



# Appendix

Model: MHAV4031Y-64863

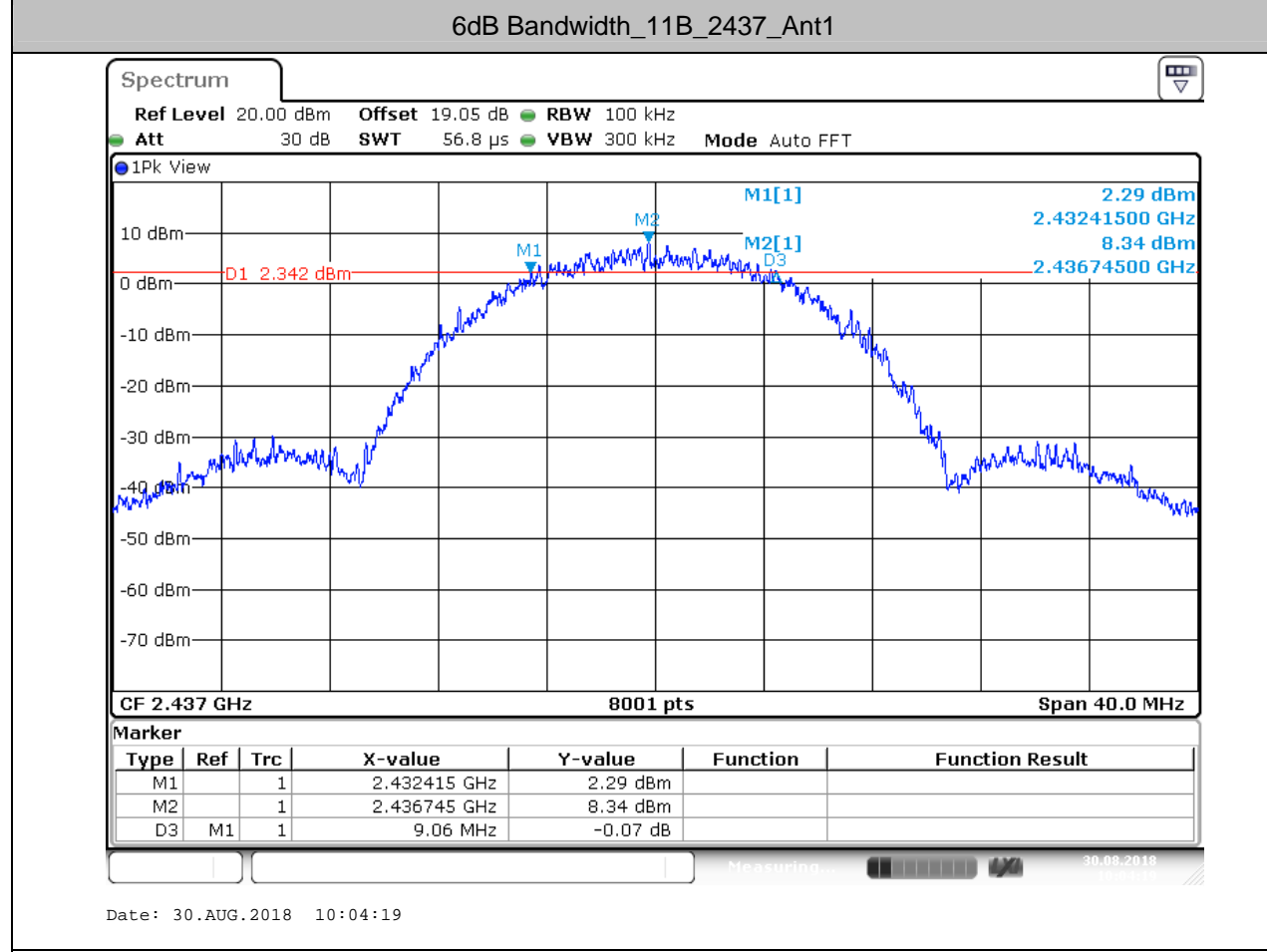
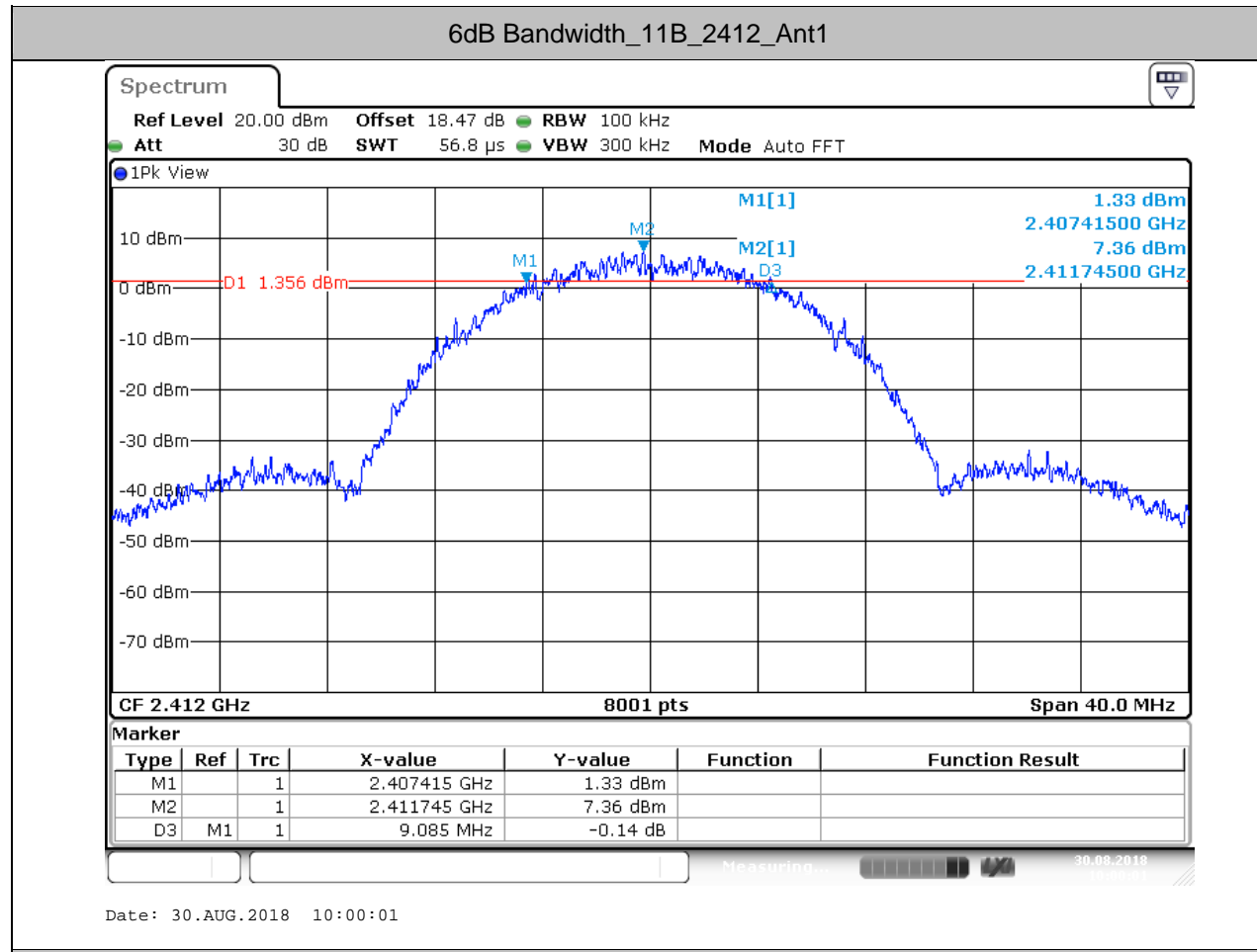
FCC ID: 2AHVH40648633

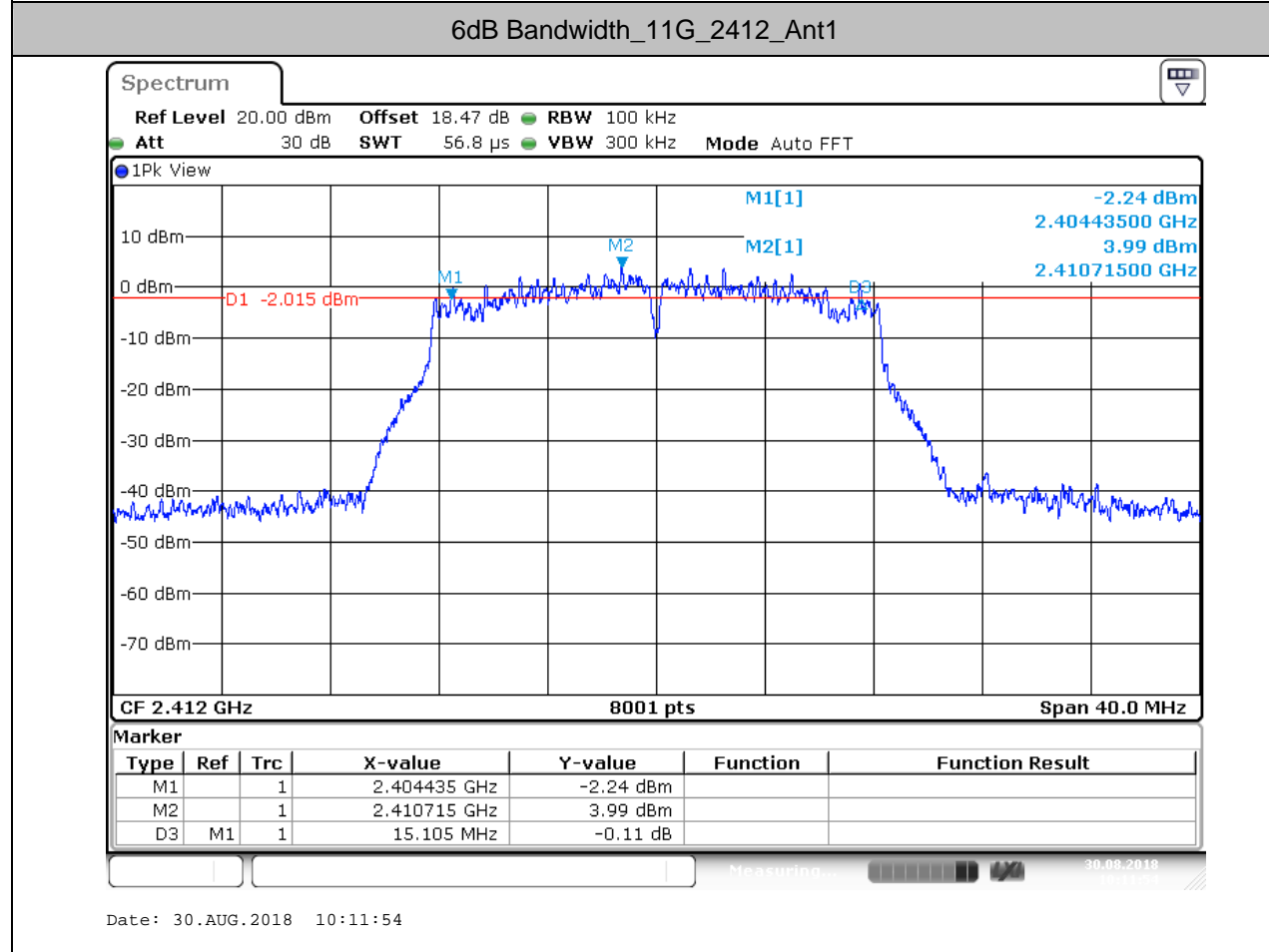
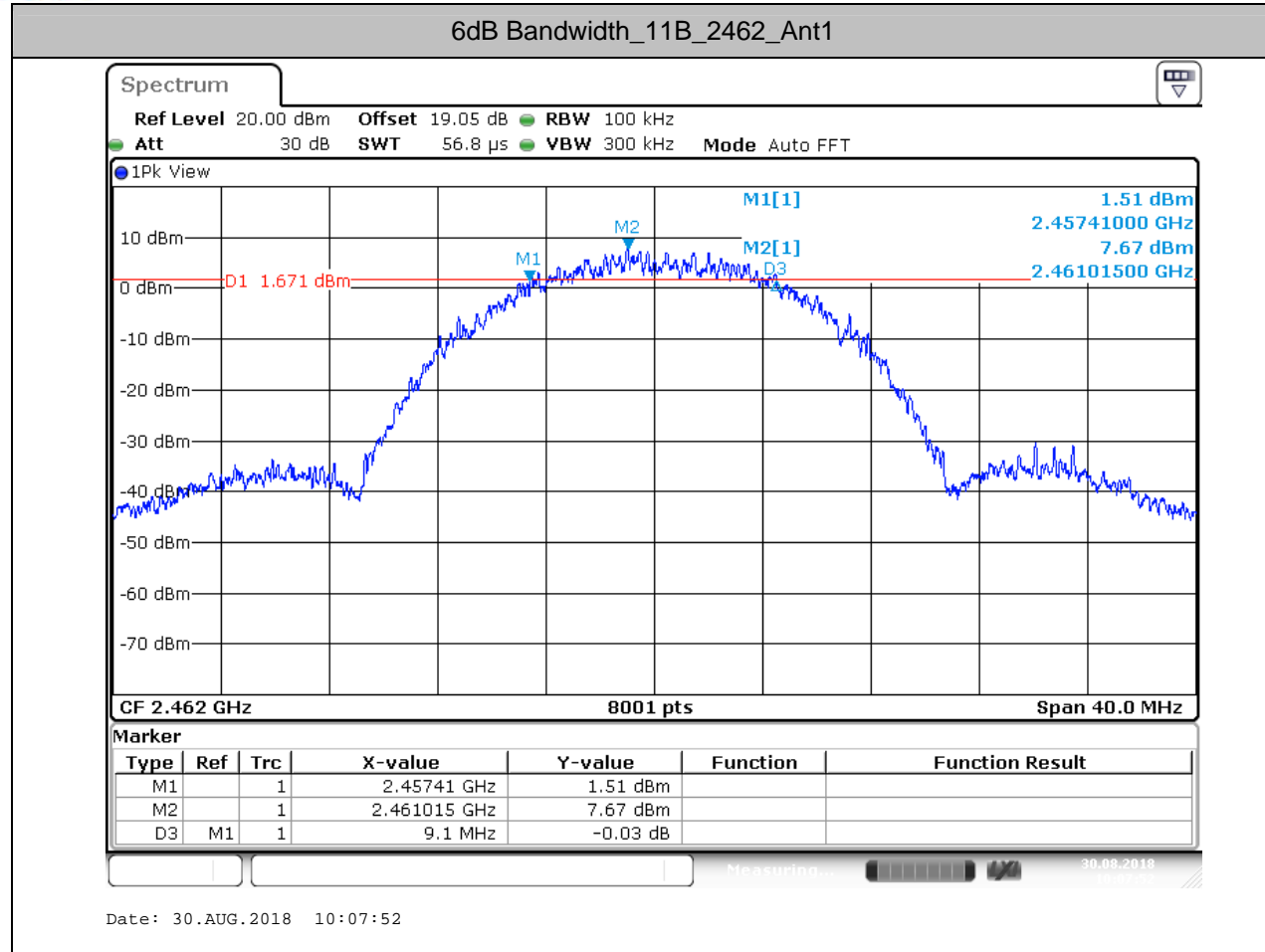
IC:24259-40648633

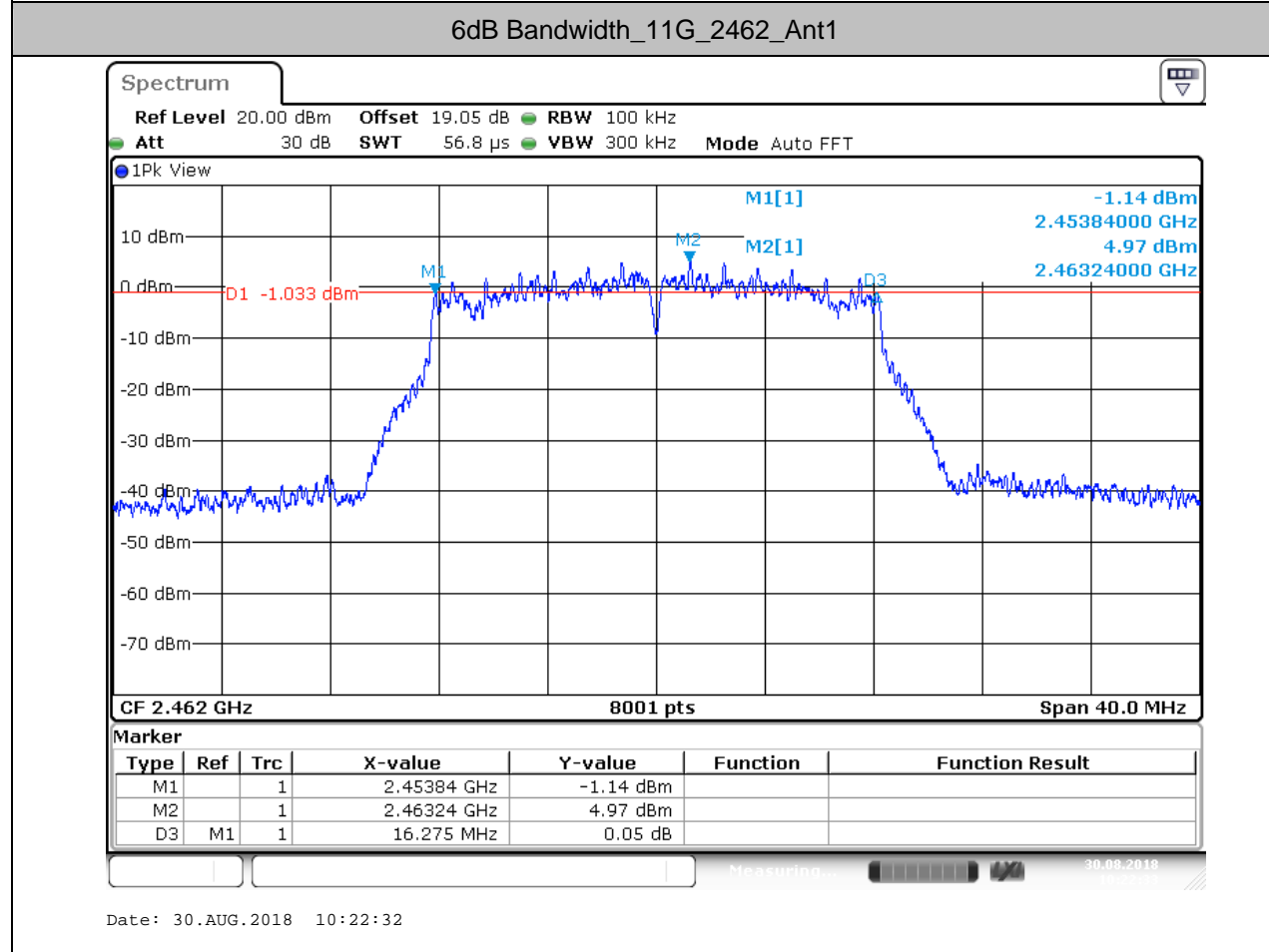
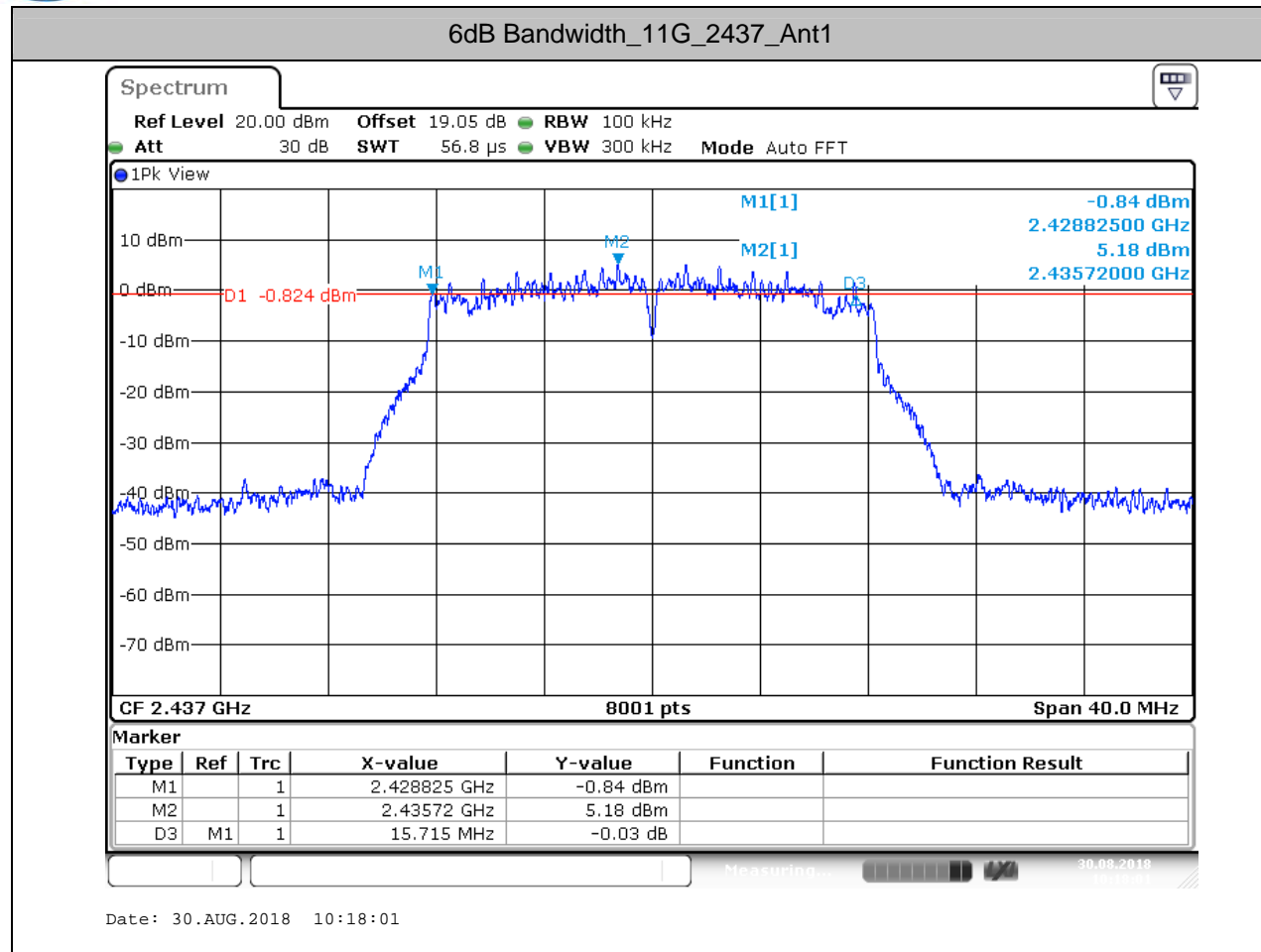


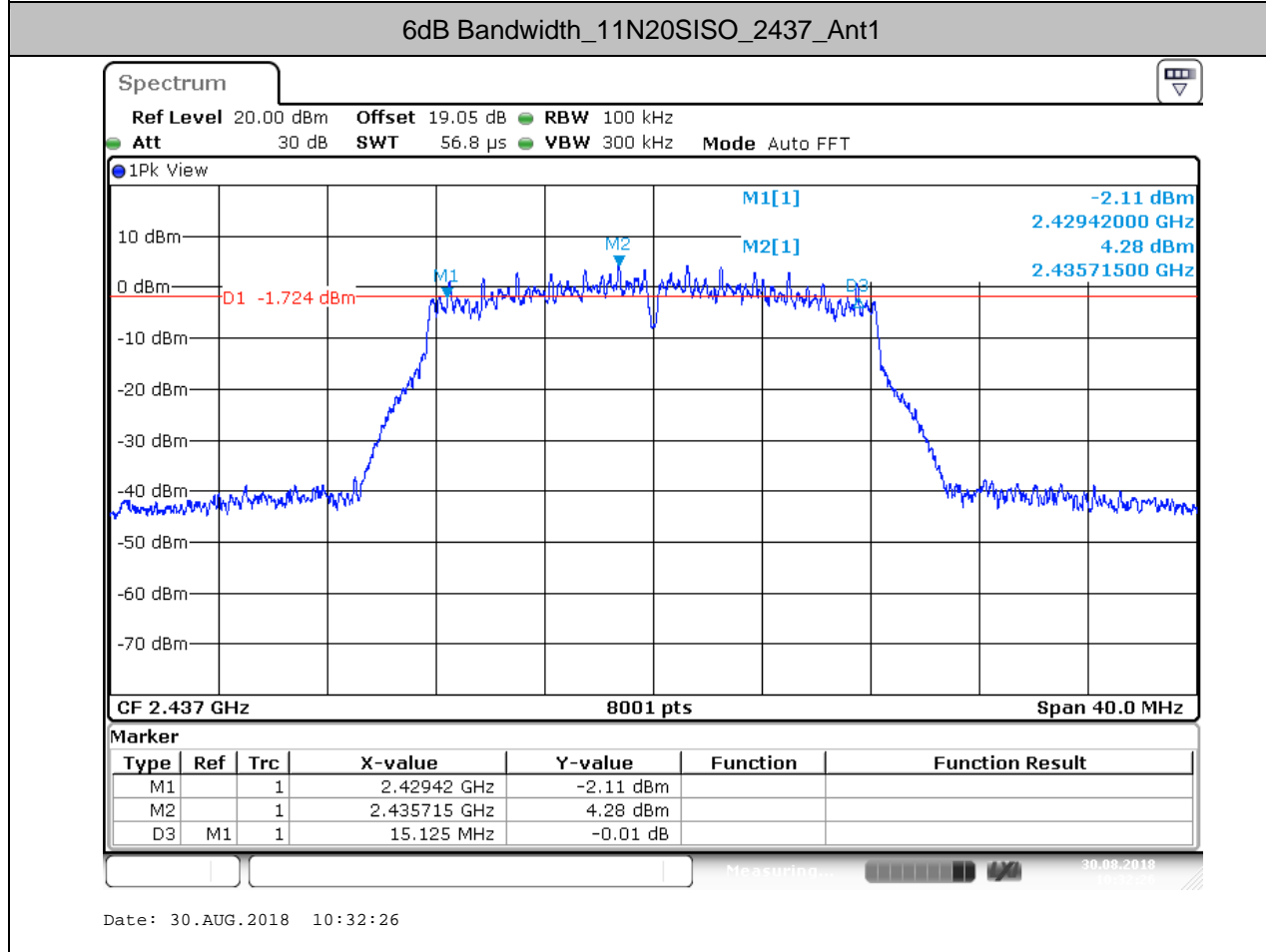
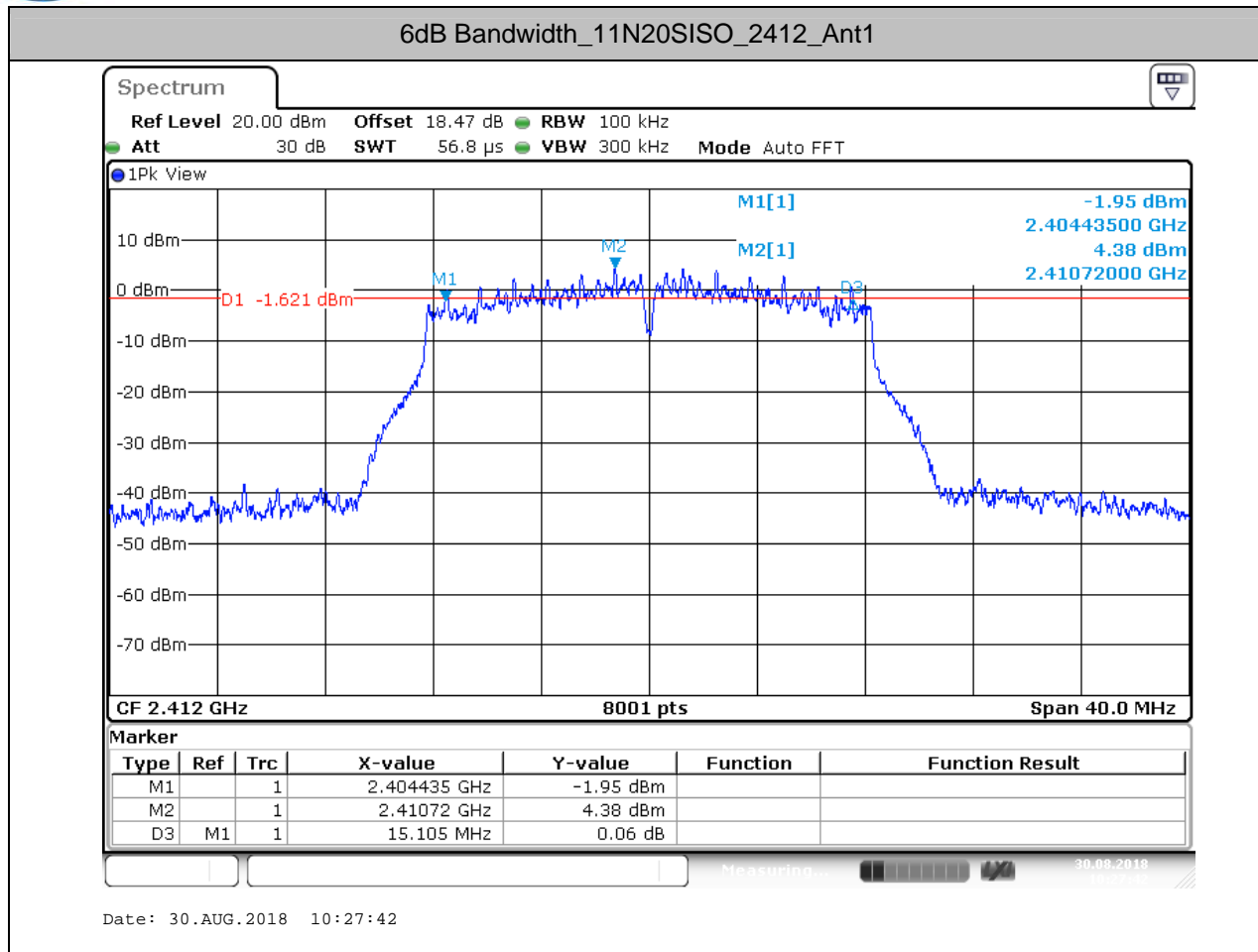
1.6dB Bandwidth

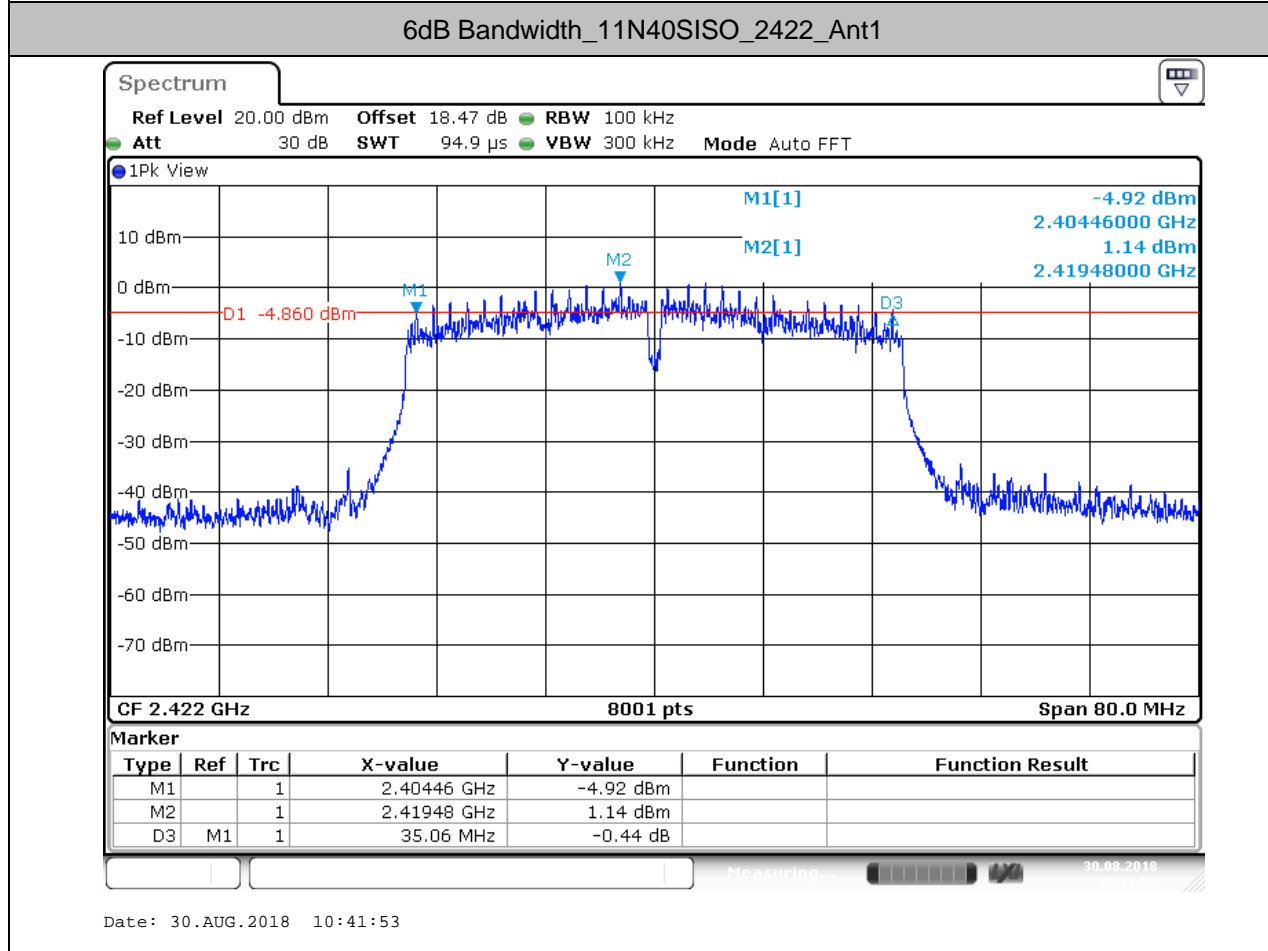
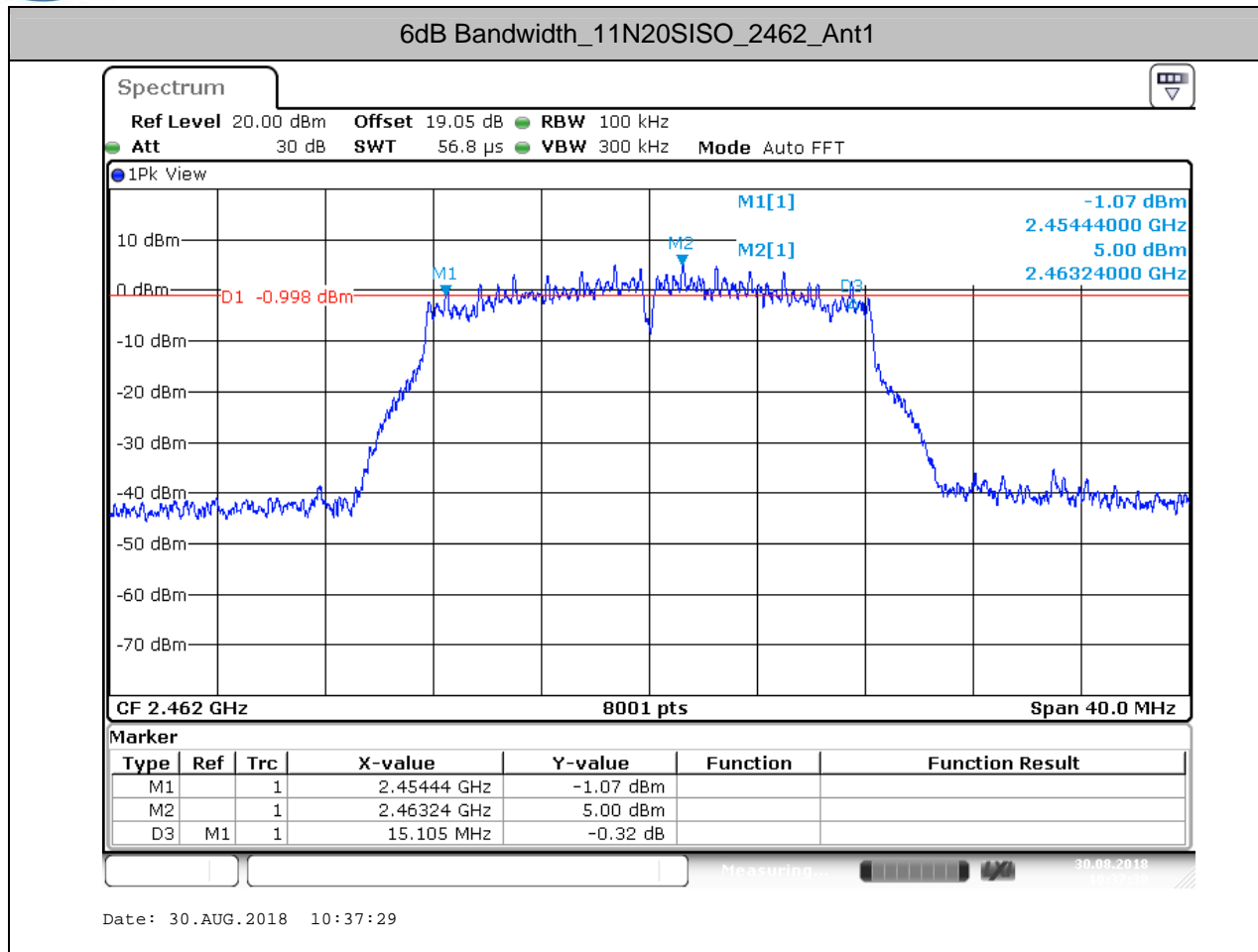
Test Mode	Test Channel	Ant	EBW[MHz]	Limit	Verdict
11B	2412	Ant1	9.085	0.5	PASS
11B	2437	Ant1	9.060	0.5	PASS
11B	2462	Ant1	9.100	0.5	PASS
11G	2412	Ant1	15.105	0.5	PASS
11G	2437	Ant1	15.715	0.5	PASS
11G	2462	Ant1	16.275	0.5	PASS
11N20SISO	2412	Ant1	15.105	0.5	PASS
11N20SISO	2437	Ant1	15.125	0.5	PASS
11N20SISO	2462	Ant1	15.105	0.5	PASS
11N40SISO	2422	Ant1	35.060	0.5	PASS
11N40SISO	2437	Ant1	35.100	0.5	PASS
11N40SISO	2452	Ant1	35.100	0.5	PASS
11B	2412	Ant2	9.020	0.5	PASS
11B	2437	Ant2	9.025	0.5	PASS
11B	2462	Ant2	9.055	0.5	PASS
11G	2412	Ant2	15.395	0.5	PASS
11G	2437	Ant2	16.340	0.5	PASS
11G	2462	Ant2	15.460	0.5	PASS
11N20SISO	2412	Ant2	15.090	0.5	PASS
11N20SISO	2437	Ant2	15.375	0.5	PASS
11N20SISO	2462	Ant2	15.115	0.5	PASS
11N40SISO	2422	Ant2	35.060	0.5	PASS
11N40SISO	2437	Ant2	35.100	0.5	PASS
11N40SISO	2452	Ant2	35.100	0.5	PASS
11N20MIMO	2412	Ant1+2	15.305	0.5	PASS
11N20MIMO	2437	Ant1+2	15.475	0.5	PASS
11N20MIMO	2462	Ant1+2	16.015	0.5	PASS
11N40MIMO	2422	Ant1+2	33.830	0.5	PASS
11N40MIMO	2437	Ant1+2	35.060	0.5	PASS
11N40MIMO	2452	Ant1+2	31.320	0.5	PASS

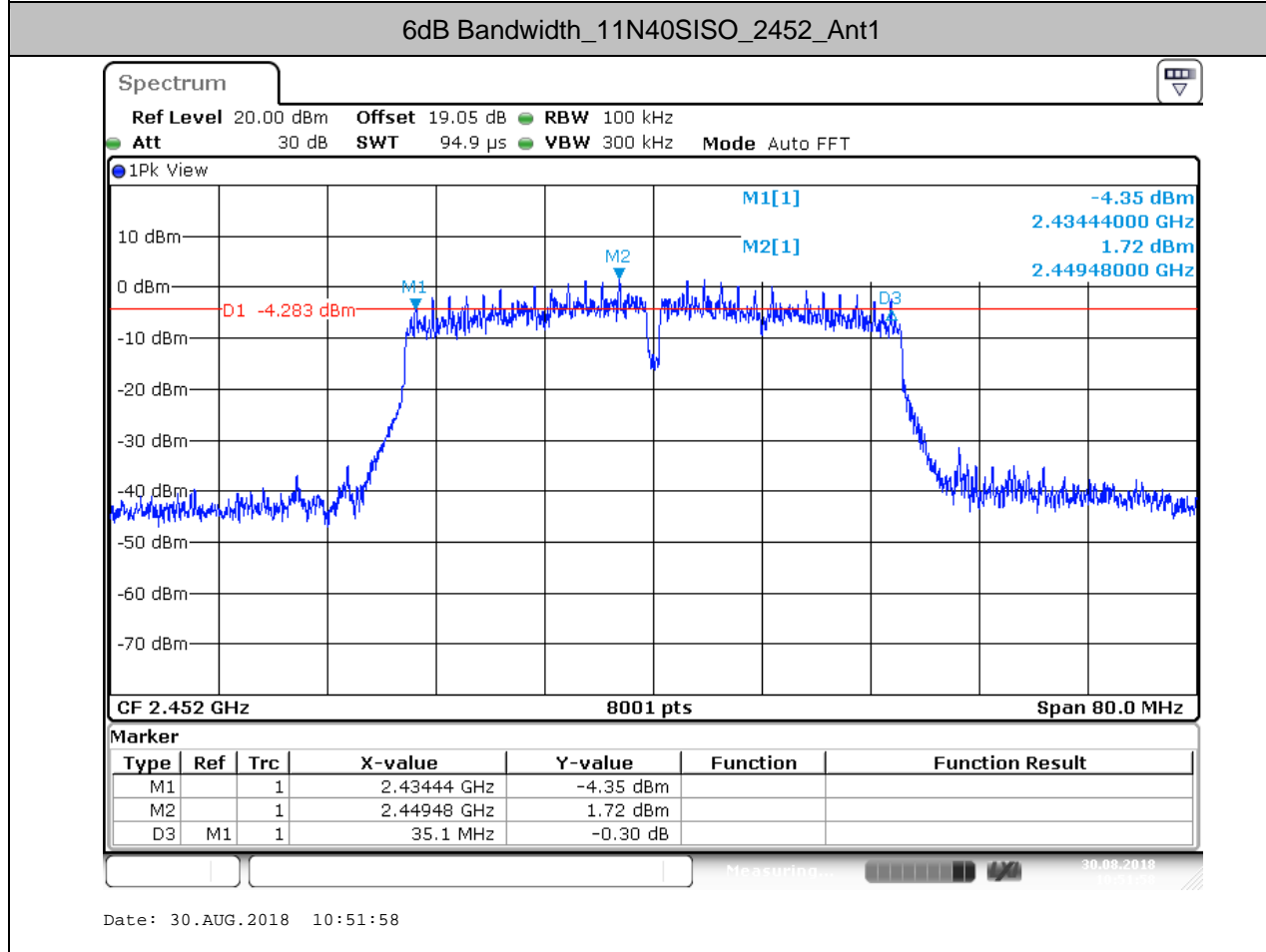
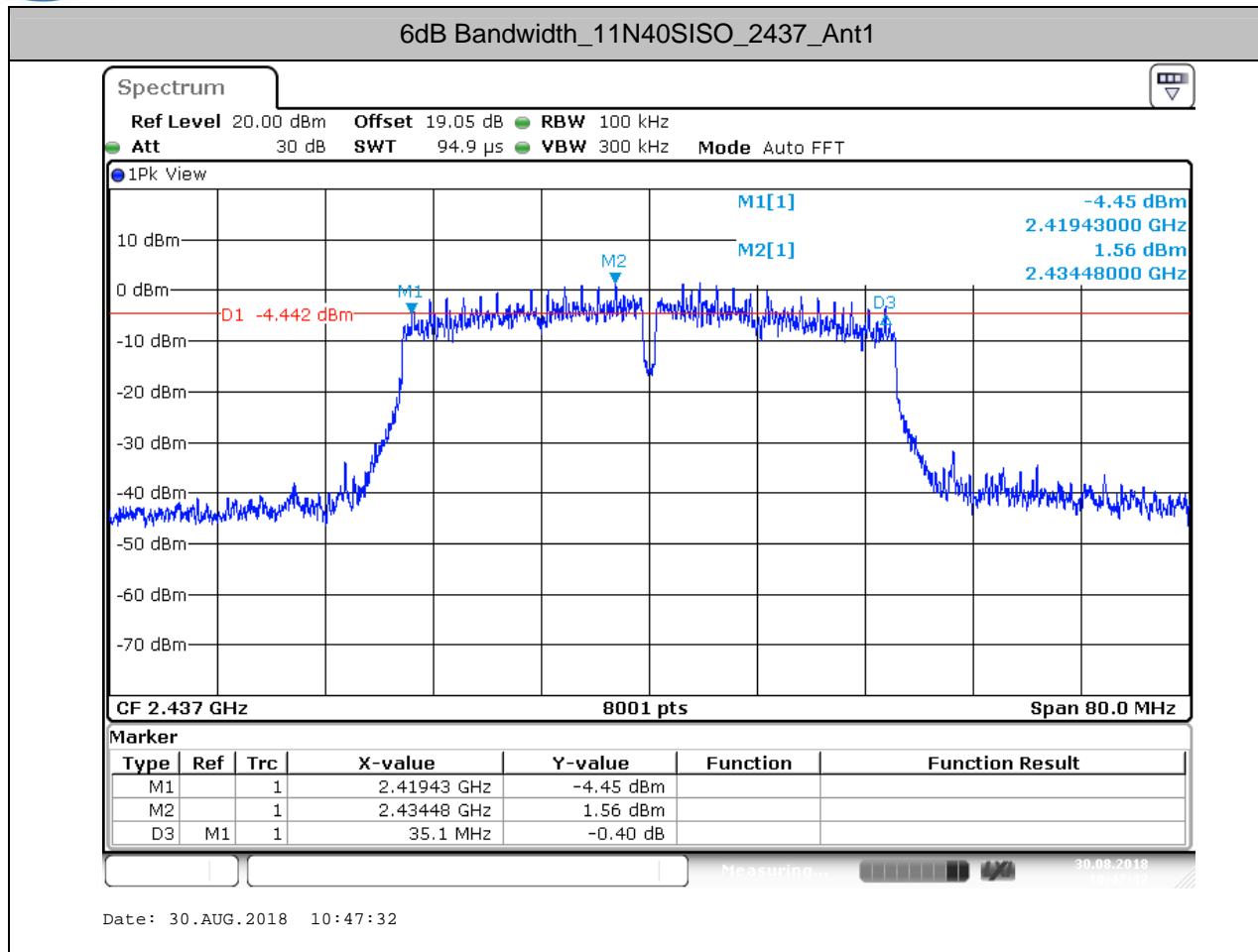




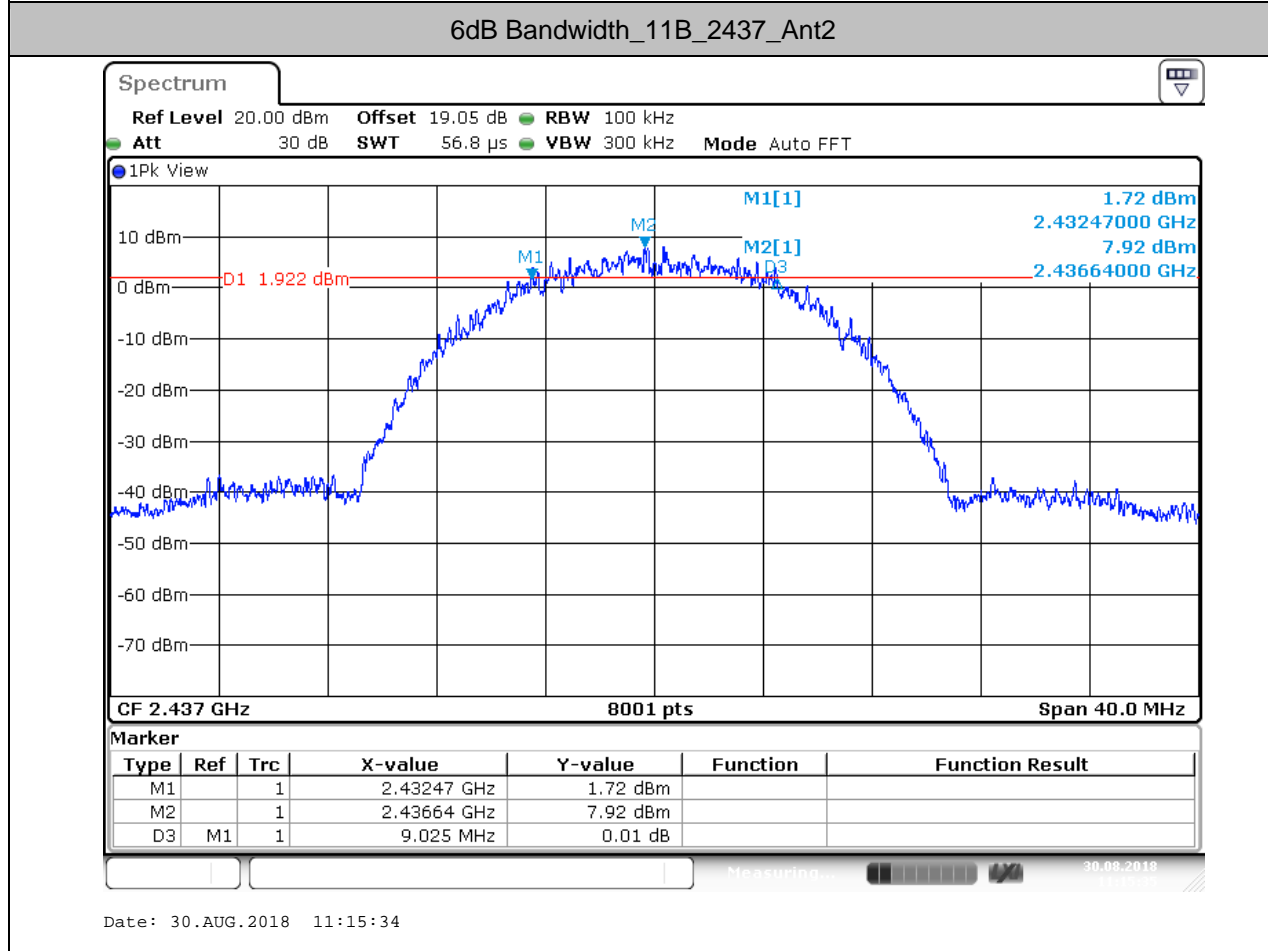
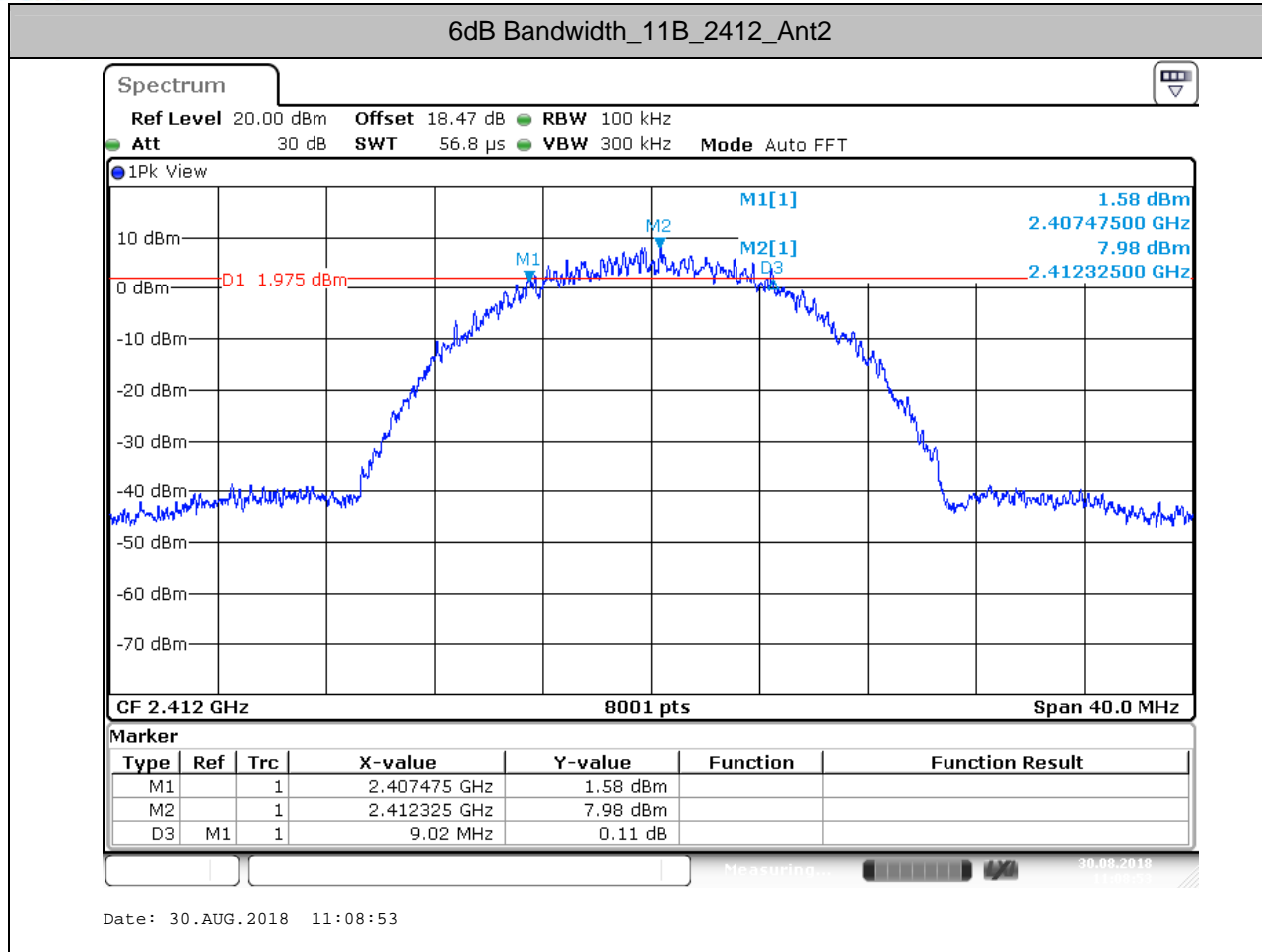


