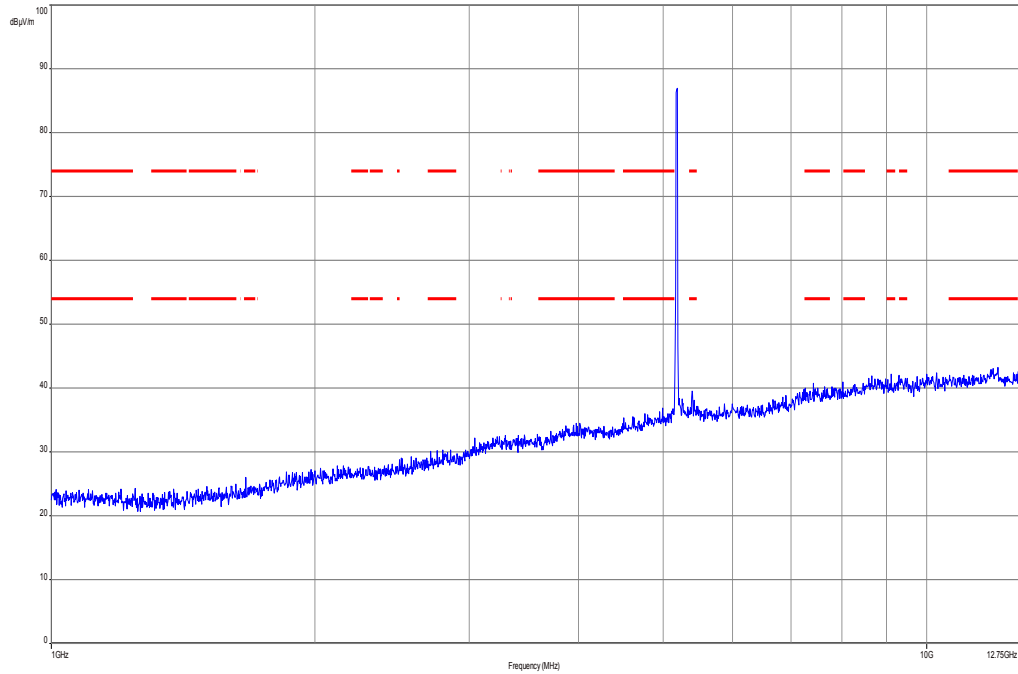
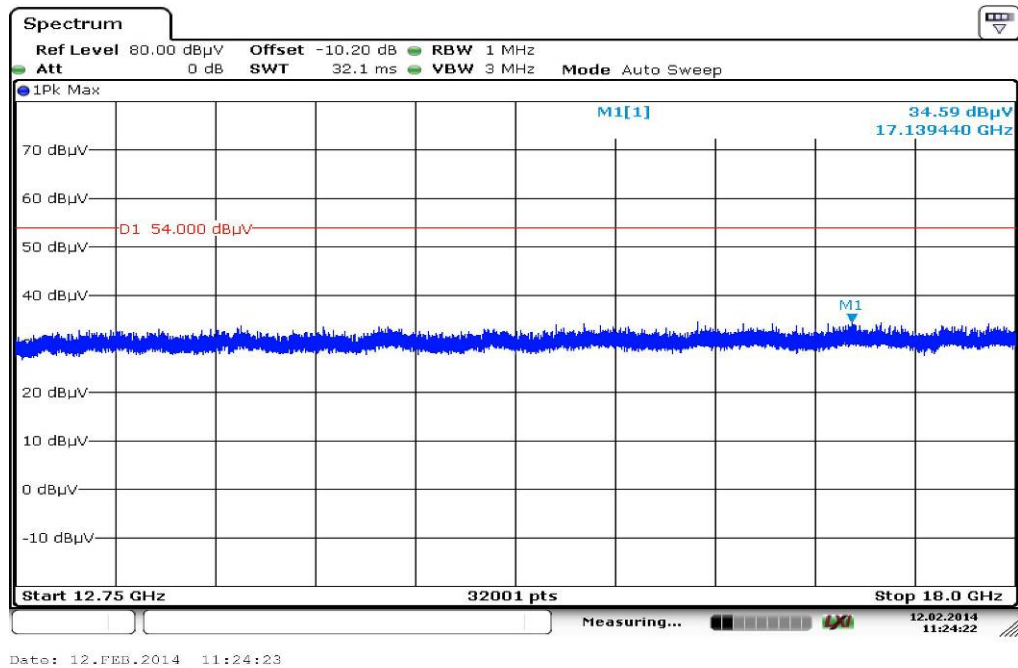


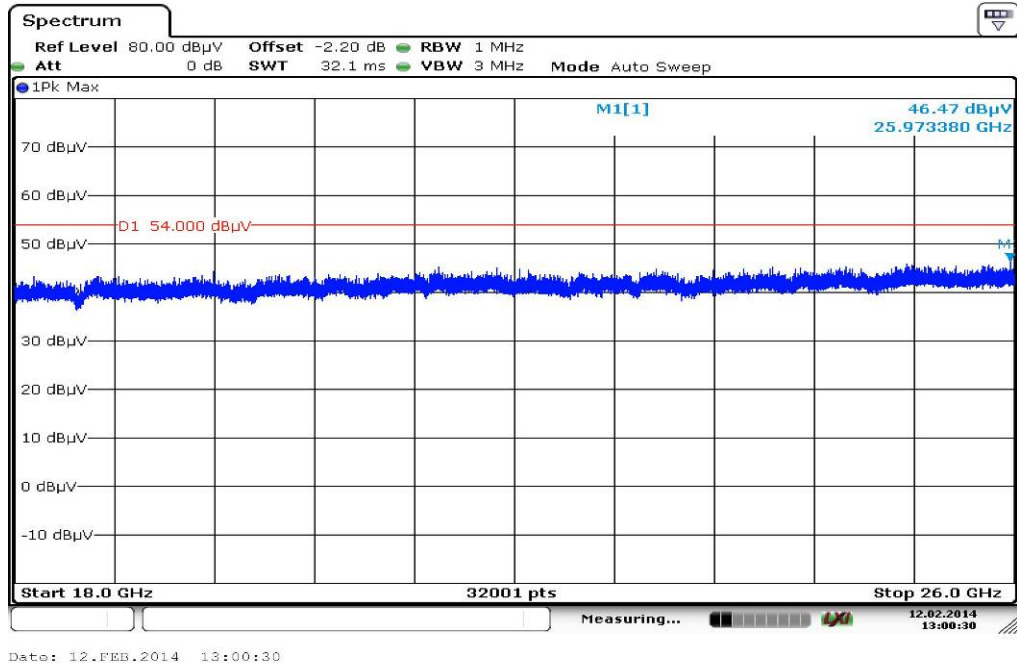
Plot 2: 1 GHz to 12.75 GHz, 5180 MHz, vertical & horizontal polarization



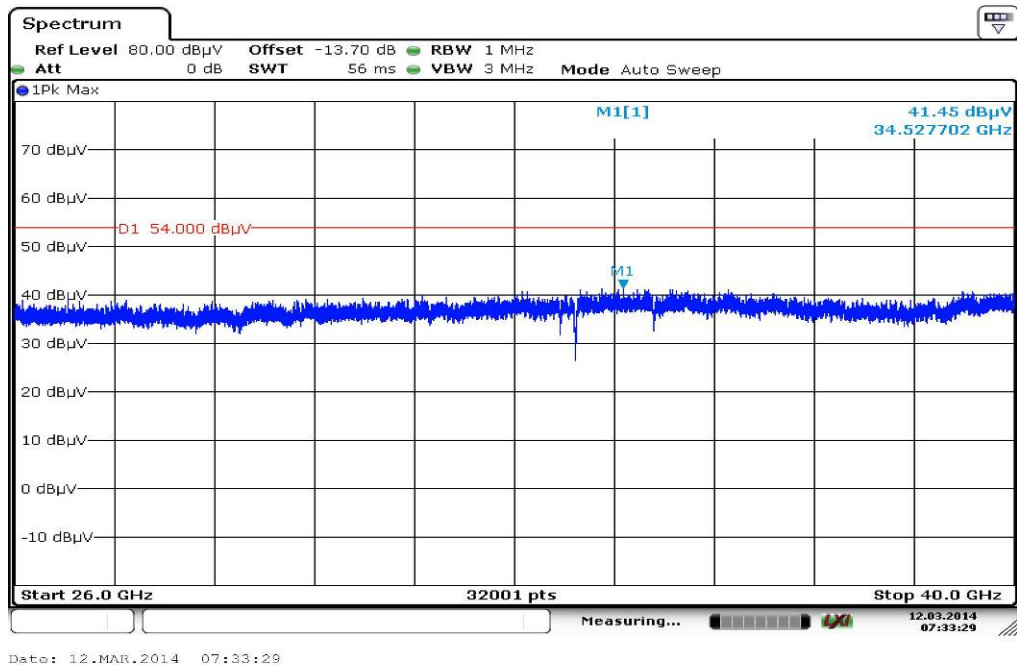
Plot 3: 12 GHz to 18 GHz, 5180 MHz, vertical & horizontal polarization



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



Plot 5: 26 GHz to 40 GHz, 5180 MHz, vertical & horizontal polarization



Plot 6: 30 MHz to 1 GHz, 5240 MHz, vertical & horizontal polarization

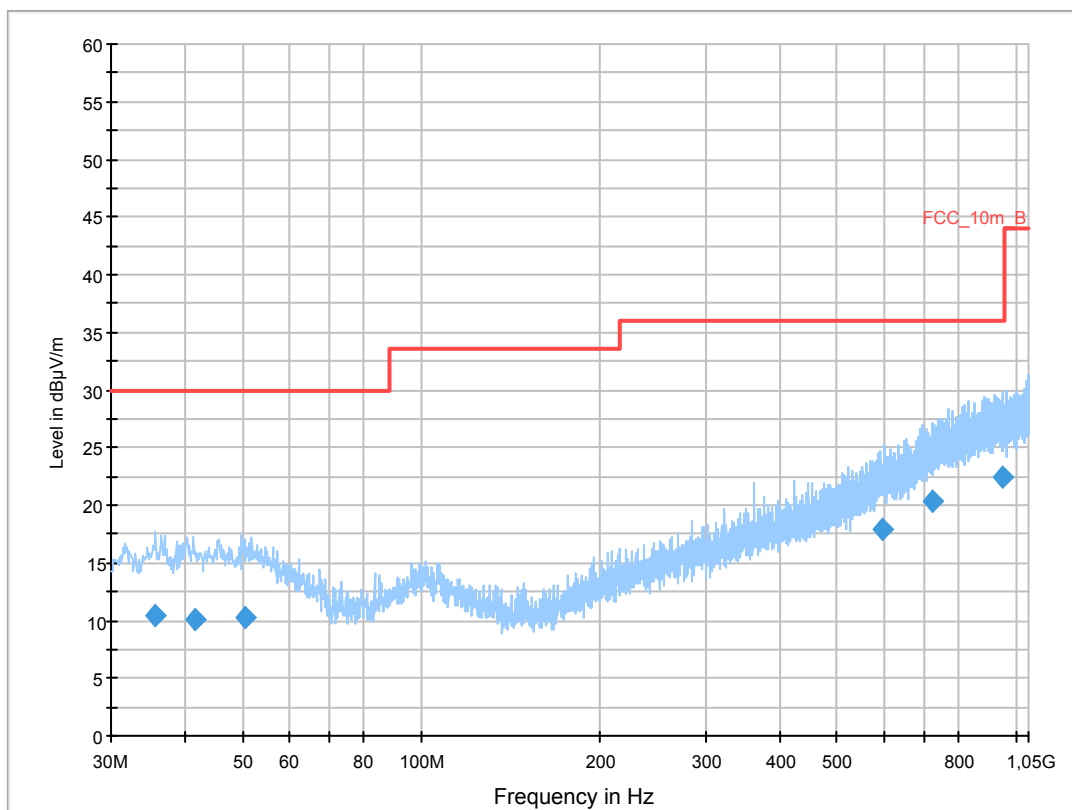
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan n-mode (HT20) tx ch 48
 Operator Name: Hennemann
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

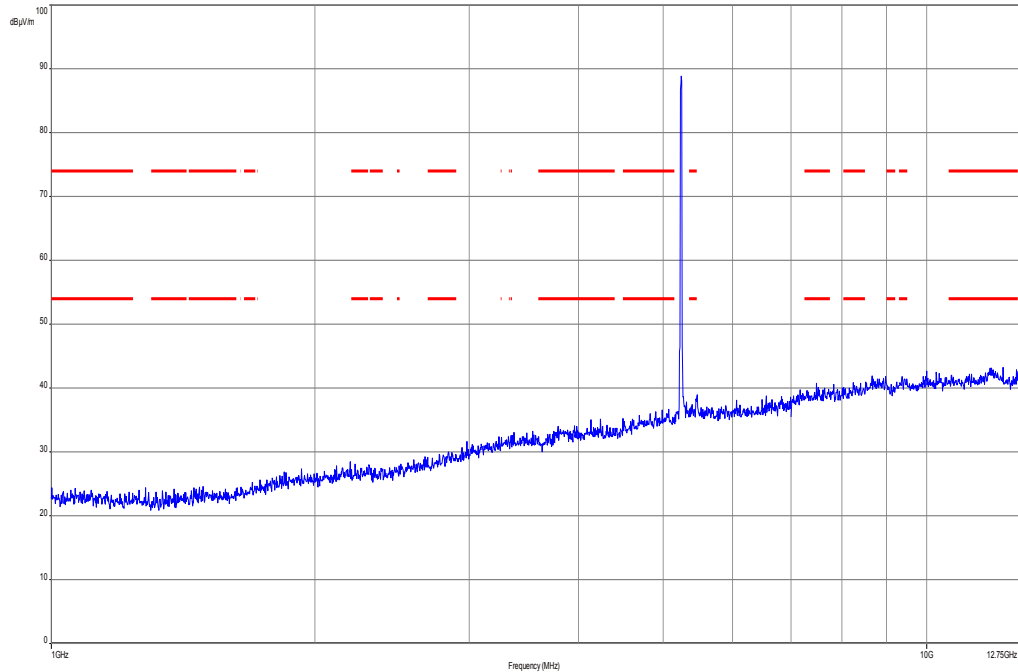
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



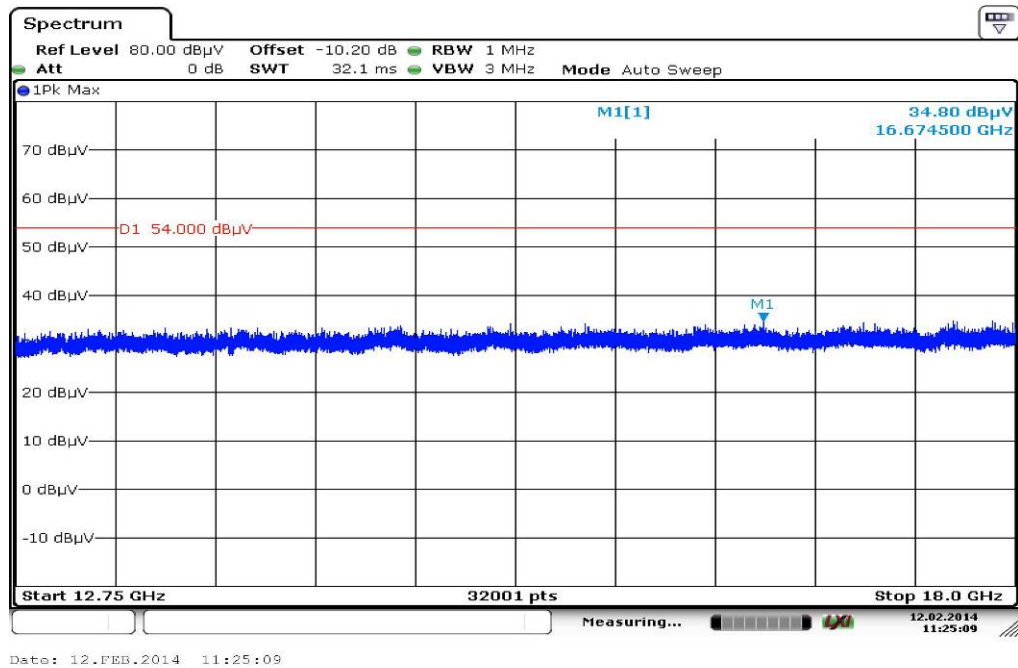
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.704650	10.5	1000.0	120.000	145.0	V	180.0	13.1	19.5	30.0	
41.534850	10.1	1000.0	120.000	145.0	H	90.0	13.4	19.9	30.0	
50.575800	10.3	1000.0	120.000	145.0	H	180.0	13.3	19.7	30.0	
593.741100	17.9	1000.0	120.000	145.0	H	90.0	20.6	18.1	36.0	
725.191350	20.4	1000.0	120.000	145.0	V	180.0	23.1	15.6	36.0	
949.592700	22.5	1000.0	120.000	145.0	V	0.0	25.4	13.5	36.0	

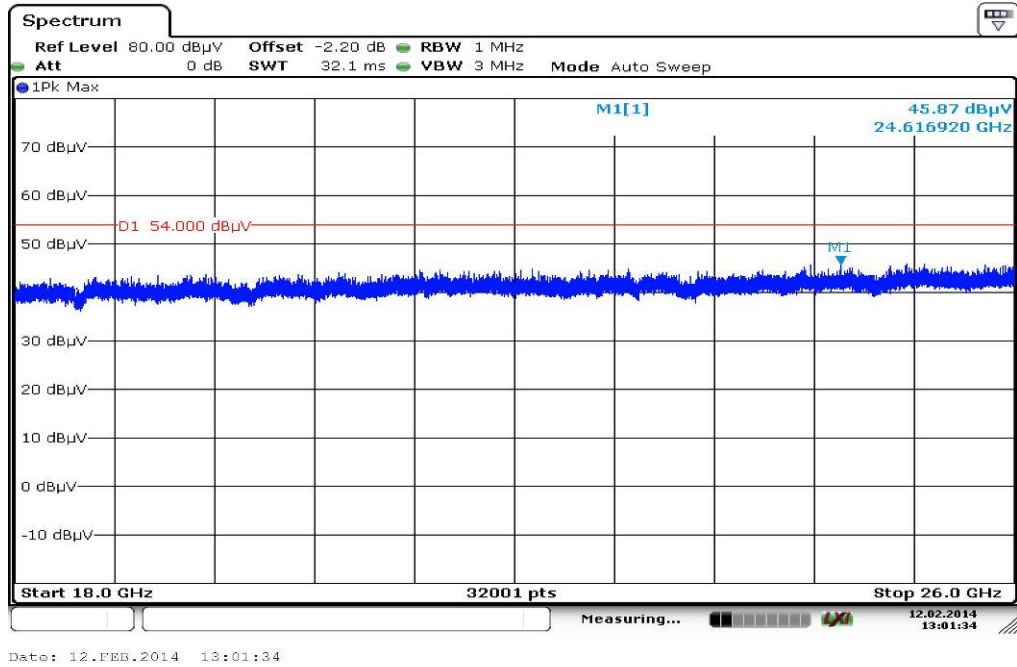
Plot 7: 1 GHz to 12.75 GHz, 5240 MHz, vertical & horizontal polarization



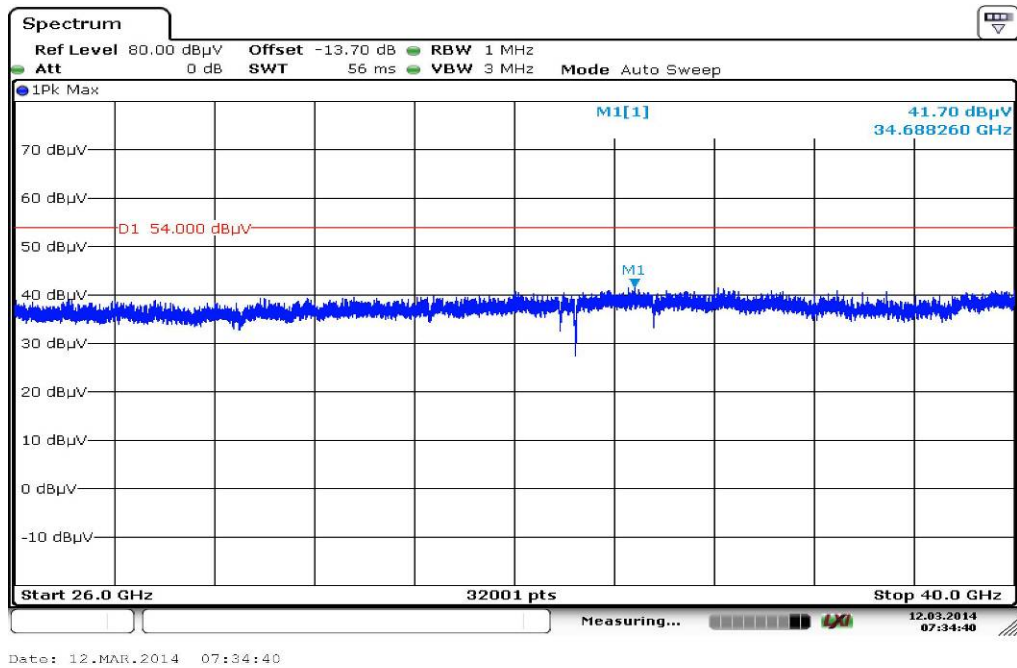
Plot 8: 12 GHz to 18 GHz, 5240 MHz, vertical & horizontal polarization



Plot 9: 18 GHz to 26 GHz, 5240 MHz, vertical & horizontal polarization



Plot 10: 26 GHz to 40 GHz, 5240 MHz, vertical & horizontal polarization



Plot 11: 30 MHz to 1 GHz, 5260 MHz, vertical & horizontal polarization

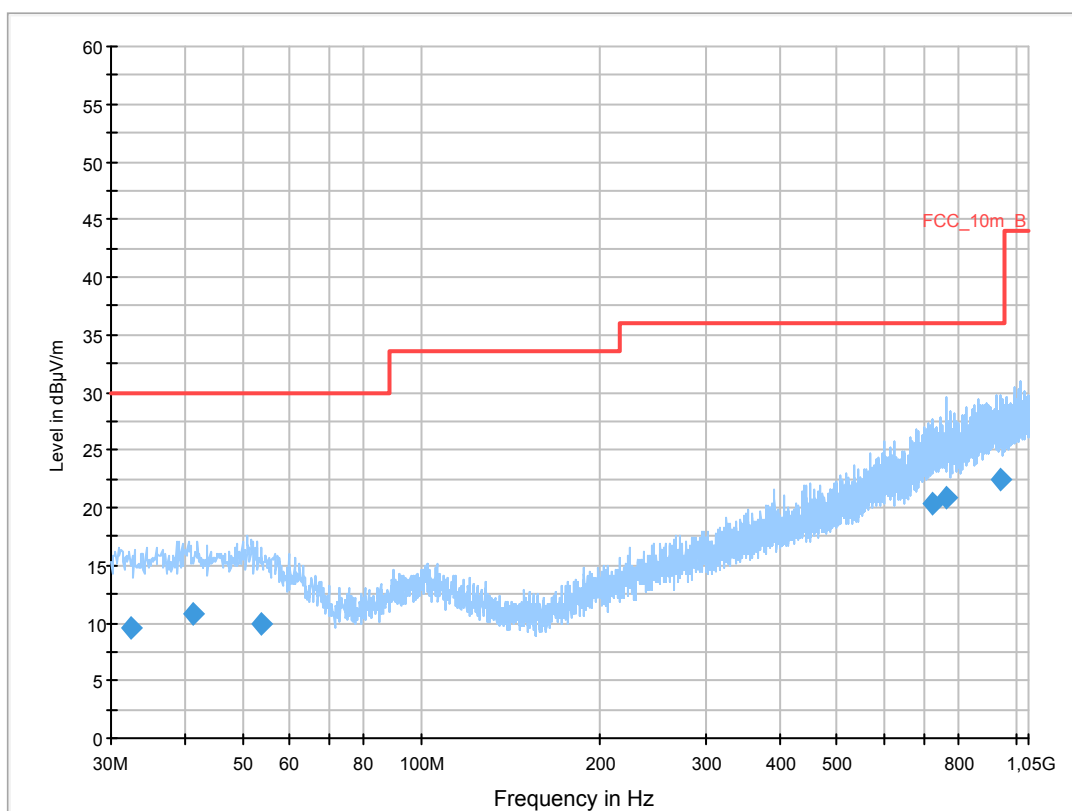
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan n-mode (HT20) tx ch 52
 Operator Name: Hennemann
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

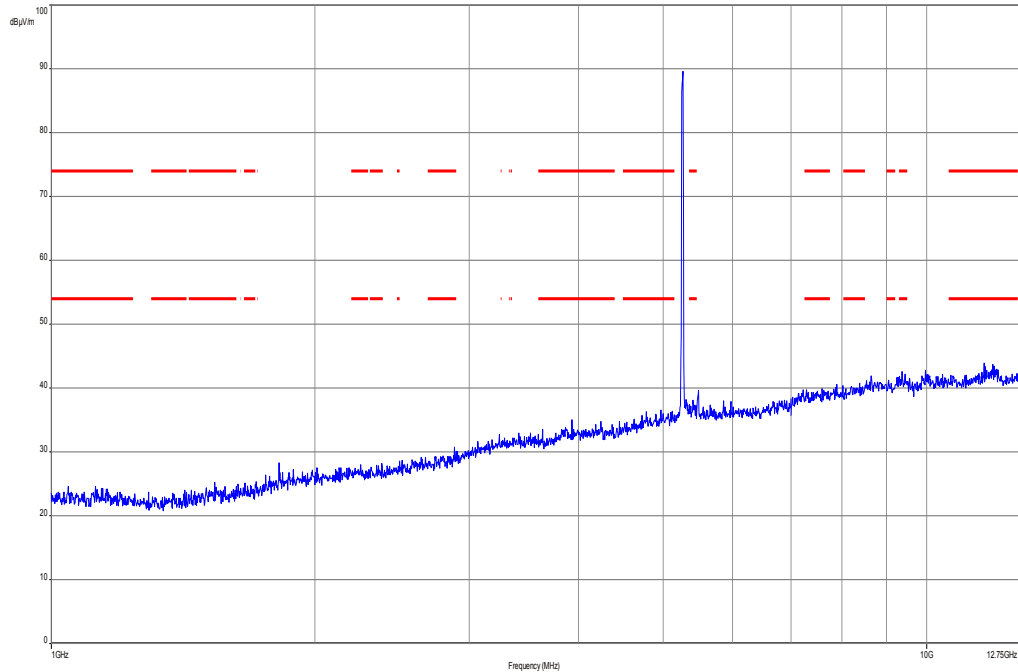
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



