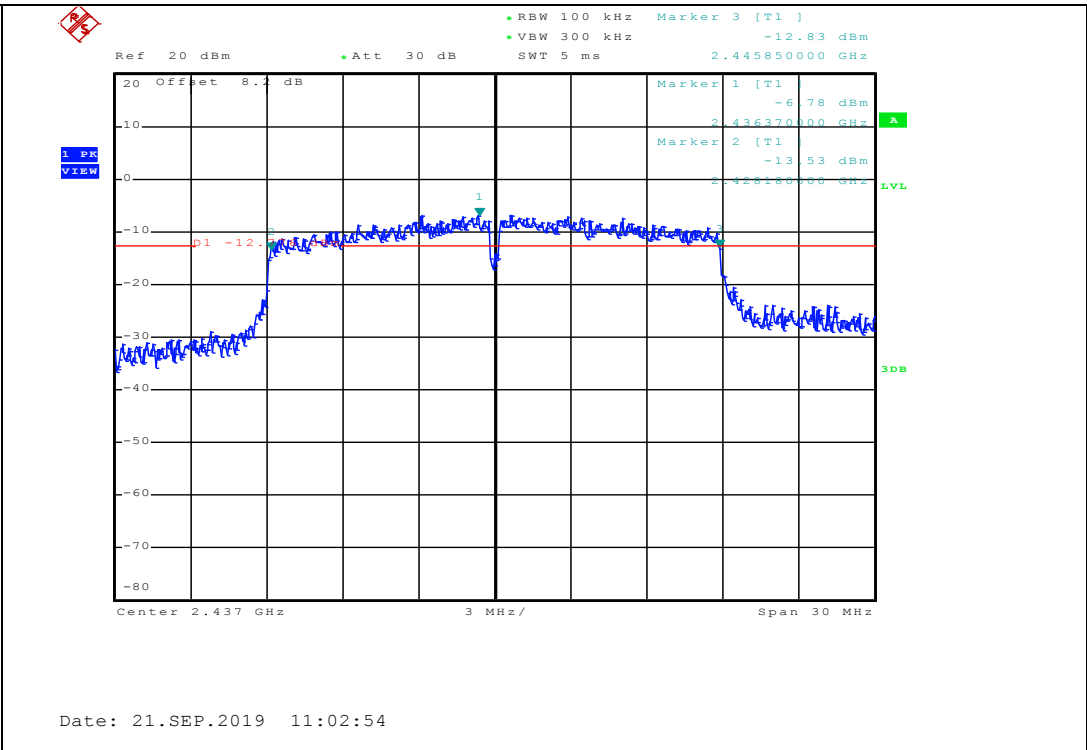
Date: 21.SEP.2019 10:52:24

11N20SISO/LCH

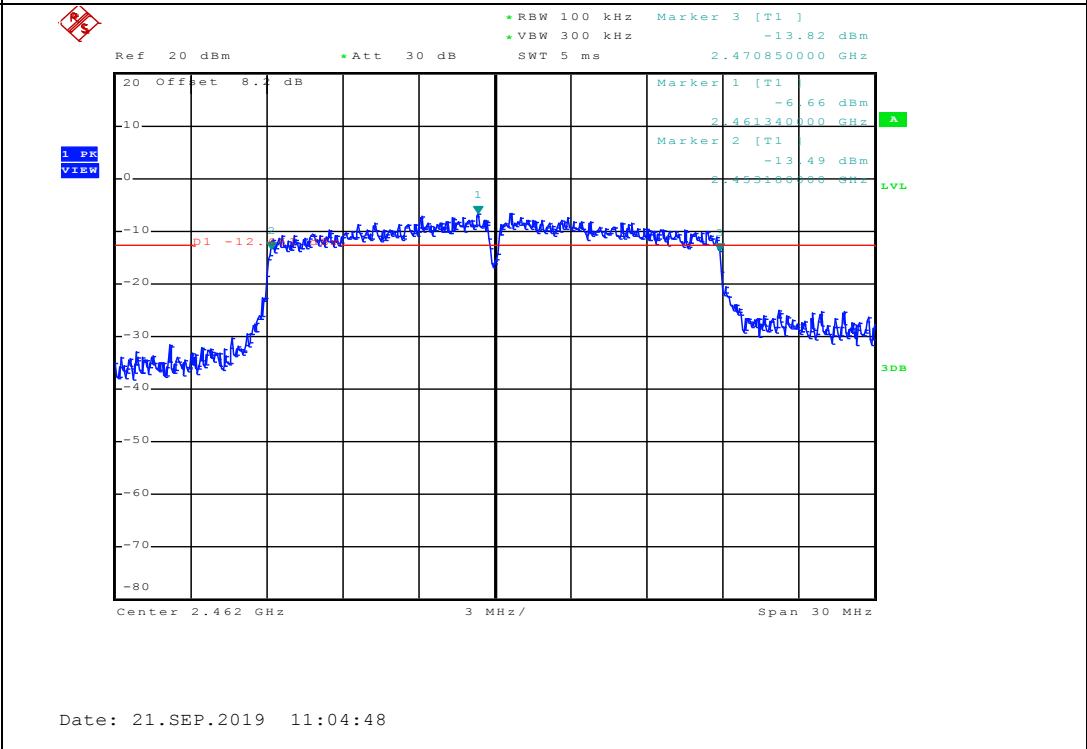


Date: 21.SEP.2019 10:56:57

11N20SISO/MCH



11N20SISO/HCH

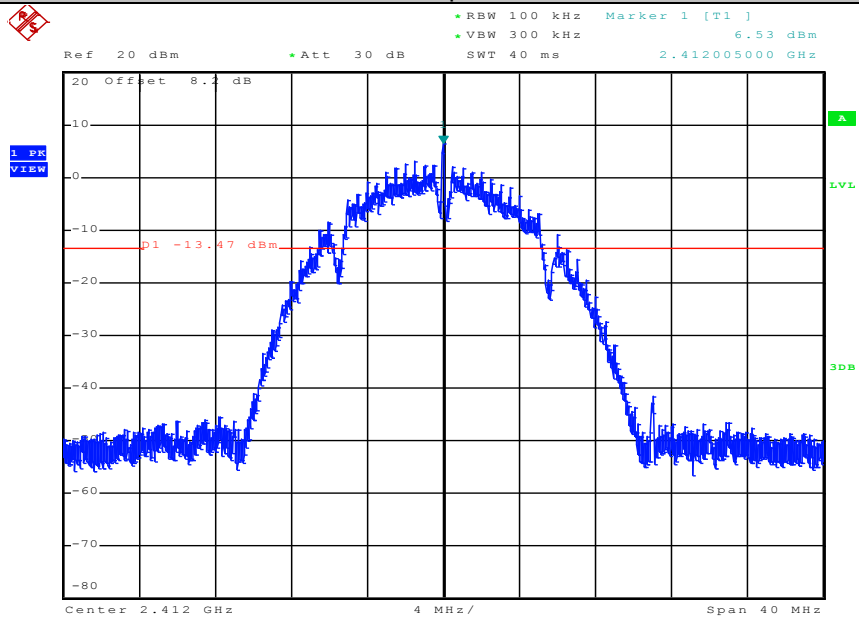


### B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	6.53	-31.780	-13.470	PASS
	MCH	6.56	-30.900	-13.440	PASS
	HCH	5.41	-31.010	-14.590	PASS
11G	LCH	-7.68	-31.130	-27.680	PASS
	MCH	-7.71	-31.480	-27.710	PASS
	HCH	-7.79	-32.150	-27.790	PASS
11N20 SISO	LCH	-6.79	-31.900	-26.790	PASS
	MCH	-6.88	-32.550	-26.880	PASS
	HCH	-6.91	-32.300	-26.910	PASS

