

## 10.9 TX spurious emissions radiated

### Description:

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

### Measurement:

Measurement parameter	
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:

TX Spurious Emissions Radiated		
§15.209		
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
§15.407		
Outside the restricted bands!	-27 dBm / MHz	

**Results: OFDM / a – mode**

TX Spurious Emissions Radiated [dBµV/m] / dBm								
OFDM a – mode								
Lowest 5180 MHz			-/-			Highest 5240 MHz		
F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]
For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.			-/-			For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.		
All detected peaks are below the average limit!						All detected peaks are below the average limit!		
Measurement uncertainty			± 3 dB					

TX Spurious Emissions Radiated [dBµV/m] / dBm								
OFDM a – mode								
Lowest 5260 MHz			-/-			Highest 5320 MHz		
F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]
For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.			-/-			For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.		
All detected peaks are below the average limit!						All detected peaks are below the average limit!		
Measurement uncertainty			± 3 dB					

TX Spurious Emissions Radiated [dBµV/m] / dBm								
OFDM a – mode								
Lowest 5500 MHz			Middle 5600 MHz			Highest 5700 MHz		
F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]
For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.			For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.			For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.		
All detected peaks are below the average limit!			All detected peaks are below the average limit!			All detected peaks are below the average limit!		
Measurement uncertainty			± 3 dB					

**Result: Passed**

**Results: OFDM / ac – modeHT20**

TX Spurious Emissions Radiated [dBµV/m] / dBm								
OFDM ac – mode HT20								
Lowest 5180 MHz			-/-			Highest 5240 MHz		
F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]
For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.			-/-			For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.		
All detected peaks are below the average limit!						All detected peaks are below the average limit!		
Measurement uncertainty			± 3 dB					

TX Spurious Emissions Radiated [dBµV/m] / dBm								
OFDM ac – mode HT20								
Lowest 5260 MHz			-/-			Highest 5320 MHz		
F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]
For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.			-/-			For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.		
All detected peaks are below the average limit!						All detected peaks are below the average limit!		
Measurement uncertainty			± 3 dB					

TX Spurious Emissions Radiated [dBµV/m] / dBm								
OFDM ac – mode HT20								
Lowest 5500 MHz			Middle 5600 MHz			Highest 5700 MHz		
F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]
For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.			For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.			For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.		
All detected peaks are below the average limit!			All detected peaks are below the average limit!			All detected peaks are below the average limit!		
Measurement uncertainty			± 3 dB					

**Result: Passed**

**Results: OFDM / ac – modeHT40**

TX Spurious Emissions Radiated [dBµV/m] / dBm								
OFDM ac – mode HT40								
Lowest 5190 MHz			-/-			Middle 5270 MHz		
F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]
For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.			-/-			For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.		
All detected peaks are below the average limit!						All detected peaks are below the average limit		
Measurement uncertainty			± 3 dB					

TX Spurious Emissions Radiated [dBµV/m] / dBm								
OFDM ac – mode HT40								
Highest 5310 MHz			-/-			Lowest 5590 MHz		
F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]
For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.			-/-			For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.		
All detected peaks are below the average limit!						All detected peaks are below the average limit!		
Measurement uncertainty			± 3 dB					

TX Spurious Emissions Radiated [dBµV/m] / dBm								
OFDM ac – mode HT40								
Highest 5670 MHz			-/-			-/-		
F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]
For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.			-/-			-/-		
All detected peaks are below the average limit!			-/-			-/-		
Measurement uncertainty			± 3 dB					

**Result: Passed**

**Results: OFDM / ac – modeHT80**

TX Spurious Emissions Radiated [dBµV/m] / dBm								
OFDM ac – mode HT80								
Lowest 5210 MHz			-/-			Highest 5290 MHz		
F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]
For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.			-/-			For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.		
All detected peaks are below the average limit!						All detected peaks are below the average limit!		
Measurement uncertainty			± 3 dB					

TX Spurious Emissions Radiated [dBµV/m] / dBm								
OFDM ac – mode HT80								
Lowest 5530 MHz			-/-			Highest 5610 MHz		
F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]
For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.			-/-			For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.		
All detected peaks are below the average limit!						All detected peaks are below the average limit!		
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:** OFDM / a – mode

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

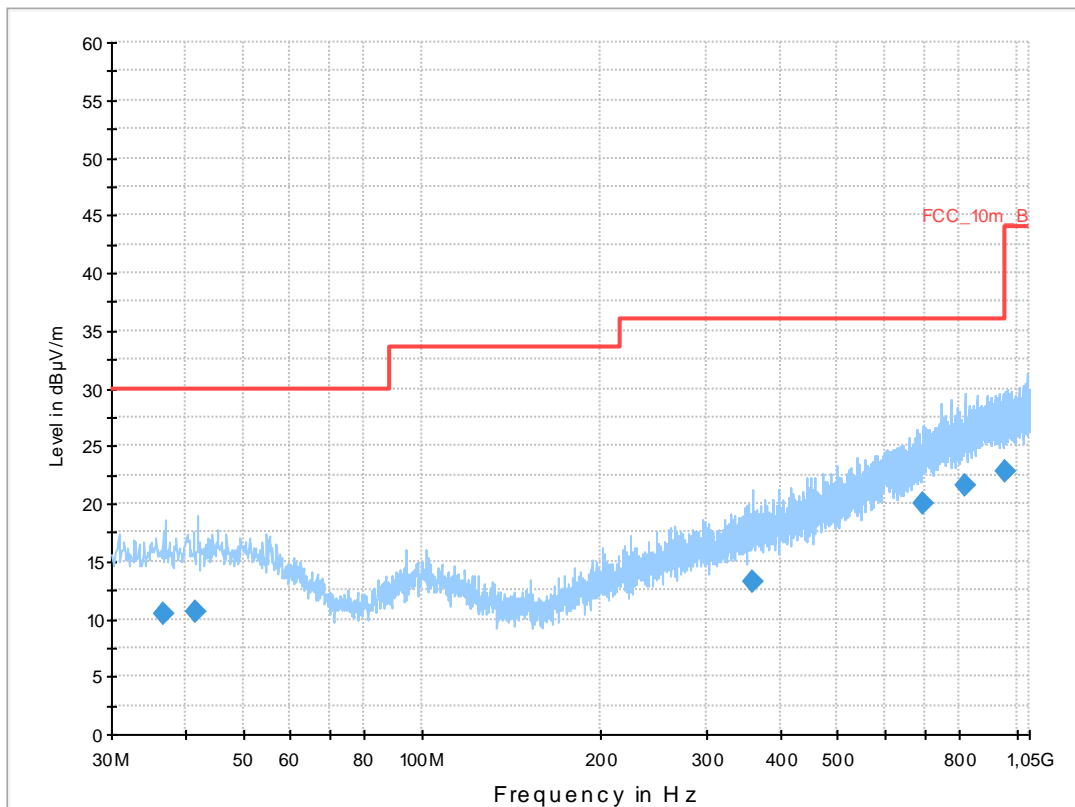
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan a-mode tx ch 36  
 Operator Name: Wolsdorfer  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

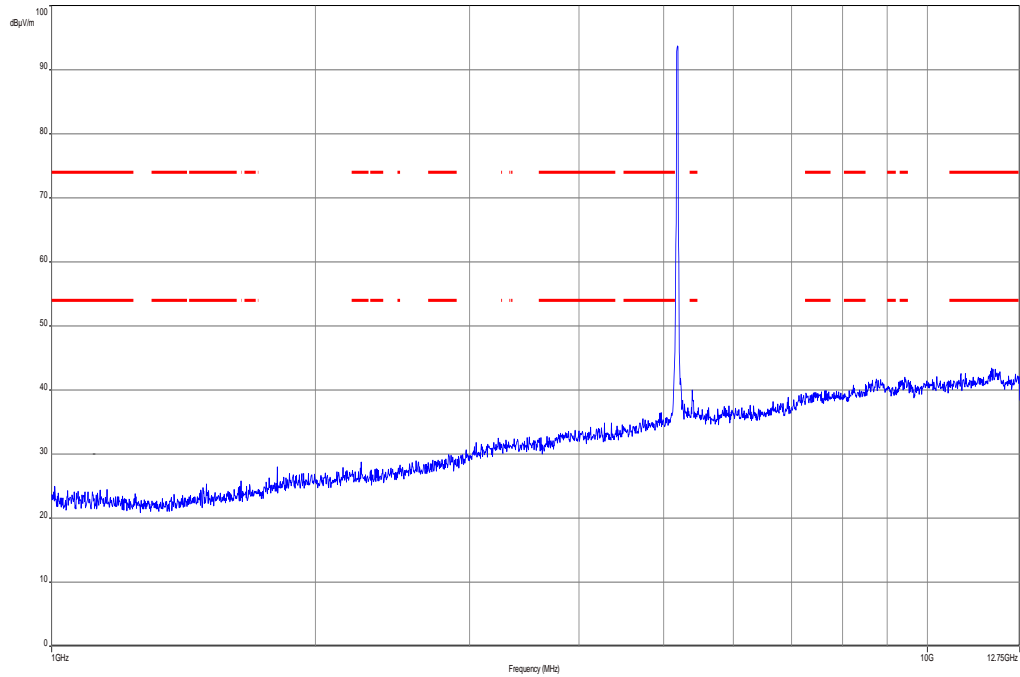
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



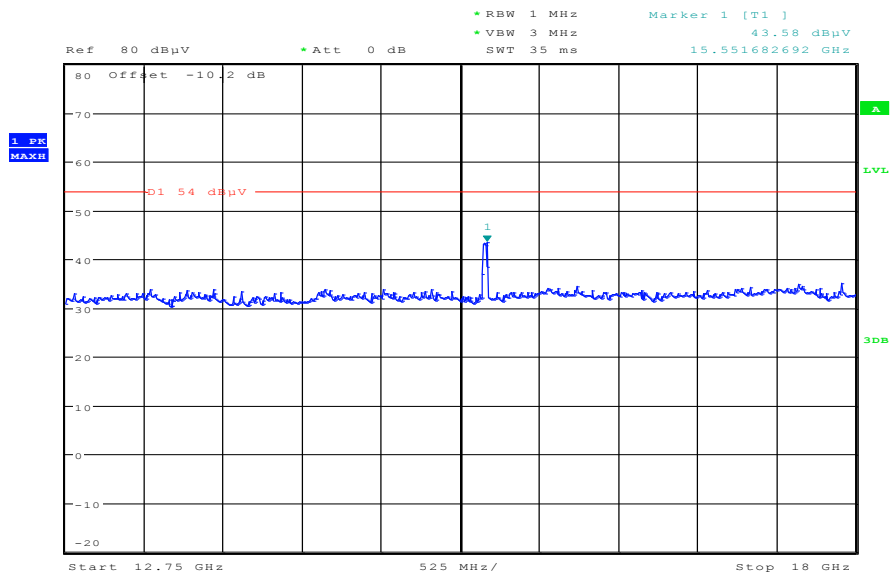
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
36.625650	10.4	1000.0	120.000	121.0	H	267.0	13.2	19.6	30.0	
41.422800	10.5	1000.0	120.000	170.0	V	-5.0	13.4	19.5	30.0	
360.068550	13.2	1000.0	120.000	98.0	V	176.0	16.2	22.8	36.0	
697.666950	20.0	1000.0	120.000	170.0	H	272.0	22.4	16.0	36.0	
819.593100	21.6	1000.0	120.000	170.0	H	175.0	24.1	14.4	36.0	
957.260700	22.8	1000.0	120.000	170.0	H	80.0	25.4	13.2	36.0	

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

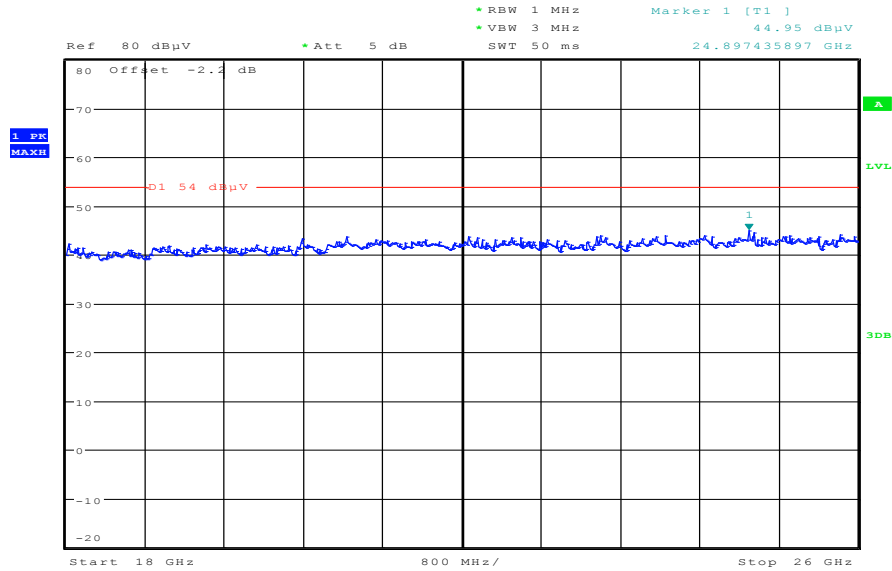


**Plot 3:** 12 GHz to 18 GHz, 5180 MHz, vertical & horizontal polarization



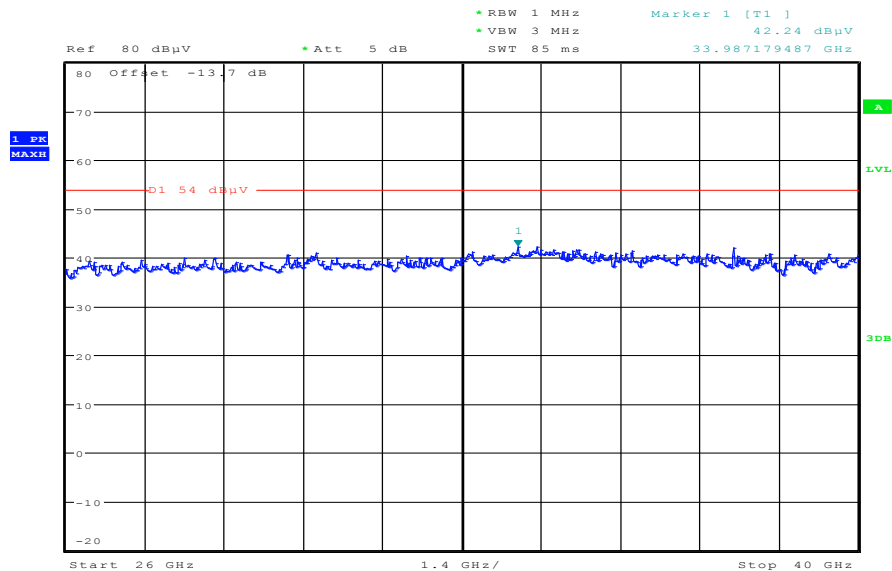
Date: 16.DEC.2013 14:58:28

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



Date: 16.DEC.2013 15:44:07

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



Date: 16.DEC.2013 16:50:03



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

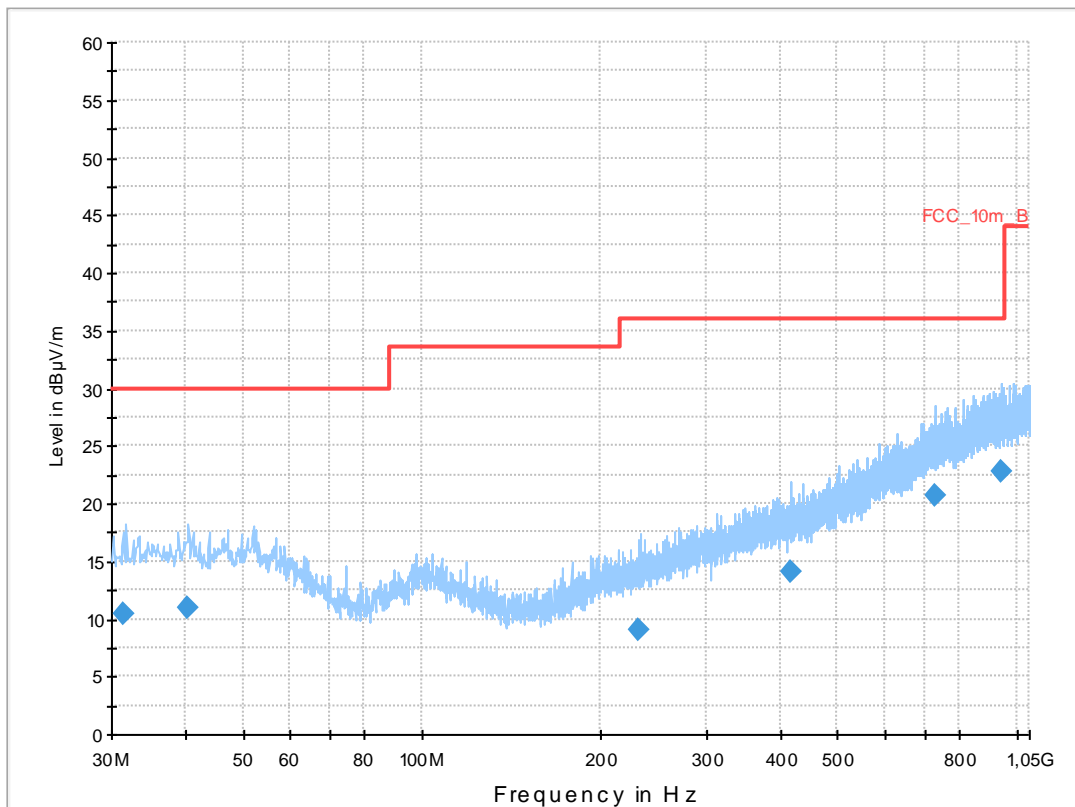
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan a-mode tx ch 48  
 Operator Name: Wolsdorfer  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

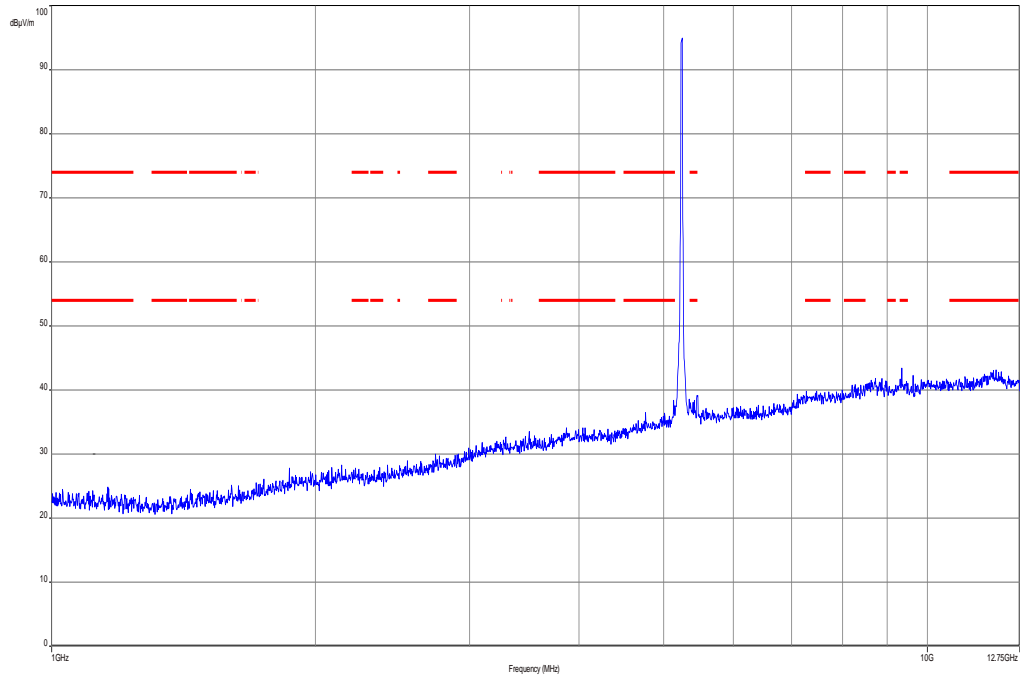
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



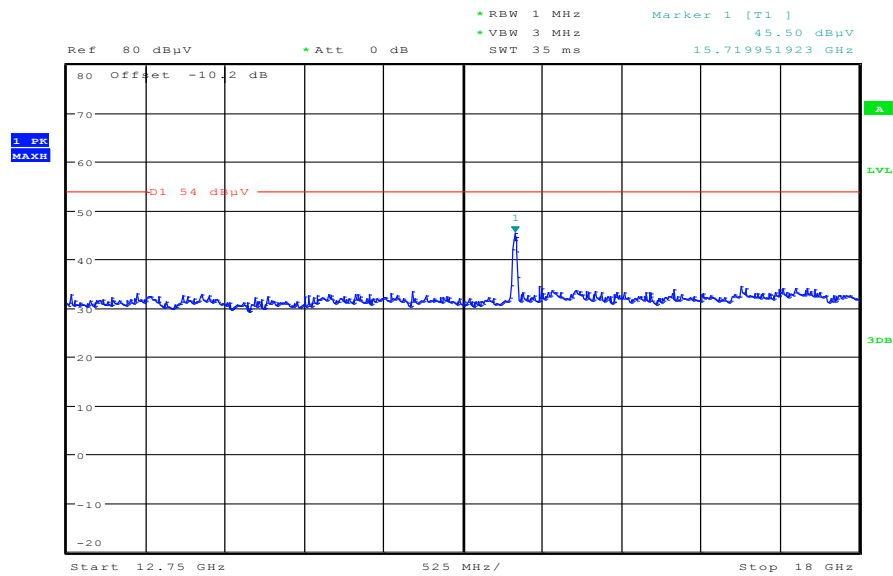
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
31.519350	10.5	1000.0	120.000	170.0	H	10.0	12.7	19.5	30.0	
40.205100	11.0	1000.0	120.000	170.0	V	85.0	13.4	19.0	30.0	
231.180750	9.0	1000.0	120.000	98.0	V	171.0	12.7	27.0	36.0	
416.811000	14.0	1000.0	120.000	98.0	H	100.0	17.2	22.0	36.0	
726.241050	20.7	1000.0	120.000	170.0	V	175.0	23.1	15.3	36.0	
942.480000	22.8	1000.0	120.000	98.0	V	190.0	25.3	13.2	36.0	

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

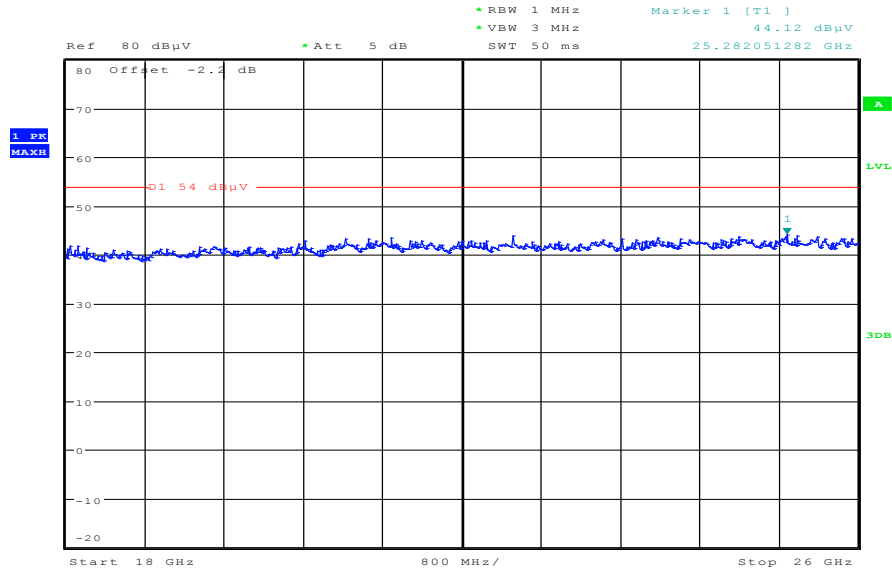


**Plot 8:** 12 GHz to 18 GHz, 5240 MHz, vertical & horizontal polarization



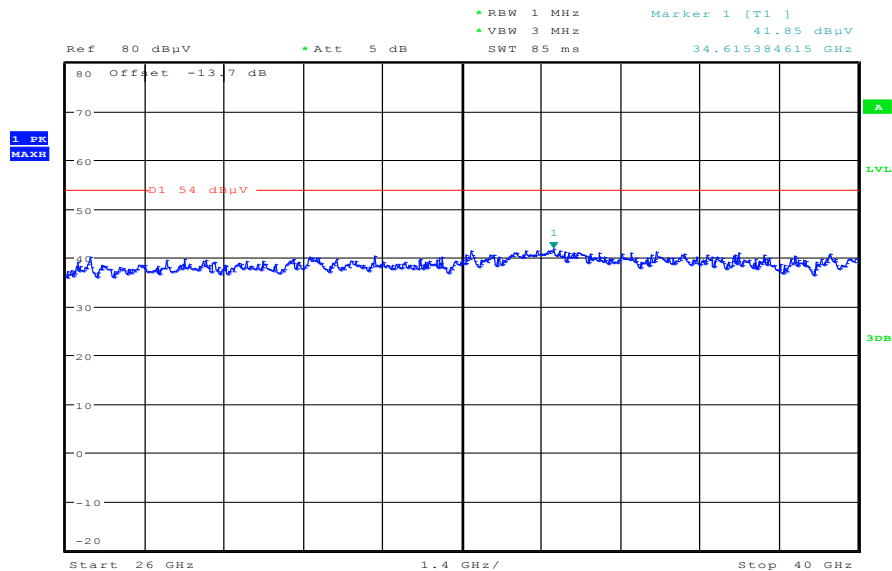
Date: 16.DEC.2013 15:00:41

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



Date: 16.DEC.2013 15:44:47

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



Date: 16.DEC.2013 16:50:53

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

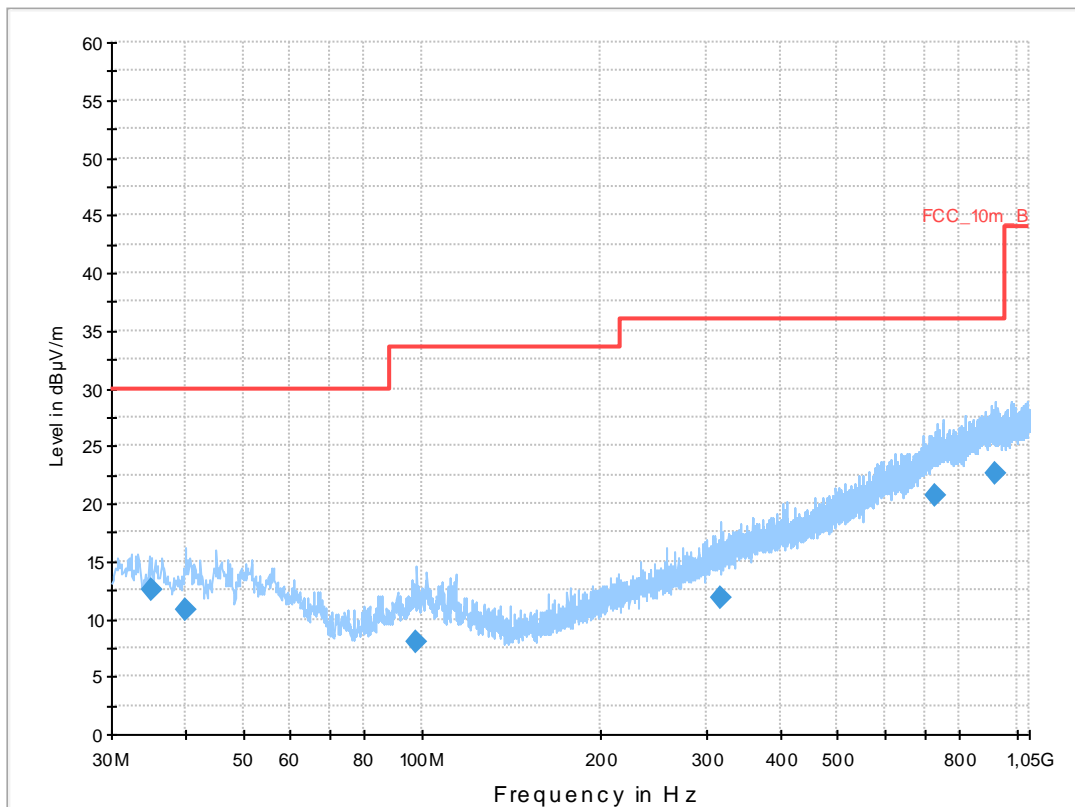
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan a-mode tx ch 52  
 Operator Name: Hennemann  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

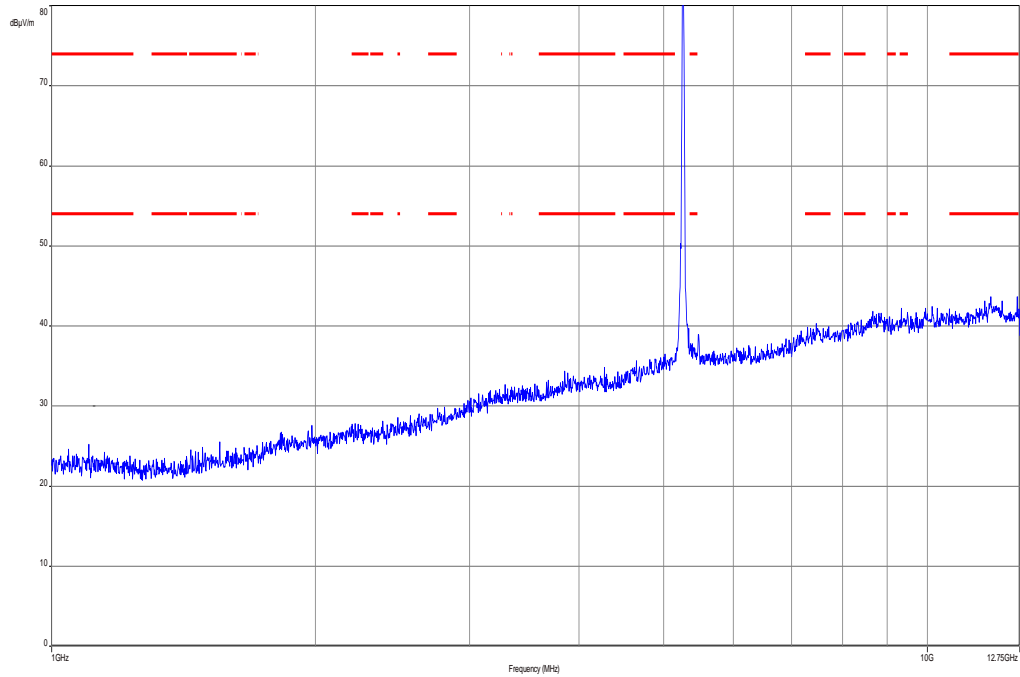
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



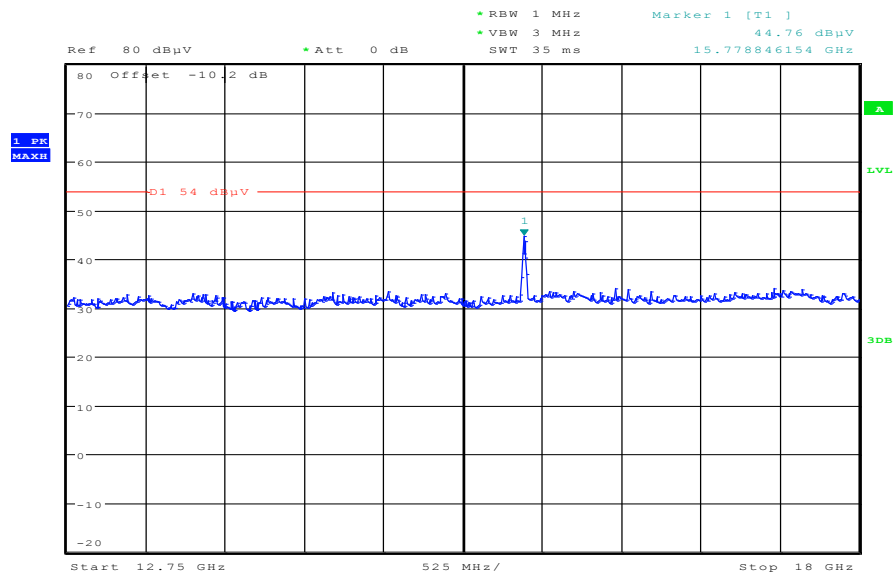
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.040000	12.6	1000.0	120.000	145.0	V	0.0	13.0	17.4	30.0	
39.960000	10.7	1000.0	120.000	270.0	V	97.0	13.4	19.3	30.0	
97.920000	8.0	1000.0	120.000	98.0	V	119.0	11.6	25.5	33.5	
317.880000	11.9	1000.0	120.000	98.0	H	289.0	15.1	24.1	36.0	
727.080000	20.7	1000.0	120.000	223.0	H	267.0	23.1	15.3	36.0	
916.800000	22.6	1000.0	120.000	98.0	H	0.0	25.3	13.4	36.0	

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

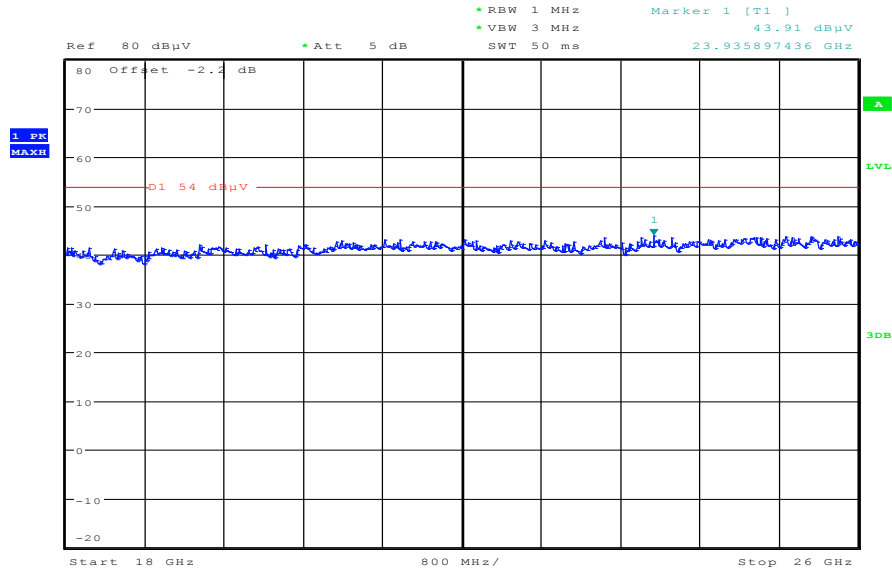


**Plot 13:** 12 GHz to 18 GHz, 5260 MHz, vertical & horizontal polarization



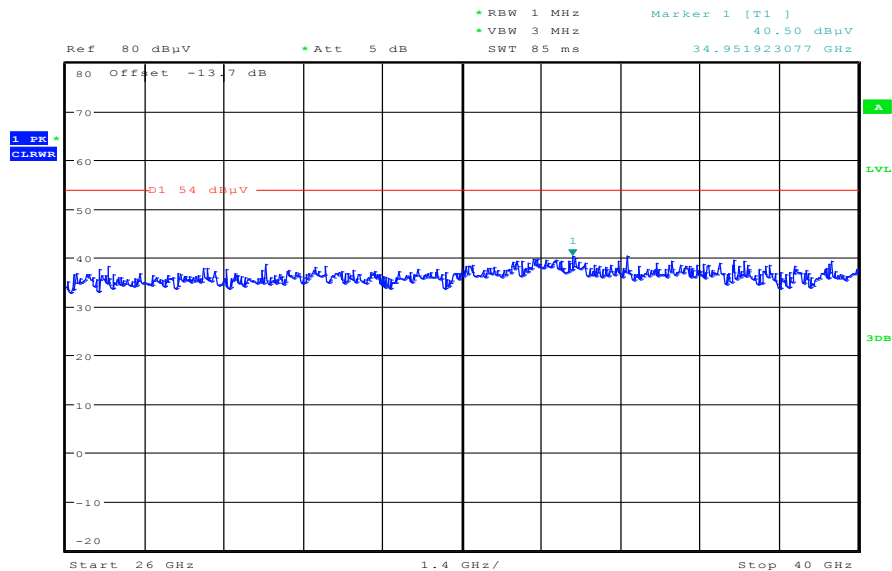
Date: 16.DEC.2013 15:01:21

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



Date: 16.DEC.2013 15:45:21

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



Date: 16.DEC.2013 16:51:24

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

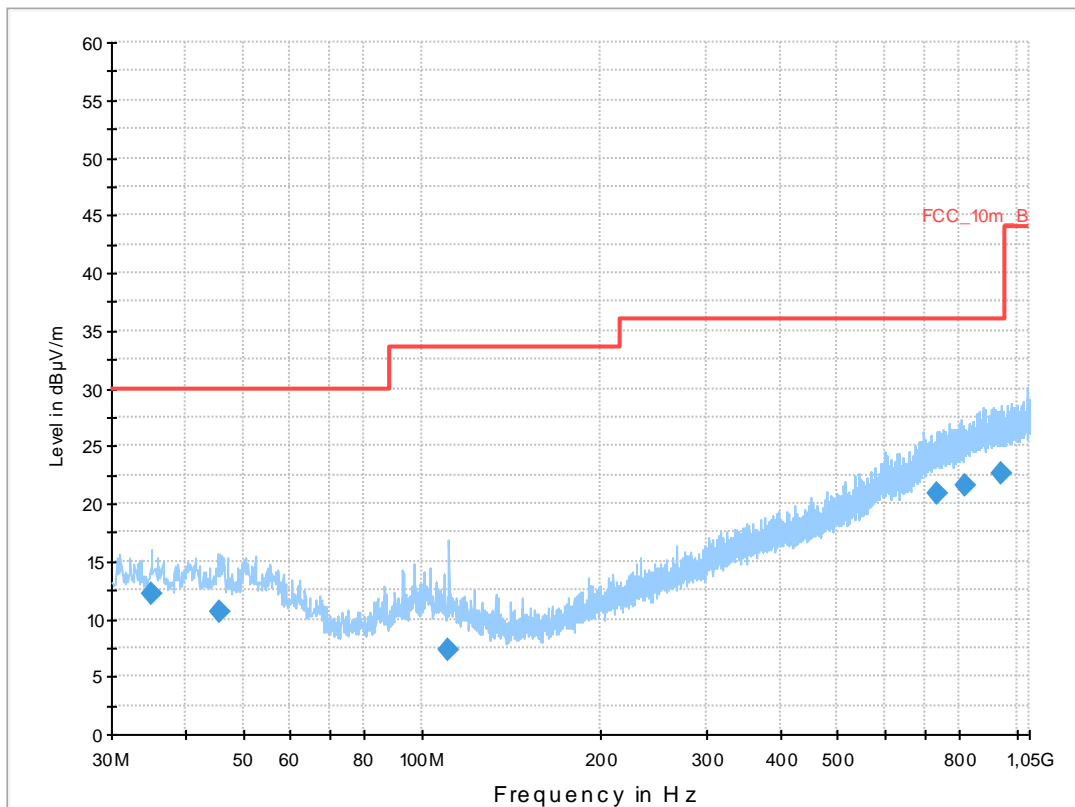
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan a-mode tx ch 64  
 Operator Name: Hennemann  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