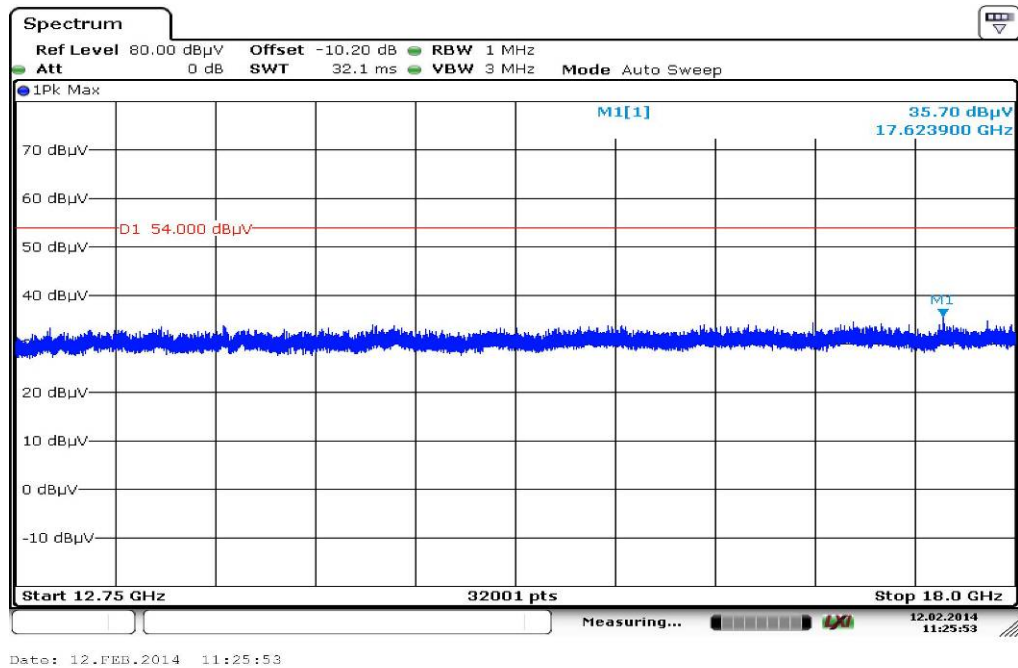
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
32.329200	9.6	1000.0	120.000	120.0	H	270.0	12.8	20.4	30.0	
41.379900	10.8	1000.0	120.000	98.0	V	0.0	13.4	19.2	30.0	
53.567850	10.0	1000.0	120.000	112.0	V	90.0	13.0	20.0	30.0	
721.348500	20.3	1000.0	120.000	145.0	H	270.0	23.0	15.7	36.0	
766.012950	20.9	1000.0	120.000	98.0	H	0.0	23.7	15.1	36.0	
939.216600	22.4	1000.0	120.000	145.0	V	180.0	25.3	13.6	36.0	

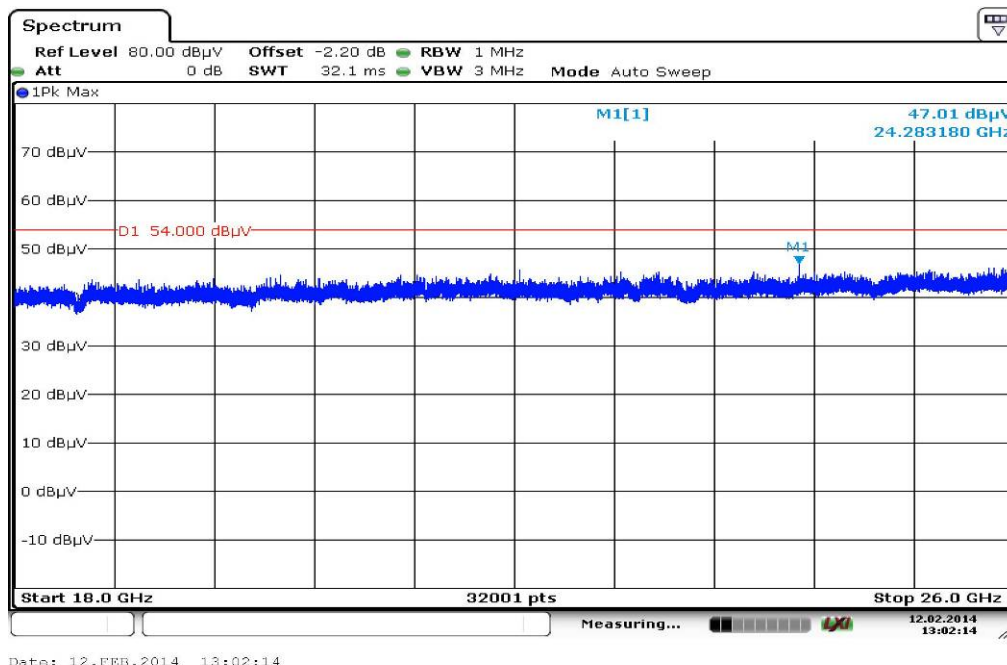
Plot 12: 1 GHz to 12.75 GHz, 5260 MHz, vertical & horizontal polarization



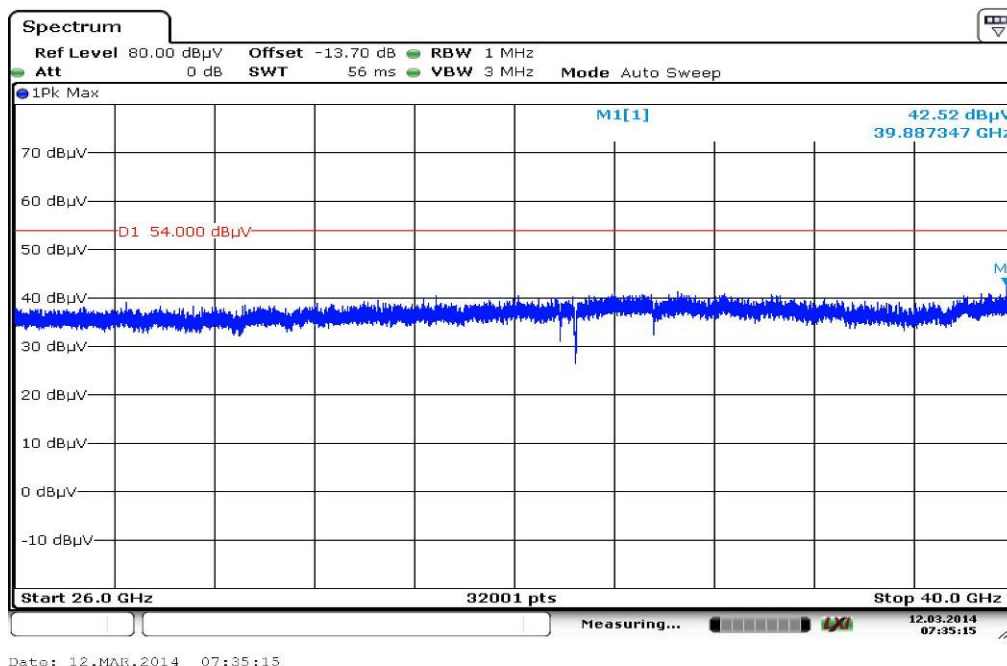
Plot 13: 12 GHz to 18 GHz, 5260 MHz, vertical & horizontal polarization



Plot 14: 18 GHz to 26 GHz, 5260 MHz, vertical & horizontal polarization



Plot 15: 26 GHz to 40 GHz, 5260 MHz, vertical & horizontal polarization



Plot 16: 30 MHz to 1 GHz, 5320 MHz, vertical & horizontal polarization

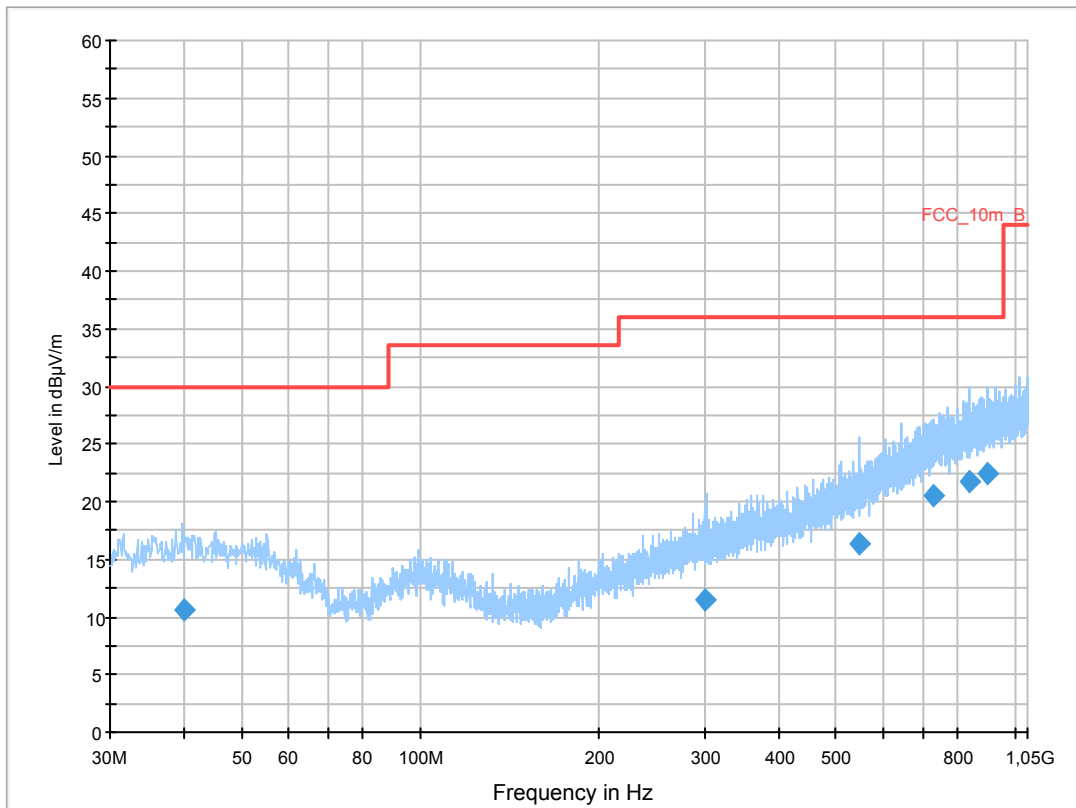
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan n-mode (HT20) tx ch 64
 Operator Name: Wolsdorfer
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

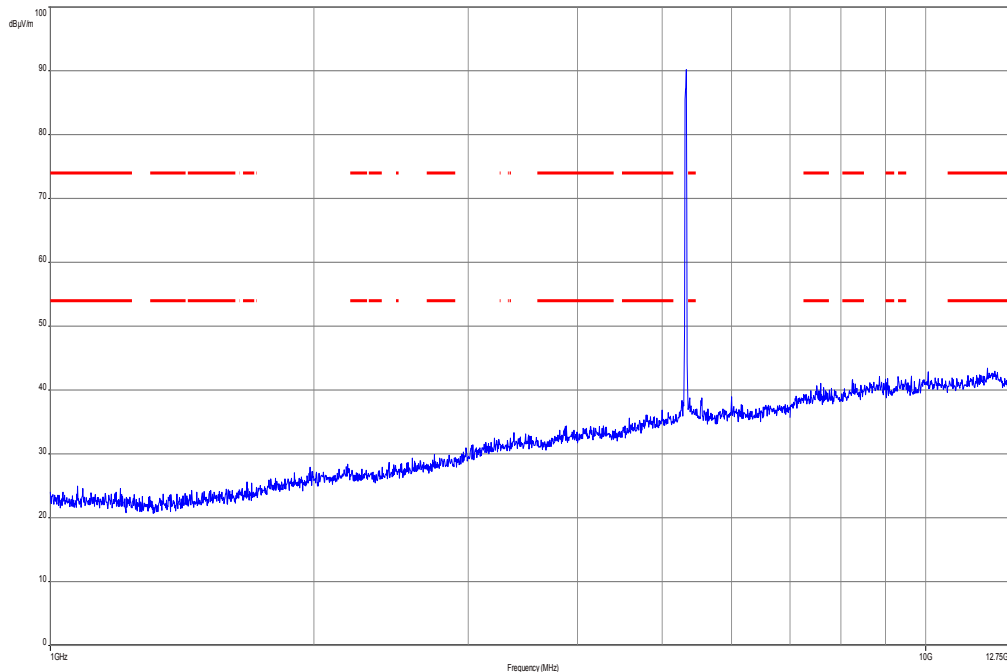
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



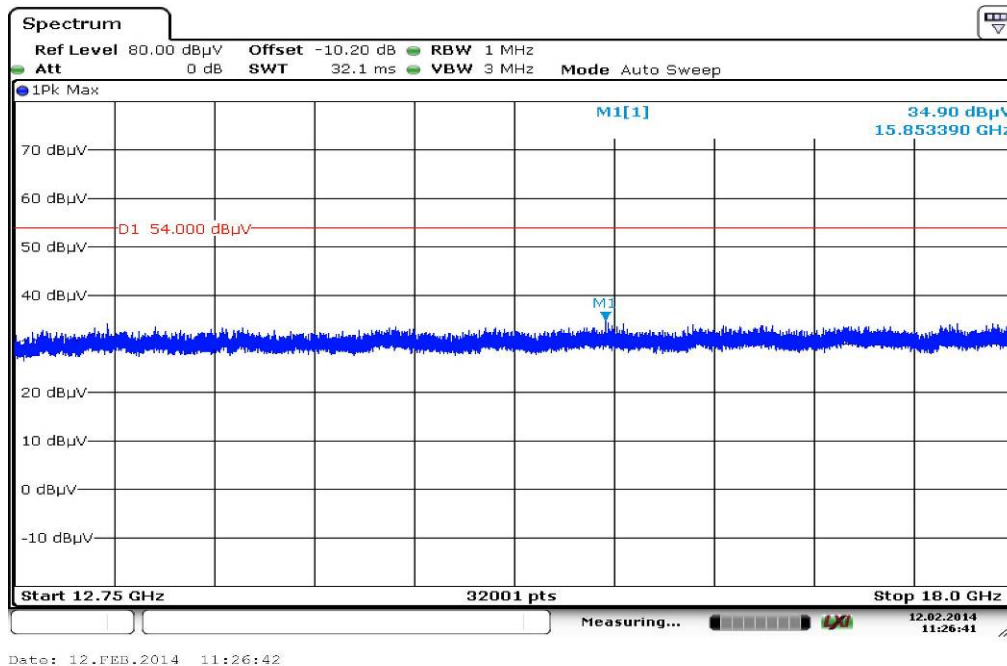
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
39.996600	10.6	1000.0	120.000	145.0	H	0.0	13.4	19.4	30.0	
301.486200	11.4	1000.0	120.000	145.0	V	90.0	14.6	24.6	36.0	
547.461450	16.3	1000.0	120.000	98.0	H	180.0	19.3	19.7	36.0	
727.883850	20.6	1000.0	120.000	98.0	V	270.0	23.2	15.4	36.0	
840.114750	21.8	1000.0	120.000	145.0	V	90.0	24.4	14.2	36.0	
897.146100	22.5	1000.0	120.000	105.0	V	180.0	25.2	13.5	36.0	

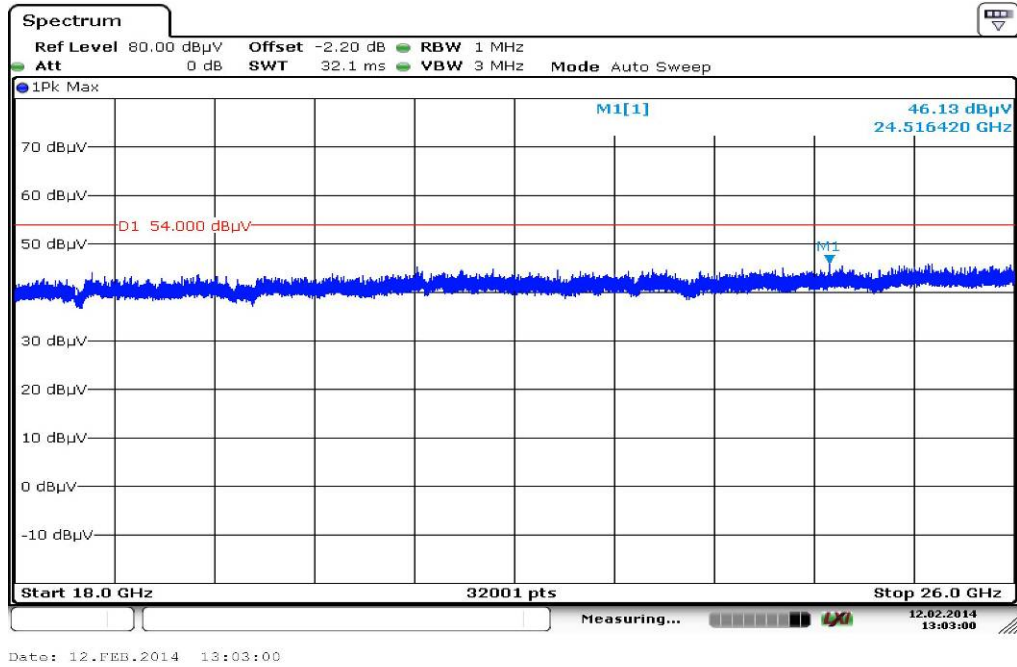
Plot 17: 1 GHz to 12.75 GHz, 5320 MHz, vertical & horizontal polarization



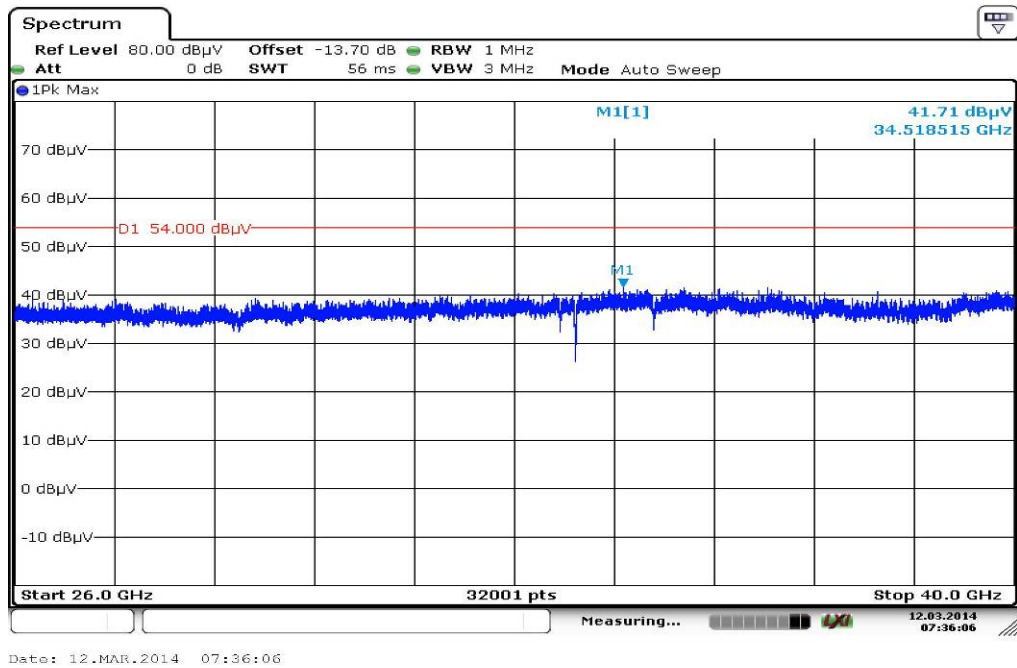
Plot 18: 12 GHz to 18 GHz, 5320 MHz, vertical & horizontal polarization



Plot 19: 18 GHz to 26 GHz, 5320 MHz, vertical & horizontal polarization



Plot 20: 26 GHz to 40 GHz, 5320 MHz, vertical & horizontal polarization



Plot 21: 30 MHz to 1 GHz, 5500 MHz, vertical & horizontal polarization

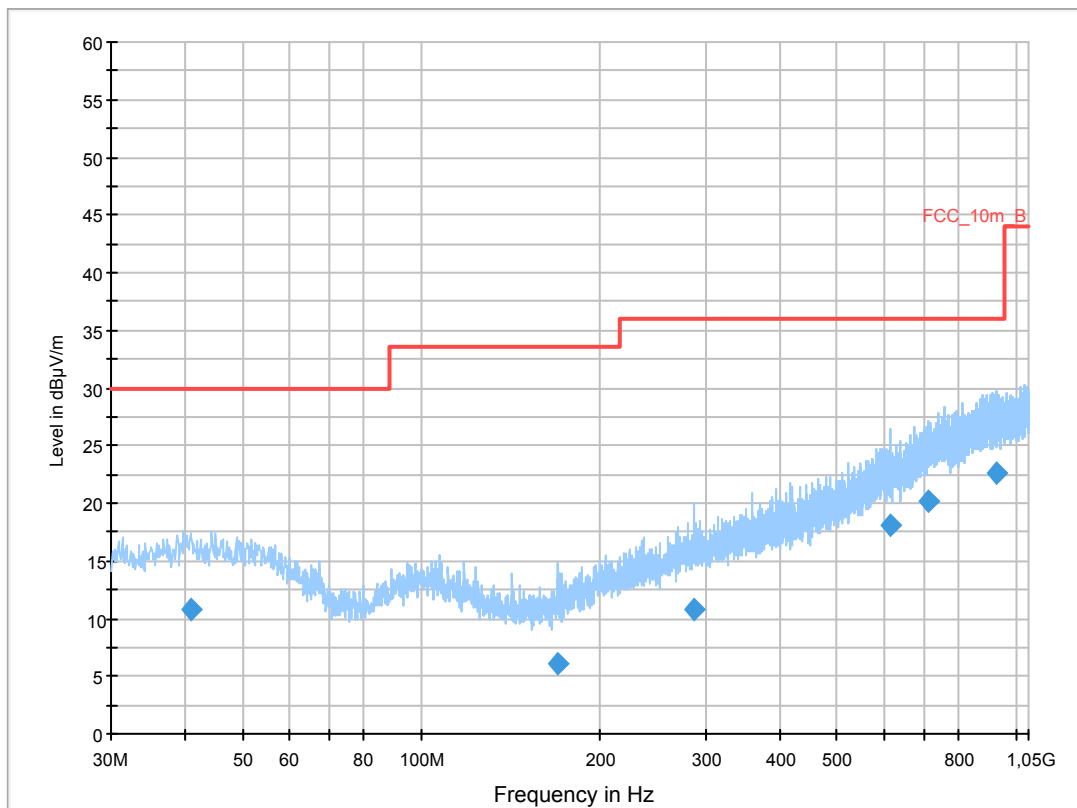
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan n-mode (HT20) tx ch 100
 Operator Name: Wolsdorfer
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

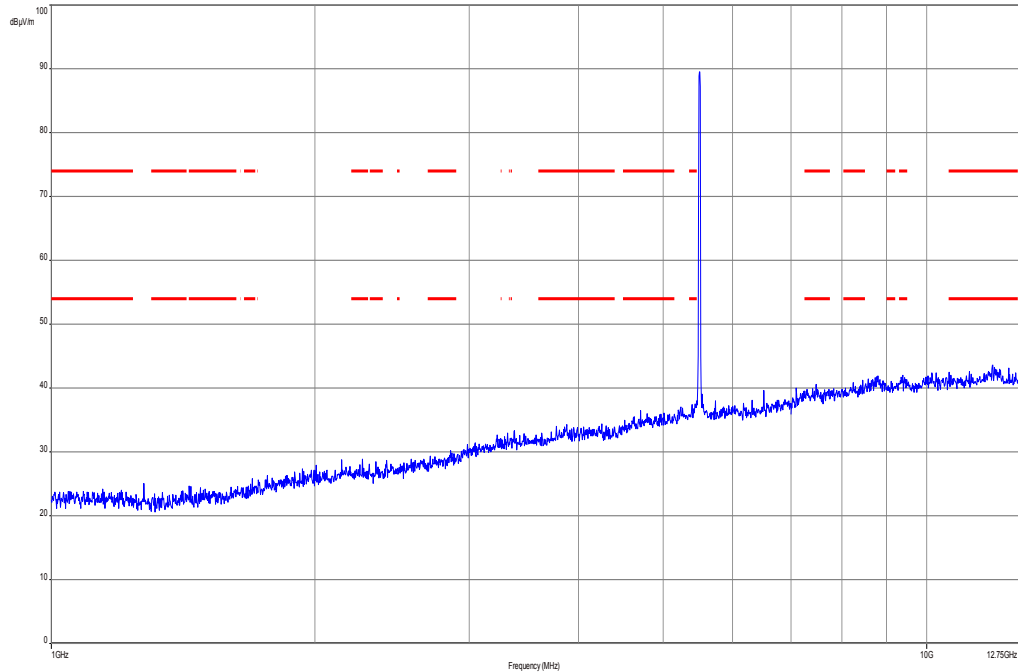
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



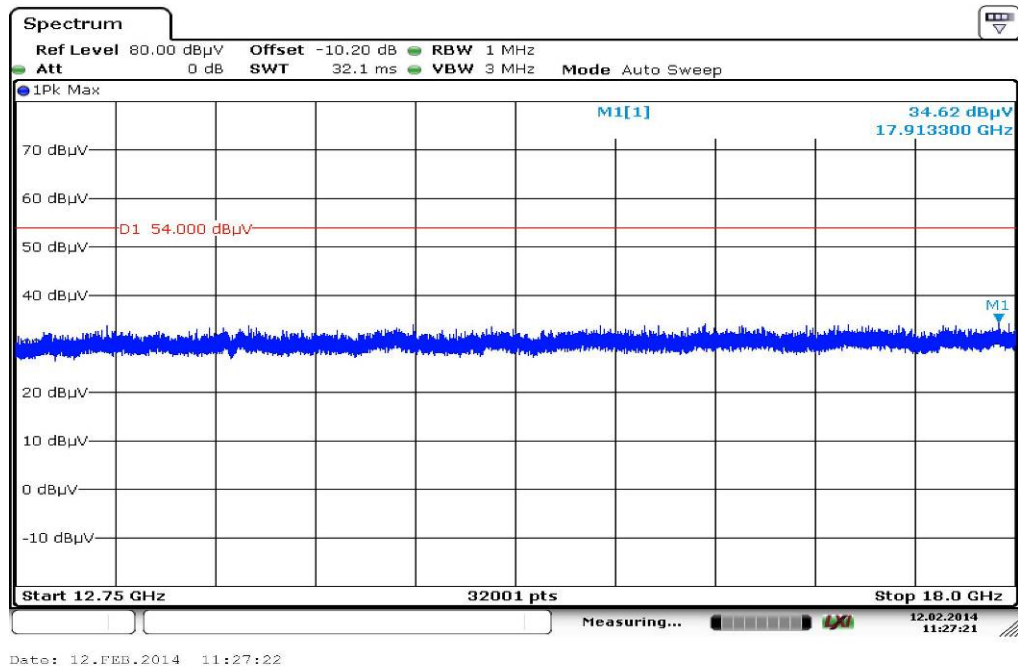
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
40.972650	10.8	1000.0	120.000	145.0	V	270.0	13.4	19.2	30.0	
169.638150	6.1	1000.0	120.000	145.0	V	270.0	9.8	27.4	33.5	
287.300850	10.8	1000.0	120.000	98.0	V	180.0	14.2	25.2	36.0	
614.313300	18.1	1000.0	120.000	145.0	V	90.0	20.9	17.9	36.0	
712.357650	20.2	1000.0	120.000	145.0	H	180.0	22.8	15.8	36.0	
925.391850	22.5	1000.0	120.000	145.0	V	0.0	25.3	13.5	36.0	

