

12.10 TX spurious emissions radiated

Description:

Measurement of the radiated spurious emissions in transmit mode. The measurement is performed at lowest, middle and highest channel.

Measurement:

Measurement parameter	
According to: KDB789033 D02, G.	
Detector:	Quasi Peak below 1 GHz (alternative Peak) Peak above 1 GHz / RMS
Sweep time:	Auto
Resolution bandwidth:	F < 1 GHz: 100 kHz F > 1 GHz: 1 MHz
Video bandwidth:	F < 1 GHz: 300 kHz F > 1 GHz: 3 MHz
Span:	30 MHz to 40 GHz
Trace mode:	Max Hold / Average with 100 counts + 20 log (1 / X) for duty cycle lower than 100 %
Used test setup:	see chapter 7.1 -A, 7.2 –A,B,C, 7.3 -A
Measurement uncertainty:	see chapter 9

Limits:

TX Spurious Emissions Radiated		
§15.209		
Frequency (MHz)	Field Strength (dB μ V/m)	Measurement distance
30 - 88	30.0	10
88 – 216	33.5	10
216 – 960	36.0	10
Above 960	54.0	3
§15.407		
Outside the restricted bands!	-27 dBm / MHz	

Plots in the range from 1 GHz to 12.75 GHz shows peak and RMS traces.

Results: OFDM / a – mode, antenna 1 + 2 active

TX Spurious Emissions Radiated [dB μ V/m] / dBm								
5180 MHz			5240 MHz			5260 MHz		
F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]
5040	Peak	58.6	5080	Peak	59.8	5080	Peak	59.7
	AVG	48.2		AVG	51.9		AVG	51.8
5400	Peak	64.4	5360	Peak	62.5	5400	Peak	59.6
	AVG	53.9		AVG	51.8		AVG	50.4
5320 MHz			5500 MHz			5700 MHz		
F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]
5040	Peak	60.0	5040	Peak	61.4	5080	Peak	58.2
	AVG	50.9		AVG	52.5		AVG	49.6
5440	Peak	64.3	5440	Peak	64.6	5400	Peak	63.1
	AVG	52.9		AVG	53.6		AVG	52.2
5745 MHz			5785 MHz			5825 MHz		
F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]
5080	Peak	59.0	5080	Peak	57.8	5040	Peak	58.7
	AVG	49.9		AVG	49.7		AVG	49.1
5400	Peak	63.2	5400	Peak	63.3	5400	Peak	64.1
	AVG	52.6		AVG	51.9		AVG	53.1

Results: OFDM / n HT20 – mode, antenna 1 + 2 active

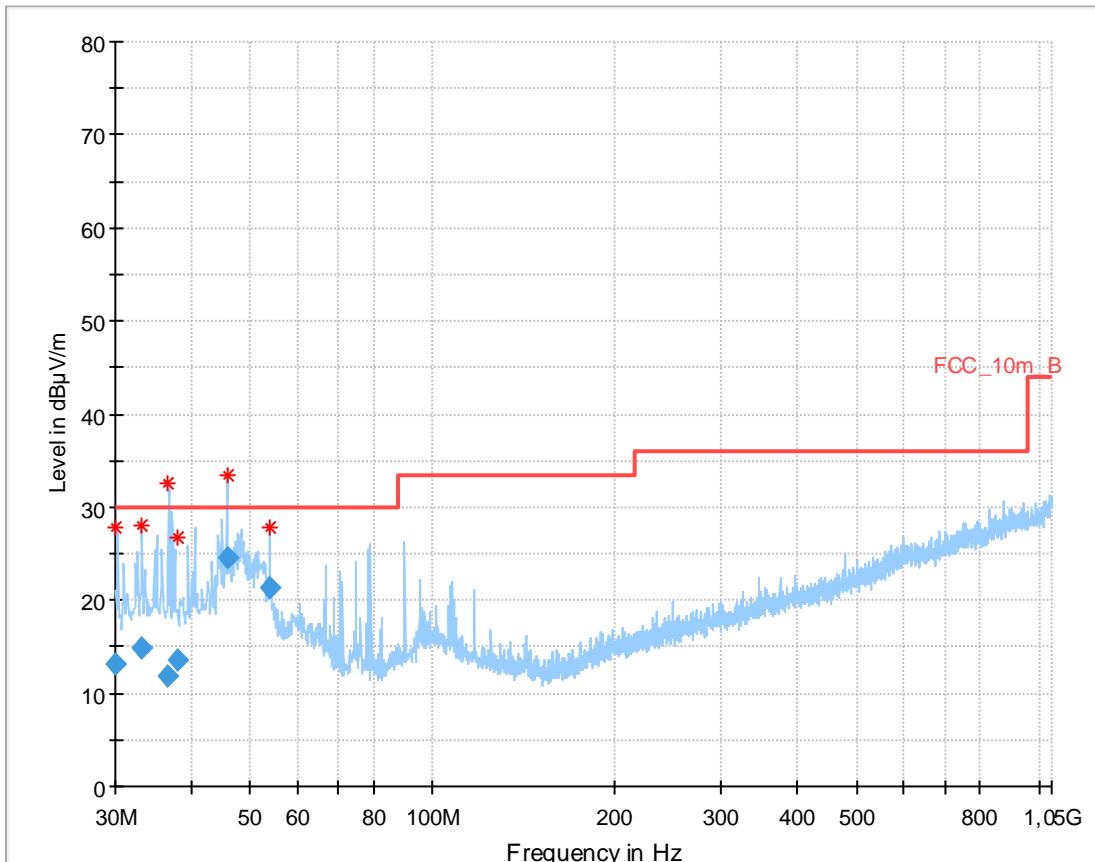
TX Spurious Emissions Radiated [dB μ V/m] / dBm								
5180 MHz			5240 MHz			5260 MHz		
F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]
5040	Peak	59.1	5000	Peak	62.3	5080	Peak	59.6
	AVG	51.9		AVG	48.4		AVG	49.9
5440	Peak	61.8	5450	Peak	64.5	5400	Peak	64.9
	AVG	52.3		AVG	52.7		AVG	53.7
5320 MHz			5500 MHz			5700 MHz		
F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]
5040	Peak	58.1	5000	Peak	62.3	5000	Peak	61.2
	AVG	48.5		AVG	48.4		AVG	48.0
5400	Peak	64.6	5415	Peak	66.5	5450	Peak	64.6
	AVG	53.4		AVG	53.9		AVG	52.8
5745 MHz			5785 MHz			5825 MHz		
F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]
5080	Peak	58.5	5000	Peak	64.4	5000	Peak	61.6
	AVG	48.0		AVG	50.5		AVG	47.9
5450	Peak	64.1	5410	Peak	65.2	5450	Peak	64.2
	AVG	52.6		AVG	53.8		AVG	52.4

Results: OFDM / n HT40 – mode, antenna 1 + 2 active

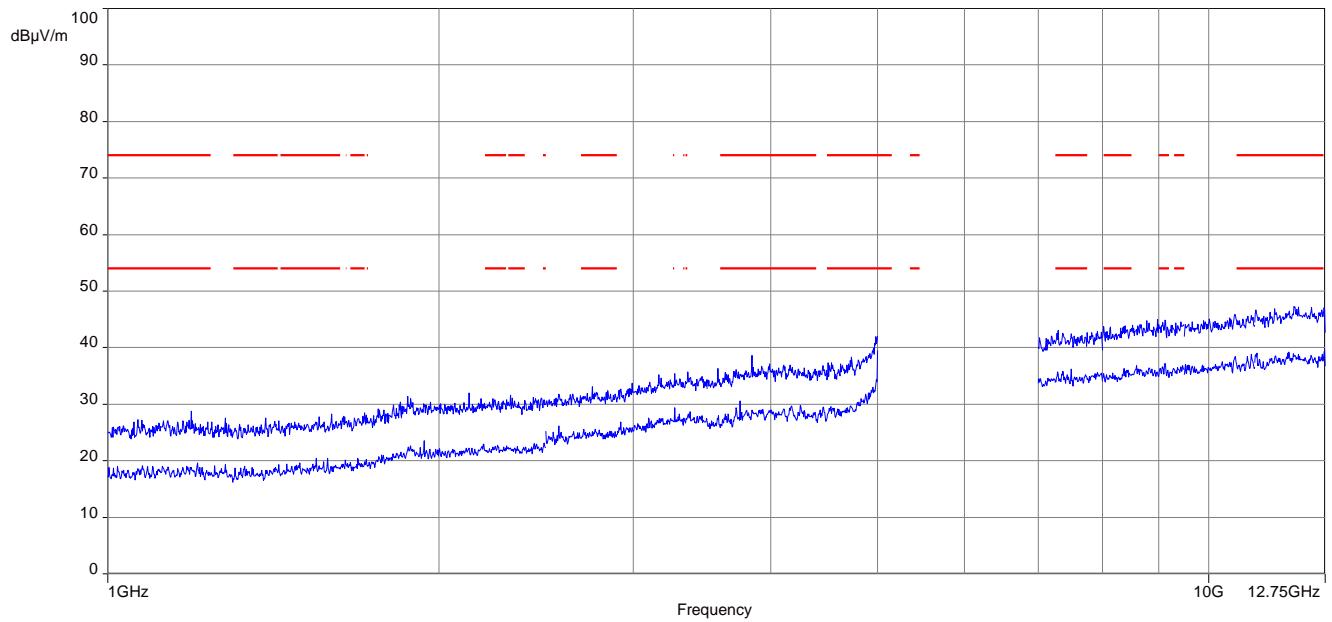
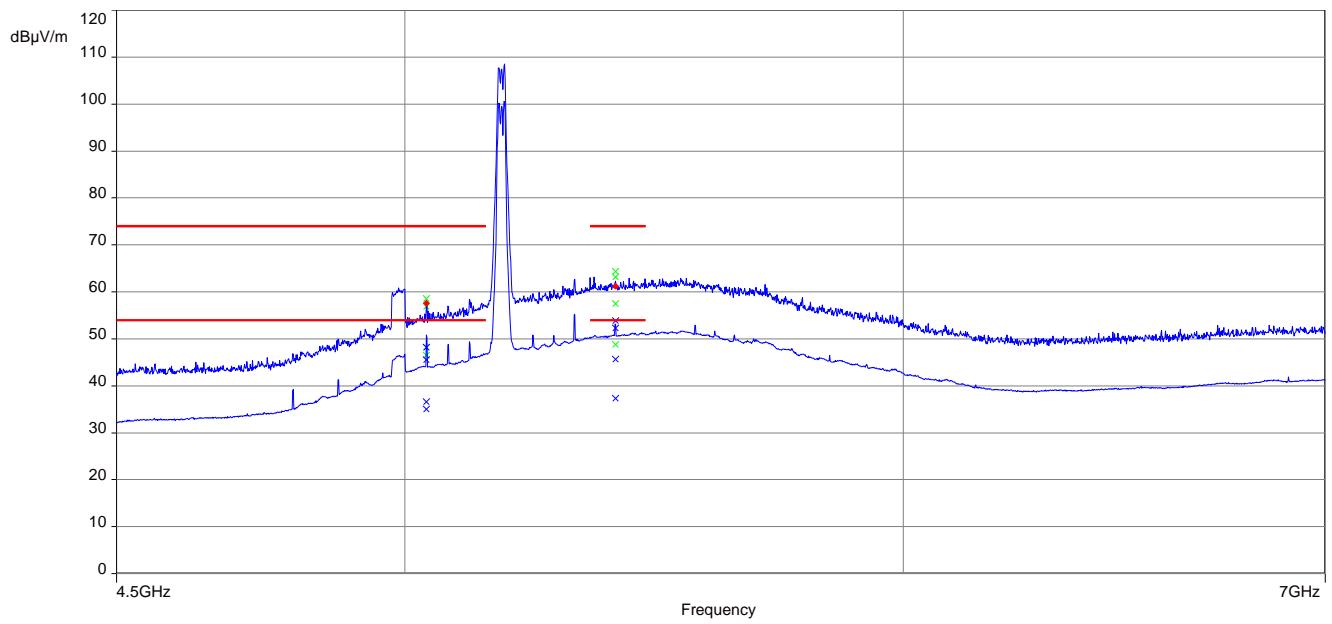
TX Spurious Emissions Radiated [dB μ V/m] / dBm								
5190 MHz			5230 MHz			5270 MHz		
F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]
5000	Peak	60.2	5000	Peak	63.2	5040	Peak	55.4
	AVG	45.8		AVG	49.1		AVG	46.9
5150	Peak	68.4	5400	Peak	65.6	5360	Peak	63.3
	AVG	53.9		AVG	53.9		AVG	53.1
5310 MHz			5510 MHz			5670 MHz		
F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]
5040	Peak	55.5	5040	Peak	53.6	5040	Peak	60.3
	AVG	47.6		AVG	45.5		AVG	52.0
5350	Peak	67.2	5460	Peak	65.5	5410	Peak	65.1
	AVG	53.7		AVG	52.7		AVG	53.1
5755 MHz			5795 MHz			-/-		
F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]	F [MHz]	Detector	Level [dB μ V/m]
5000	Peak	63.2	5040	Peak	57.5	-/-		
	AVG	49.1		AVG	47.9			
5455	Peak	65.1	5430	Peak	65.0			
	AVG	53.3		AVG	53.5			

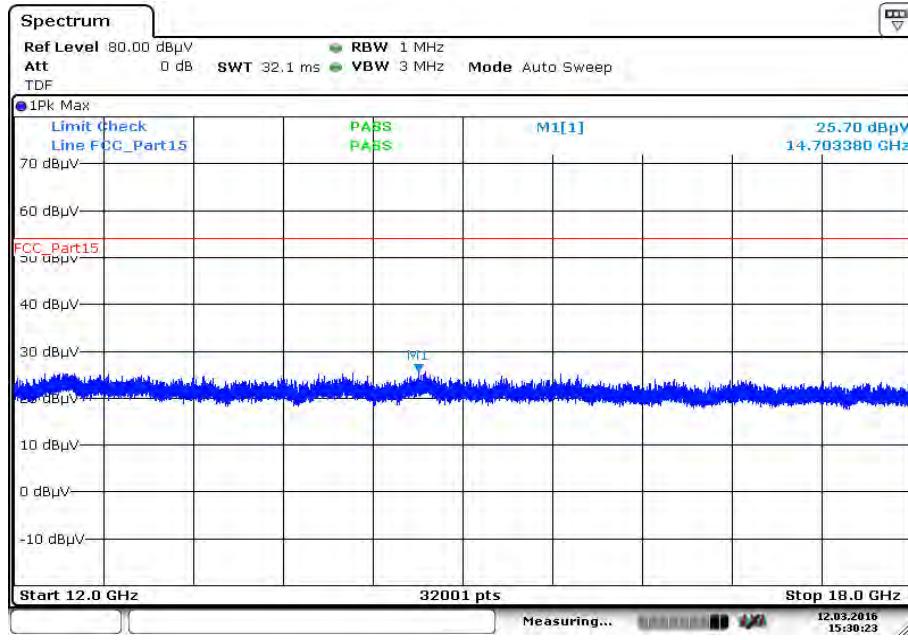
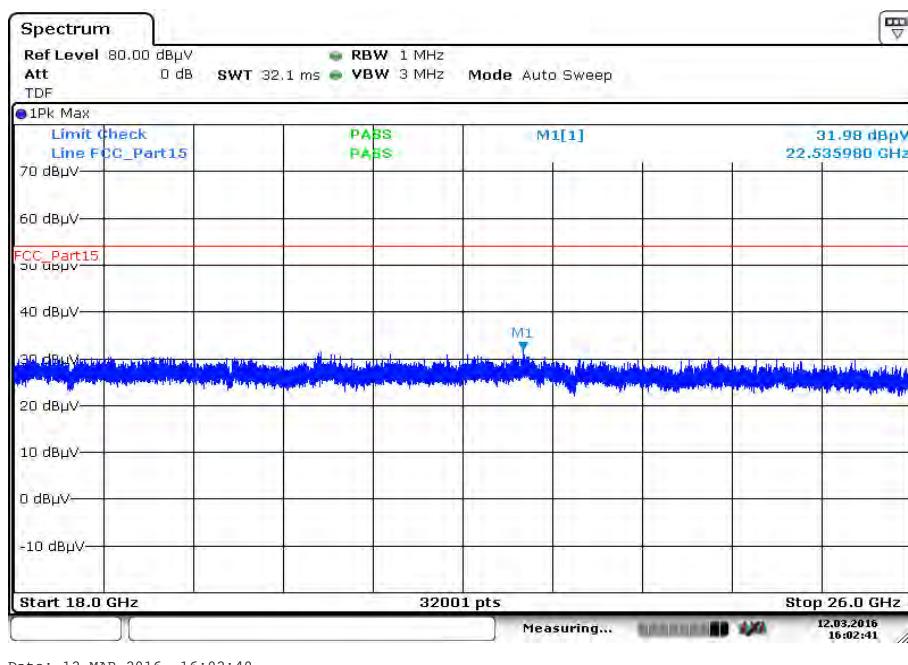
Plots: OFDM / a – mode

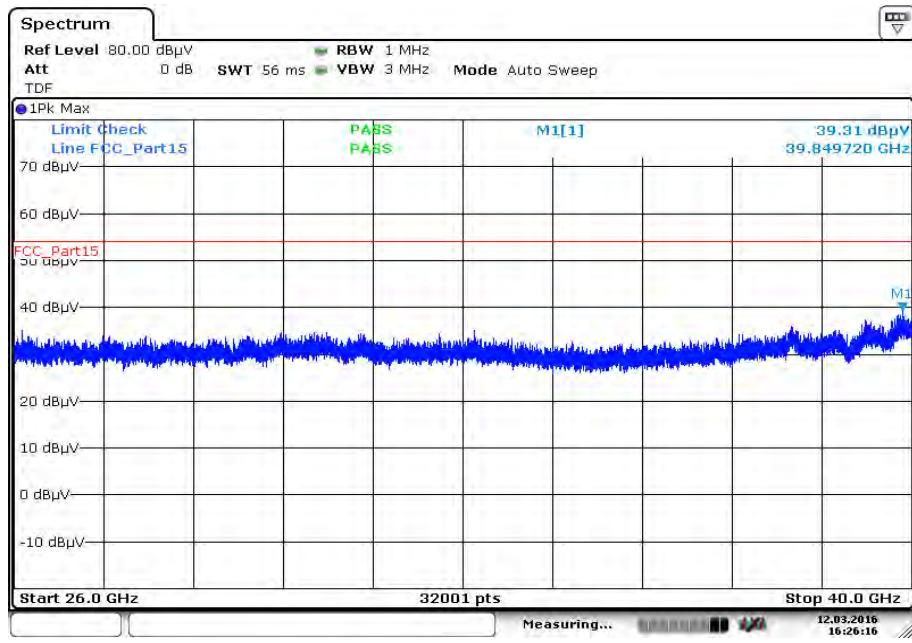
Plot 1: 30 MHz to 1 GHz, 5180 MHz, vertical & horizontal polarization

**Final_Result**

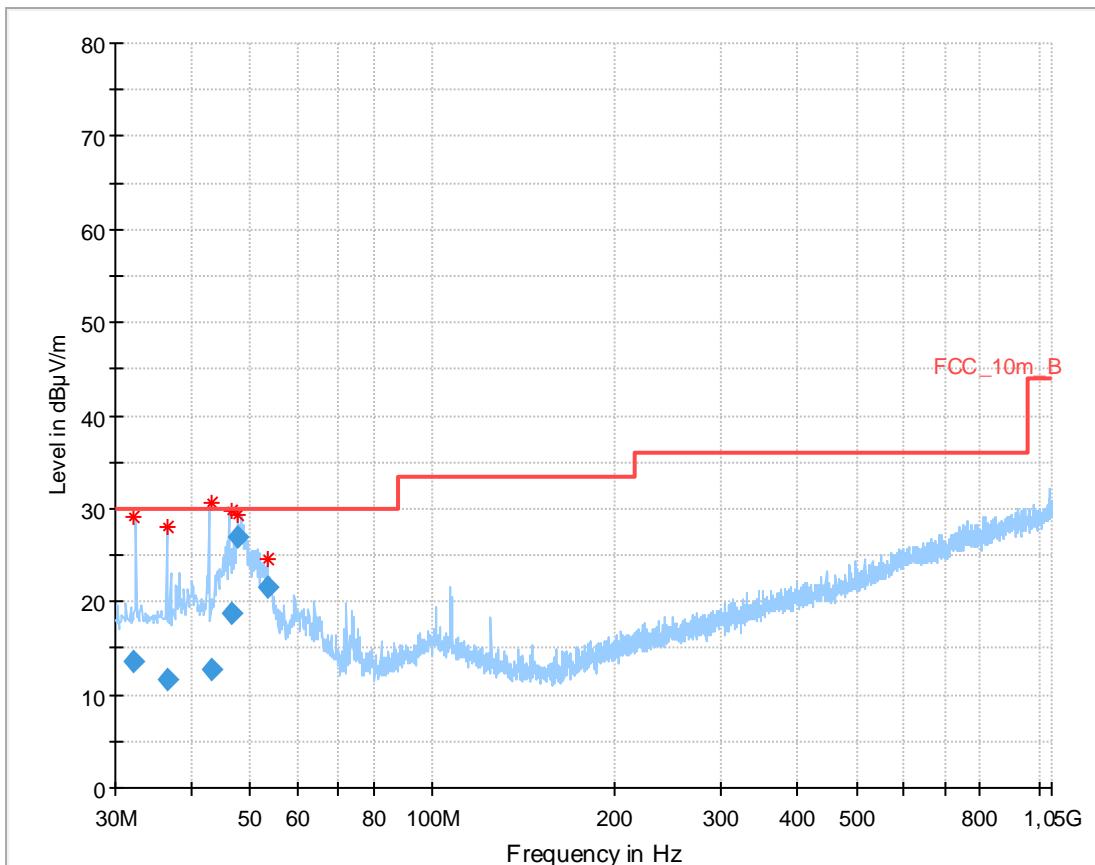
Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.016779	13.07	30.00	16.93	1000.0	120.000	101.0	V	125	13.3
33.150600	14.79	30.00	15.21	1000.0	120.000	101.0	V	160	13.6
36.631500	11.78	30.00	18.22	1000.0	120.000	101.0	V	269	13.9
37.871550	13.54	30.00	16.46	1000.0	120.000	98.0	V	148	13.9
45.808200	24.68	30.00	5.32	1000.0	120.000	101.0	V	172	13.7
53.750250	21.37	30.00	8.63	1000.0	120.000	98.0	V	172	12.0

Plot 2: 1 GHz to 12.75 GHz, 5180 MHz, vertical & horizontal polarization**Plot 3:** 4.5 GHz to 7 GHz, 5180 MHz, vertical & horizontal polarization

Plot 4: 12 GHz to 18 GHz, 5180 MHz, vertical & horizontal polarization**Plot 5:** 18 GHz to 26 GHz, 5180 MHz, vertical & horizontal polarization

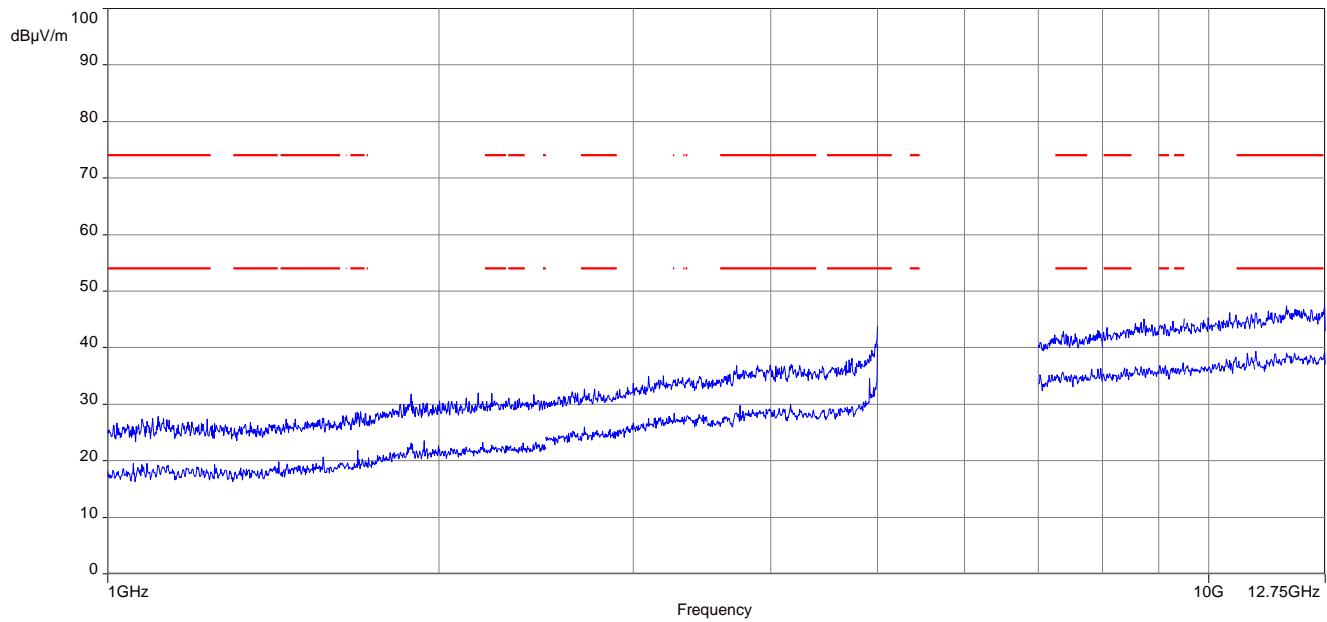
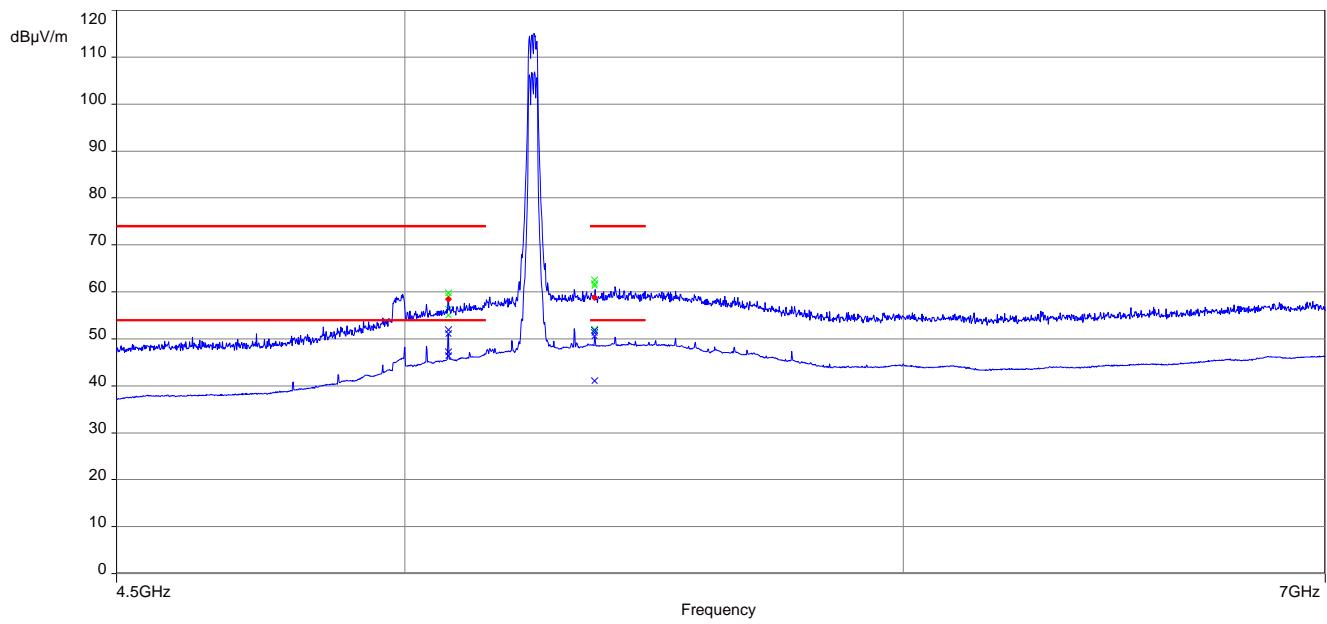
Plot 6: 26 GHz to 40 GHz, 5180 MHz, vertical & horizontal polarization

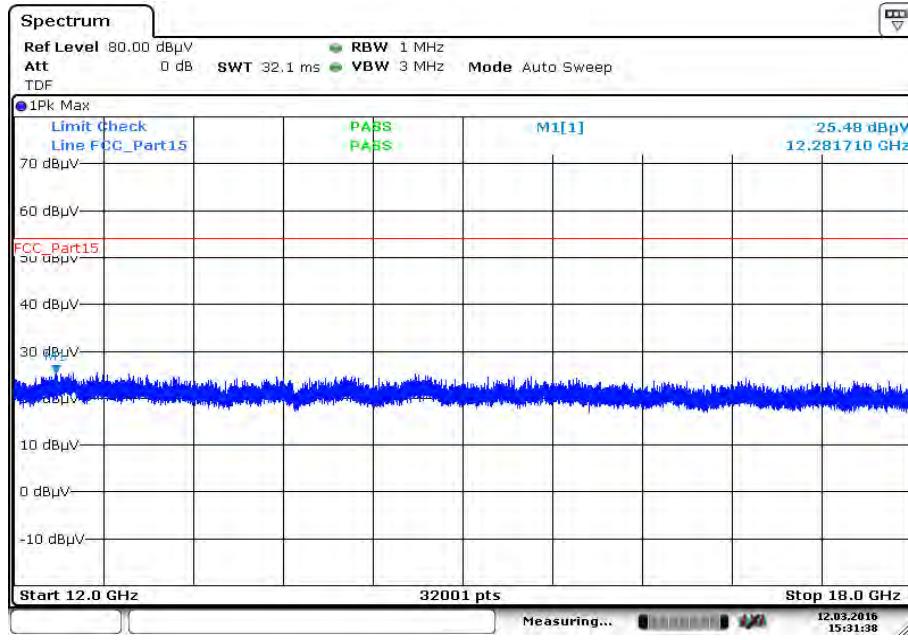
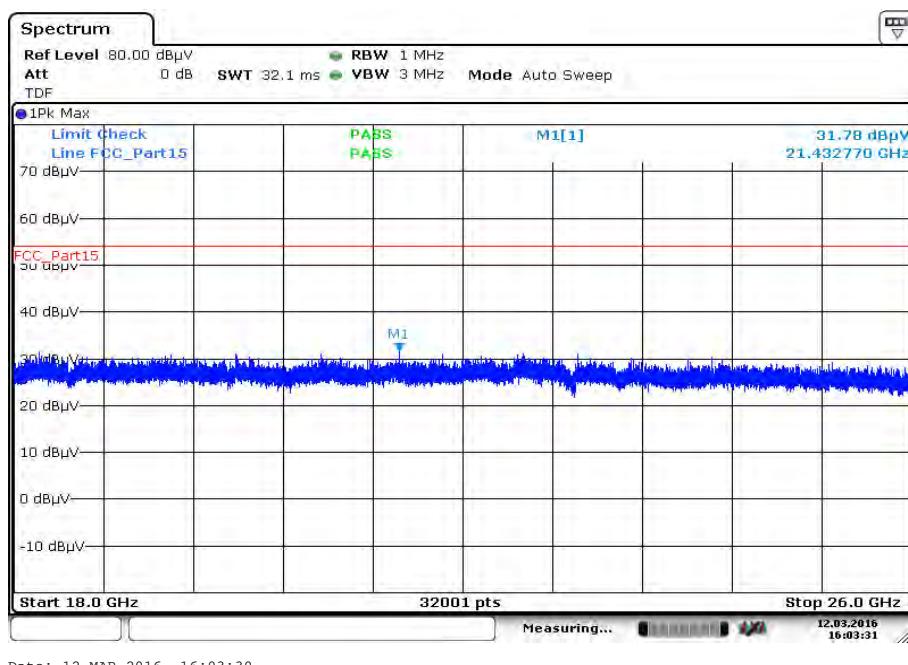
Plot 7: 30 MHz to 1 GHz, 5240 MHz, vertical & horizontal polarization

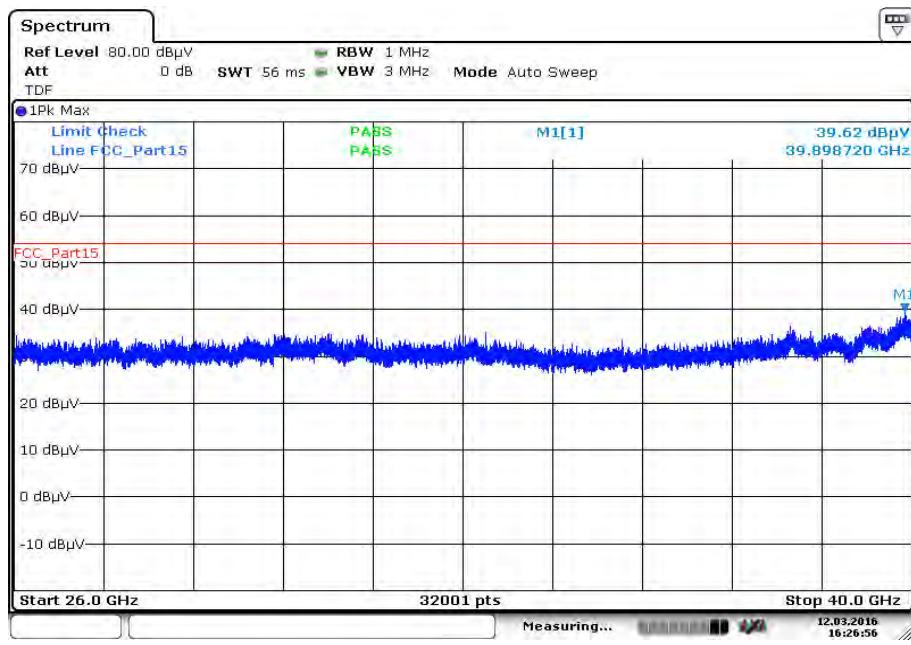


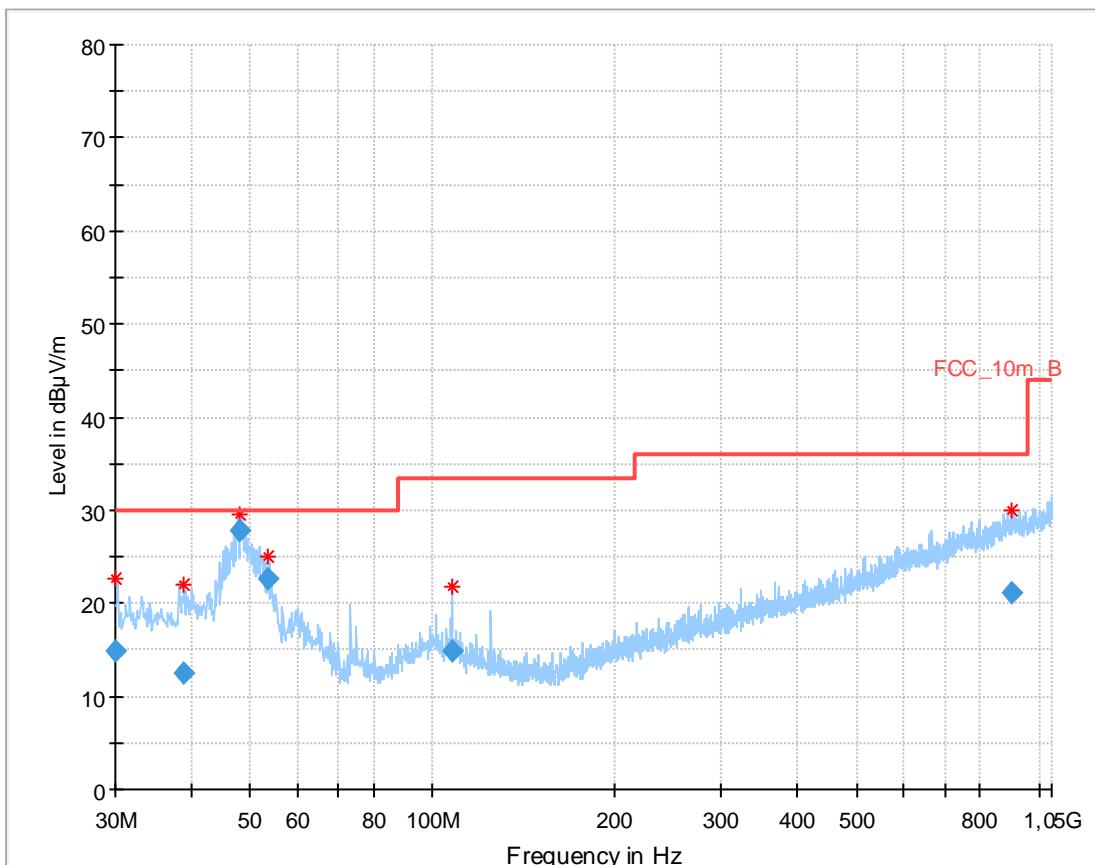
Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
32.180250	13.62	30.00	16.38	1000.0	120.000	101.0	V	44	13.5
36.641550	11.59	30.00	18.41	1000.0	120.000	98.0	V	118	13.9
43.336950	12.76	30.00	17.24	1000.0	120.000	98.0	V	102	13.9
46.751850	18.75	30.00	11.25	1000.0	120.000	98.0	V	110	13.4
47.817000	26.89	30.00	3.11	1000.0	120.000	98.0	V	110	13.2
53.479200	21.65	30.00	8.35	1000.0	120.000	98.0	V	59	12.1

Plot 8: 1 GHz to 12.75 GHz, 5240 MHz, vertical & horizontal polarization**Plot 9:** 4.5 GHz to 7 GHz, 5240 MHz, vertical & horizontal polarization

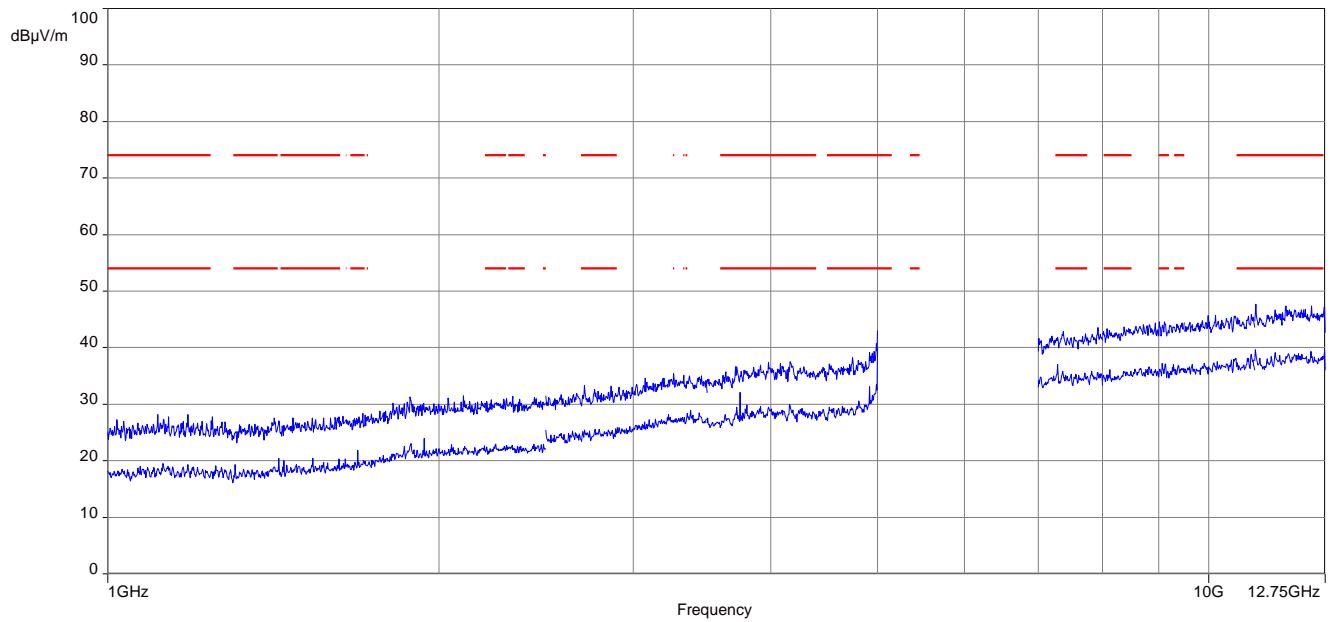
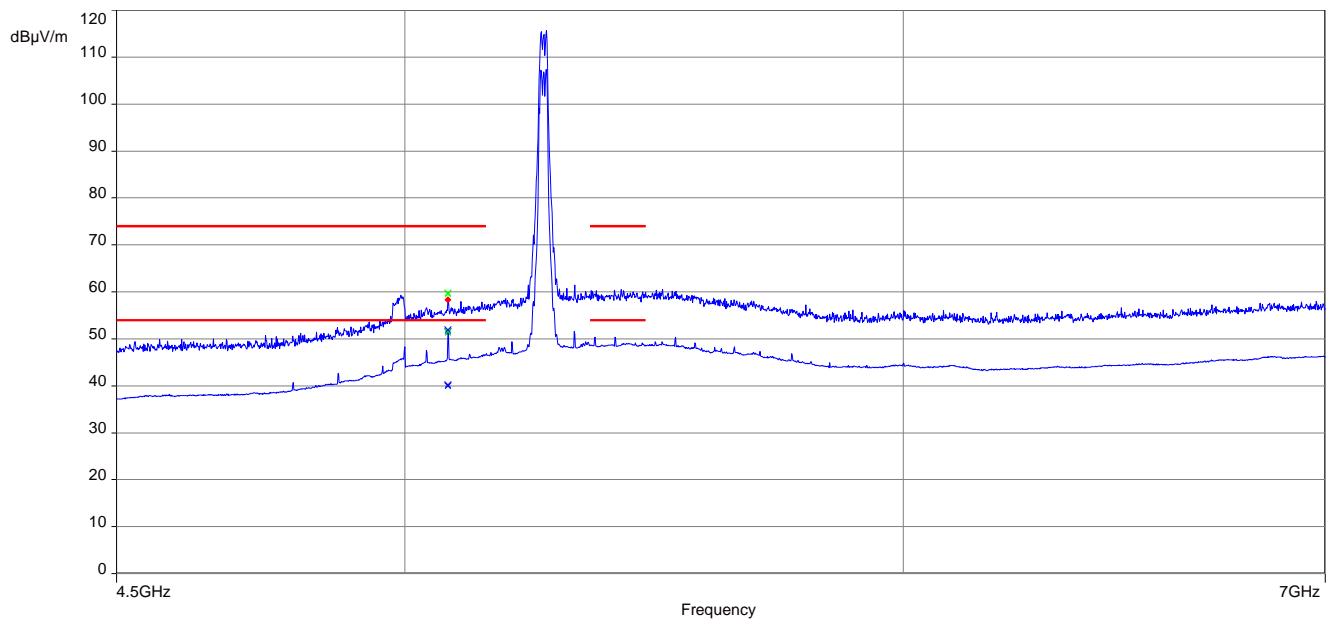
Plot 10: 12 GHz to 18 GHz, 5240 MHz, vertical & horizontal polarization**Plot 11:** 18 GHz to 26 GHz, 5240 MHz, vertical & horizontal polarization

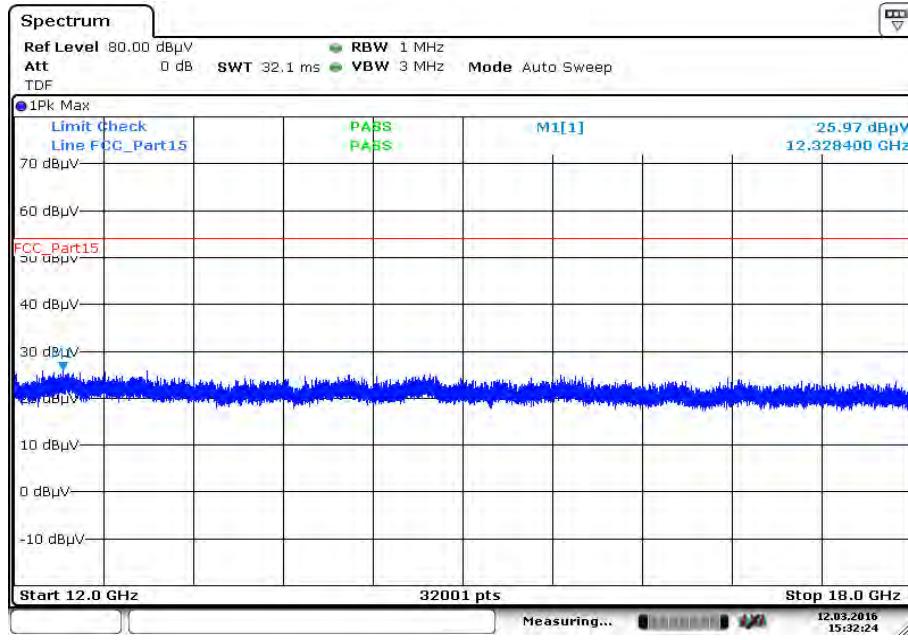
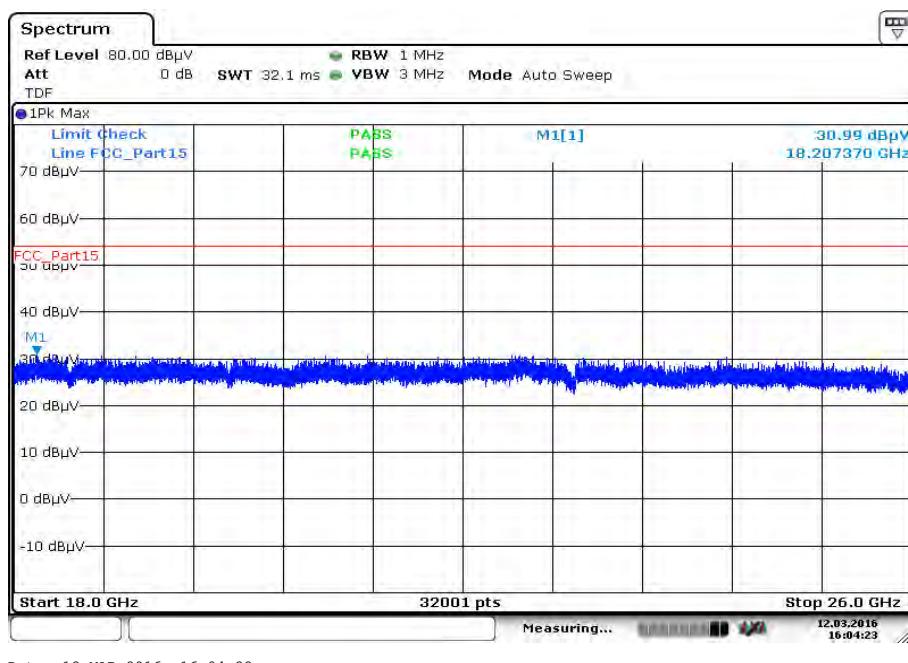
Plot 12: 26 GHz to 40 GHz, 5240 MHz, vertical & horizontal polarization

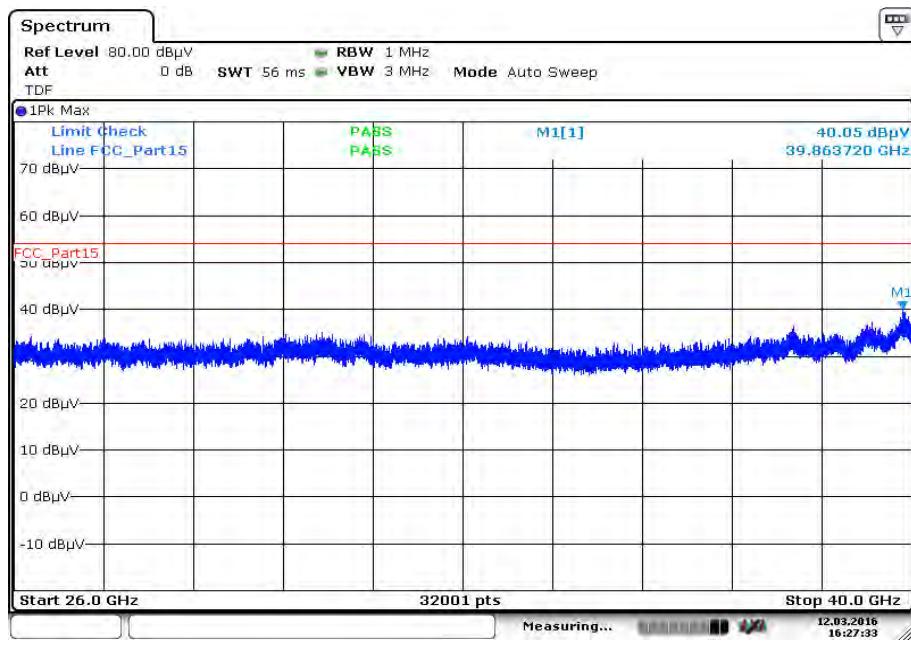
Plot 13: 30 MHz to 1 GHz, 5260 MHz, vertical & horizontal polarization

Final_Result

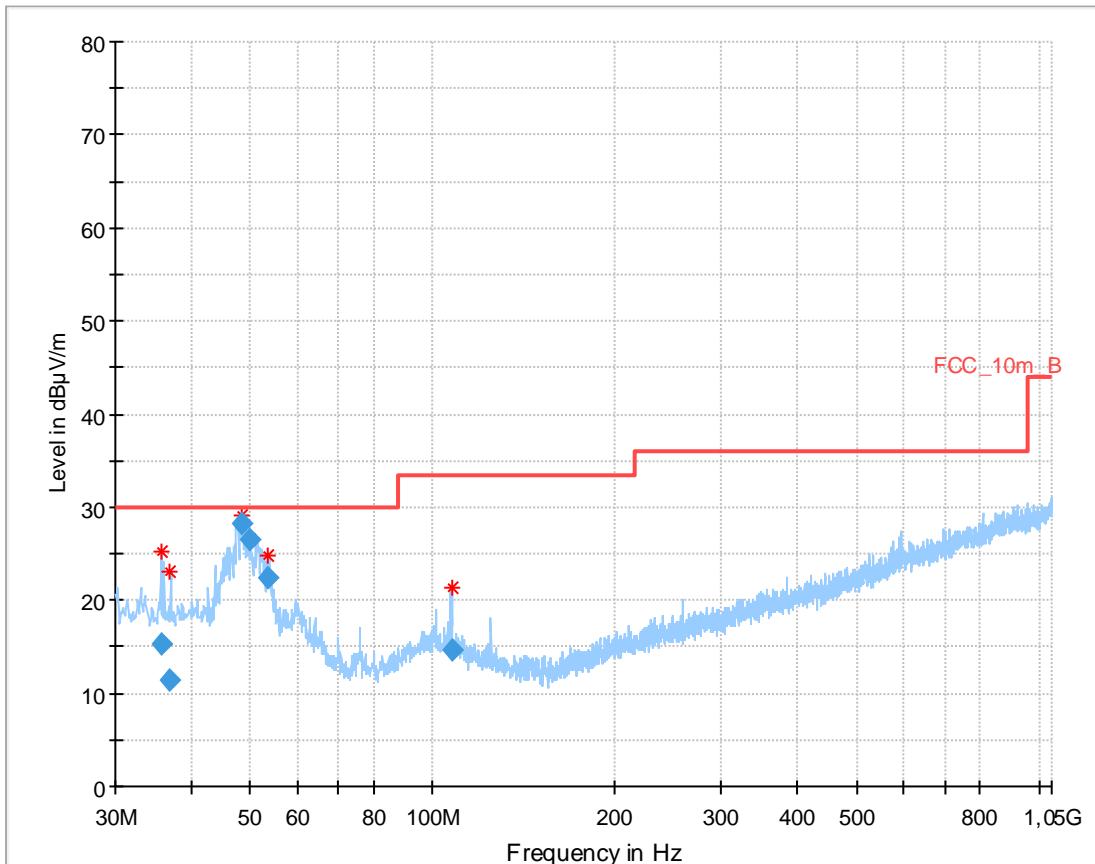
Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.006840	14.85	30.00	15.15	1000.0	120.000	101.0	V	205	13.3
38.751150	12.40	30.00	17.60	1000.0	120.000	170.0	V	80	14.0
48.185100	27.83	30.00	2.17	1000.0	120.000	98.0	V	313	13.1
53.487150	22.54	30.00	7.46	1000.0	120.000	98.0	V	24	12.1
107.950200	14.95	33.50	18.55	1000.0	120.000	170.0	V	118	11.3
902.704650	21.09	36.00	14.91	1000.0	120.000	170.0	V	118	24.1

Plot 14: 1 GHz to 12.75 GHz, 5260 MHz, vertical & horizontal polarization**Plot 15:** 4.5 GHz to 7 GHz, 5260 MHz, vertical & horizontal polarization

Plot 16: 12 GHz to 18 GHz, 5260 MHz, vertical & horizontal polarization**Plot 17:** 18 GHz to 26 GHz, 5260 MHz, vertical & horizontal polarization

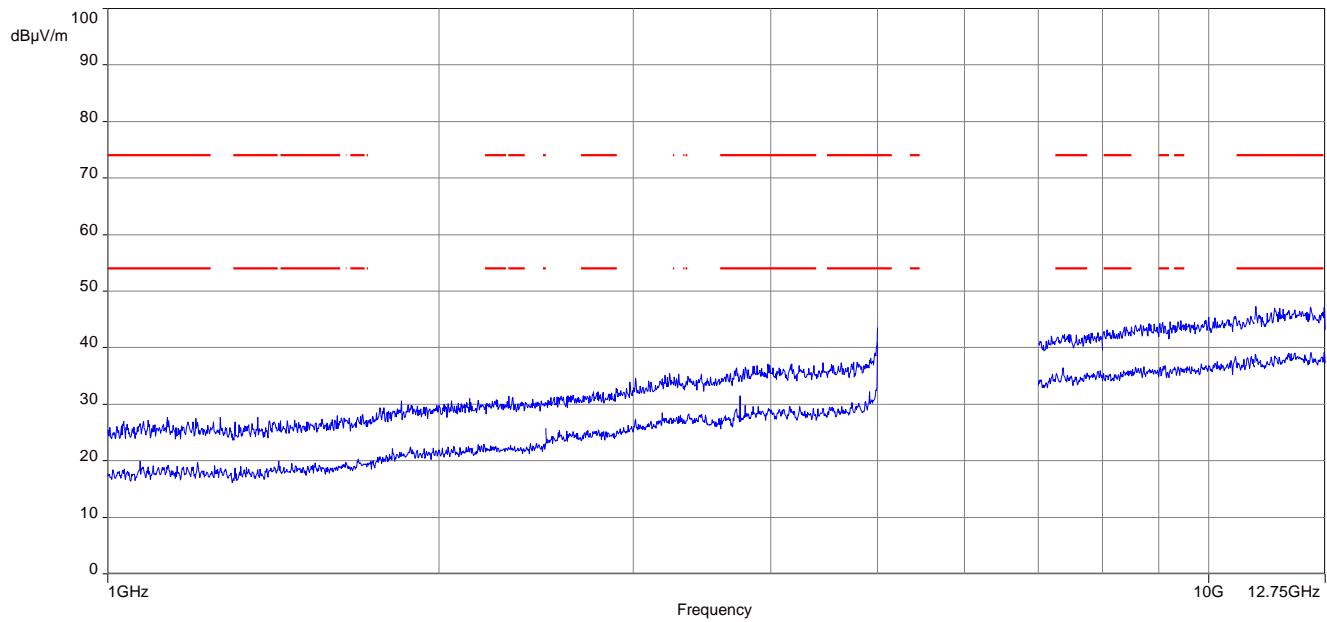
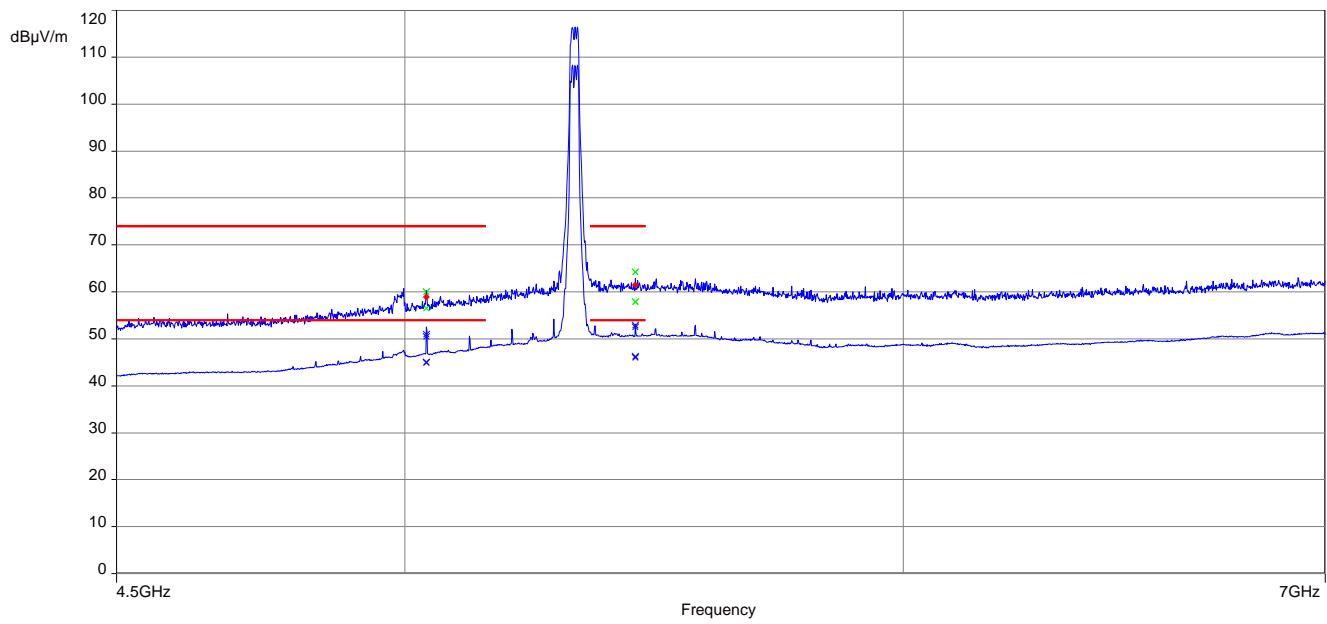
Plot 18: 26 GHz to 40 GHz, 5260 MHz, vertical & horizontal polarization

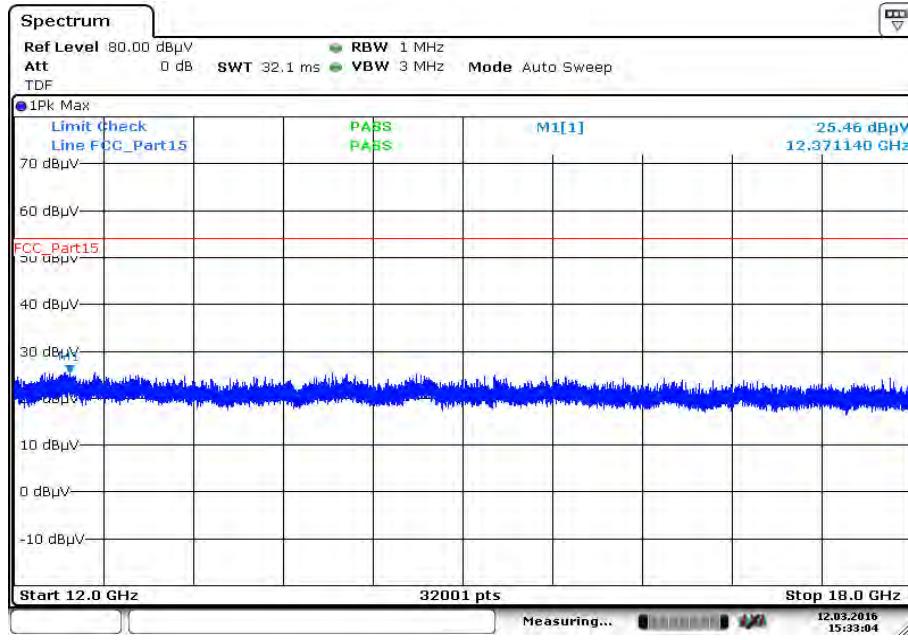
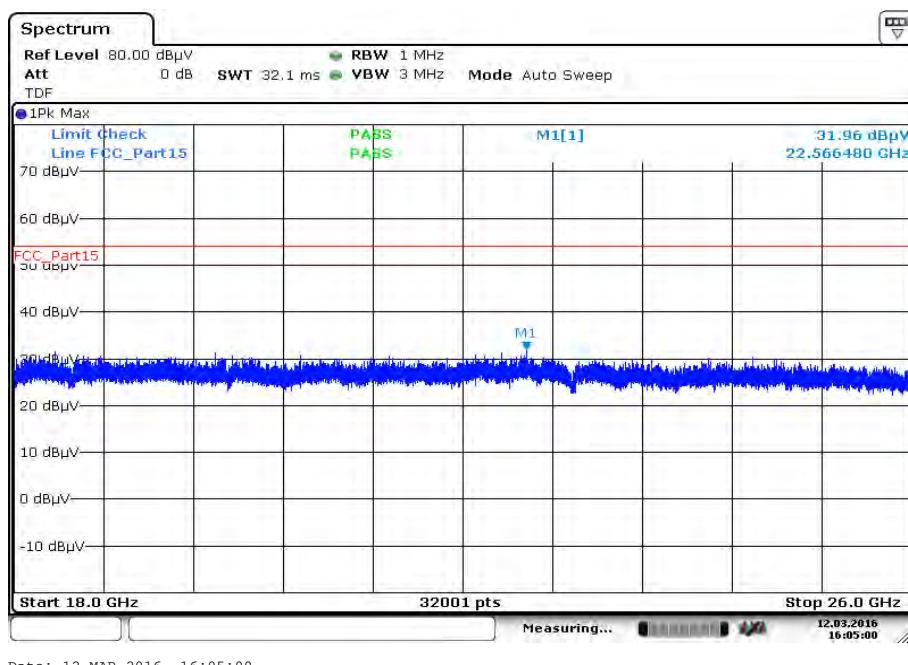
Plot 19: 30 MHz to 1 GHz, 5320 MHz, vertical & horizontal polarization