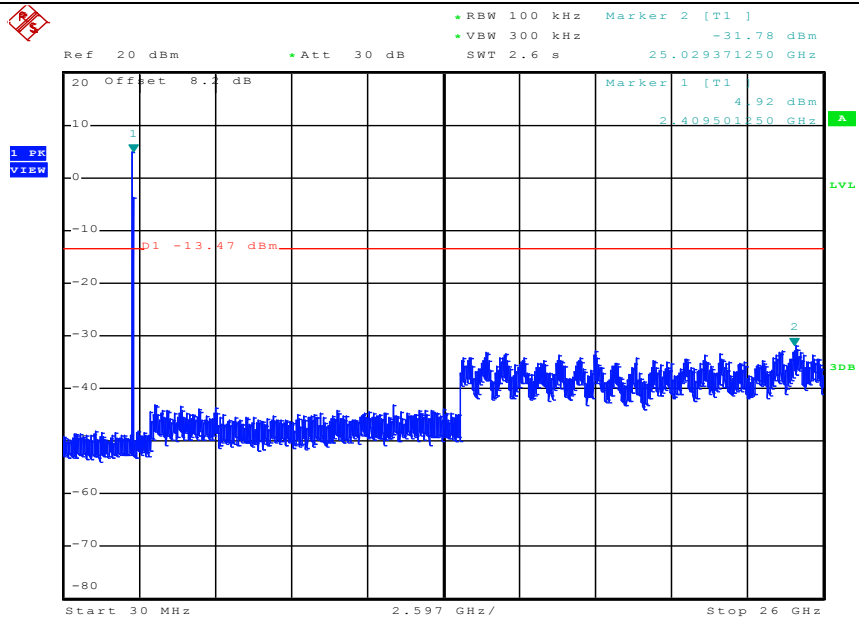
11B\_LCH\_Graphs

Pref/11B/LCH



Date: 20.SEP.2019 14:17:23

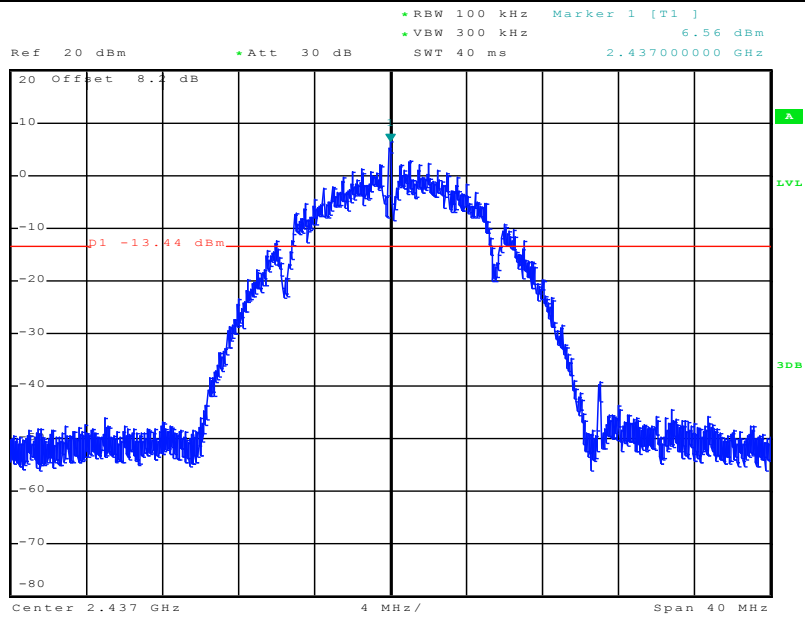
Puw/11B/LCH



Date: 20.SEP.2019 14:17:38

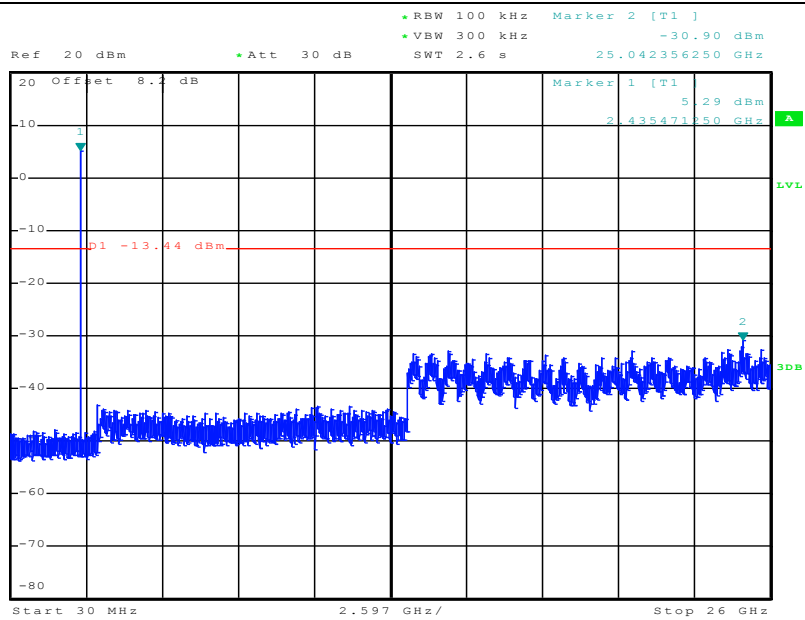
11B\_MCH\_Graphs

Pref/11B/MCH



Date: 20.SEP.2019 14:21:44

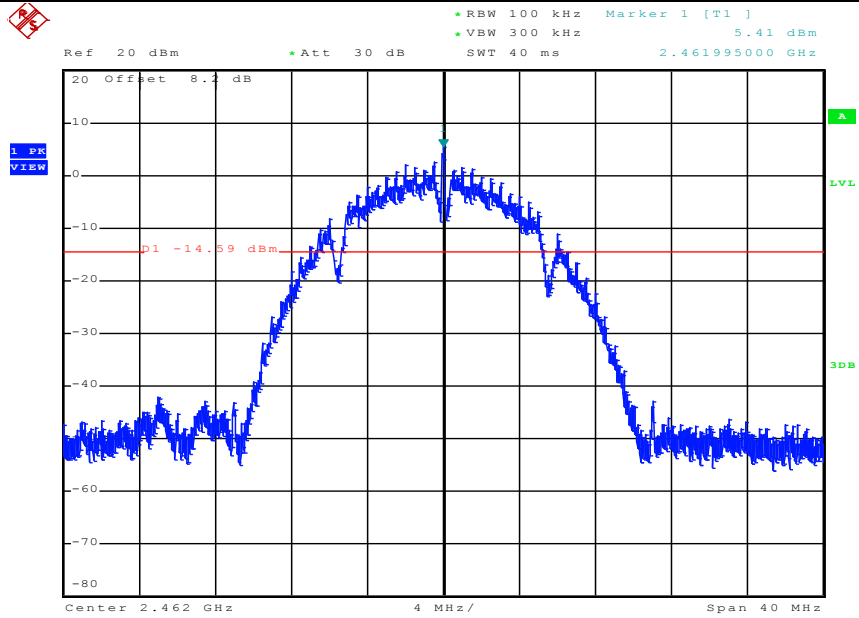
Puw/11B/MCH



Date: 20.SEP.2019 14:21:59

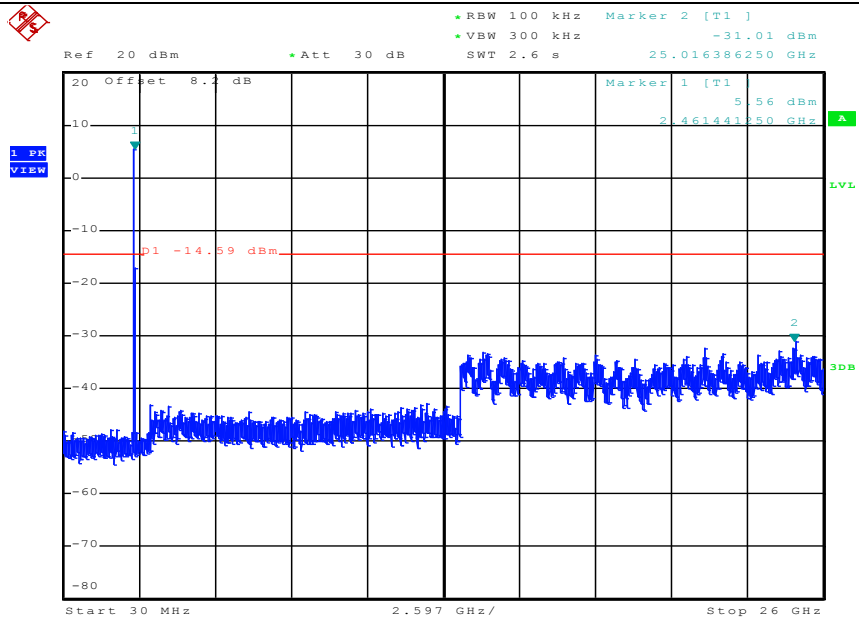
11B\_HCH\_Graphs

Pref/11B/HCH



Date: 20.SEP.2019 14:23:43

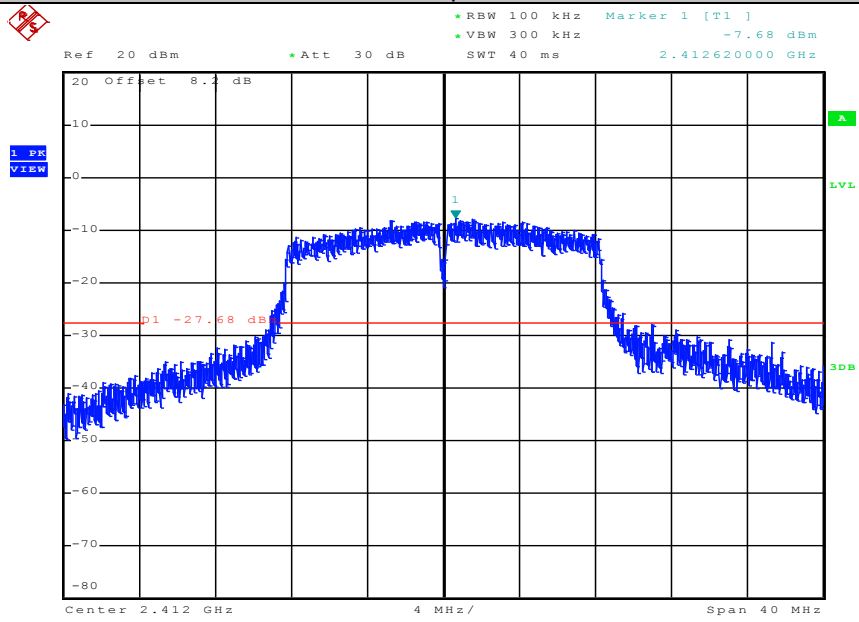
Puw/11B/HCH