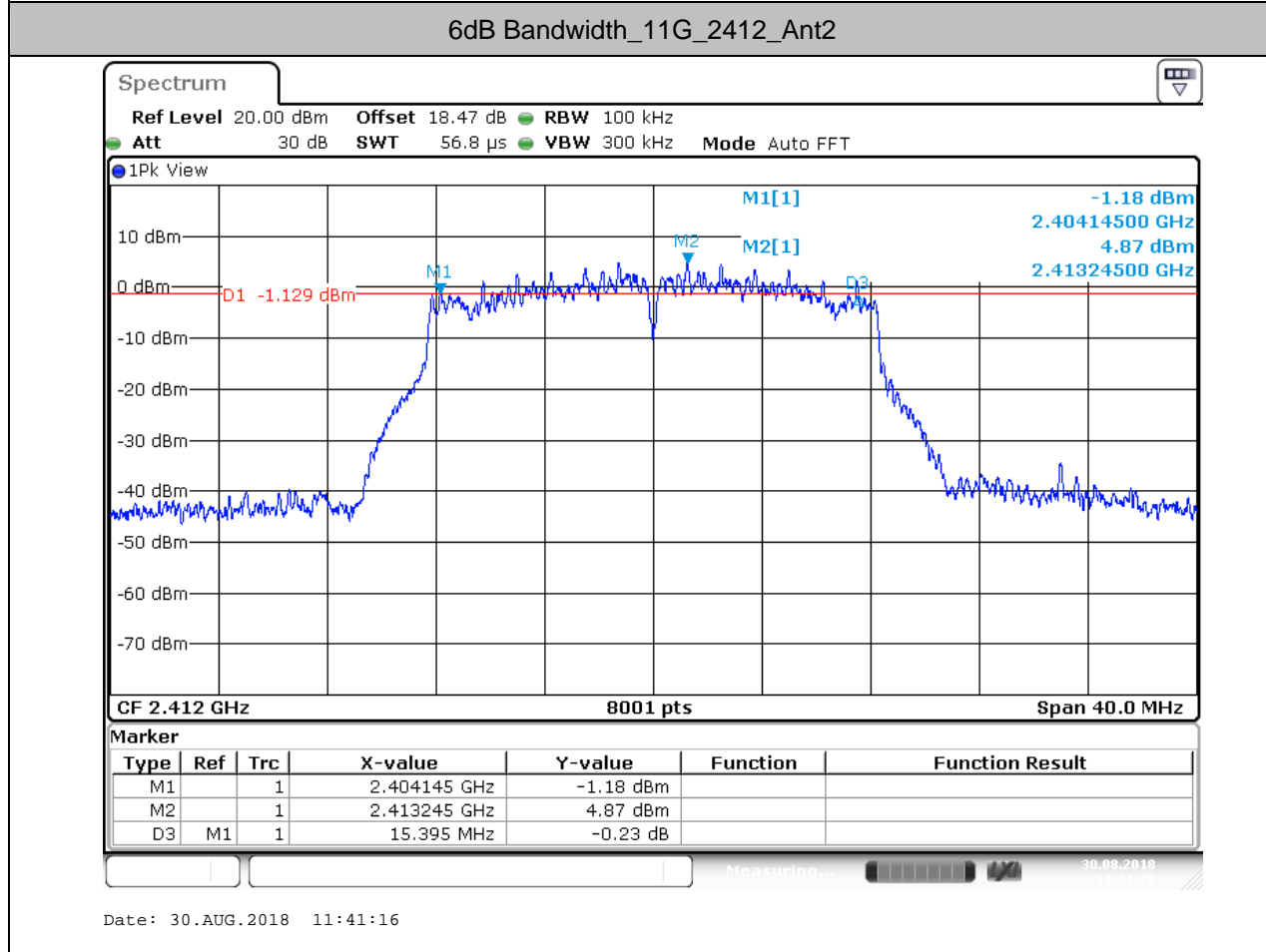
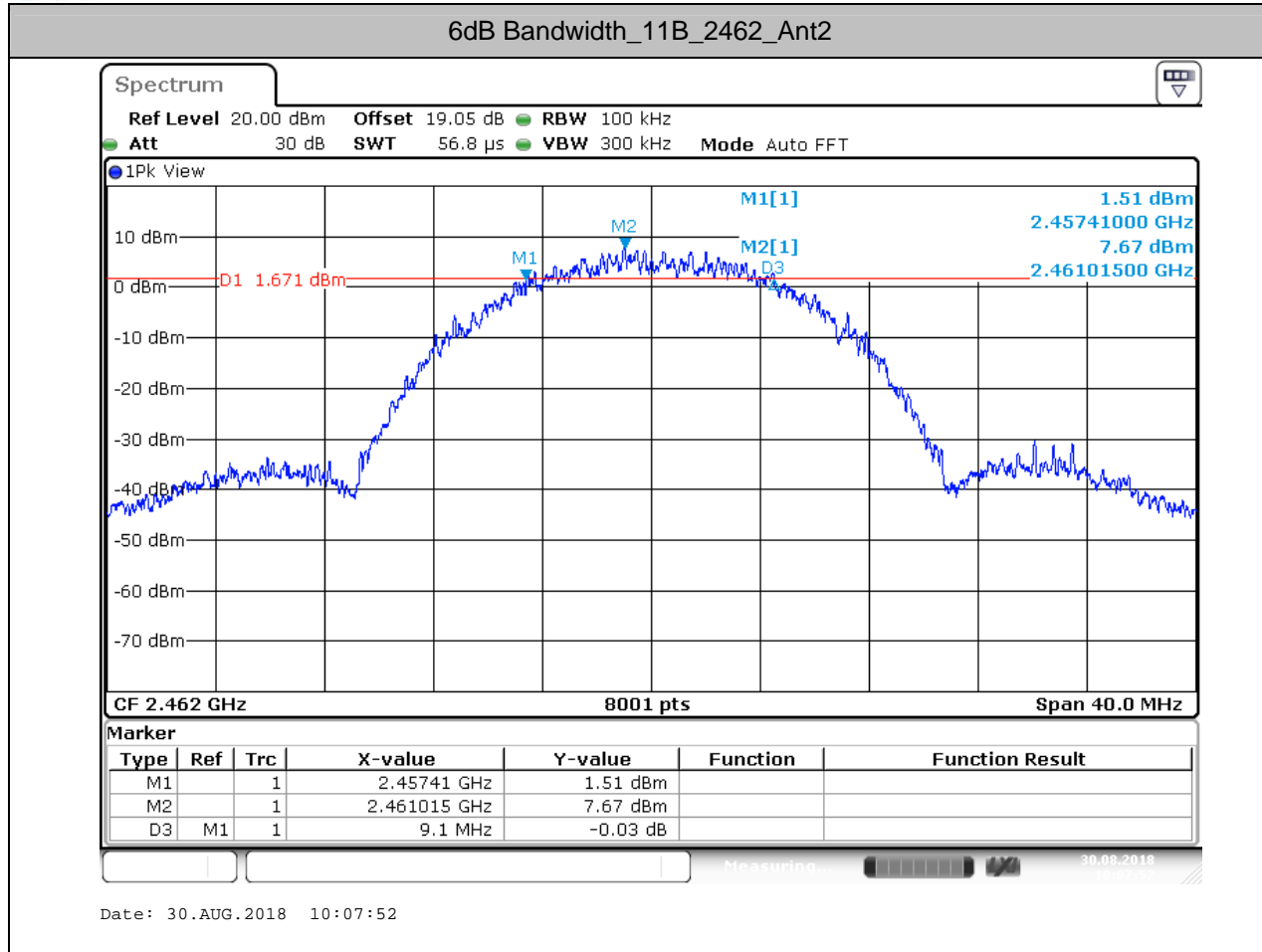


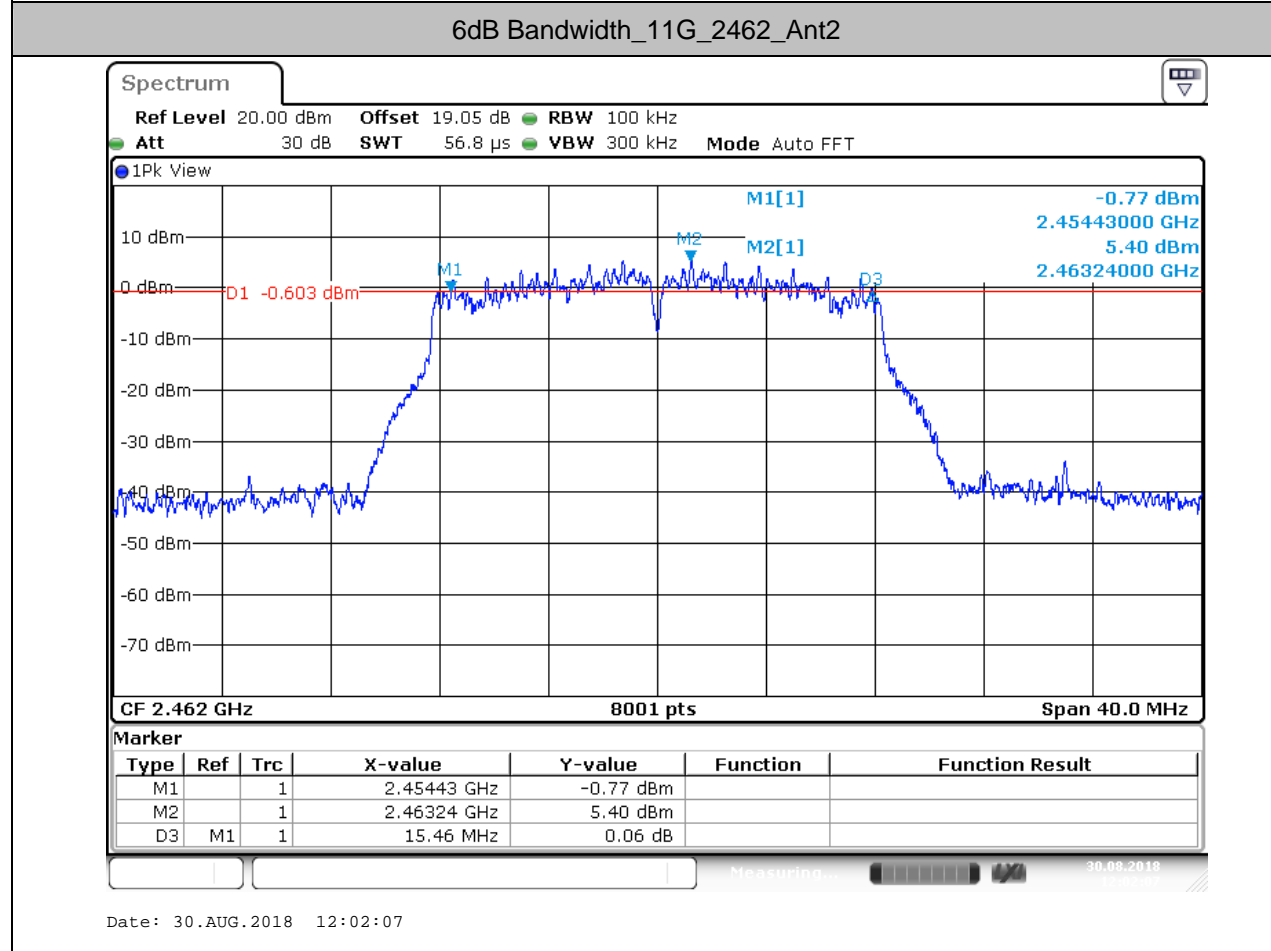
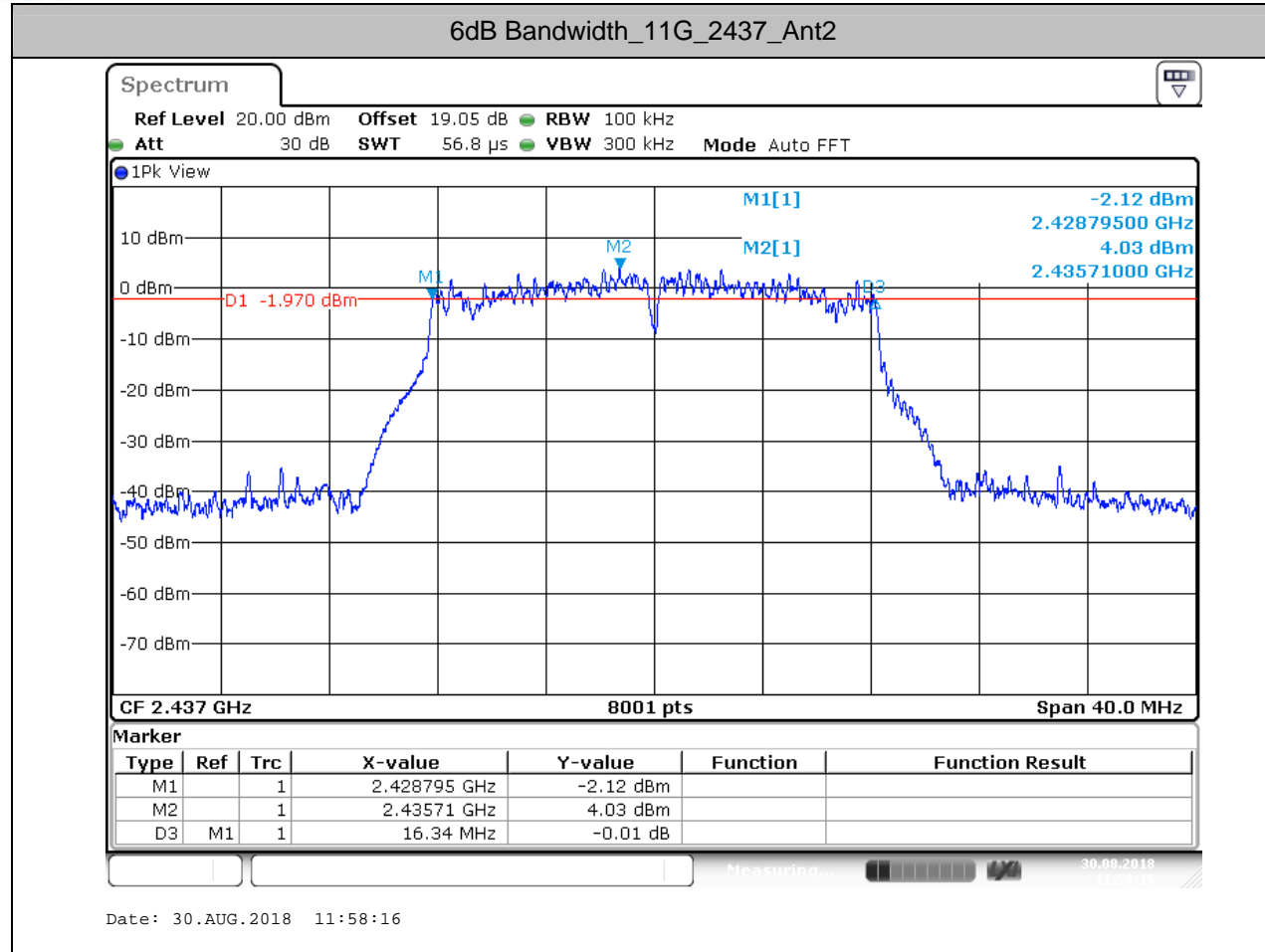


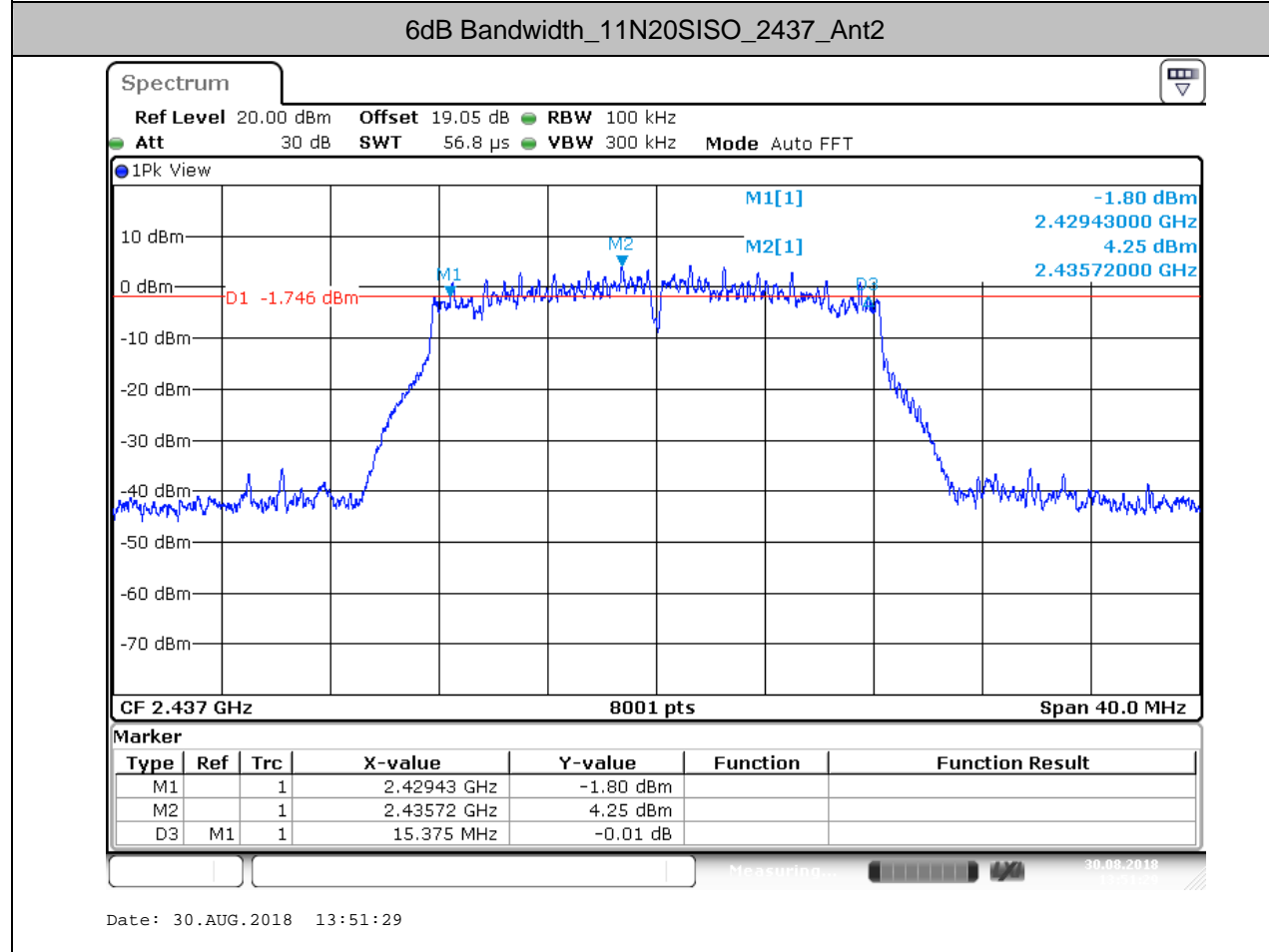
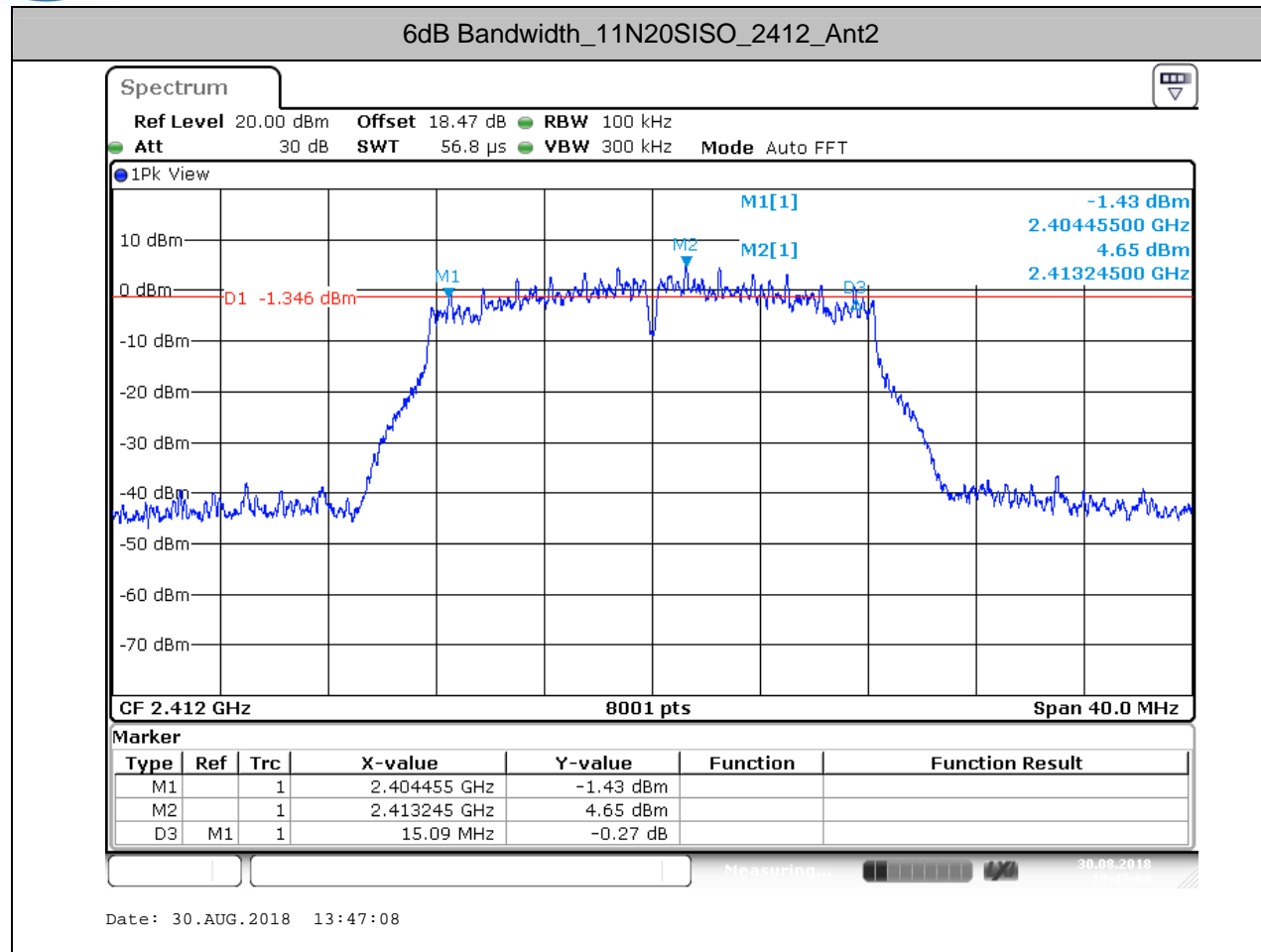


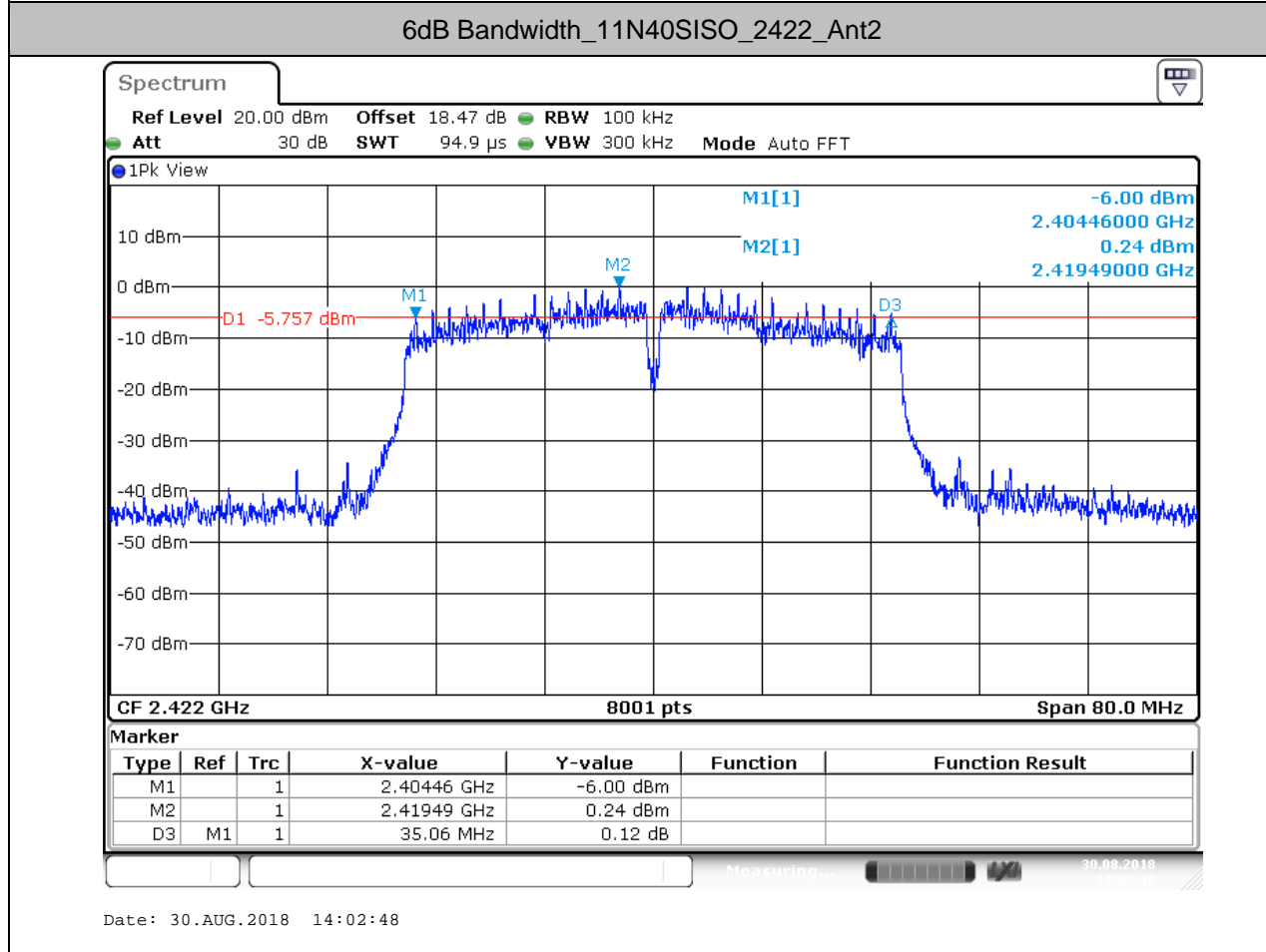
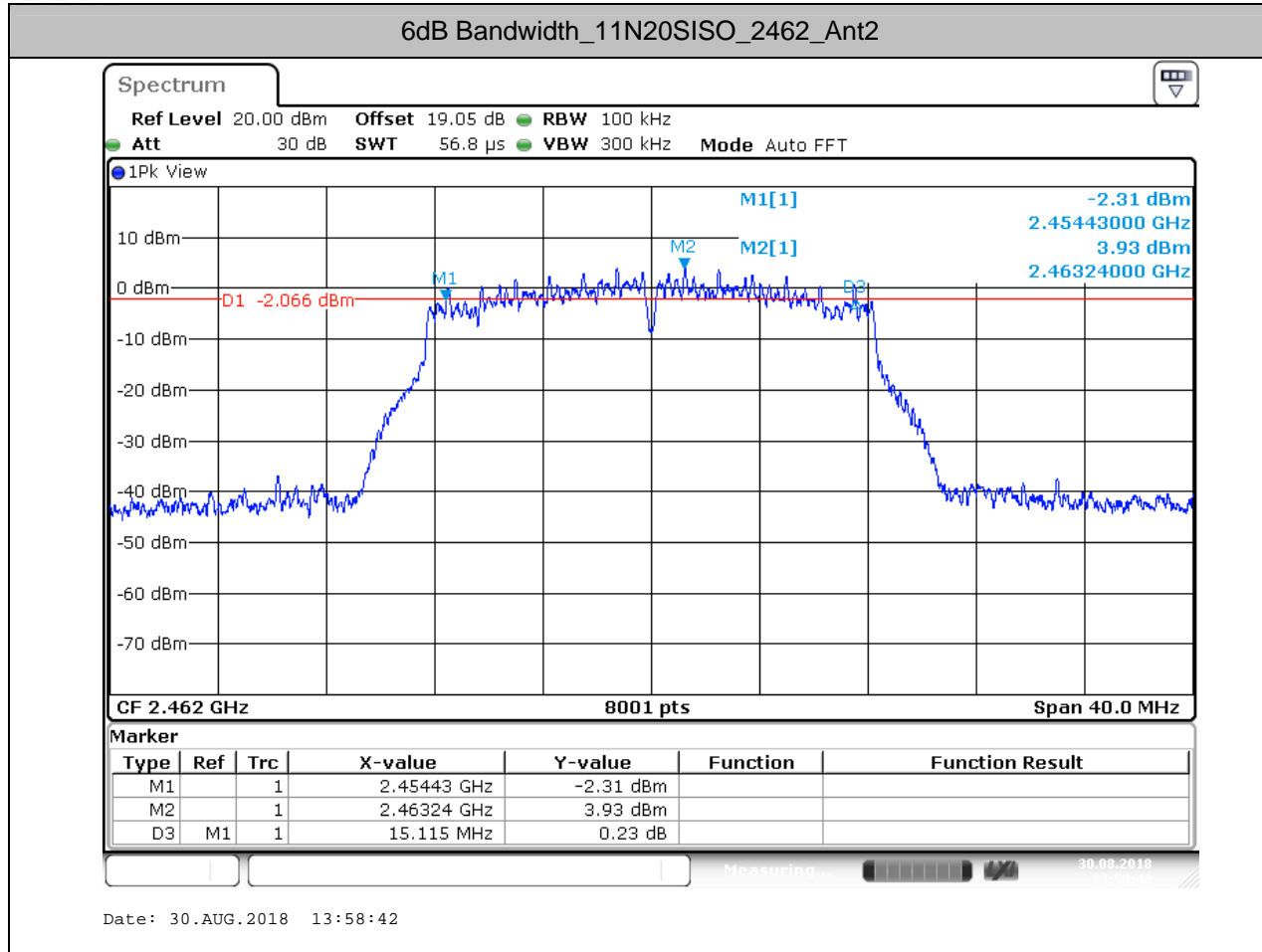


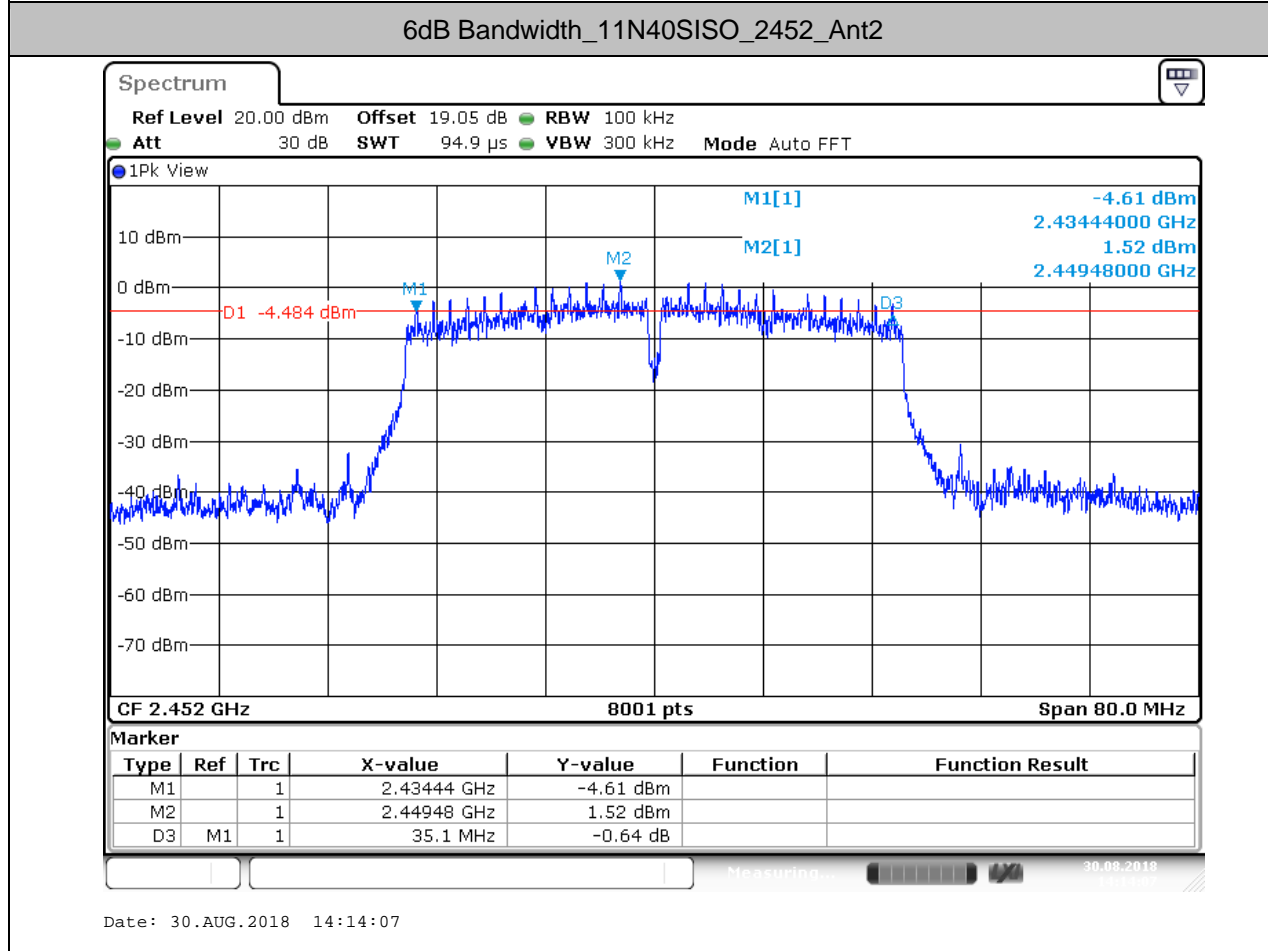
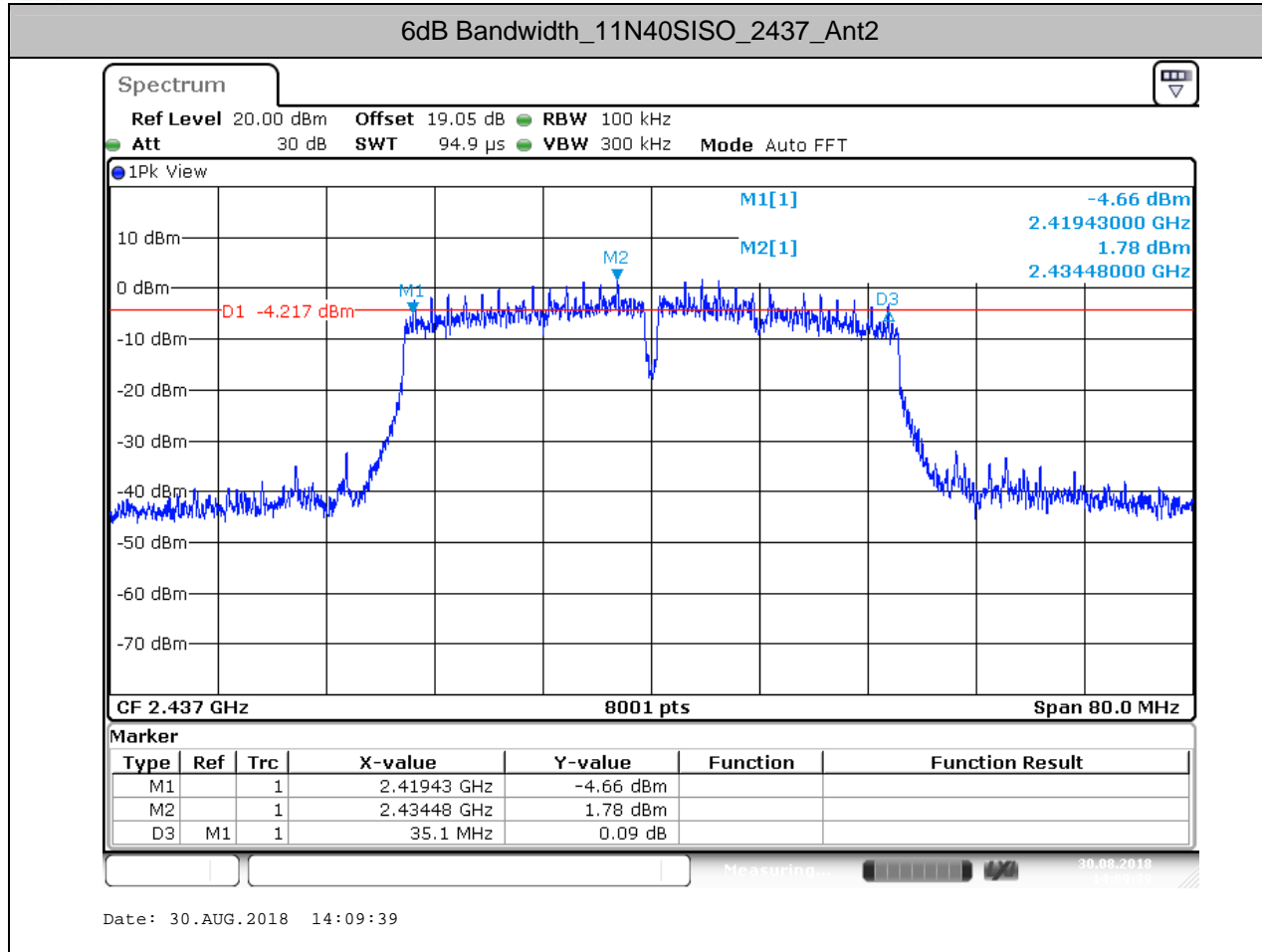


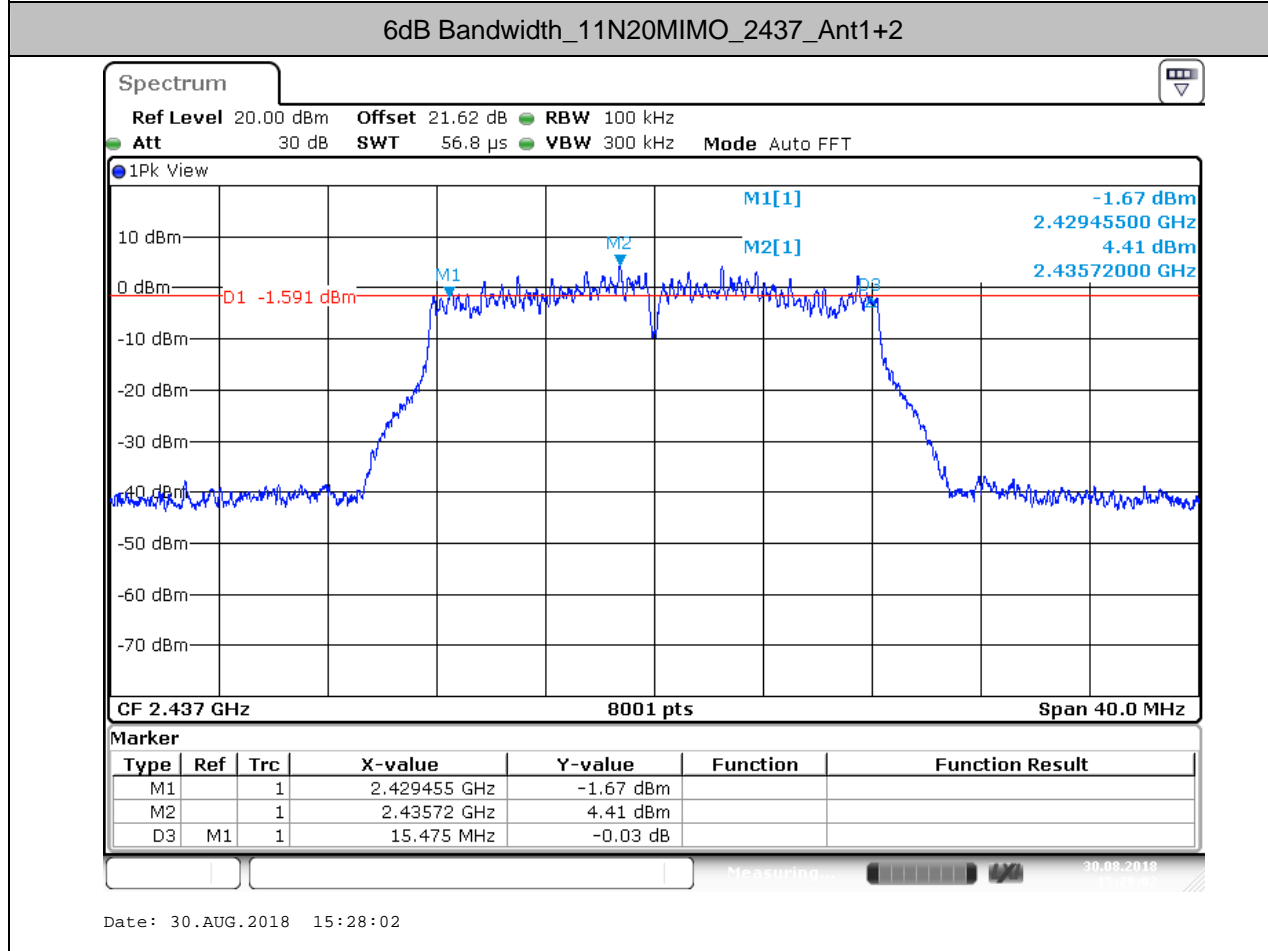
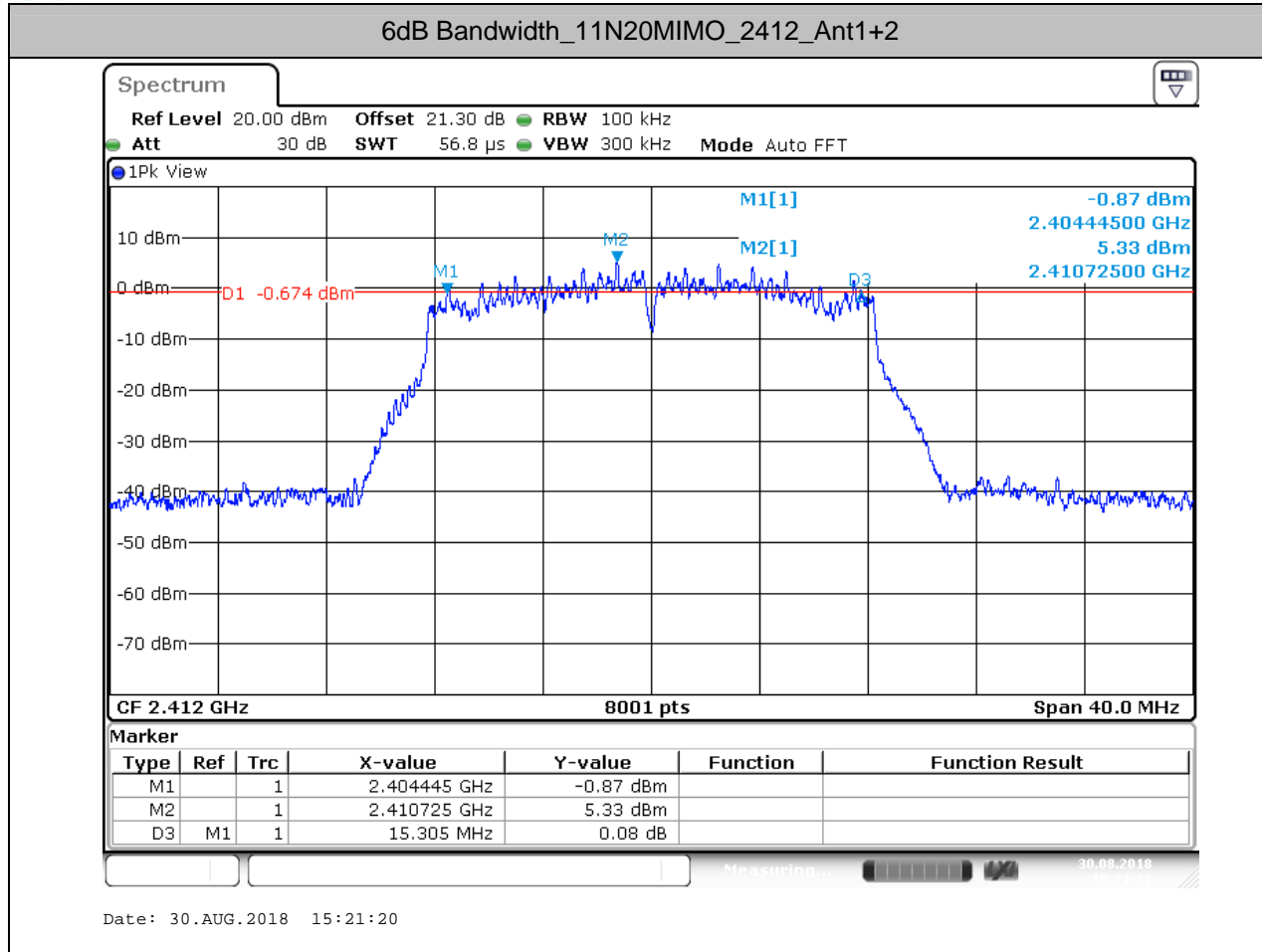


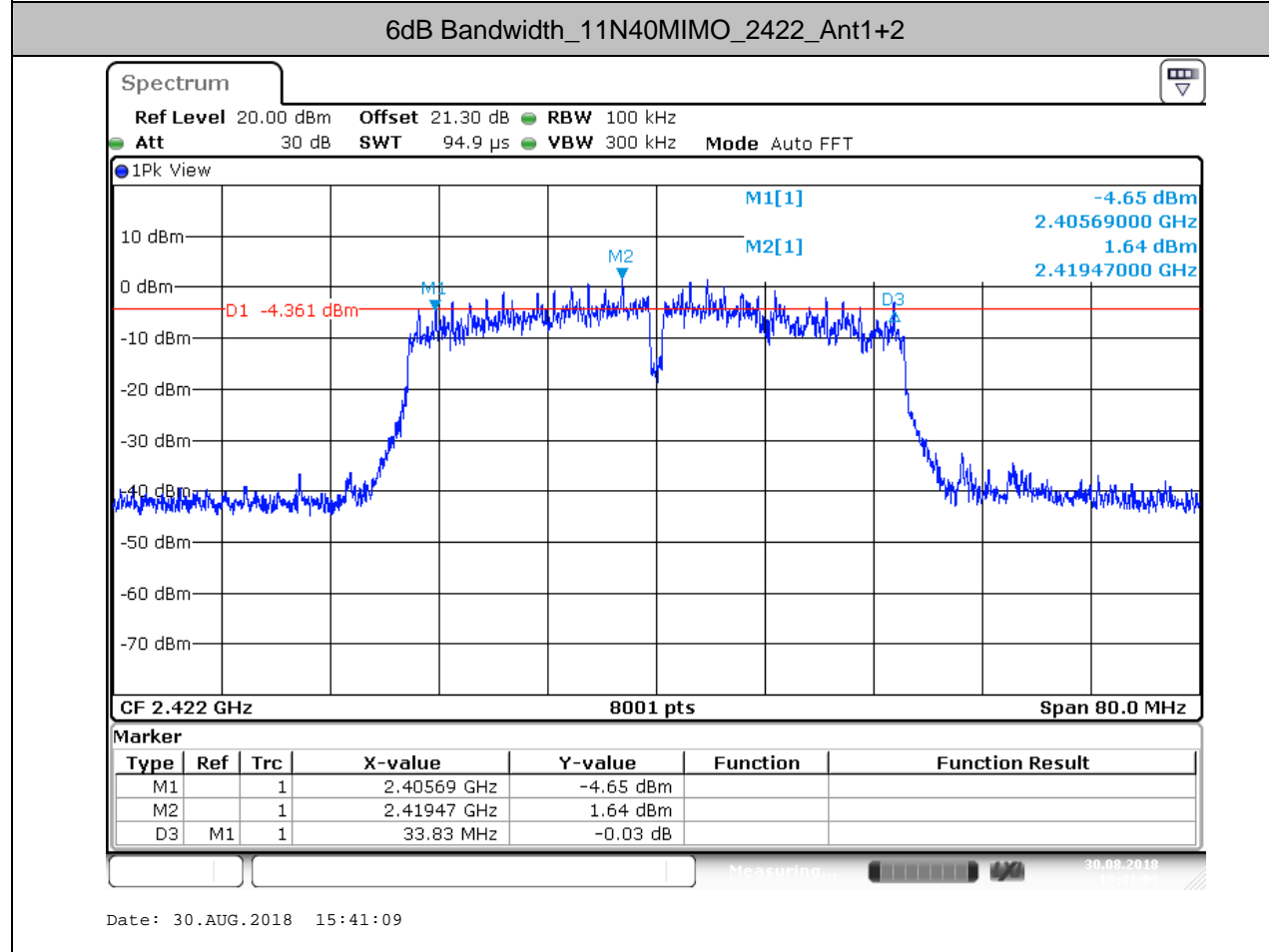
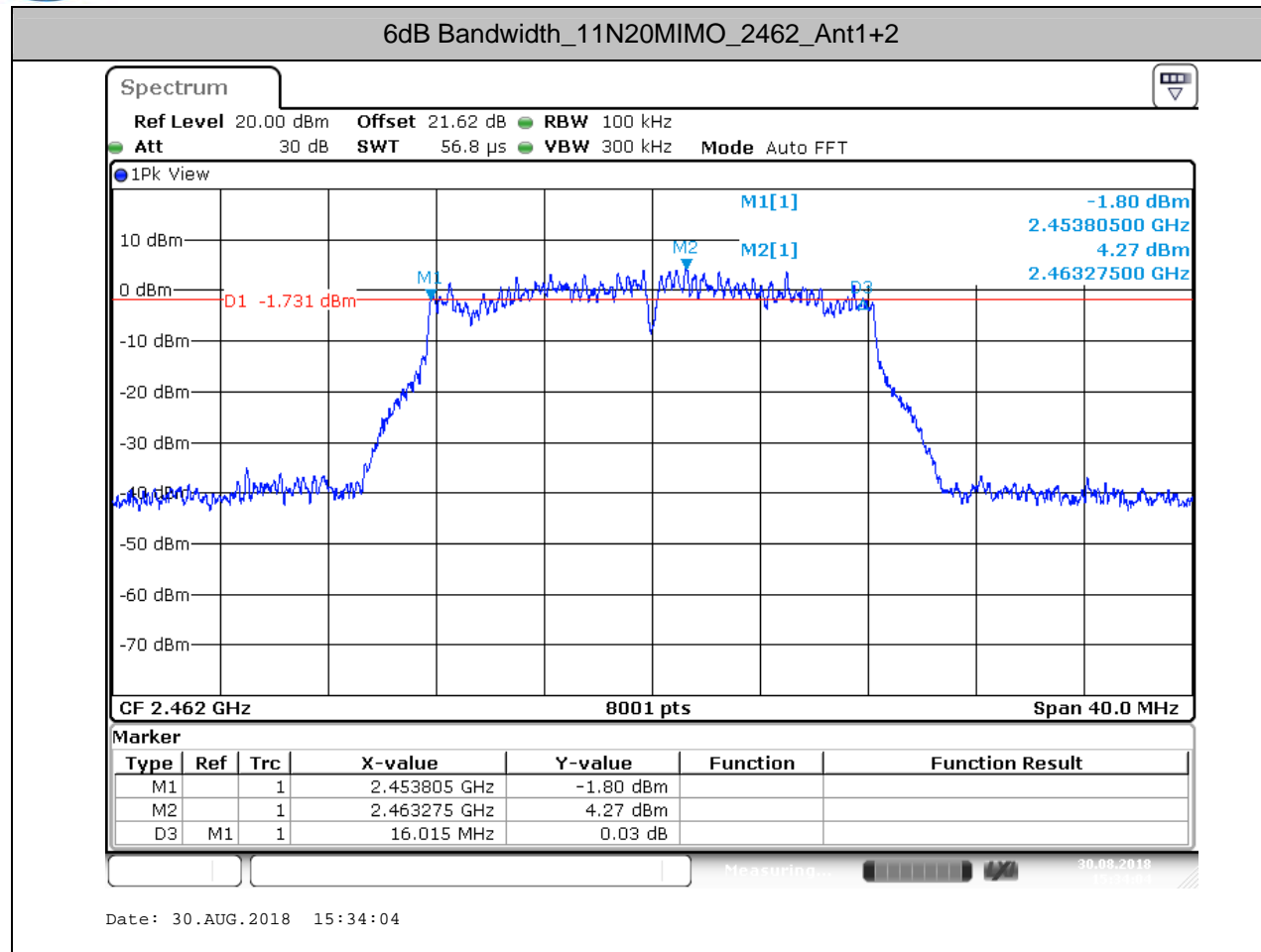




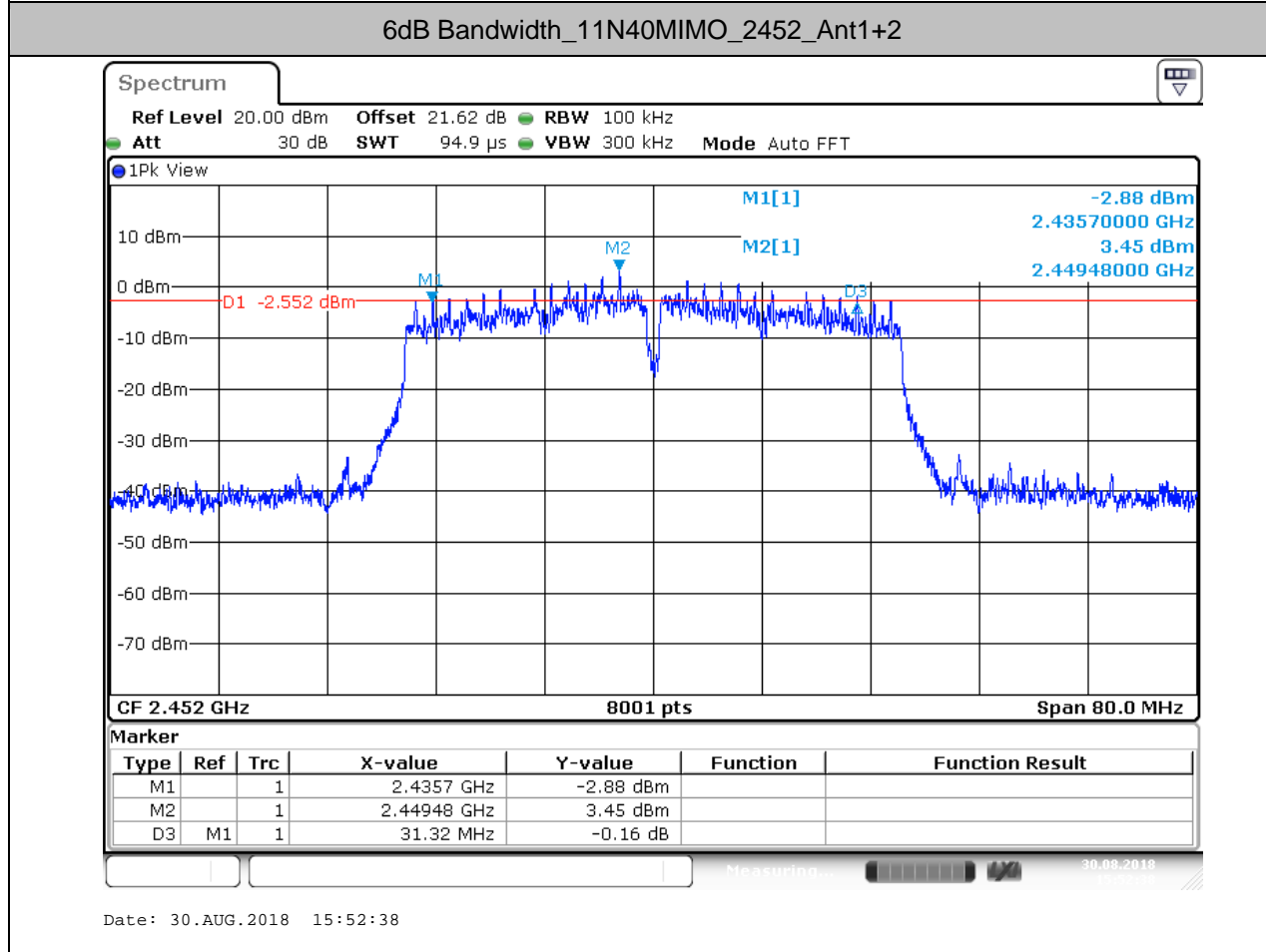
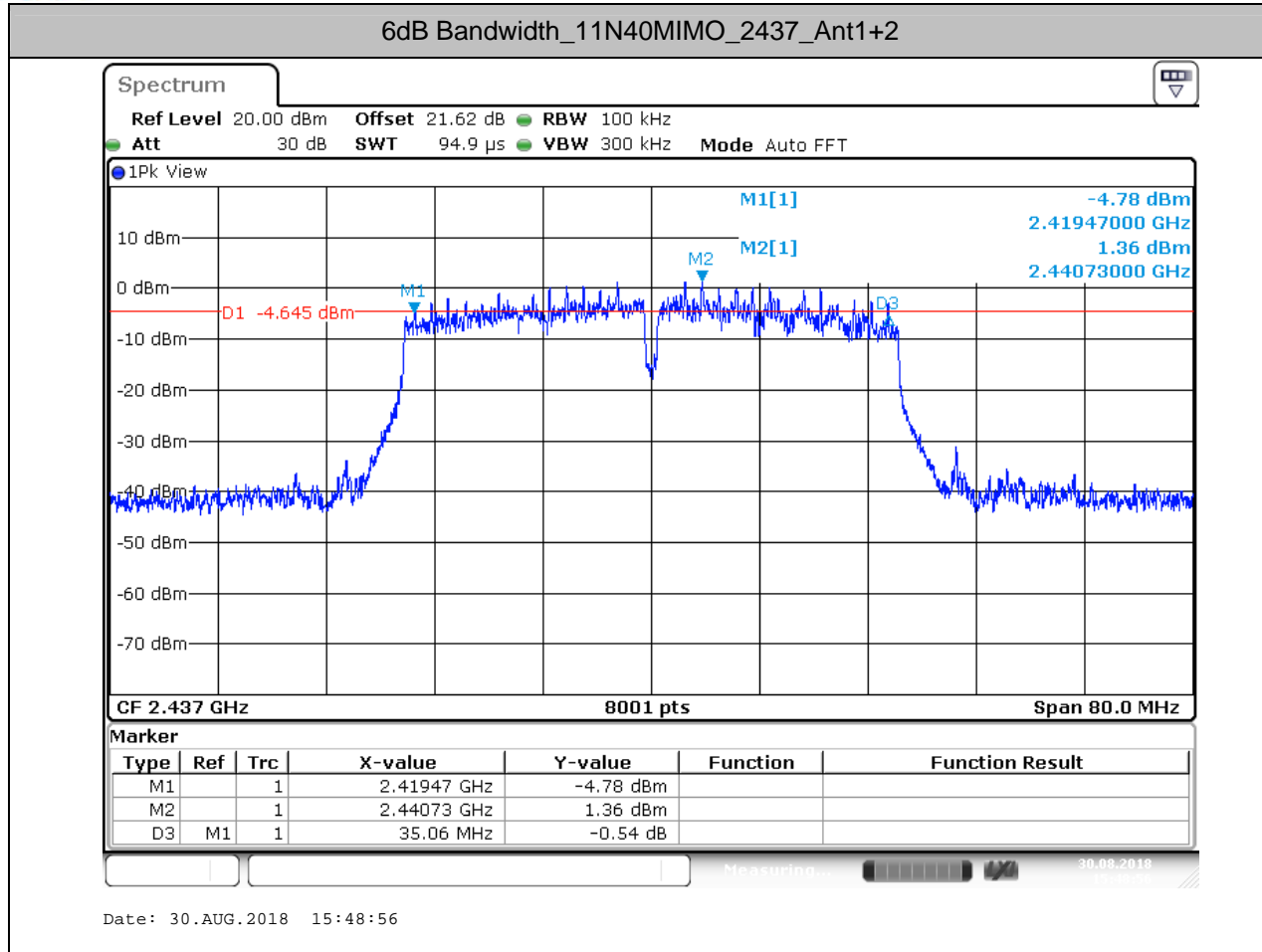