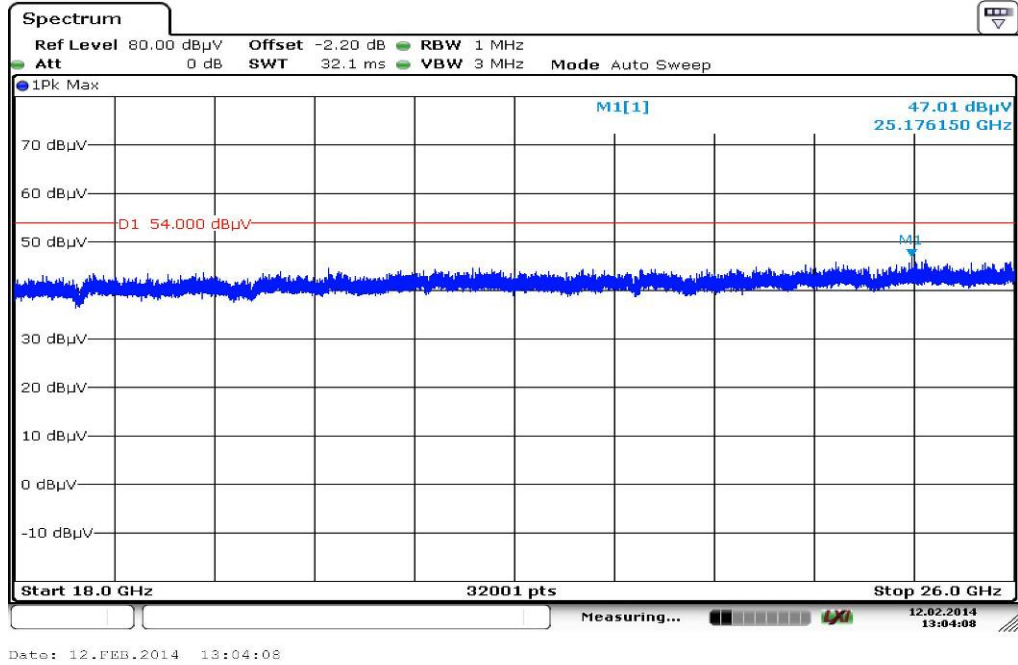
Plot 22: 1 GHz to 12.75 GHz, 5500 MHz, vertical & horizontal polarization



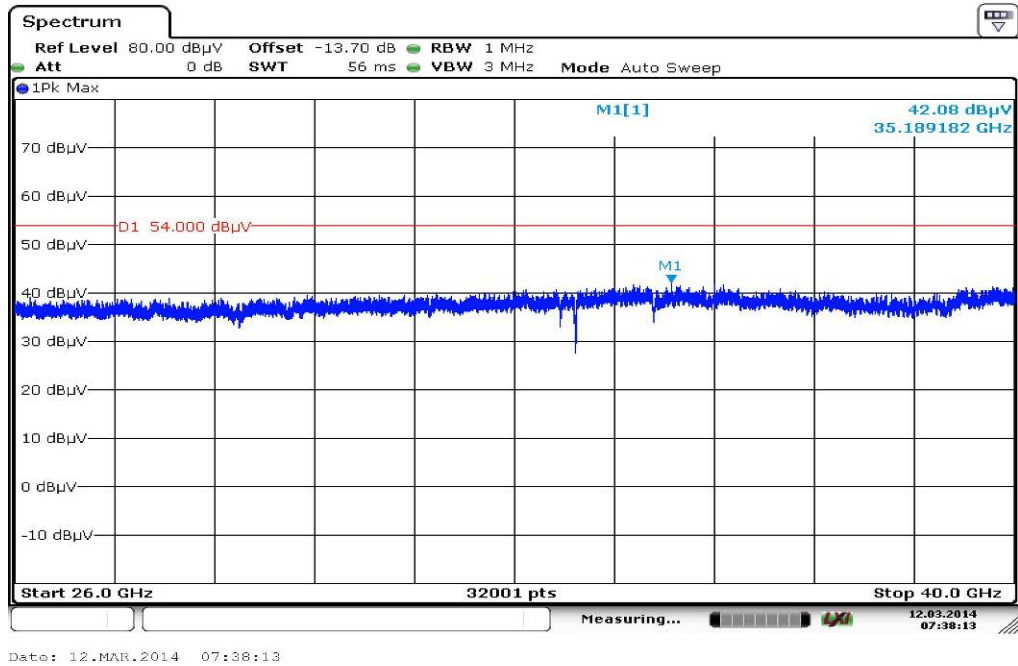
Plot 23: 12 GHz to 18 GHz, 5500 MHz, vertical & horizontal polarization



Plot 24: 18 GHz to 26 GHz, 5500 MHz, vertical & horizontal polarization



Plot 25: 26 GHz to 40 GHz, 5500 MHz, vertical & horizontal polarization



Plot 26: 30 MHz to 1 GHz, 5700 MHz, vertical & horizontal polarization

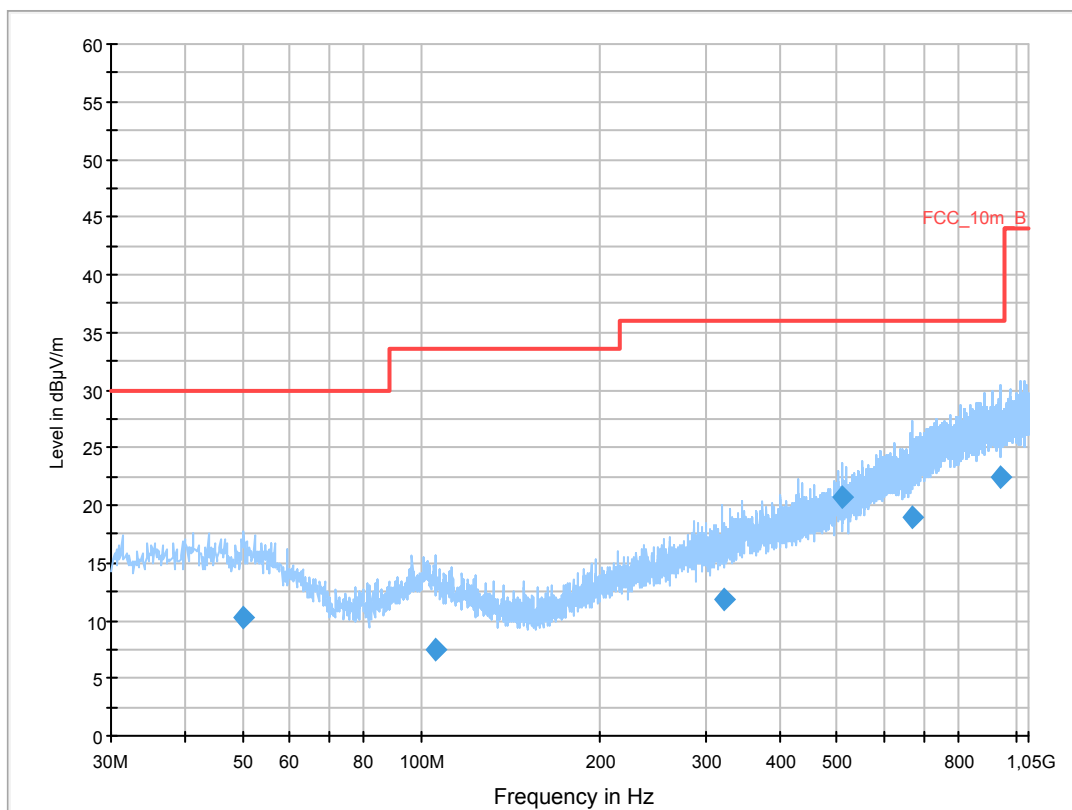
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan n-mode (HT20) tx ch 140
 Operator Name: Wolsdorfer
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

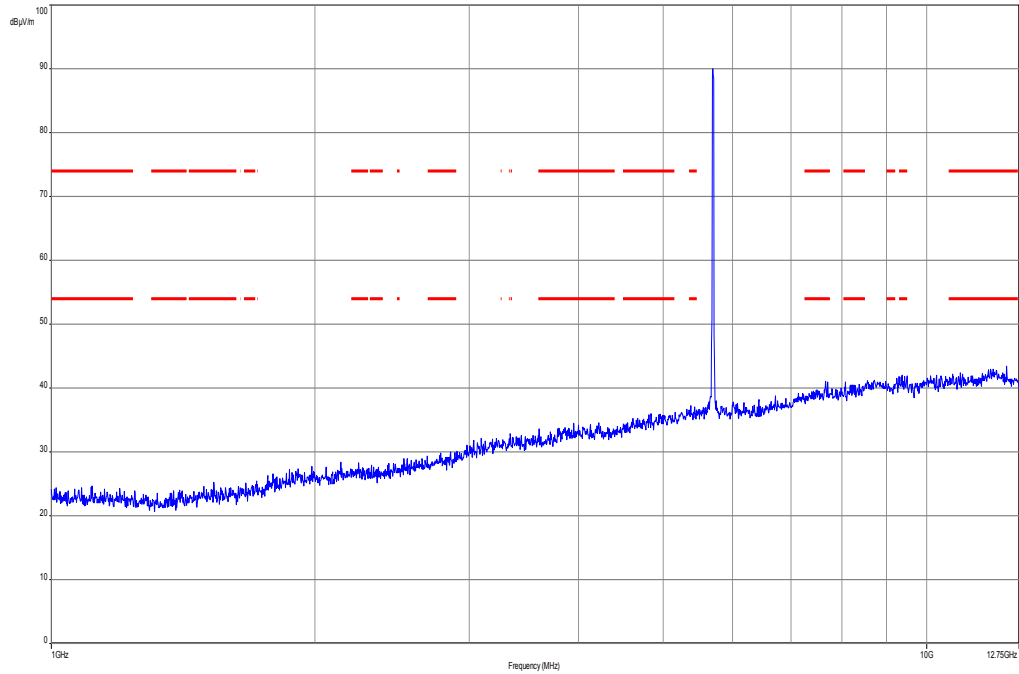
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



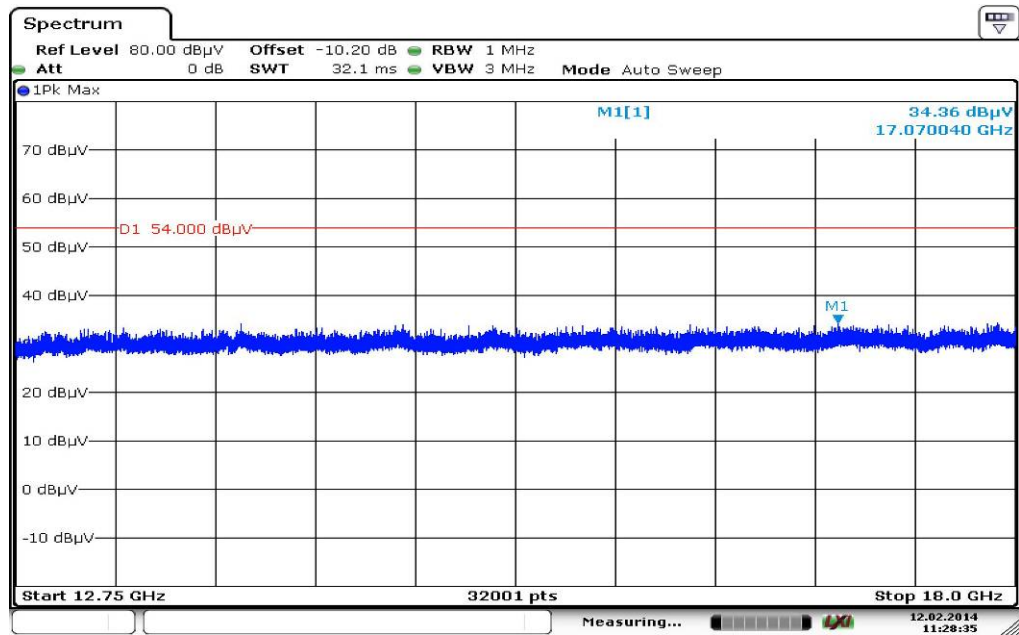
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
50.079150	10.2	1000.0	120.000	145.0	V	180.0	13.4	19.8	30.0	
105.486150	7.4	1000.0	120.000	120.0	V	180.0	11.4	26.1	33.5	
321.517350	11.9	1000.0	120.000	130.0	V	180.0	15.2	24.1	36.0	
509.976300	20.7	1000.0	120.000	130.0	V	90.0	18.8	15.3	36.0	
668.863200	19.0	1000.0	120.000	145.0	H	270.0	21.6	17.0	36.0	
939.395700	22.5	1000.0	120.000	145.0	V	180.0	25.3	13.5	36.0	

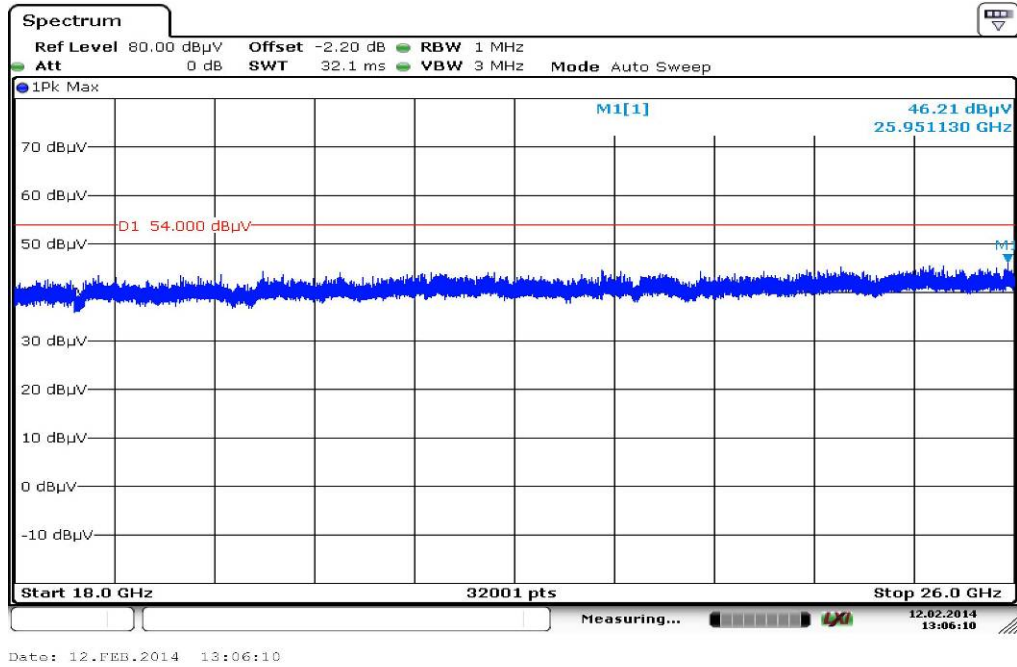
Plot 27: 1 GHz to 12.75 GHz, 5700 MHz, vertical & horizontal polarization



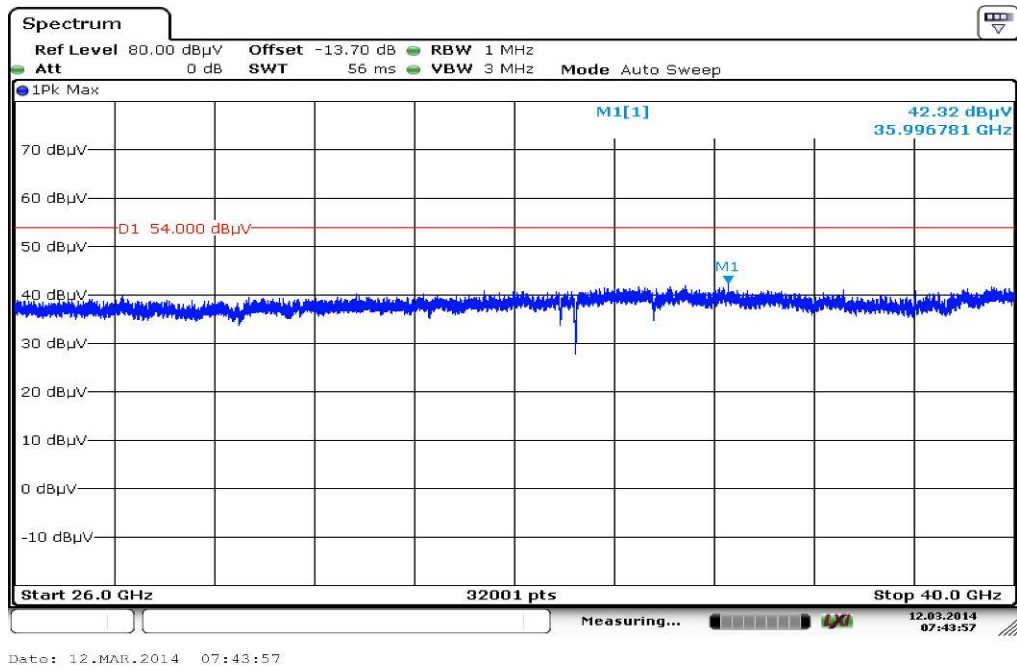
Plot 28: 12 GHz to 18 GHz, 5700 MHz, vertical & horizontal polarization



Plot 29: 18 GHz to 26 GHz, 5700 MHz, vertical & horizontal polarization



Plot 30: 26 GHz to 40 GHz, 5700 MHz, vertical & horizontal polarization



Plots: OFDM / n/ac – mode HT40

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

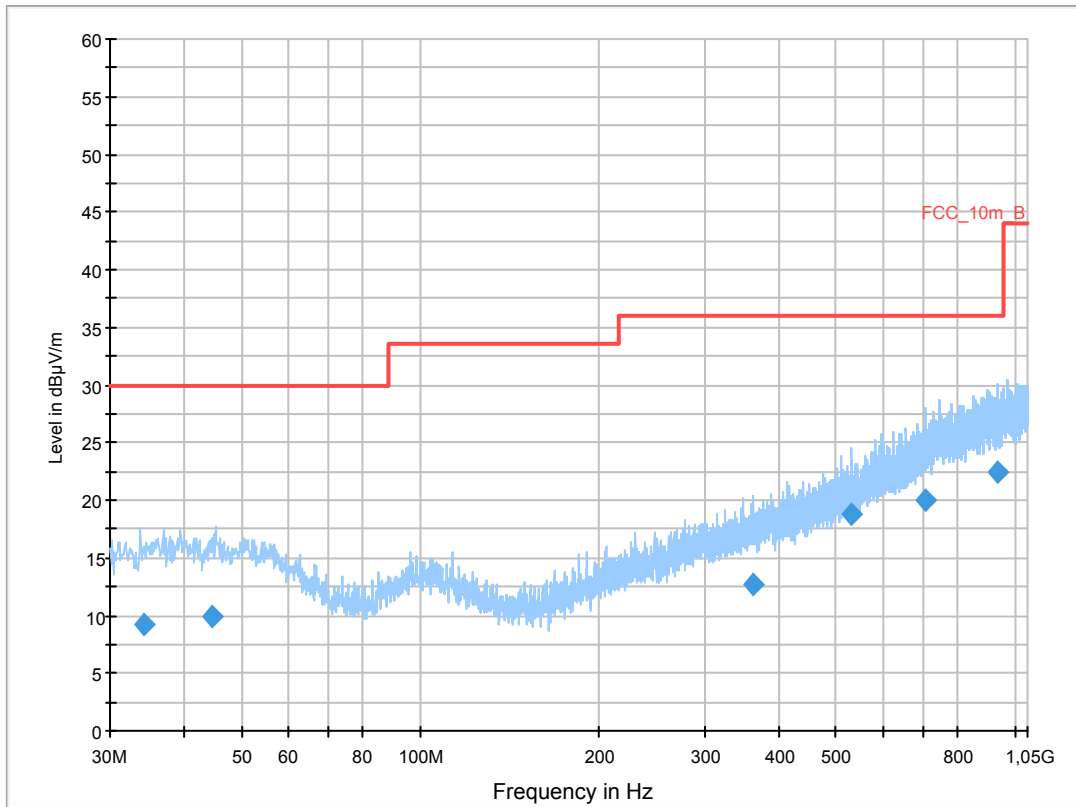
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan n-mode (HT40) tx ch 38
 Operator Name: Wolsdorfer
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

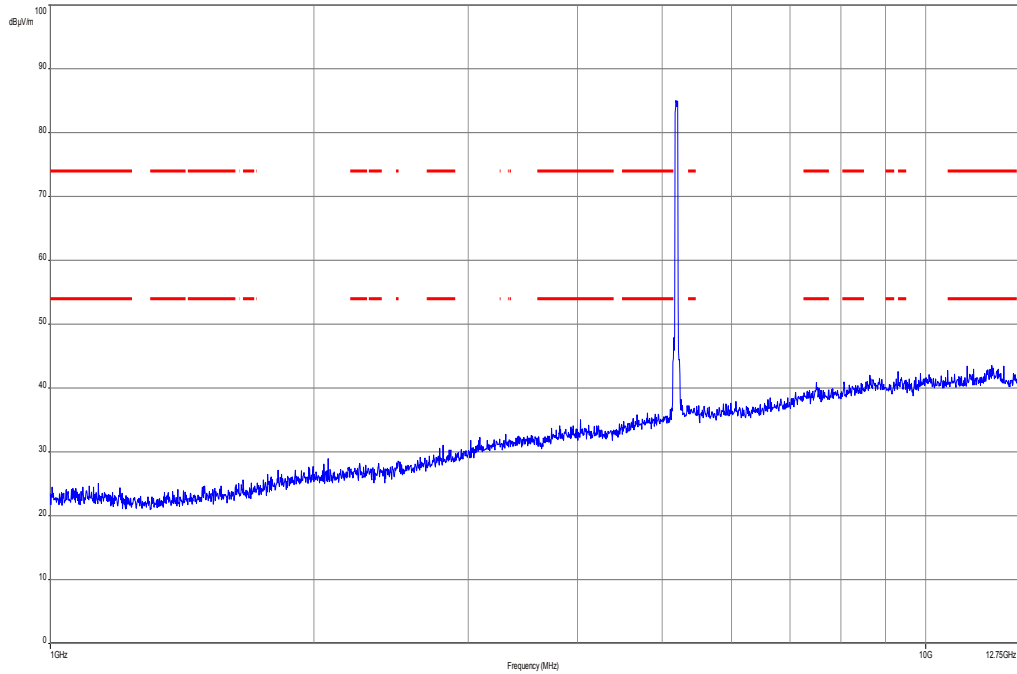
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



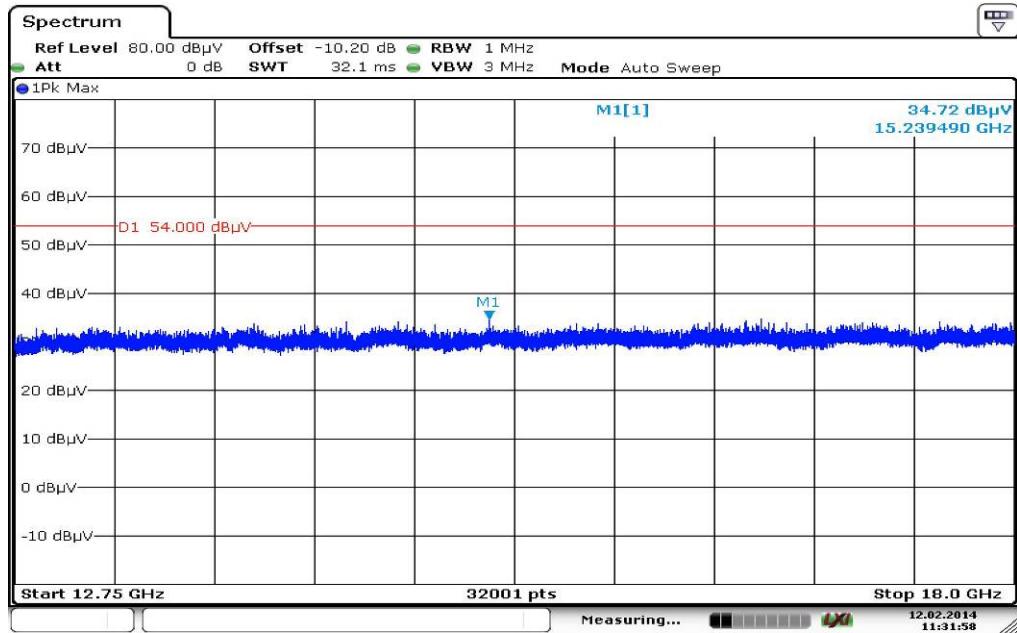
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
34.115700	9.3	1000.0	120.000	98.0	V	90.0	12.9	20.7	30.0	
44.638050	9.9	1000.0	120.000	145.0	H	0.0	13.3	20.1	30.0	
362.761800	12.8	1000.0	120.000	145.0	V	270.0	16.3	23.2	36.0	
529.725300	18.8	1000.0	120.000	145.0	H	0.0	19.1	17.2	36.0	
705.065100	20.0	1000.0	120.000	145.0	V	180.0	22.6	16.0	36.0	
936.108600	22.5	1000.0	120.000	120.0	V	180.0	25.3	13.5	36.0	

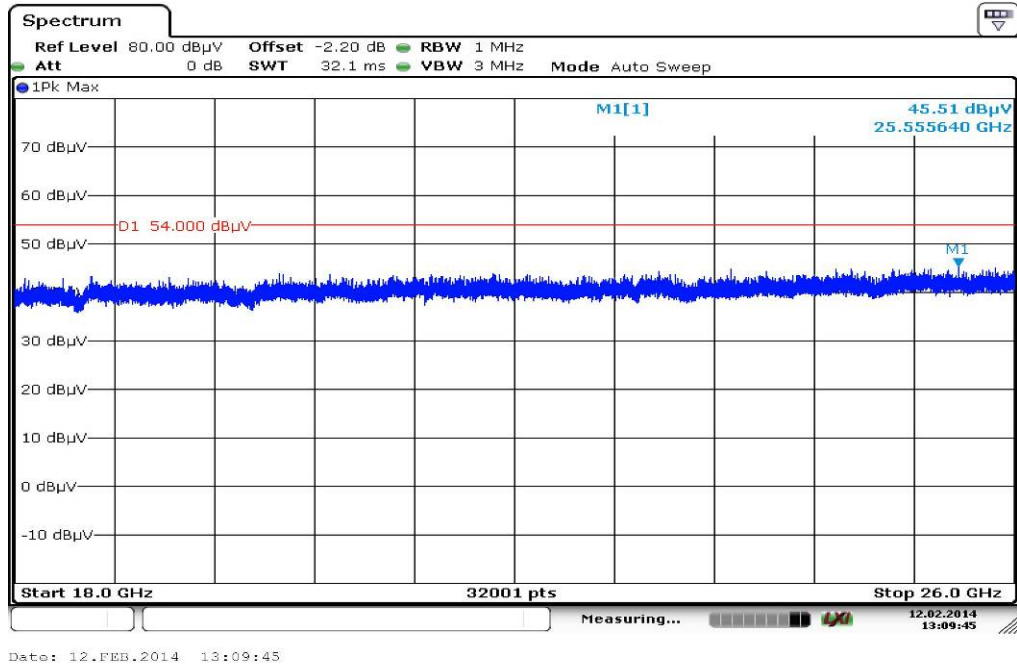
Plot 2: 1 GHz to 12.75 GHz, 5190 MHz, vertical & horizontal polarization



