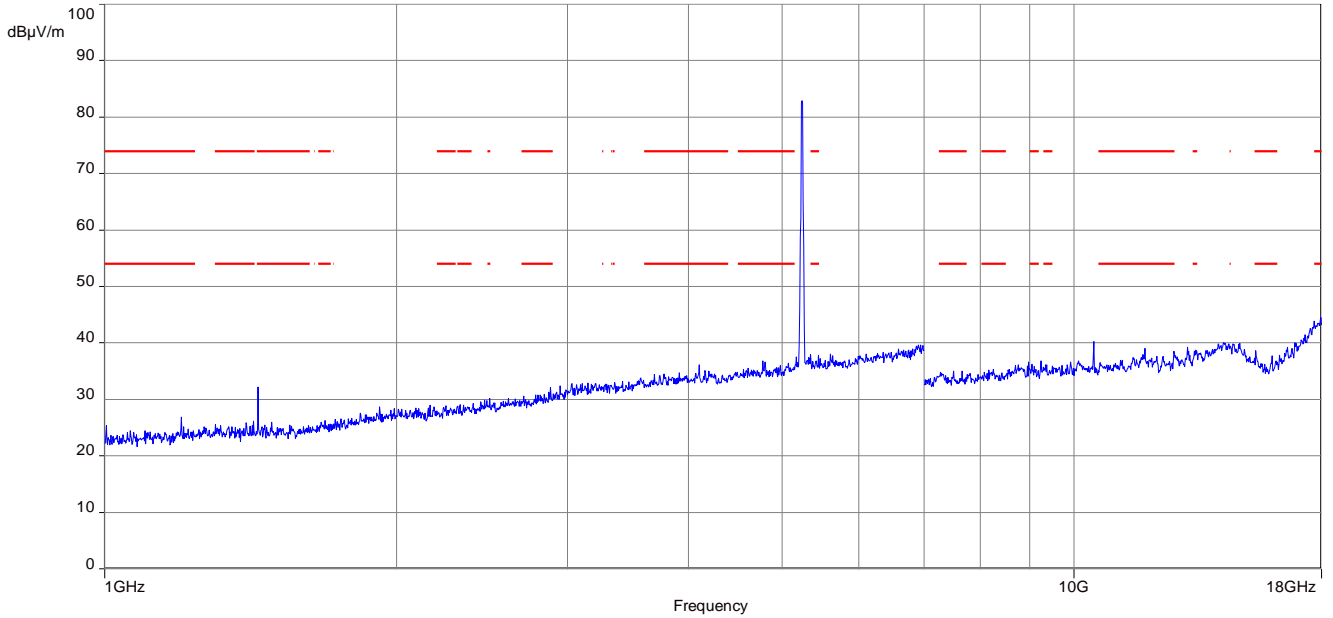
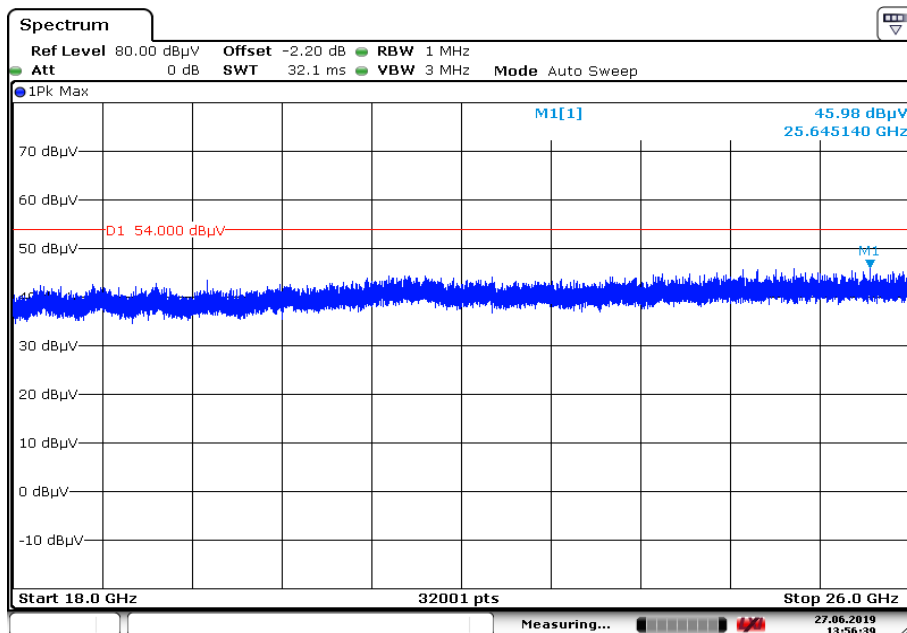


Plot 6: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-1; highest channel

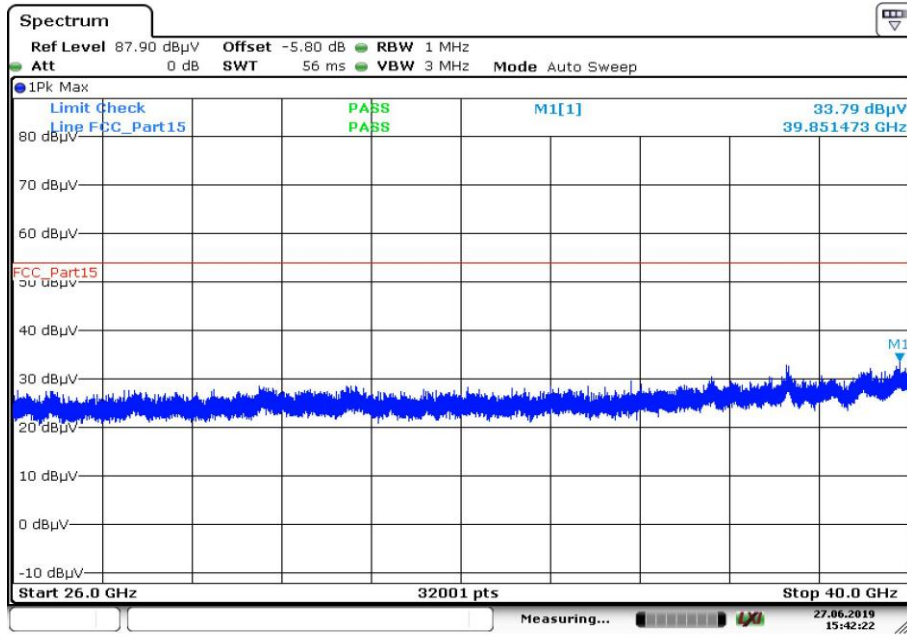


Plot 7: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-1; highest channel



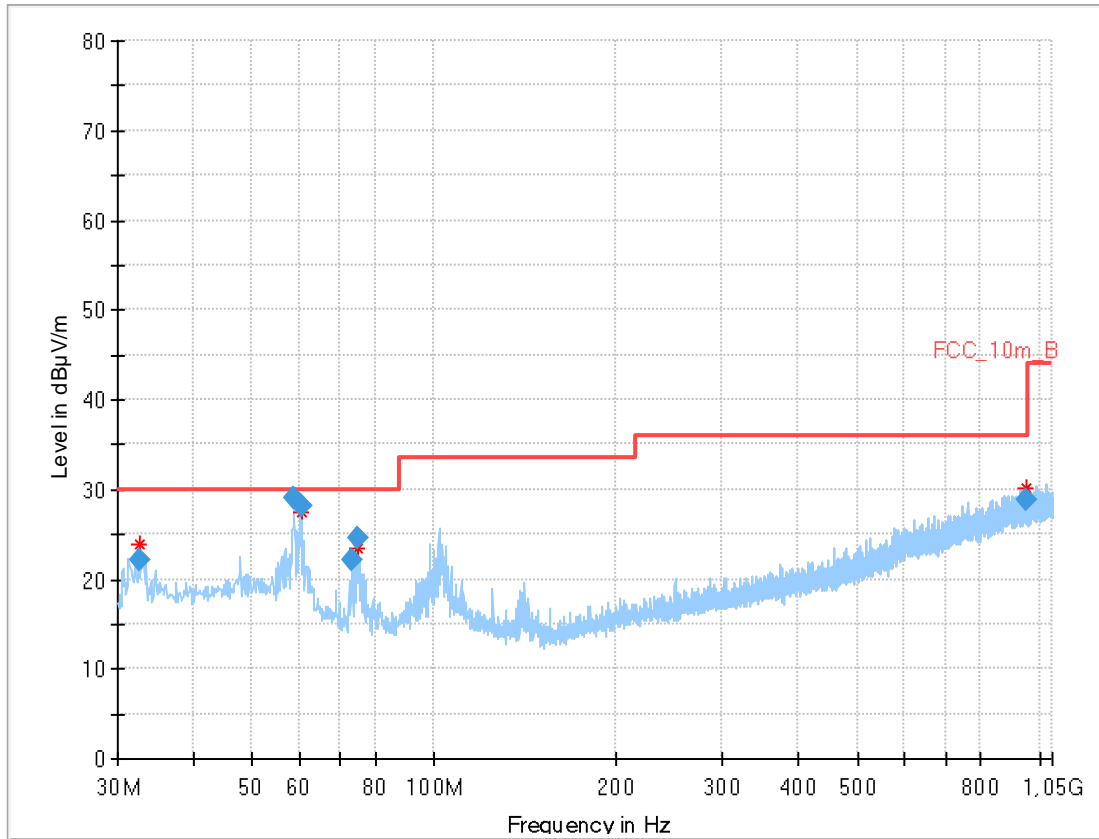
Date: 27 JUN 2019 13:56:39

Plot 8: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-1; highest channel



Date: 27.JUN.2019 15:42:22

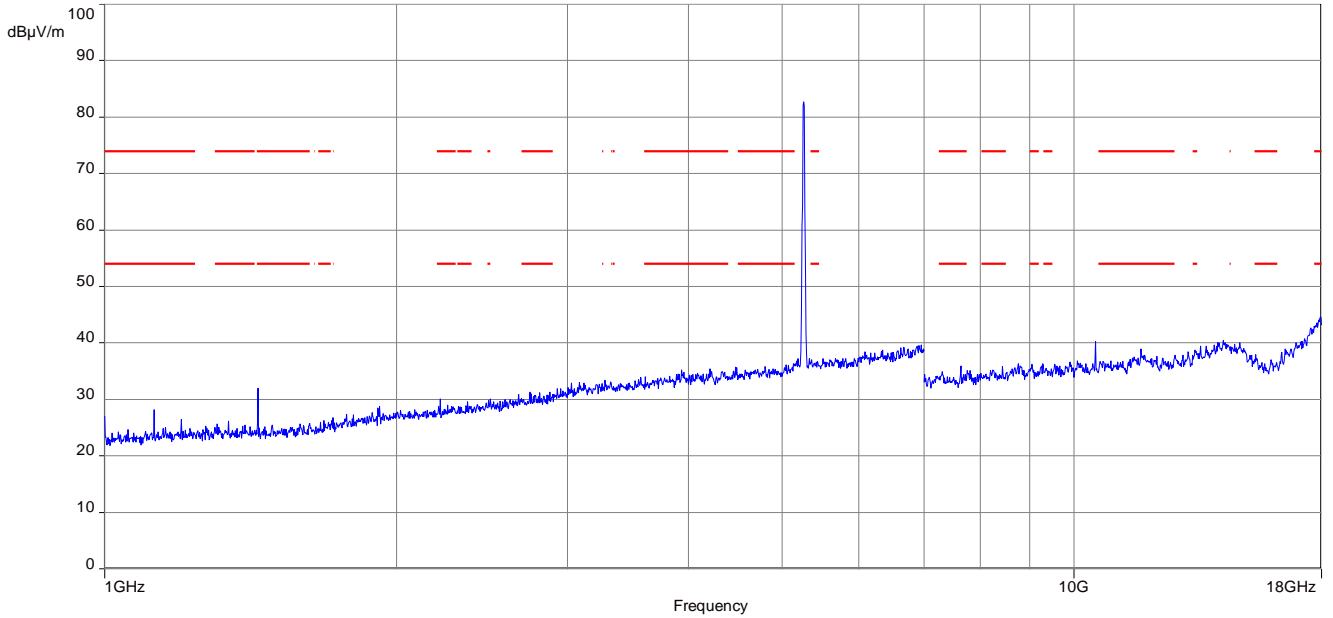
Plot 9: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-2A; lowest channel



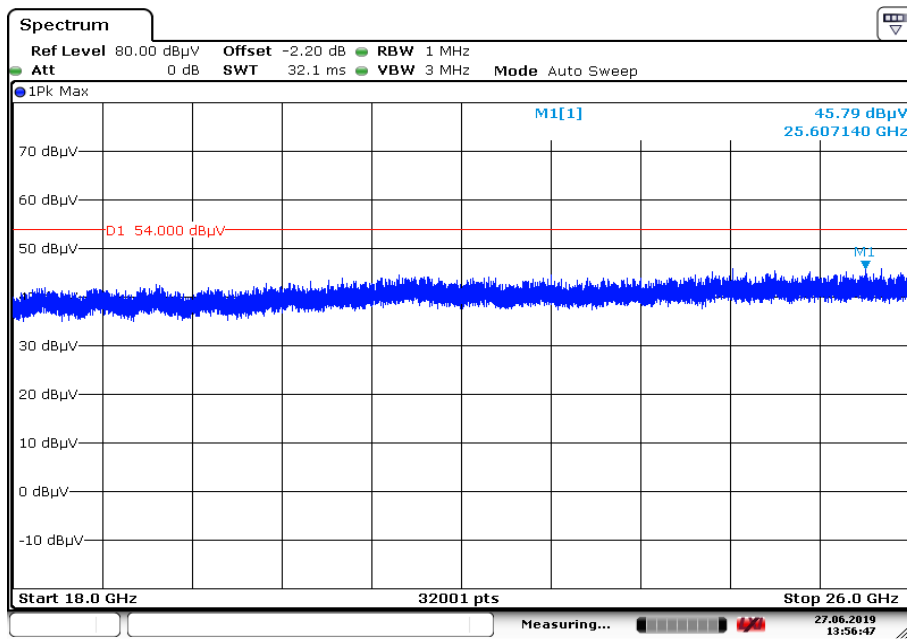
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.586	22.19	30.0	7.81	1000	120	101.0	V	55.0	13
58.703	29.11	30.0	0.89	1000	120	101.0	V	2.0	13
60.211	28.17	30.0	1.83	1000	120	170.0	V	81.0	13
73.172	22.07	30.0	7.93	1000	120	170.0	V	348.0	11
74.548	24.59	30.0	5.41	1000	120	170.0	V	359.0	11
947.925	28.73	36.0	7.27	1000	120	170.0	V	191.0	24

Plot 10: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-2A; lowest channel

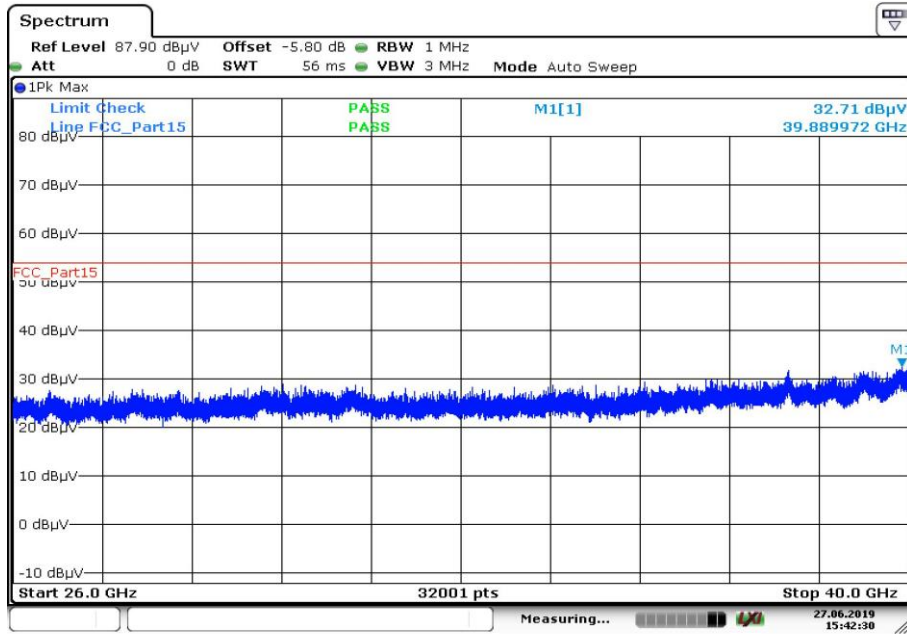


Plot 11: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-2A; lowest channel



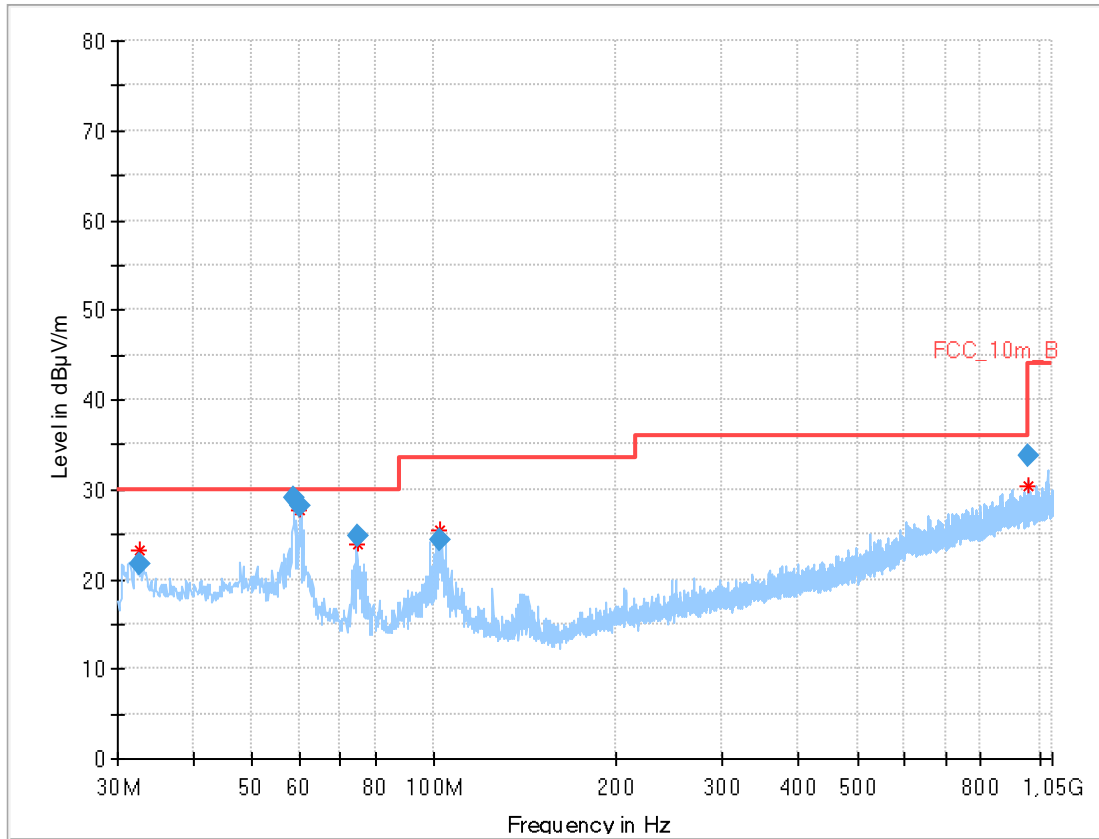
Date: 27 JUN 2019 13:56:47

Plot 12: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-2A; lowest channel



Date: 27.JUN.2019 15:42:30

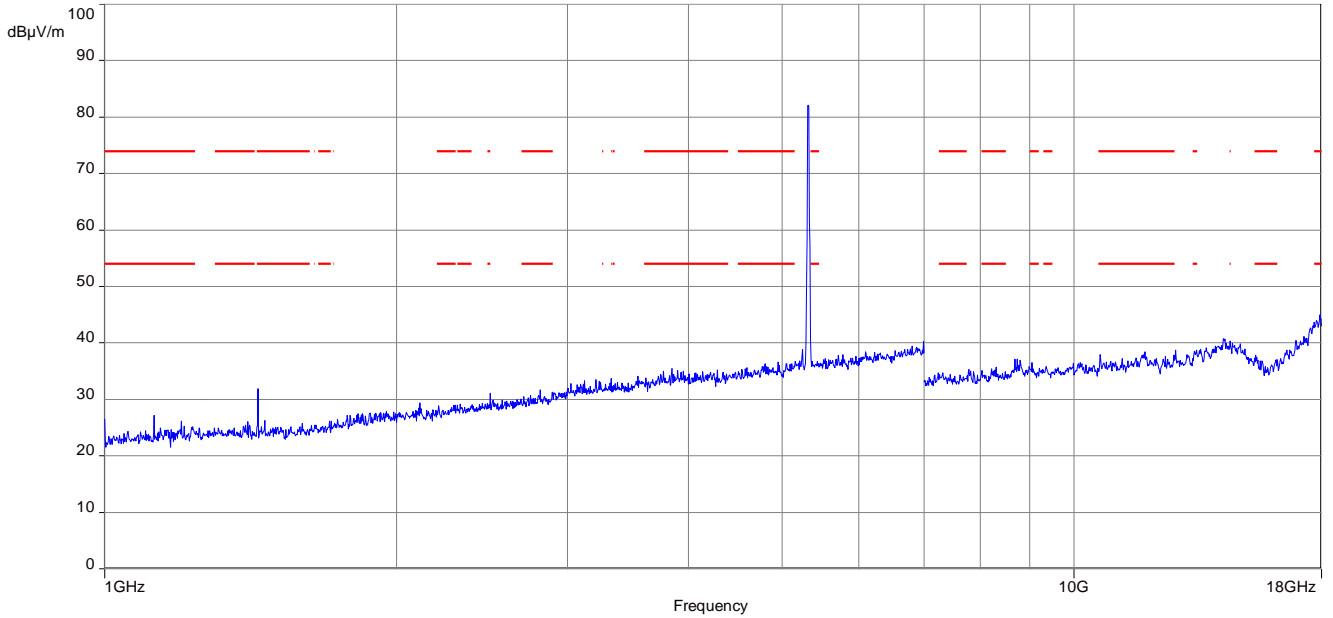
Plot 13: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-2A; highest channel



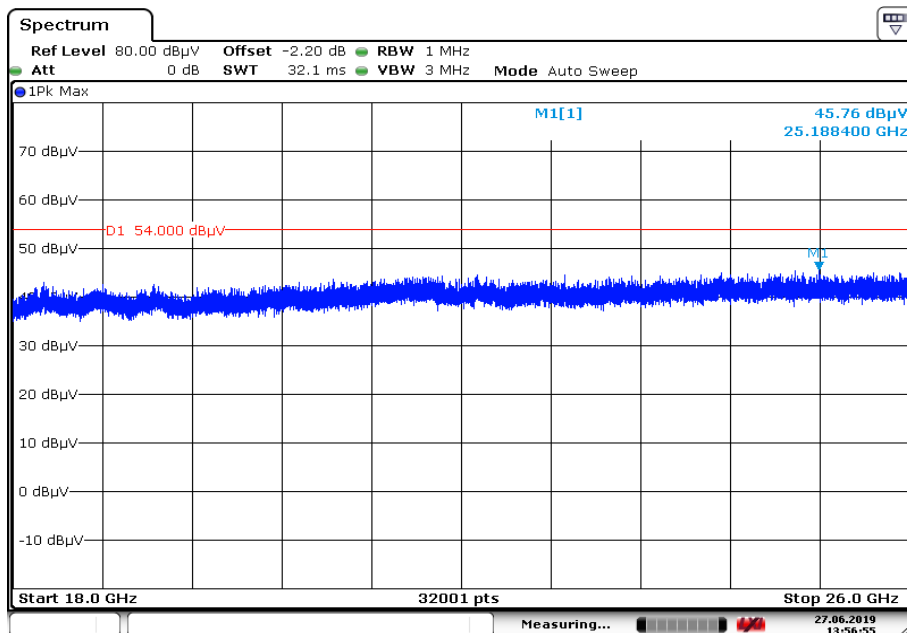
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.602	21.64	30.0	8.36	1000	120	145.0	V	323.0	13
58.715	29.15	30.0	0.85	1000	120	170.0	V	-8.0	13
60.199	28.05	30.0	1.95	1000	120	170.0	V	-9.0	13
74.565	24.85	30.0	5.15	1000	120	170.0	V	338.0	11
101.900	24.46	33.5	9.04	1000	120	170.0	V	351.0	13
959.990	33.71	36.0	2.29	1000	120	101.0	H	4.0	24

Plot 14: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-2A; highest channel