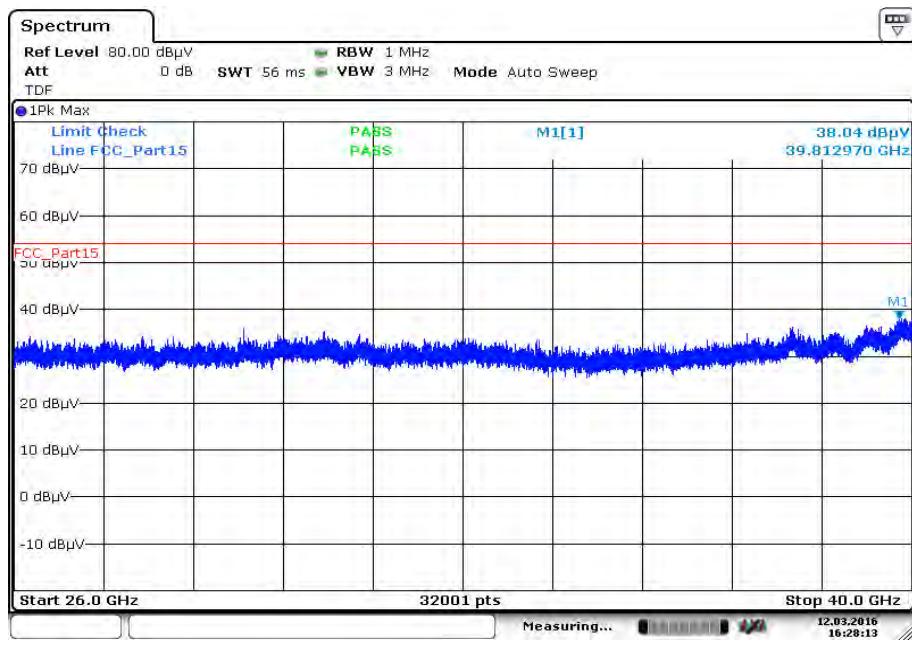


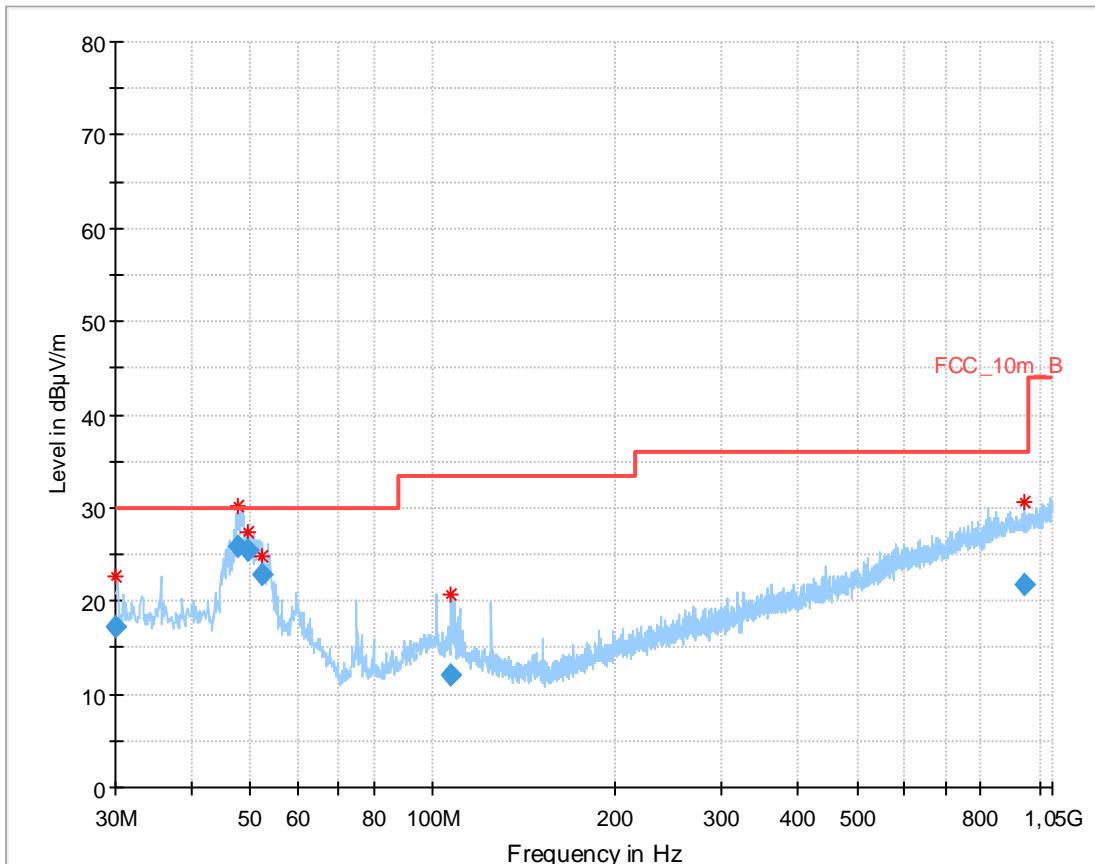
Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
35.683950	15.26	30.00	14.74	1000.0	120.000	101.0	V	37	13.8
36.903000	11.46	30.00	18.54	1000.0	120.000	101.0	V	37	13.9
48.487350	28.34	30.00	1.66	1000.0	120.000	98.0	V	344	13.0
49.816950	26.59	30.00	3.41	1000.0	120.000	98.0	V	344	12.7
53.505450	22.47	30.00	7.53	1000.0	120.000	98.0	V	334	12.1
107.984250	14.60	33.50	18.90	1000.0	120.000	170.0	V	127	11.3

Plot 20: 1 GHz to 12.75 GHz, 5320 MHz, vertical & horizontal polarization**Plot 21:** 4.5 GHz to 7 GHz, 5320 MHz, vertical & horizontal polarization

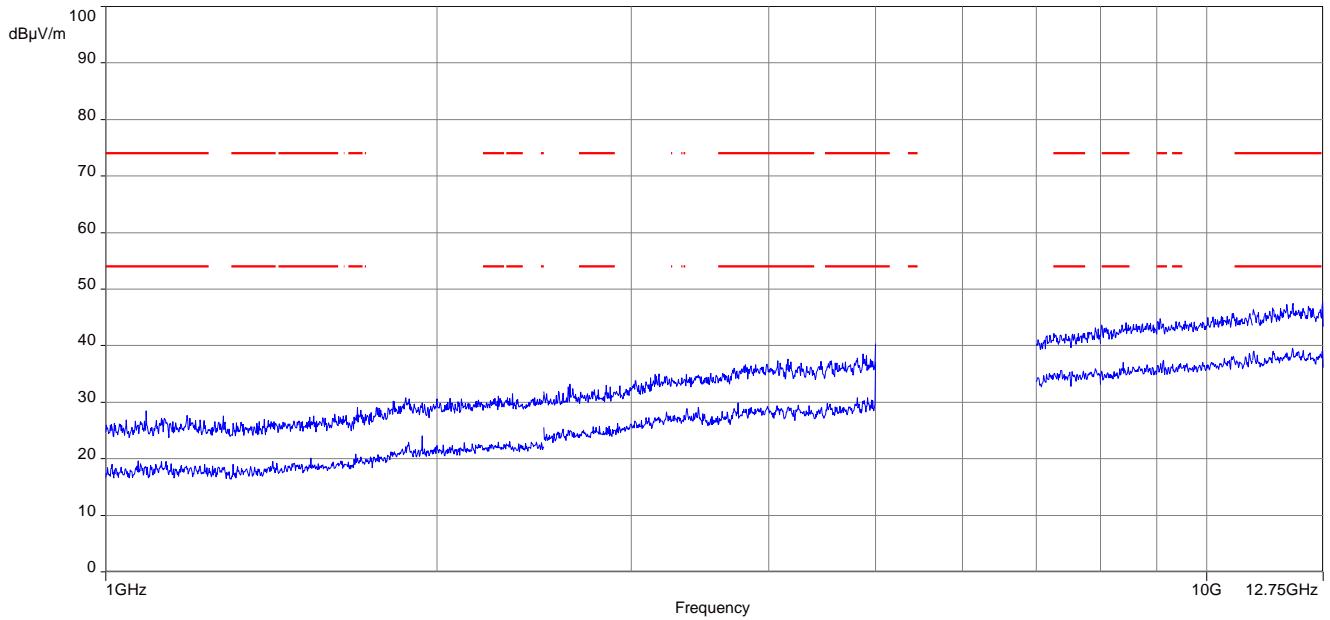
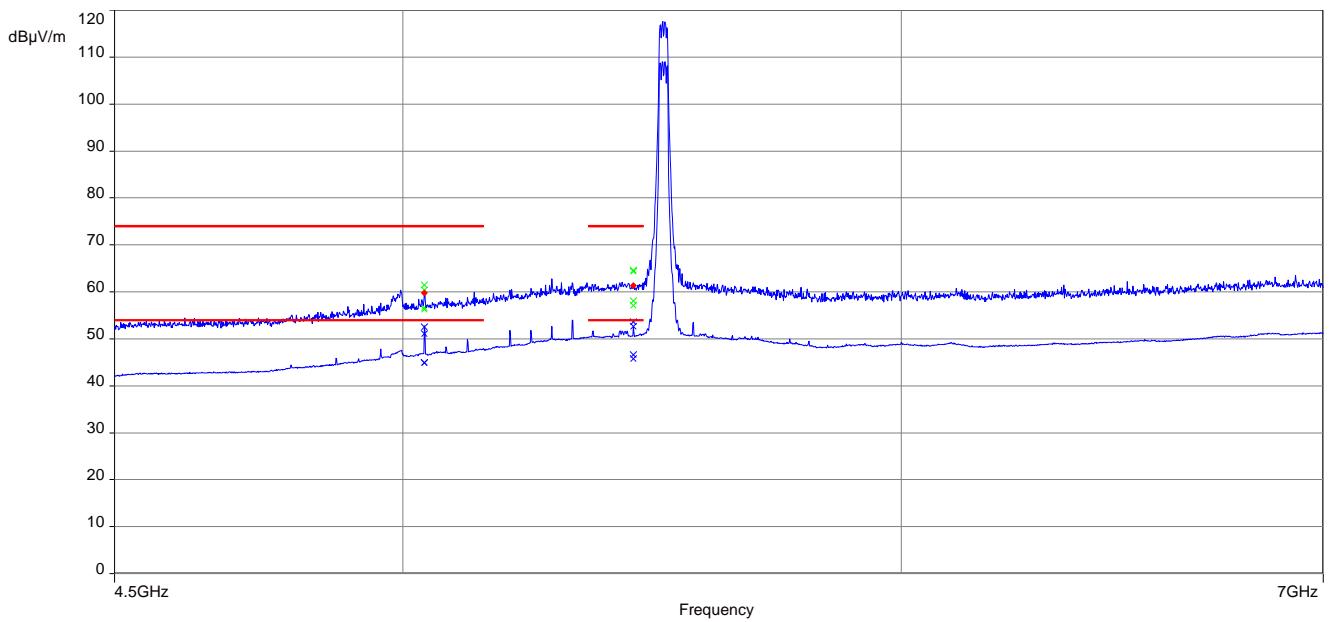
Plot 22: 12 GHz to 18 GHz, 5320 MHz, vertical & horizontal polarization**Plot 23:** 18 GHz to 26 GHz, 5320 MHz, vertical & horizontal polarization

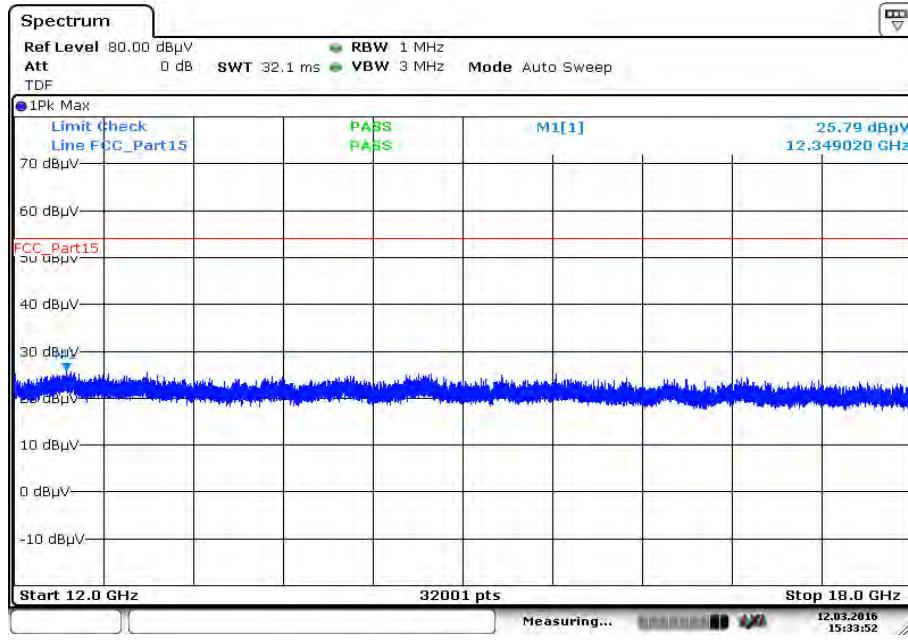
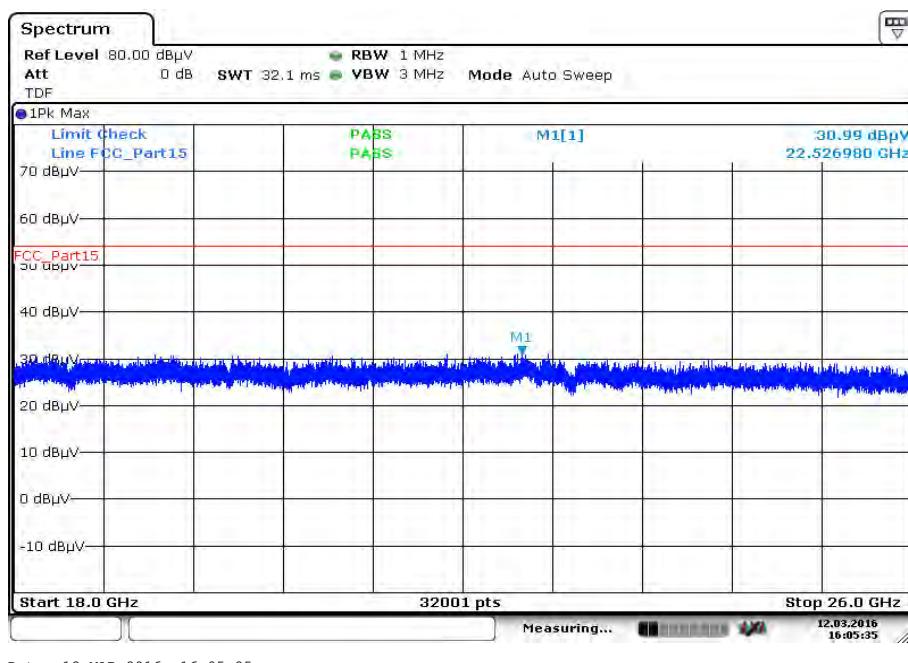
Plot 24: 26 GHz to 40 GHz, 5320 MHz, vertical & horizontal polarization

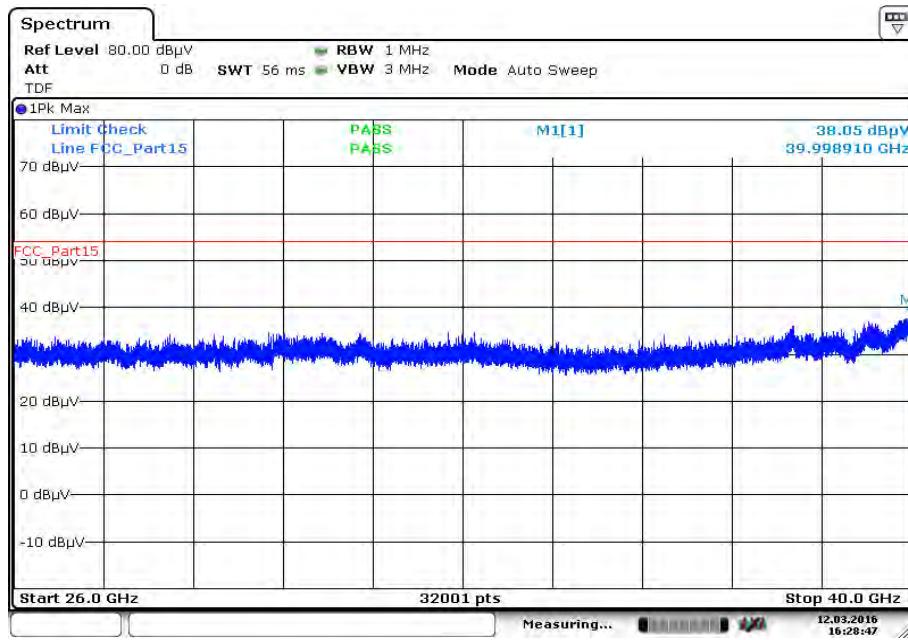
Plot 25: 30 MHz to 1 GHz, 5500 MHz, vertical & horizontal polarization

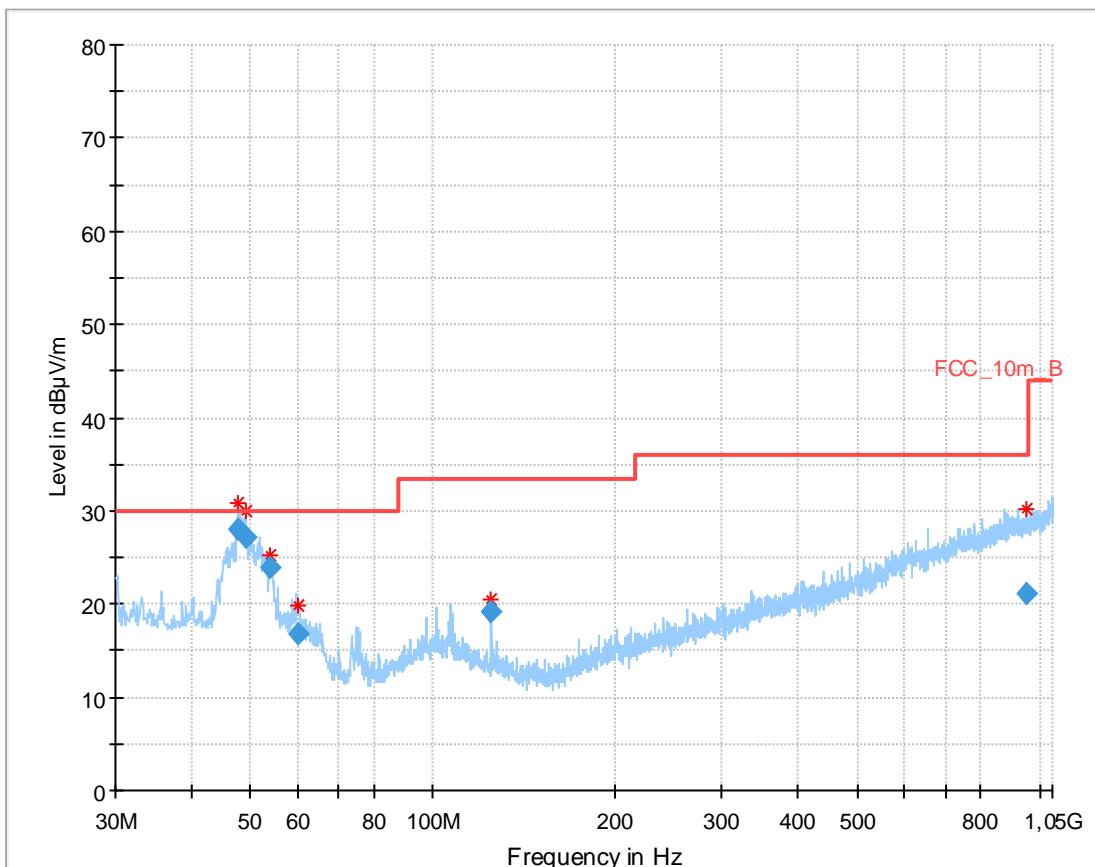
Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.006947	17.23	30.00	12.77	1000.0	120.000	101.0	V	281	13.3
47.844450	25.91	30.00	4.09	1000.0	120.000	98.0	V	353	13.2
49.504350	25.55	30.00	4.45	1000.0	120.000	98.0	V	94	12.8
52.476300	22.93	30.00	7.07	1000.0	120.000	98.0	V	353	12.2
107.147850	12.08	33.50	21.42	1000.0	120.000	101.0	V	82	11.4
941.745900	21.72	36.00	14.28	1000.0	120.000	170.0	V	35	24.2

Plot 26: 1 GHz to 12.75 GHz, 5500 MHz, vertical & horizontal polarization**Plot 27:** 4.5 GHz to 7 GHz, 5500 MHz, vertical & horizontal polarization

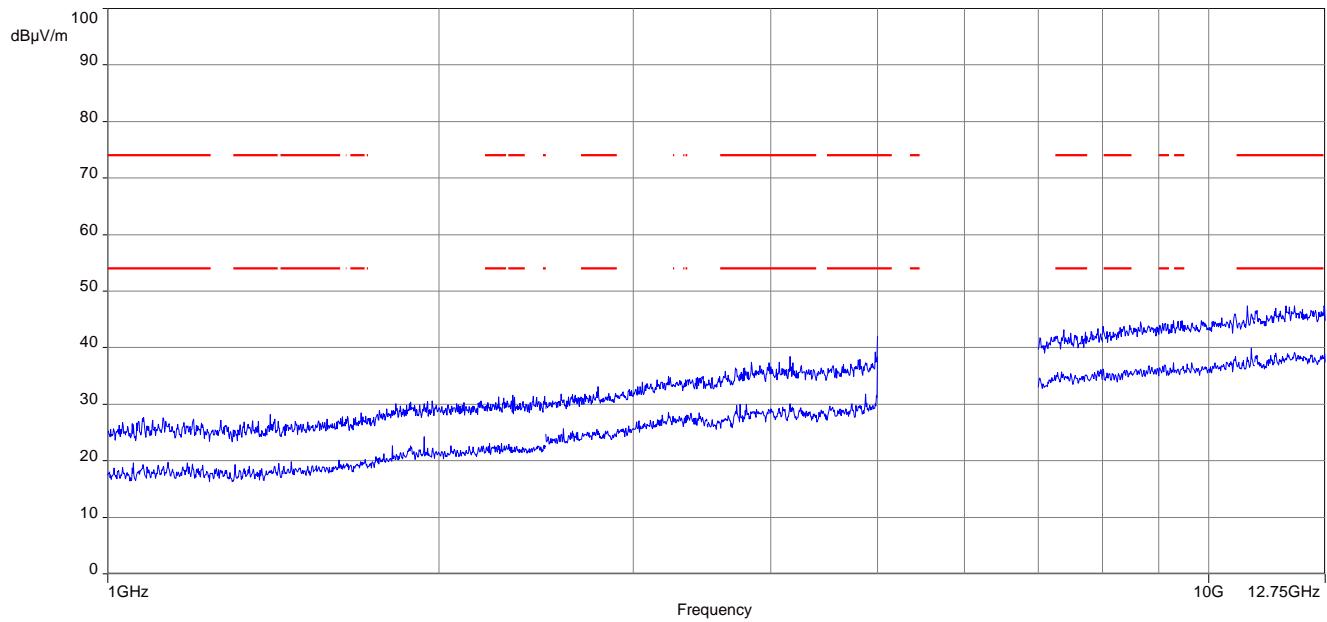
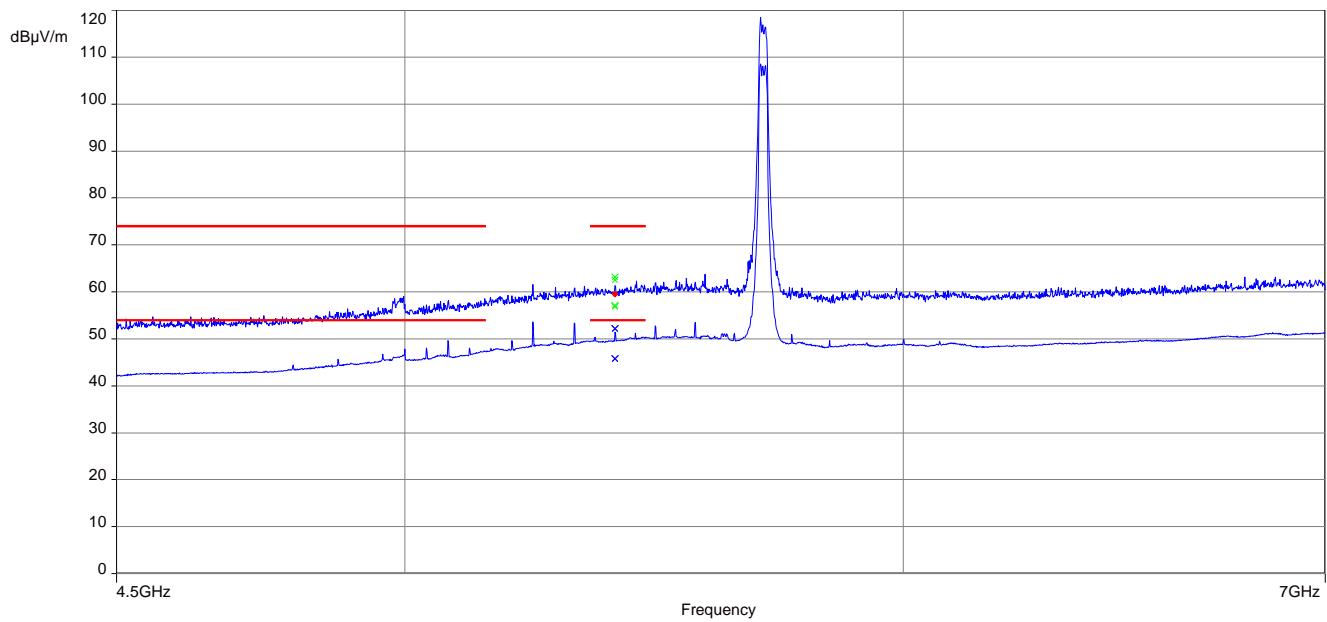
Plot 28: 12 GHz to 18 GHz, 5500 MHz, vertical & horizontal polarization**Plot 29:** 18 GHz to 26 GHz, 5500 MHz, vertical & horizontal polarization

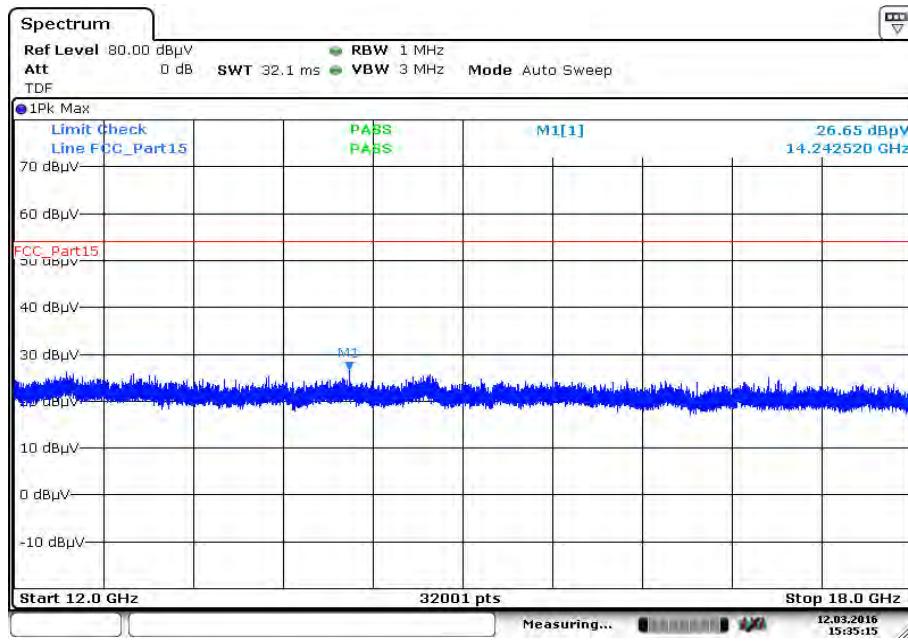
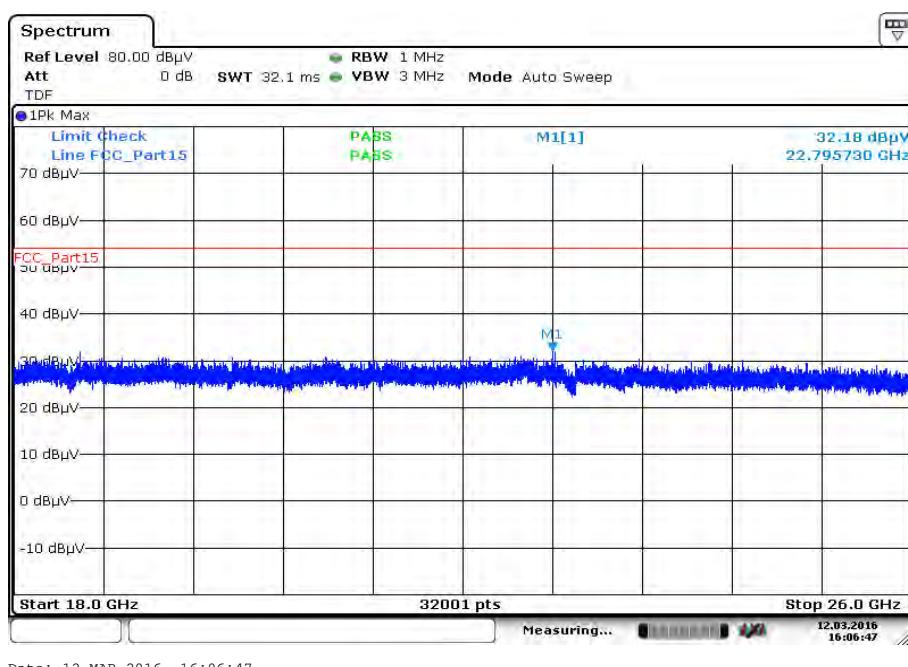
Plot 30: 26 GHz to 40 GHz, 5500 MHz, vertical & horizontal polarization

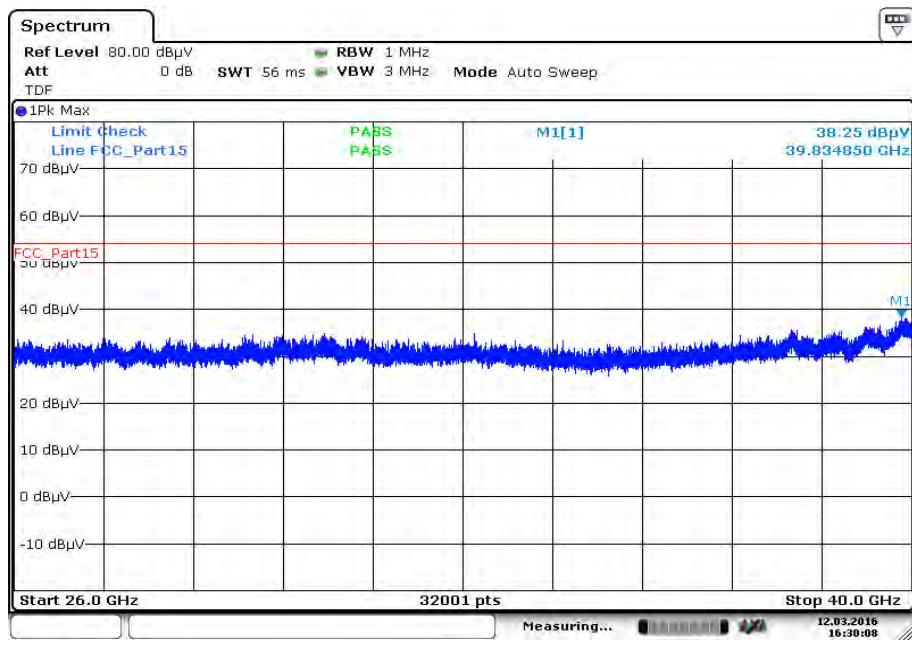
Plot 31: 30 MHz to 1 GHz, 5700 MHz, vertical & horizontal polarization

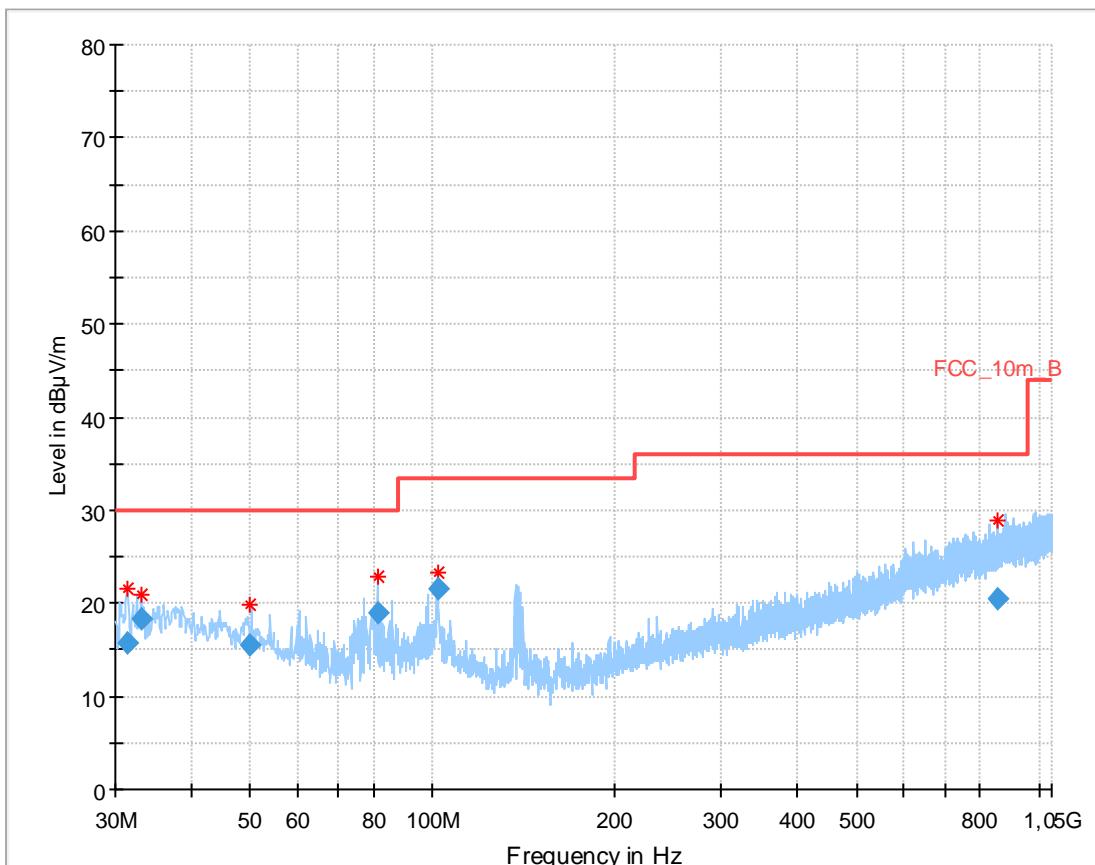
Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
47.867400	27.98	30.00	2.02	1000.0	120.000	98.0	V	92	13.1
49.189350	27.10	30.00	2.90	1000.0	120.000	98.0	V	76	12.8
53.820600	24.01	30.00	5.99	1000.0	120.000	98.0	V	331	12.0
59.769300	16.87	30.00	13.13	1000.0	120.000	98.0	V	175	10.6
124.999950	19.12	33.50	14.38	1000.0	120.000	98.0	V	348	9.8
952.663650	21.14	36.00	14.86	1000.0	120.000	170.0	H	100	24.3

Plot 32: 1 GHz to 12.75 GHz, 5700 MHz, vertical & horizontal polarization**Plot 33:** 4.5 GHz to 7 GHz, 5700 MHz, vertical & horizontal polarization

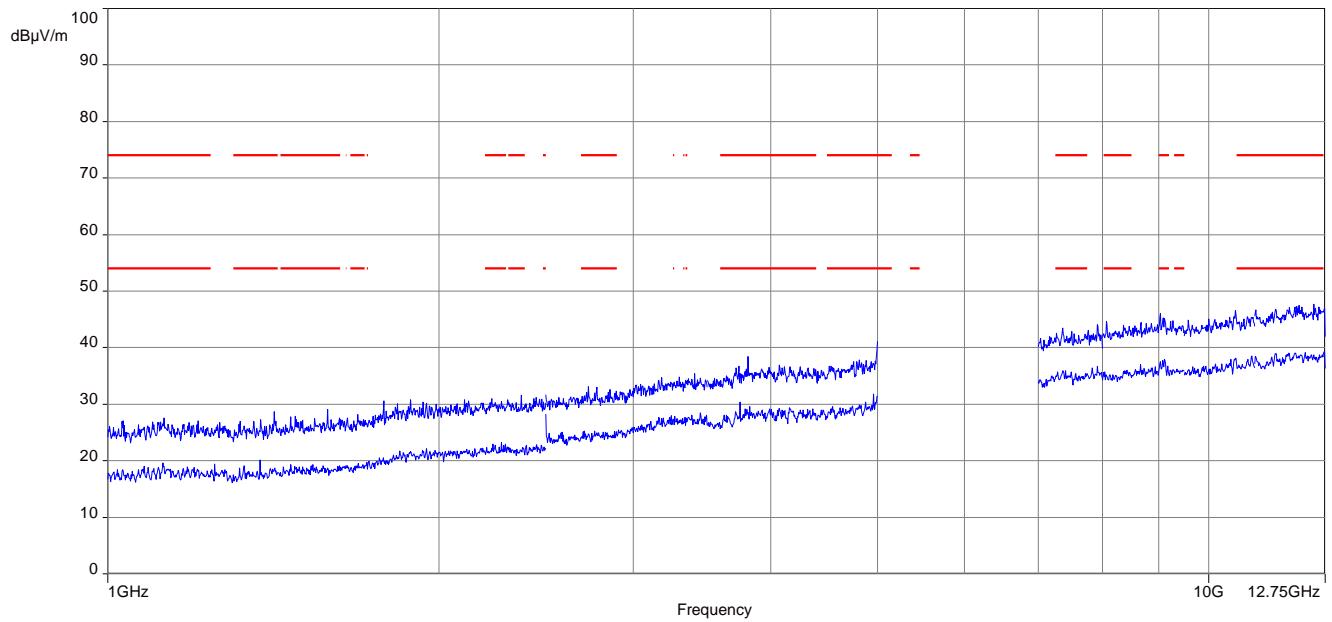
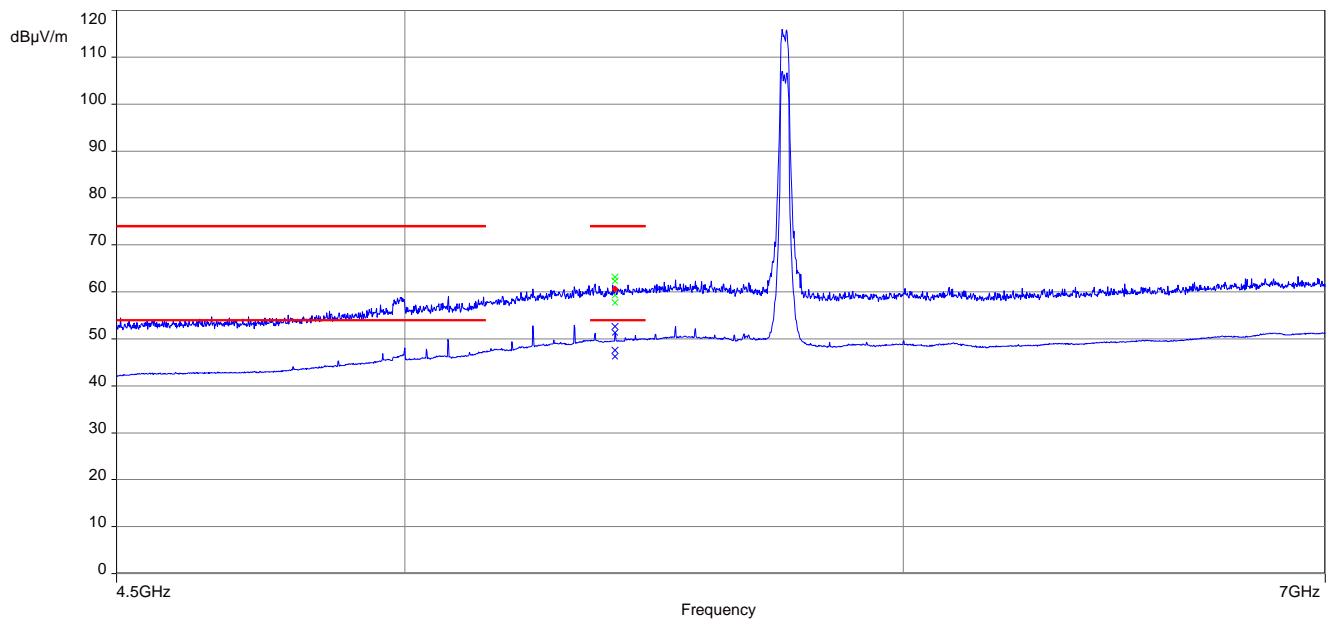
Plot 34: 12 GHz to 18 GHz, 5700 MHz, vertical & horizontal polarization**Plot 35:** 18 GHz to 26 GHz, 5700 MHz, vertical & horizontal polarization

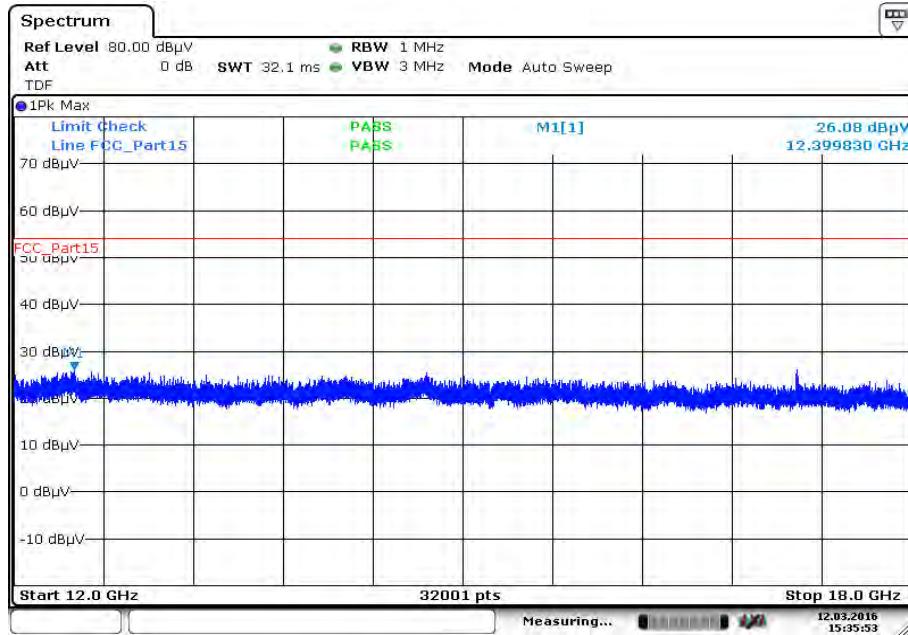
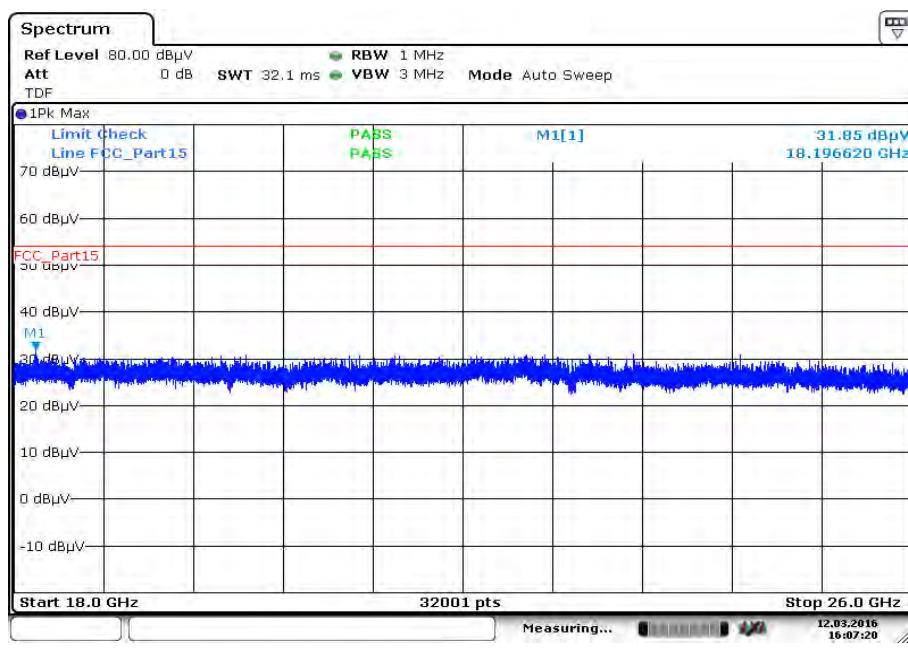
Plot 36: 26 GHz to 40 GHz, 5700 MHz, vertical & horizontal polarization

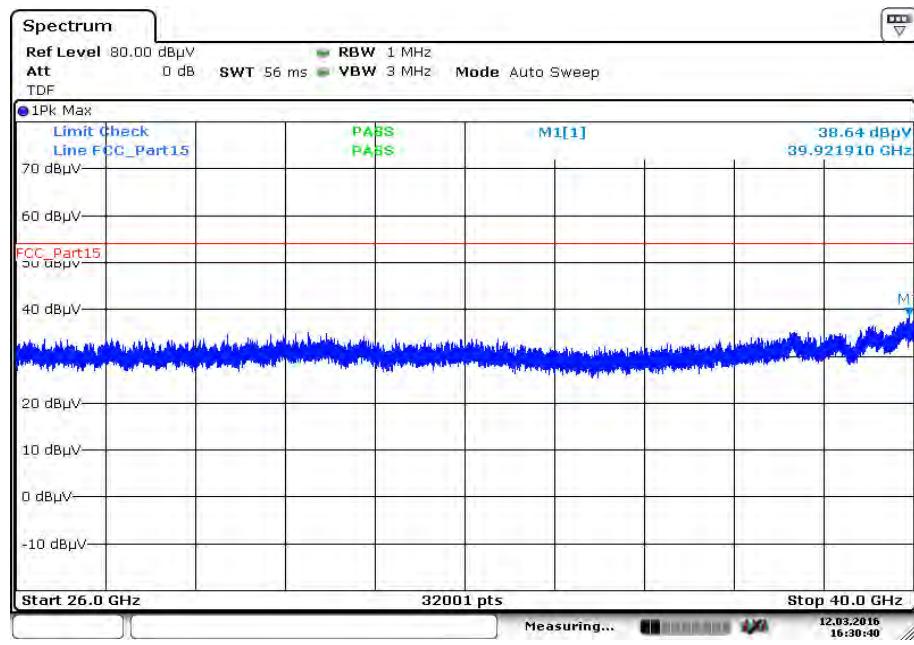
Plot 37: 30 MHz to 1 GHz, 5745 MHz, vertical & horizontal polarization

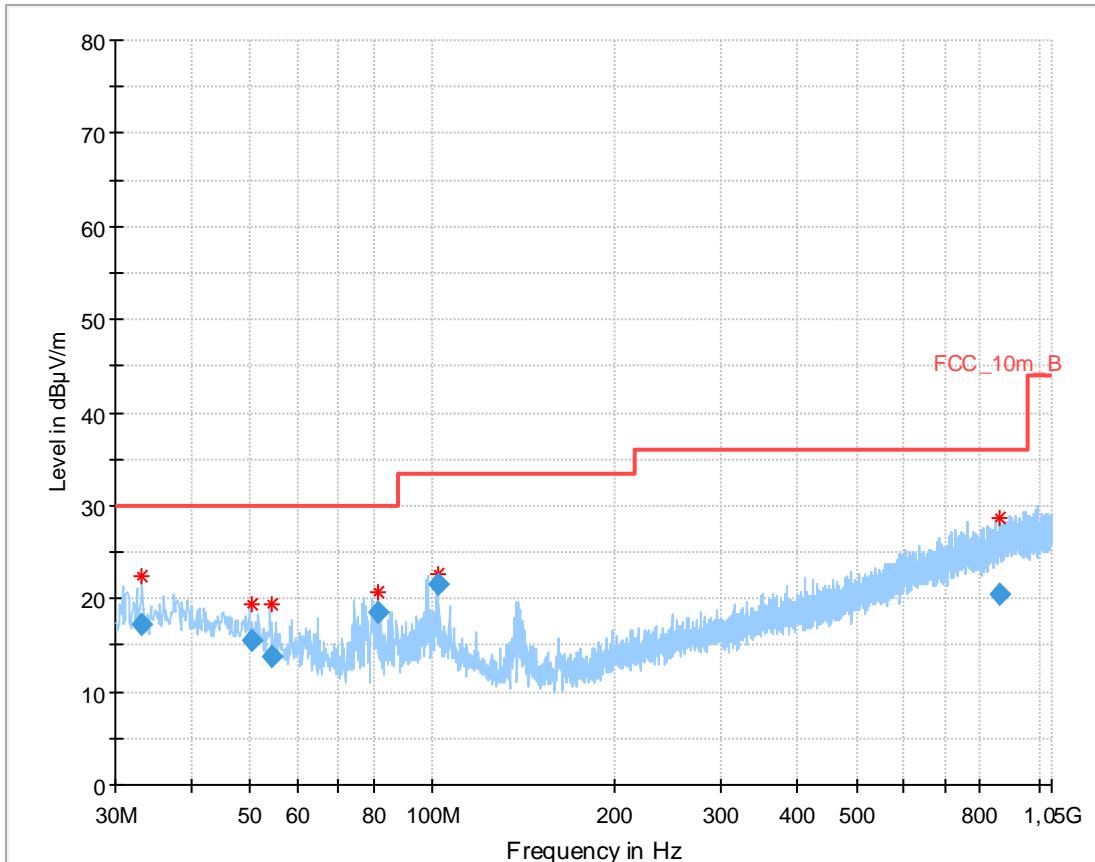
Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
31.436400	15.76	30.00	14.24	1000.0	120.000	170.0	V	170.0	13.5
33.174750	18.34	30.00	11.66	1000.0	120.000	170.0	V	190.0	13.6
49.831650	15.47	30.00	14.53	1000.0	120.000	98.0	V	280.0	12.7
81.212250	18.90	30.00	11.10	1000.0	120.000	100.0	V	170.0	8.4
101.897100	21.54	33.50	11.96	1000.0	120.000	101.0	V	170.0	12.0
855.574650	20.39	36.00	15.61	1000.0	120.000	170.0	V	81.0	23.5

Plot 38: 1 GHz to 12.75 GHz, 5745 MHz, vertical & horizontal polarization**Plot 39:** 4.5 GHz to 7 GHz, 5745 MHz, vertical & horizontal polarization

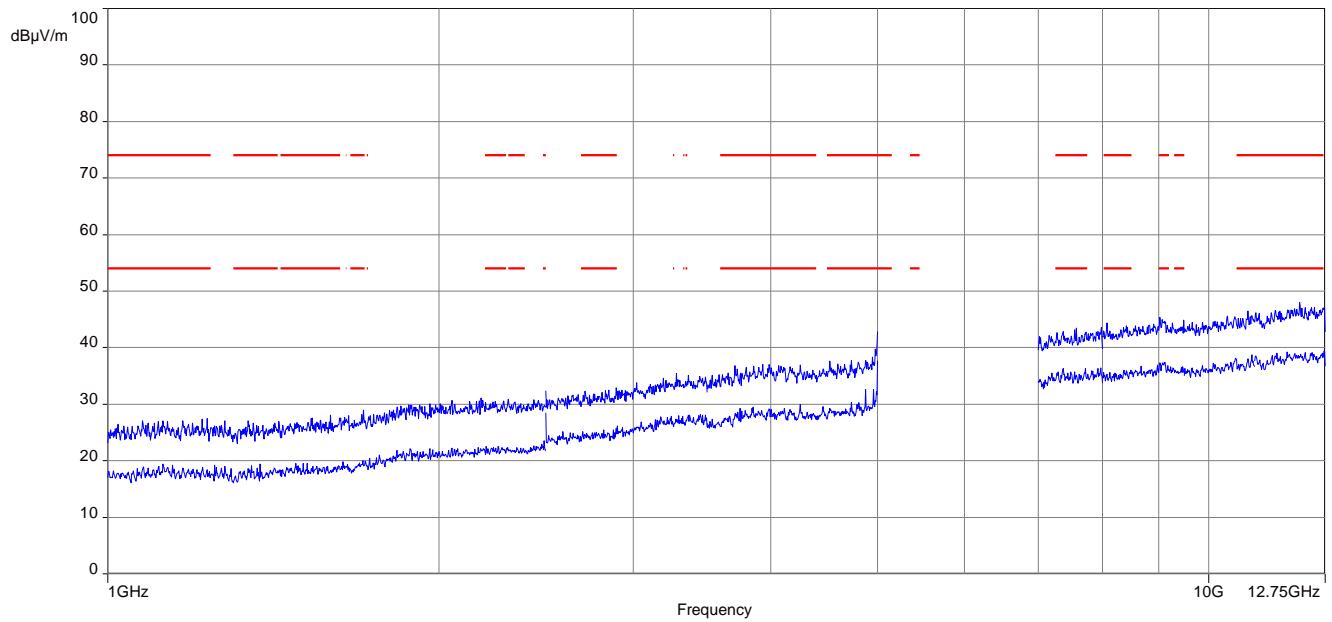
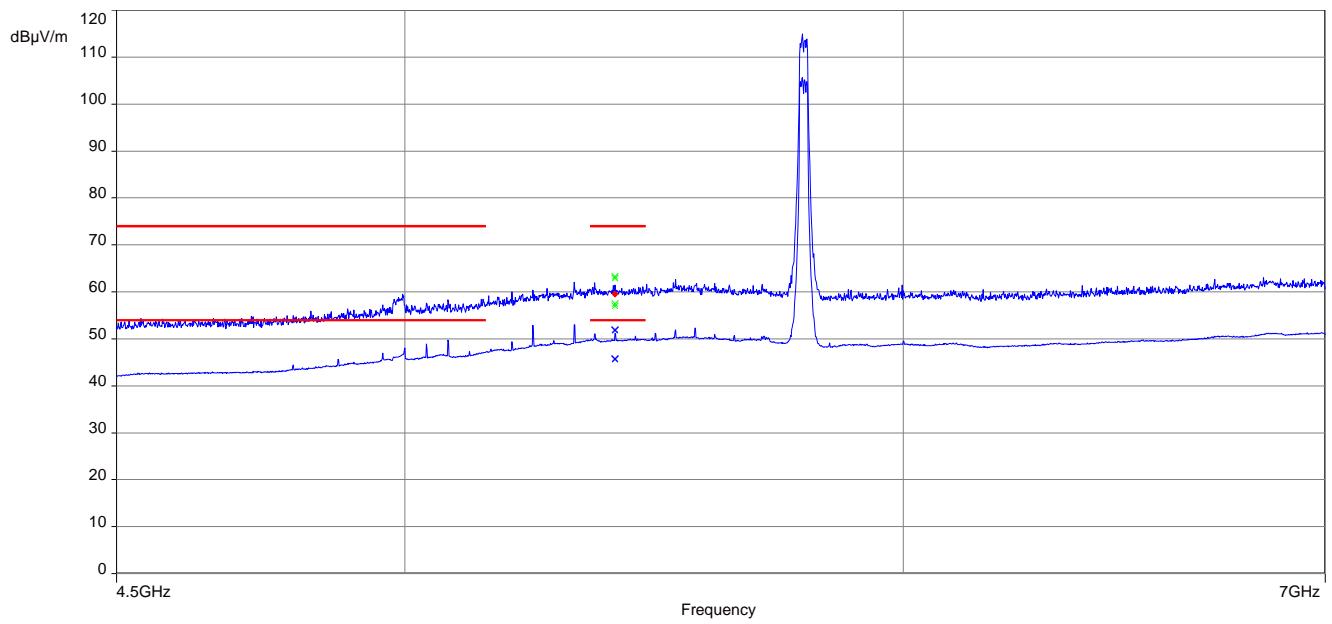
Plot 40: 12 GHz to 18 GHz, 5745 MHz, vertical & horizontal polarization**Plot 41:** 18 GHz to 26 GHz, 5745 MHz, vertical & horizontal polarization

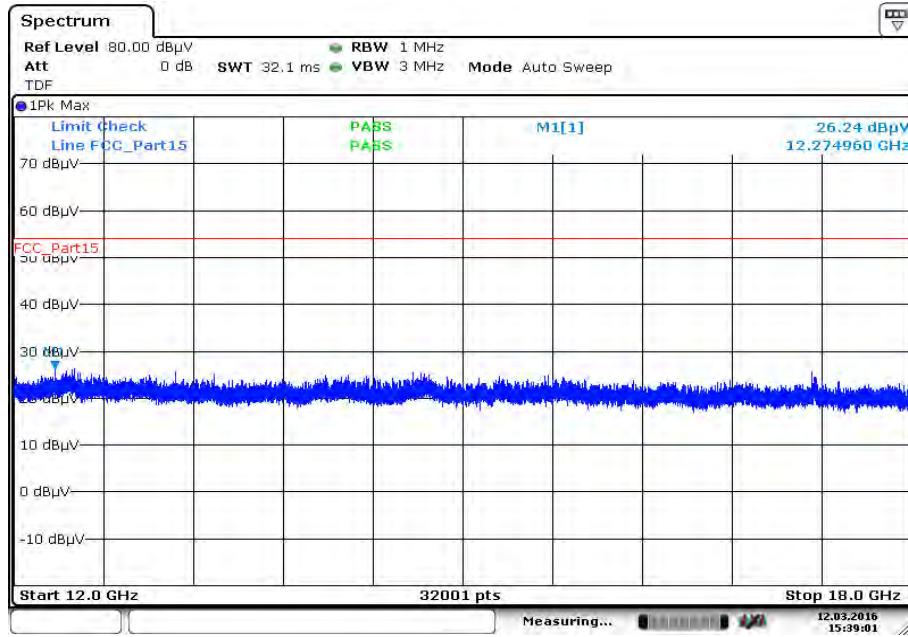
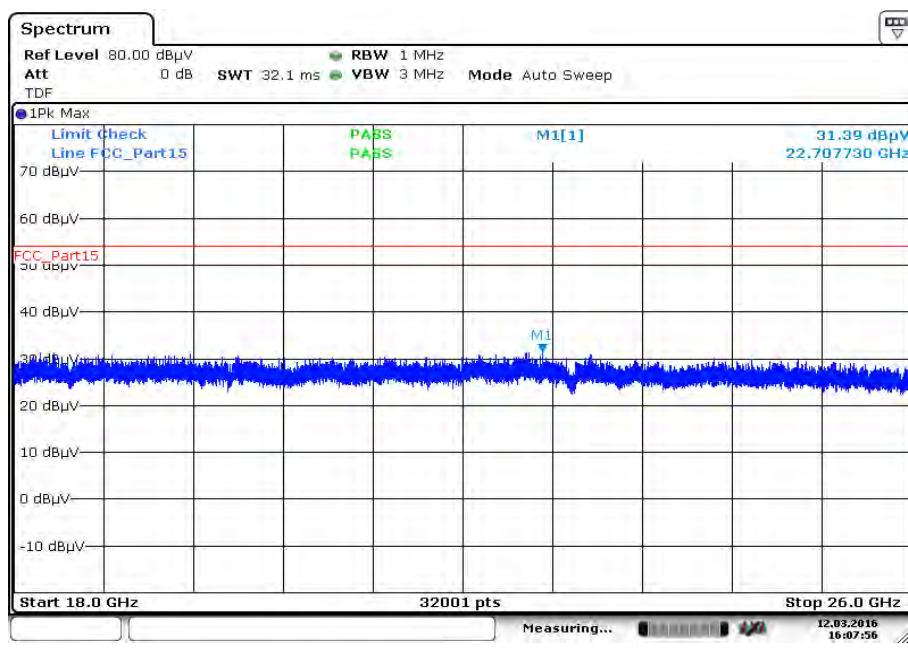
Plot 42: 26 GHz to 40 GHz, 5745 MHz, vertical & horizontal polarization