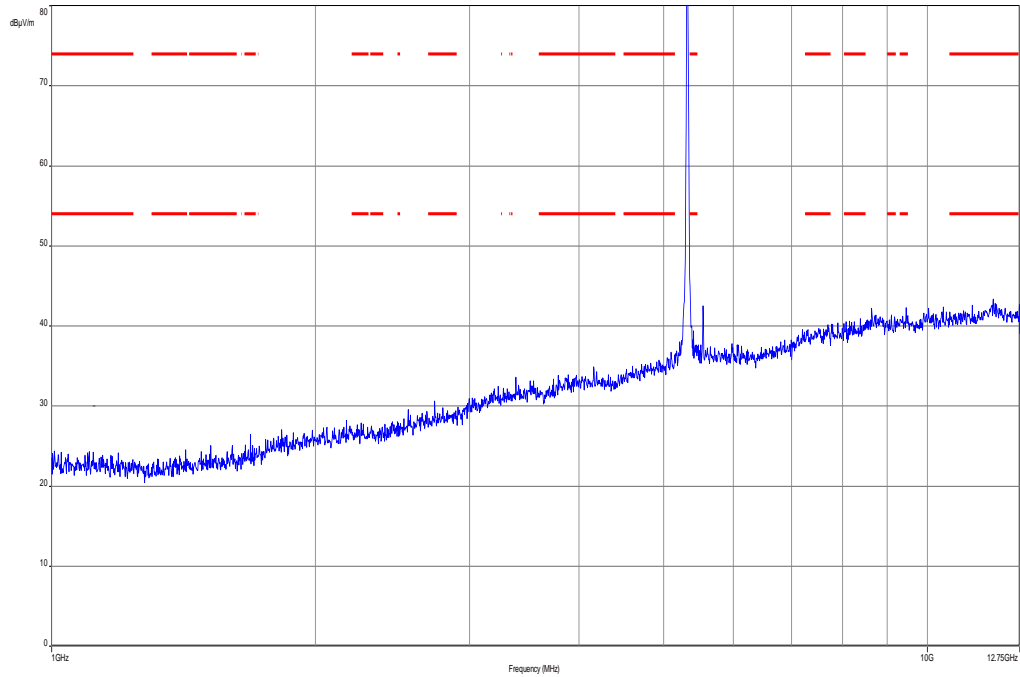
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



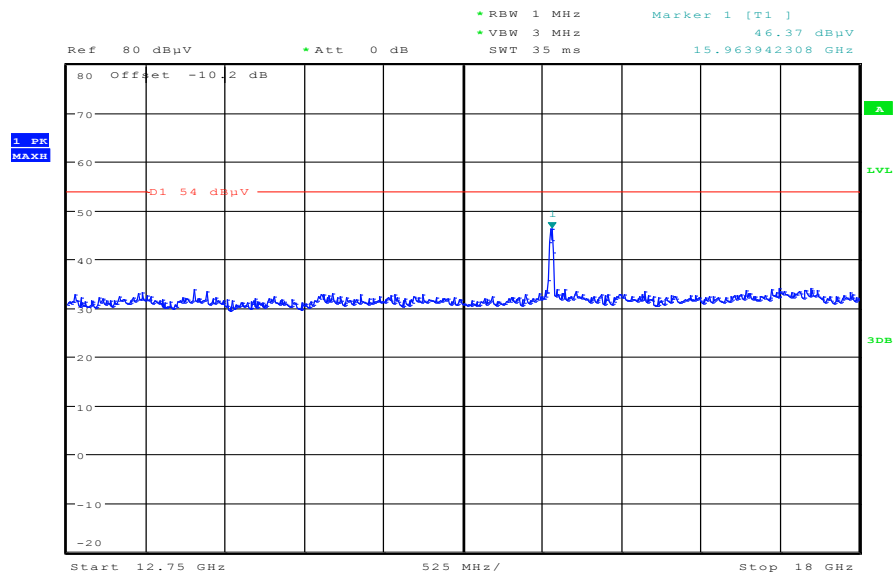
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.040000	12.2	1000.0	120.000	182.0	V	338.0	13.0	17.8	30.0	
45.480000	10.6	1000.0	120.000	236.0	V	122.0	13.3	19.4	30.0	
110.880000	7.3	1000.0	120.000	270.0	V	111.0	11.0	26.2	33.5	
735.720000	20.9	1000.0	120.000	132.0	V	78.0	23.3	15.2	36.0	
819.360000	21.6	1000.0	120.000	270.0	H	0.0	24.1	14.4	36.0	
944.520000	22.6	1000.0	120.000	270.0	V	349.0	25.3	13.4	36.0	

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



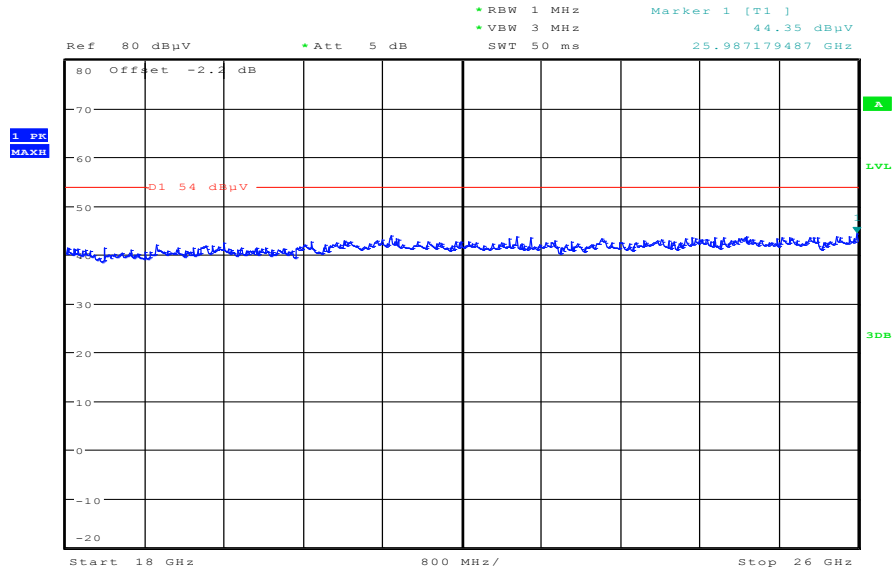
**Plot 18:** 12 GHz to 18 GHz, 5320 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 15:01:56

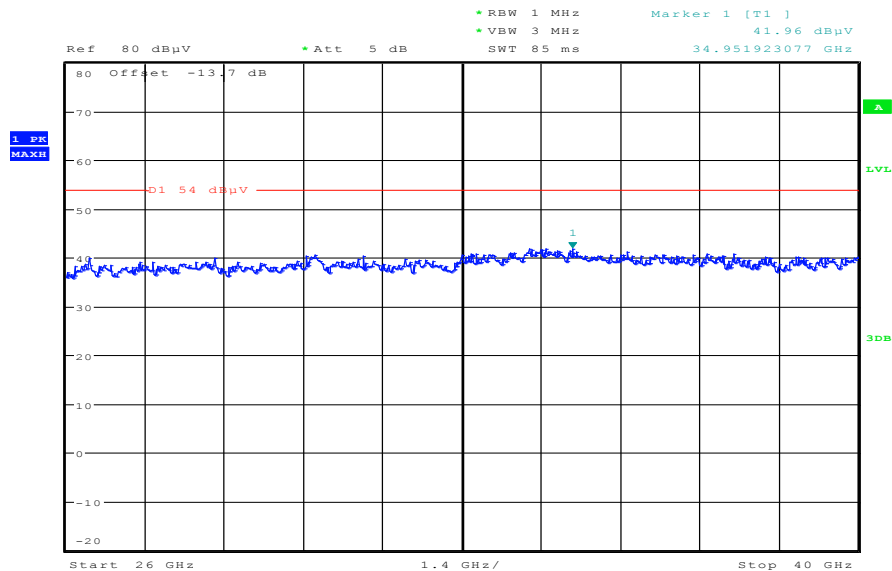


**Plot 19:** 18 GHz to 26 GHz, 5320 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 15:46:06

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



Date: 16.DEC.2013 16:52:24

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

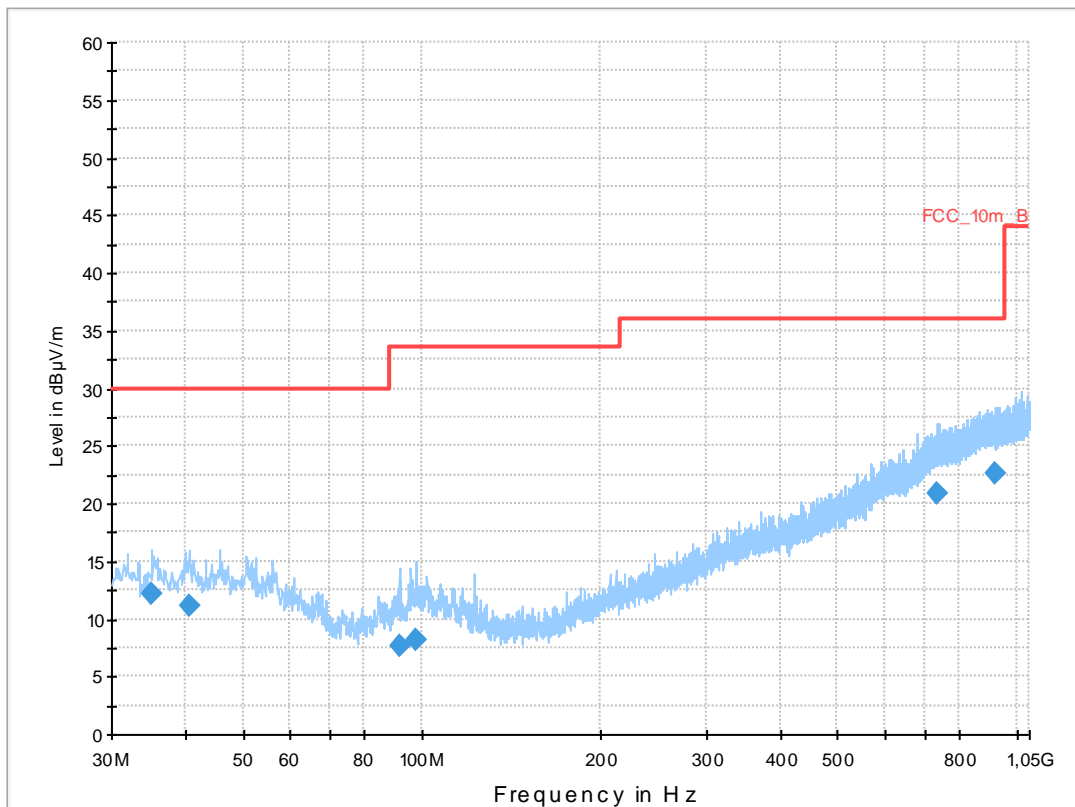
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan a-mode tx ch 100  
 Operator Name: Hennemann  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

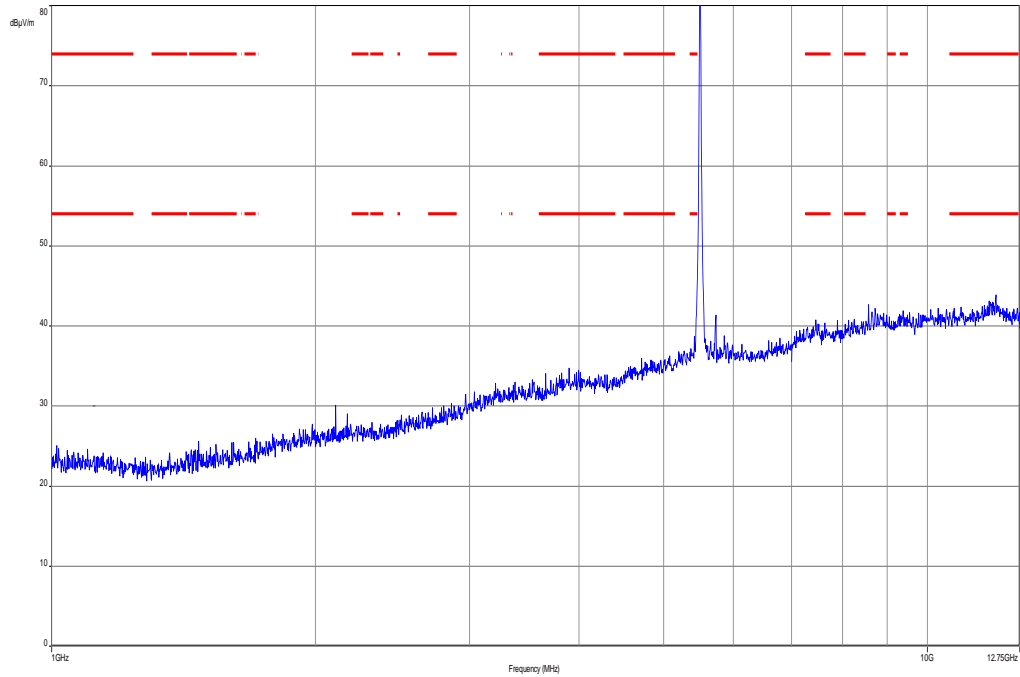
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



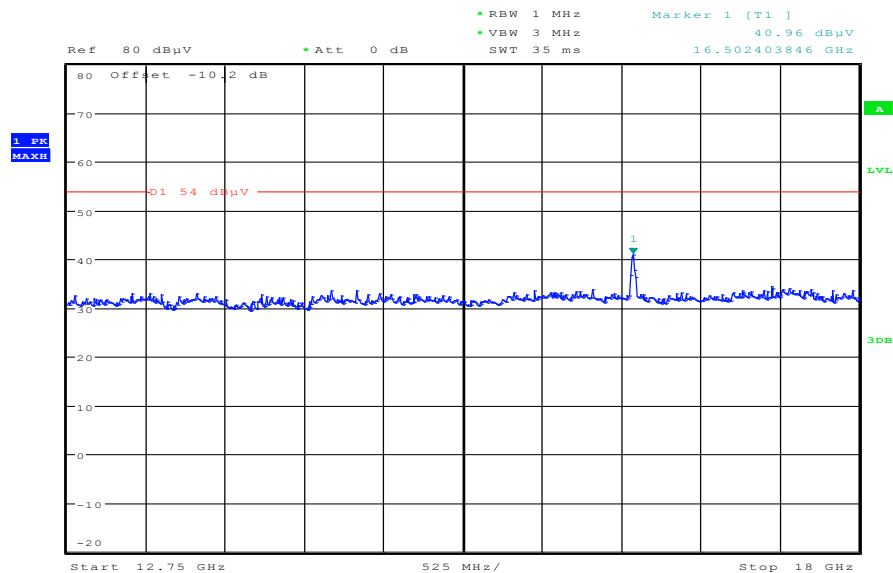
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.040000	12.1	1000.0	120.000	183.0	V	135.0	13.0	17.9	30.0	
40.560000	11.1	1000.0	120.000	183.0	V	176.0	13.4	18.9	30.0	
91.440000	7.6	1000.0	120.000	199.0	V	157.0	10.7	25.9	33.5	
97.440000	8.2	1000.0	120.000	197.0	V	293.0	11.6	25.3	33.5	
734.640000	20.8	1000.0	120.000	238.0	H	237.0	23.3	15.2	36.0	
922.560000	22.5	1000.0	120.000	270.0	V	272.0	25.3	13.5	36.0	

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

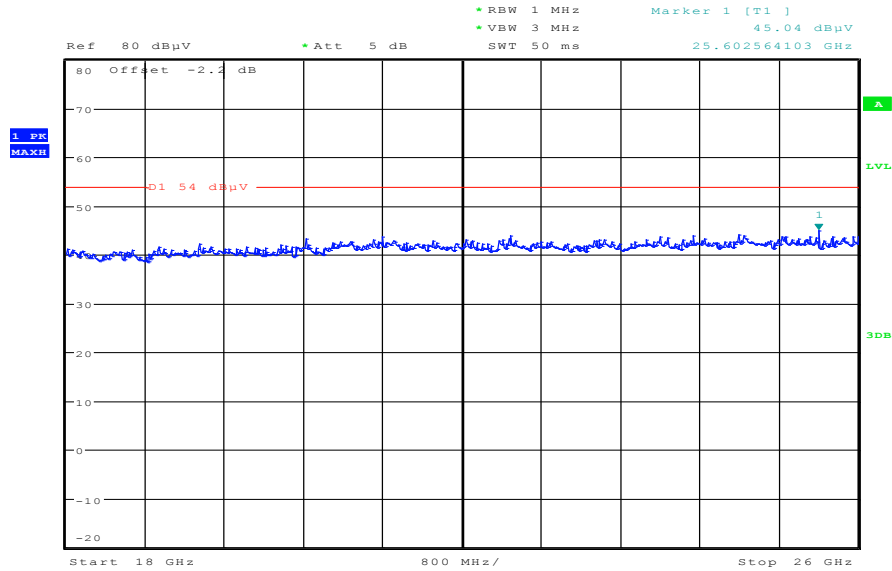


**Plot 23:** 12 GHz to 18 GHz, 5500 MHz, vertical & horizontal polarization



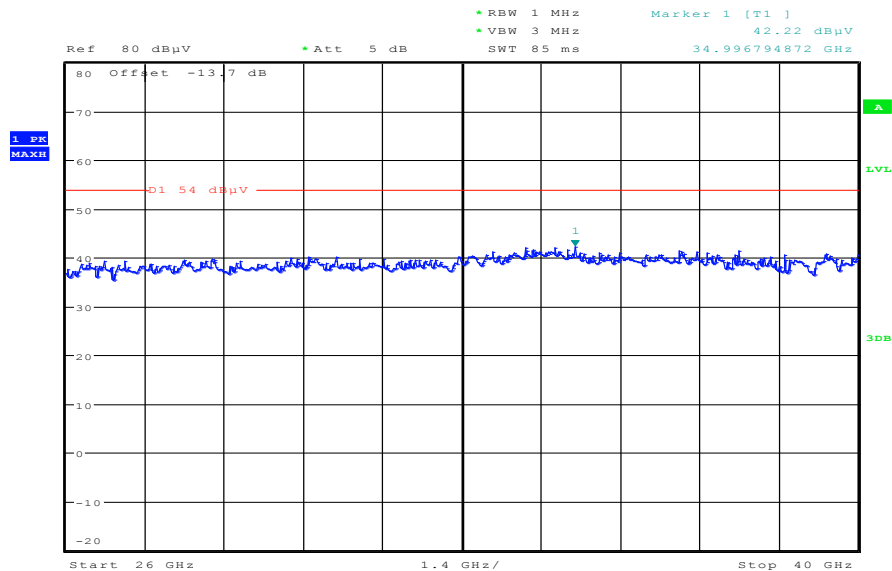
Date: 16.DEC.2013 15:02:47

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



Date: 16.DEC.2013 15:46:44

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



Date: 16.DEC.2013 16:53:00

**Plot 26:** 30 MHz to 1 GHz, 5600 MHz, vertical & horizontal polarization

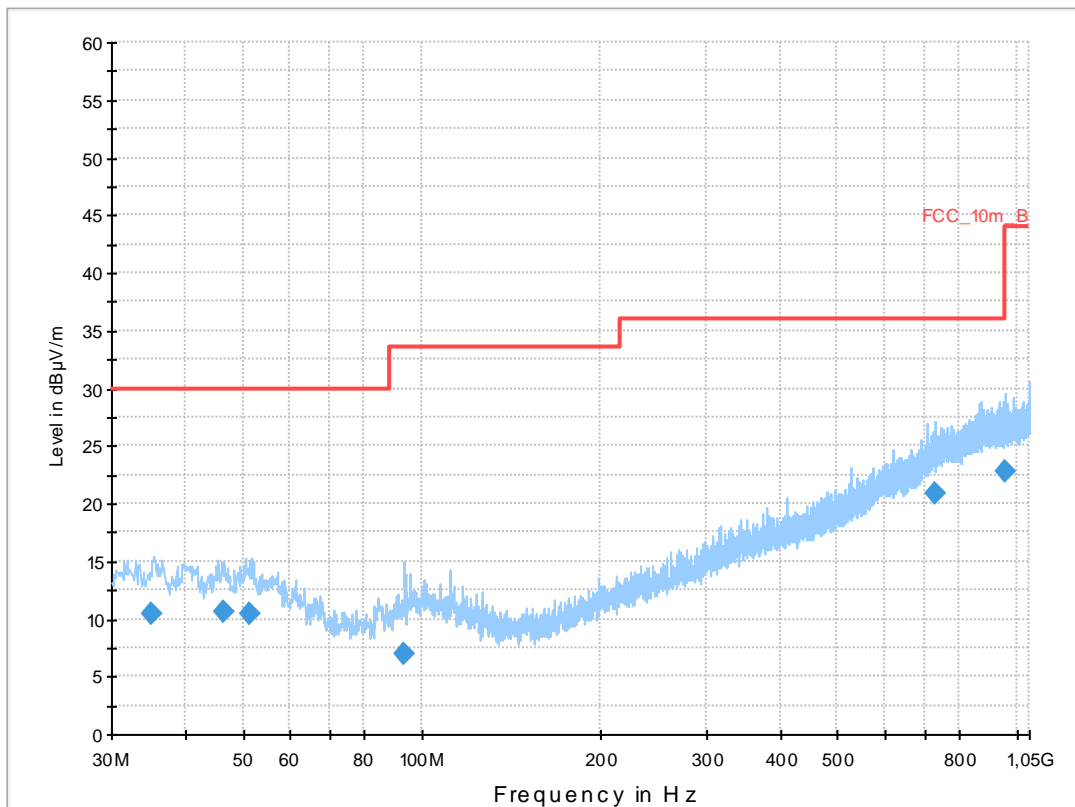
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan a-mode tx ch 120  
 Operator Name: Hennemann  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

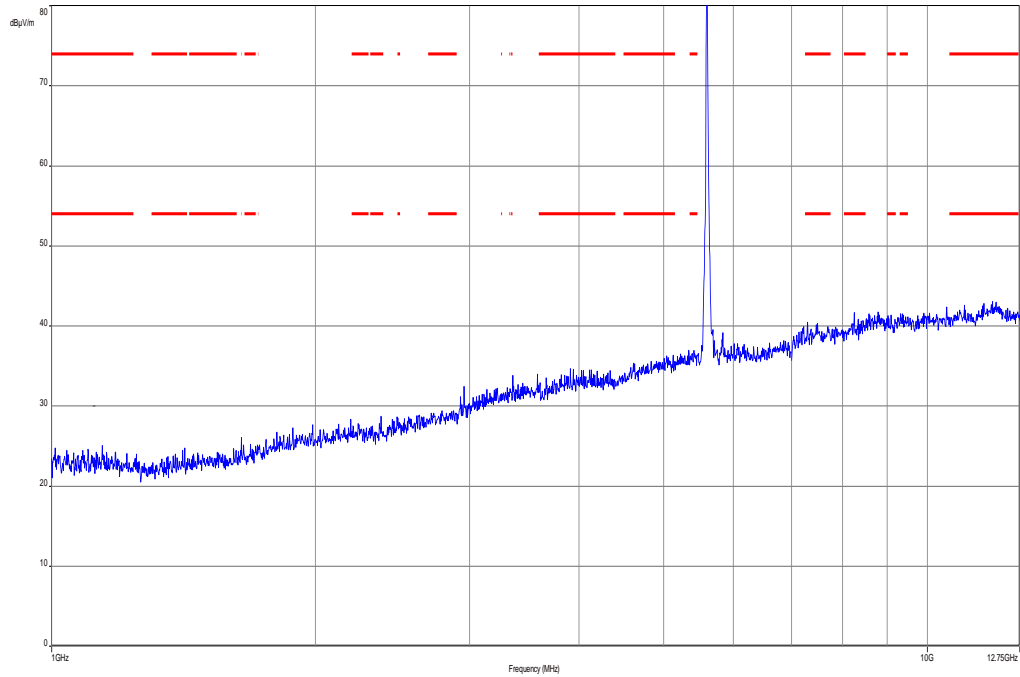
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



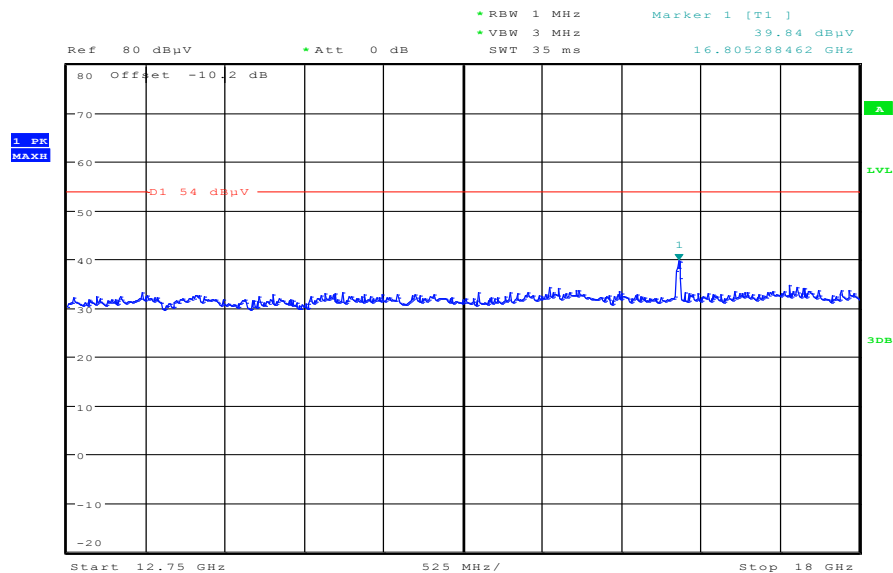
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.160000	10.4	1000.0	120.000	186.0	H	176.0	13.0	19.6	30.0	
46.200000	10.6	1000.0	120.000	188.0	V	316.0	13.3	19.4	30.0	
51.240000	10.5	1000.0	120.000	238.0	H	59.0	13.2	19.5	30.0	
93.360000	7.0	1000.0	120.000	186.0	V	290.0	11.0	26.5	33.5	
731.520000	20.8	1000.0	120.000	270.0	H	0.0	23.2	15.2	36.0	
956.280000	22.8	1000.0	120.000	270.0	H	0.0	25.4	13.2	36.0	

**Plot 27:** 1 GHz to 12.75 GHz, 5600 MHz, vertical & horizontal polarization

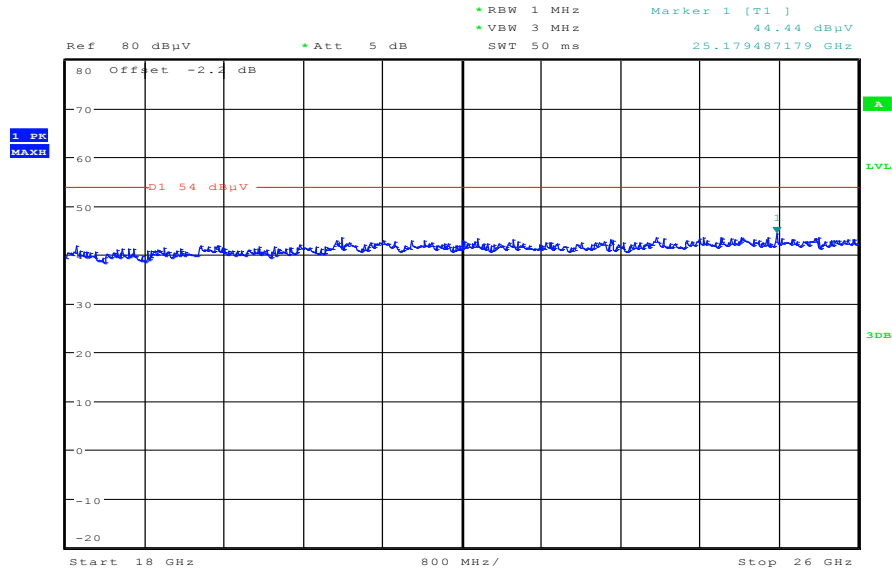


**Plot 28:** 12 GHz to 18 GHz, 5600 MHz, vertical & horizontal polarization



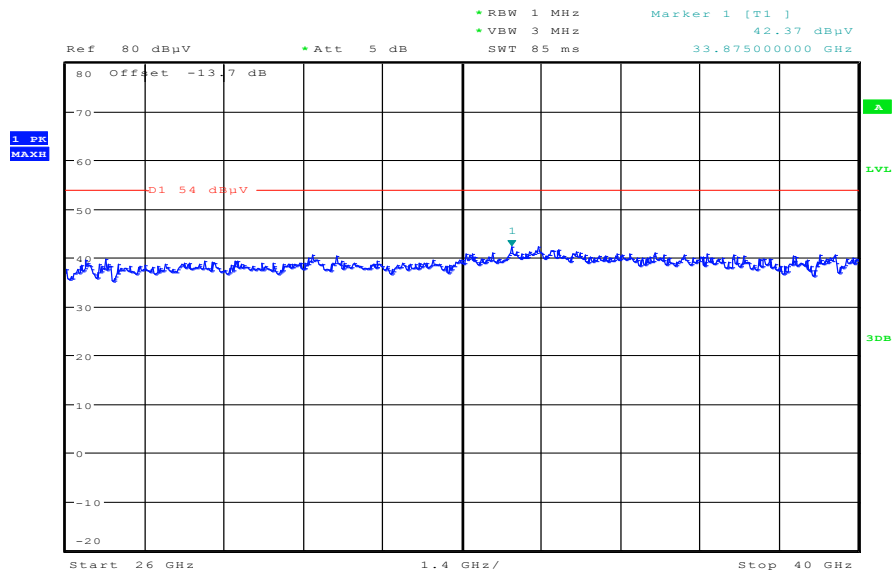
Date: 16.DEC.2013 15:03:45

**Plot 29:** 18 GHz to 26 GHz, 5600 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 15:47:18

**Plot 30:** 26 GHz to 40 GHz, 5600 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 16:53:44

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

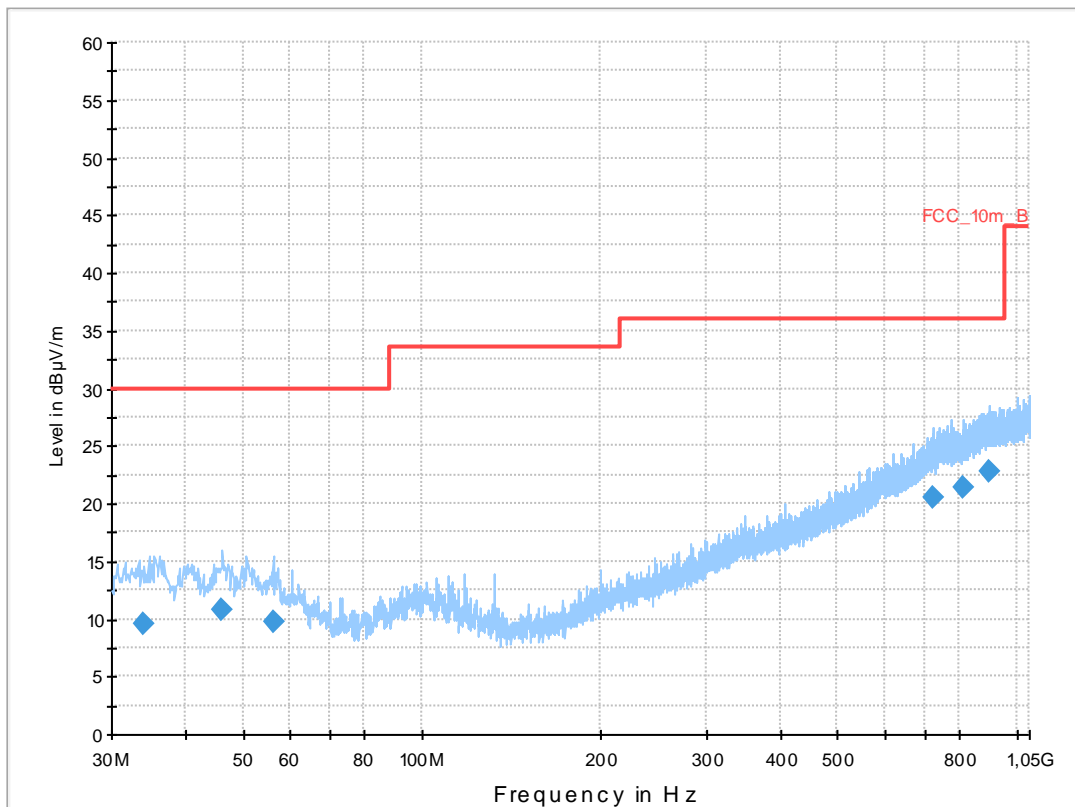
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan a-mode tx ch 140  
 Operator Name: Hennemann  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 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

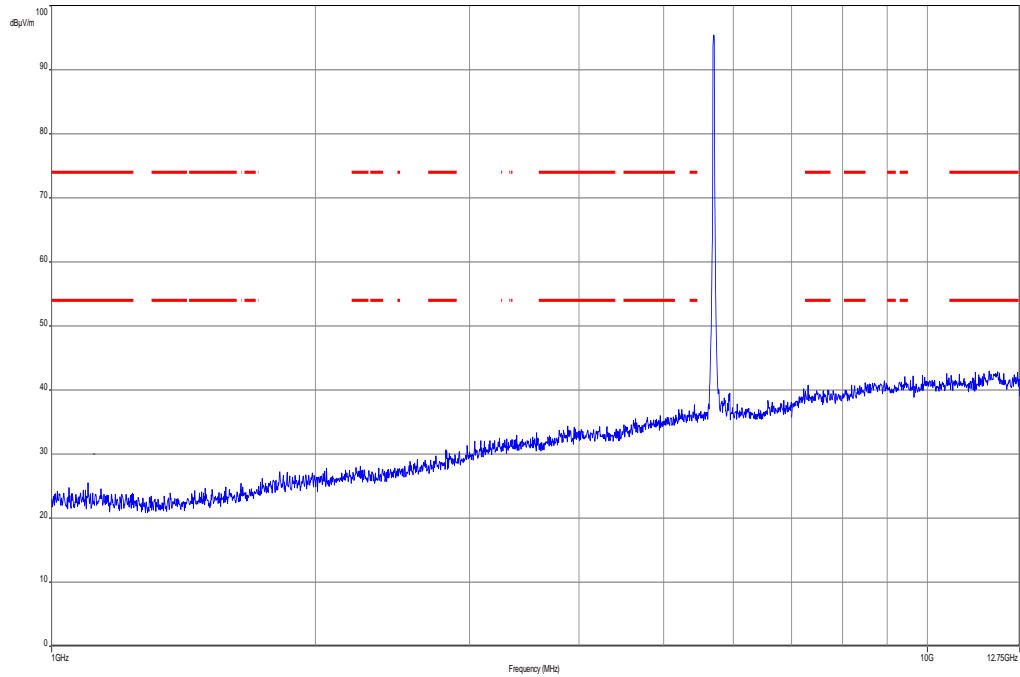


### Final Result 1

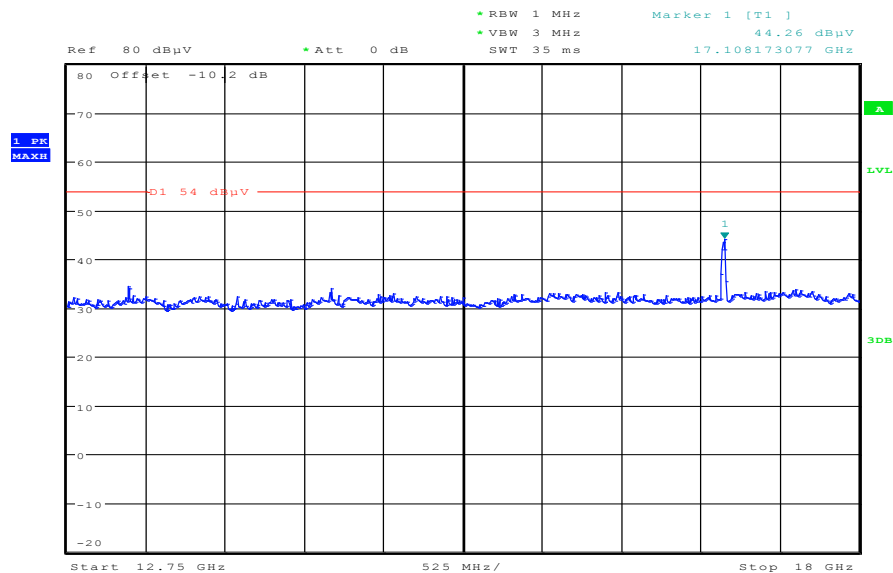
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
34.080000	9.5	1000.0	120.000	270.0	V	0.0	12.9	20.5	30.0	
46.080000	10.9	1000.0	120.000	198.0	V	199.0	13.3	19.1	30.0	
56.160000	9.8	1000.0	120.000	223.0	H	139.0	12.6	20.2	30.0	
724.920000	20.6	1000.0	120.000	227.0	H	88.0	23.1	15.4	36.0	
814.080000	21.4	1000.0	120.000	258.0	H	291.0	24.0	14.6	36.0	
902.160000	22.7	1000.0	120.000	129.0	H	314.0	25.2	13.3	36.0	