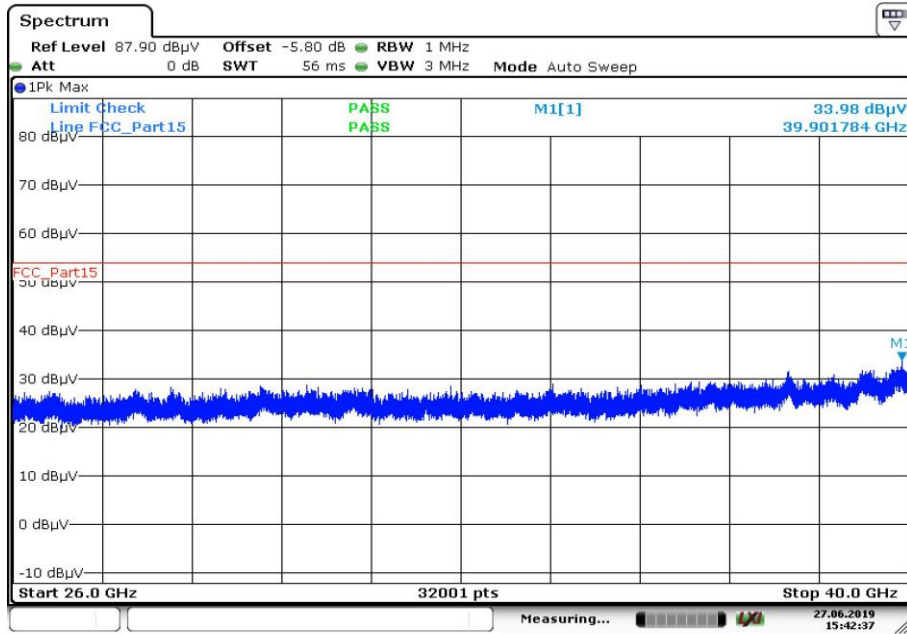


Plot 15: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-2A; highest channel



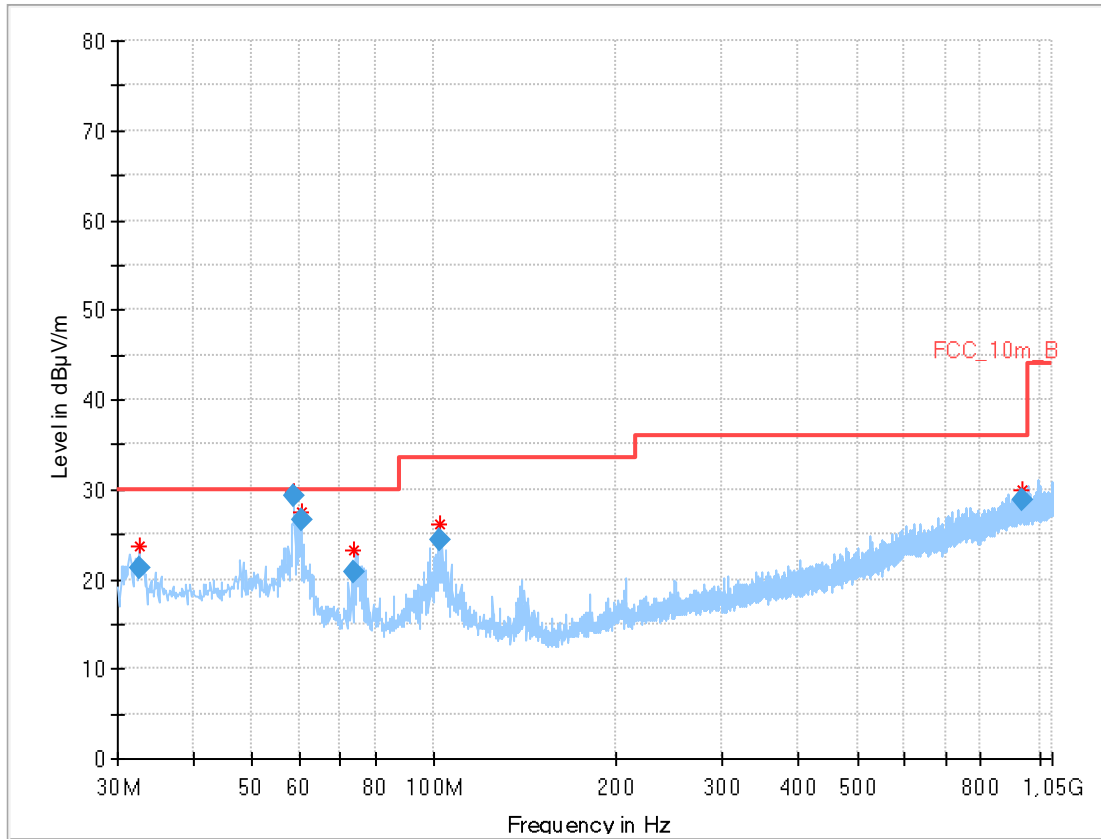
Date: 27 JUN 2019 13:56:55

Plot 16: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-2A; highest channel



Date: 27.JUN.2019 15:42:38

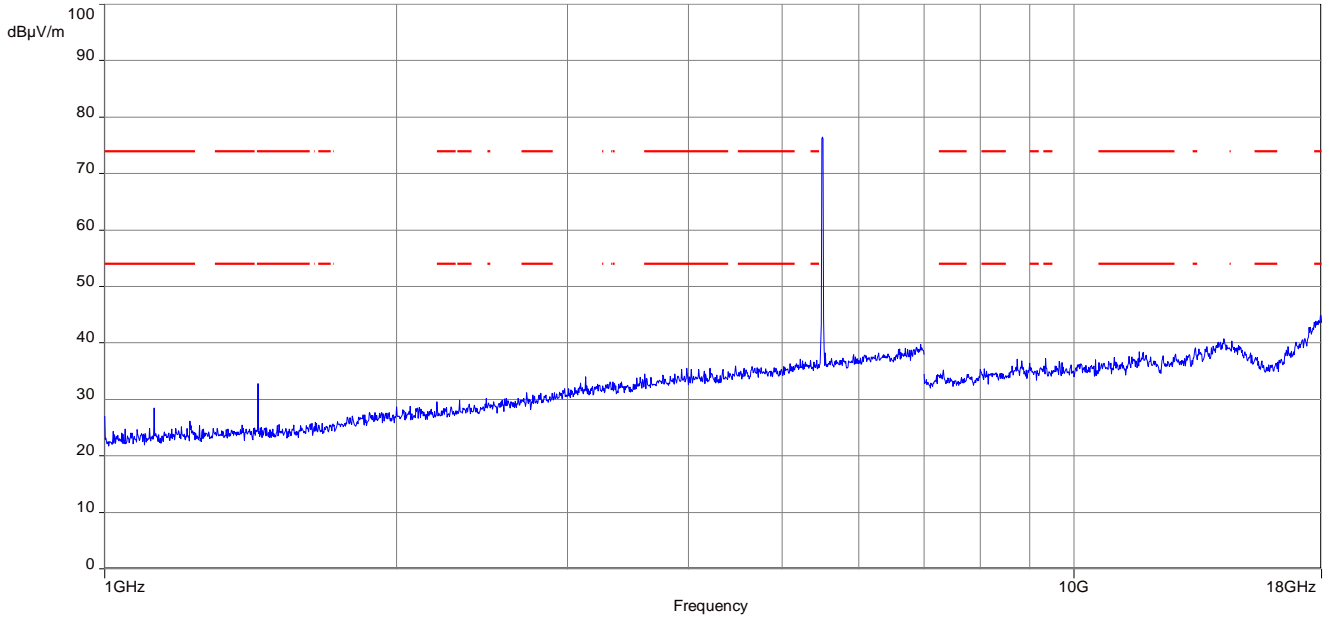
Plot 17: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-2C; lowest channel



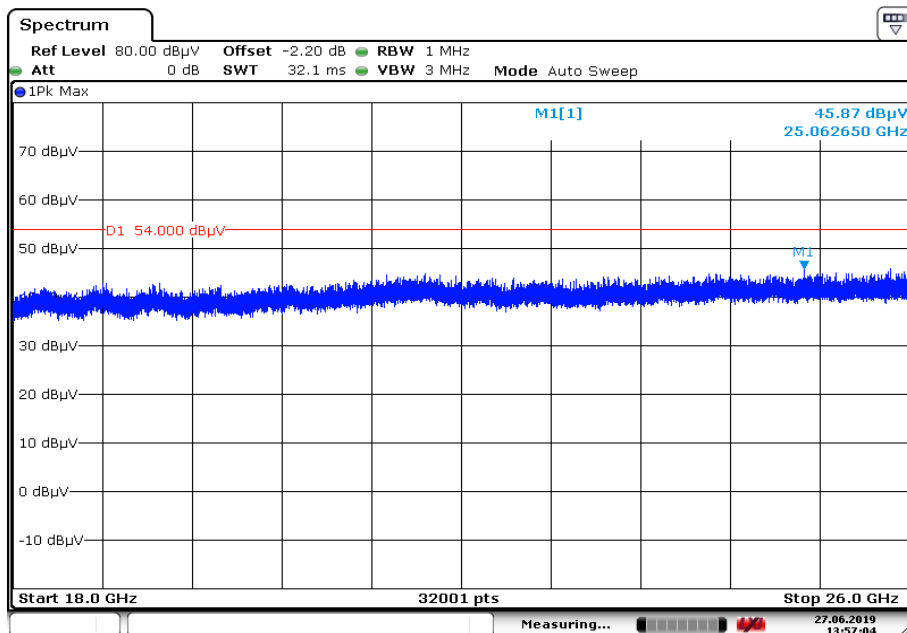
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.598	21.16	30.0	8.84	1000	120	145.0	V	174.0	13
58.704	29.26	30.0	0.74	1000	120	170.0	V	3.0	13
60.233	26.65	30.0	3.35	1000	120	101.0	V	10.0	13
73.901	20.85	30.0	9.15	1000	120	101.0	V	344.0	11
101.895	24.32	33.5	9.18	1000	120	101.0	V	353.0	13
935.239	28.79	36.0	7.21	1000	120	101.0	V	234.0	24

Plot 18: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-2C; lowest channel

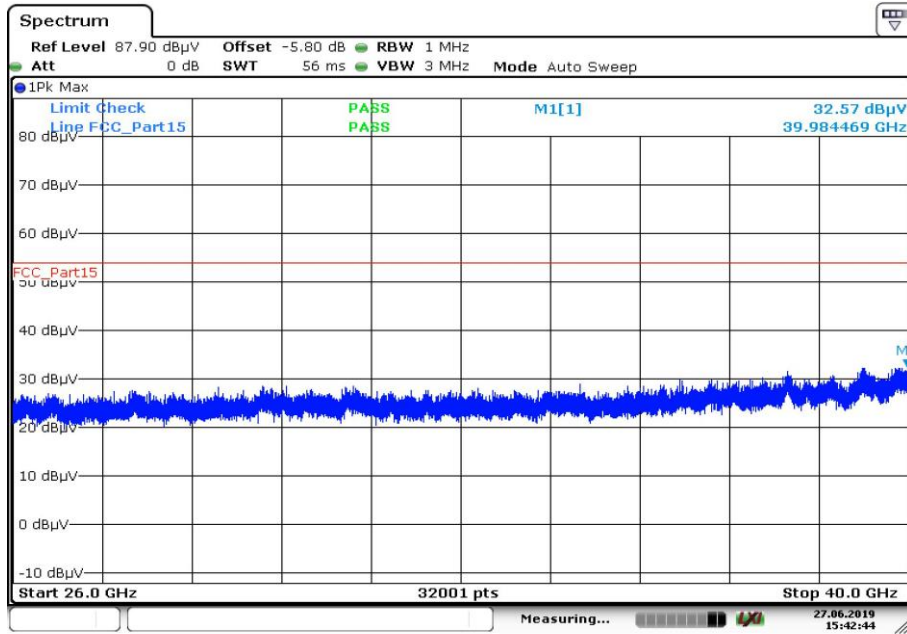


Plot 19: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-2C; lowest channel



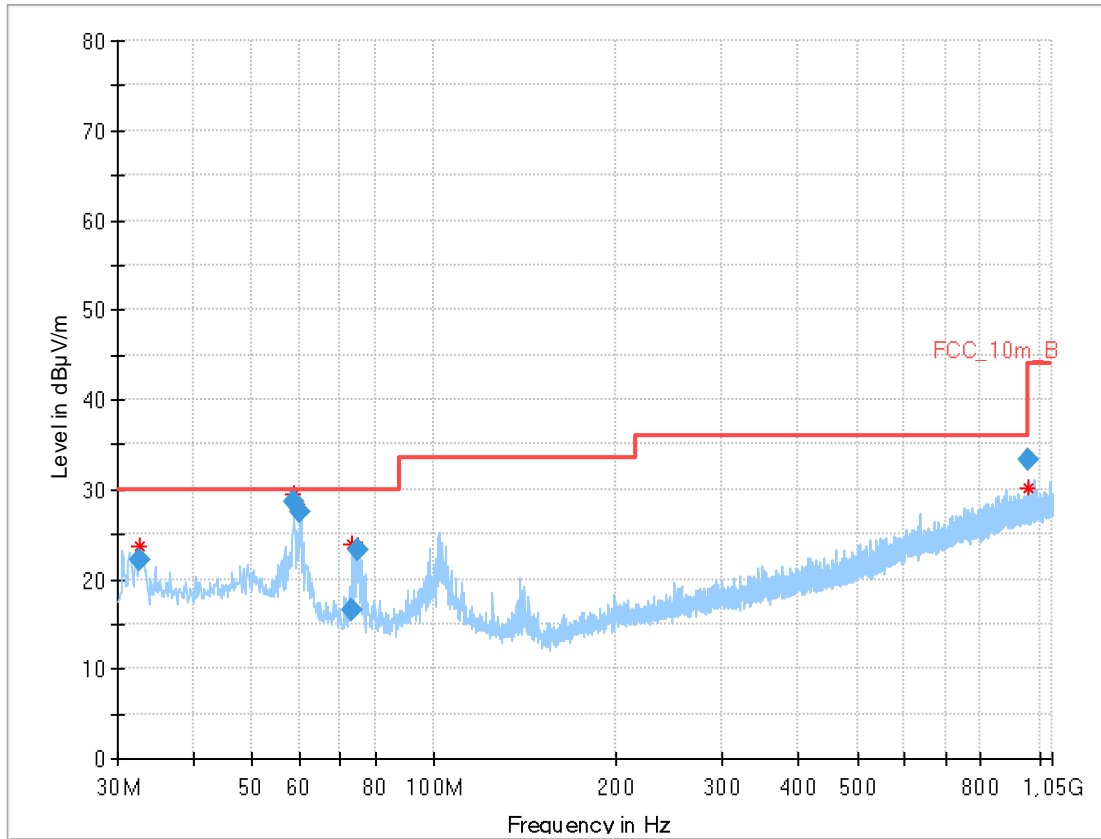
Date: 27 JUN 2019 13:57:04

Plot 20: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-2C; lowest channel



Date: 27.JUN.2019 15:42:44

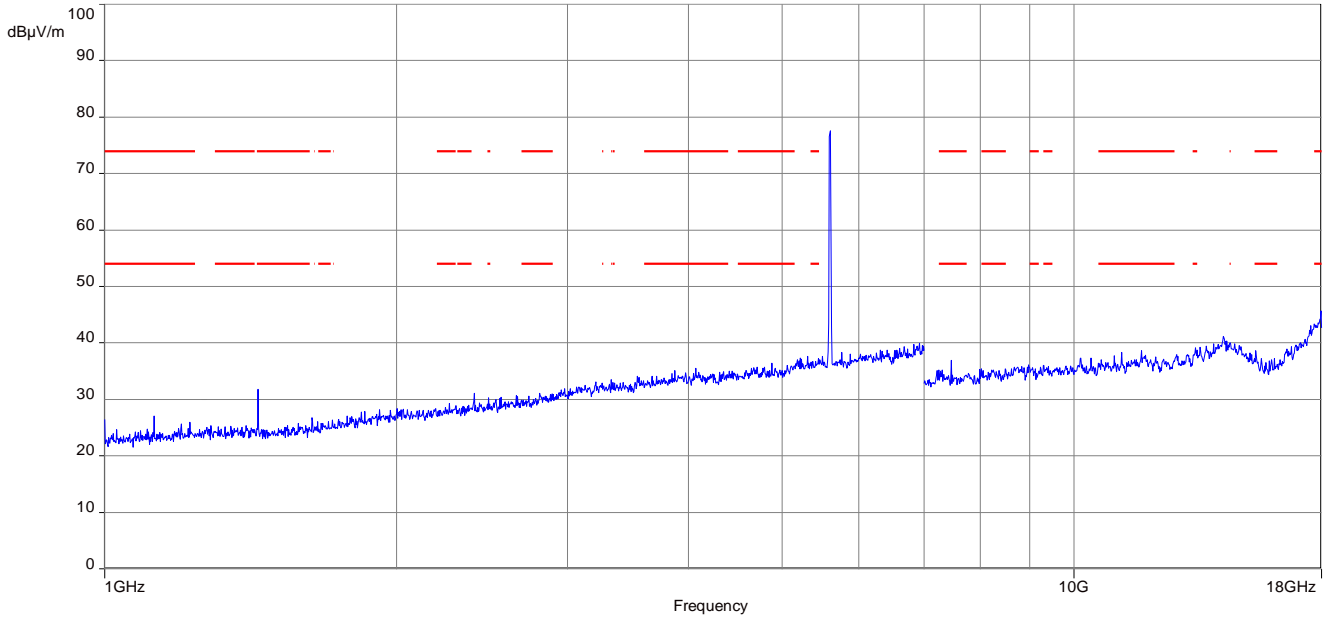
Plot 21: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-2C; middle channel



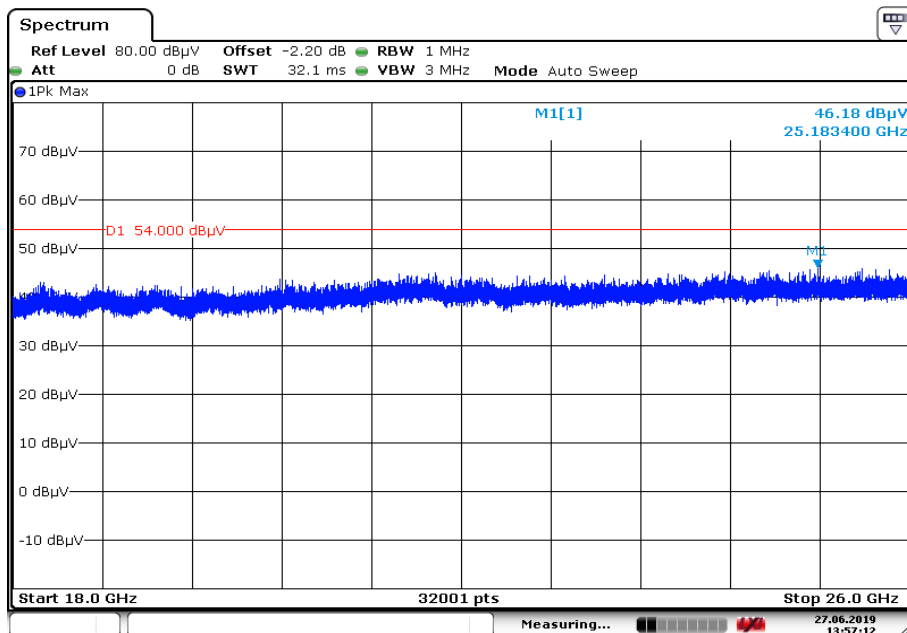
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.616	22.05	30.0	7.95	1000	120	101.0	V	10.0	13
58.724	28.55	30.0	1.45	1000	120	101.0	V	352.0	13
60.195	27.52	30.0	2.48	1000	120	143.0	V	-5.0	13
73.192	16.43	30.0	13.57	1000	120	101.0	V	0.0	11
74.559	23.32	30.0	6.68	1000	120	101.0	V	345.0	11
960.026	33.33	44.0	10.67	1000	120	98.0	H	5.0	24

Plot 22: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-2C; middle channel

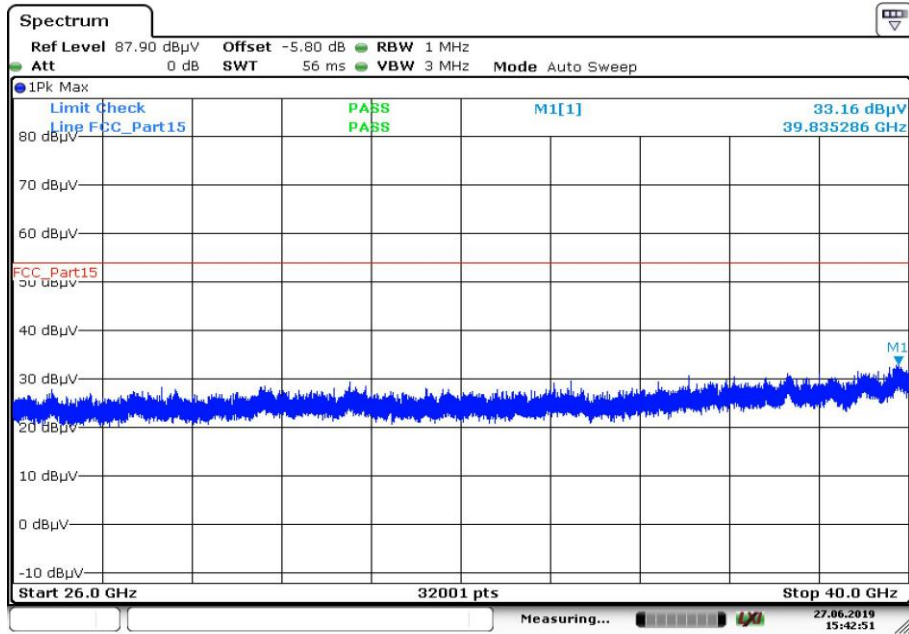


Plot 23: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-2C; middle channel



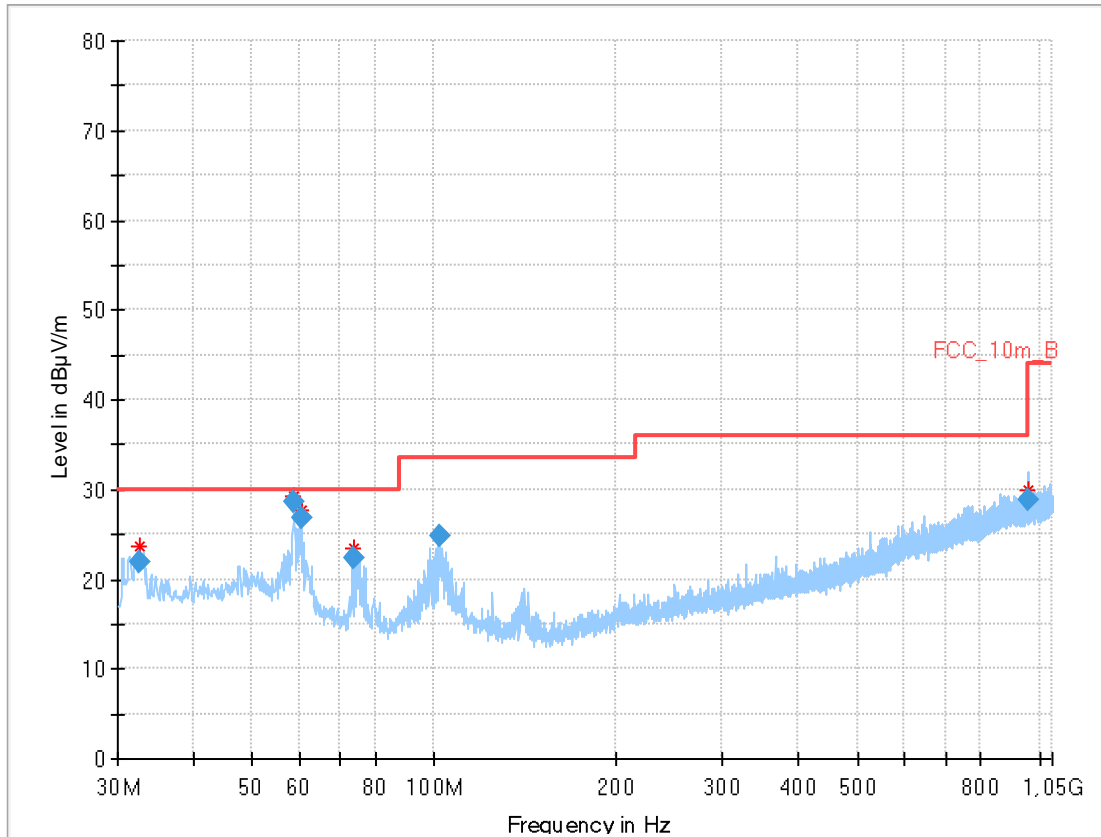
Date: 27 JUN 2019 13:57:13

Plot 24: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-2C; middle channel



Date: 27.JUN.2019 15:42:51

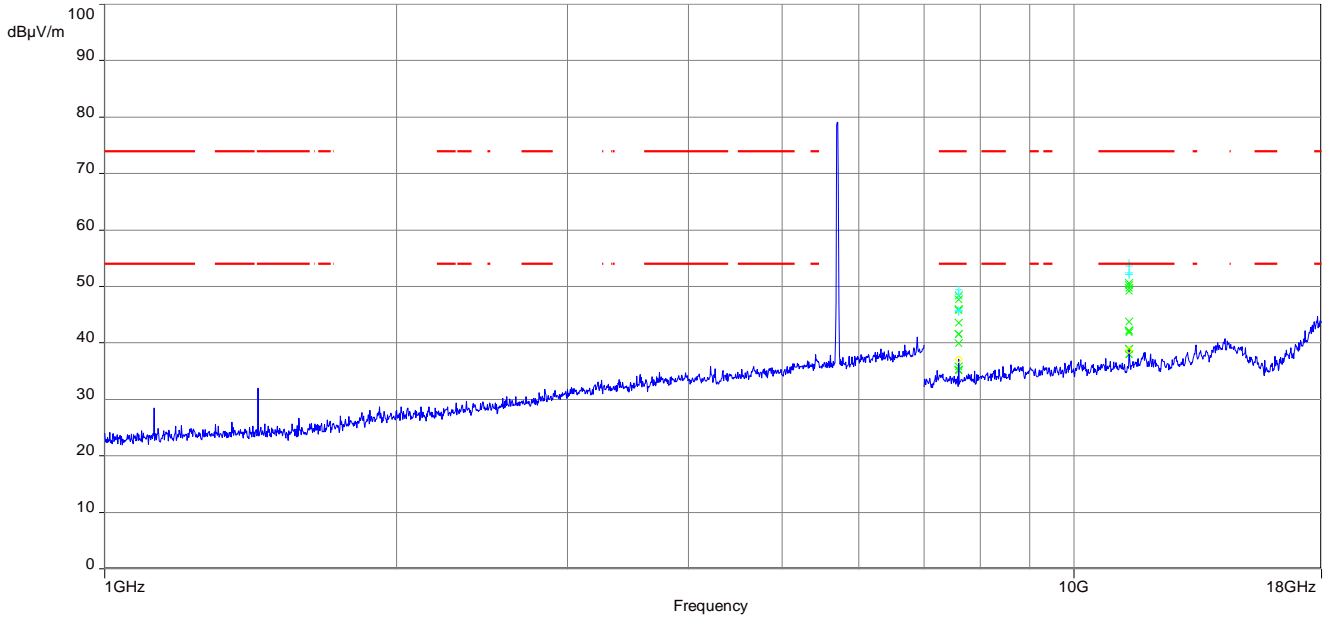
Plot 25: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-2C; highest channel