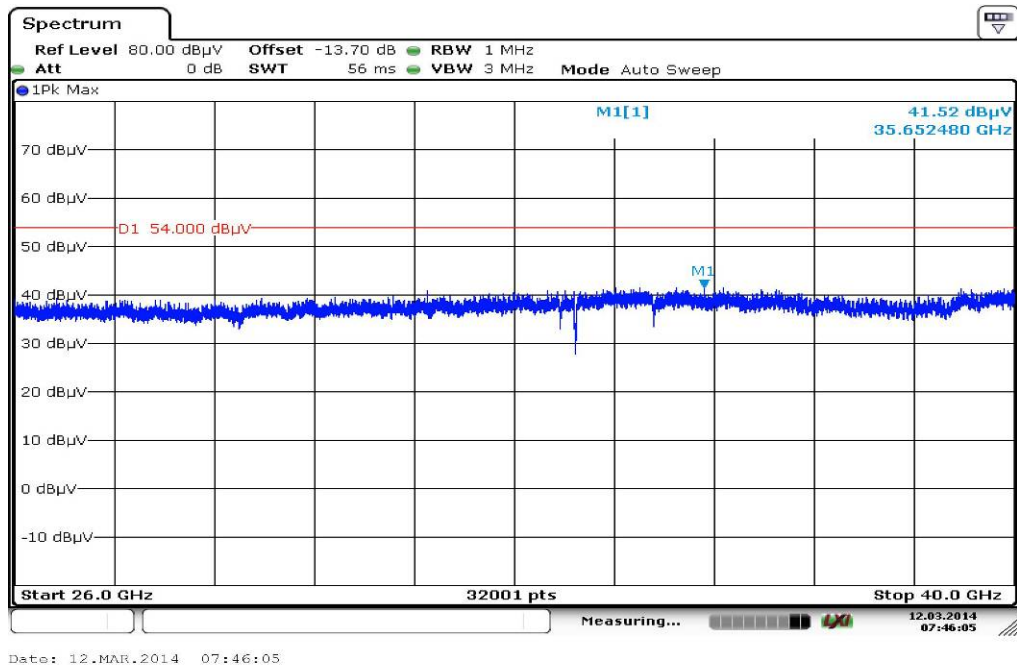
Plot 3: 12 GHz to 18 GHz, 5190 MHz, vertical & horizontal polarization



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



Plot 5: 26 GHz to 40 GHz, 5190 MHz, vertical & horizontal polarization



Plot 6: 30 MHz to 1 GHz, 5230 MHz, vertical & horizontal polarization

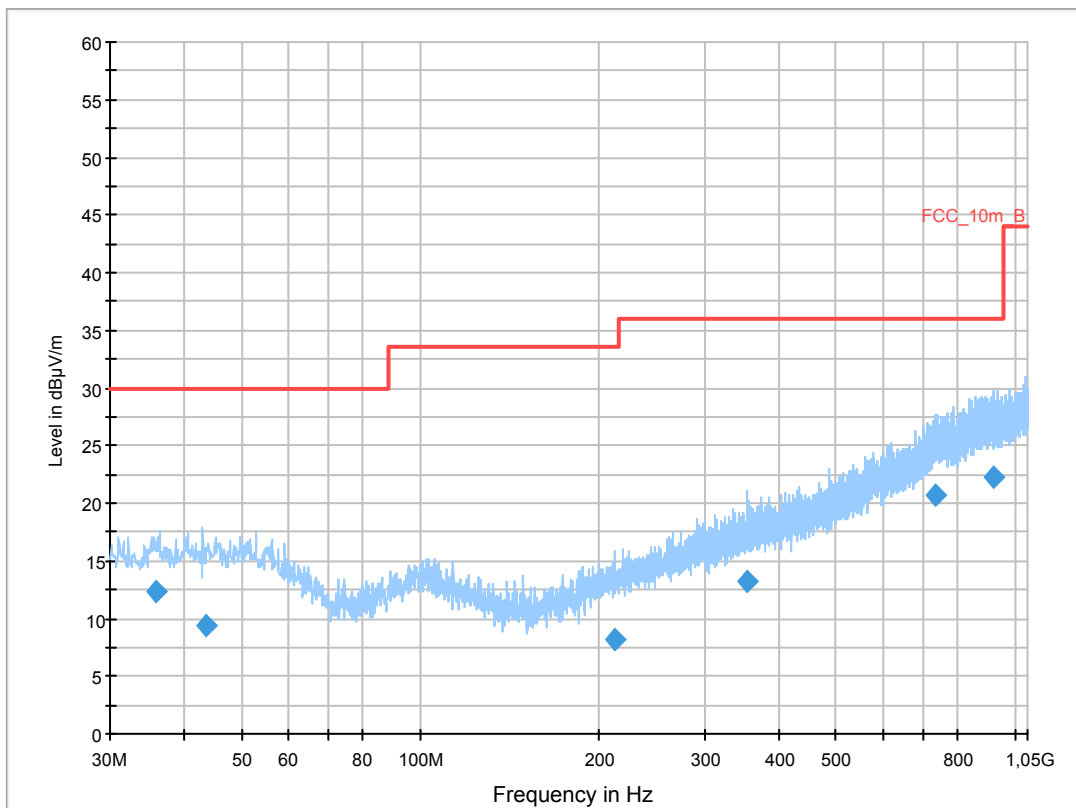
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan n-mode (HT40) tx ch 46
 Operator Name: Wolsdorfer
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

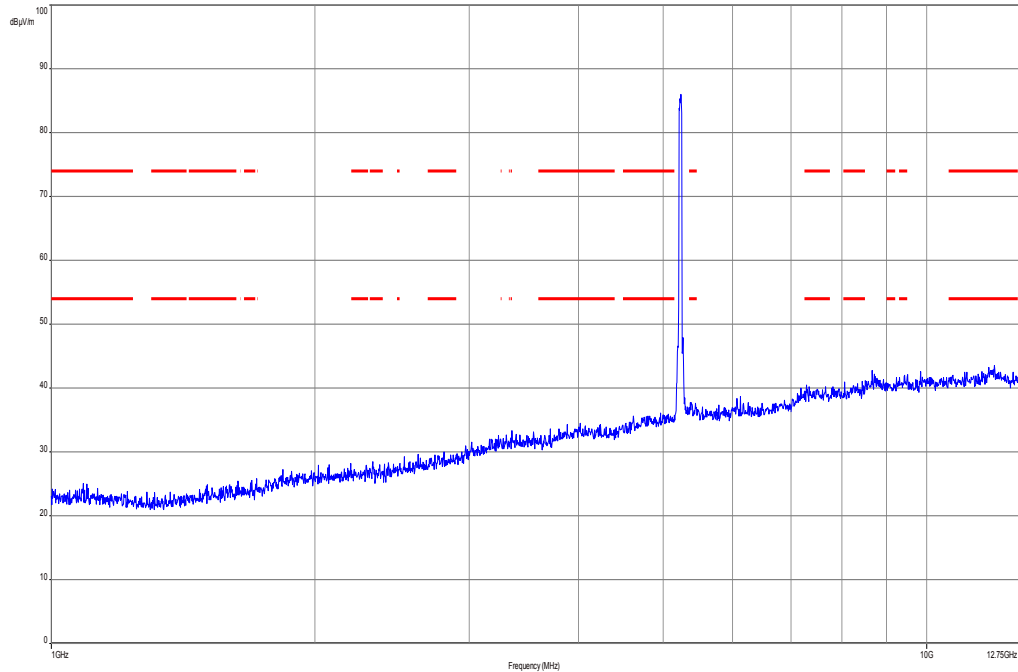
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



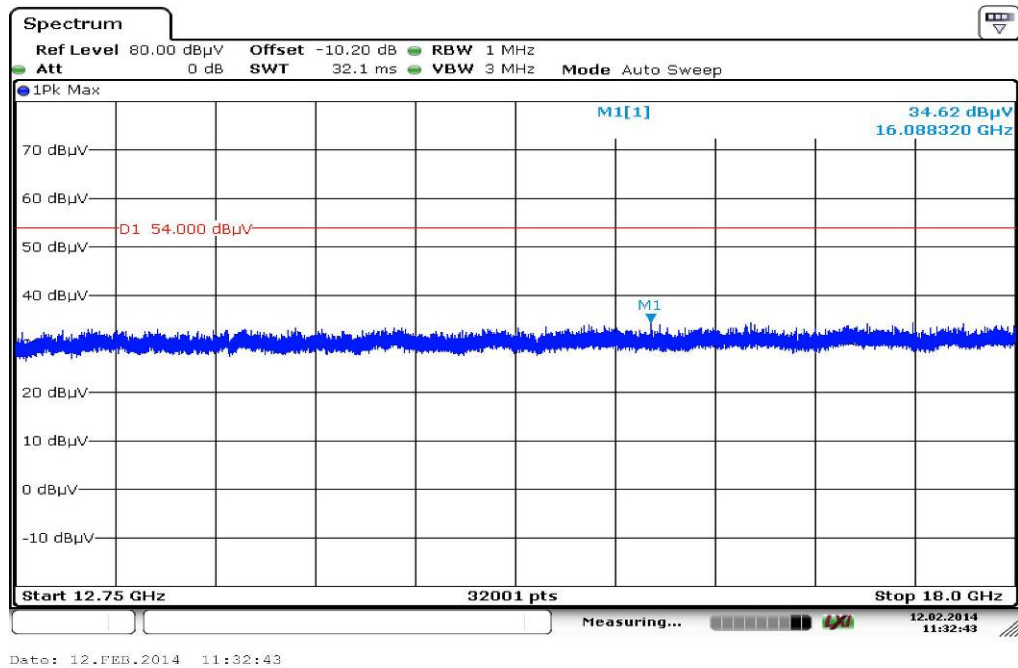
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.986350	12.4	1000.0	120.000	145.0	V	270.0	13.1	17.6	30.0	
43.466550	9.3	1000.0	120.000	145.0	V	180.0	13.3	20.7	30.0	
212.046900	8.2	1000.0	120.000	145.0	H	180.0	12.1	25.3	33.5	
354.950100	13.2	1000.0	120.000	111.0	V	270.0	16.1	22.8	36.0	
735.632500	20.6	1000.0	120.000	145.0	V	0.0	23.3	15.4	36.0	
922.432500	22.3	1000.0	120.000	145.0	V	180.0	25.3	13.7	36.0	

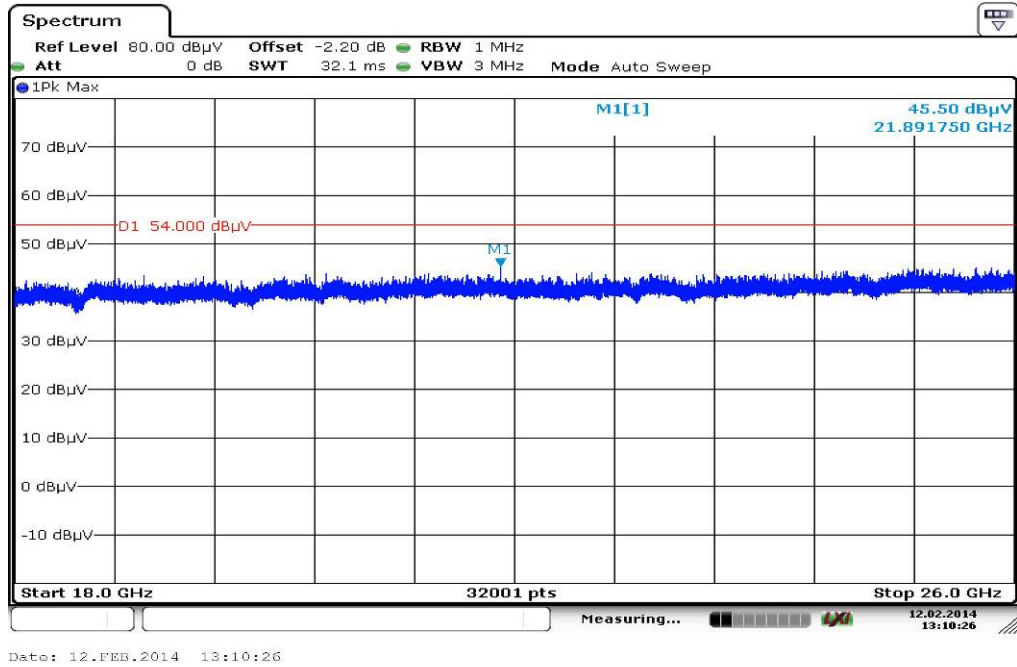
Plot 7: 1 GHz to 12.75 GHz, 5230 MHz, vertical & horizontal polarization



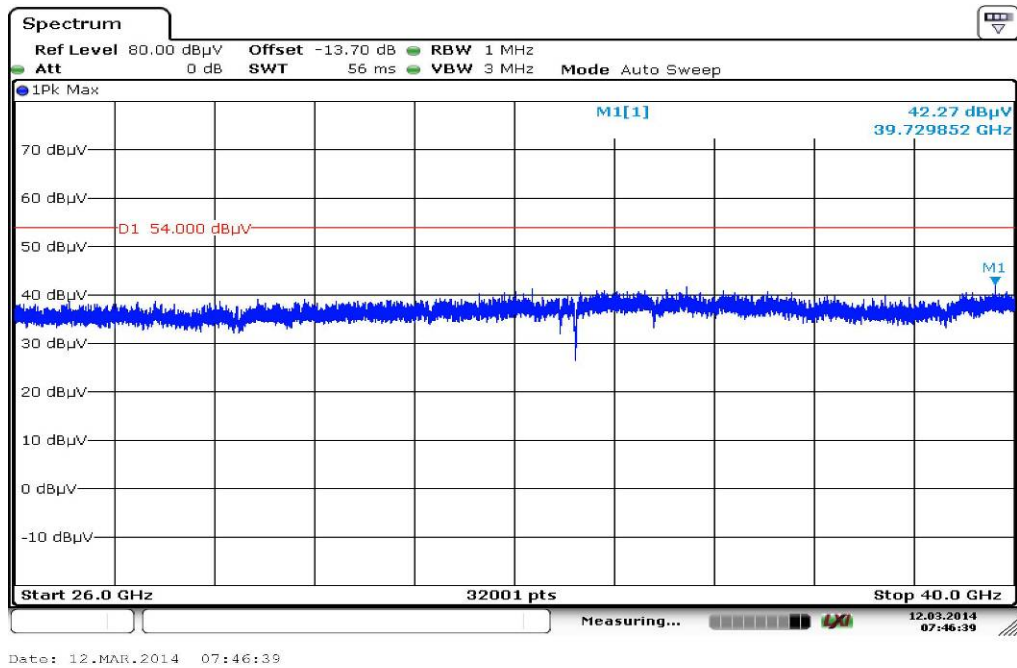
Plot 8: 12 GHz to 18 GHz, 5230 MHz, vertical & horizontal polarization



Plot 9: 18 GHz to 26 GHz, 5230 MHz, vertical & horizontal polarization



Plot 10: 26 GHz to 40 GHz, 5230 MHz, vertical & horizontal polarization



Plot 11: 30 MHz to 1 GHz, 5270 MHz, vertical & horizontal polarization

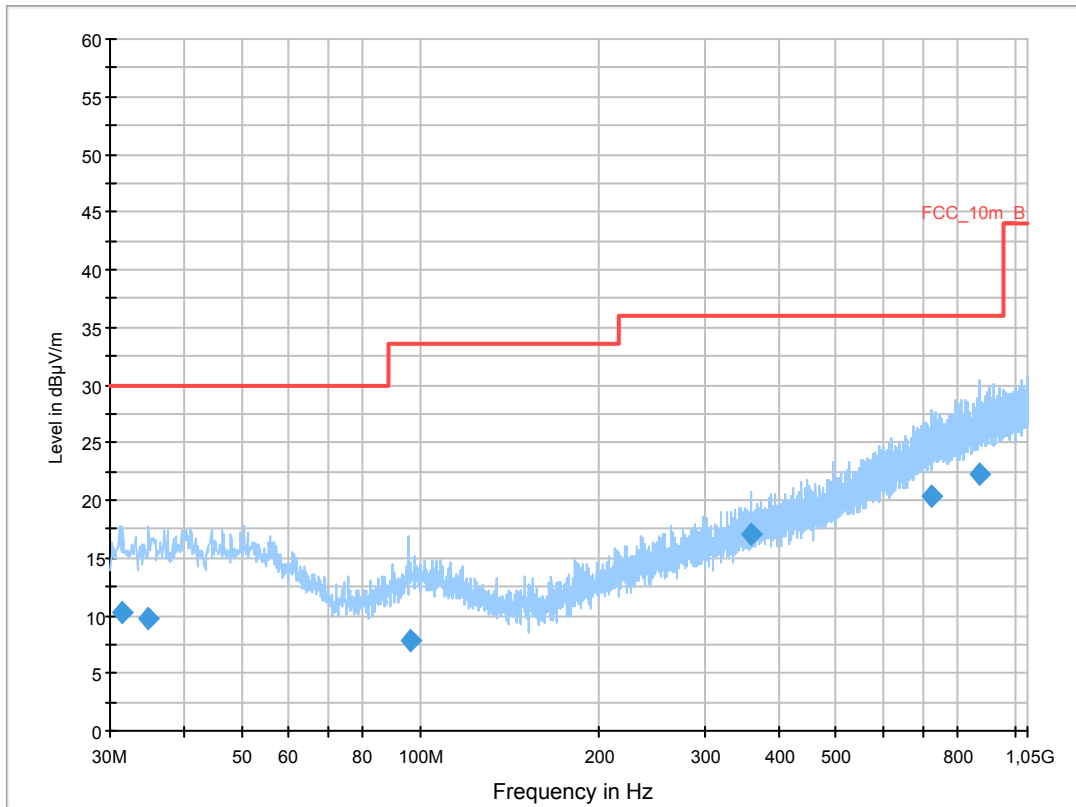
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan n-mode (HT40) tx ch 54
 Operator Name: Wolsdorfer
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

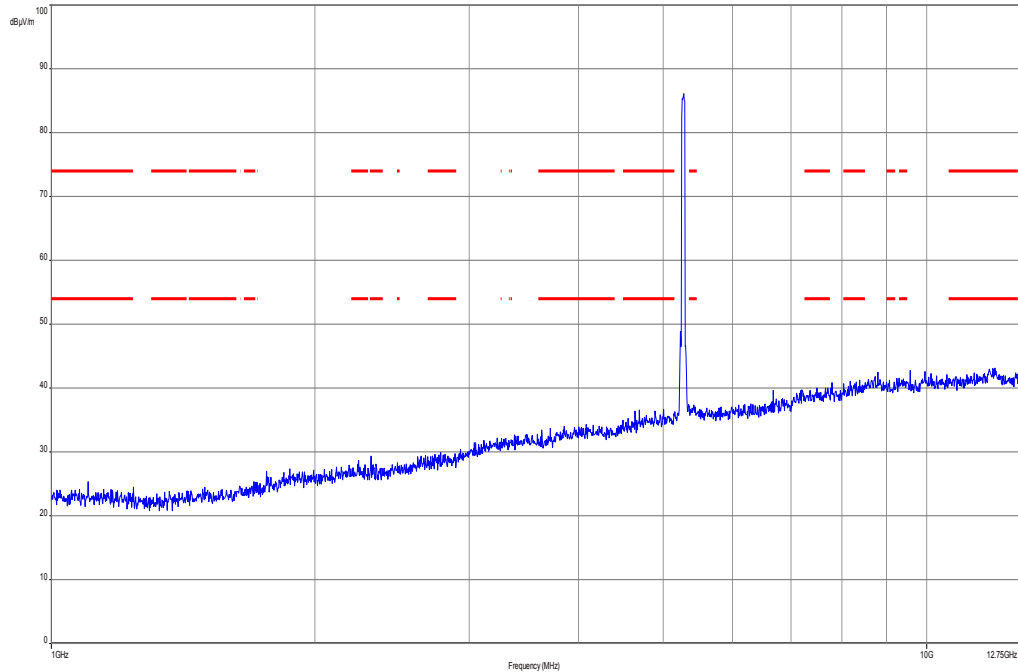
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



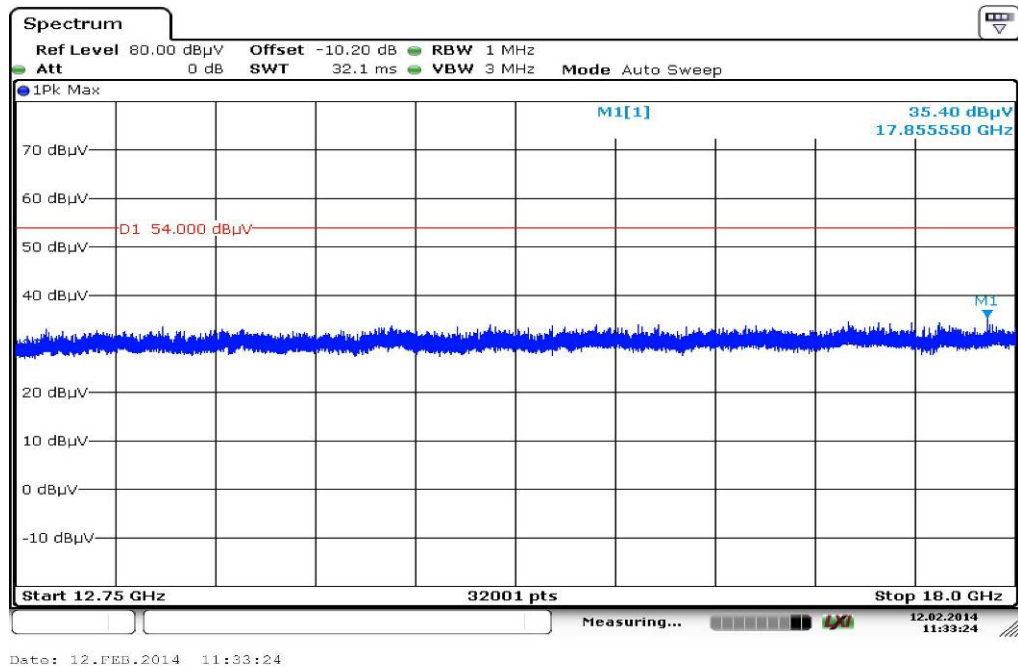
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
31.460250	10.3	1000.0	120.000	145.0	V	270.0	12.7	19.7	30.0	
34.821000	9.8	1000.0	120.000	98.0	V	90.0	13.0	20.2	30.0	
95.760900	7.9	1000.0	120.000	145.0	V	180.0	11.3	25.6	33.5	
360.002400	17.1	1000.0	120.000	98.0	V	90.0	16.2	18.9	36.0	
723.849000	20.4	1000.0	120.000	98.0	V	270.0	23.1	15.6	36.0	
869.463150	22.2	1000.0	120.000	145.0	V	270.0	24.8	13.8	36.0	

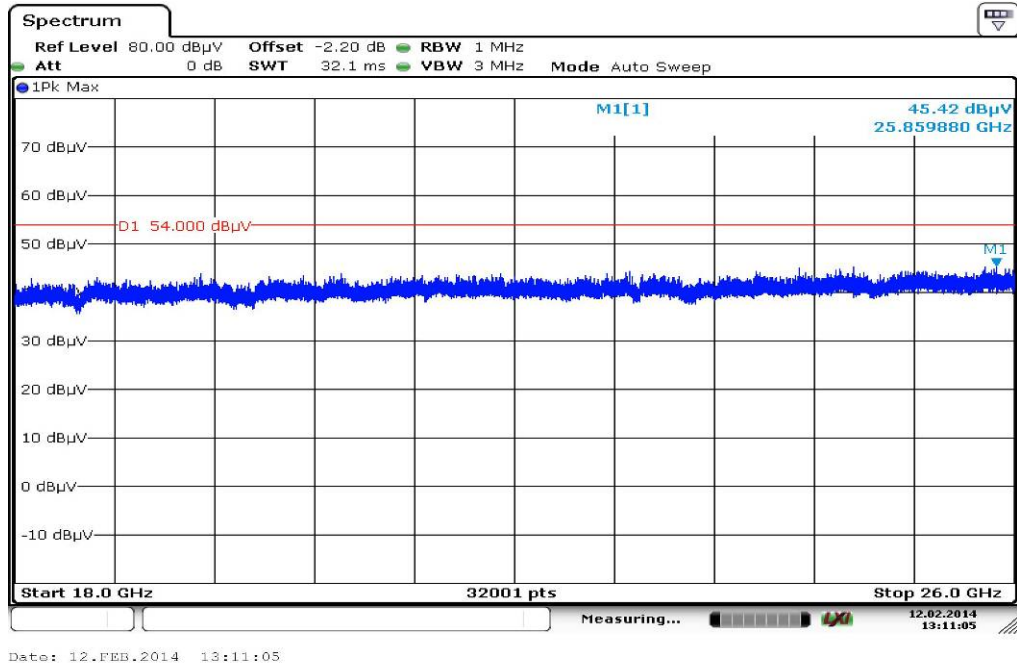
Plot 12: 1 GHz to 12.75 GHz, 5270 MHz, vertical & horizontal polarization



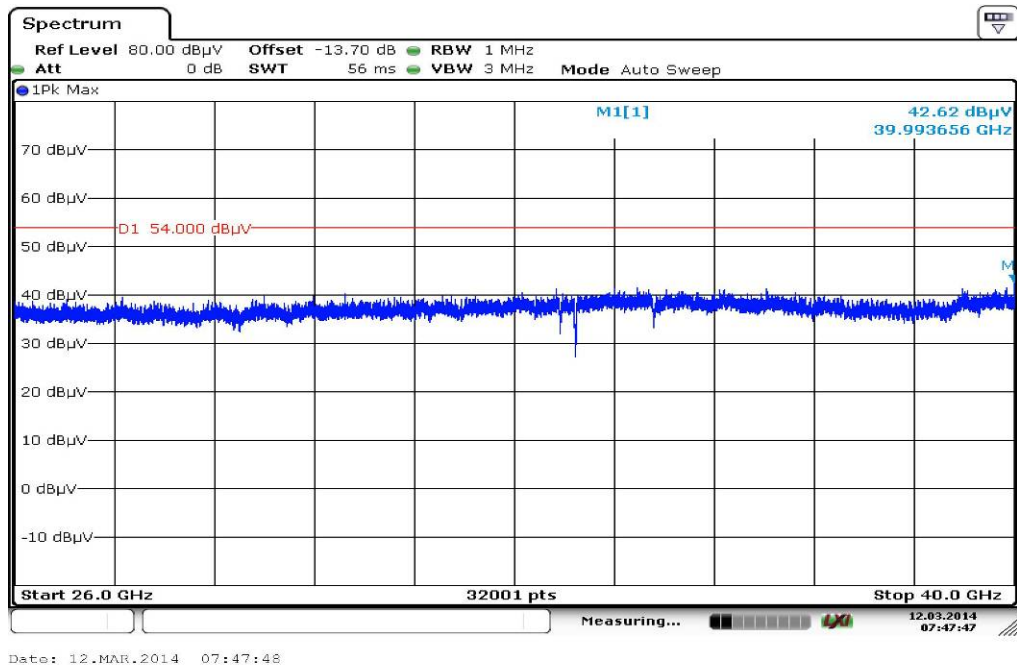
Plot 13: 12 GHz to 18 GHz, 5270 MHz, vertical & horizontal polarization