Date: 20.SEP.2019 14:23:58

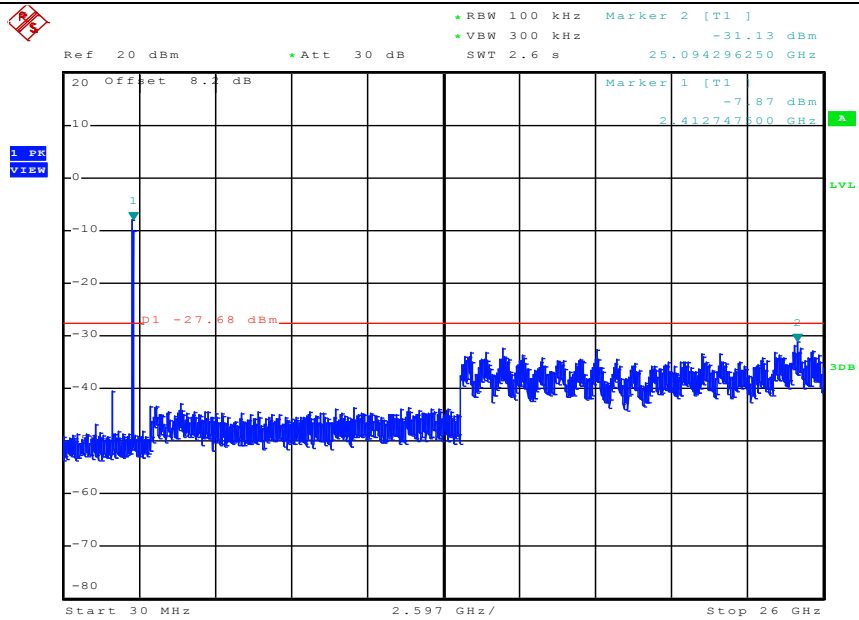
11G\_LCH\_Graphs

Pref/11G/LCH



Date: 21.SEP.2019 10:48:53

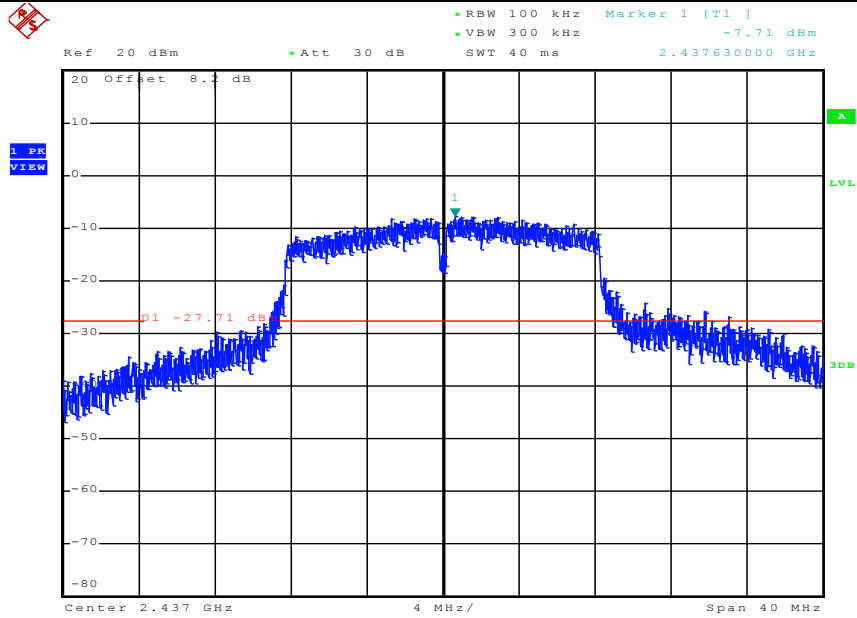
Puw/11G/LCH



Date: 21.SEP.2019 10:49:07

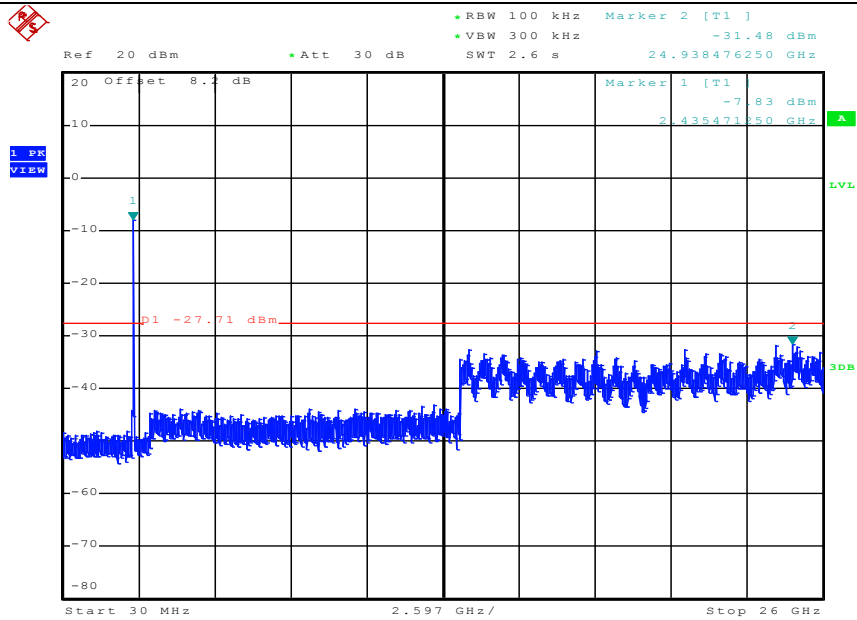
11G\_MCH\_Graphs

Pref/11G/MCH



Date: 21.SEP.2019 10:51:32

Puw/11G/MCH

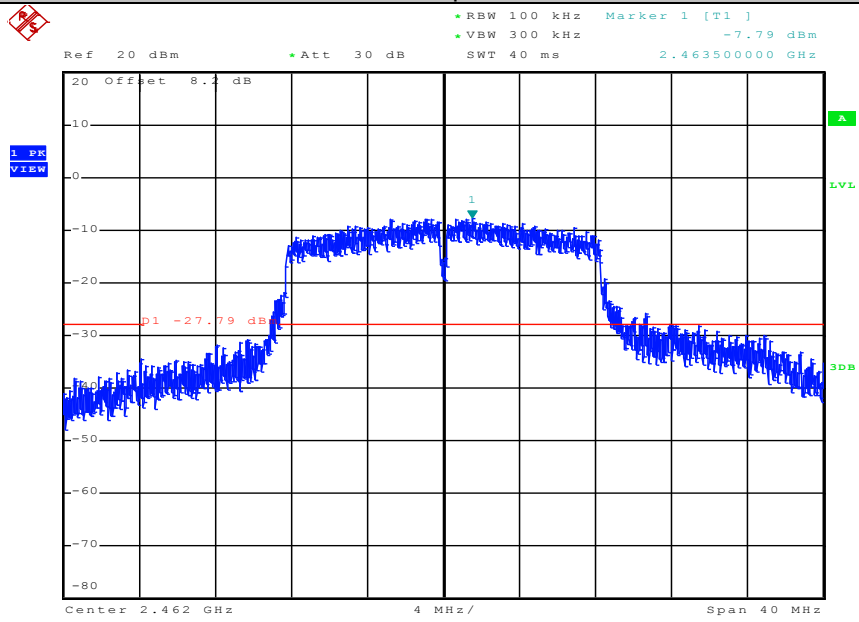


Date: 21.SEP.2019 10:51:47



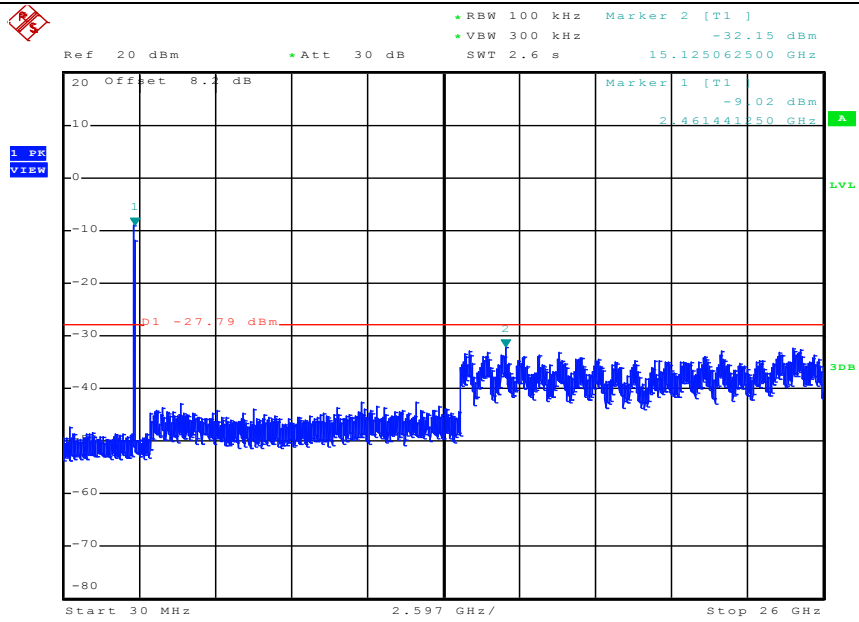
11G\_HCH\_Graphs

Pref/11G/HCH



Date: 21.SEP.2019 10:53:36

