

## 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, 7.2, 7.3
Measurement uncertainty:	see chapter 9

### Limits:

TX Spurious Emissions Radiated		
§15.209		
Frequency (MHz)	Field Strength (dB $\mu$ 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	

**Results:** OFDM / a – mode, antenna 1 + 2 + 3 active

TX Spurious Emissions Radiated [dB $\mu$ V/m] / dBm								
5180 MHz			5240 MHz			5260 MHz		
F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]
5145	Peak	56.7	5360	Peak	60.8	5360	Peak	61.7
	AVG	45.0		AVG	49.7		AVG	50.2
5400	Peak	61.2	5400	Peak	61.4	5400	Peak	62.5
	AVG	51.7		AVG	52.1		AVG	52.7
5440	Peak	60.9	5440	Peak	60.7	5440	Peak	61.8
	AVG	51.6		AVG	51.2		AVG	51.3
5320 MHz			5500 MHz			5700 MHz		
F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]
5350	Peak	67.5	5400	Peak	61.2	5080	Peak	56.6
	AVG	51.5		AVG	50.7		AVG	48.6
5400	Peak	62.4	5415	Peak	61.5	5360	Peak	63.6
	AVG	52.2		AVG	50.1		AVG	54.5
5440	Peak	61.5	5460	Peak	62.6	5440		
	AVG	50.9		AVG	49.8			
5745 MHz			5785 MHz			5825 MHz		
F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]
5080	Peak	54.3	5040	Peak	52.2	5400	Peak	63.3
	AVG	45.2		AVG	42.5		AVG	53.3
5360	Peak	63.3	5360	Peak	62.7	5440	Peak	63.0
	AVG	53.3		AVG	53.2		AVG	52.6

**Results:** OFDM / n HT20 – mode, antenna 1 + 2 + 3 active

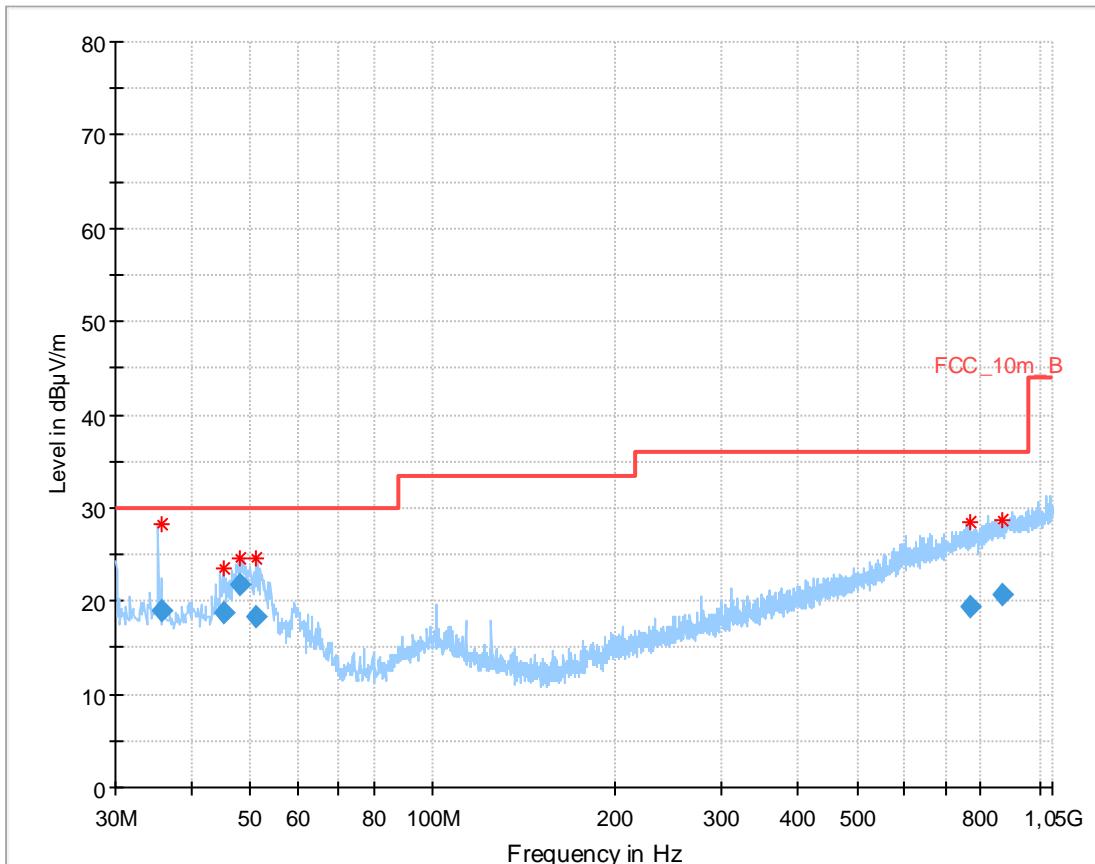
TX Spurious Emissions Radiated [dB $\mu$ V/m] / dBm								
5180 MHz			5240 MHz			5260 MHz		
F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]
5145	Peak	56.6	5360	Peak	60.8	5360	Peak	61.7
	AVG	45.0		AVG	49.7		AVG	50.2
5400	Peak	61.2	5400	Peak	61.4	5400	Peak	62.5
	AVG	51.7		AVG	52.1		AVG	52.7
5440	Peak	60.9	5440	Peak	60.7	5440	Peak	61.8
	AVG	51.6		AVG	51.2		AVG	51.8
5320 MHz			5500 MHz			5700 MHz		
F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]
5350	Peak	67.5	5400	Peak	61.2	5080	Peak	55.2
	AVG	51.5		AVG	50.7		AVG	46.8
5400	Peak	62.4	5415	Peak	61.5	5360	Peak	62.1
	AVG	52.2		AVG	50.1		AVG	52.6
5440	Peak	61.5	5460	Peak	62.6			
	AVG	50.9		AVG	49.8			
5745 MHz			5785 MHz			5825 MHz		
F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]
5080	Peak	53.1	5040	Peak	52.2	5080	Peak	55.0
	AVG	45.2		AVG	43.5		AVG	46.1
5360	Peak	63.3	5360	Peak	62.8	5360	Peak	62.1
	AVG	53.3		AVG	53.2		AVG	52.6

**Results:** OFDM / n HT40 – mode, antenna 1 + 2 + 3 active

TX Spurious Emissions Radiated [dB $\mu$ V/m] / dBm								
5190 MHz			5270 MHz			5310 MHz		
F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]
5145	Peak	66.5	5360	Peak	61.1	5360	Peak	63.1
	AVG	52.3		AVG	49.6		AVG	50.0
5400	Peak	61.5	5400	Peak	61.6	5400	Peak	59.6
	AVG	52.8		AVG	52.1		AVG	50.9
5510 MHz			5670 MHz			5755 MHz		
F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]
5400	Peak	59.7	5360	Peak	62.3	5360	Peak	62.8
	AVG	50.2		AVG	52.8		AVG	53.3
5440	Peak	61.1	5400	Peak	62.4	5400	Peak	62.8
	AVG	50.1		AVG	52.3		AVG	52.1
5460	Peak	64.7	5440	Peak	63.2	5440	Peak	61.6
	AVG	52.1		AVG	53.7		AVG	52.5
5795 MHz			-/-			-/-		
F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]	F [MHz]	Detector	Level [dB $\mu$ V/m]
5400	Peak	62.3	-/-	-/-	-/-	-/-	-/-	-/-
	AVG	53.3						
5440	Peak	61.8						
	AVG	52.4						

**Plots:** OFDM / a – mode

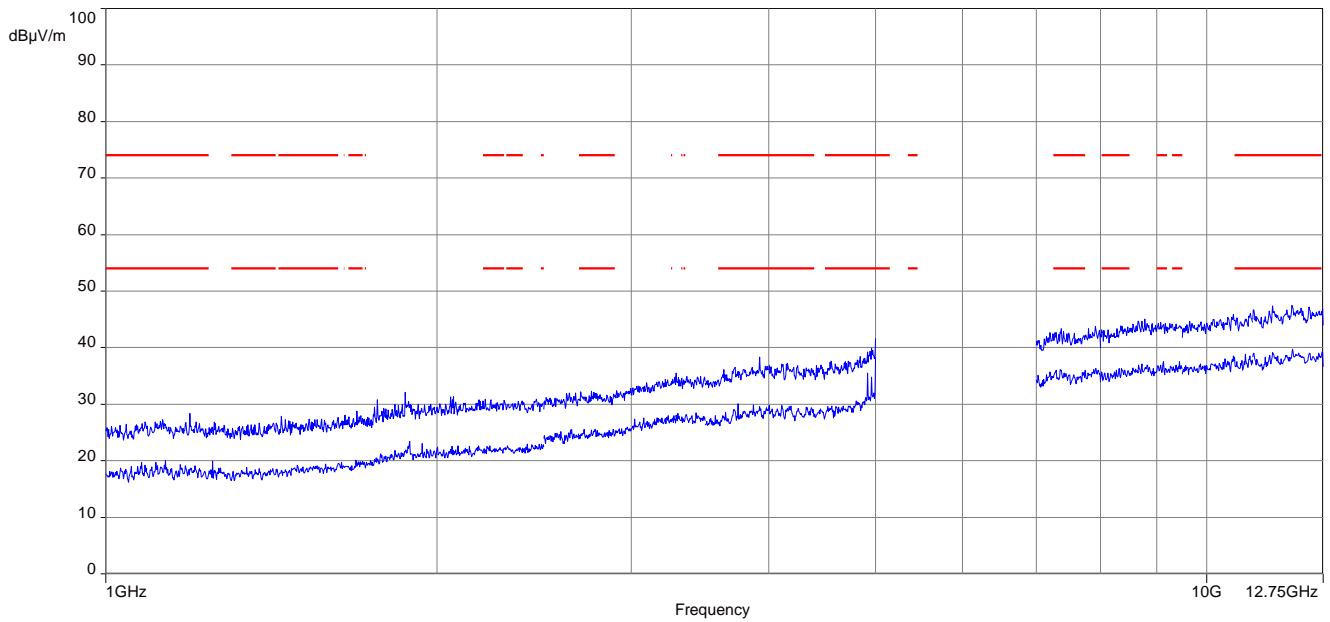
**Plot 1:** 30 MHz to 1 GHz, 5180 MHz, vertical & horizontal polarization



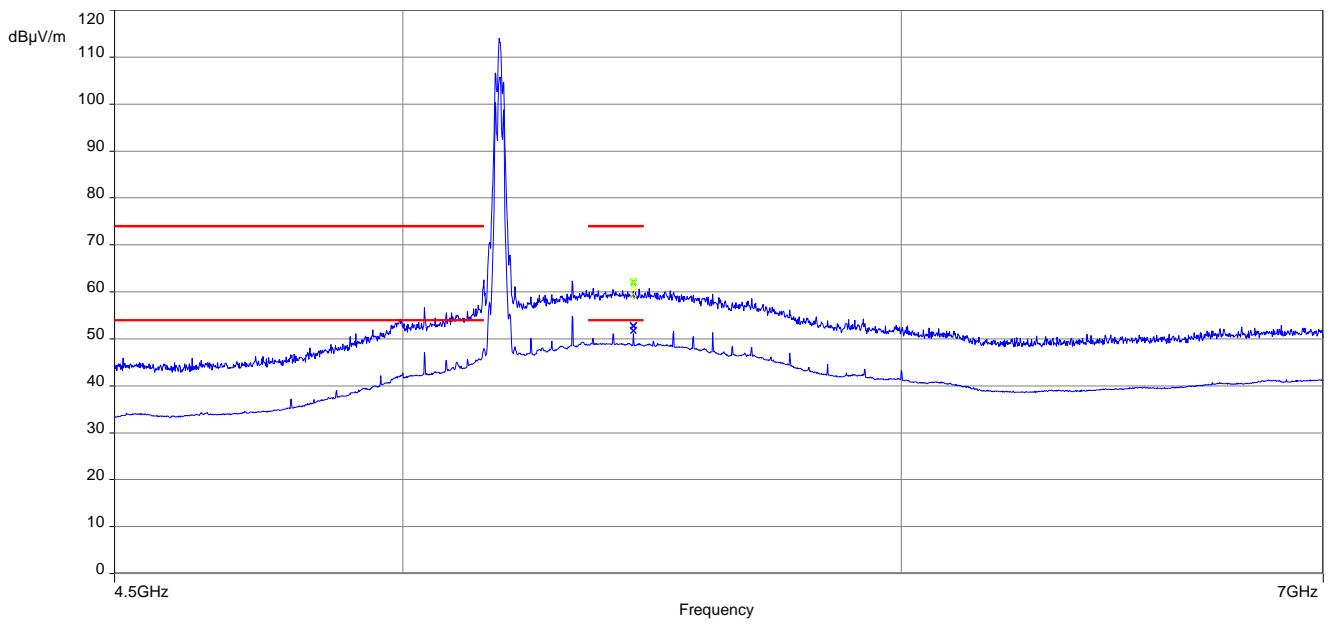
## Final\_Result

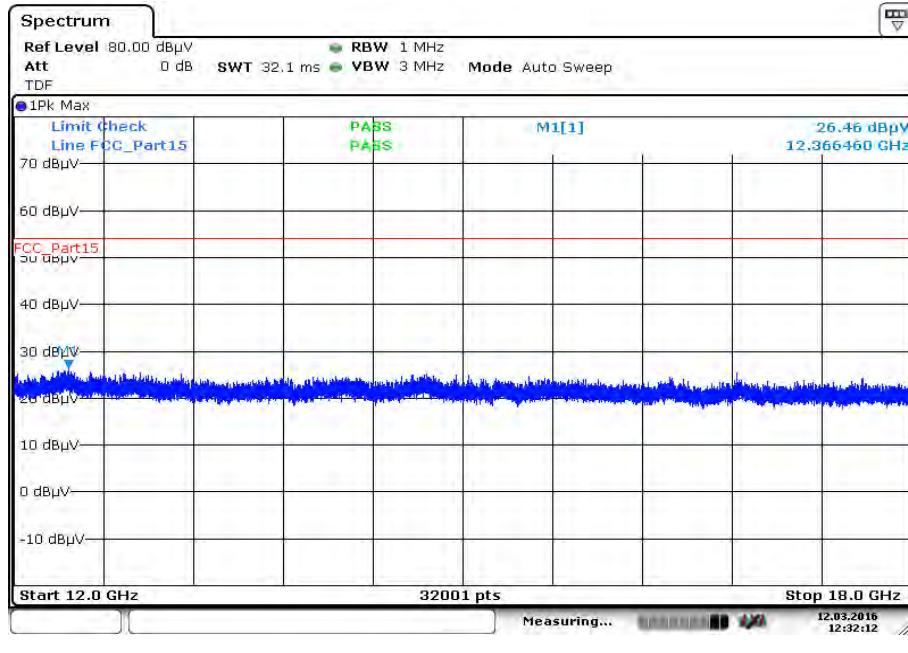
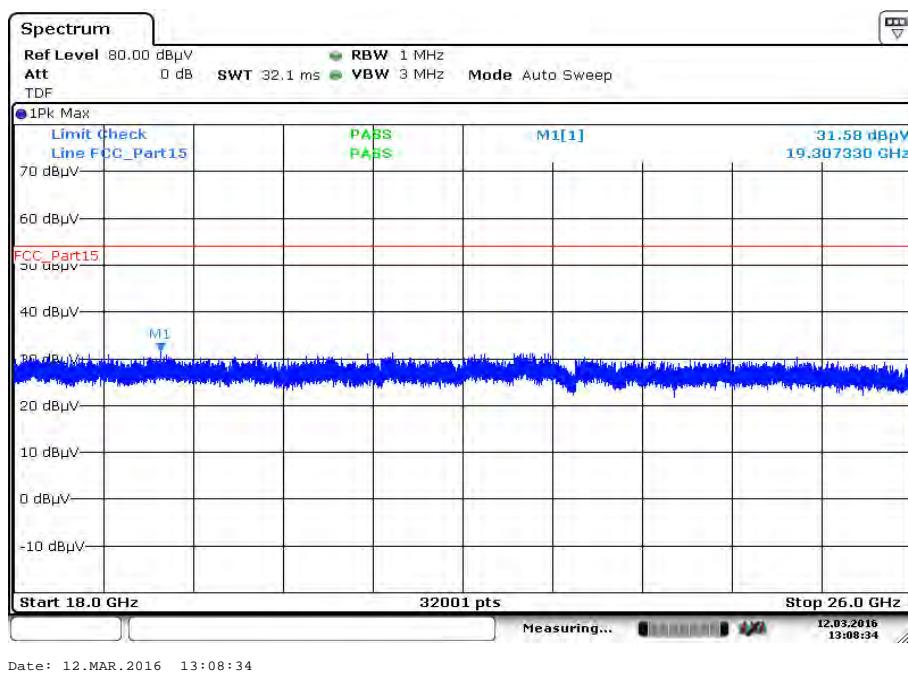
Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
35.664150	18.95	30.00	11.05	1000.0	120.000	98.0	V	308	13.8
45.258900	18.82	30.00	11.18	1000.0	120.000	170.0	V	345	13.8
48.235650	21.88	30.00	8.12	1000.0	120.000	98.0	V	285	13.1
51.114900	18.24	30.00	11.76	1000.0	120.000	98.0	V	40	12.5
767.896800	19.47	36.00	16.53	1000.0	120.000	170.0	H	73	22.7
866.186400	20.70	36.00	15.30	1000.0	120.000	170.0	V	36	23.7

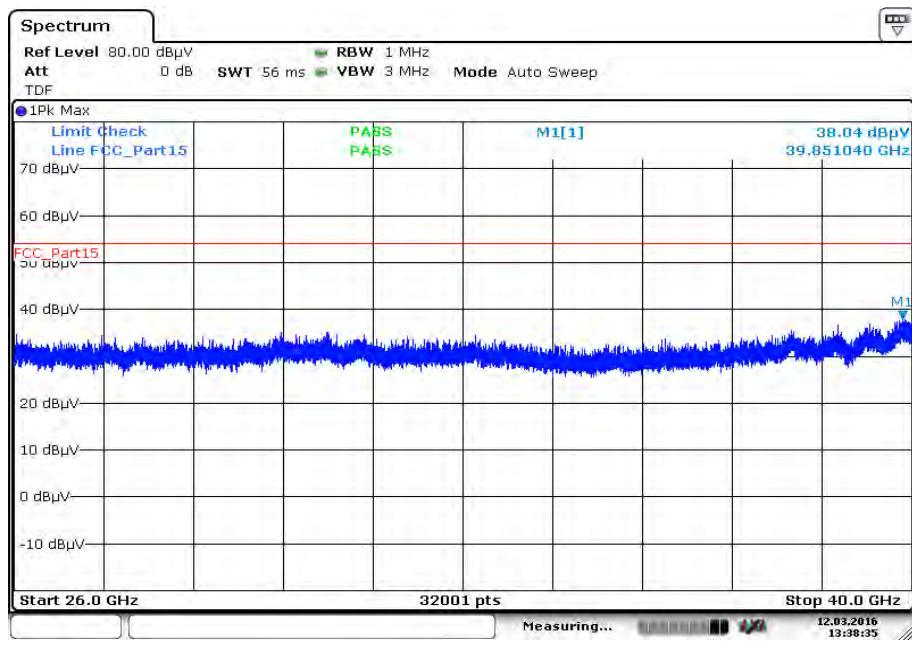
**Plot 2:** 1 GHz to 12.75 GHz, 5180 MHz, vertical & horizontal polarization



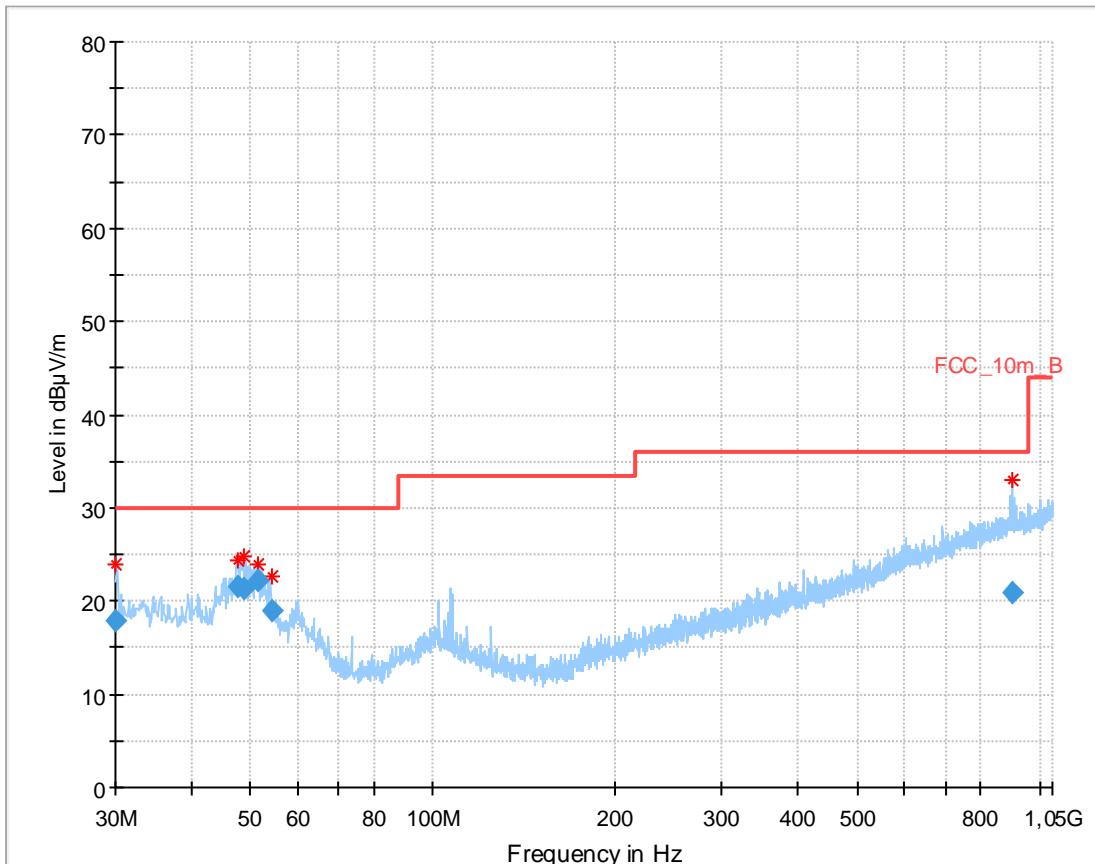
**Plot 3:** 4.5 GHz to 7 GHz, 5180 MHz, vertical & horizontal polarization



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

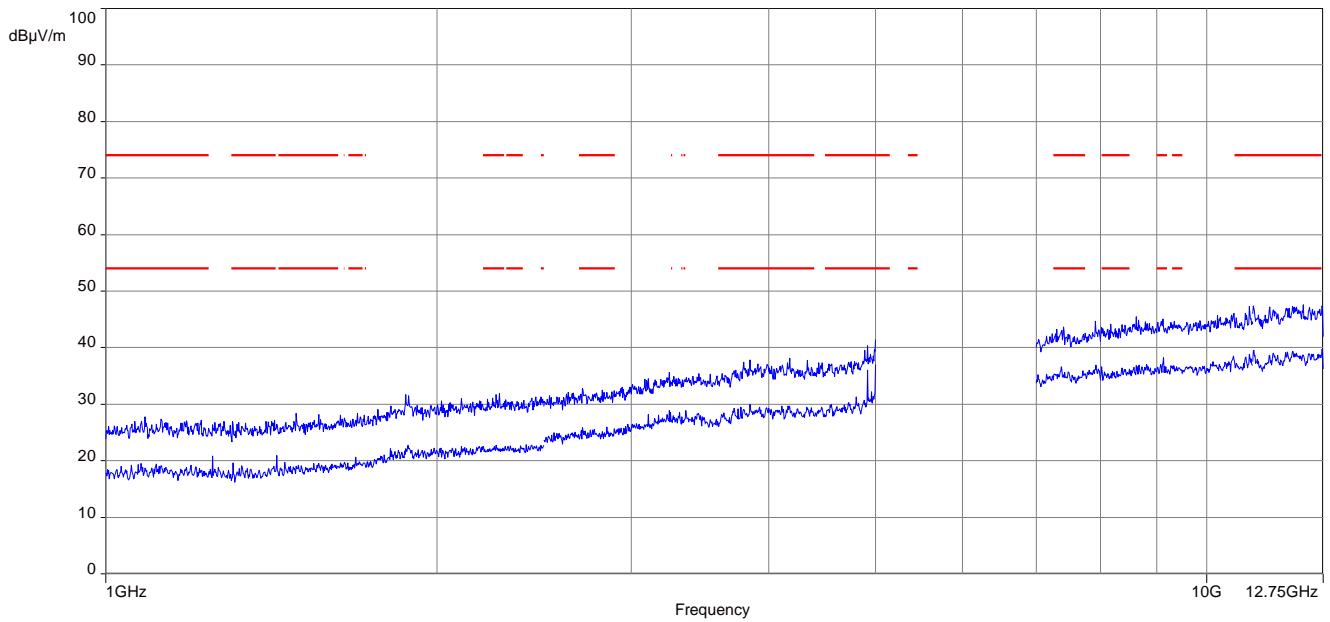
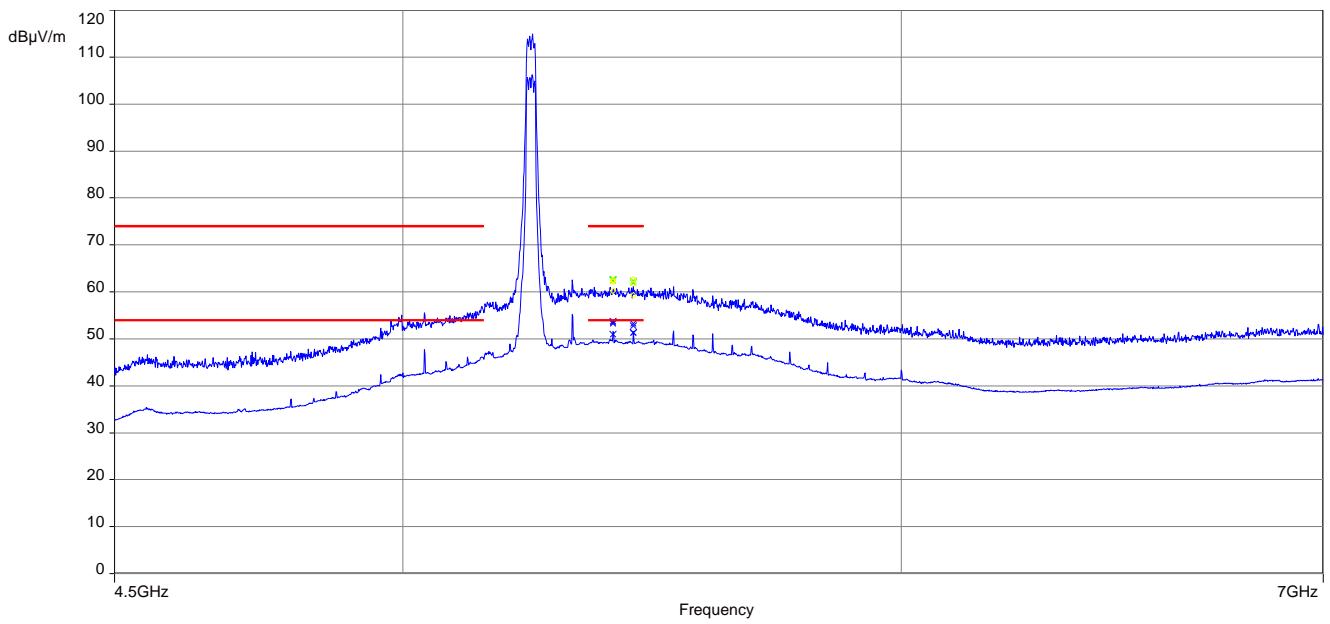
**Plot 6:** 26 GHz to 40 GHz, 5180 MHz, vertical & horizontal polarization

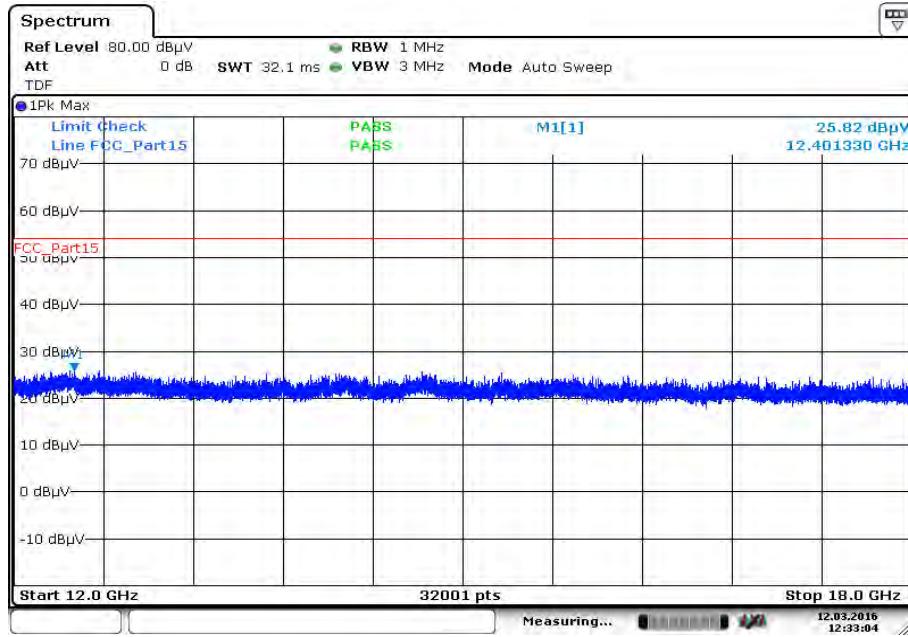
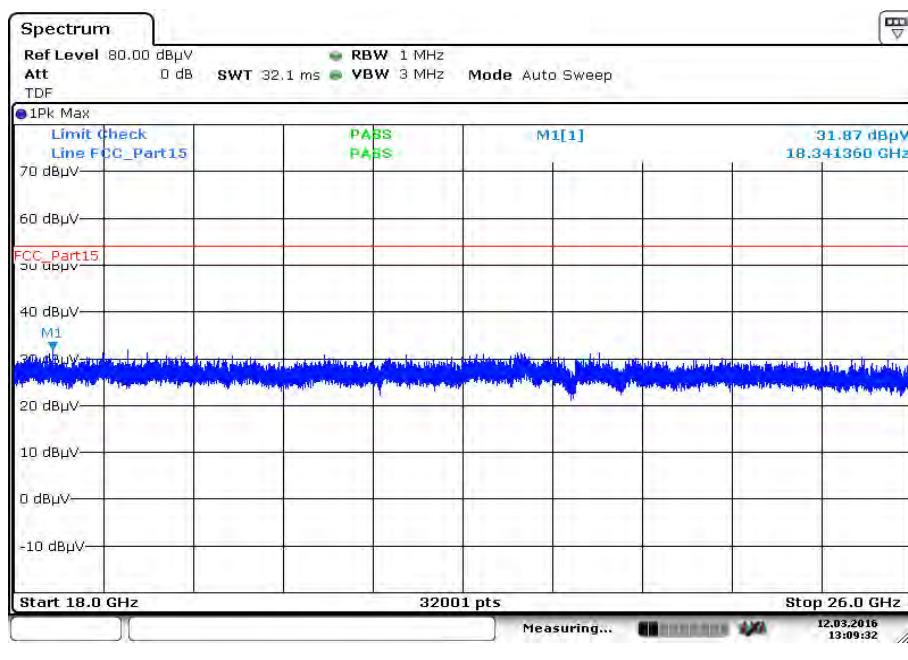
**Plot 7:** 30 MHz to 1 GHz, 5240 MHz, vertical & horizontal polarization

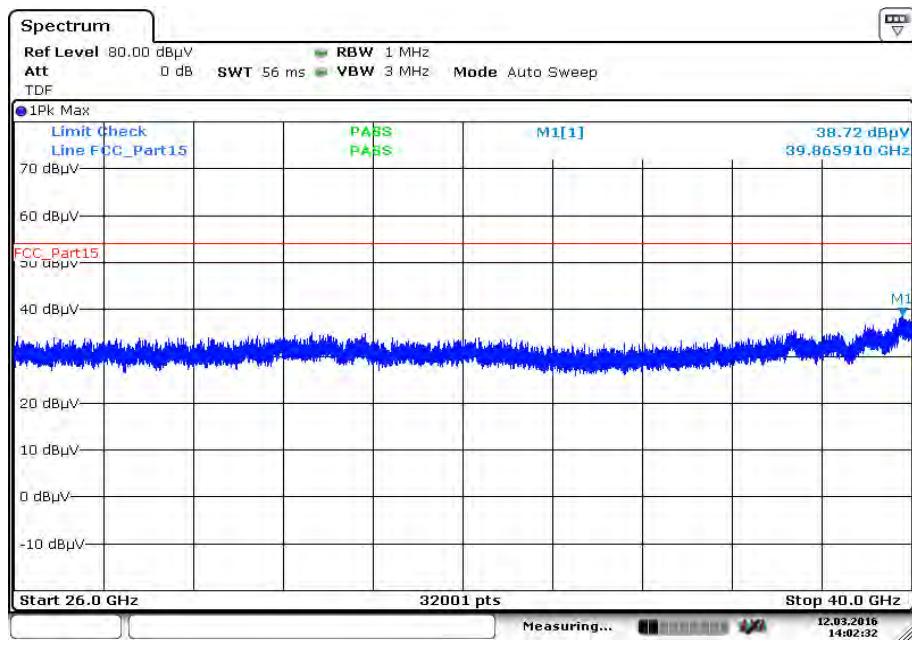


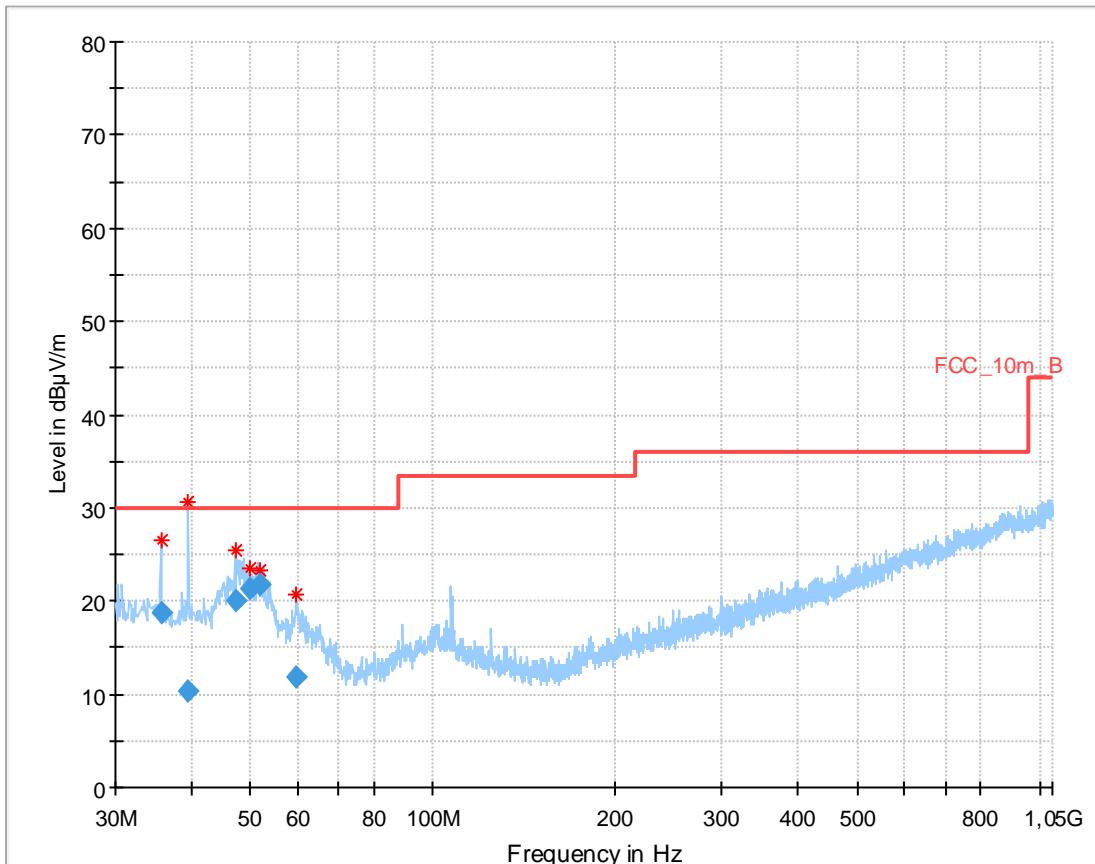
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.016187	17.92	30.00	12.08	1000.0	120.000	170.0	V	353	13.3
47.845500	21.53	30.00	8.47	1000.0	120.000	98.0	V	334	13.2
48.855150	21.36	30.00	8.64	1000.0	120.000	170.0	V	191	12.9
51.502350	22.25	30.00	7.75	1000.0	120.000	98.0	V	74	12.4
54.162300	19.01	30.00	10.99	1000.0	120.000	170.0	V	342	12.0
903.766050	20.93	36.00	15.07	1000.0	120.000	170.0	H	99	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

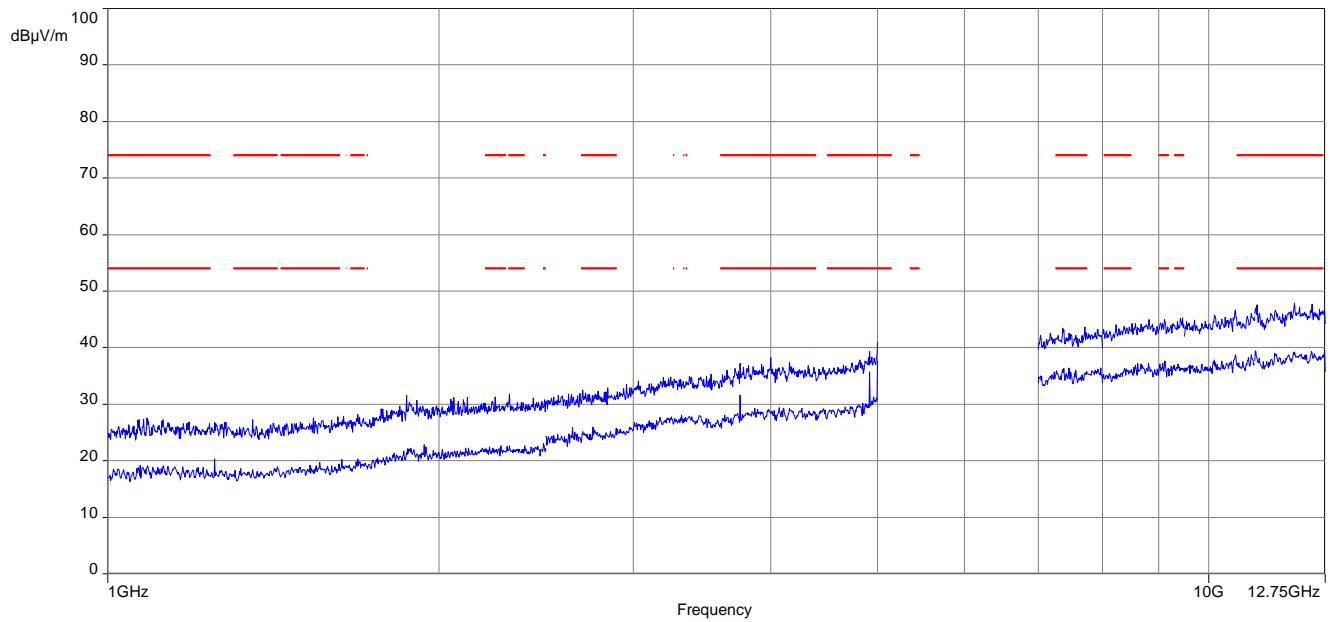
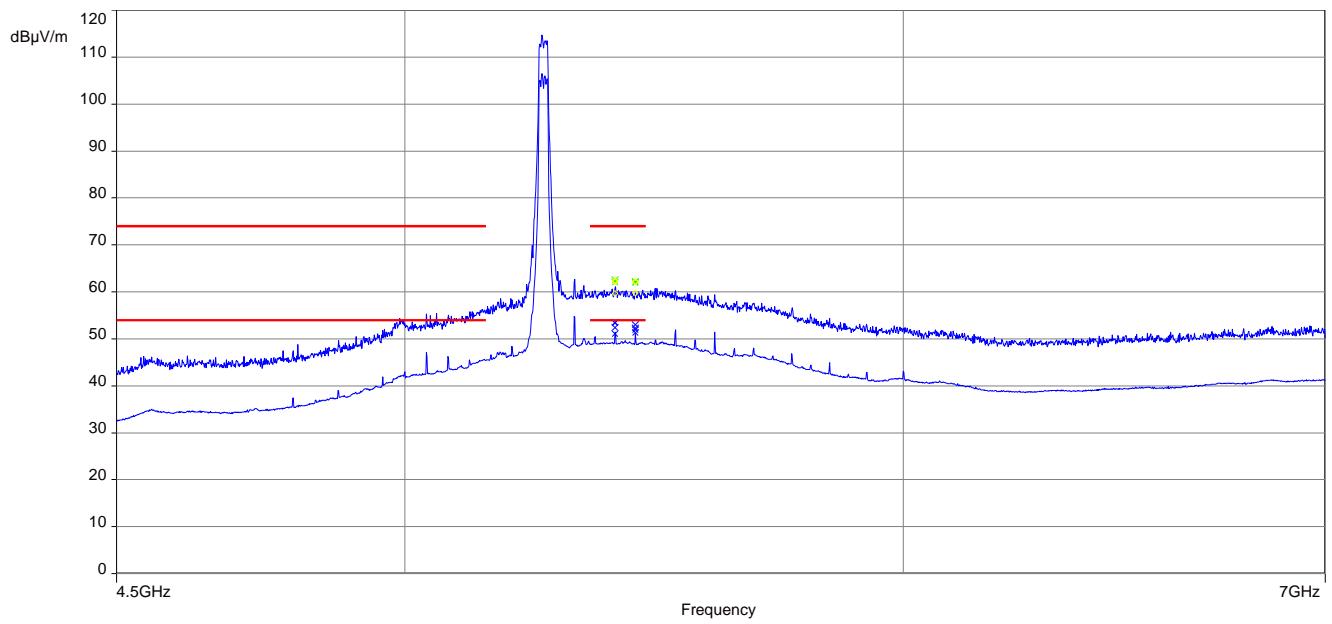
**Plot 10:** 12 GHz to 18 GHz, 5240 MHz, vertical & horizontal polarization**Plot 11:** 18 GHz to 26 GHz, 5240 MHz, vertical & horizontal polarization

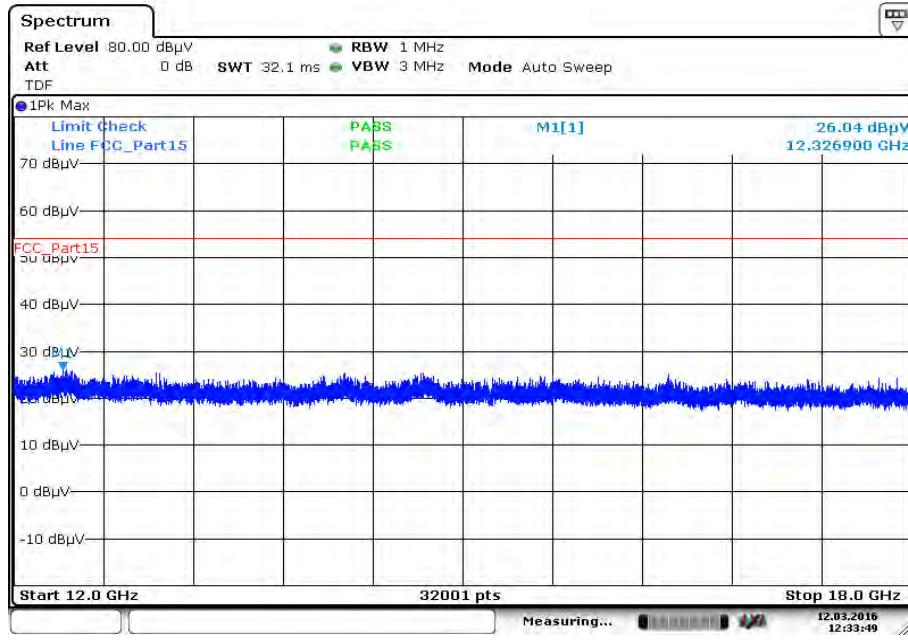
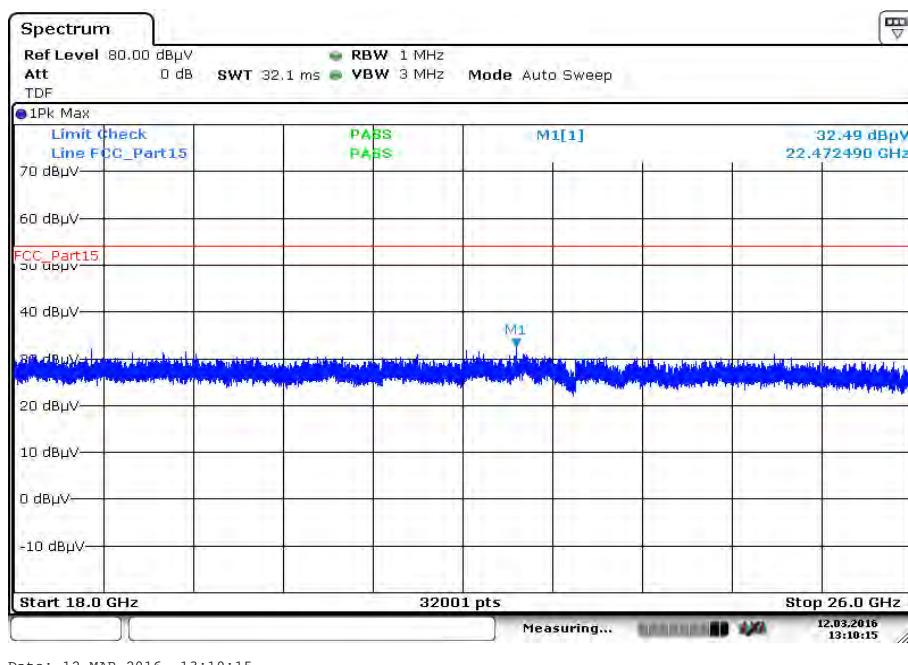
**Plot 12:** 26 GHz to 40 GHz, 5240 MHz, vertical & horizontal polarization

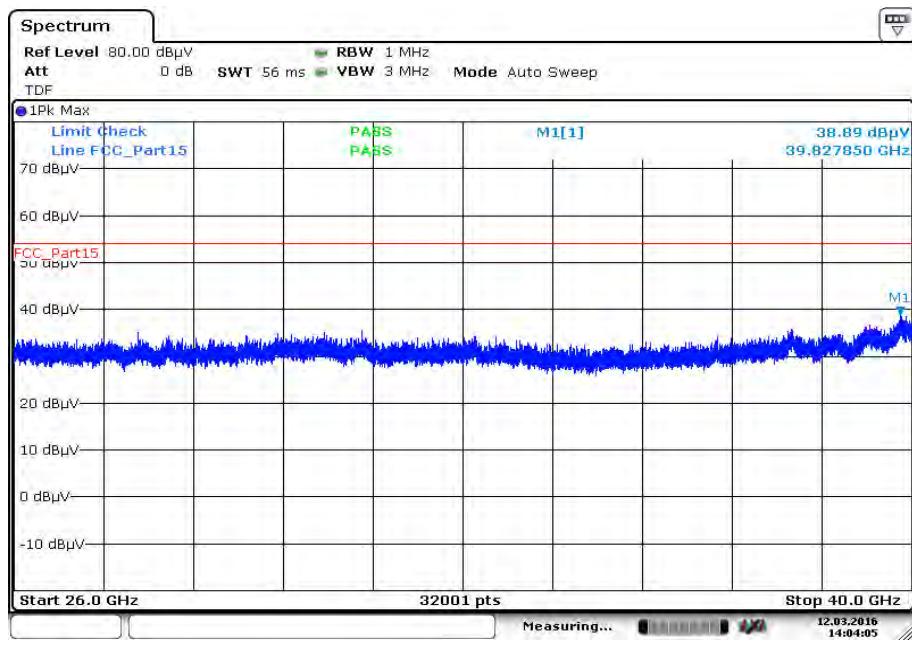
**Plot 13:** 30 MHz to 1 GHz, 5260 MHz, vertical & horizontal polarization

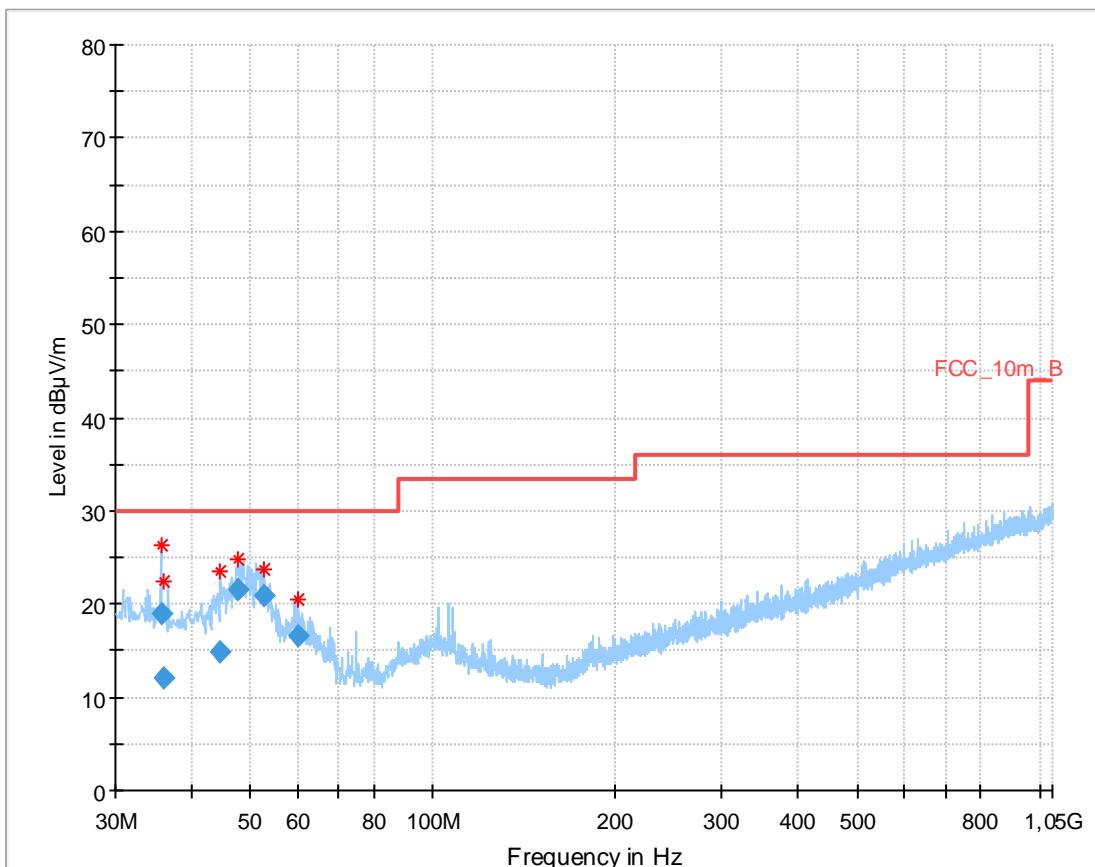
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
35.654700	18.69	30.00	11.31	1000.0	120.000	101.0	V	6	13.8
39.335250	10.29	30.00	19.71	1000.0	120.000	103.0	H	239	14.0
47.221350	20.08	30.00	9.92	1000.0	120.000	98.0	V	193	13.3
49.874400	21.32	30.00	8.68	1000.0	120.000	101.0	V	16	12.7
51.840150	21.70	30.00	8.30	1000.0	120.000	98.0	V	80	12.3
59.693550	11.95	30.00	18.05	1000.0	120.000	101.0	V	4	10.6

**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

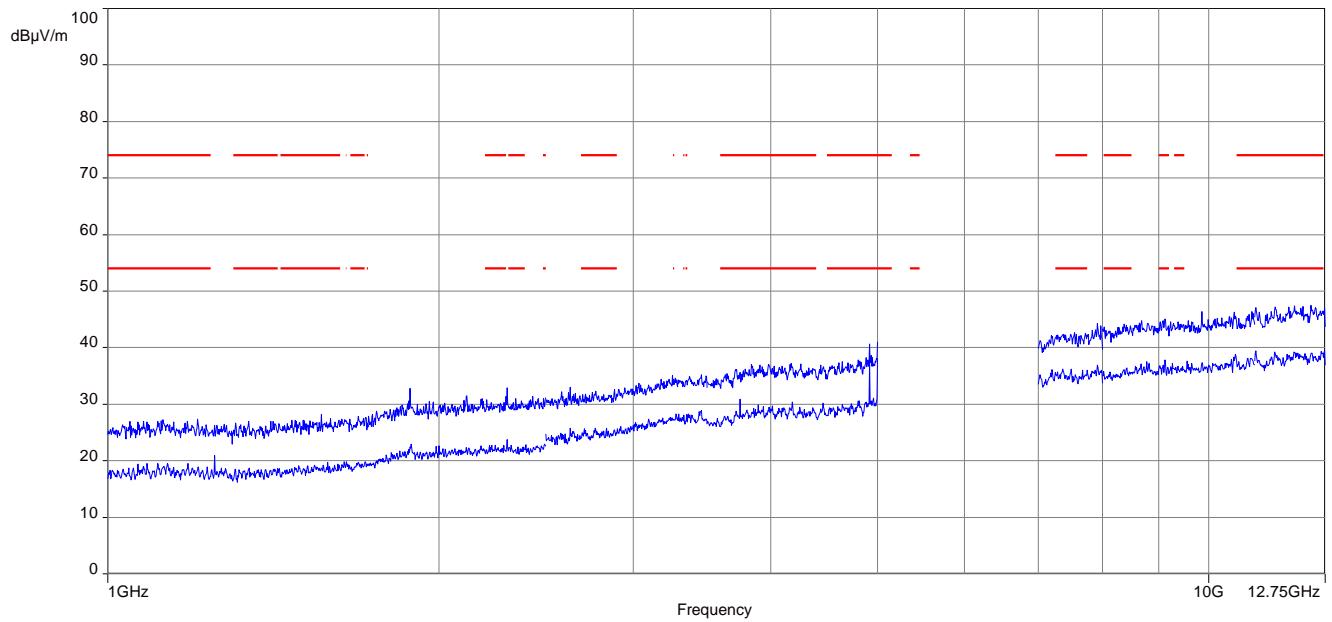
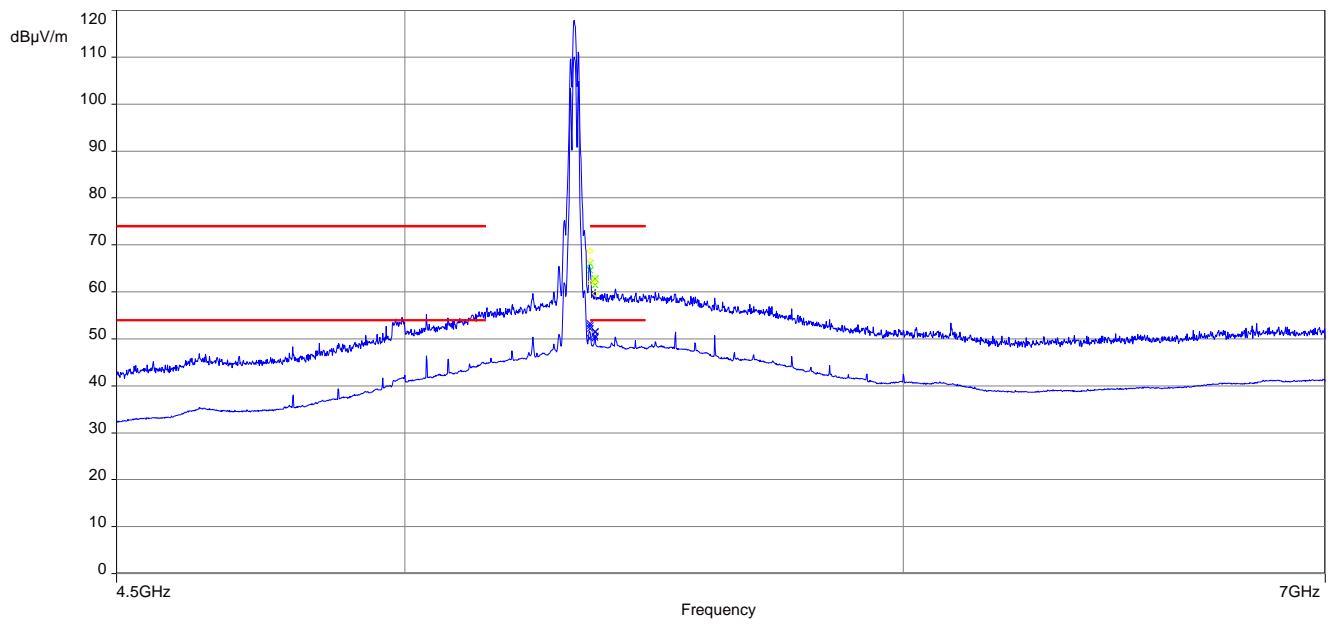
**Plot 16:** 12 GHz to 18 GHz, 5260 MHz, vertical & horizontal polarization**Plot 17:** 18 GHz to 26 GHz, 5260 MHz, vertical & horizontal polarization

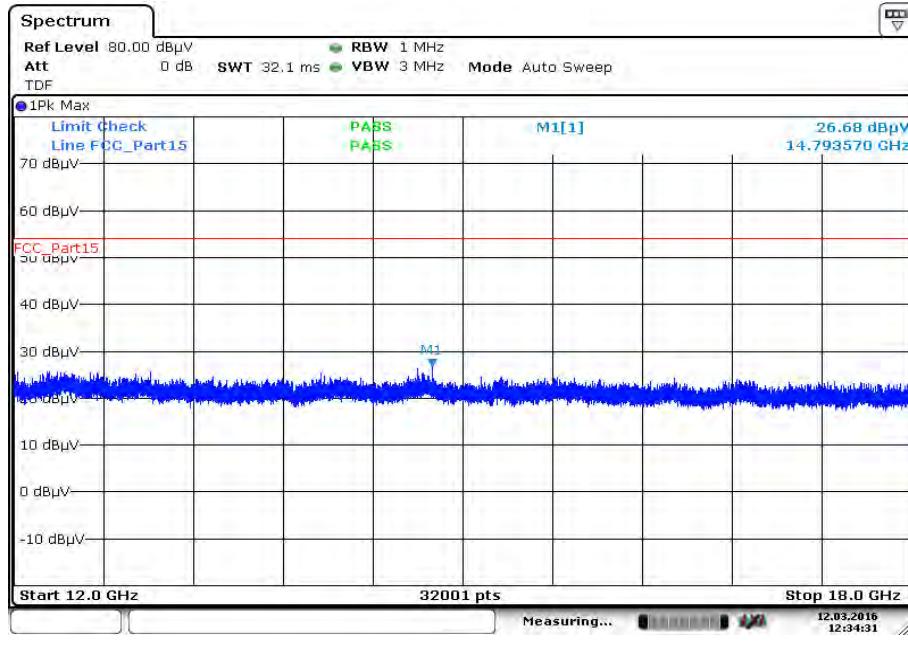
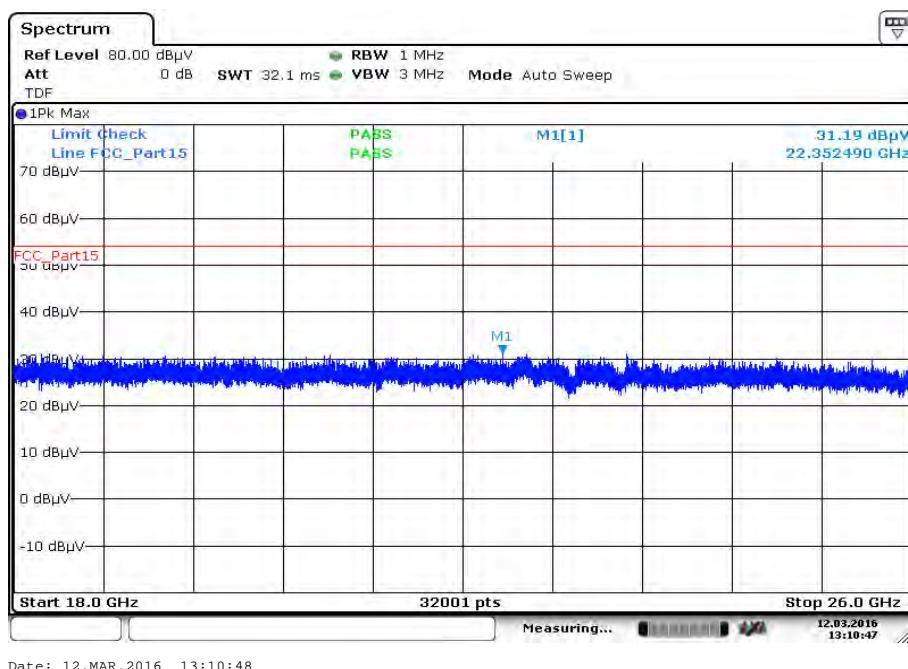
**Plot 18:** 26 GHz to 40 GHz, 5260 MHz, vertical & horizontal polarization