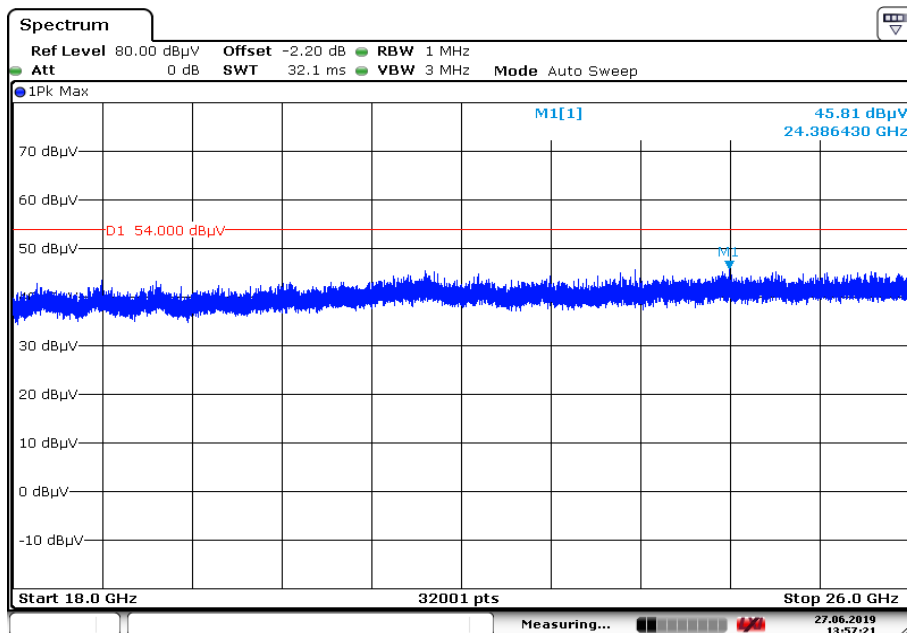
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.623	21.88	30.0	8.12	1000	120	101.0	V	128.0	13
58.719	28.69	30.0	1.31	1000	120	101.0	V	328.0	13
60.223	26.77	30.0	3.23	1000	120	101.0	V	332.0	13
73.947	22.31	30.0	7.69	1000	120	170.0	V	345.0	11
101.873	24.74	33.5	8.76	1000	120	170.0	V	355.0	13
956.542	28.76	36.0	7.24	1000	120	170.0	H	85.0	24

Plot 26: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-2C; highest channel

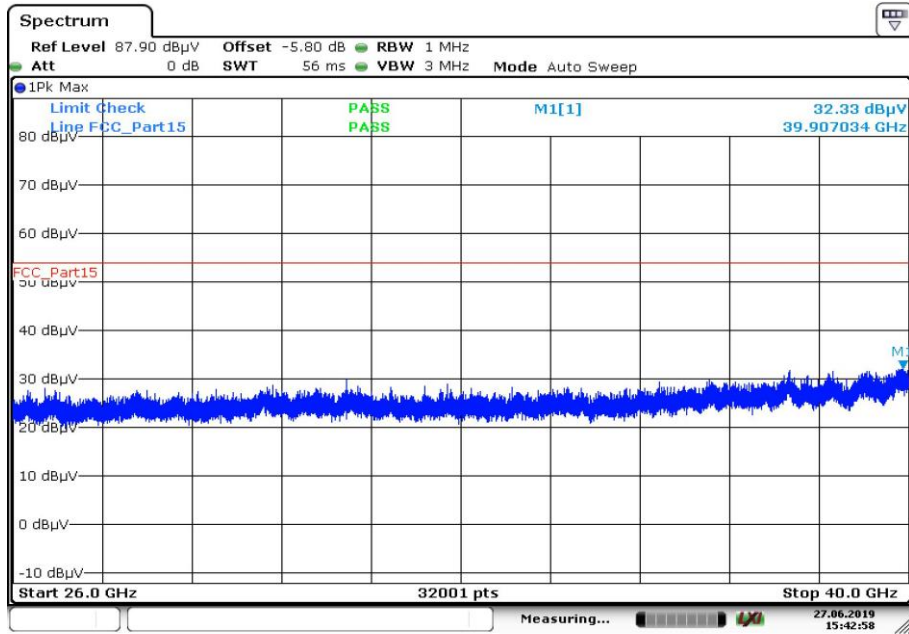


Plot 27: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-2C; highest channel



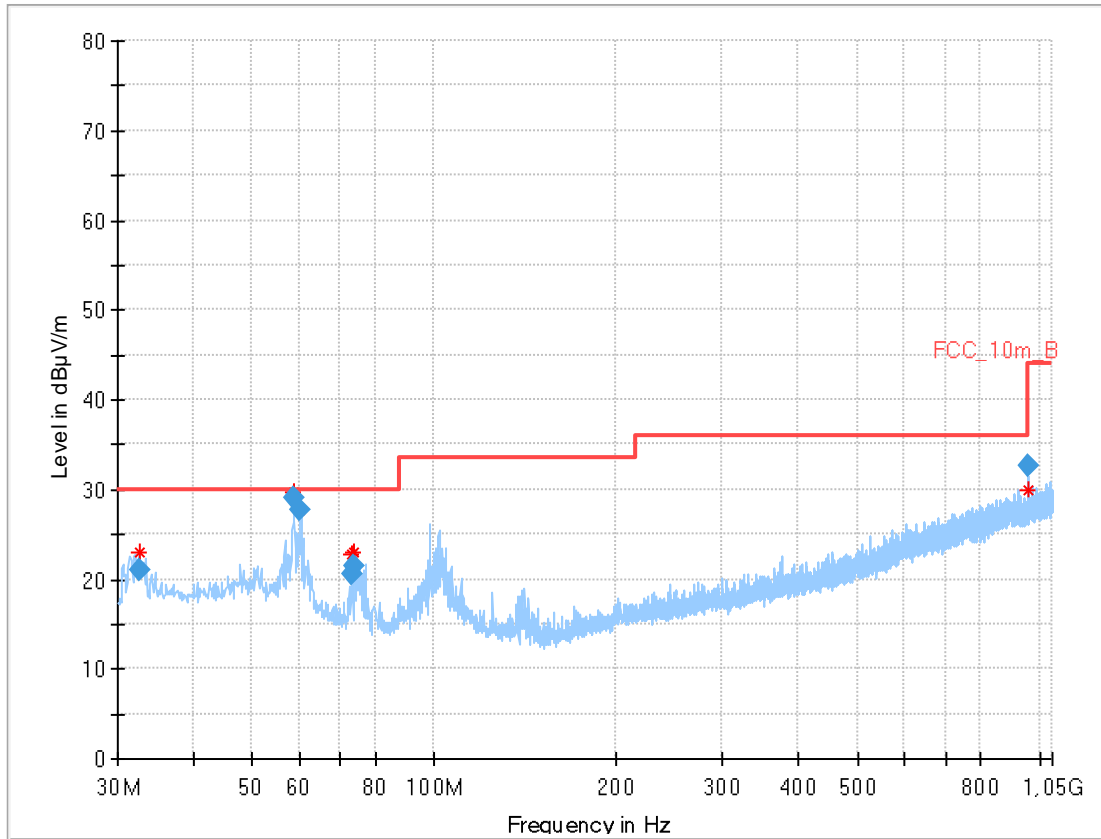
Date: 27 JUN 2019 13:57:21

Plot 28: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-2C; highest channel



Date: 27.JUN.2019 15:42:58

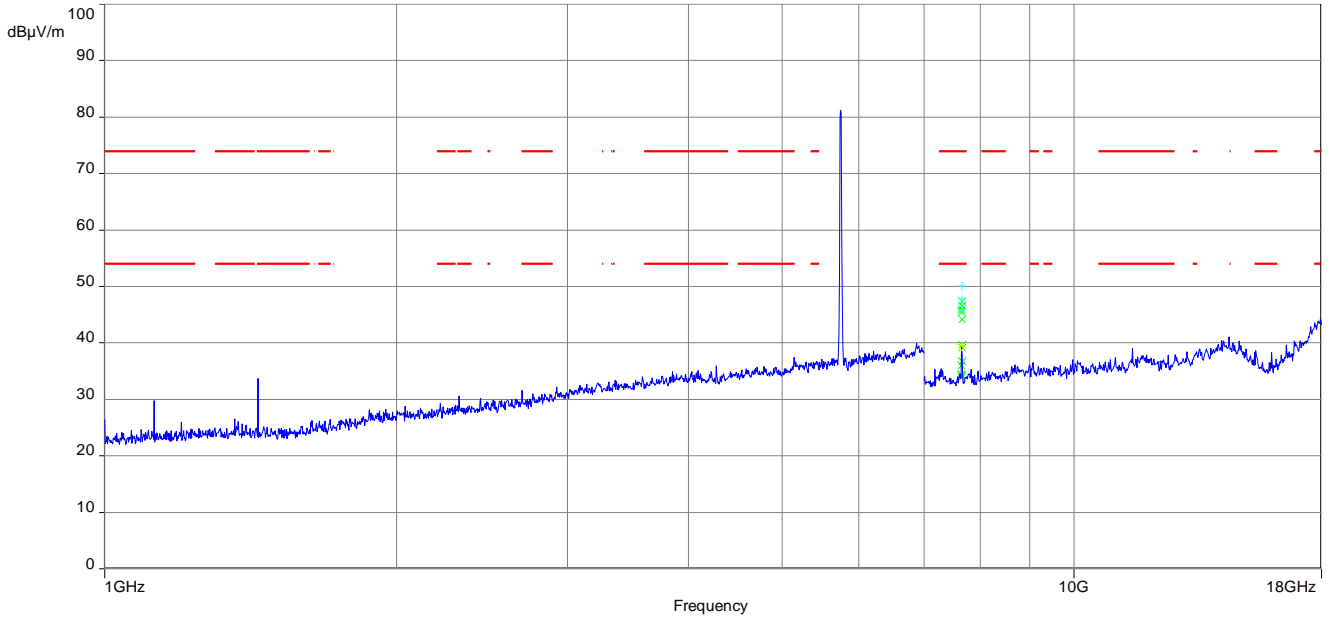
Plot 29: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-3; lowest channel



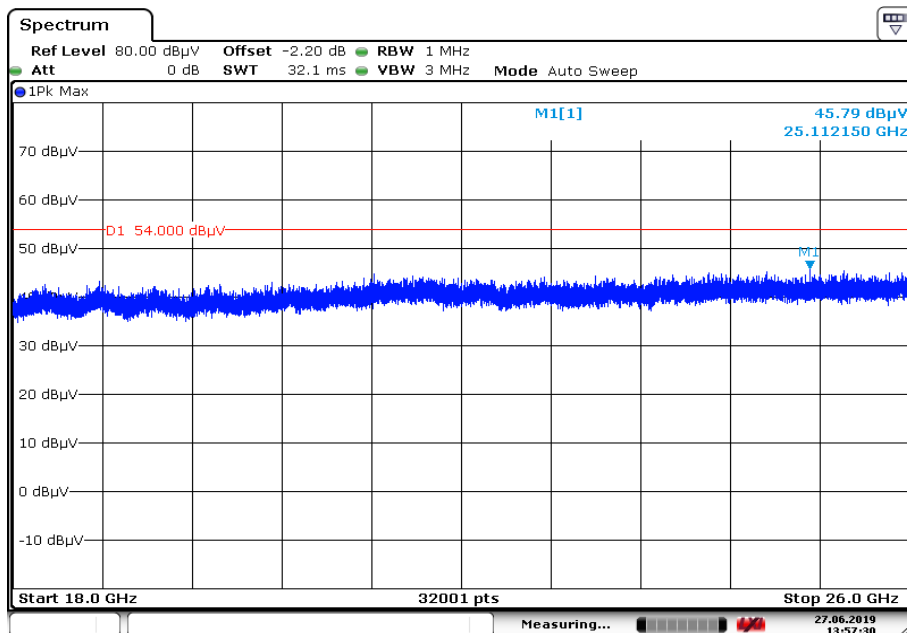
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.571	20.95	30.0	9.05	1000	120	143.0	V	323.0	13
58.704	28.99	30.0	1.01	1000	120	98.0	V	-9.0	13
60.199	27.71	30.0	2.29	1000	120	149.0	V	-4.0	13
73.199	20.67	30.0	9.33	1000	120	104.0	V	349.0	11
73.891	21.39	30.0	8.61	1000	120	170.0	V	346.0	11
959.968	32.61	36.0	3.39	1000	120	98.0	H	10.0	24

Plot 30: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-3; lowest channel

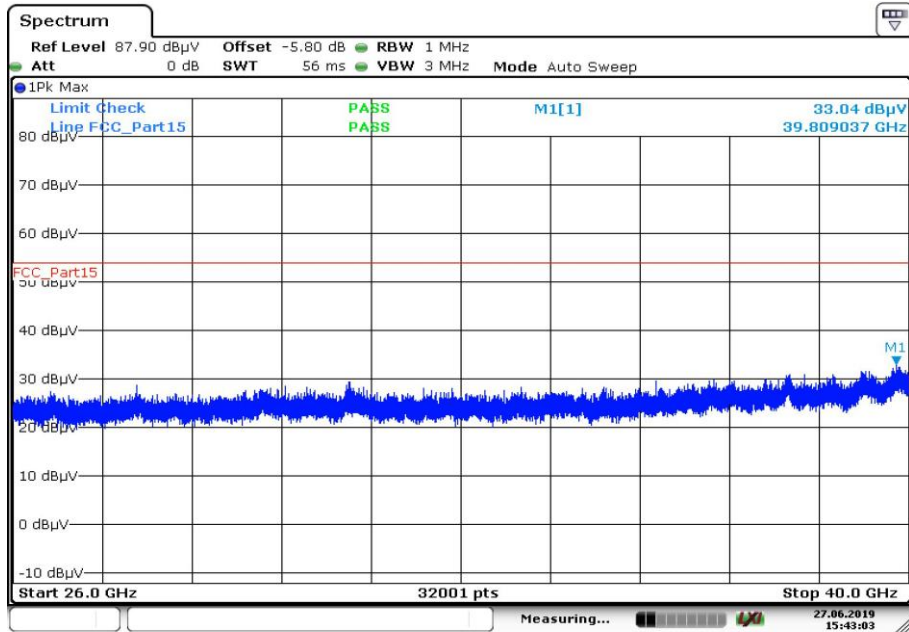


Plot 31: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-3; lowest channel



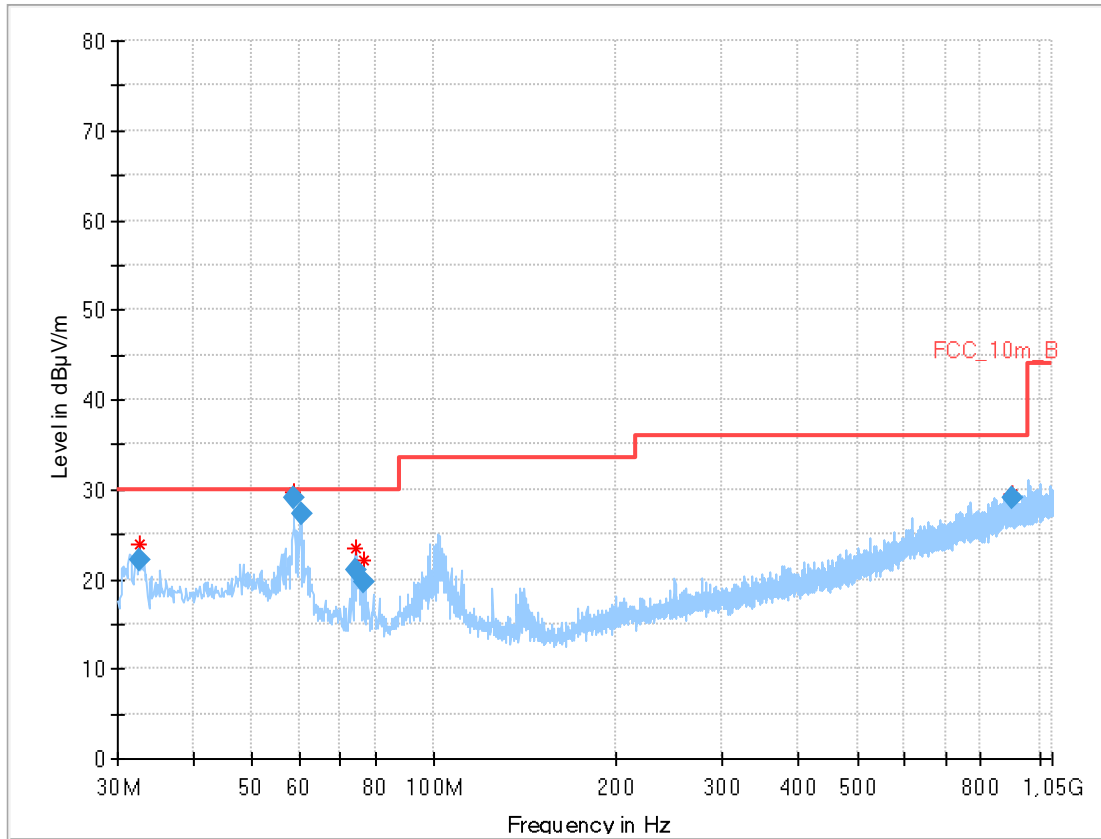
Date: 27 JUN 2019 13:57:29

Plot 32: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-3; lowest channel



Date: 27.JUN.2019 15:43:04

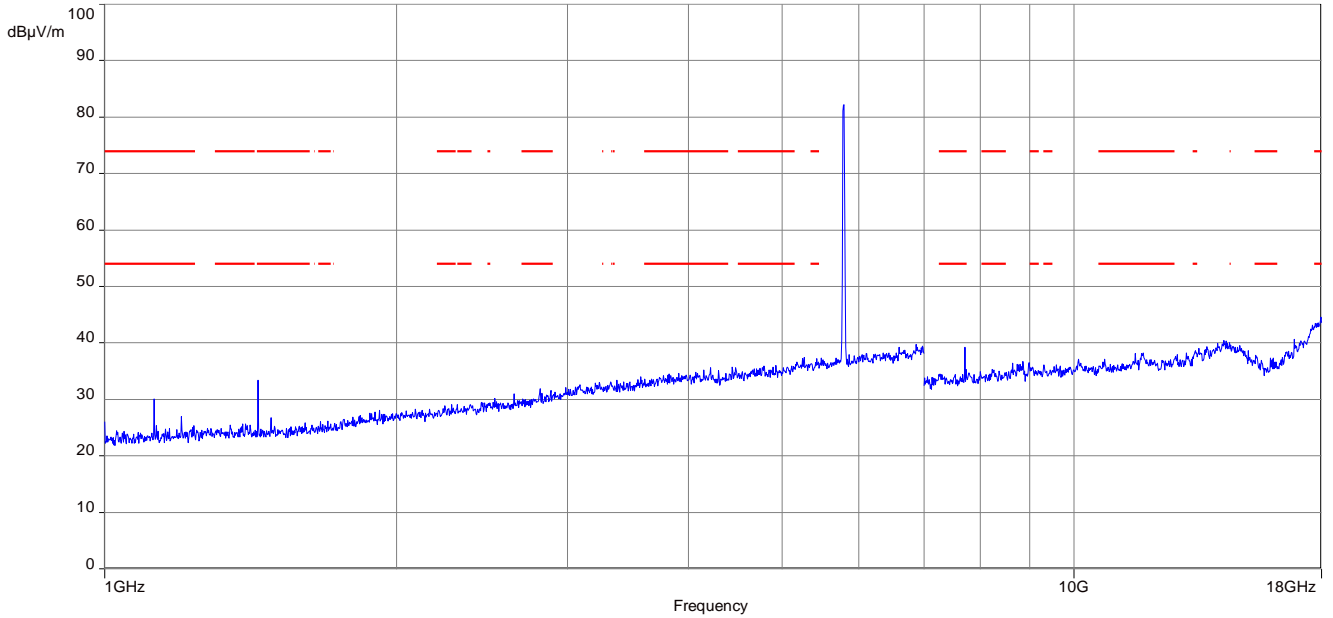
Plot 33: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-3; middle channel



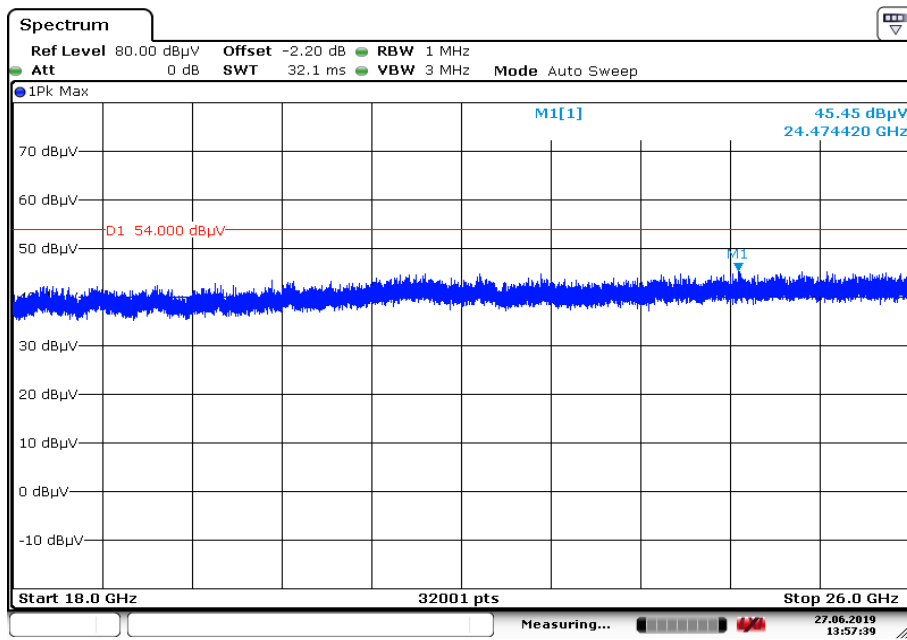
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.602	22.14	30.0	7.86	1000	120	101.0	V	194.0	13
58.707	29.14	30.0	0.86	1000	120	170.0	V	-5.0	13
60.224	27.25	30.0	2.75	1000	120	101.0	V	77.0	13
73.986	21.04	30.0	8.96	1000	120	101.0	V	351.0	11
76.535	19.75	30.0	10.25	1000	120	145.0	V	310.0	11
899.953	29.08	36.0	6.92	1000	120	170.0	V	253.0	24