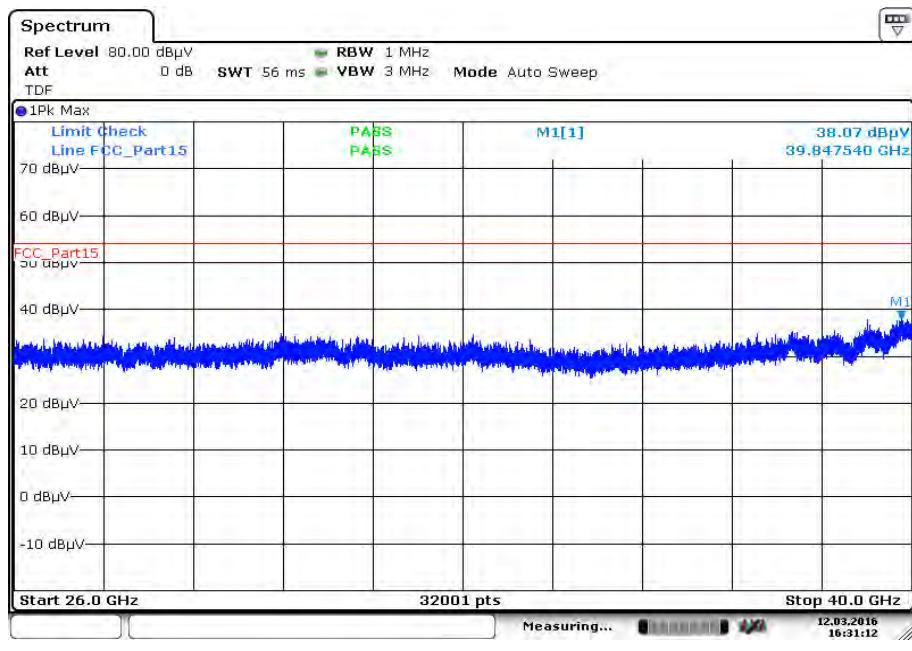
Plot 43: 30 MHz to 1 GHz, 5785 MHz, vertical & horizontal polarization

Final_Result

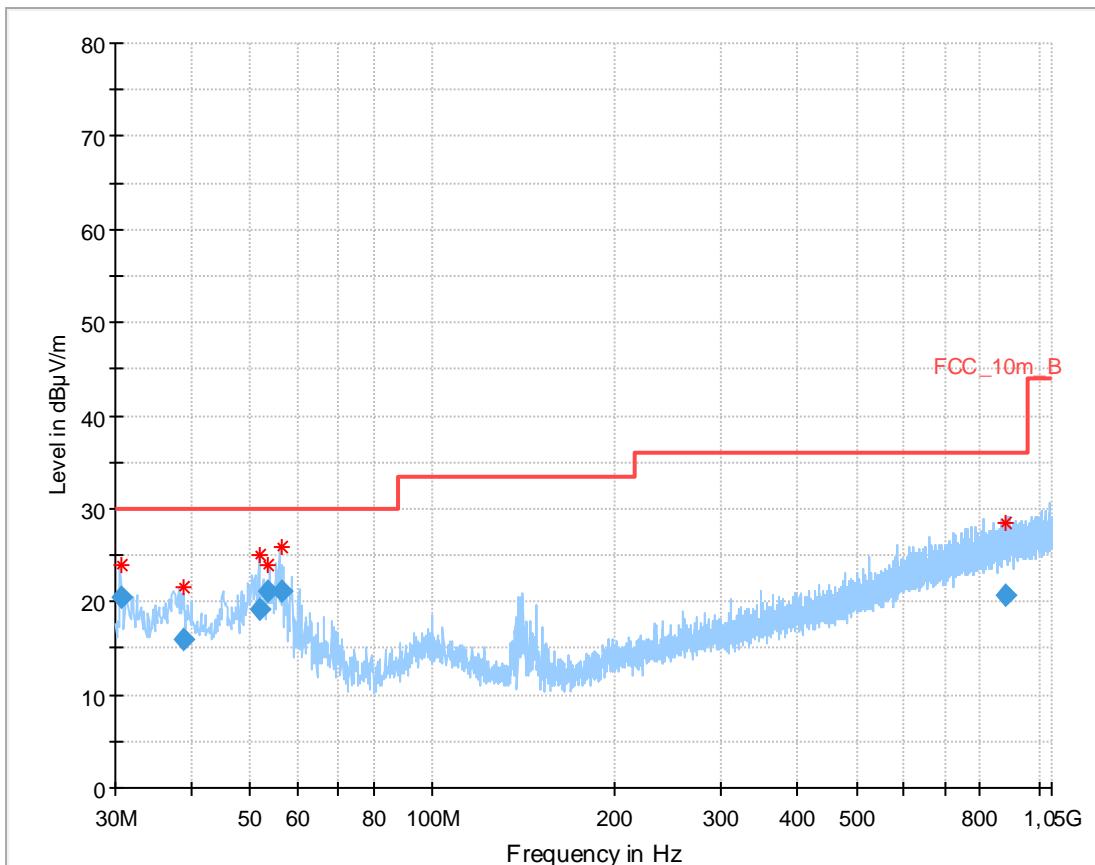
Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
33.150900	17.15	30.00	12.85	1000.0	120.000	170.0	V	100.0	13.6
50.409900	15.43	30.00	14.57	1000.0	120.000	98.0	V	261.0	12.6
54.168450	13.86	30.00	16.14	1000.0	120.000	170.0	V	261.0	12.0
81.187650	18.46	30.00	11.54	1000.0	120.000	170.0	V	-10.0	8.4
101.854950	21.59	33.50	11.91	1000.0	120.000	98.0	V	171.0	12.0
861.898950	20.49	36.00	15.51	1000.0	120.000	170.0	H	100.0	23.6

Plot 44: 1 GHz to 12.75 GHz, 5785 MHz, vertical & horizontal polarization**Plot 45:** 4.5 GHz to 7 GHz, 5785 MHz, vertical & horizontal polarization

Plot 46: 12 GHz to 18 GHz, 5785 MHz, vertical & horizontal polarization**Plot 47:** 18 GHz to 26 GHz, 5785 MHz, vertical & horizontal polarization

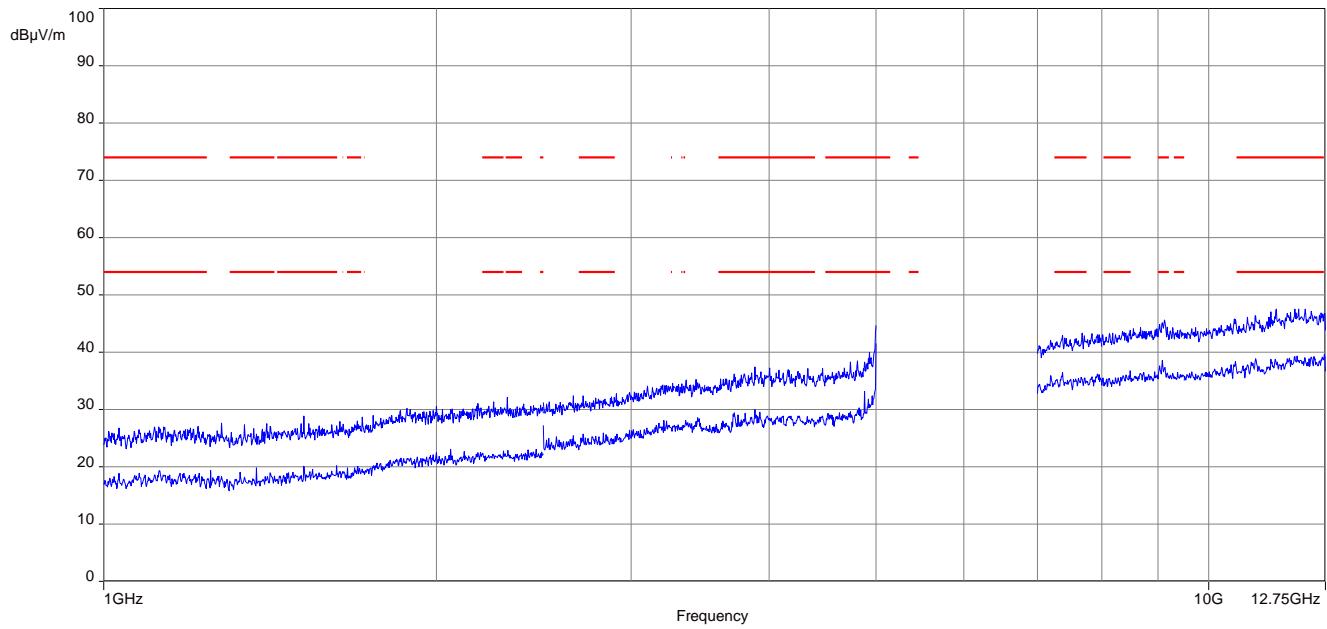
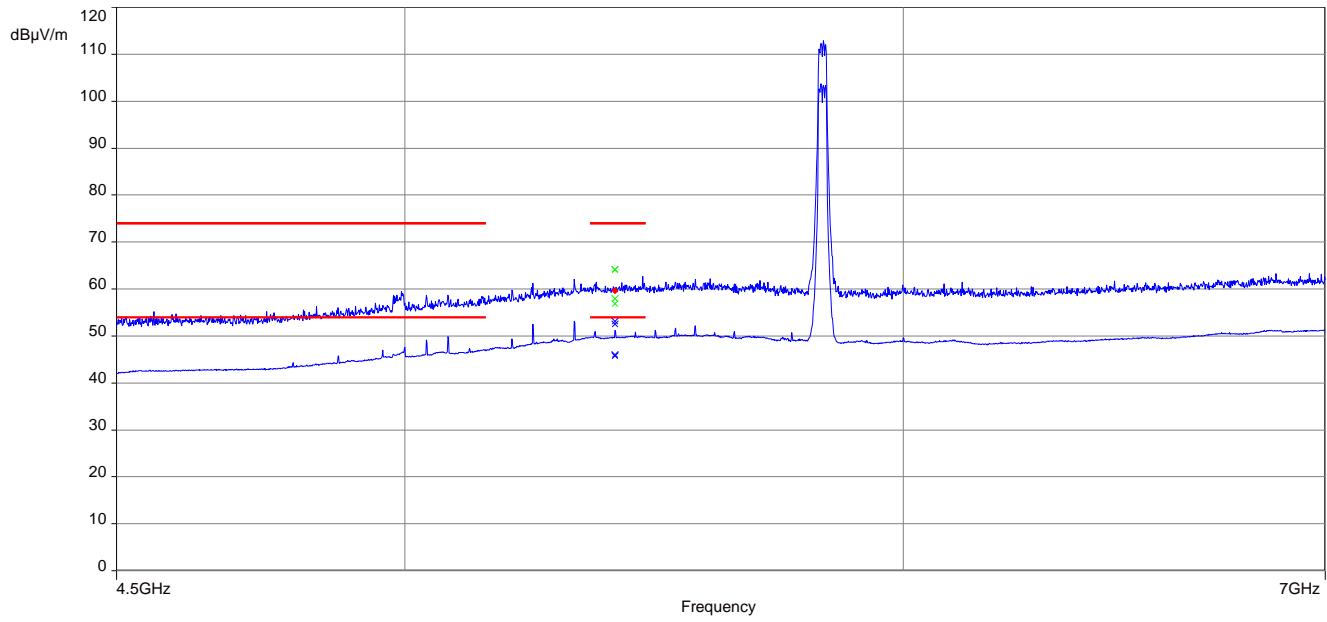
Plot 48: 26 GHz to 40 GHz, 5785 MHz, vertical & horizontal polarization

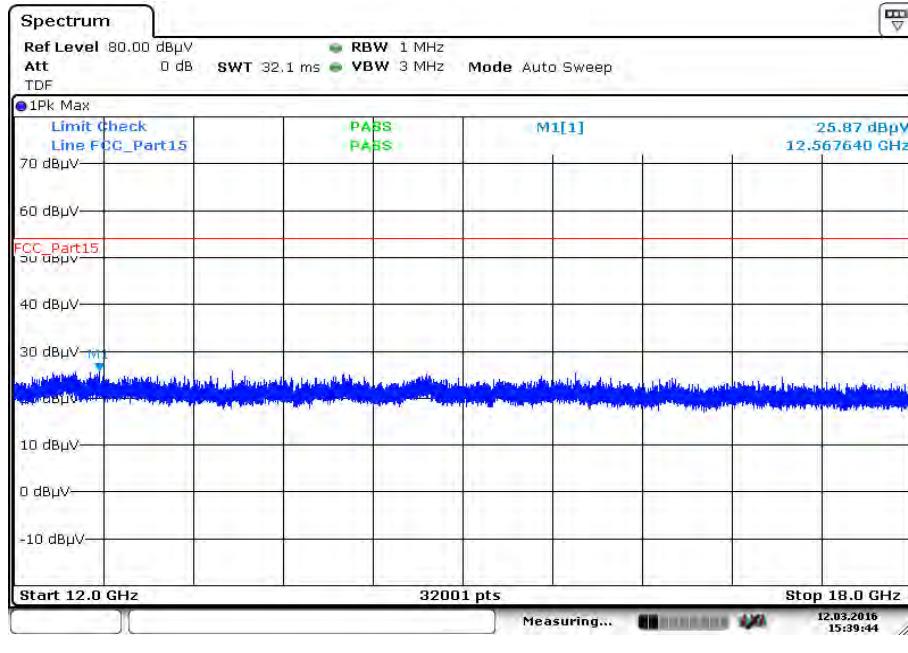
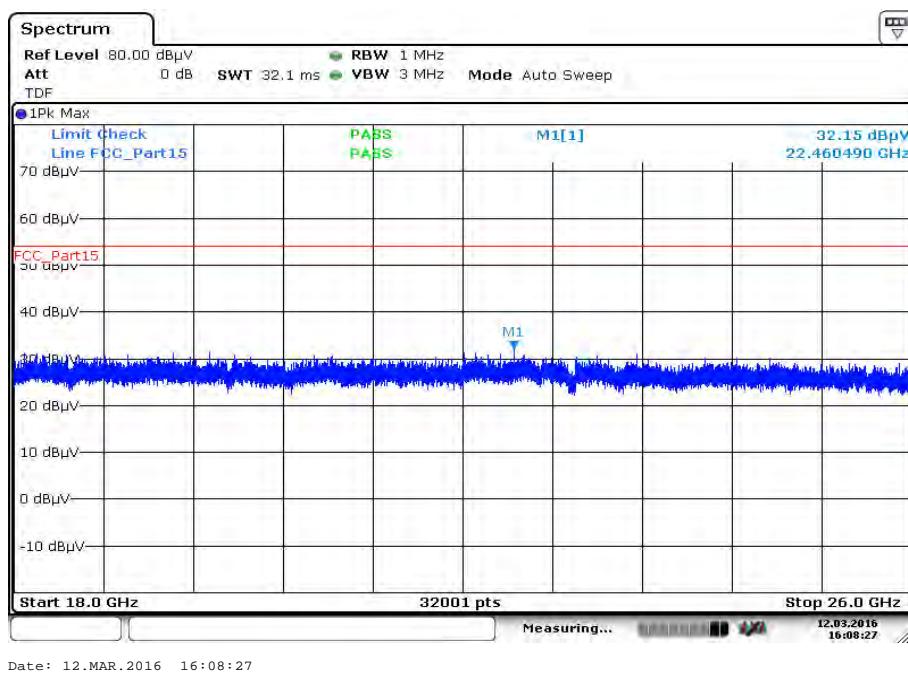
Plot 49: 30 MHz to 1 GHz, 5825 MHz, vertical & horizontal polarization

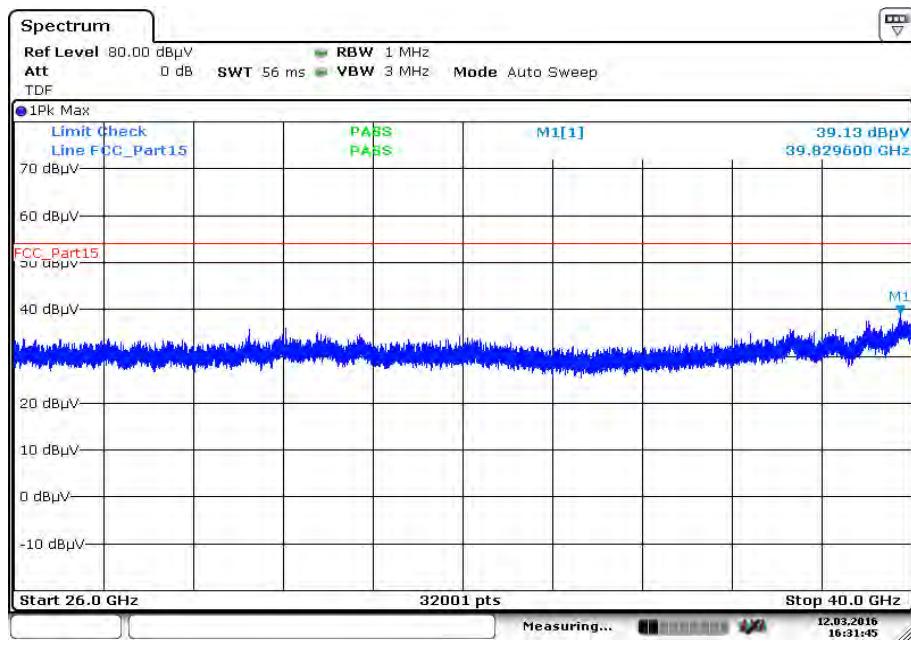


Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.616189	20.41	30.00	9.59	1000.0	120.000	101.0	V	-10.0	13.4
38.734500	16.06	30.00	13.94	1000.0	120.000	98.0	V	100.0	14.0
51.815250	19.24	30.00	10.76	1000.0	120.000	98.0	V	81.0	12.3
53.578350	21.08	30.00	8.92	1000.0	120.000	98.0	V	100.0	12.1
56.536650	21.09	30.00	8.91	1000.0	120.000	101.0	V	81.0	11.4
884.185950	20.76	36.00	15.24	1000.0	120.000	170.0	V	280.0	23.9

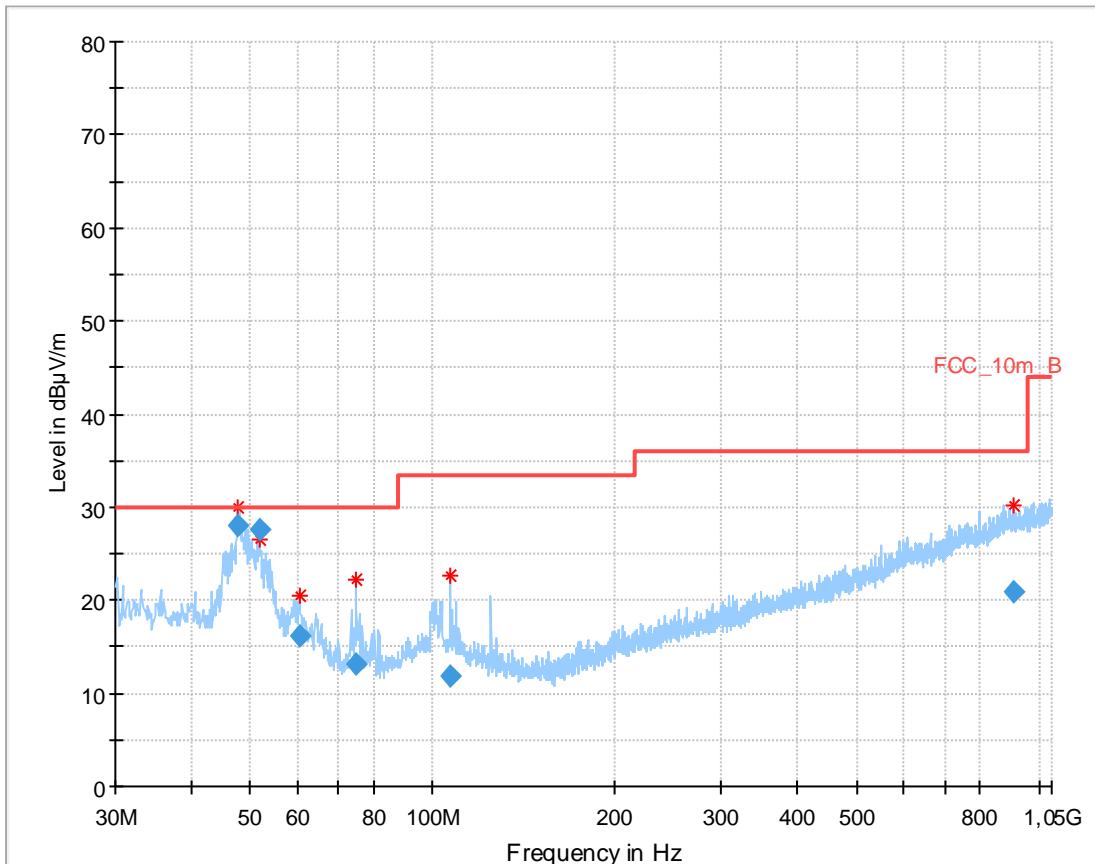
Plot 50: 1 GHz to 12.75 GHz, 5825 MHz, vertical & horizontal polarization**Plot 51:** 4.5 GHz to 7 GHz, 5825 MHz, vertical & horizontal polarization

Plot 52: 12 GHz to 18 GHz, 5825 MHz, vertical & horizontal polarization**Plot 53:** 18 GHz to 26 GHz, 5825 MHz, vertical & horizontal polarization

Plot 54: 26 GHz to 40 GHz, 5825 MHz, vertical & horizontal polarization

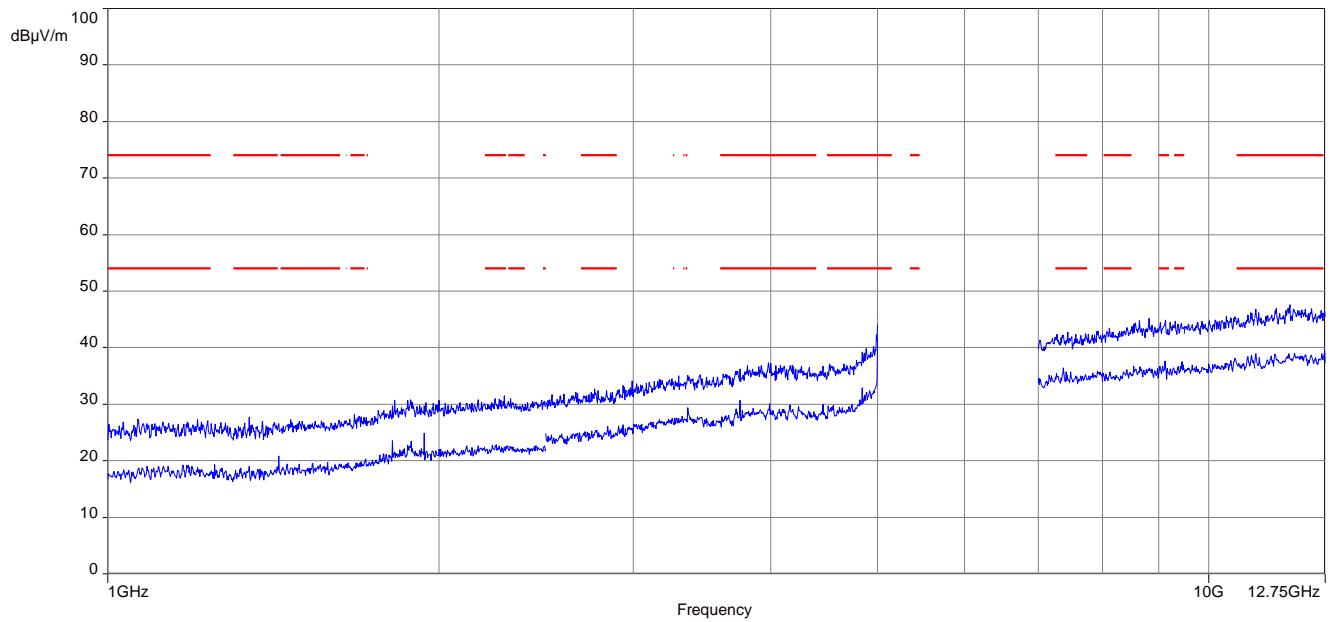
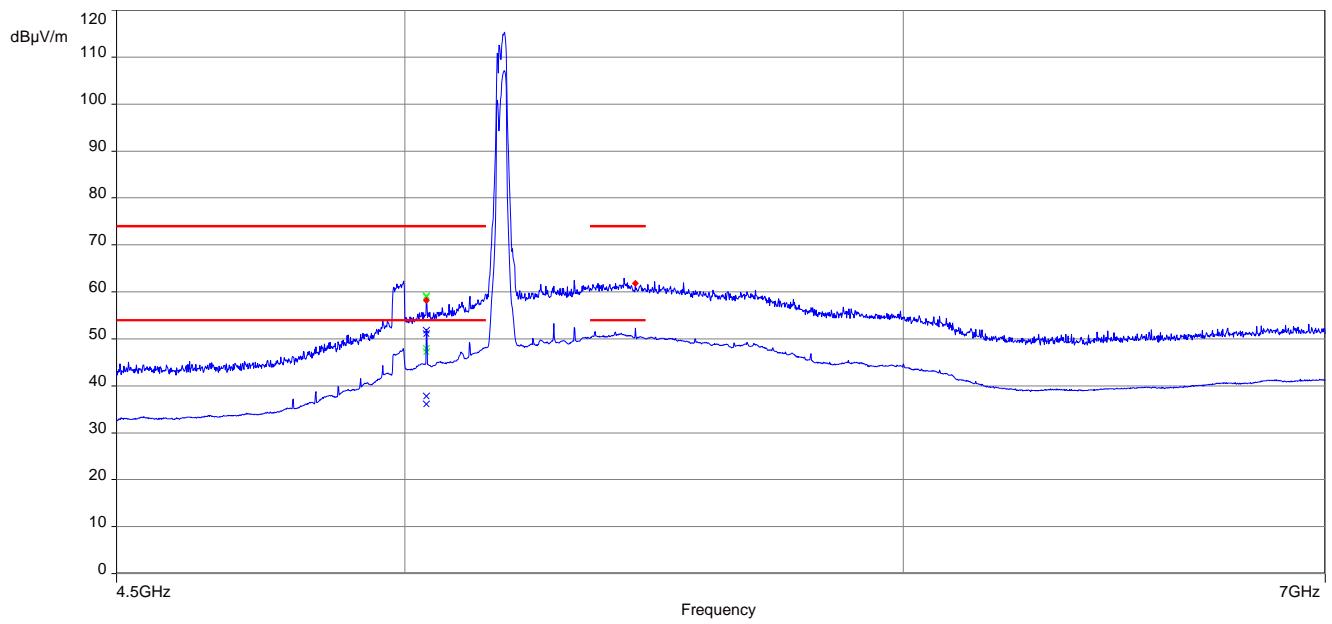
Plots: OFDM / n HT20 – mode

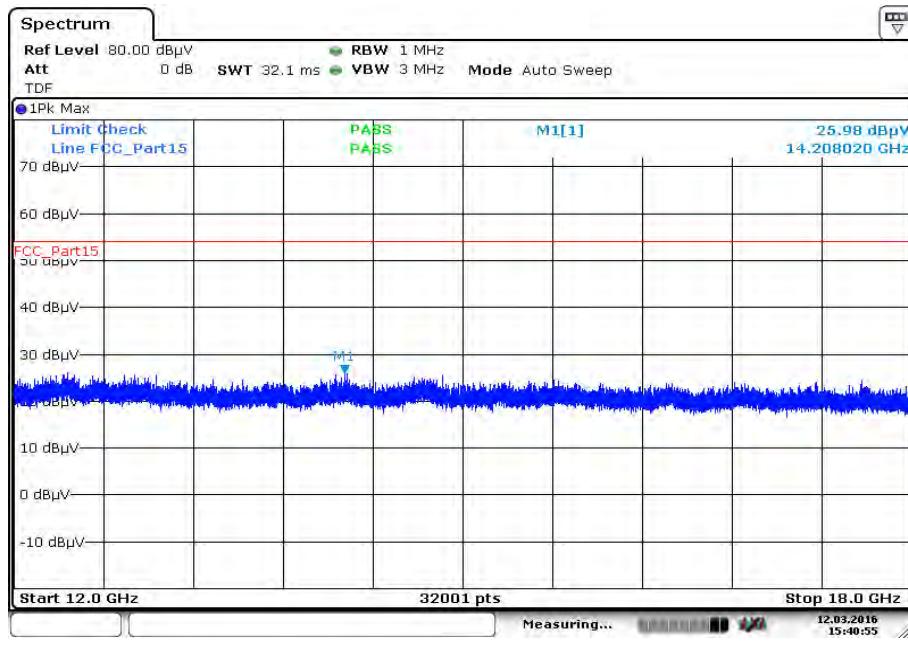
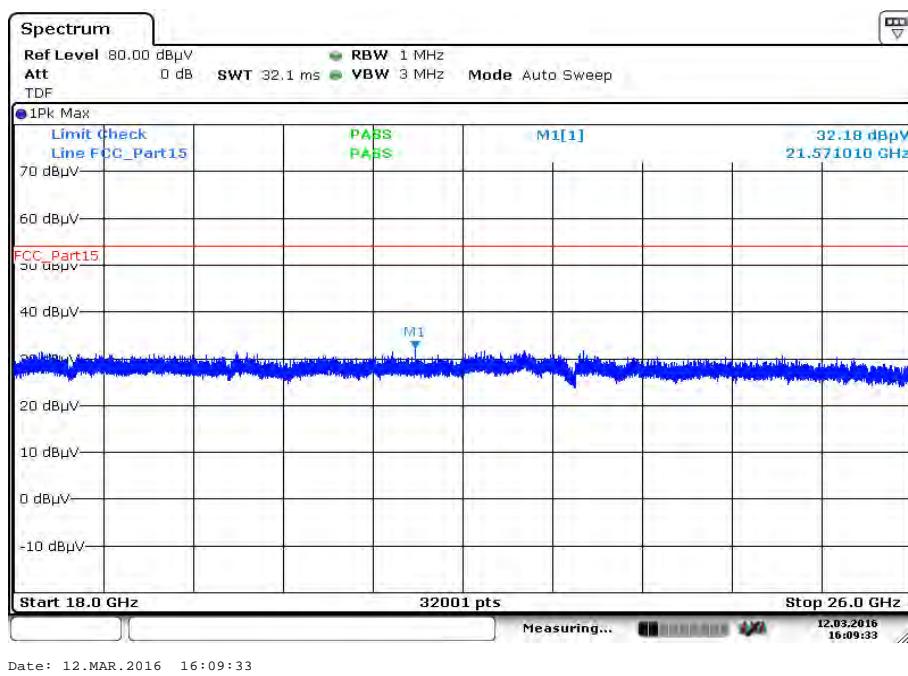
Plot 1: 30 MHz to 1 GHz, 5180 MHz, vertical & horizontal polarization

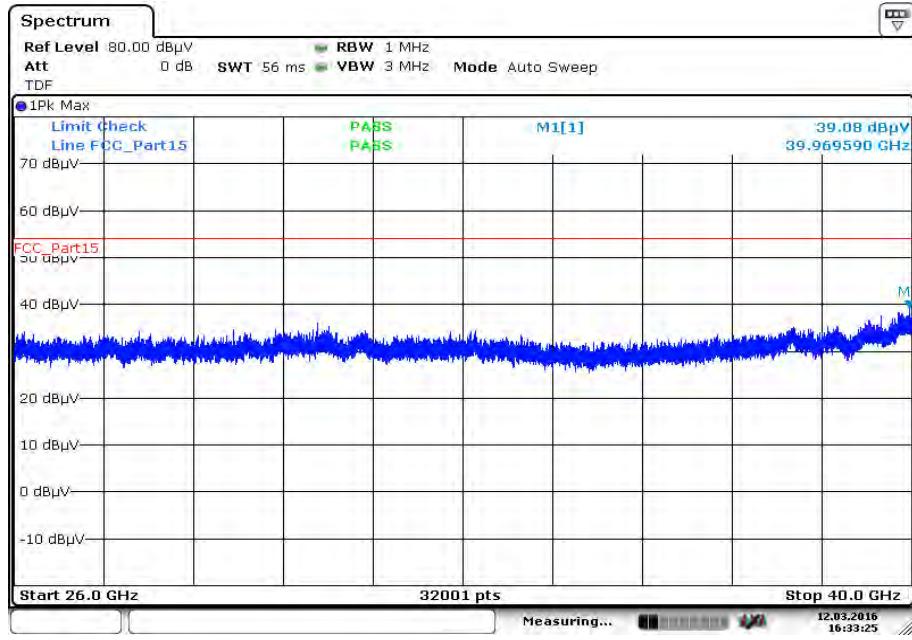


Final_Result

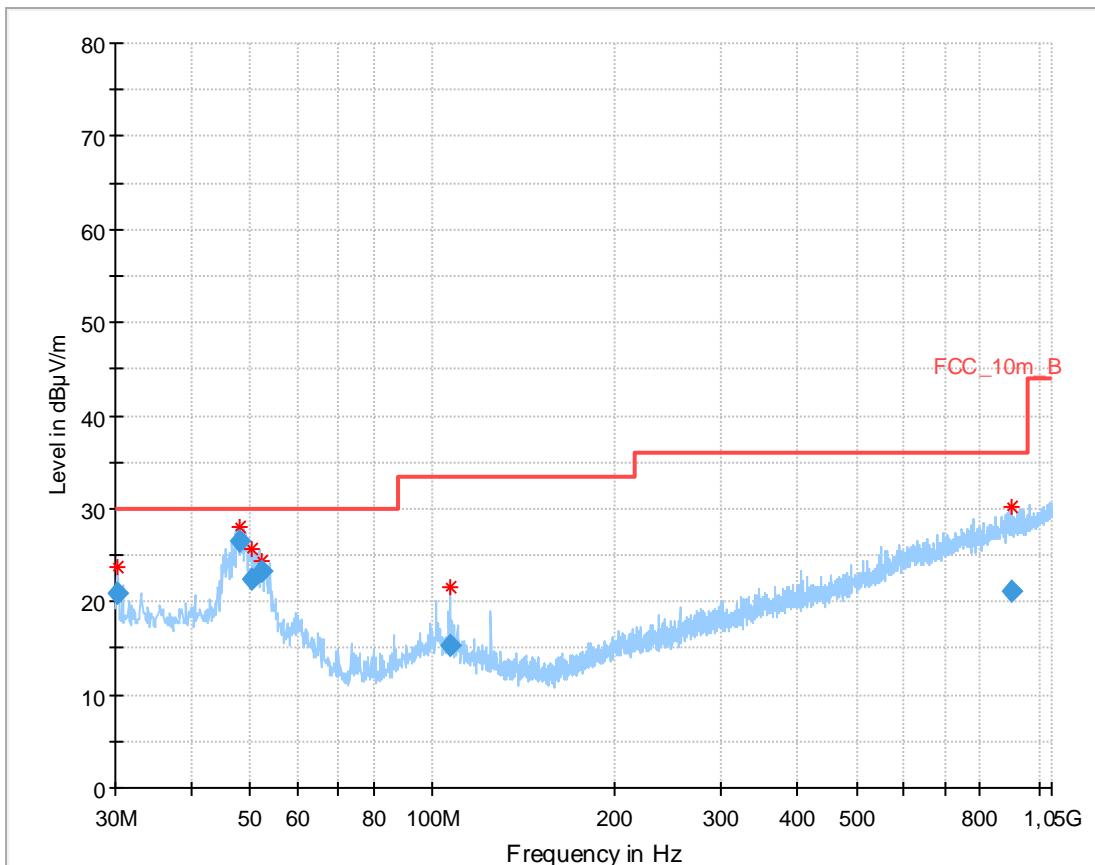
Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
47.854650	28.14	30.00	1.86	1000.0	120.000	98.0	V	353	13.1
51.857550	27.53	30.00	2.47	1000.0	120.000	98.0	V	335	12.3
60.424500	16.16	30.00	13.84	1000.0	120.000	101.0	V	9	10.5
74.938500	13.21	30.00	16.79	1000.0	120.000	170.0	V	293	8.3
107.199750	11.93	33.50	21.57	1000.0	120.000	170.0	V	60	11.4
909.957450	20.99	36.00	15.01	1000.0	120.000	98.0	V	278	24.1

Plot 2: 1 GHz to 12.75 GHz, 5180 MHz, vertical & horizontal polarization**Plot 3:** 4.5 GHz to 7 GHz, 5180 MHz, vertical & horizontal polarization

Plot 4: 12 GHz to 18 GHz, 5180 MHz, vertical & horizontal polarization**Plot 5:** 18 GHz to 26 GHz, 5180 MHz, vertical & horizontal polarization

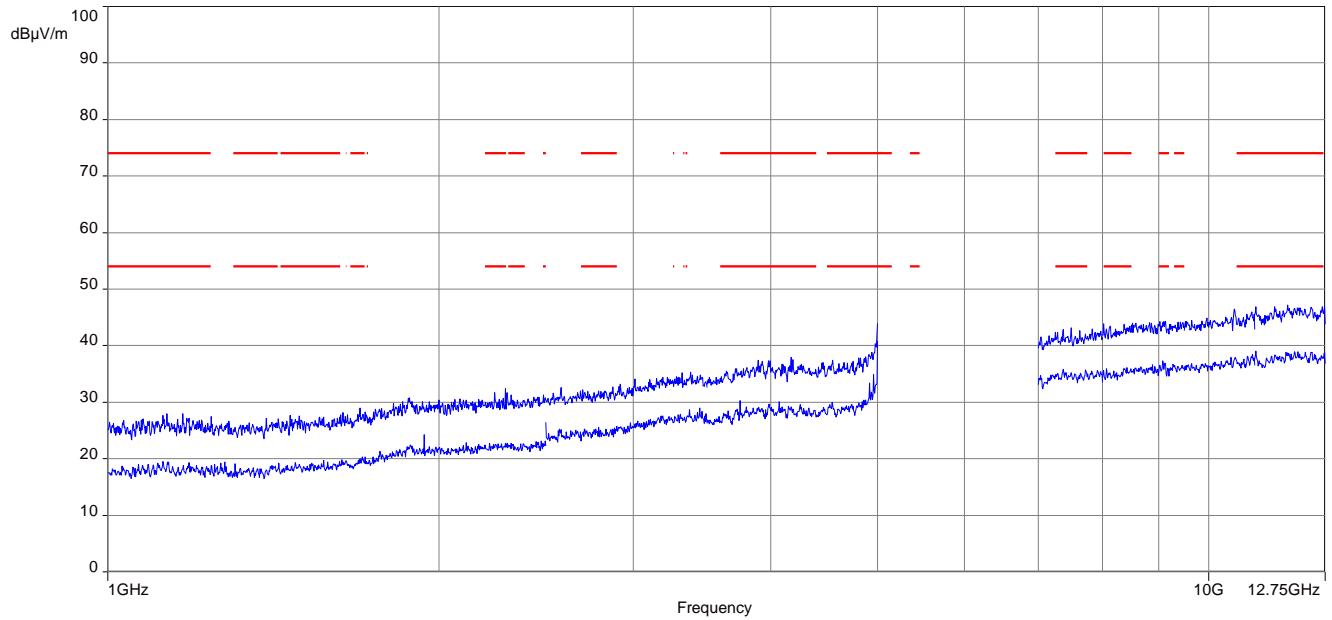
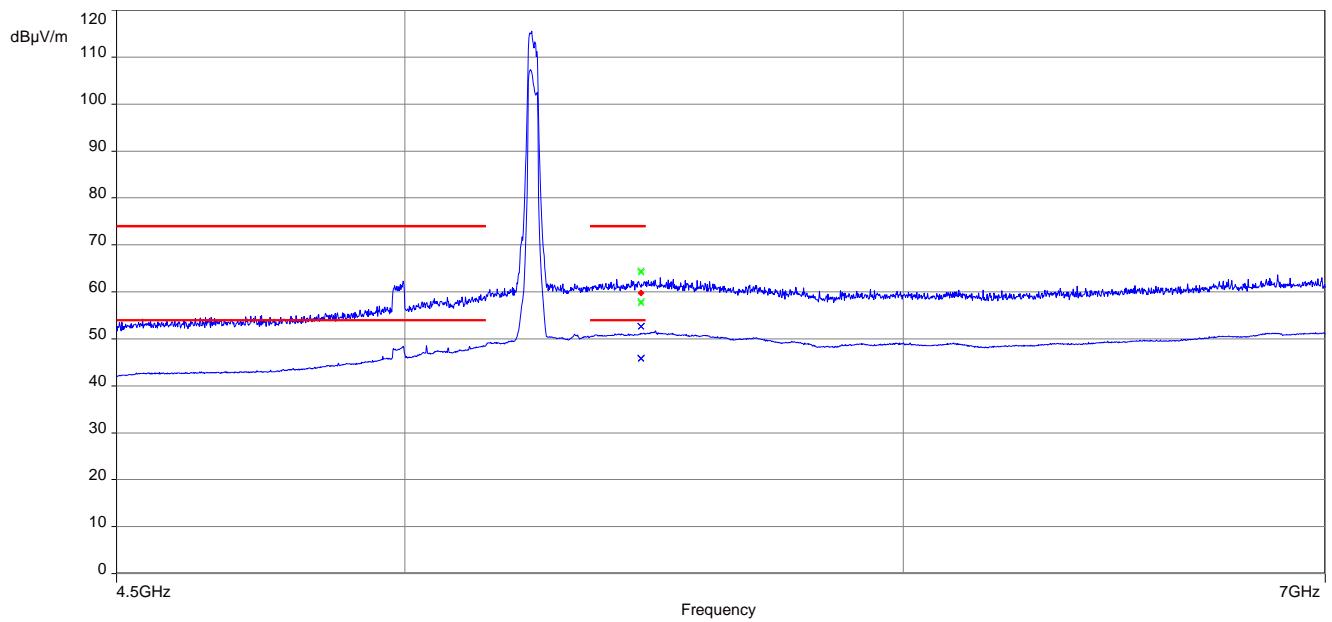
Plot 6: 26 GHz to 40 GHz, 5180 MHz, vertical & horizontal polarization

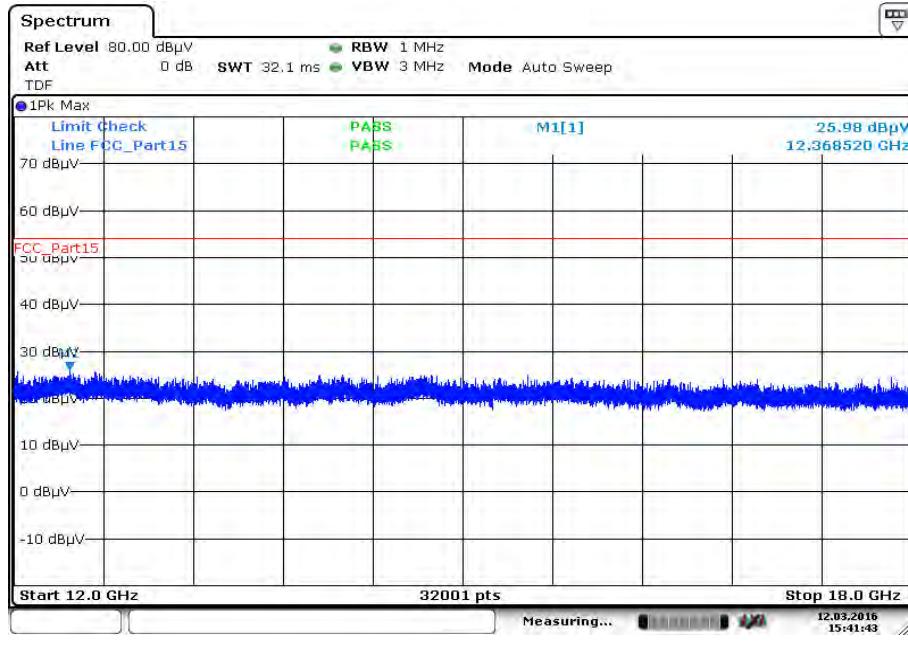
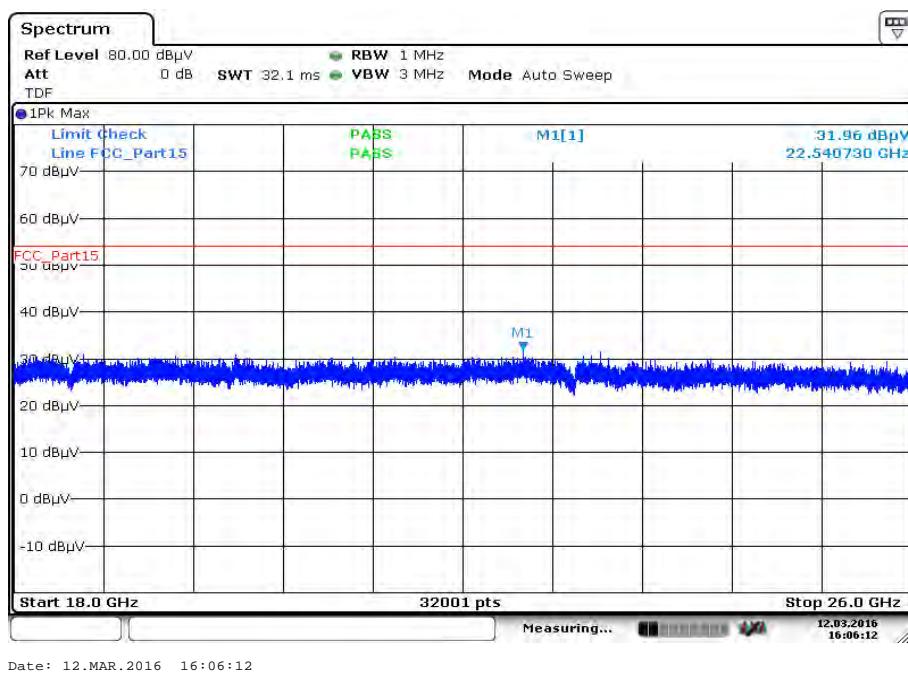
Plot 7: 30 MHz to 1 GHz, 5240 MHz, vertical & horizontal polarization

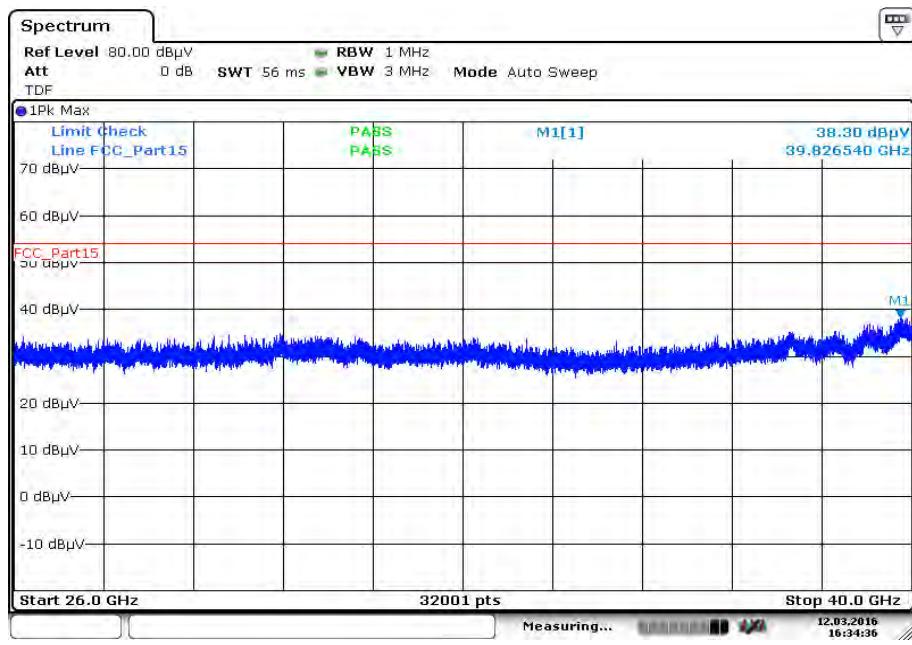


Final_Result

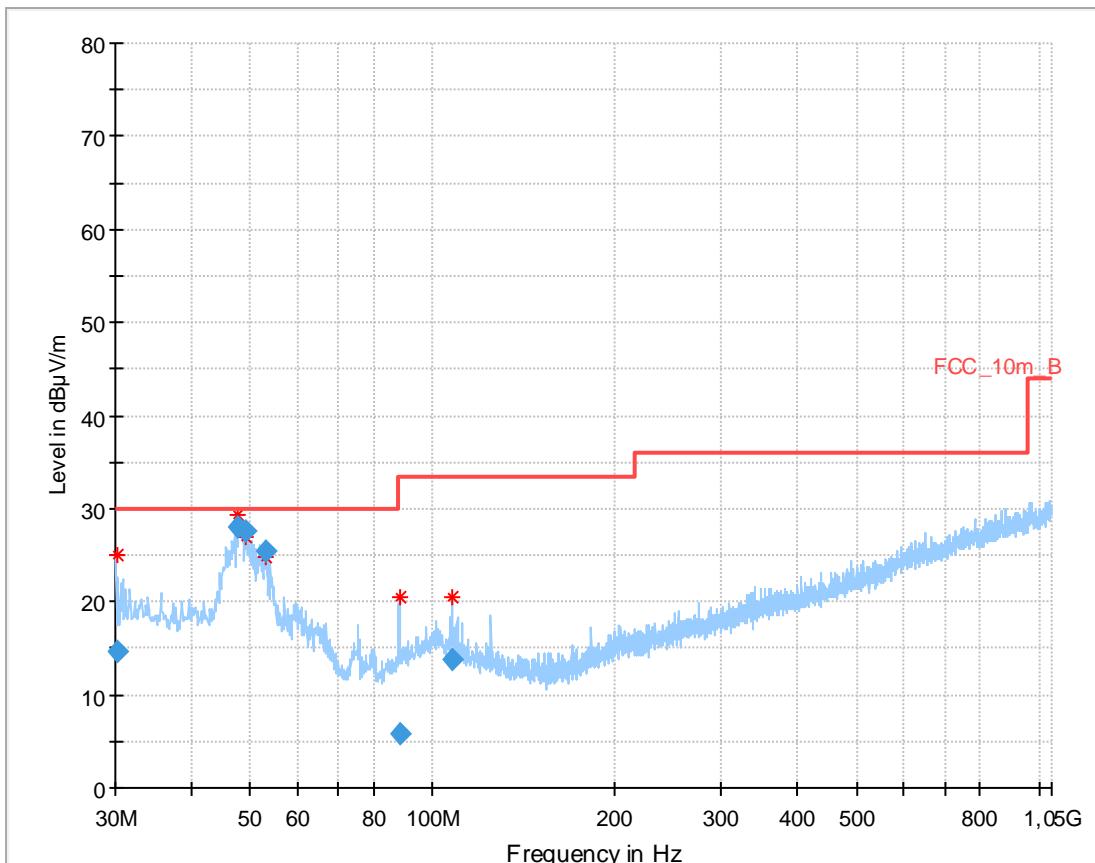
Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.237165	20.88	30.00	9.12	1000.0	120.000	101.0	V	12	13.4
48.200100	26.43	30.00	3.57	1000.0	120.000	98.0	V	167	13.1
50.464500	22.51	30.00	7.49	1000.0	120.000	170.0	V	353	12.6
52.479900	23.36	30.00	6.64	1000.0	120.000	98.0	V	305	12.2
107.171250	15.27	33.50	18.23	1000.0	120.000	170.0	V	194	11.4
900.018750	21.05	36.00	14.95	1000.0	120.000	170.0	V	233	24.1

Plot 8: 1 GHz to 12.75 GHz, 5240 MHz, vertical & horizontal polarization**Plot 9:** 4.5 GHz to 7 GHz, 5240 MHz, vertical & horizontal polarization

Plot 10: 12 GHz to 18 GHz, 5240 MHz, vertical & horizontal polarization**Plot 11:** 18 GHz to 26 GHz, 5240 MHz, vertical & horizontal polarization

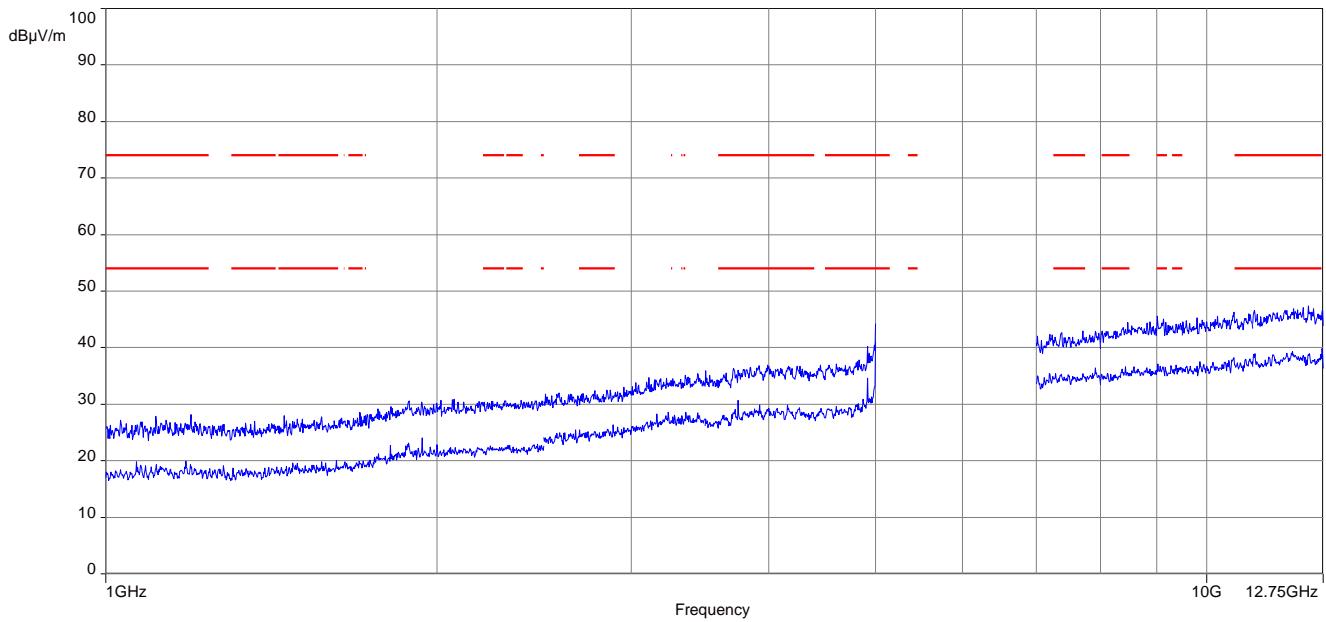
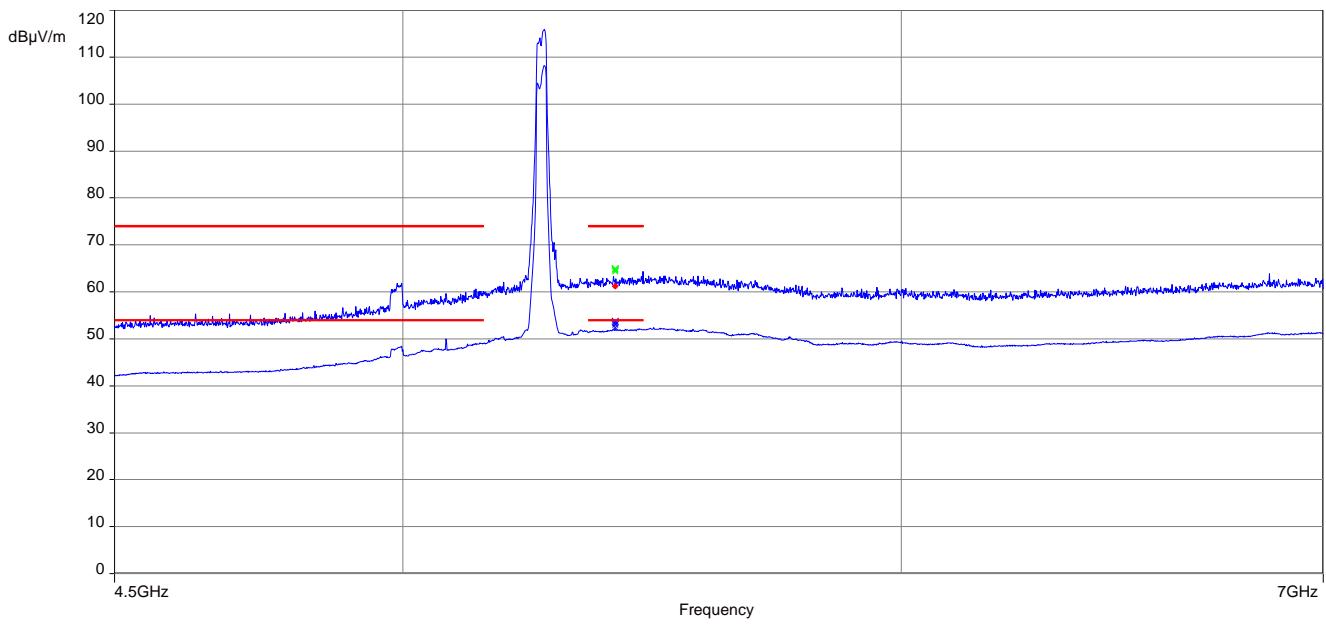
Plot 12: 26 GHz to 40 GHz, 5240 MHz, vertical & horizontal polarization