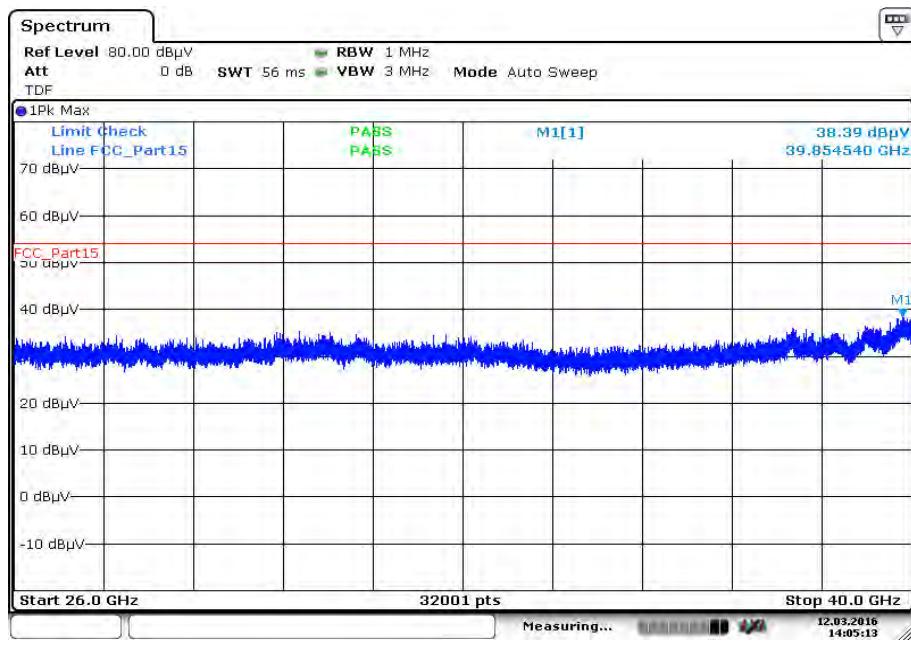
**Plot 19:** 30 MHz to 1 GHz, 5320 MHz, vertical & horizontal polarization

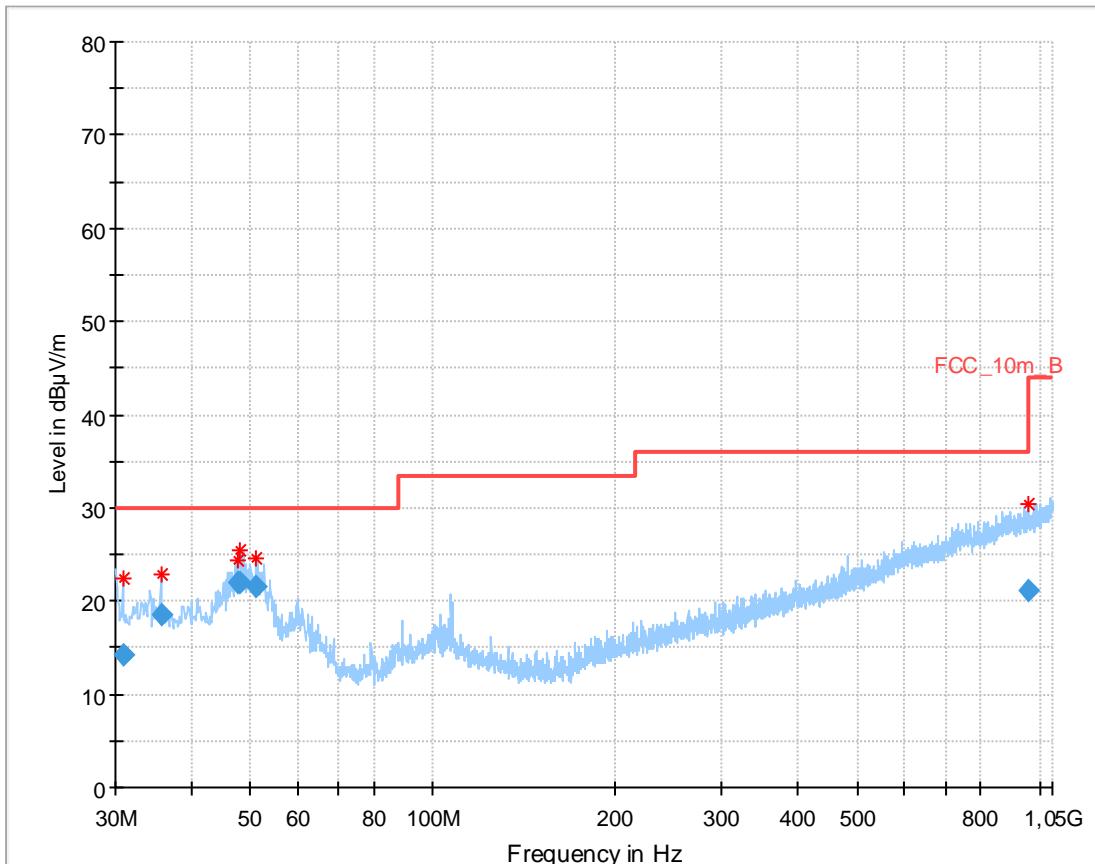
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
35.689350	18.87	30.00	11.13	1000.0	120.000	103.0	V	311	13.8
36.096750	12.10	30.00	17.90	1000.0	120.000	100.0	V	179	13.8
44.729850	14.82	30.00	15.18	1000.0	120.000	98.0	V	106	13.9
47.863050	21.47	30.00	8.53	1000.0	120.000	98.0	V	281	13.1
52.526550	20.93	30.00	9.07	1000.0	120.000	98.0	V	78	12.2
59.775000	16.57	30.00	13.43	1000.0	120.000	98.0	V	148	10.6

**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

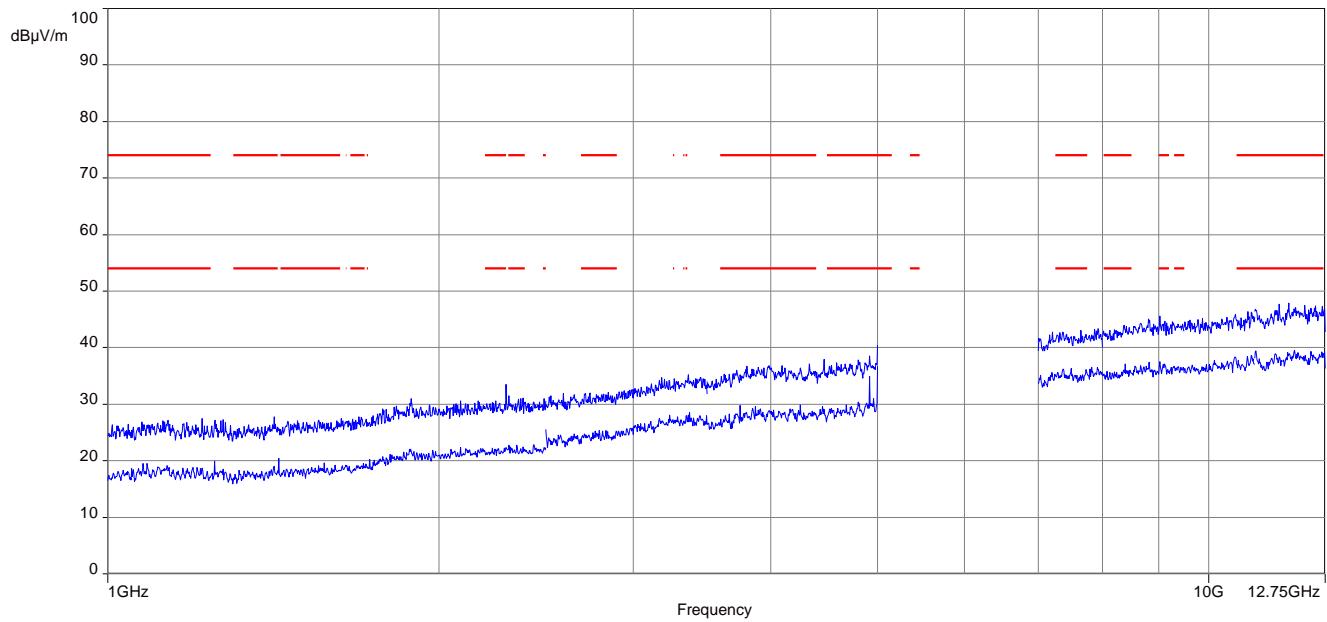
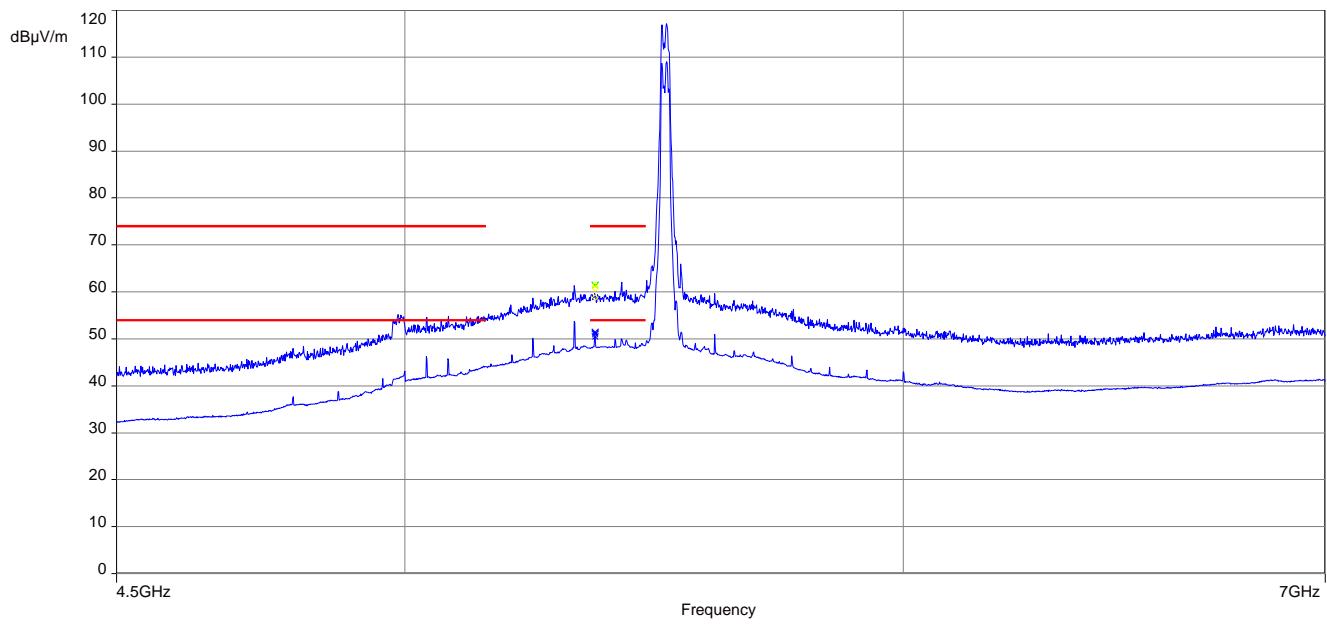
**Plot 22:** 12 GHz to 18 GHz, 5320 MHz, vertical & horizontal polarization**Plot 23:** 18 GHz to 26 GHz, 5320 MHz, vertical & horizontal polarization

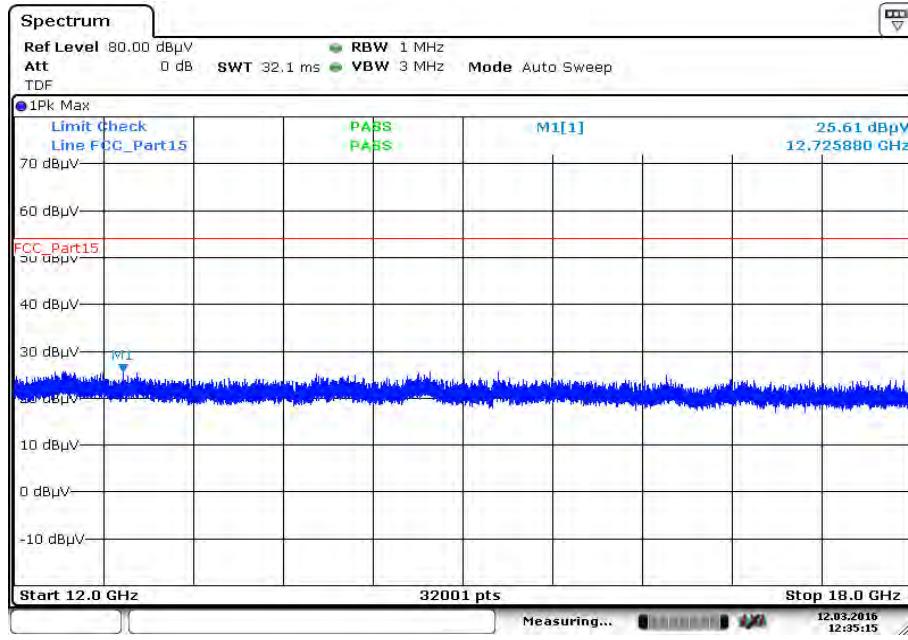
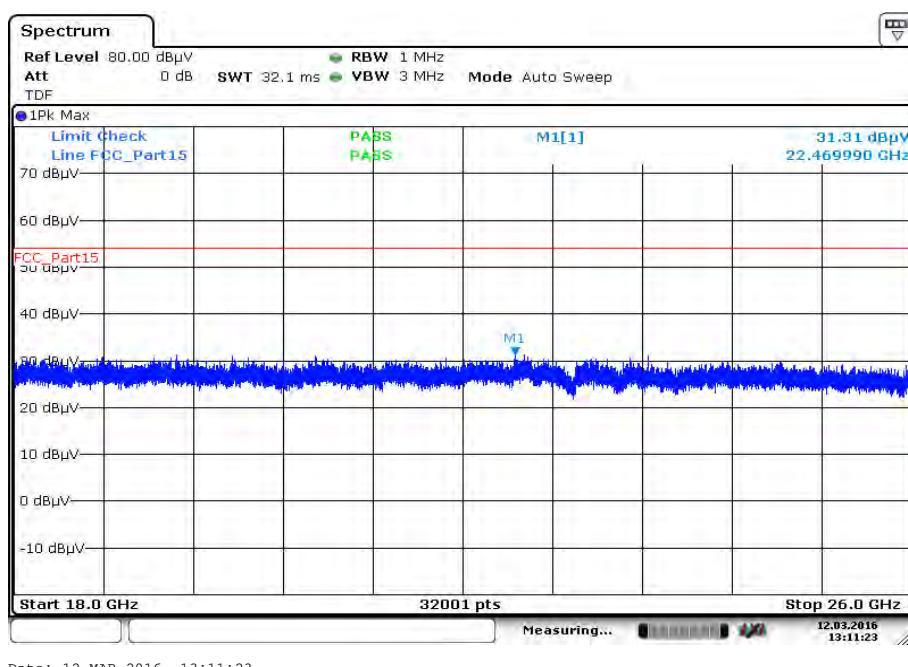
**Plot 24:** 26 GHz to 40 GHz, 5320 MHz, vertical & horizontal polarization

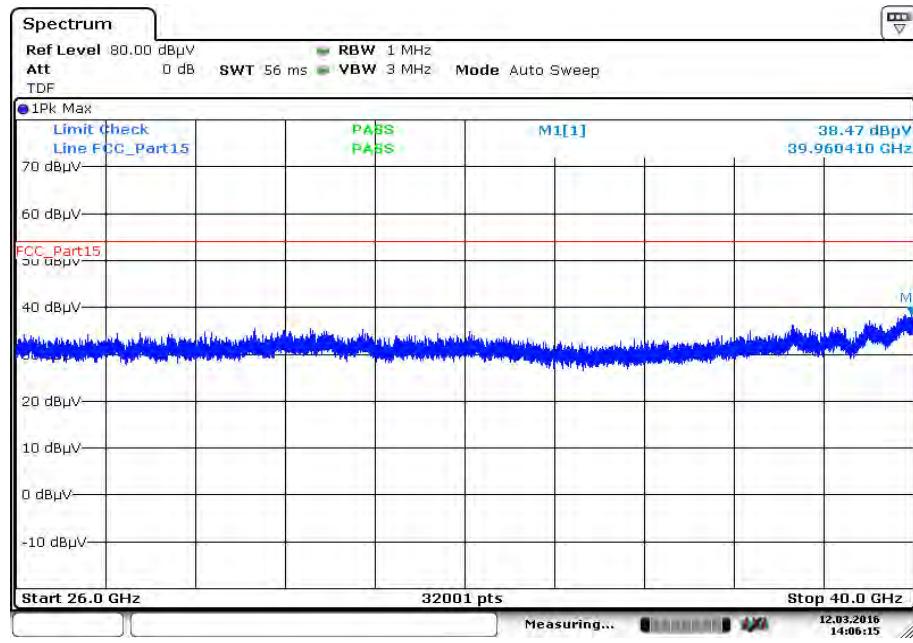
**Plot 25:** 30 MHz to 1 GHz, 5500 MHz, vertical & horizontal polarization

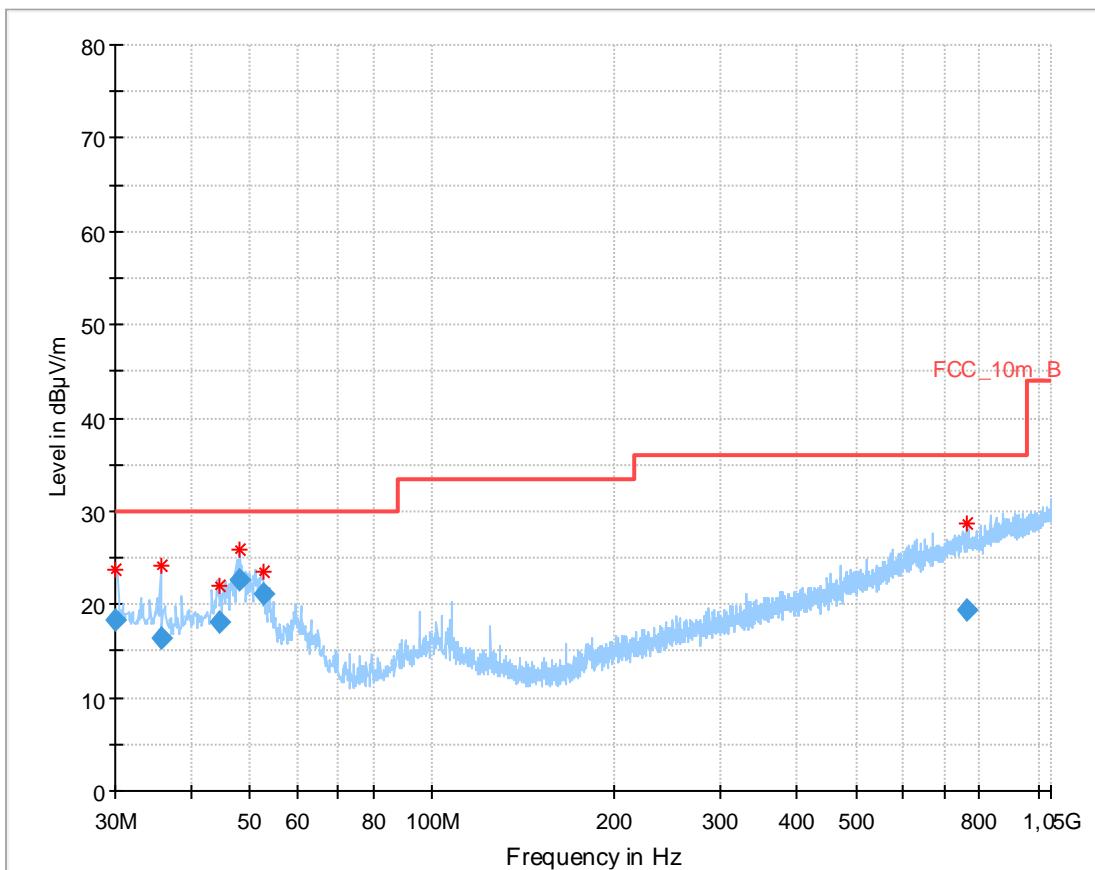
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.907800	14.16	30.00	15.84	1000.0	120.000	98.0	V	311	13.4
35.698650	18.62	30.00	11.38	1000.0	120.000	98.0	V	264	13.8
47.562300	22.01	30.00	7.99	1000.0	120.000	98.0	V	35	13.2
48.176400	22.01	30.00	7.99	1000.0	120.000	98.0	V	58	13.1
51.194400	21.50	30.00	8.50	1000.0	120.000	98.0	V	32	12.4
957.450450	21.05	36.00	14.95	1000.0	120.000	170.0	H	32	24.3

**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

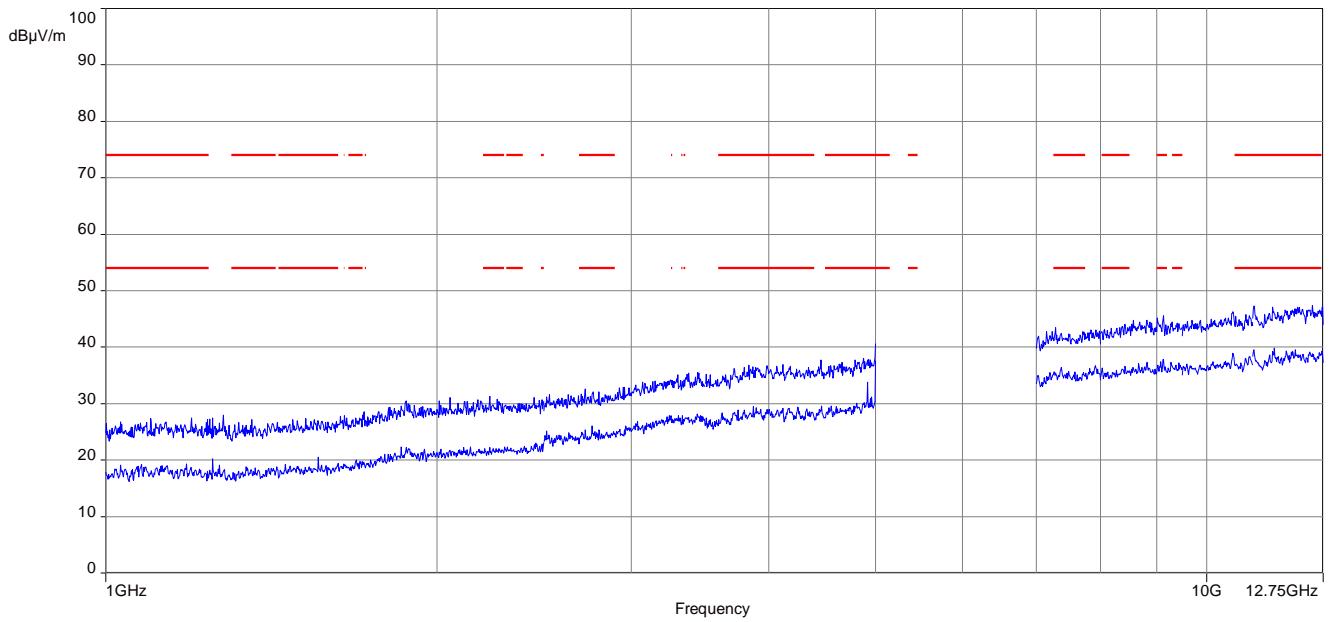
**Plot 30:** 26 GHz to 40 GHz, 5500 MHz, vertical & horizontal polarization

**Plot 31:** 30 MHz to 1 GHz, 5600 MHz, vertical & horizontal polarization

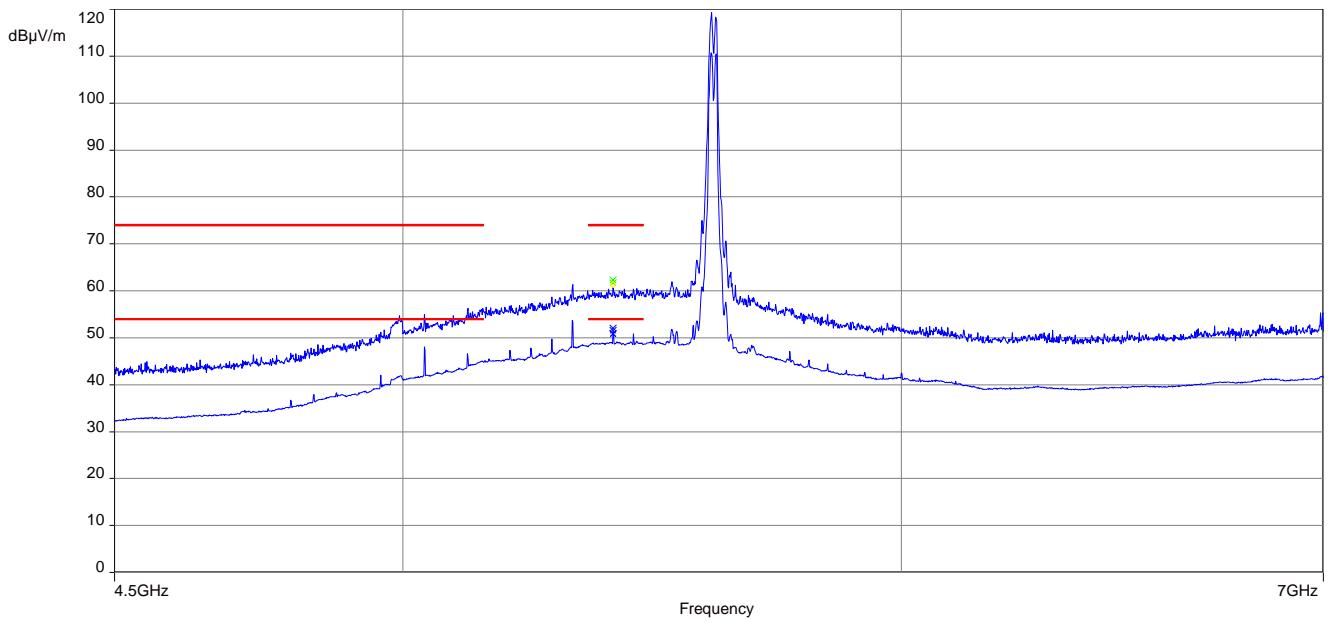
## Final\_Result

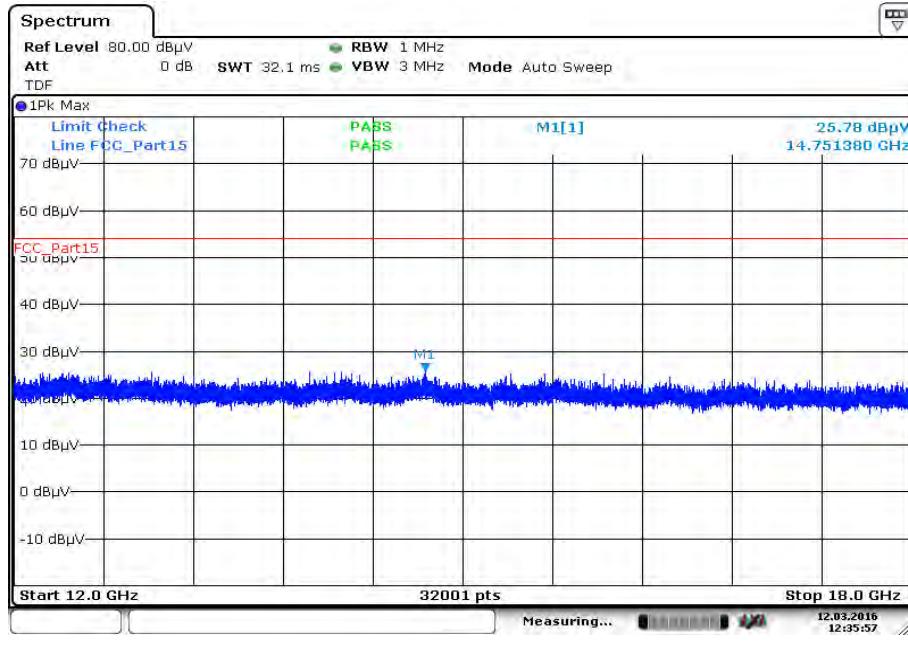
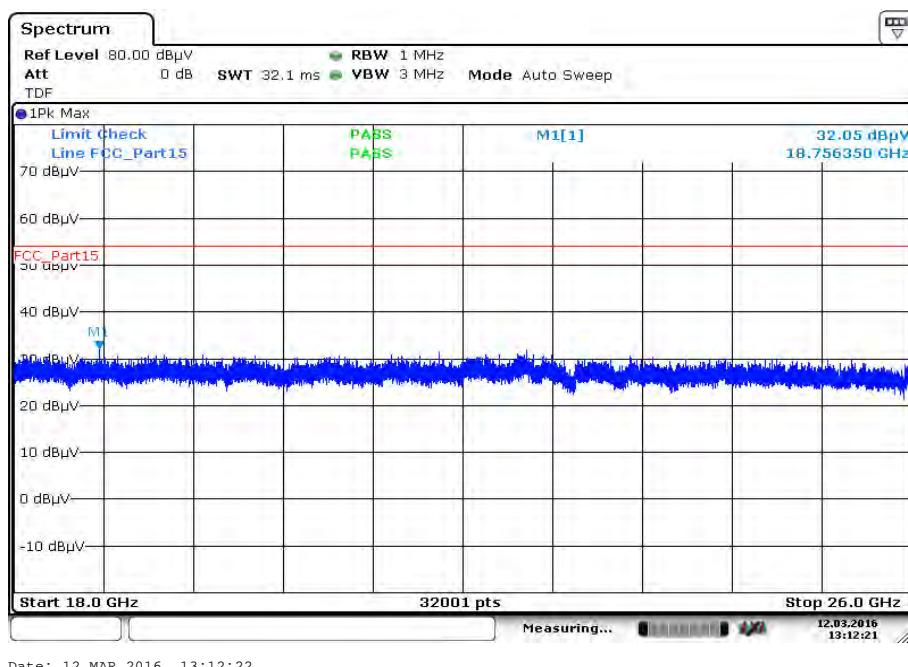
Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.023619	18.39	30.00	11.61	1000.0	120.000	101.0	V	157	13.3
35.732550	16.30	30.00	13.70	1000.0	120.000	170.0	V	231	13.8
44.583300	18.01	30.00	11.99	1000.0	120.000	98.0	V	339	13.9
48.203700	22.74	30.00	7.26	1000.0	120.000	98.0	V	350	13.1
52.537050	21.17	30.00	8.83	1000.0	120.000	98.0	V	12	12.2
761.659200	19.43	36.00	16.57	1000.0	120.000	170.0	H	205	22.7

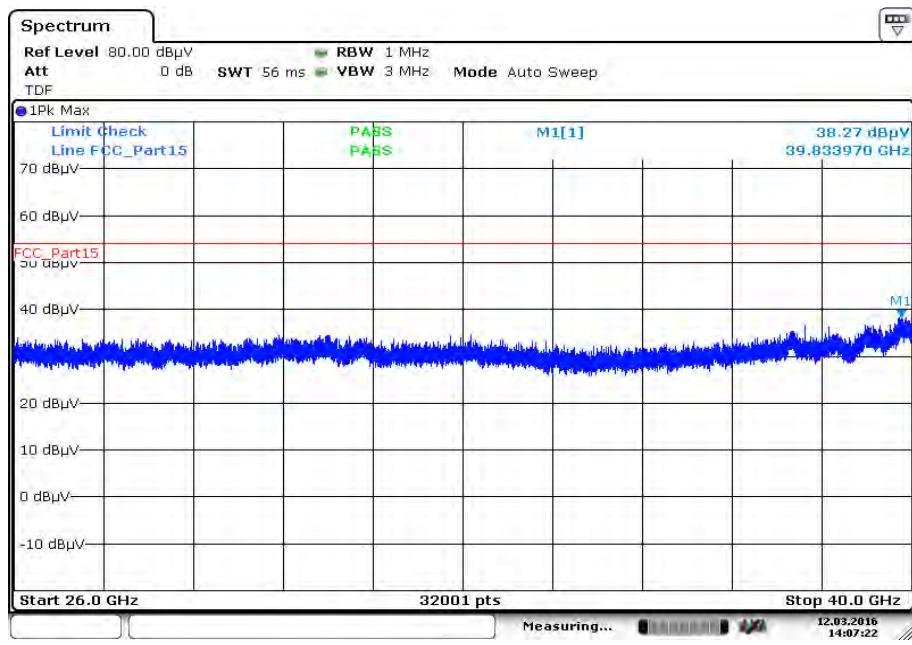
**Plot 32:** 1 GHz to 12.75 GHz, 5600 MHz, vertical & horizontal polarization

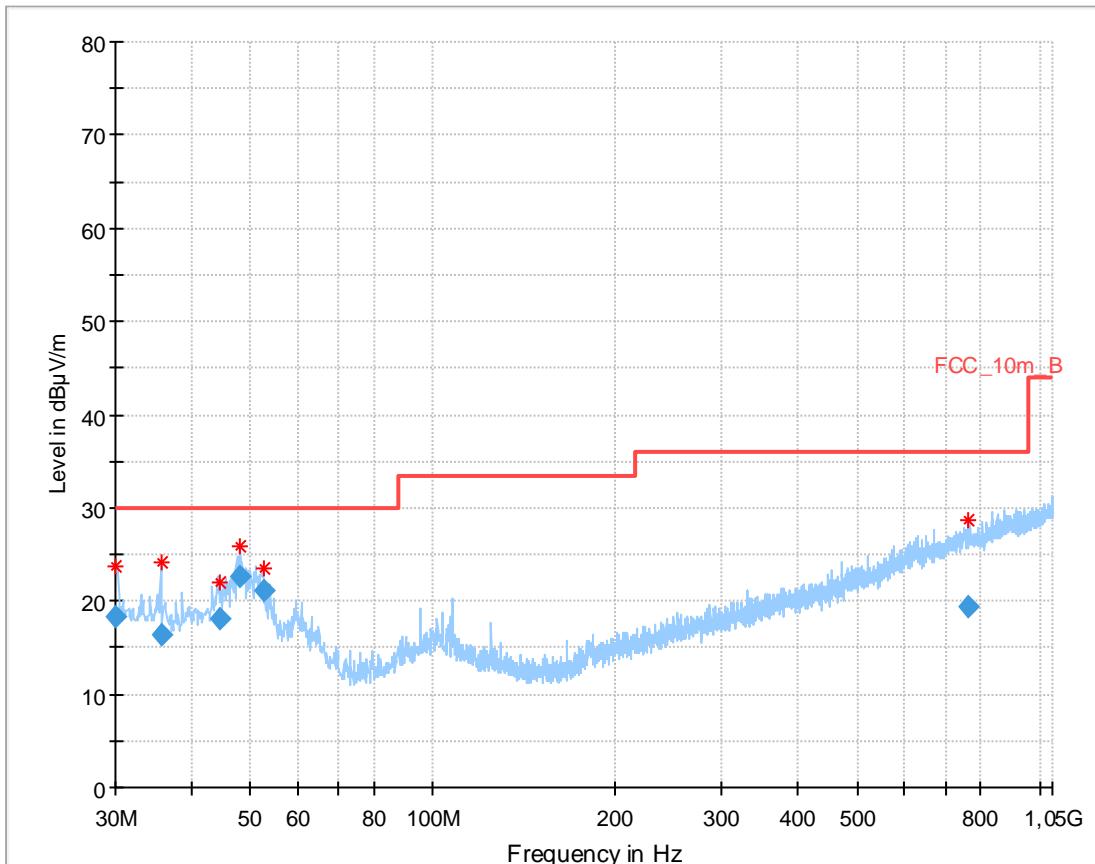


**Plot 33:** 4.5 GHz to 7 GHz, 5600 MHz, vertical & horizontal polarization



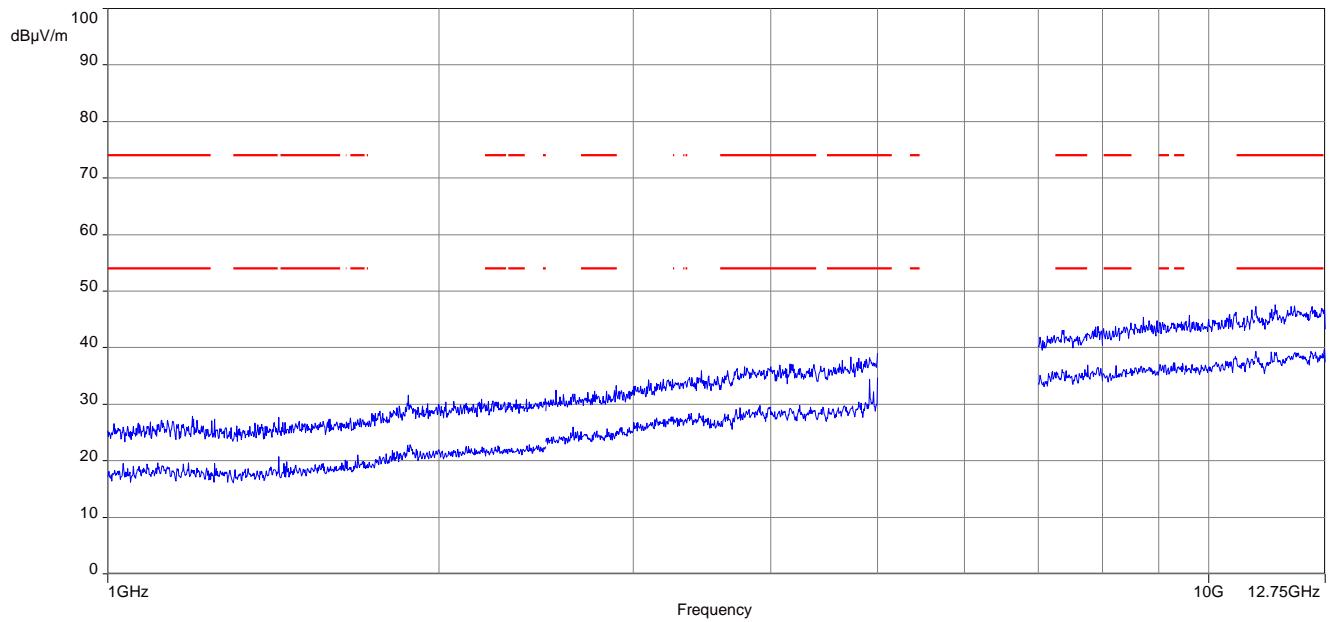
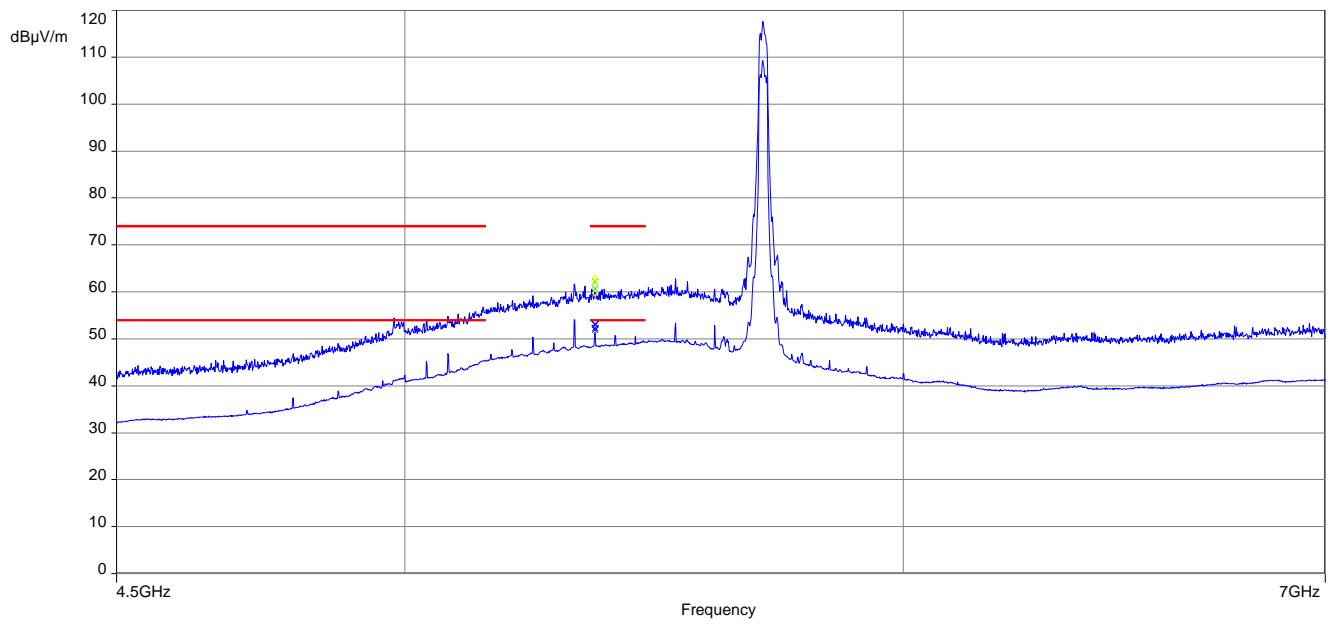
**Plot 34:** 12 GHz to 18 GHz, 5600 MHz, vertical & horizontal polarization**Plot 35:** 18 GHz to 26 GHz, 5600 MHz, vertical & horizontal polarization

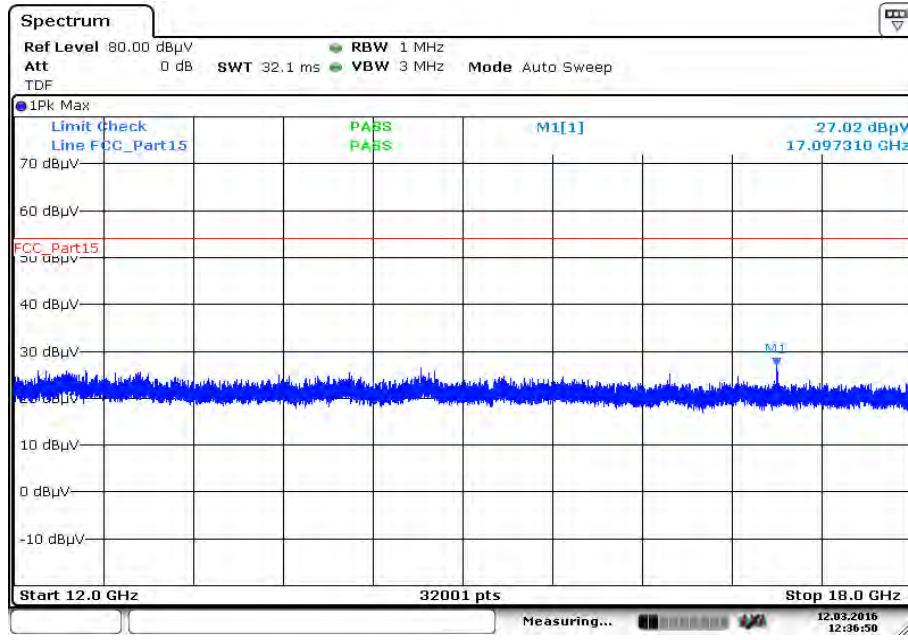
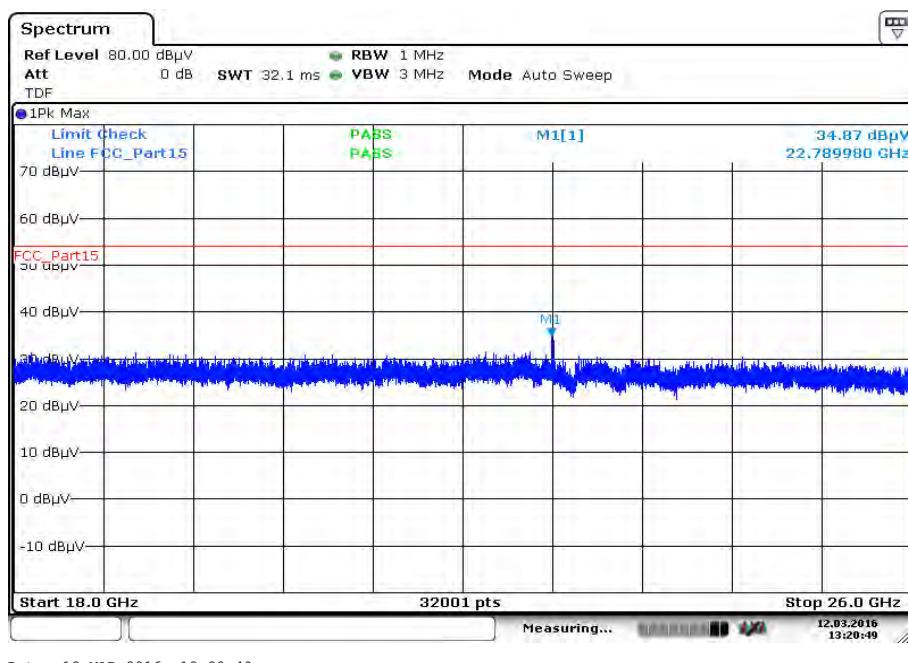
**Plot 36:** 26 GHz to 40 GHz, 5600 MHz, vertical & horizontal polarization

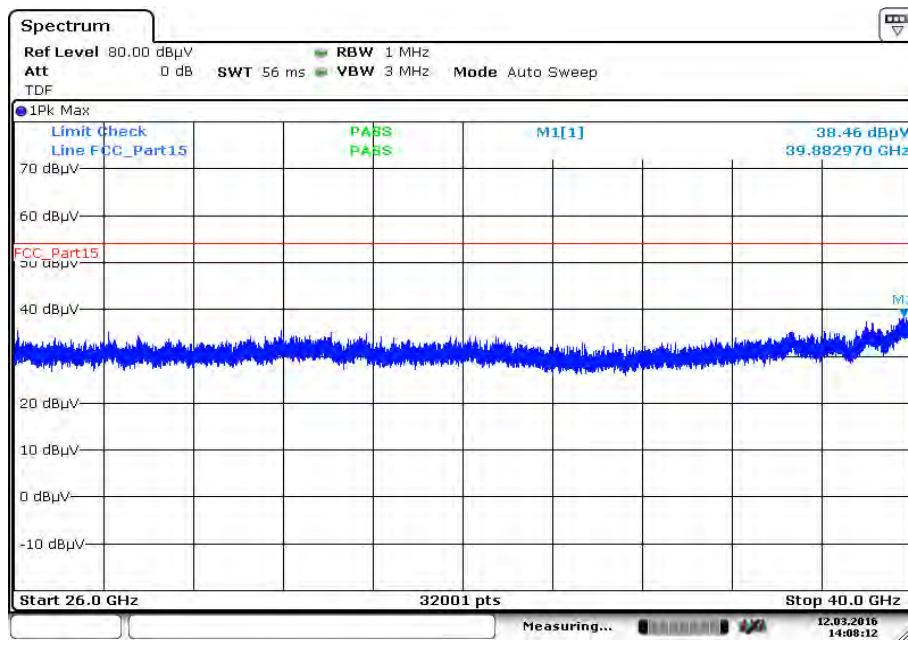
**Plot 37:** 30 MHz to 1 GHz, 5700 MHz, vertical & horizontal polarization

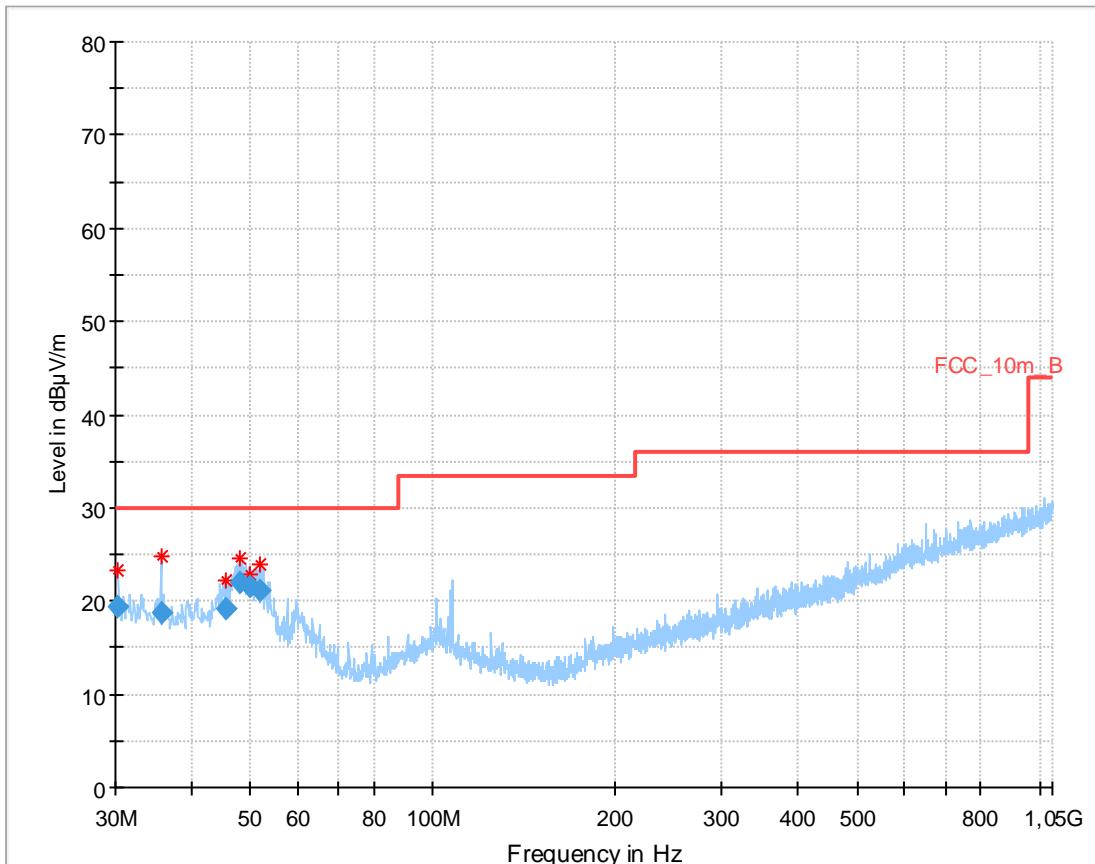
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.023619	18.39	30.00	11.61	1000.0	120.000	101.0	V	157	13.3
35.732550	16.30	30.00	13.70	1000.0	120.000	170.0	V	231	13.8
44.583300	18.01	30.00	11.99	1000.0	120.000	98.0	V	339	13.9
48.203700	22.74	30.00	7.26	1000.0	120.000	98.0	V	350	13.1
52.537050	21.17	30.00	8.83	1000.0	120.000	98.0	V	12	12.2
761.659200	19.43	36.00	16.57	1000.0	120.000	170.0	H	205	22.7

**Plot 38:** 1 GHz to 12.75 GHz, 5700 MHz, vertical & horizontal polarization**Plot 39:** 4.5 GHz to 7 GHz, 5700 MHz, vertical & horizontal polarization

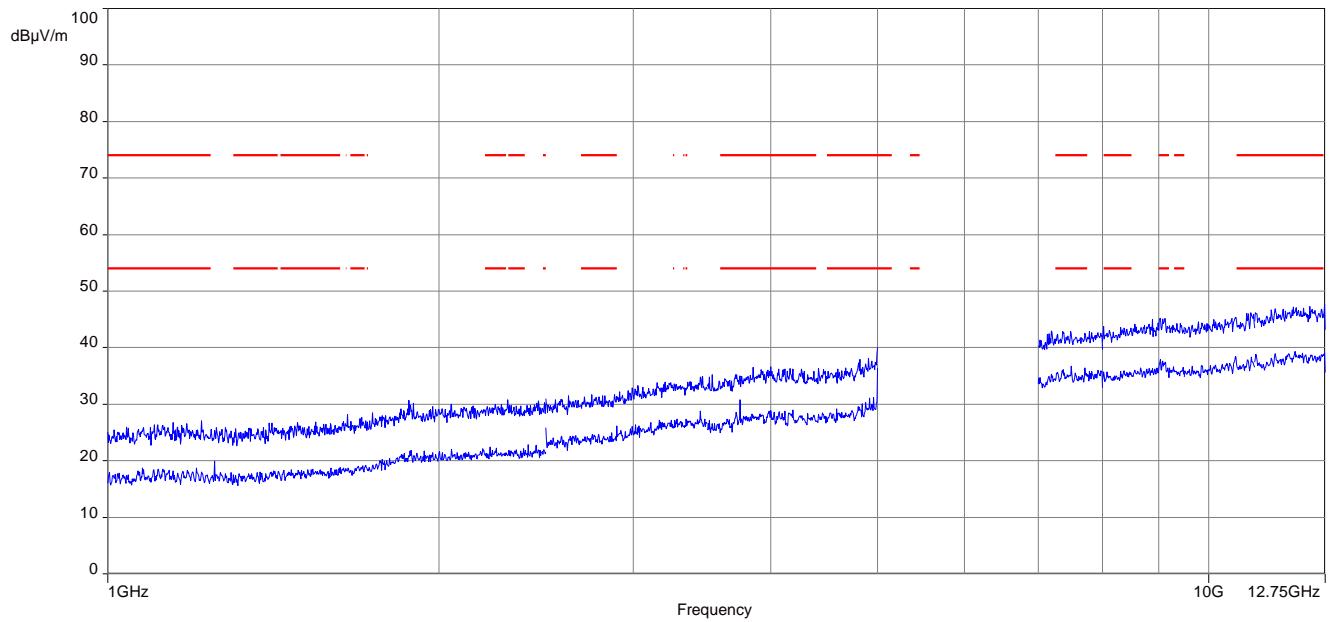
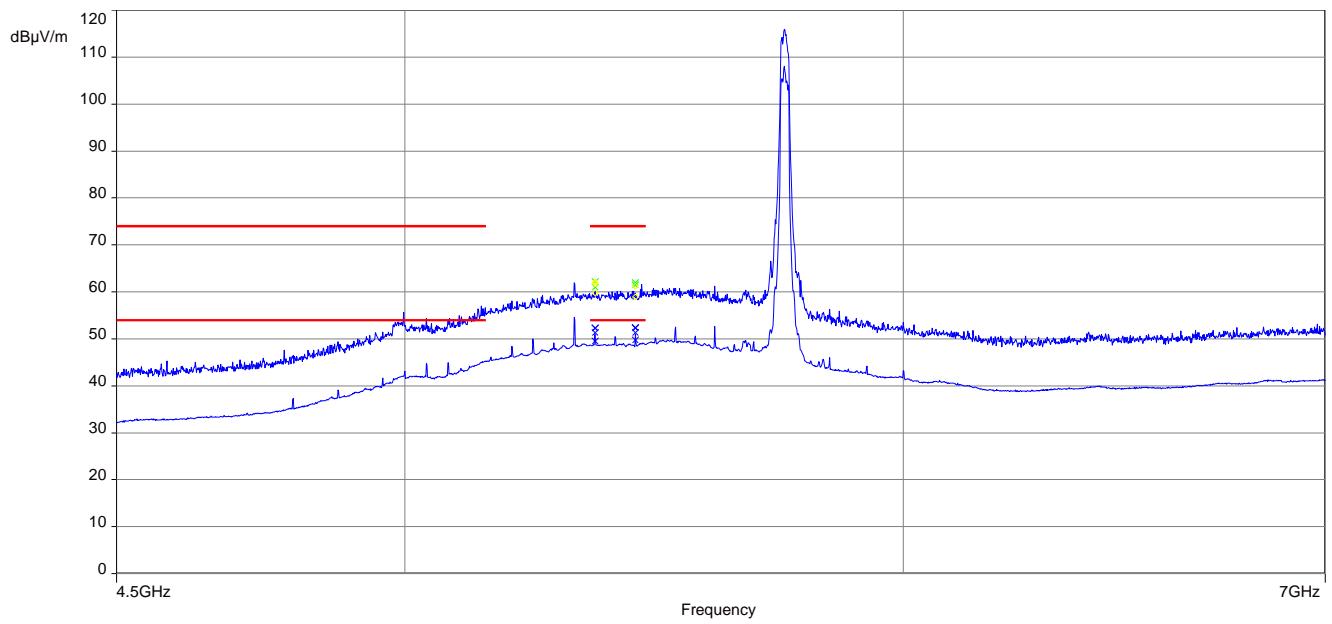
**Plot 40:** 12 GHz to 18 GHz, 5700 MHz, vertical & horizontal polarization**Plot 41:** 18 GHz to 26 GHz, 5700 MHz, vertical & horizontal polarization

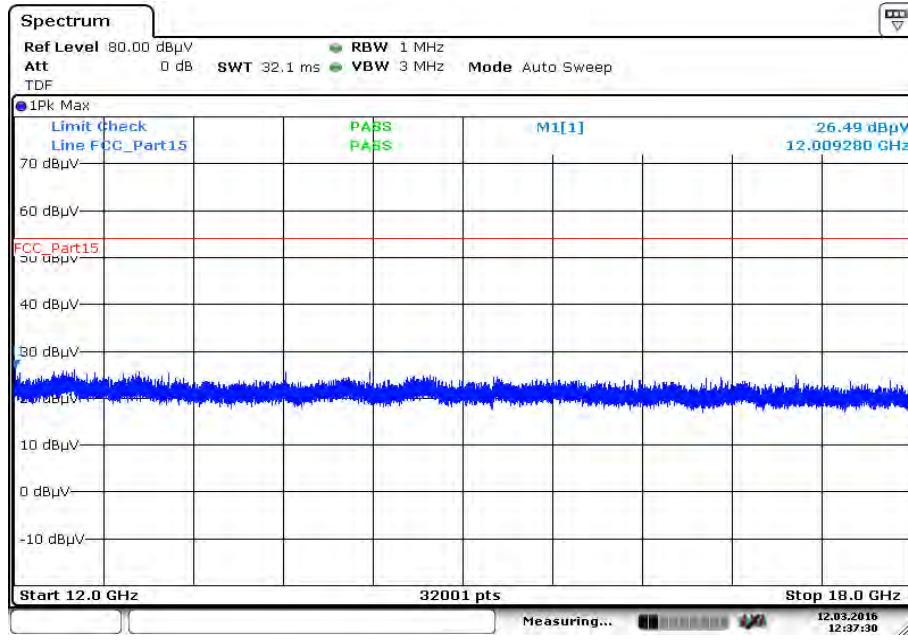
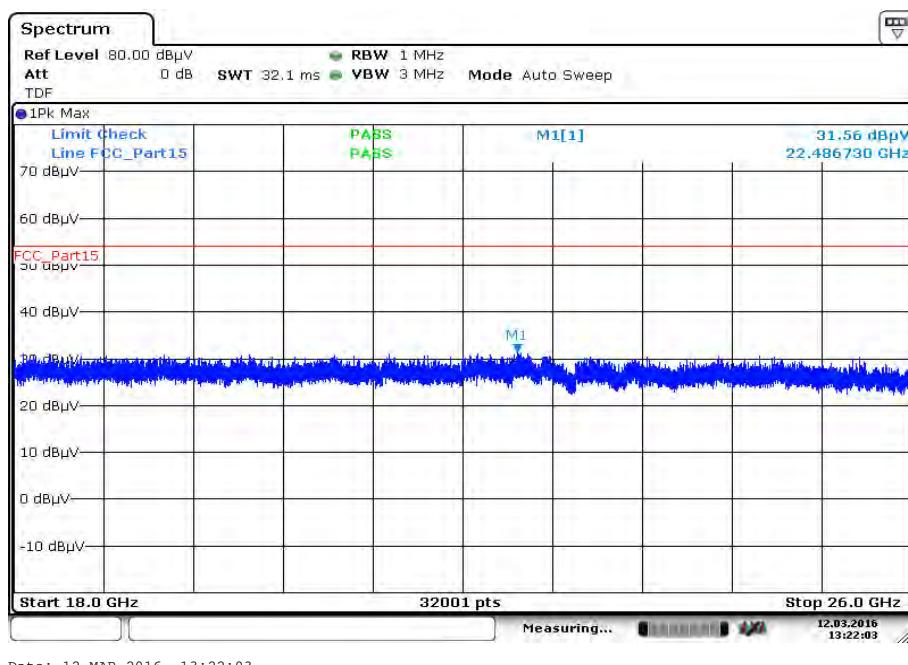
**Plot 42:** 26 GHz to 40 GHz, 5700 MHz, vertical & horizontal polarization

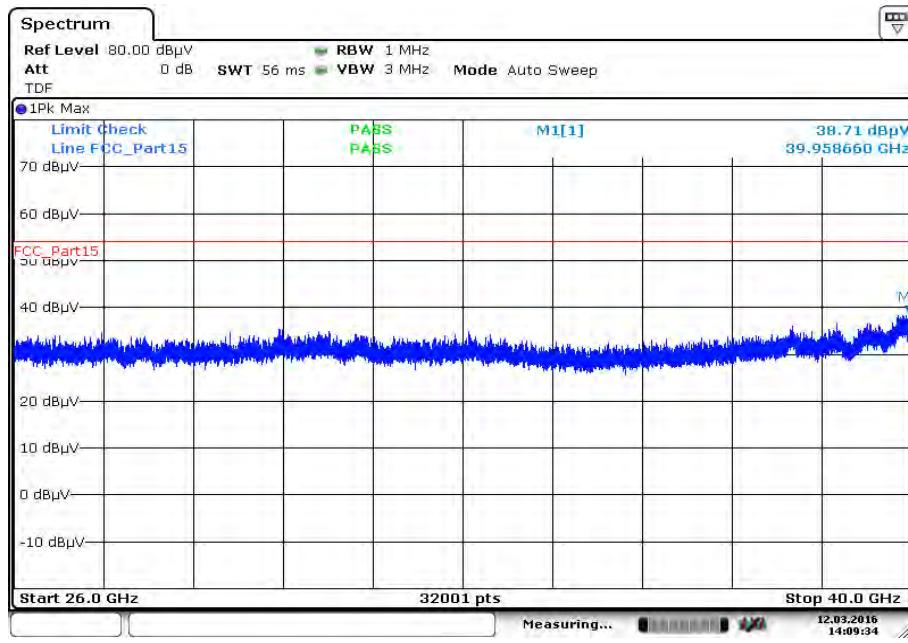
**Plot 43:** 30 MHz to 1 GHz, 5745 MHz, vertical & horizontal polarization