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

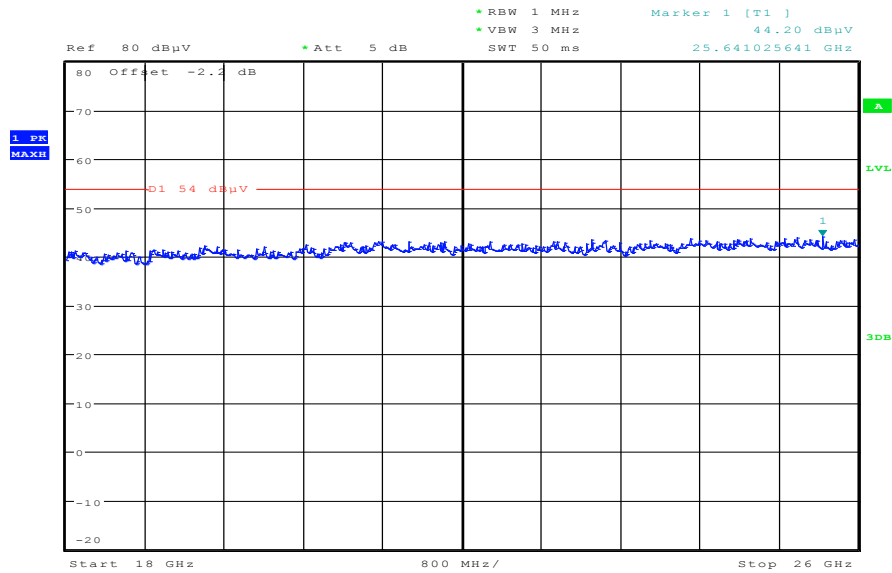


**Plot 33:** 12 GHz to 18 GHz, 5700 MHz, vertical & horizontal polarization



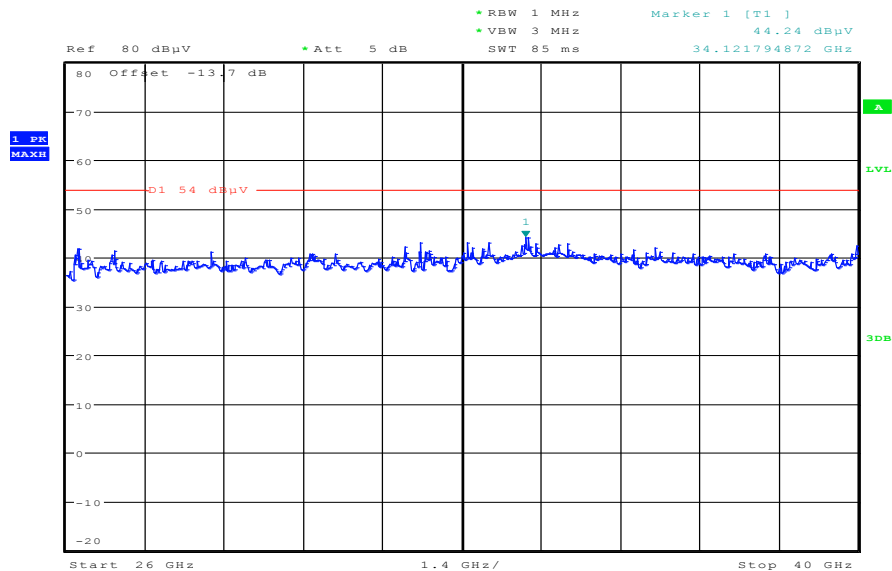
Date: 16.DEC.2013 15:04:53

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



Date: 16.DEC.2013 15:48:25

**Plot 35:** 26 GHz to 40 GHz, 5700 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 16:54:43

**Plots:** OFDM / ac – mode HT20

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

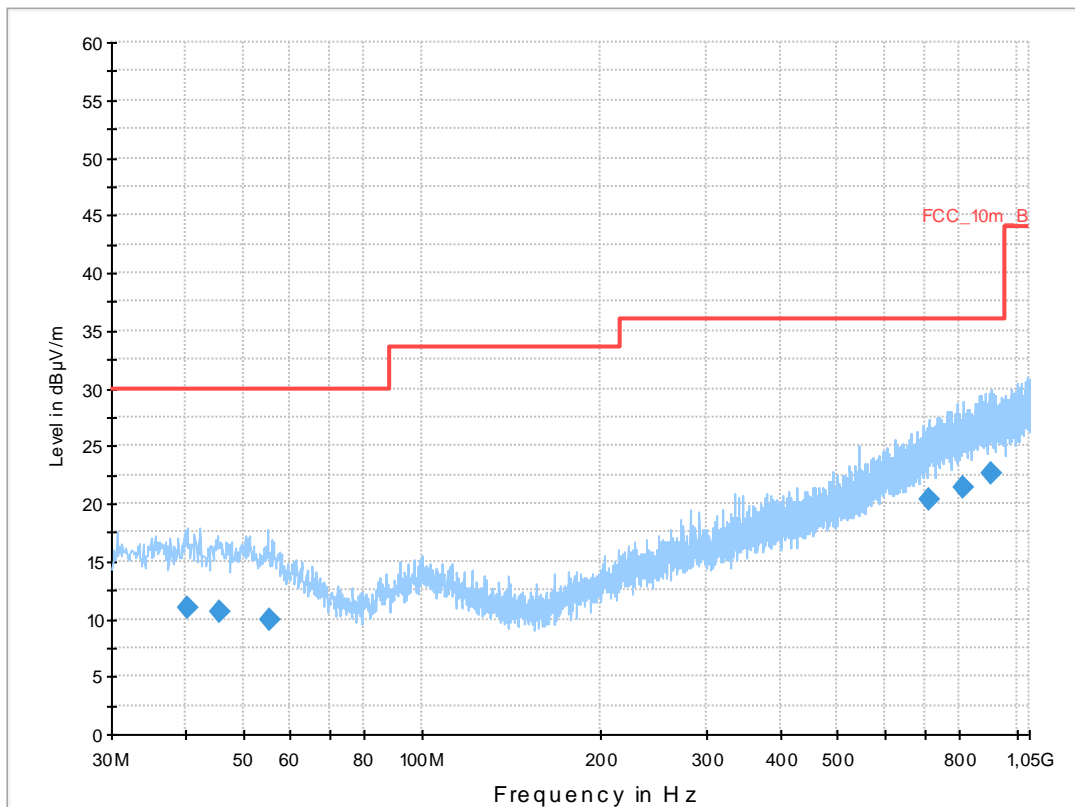
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan ac-mode (HT20) tx ch 36  
 Operator Name: Hennemann  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

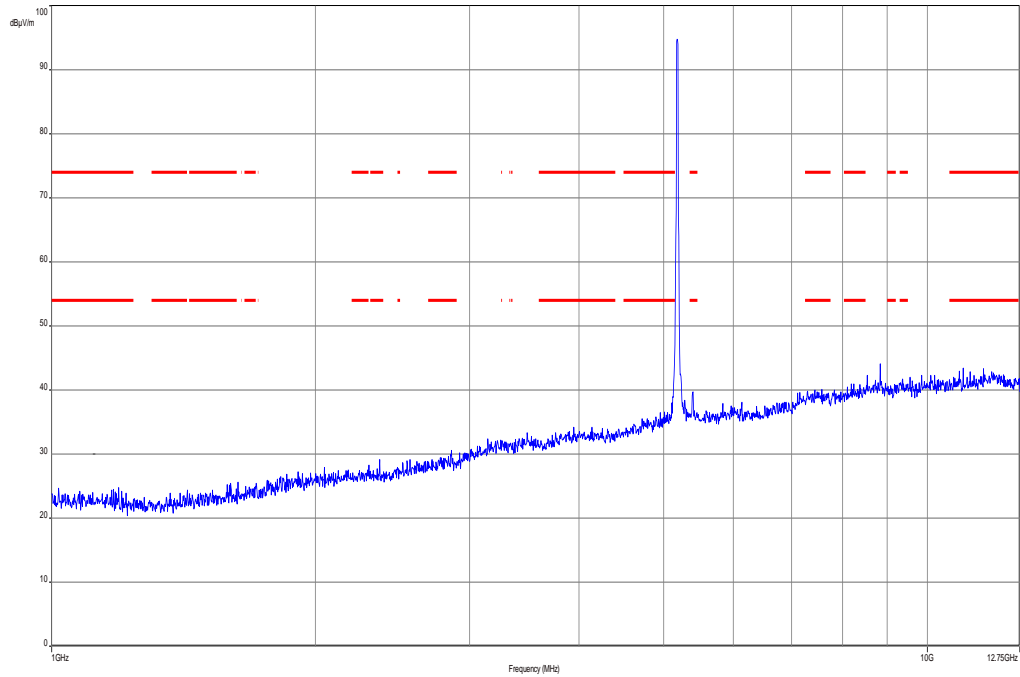
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



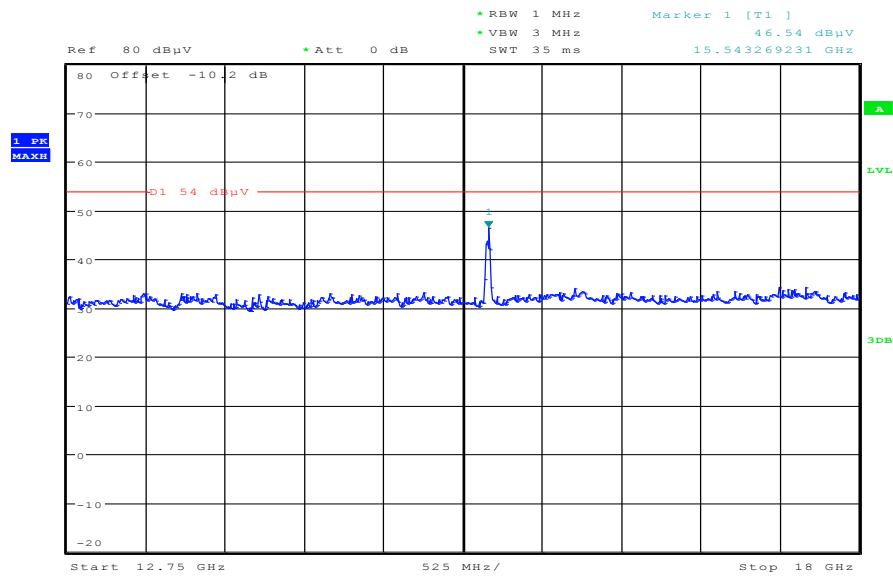
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
40.299450	10.9	1000.0	120.000	170.0	V	170.0	13.4	19.1	30.0	
45.549300	10.6	1000.0	120.000	98.0	H	10.0	13.3	19.4	30.0	
55.537050	9.8	1000.0	120.000	120.0	V	280.0	12.7	20.2	30.0	
711.450600	20.4	1000.0	120.000	170.0	V	-10.0	22.8	15.6	36.0	
811.718850	21.4	1000.0	120.000	122.0	H	10.0	24.0	14.6	36.0	
906.375900	22.6	1000.0	120.000	170.0	V	190.0	25.2	13.4	36.0	

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

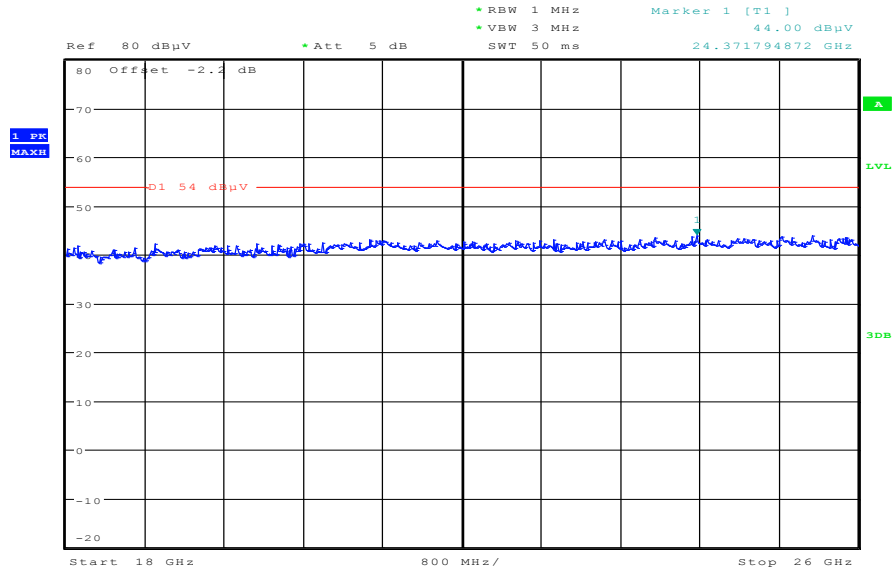


**Plot 3:** 12 GHz to 18 GHz, 5180 MHz, vertical & horizontal polarization



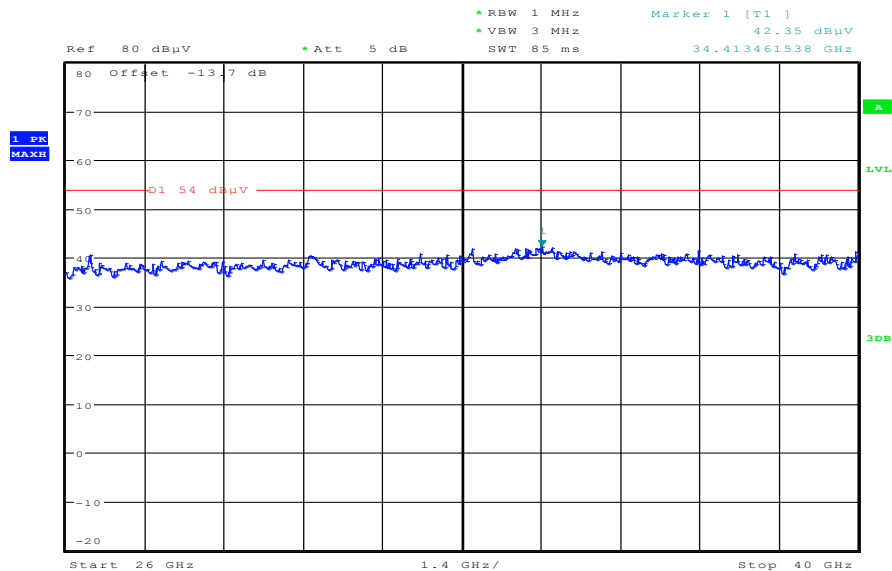
Date: 16.DEC.2013 15:07:00

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



Date: 16.DEC.2013 15:52:18

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



Date: 16.DEC.2013 16:39:22

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

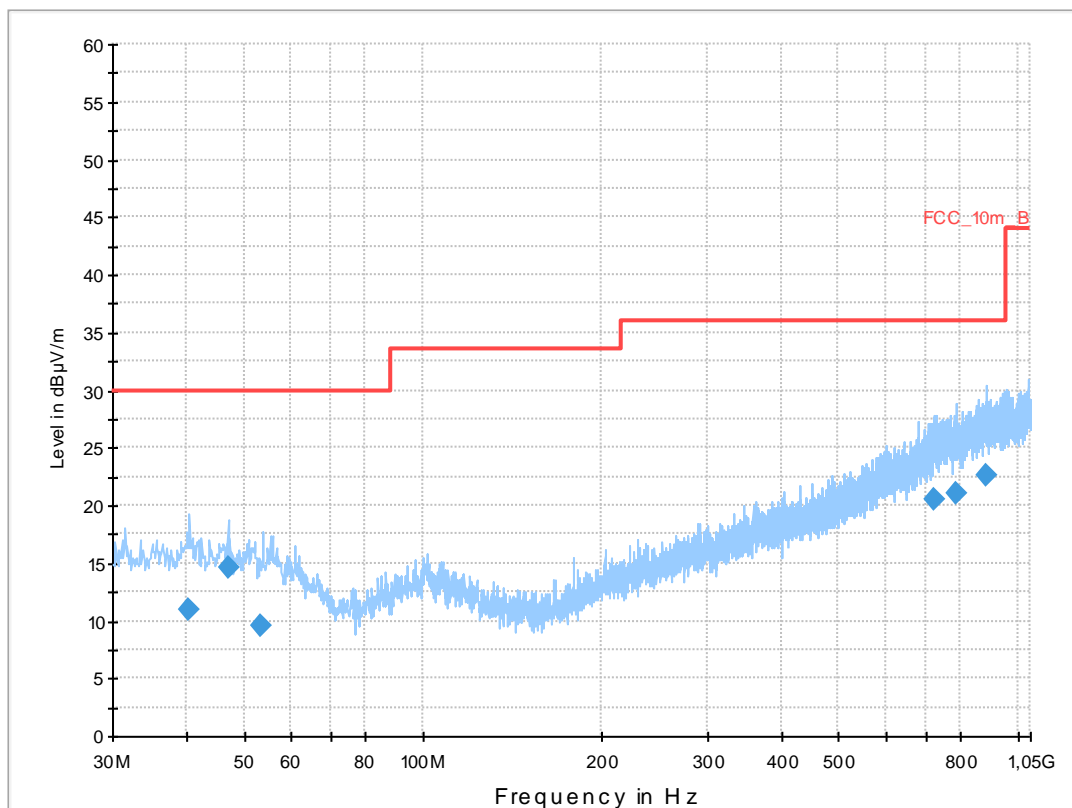
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan ac-mode (HT20) tx ch 48  
 Operator Name: Hennemann  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

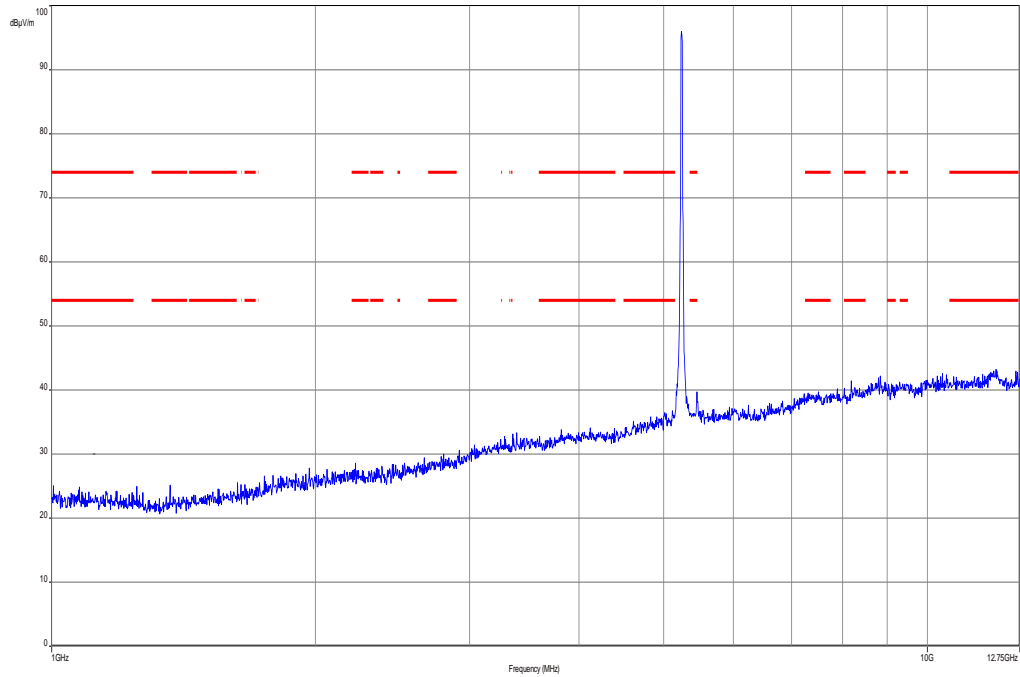
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



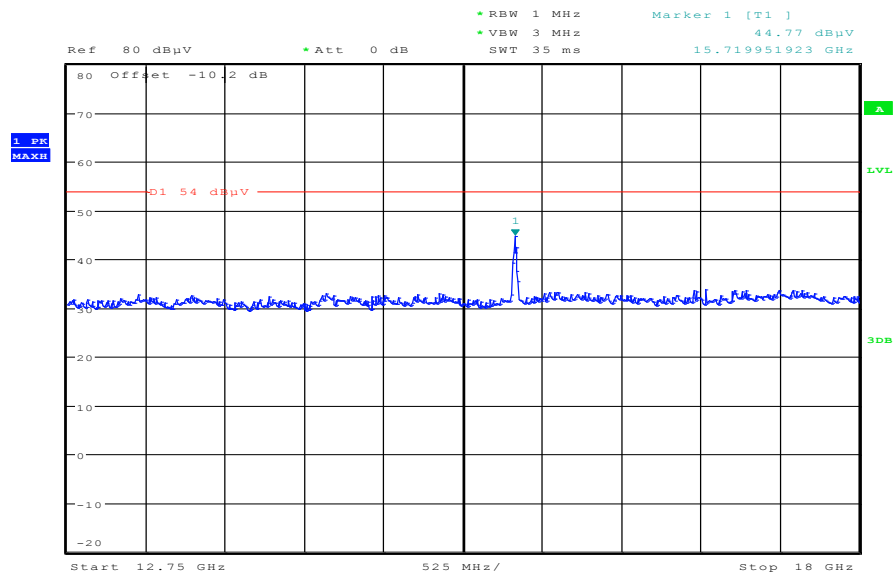
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
40.373700	11.0	1000.0	120.000	170.0	V	270.0	13.4	19.0	30.0	
47.015850	14.6	1000.0	120.000	98.0	V	10.0	13.3	15.4	30.0	
53.116950	9.5	1000.0	120.000	98.0	V	190.0	13.1	20.5	30.0	
724.884150	20.5	1000.0	120.000	170.0	H	267.0	23.1	15.5	36.0	
788.186400	21.1	1000.0	120.000	170.0	H	280.0	23.8	14.9	36.0	

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

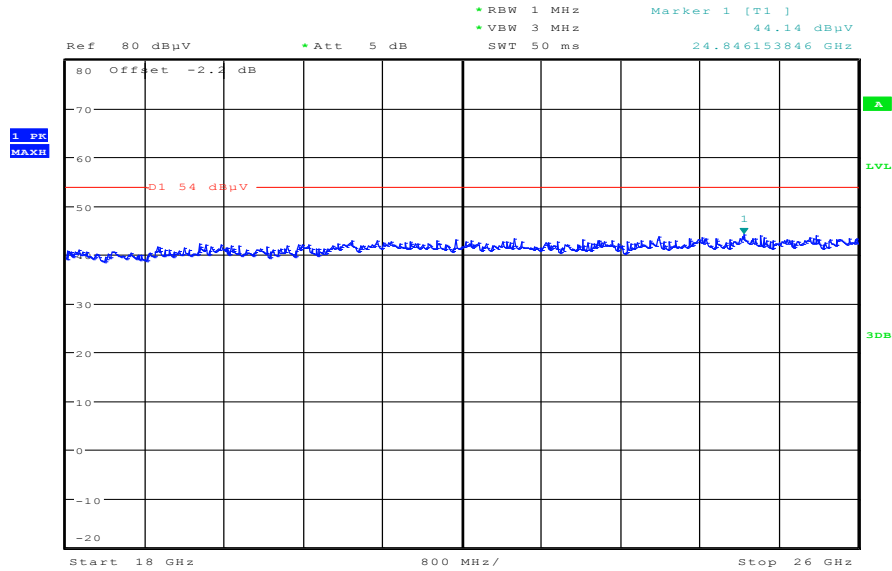


**Plot 8:** 12 GHz to 18 GHz, 5240 MHz, vertical & horizontal polarization



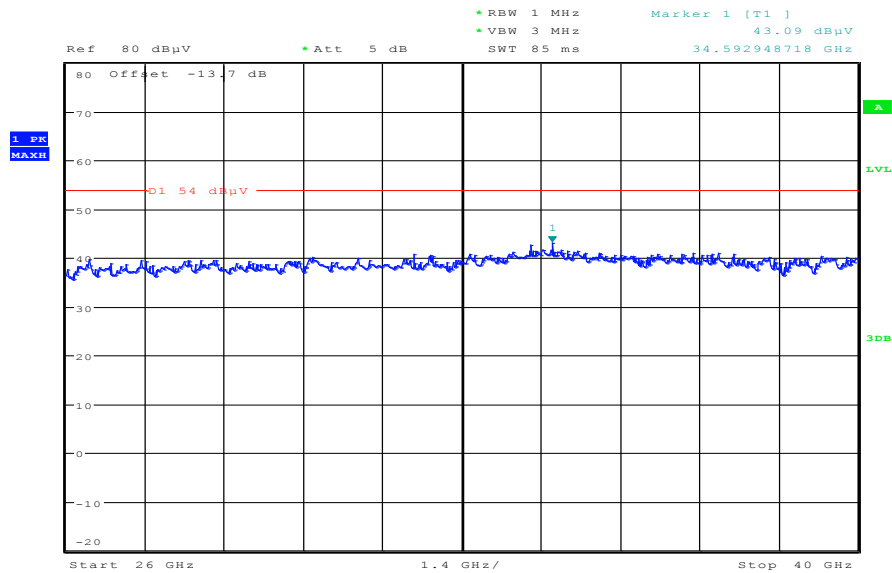
Date: 16.DEC.2013 15:07:38

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



Date: 16.DEC.2013 15:54:03

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



Date: 16.DEC.2013 16:40:05



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

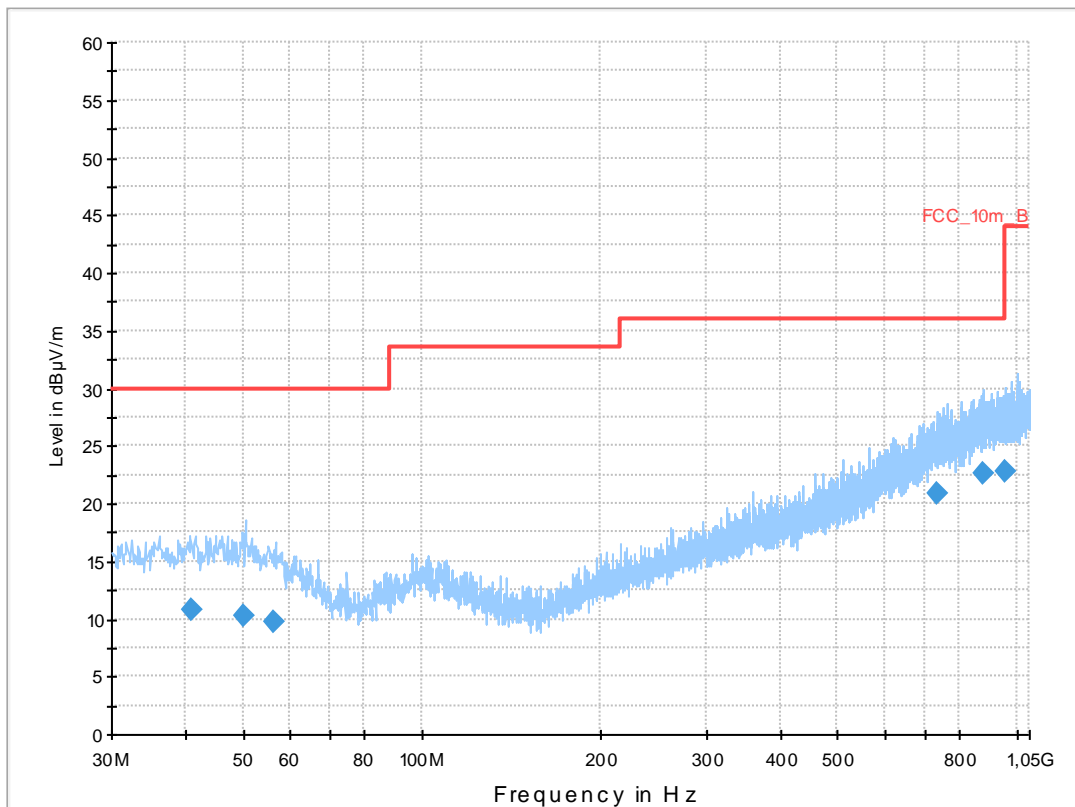
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan ac-mode (HT20) tx ch 52  
 Operator Name: Hennemann  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

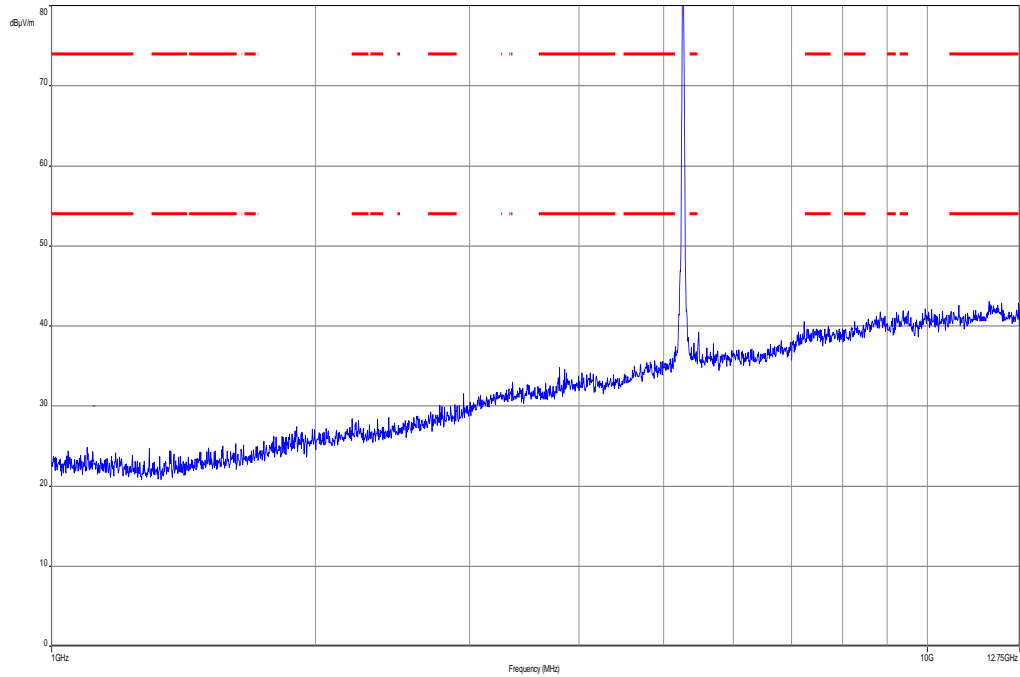
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



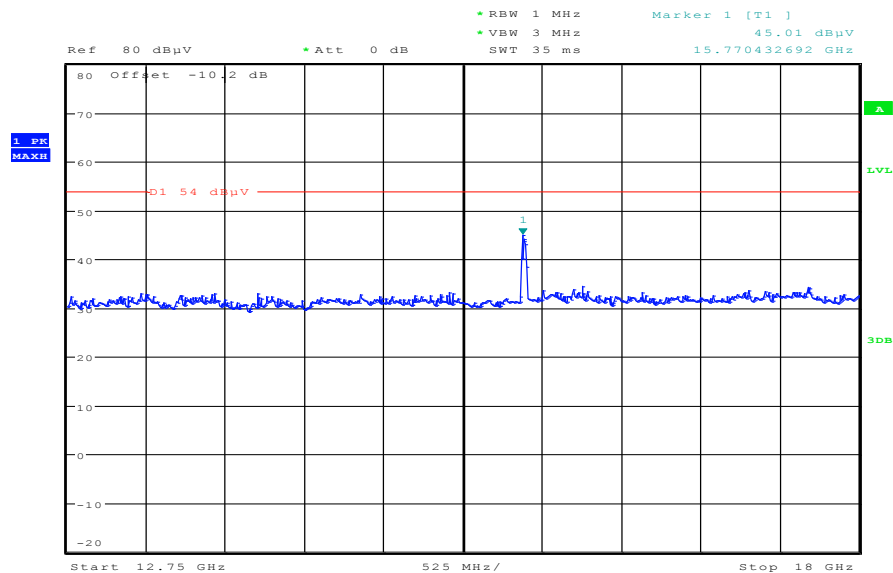
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
41.068650	10.7	1000.0	120.000	98.0	H	182.0	13.4	19.3	30.0	
50.144400	10.3	1000.0	120.000	170.0	V	183.0	13.4	19.7	30.0	
56.183850	9.8	1000.0	120.000	121.0	H	100.0	12.6	20.2	30.0	
733.791600	20.8	1000.0	120.000	98.0	H	-9.0	23.3	15.2	36.0	
875.100900	22.6	1000.0	120.000	170.0	H	2.0	24.9	13.4	36.0	
960.145200	22.8	1000.0	120.000	170.0	H	190.0	25.4	21.2	44.0	

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

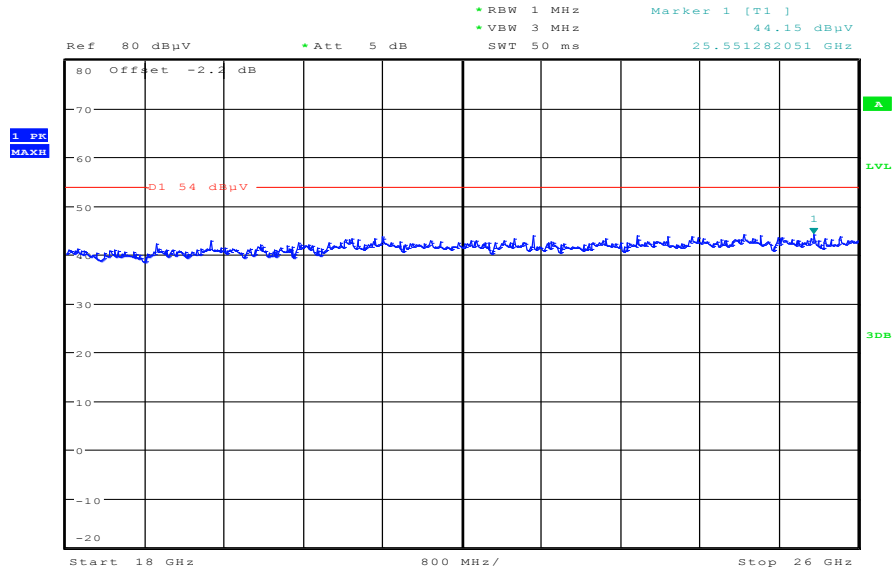


**Plot 13:** 12 GHz to 18 GHz, 5260 MHz, vertical & horizontal polarization



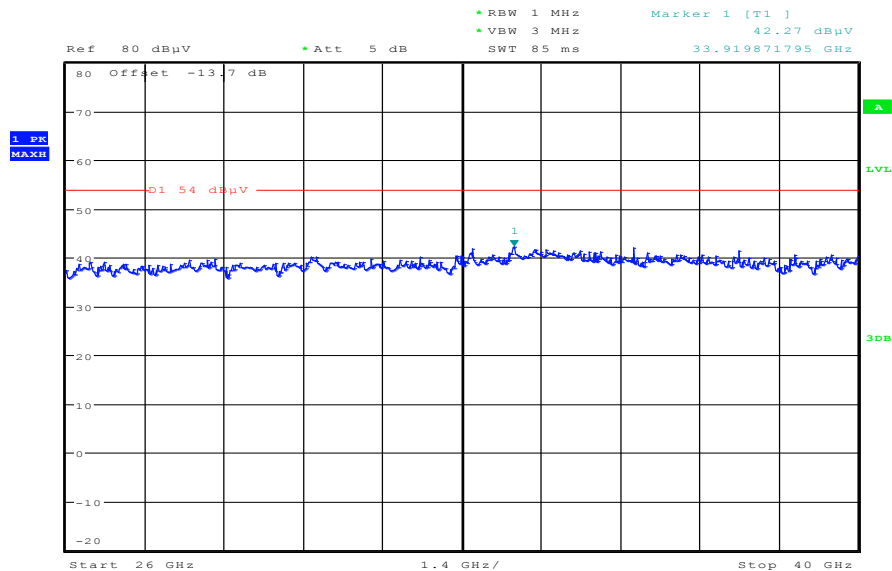
Date: 16.DEC.2013 15:08:18

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



Date: 16.DEC.2013 15:55:12

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



Date: 16.DEC.2013 16:40:40

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

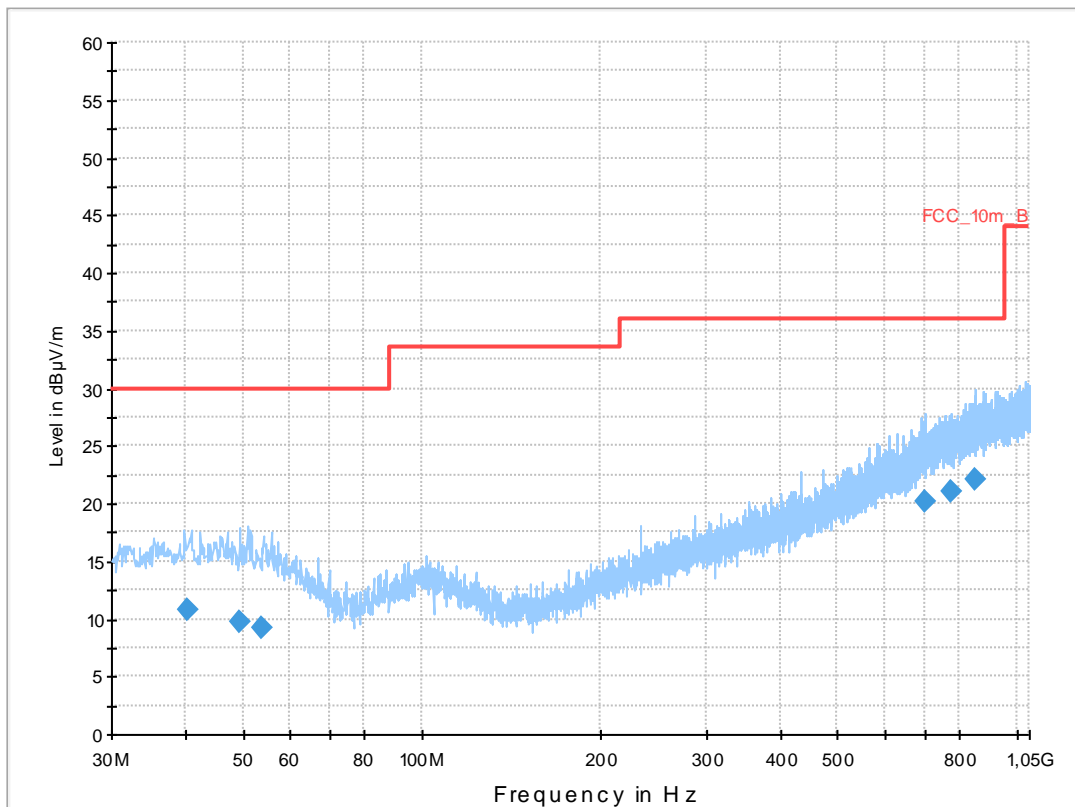
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan ac-mode (HT20) tx ch 64  
 Operator Name: Hennemann  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