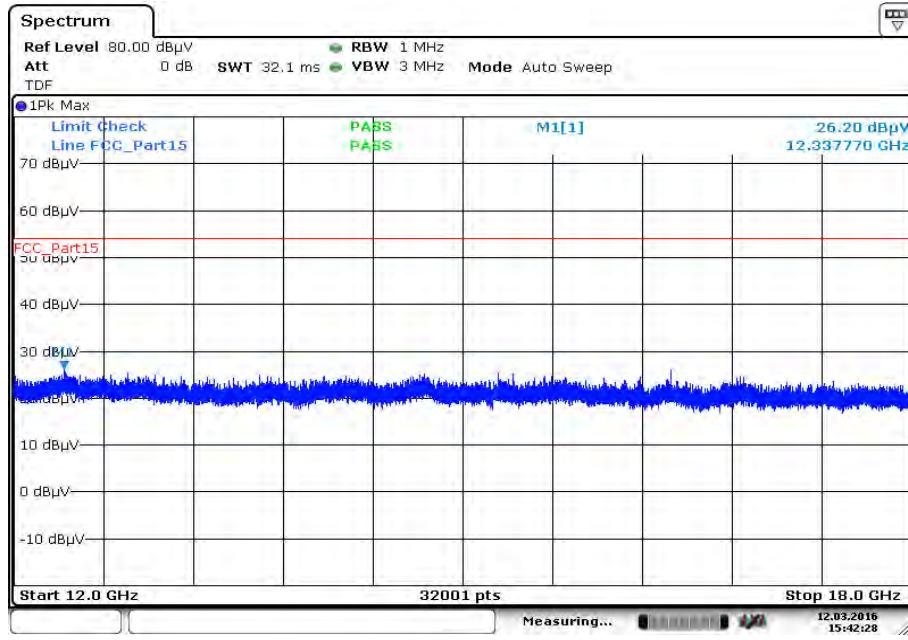
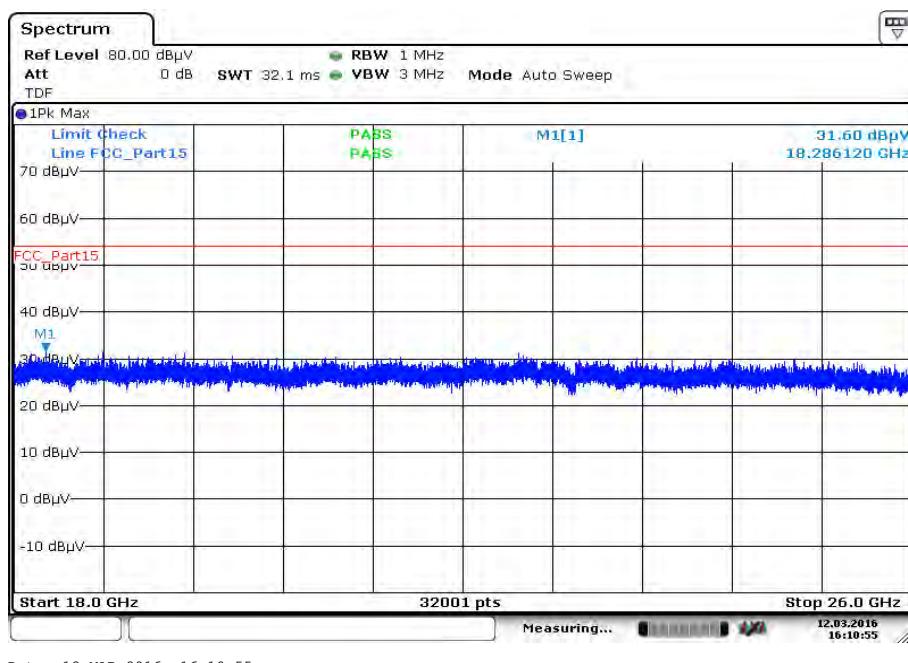
Plot 13: 30 MHz to 1 GHz, 5260 MHz, vertical & horizontal polarization

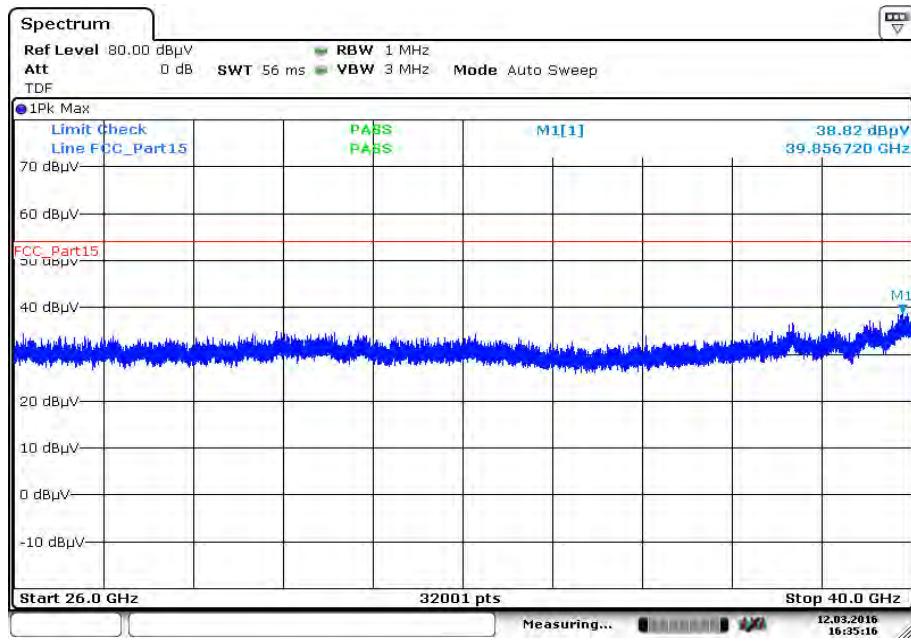


Final_Result

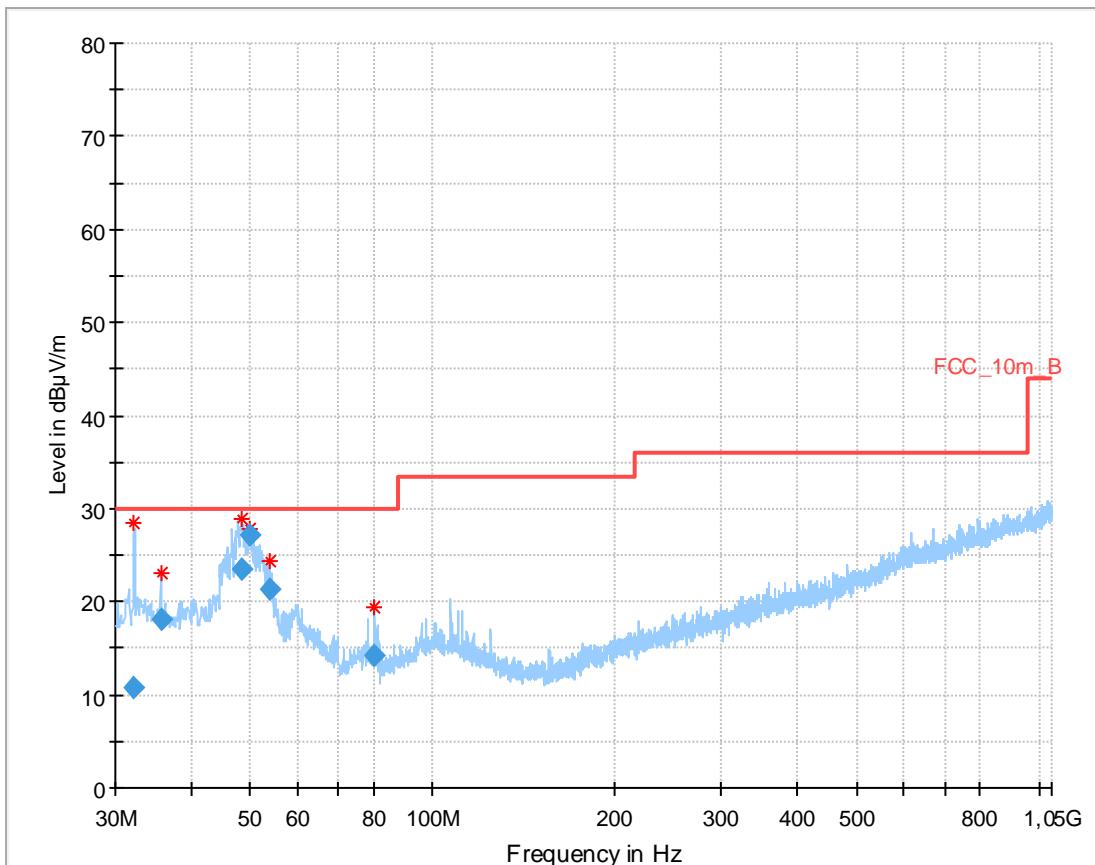
Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.261900	14.62	30.00	15.38	1000.0	120.000	101.0	V	28	13.4
47.835000	28.07	30.00	1.93	1000.0	120.000	98.0	V	343	13.2
49.216950	27.52	30.00	2.48	1000.0	120.000	98.0	V	170	12.8
53.158950	25.36	30.00	4.64	1000.0	120.000	98.0	V	336	12.1
88.228050	5.73	33.50	27.77	1000.0	120.000	170.0	H	264	10.0
107.933700	13.86	33.50	19.64	1000.0	120.000	170.0	V	106	11.3

Plot 14: 1 GHz to 12.75 GHz, 5260 MHz, vertical & horizontal polarization**Plot 15:** 4.5 GHz to 7 GHz, 5260 MHz, vertical & horizontal polarization

Plot 16: 12 GHz to 18 GHz, 5260 MHz, vertical & horizontal polarization**Plot 17:** 18 GHz to 26 GHz, 5260 MHz, vertical & horizontal polarization

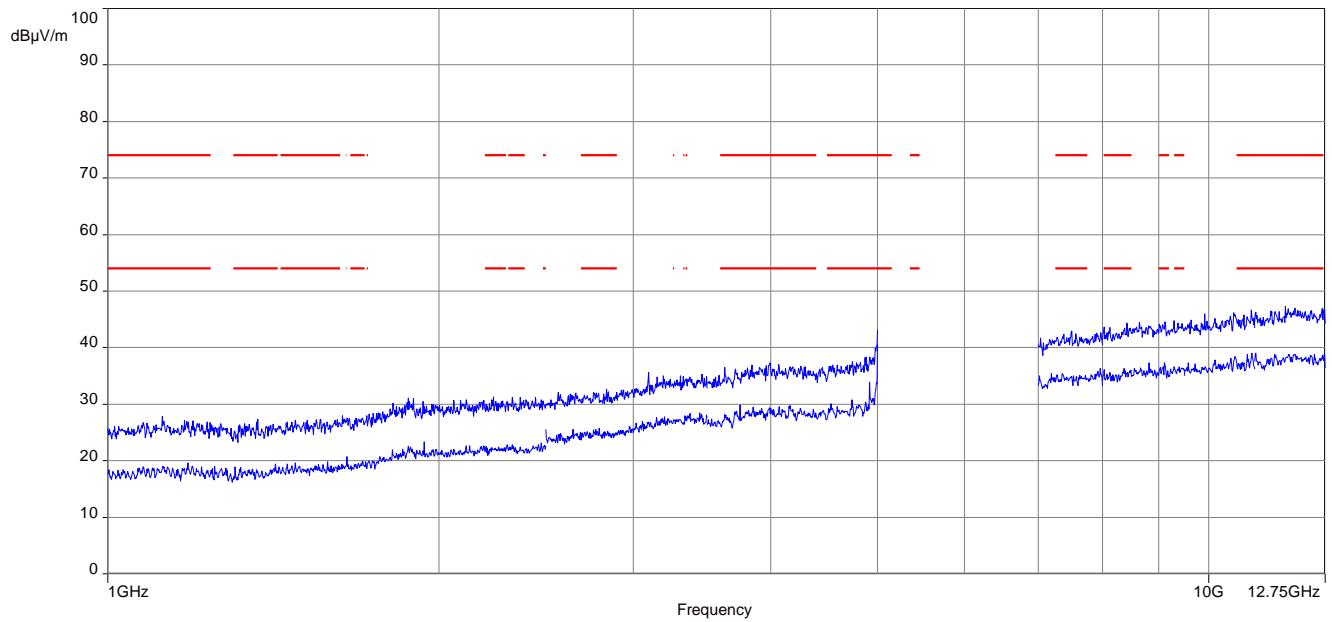
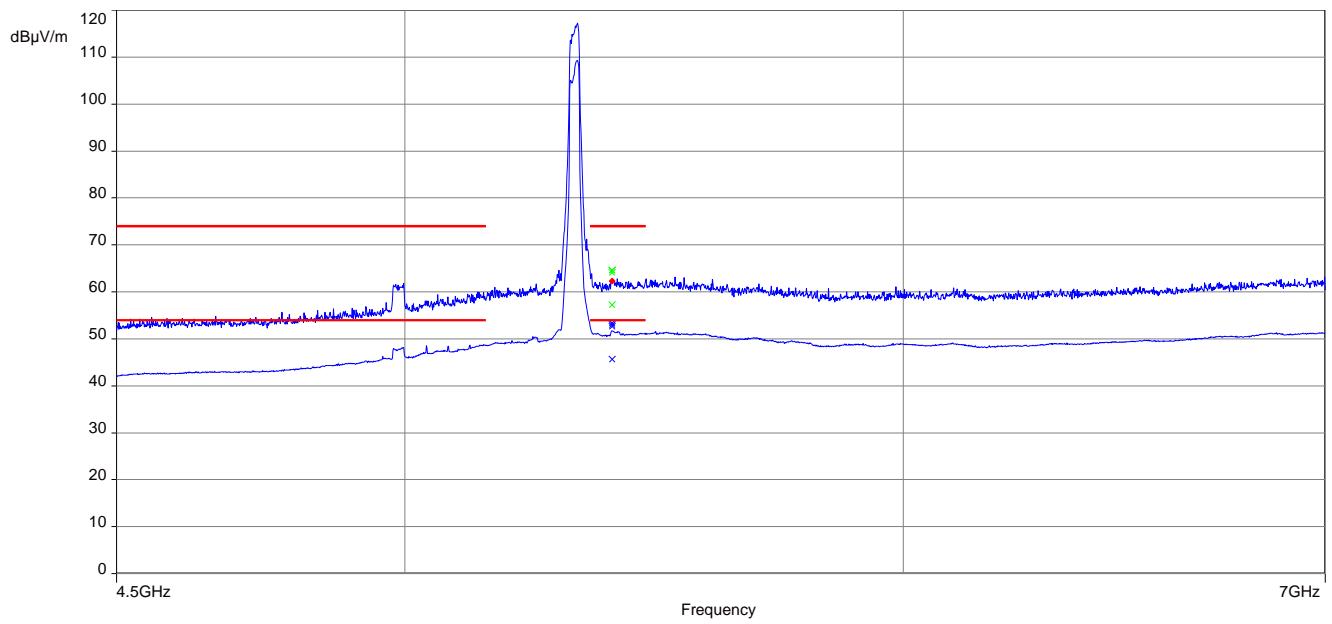
Plot 18: 26 GHz to 40 GHz, 5260 MHz, vertical & horizontal polarization

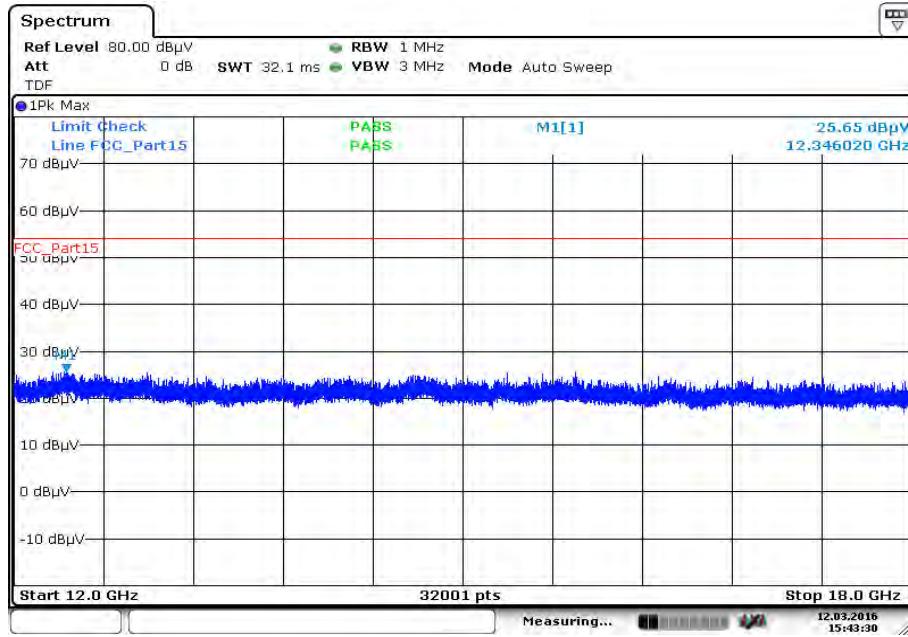
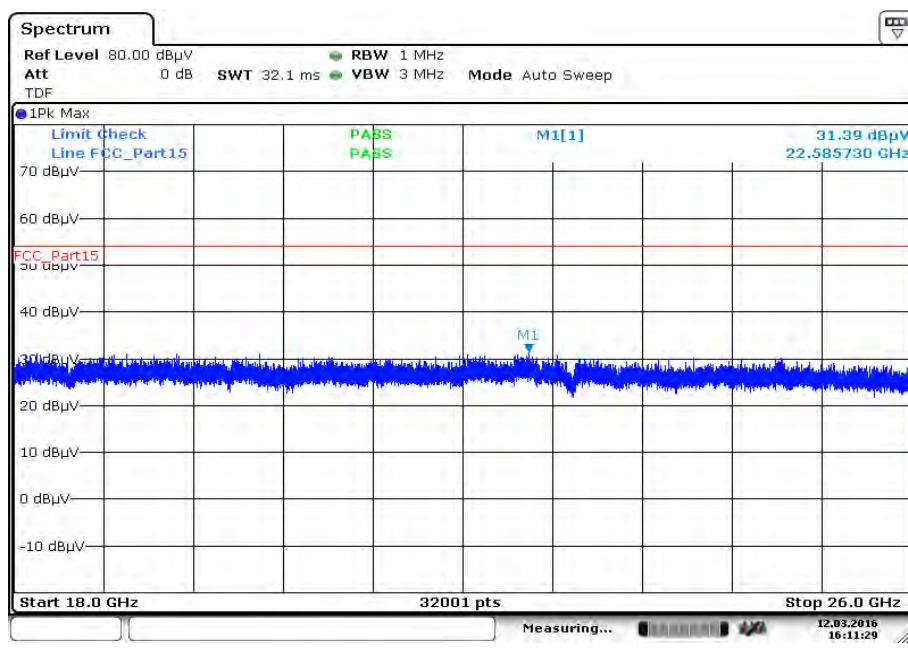
Plot 19: 30 MHz to 1 GHz, 5320 MHz, vertical & horizontal polarization

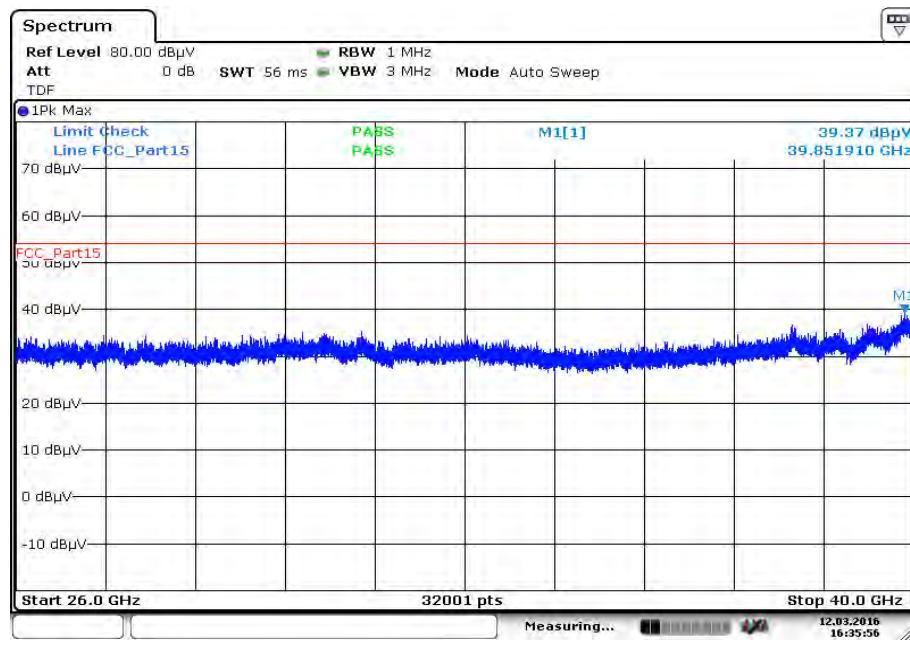


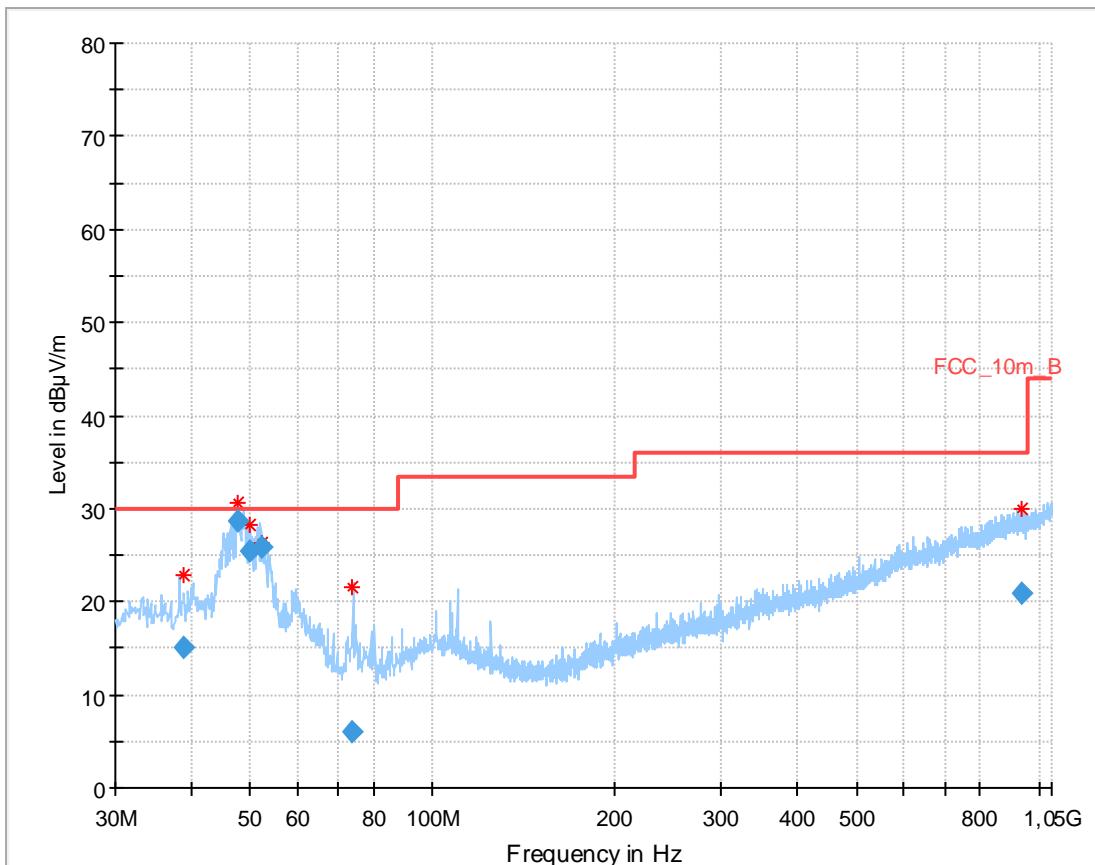
Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
32.013600	10.72	30.00	19.28	1000.0	120.000	170.0	H	148	13.5
35.680650	18.05	30.00	11.95	1000.0	120.000	98.0	V	57	13.8
48.498750	23.52	30.00	6.48	1000.0	120.000	170.0	V	173	13.0
49.848000	27.16	30.00	2.84	1000.0	120.000	98.0	V	100	12.7
53.763300	21.26	30.00	8.74	1000.0	120.000	98.0	V	185	12.0
80.368350	14.25	30.00	15.75	1000.0	120.000	170.0	V	84	8.2

Plot 20: 1 GHz to 12.75 GHz, 5320 MHz, vertical & horizontal polarization**Plot 21:** 4.5 GHz to 7 GHz, 5320 MHz, vertical & horizontal polarization

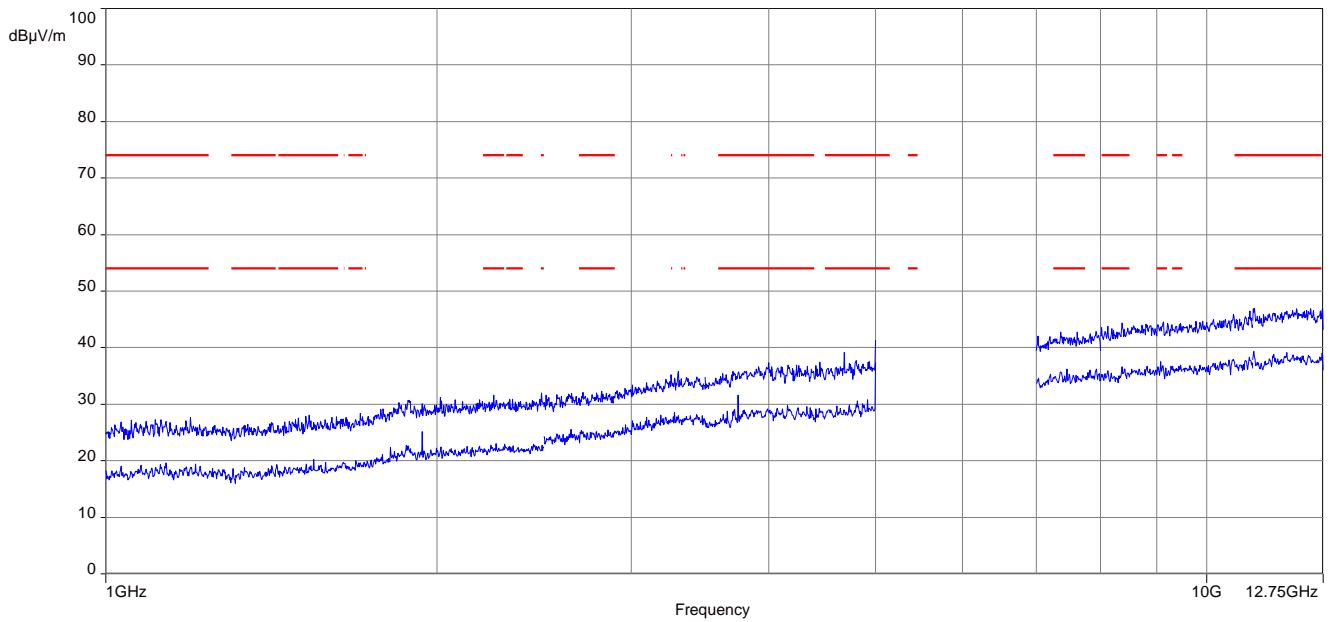
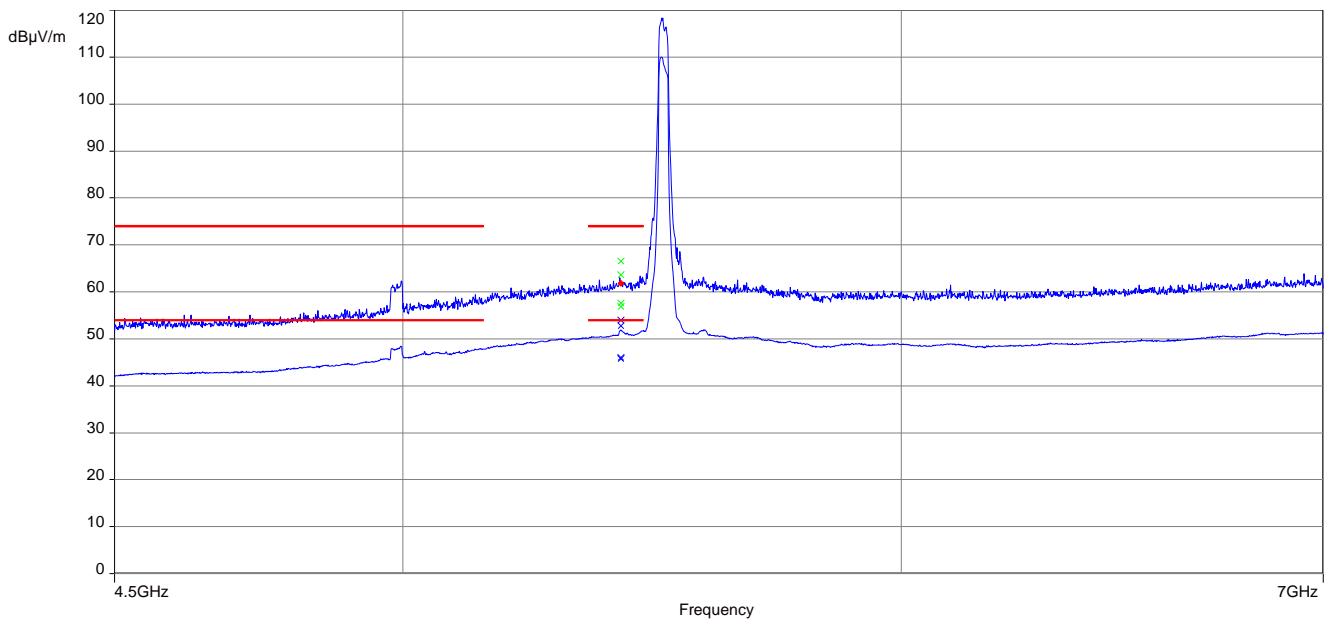
Plot 22: 12 GHz to 18 GHz, 5320 MHz, vertical & horizontal polarization**Plot 23:** 18 GHz to 26 GHz, 5320 MHz, vertical & horizontal polarization

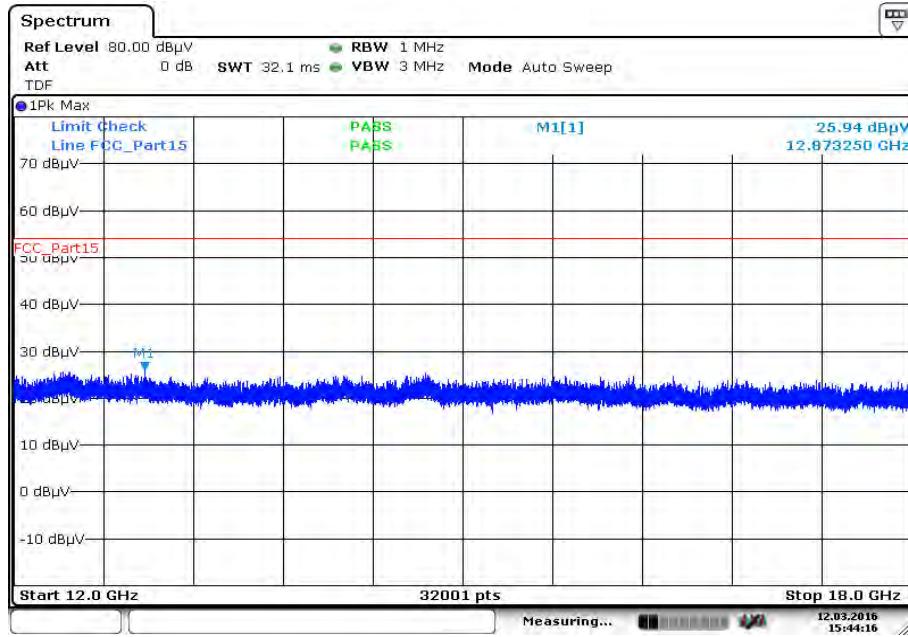
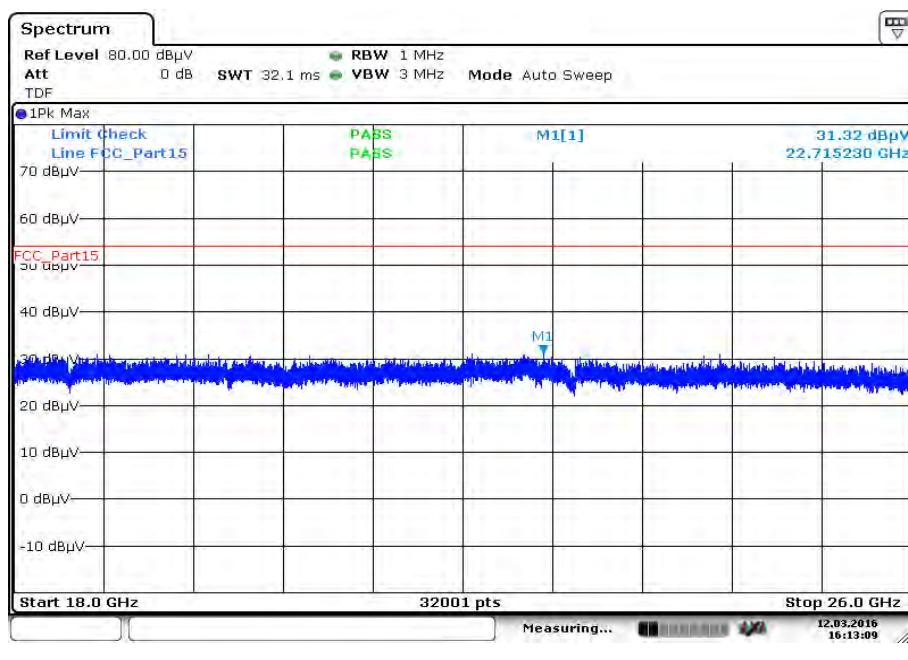
Plot 24: 26 GHz to 40 GHz, 5320 MHz, vertical & horizontal polarization

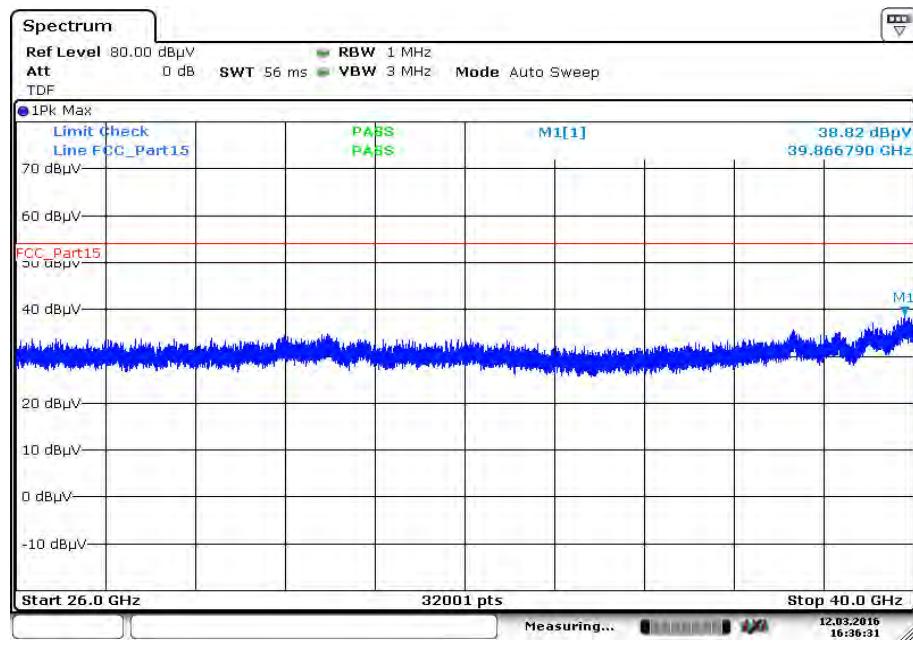
Plot 25: 30 MHz to 1 GHz, 5500 MHz, vertical & horizontal polarization

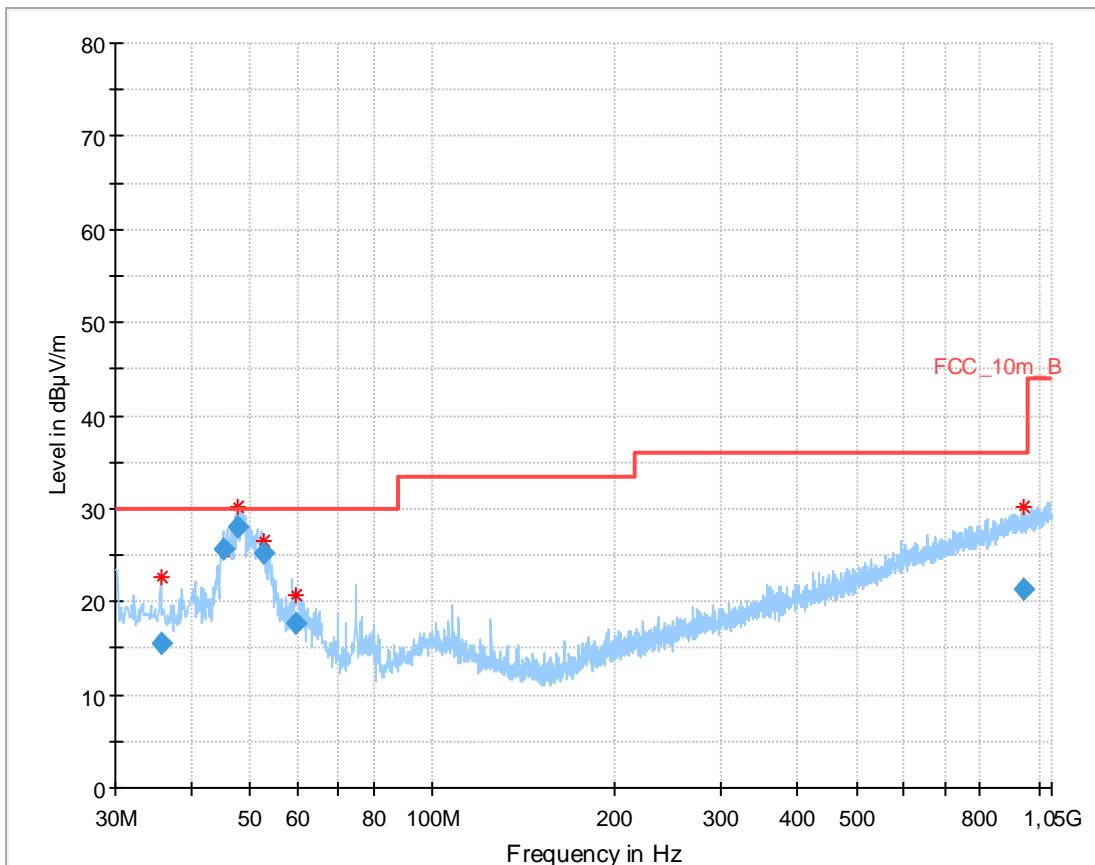
Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
38.716200	15.01	30.00	14.99	1000.0	120.000	101.0	V	340	14.0
47.899200	28.65	30.00	1.35	1000.0	120.000	98.0	V	353	13.1
49.886850	25.51	30.00	4.49	1000.0	120.000	98.0	V	353	12.7
52.183200	25.88	30.00	4.12	1000.0	120.000	98.0	V	353	12.3
73.477650	5.98	30.00	24.02	1000.0	120.000	101.0	V	2	8.3
935.962950	21.01	36.00	14.99	1000.0	120.000	170.0	H	60	24.2

Plot 26: 1 GHz to 12.75 GHz, 5500 MHz, vertical & horizontal polarization**Plot 27:** 4.5 GHz to 7 GHz, 5500 MHz, vertical & horizontal polarization

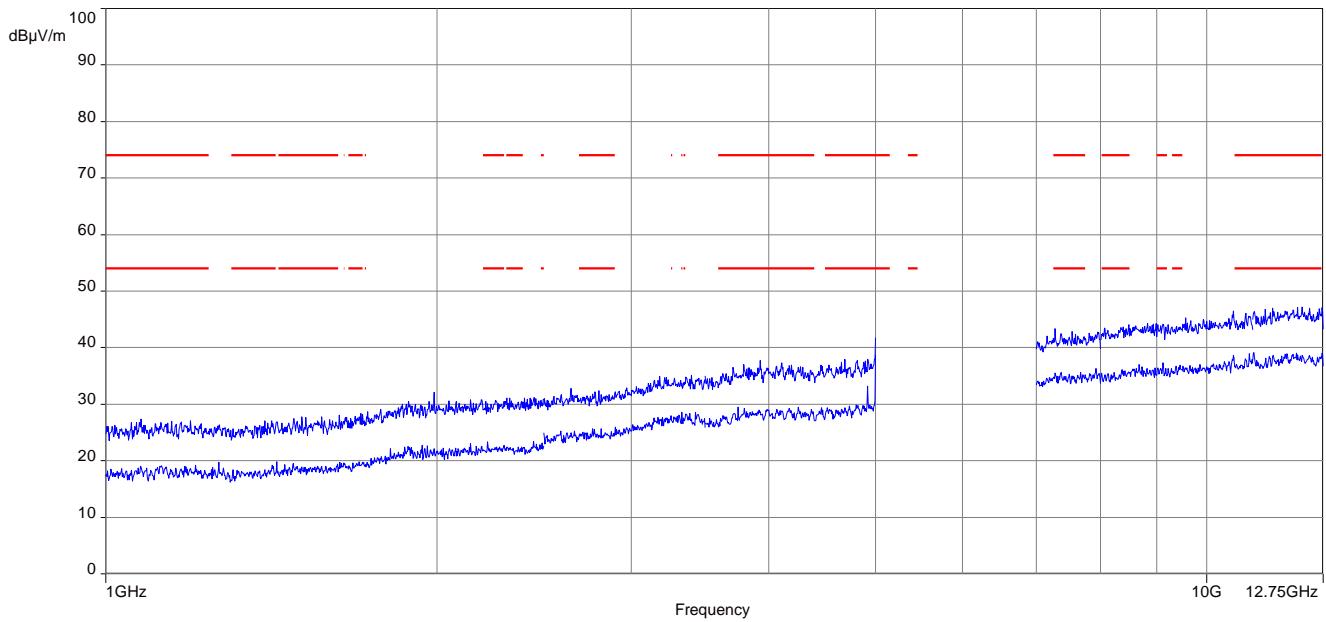
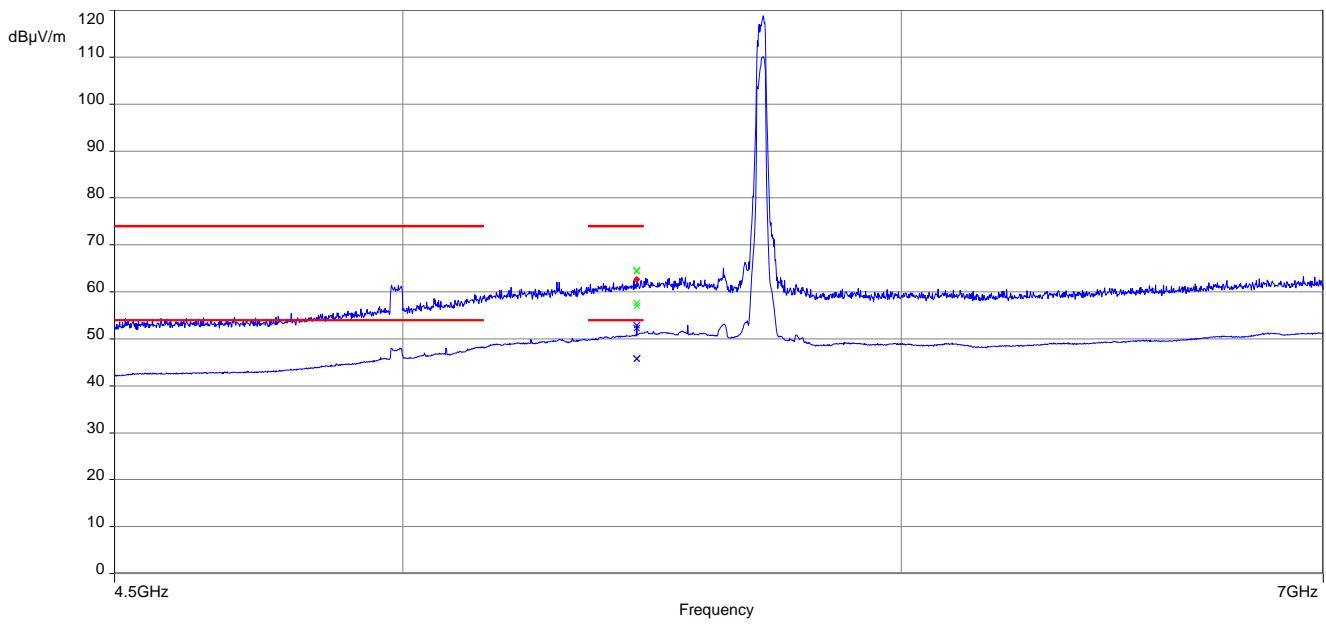
Plot 28: 12 GHz to 18 GHz, 5500 MHz, vertical & horizontal polarization**Plot 29:** 18 GHz to 26 GHz, 5500 MHz, vertical & horizontal polarization

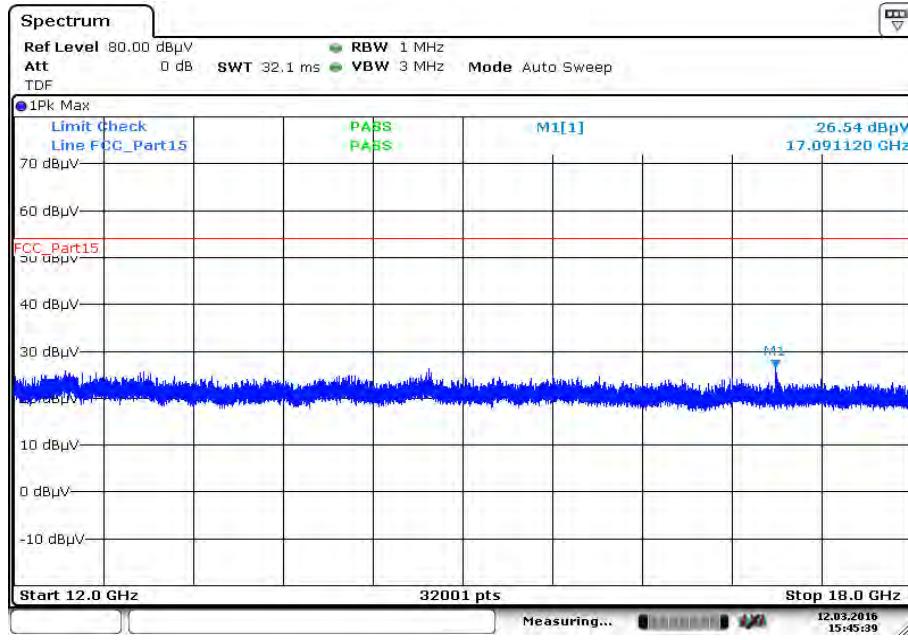
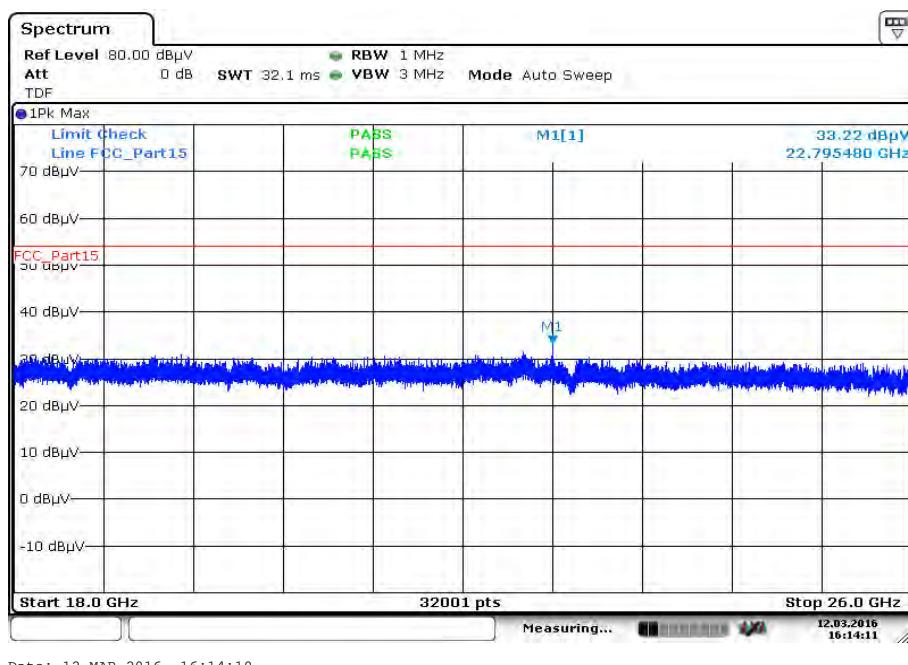
Plot 30: 26 GHz to 40 GHz, 5500 MHz, vertical & horizontal polarization

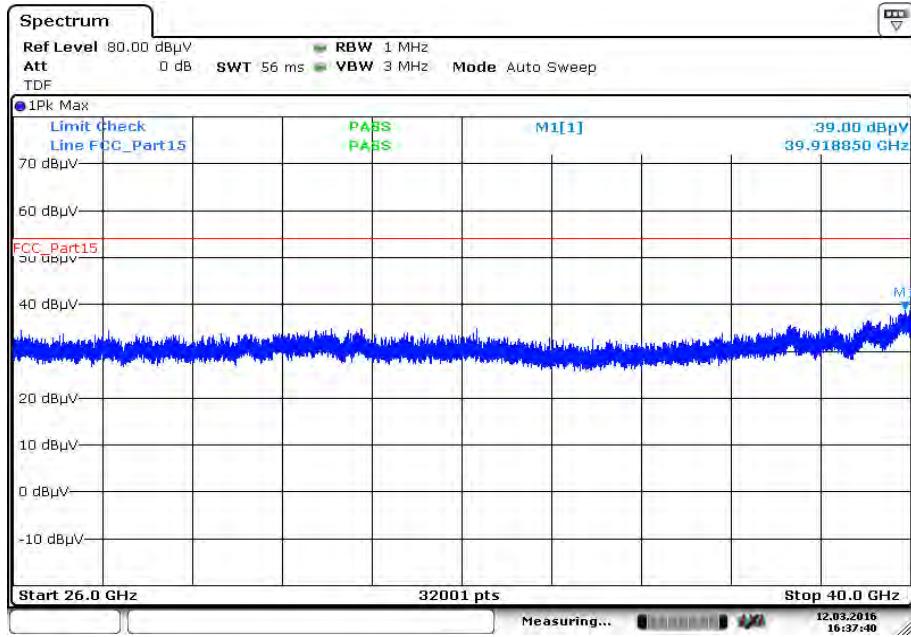
Plot 31: 30 MHz to 1 GHz, 5700 MHz, vertical & horizontal polarization

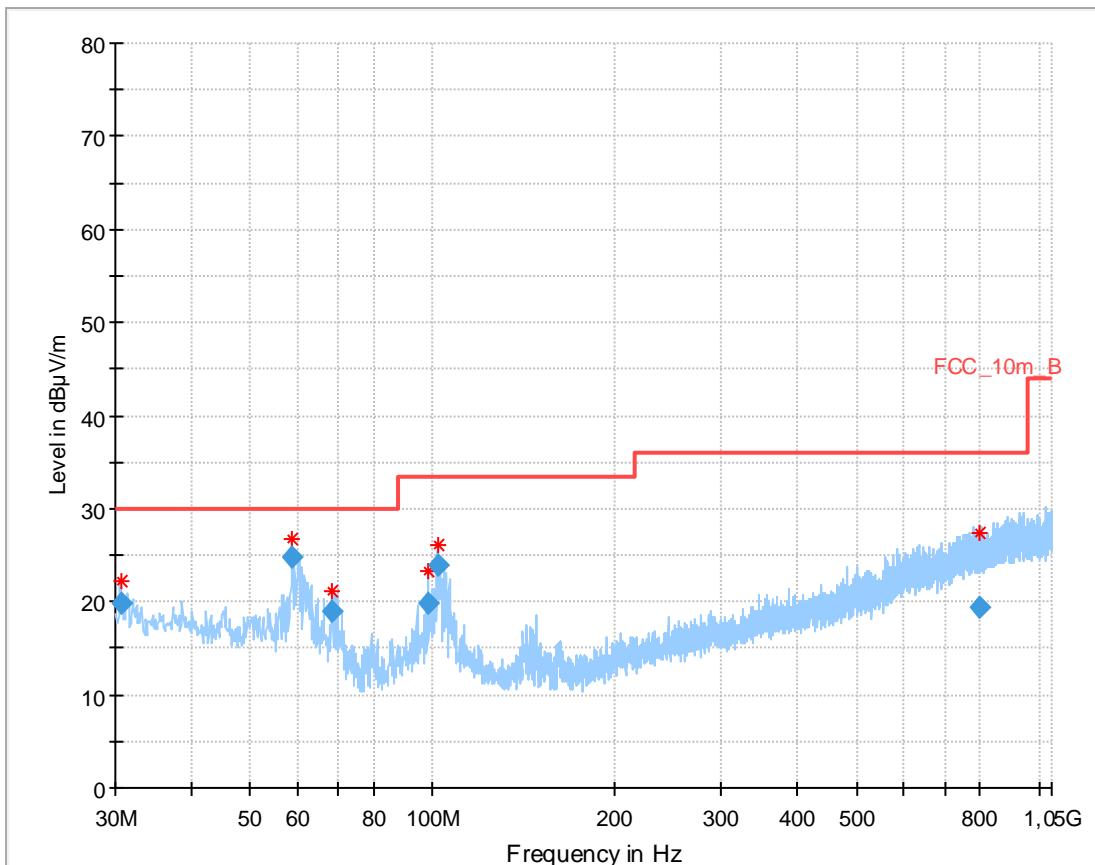
Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
35.743950	15.46	30.00	14.54	1000.0	120.000	101.0	V	44	13.8
45.259500	25.69	30.00	4.31	1000.0	120.000	98.0	V	347	13.8
47.846550	28.05	30.00	1.95	1000.0	120.000	98.0	V	353	13.2
52.511700	25.15	30.00	4.85	1000.0	120.000	98.0	V	347	12.2
59.735250	17.69	30.00	12.31	1000.0	120.000	101.0	V	315	10.6
942.754950	21.43	36.00	14.57	1000.0	120.000	170.0	H	123	24.2

Plot 32: 1 GHz to 12.75 GHz, 5700 MHz, vertical & horizontal polarization**Plot 33:** 4.5 GHz to 7 GHz, 5700 MHz, vertical & horizontal polarization

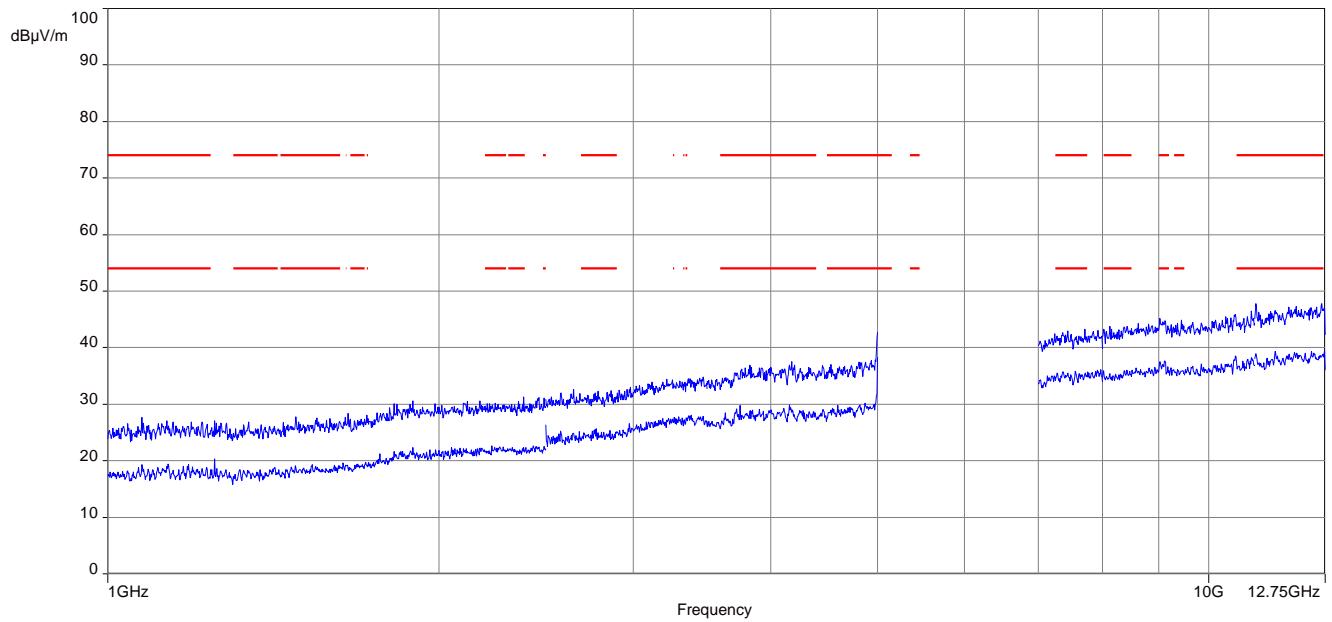
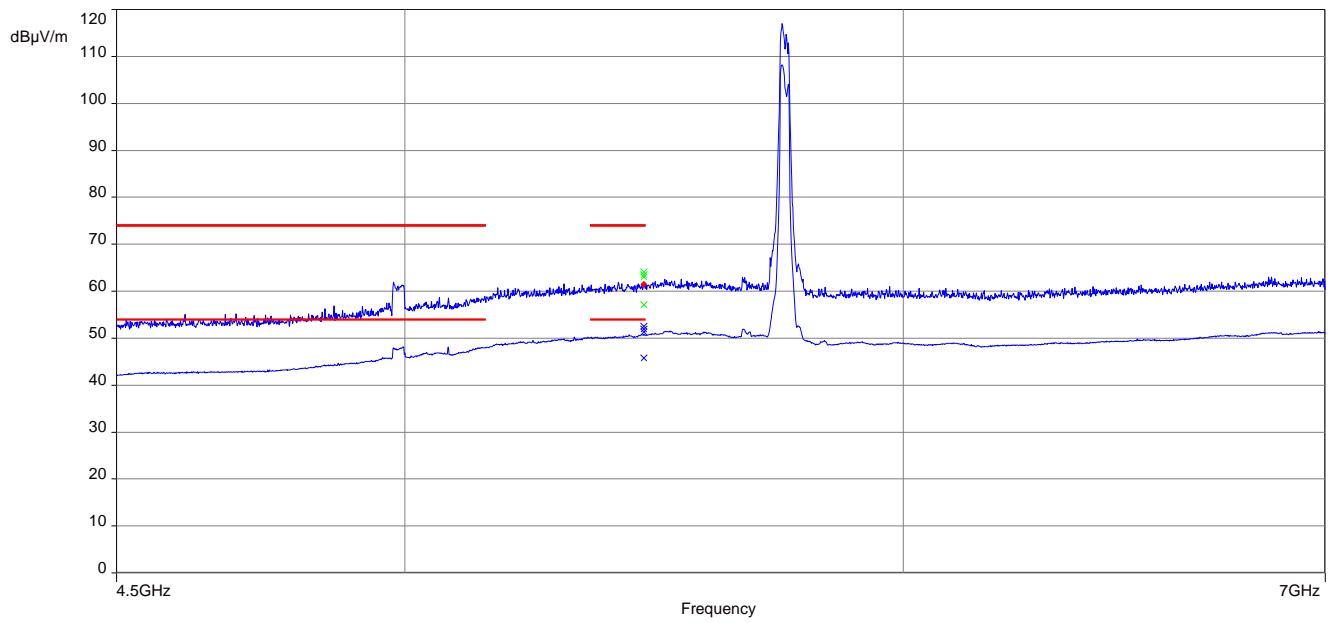
Plot 34: 12 GHz to 18 GHz, 5700 MHz, vertical & horizontal polarization**Plot 35:** 18 GHz to 26 GHz, 5700 MHz, vertical & horizontal polarization