## Final\_Result

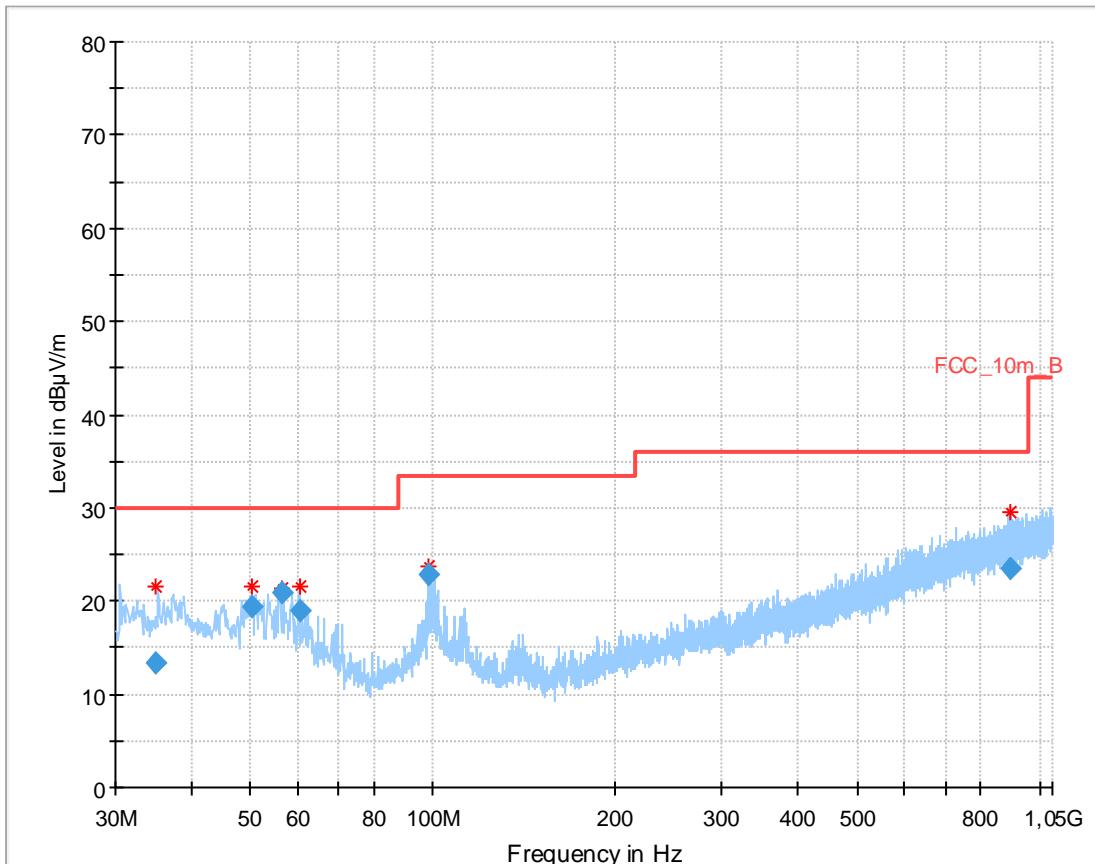
Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.242775	19.41	30.00	10.59	1000.0	120.000	101.0	V	19	13.4
35.692200	18.69	30.00	11.31	1000.0	120.000	101.0	V	328	13.8
45.558150	19.17	30.00	10.83	1000.0	120.000	101.0	V	12	13.7
48.208800	21.93	30.00	8.07	1000.0	120.000	98.0	V	270	13.1
49.861200	21.48	30.00	8.52	1000.0	120.000	98.0	V	217	12.7
51.869850	21.22	30.00	8.78	1000.0	120.000	98.0	V	328	12.3

**Plot 44:** 1 GHz to 12.75 GHz, 5745 MHz, vertical & horizontal polarization**Plot 45:** 4.5 GHz to 7 GHz, 5745 MHz, vertical & horizontal polarization

**Plot 46:** 12 GHz to 18 GHz, 5745 MHz, vertical & horizontal polarization**Plot 47:** 18 GHz to 26 GHz, 5745 MHz, vertical & horizontal polarization

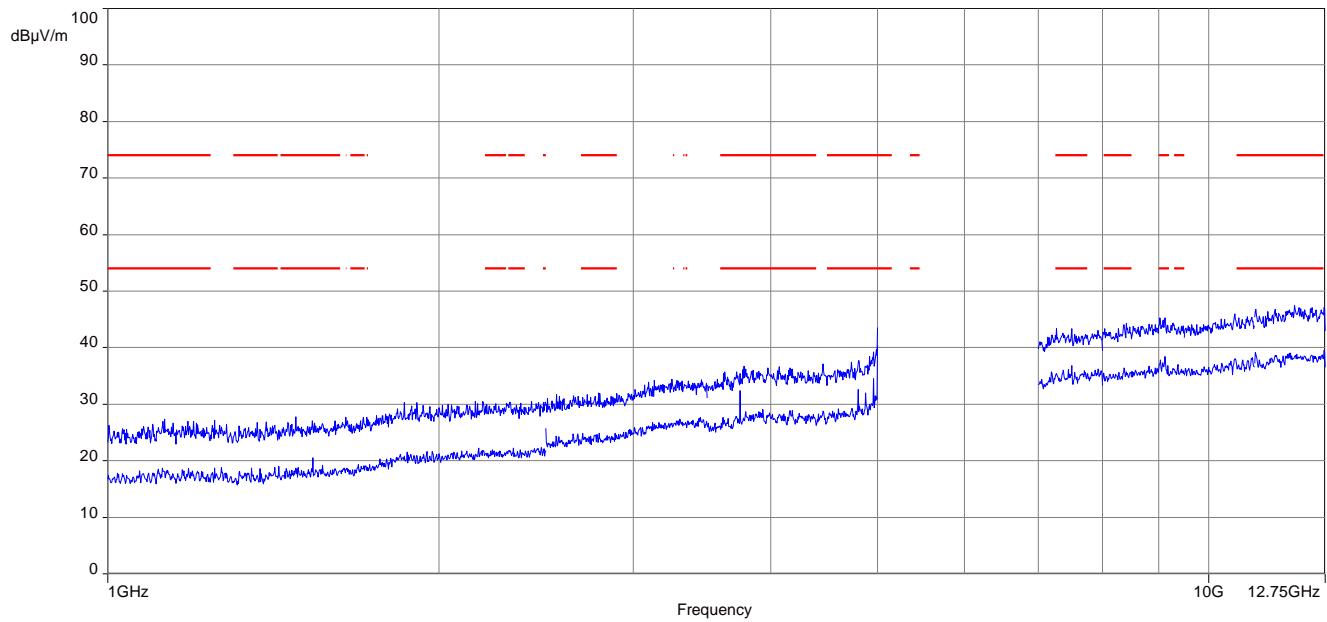
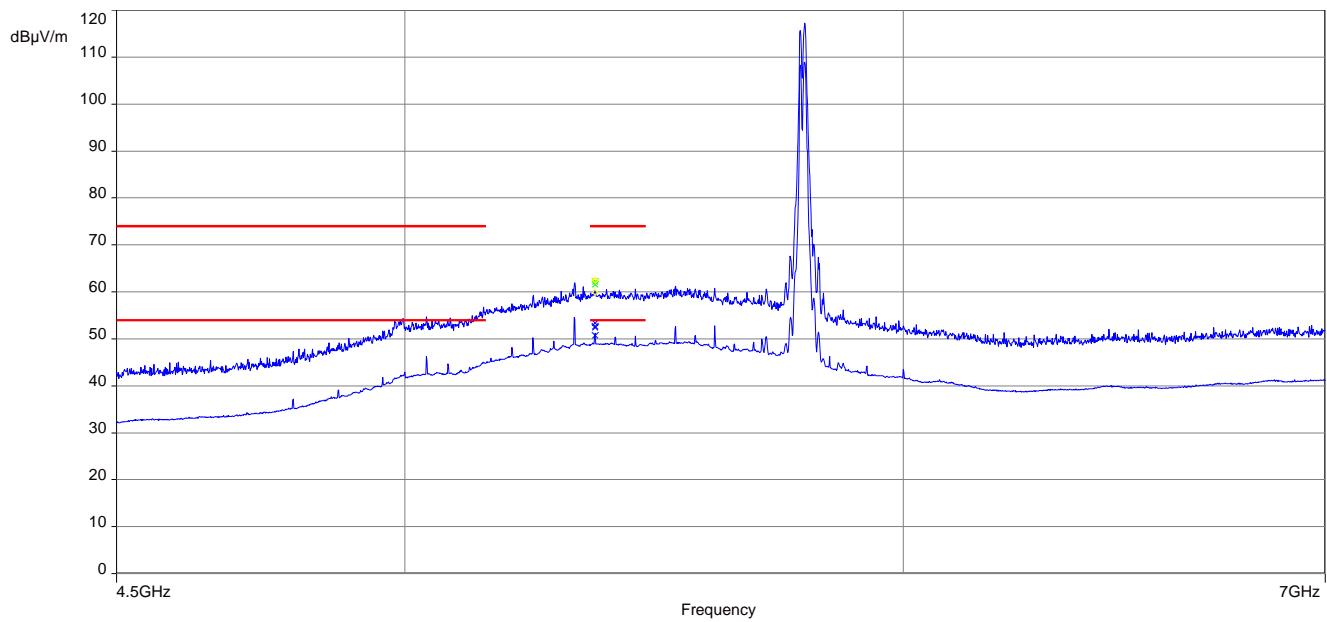
**Plot 48:** 26 GHz to 40 GHz, 5745 MHz, vertical & horizontal polarization

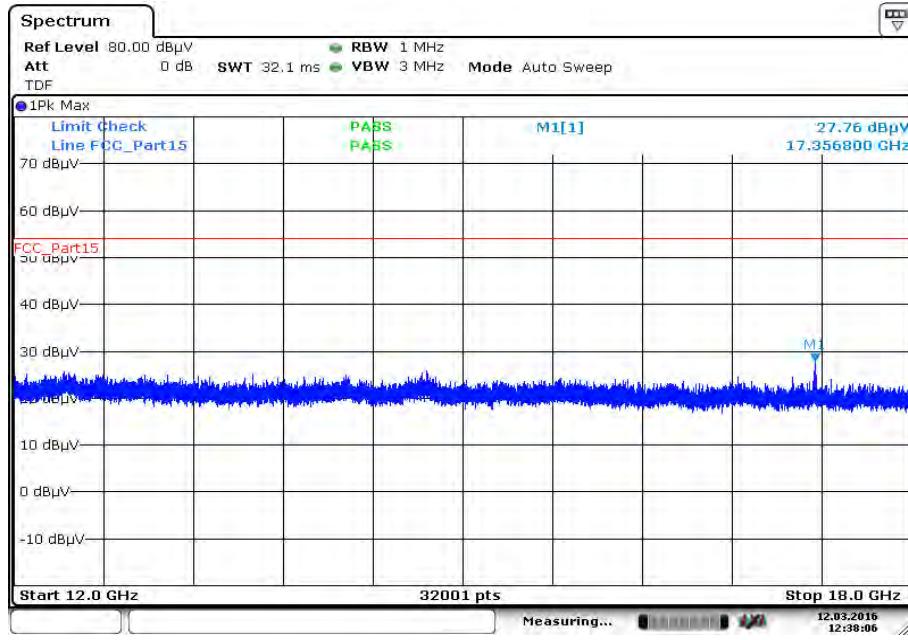
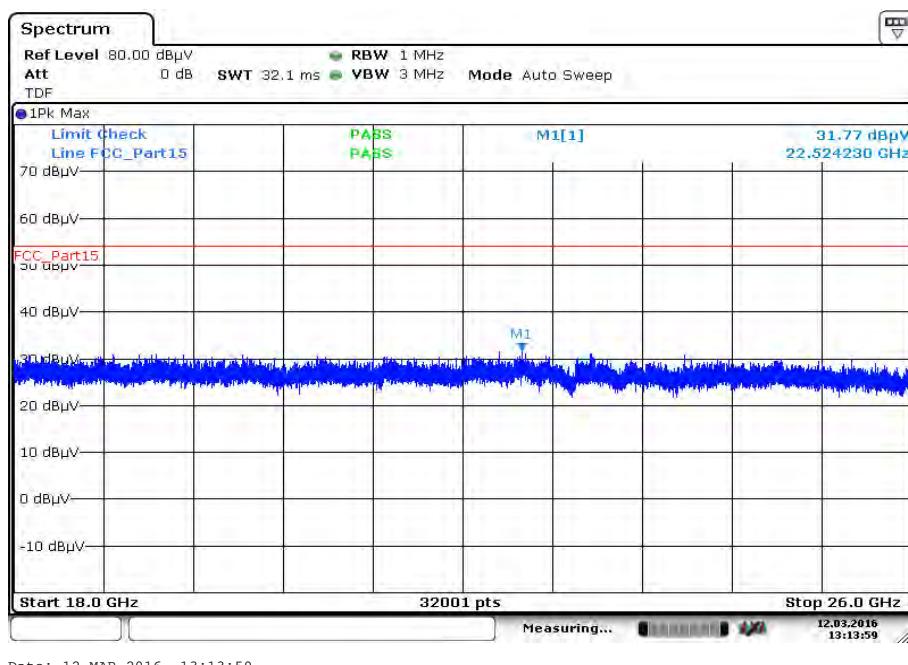
**Plot 49:** 30 MHz to 1 GHz, 5785 MHz, vertical & horizontal polarization

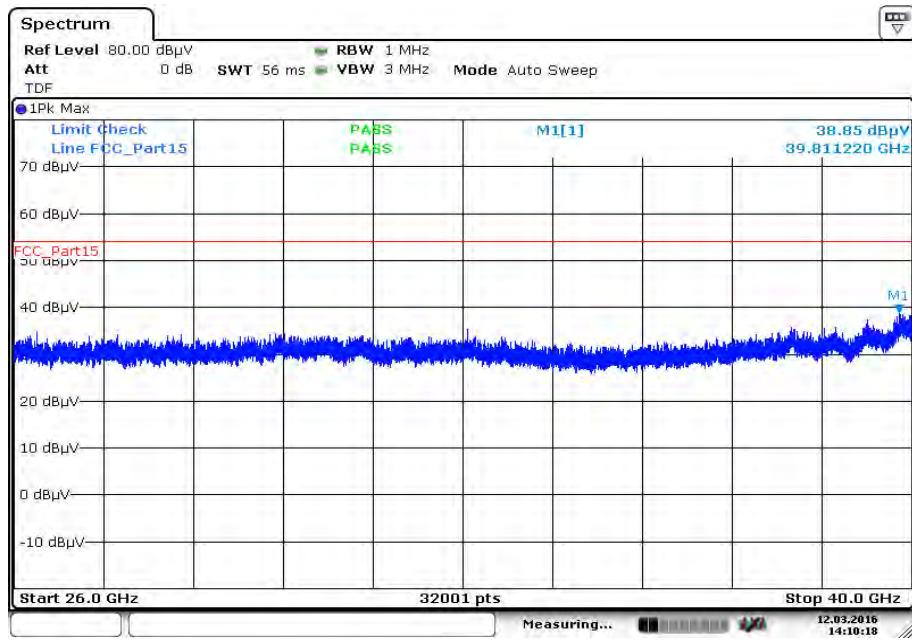


## Final\_Result

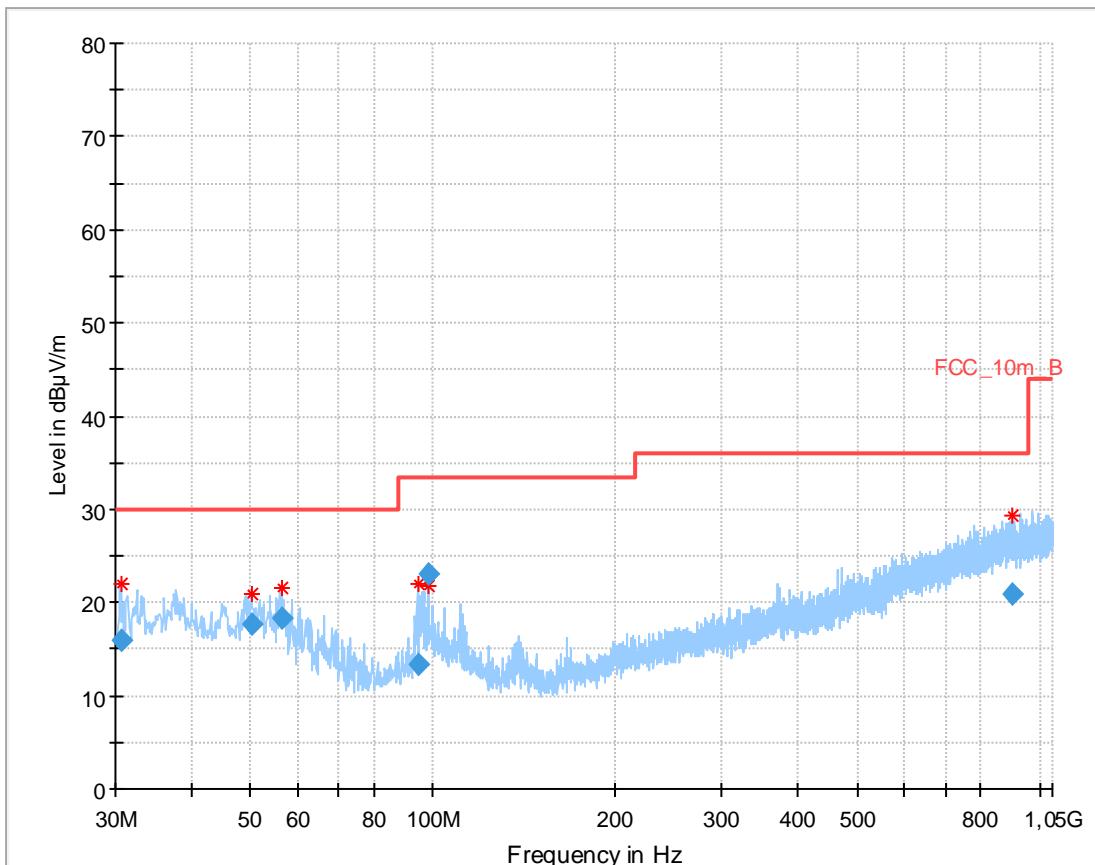
Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
34.968450	13.34	30.00	16.66	1000.0	120.000	101.0	V	10.0	13.8
50.442300	19.44	30.00	10.56	1000.0	120.000	98.0	V	190.0	12.6
56.530350	20.94	30.00	9.06	1000.0	120.000	170.0	V	190.0	11.4
60.213450	19.07	30.00	10.93	1000.0	120.000	98.0	V	81.0	10.5
98.445450	22.94	33.50	10.56	1000.0	120.000	101.0	V	81.0	11.9
892.495800	23.48	36.00	12.52	1000.0	120.000	98.0	H	190.0	24.0

**Plot 50:** 1 GHz to 12.75 GHz, 5785 MHz, vertical & horizontal polarization**Plot 51:** 4.5 GHz to 7 GHz, 5785 MHz, vertical & horizontal polarization

**Plot 52:** 12 GHz to 18 GHz, 5785 MHz, vertical & horizontal polarization**Plot 53:** 18 GHz to 26 GHz, 5785 MHz, vertical & horizontal polarization

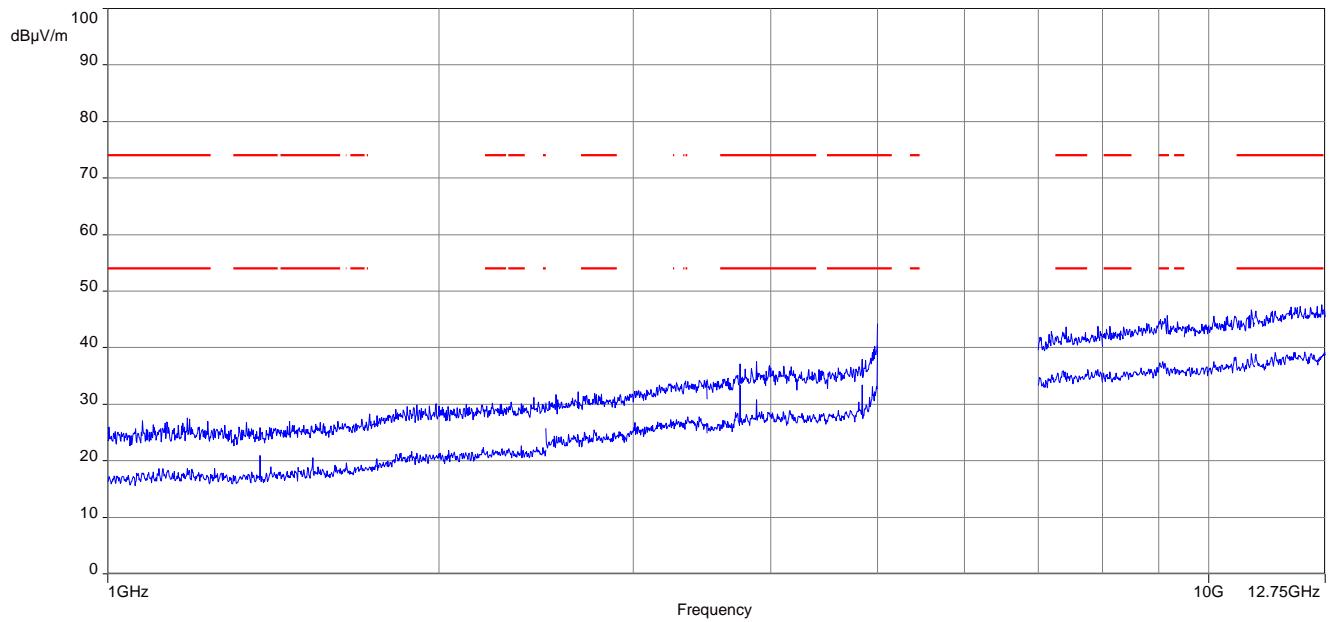
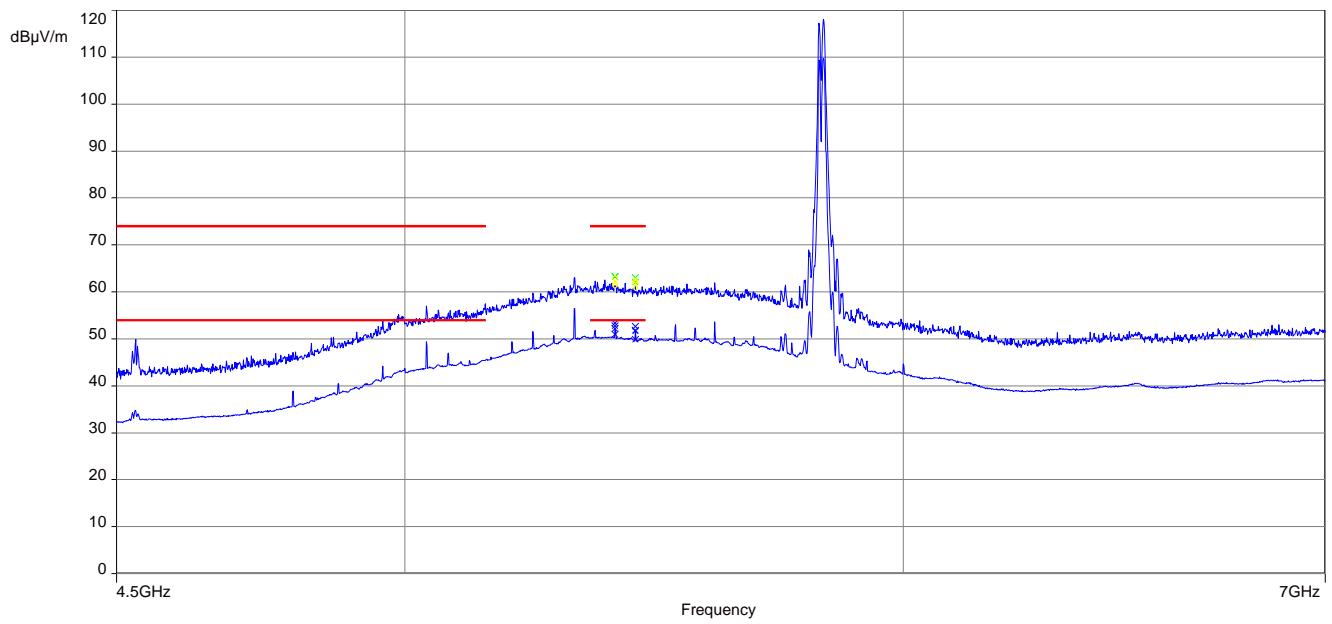
**Plot 54:** 26 GHz to 40 GHz, 5785 MHz, vertical & horizontal polarization

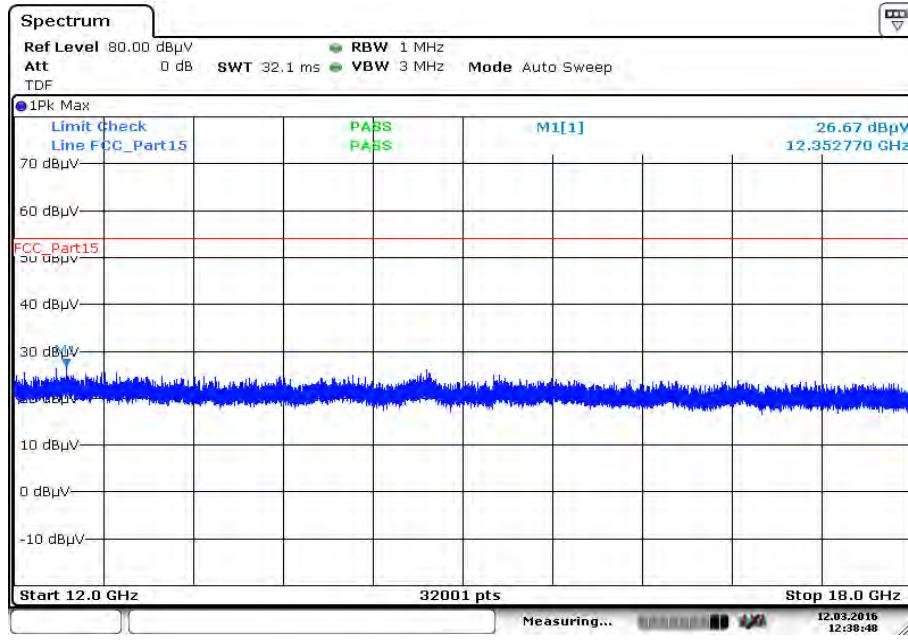
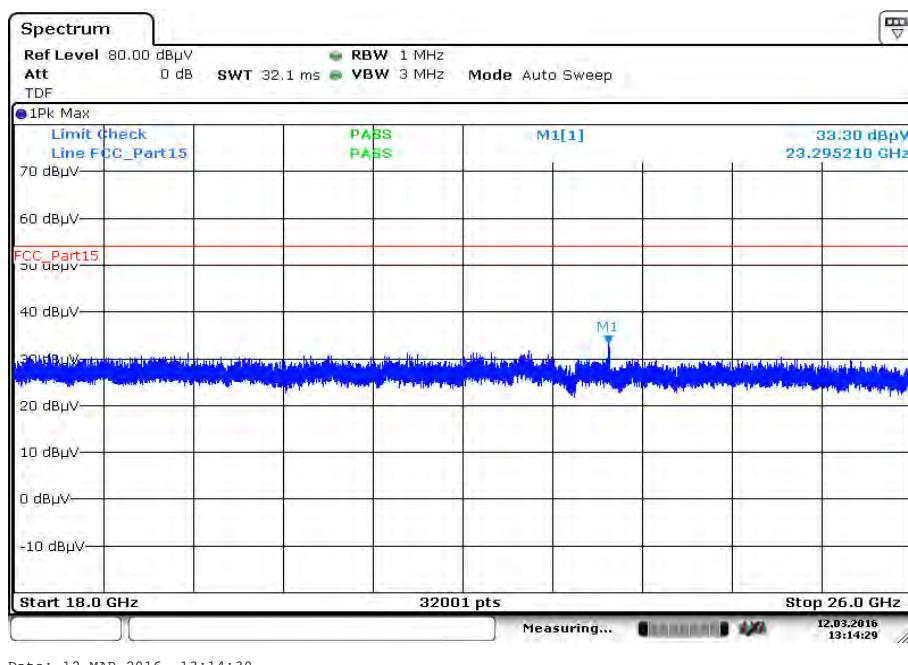
**Plot 55:** 30 MHz to 1 GHz, 5825 MHz, vertical & horizontal polarization

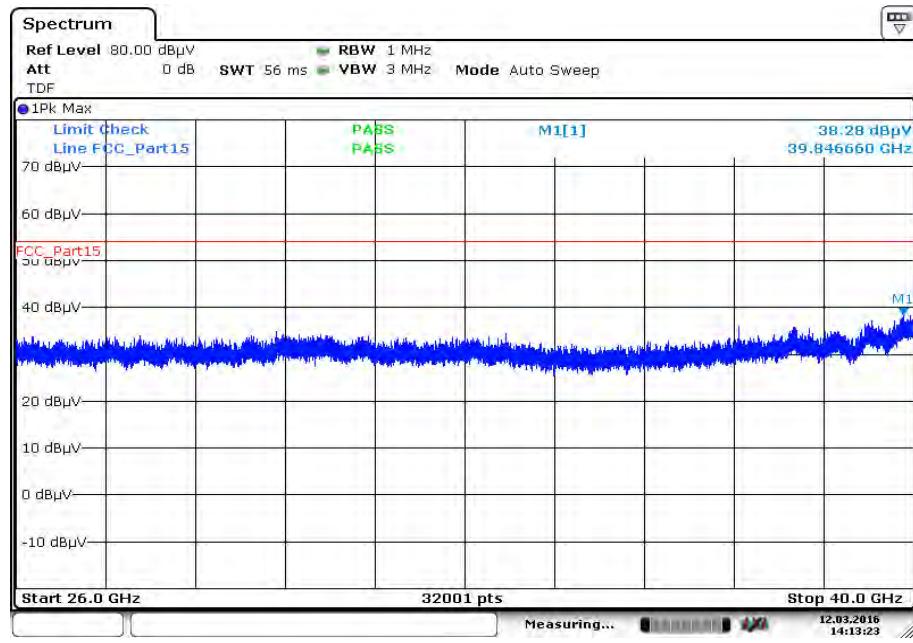


## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.669469	16.03	30.00	13.97	1000.0	120.000	101.0	V	100.0	13.4
50.435250	17.64	30.00	12.36	1000.0	120.000	98.0	V	100.0	12.6
56.511450	18.35	30.00	11.65	1000.0	120.000	170.0	V	171.0	11.4
94.356000	13.36	33.50	20.14	1000.0	120.000	170.0	V	81.0	11.2
98.494500	23.00	33.50	10.50	1000.0	120.000	101.0	V	81.0	11.9
899.364600	20.92	36.00	15.08	1000.0	120.000	170.0	H	100.0	24.1

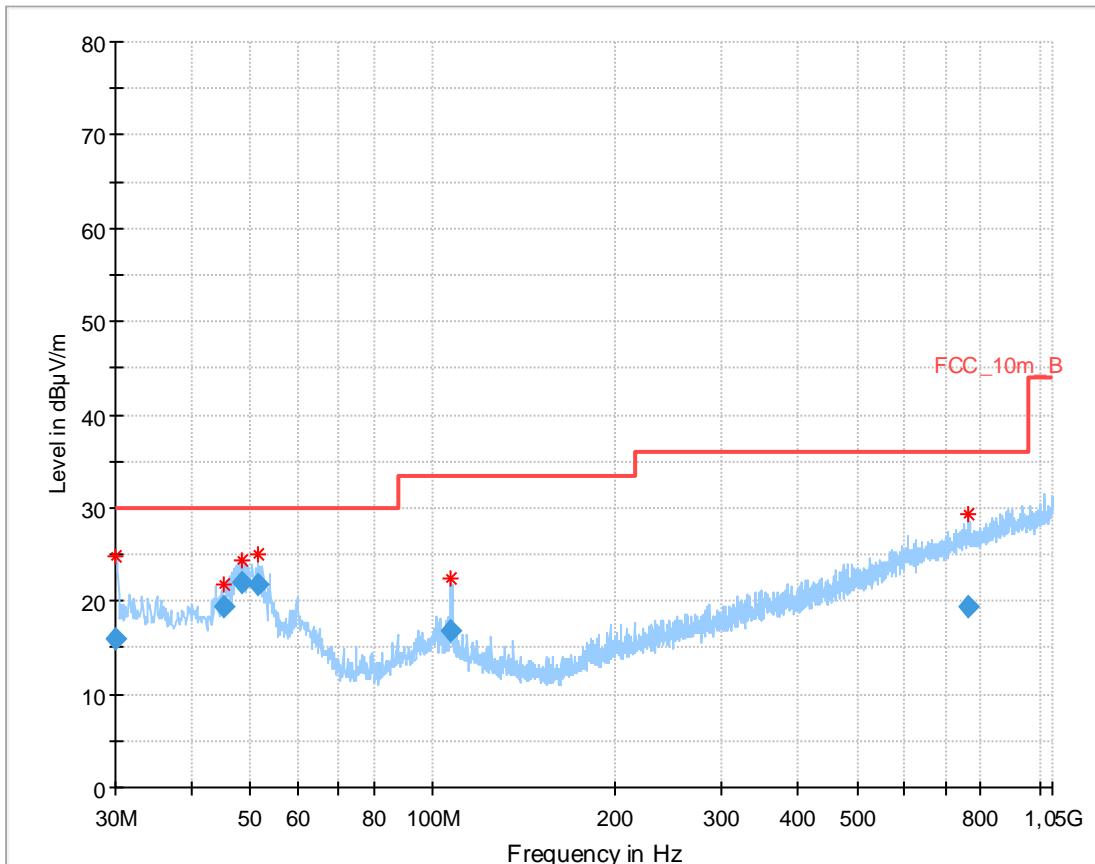
**Plot 56:** 1 GHz to 12.75 GHz, 5825 MHz, vertical & horizontal polarization**Plot 57:** 4.5 GHz to 7 GHz, 5825 MHz, vertical & horizontal polarization

**Plot 58:** 12 GHz to 18 GHz, 5825 MHz, vertical & horizontal polarization**Plot 59:** 18 GHz to 26 GHz, 5825 MHz, vertical & horizontal polarization

**Plot 60:** 26 GHz to 40 GHz, 5825 MHz, vertical & horizontal polarization

**Plots:** OFDM / n HT20 – mode

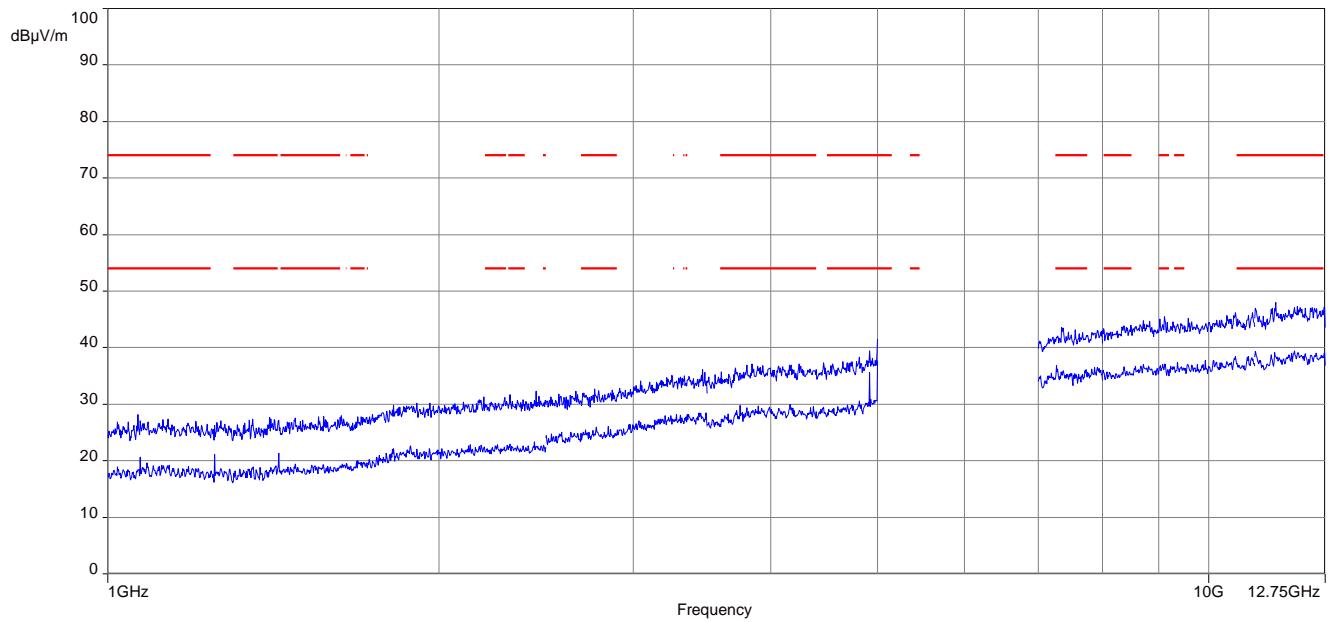
**Plot 1:** 30 MHz to 1 GHz, 5180 MHz, vertical & horizontal polarization



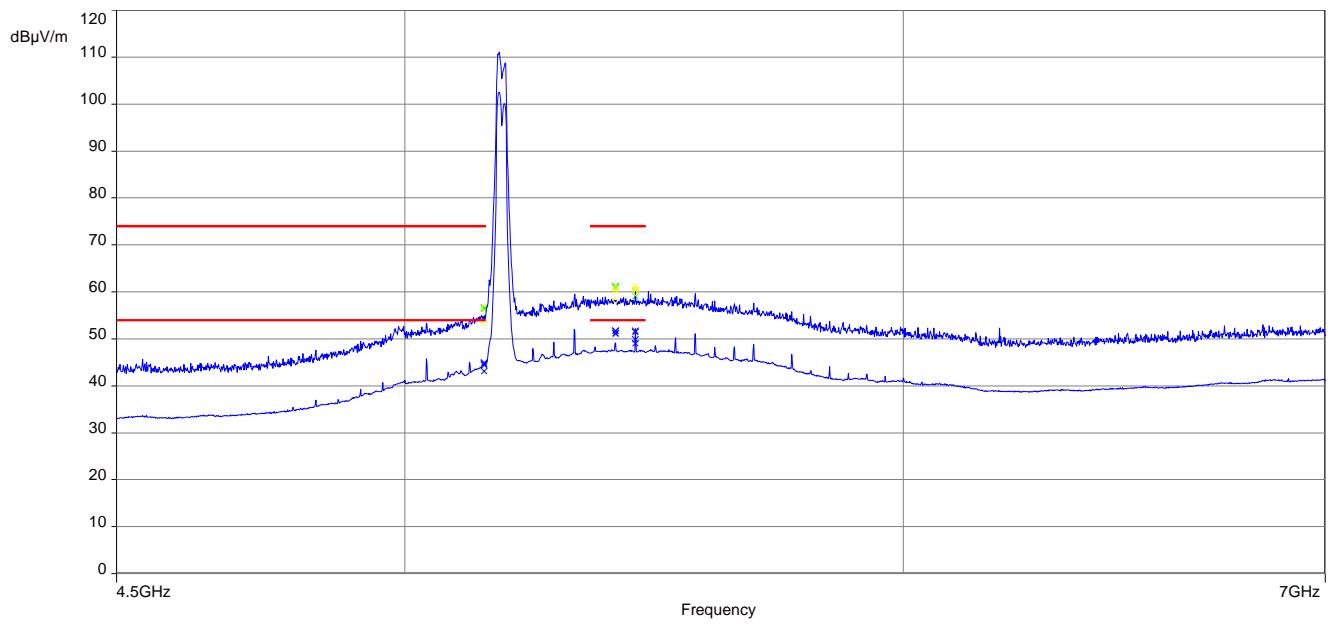
## Final\_Result

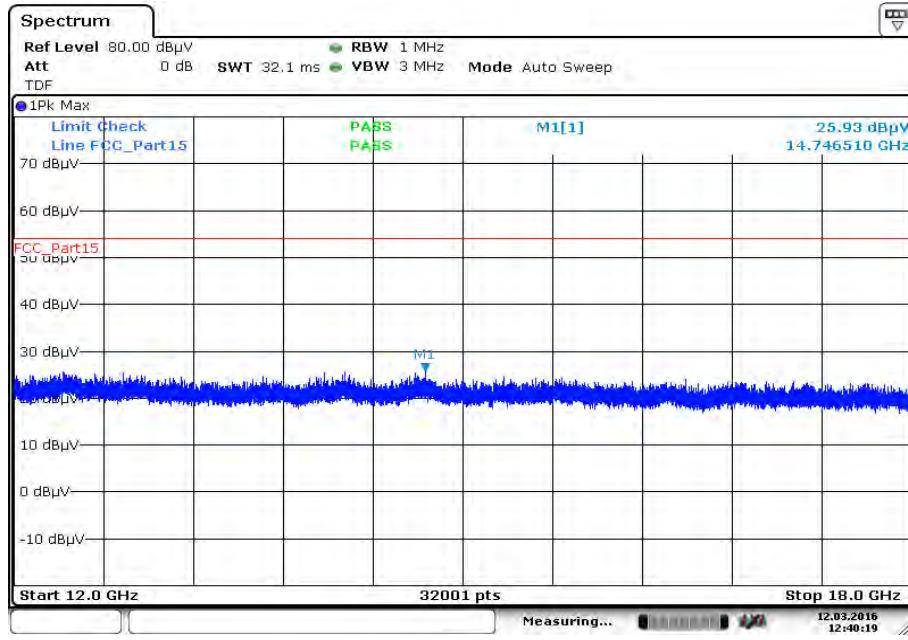
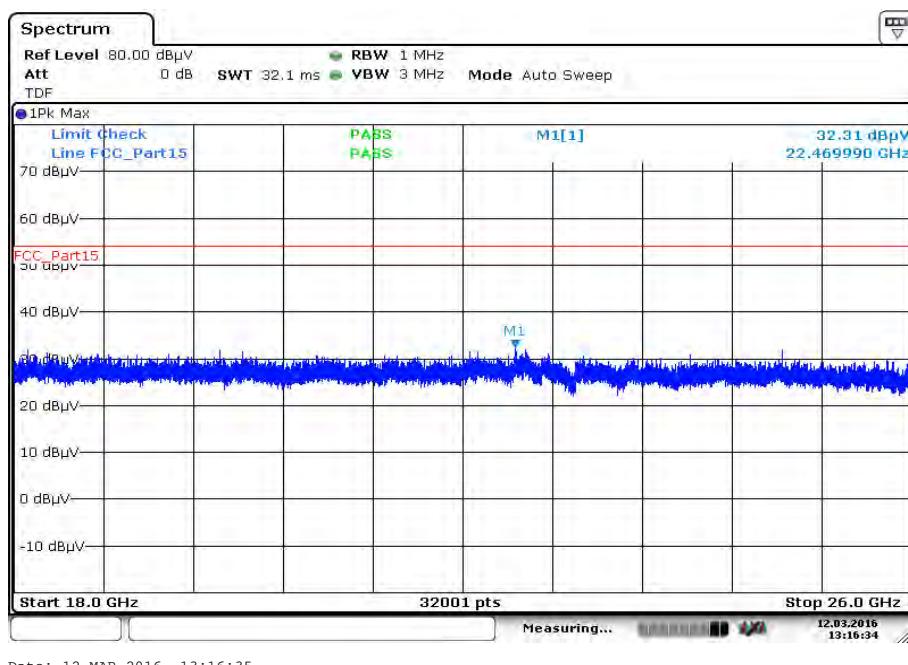
Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.079661	16.03	30.00	13.97	1000.0	120.000	170.0	V	130	13.3
45.246300	19.41	30.00	10.59	1000.0	120.000	98.0	V	63	13.8
48.557100	22.06	30.00	7.94	1000.0	120.000	98.0	V	243	13.0
51.534750	21.83	30.00	8.17	1000.0	120.000	98.0	V	231	12.4
107.168400	16.83	33.50	16.67	1000.0	120.000	170.0	V	130	11.4
764.839650	19.47	36.00	16.53	1000.0	120.000	170.0	H	332	22.7

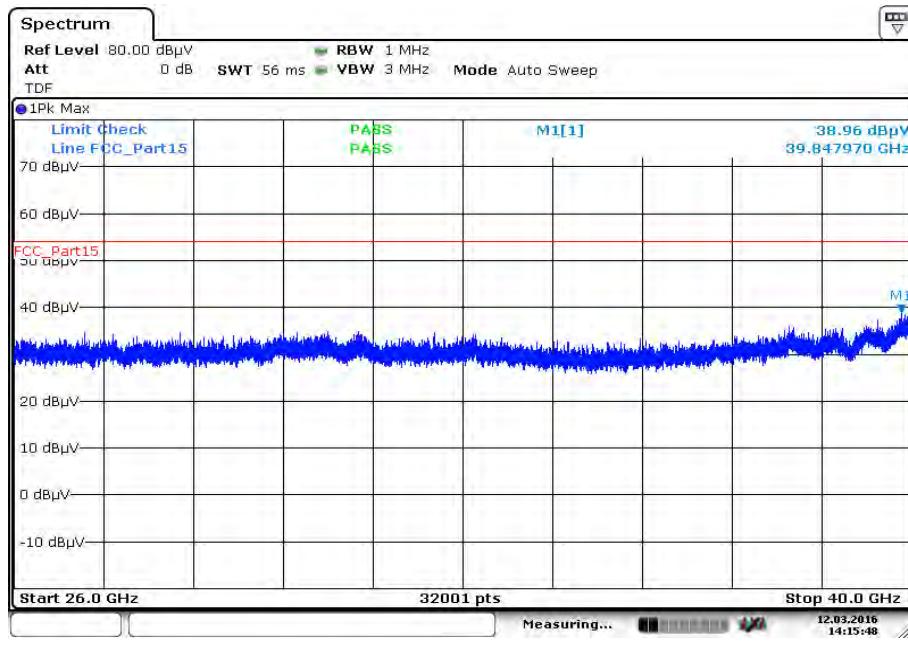
**Plot 2:** 1 GHz to 12.75 GHz, 5180 MHz, vertical & horizontal polarization



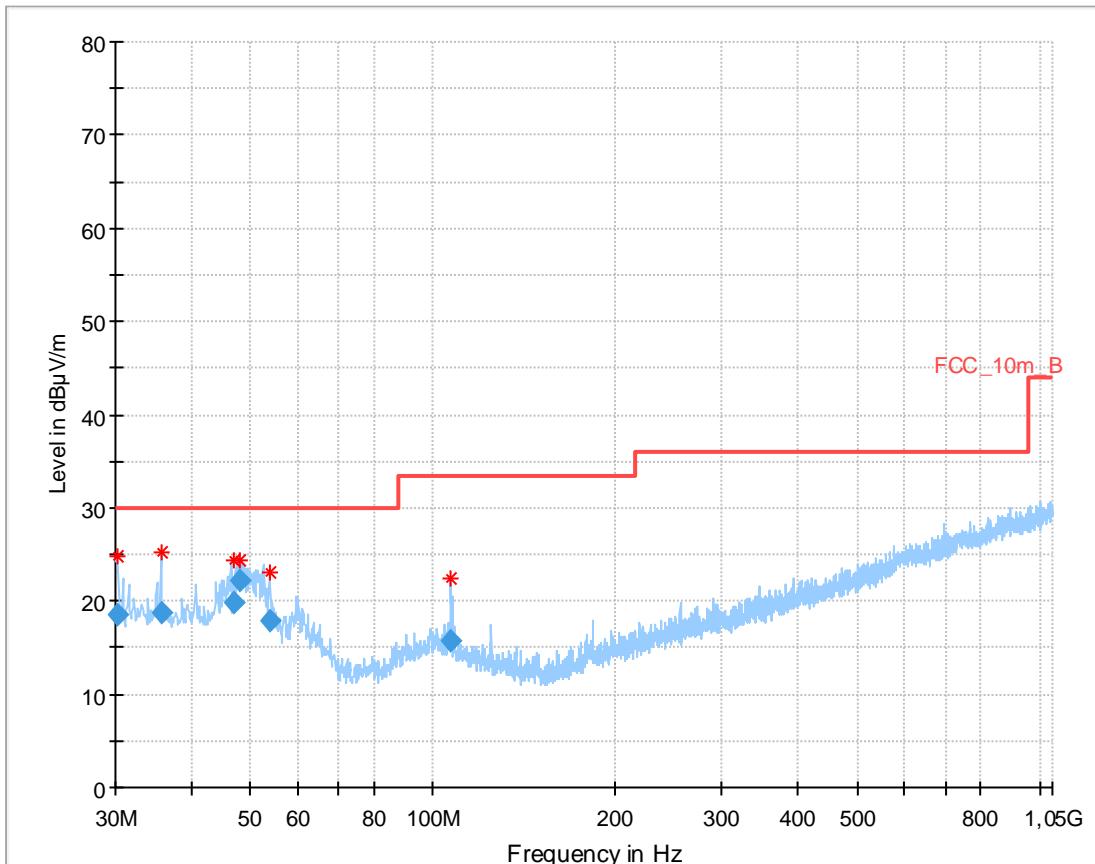
**Plot 3:** 4.5 GHz to 7 GHz, 5180 MHz, vertical & horizontal polarization



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

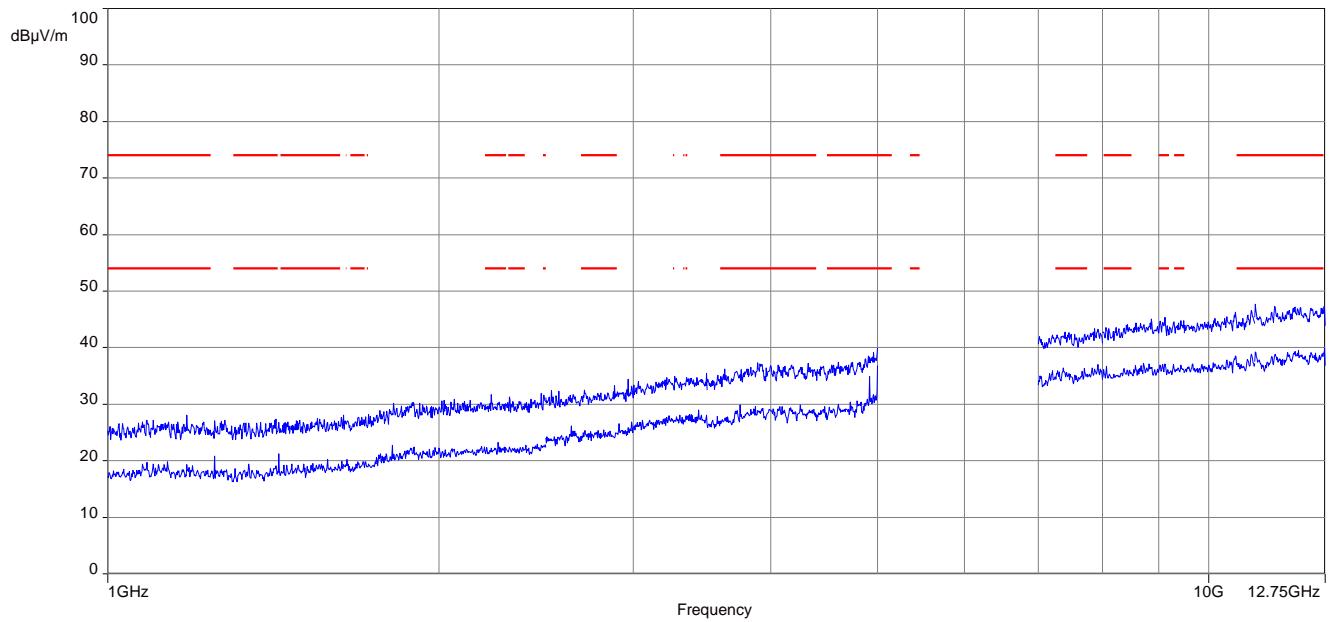
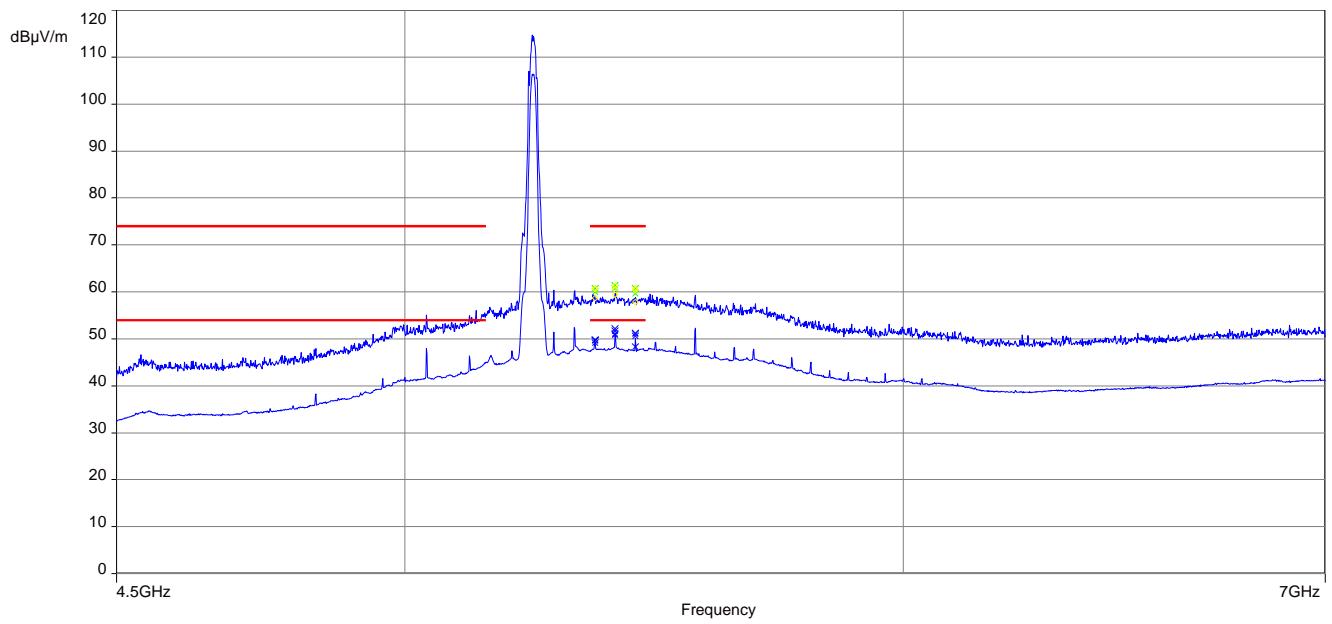
**Plot 6:** 26 GHz to 40 GHz, 5180 MHz, vertical & horizontal polarization

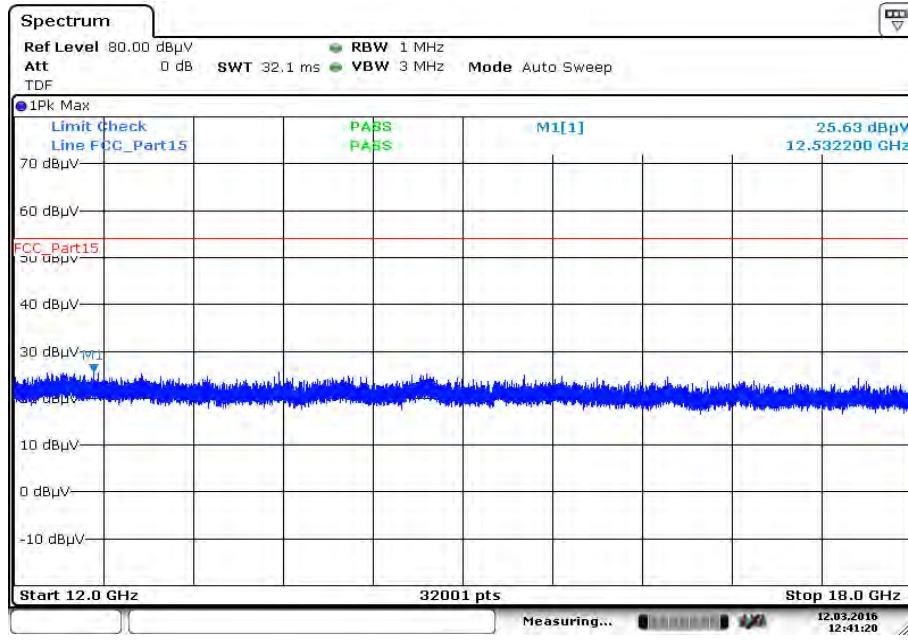
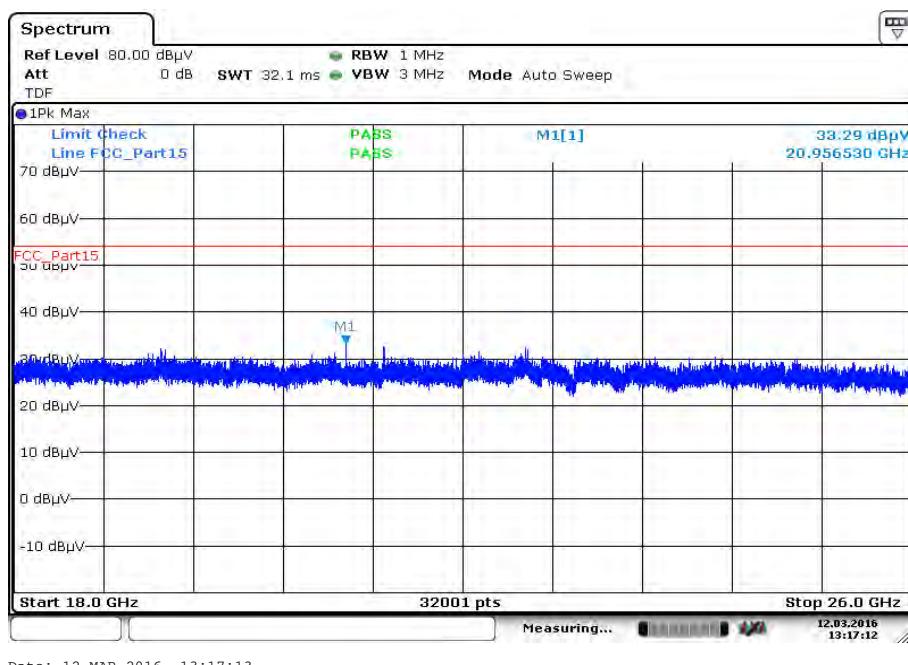
**Plot 7:** 30 MHz to 1 GHz, 5240 MHz, vertical & horizontal polarization

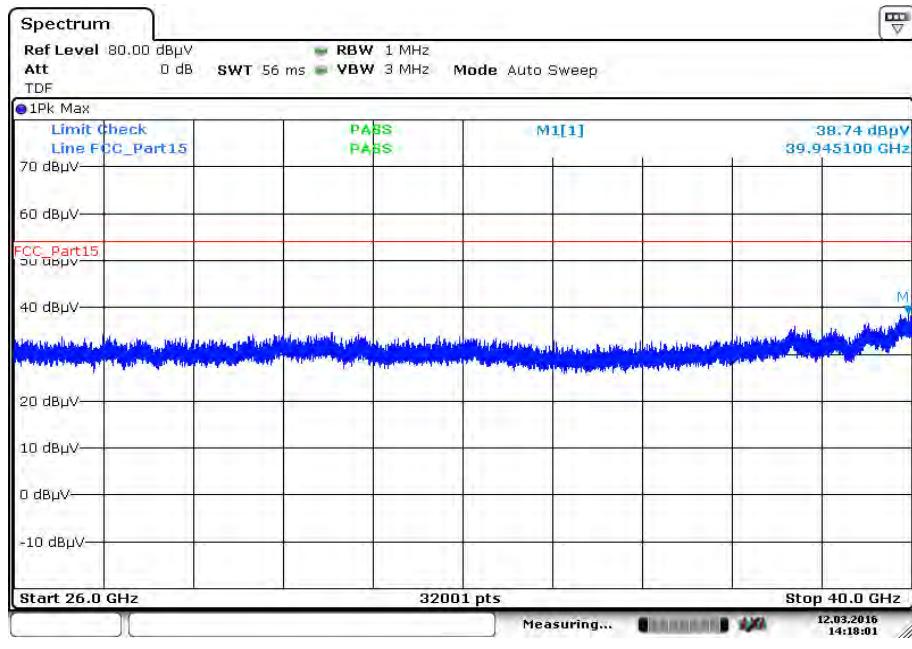


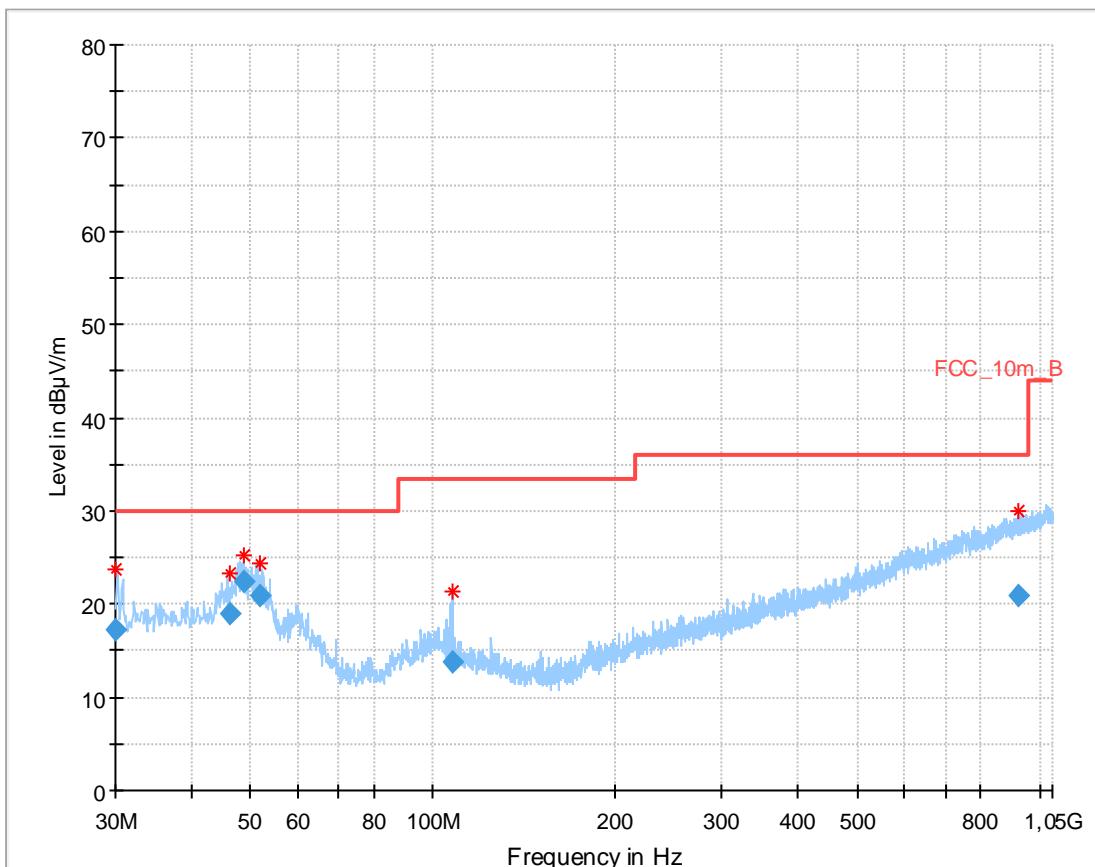
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.259718	18.65	30.00	11.35	1000.0	120.000	101.0	V	245	13.4
35.668800	18.78	30.00	11.22	1000.0	120.000	101.0	V	160	13.8
46.895400	19.83	30.00	10.17	1000.0	120.000	98.0	V	58	13.4
48.201900	22.21	30.00	7.79	1000.0	120.000	98.0	V	219	13.1
53.787450	17.86	30.00	12.14	1000.0	120.000	98.0	V	47	12.0
107.175600	15.74	33.50	17.76	1000.0	120.000	170.0	V	203	11.4