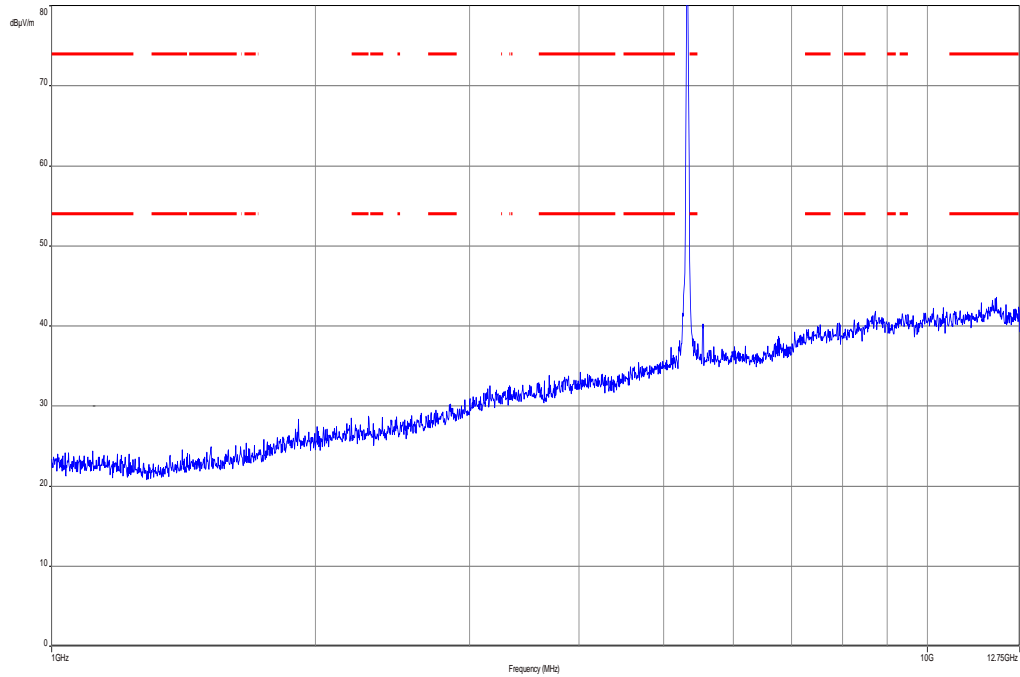
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



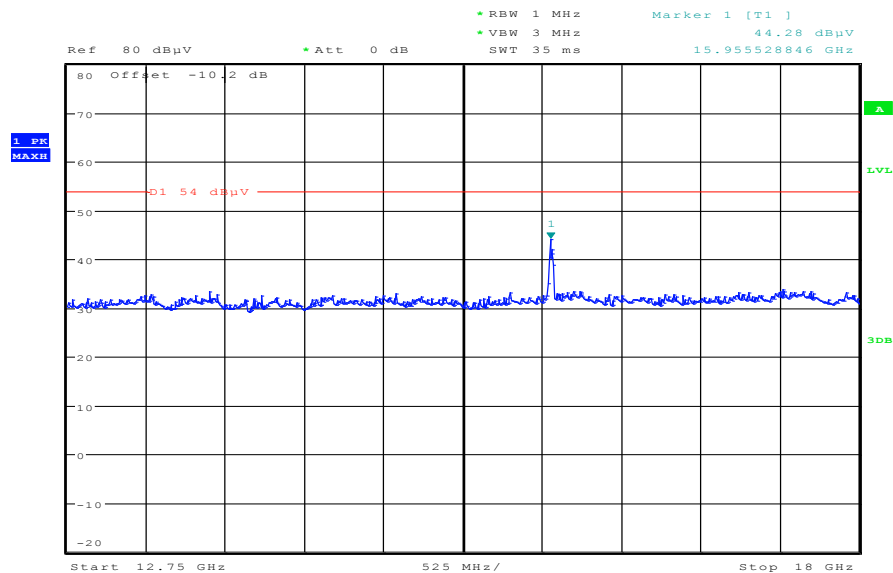
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
40.310700	10.8	1000.0	120.000	98.0	H	80.0	13.4	19.2	30.0	
49.418400	9.8	1000.0	120.000	170.0	V	88.0	13.4	20.2	30.0	
53.758050	9.1	1000.0	120.000	120.0	H	100.0	13.0	20.9	30.0	
703.114500	20.1	1000.0	120.000	170.0	V	272.0	22.6	15.9	36.0	
777.188100	21.1	1000.0	120.000	120.0	V	100.0	23.7	14.9	36.0	
850.703850	22.2	1000.0	120.000	113.0	H	0.0	24.6	13.8	36.0	

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

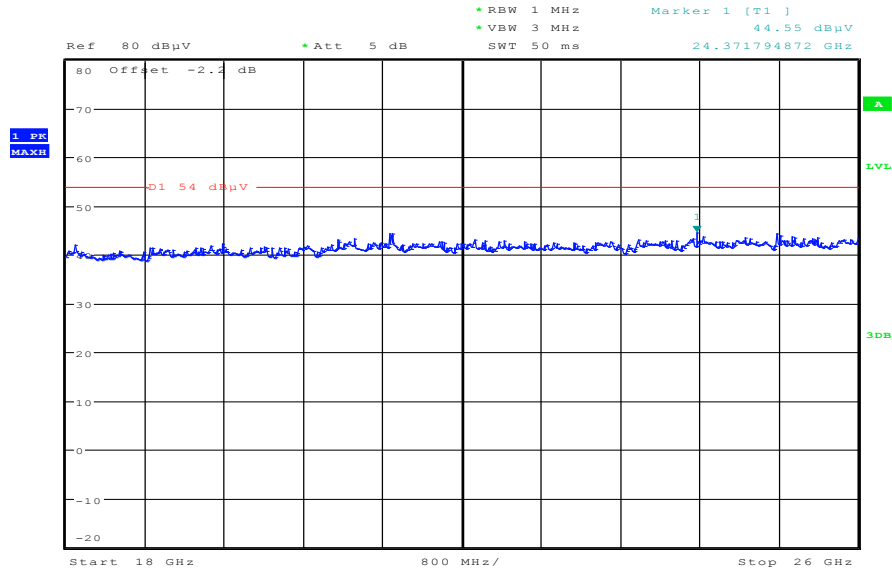


**Plot 18:** 12 GHz to 18 GHz, 5320 MHz, vertical & horizontal polarization



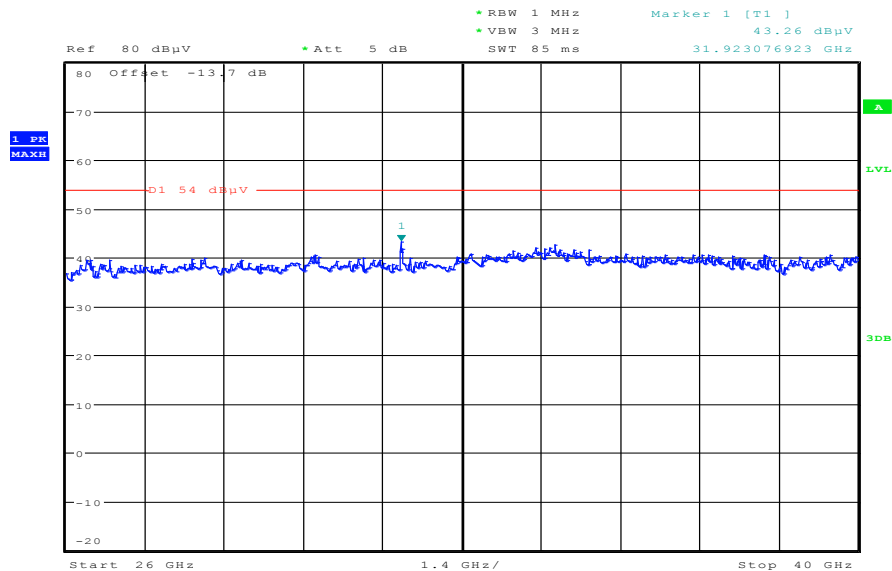
Date: 16.DEC.2013 15:09:25

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



Date: 16.DEC.2013 15:56:54

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



Date: 16.DEC.2013 16:41:27

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

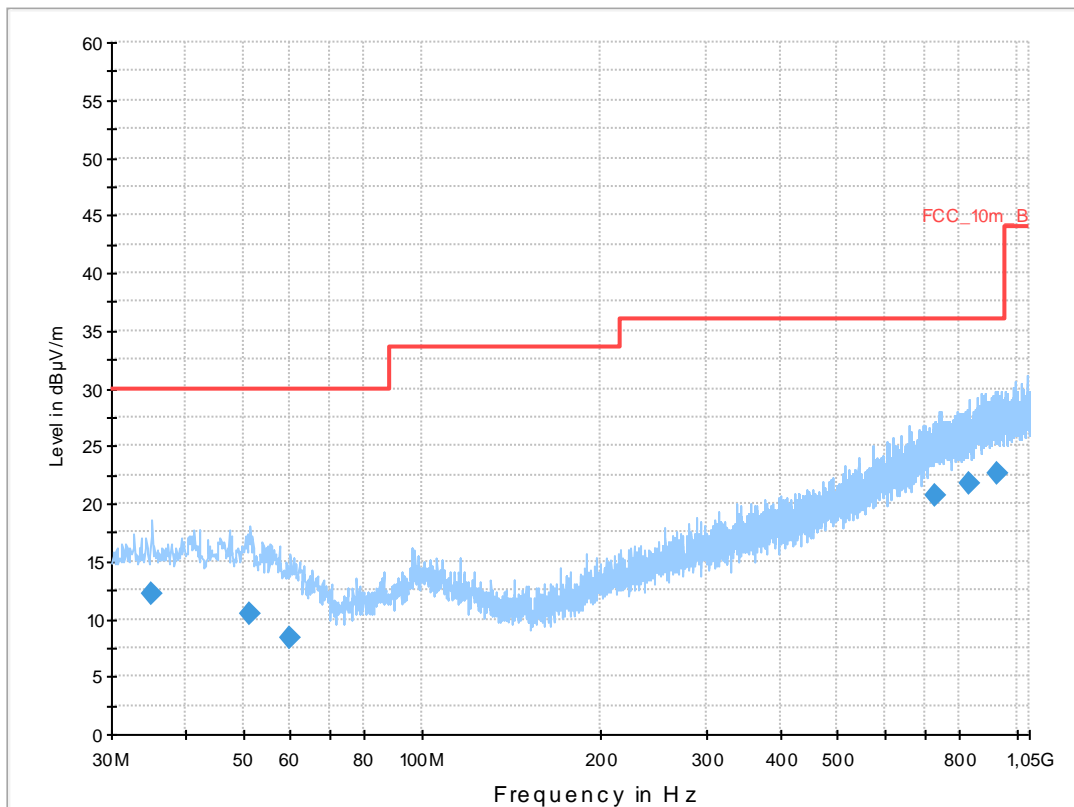
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan n-mode (HT20) tx ch 100  
 Operator Name: Hennemann  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

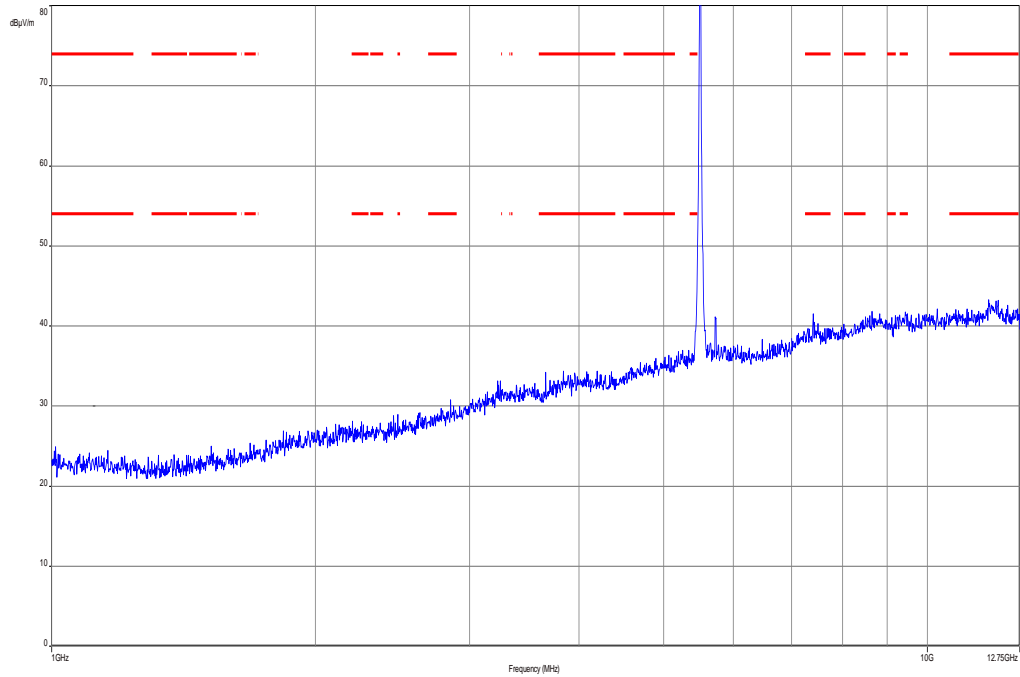
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



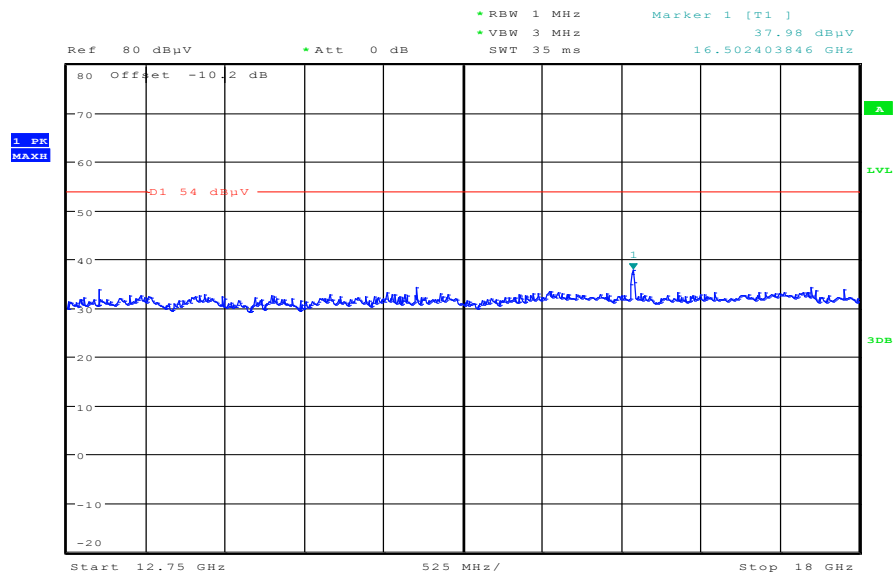
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.040900	12.3	1000.0	120.000	170.0	V	100.0	13.0	17.7	30.0	
51.175050	10.5	1000.0	120.000	170.0	H	10.0	13.3	19.5	30.0	
59.816550	8.3	1000.0	120.000	154.0	V	10.0	11.7	21.7	30.0	
726.631350	20.6	1000.0	120.000	170.0	H	280.0	23.1	15.4	36.0	
830.259750	21.8	1000.0	120.000	170.0	V	177.0	24.3	14.2	36.0	
924.328200	22.6	1000.0	120.000	145.0	V	170.0	25.3	13.4	36.0	

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



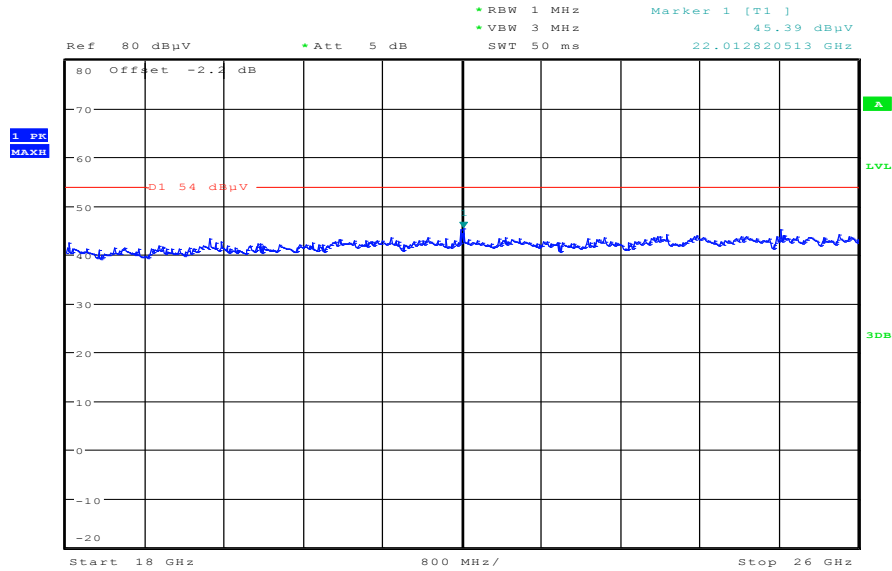
**Plot 23:** 12 GHz to 18 GHz, 5500 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 15:10:10

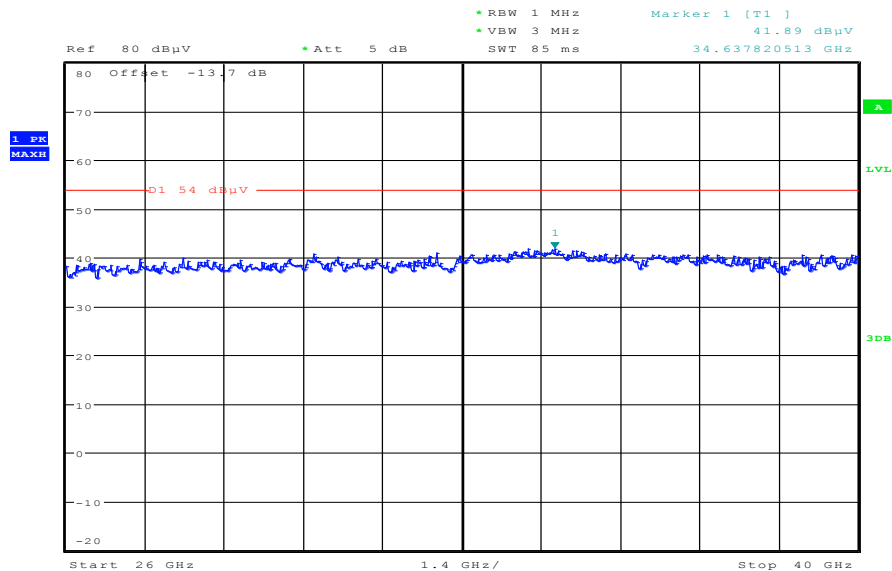


**Plot 24:** 18 GHz to 26 GHz, 5500 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 15:59:03

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



Date: 16.DEC.2013 16:42:13

**Plot 26:** 30 MHz to 1 GHz, 5600 MHz, vertical & horizontal polarization

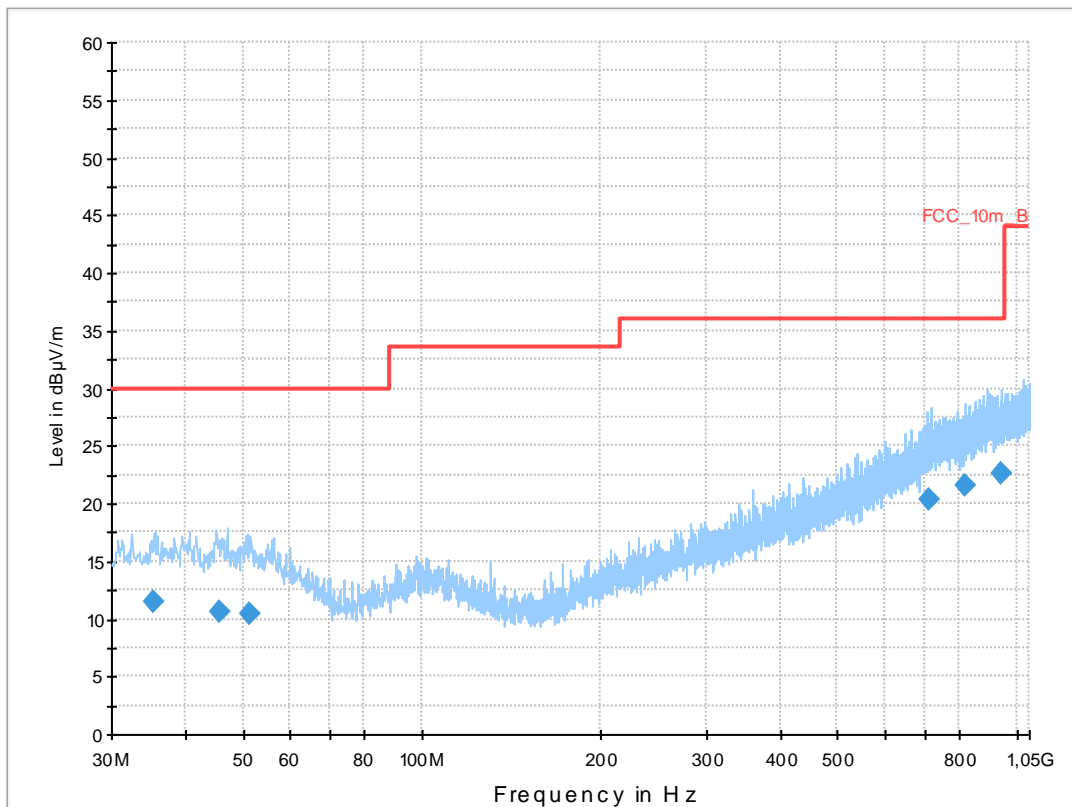
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan ac-mode (HT20) tx ch 120  
 Operator Name: Hennemann  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

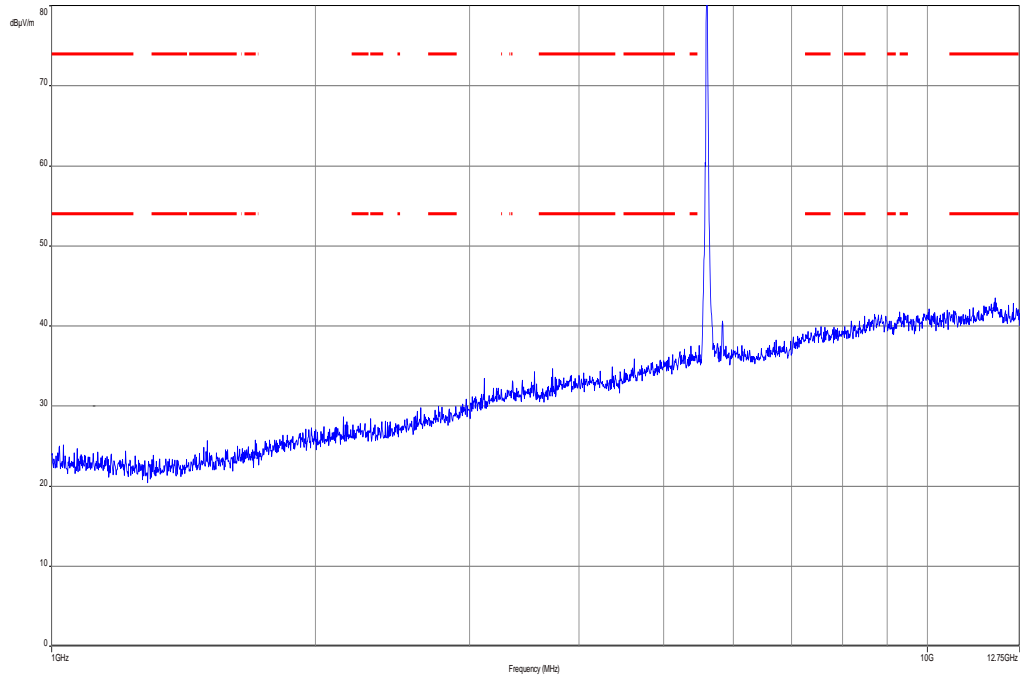
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



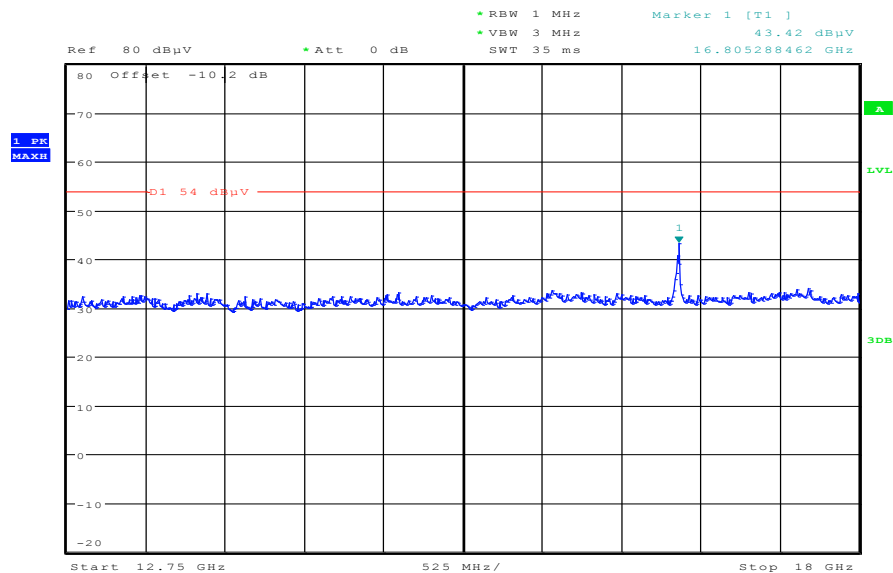
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.426550	11.4	1000.0	120.000	98.0	V	100.0	13.1	18.6	30.0	
45.588900	10.7	1000.0	120.000	170.0	H	182.0	13.3	19.3	30.0	
51.444750	10.5	1000.0	120.000	98.0	V	10.0	13.2	19.5	30.0	
714.753300	20.4	1000.0	120.000	170.0	V	170.0	22.8	15.6	36.0	
820.389900	21.5	1000.0	120.000	162.0	H	80.0	24.1	14.5	36.0	
940.869600	22.6	1000.0	120.000	170.0	H	260.0	25.3	13.4	36.0	

**Plot 27:** 1 GHz to 12.75 GHz, 5600 MHz, vertical & horizontal polarization

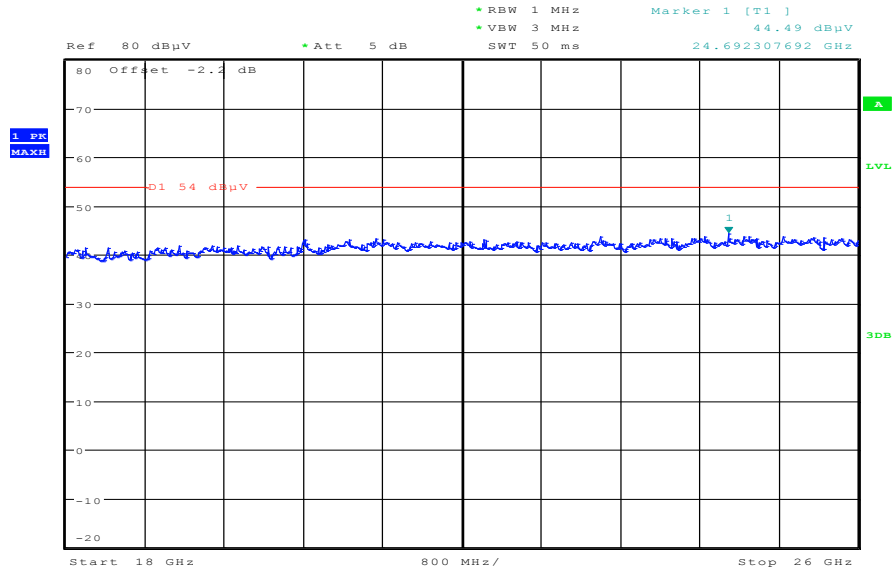


**Plot 28:** 12 GHz to 18 GHz, 5600 MHz, vertical & horizontal polarization



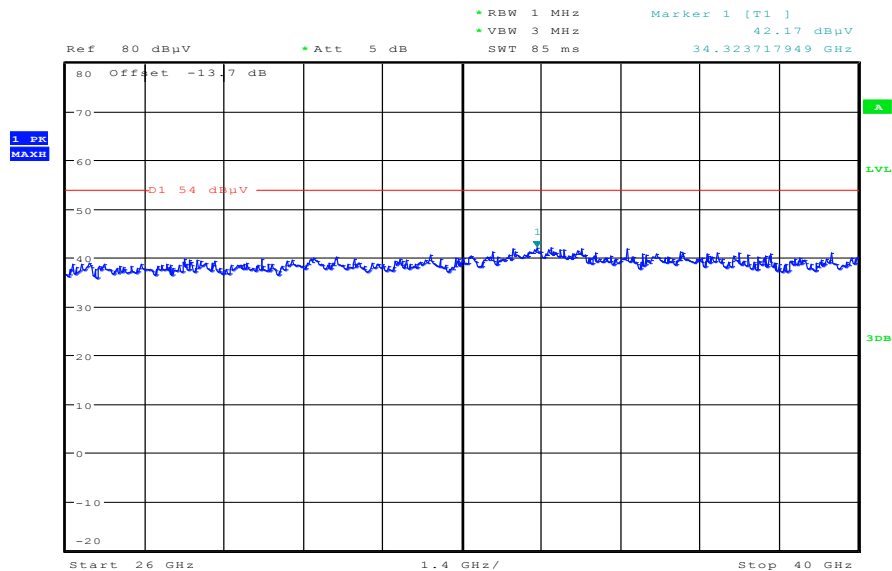
Date: 16.DEC.2013 15:10:51

**Plot 29:** 18 GHz to 26 GHz, 5600 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 15:59:43

**Plot 30:** 26 GHz to 40 GHz, 5600 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 16:42:49

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

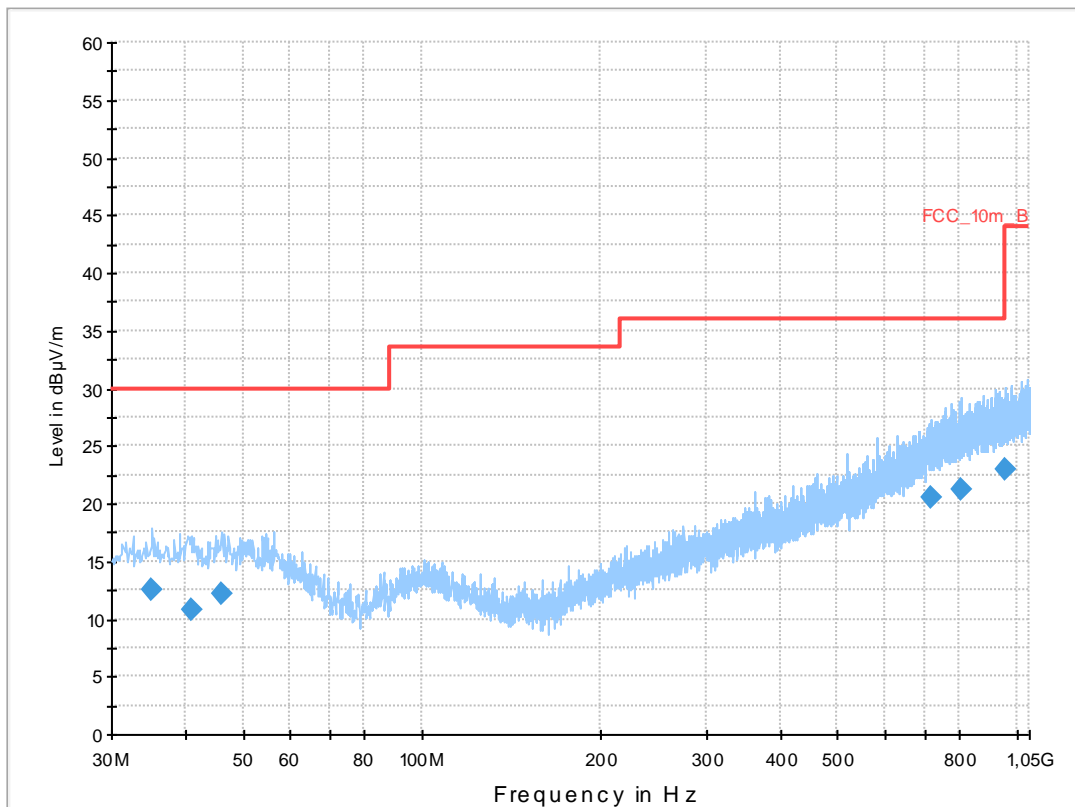
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan ac-mode (HT20) tx ch 140  
 Operator Name: Hennemann  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

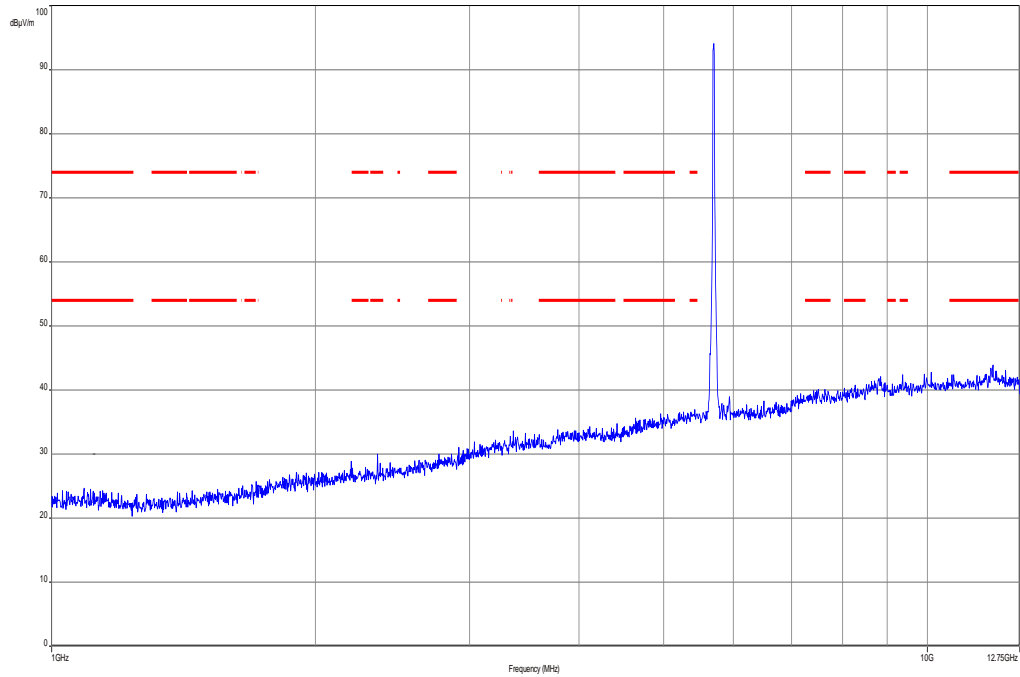
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



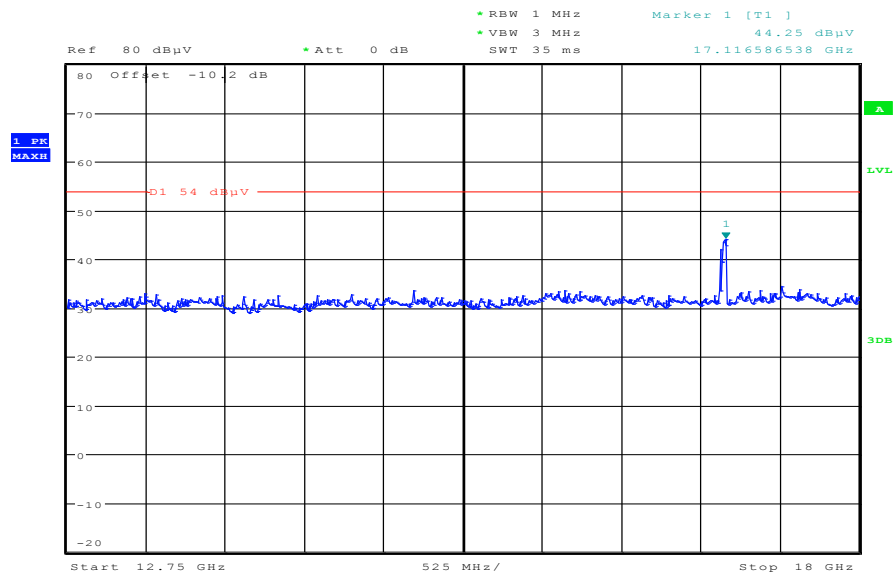
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.016600	12.5	1000.0	120.000	170.0	V	190.0	13.0	17.5	30.0	
40.812150	10.8	1000.0	120.000	170.0	H	-10.0	13.4	19.2	30.0	
46.022700	12.2	1000.0	120.000	98.0	V	10.0	13.3	17.8	30.0	
715.687050	20.4	1000.0	120.000	170.0	H	92.0	22.9	15.6	36.0	
804.237300	21.2	1000.0	120.000	131.0	V	180.0	23.9	14.8	36.0	
953.667450	22.9	1000.0	120.000	170.0	V	80.0	25.4	13.1	36.0	