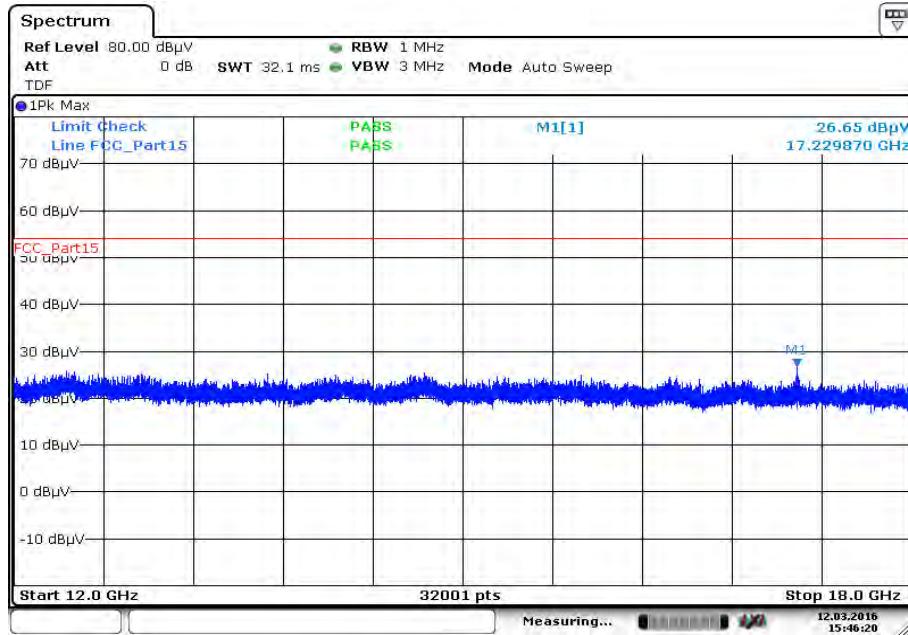
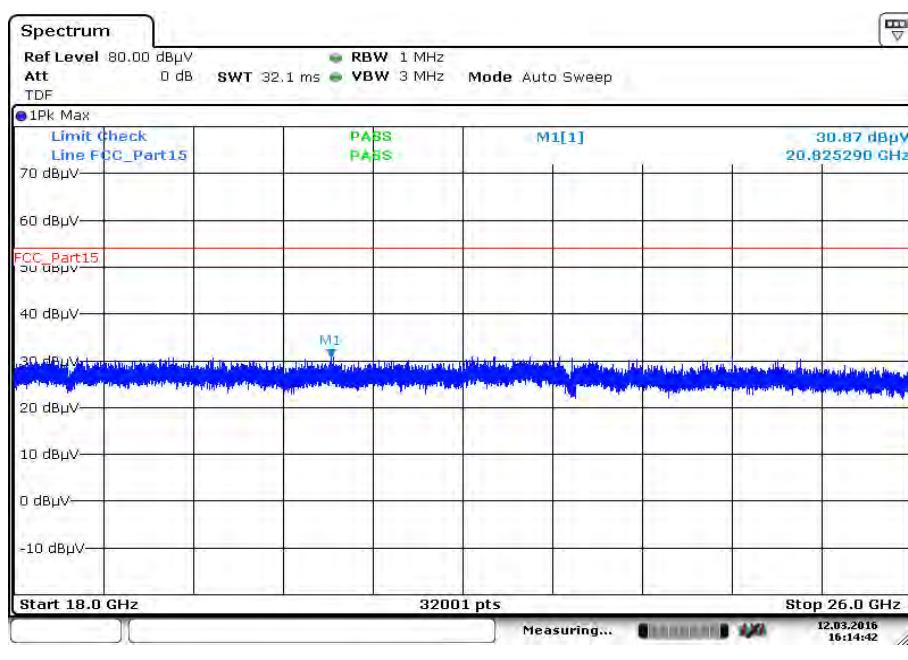
Plot 36: 26 GHz to 40 GHz, 5700 MHz, vertical & horizontal polarization

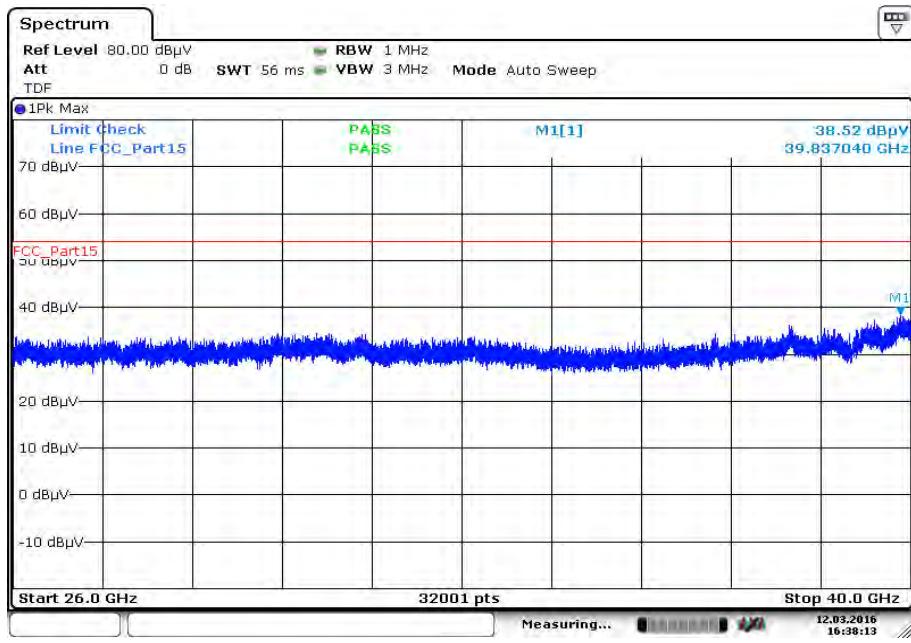
Plot 37: 30 MHz to 1 GHz, 5745 MHz, vertical & horizontal polarization

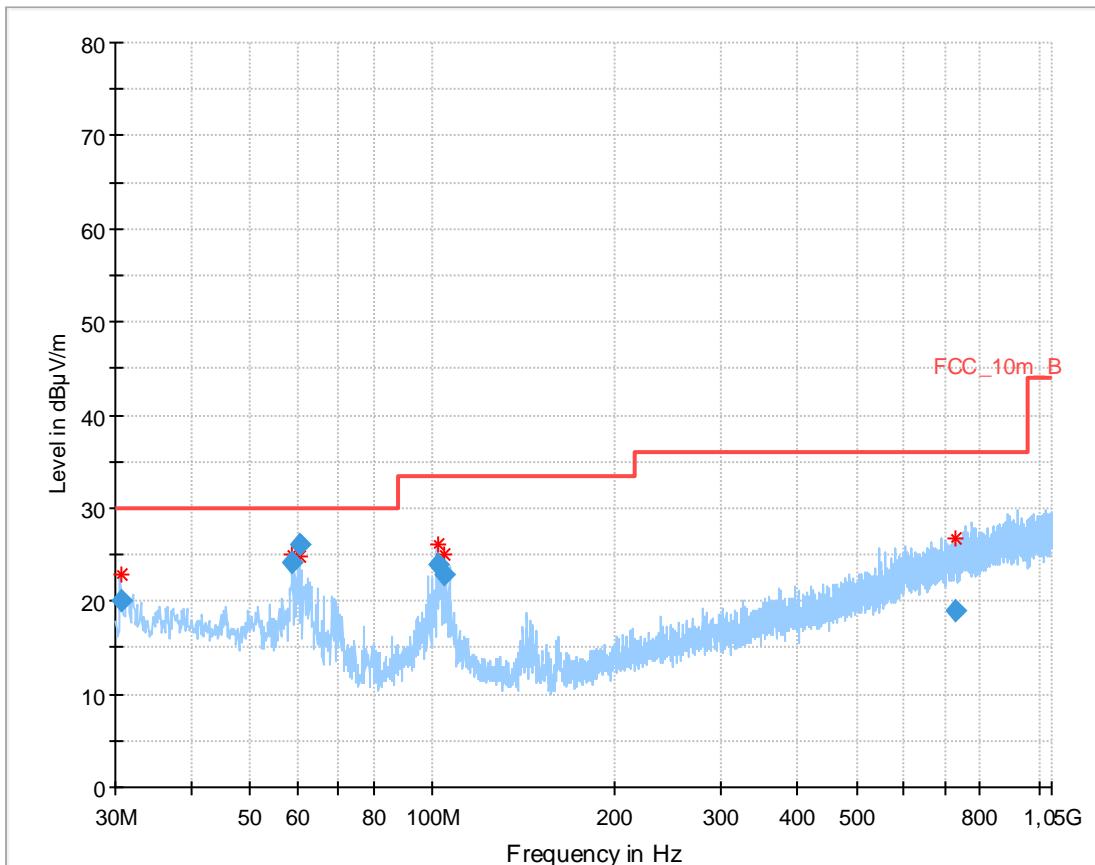
Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.605782	19.89	30.00	10.11	1000.0	120.000	170.0	V	280.0	13.4
58.710900	24.87	30.00	5.13	1000.0	120.000	101.0	V	280.0	10.9
68.454150	18.95	30.00	11.05	1000.0	120.000	170.0	V	280.0	8.7
98.438850	19.75	33.50	13.75	1000.0	120.000	98.0	V	280.0	11.9
101.882550	23.85	33.50	9.65	1000.0	120.000	100.0	V	170.0	12.0
796.590300	19.47	36.00	16.53	1000.0	120.000	101.0	V	261.0	22.7

Plot 38: 1 GHz to 12.75 GHz, 5745 MHz, vertical & horizontal polarization**Plot 39:** 4.5 GHz to 7 GHz, 5745 MHz, vertical & horizontal polarization

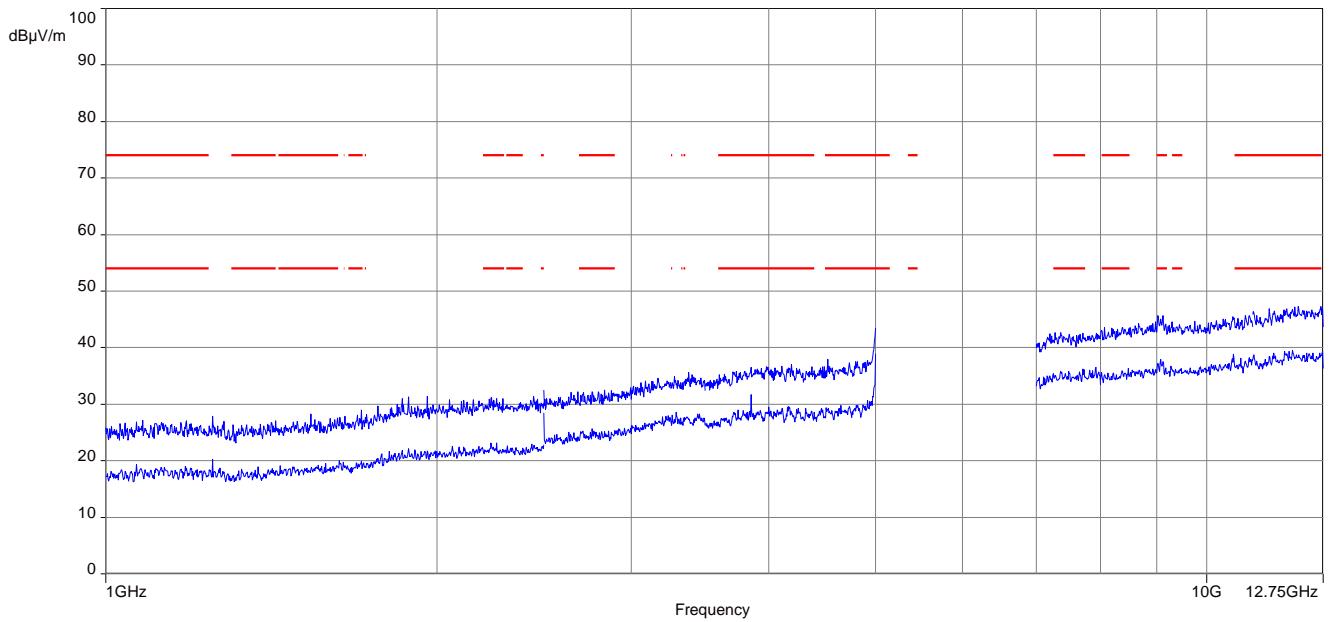
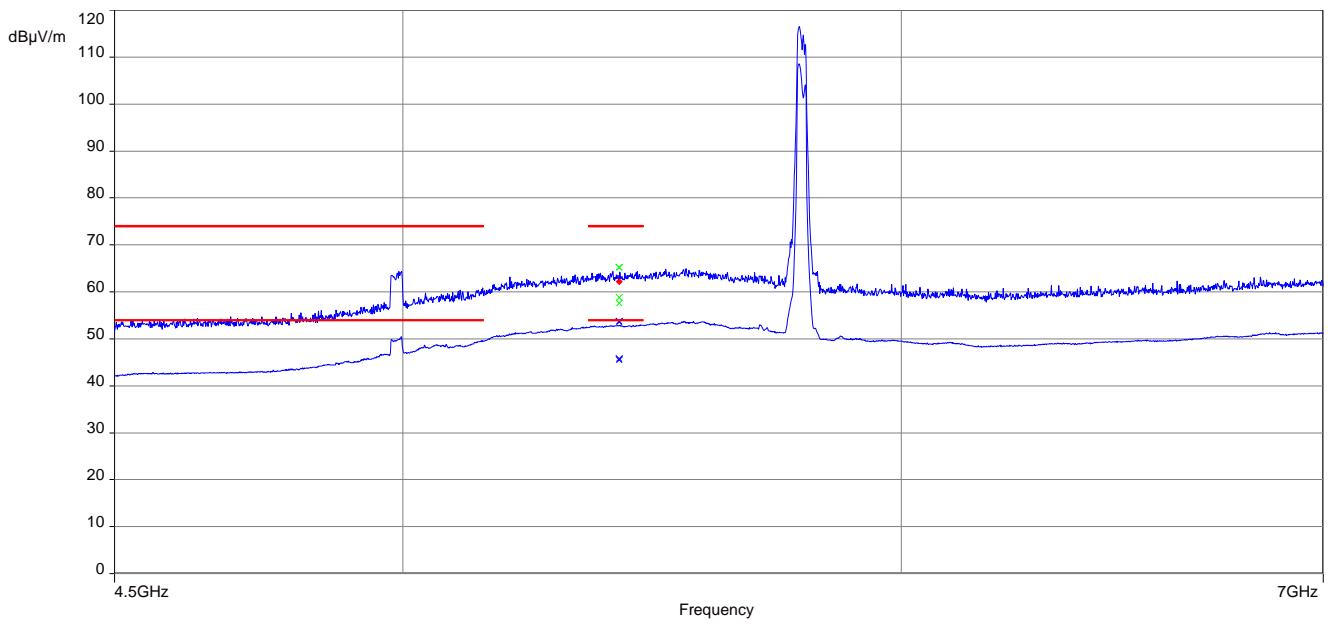
Plot 40: 12 GHz to 18 GHz, 5745 MHz, vertical & horizontal polarization**Plot 41:** 18 GHz to 26 GHz, 5745 MHz, vertical & horizontal polarization

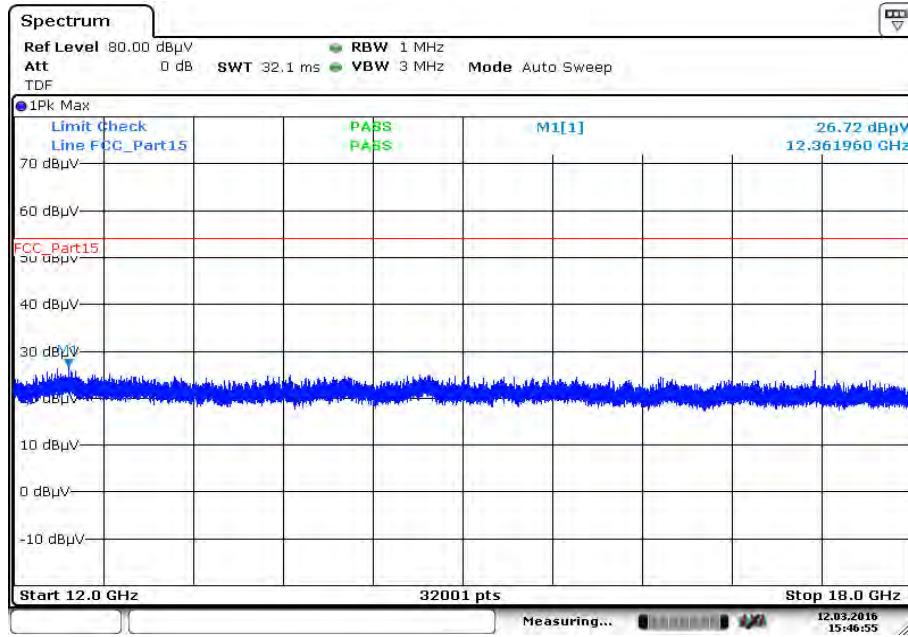
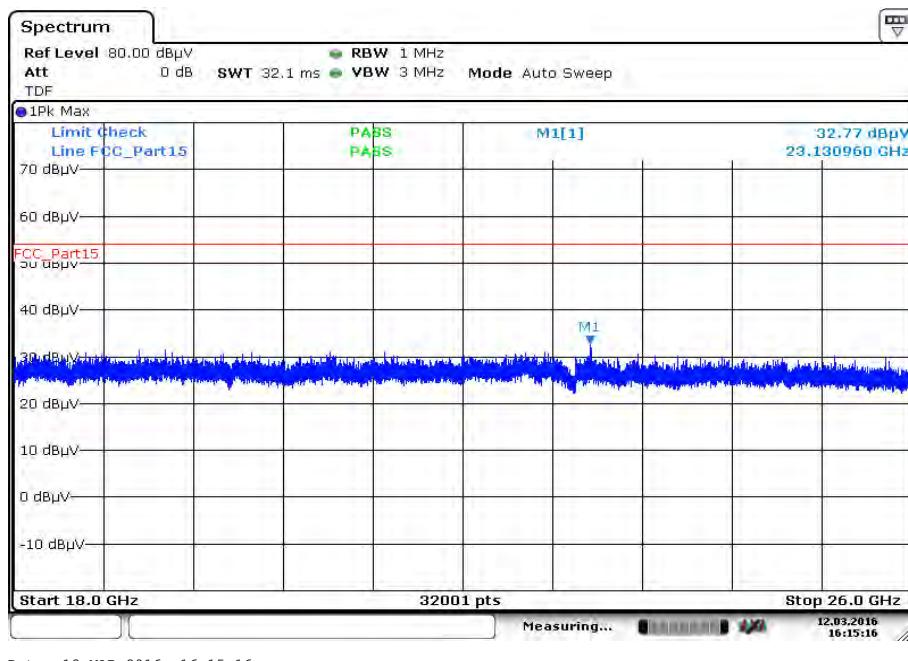
Plot 42: 26 GHz to 40 GHz, 5745 MHz, vertical & horizontal polarization

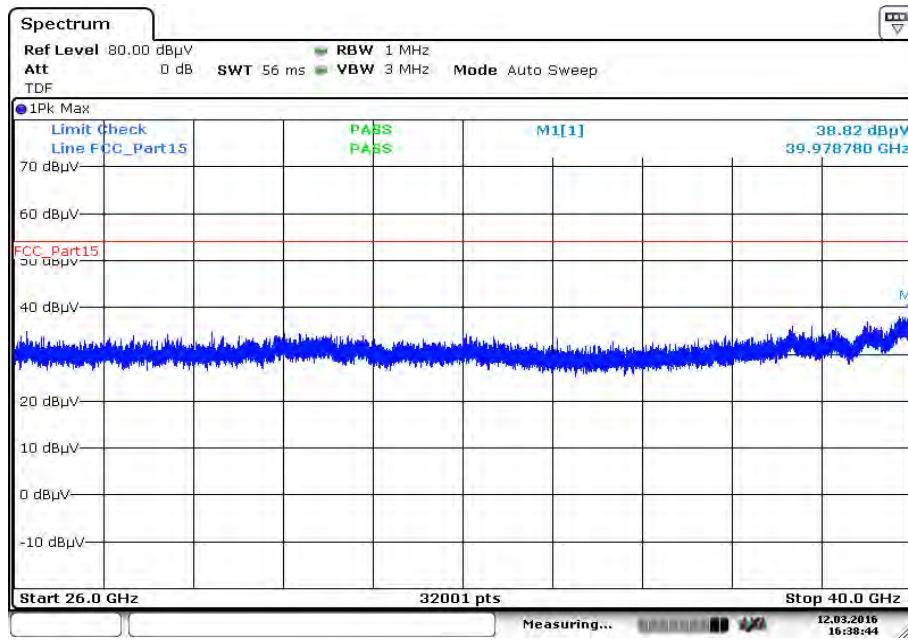
Plot 43: 30 MHz to 1 GHz, 5785 MHz, vertical & horizontal polarization

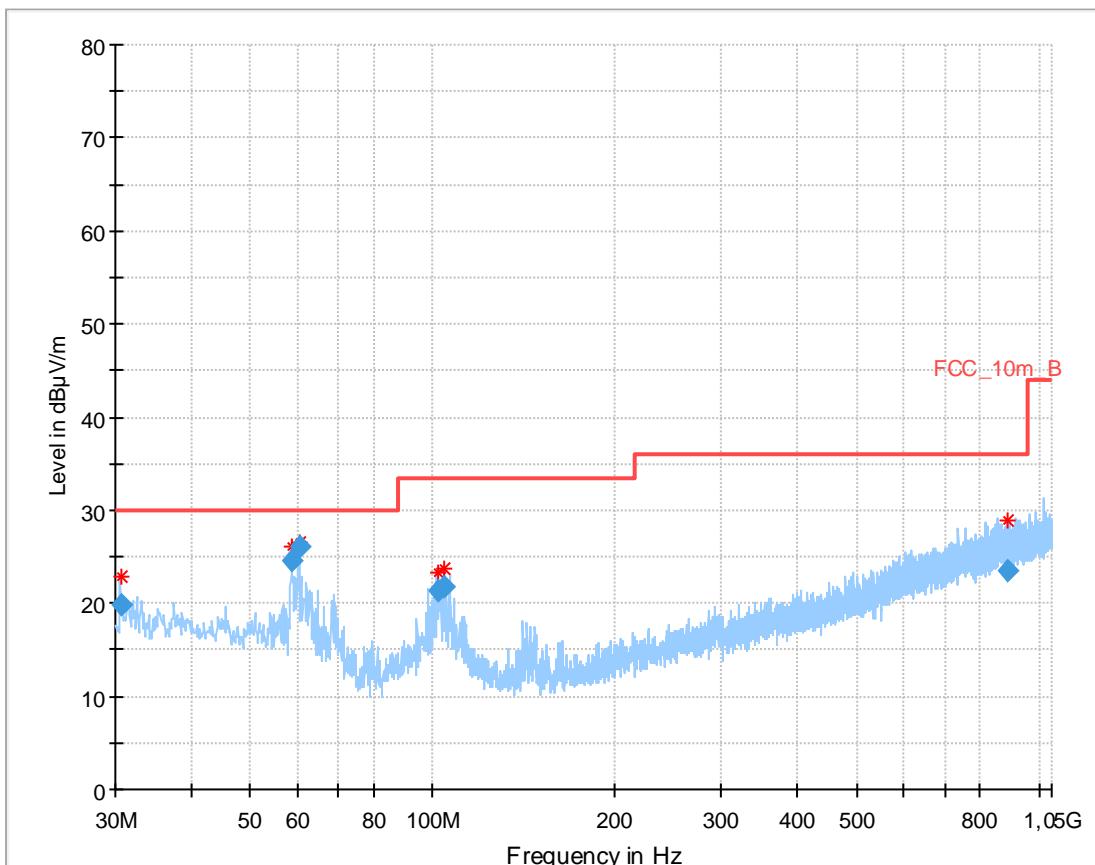
Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.637418	20.04	30.00	9.96	1000.0	120.000	98.0	V	100.0	13.4
58.738200	24.23	30.00	5.77	1000.0	120.000	170.0	V	280.0	10.9
60.226800	26.07	30.00	3.93	1000.0	120.000	98.0	V	280.0	10.5
101.873100	23.86	33.50	9.64	1000.0	120.000	101.0	V	171.0	12.0
104.753850	22.89	33.50	10.61	1000.0	120.000	100.0	V	261.0	11.7
728.713050	19.05	36.00	16.95	1000.0	120.000	101.0	V	260.0	22.2

Plot 44: 1 GHz to 12.75 GHz, 5785 MHz, vertical & horizontal polarization**Plot 45:** 4.5 GHz to 7 GHz, 5785 MHz, vertical & horizontal polarization

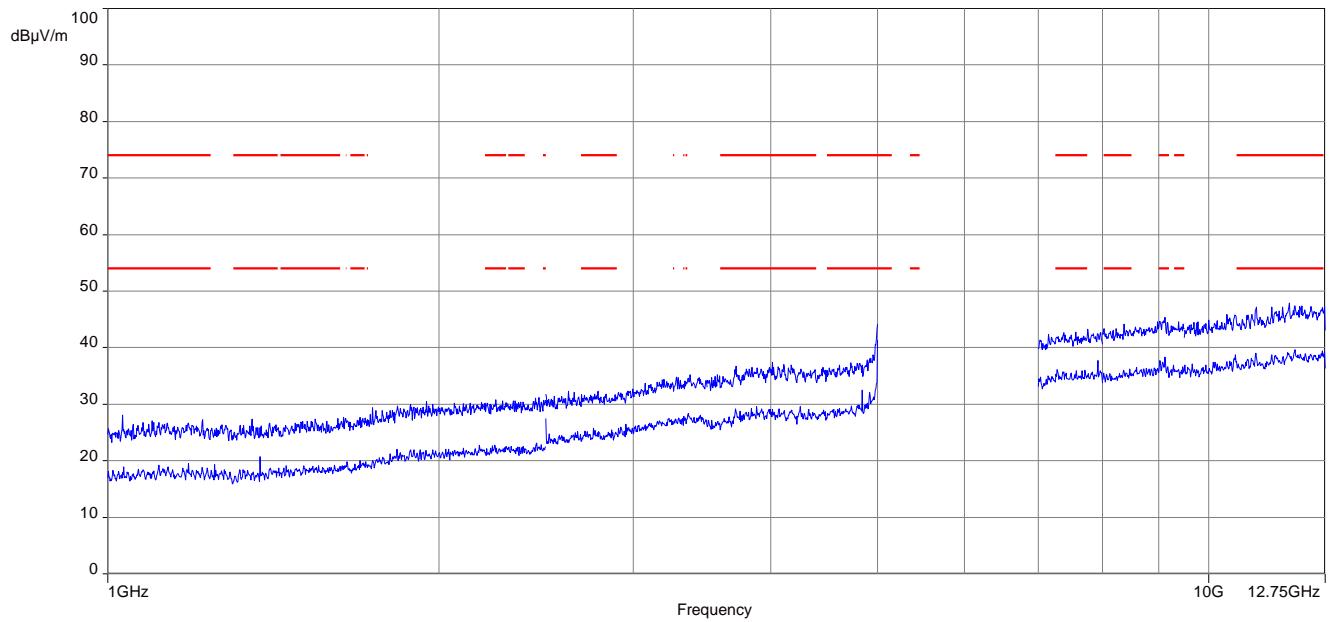
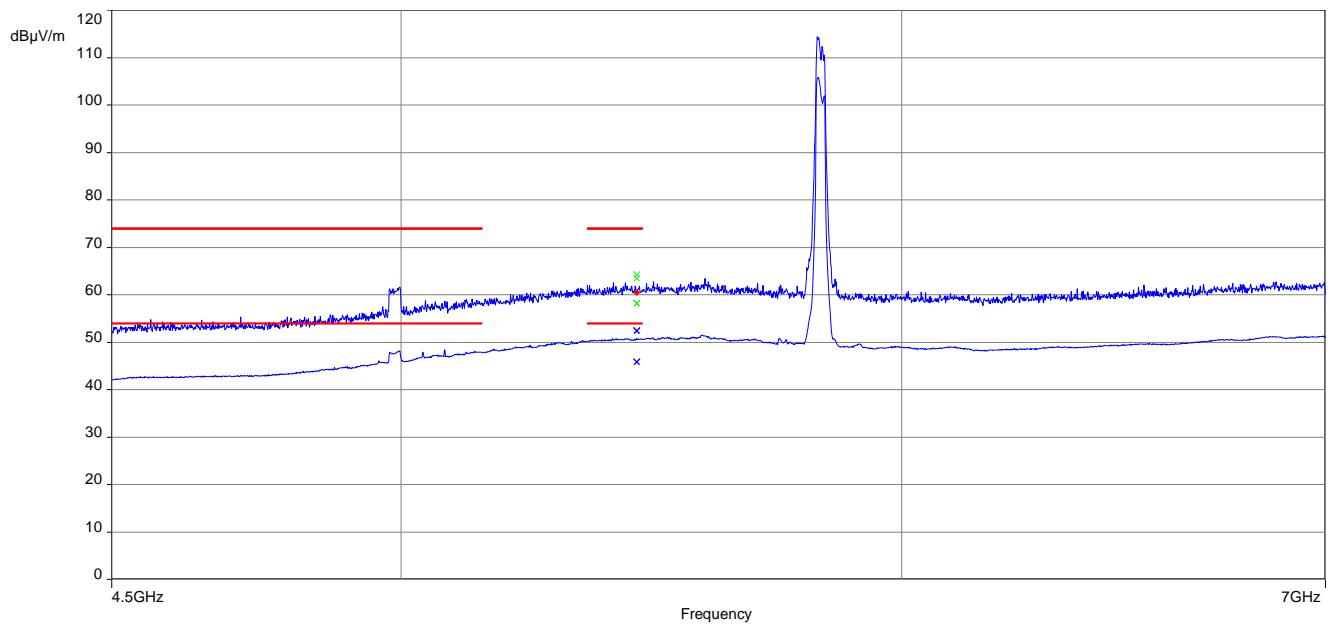
Plot 46: 12 GHz to 18 GHz, 5785 MHz, vertical & horizontal polarization**Plot 47:** 18 GHz to 26 GHz, 5785 MHz, vertical & horizontal polarization

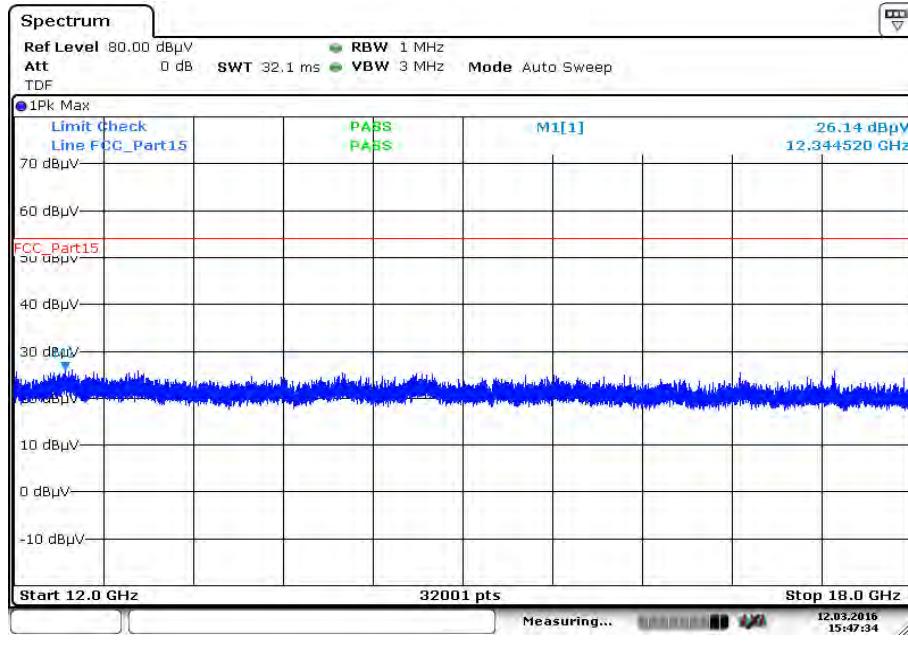
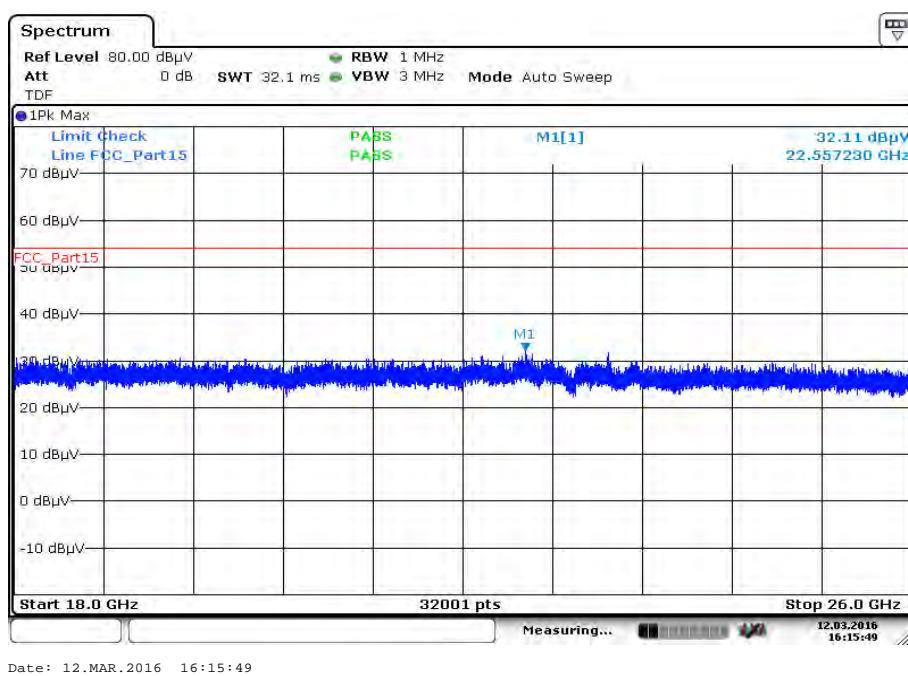
Plot 48: 26 GHz to 40 GHz, 5785 MHz, vertical & horizontal polarization

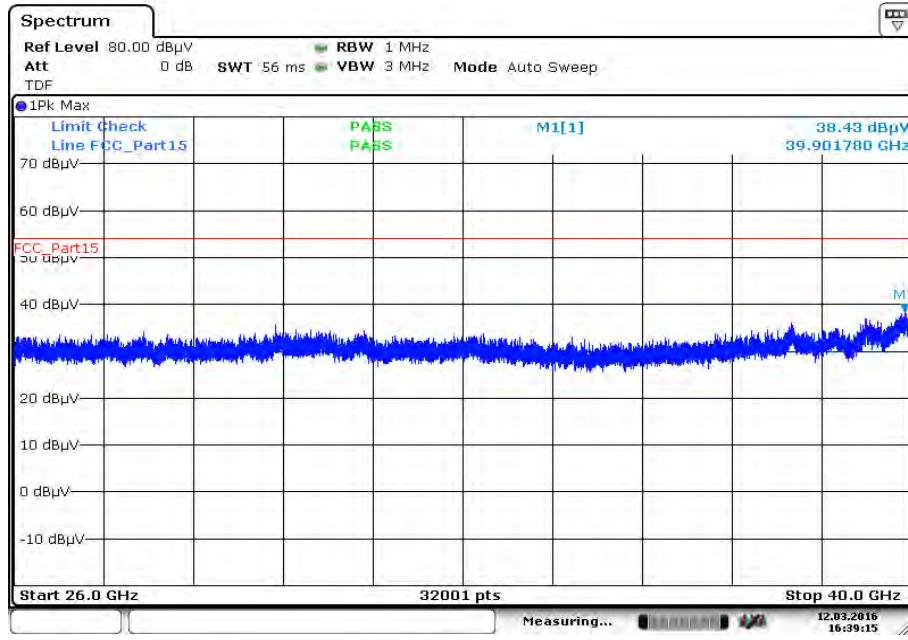
Plot 49: 30 MHz to 1 GHz, 5825 MHz, vertical & horizontal polarization

Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.622016	19.87	30.00	10.13	1000.0	120.000	101.0	V	261.0	13.4
58.702050	24.60	30.00	5.40	1000.0	120.000	170.0	V	100.0	10.9
60.224700	26.17	30.00	3.83	1000.0	120.000	98.0	V	280.0	10.5
101.880900	21.37	33.50	12.13	1000.0	120.000	101.0	V	171.0	12.0
104.762850	21.86	33.50	11.64	1000.0	120.000	101.0	V	280.0	11.7
887.991300	23.60	36.00	12.40	1000.0	120.000	170.0	V	81.0	24.0

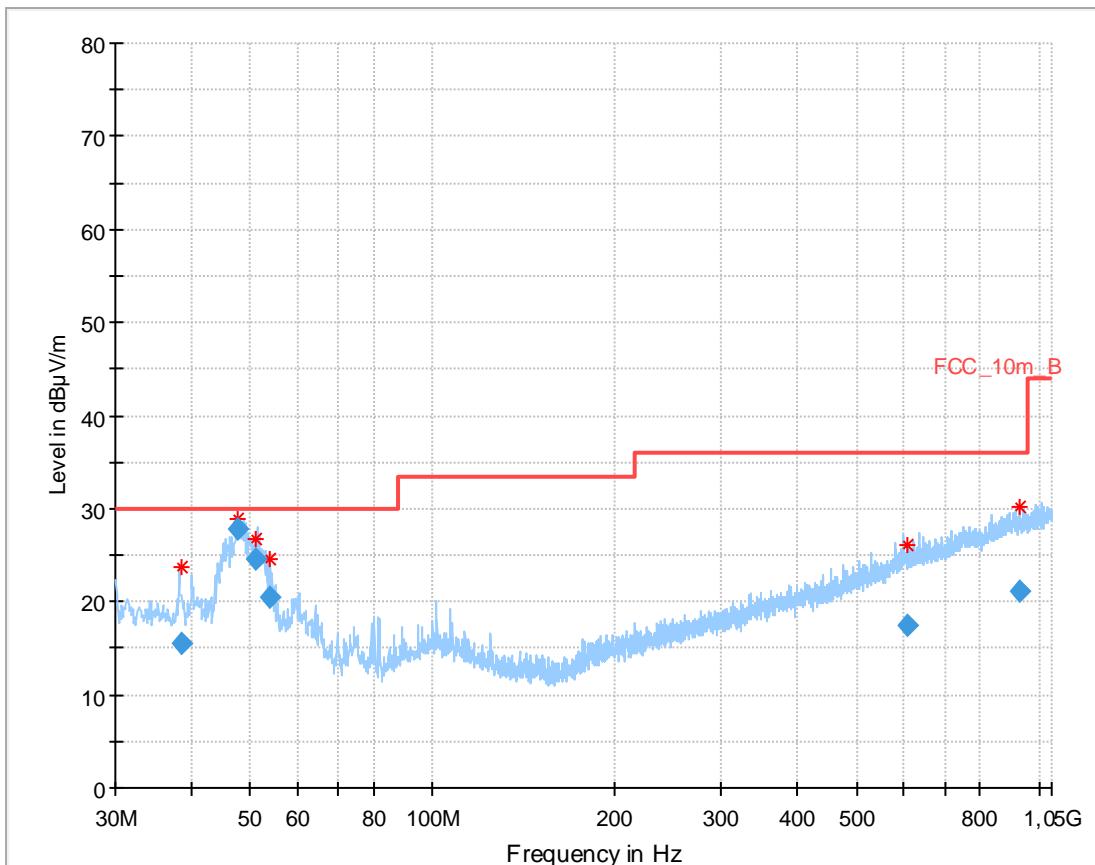
Plot 50: 1 GHz to 12.75 GHz, 5825 MHz, vertical & horizontal polarization**Plot 51:** 4.5 GHz to 7 GHz, 5825 MHz, vertical & horizontal polarization

Plot 52: 12 GHz to 18 GHz, 5825 MHz, vertical & horizontal polarization**Plot 53:** 18 GHz to 26 GHz, 5825 MHz, vertical & horizontal polarization

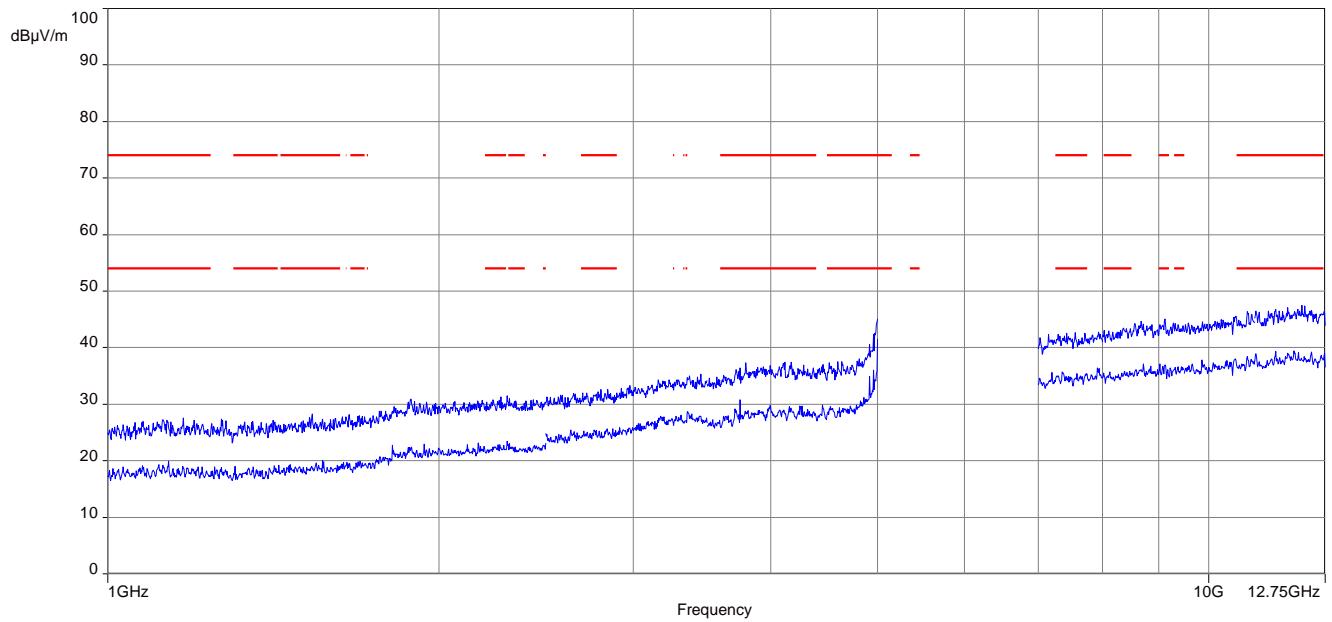
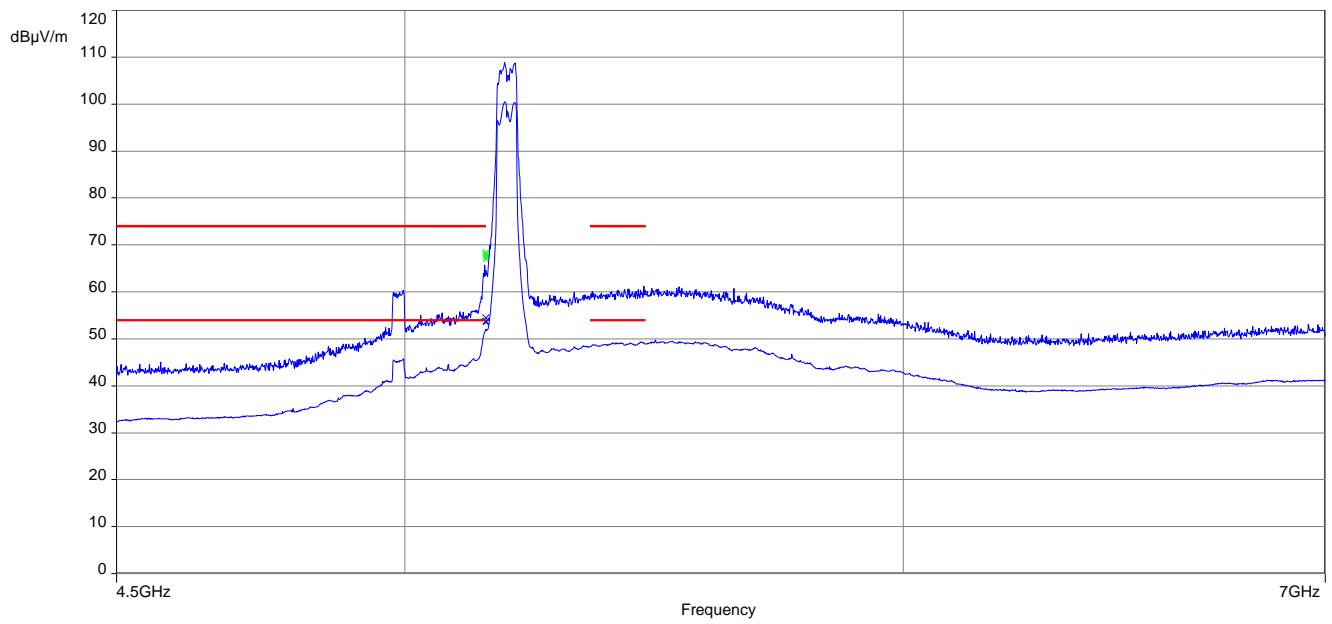
Plot 54: 26 GHz to 40 GHz, 5825 MHz, vertical & horizontal polarization

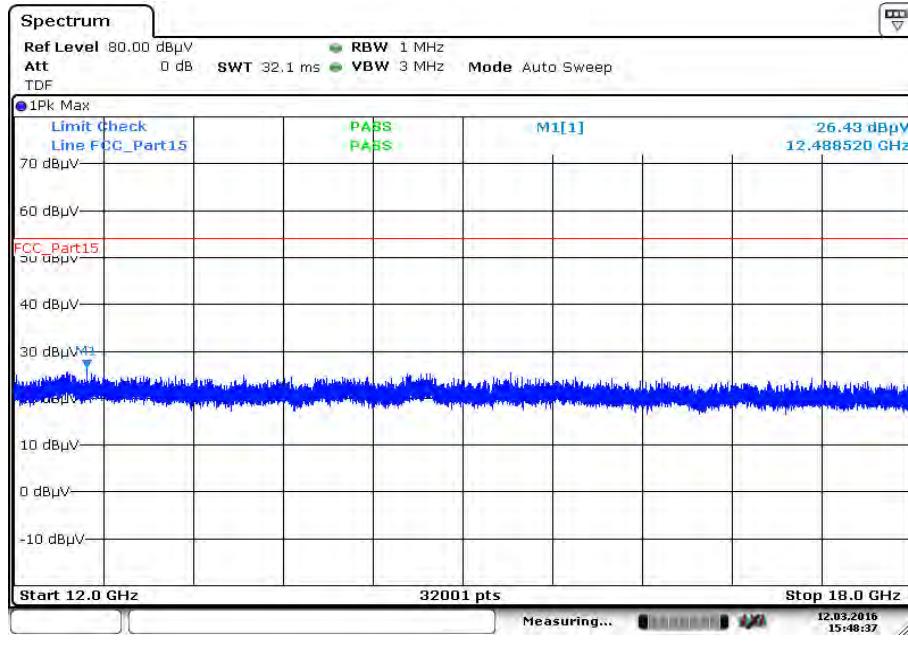
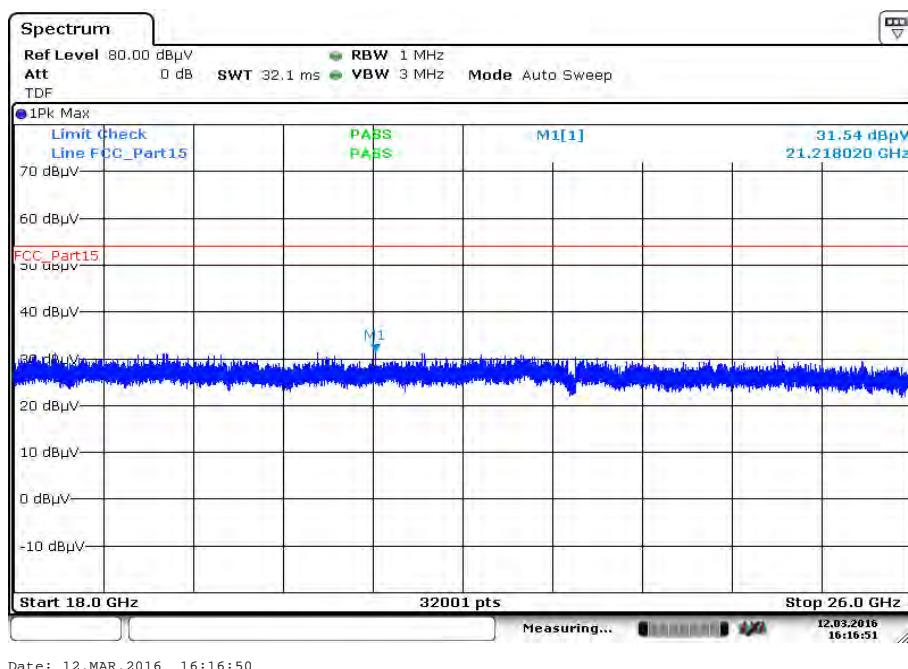
Plots: OFDM / n HT40 – mode

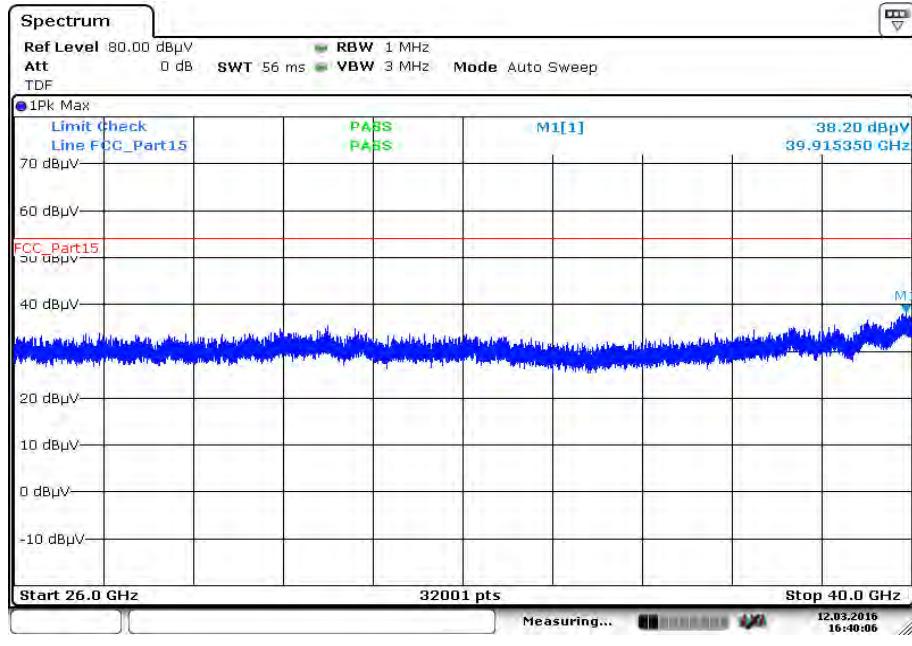
Plot 1: 30 MHz to 1 GHz, 5190 MHz, vertical & horizontal polarization

**Final_Result**

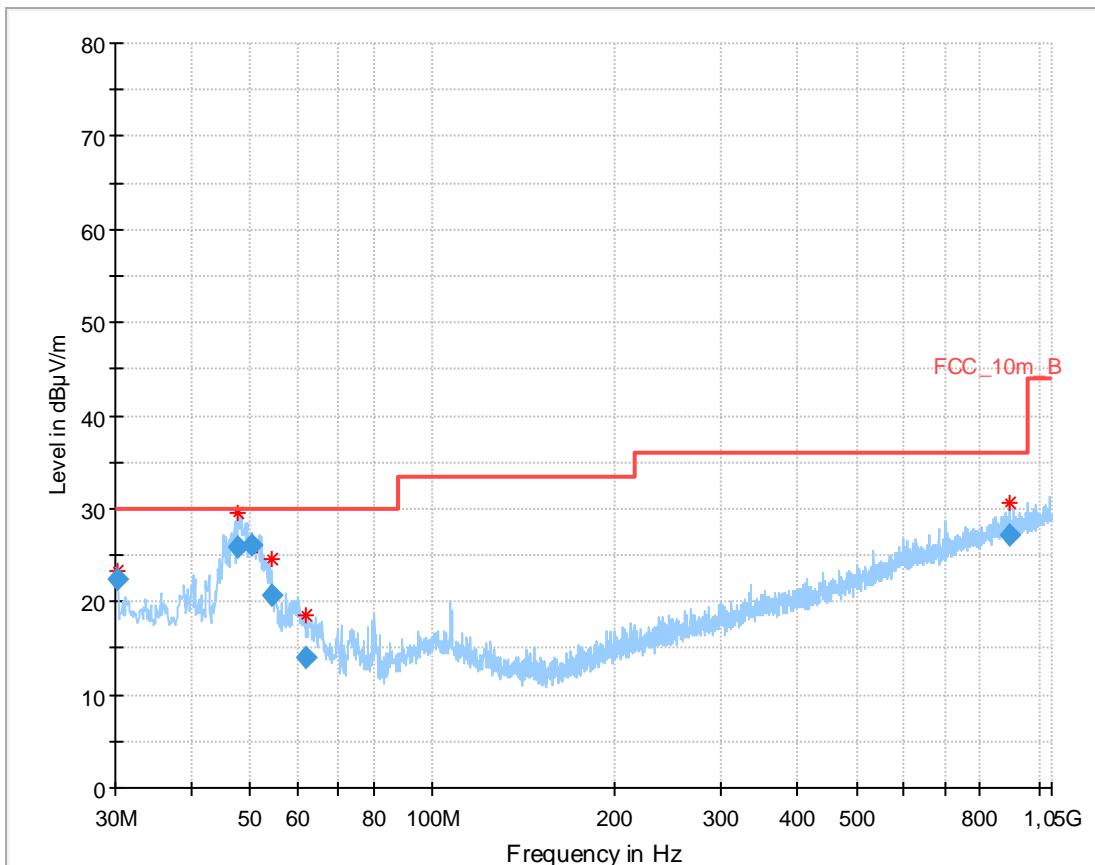
Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
38.642250	15.53	30.00	14.47	1000.0	120.000	100.0	V	350	14.0
47.855700	27.85	30.00	2.15	1000.0	120.000	98.0	V	197	13.1
51.203400	24.64	30.00	5.36	1000.0	120.000	98.0	V	299	12.4
53.826750	20.58	30.00	9.42	1000.0	120.000	170.0	V	76	12.0
606.179700	17.56	36.00	18.44	1000.0	120.000	170.0	V	186	20.8
930.830250	21.06	36.00	14.94	1000.0	120.000	170.0	V	323	24.2

Plot 2: 1 GHz to 12.75 GHz, 5190 MHz, vertical & horizontal polarization**Plot 3:** 4.5 GHz to 7 GHz, 5190 MHz, vertical & horizontal polarization

Plot 4: 12 GHz to 18 GHz, 5190 MHz, vertical & horizontal polarization**Plot 5:** 18 GHz to 26 GHz, 5190 MHz, vertical & horizontal polarization

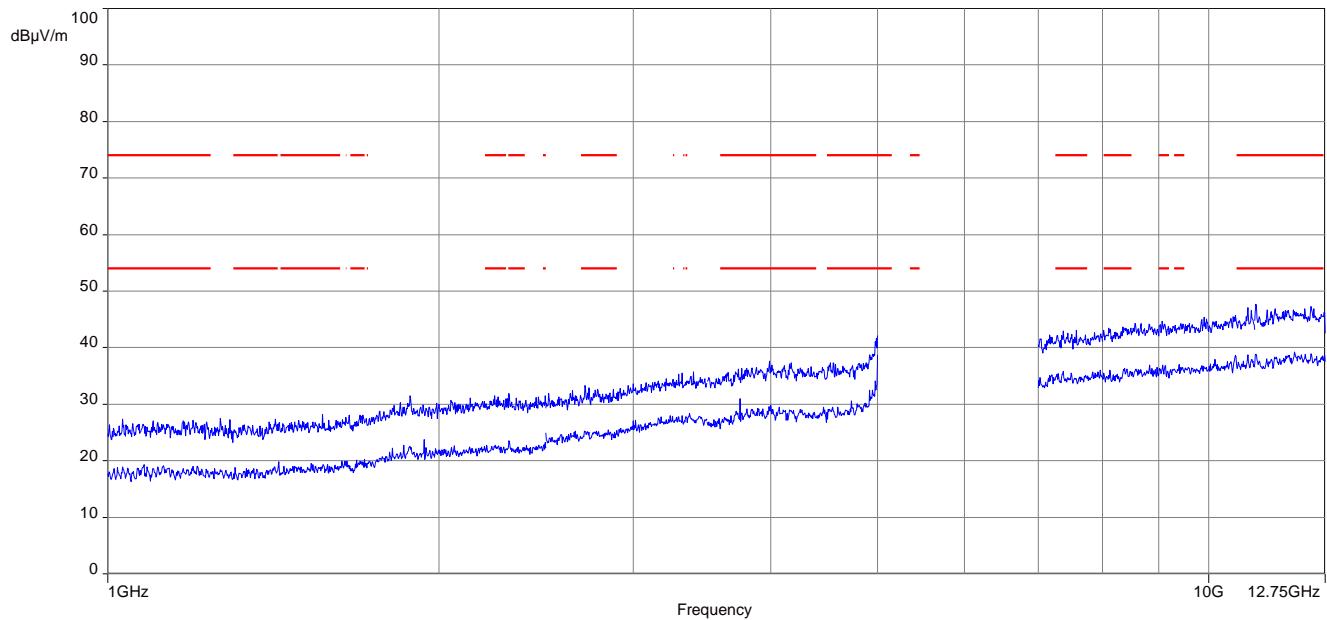
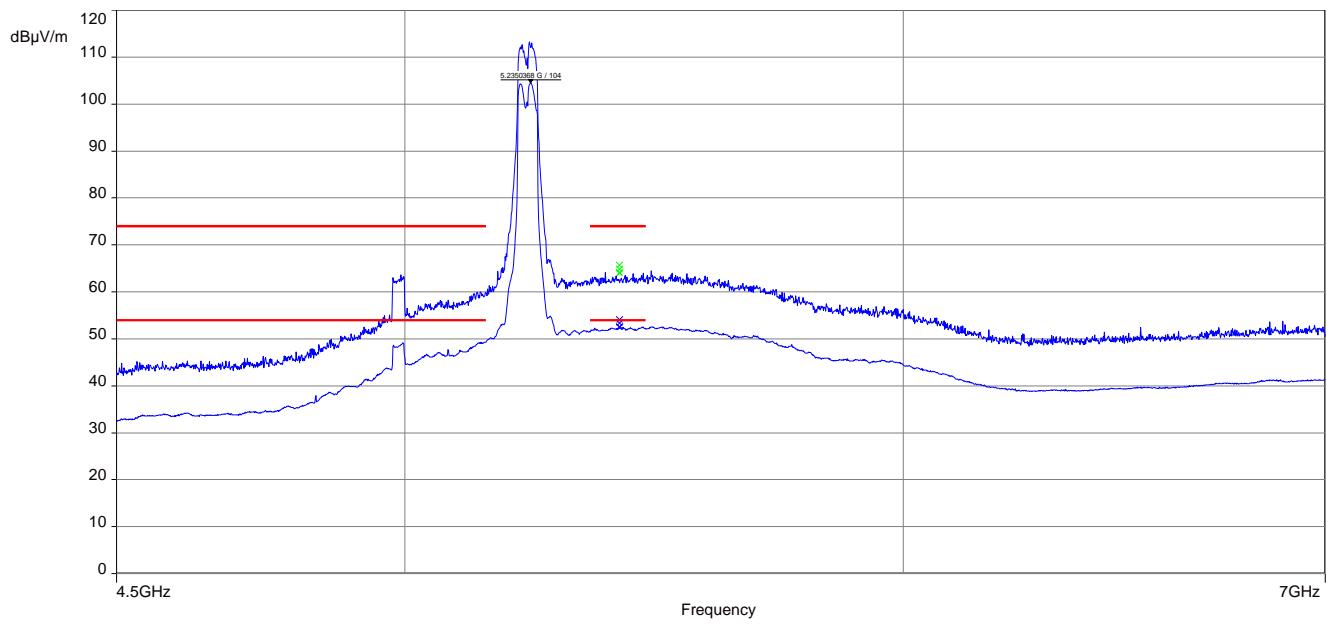
Plot 6: 26 GHz to 40 GHz, 5190 MHz, vertical & horizontal polarization