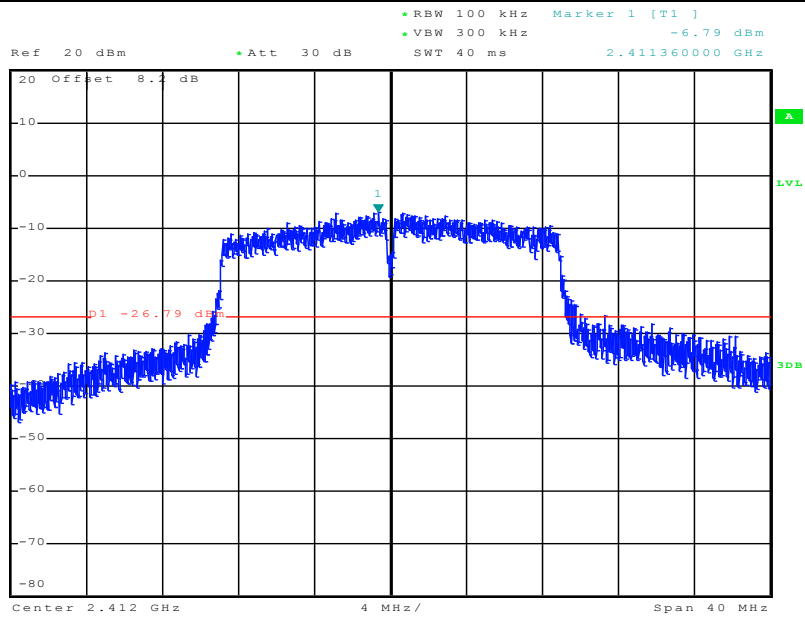
Puw/11G/HCH



Date: 21.SEP.2019 10:53:50

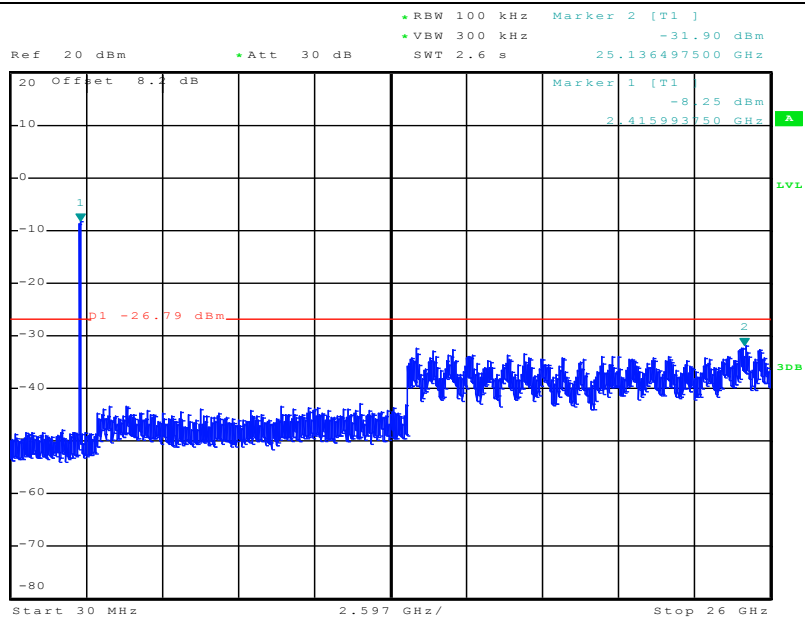
11N20SISO\_LCH\_Graphs

Pref/11N20SIS  
O/LCH



Date: 21.SEP.2019 11:00:28

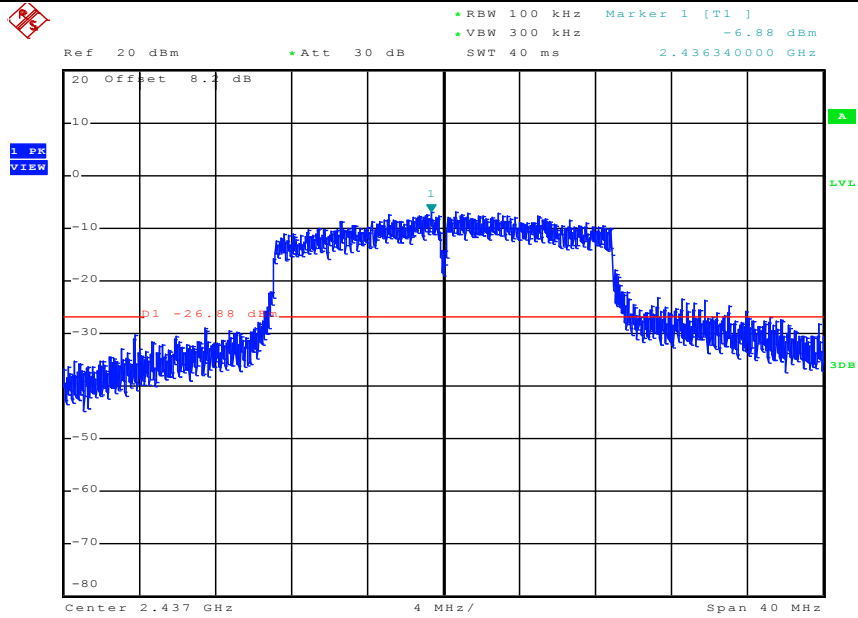
Puw/11N20  
SISO/LCH



Date: 21.SEP.2019 11:00:43

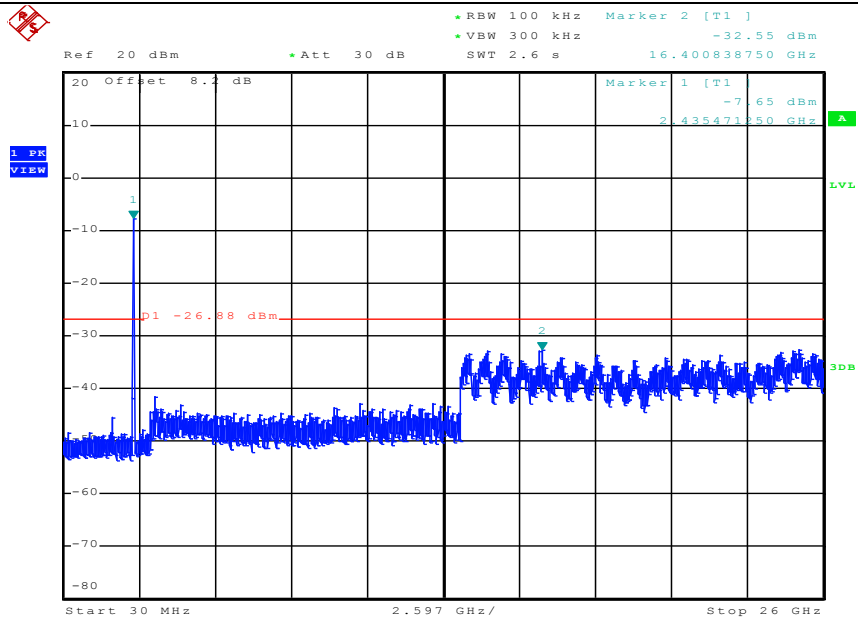
11N20SISO\_MCH\_Graphs

Pref/11N20  
SISO/MCH



Date: 21.SEP.2019 11:03:53

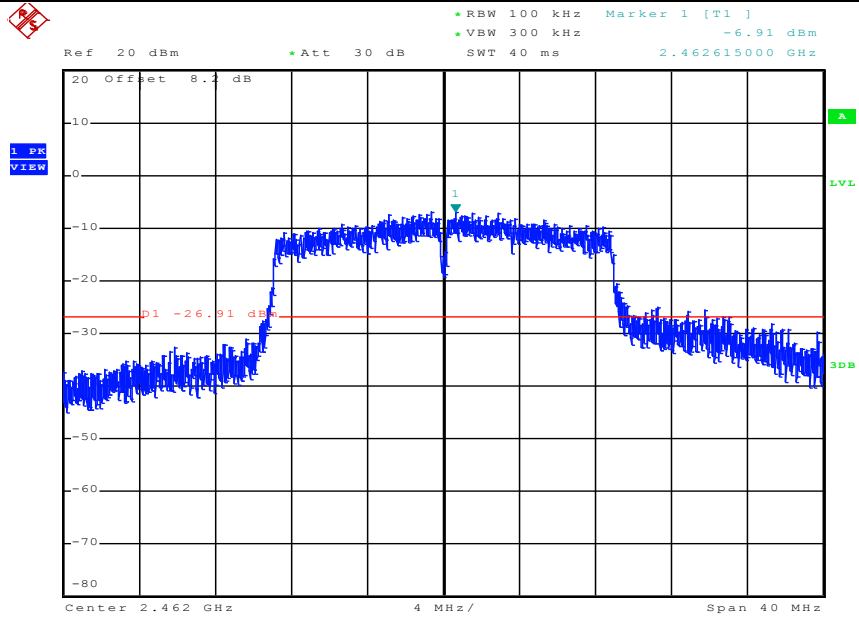
Puw/11N20  
SISO/MCH



Date: 21.SEP.2019 11:04:08

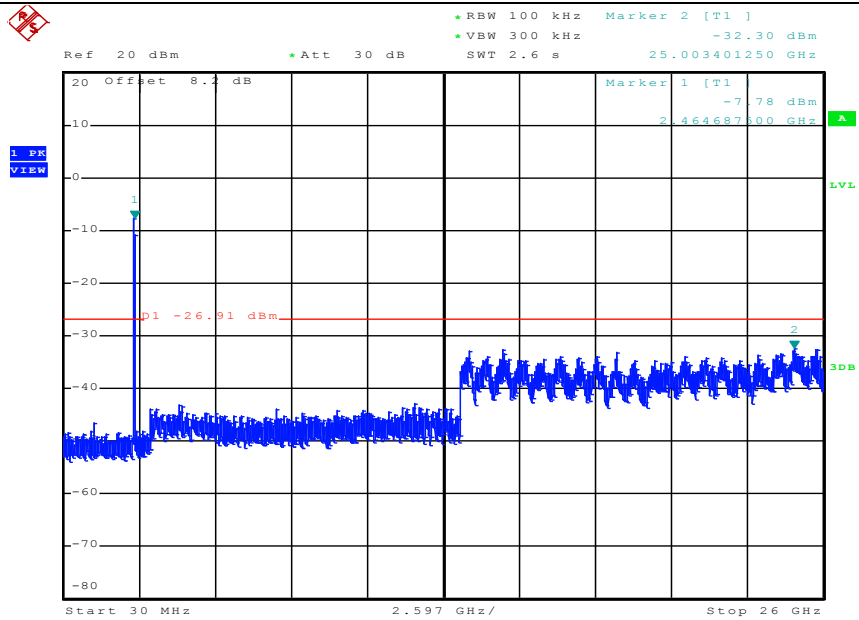