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

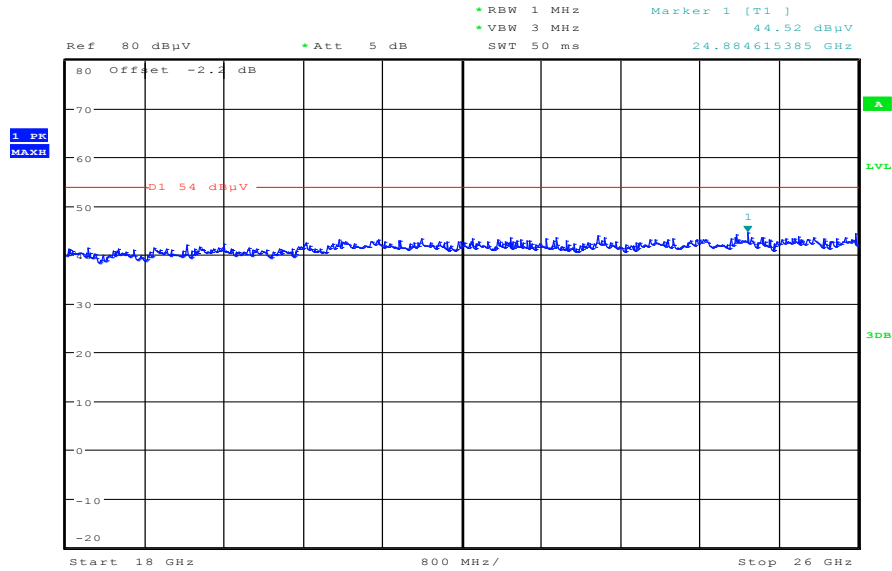


**Plot 33:** 12 GHz to 18 GHz, 5700 MHz, vertical & horizontal polarization



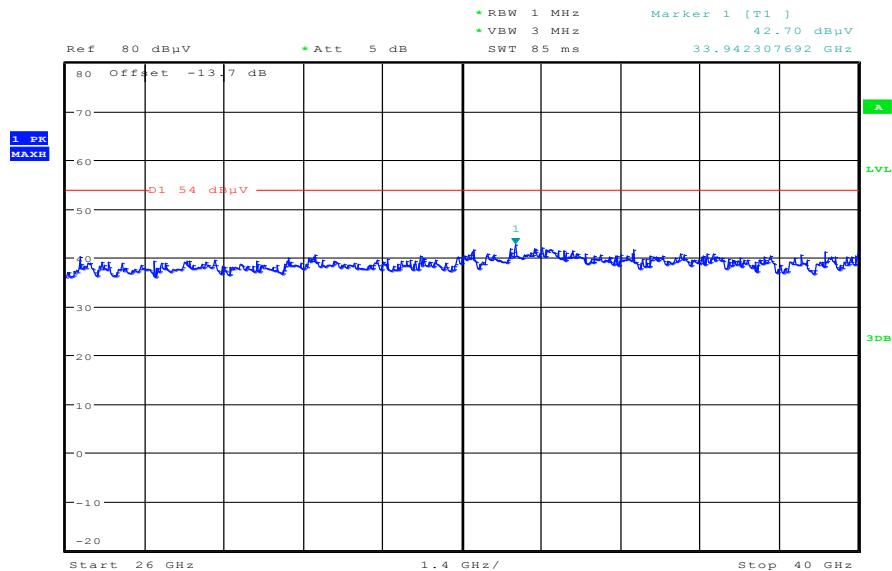
Date: 16.DEC.2013 15:11:26

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



Date: 16.DEC.2013 16:00:32

**Plot 35:** 26 GHz to 40 GHz, 5700 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 16:43:37

**Plots:** OFDM / ac – mode HT40

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

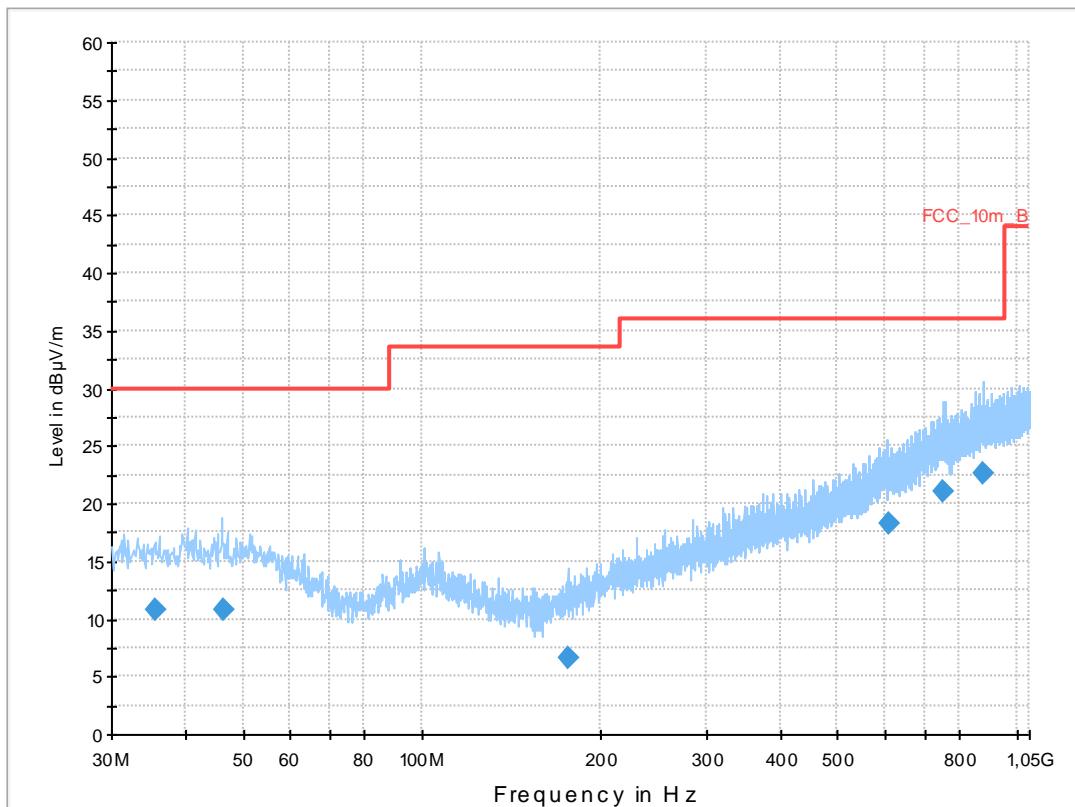
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan ac-mode (HT40) tx ch 38  
 Operator Name: Wolsdorfer  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 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

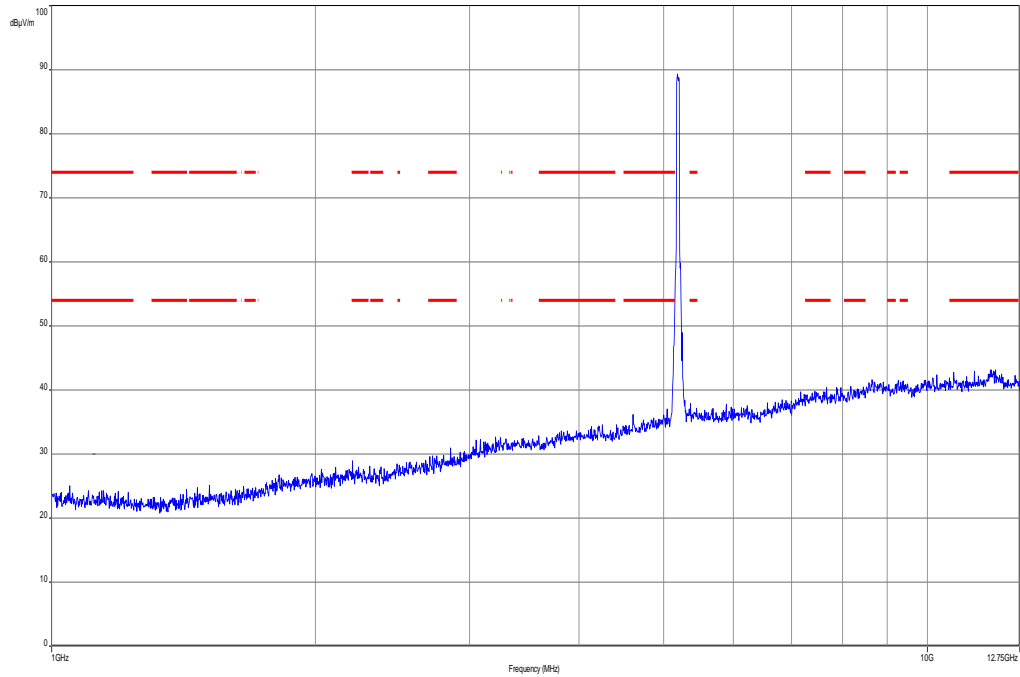


### Final Result 1

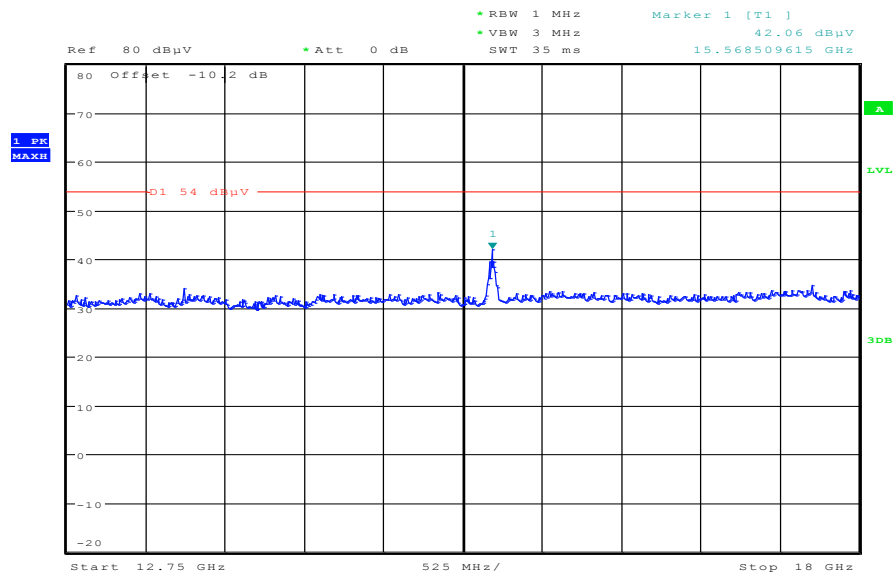
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.550300	10.7	1000.0	120.000	132.0	V	10.0	13.1	19.3	30.0	
46.369050	10.7	1000.0	120.000	98.0	V	3.0	13.3	19.3	30.0	
175.789050	6.6	1000.0	120.000	98.0	H	100.0	10.2	26.9	33.5	
607.474350	18.3	1000.0	120.000	144.0	H	190.0	20.8	17.7	36.0	
752.371500	21.1	1000.0	120.000	170.0	V	190.0	23.7	14.9	36.0	
876.773850	22.5	1000.0	120.000	170.0	H	88.0	24.9	13.5	36.0	



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

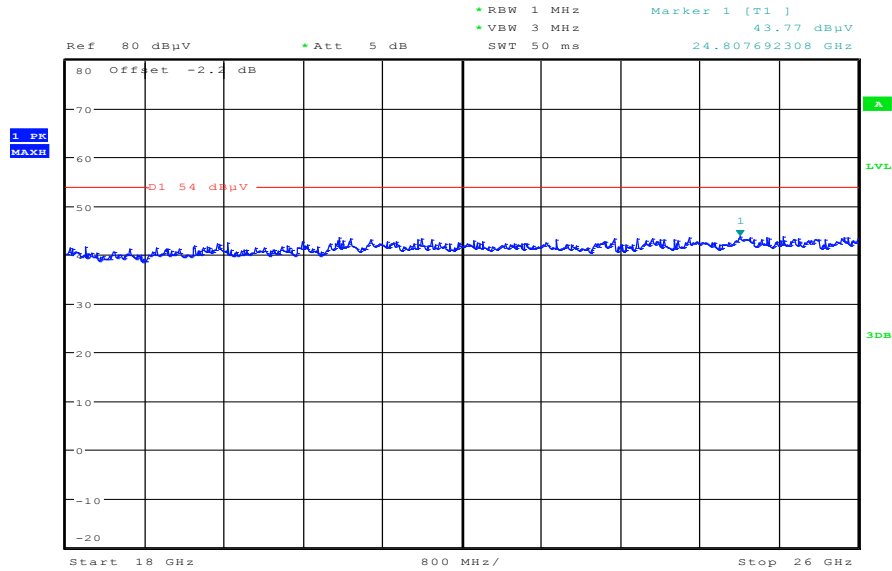


**Plot 3:** 12 GHz to 18 GHz, 5190 MHz, vertical & horizontal polarization



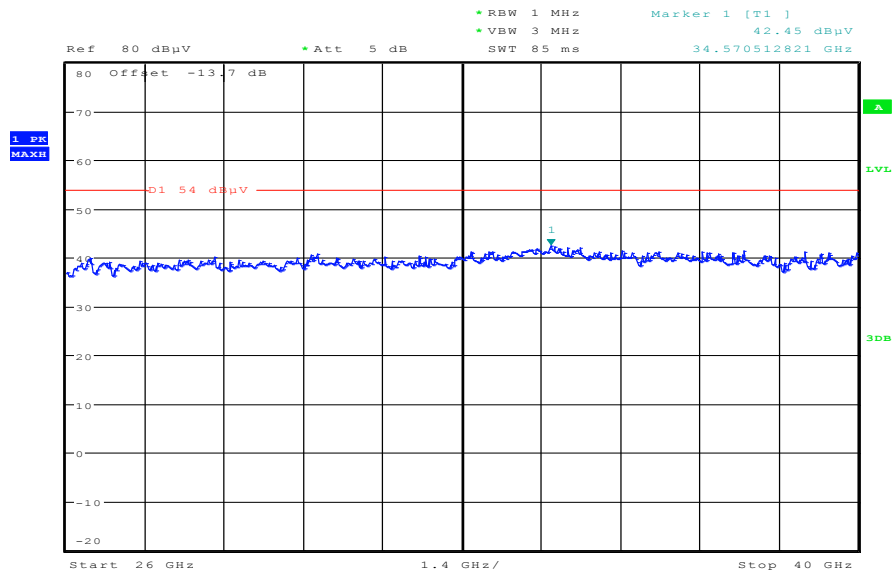
Date: 16.DEC.2013 15:16:24

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



Date: 16.DEC.2013 16:04:53

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



Date: 16.DEC.2013 16:20:10

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

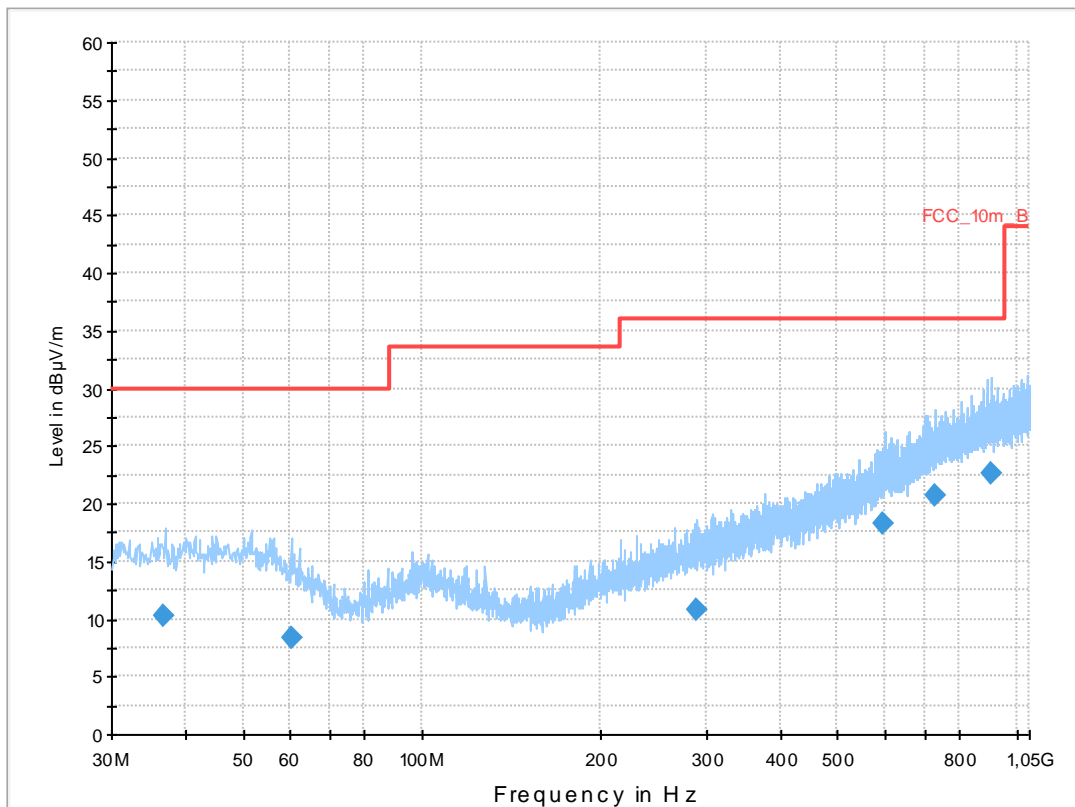
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 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: [ESC1 3]  
 Level Unit: dBµV/m

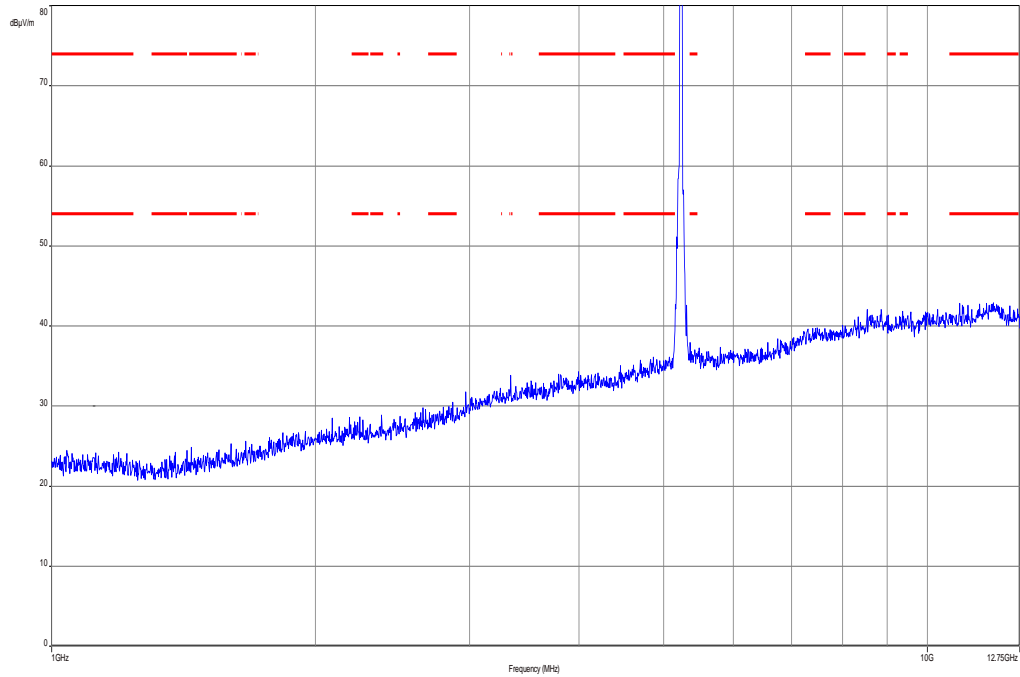
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



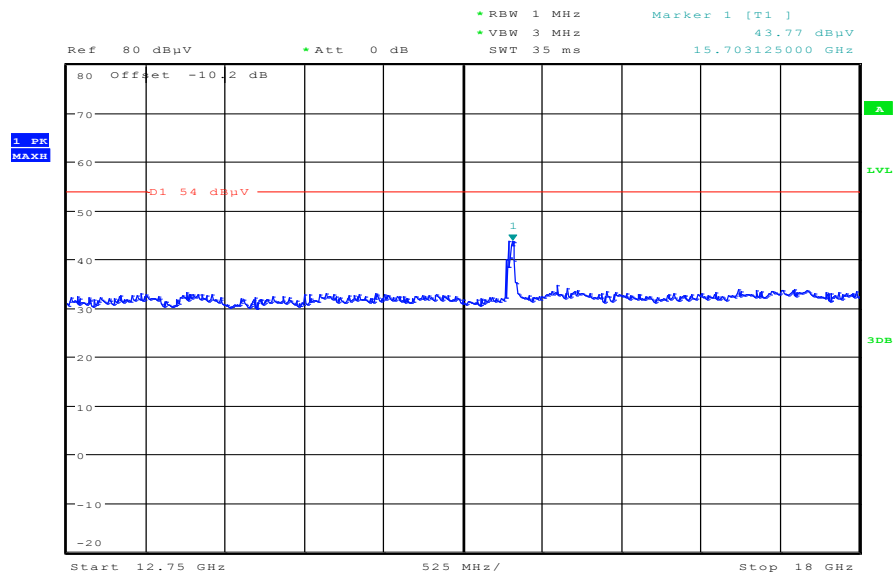
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
36.735900	10.3	1000.0	120.000	155.0	V	280.0	13.2	19.7	30.0	
60.174600	8.4	1000.0	120.000	120.0	H	272.0	11.6	21.6	30.0	
288.689250	10.8	1000.0	120.000	163.0	H	81.0	14.2	25.2	36.0	
598.023300	18.3	1000.0	120.000	170.0	H	88.0	20.7	17.7	36.0	
727.627200	20.7	1000.0	120.000	155.0	H	177.0	23.1	15.3	36.0	
906.247050	22.6	1000.0	120.000	170.0	V	170.0	25.2	13.4	36.0	

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

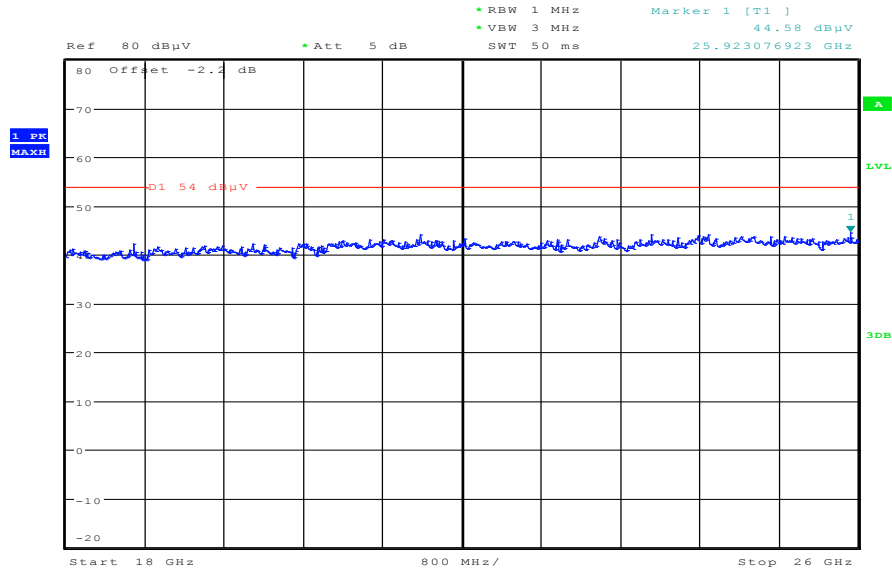


**Plot 8:** 12 GHz to 18 GHz, 5230 MHz, vertical & horizontal polarization



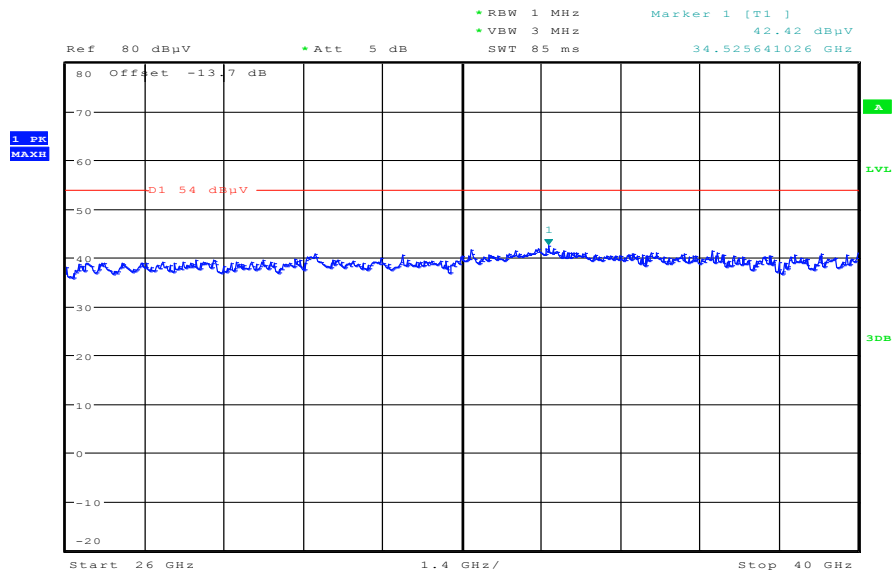
Date: 16.DEC.2013 15:18:57

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



Date: 16.DEC.2013 16:06:13

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



Date: 16.DEC.2013 16:21:04

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

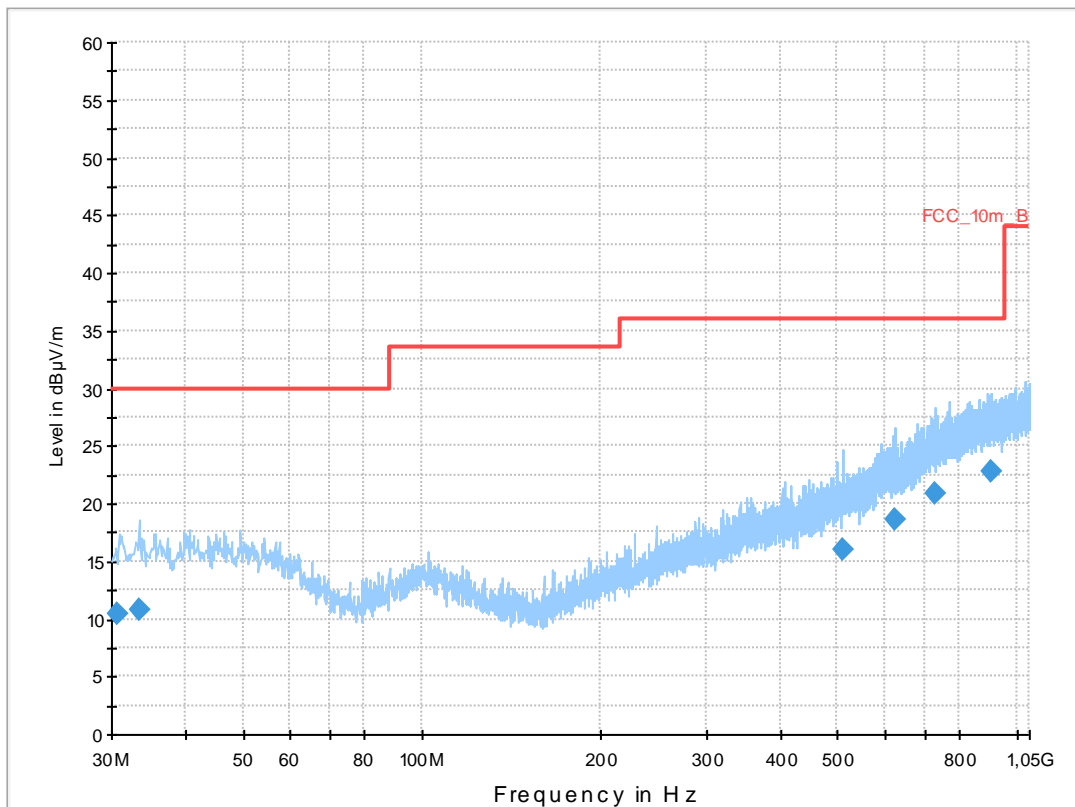
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan ac-mode (HT40) tx ch 52  
 Operator Name: Wolsdorfer  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

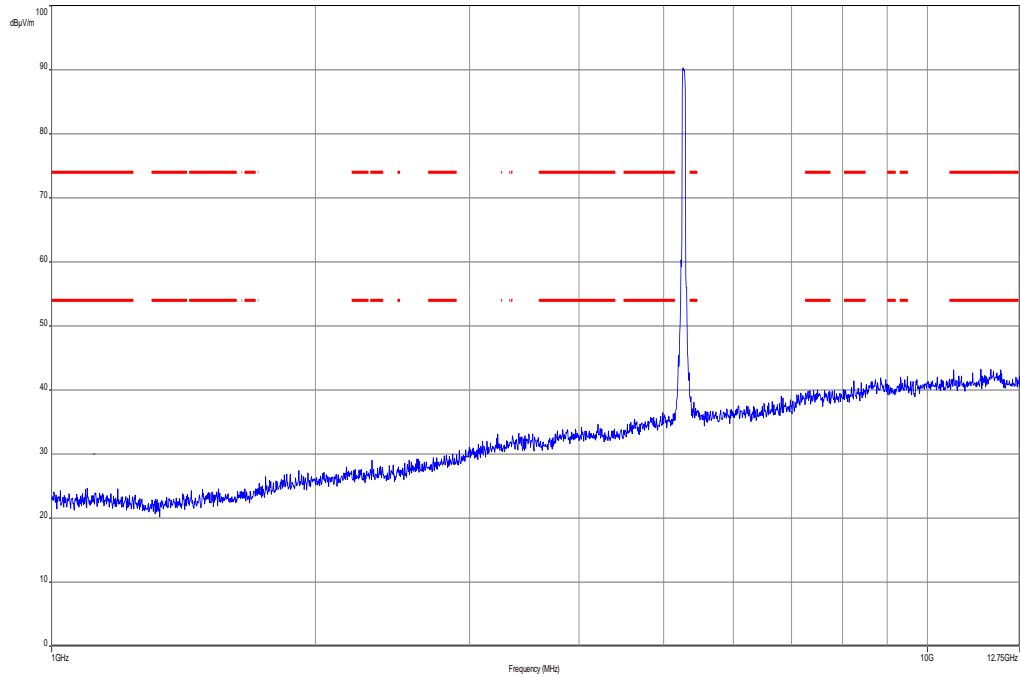
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



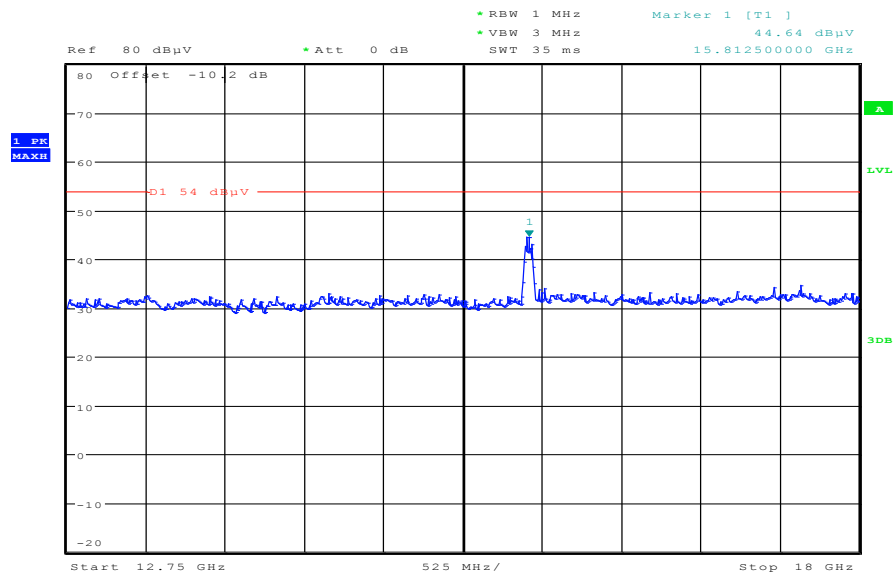
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
30.754650	10.4	1000.0	120.000	156.0	H	170.0	12.6	19.6	30.0	
33.358200	10.9	1000.0	120.000	155.0	H	280.0	12.9	19.1	30.0	
509.956650	16.0	1000.0	120.000	163.0	H	182.0	18.8	20.0	36.0	
624.509250	18.6	1000.0	120.000	135.0	H	190.0	21.0	17.4	36.0	
730.805850	20.8	1000.0	120.000	170.0	V	93.0	23.2	15.2	36.0	
904.995900	22.8	1000.0	120.000	122.0	V	183.0	25.2	13.2	36.0	

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

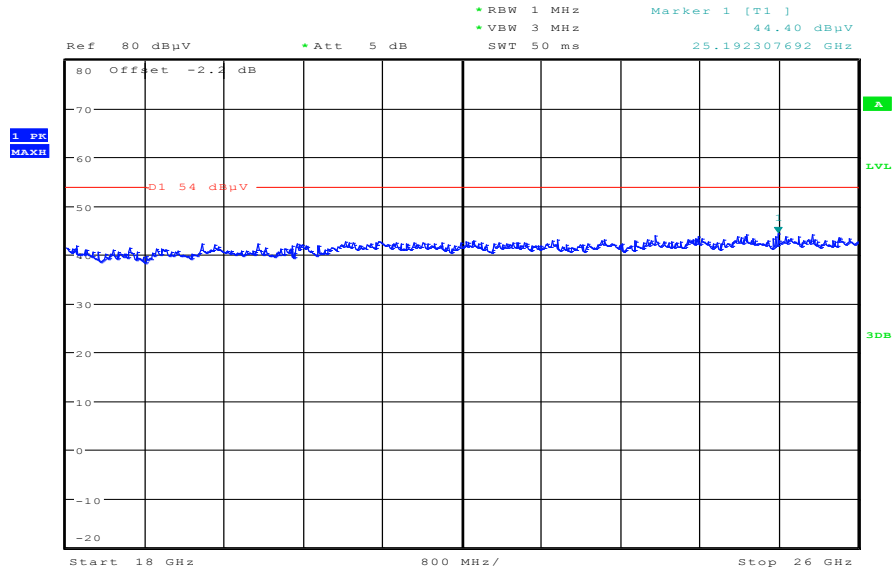


**Plot 13:** 12 GHz to 18 GHz, 5270 MHz, vertical & horizontal polarization



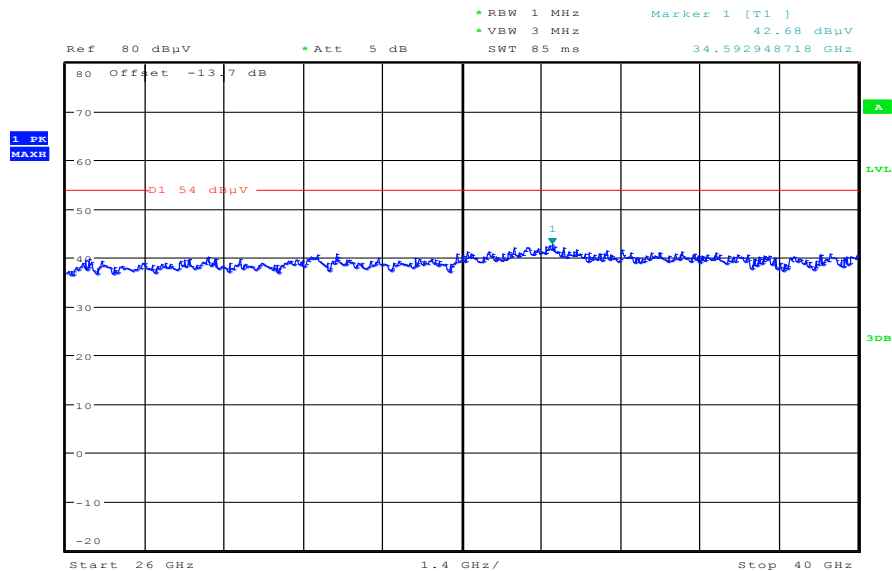
Date: 16.DEC.2013 15:19:31

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



Date: 16.DEC.2013 16:07:05

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



Date: 16.DEC.2013 16:22:05



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

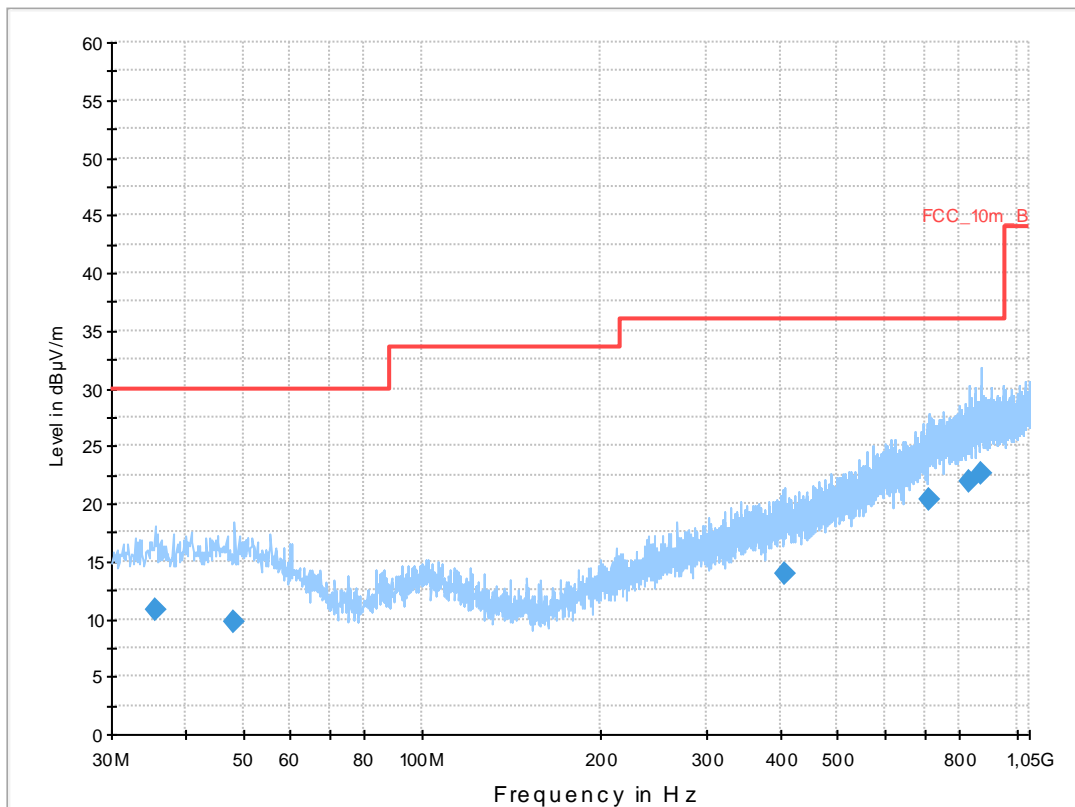
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan ac-mode (HT40) tx ch 62  
 Operator Name: Wolsdorfer  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