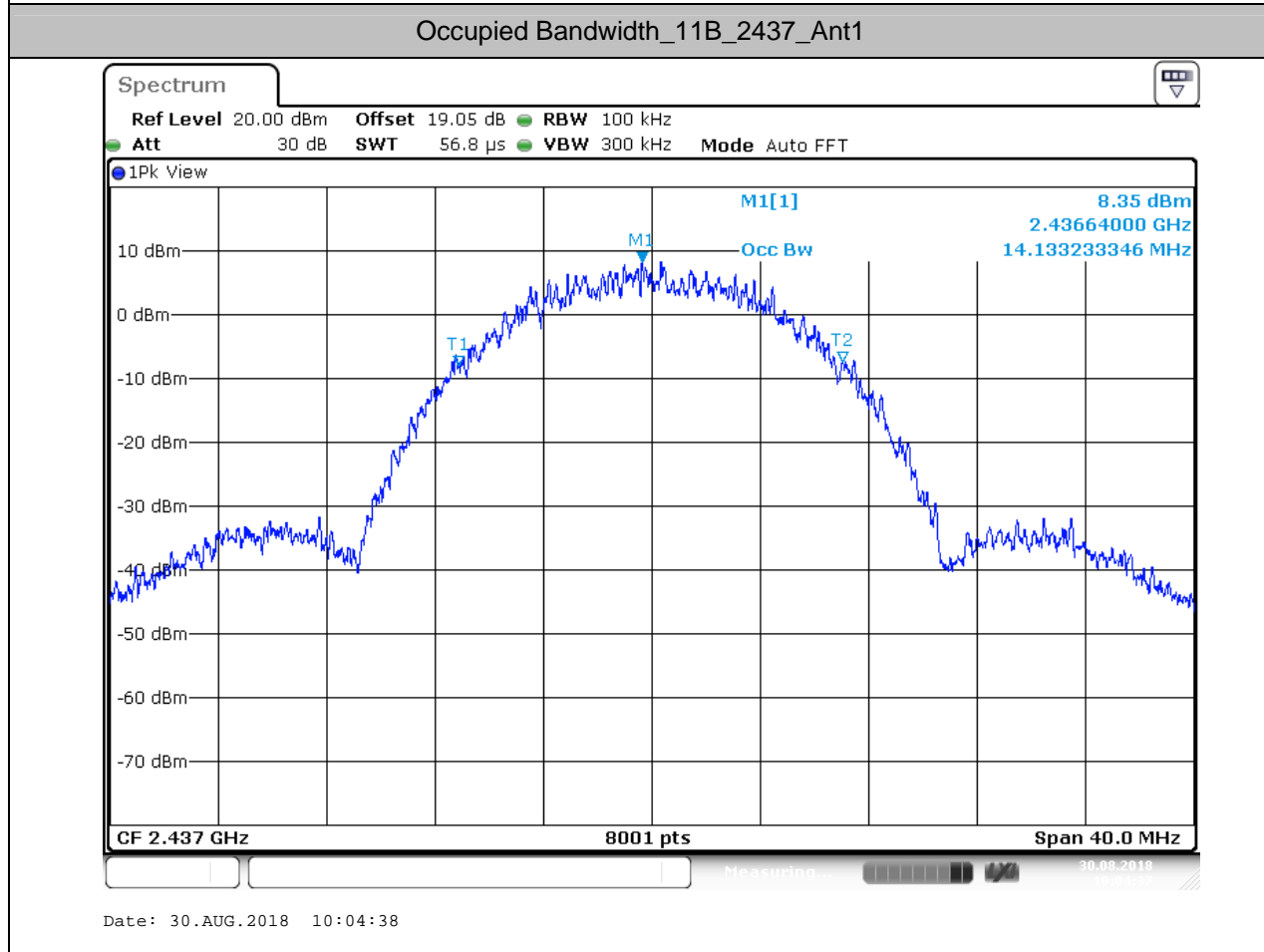
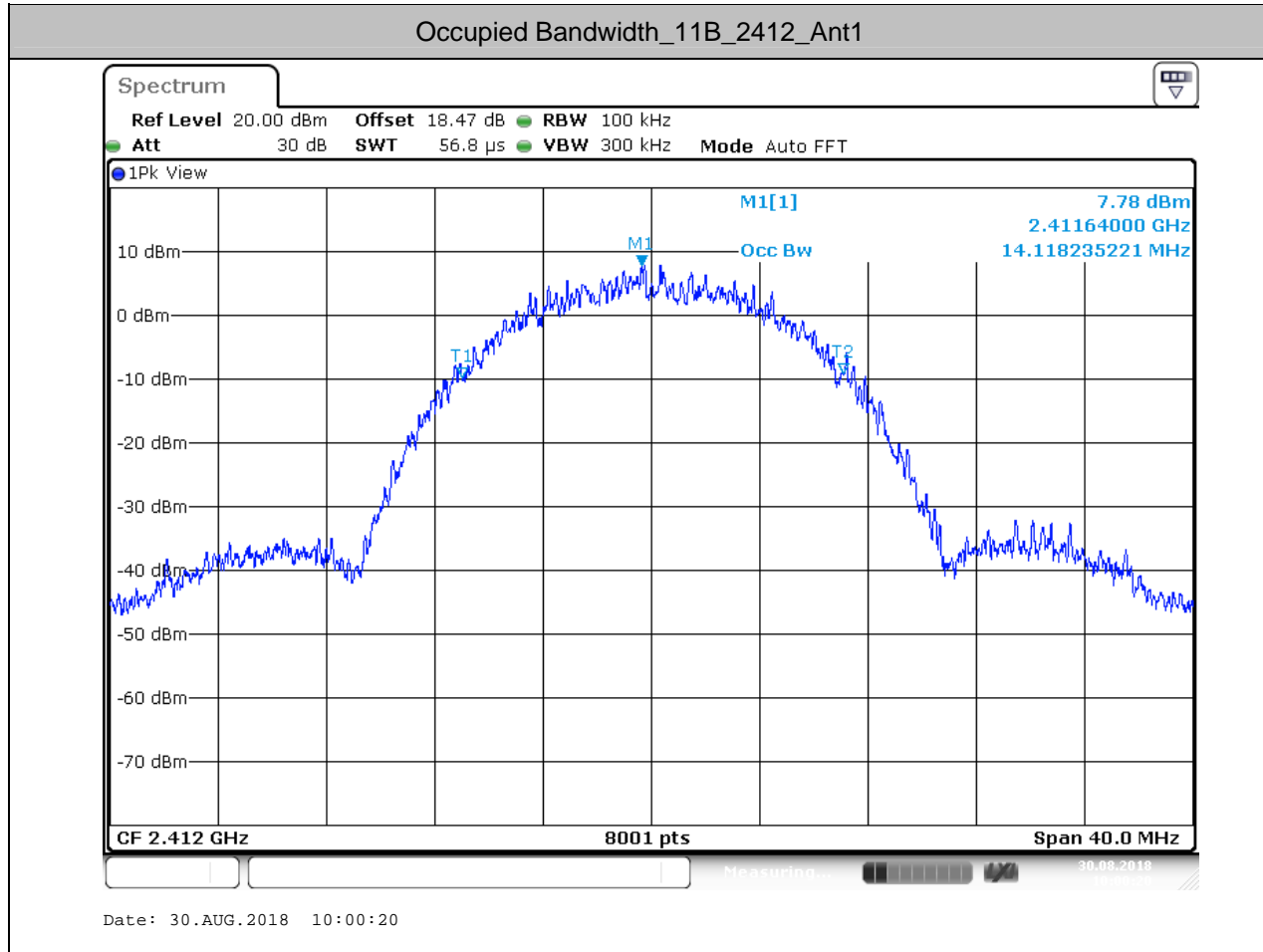


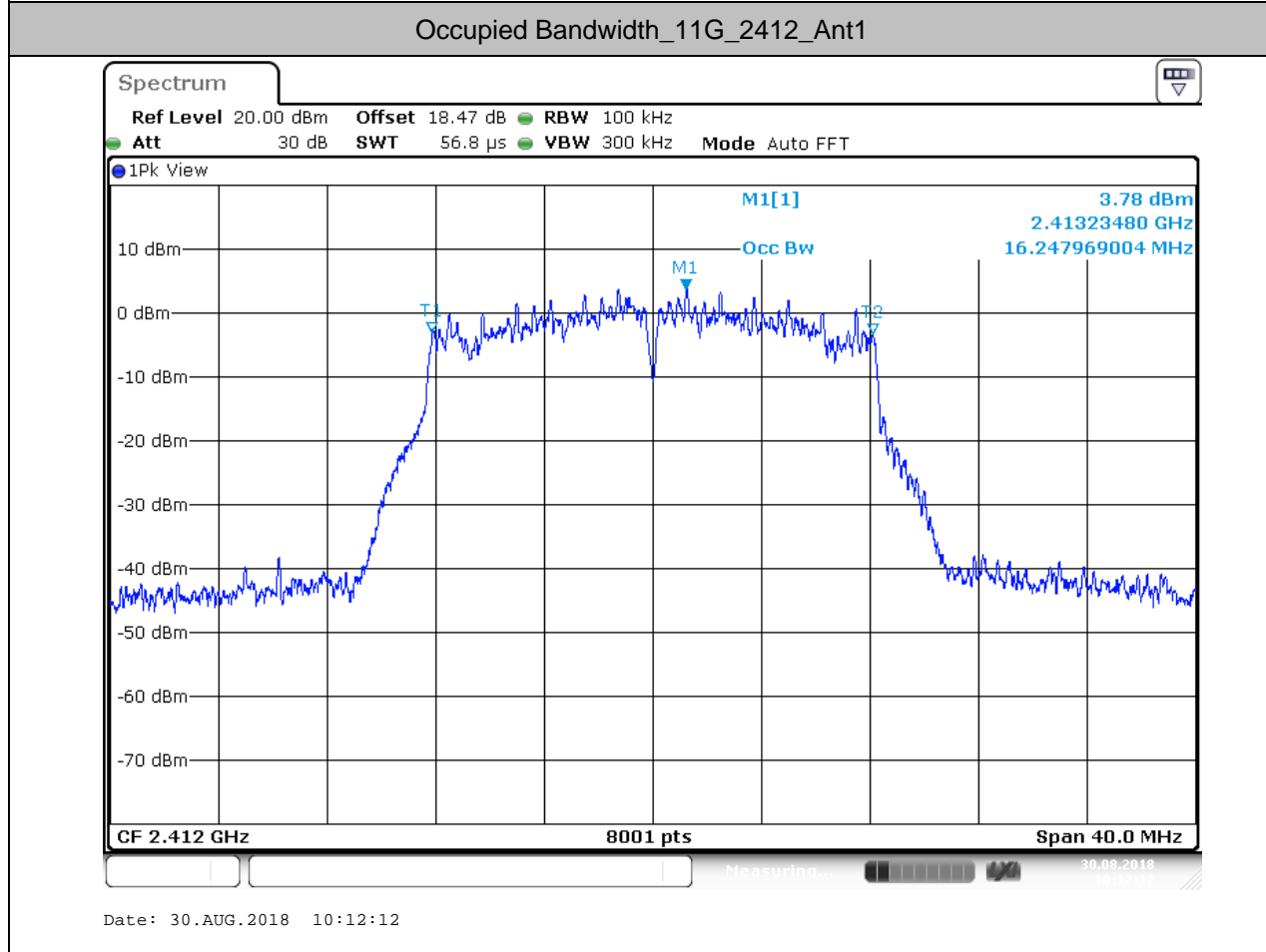
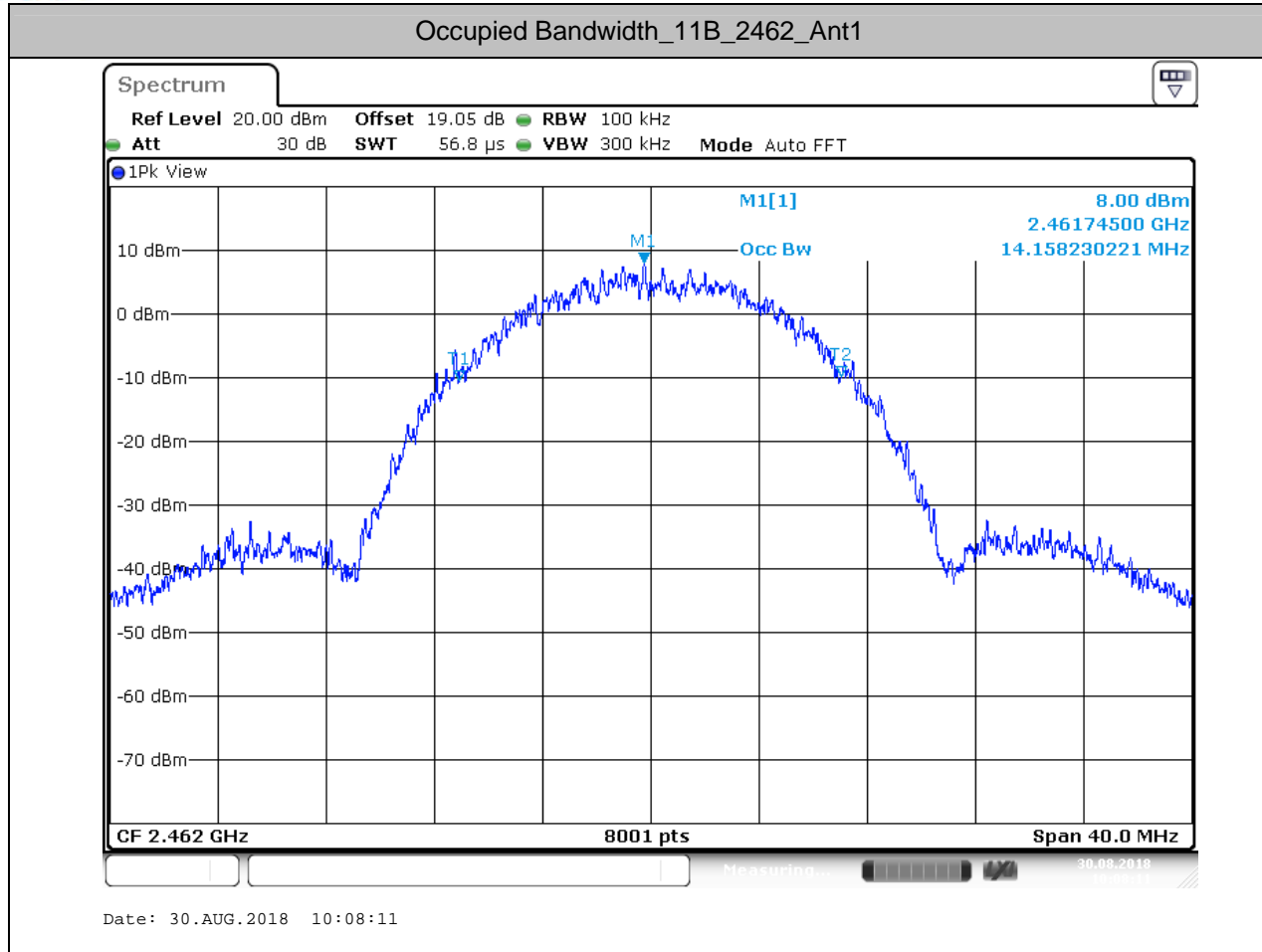


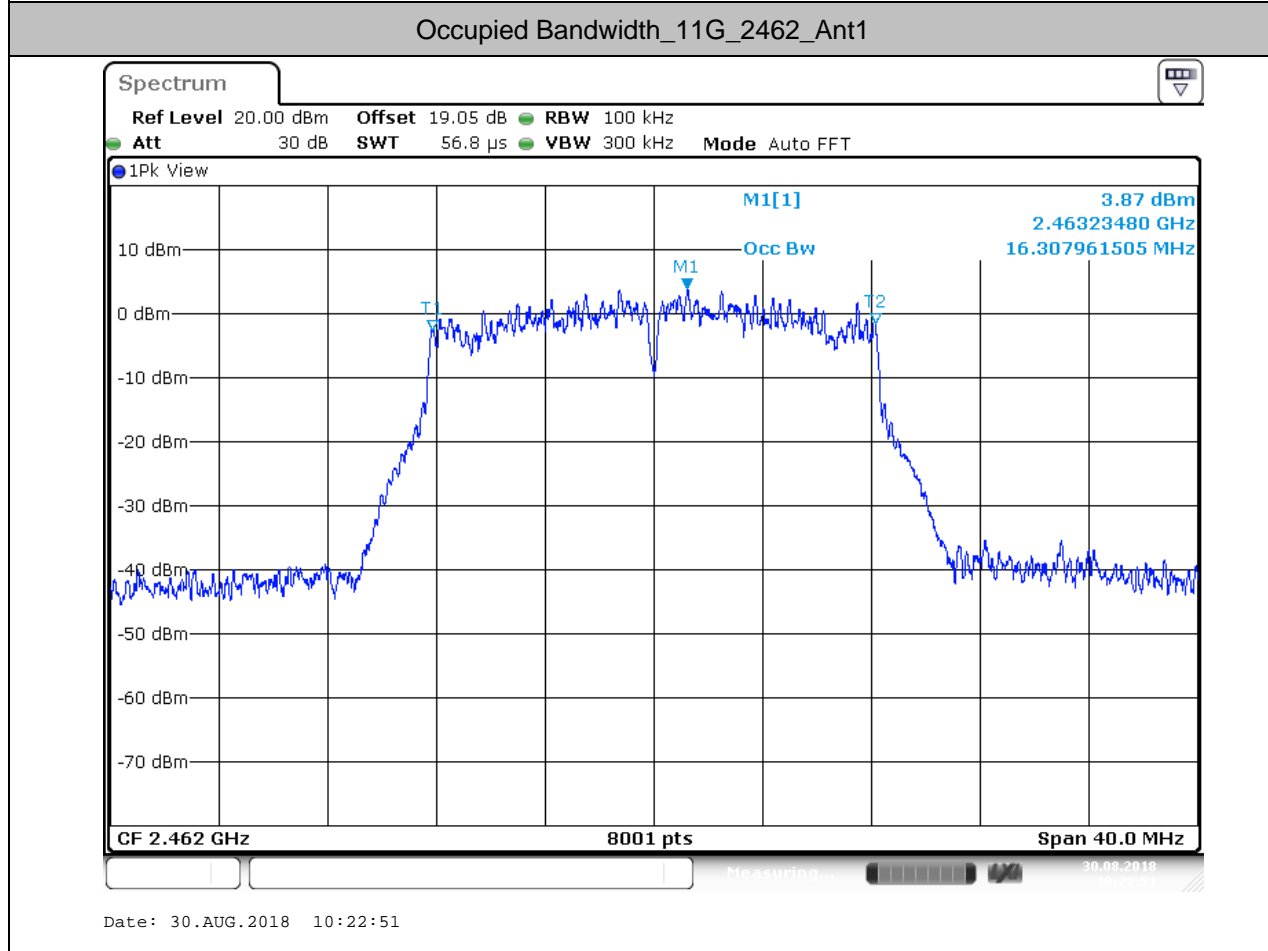
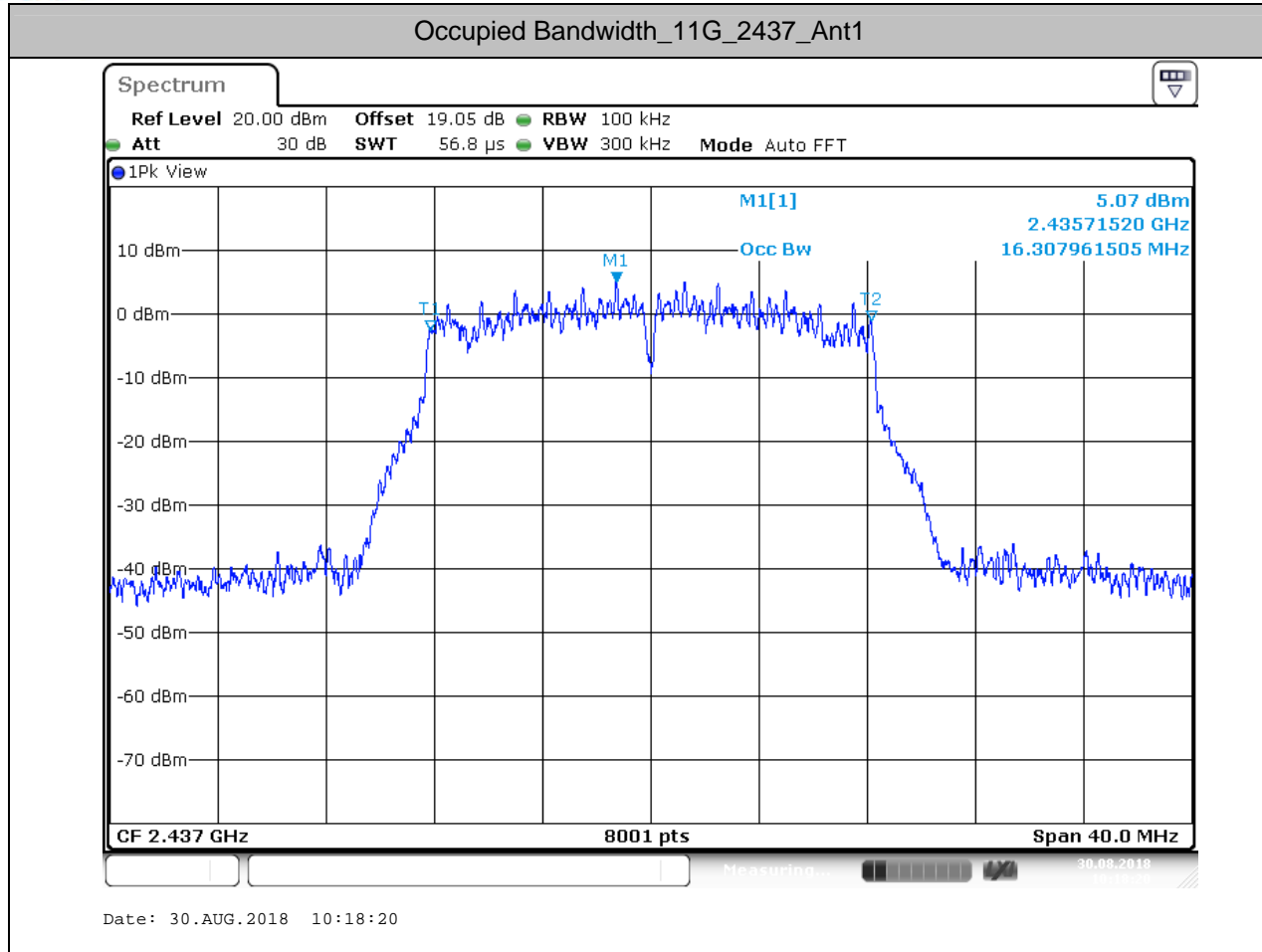


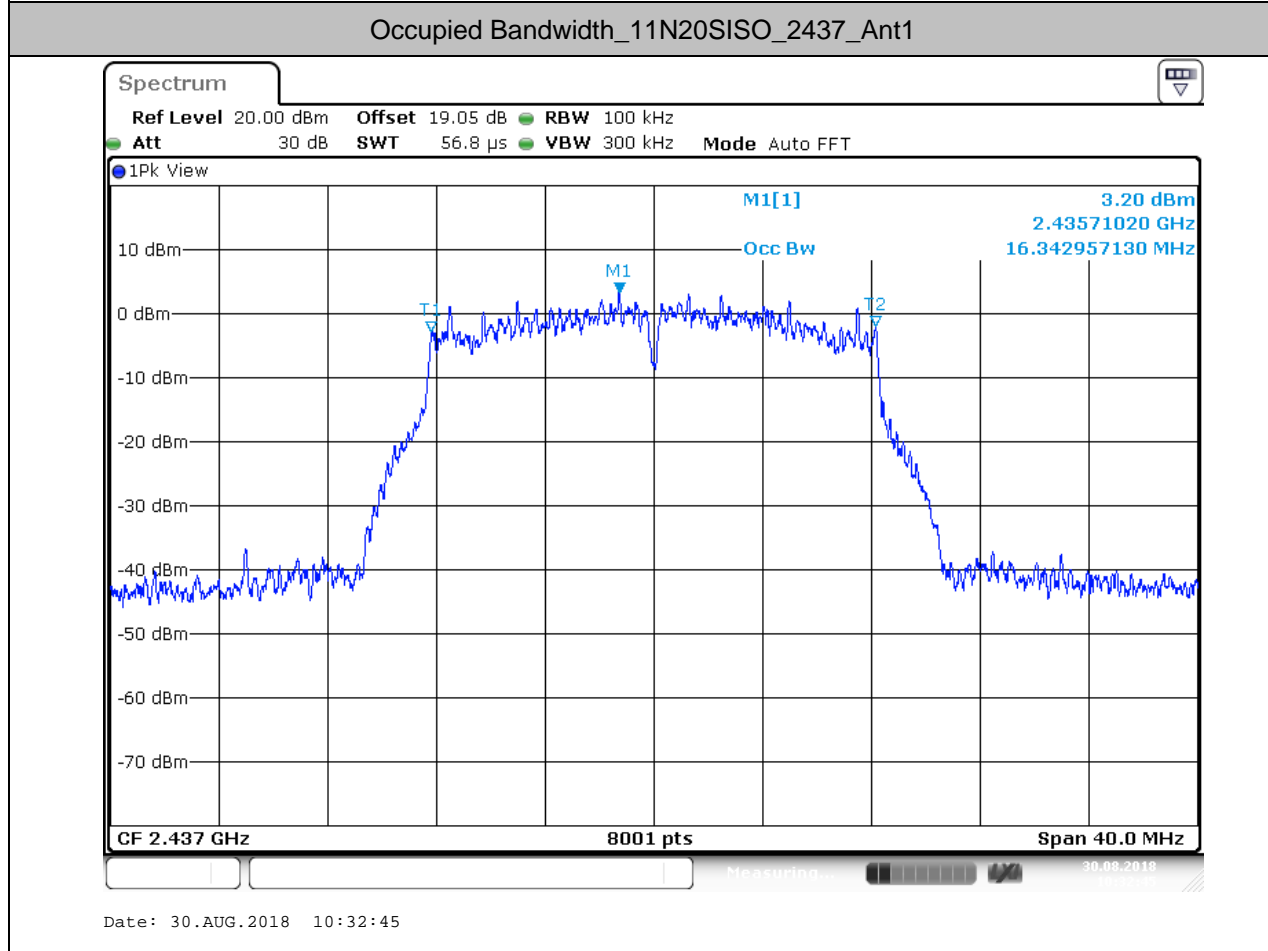
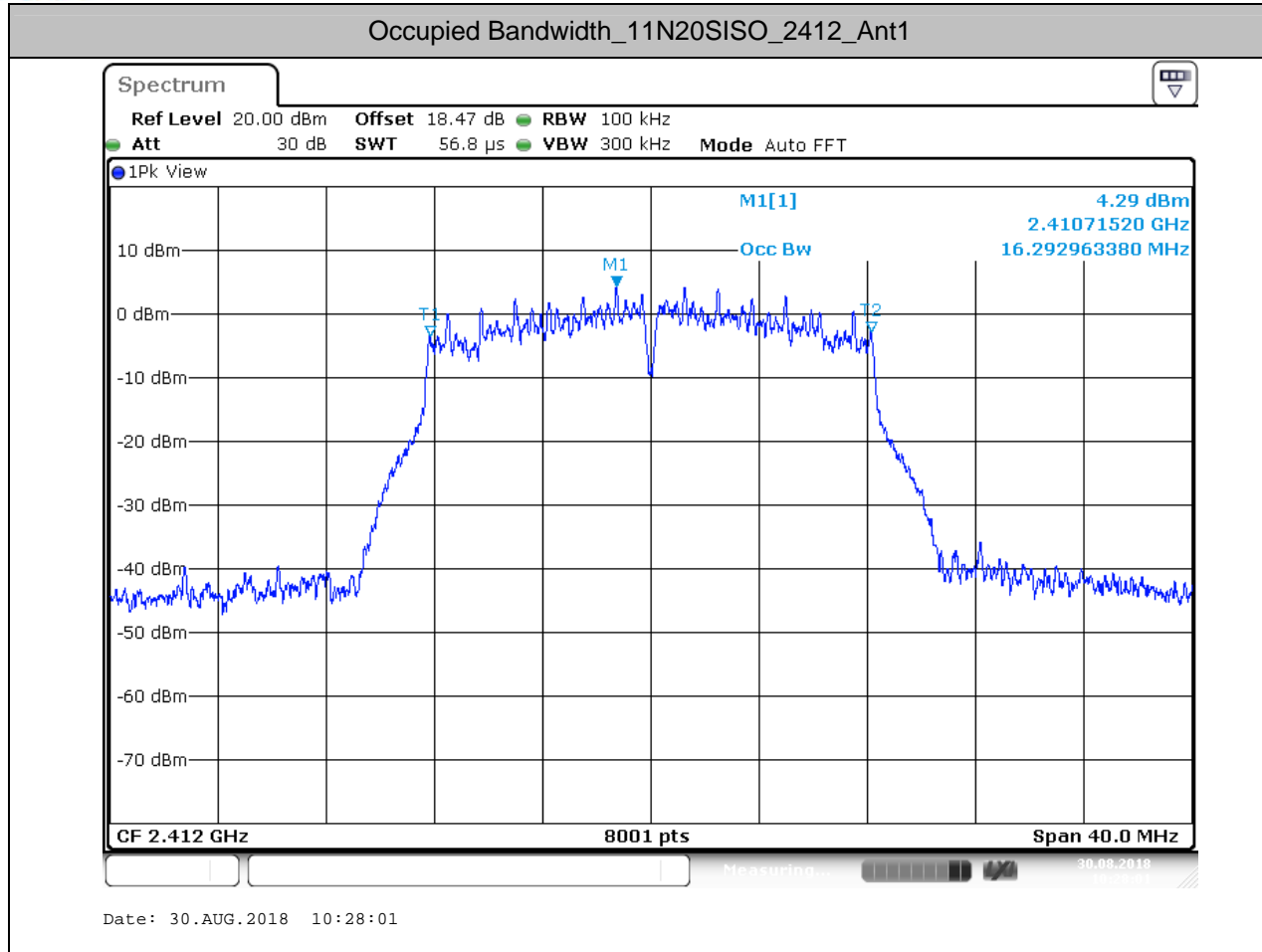
2.Occupied Bandwidth

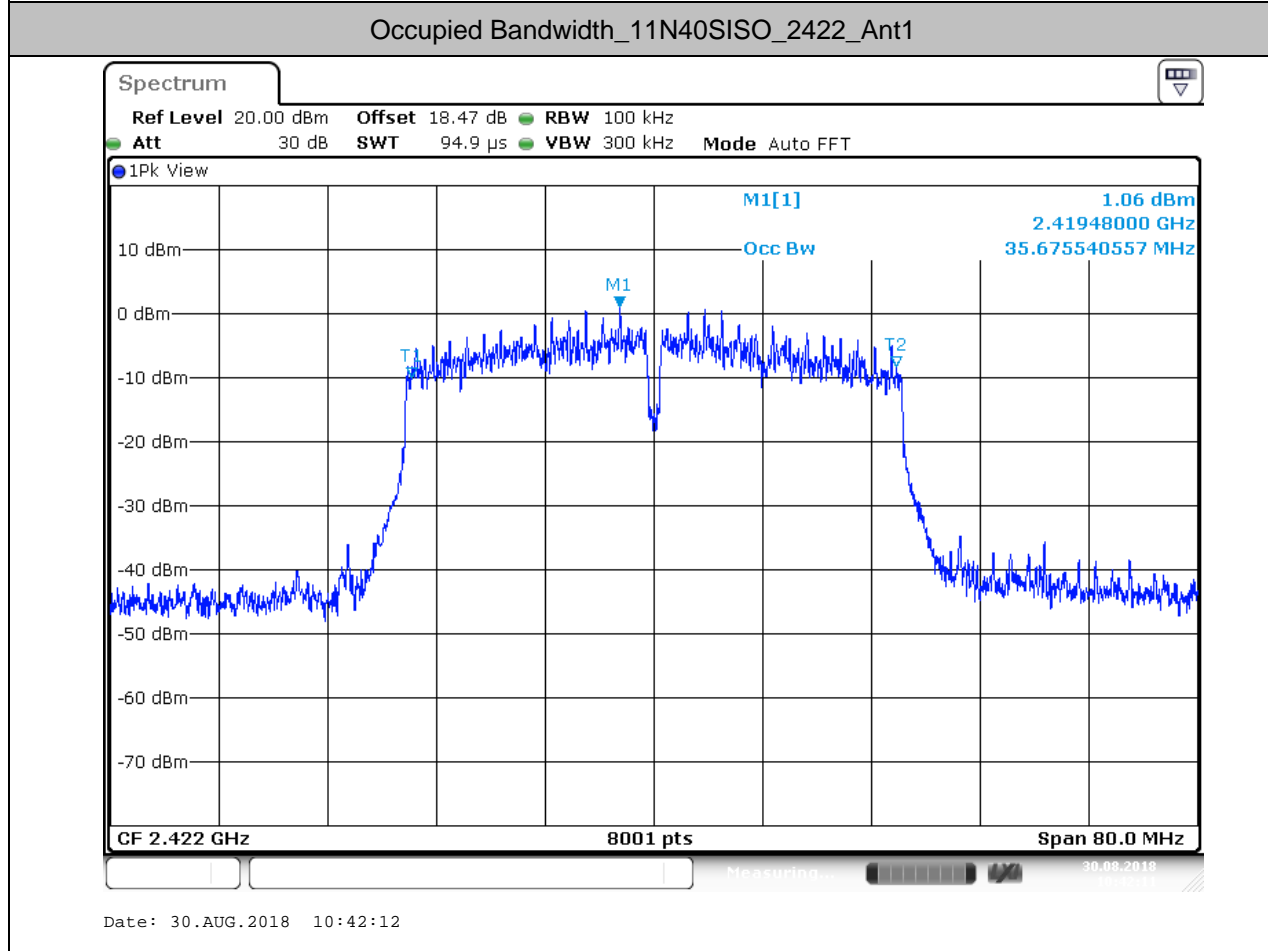
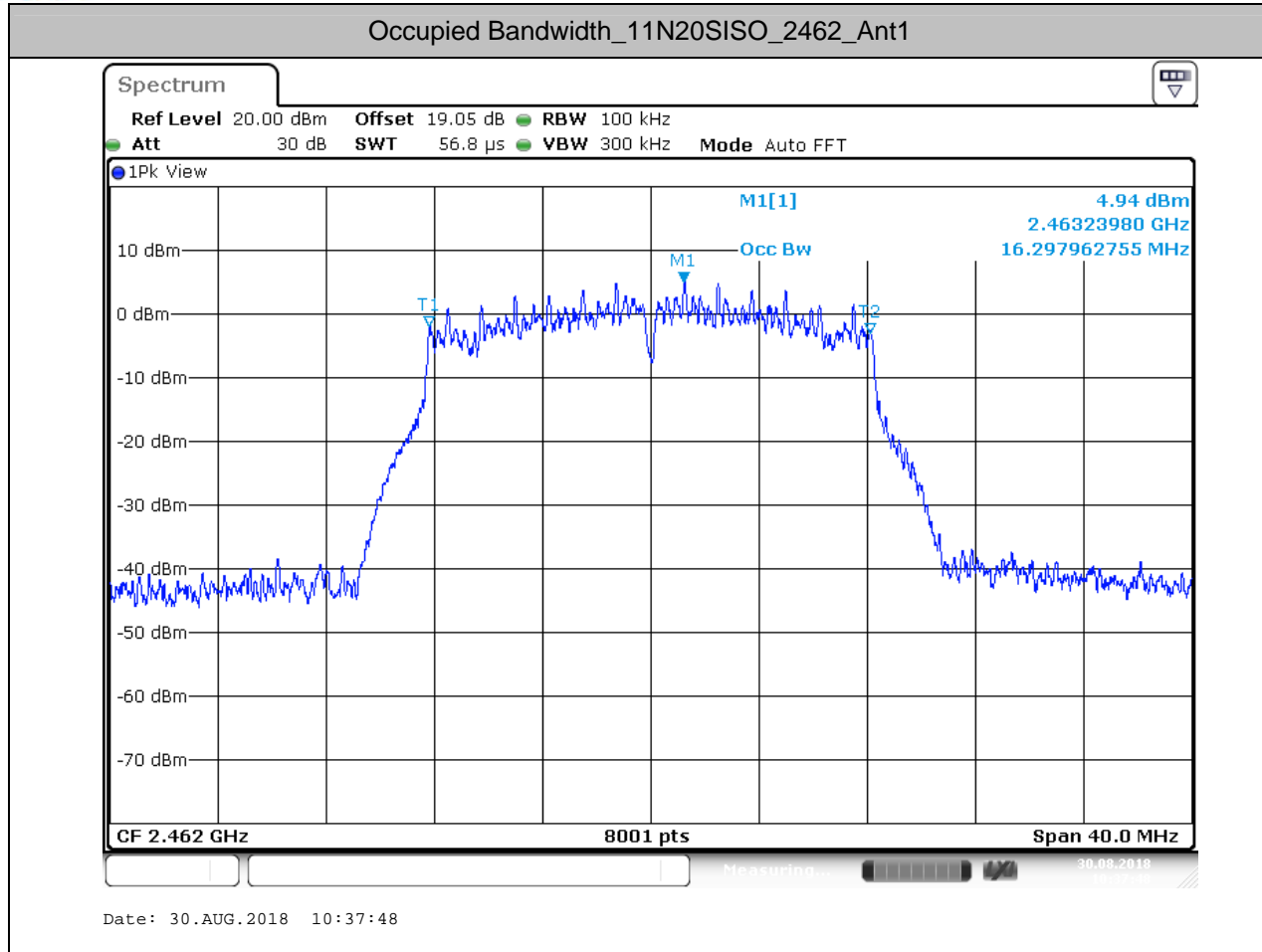
Test Mode	Test Channel	Ant	OBW[MHz]	Limit[MHz]	Verdict
11B	2412	Ant1	14.118	---	PASS
11B	2437	Ant1	14.133	---	PASS
11B	2462	Ant1	14.158	---	PASS
11G	2412	Ant1	16.248	---	PASS
11G	2437	Ant1	16.308	---	PASS
11G	2462	Ant1	16.308	---	PASS
11N20SISO	2412	Ant1	16.293	---	PASS
11N20SISO	2437	Ant1	16.343	---	PASS
11N20SISO	2462	Ant1	16.298	---	PASS
11N40SISO	2422	Ant1	35.676	---	PASS
11N40SISO	2437	Ant1	35.756	---	PASS
11N40SISO	2452	Ant1	35.746	---	PASS
11B	2412	Ant2	13.963	---	PASS
11B	2437	Ant2	14.053	---	PASS
11B	2462	Ant2	14.148	---	PASS
11G	2412	Ant2	16.253	---	PASS
11G	2437	Ant2	16.298	---	PASS
11G	2462	Ant2	16.298	---	PASS
11N20SISO	2412	Ant2	16.308	---	PASS
11N20SISO	2437	Ant2	16.288	---	PASS
11N20SISO	2462	Ant2	16.303	---	PASS
11N40SISO	2422	Ant2	35.626	---	PASS
11N40SISO	2437	Ant2	35.736	---	PASS
11N40SISO	2452	Ant2	35.846	---	PASS
11N20MIMO	2412	Ant1+2	16.268	---	PASS
11N20MIMO	2437	Ant1+2	16.353	---	PASS
11N20MIMO	2462	Ant1+2	16.323	---	PASS
11N40MIMO	2422	Ant1+2	35.696	---	PASS
11N40MIMO	2437	Ant1+2	35.826	---	PASS
11N40MIMO	2452	Ant1+2	35.816	---	PASS

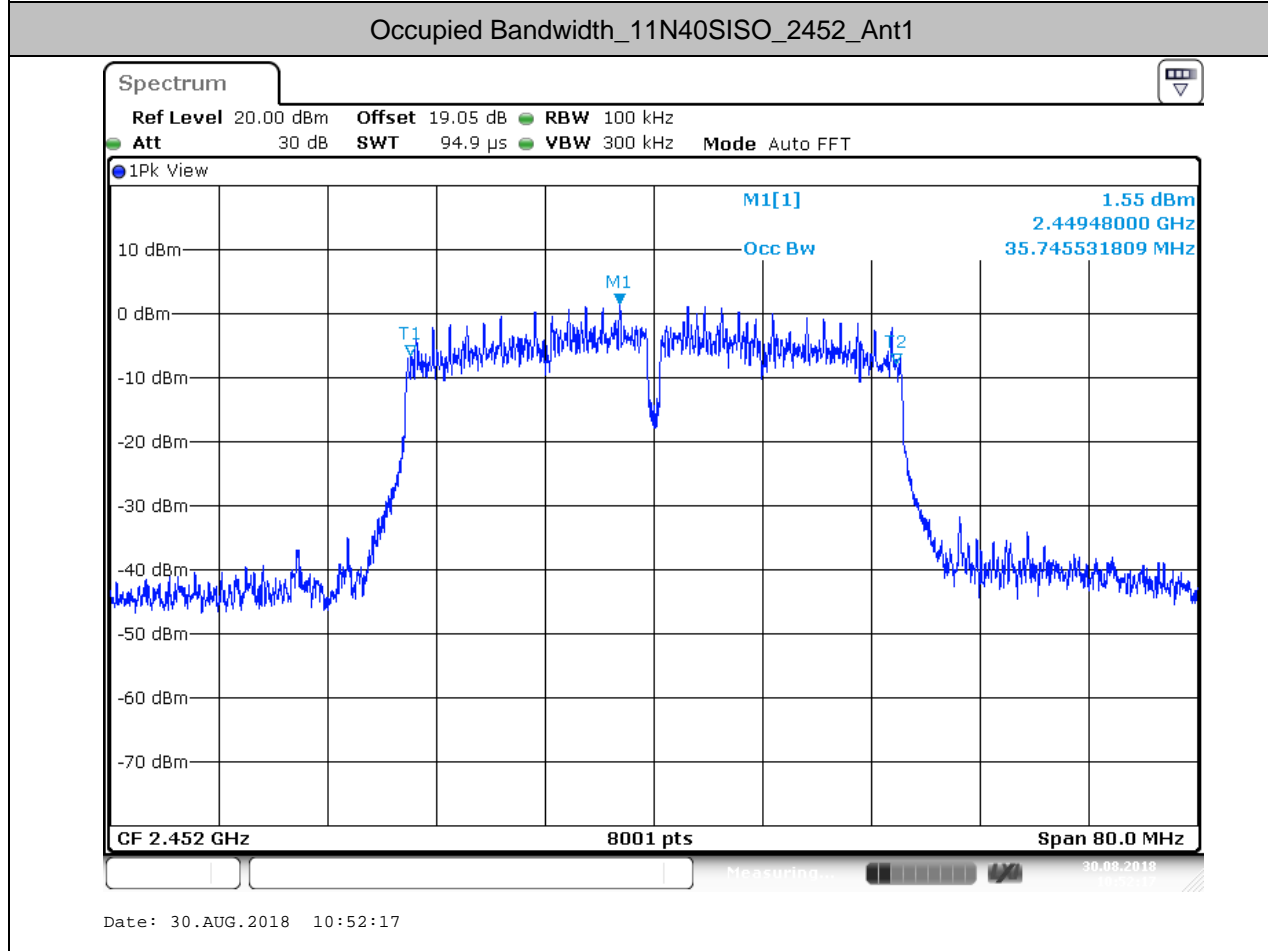
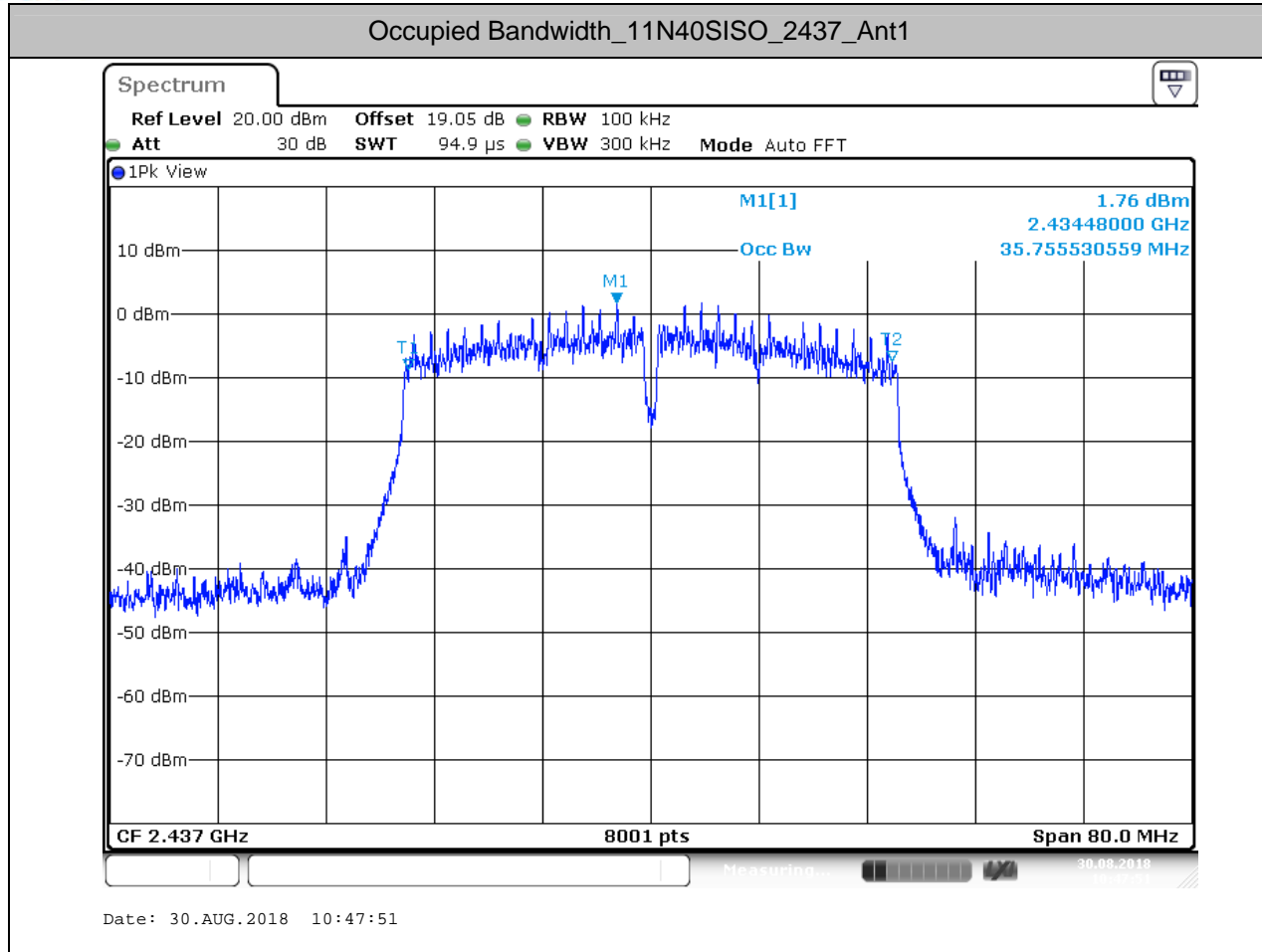




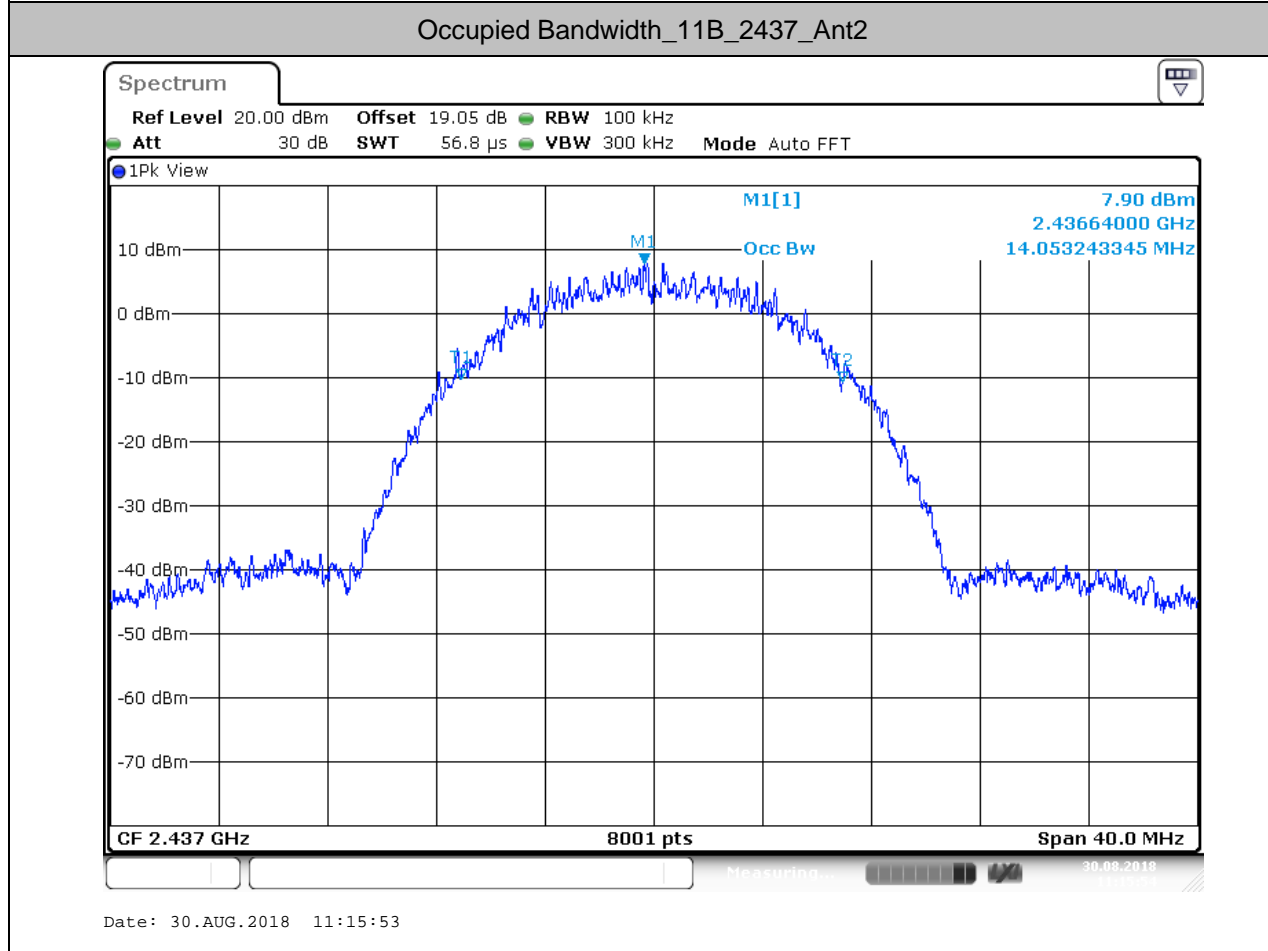
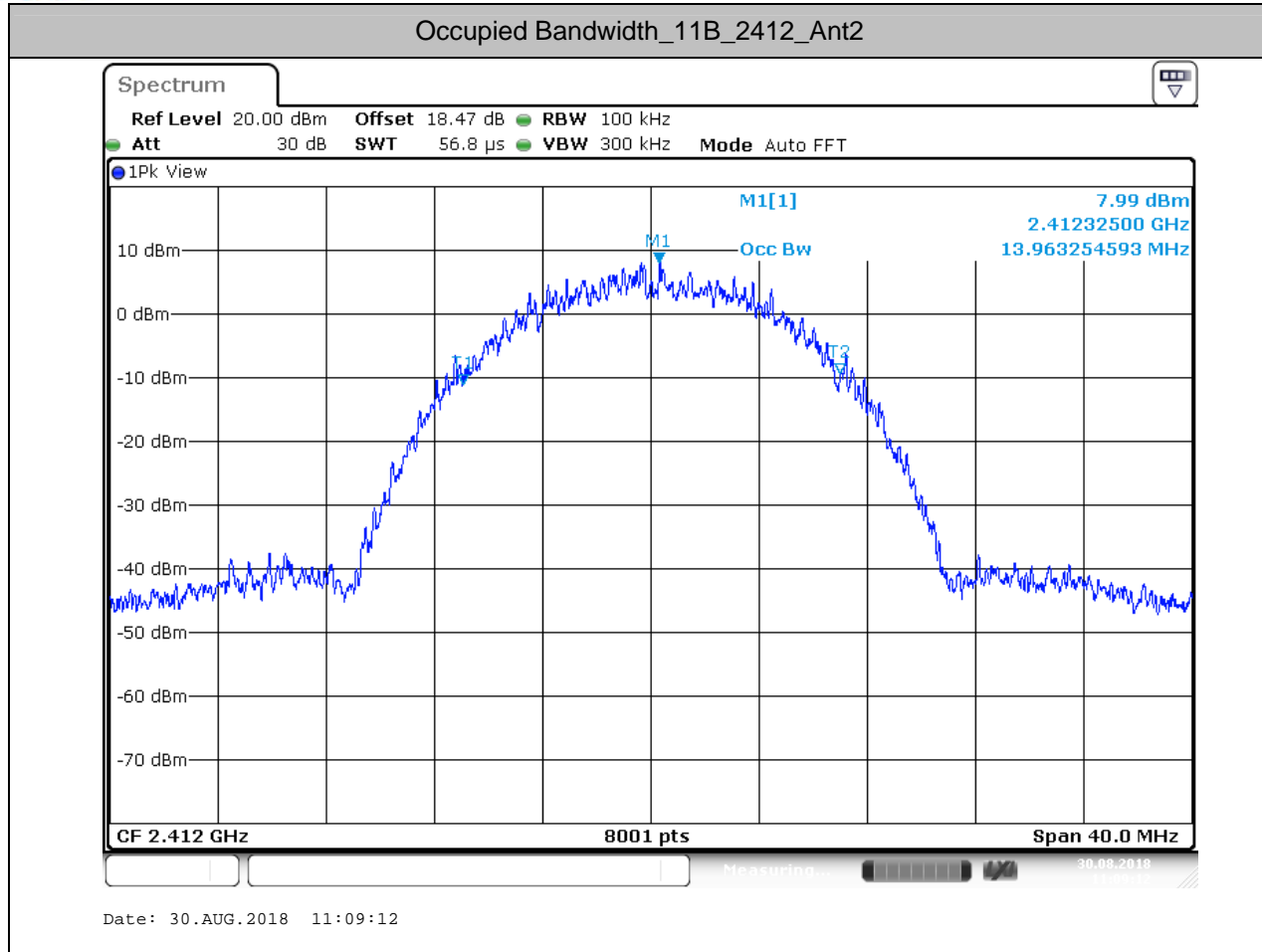


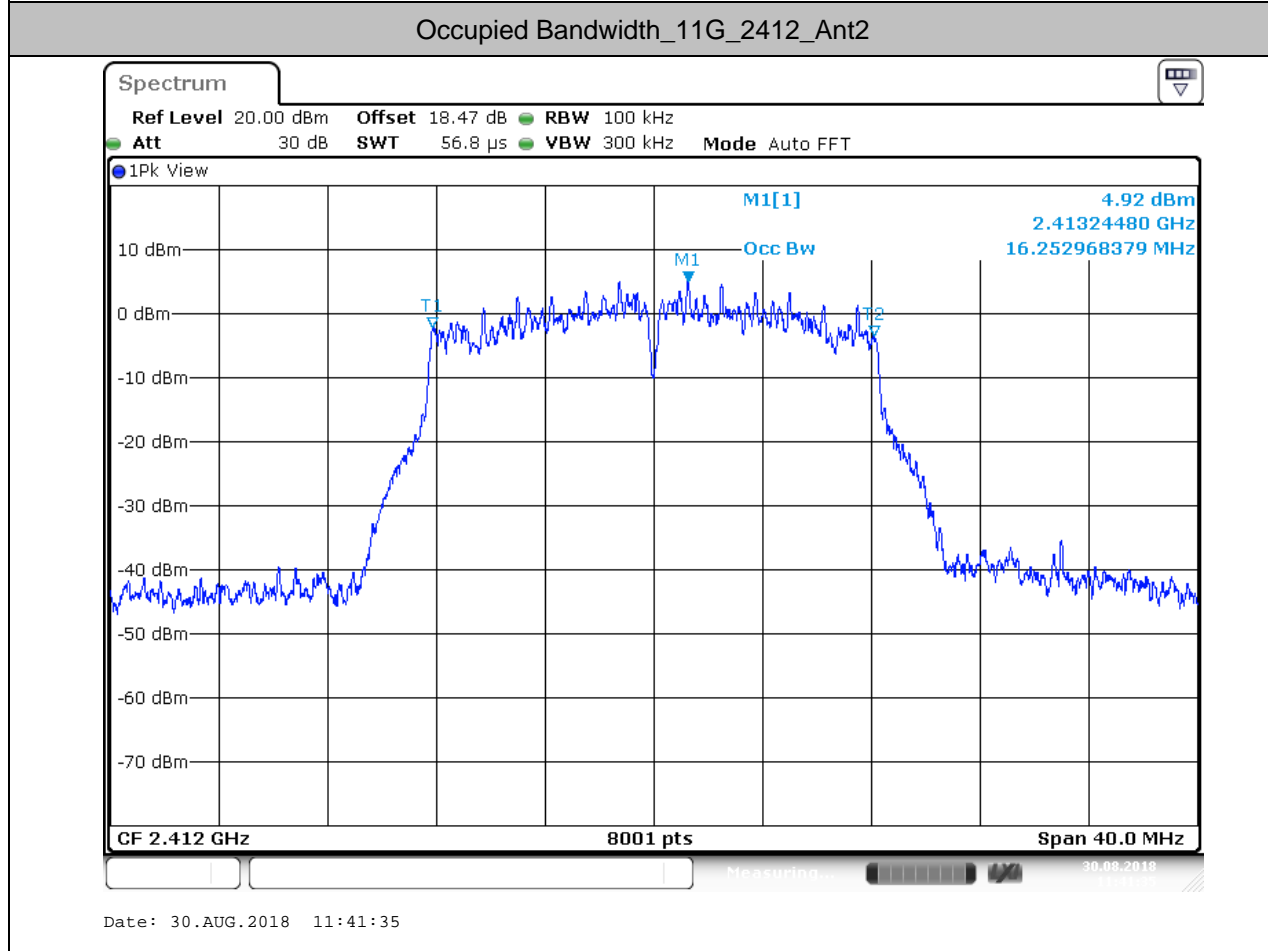
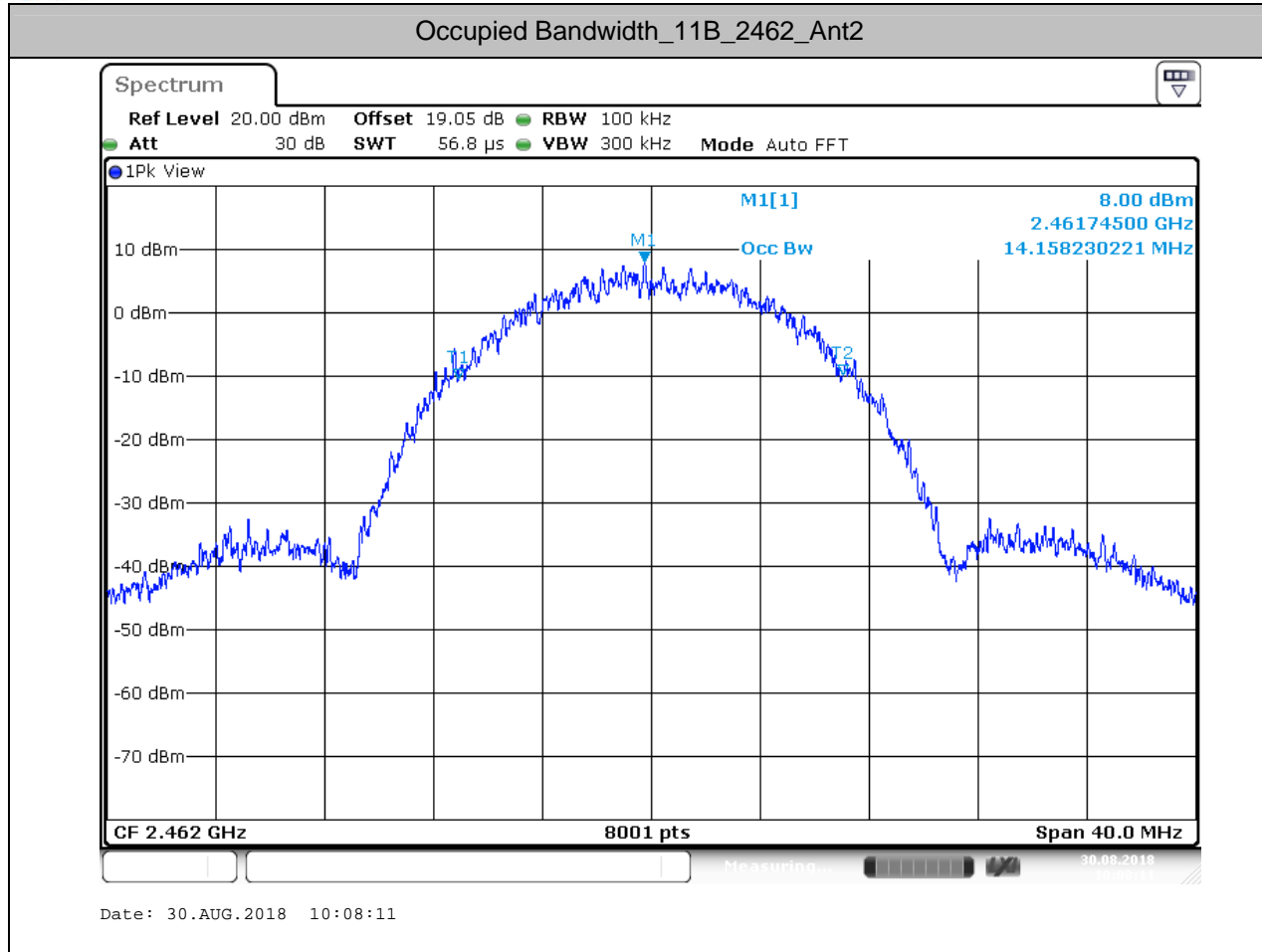