11N20SISO\_HCH\_Graphs

Pref/11N20  
SISO/HCH



Date: 21.SEP.2019 11:06:01

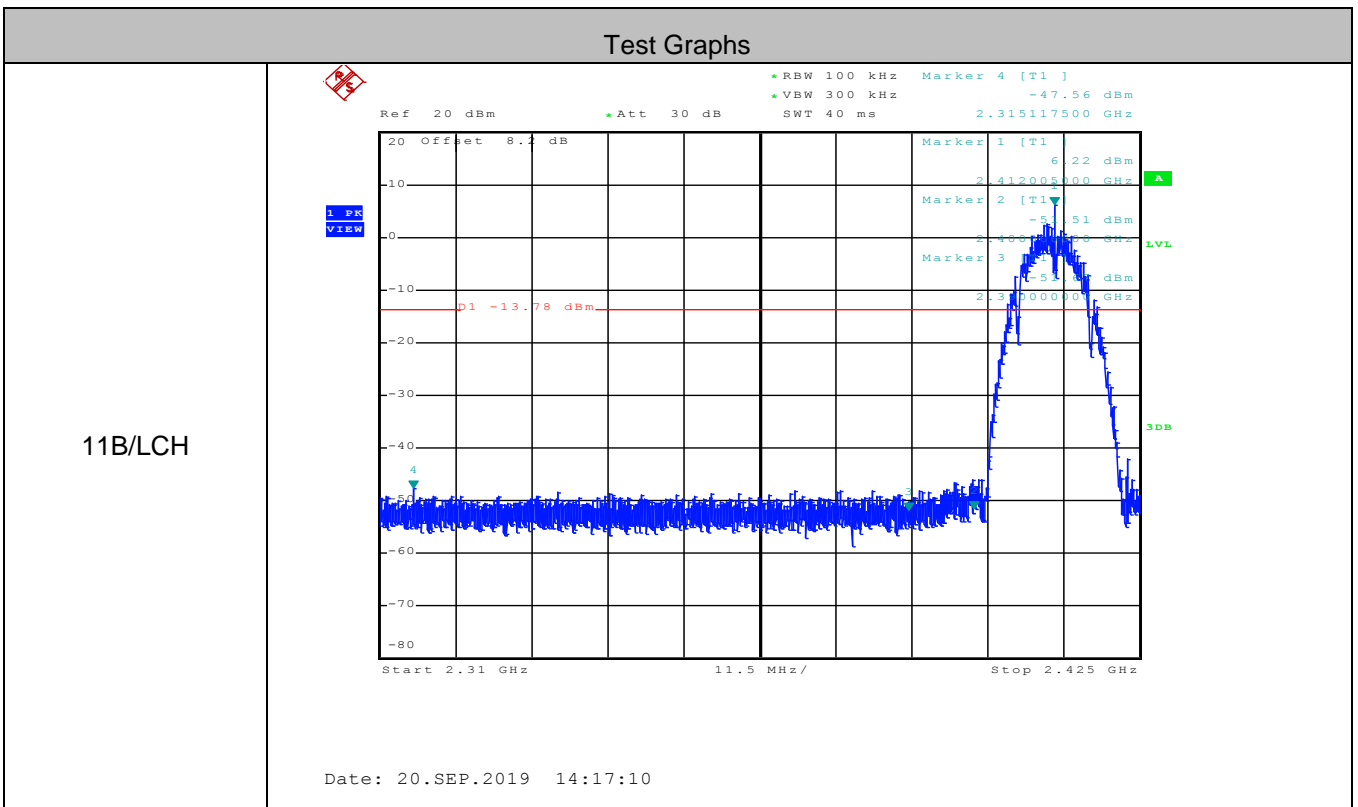
Puw/11N20  
SISO/HCH



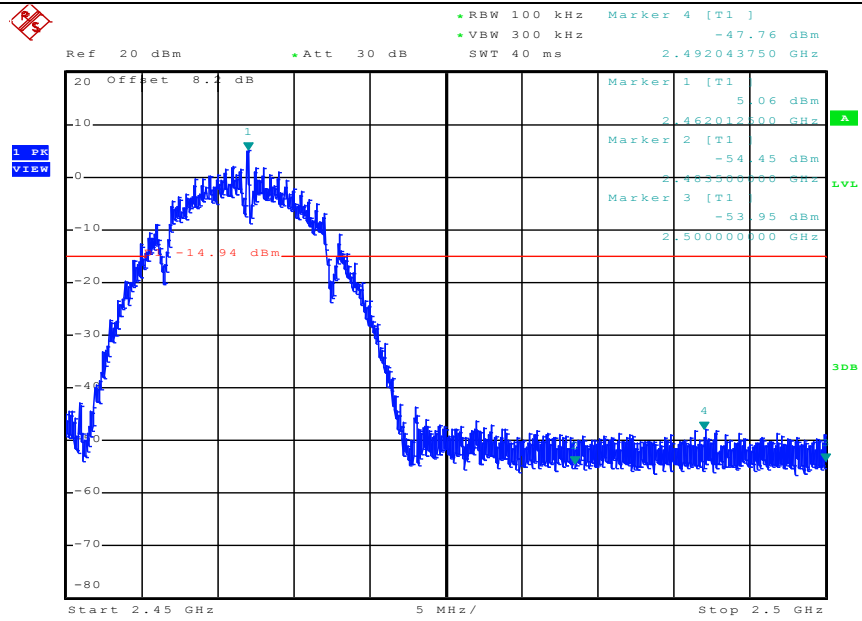
Date: 21.SEP.2019 11:06:15

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

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	6.220	-47.560	-13.78	PASS
	HCH	5.060	-47.756	-14.94	PASS
11G	LCH	-8.200	-46.136	-28.2	PASS
	HCH	-7.750	-36.863	-27.75	PASS
11N20SISO	LCH	-11.880	-48.143	-31.88	PASS
	HCH	-6.810	-34.358	-26.81	PASS