Plot 14: 18 GHz to 26 GHz, 5270 MHz, vertical & horizontal polarization



Plot 15: 26 GHz to 40 GHz, 5270 MHz, vertical & horizontal polarization



Plot 16: 30 MHz to 1 GHz, 5310 MHz, vertical & horizontal polarization

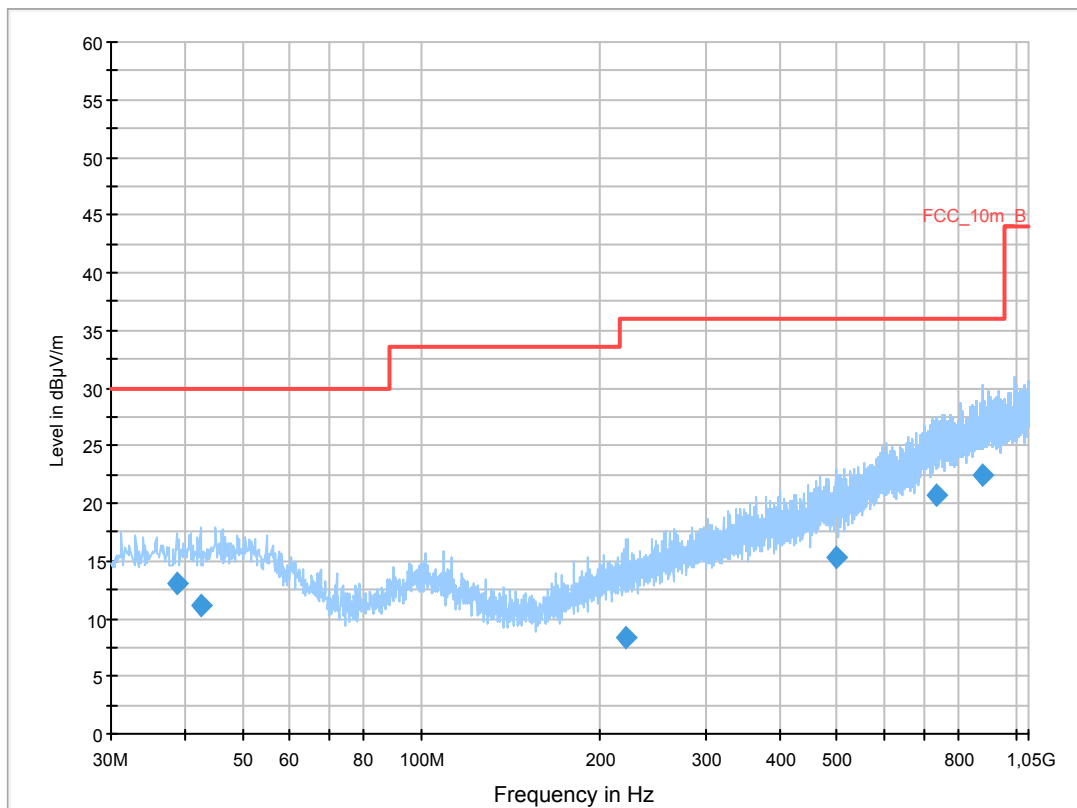
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan n-mode (HT40) tx ch 62
 Operator Name: Wolsdorfer
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

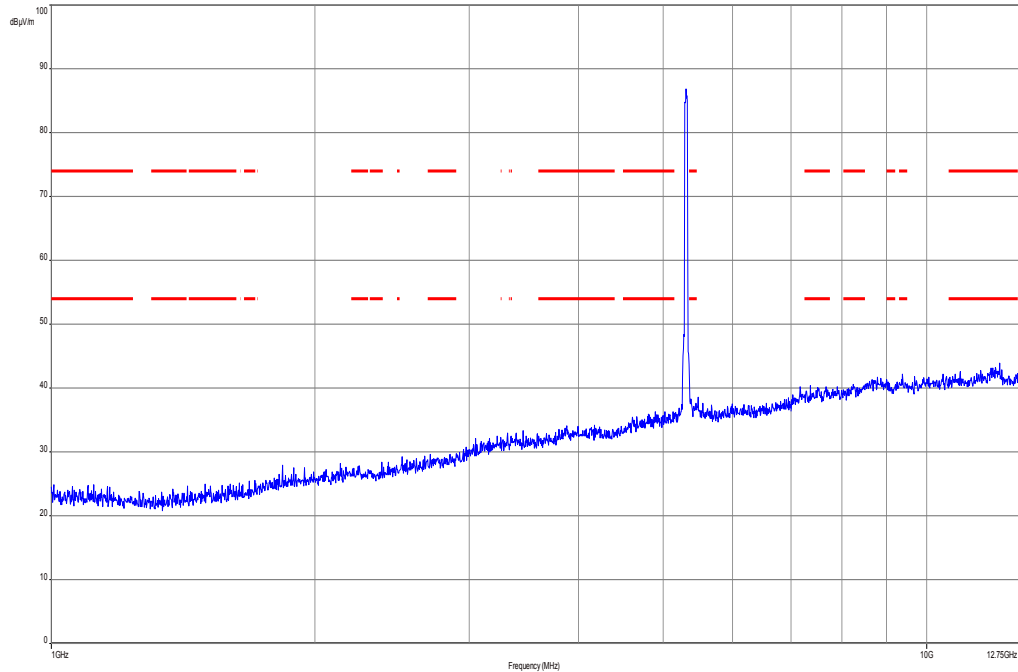
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



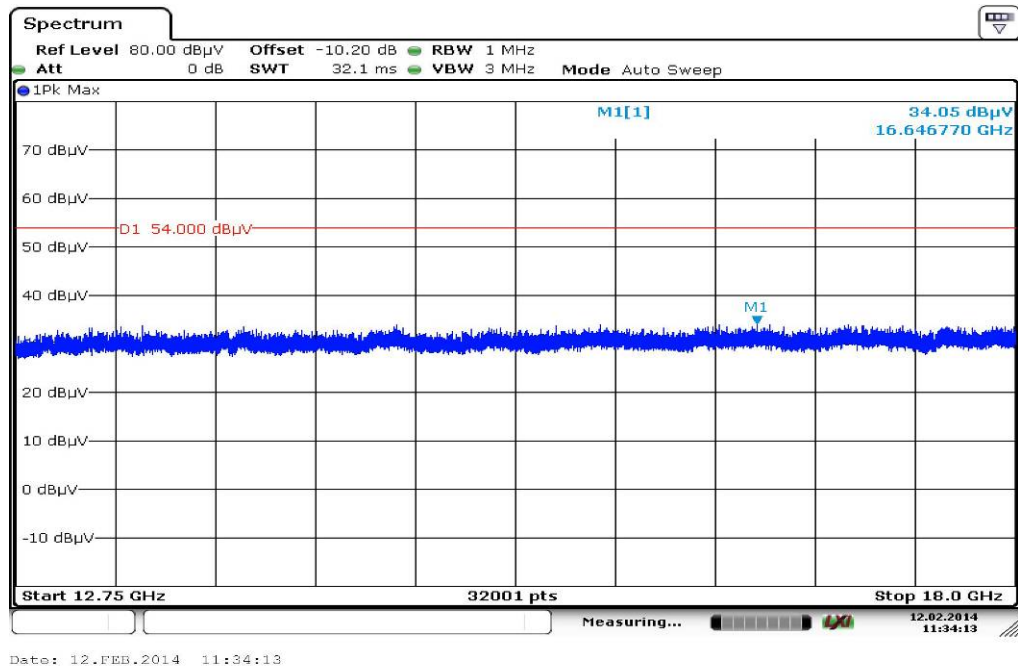
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
38.686500	13.0	1000.0	120.000	120.0	V	180.0	13.3	17.0	30.0	
42.392850	11.2	1000.0	120.000	145.0	V	270.0	13.4	18.8	30.0	
220.832250	8.3	1000.0	120.000	104.0	H	0.0	12.4	27.7	36.0	
497.068950	15.3	1000.0	120.000	145.0	V	180.0	18.6	20.7	36.0	
734.829000	20.6	1000.0	120.000	145.0	V	0.0	23.3	15.4	36.0	
880.096800	22.4	1000.0	120.000	145.0	V	90.0	24.9	13.6	36.0	

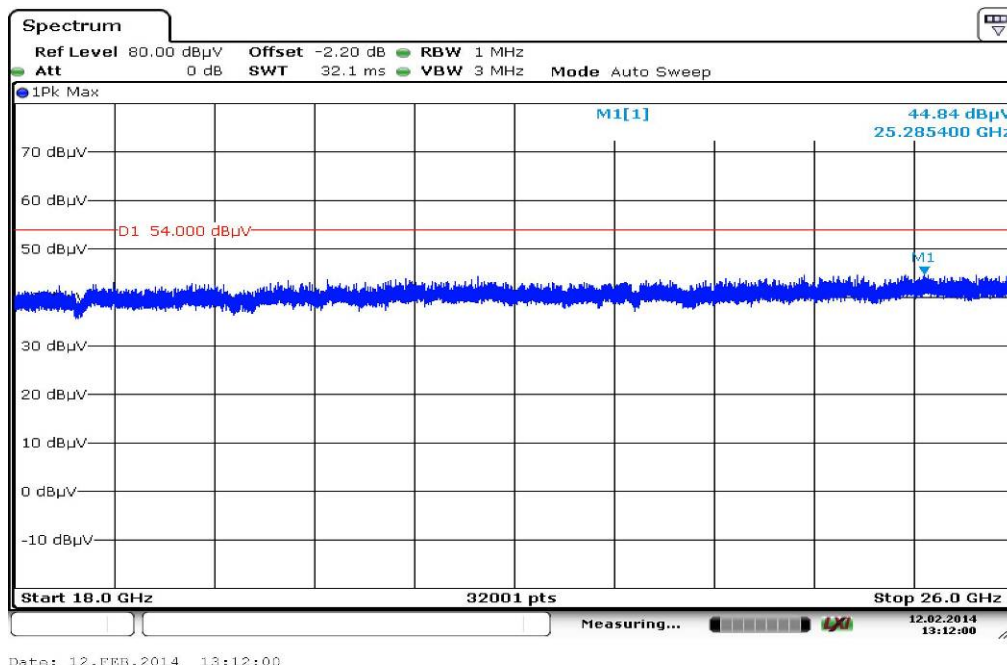
Plot 17: 1 GHz to 12.75 GHz, 5310 MHz, vertical & horizontal polarization



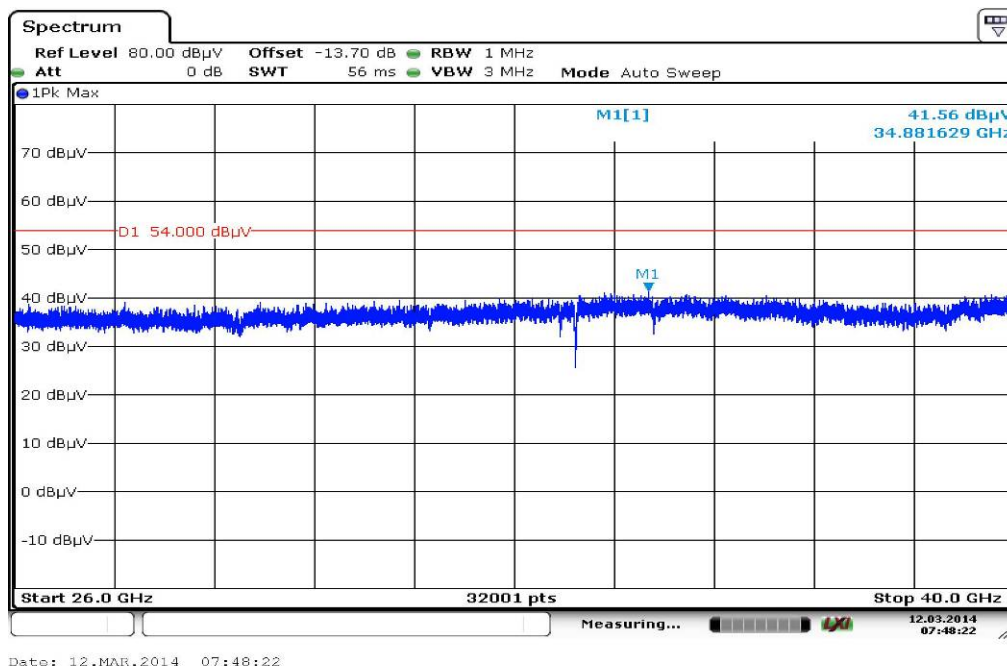
Plot 18: 12 GHz to 18 GHz, 5310 MHz, vertical & horizontal polarization



Plot 19: 18 GHz to 26 GHz, 5310 MHz, vertical & horizontal polarization



Plot 20: 26 GHz to 40 GHz, 5310 MHz, vertical & horizontal polarization



Plot 21: 30 MHz to 1 GHz, 5510 MHz, vertical & horizontal polarization

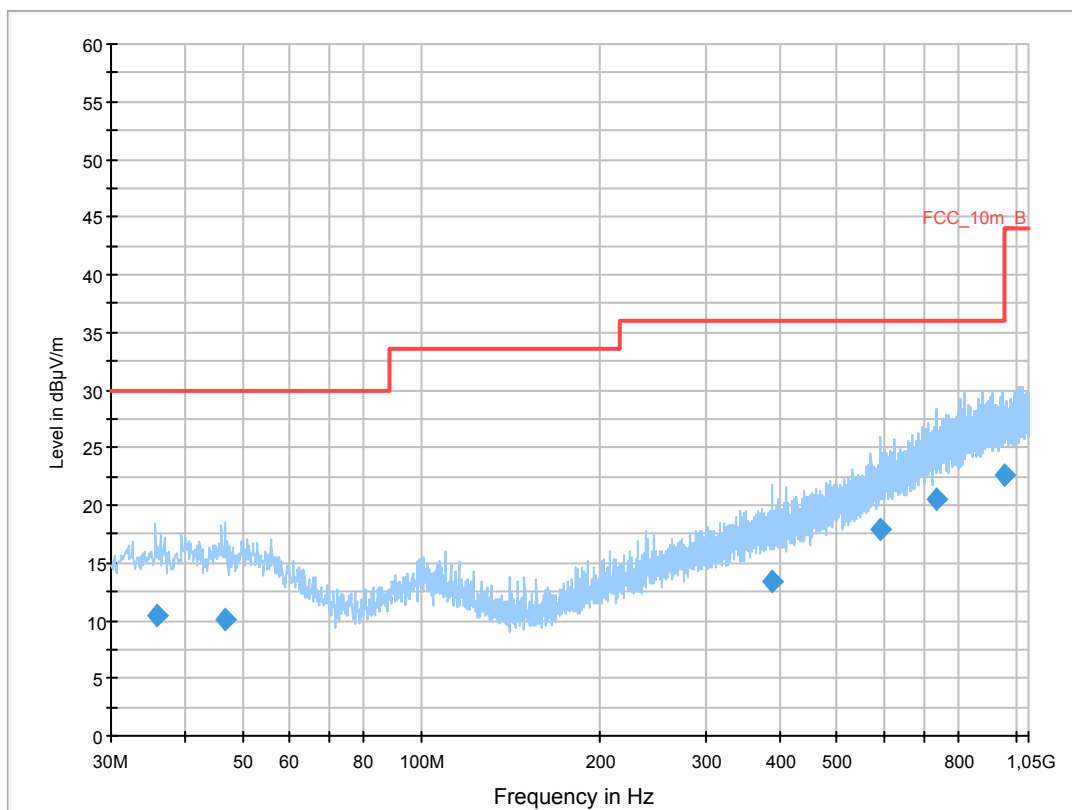
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan n-mode (HT40) tx ch 102
 Operator Name: Wolsdorfer
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

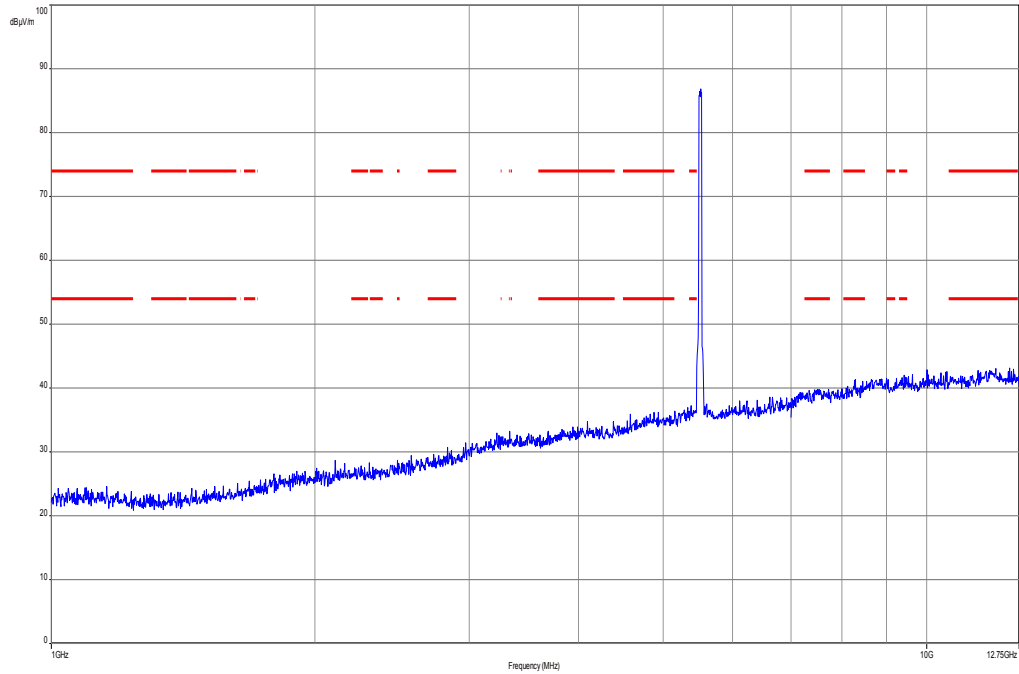
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



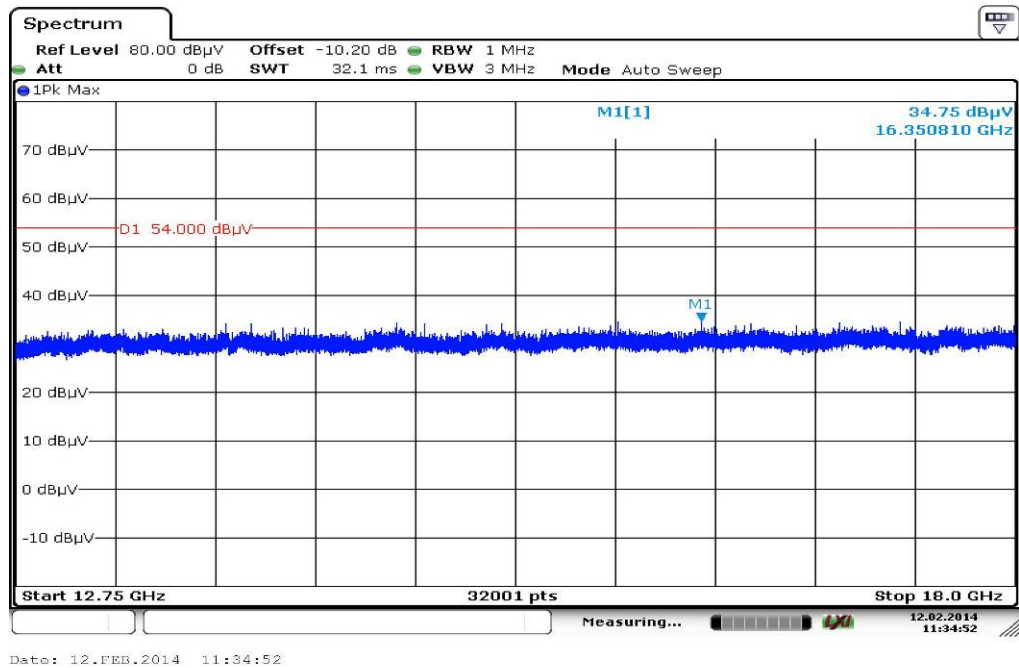
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.804100	10.4	1000.0	120.000	145.0	H	270.0	13.1	19.6	30.0	
46.636950	10.1	1000.0	120.000	145.0	H	180.0	13.3	19.9	30.0	
389.595750	13.3	1000.0	120.000	133.0	V	270.0	16.7	22.7	36.0	
593.329800	17.9	1000.0	120.000	145.0	V	180.0	20.6	18.1	36.0	
732.119250	20.6	1000.0	120.000	131.0	V	0.0	23.2	15.4	36.0	
953.122350	22.6	1000.0	120.000	145.0	V	0.0	25.4	13.4	36.0	

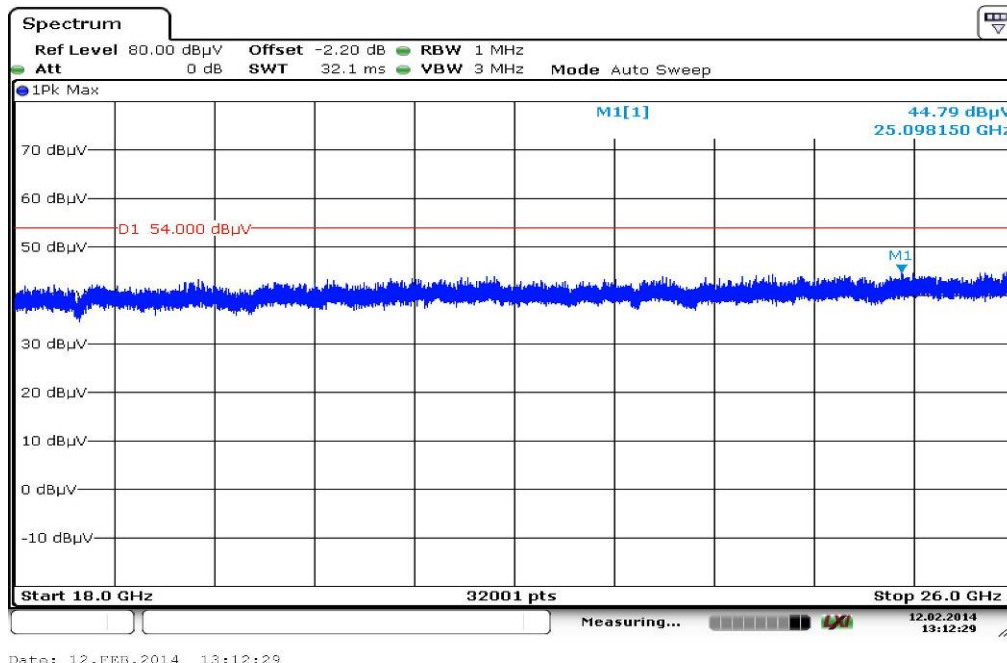
Plot 22: 1 GHz to 12.75 GHz, 5510 MHz, vertical & horizontal polarization



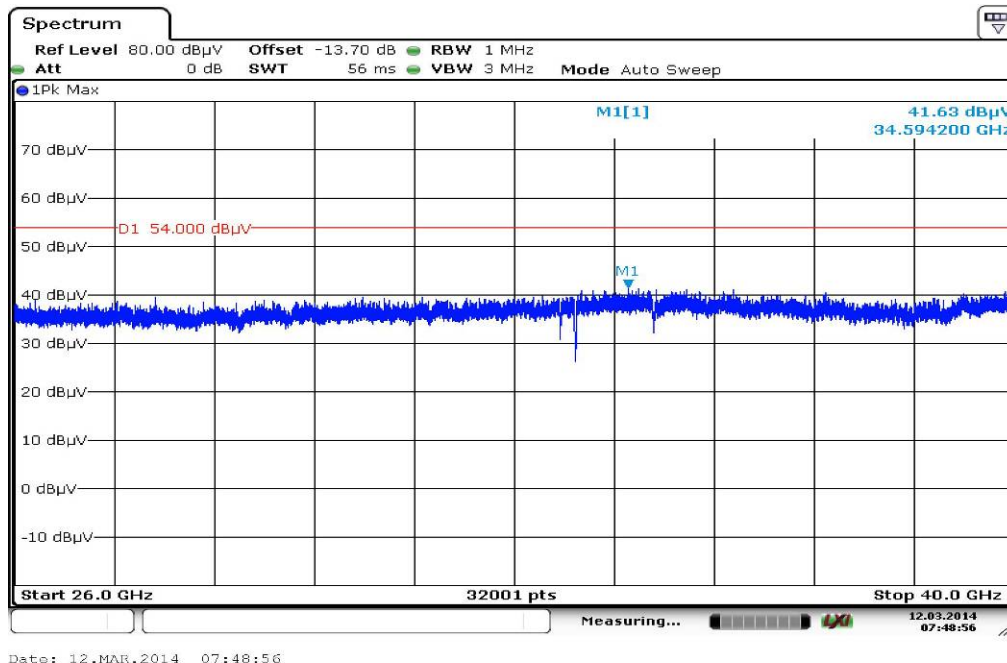
Plot 23: 12 GHz to 18 GHz, 5510 MHz, vertical & horizontal polarization



Plot 24: 18 GHz to 26 GHz, 5510 MHz, vertical & horizontal polarization



Plot 25: 26 GHz to 40 GHz, 5510 MHz, vertical & horizontal polarization



Plot 26: 30 MHz to 1 GHz, 5670 MHz, vertical & horizontal polarization

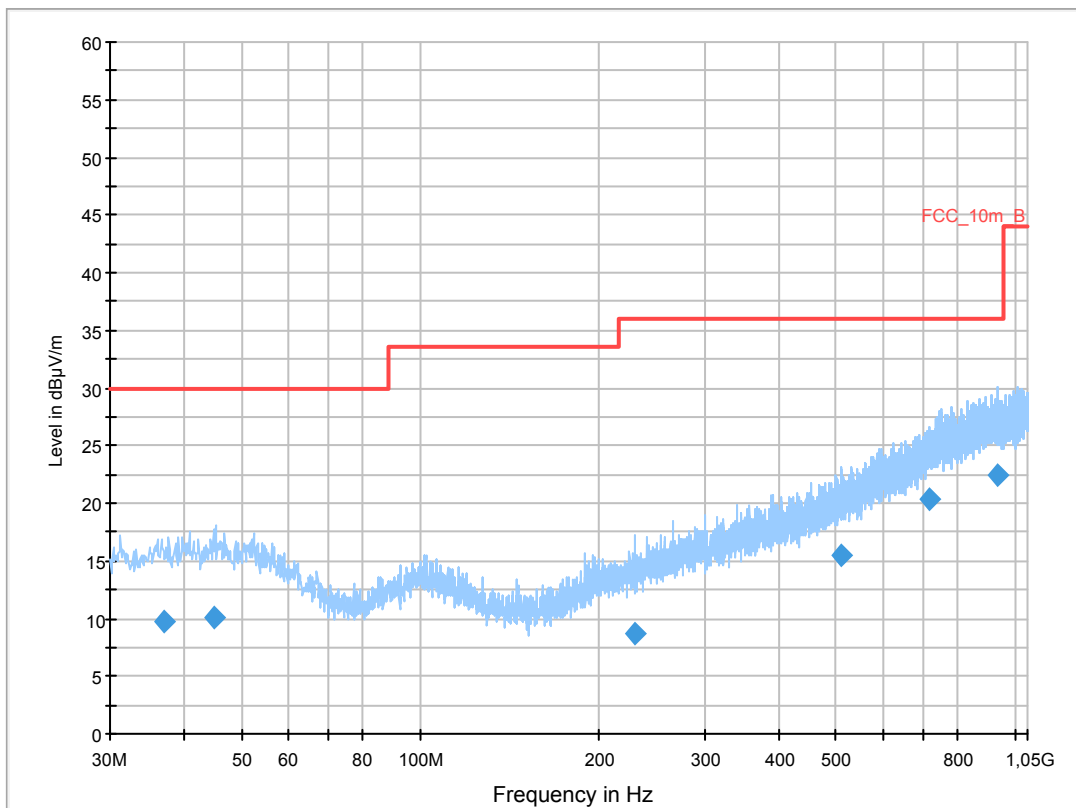
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan n-mode (HT40) tx ch 134
 Operator Name: Wolsdorfer
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