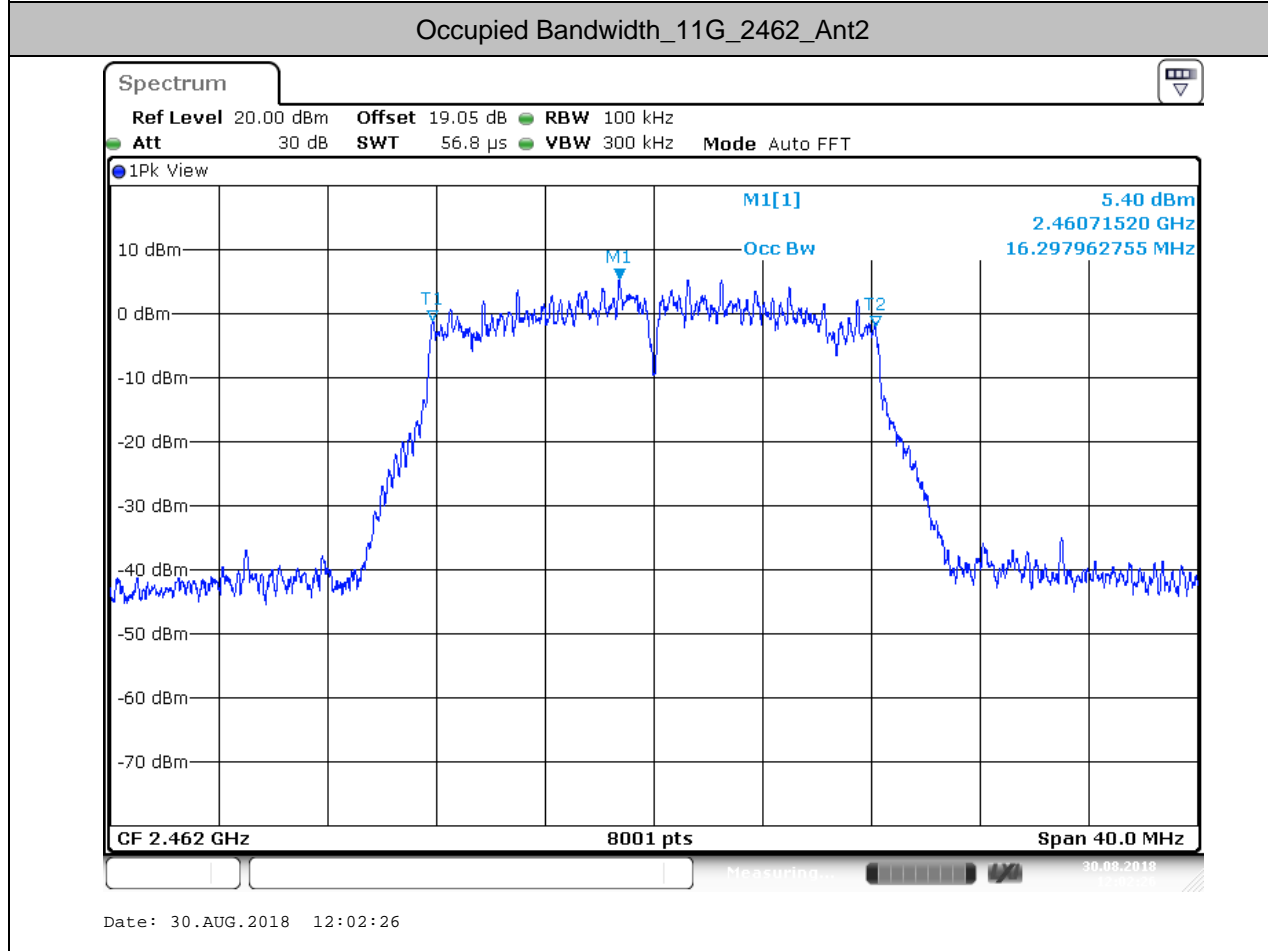
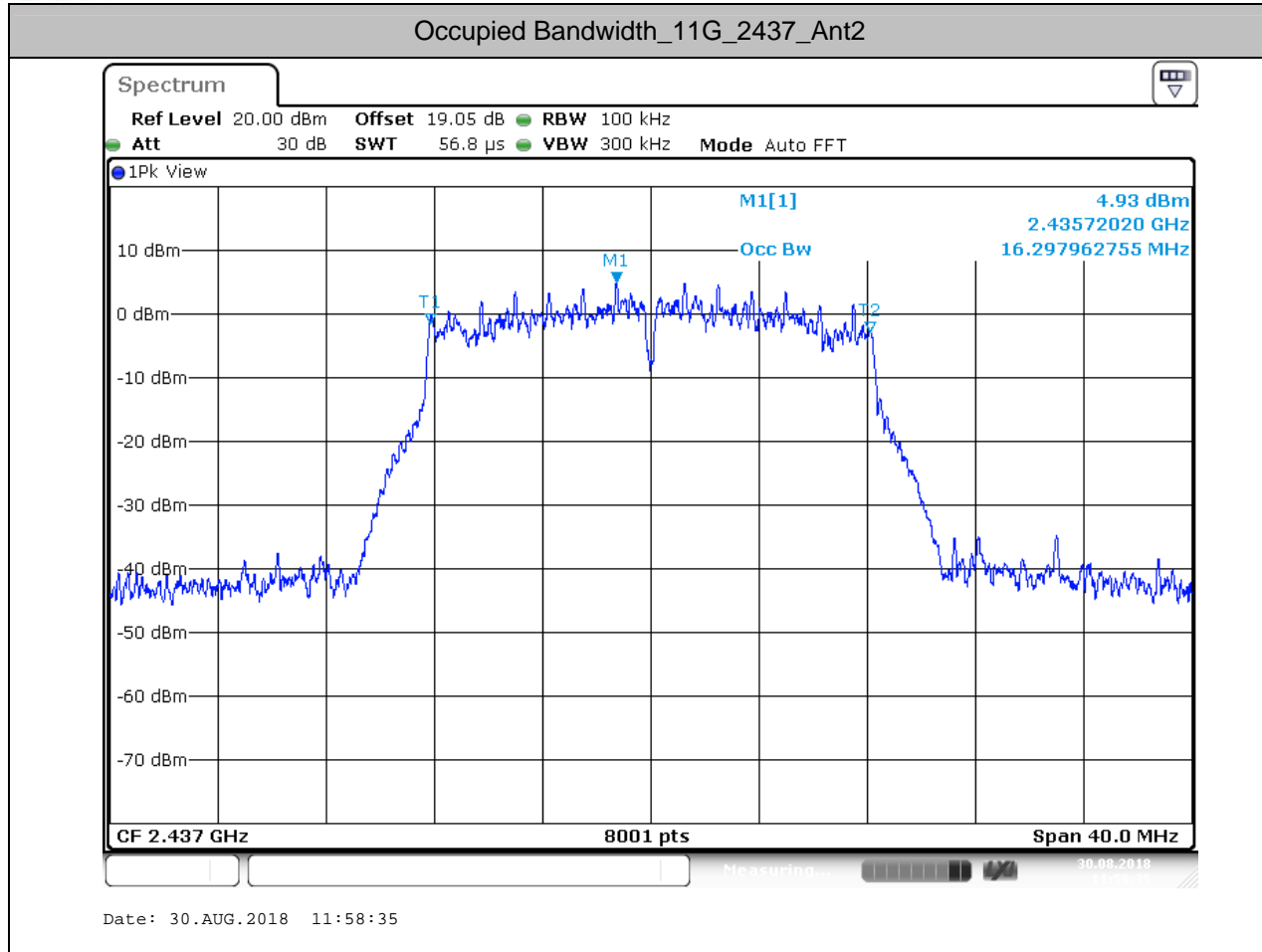


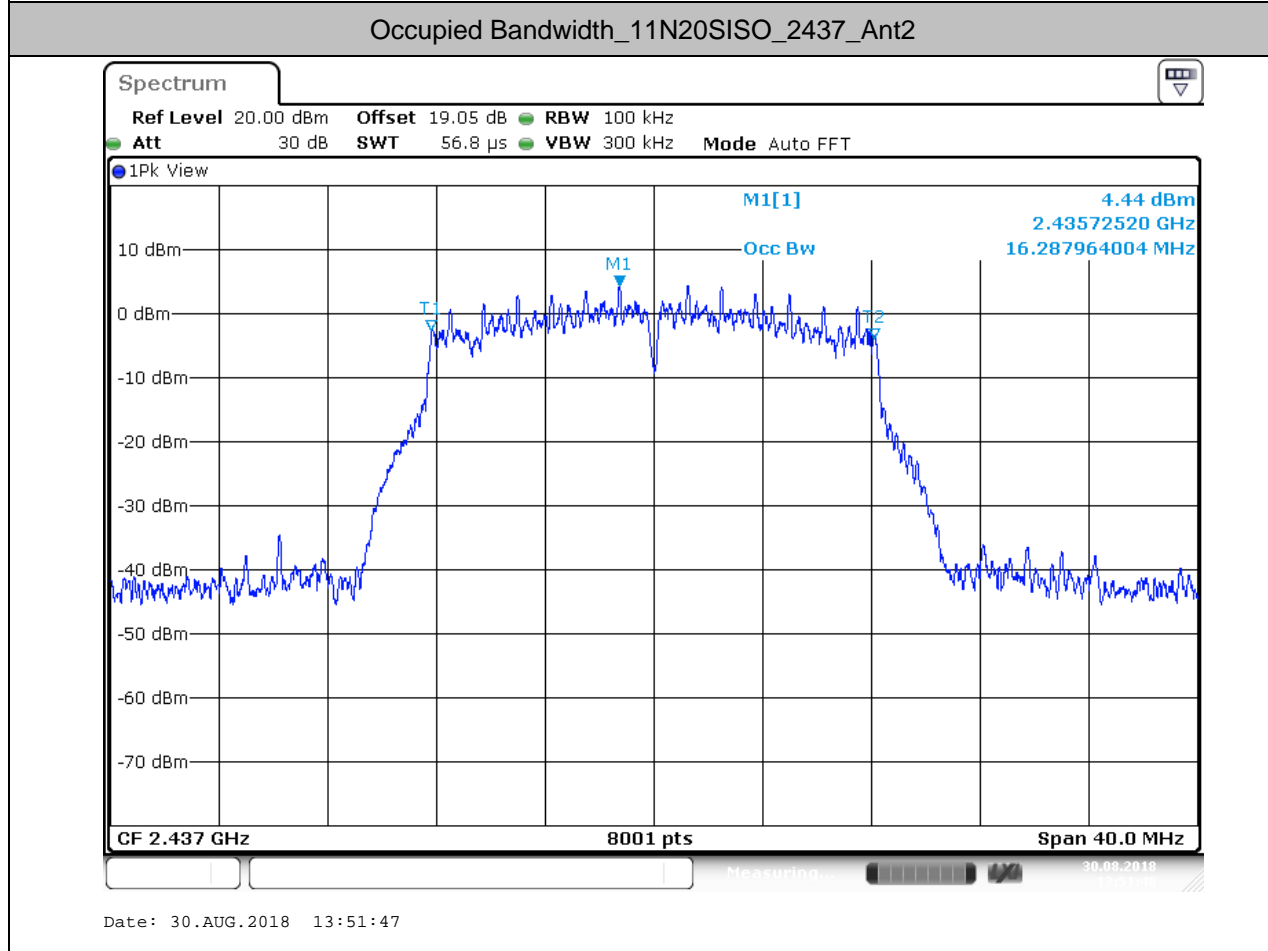
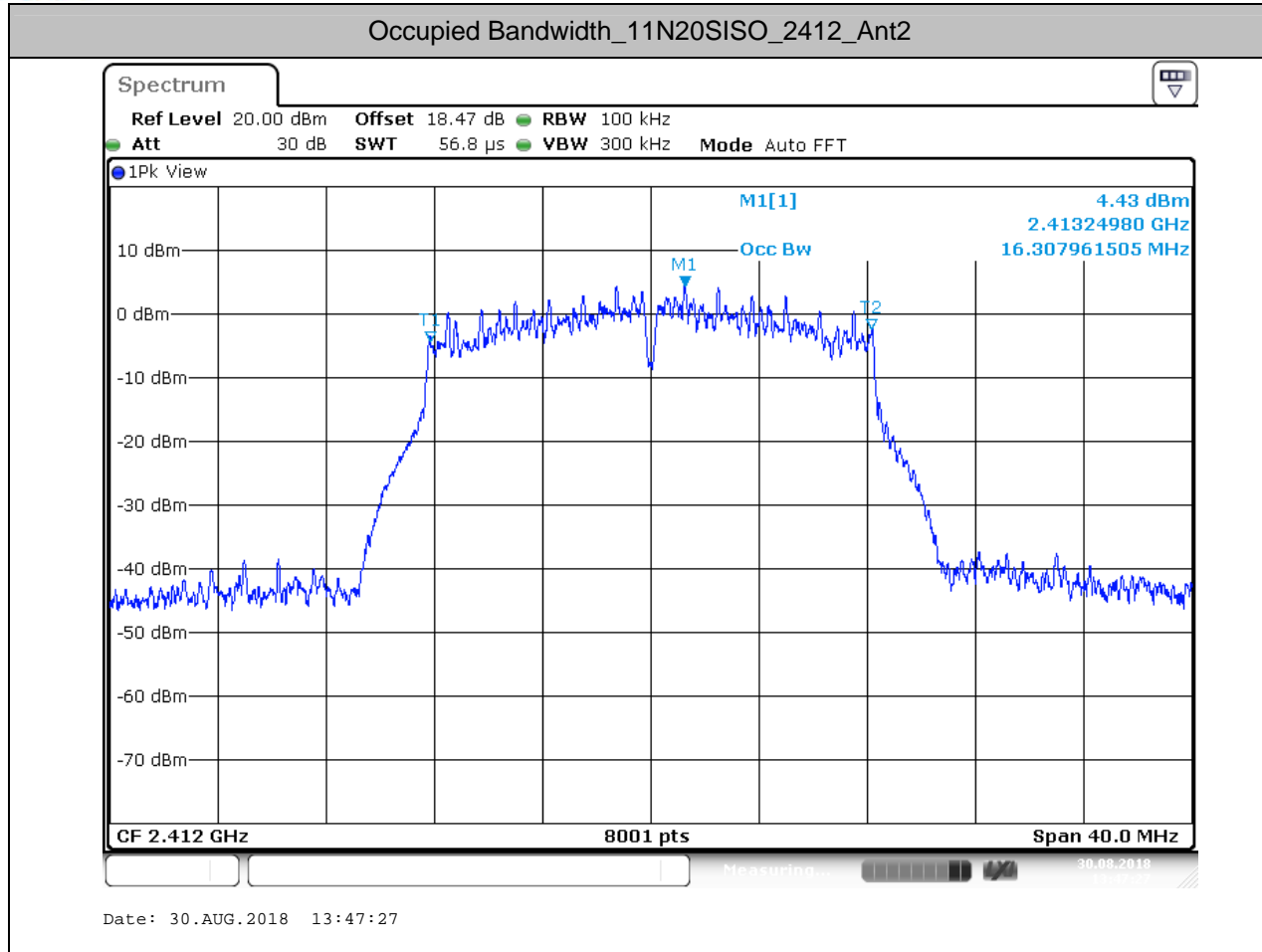


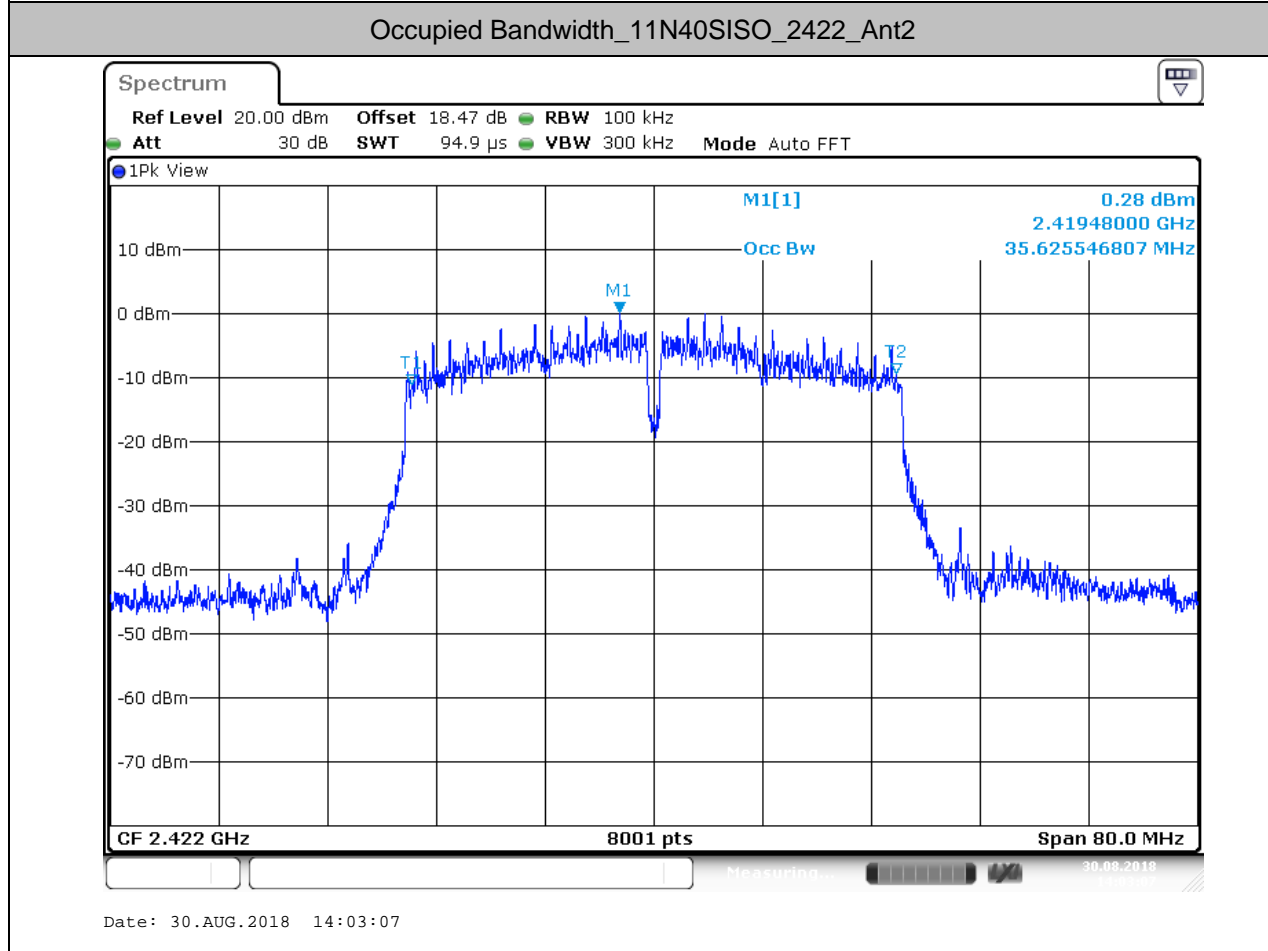
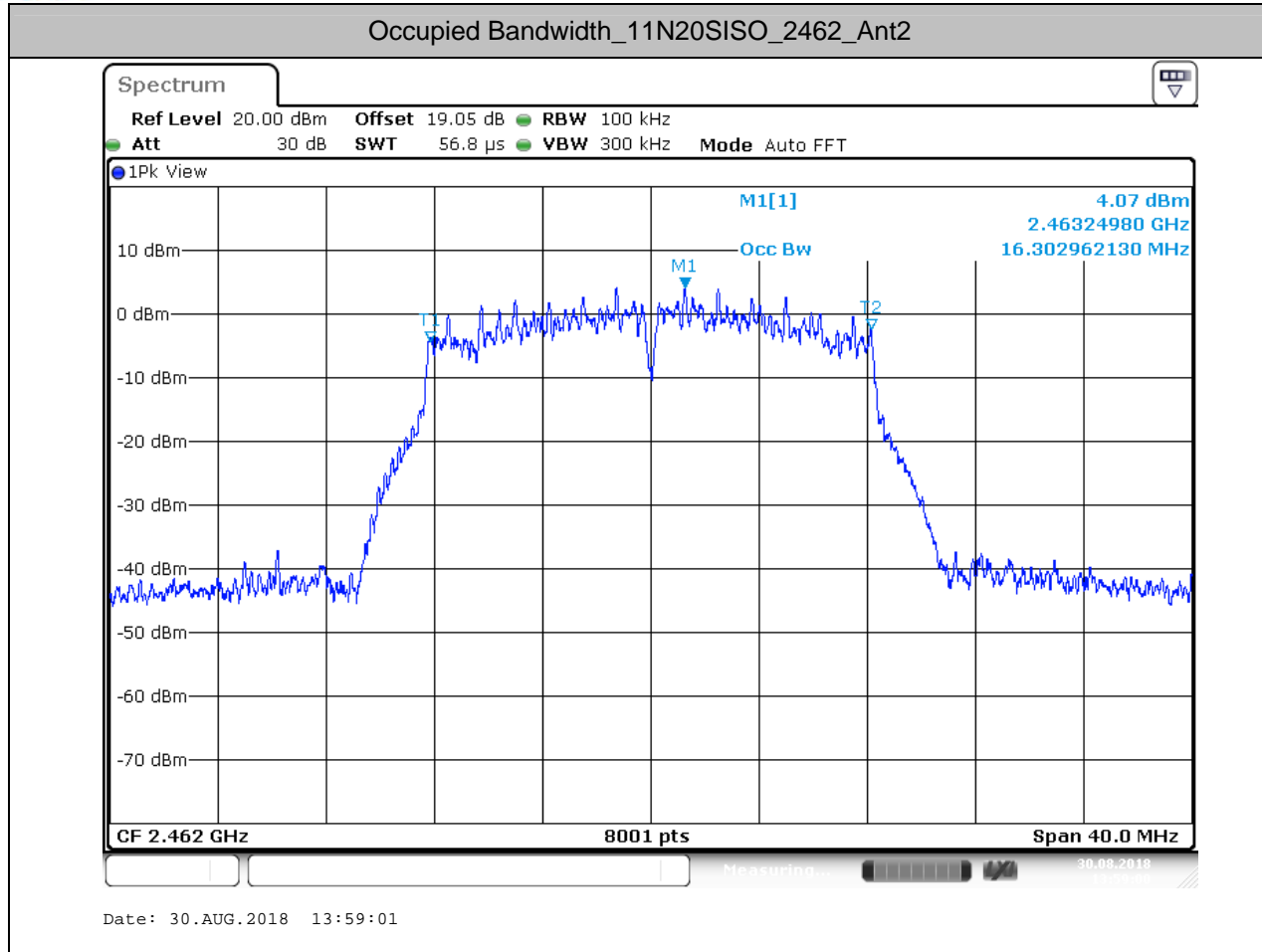


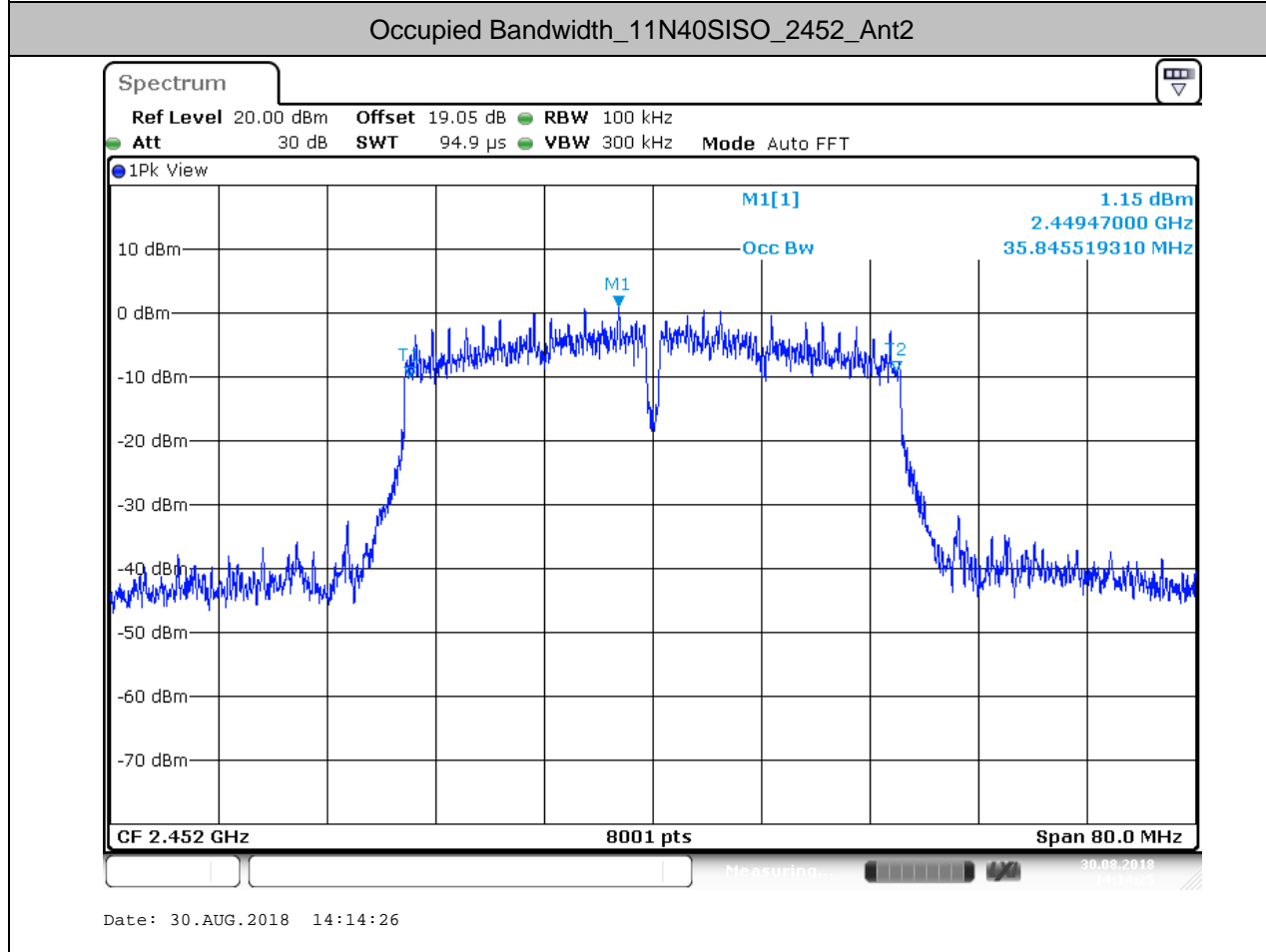
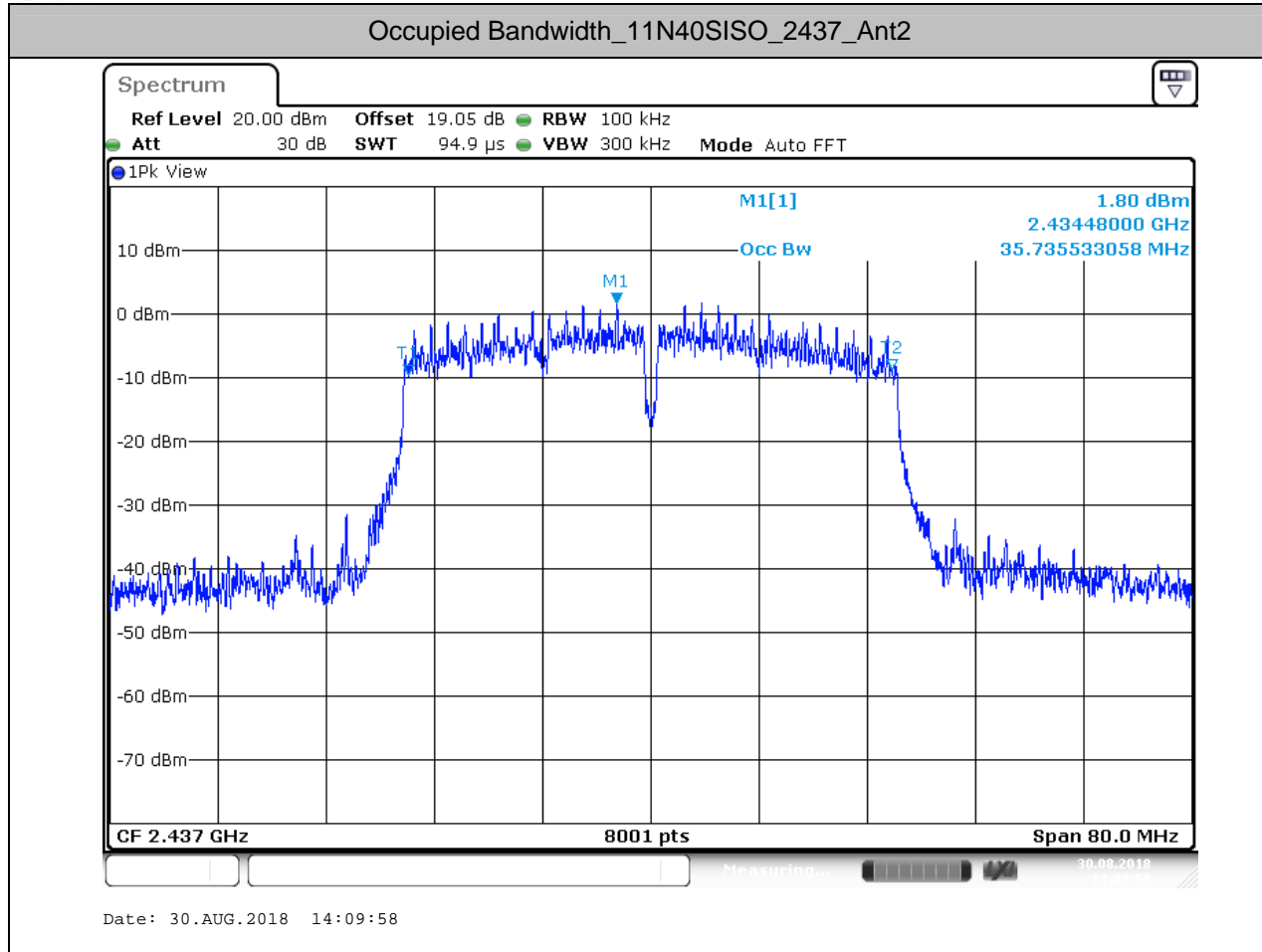


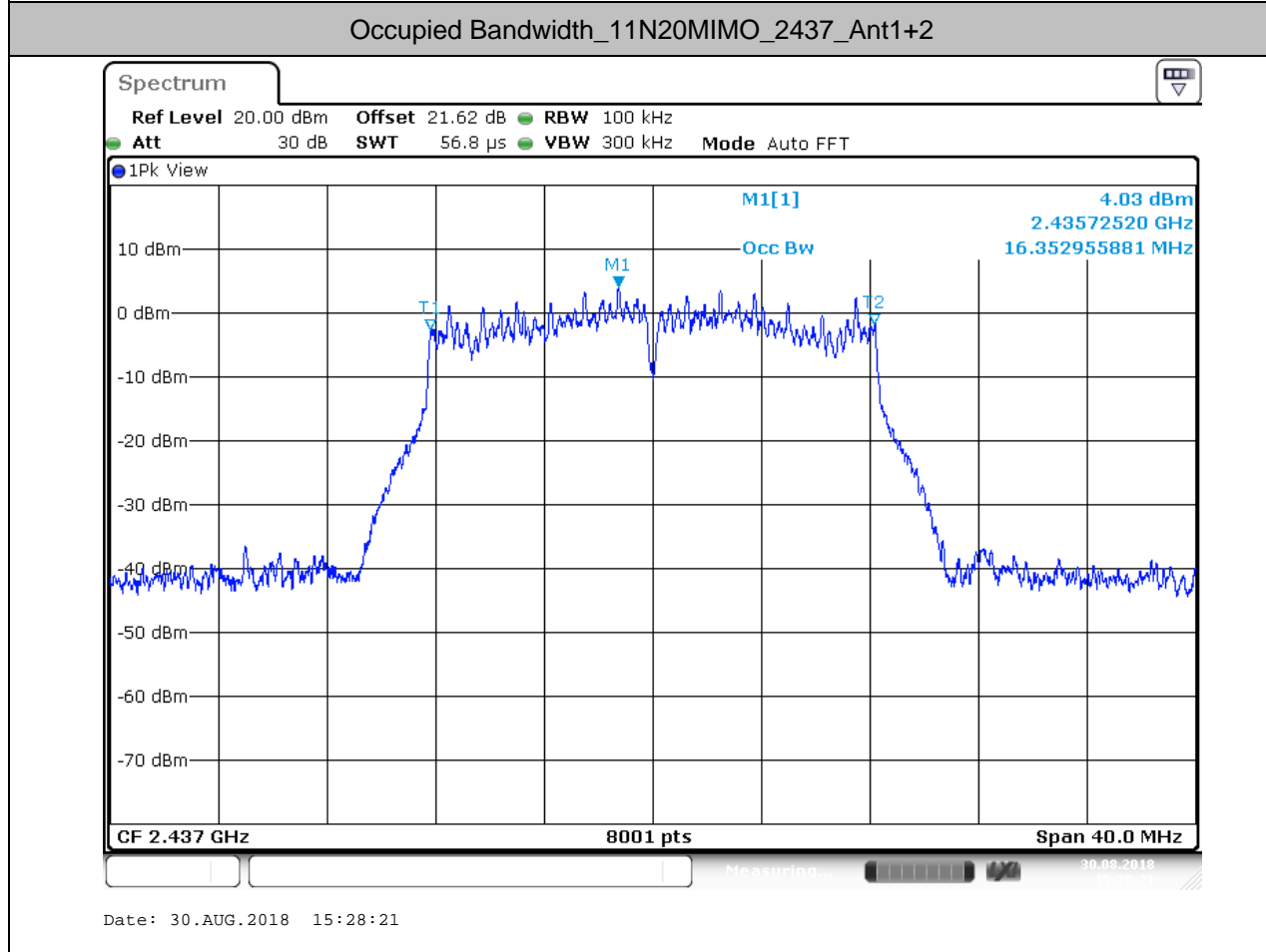
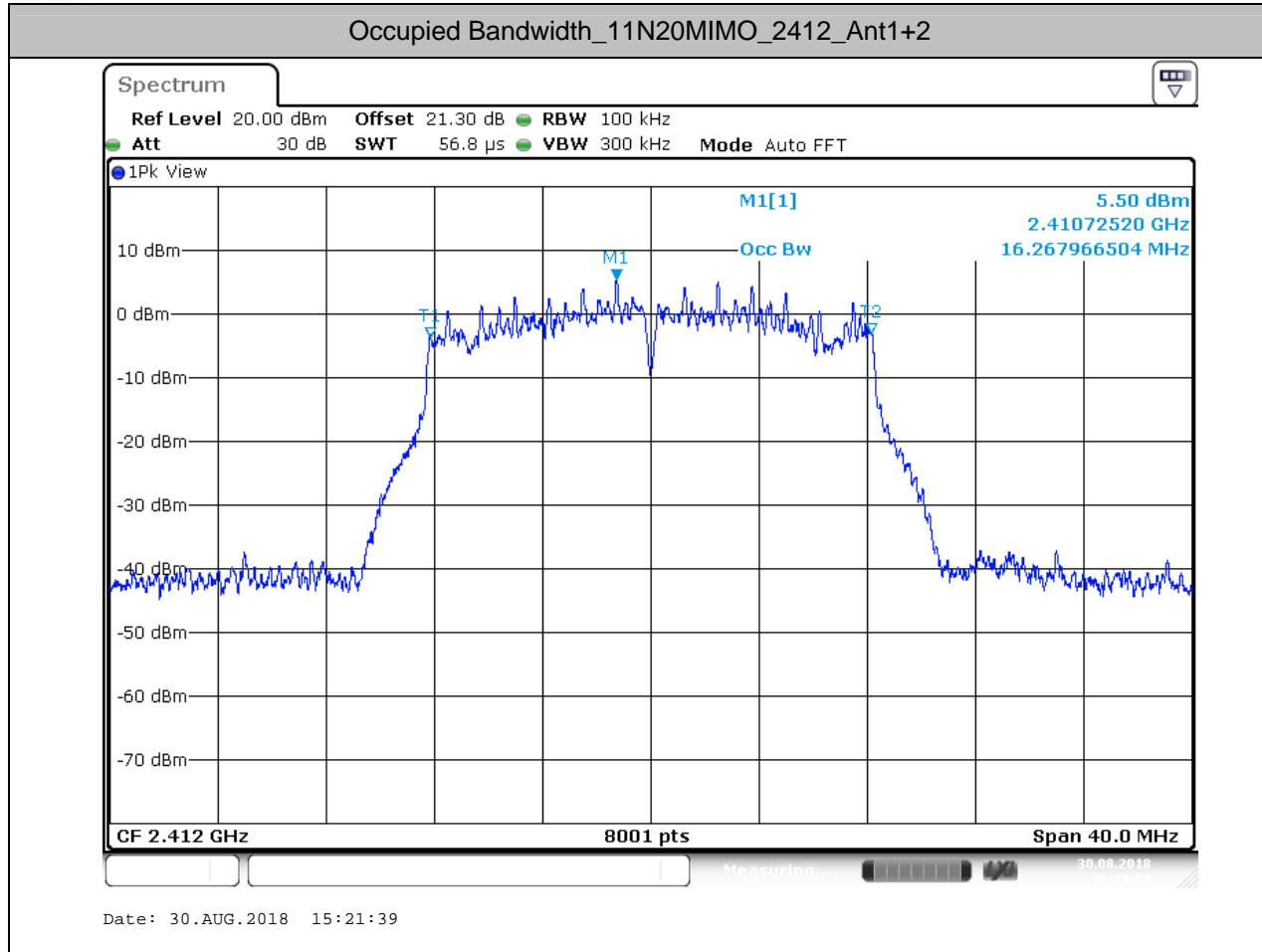


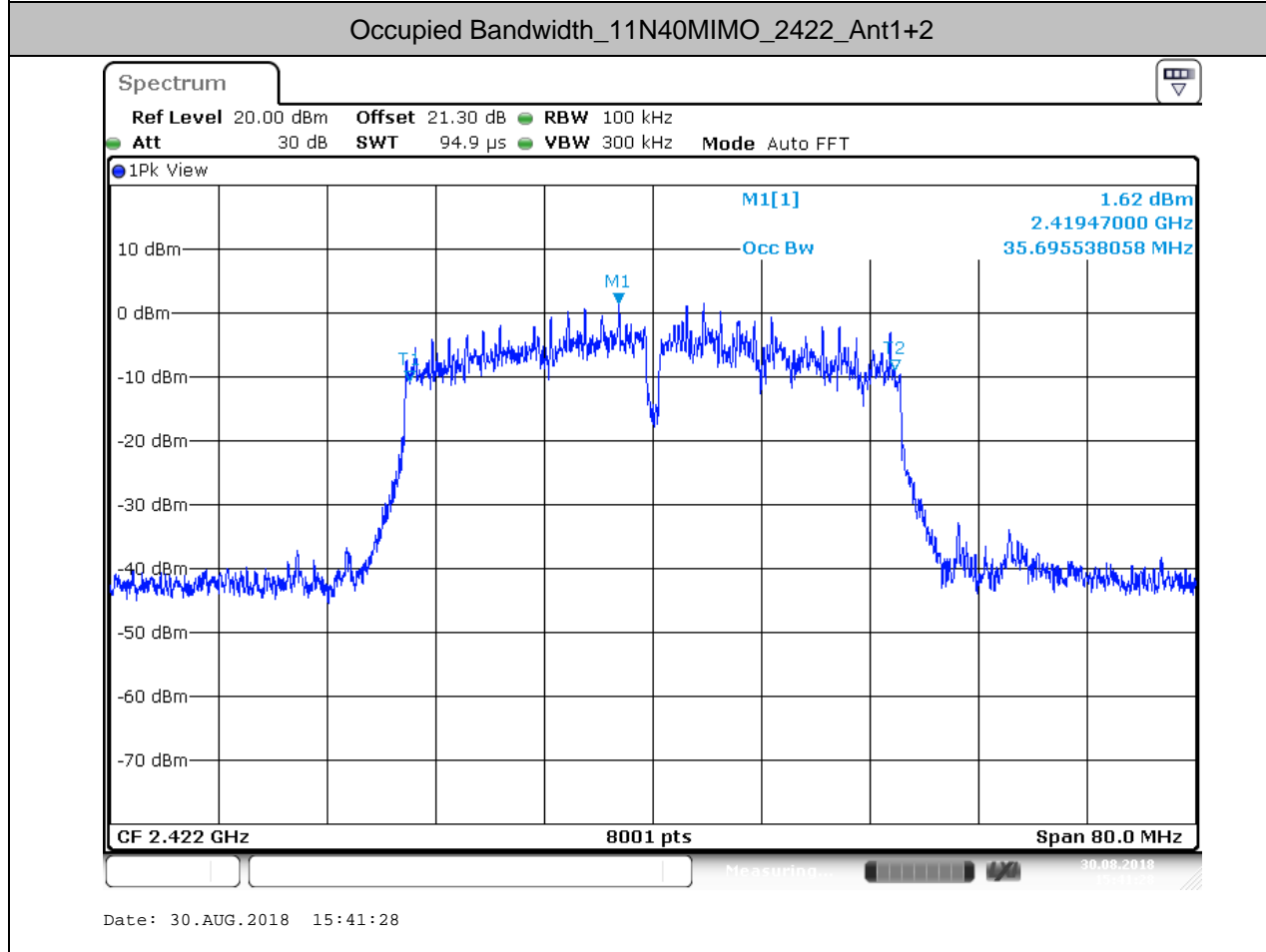
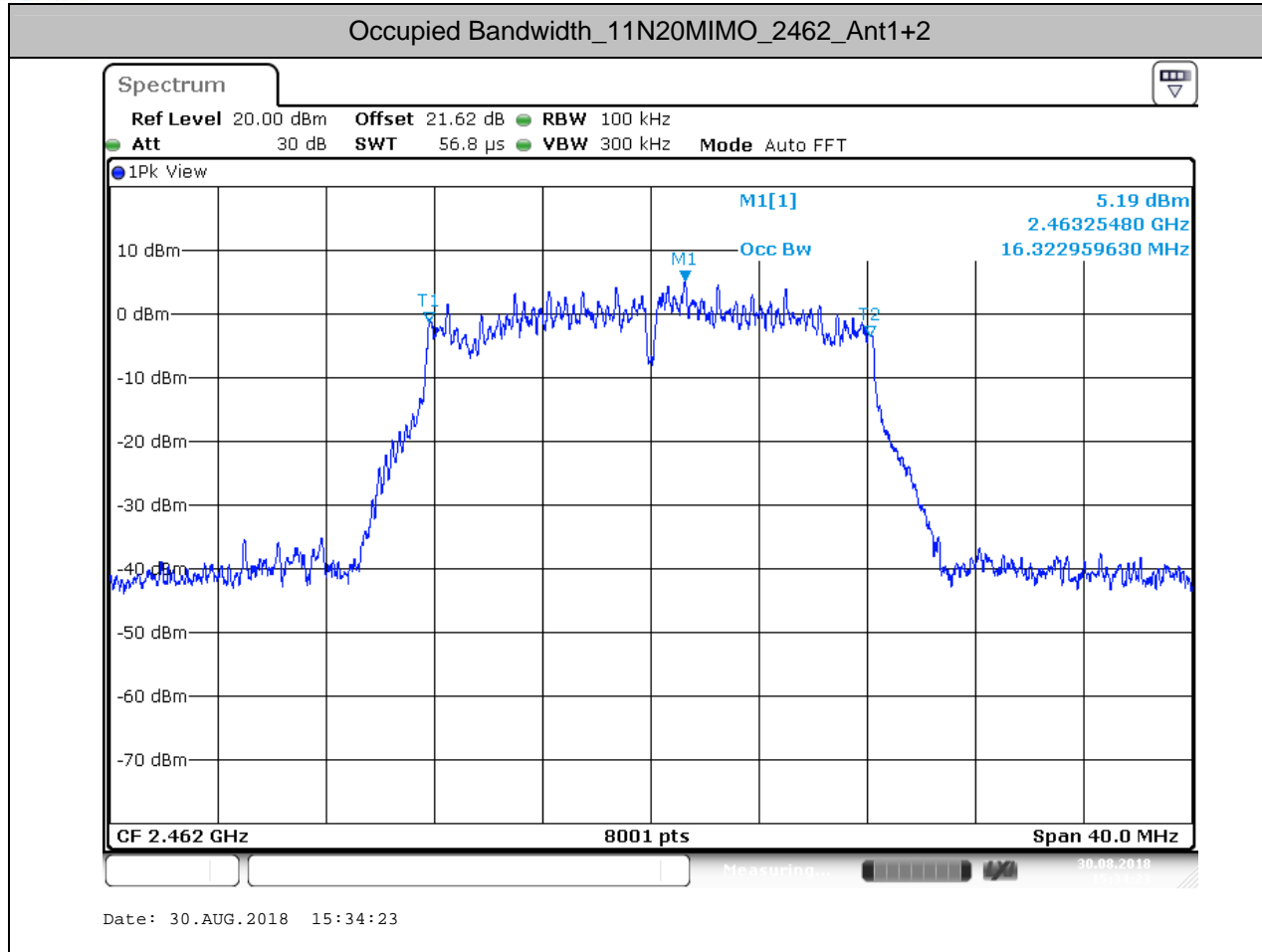




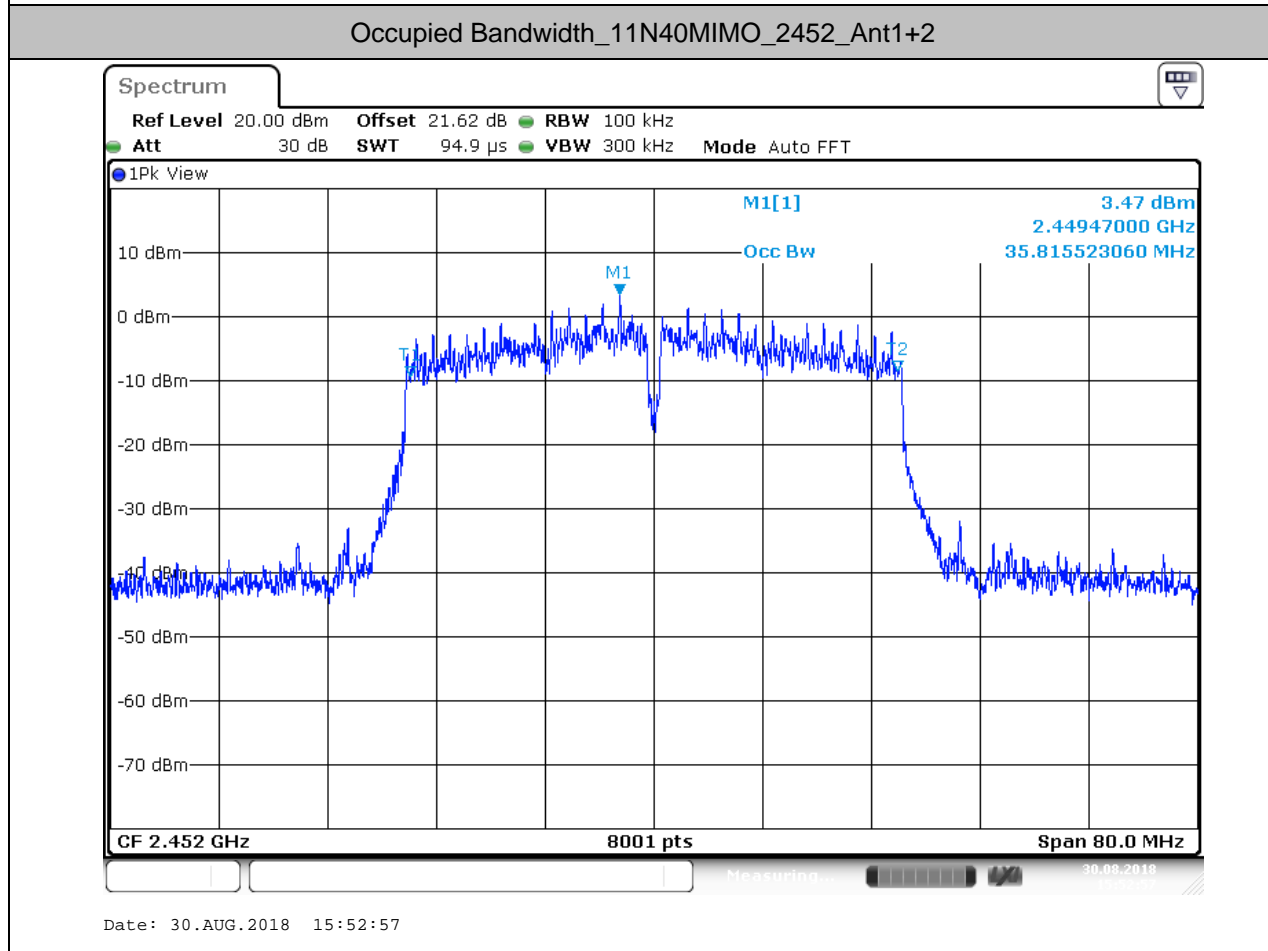
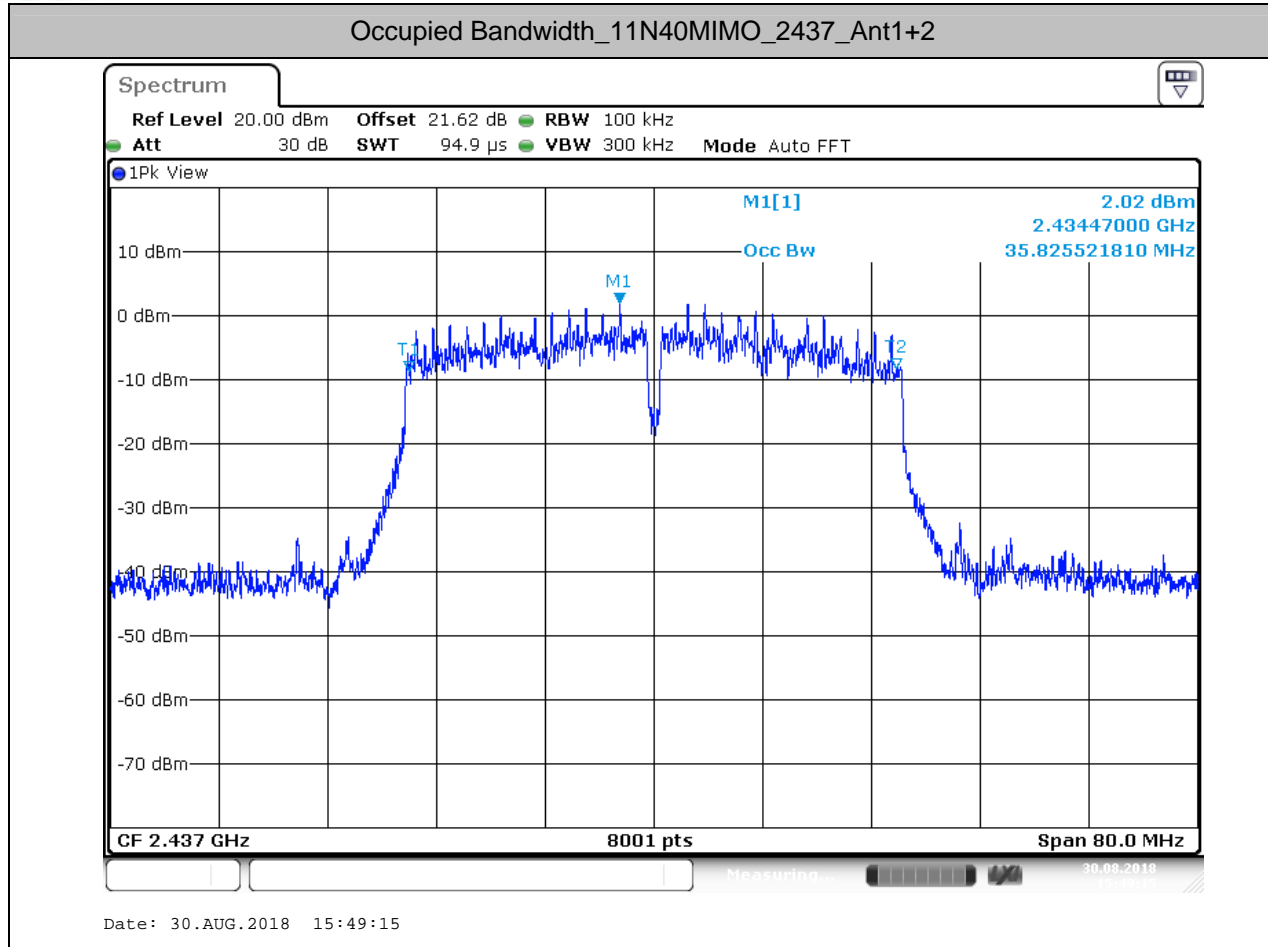














3.Maximum conducted (average) output power

Test Mode	Test Channel	Ant	Power [dBm]	Limit [dBm]	Verdict
11B	2412	Ant1	17.57	30	PASS
11B	2437	Ant1	17.75	30	PASS
11B	2462	Ant1	17.84	30	PASS
11G	2412	Ant1	16.99	30	PASS
11G	2437	Ant1	16.90	30	PASS
11G	2462	Ant1	16.96	30	PASS
11N20SISO	2412	Ant1	16.96	30	PASS
11N20SISO	2437	Ant1	17.71	30	PASS
11N20SISO	2462	Ant1	17.29	30	PASS
11N40SISO	2422	Ant1	15.58	30	PASS
11N40SISO	2437	Ant1	16.23	30	PASS
11N40SISO	2452	Ant1	15.07	30	PASS
11B	2412	Ant2	17.23	30	PASS
11B	2437	Ant2	17.12	30	PASS
11B	2462	Ant2	18.14	30	PASS
11G	2412	Ant2	17.91	30	PASS
11G	2437	Ant2	17.16	30	PASS
11G	2462	Ant2	17.59	30	PASS
11N20SISO	2412	Ant2	17.94	30	PASS
11N20SISO	2437	Ant2	16.47	30	PASS
11N20SISO	2462	Ant2	17.30	30	PASS
11N40SISO	2422	Ant2	17.46	30	PASS
11N40SISO	2437	Ant2	16.51	30	PASS
11N40SISO	2452	Ant2	17.00	30	PASS
11N20MIMO	2412	Ant1+2	17.17	30	PASS
11N20MIMO	2437	Ant1+2	16.15	30	PASS
11N20MIMO	2462	Ant1+2	16.93	30	PASS
11N40MIMO	2422	Ant1+2	16.51	30	PASS
11N40MIMO	2437	Ant1+2	15.39	30	PASS
11N40MIMO	2452	Ant1+2	17.36	30	PASS