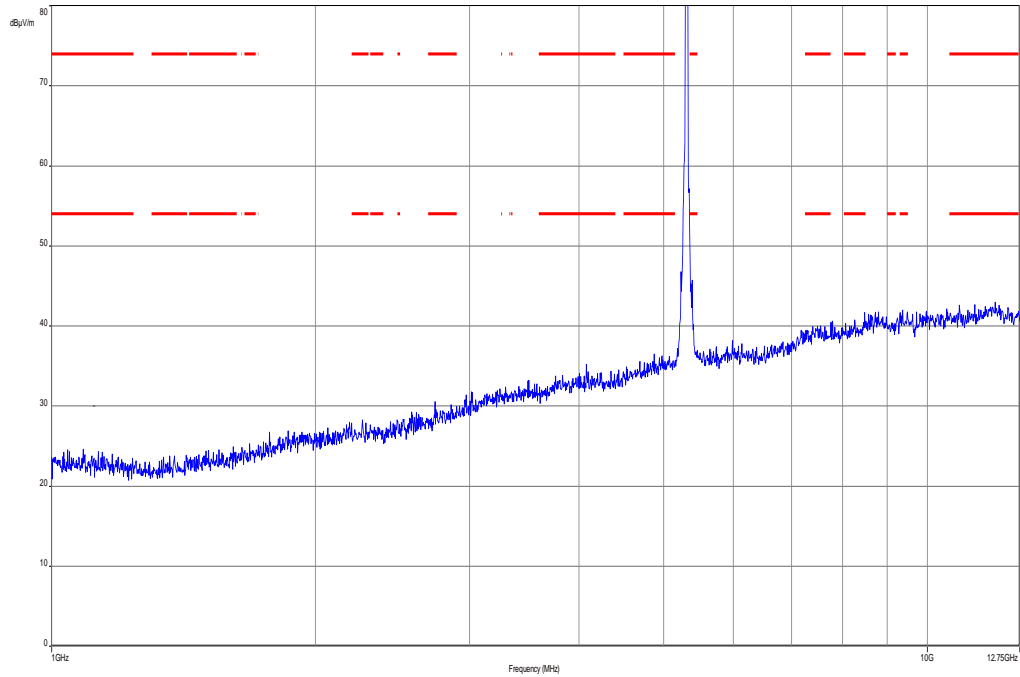
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



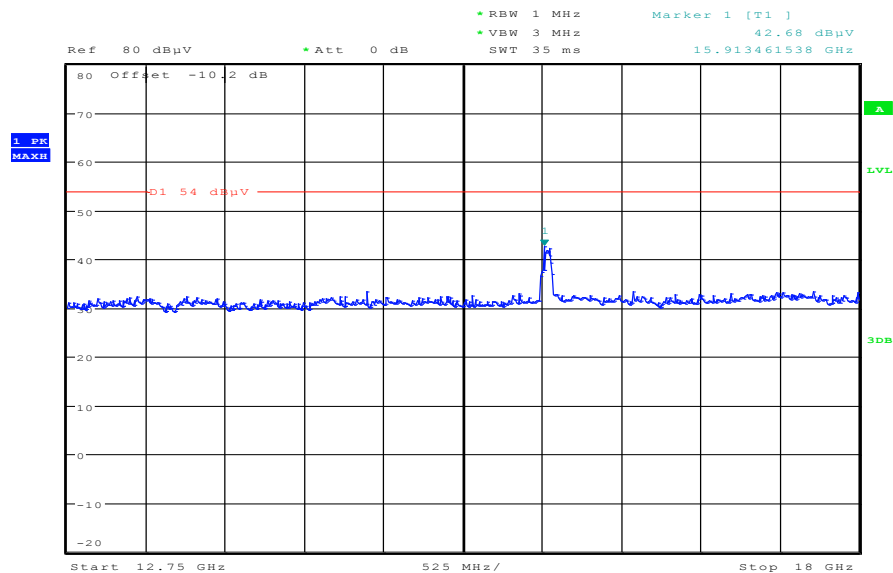
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.593050	10.7	1000.0	120.000	124.0	V	177.0	13.1	19.3	30.0	
48.014400	9.8	1000.0	120.000	170.0	V	178.0	13.3	20.2	30.0	
407.080350	14.0	1000.0	120.000	120.0	V	178.0	17.0	22.0	36.0	
714.117150	20.4	1000.0	120.000	170.0	V	190.0	22.8	15.6	36.0	
831.580050	21.9	1000.0	120.000	170.0	H	-2.0	24.3	14.1	36.0	
871.620150	22.6	1000.0	120.000	170.0	V	10.0	24.8	13.4	36.0	

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

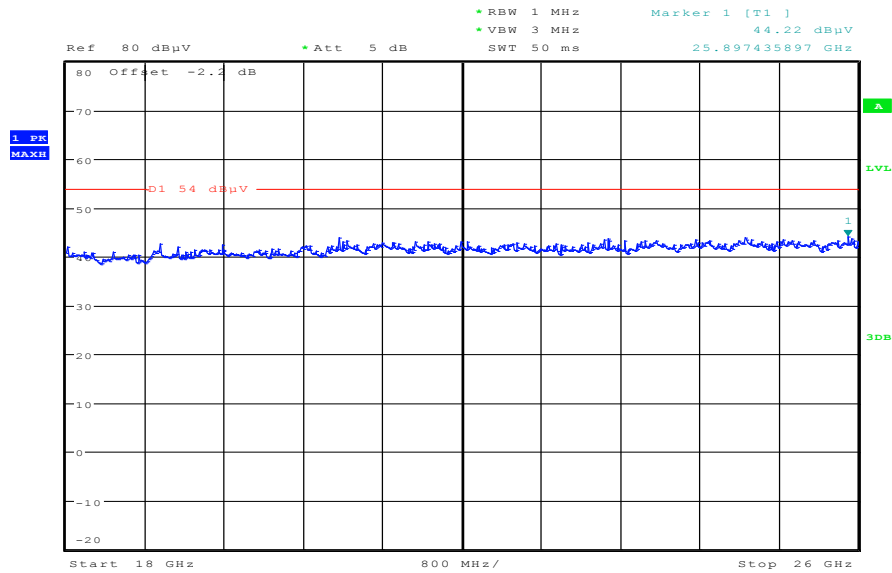


**Plot 18:** 12 GHz to 18 GHz, 5310 MHz, vertical & horizontal polarization



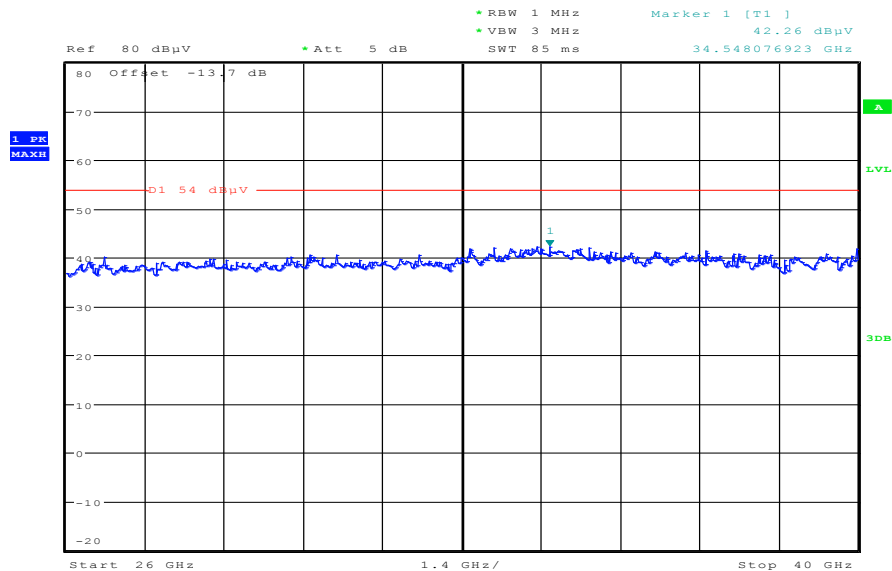
Date: 16.DEC.2013 15:20:08

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



Date: 16.DEC.2013 16:07:54

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



Date: 16.DEC.2013 16:23:38

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

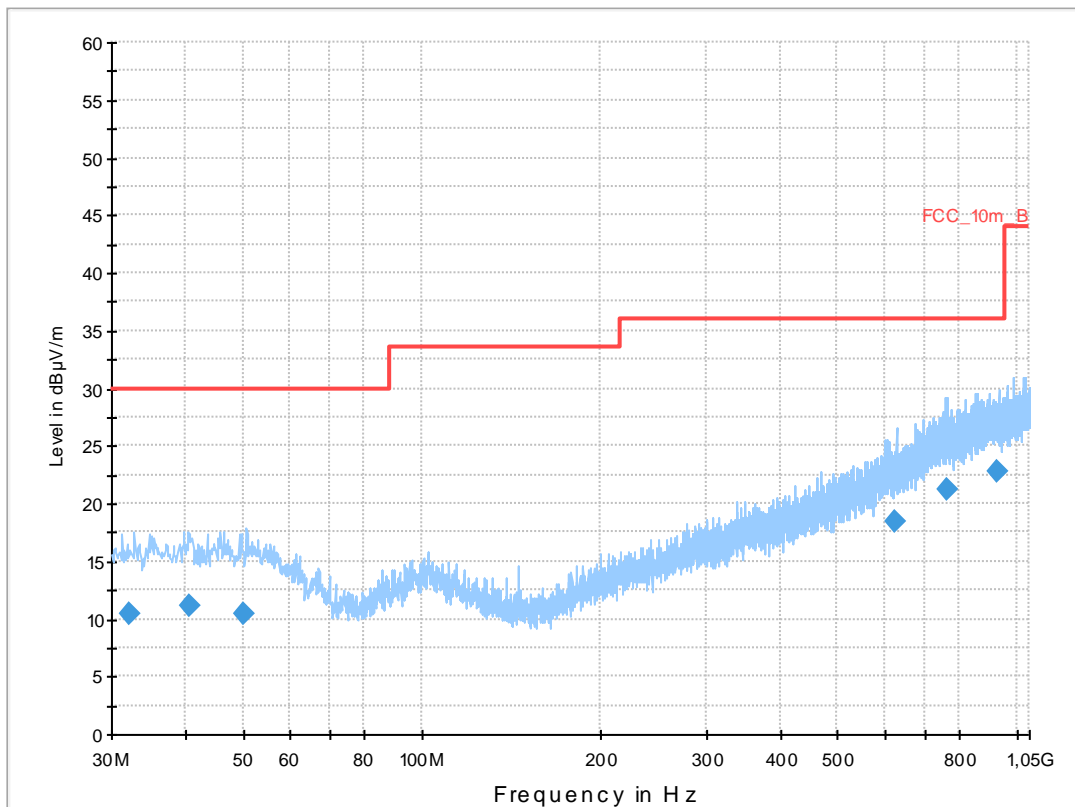
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan ac-mode (HT40) tx ch 102  
 Operator Name: Wolsdorfer  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

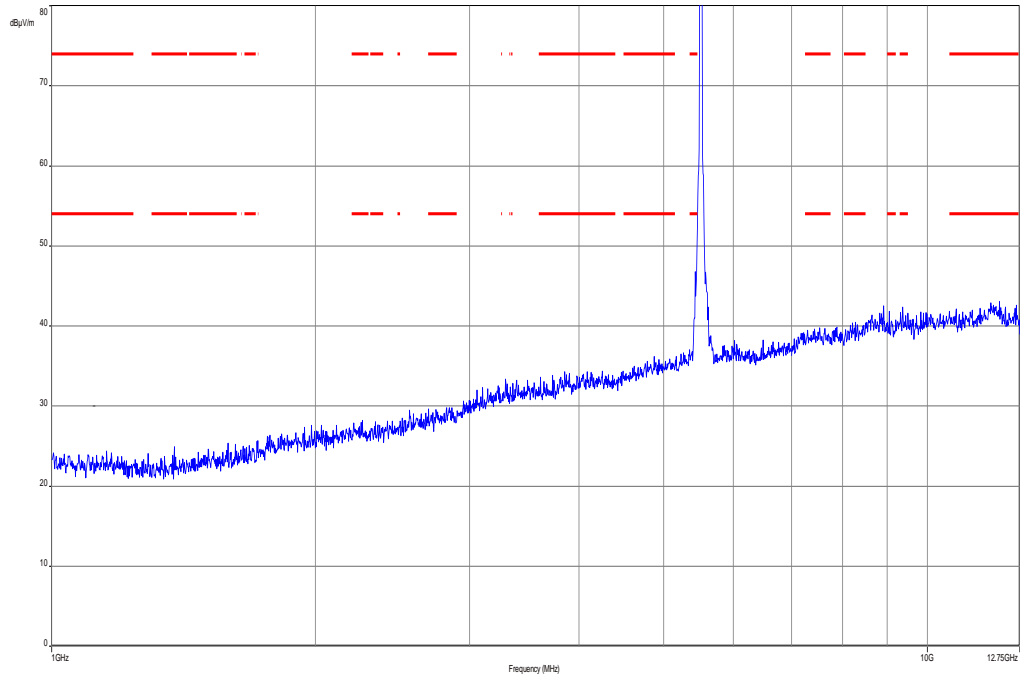
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



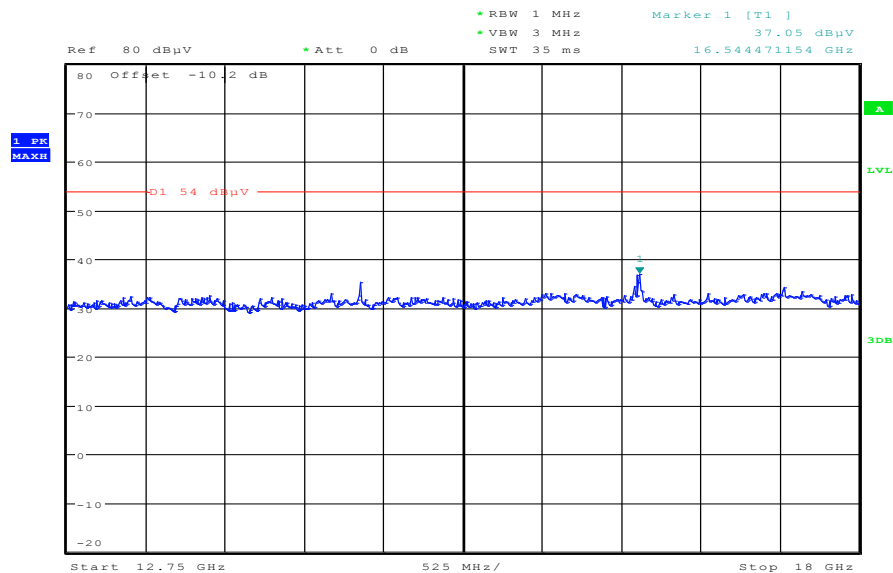
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
32.206800	10.4	1000.0	120.000	170.0	V	280.0	12.7	19.6	30.0	
40.714800	11.1	1000.0	120.000	145.0	V	190.0	13.4	18.9	30.0	
50.247000	10.4	1000.0	120.000	170.0	H	190.0	13.3	19.6	30.0	
626.592450	18.5	1000.0	120.000	170.0	H	268.0	21.0	17.5	36.0	
763.351500	21.2	1000.0	120.000	170.0	H	-2.0	23.7	14.8	36.0	
930.675150	22.8	1000.0	120.000	170.0	V	180.0	25.3	13.2	36.0	

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

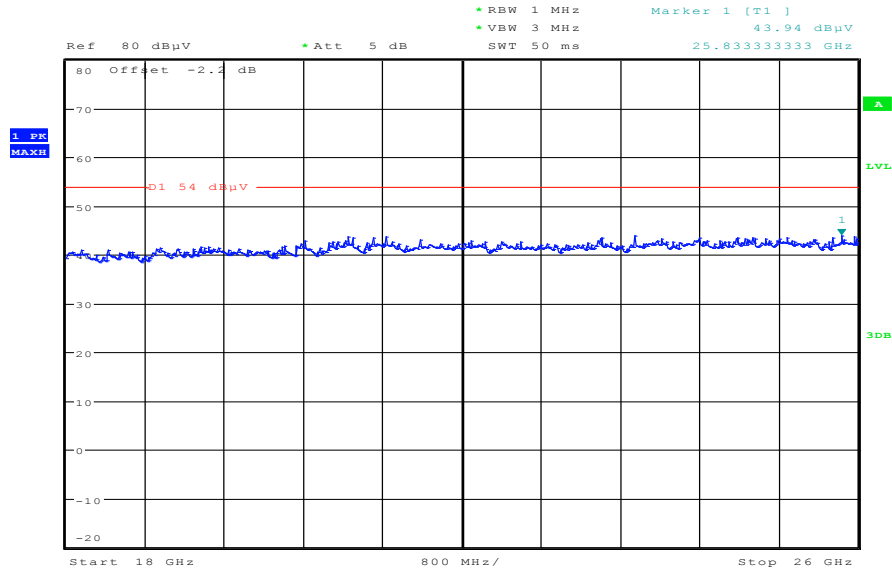


**Plot 23:** 12 GHz to 18 GHz, 5510 MHz, vertical & horizontal polarization



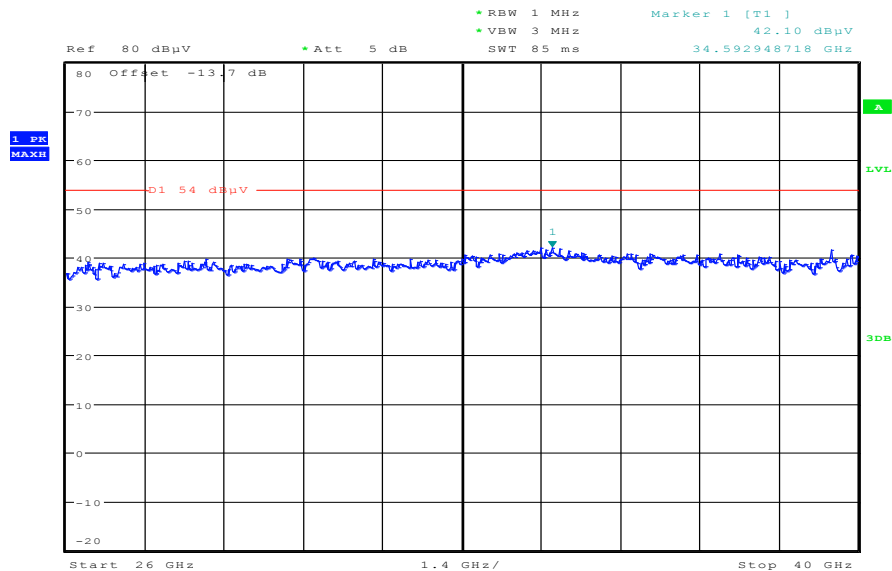
Date: 16.DEC.2013 15:21:40

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



Date: 16.DEC.2013 16:08:35

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



Date: 16.DEC.2013 16:24:16

**Plot 26:** 30 MHz to 1 GHz, 5590 MHz, vertical & horizontal polarization

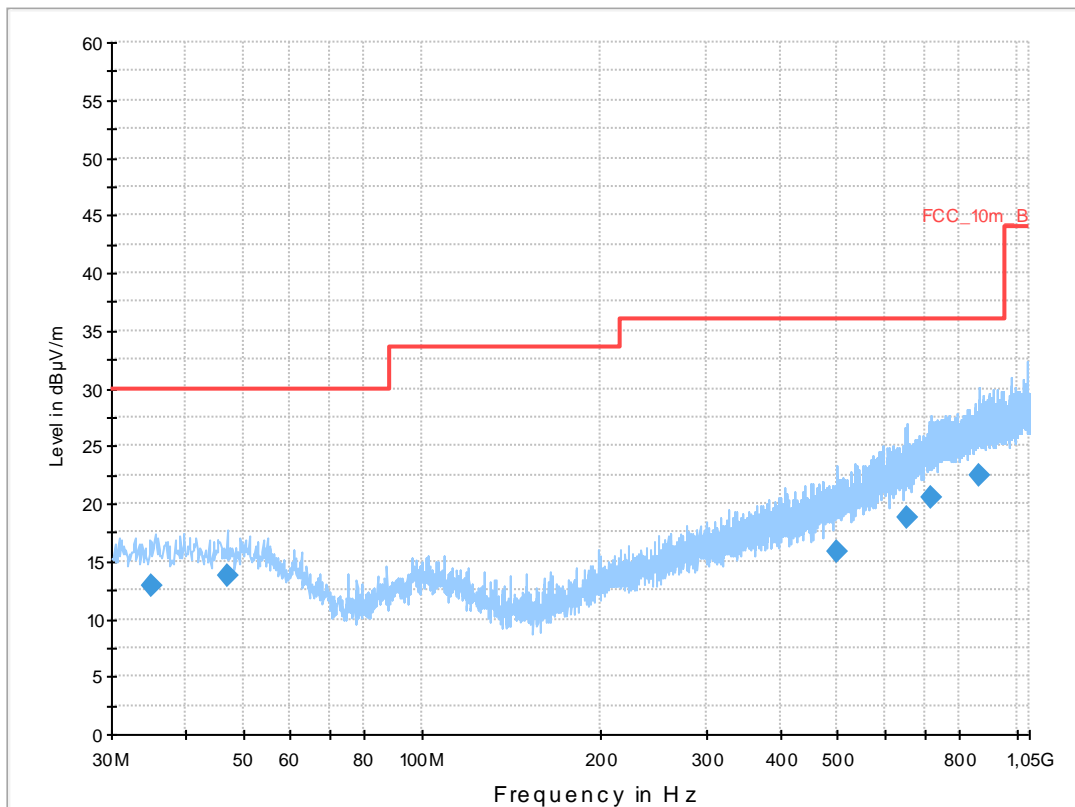
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan ac-mode (HT40) tx ch 118  
 Operator Name: Wolsdorfer  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

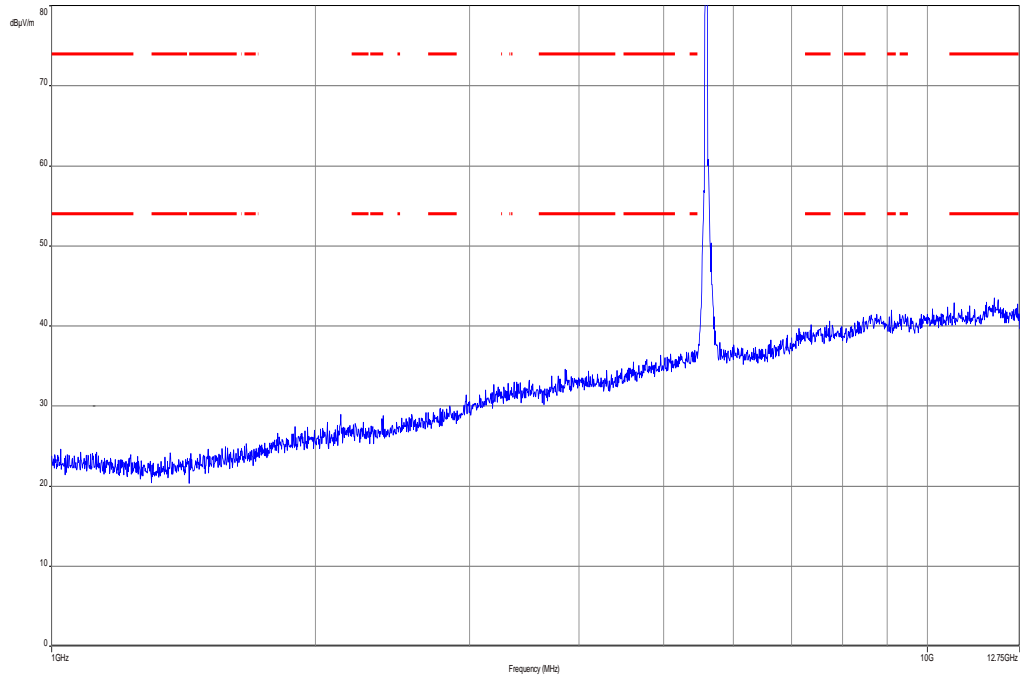
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



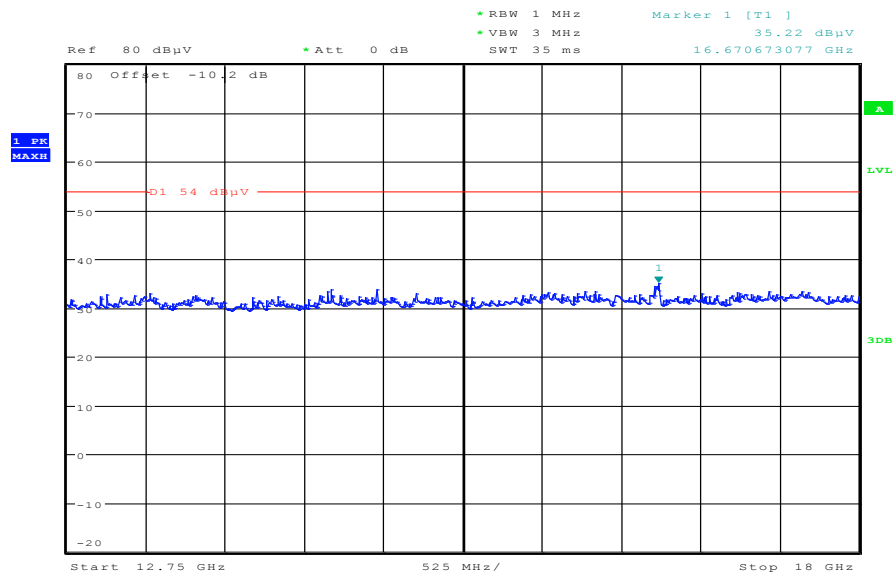
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.018100	12.9	1000.0	120.000	157.0	V	10.0	13.0	17.1	30.0	
46.976850	13.7	1000.0	120.000	98.0	V	190.0	13.3	16.3	30.0	
497.941350	15.9	1000.0	120.000	145.0	V	81.0	18.7	20.1	36.0	
655.382850	18.8	1000.0	120.000	170.0	V	280.0	21.3	17.2	36.0	
717.261750	20.5	1000.0	120.000	122.0	V	100.0	22.9	15.5	36.0	
864.775350	22.4	1000.0	120.000	98.0	V	280.0	24.7	13.6	36.0	

**Plot 27:** 1 GHz to 12.75 GHz, 5590 MHz, vertical & horizontal polarization



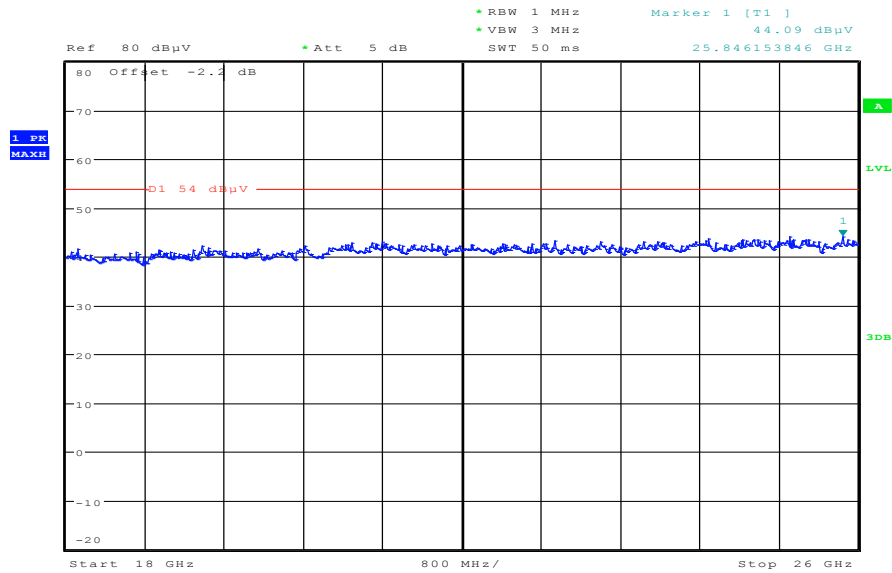
**Plot 28:** 12 GHz to 18 GHz, 5590 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 15:22:16

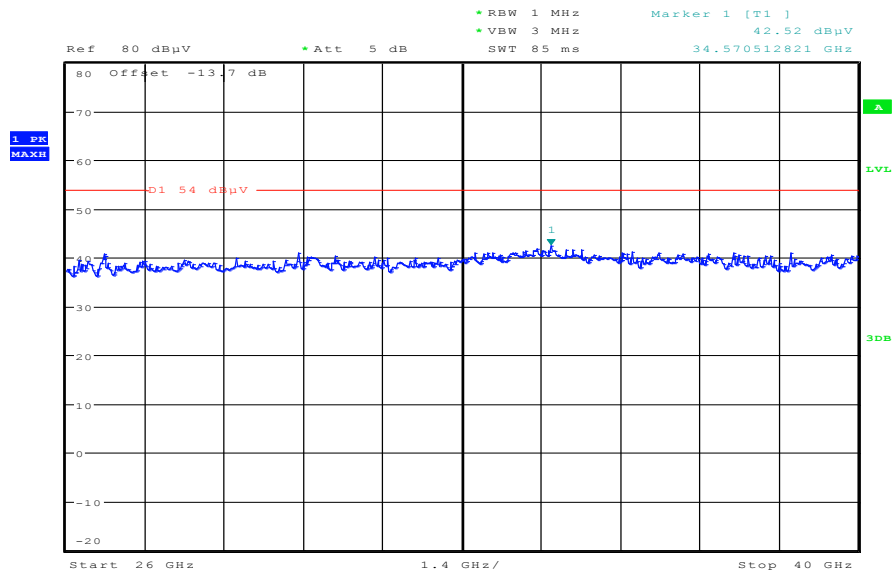


**Plot 29:** 18 GHz to 26 GHz, 5590 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 16:09:48

**Plot 30:** 26 GHz to 40 GHz, 5590 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 16:24:59

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

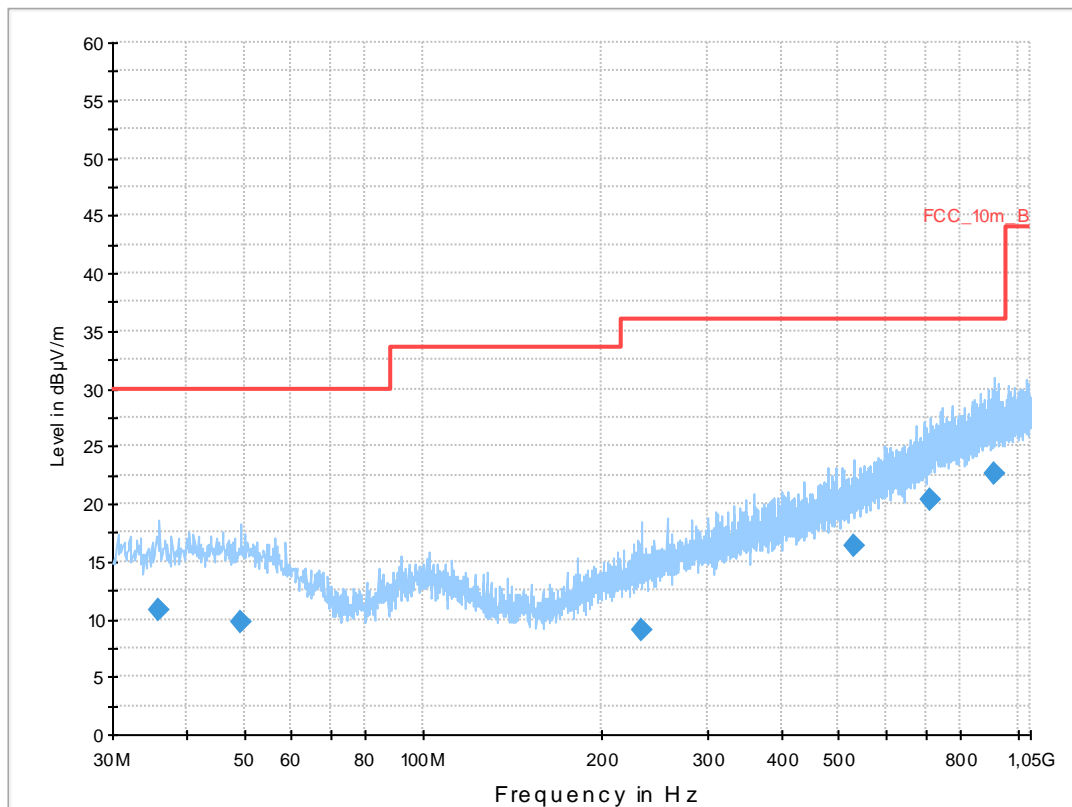
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan ac-mode (HT40) tx ch 134  
 Operator Name: Wolsdorfer  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

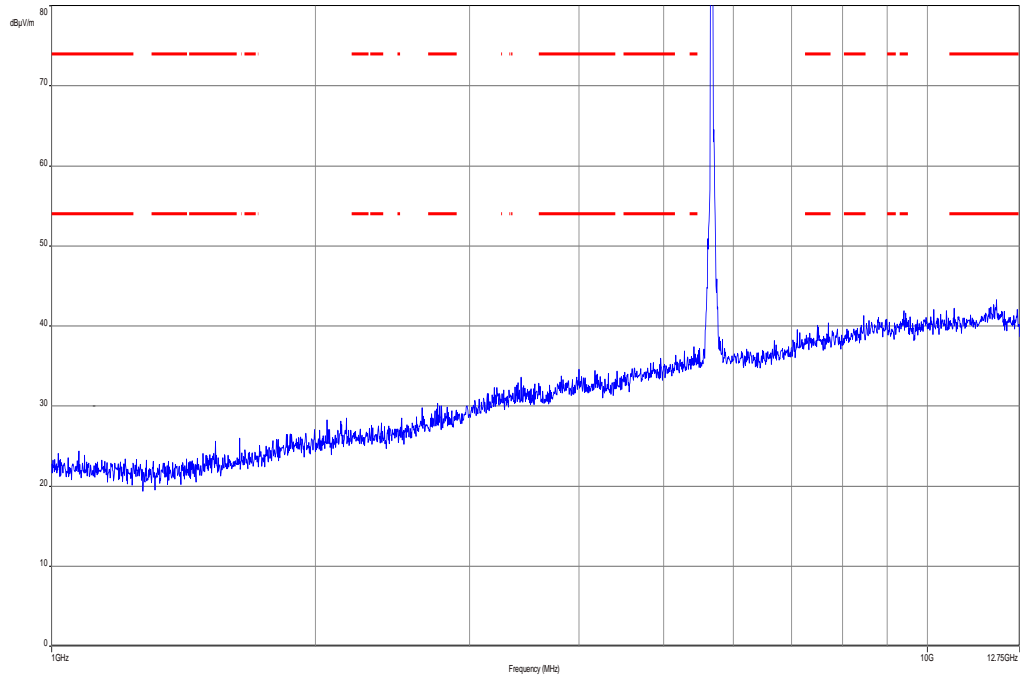
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



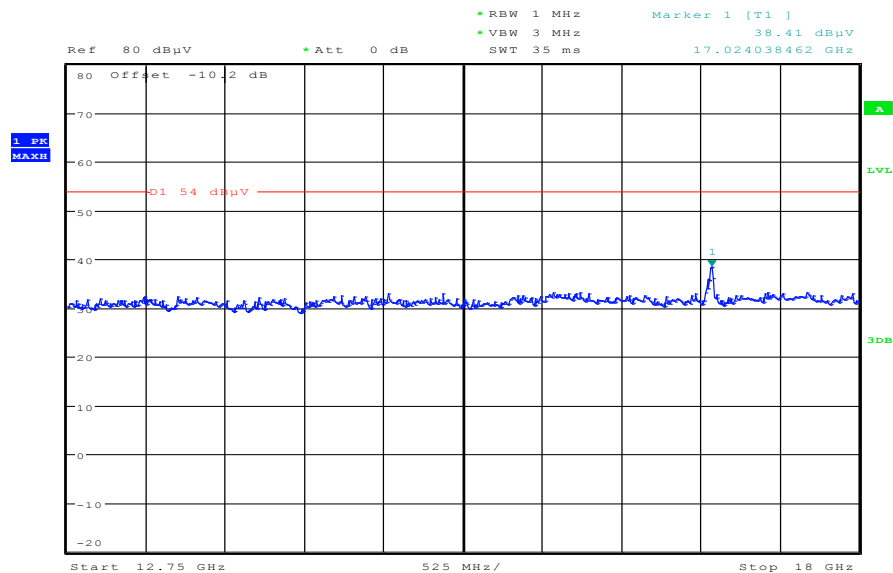
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.806500	10.7	1000.0	120.000	98.0	V	86.0	13.1	19.3	30.0	
49.320000	9.8	1000.0	120.000	170.0	H	81.0	13.4	20.2	30.0	
233.600550	9.1	1000.0	120.000	98.0	V	280.0	12.8	26.9	36.0	
531.324000	16.4	1000.0	120.000	170.0	H	270.0	19.1	19.6	36.0	
712.662000	20.4	1000.0	120.000	170.0	V	100.0	22.8	15.6	36.0	
910.488900	22.6	1000.0	120.000	134.0	V	268.0	25.2	13.4	36.0	