**Plot 8:** 1 GHz to 12.75 GHz, 5240 MHz, vertical & horizontal polarization**Plot 9:** 5 GHz to 7 GHz, 5240 MHz, vertical & horizontal polarization

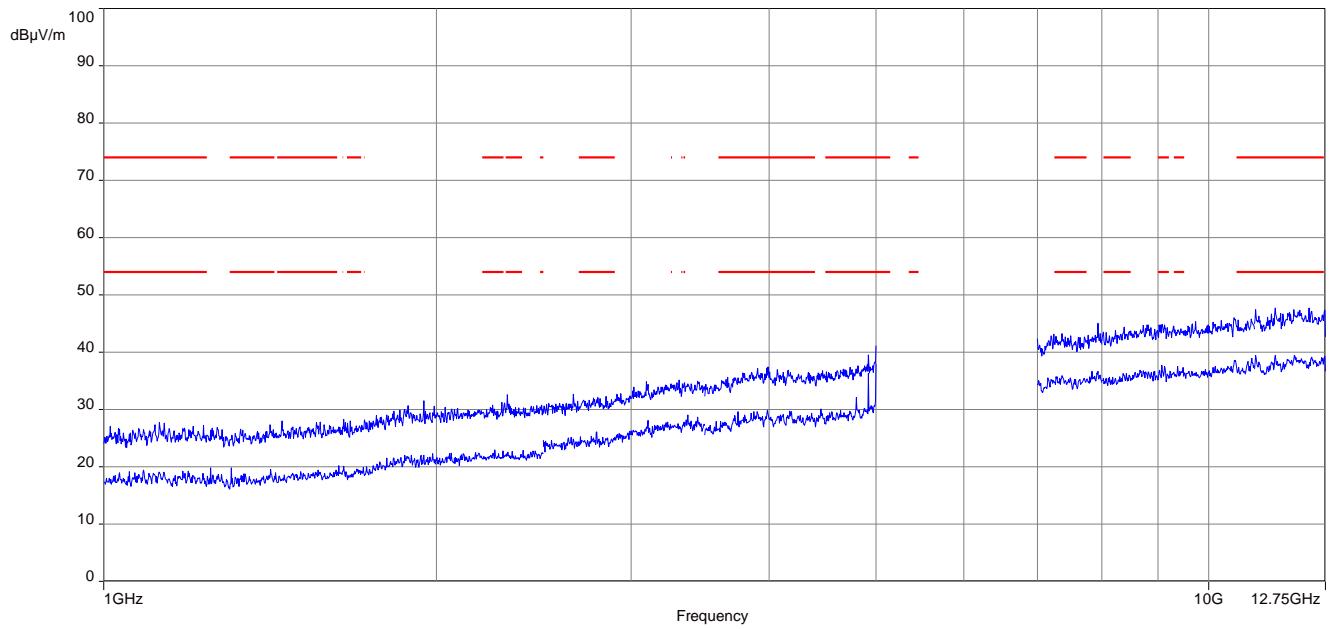
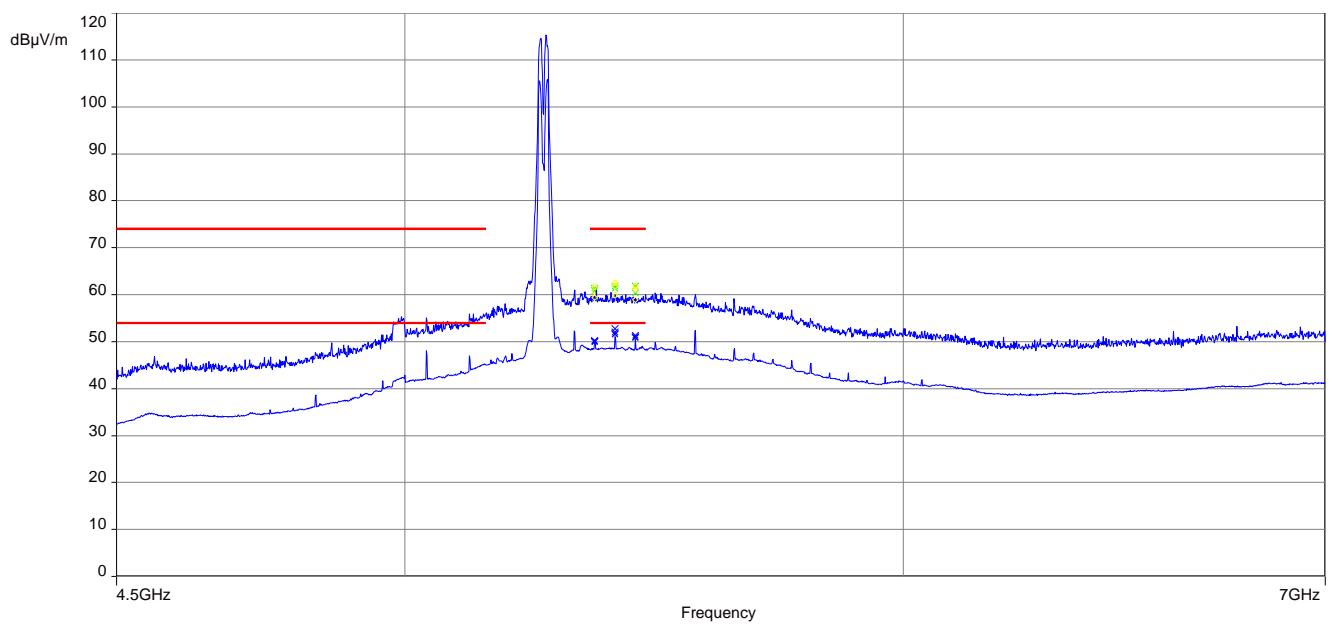
**Plot 10:** 12 GHz to 18 GHz, 5240 MHz, vertical & horizontal polarization**Plot 11:** 18 GHz to 26 GHz, 5240 MHz, vertical & horizontal polarization

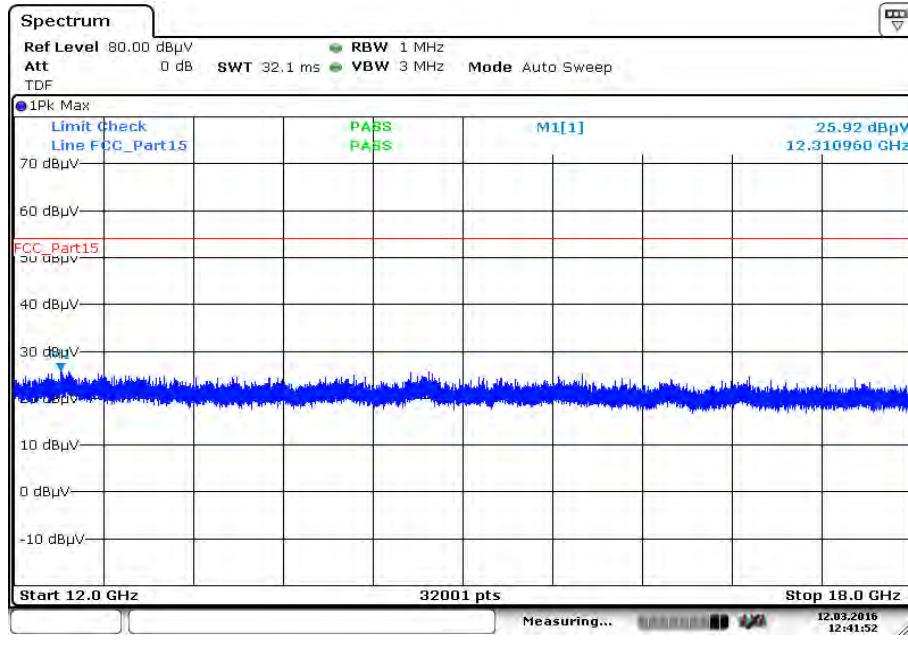
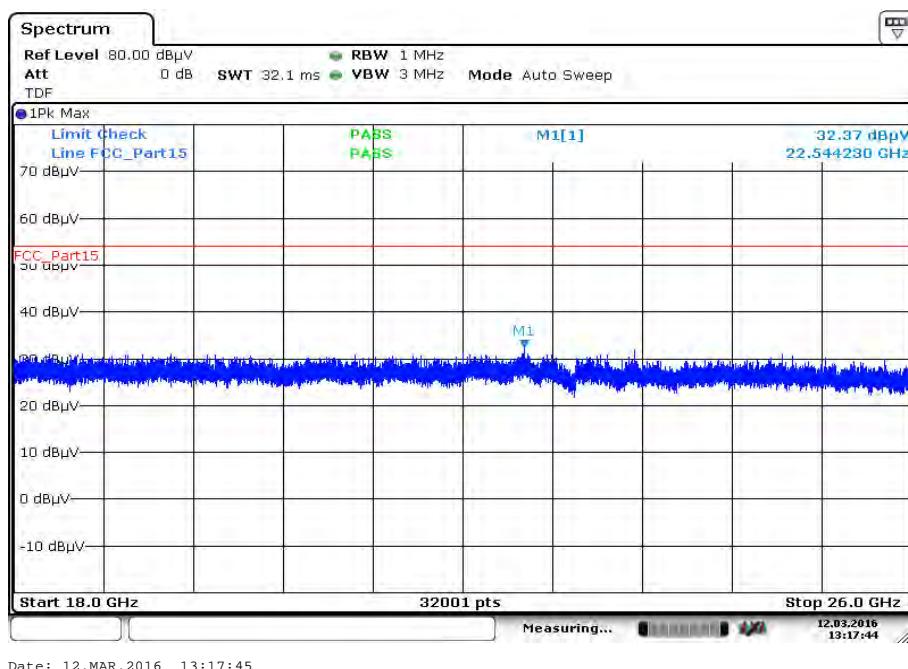
**Plot 12:** 26 GHz to 40 GHz, 5240 MHz, vertical & horizontal polarization

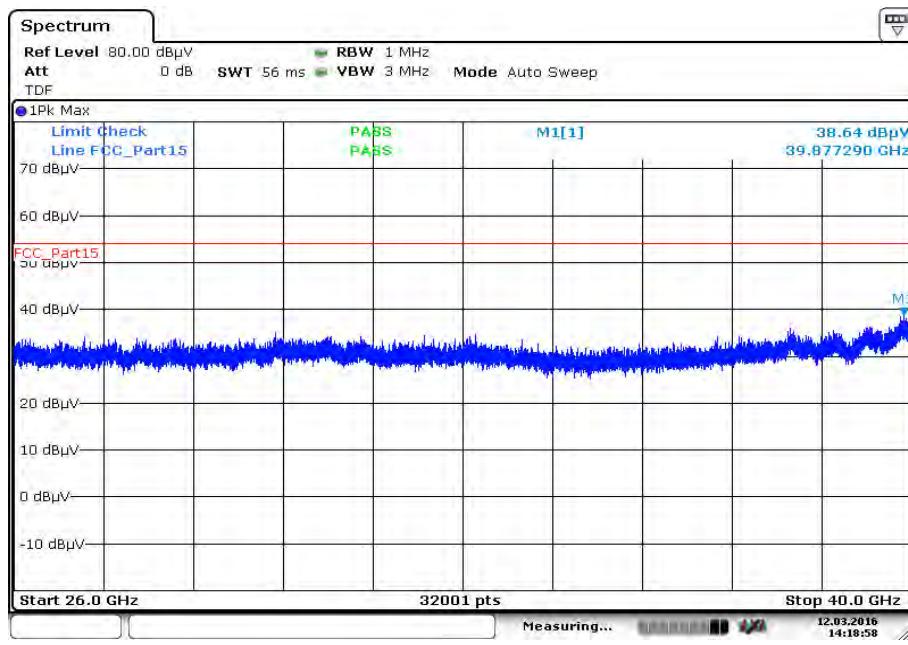
**Plot 13:** 30 MHz to 1 GHz, 5260 MHz, vertical & horizontal polarization

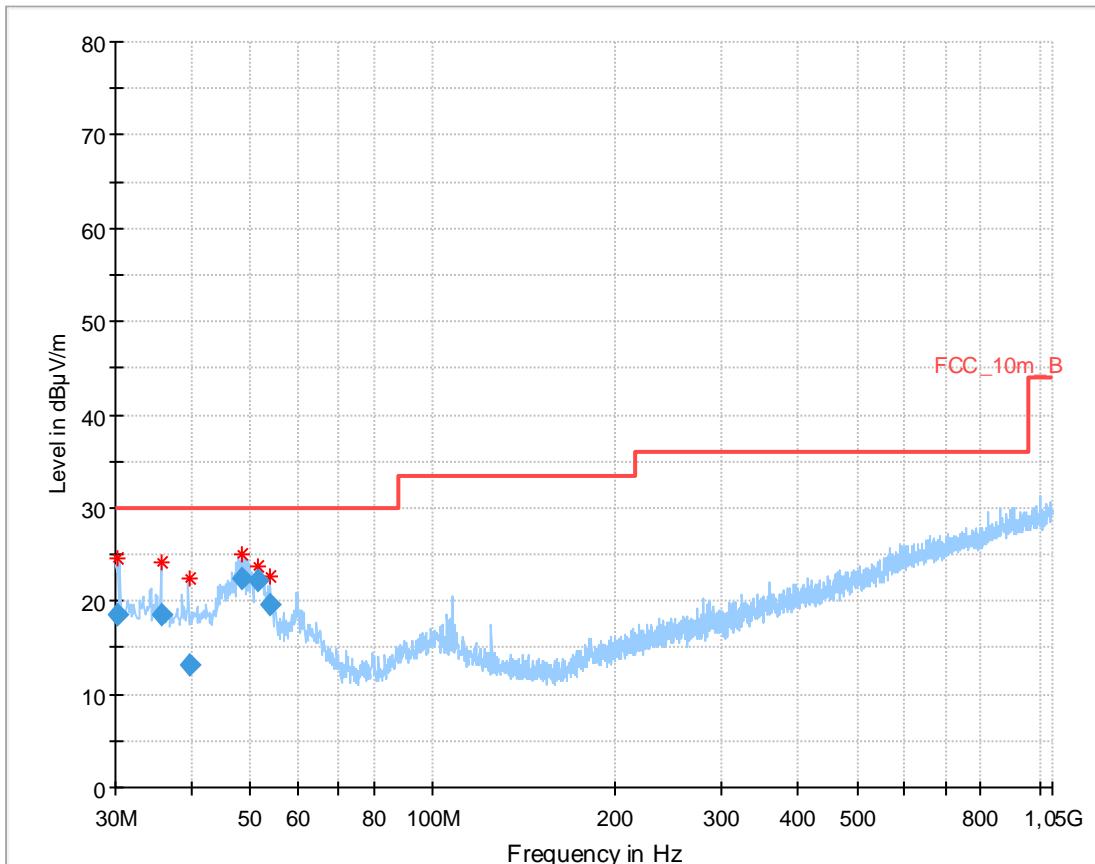
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.097791	17.21	30.00	12.79	1000.0	120.000	101.0	V	301	13.3
46.265400	19.05	30.00	10.95	1000.0	120.000	98.0	V	349	13.5
48.873300	22.33	30.00	7.67	1000.0	120.000	98.0	V	317	12.9
51.869850	20.95	30.00	9.05	1000.0	120.000	98.0	V	290	12.3
107.952150	13.88	33.50	19.62	1000.0	120.000	101.0	V	188	11.3
924.384300	21.02	36.00	14.98	1000.0	120.000	100.0	V	177	24.2

**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

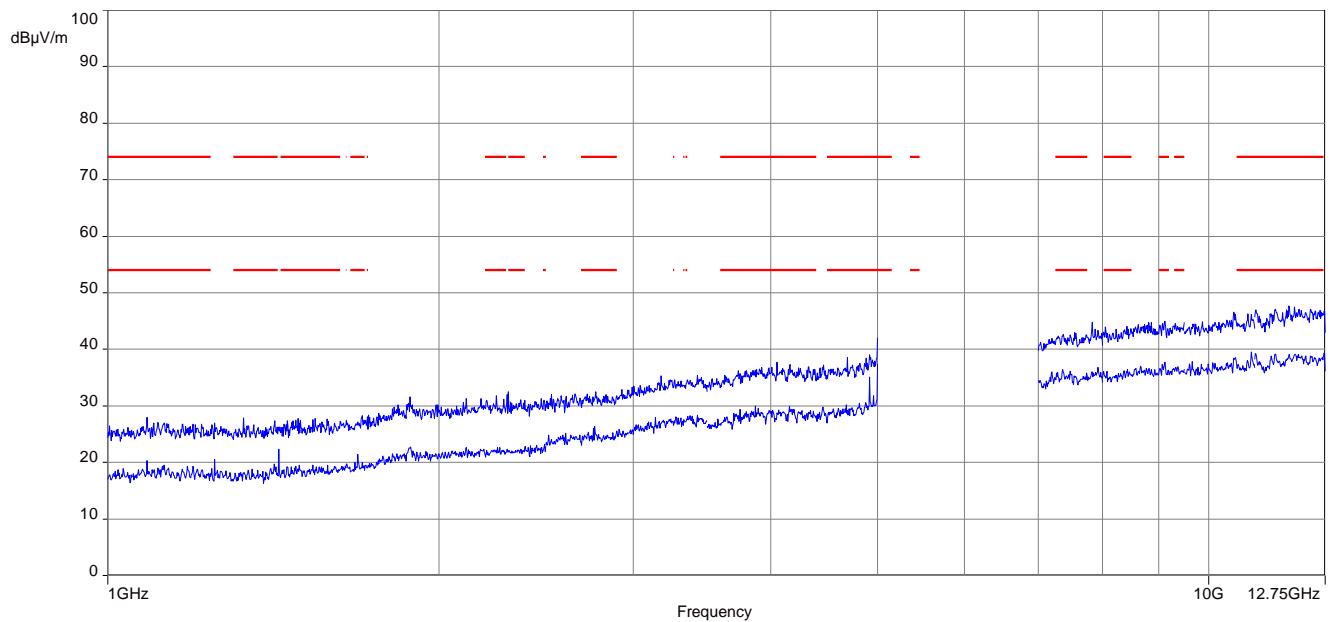
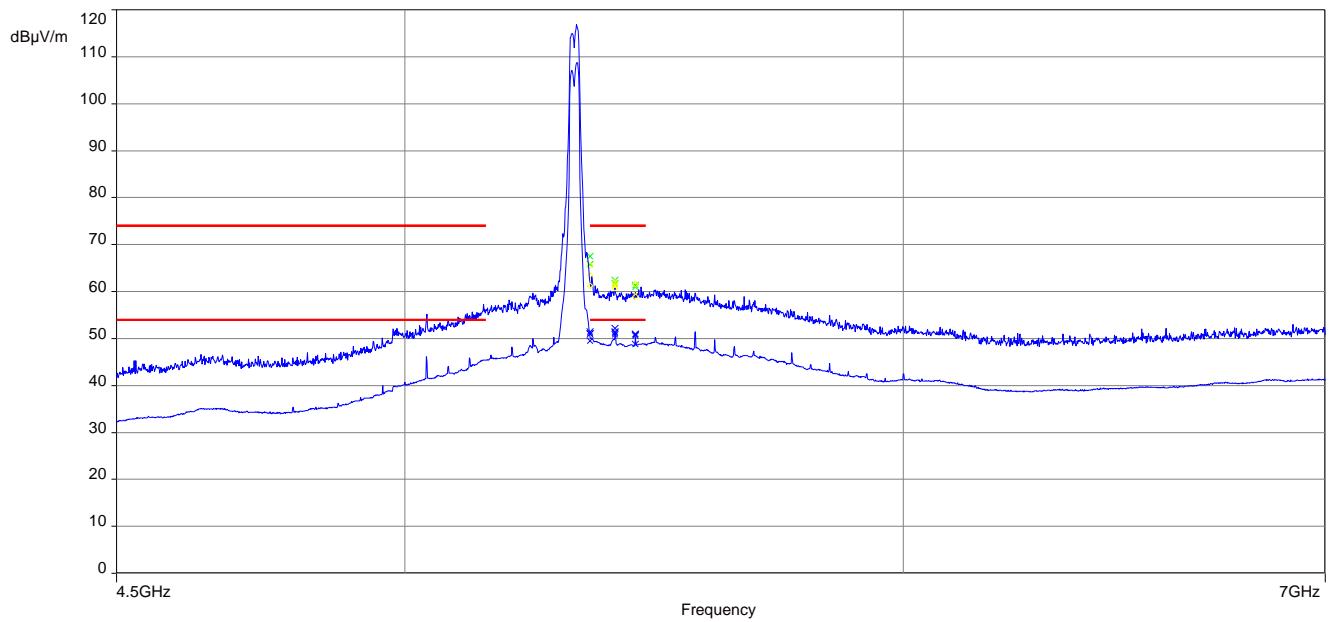
**Plot 16:** 12 GHz to 18 GHz, 5260 MHz, vertical & horizontal polarization**Plot 17:** 18 GHz to 26 GHz, 5260 MHz, vertical & horizontal polarization

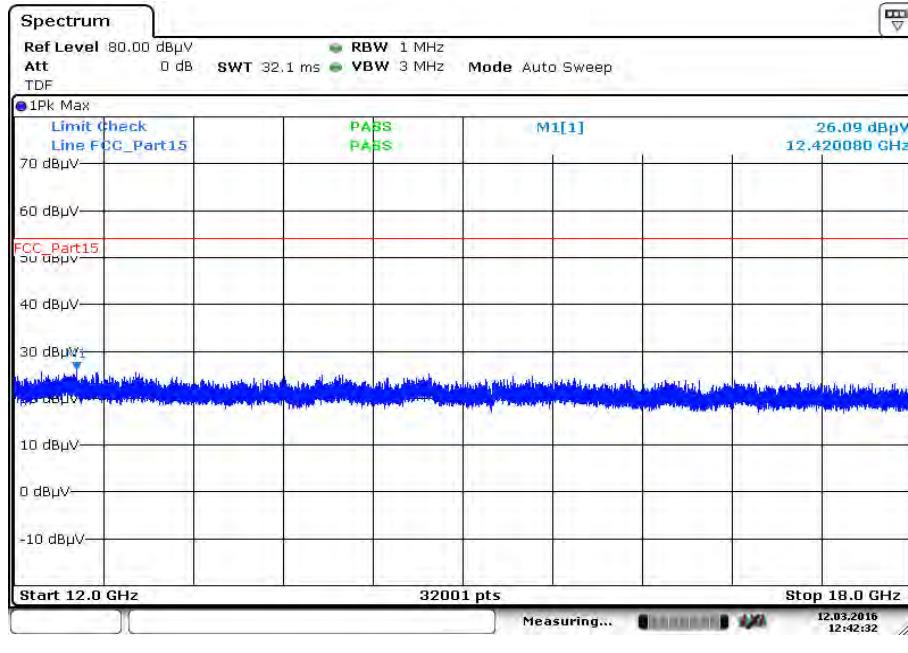
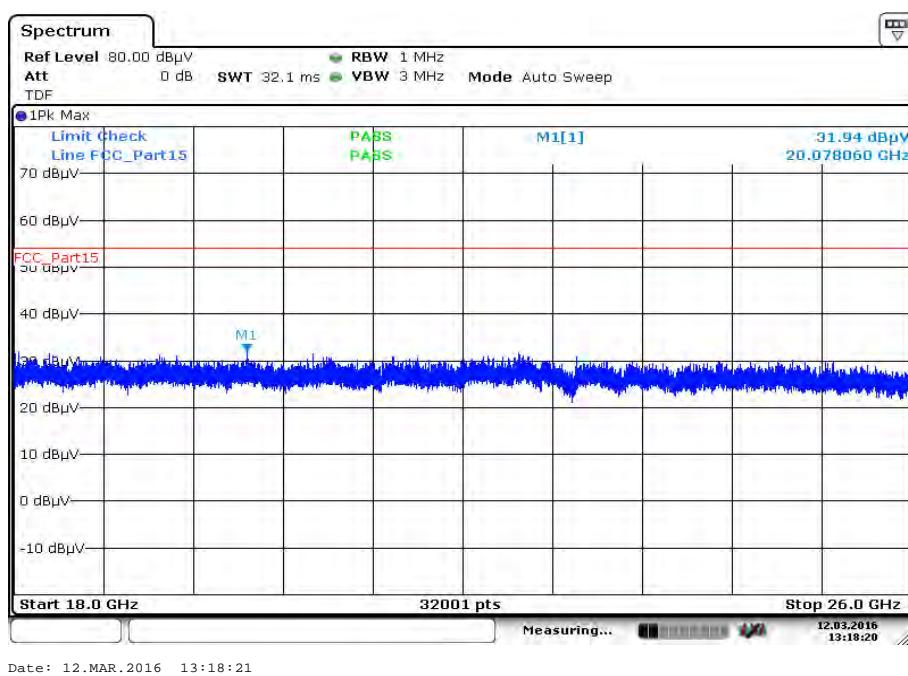
**Plot 18:** 26 GHz to 40 GHz, 5260 MHz, vertical & horizontal polarization

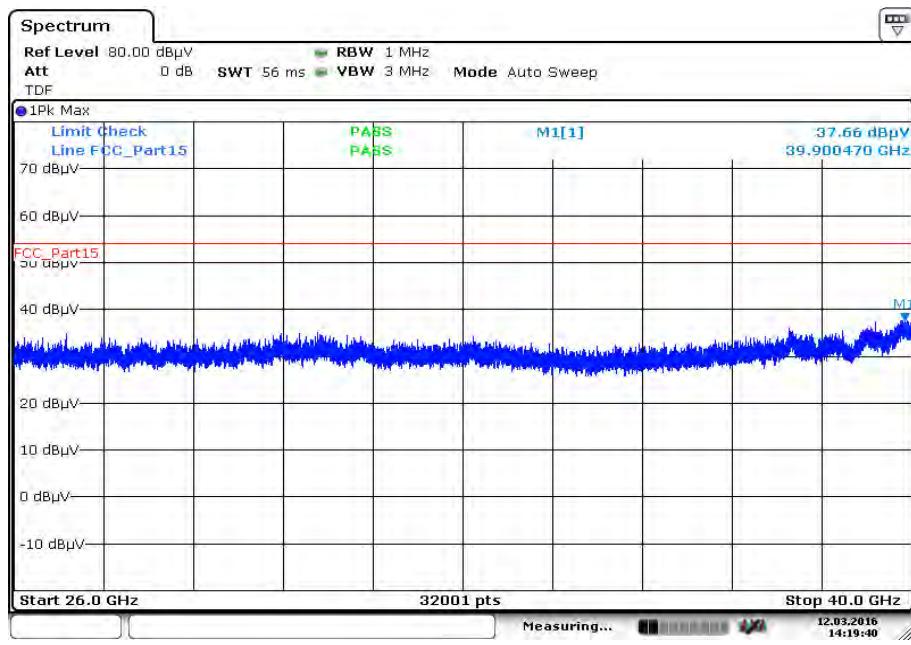
**Plot 19:** 30 MHz to 1 GHz, 5320 MHz, vertical & horizontal polarization

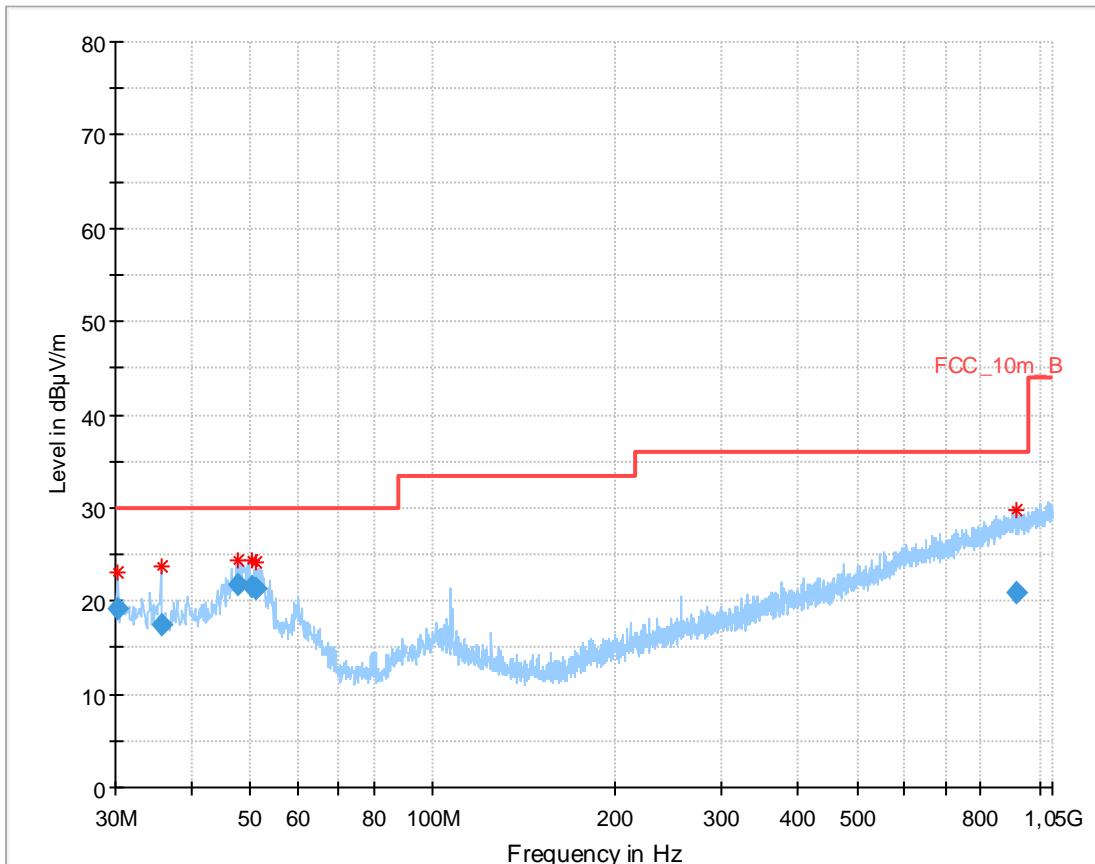
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.258531	18.59	30.00	11.41	1000.0	120.000	98.0	V	14	13.4
35.669550	18.49	30.00	11.51	1000.0	120.000	101.0	V	171	13.8
39.625350	13.25	30.00	16.75	1000.0	120.000	98.0	V	221	14.0
48.543300	22.32	30.00	7.68	1000.0	120.000	100.0	V	199	13.0
51.517950	22.31	30.00	7.69	1000.0	120.000	98.0	V	49	12.4
53.811150	19.55	30.00	10.45	1000.0	120.000	98.0	V	332	12.0

**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

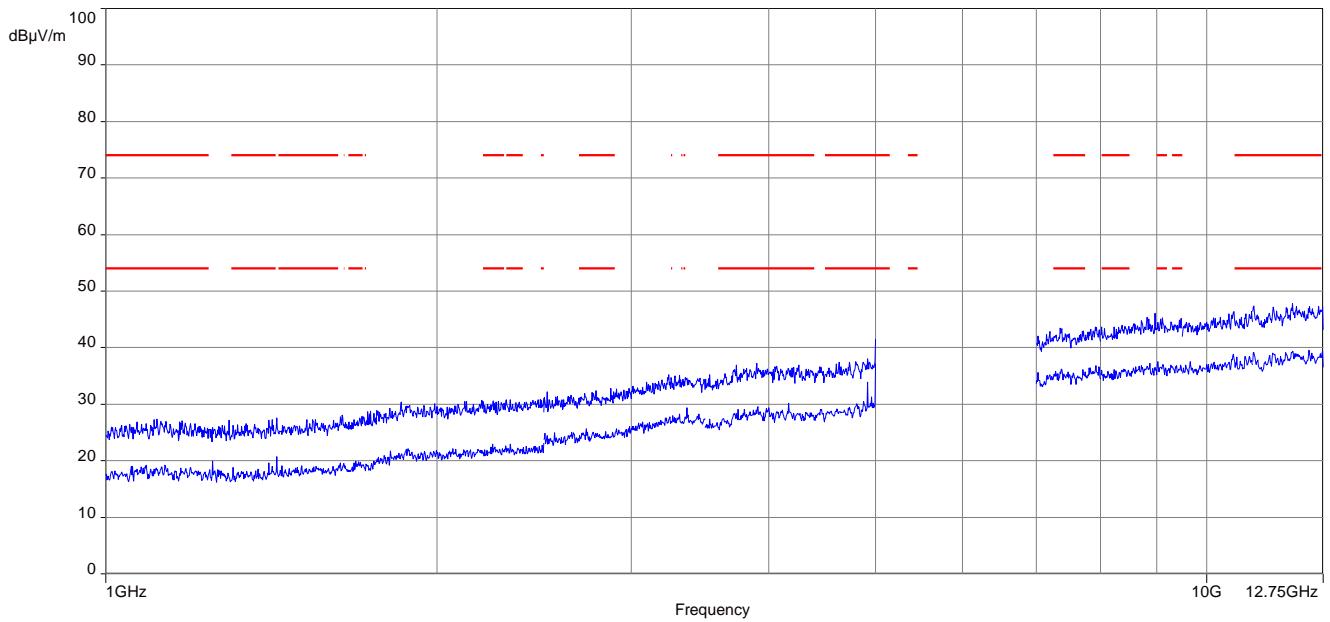
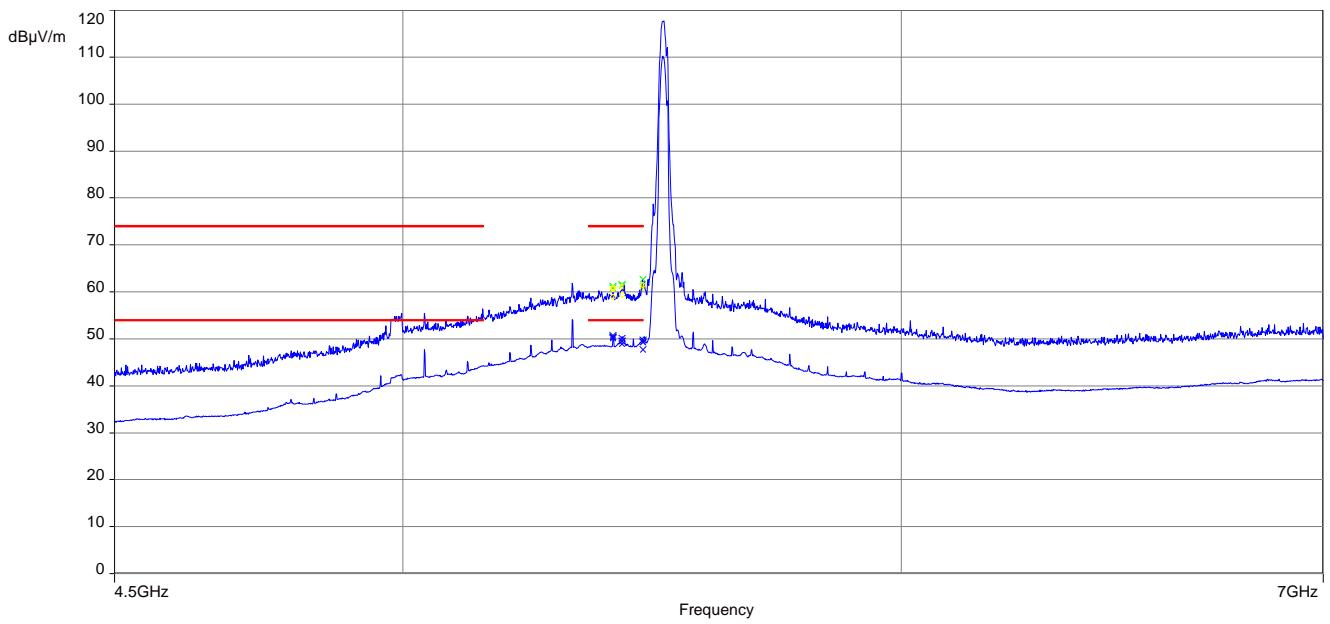
**Plot 22:** 12 GHz to 18 GHz, 5320 MHz, vertical & horizontal polarization**Plot 23:** 18 GHz to 26 GHz, 5320 MHz, vertical & horizontal polarization

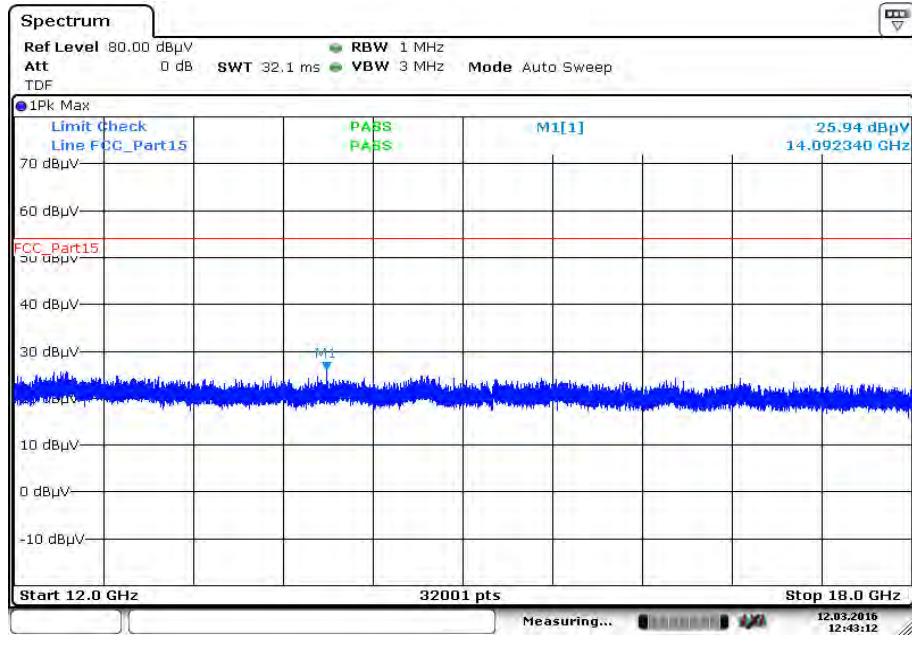
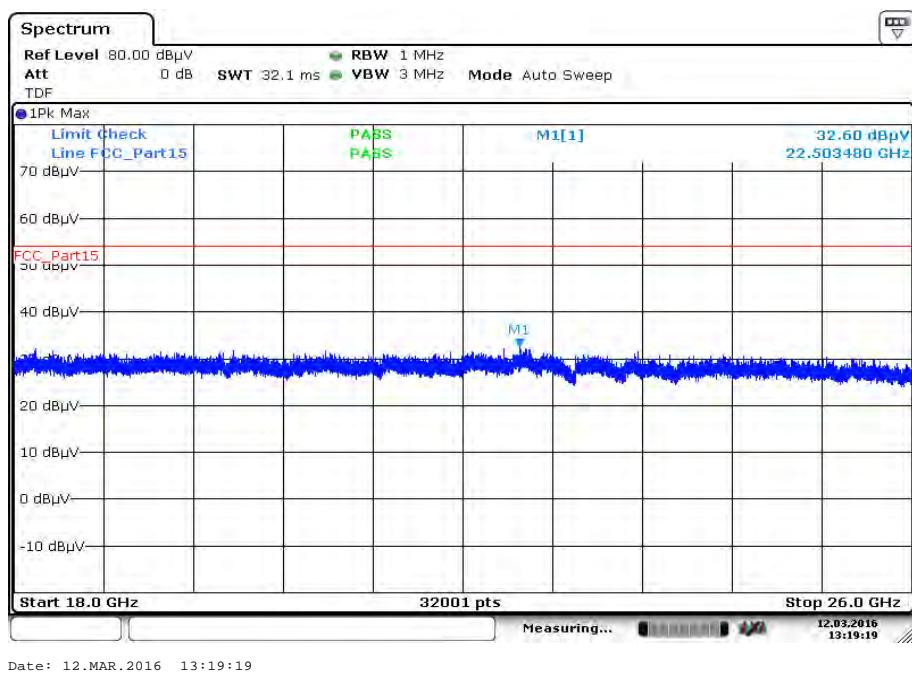
**Plot 24:** 26 GHz to 40 GHz, 5320 MHz, vertical & horizontal polarization

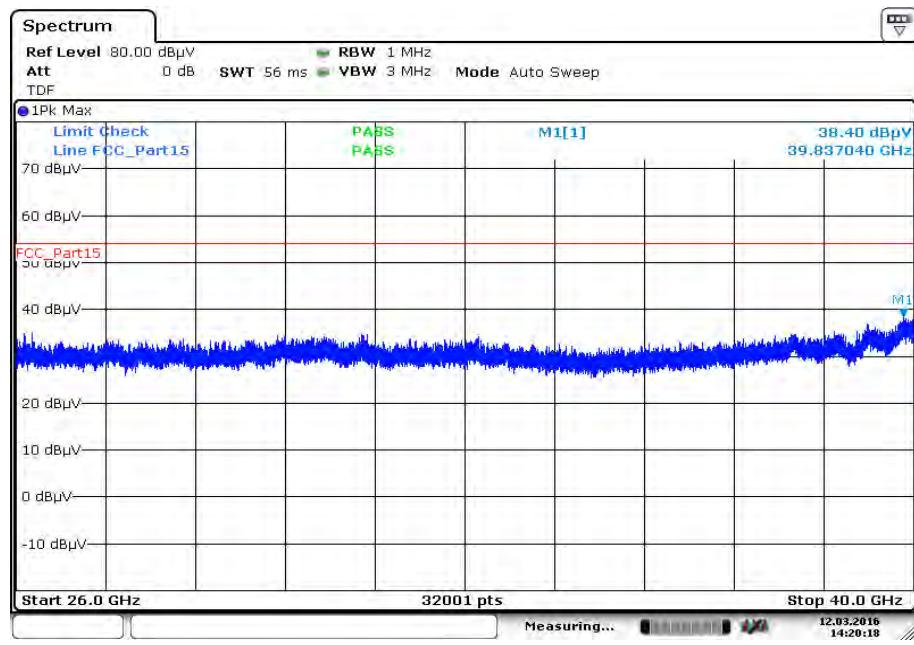
**Plot 25:** 30 MHz to 1 GHz, 5500 MHz, vertical & horizontal polarization

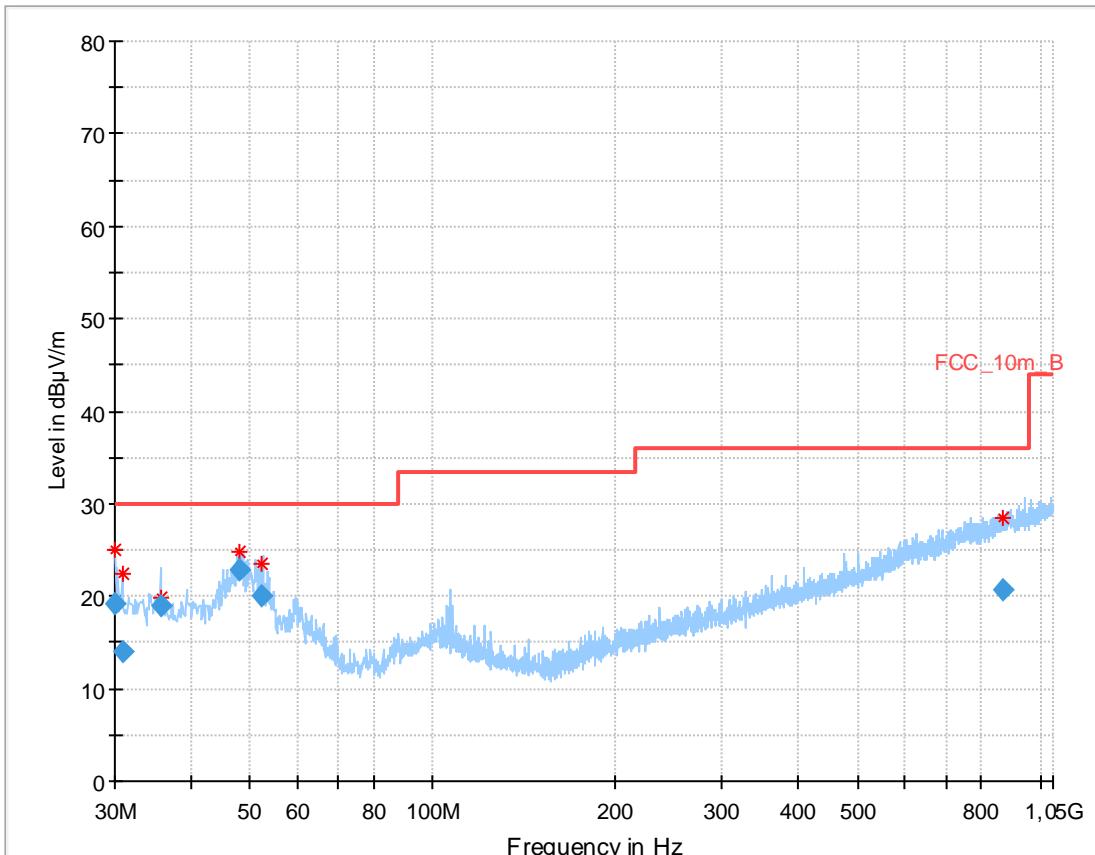
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.242286	19.27	30.00	10.73	1000.0	120.000	101.0	V	116	13.4
35.718600	17.43	30.00	12.57	1000.0	120.000	98.0	V	230	13.8
47.575500	21.76	30.00	8.24	1000.0	120.000	101.0	V	58	13.2
50.187150	21.61	30.00	8.39	1000.0	120.000	98.0	V	4	12.6
51.194100	21.36	30.00	8.64	1000.0	120.000	98.0	V	144	12.4
915.679650	20.98	36.00	15.02	1000.0	120.000	170.0	V	31	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

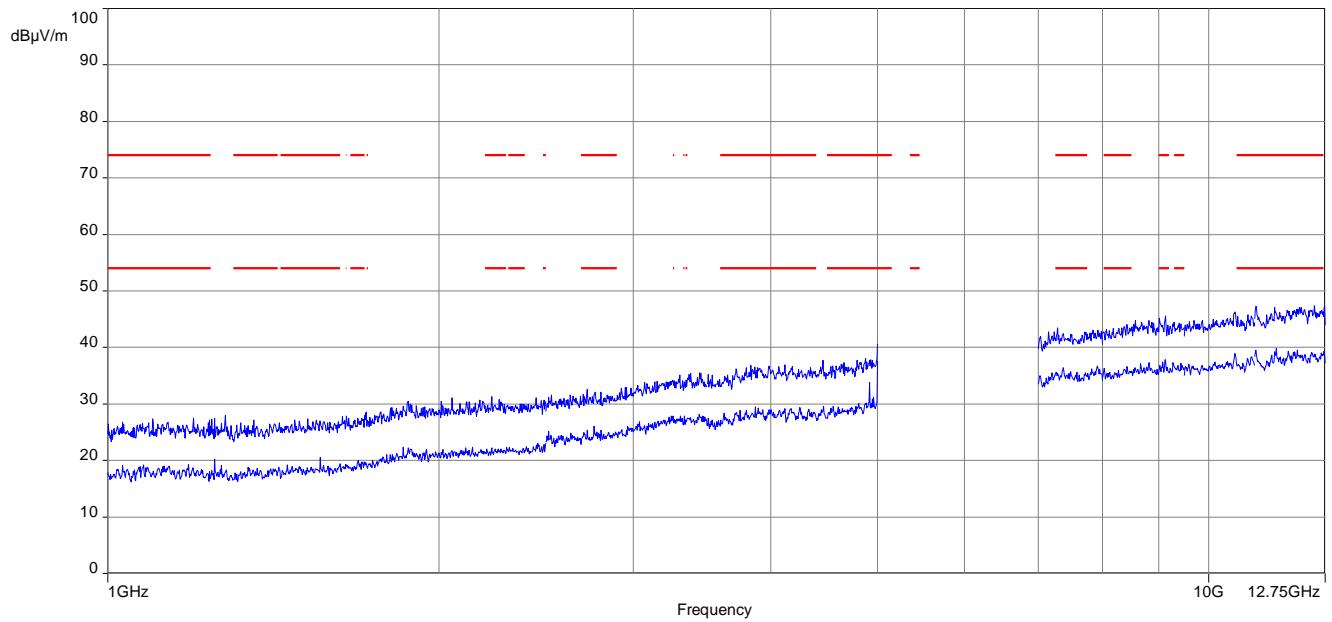
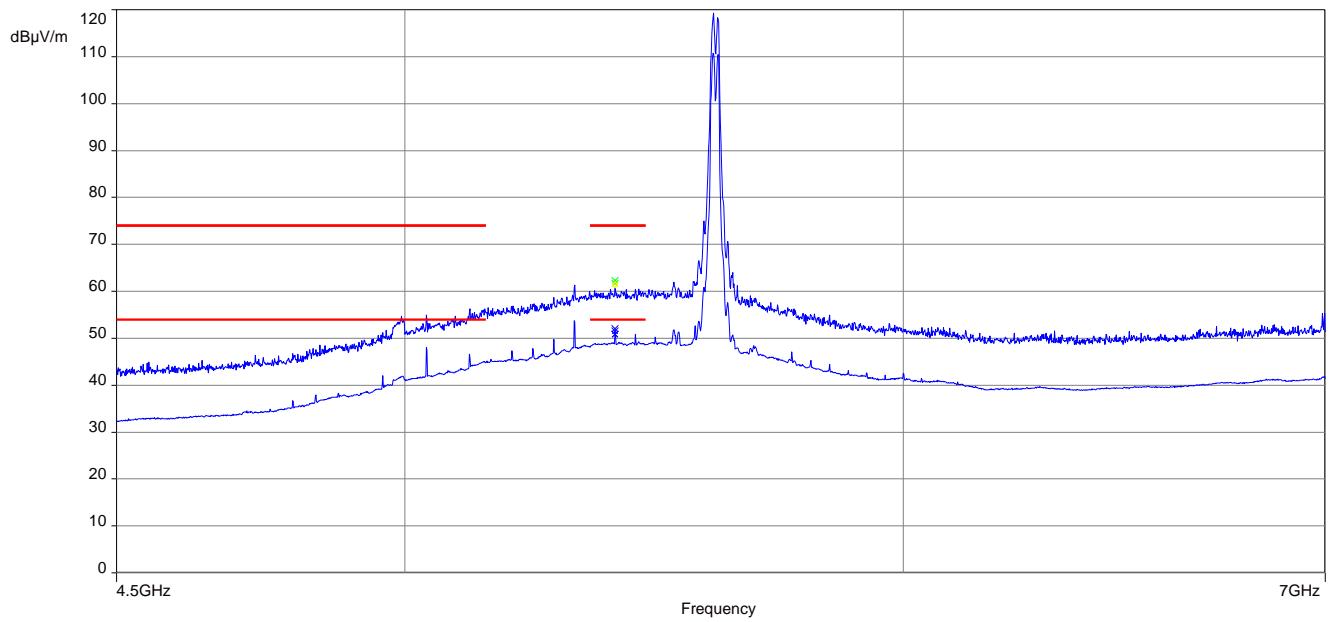
**Plot 28:** 12 GHz to 18 GHz, 5500 MHz, vertical & horizontal polarization**Plot 29:** 18 GHz to 26 GHz, 5500 MHz, vertical & horizontal polarization

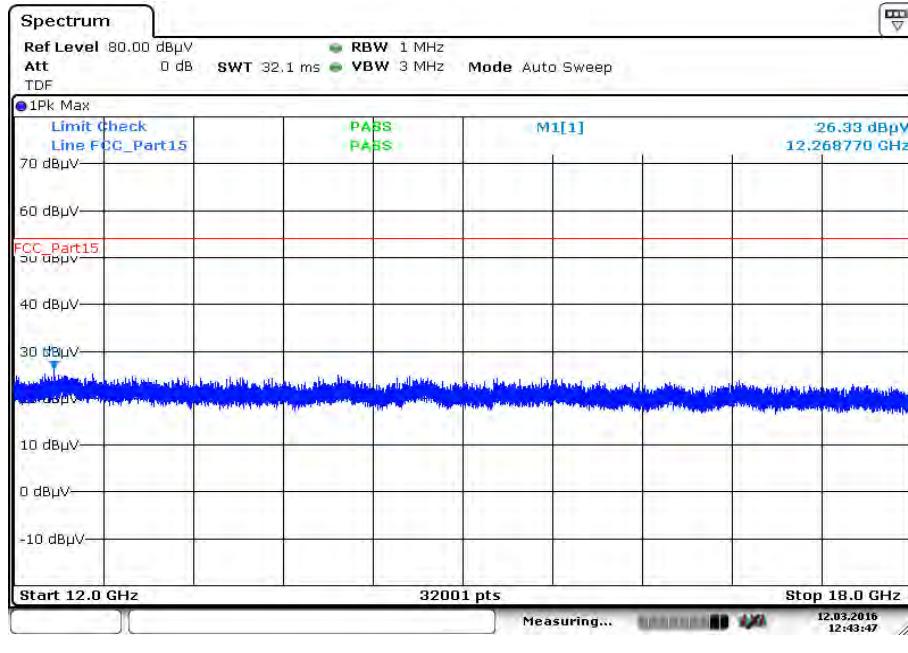
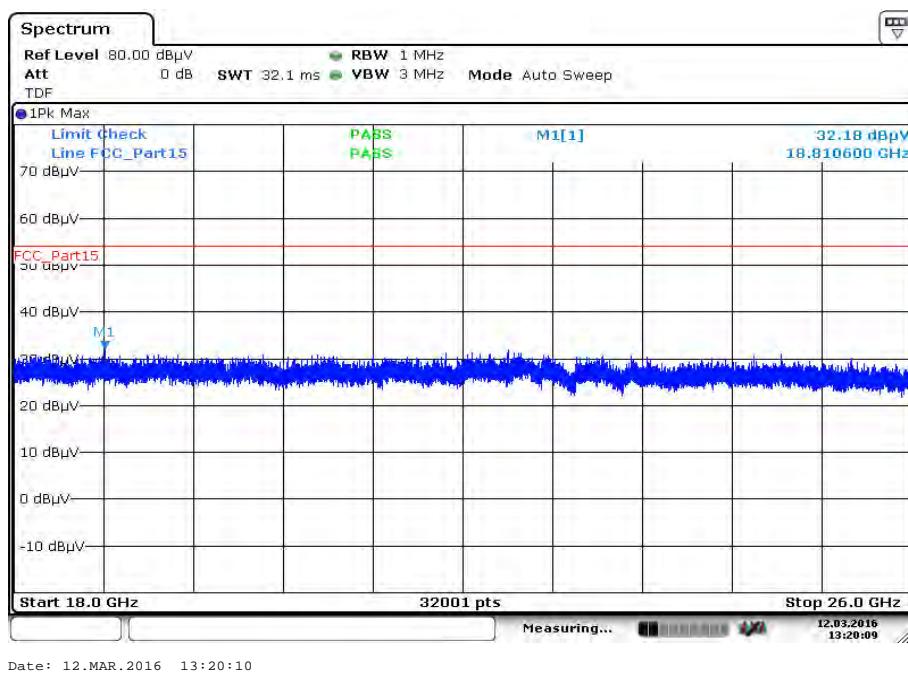
**Plot 30:** 26 GHz to 40 GHz, 5500 MHz, vertical & horizontal polarization

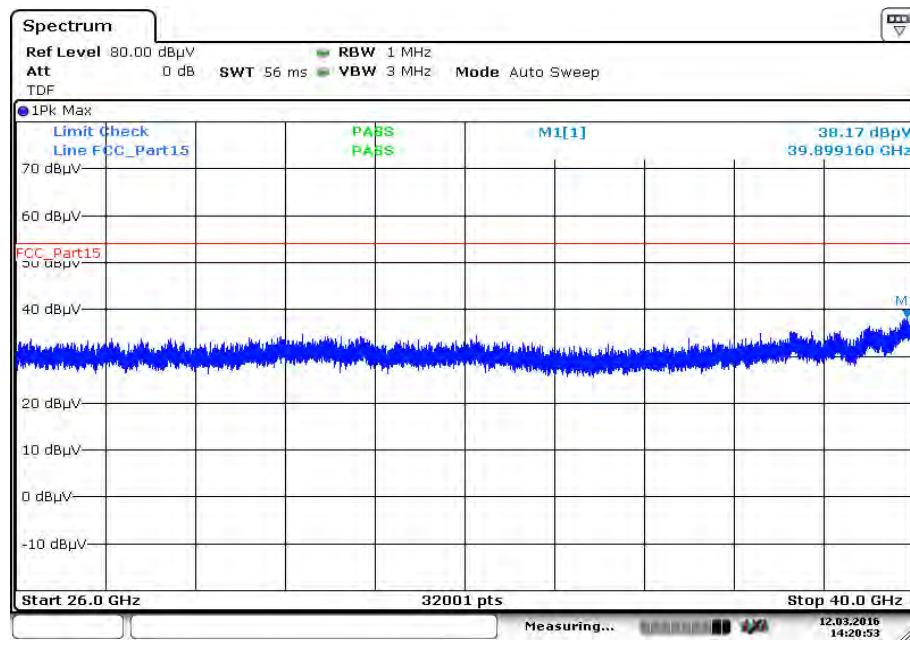
**Plot 31:** 30 MHz to 1 GHz, 5600 MHz, vertical & horizontal polarization

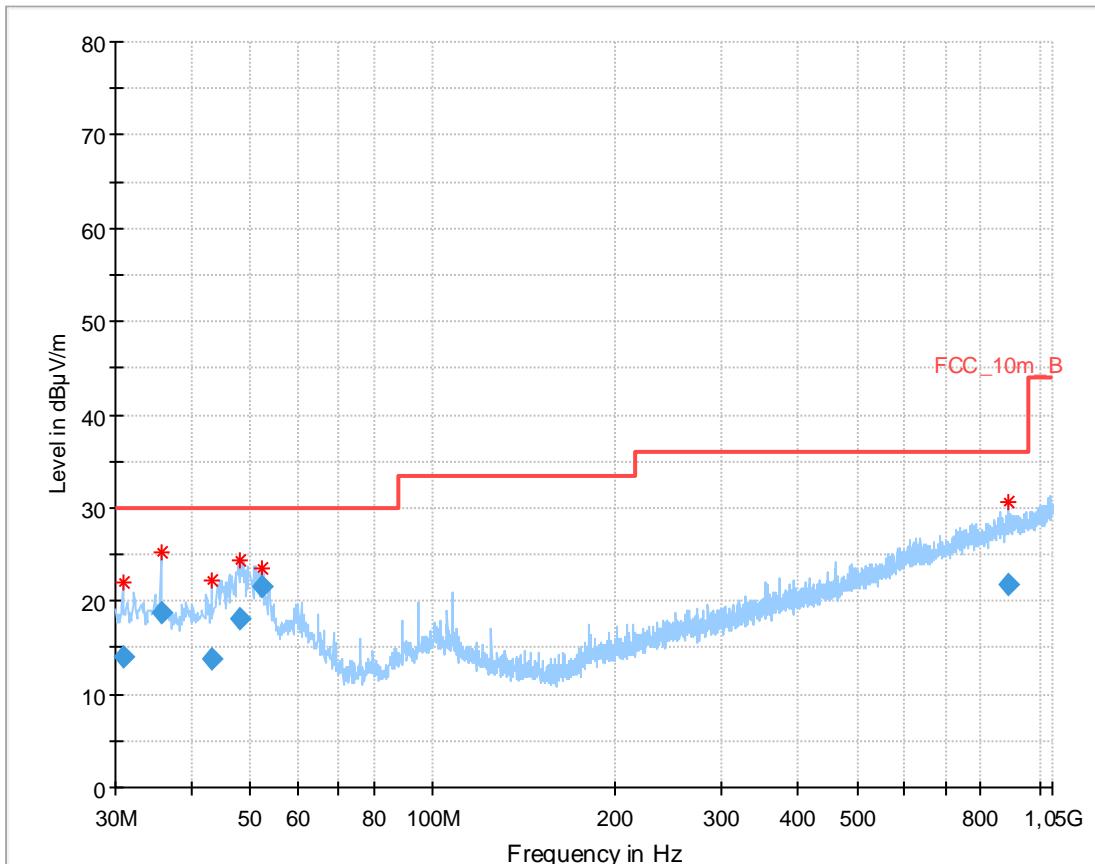
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.013950	19.14	30.00	10.86	1000.0	120.000	101.0	V	288	13.3
30.919350	13.98	30.00	16.02	1000.0	120.000	101.0	V	296	13.4
35.671950	18.93	30.00	11.07	1000.0	120.000	98.0	V	245	13.8
48.217500	22.79	30.00	7.21	1000.0	120.000	98.0	V	78	13.1
52.141200	19.95	30.00	10.05	1000.0	120.000	98.0	V	202	12.3
866.234100	20.65	36.00	15.35	1000.0	120.000	170.0	H	352	23.7