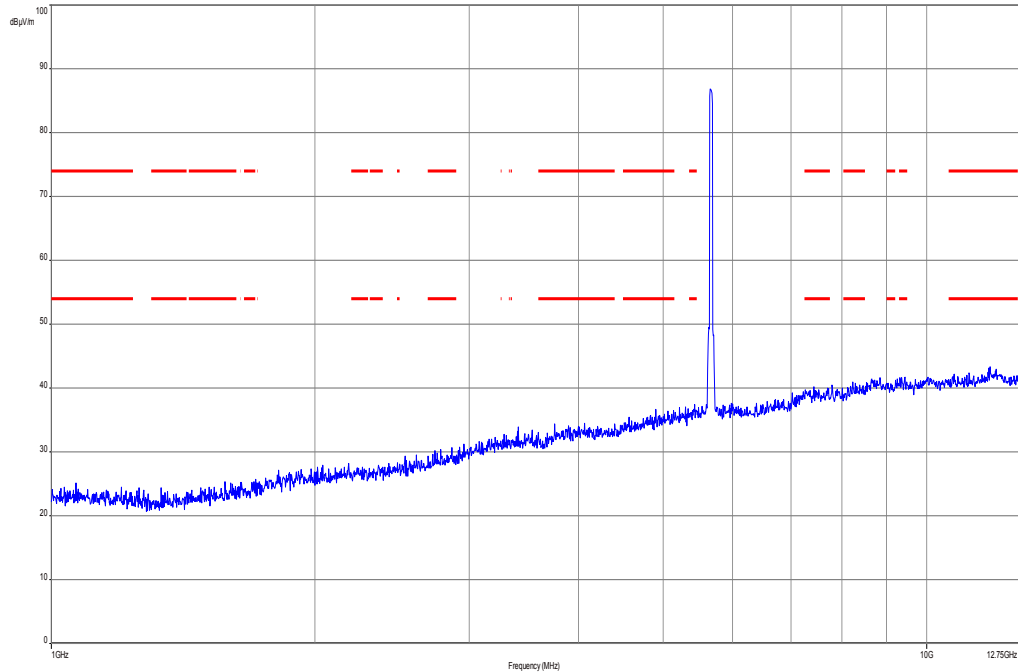
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



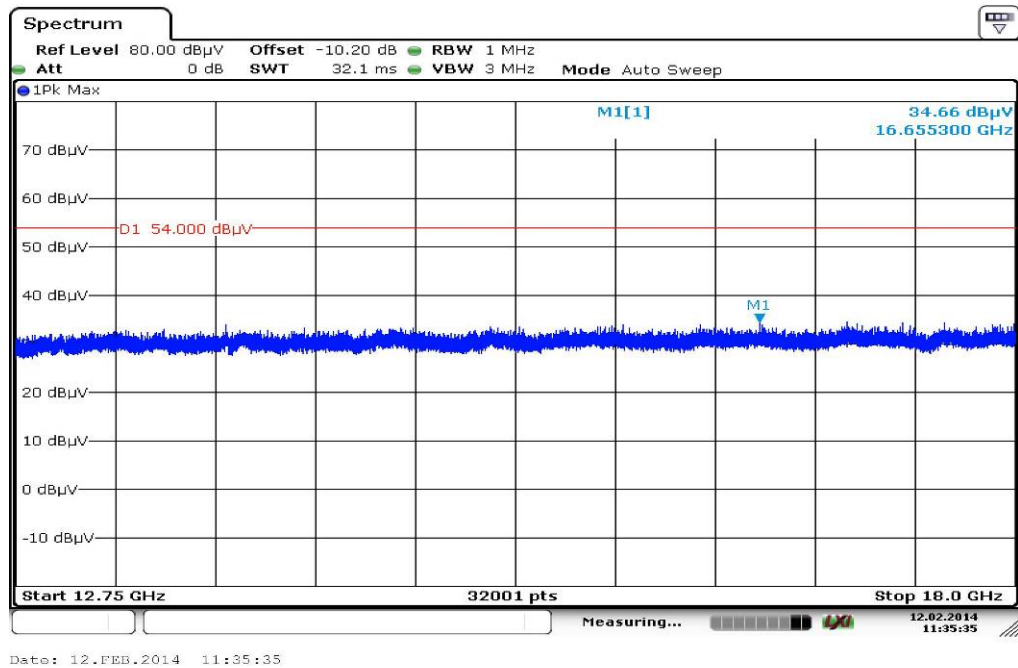
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
37.050000	9.8	1000.0	120.000	98.0	H	90.0	13.2	20.2	30.0	
45.004950	10.1	1000.0	120.000	145.0	H	0.0	13.3	19.9	30.0	
229.183500	8.7	1000.0	120.000	145.0	H	180.0	12.7	27.3	36.0	
511.177650	15.5	1000.0	120.000	145.0	H	180.0	18.9	20.5	36.0	
719.428350	20.4	1000.0	120.000	98.0	H	0.0	23.0	15.6	36.0	
934.637850	22.4	1000.0	120.000	145.0	V	0.0	25.3	13.6	36.0	

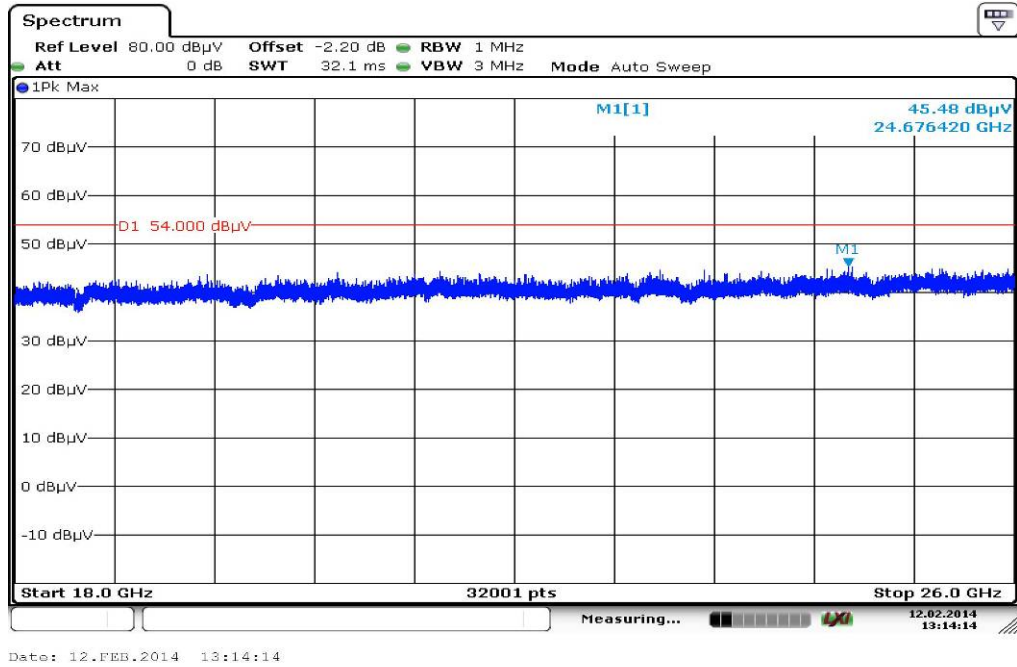
Plot 27: 1 GHz to 12.75 GHz, 5670 MHz, vertical & horizontal polarization



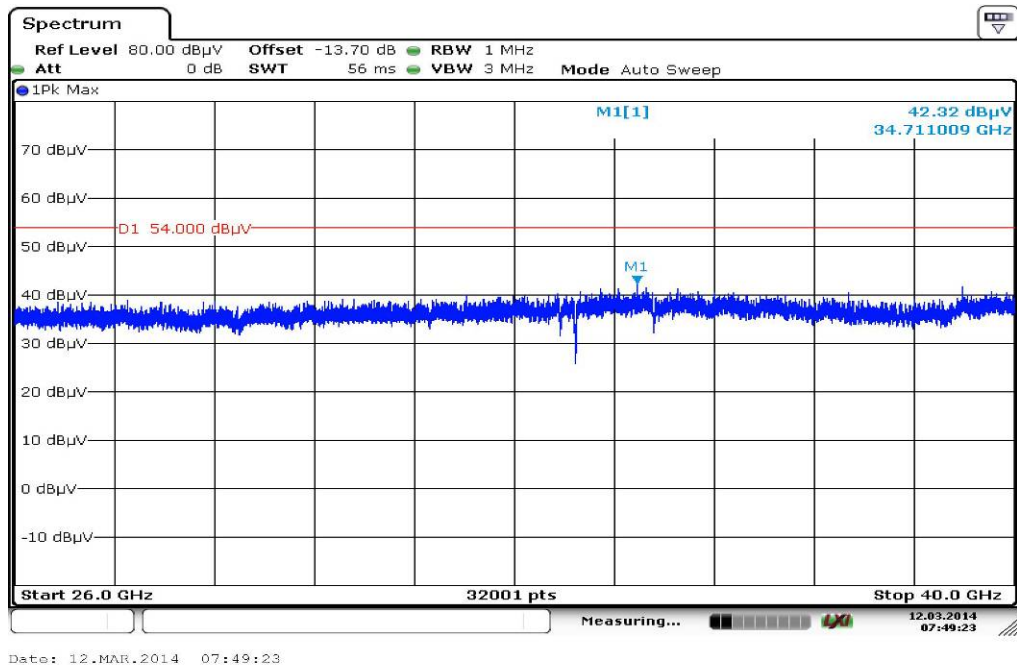
Plot 28: 12 GHz to 18 GHz, 5670 MHz, vertical & horizontal polarization



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



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



Plots: OFDM / ac – mode HT80

Plot 1: 30 MHz to 1 GHz, 5210 MHz, vertical & horizontal polarization

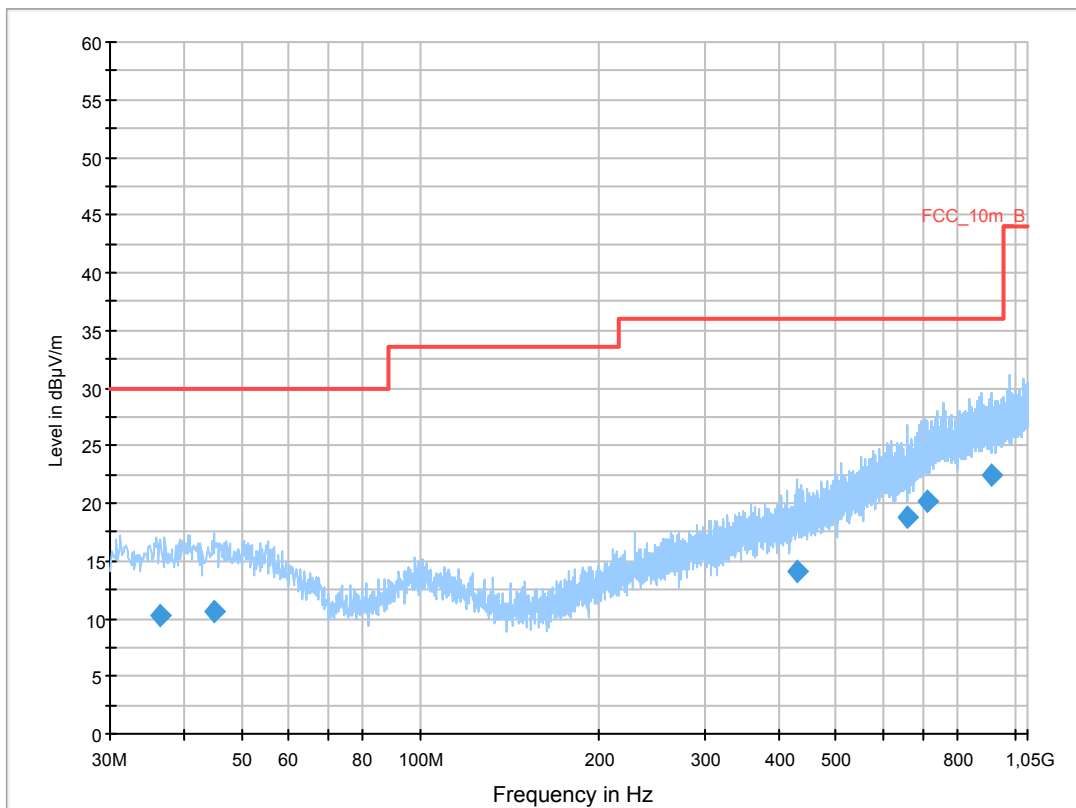
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan ac-mode (HT80) tx ch 42
 Operator Name: Wolsdorfer
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

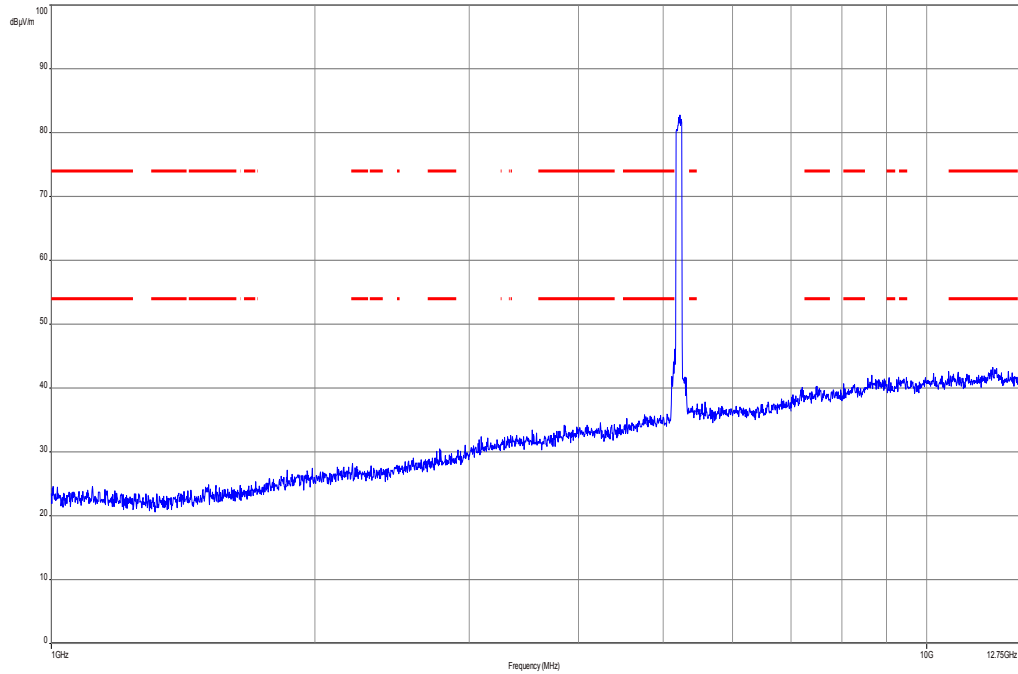
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



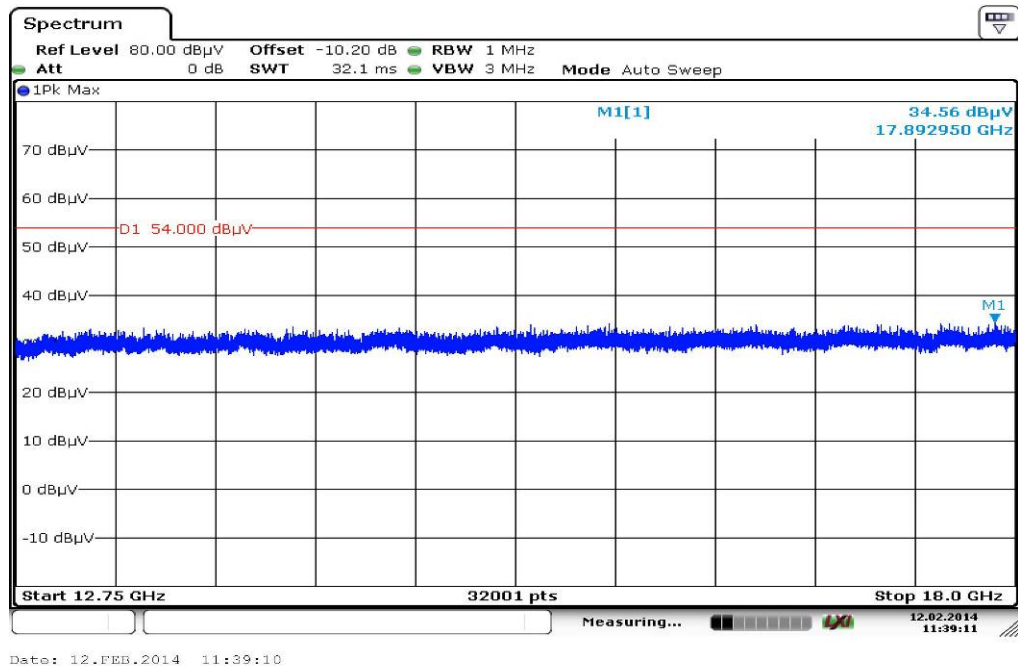
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
36.525000	10.2	1000.0	120.000	145.0	H	270.0	13.2	19.8	30.0	
44.956200	10.6	1000.0	120.000	145.0	V	0.0	13.3	19.4	30.0	
428.694900	14.0	1000.0	120.000	145.0	V	270.0	17.3	22.0	36.0	
661.327050	18.7	1000.0	120.000	105.0	V	90.0	21.4	17.3	36.0	
709.652400	20.1	1000.0	120.000	145.0	V	270.0	22.7	15.9	36.0	
911.767050	22.4	1000.0	120.000	138.0	V	180.0	25.2	13.6	36.0	

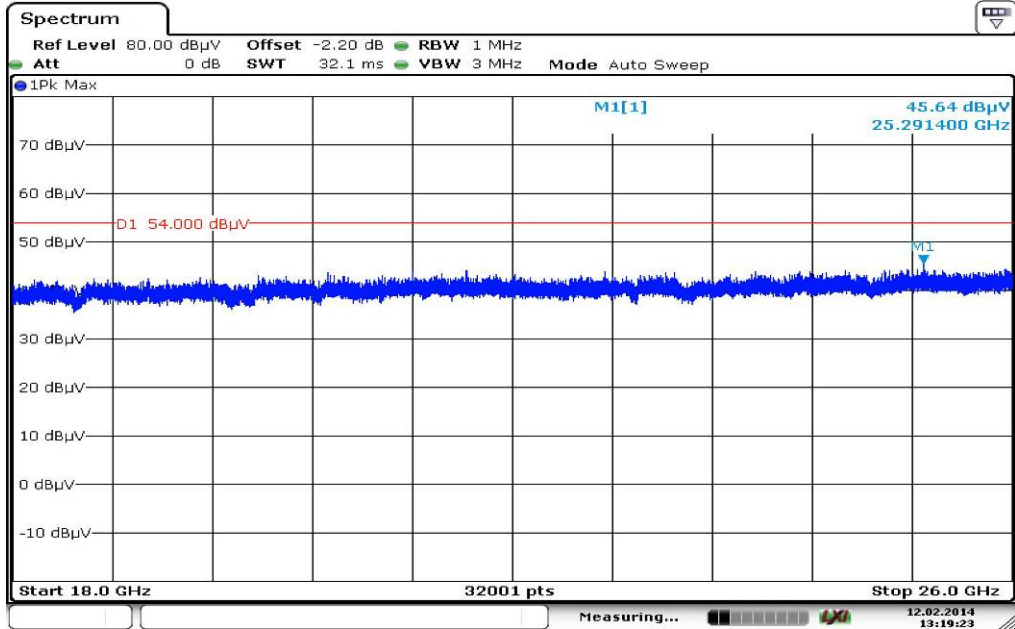
Plot 2: 1 GHz to 12.75 GHz, 5210 MHz, vertical & horizontal polarization



Plot 3: 12 GHz to 18 GHz, 5210 MHz, vertical & horizontal polarization

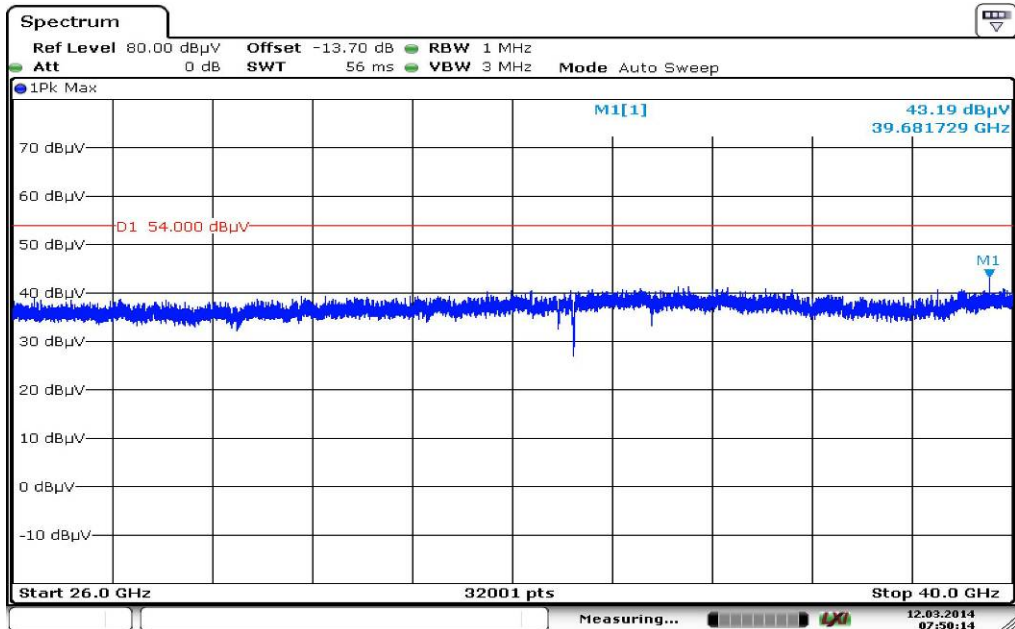


Plot 4: 18 GHz to 26 GHz, 5210 MHz, vertical & horizontal polarization



Date: 12.FEB.2014 13:19:23

Plot 5: 26 GHz to 40 GHz, 5210 MHz, vertical & horizontal polarization



Date: 12.MAR.2014 07:50:14

Plot 6: 30 MHz to 1 GHz, 5290 MHz, vertical & horizontal polarization

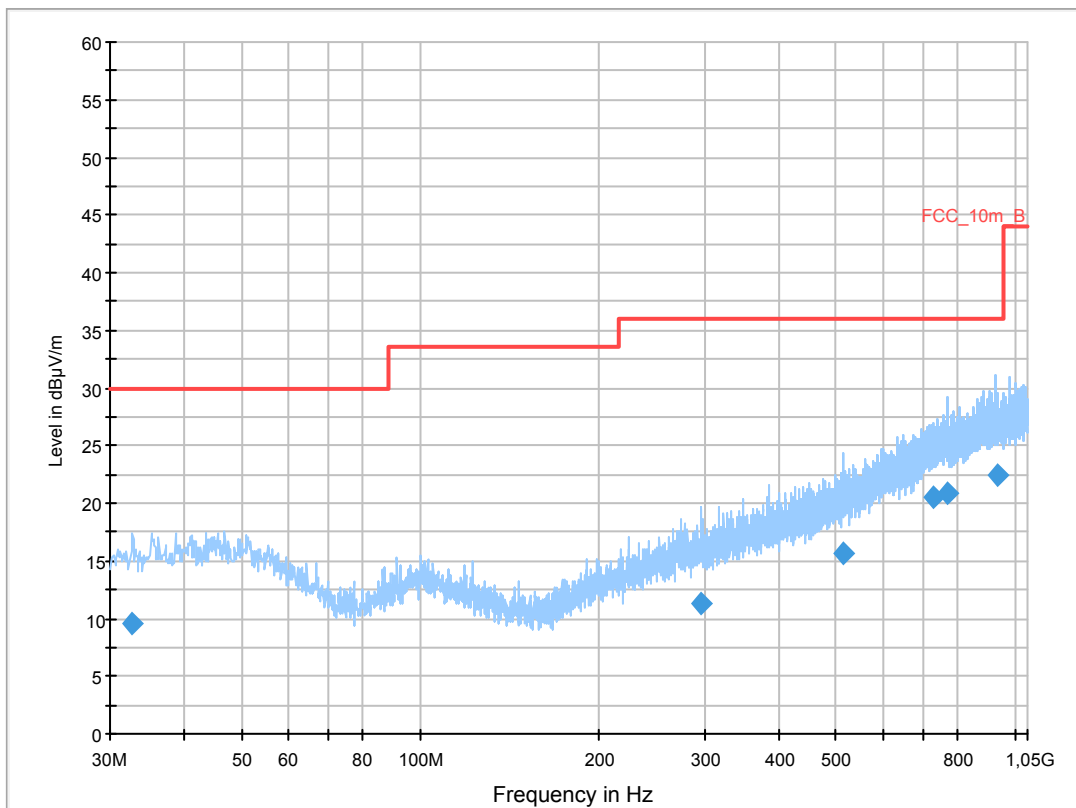
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan ac-mode (HT80) tx ch 58
 Operator Name: Wolsdorfer
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

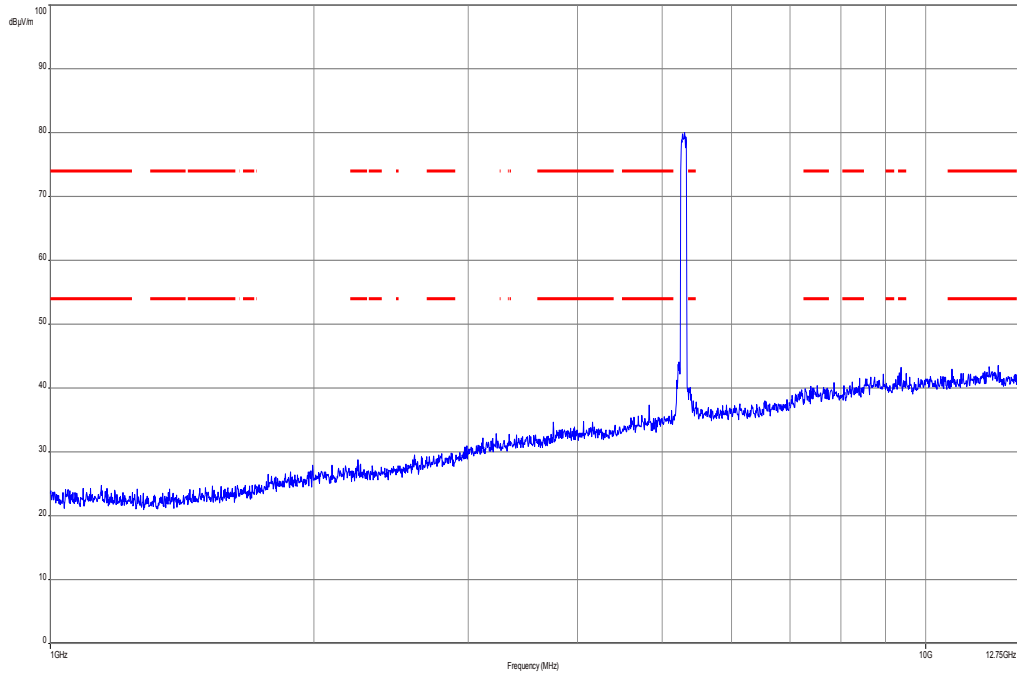
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