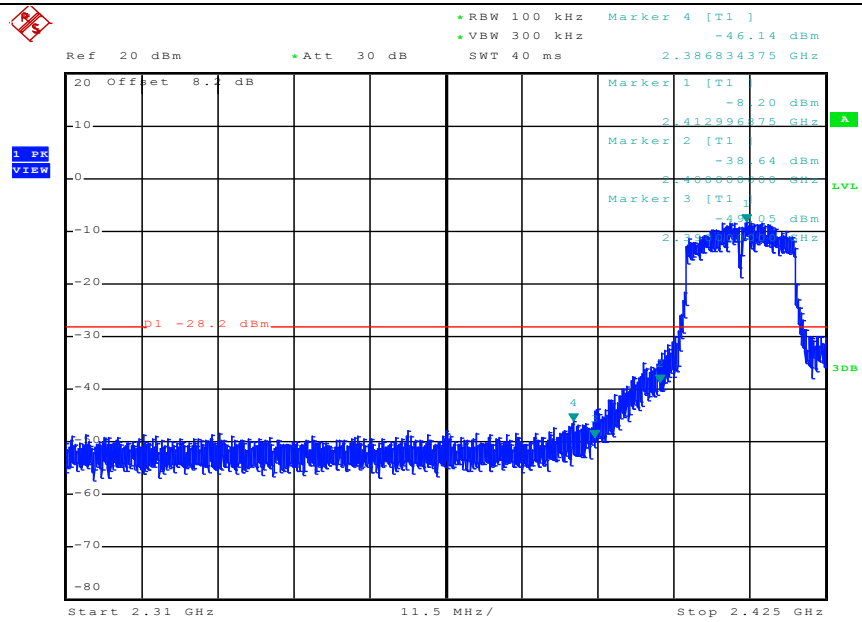


11B/HCH



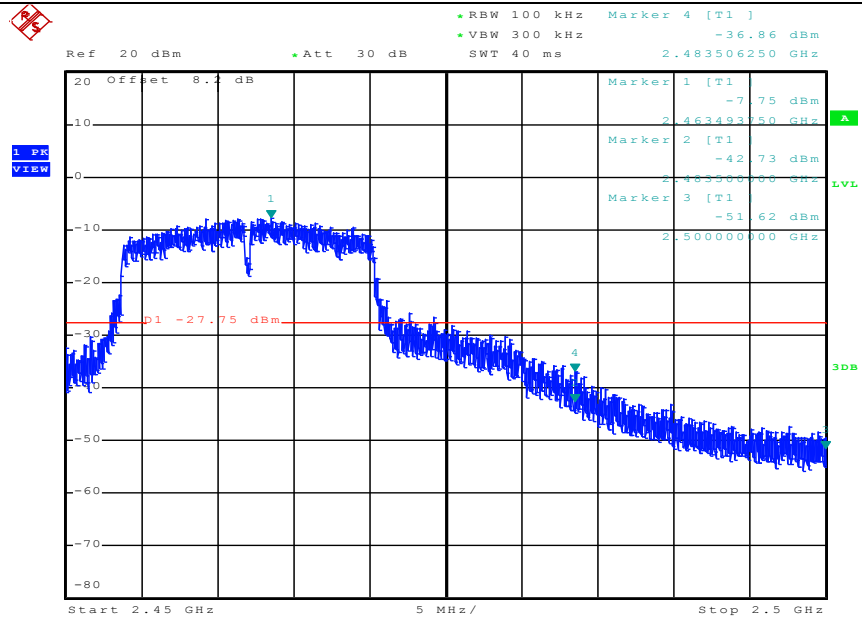
Date: 20.SEP.2019 14:23:30

11G/LCH



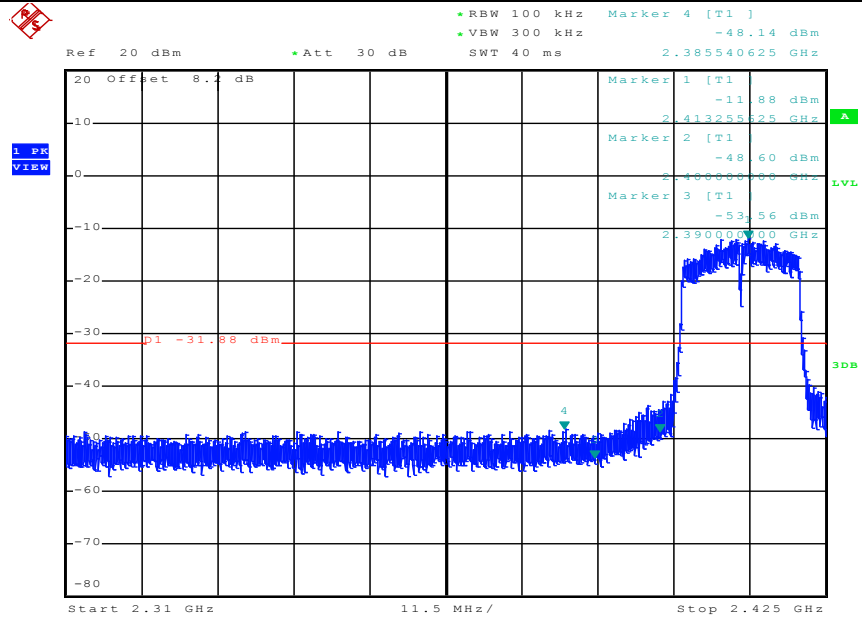
Date: 21.SEP.2019 10:48:40

11G/HCH



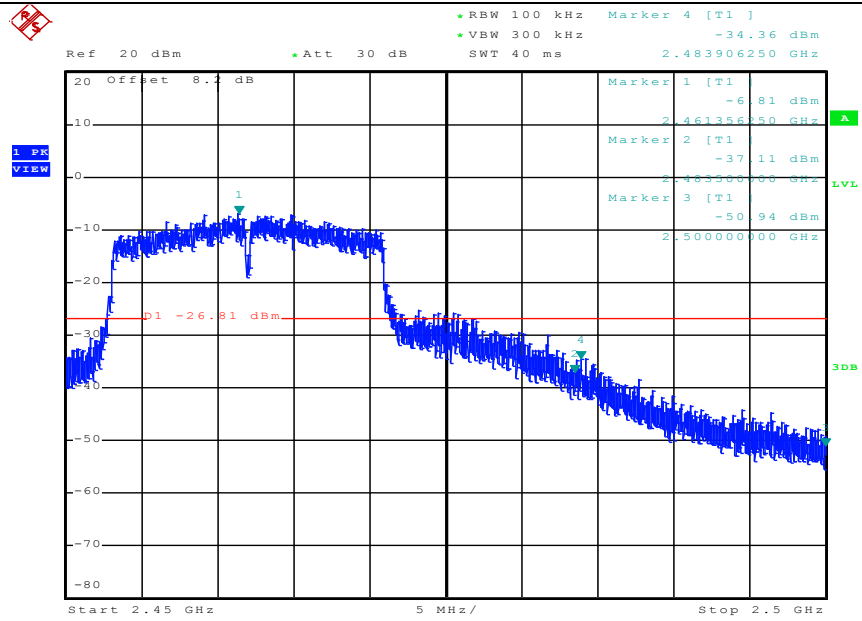
Date: 21.SEP.2019 10:53:23

11N20SISO/LCH



Date: 21.SEP.2019 10:57:57

11N20SISO/HCH



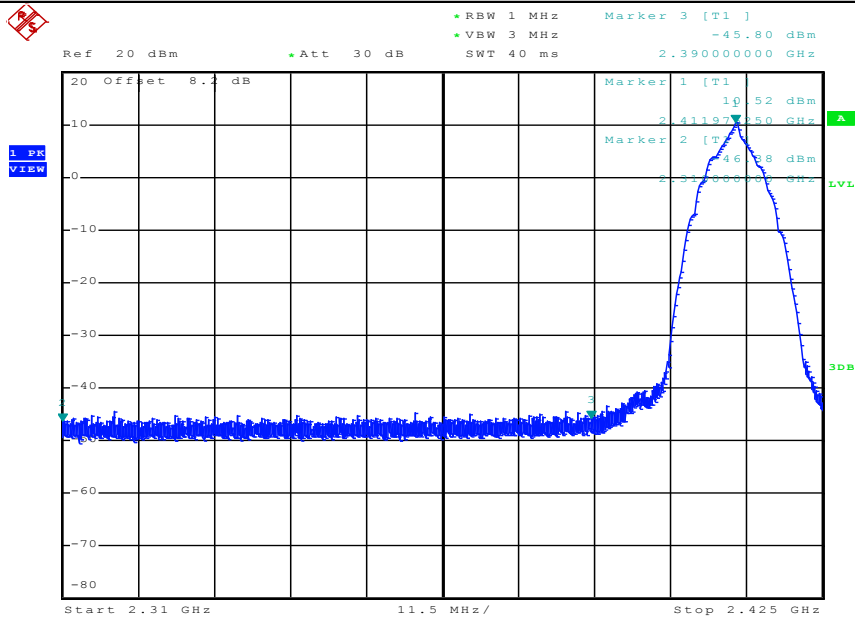
Date: 21.SEP.2019 11:05:48



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

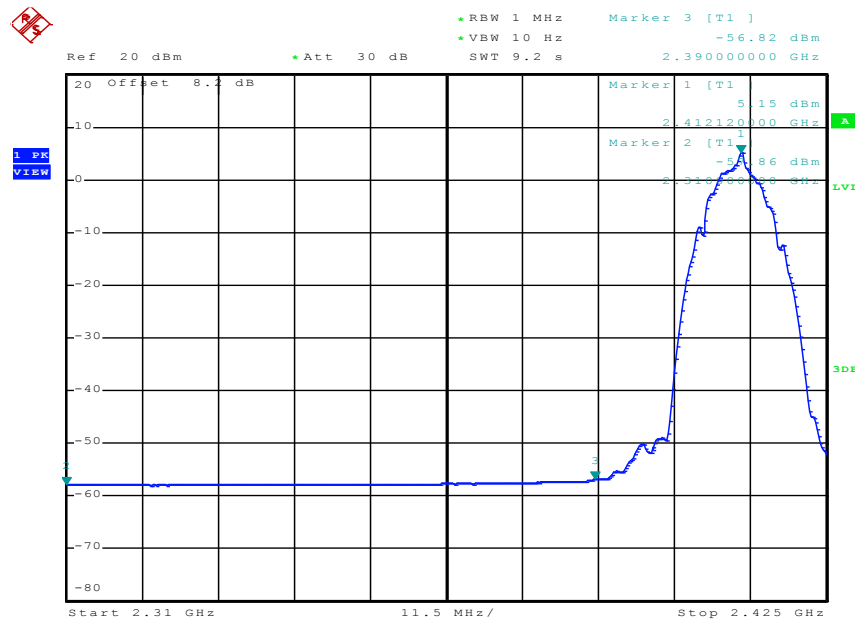
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBu V/m]	Verdict
11B	2412	Ant1	2310.0	-46.38	2.0	0	48.88	PEAK	74	PASS
	2412	Ant1	2310.0	-57.86	2.0	0	37.40	AV	54	PASS
	2412	Ant1	2390.0	-45.80	2.0	0	49.46	PEAK	74	PASS
	2412	Ant1	2390.0	-56.82	2.0	0	38.44	AV	54	PASS
	2462	Ant1	2483.5	-46.30	2.0	0	48.96	PEAK	74	PASS
	2462	Ant1	2483.5	-56.57	2.0	0	38.69	AV	54	PASS
	2462	Ant1	2500.0	-48.51	2.0	0	46.75	PEAK	74	PASS
	2462	Ant1	2500.0	-58.03	2.0	0	37.23	AV	54	PASS
11G	2412	Ant1	2310.0	-46.91	2.0	0	48.35	PEAK	74	PASS
	2412	Ant1	2310.0	-57.74	2.0	0	37.52	AV	54	PASS
	2412	Ant1	2390.0	-33.53	2.0	0	61.73	PEAK	74	PASS
	2412	Ant1	2390.0	-49.66	2.0	0	45.60	AV	54	PASS
	2462	Ant1	2483.5	-35.25	2.0	0	60.01	PEAK	74	PASS
	2462	Ant1	2483.5	-48.86	2.0	0	46.40	AV	54	PASS
	2462	Ant1	2500.0	-47.92	2.0	0	47.34	PEAK	74	PASS
	2462	Ant1	2500.0	-57.30	2.0	0	37.96	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-47.98	2.0	0	47.28	PEAK	74	PASS
	2412	Ant1	2310.0	-57.79	2.0	0	37.47	AV	54	PASS
	2412	Ant1	2390.0	-31.95	2.0	0	63.31	PEAK	74	PASS
	2412	Ant1	2390.0	-45.87	2.0	0	49.39	AV	54	PASS
	2462	Ant1	2483.5	-32.67	2.0	0	62.59	PEAK	74	PASS
	2462	Ant1	2483.5	-47.18	2.0	0	48.08	AV	54	PASS
	2462	Ant1	2500.0	-46.85	2.0	0	48.41	PEAK	74	PASS
	2462	Ant1	2500.0	-57.20	2.0	0	38.06	AV	54	PASS