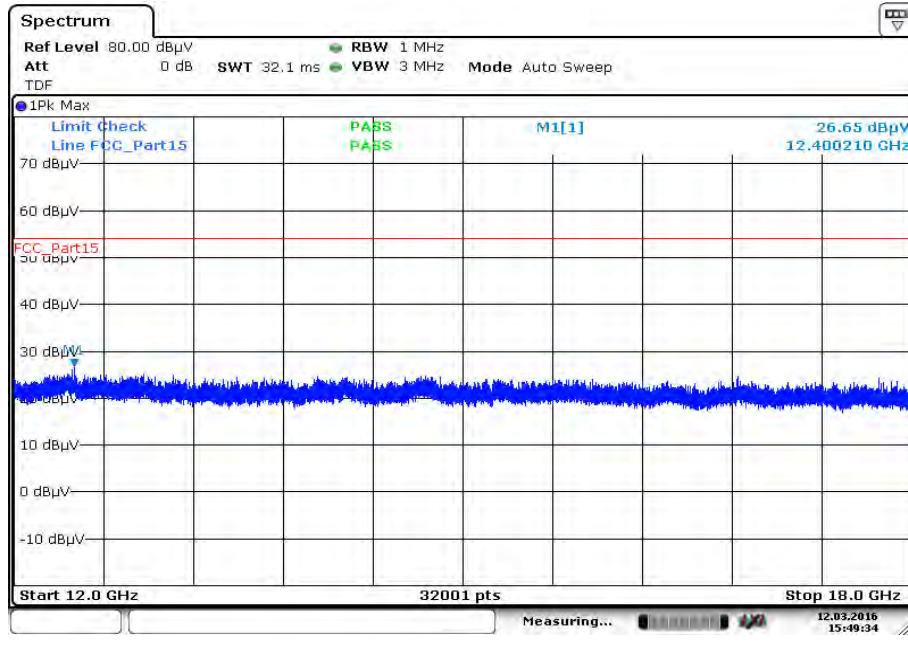
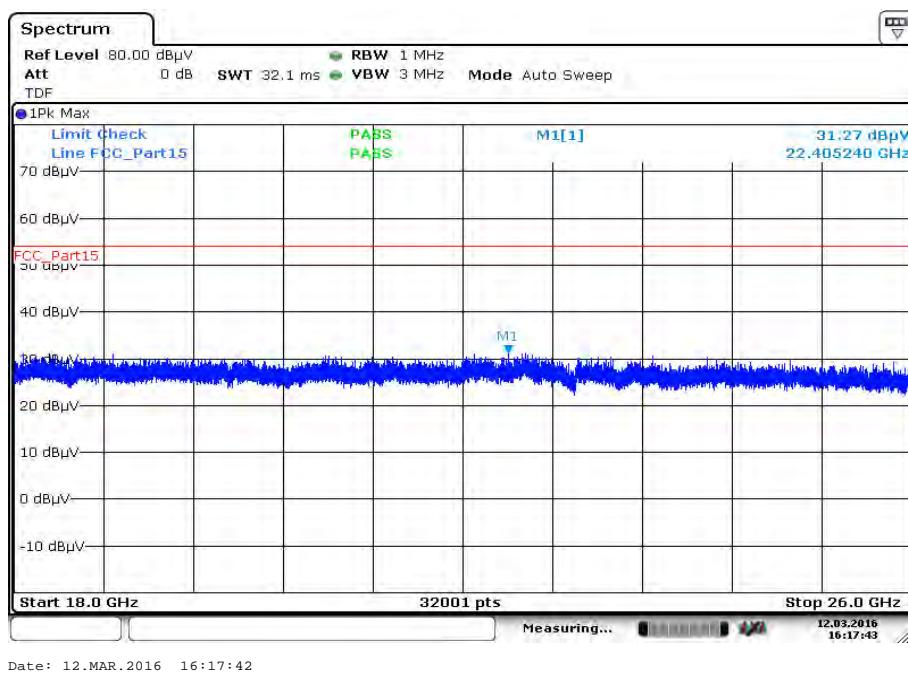
Plot 7: 30 MHz to 1 GHz, 5230 MHz, vertical & horizontal polarization

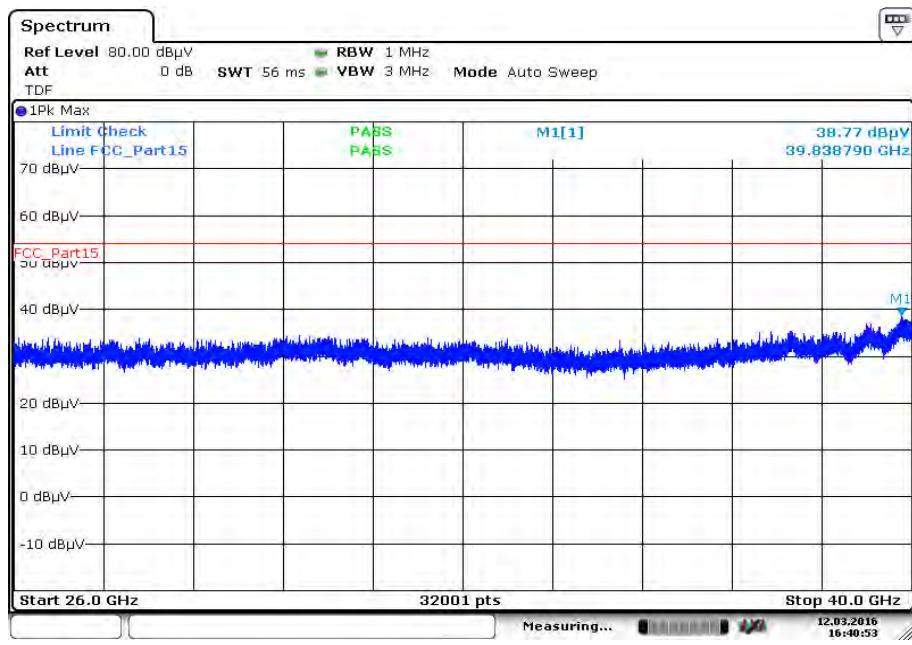


Final_Result

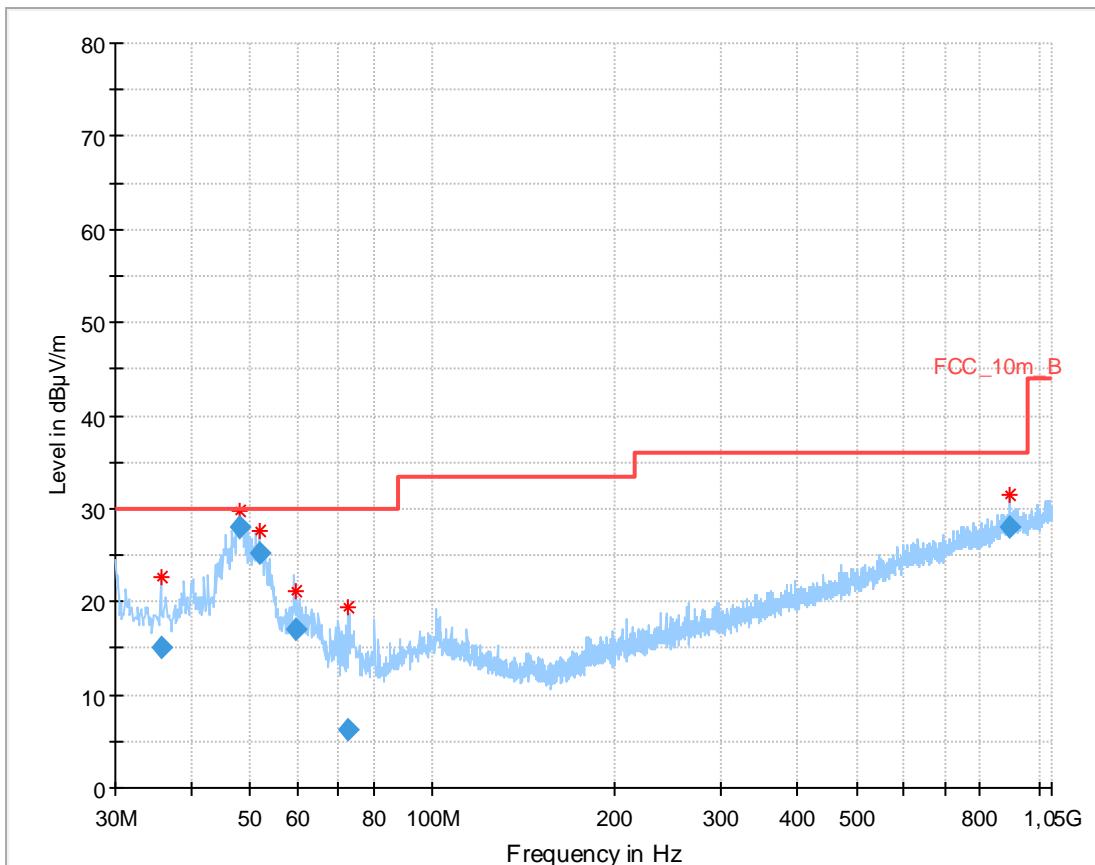
Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.224434	22.38	30.00	7.62	1000.0	120.000	101.0	V	28	13.4
47.840850	25.78	30.00	4.22	1000.0	120.000	170.0	V	166	13.2
50.514900	26.08	30.00	3.92	1000.0	120.000	98.0	V	353	12.6
54.149550	20.67	30.00	9.33	1000.0	120.000	170.0	V	158	12.0
61.756350	13.94	30.00	16.06	1000.0	120.000	170.0	V	288	10.2
894.893100	27.17	36.00	8.83	1000.0	120.000	98.0	V	28	24.0

Plot 8: 1 GHz to 12.75 GHz, 5230 MHz, vertical & horizontal polarization**Plot 9:** 4.5 GHz to 7 GHz, 5230 MHz, vertical & horizontal polarization

Plot 10: 12 GHz to 18 GHz, 5230 MHz, vertical & horizontal polarization**Plot 11:** 18 GHz to 26 GHz, 5230 MHz, vertical & horizontal polarization

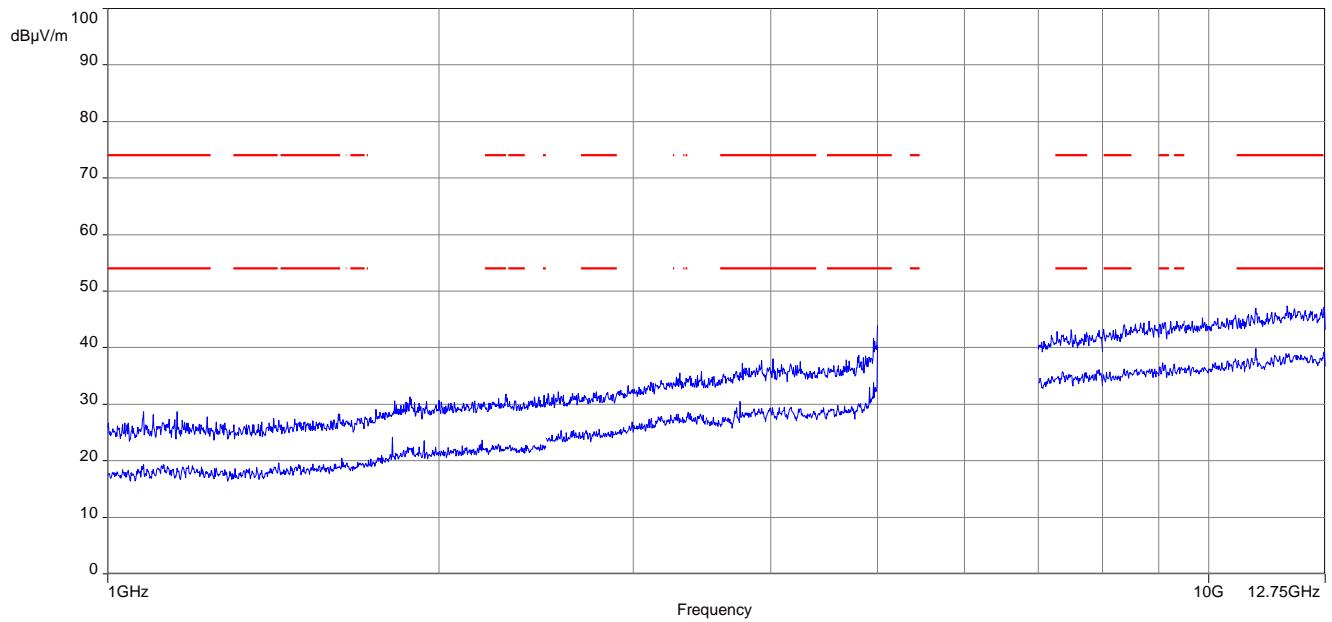
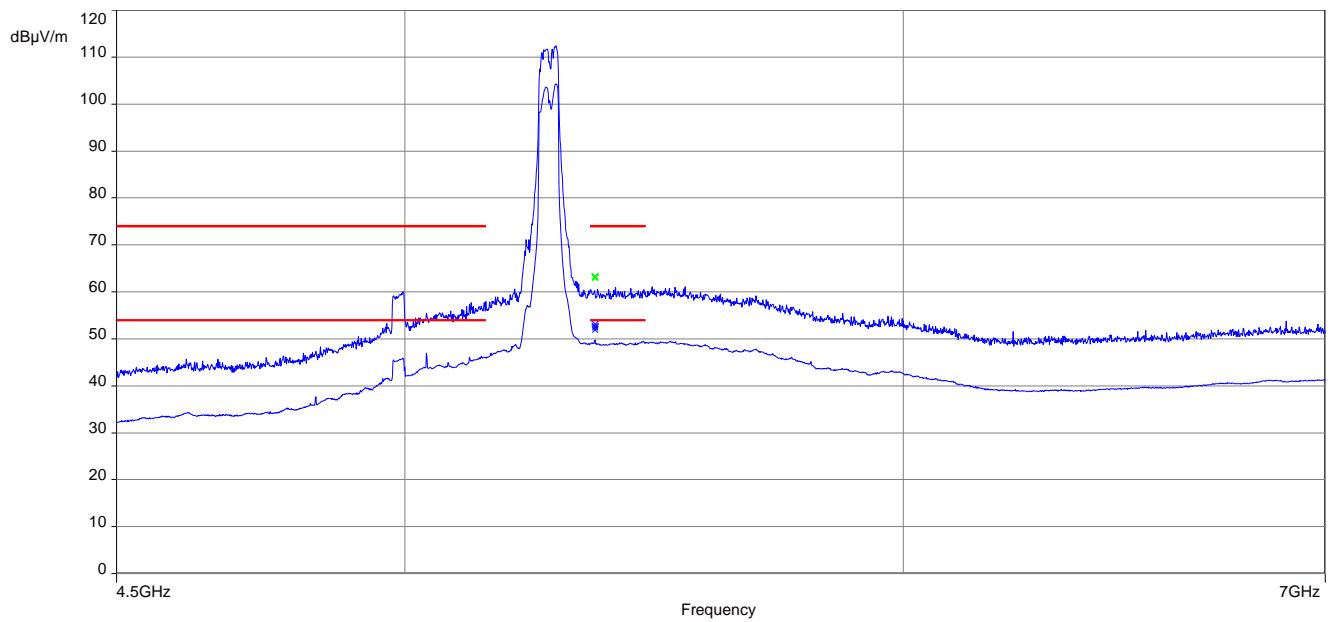
Plot 12: 26 GHz to 40 GHz, 5230 MHz, vertical & horizontal polarization

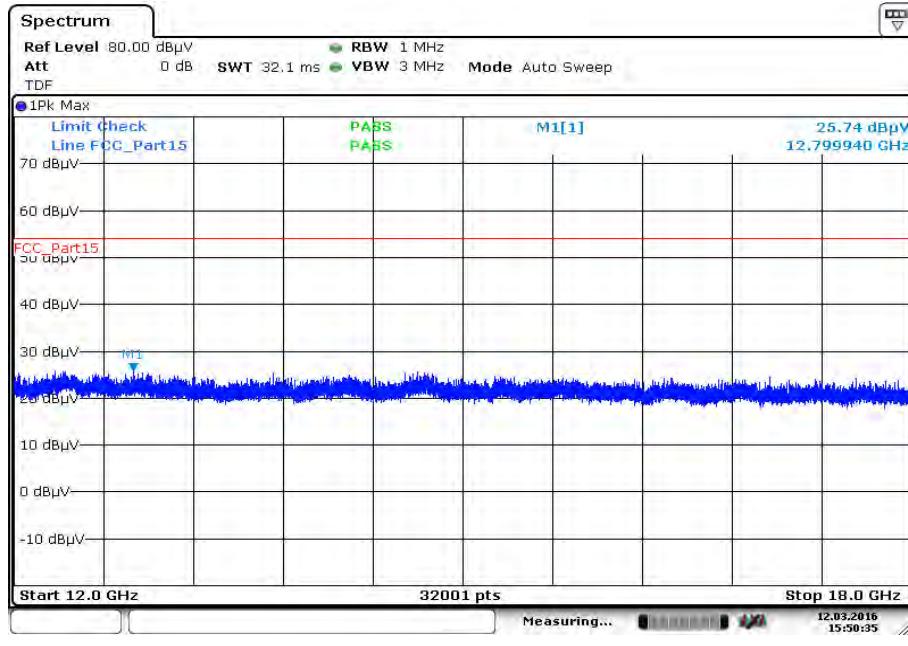
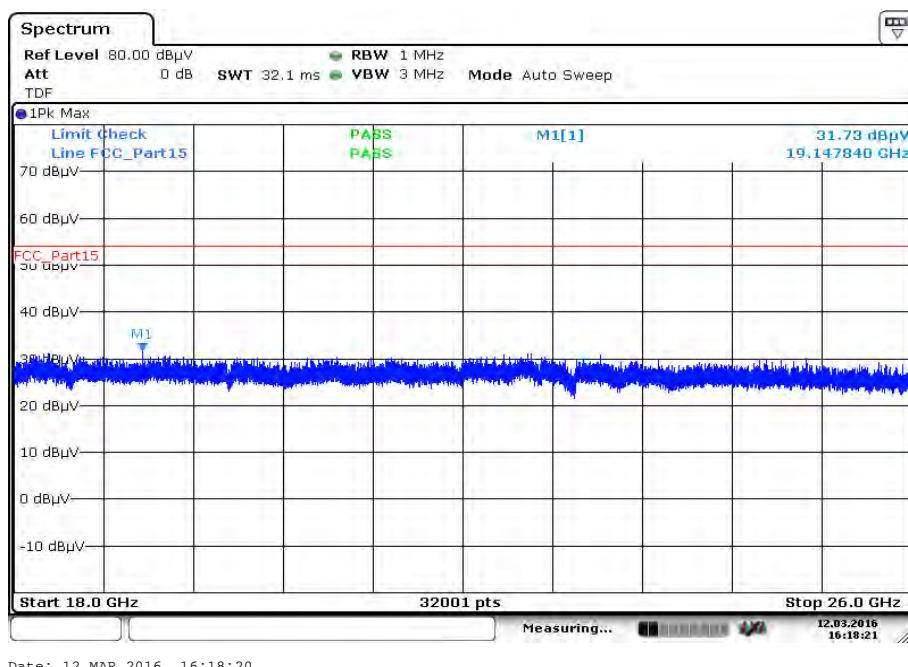
Plot 13: 30 MHz to 1 GHz, 5270 MHz, vertical & horizontal polarization

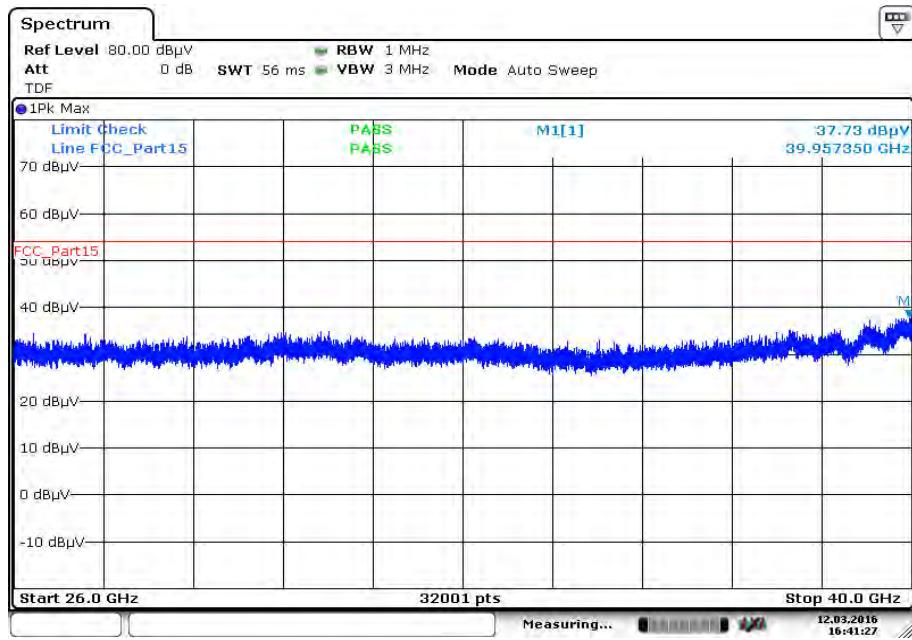


Final_Result

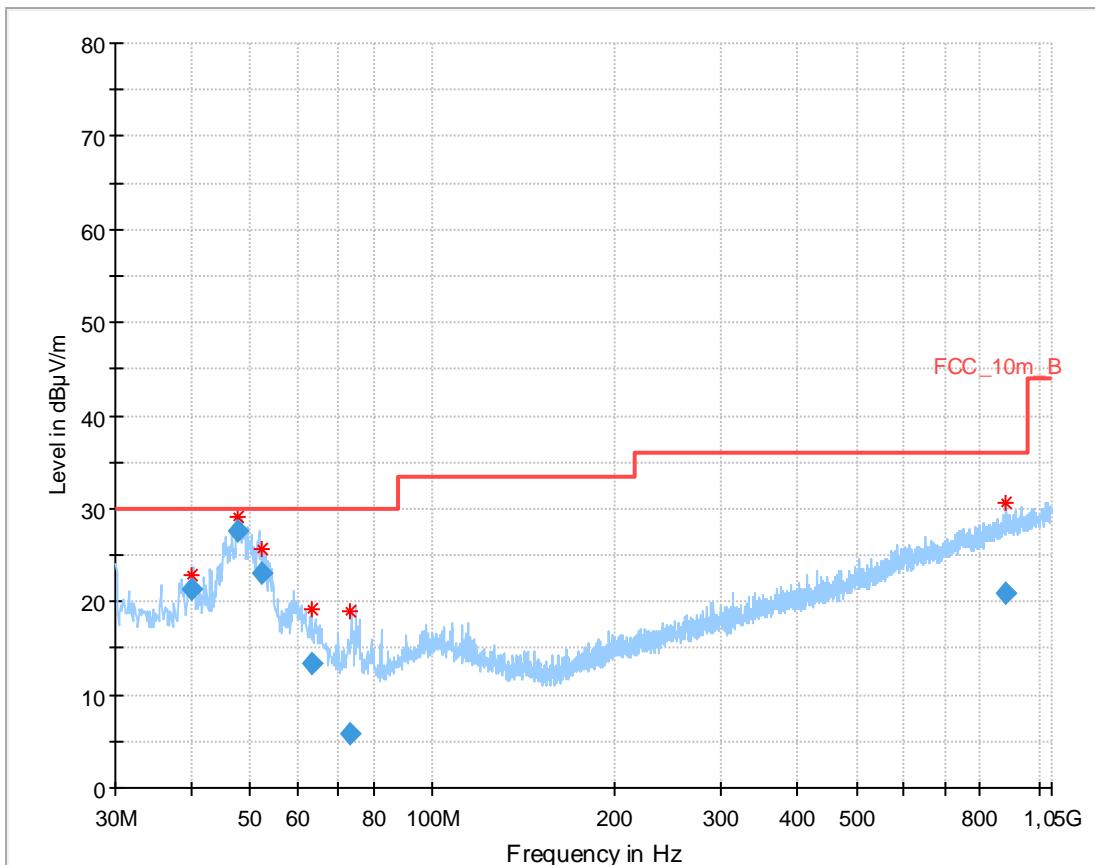
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
35.639250	15.15	30.00	14.85	1000.0	120.000	101.0	V	32	13.8
48.202200	28.08	30.00	1.92	1000.0	120.000	98.0	V	335	13.1
51.841950	25.15	30.00	4.85	1000.0	120.000	98.0	V	98	12.3
59.402400	17.10	30.00	12.90	1000.0	120.000	98.0	V	353	10.7
72.690750	6.27	30.00	23.73	1000.0	120.000	170.0	V	113	8.3
894.875100	28.08	36.00	7.92	1000.0	120.000	101.0	V	281	24.0

Plot 14: 1 GHz to 12.75 GHz, 5270 MHz, vertical & horizontal polarization**Plot 15:** 4.5 GHz to 7 GHz, 5270 MHz, vertical & horizontal polarization

Plot 16: 12 GHz to 18 GHz, 5270 MHz, vertical & horizontal polarization**Plot 17:** 18 GHz to 26 GHz, 5270 MHz, vertical & horizontal polarization

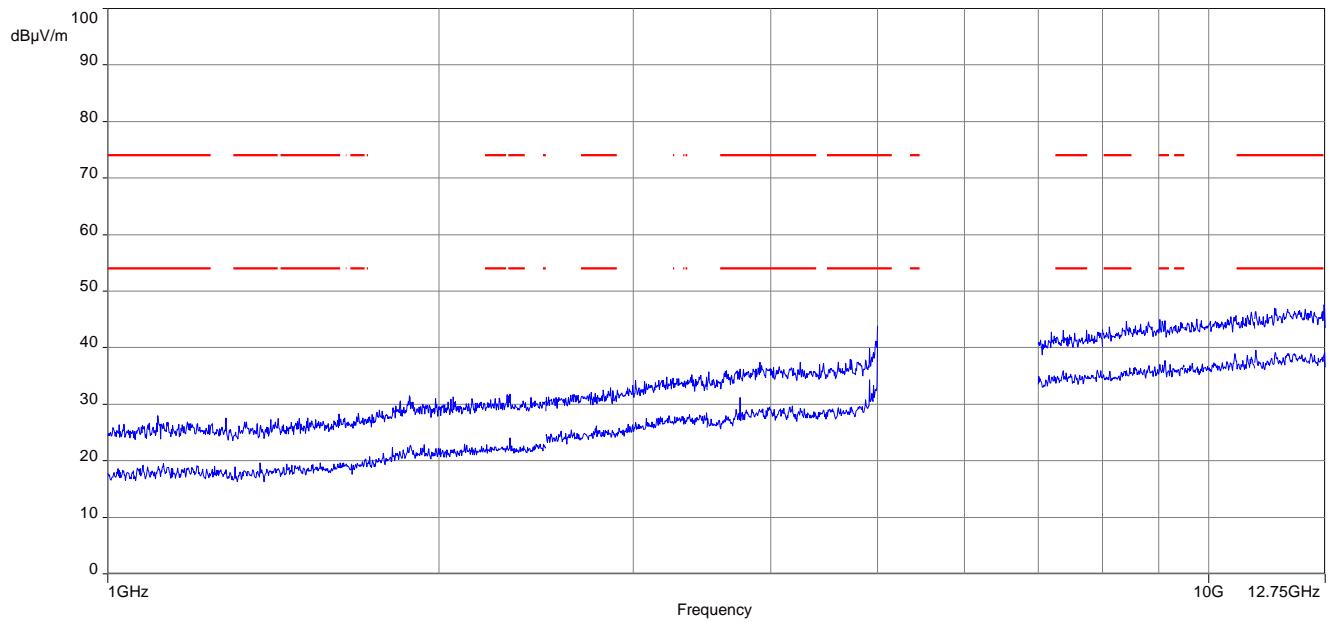
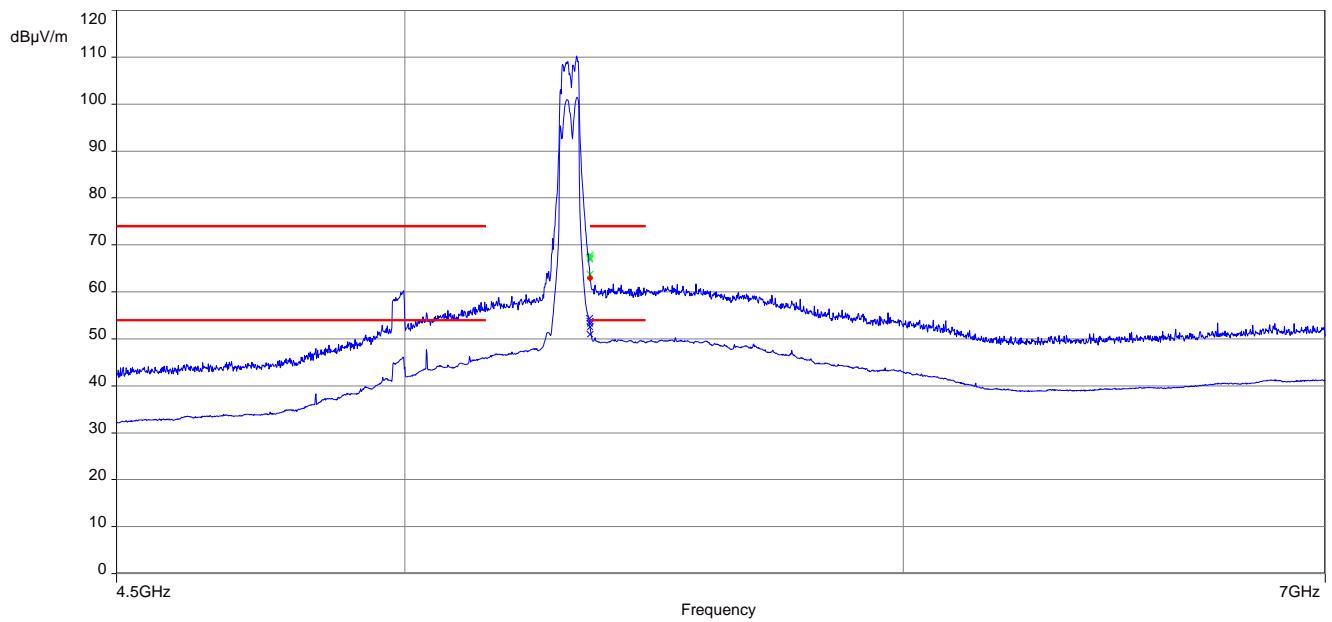
Plot 18: 26 GHz to 40 GHz, 5270 MHz, vertical & horizontal polarization

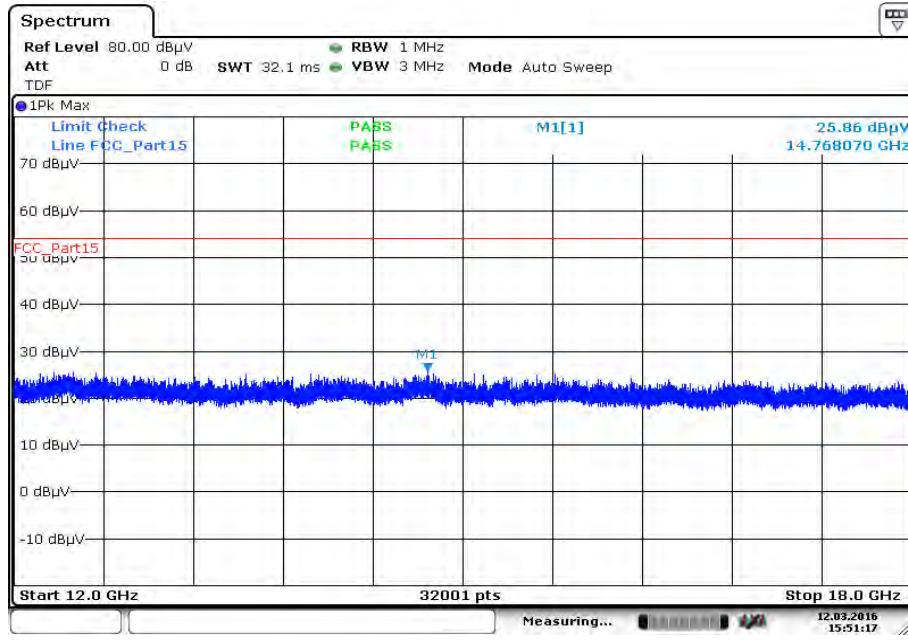
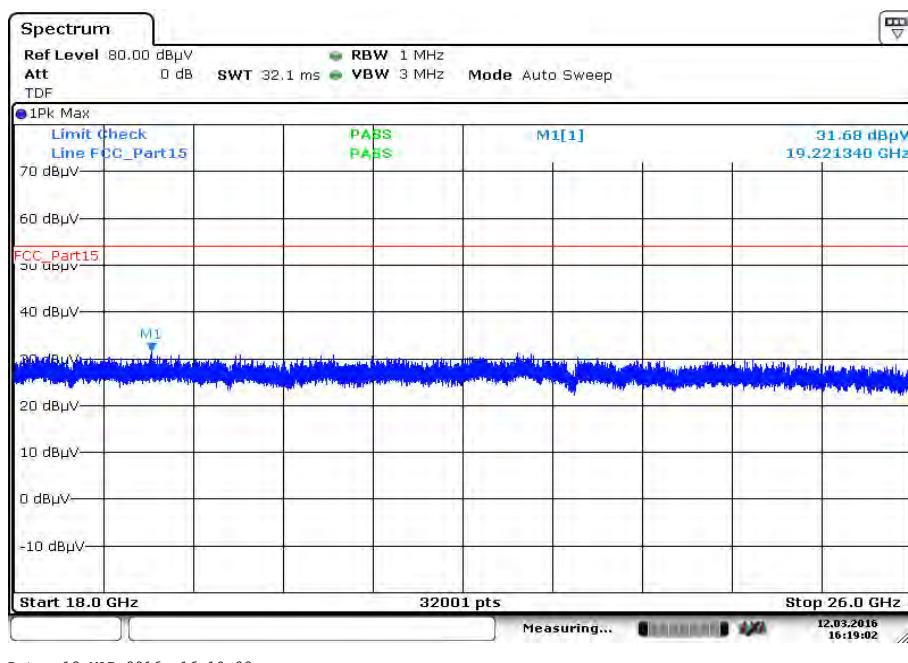
Plot 19: 30 MHz to 1 GHz, 5310 MHz, vertical & horizontal polarization

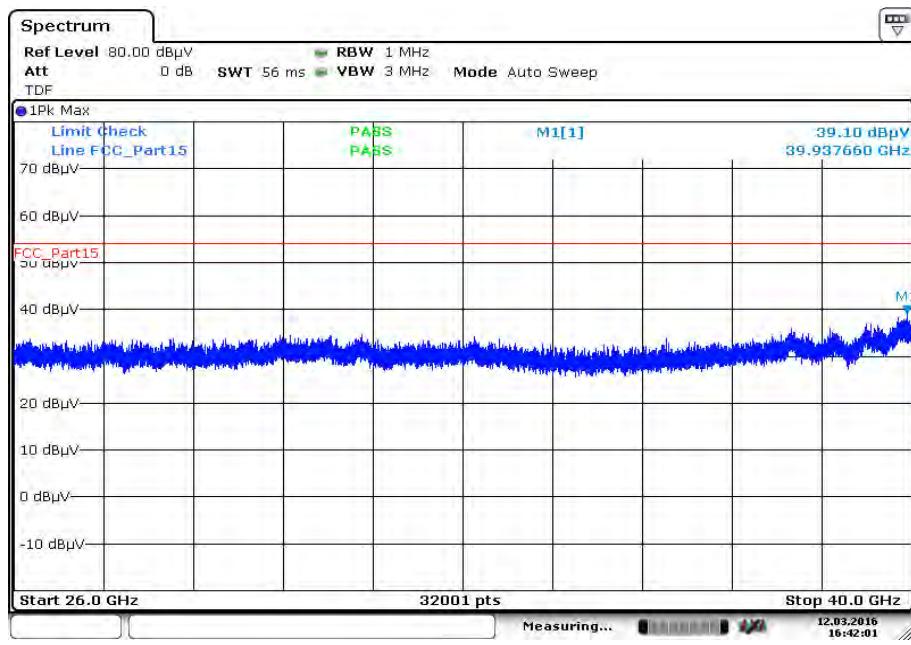


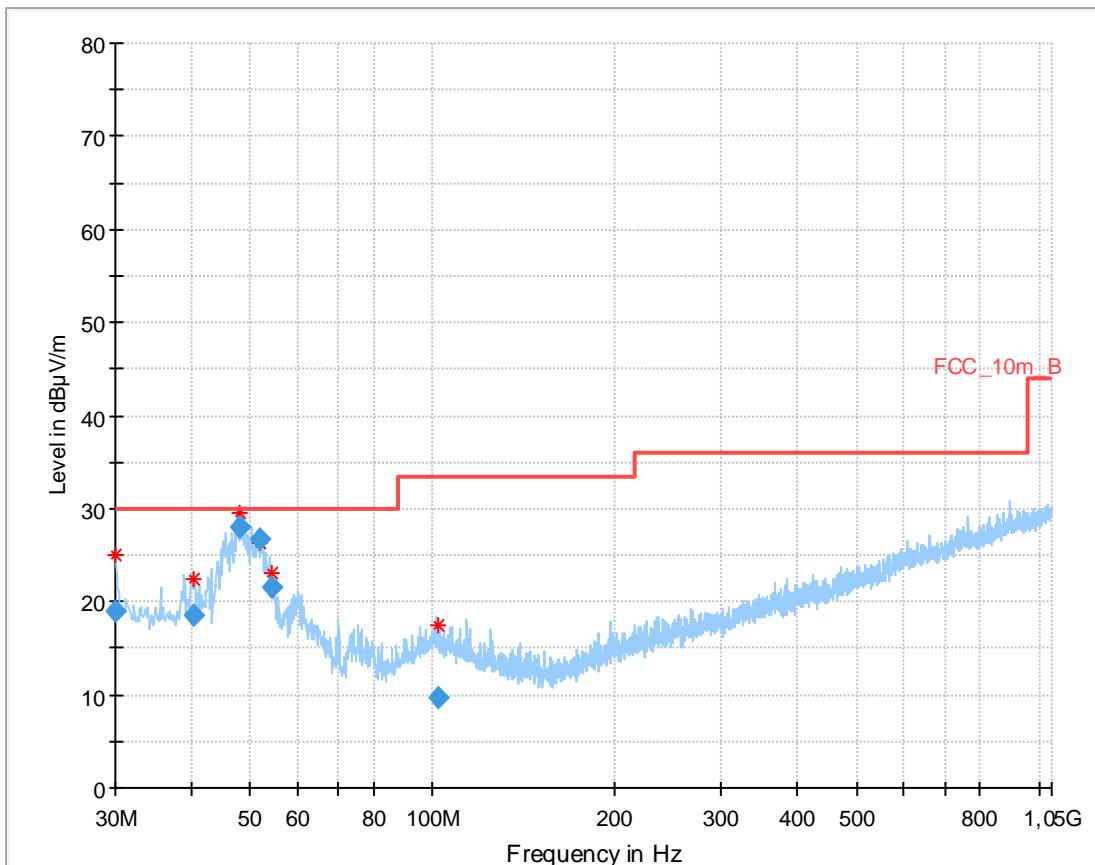
Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
40.024050	21.36	30.00	8.64	1000.0	120.000	98.0	V	10	14.0
47.834250	27.50	30.00	2.50	1000.0	120.000	98.0	V	353	13.2
52.223100	22.99	30.00	7.01	1000.0	120.000	98.0	V	353	12.3
63.074250	13.27	30.00	16.73	1000.0	120.000	170.0	V	235	9.9
73.140900	5.83	30.00	24.17	1000.0	120.000	170.0	V	195	8.3
884.570850	20.86	36.00	15.14	1000.0	120.000	101.0	V	333	23.9

Plot 20: 1 GHz to 12.75 GHz, 5310 MHz, vertical & horizontal polarization**Plot 21:** 4.5 GHz to 7 GHz, 5310 MHz, vertical & horizontal polarization

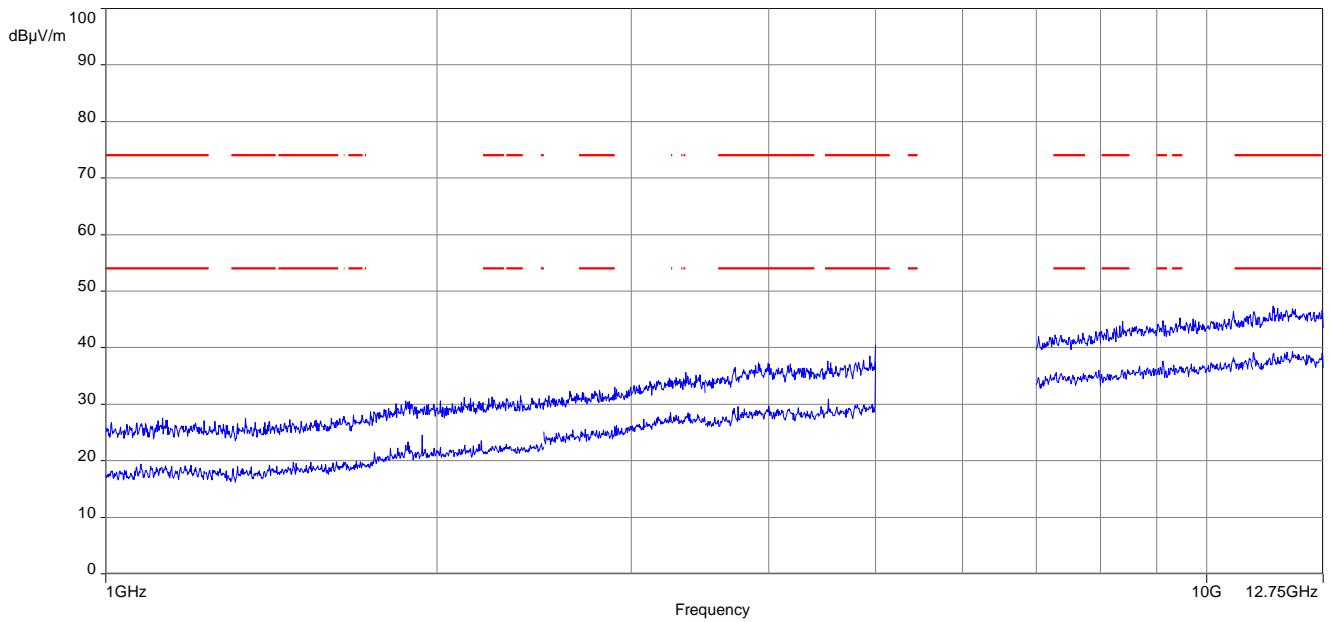
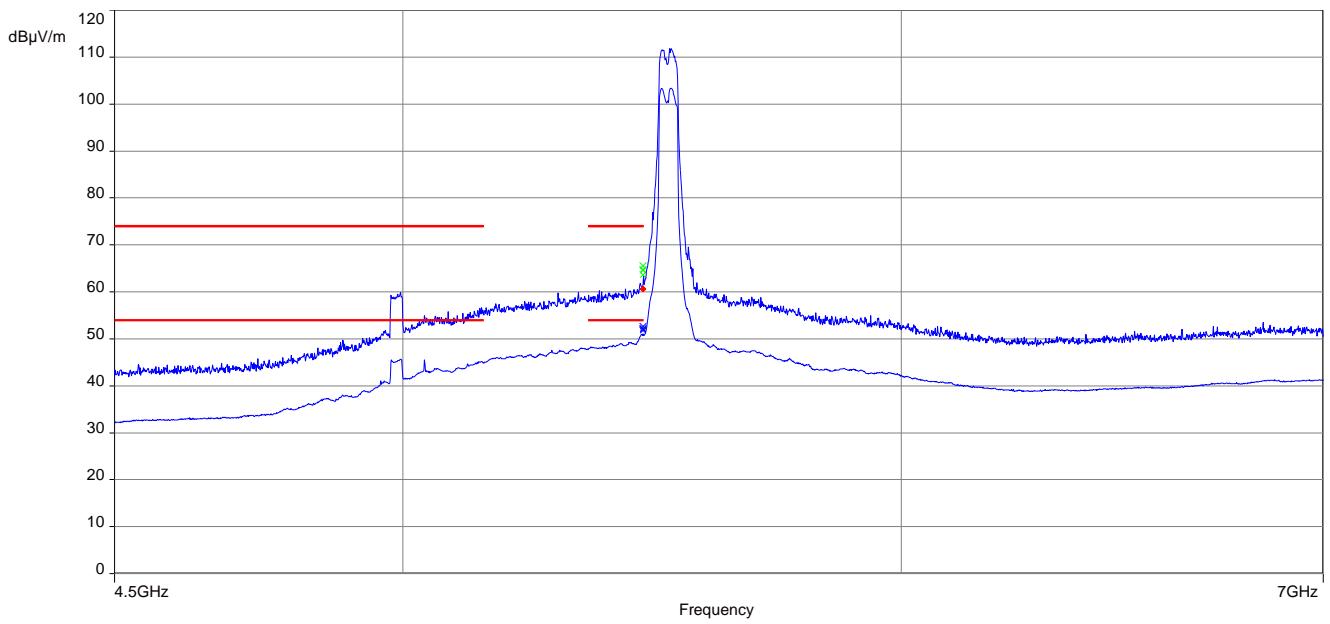
Plot 22: 12 GHz to 18 GHz, 5310 MHz, vertical & horizontal polarization**Plot 23:** 18 GHz to 26 GHz, 5310 MHz, vertical & horizontal polarization

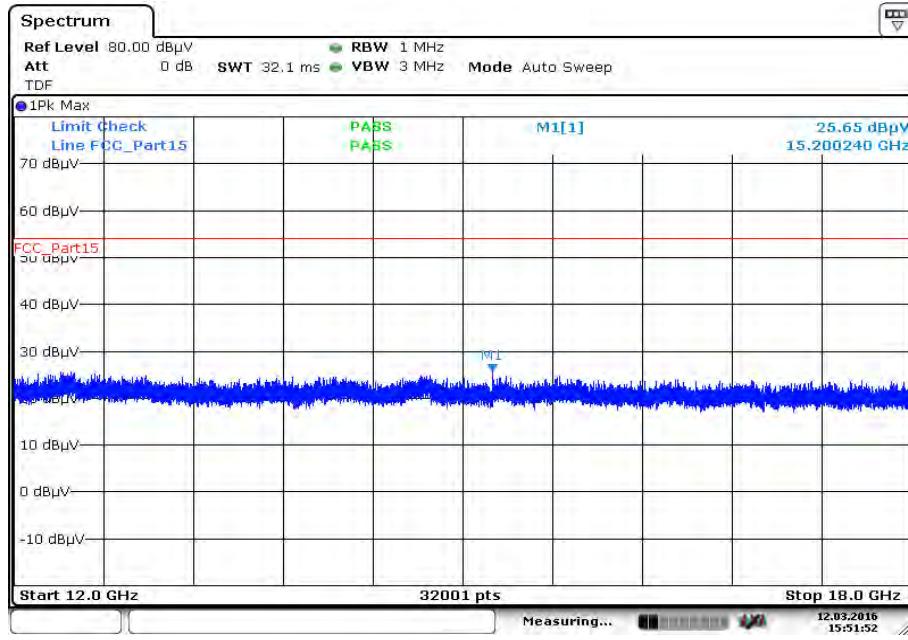
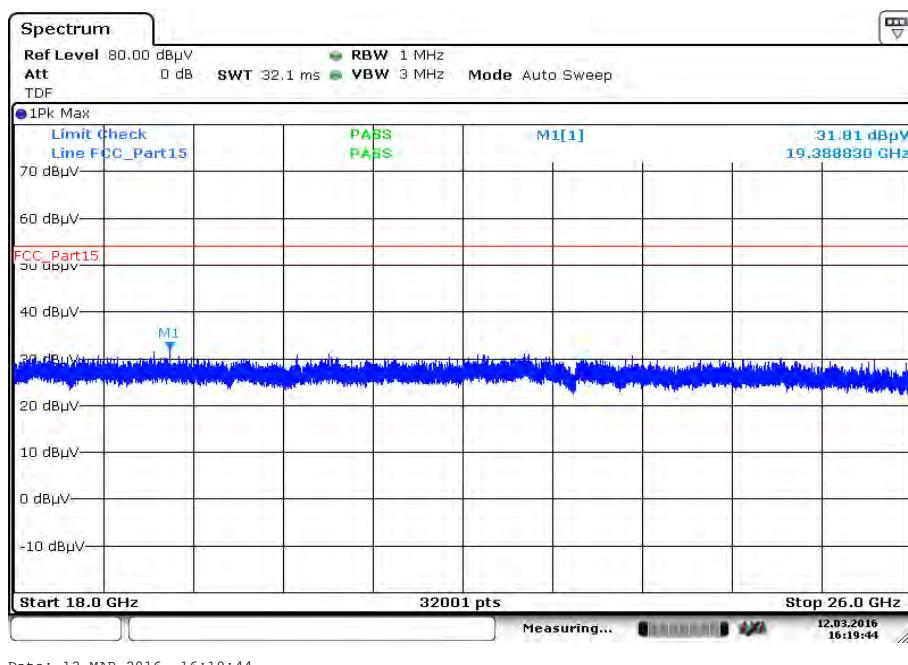
Plot 24: 26 GHz to 40 GHz, 5310 MHz, vertical & horizontal polarization

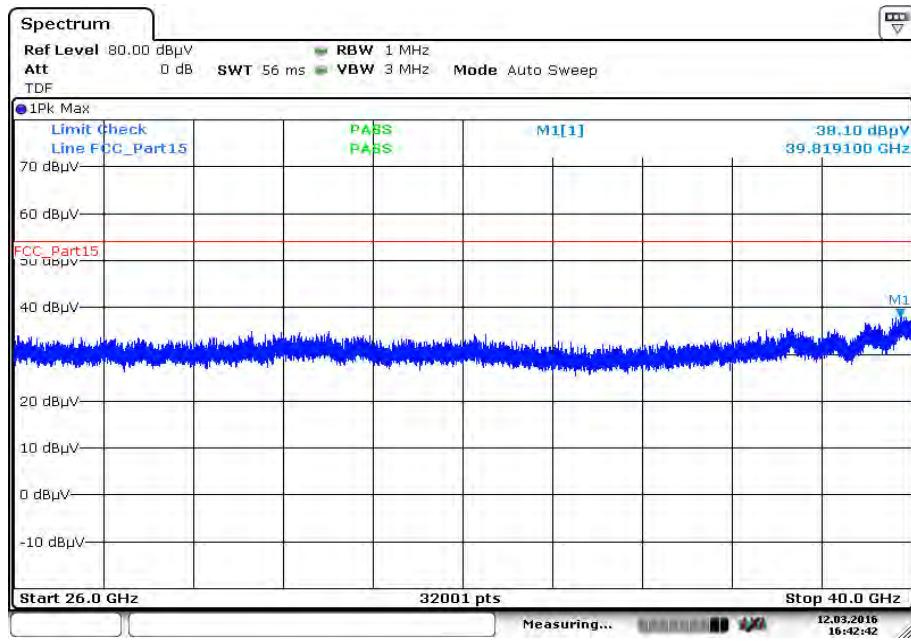
Plot 25: 30 MHz to 1 GHz, 5510 MHz, vertical & horizontal polarization

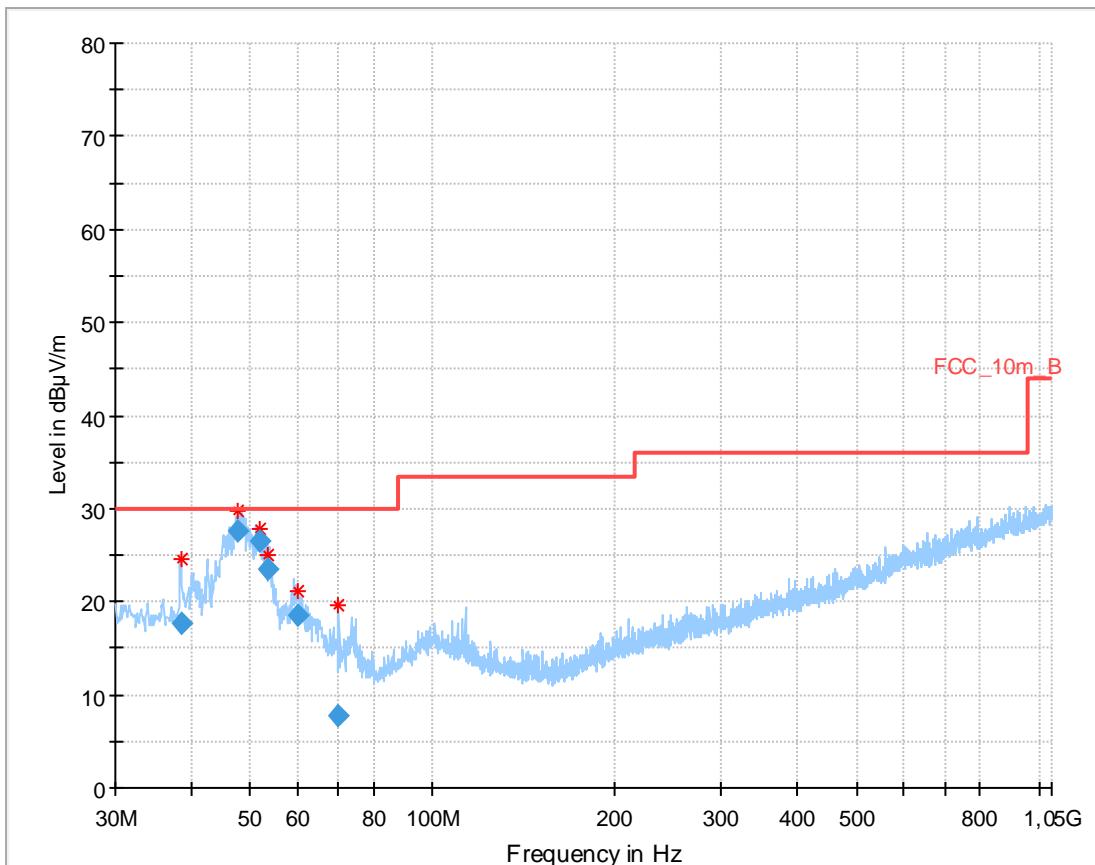
Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.033600	18.88	30.00	11.12	1000.0	120.000	101.0	V	70	13.3
40.310100	18.63	30.00	11.37	1000.0	120.000	101.0	V	208	14.0
48.199350	28.02	30.00	1.98	1000.0	120.000	98.0	V	353	13.1
51.837000	26.72	30.00	3.28	1000.0	120.000	98.0	V	340	12.3
54.177750	21.49	30.00	8.51	1000.0	120.000	101.0	V	353	12.0
102.471600	9.77	33.50	23.73	1000.0	120.000	101.0	V	133	11.9

Plot 26: 1 GHz to 12.75 GHz, 5510 MHz, vertical & horizontal polarization**Plot 27:** 4.5 GHz to 7 GHz, 5510 MHz, vertical & horizontal polarization

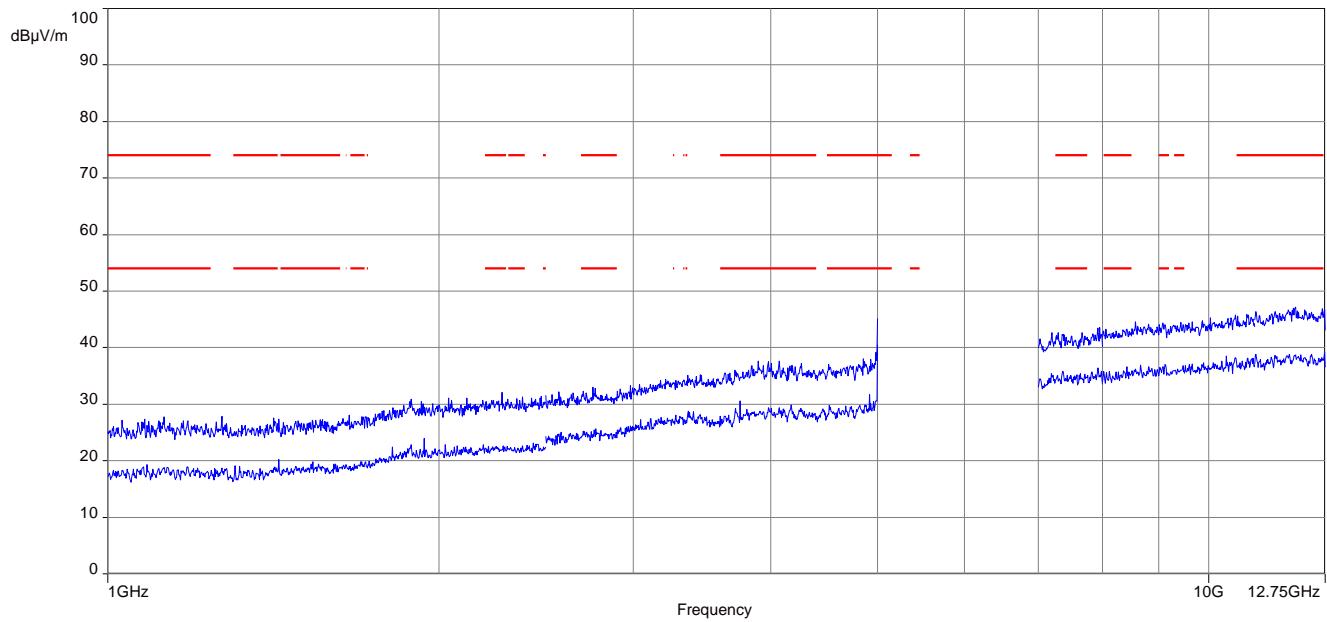
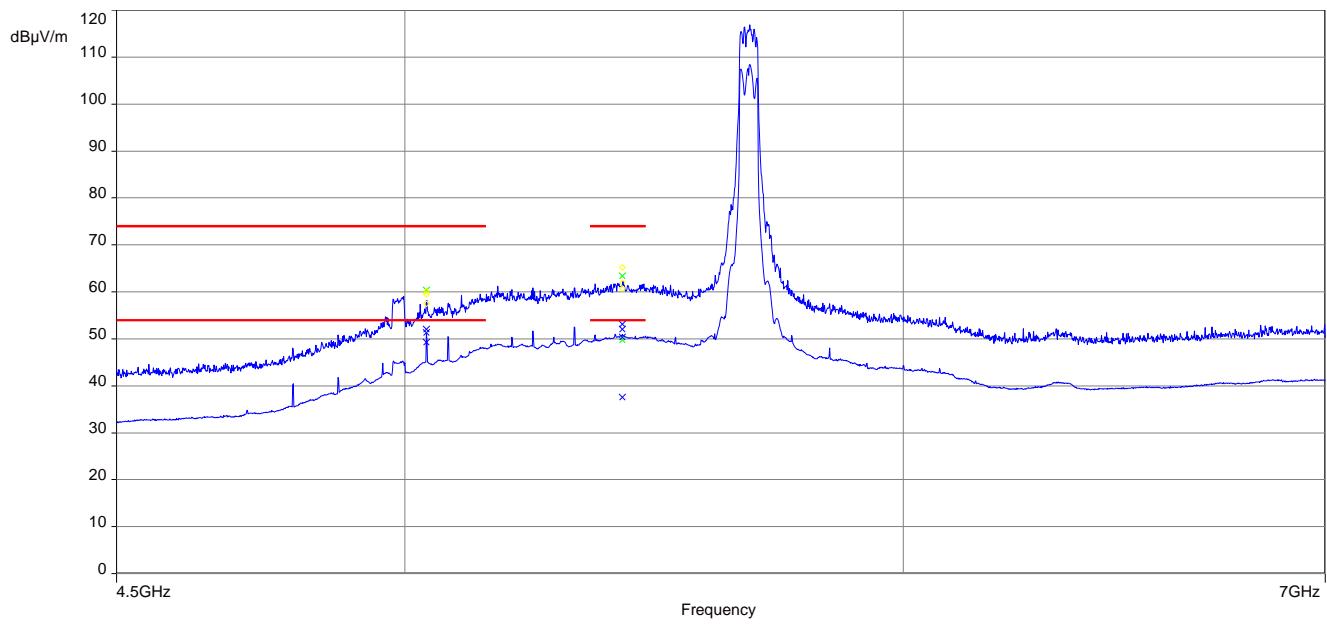
Plot 28: 12 GHz to 18 GHz, 5510 MHz, vertical & horizontal polarization**Plot 29:** 18 GHz to 26 GHz, 5510 MHz, vertical & horizontal polarization