**Plot 32:** 1 GHz to 12.75 GHz, 5600 MHz, vertical & horizontal polarization**Plot 33:** 4.5 GHz to 7 GHz, 5600 MHz, vertical & horizontal polarization

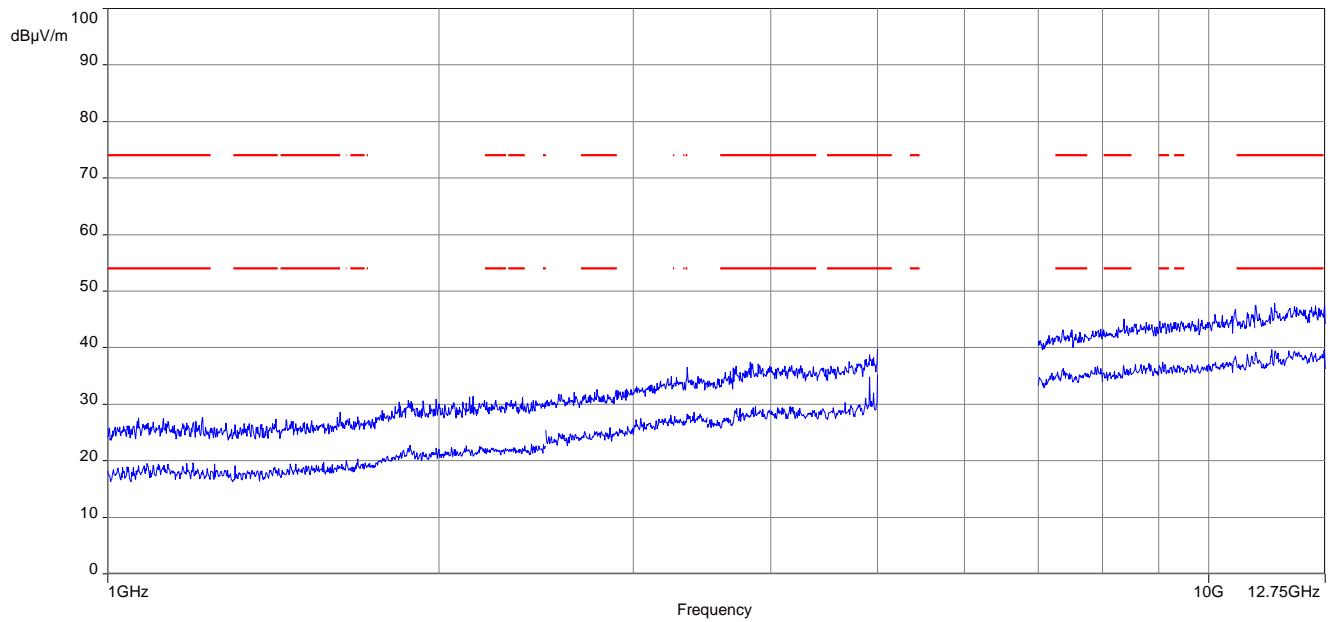
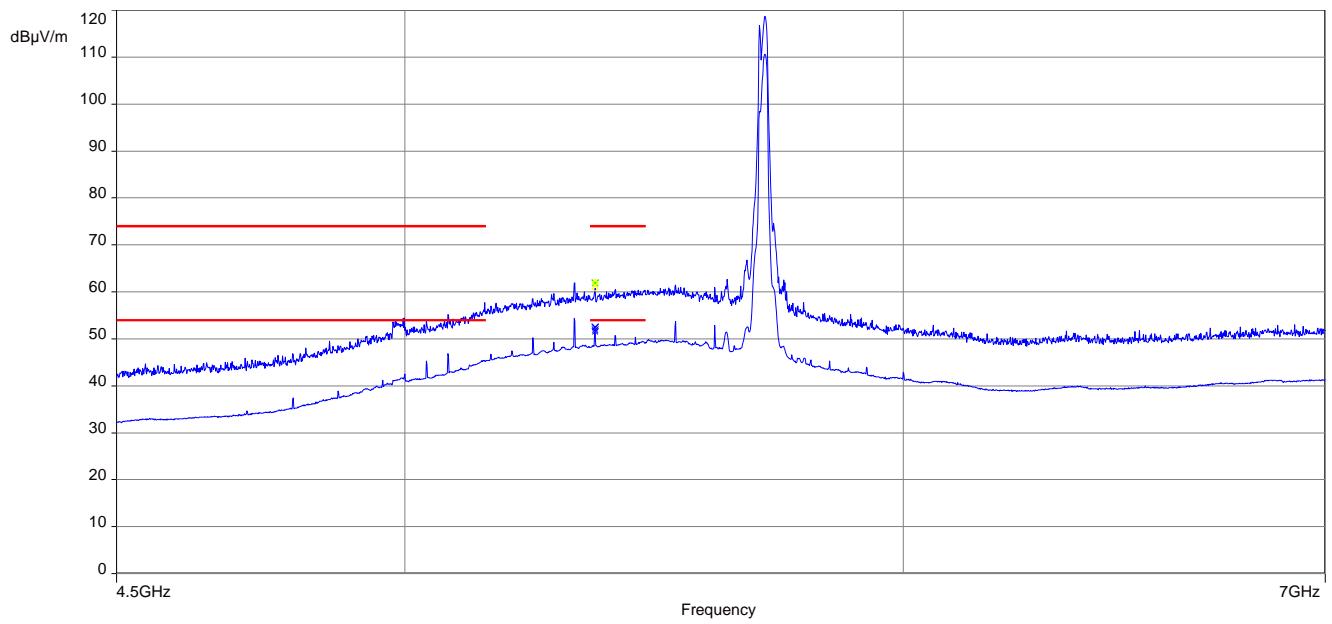
**Plot 34:** 12 GHz to 18 GHz, 5600 MHz, vertical & horizontal polarization**Plot 35:** 18 GHz to 26 GHz, 5600 MHz, vertical & horizontal polarization

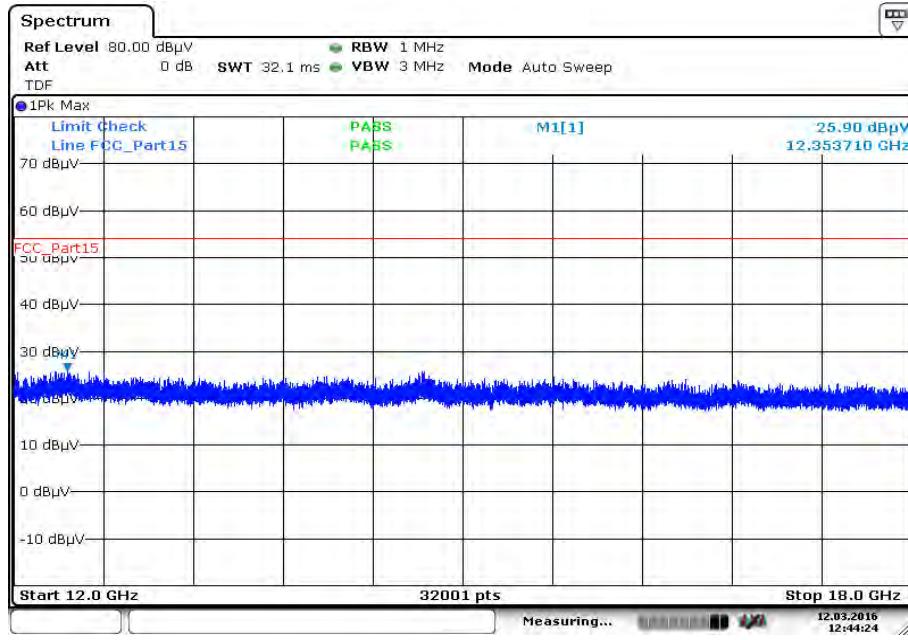
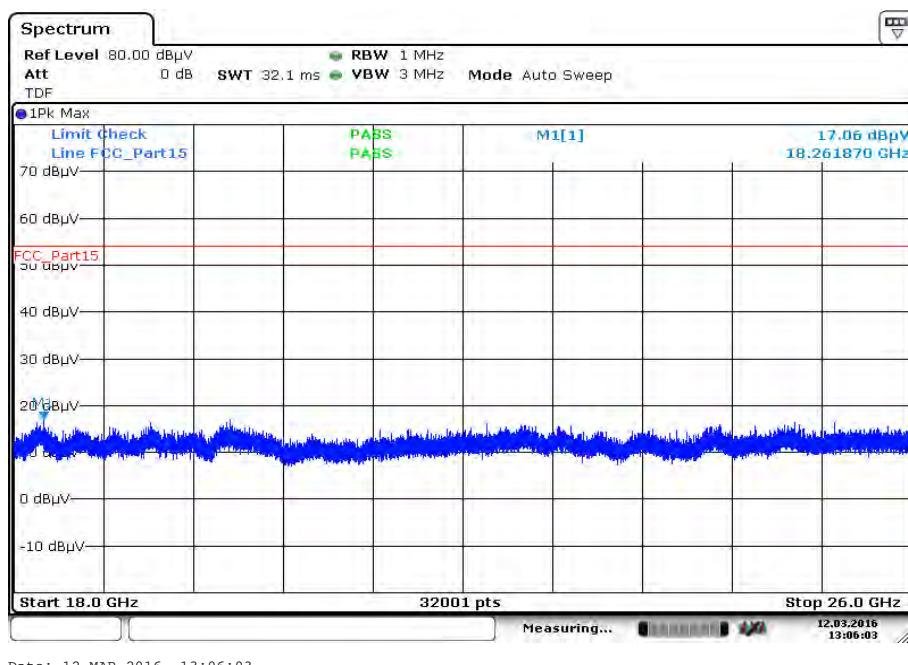
**Plot 36:** 26 GHz to 40 GHz, 5600 MHz, vertical & horizontal polarization

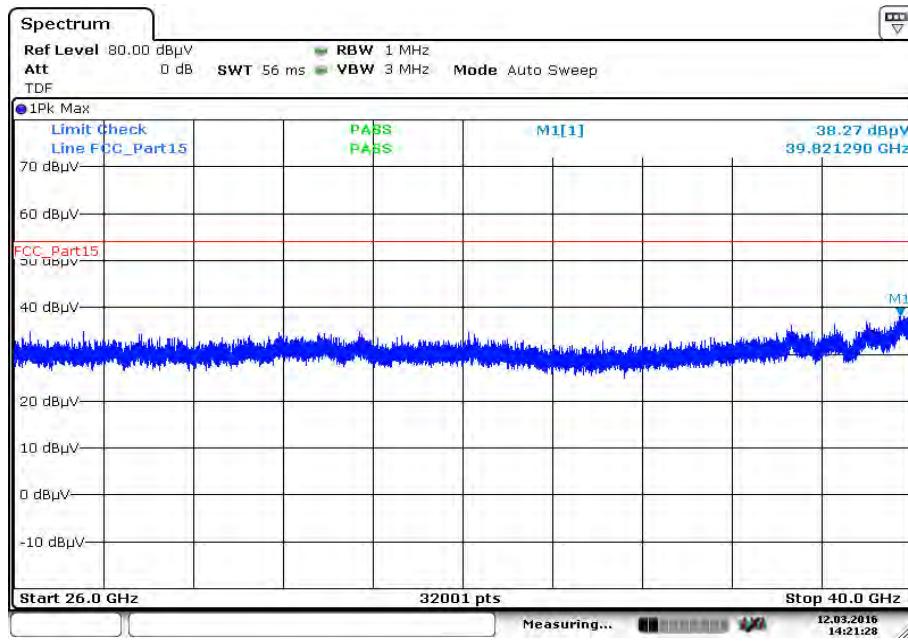
**Plot 37:** 30 MHz to 1 GHz, 5700 MHz, vertical & horizontal polarization

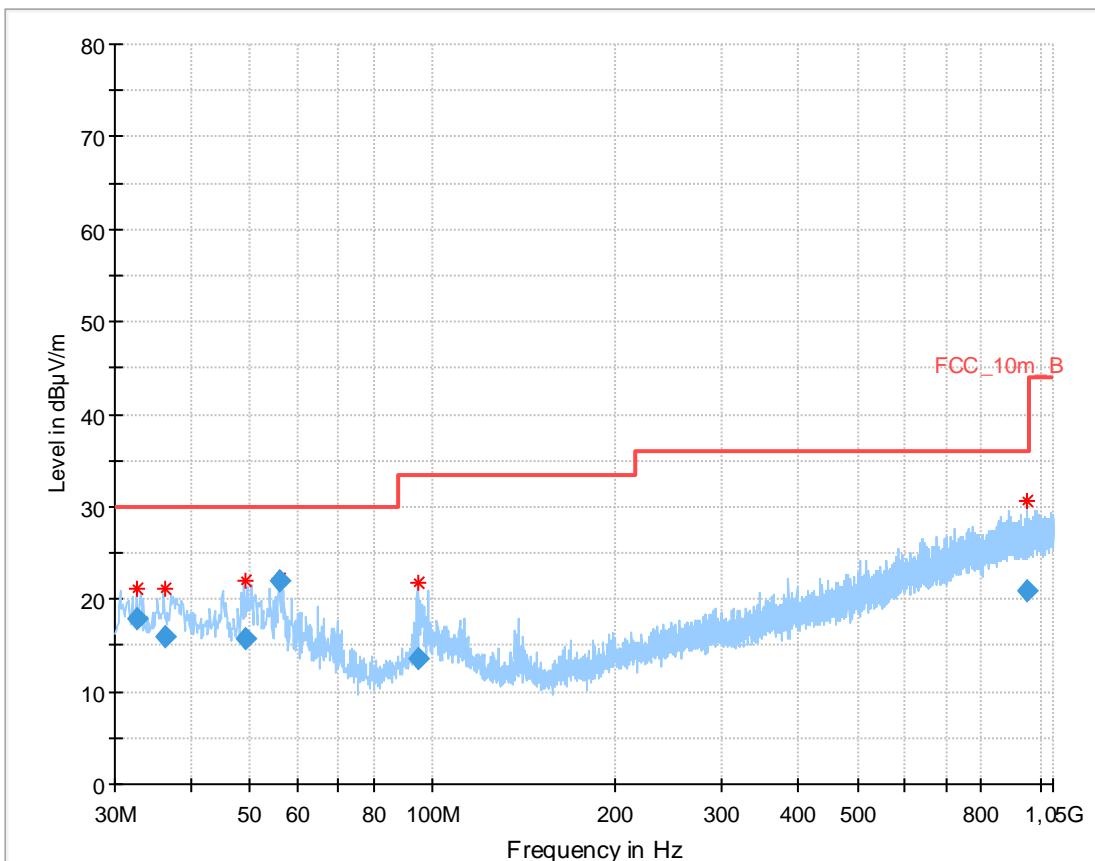
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.906450	14.02	30.00	15.98	1000.0	120.000	101.0	V	337	13.4
35.655900	18.80	30.00	11.20	1000.0	120.000	101.0	V	99	13.8
43.274400	13.78	30.00	16.22	1000.0	120.000	98.0	V	314	13.9
48.008550	18.16	30.00	11.84	1000.0	120.000	101.0	V	106	13.1
52.163850	21.47	30.00	8.53	1000.0	120.000	98.0	V	353	12.3
890.773500	21.79	36.00	14.21	1000.0	120.000	170.0	V	60	24.0

**Plot 38:** 1 GHz to 12.75 GHz, 5700 MHz, vertical & horizontal polarization**Plot 39:** 4.5 GHz to 7 GHz, 5700 MHz, vertical & horizontal polarization

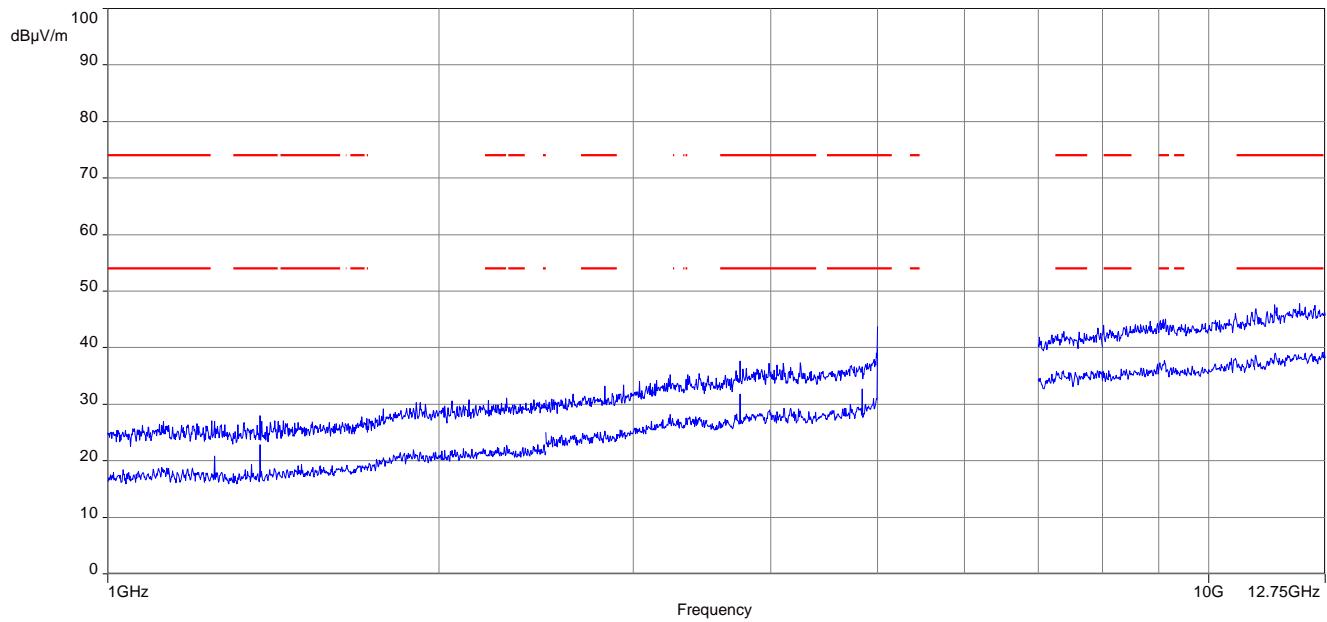
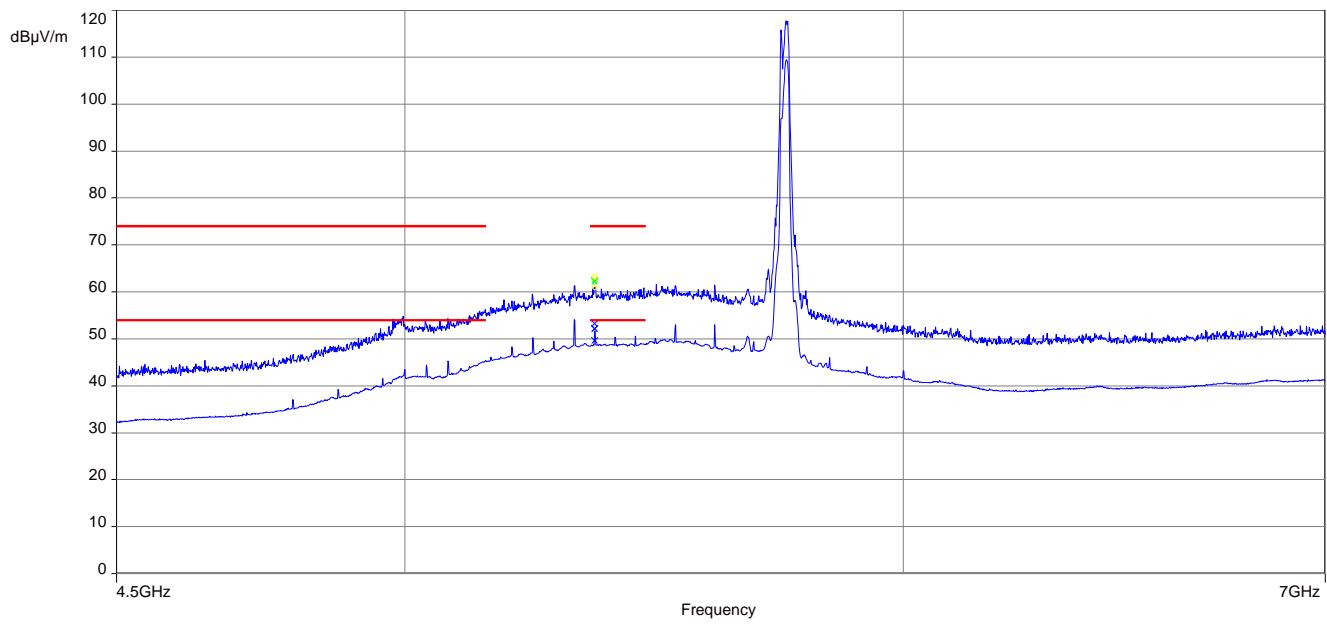
**Plot 40:** 12 GHz to 18 GHz, 5700 MHz, vertical & horizontal polarization**Plot 41:** 18 GHz to 26 GHz, 5700 MHz, vertical & horizontal polarization

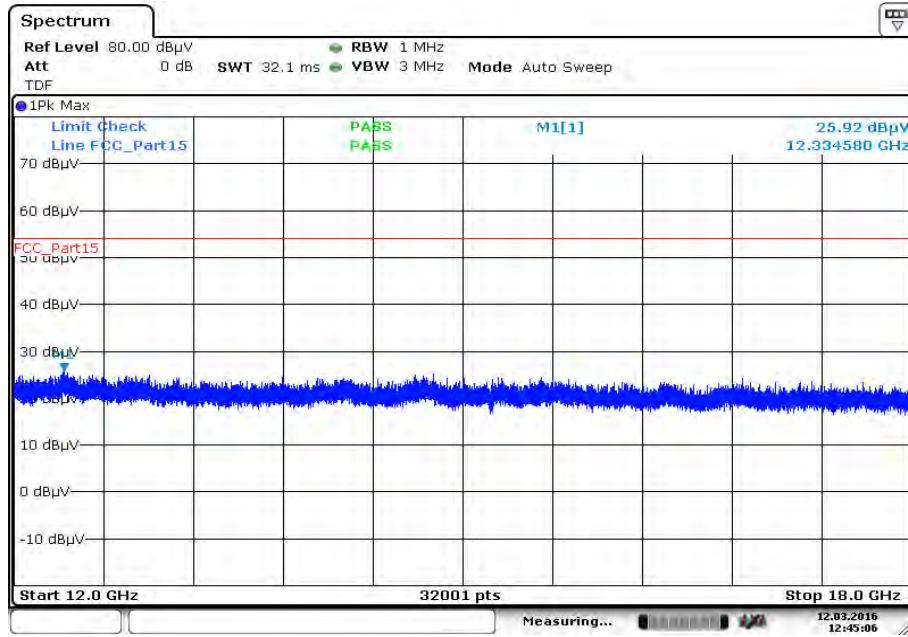
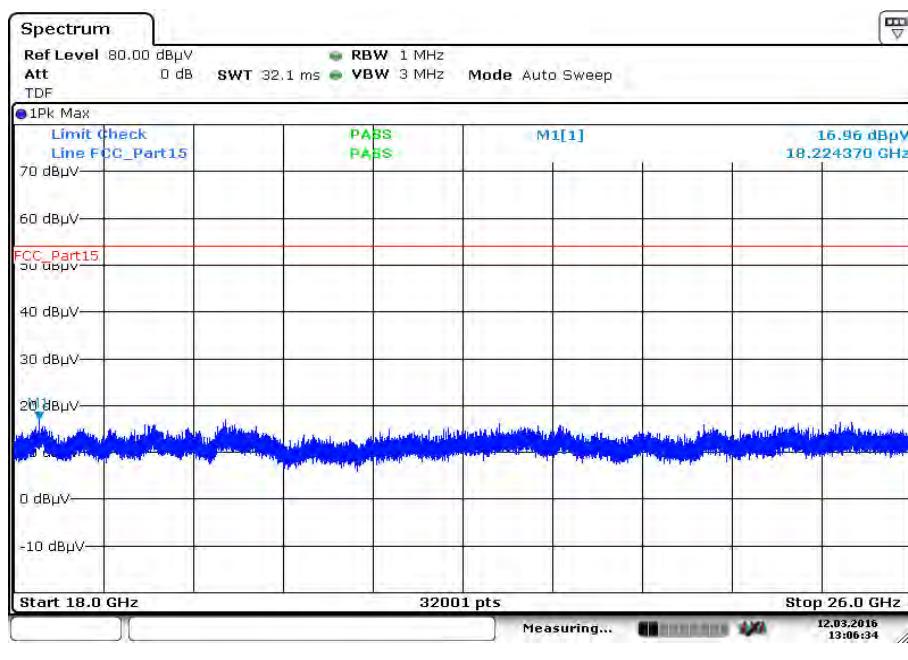
**Plot 42:** 26 GHz to 40 GHz, 5700 MHz, vertical & horizontal polarization

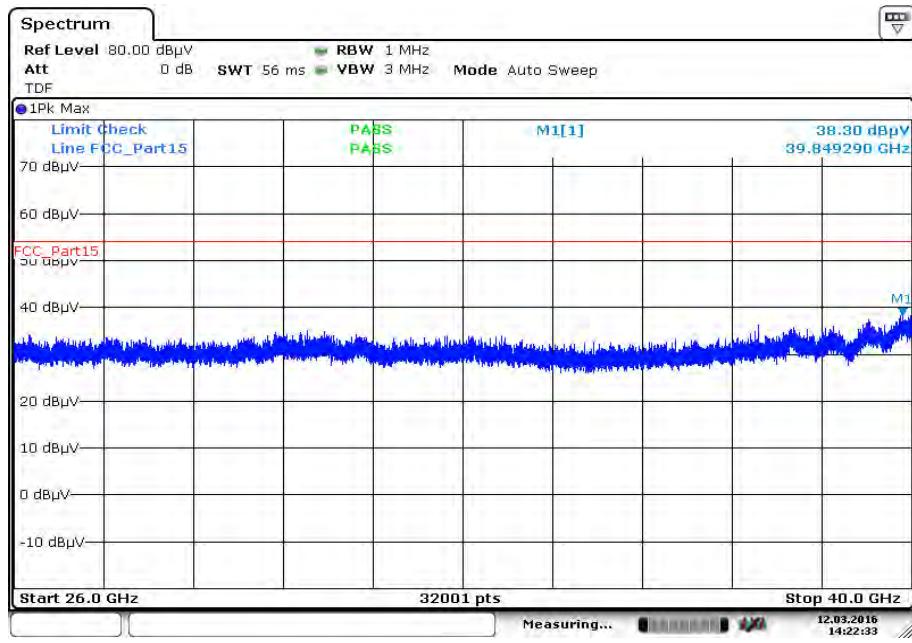
**Plot 43:** 30 MHz to 1 GHz, 5745 MHz, vertical & horizontal polarization

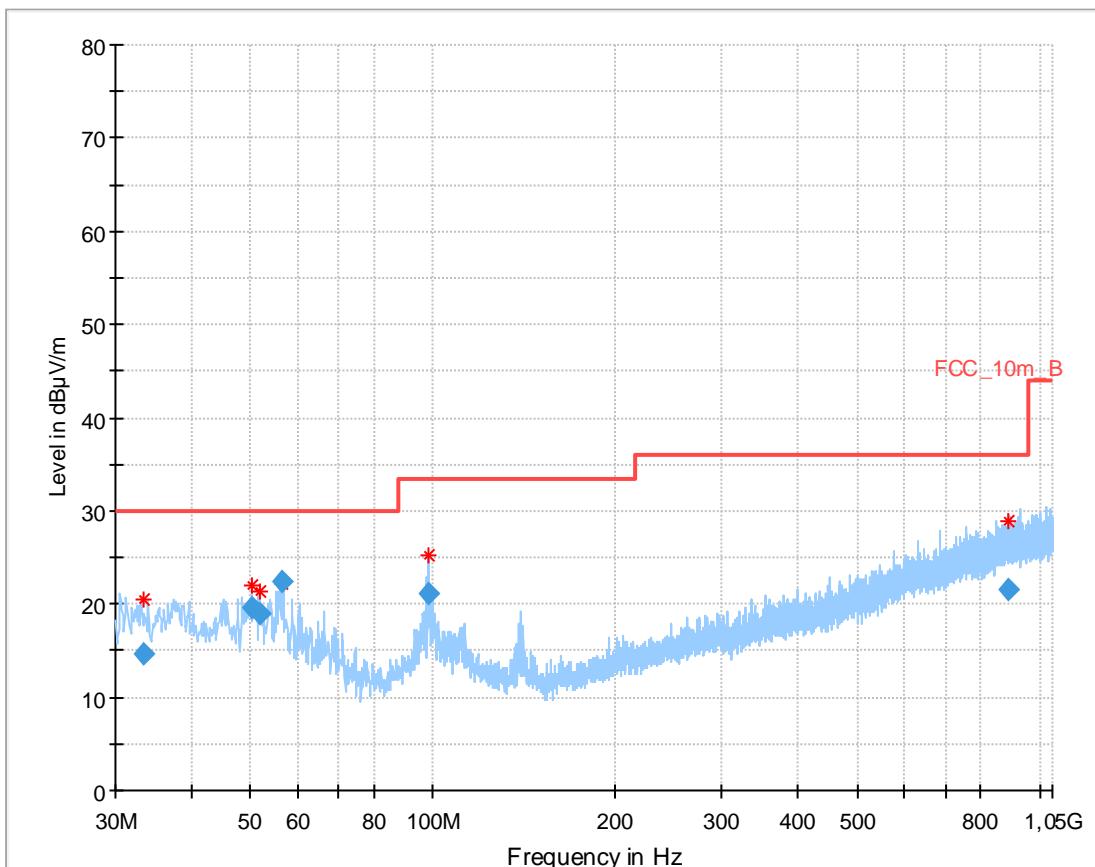
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
32.603400	17.99	30.00	12.01	1000.0	120.000	170.0	V	280.0	13.6
36.156300	16.04	30.00	13.96	1000.0	120.000	170.0	V	261.0	13.9
49.263750	15.75	30.00	14.25	1000.0	120.000	98.0	V	80.0	12.8
55.878600	21.96	30.00	8.04	1000.0	120.000	170.0	V	280.0	11.6
94.403400	13.57	33.50	19.93	1000.0	120.000	170.0	V	81.0	11.2
951.358500	20.93	36.00	15.07	1000.0	120.000	170.0	H	280.0	24.3

**Plot 44:** 1 GHz to 12.75 GHz, 5745 MHz, vertical & horizontal polarization**Plot 45:** 4.5 GHz to 7 GHz, 5745 MHz, vertical & horizontal polarization

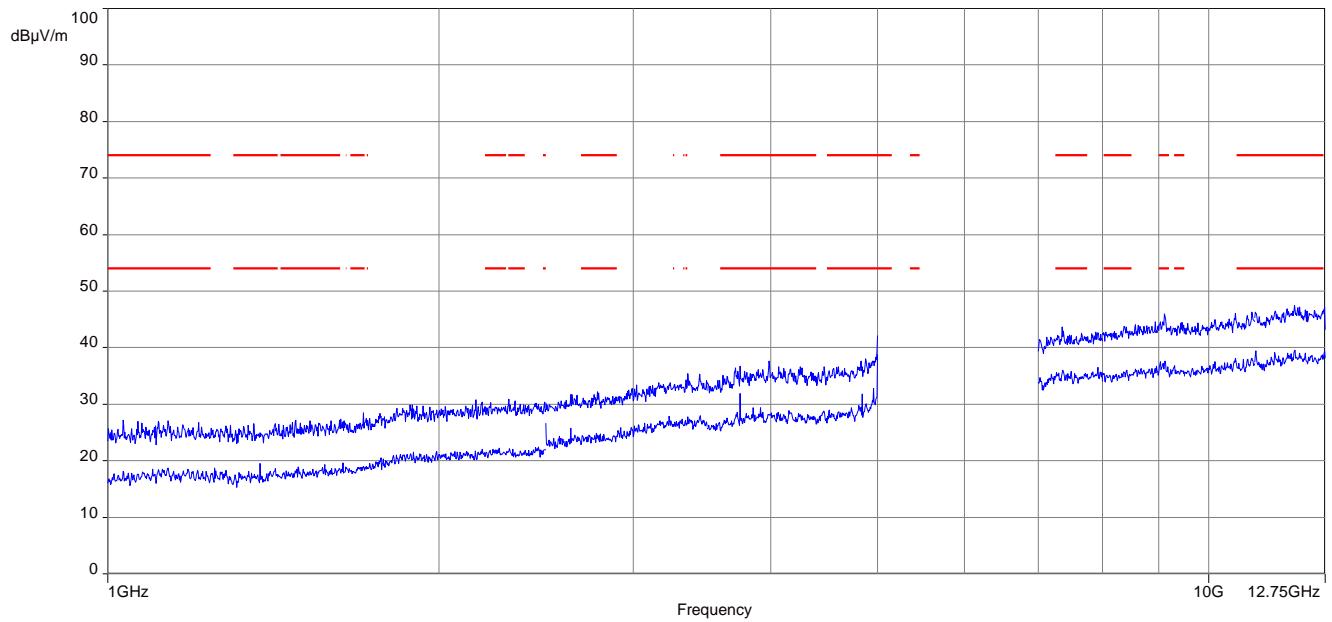
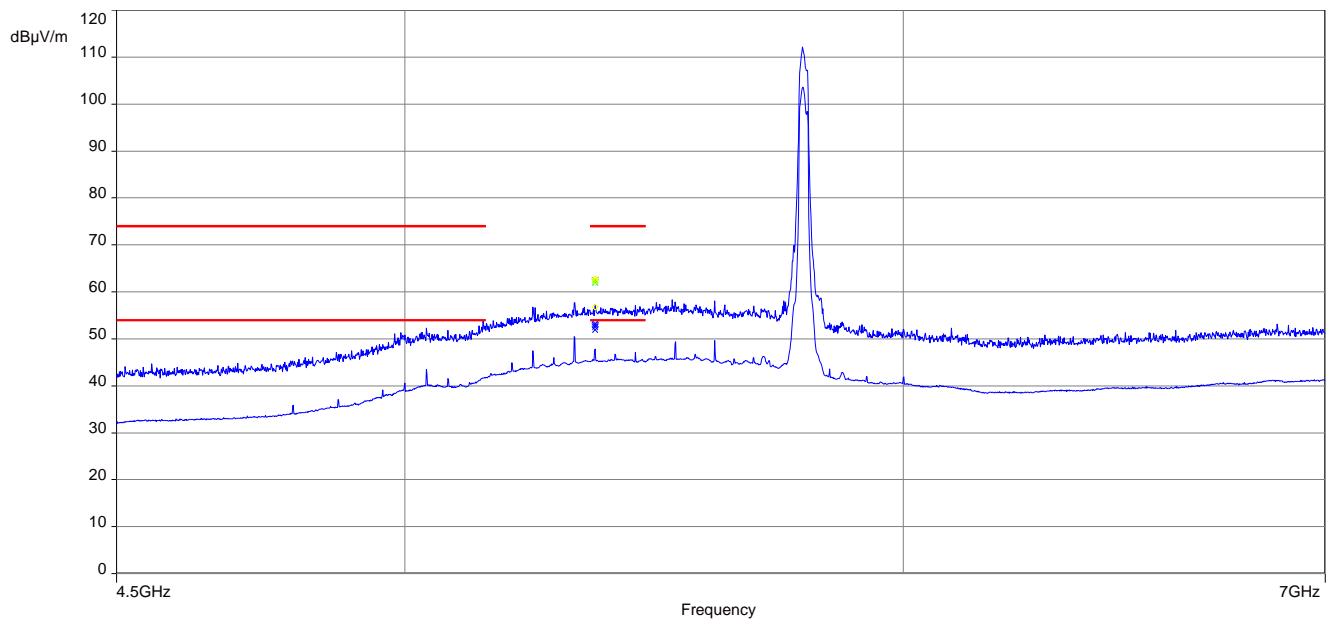
**Plot 46:** 12 GHz to 18 GHz, 5745 MHz, vertical & horizontal polarization**Plot 47:** 18 GHz to 26 GHz, 5745 MHz, vertical & horizontal polarization

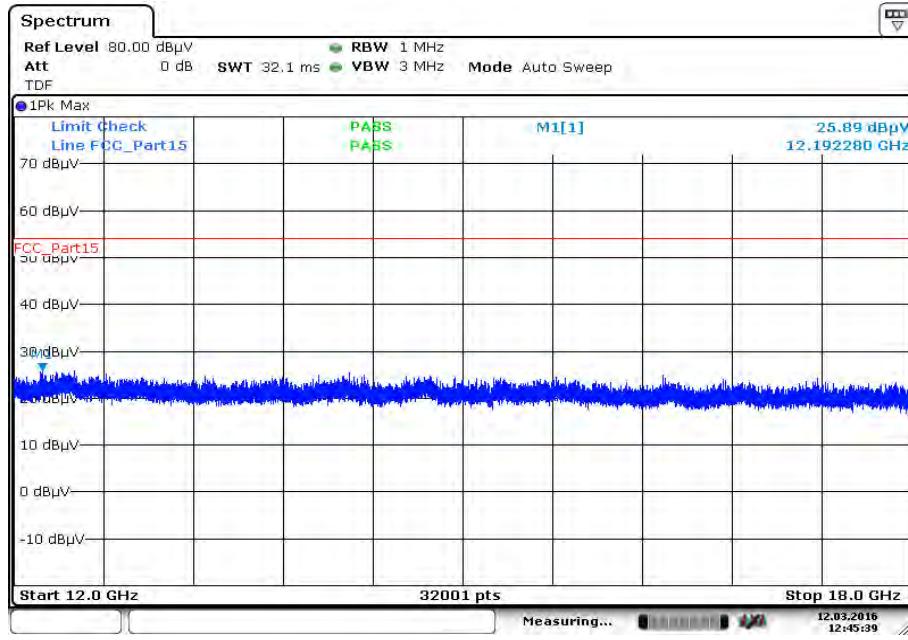
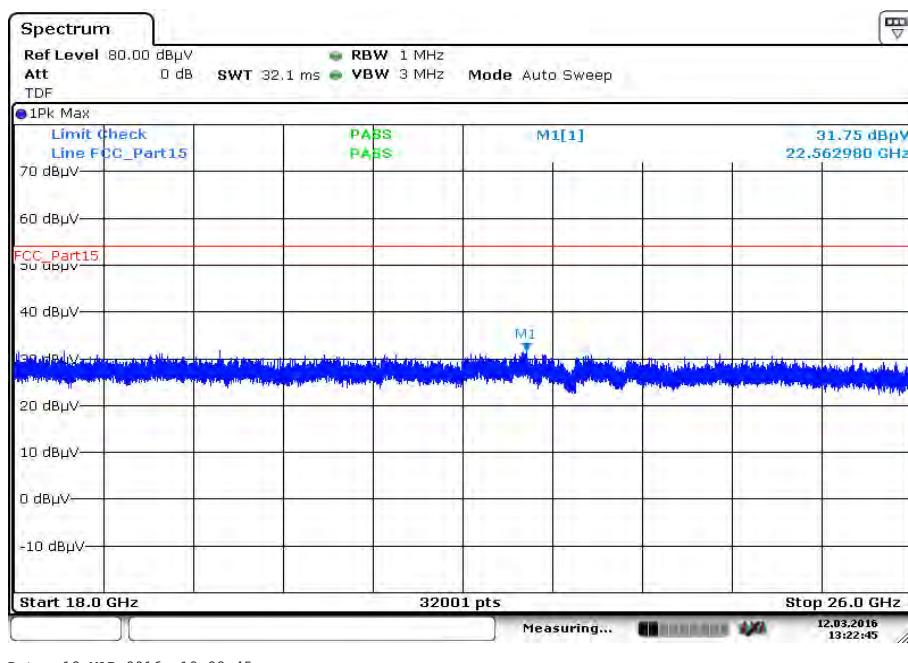
**Plot 48:** 26 GHz to 40 GHz, 5745 MHz, vertical & horizontal polarization

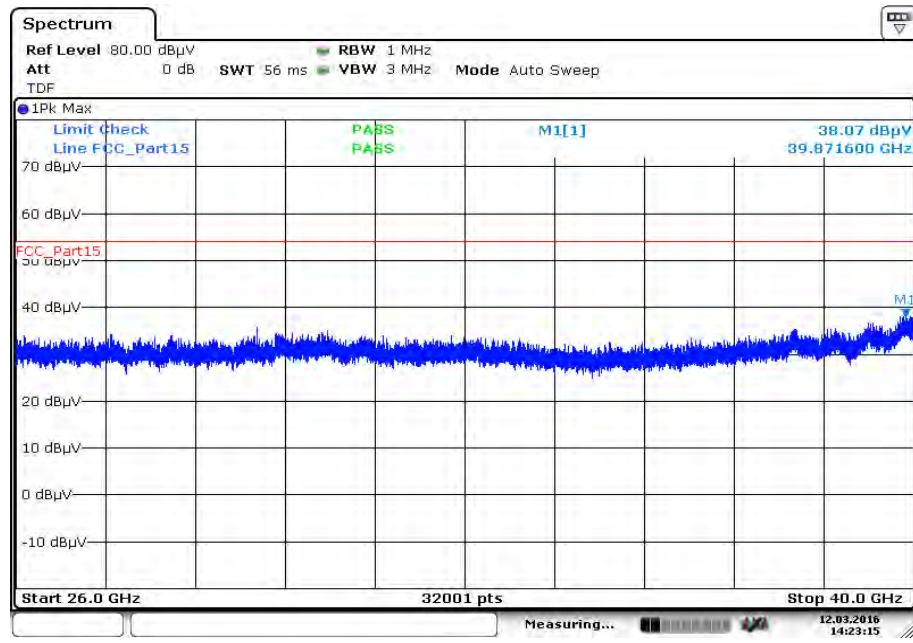
**Plot 49:** 30 MHz to 1 GHz, 5785 MHz, vertical & horizontal polarization

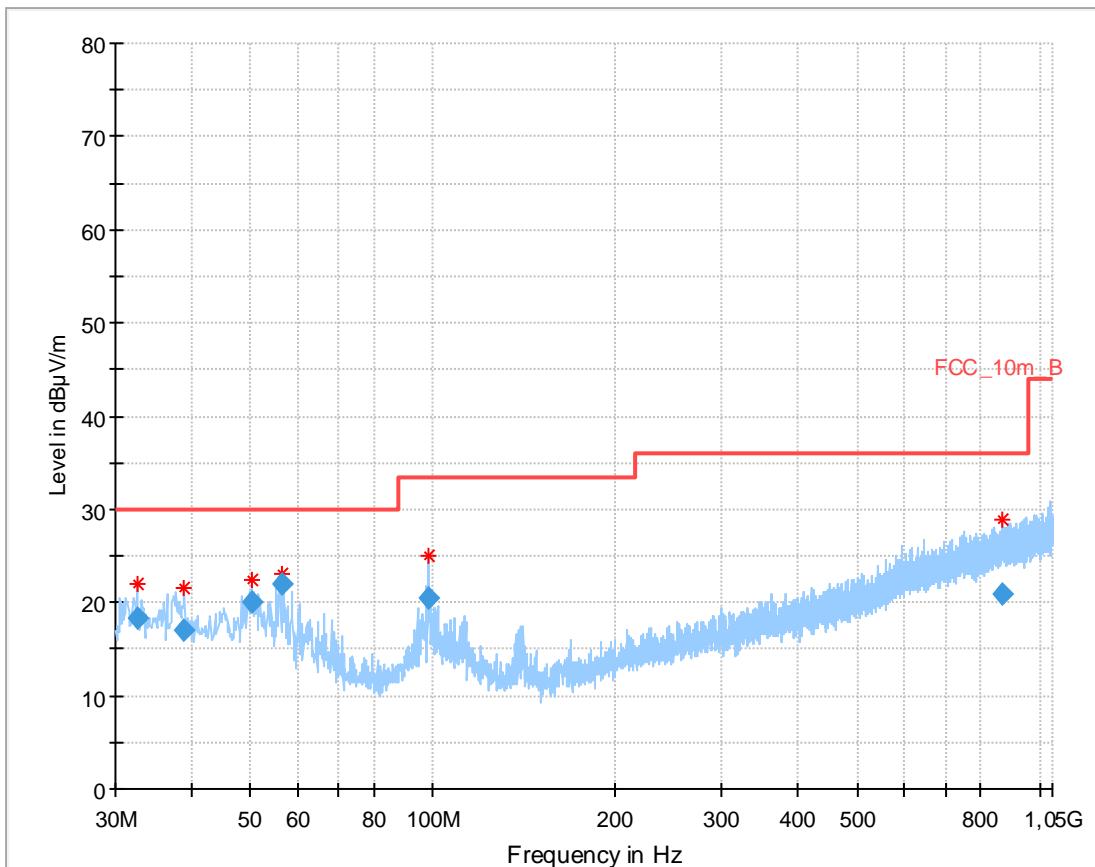
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
33.487950	14.77	30.00	15.23	1000.0	120.000	101.0	V	170.0	13.7
50.412300	19.60	30.00	10.40	1000.0	120.000	98.0	V	260.0	12.6
51.811950	18.98	30.00	11.02	1000.0	120.000	98.0	V	280.0	12.3
56.541000	22.43	30.00	7.57	1000.0	120.000	170.0	V	280.0	11.4
98.433600	21.10	33.50	12.40	1000.0	120.000	170.0	V	81.0	11.9
889.846350	21.52	36.00	14.48	1000.0	120.000	101.0	V	10.0	24.0

**Plot 50:** 1 GHz to 12.75 GHz, 5785 MHz, vertical & horizontal polarization**Plot 51:** 4.5 GHz to 7 GHz, 5785 MHz, vertical & horizontal polarization

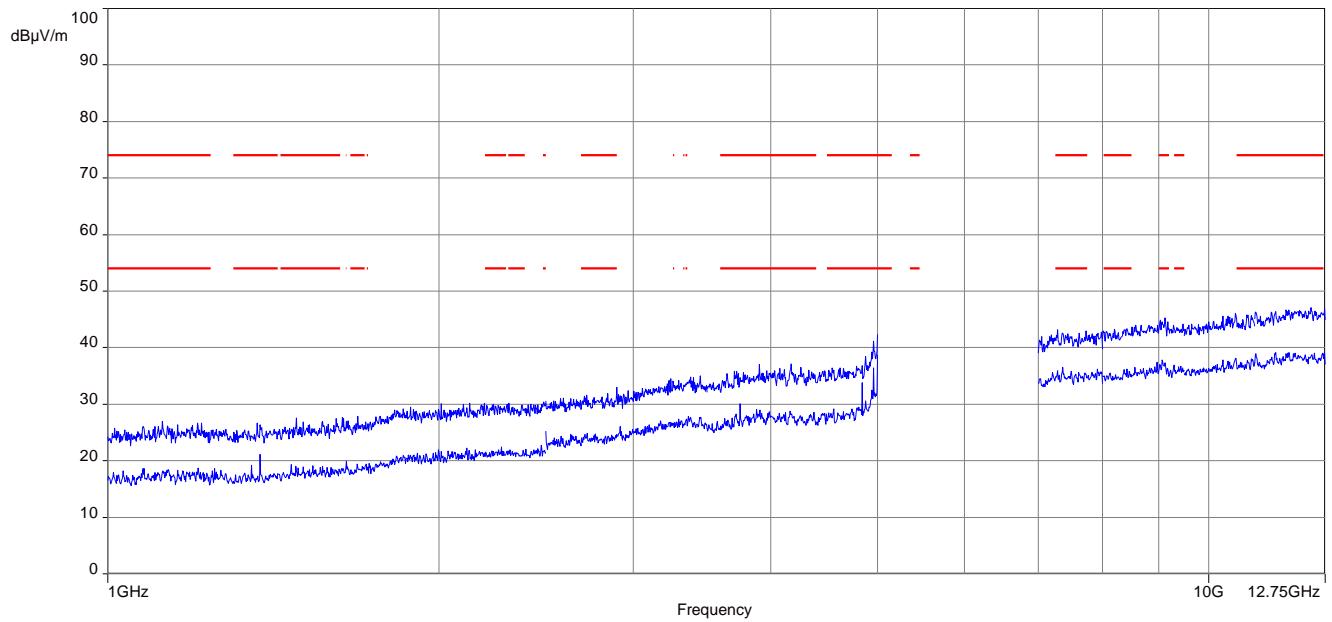
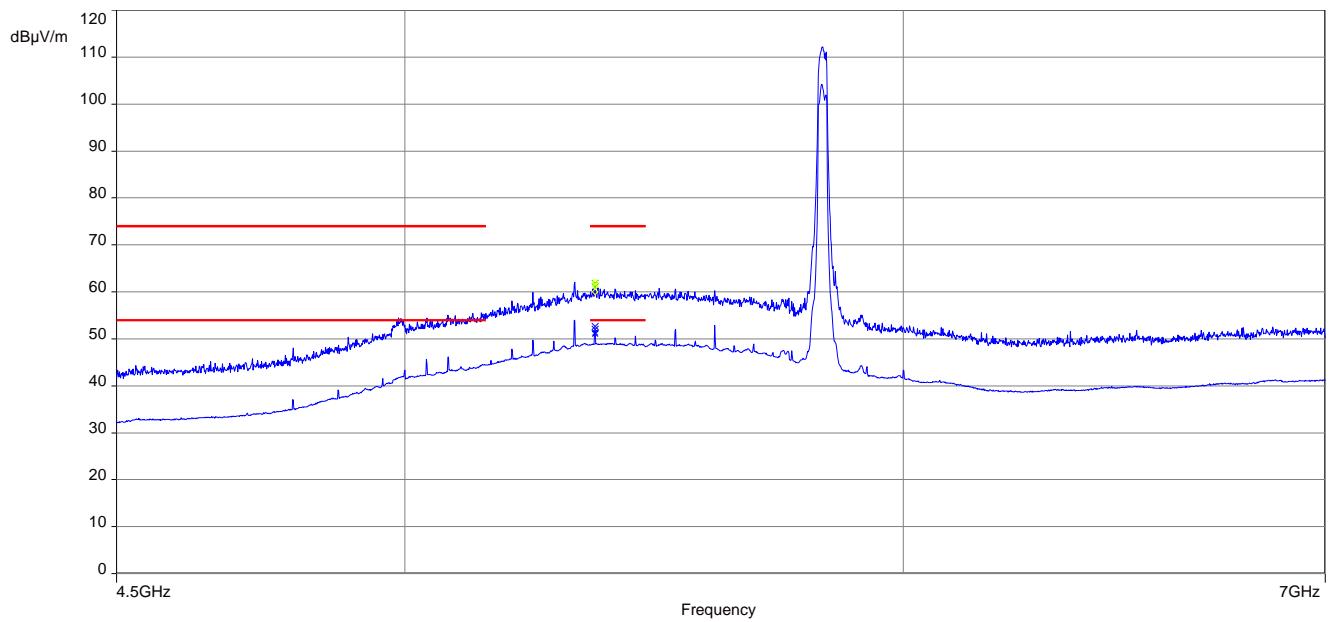
**Plot 52:** 12 GHz to 18 GHz, 5785 MHz, vertical & horizontal polarization**Plot 53:** 18 GHz to 26 GHz, 5785 MHz, vertical & horizontal polarization

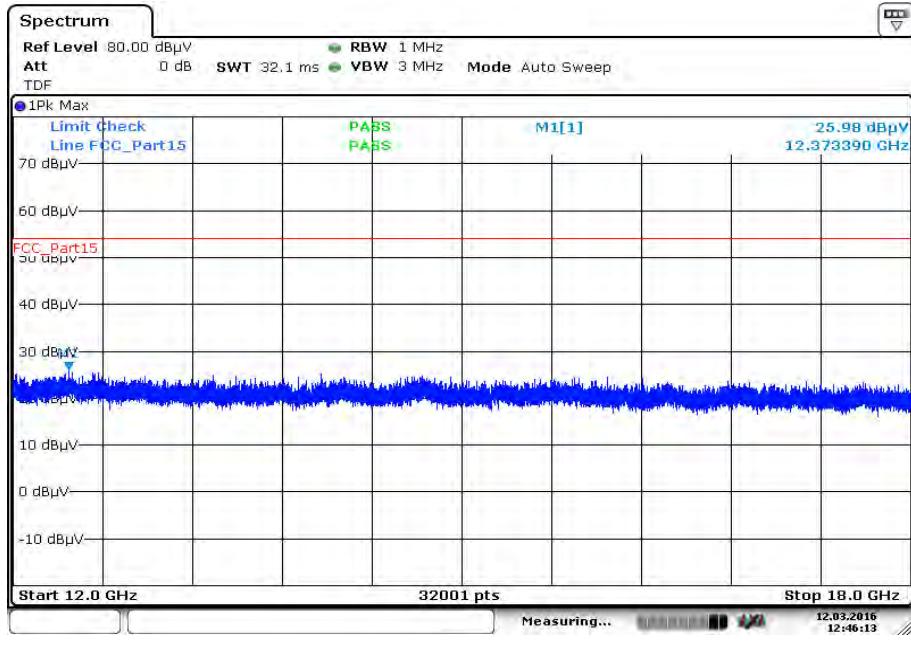
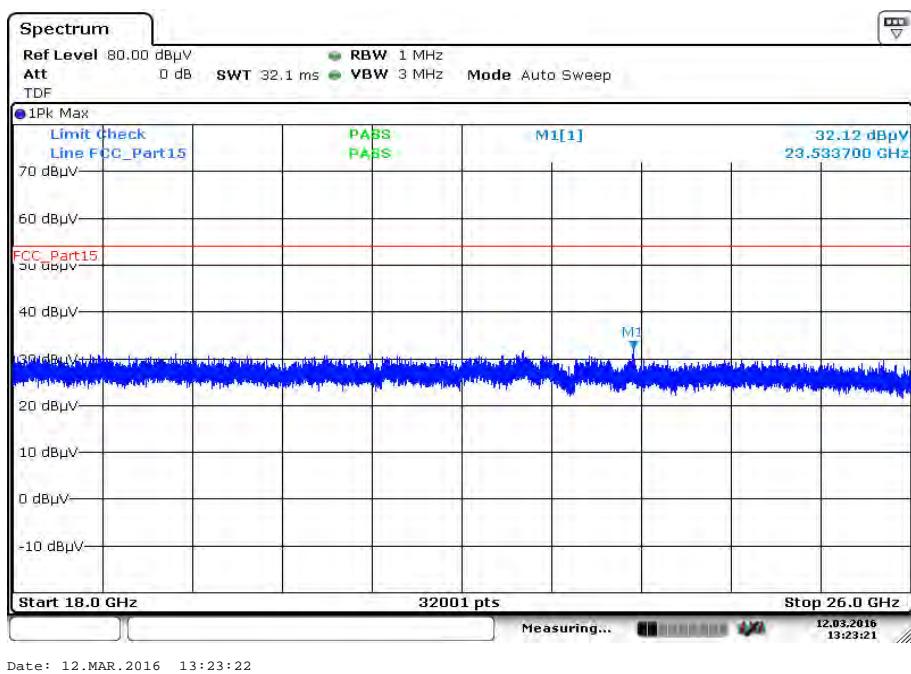
**Plot 54:** 26 GHz to 40 GHz, 5785 MHz, vertical & horizontal polarization

**Plot 55:** 30 MHz to 1 GHz, 5825 MHz, vertical & horizontal polarization

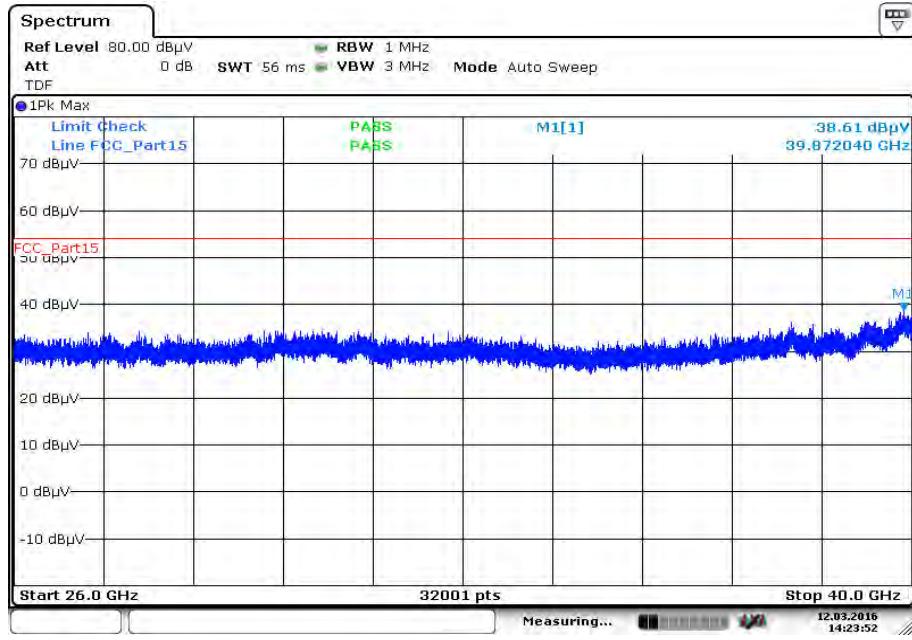
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
32.593650	18.35	30.00	11.65	1000.0	120.000	98.0	V	190.0	13.6
38.938050	16.98	30.00	13.02	1000.0	120.000	98.0	V	100.0	14.0
50.453250	20.14	30.00	9.86	1000.0	120.000	98.0	V	280.0	12.6
56.563800	21.97	30.00	8.03	1000.0	120.000	170.0	V	280.0	11.4
98.436900	20.49	33.50	13.01	1000.0	120.000	101.0	V	81.0	11.9
866.801100	20.88	36.00	15.12	1000.0	120.000	170.0	V	-10.0	23.7

**Plot 56:** 1 GHz to 12.75 GHz, 5825 MHz, vertical & horizontal polarization**Plot 57:** 4.5 GHz to 7 GHz, 5825 MHz, vertical & horizontal polarization

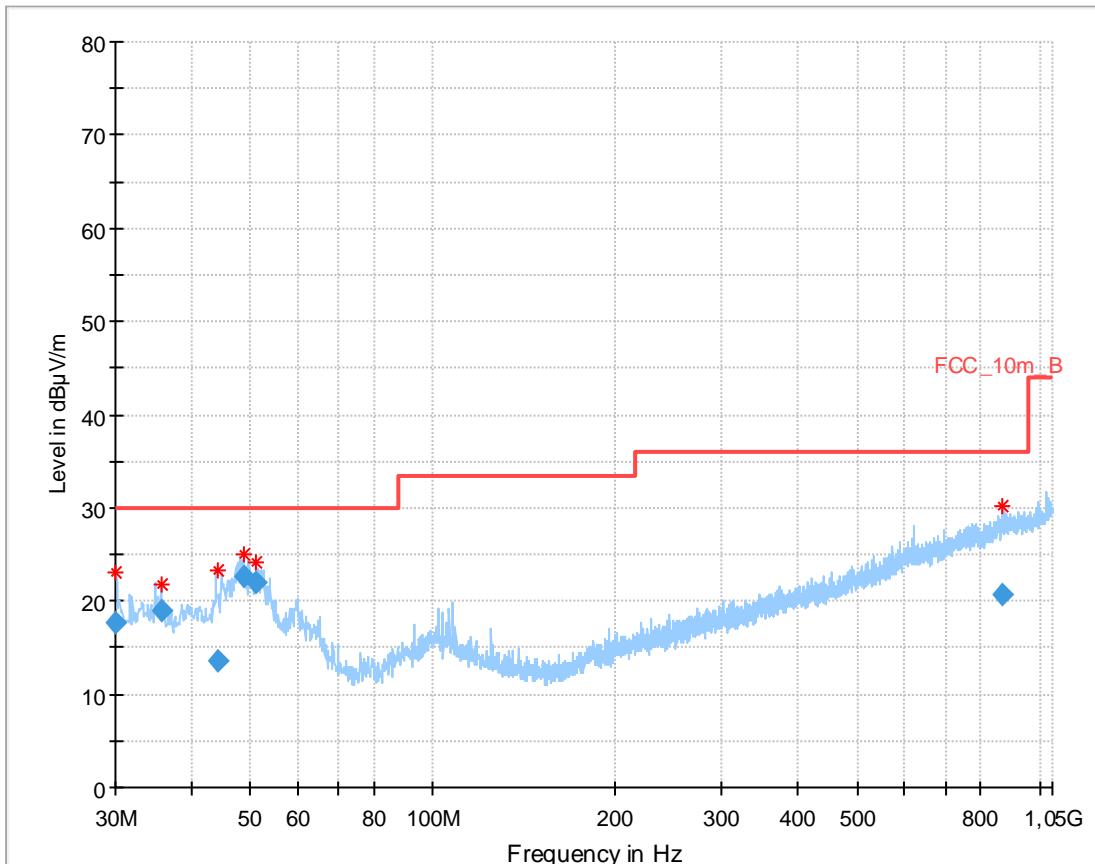
**Plot 58:** 12 GHz to 18 GHz, 5825 MHz, vertical & horizontal polarization**Plot 59:** 18 GHz to 26 GHz, 5825 MHz, vertical & horizontal polarization