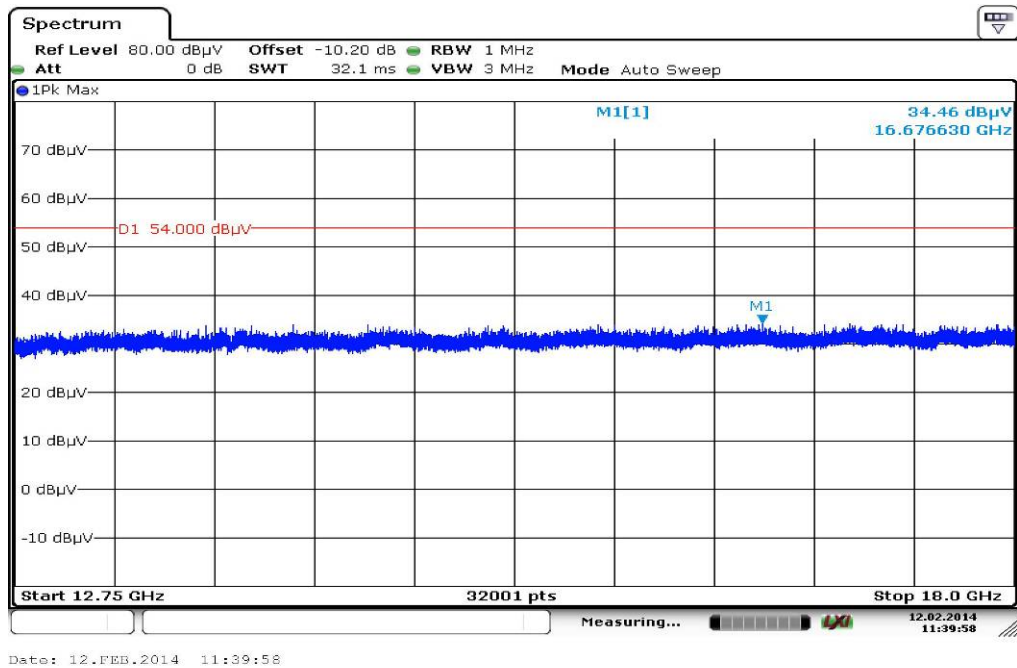
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
32.657250	9.6	1000.0	120.000	137.0	V	0.0	12.8	20.4	30.0	
297.012600	11.3	1000.0	120.000	130.0	V	180.0	14.4	24.7	36.0	
513.648000	15.6	1000.0	120.000	145.0	H	0.0	18.9	20.4	36.0	
730.052400	20.4	1000.0	120.000	145.0	V	180.0	23.2	15.6	36.0	
769.038150	20.9	1000.0	120.000	98.0	H	180.0	23.7	15.1	36.0	
931.046100	22.5	1000.0	120.000	145.0	H	180.0	25.3	13.5	36.0	

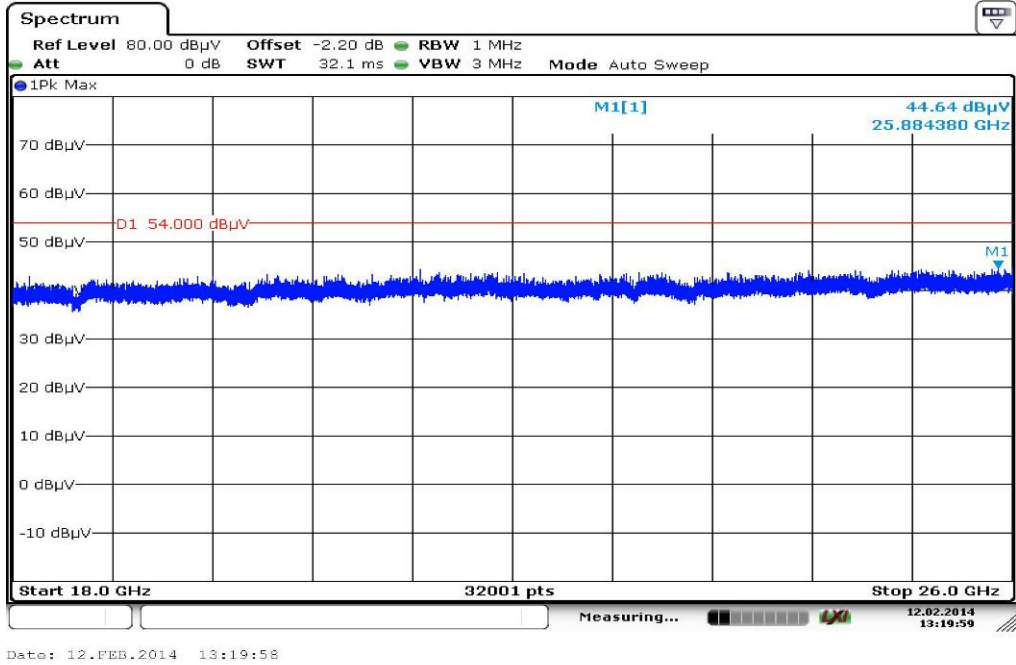
Plot 7: 1 GHz to 12.75 GHz, 5290 MHz, vertical & horizontal polarization



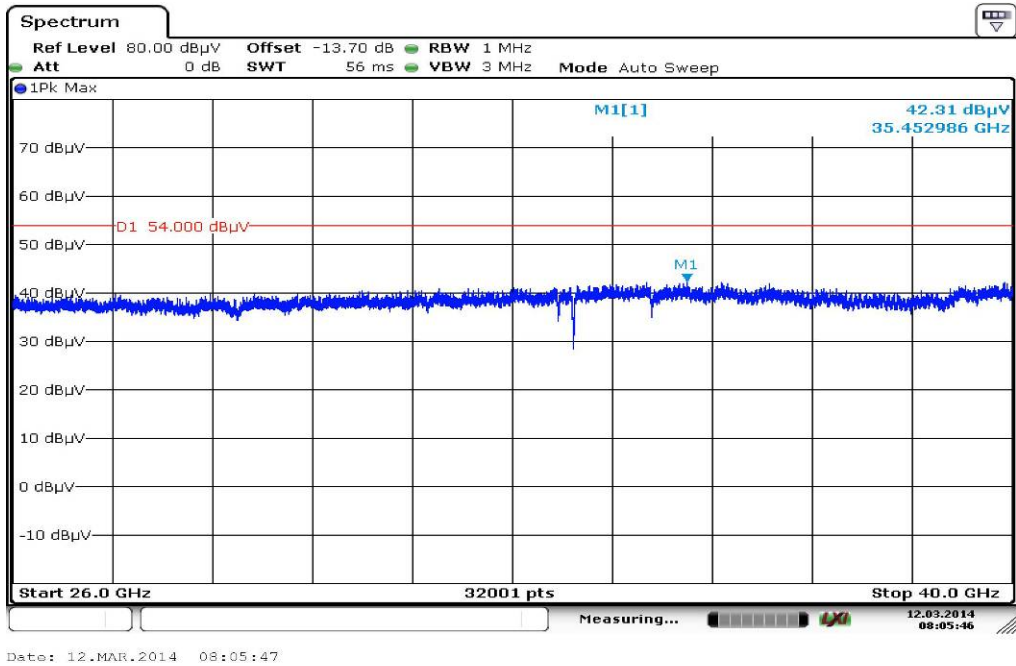
Plot 8: 12 GHz to 18 GHz, 5290 MHz, vertical & horizontal polarization



Plot 9: 18 GHz to 26 GHz, 5290 MHz, vertical & horizontal polarization



Plot 10: 26 GHz to 40 GHz, 5290 MHz, vertical & horizontal polarization



Plot 11: 30 MHz to 1 GHz, 5530 MHz, vertical & horizontal polarization

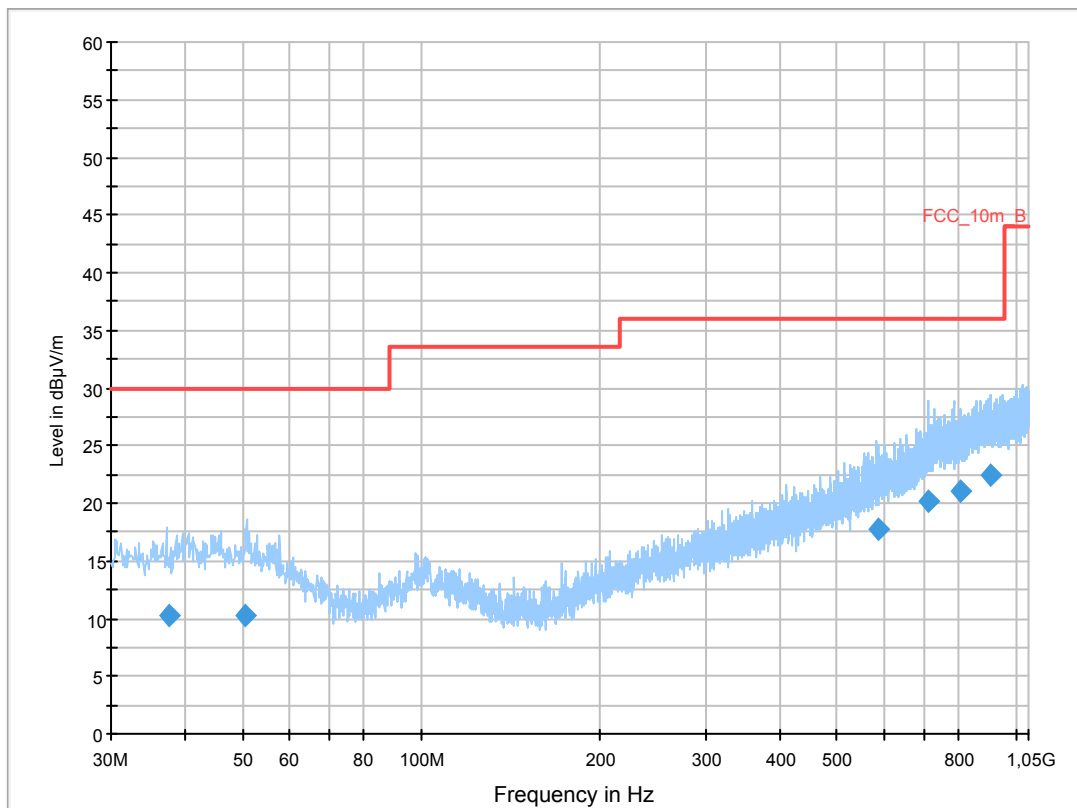
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: w-lan ac-mode (HT80) tx ch 106
 Operator Name: Wolsdorfer
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

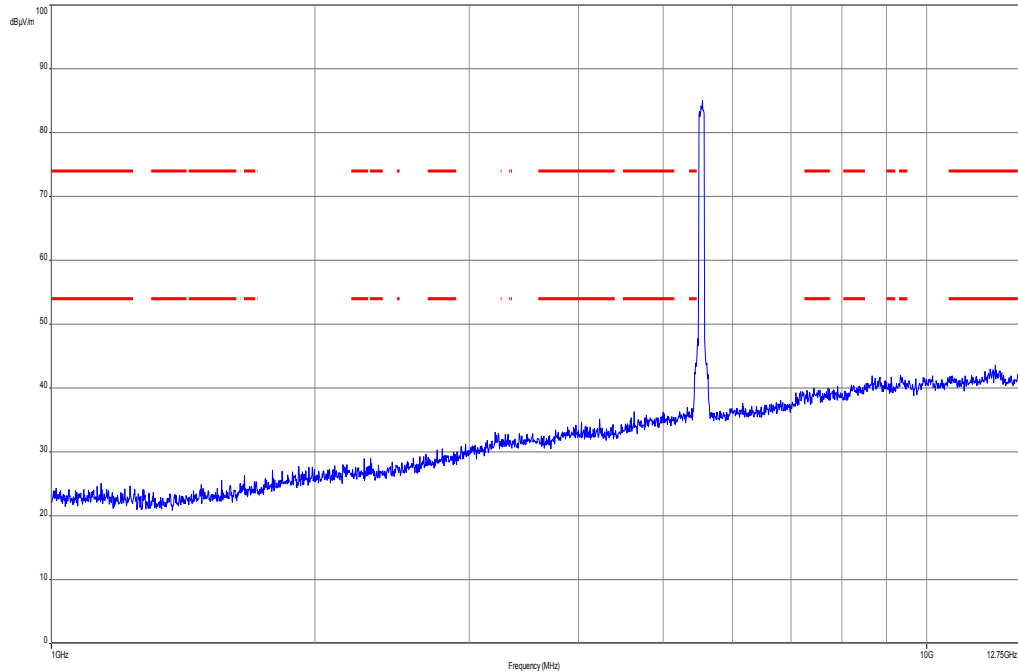
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



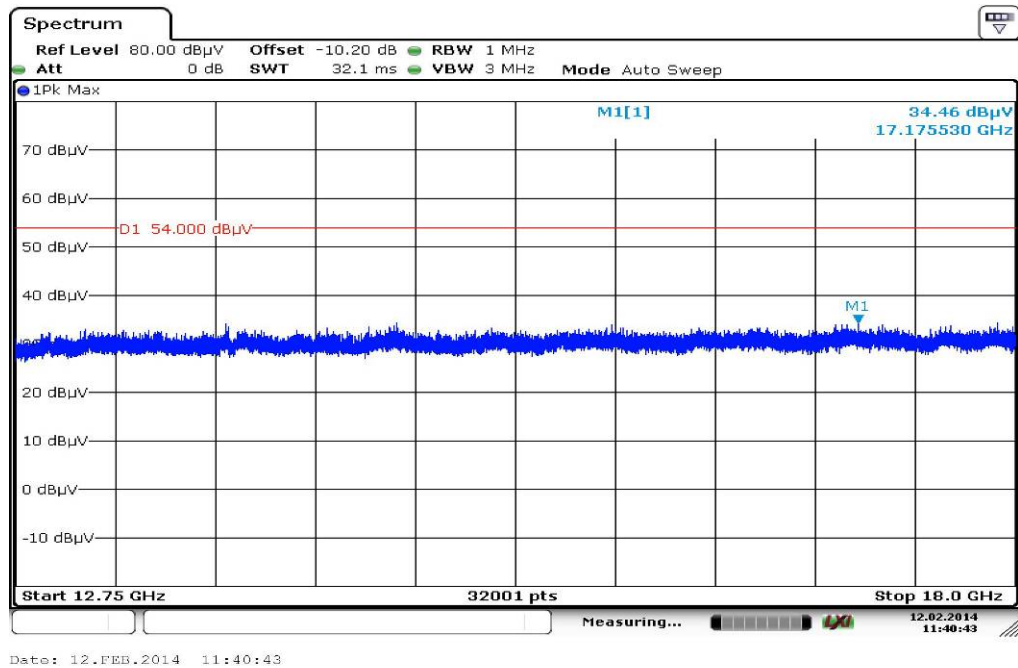
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
37.604700	10.3	1000.0	120.000	145.0	H	180.0	13.2	19.7	30.0	
50.295150	10.3	1000.0	120.000	145.0	V	0.0	13.3	19.7	30.0	
587.998800	17.7	1000.0	120.000	98.0	V	90.0	20.5	18.3	36.0	
712.262400	20.2	1000.0	120.000	145.0	V	0.0	22.8	15.8	36.0	
805.347750	21.0	1000.0	120.000	145.0	V	90.0	23.9	15.0	36.0	
907.457550	22.4	1000.0	120.000	145.0	V	0.0	25.2	13.6	36.0	

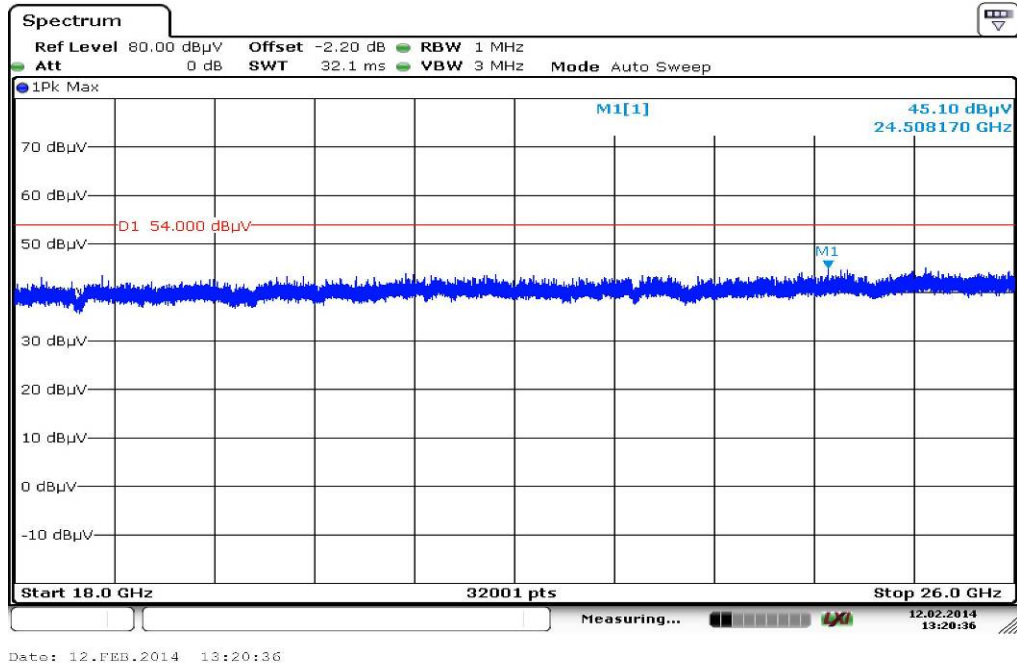
Plot 12: 1 GHz to 12.75 GHz, 5530 MHz, vertical & horizontal polarization



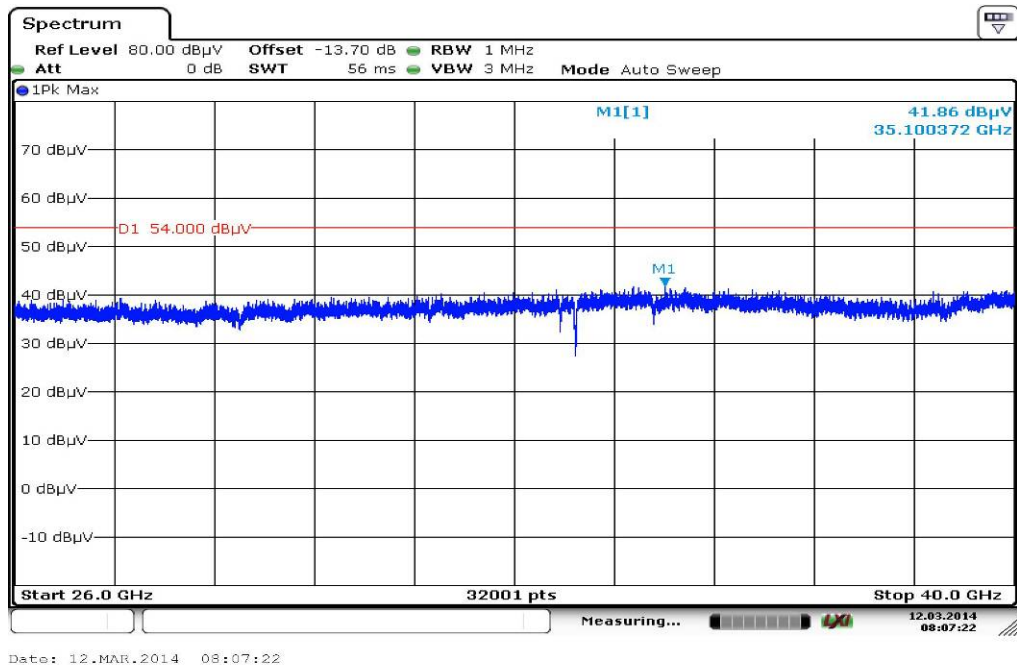
Plot 13: 12 GHz to 18 GHz, 5530 MHz, vertical & horizontal polarization



Plot 14: 18 GHz to 26 GHz, 5530 MHz, vertical & horizontal polarization



Plot 15: 26 GHz to 40 GHz, 5530 MHz, vertical & horizontal polarization



10.3 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 /10 Hz
Span:	30 MHz to 40 GHz
Trace-Mode:	Max Hold / Average with 100 counts + 20 log (1 / X) for duty cycle lower than 100 %

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]
No peaks detected.		
Measurement uncertainty	± 3 dB	

Result: Passed

Note: The limit was recalculated with 20 dB / decade (Part 15.31) for all radiated spurious emissions 30 MHz to 1 GHz from 3 meter limit to a 10 meter distance. (40dB/decade for emissions < 30MHz)

Plots: RX / Idle – mode

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

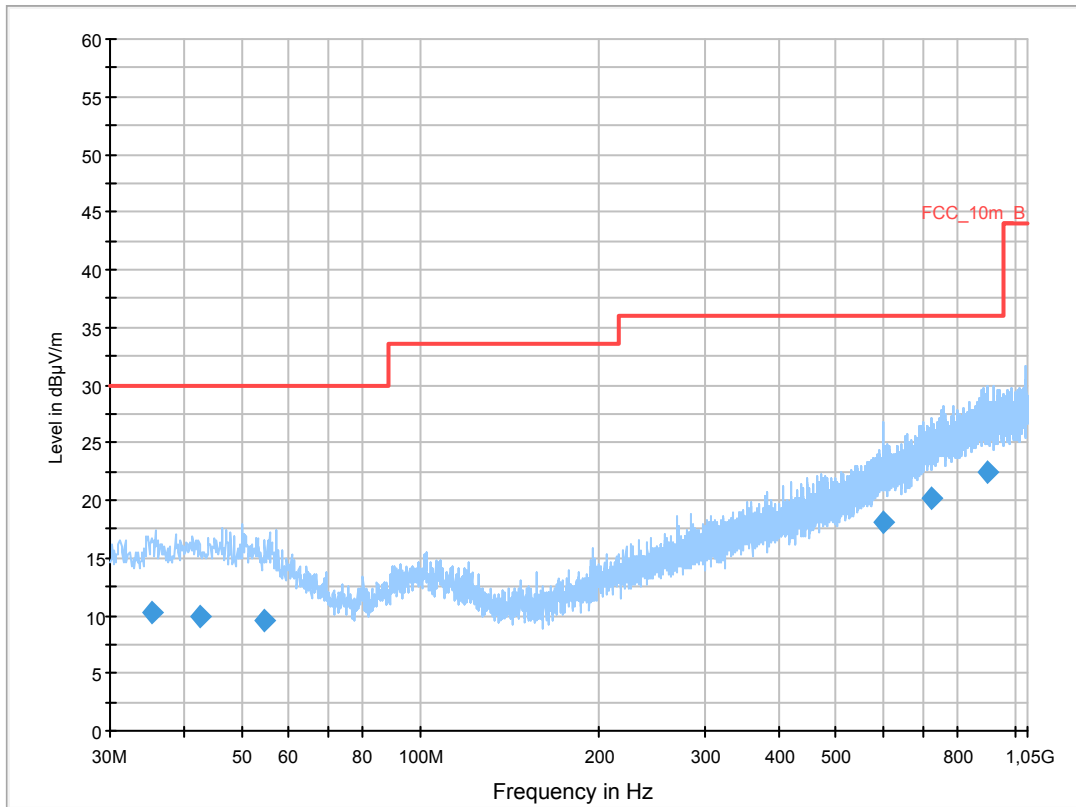
Common Information

Serial Number: CB551268KBP
 Test Description: FCC part 15 class B @ 10 m
 Operating Conditions: wlan idle
 Operator Name: Hennemann
 Comment: battery powered

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

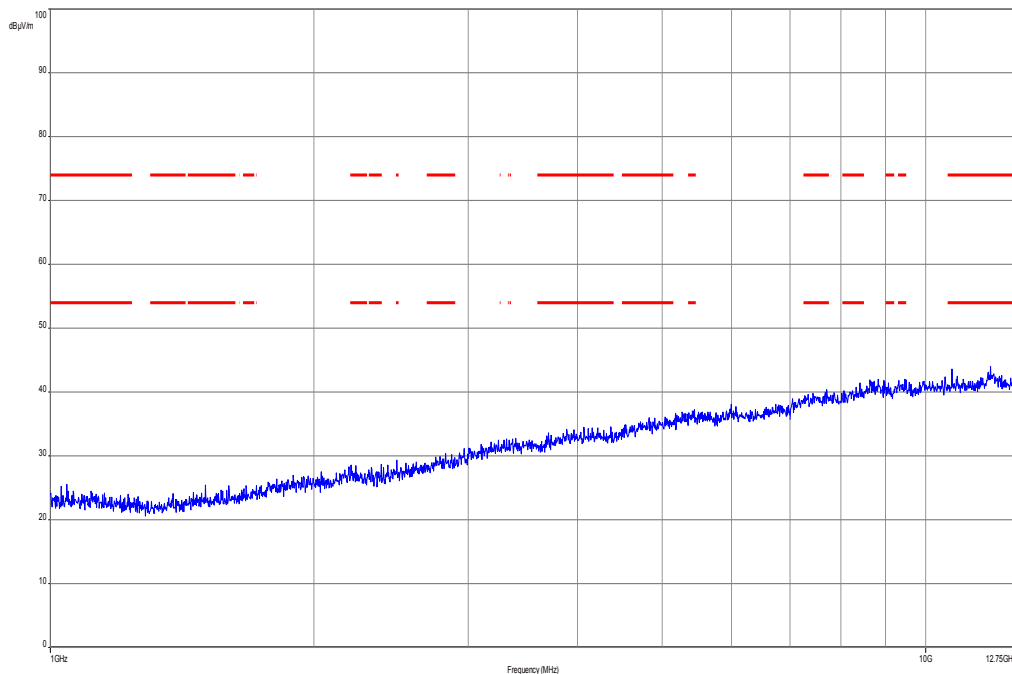
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



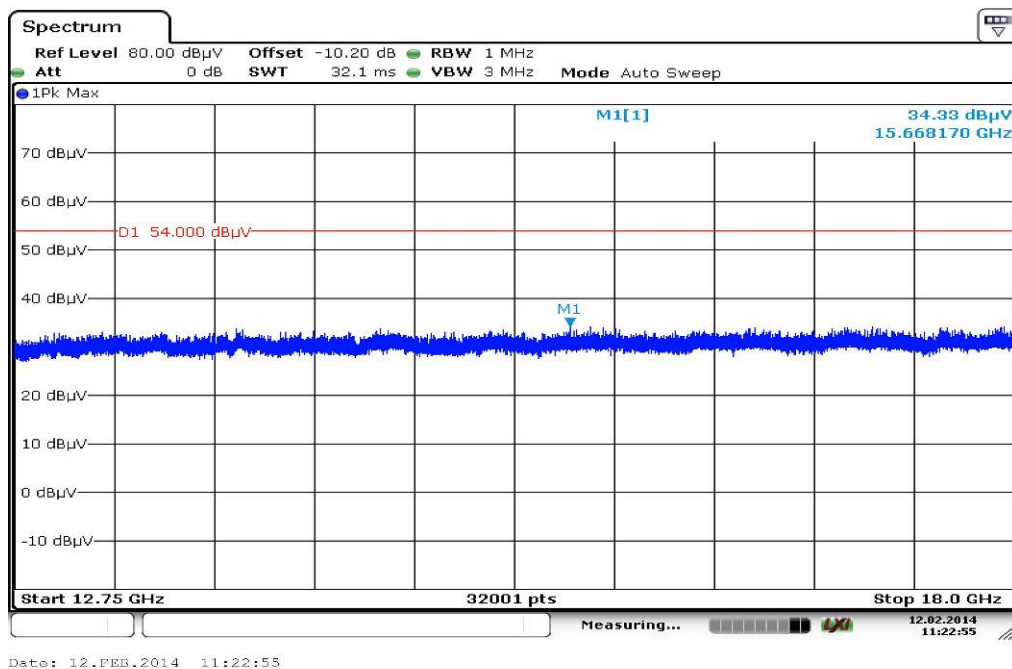
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.299350	10.2	1000.0	120.000	145.0	H	270.0	13.0	19.8	30.0	
42.450000	10.0	1000.0	120.000	105.0	V	90.0	13.3	20.0	30.0	
54.496650	9.5	1000.0	120.000	145.0	V	180.0	12.9	20.5	30.0	
602.568000	18.1	1000.0	120.000	145.0	V	180.0	20.8	18.0	36.0	
724.518900	20.3	1000.0	120.000	120.0	H	180.0	23.1	15.7	36.0	
900.668850	22.4	1000.0	120.000	145.0	H	270.0	25.2	13.6	36.0	