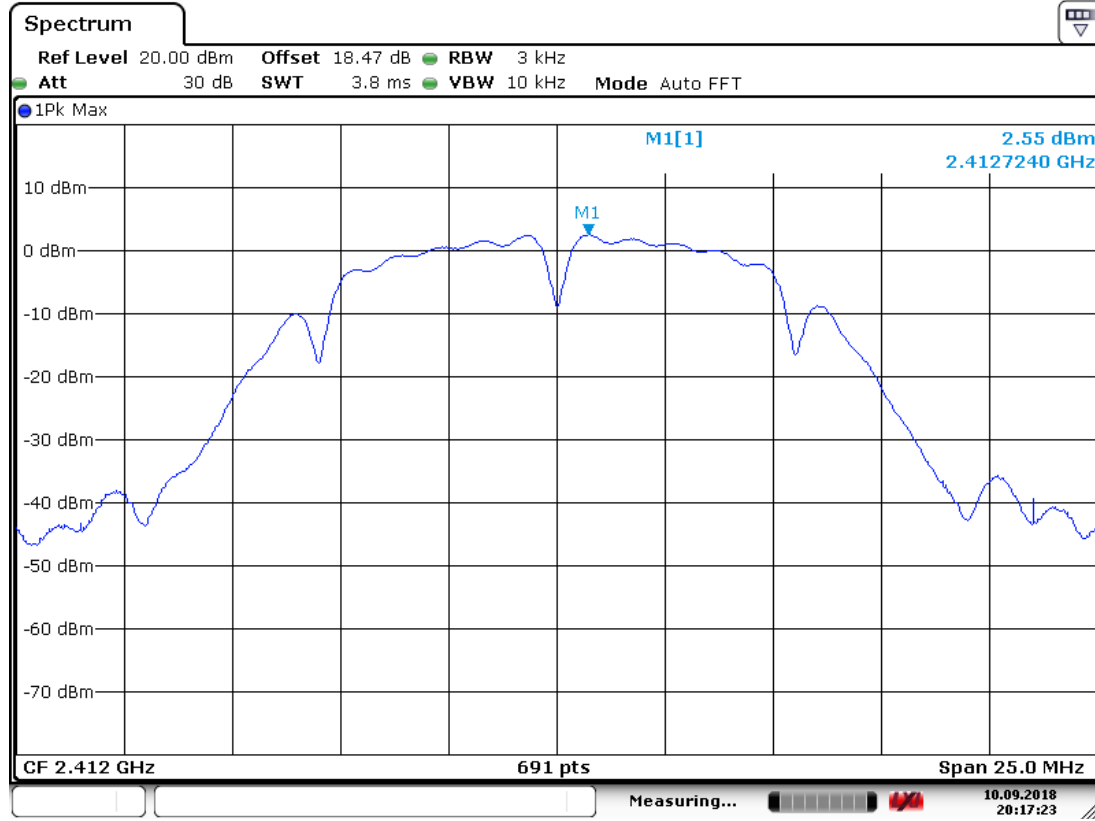


4.Maximum(average) power spectral density

Test Mode	Test Channel	Ant	PSD [dBm/MHz]	Limit [dBm/MHz]	Verdict
11B	2412	Ant1	2.55	8.00	PASS
11B	2437	Ant1	3.64	8.00	PASS
11B	2462	Ant1	3.26	8.00	PASS
11G	2412	Ant1	-1.48	8.00	PASS
11G	2437	Ant1	3.47	8.00	PASS
11G	2462	Ant1	3.67	8.00	PASS
11N20SISO	2412	Ant1	1.44	8.00	PASS
11N20SISO	2437	Ant1	2.36	8.00	PASS
11N20SISO	2462	Ant1	1.80	8.00	PASS
11N40SISO	2422	Ant1	-0.32	8.00	PASS
11N40SISO	2437	Ant1	-0.07	8.00	PASS
11N40SISO	2452	Ant1	1.00	8.00	PASS
11B	2412	Ant2	2.76	8.00	PASS
11B	2437	Ant2	3.35	8.00	PASS
11B	2462	Ant2	3.33	8.00	PASS
11G	2412	Ant2	-1.64	8.00	PASS
11G	2437	Ant2	3.08	8.00	PASS
11G	2462	Ant2	3.42	8.00	PASS
11N20SISO	2412	Ant2	0.90	8.00	PASS
11N20SISO	2437	Ant2	2.13	8.00	PASS
11N20SISO	2462	Ant2	1.97	8.00	PASS
11N40SISO	2422	Ant2	-0.31	8.00	PASS
11N40SISO	2437	Ant2	-0.41	8.00	PASS
11N40SISO	2452	Ant2	0.61	8.00	PASS
11N20MIMO	2412	Ant1+2	1.36	8.00	PASS
11N20MIMO	2437	Ant1+2	2.80	8.00	PASS
11N20MIMO	2462	Ant1+2	1.87	8.00	PASS
11N40MIMO	2422	Ant1+2	-0.35	8.00	PASS
11N40MIMO	2437	Ant1+2	-0.25	8.00	PASS
11N40MIMO	2452	Ant1+2	0.67	8.00	PASS

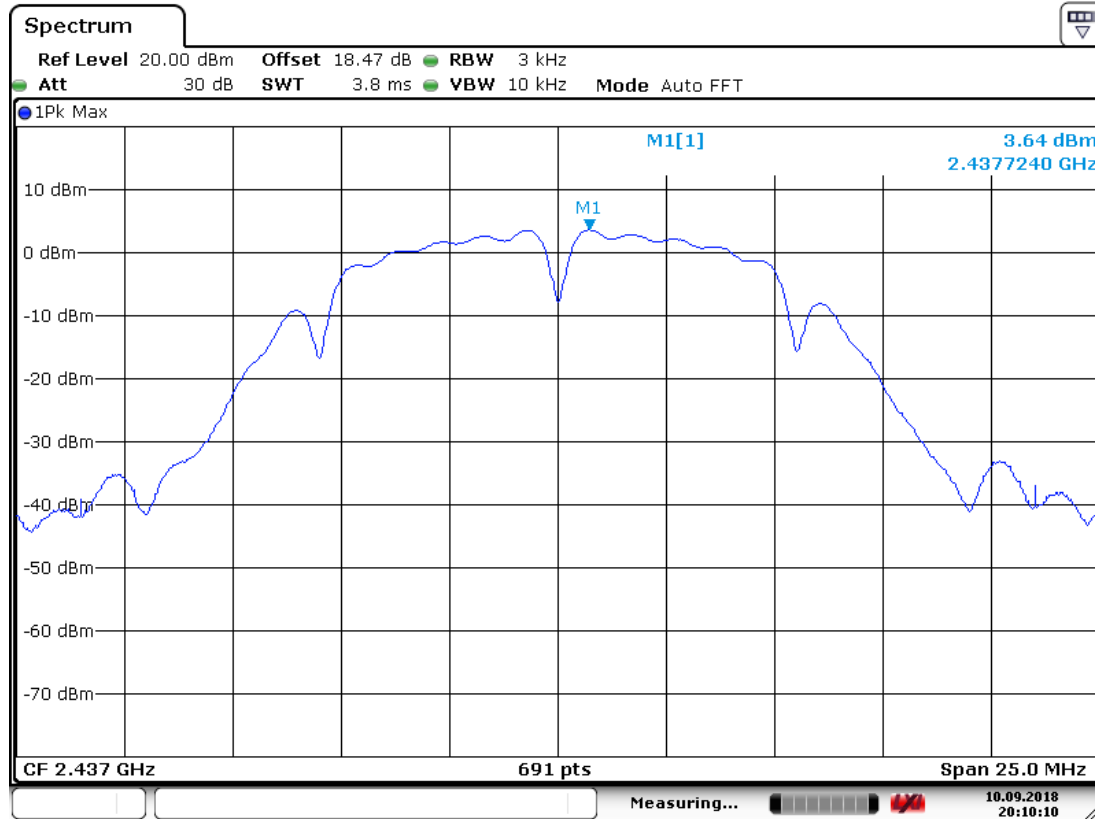


Maximum(average) power spectral density\_11B\_2412\_Ant1



Date: 10.SEP.2018 20:17:23

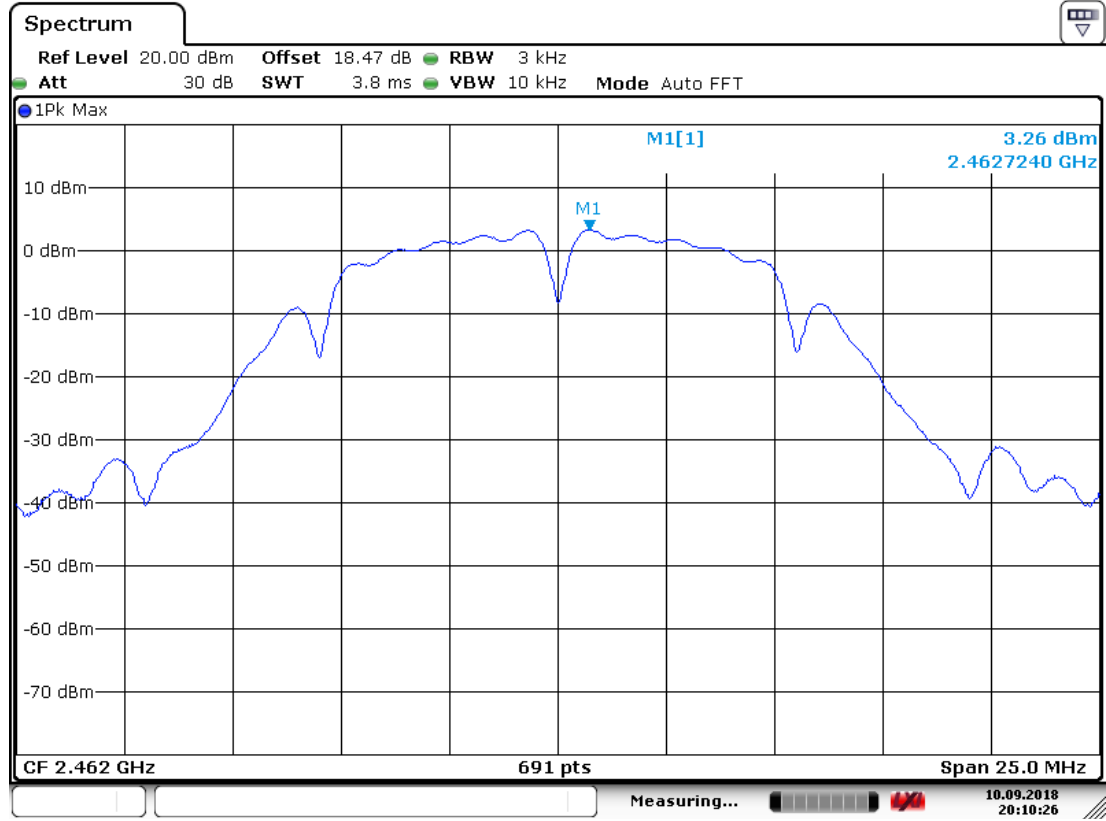
Maximum(average) power spectral density\_11B\_2437\_Ant1



Date: 10.SEP.2018 20:10:10

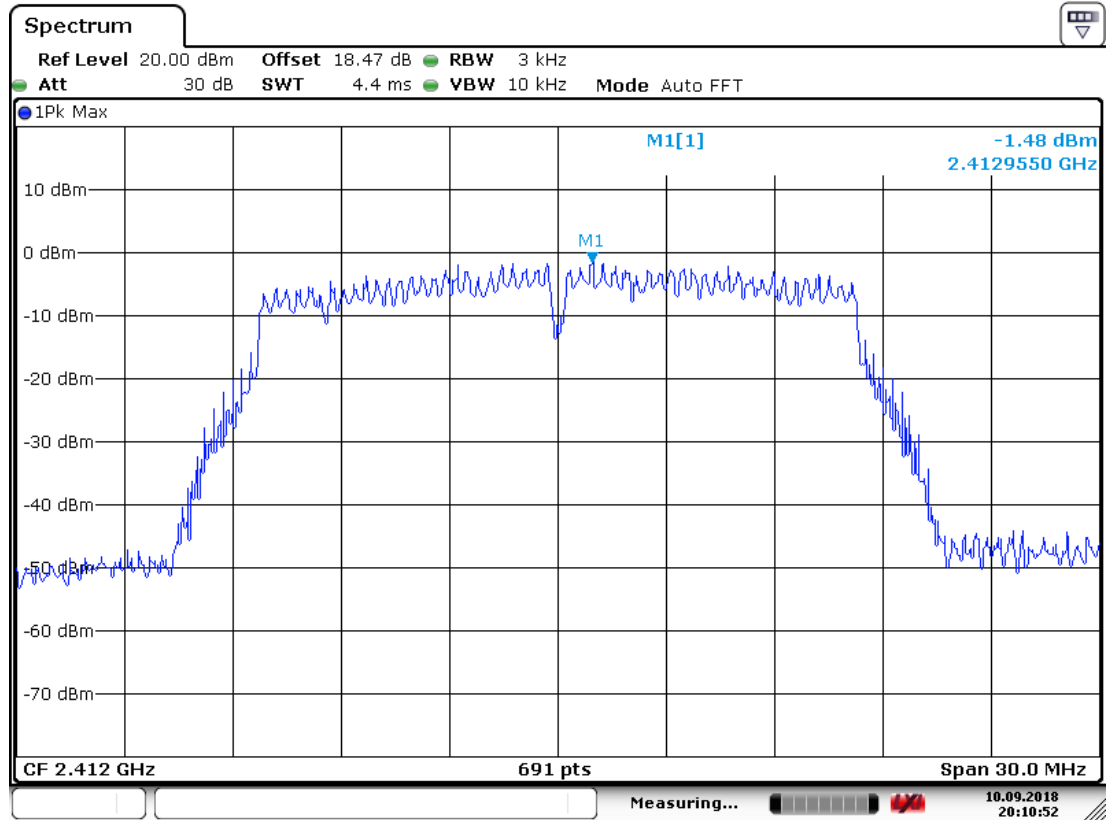


Maximum(average) power spectral density\_11B\_2462\_Ant1



Date: 10.SEP.2018 20:10:26

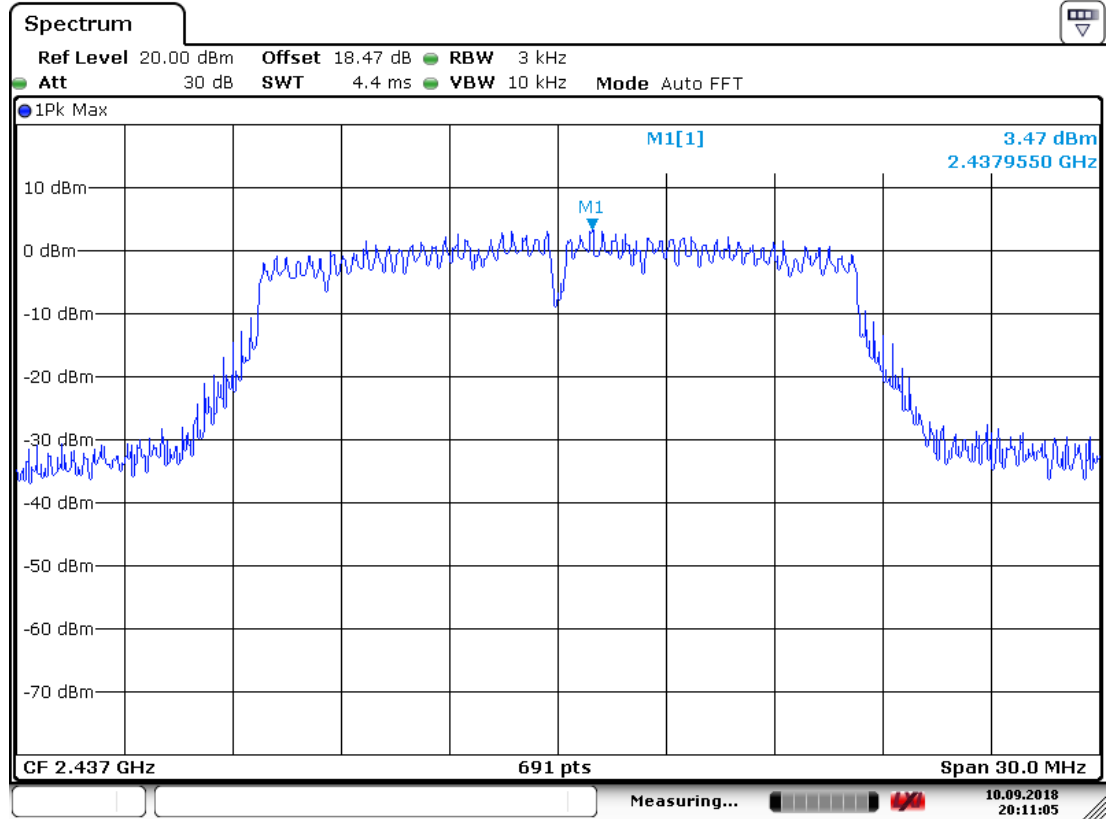
Maximum(average) power spectral density\_11G\_2412\_Ant1



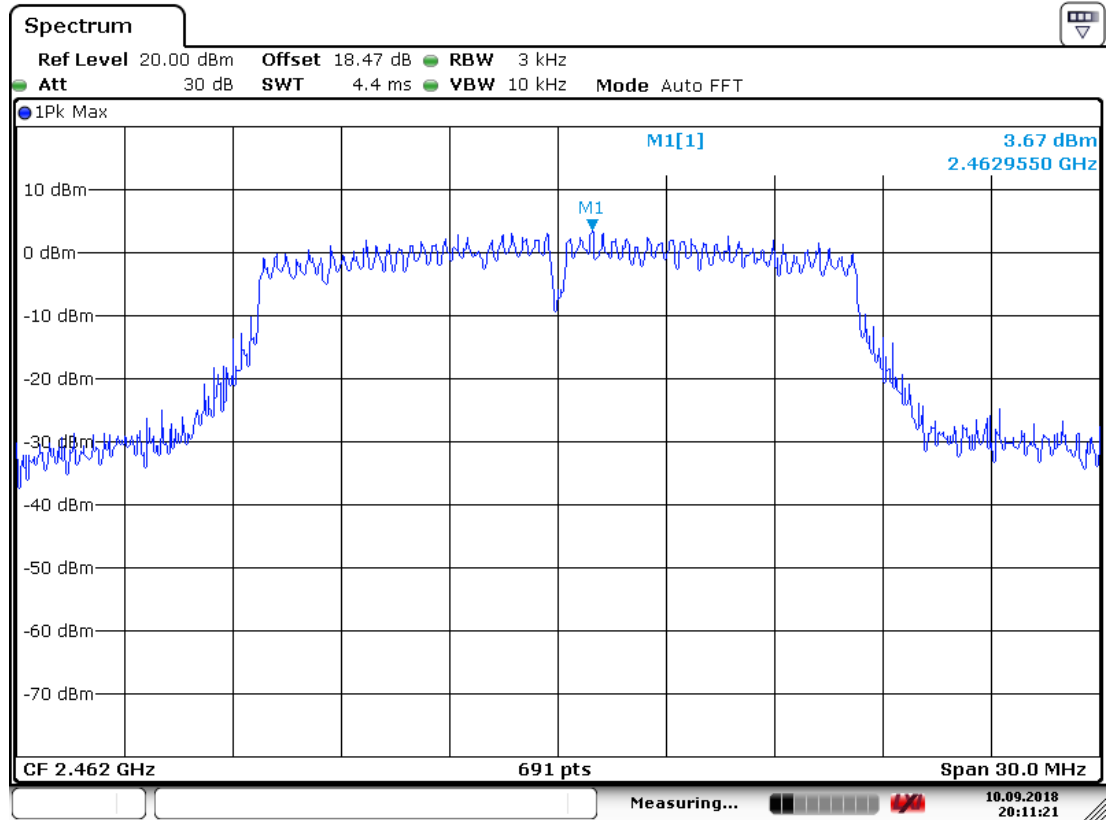
Date: 10.SEP.2018 20:10:52

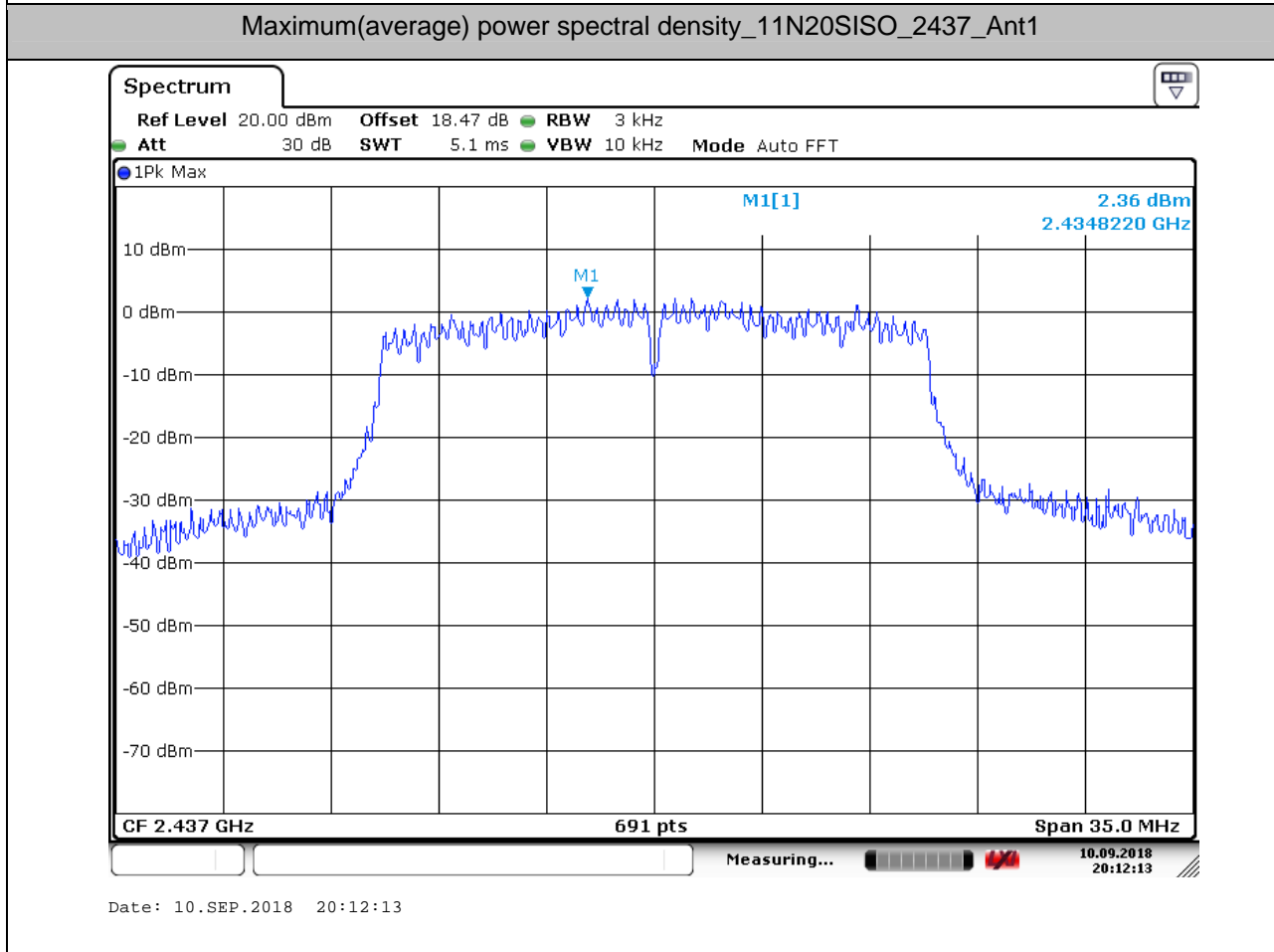
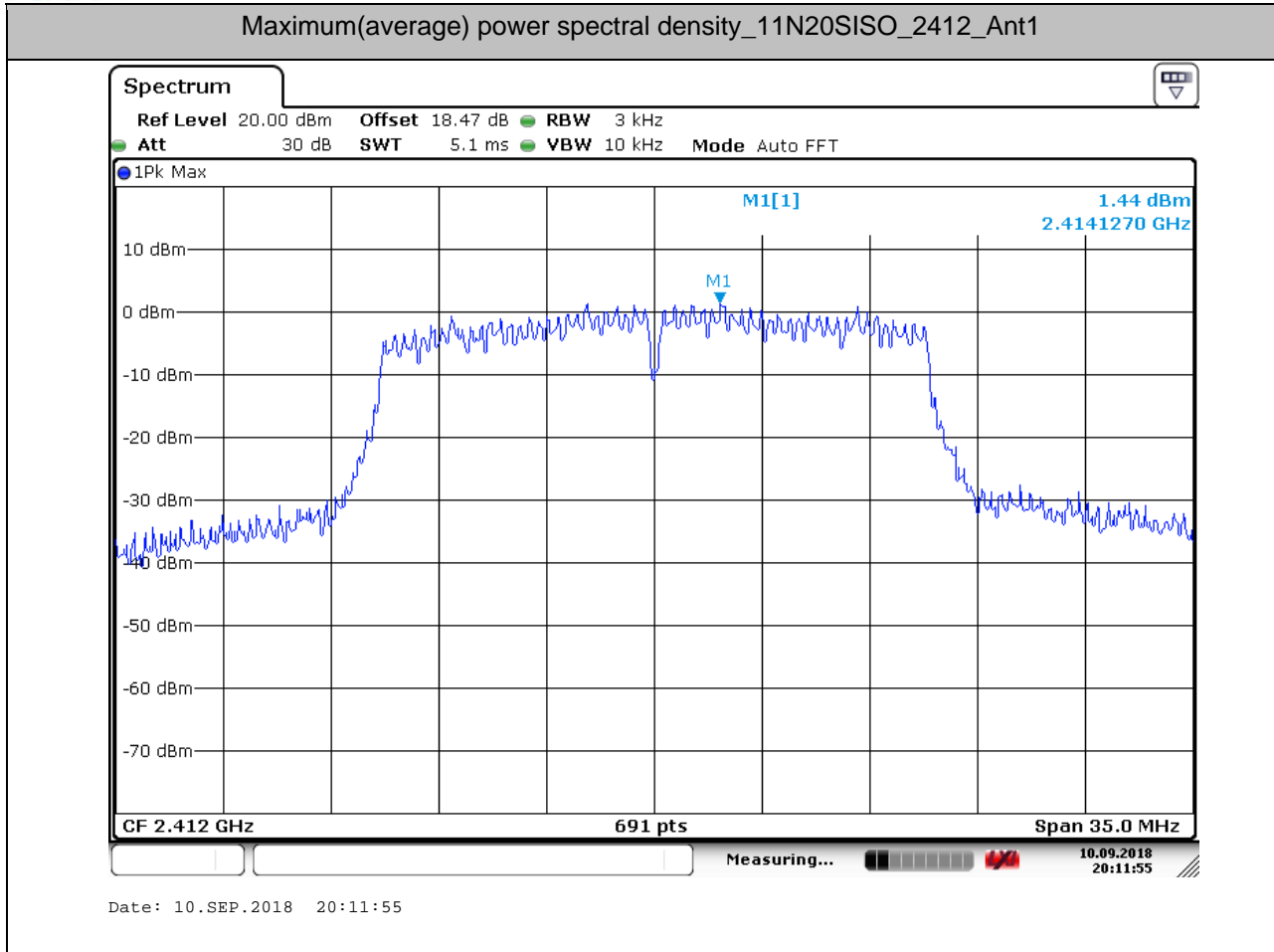


Maximum(average) power spectral density\_11G\_2437\_Ant1



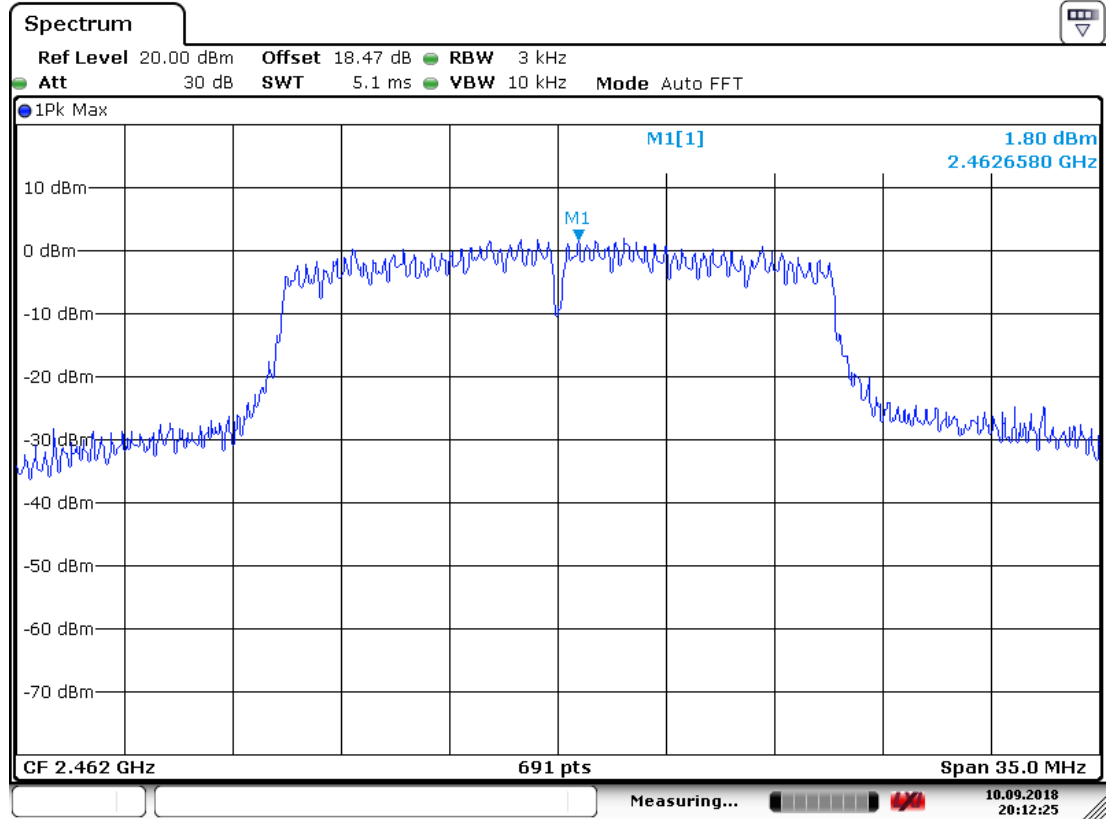
Maximum(average) power spectral density\_11G\_2462\_Ant1





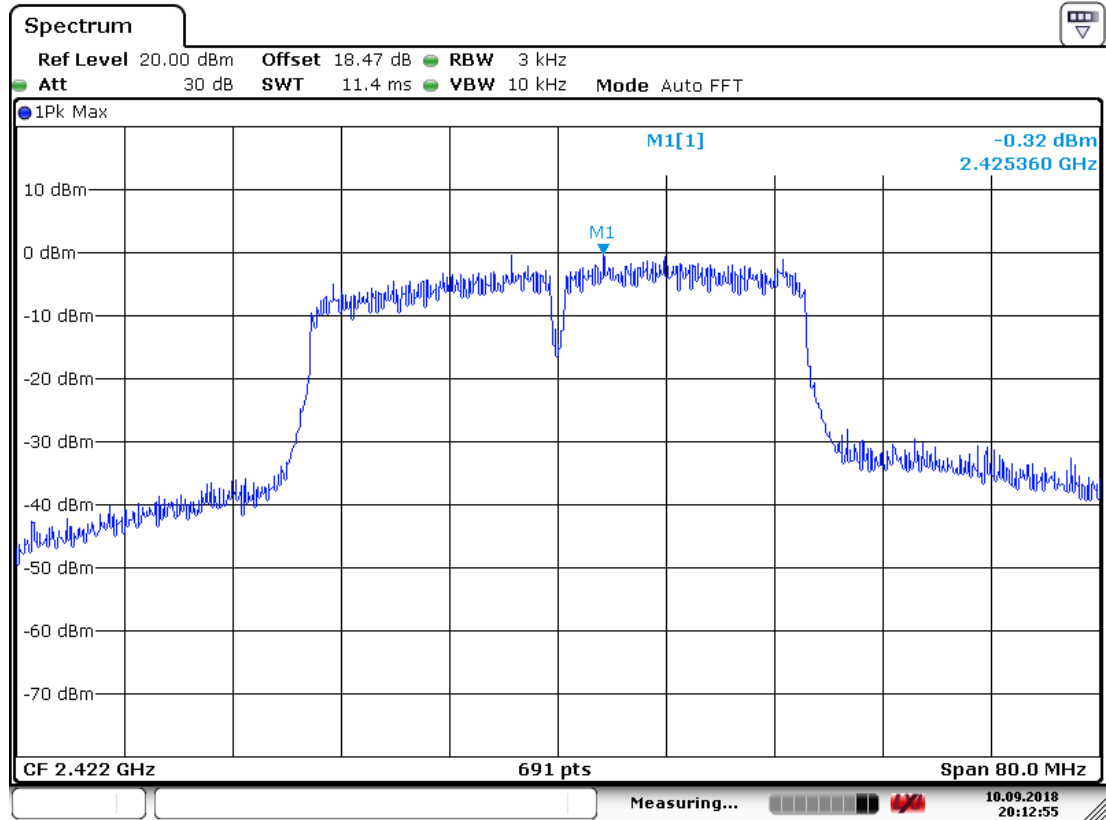


Maximum(average) power spectral density\_11N20SISO\_2462\_Ant1



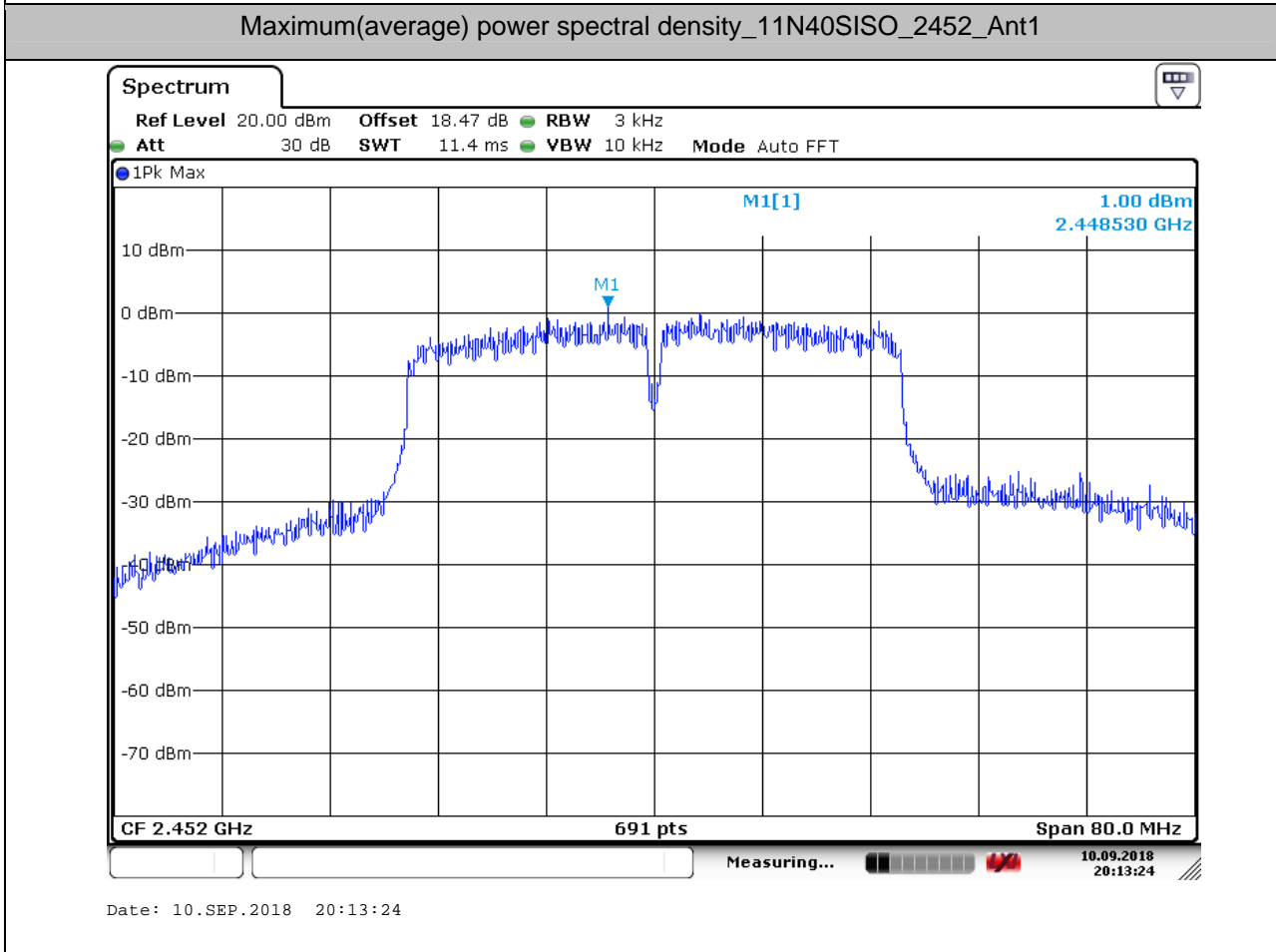
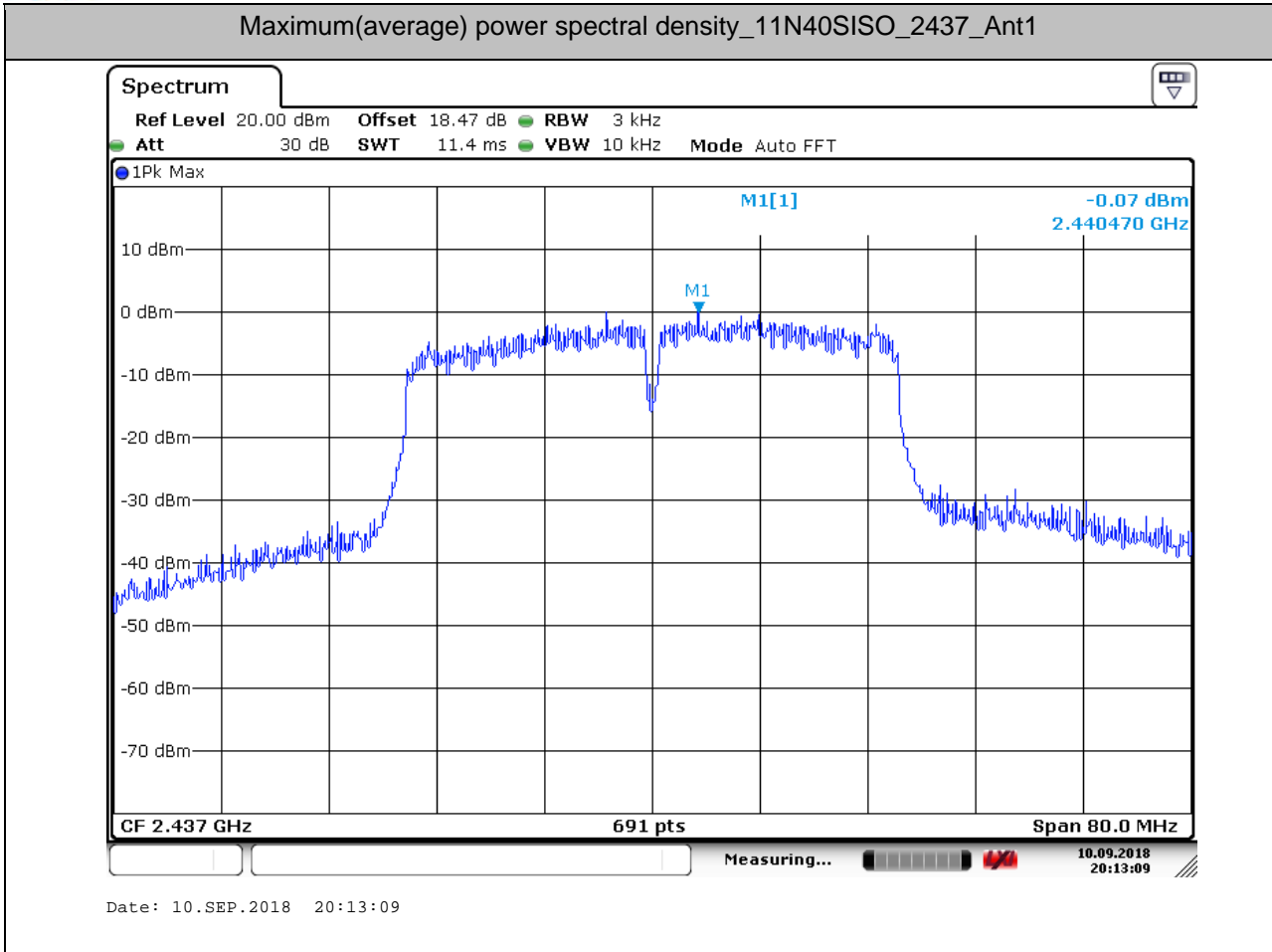
Date: 10.SEP.2018 20:12:25

Maximum(average) power spectral density\_11N40SISO\_2422\_Ant1



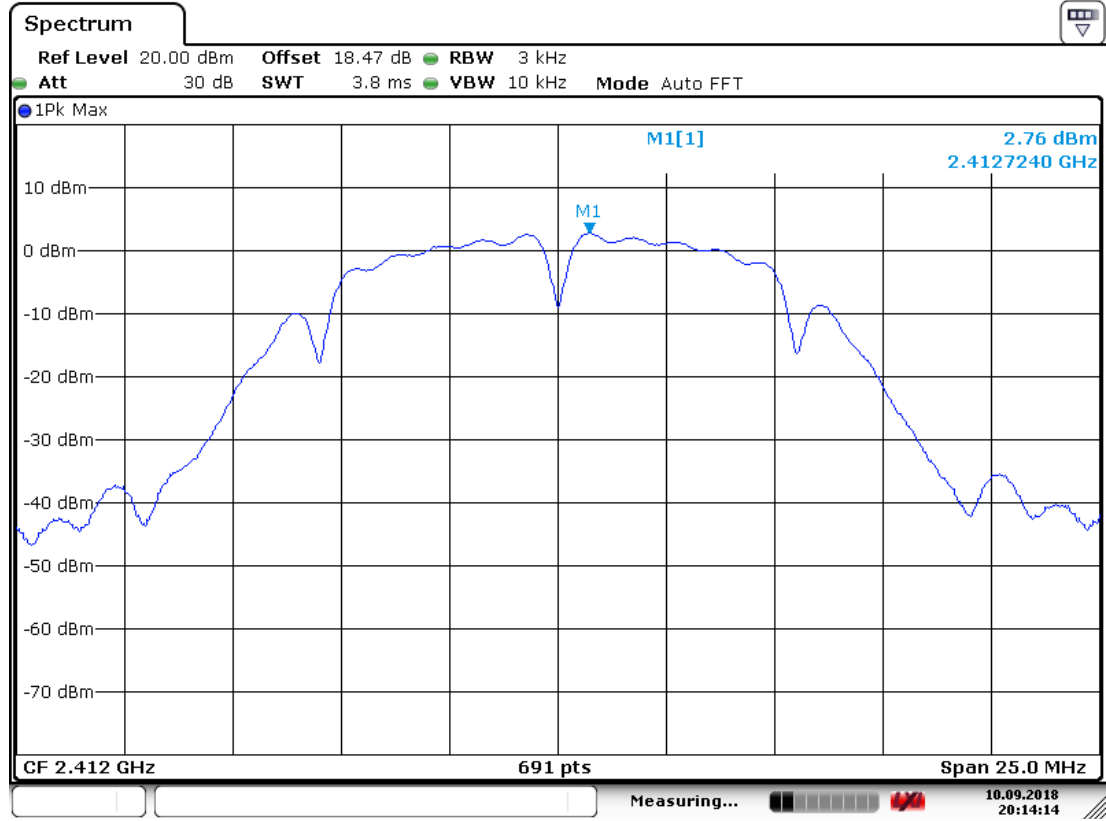
Date: 10.SEP.2018 20:12:55





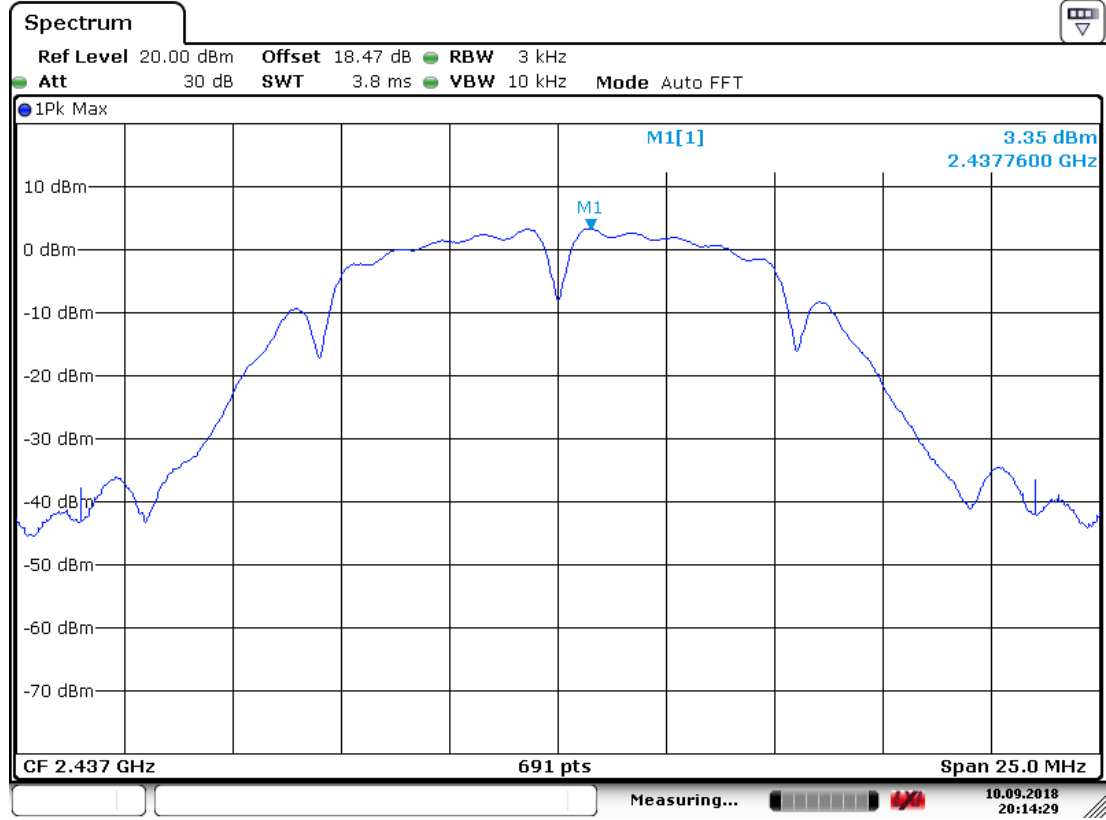


Maximum(average) power spectral density\_11B\_2412\_Ant2



Date: 10.SEP.2018 20:14:14

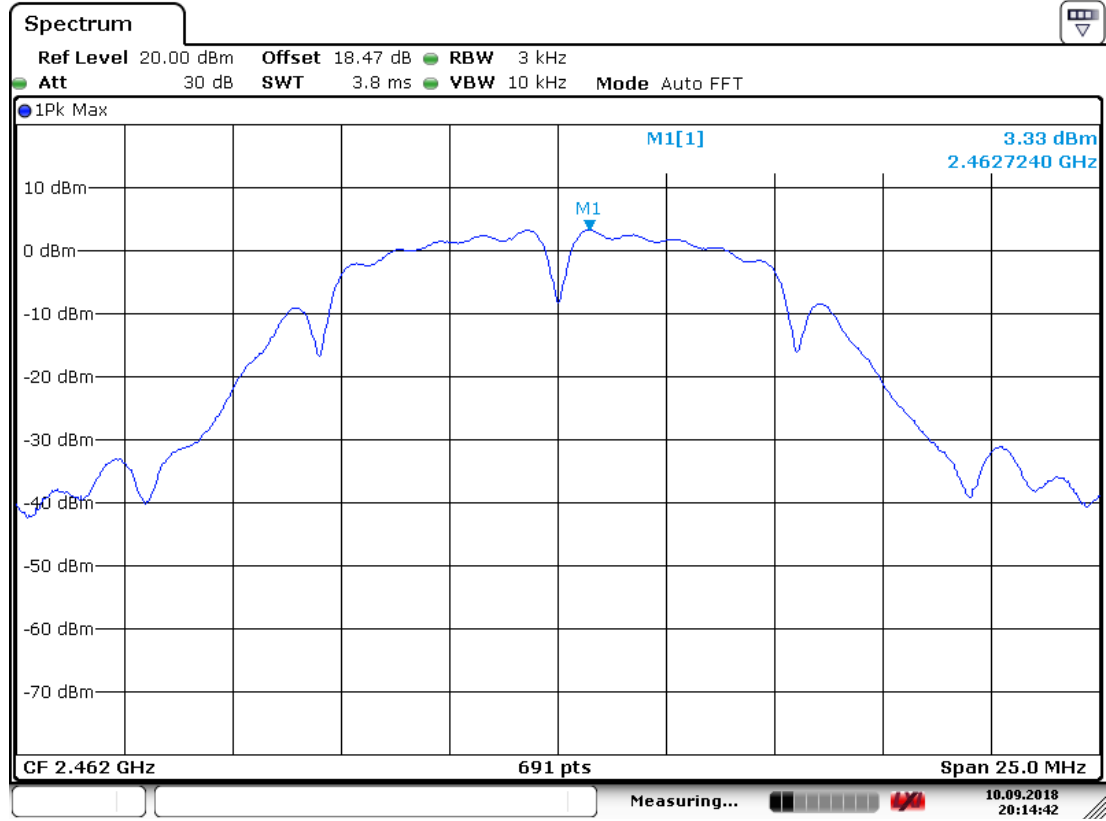
Maximum(average) power spectral density\_11B\_2437\_Ant2



Date: 10.SEP.2018 20:14:29

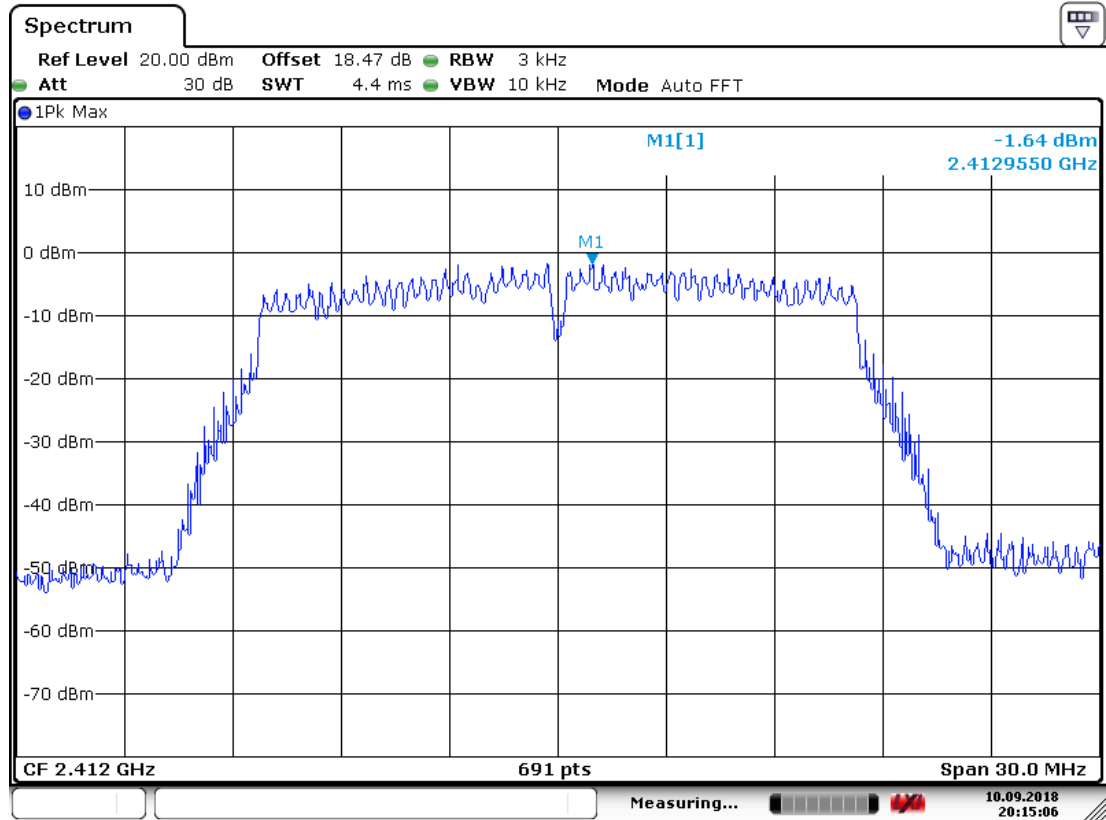


Maximum(average) power spectral density\_11B\_2462\_Ant2



Date: 10.SEP.2018 20:14:42

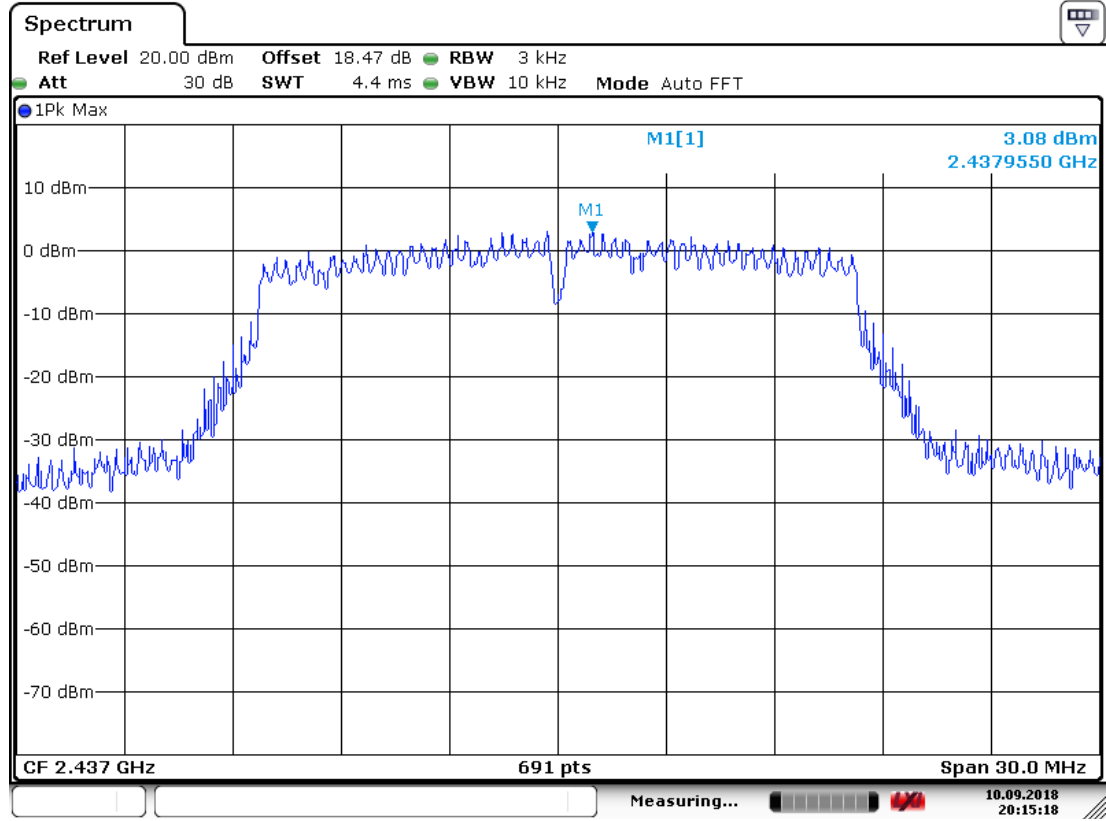
Maximum(average) power spectral density\_11G\_2412\_Ant2