**Plot 60:** 26 GHz to 40 GHz, 5825 MHz, vertical & horizontal polarization



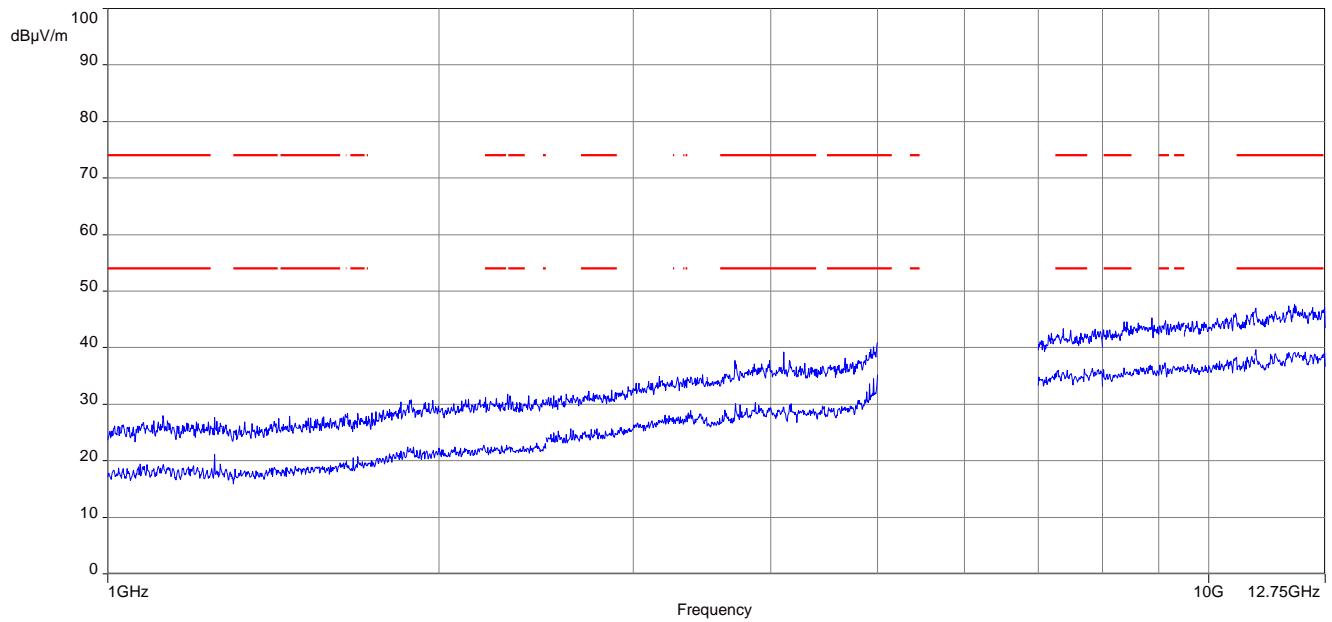
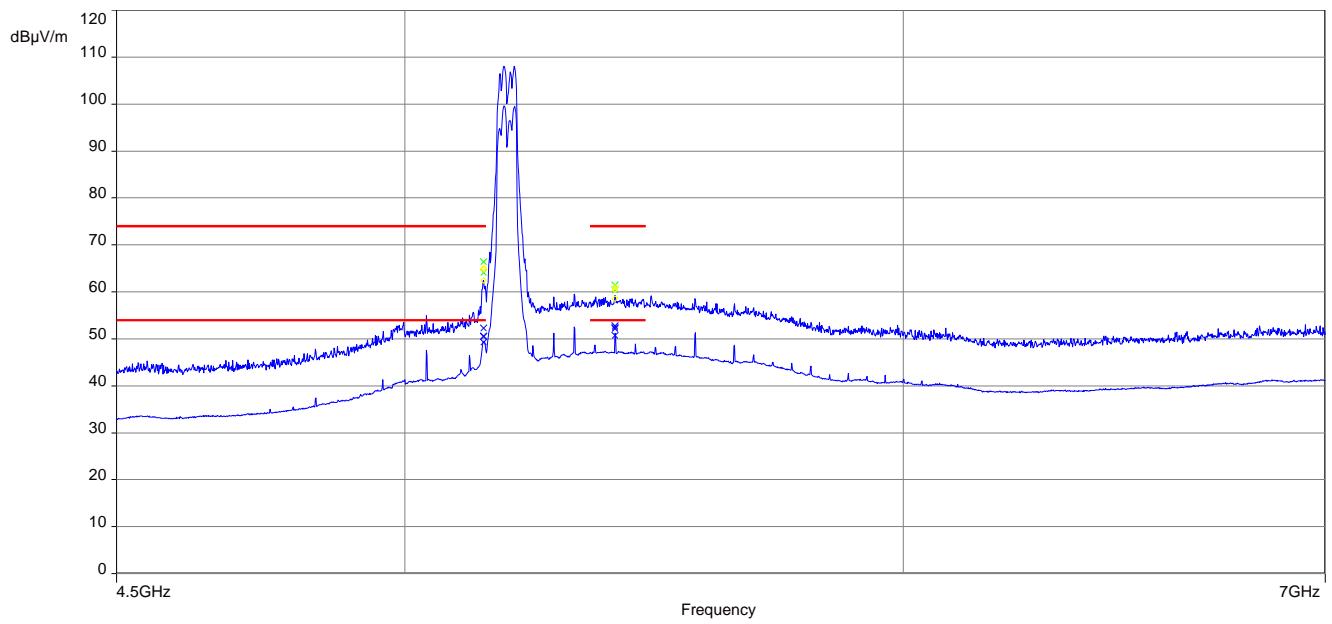
**Plots:** OFDM / n HT40 – mode

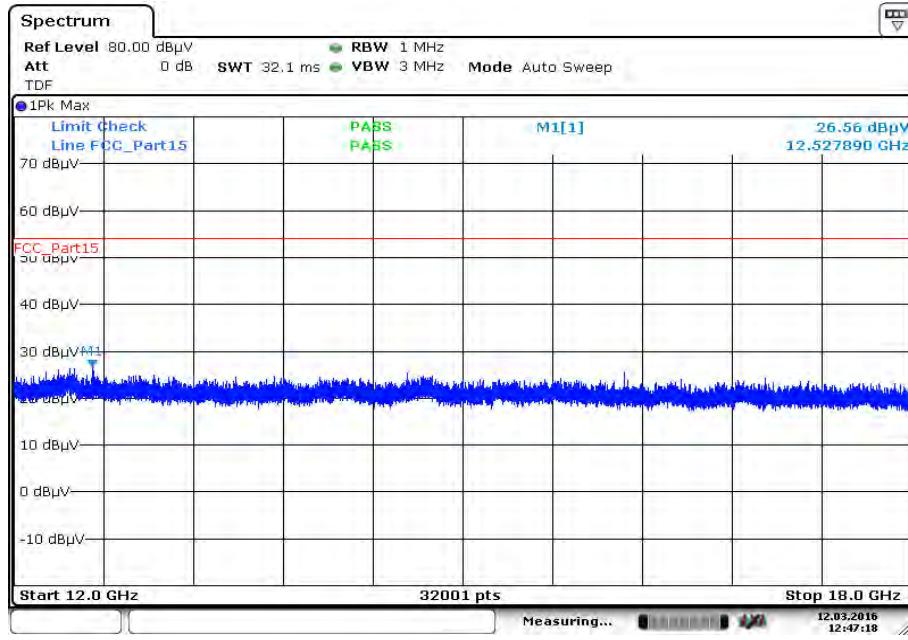
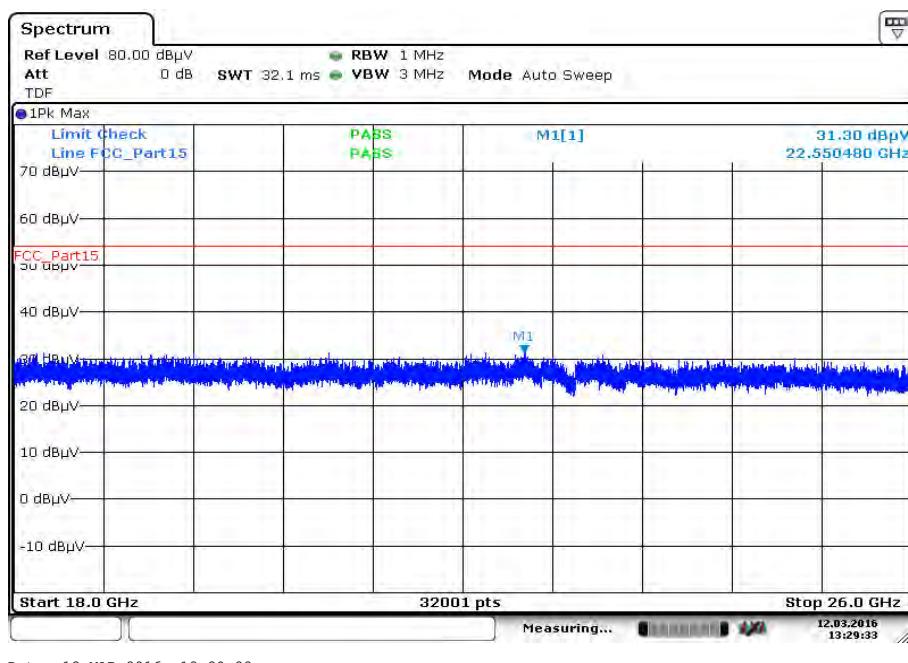
**Plot 1:** 30 MHz to 1 GHz, 5190 MHz, vertical & horizontal polarization

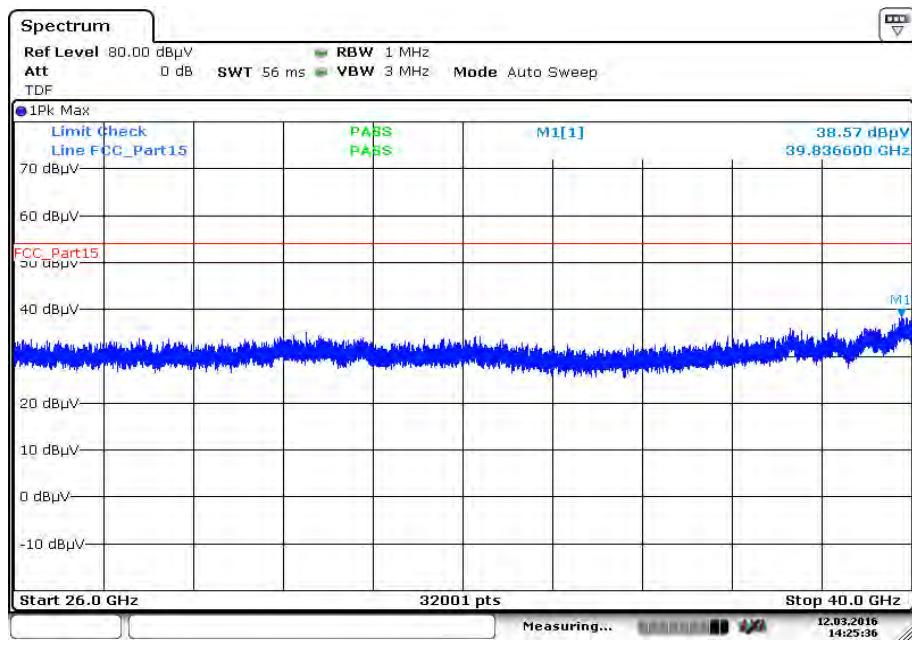


## Final\_Result

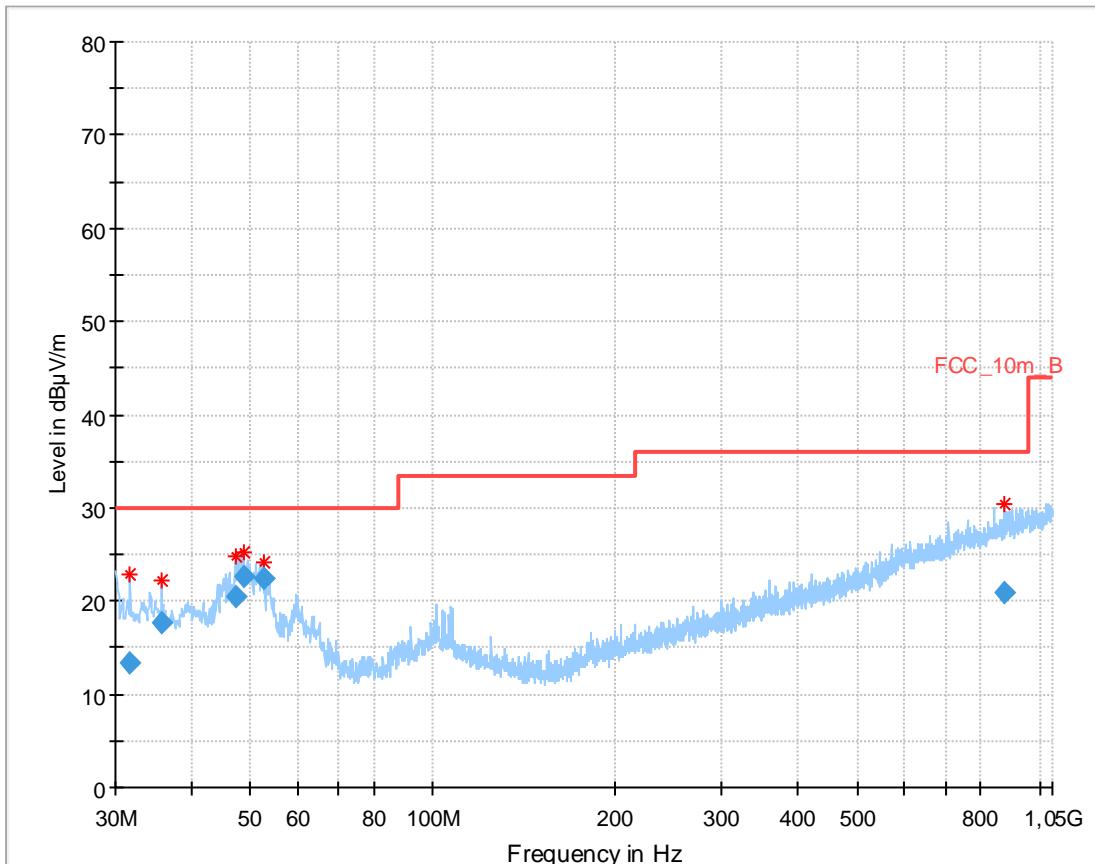
Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.026475	17.58	30.00	12.42	1000.0	120.000	101.0	V	210	13.3
35.692350	18.95	30.00	11.05	1000.0	120.000	98.0	V	1	13.8
44.116350	13.60	30.00	16.40	1000.0	120.000	101.0	V	279	13.9
48.879900	22.65	30.00	7.35	1000.0	120.000	101.0	V	20	12.9
51.178350	22.00	30.00	8.00	1000.0	120.000	98.0	V	241	12.4
870.612750	20.80	36.00	15.20	1000.0	120.000	170.0	H	81	23.7

**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

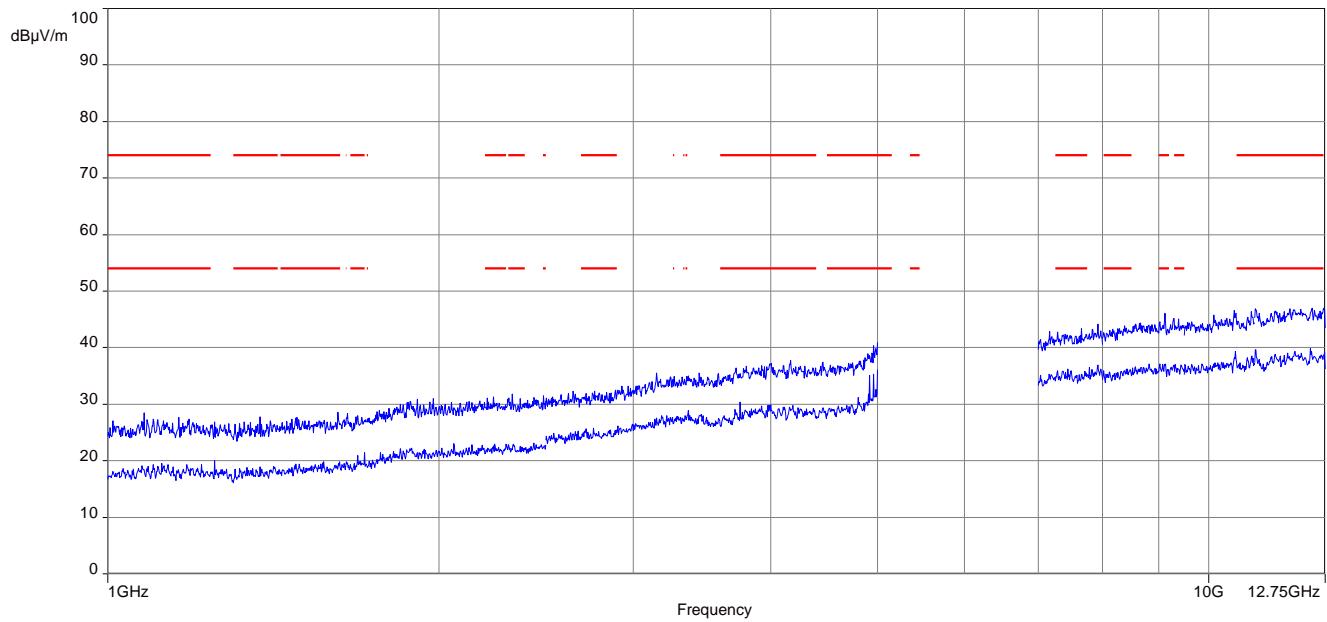
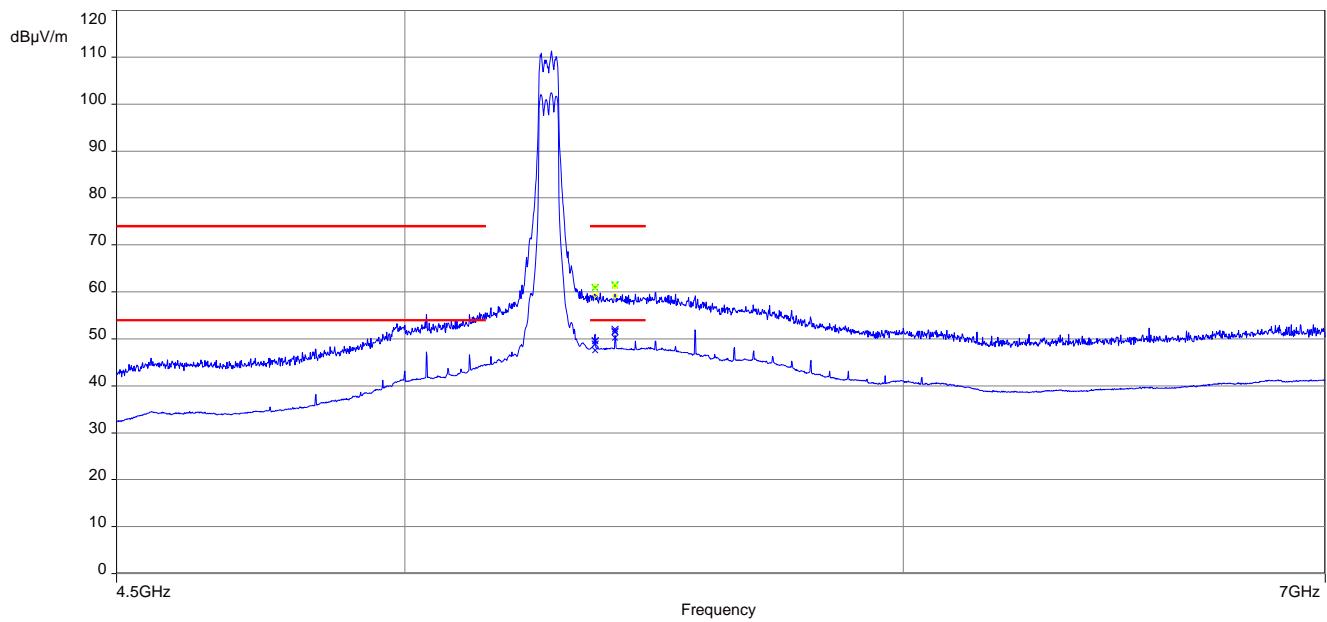
**Plot 6:** 26 GHz to 40 GHz, 5190 MHz, vertical & horizontal polarization

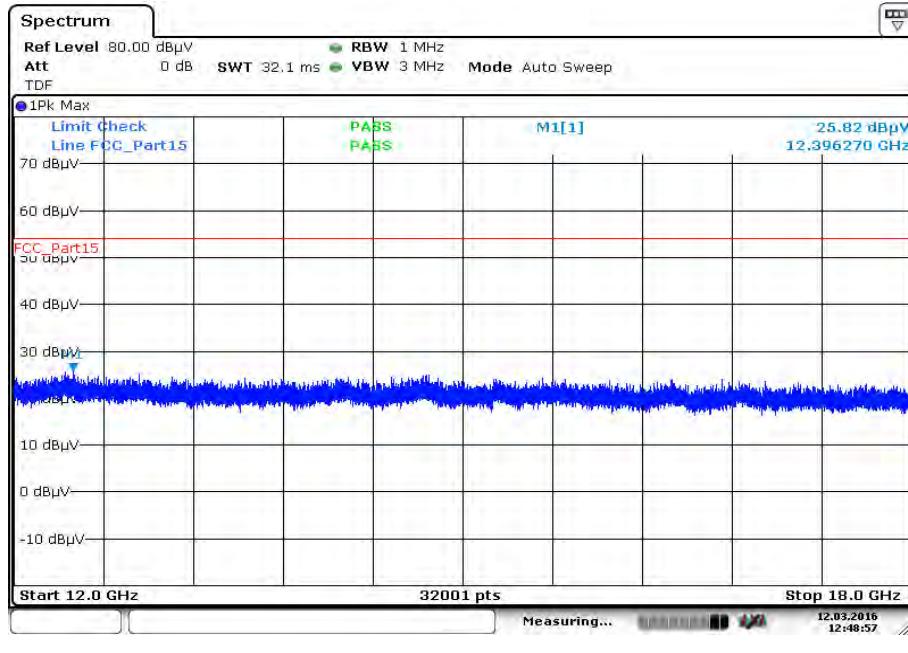
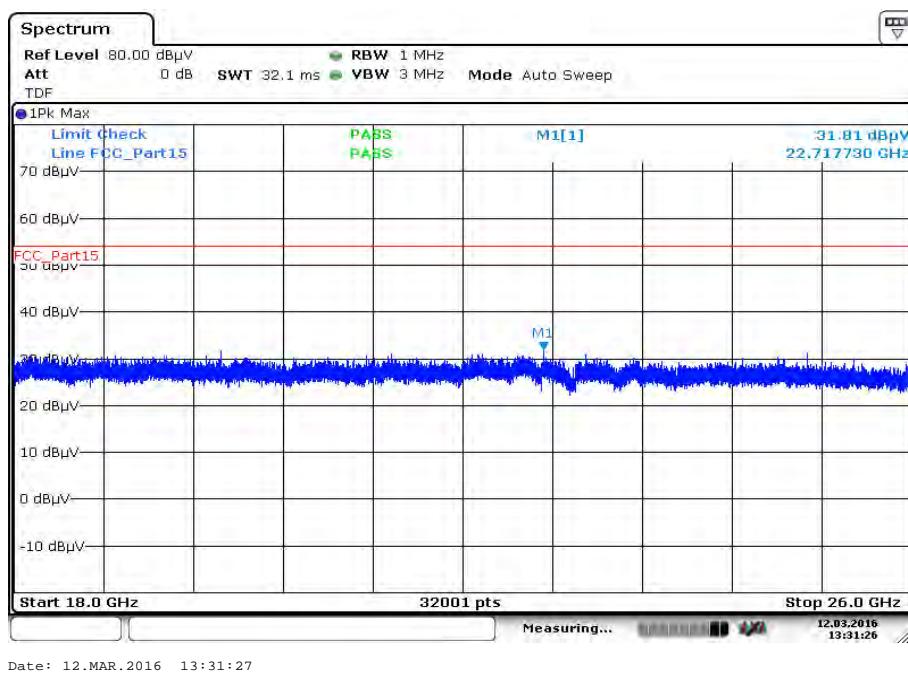
**Plot 7:** 30 MHz to 1 GHz, 5270 MHz, vertical & horizontal polarization

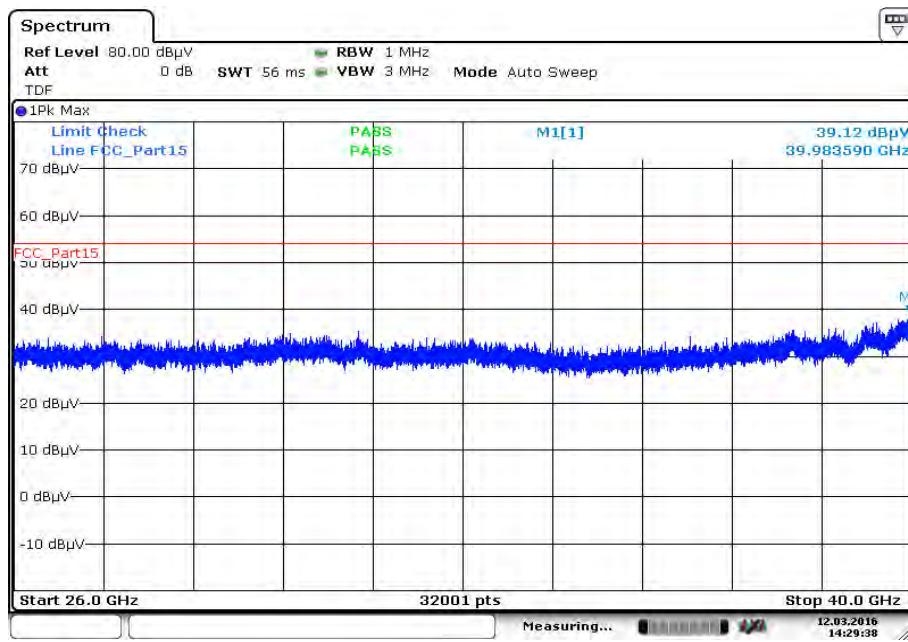


## Final\_Result

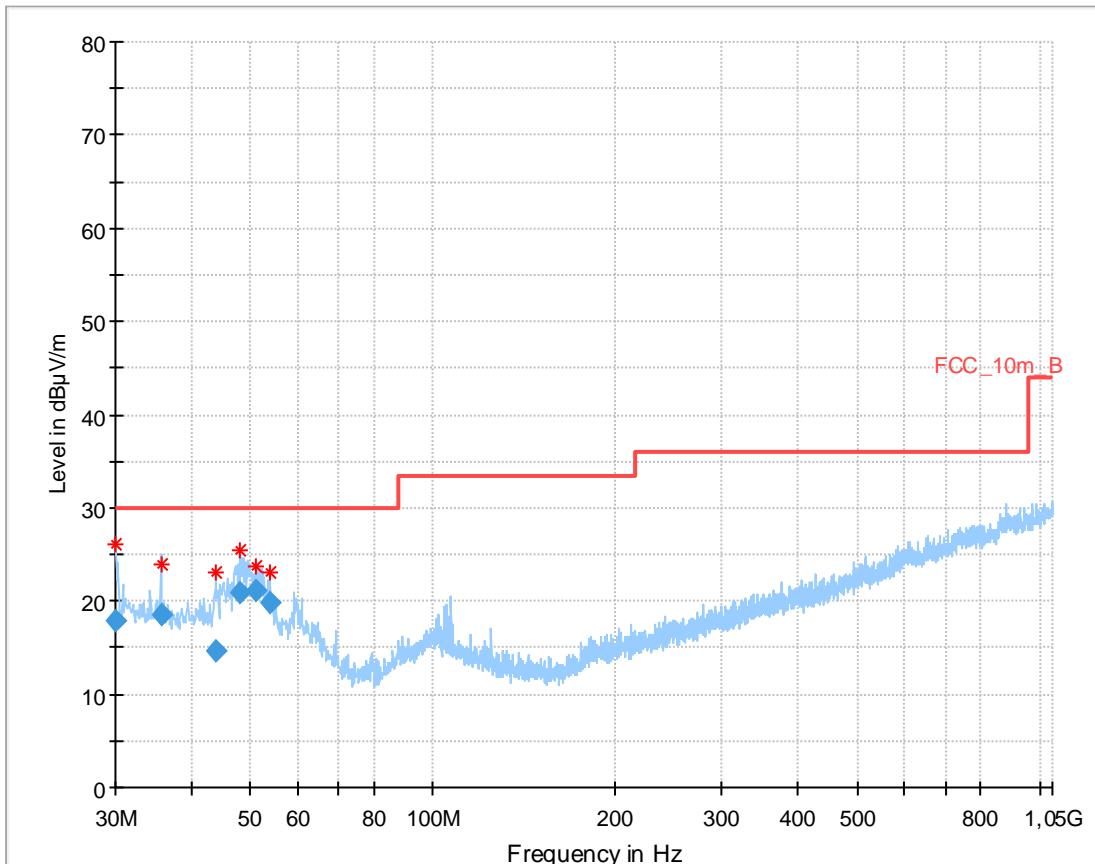
Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
31.726050	13.32	30.00	16.68	1000.0	120.000	170.0	V	41	13.5
35.688600	17.61	30.00	12.39	1000.0	120.000	170.0	V	159	13.8
47.253150	20.50	30.00	9.50	1000.0	120.000	98.0	V	353	13.3
48.896100	22.57	30.00	7.43	1000.0	120.000	98.0	V	353	12.9
52.512450	22.35	30.00	7.65	1000.0	120.000	98.0	V	103	12.2
876.181350	20.86	36.00	15.14	1000.0	120.000	170.0	H	84	23.8

**Plot 8:** 1 GHz to 12.75 GHz, 5270 MHz, vertical & horizontal polarization**Plot 9:** 4.5 GHz to 7 GHz, 5270 MHz, vertical & horizontal polarization

**Plot 10:** 12 GHz to 18 GHz, 5270 MHz, vertical & horizontal polarization**Plot 11:** 18 GHz to 26 GHz, 5270 MHz, vertical & horizontal polarization

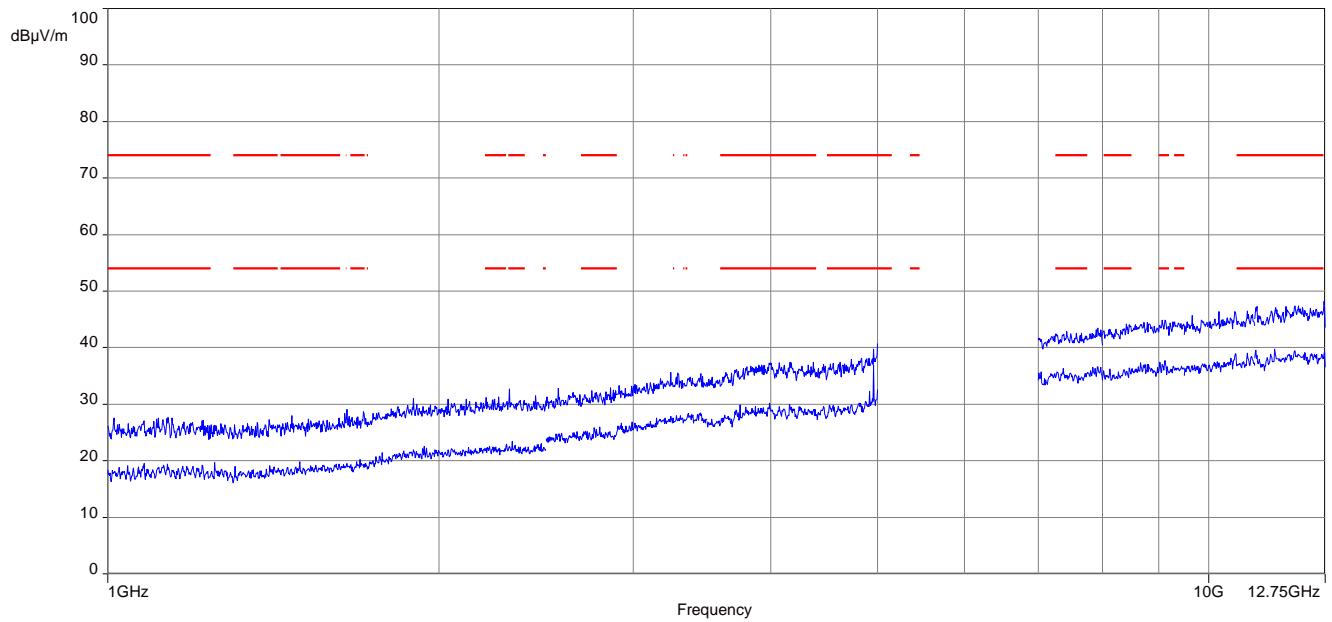
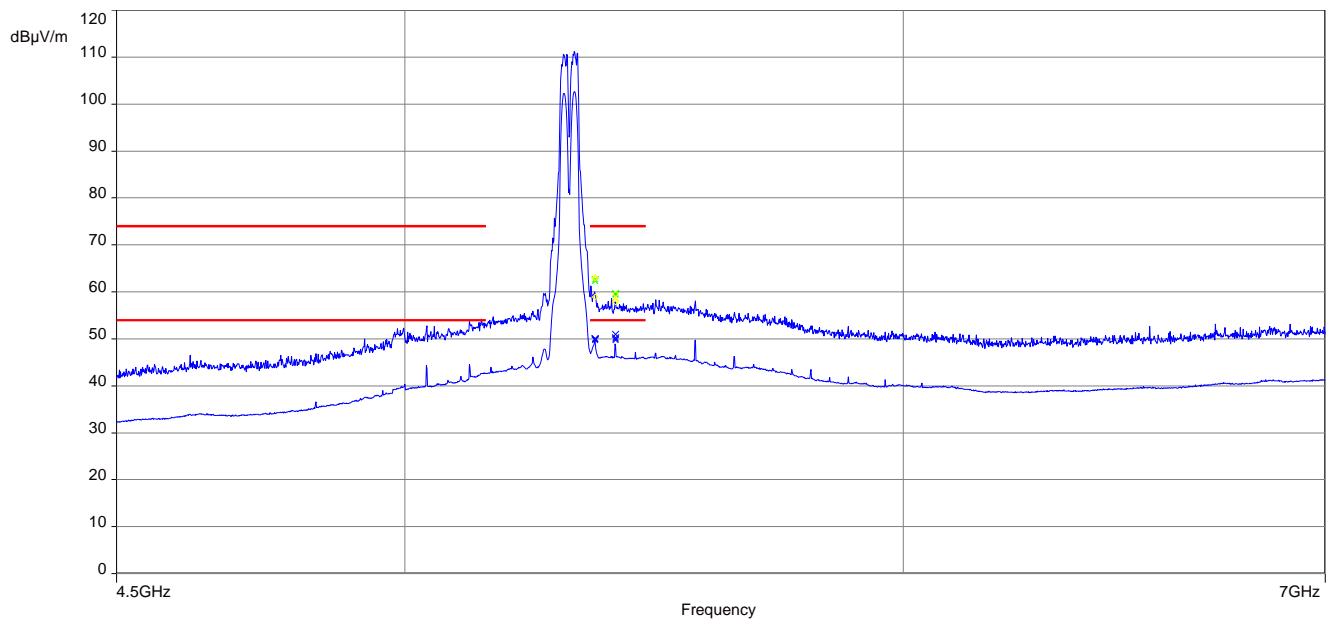
**Plot 12:** 26 GHz to 40 GHz, 5270 MHz, vertical & horizontal polarization

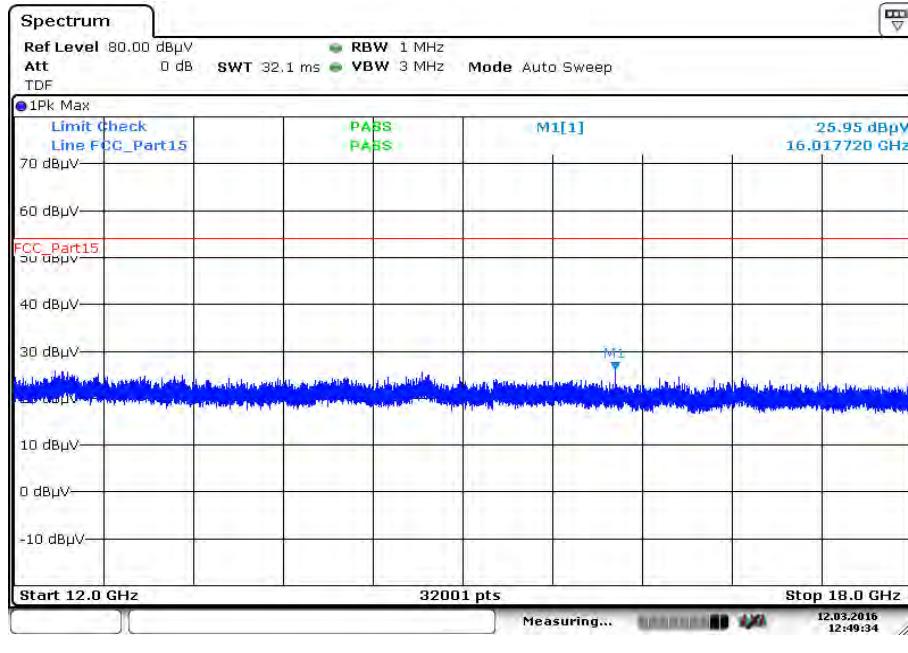
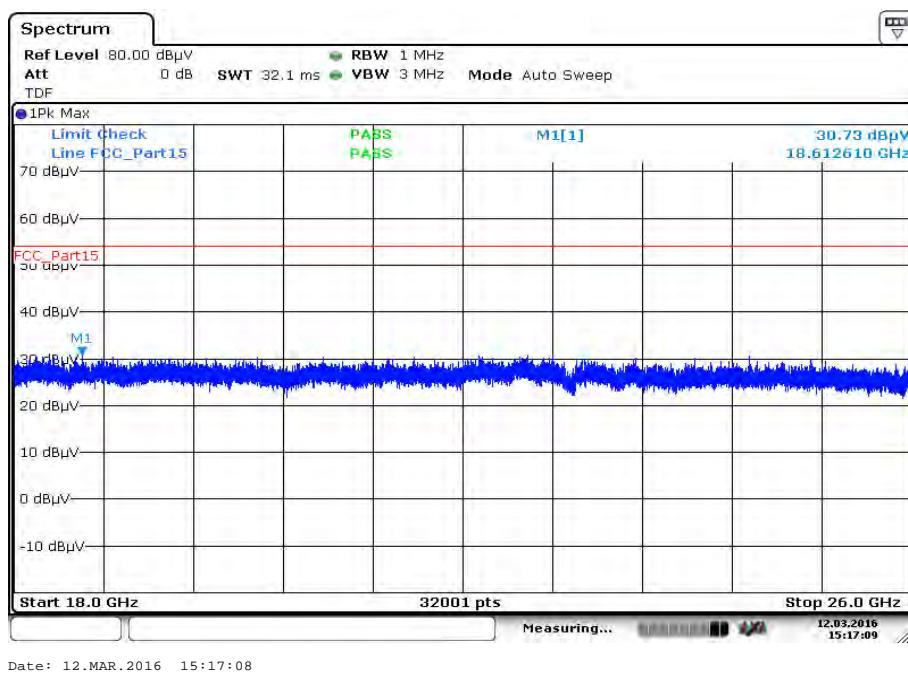
**Plot 13:** 30 MHz to 1 GHz, 5310 MHz, vertical & horizontal polarization

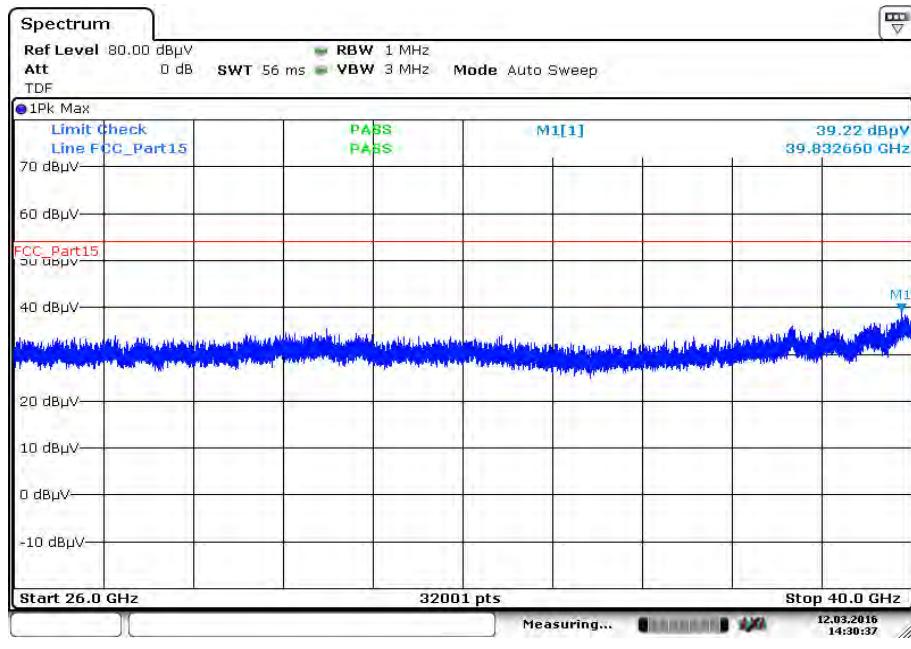


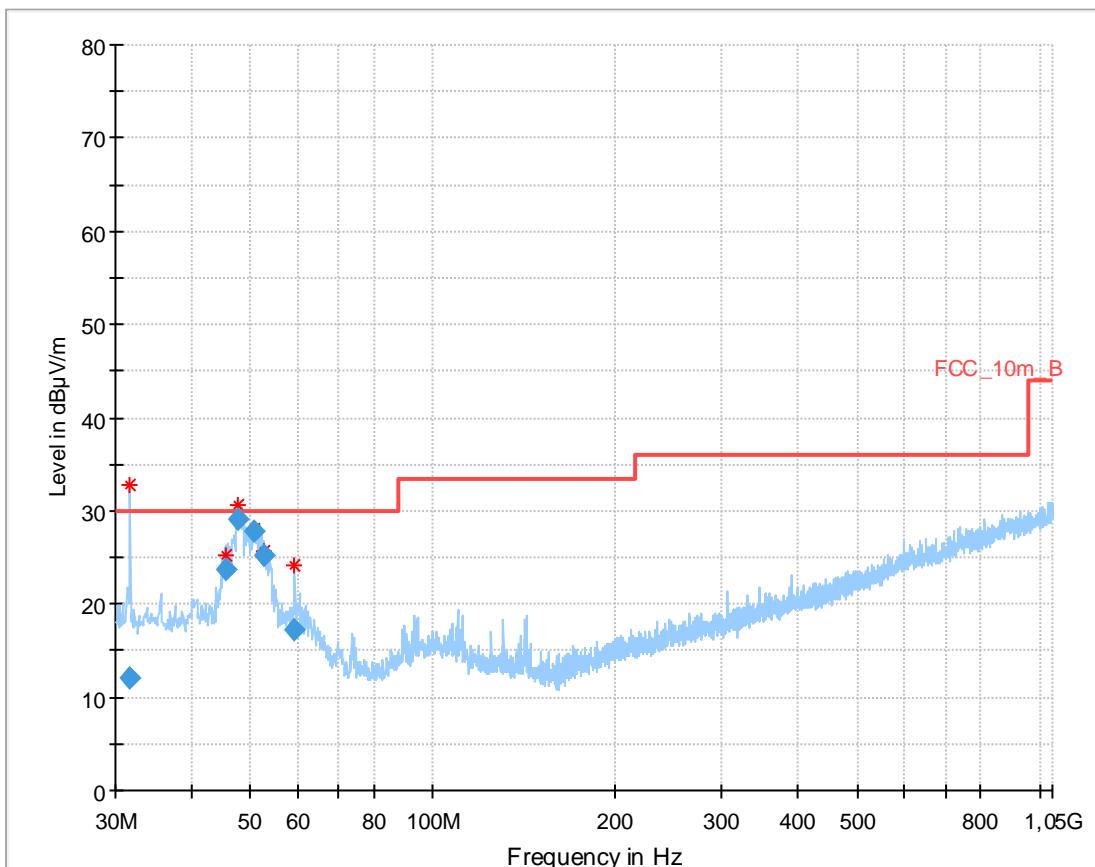
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.031425	17.85	30.00	12.15	1000.0	120.000	101.0	V	333	13.3
35.695500	18.64	30.00	11.36	1000.0	120.000	101.0	V	104	13.8
43.872300	14.62	30.00	15.38	1000.0	120.000	98.0	V	262	13.9
48.183150	20.85	30.00	9.15	1000.0	120.000	170.0	V	68	13.1
51.147300	21.09	30.00	8.91	1000.0	120.000	98.0	V	297	12.5
53.855250	19.74	30.00	10.26	1000.0	120.000	170.0	V	329	12.0

**Plot 14:** 1 GHz to 12.75 GHz, 5310 MHz, vertical & horizontal polarization**Plot 15:** 4.5 GHz to 7 GHz, 5310 MHz, vertical & horizontal polarization

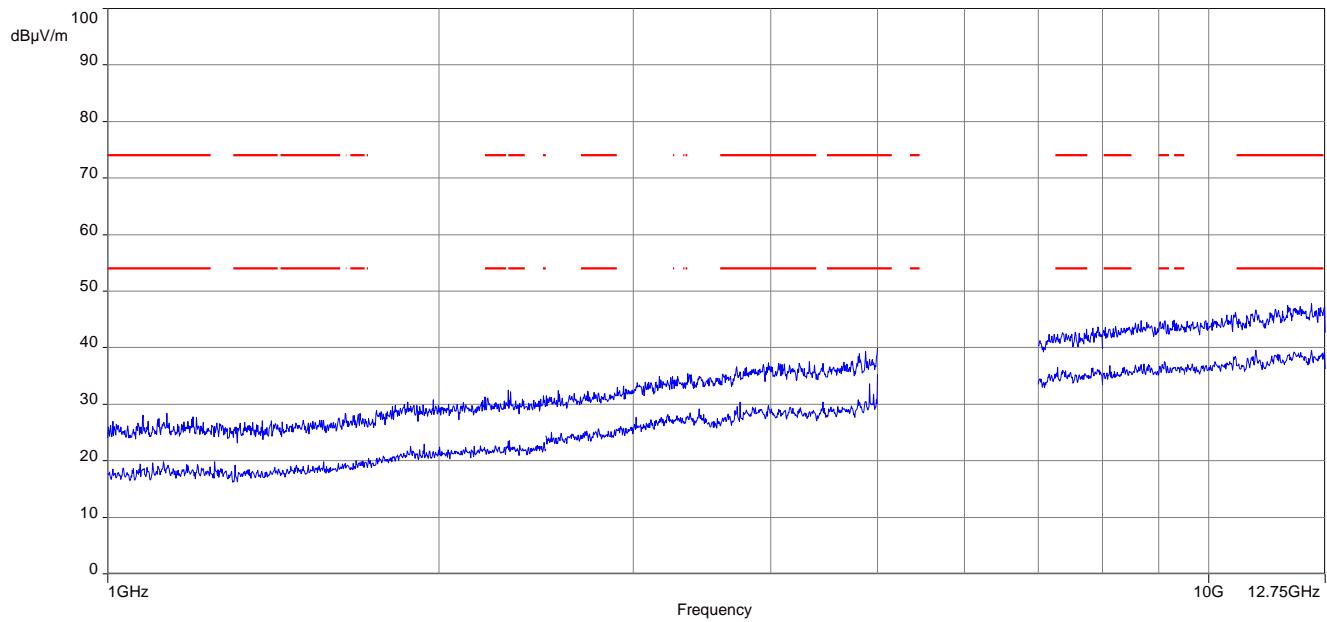
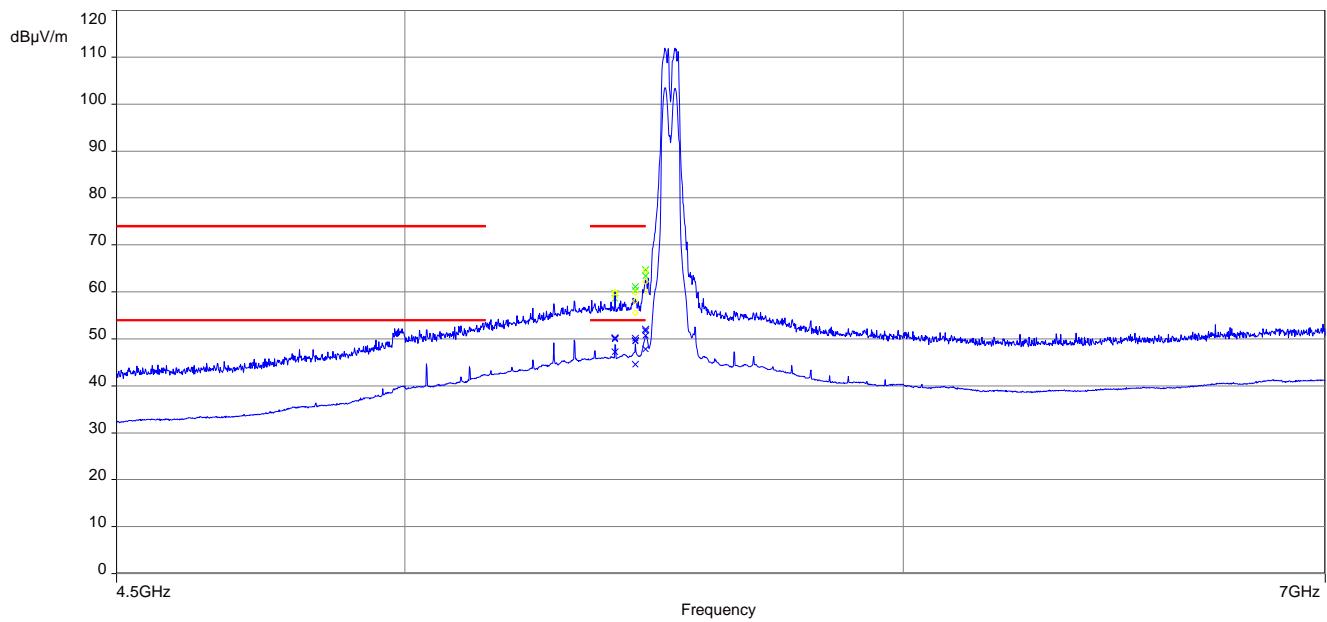
**Plot 16:** 12 GHz to 18 GHz, 5310 MHz, vertical & horizontal polarization**Plot 17:** 18 GHz to 26 GHz, 5310 MHz, vertical & horizontal polarization

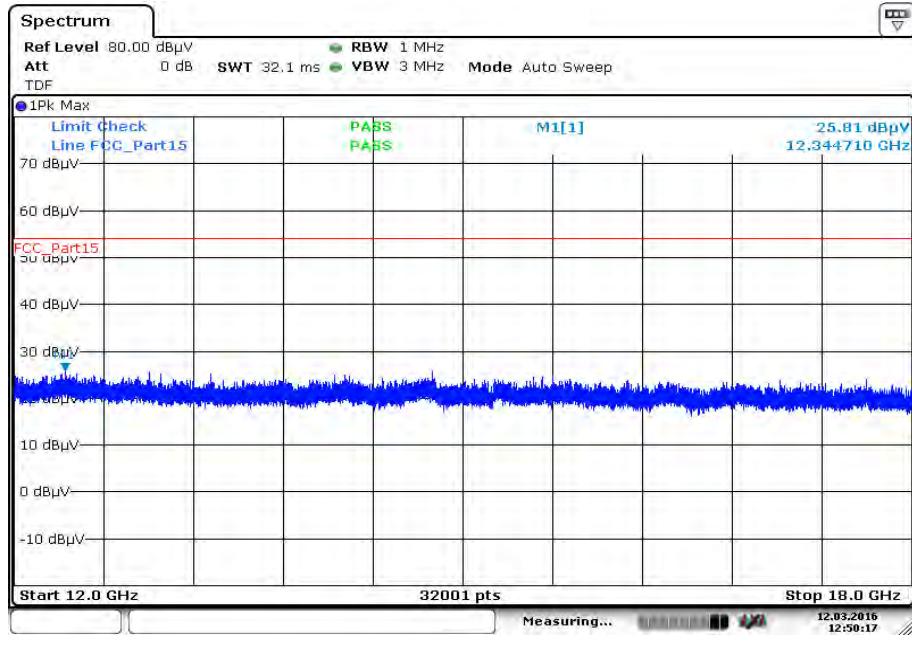
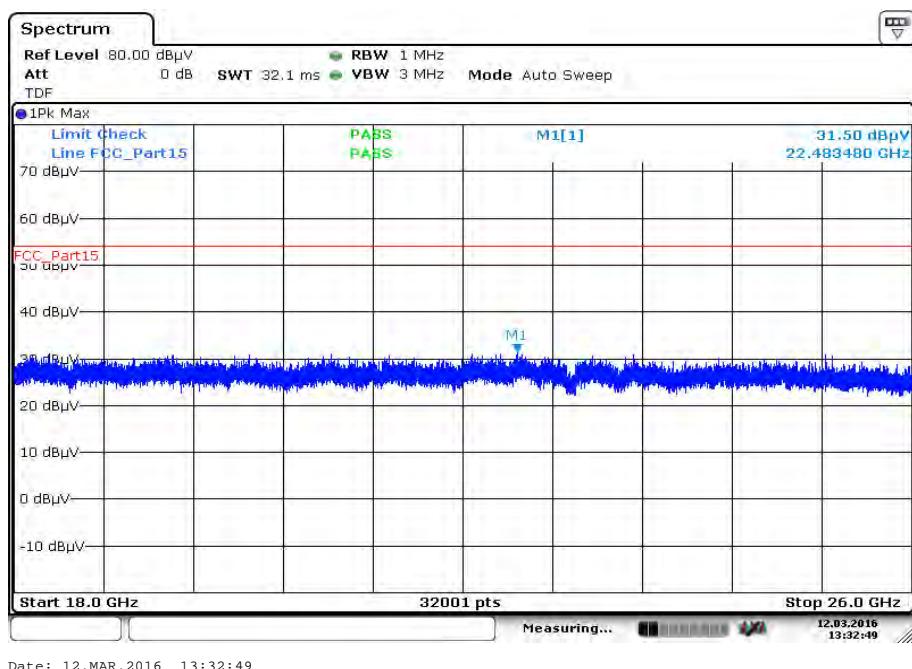
**Plot 18:** 26 GHz to 40 GHz, 5310 MHz, vertical & horizontal polarization

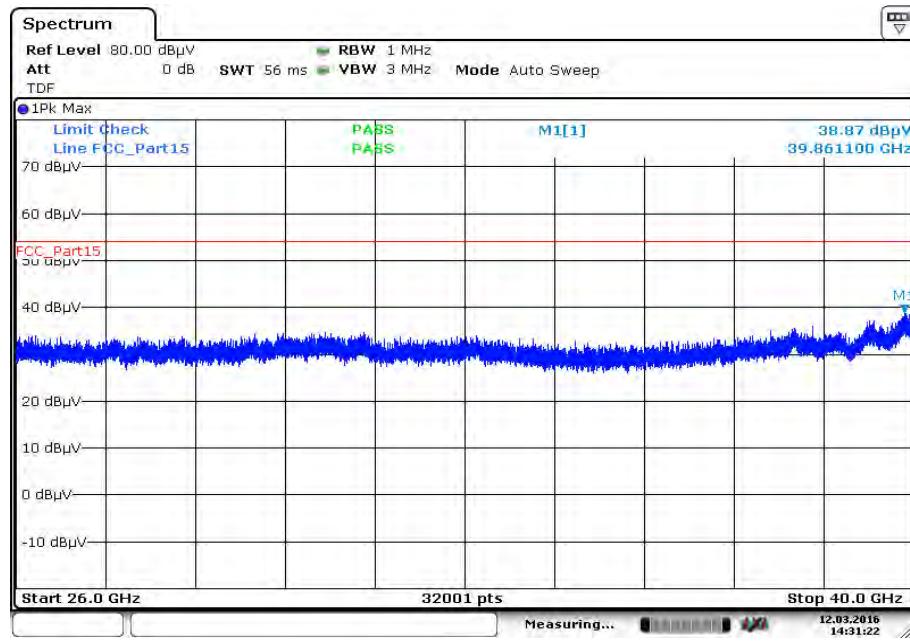
**Plot 19:** 30 MHz to 1 GHz, 5510 MHz, vertical & horizontal polarization

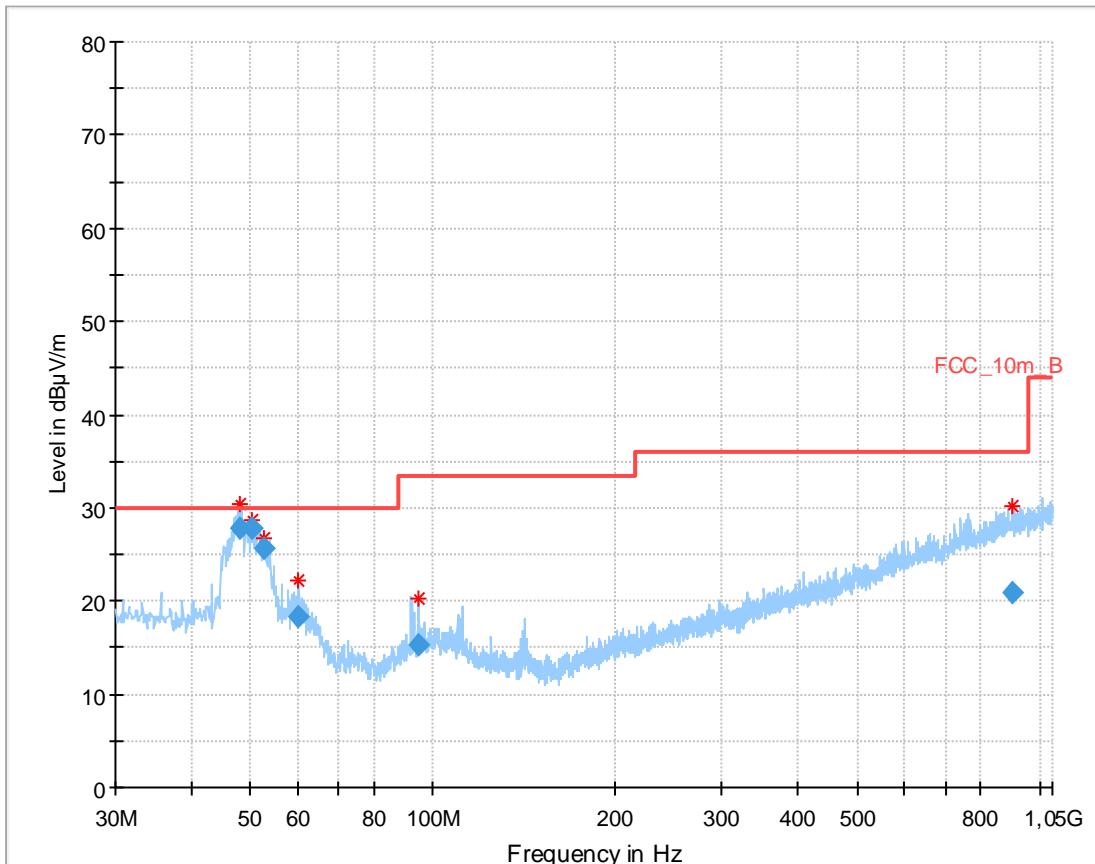
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
31.700550	12.16	30.00	17.84	1000.0	120.000	101.0	V	102	13.5
45.545700	23.70	30.00	6.30	1000.0	120.000	98.0	V	257	13.7
47.782950	29.17	30.00	0.83	1000.0	120.000	98.0	V	353	13.2
50.785500	27.78	30.00	2.22	1000.0	120.000	98.0	V	249	12.5
52.756050	25.32	30.00	4.68	1000.0	120.000	98.0	V	265	12.2
59.043600	17.24	30.00	12.76	1000.0	120.000	98.0	V	59	10.8

**Plot 20:** 1 GHz to 12.75 GHz, 5510 MHz, vertical & horizontal polarization**Plot 21:** 4.5 GHz to 7 GHz, 5510 MHz, vertical & horizontal polarization