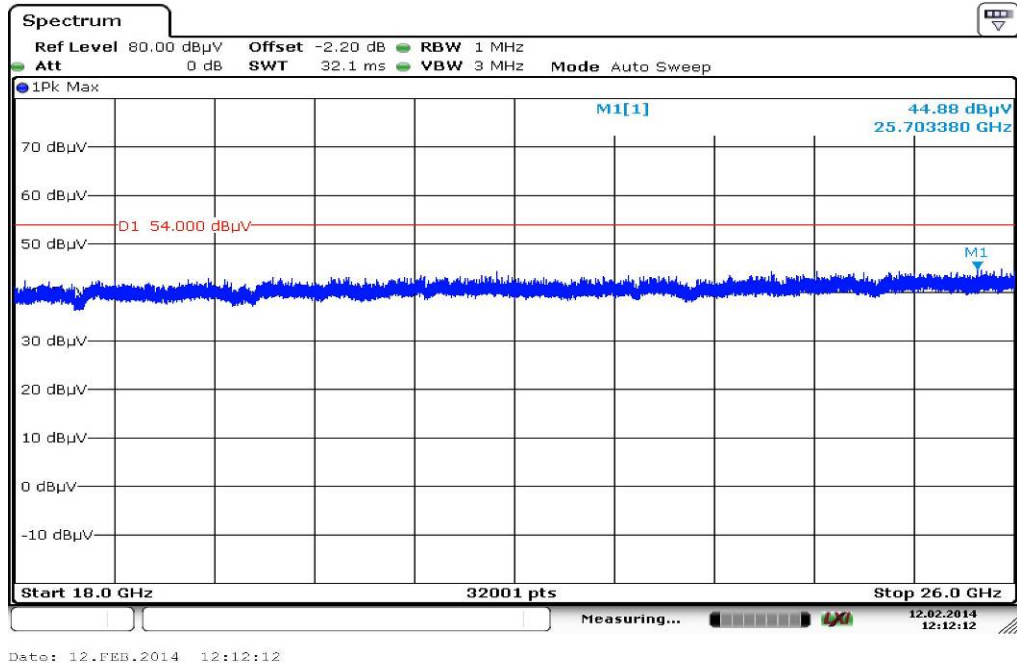
Plot 2: 1 GHz to 12.75 GHz, vertical & horizontal polarization



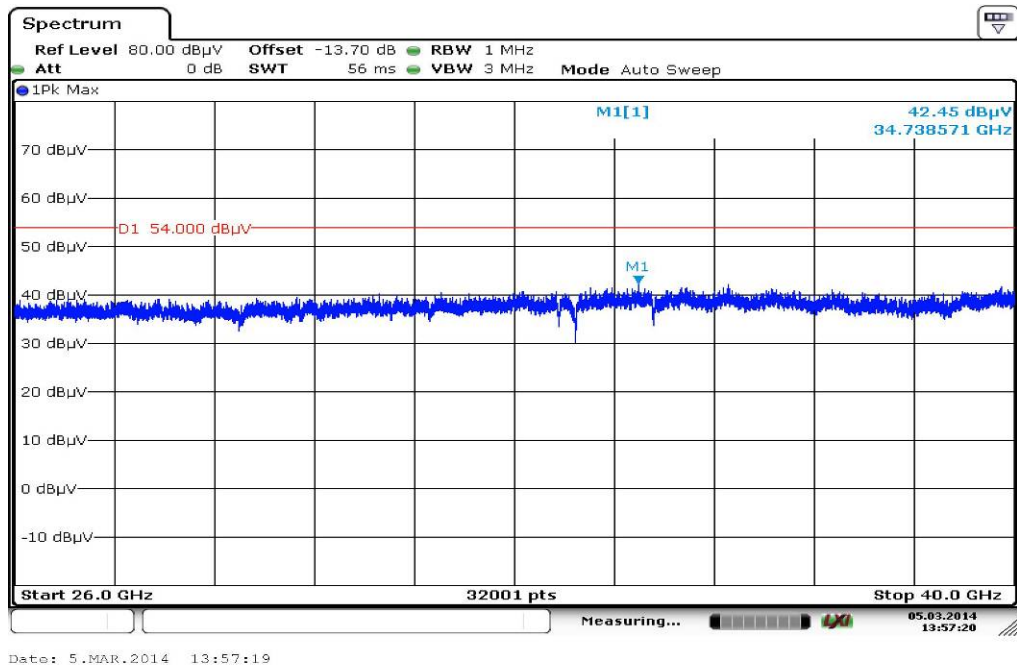
Plot 3: 12 GHz to 18 GHz, vertical & horizontal polarization



Plot 4: 18 GHz to 26 GHz, vertical & horizontal polarization



Plot 5: 26 GHz to 40 GHz, vertical & horizontal polarization



10.4 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 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	
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

Limits:

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

Results:

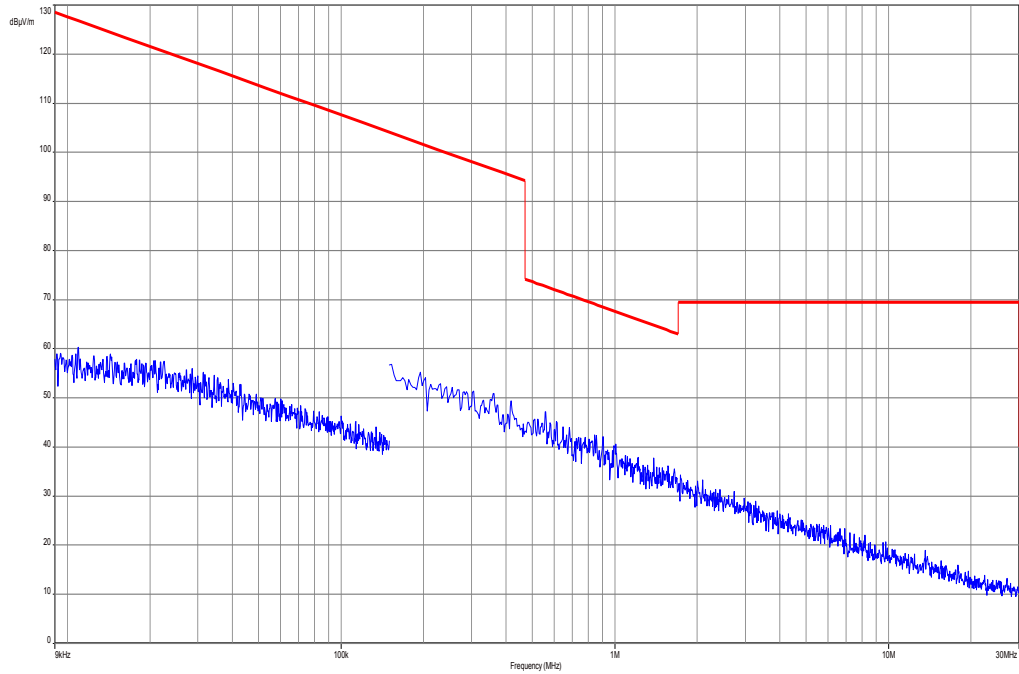
Spurious Emissions Radiated < 30 MHz [dB μ V/m]		
F [MHz]	Detector	Level [dB μ V/m]
No peaks detected.		
Measurement uncertainty	± 3 dB	

Result: **Passed**

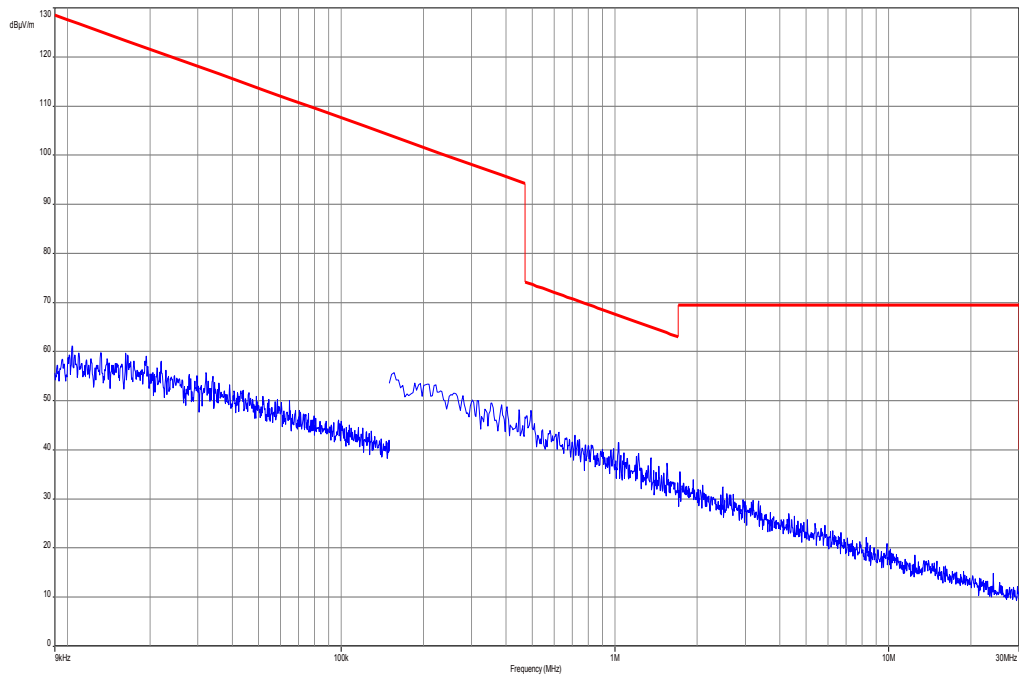
Note: The limit was recalculated with 20 dB / decade (Part 15.31) for all radiated spurious emissions 30 MHz to 1 GHz from 3 meter limit to a 10 meter distance. (40dB/decade for emissions < 30MHz)

Plots:

Plot 1: 9 kHz to 30 MHz, TX mode



Plot 2: 9 kHz to 30 MHz, RX mode



10.5 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 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:	F > 150 kHz: 9 kHz
Resolution bandwidth:	F > 150 kHz: 100 kHz
Span:	150 kHz to 30 MHz
Trace-Mode:	Max Hold

Limits:

Spurious Emissions Conducted < 30 MHz		
Frequency (MHz)	Quasi-Peak (dB μ V/m)	Average (dB μ V/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

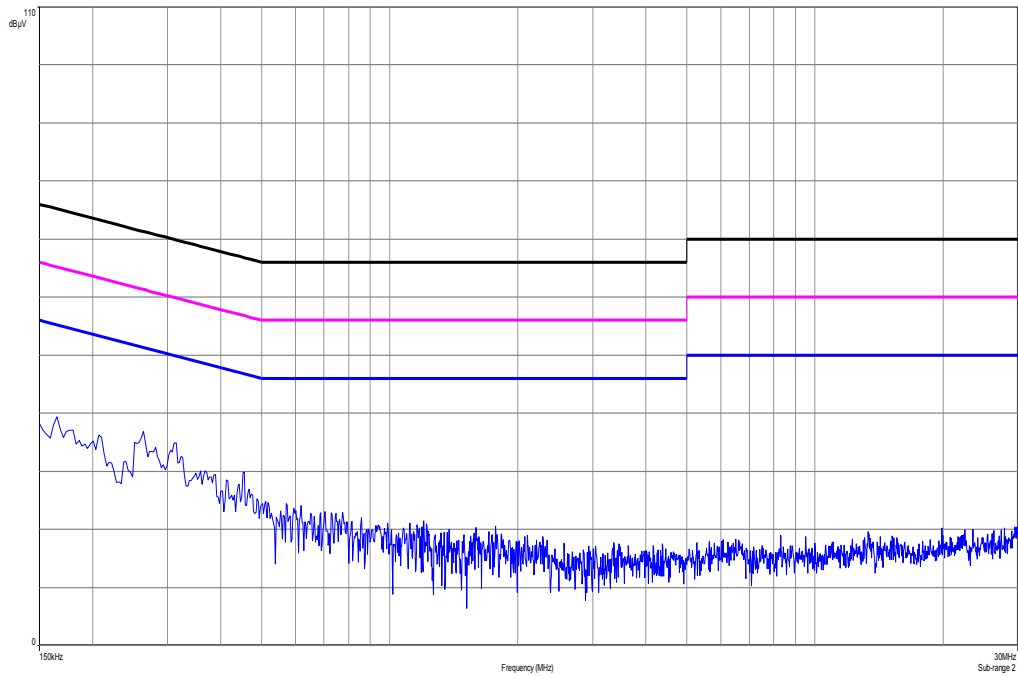
Results:

Spurious Emissions Conducted < 30 MHz [dB μ V/m]		
F [MHz]	Detector	Level [dB μ V/m]
No peaks detected.		
Measurement uncertainty	± 3 dB	

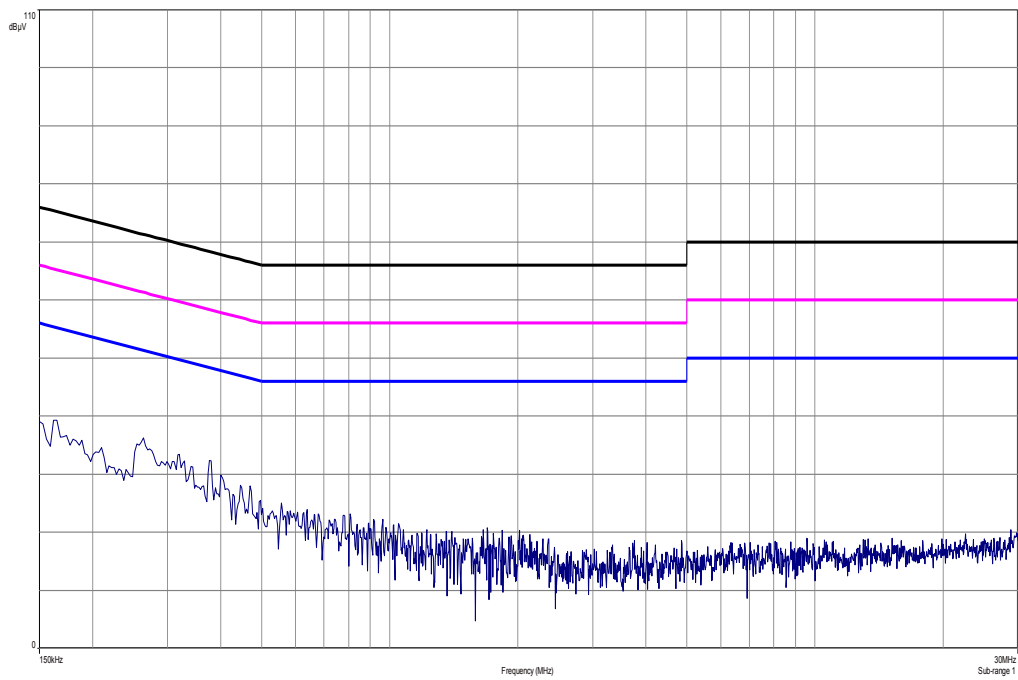
Result: Passed

Plots:

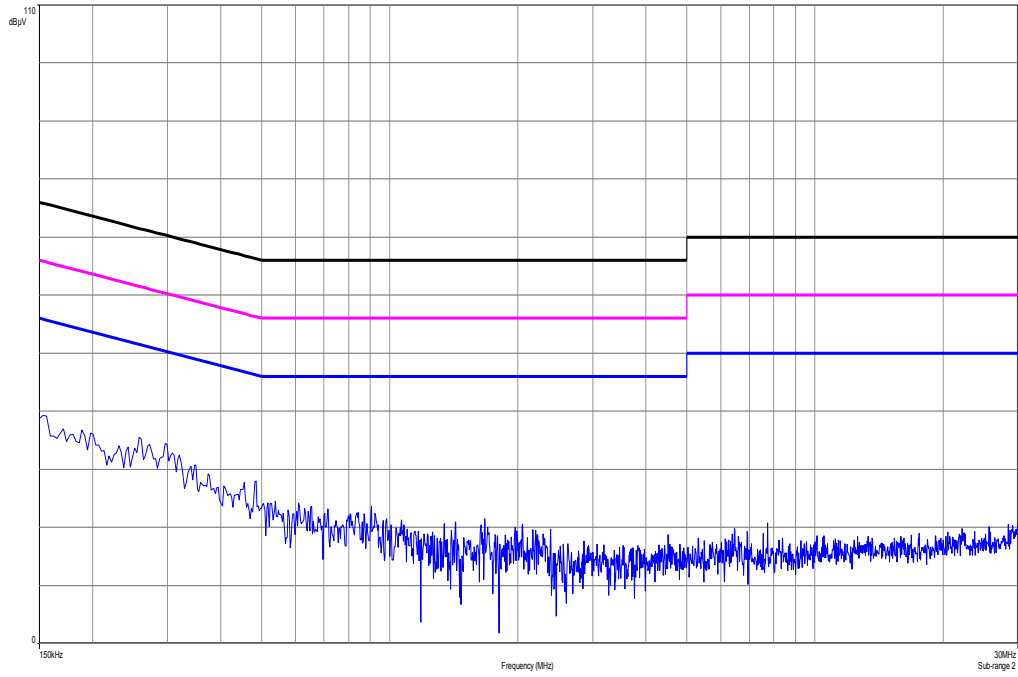
Plot 1: 150 kHz to 30 MHz / phase Line, TX mode



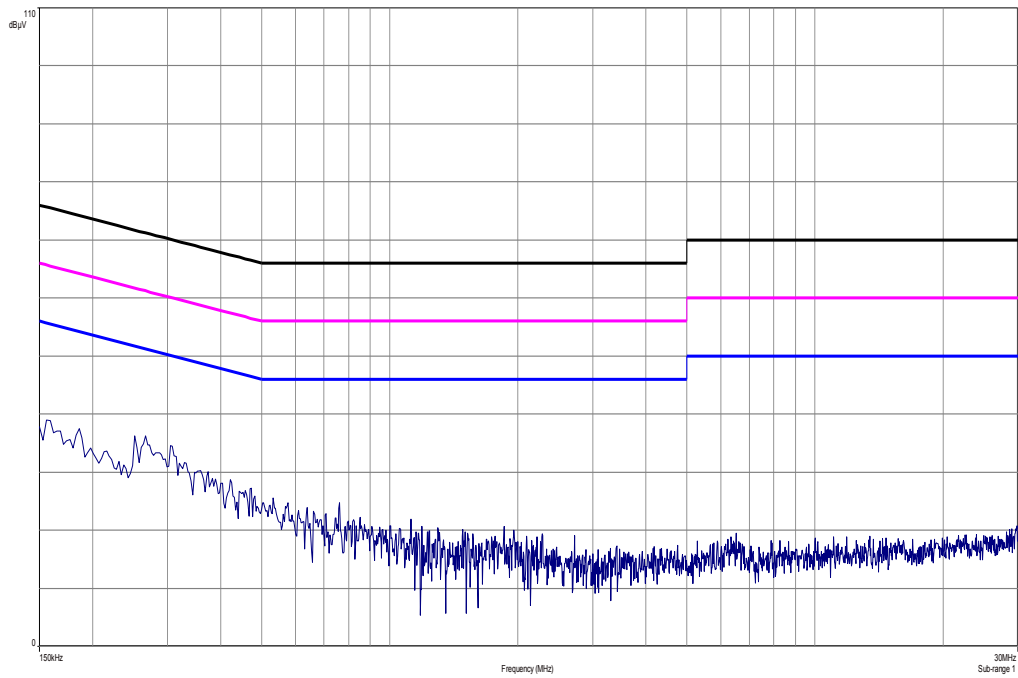
Plot 2: 150 kHz to 30 MHz / neutral Line, TX mode



Plot 3: 150 kHz to 30 MHz / phase Line, RX mode



Plot 4: 150 kHz to 30 MHz / neutral Line, RX mode



11 Test equipment and ancillaries used for tests

Typically, the calibrations of the test apparatus are commissioned to and performed by an accredited calibration laboratory. The calibration intervals are determined in accordance with the DIN EN ISO/IEC 17025. In addition to the external calibrations, the laboratory executes comparison measurements with other calibrated test systems or effective verifications. Weekly chamber inspections and range calibrations are performed. Where possible, rf-generating and signalling equipment as well as measuring receivers and analyzers are connected to an external high-precision 10 MHz reference (GPS-based or rubidium frequency standard).

In order to simplify the identification of the equipment used at some special tests, some items of test equipment and ancillaries can be provided with an identifier or number in the equipment list below (Lab/Item).

No.	Lab / Item	Equipment	Type	Manufact.	Serial No.	INV. No Cetecom	Kind of Calibration	Last Calibration	Next Calibration
1	45	Switch-Unit	3488A	HP Meßtechnik	2719A14505	300000368	g		
2	50	DC power supply, 60Vdc, 50A, 1200 W	6032A	HP Meßtechnik	2920A04466	300000580	ne		
3	n. a.	EMI Test Receiver	ESCI 3	R&S	100083	300003312	k	27.01.2014	27.01.2015
4	n. a.	Antenna Tower	Model 2175	ETS-LINDGREN	64762	300003745	izw		
5	n. a.	Positioning Controller	Model 2090	ETS-LINDGREN	64672	300003746	izw		
6	n. a.	Turntable Interface-Box	Model 105637	ETS-LINDGREN	44583	300003747	izw		
7	n. a.	TRILOG Broadband Test-Antenna 30 MHz - 3 GHz	VULB9163	Schwarzbeck	295	300003787	k	12.04.2012	12.04.2014
8	n. a.	Double-Ridged Waveguide Horn Antenna 1-18.0GHz	3115	EMCO	8812-3088	300001032	viKI!	08.05.2013	08.05.2015
9	n. a.	Anechoic chamber	FAC 3/5m	MWB / TDK	87400/02	300000996	ev		
10	n. a.	Switch / Control Unit	3488A	HP Meßtechnik	*	300000199	ne		
11	n. a.	Switch / Control Unit	3488A	HP Meßtechnik	2719A15013	300001156	ne		
12	9	Isolating Transformer	MPL IEC625 Bus Regeltrenntravo	Erfi	91350	300001155	ne		
13	n. a.	Three-Way Power Splitter, 50 Ohm	11850C	HP Meßtechnik		300000997	ne		
14	90	Active Loop Antenna 10 kHz to 30 MHz	6502	Kontron Psychotech	8905-2342	300000256	k	13.06.2013	13.06.2015
15	n. a.	Amplifier	js42-00502650-28-5a	Parzich GMBH	928979	300003143	ne		
16	n. a.	TRILOG Broadband Test-Antenna 30 MHz - 3 GHz	VULB9163	Schwarzbeck	371	300003854	viKI!	14.10.2011	14.10.2014
17	n. a.	MXE EMI Receiver 20 Hz bis 26,5 GHz	N9038A	Agilent Technologies	MY51210197	300004405	k	21.02.2013	21.02.2015
18	11b	Microwave System Amplifier, 0.5-26.5 GHz	83017A	HP Meßtechnik	00419	300002268	ev		
19	A026	Std. Gain Horn Antenna 12.4 to 18.0 GHz	639	Narda	8402	300000787	k	22.07.2013	22.07.2015
20	A029	Std. Gain Horn Antenna 18.0 to 26.5 GHz	638	Narda	8205	300002442	k	19.07.2013	19.07.2015
21	A031	Std. Gain Horn Antenna 26.5 to 40.0 GHz	637	Narda		300000510	k	19.07.2013	19.07.2015
22	n. a.	Broadband Low Noise Amplifier 18-50 GHz	CBL18503 070-XX	CERNEX	19338	300004273	ne		
23	n. a.	Signal Analyzer 40 GHz	FSV40	R&S	101042	300004517	k	21.01.2014	21.01.2015

Agenda: Kind of Calibration

k	calibration / calibrated	EK	limited calibration
ne	not required (k, ev, izw, zw not required)	zw	cyclical maintenance (external cyclical maintenance)
ev	periodic self verification	izw	internal cyclical maintenance
Ve	long-term stability recognized	g	blocked for accredited testing
vlk!	Attention: extended calibration interval		
NK!	Attention: not calibrated	*)	next calibration ordered / currently in progress

12 Observations

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

Annex A Document history

Version	Applied changes	Date of release
	Initial release	2014-03-13
-A	Change in reference documents	2014-03-25

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

Annex C Accreditation Certificate

Front side of certificate



Deutsche Akkreditierungsstelle GmbH

Befehle 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 Prüflaboratorium

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

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

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)
 Umweltsimulation
 Smart Card Terminals
 Bluetooth
 Wi-Fi- Services

Die Akkreditierungskunde gilt nur in Verbindung mit dem Bescheid vom 18.01.2013 mit der Akkreditierungsnummer D-PL-12076-01 und ist gültig 17.01.2018. Sie besteht aus diesem Deckblatt, der Rückseite des Deckblatts und der folgenden Anlage mit insgesamt 80 Seiten.

Registrierungsnummer der Urkunde: D-PL-12076-01-01

Frankfurt am Main, 18.01.2013
Siehe Hinweis auf der Rückseite

Im Auftrag
 Döring, PHJ
 Abteilungsleiter

Back side of certificate

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

Die Akkreditierung erfolgte gemäß des Gesetzes über die Akkreditierungsstelle (AkkStelleG) vom 31. Juli 2009 (BGBl. I S. 2625) sowie der Verordnung (EG) Nr. 765/2008 des Europäischen Parlaments und des Rates vom 9. Juli 2008 über die Vorschriften für die Akkreditierung und Marktüberwachung im Zusammenhang mit der Vermarktung von Produkten (Abt. L 218 vom 9. Juli 2008, S. 30). Die DAKKS ist Unterzeichnerin der Multilateralen Abkommen zur gegenseitigen Anerkennung der European co-operation for Accreditation (EA), des International Accreditation Forum (IAF) und der International Laboratory Accreditation Cooperation (ILAC). Die Unterzeichner dieser Abkommen erkennen ihre Akkreditierungen gegenseitig an.

Der aktuelle Stand der Mitgliedschaft kann folgenden Webseiten entnommen werden:

EA: www.european-accreditation.org
 ILAC: www.ilac.org
 IAF: www.iaf.nu

Note:

The current certificate including annex is published on our website (see link below) or may be received from CETECOM ICT Services on request.

<http://www.cetecom.com/eu/de/cetecom-group/europa/deutschland-saarbruecken/akkreditierungen.html>