Plot 34: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-3; middle channel

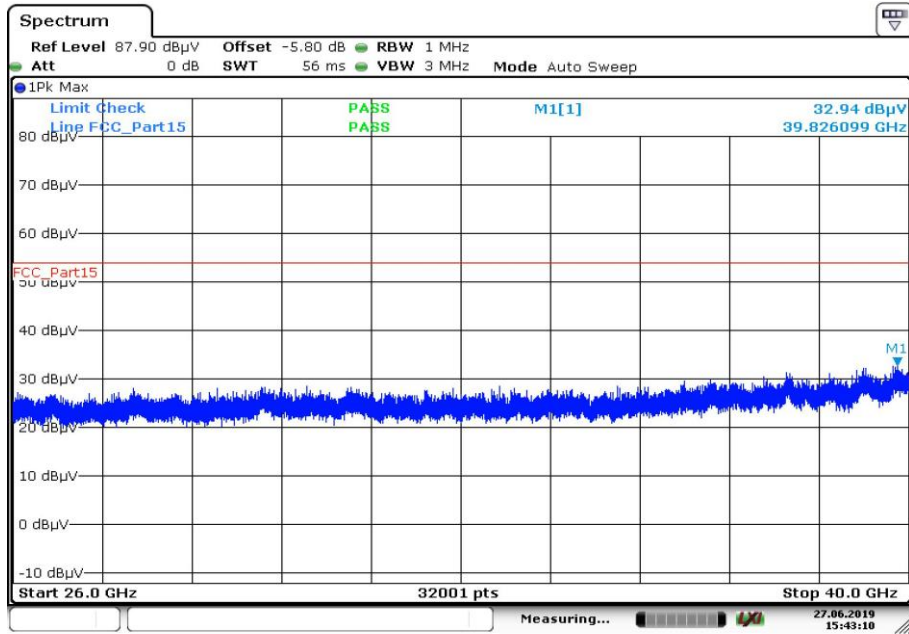


Plot 35: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-3; middle channel



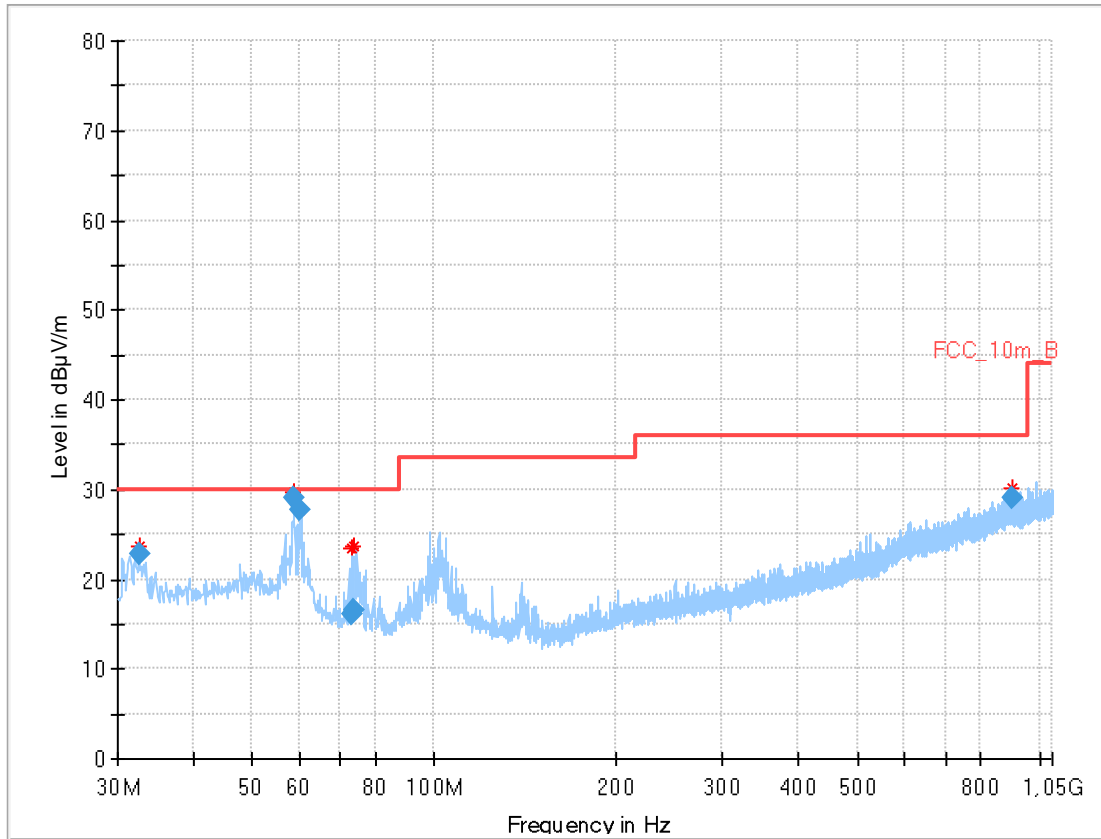
Date: 27 JUN 2019 13:57:39

Plot 36: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-3; middle channel



Date: 27.JUN.2019 15:43:10

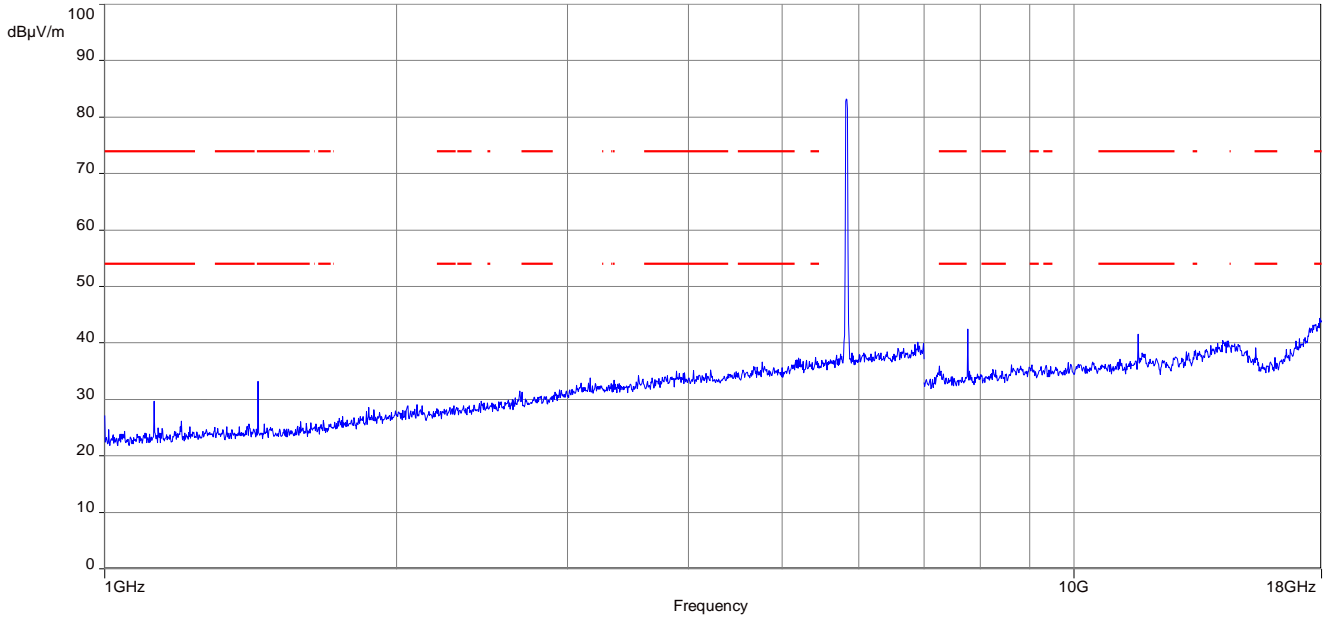
Plot 37: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-3; highest channel



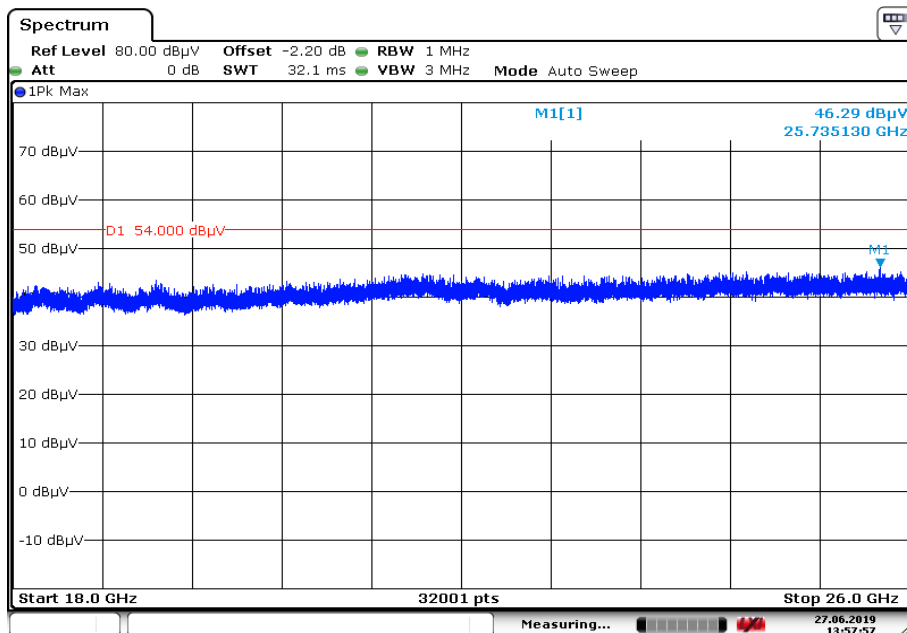
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.604	22.77	30.0	7.23	1000	120	101.0	V	27.0	13
58.709	29.14	30.0	0.86	1000	120	170.0	V	-5.0	13
60.200	27.71	30.0	2.29	1000	120	170.0	V	10.0	13
73.179	16.10	30.0	13.90	1000	120	101.0	V	0.0	11
73.928	16.64	30.0	13.36	1000	120	101.0	V	1.0	11
902.447	29.04	36.0	6.96	1000	120	170.0	V	197.0	24

Plot 38: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-3; highest channel

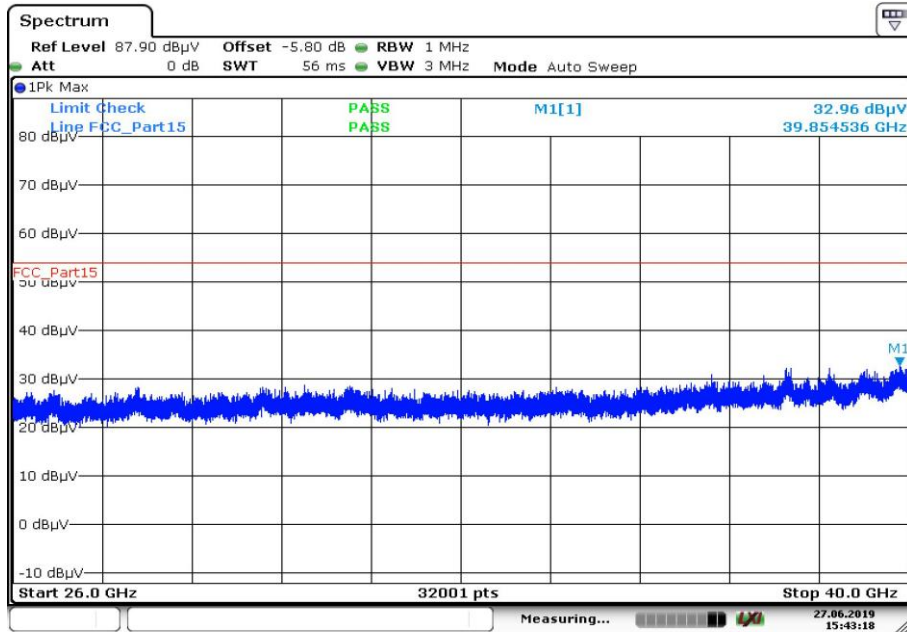


Plot 39: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-3; highest channel



Date: 27 JUN 2019 13:57:57

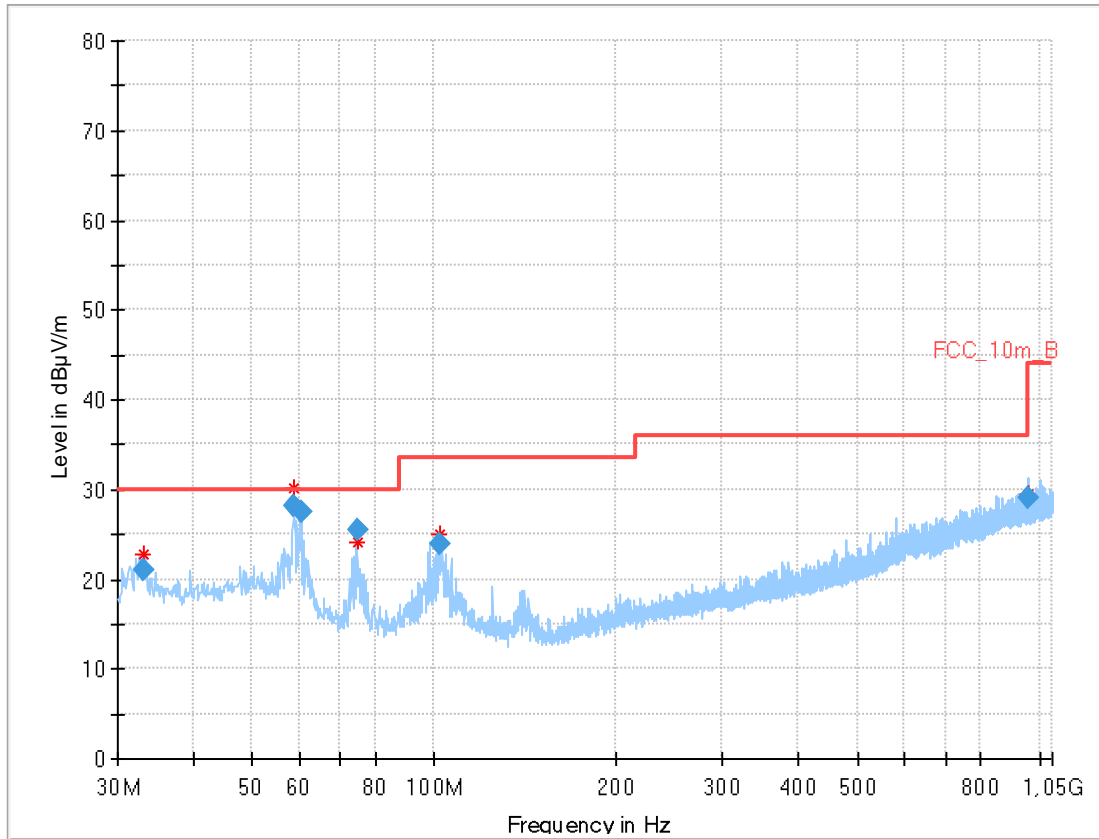
Plot 40: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-3; highest channel



Date: 27.JUN.2019 15:43:18

Plots: 40 MHz channel bandwidth

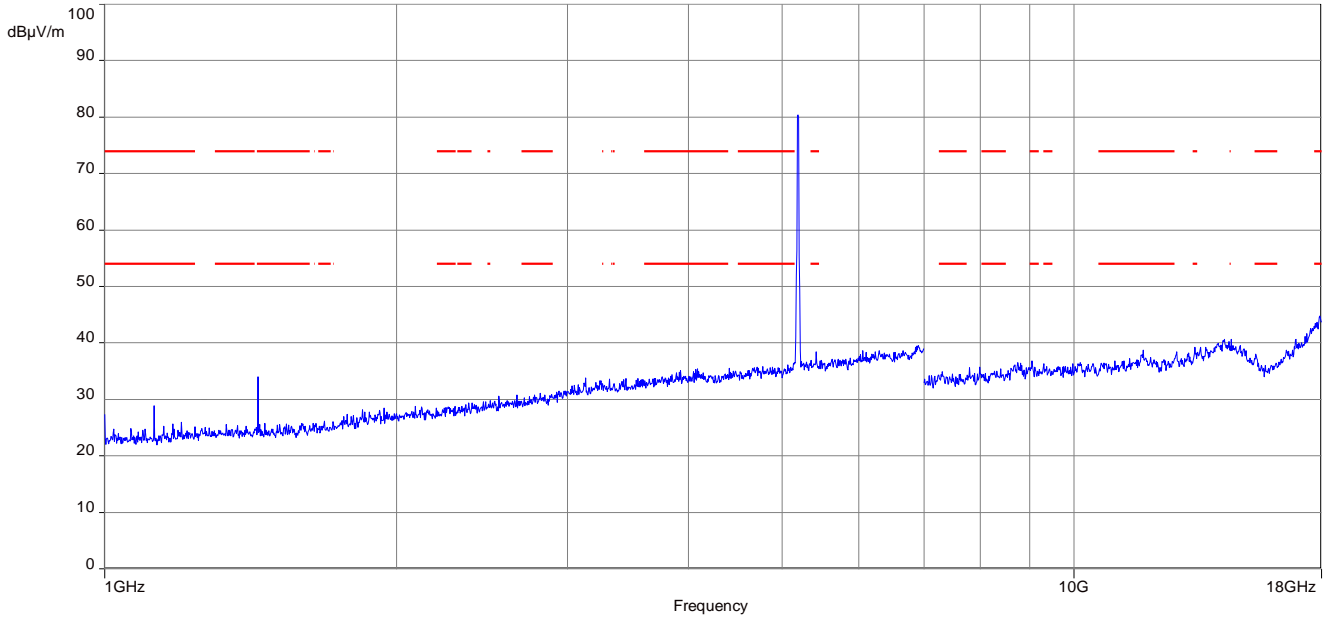
Plot 1: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-1; lowest channel



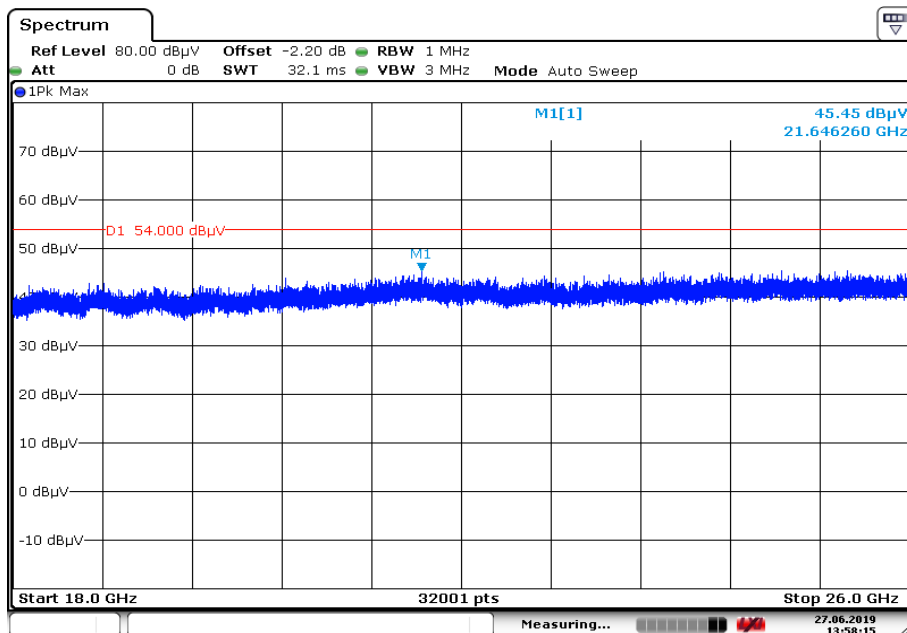
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
33.181	20.95	30.0	9.05	1000	120	100.0	V	116.0	14
58.741	28.05	30.0	1.95	1000	120	170.0	V	58.0	13
60.211	27.51	30.0	2.49	1000	120	101.0	V	63.0	13
74.549	25.46	30.0	4.54	1000	120	170.0	V	310.0	11
101.892	23.84	33.5	9.66	1000	120	170.0	V	0.0	13
959.932	28.98	36.0	7.02	1000	120	101.0	H	126.0	24

Plot 2: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-1; lowest channel

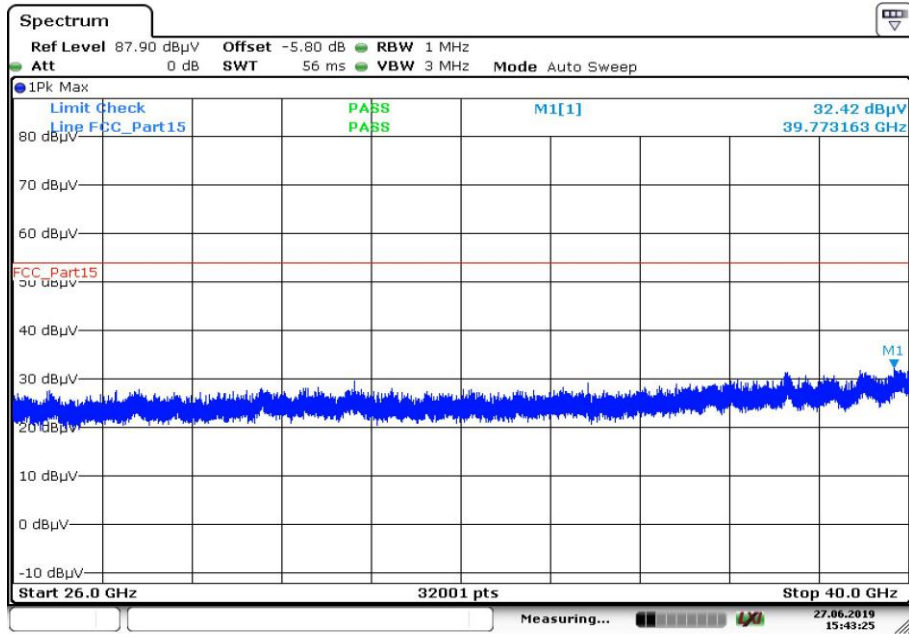


Plot 3: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-1; lowest channel



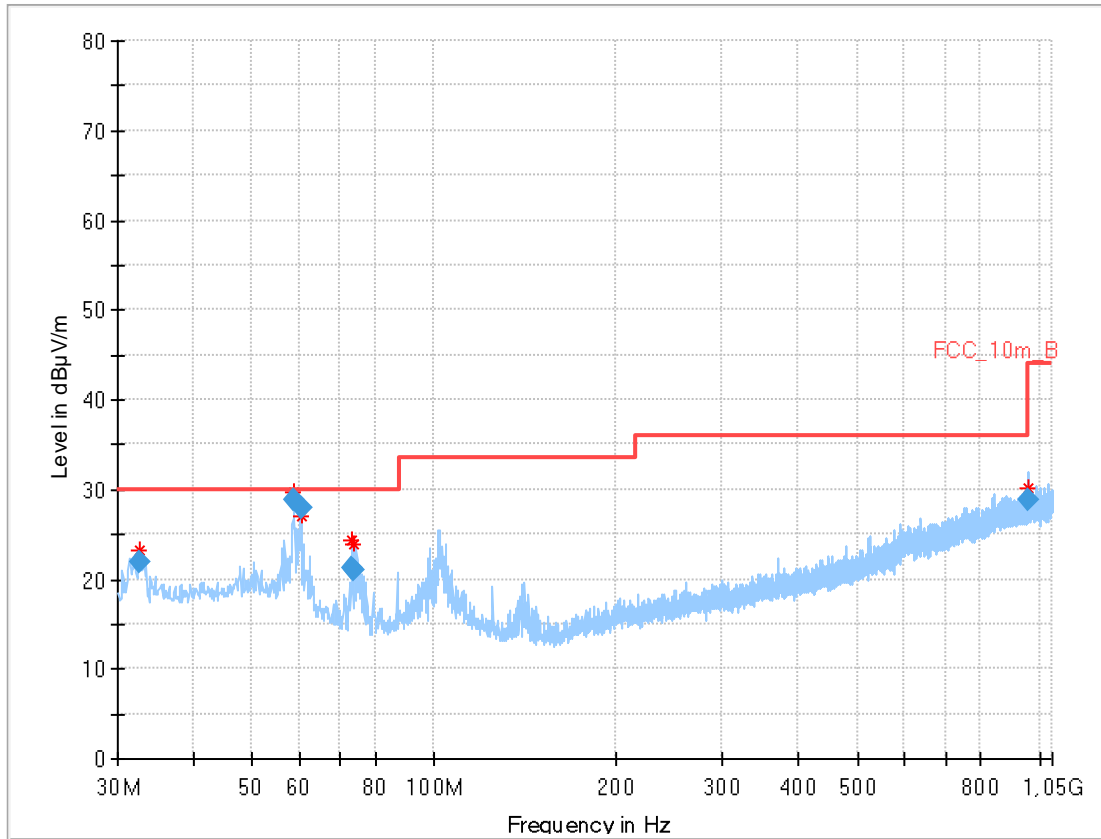
Date: 27 JUN 2019 13:58:15

Plot 4: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-1; lowest channel



Date: 27.JUN.2019 15:43:25

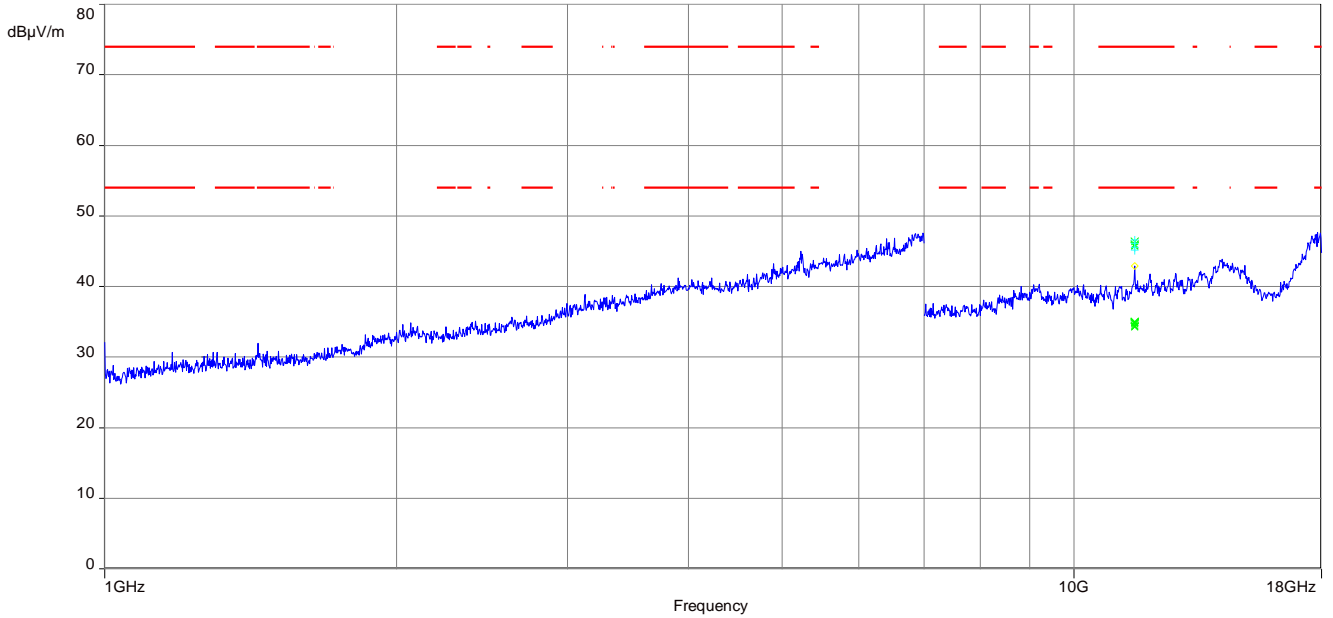
Plot 5: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-1; highest channel