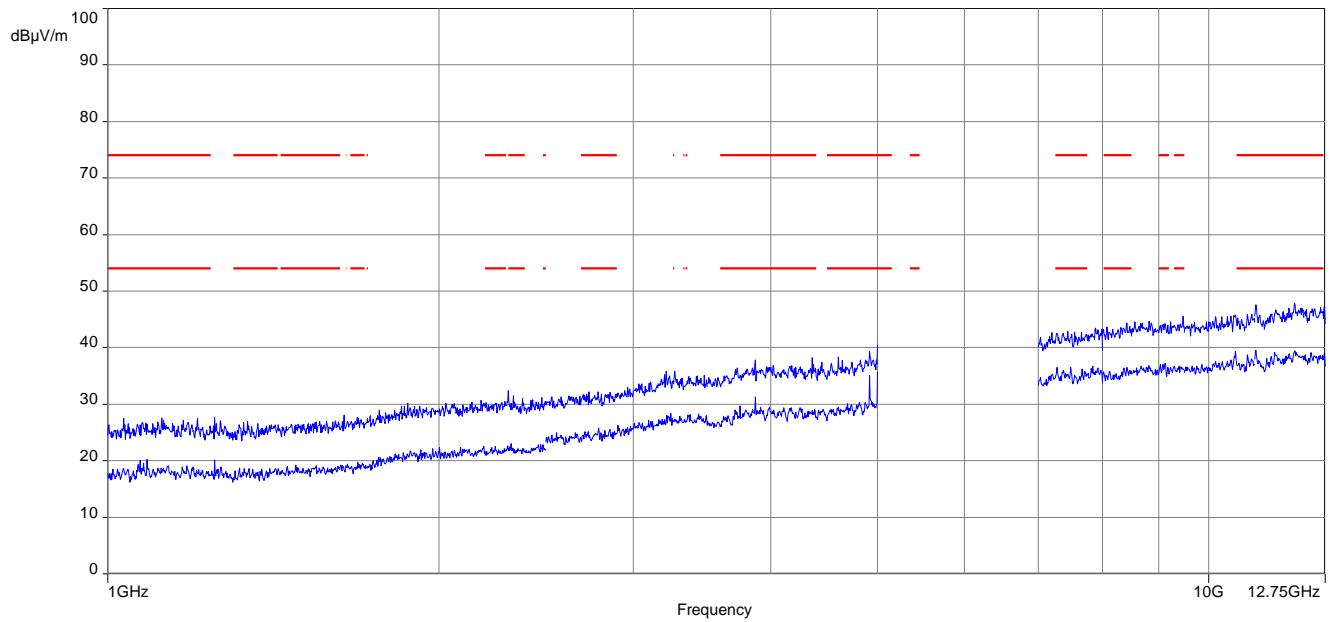
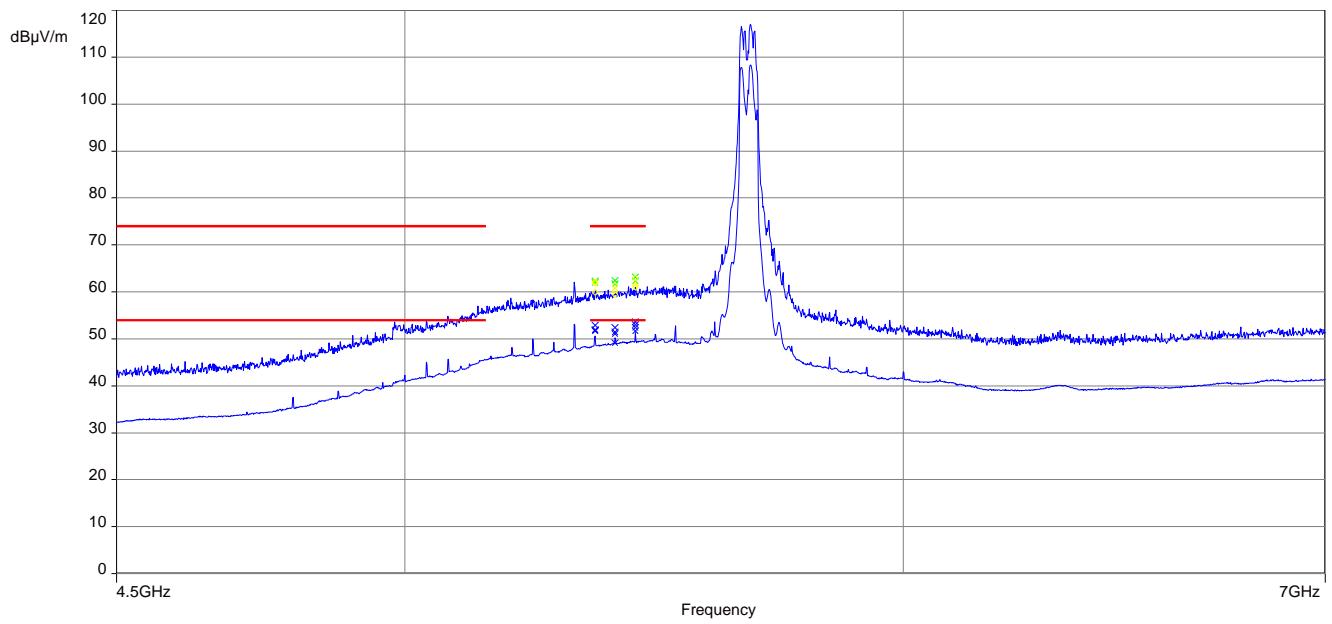
**Plot 22:** 12 GHz to 18 GHz, 5510 MHz, vertical & horizontal polarization**Plot 23:** 18 GHz to 26 GHz, 5510 MHz, vertical & horizontal polarization

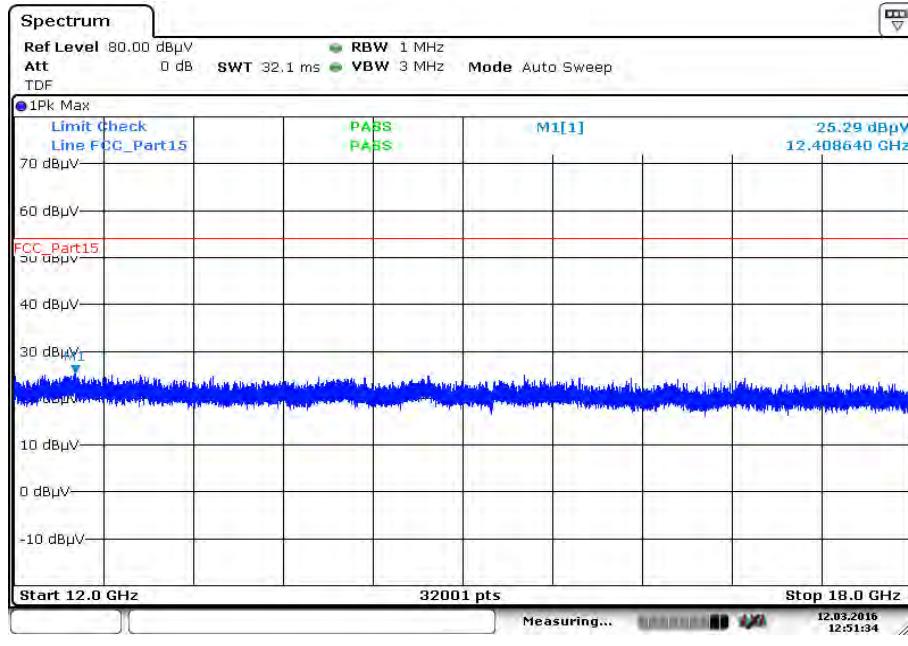
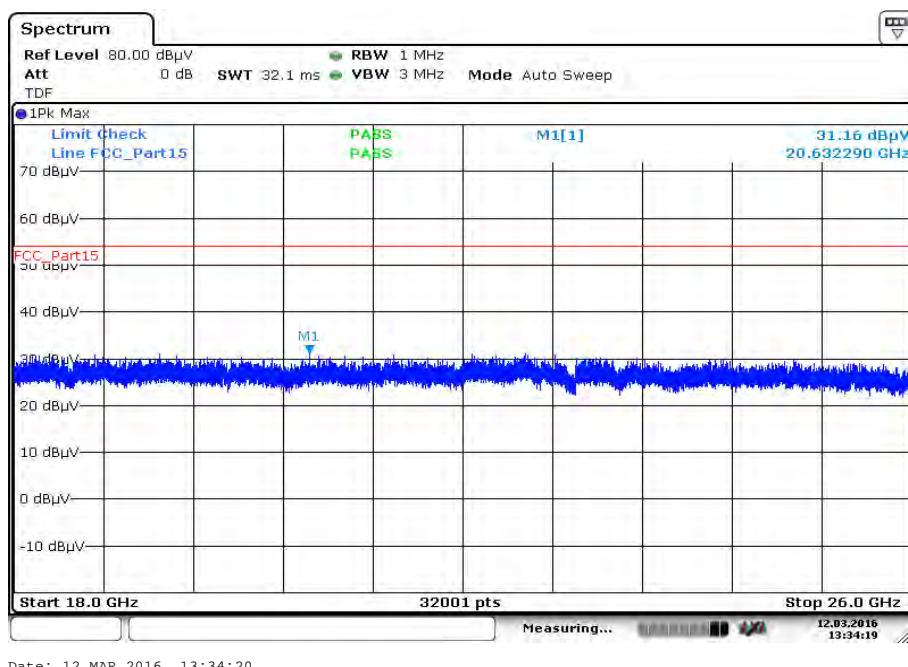
**Plot 24:** 26 GHz to 40 GHz, 5510 MHz, vertical & horizontal polarization

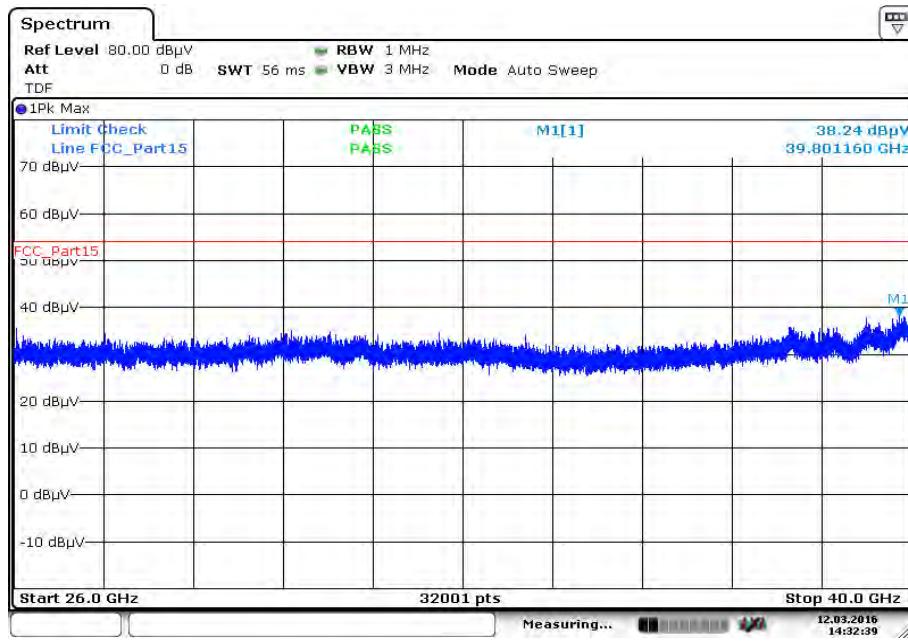
**Plot 25:** 30 MHz to 1 GHz, 5670 MHz, vertical & horizontal polarization

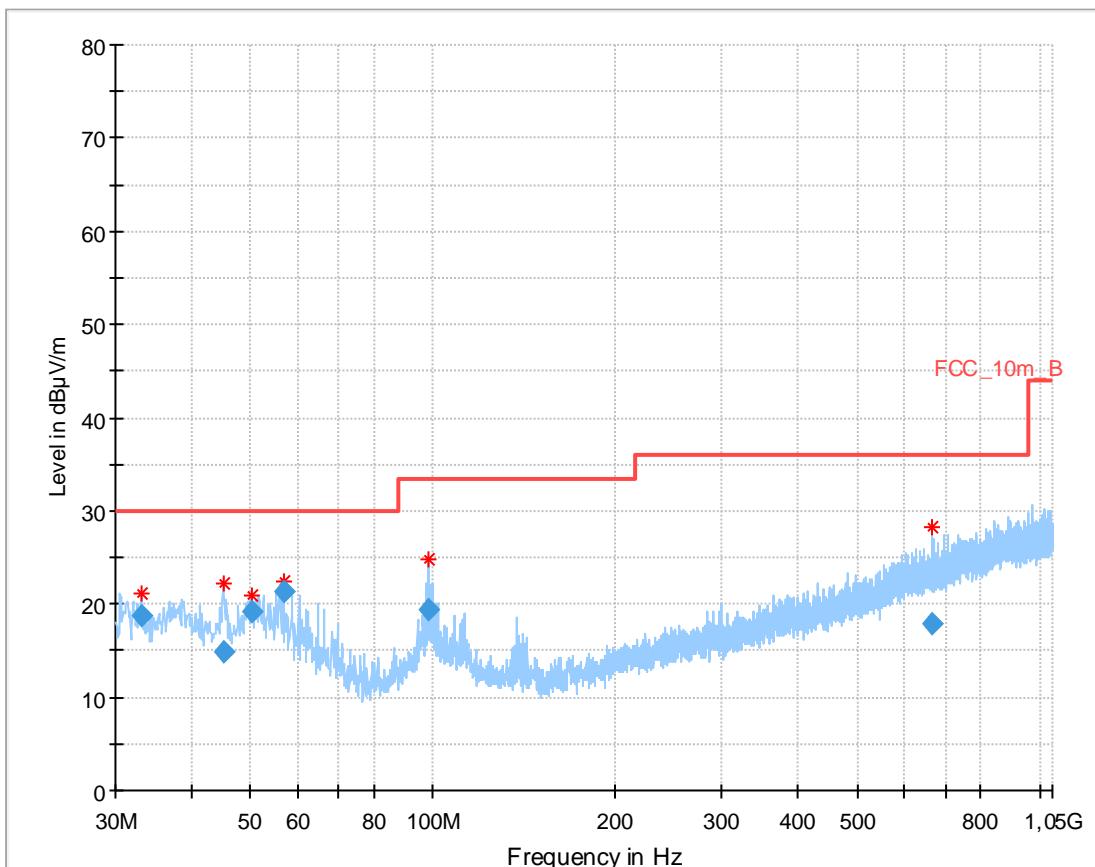
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
48.174300	27.77	30.00	2.23	1000.0	120.000	98.0	V	308	13.1
50.510400	27.76	30.00	2.24	1000.0	120.000	98.0	V	109	12.6
52.815150	25.74	30.00	4.26	1000.0	120.000	98.0	V	353	12.2
60.112200	18.30	30.00	11.70	1000.0	120.000	98.0	V	325	10.5
94.784400	15.33	33.50	18.17	1000.0	120.000	101.0	V	218	11.3
899.946450	21.02	36.00	14.98	1000.0	120.000	101.0	V	353	24.1

**Plot 26:** 1 GHz to 12.75 GHz, 5670 MHz, vertical & horizontal polarization**Plot 27:** 4.5 GHz to 7 GHz, 5670 MHz, vertical & horizontal polarization

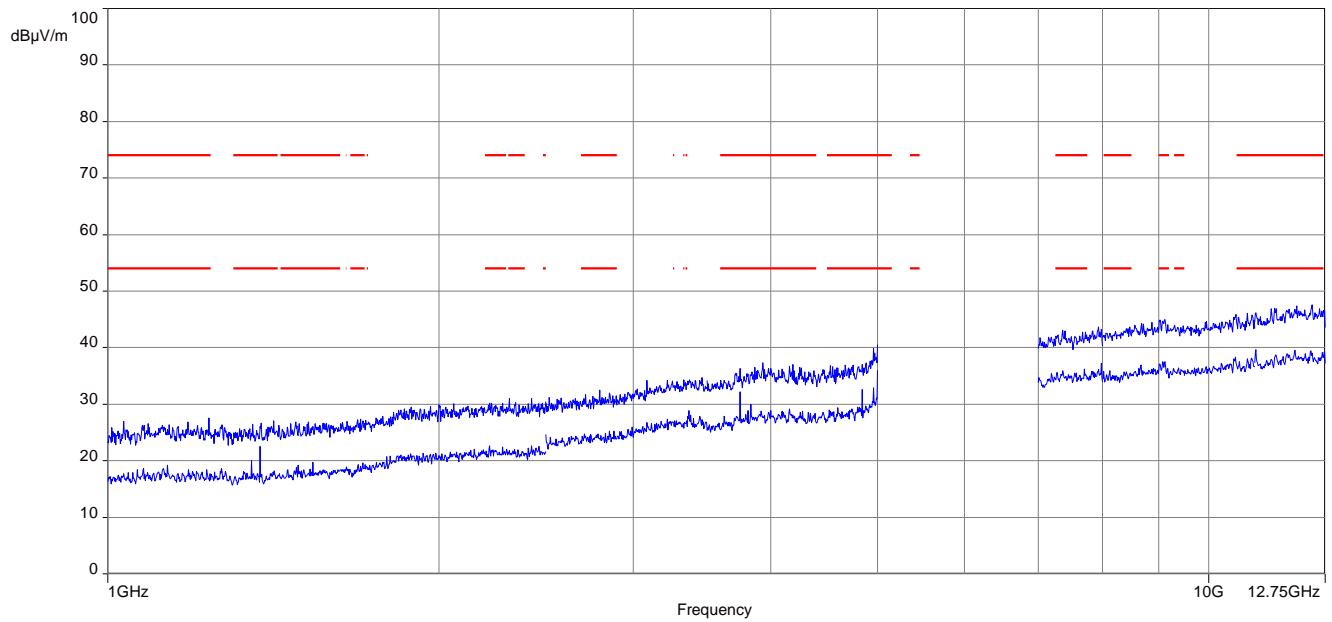
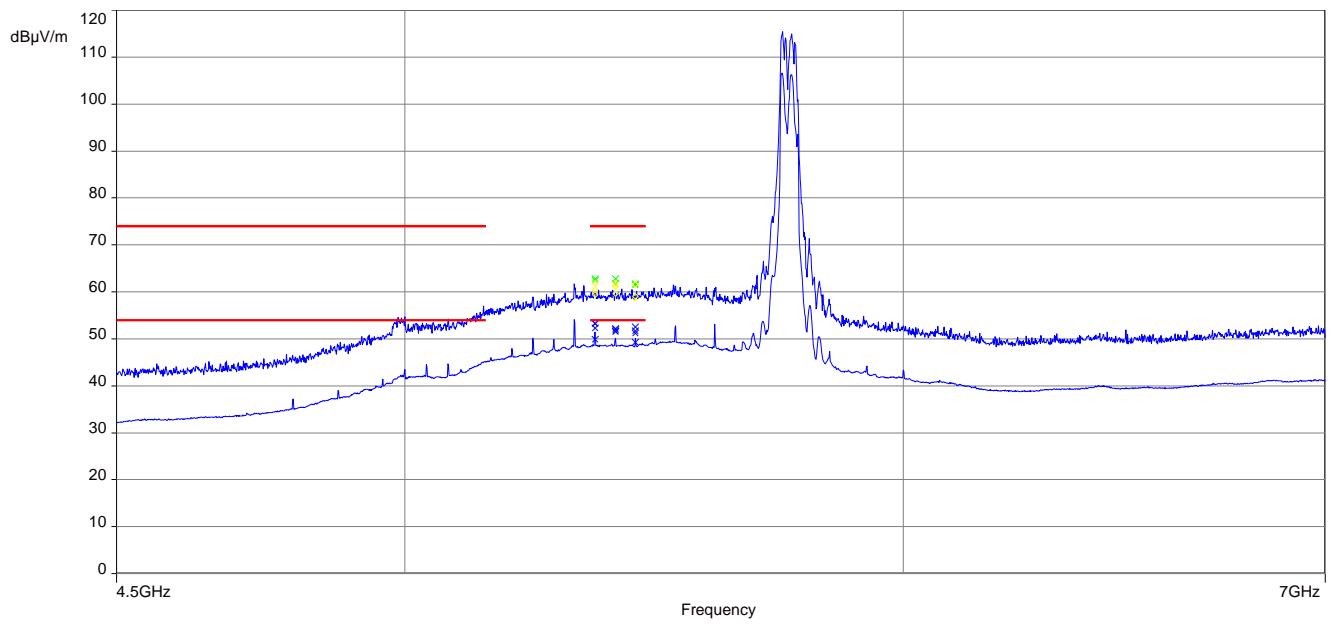
**Plot 28:** 12 GHz to 18 GHz, 5670 MHz, vertical & horizontal polarization**Plot 29:** 18 GHz to 26 GHz, 5670 MHz, vertical & horizontal polarization

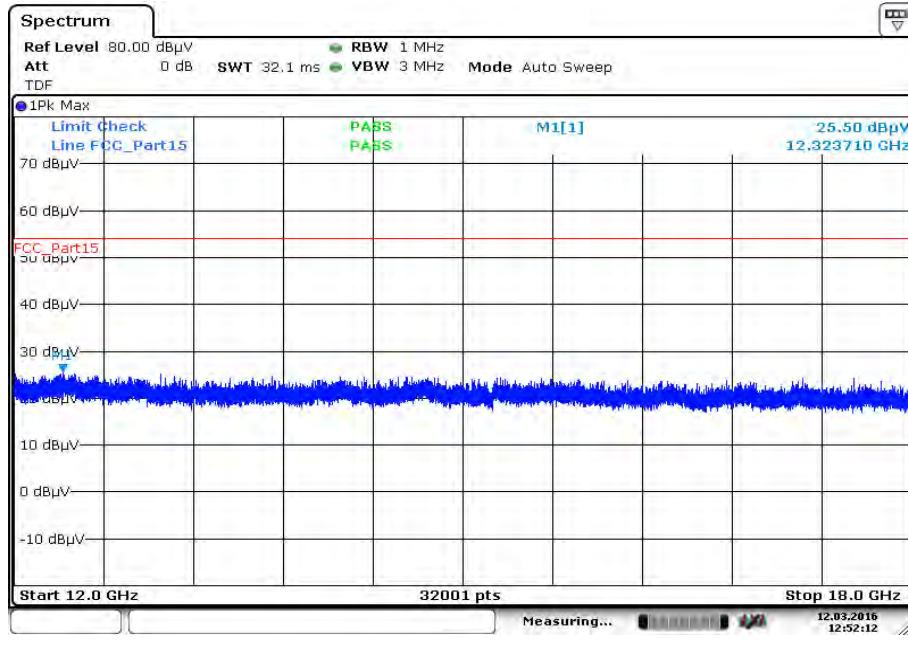
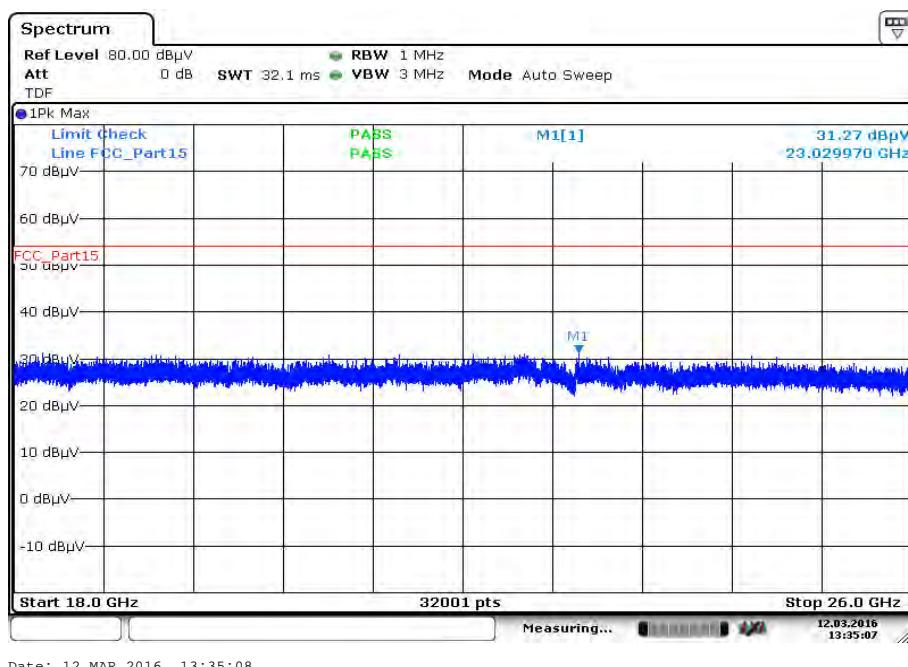
**Plot 30:** 26 GHz to 40 GHz, 5670 MHz, vertical & horizontal polarization

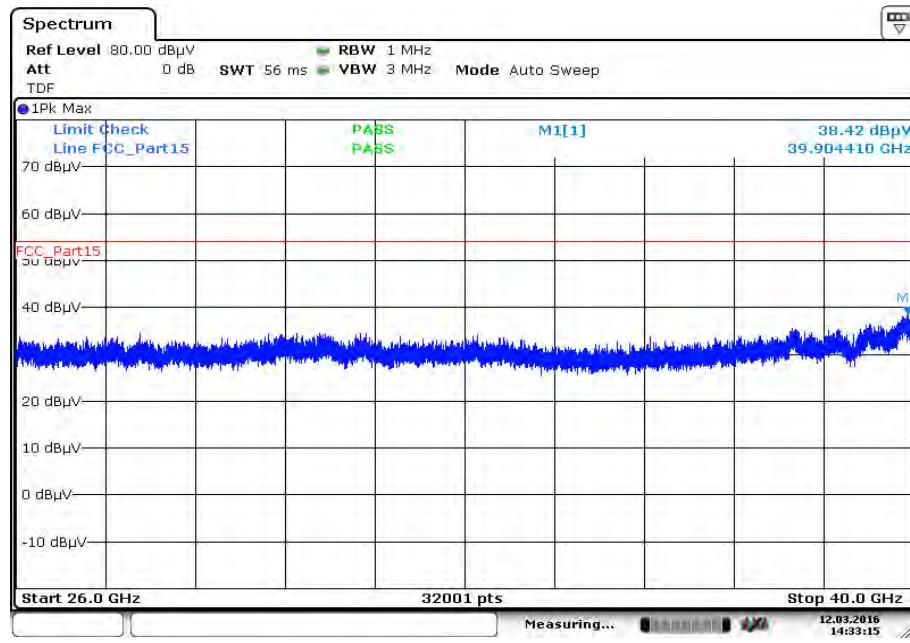
**Plot 31:** 30 MHz to 1 GHz, 5755 MHz, vertical & horizontal polarization

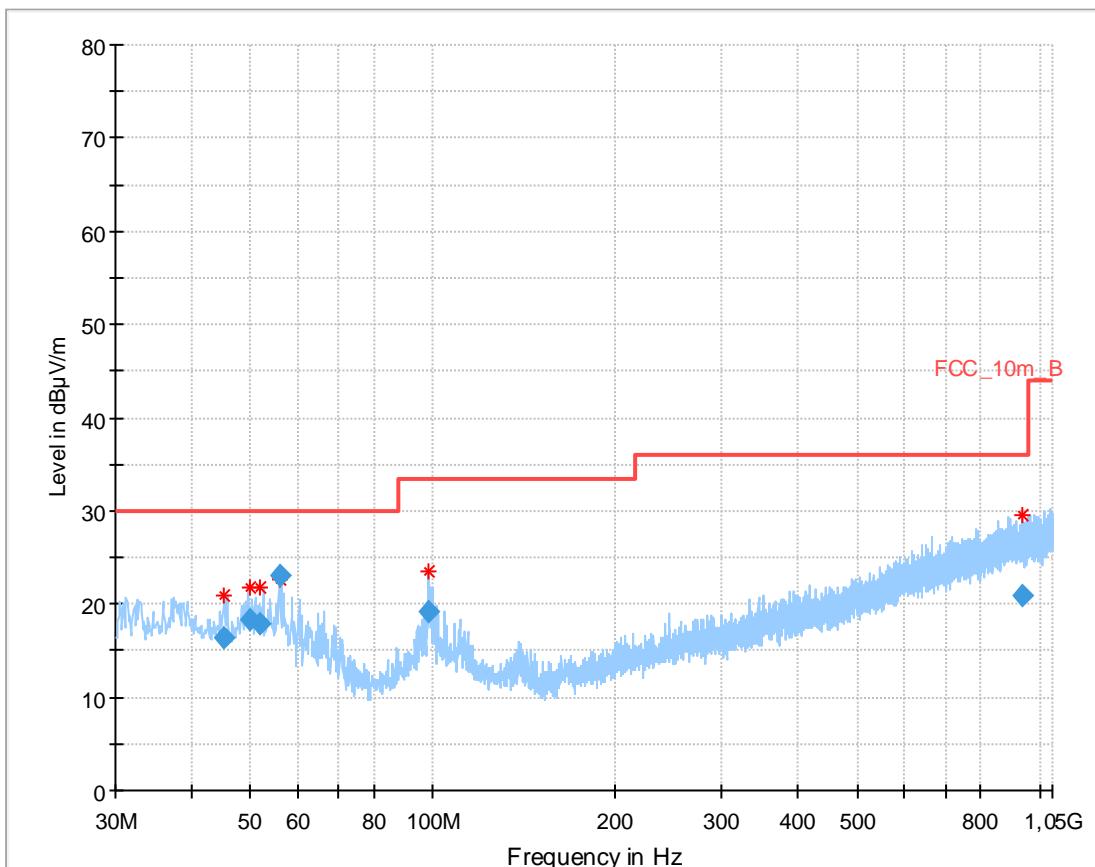
## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
33.176250	18.81	30.00	11.19	1000.0	120.000	101.0	V	260.0	13.6
45.314550	14.85	30.00	15.15	1000.0	120.000	170.0	V	81.0	13.8
50.398950	19.16	30.00	10.84	1000.0	120.000	98.0	V	280.0	12.6
56.677500	21.30	30.00	8.70	1000.0	120.000	170.0	V	280.0	11.4
98.451150	19.43	33.50	14.07	1000.0	120.000	170.0	V	81.0	11.9
663.447900	17.98	36.00	18.02	1000.0	120.000	101.0	H	170.0	21.2

**Plot 32:** 1 GHz to 12.75 GHz, 5755 MHz, vertical & horizontal polarization**Plot 33:** 4.5 GHz to 7 GHz, 5755 MHz, vertical & horizontal polarization

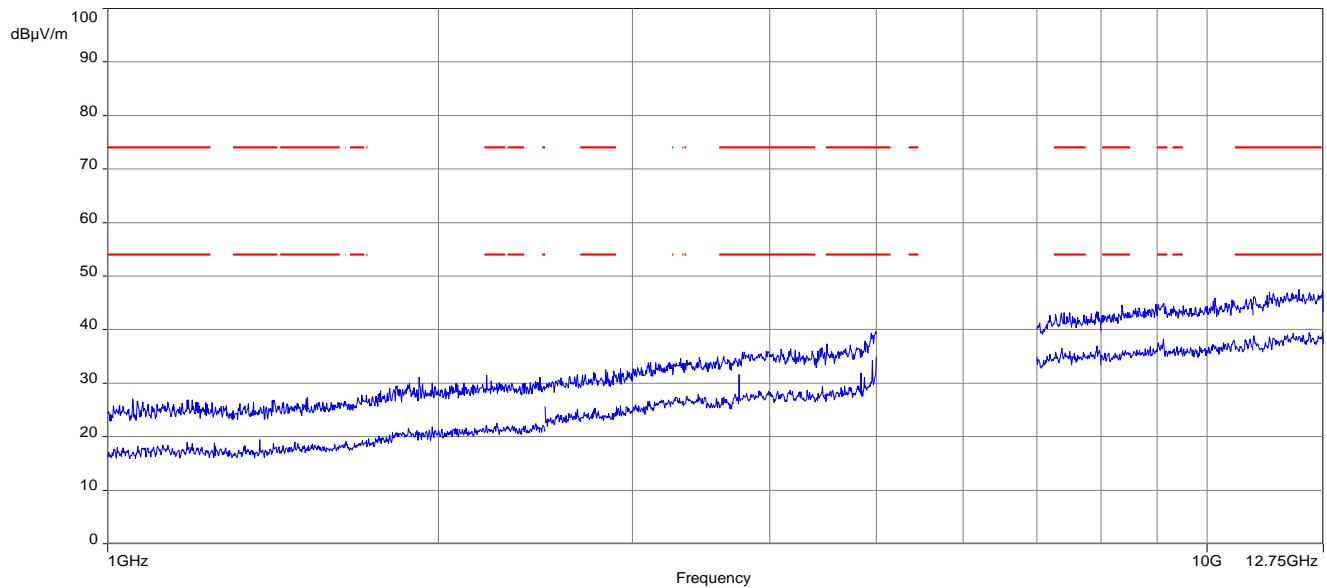
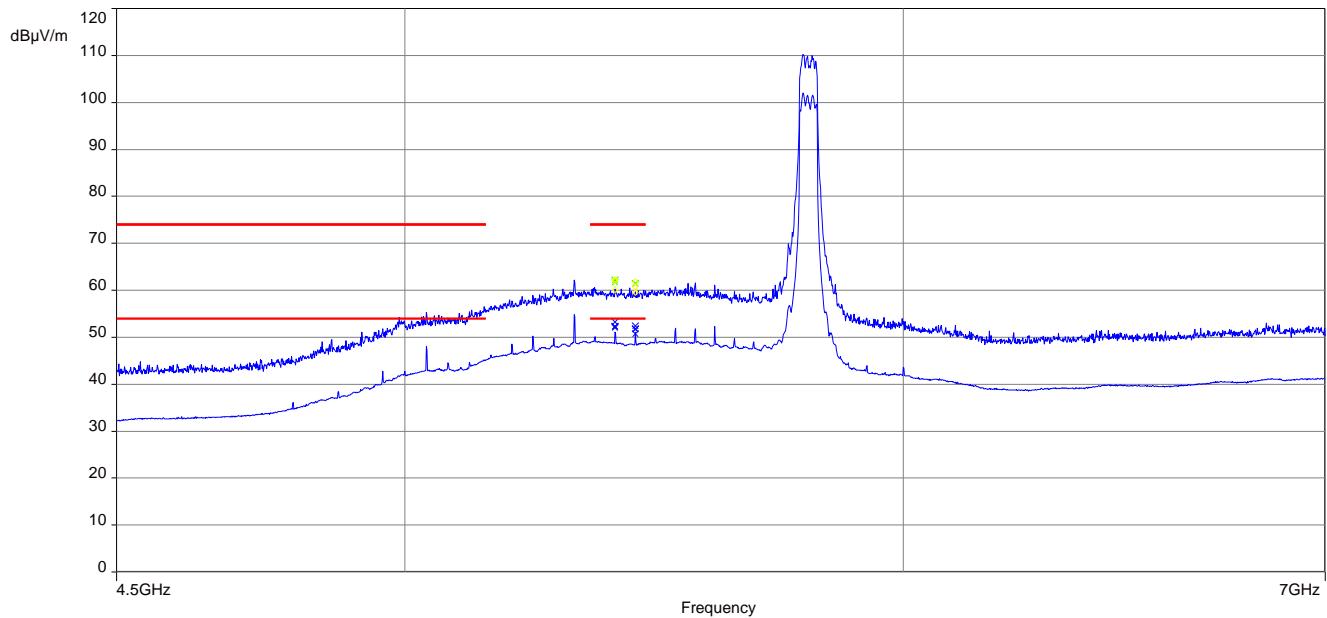
**Plot 34:** 12 GHz to 18 GHz, 5755 MHz, vertical & horizontal polarization**Plot 35:** 18 GHz to 26 GHz, 5755 MHz, vertical & horizontal polarization

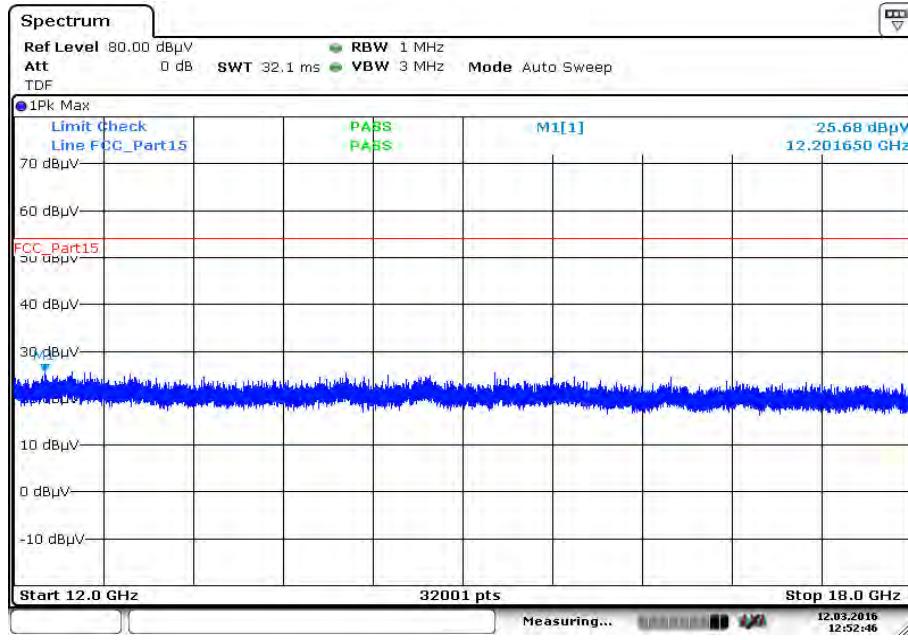
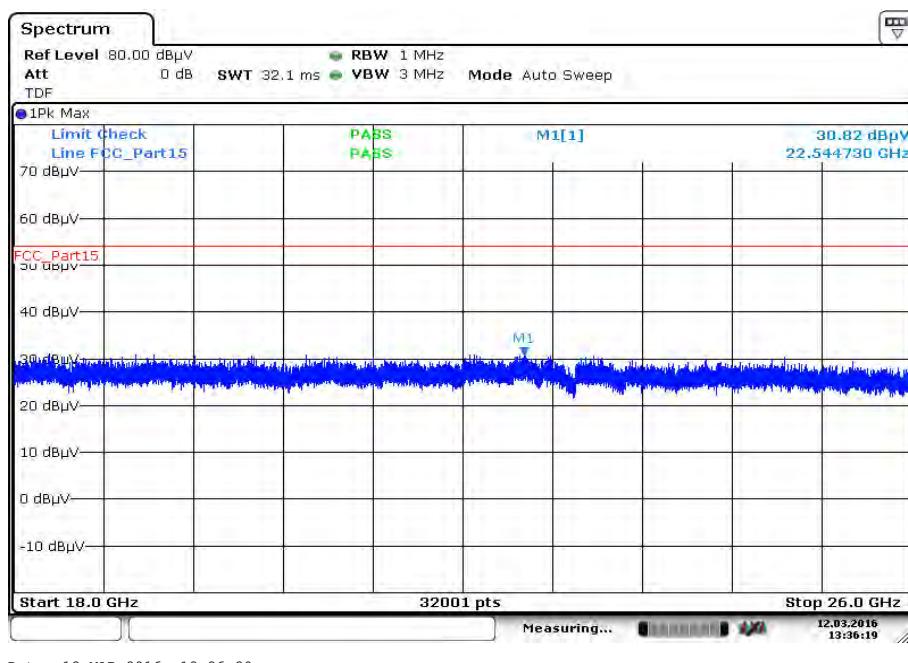
**Plot 36:** 26 GHz to 40 GHz, 5755 MHz, vertical & horizontal polarization

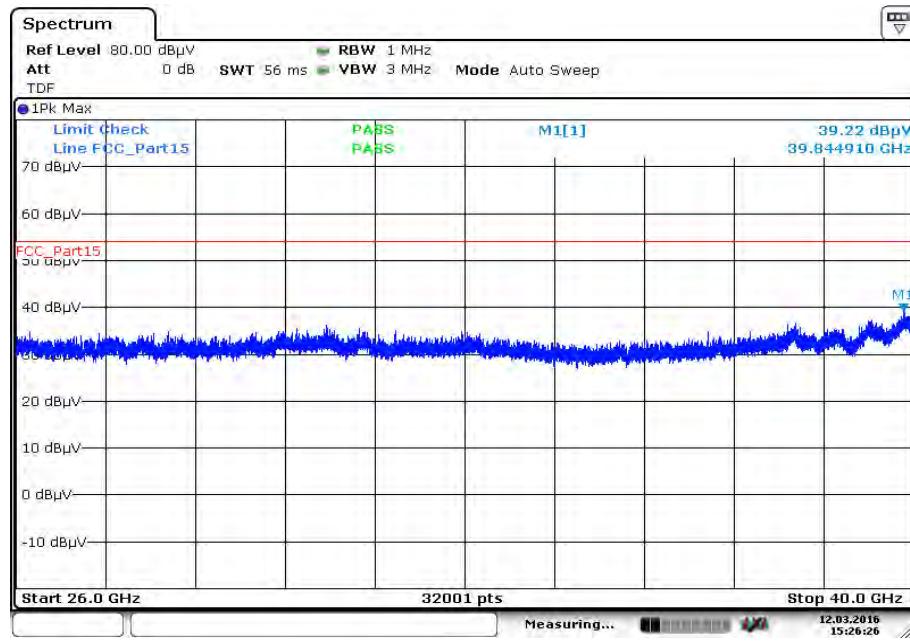
**Plot 37:** 30 MHz to 1 GHz, 5795 MHz, vertical & horizontal polarization

## Final\_Result

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
45.260550	16.31	30.00	13.69	1000.0	120.000	170.0	V	81.0	13.8
49.825650	18.43	30.00	11.57	1000.0	120.000	98.0	V	261.0	12.7
52.054950	17.98	30.00	12.02	1000.0	120.000	98.0	V	261.0	12.3
56.008350	23.08	30.00	6.92	1000.0	120.000	170.0	V	280.0	11.6
98.421750	19.17	33.50	14.33	1000.0	120.000	101.0	V	81.0	11.9
938.883900	20.84	36.00	15.16	1000.0	120.000	170.0	V	261.0	24.2

**Plot 38:** 1 GHz to 12.75 GHz, 5795 MHz, vertical & horizontal polarization**Plot 39:** 4.5 GHz to 7 GHz, 5795 MHz, vertical & horizontal polarization

**Plot 40:** 12 GHz to 18 GHz, 5795 MHz, vertical & horizontal polarization**Plot 41:** 18 GHz to 26 GHz, 5795 MHz, vertical & horizontal polarization

**Plot 42:** 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:

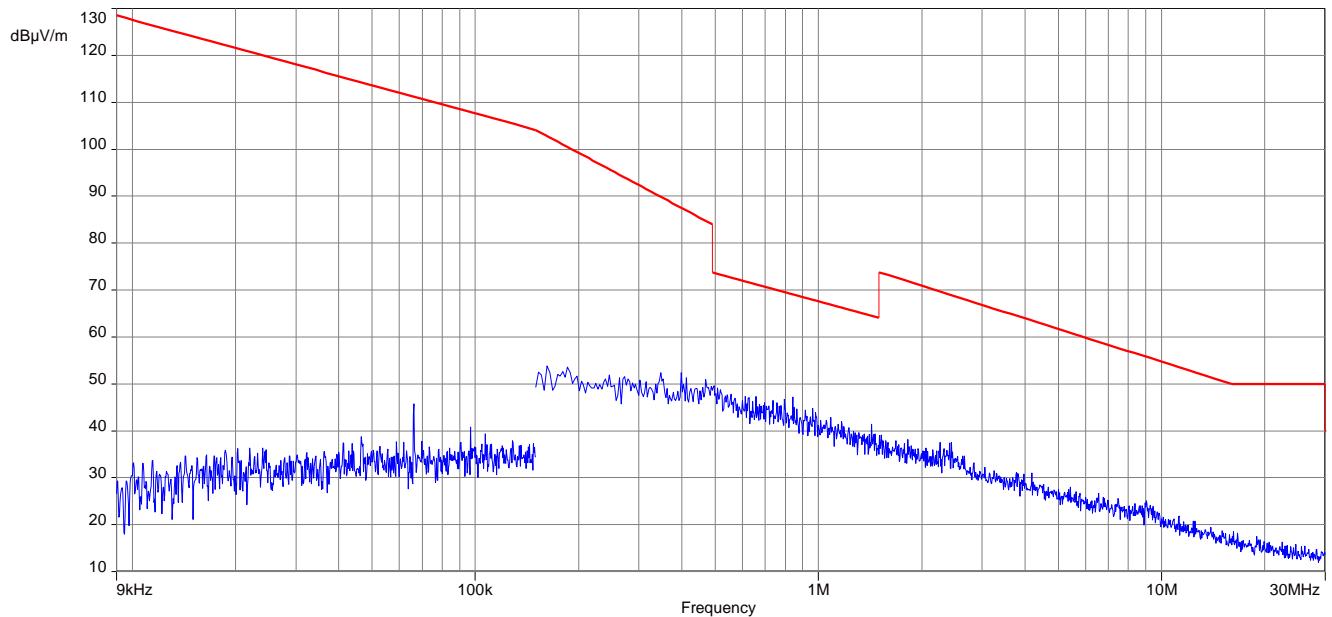
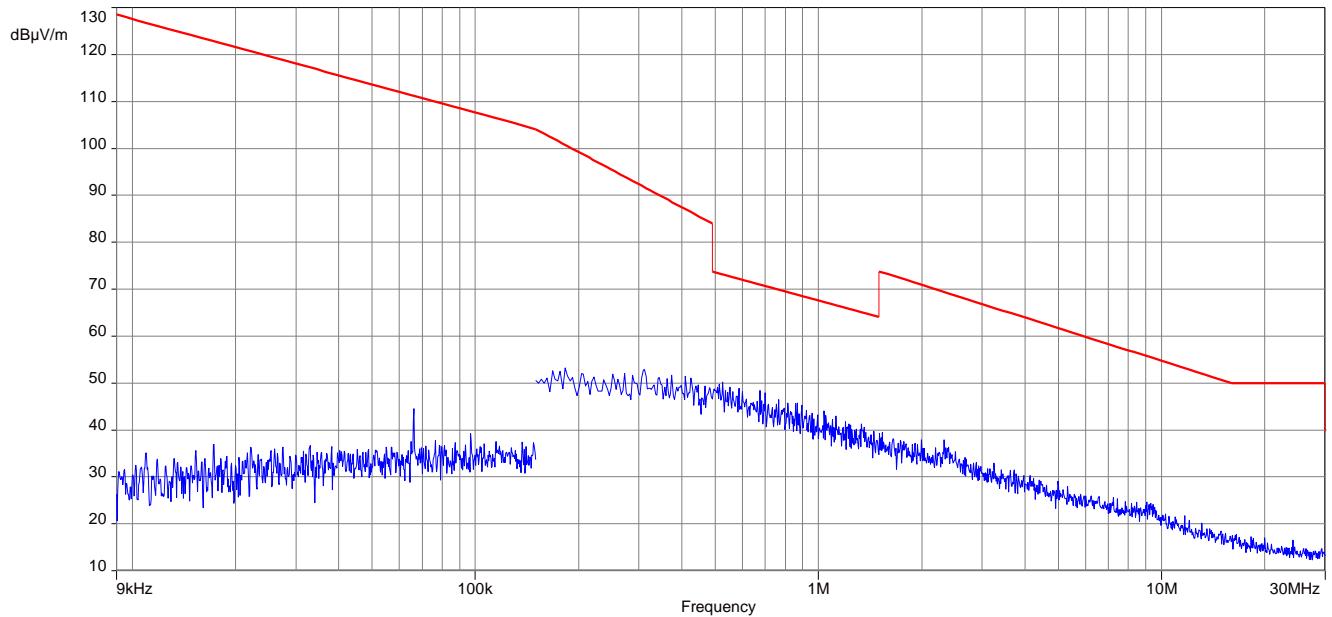
Measurement parameter	
According to: KDB789033 D02, G.	
Detector:	Peak / Quasi Peak
Sweep time:	Auto
Video bandwidth:	F < 150 kHz: 200 Hz F > 150 kHz: 9 kHz
Resolution bandwidth:	F < 150 kHz: 1 kHz F > 150 kHz: 100 kHz
Span:	9 kHz to 30 MHz
Trace-Mode:	Max Hold
Used test setup:	see chapter 7.2 – B
Measurement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

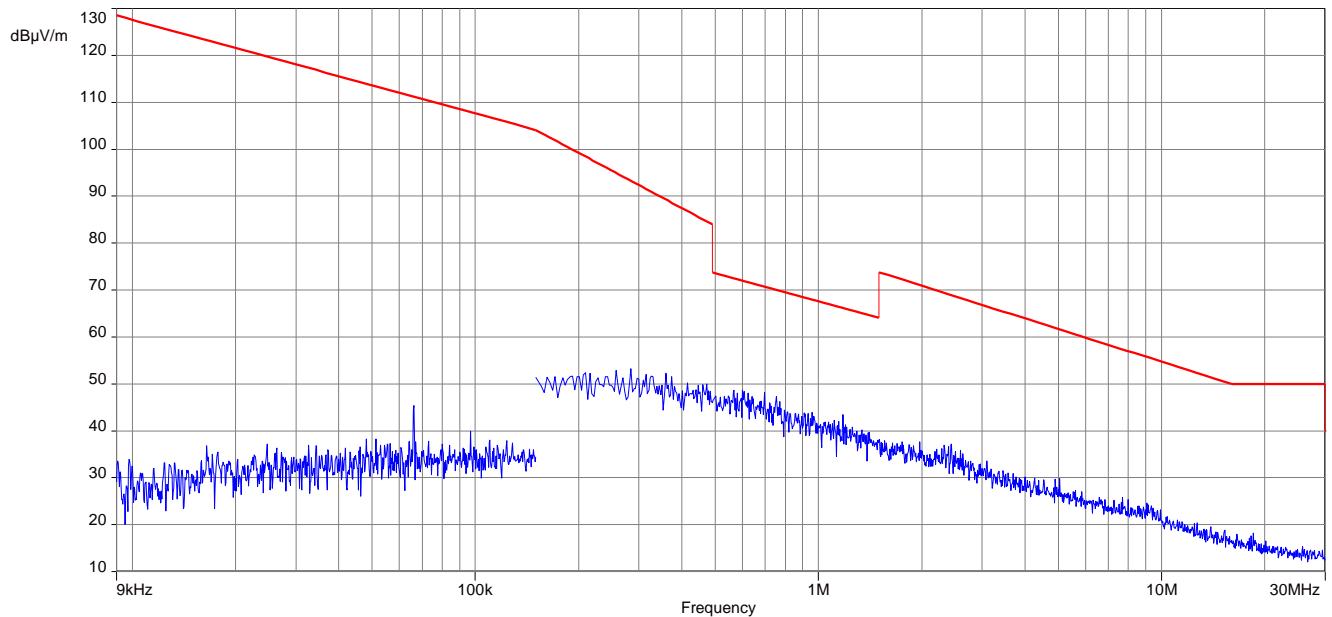
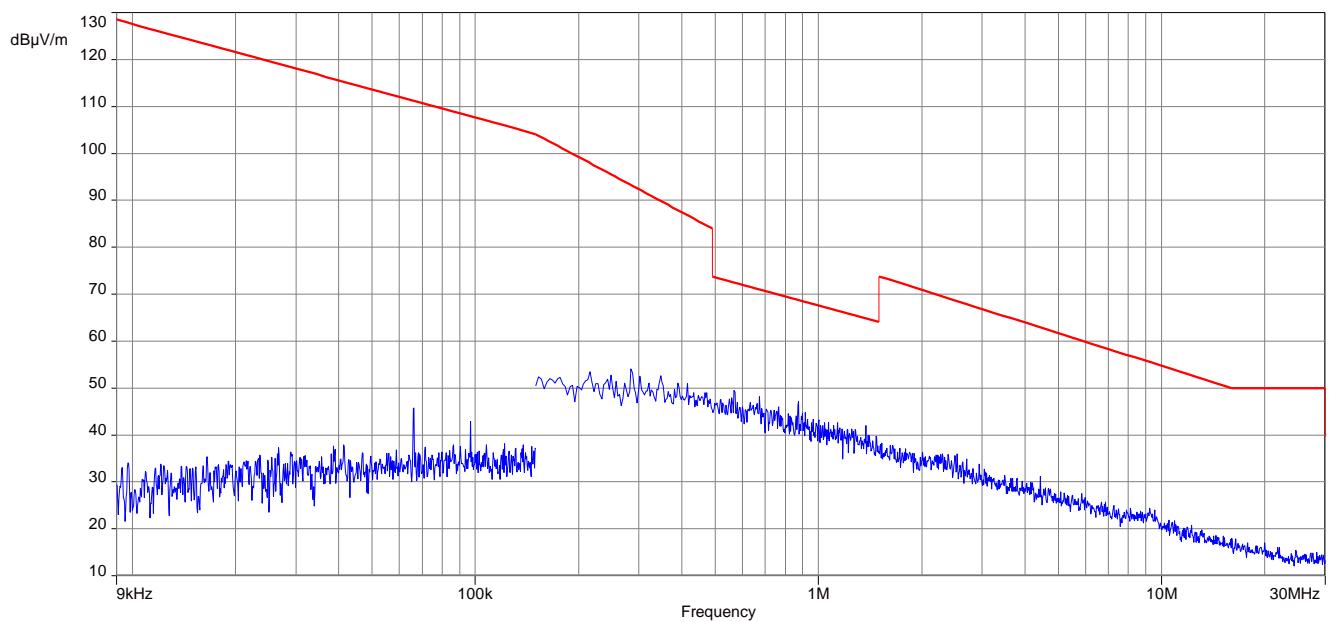
### Limits:

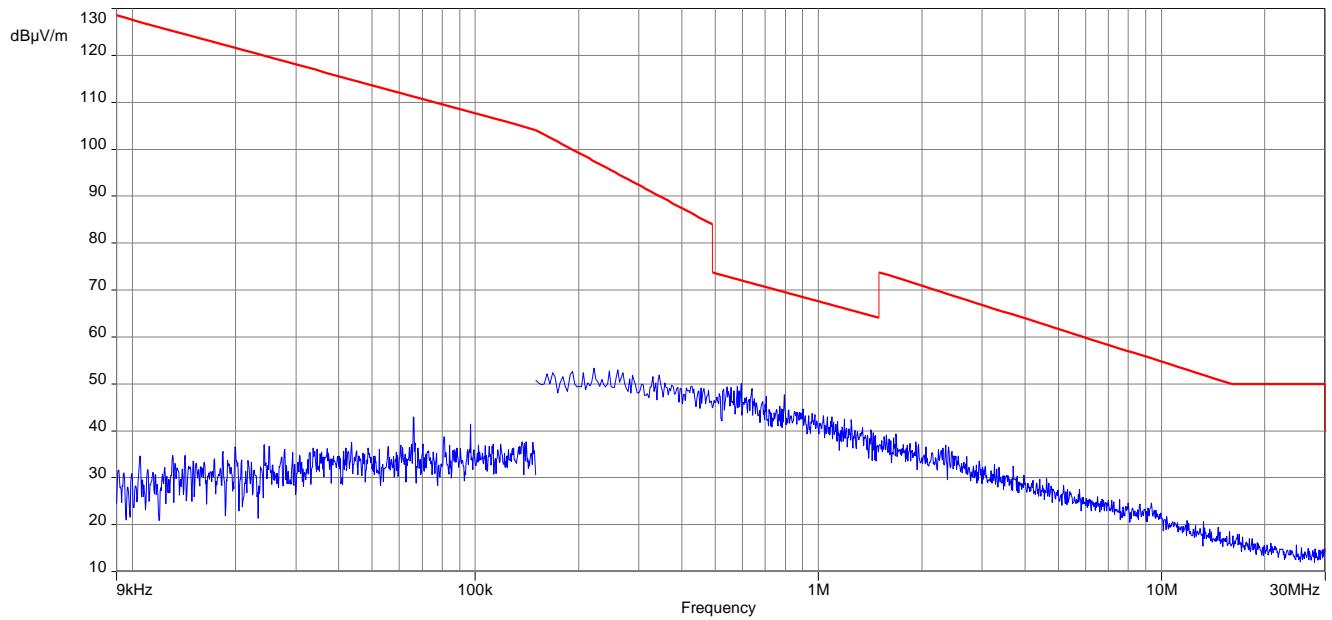
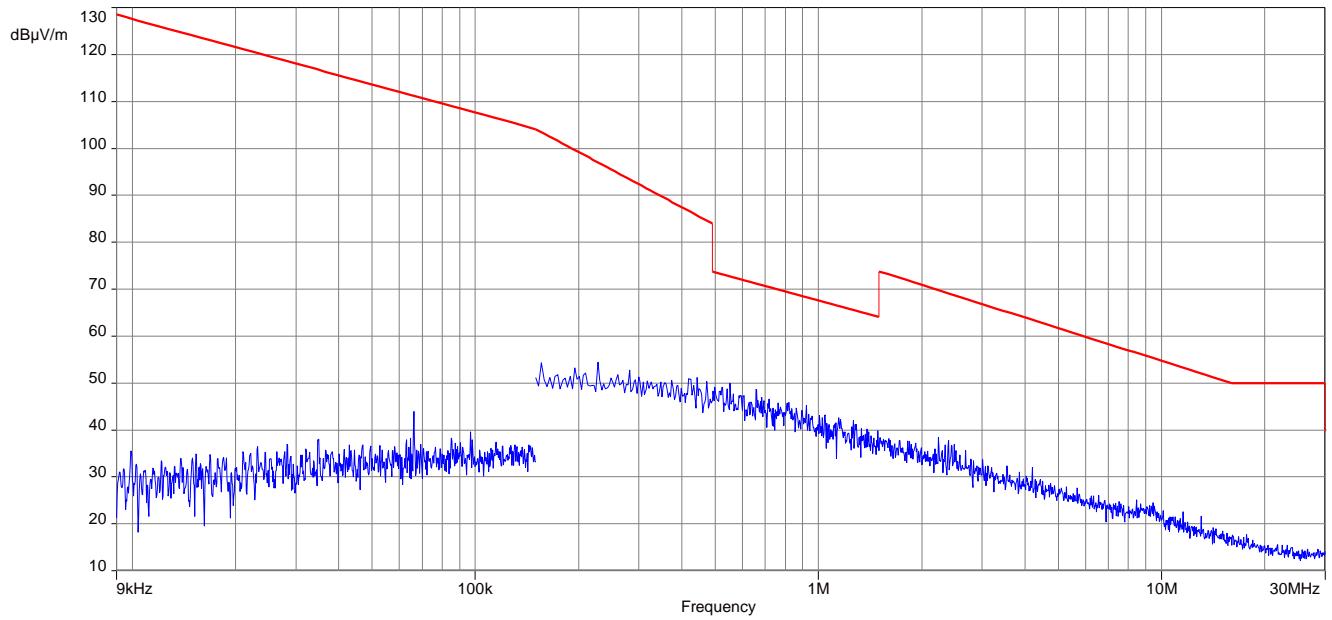
Spurious Emissions Radiated < 30 MHz		
Frequency (MHz)	Field Strength (dB $\mu$ V/m)	Measurement distance
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

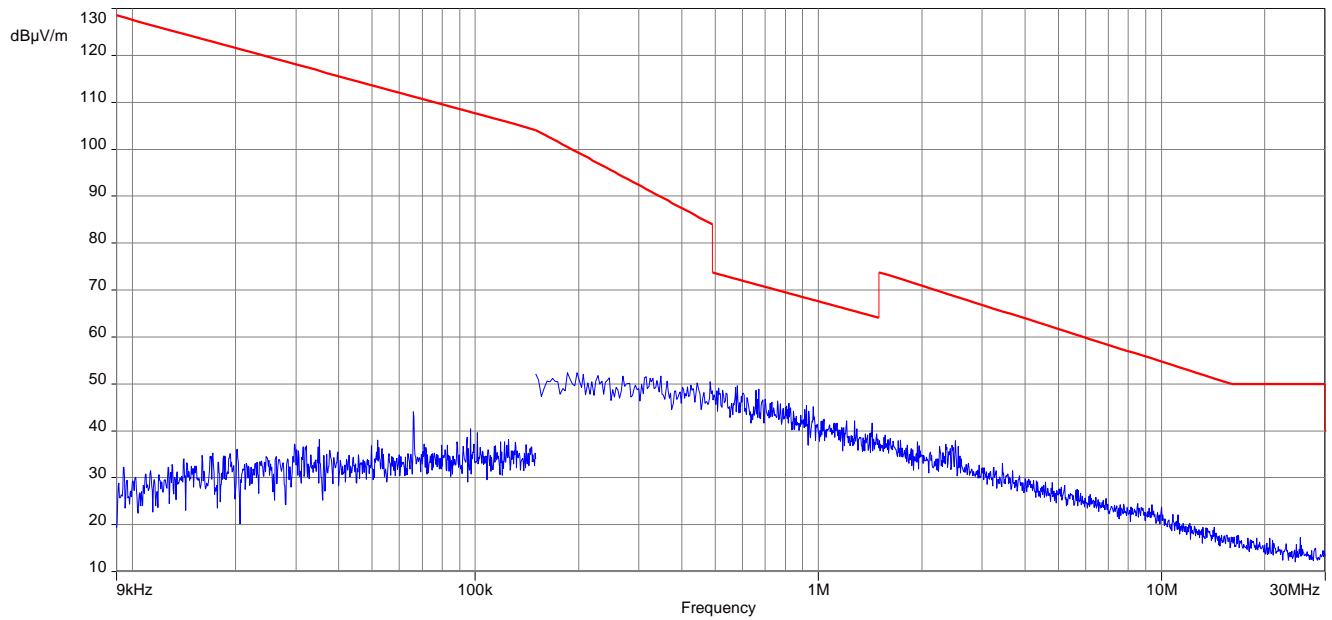
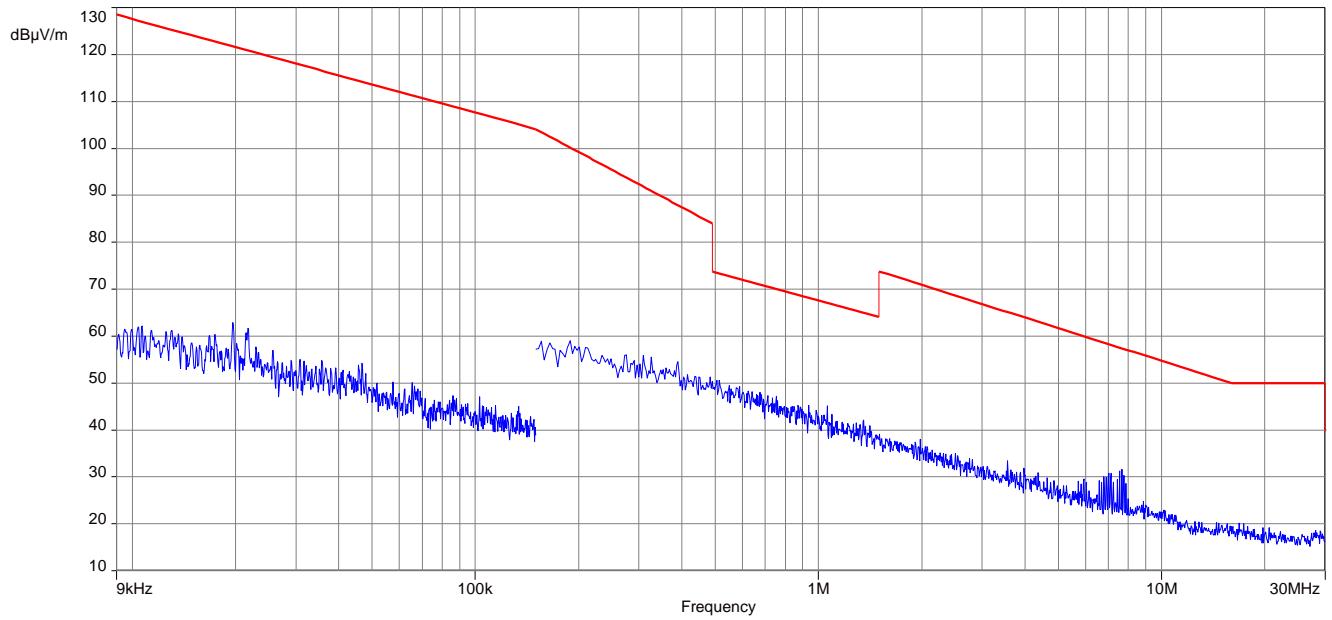
### Results:

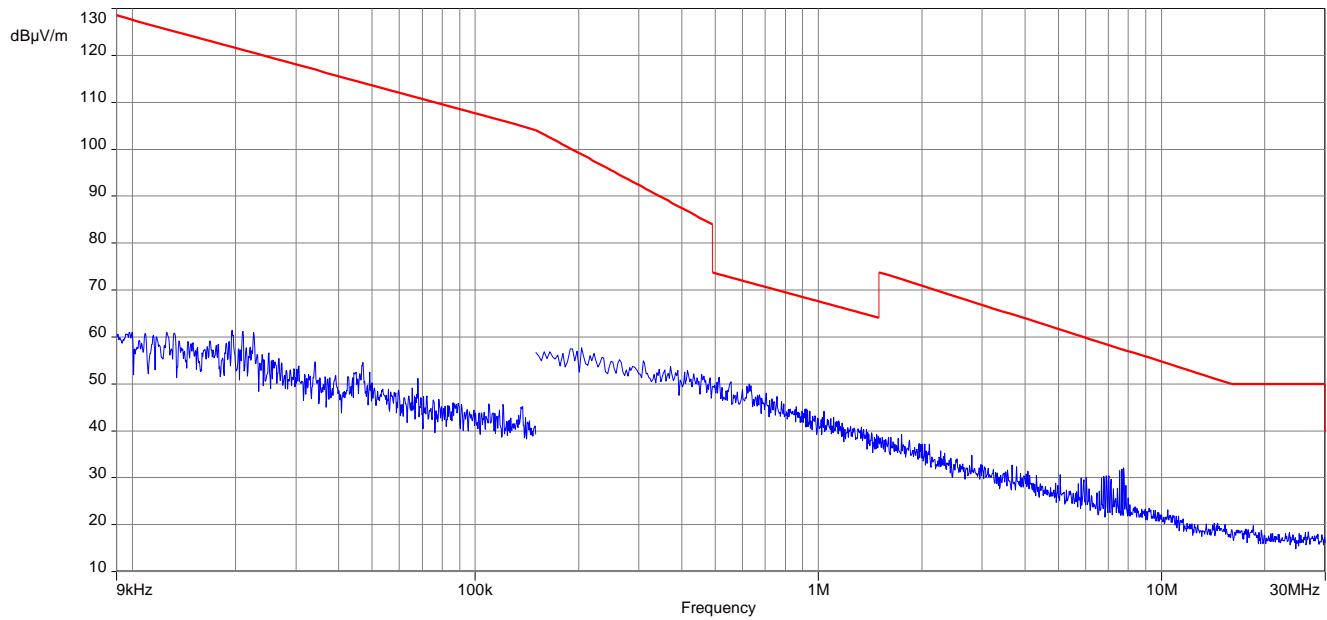
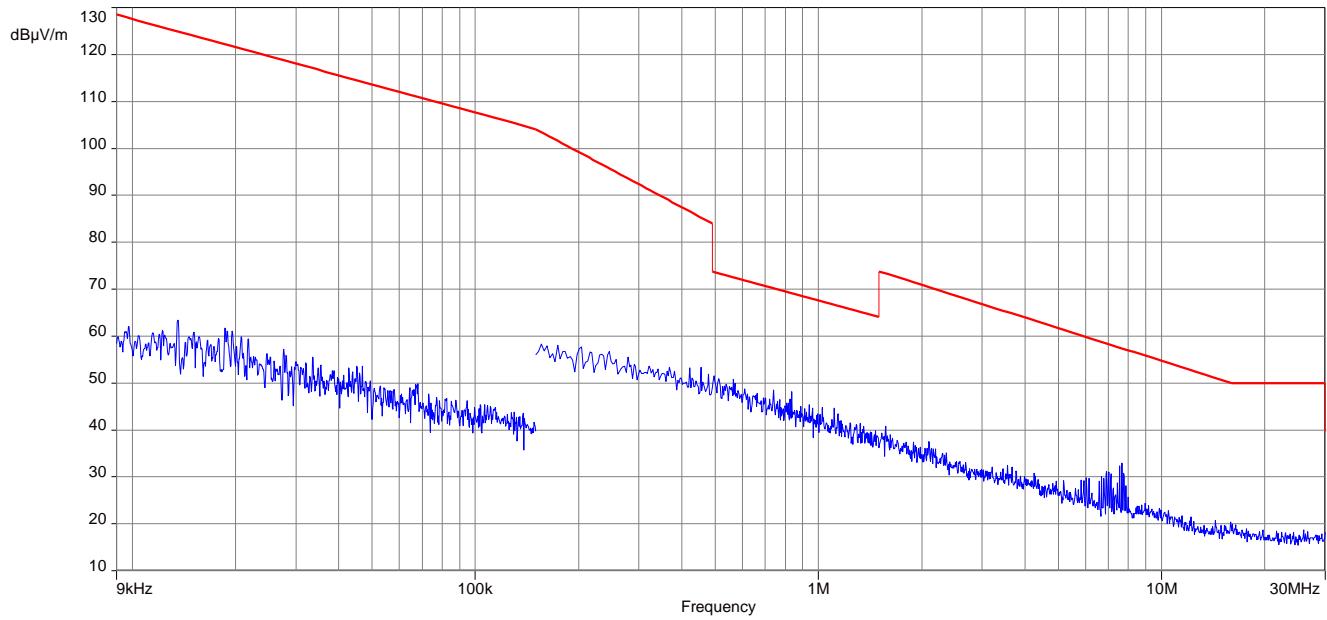
Spurious Emissions Radiated < 30 MHz [dB $\mu$ V/m]		
F [MHz]	Detector	Level [dB $\mu$ V/m]
All detected peaks are more than 10 dB below the limit.		