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



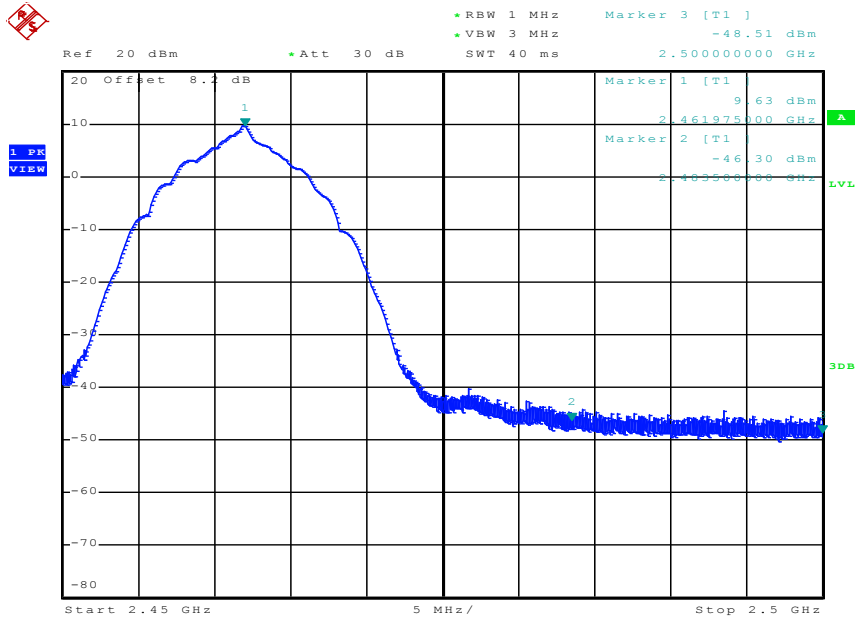
Date: 20.SEP.2019 14:17:56

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



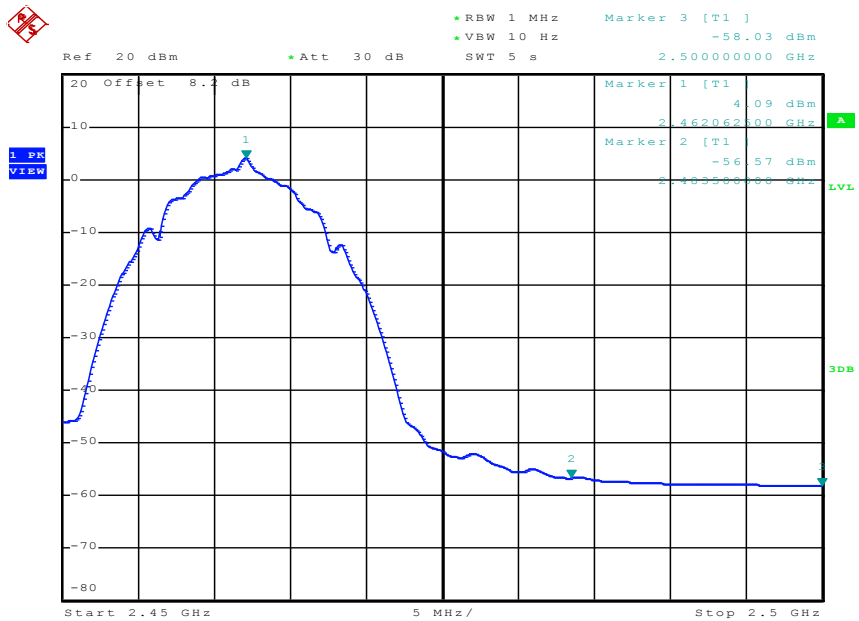
Date: 20.SEP.2019 14:19:45

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



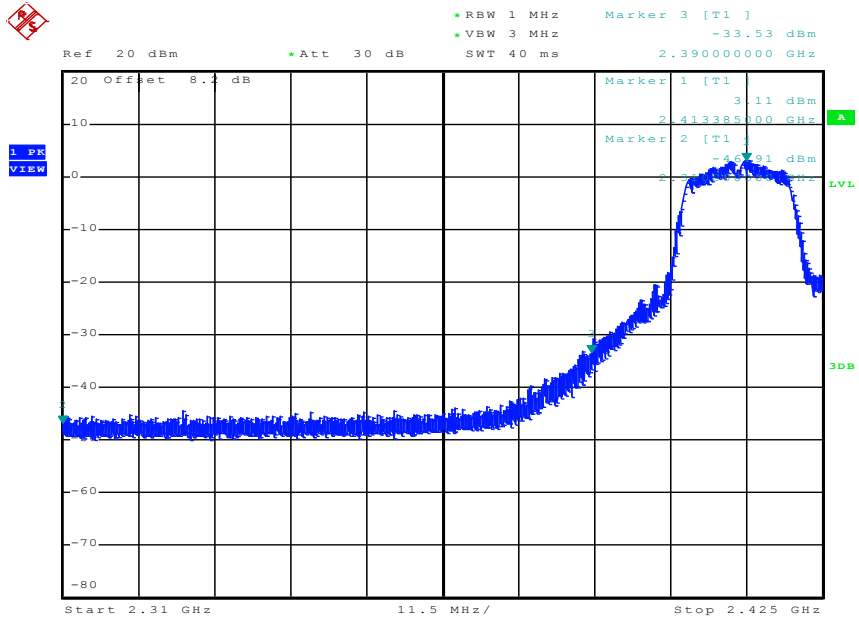
Date: 20.SEP.2019 14:24:16

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



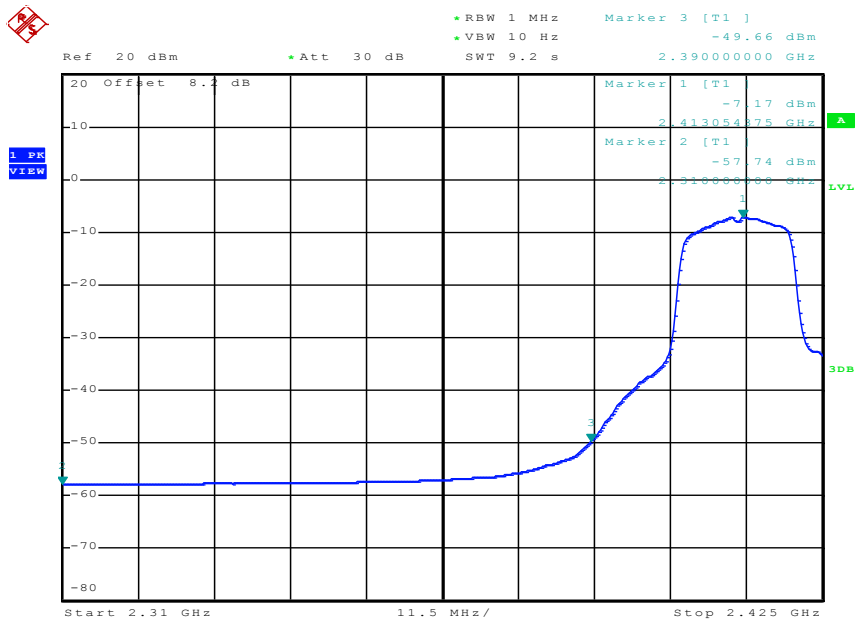
Date: 20.SEP.2019 14:24:38

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



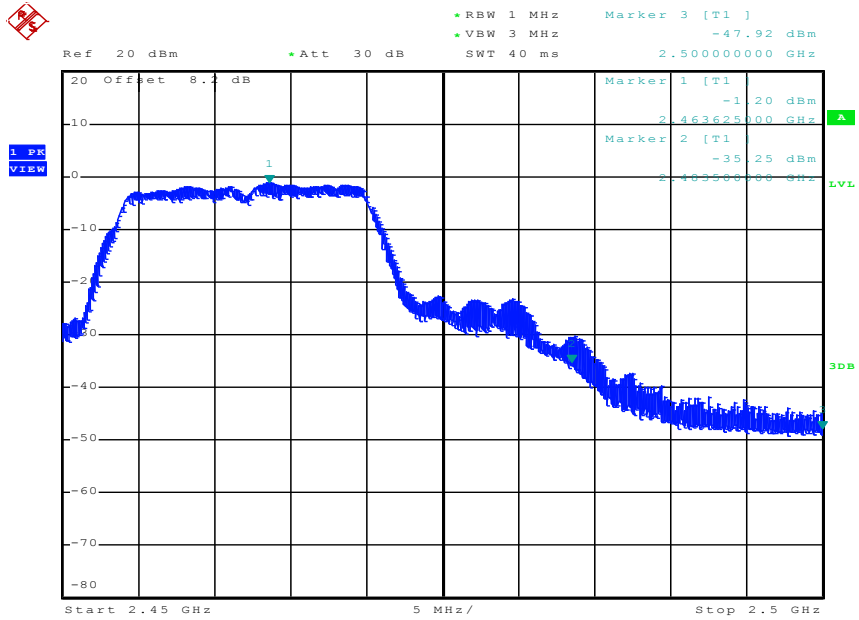
Date: 21.SEP.2019 10:49:26

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



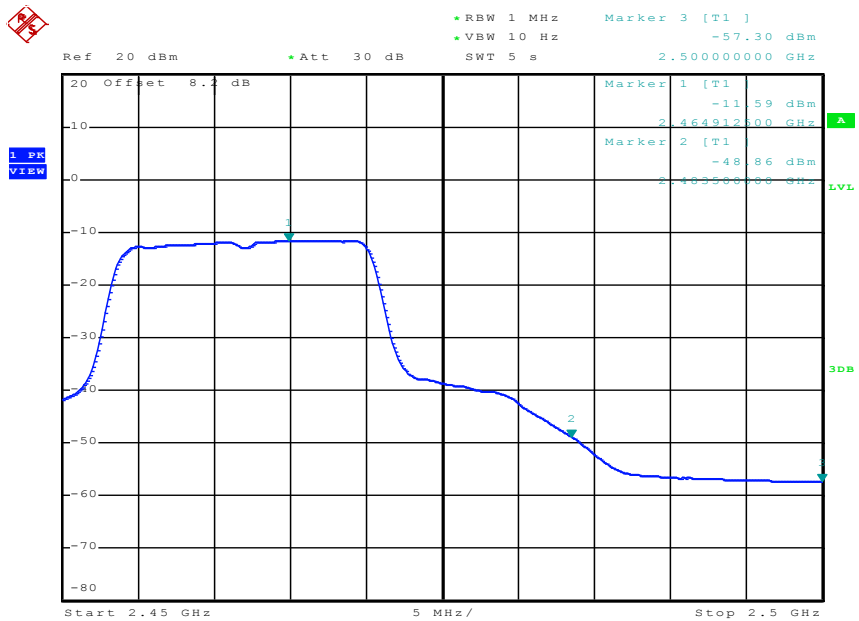