Final results:

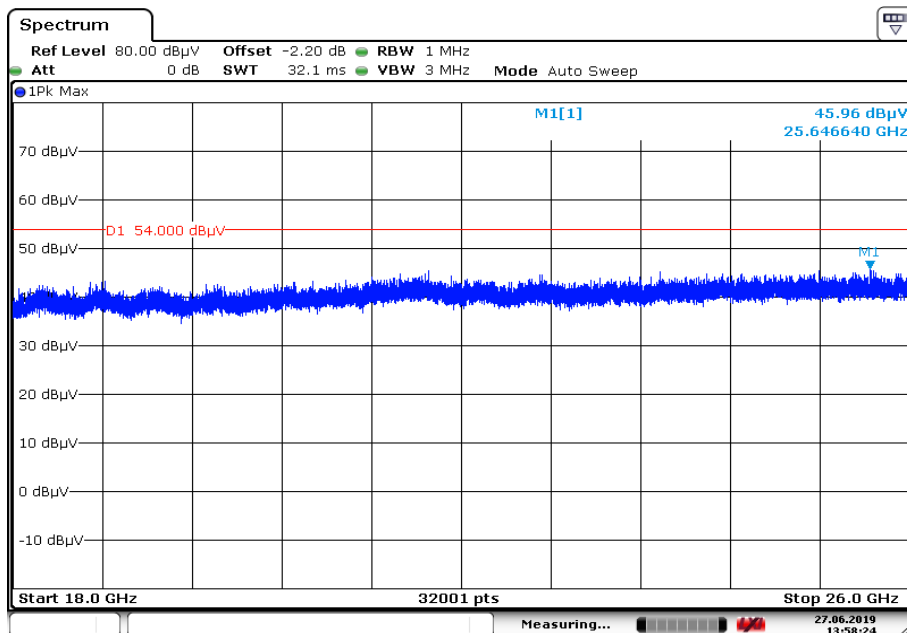
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.583	22.00	30.0	8.00	1000	120	100.0	V	131.0	13
58.728	28.74	30.0	1.26	1000	120	100.0	V	0.0	13
60.213	27.95	30.0	2.05	1000	120	170.0	V	-6.0	13
73.189	21.27	30.0	8.73	1000	120	101.0	V	342.0	11
73.901	21.11	30.0	8.89	1000	120	145.0	V	345.0	11
958.334	28.82	36.0	7.18	1000	120	170.0	H	87.0	24

Plot 6: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-1; highest channel



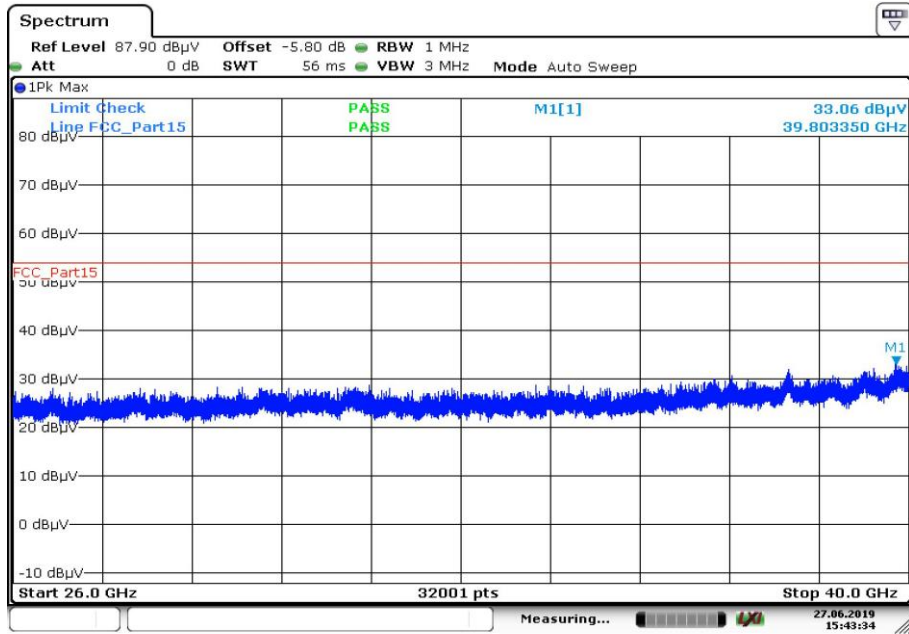
NOTE: The carrier signal is notched.

Plot 7: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-1; highest channel



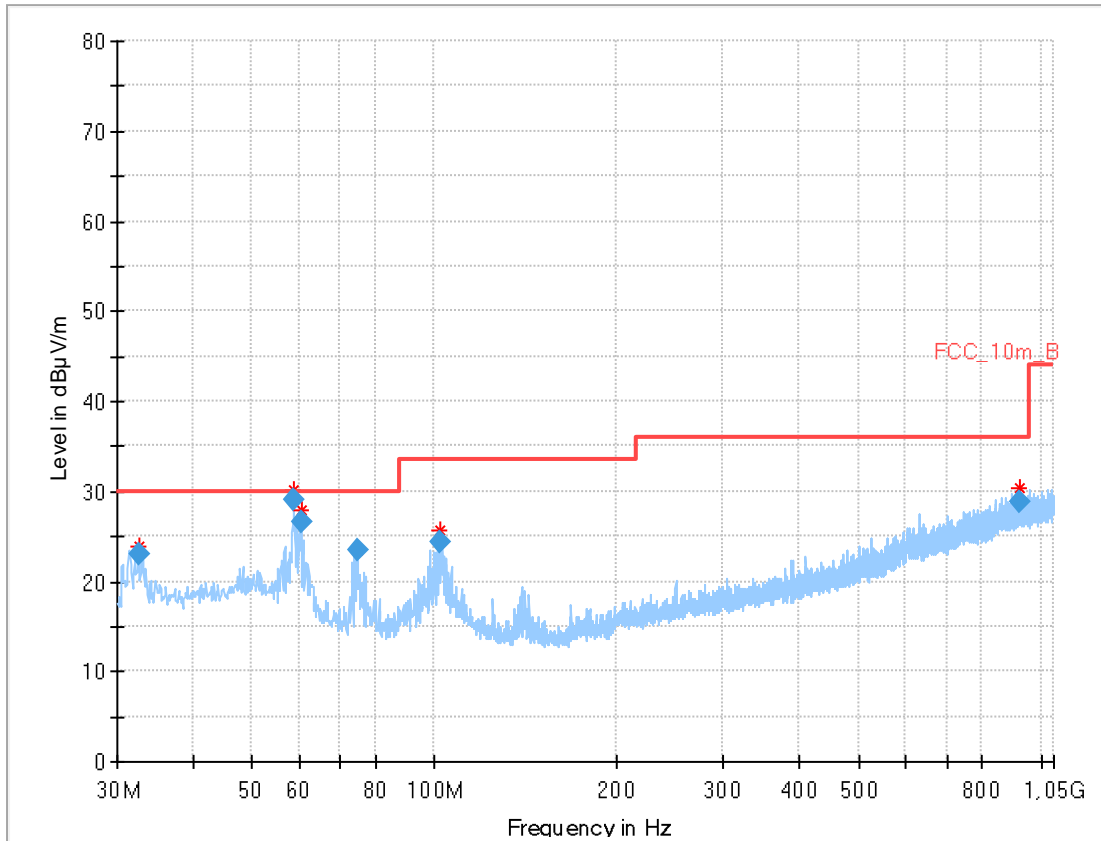
Date: 27 JUN 2019 13:58:25

Plot 8: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-1; highest channel



Date: 27.JUN.2019 15:43:34

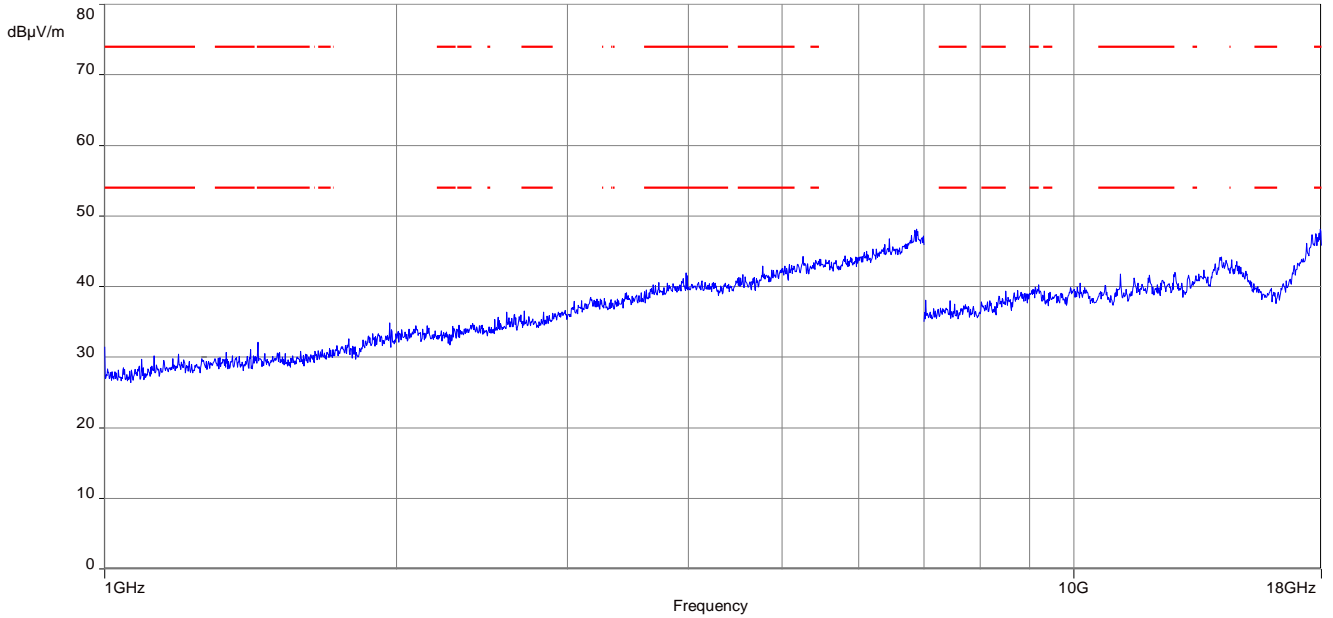
Plot 9: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-2A; lowest channel



Final results:

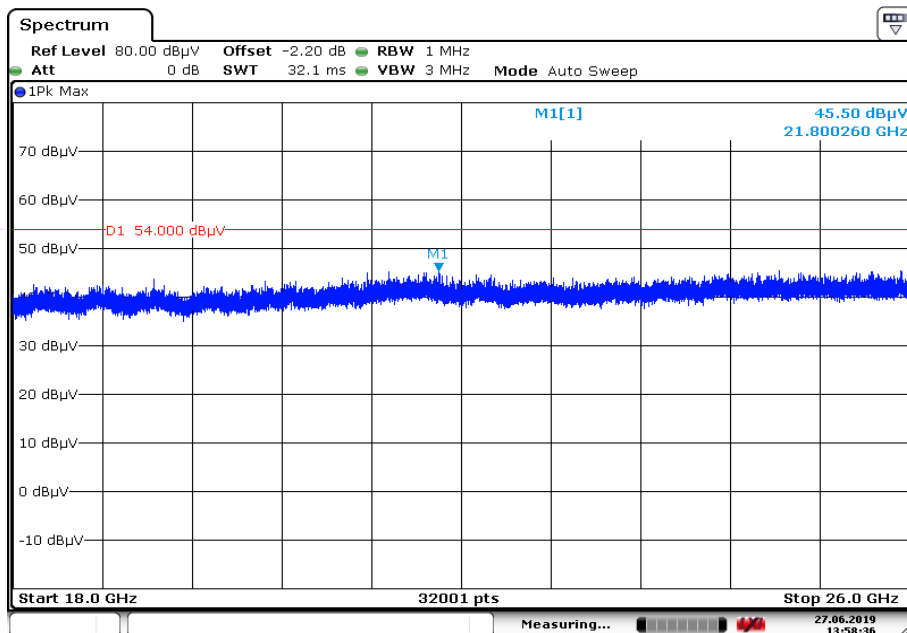
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.600	22.91	30.0	7.09	1000	120	98.0	V	265.0	13
58.713	29.01	30.0	0.99	1000	120	170.0	V	35.0	13
60.236	26.56	30.0	3.44	1000	120	170.0	V	304.0	13
74.572	23.43	30.0	6.57	1000	120	101.0	V	327.0	11
101.888	24.42	33.5	9.08	1000	120	170.0	V	347.0	13
919.479	28.93	36.0	7.07	1000	120	170.0	H	11.0	24

Plot 10: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-2A; lowest channel



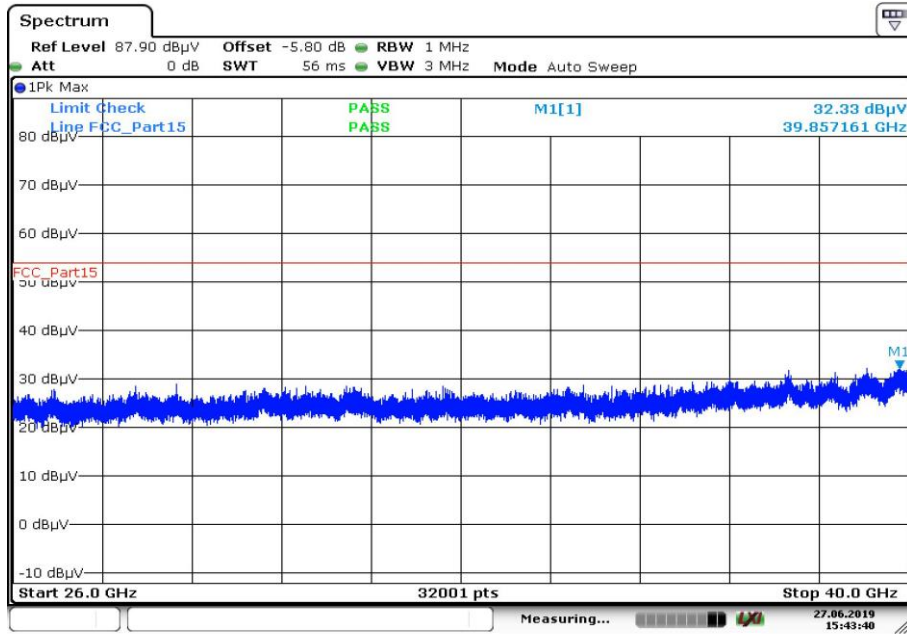
NOTE: The carrier signal is notched.

Plot 11: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-2A; lowest channel



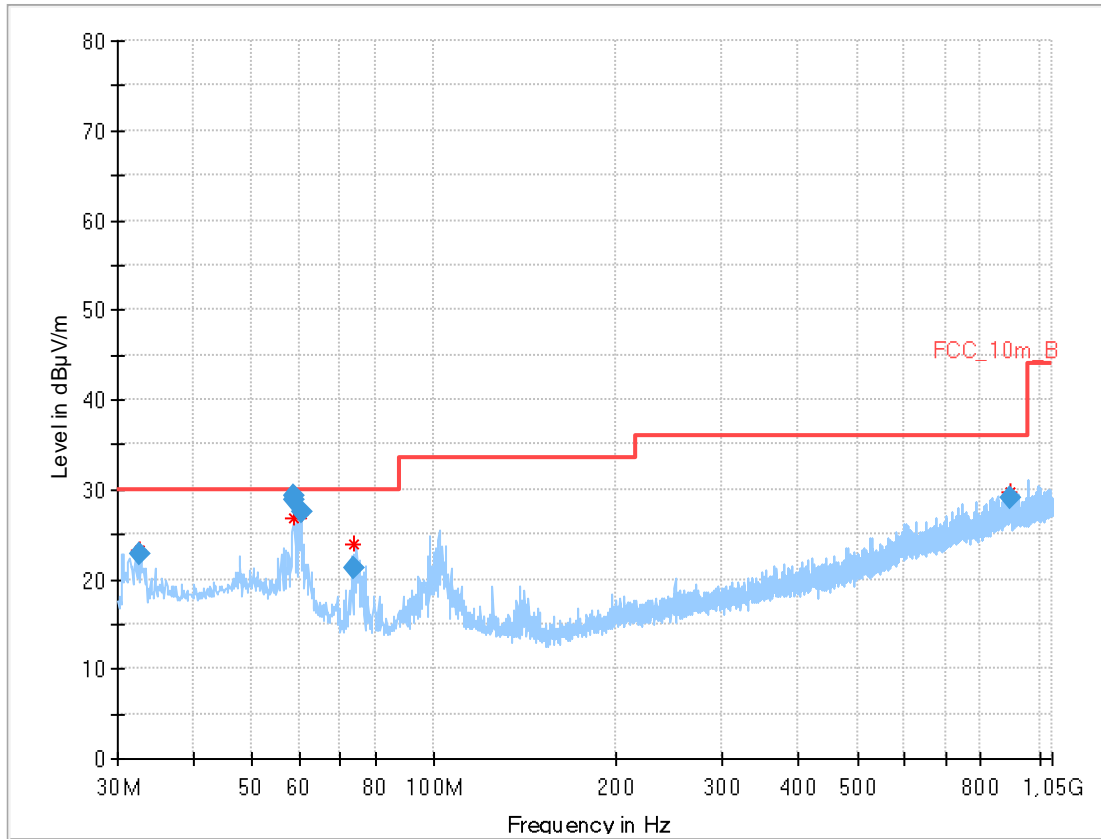
Date: 27 JUN 2019 13:58:37

Plot 12: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-2A; lowest channel



Date: 27.JUN.2019 15:43:41

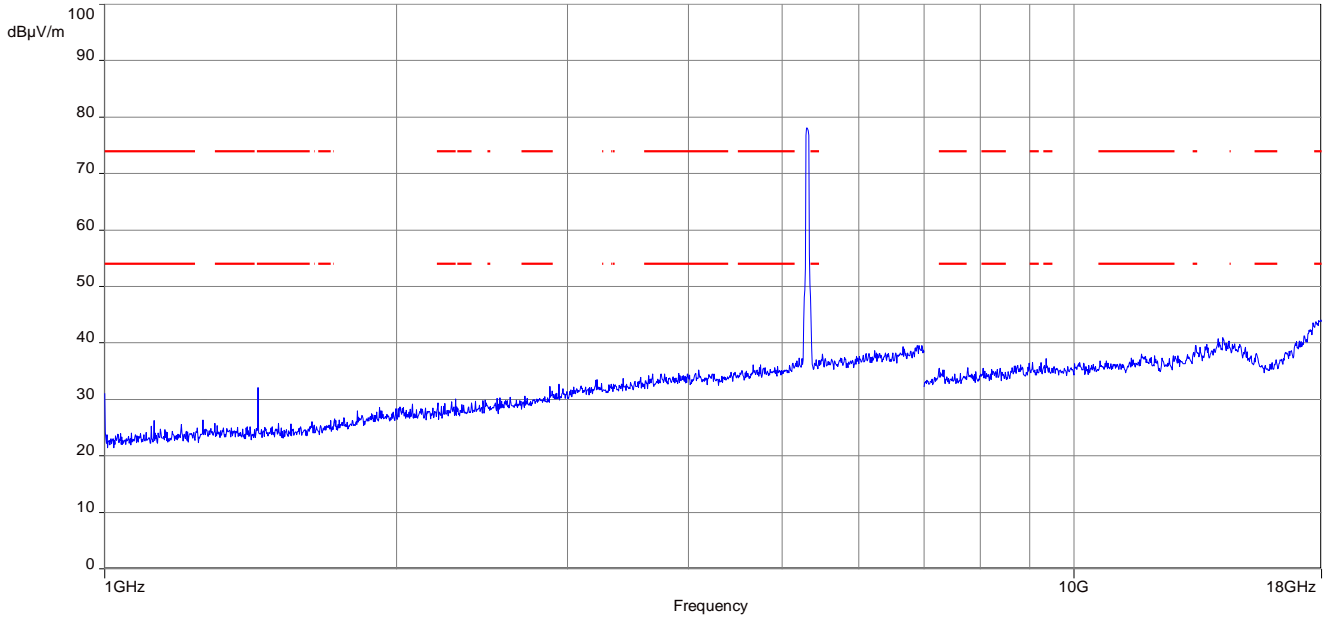
Plot 13: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-2A; highest channel



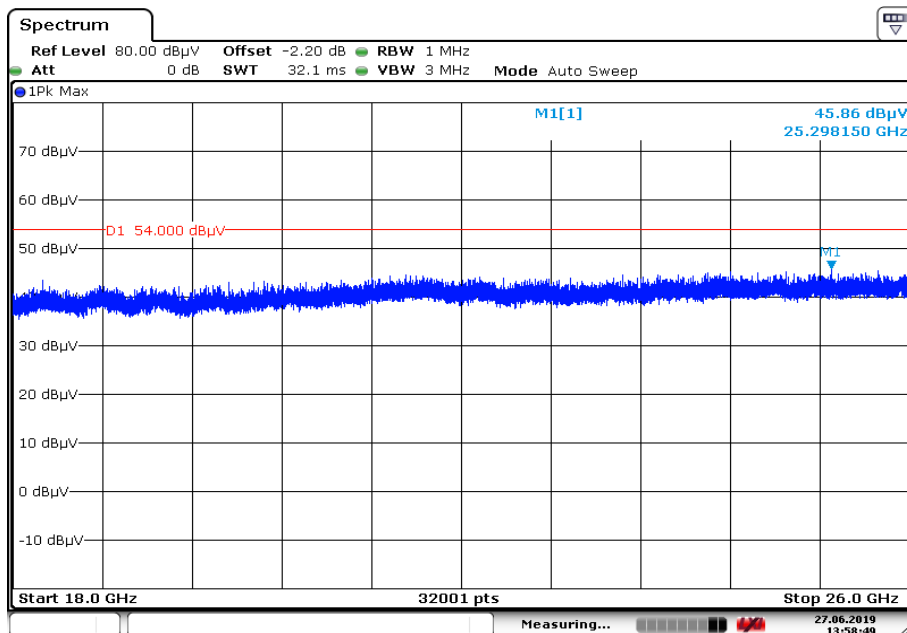
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.603	22.74	30.0	7.26	1000	120	101.0	V	337.0	13
58.711	29.37	30.0	0.63	1000	120	147.0	V	53.0	13
58.730	28.87	30.0	1.13	1000	120	170.0	V	-3.0	13
60.234	27.41	30.0	2.59	1000	120	170.0	V	10.0	13
73.940	21.24	30.0	8.76	1000	120	100.0	V	352.0	11
894.428	29.03	36.0	6.97	1000	120	170.0	V	70.0	24