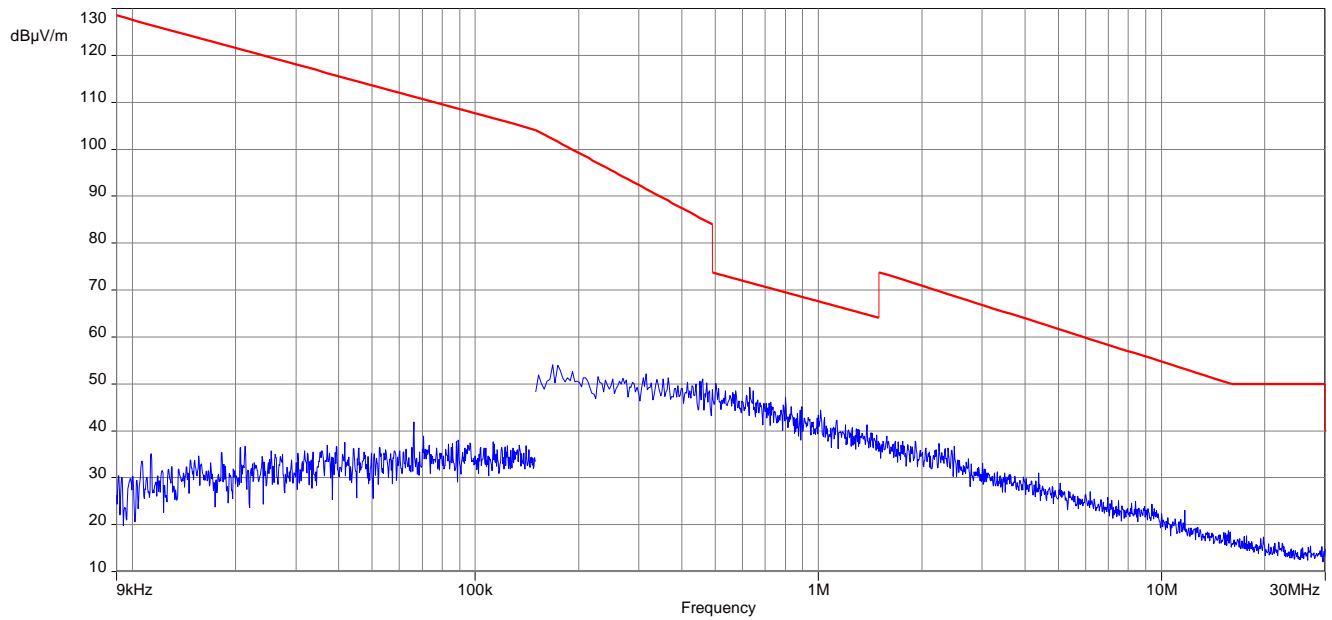
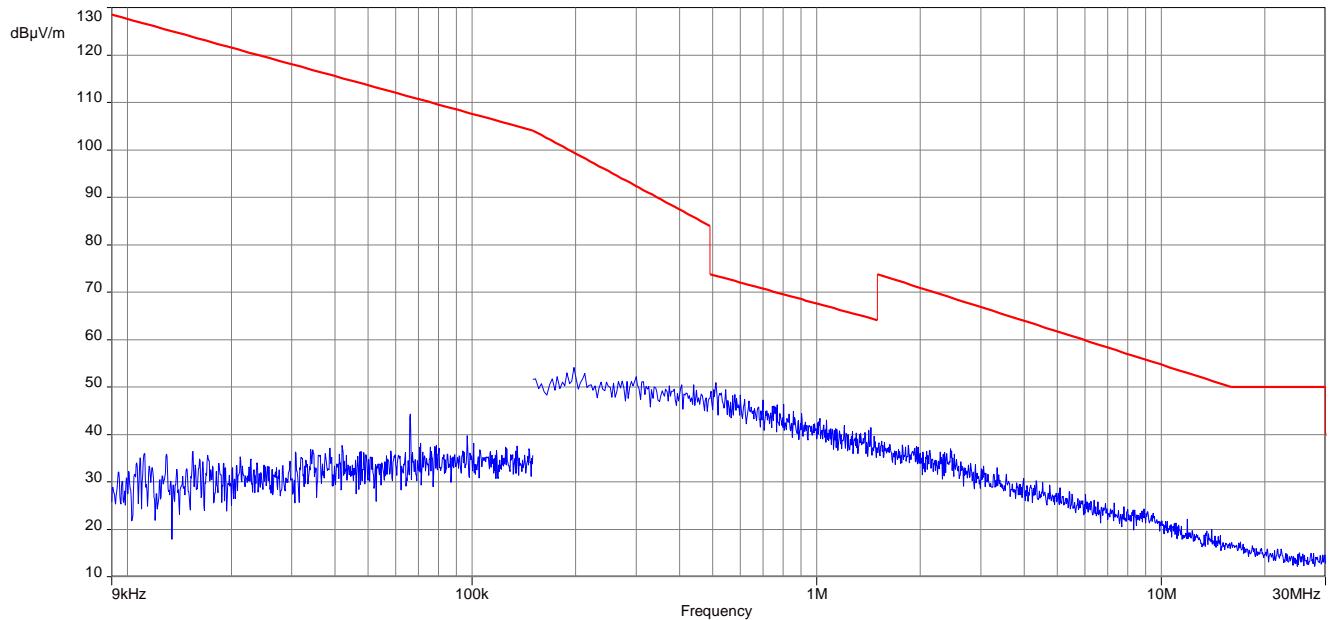
**Plots:****Plot 1:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5180 MHz, OFDM / a – mode**Plot 2:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5240 MHz, OFDM / a – mode

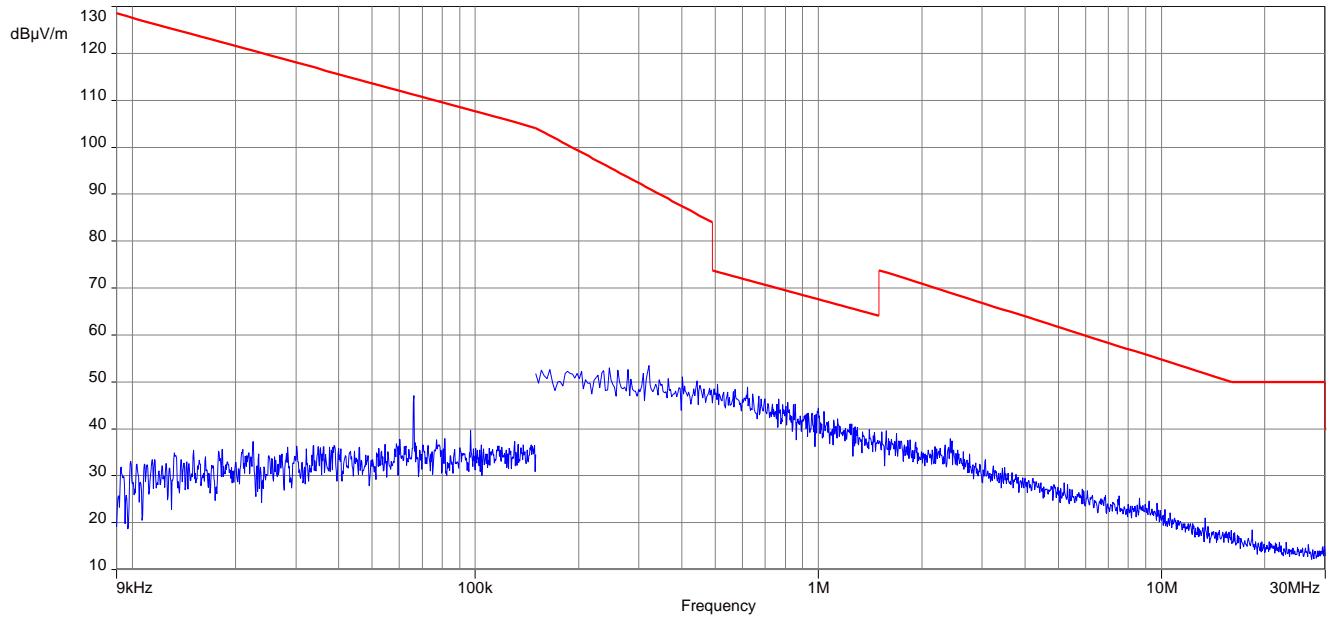
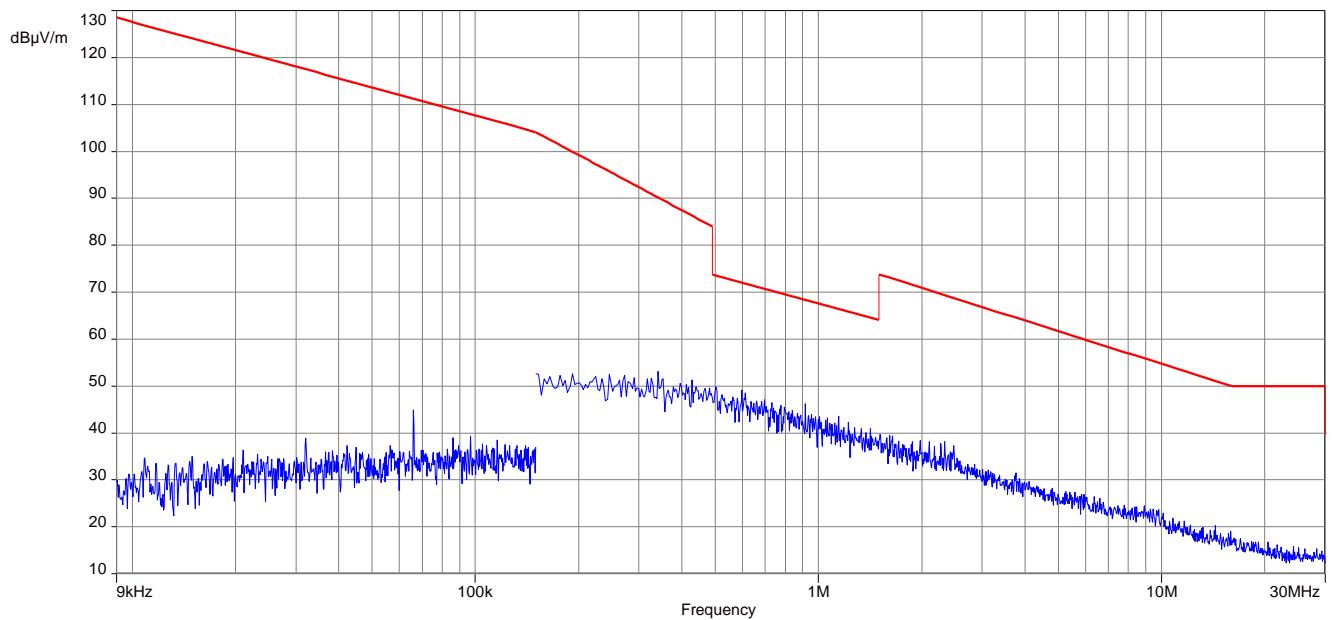
**Plot 3:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5260 MHz, OFDM / a – mode**Plot 4:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5320 MHz, OFDM / a – mode

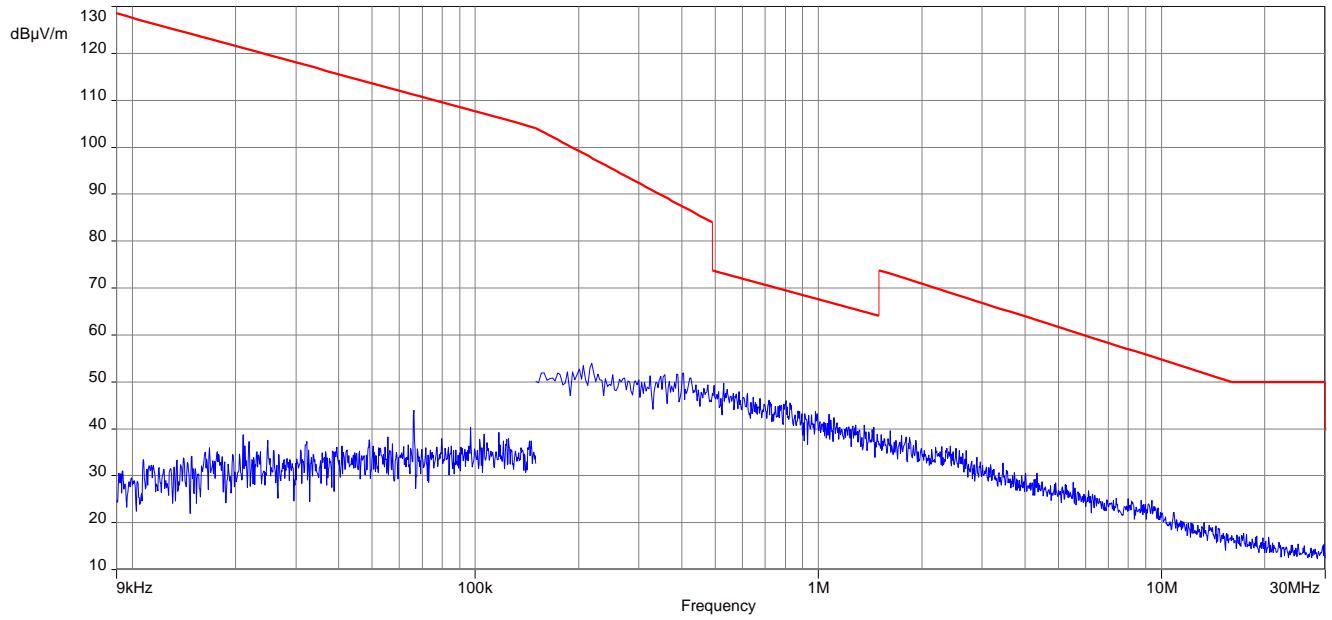
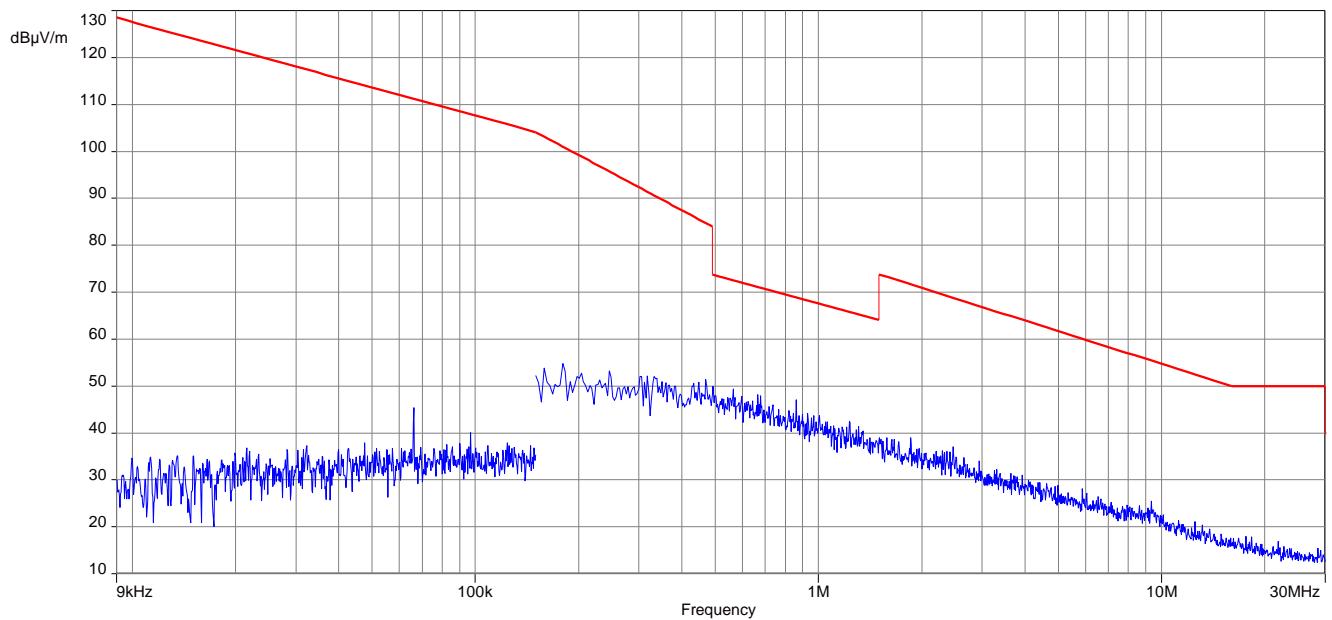
**Plot 5:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5500 MHz, OFDM / a – mode**Plot 6:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5600 MHz, OFDM / a – mode

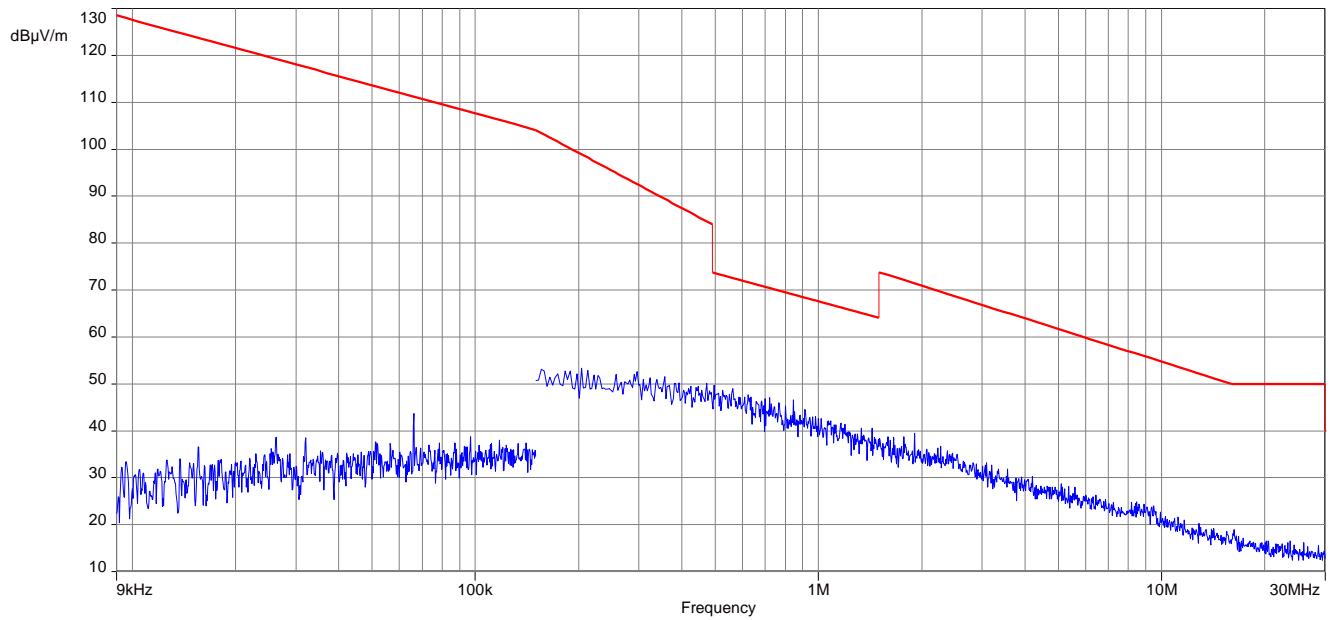
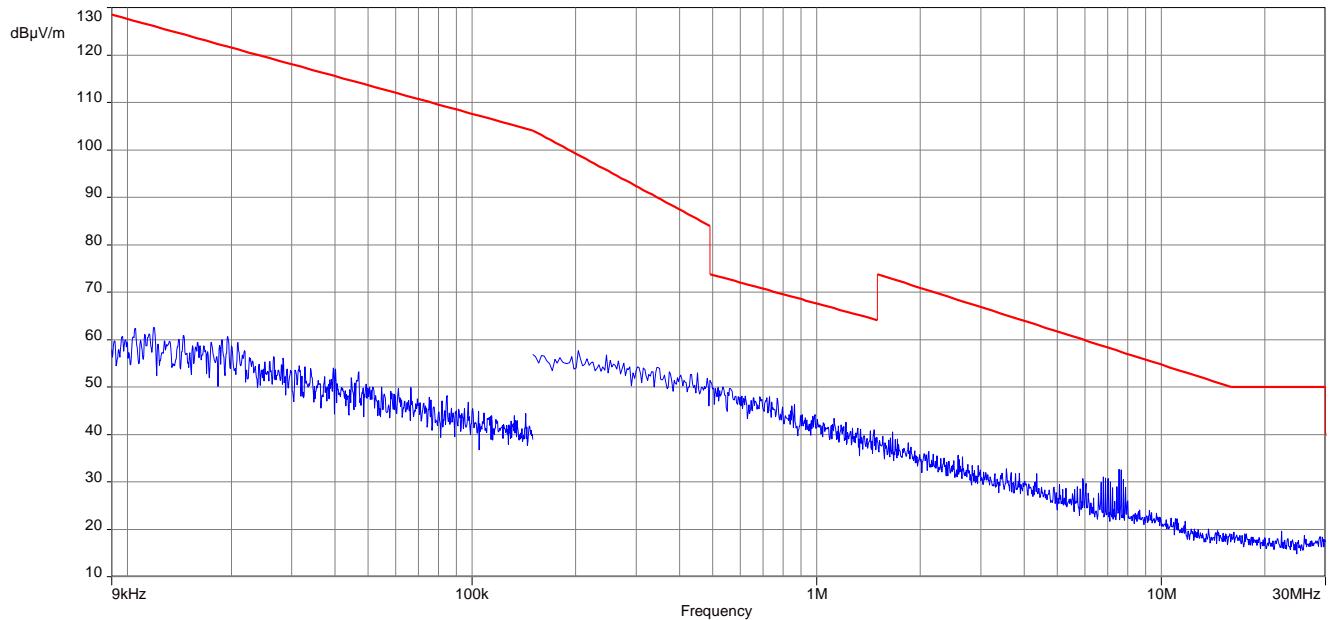
**Plot 7:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5700 MHz, OFDM / a – mode**Plot 8:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5745 MHz, OFDM / a – mode

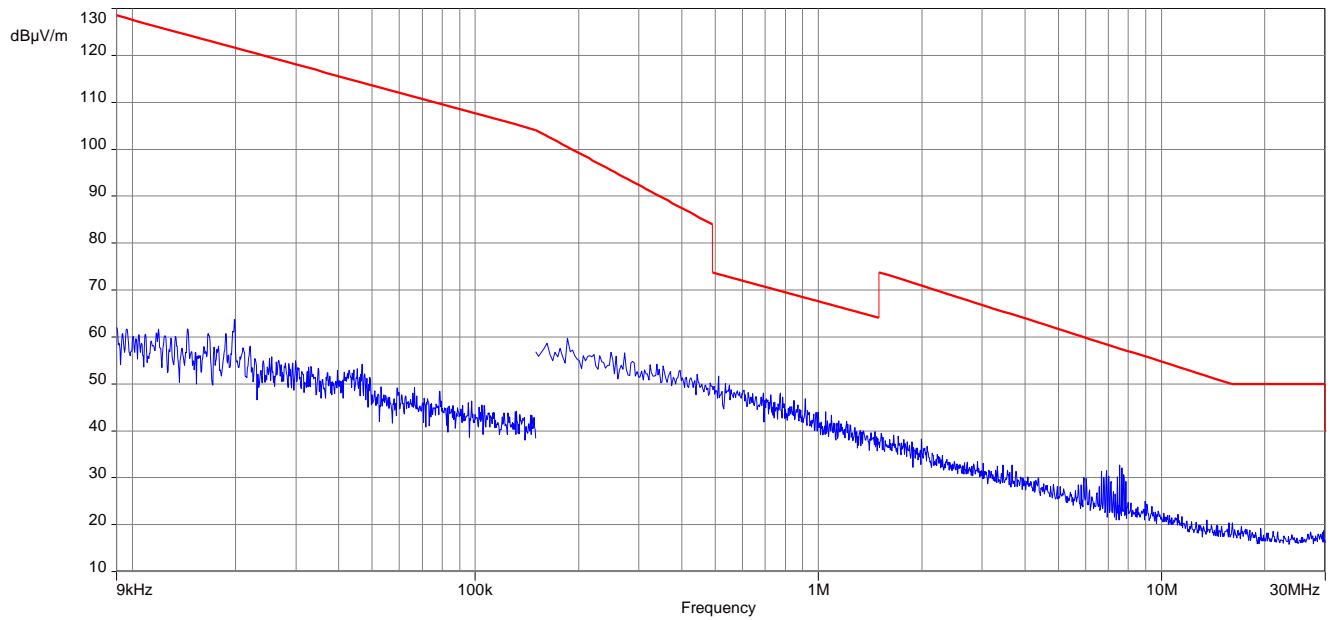
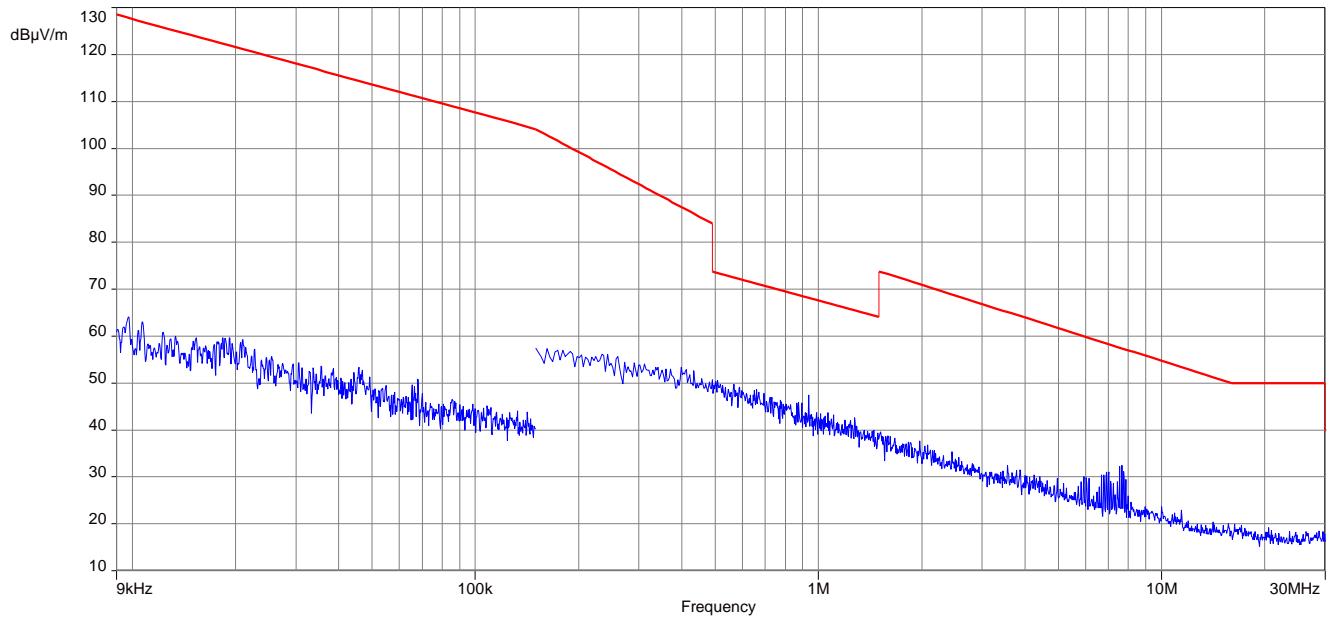
**Plot 9:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5785 MHz, OFDM / a – mode**Plot 10:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5825 MHz, OFDM / a – mode

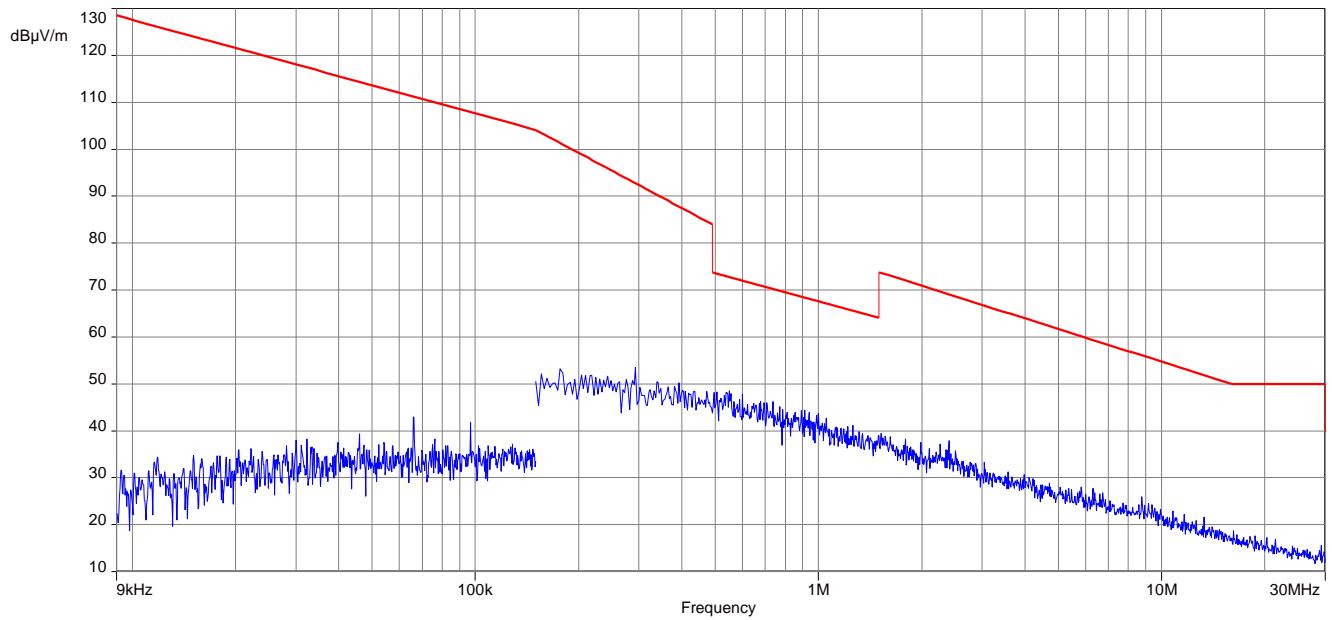
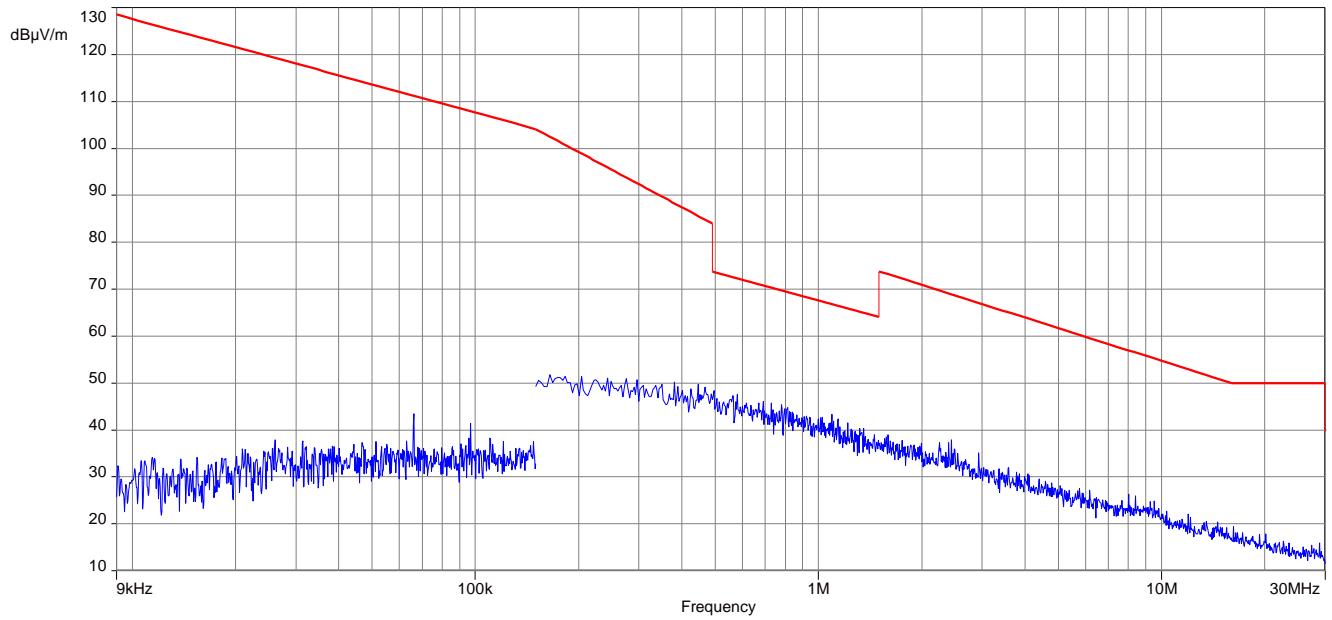
**Plot 11:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5180 MHz, OFDM / n HT20 – mode**Plot 12:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5240 MHz, OFDM / n HT20 – mode

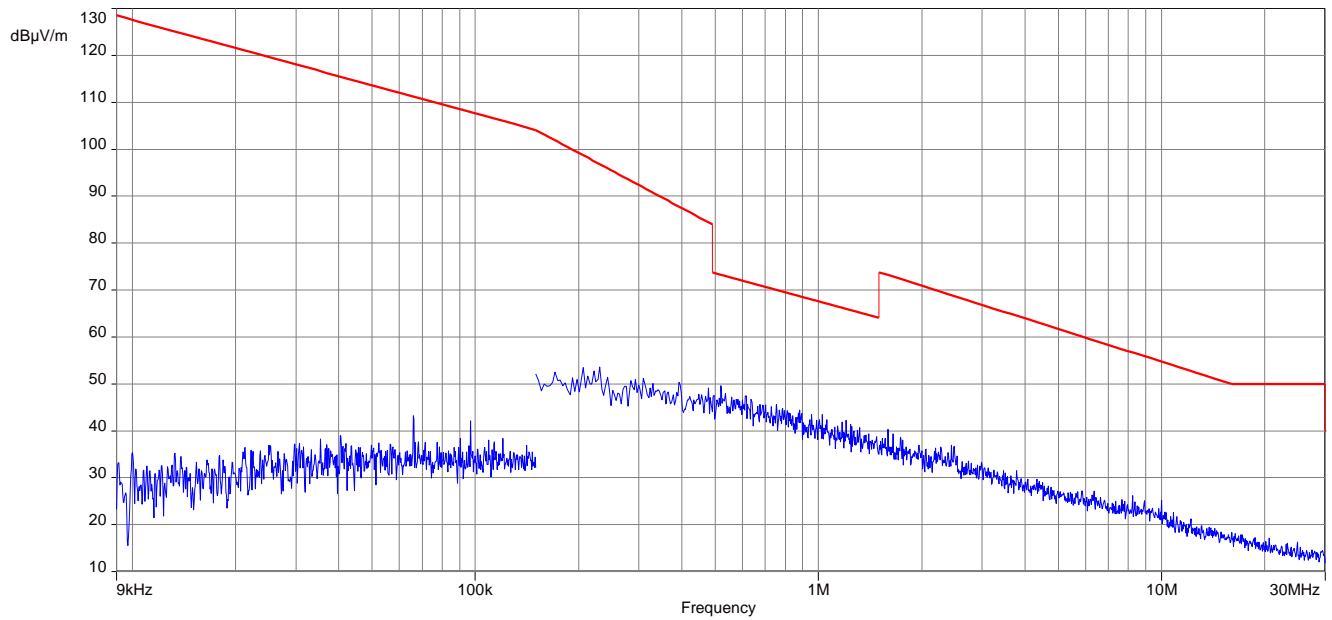
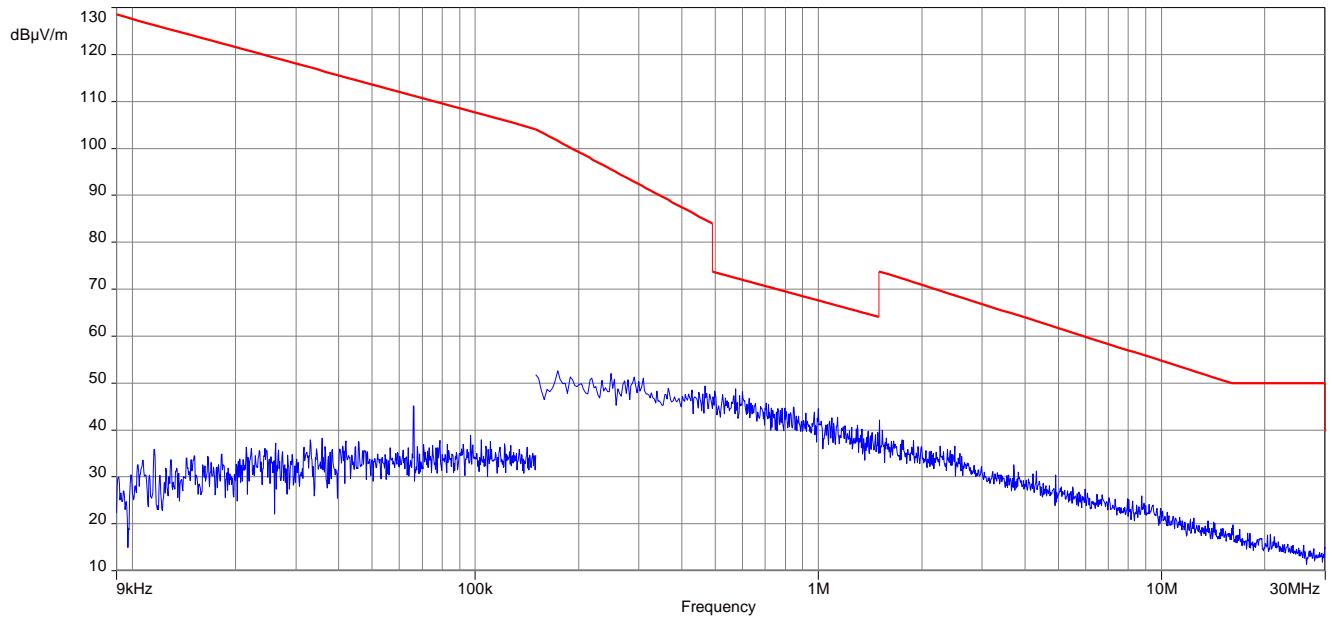
**Plot 13:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5260 MHz, OFDM / n HT20 – mode**Plot 14:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5320 MHz, OFDM / n HT20 – mode

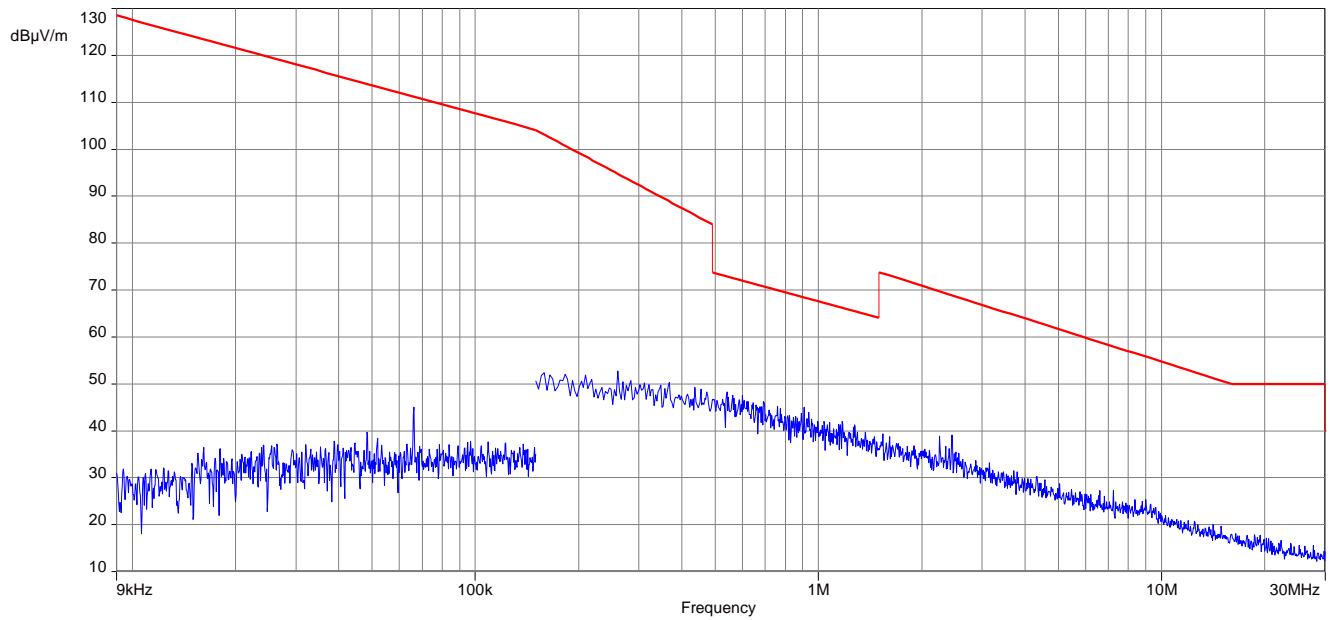
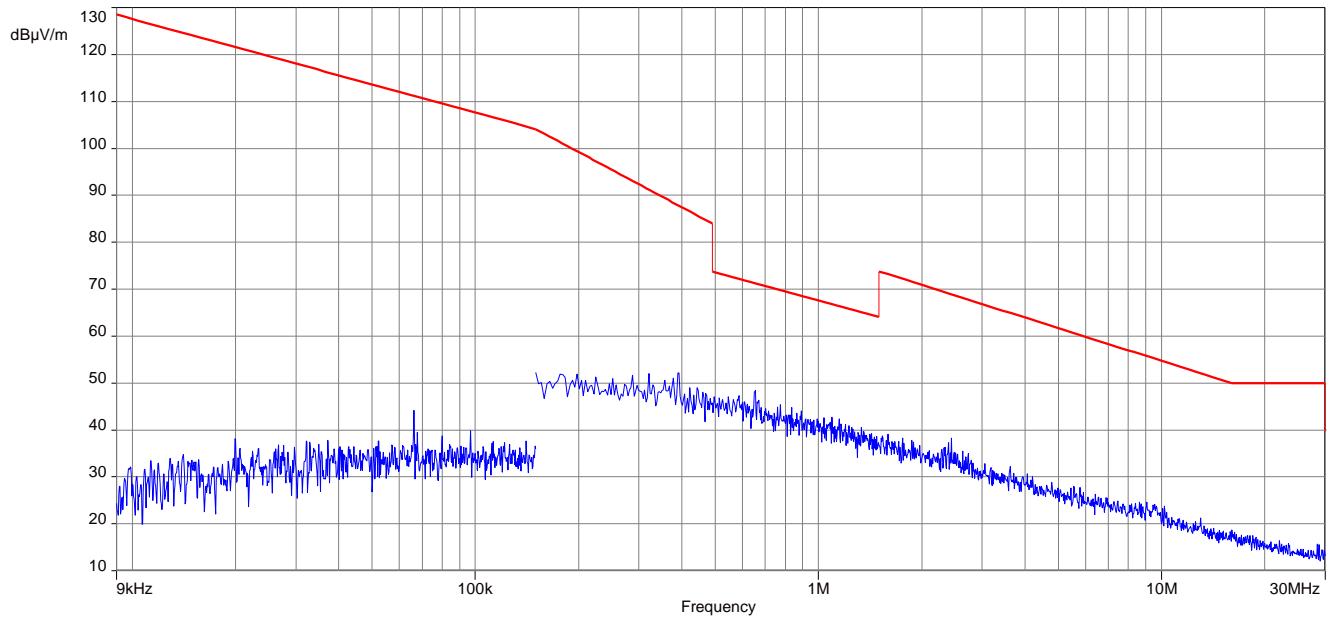
**Plot 15:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5500 MHz, OFDM / n HT20 – mode**Plot 16:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5600 MHz, OFDM / n HT20 – mode

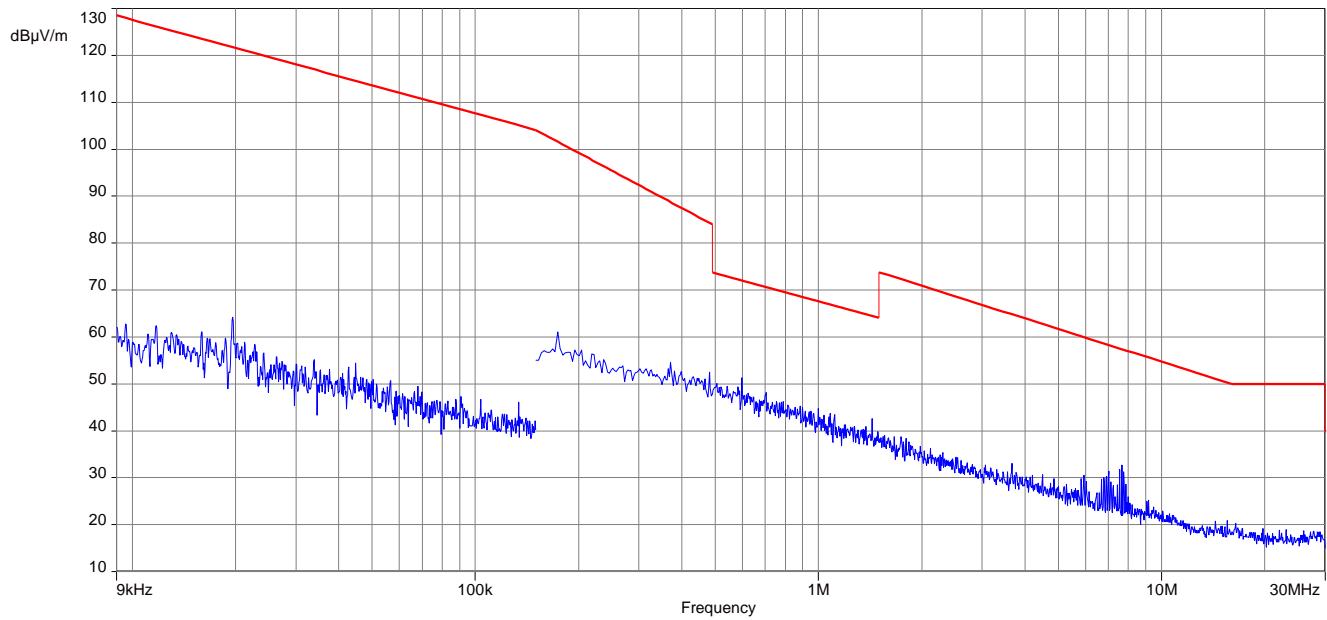
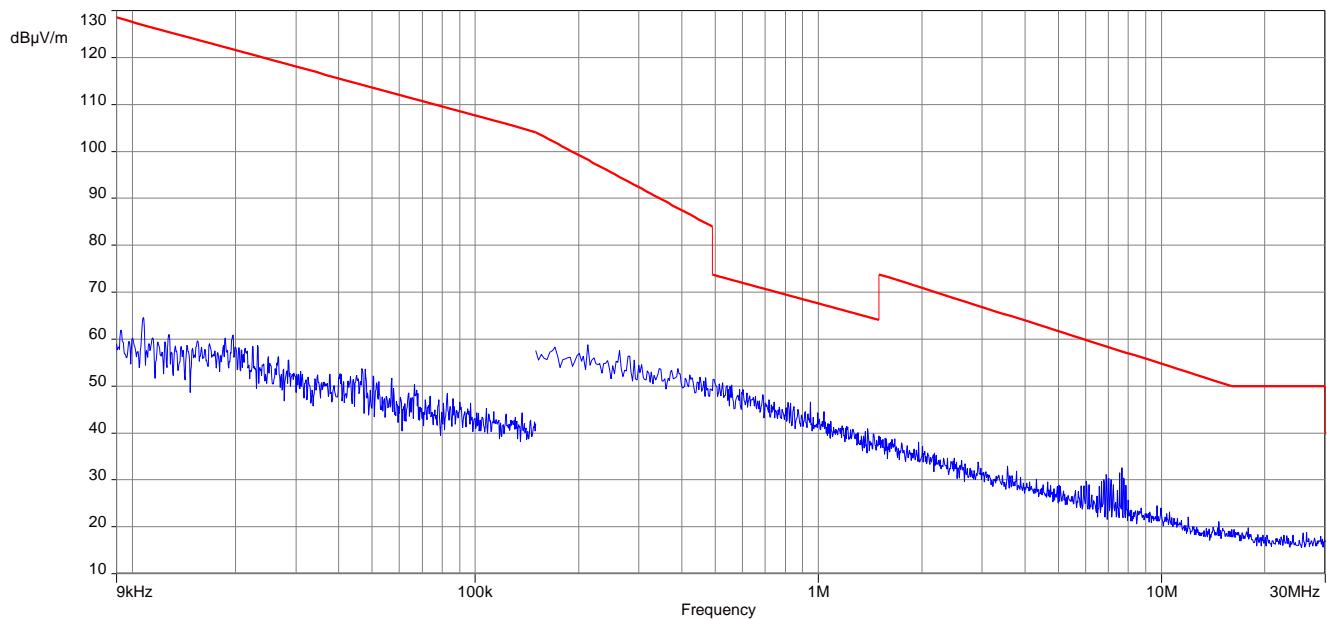
**Plot 17:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5700 MHz, OFDM / n HT20 – mode**Plot 18:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5745 MHz, OFDM / n HT20 – mode

**Plot 19:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5785 MHz, OFDM / n HT20 – mode**Plot 20:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5825 MHz, OFDM / n HT20 – mode

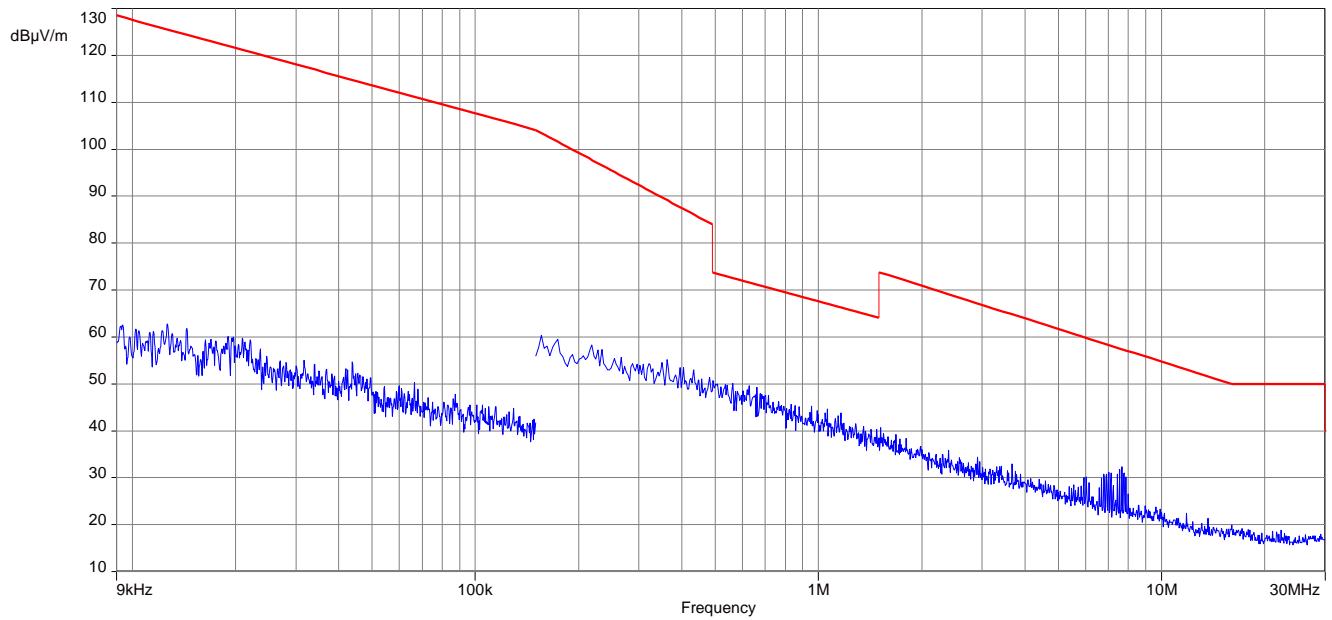
**Plot 21:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5190 MHz, OFDM / n HT40 – mode**Plot 22:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5230 MHz, OFDM / n HT40 – mode

**Plot 23:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5270 MHz, OFDM / n HT40 – mode**Plot 24:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5310 MHz, OFDM / n HT40 – mode

**Plot 25:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5510 MHz, OFDM / n HT40 – mode**Plot 26:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5590 MHz, OFDM / n HT40 – mode

**Plot 27:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5630 MHz, OFDM / n HT40 – mode**Plot 28:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 active, 5755 MHz, OFDM / n HT40 – mode

**Plot 29:** 9 kHz to 30 MHz, antenna 1 + 2 + 3 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	2016-04-26

## 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

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

Akkreditierung



Die Deutsche Akkreditierungsstelle GmbH bestätigt hiermit, dass das Prüflaborenum

CETECOM ICT Services GmbH  
Untertürkheimer Straße 6-10, 66117 Saarbrückendie Kompetenz nach DIN EN ISO/IEC 17025:2005 besitzt, Prüfungen in folgenden Bereichen  
durchzuführen:

Drahtgebundene Kommunikation einschließlich xDSL

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)

Umweltstimulation

Smart Card Terminals

Bluetooth®

Wi-Fi-Services

Die Akkreditierungsurkunde gilt nur in Verbindung mit dem Bescheid vom 07.03.2014 mit der  
Akkreditierungsnr. D-PL-12076-01 und ist gültig 17.01.2018. Sie besteht aus diesem Dokument, der  
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Registrierungsnummer der Urkunde: D-PL-12076-01-00

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Die ausgewiesene Voraussetzung der Akkreditierungsurkunde besteht darin vertraglich schriftlichen  
Zusammen mit der Deutsche Akkreditierungsstelle GmbH (DAkkS). Ausgenommen davon ist die sofortige  
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unveränderter Form.

Es darf nicht der Anschein erweckt werden, dass sich die Akkreditierung auch auf Bereich erstreckt,  
die über den durch die DAkkS bestätigten Akkreditierungsbereich hinausgehen.

Die Akkreditierung erfolgt gemäß des Gesetzes über die Akkreditierungsstellen (AkkStelleG) vom  
31. Juli 2009 (BGBl. I S. 2025) sowie der Verordnung (EG) Nr. 765/2008 des Europäischen Parlaments  
und des Rates vom 9. Juli 2008 über die Voraussetzung für die Akkreditierung im Marktüberwachung  
im Bereich der Elektromagnetischen Verträglichkeit (Maßnahmen 238 vom 9. Juli 2008 S. 20).

Die DAkkS ist Unterzeichnerin des Multilateralen Abkommen zur gegenseitigen Anerkennung der  
Europäischen Organisation für Akkreditierung (EA), des International Accreditation Forum (IAF) und  
der International Laboratory Accreditation Cooperation (ILAC). Die Unterzeichner dieser Abkommen  
erkennen ihre Akkreditierungen gegenseitig an.

Der aktive Stand der Mitgliedschaft kann folgenden Webseiten entnommen werden:  
EA: [www.european-accreditation.org](http://www.european-accreditation.org)  
IAF: [www.ifac.org](http://www.ifac.org)  
ILAC: [www.ilac.org](http://www.ilac.org)

Frankfurt am Main, 07.03.2014

Dr.-Ing. habil. Ralf Egger  
Akkreditierungsleiter

### Note:

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