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Restrict-band band-edge measurements\_11G\_2462\_Ant1\_PEAK



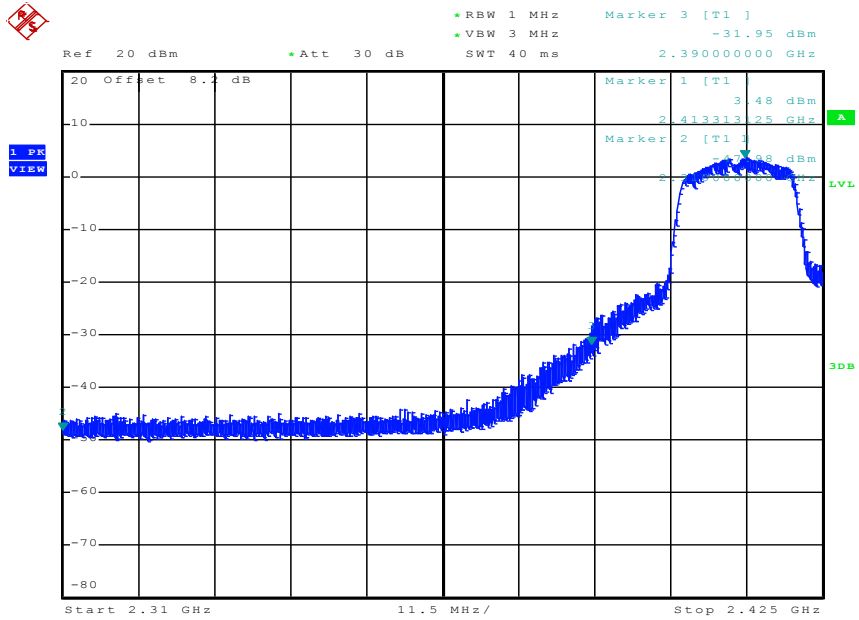
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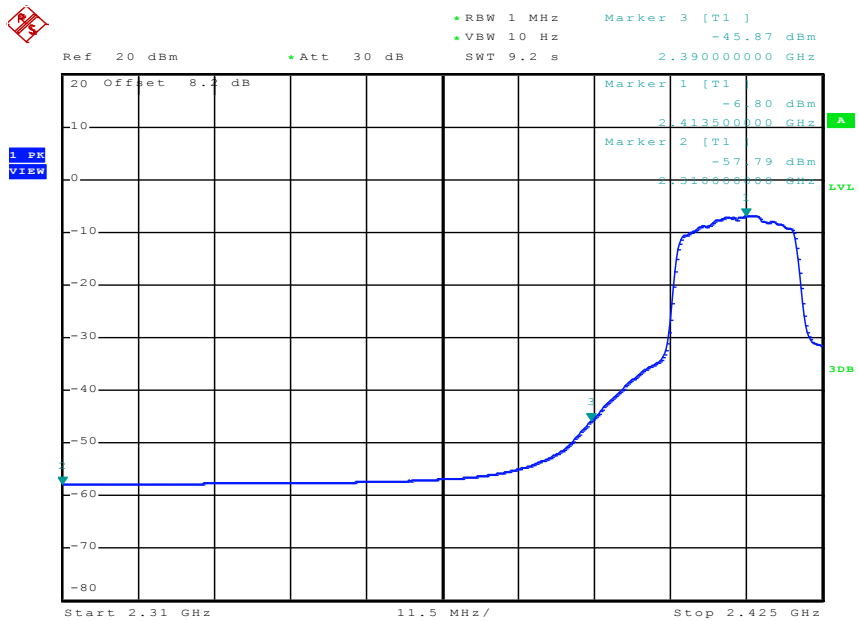
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Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_PEAK



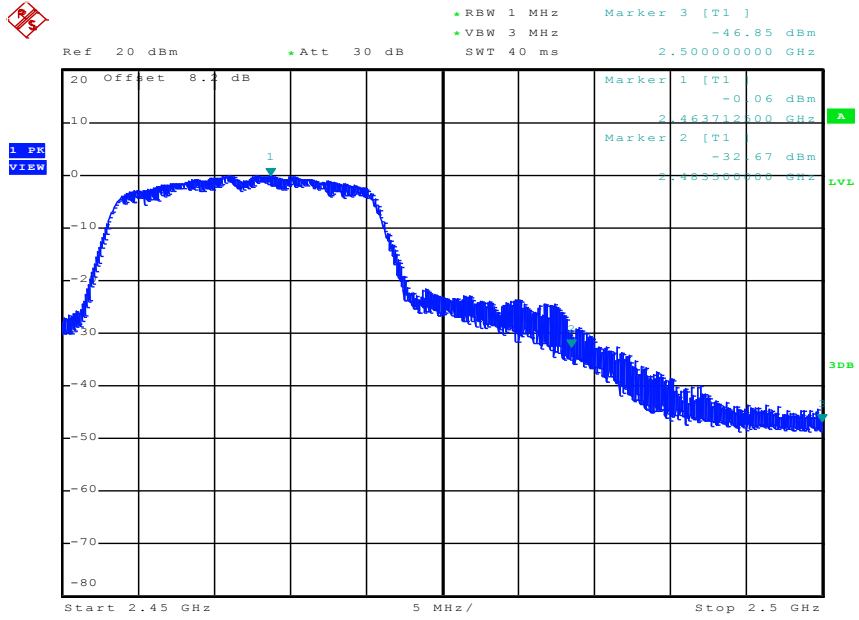
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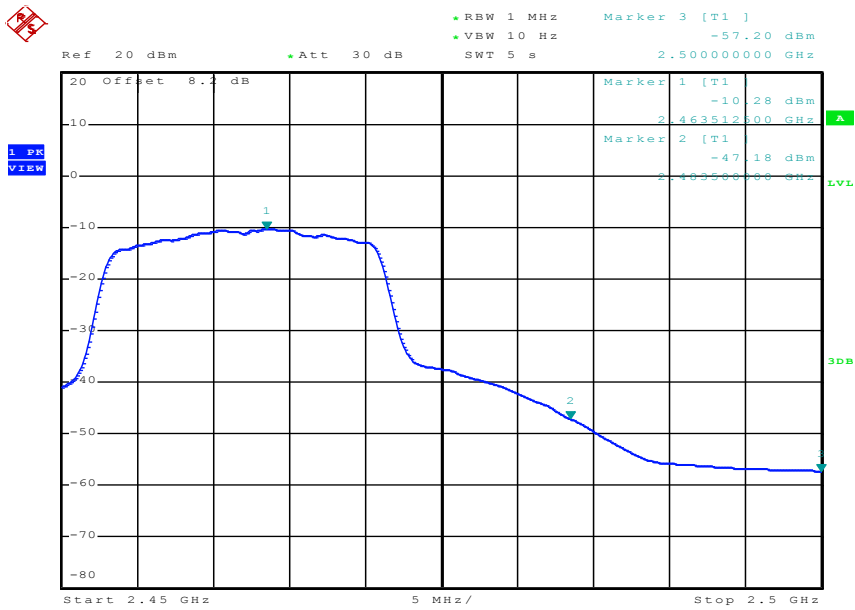
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Restrict-band band-edge measurements\_11N20SISO\_2462\_Ant1\_PEAK



Date: 21.SEP.2019 11:07:46

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



Date: 21.SEP.2019 11:08:03