Plot 14: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-2A; highest channel

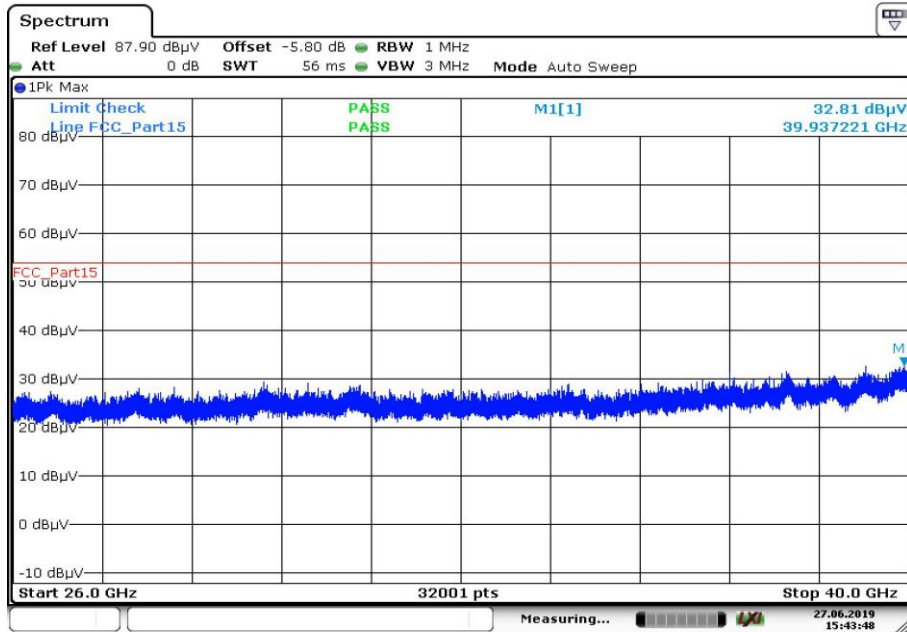


Plot 15: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-2A; highest channel



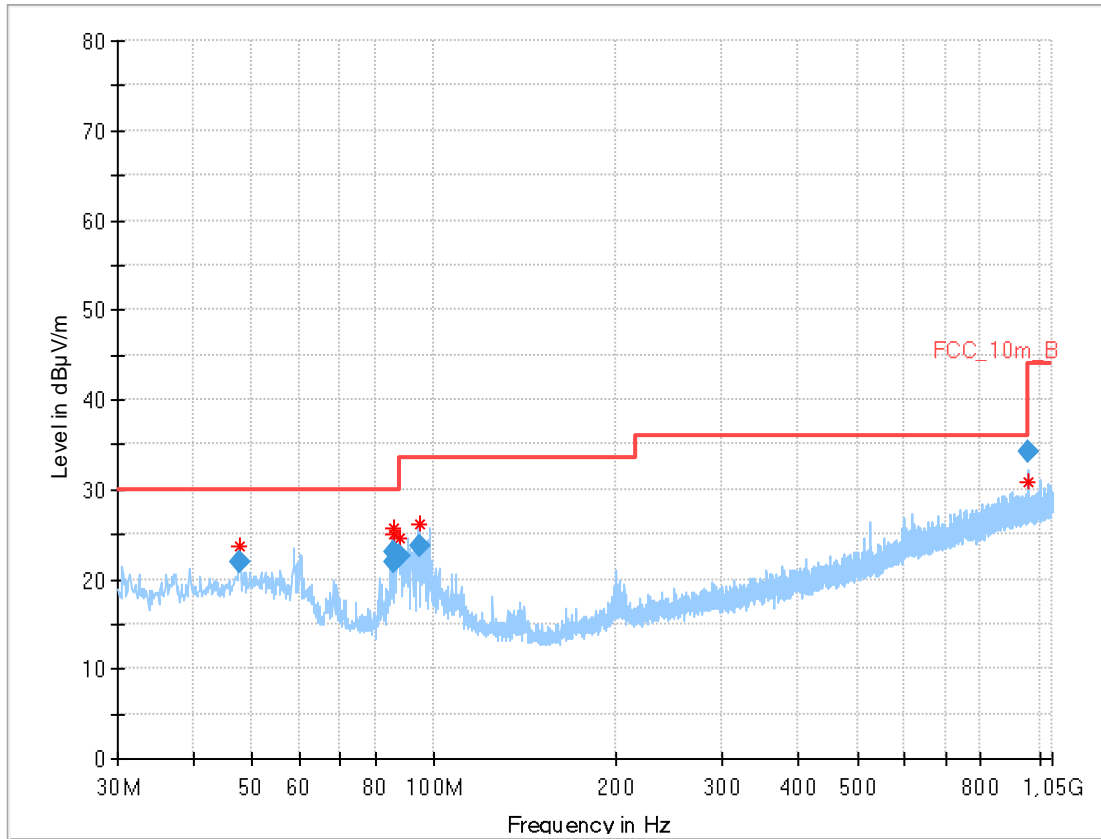
Date: 27 JUN 2019 13:58:49

Plot 16: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-2A; highest channel



Date: 27.JUN.2019 15:43:48

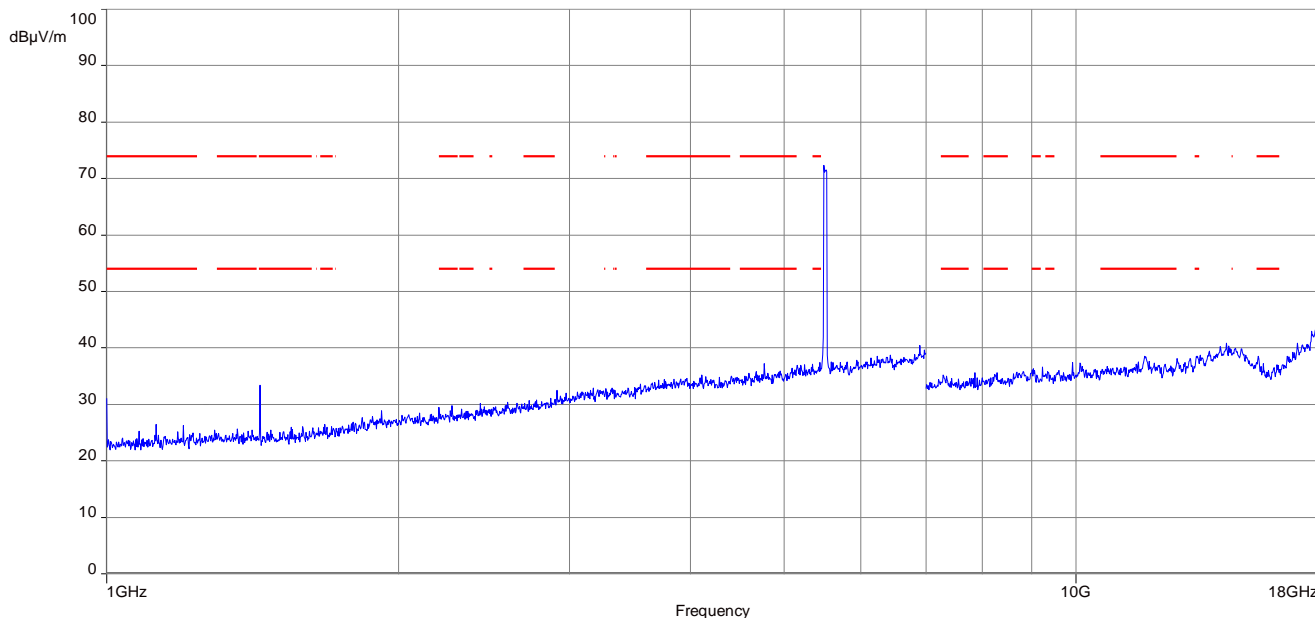
Plot 17: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-2C; lowest channel



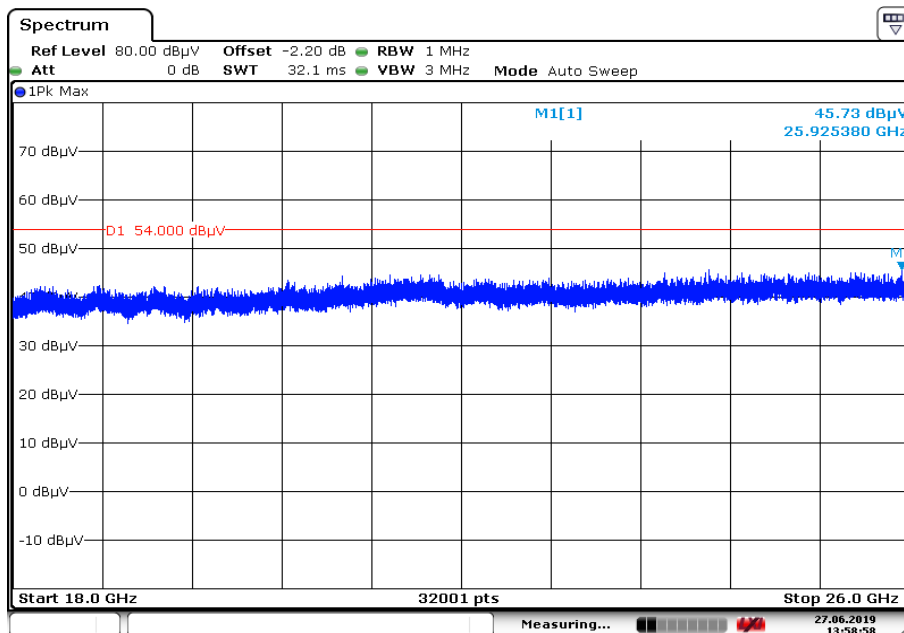
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
47.815	21.89	30.0	8.11	1000	120	101.0	V	0.0	15
86.019	23.02	30.0	6.98	1000	120	170.0	V	332.0	11
86.049	21.80	30.0	8.20	1000	120	170.0	V	10.0	11
87.643	22.67	30.0	7.33	1000	120	170.0	V	289.0	11
94.351	23.69	33.5	9.81	1000	120	101.0	V	345.0	12
960.025	34.19	44.0	9.81	1000	120	98.0	H	351.0	24

Plot 18: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-2C; lowest channel

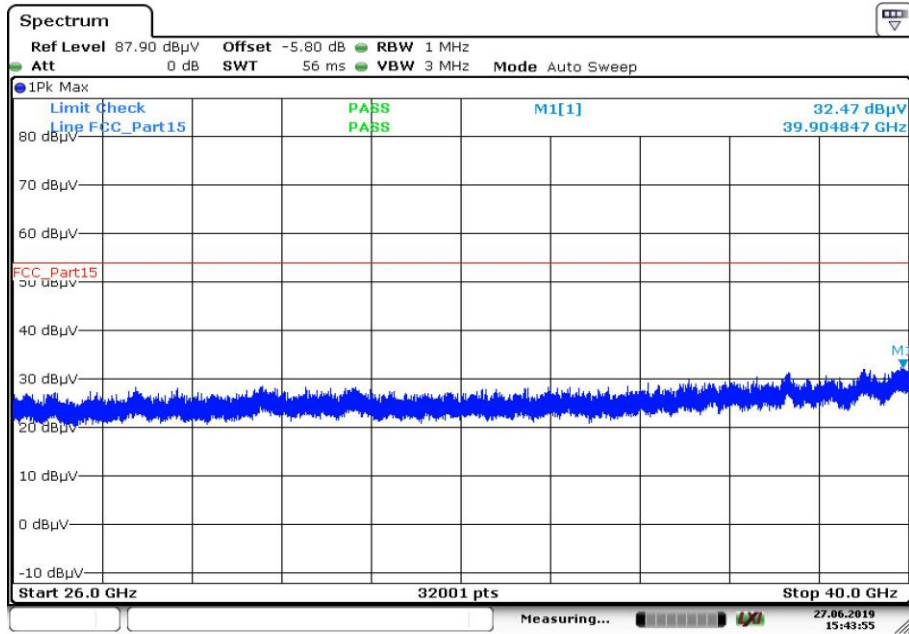


Plot 19: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-2C; lowest channel



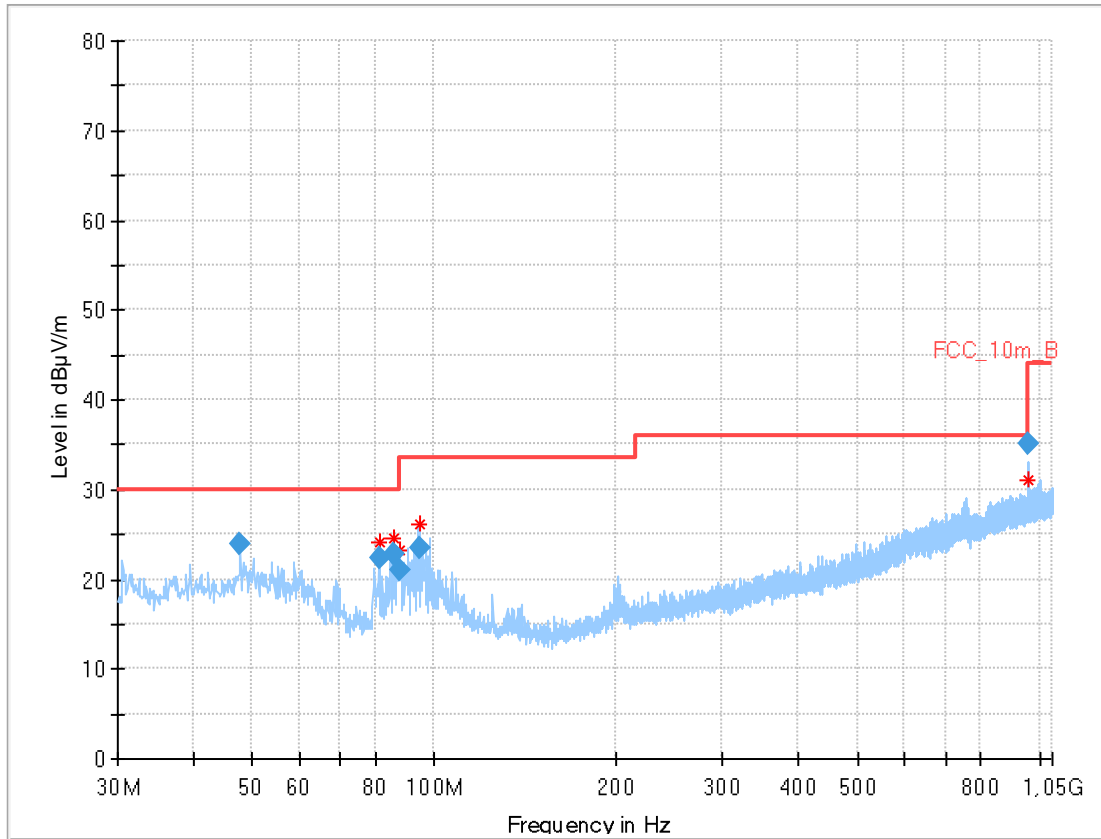
Date: 27 JUN 2019 13:58:58

Plot 20: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-2C; lowest channel



Date: 27.JUN.2019 15:43:55

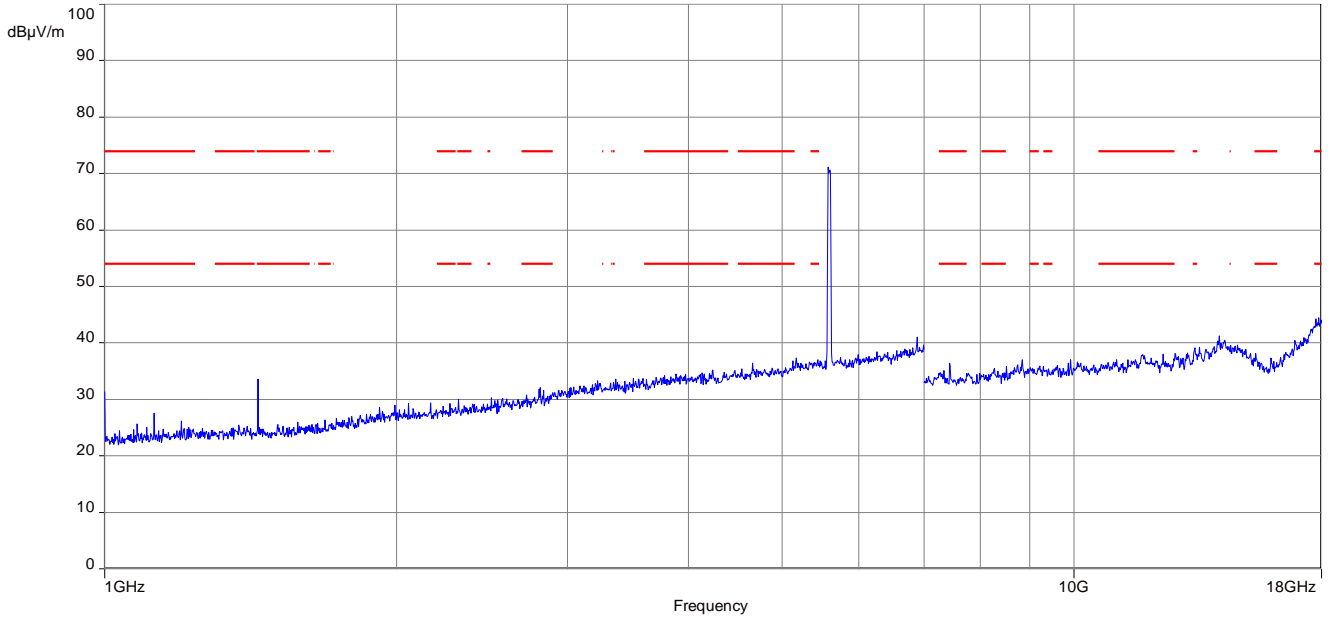
Plot 21: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-2C; middle channel



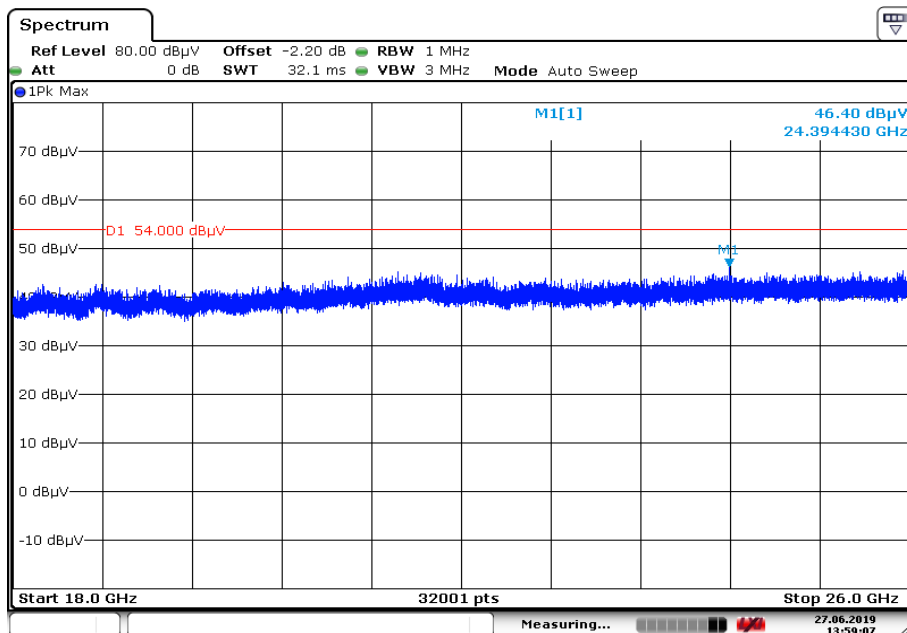
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
47.804	23.85	30.0	6.15	1000	120	101.0	V	321.0	15
81.195	22.41	30.0	7.59	1000	120	170.0	V	-6.0	11
86.060	22.88	30.0	7.12	1000	120	145.0	V	355.0	11
87.460	21.07	30.0	8.93	1000	120	170.0	V	205.0	11
94.413	23.57	33.5	9.93	1000	120	101.0	V	295.0	12
960.005	35.06	44.0	8.94	1000	120	98.0	H	352.0	24

Plot 22: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-2C; middle channel

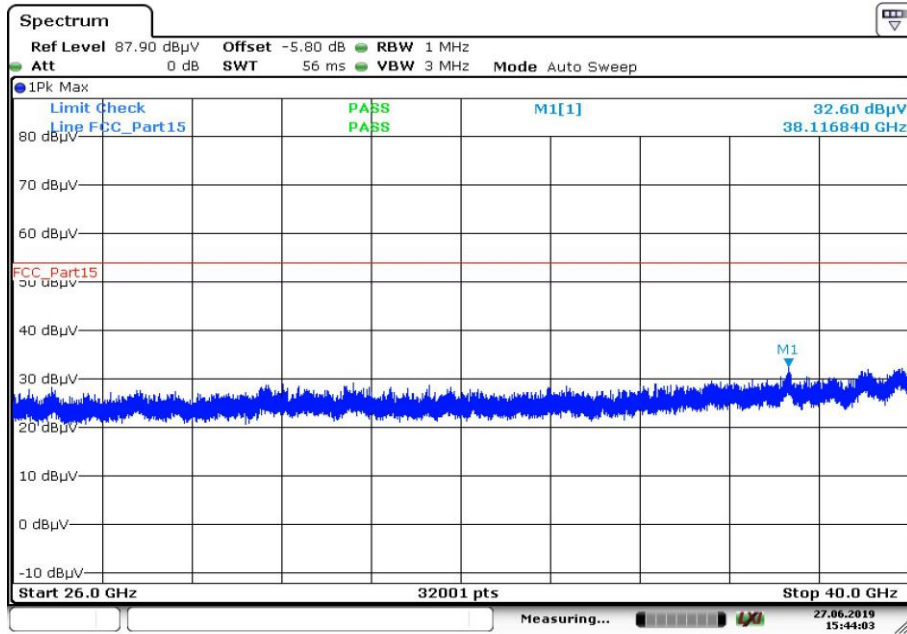


Plot 23: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-2C; middle channel



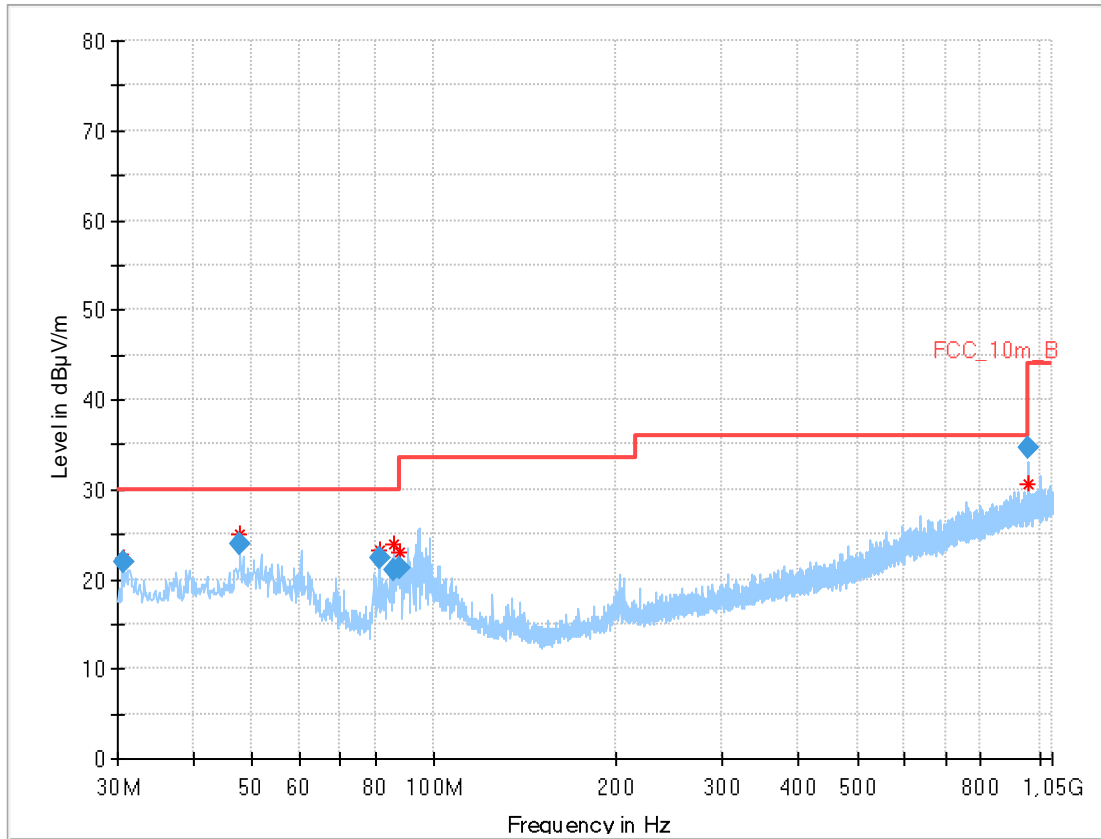
Date: 27 JUN 2019 13:59:07

Plot 24: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-2C; middle channel



Date: 27.JUN.2019 15:44:03

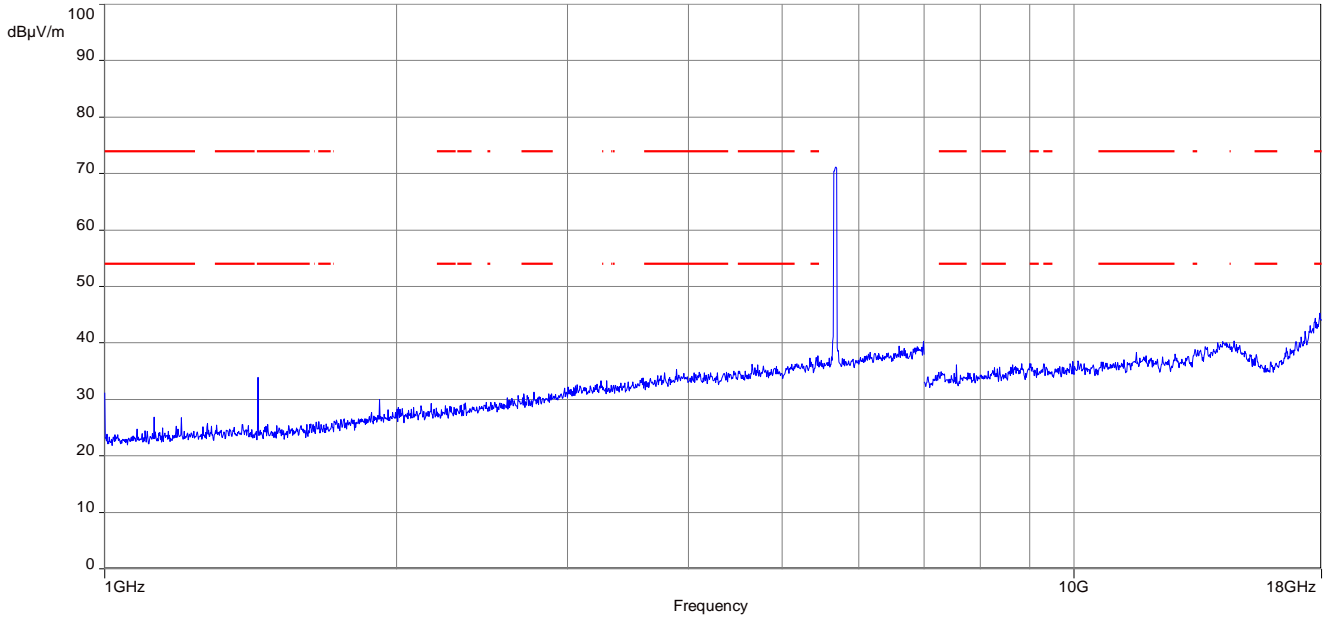
Plot 25: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-2C; highest channel