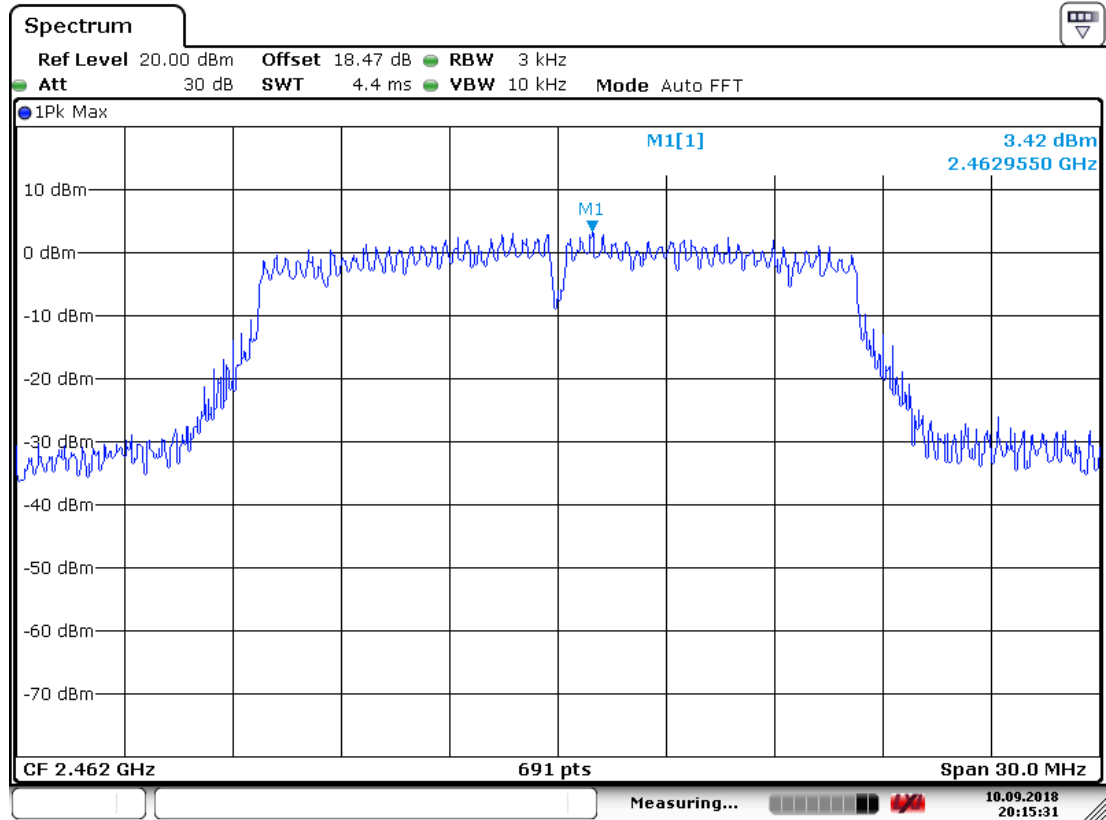
Date: 10.SEP.2018 20:15:06



Maximum(average) power spectral density\_11G\_2437\_Ant2

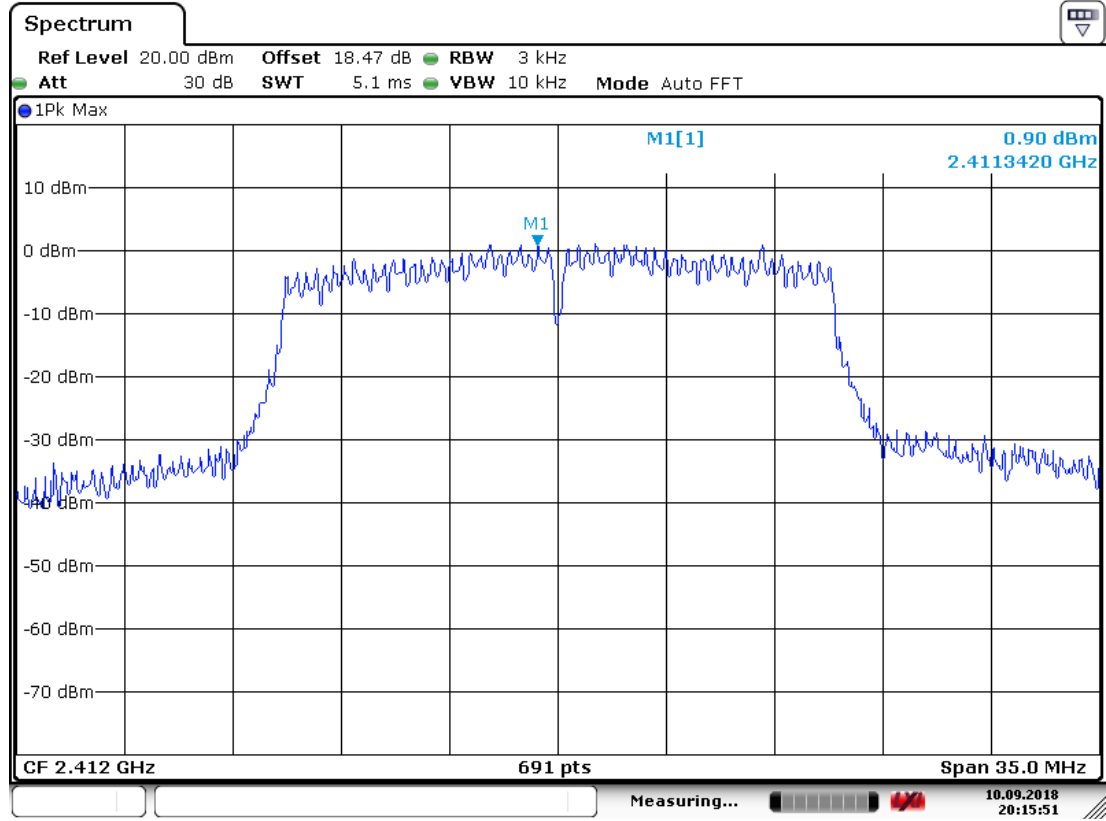


Maximum(average) power spectral density\_11G\_2462\_Ant2

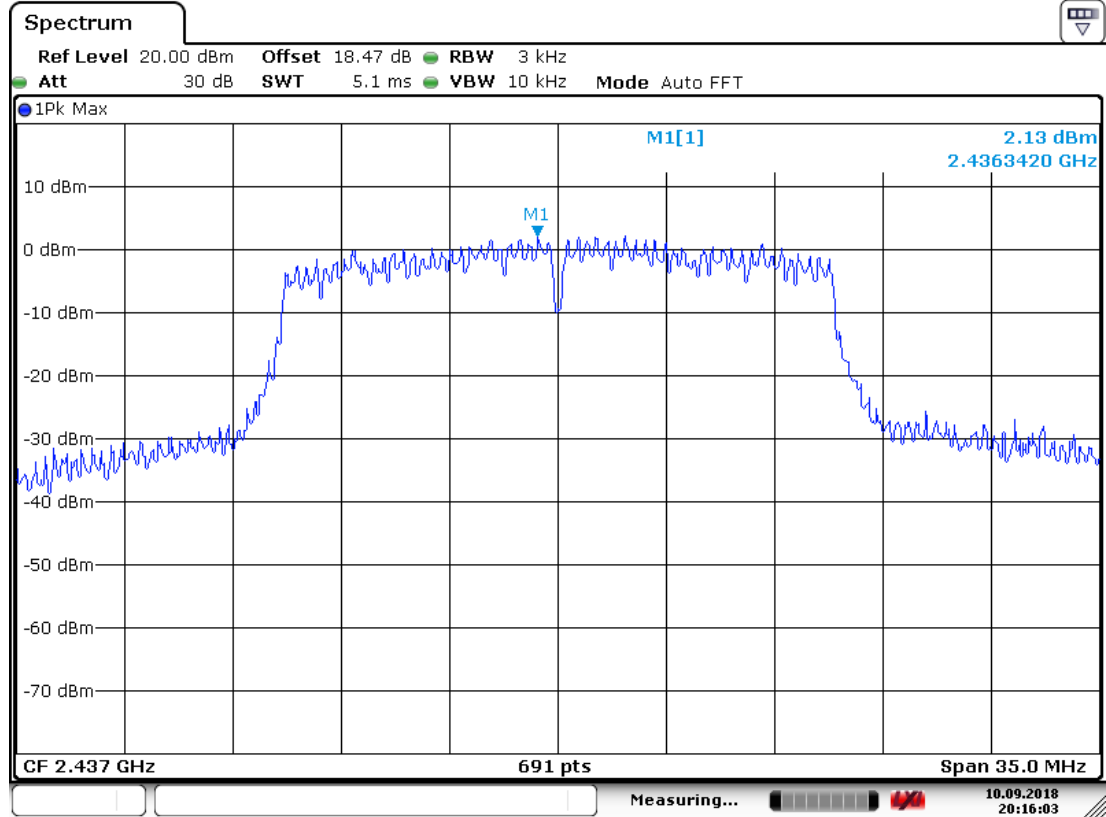




Maximum(average) power spectral density\_11N20SISO\_2412\_Ant2

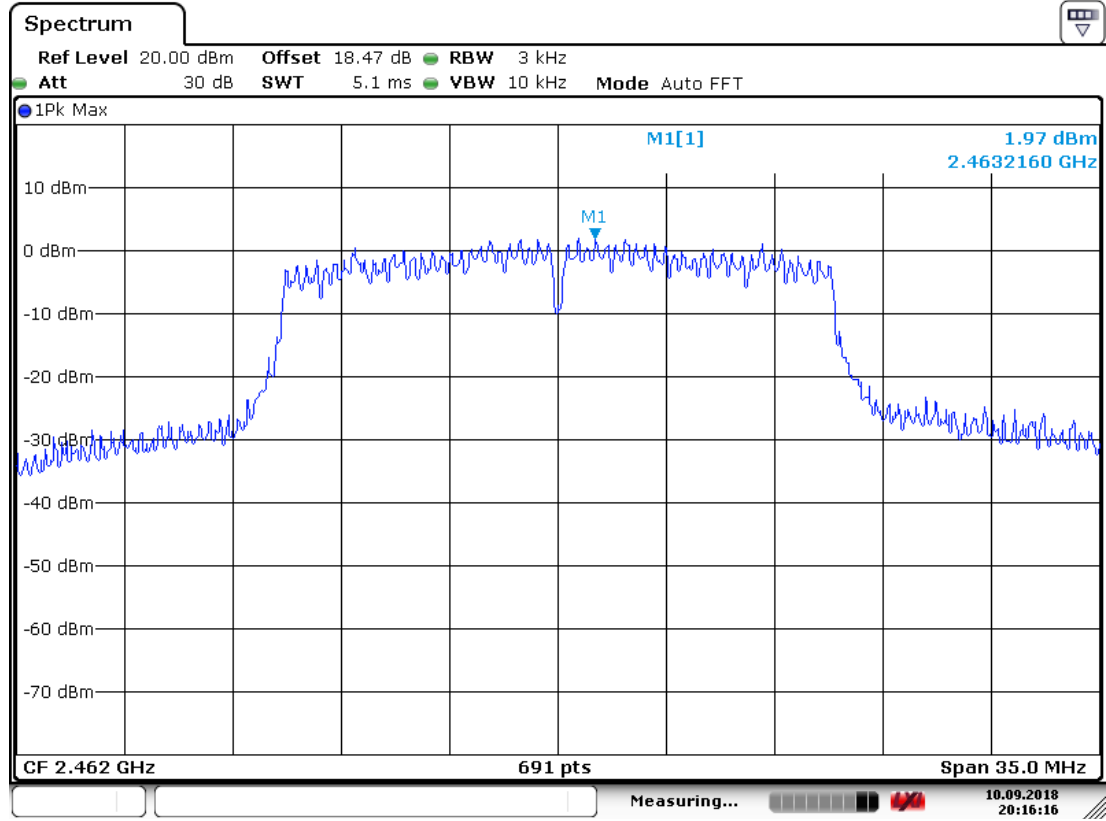


Maximum(average) power spectral density\_11N20SISO\_2437\_Ant2



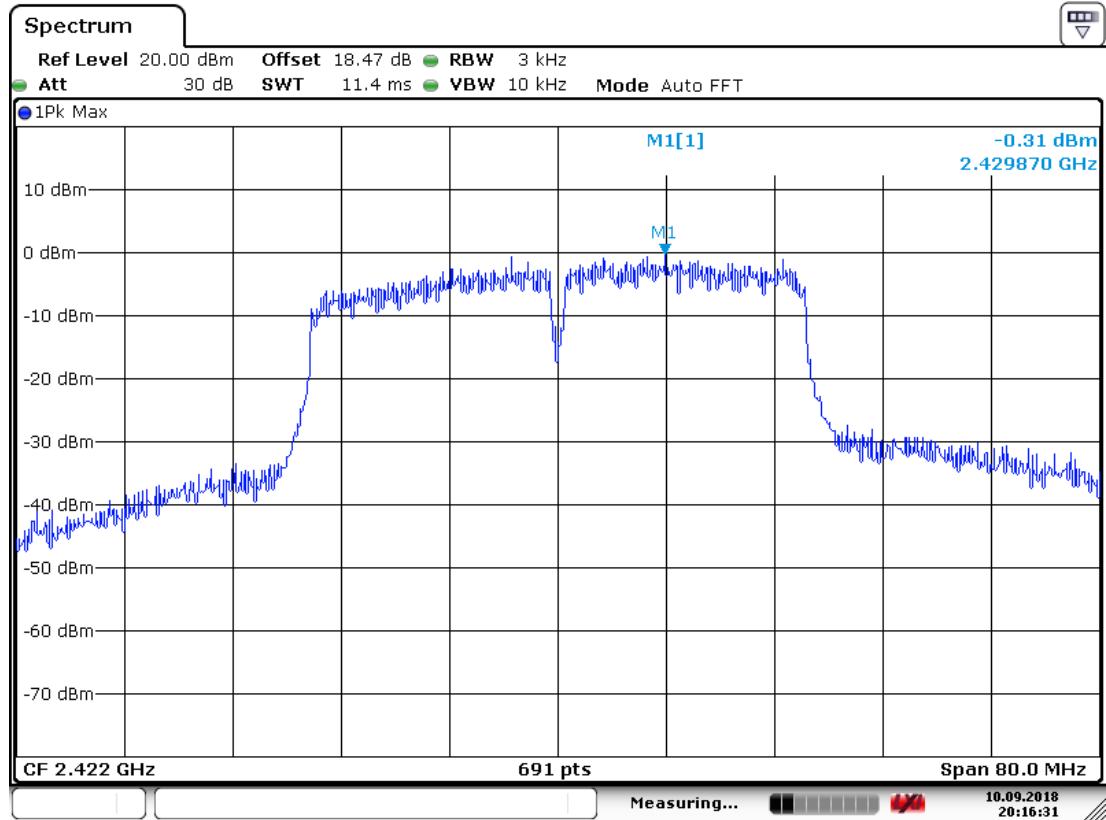


Maximum(average) power spectral density\_11N20SISO\_2462\_Ant2



Date: 10.SEP.2018 20:16:16

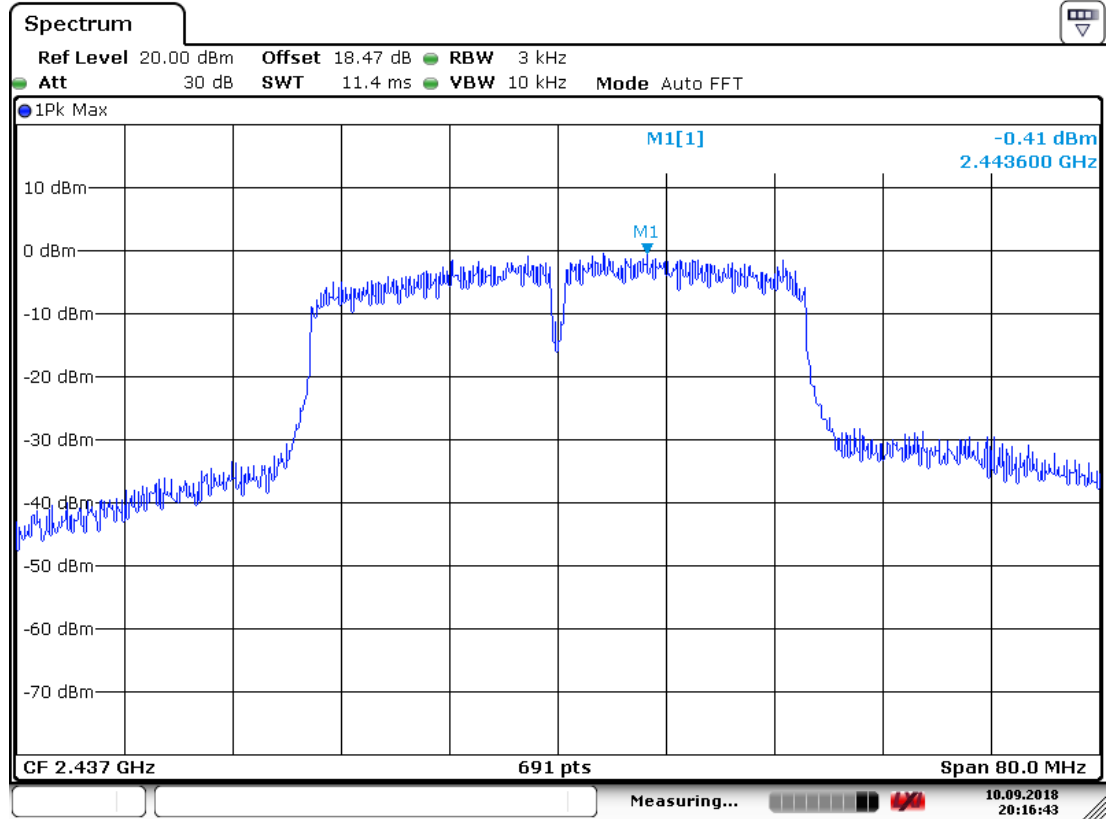
Maximum(average) power spectral density\_11N40SISO\_2422\_Ant2



Date: 10.SEP.2018 20:16:31

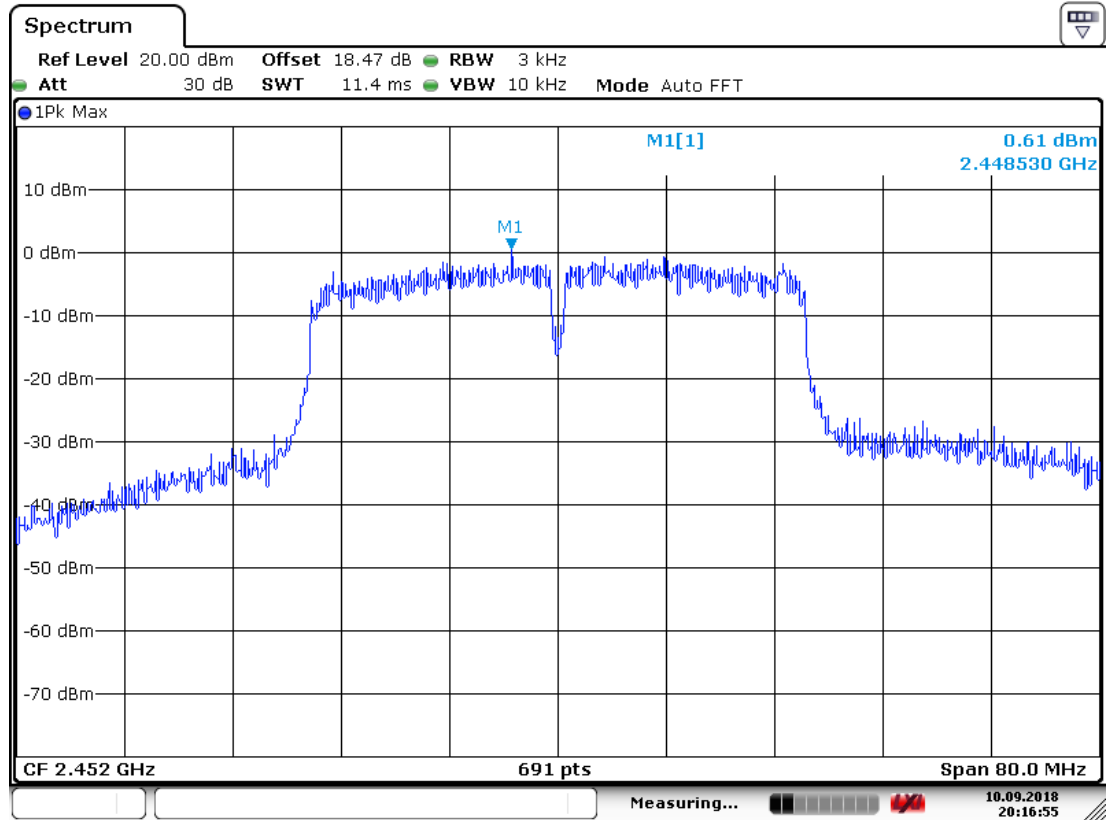


Maximum(average) power spectral density\_11N40SISO\_2437\_Ant2



Date: 10.SEP.2018 20:16:43

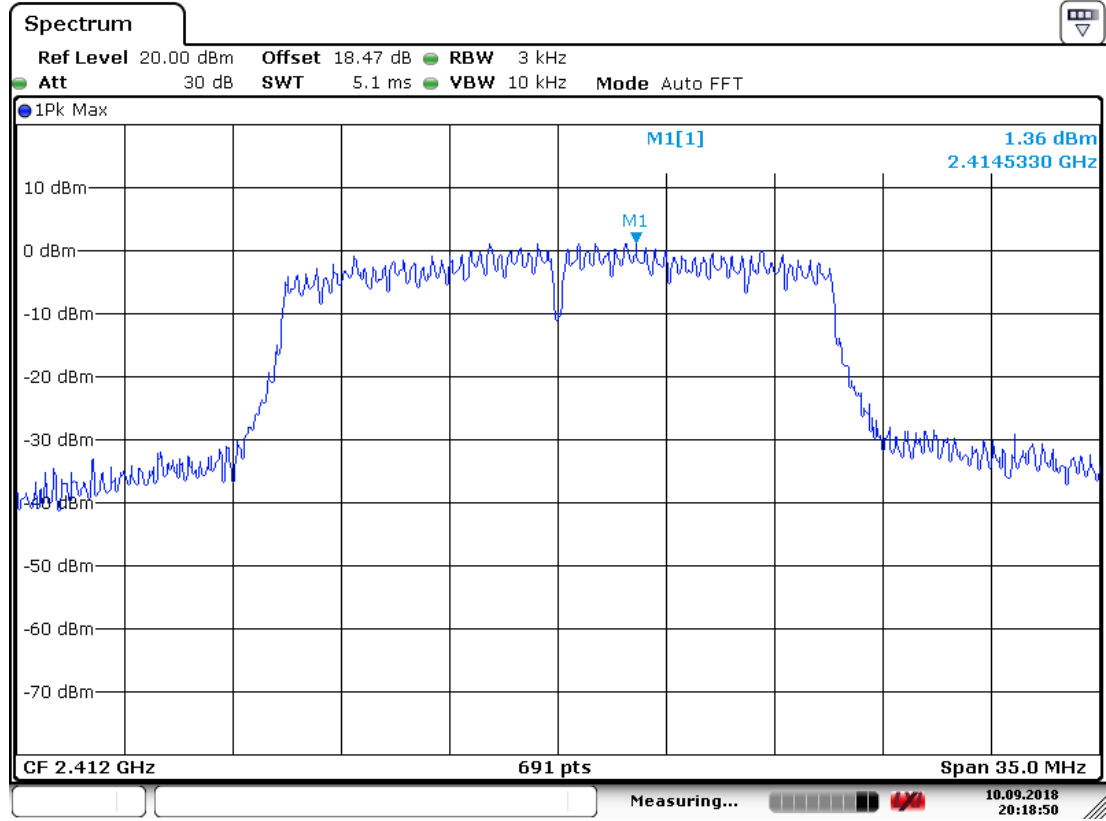
Maximum(average) power spectral density\_11N40SISO\_2452\_Ant2



Date: 10.SEP.2018 20:16:56

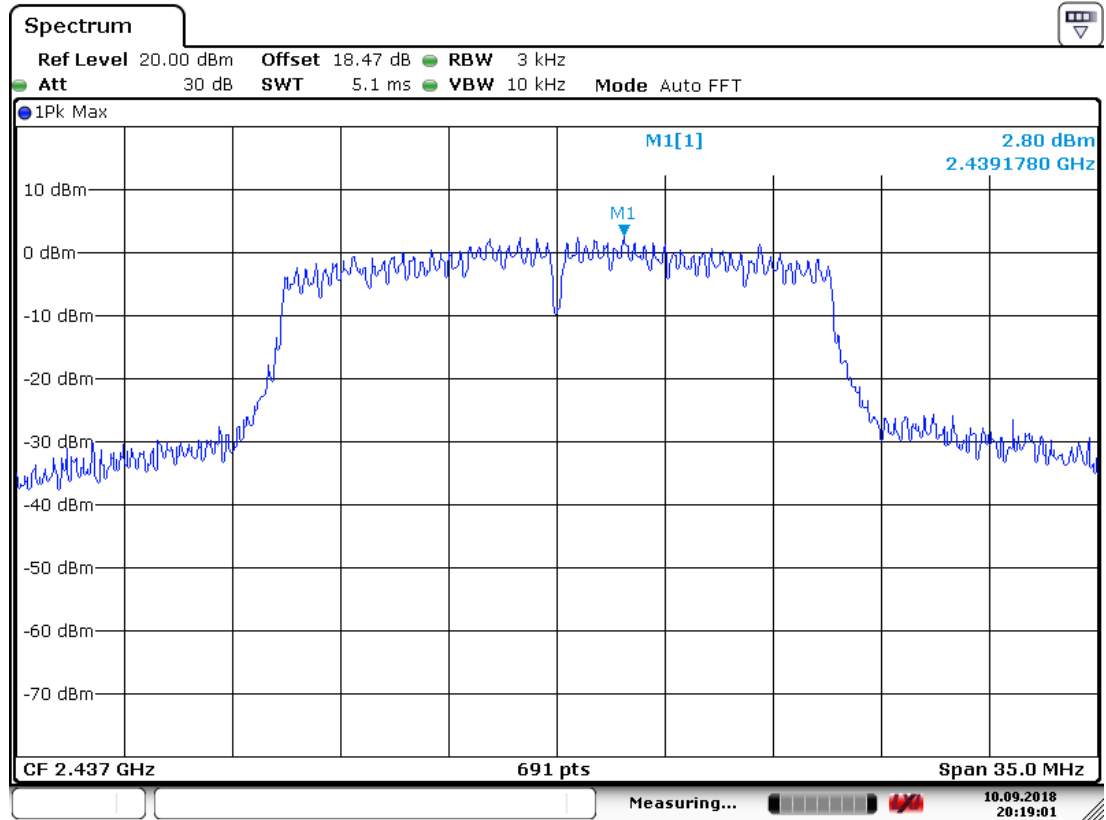


Maximum(average) power spectral density\_11N20MIMO\_2412\_Ant1+2



Date: 10.SEP.2018 20:18:50

Maximum(average) power spectral density\_11N20MIMO\_2437\_Ant1+2

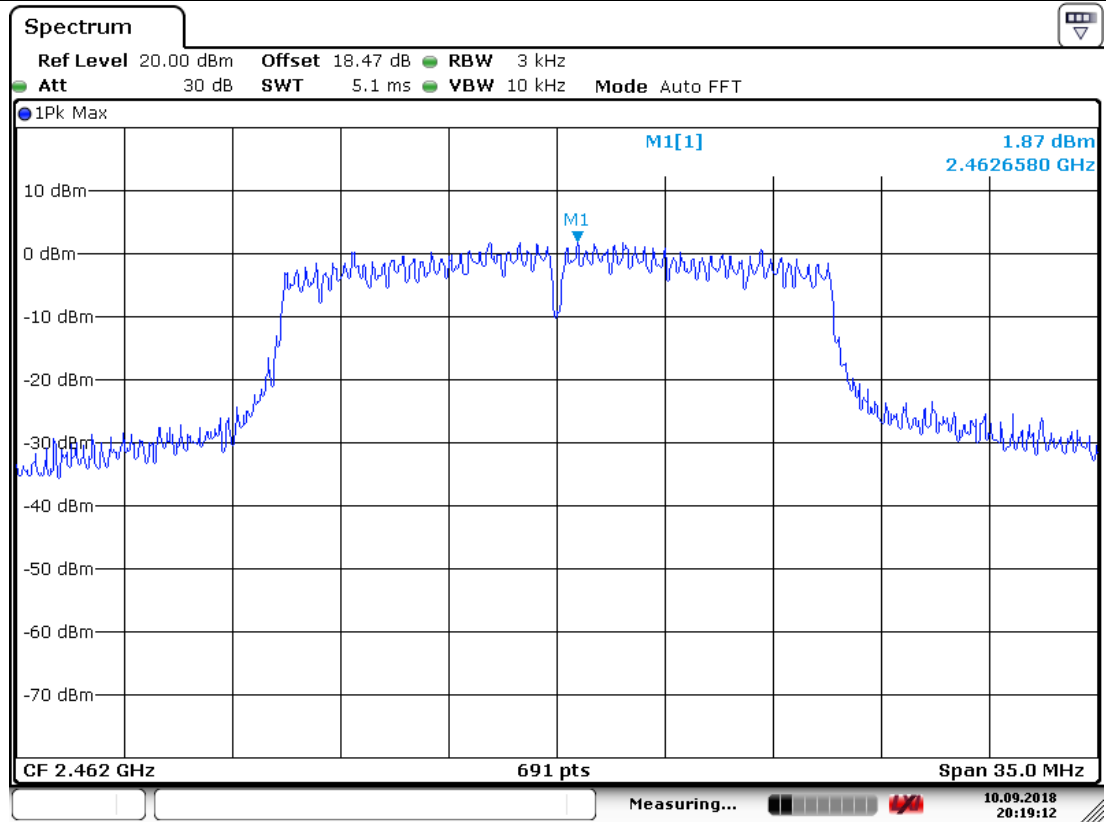


Date: 10.SEP.2018 20:19:01



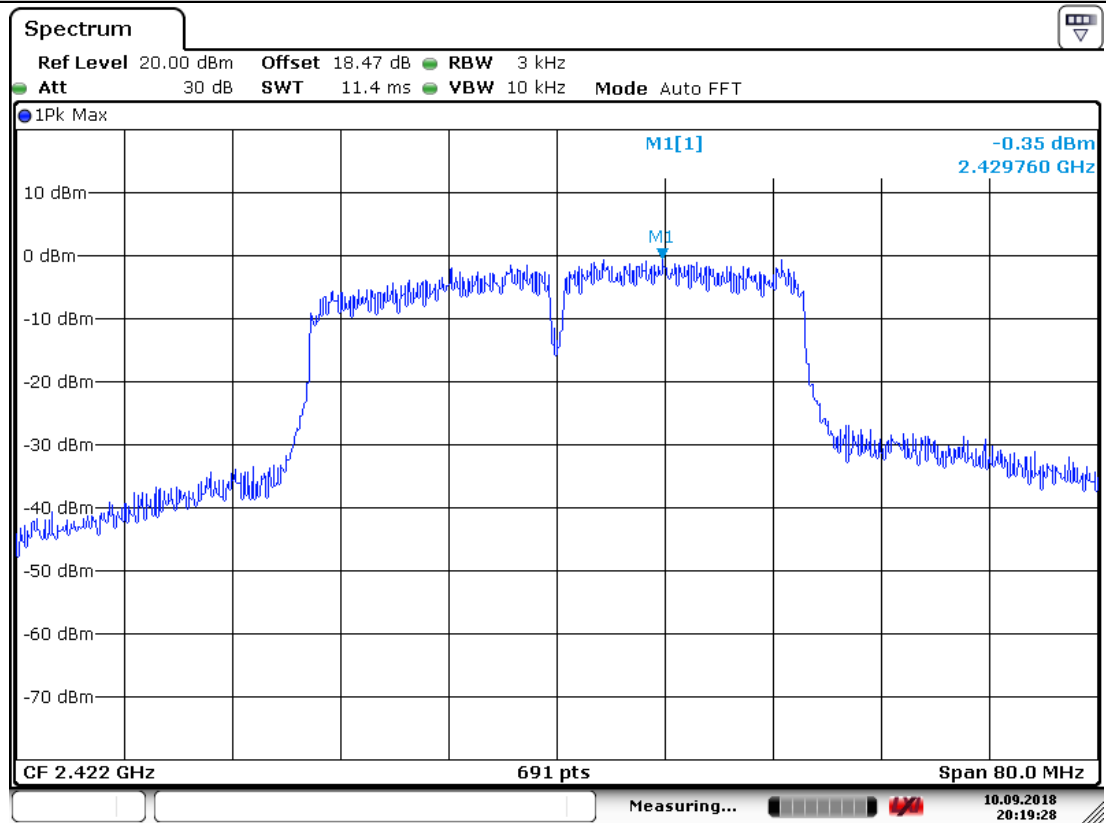


Maximum(average) power spectral density\_11N20MIMO\_2462\_Ant1+2



Date: 10.SEP.2018 20:19:12

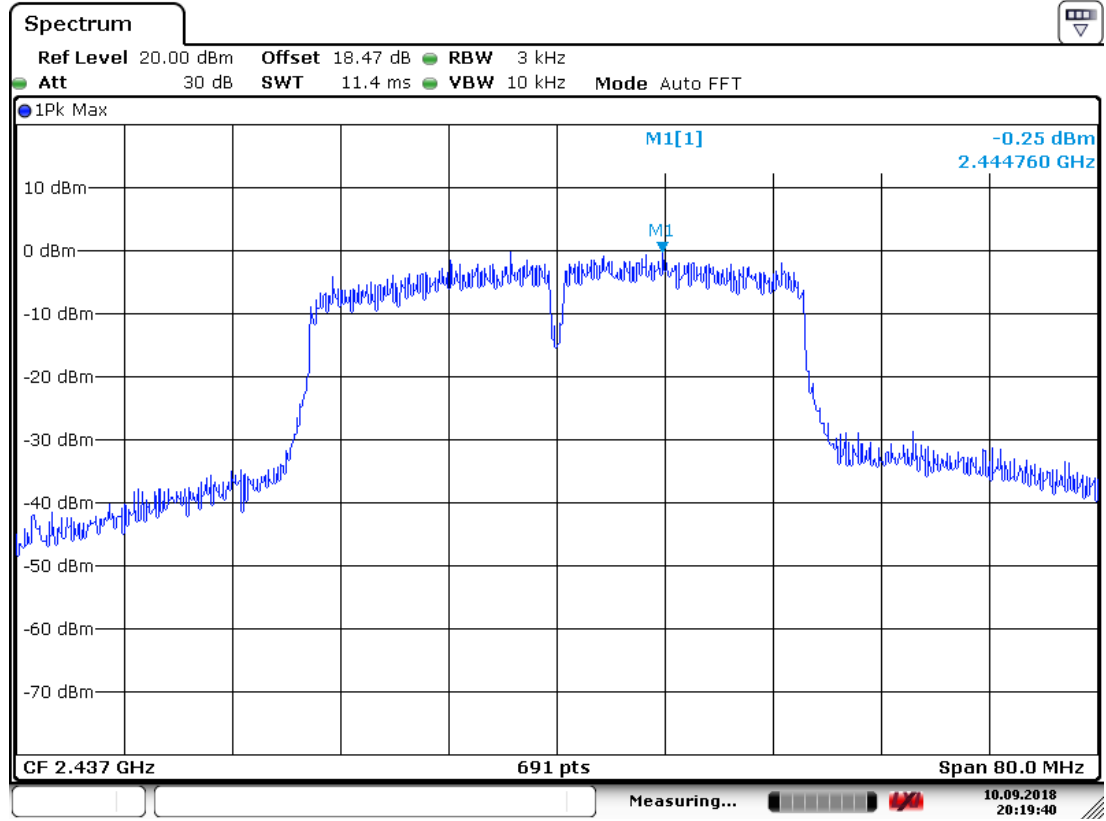
Maximum(average) power spectral density\_11N40MIMO\_2422\_Ant1+2



Date: 10.SEP.2018 20:19:28

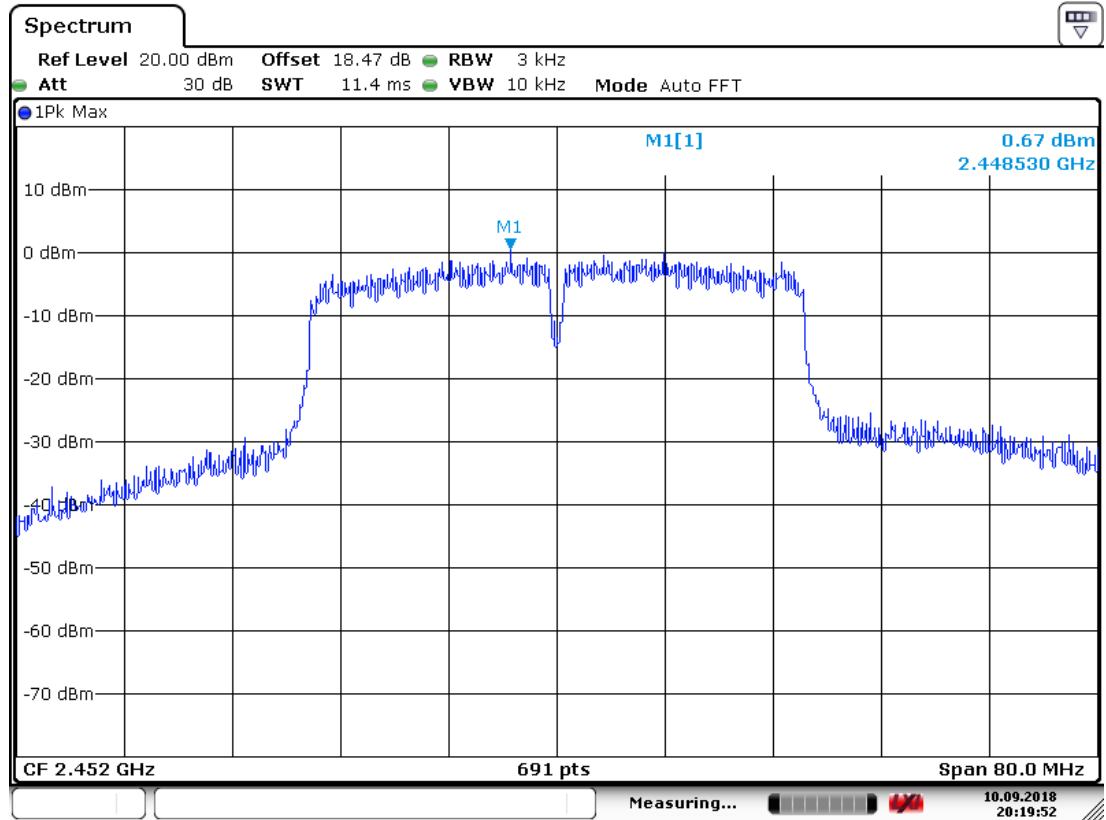


Maximum(average) power spectral density\_11N40MIMO\_2437\_Ant1+2



Date: 10.SEP.2018 20:19:41

Maximum(average) power spectral density\_11N40MIMO\_2452\_Ant1+2



Date: 10.SEP.2018 20:19:52

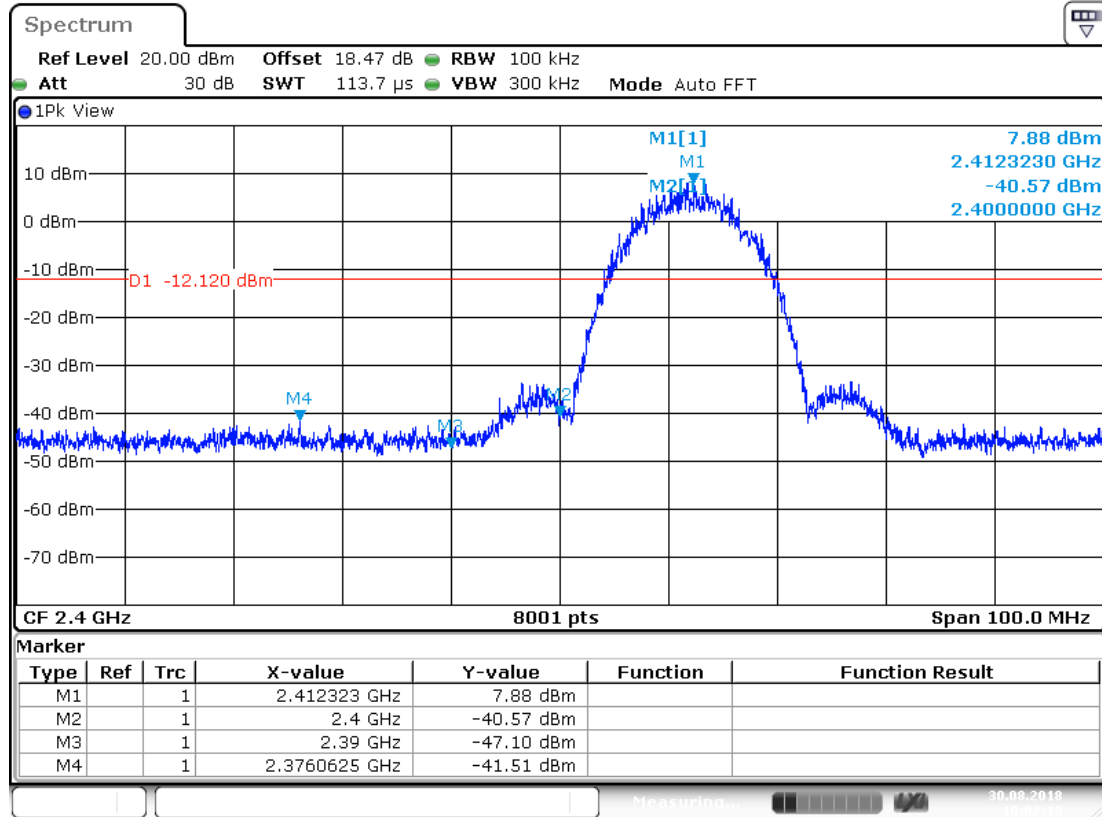


5.Band-edge for RF Conducted Emissions

Test Mode	Test Channel	Ant	Carrier Power[dBm]	Max. Spurious Level [dBm]	Limit [dBm]	Verdict
11B	2412	Ant1	7.880	-40.570	-12.12	PASS
11B	2462	Ant1	8.560	-41.770	-11.44	PASS
11G	2412	Ant1	4.620	-41.190	-15.38	PASS
11G	2462	Ant1	4.930	-39.970	-15.07	PASS
11N20SISO	2412	Ant1	4.460	-42.290	-15.54	PASS
11N20SISO	2462	Ant1	4.900	-41.260	-15.1	PASS
11N40SISO	2422	Ant1	1.490	-41.430	-18.51	PASS
11N40SISO	2452	Ant1	1.830	-36.900	-18.17	PASS
11B	2412	Ant2	7.310	-42.310	-12.69	PASS
11B	2462	Ant2	7.880	-41.830	-12.12	PASS
11G	2412	Ant2	5.150	-42.240	-14.85	PASS
11G	2462	Ant2	5.590	-40.570	-14.41	PASS
11N20SISO	2412	Ant2	4.440	-42.200	-15.56	PASS
11N20SISO	2462	Ant2	4.160	-41.080	-15.84	PASS
11N40SISO	2422	Ant2	1.850	-38.180	-18.15	PASS
11N40SISO	2452	Ant2	1.740	-36.630	-18.26	PASS
11N20MIMO	2412	Ant1+2	4.140	-39.010	-15.86	PASS
11N20MIMO	2462	Ant1+2	5.010	-39.300	-14.99	PASS
11N40MIMO	2422	Ant1+2	2.110	-39.110	-17.89	PASS
11N40MIMO	2452	Ant1+2	1.890	-39.240	-18.11	PASS

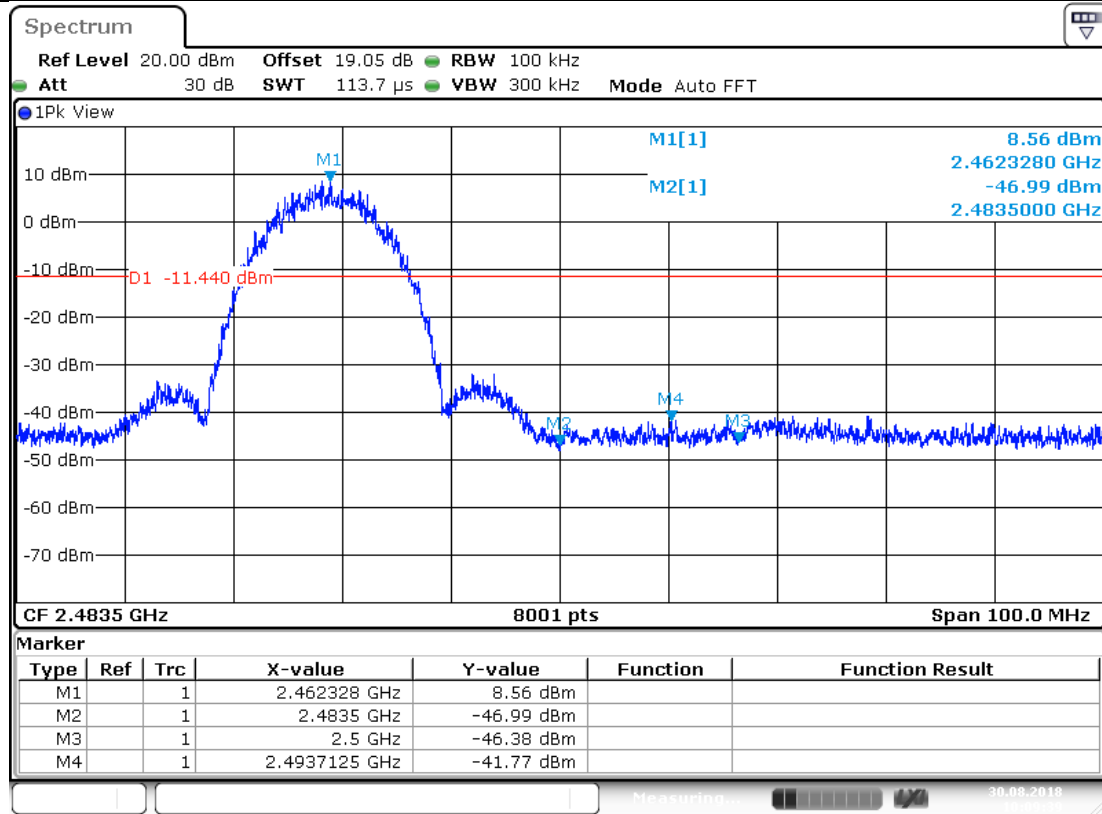


Band-edge for RF Conducted Emissions\_11B\_2412\_Ant1



Date: 30.AUG.2018 10:02:09

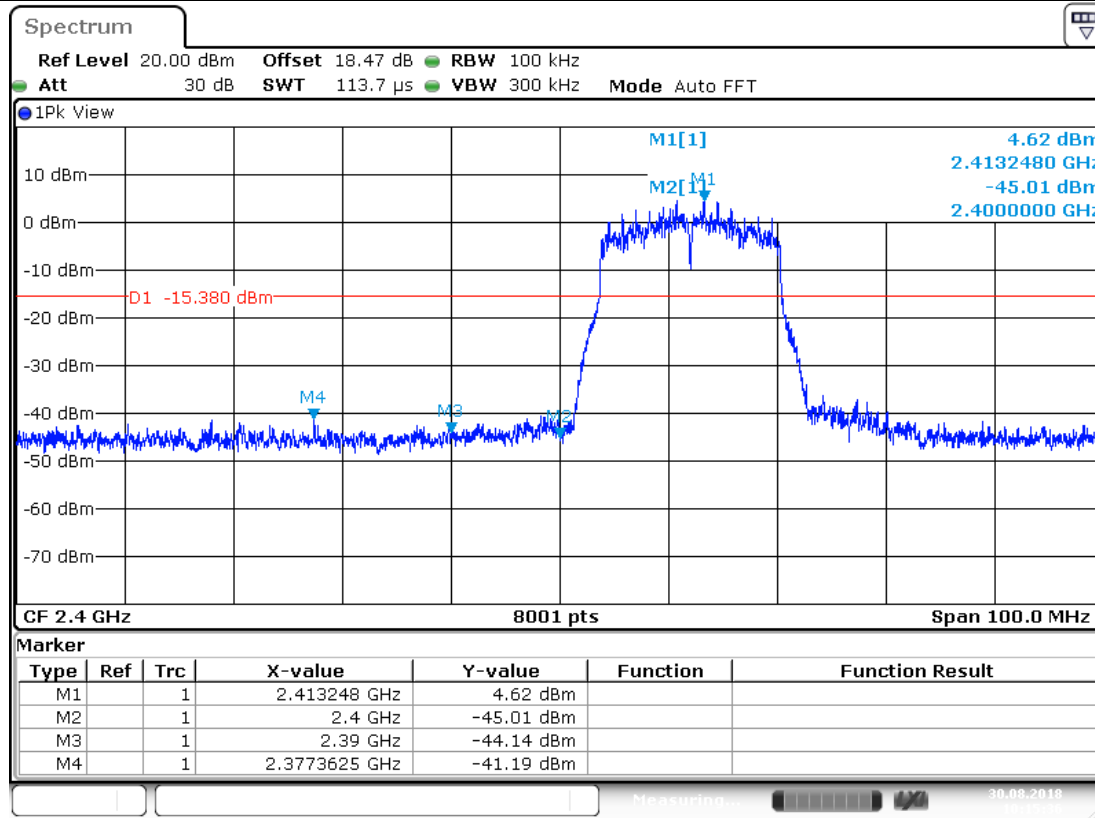
Band-edge for RF Conducted Emissions\_11B\_2462\_Ant1



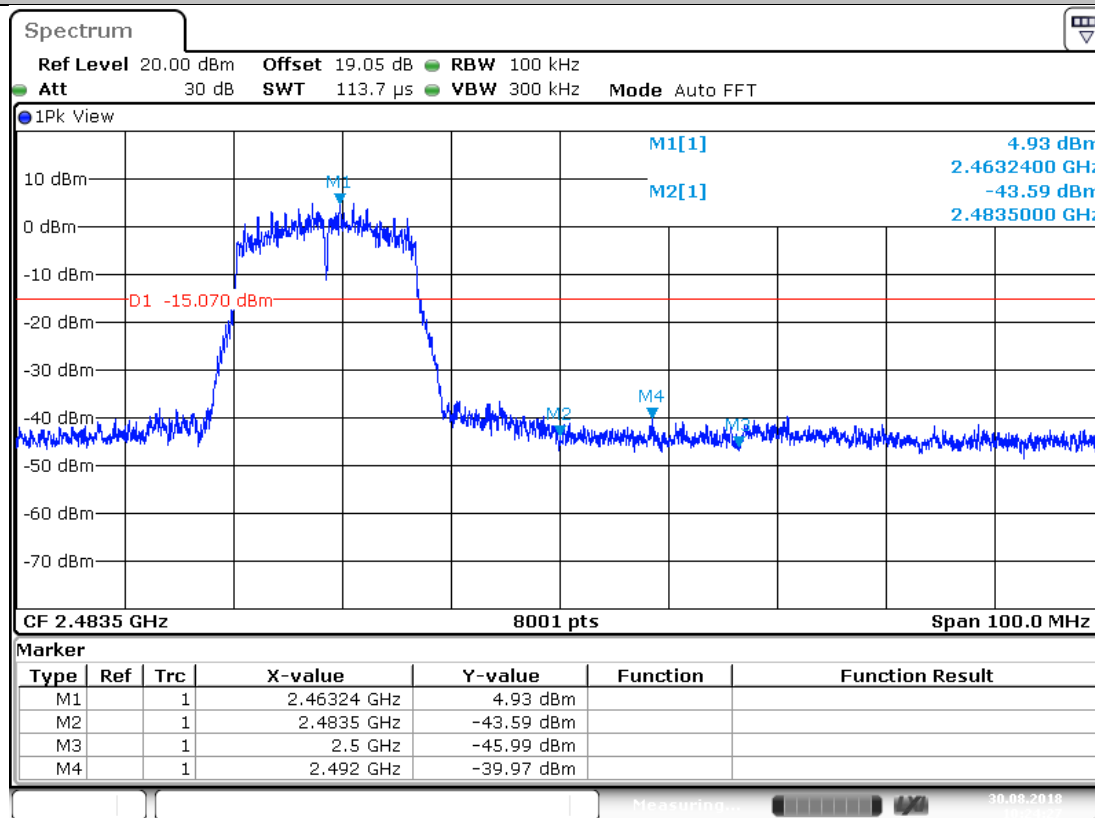
Date: 30.AUG.2018 10:09:39



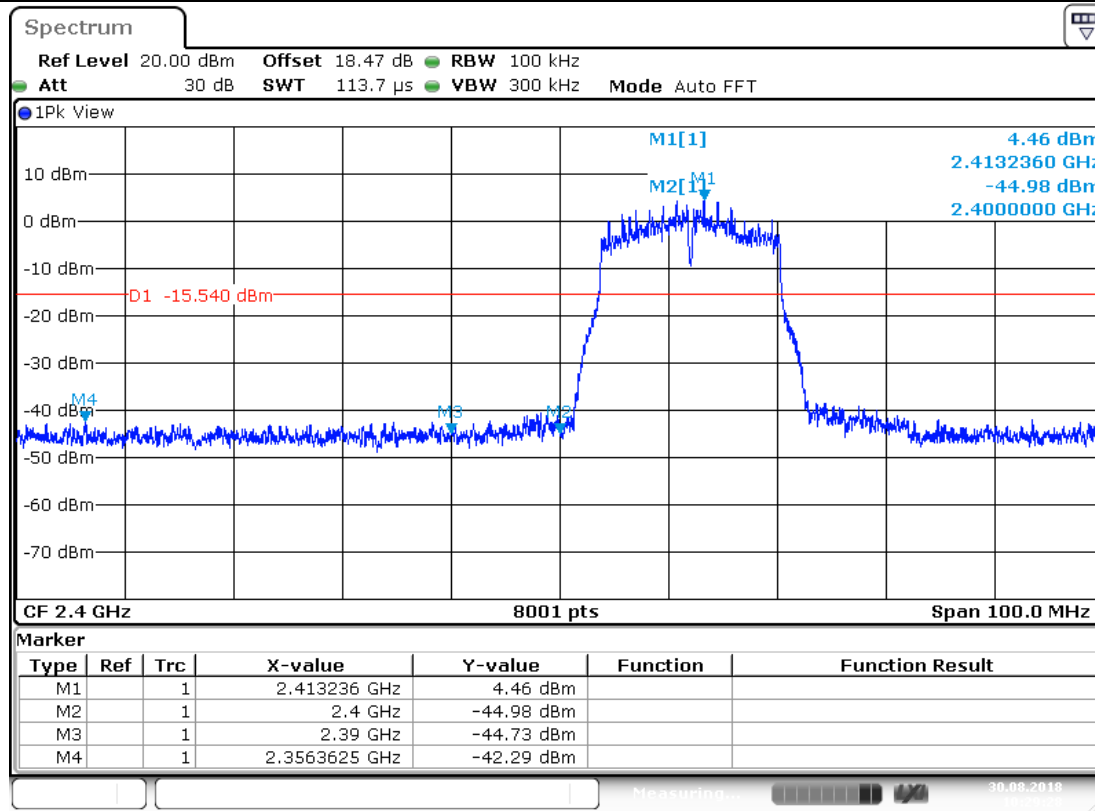
Band-edge for RF Conducted Emissions\_11G\_2412\_Ant1



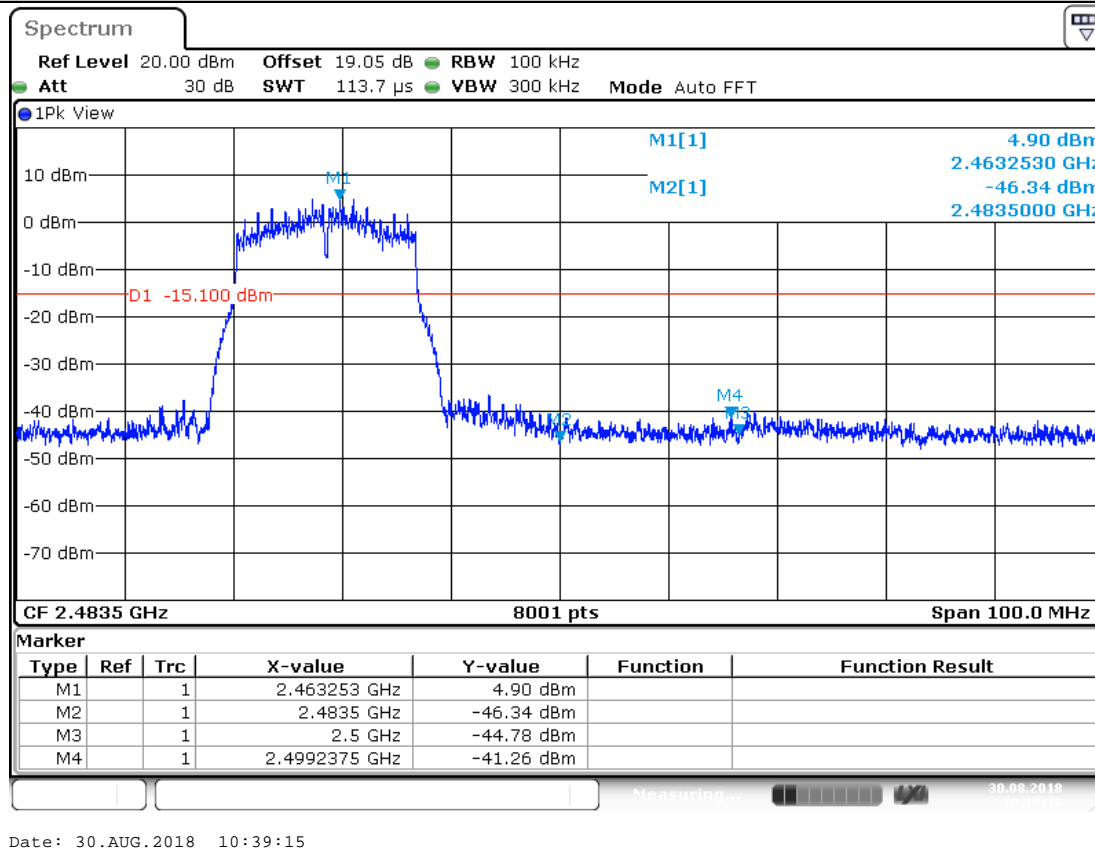
Band-edge for RF Conducted Emissions\_11G\_2462\_Ant1



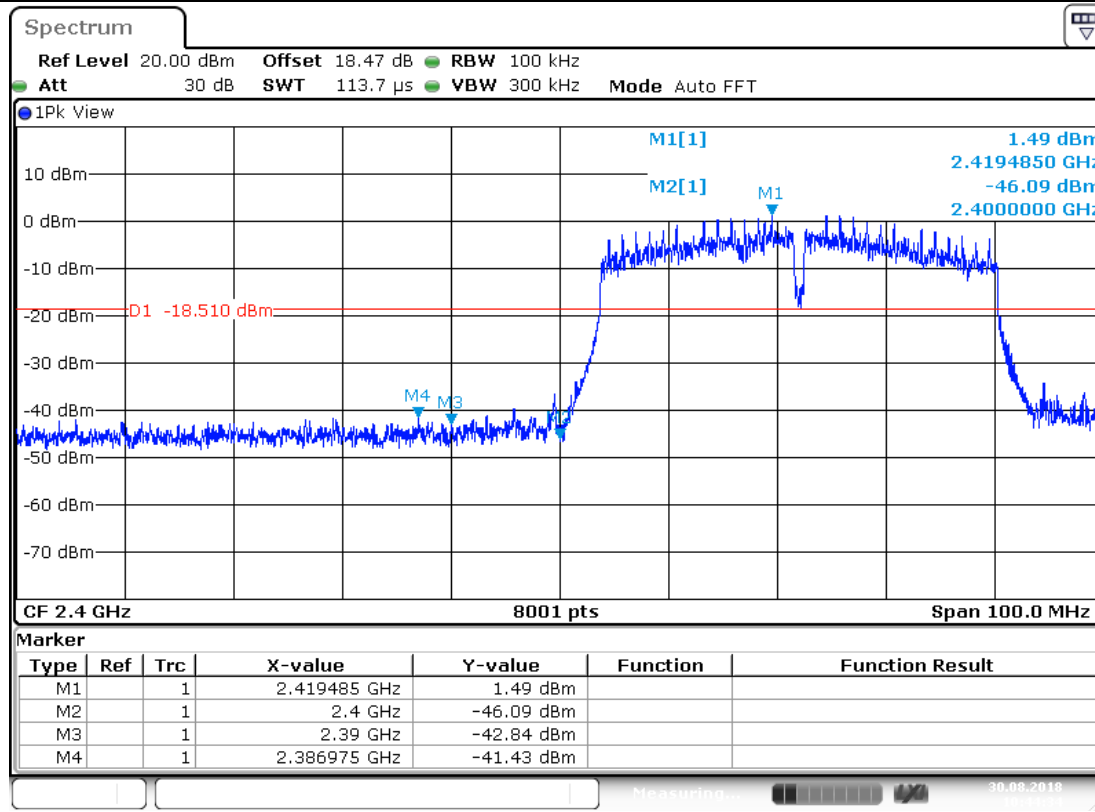
Band-edge for RF Conducted Emissions\_11N20SISO\_2412\_Ant1