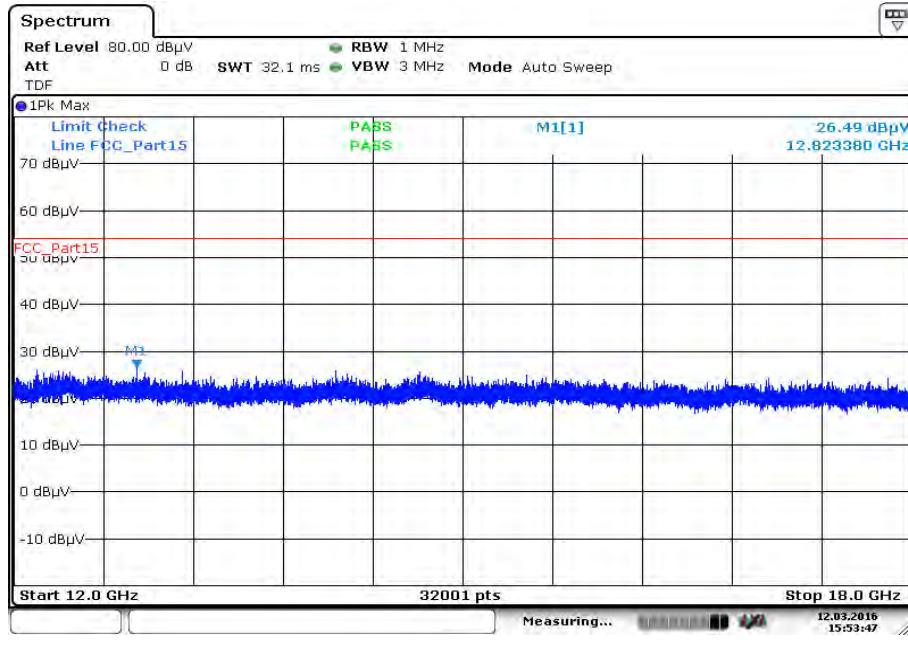
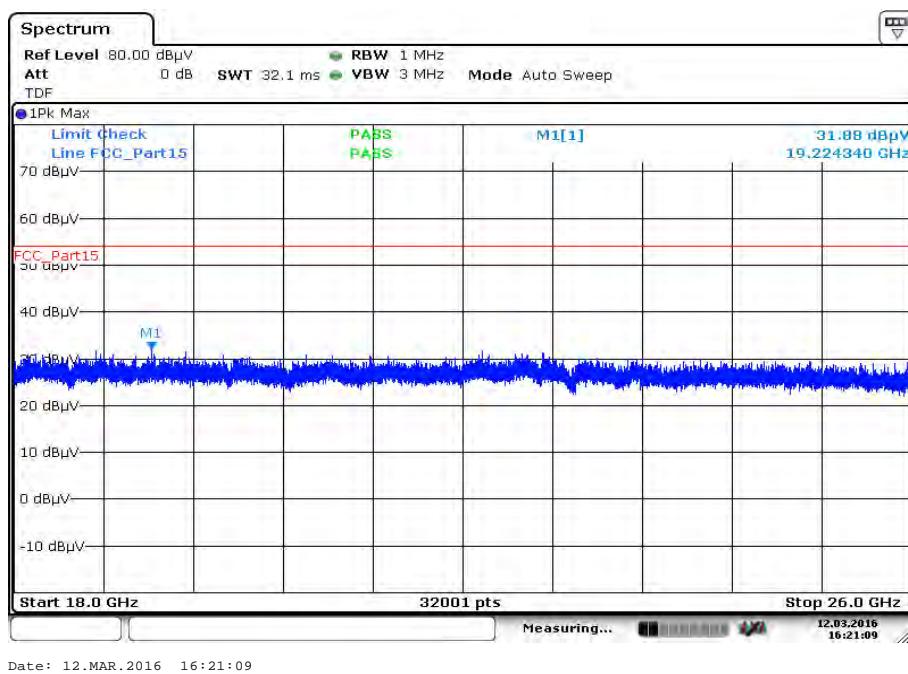
Plot 30: 26 GHz to 40 GHz, 5510 MHz, vertical & horizontal polarization

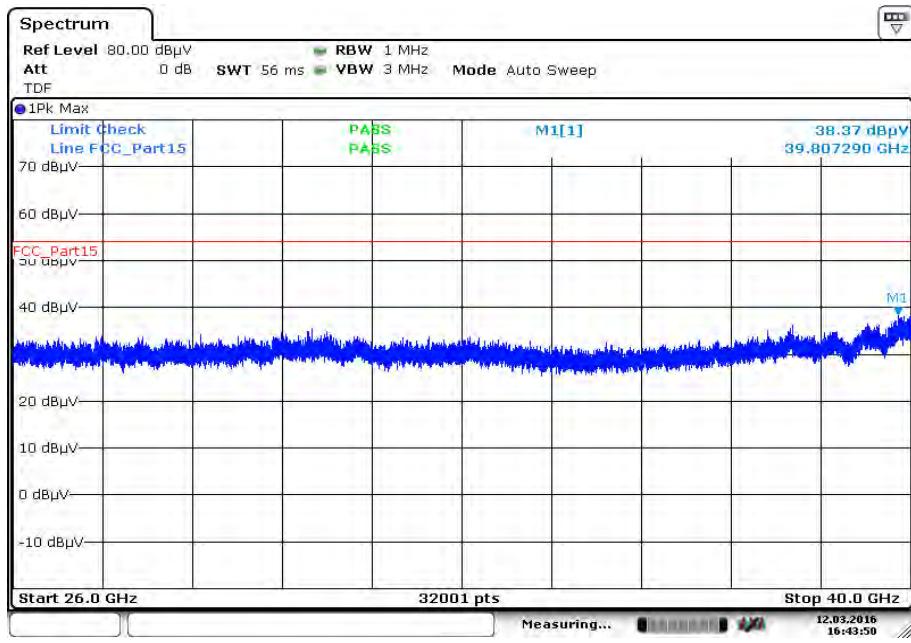
Plot 31: 30 MHz to 1 GHz, 5670 MHz, vertical & horizontal polarization

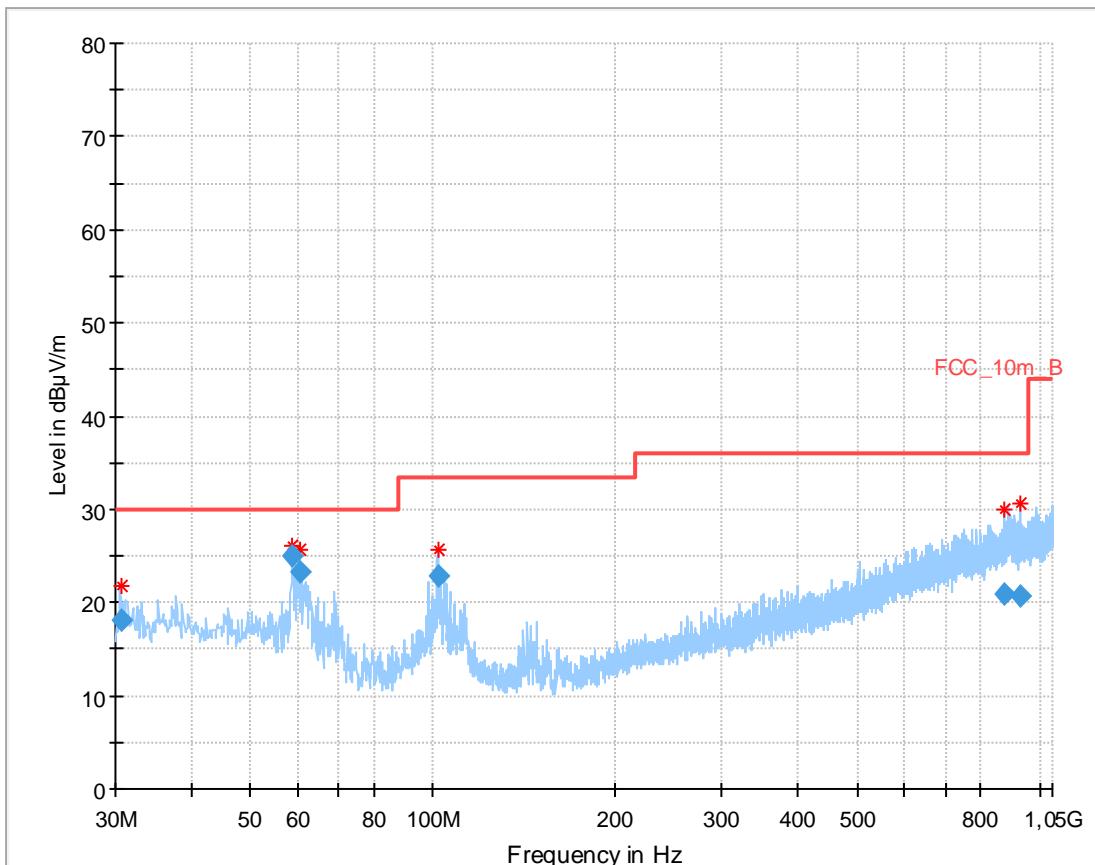
Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
38.472300	17.64	30.00	12.36	1000.0	120.000	98.0	V	292	14.0
47.870850	27.67	30.00	2.33	1000.0	120.000	170.0	V	240	13.1
51.842700	26.44	30.00	3.56	1000.0	120.000	98.0	V	247	12.3
53.496450	23.48	30.00	6.52	1000.0	120.000	98.0	V	174	12.1
59.768850	18.61	30.00	11.39	1000.0	120.000	101.0	V	284	10.6
69.820350	7.70	30.00	22.30	1000.0	120.000	170.0	V	95	8.5

Plot 32: 1 GHz to 12.75 GHz, 5670 MHz, vertical & horizontal polarization**Plot 33:** 4.5 GHz to 7 GHz, 5670 MHz, vertical & horizontal polarization

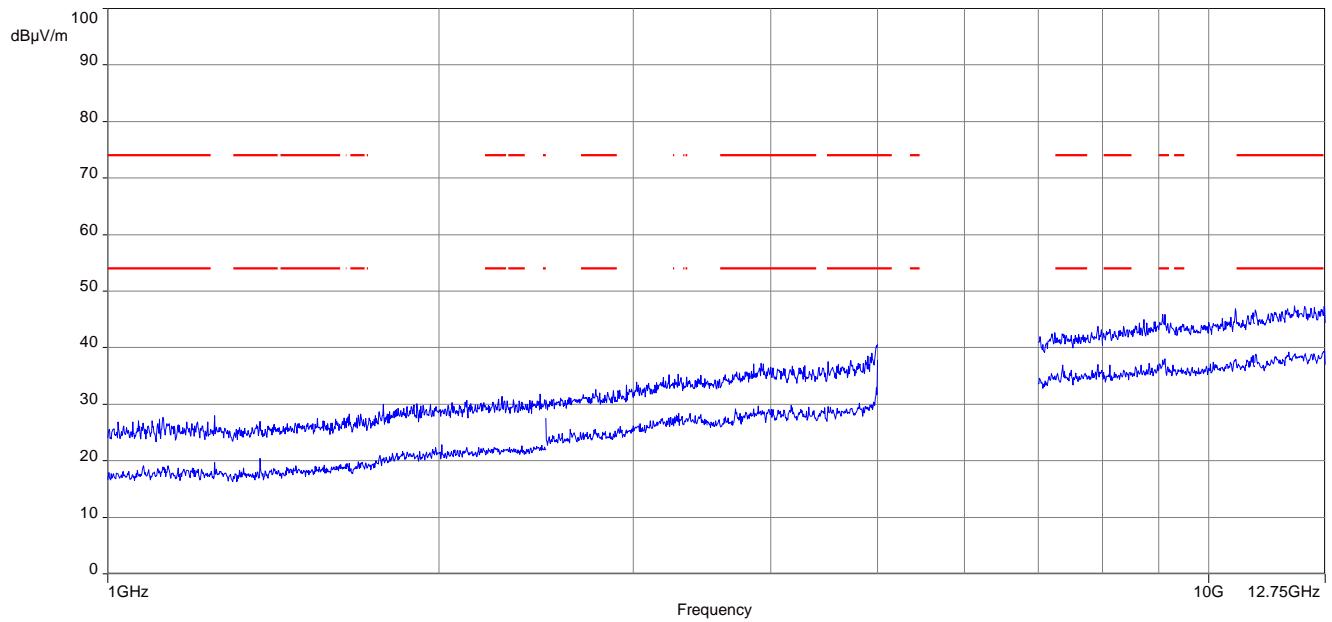
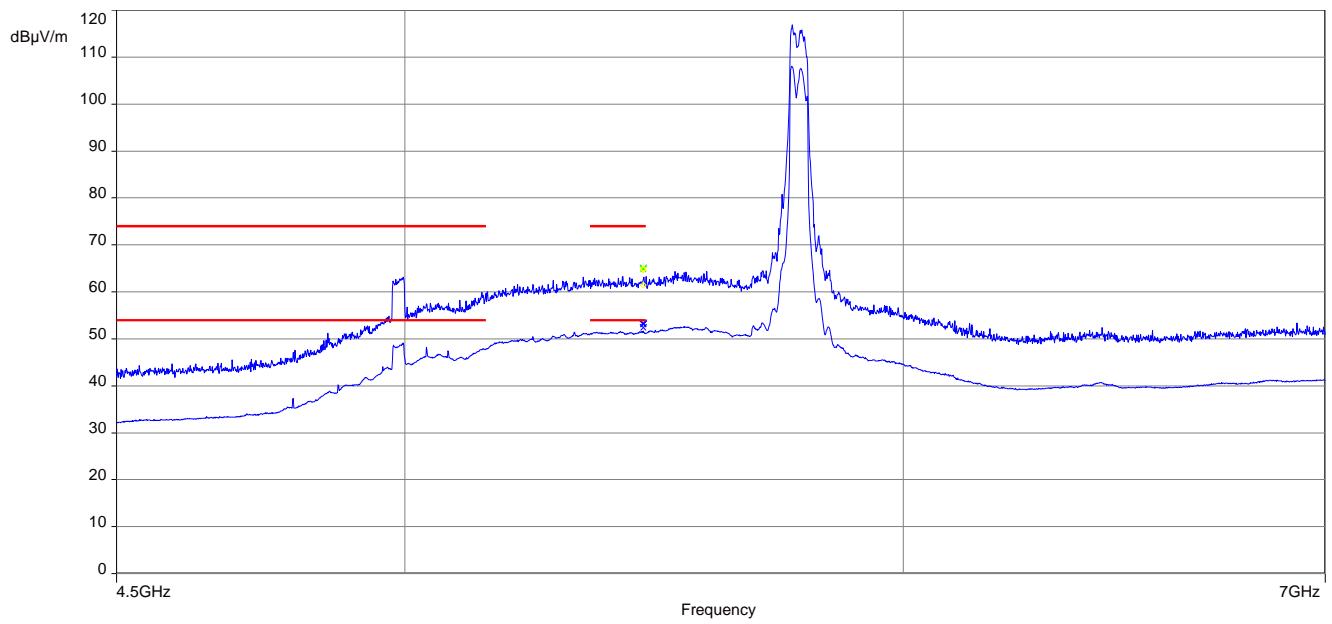
Plot 34: 12 GHz to 18 GHz, 5670 MHz, vertical & horizontal polarization**Plot 35:** 18 GHz to 26 GHz, 5670 MHz, vertical & horizontal polarization

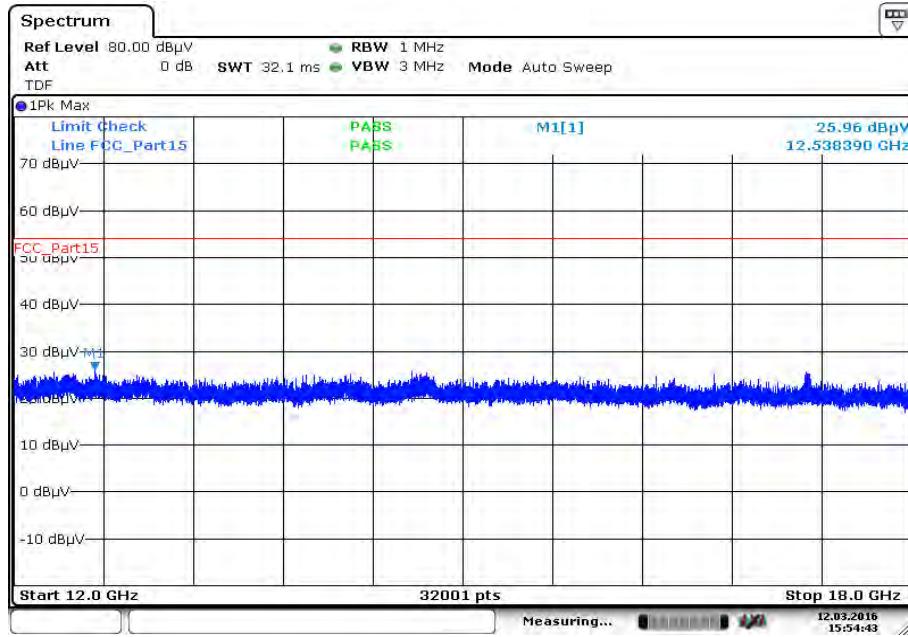
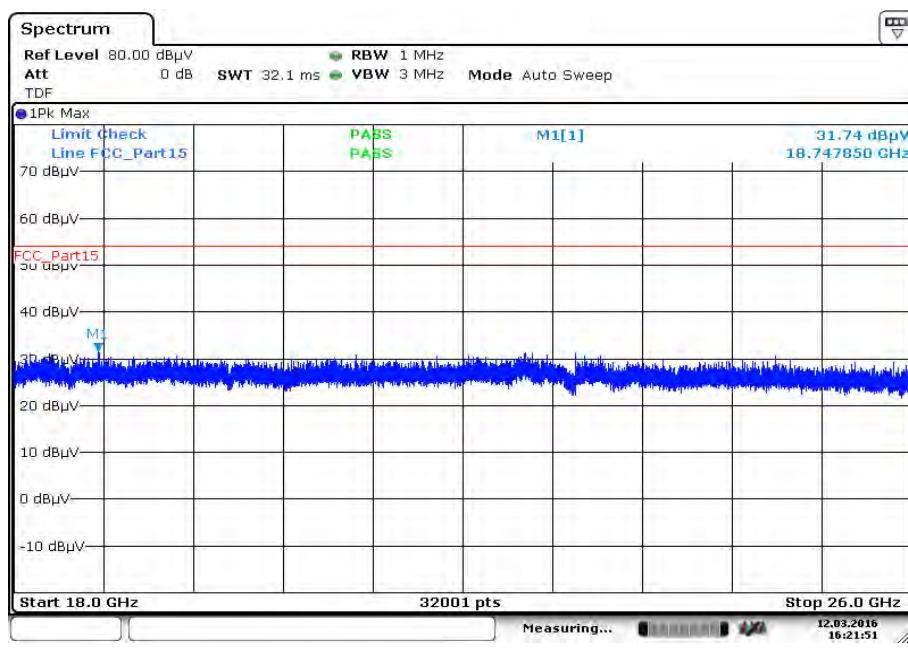
Plot 36: 26 GHz to 40 GHz, 5670 MHz, vertical & horizontal polarization

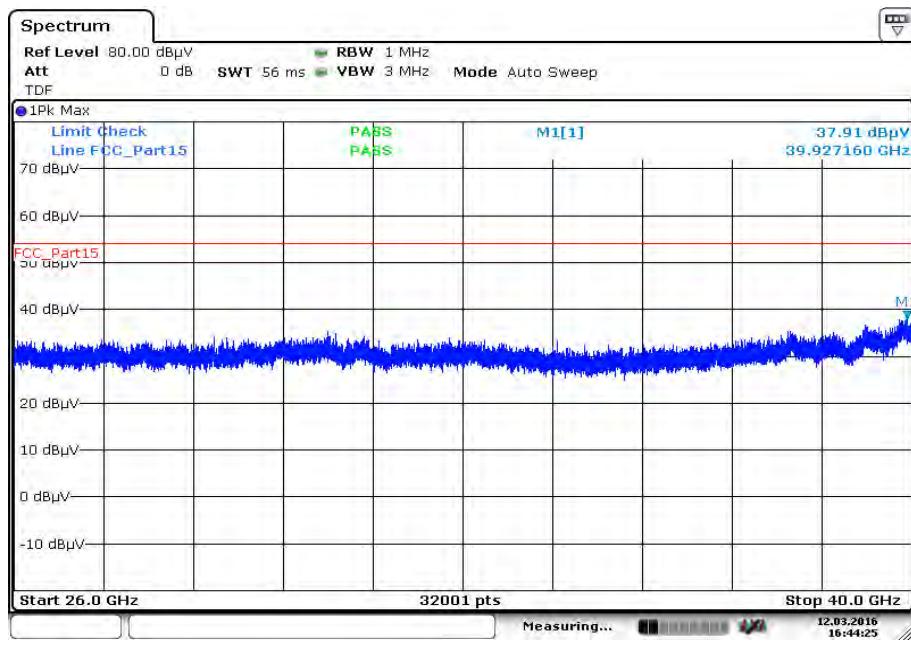
Plot 37: 30 MHz to 1 GHz, 5755 MHz, vertical & horizontal polarization

Final_Result

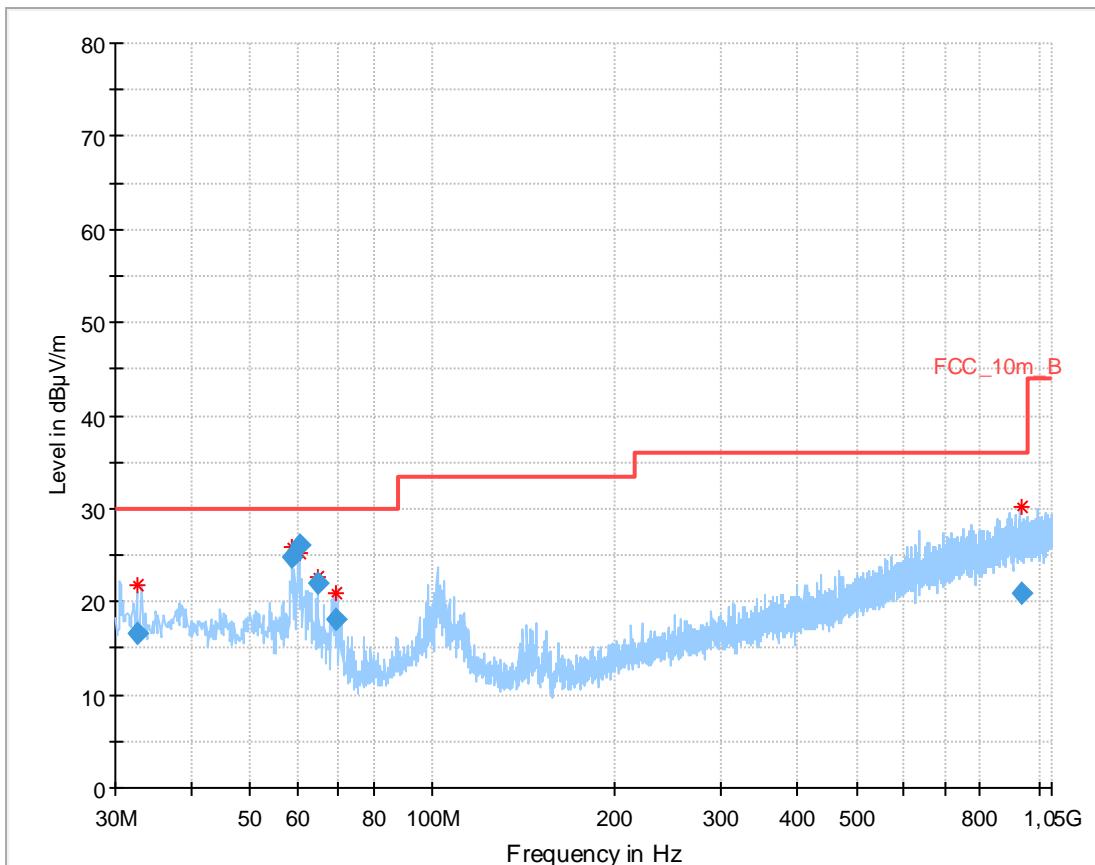
Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.635614	18.19	30.00	11.81	1000.0	120.000	101.0	V	190.0	13.4
58.703400	25.07	30.00	4.93	1000.0	120.000	170.0	V	81.0	10.9
60.235950	23.28	30.00	6.72	1000.0	120.000	98.0	V	190.0	10.5
101.879550	22.90	33.50	10.60	1000.0	120.000	101.0	V	171.0	12.0
877.314300	20.86	36.00	15.14	1000.0	120.000	170.0	V	-9.0	23.8
929.219700	20.78	36.00	15.22	1000.0	120.000	101.0	H	260.0	24.2

Plot 38: 1 GHz to 12.75 GHz, 5755 MHz, vertical & horizontal polarization**Plot 39:** 4.5 GHz to 7 GHz, 5755 MHz, vertical & horizontal polarization

Plot 40: 12 GHz to 18 GHz, 5755 MHz, vertical & horizontal polarization**Plot 41:** 18 GHz to 26 GHz, 5755 MHz, vertical & horizontal polarization

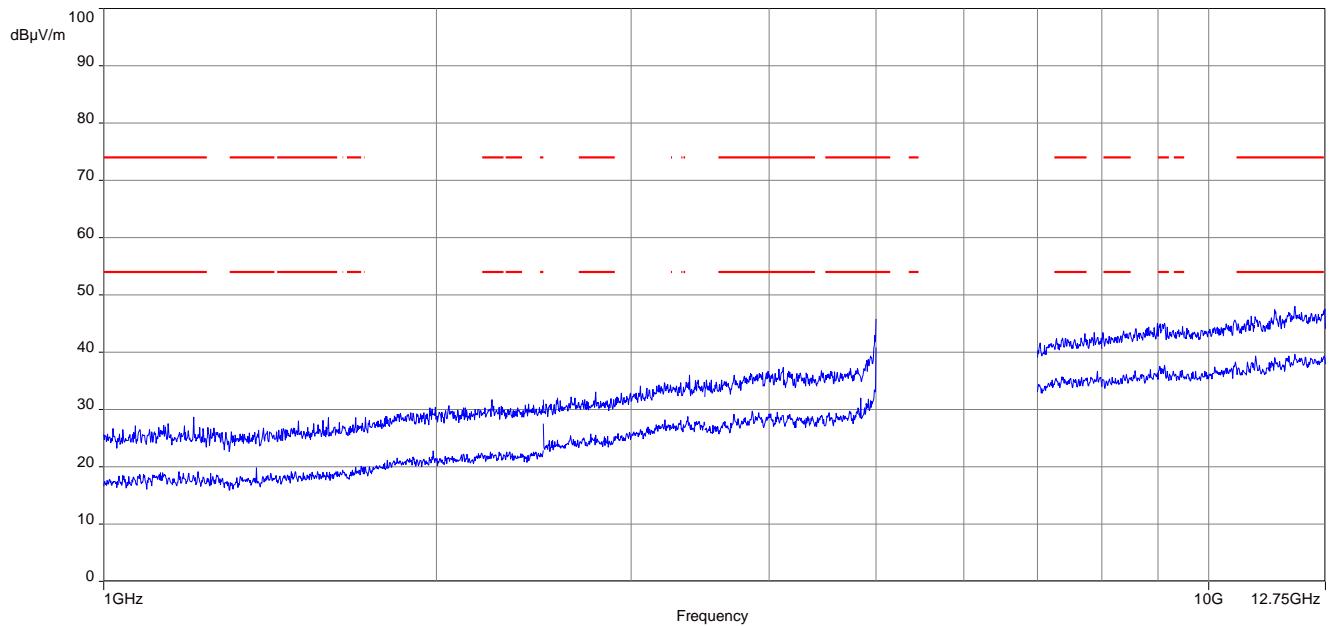
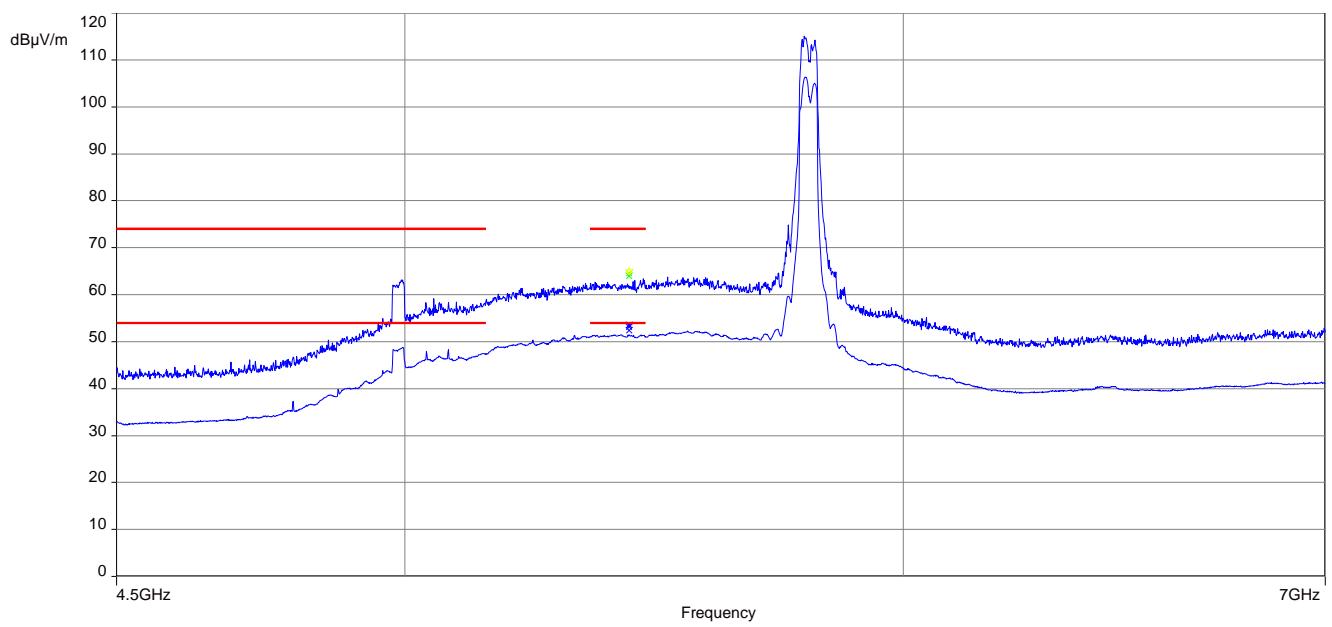
Plot 42: 26 GHz to 40 GHz, 5755 MHz, vertical & horizontal polarization

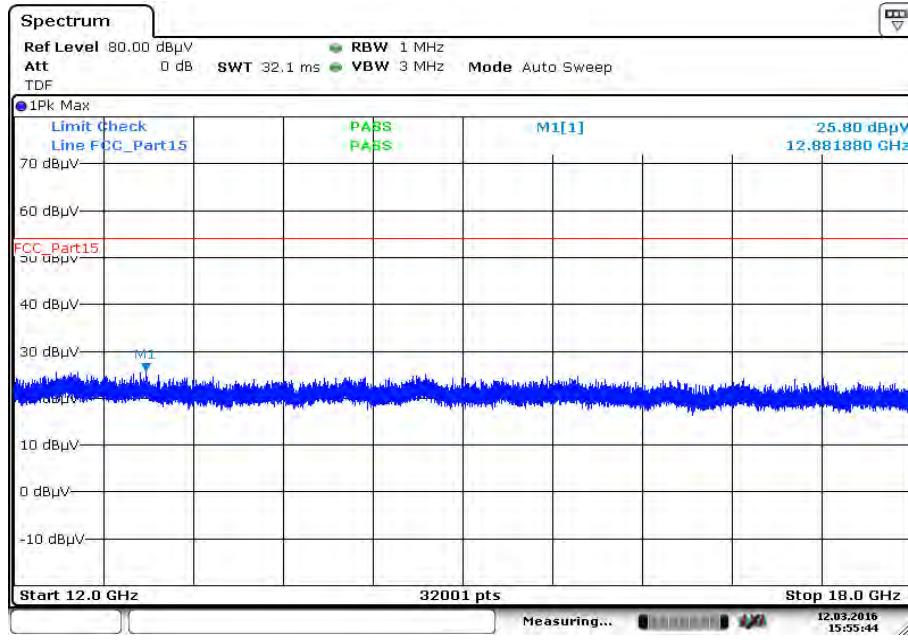
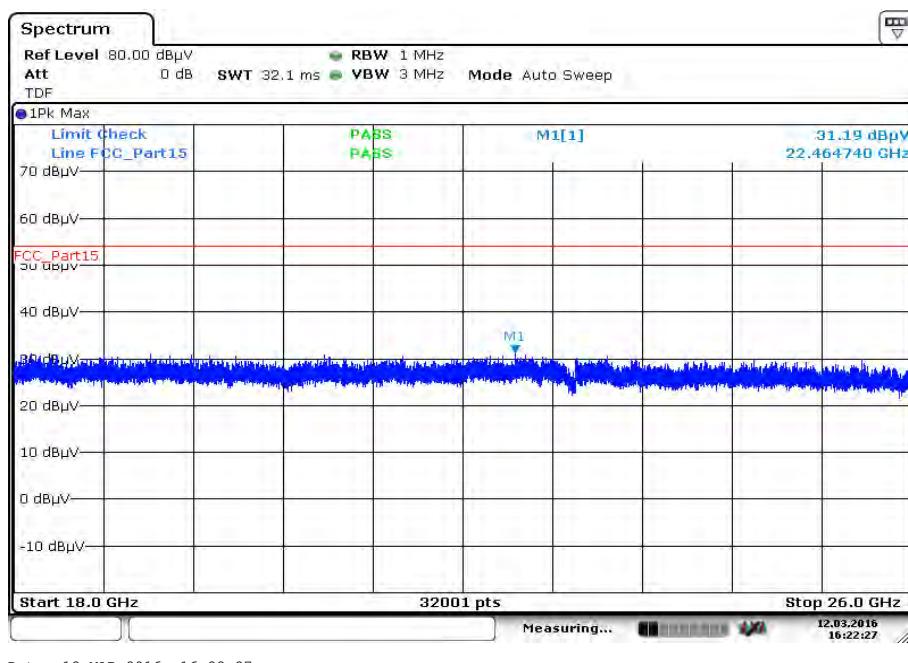
Plot 43: 30 MHz to 1 GHz, 5795 MHz, vertical & horizontal polarization

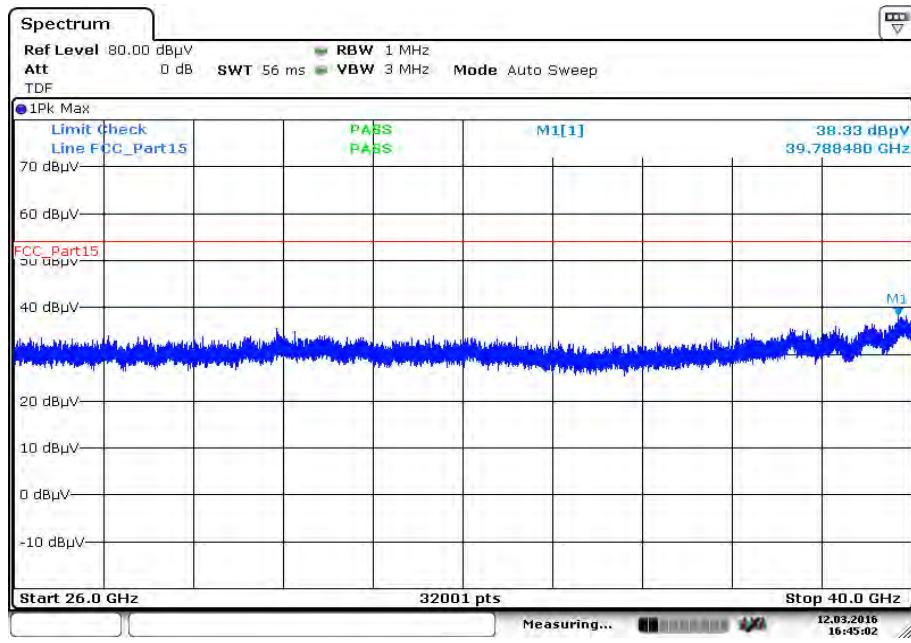


Final_Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
32.610750	16.55	30.00	13.45	1000.0	120.000	170.0	V	170.0	13.6
58.720950	24.89	30.00	5.11	1000.0	120.000	98.0	V	80.0	10.9
60.230700	26.11	30.00	3.89	1000.0	120.000	98.0	V	280.0	10.5
64.772250	22.07	30.00	7.93	1000.0	120.000	98.0	V	280.0	9.5
69.113400	18.22	30.00	11.78	1000.0	120.000	101.0	V	280.0	8.6
933.164100	20.88	36.00	15.12	1000.0	120.000	170.0	V	190.0	24.2

Plot 44: 1 GHz to 12.75 GHz, 5795 MHz, vertical & horizontal polarization**Plot 45:** 4.5 GHz to 7 GHz, 5795 MHz, vertical & horizontal polarization

Plot 46: 12 GHz to 18 GHz, 5795 MHz, vertical & horizontal polarization**Plot 47:** 18 GHz to 26 GHz, 5795 MHz, vertical & horizontal polarization

Plot 48: 26 GHz to 40 GHz, 5795 MHz, vertical & horizontal polarization

12.11 Spurious emissions radiated < 30 MHz

Description:

Measurement of the radiated spurious emissions in transmit mode and receive mode below 30 MHz. The EUT is set first to middle channel. This measurement is representative for all channels and modes. If critical peaks are found the lowest channel and the highest channel will be measured too. Then the EUT is set to receive or idle mode. The limits are recalculated to a measurement distance of 3 m with 40 dB/decade according CFR Part 2.

Measurement:

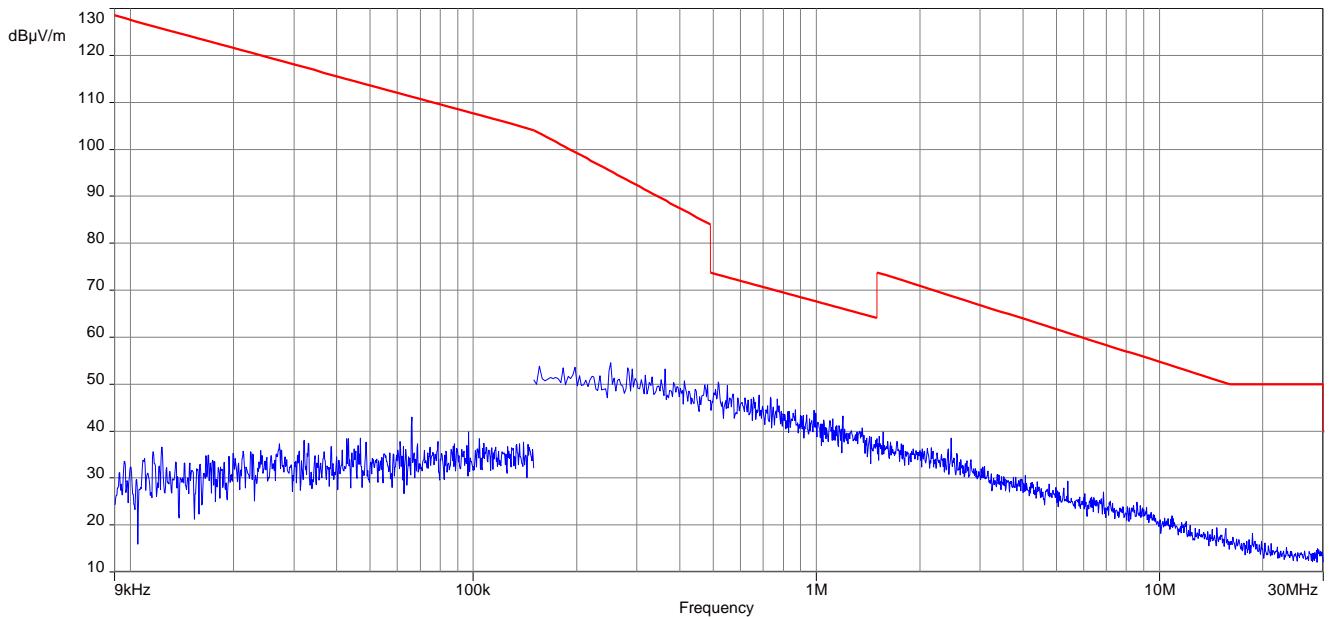
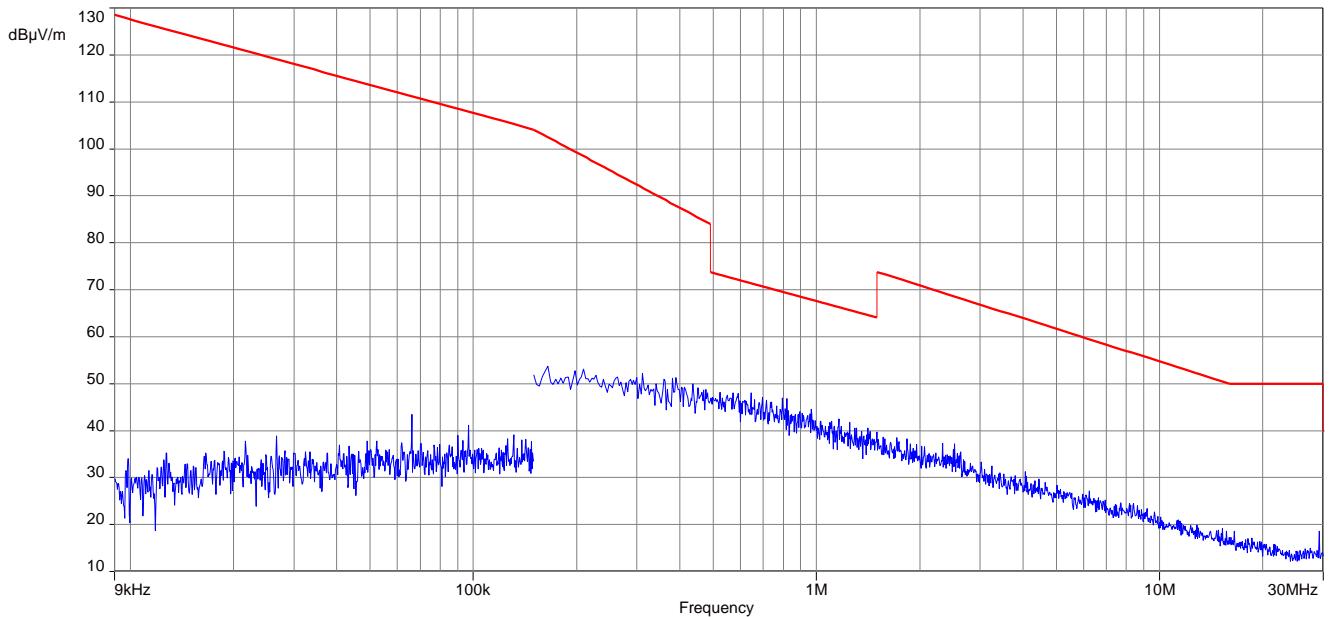
Measurement parameter	
According to: KDB789033 D02, G.	
Detector:	Peak / Quasi Peak
Sweep time:	Auto
Video bandwidth:	F < 150 kHz: 200 Hz F > 150 kHz: 9 kHz
Resolution bandwidth:	F < 150 kHz: 1 kHz F > 150 kHz: 100 kHz
Span:	9 kHz to 30 MHz
Trace-Mode:	Max Hold
Used test setup:	see chapter 7.2 – B
Measurement uncertainty:	see chapter 9

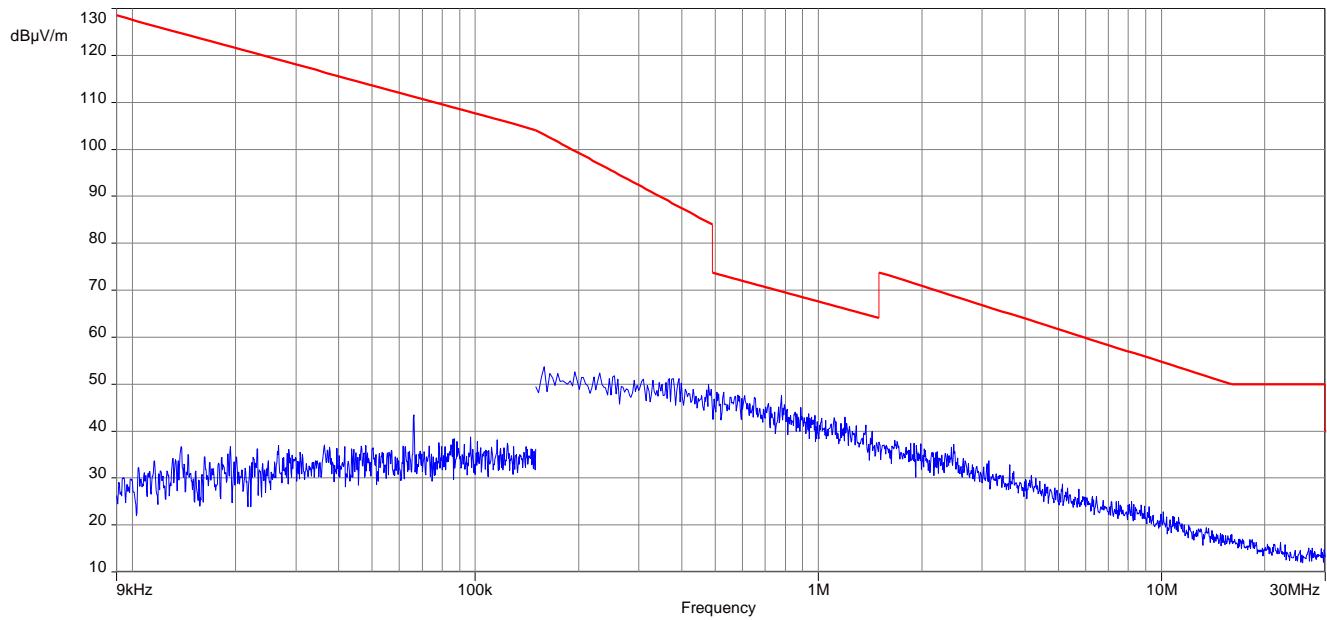
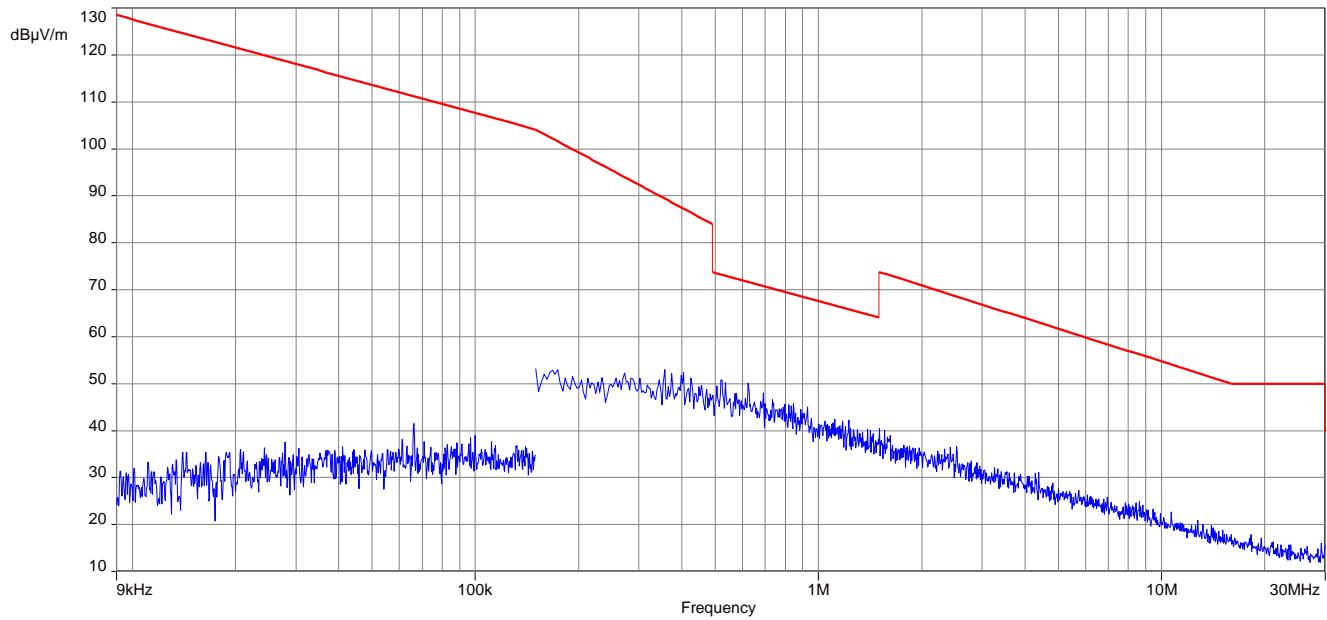
Limits:

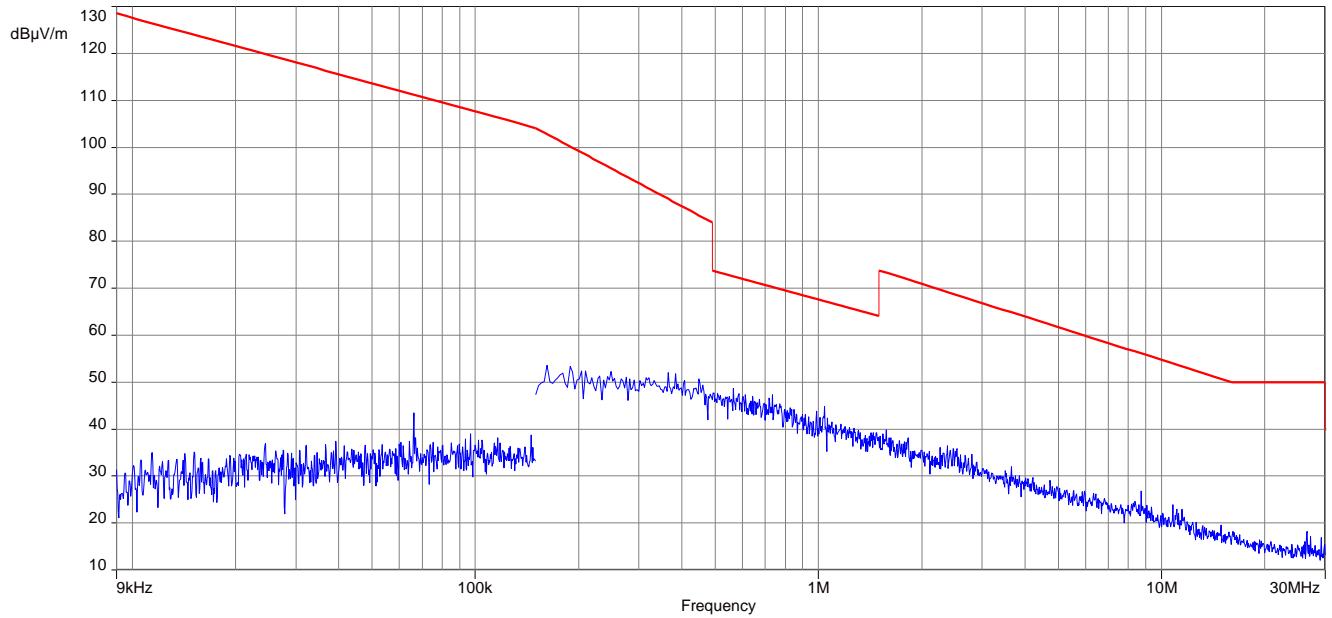
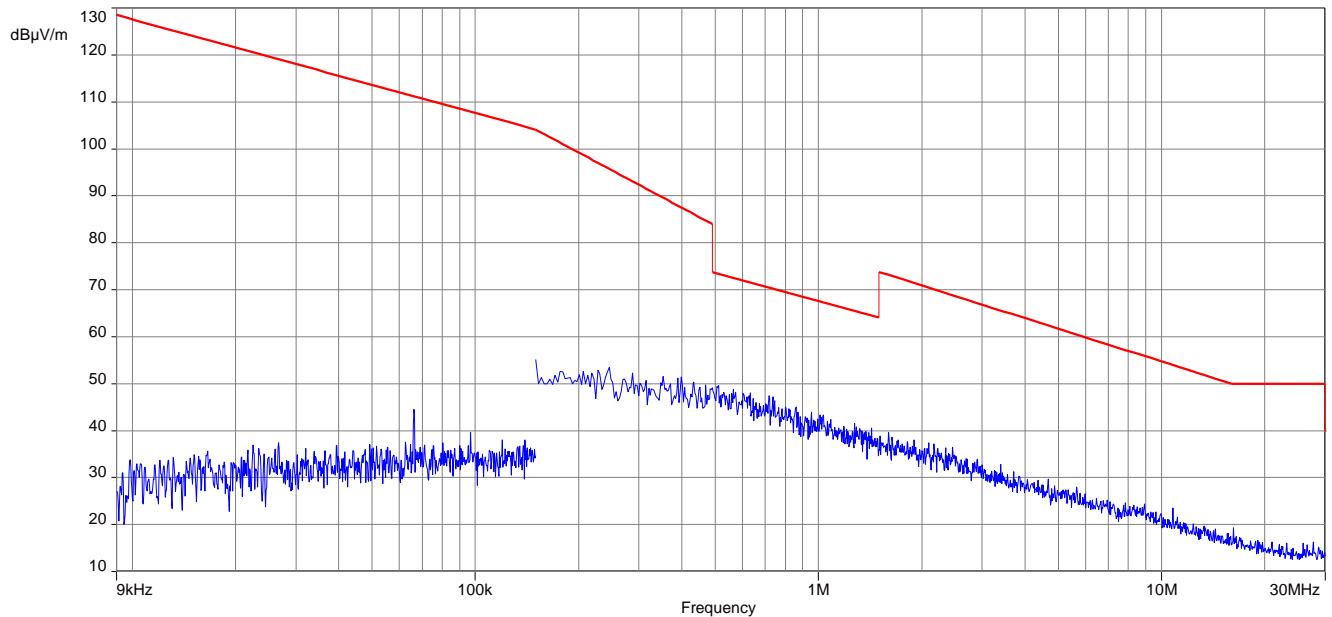
Spurious Emissions Radiated < 30 MHz		
Frequency (MHz)	Field Strength (dB μ V/m)	Measurement distance
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

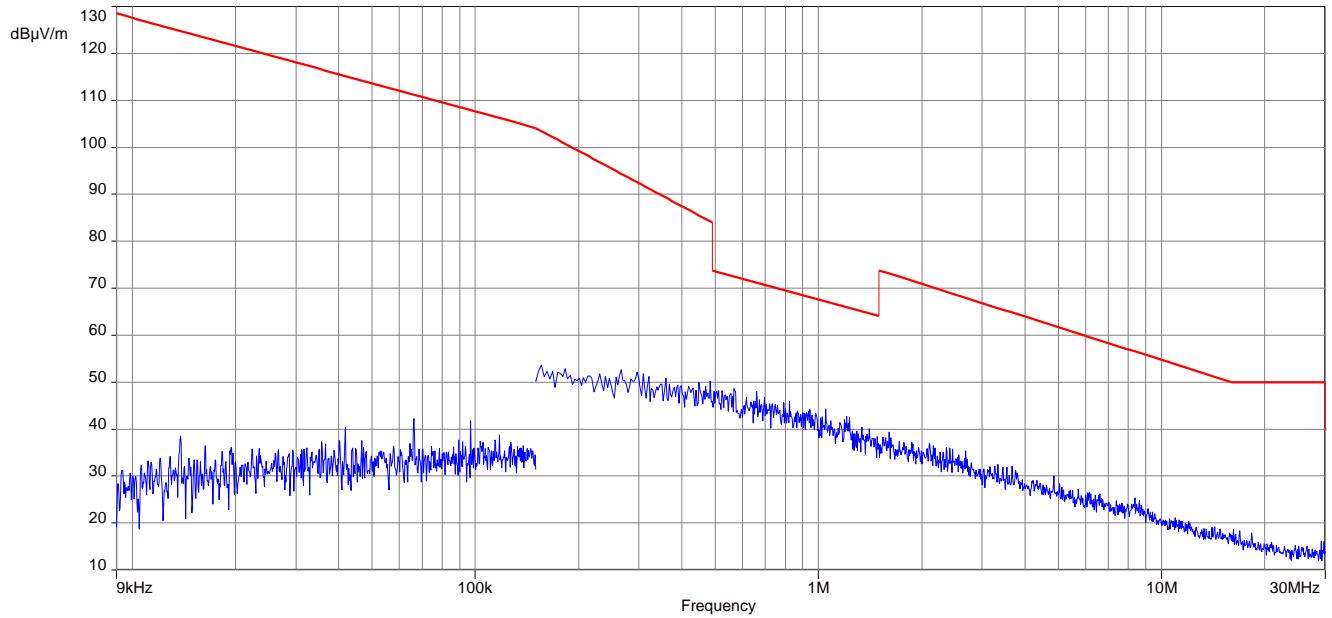
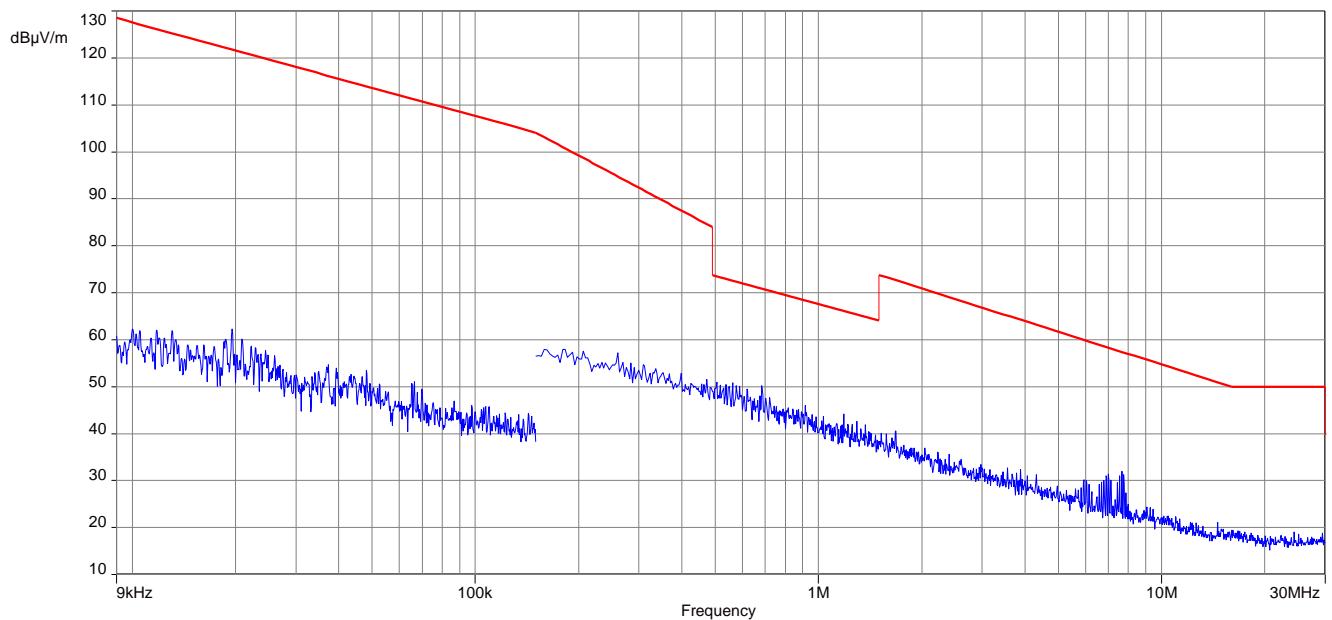
Results:

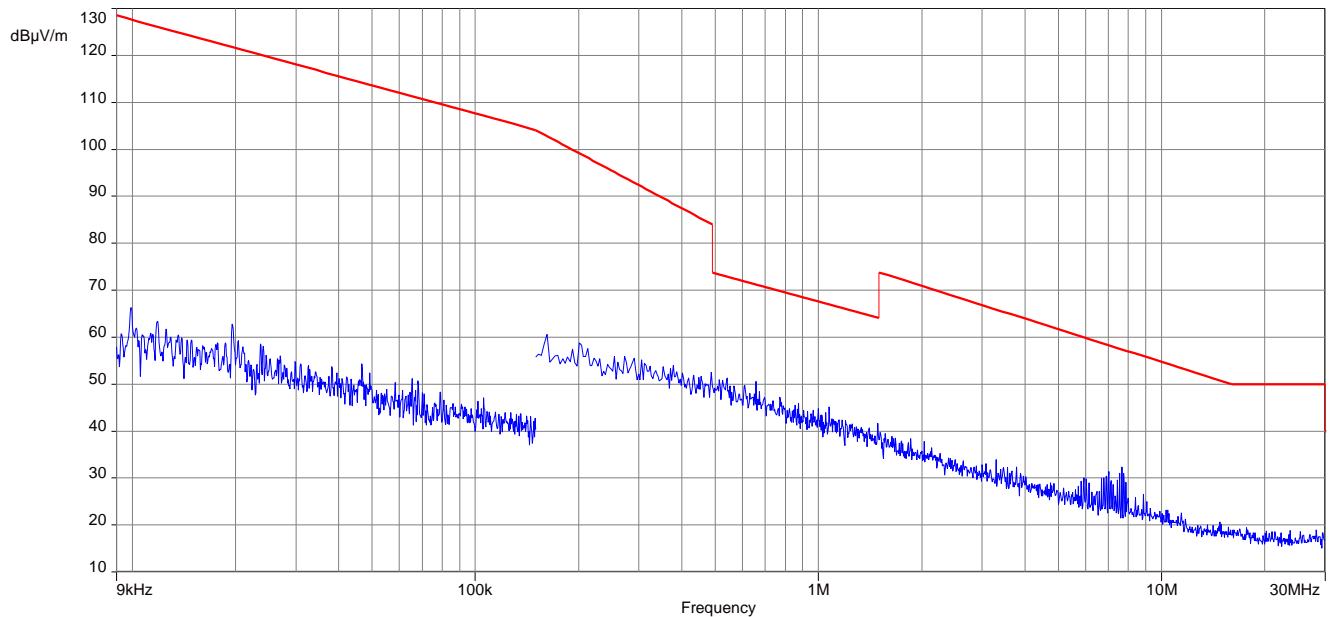
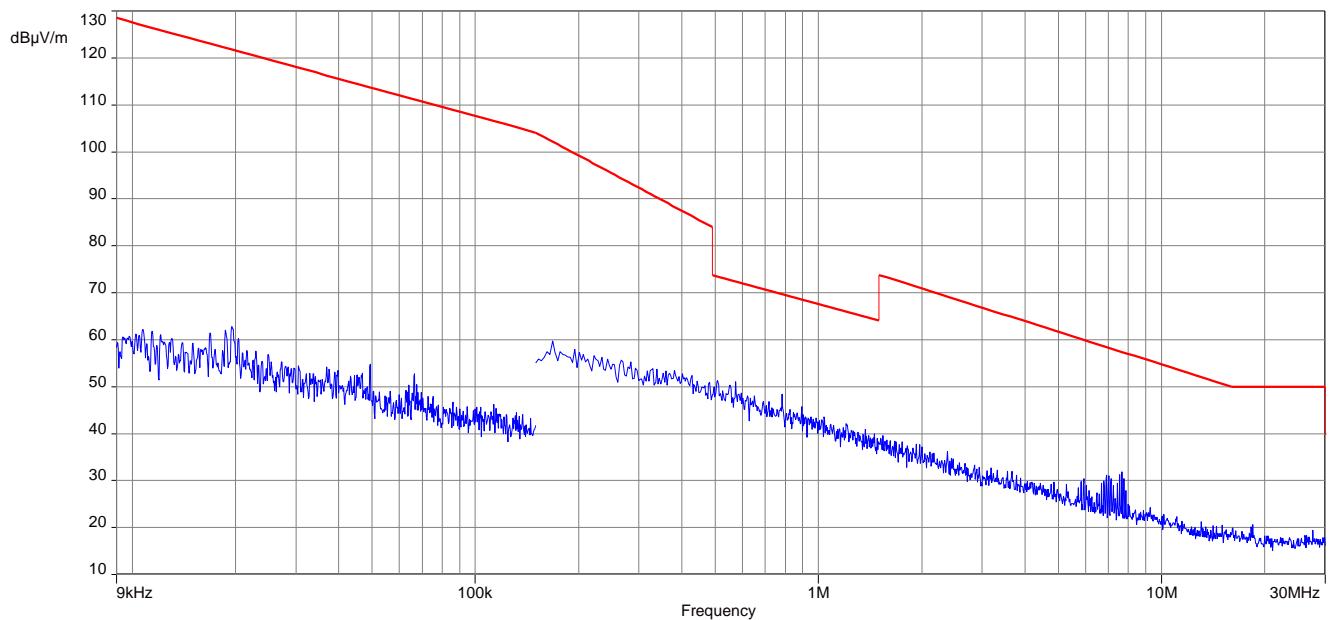
Spurious Emissions Radiated < 30 MHz [dB μ V/m]		
F [MHz]	Detector	Level [dB μ V/m]
All detected peak values are more than 10 dB below the average limit.		