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

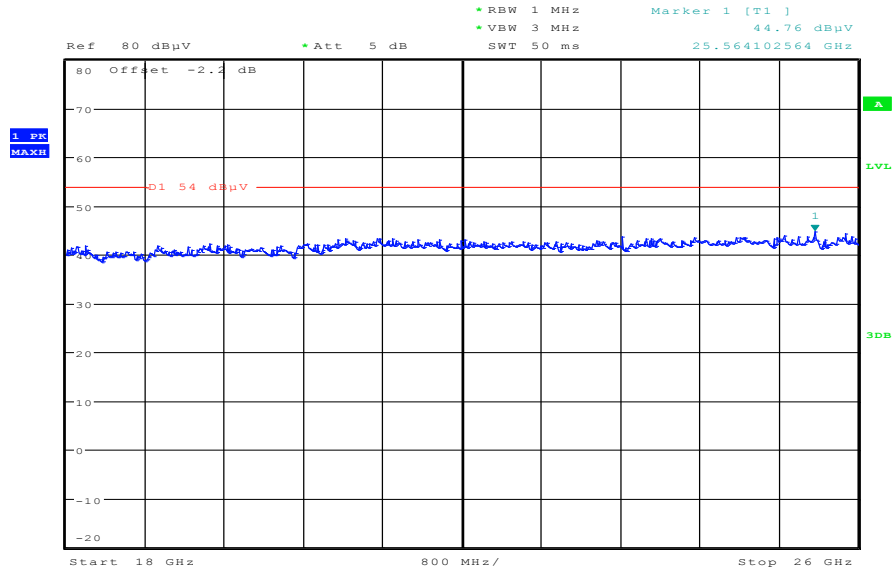


**Plot 33:** 12 GHz to 18 GHz, 5670 MHz, vertical & horizontal polarization



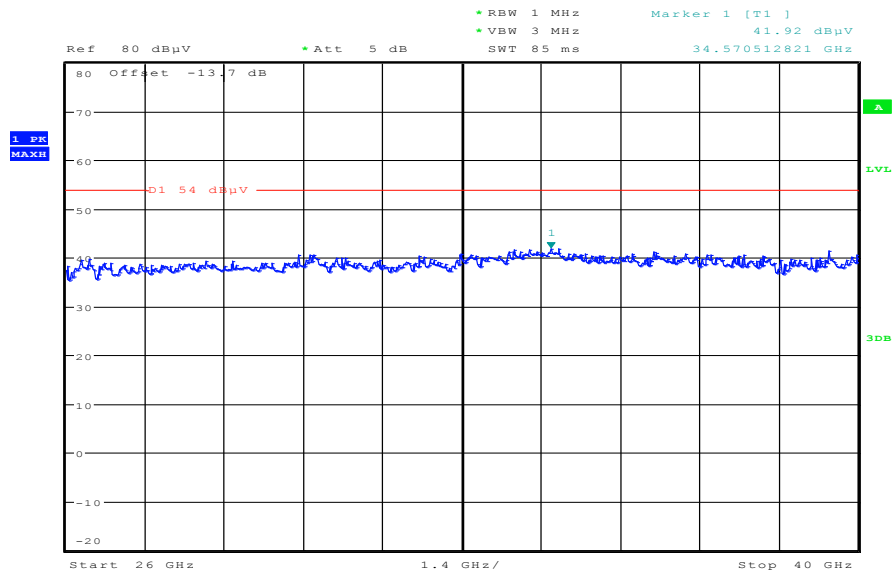
Date: 16.DEC.2013 15:24:04

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



Date: 16.DEC.2013 16:12:17

**Plot 35:** 26 GHz to 40 GHz, 5670 MHz, vertical & horizontal polarization



Date: 16.DEC.2013 16:27:27

**Plots:** OFDM / ac – mode HT80

**Plot 36:** 30 MHz to 1 GHz, 5210 MHz, vertical & horizontal polarization

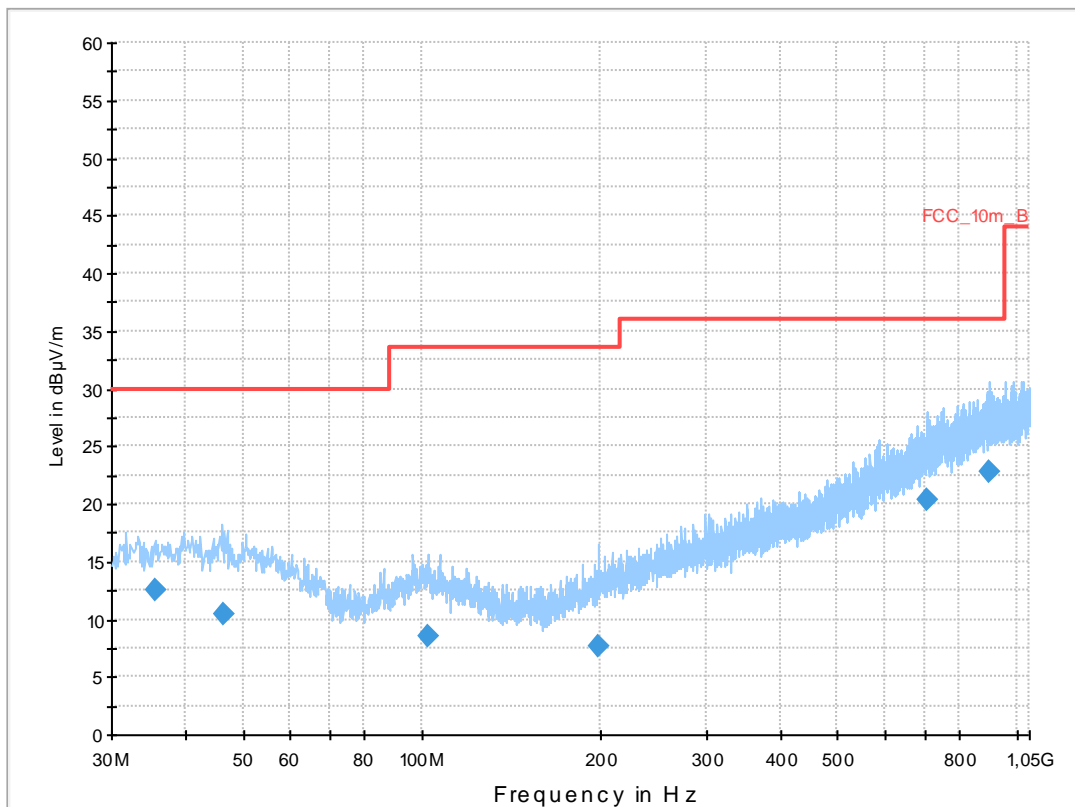
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 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]

Level Unit: dBµV/m

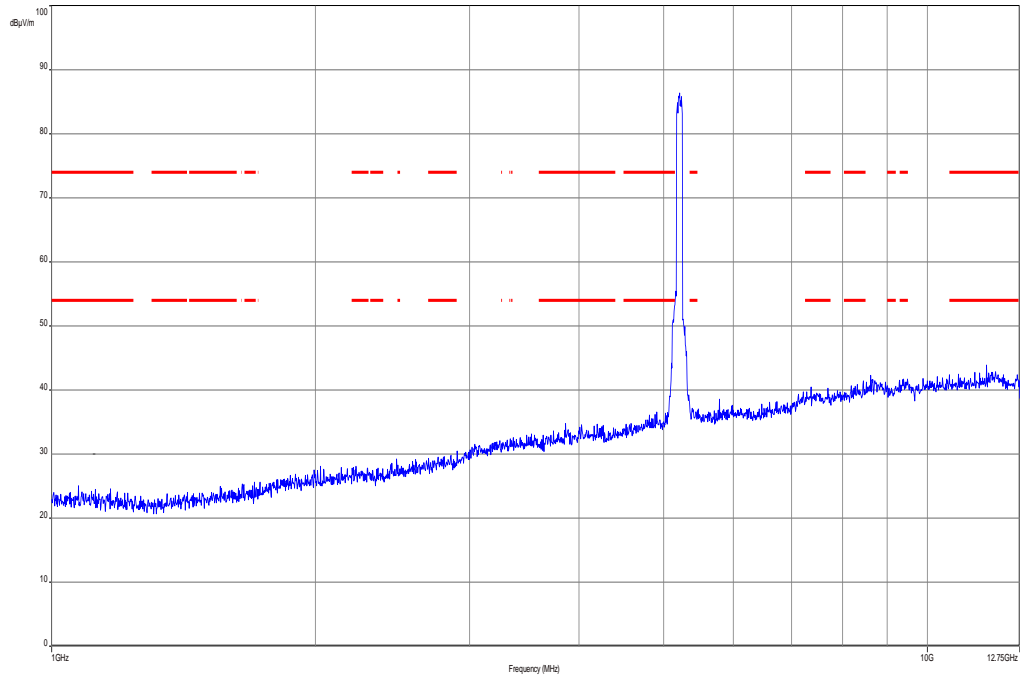
ubrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
0 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



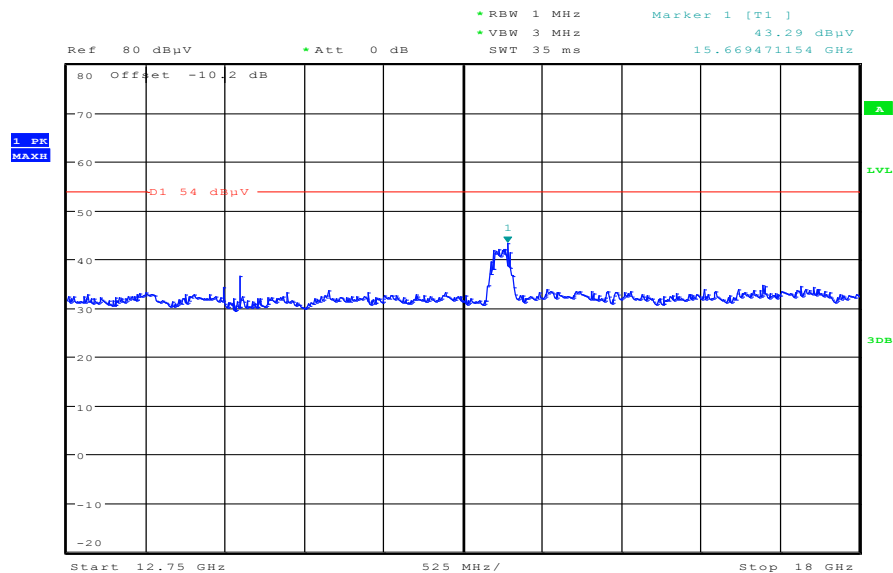
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
32.177100	10.2	1000.0	120.000	160.0	H	190.0	12.7	19.8	30.0	
39.897600	10.8	1000.0	120.000	146.0	V	260.0	13.4	19.2	30.0	
346.460700	12.8	1000.0	120.000	133.0	V	100.0	16.0	23.2	36.0	
599.320650	18.2	1000.0	120.000	98.0	V	10.0	20.8	17.8	36.0	
711.989400	20.4	1000.0	120.000	135.0	H	100.0	22.8	15.6	36.0	
940.146150	22.7	1000.0	120.000	170.0	V	-2.0	25.3	13.3	36.0	

**Plot 37:** 1 GHz to 12.75 GHz, 5210 MHz, vertical & horizontal polarization

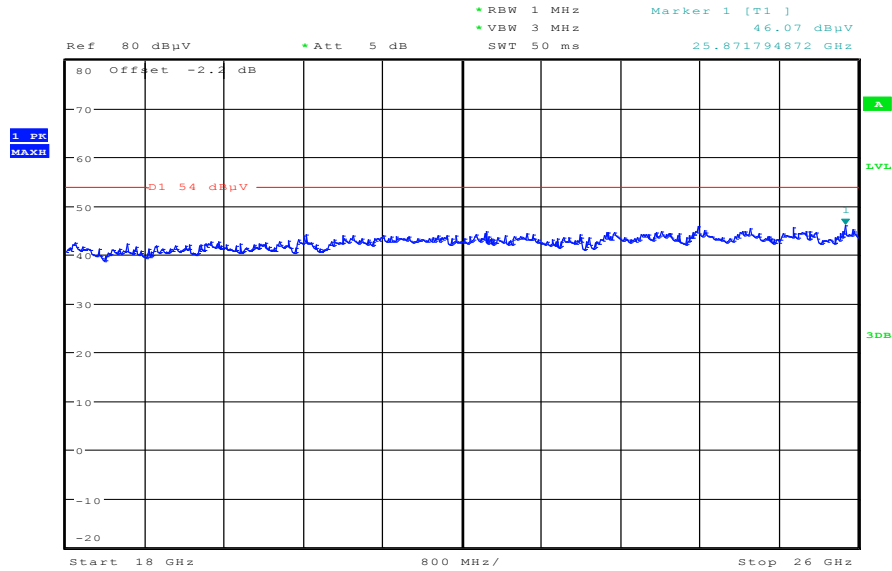


**Plot 38:** 12 GHz to 18 GHz, 5210 MHz, vertical & horizontal polarization



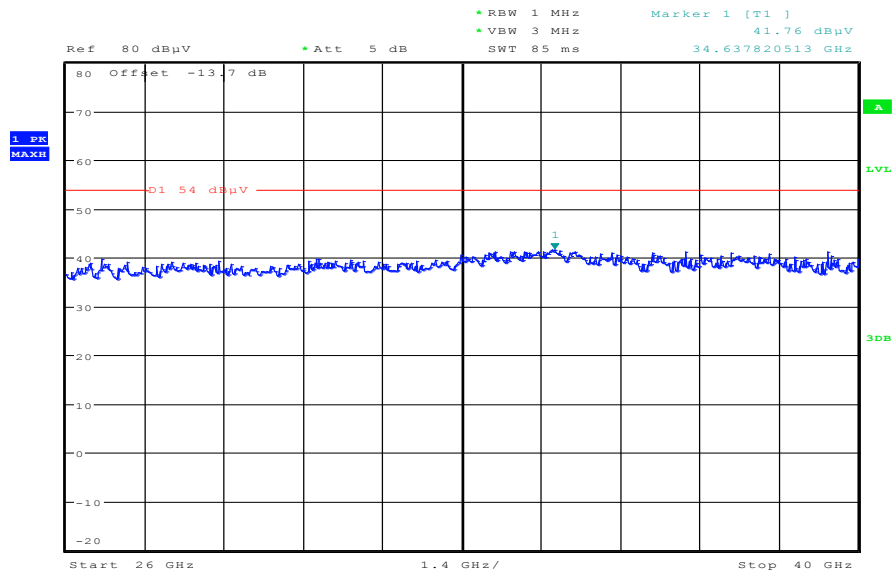
Date: 21.DEC.2013 08:23:42

**Plot 39:** 18 GHz to 26 GHz, 5210 MHz, vertical & horizontal polarization



Date: 21.DEC.2013 08:17:51

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



Date: 21.DEC.2013 08:33:16

Plot 41: 30 MHz to 1 GHz, 5290 MHz, vertical & horizontal polarization

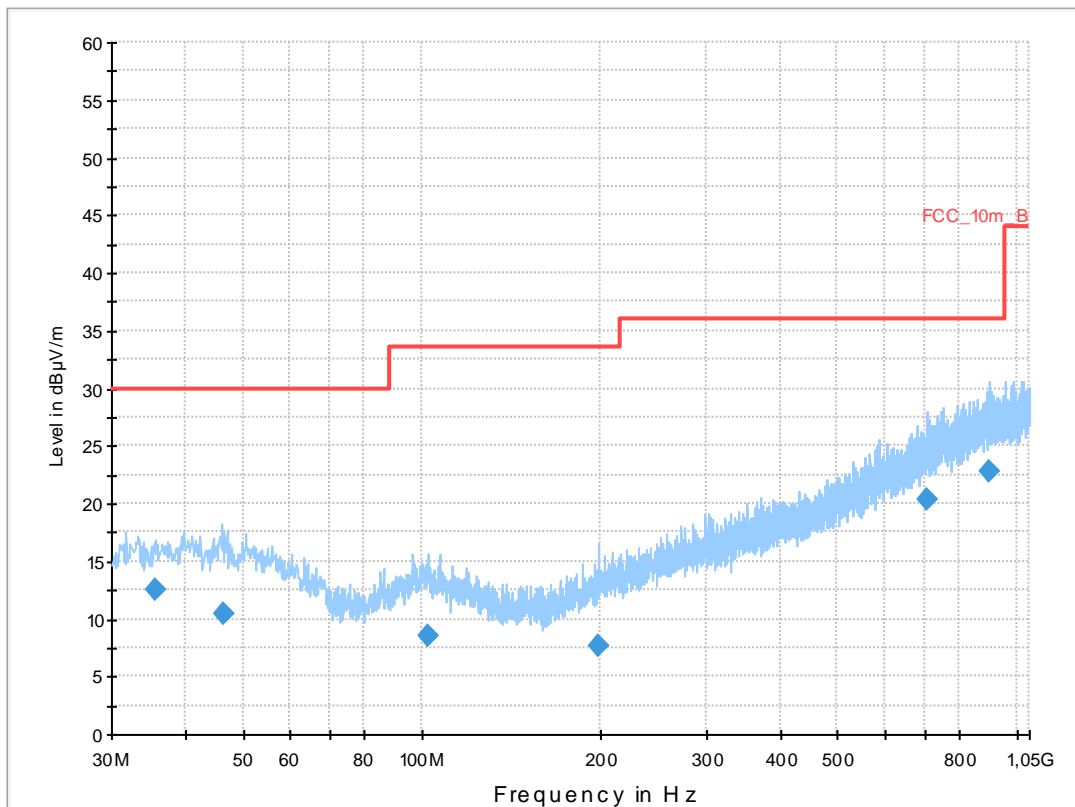
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 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: [ESC1 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

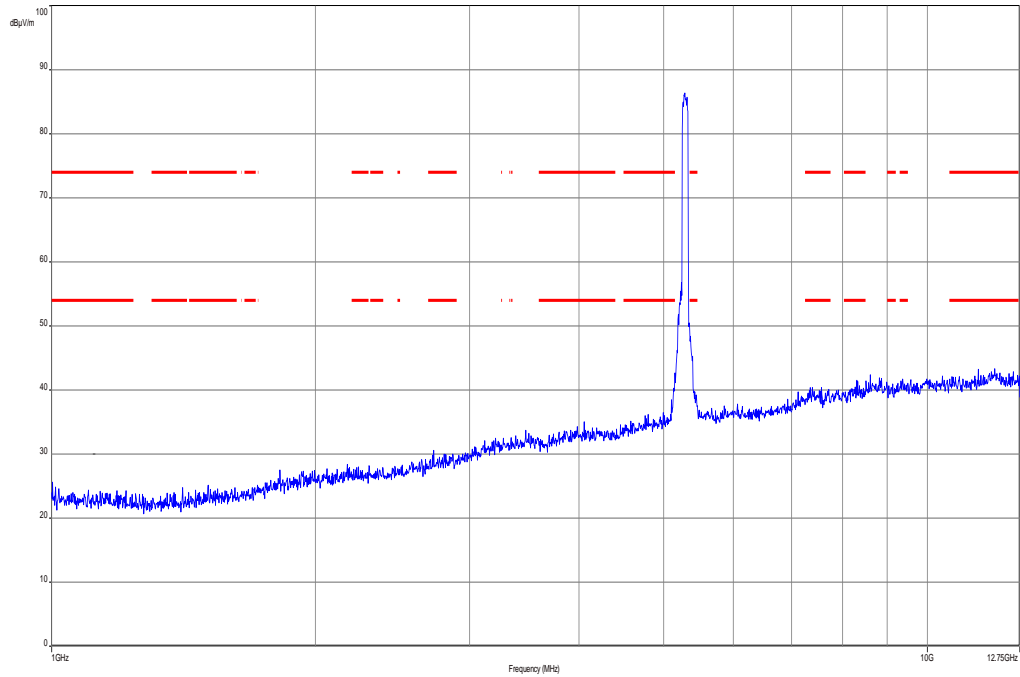


### Final Result 1

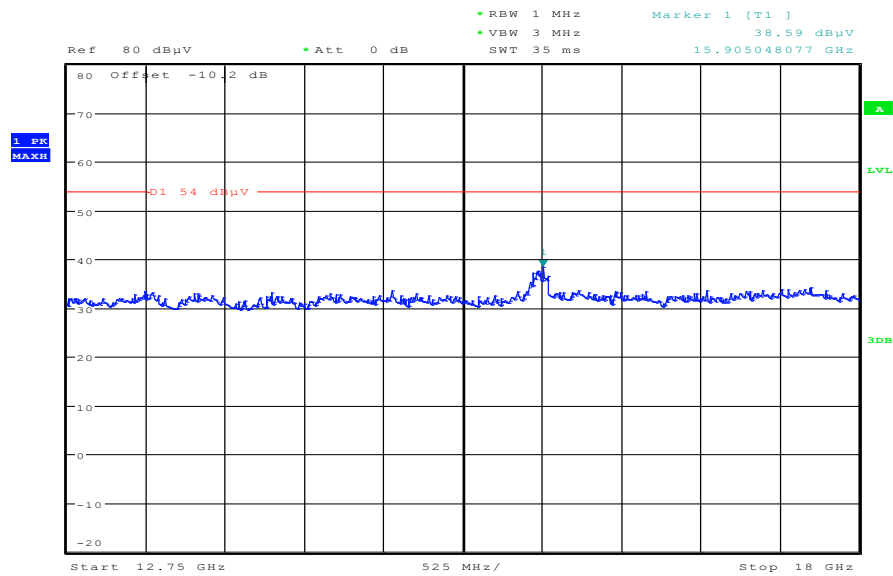
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.472600	12.5	1000.0	120.000	141.0	V	10.0	13.1	17.5	30.0	
46.510950	10.4	1000.0	120.000	170.0	H	260.0	13.3	19.6	30.0	
102.352650	8.5	1000.0	120.000	98.0	H	268.0	11.7	25.0	33.5	
197.791050	7.7	1000.0	120.000	98.0	H	182.0	11.6	25.8	33.5	
708.212850	20.3	1000.0	120.000	170.0	H	280.0	22.7	15.7	36.0	
900.560400	22.7	1000.0	120.000	170.0	V	92.0	25.2	13.3	36.0	



**Plot 42:** 1 GHz to 12.75 GHz, 5290 MHz, vertical & horizontal polarization

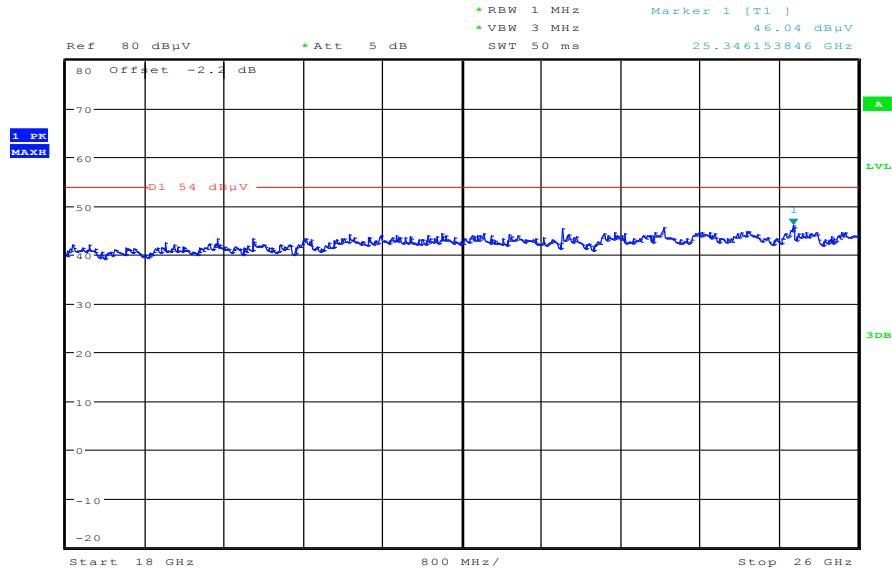


**Plot 43:** 12 GHz to 18 GHz, 5290 MHz, vertical & horizontal polarization



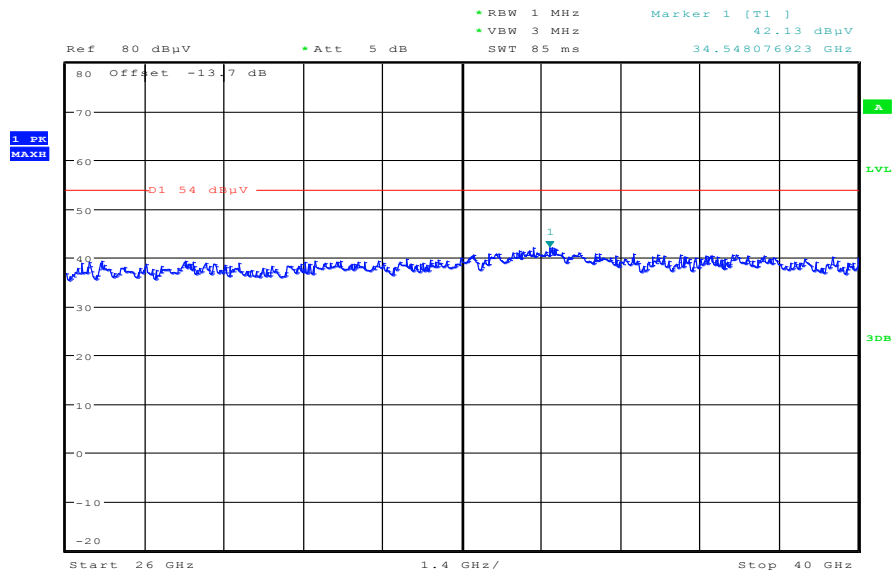
Date: 21.DEC.2013 08:24:18

**Plot 44:** 18 GHz to 26 GHz, 5290 MHz, vertical & horizontal polarization



Date: 21.DEC.2013 08:18:38

**Plot 45:** 26 GHz to 40 GHz, 5290 MHz, vertical & horizontal polarization



Date: 21.DEC.2013 08:32:34

**Plot 46:** 30 MHz to 1 GHz, 5530 MHz, vertical & horizontal polarization

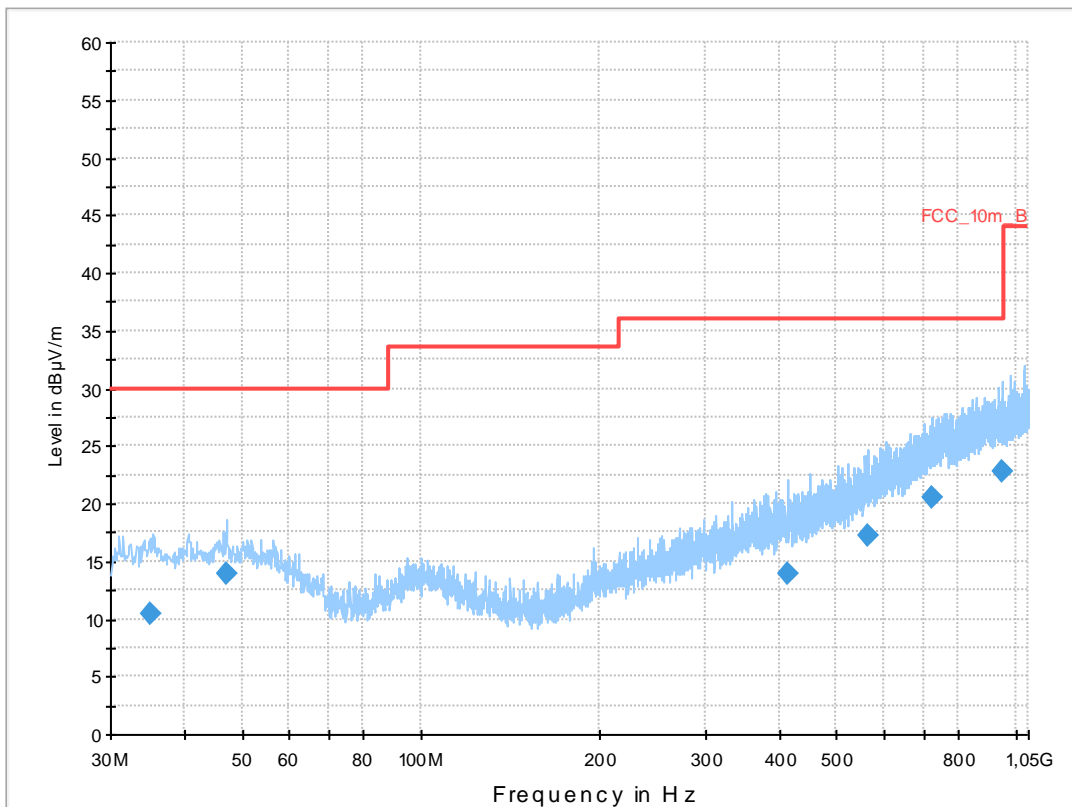
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 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: [ESC1 3]  
 Level Unit: dBµV/m

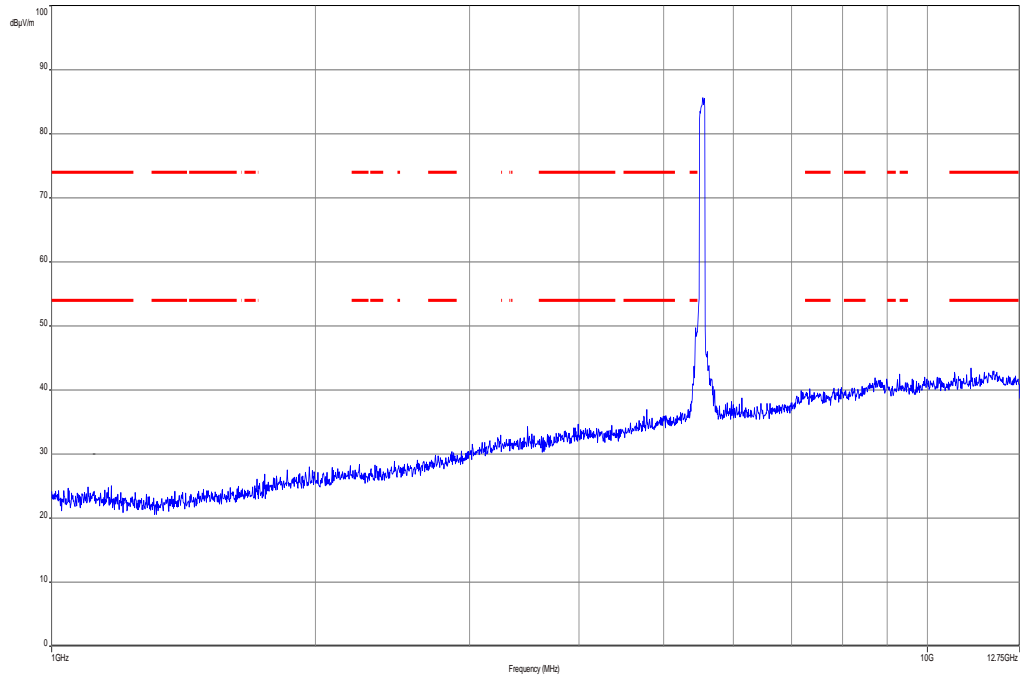
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



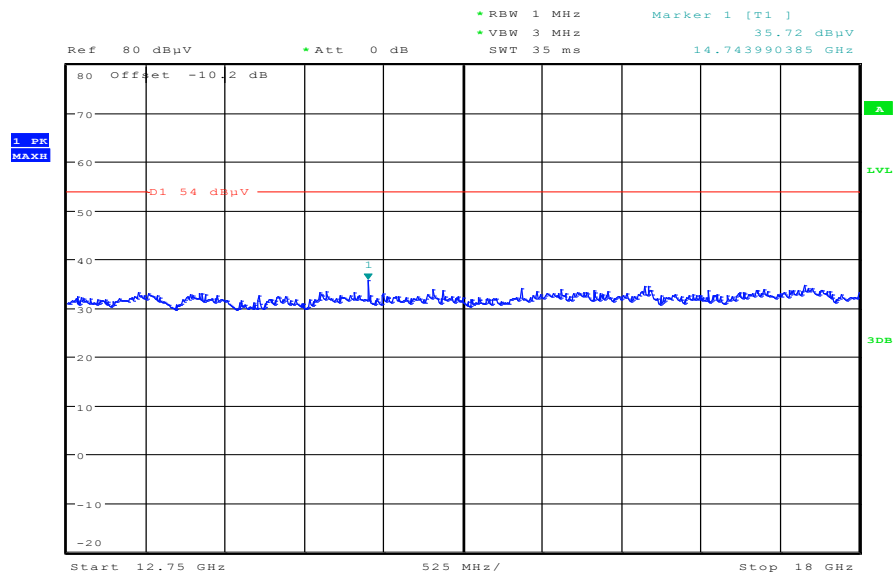
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
35.173050	10.4	1000.0	120.000	98.0	H	81.0	13.0	19.6	30.0	
46.974600	14.0	1000.0	120.000	98.0	V	171.0	13.3	16.0	30.0	
412.389000	14.0	1000.0	120.000	170.0	V	280.0	17.1	22.0	36.0	
563.913000	17.3	1000.0	120.000	170.0	H	270.0	19.8	18.7	36.0	
724.696800	20.5	1000.0	120.000	170.0	H	270.0	23.1	15.5	36.0	
949.684350	22.7	1000.0	120.000	170.0	H	190.0	25.4	13.3	36.0	

**Plot 47:** 1 GHz to 12.75 GHz, 5530 MHz, vertical & horizontal polarization

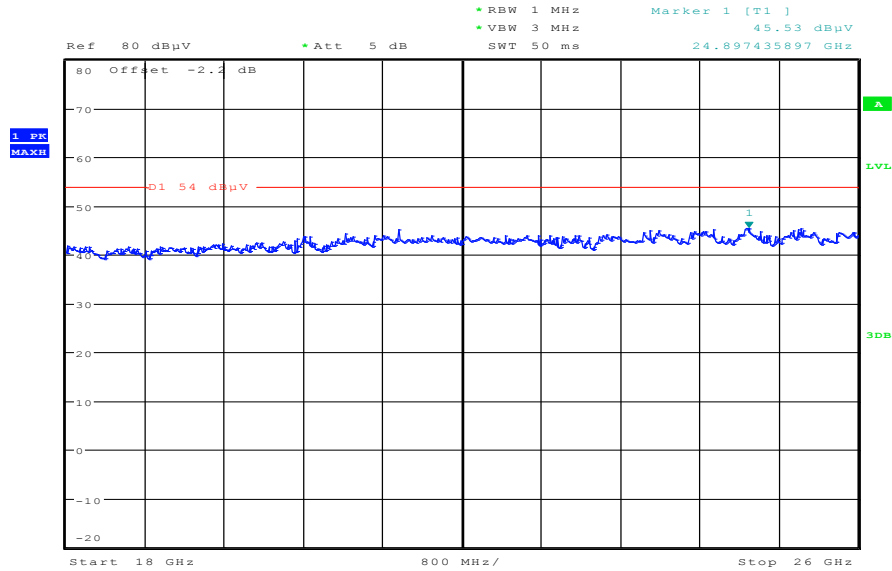


**Plot 48:** 12 GHz to 18 GHz, 5530 MHz, vertical & horizontal polarization



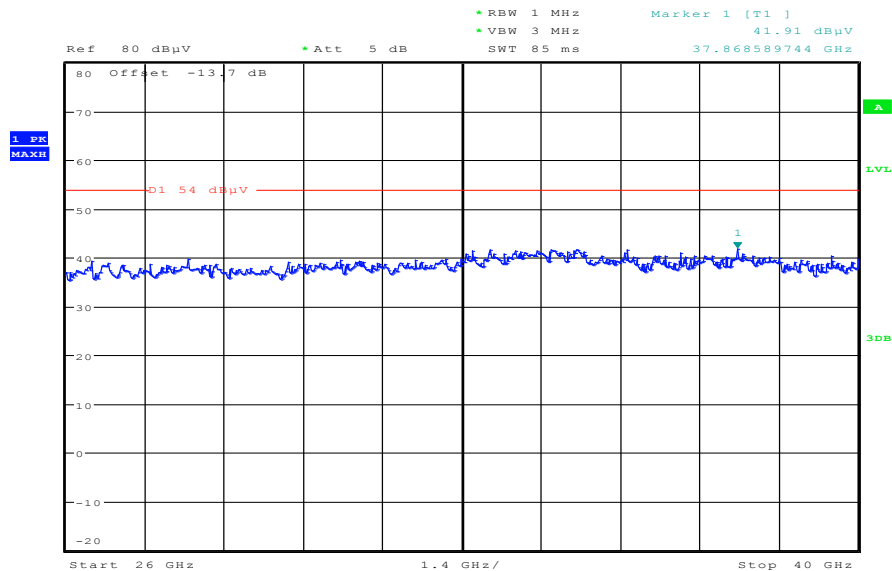
Date: 21.DEC.2013 08:25:09

**Plot 49:** 18 GHz to 26 GHz, 5530 MHz, vertical & horizontal polarization



Date: 21.DEC.2013 08:19:35

**Plot 50:** 26 GHz to 40 GHz, 5530 MHz, vertical & horizontal polarization



Date: 21.DEC.2013 08:31:58

Plot 51: 30 MHz to 1 GHz, 5610 MHz, vertical & horizontal polarization

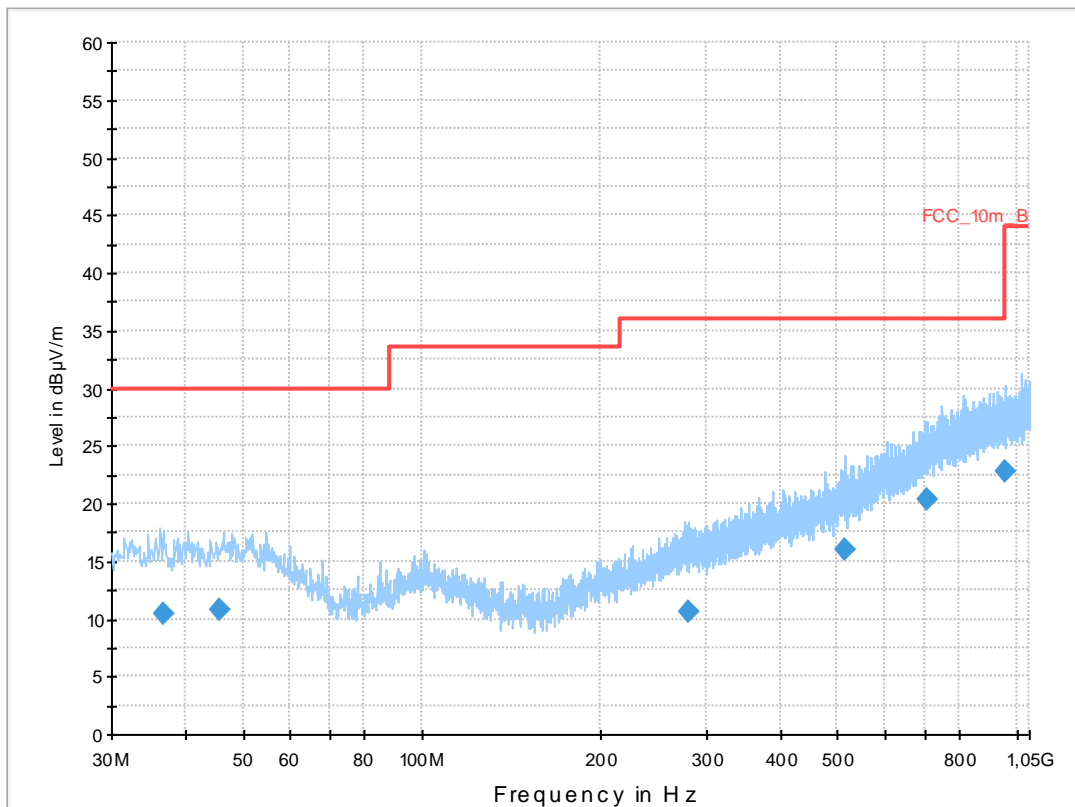
### Common Information

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPG  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan ac-mode (HT80) tx ch 122  
 Operator Name: Wolsdorfer  
 Comment: battery powered