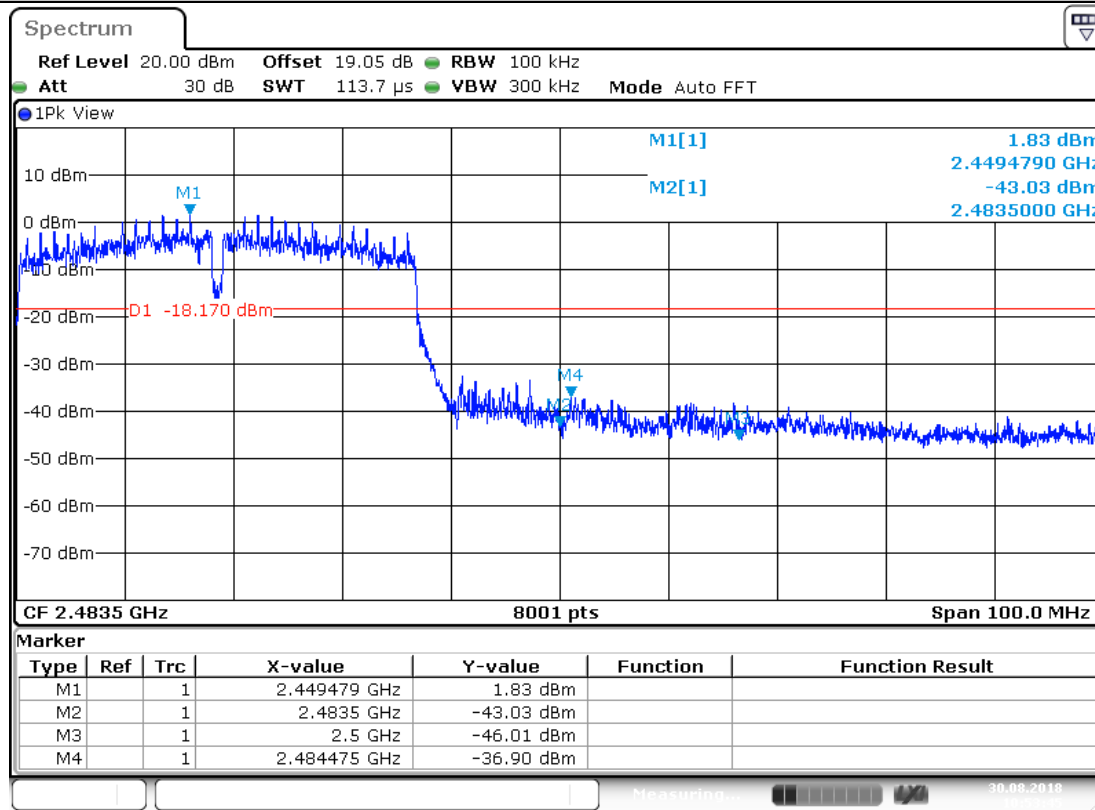
Band-edge for RF Conducted Emissions\_11N20SISO\_2462\_Ant1



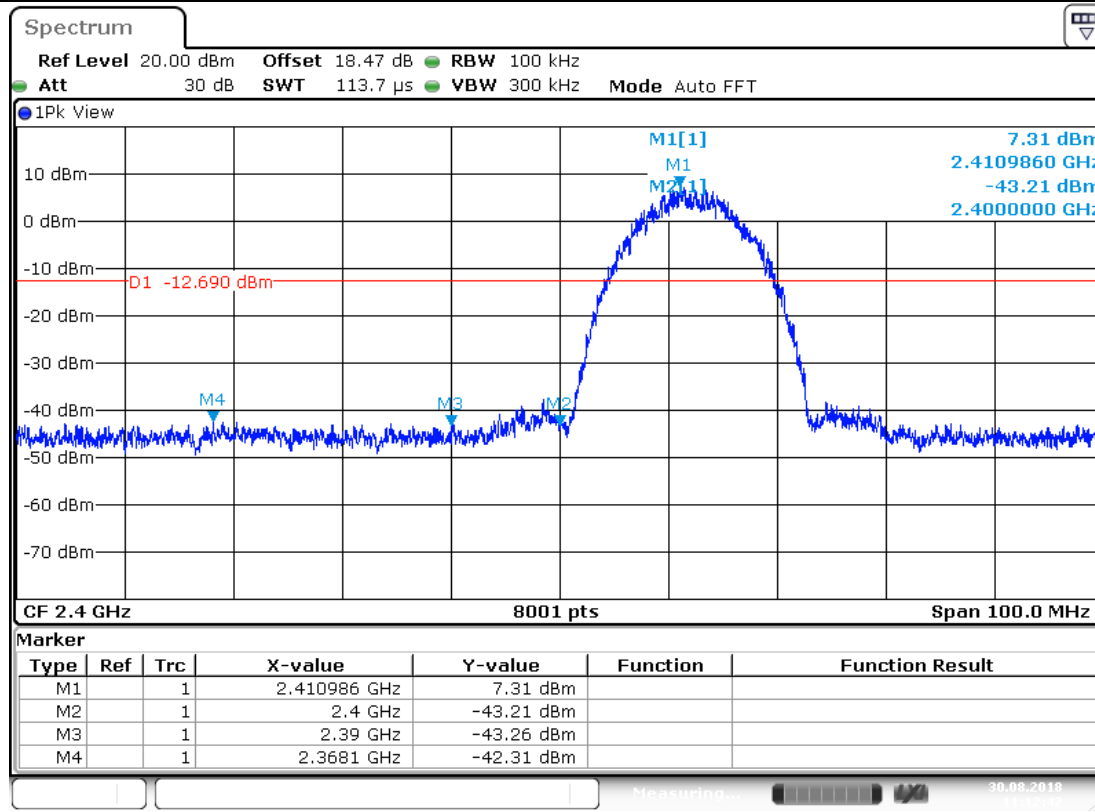
Band-edge for RF Conducted Emissions\_11N40SISO\_2422\_Ant1



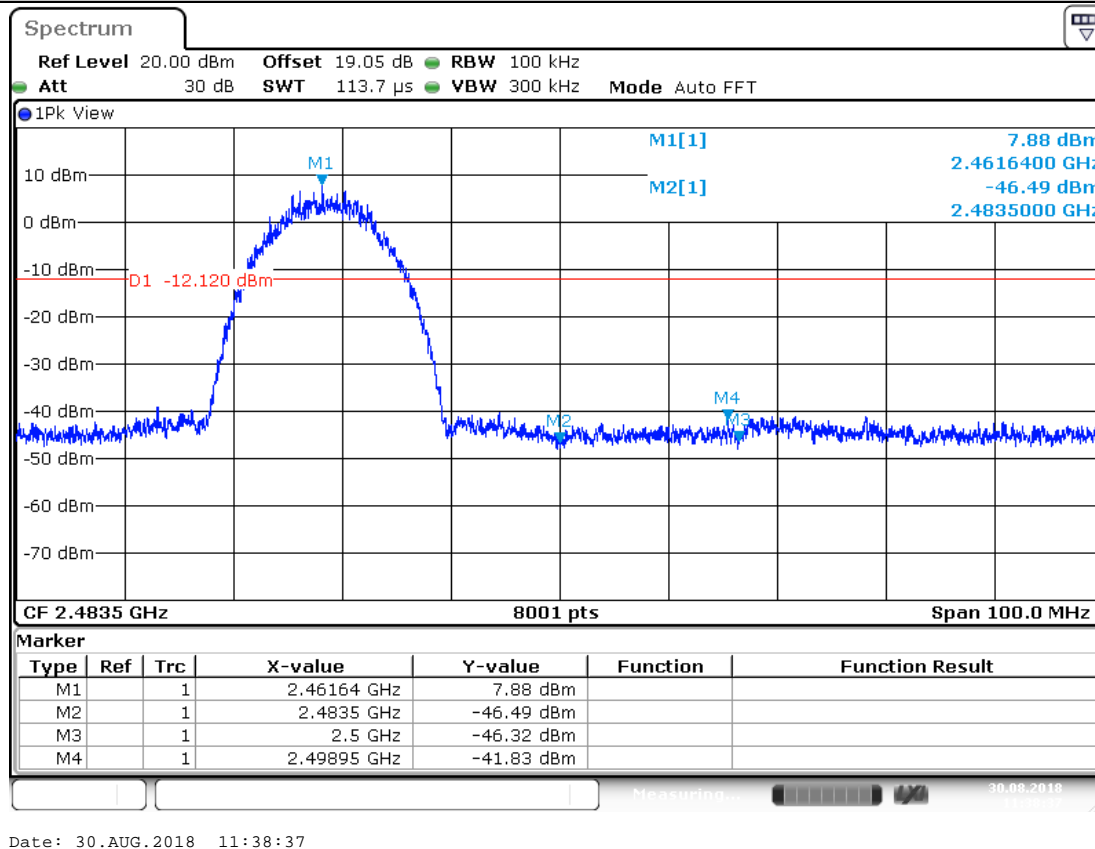
Band-edge for RF Conducted Emissions\_11N40SISO\_2452\_Ant1



Band-edge for RF Conducted Emissions\_11B\_2412\_Ant2

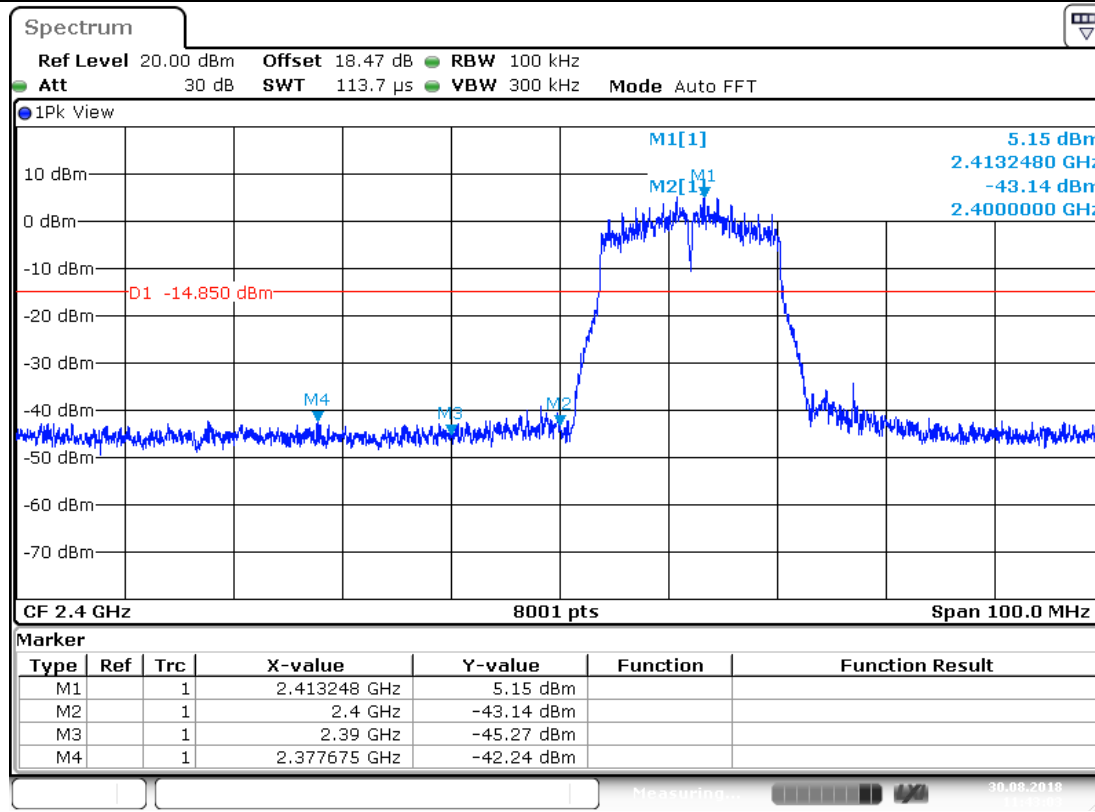


Band-edge for RF Conducted Emissions\_11B\_2462\_Ant2

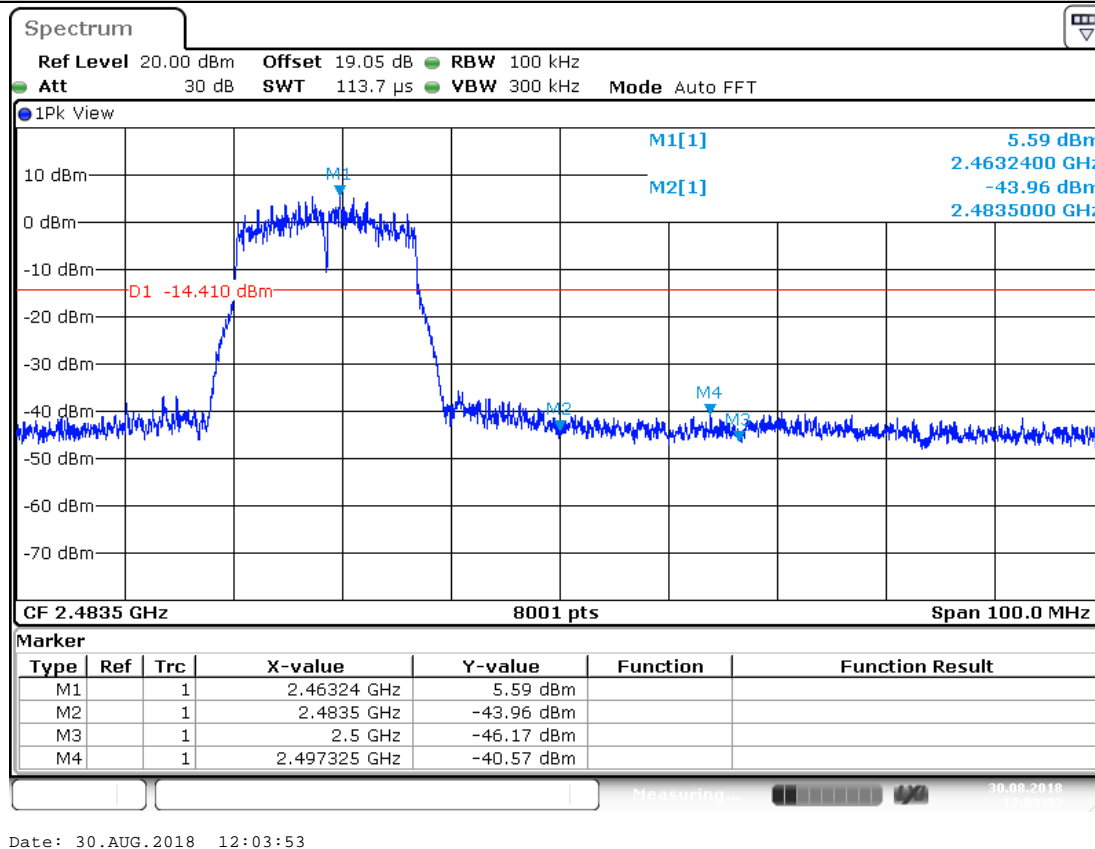


Band-edge for RF Conducted Emissions\_11G\_2412\_Ant2

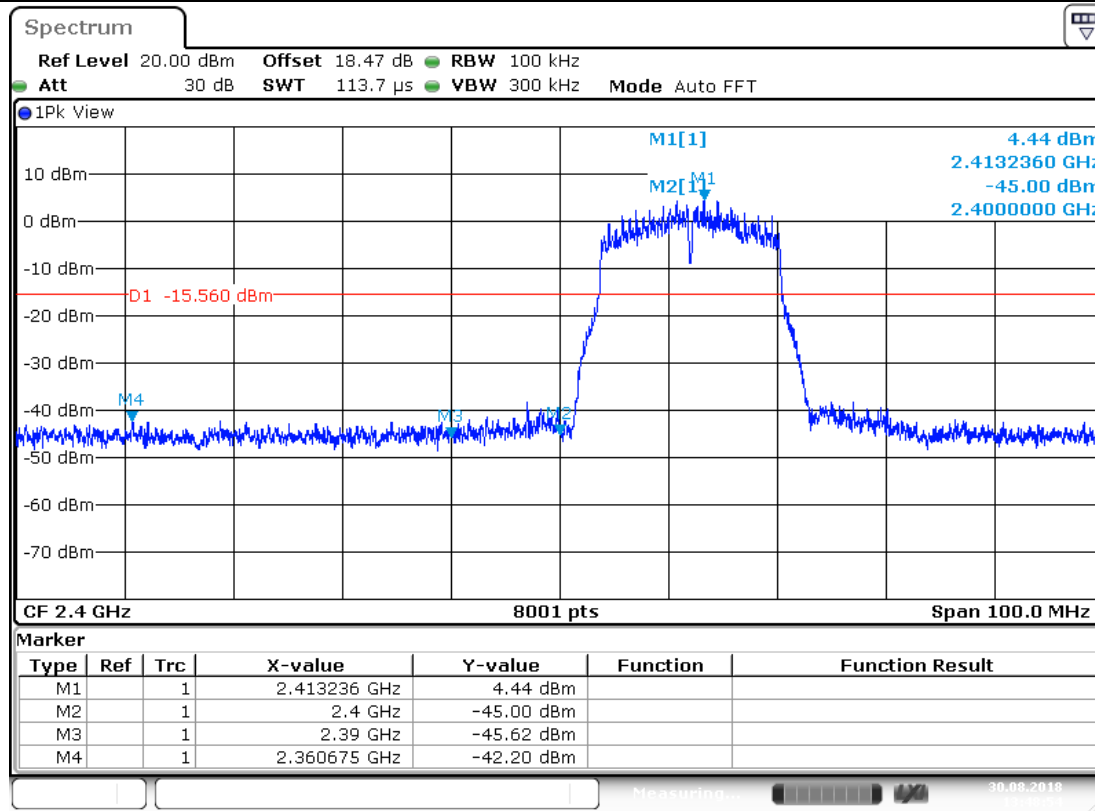




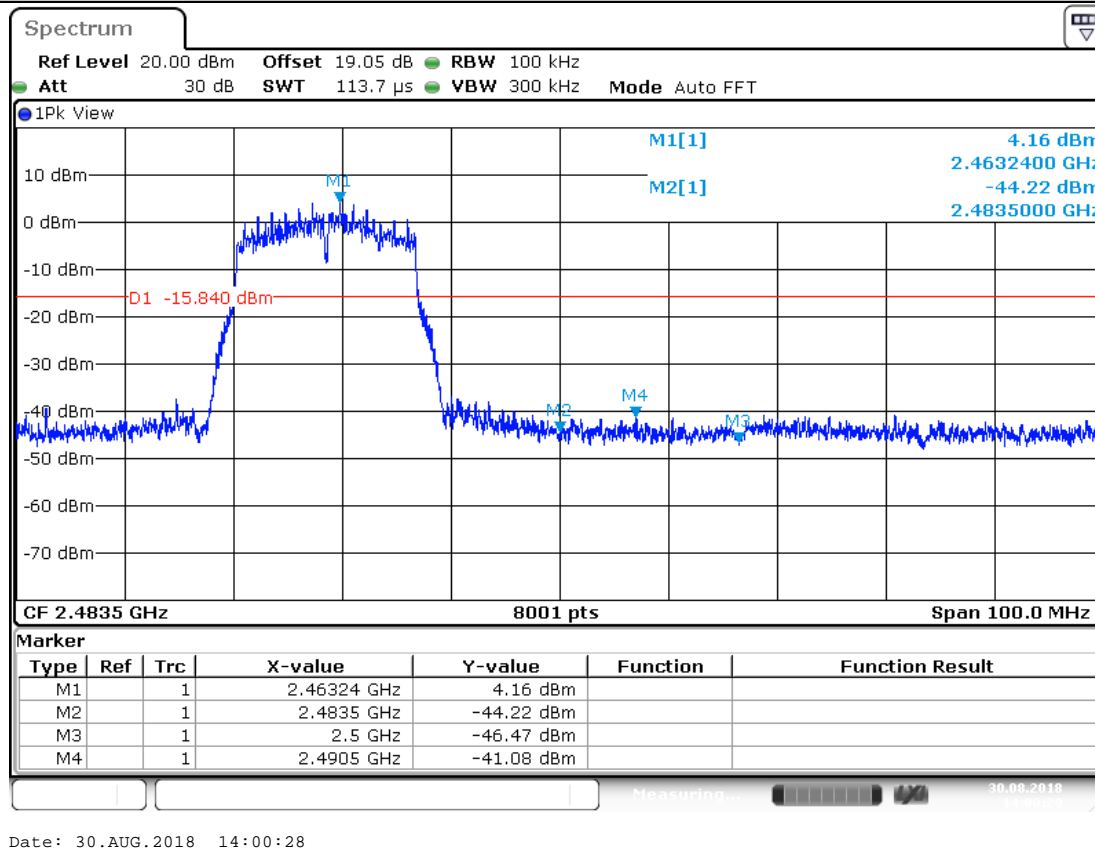
Band-edge for RF Conducted Emissions\_11G\_2462\_Ant2



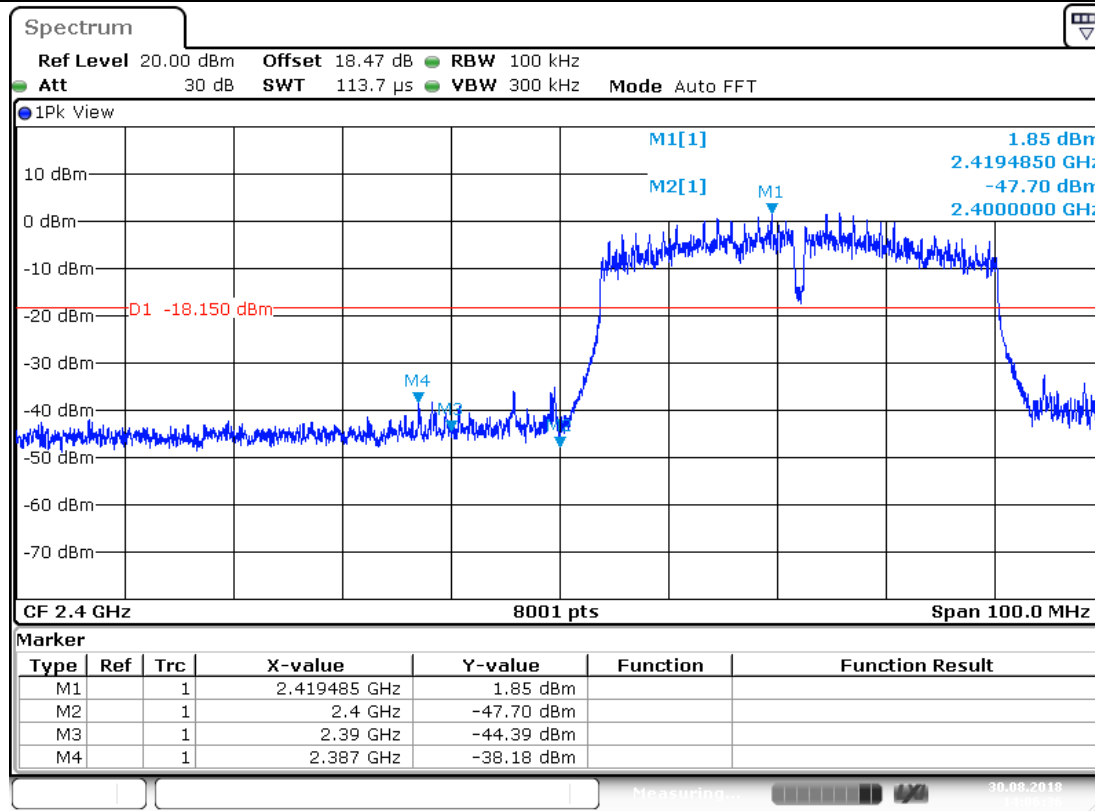
Band-edge for RF Conducted Emissions\_11N20SISO\_2412\_Ant2



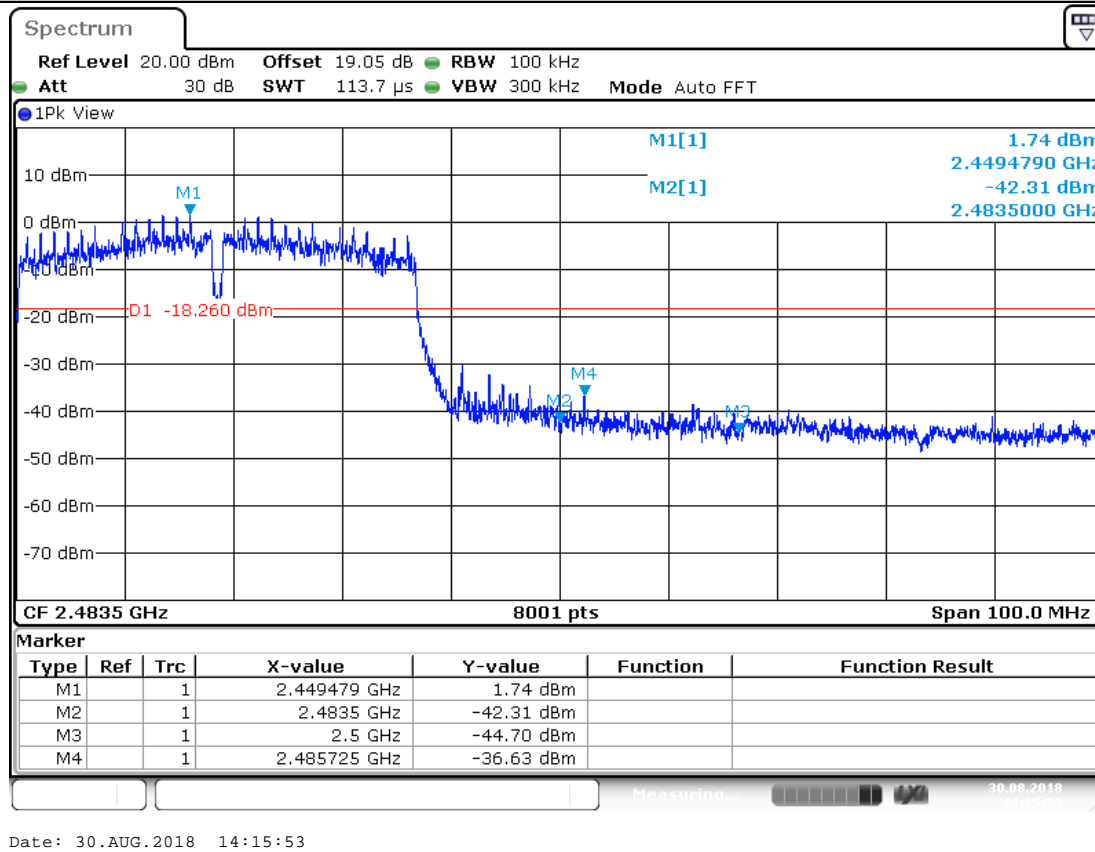
Band-edge for RF Conducted Emissions\_11N20SISO\_2462\_Ant2



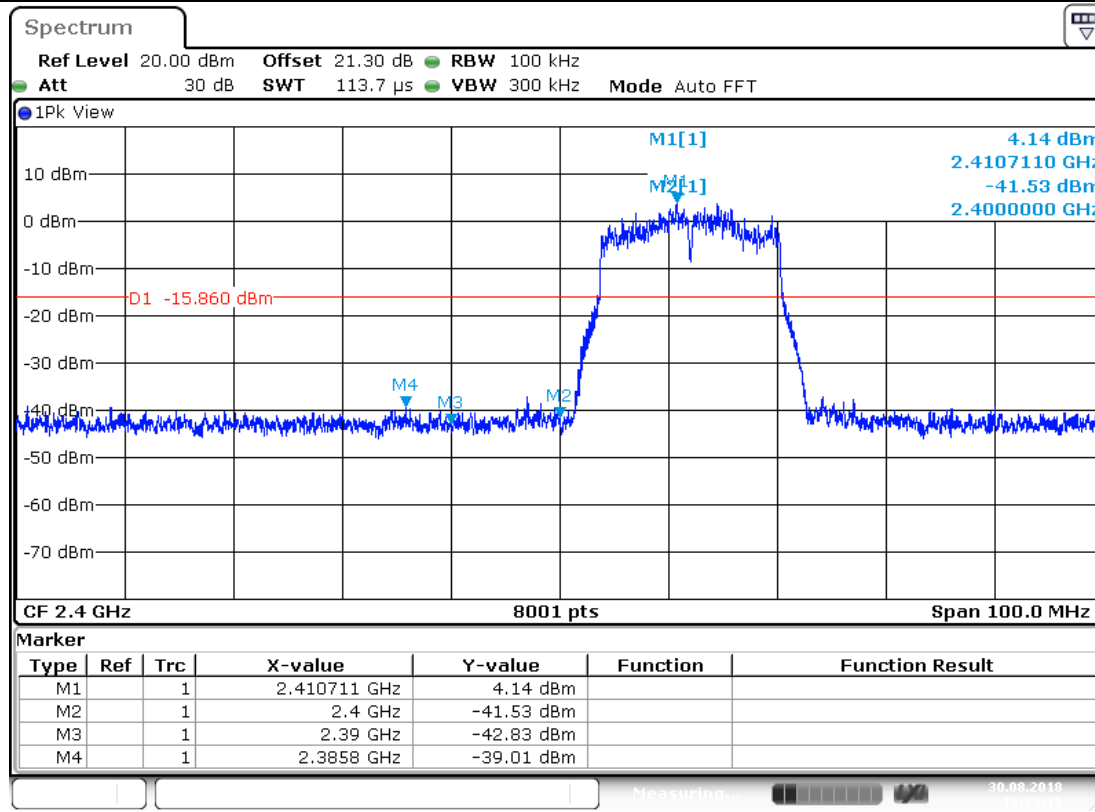
Band-edge for RF Conducted Emissions\_11N40SISO\_2422\_Ant2



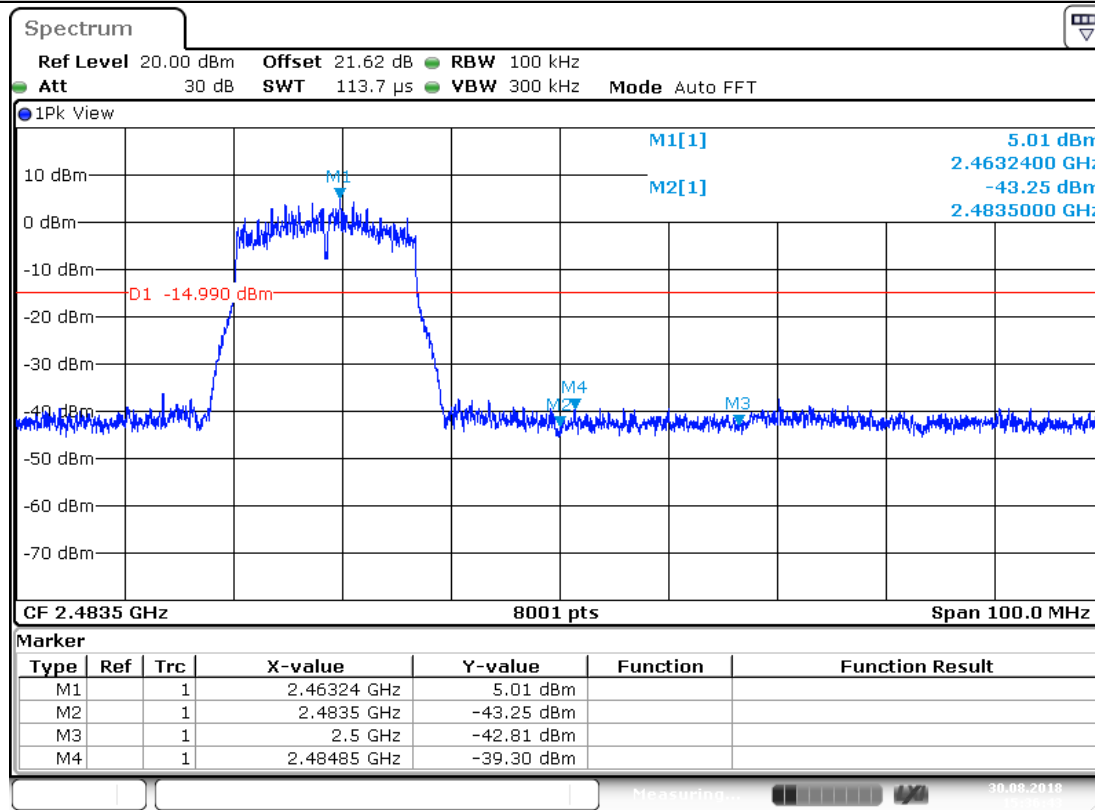
Band-edge for RF Conducted Emissions\_11N40SISO\_2452\_Ant2



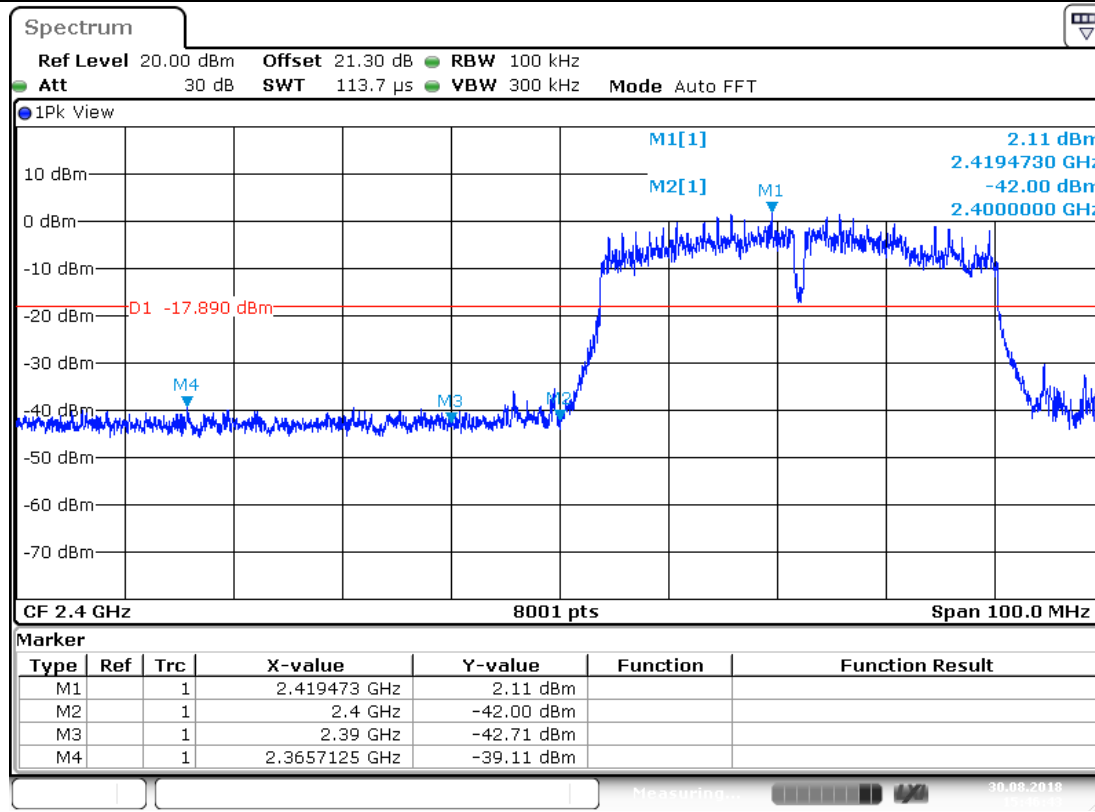
Band-edge for RF Conducted Emissions\_11N20MIMO\_2412\_Ant1+2



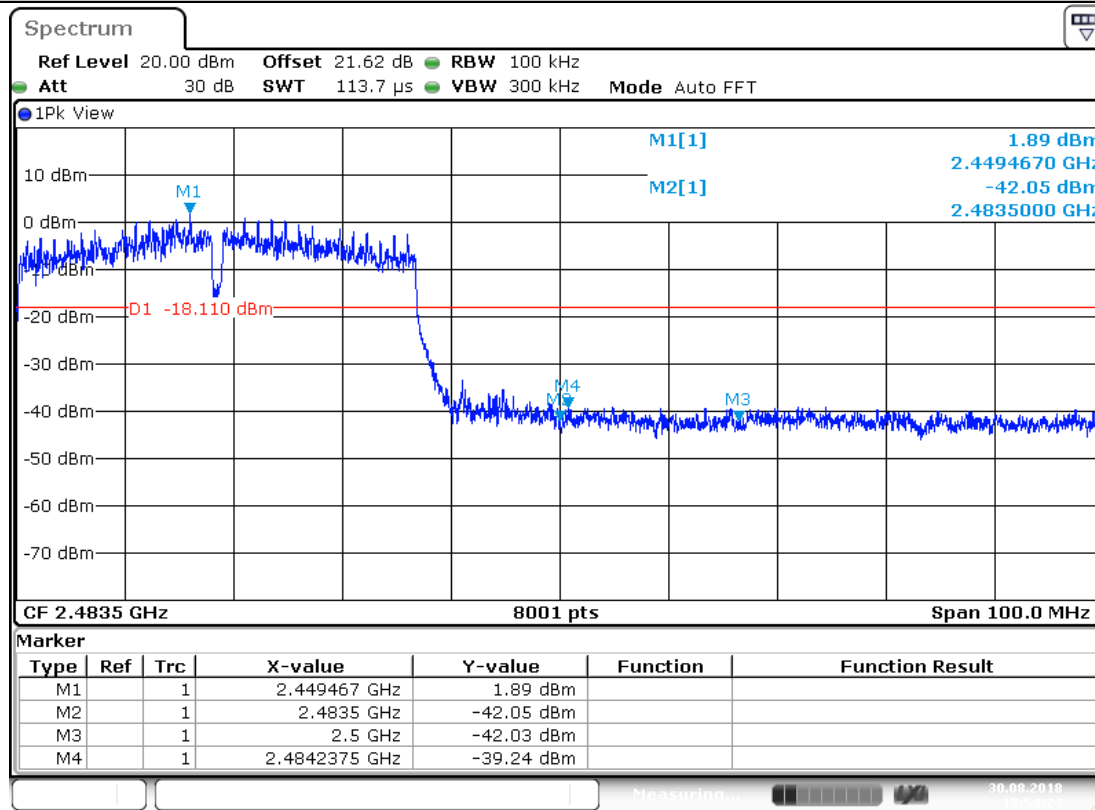
Band-edge for RF Conducted Emissions\_11N20MIMO\_2462\_Ant1+2



Band-edge for RF Conducted Emissions\_11N40MIMO\_2422\_Ant1+2



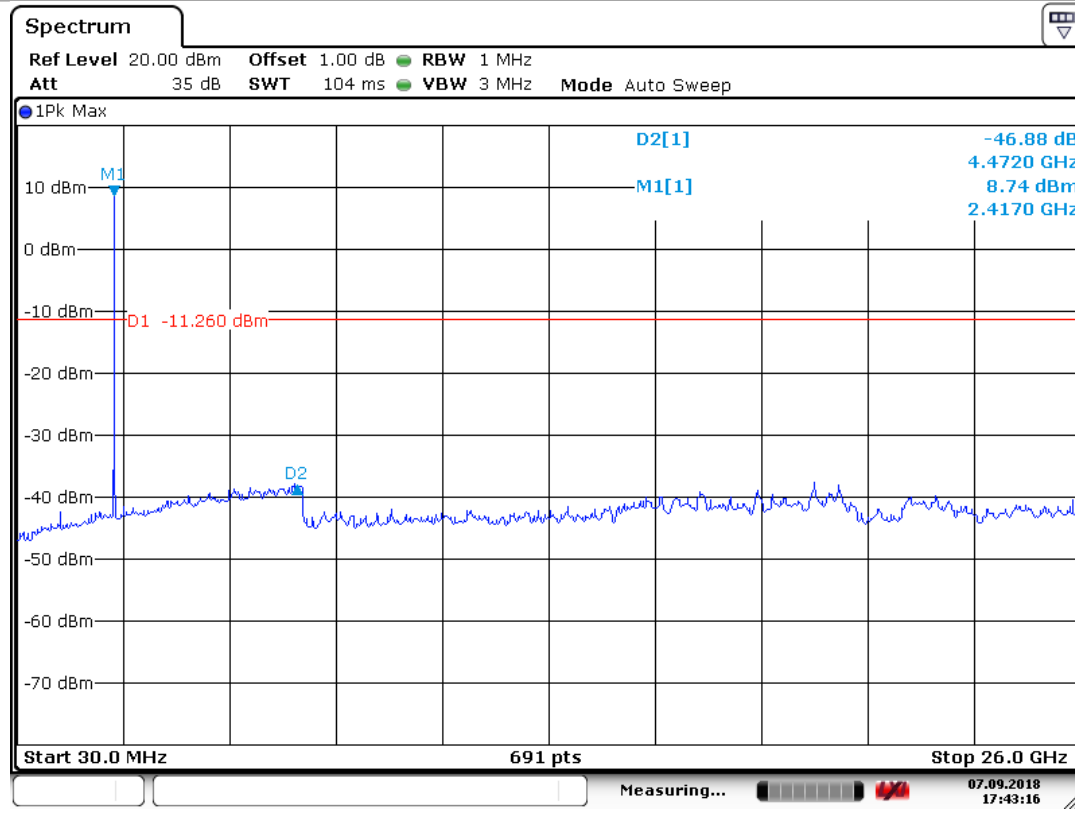
Band-edge for RF Conducted Emissions\_11N40MIMO\_2452\_Ant1+2





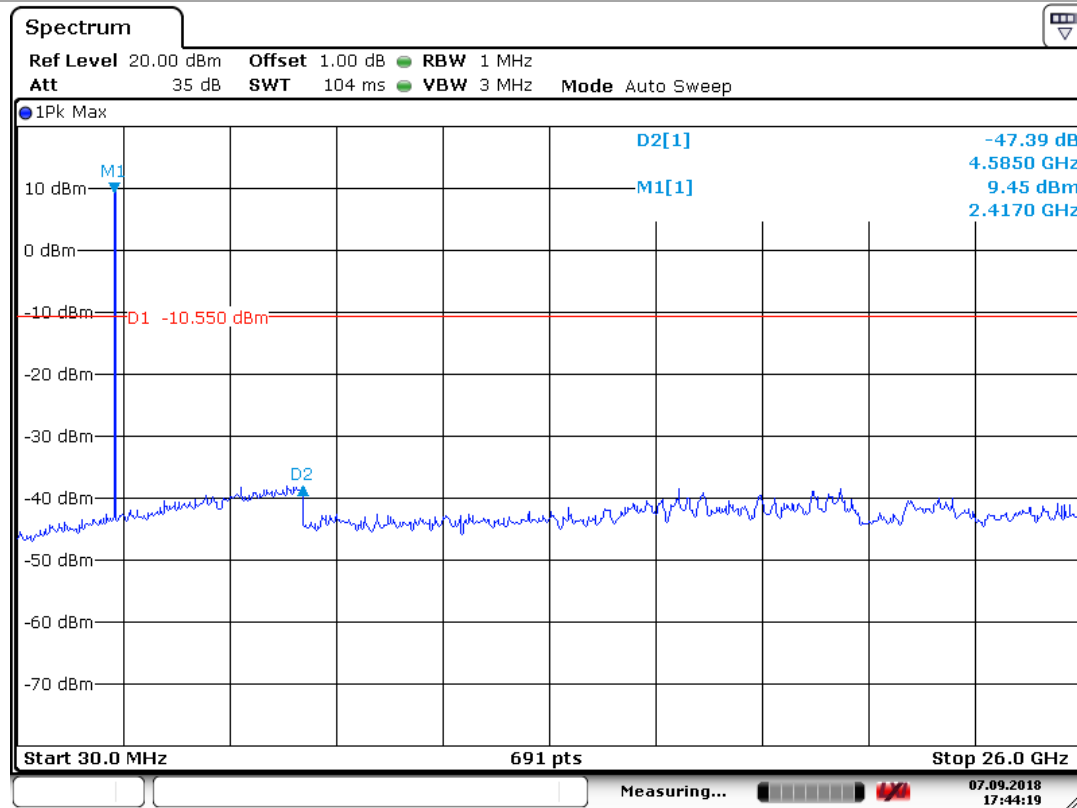
6. RF Conducted Spurious Emissions

RF Conducted Spurious Emissions\_11B\_2412\_Ant1



Date: 7.SEP.2018 17:43:16

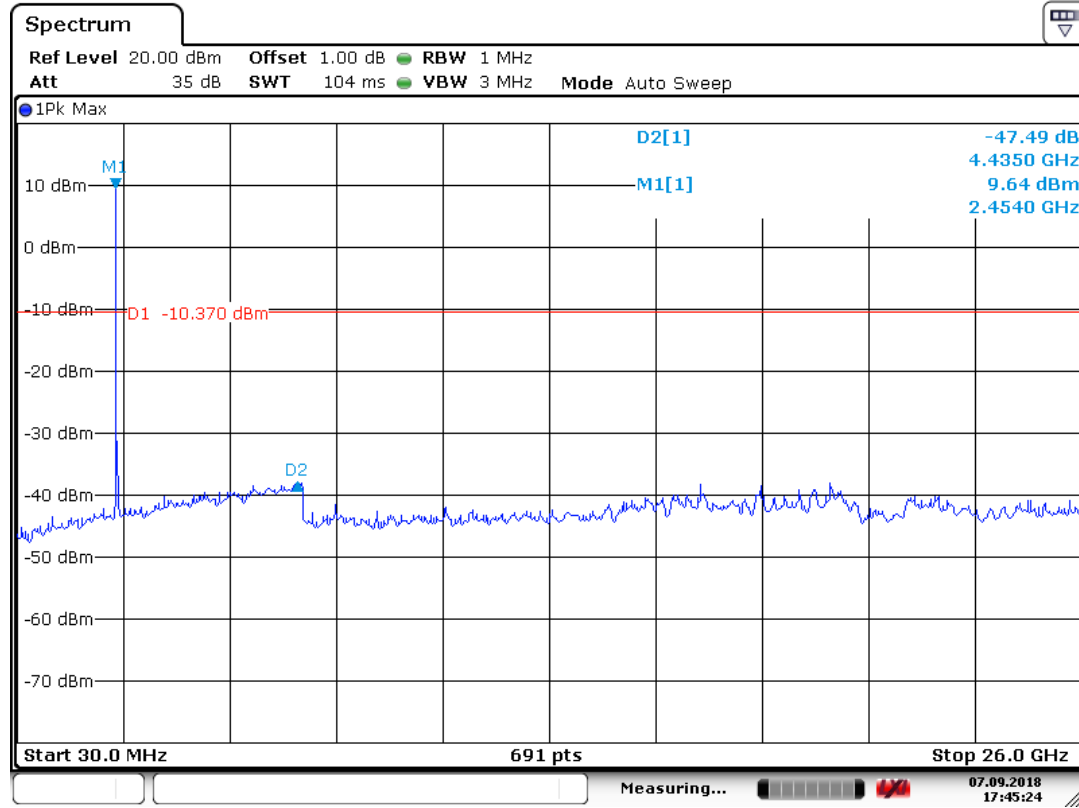
RF Conducted Spurious Emissions\_11B\_2437\_Ant1



Date: 7.SEP.2018 17:44:19

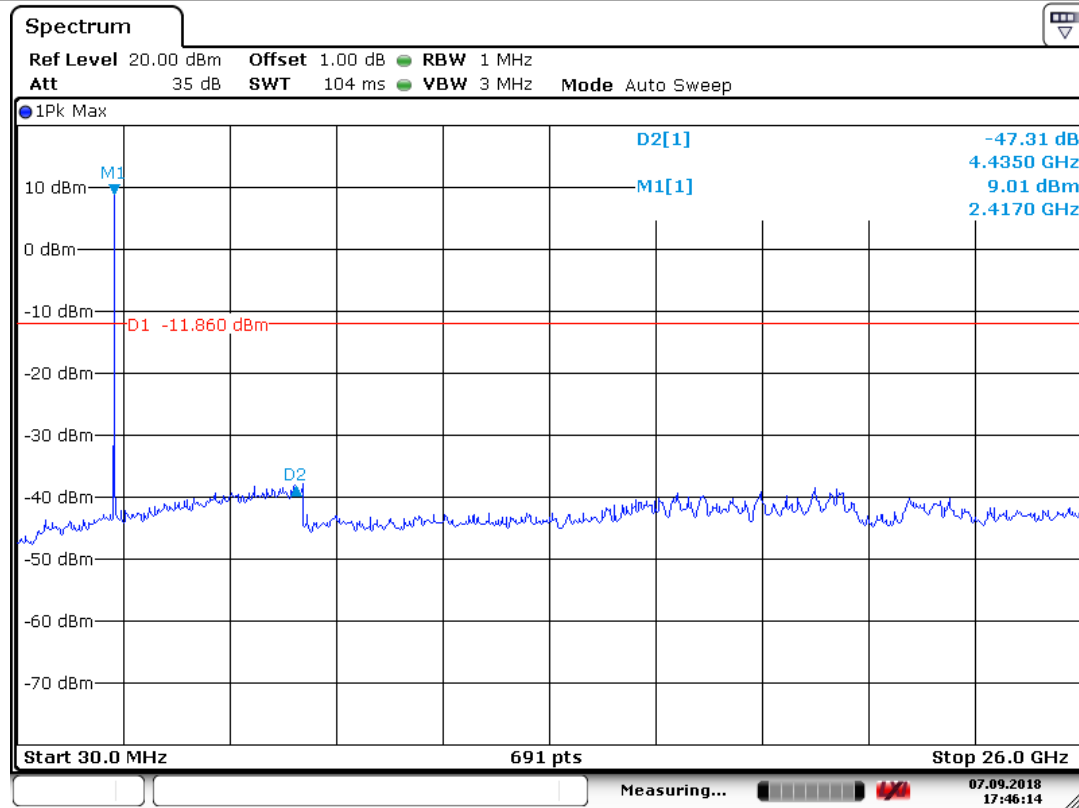


RF Conducted Spurious Emissions\_11B\_2462\_Ant1



Date: 7.SEP.2018 17:45:24

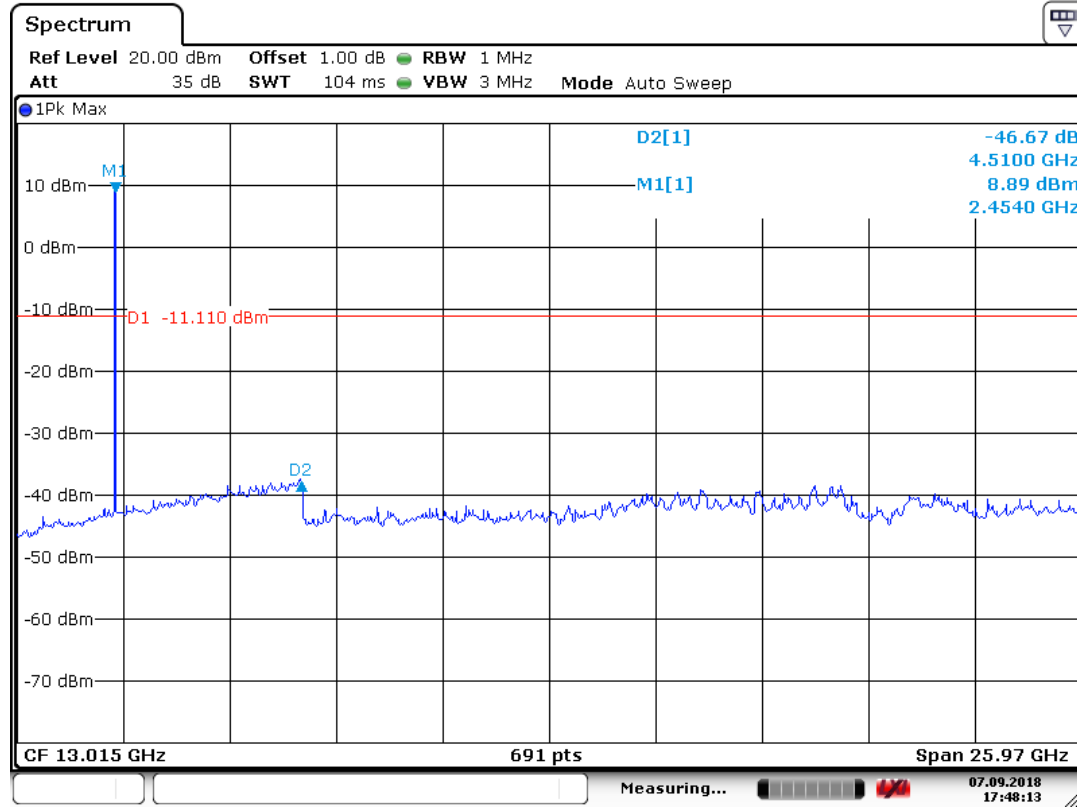
RF Conducted Spurious Emissions\_11G\_2412\_Ant1