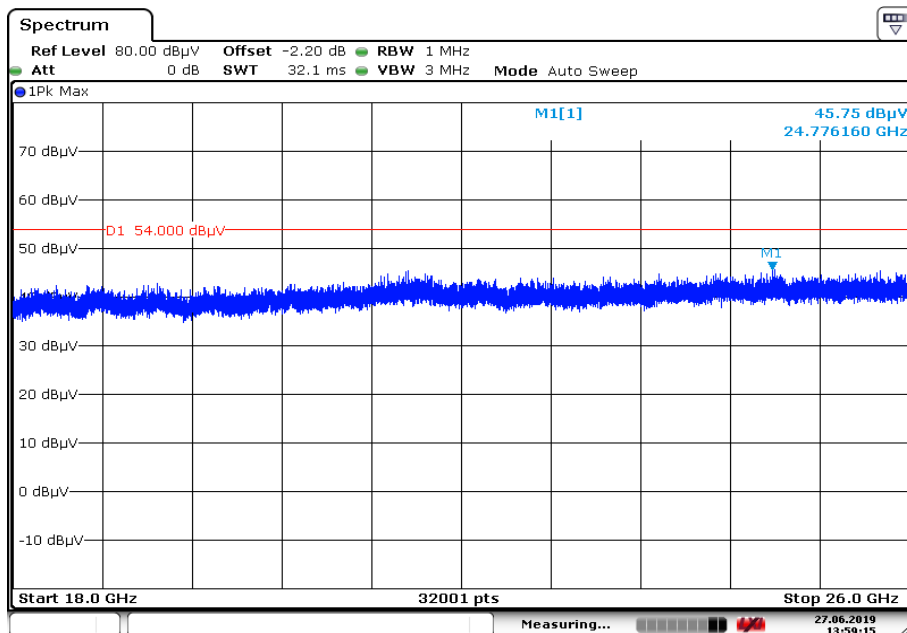
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.629	21.82	30.0	8.18	1000	120	101.0	V	288.0	13
47.799	23.83	30.0	6.17	1000	120	101.0	V	354.0	15
81.191	22.40	30.0	7.60	1000	120	170.0	V	45.0	11
86.036	21.06	30.0	8.94	1000	120	170.0	V	1.0	11
87.479	21.20	30.0	8.80	1000	120	170.0	V	357.0	11
959.977	34.66	36.0	1.34	1000	120	98.0	H	-8.0	24

Plot 26: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-2C; highest channel

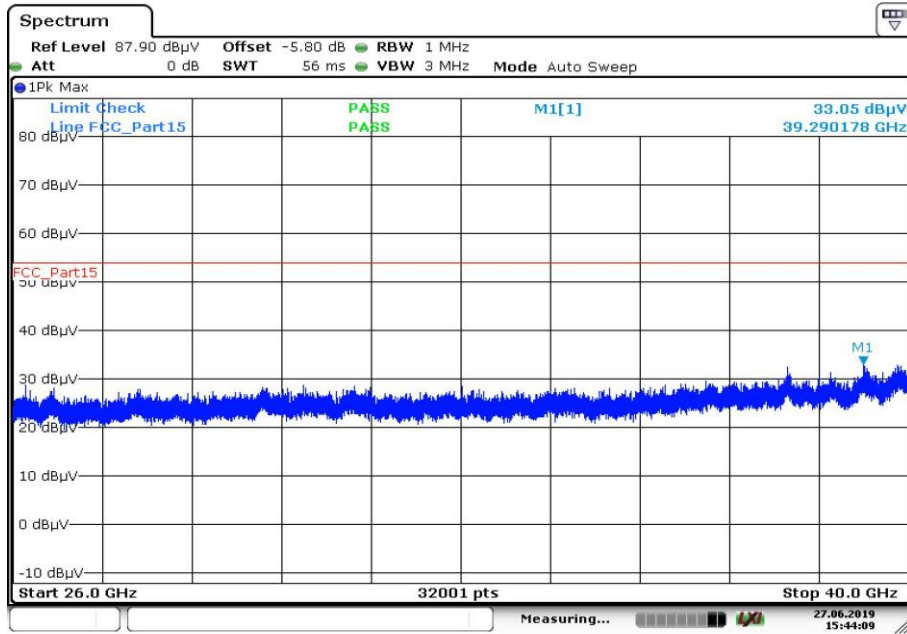


Plot 27: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-2C; highest channel



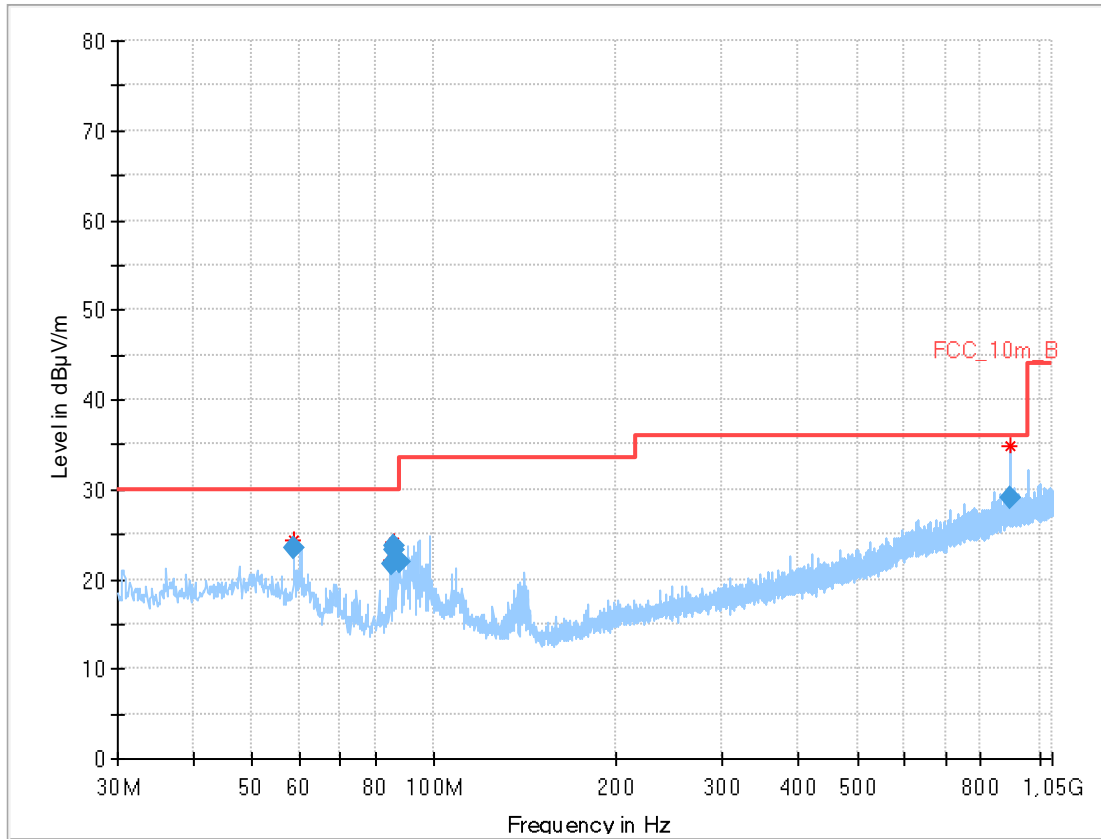
Date: 27 JUN 2019 13:59:15

Plot 28: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-2C; highest channel



Date: 27.JUN.2019 15:44:10

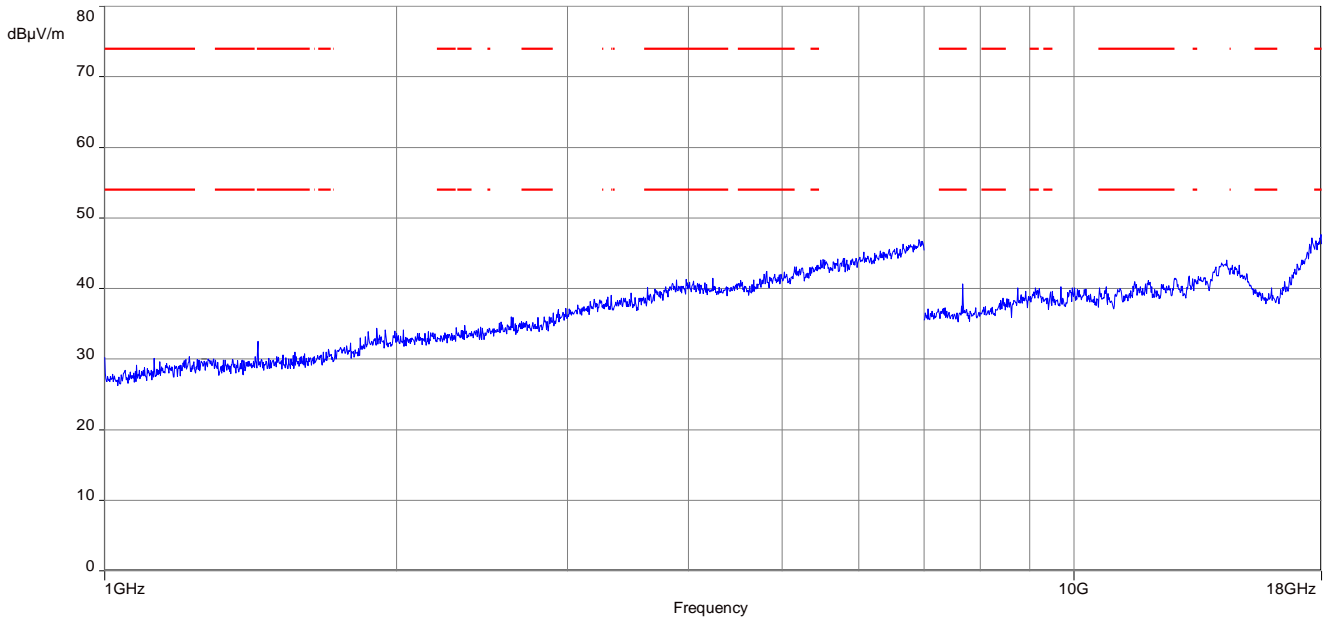
Plot 29: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-3; lowest channel



Final results:

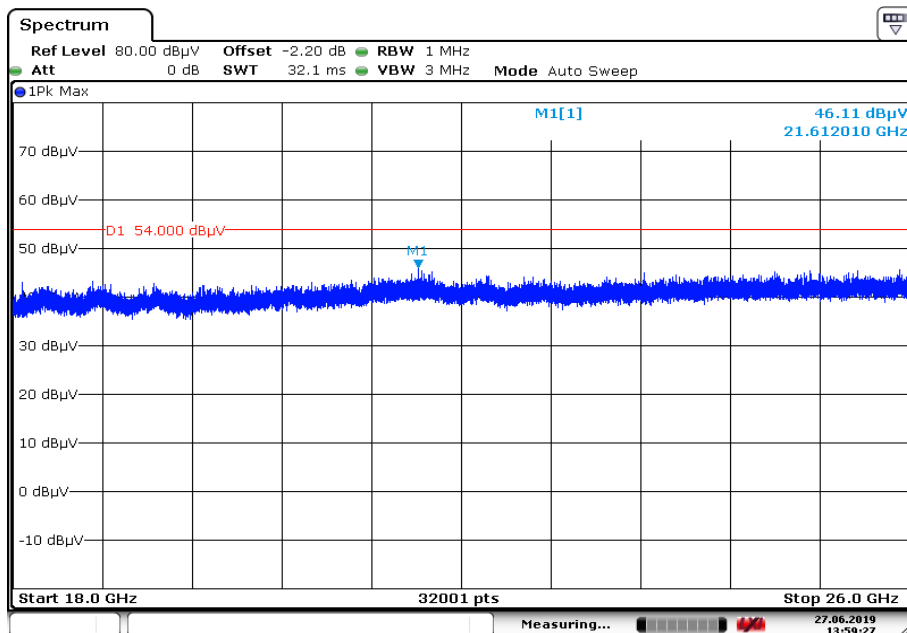
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
58.713	23.56	30.0	6.44	1000	120	98.0	V	341.0	13
85.327	21.78	30.0	8.22	1000	120	101.0	V	-10.0	11
86.026	23.24	30.0	6.76	1000	120	170.0	V	-5.0	11
86.036	23.67	30.0	6.33	1000	120	145.0	V	-10.0	11
87.475	21.81	30.0	8.19	1000	120	170.0	V	52.0	11
897.978	29.04	36.0	6.96	1000	120	170.0	H	181.0	24

Plot 30: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-3; lowest channel



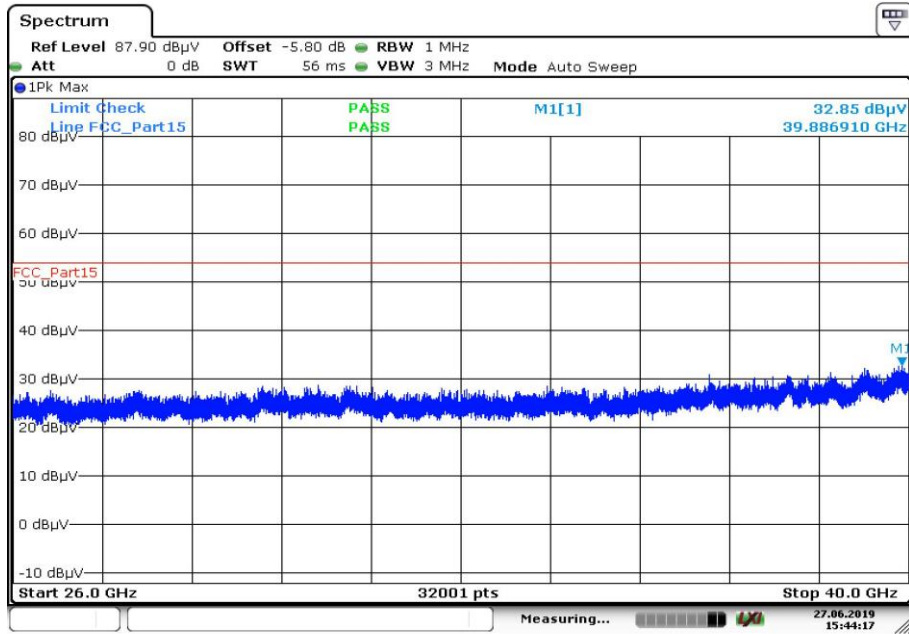
NOTE: The carrier signal is notched.

Plot 31: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-3; lowest channel



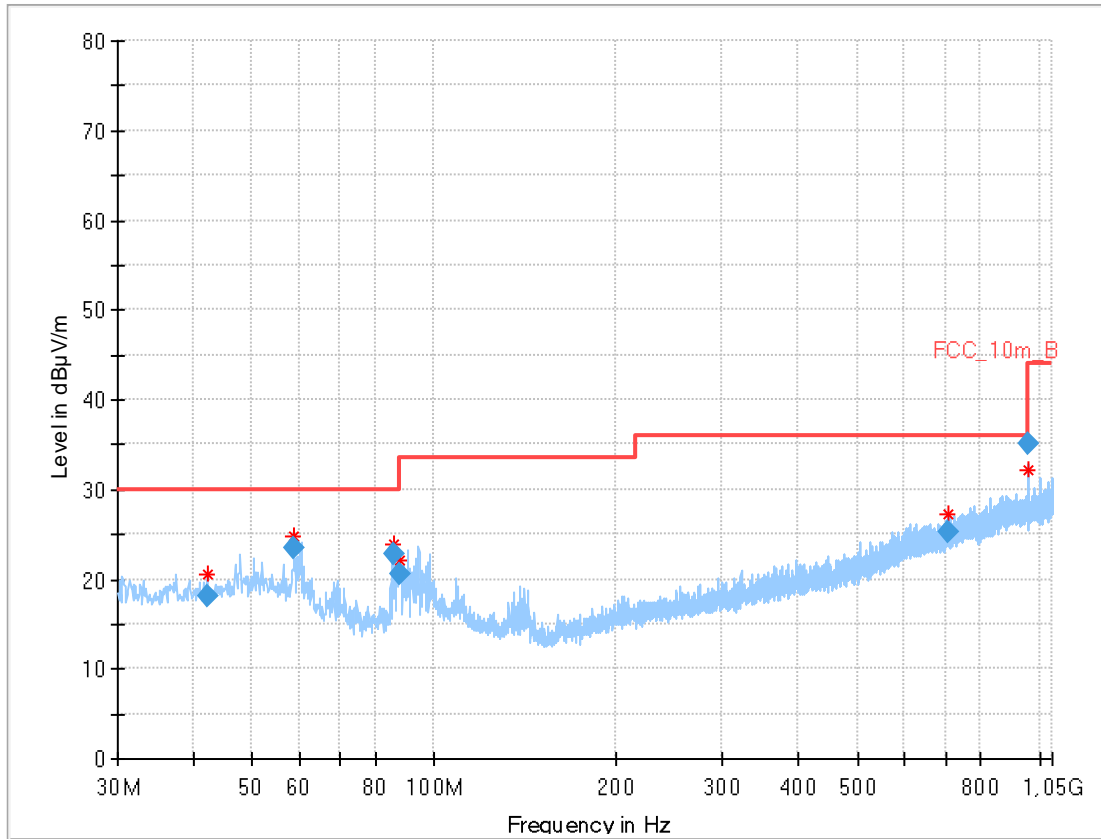
Date: 27 JUN 2019 13:59:28

Plot 32: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-3; lowest channel



Date: 27.JUN.2019 15:44:17

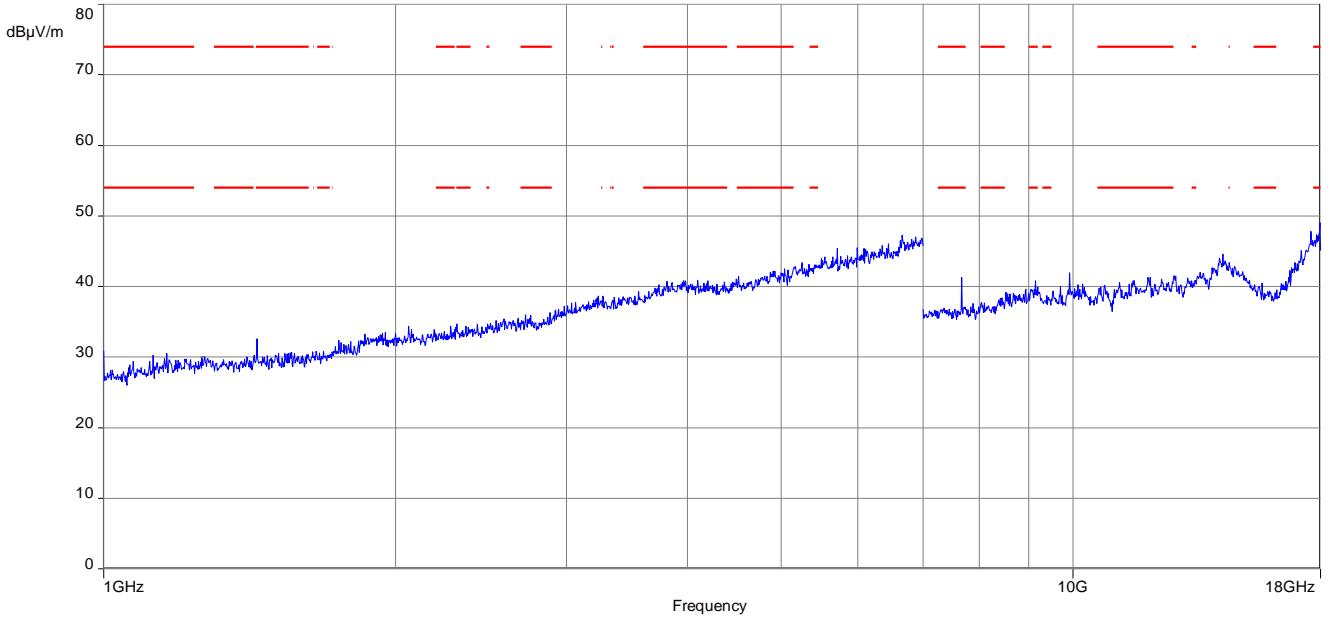
Plot 33: 30 MHz to 1 GHz; vertical & horizontal polarization; U-NII-3; highest channel



Final results:

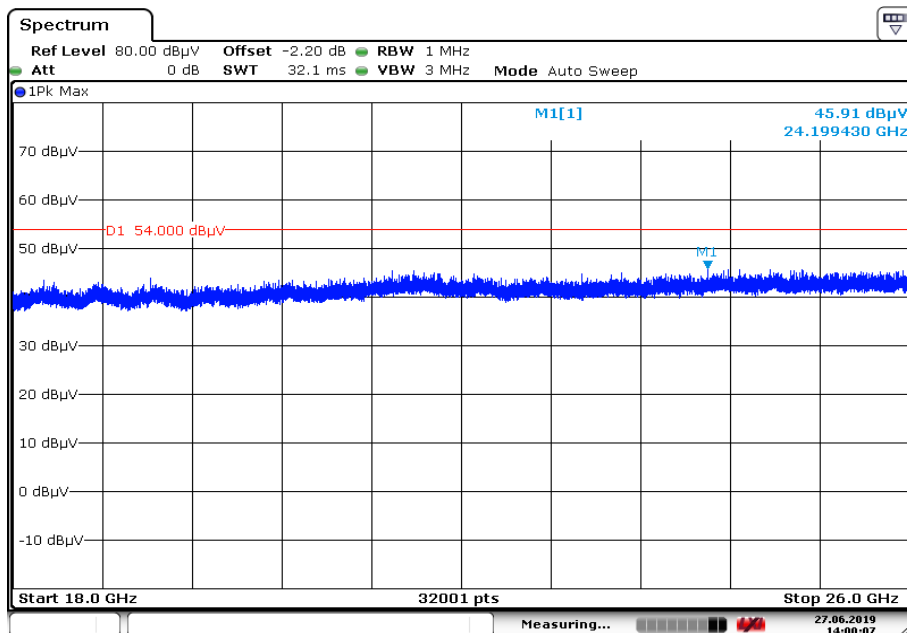
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
42.266	18.21	30.0	11.79	1000	120	101.0	H	10.0	15
58.750	23.43	30.0	6.57	1000	120	170.0	V	291.0	13
86.026	22.87	30.0	7.13	1000	120	170.0	V	-10.0	11
87.622	20.50	30.0	9.50	1000	120	101.0	V	-1.0	11
704.710	25.17	36.0	10.83	1000	120	98.0	V	-6.0	21
959.996	35.02	36.0	0.98	1000	120	98.0	H	345.0	24

Plot 34: 1 GHz to 18 GHz; vertical & horizontal polarization; U-NII-3; highest channel



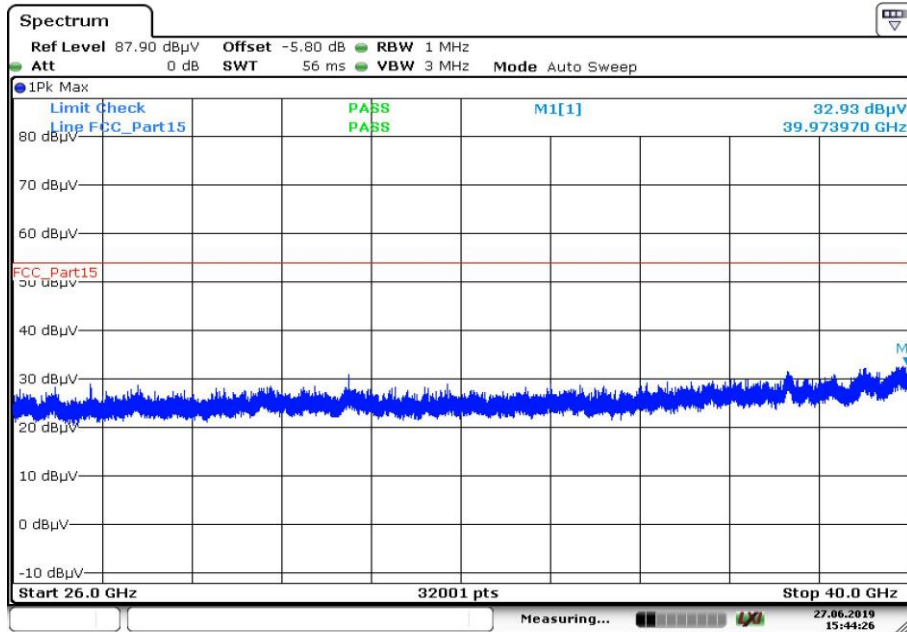
NOTE: The carrier signal is notched.