### Scan Setup: STAN\_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

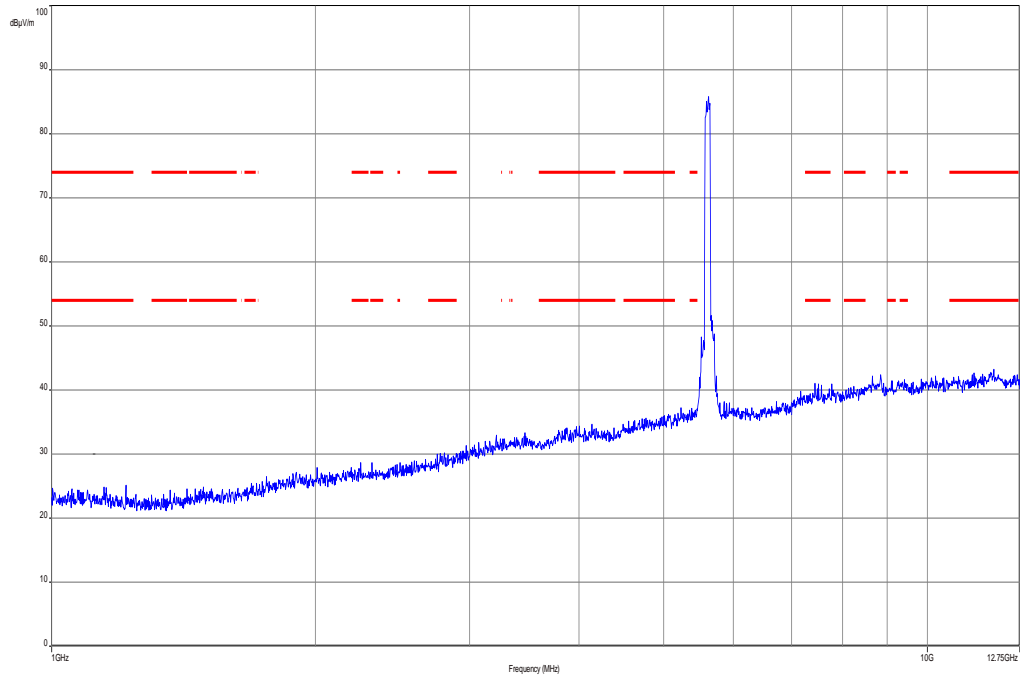
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



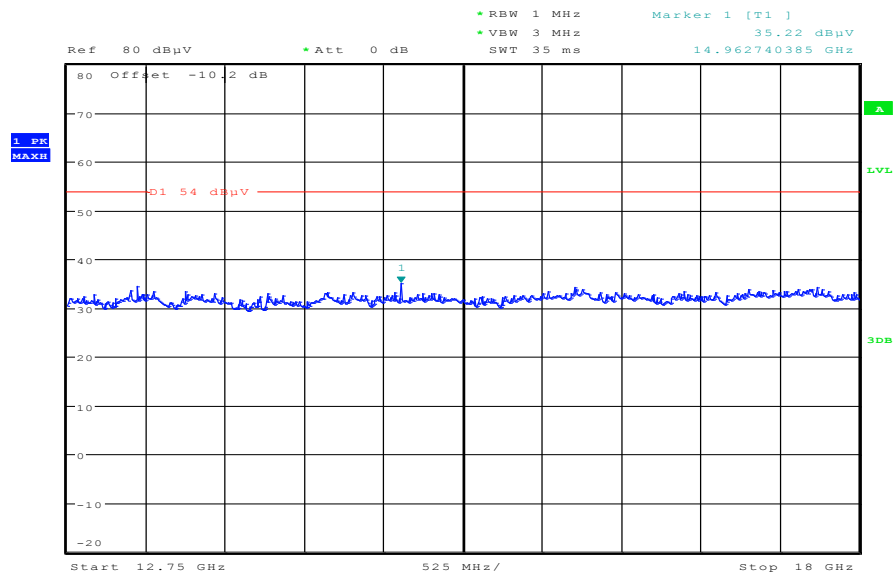
### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
36.583500	10.4	1000.0	120.000	143.0	H	100.0	13.2	19.6	30.0	
45.669000	10.7	1000.0	120.000	170.0	V	190.0	13.3	19.3	30.0	
279.552300	10.6	1000.0	120.000	170.0	V	280.0	14.0	25.4	36.0	
515.939850	16.0	1000.0	120.000	170.0	H	-2.0	18.9	20.0	36.0	
704.908200	20.3	1000.0	120.000	170.0	H	10.0	22.6	15.7	36.0	
960.162750	22.8	1000.0	120.000	170.0	V	90.0	25.4	21.2	44.0	

**Plot 52:** 1 GHz to 12.75 GHz, 5610 MHz, vertical & horizontal polarization

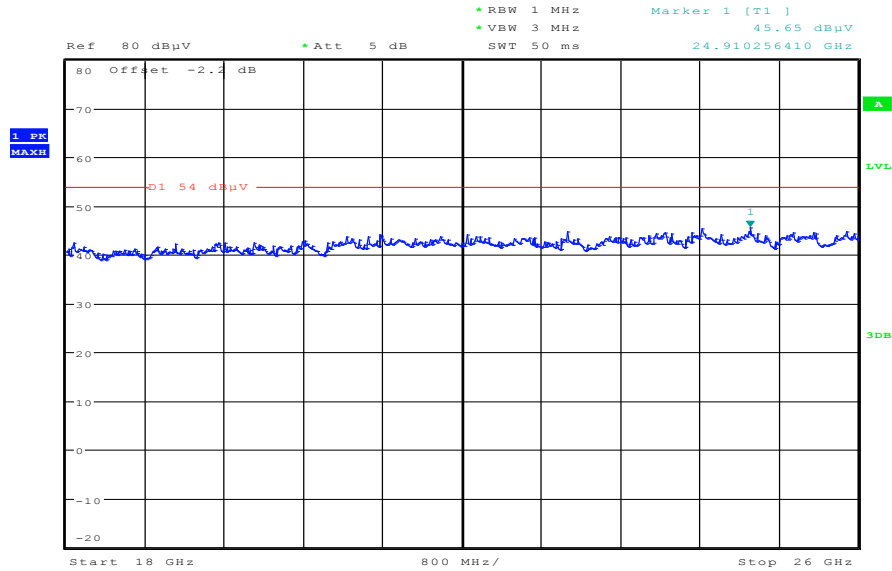


**Plot 53:** 12 GHz to 18 GHz, 5610 MHz, vertical & horizontal polarization



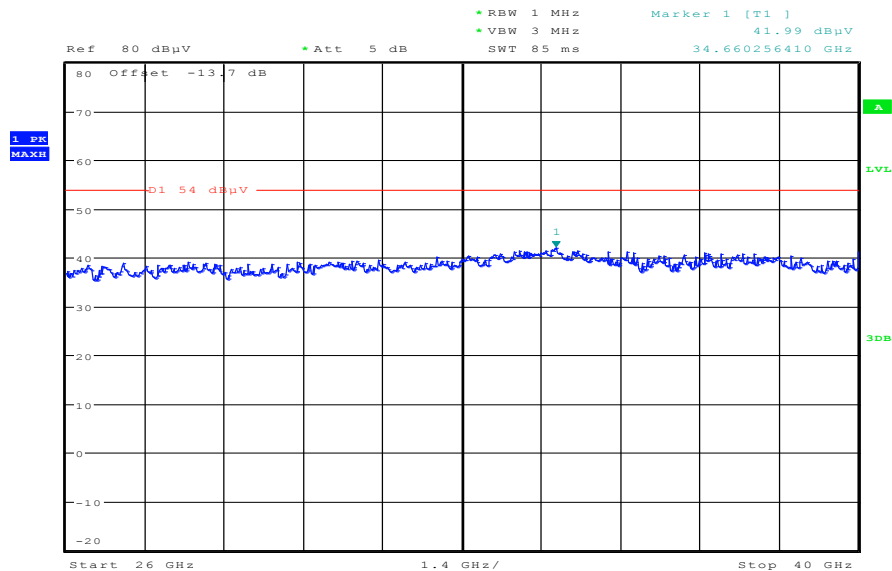
Date: 21.DEC.2013 08:26:03

**Plot 54:** 18 GHz to 26 GHz, 5610 MHz, vertical & horizontal polarization



Date: 21.DEC.2013 08:22:19

**Plot 55:** 26 GHz to 40 GHz, 5610 MHz, vertical & horizontal polarization



Date: 21.DEC.2013 08:31:25



### 10.10 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]
For emissions below 1 GHz, please take a look at the table below the 1 GHz plot.		
All detected peaks are below the average limit!		
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

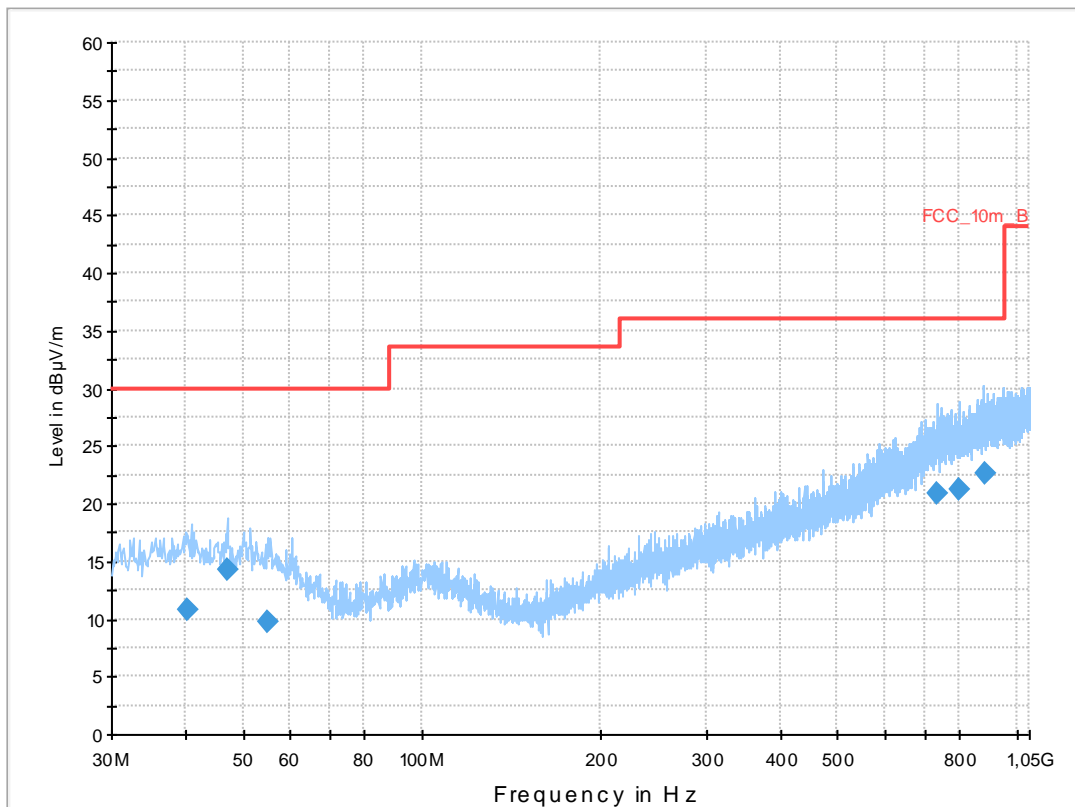
**Common Information**

EUT: PM-0740-BV  
 Serial Number: CB5A1W1HPS  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: w-lan idle  
 Operator Name: Hennemann  
 Comment: battery powered

**Scan Setup: STAN\_Fin [EMI radiated]**

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

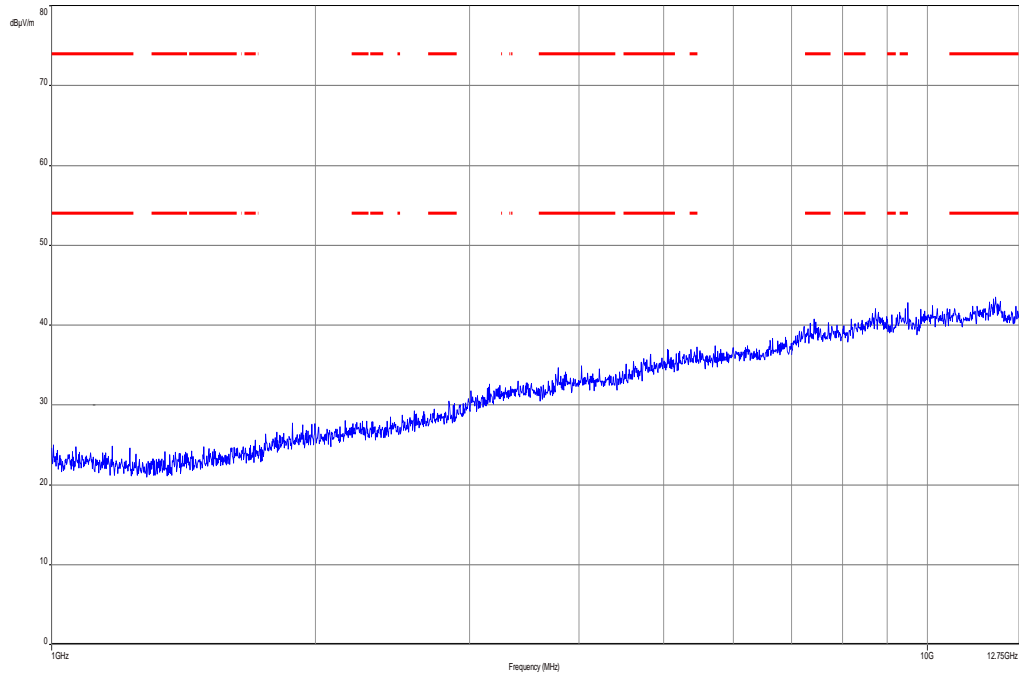
Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB



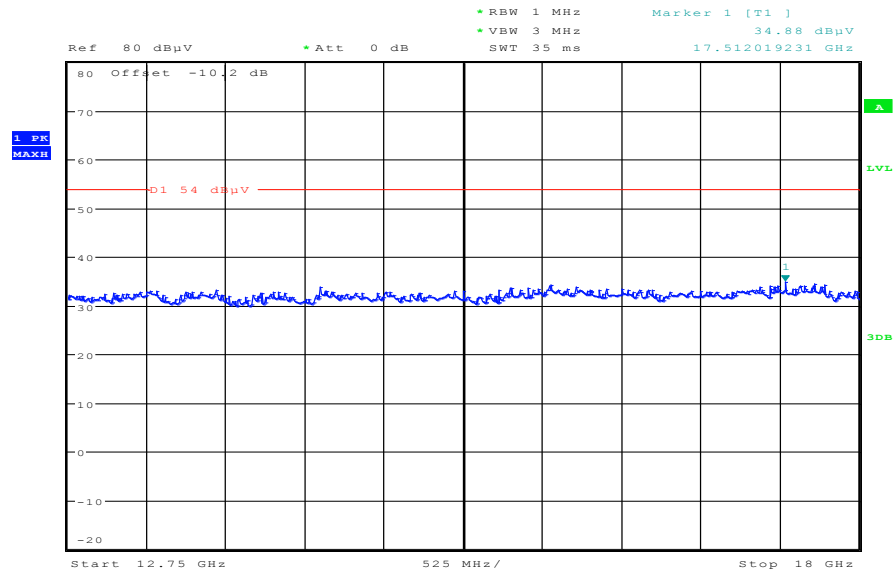
**Final Result 1**

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
40.324200	10.8	1000.0	120.000	170.0	H	10.0	13.4	19.2	30.0	
46.969500	14.2	1000.0	120.000	98.0	V	190.0	13.3	15.8	30.0	
55.074450	9.8	1000.0	120.000	170.0	V	-9.0	12.9	20.2	30.0	
734.392950	20.9	1000.0	120.000	111.0	V	280.0	23.3	15.1	36.0	
797.965200	21.2	1000.0	120.000	170.0	H	-10.0	23.8	14.8	36.0	
881.866650	22.6	1000.0	120.000	104.0	H	10.0	25.0	13.4	36.0	

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

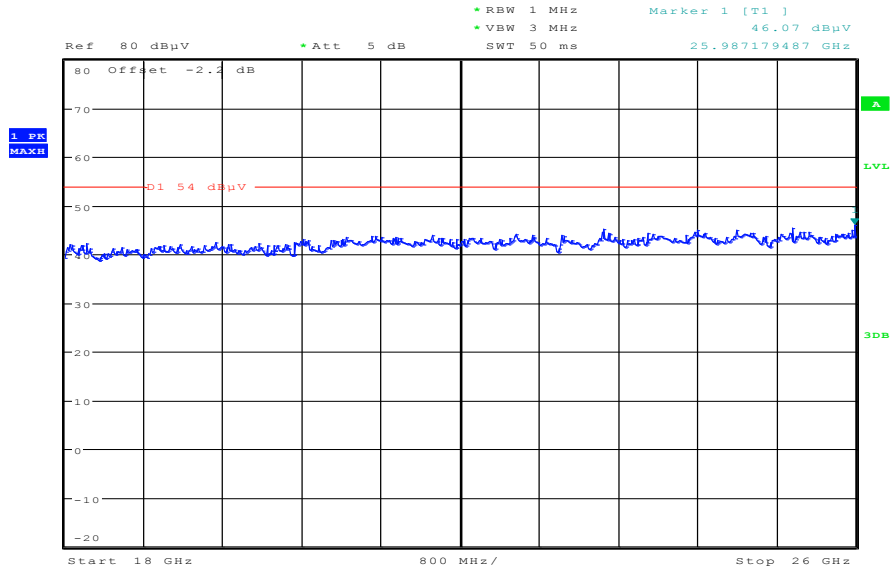


**Plot 3:** 12 GHz to 18 GHz, vertical & horizontal polarization



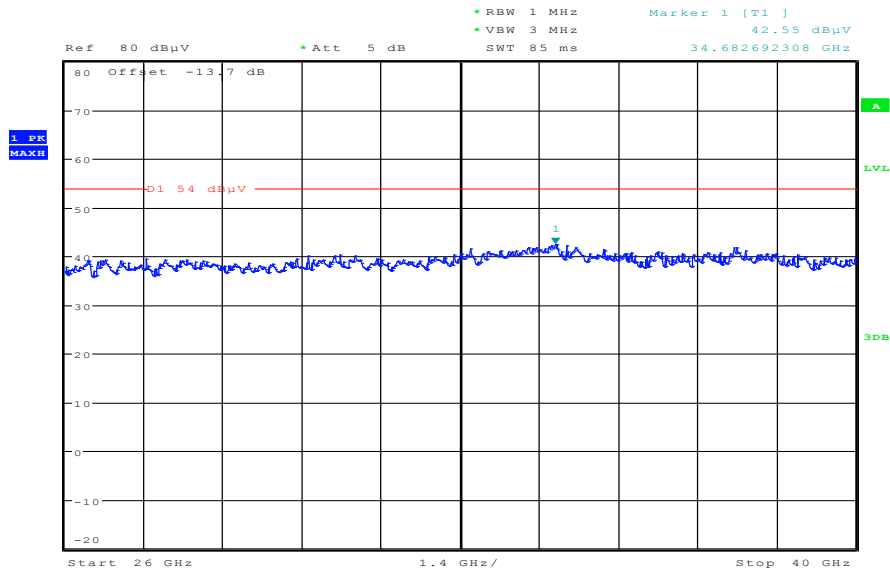
Date: 21.DEC.2013 08:38:05

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



Date: 21.DEC.2013 08:37:11

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



Date: 21.DEC.2013 08:35:54

### 10.11 Spurious emissions radiated < 30 MHz

**Description:**

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

**Measurement:**

Measurement parameter	
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 (dBµV/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

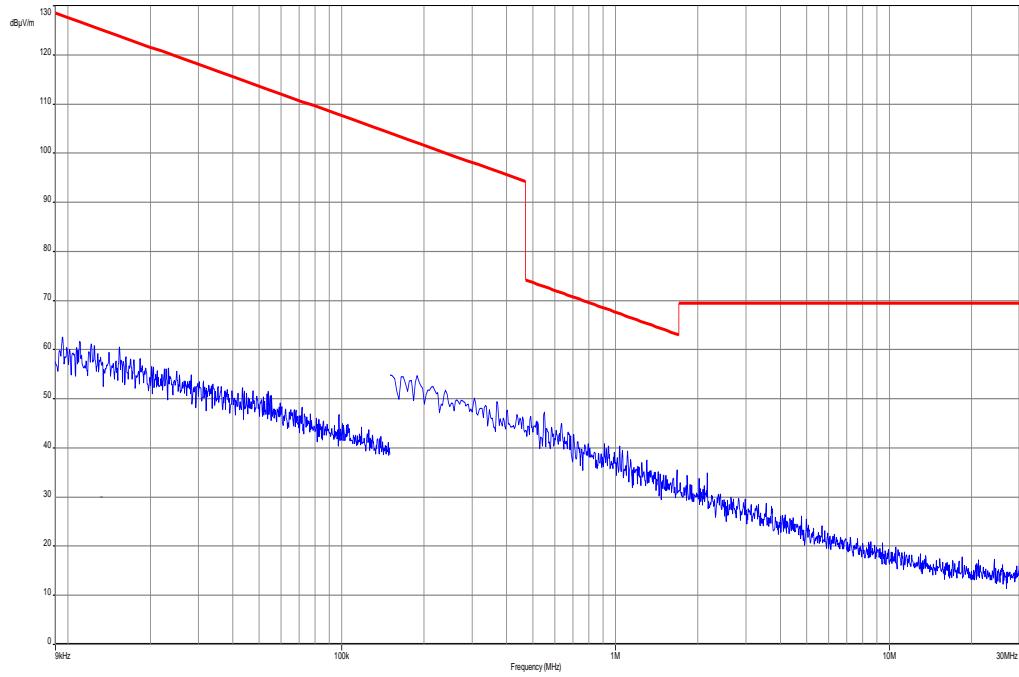
**Results:**

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

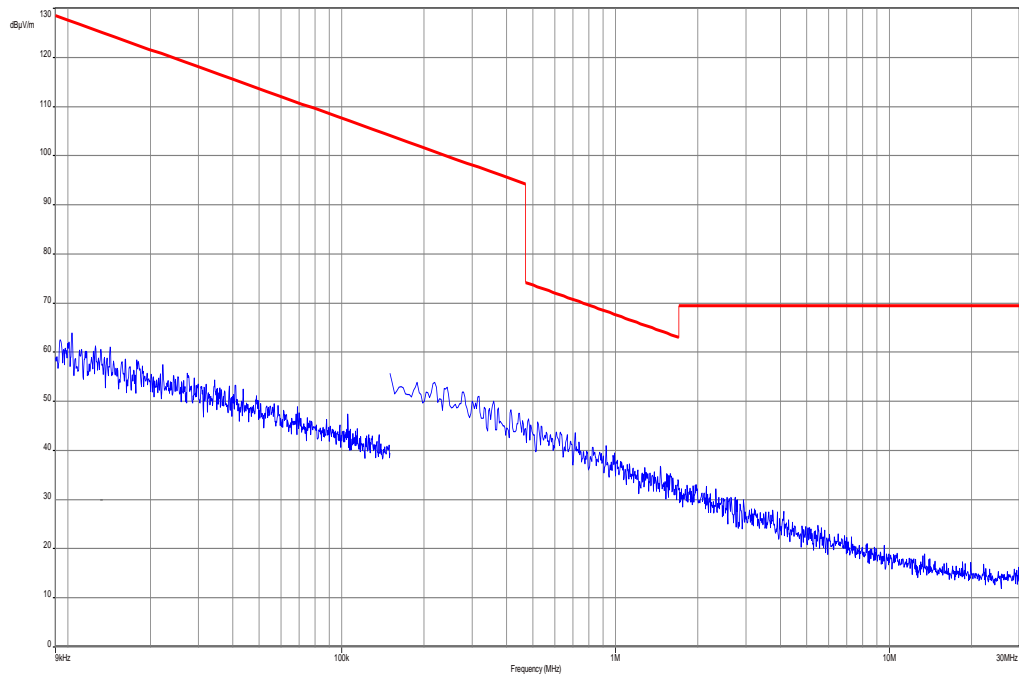
**Result: Passed**

**Plots:**

**Plot 1:** 9 kHz to 30 MHz, TX mode



**Plot 2:** 9 kHz to 30 MHz, RX mode



## 10.12 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 remeasured 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 $\mu$ V/m)	Average (dB $\mu$ 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

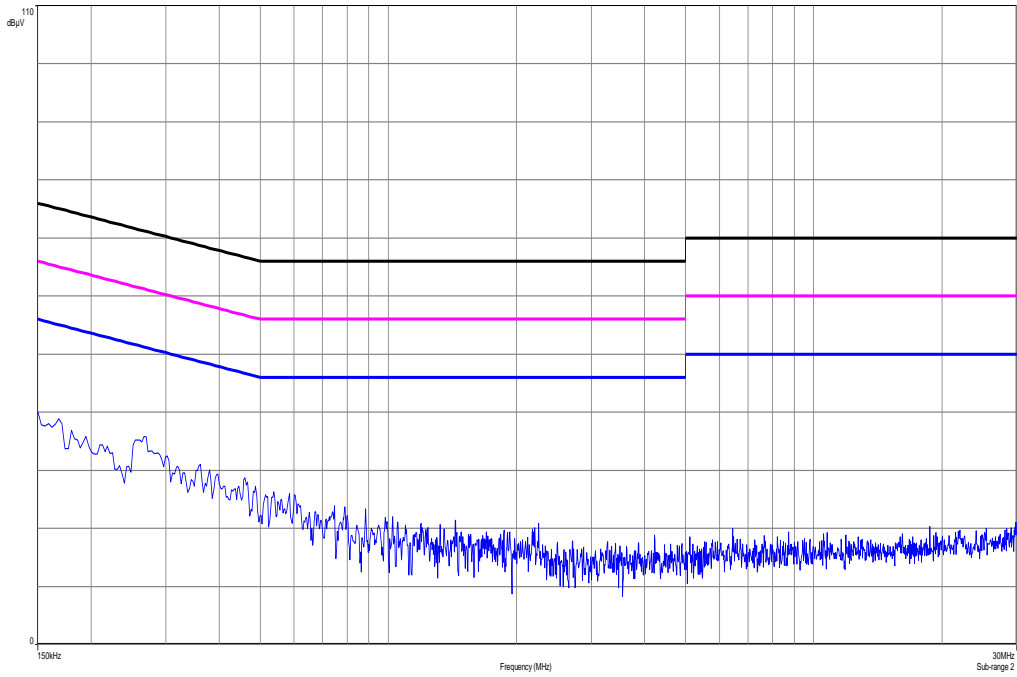
### Results:

Spurious Emissions Conducted < 30 MHz [dB $\mu$ V/m]		
F [MHz]	Detector	Level [dB $\mu$ V/m]
No peaks found.		
Measurement uncertainty	± 3 dB	

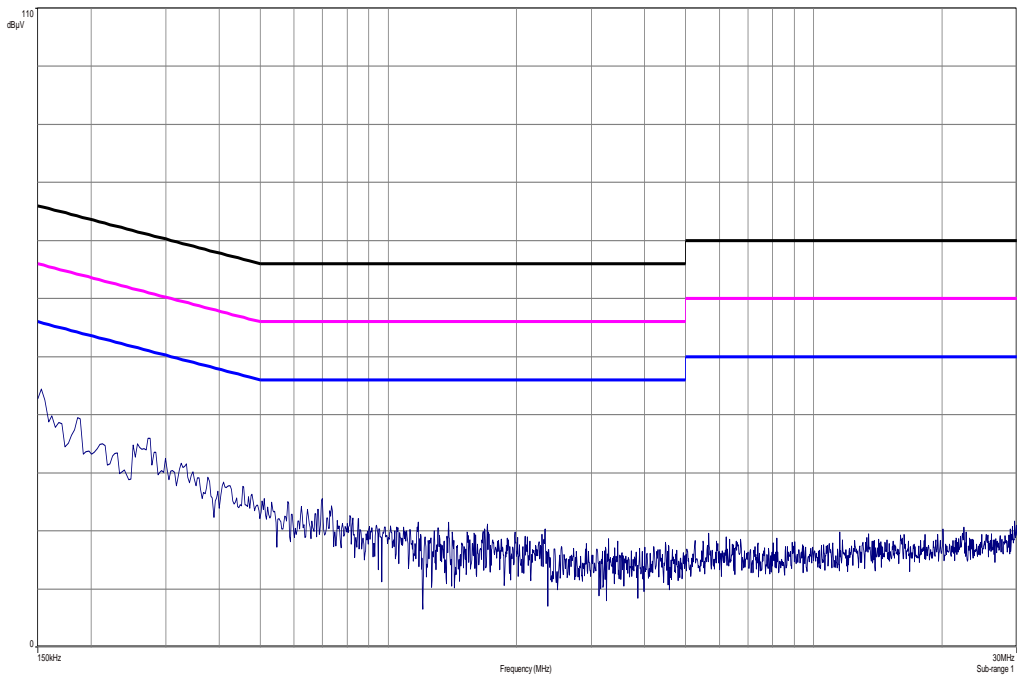
**Result: Passed**

**Plots:**

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

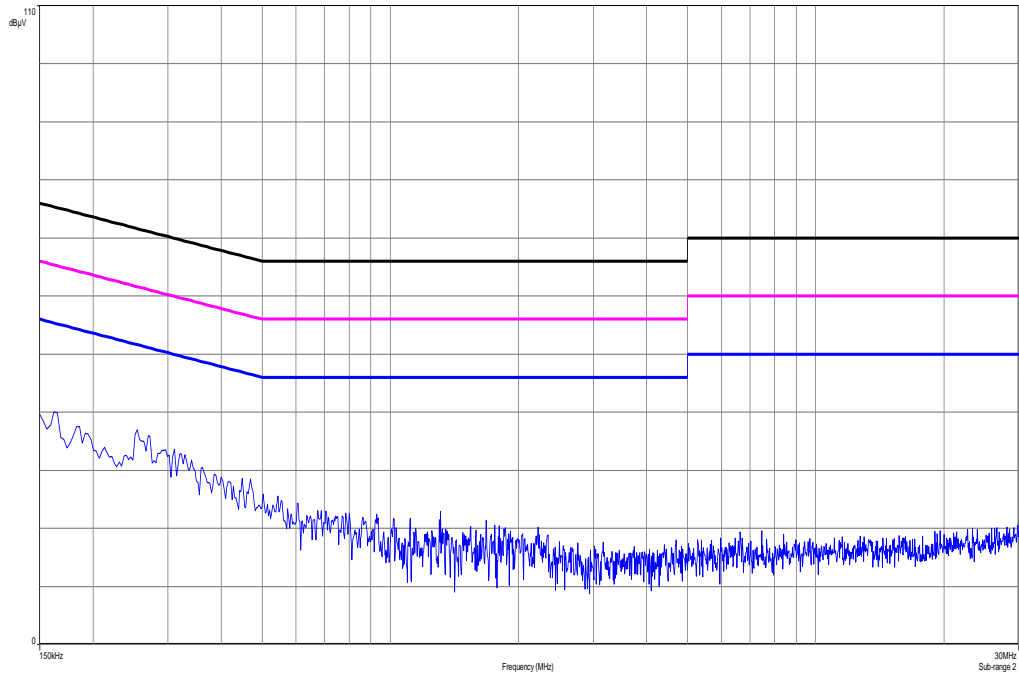


**Plot 2:** 150 kHz to 30 MHz / neutral Line, TX mode

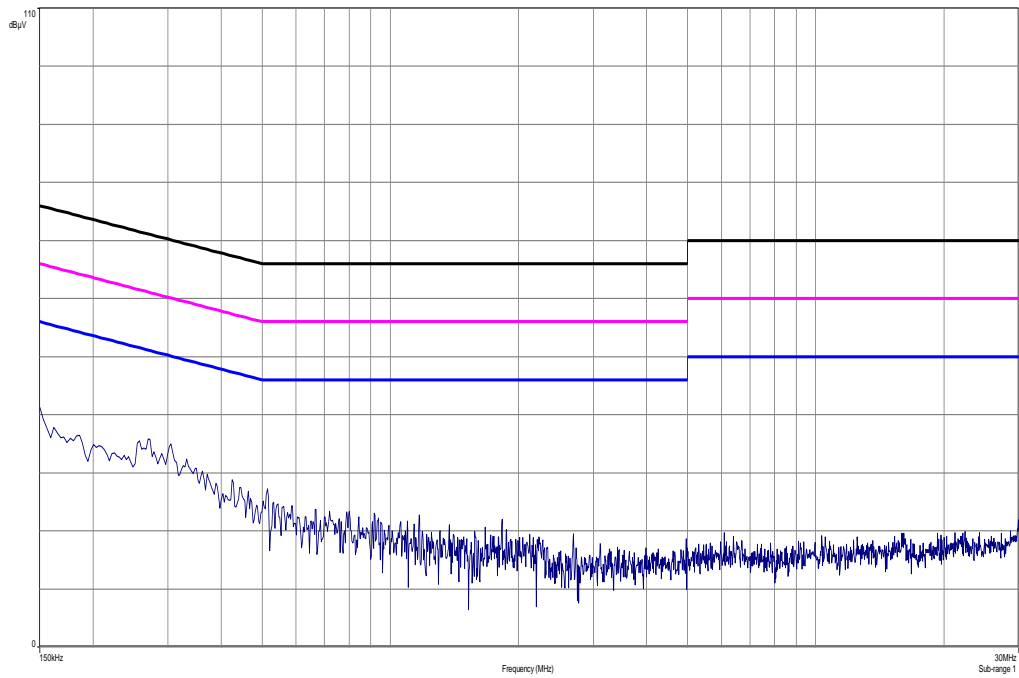




**Plot 3:** 150 kHz to 30 MHz / phase Line, RX mode



**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 (Labor/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.	software	SPS_PHE 1.4f	Spitzberger & Spieß	B5981; 5D1081;B597 9	300000210	ne		
4	n. a.	EMI Test Receiver	ESCI 3	R&S	100083	300003312	k	09.01.2013	09.01.2014
5	n. a.	Analyzer- Reference- System (Harmonics and Flicker)	ARS 16/1	SPS	A3509 07/0 0205	300003314	Ve	14.07.2011	14.01.2014
6	n. a.	Amplifier	JS42- 00502650- 28-5A	MITEQ	1084532	300003379	ev		
7	n. a.	Antenna Tower	Model 2175	ETS- LINDGREN	64762	300003745	izw		
8	n. a.	Positioning Controller	Model 2090	ETS- LINDGREN	64672	300003746	izw		
9	n. a.	Turntable Interface-Box	Model 105637	ETS- LINDGREN	44583	300003747	izw		
10	n. a.	TRILOG Broadband Test-Antenna 30 MHz - 3 GHz	VULB9163	Schwarzbe ck	295	300003787	k	12.04.2012	12.04.2014
11	n. a.	Spectrum- Analyzer	FSU26	R&S	200809	300003874	k	16.01.2013	16.01.2014
12	n. a.	Double-Ridged Waveguide Horn Antenna 1-18.0GHz	3115	EMCO	8812-3088	300001032	vIKI!	08.05.2013	08.05.2015
13	n. a.	Anechoic chamber	FAC 3/5m	MWB / TDK	87400/02	300000996	ev		
14	n. a.	Switch / Control Unit	3488A	HP Meßtechnik	*	300000199	ne		
15	n. a.	Switch / Control Unit	3488A	HP Meßtechnik	2719A15013	300001156	ne		
16	9	Isolating Transformer	MPL IEC625 Bus Regeltrennt ravo	Erfi	91350	300001155	ne		
17	n. a.	Three-Way Power Splitter, 50 Ohm	11850C	HP Meßtechnik		300000997	ne		
18	90	Active Loop Antenna 10 kHz to 30 MHz	6502	Kontron Psychotech	8905-2342	300000256	k	13.06.2013	13.06.2015
19	n. a.	Amplifier	js42- 00502650- 28-5a	Parzich GMBH	928979	300003143	ne		
20	n. a.	TRILOG Broadband Test-Antenna 30 MHz - 3 GHz	VULB9163	Schwarzbe ck	371	300003854	vIKI!	14.10.2011	14.10.2014
21	n. a.	MXE EMI Receiver 20 Hz bis 26,5 GHz	N9038A	Agilent Technologi es	MY51210197	300004405	k	21.02.2013	21.02.2014
22	11b	Microwave System	83017A	HP Meßtechnik	00419	300002268	ev		

		Amplifier, 0.5-26.5 GHz							
23	A026	Std. Gain Horn Antenna 12.4 to 18.0 GHz	639	Narda	8402	300000787	k	22.07.2013	22.07.2015
24	A029	Std. Gain Horn Antenna 18.0 to 26.5 GHz	638	Narda	8205	300002442	k	19.07.2013	19.07.2015
25	n. a.	Spectrum Analyzer 20 Hz - 50 GHz	FSU50	R&S	200012	300003443	Ve	09.10.2012	09.10.2014
26	n. a.	Broadband Low Noise Amplifier 18-50 GHz	CBL18503 070-XX	CERNEX	19338	300004273	ne		
27	n. a.	Signal Analyzer 40 GHz	FSV40	R&S	101042	300004517	k	22.10.2012	22.01.2014
28	n. a.	Temperature Test Chamber	VT 4002	Heraeus Voetsch	521/84193	300003889	Ve	26.09.2013	26.09.2015
29	n. a.	Power Supply 0-20V, 0-5A	6632B	Agilent Technologies	GB42110541	400000562	vIK!	10.01.2013	10.01.2016
30	A031	Std. Gain Horn Antenna 26.5 to 40.0 GHz	637	Narda	GB42110541	300000510	k	19.07.2013	19.07.2015

**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                       |
| vIk! | Attention: extended calibration interval   | *)  | next calibration ordered / currently in progress     |
| NK!  | Attention: not calibrated                  |     |  |

## 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	2014-01-17
A	Canada removed	2014-01-22
B	New data rate tested ac HT80	2014-01-23

**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

**DAkKS**  
Deutsche  
Akkreditierungsstelle

Deutsche Akkreditierungsstelle GmbH  
Befehlense 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-PI-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-PI-12076-01-01

Frankfurt am Main, 18.01.2013  
Sofia Wittenberg auf der Rückseite

Im Auftrag  
Diana (PH) Jäger  
Abteilungsleiter

Back side of certificate

Deutsche Akkreditierungsstelle GmbH

Standort Berlin Spittelmarkt 10 10117 Berlin	Standort Frankfurt am Main Gartenstraße 6 60594 Frankfurt am Main	Standort Braunschweig Rundesalle 100 38116 Braunschweig
--	---	---

Die auszugsweise Veröffentlichung der Akkreditierungskunde bedarf der vorherigen schriftlichen Zustimmung der Deutsche Akkreditierungsstelle GmbH (DAkKS). Ausgenommen davon ist die separate Weiterverbreitung des Deckblatts durch die umseitig genannte Konformitätsbewertungsstelle in unveränderter Form.

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 (Abl. 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](http://www.european-accreditation.org)  
ILAC: [www.ilac.org](http://www.ilac.org)  
IAF: [www.iaf.nu](http://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>