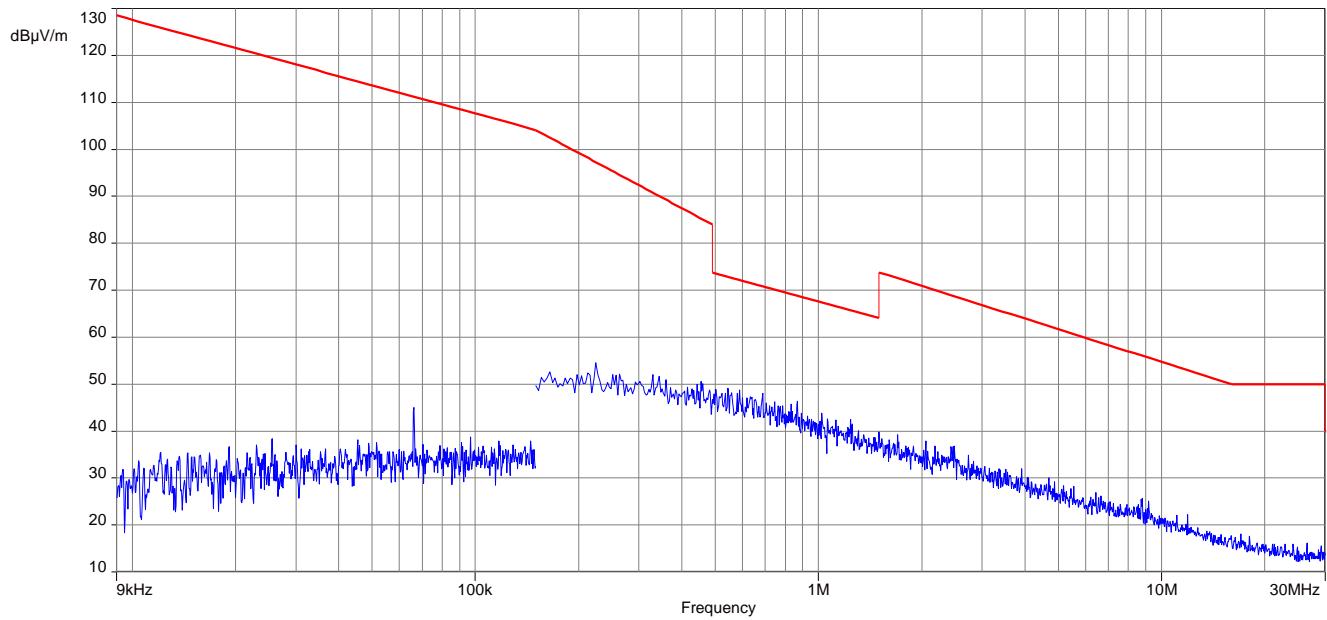
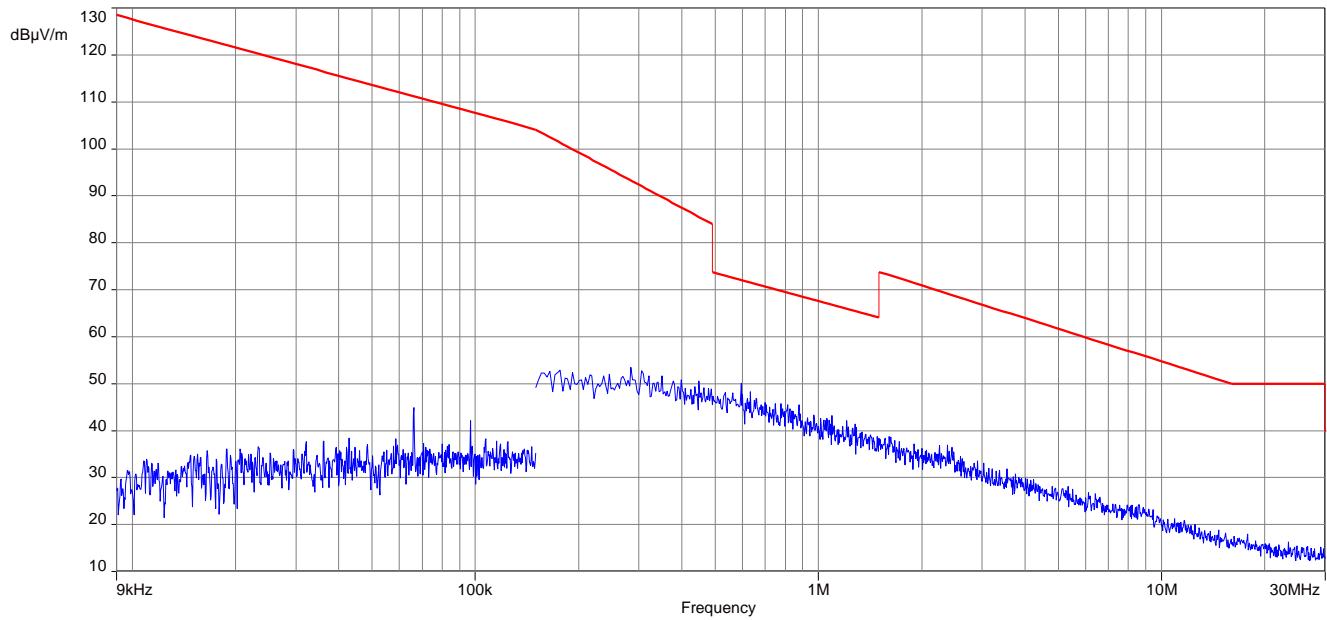
Plots:**Plot 1:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5180 MHz, OFDM / a – mode**Plot 2:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5240 MHz, OFDM / a – mode

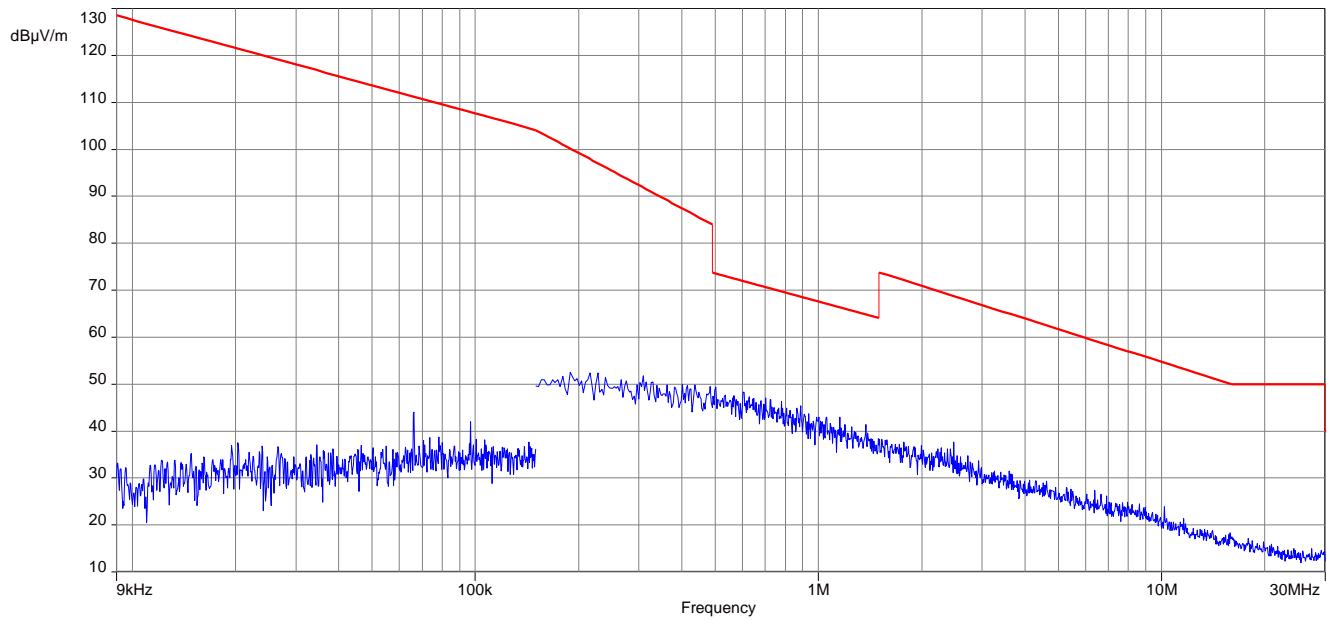
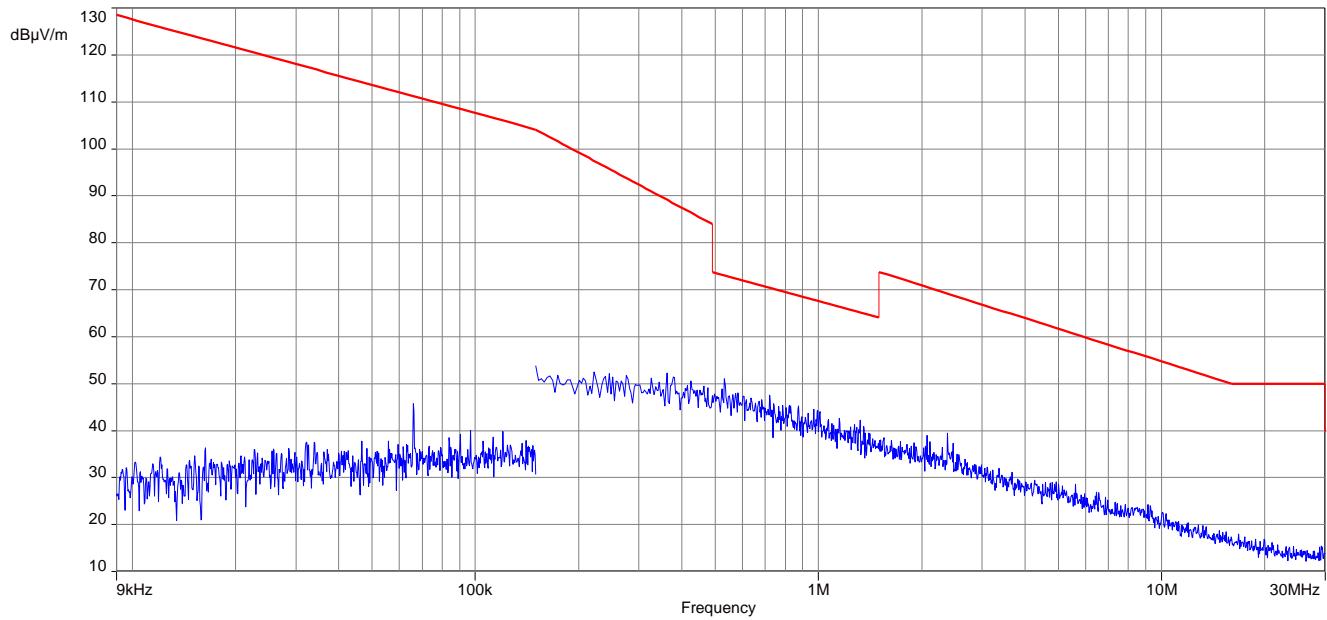
Plot 3: 9 kHz to 30 MHz, antenna 1 + 2 active, 5260 MHz, OFDM / a – mode**Plot 4:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5320 MHz, OFDM / a – mode

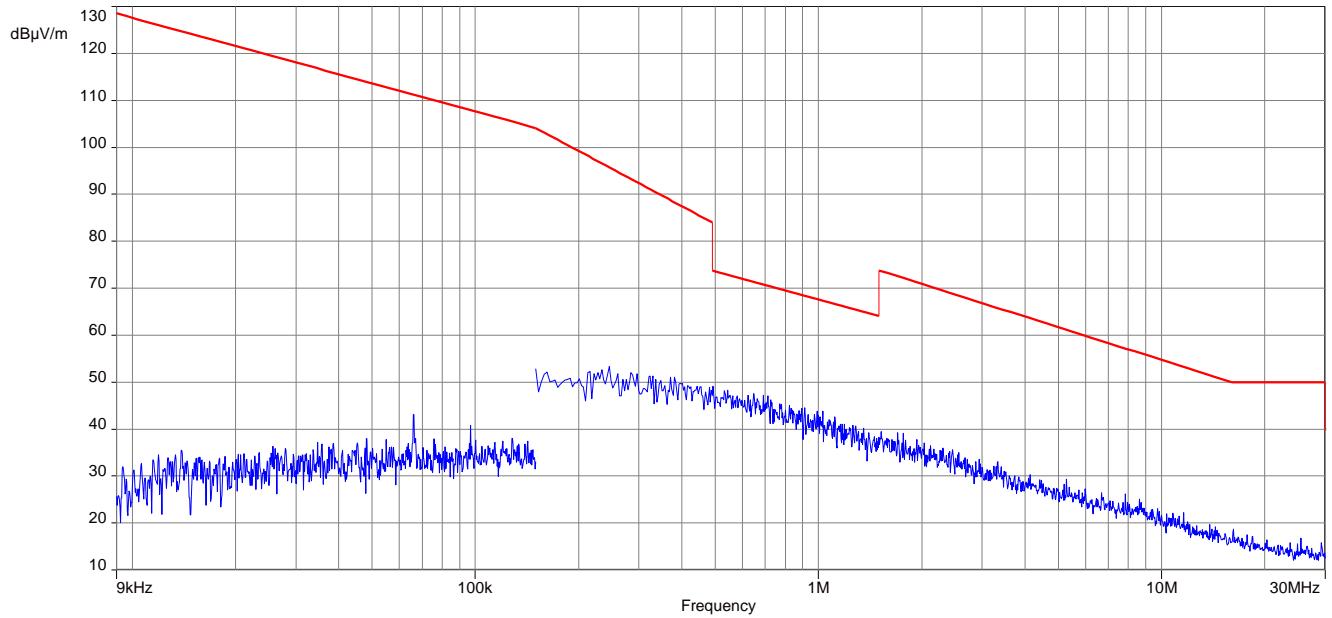
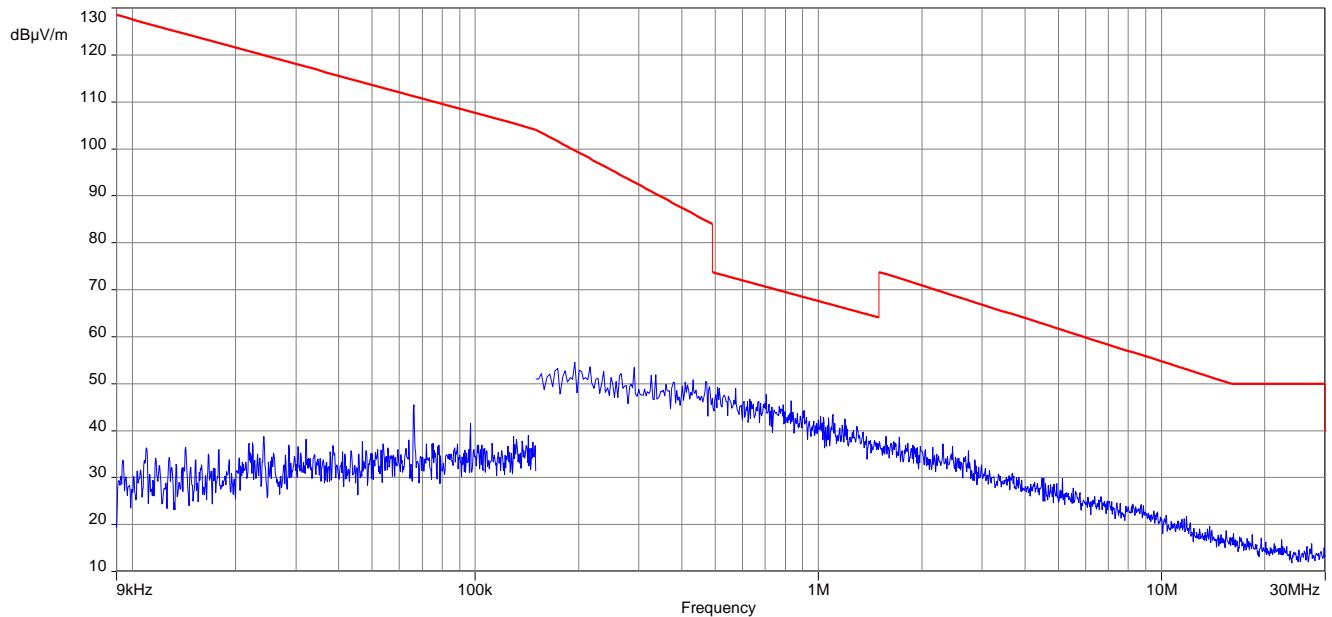
Plot 5: 9 kHz to 30 MHz, antenna 1 + 2 active, 5500 MHz, OFDM / a – mode**Plot 6:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5600 MHz, OFDM / a – mode

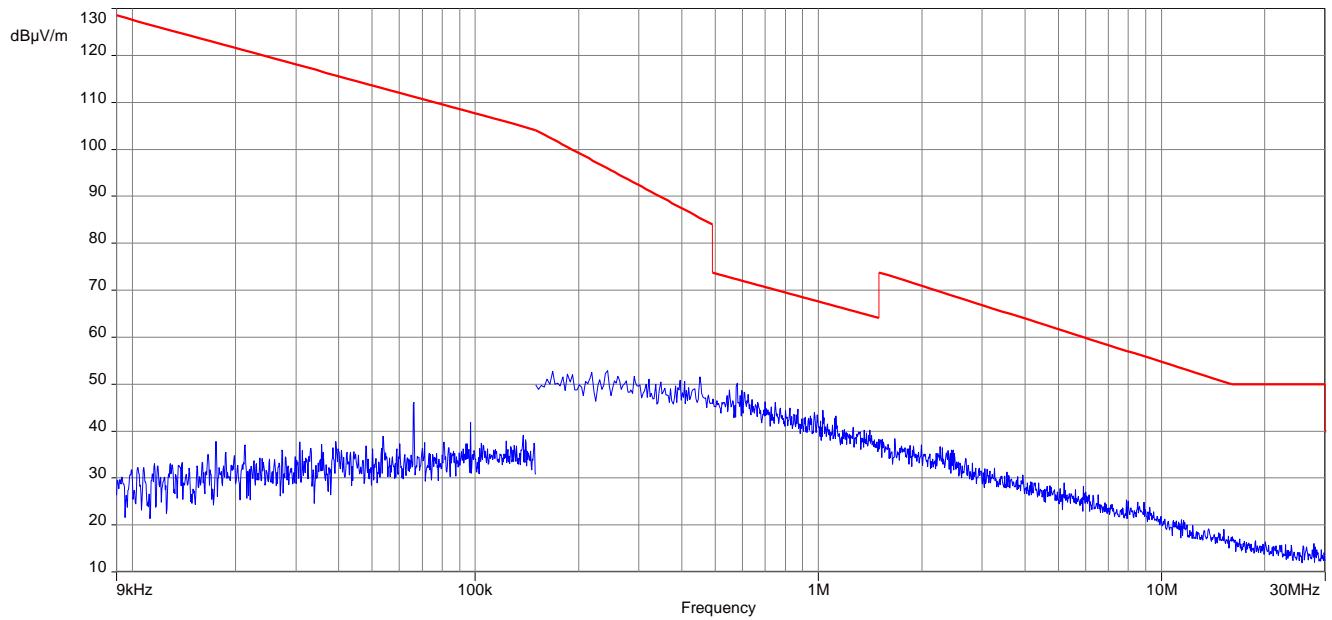
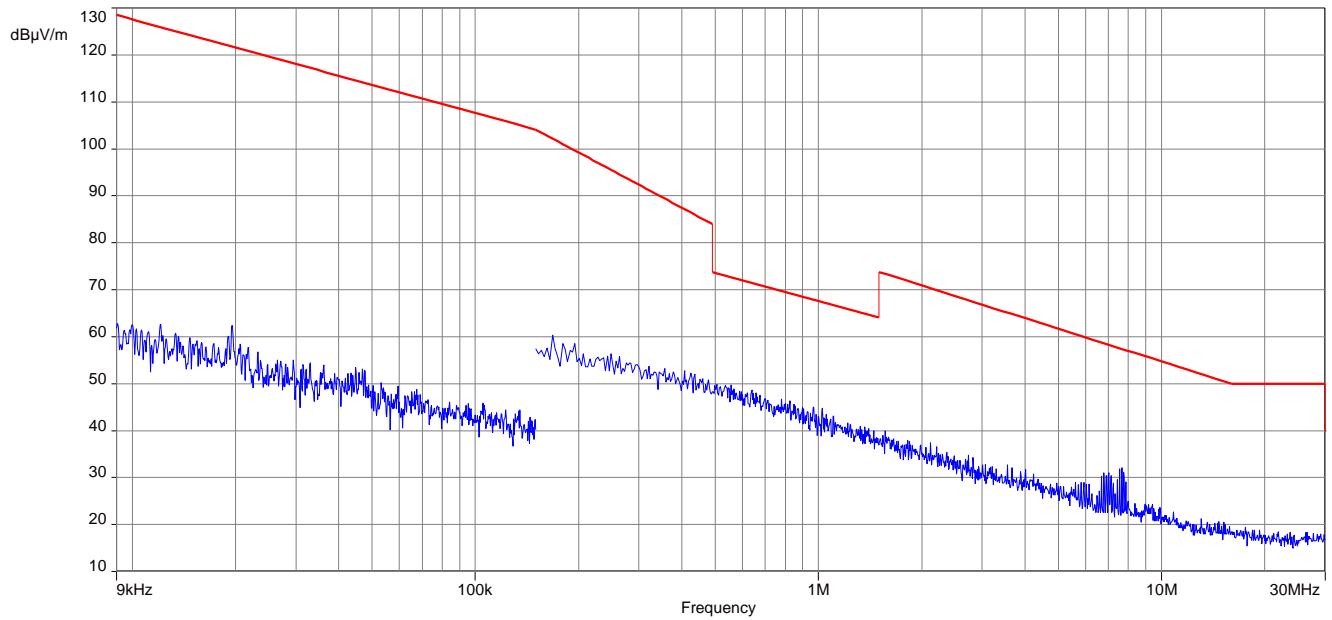
Plot 7: 9 kHz to 30 MHz, antenna 1 + 2 active, 5700 MHz, OFDM / a – mode**Plot 8:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5745 MHz, OFDM / a – mode

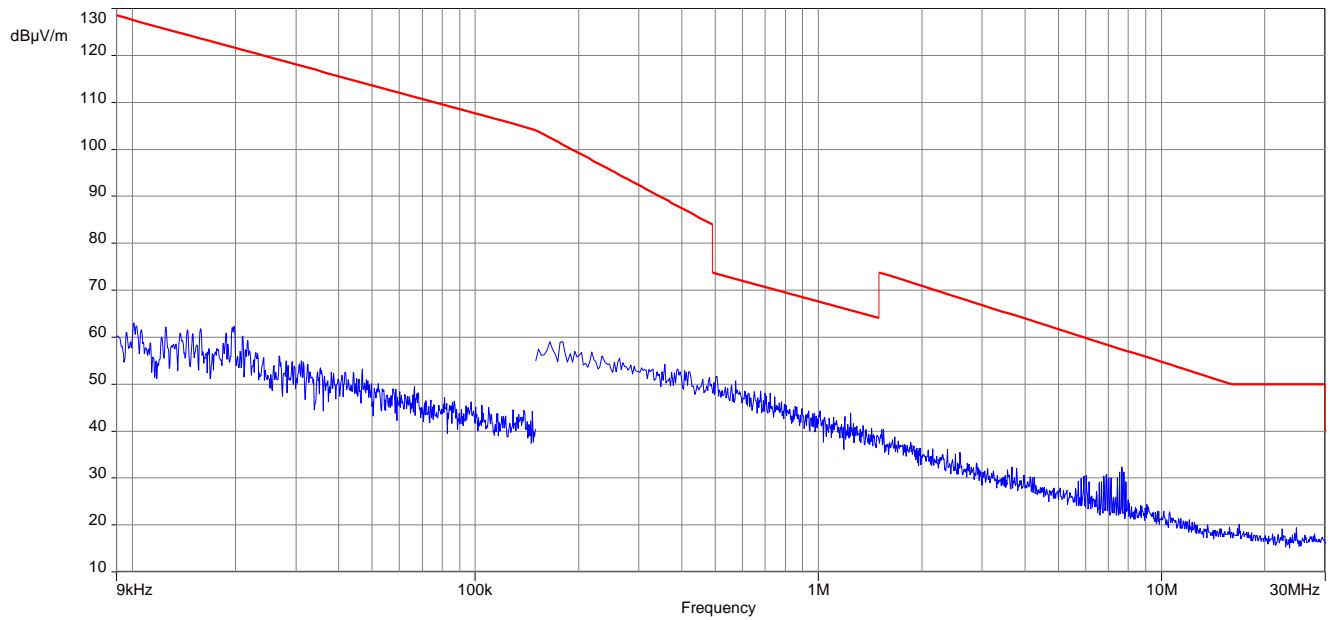
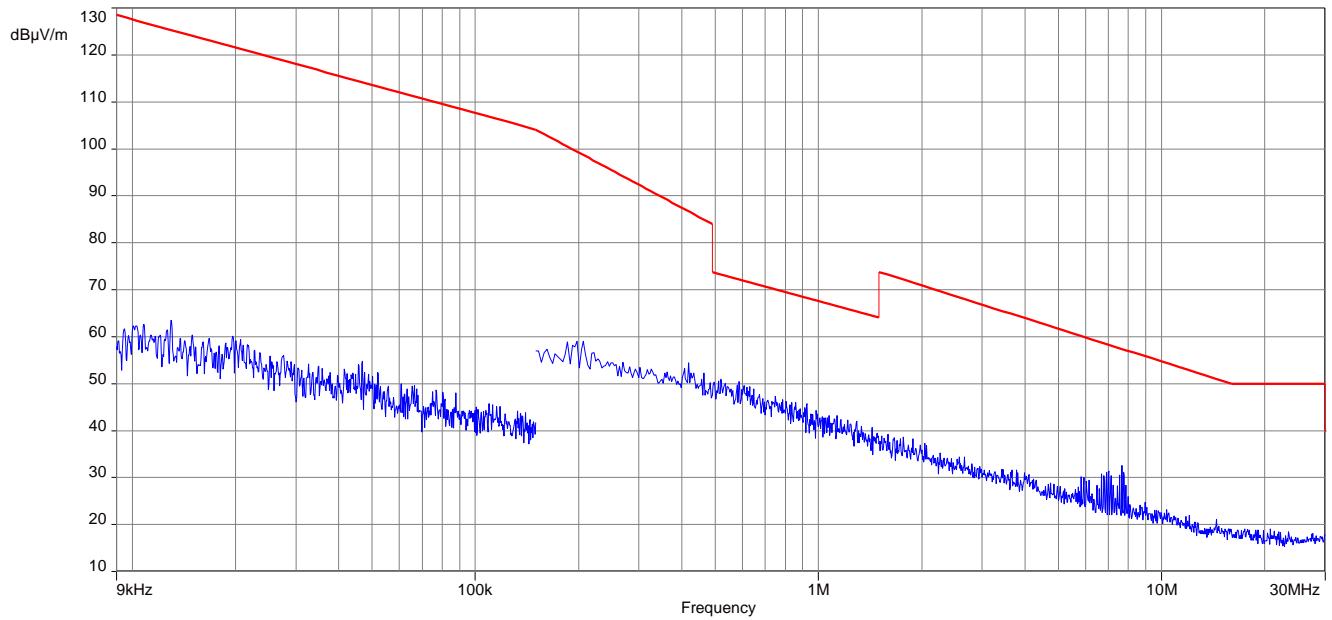
Plot 9: 9 kHz to 30 MHz, antenna 1 + 2 active, 5785 MHz, OFDM / a – mode**Plot 10:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5825 MHz, OFDM / a – mode

Plot 11: 9 kHz to 30 MHz, antenna 1 + 2 active, 5180 MHz, OFDM / n HT20 – mode**Plot 12:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5240 MHz, OFDM / n HT20 – mode

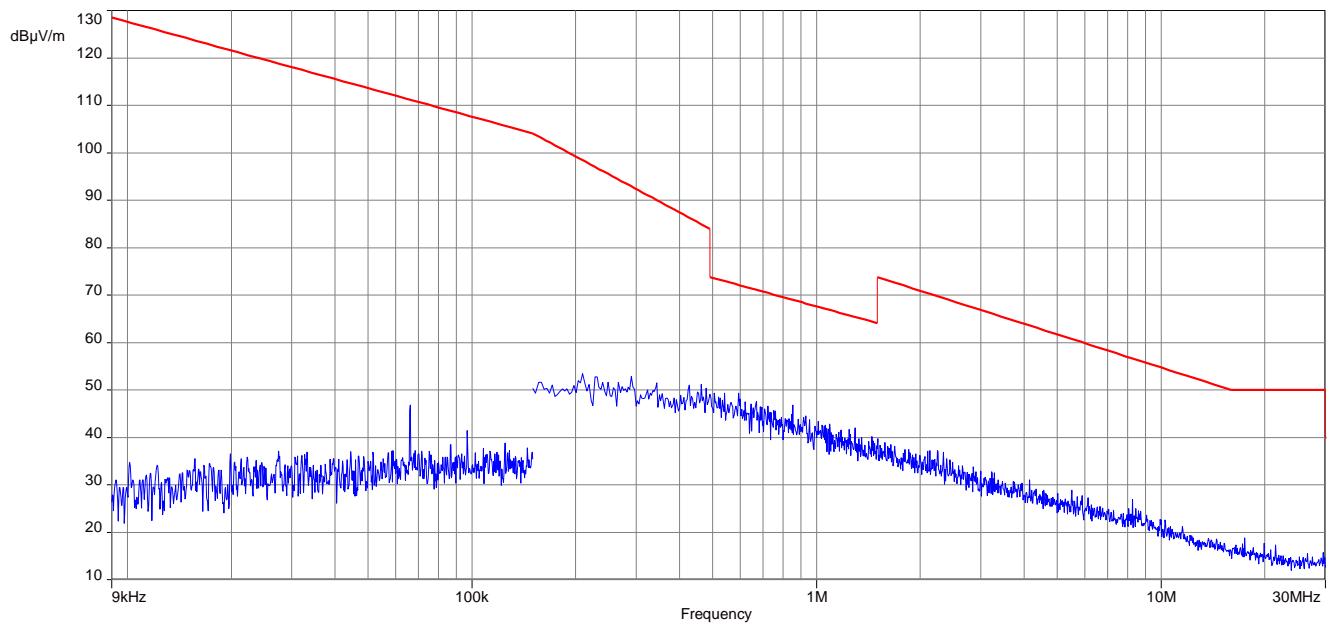
Plot 13: 9 kHz to 30 MHz, antenna 1 + 2 active, 5260 MHz, OFDM / n HT20 – mode**Plot 14:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5320 MHz, OFDM / n HT20 – mode

Plot 15: 9 kHz to 30 MHz, antenna 1 + 2 active, 5500 MHz, OFDM / n HT20 – mode**Plot 16:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5600 MHz, OFDM / n HT20 – mode

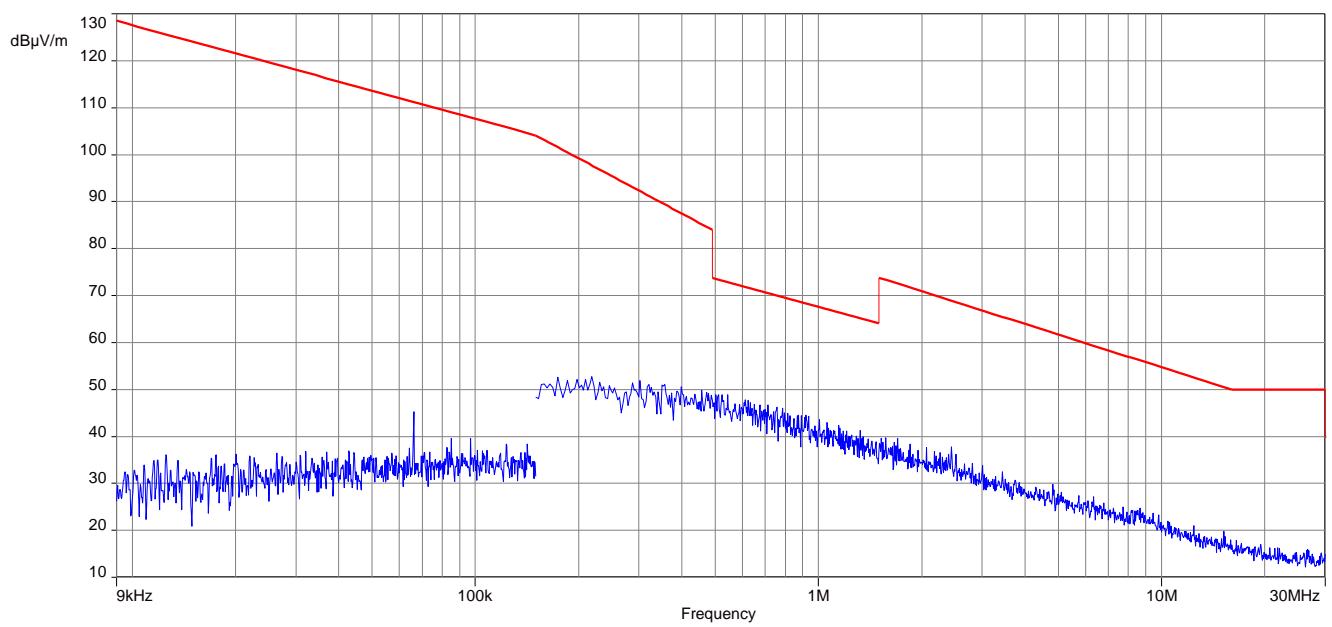
Plot 17: 9 kHz to 30 MHz, antenna 1 + 2 active, 5700 MHz, OFDM / n HT20 – mode**Plot 18:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5745 MHz, OFDM / n HT20 – mode

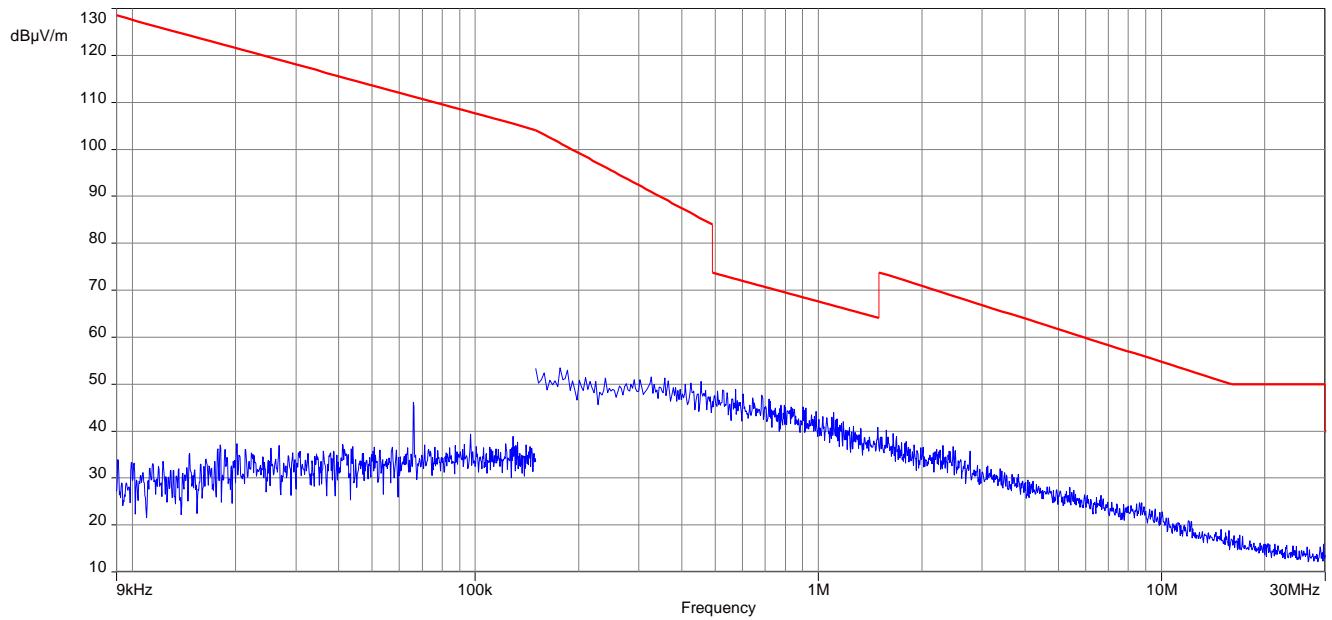
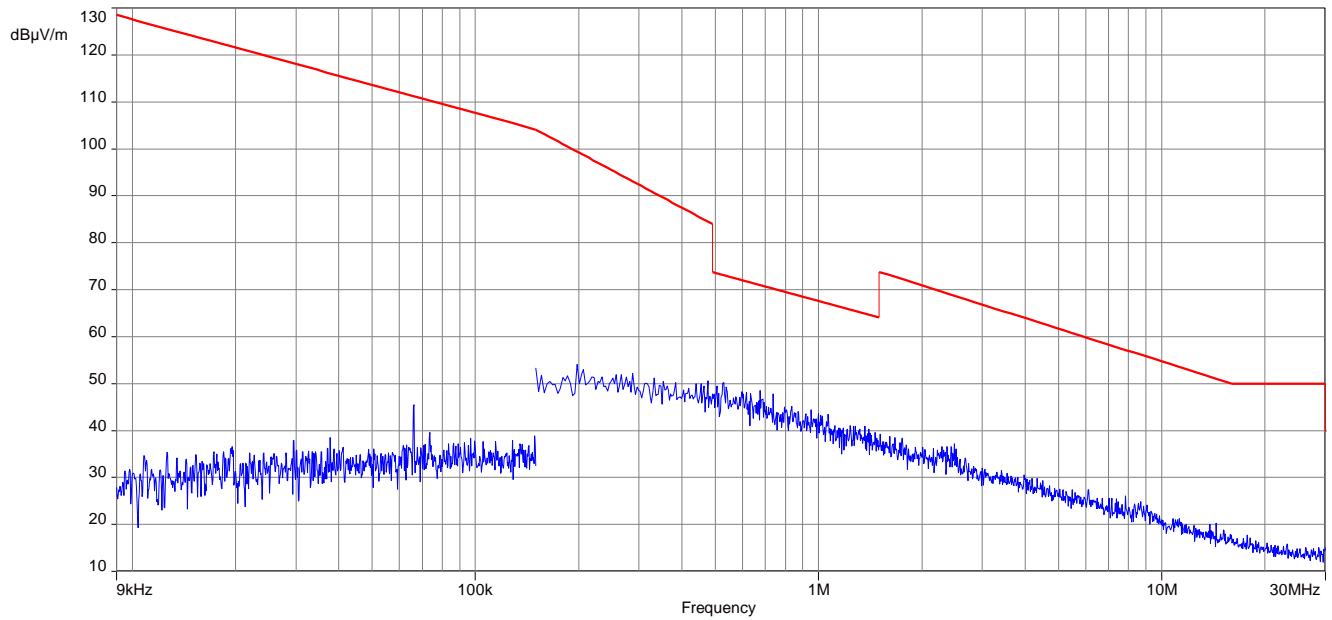
Plot 19: 9 kHz to 30 MHz, antenna 1 + 2 active, 5785 MHz, OFDM / n HT20 – mode**Plot 20:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5825 MHz, OFDM / n HT20 – mode

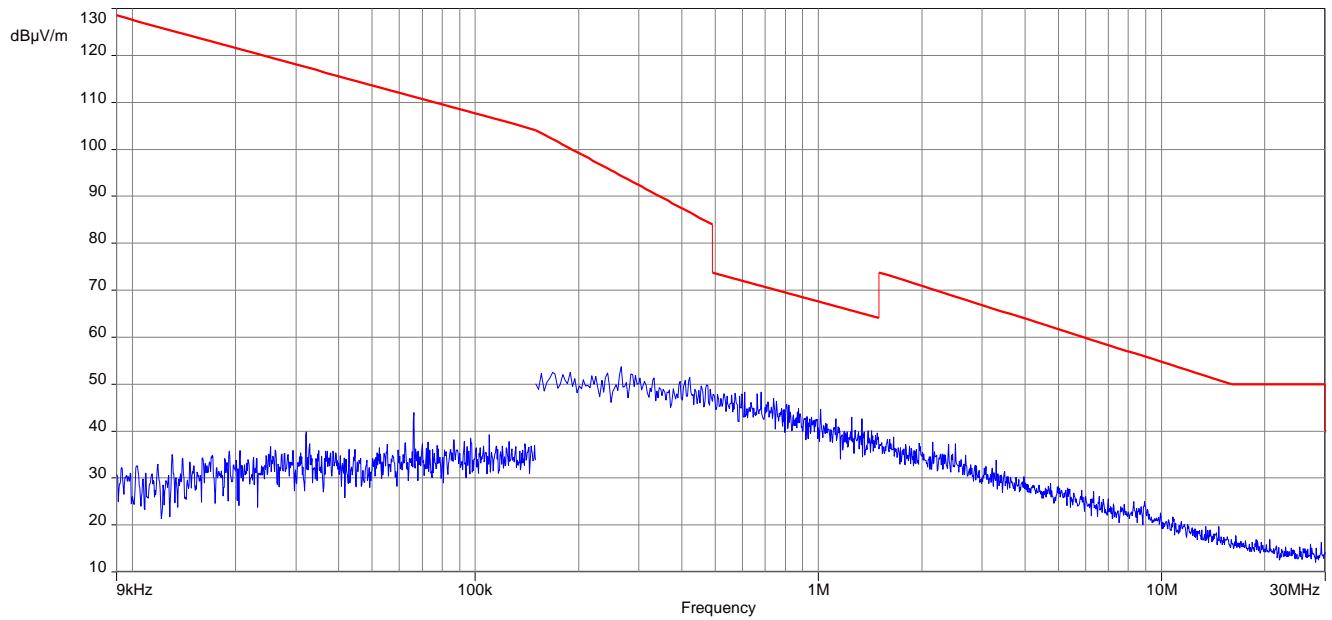
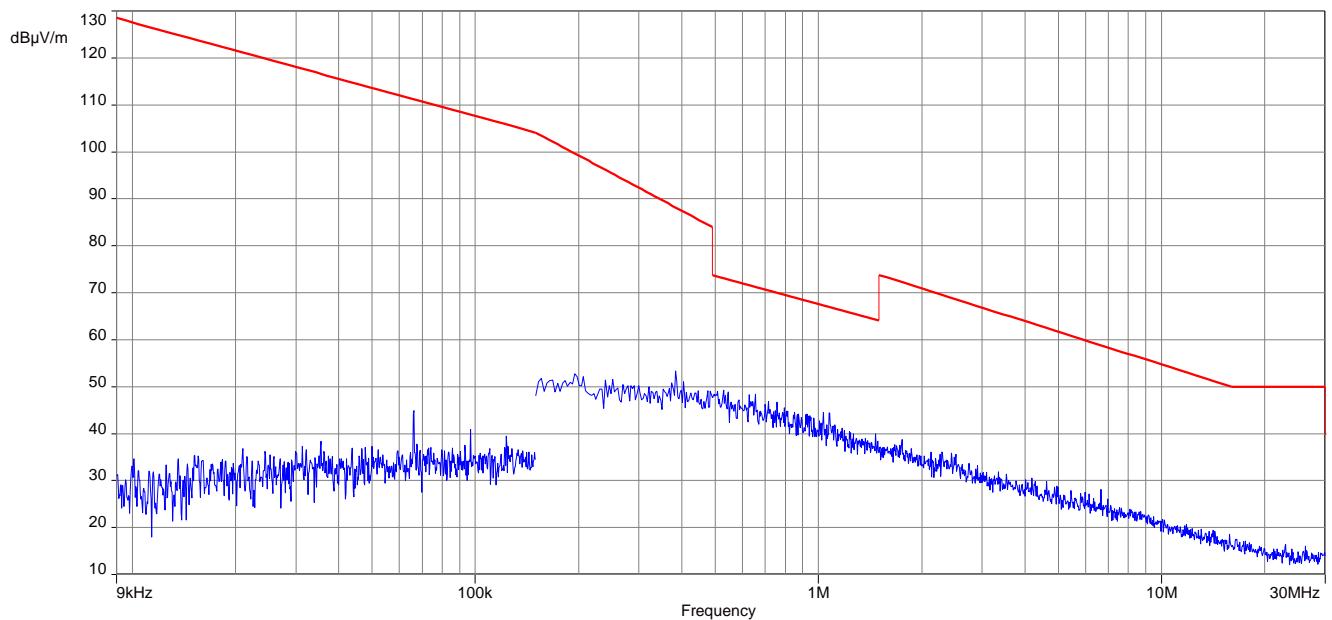
Plot 21: 9 kHz to 30 MHz, antenna 1 + 2 active, 5190 MHz, OFDM / n HT40 – mode

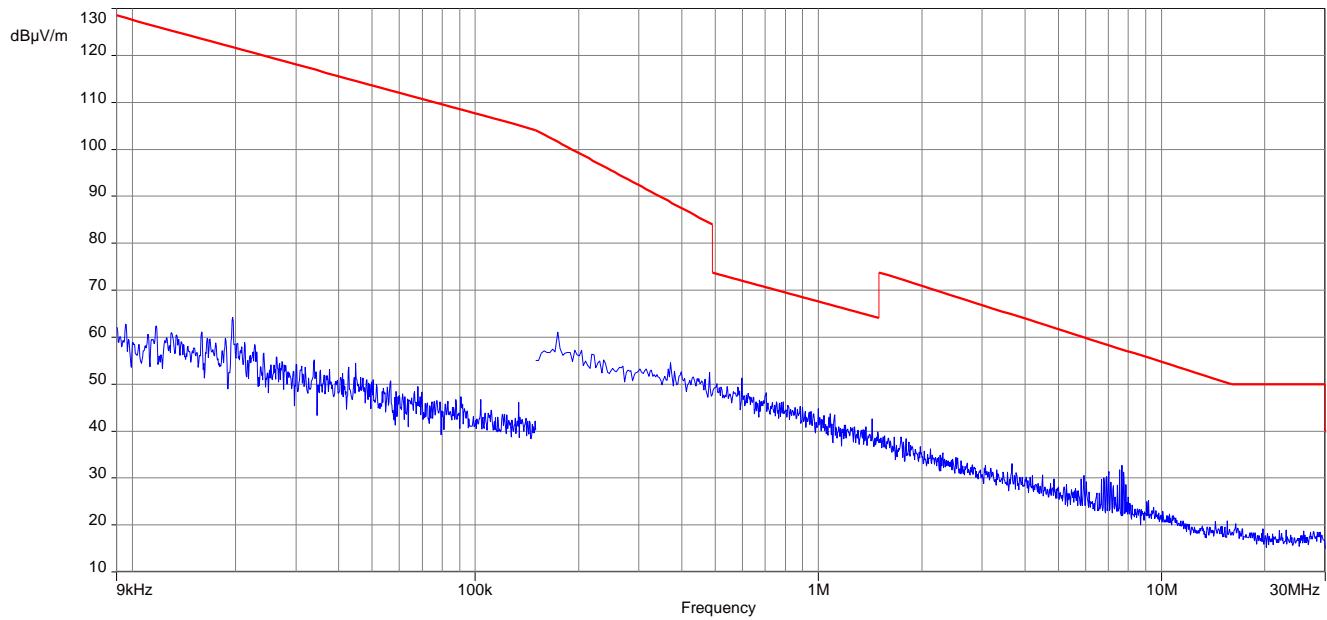
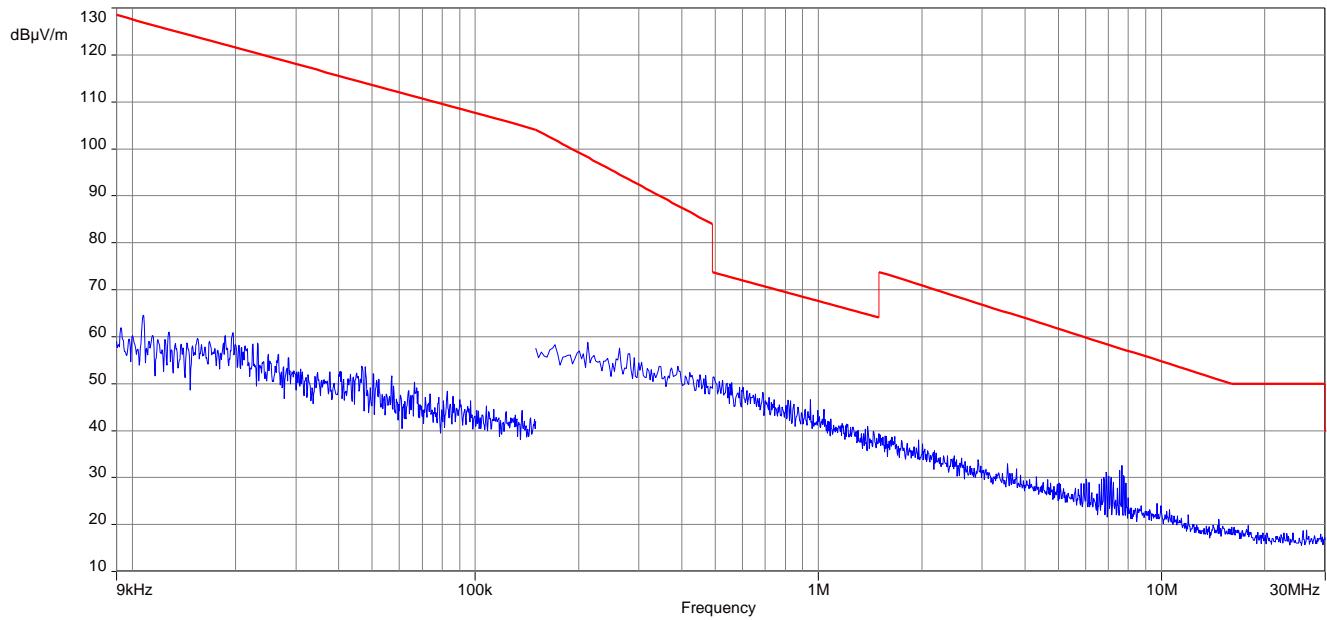


Plot 22: 9 kHz to 30 MHz, antenna 1 + 2 active, 5230 MHz, OFDM / n HT40 – mode

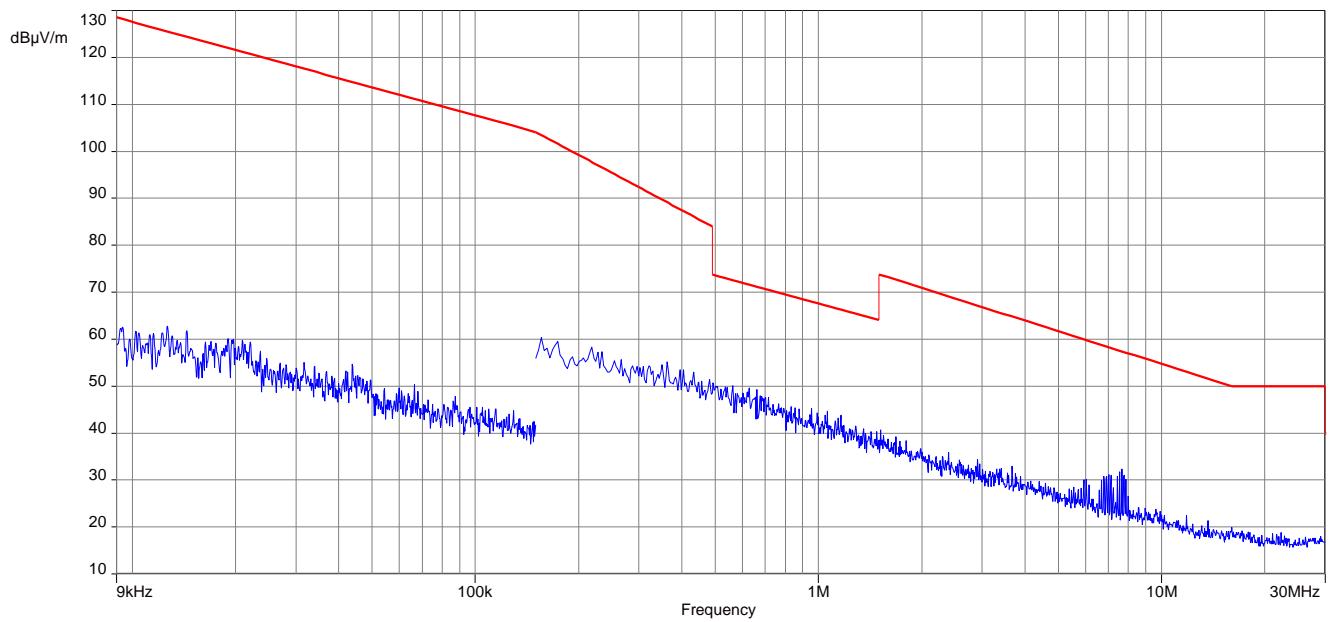


Plot 23: 9 kHz to 30 MHz, antenna 1 + 2 active, 5270 MHz, OFDM / n HT40 – mode**Plot 24:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5310 MHz, OFDM / n HT40 – mode

Plot 25: 9 kHz to 30 MHz, antenna 1 + 2 active, 5510 MHz, OFDM / n HT40 – mode**Plot 26:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5590 MHz, OFDM / n HT40 – mode

Plot 27: 9 kHz to 30 MHz, antenna 1 + 2 active, 5630 MHz, OFDM / n HT40 – mode**Plot 28:** 9 kHz to 30 MHz, antenna 1 + 2 active, 5755 MHz, OFDM / n HT40 – mode

Plot 29: 9 kHz to 30 MHz, antenna 1 + 2 active, 5795 MHz, OFDM / n HT40 – mode



13 Observations

No observations except those reported with the single test cases have been made.

Annex A Document history

Version	Applied changes	Date of release
	Initial release	2016-04-22

Annex B Further information

Glossary

AVG	- Average
DUT	- Device under test
EMC	- Electromagnetic Compatibility
EN	- European Standard
EUT	- Equipment under test
ETSI	- European Telecommunications Standard Institute
FCC	- Federal Communication Commission
FCC ID	- Company Identifier at FCC
HW	- Hardware
IC	- Industry Canada
Inv. No.	- Inventory number
N/A	- Not applicable
PP	- Positive peak
QP	- Quasi peak
S/N	- Serial number
SW	- Software
PMN	- Product marketing name
HMN	- Host marketing name
HVIN	- Hardware version identification number
FVIN	- Firmware version identification number

Annex C Accreditation Certificate

Front side of certificate

Back side of certificate



Deutsche Akkreditierungsstelle GmbH

Befähigte gemäß § 8 Absatz 1 AkkStelleG i.V.m. § 3 Absatz 1 AkkStelleGBV
Unterzeichnerin der Multilateralen Abkommen
von EA, ILAC und IAF zur gegenseitigen Anerkennung

Akkreditierung



Die Deutsche Akkreditierungsstelle GmbH bestätigt hiermit, dass das Prüflaboratorium

CETECOM ICT Services GmbH
Untertürkheimer Straße 6-10, 66117 Saarbrücken

die Kompetenz nach DIN EN ISO/IEC 17025:2005 besitzt, Prüfungen in folgenden Bereichen
durchzuführen:

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VoIP und DECT
Akustik
Funk einschließlich WLAN
Short Range Devices (SRD)
RFID
WiMax und Richtfunk
Mobilfunk (GSM / DCS, Over the Air (OTA) Performance)
Elektromagnetische Verträglichkeit (EMV) einschließlich Automotive
Produktsicherheit
SAR und Hearing Aid Compatibility (HAC)
Umweltimulation
Smart Card Terminals
Bluetooth
Wi-Fi-Services

Die Akkreditierungsurkunde gilt nur in Verbindung mit dem Beiblatt vom 07.03.2014 mit der
Akkreditierungsnr. D-PL-12076-01 und ist gültig 17.01.2018. Sie besteht aus diesem Deckblatt, der
Rückseite des Dokuments und der folgenden Anlage mit insgesamt 77 Seiten.

Richtigstellungsnummer der Urkunde: D-PL-12076-01-00

Deutsche Akkreditierungsstelle GmbH

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10117 Berlin

Standort Frankfurt am Main
Gärtnerstraße 6
60501 Frankfurt am Main

Standort Braunschweig
Bundesallee 100
38115 Braunschweig

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Zusammensetzung der Deutsche Akkreditierungsstelle GmbH (DAkkS). Ausgenommen davon ist die separate
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31. Juli 2008 (Reg. Nr. 18.2008) sowie der Verordnung (EG) Nr. 765/2008 des Europäischen Parlaments
und des Rates vom 9. Juli 2008 über die Voraussetzungen für die Absicherung und Marktbearbeitung
im Zusammenhang mit der Vermarktung von Produkten (MLL 1.238 vom 9. Juli 2008 S. 31).

Die DAkkS ist Unterzeichnerin der Multilateralen Abkommen zur gegenseitigen Anerkennung der
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der International Laboratory Accreditation Cooperation (ILAC). Die Unterzeichner dieser Abkommen
erkennen ihre Akkreditierungen gegenseitig an.

Der aktuelle Stand der Mitgliedschaft kann folgenden Webseiten entnommen werden:
EA: www.european-acl.org
IAC: www.iac.org
ILAC: www.ilac.org

Frankfurt am Main, 07.03.2014

Im Auftrag des Präsidenten Ralf Egger
Akkreditierungsstelle

Note:

The current certificate including annex may be received from CETECOM ICT Services GmbH on request.