Plot 35: 18 GHz to 26 GHz; vertical & horizontal polarization; U-NII-3; highest channel



Date: 27 JUN 2019 14:00:07

Plot 36: 26 GHz to 40 GHz; vertical & horizontal polarization; U-NII-3; highest channel



Date: 27.JUN.2019 15:44:27

11.12 RX spurious emissions radiated

Description:

Measurement of the radiated spurious emissions in idle/receive mode.

Measurement:

Measurement parameter	
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: 100 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 %
Test setup:	See sub clause 6.1 – A See sub clause 6.2 – A See sub clause 6.3 – A
Measurement uncertainty:	See sub clause 8

Limits:

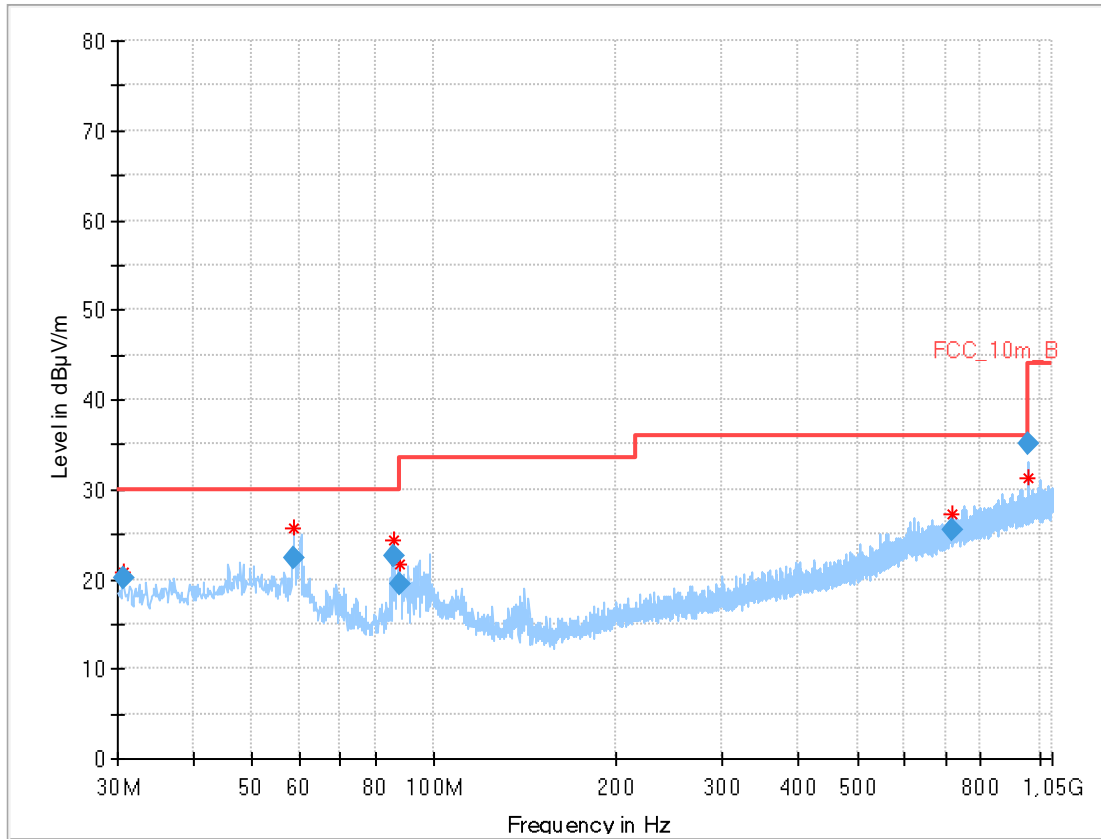
RX Spurious Emissions Radiated		
Frequency (MHz)	Field Strength (dBµV/m)	Measurement distance
30 - 88	30.0	10
88 – 216	33.5	10
216 – 960	36.0	10
Above 960	54.0	3

Results:

RX Spurious Emissions Radiated [dBµV/m]		
F [MHz]	Detector	Level [dBµV/m]
1440	Peak	41.2
1440	RMS	35.4

Plots:

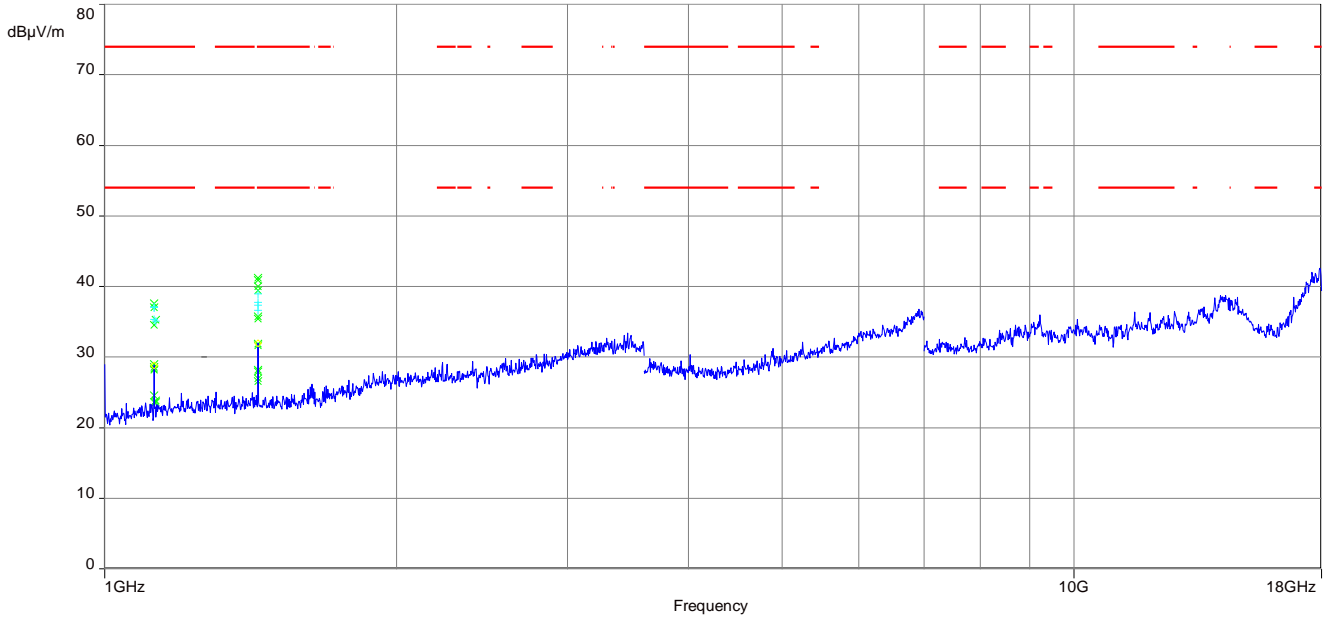
Plot 1: 30 MHz to 1 GHz, vertical & horizontal polarization



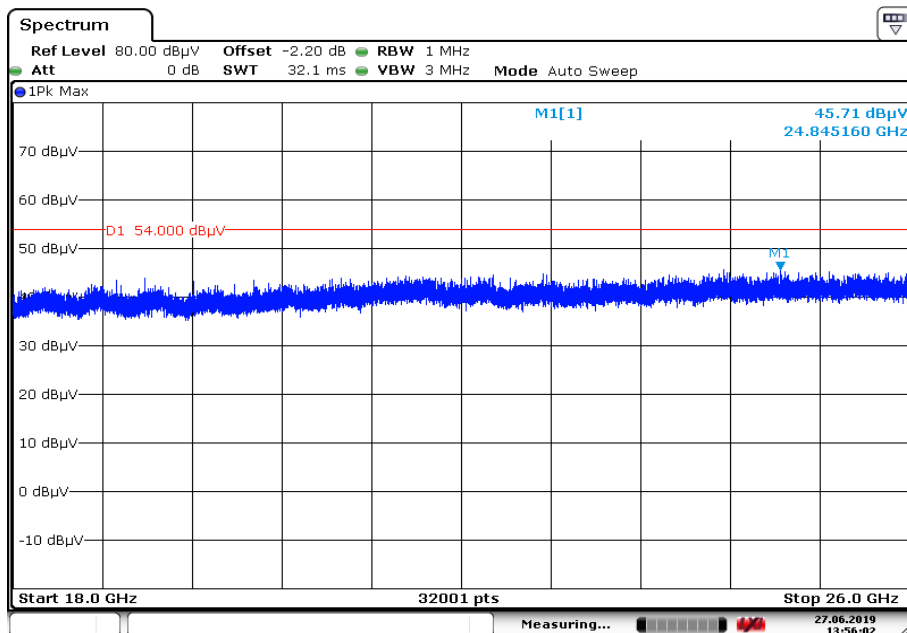
Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.617	20.16	30.0	9.84	1000	120	144.0	V	74.0	13
58.741	22.28	30.0	7.72	1000	120	101.0	V	173.0	13
86.045	22.51	30.0	7.49	1000	120	170.0	V	-9.0	11
87.649	19.38	30.0	10.62	1000	120	170.0	V	243.0	11
715.428	25.42	36.0	10.58	1000	120	98.0	H	206.0	22
959.994	35.02	36.0	0.98	1000	120	98.0	H	345.0	24

Plot 2: 1 GHz to 18 GHz, vertical & horizontal polarization

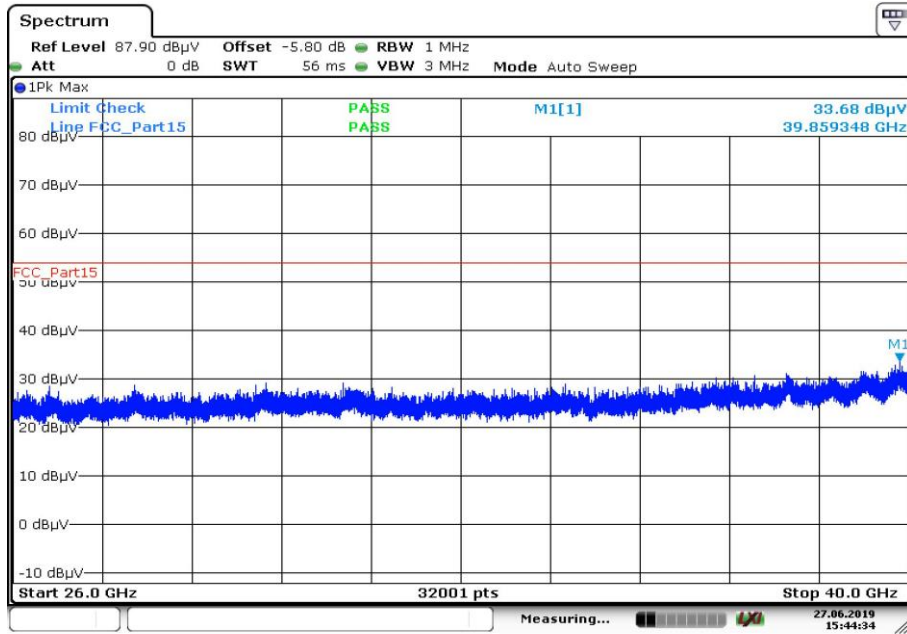


Plot 3: 18 GHz to 26 GHz, vertical & horizontal polarization



Date: 27 JUN 2019 13:56:03

Plot 4: 26 GHz to 40 GHz, vertical & horizontal polarization



Date: 27.JUN.2019 15:44:35

11.13 Spurious emissions conducted < 30 MHz

Description:

Measurement of the conducted spurious emissions in transmit mode below 30 MHz. The EUT is set to middle channel. If critical peaks are found the lowest channel and the highest channel will be measured too. Both power lines, phase and neutral line, are measured. Found peaks are re-measured with average and quasi peak detection to show compliance to the limits.

Measurement:

Measurement parameter	
Detector:	Peak - Quasi Peak / Average
Sweep time:	Auto
Video bandwidth:	9 kHz
Resolution bandwidth:	100 kHz
Span:	150 kHz to 30 MHz
Trace mode:	Max Hold

Limits:

Spurious Emissions Conducted < 30 MHz		
Frequency (MHz)	Quasi-Peak (dBµV/m)	Average (dBµV/m)
0.15 – 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30.0	60	50

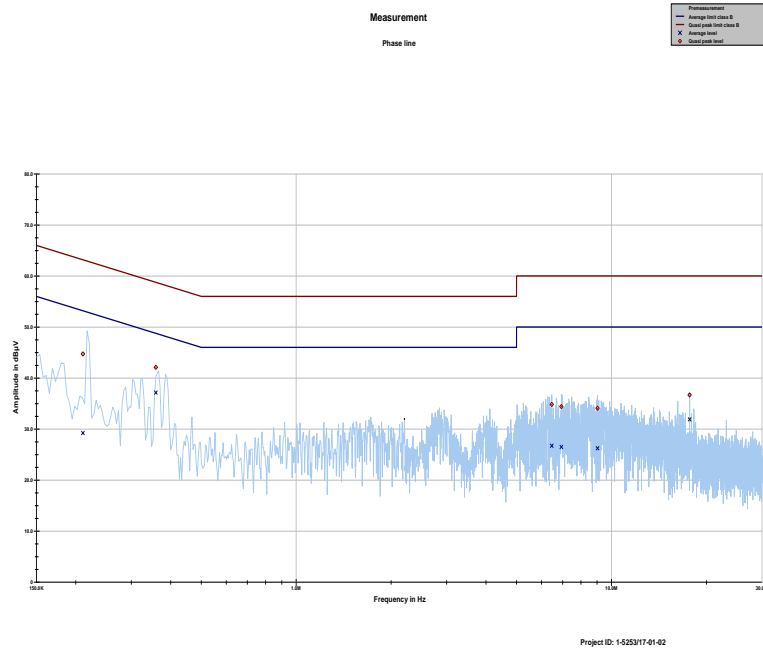
*Decreases with the logarithm of the frequency

Results:

Spurious Emissions Conducted < 30 MHz [dBµV/m]		
F [MHz]	Detector	Level [dBµV/m]
All detected emissions are more than 20 dB below the limit.		

Plots:

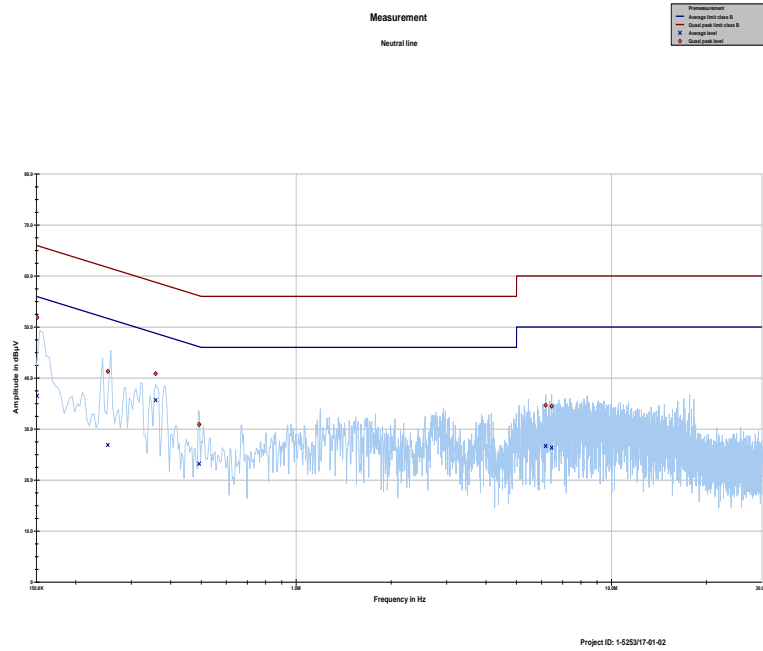
Plot 1: 150 kHz to 30 MHz, phase line



Final results:

Frequency	Quasi peak level	Margin quasi peak	Limit QP	Average level	Margin average	Limit AV
MHz	dBµV	dB	dBµV	dBµV	dB	dBµV
0.210773	44.72	18.45	63.175	29.21	25.05	54.264
0.358833	42.11	16.65	58.755	37.15	12.89	50.033
6.464232	34.83	25.17	60.000	26.73	23.27	50.000
6.936196	34.40	25.60	60.000	26.48	23.52	50.000
9.032072	34.07	25.93	60.000	26.23	23.77	50.000
17.694080	36.68	23.32	60.000	31.90	18.10	50.000

Plot 2: 150 kHz to 30 MHz, neutral line



Final results:

Frequency	Quasi peak level	Margin quasi peak	Limit QP	Average level	Margin average	Limit AV
MHz	dBµV	dB	dBµV	dBµV	dB	dBµV
0.150914	51.88	14.07	65.950	36.51	19.46	55.974
0.252801	41.31	20.36	61.665	26.87	26.19	53.063
0.358300	40.85	17.92	58.768	35.67	14.38	50.049
0.492779	30.89	25.23	56.121	23.19	23.02	46.206
6.180900	34.67	25.33	60.000	26.67	23.33	50.000
6.462263	34.47	25.53	60.000	26.36	23.64	50.000

Annex A Glossary

EUT	Equipment under test
DUT	Device under test
UUT	Unit under test
GUE	GNSS User Equipment
ETSI	European Telecommunications Standards Institute
EN	European Standard
FCC	Federal Communications Commission
FCC ID	Company Identifier at FCC
IC	Industry Canada
PMN	Product marketing name
HMN	Host marketing name
HVIN	Hardware version identification number
FVIN	Firmware version identification number
EMC	Electromagnetic Compatibility
HW	Hardware
SW	Software
Inv. No.	Inventory number
S/N or SN	Serial number
C	Compliant
NC	Not compliant
NA	Not applicable
NP	Not performed
PP	Positive peak
QP	Quasi peak
AVG	Average
OC	Operating channel
OCW	Operating channel bandwidth
OBW	Occupied bandwidth
OOB	Out of band
DFS	Dynamic frequency selection
CAC	Channel availability check
OP	Occupancy period
NOP	Non occupancy period
DC	Duty cycle
PER	Packet error rate
CW	Clean wave
MC	Modulated carrier
WLAN	Wireless local area network
RLAN	Radio local area network
DSSS	Dynamic sequence spread spectrum
OFDM	Orthogonal frequency division multiplexing
FHSS	Frequency hopping spread spectrum
GNSS	Global Navigation Satellite System
C/N₀	Carrier to noise-density ratio, expressed in dB-Hz

Annex B Document history

Version	Applied changes	Date of release
-/-	Initial release	2019-07-22
A	Editorial changes	2019-08-05

Annex C Accreditation Certificate – D-PL-12076-01-04

first page	last page
 <p>Deutsche Akkreditierungsstelle GmbH</p> <p>Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition</p> <p>Accreditation </p> <p>The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory CTC advanced GmbH Untertürkheimer Straße 6-10, 66117 Saarbrücken</p> <p>is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out tests in the following fields: Telecommunication (TC) and Electromagnetic Compatibility (EMC) for Canadian Standards</p> <p>The accreditation certificate shall only apply in connection with the notice of accreditation of 11.01.2019 with the accreditation number D-PL-12076-01 and is valid until 21.04.2021. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 7 pages.</p> <p>Registration number of the certificate: D-PL-12076-01-04</p> <p>Frankfurt am Main, 11.01.2019</p>  <p>Dipl. Stoll, Uwe Zimmermann Head of Division</p> <p><small>See notes cover sheet</small></p>	<p>Deutsche Akkreditierungsstelle GmbH</p> <p>Office Berlin Spittelmarkt 10 10117 Berlin</p> <p>Office Frankfurt am Main Europa-Allee 52 60327 Frankfurt am Main</p> <p>Office Braunschweig Bundesallee 100 38116 Braunschweig</p> <p>The publication of extracts of the accreditation certificate is subject to the prior written approval by Deutsche Akkreditierungsstelle GmbH (DAkkS). Exempted is the unchanged form of separate disseminations of the cover sheet by the conformity assessment body mentioned overleaf.</p> <p>No impression shall be made that the accreditation also extends to fields beyond the scope of accreditation attested by DAkkS.</p> <p>The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) of 31 July 2009 (Federal Law Gazette I p. 2625) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products (Official Journal of the European Union L 218 of 9 July 2008, p. 30). DAkkS is a signatory to the Multilateral Agreements for Mutual Recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC). The signatories to these agreements recognise each other's accreditations.</p> <p>The up-to-date state of membership can be retrieved from the following websites: EA: www.european-accreditation.org ILAC: www.ilac.org IAF: www.iaf.nu</p>

Note: The current certificate annex is published on the website (link see below) of the Accreditation Body DAkkS or may be received by CTC advanced GmbH on request

<https://www.dakks.de/as/ast/d/D-PL-12076-01-04.pdf>

Annex D Accreditation Certificate – D-PL-12076-01-05

first page	last page			
 <p>Deutsche Akkreditierungsstelle GmbH</p> <p>Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition</p> <p>Accreditation </p> <p>The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory CTC advanced GmbH Untertürkheimer Straße 6-10, 66117 Saarbrücken is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out tests in the following fields: Telecommunication (FCC Requirements)</p> <p>The accreditation certificate shall only apply in connection with the notice of accreditation of 11.01.2019 with the accreditation number D-PL-12076-01 and is valid until 21.04.2021. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 5 pages.</p> <p>Registration number of the certificate: D-PL-12076-01-05</p> <p>Frankfurt am Main, 11.01.2019  Dipl.-Biol. Uwe Zimmermann Head of Division</p> <p><small>See notes on back!</small></p>	<p>Deutsche Akkreditierungsstelle GmbH</p> <table border="0"> <tr> <td>Office Berlin Spittelmarkt 10 10117 Berlin</td> <td>Office Frankfurt am Main Europa-Allee 52 60327 Frankfurt am Main</td> <td>Office Braunschweig Bundesallee 100 38116 Braunschweig</td> </tr> </table> <p>The publication of extracts of the accreditation certificate is subject to the prior written approval by Deutsche Akkreditierungsstelle GmbH (DAkkS). Exempted is the unchanged form of separate disseminations of the cover sheet by the conformity assessment body mentioned overleaf.</p> <p>No impression shall be made that the accreditation also extends to fields beyond the scope of accreditation attested by DAkkS.</p> <p>The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) of 31 July 2009 (Federal Law Gazette I p. 2625) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products (Official Journal of the European Union L 218 of 9 July 2008, p. 30). DAkkS is a signatory to the Multilateral Agreements for Mutual Recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC). The signatories to these agreements recognise each other's accreditations.</p> <p>The up-to-date state of membership can be retrieved from the following websites: EA: www.european-accreditation.org ILAC: www.ilac.org IAF: www.iaf.nu</p>	Office Berlin Spittelmarkt 10 10117 Berlin	Office Frankfurt am Main Europa-Allee 52 60327 Frankfurt am Main	Office Braunschweig Bundesallee 100 38116 Braunschweig
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END OF TEST REPORT