Date: 7.SEP.2018 17:46:14

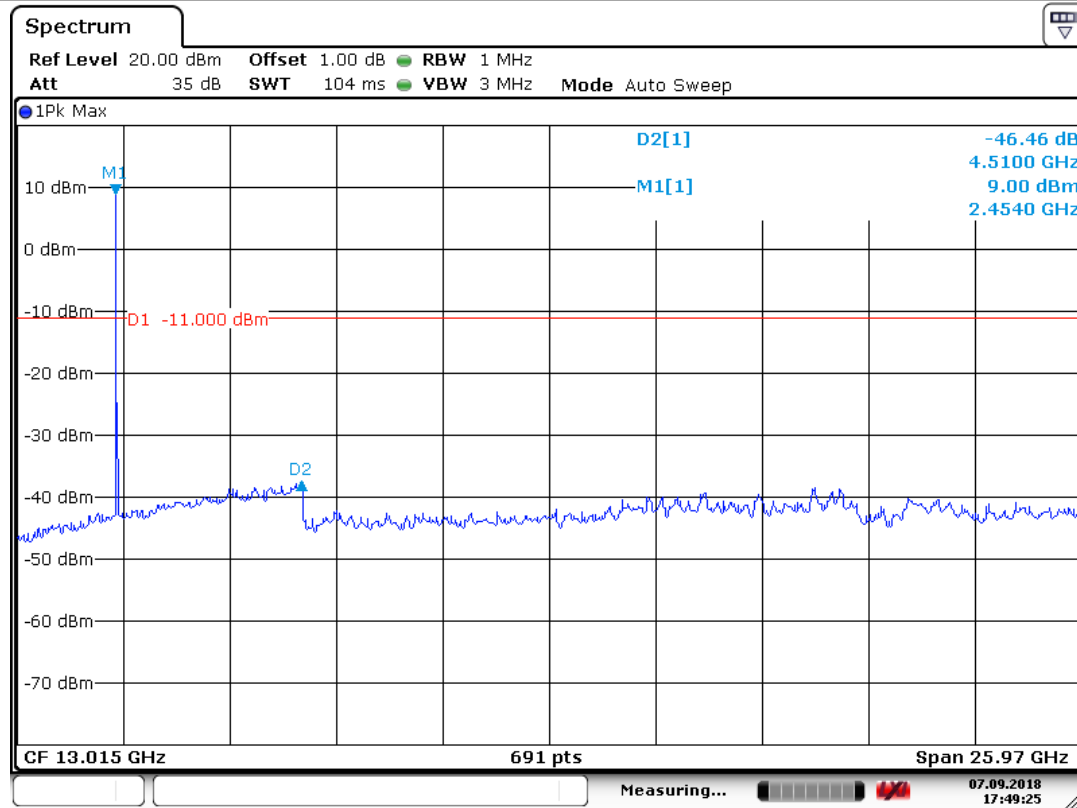


RF Conducted Spurious Emissions\_11G\_2437\_Ant1



Date: 7.SEP.2018 17:48:13

RF Conducted Spurious Emissions\_11G\_2462\_Ant1

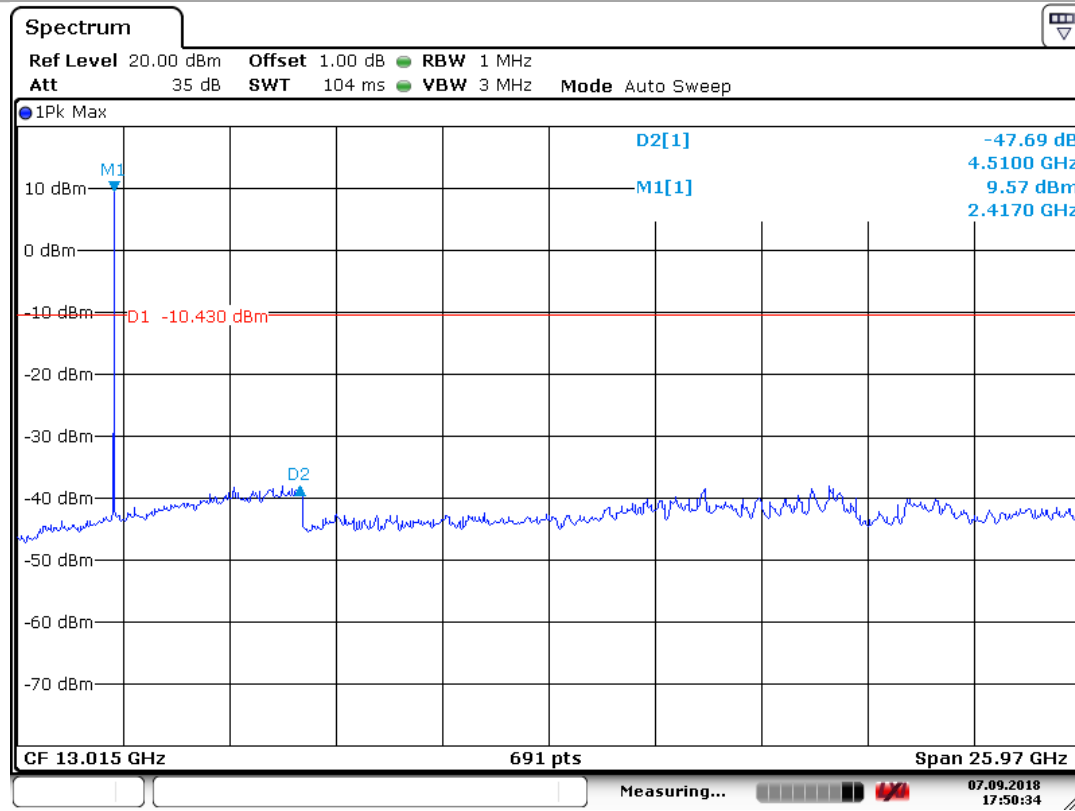


Date: 7.SEP.2018 17:49:25



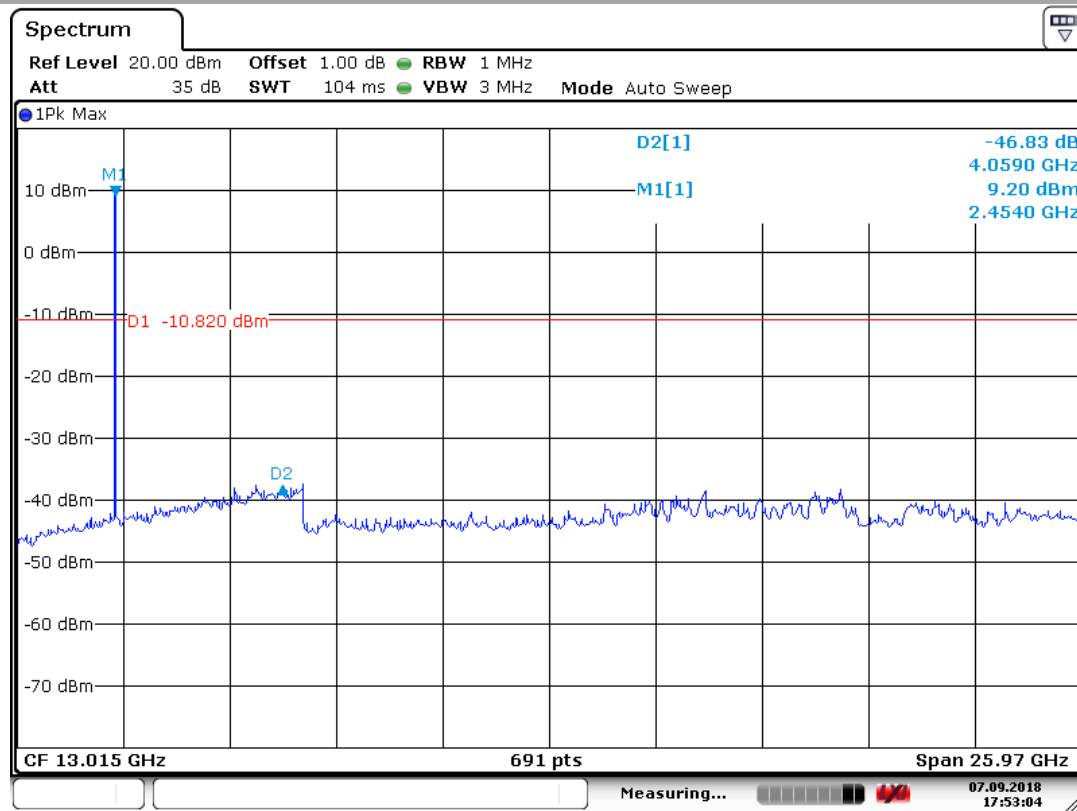


RF Conducted Spurious Emissions\_11N20\_2412\_Ant1



Date: 7.SEP.2018 17:50:34

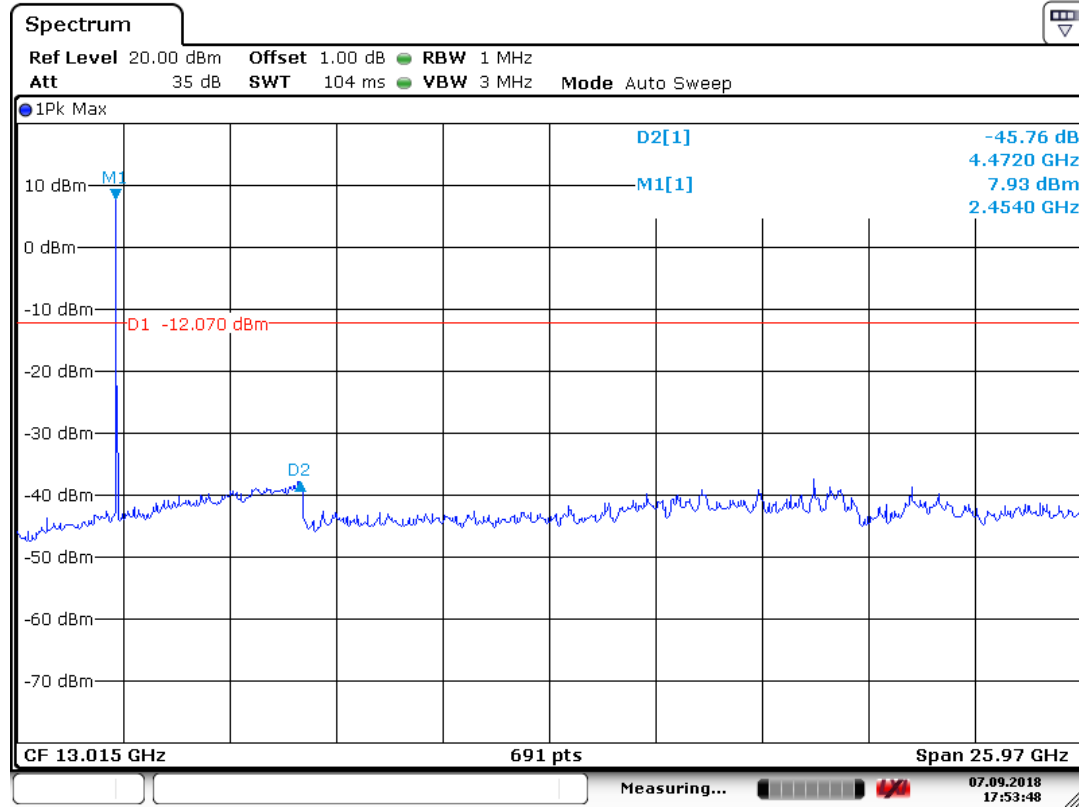
RF Conducted Spurious Emissions\_11N20\_2437\_Ant1



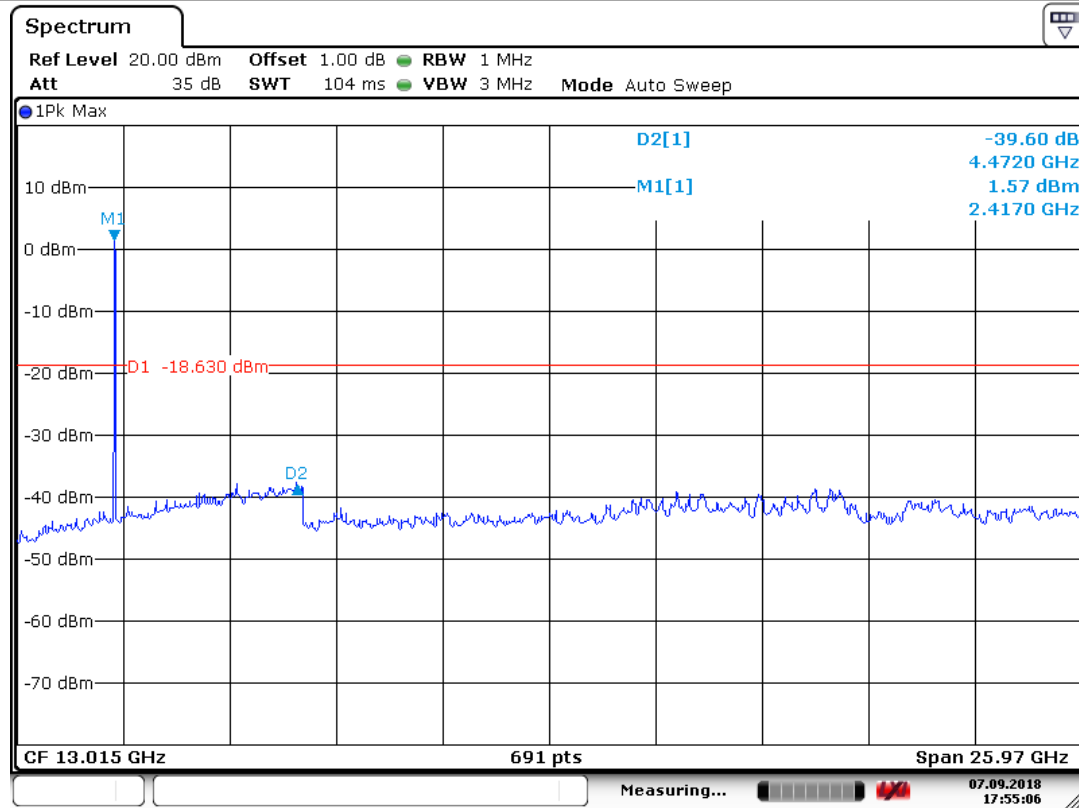
Date: 7.SEP.2018 17:53:04



RF Conducted Spurious Emissions\_11N20\_2462\_Ant1

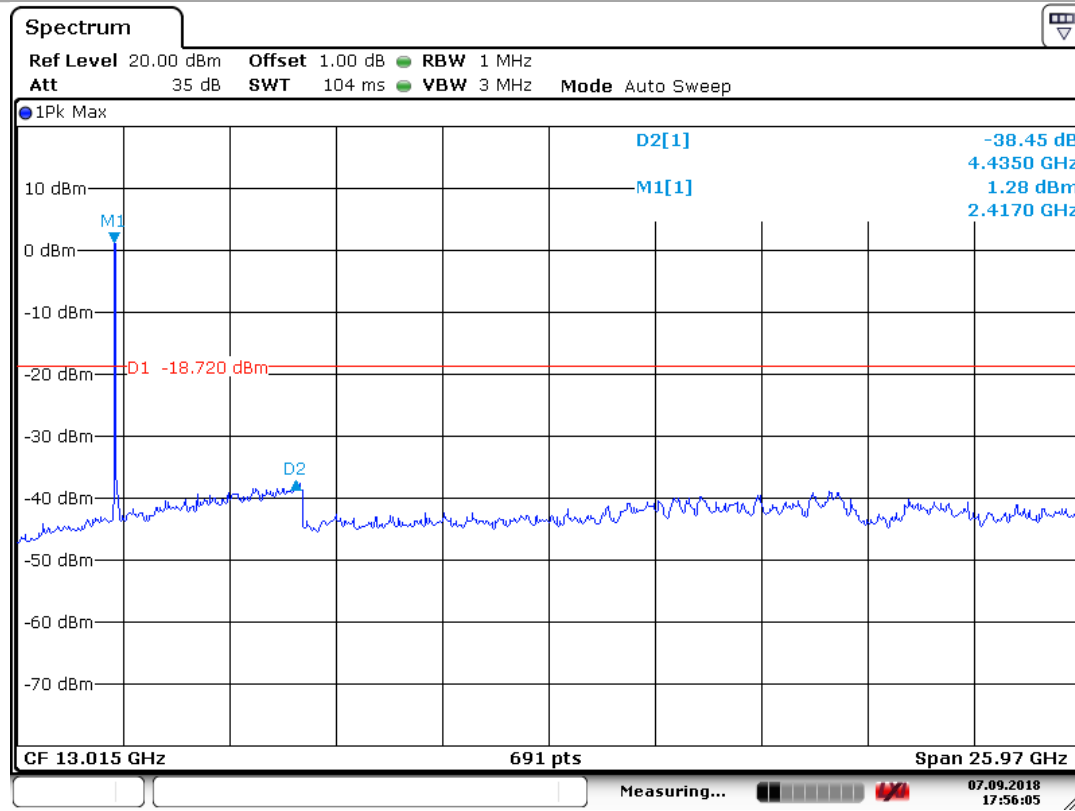


RF Conducted Spurious Emissions\_11N40\_2422\_Ant1



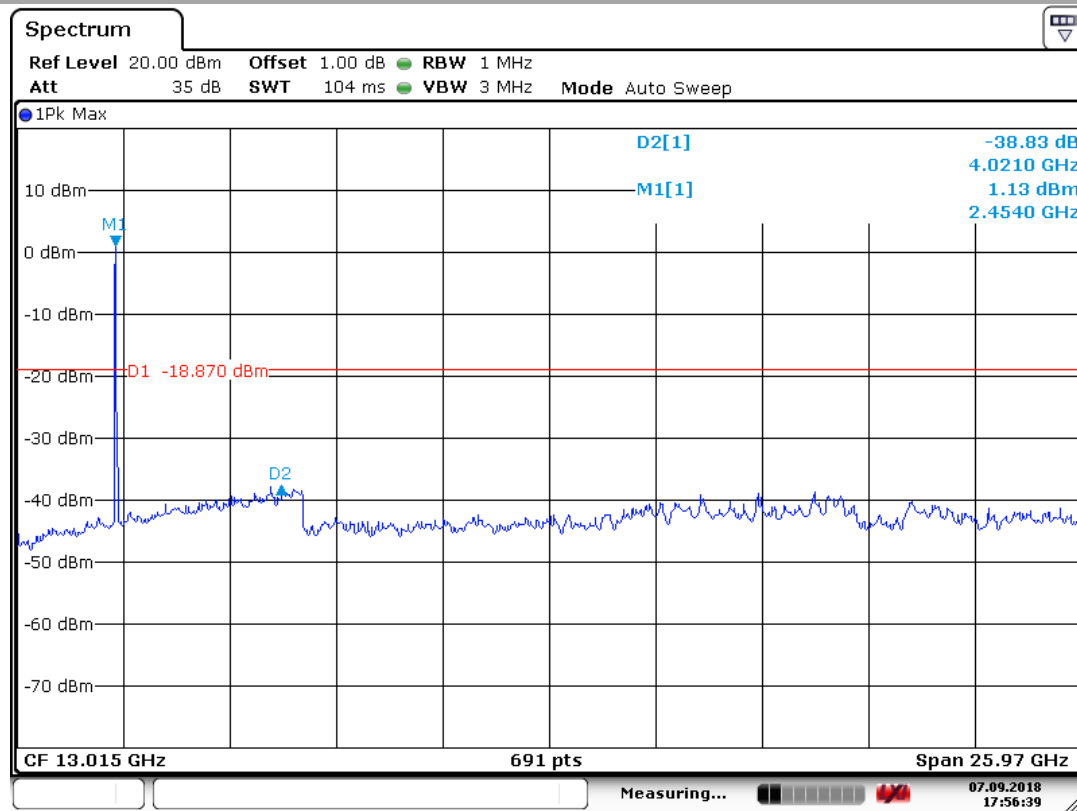


RF Conducted Spurious Emissions\_11N40\_2437\_Ant1



Date: 7.SEP.2018 17:56:05

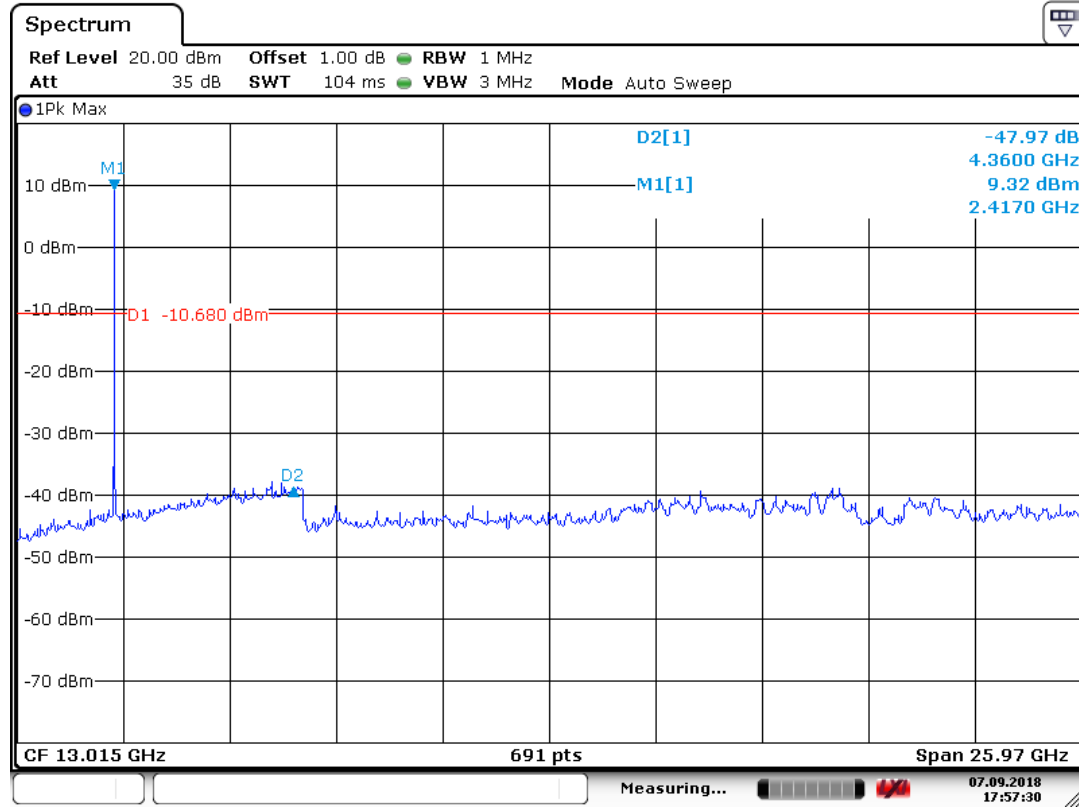
RF Conducted Spurious Emissions\_11N40\_2452\_Ant1



Date: 7.SEP.2018 17:56:39

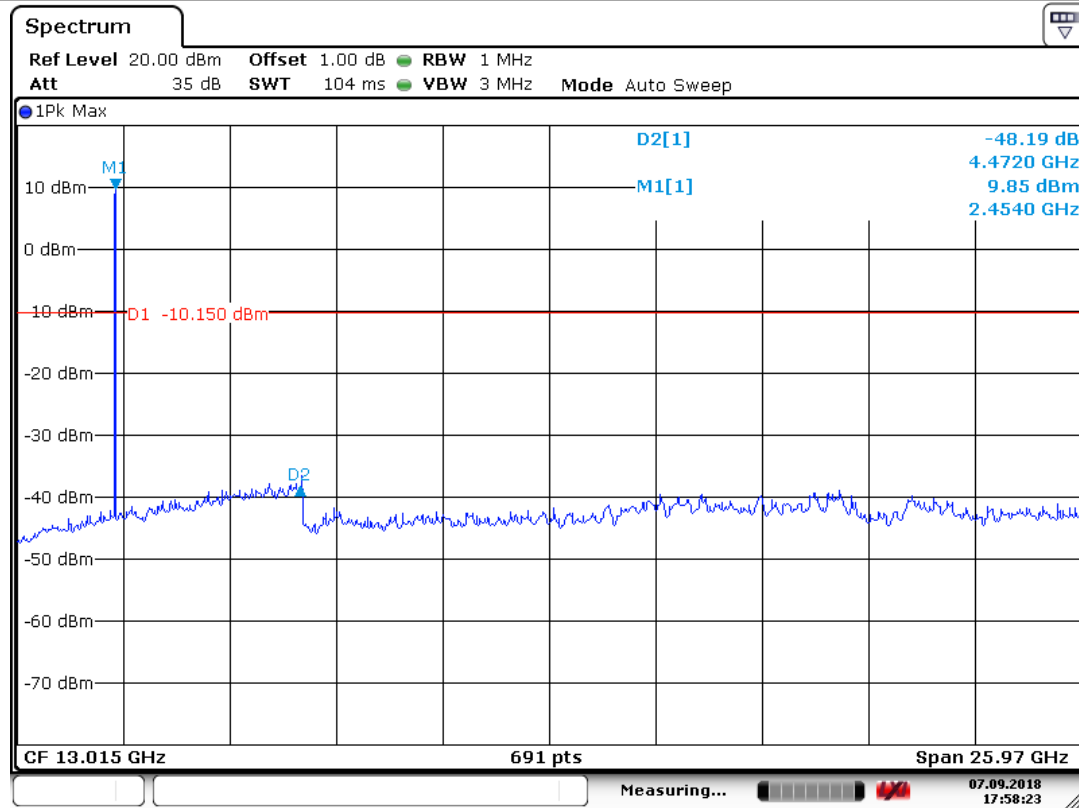


RF Conducted Spurious Emissions\_11B\_2412\_Ant2



Date: 7.SEP.2018 17:57:30

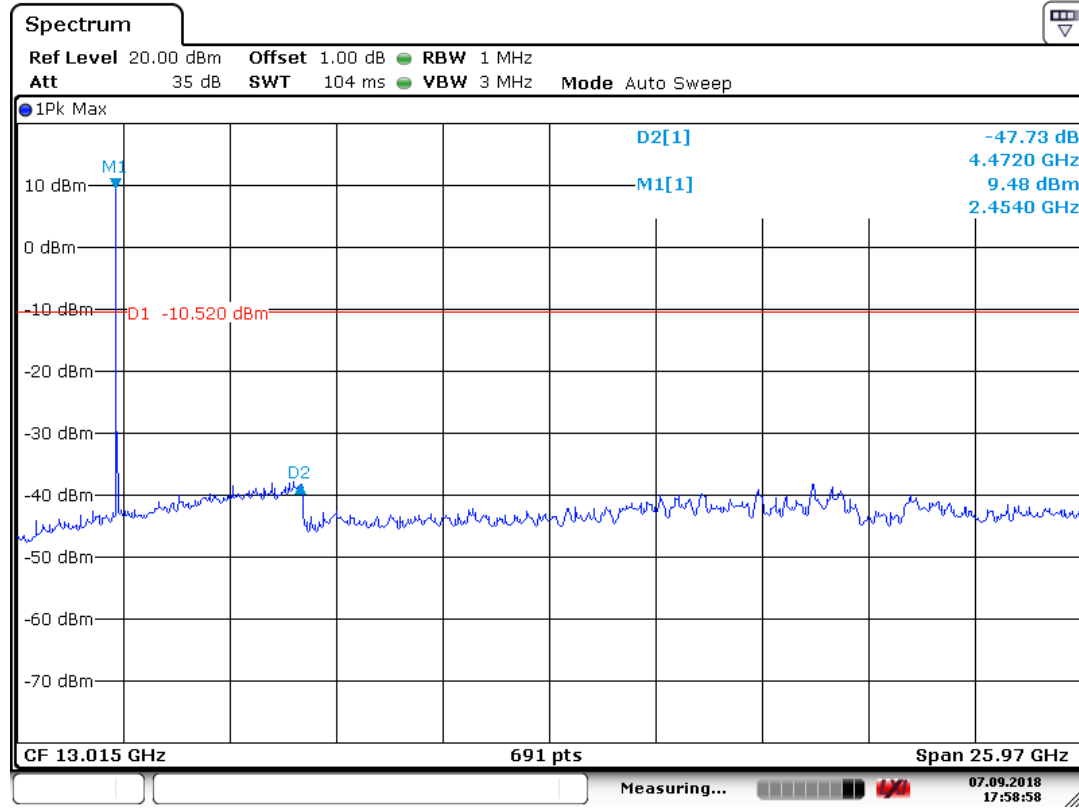
RF Conducted Spurious Emissions\_11B\_2437\_Ant2



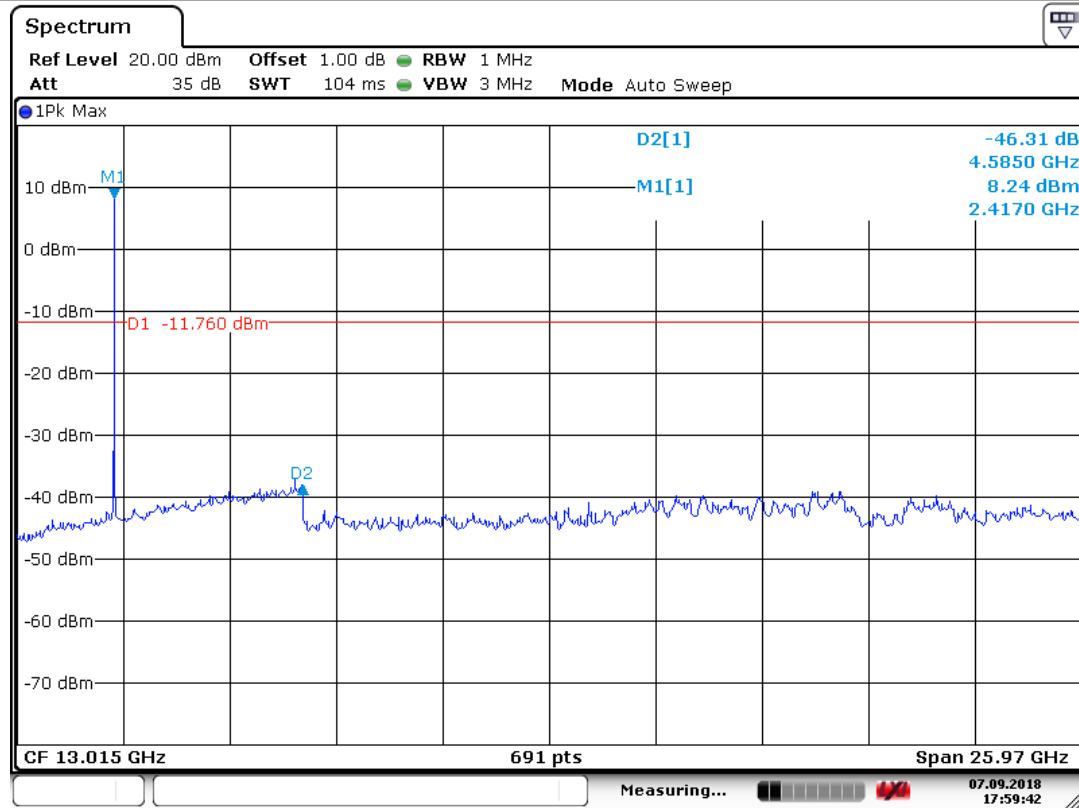
Date: 7.SEP.2018 17:58:23



RF Conducted Spurious Emissions\_11B\_2462\_Ant2

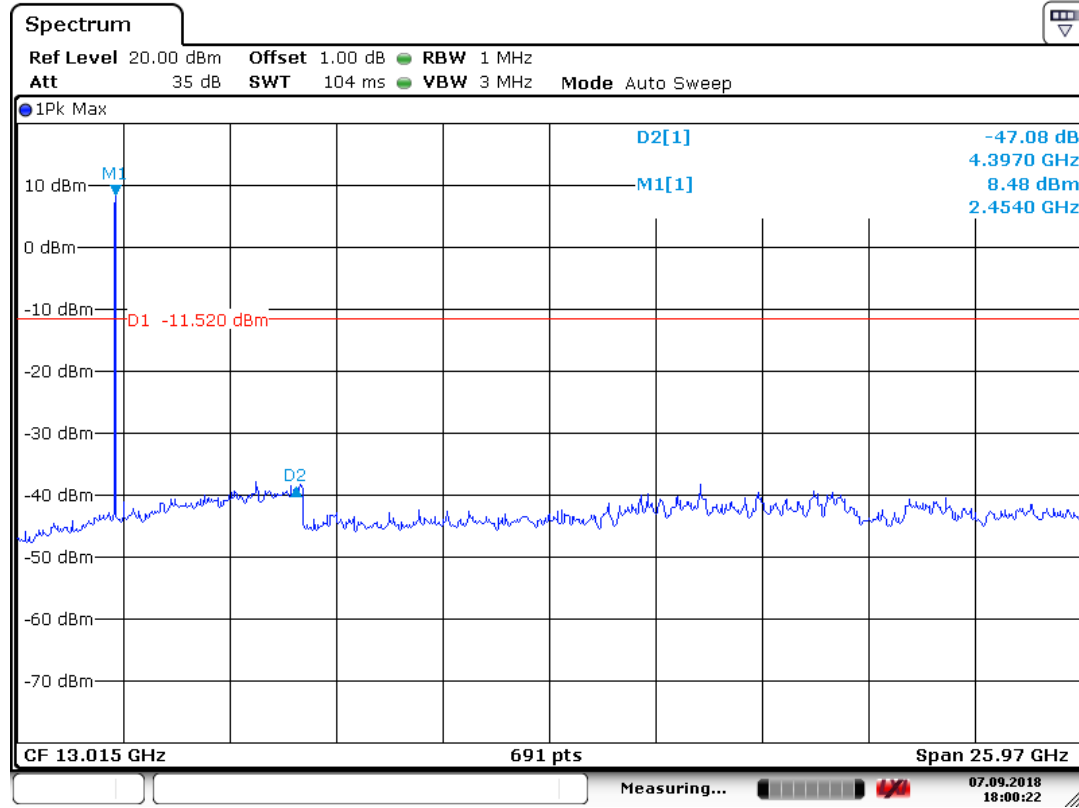


RF Conducted Spurious Emissions\_11G\_2412\_Ant2



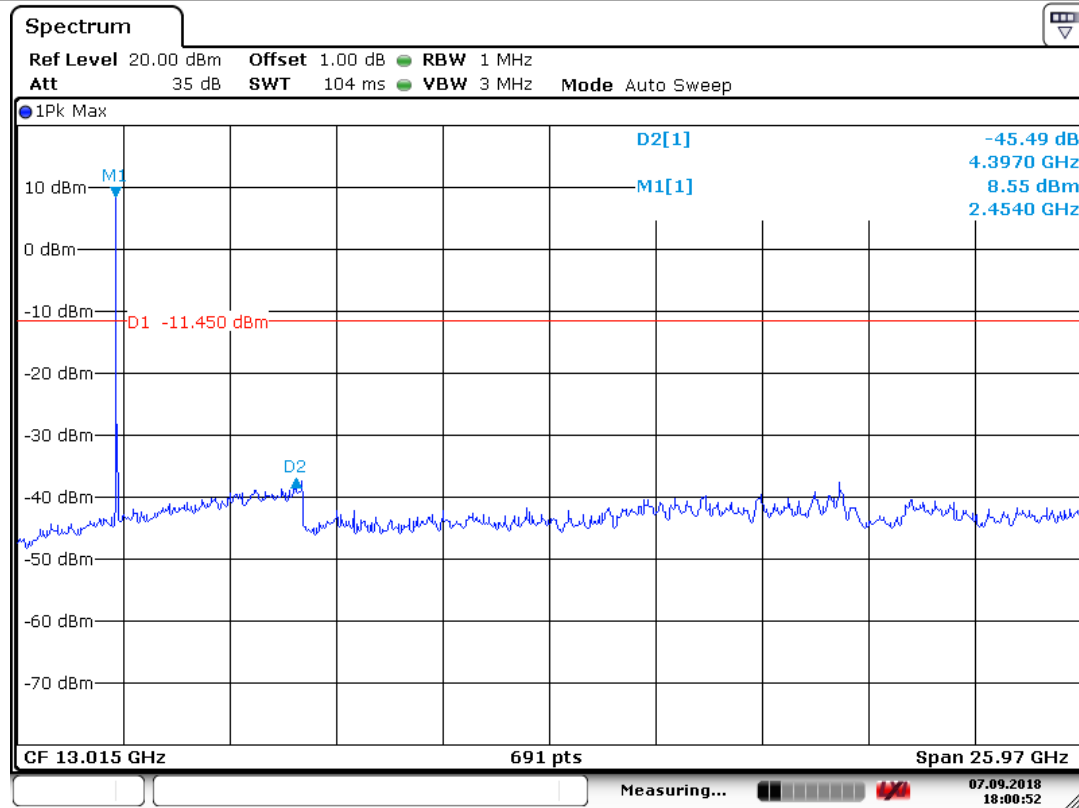


RF Conducted Spurious Emissions\_11G\_2437\_Ant2



Date: 7.SEP.2018 18:00:22

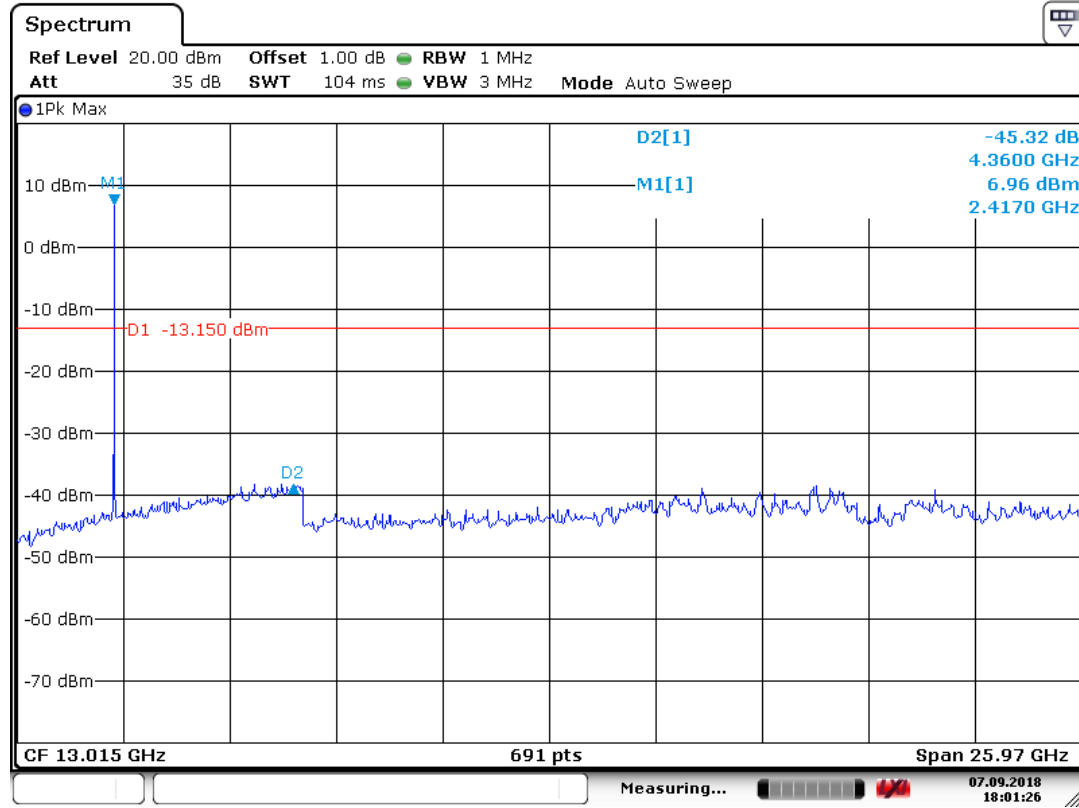
RF Conducted Spurious Emissions\_11G\_2462\_Ant2



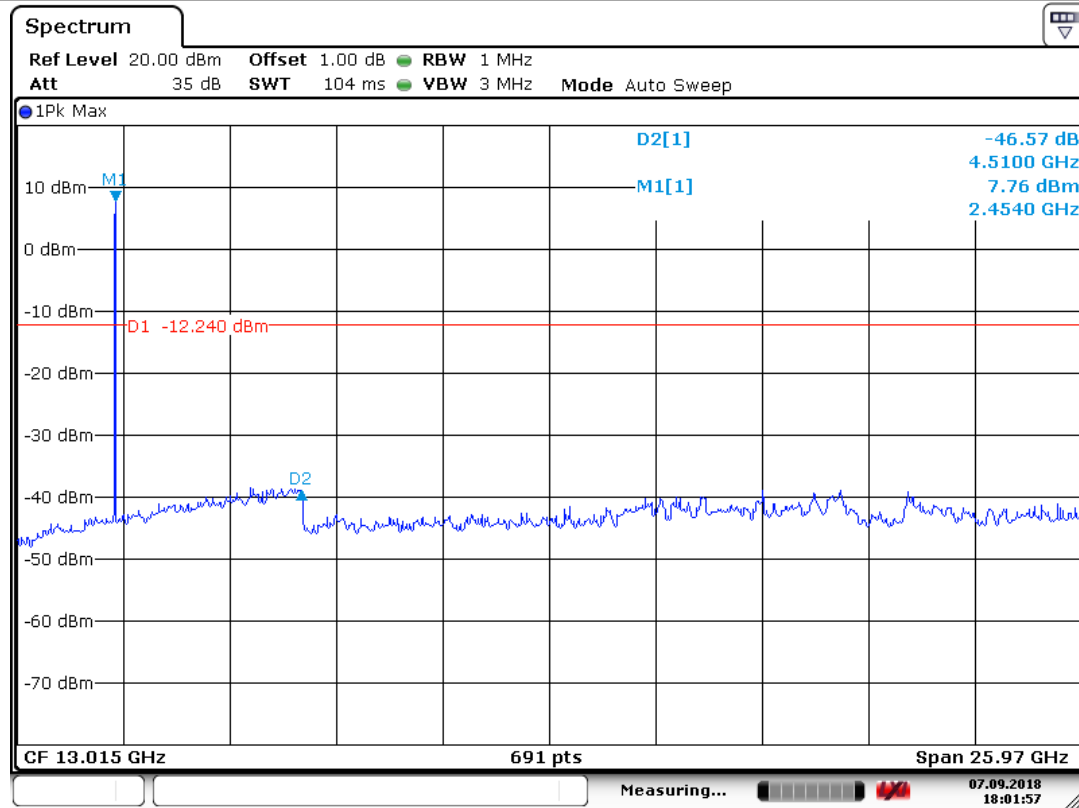
Date: 7.SEP.2018 18:00:53



RF Conducted Spurious Emissions\_11N20\_2412\_Ant2

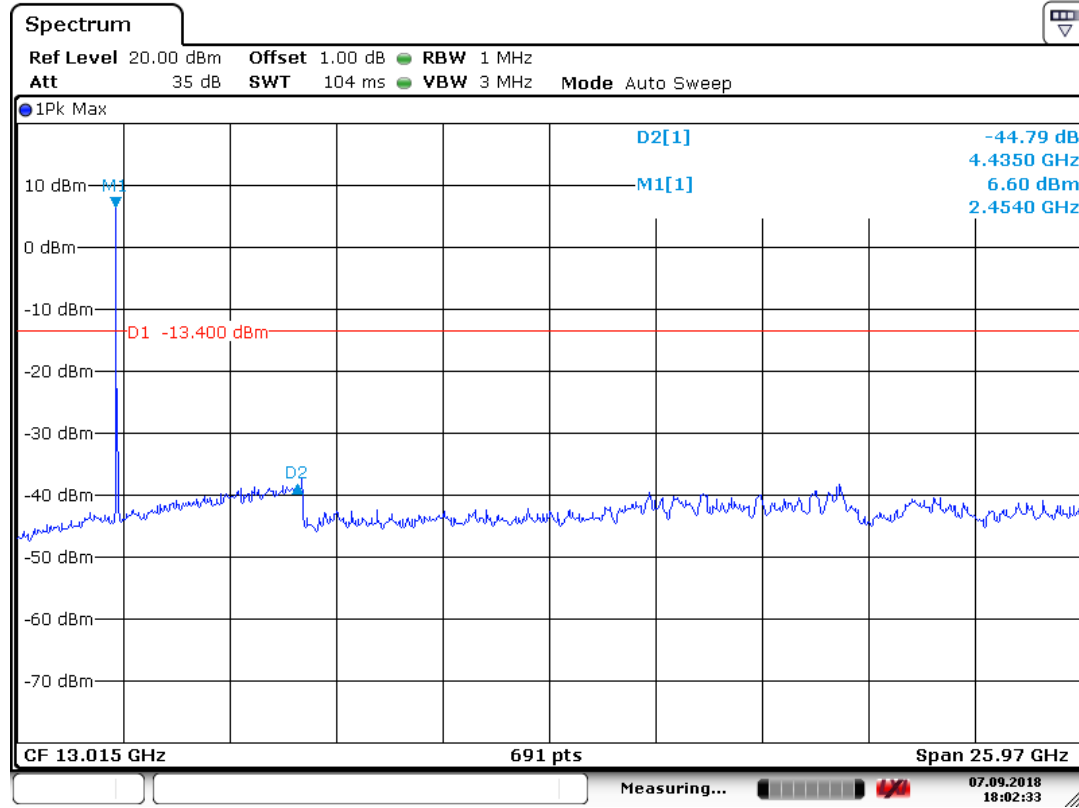


RF Conducted Spurious Emissions\_11N20\_2437\_Ant2

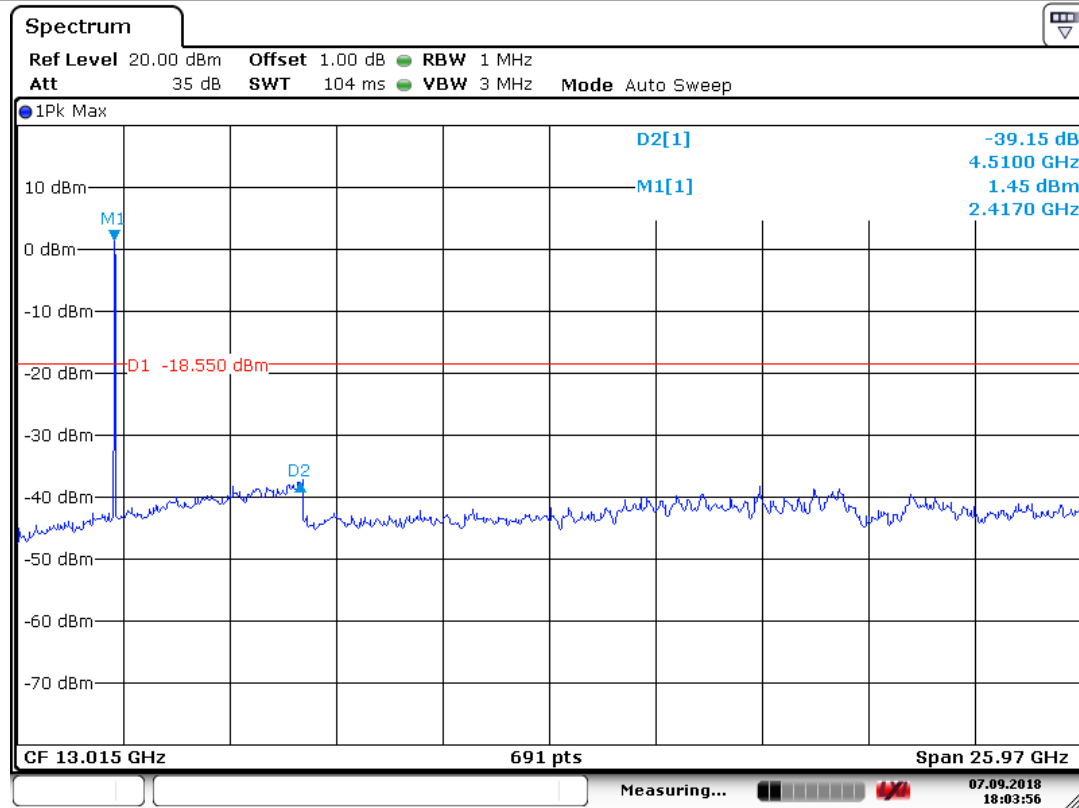




RF Conducted Spurious Emissions\_11N20\_2462\_Ant2



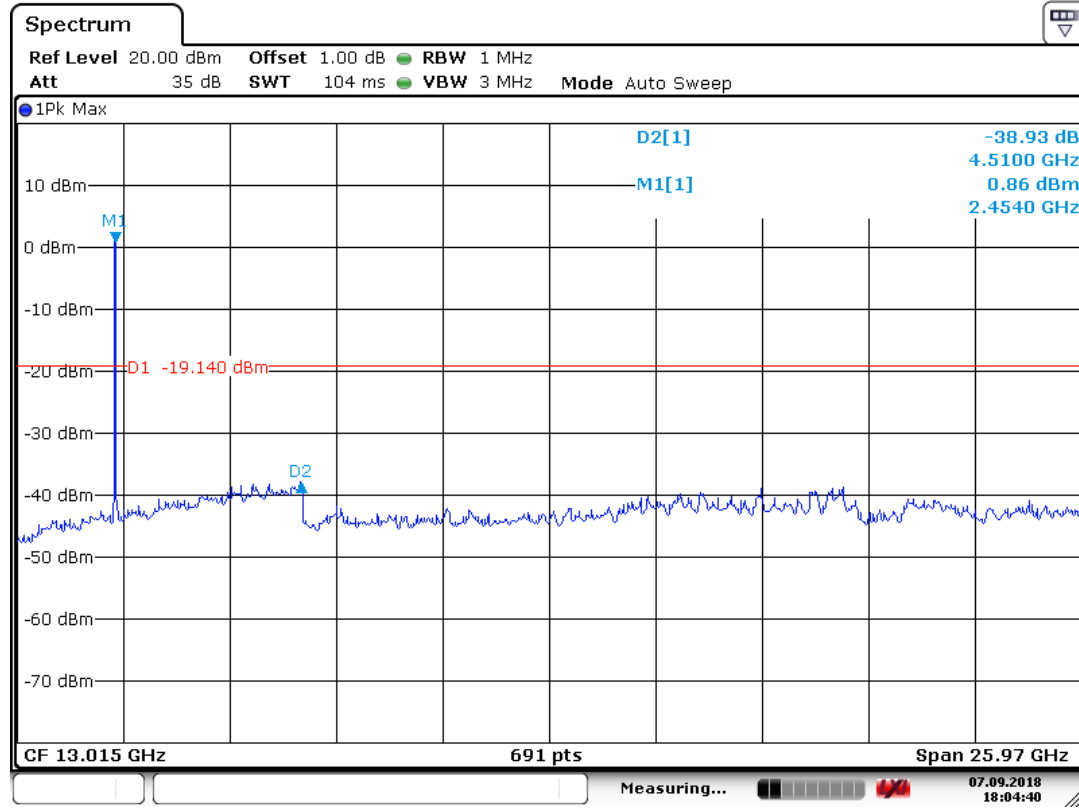
RF Conducted Spurious Emissions\_11N40\_2422\_Ant2





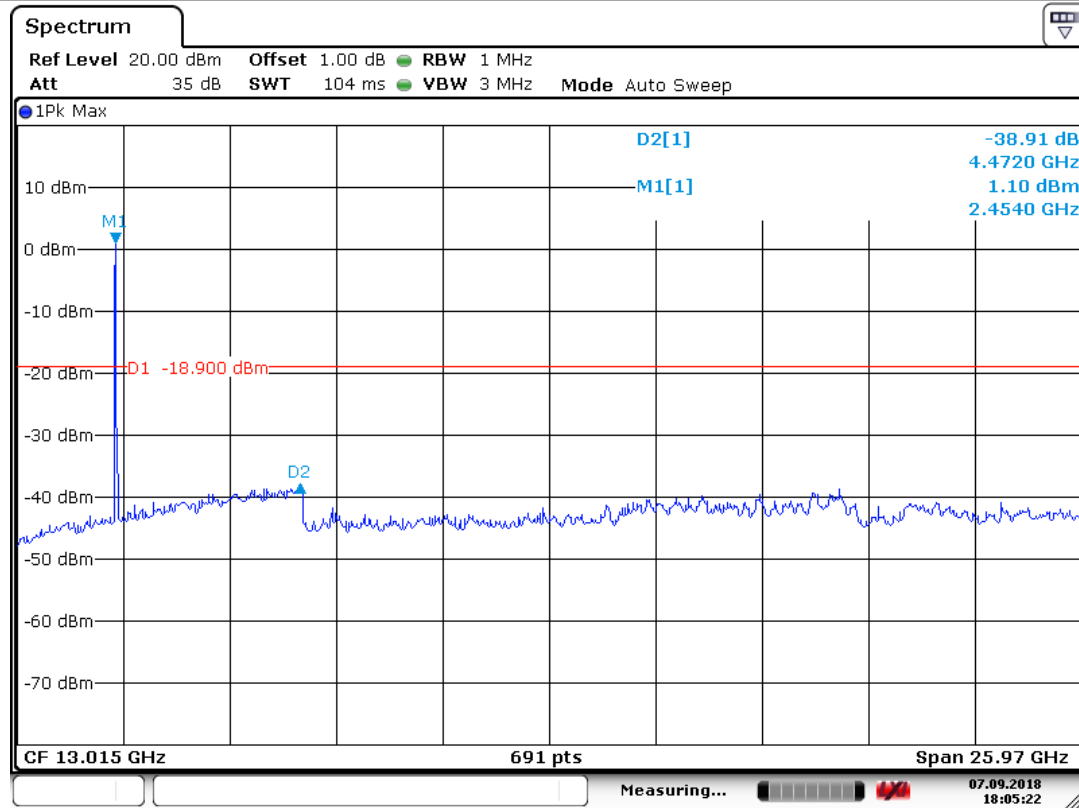


RF Conducted Spurious Emissions\_11N40\_2437\_Ant2



Date: 7.SEP.2018 18:04:40

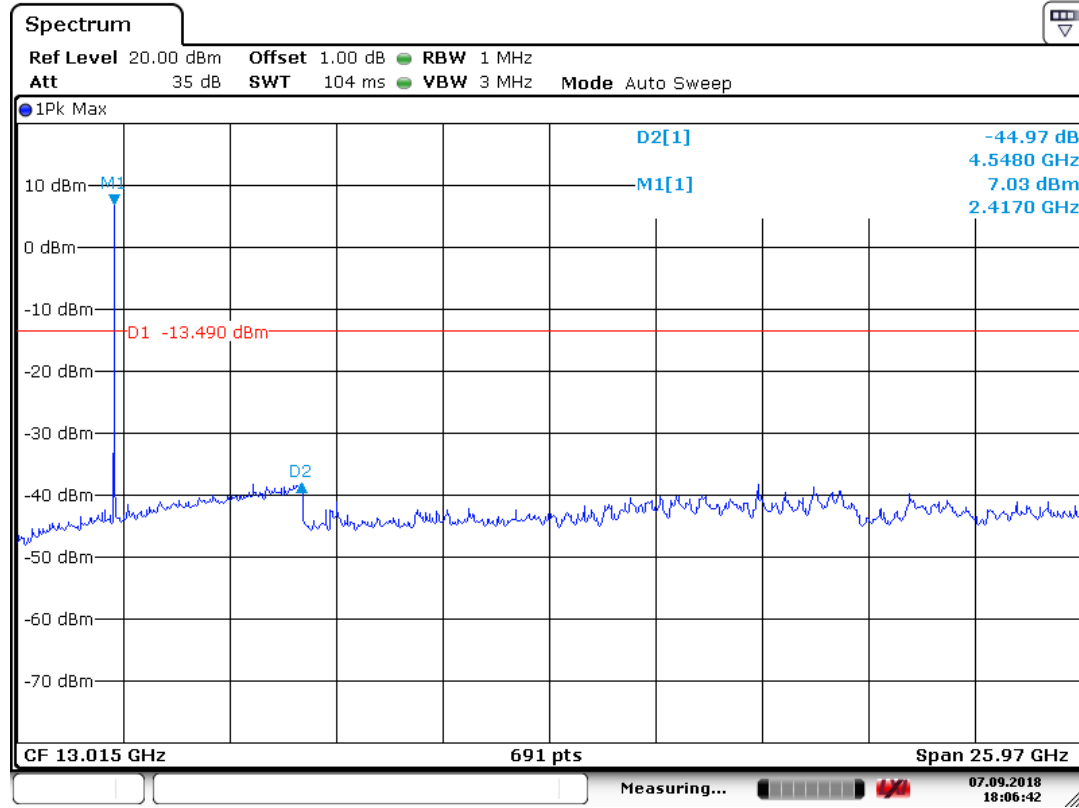
RF Conducted Spurious Emissions\_11N40\_2452\_Ant2



Date: 7.SEP.2018 18:05:22

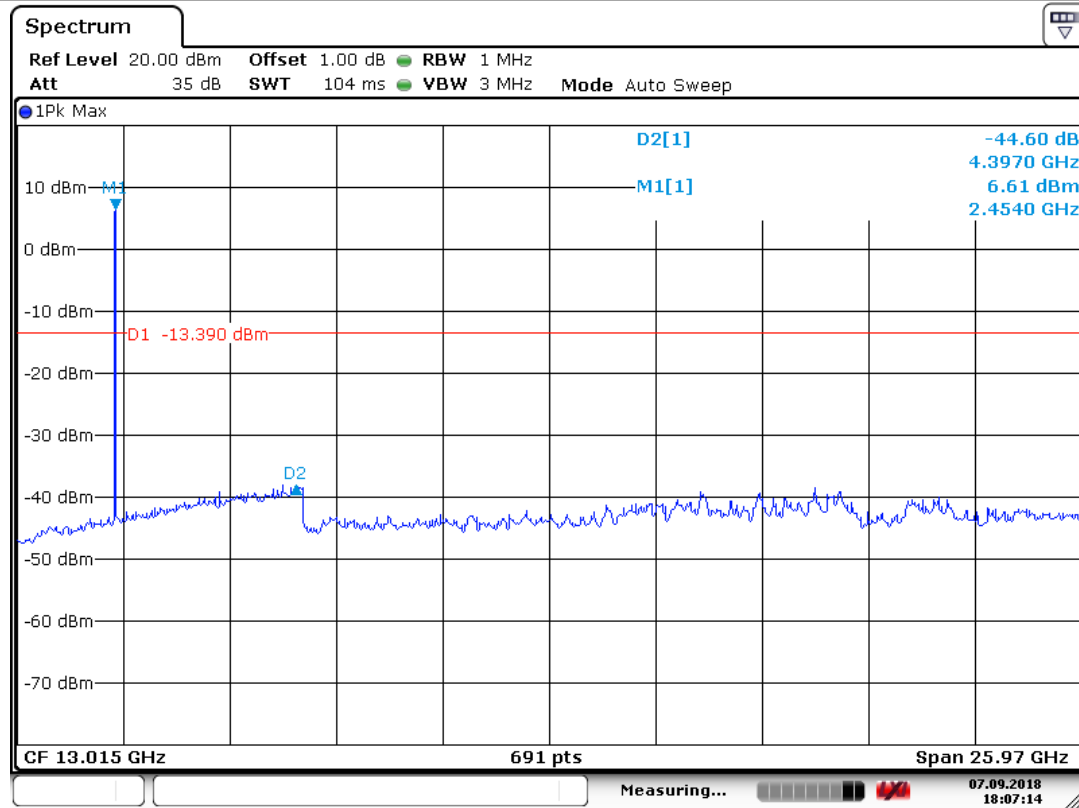


RF Conducted Spurious Emissions\_11N20\_2412\_Ant1+2



Date: 7.SEP.2018 18:06:42

RF Conducted Spurious Emissions\_11N20\_2437\_Ant1+2

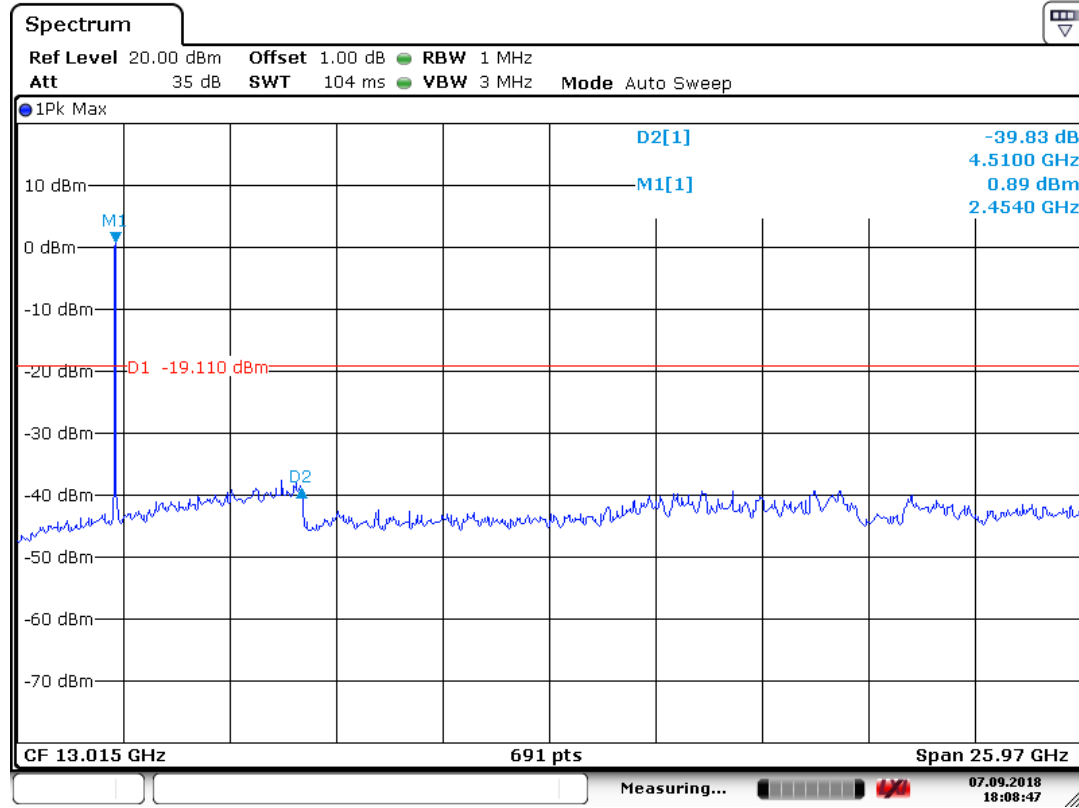


Date: 7.SEP.2018 18:07:14





RF Conducted Spurious Emissions\_11N40\_2437\_Ant1+2



RF Conducted Spurious Emissions\_11N40\_2452\_Ant1+2

